



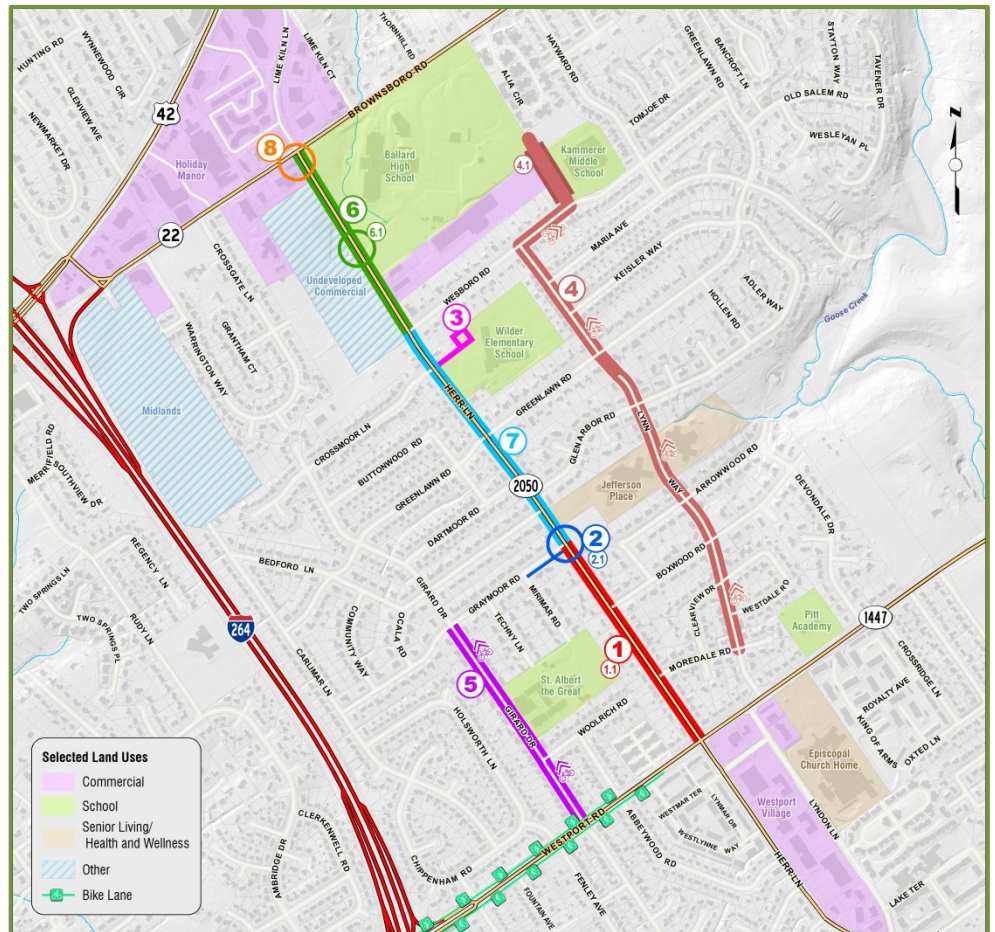
Herr Lane

CORRIDOR TRANSPORTATION PLAN



Final Report
August 2017

KY 2050 (Herr Lane)
between KY 1447 (Westport Road) and US 42 (Brownsboro Road)



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EXECUTIVE SUMMARY

Councilwoman Angela Leet, Louisville Metro District-7, initiated the planning process directed toward improving the section of KY 2050 (Herr Lane) between KY 1447 (Westport Road) and KY 22 (Brownsboro Road). This *Herr Lane Corridor Study* (Corridor Study) presents the results of the planning process.

Along the 1.15-mile project corridor (**Figure 1**), Herr Lane is a two-lane road with average daily traffic volumes ranging from 11,300 to 13,800 vehicles per day. Throughout a typical day, sections of the project corridor experience significant congestion. The southern end of the corridor has a higher than average crash rate. While the land along and around the project corridor is almost entirely developed, notable changes proposed for two large, undeveloped tracts could likely exacerbate congestion in the area. Those foreseeable changes are accounted for in this study.



Figure ES1: Study Area

Herr Lane is owned and maintained by the Kentucky Transportation Cabinet (KYTC). The KYTC and the Kentuckiana Regional Planning and Development Agency (KIPDA) have examined transportation issues along the corridor and programmed solutions in their capital improvements programs—KYTC’s Fiscal Year (FY) 2016–FY 2022 Highway Plan¹ and KIPDA’s Transportation Improvement Program²—both of which have been taken into account in this study.

Other steps taken during this study involved coordinating with the local schools; holding two public informational meetings; collecting existing conditions information; forecasting future land use and traffic conditions; analyzing alternative improvement concepts; and developing cost estimates and implementation strategies for each concept. The prioritized recommendations from this study are listed below.

