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**Belmont Bikeway Preliminary Feasibility Analysis**  
*Belmont, Massachusetts*

*Submitted to:*

**Town of Belmont**

*By:*

**Wallace, Floyd, Associates Inc.**  
Architects, Landscape Architects,  
Planners, Urban Designers

September 1997

## INTRODUCTION

This study was commissioned by the Town of Belmont Community Development Department to study the feasibility of a Belmont bikeway connection to the Central Mass. Rail Trail. Representatives from the Town of Belmont Community Development Department and the Belmont Bikeway Committee oversaw the progress of the study. The purpose of this study was to assess potential bikeway locations, identify property and physical constraint issues, and make a recommendation on which location(s) the Town should pursue further.

The Bikeway would connect the Central Mass. Rail Trail at the Belmont and Waltham Town Line with the soon to be constructed MHD bikeway to the Alewife MBTA station. The project area includes the Fitchburg Line ROW along both sides of the tracks from the Waltham town line to Brighton Street in Belmont, adjacent and nearby public and private properties and the street system.

Based on meetings with representatives from the Town and the Bikeway Committee we have developed the following goals for the Bikeway so that it will best meet the needs of the Belmont Community.

### GOALS

#### 1. The Bikeway must be part of a transportation system.

The purpose of regional trails is to provide an optional form of transportation to the car. The Belmont Connector would provide connections to the remainder of the Central Mass. Rail Trail and to the pathway to Alewife Station for bicyclists, pedestrians and skaters.

#### 2. The Bikeway must serve the recreational needs of the Belmont Community.

Many bikeways are used for recreation and the Belmont Connector has great potential to be a recreation asset to the community. The location selection should take into consideration the potential of the bikeway as a recreational corridor as well as a transportation link. Visual appeal and design opportunities were important components in our route selection.

#### 3. The Bikeway must be safe.

Many different users are likely to be on the path - children and elderly people as well as experienced bicyclists. For this reason we prefer an off-the-road path to bicycle lanes sharing pavement with cars and trucks. Issues such as access points to the path, road crossings and pathway safety were considered in evaluating locations.

4. The Bikeway should serve as a neighborhood connector to link neighborhoods with community facilities and resources.

To best serve the residents of Belmont, the path should link popular destinations such as the high school, pool, skating rink and commercial centers of Belmont Center and Waverly Square.

5. The Bikeway design should be responsive to the concerns of abutters -- both private and public (including the MBTA).

The MBTA is concerned about attracting illegal and unsafe use of the ROW by bicyclists and pedestrians. Providing barriers between paths and the ROW and providing grade separated crossings where users need to cross the ROW must be included as part of the design. Privacy and security issues of both public and private abutters must also be accommodated through the location or design of the bikeway.

## ROUTE ANALYSIS

### Brighton Street to Belmont Center

Two locations were considered from Belmont Center to Brighton. They are:

- Adjacent to and north of the ROW
- Adjacent to and south of the ROW with nearby street connections

All locations will involve a road crossing at Brighton Street to access the path to Alewife.

#### Adjacent to and north of the ROW

There is room north of the ROW on private property to design a bikeway from Belmont Center to Brighton Street. The advantage of this location is that it is the most direct and efficient route. This was less desirable as the recommended route between Alexander Avenue and Brighton Street for the following reasons:

- The north side is the opposite side of the tracks from the high school and recreational facilities which are year round attractions for the Belmont community. There is evidence of pedestrians accessing these facilities in several locations along the ROW - fences are cut at the tennis courts and multi-purpose fields. A path on the north side does not address the need for a community connector.

- Channing Road, which parallels the ROW, currently provides a direct route for commuting bicyclists on the north side lessening the need for a path on this side.

- Based on existing maps, it appears that the private property is in part on the embankment, which may necessitate the construction of a retaining wall in addition to costly fencing.

- Because of abutting residences and the need to safely separate people and trains, the pathway would be fenced on both sides for nearly its entire length from Brighton Street to Belmont Center making this a visually less interesting and for some, less appealing, location. The limited access to the path may be a safety issue as path users will have little opportunity to get off the path in this section. The straight alignment may also cause conflicts between commuting bicyclists who can be moving at fast speeds and other recreational users who may be moving more slowly.

- There is opposition to the path in this location from the Channing Road community and there are MBTA safety concerns.

- An underpass must be built to access the path from the High School.

Between Alexander Avenue and Belmont Center the north side is suggested as the recommended route. The bikeway would cross over Leonard Street on the north side of the existing bridge and ramp down to the existing underpass at Belmont Center. It would then cross through the existing underpass to link to the bikeway along Royal Road on the south side. The north side is recommended from Alexander Avenue to Belmont Center because it is the safest way to cross the Belmont Center intersections.

