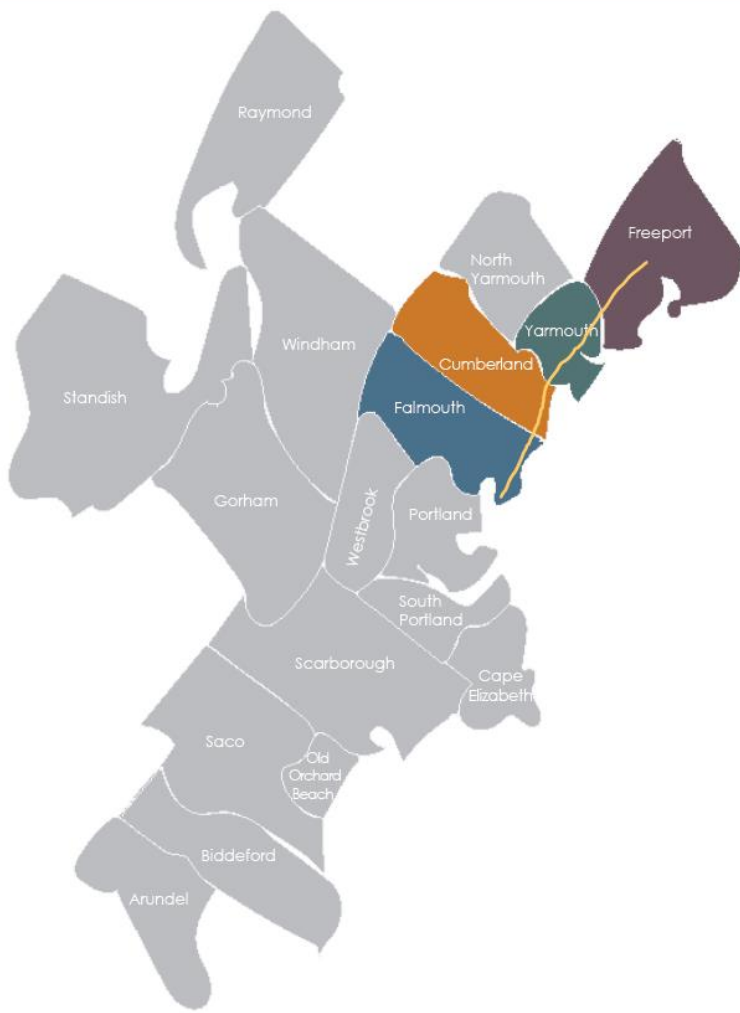


Excerpts re. Route 1-Route 88 Intersection from the study below:




PACTS
PORTLAND AREA COMPREHENSIVE
TRANSPORTATION SYSTEM

FALMOUTH
CUMBERLAND
YARMOUTH
FREEPORT

North of Portland
Route One
Complete Streets
Corridor Plan

FINAL REPORT



February 9, 2018

Purpose of the Route 1 Complete Streets Plan

In the fall of 2016, the Towns of Falmouth, Cumberland and Yarmouth began work on a detailed plan to upgrade the entire length of their Route 1 corridor to increase safety and access for bicycles, pedestrians, buses, trucks, and passenger cars.

This method of planning, known as “Complete Streets,” is based on the understanding that streets should be safe and accommodating to all users and all modes of travel. Treatment will depend on context and should balance the needs of all users.

Each of the study area communities identified locations that should be the focus of a detailed evaluation and those where general recommendations were appropriate.

Review of Route 1 section: Portland to Bucknam Road

The Town has recently implemented complete streets improvements between Portland and Bucknam Road and a detailed concept plan is not proposed for this section. This area was reviewed for future enhancement and adjustment.

The only exception is investigation of long term improvements at the Route 88 intersection. Recent changes implemented in 2016 reflect recommendations from a FHWA sponsored Safety Audit and did not address future improvement needs. Accordingly, this plan includes a detailed plan for Route 88.

Review of Route 1 section: Bucknam Road to Johnson Road

Pavement surface improvements were recently implemented in this section. However, detailed concept plans are proposed from the Turnpike Spur area to Cumberland. These plans were developed in conjunction with the **Route 1 North Vision Plan** prepared by VHB.

