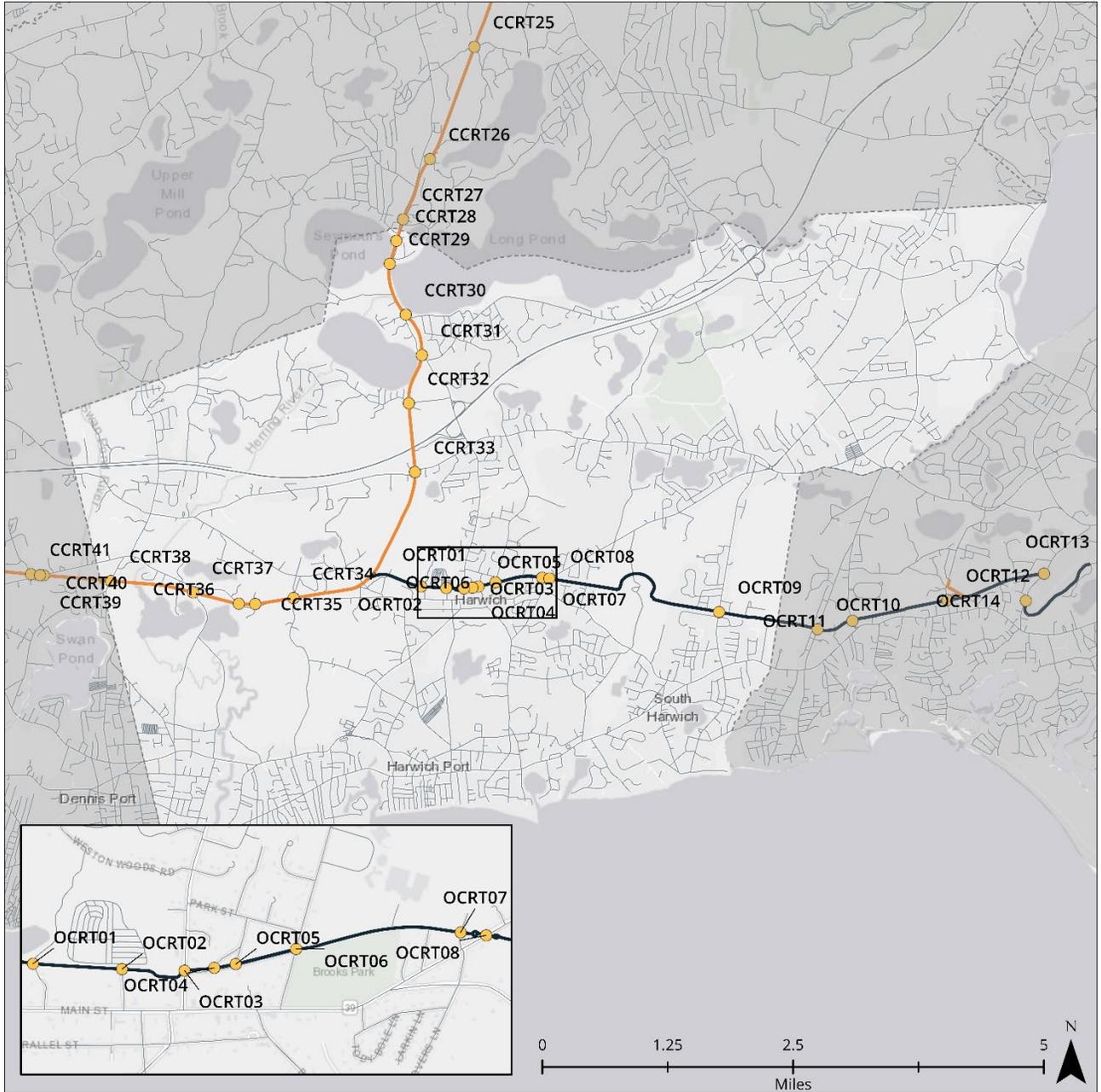


# HARWICH



**Cape Cod Rail Trail #28 (Pleasant Lake Avenue at Access Road to Town Beach)**

**CRASH HISTORY SURROUNDING THE CROSSING**

No crash history around the crossing.

**PLEASANT LAKE AVENUE AY ACCESS ROAD TO TOWN BEACH, ROAD SAFETY FEATURES**

Dir.	Advance Warning Signs	Bike Trail Crossing Signs	Advance Pavement Markings	Control Type	Shark Teeth Yield Markings	Crosswalk Markings	Median Between Crosswalk	Additional Safety Features	Visibility of Bike Trail	Grade	Posted Speed Limit	Avg. Lane and Shoulder Width
EB	None	Good	None	None	None	Poor	No	None	Good	None	None	14'/none (one lane)
WB	None	Good	None	None	None	Poor	No	None	Good	None	None	14'/none (one lane)

**CAPE COD RAIL TRAIL BIKEWAY SAFETY FEATURES**

Dir.	Control Type	Condition of Signage	Pavement Markings	Advance Warning Signs	Sight Distance	Width at Intersection	Median Approaching Intersection	Other Features	Crossing Distance	Crosswalk Style	Crosswalk Width	Tactile Warning Plates
NB	None	None	Poor	Yes	Good	10'	No	None	20'	Standard	10'	None
SB	None	None	Poor	Yes	Good	10'	No	None	20'	Standard	10'	None

**IMAGES**

*Figure 133: View of Trail Crossing at Access Road*



*Figure 134: Road Crossing Warning Sign (from Trail)*



### Cape Cod Rail Trail #29 (Pleasant Lake Avenue #1 / Between Seymour’s Pond and Long Pond)

#### CRASH HISTORY SURROUNDING THE CROSSING

No crash history around the crossing.

