

Welcome

CVTPO

INTERSECTION SAFETY
STUDY

BEDFORD COUNTY SWG

AUGUST 14, 2024

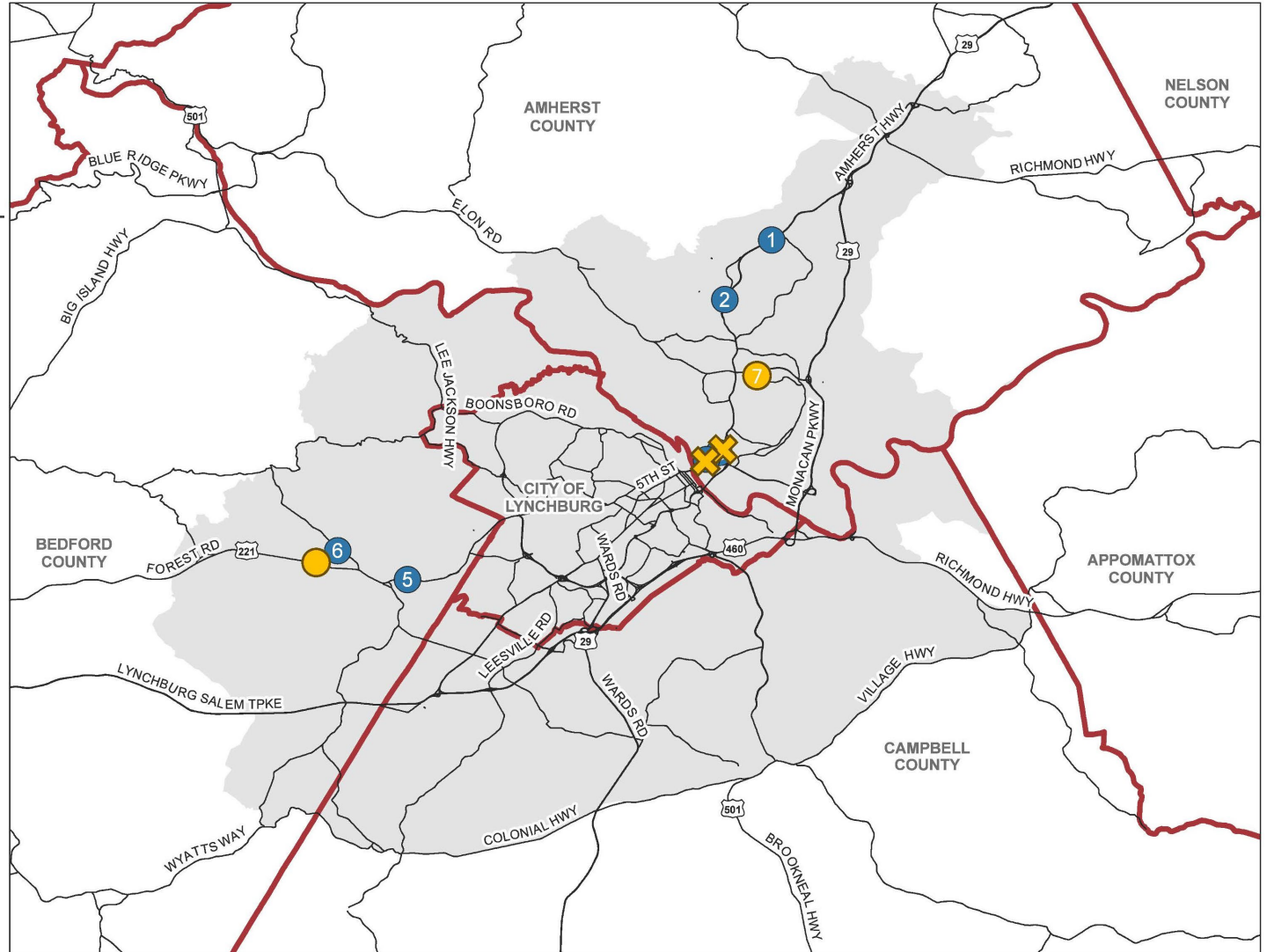


Agenda

Project Scope and Purpose

Study Locations

Next Steps



Project Scope and Purpose

VDOT funded project, administered by the CVTPO

Locations identified by localities

