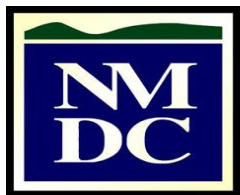


# **Short-Term Recommendations for Improving the Safety of High Crash Locations in Rural Aroostook County**



US Route 1 in Connor Township



**Northern  
Maine  
Development  
Commission**

December 2016

## Table Of Contents

<b>Summary</b>	<b>3</b>
<b>How to Use this Document</b>	<b>4</b>
 <b>High Crash Locations</b>	
<b>Ashland:</b> Route 227 from Exchange Street to York Ridge Road	5
<b>Caribou:</b> Intersection of Herschel Street and High Street	12
<b>Caribou:</b> Main Street from Kittenger Drive to non-intersection of Main Street	18
<b>Caribou:</b> Van Buren Road from intersection of Belanger Road to Intersection of Barrett Siding	23
<b>Caribou:</b> Bennett Drive from intersection of Laurette Circle to Intersection of Skyway Drive	27
<b>Castle Hill:</b> State Road from Ashland/Castle Hill townline to node 7881	33
<b>Connor Township:</b> Van Buren Road from Guerrette Road to Sheen Road	38
<b>Connor Township:</b> Van Buren Road from Node 8464 to Cyr Plantation townline	46
<b>Connor Township:</b> Van Buren Road from Guerrette Road to node 8464	50
<b>Cyr Plantation:</b> Van Buren Road from Connor Township townline to node 8466	54
<b>Cyr Plantation:</b> Van Buren Road from Node 8466 to Vaillancourt Hill Road	59
<b>Fort Fairfield:</b> North Caribou Road from Node 6053 to Node 6087	63
<b>Fort Fairfield:</b> Presque Isle Road from Conant Road to intersection of Road 1166	68
<b>Houlton:</b> Intersection of North Street and Putnam Avenue	74
<b>Houlton:</b> B Road from McSheffery Road to Cogan Road	79
<b>Houlton:</b> North Street from Mill Street and Putnam Avenue to Union Square	84
<b>Houlton:</b> North Street from intersection of Putnam Avenue to Shopping Center	89
<b>Monticello:</b> US Route 1 from Gentle Road to Hill Siding Road	94
<b>New Sweden:</b> New Sweden Road From Jepson Road to node 7998	99
<b>Presque Isle:</b> Intersection of Park Street and Parson's Street	105
<b>Presque Isle:</b> Intersection of Blake Street and Main Street	111
<b>Presque Isle:</b> Entrance of County Federal Credit Union and Walmart	116
<b>Presque Isle:</b> Second Street from Church Street to Hall Street	122
<b>Presque Isle:</b> Main Street from Summer Street to North Street	128
<b>Presque Isle:</b> Main Street from State Street to Academy Street	133
<b>Presque Isle:</b> Main Street from Road 3202090 to Walmart Entrance	138
<b>Presque Isle:</b> Caribou Road from Reach Road to node 9385	144
<b>Wallagrass:</b> Aroostook Road from Clark Brook Road to Carter Brook Tote Road	149

## Summary

Through a contract with the Maine Department of Transportation (MaineDOT), Northern Maine Development Commission (NMDC) staff performed preliminary safety assessments of high crash nodes (intersections) and high crash links (segments of highway between intersections) in Aroostook County. These assessments were then developed into a report that was shared with the MaineDOT Region 5 Office, MaineDOT Bureau of Planning, and the local towns in which the high locations are located. Recommendations in the report offer low cost, short-term remedies for making high crash locations safer.

High crash locations (HCLs) were identified by MaineDOT as being locations with eight (8) or more crashes and exceed the Critical Rate Factor (CRF) of 1.00 or greater within a three-year period. A highway location with a CRF greater than 1.00 has a frequency of crashes that is greater than the statewide average for similar locations. A CRF is a statistical measure to determine the “expected crash rate” as compared to similar intersections in the State of Maine. In this regard, the analysis considers both the number of crashes and exposure over a three-year period.

The following report provides safety assessments, recommendations, HCL and other relevant data, maps, photos, and MaineDOT crash diagrams for thirty-one (31) high crash locations nodes and links located in Aroostook County. HCLs in this report were selected by NMDC staff based on the following factors:

- Selecting only HCLs identified in the *MaineDOT High Crash Location Listing, 2013-2015*;
- Making sure HCLs were not already being addressed by capital projects in the MaineDOT 2016-2018 Work Plan;
- Avoiding HCLs located on or associated with the Interstate System.
- Making sure locations were not already being addressed by the MaineDOT Region 5 Office or the MaineDOT Bureau of Planning.

It should be noted that in several locations, and supported by accident reports and observations by NMDC staff, driver or landowner actions rather than design or road geometrics lead to a majority of crashes. For example, crashes on links located in Ashland and Castle Hill were predominately animal related. During discussions with Town Officials and the Maine Warden Service, landowners feeding deer attributed to most of the crashes. This activity is not illegal (and landowners have been contacted) but they do not wish to change this activity. On other links, high moose populations accounted for most the crashes. Many of these links are long and straight.

## **How to Use This Document**

The preliminary assessments and recommendations included in this document are the products of a planning-level analysis intended to identify some of the site features, road characteristics, and crash factors associated with locations identified in MaineDOT's High Crash Location database. The intent of the assessment is to identify potential low cost, short-term solutions for making these HCLs safer. The recommendations range from simple maintenance, such as vegetation clearing, to identification of locations that might be considered for capital improvements, such as new turn lanes, traffic signals, roundabouts, or realignments.

In some instances, where longer-term, more expensive solutions appear to offer potential improvement, specific further study is not only recommended but is required. However in all instances some additional review and engineering analysis by MaineDOT would be required before implementing any recommendations. For instance, consideration of new or better signage is a low cost recommendation for a number of sites, but new signage should not be installed without further engineering review to be sure the additional signage is warranted and is likely to be effective.

It is NMDC's hope that MaineDOT can use this document as a tool to help them prepare for their own visitation of the HCL sites, perform their own safety audits, review and prioritize the recommendations, and implement low cost solutions that will help save lives, and prevent injuries or property damage.



## **Town of Ashland**

**Location:** Beginning at the intersection of Exchange Street and Frenchville Road and heading easterly 2.6 miles to the intersection of Route 227 and York Ridge Road.

**Assessment:** This link is located on State Route 227 east of Ashland's downtown. The link begins at Exchange Street and extends easterly along Route 227 to the York Ridge Road. The York Ridge Road is a local, summer maintained road only. The link is a two-lane road with gravel shoulders. While the link is relatively straight, the eastern portion is hilly (York Ridge) with several blind areas and driveways.

Land uses along the link include, residential, agricultural, forestland, and some small scale commercial development. While the link is located in a known Deer Wintering Area, NMDC staff noticed that there were no animal crossing signs located anywhere along the link. NMDC staff also had to stop abruptly for a flock of Wild Turkey as they crossed the road to go into a homeowner's where a feeding station was located. Staff also noticed numerous deer trails along the length of the link.

### **Recommendations:**

- Consider installation of "Deer Crossing" signs as this is a large deer wintering area.
- Consider working with landowners to adjust wildlife feeding locations, especially during the winter months.
- Consider the installation of reflectors along the corridor.
- Consider the creation of educational programs for driver concerning the presence of high concentrations of deer.
- Consider trimming vegetation along link to improve visibility.
- Consider installing additional Speed Limit signage.

### **Crash Summary:**

According to MaineDOT, all but one of the crashes are animal related. Eleven (11) of the 14 crashes are deer related, one moose related, and one a failure to keep in the lane. All the deer related crashes occurred between January and April when deer are concentrated in the wintering area. The Maine Department of Inland Fisheries and Wildlife indicates that this section of the route is located along a deer wintering area and several landowners feed deer during the winter months. This feeding can further concentrate deer along the corridor.

### **High Crash Information (2013-2015)**

<b>Begin Node</b>	<b>End Node</b>	<b>Total Crashes</b>	<b>Critical Rate Factor</b>	<b>Percent Injury</b>	<b>State Rank</b>	<b>County Rank</b>
7875	7877	14	1.76	7.1	13	114

Source: MaineDOT, 2016

### Link Information

This section of Route 227 is not a mobility corridor or retrograde arterial.

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
Rt. 227	4	B	C	A	Major Collector	State	35 to 50

Source: MaineDOT 2016

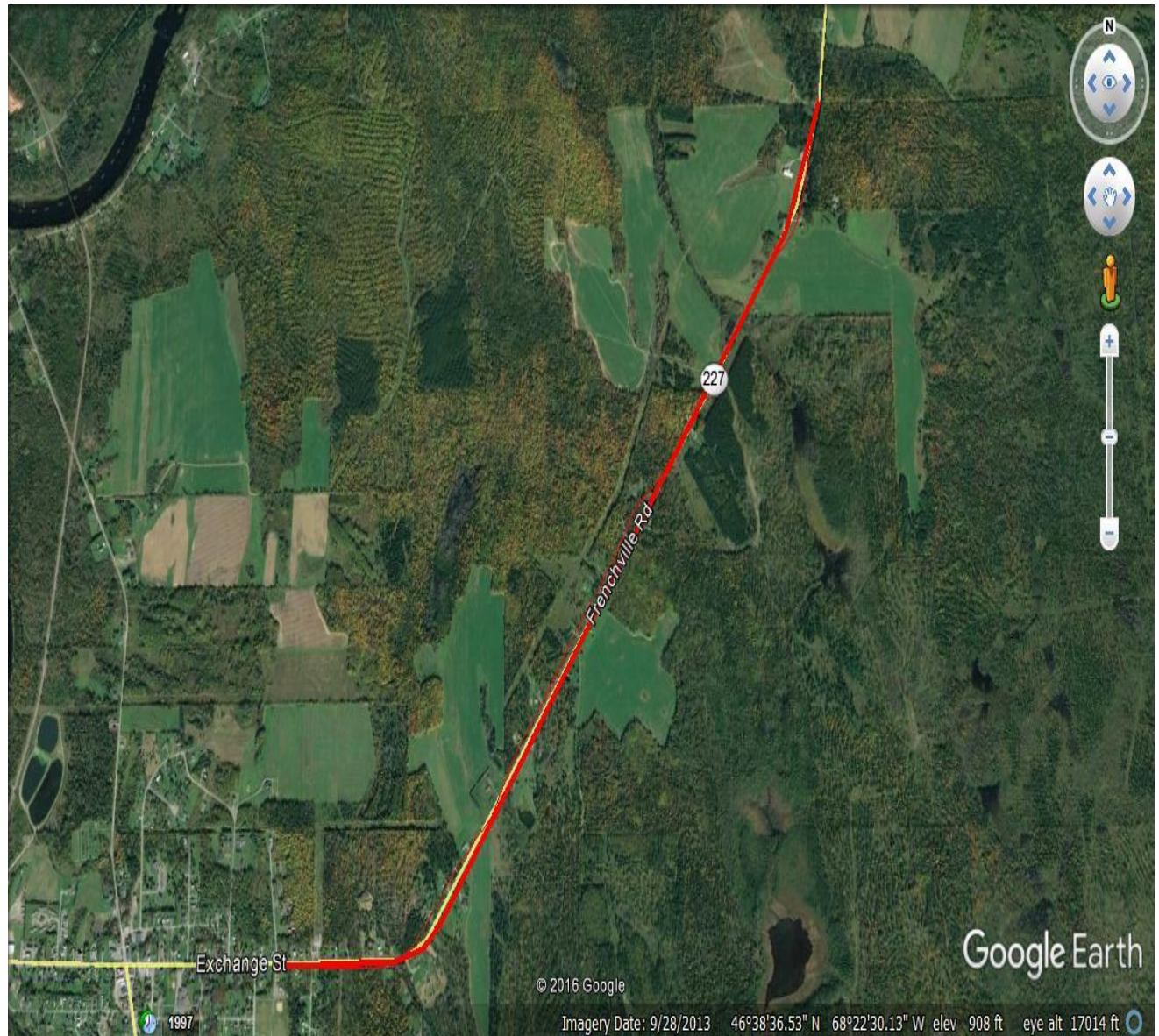
### Traffic Counts

Traffic Counts are not available at this specific location.

Historical AADT	AADT Location
2012: 1,320 2015: 1,160	Route 227 East of School Street
2012: 800 2015: 760	Route 227 East of Cottage Hill Road

Source: MaineDOT, 2016

**Aerial View**  
**Route 227 between node 7875 and 7877-Ashland Maine**







Source: NMDC 2016

Route 227 just east of Ashland's village area. Notice the flock of Wild Turkey that are being fed by a landowner. This area is also heavily utilized by white-tailed deer.



Source: NMDC 2016

Route 227. Notice deer trails





Source: NMDC, 2016

Route 227 looking east. Notice Speed Limit sign is hidden by tree. This area is heavily utilized by deer and several landowners feed deer during the winter months.



Source: NMDC 2016

Route 227 westbound looking at York Ridge. This is a relatively steep slope with animal crossings.



Source: NMDC, 2016

Route 227 eastbound. Blind drive that is noted with sign.



## City of Caribou

**Location:** Intersection of Herschel Street and High Street. (Node 61737)

**Assessment:** This intersection is located on High Street, Herschel Street, and Route 161B/164 in downtown Caribou. Caribou's City Office, Police Station, and Library are located on High Street along with a church, grocery store, and small convenience/gas station. This route is used to access Bennett Drive as well as Caribou's downtown.

There are two lanes at the intersection (on Route 161B/164) with a turning lane onto High Street. Traffic has the option of heading north onto North Main Street, turning west to Herschel Street, or turning east onto High Street. There are crosswalks located just south of the intersection on Rt. 161B/164 and east on High Street. Caribou's Public Library entrance is located just to the north of the intersection.

### Recommendations:

- Consider flashing pedestrian crossing signs located south of the intersection.
- Consider lighted lane delineations.
- Consider better striping indicating thru lanes and turning lanes.
- Consider striping delineating crosswalks.
- Consider moving access to Caribou Public Library.

### Crash Summary:

According to MaineDOT, there were 12 crashes at this location between 2013 and 2015. All the crashes were on High Street with vehicles crossing toward Herschel Street. Most the crashes were the result of vehicles following too closely. Crashes were spread through the year with no one month being more prevalent.

### High Crash Information (2013-2015)

Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
61737	12	3.70	23.1	60	1

Source: MaineDOT, 2016

## Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
High Street	3	D	B/C	D	Major Urban Collector	State Aid	25
Main Street	3	A	C/F	C	Major Urban Collector	State Aid	25

Source: MaineDOT, 2016

## Traffic Counts

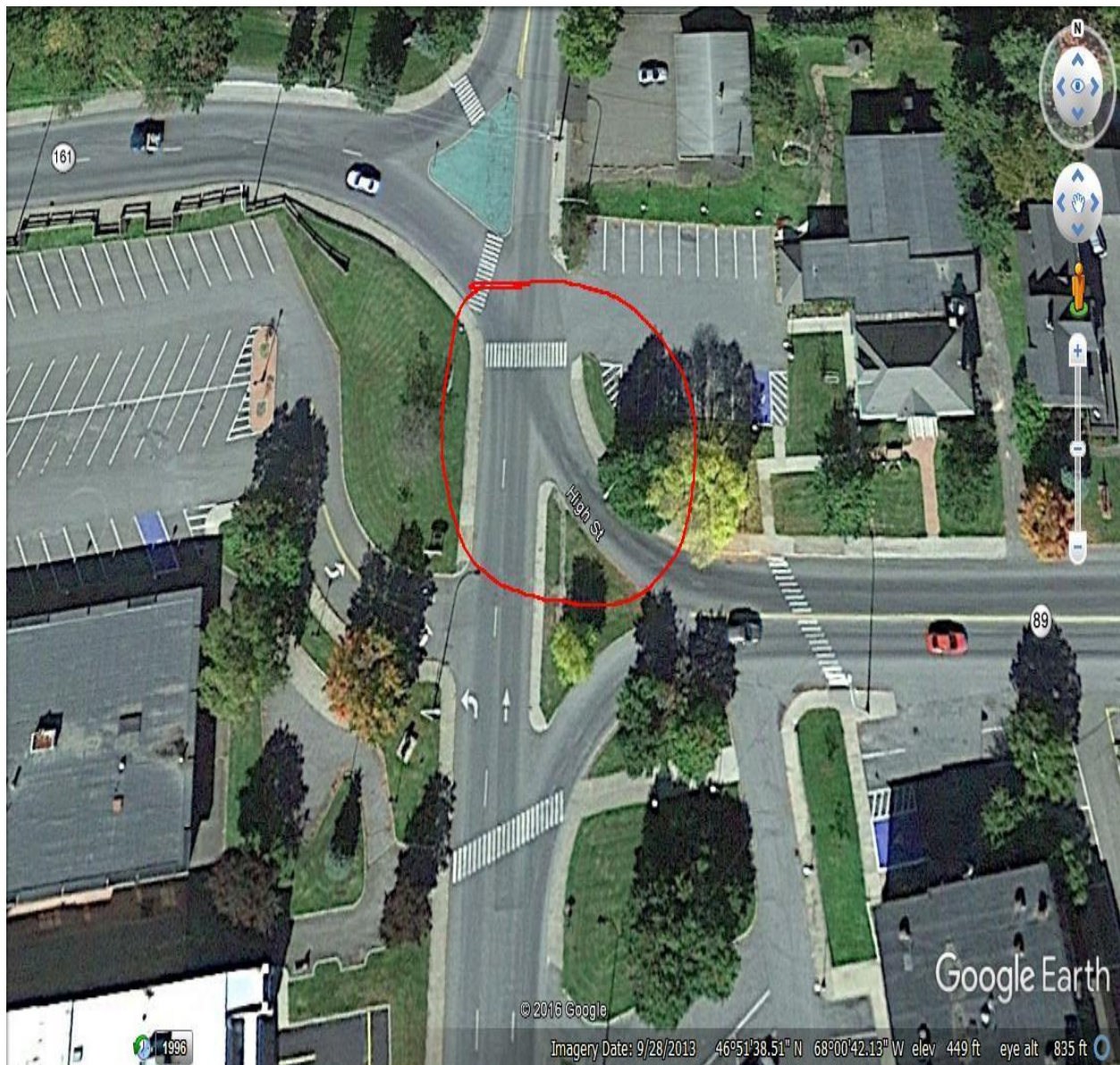
Traffic Counts are not available at this specific location.

Historical AADT	AADT Location
2012- 5480 2015- 5240	SR 161B/164 (HATCH)(OW) E/O SR 164

Source: MaineDOT 2016

## Aerial View

Intersection of High and Herschel Street, Caribou, Maine



Source: Google Earth, 2016

Caribou  
Node: 61737  
Study Period: 2013-2015  
\* of Crashes: 12 / CRF: 3.41  
Prepared by M&D Traffic Engineering  
G.A. - 9/22/16

North Main Street /  
Route 161/164

Herschel Street /  
Route 161/164

ONE WAY

Crosswalk

Library

North Main Street

ONE WAY

Yield

High Street

ONE WAY

## Photographs



Source: NMDC 2016

High and Herschel Street Intersection looking south. Notice lack of lane designations and accesses located directly next to intersection.





Source: NMDC 2016

High and Herschel Street intersection looking north. Notice lack of marked pedestrian crosswalk.



Source: NMDC 2016

High and Herschel Street intersection looking west. Notice lack of marked pedestrian crosswalk and lane markings.

## City of Caribou

**Location:** Node 9583 Intersection of Kittenger Drive and Main Street to node 65670 Non-intersection of Main Street (approximately 1.15 miles south east).

**Assessment:** This link is located on what is known as South Main Street. This is a straight two lane road with paved shoulders. There are steep slopes located at Prestile Stream where a guardrail has been installed. The crest of the hill south of the Kittenger Drive intersection has short sight distances. Land Uses along the link include several commercial establishments, commercial apartments, single family residential units as well as overgrown farm fields. A commercial day care located on Kittenger Drive generates turning traffic through the day.

### Recommendations:

- Consider “Blind Drive” signage.
- Consider “Turning Traffic” signage near Prestile Stream.
- Consider widening the shoulder at Kittenger Drive to allow for turning traffic to turn into Kittenger Drive.
- Consider brush removal to improve visibility of signs.

### Crash Summary:

There have been thirteen (13) crashes along this link. Three (3) involved deer, 3 were the result of speed, 3 were avoiding another vehicle, 2 were road conditions, 1 was driver distraction (pet), and 1 was an improper turn.

### High Crash Information (2013-2015)

Beginning Node	Ending Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
9583	65670	13	1.50	23.1	138	17

Source: MaineDOT, 2016

### Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
South Main Street	4	B	A	A	Major Urban Collector	State Aid	50

### Traffic Counts

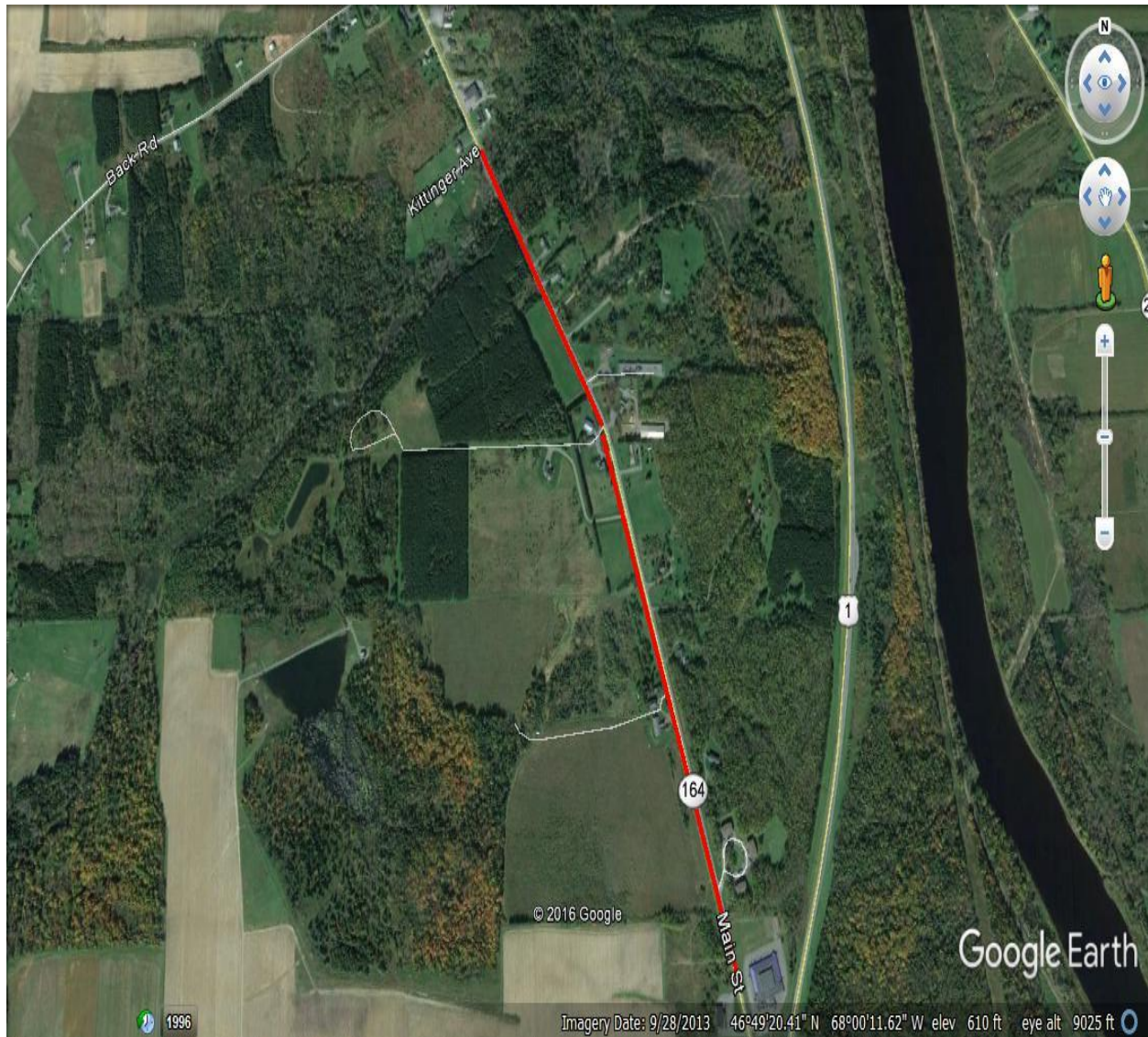
Historical AADT	AADT Location
2015- 1,850	SR 164 (S MAIN ST) North of the US Route 1 intersection

Source: MaineDOT 2016



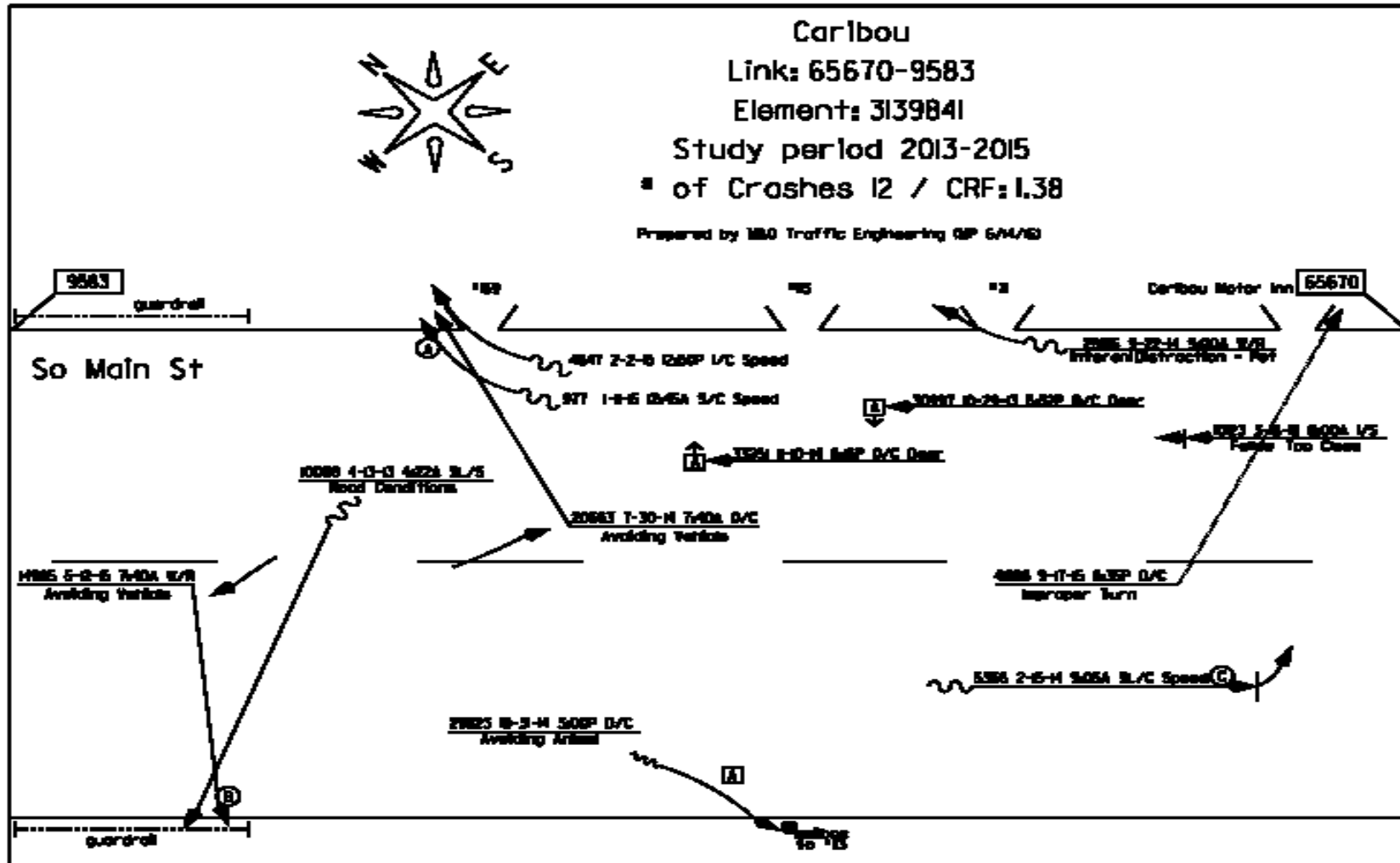
## Aerial View

Kittenger Drive south to Caribou Inn and Convention Center



Source: Google Earth, 2016

## MaineDOT Crash Diagram





Source: NMDC 2016

South Main Street looking west toward downtown Caribou. Notice location of commercial entrance and sight distance. Speed limit at this location is 50 mph.



