

TO: Kittery Planning Board

DATE: October 11, 2012

FROM: Wright-Pierce Engineers;  
Gorrill- Palmer Consulting Engineers

PROJECT NO.: 12532A/12533A

SUBJECT: Memorial Circle and Routes  
236 & 1 Sidewalks Update

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### Project Overview

Conceptual design has begun for two related projects in the vicinity of the entrance from Exit 2 into Kittery: a re-configuration of Memorial Circle and pedestrian improvements between Frisbee Commons on Route 236 (Rogers Road) and Route 1 (north). The purpose of this presentation is to provide a status report on the two interconnected projects, to describe the process that the projects will follow moving toward design completion, and to obtain feedback on preliminary design considerations affecting the proposed sidewalks on Route 236 (Rogers Road) and Adams Drive.

### Memorial Circle

Preliminary analysis has occurred on Memorial Circle, including compiling and reviewing existing data, surveys, and plans. New traffic counts were conducted for this project with the help of citizen volunteers. A preliminary analysis will be run based on the volumes that were collected. The collision reports have been obtained. A range of options is being considered for the reconfiguration of the Circle, from a complete re-design to a status quo scenario. On October 17<sup>th</sup>, DOT staff are scheduled to meet with the consultant team to provide feedback on the preliminary design concepts. Ultimately, because the projects is being funded by MaineDOT as part of their Locally Administered Project (LAP) program, MaineDOT will have the final say on what concept is selected. Traffic safety and congestion mitigation will likely be the factors that most inform their decision-making process. A public meeting will be held to present the preferred option and to solicit input on that option from the community. After the conceptual design phase is completed, the consultant team will suggest further traffic evaluation and study needed to develop the desired concept. Preliminary and final design of the Circle will be pursued as part of a future project.

### Routes 236 & 1 Sidewalks

Another part of the project will connect the sidewalks that are proposed as part of the Memorial Circle concept to new sidewalks extending to the south along Route 236 (Rogers Road) and to the north along the Route 1 ramp connecting to Route 1 (north) through Adams Drive. Sections of existing sidewalk will be integrated onto a continuous sidewalk connection between the existing sidewalk on Route 236 near Frisbee Commons and the existing sidewalk at the outlets on Route 1 (north) near its intersection with Adams Drive. A range of accommodations is being considered for bicyclists in the project area, including shared lanes, designated bicycle lanes, and shared use paths. As with any project that alters existing drainage patterns, drainage improvements are likely to be necessary wherever new curbing is being introduced. Crossings may be required in the

vicinity of the entrance to Shepard's Cove and Goodsoe Road. The attached Figure 1 describes the proposed improvements.

The Town Code suggests that a minimum 6'-0" sidewalk would be preferred in most of the project area, based on traffic volumes. Where space is tight or traffic volumes are lower, it might be desirable to reduce sidewalk widths to 5'-6", which would still comply with ADA guidelines.

Constraints affecting the design of the sidewalk vary from area to area:

- On **Adams Drive**, a 5'-6" or 6'-0" asphalt sidewalk with asphalt curbing is proposed. The road is generally 23'-9" from face of curb to face of curb, with a widening near the approach to Ox Point Drive. There is a guardrail and a drop to what appears to be a stream near the Ox Point Road intersection, as well as a culvert draining into the ravine from the roadway. Adams Drive is curbed with bituminous curbing on both sides. Few catch basins are present, and the roadway is fairly flat. On the north side, the road drains into a swale through several curb cuts. Also on the north side, mature Norway Maple trees help to screen the highway, and, in some cases, are located as close as 4'-0" to the curb. On the south side, several homes are located close to the roadway, suggesting that it may be necessary to acquire temporary construction rights, multiple easements, and/ or right-of-way to construct a sidewalk on that side. It appears that the roadway is heavily used by bicyclists, with low vehicular use, suggesting that a shared roadway would not be inappropriate for this area. A preliminary alignment evaluation comparing both sides of the road with regard to suitability for sidewalk construction is attached.
- At the **former weigh station on the Route 1 ramp to Rogers Road**, a 10'-0" asphalt shared use path (with asphalt curbing where needed) is proposed along with a reduction in curb cuts accessing the parking areas that serve the existing businesses, and a reconfiguration of the existing esplanade. Where the path will transition to Adams Drive, two or three existing pine trees will need to be removed and grades should be evaluated for ADA compliance. Most of the driveways to the former weigh station area, with the possible exception of the lower driveway, are accessed only from the one-way portion of the ramp. While the transition from a shared use path to the low-volume Adams Ave does not seem problematic, the transition from the shared use path onto State Road heading west will require further consideration. The westbound lane on the ramp/State Road is narrow, with no apparent room for a shoulder or bike lane. However, there is very little traffic heading westbound in this location, with the majority of traffic heading east toward Route 1. Because of high traffic volumes in the eastbound direction, the transition to bicycle lanes and/or a shared lane scenario in this area will need to be carefully evaluated for safety.
- **Between the former weigh station area and Shepard's Cove**, several sections of sidewalk have already been constructed. The new sidewalk will connect the existing segments and will be concrete with a granite curb. The newly constructed sidewalk in front of the Town Office is 6'-0", separated from the road by an esplanade. The existing sidewalk adjacent to Shepard's Cove Road is 5'-0" wide, including the curb. The use of