Safety improvements and traffic conditions (2023/2024 and 2050) evaluated



Study Locations

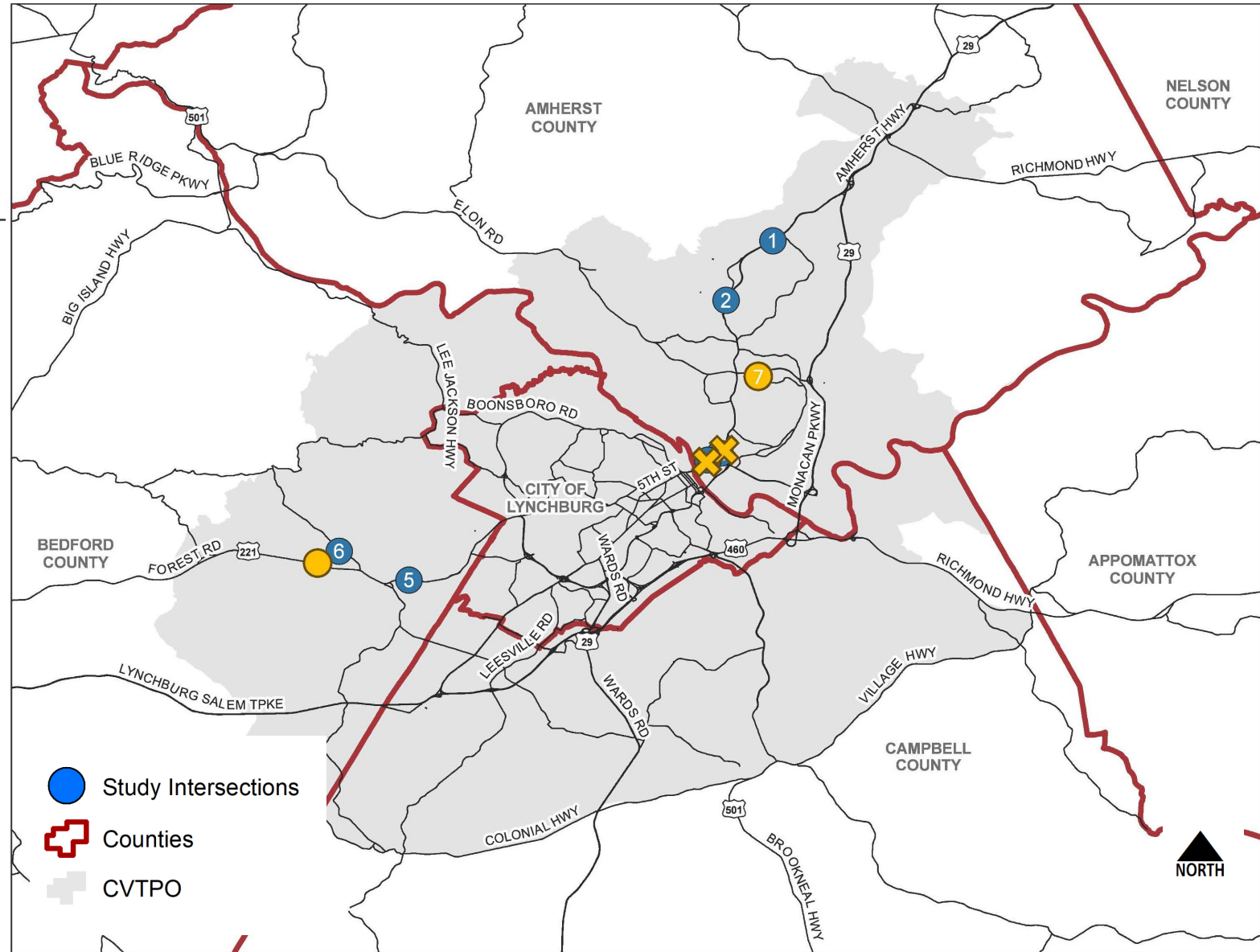
Amherst County

- 1. Amherst Highway (BUS 29) and Sprouse Drive
- 2. Amherst Highway (BUS 29) and Rothwood Road (657)
- 7. Amelon Expressway (130) at Amelon Road (669)/Amelon Center Parkway