Source: NMDC 2016

South Main Street Caribou. Decreased sight distance. Notice the vehicle turning into a local business





Source: NMDC 2016

South Main Street, Caribou at Kittenger Drive intersection. Steep slopes at this intersection with a commercial entrance.



Source: NMDC 2016

South Main Street, Caribou Maine. Notice steep slope with two commercial entrances

## City of Caribou

**Location:** Intersection of Belanger Road and Van Buren Road (node 8457) to Intersection of Barrett Siding and Van Buren Road (node 8741).

**Assessment:** This link is located on US Route One in north Caribou. The two-lane road has wide paved shoulders and is generally straight. The intersection at the Belanger Road is located at the crest of a small hill and site distances are limited.

Land uses along the link included single family residential units and agricultural operations. The node at the Barrett Siding end of the link contains a multi-season recreational trail overpass.

### Recommendations:

- Consider “Turning Traffic” signs at the intersection of the Belanger Road.
- Consider “Blind Drive” signs on the northbound lane at Barrett Siding.
- Consider educating homeowners along element as to the dangers of backing onto the Van Buren Road.
- Consider constructing a turning lane southbound at the intersection of the Belanger Road.

### Crash Summary:

Several of the crashes involved deer while others were “failure to yield” and failure to stay in lane.

### High Crash Information (2013-2015)

Beginning Node	Ending Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
8457	8741	8	1.03	37.5	185	29

Source: MaineDOT, 2016

### Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
Van Buren Road	1	B	A	A	Principal Arterial	State	50

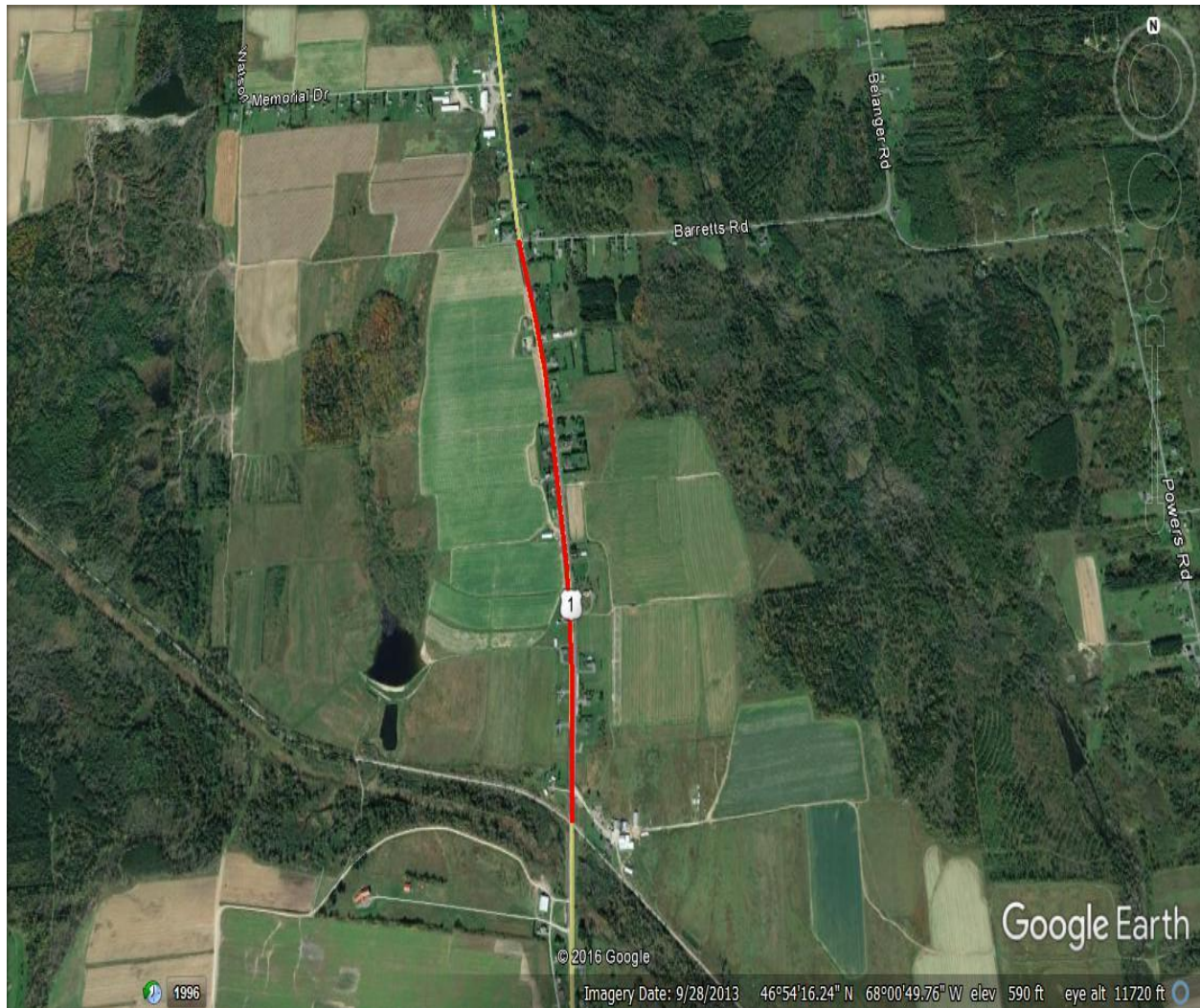
Source: MaineDOT, 2016

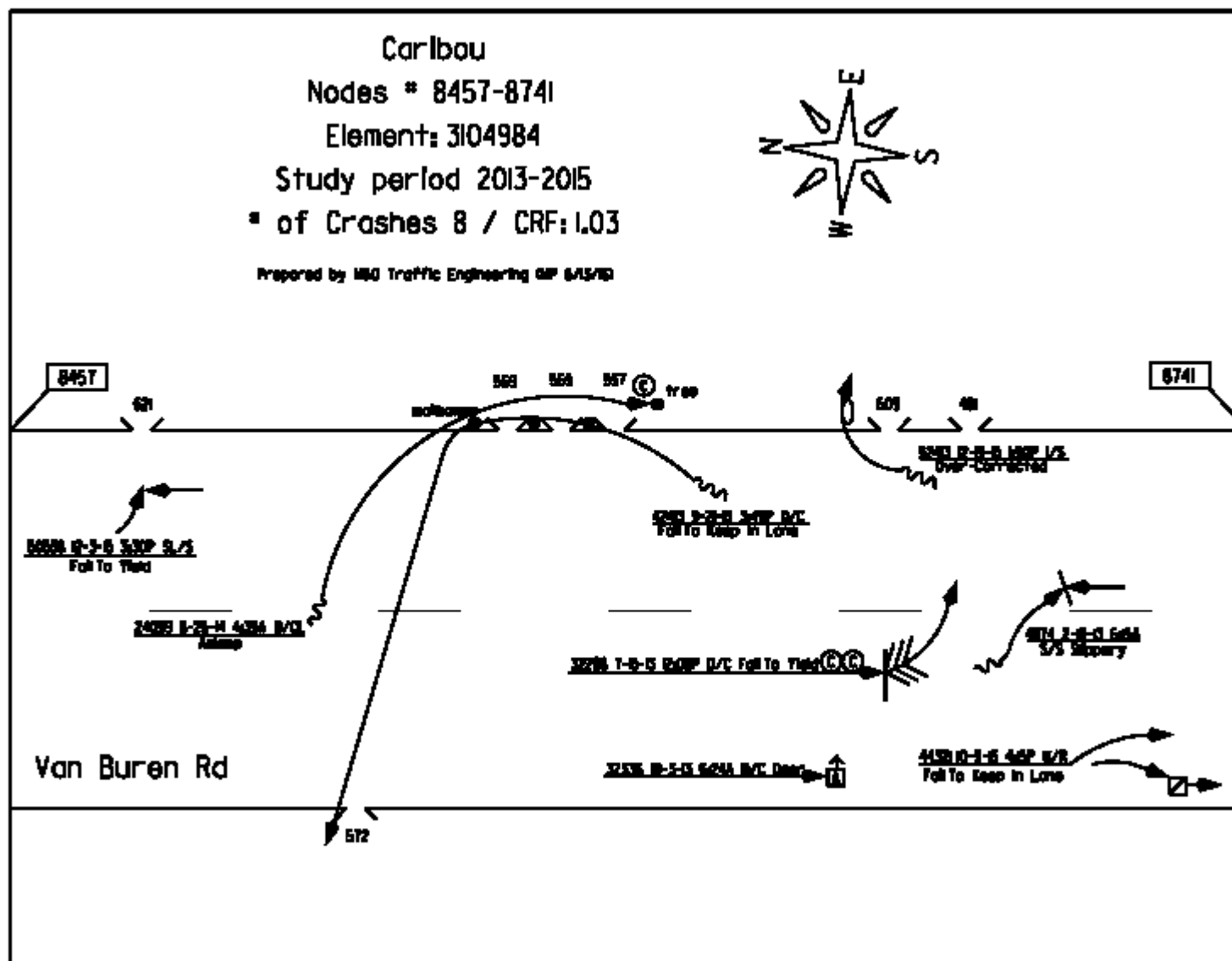
### Traffic Counts

Historical AADT		AADT Location
2012-3460	2015-3430	US Route 1 south of the Belanger Road

## Aerial View

US Route 1 from Belanger Road to Barretts Siding- Caribou, Maine









Source: NMDC 2016

Belanger Road/ Van Buren Road intersection looking south towards Caribou. Note decreased sight distances (both north and southbound)



Source: NMDC 2016

Barrett Siding (node 8741) looking south towards Caribou from an agricultural entrance. Sight distances are limited at this location.

## City of Caribou

**Location:** (Element 3131493) Node 8675 Intersection of Bennett Drive and Laurette Circle to node 8975 intersection of Bennett Drive and Skyway Drive.

**Assessment:** This link is located on Bennett Drive in Caribou. It is a four lane heavily used collector road that serves many businesses and institutions. Laurette Drive serves as an access road to several of Caribou's residential neighborhoods. Traffic counts on the link are typically some of the highest in Caribou. Staff counted 27 entrances and 5 intersections located along the link with several businesses having two (2) or more entrances. Staff also noticed that the "Right Lane Must Turn Right" sign located before the intersection with Sperry Drive is not prominently displayed. While travel lanes were marked, crosswalks were not well marked. Overall, traffic patterns appeared to be confused with cars/trucks turning into many different entrances or intersections at any given time.

Land use along the link is entirely commercial and institutional.

### Recommendations:

- Follow the recommendations of the traffic studies conducted for the new school and the Dunkin Donuts restaurant
- Consider working with business to reduce the number of accesses and share entrances.
- Consider a center turning lane.
- Consider traffic calming measures.
- Consider changing the "Right Turn Only" sign southbound so that it is more prominent.
- Consider painting crosswalks more frequently.

### Crash Summary:

There have been eighteen (18) crashes along this link. Many are associated with what could be called driver inattention or failure to yield type crashes. As stated above, this is a busy link with many entrances to businesses. At times, traffic is lined up out to Bennett Drive while people order coffee at a local coffee shop.

### High Crash Information (2013-2015)

Beginning Node	Ending Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
8675	8975	18	2.02	16.7	96	9

Source: MaineDOT, 2016

### Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
Bennett Drive	4	A	B	A	Major Urban Collector	State Aid	25

### Traffic Counts

Historical AADT		AADT Location
2012- 8950	2015-8930	Bennett Drive N/O Glendale Road

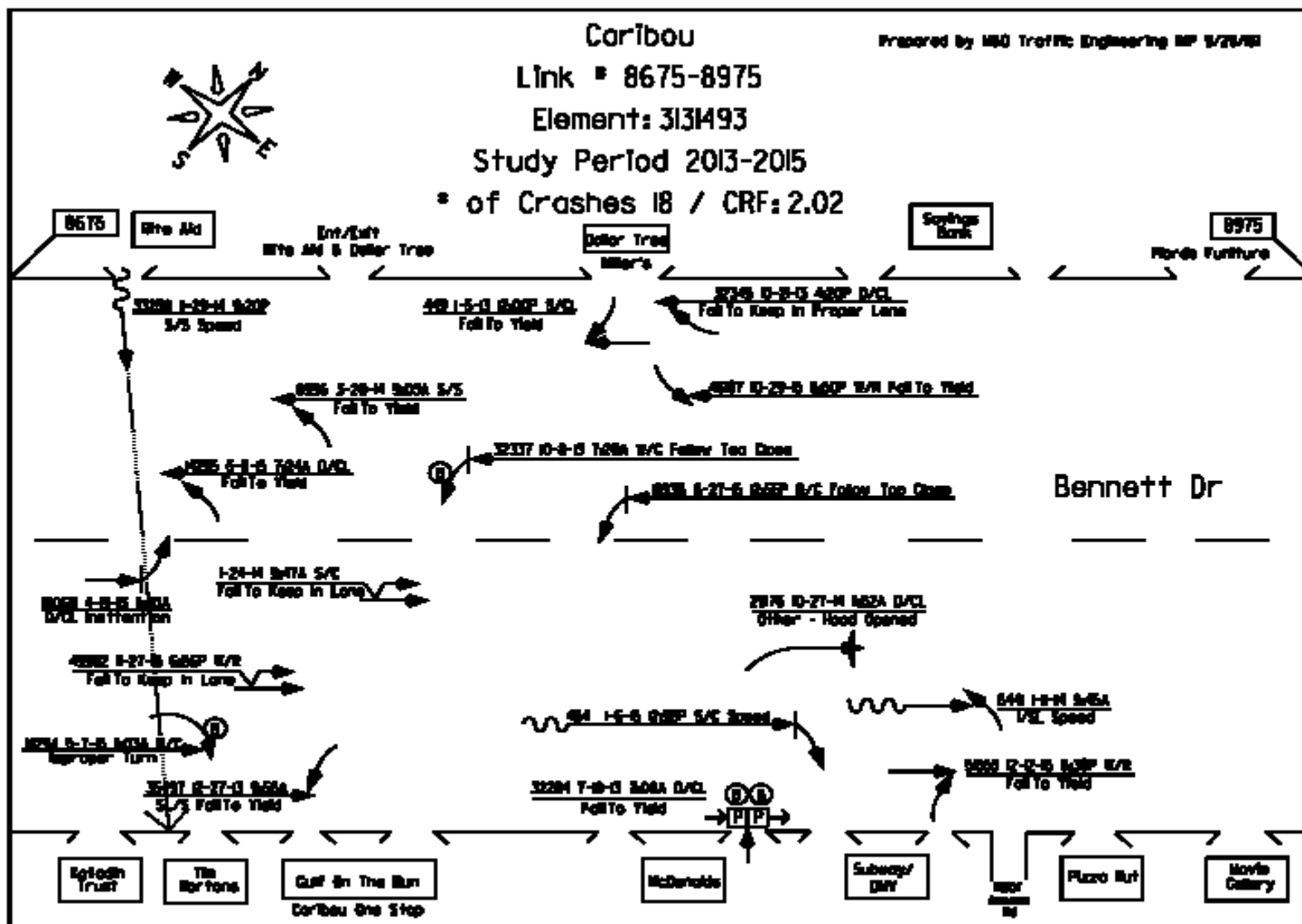
Source: MaineDOT 2016



## Aerial Photo

Node 8675 Intersection of Bennett Drive and Laurette Circle to node 8975 intersection of Bennett Drive and Skyway Drive







Source: NMDC 2016

Intersection of Bennett Drive and Laurette Circle. Right Lane Must Turn Right sign not prominent.



Source: NMDC 2016

Bennett Drive northbound. Notice the many accesses





Source: NMDC 2016

Bennett Drive looking north. Notice the number of accesses, pedestrian crosswalk not well marked, and two vehicles trying to enter different accesses.



Source: NMDC 2016

Bennett Drive. A local business with at least 4 entrances.



## Town of Castle Hill

**Location:** Ashland/Castle Hill townline (node 7880) east 2.02 miles to the non-intersection of the State Road (node 7881)

**Assessment:** This link is located in Castle Hill on State Route 227 also known as the State Road. It is a two-lane road with gravel shoulders. The link is predominately straight but it is narrow and hilly with numerous blind spots. A recreational trail crosses the link approximately 1 mile east of the Ashland townline.

While traffic counts are relatively low, it is a main corridor between Ashland and Presque Isle. The corridor is sparsely populated with some single family residential units and there is commercial forestland and agricultural fields. NMDC staff noticed that vehicles traveled at a high rate of speed on this road. There is a large deer wintering area located near the Ashland/Castle Hill townline. As with the Route 227 link located in Ashland, NMDC staff noticed numerous deer trails crossing the link. Additionally, the link contained rolling hills with passing lanes that appeared to have sight distance issues.

### Recommendations:

- Consider reviewing the appropriateness of the speed limit on the link.
- Consider installation of deer crossing signs as this is a large deer wintering area.
- Consider working with landowners to adjust deer feeding in the winter months.
- Consider reviewing passing lanes on hilly sections of the link.
- Consider trimming vegetation along the eastern portion of the link to improve visibility.
- Consider installing additional Speed Limit signs.
- Consider increased speed details From the Maine State Police and the Aroostook County Sheriff's Department.

### Crash Summary:

Crashes were associated with deer and unsafe speed.

### High Crash Information (2013-2015)

Beginning Node	Ending Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
7880	7881	8	1.49	25.0	139	18

Source: MaineDOT, 2016

## Link Information

<b>Road Name</b>	<b>Highway Corridor Priority</b>	<b>Customer Service Level-Safety</b>	<b>Customer Service Level-Service</b>	<b>Customer Service Level-Condition</b>	<b>Functional Class</b>	<b>Jurisdiction</b>	<b>Speed Limit</b>
State Road	4	F	C	B	Principal Arterial	State	55

Source: MaineDOT, 2016

Traffic Counts (Counts were not taken near this link)

<b>Historical AADT</b>	<b>AADT Location</b>
2015-610	SR 227 west of IR 473 (Waddell Road)

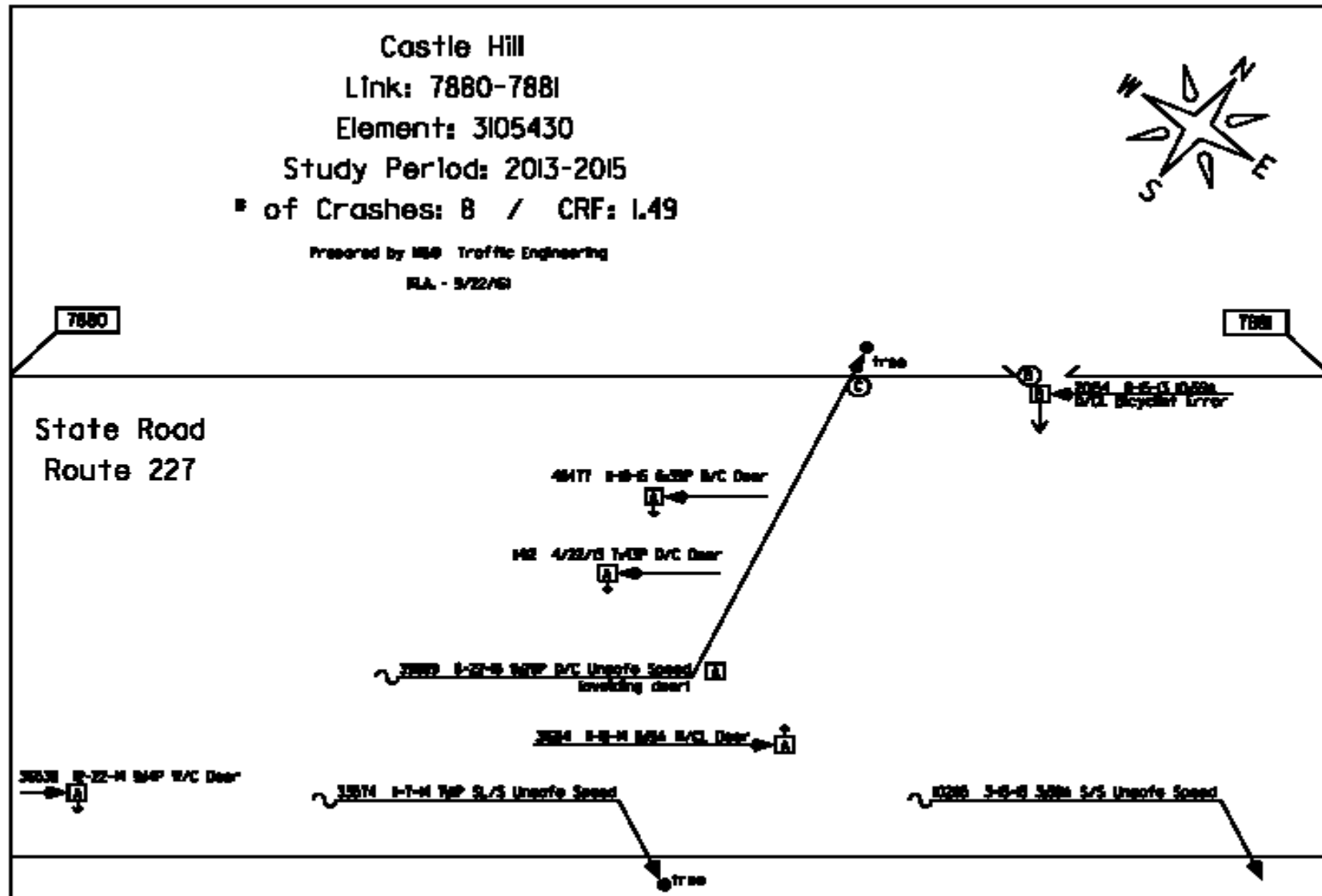
Source: MaineDOT, 2016

### Aerial View

Ashland/Castle Hill townline (node 7880) to the non-intersection of the State Road (node 7881)



# MaineDOT Crash Diagram







Source: NMDC, 2016

Route 227 in Castle Hill looking west. Passing lane on hill.



Source: NMDC, 2016

Route 227 in Castle Hill, eastbound. Deer crossing.

## Connor Township

**Location:** Intersection of Guerrette Road (node 8463) and Van Buren Road to intersection of Sheen Road and Van Buren Road. (node 8758).

**Assessment:** This link contains two lanes with paved shoulders. The southern end of the link is more densely populated and the number of single family residential units diminish when heading north. There are several areas of wetlands which provide ideal moose habitat. Except for the area just north of the Sheen Road, the link is generally straight with long passing zones. There are “Sharp Curve” signs located near the Sheen Road.

Land uses along the link include single family residential dwellings and forestland.

### Recommendations:

- Consider animal crossing signs at appropriate locations.
- Consider the installation of animal fencing.
- Consider working with landowners to reduce the number of accesses on the corner near the Sheen Road.
- Consider a reduction of the speed limit along the southern end of the link.
- Consider an improved winter road maintenance schedule

### Crash Summary:

Three (3) of the crashes were due to road surface conditions in December. Four (4) involved animal collision (dog and moose) while the remaining two included “failure to yield” and “fail to keep in proper lane.”

### High Crash Information (2013-2015)

Beginning Node	Ending Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
8463	8756	9	1.36	11.1	152	19

Source: MaineDOT, 2016

### Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
Van Buren Road	1	B	A	A	Principal Arterial	State	55

## Traffic Counts

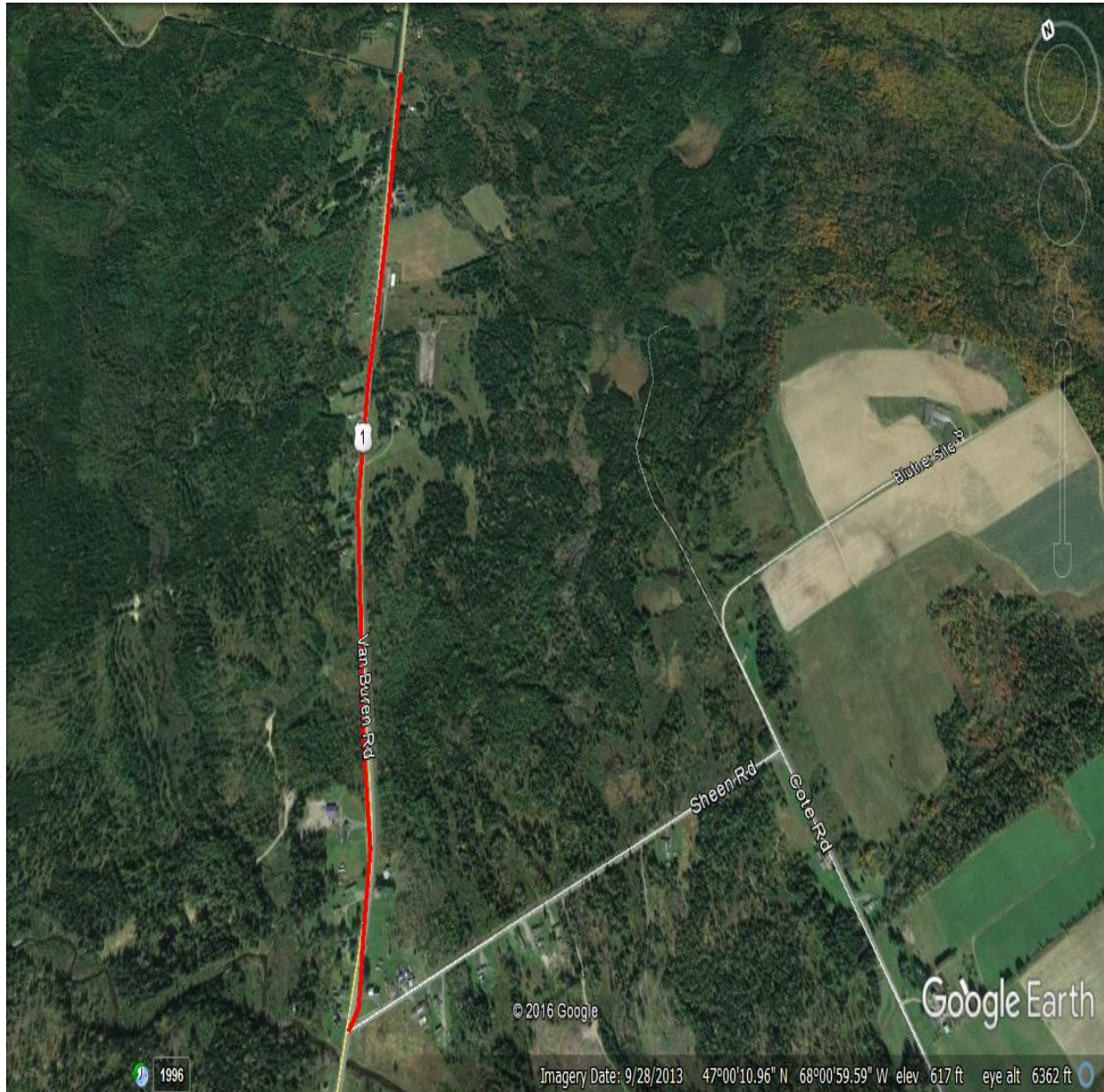
Traffic Counts are not available at this specific location.