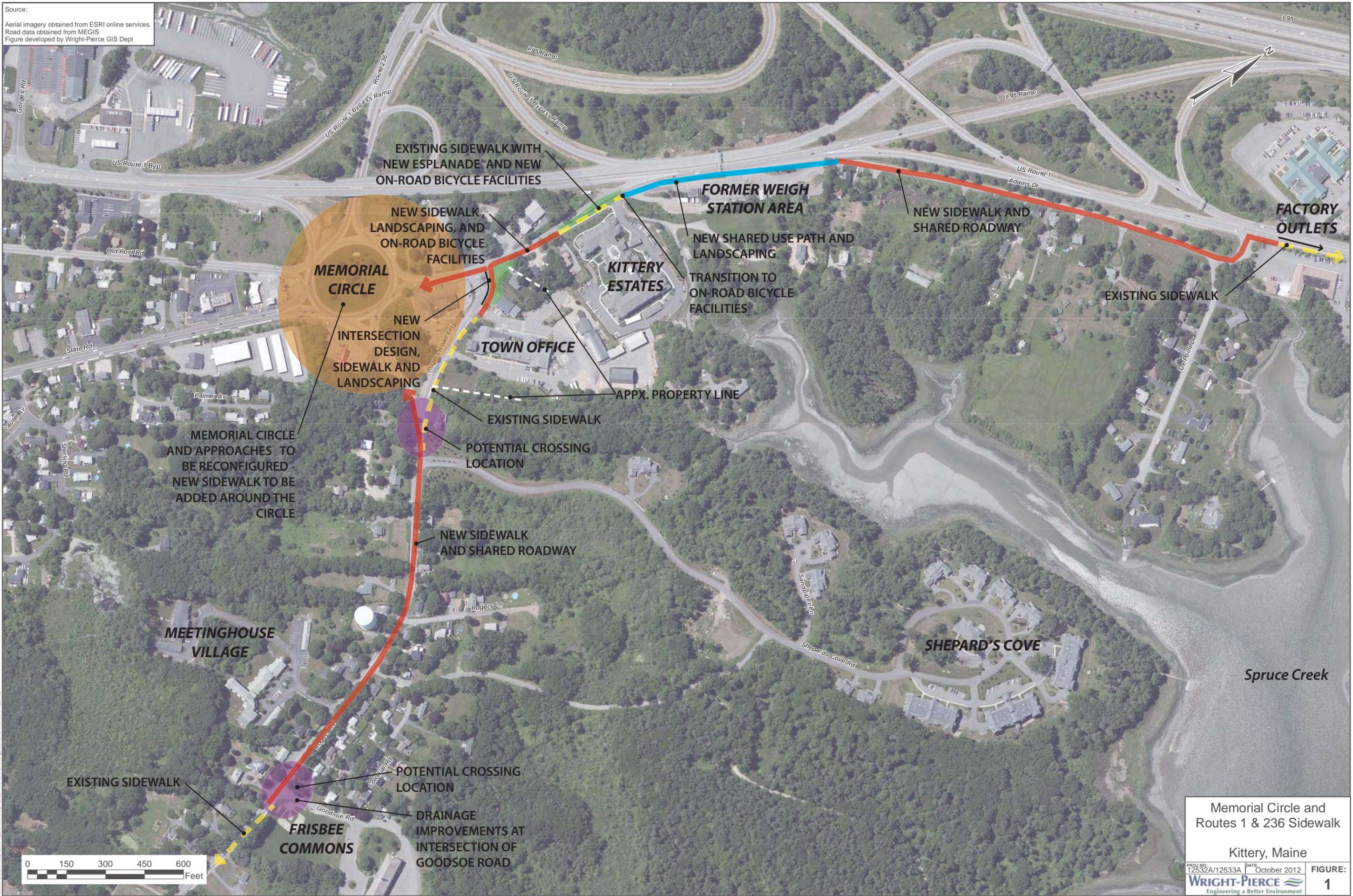
bicycle lanes and/or a shared lane scenario in this area will need to be carefully evaluated for safety and will need to take into consideration any right-of-way constraints.

