



# 2016 FALMOUTH BICYCLE & PEDESTRIAN PLAN

Revised Final Plan , November 14, 2016

## 2016 FALMOUTH BICYCLE AND PEDESTRIAN PLAN

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# 2016 FALMOUTH BICYCLE & PEDESTRIAN PLAN



## INTRODUCTION

Walking and bicycling are the two most basic of all transportation modes. Every trip we make involves some amount of walking. Bicycling, on the other hand, can serve many relatively short trips that provide quick, easy, and convenient access to nearby destinations. The recognition of the benefits of walking and bicycling, such as more efficient transportation, improved mental and physical health, and economic and environmental resource conservation, continues to increase. In turn, this recognition fuels the interest in better walking and bicycling conditions from a wide array of people. Bicycle and pedestrian plans help to channel that interest as they allow for a comprehensive exploration of a variety of actions to improve walking and bicycling conditions.

## THIRD FALMOUTH BICYCLE AND PEDESTRIAN PLAN

This is the third Bicycle and Pedestrian Plan for Falmouth. It follows the original plan prepared in 1996 and the second plan dating back to 2003, as well as a Trails Master Plan from 2002. (The original trails plan was part of the 1996 bicycle-pedestrian plan.) Many physical pedestrian and bicycle improvements proposed in the 2003 plan have since been completed and trail mileage has grown exponentially in recent years from 5 to 45 miles. The use of, and interest in, these facilities has grown in a corresponding manner.

In 2015 it seemed a good time to take stock of where Falmouth wants to “walk” or “bike” to next.



Technical assistance and financial support provided by:



## 2016 PLAN ELEMENTS

This 2016 Bicycle and Pedestrian Master Plan includes four important elements:

1. it establishes, and reaffirms, Falmouth's vision for walking and bicycling,
2. it harnesses the community's opinions and interests to help shape the plan,
3. it prioritizes recommended improvements, and
4. it provides a vehicle for continued community involvement in the plan's implementation.



The 2016 plan updates and integrates the *2002 Trails Master Plan* and *2003 Bicycle and Pedestrian Master Plan* into a single plan that outlines recommended, prioritized infrastructure improvements that will interconnect Falmouth's pedestrian and bicycle network of trails, sidewalks, bike lanes, and paved shoulders. The plan is also intended to be used as a guide or reference tool to prepare capital improvement plans and road designs and review future improvement requests from citizens and projects proposed by others.

## PROCESS

The following tasks were performed as part this project:

### 1. Develop scope of work, process, and schedule

In response to the Council Work Plan for 2015-2016 which included this project, a basic set of tasks and schedule was developed by Town staff. See attachment A.

### 2. Council Briefing

On February 27 the Council was briefed by the Town Manager on the proposed process/schedule. The process was unusual in that it used a Town staff-led approach, rather than a committee-driven one. The main reason for moving forward without a formal committee was to complete the assignment before the end of the calendar year. Staff was supported by two pedestrian/bicycle consultants, funded in part by the Town and hired by Portland Area Comprehensive Transportation System (PACTS). The consultant funding from PACTS expired by the end of 2015, which mandated an expeditious process. The process that staff laid out contained extensive public outreach and involvement. The Council was OK with this approach.

### 3. Assemble Project Team

In the spring 2015 a project team was assembled that consisted of:

- Greg Bakos, VHB (consultant)
- Sarah Cushman, Cushman Transportation Consulting, LLC (consultant)
- Lucky D'Ascanio, Director of Parks & Community Programs

- Theo Holtwijk, Director of Long-Range Planning
- Nathan Poore, Town Manager
- Jay Reynolds, Public Works Director
- Bob Shafto, Open Space Ombudsman

#### **4. Compile community contact list**

Staff compiled a bicycle-pedestrian contact information list gathered from the 2010 North of Portland (NoPo) Region Bicycle-Pedestrian Plan, inquiries from interested citizens, and interest groups.

#### **5. Assemble most current data of existing bicycle-pedestrian network and planned improvements**

Staff assembled existing bicycle-pedestrian planning information concerning Falmouth, existing conditions data on Falmouth's bicycle-pedestrian network. And staff compiled a status report of the recommended improvements of the 2002 and 2003 plans. This information was provided to the consultant who did a field reconnaissance. See attachments B and C.

#### **6. Round 1 Stakeholder Outreach**

Two outreach groups were invited to offer process suggestions and improvement recommendations before the project was officially launched with the general public. Group A met on May 5 and consisted of other Town staff and citizen members of ad hoc North of Portland (NoPo) advisory group from 2010 who were already familiar with bicycle-pedestrian issues in Falmouth. Group B met on May 13 and consisted of bicycle-pedestrian experts and advocates at the Maine Department of Transportation (MaineDOT), Portland

Area Comprehensive Transportation System (PACTS), Federal Highway Administration (FHWA), Safe Routes to School, Bicycle Coalition of Maine, and Healthy Casco Bay, and others familiar with bicycle-pedestrian planning efforts far and wide. Municipal staff from adjacent communities was also invited to participate.

#### **7. Public Forum #1**

The project team conducted a public forum on June 29 in the Lunt Auditorium. Key pad polling was used to mimic the on-line survey to the extent possible and improvement ideas were gathered from the attendees through facilitated small group discussions and annotating table top maps of Falmouth. More than 50 people attended this event. See attachment D.



#### **8. On-Line Survey #1**

The project team developed and conducted an on-line survey on SurveyMonkey from June 15 to July 10. This survey was distributed to the contact list and to Town committee and board members. A total of 320 responses were received. See attachment E.

#### **9. Community Development Committee Interim Review**

On July 15 the Community Development Committee (CDC) reviewed the project and agreed to act as its "sounding board."

#### **10. Draft Action List**

Over the summer the project team distilled the community's feedback into a comprehensive feedback list and used it and the survey results to craft a draft vision, goals, and action plan. The consultant prepared corresponding maps. See attachment F.

