



Route 151 Corridor Study

Public Information Meeting

March 14, 2013

Goals and Vision

Vision Statement

“We envision a Route 151 corridor that serves the needs of all users and stakeholders while maximizing safety; preserving the corridor’s rural character, local sense of place, and high quality of life; and promoting place-based economic vitality.”

Goals and Vision

Goals

- **Obtain public input through public meetings.**
- **Identify corridor improvements, with an emphasis on context-sensitive solutions, that:**
 - Improve Safety for all Users,
 - Enhance Operations and Access Management,
 - Provide Safe Multimodal Opportunities,
 - Promote Appropriate Economic Opportunities, and
- **Preserve and Incorporate the Corridor's Cultural Heritage and Historical Resources.**

Purpose

Present Existing Conditions Assessment

- Review Safety at Key Locations
- Review Operations at Key Intersections

Obtain Public Input and Feedback

Safety Review

Examine Recent Crash Data

- Reported crashes only
- 2008-2011 (latest data completely available)
- 2012 (limited data)

Examine Crash Patterns

- Compiled Data
- Intersection Reviews

Performed Site Visit February 21st and 22nd

Safety Review

In past, VDOT has performed Speed Studies to determine whether to reduce speed limits

- **Speed limits reduced where criteria satisfied**
- **Signage improved in areas not meeting criteria**

VDOT is in process of submitting two HSIP grant applications for turn lanes

- **At Rte. 635 Rockfish School Lane**
- **At Rte. 6 Afton Mountain Road/Rte. 638 Avon Roads**

Safety Review

VDOT has improved two intersections due to past safety issues

- **Rte. 635 Greenfield Road (site of three fatalities)**
- **Rte. 709 Chapel Hallow Road (access to Rockfish River Elementary School)**

VDOT reviews roadway safety after fatalities occurs

- **Rte. 840 Tanbark Road (site of two fatalities in 2012)**

What is HSIP?

- **VDOT's Highway Safety Improvement Program (HSIP) is used as a means to implement construction projects targeting safety improvements across the state. The process for establishing and implementing an HSIP project involves:**
 1. Identifying high crash locations,
 2. Performing crash analyses for those locations,
 3. Performing reviews to determine if there are spot (or systemic) improvements that can be applied to reduce the number and severity of those crashes,
 4. Evaluating the economic benefit/cost ratio of the projects, and
 5. Scheduling the implementation of the improvements.

HSIP

What two Grants are being applied for?

At the present time, VDOT plans to apply for two HSIP projects along Route 151 in Nelson County.

- **The first project is at the intersection of Rte. 151 & Rte. 635 (Rockfish School Lane). This proposed project would install a northbound left turn lane on Route 151.**
- **The second project is at the intersection of Route 151, 6 (Afton Mountain Road), & 638 (Avon Road). This project would install left turn lanes in both the northbound and southbound directions on Route 151.**

What is the time frame?

- VDOT plans to request the funding for these two projects at the beginning of 2014 Federal Fiscal Year (October 2013). With approval, the Preliminary Engineering Phase will begin.
- It is anticipated that these projects would take several years before construction to finish, but no definite dates are known at this time.
- It should also be noted that these projects are only proposals and are still in the development stage. VDOT Central Office will make the determination whether or not these proposed projects get funded.

Safety Data

111 reported crashes in corridor (2008-2011)

- 53 injuries
- 2 fatalities

Crash Rates

- Total rate: 81.5 crashes per 100 million VMT
- Injury rate: 38.9 injuries per 100 million VMT
- Fatality rate: 1.5 deaths per 100 million VMT
- Corridor rates are slightly lower than Statewide Averages for similar facilities
- Segment from Afton Mountain Road to US 250 has a slightly higher injury rate than the Statewide Average

Safety Data

Segment	Number of			Rate		
	Crashes	Injury	Fatality	Crash	Injury	Fatality
Beech Grove Road to River Road	22	7	1	58.71	18.68	2.67
River Road to Afton Mountain Road	67	22	1	99.37	32.63	1.48
Afton Mountain Road to US 250	22	24	0	70.13	76.51	0
Entire Corridor	111	53	2	81.45	38.89	1.47
Statewide Statistics for Rural Minor Arterial	5,868	3,580	101	109	67	1.8

