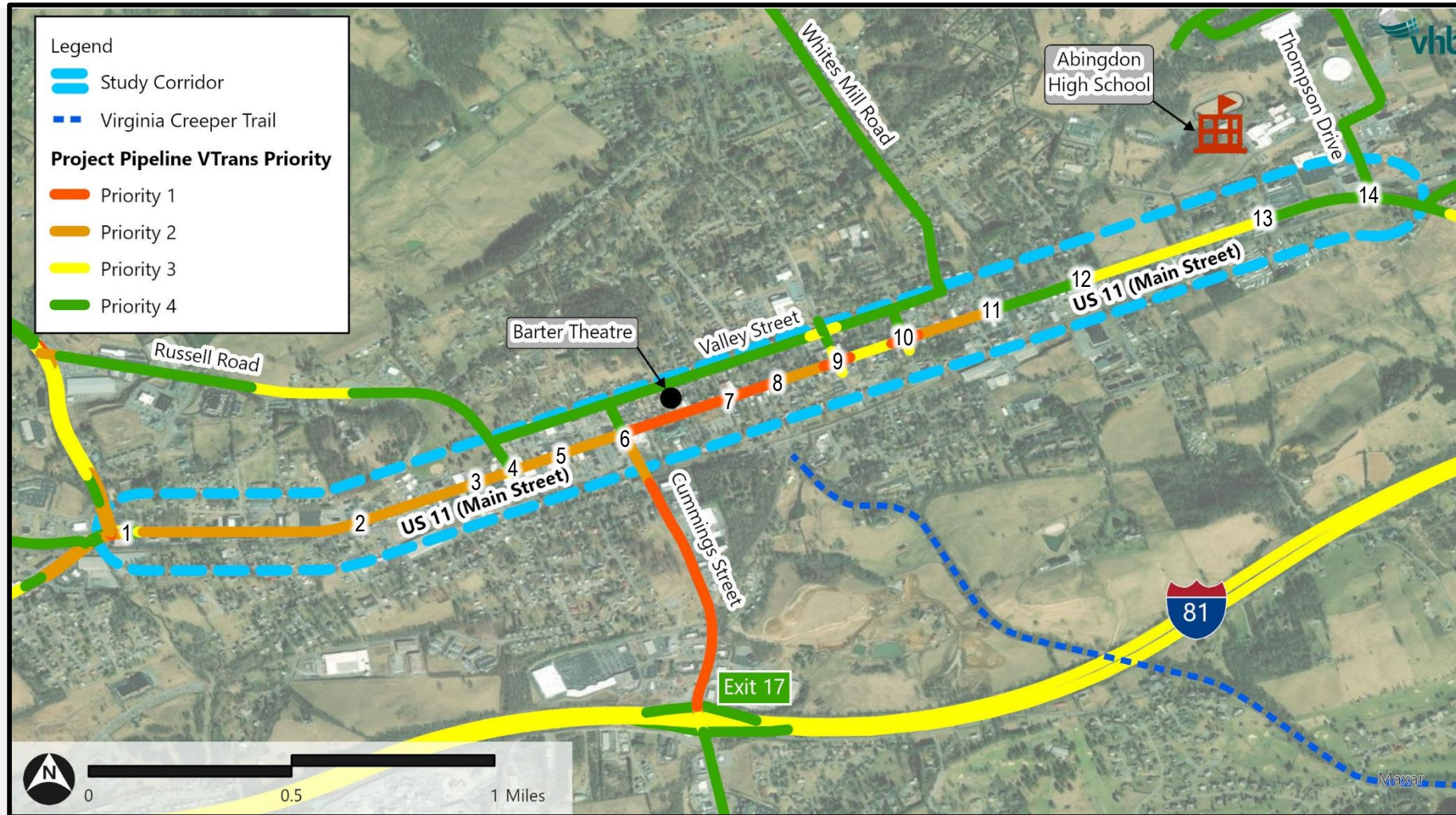







# Project Overview | BR-23-06

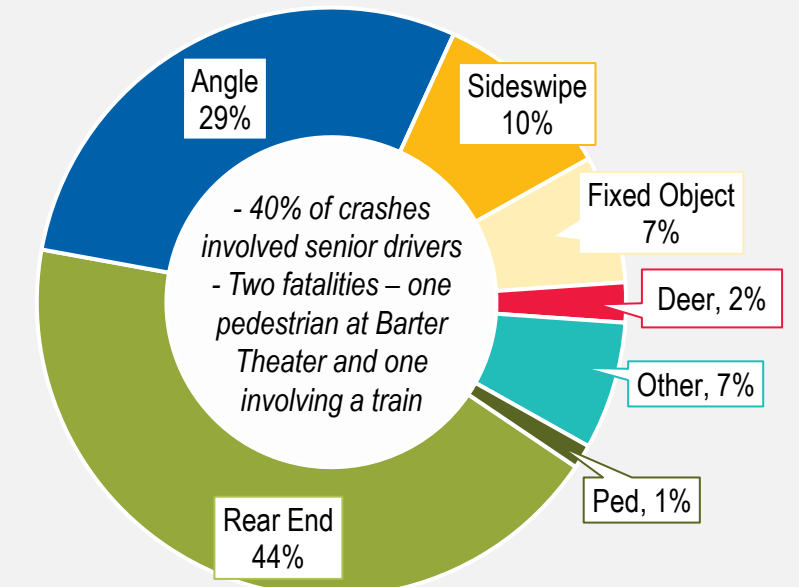
## US 11 (Main Street) between Holston Street and Thompson Drive



### Issues in the Study Area

-  Rear end crash trend related to friction between various road uses in the downtown corridor (e.g., driving vehicles, parking vehicles, pedestrians, delivery trucks, etc.).
-  Multiple access points create driver confusion and contribute to many crashes along the corridor. Off-street parking lots blend with travel lanes creating friction between parking vehicles and driving vehicles.