#### Adjacent to and south of the ROW

The route on the south side would follow Brighton Street to Hittinger Street, crossing Brighton St. at Hittinger St. and following Hittinger St. to the high school property. The bikeway could be either off-road on both Brighton and Hittinger streets involving road/curb reconstruction or could be an on-road route on Hittinger Street. From Hittinger St., the path would enter the high school property near the tennis courts, follow along the back side of the school and the fields adjacent to the ROW, and turn toward Concord Ave. either by the existing road, the field house, or between the baseball and soccer/multi-use fields. Behind the high school, a retaining wall would be needed to accommodate the width of the path. From the high school, the bikeway could cross Concord Ave. at the existing signalized crossing and follow Concord Ave. to its intersection with Common Street and Royal Road. The curb line on the south side of Concord Avenue could be changed to allow an off-road path. The intersection with Common Street would need to be redesigned and signalized for a safe crossing for the route to be feasible. Although this route is less direct and less efficient for bikeway users traveling to or from Alewife station, it is recommended from Brighton Street to Alexander Ave. for the following reasons:

- It is more desirable as it connects several community facilities - the high school and recreational facilities, the pool and the library.

- It is more valuable for recreation as it passes and accesses many different activities.
- It may be a safer location as most of the bikeway is off-road and there would be many points to access or egress the path.
- There is more design opportunity in the path's alignment and the path can be more visually appealing.
- The MBTA and abutting Channing Road residents are likely to be less impacted, and therefore less concerned.
- An underpass at Alexander Avenue would be built as part of the project for the north side community to access the path.

The disadvantages of this scheme in addition to its inefficiency include:

- A section of Hittinger and Brighton streets will need to be reconstructed to allow a two-way, off-road path or the route will need to be on-road.
- High school parking lots would need to be modified to accommodate the path.
- Retaining walls would be needed for some of the High School site as the path would be on an embankment in some locations.

The south side route from the library to Belmont Center is not recommended for the following reasons:

- A section of Concord Ave. and the Concord and Common Street intersection would need to be redesigned. The intersection would need to be signalized for a safe crossing. It is our understanding that previous traffic studies have shown this to be infeasible.

#### **Belmont Center to Clark Street**

The north side bikeway would connect to the south side at Royal Road using the existing underpass. The underpass would need to be widened or rebuilt to accommodate two-way bicycle traffic. An alternative would be to allow one-way bicycle traffic (eastbound) in the existing pedestrian underpass and to use the existing Leonard Street underpass for westbound bicyclists. The sidewalk would need to be widened to allow for adequate clearance. The recommended route would be an off-road path adjacent to Royal Road. The land is owned by the town and there appear to be some wetland issues to be addressed. The bikeway would be immediately adjacent to the road, minimizing regrading and impacts to the wetland. From Clark Street, both a north and south route are recommended.

## Clark Street to Waverly Square to Waltham connection

There are three possible connections to the Rail Trail in Waltham. The town of Waltham is currently meeting with a private property owner to discuss the path passing through the property and connecting to:

- MBTA ROW to Waverly Square
- Morraine Street to Waverly Square
- Beaver Brook Reservation to Trapelo Road

The recommended routes include a north side Belmont bikeway to Beaver Brook as well as a south side bikeway to Waverly Square.

### North Side

The north route crosses the pedestrian bridge and Pleasant Street (using an at-grade or bridge crossing) to the McLean Hospital property. The bikeway would pass through the McLean property to crossings at Mill Street and Trapelo Road into Beaver Brook Reservation. The path would pass through the reservation, wetlands and private property to the ROW at Beaver Street in Waltham. The MDC is in favor of this scheme and has discussed acquiring wetlands for the purpose of their protection and accommodation of this bikeway. The McLean property is currently planned for development and the path alignment would not interfere with those plans. The bikeway would need to take into consideration open space plans. The alignment of the path would need to be carefully designed to accommodate steep topography and ledge conditions. The route through Beaver Brook is descending towards Waltham. The grade appears to be within the limits of accessibility guidelines.

The advantages of this route are:

- It is a very visually appealing route with great recreational value as it accesses some of Belmont's best recreational resources - the Beaver Brook Reservation and Tot-Lot and the McLean property.
- It completely avoids the MBTA ROW and MBTA concerns.
- It avoids Waverly Square traffic conflicts.

The disadvantages of this route are:

- It has 3 road crossings at Pleasant Street, Mill Street and Trapelo Road. Pleasant Street and Trapelo Road are currently undergoing redesign and traffic studies and the necessary signalized crossings could be studied at this time.

- It is indirect for path users concerned with efficiency.
- The bikeway must accommodate grade change as it rises to Trapelo Road and drops to Pleasant Street. It appears that accessibility standards can be met.
- The path would impact McLean open space.
- The construction is costly as some clearing and retaining walls are needed within the McLean property.