¹ The FY 2016–FY 2022 Highway Plan is the result of the process through which major highway projects are scheduled for the six-year planning period. The plan was enacted by the Kentucky General Assembly May 18, 2016.

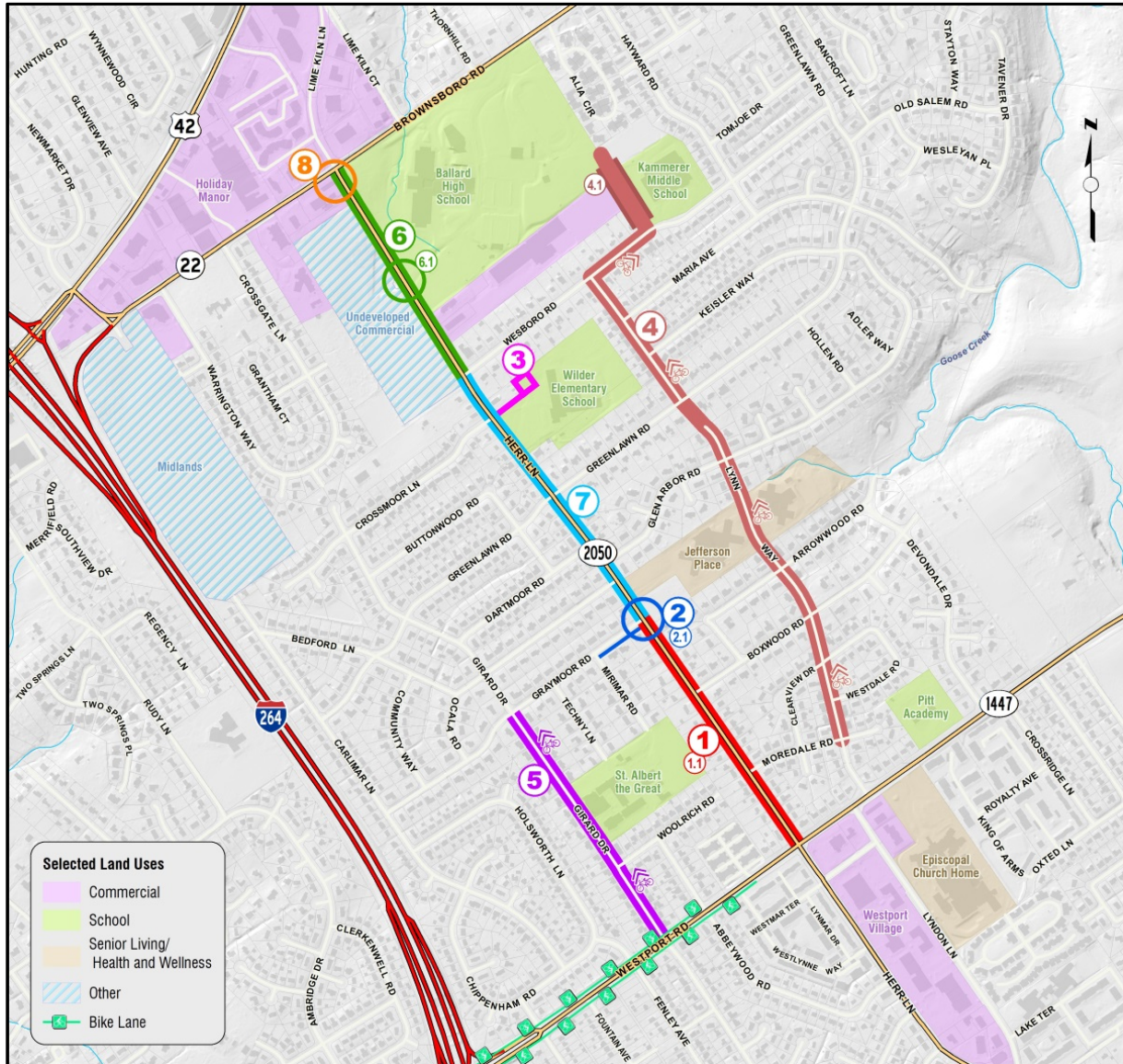
² KIPDA is the regional planning organization comprised of an association of local governments in a nine-county region of southern Indiana and north central Kentucky that includes Jefferson County. KIPDA is Louisville’s Metropolitan Planning Organization (MPO).