- On **Rogers Road**, a 5'-6" or 6'-0" concrete sidewalk with granite curbing is proposed to extend to the existing concrete sidewalk near Goodsoe Road, which is 5'-0" wide, including the curb. The existing right-of-way is relatively narrow (40'-0"), suggesting that temporary construction rights, easements, and/or right-of-way acquisition will be needed to construct the sidewalk. An existing cemetery near the entrance to Shepard's Cove will most likely preclude construction of a sidewalk on the north side of the road. If the sidewalk is constructed on the south side of the road, crossings will be needed near the entrance to Shepard's Cove and at Goodsoe Road. Installing pedestrian actuated flashers in conjunction with traffic calming strategies may help to improve safety for pedestrians at the crossing near Goodsoe Road. In the vicinity of Shepard's Cove Road, it is likely that a crossing would be needed regardless of the proposed sidewalk alignment, to complete the future pedestrian connection between the future Memorial Circle sidewalk and Rogers Road Extension. On the south side of the road, a number of existing catch basins are present, and these would need to be moved to accommodate a new sidewalk. A preliminary alignment evaluation comparing both sides of the road with regard to suitability for sidewalk construction is attached.

**Memorial Circle and Routes 236 & 1 Sidewalk Timeline and Process**

<b>Project Milestone</b>	<b>Completion Date</b>
<b>Concepts</b>	<b><i>October 1, 2012</i></b>
<b>Initial Public Meeting</b>	<b><i>October 25, 2012</i></b>
<b>Second Public Meeting</b>	<b><i>November 29, 2012</i></b>
<b>Preliminary Design Report Submitted</b>	<b><i>March 15, 2013</i></b>
<b>PDR Approval</b>	<b><i>May 1, 2013</i></b>
<b>NEPA Approval</b>	<b><i>June 15, 2013</i></b>
<b>Complete Final Design (PS&amp;E)</b>	<b><i>July 31, 2013</i></b>

Source:  
Aerial imagery obtained from ESRI online services.  
Road data obtained from MEGIS  
Figure developed by Wright-Pierce GIS Dept