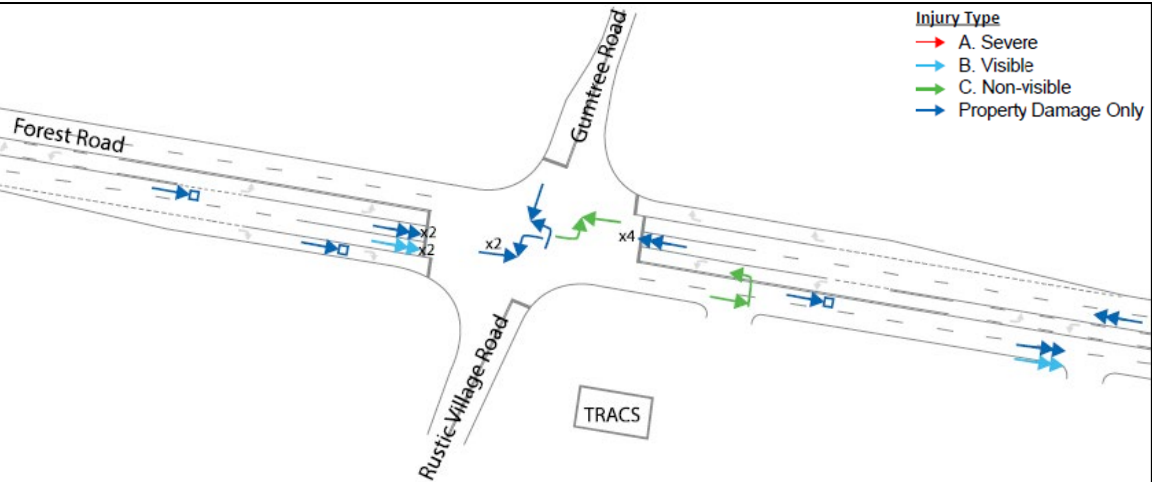
Bedford County

- 5. Forest Road (221) and Rustic Village Road/Gumtree Road (609)
- 6. Perrowville Road (663) and Mays Mill Road (662)

Mays Mill Bridge



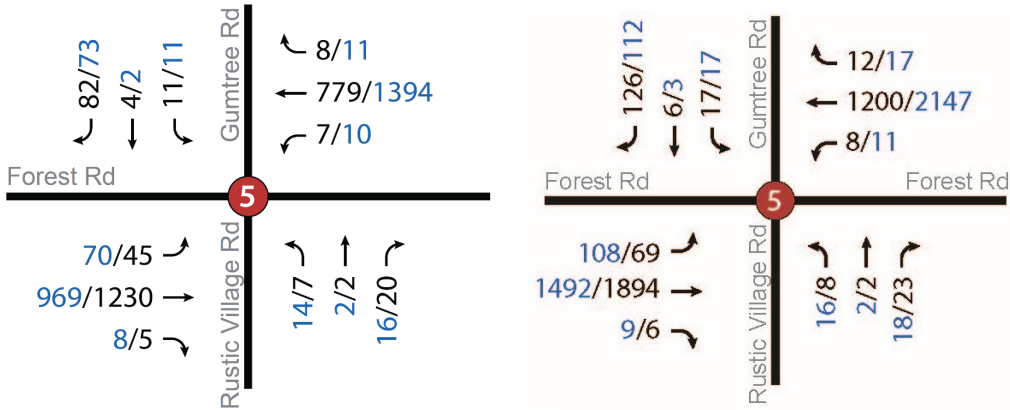
Forest Road (221) and Rustic Village Road/Gumtree Road (609)



Southbound approaching Forest Road

2023

2050



Peak Hour Volumes
AM (7:30-8:30)/PM (4:30-5:30)



Westbound approaching Rustic Village Road

Forest Road (221) and Rustic Village Road/Gumtree Road (609)

Traffic Operations

- Goal to maximize through capacity on Route 221
- Added side street left turn lanes
- Updated signal phasing – removed split phasing