IMPROVEMENT CONCEPTS

Table ES1: Herr Lane Corridor Improvement Projects

Project ID ³	Priority	Description	Responsibility	Total Cost Estimate
Public Funding—Louisville Metro (LM), KYTC, or Jefferson Co. Public Schools (JCPS)—Ranked by Highest to Lowest Priority:				
1	1	Herr Lane Widening – Southern Section, between Graymoor Road and Westport Road	LM/KYTC	\$1,630,000
6.1	2	Ballard High School (H.S.) Entrance	LM/KYTC	\$80,000
3	3	Wilder Elementary School (E.S.) Staging Area	LM/JCPS	\$7,000
2.1	4	Graymoor Road at Herr Lane Crosswalk	LM/KYTC	\$5,000
2	5	Graymoor Road Sidewalk	LM	\$37,000
1.1	6	Southern Section of Herr Lane, Sidewalk Only	LM/KYTC	\$100,000
4	7	Neighborway on Lynne Way to Kammerer Middle School (M.S.)	LM	\$15,000
4.1	8	Sidewalk between Kammerer M.S. and Ballard H.S.	LM/JCPS	\$30,000
5	9	Neighborway on Girard Drive	LM	\$1,000
7	10	Herr Lane Widening – Middle Section, between Graymoor Road and Crossmoor Lane	LM/KYTC	\$1,730,000
Private/Other Funding—Implement When Opportunity Occurs / Non-Prioritized:				
6	N/A	Herr Lane Widening – Northern Section, between Crossmoor Lane and Brownsboro Road, per Past Rezoning	Other	\$1,680,000
8	N/A	SW Quadrant of Herr Lane and Brownsboro Road— Close Entrances in Functional Area of Intersection	Other	N/A

³ The project numbering has evolved with the development of alternatives throughout this study. Those with a “.1” are either independent subsets of or closely related to the lead number. Specifically, Project 1 would include 1.1, but should 1 not advance 1.1 could be built as in independent project (the same is true of Project 6 and 6.1); 2 and 2.1 (as well as 4 and 4.1) are closely related and could be built together or as independent phases of one project.



ES Figure 2: Summary of Projects

Herr Lane from Westport Road to Brownsboro Road—Widening Herr Lane is proposed to include a three-lane section by providing a 13-foot-wide Two-Way Left-Turn Lane (TWLTL), right-turn lanes (RTL) when warranted, and sidewalks on both sides. (Turn lane warrants are included in Appendix F.) The cost estimates (Appendix E) are based on an “urban” curb and gutter system for stormwater management; however, using a “rural” grass ditch collection system, which mostly exists today, is a viable option that would reduce costs. A rural system is a valid cost effective option because (1) drainage issues were not found to be a major problem in the corridor, and (2) the existing sidewalks are on average offset about 20 feet from the road. That offset is relatively large and could provide room to add a third lane without rebuilding the existing sidewalks. Likewise, one option is to implement a hybrid design that includes curb, gutter, and new sidewalk where necessary, and using the existing ditches and sidewalks where possible. The decisions on the exact cross-section for each portion and side of Herr Lane, and if the widening would occur equally on both sides, on one side only, or a combination, would be made during the Design phase. During that phase engineers will base the decisions on utility impacts, the ability to maintain traffic during construction, drainage, constructability, and other such issues. It should be noted the proposed design of Herr Lane between KY 22 and north of Crossmoor Lane, as part of the Providence Point development, includes an urban curb and gutter section with sidewalks.

Completing the widening as a single project, with curb, gutter, and sidewalks is estimated to cost \$5.04 million (**Table ES 2**). If sufficient funding is not available to support that approach, this study proposes the widening proceed in three phases:

- Project 1, Priority 1—Westport Road to Graymoor Road
- Project 7, Priority 10—Graymoor Road to Crossmoor Lane
- Project 6, Private Funding/Not Prioritized—Crossmoor Lane to Brownsboro Road

Table ES2: Herr Lane Widening Cost Estimates

	Project 1	Project 7	Project 6	Total
Design	\$180,000	\$180,000	\$180,000	\$540,000
Right-of-Way	\$150,000	\$150,000	\$0	\$300,000
Utilities	\$200,000	\$400,000	\$250,000	\$850,000
Construction	\$1,100,000	\$1,000,000	\$1,250,000	\$3,050,000
Totals	\$1,630,000	\$1,730,000	\$1,680,000	\$5,040,000

“Planning level,” as opposed to “engineering level,” cost estimating involves many assumptions and unknown potential expenses such as those often associated with handling underground utilities. Regarding the right-of-way costs, while it is assumed the road would be reconstructed within the existing state-owned right-of-way, there could be a need for temporary construction easements for staging areas, and/or easements for utilities. Available property mapping shows existing property lines extending to the center of Herr Lane—a common practice on older roads. To address that issue, in 2006 Kentucky passed KRS 178.025 (see Appendix A), which stipulates that, in such circumstances, the state-owned right-of-way extends to the back of the ditch, typically located 15 feet outside the edge of pavement, and the sidewalk.

Cost estimates prepared for this study were compared with past estimates from the KYTC, and updated for this study based by KYTC, but should be again revisited prior to programming.