EXISTING SIDEWALK WITH  
NEW ESPLANADE AND NEW  
ON-ROAD BICYCLE FACILITIES

**FORMER WEIGH  
STATION AREA**

NEW SIDEWALK AND  
SHARED ROADWAY

**FACTORY  
OUTLETS**

**MEMORIAL  
CIRCLE**

NEW SIDEWALK,  
LANDSCAPING, AND  
ON-ROAD BICYCLE  
FACILITIES

**KITTERY  
ESTATES**

NEW SHARED USE PATH AND  
LANDSCAPING

TRANSITION TO  
ON-ROAD BICYCLE  
FACILITIES

EXISTING SIDEWALK

**TOWN OFFICE**

NEW INTERSECTION  
DESIGN,  
SIDEWALK AND  
LANDSCAPING

APPX. PROPERTY LINE

EXISTING SIDEWALK

POTENTIAL CROSSING  
LOCATION

MEMORIAL CIRCLE  
AND APPROACHES TO  
BE RECONFIGURED -  
NEW SIDEWALK TO BE  
ADDED AROUND THE  
CIRCLE

NEW SIDEWALK  
AND SHARED ROADWAY

**MEETINGHOUSE  
VILLAGE**

**SHEPARD'S COVE**

Spruce Creek

EXISTING SIDEWALK

POTENTIAL CROSSING  
LOCATION

**FRISBEE  
COMMONS**

DRAINAGE  
IMPROVEMENTS AT  
INTERSECTION OF  
GOODSOE ROAD



Memorial Circle and  
Routes 1 & 236 Sidewalk

Kittery, Maine

PROJ. NO: 12532A/12533A | DATE: October 2012 | FIGURE: 1

**WRIGHT-PIERCE**  
Engineering a Better Environment

**Adams Drive**

Impact	North Side	North Side Photos	South Side	South Side Photos
Mature Trees	<ul style="list-style-type: none"> <li>•17 mature deciduous trees providing screening from the highway will be removed.</li> <li>•Some pines providing partial screening would remain.</li> <li>•Deciduous trees are a low value species - Norway Maple.</li> </ul>		<ul style="list-style-type: none"> <li>•No Impact</li> </ul>	
Catch Basins and Drainage	<ul style="list-style-type: none"> <li>•Roadway currently drains to ditch through breaks in curbing.</li> <li>•Catch basins would need to be installed.</li> </ul>		<ul style="list-style-type: none"> <li>•Some existing catch basins would need to be adjusted/moved.</li> <li>•Existing discharge point near Ox Point Drive may have permitting implications</li> </ul>	
Driveway Crossings	<ul style="list-style-type: none"> <li>•None needed</li> </ul>		<ul style="list-style-type: none"> <li>•9 driveways crossed</li> <li>•One turnaround (at dead end) crossed</li> </ul>	
Potential Pole Relocation	<ul style="list-style-type: none"> <li>•None</li> </ul>		<ul style="list-style-type: none"> <li>•Possibly one</li> </ul>	
Potential for Earthwork/ Retaining Walls	<ul style="list-style-type: none"> <li>•A short and low retaining wall would be needed at west end</li> <li>•If a 6' sidewalk is constructed, appx. 5' would remain between edge of sidewalk and Rte 1 guardrail</li> <li>•Some re-working of ditch will be necessary</li> </ul>		<ul style="list-style-type: none"> <li>•Some re-grading will be needed near Ox Point Drive</li> <li>•Some re-grading may also be needed at guardrail on turn to Route 1</li> </ul>	
Connectivity	<ul style="list-style-type: none"> <li>•Would potentially connect directly to shared use path</li> <li>•Would cross Adams Drive at Rte 1 intersection to connect to existing sidewalk</li> </ul>		<ul style="list-style-type: none"> <li>•Would connect to several houses on Adams Drive and also to homes on Ox Point Drive</li> <li>•Would cross Ox Point Drive to continue along Adams Drive to existing sidewalk on Rte 1</li> </ul>	

<p>Proximity to Houses</p>	<ul style="list-style-type: none"> <li>•None</li> </ul>		<ul style="list-style-type: none"> <li>•Sidewalk would be close to three houses. Mailboxes and landscaping would be impacted (shrubs and perennials, as well as walks and steps)</li> <li>•Other homes on Adams Drive are set back from the right-of-way</li> </ul>	
<p>Potential for Easement Acquisition</p>	<ul style="list-style-type: none"> <li>•Old DOT right-of-way maps suggest that both ends of Adams Drive may be privately owned. This will be confirmed when boundary mapping is conducted, and would affect both options equally.</li> <li>•Other potential property impacted would be right-of-way owned by DOT along the Route 1 ramp</li> </ul>		<ul style="list-style-type: none"> <li>•Old DOT right-of-way maps suggest that both ends of Adams Drive may be privately owned. This will be confirmed when boundary mapping is conducted, and would affect both options equally.</li> <li>• Apart from this, as many as eight private properties would be affected by need for acquisition or easements, TBD after boundary mapping is conducted</li> </ul>	