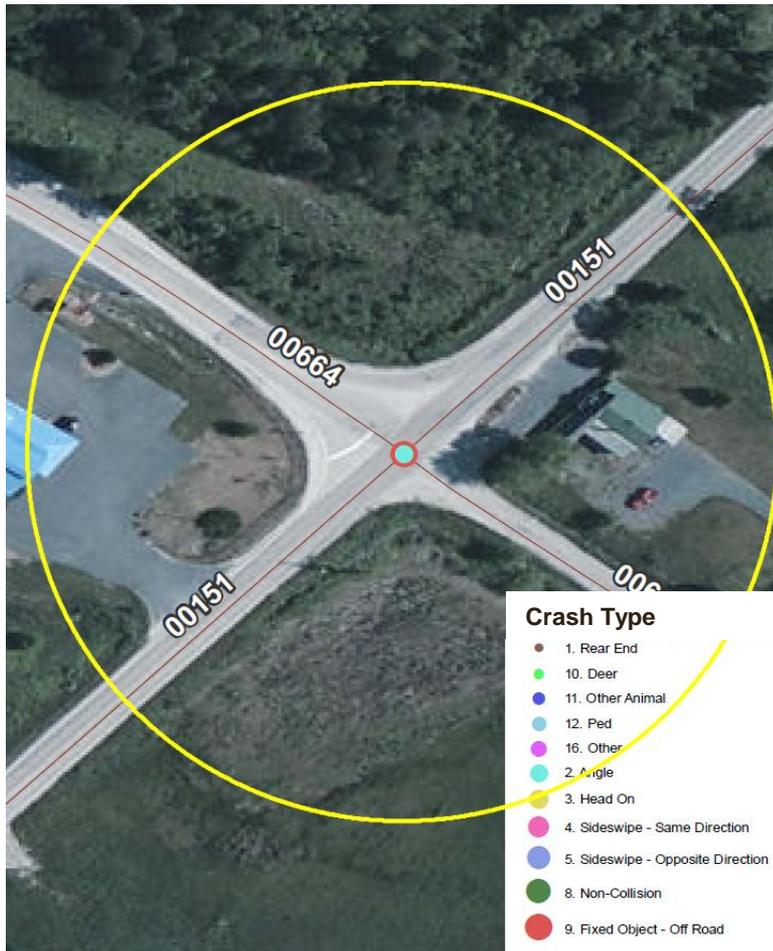
Safety Data

Nearly 25 percent of all crashes occur on Saturday

Top four crash types comprise of nearly 85 percent of all crashes

- **Rear end**
- **Deer/wildlife**
- **Angle**
- **Fixed Object/Off-road**

1) Rte. 151 at Rte. 664 (Beech Grove Road)



Two crashes

- Angle
- Off-road

1) Rte. 151 at Rte. 664 (Beech Grove Road)

Issues

- Heavy southbound right turn traffic
- Overgrown vegetation
- Confusing signage

Potential improvements

- Add southbound offset right turn bay
- Trim vegetation in northwest quadrant
- Adjust signage along northbound Rte. 151

2) Rte. 151 at Rte. 627 (Spruce Creek Lane)



Three crashes

- Angle
- Off-road
- Wildlife

2) Rte. 151 at Rte. 627 (Spruce Creek Lane)

Issues

- Poor sight distance
- Odd alignment of Rte. 627 affects turning traffic
- Location of driveways within intersection area
- Potential historic structure (mill foundation)

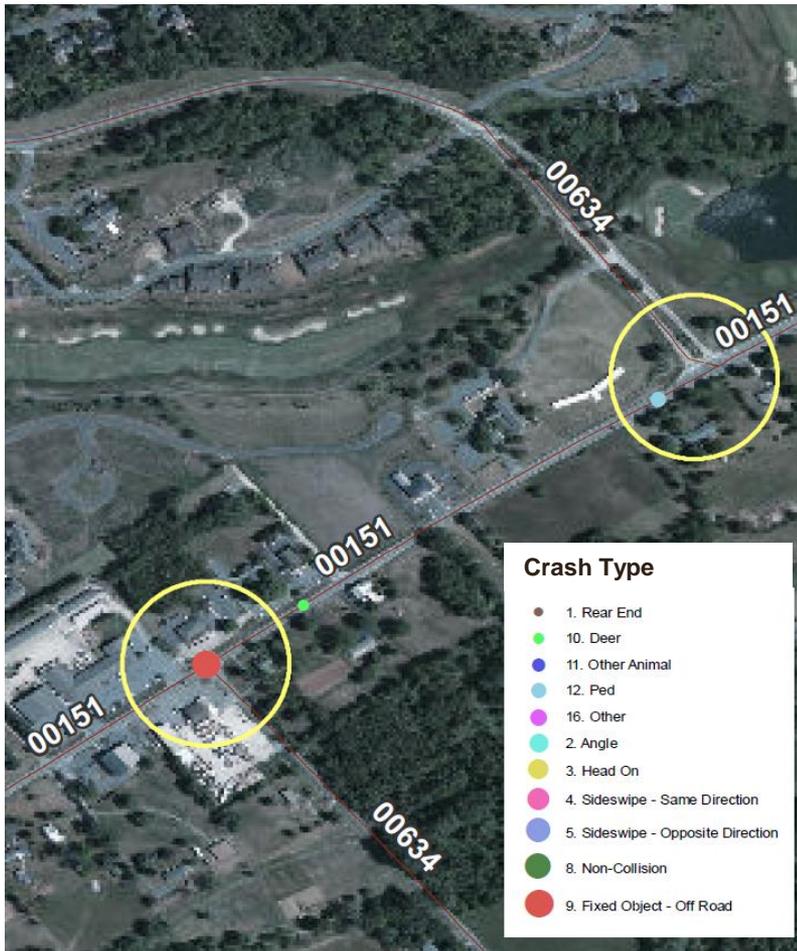
Potential improvements

- Modify embankment in southwest quadrant
- Realign Rte. 627 to improve sight distance
- Add intersection-ahead signage with flashers on the northbound approach

3) Rte. 151 at Rte. 634 (Nellysford area)

Three crashes

- Pedestrian
- Off-road
- Wildlife



3) Rte. 151 at Rte. 634 (Nellysford area)