#### PLEASANT LAKE AVENUE ROAD SAFETY FEATURES

Dir.	Advance Warning Signs	Bike Trail Crossing Signs	Advance Pavement Markings	Control Type	Shark Teeth Yield Markings	Crosswalk Markings	Median Between Crosswalk	Additional Safety Features	Visibility of Bike Trail	Grade	Posted Speed Limit	Avg. Lane and Shoulder Width
WB (SB at loc.)	Good	Good*	Poor	None	None	Fair	No	RRFB, State Law Stop Sign	Good	None	None	10'/1'
EB (NB at loc.)	Good	Good*	Poor	None	None	Fair	No	RRFB	Fair	None	None	11'/1'

\* Green, wayfinding signage present on both approaches

\*\* WB State Law Stop Sign attached to Advance Warning Signs

#### CAPE COD RAIL TRAIL BIKEWAY SAFETY FEATURES

Dir.	Control Type	Condition of Signage	Pavement Markings	Advance Warning Signs	Sight Distance	Width at Intersection	Median Approaching Intersection	Other Features	Crossing Distance	Crosswalk Style	Crosswalk Width	Tactile Warning Plates
NB	Stop	Good	Poor	Yes	Good	16'	Yes	RRFB (motion)	28'	Ladder	20'	None
SB	Stop	Good	Poor	Yes	Good	16'	Yes	RRFB (motion)	28'	Ladder	20'	None

**IMAGES**

*Figure 135: View of Trail Crossing Looking Southward Showing State Law Stop at Crosswalk Sign, the Bike Trail Crossing Sign, and the RRFB*



*Figure 136: Trail Crossing with Zebra Crosswalk and Lane Splitters*



### Cape Cod Rail Trail #30 (Sequatton Road)

#### CRASH HISTORY SURROUNDING THE CROSSING

Crash Date	Crash Time	Crash Severity	Non-Motorist Action (All Persons)	Light Conditions	Weather Conditions
3/5/2015	9:07 AM	Property damage only (none injured)	None	Daylight	Snow
12/17/2016	7:00 AM	Non-fatal injury	None	Daylight	Snow/Sleet, hail (freezing rain or drizzle)

#### SEQUATTOM ROAD, ROAD SAFETY FEATURES

Dir.	Advance Warning Signs	Bike Trail Crossing Signs	Advance Pavement Markings	Control Type	Shark Teeth Yield Markings	Crosswalk Markings	Median Between Crosswalk	Additional Safety Features	Visibility of Bike Trail	Grade	Posted Speed Limit	Avg. Lane and Shoulder Width
EB	None	Poor*	None	None	None	Fair	Yes	None	Fair	None	None	14'/none (one lane)
WB	Fair	None**	None	None	None	Fair	No	None	Fair	None	None	16'/none (one lane)

\* Green, wayfinding signage as well.

\*\* Green, wayfinding signage only

#### CAPE COD RAIL TRAIL BIKEWAY SAFETY FEATURES

Dir.	Control Type	Condition of Signage	Pavement Markings	Advance Warning Signs	Sight Distance	Width at Intersection	Median Approaching Intersection	Other Features	Crossing Distance	Crosswalk Style	Crosswalk Width	Tactile Warning Plates
NB	Stop	Good	Poor	Yes	Good	15'	Yes	None	11'	Ladder	15'	None
SB	Stop	Good	Poor	Yes	Good	15'	Yes	None	11'	Ladder	15'	None

**IMAGES**

Figure 137: View of Trail Crossing at Sequattom Road (Looking West)



Figure 138: Bike Trail Crossing Signage at Trail Crossing (Looking East)



**Cape Cod Rail trail #31 (Pleasant Lake Avenue #2 / Adjacent to Hinckley’s Pond)**

**CRASH HISTORY SURROUNDING THE CROSSING**

Crash Date	Crash Time	Crash Severity	Non-Motorist Action (All Persons)	Light Conditions	Weather Conditions
3/10/2017	9:35 PM	Property damage only (none injured)	None	Dark - roadway not lighted	Snow/Sleet, hail (freezing rain or drizzle)
6/27/2019	10:52 AM	Property damage only (none injured)	None	Daylight	Clear

**PLEASANT LAKE AVENUE ROAD SAFETY FEATURES**

Dir.	Advance Warning Signs	Bike Trail Crossing Signs	Advance Pavement Markings	Control Type	Shark Teeth Yield Markings	Crosswalk Markings	Median Between Crosswalk	Additional Safety Features	Visibility of Bike Trail	Grade	Posted Speed Limit	Avg. Lane and Shoulder Width
NB	Good	Good**	Poor	None	None	Fair	No	RRFB; State Law Stop Sign (attached to Advance Warning Sign)	Good	None	None	12’/2’
SB	Good*	Good**	Poor	None	None	Fair	No	RRFB and advanced roadway flashing system	Fair	Slight Down hill	None	11’/1’

								(Advance RRFB)				
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\* SB, there is an Advance RRFB that flashes when pedestrians/bicyclists are crossing. This is in addition to the Advance Warning Sign.

\*\* \* Green, wayfinding signage as well.