1.0 INTRODUCTION

Councilwoman Angela Leet, Louisville Metro District-7, initiated the planning process directed toward improving the section of KY 2050 (Herr Lane) between KY 1447 (Westport Road) and KY 22 (Brownsboro Road). This *Herr Lane Corridor Study* (Corridor Study) presents the results of the planning process.

The Herr Lane project corridor is a two-lane, 1.15 mile-long, high-traffic section of road in an area of eastern Jefferson County that is almost totally developed. Average daily traffic (ADT) volumes on Herr Lane range from 11,300 to 13,800 vehicles per day (vpd). The primary land uses along the road are several traditional neighborhoods and four schools. Throughout a typical day, sections of the project corridor experience significant congestion. The southern end of the corridor has a higher than average crash rate. Two notable land use changes on the horizon could exacerbate current traffic problems—Midlands, proposed site of the new Veterans' Administration (VA) Hospital; and the Providence Point development along Herr Lane across from Ballard H.S. The planning process for this Corridor Study has taken into account these proposed changes.

The Kentucky Transportation Cabinet (KYTC) and the Kentuckiana Regional Planning and Development Agency (KIPDA) have examined transportation issues along the corridor and programmed possible solutions in their capital improvements programs—the KYTC Fiscal Year (FY) 2016–FY 2022 Highway Plan and the KIPDA Transportation Improvement Program.

The purpose of the Corridor Study is threefold:

- Assess current safety and mobility issues along the Herr Lane corridor for all users—drivers, pedestrians, bicyclists, and transit riders.
- Identify potential improvements.
- Develop a planning document for use in programming, funding, prioritizing, and establishing design elements for improvement projects.

Key steps in the planning process, which are described in Sections 2.0 through 7.0 herein, included coordinating with the schools along the corridor, holding two public informational meetings, collecting existing conditions information; forecasting future traffic conditions; analyzing alternative improvement concepts; and developing cost estimates and implementation strategies for each concept.

This study concludes with a prioritized list of projects to improve safety and mobility for vehicles and pedestrians.

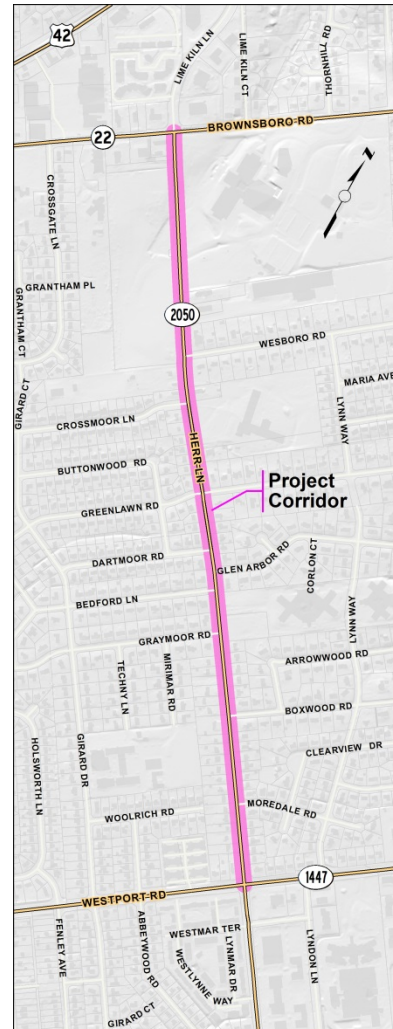


Figure 1: Study Area

Purpose and Need for Improvements:
To reduce CONGESTION and develop a MULTI-MODAL, neighborhood-Friendly transportation network that is SAFE and EFFICIENT for all users.

2.0 CORRIDOR STUDY PLANNING PROCESS

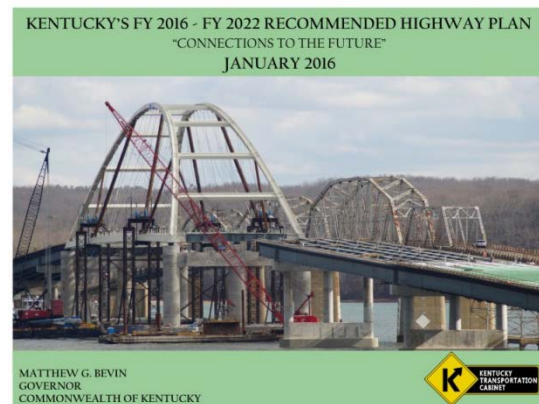
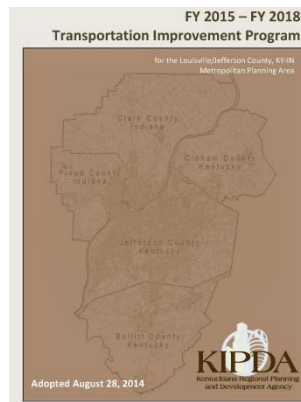
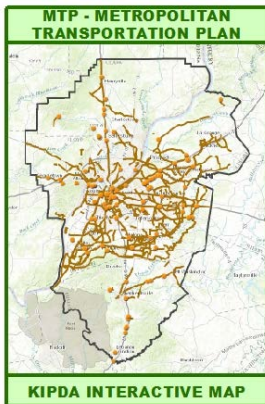
The major steps taken in planning for the Herr Lane Corridor Study are illustrated below.



