



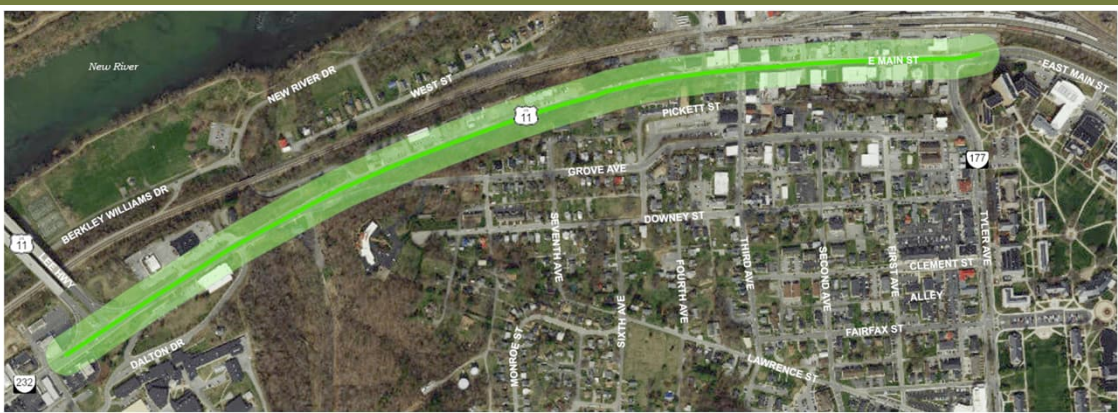
PROJECT PIPELINE NEEDS AND EXISTING CONDITIONS SUMMARY

East Main St (Route 11) from Lee Hwy (Route 11) to Tyler Ave (Route 177)

VDOT District: Salem / Locality: City of Radford

SA-25-03

Sheet 1 of 4



Study Purpose, Goals, and Objectives

To analyze the operational and safety issues identified along East Main Street (Route 11) from Lee Highway (Route 11) to Tyler Avenue (Route 177), with a focus on identified needs related to roadway & pedestrian safety, multimodal accessibility/connectivity (pedestrian, bicycle & transit), and transportation demand management (TDM) needs.

VTrans Needs

	Bicycle Access
	Pedestrian Access
	Safety Improvement
	Pedestrian Safety Improvement
	Transit Access
	Transportation Demand Management (TDM)

Study Facts

Major Study Intersections	7
Length of Study Area	1.05 miles
Classification	Principal Arterial
[2023] AADT (Average Annual Daily Traffic)	22,500- Lee Hwy to Grove Ave 11,100- From Grove Ave to Tyler Ave
Speed Limit	30 mph – Lee Hwy to west of Harrison St 25 mph – West of Harrison St to Tyler Ave

Operations Summary

- Imbalanced lane utilization within the study area between Lee Hwy and Grove Ave/Wildwood Park Dr
- Signals within study area are not coordinated
- Occasional cycle failures at closely-spaced signalized intersections, primarily during the PM peak hour

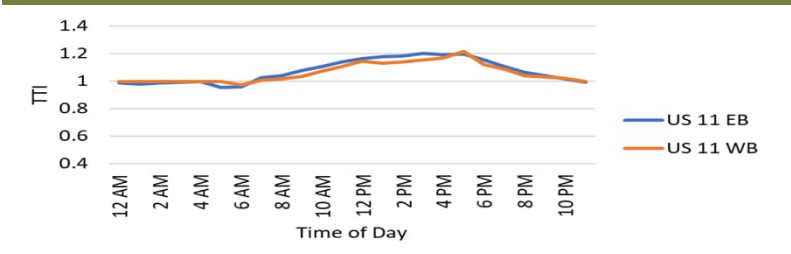
Bicycle and Pedestrian Access Needs

- Very high bicycle access and high pedestrian access VTrans needs within study area
- All signalized intersections have signalized crosswalks except at Grove Ave/Wildwood Park Dr and Harrison St
- Tyler Ave intersection is under construction for new ADA curb ramps on all 4 corners
- From Lee Hwy to Dalton Dr ranks in the top 1% of VDOT Pedestrian and Bicyclist Safety Action Plan (PBSAP) priority corridors; from Dalton Dr to Grove Ave ranks in the top 5%