**CAPE COD RAIL TRAIL BIKEWAY SAFETY FEATURES**

Dir.	Control Type	Condition of Signage	Pavement Markings	Advance Warning Signs	Sight Distance	Width at Intersection	Median Approaching Intersection	Other Features	Crossing Distance	Crosswalk Style	Crosswalk Width	Tactile Warning Plates
EB	Stop	Good	Poor	Yes	Good	16'	Yes	RRFB (motion)	28'	Ladder	13'	None
WB	Stop	Good	Poor	Yes	Good	16'	Yes	RRFB (motion)	28'	Ladder	13'	None

**IMAGES**

*Figure 139: Ladder Crosswalk and RRFBs Promote Safe Crossings*



*Figure 140: Advance RRFB is Combined with Advance Bike Trail Crossing Signage*



### Cape Cod Rail Trail #32 (Headwaters Drive)

#### CRASH HISTORY SURROUNDING THE CROSSING

Crash Date	Crash Time	Crash Severity	Non-Motorist Action (All Persons)	Light Conditions	Weather Conditions
8/26/2017	10:57 AM	Property damage only (none injured)	None	Daylight	Clear
8/23/2018	4:50 PM	Non-fatal injury	P2: Cyclist	Daylight	Clear

#### HEADWATERS DRIVE ROAD SAFETY FEATURES

Dir.	Advance Warning Signs	Bike Trail Crossing Signs	Advance Pavement Markings	Control Type	Shark Teeth Yield Markings	Crosswalk Markings	Median Between Crosswalk	Additional Safety Features	Visibility of Bike Trail	Grade	Posted Speed Limit	Avg. Lane and Shoulder Width
WB	Fair	Good*	Poor	None	None	Poor	No	None	Good	None	25	11'/1'
EB	Good	Good*	Poor	None	None	Poor	No	None	Fair	Slight Down hill	None	11'/2'

\* Green, wayfinding signage as well.

#### CAPE COD RAIL TRAIL BIKEWAY SAFETY FEATURES

Dir.	Control Type	Condition of Signage	Pavement Markings	Advance Warning Signs	Sight Distance	Width at Intersection	Median Approaching Intersection	Other Features	Crossing Distance	Crosswalk Style	Crosswalk Width	Tactile Warning Plates
NB	Stop	Good	Poor	Yes	Good	12'	Yes	None	40'	Ladder	13'	None

SB	Stop	Good	Poor	Yes	Good	12'	Yes	None	40'	Ladder	13'	None
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**IMAGES**

*Figure 141: Signage Helps Improve Motorists' Visibility Around a Turn (Facing Westbound)*



*Figure 142: View of Trail Crossing at Headwaters Drive*



### Cape Cod Rail Trail #33 (Queen Anne Road)

#### CRASH HISTORY SURROUNDING THE CROSSING

Crash Date	Crash Time	Crash Severity	Non-Motorist Action (All Persons)	Light Conditions	Weather Conditions
1/29/2015	2:29 PM	Property damage only (none injured)	None	Daylight	Clear
1/31/2015	6:34 AM	Property damage only (none injured)	None	Dark - lighted roadway	Snow
11/7/2015	7:59 PM	Property damage only (none injured)	None	Dark - roadway not lighted	Clear
2/5/2016	2:30 PM	Property damage only (none injured)	None	Daylight	Cloudy/Snow
8/7/2019	11:58 AM	Non-fatal injury	None	Daylight	Clear
1/29/2015	2:29 PM	Property damage only (none injured)	None	Daylight	Clear
1/31/2015	6:34 AM	Property damage only (none injured)	None	Dark - lighted roadway	Snow

#### QUEEN ANNE ROAD, ROAD SAFETY FEATURES

Dir.	Advance Warning Signs	Bike Trail Crossing Signs	Advance Pavement Markings	Control Type	Shark Teeth Yield Markings	Crosswalk Markings	Median Between Crosswalk	Additional Safety Features	Visibility of Bike Trail	Grade	Posted Speed Limit	Avg. Lane and Shoulder Width
EB	Good*	Good**	None	None	None	Fair	No	RRFB and advanced roadway flashing signs**	Good	None	None	12'/2'
WB	Good*	Good	None	None	None	Fair	No	RRFB and advanced	Good	None	None	12'/2'

								roadway flashing signs**				
--	--	--	--	--	--	--	--	--------------------------	--	--	--	--

\* The Advanced Warning Signs take the form of Advance RRFBs that flash when pedestrians/bicyclists are crossing.

\*\* Green, wayfinding signage additionally for EB traffic. WB traffic lacks wayfinding signage.

