

APPENDIX E:
MEETING SUMMARIES

Meeting Minutes

TO: Casey Smith
Project Manager
KYTC District #7 Office
800 Newtown Court
Lexington, KY 40511

Brent Sweger
Project Manager
KYTC Central Office Planning
200 Mero Street
Frankfort, KY 40622

FROM: Graham Winchester
Project Manager
Stantec Consulting Services Inc.

DATE: May 31, 2023

SUBJECT: West Richmond Small Urban Area (SUA) Study
Madison County
KYTC Item No. 7-80210
Local Officials/ Stakeholder Meeting No. 1

The first Local Officials / Stakeholder Meeting for the subject project was held at the Madison County Public Library on May 10, 2023, at 10:30 a.m. EDT. The following individuals were in attendance:

Tom Botkin	Madison County Fiscal Court
Jeremy Couch	City of Richmond Planning and Zoning
Kevin Cowsey	City of Richmond Planning and Zoning
David Dodson	City of Richmond Planning and Zoning
Tyler Frazier	City of Richmond
Deanna Frauer Gordan	Kentucky House of Representatives
Tim Gray	Madison County Fire Department/EMA
Shane Lakes	Madison County Schools
Sam Kirby	Richmond Fire Department
Scott Shepherd	Madison County Road Supervisor
Bert Thomas	Madison County Planning
Reagan Taylor	Madison County Judge Executive
Catherine Davis	KYTC – Central Office Planning
Stephen DeWitte	KYTC – Central Office Planning
Jared Jeffers	KYTC – Central Office Planning
Preston McDowell	KYTC – District 7
Clyde Newcomer	KYTC – District 7
Janice Rawling	KYTC – District 7
Joshua Samples	KYTC – District 7
Casey Smith	KYTC – District 7

Brent Sweger
Shane Tucker

KYTC – Central Office Planning
KYTC – District 7

Brian Aldridge
Len Harper
Tad Taylor
Graham Winchester

Stantec Consulting Services Inc.
Stantec Consulting Services Inc.
Stantec Consulting Services Inc.
Stantec Consulting Services Inc.

Casey Smith welcomed everyone and led introductions. The purpose of the meeting was to discuss the existing conditions of the West Richmond Small Urban Area (SUA) Study and to solicit feedback from the local officials and stakeholders on areas of concern, possible growth, and potential improvement concepts. The objective of the study is to examine the transportation network in the area west of I-75 in Richmond, Kentucky. The study will identify and evaluate intersections, roadways, and other infrastructure and develop potential options to improve safety and congestion. Graham Winchester then delivered a presentation.

The following enumerated items were discussed.

1. The study area includes areas west of I-75 in Richmond, Kentucky, as shown in **Figure 1**. Major roads inside the study area include Barnes Mill Road, Tates Creek Road (KY 169), Goggins Lane and Crutcher Parkway among others. Improvements to I-75 mainline and Exit 90 will not be considered as part of the study.
2. There are no active six-year projects in the study area listed in *Kentucky's 2022-2028 Enacted Highway Plan*. There is one active pavement rehab project on I-75 (Item No. 7-8820).
3. Projects from Vision Richmond 2040 were discussed including extending Victory Boulevard, a connection from Goggins Lane to Lexington Road and widening Willis Branch Road from Goggins Lane to Lakeshore Drive including drainage improvements.
4. Highlights from the existing conditions analysis were discussed. The heaviest daily traffic volumes in the study area include KY 876 with 29,600 vehicles per day (vpd) east of I-75 and 12,750 vpd west of I-75, Goggins Lane with 7,500 vpd, S. Keeneland Drive with 6,200 vpd, and KY 169 with 5,700 vpd east of Goggins Lane. Several routes within the study area have lane widths less than 11 feet, including KY 169, KY 1156, and S. Keeneland Drive.
5. The preliminary existing traffic simulation model was presented to show peak hour traffic operations on the KY 876 corridor (including the interchange with I-75). This model is being calibrated to turning movement counts collected in March 2023 when Eastern Kentucky University (EKU) and Madison County Schools were in session.
 - There were some concerns that the simulation model was not showing enough congestion. It was noted that the simulation model is still being calibrated and the video only showed a small portion of the peak hour.

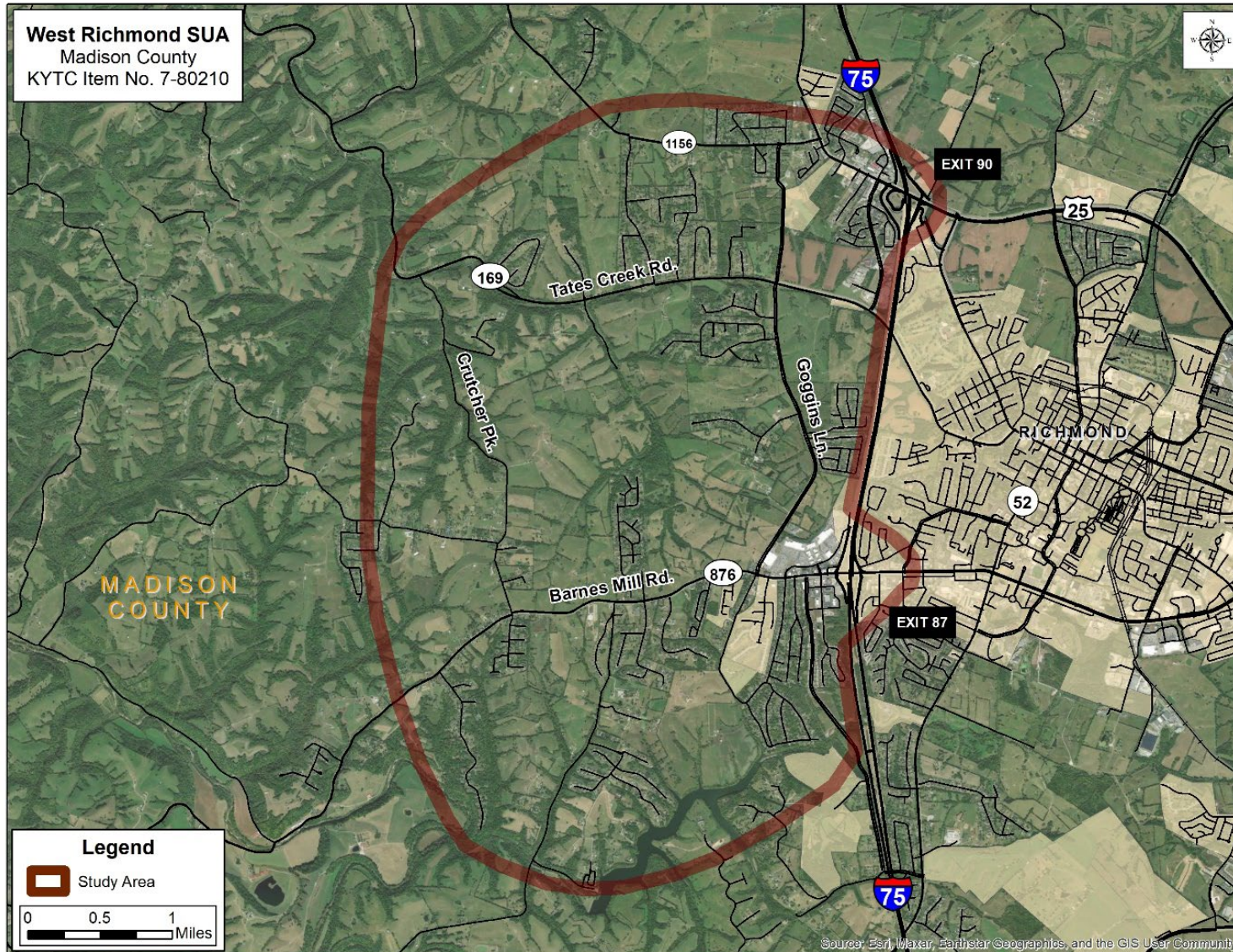


Figure 1: Study Area

6. Crash data from the Kentucky State Police database indicates that in the five years between January 1, 2018, and December 31, 2022, a total of 1,472 crashes were reported in the study area. Of the 1,472 crashes, there was one fatal collision (0.1 percent), 254 injury collisions (17.2 percent), and 1,217 property damage collisions (82.7 percent).
 - The sole fatality occurred on KY 169 in a head on collision on wet pavement in 2021.
7. Over the past 20 years, population in Richmond and Madison County has grown at a faster rate than the rest of the state, between 1.22 and 1.35 percent per year based on data from the KY State Data Center. This growth is expected to continue to the year 2050, as shown in **Table 1**.

Table 1: Population Projections

Area	Census Estimates			Annual Growth	Projection	Annual Growth
	2000	2010	2020	2000 - 2020	2050	2020 - 2050
Kentucky	4,041,769	4,339,367	4,505,836	0.54%	4,785,233	0.20%
Madison County	70,872	82,916	92,701	1.35%	116,156	0.75%
Richmond	27,152	31,364	34,585	1.22%	N/A	

8. The Madison County Comprehensive Plan identifies the study area as a location of future single-family residences. This area currently does not have utility services. Without sewer utility systems, single-family residential areas are limited to one unit per acre.
 - Although Madison County does not currently have municipal sewer services in the area, it can support low-density residential development.
 - It was noted that with sewers, lots for a single-family residence can be up to 9,000 square feet.
9. The local officials / stakeholders were then invited to participate in a group mapping exercise. Large, plotted maps were made available for participants to identify problem spots related to safety, congestion, locations of growth, and potential transportation improvements. All 12 attendees participated in the exercise.
10. Attendees were first asked to identify areas of concern related to safety and congestion. No areas of concern related to safety were identified. **Table 2** and **Figure 3** present the identified areas of concern related to congestion. Although the Old Town Branch Tunnel is not currently congested, there are concerns that traffic will divert to the tunnel to avoid congestion on KY 876.

Table 2: Areas of Concern related to Congestion

Location	Area	Comments
1	I-75 Southbound Off Ramp (Exit 87)	PM Peak hour congestion
2	KY 876 at Goggins Lane	Install turn lanes
3	KY 876 at Porter Drive	Possible Signal timing issue
4	Old Town Branch Road Tunnel	One lane tunnel

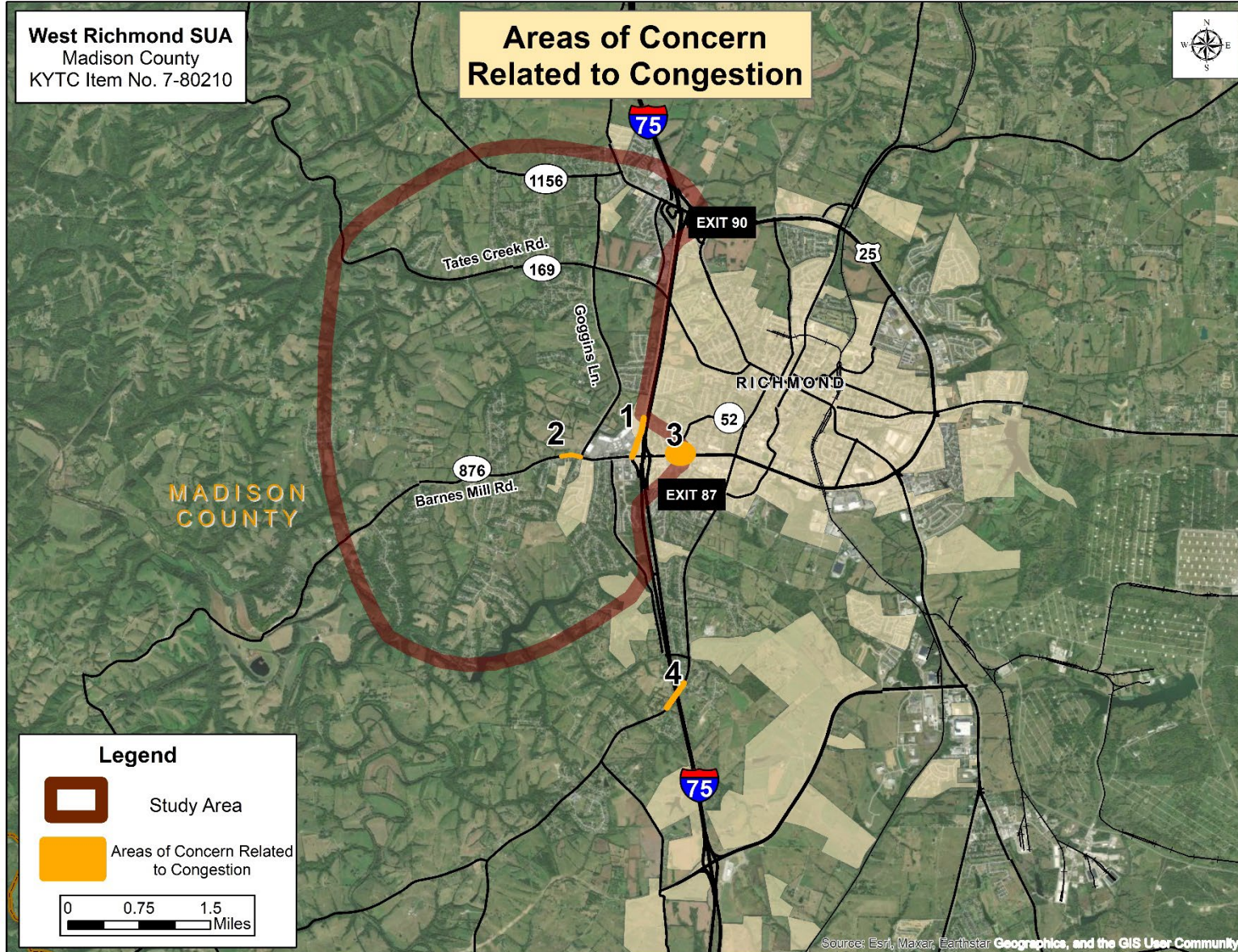


Figure 3: Areas of Concern Related to Congestion

11. Attendees were also asked to identify areas where growth is likely to occur. A map was developed based on previous conversations with local officials and stakeholders which identified 11 expected development sites in the study area. This map was updated based on comments from the local officials, as shown in **Table 3** and **Figure 4**. Site 2 was originally shown as 20 acres of multi-family housing but was updated to 120 acres of single-family housing. Site 4 was originally shown as 90 acres with an application to be annexed into the city. This site will not be annexed into the city and will include single-family housing. Madison County Middles School is being relocated to Goggins Lane near Sites 6 and 7. Additional information on developments included:

Table 3: Updated Areas of Growth

Location	Area	Comments
Site 2	Northeast corner of Goggins Lane and KY 169	Updated to 120 acres of Single-family housing (200 – 300 houses)
Site 4	West of Goggins Lane	Updated to residential area (90 – 270 houses)
Site 5	East of I-75	Approximately 700 units
Site 10	Barnes Mill Rd. between Crutcher Pk. & Curtis Pk.	Approximately 95 houses

12. Attendees were asked to identify locations of potential transportation improvements. Several improvements were identified, as shown in **Figure 5** and **Table 4**.