Historical AADT	AADT Location
2015- 2,130	US Route One northeast of the Emond Road

Source: MaineDOT 2016

### Aerial View

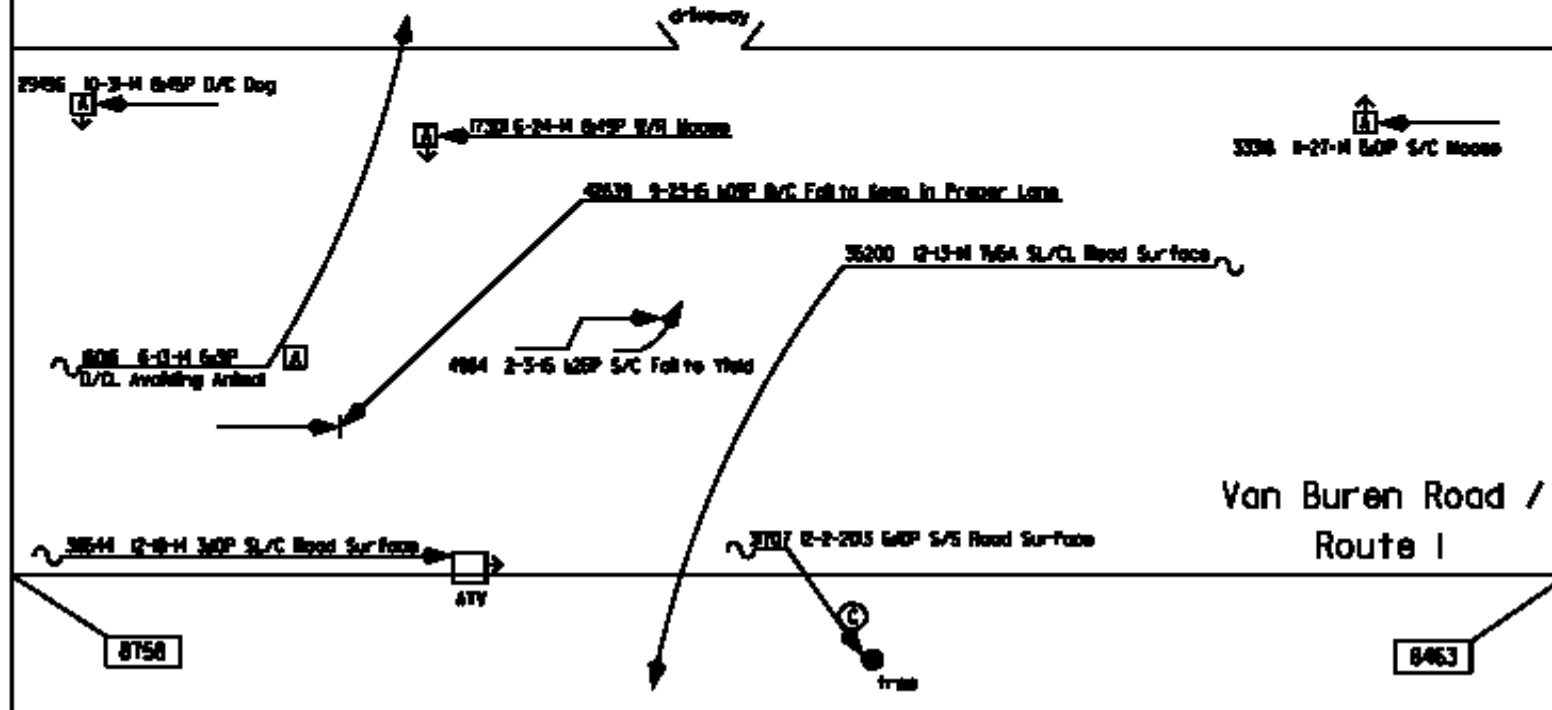
Intersection of Guerrette Road (node 8463) and Van Buren Road to intersection of Sheen Road and Van Buren Road. (node 8758).





Connor Twp  
 Link: 8463-8758  
 Element: 3104990  
 Study Period: 2013-2015  
 # of Crashes: 9 / CRF: 1.36

Prepared by M&O Traffic Engineering  
 D.A. - 9/23/16





Source: NMDC, 2016

US Route One, northbound looking at the Sheen Road intersection. Notice sharp curve sign.



Source: NMDC, 2016

US Route One at Sheen Road intersection northbound. Notice residential driveways on sharp corner.



Source: NMDC, 2016

US Route One in Connor Township. Southbound speed reduction located just before residential subdivision and trucking operation.



Source: NMDC 2016

US Route One in Connor Township looking south towards a residential subdivision. Notice the numerous driveways.



Source: NMDC, 2016

US Route One in Connor Township, southbound. Notice sharp corner and school bus stop sign. Several residences are located just south of this corner.





Source: NMDC, 2016

US Route One in Connor Township northbound. Location is just before sharp corner at Sheen Road. Notice the two way passing zone.

## Connor Township

**Location:** Non intersection on Van Buren Road (node 8464) to Connor Planation/Cyr Plantation Townline (node 8465)

**Assessment:** This two-lane road has wide paved shoulders and animal reflectors along the length of the link. The road is straight with a 55 mph speed limit and roadside vegetation has been cleared for most of the length.

The element is very rural with mostly commercial forestland located along the corridor. There are several small seasonal camps and single family residential units. Several logging roads intersect the link.

### Recommendations:

- Consider airing a moose public service announcement during the Fall rutting period warning motorists of the potential of moose in the road.
- Consider the installation of animal fencing.
- Continue to trim vegetation along link to improve early detection of moose/deer.
- Maintain reflector system.

### Crash Summary:

Seven (7) of the eight (8) crashes involved animal collisions, (six (6) of which were moose). The other collision was driver falling asleep.

### High Crash Information (2013-2015)

Beginning Node	Ending Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
8464	8465	8	2.01	25.0	97	10

Source: MaineDOT, 2016

### Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
Van Buren Road	1	B	A	B	Principal Arterial	State	55

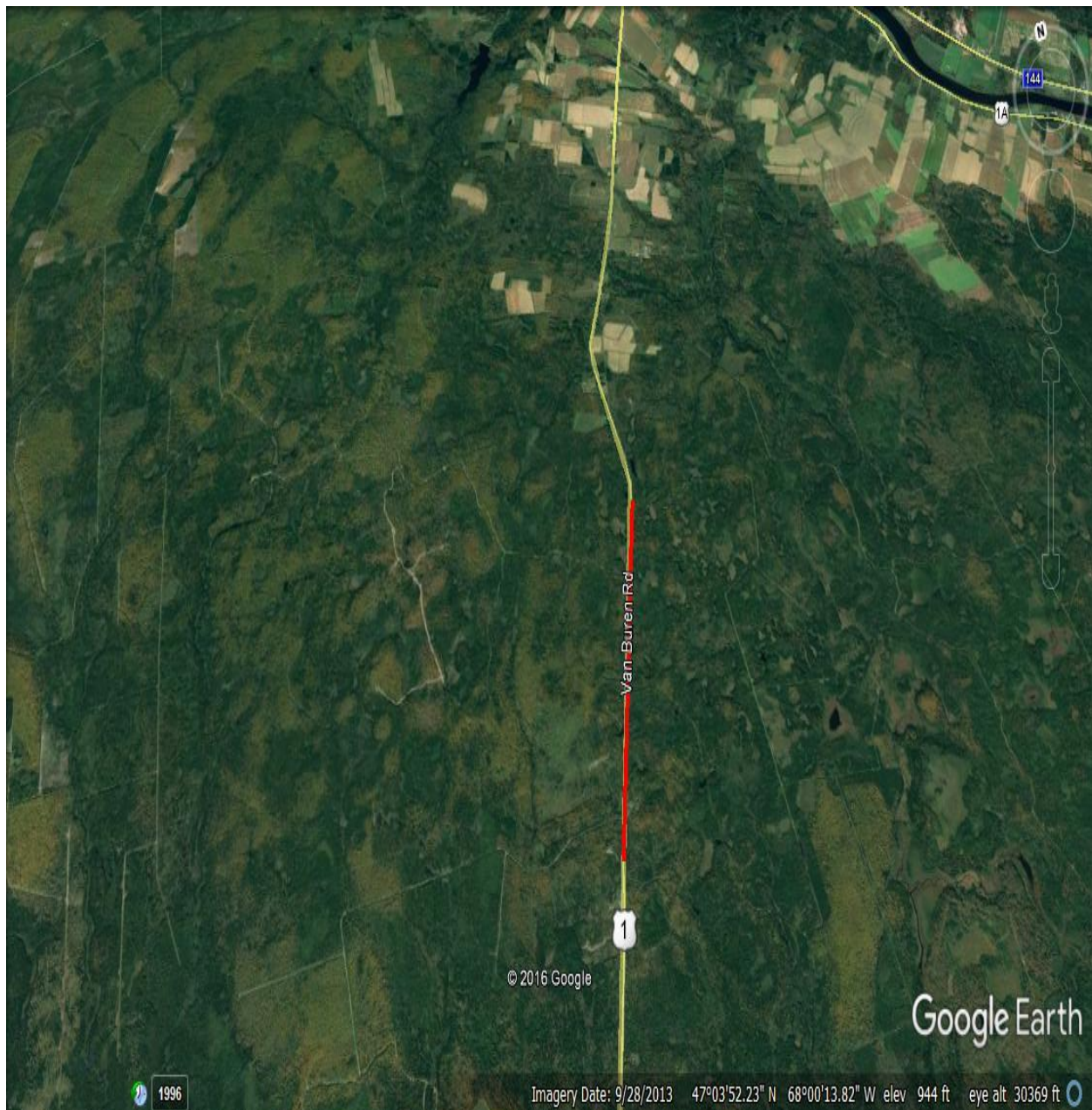
Source: MaineDOT, 2016

### Traffic Counts

Historical AADT		AADT Location
2012-1890	2015-1580	US Route 1 at Cyr Plantation Townline

### Aerial View

Connor Township- Cyr Plantation Town Line to non-intercection of Van Buren Road (Element 3104991)





Connor Twp.

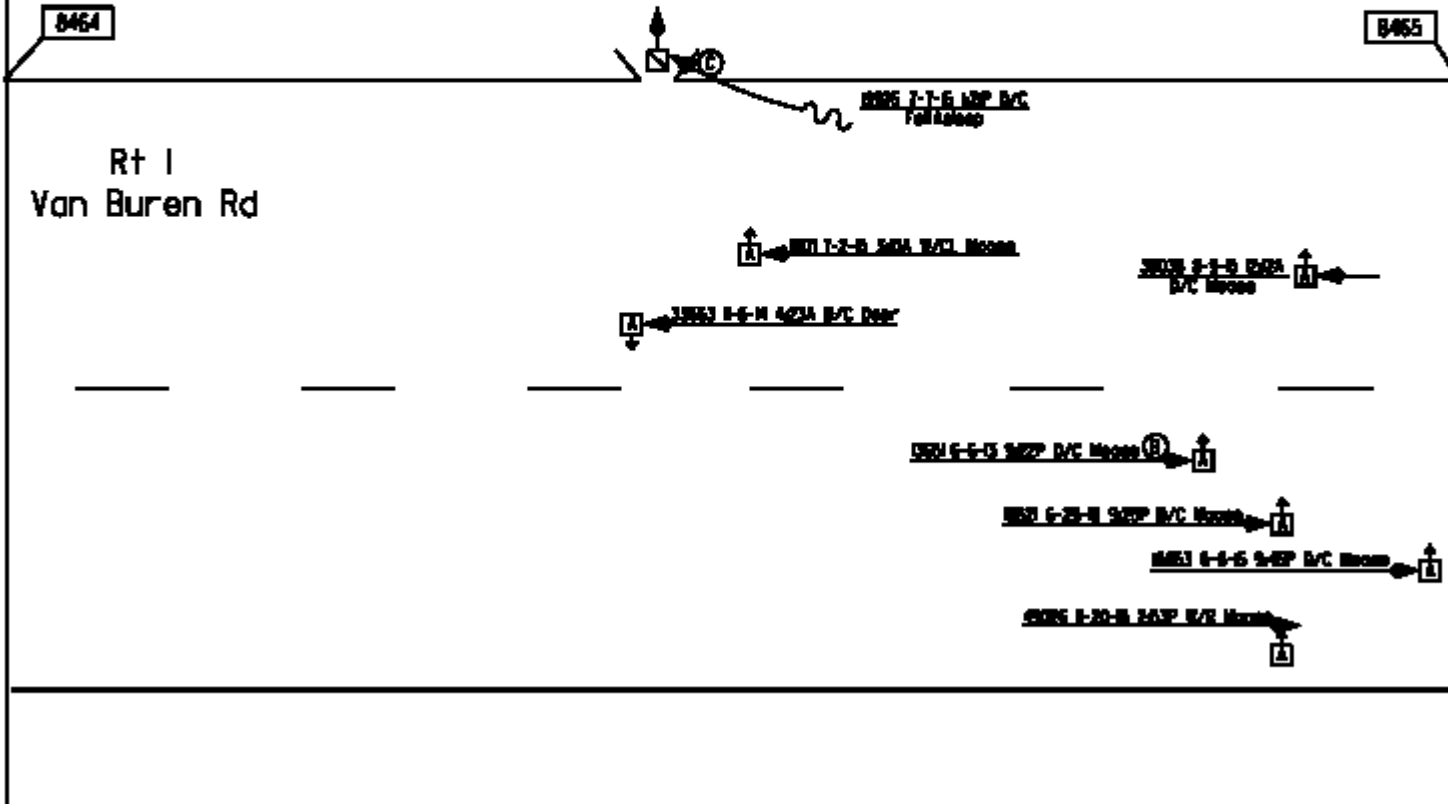
Link 8464-8465

Element: 3104991

Study Period 213-2015

• of Crashes - 8 / CRF: 2.01

Prepared by M&D Traffic Engineering 8/16/16







Source: NMDC 2016

Van Buren Road in Connor Township at Cyr Planation Townline. Road is straight with animal reflectors and vegetation has been trimmed.



Source: NMDC 2016

## Connor Township

Location: Intersection of Guerrette Road and Van Buren Road (node 8463) to non-intersection of Van Buren Road (node 8464)

Assessment: This link is in Connor Township and is two lanes with paved shoulders. The link is straight with several wetlands and swampy areas. There are several locations with guardrails. Land uses along the link are predominately forestland with a few single family residential units. This is ideal moose habitat.

### Recommendations:

- Consider airing a moose public service announcement during the Fall rutting period warning motorists of the potential of moose in the road.
- Consider the installation of animal fencing.
- Continue to trim vegetation along link to improve early detection of moose/deer.
- Consider installing “animal crossing” signs.
- Consider installing reflector systems.

### Crash Summary:

All but one of the crashes involved animals (moose and deer).

### High Crash Information (2013-2015)

Beginning Node	End Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
8463	8464	10	1.65	0.0	123	15

Source: MaineDOT, 2016

### Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
Van Buren Road	1	B	A	B	Principal Arterial	State	55

Source: MaineDOT, 2016

### Traffic Counts

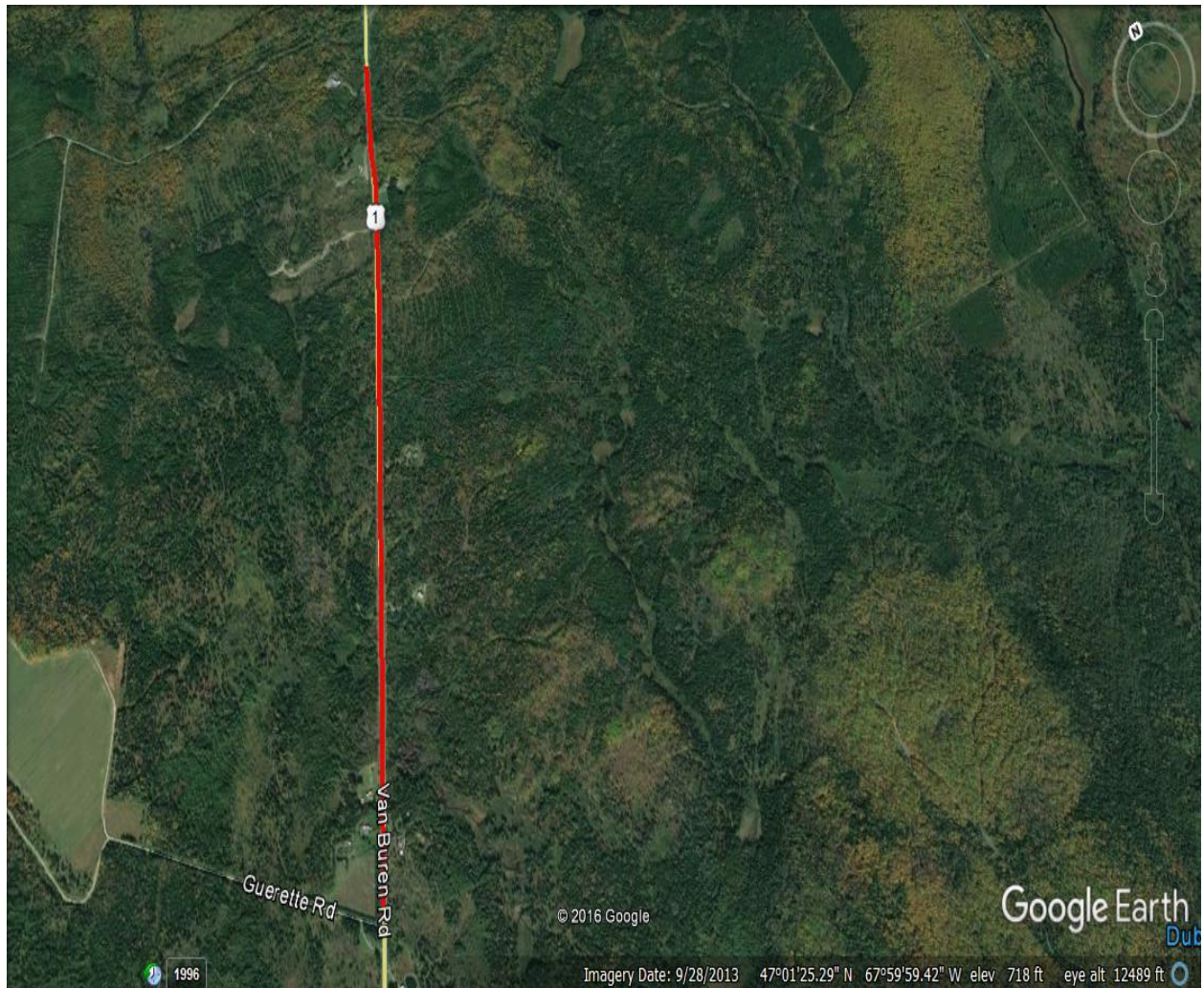
Historical AADT	AADT Location
2015- 1,710	US Route 1 northeast of the Sheen Road

Source: MaineDOT, 2016



## Aerial View

Intersection of Guerette Road and Van Buren Road (node 8463) to non intersection of Van Buren Road (node 8464)









Source: NMDC, 2016

US Route One in Connor Township north bound. North of the Guerrette Road.

## Cyr Plantation

**Location:** Route One at the Connor and Cyr Plantation townline north to node 8466 Caribou Road (0.99 miles)

**Assessment:** This two-lane road has wide paved shoulders and animal reflectors along the length of the Element. The road is straight with a 55 mph speed limit and the vegetation has been cleared for most of the length. Staff noticed vehicles traveling at a high rate of speed and passing slower vehicles in several locations. Staff also notice moose tracks along the entire link.

The link is very rural with mostly commercial forestland located along the corridor. Several logging roads intersect the link.

### Recommendations:

- Consider airing a moose public service announcement during the Fall rutting period warning motorists of the potential of moose in the road.
- Consider the installation of animal fencing.
- Continue to trim vegetation along link to improve early detection of moose/deer.
- Maintain reflector system.
- Ask the Maine State Police and the Aroostook County Sheriff's Department to increase speed details along this link.

### Crash Summary:

A majority of the crashes are animal related. Several involve high speed. NMDC staff noticed that traffic travels at a high rate of speed along this corridor

### High Crash Information (2013-2015)

Beginning Node	Ending Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
8465	8466	16	3.43	18.8	30	3

Source: MaineDOT, 2016

### Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
Caribou Road	1	B	A	B	Principal Arterial	State	55

Source: MaineDOT, 2016

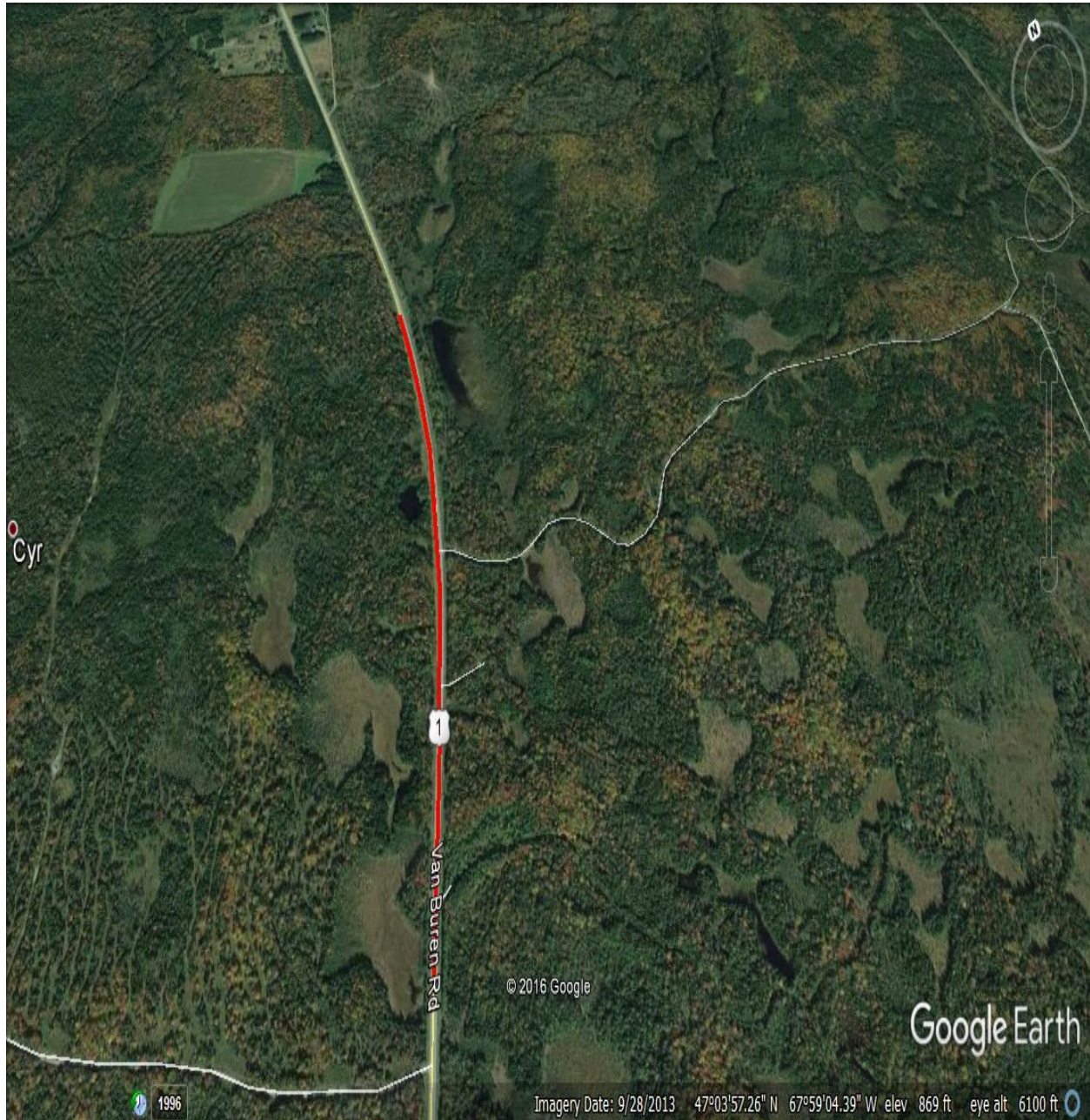
### Traffic Counts:

Historical AADT	AADT Location
2015: 1,470	US 1 south of the intersection of IR 5030 (S JCT)

Source: MaineDOT, 2016

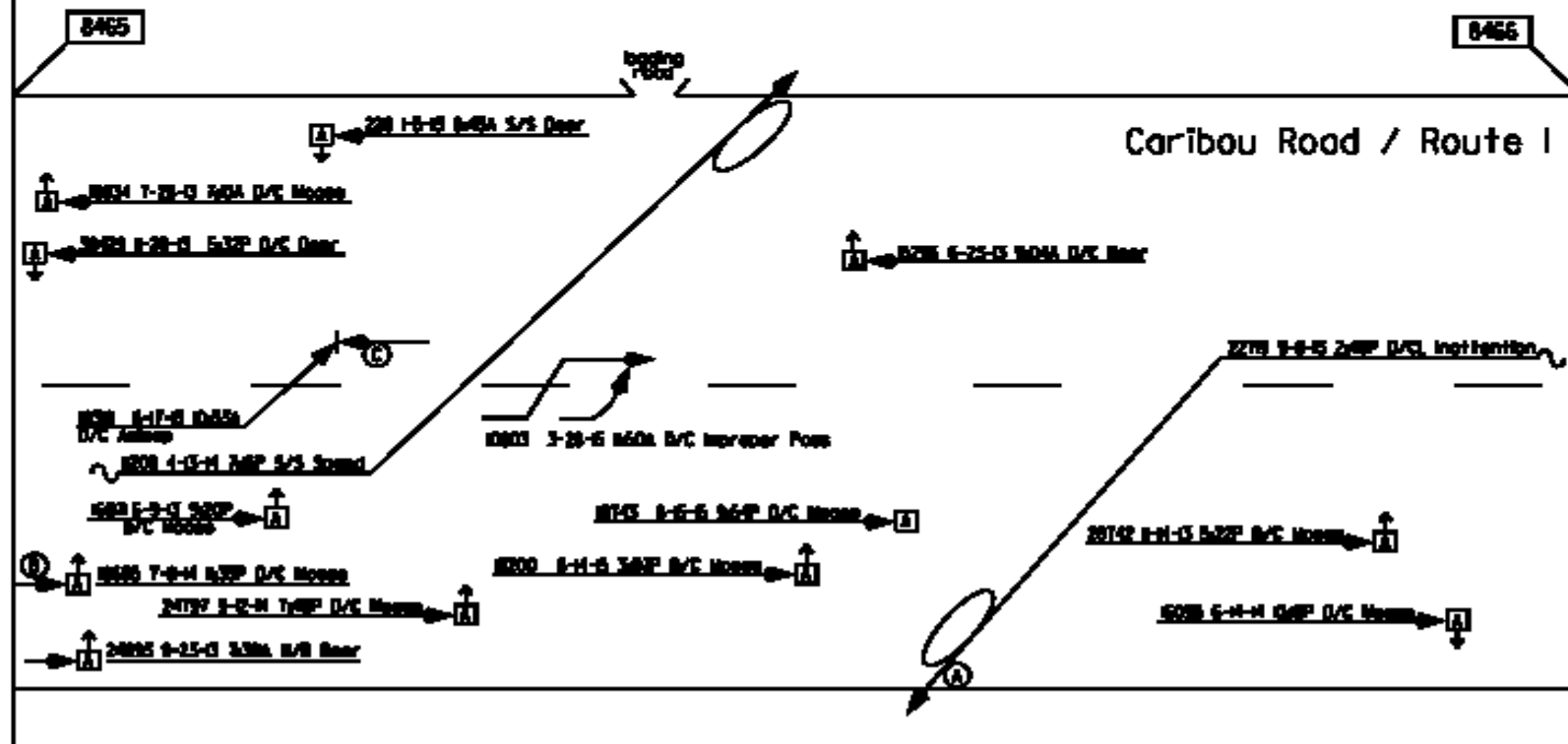
### Aerial View

Caribou Road (Route One) at the Connor and Cyr Plantation townline north to node 8466 Caribou Road (0.99 miles)



Cyr Pit  
 Link: 8465-8466  
 Element: 3099203  
 Study Period: 2013-2015  
 \* of Crashes: 16 / CRF: 3.42

Prepared by M&B Traffic Engineering  
 D.A. - 9/27/16







Source: NMDC, 2016

US Route One northbound in Cyr Planation. Animal reflector system is buried in snow.