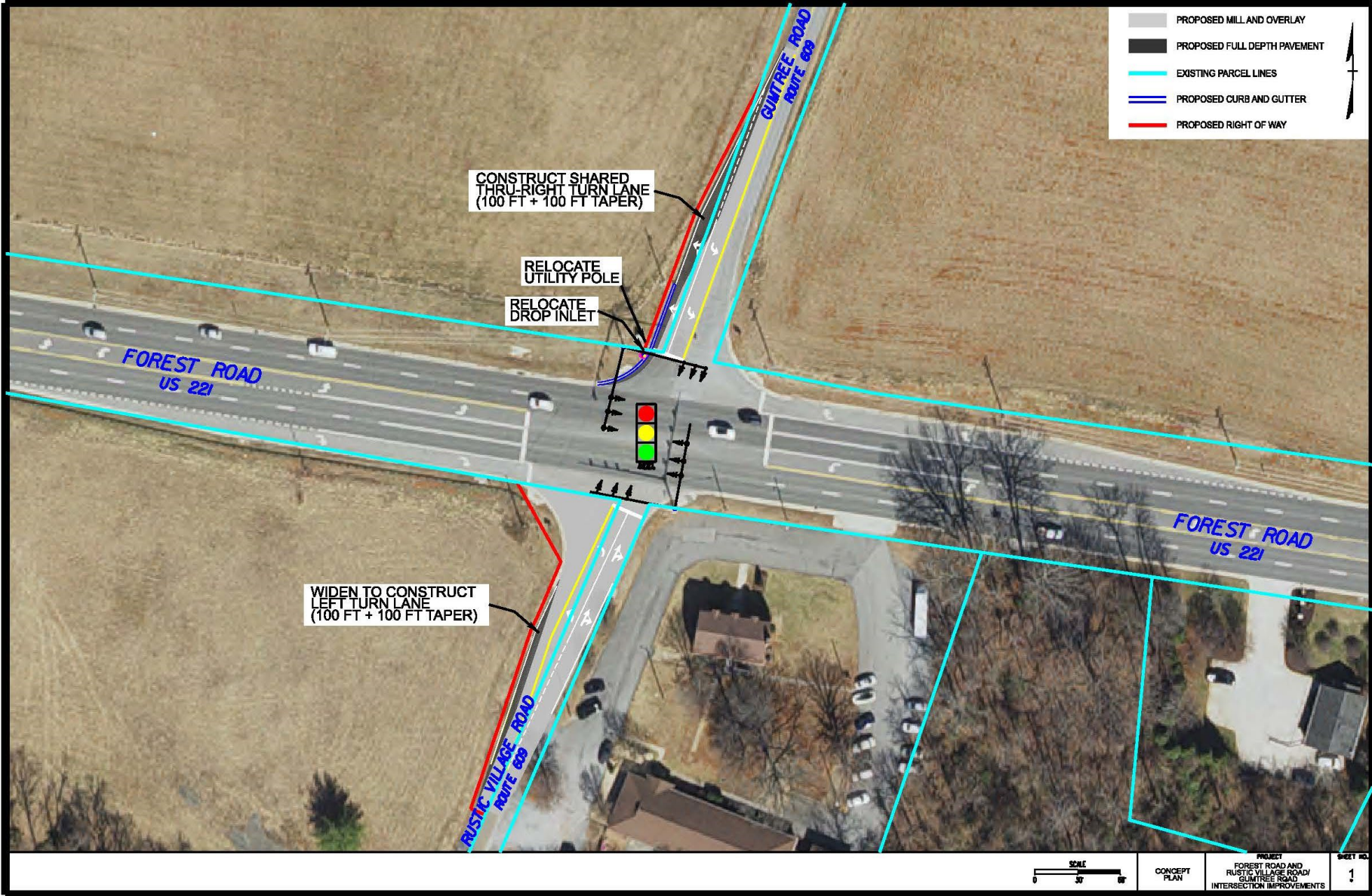
Approach	Movement	Effective Storage	2050 No Build AM			2050 No Build PM		
			LOS	Delay (sec)	Max Queue (ft)	LOS	Delay (sec)	Max Queue (ft)
4. Forest Road (221) and Rustic Village Road/Gumtree Road						<i>Signalized</i>		
Forest Road	EBL	200	B	10.2	110	E	64.3	189
	EBT	-	C	24.0	310	B	14.5	304
	EBR	275	A	8.1	20	A	7.6	44
Forest Road	WBL	200	C	20.2	43	B	10.2	133
	WBT	-	B	16.8	272	D	42.9	724
	WBR	275	B	10.1	28	A	9.3	153
Rustic Village Road	NBL/T/R	-	E	57.3	78	E	70.4	84
Gumtree Road	SBL/T	-	D	53.3	112	E	67.2	180
	SBR	75	D	52.5	75	E	66.0	76
Intersection			C	22.7		C	33.5	