#### **11. Round 2 Stakeholder Outreach and Priorities**

The draft action plan was reviewed with the stakeholders of Round 1 on October 26 and their suggestions were incorporated in the draft. The stakeholders also assigned short, mid, and long term priorities to the recommended actions.

#### **12. Draft Priorities**

The group's average ratings were used by staff to assign initial priorities to each action. See attachment G.

#### **13. Cost Estimates**

The consultant developed cost estimates to arrive at conceptual costs for each of the capital improvement items. See attachment H.

#### **14. CDC Review Draft Action Plan**

The Community Development Committee, consisting of Councilors King, Farber, and Hemphill, reviewed the draft plan, priorities and cost estimates on November 3. It made some suggestions which were incorporated into the draft plan. See attachment I.

#### **15. Prepare Complete Plan**

The project team drafted the text for the plan that explained the process and incorporated attachments that contained back-up documents. The maps were also revised.

#### **16. Public Forum #2**

On December 7 a second Public Forum was conducted. This forum was held in Town Hall and broadcast on community cable TV and was attended by 21 people. A prioritization exercise was conducted and general comments were received. See attachment J.



#### **17. Online Survey #2**

A second online survey from November 30 to December 13 yielded 105 responses. This survey provided similar prioritization questions to Public Forum #2 as well as an opportunity to provide general comments and make specific suggestions. See attachment K.

#### **18. Finalize Draft Plan**

The project team analyzed the priorities feedback and produced a complete draft plan. See attachments L and M.

#### **19. Review Draft Plan with CDC**

On March 22, 2016 the draft final plan was reviewed by the CDC. The CDC's suggestions were incorporated in the final draft plan.

#### **20. Present Draft Plan to Town Council**

On May 23, 2016 the final draft as recommended by the CDC was presented to the Town Council. The Council unanimously approved a resolution accepting the plan. See attachments N, P, and Q.



## RECOMMENDED 20 YEAR VISION

The vision for the 2015 Plan is the condition that Falmouth will strive for over the next 20 or so years.



The plan's vision is as follows:

**Falmouth in 2035 is a place where walking and bicycling are promoted as safe, convenient, and pleasurable transportation modes for all people and all purposes, and where bicycle-pedestrian network connections to and from key destinations in the community have been improved.**

## RECOMMENDED GOALS

Several goals help achieve the plan's vision. They contain physical and non-physical strategies.



The plan's goals are to improve Town-wide pedestrian and bicycle conditions by:

- ❖ **implementing promotional, educational, and behavioral strategies, and**
- ❖ **making physical improvement connections to:**
  - a. **Route 1 and Route 100 commercial areas** and surrounding neighborhoods,
  - b. the **Falmouth School Campus**,
  - c. **downtown Portland**,
  - d. the existing major **Cross Falmouth Trail Route**,
  - e. several **neighborhood pedestrian loops**, and
  - f. several **rural bicycle route loop**



## Recommended Actions

For additional information regarding the actions below, please see the “Notes to Recommended Actions” section that follows this chart.

**PRIORITY KEY** *S = Short Term (1-5 years), M = Mid Term (6-10 years), L = Long Term (11-20 years)*

**PRIORITY**

### General

#### Management

1	Review: Create informal pedestrian/bicyclist stakeholder group comprised of Falmouth residents and other interested parties that meets 2-4 times per year with Town staff to: Review walking and bicycling improvement progress. Provide “on the ground” walking and bicycling feedback to the Town. Assist with development of promotional, educational, and behavioral strategies for walking and bicycling. Assist with development of prioritization criteria for specific walking and bicycling projects. Recommend new walking and bicycling projects. Help communicate the Town’s walking and bicycling efforts to others in the community.	S
2	Maintenance: Coordinate annual pedestrian and bicycling infrastructure maintenance with the Maine Department of Transportation (MaineDOT) and others, as appropriate.	S

#### Pedestrian Improvements

3	ADA: Make Americans with Disabilities Act (ADA) improvements to entire sidewalk system, especially at crosswalk locations.	S
4	ADA: Incorporate the latest Americans with Disabilities Act (ADA) compliant crossing technologies, including audio warning devices and countdown signals, whenever a traffic signal is being upgraded.	S
5	Enhanced Accessibility: Install “enhanced accessibility” trails at various locations, such as Suckfish Brook (both units), River Point, and/or Community Park, with the goal to have at least one of these fully ADA compliant.	M
6	Trails: Link trails to sidewalk system, where feasible.	S
7	Trails: Secure or extend trail licenses or acquire permanent easements for trail segments located on private property.	S
8	Trails: Research Town-approved development projects with designated trails that have not been installed and pursue corrective action.	M

	<b>PRIORITY KEY</b> <i>S = Short Term (1-5 years), M = Mid Term (6-10 years), L = Long Term (11-20 years)</i>	<b>PRIORITY</b>
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9	Trails: Investigate the potential for future bicycle-pedestrian trails in the following locations: powerline corridors, Maine Turnpike Spur corridor, and abandoned, discontinued roads.	L
10	Trails: Consider regional connection opportunities when planning new trail improvements.	M
11	Bus stops: Install shelters and seating at bus stop locations.	L

#### *Bicycle Improvements*

12	Signals: Incorporate bicycle detection systems whenever a traffic signal is being upgraded.	M
13	Striping: Create a road inventory that identifies restriping of lane widths to increase paved shoulder widths where feasible. Coordinate with MaineDOT where required. Restripe annually accordingly.	S
14	Signage: Incorporate bicycle signage and pavement stenciling on all roads designated for bicycle use.	S
15	Striping: Increase pavement striping width of “fog line” (i.e. painted line at edge of road) from 4 to 6 inches.	M
16	Parking: Install bicycle racks at Town-owned properties and facilities and bus stop locations.	S
17	Wayfinding: Participate in regional wayfinding signage plan for bicyclists sponsored by Portland Area Comprehensive Transportation System (PACTS).	M