**CAPE COD RAIL TRAIL BIKEWAY SAFETY FEATURES**

Dir.	Control Type	Condition of Signage	Pavement Markings	Advance Warning Signs	Sight Distance	Width at Intersection	Median Approaching Intersection	Other Features	Crossing Distance	Crosswalk Style	Crosswalk Width	Tactile Warning Plates
SB	Stop*	Good	Poor	Yes	Good	14'	Yes	RRFB (motion); flashing signals for path users	26'	Ladder	15'	None
NB	Stop	Good	Fair	Yes	Fair	14'	Yes	RRFB (motion); flashing signals for path users	26'	Ladder	15'	None

\* STOP signs have a flashing beacon attached to them on both approaches

**IMAGES**

*Figure 143: View of Trail-Facing Flashing Red Light*



*Figure 144: RRFB Improves Yield Compliance Among Motorists*



### Cape Cod Rail Trail #34 (Lothrop Avenue)

#### CRASH HISTORY SURROUNDING THE CROSSING

Crash Date	Crash Time	Crash Severity	Non-Motorist Action (All Persons)	Light Conditions	Weather Conditions
6/30/2015	8:35 PM	Property damage only (none injured)	None	Dark - roadway not lighted	Clear
8/20/2015	6:04 PM	Property damage only (none injured)	None	Daylight	Clear
2/19/2016	8:12 AM	Non-fatal injury	None	Daylight	Clear
4/22/2016	1:25 PM	Property damage only (none injured)	None	Daylight	Cloudy
11/3/2017	1:00 PM	Property damage only (none injured)	None	Daylight	Clear
9/27/2018	12:19 PM	Property damage only (none injured)	None	Daylight	Clear
11/5/2018	2:08 PM	Property damage only (none injured)	None	Daylight	Cloudy
2/13/2019	11:14 AM	Property damage only (none injured)	None	Daylight	Cloudy

#### LOTHROP AVENUE SAFETY FEATURES

Dir.	Advance Warning Signs	Bike Trail Crossing Signs	Advance Pavement Markings	Control Type	Shark Teeth Yield Markings	Crosswalk Markings	Median Between Crosswalk	Additional Safety Features	Visibility of Bike Trail	Grade	Posted Speed Limit	Avg. Lane and Shoulder Width
SB	Good	Good**	None	None	None	Fair	No	None	Good	Slight Down hill	None	9'/1'
NB	Good*	Good	None	None	None	Fair	No	Stop at intersection	Poor	Slight Down hill	None	11'/1'

								before crosswalk				
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\* Advance Warning Sign for NB traffic lacks words. It is also located in advance of a STOP sign and a road crossing.

\*\* Green, wayfinding signage as well for SB traffic. NB traffic lacks wayfinding signage.

**CAPE COD RAIL TRAIL BIKEWAY SAFETY FEATURES**

Dir.	Control Type	Condition of Signage	Pavement Markings	Advance Warning Signs	Sight Distance	Width at Intersection	Median Approaching Intersection	Other Features	Crossing Distance	Crosswalk Style	Crosswalk Width	Tactile Warning Plates
W B	Stop	Good	Poor	No	Good	17'	Yes	None	23'	Ladder	11'	None
EB	Stop	Good	None	No	Good	14'	Yes	None	23'	Ladder	11'	None

**EXTRA NOTES**

Recommend changing intersection from a 2 way stop to a four way stop.

**IMAGES**

Figure 145: View of Crossing at Lothrop Avenue (see Ladder Crossing)



Figure 146: Path Approach to Lothrop Avenue



### Cape Cod Rail Trail #35 (Private Road Near Cranberry Bog)

#### CRASH HISTORY SURROUNDING THE CROSSING

No crash history around the crossing.

#### ROAD SAFETY FEATURES AT PRIVATE ROAD

Dir.	Advance Warning Signs	Bike Trail Crossing Signs	Advance Pavement Markings	Control Type	Shark Teeth Yield Markings	Crosswalk Markings	Median Between Crosswalk	Additional Safety Features	Visibility of Bike Trail	Grade	Posted Speed Limit	Avg. Lane and Shoulder Width
NB	None	None	None	Stop	None	Poor	No	None	Good	Slight Downhill	None	7'/none
SB	None	None	None	Stop	None	Poor	No	None	Fair	Slight Uphill	None	6'/none

#### CAPE COD RAIL TRAIL BIKEWAY SAFETY FEATURES

Dir.	Control Type	Condition of Signage	Pavement Markings	Advance Warning Signs	Sight Distance	Width at Intersection	Median Approaching Intersection	Other Features	Crossing Distance	Crosswalk Style	Crosswalk Width	Tactile Warning Plates
W B	None	None	Poor	No	Good	10'	No	Crossing sign warning	22'	Standard	11'	None
EB	None	None	Poor	No	Good	10'	No	Crossing sign warning	22'	Standard	11'	None

#### EXTRA NOTES

Private Driveway of Cranberry Bog

**IMAGES**

*Figure 147: A Crossing Sign & Faded Pavement Markings in Advance of Crossing*



*Figure 148: Perpendicular Road Approaches are STOP controlled*



### Cape Cod Rail Trail #36 (Great Western Road / East of East Reservoir)

#### CRASH HISTORY SURROUNDING THE CROSSING

Crash Date	Crash Time	Crash Severity	Non-Motorist Action (All Persons)	Light Conditions	Weather Conditions
8/16/2018	7:03 PM	Property damage only (none injured)	None	Daylight	Clear
10/20/2019	6:00 PM	Property damage only (none injured)	None	Dusk	Clear

#### GREAT WESTERN ROAD, ROAD SAFETY FEATURES

Dir.	Advance Warning Signs	Bike Trail Crossing Signs	Advance Pavement Markings	Control Type	Shark Teeth Yield Markings	Crosswalk Markings	Median Between Crosswalk	Additional Safety Features	Visibility of Bike Trail	Grade	Posted Speed Limit	Avg. Lane and Shoulder Width
NB	Good	Fair*	None	None	None	Fair	No	RRFB (motion) at intersection; ** Advanced RRFB.	Fair	Down hill	None	10'/2'
SB	Good	Fair*	None	None	None	Fair	No	RRFB (motion) at intersection.	Fair	Slight Uphill	None	10'/1'

\*Green, wayfinding signage additionally

\*\* Associated with that RRFB, there is an Advance RRFB ~100' south of intersection as cars go around turn. SB Advance Warning Signs are traditional (not blinking).