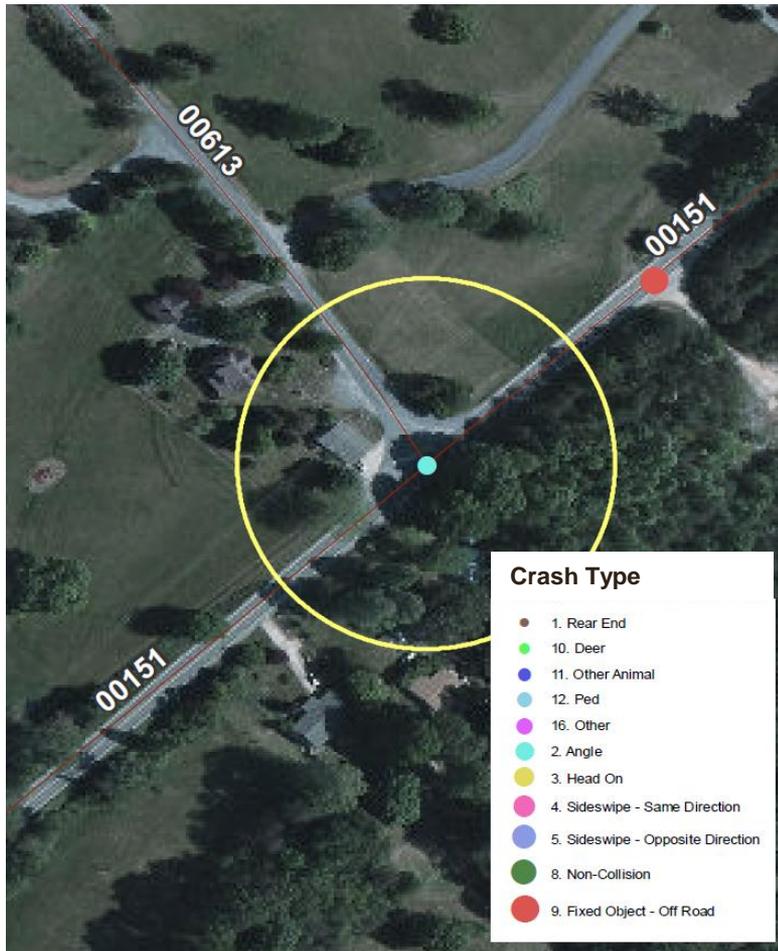
Issues

- Lack of pedestrian facilities
- Access Management/Poor inter-parcel connectivity
- Vegetation on Rte. 634 (Adial Road) limits sight distance approaching Rte. 151

Potential improvements

- Add sidewalks for pedestrians
- As new development or re-development occurs, improve access management and inter-parcel connectivity
- On Adial Road, trim vegetation and relocate stop sign
- Reduce speed limit to 35 mph through Nellysford

4) Rte. 151 at Rte. 613 (Rodes Farm and Lodebar Estates)



Two crashes

- Angle
- Off-road

4) Rte. 151 at Rte. 613 (Rodes Farm and Lodebar Estates)

Issues

- Crest in road between Rodes Farm Road and Lodebar Estates limits sight distance
- Embankment along east side of Rte. 151 also contributes to sight distance issues
- Drivers have to be aggressive turning onto Rte. 151

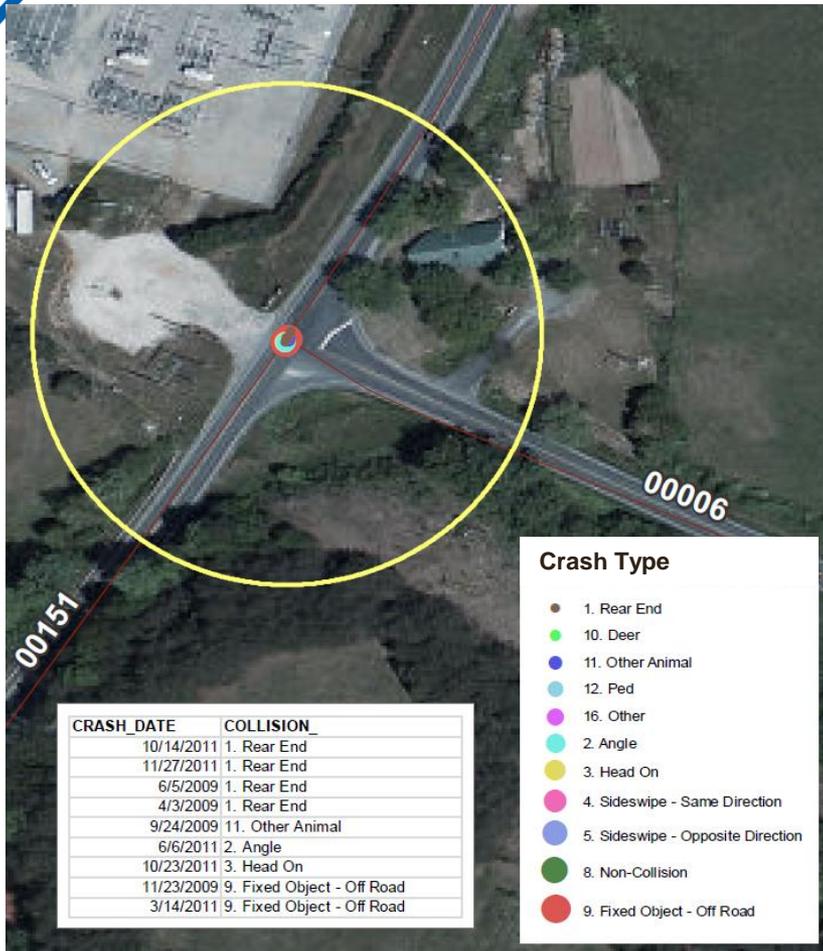
Potential improvements

- Regrade roadway in area to improve sight distance
 - Reduce crest of hill
 - Regrade embankment

5) Rte. 151 at Rte. 6 (River Road)

Multiple crashes

- 4 Rear-end
- 1 Angle
- 2 Off-road



5) Rte. 151 at Rte. 6 (River Road)