### South Side

The bikeway on the south side is recommended even if the bikeway through McLean is constructed as it will provide a more direct route to the Waltham path and a connection to Waverly Square which is likely to be a destination. The route would follow Clark Lane to Pearson Road to the Belmont Housing Authority parking lot. It would then pass behind the Town Yards on Town property to B Street. The route would then follow B Street to Grant Avenue to White Street to Waverly Square. A more desirable route would be a direct connection from behind the Town Yard, through MBTA ROW property and private property to Waverly Square. This connection would require negotiation with the MBTA and private property owners, and costly construction within the ROW to ramp up to Waverly Square.

From Waverly Square to Waltham, the route would use on-road connections at Morraine Street and possibly Agassiz Avenue. Again, a more desirable route would be a direct connection within the ROW if this could be negotiated with the MBTA.

The advantages of the south route are:

- It is more direct and connects to Waverly Square

Its disadvantages are:

- It is less appealing for recreational use
- Unless use of the ROW can be negotiated with the MBTA, it involves on road connections.
- It involves the use of a private road (or land adjacent to the road) over a sewer easement.
- It involves negotiation with the Belmont Housing Authority.
- It passes through Waverly Square where no special provisions are made for bicyclists.
- It may involve on-road connections at Morraine Street and Agassiz Avenue.

• Even if connections can be negotiated within the ROW it will be costly to construct and would need careful coordination with the MBTA.

**Appendix A - Property Information**

**Appendix B - Route Analysis and Recommendation plans (including property locations)**

Tax Map #	Parcel #	Parcel Area (sq ft)	Assessed Land Value	Assessed Building Value	Owner	Comments
24	56A	3.74 Ac.	\$3,864,300	\$220,000	Belmont	Underwood Swimming Pool and playground
24	56B	86,557	\$1,128,700	\$7,920,000	Belmont	Belmont Memorial Library
24	57A	81,053	\$66,000	\$0	Baker Underwood Trust	Land declared unbuildable by Town Engineer in letter dated 1/17/95
24	58	13,163	\$0	\$100,000	First Armenian Evangelical Church	
24	58A	55,567	\$774,400	\$4,400,00	Church	
24	59	7,000	\$103,000	\$308,000	First Church in Belmont	
24	59A	47,801	\$681,400	\$1,463,00	First Parish Church Unitarian	
24	60A	29,440	\$213,000	\$0	Belmont	
29	68		\$215,000	\$0	Belmont	
29	68A	6.56 Ac.	\$6,230,100	\$1,606,000	Belmont	Highway, Sewer, Light, Garage
29	127A	10,226	\$137,800	\$0	Flett	Listed as undevelopable
29	128A	4,917	\$74,100	\$0	Feld	Listed as undevelopable
29	129	N/A	\$1,644,000	\$233,600	Demilia	Vacant as of 1/1/94
29	129A	35,780	\$213,200	\$0	MBTA	
30	62-63	N/A	\$261,400	\$0	Belmont	
30	64-65	17,100	\$134,000	\$254,000	Auterio	
30	66	6,662	\$78,000	\$47,000	Goodro	
30	67	9,425	\$95,000	\$37,000	Nelson	
30	68	12,750	\$77,000	\$73,000	Fallo	
30	69	7,050	\$88,000	\$105,000	Doyle	
30	69A	7,048	\$88,000	\$105,000	Rubin	
30	70	4,354	\$120,400	\$135,000	Englander	
30	70A	38,520	\$178,600	\$0	MBTA	
30	71	9,400	\$213,800	\$66,800	Disarsina	
30	75A	20,598	\$62,400	\$0	Manzelli	5 ft easement on Pleasant St. side; 8 ft easement crossing parcel
30	79A	13,756	\$177,300	\$0	Zarren	
31	2A	35,670	\$212,500	\$0	MBTA	
31	2	10,000	\$72,100	\$0	MBTA	
31	3	13,700	\$145,000	\$117,000	Butler	
31	4	16,290	\$152,000	\$153,000	Elvins	
31	7	2,739	\$131,200	\$0	Belmont	
31	8	2,960	\$129,600	\$0	Belmont	
31	9	3,535	\$156,900	\$0	Belmont	
31	10	8,185	\$60,800	\$0	Belmont	Memo from Belmont says this is MBTA land
31	42	2.13 Ac.	N/A	N/A	Belmont	Wetlands on parcel
31	x	6,710	N/A	N/A	N/A	No parcel number
31	xx	534	N/A	N/A	Assumed as Belmont	Abuts pedestrian underpass; No parcel number
32	11	N/A	\$830,000	\$195,800	Belmont Park Assoc.	Car Wash
32	11A	29,760	\$182,200	\$0	MBTA	