**CAPE COD RAIL TRAIL BIKEWAY SAFETY FEATURES**

Dir.	Control Type	Condition of Signage	Pavement Markings	Advance Warning Signs	Sight Distance	Width at Intersection	Median Approaching Intersection	Other Features	Crossing Distance	Crosswalk Style	Crosswalk Width	Tactile Warning Plates
EB	Stop	Good	Poor	Yes*	Good	16'	Yes	RRFB (motion)	34'	Ladder	17'	None
W B	Stop	Good	Poor	No	Good	17'	Yes	RRFB (motion)	34'	Ladder	17'	None

\* Signage is generally in good condition, but the Advance Warning Signs for eastbound bicyclists is quite cracked.

**EXTRA NOTES**

Cars move fast through this intersection. It is on a corner and appears somewhat dangerous.

**IMAGES**

Figure 149: Zebra Crosswalk and Splitters Provide Visibility



Figure 150: Parking Observed Immediately South of Intersection



*Figure 151: Cracked Sign Facing Eastbound Bicyclists*



### Cape Cod Rail Trail #37 (Bells Neck Road)

#### CRASH HISTORY SURROUNDING THE CROSSING

No crash history around the crossing.

#### BELLS NECK ROAD, ROAD SAFETY FEATURES

Dir.	Advance Warning Signs	Bike Trail Crossing Signs	Advance Pavement Markings	Control Type	Shark Teeth Yield Markings	Crosswalk Markings	Median Between Crosswalk	Additional Safety Features	Visibility of Bike Trail	Grade	Posted Speed Limit	Avg. Lane and Shoulder Width
NB	Good	Good*	None	None	None	Poor	No	None	Good	Slight Downhill	None	19'/none (two lane dirt road)
SB	Fair	Good*	None	None	None	None	No	None	Good	Slight Downhill	None	18'/none (two lane dirt road)

\*Green, wayfinding signage additionally.

On the SB approach, Bike Trail Crossing sign is in good condition, but slightly covered by vegetation.

#### CAPE COD RAIL TRAIL BIKEWAY SAFETY FEATURES

Dir.	Control Type	Condition of Signage	Pavement Markings	Advance Warning Signs	Sight Distance	Width at Intersection	Median Approaching Intersection	Other Features	Crossing Distance	Crosswalk Style	Crosswalk Width	Tactile Warning Plates
EB	Stop	Good	None	No	Good	17'	Yes	None	36'	Ladder	20'	None
W B	Stop	Good	Fair	No	Good	19'	Yes	None	39'	Ladder	19'	None

#### EXTRA NOTES

There is debris in the road.

**IMAGES**

*Figure 152: Southbound Intersection Approach Showing Wayfinding Signage, Bike Trail Crossing Sign, and Ladder Crosswalk*



*Figure 153: Faded Pavement Markings and Debris in Road at the Crossing*



### Cape Cod Rail Trail #38 (Depot Street)

#### CRASH HISTORY SURROUNDING THE CROSSING

Crash Date	Crash Time	Crash Severity	Non-Motorist Action (All Persons)	Light Conditions	Weather Conditions
7/17/2018	11:22 AM	Non-fatal injury	P3: Cyclist	Daylight	Cloudy
5/30/2019	12:16 PM	Property damage only (none injured)	None	Daylight	Clear

#### DEPOT STREET ROAD SAFETY FEATURES

Dir.	Advance Warning Signs	Bike Trail Crossing Signs	Advance Pavement Markings	Control Type	Shark Teeth Yield Markings	Crosswalk Markings	Median Between Crosswalk	Additional Safety Features	Visibility of Bike Trail	Grade	Posted Speed Limit	Avg. Lane and Shoulder Width
SB	Fair	Good*	None	None	None	Fair	No	None	Good	Slight Uphill	None	10'/1'
NB	Good	None**	None	None	None	Fair	No	None	Fair	None	None	9'/2'

\*Green wayfinding signs as well

\*\* Green, wayfinding signs only

#### CAPE COD RAIL TRAIL BIKEWAY SAFETY FEATURES

Dir.	Control Type	Condition of Signage	Pavement Markings	Advance Warning Signs	Sight Distance	Width at Intersection	Median Approaching Intersection	Other Features	Crossing Distance	Crosswalk Style	Crosswalk Width	Tactile Warning Plates
W B	Stop sign	Good	Poor	Yes	Fair	13'	Yes	Info. Station, access to	23'	Ladder	13'	None

Harwich – Cape Cod Rail Trail and Cape Cod Rail Trail, Harwich to Chatham Extension / Old Colony Rail Trail

								parking, space to pull off				
EB	Stop sign	Good	Poor	Yes	Fair	13'	Yes	Info. Station, Access to parking, space to pull off	23'	Ladder	13'	None

**IMAGES**

*Figure 154: Southbound Intersection Approach Showing Wayfinding Signage, Bike Trail Crossing Sign, and Ladder Crosswalk*



*Figure 155: Westbound View of Rail Trail, Showing Slightly Faded Ladder Markings*



Harwich – Cape Cod Rail Trail and Cape Cod Rail Trail, Harwich to Chatham Extension / Old Colony Rail Trail

## **Cape Cod Rail Trail – Harwich to Chatham Extension / Old Colony Rail Trail # 1 (Uncle Harry's Road)**

### **CRASH HISTORY SURROUNDING THE CROSSING**

No crash history around the crossing.