3.0 OTHER PLANNED TRANSPORTATION PROJECTS

Previously programmed projects in the study area are as follows:

- KYTC FY 2016–FY 2022 Highway Plan⁴ Item No. 5-371.16;**
KIPDA Transportation Improvement Program (TIP)⁵ ID# 1442—
“Intersection improvements on KY 22 at KY 2050 (Herr Lane) and the entrance to Ballard High School”—note, this does not include improvements to Herr Lane. KIPDA estimated a Planning Level Cost of \$5,100,000.
- KIPDA Metropolitan Transportation Plan (MTP) ID# 2114—**
“Widen KY 2050 from Westport Road to Brownsboro Road [by] adding turn lanes and operational improvements as necessary to reduce congestion and improve safety”— this is the major element of this Herr Lane Corridor Study. KIPDA estimated a Planning Level Cost of \$5,080,000.
- KIPDA MTP ID# 2122—**
“Reduce congestion and improve safety on Westport Road at the Herr Lane and Washburn Road intersections”—note, this does not include improvement to Herr Lane. KIPDA estimated a Planning Level Cost of \$6,200,000.



KIPDA is the Louisville/Jefferson County-IN Metropolitan Planning Organization (MPO). All state or federally funded projects must be in the Metropolitan Transportation Plan (MTP) and then the Transportation Improvement Program (TIP).

⁴ The FY 2016–FY 2022 Highway Plan is the result of the process through which major highway projects are scheduled for a six-year planning period, and funded for a two-year biennium. The plan was enacted by the Kentucky General Assembly on May 18, 2016, and is planned to be issued in May 2018.

⁵ KIPDA is the regional planning organization comprised of an association of local governments in a nine-county region of southern Indiana and north central Kentucky that includes Jefferson County.

4.0 EXISTING ROADWAY CONDITIONS

The following information about Herr Lane between Westport Road and KY 22 pertains to identifying mobility problems and solutions.

4.1 Herr Lane Roadway Characteristics

- KYTC-owned and -maintained, and classified as an Urban Minor Arterial.⁶
- Two 11-foot-wide travel lanes, and three lanes at the two signalized intersections:
 - Southbound approach to Westport Road includes a 100-foot-long designated left-turn lane (LTL) and an urban curb and gutter section for drainage.
 - Northbound approach to Brownsboro Road includes a 375-foot-long designated LTL.
- Shoulder widths vary from one to three feet.
- Posted speed limit is 35 miles per hour (mph).
- Regarding access: 53 driveways, 9 local roads, 5 commercial access points, and an access to Ballard High School:
 - Between Westport Road and Graymoor Road—
West side—19 driveways and 1 local road: Graymoor Road
East side—17 driveways and 2 local roads: Moredale Road and Boxwood Road
 - Between Graymoor Road and Wesboro Road—
West side—10 driveways and 4 local roads: Bedford Lane, Dartmoor Drive, Greenlawn Road, and Crossmoor Lane
East side—7 driveways and 3 local roads: Glen Arbor Road, Greenlawn Road, and Wesboro Road
 - Between Wesboro Road and Brownsboro Road—
West side—0 driveways, 1 commercial access to Paul’s Fruit Market, and 2 entrances to former Thornton’s gas station (now closed).
East side—0 driveways, 2 access drives to commercial areas, and 1 access to Ballard High School
- Stop-controls along the corridor only at signalized intersections with Westport Road and Brownsboro Road.
- As the only north-south connector between Westport Road and Brownsboro Road east of I-264 in the study area, Herr Lane is used as a cut-through route.

⁶ Minor Arterials (Arterial Streets in urban areas) provide service for trips of moderate length, serve geographic areas that are smaller than their higher Principle Arterial counterparts (including Westport Road and KY 22) and offer connectivity to the higher arterial system.

4.2 Traffic Data

4.2.1 Average Daily Traffic (ADT)

Average daily traffic (ADT) volumes in recent years have ranged from:

- 12,400 (2014) vehicles per day (vpd) near north end of corridor (KY 22)
- 11,300 (2013) vpd in the middle of the corridor, and
- 13,800 (2016) near south end of corridor (Westport Road)⁷.