Summary of Needs Identified Through Public Outreach

- Survey date: May 19 – June 2, 2025
- Number of participants: 521
- Highest ranked needs: Reducing traffic congestion, pedestrian safety and accessibility, corridor/intersection safety, and proper pavement marking and signage
- Mode(s) of travel: Personal vehicle (98%), walking (43%)
- Insufficient/missing crosswalks, poor pedestrian signal timing, and inadequate pavement marking & signage were identified by participants as the greatest safety issues in the study area

Travel Time Index*



Transit and TDM Needs

- Low transit access and very high TDM needs within study area
- There are currently 6 transit stops along the corridor, and the study area is served by 4 Radford Transit bus routes
- The EB transit stop near Bisset Park is not ADA accessible

*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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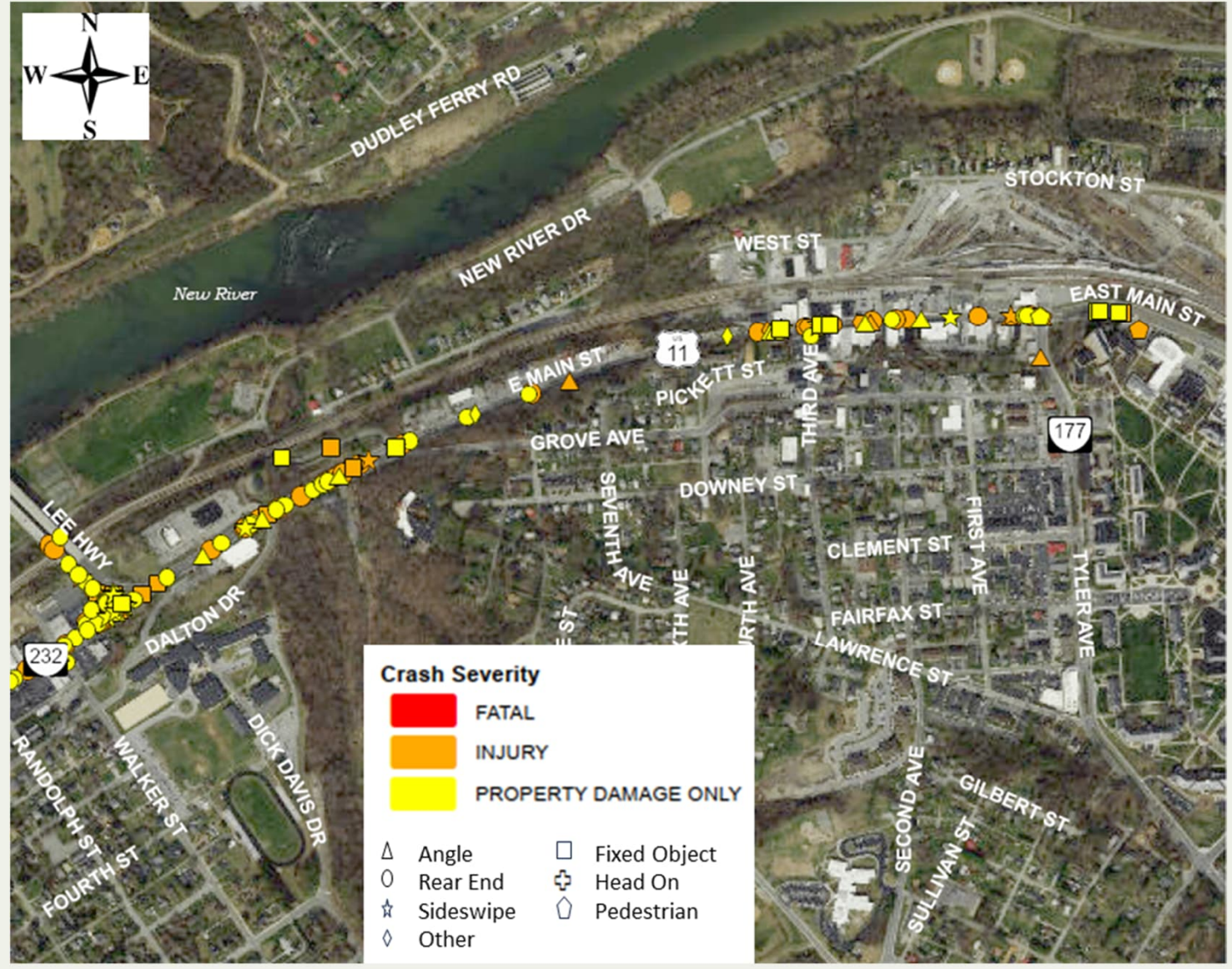
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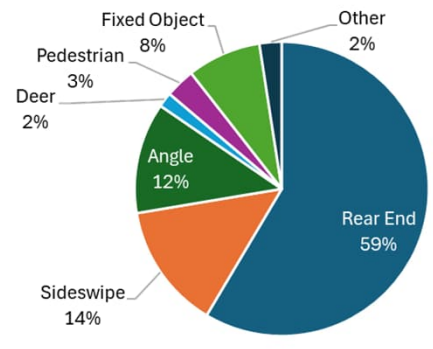
Sheet 2 of 4