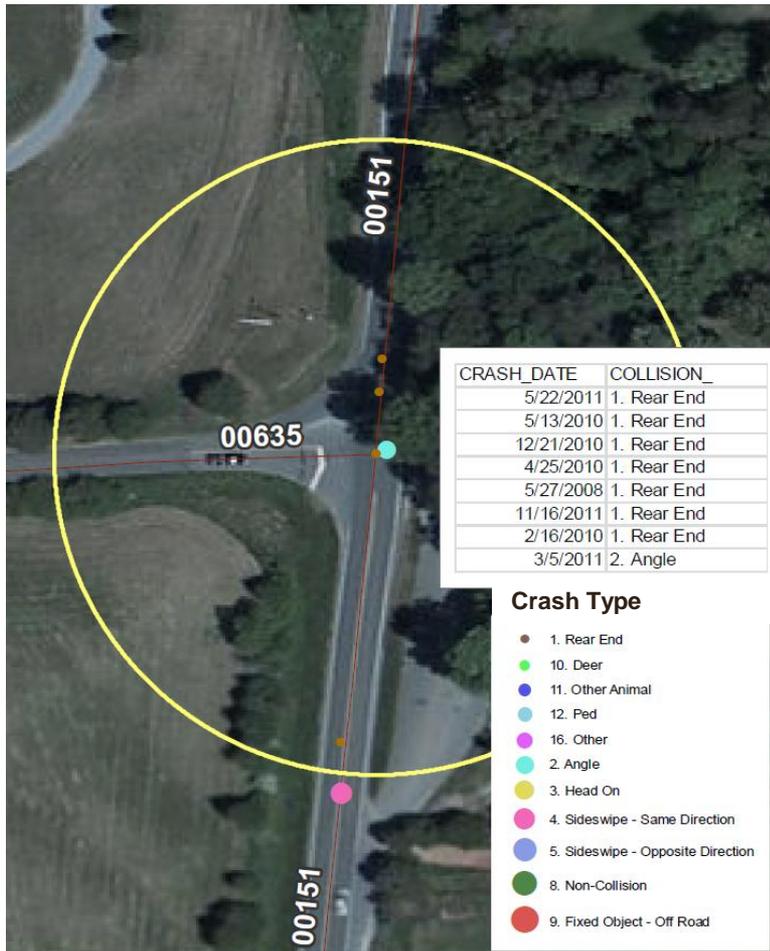
Issues

- Heavy turning truck traffic
- Lack of turn lane
- Narrow receiving area, vehicles are crossing yellow lines (traveling into opposite lane)

Potential improvements

- Widen east leg of intersection for wider receiving area to accommodate turning vehicles
- Consider roundabout

6) Rte. 151 at Rte. 635 (Rockfish School Lane)



Multiple crashes

- 7 Rear-end
- 1 Angle

6) Rte. 151 at Rte. 635 (Rockfish School Lane)

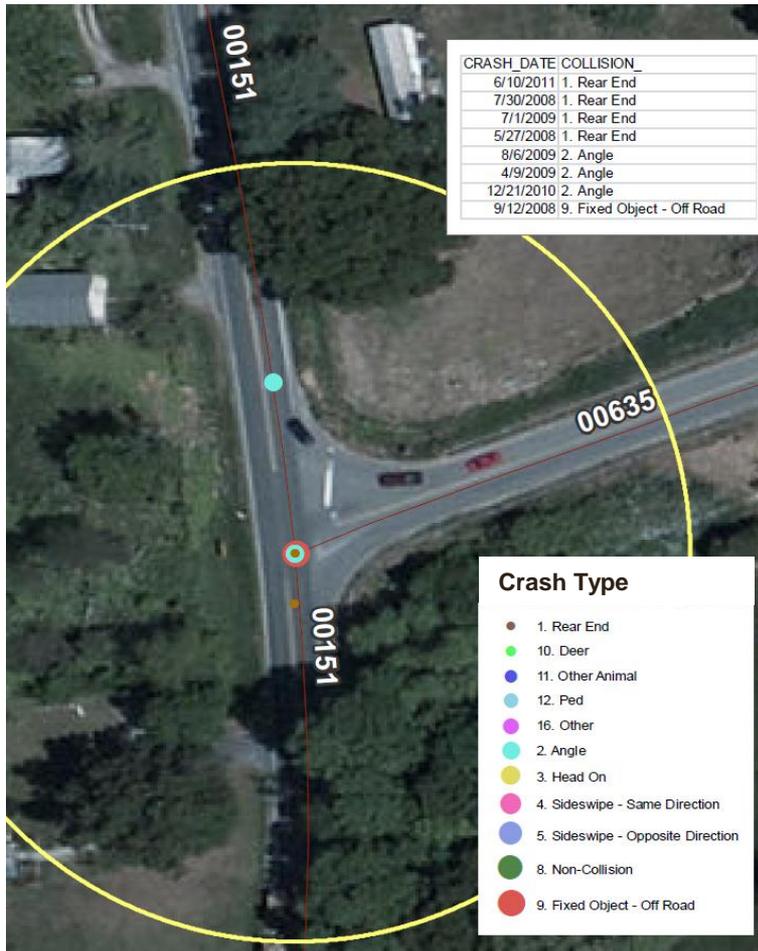
Issues

- **Increased in crashes last two years**
 - Due to addition of Recycling Drop-off at Community Center
 - Park activities generate high traffic: soccer fields, horse and dog shows
- **Lack of turn lanes**

Potential improvements

- **VDOT is currently in process to obtain HSIP grant to add a northbound turn lane**

7) Rte. 151 at Rte. 635 (Greenfield Road)



Multiple crashes

- 4 Rear-end
- 3 Angle
- 1 Fixed object/off-road
- Most in 2008 & 2009

7) Rte. 151 at Rte. 635 (Greenfield Road)

Issues

- Location recently improved
- Short northbound right turn bay

Potential improvements

- Extend northbound right turn bay

8) Rte. 151 at Rte. 729 (Creek Road)

Multiple crashes

- 3 Rear-end
- 2 Angle



8) Rte. 151 at Rte. 729 (Creek Road)

