

DESIGN REVIEW COMMENT AND RESOLUTION FORM

PROJECT NO.: 604531
 DESCRIPTION: MAYNARD - ACTON ASSABET RIVER RAIL TRAIL
 DESIGNER: AECOM TECHNICAL SERVICES, INC
 SUBMITTAL: 25% REVIEW
 REVIEW SECTION: DISTRICT #3



DATE: JUNE 6, 2012

COMMENT No.	SHEET OR ITEM No.	COMMENTS ⁽¹⁾ (DISTRICT 3)	INITIAL ACTION	RESPONSE ⁽²⁾ (COMPLETED BY DESIGNER)	QC REVIEW INITIAL	FINAL ACTION VERIFIED ⁽³⁾
-------------	-------------------	---	----------------	--	-------------------	--------------------------------------

REVIEW SECTION: PROJECTS

REVIEWER NAME: THOUNG PHAN

(1) This section to be completed by MassDOT Reviewer.
 (2) This section to be completed by Designer.
 (3) To be determined by MassDOT.

Note: The intended use of this form is to provide a means to comment on submitted documents.

<p>1.</p>		<p>Revise the horizontal geometry or widen the path to allow the bicyclist to travel at the design speed through the curves with small radii or at the 90° angle turns without having to dismount (e.g. Station 35+00, 50+00, 67+00, 71+50, 72+50, 130+00, 134+60, 133+60, 138+00, 174+00, etc).</p>		<p>35+00 We have reviewed options for this area and request further discussion at comment resolution meeting.</p> <p>50+00 The Railroad ROW is discontinued at this location, with portions now owned by the gas station. Easements were obtained here some years ago to fit the path width along High St. A curve at this location would entail significant takings at an active automobile service station. This is where the trail enters downtown Maynard, and the greater interaction with others users begins.</p> <p>67+00, 71+50, 72+50 These fall in the Maynard Downtown area where design speeds are reduced and interactions between bicyclists and other users will be frequent and unpredictable. This alignment was developed based on available ROW and coordinated through the 10% design process. At station 67+00 the proposed bridge location is dictated by the existing granite wall abutments, in order to limit construction costs, and environmental impacts.</p> <p>131+50 – Alignment dictated by current property owner of the Wedgewood parcel. This location is constrained by ROW and wetlands. We propose to maintain this alignment given that this location is also at a stop condition for the driveway. Note: the reverse curve @ 133+50, in front of the Wedgewood property, will be adjusted to meet 15 mph design speed.</p> <p>138+00 – Alignment dictated by current property owner of the Wedgewood parcel. A curved alignment (of less than 15 mph design speed) will be evaluated. We request further discussion at comment resolution meeting.</p>		
-----------	--	--	--	---	--	--

- (1) This section to be completed by MassDOT Reviewer.
- (2) This section to be completed by Designer.
- (3) To be determined by MassDOT.

Note: The intended use of this form is to provide a means to comment on submitted documents.

2.		Provide additional vehicle parking areas to support users at access points along the path (e.g. Station 20+45 & 154+00 – Sylvia Street). Also, consider provide bicycle parking areas and resting facilities along path.		20+45 - we will review area and provide additional parking along DPW building. 154+00 Sylvia St – parking will be provided based on available ROW. Given the proximity of the residences, the location and number of spots will be closely coordinated with the residents of Sylvia Street. Also note the additional parking exists at White Pond Road at the Assebet River National Wildlife Refuge. In downtown Maynard there exist multiple options for public parking adjacent to the trail.		
3.		Confirm there is adequate sight distance throughout the length of the path. Where there is not sufficient sight distance, consideration should be given to widening the path through the curve along with installing a yellow center line with warning signs in accordance of the MUTCD. Refer to PDDG Section 11.4.7.		Signage and yellow centerline will be provided along pathway where needed to improve safety and awareness of users where appropriate. In particular around urban and constrained areas. Widening in curves will be provided where possible (65+00 to 67+50; 130+00;possibly 138+00; 141+00 to 142+00; 174+00 of revised alignment; 176+00 of revised alignment; and 178+00 of revised alignment).		
4.		Provide a minimum 2 foot wide shoulder along both sides of the path per PDDG, Section 11.4.1.2 (e.g. Station 30+00RT to 33+20RT, 72+50LT to 73+10LT, 73+50LT to 75+50LT).		30+00 RT to 33+20 RT - a 2' right side shoulder can be added by combining the low retaining wall on the right with a pedestrian rail. Alternatively, if the interface with the existing head wall and wetlands allow the profile will be raised to eliminate the right side wall. 72+50 to 75+50 – in the constrained downtown areas of Maynard (adjacent to Nason Street) the path dimensions will provide for a minimum of 8' overall clearance between parking meters, lights, trees etc.		

<p>(1) This section to be completed by MassDOT Reviewer. (2) This section to be completed by Designer. (3) To be determined by MassDOT.</p>	<p>Note: The intended use of this form is to provide a means to comment on submitted documents.</p>
---	---