-  US 11 is a parallel corridor to I-81 and serves as a detour for drivers when there is an incident or heavy congestion on I-81.
-  Heavy peak night-time pedestrian activity at Barter Theater. Two pedestrian crashes have occurred, 1 of which was a fatality.
-  Intersection of US 11 and Cummings Street experiences the highest delay along the corridor and the most queueing.

Study Area Crashes (2018 – 2022 Data)  
228 total crashes



### Project Purpose, Goals, & Objectives

Analyze the operational and safety issues identified along US 11.

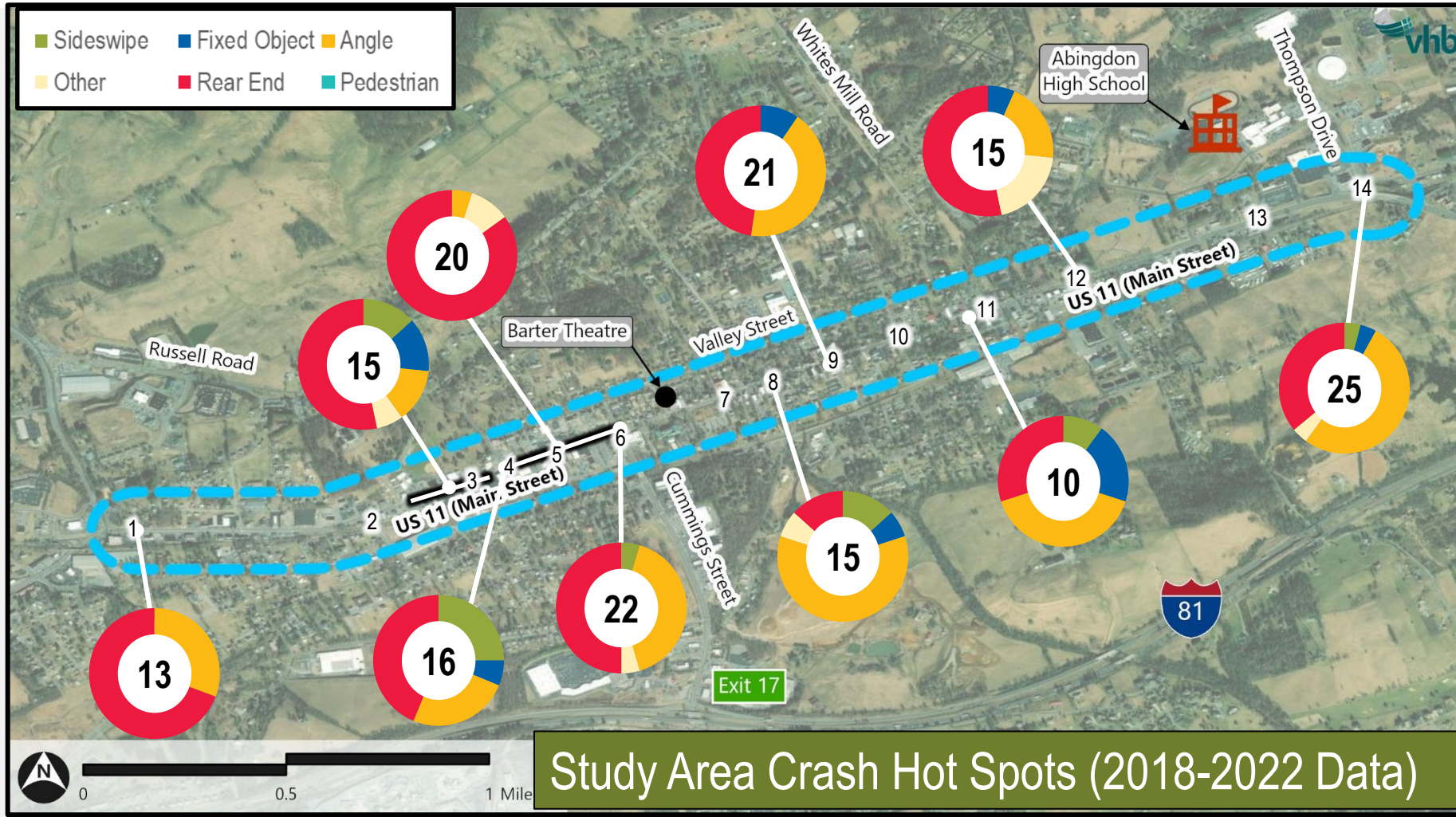
Identify cost-effective preferred improvement alternatives that address the deficient conditions and prioritize safety for vulnerable users.