### **Route 1 Commercial Area**

#### *Pedestrian Improvements*

18	Foreside Estates: Install pedestrian connection to Route 1.	L
19	Lunt Road: Improve sidewalk and bicycle access across Interstate 295.	S
20	Route 1 North: Consider pedestrian and bicycle recommendations from Ad Hoc Route 1 North Committee.	M
21	Route 1: Consider pedestrian and bicycle recommendations from Route 1 Complete Street Study.	M

#### *Bicycle Improvements*

22	Route 1-Route 88 intersection: Make bikeway improvements as recommended by VHB.	S
23	Route 1-Route 88 intersection: Investigate roundabout improvement.	M



KEY S = Short Term (1-5 years), M = Mid Term (6-10 years), L = Long Term (11-20 years)	PRIORITY
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### Route 100 Commercial Area

#### *Pedestrian Improvements*

24	Gray Road: Install sidewalk from Portland city line to Mountain/Falmouth Road	M
25	Leighton Road: Install sidewalk from Gray Road to Brook Road	M
26	Falmouth Road: Install sidewalk from Gray Road to Winn Road	S
27	Leighton Road: Install sidewalk from Gray Road to Falmouth Road	M

#### *Bicycle Improvements*

28	Gray Road: Complete bicycle lanes from Portland city line to Hurricane Road	S
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### To School Campus

#### *Pedestrian Improvements*

29	Pan Am rail line: Install pedestrian-bicycle connection between Community Park and School Campus across rail line	S
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#### *Bicycle Improvements*

30	Woods Road: Install bicycle lane from Longwoods Road to Woodville Road	S
31	Woodville Road: Install bicycle lane or designate for shared access from Falmouth Road to Winn Road	S
32	Falmouth Road: Install bicycle lane from Allen Avenue Extension to Leighton Road	S

### To Downtown Portland

#### *Pedestrian Improvements*

33	St. Lawrence & Atlantic rail line: Investigate the feasibility of creating a rail-with-trail to Portland through a regional public-private partnership effort for pedestrians and bicyclists.	L
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#### *Bicycle Improvements*

34	Route 1: Restripe lane widths between Martin's Point Bridge and Route 88 as part of upcoming repaving project.	S
35	Route 1: Consider "cycle track," buffered bicycle lanes, multi-use path improvements, and/or green median improvements between Martin's Point Bridge and Route 88	M

KEY S = Short Term (1-5 years), M = Mid Term (6-10 years), L = Long Term (11-20 years)	PRIORITY
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### Cross Falmouth Trail Route

#### *Pedestrian Improvements*

36	Falmouth Road: Install sidewalk from Winn Road to Merrill Road	L
37	Signage/Parking: Install warning signage and improve trailhead parking, where required, at the following trail-road crossings: Winn Road (Town Forest to parcel across the street) Route 100 (between Hadlock & Hurricane Roads) Blackstrap Road (near Happy Cats) Falmouth Road (near East Branch bridge) Field Road (Squirrel Valley Trailhead)	M

### Neighborhood Pedestrian Walks

#### *Pedestrian Improvements*

38	Town Landing Road: Install sidewalk from Route 88 to Town Landing	L
39	Foreside Road: Install sidewalk from Route 1 to Cumberland Town line	L
40	Merrill Road: Install sidewalk from Falmouth Road to Middle Road	L
41	Middle Road: Install sidewalk from Merrill Road to Woods Road, including all four legs of the proposed roundabout on Route 9	M
42	Pleasant Hill Road: Install sidewalk from Allen Avenue Extension to Middle Road	L
43	Bucknam Road: Investigate the options for sidewalk and bicycle improvements from Middle Road to Route 1	M
43A	Andrews Avenue: Install sidewalk from Route 1 to Mackworth Island (Note: This is not shown on the map)	M

### Rural Bicycle Route Loops

#### *Bicycle Improvements*

44	Middle Road: Install bicycle lane from Longwoods Road to Cumberland Town line	M
45	Hurricane Road: Designate for shared access from Blackstrap Road to Gray Road	L
46	Blackstrap Road: Install bicycle lane or designate for shared access from Brook Road to Hurricane Road	M
47	General recommendation: Consider regional transportation connection opportunities when planning new bicycle improvements.	S

## NOTES TO RECOMMENDED ACTIONS

The following section provides more detailed descriptions of the plan improvements that are itemized above.



1. *Review: Create informal pedestrian/bicyclist stakeholder group comprised of Falmouth residents and other interested parties that meets 2-4 times per year with Town staff to:*
  - *Review walking and bicycling improvement progress.*
  - *Provide “on the ground” walking and bicycling feedback to the Town.*
  - *Assist with development of promotional, educational, and behavioral strategies for walking and bicycling.*
  - *Assist with development of prioritization criteria for specific walking and bicycling projects.*
  - *Recommend new walking and bicycling projects.*
  - *Help communicate the Town’s walking and bicycling efforts to others in the community.*

Unlike many communities, Falmouth has no standing Bicycle and Pedestrian Committee. Trail planning is currently handled by the Land Management and Acquisition Committee and bicycle facility and sidewalk planning fall under the purview of the Public Works Department. No changes are proposed to that, but there is recognition that a regular convening of interested and knowledgeable parties may provide an opportunity for communication that help with the implementation of the plan, yet would not place significant additional demand on staff.