5.		Provide a minimum 3 foot clearance from the edge of the path to signs, trees, poles, walls, fences, guardrails, or other obstructions per requirements of the PDDG Section 11.4.1.2 (e.g. Station 30+00 to 33+20, Station 52+20 to 57+50, Station 66+47 to 66+99, Station 132+30 to 137+80, etc).		30+00 to 33+20 – We propose to reduce the path width to 10 feet wide in this locations. This will further reinforce that this is a transitional area approaching the stop condition at Route 117. 52+20 to 66+99 – The path will be designed to maintain a minimum of 8’ overall clearance at all times through the constrained downtown areas of Maynard. 132+30 to 138+80 – Alignment dictated by current property owner of the Wedgewood parcel. Similar to the downtown Maynard area this portion of the path exits the original rail alignment with a decreased design speed, and will generate greater interaction between bicyclists and other users. This portion of the path could be reduced to 8’ wide to achieve the 3’ shoulders.		
6.		In locations along the path where the proposed adjacent slopes are steeper than 1:3, a 5 foot separation from the edge of the path to the top of slope is desirable. Where a slope of 1:2 or greater exists within 5 feet of the path and the fill is greater than 10 feet, a physical barrier should be provided per requirements of the PDDG Section 11.4.1.2 (e.g. Station 0+25 to 30+00, Station 35+50 to 50+10, Station 64+00 to 66+50, Station 67+00 to 67+60, Station 76+50 to 86+80, etc.).		Slope will be reduced to less than 1:3 where possible. If the 75% cross sections show these are not achievable, barriers will be placed.		
7.		In areas where the path is located adjacent to the roadway, provide a 7 foot separation (5 foot minimum) from the edge of roadway shoulder to the edge of path per the requirements of the PDDG Section 11.4.1.2 (e.g. Station 33+80 to 35+00, Station 50+25 to 51+25, Station 52+20 to 57+50, Station 67+80 to 71+50, Station 72+50 to 75+50, Station 87+40 to 89+50, etc.).		In the majority of these areas the separation cannot be achieved within the existing ROW limitations. These are urbanized areas with greater interaction with bicyclists and other users. Design speeds are considered to be decreased in these areas. We propose to discuss these areas in further detail during the comment resolution meeting.		

<p>(1) This section to be completed by MassDOT Reviewer. (2) This section to be completed by Designer. (3) To be determined by MassDOT.</p>	<p>Note: The intended use of this form is to provide a means to comment on submitted documents.</p>
---	---

8.		<p>The proposed path layout appears to have significant impacts to several abutting properties by situating the path within 5 feet of the dwellings at Station 64+40LT and 72+50LT. Consider realigning the path by balancing the offsets to the dwellings in these areas.</p>		<p>64+40 The path comes within 5' of an elevated landing with stairs running parallel to path, not leading onto path. Doorway and building itself are greater than 5' from path. Trail alignment along Railroad Street recognizes and preserves existing on-street parking as the only parking option for abutters.</p> <p>72+50 We propose a minor adjustment to the path alignment to create a greater separation from path and stairs. This can be discussed at the comment resolution meeting.</p>		
9.		<p>Consider all alternatives to the current path alignment from Station 67+00 to 75+50 which appears to switch from one side of the parking lot to the other 3 times. This number of crossings in a relatively short distance creates an undesirable condition for the path users.</p>		<p>These fall in the Maynard Downtown area where design speeds are reduced and interactions between bicyclists and other users will be frequent and unpredictable. This alignment, which contains a single crossing of the parking lot, was developed after exploring many different options based on available ROW. This was also coordinated through the 10% design process. We propose to discuss further at comment resolution meeting.</p>		

<p>(1) This section to be completed by MassDOT Reviewer. (2) This section to be completed by Designer. (3) To be determined by MassDOT.</p>	<p>Note: The intended use of this form is to provide a means to comment on submitted documents.</p>
---	---

10.		<p>The profile grades of the path used by pedestrians cannot exceed 5% unless treated as a ramp with a maximum slope of 8.33% per requirements of the PDDG Section 11.4.8. Revise the grades along the path that exceed these criteria (e.g. Station 62+20 to 63+60 and 72+50 to 75+40).</p>		<p>62+20 – 63+60 This grade could be adjusted to 5% but it may have adverse affects on drainage, as it would require depressing the bikeway from 61+30 to 63+60. We request further detailed discussion of these requirements during comment resolution meeting, as this area is less than or equal to the roadway grade. 72+50 – 75+40 We request further detailed discussion of these requirements during comment resolution meeting, as this area exceeds 5% but is less than or equal to the roadway grade, and we will incorporate necessary changes into 75% submittal.</p> <p><i>Reference for Meeting Discussion: 521CMR 22.3.1 paragraph 2 “Exception” PROWAG 301.4.2 “Street or Highway Grade” These two references indicate that a sidewalk along a street can exceed 5% without a need for ramps, as long as it matches the general grade of the adjacent street.</i></p>		
11.		<p>Review and revise the proposed profile of the path along the existing railroad bed to eliminate any excavation. This approach would minimize the possibility of additional costs associated with the disposal of contaminated soils that are inherent to railroad tracks.</p>		<p>Will comply. We would like to seek clarification at comment resolution meeting the extent to which existing railroad bed materials can be moved around within the existing right-of-way, and whether or not materials can be moved from on right-of-way section across a street to another right-of-way section, without creating contaminated soil materials subject to off-site disposal.</p>		
12.		<p>Prior to the next submission (with response to review comments), provide plans for the structural components of this project; such as, bridges, board walk, and retaining walls (e.g. retaining walls at Station 30+00 to 33+40LT).</p>		<p>Bridges and board walks were discussed in the narrative that accompanied the submittal. That narrative has been attached for reference. Structural wall dimensions and reinforcing details will be detailed in the 75% submittal.</p>		

<p>(1) This section to be completed by MassDOT Reviewer. (2) This section to be completed by Designer. (3) To be determined by MassDOT.</p>	<p>Note: The intended use of this form is to provide a means to comment on submitted documents.</p>
---	---