Project Fact Sheet	
VDOT District	Bristol
Locality	Town of Abingdon
# of Study Intersections	14
Transit Routes	Mountain Lynx Transit
Functional Classification	Urban Minor Arterial
Speed Limit	25 MPH / 35 MPH



# Safety / Access Needs

## Needs Identification Summary



Study Area Crash Hot Spots (2018-2022 Data)

### VDOT 2018-2022 Crash Data

Hot Spot Intersection / Segment	Crashes by Severity				Total
	A	B	C	O	
Holston Street and US 11	0	1	2	10	13
Between Academy Drive and Fuller Street	1	3	1	10	15
Russell Road and US 11	0	3	6	7	16
Between Russell Road and Cummings Street	0	2	4	14	20
Cummings Street and US 11	0	6	3	13	22
Pecan Street and US 11	0	3	1	11	15
Court Street and US 11	0	5	1	15	21
Deadmore Street and US 11	0	0	3	7	10
Trigg Street and US 11	1	1	2	11	15
Thompson Street and US 11	0	2	7	16	25
<b>Total</b>	<b>2</b>	<b>26</b>	<b>30</b>	<b>114</b>	<b>172</b>

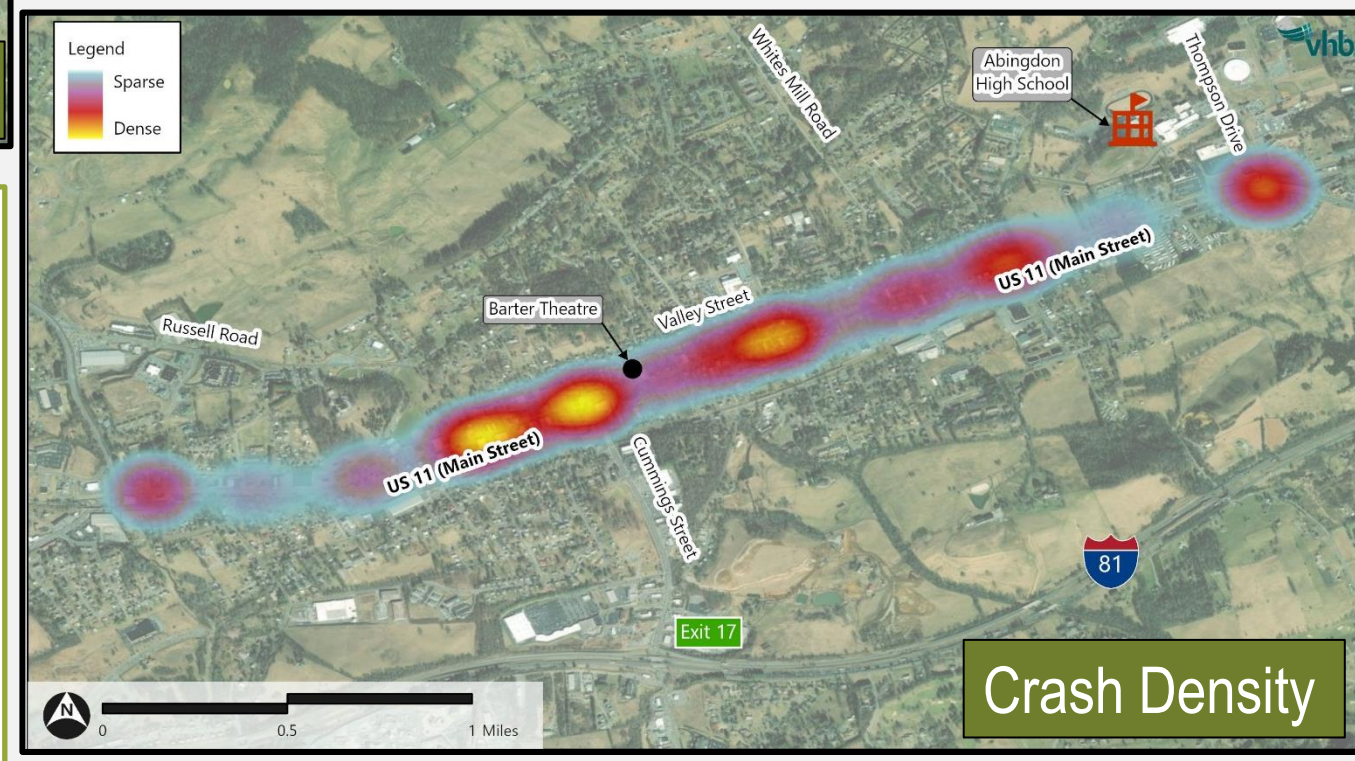
K = Fatal Injury; A = Severe Injury; B = Visible Injury; C = Non-visible Injury; O = Property Damage Only

### VTrans Safety / Reliability Needs

NEED	PRIORITY
Reliability	No Need
Road Safety	Very High
Pedestrian Safety	No Need

### Safety Summary

- The primary crash pattern includes rear end and angle crashes related to friction between various road uses in the downtown corridor (e.g., driving vehicles, parking vehicles, pedestrians, delivery trucks, etc.). 20-25% of all crashes estimated to be "friction" crashes.
- 17 of the crashes along the corridor directly involved parked vehicles, and 12 involved utility poles along the corridor.
- Many rear end crashes noted stopping for activities in front (e.g., pedestrians crossing, vehicles parking, etc.) of the vehicles involved.