2. *Maintenance: Coordinate annual pedestrian and bicycling infrastructure maintenance with MaineDOT and others, as appropriate.*

Several locations have been identified where seasonal maintenance has been less than desirable. Knowledge of those locations will help the Public Works Department to take action and coordinate with MaineDOT where such is required.
3. *ADA: Make Americans with Disabilities Act (ADA) improvements to entire sidewalk system, especially at crosswalk locations.*

The most common needed improvements at crosswalks are handicap ramps and tactile warnings in the pedestrian ramp pavement. An inventory may be needed to get a comprehensive list where improvements are currently lacking, so consistent routes can be established.
4. *ADA: Incorporate the latest Americans with Disabilities Act (ADA) compliant crossing technologies, including audio warning devices and countdown signals, whenever a traffic signal is being upgraded.*

The recent Route 1 improvements contain audio devices for the hard of hearing and a countdown visual display that shows how much time remains to safely cross the road. This can be especially helpful for senior citizens.

5. *Enhanced Accessibility: Install “enhanced accessibility” trails at various locations, such as Suckfish Brook (both units), River Point, and/or Community Park, with the goal to have at least one of these fully ADA compliant.*

An “enhanced accessible” trail is a trail that allows access for people with strollers and wheelchairs. Its surface is compacted stone dust and grades are relatively flat. It is not an official ADA approved trail which has specific standards that must be met. A 0.25-mile “enhanced accessible” trail currently exists on the Woods Road Preserve. It allows for an outdoor experience that otherwise may not be available to less mobile users.

6. *Trails: Link trails to sidewalk system, where feasible.*

Thanks to the extensive growth of Falmouth’s trail system, a number of trails are close to existing sidewalk sections. Making links to nearby sidewalks would enhance the connectivity of the pedestrian system and encourage additional use.

7. *Trails: Secure or extend trail licenses or acquire permanent easements for trail segments located on private property.*

There are some existing trails that traverse private property with owner consent. Some have official access permission, others do not. Owners may change and properties will inevitably be put up for sale in the future, placing trail connectivity at risk. Discussions with each of these owners may result in mutually-agreeable arrangements that will secure future pedestrian access. One option could be for the Town to purchase a property when it comes on the

market, place a permanent easement on the trail section, then resell that property.

8. *Trails: Research Town-approved development projects with designated trails that have not been installed and pursue corrective action.*

In some cases where the Falmouth Planning Board approved subdivision projects that included requirements to install pedestrian trails, these trails have not been installed. As time goes by these intended improvements tend to get forgotten and opportunities to further link the trail system may get lost. Research as to where this situation may exist and what the specific circumstances are, may help to correct these oversights.

9. *Trails: Investigate the potential for future bicycle-pedestrian trails in the following locations:*

- *Powerline corridors,*
- *Maine Turnpike Spur corridor, and/or*
- *Abandoned, discontinued roads.*

Powerline corridors, the Maine Turnpike Spur corridor, and abandoned, discontinued roads are all properties that are linear and extensive in length. If multi-use trails can be created in the corridors – and some power line corridors already have trails on them – a significant distance can be traveled across town. Each of these types of corridors needs to be further researched to explore the desirability and feasibility of locating trails in them.

10. *Trails: Consider regional connection opportunities when planning new trail improvements.*

Whereas some may see trails as serving primarily local needs, some trails when linked to others in adjacent communities can substantially increase access to a large network. The efforts of Portland Trails are an example of

that as well as the Sebago-to-the-Sea Trail that runs through Falmouth.

*11. Bus stops: Install shelters and seating at bus stop locations.*

Adding shelters and seating to the most heavily used bus stop locations in Falmouth will serve to provide a more pleasurable user experience in all seasons. These amenities may help to encourage more ridership, especially for senior riders. A shelter currently exists at the TD Bank stop and seating was provided by Shaw's at stop in the Falmouth Shopping Center.

*12. Signals: Incorporate bicycle detection systems whenever a traffic signal is being upgraded.*

The recent improvements at the traffic signals on Route 1 included bicycle detection systems in the pavement. These permit the traffic signal to change even if no vehicles are present. This has been an issue on Middle Road and Bucknam and Falmouth Roads, where bicyclists on Middle Road would not get a green light if there was no car waiting for the same light to turn. The Town is currently working to correct this condition. This situation also exists on Johnson Road where it intersects with Route 1.

*13. Striping: Create a road inventory that identifies restriping of lane widths to increase paved shoulder widths where feasible.*

*Coordinate with MaineDOT where required. Restripe annually accordingly.*

The Public Works Director recently created an inventory of Town roads which lists the existing lane widths. Using a proposed lane width standard of 11.0 feet for roads that have a posted speed limit of more than 35 mph and 10.5 feet for roads that have a posted speed limit of 35 mph or less would result in the creation of additional shoulder width that ranges between 6 inches and 3 feet. Annual

restriping would allow the Town to increase paved shoulder widths in select locations at no increased cost. This effort requires coordination with MaineDOT to make sure it is comfortable with any revised lane widths within its jurisdiction. Potential candidate roads for lane widths reductions include Depot Road, Lunt Road, Woodville Road, Falmouth Road, Blackstrap Road, Middle Road, and Route 1.

*14. Signage: Incorporate bicycle signage and pavement stenciling on all roads designated for bicycle use.*

Creating greater motorist awareness of the presence of bicyclists, and alerting bicyclists of the most suitable roads for cycling, will enhance the safety and riding experience of cyclists. Currently, little or no such signage exists. It can be accomplished at relatively little cost.

*15. Striping: Increase pavement striping width of "fog line" (at edge of road) from 4 to 6 inches.*

Fog lines are the white solid lines that delineate the right-most driving lane from the shoulder. Increasing the width of that line with 2 inches has shown to result in drivers keeping clearer of that line, which may result in more distance when cars pass bicyclists.

*16. Parking: Install bicycle racks at Town-owned properties and facilities and bus stop locations.*

Safe and convenient parking facilities for bicycles at a variety of locations may help to encourage more bicycling in Falmouth. Currently, a program is sponsored by the area's regional transportation agency PACTS (Portland Area Comprehensive Transportation System) that allows municipalities to purchase bicycle racks at low cost. Falmouth has applied to purchase over two dozen bicycle racks through this program and expects to install them in 2016 in a variety of publicly-owned locations. Unfortunately

this program does not extend to bicycle racks that would be located on private property.