Uncle Harry's Road is characterized by low-volume driveways (not roads). Consequently, charts are not shown below.

### **EXTRA NOTES**

Lightly populated; private driveway (barely a crossing). In fact, the road appears unpaved and blocked by objects, such as boats.

**IMAGES**

*Figure 156: View of Trail Crossing at Uncle Harry's Road (Taken from Road Approach)*



**Cape Cod Rail Trail – Harwich to Chatham Extension / Old Colony Rail Trail #2 (Island Pond Road)**

**CRASH HISTORY SURROUNDING THE CROSSING**

No crash history around the crossing.

**ISLAND POND ROAD, ROAD SAFETY FEATURES**

Dir.	Advance Warning Signs	Bike Trail Crossing Signs	Advance Pavement Markings	Control Type	Shark Teeth Yield Markings	Crosswalk Markings	Median Between Crosswalk	Additional Safety Features	Visibility of Bike Trail	Grade	Posted Speed Limit	Avg. Lane and Shoulder Width
NB	Good	None*	None	None	None	None	No	None	Good	None	None	9'/none
SB	None	None*	None	None	None	None	No	None	Fair	Slight Down hill	None	10'/none

\* Unsure if there are green wayfinding signs as well

**CAPE COD RAIL TRAIL – HARWICH TO CHATHAM EXTENSION / OLD COLONY RAIL TRAIL BIKEWAY SAFETY FEATURES**

Dir.	Control Type	Condition of Signage	Pavement Markings	Advance Warning Signs	Sight Distance	Width at Intersection	Median Approaching Intersection	Other Features	Crossing Distance	Crosswalk Style	Crosswalk Width	Tactile Warning Plates
EB	Stop	Good	Fair	No	Good	11'	No	None	26'	None	10'	None
WB	Stop	Good	Fair	No	Good	11'	No	None	26'	None	10'	None

**IMAGES**

*Figure 157: View of Trail Crossing at Island Pond Road. Note the Lack of Signage and Lack of Crosswalk*



*Figure 158: Road Crossing is STOP Controlled*



**Cape Cod Rail Trail – Harwich to Chatham Extension / Old Colony Rail Trail #3 Pleasant Lake Avenue (Adjacent to Island Pond Cemetery)**

**CRASH HISTORY SURROUNDING THE CROSSING**

Crash Date	Crash Time	Crash Severity	Non-Motorist Action (All Persons)	Light Conditions	Weather Conditions
1/6/2017	7:31 AM	Property damage only (none injured)	None	Daylight	Snow

**PLEASANT LAKE AVENUE ROAD SAFETY FEATURES**

Dir.	Advance Warning Signs	Bike Trail Crossing Signs	Advance Pavement Markings	Control Type	Shark Teeth Yield Markings	Crosswalk Markings	Median Between Crosswalk	Additional Safety Features	Visibility of Bike Trail	Grade	Posted Speed Limit	Avg. Lane and Shoulder Width
NB	Fair	Good*	None	None	None	Fair	No	None	Fair	None	None	11’/1’
SB	Good	Good*	None	None	None	Fair	No	None	Fair	None	None	11’/1’

\* Green, wayfinding signage attached to Bike Trail Crossing signs at crossings

**CAPE COD RAIL TRAIL – HARWICH TO CHATHAM EXTENSION / OLD COLONY RAIL TRAIL BIKEWAY SAFETY FEATURES**

Dir.	Control Type	Condition of Signage	Pavement Markings	Advance Warning Signs	Sight Distance	Width at Intersection	Median Approaching Intersection	Other Features	Crossing Distance	Crosswalk Style	Crosswalk Width	Tactile Warning Plates
EB	Stop	Fair	Fair	Yes	Fair	11’	No	None	38’	Ladder	12’	None
WB	Stop	Good	Fair	No	Good	11’	No	None	38’	Ladder	12’	None

**IMAGES**

*Figure 159: Bike Trail Crossing Signs and Ladder Crosswalks Help Improve Intersection Visibility*



*Figure 160: Trail Crossing is STOP Controlled*



### Cape Cod Rail Trail – Harwich to Chatham Extension / Old Colony Rail Trail #4 (Woodbine Lane)

#### CRASH HISTORY SURROUNDING THE CROSSING

No crash history around the crossing.

#### WOODBINE LANE ROAD SAFETY FEATURES

Dir.	Advance Warning Signs	Bike Trail Crossing Signs	Advance Pavement Markings	Control Type	Shark Teeth Yield Markings	Crosswalk Markings	Median Between Crosswalk	Additional Safety Features	Visibility of Bike Trail	Grade	Posted Speed Limit	Avg. Lane and Shoulder Width
NB	None (it is a T-intersection) *	None (it is a T-intersection) *	None	None	None	Fair	No	None	Fair	None	None	14'/none
SB	Good	None	None	Stop	None	Fair	No	None	Good	Slight Uphill	None	9'/none

\* Traffic is eastbound and westbound most of the way (traffic running parallel to the sidepath). However, when crossing path, cars are considered NB traffic.