Safety Needs

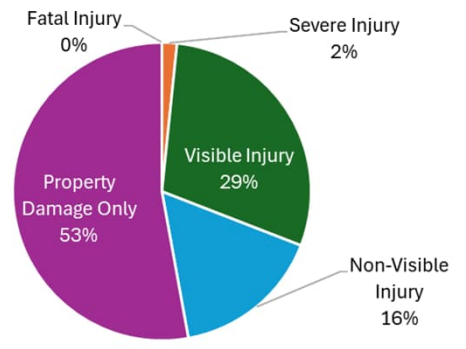
- 59% of the crashes along the study corridor were rear end crashes
- 43 of the total crashes occurred at the Lee Highway intersection
- 4 pedestrian crashes occurred in downtown between Third Avenue and Tyler Avenue, including 2 at the Tyler Avenue intersection



Crash Type 123 Total Crashes (2020 – 2024)



Crash Severity 123 Total Crashes (2020 – 2024)





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SA-25-03

Sheet 3 of 4

Proposed Solutions to Evaluate in Phase 2





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SA-25-03

Sheet 4 of 4

Proposed Solutions to Evaluate in Phase 2

Intersection / Segment	Improvement Type	Recommendation to be Evaluated
Intersection Improvements		
Lee Highway	Short-Term	Add yield markings for channelized SB right-turn lane
	Short-Term	Add crosswalk warning sign for the channelized SB right-turn lane
	Short-Term	Add crosswalk warning sign for the channelized WB right-turn lane
	Short-Term	Add puppy track pavement markings for SB & EB dual left-turns
	Mid-Term	Revise markings to reduce shift through the intersection (part of potential road diet)
	Mid-Term	Add a signalized crosswalk across the west leg of the intersection
Dalton Drive	Short-Term	Add signage to discourage left turns to the right in/right out intersection serving CVS
	Mid-Term	Evaluate removal of EB or WB left-turn phase (not required with potential road diet)
Grove Ave/Wildwood Park Dr	Mid-Term	Add signalized crosswalks across both south legs and the east leg of the intersection
	Mid-Term	Evaluate restricting WB left-turn movement (part of potential road diet)
Bisset Park Entrance	Short-Term	Add Don't Block the Box signs and markings
East Main Street east of Bisset Park Entrance	Mid-Term	Add crosswalk, ADA ramps, warning signs, and concrete bus stop landing for bus stop along EB East Main Street
Harison Street	Mid-Term	Add a signalized crosswalk across the north leg of the intersection
3 rd Avenue	Short-Term	Add leading pedestrian interval (LPI) for crossings of East Main Street
	Short-Term	Add high-visibility crosswalk markings & signs
	Mid-Term	Remove EB left-turn lane and close alley access
	Mid-Term	Add curb bump outs for crossings of East Main Street
Virginia Street	Short-Term	Add high-visibility crosswalk markings & signs
	Mid-Term	Remove traffic signal
Tyler Avenue	Short-Term	Add leading pedestrian interval (LPI) for crossings of East Main Street
	Mid-Term	Shift NB through movement to right lane to improve alignment
Corridor Improvements		
All Signalized intersections	Short-Term	Improve signal timings and add coordination
	Short-Term	Add high-visibility backplates
Lee Highway to Bisset Park Entrance	Mid-Term	Evaluate road diet to provide bike lanes along EB & WB West Main Street and dedicated left-turn lanes at intersections
Virginia Street to Tyler Avenue	Long-Term	Reconstruct wider sidewalk along north side of East Main Street