*17. Wayfinding: Participate in regional wayfinding signage plan for bicyclists sponsored by PACTS.*

Another program that is sponsored by the area's regional transportation agency PACTS (Portland Area Comprehensive Transportation System) is a regional wayfinding signage system for bicyclists. A proposed plan exists for the region including Falmouth, but this program, which would be entirely funded with outside funds, currently awaits review and approval by MaineDOT.

*18. Foreside Estates: Install pedestrian connection to Route 1.*

More than 150 apartments at Foreside Estates are located within a stone's throw off Route 1, but currently no direct pedestrian access exists to Route 1 near Waldo's General Store. Across Route 1 from Waldo's is the entrance to the trail system at Pine Grove Preserve. A pedestrian connection may help to increase patronage.

*19. Lunt Road: Improve sidewalk and bicycle access across Interstate 295.*

The current sidewalk that exist on one side of Lunt Road on the bridge over Interstate 295 is extremely narrow and does not meet current design safety standards. Bicycle access is deficient as well. The MaineDOT has announced its desire to redeck the Lunt Road bridge over Interstate 295. This may present an ideal opportunity to improve pedestrian and bicycle access on the bridge and its approaches and also to connect a Portland Trails trail through the Tidewater development to this sidewalk.

*20. Route 1 North: Consider pedestrian and bicycle recommendations from Ad Hoc Route 1 North Committee.*

Although the charge for the Ad Hoc Route 1 North Committee has only recently been approved by the Town Council and the committee is yet to be appointed and do its work, the anticipation is that its recommendations will include bicycle and pedestrian improvements for the section between the Turnpike Spur and the Cumberland Town line. This plan wants to note that this work is forthcoming.

*21. Route 1: Consider pedestrian and bicycle recommendations from Route 1 Complete Street Study.*

A few months ago, Falmouth applied with Cumberland and Yarmouth to the area's regional transportation agency PACTS (Portland Area Comprehensive Transportation System) for a so-called "Complete Street" study of Route 1. This is an effort to comprehensively assess the needs of, and facilities for, all users of Route 1. This work will build on the recent improvements on Route 1 South. The application has been recommended for funding and the work will most likely take place in 2016.

*22. Route 1-Route 88 intersection: Make bikeway improvements as recommended by VHB, October 2015.*

The area's regional transportation agency PACTS (Portland Area Comprehensive Transportation System) and FHWA (Federal Highway Administration) have recently assessed the safety for bicyclists from Martin's Point Bridge to Route 88. Some minor road construction and pavement and lane marking improvements have been proposed at this intersection that will make bicycle travel in that area more safe.

*23. Route 1-Route 88 intersection: Investigate roundabout improvement.*



A prior Transportation Report by Gorrill-Palmer Engineers suggested that the Route 1-Route 88 intersection would be a good candidate for a roundabout to help improve traffic flow and make the intersection less confusing. This will require a large investment and should be studied further for its feasibility.

*24. Gray Road: Install sidewalk from Portland city line to Mountain/Falmouth Road*

This sidewalk is currently proposed in the Route 100 Vision Plan as well as Preliminary Engineering Plan for Route 100. Funding for this plan is expected to be decided by the Falmouth voters in June 2016.

*25. Leighton Road: Install sidewalk from Gray Road to Brook Road*

This sidewalk is currently proposed in the Route 100 Vision Plan as well as Preliminary Engineering Plan for Route 100. Funding for this plan is expected to be decided by the Falmouth voters in June 2016.

*26. Falmouth Road: Install sidewalk from Gray Road to Winn Road*

This sidewalk is currently proposed in the Route 100 Vision Plan as well as Preliminary Engineering Plan for Route 100. Funding for this plan is expected to be decided by the Falmouth voters in June 2016. Several sidewalk segments already exist on Leighton Road.

*27. Leighton Road: Install sidewalk from Gray Road to Falmouth Road*

This sidewalk was not included in the Route 100 Vision Plan as it was felt to serve relatively few homes. It may have the potential to serve more homes if it were combined with action 36 below.

*28. Gray Road: Complete bicycle lanes from Portland city line to Hurricane Road*

These bicycle lanes were proposed in the Route 100 Vision Plan, but the Preliminary Engineering Plan for Route 100 scaled them back to Winslow Farm due to the cost of the section of Route 100 north of Winslow Farm. Funding for this plan is expected to be decided by the Falmouth voters in June 2016.

*29. Pan Am rail line: Install pedestrian-bicycle connection between Community Park and School Campus across rail line.*

Discussions about a possible connector trail between the school campus on Woodville Road and Community Park off Winn Road date back to the late 1990s. The two are separated by a Pan Am Railways corridor. In 2014 the Council voted to establish the ad hoc committee to explore crossing options. Four options are being explored: building a tunnel underneath the railroad corridor, an at-grade crossing over the tracks, a bike/ped bridge that meets requirements of the Americans with Disabilities Act, and a bridge where both the approaches and surrounding trail system are ADA-compliant.

*30. Woods Road: Install bicycle lane from Longwoods Road to Woodville Road*

The width of this bicycle lane is to be determined.

*31. Woodville Road: Install bicycle lane or designate for shared access from Falmouth Road to Winn Road*

A bicycle lane may require shoulder rebuilding and could be rather expensive. A much less expensive, but perhaps less desirable, option is to use Shared Lane Markings (SLMs) for this road. Such markings welcome bicyclists to use the road and encourage them to position themselves safely and use the full travel lane as needed.

*32. Falmouth Road: Install bicycle lane from Allen Avenue Extension to Leighton Road*

The width of this bicycle lane is to be determined.