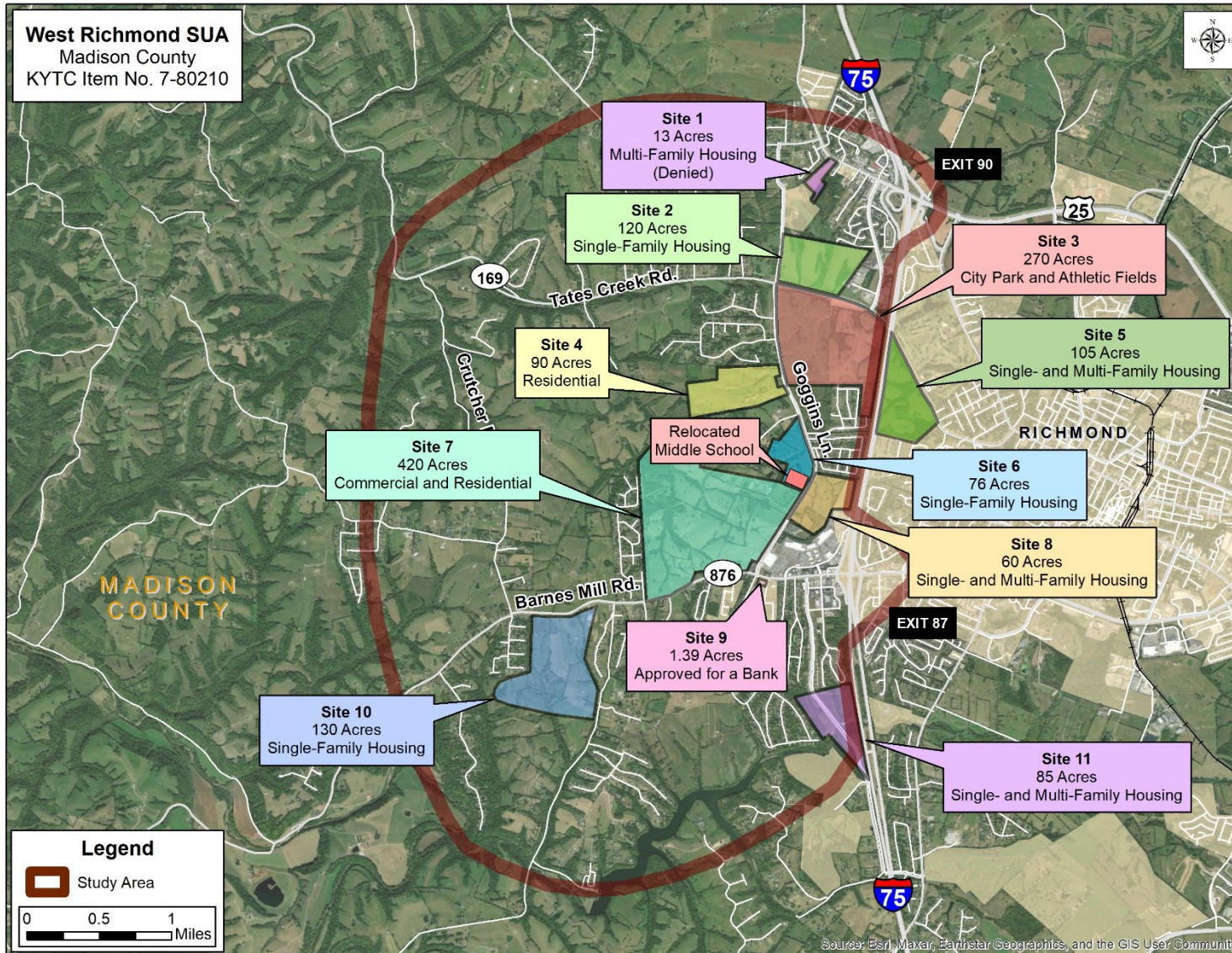


Figure 4: Updated Study Area Developments

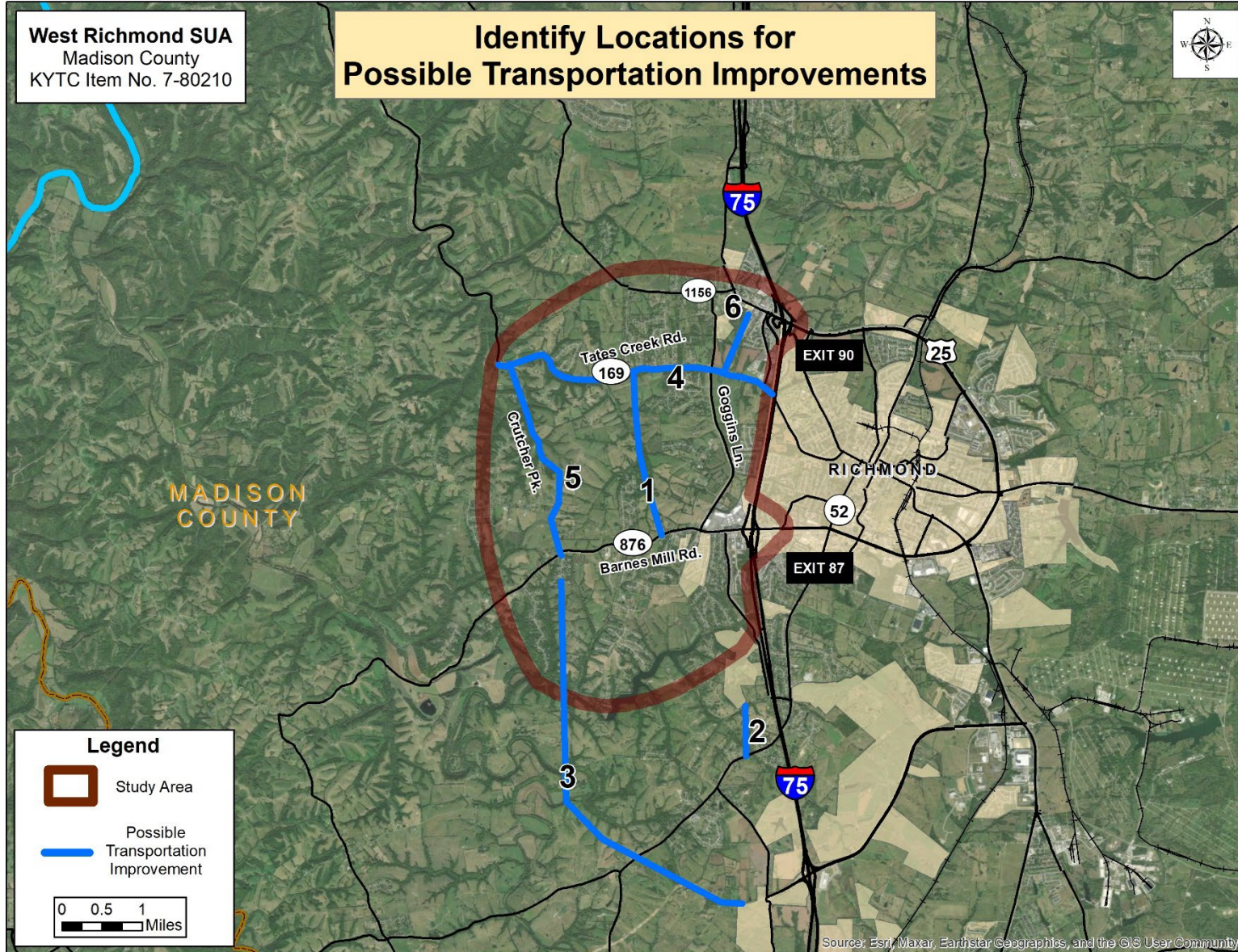


Figure 5: Potential Improvement Concepts

Table 4: Areas of Improvement Identified by Local Officials

Location	Area	Type
1	KY 876 to KY 169	New route
2	Old Town Branch Road and Lakewood	New route
3	KY 876 and Duncannon Lane	Crutcher Pike Extension
4	KY 169	Widen / Improve Existing Roadway
5	Crutcher Pike	Widen / Improve Existing Roadway
6	Victory Drive	New route

13. The next steps for the project include analyzing the feedback from the local officials / stakeholder mapping exercise, working with the project team to identify improvement concepts, and developing strategies for planning and zoning to preserve land for future developments.
 - Comment: Representative Gordan requested project sheets before to the 2024 Legislative Session. The final report would not be necessary, but project sheets for the study recommendations would be helpful.

14. Graham then discussed the project schedule. The first Project Team meeting will take place in June and will be a “charrette” to a discuss potential improvement concepts. Preliminary concepts will then be presented at the second Local Officials / Stakeholder meeting in July.

The meeting ended at approximately 11:30 a.m. EDT.

Meeting Minutes

TO: Casey Smith
Project Manager
KYTC District #7 Office
800 Newtown Court
Lexington, KY 40511

Brent Sweger
Project Manager
KYTC Central Office Planning
200 Mero Street
Frankfort, KY 40622

FROM: Graham Winchester
Project Manager
Stantec Consulting Services Inc.

DATE: June 30, 2023

SUBJECT: West Richmond Small Urban Area (SUA) Study
Madison County
KYTC Item No. 7-80210
Project Team Meeting No. 1

The first Project Team Meeting for the subject project was held at the KYTC District 7 Office on June 8, 2023, at 1:30 p.m. EDT. The following individuals were in attendance:

Stephen DeWitte	KYTC – Central Office Planning
Natalia McMillan	KYTC – District 7
Preston McDowell	KYTC – District 7
Clyde Newcomer	KYTC – District 7
*Joshua Samples	KYTC – District 7
Casey Smith	KYTC – District 7
Rob Sprague	KYTC – District 7
Brent Sweger	KYTC – Central Office Planning
Shane Tucker	KYTC – District 7

Amy Williams	TSW Design Group
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Brian Aldridge	Stantec Consulting Services Inc.
Len Harper	Stantec Consulting Services Inc.
Tad Taylor	Stantec Consulting Services Inc.
Graham Winchester	Stantec Consulting Services Inc.

*Joined via Microsoft Teams

Graham Winchester welcomed everyone and led introductions. The purpose of the meeting was to discuss possible transportation improvement concepts for the West Richmond Small Urban Area (SUA) Study. Graham Winchester then delivered a presentation. The following enumerated items were discussed.

1. The objective of the study is to examine the transportation network in the area west of I-75 in Richmond, Kentucky. The study will identify and evaluate intersections, roadways, and other infrastructure and develop potential options to improve safety and congestion.
2. The study area includes areas west of I-75 in Richmond, Kentucky, including Barnes Mill Road (KY 876), Tates Creek Road (KY 169), Goggins Lane and Crutcher Parkway, among others. Improvements to I-75 mainline and Exit 90 will not be considered as part of the study.
3. Highlights from the existing conditions analysis were discussed. The heaviest daily traffic volumes in the study area include KY 876 with 29,600 vehicles per day (vpd) east of I-75 and 12,750 vpd west of I-75, Goggins Lane with 7,500 vpd, S. Keeneland Drive with 6,100 vpd, and KY 169 with 5,700 vpd east of Goggins Lane. Several routes within the study area have lane widths less than 11 feet, including KY 169, KY 1156, and S. Keeneland Drive.
4. Crash data from the Kentucky State Police database indicates that in the five years between January 1, 2018, and December 31, 2022, a total of 1,472 crashes were reported on the study corridor. Of the 1,472 crashes, there were 339 angle collisions (23 percent), 162 single vehicle collisions (11 percent), 162 side swipe collisions (11 percent), 74 opposing left turn collisions (5 percent), 44 backing collisions (3 percent), 29 head on (2 percent), and 662 rear end collisions (45 percent).
5. Turning movement counts were collected at the following signalized intersections along KY 876:
 - 1) KY 876 (Barnes Mill Road) at Killarney Lane
 - 2) KY 876 (Barnes Mill Road) at I-75 NB ramps
 - 3) KY 876 (Barnes Mill Road) at I-75 SB ramps
 - 4) KY 876 (Barnes Mill Road) at Lantern Ridge Drive / Amberly Way
 - 5) KY 876 (Barnes Mill Road) at Lantern Ridge Drive / Frankie Drive
 - 6) KY 876 (Barnes Mill Road) at Goggins Lane / Willis Branch Road

Figure 1 presents a summary of the peak hour turning movement counts at the I-75 ramp terminal intersections with KY 876.

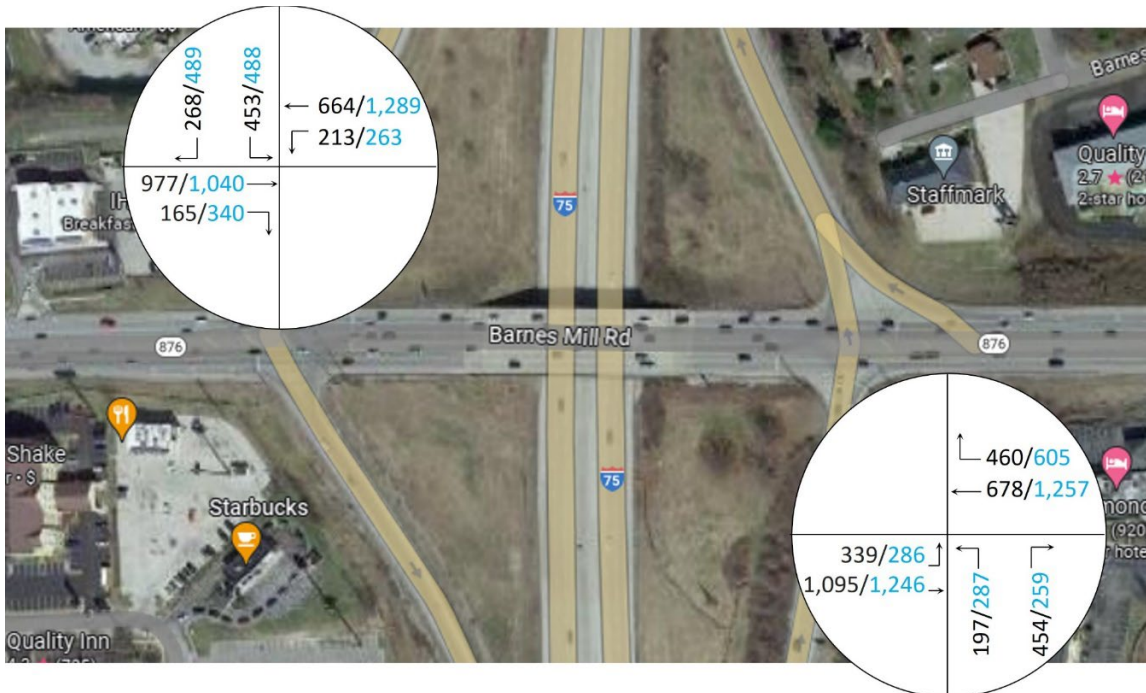


Figure 1: Weekday Peak Hour Turning Movement Counts at the KY 876 Interchange

- A 2023 weekday peak hour simulation model was developed using the collected turning movement counts. The existing model includes Barnes Mill Road from west of Goggins Lane to Killarney Lane east of the I-75 interchange. Results from the existing model were presented. Both ramp terminal intersections operated at LOS D or better during both the AM and PM peak hours, as shown in **Table 1**.

Table 1: Traffic Simulation Model Results

Intersection	Approach	AM Peak		PM Peak	
		LOS	Delay	LOS	Delay
KY 876 at I-75 NB Ramps	NB Ramp	D	36.5	D	47.7
	EB KY 876	B	11.8	B	17.1
	WB KY 876	B	14.5	C	21.6
	Total	B	18.5	C	25.9
KY 876 at I-75 SB Ramps	SB Ramp	C	31.1	D	48.2
	EB KY 876	B	16.0	C	27.6
	WB KY 876	B	10.6	D	39.1
	Total	B	17.8	D	37.9

- A map was created based on previous conversations with local officials and stakeholders identifying 11 expected development sites in the study area, shown in **Figure 2**. During discussion an additional development was noted on Hampton Way (100-acre single family housing development).

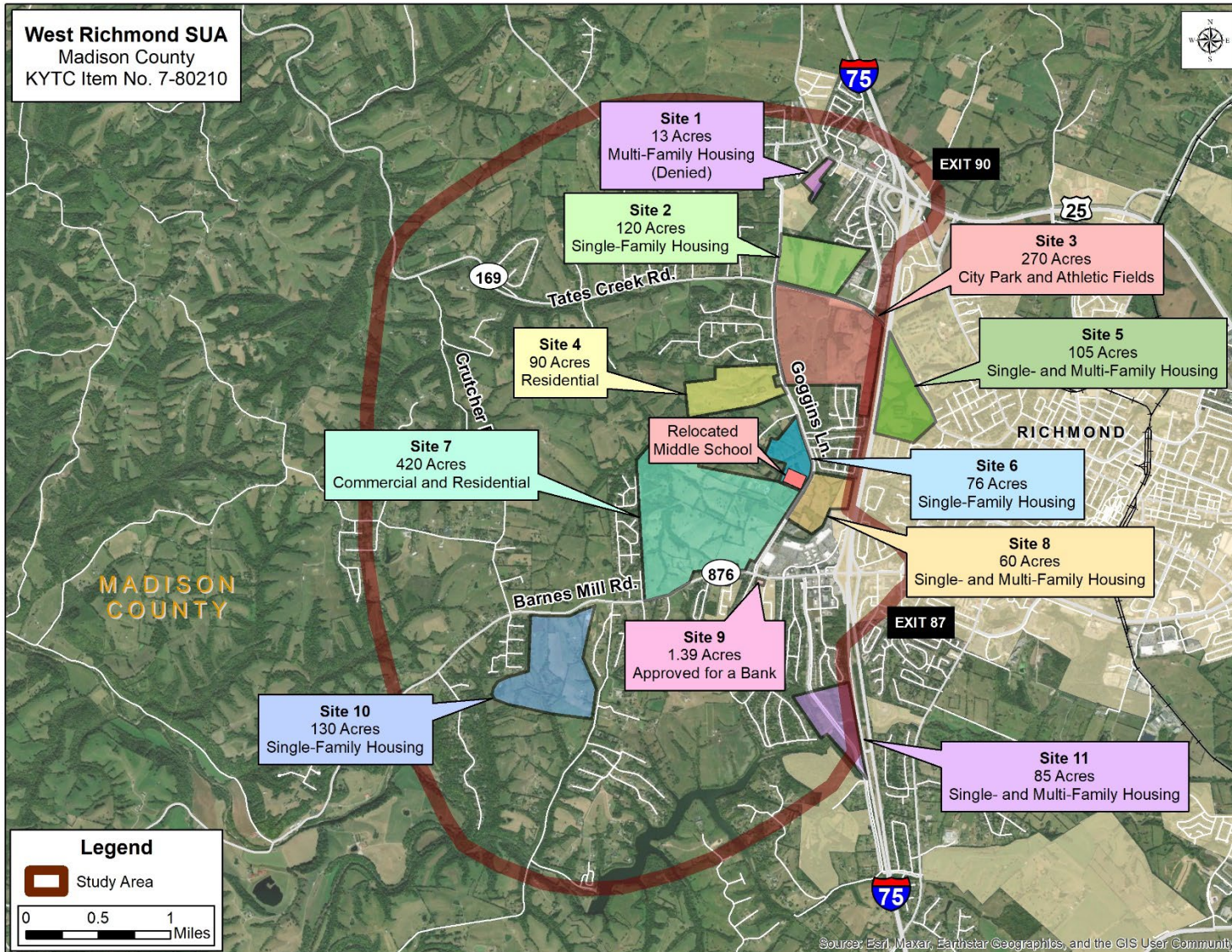


Figure 2: Expected Study Area Developments

8. Over the past 20 years, population in Richmond and Madison County has grown at a faster rate than the rest of the state, between 1.22 and 1.35 percent per year based on data from the KY State Data Center. This growth is expected to continue to the year 2050, as shown in **Table 2**.

Table 2: Population Projections

Area	Census Estimates			Annual Growth	Projection	Annual Growth
	2000	2010	2020	2000 - 2020	2050	2020 - 2050
Kentucky	4,041,769	4,339,367	4,505,836	0.54%	4,785,233	0.20%
Madison County	70,872	82,916	92,701	1.35%	116,156	0.75%
Richmond	27,152	31,364	34,585	1.22%	N/A	

As part of the traffic forecasting process, Stantec updated the Lexington Area Metropolitan Planning Organization (LAMPO) regional travel demand model to better reflect existing and future land use. Results from the updated models show annual growth rates ranging from one to five percent in the study area between 2020 and 2045.

Based on historical traffic trends, population projections, and results from the LAMPO model, the following annual growth rates are proposed:

- Goggins Lane = 5% (2023 – 2035) and 2% (2035 – 2045)
- West of I-75 = 2 % (2023 – 2045)
- East of I-75 = 0.8% (2023 – 2045)
- I-75 mainline = 1% (2023 – 2045)

The proposed traffic forecasts show an increase of traffic along Goggins lane to 18,500 vpd in 2045 and an increase to 22,200 vpd on KY 876 directly west of I-75, as shown in **Figure 3**.

9. A 2035 No-Build simulation model scenario was developed using the growth rates and ITE Trip Generation Manual estimates. A more detailed discussion of the traffic forecasts will be submitted to the KYTC Modal Branch.

After the presentation, the project team split into two groups to discuss potential transportation improvements. Handouts and plots of the study area were made available to both groups. The purpose of the group exercise was to develop a list of road improvements, ideas for new routes (including bike / ped facilities), and future land-use ideas, as shown in **Figure 4**.

- It was noted there is an electrical substation on Goggins Lane north of KY 1156.
- Local officials expressed interest in increasing walkability along the KY 876 corridor.
- It was noted that there is a midday peak period on KY 876 around lunchtime due to the proximity of several restaurants.
- There is a current project to relocate KY 52 south of the study area. This relocated was included in all LAMPO TDM runs.

KY 876 Interchange with I-75

Short-Term Concept 1 (S1): The project team discussed three short-term improvements at the KY 876 interchange with I-75:

- Widen the NB ramp to accommodate dual right turns.
- Widen the SB ramp to accommodate dual right turns.
- Construct a slip ramp from the SB ramp to Richmond Centre.

Additionally, during the first Local Officials / Stakeholder Meeting, it was noted that right turning vehicles on the SB I-75 ramp consistently back up (turning movement count shows 489 vehicles turning right during the PM peak). This problem may be exacerbated by the split phasing of the side streets at the Amberly Way intersection directly to the west. A short-term improvement is to restripe Amberly Way to include three lanes (left/thru/right) and restripe Lantern Ridge Drive to include dual left-turn lanes and a right-turn/thru lane. This would allow for dual entry of the side streets and would give more green time to KY 876, reducing the queue of right-turning vehicles on the SB off ramp.

Long-Term Concept 1 (L1): Two long-term options to reconstruct the interchange were discussed:

- Double Crossover Diamond (DCD) Interchange
- Single-Point Urban Interchange (SPUI)

KY 876 west of I-75

Short-Term Concept 2 (S2): The following short-term options were discussed for the KY 876 corridor:

- Remove the traffic signal and convert the Amberly Way / Lantern Ridge Drive intersection to right-in / right-out and install a two-phased signal at Hampton Way.
- Install a raised median on KY 876 and convert all non-signalized intersections to right-in / right-out.