Figure 2i: Falmouth - DRAFT Summary of Recommendations



1 GATEWAY / FALMOUTH FORESIDE	2 TRANSITION AREA	3 RTE. 1 & RTE. 88 INTERSECTION	4 TRANSITION AREA	5 COMMERCIAL DISTRICT	6 TURNPIKE INTERCHANGE	7 EMERGING COMMERCIAL DISTRICT	8 RURAL-SUBURBAN COMMERCIAL
Portland Line to Gilsland Farm Road	Gilsland Farm Road to Rte. 1/Rte. 88 Intersection	Rte. 1/Rte. 88 Intersection	A Perfect Smile to Waldo's General Store	Waldo's General Store to Bucknam Road	Bucknam Road to Rose Stone Driveway	Rose Stone Driveway to Johnson Road	Johnson Road to Cumberland Line
Segment Status <ul style="list-style-type: none"> Sidewalk from Martin's Point Bridge to Brown Street - East side Landscaped islands and bike lanes installed to Gilsland Farm Road in 2016, Northbound lane is buffered near Rte. 88 	Segment Status <ul style="list-style-type: none"> Highway-like character Sidewalk on West side connecting to Old Rte. 1 and Providence Ave. Restriped with bike lanes and northbound buffer in 2016 	Segment Status <ul style="list-style-type: none"> Restriped with buffered bike lanes in 2016. Bike-ped/shortcut to Rte 1 southbound with clear crossings Sidewalk on West side to A Perfect Smile 	Segment Status <ul style="list-style-type: none"> Shared use path with esplanade and lighting on West side Landscaped islands alternating with center turn lanes Striped shoulders Work completed in 2016 	Segment Status <ul style="list-style-type: none"> Shared use path with esplanade and lighting on both sides Landscaped islands alternating with center turn lanes Striped shoulders Work completed in 2016 	Segment Status <ul style="list-style-type: none"> Sidewalk on West side to Norway Savings Bank Wide shoulders Highway-like character Study to remove interchange, encourage development and change roadway is in progress 	Segment Status <ul style="list-style-type: none"> Two-lane highway with wide shoulders Norton Brook runs along East side Areas of steep slopes and possible wetlands 	Segment Status <ul style="list-style-type: none"> Two-lane highway with wide shoulders Norton Brook runs along East side
Recommendations <ul style="list-style-type: none"> Maintain recent improvements 	Recommendations <ul style="list-style-type: none"> Maintain recent improvements 	Recommendations <ul style="list-style-type: none"> Long term: Replace with roundabout Short term: Work on improving pedestrian character 	Recommendations <ul style="list-style-type: none"> Maintain recent improvements Consider enhancing signage and markings for bicyclists on the path 	Recommendations <ul style="list-style-type: none"> Maintain recent improvements Consider enhancing signage and markings for bicyclists on the path 	Recommendations <ul style="list-style-type: none"> Implement recommendations of Maine Turnpike Spur redevelopment study Construct shared use path (SUP) on East side 	Recommendations <ul style="list-style-type: none"> Install sidewalk on West side of Route 1 to Johnson Rd Construct SUP on East side Possibly re-stripe as three lane section with narrower shoulders and landscaped center islands alternating with left turn pockets Possible crosswalk near Northbrook Drive 	Recommendations <ul style="list-style-type: none"> Construct sidewalk on the south side of Johnson Rd to Middle Rd Provide left turn lanes and crosswalks on Route 1 at Johnson Rd Construct shared use path on West side of Route 1 Re-stripe as three lane section with narrower shoulders to Cumberland