*33. St. Lawrence & Atlantic rail line: Investigate the feasibility of creating a rail-with-trail to Portland through a regional public-private partnership effort.*

With recent announcement that this rail line will no longer have active use to and from the B&M plant in Portland, the opportunity arises to explore other shared uses of this right of way where rail services may be possible alongside a pedestrian/bicycle trail. This corridor would provide for a direct route to downtown Portland.

*34. Route 1: Restripe lane widths between Martin's Point Bridge and Route 88 as part of upcoming repaving project.*

Action 13 noted the opportunity to create more space for bicyclists by narrowing travel lanes on selected roads. One such road is Route 1 between Martin's Point Bridge and Route 88.

*35. Route 1: Consider "cycle track", buffered bicycle lanes, multi-use path improvements, and/or green median improvements between Martin's Point Bridge and Route 88*

So much unused space exists on Route 1 between Martin's Point Bridge and Route 88 that some have suggested that more ambitious improvements are desirable there. These may include protected bicycle lanes called "cycle tracks", buffered bike lanes, and/or landscaped islands in the center of the road to create a safer and more pleasurable environment.

*36. Falmouth Road: Install sidewalk from Winn Road to Merrill Road*

This section is the major missing link between the West Falmouth commercial area and the Route 1 commercial area.

*37. Signage/Parking: Install warning signage and improve trailhead parking, where required, at the following trail-road crossings:*

- Winn Road (Town Forest to parcel across the street)
- Route 100 (between Hadlock & Hurricane Roads)
- Blackstrap Road (near Happy Cats)
- Falmouth Road (near East Branch bridge)
- Field Road (Squirrel Valley Trailhead)

Falmouth's trail system currently almost connects east and west Falmouth. This system traverses a few busy roads. Adding warning signage at these locations would likely make them safer for pedestrians to cross and help to create greater awareness of this Cross-Town Trail system.

*38. Town Landing Road: Install sidewalk from Route 88 to Town Landing*

This sidewalk would help to connect Town parking facilities on Route 88 and Johnson Road with Town Landing, which in peak season can be a busy location with very limited parking.

*39. Foreside Road: Install sidewalk from Route 1 to Cumberland Town line*

This sidewalk would serve the major travel corridor in the densest part of Falmouth

*40. Merrill Road: Install sidewalk from Falmouth Road to Middle Road*

This sidewalk combined with action 41 would help to create a neighborhood pedestrian loop opportunity.

*41. Middle Road: Install sidewalk from Merrill Road to Woods Road, including all four legs of the proposed Route 9 roundabout*

This sidewalk, combined with actions 40 and 43, would help to create a neighborhood pedestrian loop opportunity and connectivity to Route 1.

*42. Pleasant Hill Road: Install sidewalk from Allen Avenue Extension to Middle Road*

This sidewalk would parallel the sidewalk on Ledgewood Drive and start to create a neighborhood pedestrian loop opportunity.

*43. Bucknam Road: Investigate the options for sidewalk and bicycle improvements from Middle Road to Route 1*

This is a busy road as Interstate 295 has two exits/entrances onto Bucknam Road and the right of way is relatively narrow. MaineDOT is investigating installation of a traffic signal at the northbound entrance/exit ramps which will involve lane modifications and has announced its desire to redeck the Bucknam Road bridge over Interstate 295. This may be an ideal opportunity to incorporate pedestrian and bicycle improvements in the bridge and the approaches.

*43A. Andrews Avenue: Install sidewalk from Route 1 to Mackworth Island*

There is significant pedestrian activity on Andrews Avenue, which is narrow, and has significant vehicular traffic, mostly associated with accessing Mackworth Island. (Note: This improvement is not shown on the map)

*44. Middle Road: Install bicycle lane from Longwoods Road to Cumberland Town line.*

This is one of the roads where bicycle groups currently conduct group rides.

*45. Hurricane Road: Designate for shared access from Blackstrap Road to Gray Road.*

The Town rehabilitated and repaved Hurricane Road in 2014. Shared Lane Markings (SLMs) and signage for bicyclists are proposed here rather than adding wider paved shoulders. Such markings welcome bicyclists to use the road

and encourage them to position themselves safely and use the full travel lane as needed.

*46. Blackstrap Road: Install bicycle lane or designate for shared access from Brook Road to Hurricane Road.*

This is one of the roads where bicycle groups currently conduct group rides. A bicycle lane will require shoulder rebuilding and due to the length of the road would be rather expensive. A much less expensive, but perhaps less desirable, option is to use Shared Lane Markings (SLMs) for this road. Such markings welcome bicyclists to use the road and encourage them to position themselves safely and use the full travel lane as needed.

*47. General recommendation for rural bicycle loops: Consider regional transportation connection opportunities when planning new bicycle improvements.*

More and more people ride greater distances on their bicycles, whether for transportation or recreation. The most ambitious example of a multi-jurisdiction bicycle path effort is the Maine-to-Florida East Coast Greenway, which traverses Falmouth on Routes 1 and 88. However, other opportunities may exist on a less grand scale. The North of Portland (NoPo) Bicycle Pedestrian Plan of 2010 explored some of these with Cumberland, Yarmouth, North Yarmouth, and Freeport.