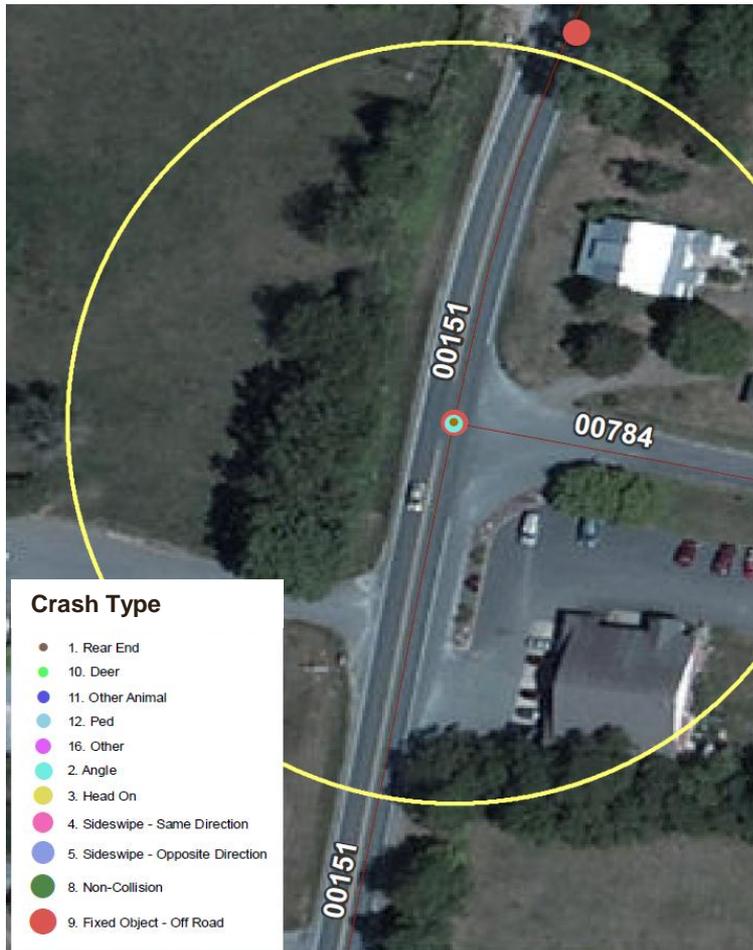
Issues

- Turning traffic and lack of turn bays
- Heavy traffic generator (store)

Potential improvements

- Restripe roadway to provide northbound left turn into the store's southern access
- Add a southbound right turn bay onto Creek Road

9) Rte. 151 at Rte. 784 (Bland Wade Lane)



Multiple crashes

- 1 Rear-end
- 1 Angle
- 2 Off-road

9) Rte. 151 at Rte. 784 (Bland Wade Lane)

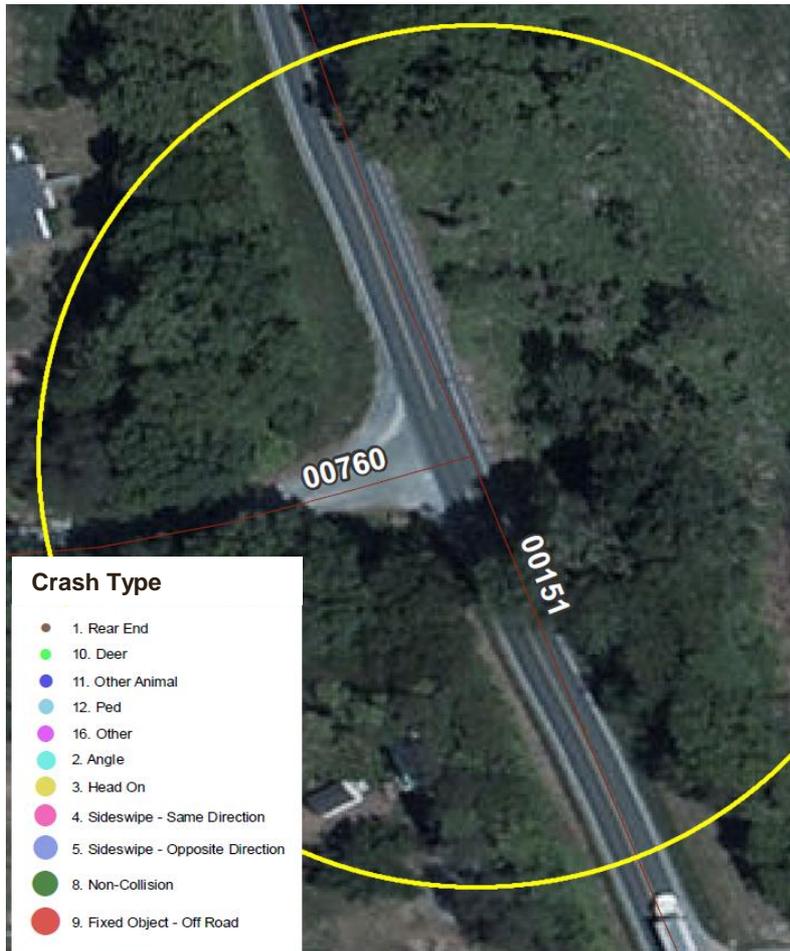
Issues

- Limited sight distance due to hill in northeast quadrant
- Limited sight distance due to dip in road to the south
- Businesses (Fitness Center, former Doctor's office) at intersection
 - Traffic cuts through Fitness Center lot

Potential improvements

- Regrade hill to improve sight distance and eliminate dip in road
- Add a northbound right turn bay
- 35 mph advisory speed sign with flashers already present

10) Rte. 151 at Rte. 760 (Sunrise Drive)



No reported crashes for analysis years

- **Crash debris present south of intersection during site visit**
- **Guardrail condition indicates two accidents**

10) Rte. 151 at Rte. 760 (Sunrise Drive)