Approach	Movement	Effective Storage	2050 Build AM			2050 Build PM		
			LOS	Delay (sec)	Max Queue (ft)	LOS	Delay (sec)	Max Queue (ft)
4. Forest Road (221) and Rustic Village Road/Gumtree Road						<i>Signalized</i>		
Forest Road	EBL	200	A	9.7	106	D	52.0	150
	EBT	-	C	23.9	275	B	12.2	252
	EBR	275	A	7.7	19	A	6.4	30
Forest Road	WBL	200	B	18.9	22	A	8.2	116
	WBT	-	B	16.4	248	D	35.8	601
	WBR	275	A	9.8	29	A	8.0	129
Rustic Village Road	NBL	150	D	47.1	40	E	59.9	52
	NBT/R	-	D	47.7	59	E	60.1	37
Gumtree Road	SBL	-	D	46.6	95	E	61.7	125
	SBT/R	150	D	47.9	123	E	62.7	147
Intersection			C	22.2		C	28.2	

Forest Road (221) and Rustic Village Road/Gumtree Road (609)

Recommendations

- Left turn lanes on side street approaches
- Allows for removal of split phasing
- Resubmit sidewalk application
- Evaluate FYAs – VDOT standard procedure



Perrowville Road (663) and Mays Mill Road (662)



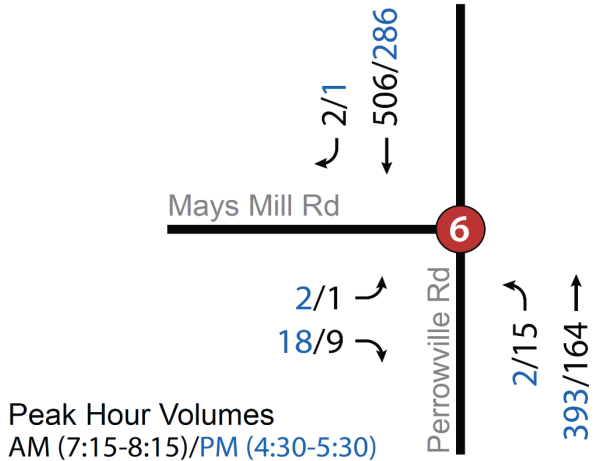
Eastbound approaching Perrowville Road



Northbound approaching Mays Mill Road

- No crashes in last 5 years
- Solarix to occupy the former TEVA Pharmaceutical space
- Other access points to site better suited for truck traffic
- Significant grade