## PROPOSED PHYSICAL PEDESTRIAN IMPROVEMENTS

### General

- 5 Construct "Enhanced Accessibility" trails at Suckfish Brook (both units), River Point, Community Park
- 9 Investigate potential for bicycle-pedestrian trails in the Maine Turnpike Falmouth Spur corridor, powerline corridors, discontinued/abandoned roads

### Route 1 Commercial Area

- 18 Foreside Estates: Install pedestrian connection to Route 1
- 19 Lunt Road: Improve sidewalk across Interstate 295
- 20 Route 1 North: Consider pedestrian and bicycle recommendations from Ad Hoc Route 1 North Committee
- 21 Route 1: Consider pedestrian and bicycle recommendations from Route 1 Complete Street Study

### Route 100 Commercial Area

- 24 Gray Road: Install sidewalk from Portland city line to Mountain/Falmouth Road
- 25 Leighton Road: Install sidewalk from Gray Road to Brook Road
- 26 Falmouth Road: Install sidewalk from Gray Road to Winn Road
- 27 Leighton Road: Install sidewalk from Gray Road to Falmouth Road

### School Campus

- 29 Pan Am rail line: Install pedestrian-bicycle connection between Community Park and School Campus across rail line

### To Downtown Portland

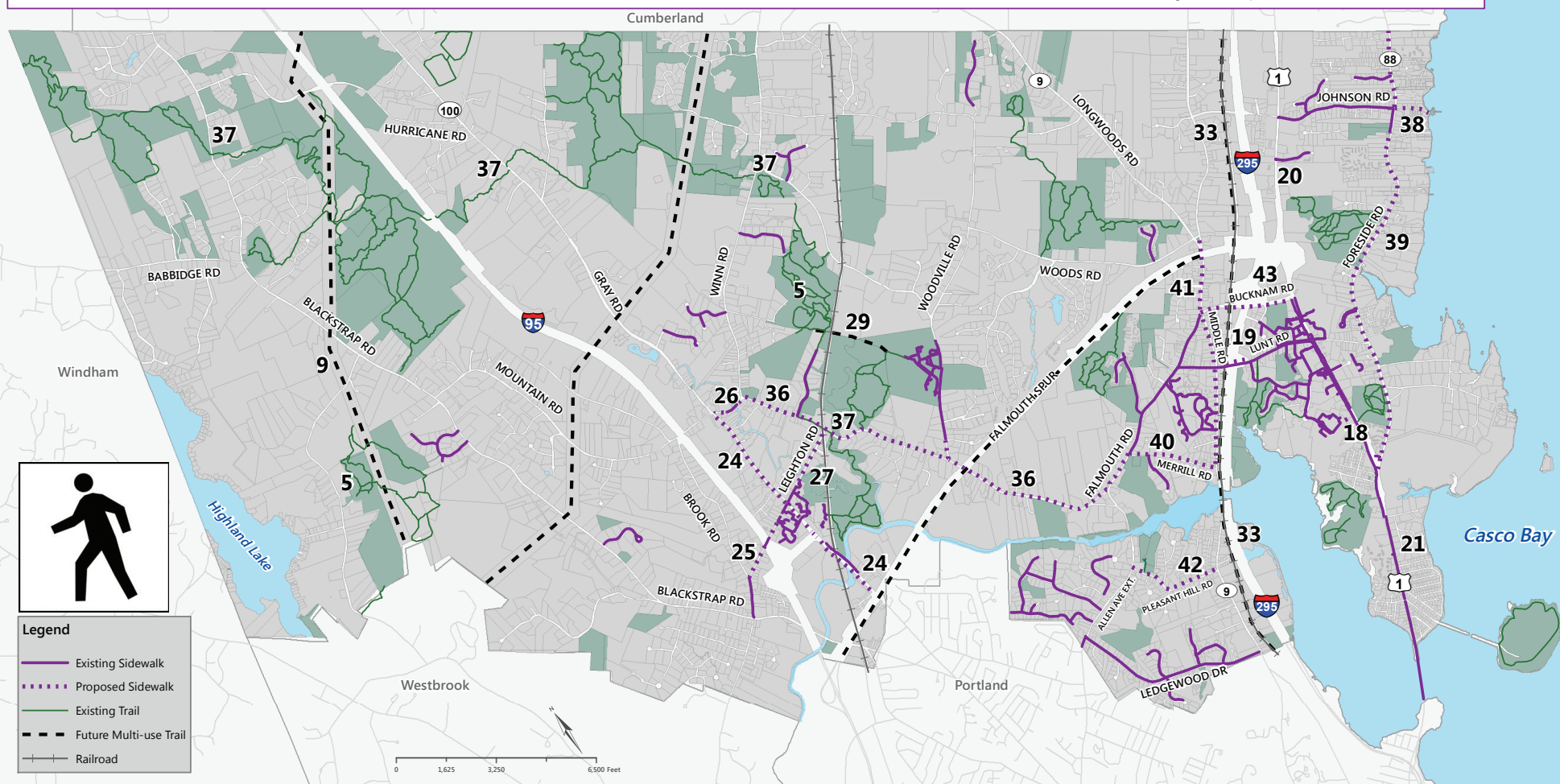
- 33 St. Lawrence & Atlantic rail line: Investigate the feasibility of creating a rail-with-trail to Portland through a regional public-private partnership effort for pedestrians and bicyclists

### Cross-Town Pedestrian Route

- 36 Falmouth Road: Install sidewalk from Winn Road to Merrill Road
- 37 Signage: Install warning signage at the following trail-road crossings:
  - Winn Road (Town Forest to parcel across the street)
  - Route 100 (between Hadlock & Hurricane Roads)
  - Blackstrap Road (near Happy Cats)
  - Falmouth Road (near East Branch Bridge)

### Neighborhood Pedestrian Loops

- 38 Town Landing Road: Install sidewalk from Route 88 to Town Landing
- 39 Foreside Road: Install sidewalk from Route 1 to Cumberland town line
- 40 Merrill Road: Install sidewalk from Falmouth Road to Middle Road
- 41 Middle Road: Install sidewalk from Merrill Road to Woods Road
- 42 Pleasant Hill Road: Install sidewalk from Allen Avenue Extension to Middle Road
- 43 Bucknam Road: Investigate sidewalk options from Middle Road to Route 1



## PROPOSED PHYSICAL BIKE IMPROVEMENTS

### General

9 Investigate potential for bicycle-pedestrian trails in the Maine Turnpike Falmouth Spur corridor, powerline corridors, discontinued/abandoned roads