Historically, traffic volumes on Herr Lane have been higher than those listed. Between 1997 and 2009—a year before the 2010 opening of the Westport Road/I-264 interchange—the average daily volume was 15,600⁸. Prior to the availability of the interchange, I-264-bound traffic is assumed to have used Herr Lane to access I-264 at Brownsboro Road. While this decrease in total traffic on Herr Lane is welcomed by the residents and users of the corridor, a consequence has been a significant increase in traffic on Westport Road that backs up traffic on Herr Lane. Traffic volumes on Westport Road between Herr Lane and I-264 went from 19,600 vpd in 2008 to 36,000 in 2011—a 16,400 vpd or 84% increase. (See Appendix B.)

4.2.2 2016 Turning Movement Counts

Twelve-hour turning movement counts were collected at seven intersections in January and February 2017 using video processing equipment. Collecting data for 12 hours provided sufficient time to identify the AM and PM peak-hour volumes and school peak-hour volumes, which differ from the “commuter/rush hour” times. During “school peak hours,” traffic on mainline Herr Lane may be less than the typical AM and PM peak hours, but traffic turning to and from cross streets near the schools increases. The presence of the four schools has a notable effect on traffic in the area, and the 12-hour counts yielded valuable data for identifying and analyzing school-related traffic issues. **Table 2** presents the peak-hour volumes entering and exiting Herr Lane via the cross streets collected through this study.

⁷ <http://www.kipda.org/Transportation/TrafficCounts/>

⁸ http://datamart.business.transportation.ky.gov/EDSB_SOLUTIONS/CTS/StationDetail.aspx?STATION=056195&TF_NE_ID=27739512

Table 1: 2017 AM Peak Hour Turning Movement Volumes

	AM Peak Hour (8:00 AM – 9:00 AM) Volume / Level of Service				
	Southbound Approach	Westbound Approach	Northbound Approach	Eastbound Approach	Total
Westport Road	465 / F	1,498	349	1,267	3,579
Graymoor Road	451	n/a	458 / A	154 / D	1,063
Greenlawn Road	402 / A	124 / F	534 / A	16 / D	1,076
Crossmoor Lane	401 / A	0 / A (Wilder E.S.)	513 / A	14 / C	928
Wesboro Road	309 / B	206 / E	569	n/a	1,165
Ballard H.S.	445 / A	229 / F	551	n/a	1,225
KY 22	200	547	415 / C	554	1,716

Table 2: 2017 School Peak Hour Turning Movement Volumes

		School Peak Hour (Various Times) Volume / Level of Service				
		Southbound Approach	Westbound Approach	Northbound Approach	Eastbound Approach	Total
Graymoor Road	AM*	451	n/a	458 / A	154 / D	1,063
	PM	<u>517</u>	n/a	<u>391 / A</u>	<u>134 / D</u>	<u>1,042</u>
Crossmoor Lane	AM	<u>373 / A</u>	<u>118 / C</u>	<u>386 / A</u>	<u>6 / C</u>	<u>1,760</u>
	PM	<u>513 / A</u>	<u>86 / C</u>	<u>427 / A</u>	<u>12 / C</u>	<u>1,038</u>
Wesboro Road	AM*	309	206	569	n/a	1,165
	PM	<u>526 / A</u>	<u>120 / C</u>	<u>410</u>	n/a	<u>1,056</u>
Ballard H.S.	AM*	445	229	551	n/a	1,225
	PM	<u>516 / A</u>	<u>194 / D</u>	<u>448</u>	n/a	<u>1,158</u>

* = same as peak hour. Underlines = unique school peak hour volumes.

Table 3: 2017 AM Peak Hour Turning Movement Volumes

	PM Peak Hour (4:45 PM – 5:45 PM) Volume / Level of Service				
	Southbound Approach	Westbound Approach	Northbound Approach	Eastbound Approach	Total
Westport Road	460 / F	1,235	578	1,846	4,119
Graymoor Road	566	n/a	519 / A	69 / D	1,148
Greenlawn Road	604 / A	41 / D	587 / A	24 / D	1,256
Crossmoor Lane	584 / A	2 / B (Wilder E.S.)	505 / A	17 / D	1,106
Wesboro Road	621 / A	61 / C	460	n/a	1,142
Ballard H.S.	670 / A	44 / D	581	n/a	1,295
KY 22	417	338	505 / C	919	2,179

Section 5.0 includes peak hour traffic forecasts.

4.2.3 Traffic Operations

Traffic operations were analyzed for 2017. The measures of effectiveness/metrics used to describe traffic conditions include traffic volumes on Herr Lane and its cross streets, the volume to capacity (v/c) ratio, and the level of service (LOS).