13.		Confirm if the current horizontal alignment will allow emergency vehicles full access throughout the paths length. The current path design incorporates a narrow width, small radii, 90° turns, and bridges and boardwalks which appear to limit their access and movement. Also, consider turn around areas for the emergency vehicles at the beginning and ends of the boardwalk and bridges.		The project does not allow for emergency access across the proposed structures. Most other points can be accessed by emergency vehicles and controlled with retractable bollards. Access to the path's approaching the Wedgewood property are from Acton Street, or Sylvia Drive. Areas with narrow widths and 90° turns are adjacent or parallel to and accessible from public streets.		
14.		Provide additional details at all path entrances that include pavement markings, fences, bollards, gates, etc. (e.g. Station 20+24, Station 154+25, etc.)		Additional retractable bollards, pavement markings, signs, and fencing will be added as needed at these and other street crossings to increase safety and to prevent unauthorized motorized vehicles on the trail.		
15.		If there is sufficient right of way, every effort should be made to layout the intersection between the path and the roadway as close to a 90° angle as possible (e.g. Station 87+00 & 89+50)		We will evaluate these areas and modify angles as much as possible within the existing ROW.		
16.		Provide fences or barriers at all cross culverts with appropriate clearances at the following locations; Station 10+80, 17+05, 101+80, 127+15, 144+05, & 154+25.		These locations will be detailed in the 75% submission.		
17.		Has an analysis been performed comparing the alternative of providing 1 high retaining wall between the path and the canal versus 2 low retaining walls on both sides of the path from Station 30+00 to 33+50. Consideration needs to be given to the highway guardrail between Winter Street and the path with respect to sufficient space to provide the lateral dynamic deflection and whether a moment slab is required.		See response to comment #4.		
18.		Please be advised that future ADA regulations which may require a 48 inch clearance for all sidewalks and WCR instead of the current 36 inch clearance to a point obstruction, therefore, planning accordingly.		Will incorporate in the 75% submission.		

<p>(1) This section to be completed by MassDOT Reviewer. (2) This section to be completed by Designer. (3) To be determined by MassDOT.</p>	<p>Note: The intended use of this form is to provide a means to comment on submitted documents.</p>
---	---

19.		From a site visit it appears there are drainage problems along the railroad tracks in which isolated depressed areas adjacent to the railroad tracks have caused ponding and in some cases have submerge the railroad tracks. Provide all necessary details for the path drainage including culverts, drainage swales, etc.		Will incorporate into the 75% submission.		
20.		Inspect all culverts to determine the condition and the need for either maintenance or replacement.		Will incorporate into the 75% submission.		
21.		It appears the path is constructed in the same location as 2 detention ponds at Station 135+50 & 138+25. Confirm if these basins are part of a private drainage system and whether there will be a need to rebuild these facilities.		We propose to modify this location to be constructed with decking similar to 138+00 to 141+00 in order to preserve flood storage volumes for the site.		
22.		Please submit Special Provisions and Office Calculation Book with the next submission.		Will include with the 75% submission.		
23.		<p>Revise the plans to meet the requirements of PDDG Section 18.2.2.2 with the following:</p> <ul style="list-style-type: none"> • The Locus Map on the Title Sheet should not have contours. • On the Construction Plans provide elevations of the contours along with providing a smoother shape to the contour lines. • Use proper line type and thicknesses in delineating property, layout, and easement lines. • Clearly indicate the Railroad right of way along with adjacent property lines including the current property owners. 		Will incorporate into the 75% submission.		
24.		Sufficient survey information must be included in the plans so that the construction centerline can be physically established in the field. This is as directed in the 2006 MassDOT's Project Development and Design Guide on page 18-24 under "Center Line".		Will incorporate into the 75% submission.		

<p>(1) This section to be completed by MassDOT Reviewer. (2) This section to be completed by Designer. (3) To be determined by MassDOT.</p>	<p>Note: The intended use of this form is to provide a means to comment on submitted documents.</p>
---	---

25.		The 100% plans must show the traverse points, list the coordinates for the traverse points, and show the ties to the traverse points. Coordinates must be listed for all the limits of work, centerline intersection points, PC's, PT's, PCC's, and angle points.		Will incorporate into the 75% submission.		
26.		A plan showing the traverse with bearings and distances and giving angles (or bearings) and distances to all the limits of work, centerline intersection points, PC's, PT's, PCC's, and angle points is also acceptable.		Will incorporate into the 75% submission.		
27.		Reference the vertical datum used for setting the Benchmarks elevations shown on the profiles. This is as directed on page 18-11 of the 2006 Project Development and Design Guide.		Will incorporate into the 75% submission.		

REVIEW SECTION: UTILITIES/CONSTRUCTABILITY

REVIEWER NAME: RAG/TJE

1.		Existing layout information is not accurately depicted. The construction plans need to better define existing conditions including edge of road, tree locations, tree diameters, building locations, parking areas and existing property ownership on all construction drawings. More survey of the existing condition is needed to support the path route.		Large scale plans of certain critical areas will be presented at the comment resolution meeting and carried forward to the 25% design hearing. We propose further discussion at the comment resolution meeting to define where additional survey may be required.		
2.		Proposed path location will impact numerous properties and proposed permanent easements, temporary easements and right of way limits are hard to distinguish or not noted on the plans and should be better defined in the next design submission.		Will incorporate the recent revisions presented in the ROW plans.		
3.		There is no traffic management plan submitted. The proposed path location shows work directly adjacent to existing roadways.		Will incorporate into the 75% submission.		

- (1) This section to be completed by MassDOT Reviewer.
- (2) This section to be completed by Designer.
- (3) To be determined by MassDOT.

Note: The intended use of this form is to provide a means to comment on submitted documents.