Source: NMDC, 2016

Moose tracks in road on US Route One at the Cyr Planation townline.



Source: NMDC, 2016

Moose Crossing sign on US Route One in Cyr Plantation, southbound lane.



Source: NMDC, 2016

Moose Crossing on US Route One at the Cyr Plantation townline.

## Cyr Plantation

**Location:** Node 8466 (non Intersection of Caribou Road north 1.19 miles to node 8467 Intersection of the Caribou Road and Vaillancourt Hill Road.

**Assessment:** This two-lane road has wide paved shoulders and animal reflectors along the length of the Element. The road is straight with a 55 mph speed limit and the vegetation has been cleared for most of the length.

The link is very rural with mostly commercial forestland located along the corridor. Several logging roads intersect the link.

### Recommendations:

- Consider airing a moose public service announcement during the Fall rutting period warning motorists of the potential of moose in the road.
- Consider the installation of animal fencing.
- Continue to trim vegetation along link to improve early detection of moose/deer.
- Maintain reflector system.
- Ask the Maine State Police and the Aroostook County Sheriff's Department to increase speed details along this link.

### Crash Summary:

Most the crashes are animal related. Several involve defective vehicles. Like the link above, NMDC staff noticed that traffic travels at a high rate of speed along this corridor

### High Crash Information (2013-2015)

Beginning Node	Ending Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
8466	8467	11	2.16	27.3	86	8

Source: MaineDOT, 2016

### Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
Caribou Road	1	B-A	A	B	Principal Arterial	State	55

Source: MaineDOT, 2016

### Traffic Counts

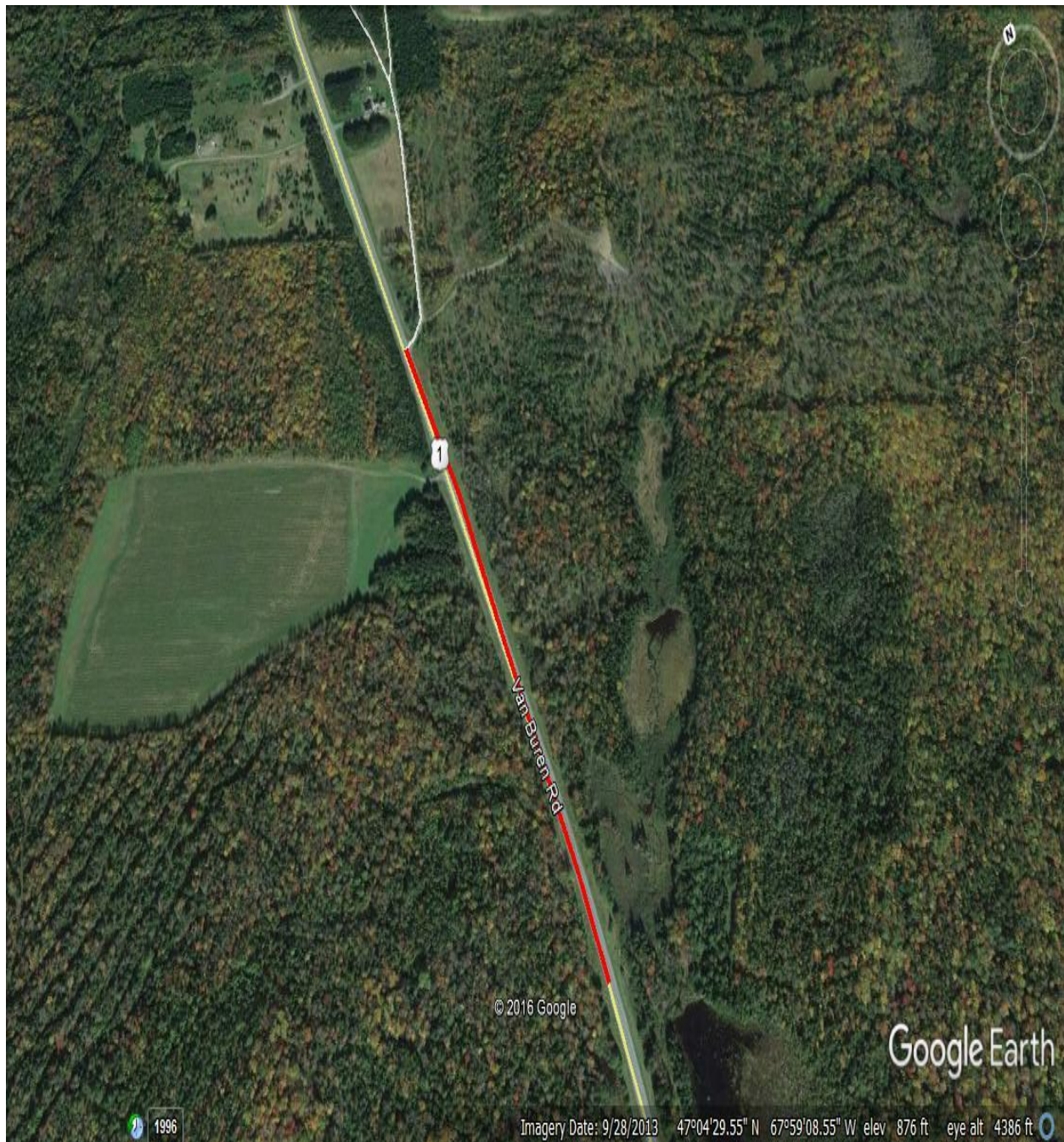
Historical AADT	AADT Location
2015: 1,470	US 1 south of the intersection of IR 5030 (S JCT)

Source: MaineDOT, 2016

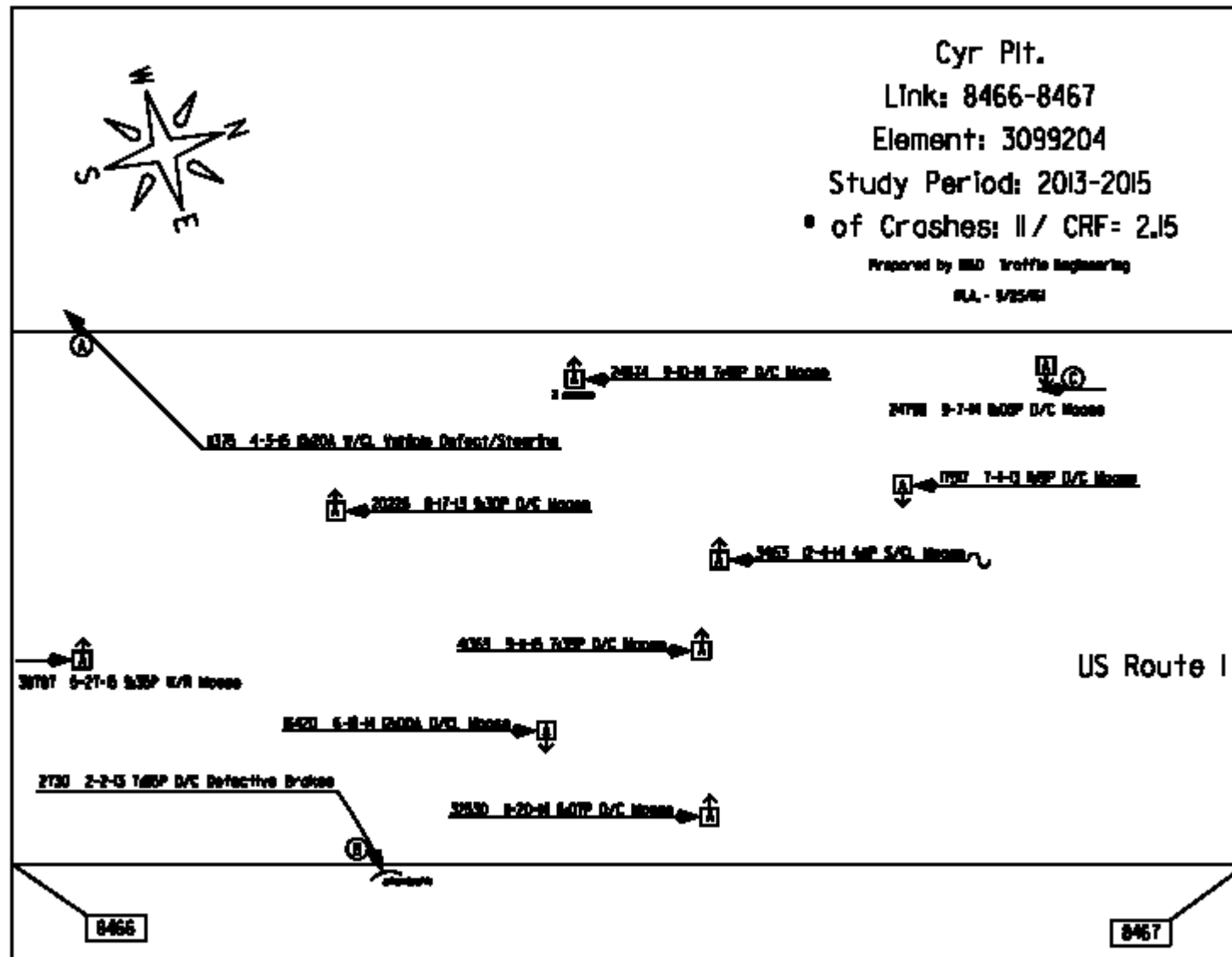


### Aerial View

Node 8466 (Non Intersection of Caribou Road north 1.19 miles to node 8467 Intersection of the Caribou Road and Vaillancourt Hill Road.









Source: NMDC, 2016

US Route One in Cyr Planation at Vaillancourt Hill. Notice driveways located at bottom of hill.



Source: NMDC, 2016

US Route One in Cyr Planation at Vaillancourt Hill. Notice blind driveway.

## Town of Fort Fairfield

**Location:** Beginning at node 6053 and ending at node 6087 on the North Caribou Road in Fort Fairfield.

**Assessment:** This link is located in Fort Fairfield on the North Caribou Road. It extends easterly to nearly Route 1-A and is a two-lane road with gravel shoulder. There is a mixture of single family residential housing units and agricultural lands along the link. The link follows the Aroostook River and is moderately hilly with a few curves. Staff noticed a couple of blind driveways on the link. Staff also noticed that there were several signs, both east and westbound, warning motorists of blind driveways, curves, and that speed was enforced by radar.

### Recommendations:

- Continue speed details along link.
- Consider increased winter maintenance (sand/salt) along road during winter storm events.
- Consider trimming vegetation to ensure all signage is visible.

### Crash Summary:

There have been eight crashes on this link, 3 of which were due to road surface conditions in the winter months, 3 were animal related (deer, dog, and porcupine), one unsafe speed, and one OUI.

### High Crash Information (2013-2015)

Beginning Node	End Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
6053	6087	8	1.02	12.5	186	30

Source: MaineDOT, 2016

### Link Information:

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
North Caribou Road	5	C	A	A	Minor Collector	State Aid	45

Source: MaineDOT, 2016

### Traffic Counts

Historical AADT	AADT Location
2012- 880 2015- 830	North Caribou Road W/O US 1A
2012-370 2015-440	R 904 (North Caribou Road) NW/O IR 439 @BR# 3757

Source: MaineDOT 2016

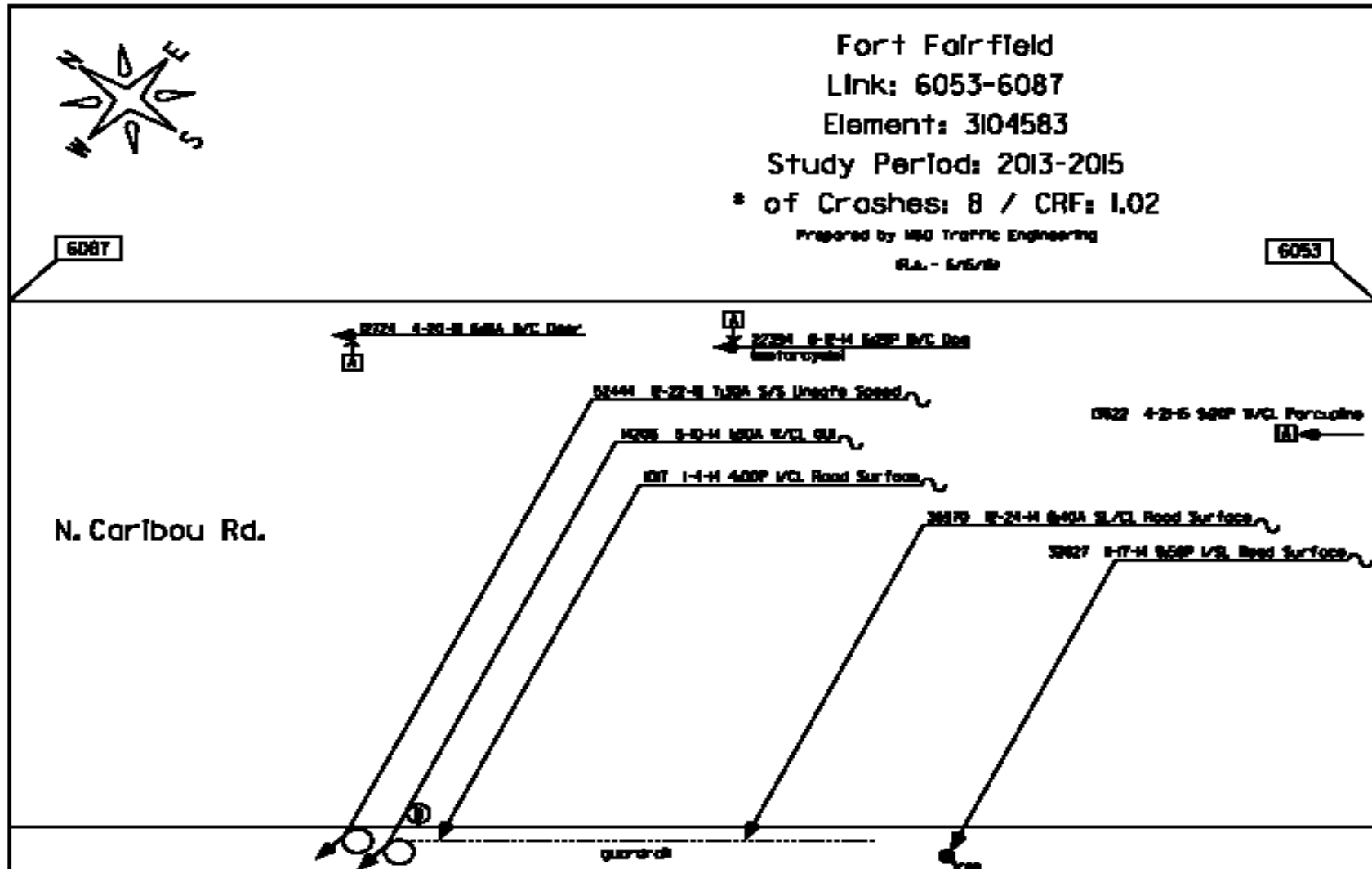
### Aerial View

Beginning at node 6053 and ending at node 6087 on the North Caribou Road in Fort Fairfield.





MaineDOT Crash Diagram





Source: NMDC 2016

North Caribou Road eastbound. Notice blind curve with driveways and “Horse Crossing” sign partially blocked by vegetation.



Source: NMDC 2016



Source: NMDC 2016

North Caribou Road westbound. Corner with entrance to cemetery.

## Town of Fort Fairfield

**Location:** Beginning at the intersection of the Conant Road and Presque Isle Road (node 8664) and extending easterly to the intersection of the Presque Isle Road and Road 1166 (node 8732).

**Assessment:** This link is located in Fort Fairfield on the Presque Isle Road (Route 167). This is a major route between Fort Fairfield and Presque Isle and has medium traffic counts. There is a mixture of small commercial, single family residential, and agricultural lands along the link. The link is a two-lane road with paved shoulders. While there is a moderately steep hill, the link is for the most part straight with good sight distances. Areas of agricultural land may be situated in such a way as to create long expanses for blowing snow to become an issue. Staff noticed several vehicles traveling at a high rate of speed. Staff also noticed several driveways located on either side of the crest of a hill which could have potentially created a dangerous situation. And finally, there is a passing zone located at the intersection of the Conant Road. While there is a turning lane (westbound), cars heading east could potentially be distracted and turn into oncoming traffic. The road is also heavily rutted in this location.

### Recommendations:

- Consider planting wind breaks or installing snow fencing along the northern areas identified for blowing snow.
- Consider a review of the passing zones.
- Consider installing deer crossing signs.
- Consider requesting that the Maine State Police increase speed details on the link.
- Consider installing solar powered signs to help keep driver attention.
- Consider fixing the rutted pavement.

### Crash Summary:

There have been twenty (20) crashes on this link, Blowing snow and unsafe speed account for most the crashes on this link. Staff noticed several vehicles traveling at a high rate of speed.

### High Crash Information (2013-2015)

Beginning Node	End Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
8664	8732	20	1.17	35.0	171	25

Source: MaineDOT, 2016



## Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
Presque Isle Road	2	C	A	C	Minor Arterial	State	55

Source: MaineDOT, 2016

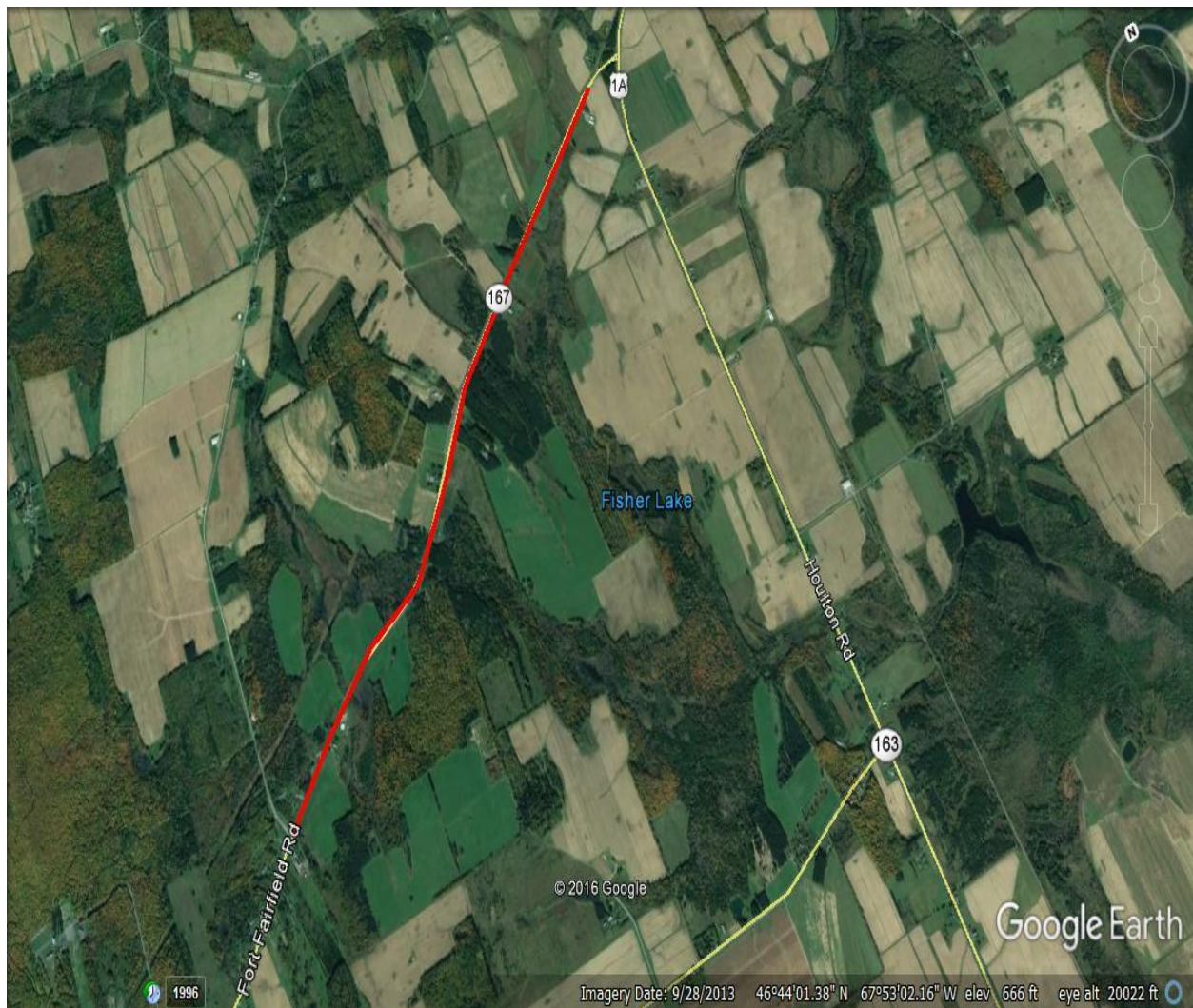
## Traffic Counts

Historical AADT	AADT Location
2012- 2890 2015 2620	Southwest of the intersection with Road 1166

Source: MaineDOT 2016

### Aerial View

Beginning at the intersection of the Conant Road and Presque Isle Road (node 8664) and extending easterly to the intersection of the Presque Isle Road and Road 1166 (node 8732).





Fort Fairfield

Link: 8664-8732

Element: 3123416

Study Period: 2013-2015

\* of Crashes: 20 / CRF: 1.16

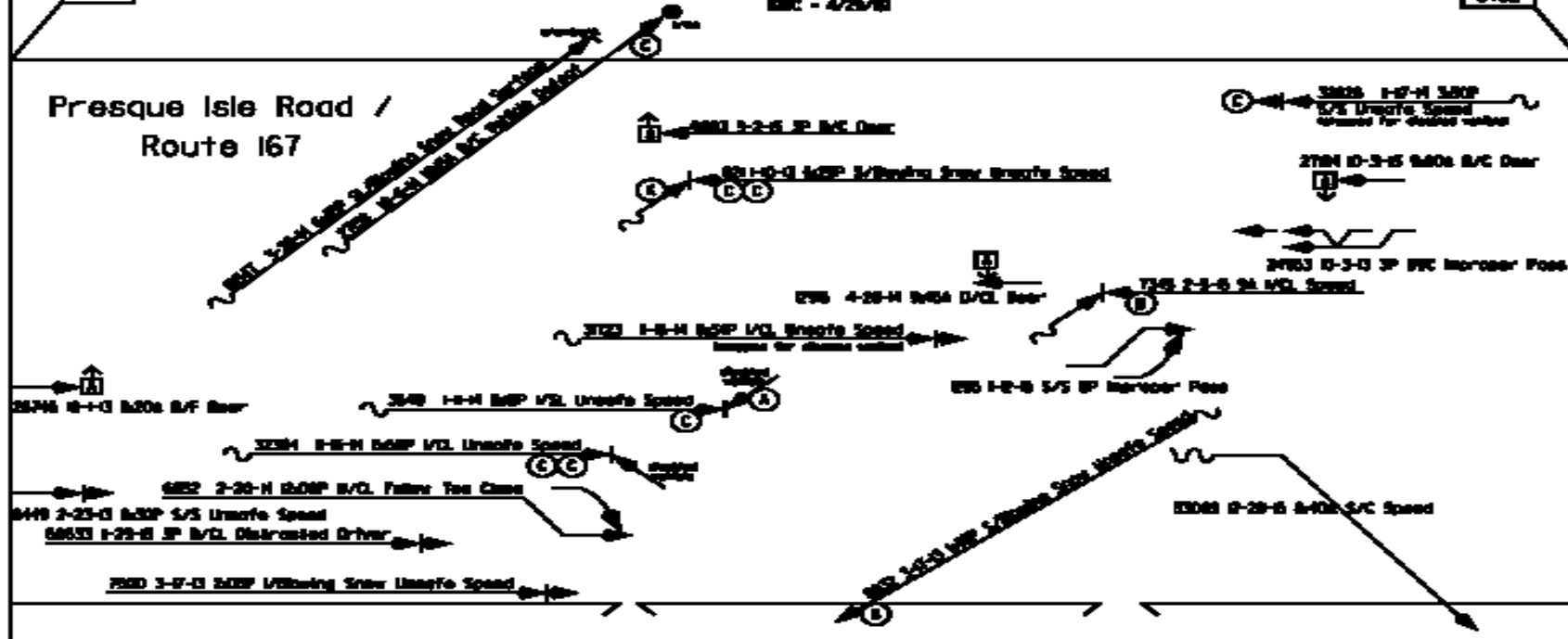
Prepared by M&O Traffic Engineering

DATE: 4/25/16

8664

8732

Presque Isle Road /  
Route 167





Source: NMDC 2016

Presque Isle Road westbound. Potential area for blowing and drifting snow. Notice the Share the Road signage.



Source: NMDC 2016

Presque Isle Road eastbound. Passing zone on hill with commercial entrance at bottom of hill. Road on left side of picture is a natural animal crossing (moose/deer). Notice lack of animal crossing sign.





Source: NMDC 2016

Presque Isle Road westbound. Notice steep hill with driveway located just under the crest of hill.