**Rogers Road**

Impact	North Side	North Side Photos	South Side	South Side Photos
Mature Trees	<ul style="list-style-type: none"> <li>•12 mature deciduous trees in front yards will be removed.</li> </ul>		<ul style="list-style-type: none"> <li>•5, maybe 6 mature deciduous trees will be removed. One is in a front yard, 2 (or 3) are at water tank, two are in wooded front yard near Memorial Circle</li> </ul>	
Catch Basins and Drainage	<ul style="list-style-type: none"> <li>•The roadway currently drains overland onto adjacent properties. In a few areas, curbing has been installed, but no catch basins.</li> <li>•Catch basins would need to be installed.</li> </ul>		<ul style="list-style-type: none"> <li>•5 existing catch basins would need to be relocated to curblines.</li> </ul>	
Driveway Crossings	<ul style="list-style-type: none"> <li>•13 driveways (including a bonus curb cut) would need to be crossed</li> <li>•3 low volume roads (Goodsoe Road, Rogers Lane and Shepards Cove Road) also would be crossed</li> </ul>		<ul style="list-style-type: none"> <li>•9 driveways, including the entrance to Meetinghouse Village, and one perpendicular pull-in parking area at the Alebro Center would need to be crossed</li> <li>•Perpendicular parking at the Alebro Center is recommended to be eliminated/reconfigured given traffic on Rogers Road</li> </ul>	
Potential Pole Relocation	<ul style="list-style-type: none"> <li>•A minimum of six relocations would be needed</li> </ul>		<ul style="list-style-type: none"> <li>•None</li> </ul>	

<p>Potential for Earthwork/ Retaining Walls</p>	<ul style="list-style-type: none"> <li>•Where new curbing is installed, grades will need to match into existing</li> </ul>		<ul style="list-style-type: none"> <li>•Where new curbing is installed, grades will need to match into existing</li> <li>•Curbing is present from Goodsoe Road to Meetinghouse Village driveway</li> <li>•A concrete retaining wall in poor condition and ranging in height from 16" to 28" at house #147 would have to be reconstructed farther back from the right-of-way</li> <li>• A curb wall may be desirable at the Water District property to preserve existing trees</li> <li>•Retaining or significant re-grading would need to occur on #165 , #167, and #173 to address an abrupt change in grade occurring at the edge of the existing roadway. At #165, re-grading may come close to the house. Verify no septic.</li> </ul>	
<p>Connectivity</p>	<ul style="list-style-type: none"> <li>•Would connect to homes on three intersecting roads, including Shepard's Cove senior neighborhood.</li> <li>•While crossing three low-volume roads would be necessary, no crossing of Rogers Road would be needed.</li> </ul>		<ul style="list-style-type: none"> <li>•Would connect to an existing path at Meetinghouse Village senior neighborhood.</li> <li>•Crosses Rogers Road twice. Traffic on Rogers Road is heavy and moves fairly rapidly. Sight distance at Goodsoe Road (Frisbee Commons) is probably acceptable. Traffic calming should be considered. Sight distance at Shepard's Cove driveway is not very good, but would be better if two trees were removed from south side of road near Memorial Circle.</li> </ul>	

<p>Proximity to Houses</p>	<ul style="list-style-type: none"> <li>•The sidewalk would be close to ten houses. Mailboxes and landscaping would be impacted (shrubs, trees, fences, a walkway, and a masonry wall).</li> <li>•Other homes are set back from the right-of-way</li> <li>•An existing masonry wall is less than 6'-0" from the existing fog line and will most likely need to be relocated/reconstructed</li> </ul>		<ul style="list-style-type: none"> <li>•The sidewalk would be close to five houses and a business. Retaining walls, landscaping (shrubs and unused steps), front lawns, and the parking area at the Alebro Center would be impacted.</li> <li>•Other homes on Adams Drive are set back from the right-of-way</li> </ul>	
<p>Potential for Easement Acquisition</p>	<ul style="list-style-type: none"> <li>•Old DOT right-of-way maps suggest the right-of-way for much of this section of Rogers Road is only 40 feet wide, centered on the centerline.</li> <li>•The existing shoulder ranges from 7'-0" near Goodsoe Road to 12" adjacent to the existing sidewalk at Shepards Cove. The existing shoulder is 3'-0" or narrower for most of the length of this section.</li> <li>•As many as 14 properties would be affected by need for acquisition or easements, TBD after boundary mapping is conducted.</li> </ul>		<ul style="list-style-type: none"> <li>•Old DOT right-of-way maps suggest the right-of-way for much of this section of Rogers Road is only 40 feet wide, centered on the centerline.</li> <li>•The existing shoulder ranges from 8'-0" to 2'-9", but is 7'-0" or wider for approximately 1/2 its length.</li> <li>•As many as 12 properties would be affected by need for acquisition or easements, TBD after boundary mapping is conducted.</li> </ul>	
<p>Historic/Cultural Resource Impacts</p>	<ul style="list-style-type: none"> <li>•<b>A small cemetery is located within 4'-6" of the existing fogline</b></li> </ul>		<ul style="list-style-type: none"> <li>•None</li> </ul>	