4.	There are numerous impacts to wetlands and resources throughout the proposed path location. There are no proposed erosion and sedimentation controls detailed on the plans where wetland areas border the proposed limit of work.	Limits of erosion control will be included in the 75% submission.
5.	There are no wheel chair ramp or transition details to verify compliance with ADA/AAB requirements.	Will incorporate into the 75% submission.
6.	Typical sections as shown on Sheet 3 are missing the section of the proposed boardwalk. This section is important in determining wetland impacts.	Will incorporate into the 75% submission.
7.	There is not enough back up information provided to justify if the preliminary estimate is reasonable. More information is needed for the boardwalk, bridge structure, and retaining walls.	Will incorporate into the 75% submission.
8.	It is noted that Station 131+70 to 135+40 has no retaining wall on left side. Please provide a typical section of these stations and adjust other sections accordingly.	Typical section is provided on sheet #3.
9.	It is noted that there is proposed rip rap between Station 17+50 and 18+25 which should be shown on the construction plans.	Will incorporate into the 75% submission.
10.	The prefabricated bridge section should have the railing heights noted and be in compliance with section 11.4.10 in the 2006 MHD Project Development & Design Guide.	These will be further detailed in the 75% submission.
11.	Typical path section Station 30+00 to 33+20- Please provide a detail of proposed retaining wall, proposed bridge rail, proposed low retaining wall and proposed guard rail in the next design submission. Verify compliance with standards provided in Chapter 11 in the 2006 MHD Project Development & Design Guide.	See response to comment #4. Complete details will be provided in the 75% submission.

<p>(1) This section to be completed by MassDOT Reviewer. (2) This section to be completed by Designer. (3) To be determined by MassDOT.</p>	<p>Note: The intended use of this form is to provide a means to comment on submitted documents.</p>
---	---

12.	Typical path section Station 30+00 to 33+20- The minimum shy distance of 3 feet between the edge of the bike path and all obstructions will need to be maintained per Chapter 11 in the 2006 MHD Project Development & Design Guide.		See response to comment #5.		
13.	Typical path section Station 73+50 to 75+50- A minimum 2-foot wide graded shoulder should be maintained adjacent to both sides of the proposed path.		See response to comment #4		
14.	Typical path section Station 73+50 to 75+50- Barriers is required between existing pavement and the proposed path in accordance with section 11.4.1 in 2006 MHD Project Development & Design Guide.		See response to comment #4		
15.	Typical path section Station 72+50 to 73+10- A minimum 2-foot wide graded shoulder should be maintained adjacent to both sides of the proposed path.		See response to comment #4		
16.	Typical path section Station 72+50 to 73+10- Barriers should be shown between existing pavement and the proposed path in accordance with section 11.4.1 in 2006 MHD Project Development & Design Guide.		See response to comment #4		
17.	Typical path section Station 50+10 to 51+10- A minimum 2-foot wide graded shoulder should be maintained adjacent to both sides of the proposed path.		See response to comment #5		
18.	Typical path section Station 50+10 to 51+10- Barrier should be shown between existing pavement and the proposed path in accordance with section 11.4.1 in 2006 MHD Project Development & Design Guide		See response to comment #5.		
19.	Typical path section STA 50+10 to 51+10- Please provide proposed slope ratio to existing in next design submission		Will incorporate into the 75% submission.		

(1) This section to be completed by MassDOT Reviewer.
 (2) This section to be completed by Designer.
 (3) To be determined by MassDOT.

Note: The intended use of this form is to provide a means to comment on submitted documents.

20.	Typical path section Station 50+10 to 51+10- The section should specifically show the proposed sidewalk as shown on Sheet 9 of the construction plan.		We believe the plan and typical are in agreement. We wish to discuss at the comment resolution meeting.		
21.	Typical path sections Station 67+80 to 69+00, 69+30 to 71+00 and 71+30 to 71+50- A minimum 2-foot wide graded shoulder should be maintained adjacent to both sides of the proposed path.		See response to comment #4.		
22.	Typical path sections Station 67+80 to 69+00, 69+30 to 71+00, and 71+30 to 71+50- Barriers should be shown between existing pavement and the proposed path in accordance with section 11.4.1 in 2006 MHD Project Development & Design Guide.		See response to comment #4.		
23.	Typical path sections Station 67+80 to 69+00, 69+30 to 71+00, and 71+30 to 71+50- Please provide proposed slope ratio to existing in next design submission. Confirm compliance with minimum shy distance of 3 feet.		See response to comment #4.		
24.	Typical path section Station 57+85 to 63+70- A minimum 2-foot wide graded shoulder should be maintained adjacent to both sides of the proposed path.		See response to comment #5.		
25.	Typical path section Station 57+85 to 63+70- Barriers should be shown between existing pavement and the proposed path in accordance with section 11.4.1 in 2006 MHD Project Development & Design Guide.		See response to comment #5.		
26.	Typical path section Station 57+85 to 63+70- Please provide proposed slope ratio to existing in next design submission		Will incorporate into the 75% submission.		
27.	Typical path section Station 57+85 to 63+70- Please provides existing fence distance from edge of path in next design submission.		Will incorporate into the 75% submission.		
28.	Please provide a typical section of the proposed boardwalk in next design submission.		Will incorporate into the 75% submission.		

- (1) This section to be completed by MassDOT Reviewer.
- (2) This section to be completed by Designer.
- (3) To be determined by MassDOT.

Note: The intended use of this form is to provide a means to comment on submitted documents.