#### CAPE COD RAIL TRAIL – HARWICH TO CHATHAM EXTENSION / OLD COLONY RAIL TRAIL BIKEWAY SAFETY FEATURES

Dir.	Control Type	Condition of Signage	Pavement Markings	Advance Warning Signs	Sight Distance	Width at Intersection	Median Approaching Intersection	Other Features	Crossing Distance	Crosswalk Style	Crosswalk Width	Tactile Warning Plates
WB	Stop	Fair	Poor	No	Good	12'	No	None	13'	Standard	10'	None
EB	Stop	Good	None	No	Good	15'	No	None	17'	Standard	12'	None

**IMAGES**

*Figure 161: Bike Trail Crossing is Fairly Visible Though it Lacks Many High-Visibility Crossing Features (Note Only a Wayfinding Bike Trail Crossing Sign is Present)*



*Figure 162: Trail Users Have STOP Control and a Bollard*



### Cape Cod Rail Trail – Harwich to Chatham Extension / Old Colony Rail Trail #5 (Meadow Lane)

#### CRASH HISTORY SURROUNDING THE CROSSING

Crash Date	Crash Time	Crash Severity	Non-Motorist Action (All Persons)	Light Conditions	Weather Conditions
1/9/2018	11:35 AM	Property damage only (none injured)	None	Daylight	Clear

#### MEADOW LANE ROAD SAFETY FEATURES

Dir.	Advance Warning Signs	Bike Trail Crossing Signs	Advance Pavement Markings	Control Type	Shark Teeth Yield Markings	Crosswalk Markings	Median Between Crosswalk	Additional Safety Features	Visibility of Bike Trail	Grade	Posted Speed Limit	Avg. Lane and Shoulder Width
NB	None (it is a T-intersection) *	None (it is a T-intersection) *	None	None	None	Fair	Yes	None	Fair	Slight Down hill	None	17'/none
SB	Good	None	None	Stop	None	Fair	Yes	None	Good	None	None	9'/none

\* Traffic is eastbound and westbound most of the way (traffic running parallel to the sidepath). However, when crossing path, cars are considered NB traffic.

#### CAPE COD RAIL TRAIL – HARWICH TO CHATHAM EXTENSION / OLD COLONY RAIL TRAIL BIKEWAY SAFETY FEATURES

Dir.	Control Type	Condition of Signage	Pavement Markings	Advance Warning Signs	Sight Distance	Width at Intersection	Median Approaching Intersection	Other Features	Crossing Distance	Crosswalk Style	Crosswalk Width	Tactile Warning Plates
W B	Stop	Fair	Poor	No	Good	12'	No	None	13'	Standard	10'	None

EB	Stop	Good	None	No	Good	15'	No	None	17'	Standard	12'	None
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**IMAGES**

*Figure 163: Approach View from Road (Looking Northward)*



*Figure 164: Path Approach*



**Cape Cod Rail Trail – Harwich to Chatham Extension / Old Colony Rail Trail #6 (Oak Street)**

**CRASH HISTORY SURROUNDING THE CROSSING**

Crash Date	Crash Time	Crash Severity	Non-Motorist Action (All Persons)	Light Conditions	Weather Conditions
3/7/2015	6:29 PM	Non-fatal injury	None	Dark - lighted roadway	Clear

**OAK STREET ROAD SAFETY FEATURES**

Dir.	Advance Warning Signs	Bike Trail Crossing Signs	Advance Pavement Markings	Control Type	Shark Teeth Yield Markings	Crosswalk Markings	Median Between Crosswalk	Additional Safety Features	Visibility of Bike Trail	Grade	Posted Speed Limit	Avg. Lane and Shoulder Width
NB	Good	Good*	None	None	None	Fair	Yes	None	Fair	Slight Down hill	None	17'/none
SB	Good	Good*	None	Stop	None	Fair	Yes	None	Good	None	None	9'/none

\* Green, wayfinding signage as well.

**CAPE COD RAIL TRAIL – HARWICH TO CHATHAM EXTENSION / OLD COLONY RAIL TRAIL BIKEWAY SAFETY FEATURES**

Dir.	Control Type	Condition of Signage	Pavement Markings	Advance Warning Signs	Sight Distance	Width at Intersection	Median Approaching Intersection	Other Features	Crossing Distance	Crosswalk Style	Crosswalk Width	Tactile Warning Plates
EB	Stop	Good	Fair	No	Good	13'	No	None	27'	Ladder	11'	None
WB	Stop	Good	Fair	No	Good	13'	No	None	27'	Ladder	11'	None

**IMAGES**

*Figure 165: Advance Bike Trail Crossing Signs (Northbound Approach)*



*Figure 166: Trail Users Have STOP Control on Both Approaches*



**Cape Cod Rail Trail – Harwich to Chatham Extension / Old Colony Rail Trail #7 (Colby’s Road / Lover’s Lane Extension)**

**CRASH HISTORY SURROUNDING THE CROSSING**

No crash history around the crossing.