IDENTIFY ISSUES AND OPPORTUNITIES

Route 1 - Route 88 intersection

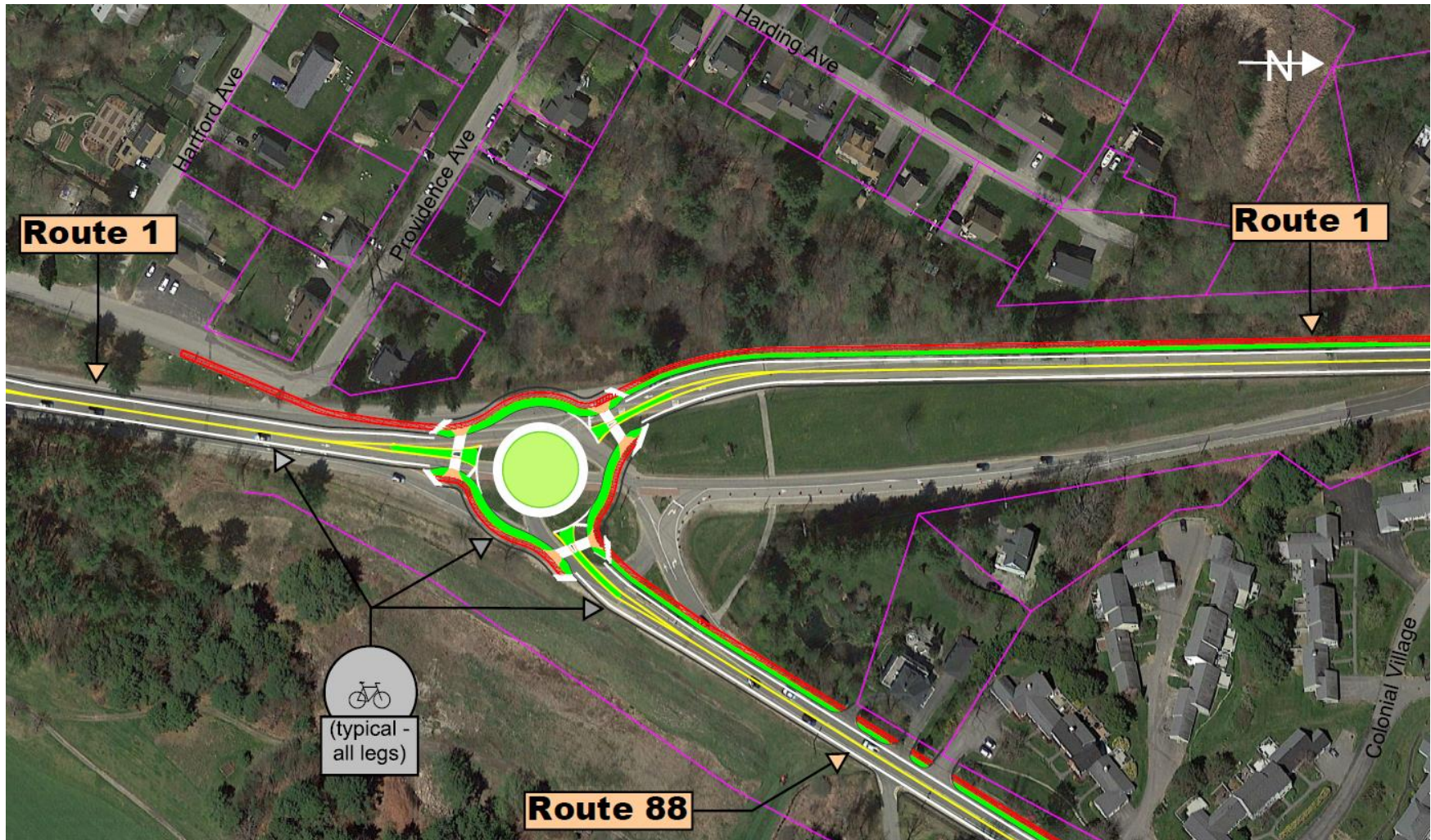
- Issue 1: The intersection configuration is confusing and designed for high speed movements and automobile focused.
Opportunity: Reconfigure intersection to a roundabout.
- Issue 2: Bicycle and pedestrian safety.
Opportunity: Reconfigure intersection for enhanced safety.
- Issue 3: Lack of landing pad and bus stop amenities.
Opportunity: Construct landing pad.
- Issue 4: Route 88 intersection has several issues including: crosswalk behind bus stop; no bus stop amenities; and the sidewalk width is too narrow to accommodate an ADA compliant 8-foot landing.
Opportunity: Consider bus stop enhancements.