Source: NMDC 2016

Intersection of Conant Road and Presque Isle Road westbound. Passing lane on Presque Isle Road for vehicles heading east. Turning lane for vehicles eastbound to Conant Road.

## Town of Houlton

**Location:** Intersection of North Street (Route 1) and Putnam Avenue (node 8337).

**Assessment:** North Street is a four-lane road with a sidewalk located on the eastern side. Putnam Avenue is the main entrance road to the Houlton Regional Hospital and is a two lane road. There are right and left turn lanes located at the intersection which are marked with striping and arrows. Speed limits on both roads are 25 mph. Putnam Avenue is also an ATV access route.

### Recommendations:

- Consider a “flashing signal” with Yellow on North Street and Red on Putnam Avenue.
- Consider a more prominent “Hospital” sign for vehicles heading south.
- Consider through traffic signage for the outer lane (southbound) and the inner lane (northbound).
- Consider a red/green traffic light that is triggered by a microwave emitter for Putnam Street. Have the light go to a flashing red and yellow during the evening and early morning hours when traffic isn’t an issue. It would be very expensive but doable.
- Consider right turn only signage from Putnam Street south onto the North Road during peak traffic hours.
- Consider constructing a lane on the North Road that would allow vehicles to stack up and get out of the travel lane in order to make a left turn onto Putnam Street from the North Road.
- Educate/encourage hospital employees to use Maple or Bowdoin Street coming to or leaving work.

### Crash Summary:

Six (6) of the eight crashes were “Failure to Yield” one (1) was an improper turn, and one (1) was following too close. Most the crashes involved vehicles heading south on North Street and vehicles entering North Street from Putnam Avenue to go north.

### High Crash Information (2013-2015)

Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
8337	8	1.30	12.5	204	4

Source: MaineDOT, 2016

## Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
North Street	3	A	C	A	Major Urban Collector	State Aid	25
Putnam Avenue	N/A	N/A	N/A	N/A	Local	Town	25

Source: MaineDOT, 2016

## Traffic Counts

Historical AADT	AADT Location
2012 15,280 2015 17,100	North Street N/O Putnam Avenue
2012 14,910 2015 17,020	North Street S/O Putnam Avenue
2012 1,630 2015 1,500	Putnam Avenue W/O US Route 1 (North Street)

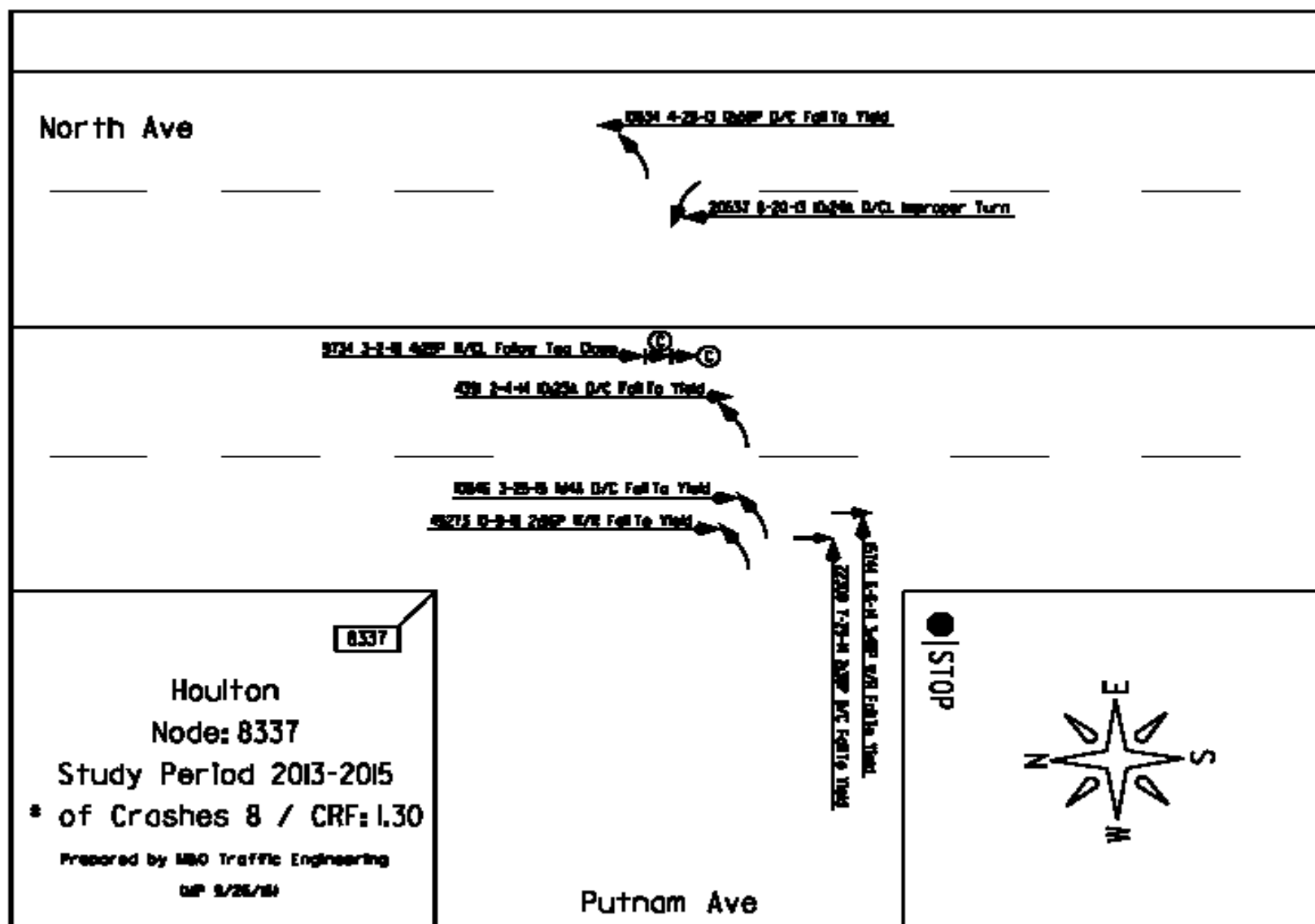
Source: MaineDOT 2016

## Aerial View

Intersection of North Street (Route 1) and Putnam Avenue (node 8337).









Source: NMDC 2016

Intersection of Putnam Avenue and North Street (from Putnam Avenue). Notice lane markings.



Source: NMDC 2016

Intersection of North Street and Putnam Avenue (southbound). Notice lack of signal indicating upcoming intersection.

## Town of Houlton

**Location:** Intersection of B Road and McSheffery Road (node 5398) to intersection of B Road and Cogan Road (node 5399) 0.96 miles.

**Assessment:** The B Road is a two-lane with gravel shoulders road located to the west of US Route One in Houlton. The link is generally flat but has a few sharp curves that are marked with signage. The Cogan Road intersection has a “Yield” sign. NMDC staff noticed that vehicles travel at a high rate of speed on this link.

Land uses along the link include agricultural and single family residential.

### Recommendations:

- Consider installing speed limit signs.
- Consider changing “Yield” sign to “STOP” sign at intersection of Cogan Road.
- Consider installing “Blind Drive” signs.
- Consider requesting increased speed enforcement details.

### Crash Summary:

There have been eight (8) crashes on this link, two (2) involving speed, two (2) involving road conditions, and one (1) each for failure to keep in lane, sickness, internal distraction, and improper backing.

### High Crash Information (2013-2015)

Beginning Node	End Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
5398	5399	8	1.36	37.5	152	19

Source: MaineDOT, 2016

### Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
B Road	5	C	C	A	Minor Collector	State Aid	50

Source: MaineDOT, 2016

### Traffic Counts

Historical AADT	AADT Location
2012 1,130	B Road NW of bridge 6188 (B Stream)

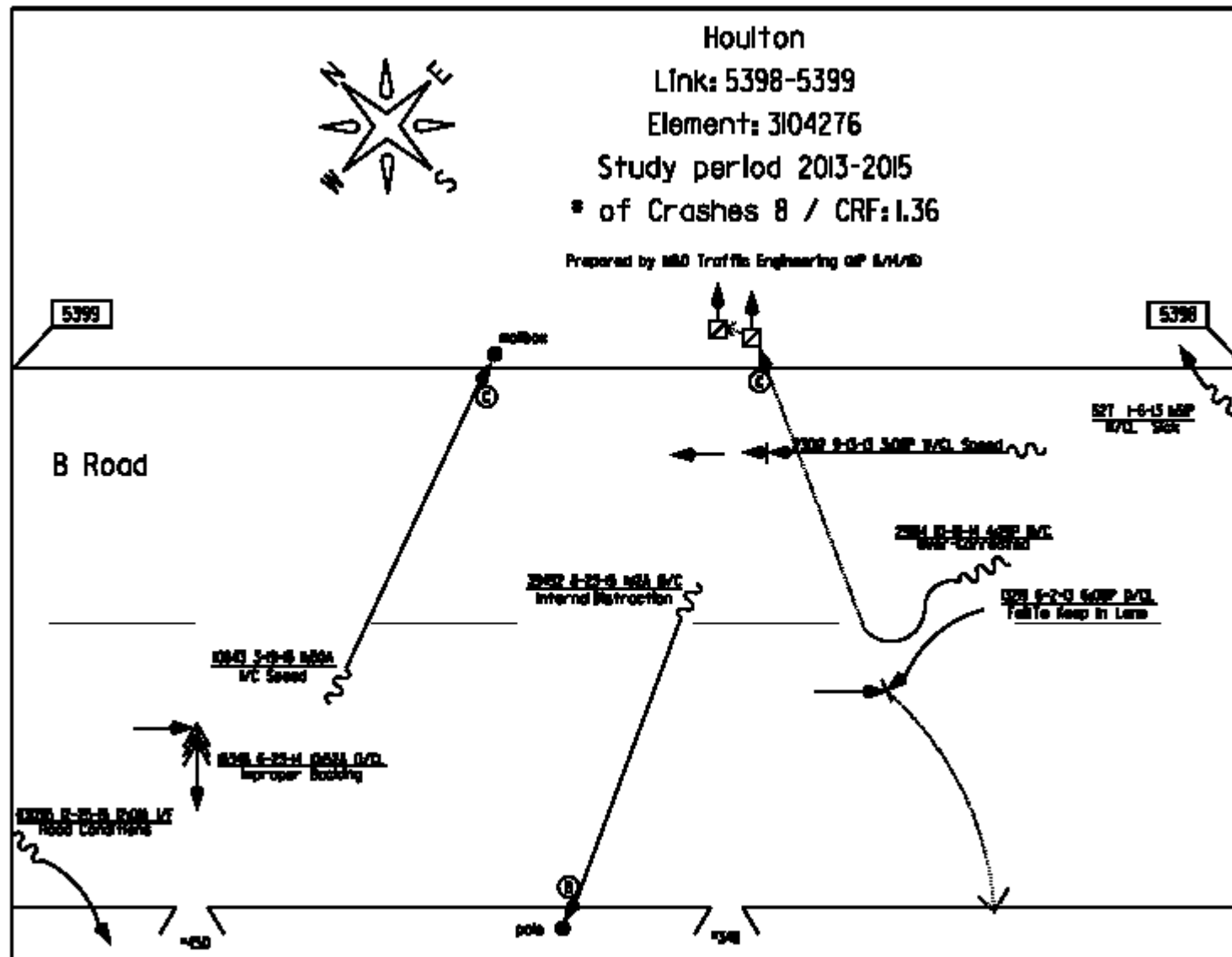
Source: MaineDOT 2016

### Aerial View

Intersection of B Road and McSheffery Road (node 5398) to intersection of B Road and Cogan Road (node 5399). 0.96 miles.









Source: NMDC, 2016

B Road at McSheffery Road intersection looking west. Notice “Curve” sign



Source: NMDC, 2016

B Road in Houlton. Notice curve with driveway.



Source: NMDC, 2016

B Road in Houlton looking west.



Source: NMDC, 2016

B Road at Cogan Road intersection. Intersection has a Yield sign.

## Town of Houlton

**Location:** Intersection of Mill Street, North Street, and Putnam Avenue (node 8333) to intersection of North Street and Union Square (node 9409). 0.06 miles.

**Assessment:** This link is a two-lane road with sidewalks located on either side of the link. There are entrances to a TD Bank North, a public park, and a bridge over the Meduxnekeag River. Mill Street is located adjacent to the entrance of the bank and directly across from the park entrance. At the northern end of the link, cars traveling south are funneled into a single lane while vehicle sin the right-hand lane must turn right onto Route 2. The southern end of the link includes an intersection with Union Square and Route 2-A. This intersection is signalized.

### Recommendations:

- Consider “squaring up” intersection at Union Square.
- Consider requesting additional speed details.
- Consider “Speed enforced” signage

### Crash Summary:

There have been ten (10) crashes on this link. Four (4) of the 10 involved speeding while the remainder were from a variety of reasons, including mechanical failure (2), following too close, and swerving to avoid.

### High Crash Information (2013-2015)

Beginning Node	End Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
8333	9409	10	2.49	10.0	66	6

Source: MaineDOT, 2016

### Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
North Street	3	A	D	C	Major Urban Collector	State Aid	25

Source: MaineDOT, 2016

### Traffic Counts

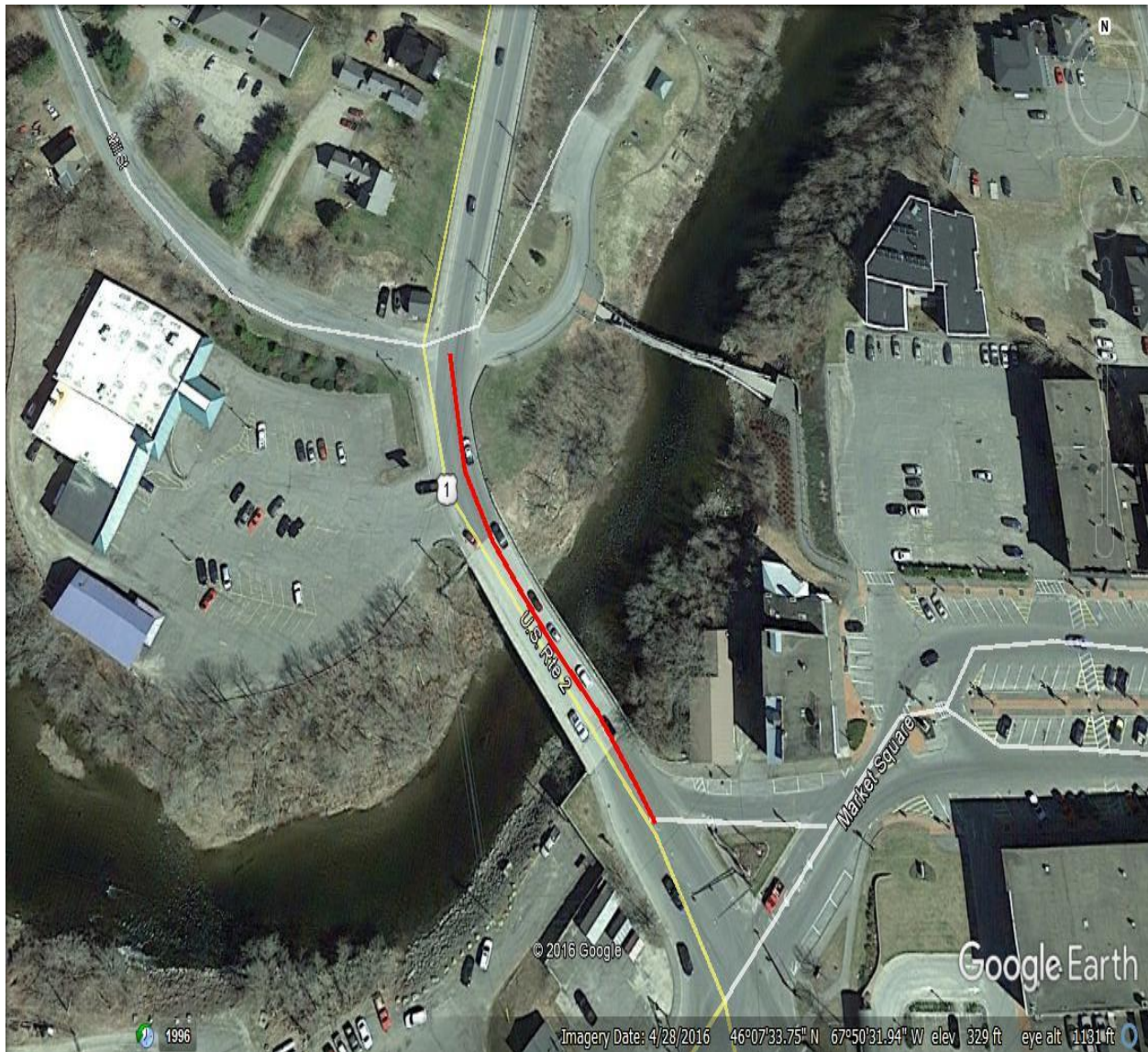
Historical AADT	AADT Location
2012 13,210	North Street southeast of Mill Street at Bridge 2629

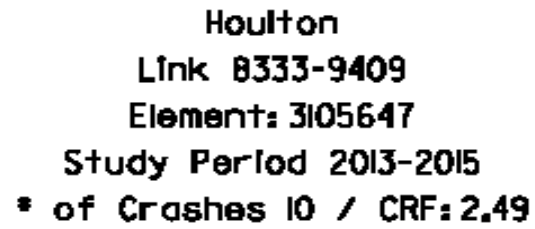
Source: MaineDOT 2016



### Aerial View

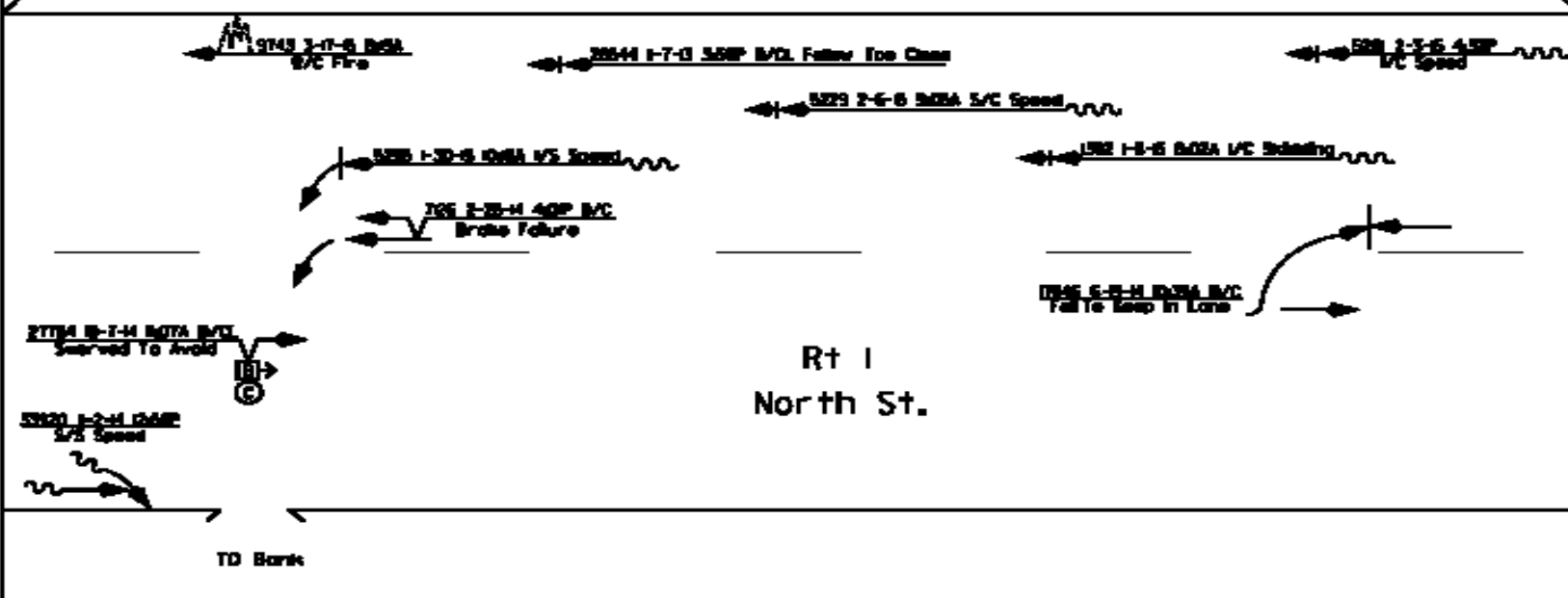
Intersection of Mill Street, North Street, and Putnam Avenue (node 8333) to intersection of North Street and Union Square (node 9409). 0.06 miles.





**#333**

**9-409**







Source: NMDC 2016

Intersection of Union Square and North Street.



Source: NMDC, 2016



Source: NMDC 2016

Intersection of Union Square and North Street, looking at North Street. Vehicles must turn right at this location.



## Town of Houlton

**Location:** Intersection of North Street and Putnam Avenue (node 8337) to intersection of entrance of shopping center on North Street (node 64168). 0.19 miles.

**Assessment:** North Street is a four-lane road that is heavily developed with commercial and residential development. There is a signalized (maintained by the Town) intersection at the entrance to the shopping center. There are numerous commercial entrances and Putnam Avenue is the main entrance to Houlton Regional Hospital. Speed limits along the link at 25 mph but NMDC staff observed vehicles traveling well in excess of the posted speed limit.

### Recommendations:

- Consider extending island south past the MacDonald's Restaurant.
- Consider, where feasible, sharing entrances.
- Consider a "Turning Traffic-Hospital Zone" sign in the southbound lane.

### Crash Summary:

Nearly all the crashes were either "failure to yield" or "following too closely".

### High Crash Information (2013-2015)

Beginning Node	End Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
8337	64168	15	1.33	20.0	155	21

Source: MaineDOT, 2016

### Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
North Street	3	A	C	A	Major Urban Collector	State Aid	25

Source: MaineDOT, 2016

### Traffic Counts

Historical AADT		AADT Location
2012	15,280	North Street N/O Putnam Avenue
2015	17,100	
2012	7,180	North Street Northbound (south of the I-95 interchange)

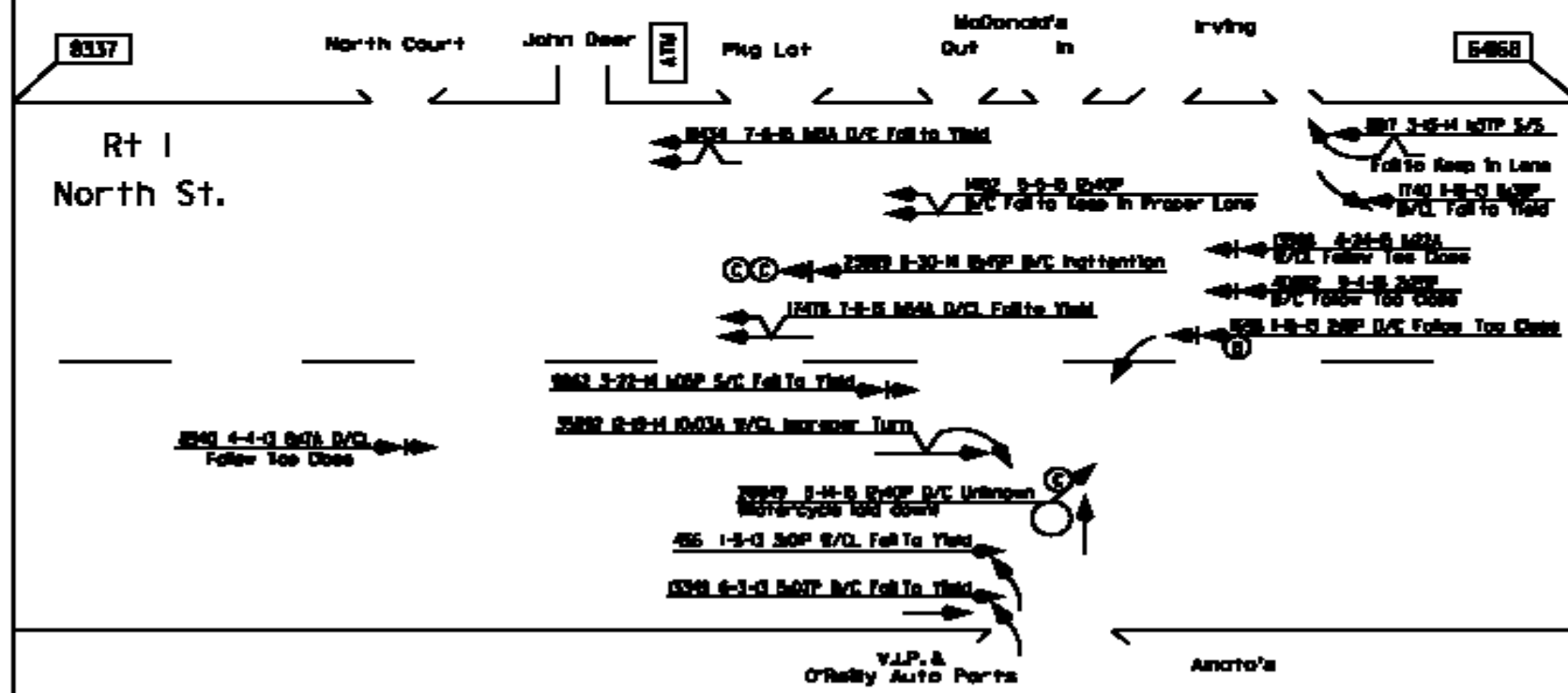
Source: MaineDOT 2016

### Aerial View

Intersection of North Street and Putnam Avenue (node 8337) to intersection of entrance of shopping center on North Street (node 64168) 0.19 miles.



Houlton  
 Link: 8337-64168  
 Element: 3116259  
 Study Period: 2013-2015  
 # of Crashes: 15 / CRF: 1.33  
 Prepared by M&M Traffic Engineering  
 R.A. - 9/27/16





Source: NMDC 2016

North Street at Shopping Center entrance looking south.



Source: NMDC 2016

Shopping Center entrance at North Street looking north. Notice the numerous access points along the link.





Source: NMDC, 2016

North Street and Putnam Street Intersection. Consider a turning traffic sign and a flashing signal at this location.

## Town of Monticello

**Location:** Intersection of Gentle Road and US Route 1 (node 8346) to intersection Hill Siding Road and US Route 1 (node 8347). 0.68 miles.

**Assessment:** US Route 1 is a two-lane road with wide paved shoulders. This link is part of the National Highway System in Aroostook County. The link is predominately straight with long passing lanes. However, there is a sharp curve located at the Hill Siding Road intersection which is well marked with Chevrons and a Deer Crossing sign. NMDC staff noticed a well utilized deer crossing on this corner and where a vehicle had gone off the road. The Town Manager indicated that the car going off the road was not deer related (December 2016).

Land uses include agricultural, commercial, and single family residential housing units. There is also a deer wintering area located along the link. A multi-season multi-use recreation trail parallels the link.

### Recommendations:

- Work with landowners to minimize deer feeding impacts during the winter months.
- Consider installing animal fencing.

### Crash Summary:

There have been fourteen (14) crashes on this link, nine (9) of which have involved animals. Two crashes were the result of driver inattention and one each for driver falling asleep, oversteering, and failing to keep in lane.