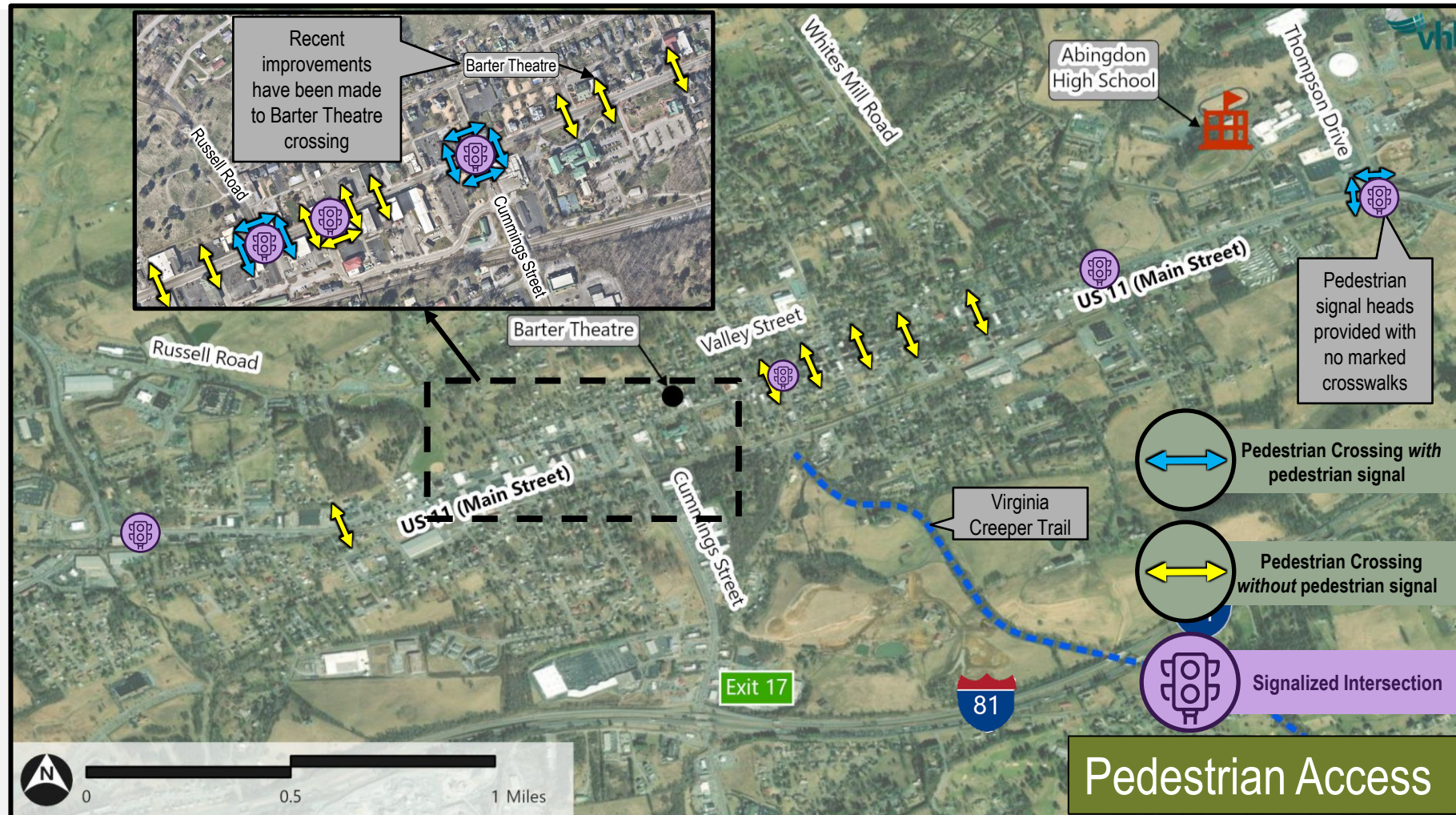


Crash Density



# Multimodal Needs

## Needs Identification Summary



### VTrans Multimodal Access Needs

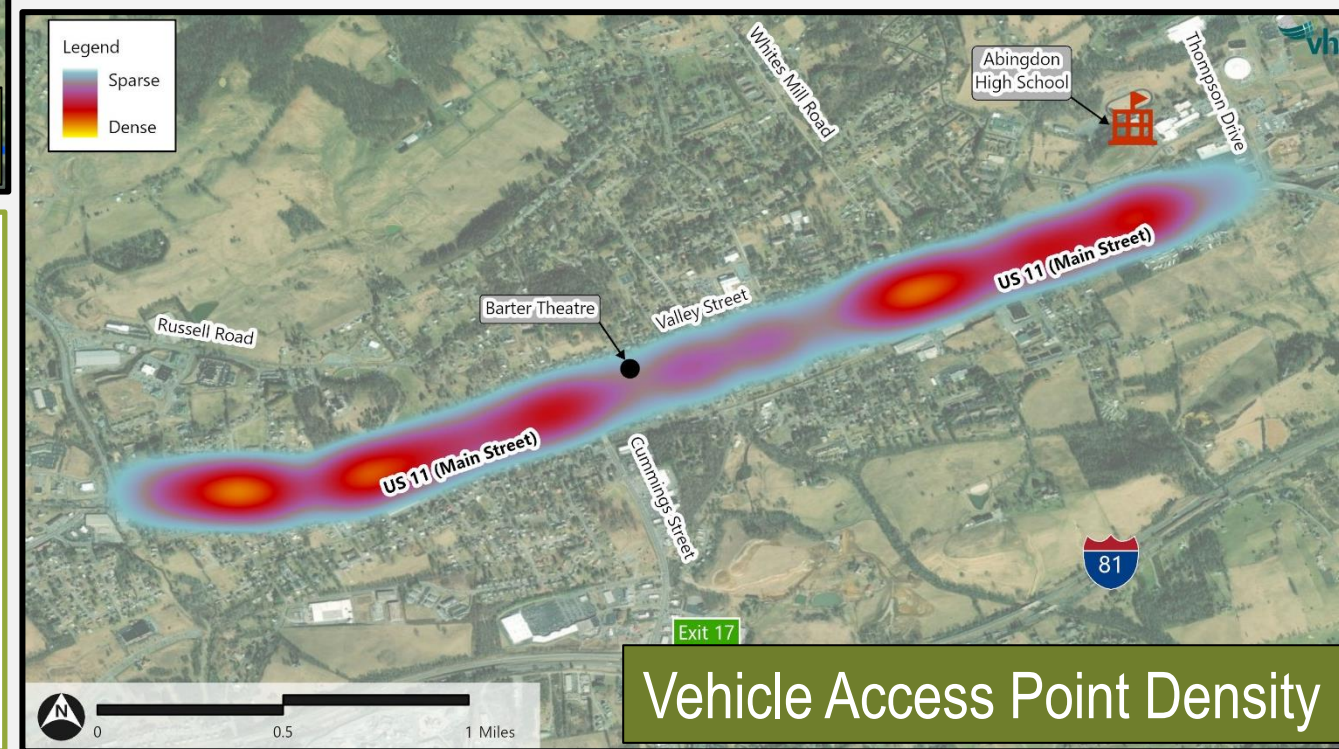
NEED	PRIORITY
Transit Access for Equity Emphasis Areas	Very High
Transit Access to Activity Centers	Medium
Pedestrian Access to Activity Centers	Medium
Bicycle Access to Activity Centers	Very High
Transportation Demand Management (TDM)	Very High
Pedestrian Safety	No Need