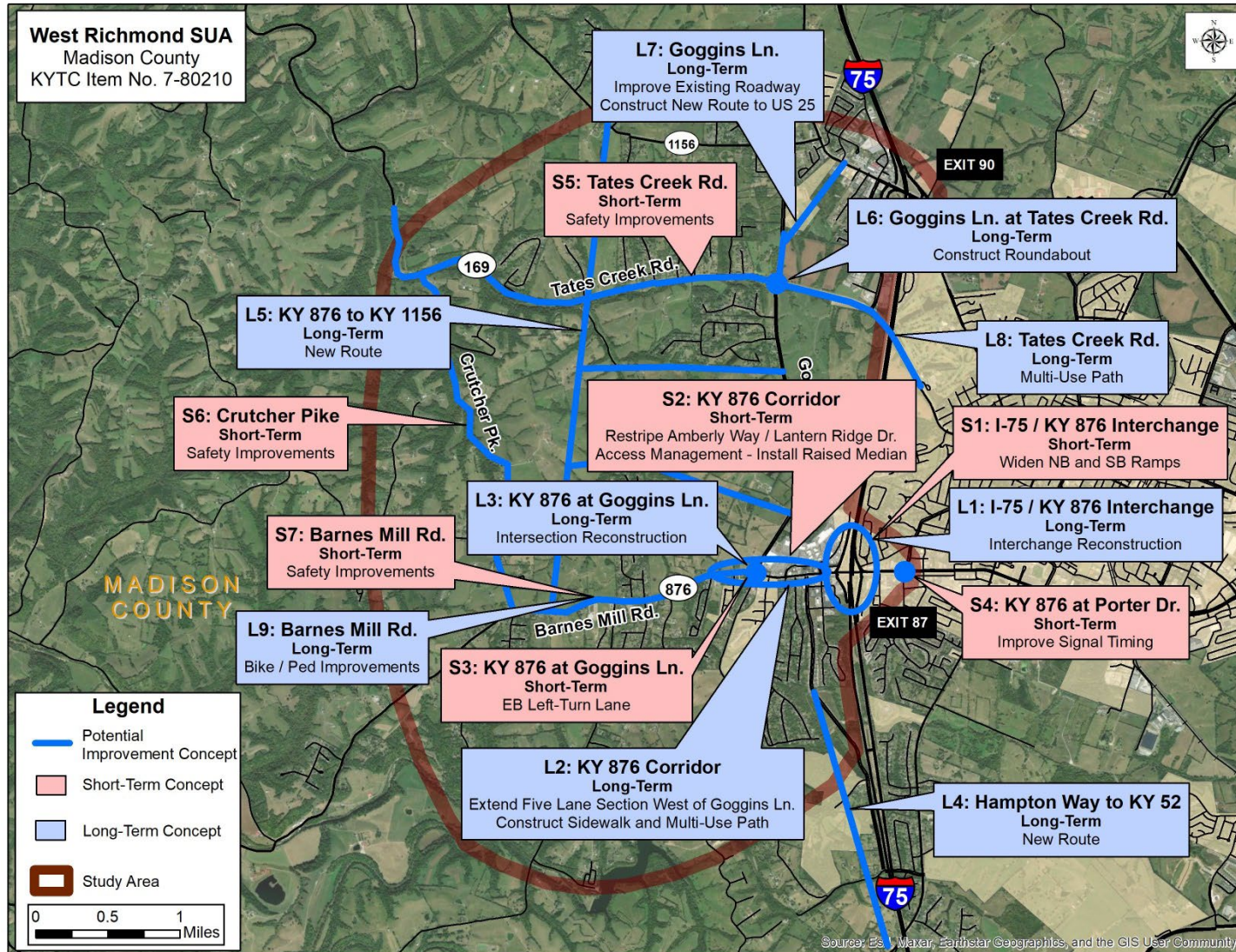


Figure 4: Preliminary Improvement Concepts

Long-Term Concept 2 (L2): The following long-term options were discussed for the KY 876 corridor:

- Extend the five-lane section on KY 876 west of Goggins Lane and connect to the expected development (Site 7). As developments expand further west, right-of-way should be maintained along KY 876 to allow for the further extension of the five lane section.
- Construct a sidewalk or multi-use path on KY 876 from Goggins Lane across I-75 to the existing sidewalk at Leighway Drive / Dwight Drive.

KY 876 at Goggins Lane

Short-Term Concept 3 (S3): The KY 876 intersection with Goggins Lane is a potential choke point for future traffic once Site 7 and the relocated middle school are constructed. A short-term option is to widen the approaches to include an EB left-turn lane on KY 876.

Long-Term Concept (L3): A long-term option is to convert the intersection to a roundabout.

- It was noted that there is a historical grave site in the northwest quadrant of the intersection that will require mitigation.

KY 876 at Porter Drive

Short-Term Concept 4 (S4): This intersection was identified at the first Local Officials / Stakeholder Meeting as needing improved signal timing.

Hampton Way to KY 52

Long-Term Concept 4 (L4): During the first Local Officials / Stakeholder Meeting, it was noted that Hampton Way is used as a regional connection to the south, where it connects to Old Town Branch Road, which has a single-lane tunnel under I-75. The local officials noted that it would be beneficial to have a connection from Hampton Way to KY 52, which crosses under I-75 to the south. This new connection was coded into the LAMPO Regional Travel Demand Model and is expected to carry around 7,600 VPD in 2045. Results from a select link analysis, which show where trips on the new route are coming from / going to, are shown in **Figure 5**. Most of the trips using the new route are traveling between Lexington and Lancaster.

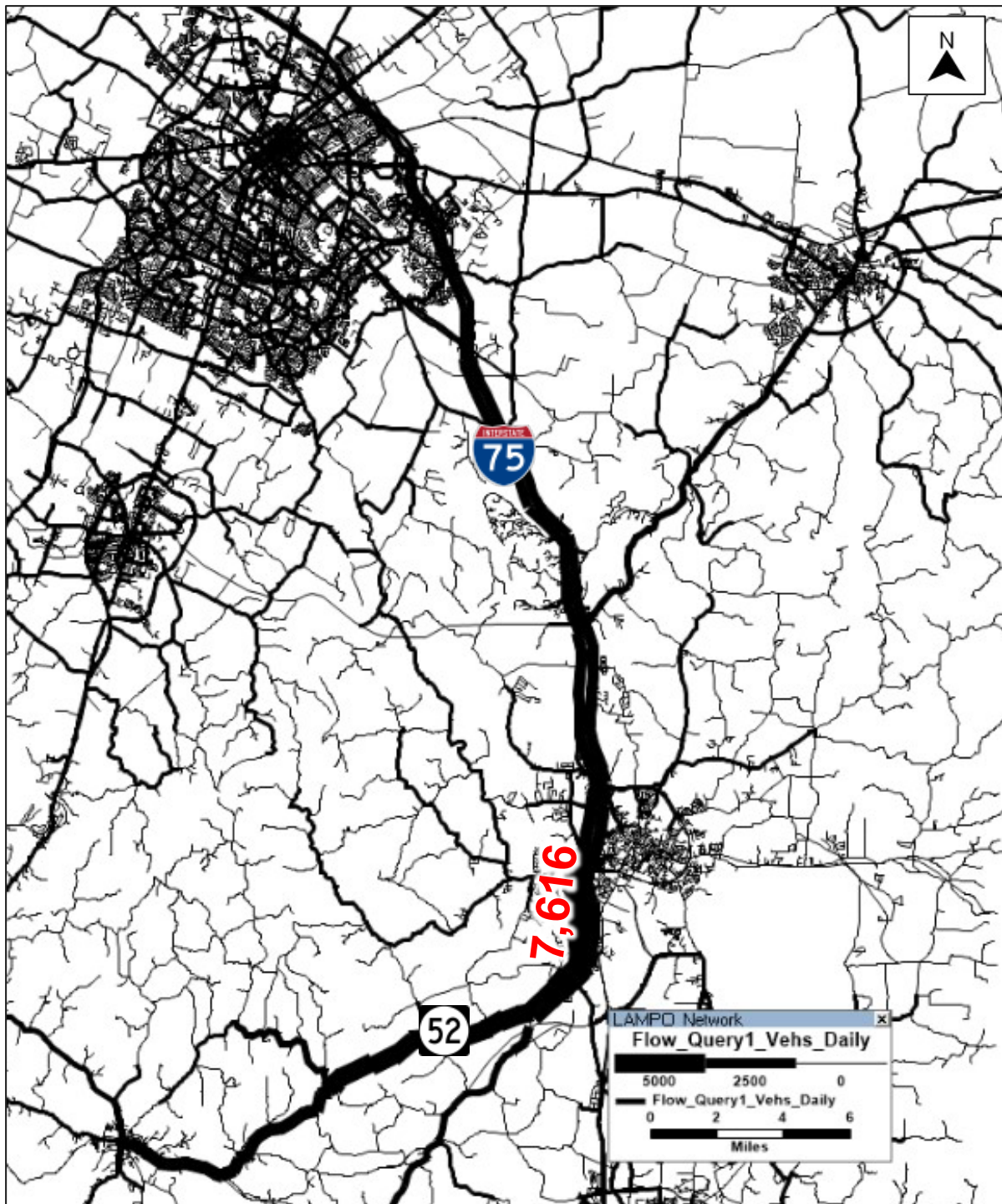


Figure 5: 2045 LAMPO TDM Assignments – New Route from Hampton Way to KY 52

KY 876 to KY 1156

Long-Term Concept 5 (L5): Developments in the study area are expected to produce thousands of new trips each day. Providing a redundant network of north-south roadways is imperative to alleviating future congestion on Goggins Lane and I-75. A new route between KY 876 and KY 1156 (including an intersection with KY 169) would provide an alternative route for many of the developments along the west side of Goggins Lane. This new connection was coded into the LAMPO TDM and is expected to carry up to 1,490 VPD in 2045. Results from the model run are shown in **Figure 6**. It should be noted that the travel demand model relies heavily on segment travel time when choosing trip paths and may underestimate daily traffic for such new routes. It is possible that a new collector route with connections to the proposed developments would be used by local drivers to avoid traveling on I-75 for local and regional trips, even if the travel times on I-75 are slightly lower. This option also opens us the ability to provide future housing within this area. Along with the north-south connection, two east-west connections from the new route to Goggins Lane are proposed to provide more access to the developments.

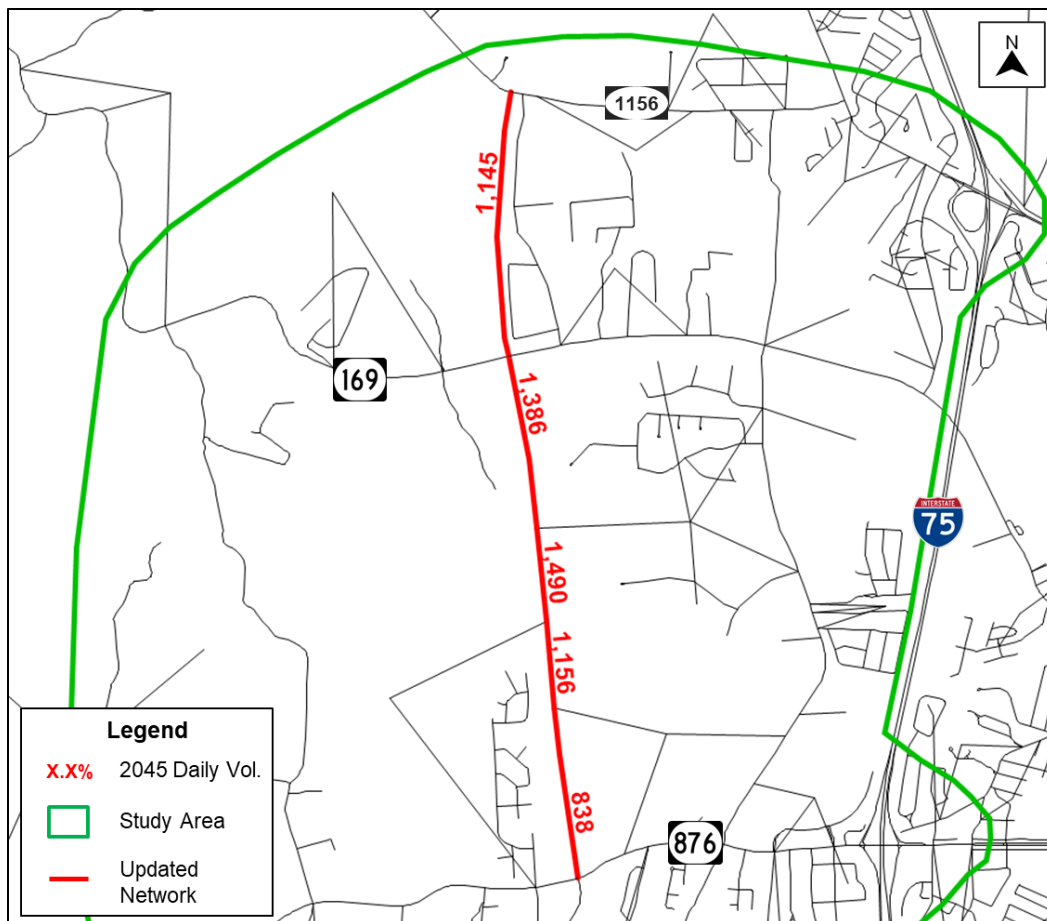


Figure 6: 2045 LAMPO TDM Assignments – New Route from KY 876 to KY 1156

Goggins Lane at Tates Creek Road

Long-Term Concept 6 (L6): As part of improvements to Goggins Lane and Tates Creek Road, a proposed improvement at the intersection of the two routes is to convert the signalized intersection to a roundabout.

Goggins Lane north of KY 169

Long-Term Concept 7 (L7): North of KY 169, Goggins Lane reduces to two eight-foot lanes with a 35 mph speed limit and a steep vertical grade. A long-term concept is to improve the existing roadway to allow for future connections.

Once Goggins Lane is improved north of KY 169, a new route is proposed to connect to US 25. This new route would provide an outlet to the north for Site 2 and is expected to carry up to 6,730 VPD in 2045 based on results from the LAMPO TDM. Results from the model run are shown in **Figure 7**.

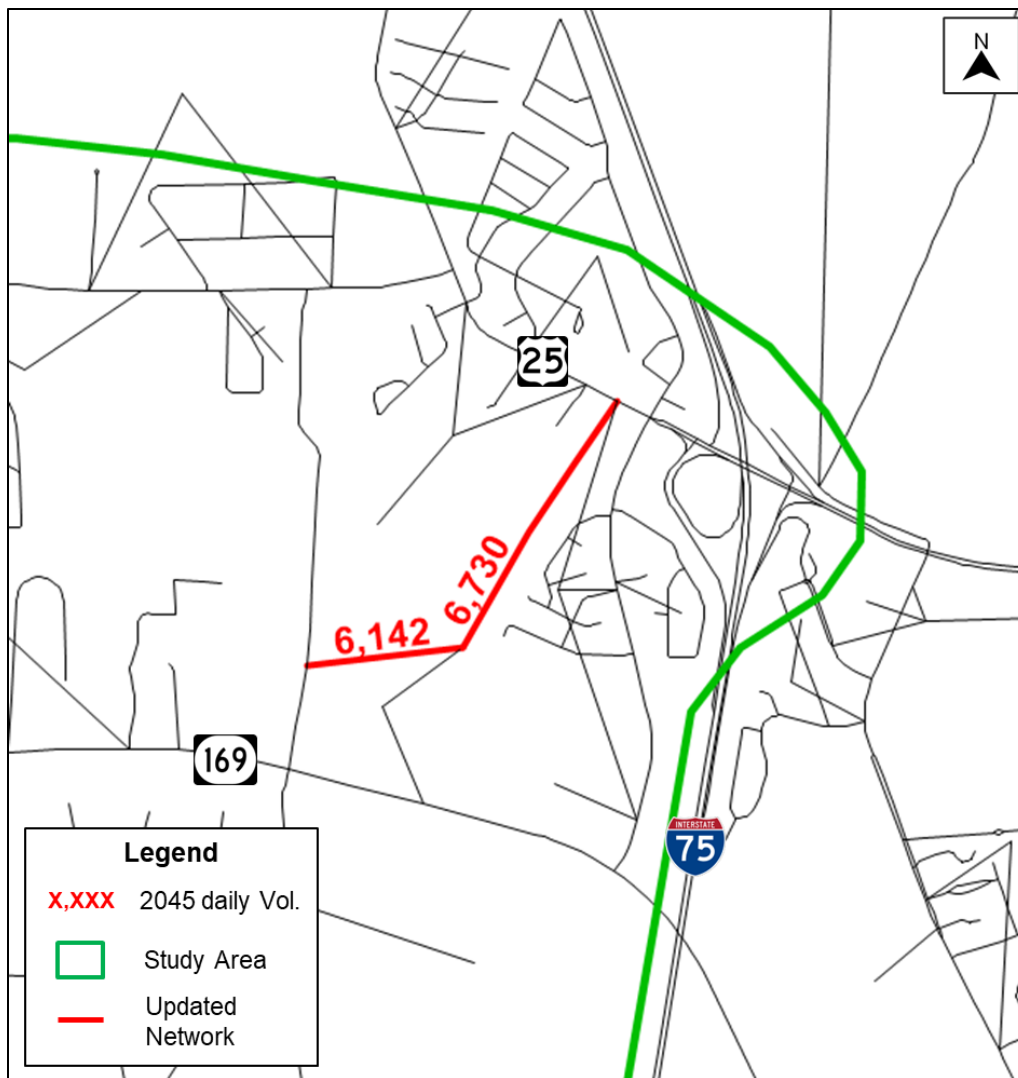


Figure 7: 2045 LAMPO TDM Assignments – New Route from Goggins Lane to US 25

Tates Creek Road east of Goggins Lane

Long-Term Concept 8 (L8): As shown in Figure 2, development Site 3 consists of a city park with athletic fields. A long-term improvement concept is to construct a multi-use path on Tates Creek Road to connect the park to the existing sidewalk at Kit Carson Elementary School.

Tates Creek Road west of Goggins Lane

Short-Term Concept 5 (S5): Between Crutcher Pike and Goggins Lane, Tates Creek Road has ten-foot lanes and two-foot shoulders. Over the past five years, there were 27 crashes on this portion of Tates Creek Road, one of which resulted in a fatality (head on collision on wet pavement) and two of which resulted in an injury. The most common crash type was single vehicle collisions (52 percent). Spot improvements are proposed to improve safety.

Crutcher Pike

Short-Term Concept 6 (S6): Between Barnes Mill Road and Tates Creek Road, Crutcher Pike has eight- to ten-foot lanes and no shoulders. Over the past five years, there were eight crashes on this portion of Crutcher Pike, one of which resulted in an injury. Five of the eight crashes (63 percent) were single vehicle collisions.

Spot improvements are proposed on Crutcher Pike to improve safety.

Barnes Mill Road west of Goggins Lane

Short-Term Concept 7 (S7): Between Goggins Lane and Crutcher Pike, Barnes Mill Road has twelve-foot lanes and five-foot combination shoulders (1.5-foot paved). Over the past five years, there were 37 crashes on this portion of Barnes Mill Road, 13 of which resulted in injuries. The most common crash type was rear end collisions (41 percent). Spot improvements, including intersection improvements, are proposed to improve safety.

Long-Term Concept 9 (L9): Construct a sidewalk or multi-use path on KY 876 west of Goggins Lane to connect existing and future developments.