### High Crash Information (2013-2015)

Beginning Node	End Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
8346	8347	14	1.67	28.6	121	14

Source: MaineDOT, 2016

### Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
US Route 1	1	B	A	B	Principal Arterial	State	55

Source: MaineDOT, 2016

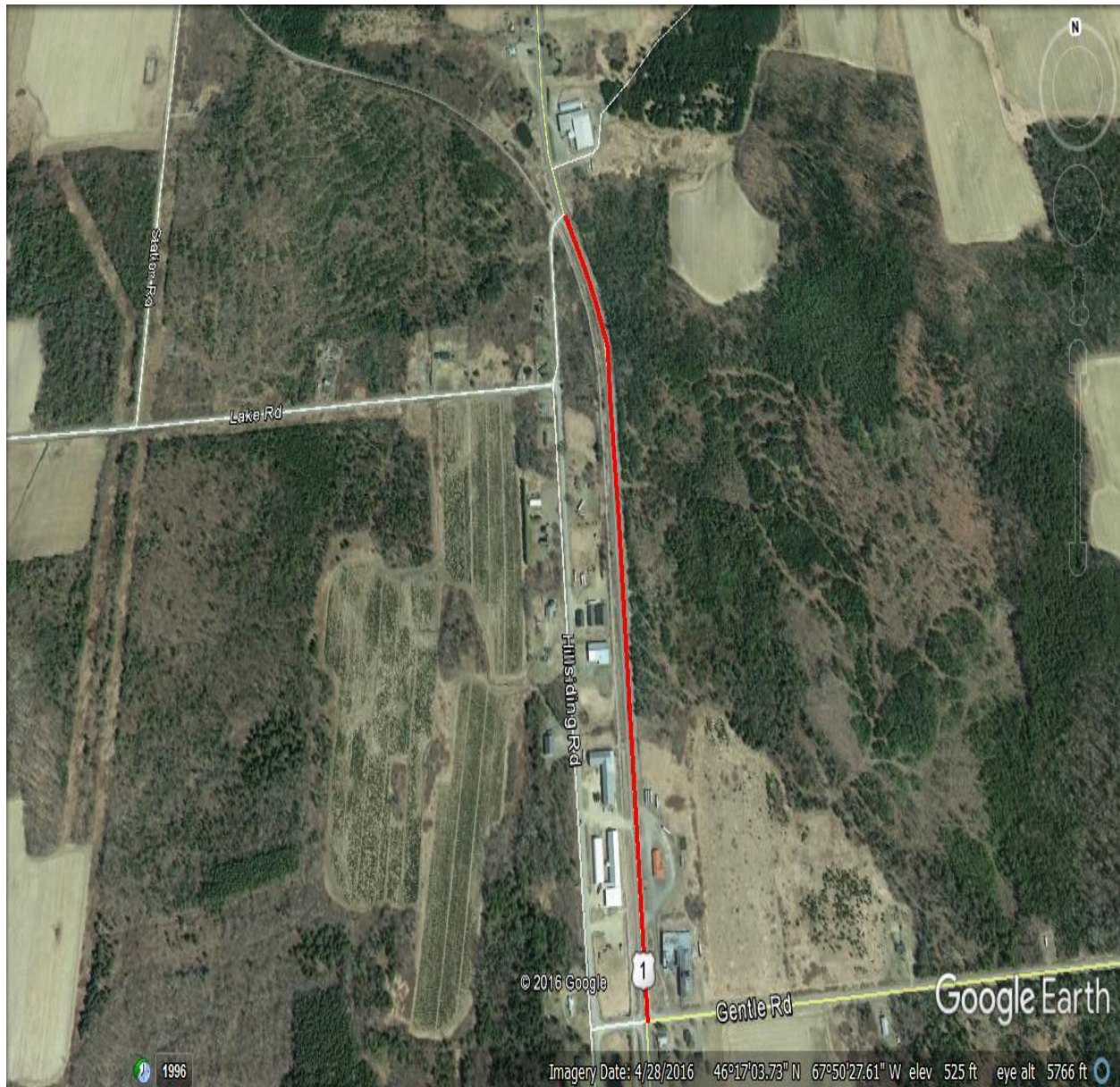
### Traffic Counts

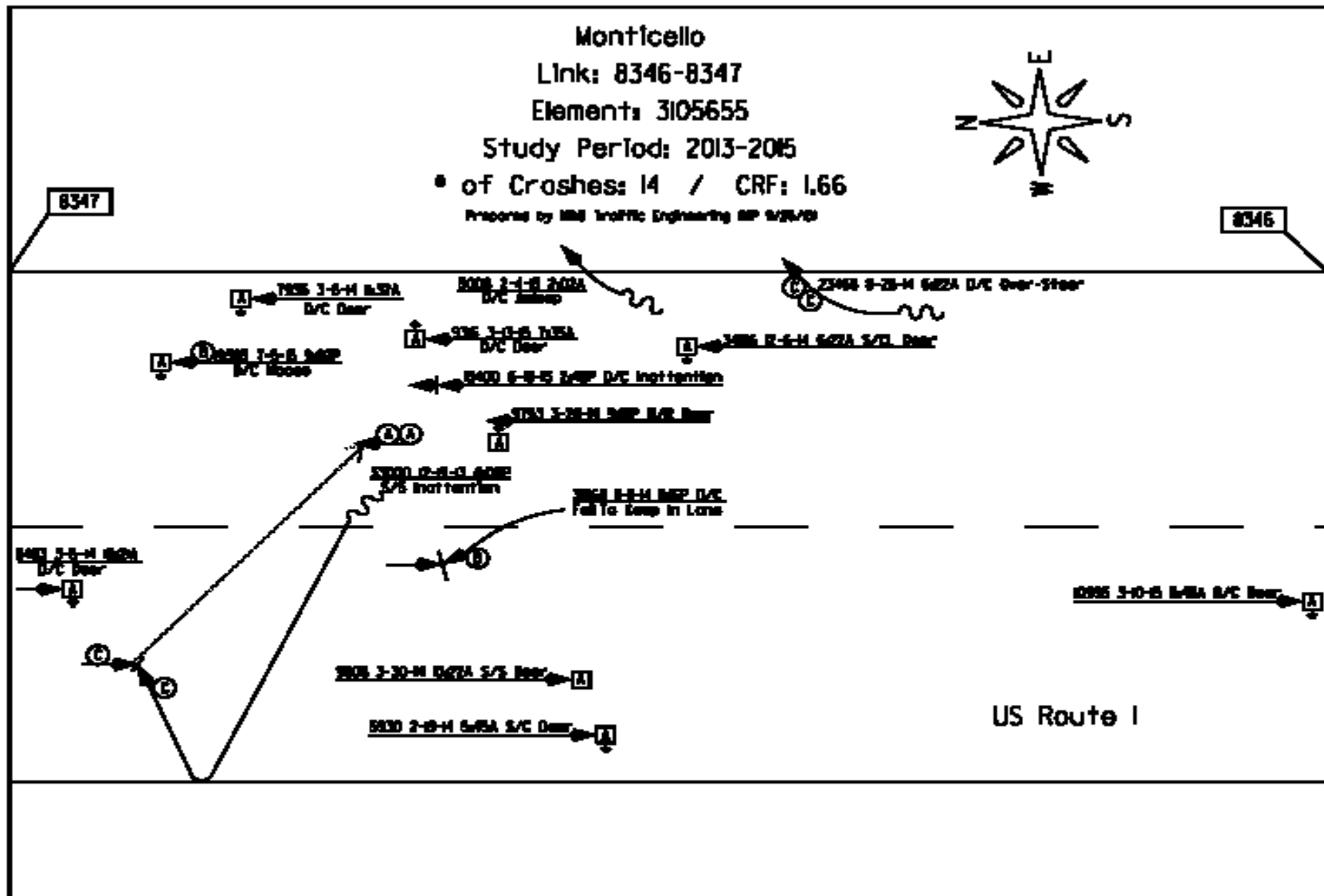
Historical AADT		AADT Location
2012	5,080	US Route 1 north of Gentle Road
2015	5,210	

Source: MaineDOT 2016

### Aerial View

Intersection of Gentle Road and US Route 1 (node 8346) to intersection Hill Siding Road and US Route 1 (node 8347) 0.68 miles.









Source: NMDC, 2016

US Route One southbound at the Hill Siding intersection. Notice Chevrons and Deer Crossing sign.



Source: NMDC, 2016

Deer crossing at Hill Siding Road and US Route One in Monticello.



Source: NMDC, 2016

US Route One in Monticello looking northbound. Curve with intersection at Hill Siding Road.



Source: NMDC, 2016

US Route One in Monticello northbound. Deer crossing sign located south of the Gentle Road

## Town of New Sweden

**Location:** Intersection of the Jepson Road and New Sweden Road (Route 161) (node 7997) and extending to node 7998 (non intersection on the New Sweden Road).

**Assessment:** This link is located in New Sweden on the New Sweden Road (also known as Route 161). It extends northerly from the Jepson Road intersection 1.05 miles and is a 2-lane road with paved shoulders. The section is sparsely populated with residential homes, forest lands and agricultural uses. The New Sweden Road is located on Jacobson Hill (known locally as “Half an Apple Hill) with a steep slope northbound to the end of the link. There are two residential homes on top of Jacobson Hill where site distances on the driveways are limited. There is a natural animal crossing at the bottom of Jacobson Hill near Beardsley Brook with a Deer Crossing sign on the southbound lane north of the brook.

### Recommendations:

- Consider animal crossing signage on northbound lane at Jacobson Hill.
- Consider Hidden Drive signs at top of Jacobson Hill.
- Consider a STOP sign at the intersection of Jepson Road and New Sweden Road.
- Consider new geometrics of intersection of Jepson Road and New Sweden Road to make more perpendicular with the New Sweden Road.
- Consider Chevrons on the southbound lane near the Jepson Road intersection.

### Crash Summary:

There have been eight crashes on this link, 6 of which are associated with animals (5 moose and 1 deer). Of the remaining two crashes, one was of unknown causes and the second was due to slippery road conditions. Forest operations that may have created ideal moose/deer habitat have been completed.

### High Crash Information (2013-2015)

Beginning Node	End Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
7997	7998	8	1.02	25.0	186	30

Source: MaineDOT, 2016

## Link Information

This link is not considered a retrograde arterial or a mobility corridor

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
New Sweden Road	2	B	A	B	Minor Arterial	State	55

Source: MaineDOT 2016

## Traffic Counts

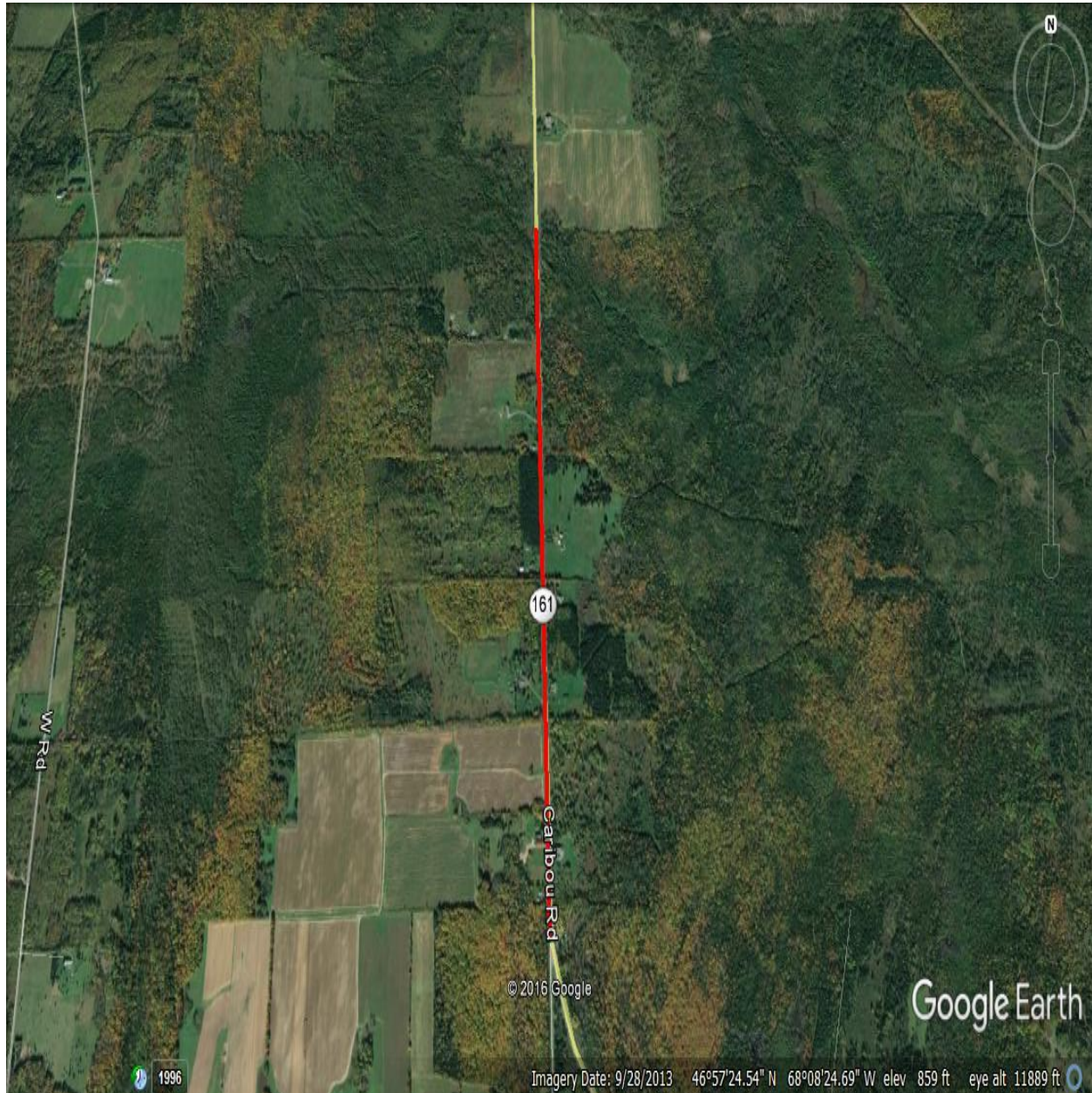
Traffic Counts are not available at this specific location.

Historical AADT	AADT Location
2012- 1,940	Route 161 NW of the Westmanland Road

Source: MaineDOT 2016



**Aerial View**  
**Town of New Sweden- Route 161 Element 3120579**







Source: NMDC 2016

New Sweden Road at Jacobson Hill, Two residential driveways. Notice the decreased site distance as cars travel at 50+ mph.



Source: NMDC 2016

New Sweden Road at Jacobson Hill looking north towards Beardsley Brook. Notice lack of Deer Crossing sign.





Source: NMDC 2016

Intersection of Jepson Road and New Sweden Road looking north. Notice the Yield sign and the angle of the intersection.



## City of Presque Isle

**Location:** Intersection of Park Street and Parson's Street (node 6881)

**Assessment:** This intersection is located along Parsons Street (Route 163/227) and Park Street in Presque Isle. It is a four-way intersection. There is a flashing yellow beacon for traffic on Parsons Street and a red beacon for those on Park Street. Parsons Street is straight and wide and could potentially cause motorists to speed due to the long straight stretches. MaineDOT and NMDC staff noticed vehicles making a wide turn onto Park Street from Parsons Street and pedestrians using the east side of the intersection where there were no sidewalks for pedestrian crossings. There is also a parking space for the Head start daycare. For those heading west on Park Street from US Route 1, there are turning lanes for both north and southbound vehicles. There is the potential for vehicles on Park Street to have blocked vision.

### **Recommendations:**

- Consider traffic calming measures on Parsons Street
- Consider signage indicating the upcoming intersection for southbound traffic.
- Consider marking a pedestrian walk at the intersection
- Consider delineating turning lanes on Parsons Street (southbound) to eliminate wide turns.
- Consider trimming vegetation on both sides of Park Street
- Consider eliminating the first parking space on Park Street at the DayCare

### **Crash Summary:**

Of the eight (8) crashes at this location, six (6) were from vehicles on Parsons Street southbound. Four (4) of those were "Failure to Yield", one ran the STOP sign, and 1 made an improper pass.

### **High Crash Information (2013-2015)**

<b>Node</b>	<b>Total Crashes</b>	<b>Critical Rate Factor</b>	<b>Percent Injury</b>	<b>State Rank</b>	<b>County Rank</b>
6881	8	2.20	12.5	141	2

Source: MaineDOT, 2016

## Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
Parson Street	2	Parson-north of Intersection F South of Intersection D	Parson-north of intersection B South of Intersection A	D	Minor Arterial	State	25
Park Street	5	A	A	B	Major Urban Collector	State Aid	25

Source: MaineDOT, 2016

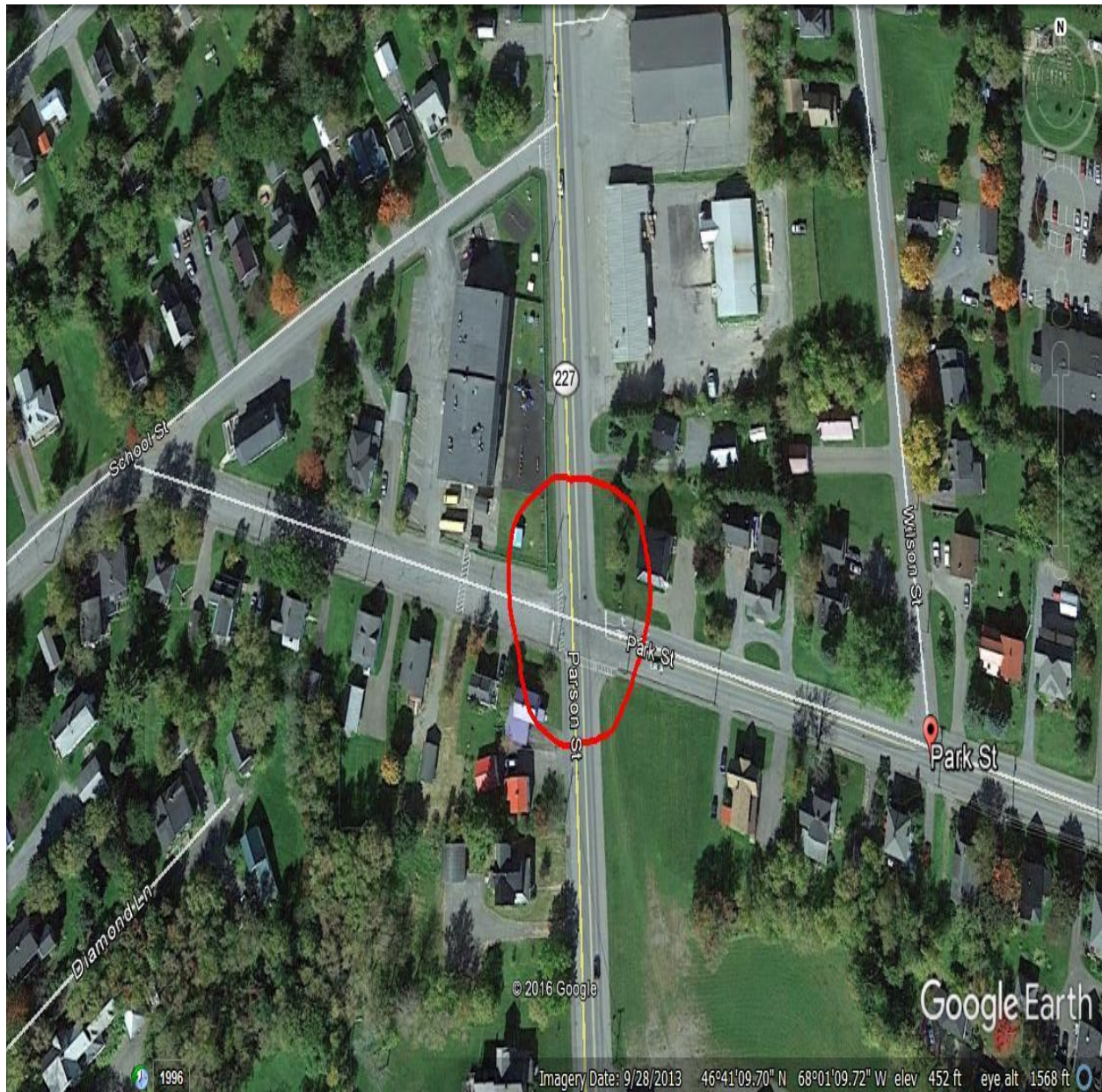
## Traffic Counts

Historical AADT	AADT Location
2012 8,150	Parsons Street south of Harris Street
2012 4,450 2015 4,270	Park Street east of US Route 1 at bridge 5881
2012 2,260 2015 2,200	Park Street east of SR 227/163

Source: MaineDOT, 2016

## Aerial Image

Intersection of Park and Parson Street- Presque Isle









Source: NMDC 2016

Intersection of Parson and Park street looing east towards downtown Presque Isle. Notice vehicle making wide left hand turn.



Source: NMDC 2016

Intersection of Parson and Park Street looking north. Notice that there is no sidewalk on the east side of the road with commercial establishment located to the north.



Source: NMDC 2016

Intersection of Parson and Park Street looking east. Notice parking space located at intersection.

## City of Presque Isle

**Location:** Intersection of Blake Street and Main Street (node P8407)

**Assessment:** This intersection is located along US Route 1 (Main Street) and is essentially in the center of Presque Isle geographically. This is a busy four-way non-signalized intersection with a rail crossing, additional signalized intersection to the north. NMDC staff noticed poor site distance from Riverside Drive due to the rail crossing signal located on the sidewalk. Main Street is essentially straight in this location which could cause traffic to travel at higher than posted speed. Land uses at the intersection are entirely commercial.

### Recommendations:

- Consider making Riverside Drive a One-Way Street (away from Main Street).

### Crash Summary:

Over one half (5) of the crashes involved vehicles on Riverside Drive. These included failure to yield and backing up. Three of the four additional crashes were identified as failure to yield

### High Crash Information (2013-2015)

Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
P8407	9	1.72	55.6	173	3

Source: MaineDOT, 2016

### Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
Main Street	1	F	B	F	Principal Arterial	State	25
Blake Street	5	B	A	F	Major Urban Collector	State Aid	25

Source: MaineDOT, 2016

### Traffic Counts

Historical AADT		AADT Location
2012	13,370	US Route 1 (Main Street) north of Church Street
2015	12,830	
2012	1,250	Blake Street west of Dudley Street
2015	1,280	

Source: MaineDOT, 2016



## Aerial View

Intersection of Blake Street and Main Street (node P8407)









Source: NMDC 2016

Main Street, Blake Street, and Riverside Drive looking south



Source: NMDC 2016

Riverside Drive looking north on Main Street. Railroad Crossing signals could potentially block view.



Source: NMDC 2016

Riverside Drive Intersection. Rail Crossing at intersection could potentially create the need for vehicles to back into following vehicles.



Source: NMDC 2016

Blake Street and Main Street Intersection. Staff noticed that when the ARTS bus stopped at the crossing there appeared to be confusion from other drivers heading south.

## City of Presque Isle

**Location:** Intersection of County Federal Credit Union, Main Street, and Entrance to Walmart (node 9239)

**Assessment:** This intersection is located on Main Street (US Route 1) in Presque Isle. It is a signalized four-way intersection that connects several commercial uses (Walmart, Tim Hortons, County Federal Credit Union, Hilton Gardens Inn, and Key Bank). There are four thru lanes with a turning lane for vehicles heading southbound and turning into Walmart. There is a center turning lane north of the intersection that ends at the signal. There is also a pedestrian cross walk at the south portion of the intersection but no sidewalk on the west side of Main Street. The entrance to Walmart and the County Federal Credit Union each contain an island that separates entering and exiting traffic.

This is an extremely busy intersection, especially during the lunchtime hour. However, traffic typically travels at the posted speed limits, lanes are well marked during the summer months, and sight distances are not an issue. NMDC staff believes that due to the sheer volume of traffic, crashes will happen at this location.

### Recommendations:

- Consider variable messaging signage on Main Street to keep motorist attention.
- Ensure that lane markings are completed as early as possible each Spring.
- Consider the construction of a sidewalk on the western side of Main Street.

### Crash Summary:

Nearly all the crashes occurred on Main Street (US Route 1) and involved either ‘driver inattention’ or “following too closely.”

### High Crash Information (2013-2015)

Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
9239	23	1.12	26.1	228	5

Source: MaineDOT, 2016

### Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
Main Street	1	D south F north	B	F north C south	Principal Arterial	State	25

Source: MaineDOT, 2016



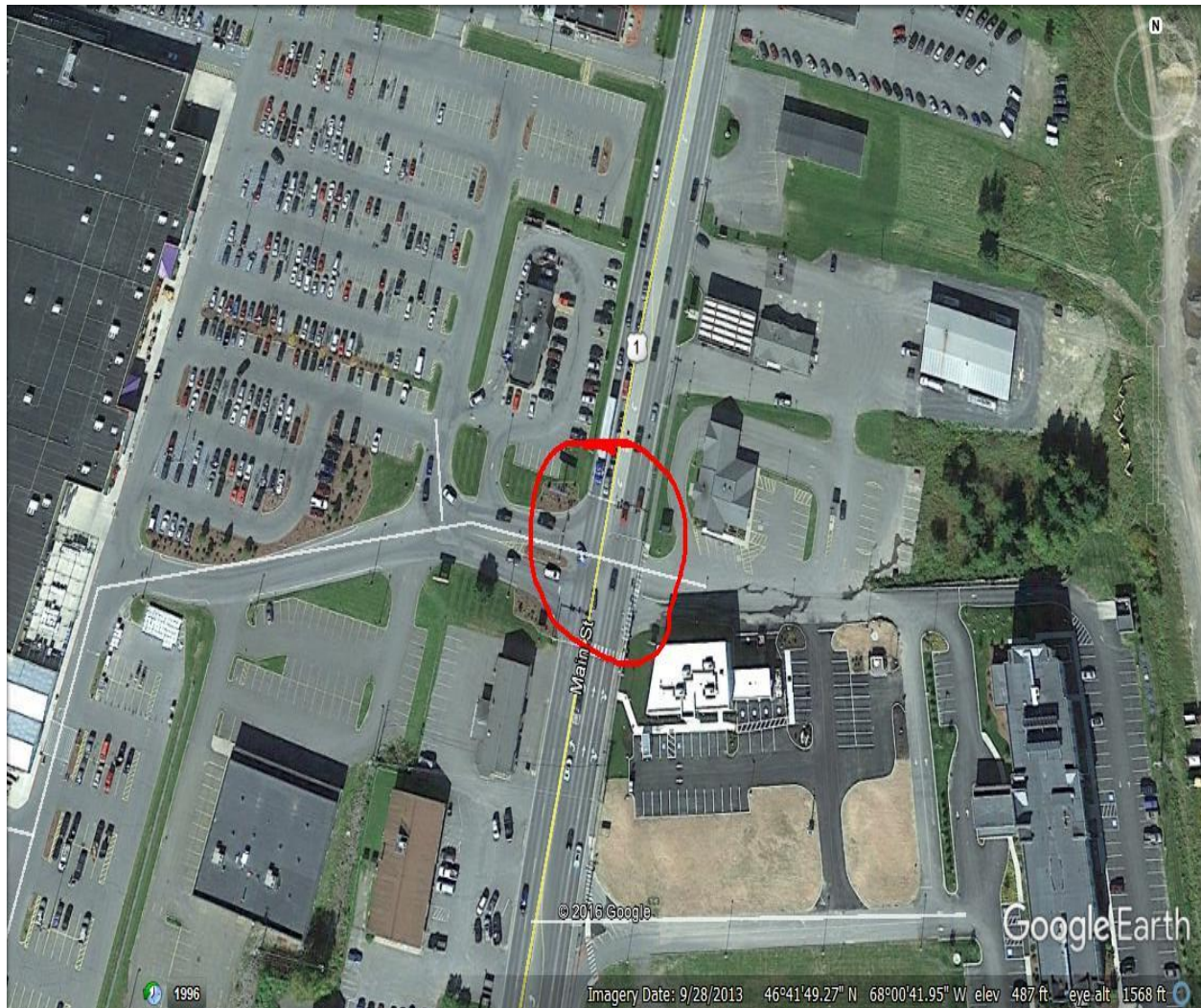
## Traffic Counts

Historical AADT		AADT Location
2015	15,980	US Route 1 (Main Street) north of Rice Street
2012	16,390	US Route 1 south of Maysville Street
2015	14,530	

Source: MaineDOT, 2016

## Aerial View

Intersection of County Federal Credit Union, Main Street, and Entrance to WalMart (node 9239)







Source: NMDC, 2016

Intersection of County Federal Credit Union, Walmart, and Maine Street in Presque Isle, looking southbound. While lanes are normally well marked, notice lack of lane markings (December 2016).