### Access Summary

- Many pedestrian crossings are provided through the downtown corridor; however, survey respondents noted that drivers do not always stop for pedestrians.
- Many crashes involved vehicles stopping for pedestrians.
- Virginia Creeper Trail begins in Abingdon just south of the study corridor; however, no bicycle facilities are provided in the study area.
- Highest density of access points on west end and east end of study area.

### Existing Transit Service

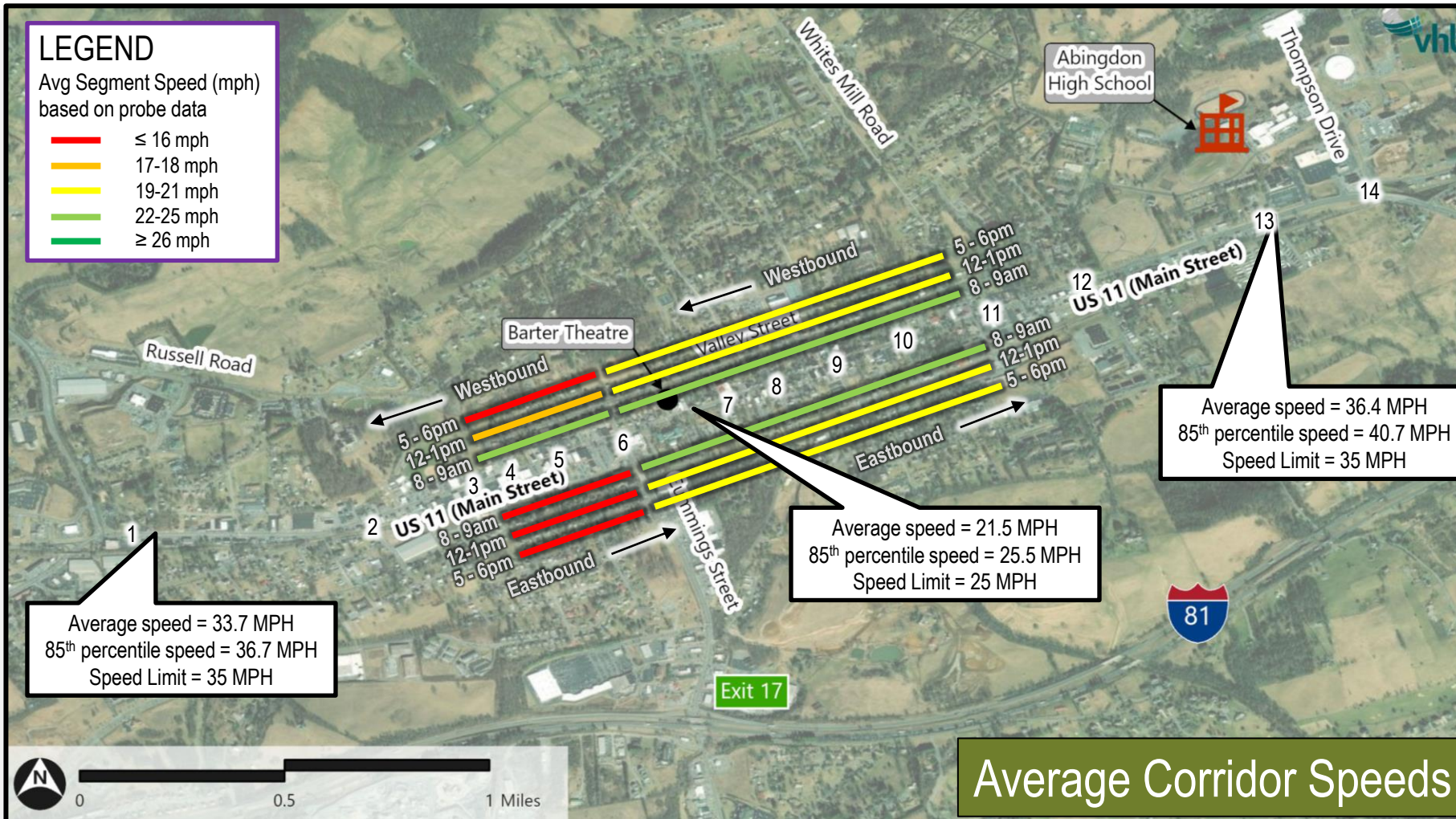
- Transit routes serviced by Mountain Lynx Transit
  - Operate two fixed routes that can deviate off the general route for a requested pick-up/drop-off. Service is provided Monday-Friday 8AM-5PM and buses run every hour.
  - Additional demand-response buses available weekdays 7:30AM-4:30PM.
  - The fixed routes serve approximately 2/3 of passengers, and the on-demand service serves approximately 1/3 of passengers.
  - Weekly connection routes to other destinations throughout Washington County.
- No regional connections (e.g., Bristol, Kingsport, Johnson City) provided beyond Washington County.





