C. CONCLUSION

	DESIGN OPTIONS											
	Option 1 - Railroad Spur to Commonwealth Ave				*Option 2*	*Option 3 -Access Behind Concord Park*		*Option 4*	*Option 5*	*Option 6*	*Option 7 -Baker Avenue Route*	
Evaluation Criteria	1A-Dismount Bikes at Commonwealth Ave	1B-Sharrow Lane on Commonwealth Ave	1C-Wide Sidewalk on Commonwealth Ave	1D-Behind West Concord Supermarket	Gap in BFRT	3A-Tunnel Under MBTA	3B-Bridge Over MBTA	Tunnel Under MBTA	Bridge Over MBTA	Spur to Main St. via Community Center	7A-Baker Avenue to Main Street	7B-Baker Avenue to Old Marlboro Road
Effectiveness	2	4	4	1	1	4	4	3	3	3	2	2
Short Term and Long Term Reliability	4	5	4	4	1	2	4	3	3	3	3	3
Short Term and Long Term Maintenance	3	3	3	3	5	1	1	1	1	3	2	2
Difficulty in Implementation (Ownership and Permitting Issues)	4	3	3	2	5	1	1	1	2	2	1	1
Cost to Design and Implement	4	4	4	4	5	1	1	1	1	3	1	1
Risk to Public Safety	4	2	4	3	2	3	4	3	4	3	1	1
Vehicular Impacts	5	2	4	2	5	5	5	5	4	2	2	1
Benefits to the Community	4	4	4	3	1	2	1	2	1	4	2	1
Timeliness to Implement	4	4	4	4	5	1	1	1	1	3	1	1
Context Sensitive Aesthetics	4	4	4	4	5	1	1	1	1	4	3	3
Score	38	35	38	30	35	21	23	21	21	30	18	16
Design Cost	$70,000	$70,000	$70,000	$70,000	-	$500,000 - $750,000	$500,000 - $600,000	$1.25 - $1.5 million	$500,000 - $600,000	$150,000 - $200,000	$750,000 - $1 million	$1 - $1.5 million
Construction Cost	$500,000	$500,000	$500,000	$500,000	$40,000	$7 - $9 million	$7 - $9 million	> $25 million	$6 - $8 million	$1 - $1.5 million	$6 - $8 million	$7 - $9 million
Design Duration	24 months	24 months	24 months	24 months	24 months	24 - 30 months	24 - 30 months	24 - 30 months	24 - 30 months	24 - 30 months	24 - 30 months	24 - 30 months
Construction Duration	24 months	24 months	24 months	24 months	24 months	30 - 36 months	30 - 36 months	30 - 36 months	30 - 36 months	30 - 36 months	30 - 36 months	30 - 36 months

Ranking System	
1	Highly Negative Impact
2	Slightly Negative Impact
3	Little or No Impact
4	Slightly Positive Impact
5	Highly Positive Impact

SUMMARY

Prior to the addition of Alternatives 6 and 7, the alternatives were discussed with both the MBTA and MassDOT. The report was reviewed by MassDOT.

The MBTA does not have any objections to directing the trail to the existing track crossing on Commonwealth Avenue. They do not have any objections to a gap in the trail but have noted that this could cause potential issues with funding. Although they are accepting of a tunnel under the tracks providing it does not require the suspension of service, they also noted concerns with the water table in the vicinity of the Assabet River and public safety within the tunnel. They are also accepting of a bridge over the tracks, although they have voiced concerns with the length of the ramps needed to reach the required elevation, lighting, ventilation and maintenance. An elevator system would not be allowed. Parking cannot be lost and the trail cannot utilize the parking lot or the existing crossing.

In conversations with MassDOT, they have stated that without a formal submission they are not in a position to choose a preferred alternative or state whether or not an alternative would or would not be approved. Many of the alternatives presented in this report will require design exceptions. All of the alternatives presented in this report will require discussion with and review by the AAB/ADA Coordinator and Bicycle/Pedestrian Accommodation Engineer at MassDOT. Based on past experience, it is likely that the very costly alternatives will not be considered as viable options by MassDOT unless the community is willing to absorb the cost.

Cost is a major concern in the selection of alternatives. Alternative 2 has the lowest design and construction cost, however, based on past experience GPI does not believe that this alternative would be funded since it does not provide a continuous path. Alternatives 3, 4, 5 and 7 have a bridge, tunnel and/or a boardwalk type structure. Bridges, tunnels and boardwalk structures are more costly to design and more costly to construct. Alternative 6 includes a switchback ramp system. Alternative 1 does not include any special design features so the cost appears commensurate with the cost of constructing a bike trail. Right-of-way will also affect the cost of the Alternatives however this cost cannot be determined without coordination with the effected abutters.

Safety is also a major concern in the selection of alternatives. In an ideal world, a separate path would be provided for both bicycle and pedestrian use. Since this is not always possible, bicycle lanes can be provided along roadways. For commuters and avid bike riders, this is acceptable. For recreational trail use, this is not ideal and adds a factor of risk for trail users, especially those with young children. Alternatives 1A and 1B are safe with respect to motor vehicles since they remove the potential for pedestrian/motor vehicle contact. Alternative 1B is the safer of the two alternatives since it provides a separate path along the sidewalk for trail users since it is likely that many may not dismount their bikes as instructed by signing. Alternative 1C does place trail users in closer contact with vehicles, however, it is not for a very long distance. Alternative 1D presents safety and sight distance issues as trail users try and traverse the parking area especially for those who do not dismount their bikes as instructed by signing.

Alternative 2 strands trail users and leaves them on their own to find the trail. This will most likely present safety issues, especially for those not familiar with the area.

Alternative 3A places trail users in a tunnel underground with sight distance issues. In an ideal situation, trail users should be able to see the other end of a tunnel when they enter it. This is not possible with this tunnel. Alternative 3B introduces a switch back ramp system and then has trail users sharing the roadway with vehicles on Westgate Road. Alternative 4 introduces a very long tunnel and potentially a switchback ramp system. Alternative 5 introduces a bridge with switchback ramps. If trail users do not dismount their bikes as instructed by signing, there is potential for collision with other trail users on the blind corners.

Alternative 6 introduces a switch back ramp section and proposes that trail users share the road with motor vehicles along Main Street. Alternative 7A proposes that trail users share the road along Baker Avenue and Main Street. Alternative 7B proposes that trail users share the road along Baker Avenue, Cottage Street and Old Marlboro Road.

Alternatives 3 and 7 would require a more extensive environmental permitting process than the other alternatives since they will most likely involve work in floodplain and in wetlands. They both propose work in the vicinity of the Assabet River which would require review by the RSC. The remaining alternatives all involve the same amount of permitting.

Therefore, based on cost, safety and environmental factors, GPI recommends Alternative 1C – a wider sidewalk on Commonwealth Avenue as the Preferred Alternative. There are of course other factors to take into consideration including the effectiveness of the route and project abutters. The hope is that through discussions with the various stakeholders, the desired Alternative can be identified and a consensus Preferred Alternative can be presented to MassDOT.


WEST CONCORD
OUTBOUND
LOOK
BEFORE
CROSSING