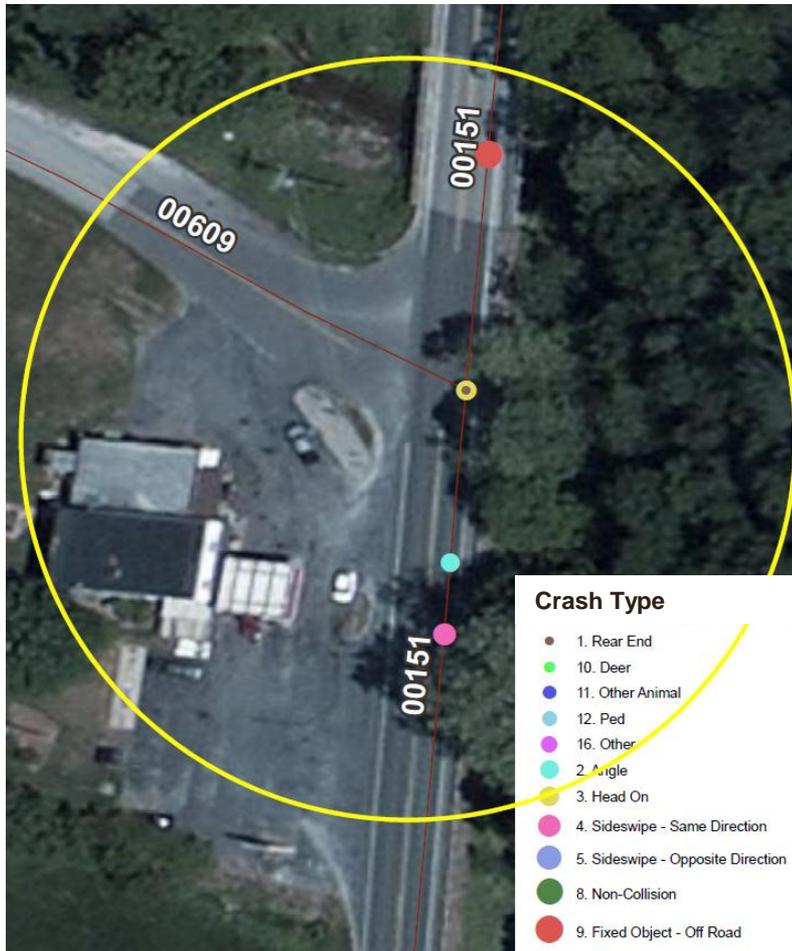
Issues

- Limited sight distance due to crest in roadway to the south
- Portion of guardrail in poor condition

Potential improvements

- Regrade roadway to reduce crest
- Modify embankment in southwest quadrant
- Rehabilitate guardrail and improve drainage

11) Rte. 151 at Rte. 609 (Mill Lane)



Multiple crashes

- 1 Rear-end
- 1 Angle
- 1 Fixed Object/Off-road
- 1 Sideswipe

11) Rte. 151 at Rte. 609 (Mill Lane)

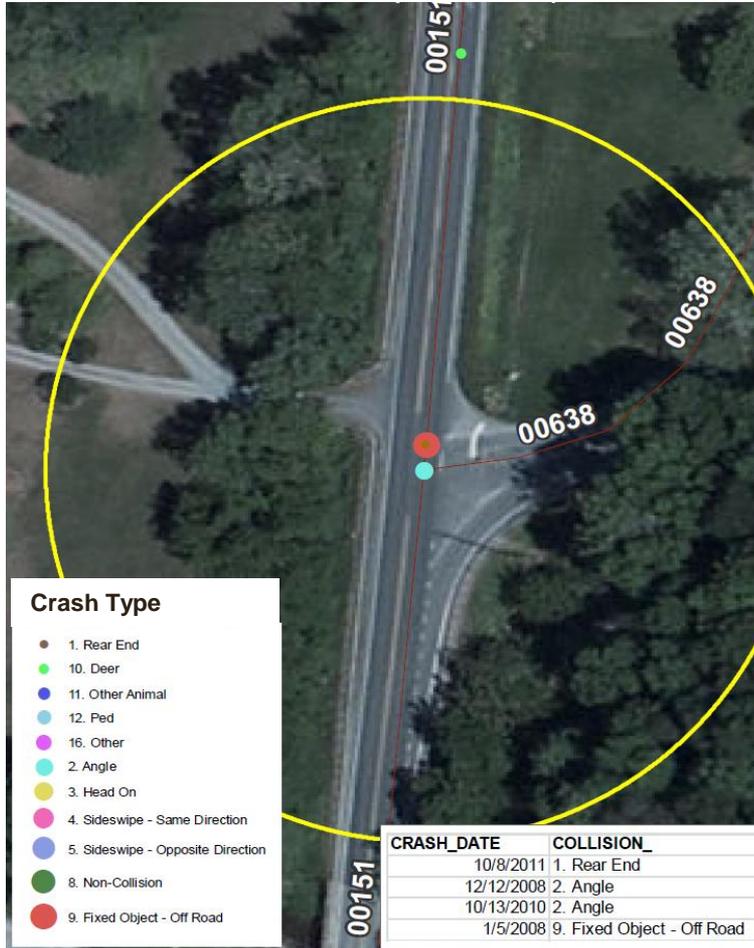
Issues

- **Poor sight distance**
 - Goodwins Creek bridge
 - Overgrown vegetation
- **Driveways of gas station in close proximity of intersection**

Potential improvements

- **Trim vegetation**
- **Improve access management**
- **Improve signage on Rte. 151 for Rte. 609**
- **Widen bridge structure**

12) Rte. 151 at Rte. 638 (Avon Road - south)



Multiple crashes

- 1 Rear-end
- 1 Angle
- 1 Fixed Object/Off-road

12) Rte. 151 at Rte. 638 (Avon Road - south)