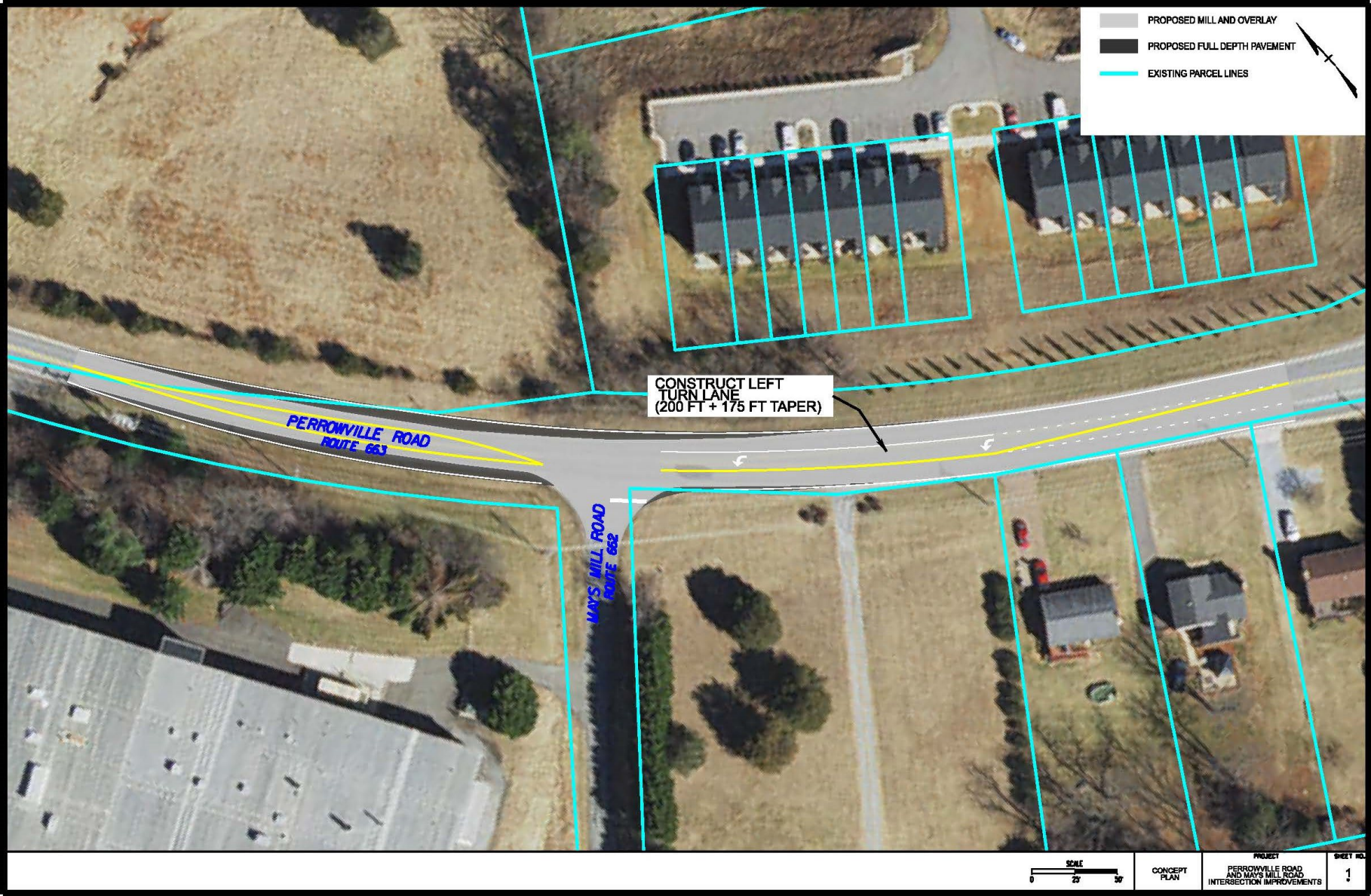
2023



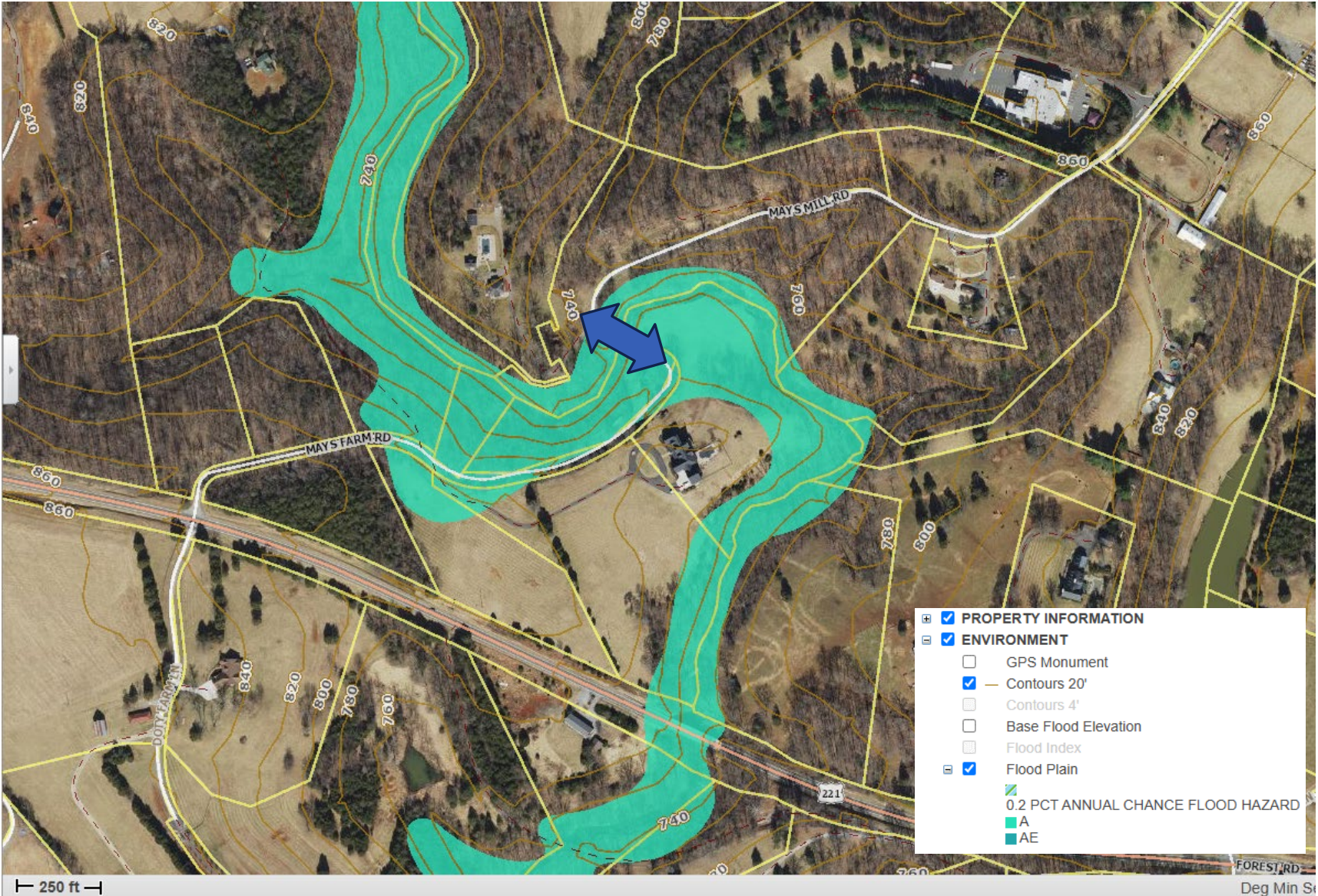
Perrowville Road (663) and Mays Mill Road (662)

Recommendations

- Left turn lane on Perrowville Road



Mays Mill Road (662) Bridge



Mays Mill Road (662) Bridge



Northbound bridge approach



Southbound bridge approach



Northbound approach looking south



Southbound approach looking north

County requested high level cost estimate to replace bridge – will use VDOT PCES tool

Southern end (northbound approach)

- Not paved, portions grass
- Narrow
- Tight turns
- Steep sections

Northern end (southbound approach)