10. The project team then came back together to discuss roadway design of KY 876 and connector roads through future developments. **Figure 8** shows the proposed typical section for KY 876 within 120 feet of right-of-way. The proposed typical section includes:

- Two 11-foot through lanes each direction
- An 11-foot right-turn lane at intersections
- 12-foot grass median
- Curb and gutter
- Six-foot grass buffer with trees
- 10-foot multi-use path
- Five-foot sidewalk

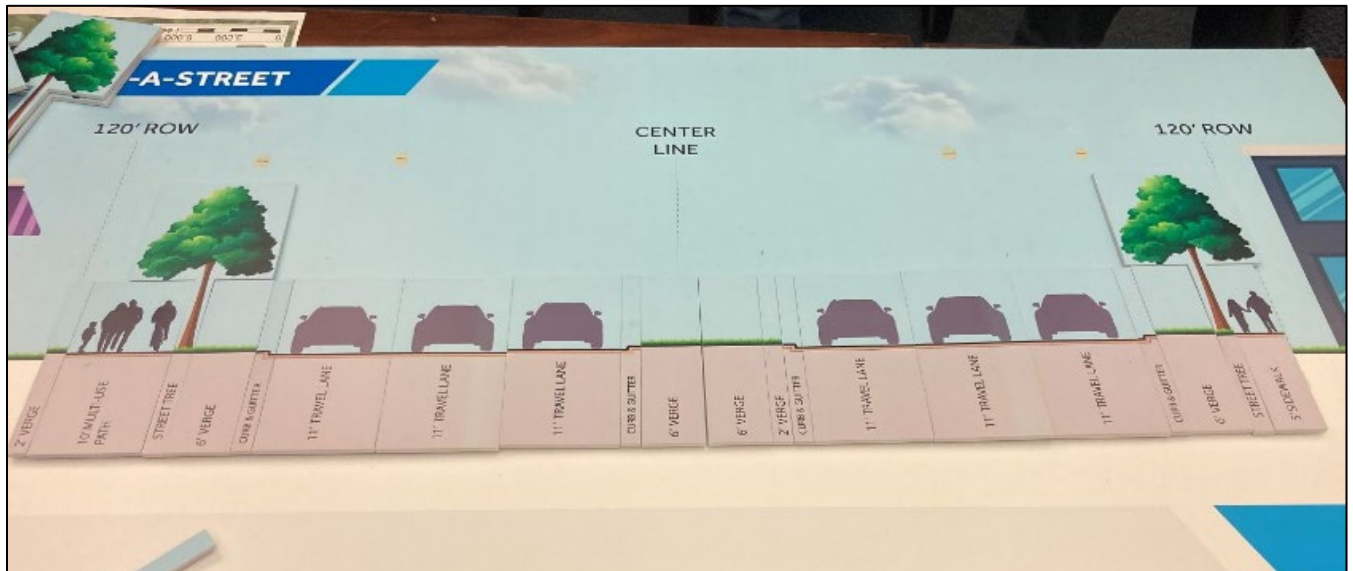


Figure 8: KY 876 Proposed Typical Section

Typical sections were also considered for collector roadways between and through future developments. These typical sections were assumed to have 60 feet of right-of-way. The first potential typical section discussed, shown at the top of **Figure 9**, includes:

- One 12-foot lane in each direction
- Four-foot paved median to allow for passing of emergency vehicles
- Curb and gutter
- Six-foot grass buffer with trees
- 10-foot multi-use path
- Five-foot sidewalk

A second typical section was discussed, shown at the bottom of Figure 9. This typical section includes:

- One 12-foot lane in each direction
- 12-foot grass median
- Curb and gutter
- Four-foot grass buffer
- 10-foot multi-use path
- Five-foot sidewalk

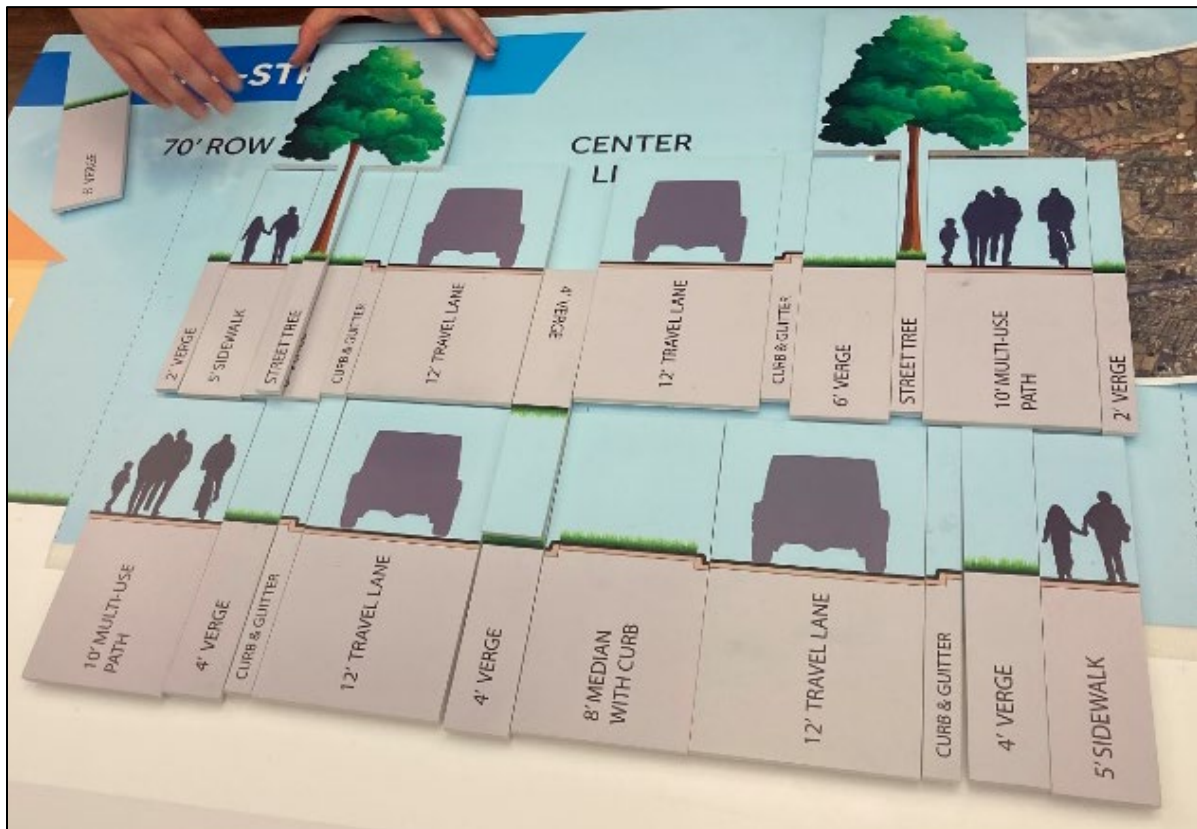


Figure 9: Collector Roadway Proposed Typical Sections

11. The next step is to further analyze the improvement concepts before the second Local Officials / Stakeholder Meeting in August.

The meeting ended at approximately 3:30 p.m. EDT.

Meeting Minutes

TO: Casey Smith
Project Manager
KYTC District #7 Office
800 Newtown Court
Lexington, KY 40511

Brent Sweger
Project Manager
KYTC Central Office Planning
200 Mero Street
Frankfort, KY 40622

FROM: Graham Winchester
Project Manager
Stantec Consulting Services Inc.

DATE: September 27, 2023

SUBJECT: West Richmond Small Urban Area (SUA) Study
Madison County
KYTC Item No. 7-80210
Local Officials/ Stakeholder Meeting No. 2

The second Local Officials / Stakeholder Meeting for the subject project was held at the Madison County Public Library on August 24th, 2023, at 9:00 a.m. EDT. The following individuals were in attendance:

Kevin Causey	City of Richmond Planning and Zoning
Jeremy Couch	City of Richmond Planning and Zoning
David Dodson	City of Richmond Planning and Zoning
Shane Lakes	Madison County Schools
Scott Shepherd	Madison County Road Supervisor
Tony Terry	Madison County Sheriff's Office
Bert Thomas	Madison County Planning

Jacob Bucher	KYTC – District 7
Stephen DeWitte	KYTC – Central Office Planning
Preston McDowell	KYTC – District 7
Clyde Newcomer	KYTC – District 7
Casey Smith	KYTC – District 7
Rob Sprague	KYTC – District 7
Brent Sweger	KYTC – Central Office Planning
Shane Tucker	KYTC – District 7

Amy Williams	TSW
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Brian Aldridge	Stantec Consulting Services Inc.
Graham Winchester	Stantec Consulting Services Inc.

Casey Smith welcomed everyone and led introductions. The purpose of the meeting was to share information regarding the West Richmond Small Urban Area (SUA) Study and to solicit feedback from the local officials and stakeholders on preliminary improvement concepts. The objective of the study is to examine the transportation network in the area west of I-75 in Richmond, Kentucky. The study will evaluate intersections, roadways, and other infrastructure and develop potential options to improve safety and congestion. Graham Winchester delivered a presentation.

The following enumerated items were discussed.

1. The study area contains the area west of I-75 in Richmond, Kentucky, as shown in **Figure 1**, including Barnes Mill Road (KY 876), Tates Creek Road (KY 169), Goggins Lane and Crutcher Pike. Improvements to mainline I-75 and Exit 90 will not be considered as part of the study.
2. There are no active projects in the study area listed in *Kentucky's 2022-2028 Enacted Highway Plan*, with the exception of a pavement rehab project on I-75 (Item No. 7-8820).
3. Highlights from the existing conditions analysis were discussed. The heaviest daily traffic volumes in the study area include KY 876 with 29,600 vehicles per day (vpd) east of I-75 and 12,750 vpd west of I-75, Goggins Lane with 7,500 vpd, S. Keeneland Drive with 6,200 vpd, and KY 169 with 5,700 vpd east of Goggins Lane. Several routes within the study area have lane widths less than 11 feet, including KY 169, KY 1156, and S. Keeneland Drive.
4. Crash data from the Kentucky State Police database indicates that in the five years between January 1, 2018, and December 31, 2022, a total of 1,472 crashes were reported in the study area. Of the 1,472 crashes, there was one fatal collision (0.1 percent), 254 injury collisions (17.2 percent), and 1,217 property damage collisions (82.7 percent).
 - The sole fatality occurred on KY 169 in a head on collision on wet pavement in 2021.
5. Over the past 20 years, population in Richmond and Madison County has grown at a faster rate than the rest of the state, between 1.22 and 1.35 percent per year based on data from the KY State Data Center. Growth is expected to continue to the year 2050, as shown in **Table 1**.

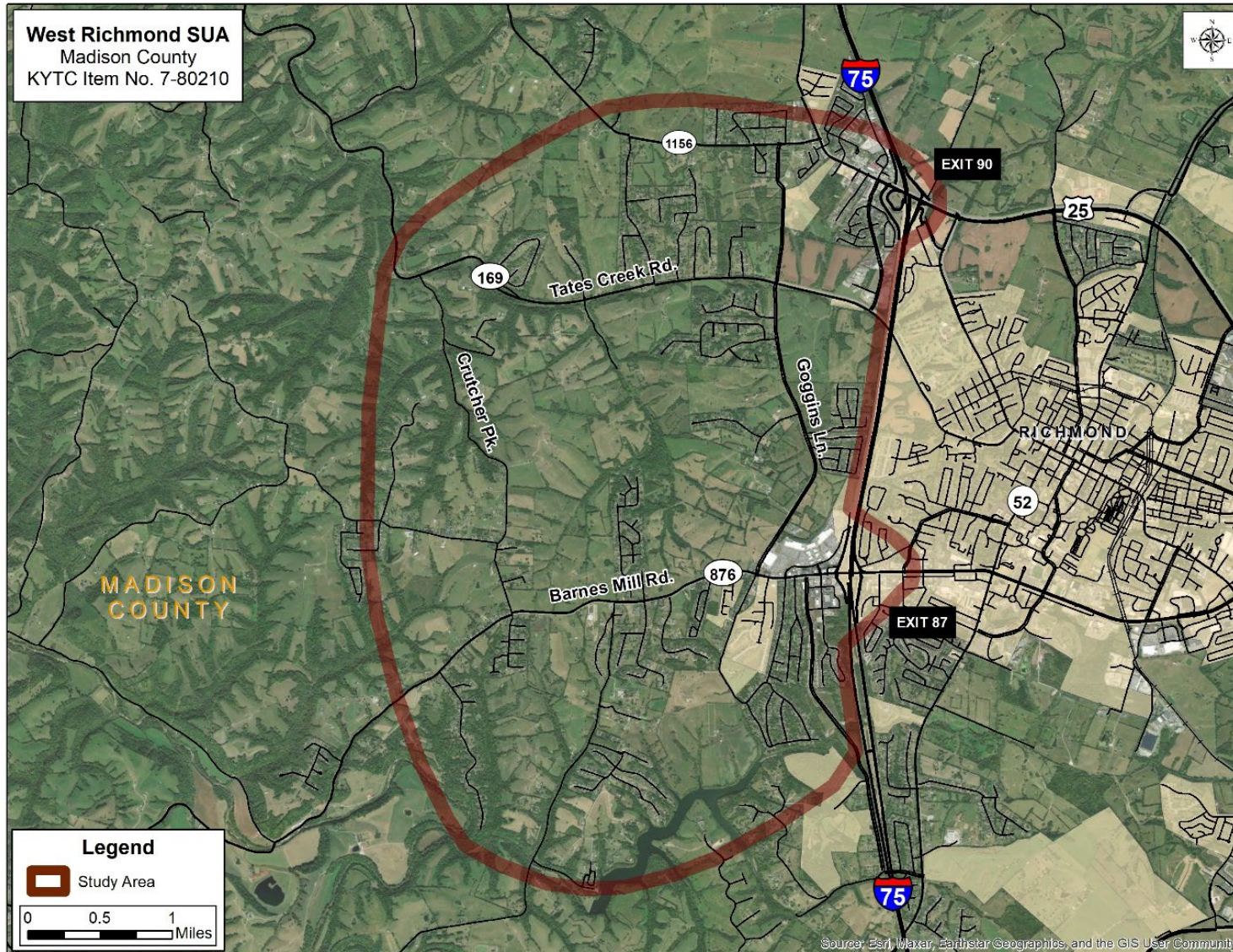


Figure 1: Study Area

Table 1: Population Projections

Area	Census Estimates			Annual Growth	Projection	Annual Growth
	2000	2010	2020	2000 - 2020	2050	2020 - 2050
Kentucky	4,041,769	4,339,367	4,505,836	0.54%	4,785,233	0.20%
Madison County	70,872	82,916	92,701	1.35%	116,156	0.75%
Richmond	27,152	31,364	34,585	1.22%	N/A	

- Based on conversations with local officials and stakeholders, eleven sites were identified that are expected be developed in and around the study area. These developments include a mix of residential, commercial, educational, and recreational land uses. **Figure 2** presents a map of the expected developments.
- Short-term improvement concepts were developed at five locations in the study area, as shown in **Figure 3** and described below.

Short-Term Concept S1 (I-75 Interchange & KY 876 Corridor)

Over the five-year period between 2018 and 2022, there were 201 reported crashes at the I-75 interchange with KY 876, 34 (17 percent) of which resulted in an injury. The most common crash type was rear end collisions (80 percent), indicating that congestion may be a contributing factor. Based on results from the safety analysis, the northbound I-75 ramp intersection has an Excess Expected Crashes (EEC) of three crashes per year and the southbound ramp intersection has an EEC of one crash per year, indicating KY 876 is experiencing more crashes than other roadways with roadway characteristics. West of the interchange, the KY 876 corridor serves commercial and residential areas with numerous access points and peak hour congestion. Over the past five years, there were 248 reported crashes on KY 876 between the I-75 interchange and Goggins Lane. Of those crashes, 84 percent were rear end, angle, or sideswipe collisions, indicating that congestion and access management may be contributing factors. This portion of KY 876 has an EEC of 7 crashes per year.

West of I-75, KY 876 currently carries 12,750 vehicles per day (VPD) and is expected to experience significant growth over the next 20 years, up to 22,200 VPD in 2045, as the area near Goggins Lane develops. During the PM peak hour, traffic on the southbound I-75 off ramp queues significantly and there is some unmet demand. An option to improve congestion in the short-term is to restripe the intersection immediately west of the interchange, KY 876 at Lantern Ridge Drive / Amberly Way, to allow for dual entry of the side streets and provide more green time for KY 876. **Figure 4** presents the restriping, which would include southbound dual left turn lanes and a shared through / right-turn lane. The northbound approach would be restriped to include dedicated left, right, and through lanes. An additional short-term option is to widen the southbound I-75 off ramp to include dual right-turn lanes.