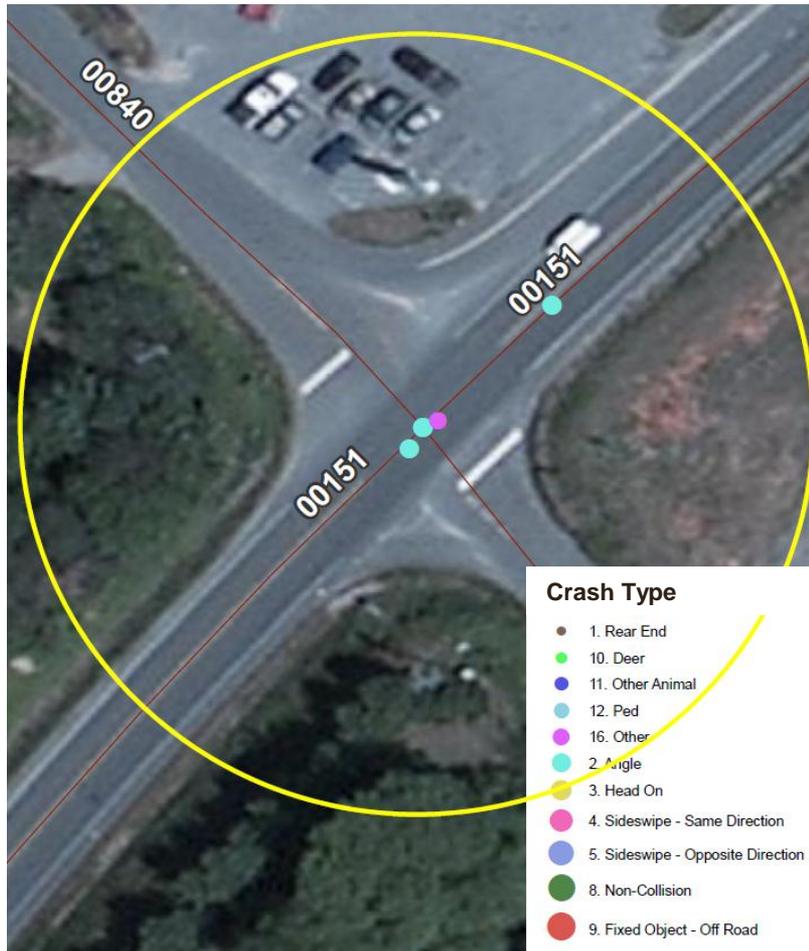
Issues

- Driver inattention
- Overgrown vegetation in southeast quadrant limits sight distance
- Stop bar too far back

Potential improvements

- Move stop bar closer to roadway to improve sight distance
- Trim vegetation

13) Rte. 151 at Rte. 840 (Tanbark Road)



Multiple crashes

- 3 Angle
- 1 other

13) Rte. 151 at Rte. 840 (Tanbark Road)

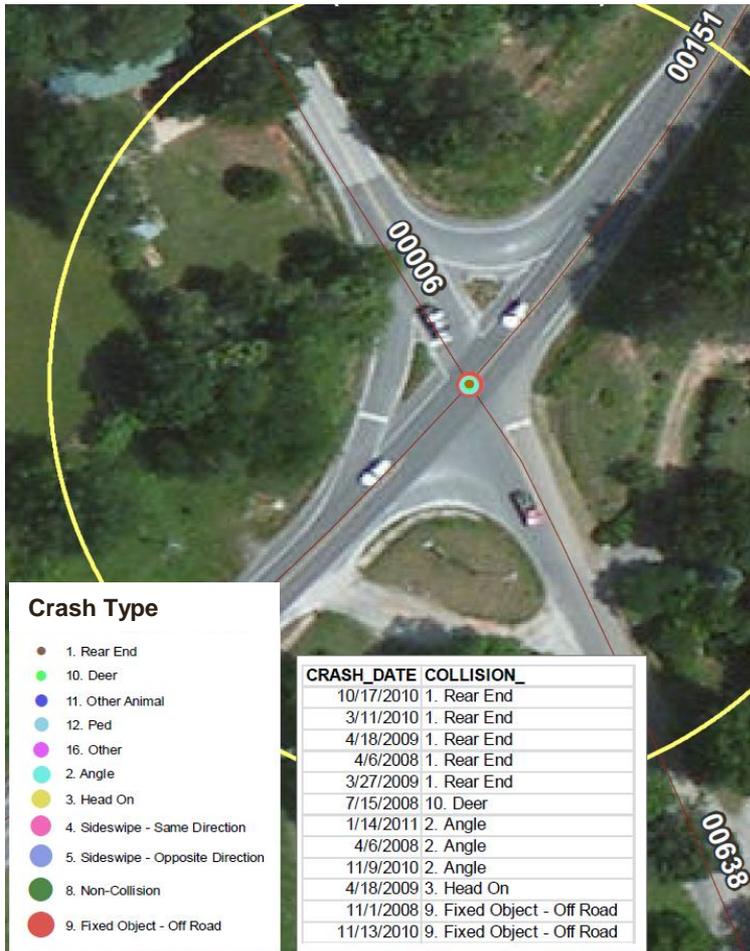
Issues

- Site of two fatalities in a 2012 crash
- Yellow lines and stop bars faded on Tanbark Road
- Crest on Tanbark Road limits approach sight distance
- Embankments limits sight distance

Potential improvements

- Refresh yellow lines and stop bars and relocate stop sign
- Add intersection ahead signs on Rte. 840
- Add 45mph advisory sign to the existing Intersection Warning Sign
- Regrade Tanbark Road to improve visibility to Rte. 151
- Improve Tanbark Road at Greenberry Road
- Cut embankment back in southwest quadrant
 - Not possible to cut embankment in southeast quadrant

14) Rte. 151 at Rte. 6 (Afton Mountain Road)