29.		Slope limits should be shown and noted on all construction drawings		Notes will be added to highlight slope limits.		
30.		Existing trees are evident along proposed path location and due to minimal existing conditions shown on the construction plans the sight distance cannot be properly determined		To be discussed in further detail at comment resolution meeting.		
31.		Please evaluate the ADT, Stopping Sight Distance & Intersection Sight Distance and clarify if additional traffic control measures are required to protect the Rail Trail users at all proposed crosswalks and intersections.		Traffic control measures will be fully detailed within the 75% submission.		
32.		Please verify that the existing roadway pavement is in an appropriate condition to install the proposed cross walk pavement markings. If the existing pavement requires milling and resurfacing to install the proposed crosswalk pavement markings then please update the plans and estimate accordingly.		Will evaluate and incorporate into the 75% submission.		
33.		The plans should clarify the limits of excavation and removal of railroad tracks, ties and ground cover. Will the project require any testing for hazardous materials present in excavated material?		Excavation and removal of soils from within the original rail alignment/R.O.W. will be avoided wherever possible. Removals in small areas where unavoidable may need to be discussed with review of 75% submission. See response (and request for clarification/guidance) to comment #11 on page 5.		
34.		The existing base plan centerline shall be a dashed line per section of 18.2.1.2 in the 2006 MHD Project Development & Design Guide.		Will incorporate into the 75% submission.		
35.		Please show the proposed grade on the profile plan between Station 0+25.59 and Station 1+25 on next design submission.		Will incorporate into the 75% submission.		
36.		Please verify that the granite blocks are installed within the appropriate easements.		Will confirm during the 75% design.		
37.		Please better define the right of way in the next design submission.		Will incorporate into the 75% submission.		

<p>(1) This section to be completed by MassDOT Reviewer. (2) This section to be completed by Designer. (3) To be determined by MassDOT.</p>	<p>Note: The intended use of this form is to provide a means to comment on submitted documents.</p>
---	---

38.	The existing culvert at Station 10+87± shall be shown on the base profile per Chapter 18 in the 2006 MHD Project Development & Design Guide.		Will incorporate into the 75% submission.		
39.	All proposed shoulder areas should be shown along the trail on all construction drawings.		Will incorporate into the 75% submission.		
40.	Please clarify if the proposed low point at Station 9+69.66 will require additional drainage accommodations to prevent ponding on the trail.		Will further detail within the 75% submission.		
41.	Erosion and sedimentation controls should be shown on the plan between Station 13+76±LT and 18+60±LT as well as between Station 14+00±RT and 17+75±RT.		Will incorporate into the 75% submission.		
42.	The existing culvert at Station 17+05± should be shown on the base profile per Chapter 18 in the 2006 MHD Project Development & Design Guide.		Will incorporate into the 75% submission.		
43.	Please clarify if the proposed low point at Station 15+50.25 will require additional drainage accommodations to prevent ponding on the trail.		Will further detail within the 75% submission.		
44.	Please provide details for the proposed HMA parking area and better define access from Winter Street.		Will incorporate into the 75% submission. See response to comment #2.		
45.	Please verify that the proposed stone dust entrance to the path meets ADA/AAB requirements.		This entrance will be modified to pavement.		
46.	Please provide proposed wheel chair ramp details on next design submission.		Will incorporate into the 75% submission.		
47.	The detectable warning panels required in the proposed wheelchair ramp transitions should be shown on the plan and details. Please refer to detail E 107.6.5 in the 2010 Mass DOT Construction Standards for additional information.		Will incorporate into the 75% submission.		
48.	Please label the diameter of the existing trees within proposed limit of grading between Station 25+00± and 27+00±.		Will incorporate into the 75% submission.		

<p>(1) This section to be completed by MassDOT Reviewer. (2) This section to be completed by Designer. (3) To be determined by MassDOT.</p>	<p>Note: The intended use of this form is to provide a means to comment on submitted documents.</p>
---	---

49.		The plans should label the diameter of the existing trees along with labeling the disposition of each tree.		Will incorporate into the 75% submission.		
50.		Better define existing conditions of the intersection of RTE 117, Pine Street and Mill Street.		Will incorporate into the 75% submission.		
51.		The plans should label the diameter of the existing trees within the proposed limit of grading between Station 36+00± and 37+00±, along with labeling the disposition of each tree.		Will incorporate into the 75% submission.		
52.		This section of trail contains existing trees that are within the 3-foot shy distance of path that will need to be removed. Please update the plan accordingly.		Will incorporate into the 75% submission.		
53.		Please verify that the proposed landscaping can be installed within the appropriate “right of way” layout while maintaining the required 3-foot shy clearance from the edge of path.		Will confirm during 75% design.		
54.		Please clarify if the proposed low point at Station 43+23.97 will require additional drainage accommodations to prevent ponding on the trail.		Will further detail within the 75% submission.		
55.		Please better define the edge of road of High Street.		Will incorporate into the 75% submission.		
56.		Proposed trees are within shy distance of the path. Please clarify existing tree measurements and if marked for removal. The minimum shy distance of 3 feet between the edge of the bike path and all obstructions will need to be maintained per Chapter 11 in the 2006 MHD Project Development & Design Guide.		Will incorporate into the 75% submission.		
57.		Please clarify if the proposed wood fence can be installed within the appropriate right of way limits.		Will incorporate into the 75% submission.		
58.		Please include the proposed cement concrete sidewalk thickness in between Station 50+00± and 51+00±.		Will incorporate into the 75% submission.		