### Route 1 Commercial Area

- 20 Route 1 North: Consider pedestrian and bicycle recommendations from Ad Hoc Route 1 North Committee
- 21 Route 1: Consider pedestrian and bicycle recommendations from Route 1 Complete Street Study
- 22 Route 1-Route 88 intersection: Make bikeway improvements
- 23 Route 1-Route 88 intersection: Investigate roundabout improvement

### Route 100 Commercial Area

- 28 Gray Road: Complete bicycle lanes from Portland city line to Hurricane Road

### School Campus

- 29 Pan Am rail line: Install pedestrian-bicycle connection between Community Park and School Campus across rail line
- 30 Woods Road: Install bicycle lane from Longwoods Road to Woodville Road
- 31 Woodville Road: Install bicycle lane or designate for shared access from Falmouth Road to Winn Road

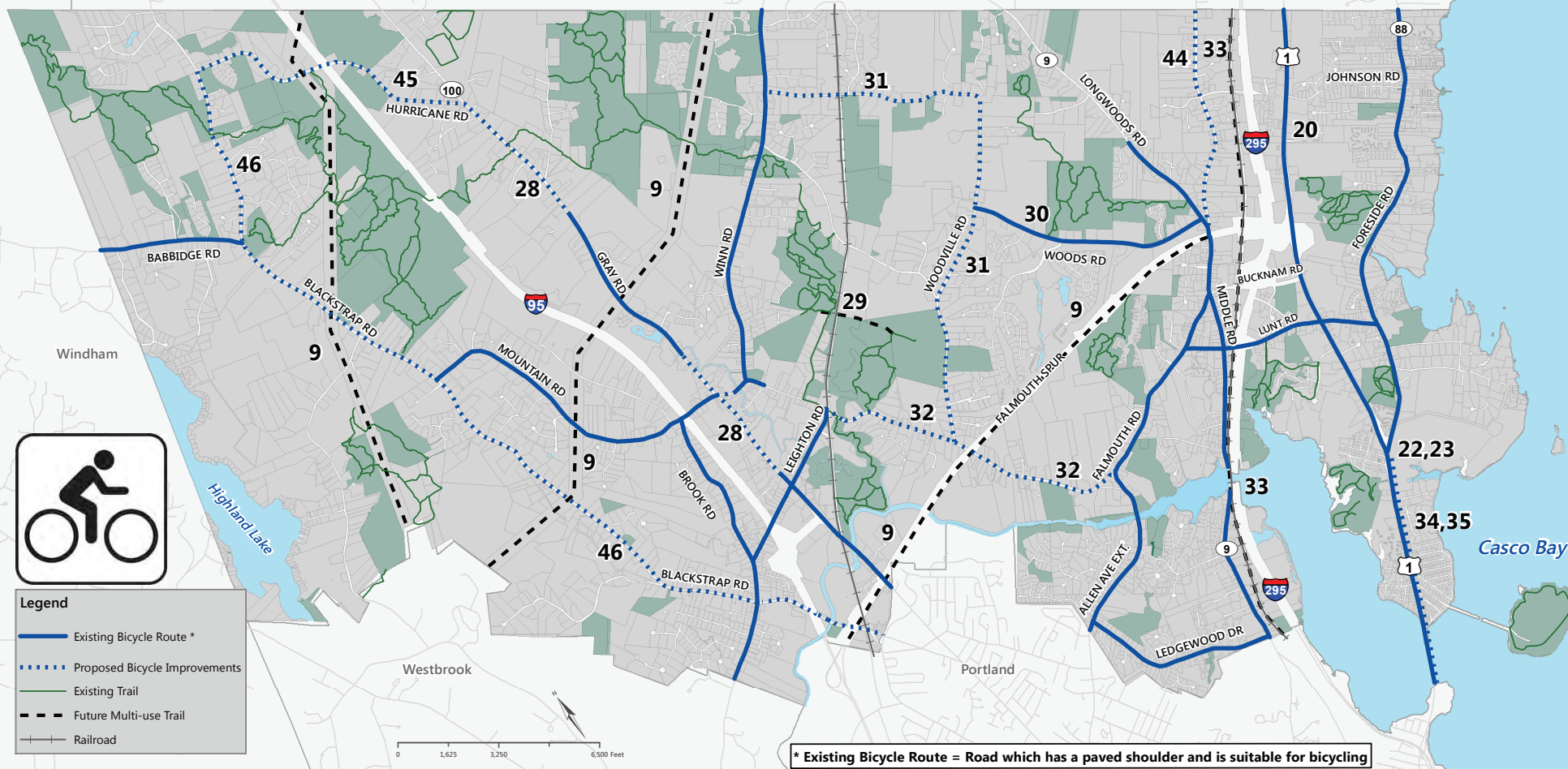
32 Falmouth Road: Install bicycle lane from Allen Avenue Extension to Leighton Road

### To Downtown Portland

- 33 St. Lawrence & Atlantic rail line: Investigate the feasibility of creating a rail-with-trail to Portland through a regional public-private partnership effort for pedestrians and bicyclists
- 34 Route 1: Short term - Restripe lane widths between Martin's Point Bridge and Route 88 with paving project
- 35 Route 1: Long term - Consider "cycle track", buffered bike lanes, multi-use path, and/or green median improvements between Martin's Point Bridge and Route 88

### Rural Bicycle Loops

- 44 Middle Road: Install bicycle lane from Longwoods Road to Cumberland Town line
- 45 Hurricane Road: Install bicycle lane from Black Strap Road to Gray Road
- 46 Blackstrap Road: Install bicycle lane or designate for shared access from Brook Road to Hurricane Road
- 47 General: Consider regional transportation connection opportunities when planning new bicycle improvements



\* Existing Bicycle Route = Road which has a paved shoulder and is suitable for bicycling