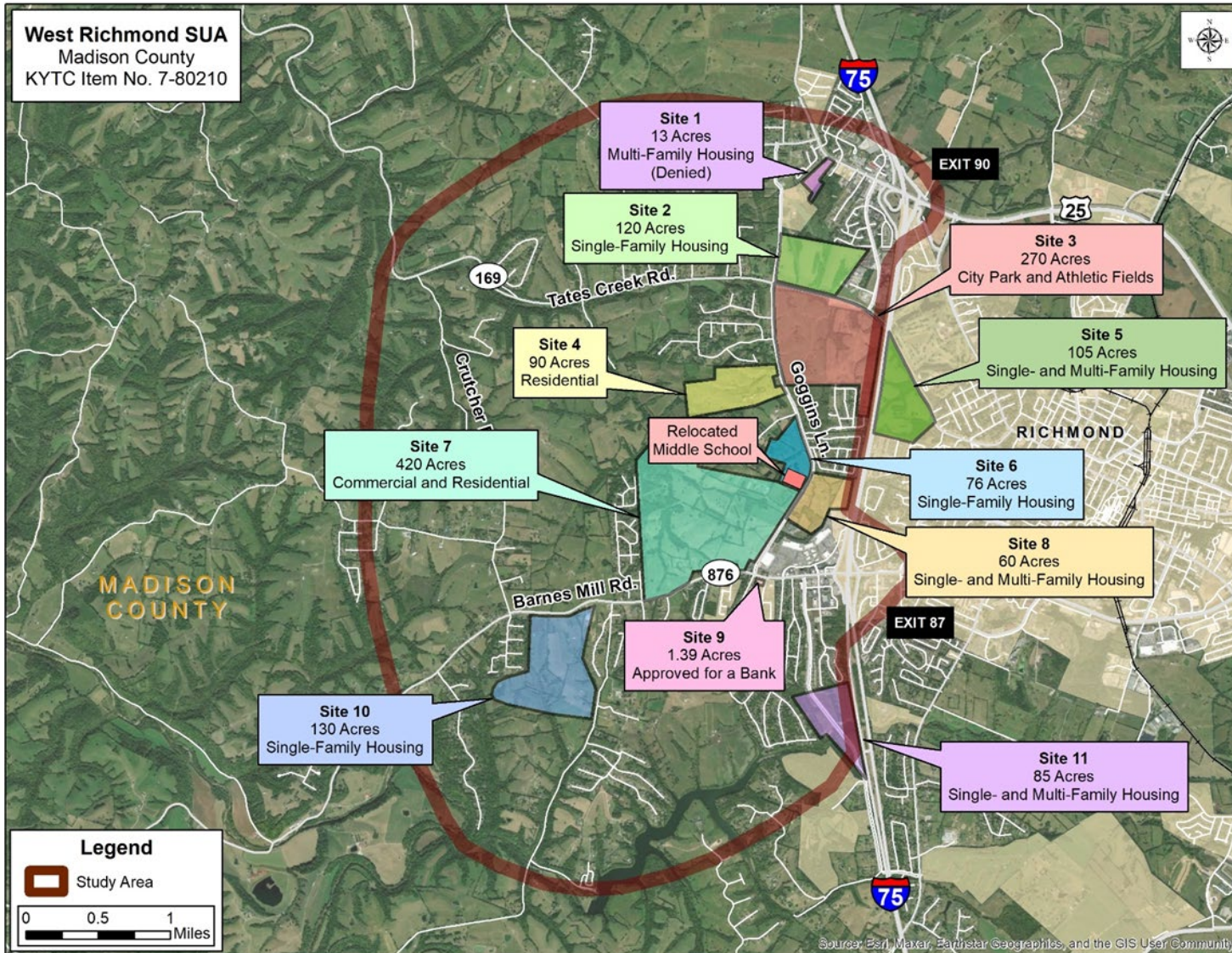


Figure 2: Expected Study Area Developments

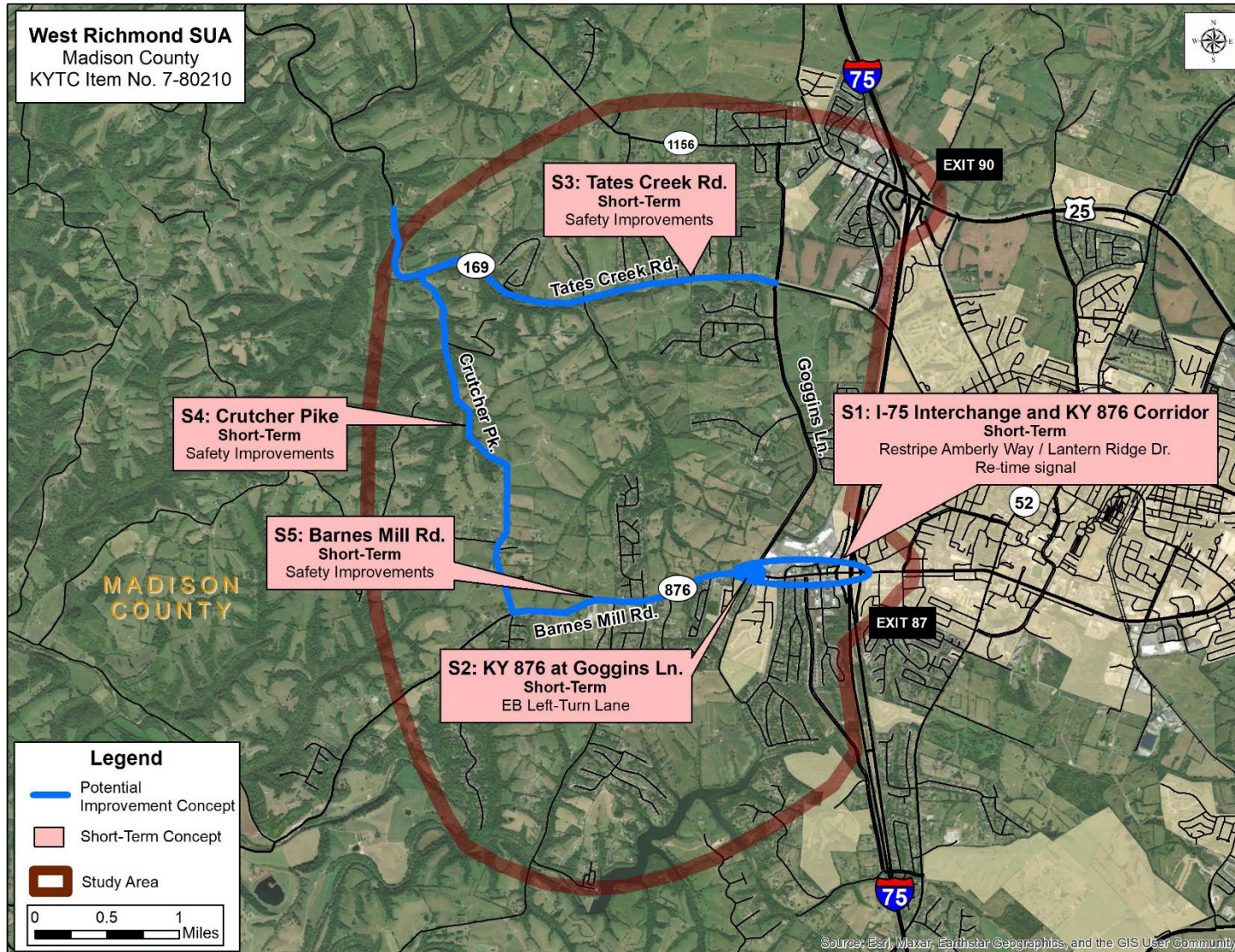


Figure 3: Short-Term Improvement Concepts

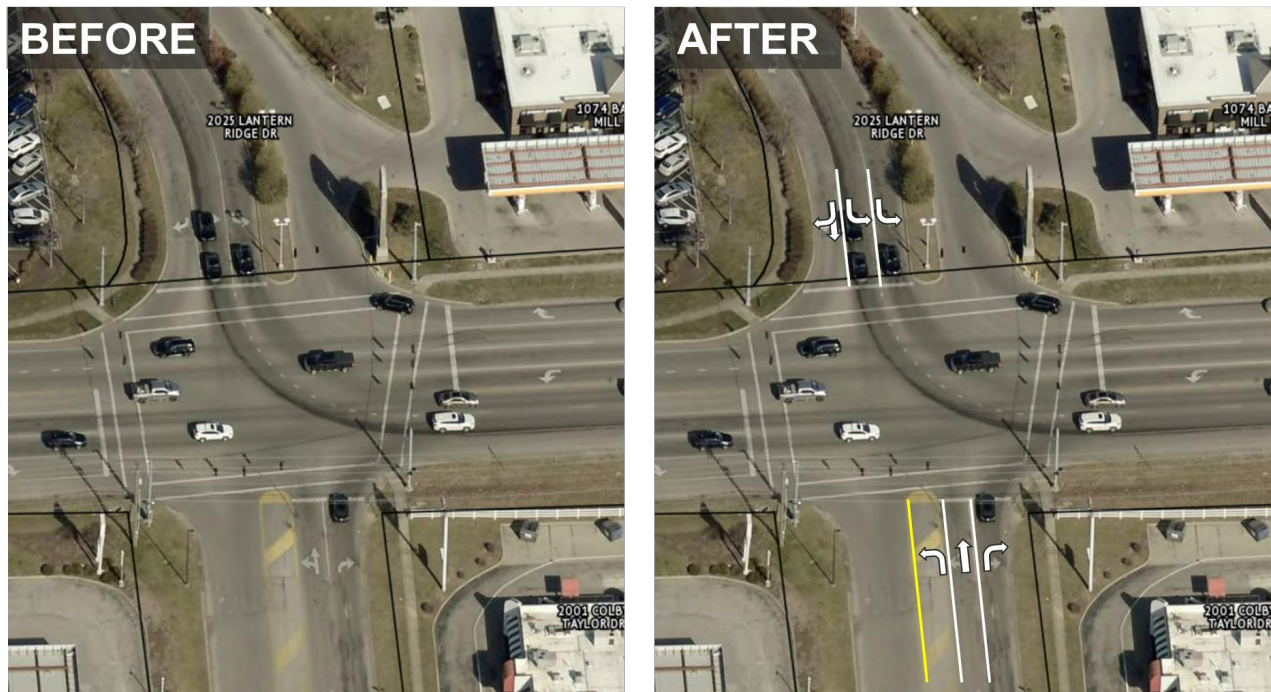


Figure 4: Short-Term Concept S1

Short-Term Concept S2 (KY 876 at Goggins Lane Intersection)

Goggins Lane intersects KY 876 at the western end of the existing commercial section. Over the past five years, there were 26 reported crashes at the intersection of KY 876 and Goggins Lane. Of these crashes, 46 percent were rear end collisions and seven were angle collisions. The northwest quadrant of the intersection, along with other areas along Goggins Lane, are expected to be developed over the next 20 years. These developments are potential traffic generators and include commercial, residential, recreational, and educational concepts. Based on a future traffic analysis, KY 876 is expected to carry 22,200 VPD east of Goggins Lane and 11,400 VPD to the west in 2045. Goggins Lane is expected to see a significant increase in traffic, from 7,500 VPD currently to 18,500 VPD in 2045. This intersection is a potential choke point as it will be used heavily by traffic accessing the expected developments.

An option to improve traffic flow in the short-term is to widen the eastbound KY 876 approach to include a dedicated left-turn lane. As the land along KY 876 and Goggins Lane develops, there will be an increase in both the eastbound through and left turning traffic. Providing a dedicated turn lane will remove the left turning vehicles from the through lane and allow traffic to flow smoother.

Short-Term Concept S3 (KY 169 Between Crutcher Pike and Goggins Lane)

West of Goggins Lane, Tates Creek Road (KY 169) has two ten-foot lanes with one-foot shoulders, serving mostly rural and residential areas. This section of KY 169 carries 1,750 VPD and is expected to carry 3,100 VPD in 2045. Over the past five years, there were 56 reported crashes on this 2.7-mile stretch of KY 169, one of which resulted in a

fatality and ten of which resulted in an injury. The EEC is 1.5 crashes per year, indicating KY 169 is experiencing more crashes than what is expected based on roadway characteristics.

An option to improve safety is to widen the lanes to 11 feet and the shoulders to two feet. This would provide enough pavement to add a centerline and edge line rumble stripes. Additionally, updating the signage along KY 169 would provide drivers better visibility of curve warning signs.

Short-Term Concept S4 (Crutcher Pike)

Crutcher Pike (CR 1354) is a north-south County Route that connects KY 876 to KY 169 in the western section of the study area, approximately two miles west of Goggins Lane. To the south near KY 876, Crutcher Pike has two ten-foot lanes with no shoulders, while to the north near KY 169 Crutcher Pike has approximately 12 feet of total pavement. Over the past five years, there were eight reported crashes, five of which were single vehicle collisions.



Crutcher Pike

An option to improve safety to the north is to construct sections of wider pavement for vehicles to pull over and allow oncoming traffic to pass. Additionally, the signs on Crutcher Pike can be updated to provide drivers improved visibility and safety warnings.

Short-Term Concept S5 (KY 876 Between Crutcher Pike and Goggins Lane)

Between Crutcher Pike and Goggins Lane, KY 876 serves mostly rural and residential areas. There are currently no signalized intersections and no turn lanes on this section of KY 876. Over the past five years, there were 34 reported crashes, 12 (35 percent) of which resulted in an injury. Of the 34 crashes, the most common crash type was rear end collisions with 15, mostly clustered at the unsignalized intersections. Over the next 20 years, daily traffic is expected to increase from 7,200 VPD (2021) to 12,600 VPD (2045). Developments in this area with anticipated access points on KY 876 will not only increase the traffic volume, but also the number of turning vehicles.

An option to improve safety and traffic conditions is to provide turn lanes at the major unsignalized intersections, including Crutcher Pike (WB left- and right-turn lanes), Curtis Pike (WB left-turn lane), Deer Creek Drive (WB left- and right-turn lanes), and Hager Drive (WB left-turn lane). Providing dedicated turn lanes would remove the left turning vehicles from the through lane, which will improve safety and allow traffic to flow smoother. As development occurs, turning movement counts should be collected to determine if warrants are met.

7. Long-term improvement concepts were developed at nine locations in the study area, as shown in **Figure 5** and described below.

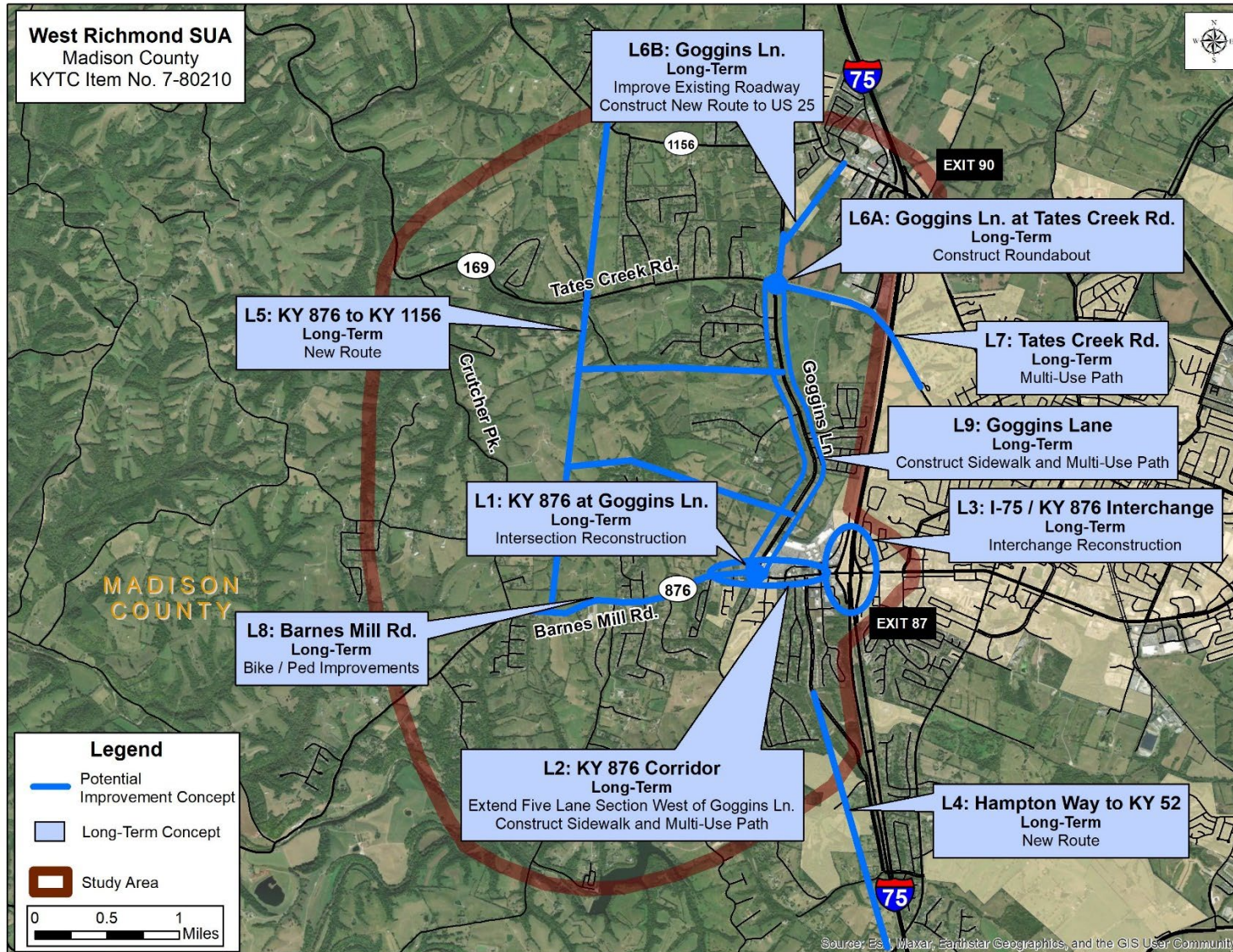


Figure 5: Long-Term Improvement Concepts

Long-Term Concept L1 (KY 876 at Goggins Lane Intersection)

A long-term option to improve safety and traffic conditions at this intersection is to construct a roundabout. Based on results from the traffic analysis, a single-lane roundabout is sufficient for traffic volumes in 2035, with a dual-lane roundabout needed by 2045.

Long-Term Concept L2 (KY 876 Between Goggins Lane and I-75)

A long-term option to improve safety and traffic conditions on this section of KY 876 is to construct a raised median to restrict left turns from minor approaches at unsignalized intersections, as shown in **Figure 6**. Initially, the two lanes in each direction are sufficient on KY 876 between Lantern Ridge Drive / Frankie Drive and I-75. As the area develops, KY 876 will need to be widened between Goggins Lane and Frankie Drive to accommodate the traffic growth. Additionally, a shared-use path and sidewalk could be constructed on KY 876 from Goggins Lane to the I-75 interchange.



Figure 6: KY 876 Corridor Typical Section

Long-Term Concept L3 (I-75 Interchange with KY 876)

Based on results from the 2035 No-Build traffic analysis, the KY 876 intersections with Killarney Lane and the northbound I-75 ramps are expected to operate at LOS F during the PM peak hour and the Lantern Ridge Drive / Amberly Way intersection is expected to operate at LOS E.

A long-term option to improve safety and traffic conditions is to reconstruct the interchange. One option is to construct a double crossover diamond (DCD), as shown in **Figure 7**, which improves safety by reducing the number of conflict points and reduces congestion by decreasing the number of signal phases.



Figure 7: Double Crossover Diamond (DCD) Concept

Another option is to construct a single-point urban interchange (SPUI), as shown in **Figure 8**. This type of interchange would relocate the KY 876 and I-75 ramp approaches to a single intersection, reducing conflict points and providing more spacing between adjacent intersections.



Figure 8: Single-Point Urban Interchange (SPUI) Concept

Both interchange options provide adequate traffic operations in 2035, with all intersections operating at LOS D or better during the peak periods. By 2045, however, traffic is expected to queue on the off ramps and at the Amberly Way intersection, causing the intersections to fail for the DCD concept. All intersections are still expected to operate at LOS D or better in 2045 for the SPUI concept.

Long-Term Concept L4 (New Route Between Hampton Way and KY 52)

South of KY 876, Hampton Way provides a north-south connection to KY 52 via Old Town Branch Road. This connection requires traveling under I-75 via a one-lane tunnel. An option to provide a better connection to the south is to construct a new route from Hampton Way to KY 52. Based on results from the Lexington Area MPO (LAMPO) travel demand model, this new route is expected to carry 7,600 VPD in 2045. This new route would increase traffic on both Hampton Way and KY 876 but would slightly decrease traffic on I-75.

Long-Term Concept L5 (New Route Between KY 876 and KY 1156)

Based on traffic forecasts, Goggins Lane is expected to carry 18,500 VPD in 2045. As the land adjacent to Goggins Lane develops, providing alternative routes for vehicles accessing the commercial and residential areas will become imperative. A long-term option to improve traffic patterns surrounding the expected developments is to construct a new route from KY 876 to Jacks Creek Pike (KY 1156) with connections to the developments and to Goggins Lane, as shown in **Figure 9**. This route could be constructed in sections as developments occur.

Long Term Concept L6A (KY 169 at Goggins Lane Intersection)

As peak hour traffic-generating developments occur along Goggins Lane and KY 169, the intersection of the two routes has the potential to become a traffic chokepoint. An option to improve safety and reduce congestion is to construct a roundabout. The initial roundabout would be single-lane, with the potential to construct additional lanes if necessary.

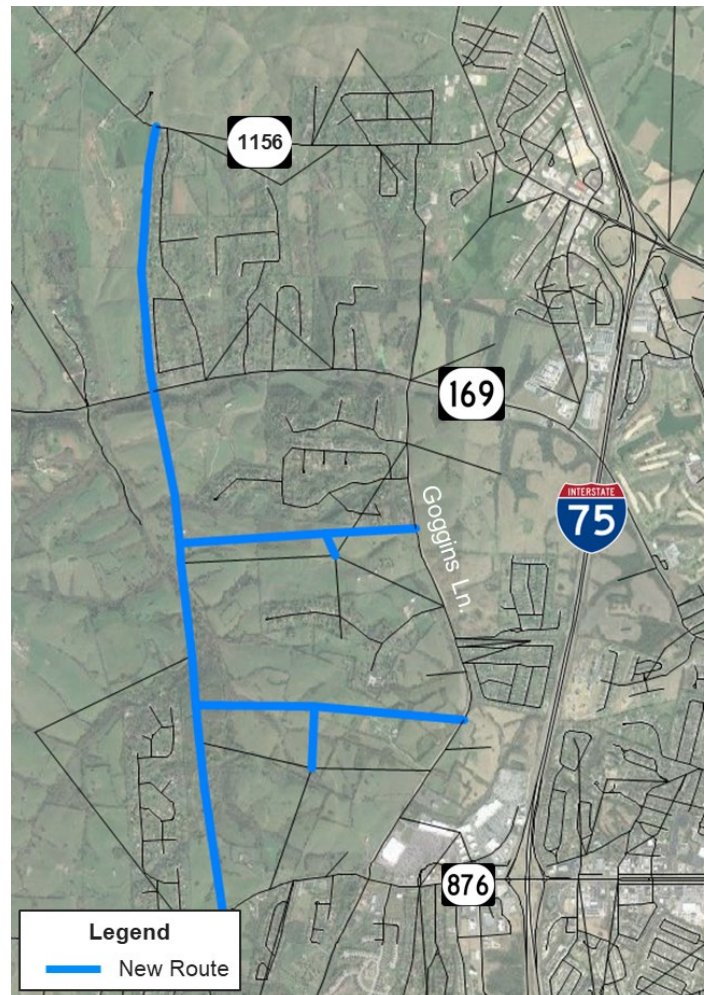


Figure 9: Long-Term Concept L5

Long-Term Concept L6B (New Route Between Goggins Lane and US 25)

An option to provide alternative access to expected developments along KY 169 is to construct a new route between Goggins Lane and US 25, as shown in **Figure 10**. This concept would require improvements to the Goggins Lane / KY 169 intersection, as shown in Concept L6B, before construction could begin. The section of Goggins Lane between KY 169 and the new route would require widening to match the typical section of the new route.



Figure 10: Long-Term Concept L6B

Long-Term Concept L7 (KY 169 East of Goggins Lane)

East of Goggins Lane, there are several expected developments along KY 169. A residential development is proposed to the north and a City park with recreational fields is planned to the south. An option to improve multi-modal travel in the area is to construct a shared-use path on KY 169 from Goggins Lane to Kit Carson Elementary, crossing underneath the I-75 overpass.

Long-Term Concept L8 (KY 876 Between Crutcher Pike and Goggins Lane)

A long-term option to improve safety and reduce congestion on KY 876 is to construct a two-way left-turn lane (TWLTL) between Crutcher Pike and Goggins Lane. The

number of vehicles turning onto and off of KY 876 is expected to increase as the rural portions of KY 876 continue to develop. Providing a consistent turn lane will remove the left turning vehicles from the through traffic and reduce the number of conflicts.