<p>(1) This section to be completed by MassDOT Reviewer. (2) This section to be completed by Designer. (3) To be determined by MassDOT.</p>	<p>Note: The intended use of this form is to provide a means to comment on submitted documents.</p>
---	---

59.	Proposed easement between Station 53+45± and 57+50± is proposed through an existing parking area. Also, please clarify if the path through this area will affect the existing parking spaces.		The Town of Maynard has an MOU with Clocktower Place regarding making land available for ARRT, and some parking that will be lost in the CTP lot as a result.		
60.	The existing sign at Station 57+50± is within the 3-foot shy distance. This sign should be removed and reset accordingly.		Will incorporate into the 75% submission.		
61.	The plans should label the diameter of the existing trees within the proposed project limits between Station 58+50± and 59+10±, along with labeling the disposition of each tree.		Will incorporate into the 75% submission.		
62.	The existing street light is within the limits of grading at Station 59+83±RT. Please clarify if the street light will impact grading		Will evaluate and further detail within the 75% submission.		
63.	The existing catch basin is within limits of grading at Station 59+90±LT. Please clarify if the catch basin will impact grading.		Will evaluate and further detail within the 75% submission.		
64.	The proposed curb and bike path location appears to conflict with the existing edge of road along Railroad Street in between Station 57+50± and 58+50± on the plan. Please verify existing road location and provide better detail on the plan.		Will incorporate into the 75% submission.		
65.	The proposed path location is through an existing parking area from Station 58+00± and 63+00±. Please clarify if the path through this area will affect the existing parking spaces.		Existing parking will remain. Parking stalls will be adjusted to accommodate the path. A large scale plan will be available at this critical area for further discussion at the comment resolution meeting, and carried forward to the 25% design hearing..		
66.	An existing electric manhole at Station 61+47±LT is shown within proposed path location should be labeled as adjust. Also, all existing underground utility lines to and from the electric manhole should be shown on the plans.		Will incorporate into the 75% submission.		

<p>(1) This section to be completed by MassDOT Reviewer. (2) This section to be completed by Designer. (3) To be determined by MassDOT.</p>	<p>Note: The intended use of this form is to provide a means to comment on submitted documents.</p>
---	---

67.		It appears that the proposed path cannot be installed in front of the building at Station 64+40± as it will interfere with the existing walkway and parking spaces.		The existing walkway runs parallel to the proposed path, along the front of the structure, so it will not interfere. A large scale plan will be available at this critical area for further discussion at the comment resolution meeting, and carried forward to the 25% design hearing..		
68.		The location of the Florida CT roadway is not shown in the correct location and should be shown on the southeasterly side of the existing building.		A leader line will be added to clarify plans.		
69.		Existing light pole at Station 64+65±LT is within the 3-foot shy distance and should be removed and reset.		Will incorporate into the 75% submission.		
70.		Please clarify if the proposed low point at Station 66+02.75 will require additional drainage accommodations to prevent ponding on the trail.		Will evaluate and further detail within the 75% submission.		
71.		Please provide detailed plans of proposed bridge in between Station 66+50± and 67+00± in next design submission. Both path entrances to bridge should have flared railings with an apron to direct path users per Chapter 11 in the 2006 Project Development & Design Guide.		Will incorporate into the 75% submission.		
72.		The base profile plan should show the bridge and bridge elevations.		Will incorporate into the 75% submission.		
73.		Existing wetlands flag locations are unmarked between Station 67+00± and 67+50±. Proposed erosion and sedimentation controls between these stations should be marked out and shown in the next design submission.		Will incorporate into the 75% submission.		
74.		Curve radii between Station 67+00± and 67+50± are insufficient per Chapter 11 in the 2006 MHD Project Development & Design Guide. Minimum radius for 15 mph design speed is 56 feet.		See response to comment #5.		

<p>(1) This section to be completed by MassDOT Reviewer. (2) This section to be completed by Designer. (3) To be determined by MassDOT.</p>	<p>Note: The intended use of this form is to provide a means to comment on submitted documents.</p>
---	---

75.		Better define existing conditions to include the affected parking area between Station 68+00± and 71+00±.		A large scale plan will be presented at the comment resolution meeting to describe this area. In short: Florida street parking remains, parking on the north side of the Post Office lot can be moved to abut the Post Office, behind Nason Street parking will be modified at the crossing of the lot at Station 72+00.		
76.		The proposed grade is greater than 5% between Station 72+45± and 75+40±. Grades for pathways used by pedestrians cannot exceed 5% unless treated as a ramp per Chapter 11 in the 2006 MHD Project Development & Design Guide.		See response to comment #10.		
77.		The proposed path location between Station 72+50± and 74+60± shows existing parking meters that are within the 3-foot shy distance of the path. These path meters will have to be removed and reset. Please change the plans accordingly.		See response to comment #4.		
78.		Curve radii between Station 74+00± and 75+00± are insufficient per Chapter 11 in the 2006 MHD Project Development & Design Guide. Minimum radius for 15 mph design speed is 56 feet.		See response to comment #5.		
79.		Existing utility pole at Station 74+44±LT is shown within the proposed pathway location and will need to be relocated due to shy distance impacts. Also, all existing overhead wires should be shown on the plan.		Pole will be labeled for relocation on 75% submission. Depicting existing overhead wires throughout the entire project would require significant effort. We propose to verify and show where overhead wires exist at bridge structures only. These are areas where overhead wires could interfere with construction operations. We can discuss this further at the comment resolution meeting.		
80.		Signs at Station 86+60±RT, 87+40±RT, and 87+90±RT affect the shy distance of the proposed path location. The minimum shy distance of 3 feet between the edge of the bike path and all obstructions will need to be maintained per Chapter 11 in the 2006 MHD Project Development & Design Guide.		Will evaluate and further detail in 75% submission.		

