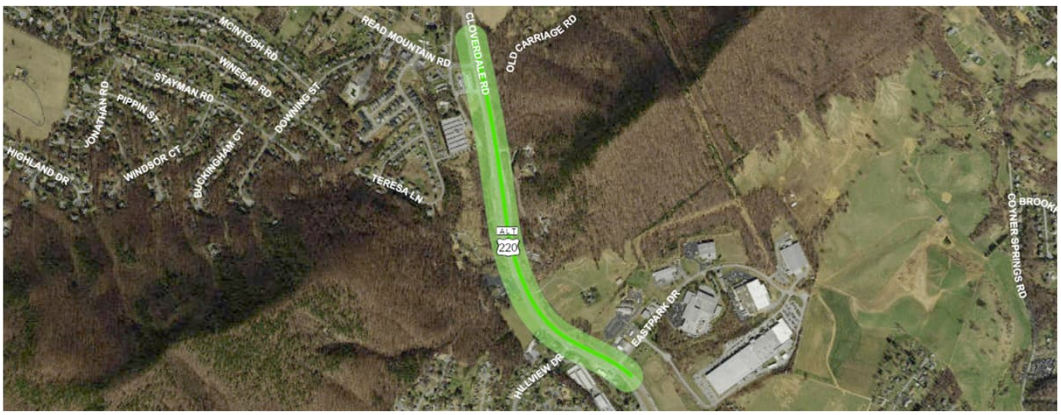
PROJECT PIPELINE NEEDS AND EXISTING CONDITIONS SUMMARY

Route 220 Alt from Eastpark Drive to Read Mountain Road

VDOT District: Salem / Locality: Botetourt County



Study Purpose, Goals, and Objectives

To analyze the operational and safety issues identified along Route 220 Alt from Eastpark Drive to Read Mountain Road, with a focus on identified needs related to roadway safety, capacity preservation, multi-modal accessibility/ connectivity (bicycle and transit), and transportation demand management (TDM) needs.

Identified VTrans Needs

- Bicycle Access
- Capacity Preservation (Keep traffic flowing smoothly)
- Safety Improvement
- Transit Access
- Transportation Demand Management (TDM)

Study Area Facts

Major Study Intersections	3
Length of Study Area	0.84 miles
Classification	Principal Arterial
[2023] AADT (Average Annual Daily Traffic)	18,100
Speed Limit	55 mph

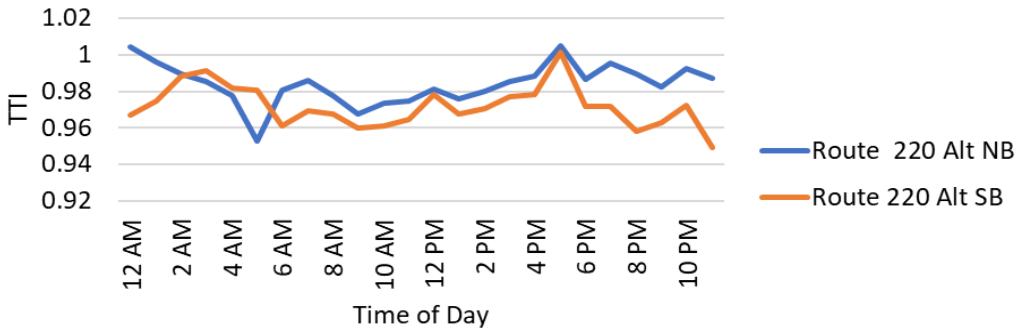
Operations Summary

- Westbound Eastpark Drive experiences long delays and queues in the PM peak hour
- Southbound Route 220 Alt queues extend from Eastpark Drive past Hillview Drive in both the AM and PM peak hour
- Left turning vehicles from Hillview Drive frequently stack in the median to complete their left turns
- Eastbound Read Mountain Road experiences long delays and significant queuing past Arrington Lane, particularly during the PM peak hour
- Northbound Route 220 Alt left-turns to Read Mountain Road occasionally exceed available storage in both AM and PM peak hours, with frequent school buses in the AM peak

Summary of Needs Identified Through Public Outreach

- Survey date: May 19 – June 2, 2025
- Number of participants: 874
- Highest ranked needs: Reducing traffic congestion, intersection/corridor safety, speeding/aggressive driving, and proper pavement marking and signage
- Mode(s) of travel: Personal vehicle (99%), truck (8%)
- Speeding/aggressive driving and sudden stopping/rear-end crashes were identified by participants as the greatest safety issues in the study area

Travel Time Index*



*Travel Time Index (TTI) is the ratio of the travel time during the referenced time period to the travel time during typical conditions. For example, a TTI of 1.5 means a trip takes 50% longer than it would in free-flow conditions.

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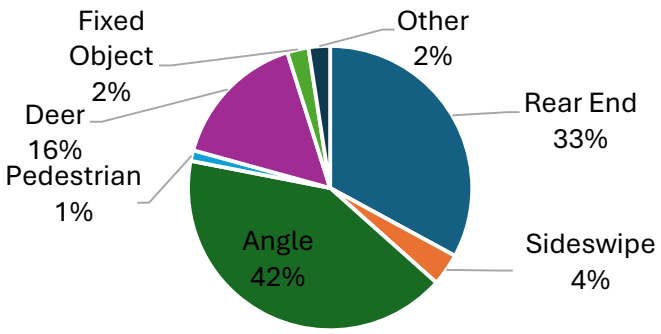
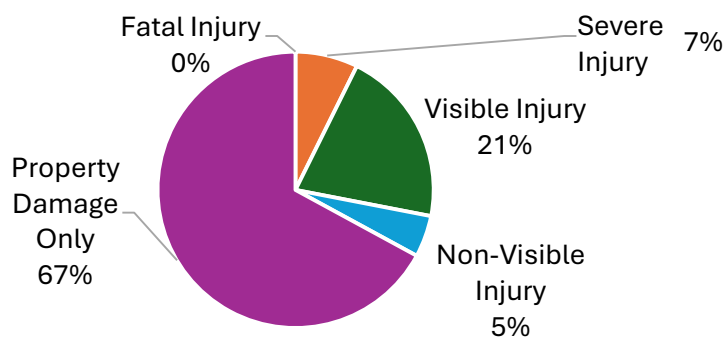
Safety Needs