Long-Term Concept L9 (Goggins Lane Between KY 876 and KY 169)

The current ADT on Goggins Lane is 7,500 VPD, with an increase to 18,500 VPD expected by 2045 due to a number of developments expected along the corridor. Over the past five years, there were 38 reported crashes on Goggins Lane between KY 876 and KY 169, none of which involved a bicycle or pedestrian. As developments occur, a long-term concept is to construct a shared-use path on the east side of Goggins Lane to provide multi-modal access to the developing residential areas.

8. At the end of the presentation, attendees were asked to fill out a survey to provide input on the preliminary improvement concepts. Eleven Local Officials / Stakeholders filled out the survey, ten of which live or work in the study area. Six of the respondents indicated they drive through the study area daily and the remaining five drive through it weekly. Respondents were then asked to rank their top three short-term improvement concepts, with a ranking of one being the top priority and receiving three points, two being the second priority and receiving two points, and three being the third priority and receiving one point. Improving the I-75 interchange and the KY 876 corridor were ranked as the highest priority, followed by KY 876 intersection with Goggins Lane, as shown in **Figure 11**.

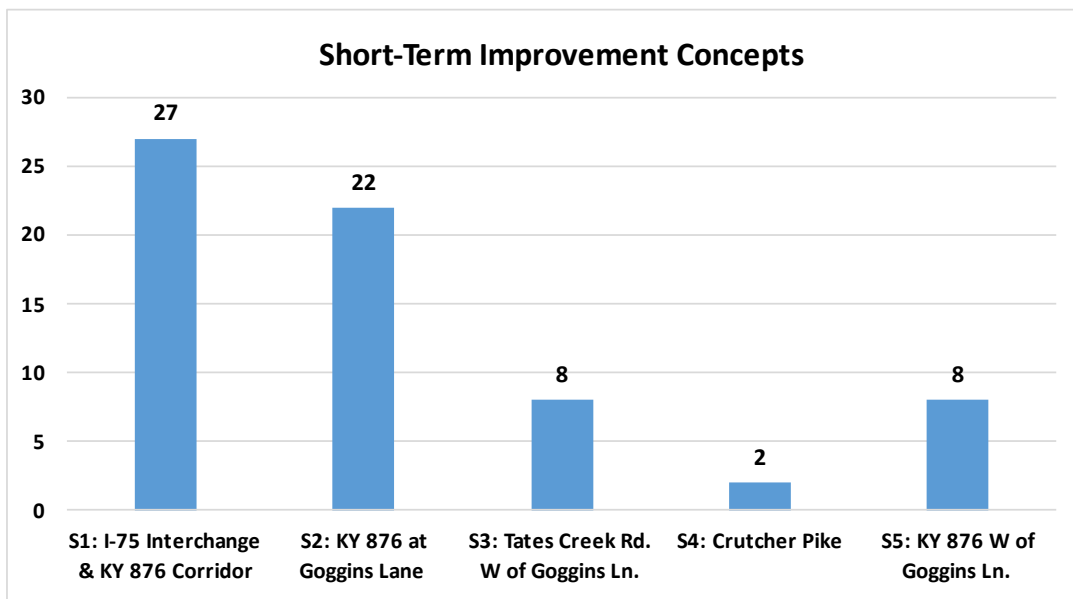


Figure 11: Local Official / Stakeholder Survey – Ranking Short-Term Concepts

Respondents were then asked to rank their top three long-term improvement concepts. Once again, improvements to the I-75 interchange with KY 876 (Concept L3) was ranked as the highest priority, as shown in **Figure 12**. The KY 876 corridor was ranked as the second highest priority, followed by the KY 876 intersection with Goggins Lane and the new route connecting Goggins Lane to US 25.

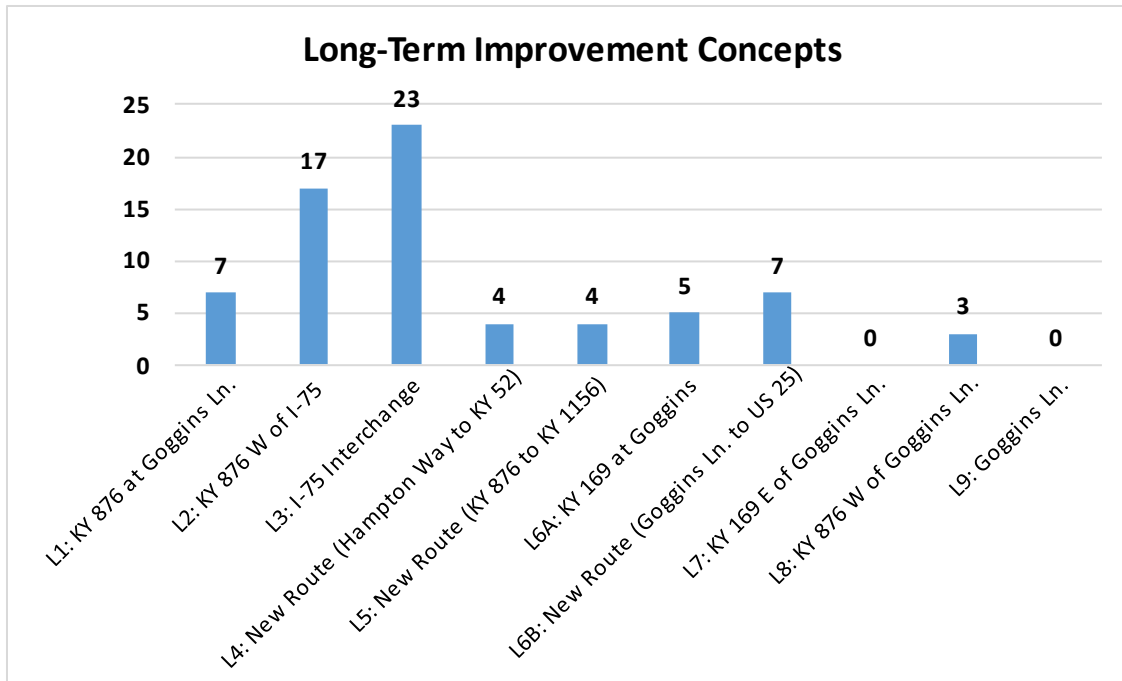


Figure 12: Local Official / Stakeholder Survey – Ranking Long-Term Concepts

- Graham then discussed the project schedule. The Project Team will revise and prioritize improvement concepts before meeting with the Local Officials / Stakeholders for a third time to present the findings of the study.

The meeting ended at approximately 10:00 a.m. EDT.

Meeting Minutes

TO: Casey Smith
Project Manager
KYTC District #7 Office
800 Newtown Court
Lexington, KY 40511

Brent Sweger
Project Manager
KYTC Central Office Planning
200 Mero Street
Frankfort, KY 40622

FROM: Graham Winchester
Project Manager
Stantec Consulting Services Inc.

DATE: September 27, 2023

SUBJECT: West Richmond Small Urban Area (SUA) Study
Madison County
KYTC Item No. 7-80210
Project Team Meeting No. 2

The second project team meeting for the subject project was held at the KYTC District 7 office in Lexington, Kentucky on August 29th, 2023, at 1:30 p.m. EDT. The following individuals were in attendance:

Jacob Bucher	KYTC – District 7
Francis McDonnell	KYTC – District 7
Natalia McMillan	KYTC – District 7
Clyde Newcomer	KYTC – District 7
Alex Sergent	Bluegrass Area Development District
Casey Smith	KYTC – District 7
Brent Sweger	KYTC – Central Office Planning
Shane Tucker	KYTC – District 7
Amy Williams	TSW
Brian Aldridge	Stantec Consulting Services Inc.
Len Harper	Stantec Consulting Services Inc.
Graham Winchester	Stantec Consulting Services Inc.

The purpose of the meeting was to share information regarding the West Richmond Small Urban Area (SUA) Study and to share feedback from the local officials and stakeholders on preliminary improvement concepts. The objective of the study is to examine the transportation network in the area west of I-75 in Richmond, Kentucky. The study will evaluate intersections, roadways, and other infrastructure and develop potential options to improve safety and congestion. Graham Winchester delivered a presentation.

The following enumerated items were discussed.

1. The study area contains the area west of I-75 in Richmond, Kentucky, including Barnes Mill Road (KY 876), Tates Creek Road (KY 169), Goggins Lane and Crutcher Pike. Improvements to mainline I-75 and Exit 90 will not be considered as part of the study.
2. There are no active projects in the study area listed in *Kentucky's 2022-2028 Enacted Highway Plan*, except for a pavement rehab project on I-75 (Item No. 7-8820).
3. At the second Local Officials / Stakeholder meeting, attendees were asked to fill out a survey to provide input on the preliminary improvement concepts. Eleven Local Officials / Stakeholders filled out the survey, ten of which live or work in the study area. Six of the respondents indicated they drive through the study area daily and the remaining five drive through it weekly. Respondents were then asked to rank their top three short-term improvement concepts. Improving the I-75 interchange and the KY 876 corridor were ranked as the highest priority, followed by the KY 876 intersection improvements with Goggins Lane, as shown in **Figure 1**.

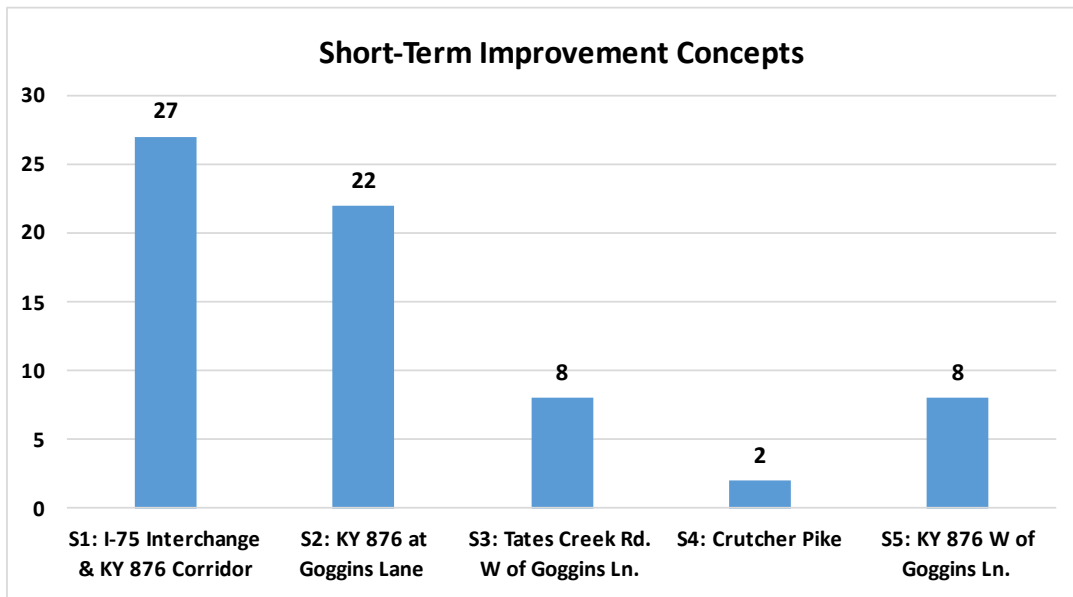


Figure 1: Local Official / Stakeholder Survey – Ranking Short-Term Concepts

Respondents were asked to rank their top three long-term improvement concepts. Once again, improvements to the I-75 interchange with KY 876 (Concept L3) were ranked as the highest priority, as shown in **Figure 2**. The KY 876 corridor was ranked as the second highest priority, followed by the KY 876 intersection with Goggins Lane and the new route connecting Goggins Lane to US 25.

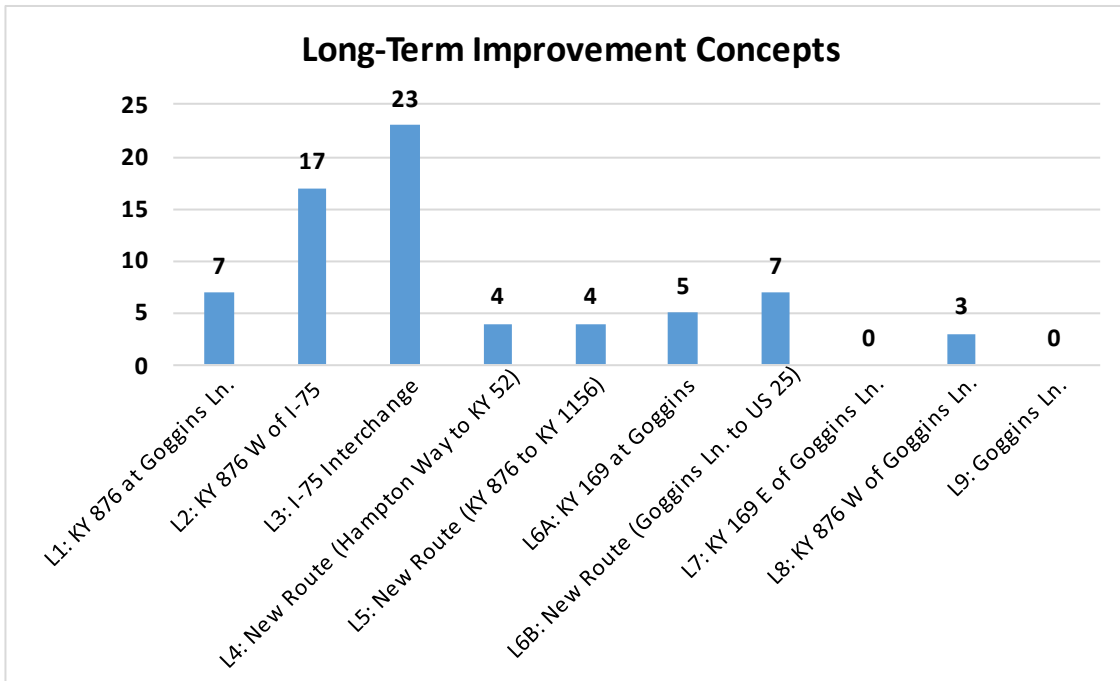


Figure 2: Local Official / Stakeholder Survey – Ranking Long-Term Concept

- Improvement concepts were updated and categorized as short-term (shown in **Figure 3**), long-term (shown in **Figure 4**), or local (shown in **Figure 5**) then prioritized based on results from the traffic analysis, safety analysis, Benefit-to-Cost Analysis, Local Official Feedback, and Project Team feedback.

The BCA provided a means for determining which improvements have the greatest benefit relative to the construction cost. The BCA was conducted based on crash savings and travel time savings where possible.

Improvement concepts within the boundary of the simulation model (along KY 876) were assigned a 10-year congestion relief savings based on the vehicle hours traveled (VHT) saved and the average hourly wage in Madison County. Crash modification factors (CMFs) were used to quantify crash reduction savings by estimating the number of crashes that would be reduced by implementing the improvement concept. The total benefit was then divided by the construction cost to produce a benefit-to-cost ratio (BCR). **Table 1** presents an evaluation matrix of the improvement concepts.