**COLBY’S ROAD / LOVER’S LANE EXTENSION ROAD SAFETY FEATURES**

Dir.	Advance Warning Signs	Bike Trail Crossing Signs	Advance Pavement Markings	Control Type	Shark Teeth Yield Markings	Crosswalk Markings	Median Between Crosswalk	Additional Safety Features	Visibility of Bike Trail	Grade	Posted Speed Limit	Avg. Lane and Shoulder Width
NB	None	None*	None	Yield	None	None	No	None	Good	None	None	15'/none (one lane driveway)
SB	None	None*	None	Yield	None	None	No	None	Good	None	None	15'/none (one lane driveway)

\* The existing yield signs are also lacking sign imagery (they are just blank grey signs in the yield shape)

**CAPE COD RAIL TRAIL – HARWICH TO CHATHAM EXTENSION / OLD COLONY RAIL TRAIL BIKEWAY SAFETY FEATURES**

Dir.	Control Type	Condition of Signage	Pavement Markings	Advance Warning Signs	Sight Distance	Width at Intersection	Median Approaching Intersection	Other Features	Crossing Distance	Crosswalk Style	Crosswalk Width	Tactile Warning Plates
W B	None	None	None	No	Good	11'	No	None	22'	None	11'	None
EB	None	None	None	No	Good	11'	No	None	22'	None	11'	None

**IMAGES**

*Figure 167: YIELD Signs are Blank. Road Approaches are Not Paved.*



*Figure 168: Trail View (Note that the Crossing is Covered in Dirt).*



### Cape Cod Rail Trail – Harwich to Chatham Extension / Old Colony Rail Trail #8 (Orleans-Harwich Road)

#### CRASH HISTORY SURROUNDING THE CROSSING

Crash Date	Crash Time	Crash Severity	Non-Motorist Action (All Persons)	Light Conditions	Weather Conditions
1/6/2017	7:31 AM	Property damage only (none injured)	None	Daylight	Snow

#### ORLEANS-HARWICH ROAD, ROAD SAFETY FEATURES

Dir.	Advance Warning Signs	Bike Trail Crossing Signs	Advance Pavement Markings	Control Type	Shark Teeth Yield Markings	Crosswalk Markings	Median Between Crosswalk	Additional Safety Features	Visibility of Bike Trail	Grade	Posted Speed Limit	Avg. Lane and Shoulder Width
WB	Good	Good	None	None	None	Poor	No	RRFB	Good	None	30	11'/1'
EB	Good	Good*	None	None	None	Poor	No	RRFB	Good	None	None	11'/0.5'

\* Eastbound Bike Trail Crossing signs are placed somewhat in advance of actual crossing (~50 ft).

#### CAPE COD RAIL TRAIL – HARWICH TO CHATHAM EXTENSION / OLD COLONY RAIL TRAIL BIKEWAY SAFETY FEATURES

Dir.	Control Type	Condition of Signage	Pavement Markings	Advance Warning Signs	Sight Distance	Width at Intersection	Median Approaching Intersection	Other Features	Crossing Distance	Crosswalk Style	Crosswalk Width	Tactile Warning Plates
NB	Stop	Good	Fair	Yes	Good	17'	No	Rotary; RRFB (button)	43'	Standard	17'	None

Harwich – Cape Cod Rail Trail and Cape Cod Rail Trail, Harwich to Chatham Extension / Old Colony Rail Trail

SB	Stop	Good	Fair	Yes	Good	17'	No	Rotary; RRFB (button)	43'	Standard	17'	None
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Harwich – Cape Cod Rail Trail and Cape Cod Rail Trail, Harwich to Chatham Extension / Old Colony Rail Trail

**IMAGES**

Figure 169: Eastbound View of Crossing (from Road). Advance Bike Trail Crossing Signage, Open Sightlines, RRFBS, and RRFB Help Visibility



Figure 170: Image of RREB from Trail



*Figure 171: Rotary in Trail Slows Traffic in Advance of Crossing*



**Cape Cod Rail Trail – Harwich to Chatham Extension / Old Colony Rail Trail #9 (Depot Road, near Town Forest)**

**CRASH HISTORY SURROUNDING THE CROSSING**

Crash Date	Crash Time	Crash Severity	Non-Motorist Action (All Persons)	Light Conditions	Weather Conditions
1/6/2017	7:31 AM	Property damage only (none injured)	None	Daylight	Snow

**DEPOT ROAD, ROAD SAFETY FEATURES**

Dir.	Advance Warning Signs	Bike Trail Crossing Signs	Advance Pavement Markings	Control Type	Shark Teeth Yield Markings	Crosswalk Markings	Median Between Crosswalk	Additional Safety Features	Visibility of Bike Trail	Grade	Posted Speed Limit	Avg. Lane and Shoulder Width
SB	Good	Good*	None	None	None	Poor	No	None	Good	None	None	10'/2'
NB	Good	Good*	None	None	None	Poor	No	None	Good	None	None	11'/1'

\* Green, wayfinding signage attached to Bike Trail Crossing signposts at crossings

**CAPE COD RAIL TRAIL – HARWICH TO CHATHAM EXTENSION / OLD COLONY RAIL TRAIL BIKEWAY SAFETY FEATURES**

Dir.	Control Type	Condition of Signage	Pavement Markings	Advance Warning Signs	Sight Distance	Width at Intersection	Median Approaching Intersection	Other Features	Crossing Distance	Crosswalk Style	Crosswalk Width	Tactile Warning Plates
W B	Stop	Good	Poor	Yes		10'	No	None	27"	Standard	10'	None
EB	Stop	Good	Poor	Yes		10'	No	None	27"	Standard	10'	None

**IMAGES**

*Figure 172: Image of Rail Trail Crossing of Depot Road*



*Figure 173: Road Crossing View from Trail (Path Users are STOP Sign Controlled, but the STOP Sign is Not Visible in Image)*