- 47 of the 82 total crashes occurred at the Read Mountain Road intersection
- 33% of the crashes in the study area resulted in injuries
- The most prevalent crash type is angle crashes accounting for 41% of the crashes
- One pedestrian crash occurred within the study area at the Read Mountain Road intersection

Crash Type — 82 Total Crashes (2020 – 2024)



Crash Severity — 82 Total Crashes (2020 – 2024)



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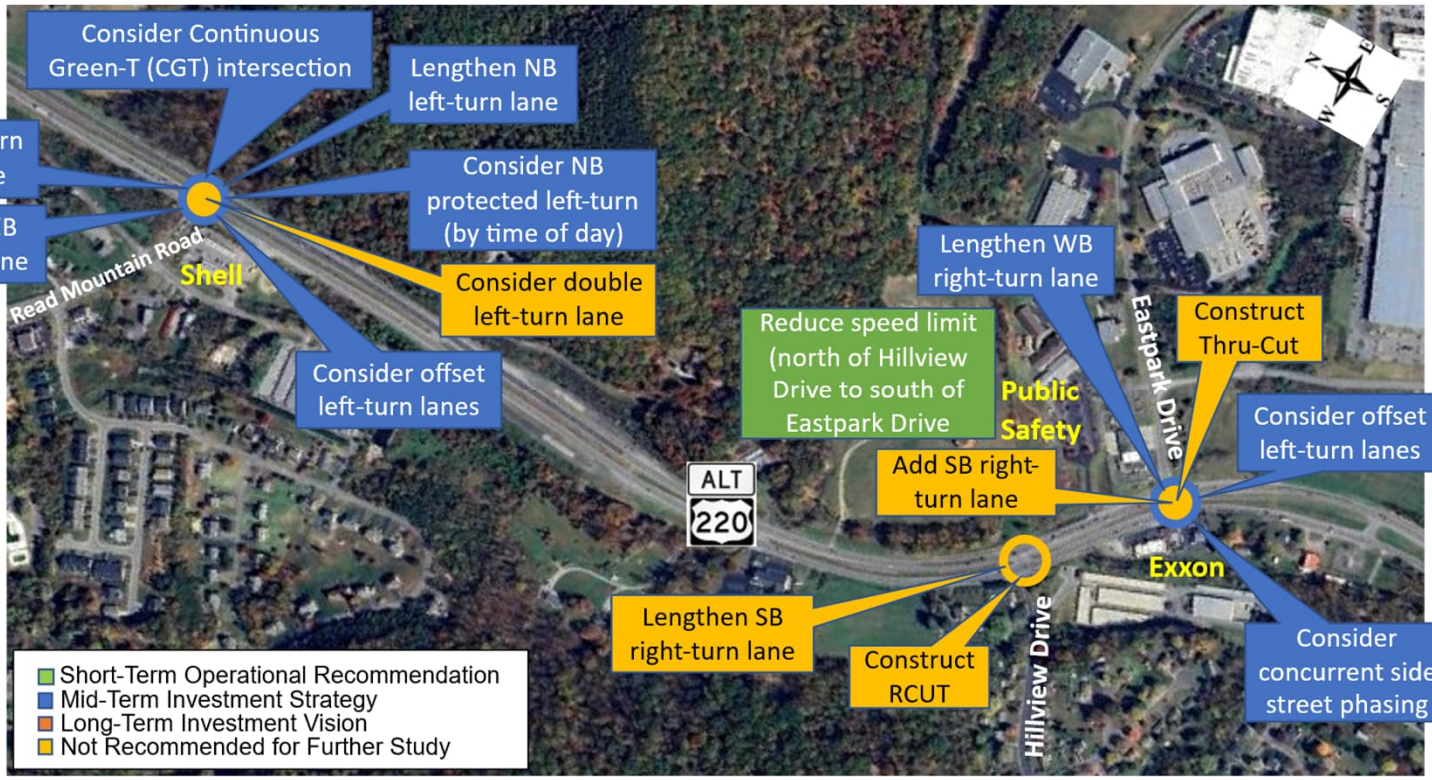
Proposed Solutions to Evaluate in Phase 2



Intersection / Segment	Improvement Type	Recommendation to be Evaluated
Intersection Improvements		
Eastpark Drive	Mid-Term	Consider concurrent side street signal phasing on Eastpark Drive
	Mid-Term	Consider offsetting the US 220 left-turn lanes
	Mid-Term	Lengthen WB Eastpark Drive right-turn lane
Read Mountain Road	Mid-Term	Consider protected-only NB left turn phasing by time of day
	Mid-Term	Lengthen NB US 220 left-turn lane
	Mid-Term	Consider offsetting the US 220 left-turn lanes
	Mid-Term	Lengthen EB Read Mountain Road right-turn lane
	Mid-Term	Add EB Read Mountain Road right-turn overlap phase
	Mid-Term	Construct Continuous Green-T (CGT) intersection
Corridor Improvements		
North of Hillview Drive to south of Eastpark Drive	Short-Term	Evaluate reduced speed limit