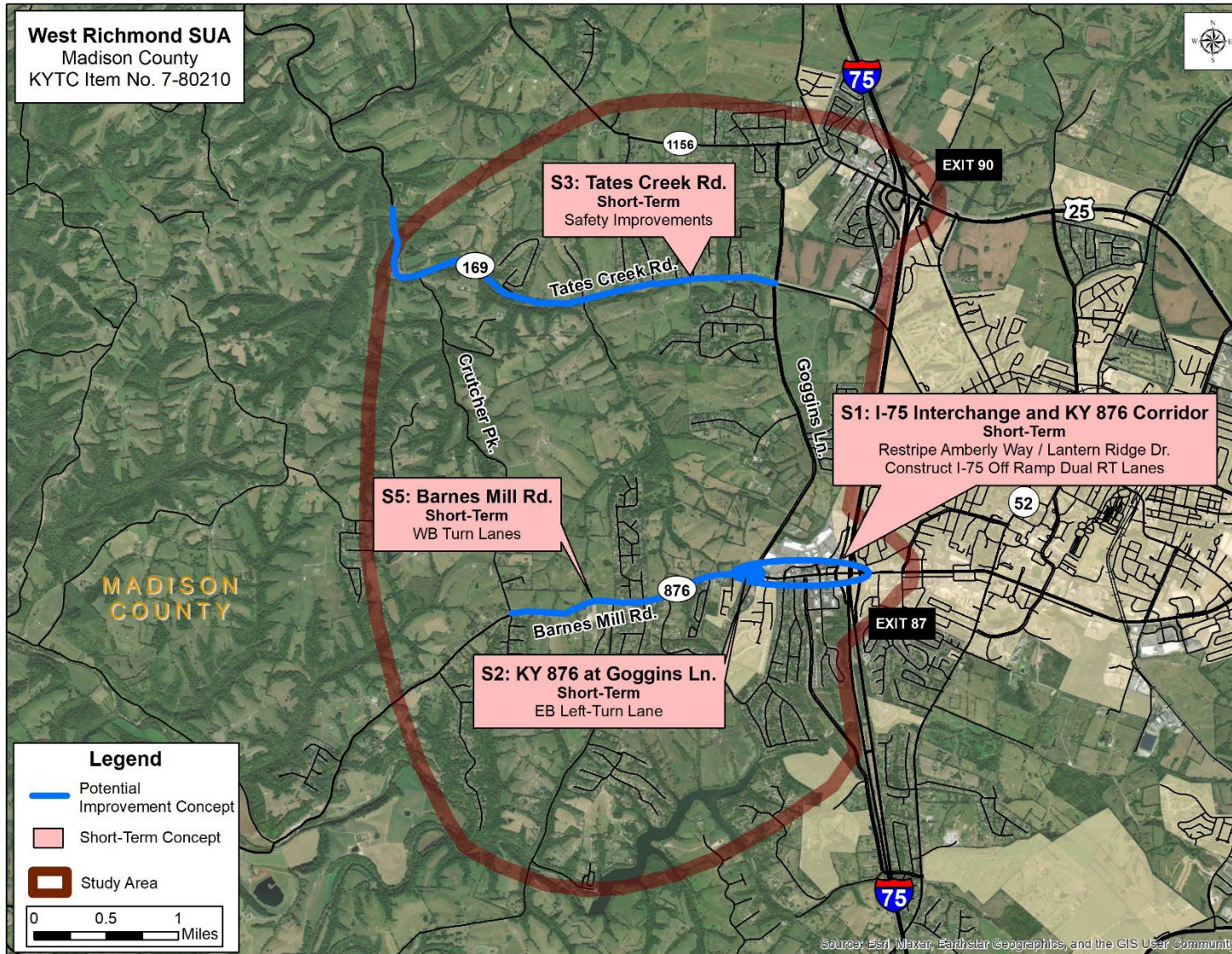


Figure 3: Updated Short-Term Concepts

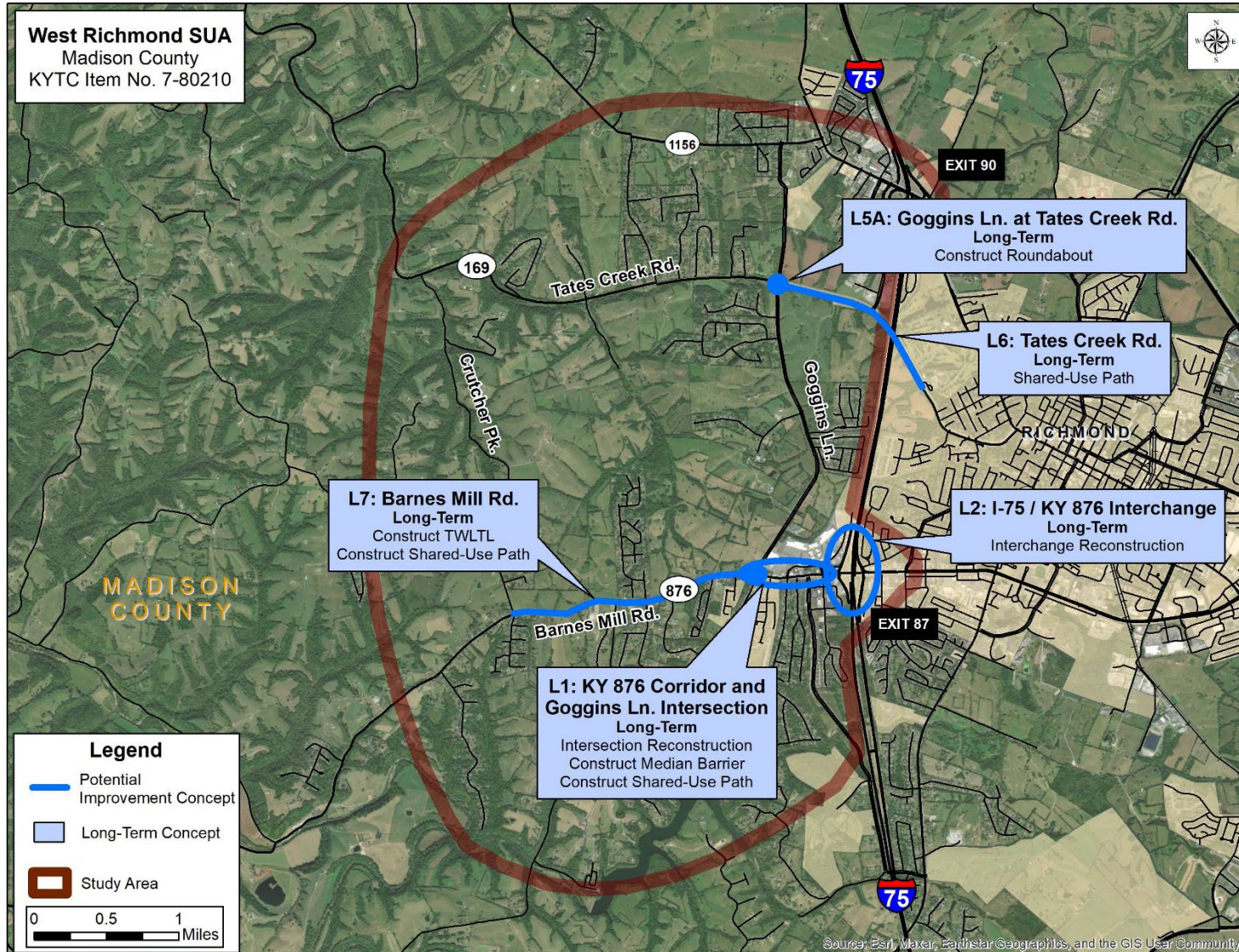


Figure 4: Updated Long-Term Concepts

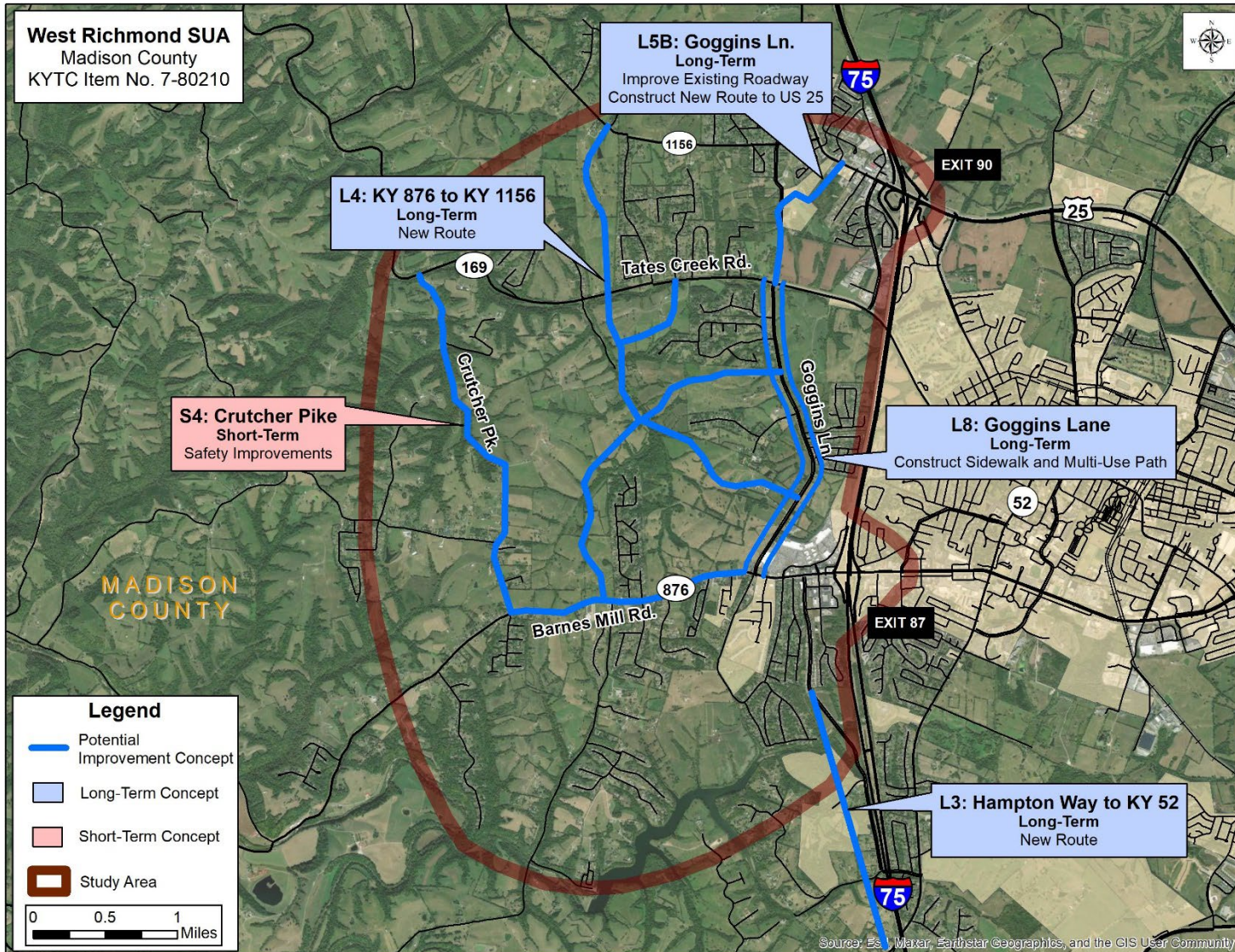


Figure 5: Updated Local Concepts

Table 1: Evaluation Matrix

Category	Concept	Location	Description	10- Yr Safety Benefit	10-Yr Congestion Benefit	Construction Cost	BCR	LO Ranking	Priority
Short-Term	S1	I-75 Interchange & KY 876 Corridor	Improved Signal Timing at Amberly Way	N/A	\$9,000,000	\$400,000	6.43	#1	High
			Construct additional RT lane on SB Off Ramp	N/A		\$1,000,000			
	S2	KY 876 at Goggins Ln.	EB Left-Turn Lane	\$100,000	\$600,000	\$500,000	1.40	#2	High
	S3	KY 169 W of Goggins Ln.	Minor Widening	\$9,800,000	N/A	\$3,800,000	2.58	#3	Medium
			Update Signage						
			Centerline Rumble Stipe						
S5	KY 876 W of Goggins Ln.	Left Turn Lanes at Intersections	\$900,000	N/A	\$2,100,000	0.43	#4	Low	
S6	KY 876 at Porter Drive	Restripe SB lanes to update signal timing							Not Recommended
Long-Term	L1	KY 876 Corridor	Single-Lane Roundabout	\$600,000	\$4,500,000	\$2,000,000	2.55	#3	High
			Construct median barrier & shared-use path					#2	
			Dual-Lane Roundabout						
			Extend 4-Lane Section to Goggins Ln.						
	L2	I-75 Interchange	DCD	\$7,400,000	\$24,000,000	\$7,200,000	4.36	#1	Not Recommended
			SPII	\$6,400,000	\$48,600,000	\$20,800,000	2.64		High
	L5A	KY 169 at Goggins Ln.	Roundabout	\$1,000,000	N/A	\$1,000,000	1.00	#5	High
L6	KY 169 E of Goggins Ln.	Shared-Use Path	\$0	N/A	\$800,000	0.00	#9	Low	
L7	KY 876 W of Goggins Ln.	TWLTL	\$863,316	N/A	\$6,300,000	0.14	#8	Low	
		Shared-Use Path	\$0	N/A	\$1,000,000	0.00		Medium	
Local (Short-Term)	S4	Crutcher Pike	Improved Signage	\$31,100	N/A	\$200,000	0.16	#5	Low
		Spot Widening							
Local (Long-Term)	L3	New Route (Hampton Way to KY 52)	New Route	N/A	N/A	\$11,200,000	N/A	#6	Not Recommended
	L4	New Route (KY 876 to KY 1156)	New Route	N/A	N/A	\$32,400,000	N/A	#6	Medium
	L5B	KY 169 at Goggins Ln.	New Route & Goggins Improvements	N/A	N/A	\$6,800,000	N/A	#3	High
	L8	Goggins Ln.	Shared-Use Path	\$0	N/A	\$1,300,000	0.00	#9	Low

5. The next steps are to refine the improvement concepts and cost estimates based on project team feedback, meet with the Local Officials and Stakeholders to discuss the results of the study, and to develop a draft report.

The meeting ended at approximately 3:00 p.m. EDT.

Meeting Minutes

TO: Casey Smith
Project Manager
KYTC District #7 Office
800 Newtown Court
Lexington, KY 40511

Brent Sweger
Project Manager
KYTC Central Office Planning
200 Mero Street
Frankfort, KY 40622

FROM: Graham Winchester
Project Manager
Stantec Consulting Services Inc.

DATE: December 11, 2023

SUBJECT: West Richmond Small Urban Area (SUA) Study
Madison County
KYTC Item No. 7-80210
Local Officials/ Stakeholder Meeting No. 3

The third Local Officials / Stakeholder Meeting for the subject project was held at the Madison County Public Library on November 20th, 2023, at 9:00 a.m. EDT. The following individuals were in attendance:

Robert R. Blythe	City of Richmond
Tom Botkin	Madison County Fiscal Court
David Dodson	City of Richmond
Josh Farthing	City of Richmond
Tyler Frazier	City of Richmond
Deanna Frazier Gordon	Kentucky General Assembly
Tim Gray	Madison County Fire/ EMS
Scott Shepherd	Madison County Road Department
Reagan Taylor	Madison County Judge Executive
Bert Thomas	Madison County
Jacob Bucher	KYTC – District 7
Stephen DeWitte	KYTC – Central Office Planning
Libbie Dockemeyer	KYTC – Central Office Planning
Jared Jeffers	KYTC – Central Office Planning
Preston McDowell	KYTC – District 7
Casey Smith	KYTC – District 7
Brent Sweger	KYTC – Central Office Planning
Shane Tucker	KYTC – District 7

Len Harper
Graham Winchester

Stantec Consulting Services Inc.
Stantec Consulting Services Inc.

Casey Smith welcomed everyone and led introductions. The purpose of the meeting was to share information regarding the West Richmond Small Urban Area (SUA) Study and to solicit feedback from the Local Officials / Stakeholders on the refined improvement concepts and project prioritization. The objective of the study is to examine the transportation network in the area west of I-75 in Richmond, Kentucky. Graham Winchester delivered a presentation.

The following enumerated items were discussed.

1. The study area contains the area west of I-75 in Richmond, Kentucky including Barnes Mill Road (KY 876), Tates Creek Road (KY 169), Goggins Lane and Crutcher Pike. Improvements to mainline I-75 and Exit 90 were not considered as part of the study.
2. Over the past 20 years, population in Richmond and Madison County has grown at a faster rate than the rest of the state, between 1.22 and 1.35 percent per year based on data from the Kentucky State Data Center. This growth is expected to continue to the year 2050. Based on conversations with Local Officials and Stakeholders, eleven sites in and around the study area were identified that are in various stages of being developed.
3. Graham then led a discussion of improvement concepts that were refined based on input received at Local Officials / Stakeholder Meeting No. 2. The concepts are categorized as short-term, long-term, and local.

Short-term improvement concepts include less resource intensive, quick-win type projects that KYTC, the City of Richmond, or Madison County can pursue for further project development and implementation. These types of improvements require little or no right-of-way to construct and, in some cases, may be implemented by the KYTC Division of Maintenance. Short-Term Concepts were developed at five locations in the study area, as shown in **Figure 1**.

Long-term improvement concepts are higher cost projects that will require more significant resources to implement. These types of improvements will require additional right-of-way to construct and will likely need to be funded through the KYTC Six Year Plan (SYP) process. Long-term improvement concepts were developed at seven locations in the study area, as shown in **Figure 2**.

Local improvement concepts are not located on the state-maintained system and would likely need to be funded by the City of Richmond, Madison County, or a private developer. The new routes (Concept N and O) are shown in **Figure 3**.