<p>(1) This section to be completed by MassDOT Reviewer. (2) This section to be completed by Designer. (3) To be determined by MassDOT.</p>	<p>Note: The intended use of this form is to provide a means to comment on submitted documents.</p>
---	---

81.	Existing utility pole within proposed limit of work at Station 87+64±RT is within the 3-foot shy distance. This utility pole will need to be removed and reset.		Will evaluate and further detail in 75% submission.		
82.	Existing catch basin within proposed limit of work at Station 88+42±RT should be shown as adjust.		Will incorporate into the 75% submission.		
83.	Existing catch basin on centerline of proposed path at Station 88+95± will need to be relocated or changed to a manhole if applicable.		Will incorporate into the 75% submission.		
84.	Existing 18 inch culvert crossing at Station 89+08± should be noted on the base profile plan per Chapter 18 in the 2006 MHD Project Development & Design Guide.		Will incorporate into the 75% submission.		
85.	Proposed wheel chair ramp arrows are not pointed at the proposed wheel chair ramps at Station 89+50± and 90+00±.		Will clarify in the 75% submission.		
86.	Proposed path location at approximately Station 91+75± is within 5 feet of existing building. This area should be better defined in order to evaluate path location.		Larger scale plan of this location will be available for the comment resolution meeting and the 25% design hearing.		
87.	Limit of work appears to be encroaching on the abutter's property without note of an easement between Station 95+00±RT and 98+00±RT.		We received an updated survey and the ROW in this area now contains the entire bikeway. The updated survey will be incorporated into the 75% submittal.		
88.	Please clarify if the proposed low point at Station 98+70.66 will require additional drainage accommodations to prevent ponding on the trail.		Will evaluate and further detail in 75% submission.		
89.	Proposed erosion and sedimentation controls should be shown in between Station 101+00± and 102+50± around existing wetland areas.		Will incorporate into the 75% submission.		
90.	The existing culvert at Station 101+73± should be shown on the base profile per Chapter 18 in the 2006 MHD Project Development & Design Guide.		Will incorporate into the 75% submission.		

- (1) This section to be completed by MassDOT Reviewer.
(2) This section to be completed by Designer.
(3) To be determined by MassDOT.

Note: The intended use of this form is to provide a means to comment on submitted documents.

91.	Proposed erosion and sedimentation controls at Station 111+00± should be shown around existing wetland areas.		Will incorporate into the 75% submission.		
92.	The size and disposition of the existing trees within proposed path and limit of grading between Station 114+70± and 115+80± should be provided on the plan.		Will incorporate into the 75% submission.		
93.	Proposed erosion and sedimentation controls should be shown in between Station 118+80± and 132+00± around existing wetland areas.		Will incorporate into the 75% submission.		
94.	Please clarify if the proposed low point at Station 127+10.80± will require additional drainage accommodations to prevent ponding on the trail.		Will evaluate and further detail in 75% submission.		
95.	Existing culvert crossing at Station 127+02± shall be noted on the base profile plan per Chapter 18 in the 2006 MHD Project Development & Design Guide.		Will incorporate into the 75% submission.		
96.	Existing stone wall will affect shy distance of the proposed path. The minimum shy distance of 3 feet between the edge of the bike path and all obstructions will need to be maintained per Chapter 11 in the 2006 MHD Project Development & Design Guide.		See response to comment #5 on page 3.		
97.	Existing 6 inch water line crossing proposed full depth paved path at Station 133+65. Please verify that the waterline will not interfere with the proposed work.		Will evaluate and further detail in 75% submission.		
98.	Existing 1-1/2 inch water line crossing proposed full depth paved path at Station 133+82. Please verify that the waterline will not interfere with the proposed work.		Will evaluate and further detail in 75% submission.		

<p>(1) This section to be completed by MassDOT Reviewer. (2) This section to be completed by Designer. (3) To be determined by MassDOT.</p>	<p>Note: The intended use of this form is to provide a means to comment on submitted documents.</p>
---	---

99.	Proposed path location impacts existing wetlands from Station 135+30 to 141+00. Please clarify if wetland replication will be required due to proposed disturbance of existing wetland. Also, please add the appropriate items in the contract estimate if the wetland replication work is required.		See response to comment #21.		
100.	The impacts to the existing wetlands and trees to install the proposed boardwalk between Station 137+90± and 141+12± should be labeled on the plan. Please clarify if wetland replication will be required because of this work.		We do not believe wetland replication will be require for the construction of this boardwalk. The Conservation Commission will be consulted for 75% design and preparation of NOI.		
101.	Proposed erosion and sedimentation controls should be shown in between Station 141+00± and 145+00± around existing wetland areas.		Will incorporate into the 75% submission.		
102.	Existing culvert crossing at Station 144+05± shall be noted on the base profile plan per Chapter 18 in the 2006 MHD Project Development & Design Guide.		Will incorporate into the 75% submission.		
103.	Please detail the type of material that is proposed for the 12 foot wide connection to Sylvania St. at Station 154+20± as the plans do not provide this information.		The connection will be paved. Further detail will be provided within the 75% submission.		
104.	Please clarify if the proposed 12 foot wide connection to Sylvania St. will require any barrier to restrict vehicle access.		Yes, retractable bollards will be added.		
105.	The proposed 12 foot wide connection is shown covering an existing one foot box culvert at Station 154+20±. Please clarify if the proposed path connection can be installed at this location without impacting the exiting culvert.		Further detail will be provided within the 75% submission.		
106.	Existing culvert crossing at Station 154+20± shall be noted on the base profile plan per Chapter 18 in the 2006 MHD Project Development & Design Guide.		Will incorporate into the 75% submission.		