Source: NMDC, 2016

Intersection of County Federal Credit Union, Walmart, and Main Street in Presque Isle looking northbound. Several accesses located near intersection.





Source: NMDC, 2016

Intersection of County Federal Credit Union, Walmart and Main Street in Presque Isle. View is from the County Federal Credit Union parking lot.



Source: NMDC, 2016

Intersection of County Federal Credit Union, Walmart and Main Street in Presque Isle. View is from Walmart Entrance.

## City of Presque Isle

**Location:** Intersection of the Church Street and Second Street (node 7222) and extending to node Hall Street and Second Street (node 7223).

**Assessment:** This link is a two-lane road with parallel parking on the western side and perpendicular parking on the east. There is a pedestrian walk located at the intersection of Second and Church Street and at Hall Street. There is a flashing signal located at the intersection of Second and Church Streets.

Land uses on the link include a US Post Office and a commercial establishment. NMDC staff noticed numerous vehicles backing out into traffic (perpendicular parking) as well as pedestrians crossing Second Street at several locations. This created a confused situation where drivers were forced to remain vigilant.

### Recommendations:

- Consider reviewing pedestrian crossing locations.
- Consider reviewing the perpendicular parking situation at the Post Office.

### Crash Summary:

Nearly all of the crashes are associated with cars backing out of the Post Office

### High Crash Information (2013-2015)

Beginning Node	End Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
7222	7223	9	57.38	0.0	1	1

Source: MaineDOT, 2016

### Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
Second Street	5	A	A	A	Major Urban Collector	State Aid	25

Source: MaineDOT 2016

## Traffic Counts

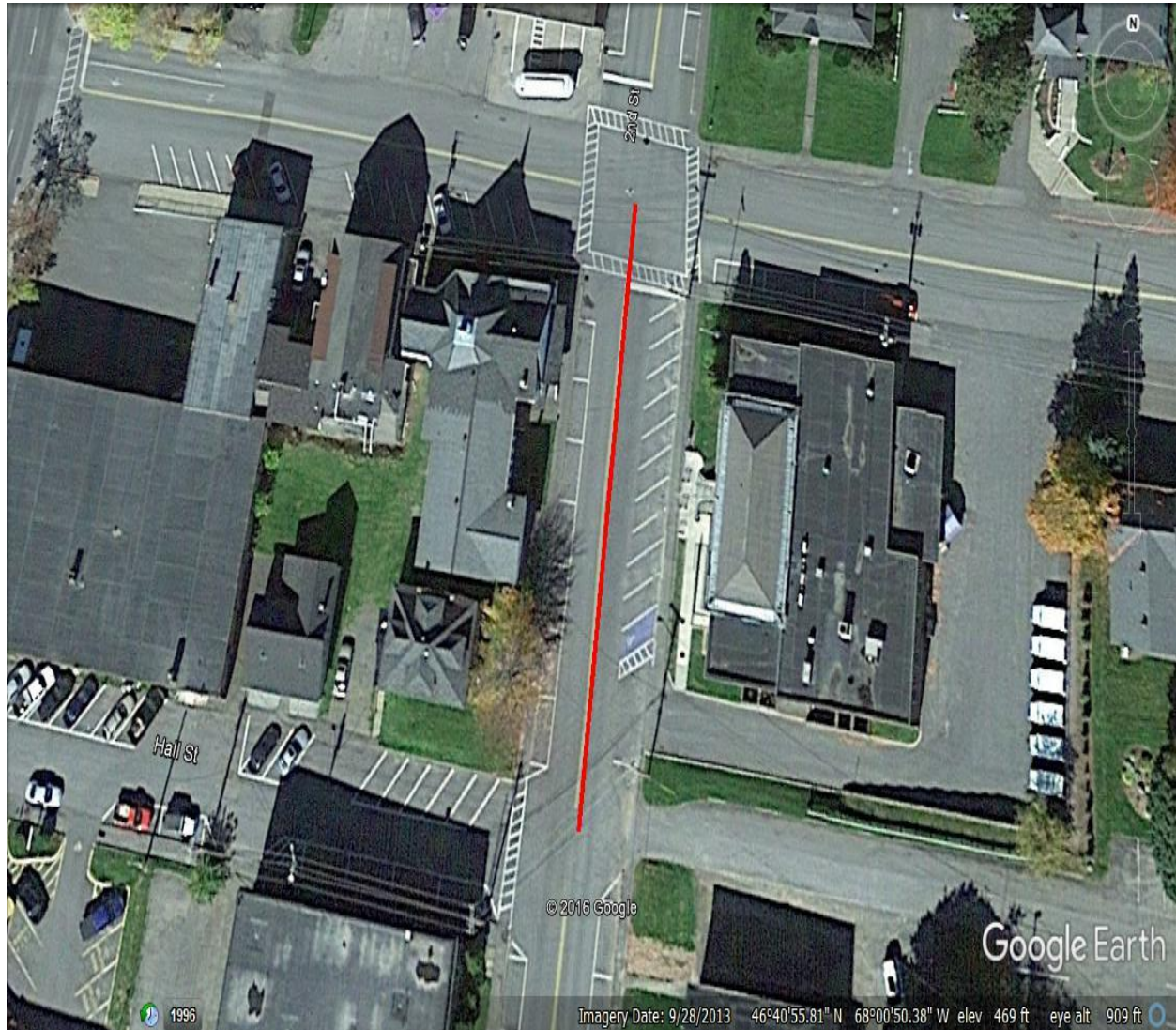
Traffic Counts are not available at this specific location.

Historical AADT	AADT Location
2012 1,230 2015 1,230	Second Street north of Academy Street
2012 900	Second Street north of Church Street

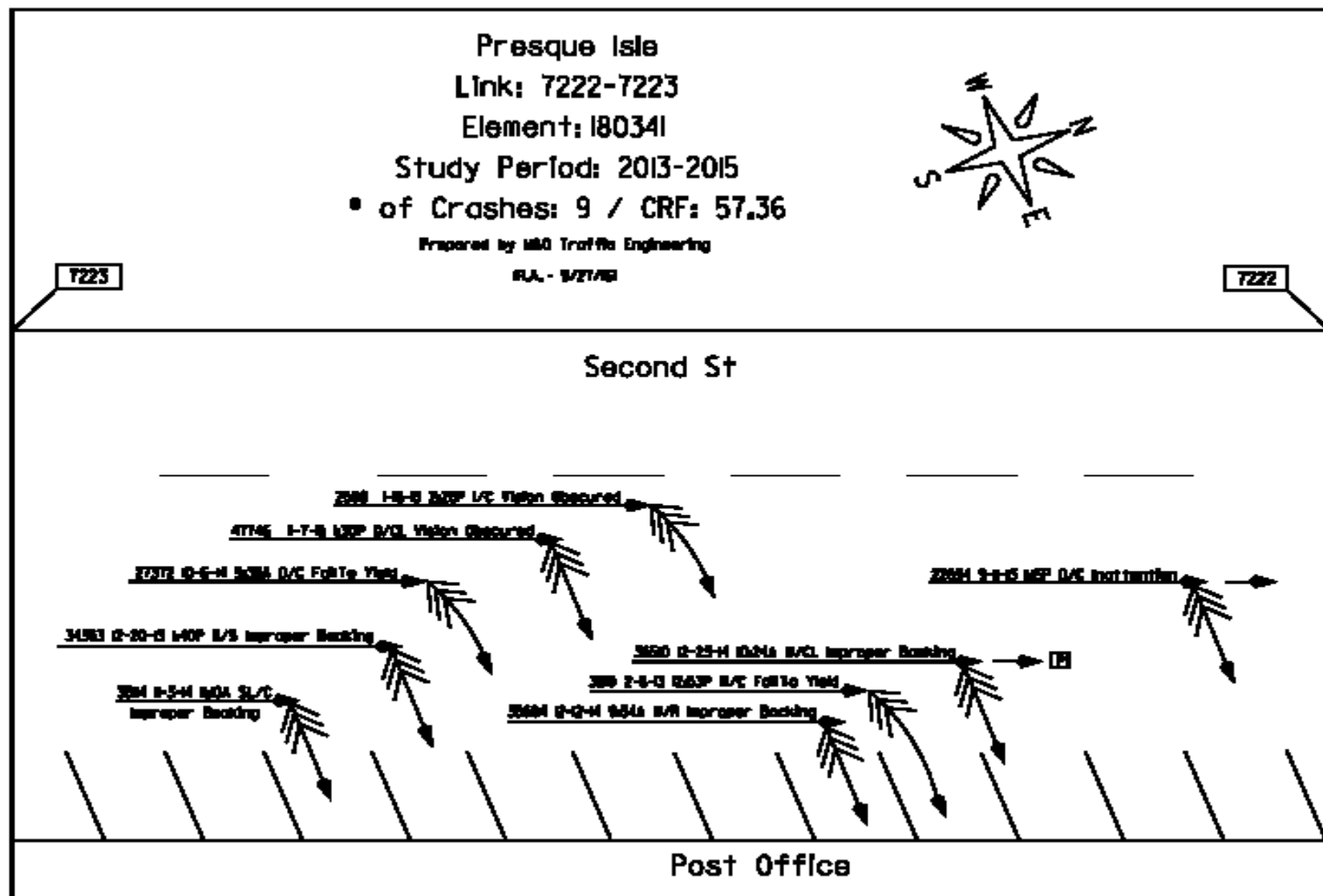
Source: MaineDOT 2016

### Aerial View

Intersection of the Church Street and Second Street (node 7222) and extending to node Hall Street and Second Street (node 7223).









Source: NMDC, 2016

Intersection of Church and Second Street in Presque Isle looking north towards the US Post Office. Notice vehicles perpendicular parked and pedestrians.



Source: NMDC, 2016

Intersection of Church and Second Street in Presque Isle looking towards the US Post Office. Notice pedestrian crossing mid-block.



Source: NMDC, 2016

Intersection of Church and Second Street. Notice vehicles backing out into on-coming traffic.

## City of Presque Isle

**Location:** Intersection of Main Street and Summer Street (node 8411) to intersection of Main Street and North Street (node 8412).

**Assessment:** Main Street is a four lane road with no parking located along the link. There is a signalized intersection at North Street and Main Street. Thru traffic (northbound) has the option of staying in the left lane.

Land uses along the link include a cleaner/laundry mat, MacDonald's Restaurant, and Katahdin Trust Company Bank.

### Recommendations:

- Consider a "Right Turn Only" exit of MacDonald's.
- Consider eliminating MacDonald's Main Street exit.

### Crash Summary:

Nearly all crashes are associated with the MacDonald's Restaurant. NMDC staff looked at this site during the lunch hour and noted that traffic was backed up onto Main Street while waiting for the Drive Thru.

### High Crash Information (2013-2015)

Beginning Node	End Node	Total Crashes		Critical Rate Factor	Percent Injury	State Rank	County Rank
8411	8412	8		1.13	12.5	175	28

Source: MaineDOT, 2016

### Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
Main Street	1	F	B	D	Principal Arterial	State	25

Source: MaineDOT 2016

### Traffic Counts

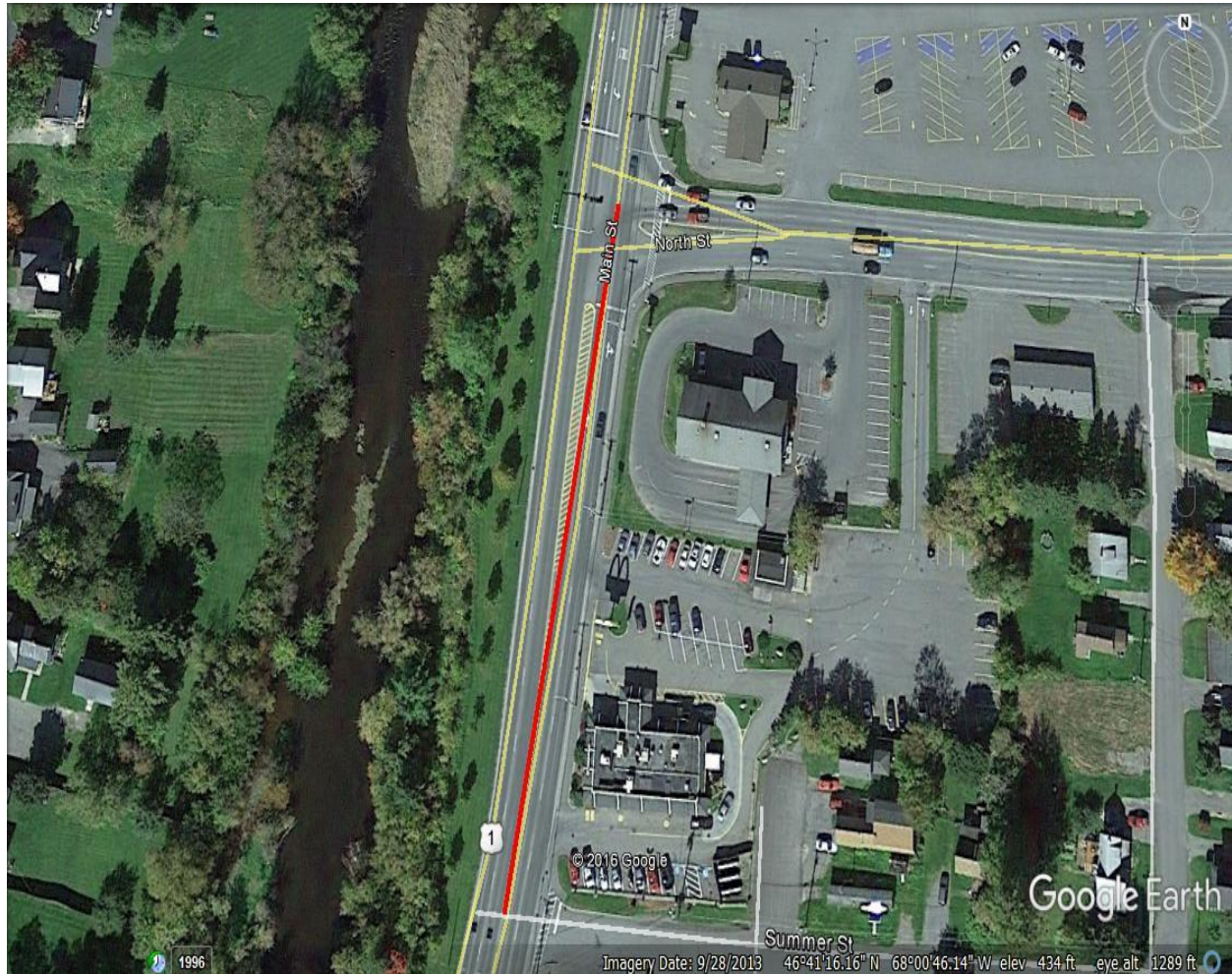
Historical AADT		AADT Location
2012	17,420	US Route 1 south of North Street
2015	16,710	

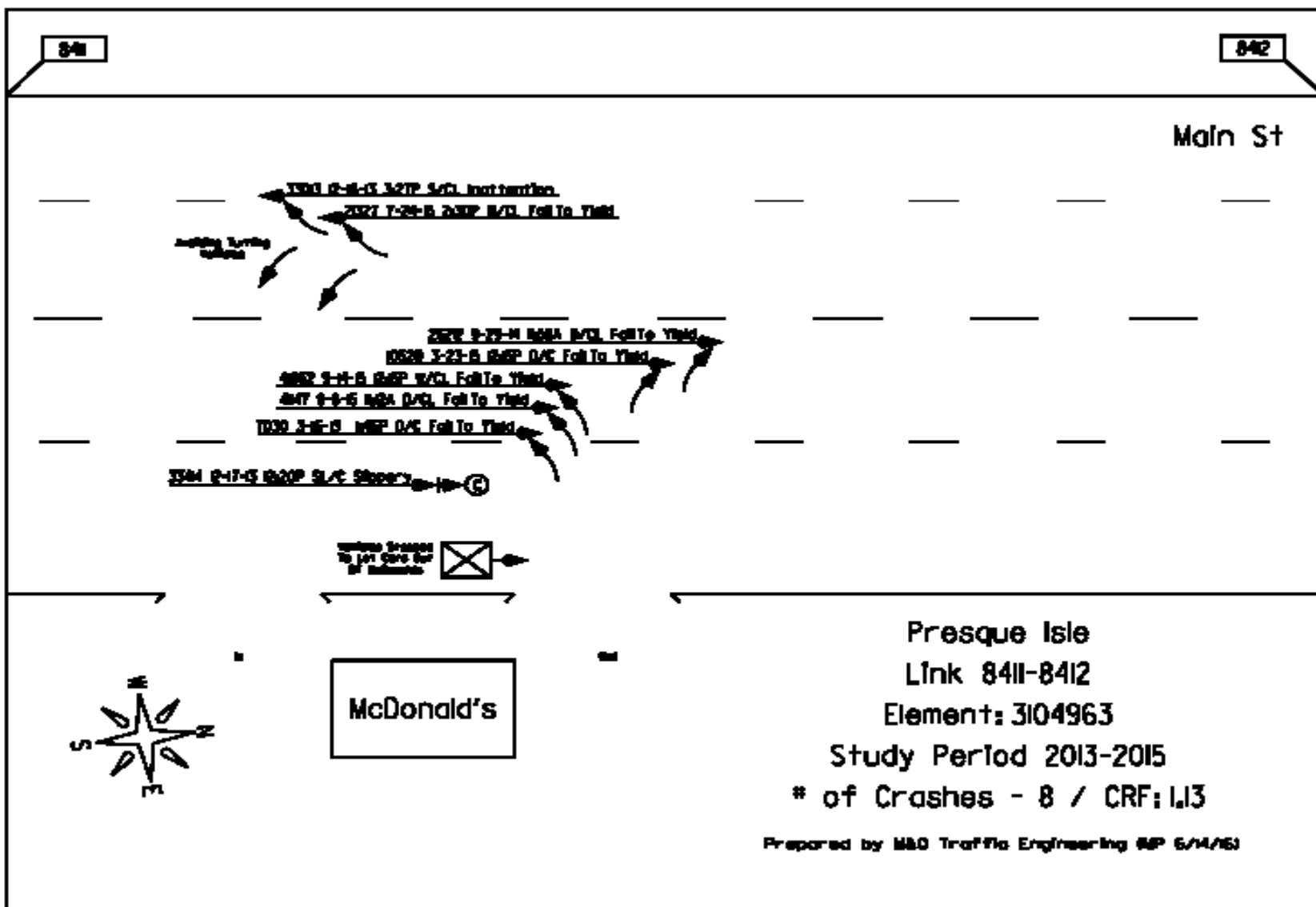
Source: MaineDOT 2016



## Aerial View

Intersection of Main Street and Summer Street (node 8411) to intersection of Main Street and North Street (node 8412).







Source: NMDC, 2016

Intersection of Summer and Main Street in Presque Isle looking north.



Source: NMDC, 2016

Intersection of North Street and Main Street in Presque Isle looking south.





Source: NMDC, 2016

Intersection of North Street and Main Street looking south.



## City of Presque Isle

**Location:** Intersection of Main Street and State Street (node 8404) to intersection of Academy Street and Main Street (node 8402).

**Assessment:** Main Street is a four lane road with parallel parking located on both sides of the road. There are four pedestrian cross walks (one mid-block located at the Northeastland Hotel). The intersections at State Street and Main Street and Academy Street and Main Street are signalized.

Land used along the link are entirely commercial.

### Recommendations:

- Continue to mark lanes and crosswalks.
- Consider a traffic study.

### Crash Summary:

Crashes involved a variety of reasons including “Failure to Yield.” “driver inattention” and unsafe lane changes.

### High Crash Information (2013-2015)

Beginning Node	End Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
8404	8402	10	1.21	20.0	167	23

Source: MaineDOT, 2016

### Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
Main Street	1	F	B	F	Principal Arterial	State	25

Source: MaineDOT 2016

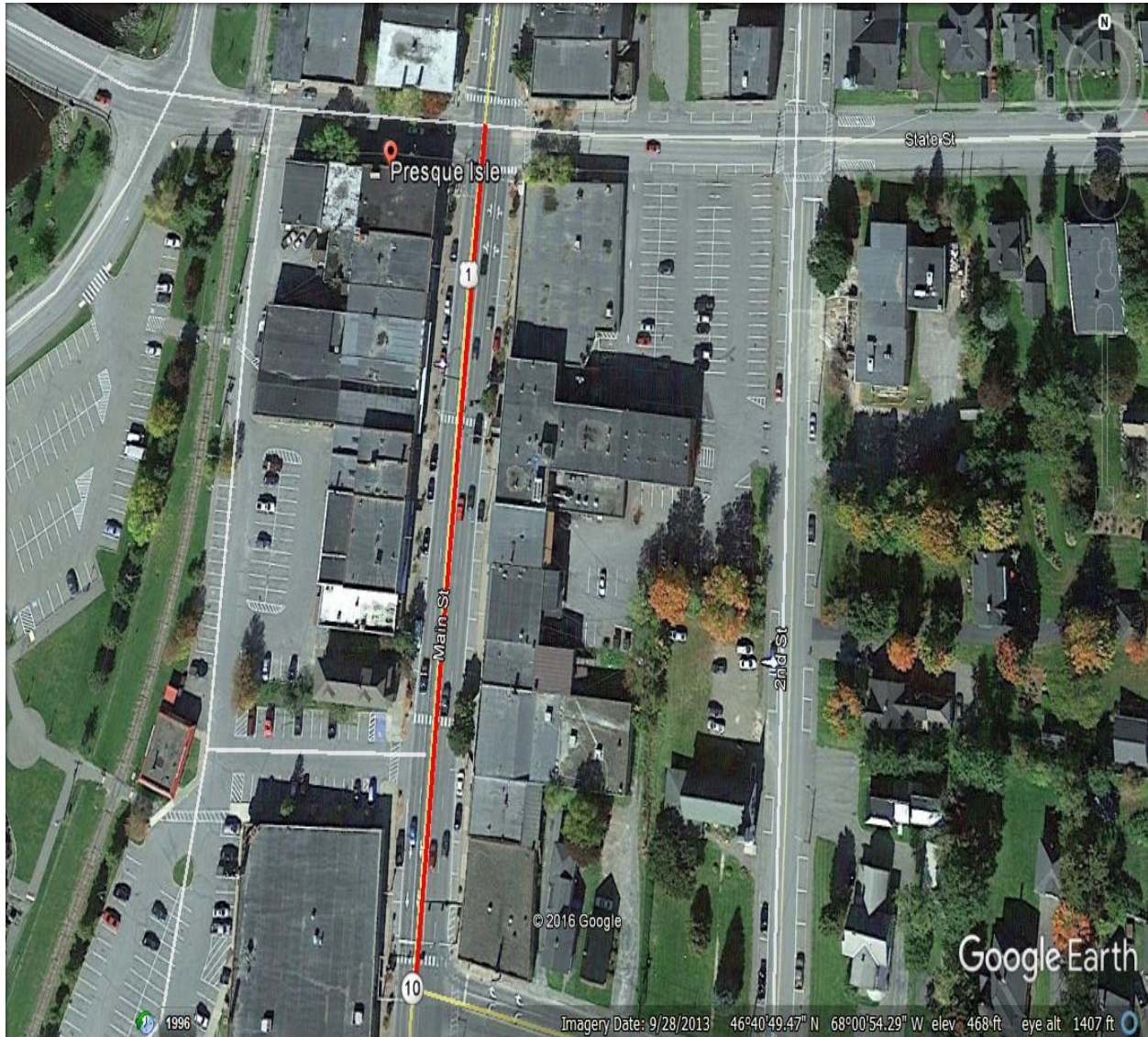
### Traffic Counts

Historical AADT	AADT Location
2012 15,340 2015 15,360	US Route 1 north of Route 10 (Academy Street)

Source: MaineDOT 2016

### Aerial View

Intersection of Main Street and State Street (node 8404) to intersection of Academy Street and Main Street (node 8402).