A v/c ratio reflects the percentage of a roadway's carrying capacity currently used. In an urban area, a v/c ratio over 1.0 indicates the roadway is carrying more traffic than it is designed to carry.

The LOS represents a typical driver's perspective of traffic conditions, based on the level of perceived congestion. LOS "A" represents a free-flowing condition in which driver decisions are unaffected by other vehicles. By contrast, LOS "F" represents severe congestion in which a driver's movements are substantially constrained by surrounding traffic. **Figure 2** graphically depicts the typical traffic conditions associated with each LOS designation

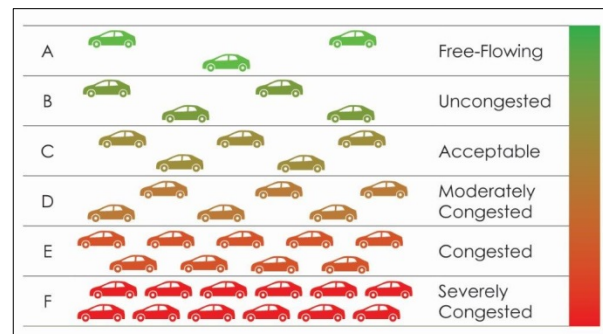


Figure 2: LOS Definition

The v/c along Herr Lane is acceptable and does not approach the 0.85 threshold for signaling the onset of potential capacity-related issues; however,

the LOS of E, is indicative of peak hour congestion and difficulty turning left onto or from Herr Lane:

- Westport Road to Graymoor Road – LOS “E”
 - AM – 0.31 – LOS “E”
 - PM – 0.42 – LOS “E”
- Graymoor Road to Crossmoor Lane
 - AM – 0.33 – LOS “E”
 - PM – 0.40 – LOS “E”
- Crossmoor Lane to KY 22
 - AM – 0.36 – LOS “E”
 - PM – 0.44 – LOS “E”

4.2.4 Field Observations

Field inspections involved spot counts, a measure of vehicles in queues at traffic signals, travel times, travel speeds, and pedestrian movement that included interviews with pedestrians and school crossing guards. This information helped traffic engineers and planners understand the actual traffic operations in the study corridor and identify realistic improvement alternatives.

4.3 Land Use

Schools: There are four schools in the study corridor: St. Albert the Great (parochial elementary school) along Graymoor Road, Wilder Elementary School (E.S.) along Herr Lane, Kammerer Middle School (M.S.) along Wesboro Road, and Ballard High School (H.S.) along Herr Lane. School traffic is a major consideration within this corridor. Therefore, school peak-hour traffic data was collected (**Table 2**) for use in identifying traffic-related improvement options near the schools.

Shopping: Two major shopping areas are at each end of the corridor—Holiday Manor at KY 22, and Westport Village at Westport Road.

Planning and Zoning: With one exception, Louisville Metro classifies the area as a “Neighborhood” Form District. The exception is the currently vacant land west of Ballard H.S. (Providence Point), which is within a “Town Center” Form District. Providence Point and the Louisville Tennis Club property are zoned “commercial/office,” and the rest of the corridor is zoned “residential.”

4.4 Drainage

Drainage is collected through ditches along the corridor, minus the short section of curb and gutter near Westport Road. An unnamed stream crosses under Herr Lane and forms a wetland on Ballard H.S. property. No notable drainage issues were identified during this planning study.



4.5 Bicycle Accommodations

No bicycle accommodations are present along Herr Lane or any study area road. The nearest bicycle lanes begin on either side of Westport Road, about 400 feet west of Herr Lane, and continue away from the study area toward St. Matthews.

4.6 Pedestrian Accommodations

A sidewalk, set back approximately 20 feet from Herr Lane, continues along the east side of the road through the study area. Along the west side is a 1,900-foot-long section of sidewalk between Graymoor Road and Crossmoor Lane. No sidewalk is present from Westport Road north to Graymoor Road, a distance of about 2,000 feet; or from Crossmoor Lane north to KY 22, along the west side of Herr Lane.



Of the cross streets, only Wesboro Road has a sidewalk. It is only on the north side of the road and provides access to Kammerer M.S.

Mid-block crossings are located at Graymoor Road near St. Albert the Great and at Wilder E.S.



4.7 Transit

Transit services exist along Herr Lane, Westport Road, and Brownsboro Road. Two routes serve Herr Lane:

- Route 15 — “Market Street”
- Express Route 49X — “Westport Express”

Eight signed bus stops are provided in both directions on Herr Lane, as are several new benches and concrete pads; however, no sheltered TARC stops are available in the area.



4.8 Known Utilities

Because overhead and underground utilities are often expensive to relocate, attempts to avoid them is often the deciding factor in choosing the location of a roadway widening. Underground and overhead utilities are along both sides of Herr Lane. These utilities are listed below. Where applicable, Corridor Study concepts that may impact the utilities are identified (e.g., “Project 0”).