# Operations Needs

## Needs Identification Summary



### Existing Conditions – Synchro Output

Intersection	Level of Service	
	AM	PM
Porterfield Highway and US 11*	B	B
1. Holston Street and US 11	A	A
2. Preston Street and US 11**	C	C
3. Fuller Street and US 11**	B	B
4. Russell Road and US 11	A	B
5. Wall Steet and US 11	B	B
6. Cummings Street and US 11	C	D
7. Church Street and US 11**	A	B
8. Pecan Street and US 11	A	B
9. Court Street and US 11**	C	E
10. Tanner Street and US 11**	C	E
11. Deadmore Street and US 11**	D	D
12. Trigg Street and US 11	A	A
13. Bank Street / Boone Street and US 11**	B	C
14. Thompson Drive and US 11	B	B
Hillman Highway and US 11*	B	B
Russell Road and Valley Street*	C	C
Cummings Street and Valley Street*	B	B
Church Street and Valley Street*,**	C	C
Court Street and Valley Street*	C	B

\*Intersection is outside of study area but was analyzed to determine effects on the study area.

\*\*Intersection Level of Service is not calculated for two-way stop control intersection. Level of Service shown is worse of side street approaches.

### Operations Summary

- Most intersections perform at an acceptable level of service (LOS). The intersection of US 11 and Cummings Street experiences the most delay of the signalized intersections along the corridor.
- Numerous access points, on-street curb activity (parking and loading), and pedestrian activity contribute to average speeds lower than the speed limit.