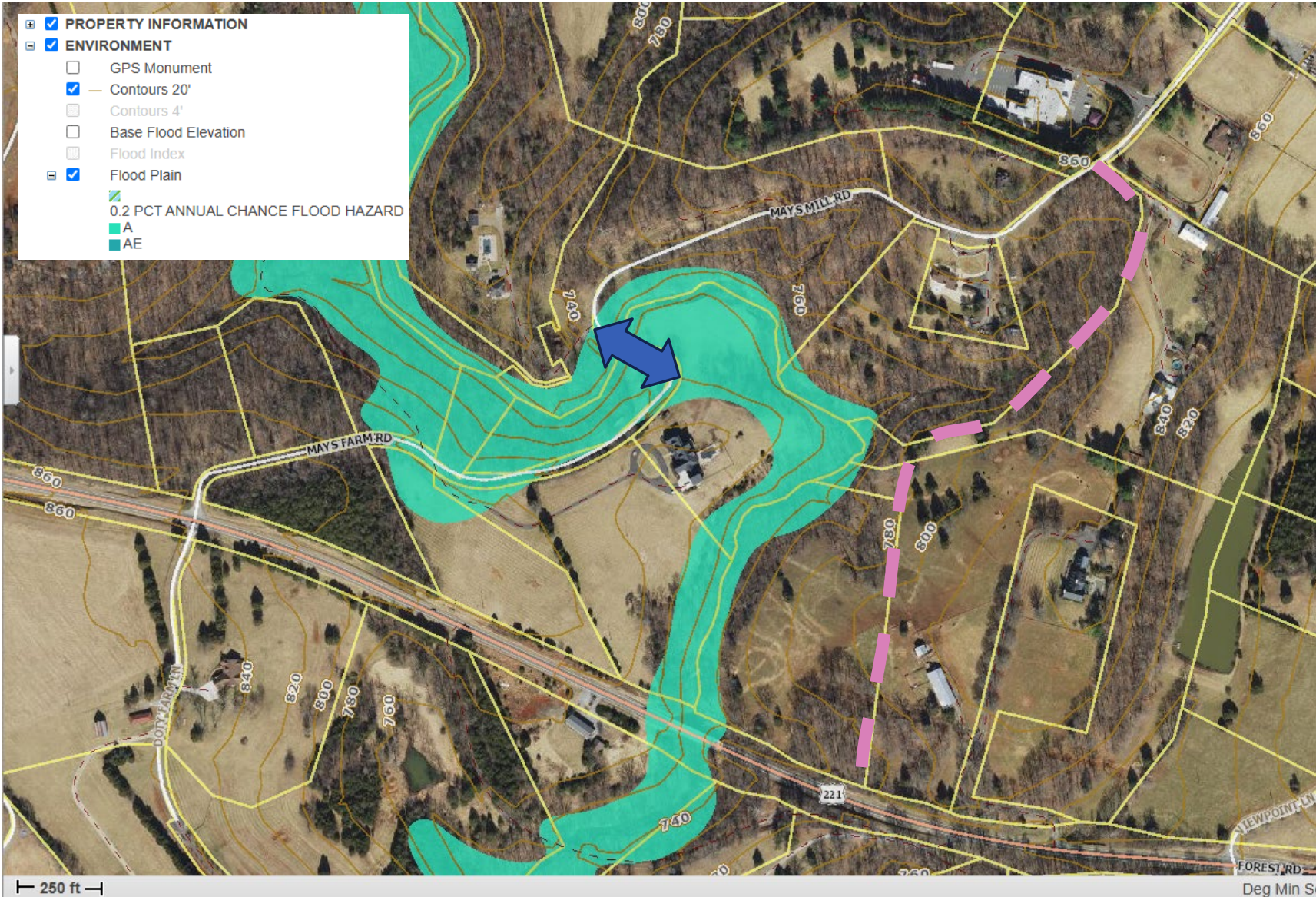
- Pavement surface varies
- Narrow

Mays Mill Road (662) Bridge

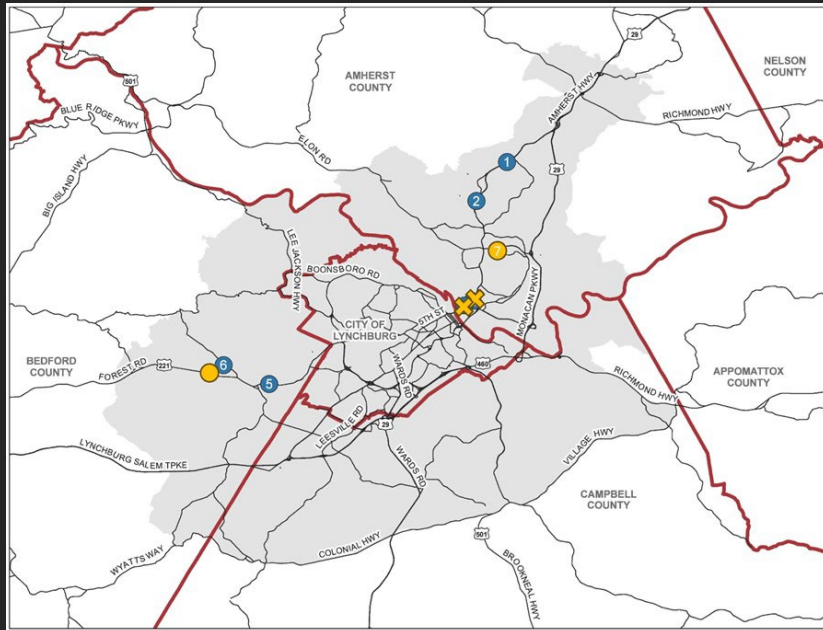
To make effective connection at previous bridge location significant roadway upgrades also needed

Recommendation

- If Perrowville Road to Route 221 connection desired, additional alignments should be considered



Next Steps



Develop Cost Estimates

Prepare Final Report