Multiple crashes

- 5 Rear-end
- 3 Angle
- 4 other types

14) Rte. 151 at Rte. 6 (Afton Mountain Road)

Issues

- Minor road dips on approach to Rte. 151, hiding view until vehicles near intersection
- Vegetation in southwest quadrant limits sight distance
- Stop signs not consistent in size
- Eastbound right turn approach is at an awkward angle, drivers looking over shoulder to see southbound vehicles
- Dip on Rte. 151 to the south limits sight distance
- Heavy turning volume during tourist season

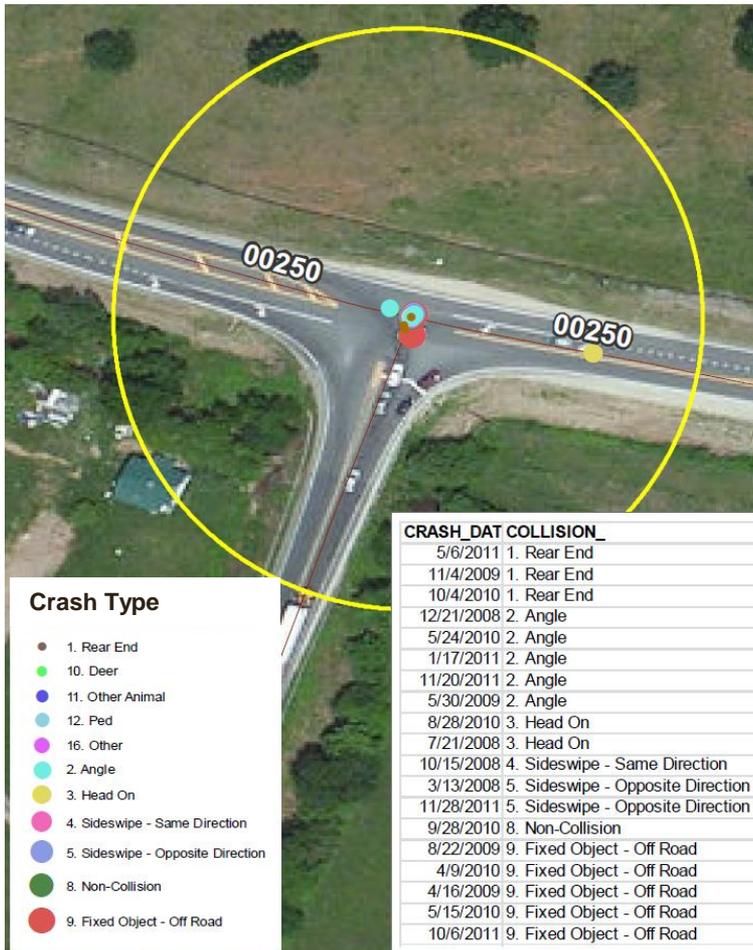
Potential improvements

- Regrade Rte. 6, and make stop signs a consistent size
- Reconfigure eastbound right turn lane or add acceleration lane
- VDOT is currently in process to obtain HSIP grant to add turn lanes
- VDOT recently reviewed Rte. 151 to the north, improved signage

15) Rte. 151 at US 250 (Rockfish Gap Turnpike)

Multiple crashes

- 3 Rear-end
- 5 Angle
- 2 Head-on
- 5 Fixed Object/Off-road
- 4 other types



15) Rte. 151 at US 250 (Rockfish Gap Turnpike)

Issues

- **Heavy turn movements with short turn bays**
 - Eastbound US 250 right turning vehicles block Rte. 151 traffic's view of the through movement
 - Westbound US 250 left turning traffic queue extends into through lane, through vehicles driving around on grass area

Potential improvements

- **Offset the eastbound right turn bay by 12 feet to improve visibility of eastbound through vehicles**
- **Extend the westbound left turn lane**
- **Add a northbound right turn lane with an acceleration lane**
- **Consider a traffic signal or a roundabout**

Operations Review

Four intersections counted Late January

- **During ski season**

Traffic patterns will vary in corridor by season due to various attractions

- **Wintergreen Resort**
- **Vineyards/ Breweries**
- **Fall season**

Intersection Level-of-Service

LOS provide a “grading” of the operations of intersection using a scale from A to F, with A representing minimal delays and F representing high levels of delay. LOS is a function of the average vehicle delay for all vehicles. LOS C or better is desired.

Intersection	Movement	AM LOS		PM LOS	
		Approach	Overall	Approach	Overall
Route 250 (Rockfish Gap Turnpike) at Route 151	EB	A	B	A	A
	WB	A		A	
	NB	C		C	
Route 635 (Rockfish School Lane) at Route 151	EB	B	A	B	A
	NB	A		A	
	SB	A		A	
Route 6 (River Road) at Route 151	EB	B	A	C	A
	WB	B		B	
	NB	A		A	
	SB	A		A	
Route 664 (Beech Grove Road) / Route 627 (Glenthorne Loop) at Route 151	EB	A	A	A	A
	WB	A		A	
	NB	A		A	
	SB	A		A	

Operations Review

Generally, operations are acceptable

- **Counts completed during ski season**

Specific areas have concerns

- **Heavy turning traffic to/from Wintergreen**
- **Turning traffic at**
 - Afton Mountain Road
 - US 250
- **Considering turn bays at key locations**

Public Input

Provide comments at working tables

Submit written comments to:

- **Mr. Rick Youngblood, Virginia Department of Transportation, 4219 Campbell Avenue, Lynchburg, 24501**
- **Email: lynchburginfo@vdot.virginia.gov**
 - Include “Route 151 Corridor Study” in the subject line
- **Submit by March 24, 2013**

Next Steps

Incorporate public feedback to finalize review of existing conditions and potential improvements

Develop recommendations based on public input, operational analysis, multimodal needs, and field visit review