<p>(1) This section to be completed by MassDOT Reviewer. (2) This section to be completed by Designer. (3) To be determined by MassDOT.</p>	<p>Note: The intended use of this form is to provide a means to comment on submitted documents.</p>
---	---

107.		Proposed erosion and sedimentation controls should be shown around existing wetland areas.		Will incorporate into the 75% submission.		
108.		Please clarify if wetland replication will be required due to proposed disturbance of existing wetlands within Station 155+50± and 159+00±, and Station 161+85± and 163+90±.		The intent is to avoid wetlands impacts as much as possible. There appears to be sufficient room to adjust the alignment and avoid these wetlands. A field visit and the 75% cross sectional analysis will be used to confirm the proposed change. Any impacts are expected to be minimal, and replication will be developed in 75% design and for the NOI.		
109.		Please provide detailed plans of proposed bridge in between Station 170+06.35 and 170+74.78 in next design submission. Both path entrances to bridge should have flared railings with an apron to direct path users per Chapter 11 in the 2006 Project Development & Design Guide.		Will incorporate into the 75% submission.		
110.		The base profile plan should show the proposed bridge and bridge elevations.		Will incorporate into the 75% submission.		
111.		Please clarify if the project contains enough easements to perform the proposed work for removal of the existing railroad ties and tracks, earth excavation, removal of the existing wood bridge and installation of the proposed prefabricated bridge.		Yes ROW is available.		
112.		Proposed prefabricated bridge elevations should be shown on the base profile plan.		Will incorporate into the 75% submission.		
113.		Please better define easement needs for the proposed path route and proposed HMA parking area.		Will incorporate into the 75% submission.		
114.		Curve radius between at Station 174+00± is insufficient per Chapter 11 in the 2006 MHD Project Development & Design Guide. Minimum radius for 15 mph design speed is 56 feet.		An updated plan of this area will be available for the comment resolution meeting. The Town of Acton owns the land and leases it back to a vegetable farmer. The updated plan responds to the need to preserve as much prime farm land as possible. This area is approaching the northern trail terminus with trail head parking where interactions with other users and traffic will be frequent. Design needs to encourage slower speeds on the trail.		

<p>(1) This section to be completed by MassDOT Reviewer. (2) This section to be completed by Designer. (3) To be determined by MassDOT.</p>	<p>Note: The intended use of this form is to provide a means to comment on submitted documents.</p>
---	---

115.	Please clarify if the proposed low point at Station 174+05.65 will require additional drainage accommodations to prevent ponding on the trail.	Will evaluate and further detail in the 75% submission.
116.	Please better define the access from the proposed HMA parking area to the proposed HMA path and assure compliance with ADA/AAB standards.	Will further detail within the 75% submission.
117.	Please better define existing conditions of roadways to allow for a better evaluation of the access to the proposed parking area.	Will incorporate into the 75% submission.
118.	Please provide a detail of the proposed HMA parking area on the typical sections.	Will incorporate into the 75% submission.
119.	Please clarify if a barrier will be needed to eliminate vehicle access to the proposed path from the HMA parking and from the entrance to the path from Maple Street.	Will evaluate and further detail in the 75% submission.
120.	Galvanized steel pipe rail detail makes reference to construction standard detail 409.1.0 which is no longer included in the 2010 Mass DOT Construction Standard Details. Please update the detail accordingly.	Will incorporate into the 75% submission.
121.	Please clarify the need for the galvanized steel pipe rail as it is not labeled on any of the construction plans.	Will evaluate and further detail in the 75% submission.
122.	The critical section at Station 132+00± shows the proposed retaining wall outside of the ROW limits. Please add the easement limits to this section in the next design submission.	Will incorporate into the 75% submission.
123.	The proposed critical section at Station 137+50± shows work outside the ROW. Please add the easement limits for the proposed work.	Will incorporate the revised preliminary ROW plans into the 75% submission.
124.	Please clarify if items; 140, 220, 226, 440, 472, 482.5, 485, 580, 697, 698.3, 701, 704, 707.81, 767, 767.8, 874.1, 874.2 and 983.1 should be added to the contract estimate.	Will evaluate and further detail in the 75% submission.

(1) This section to be completed by MassDOT Reviewer.
 (2) This section to be completed by Designer.
 (3) To be determined by MassDOT.

Note: The intended use of this form is to provide a means to comment on submitted documents.

125.		Please clarify if item 103 should be incidental to Item 101.1.		Will evaluate and further detail in the 75% submission.		
REVIEW SECTION: TRAFFIC				REVIEWER NAME: CH/JF		
1.		Please provide signage and striping plans for the proposed project with the next submission.		Will incorporate into the 75% submission.		
2.		Provide a signal plan for the proposed Motion Activated Flashing Beacon across Route 117 with the next submission.		Will incorporate into the 75% submission.		
3.		Please ensure that the proposed retaining wall where the trail parallels Winter Street will not obstruct the sight triangle for vehicles turning out of Winter Street onto Main Street.		Will evaluate and further detail in the 75% submission.		
4.		Please clearly show how the proposed path will match into the existing conditions between Stations 67+00 and 75+00.		Larger scale plan will be shown for discussion at the comment resolution meeting and at 25% design hearing.		
5.		We recommend that the proposed crosswalk at Station 87+00 be made more perpendicular to the existing roadway.		We will evaluate this area and modify alignment through island as much as possible within the existing ROW.		
6.		Provide a Temporary Traffic Control Plan with the next submission.		Will incorporate into the 75% submission.		

<p>(1) This section to be completed by MassDOT Reviewer. (2) This section to be completed by Designer. (3) To be determined by MassDOT.</p>	<p>Note: The intended use of this form is to provide a means to comment on submitted documents.</p>
---	---