Presque Isle

Link: 8404-8402

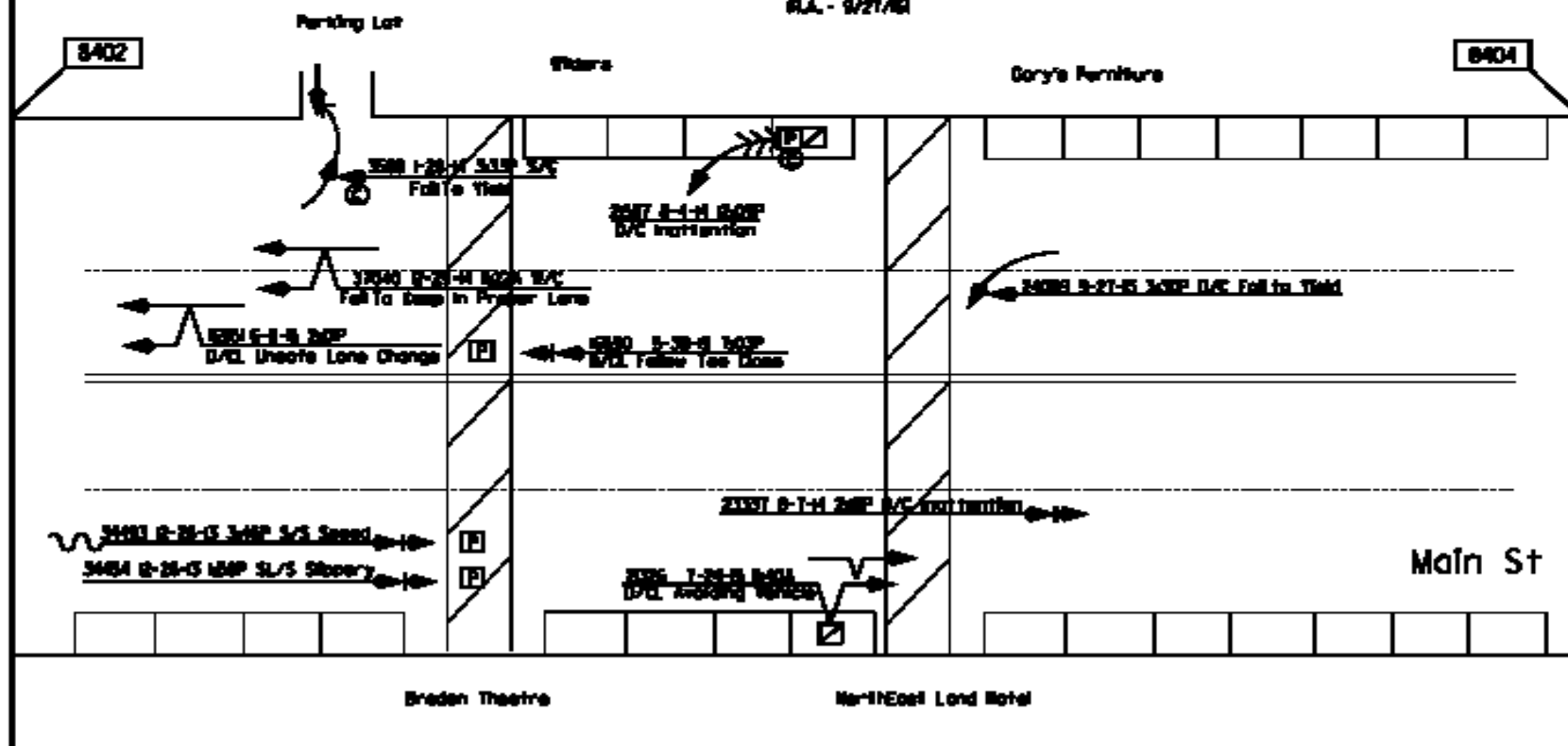
Element: 3115115

Study Period: 2013-2015

# of Crashes: 10 / CRF: 1.21

Prepared by M&D Traffic Engineering

R.A. - 9/27/16







Source: NMDC 2016

Intersection of State Street and Main Street in Presque Isle.



Source: NMDC, 2016

Pedestrian crossing located at the Northeastland Hotel.





Source: NMDC, 2016

Main Street in Presque Isle looking south towards Academy Street.

## City of Presque Isle

**Location:** Intersection of Main Street and Road 3202090 (node 65663) to intersection of Main Street and Wal-Mart/County Federal Credit Union entrance (node 9239).

**Assessment:** This link is located on Main Street (US Route 1) in Presque Isle. There are two signalized intersections at either end of the link. Commercial land uses include: Mardens, Auto Zone, Irving, Pizza Hut, Daigle Oil, Burger King, WalMart, etc). There are four thru lanes with a center turning lane north of the intersection that ends at the signal. There is also a pedestrian cross walk at the south portion of the intersection but no sidewalk on the west side of Main Street. The entrance to WalMart and the County Federal Credit Union each contain an island that separated entering and exiting traffic.

This is an extremely busy link, especially during the lunchtime hour and after work hours.r. However, traffic typically travels at the posted speed limits, lanes are well marked during the summer months, and sight distances are not an issue. NMDC staff believes that due to the sheer volume of traffic, crashes will happen at this location.

### Recommendations:

- Consider variable messaging signage on Main Street to keep motorist attention.
- Ensure that lane markings are completed as early as possible each Spring.
- Consider the construction of a sidewalk on the western side of Main Street.
- Consider reviewing entrances and determine where sharing to reduce thew number of access access is appropriate.

### Crash Summary:

Nearly all crashes involved “Failure to Yield”, “Inappropriate Lane Changes,” and “Driver Inattention.”

### High Crash Information (2013-2015)

Beginning Node	End Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
65663	9239	35	2.69	17.1	56	4

Source: MaineDOT, 2016

### Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
Main Street	1	F	B	F	Principal Arterial	State	25

Source: MaineDOT2016

## Traffic Counts

Historical AADT		AADT Location
2012	14,070	US Route 1 south of Route 163 (Maysville Street)
2015	13,090	

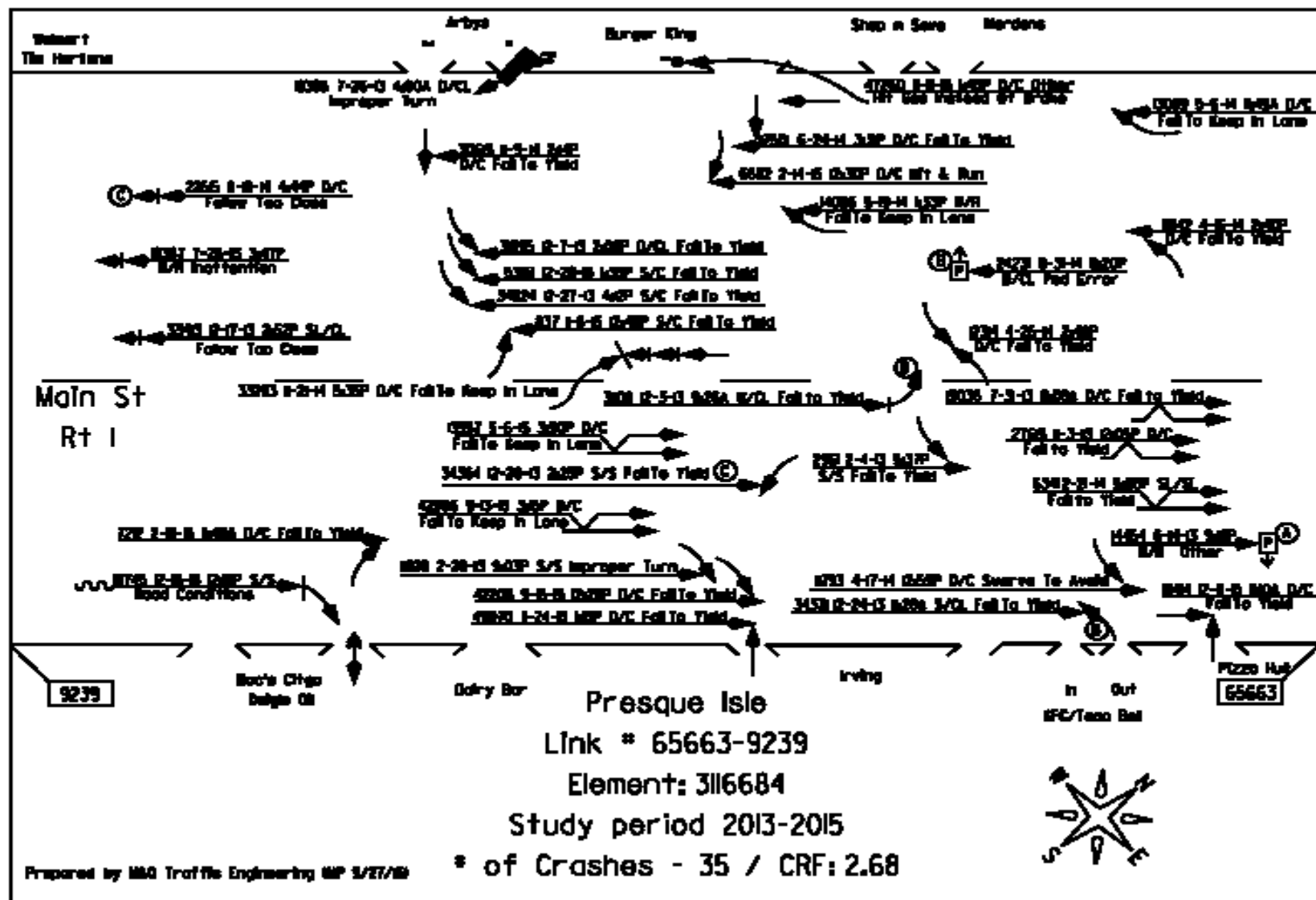
Source: MaineDOT 2016

## Aerial View

Intersection of Main Street and Road 3202090 (node 65663) to intersection of Main Street and Wal-Mart/County Federal Credit Union entrance (node 9239).









Source: NMDC, 2016

Main Street in Presque Isle looking south. Notice number of accesses.



Source: NMDC 2016

Main Street looking south.



Source: NMDC 2016

Main Street looking north. Consider reducing number of accesses.



Source: NMDC 2016

Main Street looking toward the WalMart intersection.

## City of Presque Isle

**Location:** Intersection of Caribou Road, Main Street, and Reach Road (node 8419) to node 9385 non-intersection of Caribou Road.

**Assessment:** This link is located on US Route 1 north of Presque Isle's commercial district. The three lane road (two north bound and one (1) south) is located on a hill with a four way intersection at the southern end of the link. Cars travelling north have a climbing lane. NMDC staff noticed that speed appeared to be an issue with many vehicles traveling at a high rate. Staff also noticed that a snowbank located in a commercial parking lot reduced site distance for vehicles entering Route 1 from the Washburn Road.

Land uses along the corridor include commercial and residential.

### Recommendations:

- Consider increased speed enforcement in the area.
- Consider increasing the number of speed limit signs.
- Consider improved winter maintenance (snow and ice)
- Consider working with the landowners to review plowing of parking lots (pile snow in different areas.)

### Crash Summary:

#### High Crash Information (2013-2015)

Beginning Node	End Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
8419	9383	8	1.14	12.5	174	27

Source: MaineDOT, 2016

### Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
Caribou Road	1	B	B	B	Principal Arterial	State	35

Source: MaineDOT 2016

### Traffic Counts

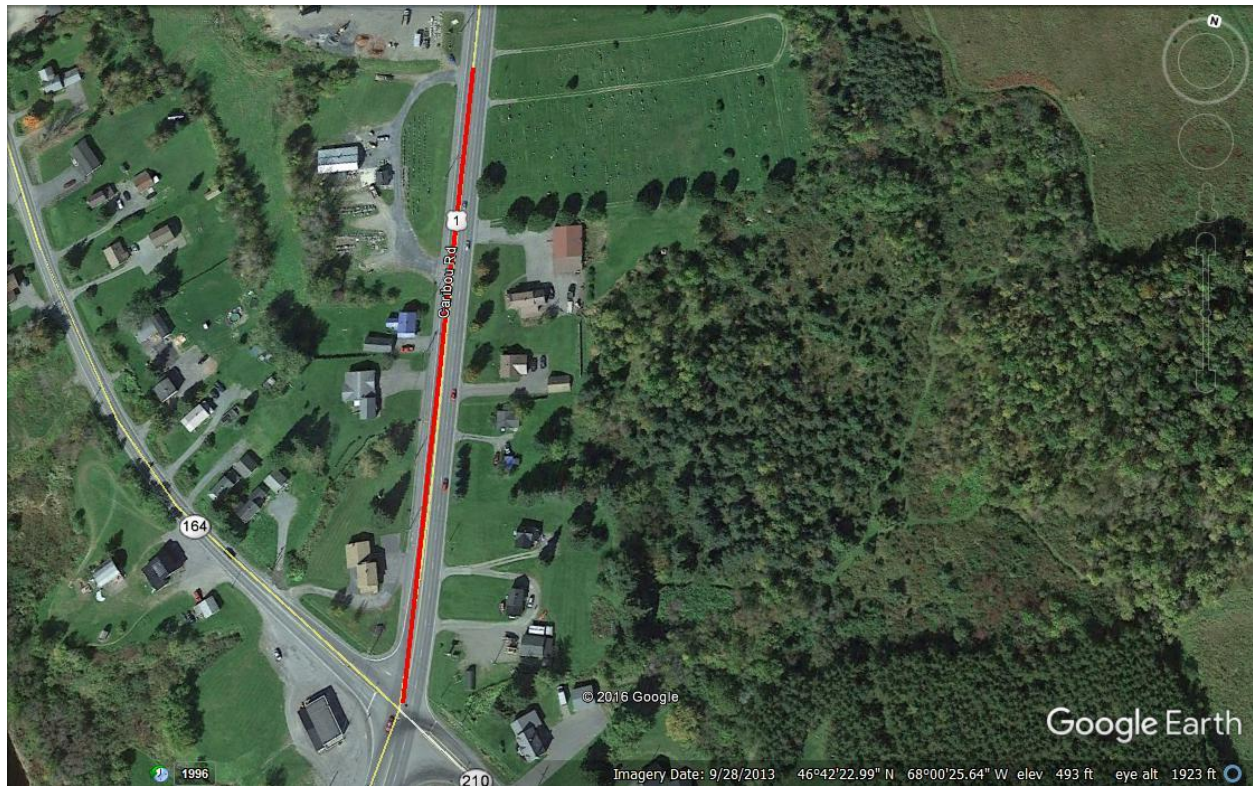
Historical AADT		AADT Location
2012	8,460	US Route 1 0.3 miles north of the Route 164 intersection
2015	7,800	

Source: MaineDOT 2016



## Aerial View

Intersection of Caribou Road, Main Street, and Reach Road (node 8419) to node 9385 non-intersection of Caribou Road.



Presque Isle  
 Link: 8419-9385  
 Element: 3117610  
 Study period 2013-2015  
 # of Crashes 8 / CRF 1.14

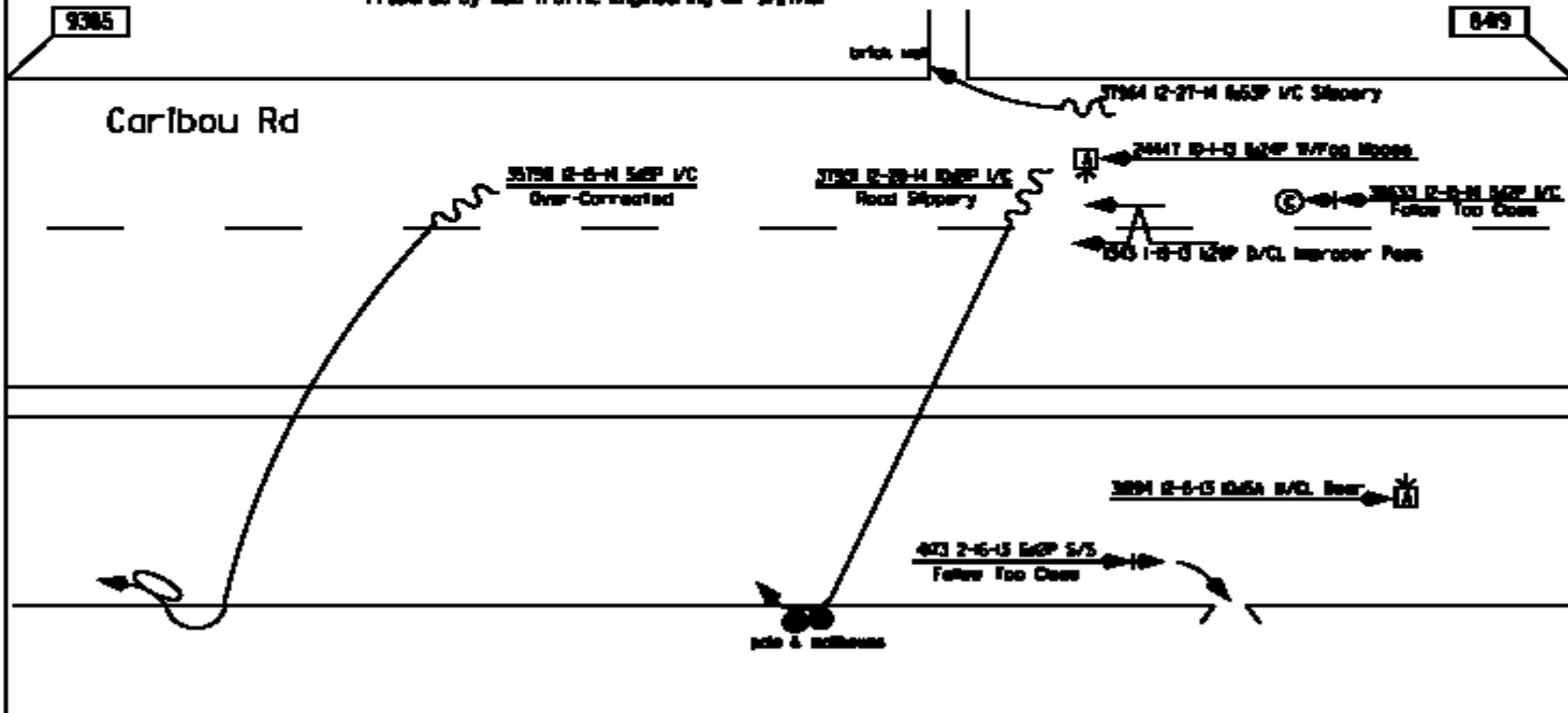


Prepared by M&D Traffic Engineering on 9/27/16

9385

8419

Caribou Rd





Source: NMDC, 2016

US Route One looking north.



Source: NMDC 2016

US Route One looking north



Source: NMDC 2016

US Route One southbound into Presque Isle. Long straight stretches are conducive for speeding.



## Town of Wallagrass

**Location:** Intersection of Aroostook Road and Clark Brook Road (node 8131) to Intersection of Aroostook Road and Carter Brook Tote Road (node 8132). 1.69 miles.

**Assessment:** The Aroostook Road (Route 11) is a two-lane road with narrow shoulders. The link is narrow, winding, and hilly with numerous blind driveways. The link is well marked with “Moose Crossing,” “Hidden Drive,” “Trucks Entering,” “Curve,” and “School Bus Stop” signs along the link both north and southbound

Land uses along the link include single and multi-family residential, small scale commercial, and vacant farmland. NMDC staff noticed that numerous residences had wide and/or multiple driveway entrances. Staff also noticed several locations where moose (and deer) were regularly crossing the link. Several of these locations were just over the crest of a hill and may be difficult for a vehicle to stop in time should an animal be in the roadway.

### Recommendations:

- Consider a Speed Limit reduction on the hilly sections of the link with blind driveways.
- Consider working with landowners to reduce the number and width of driveways onto the link.
- Consider improved winter maintenance along the link.
- Consider working with the Maine Department of Inland Fisheries and Wildlife to develop de-icing materials that are not attractive to wildlife.

### Crash Summary:

Of the fourteen (14) crashes that have occurred on the link, eight (8) have happened during the winter months. In total, four (4) crashes involved animals, three (3) unsafe speed, two (2) vehicles over corrected, and one each for failure to yield, avoiding plow, slippery conditions, emotional, and improper pass.

### High Crash Information (2013-2015)

Beginning Node	End Node	Total Crashes	Critical Rate Factor	Percent Injury	State Rank	County Rank
8131	8132	14	1.17	28.6	171	25

Source: MaineDOT, 2016

## Link Information

Road Name	Highway Corridor Priority	Customer Service Level-Safety	Customer Service Level-Service	Customer Service Level-Condition	Functional Class	Jurisdiction	Speed Limit
Aroostook Road	3	B	A	A	Major Collector	State	45

Source: MaineDOT 2016

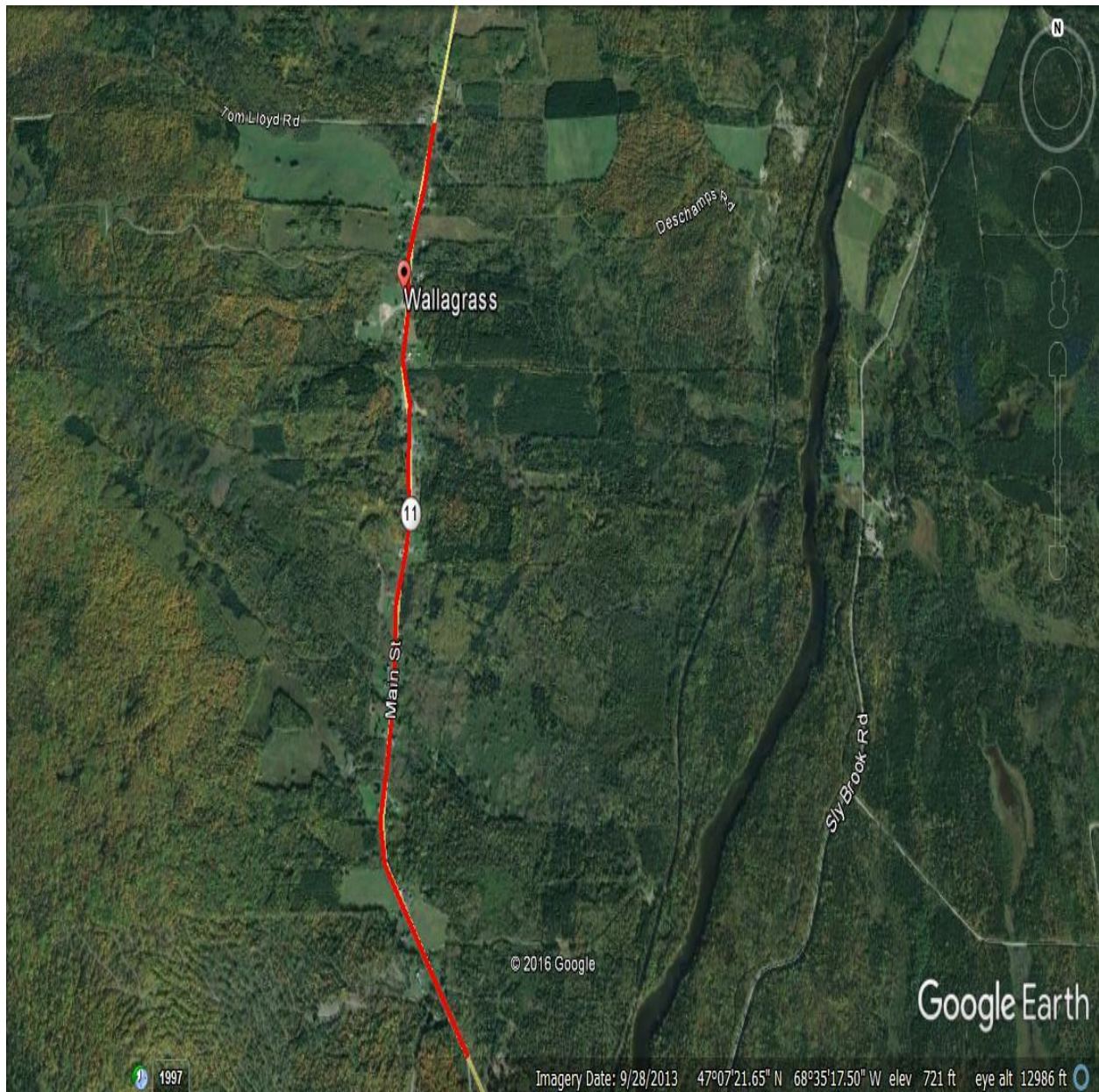
## Traffic Counts

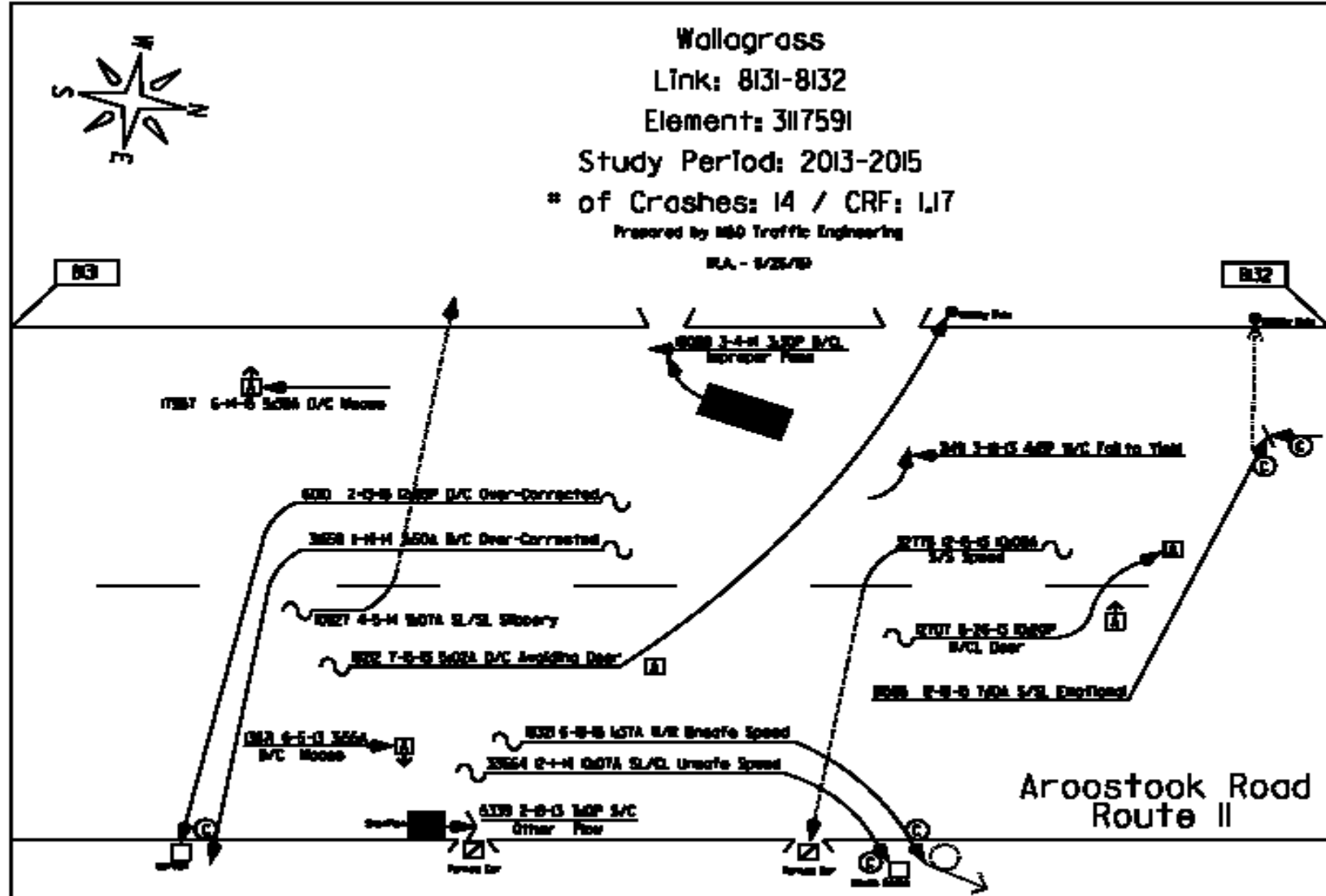
Historical AADT	AADT Location
2012 1,800	Route 11 south of the Carter Brook Tote Road
2012 1,780 2015 1,920	Route 11 south of Road 801

Source: MaineDOT 2016

### Aerial View

Intersection of Aroostook Road and Clark Brook Road (node 8131) to Intersection of Aroostook Road and Carter Brook Tote Road (node 8132).









Source: NMDC, 2016

Aroostook Road southbound. Notice residences with two and wide driveways located on curves.



Source: NMDC, 2016

Aroostook Road, southbound. Notice steep hill and curves.



Source: NMDC 2016

Aroostook Road northbound. Notice driveway on sharp corner. Notice sharp curve and school bus stop sign.



Source: NMDC, 2016

Aroostook Road, northbound. Moose crossing at crest of hill. Notice crossing in left center of photograph.