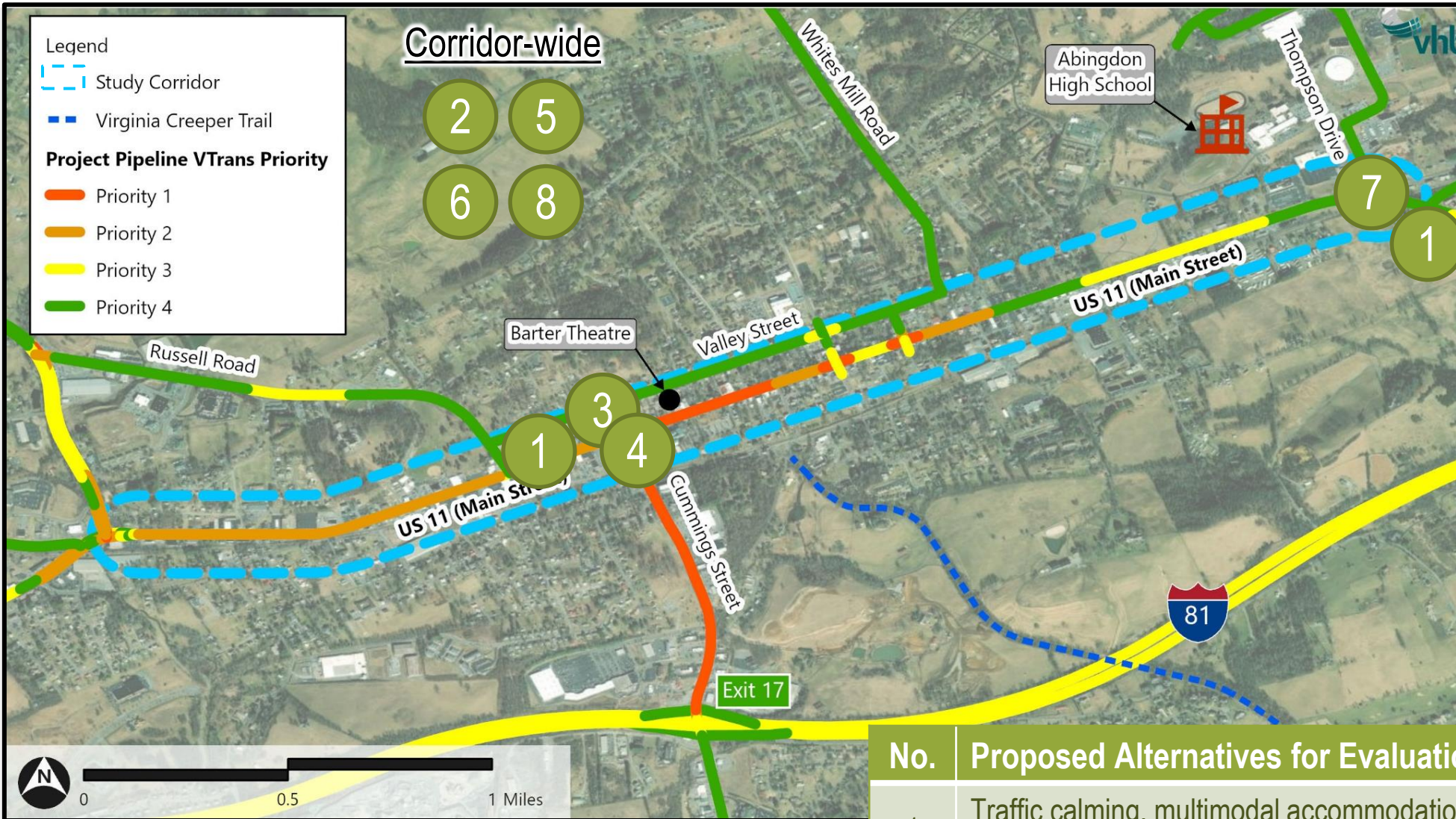
### VTrans Operations Needs

NEED	PRIORITY
<b>Congestion</b>	<b>Very High</b>
<b>Capacity Preservation</b>	<b>No Need</b>








# Phase 1 Conclusion | BR-23-06

## US 11 (Main Street) between Holston Street and Thompson Drive



### Issues in the Study Area

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-  US 11 is a parallel corridor to I-81 and serves as a detour for drivers when there is an incident or heavy congestion on I-81.
-  Heavy peak night-time pedestrian activity at Barter Theater. Two pedestrian crashes have occurred, 1 of which was a fatality.
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No.	Proposed Alternatives for Evaluation	VTrans Needs Addressed
1	Traffic calming, multimodal accommodations (e.g., curb bump outs, angled parking, curb management strategies, etc.), and gateway treatments	Road Safety, Congestion
2	Corridor-wide access management strategies	Road Safety, Congestion
3	Quadrant intersection at Cummings Street	Congestion
4	Turn lane reconfiguration at Cummings Street	Congestion
5	Corridor-wide pedestrian improvements	Transportation Demand Management
6	Low-cost safety treatments	Road Safety
7	Alternative connection to Baugh Lane	Road Safety, Congestion
8	Transit enhancements (stop amenities, microtransit viability)	Transportation Demand Management