Tax Map #	Parcel #	Parcel Area (sq ft)	Assessed Land Value	Assessed Building Value	Owner	Comments
32	19A	15,384	\$58,500	\$10,500	Rumay Corp	May not be hatched, south of the tracks
32	x	8,552	N/A	N/A	N/A	Could be owned by Ferrell, who owns the 2 parcels to the north. Ferrell's land is assessed at \$861,700.
33	10 (Now part of 11B)	15,500	\$49,000	\$0	Lafucci	
33	11	1,567	\$6,000	\$0	Natale	
33	11A	28,040	\$173,200	\$0	MBTA	
33	11C	14,120	\$96,700	\$0	MBTA	
33	27	6,687	\$65,000	\$0	Lafucci	
33	28-29	18,306	\$300,900	\$98,700	Lafucci	
33	89A	5.04 Ac.	\$4,977,100	\$165,000	Comm. of Mass.	Beaver Brook Reservation
33	90	2,850	\$27,000	\$0	MBTA	2850 sq. ft seems to be the area N. of tracks
35	14A	107,142	\$19,000	\$0	Duddy	Gets Railroad Right-of-Way discount
35	29	4,434	\$149,600	\$1,100	Exxon	Exxon Station no longer in use. Assessed value of the land is prorated to shaded part. \$1,100 is the actual value of the building.
35	30	2,729	\$98,200	\$184,600	Smoot	
35	31+32	24,927	\$587,700	\$493,900	Schlager	Parcels 31 and 32 are combined
35	33	13,833	\$356,200	\$516,800	Nat'l. Assoc. of Armenian	
35	34	33,176	\$749,300	\$1,942,200	Manzelli	
35	35	39,037	\$860,400	\$1,072,700	Belmont Lumber & Cement	
35	39	25,632	\$160,500	\$0	MBTA	
35	40	5.5 Ac.	\$5,363,400	\$5,500,000	Belmont	Rink, Penny Land Taking
35	41	12.05 Ac.	\$10,443,500	\$660,000	Belmont	Football Field
36	1	31,806	\$38,000	\$0	MBTA	
36	3	38.10 Ac.	\$27,794,000	\$88,000,000	Belmont	High School
36	x	73,000	N/A	N/A	MBTA	Not on the tax sheets. Engineer office is pretty sure it is MBTA land
38	8	76,205	\$1,266,100	\$575,700	Walton	
38	9	50,521	\$892,800	\$382,500	Fialkow	
38	10	39,536	\$181,300	\$0	Sacca	
58	20	6.05 Ac.	\$386,000	\$0	Belmont	
59	11	237.36 Ac.	\$35,280,000	\$0	McLean Hospital	
60	1	10.78 Ac.	\$9,505,100	\$211,200	Comm. of Mass.	Beaver Brook Reservation

Some of the parcels were not listed in the tax files (paper or computer). They either didn't have a parcel number or the parcel number was invalid. Some parcels have been combined with others and the figures above represent the square footage and assessed value of the hatched section only. The large maps have the dimensions of the individual parcels.

Land listed as Fitchburg Portion on the maps is part of the MBTA property. The City does not label these parcels on the tax maps and there are no records of them.

**Addresses:**

Belmont Lumber & Cement  
c/o Martin Manzelli

Louis Desarsina TRS  
762 Pleasant St. Realty Trust  
58 Powderhouse Blvd.  
Somerville, MA 02144

Duddy, Walter F. TRS  
Rebecca Realty  
229 River St.  
Waltham, MA 02154-6031

Elliott Englander  
RODA Realty Trust  
55 Summer St.  
Boston, MA 02110

Exxon Corp,  
C/o J.L. Windlinger  
P.O. Box 53  
Houston, TX 77001-0053

Sydney W. Farrell  
4 Bay State Rd.  
Belmont, MA 02178

Randall Feld TRS  
Feld Veterinarian Realty Trust  
820 Pleasant St.  
Belmont, MA 02178

James W. Flett  
Claudia S. Flett  
800 Pleasant Street  
Belmont, MA 02178

Lafucci, Nicholas A TRS  
Lafucci Realty Trust  
50 Moraine Street  
Belmont, MA 02178-1343

Martin Manzelli  
Lucretia K. Manzelli  
P.O. Box 128  
Belmont, MA 02178-0002

Rumay Corp.  
c/o Waverly Insurance  
435 Trapelo Rd.  
Belmont, MA 02178

Sacca, Nicholas  
P.O. Box 445  
Arlington, MA 02174-0004

Judith Schlager TRS et al  
S. Lawrence Schlager  
25 New chardon St.  
Boston, MA 02114

John Smoot III  
c/o Thomas REardon  
415 Concord Ave.  
Belmont, MA 02178

Zarren, Anna et al. Trust  
Zarren Realty Trust  
Brookhaven-Lexington Unit 231 Dartmouth  
Lexington, MA 02173