Alternative Development Options for Route 1 - Route 88 intersection

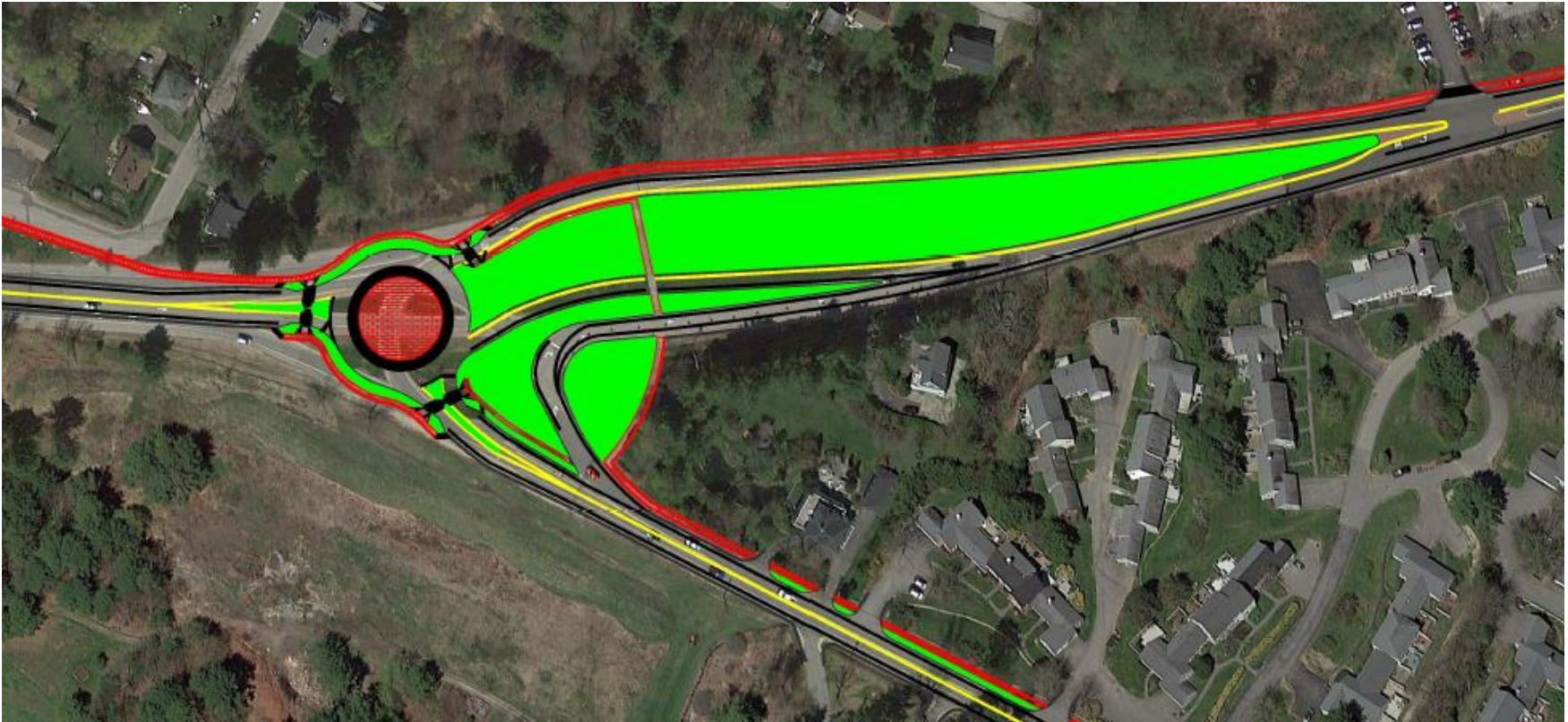
An evaluation of a roundabout at the Route 1 and Route 88 intersection was investigated. Based upon future 2030 traffic volumes a single lane roundabout will operate at an acceptable level of service.

Two roundabout layout configurations were investigated.

Alternative 1 illustrates a roundabout that will require reconstruction of Route 1 north of the intersection. The primary benefit of this alternative is the creation of a 2-acre parcel of land on the northeast corner of the intersection that could be used as a development parcel or as open space.



Alternative 2 attempts to maintain the separate Route 1 northbound and southbound one-way roadway pavement areas and thus reduces construction costs. A developable parcel would not be created with this concept.



Recommended Concept: Alternative 1

Based upon the benefit of creating a development parcel Alternative 1 is recommended. This would add additional construction cost, but would allow the Town to recoup the cost via the creation of a developable land parcel.

Pedestrian and Bicycle

The roundabout would be designed to provide separated bicycle/pedestrian paths that would allow users to avoid circulating through the roundabout with vehicular traffic.

Transit

The proposed roundabout would incorporate bus stops and safe pedestrian facilities. Short-term improvements shall consider enhancing stops to be fully ADA compliant. Coordination with METRO to determine the best location for stops and amenities is recommended.

Cost Estimates

Planning Level Cost Estimate Route 88 Recommendations (Alternative 1) in Falmouth	
Improvement	Approximate Cost
Route 88 Roundabout	\$ 1,100,000
Mobilization and MOT (10%)	\$ 110,000
Contingency (20%)	\$ 220,000
Construction Total	\$ 1,430,000
Design Cost (10%)	\$ 143,000
Construction Engineering (8%)	\$ 114,400
Total Cost	\$ 1,687,400

Planning Level Cost Estimate Route 88 Recommendations (Alternative 2) in Falmouth	
Improvement	Approximate Cost
Route 88 Roundabout	\$615,000
Mobilization and MOT (10%)	\$ 61,500
Contingency (20%)	\$123,000
Construction Total	\$799,500
Design Cost (10%)	\$ 79,950
Construction Engineering (8%)	\$ 63,960
Total Cost	\$ 943,410