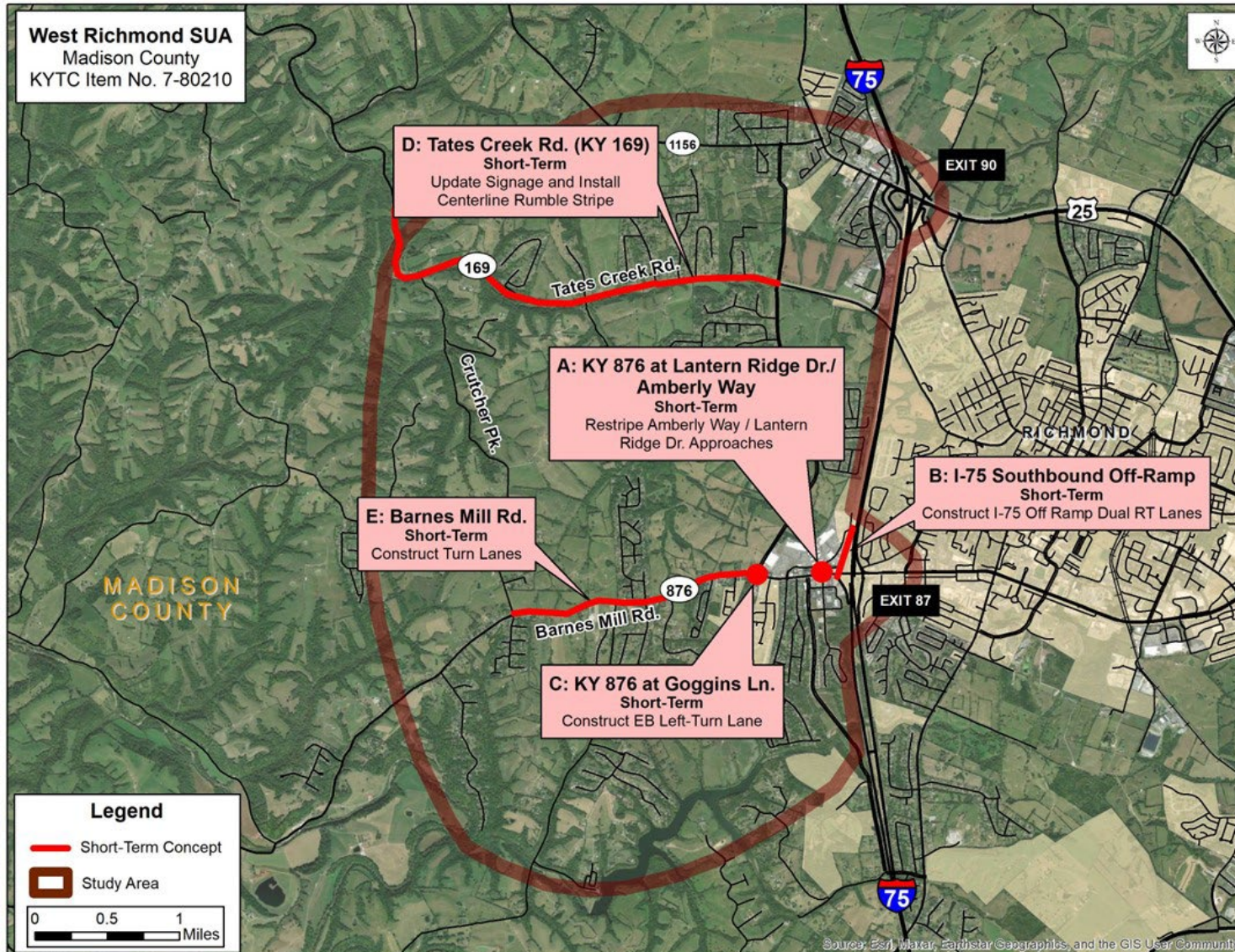


Figure 1: Short-Term Improvement Concepts

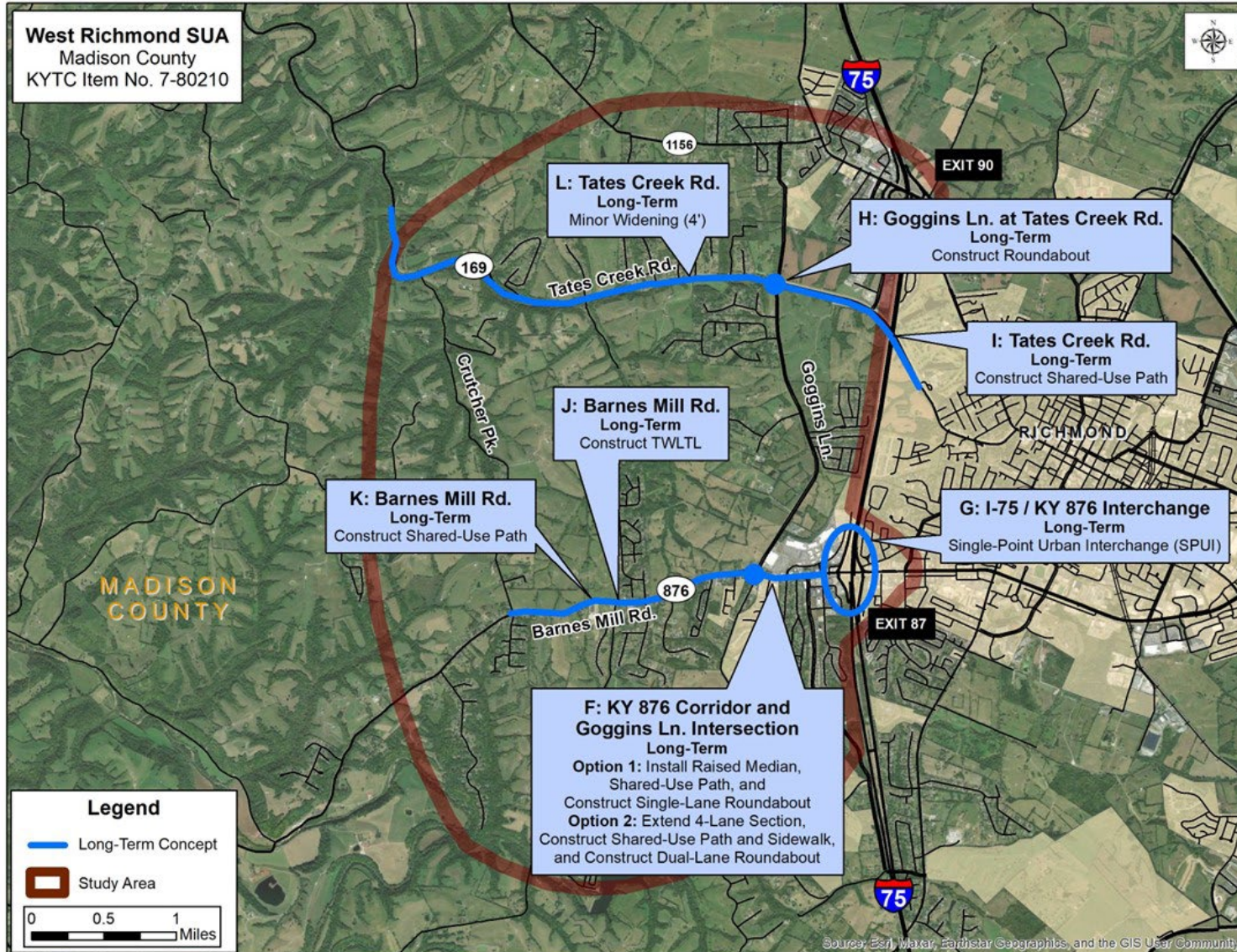


Figure 2: Long-Term Improvement Concepts

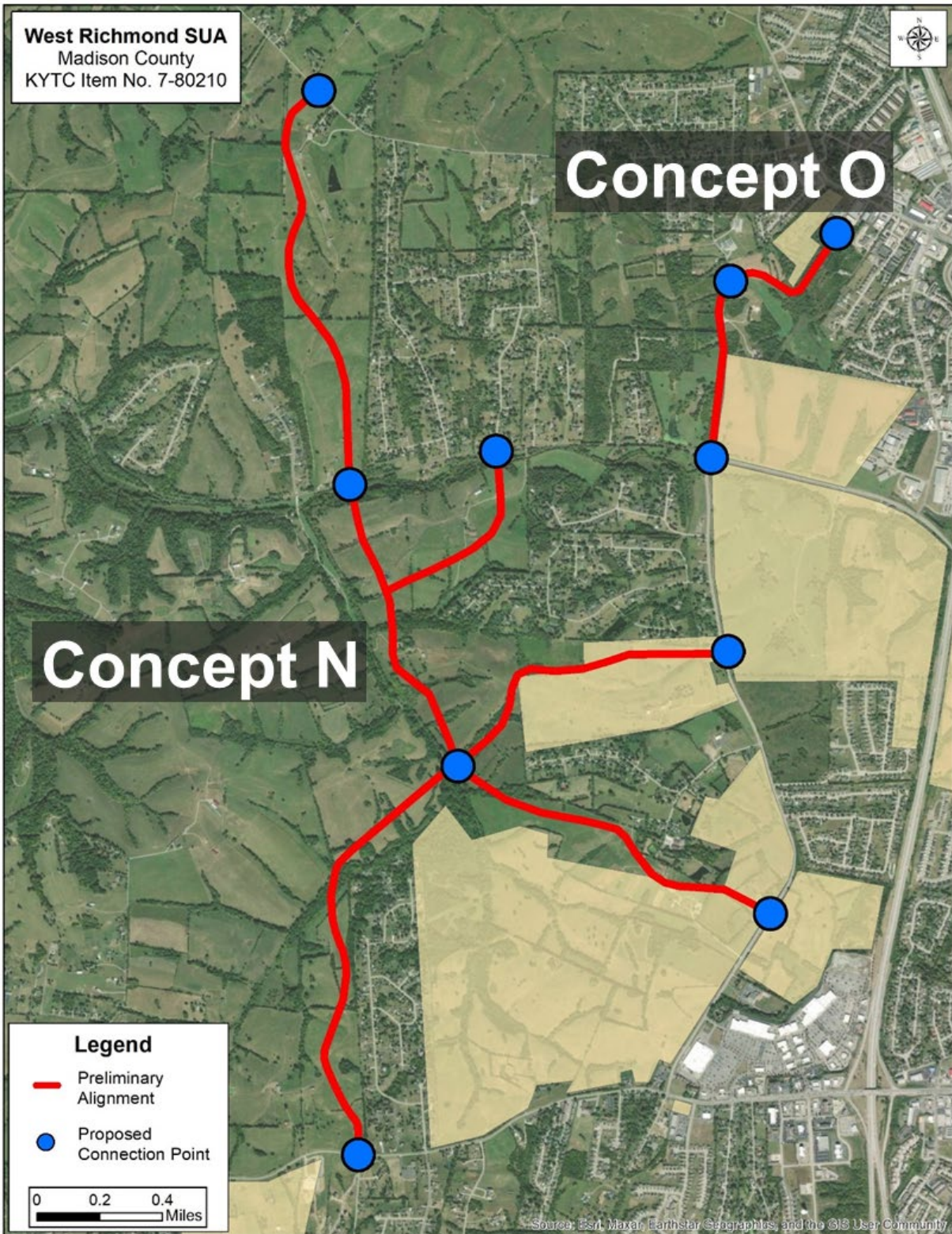


Figure 3: Preliminary Alignment of New Routes (Concepts N and O)

Table 1, Table 2, and Table 3 present the preliminary prioritization of the Short-Term, Long-Term, and Local improvement concepts, respectively, based on results from the safety analysis, traffic analysis, benefit-to-cost analysis, and feedback from Local Officials / Stakeholder Meeting No. 2. All cost estimates are in 2023 dollars.

Table 1: Short-Term Improvement Concepts

Concept	Location	Description	Total Cost	Benefit-Cost Ratio	Initial Priority
A	KY 876 at Lantern Ridge Dr. / Amberly Way	Restripe Lantern Ridge Dr. & Amberly Way Approaches	\$400,000	2.13	High
B	I-75 Southbound Off-Ramp	Construct Dual Right-Turn Lanes	\$1,000,000	0.95	High
C	KY 876 at Goggins Ln.	Construct Eastbound Goggins Ln. Left-Turn Lane	\$750,000	0.93	High
D	KY 169 West of Goggins Ln.	Update Signage	\$700,000	0.43	Medium
		Centerline Rumble Stripe			
E	KY 876 West of Goggins Ln.	Construct Turn Lanes at Intersections	\$2,900,000	0.31	Low

Table 2: Long-Term Improvement Concepts

Concept	Location	Description	Total Cost	Benefit-Cost Ratio	Initial Priority
F	KY 876 Corridor & Goggins Ln. Intersection	Option 1: Install Raised Median, Shared Use-Path & Construct Single-Lane Roundabout	\$6,930,000	0.75	High
		Option 2: Extend 4-Lane Section, Construct Shared-Use Path + Sidewalk & Construct Dual-Lane Roundabout	\$14,660,000	0.60	
G	I-75 Interchange	Construct Single-Point Urban Interchange (SPUI)	\$24,410,000	2.25	High
H	KY 169 at Goggins Ln.	Construct Single-Lane Roundabout	\$1,810,000	0.55	High
I	KY 169 East of Goggins Ln.	Construct Shared-Use Path	\$4,570,000	0.00	Low
J	KY 876 West of Goggins Ln.	Construct Two-Way Left-Turn Lane (TWLTL)	\$8,150,000	0.00	Medium
K	KY 876 West of Goggins Ln.	Construct Shared-Use Path	\$2,970,000	0.00	
L	KY 169 West of Goggins Ln.	Minor Widening (4')	\$5,820,000	1.63	Medium

Table 3: Local Improvement Concepts

Concept	Location	Description	Total Cost	Benefit-Cost Ratio	Initial Priority
M	Crutcher Pike	Improved Signage	\$320,000	0.10	Low
		Widen Areas for Vehicles to Pull Over			
N	New Routes (KY 876 to KY 1156)	Construct New Routes	\$53,280,000	N/A	Medium
O	KY 169 at Goggins Ln.	Construct New Route & Widen Goggins Ln.	\$3,910,000	N/A	High
P	Goggins Ln.	Construct Shared-Use Path	\$3,060,000	0.00	Medium

4. At the end of the presentation, attendees were asked to fill out a survey to provide input on the initial improvement concept prioritization.

Of the nine Local Officials / Stakeholders that filled out the survey, six indicated they disagree with the initial priorities for the Short-Term Concepts, while three respondents agreed with the short-term concepts, as shown in **Figure 4**. Comments from the six respondents in disagreement are listed below.

- One respondent would like to see an additional receiving lane on KY 876 for the second southbound RT lane from the I-75 off ramp for Concept B (I-75 SB Off Ramp). Adding a receiving lane on KY 876 decreases delay on the SB ramp by 11 seconds and overall intersection delay by four seconds. Concept B was updated to include a receiving lane on KY 876.
- Two respondents indicated that KY 169 is not wide enough to install a centerline rumble stripe. The centerline rumble stripe was removed from Concept D.
- One respondent requested the order of Concept B (I-75 SB Off Ramp) and Concept C (KY 876 at Goggins Ln.) to be swapped. These concepts are both listed as high priority projects. It should be noted that the concepts have not been prioritized within each prioritization category (high, medium, low).
- One respondent would like Concept E (KY 876 west of Goggins Lane) to be medium priority and Concept D (KY 169 west of Goggins Lane) to be low priority.
- One respondent believes Concept D (KY 169 west of Goggins Lane) should be low priority due to the high cost and low benefit-to-cost ratio (BCR). This corridor was identified as needing systemic signing as part of the Highway Safety Improvement Program (HSIP) Roadway Departure Studies. The project team decided to keep the initial priorities.

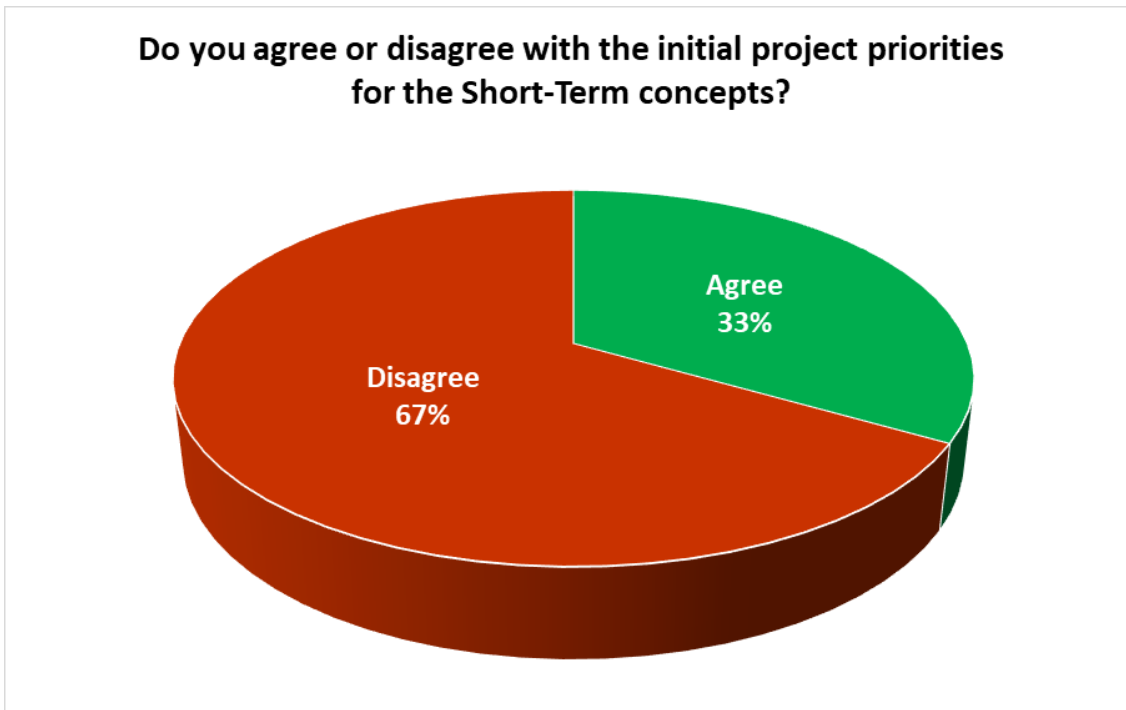


Figure 4: Local Official / Stakeholder Survey – Short-Term Concepts

The second question asked respondents if they agreed or disagreed with the initial project priorities for the Long-Term Concepts. Six of the respondents agreed with the presented concepts, while three of the respondents disagreed, as shown in **Figure 5**.

- One of the respondents that disagreed commented that Concept F (KY 876 Corridor & Goggins Ln. intersection improvements) needs to be a dual-lane roundabout. This was listed as Option 2.
- The second respondent that disagreed had concerns about the grade of Goggins Lane impacting the proposed roundabout. These concerns will be addressed during the design phase.
- The final respondent who disagreed asked why Concept F (KY 876 Corridor & Goggins Ln. intersection improvements) is before Concept G (I-75 Interchange reconstruction) even though the BCR for Concept G is much higher. These concepts are both listed as high priority projects. It should be noted that the concepts have not been prioritized within each prioritization category (high, medium, low).

There were two comments from respondents who agreed with the prioritization.

- One respondent indicated that he prefers Option 2 for Concept F.
- One respondent from the City of Richmond indicated that Concepts I (Shared-use path on KY 169 east of Goggins Lane) and K (Shared-use path on KY 876 west of Goggins Lane) should be the lowest priority because Richmond does not have much bike usage. Given the rapid development of residential, school, and sports complex, there is likely to be a need for these facilities. The project team decided to maintain the initial priorities.

Do you agree or disagree with the initial project priorities for the Long-Term Concepts?

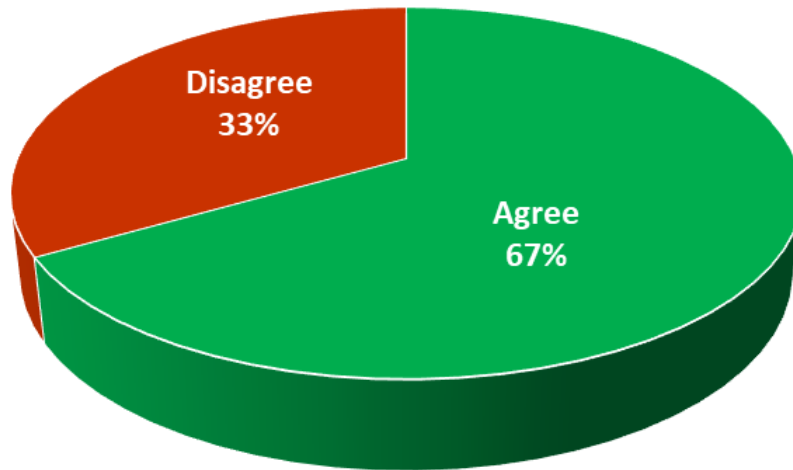


Figure 5: Local Official / Stakeholder Survey – Long-Term Concepts

Respondents were then asked if they agreed or disagreed with the initial priorities for the Local Concepts. Six of the respondents agreed with the local concepts, while three of the respondents disagreed with the local concepts, as shown in **Figure 6**.

- One respondent in disagreement would like to change Concept N (New route from KY 876 to KY 1156) to high priority and Concept O (Victory Blvd. Extension & Improve Goggins Ln.) to medium priority. Concept O would provide an additional route to get back onto the interstate and would serve that purpose whether Concept N happens or not. Concept N is dependent on the continued development of the area. Initial priorities were maintained.
- One respondent in disagreement commented that KY 1156 cannot handle additional traffic from the new route (Concept N). Concept N is not likely to add significant traffic to KY 1156. Additionally, Concept O is expected to remove traffic from KY 1156.
- One respondent does not believe that Crutcher Pike can be sufficiently widened to make increased traffic safe (Concept M – Crutcher Pike improvements). He would like to see Crutcher Pike reconstructed.

Do you agree or disagree with the initial project priorities for the Local Concepts?

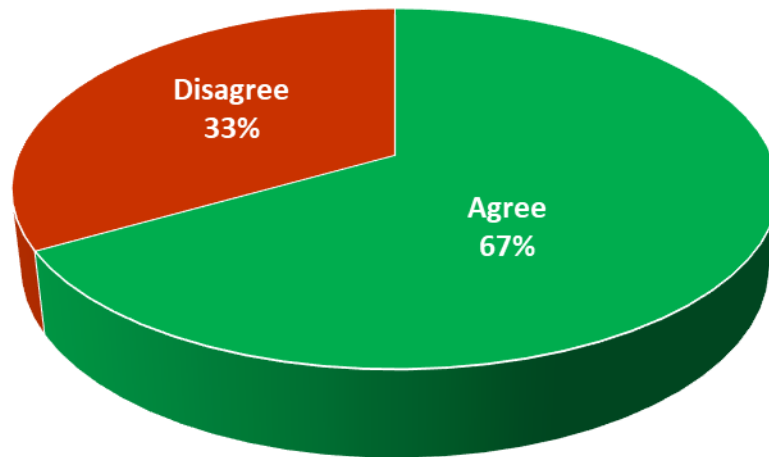


Figure 6: Local Official / Stakeholder Survey – Local Concepts

Respondents were asked if they were satisfied with the Local Official / Stakeholder engagement for the West Richmond Small Urban Area Study. Seven of the respondents indicated they were satisfied, while two respondents indicated they were not satisfied, as shown in **Figure 7**. Comments from the two respondents who were not satisfied are listed below.

- The Mayor of Richmond noted that although the sessions are appropriate and necessary, a guest appearance by KYTC at each of the government meetings might prompt more participation.
- One respondent commented that using turn abouts won't solve traffic issues. Most of the improvement concepts only solve short traffic congestion and do not address residential growth.

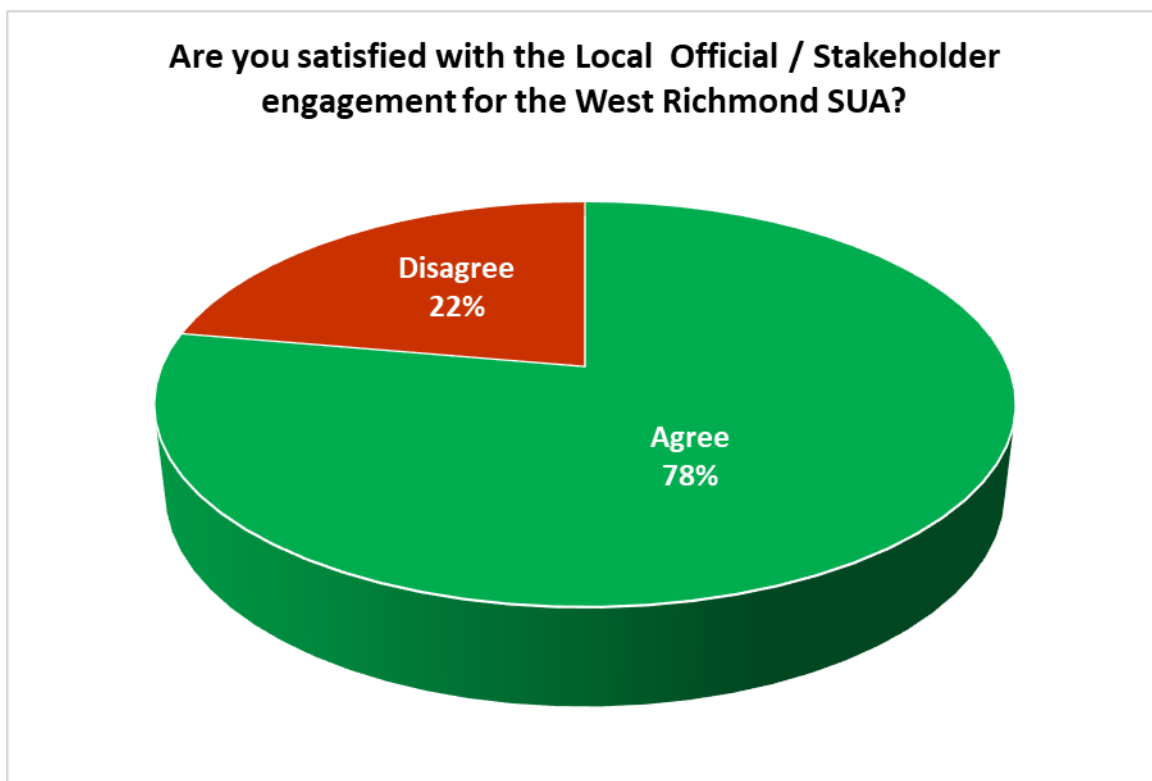


Figure 7: Local Official / Stakeholder Survey – Engagement

5. The next steps are to finalize the concept priorities and summarize the study with a draft report.

The meeting ended at approximately 10:00 a.m. EDT.