- An underground **fiber optic** line is along the **east side** of Herr Lane. Fiber optic lines can be very expensive to relocate, especially if there are “splice points”; therefore, relocating this utility should be avoided if possible. Warning signs are located on the poles along the east side only; however, at KY 22 in the southwest quadrant, there are fiber optic cable warning bollards. Mapping of the fiber optic line was not obtained for this study.



- A **6” underground gas main** is along the **east side** of Herr Lane, and crosses Herr Lane five times at roadway intersections. (See mapping from LG&E in Appendix B.)
- A **16” underground water main** is located along the **east side** of Herr Lane in the north portion of the corridor (within Project 6). The water main crosses to the **west side** of

Herr Lane just south of Ballard H.S., and continues along the west side to Graymoor Road (within Project 7), then crosses to the **east side** and continues to Westport Road (within Project 1). (See mapping from LWC in Appendix B.)

- A **3-phase overhead electrical line** is located along the **west side** of Herr Lane throughout the corridor. Secondary overhead lines extend from it along side streets.



- Junction boxes for **underground phone, cable and possibly other services** are located at Glen Arbor Road (within Project 7). Mapping of these utilities was not obtained for this study. As shown in a Google Streeview image below (right), one box was being serviced by AT&T.



Source: Google Streeview

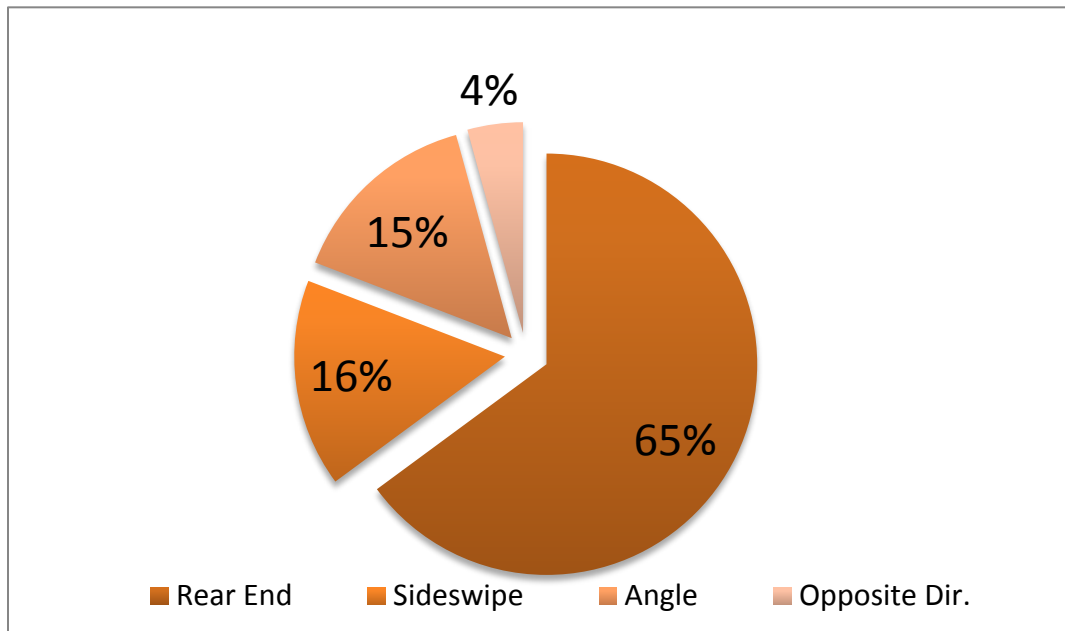
- **Stormwater drains** are located on **both sides** of the road throughout the corridor, and are linked to roadside ditches to manage drainage.
- An **underground sanitary sewer main** is located along much of the corridor as follows:
 - Between Westport Road and Graymoor Road, the sewer main is along the **west side** of Herr Lane, and three connectors to the main line (at Westport Road, Moredale Road, and Boxwood Road) extend across Herr Lane. (Project 1)
 - Between Graymoor Road and Crossmoor Lane the sewer main is generally located along the **west side**, but does transition to the **east side**, and there are five lines extending from it into the side roads and neighborhoods (Project 7).
 - Between Crossmoor Lane and Ballard H.S. property, the sewer main runs along the **west side** of Herr Lane, and a different sewer main **crosses** Herr Lane between Ballard H.S. and Paul's Fruit Market about 200 feet south of KY 22. (Project 6).

4.9 Crash History

Crashes were analyzed for a five-year period from January 1, 2011, to December 31, 2015, along Herr Lane between Westport and Brownsboro Road. The results are summarized below:

- 143 crashes occurred.
- 0 fatalities, 26 injuries, 0 pedestrian involvement were reported. Note: In 2016, a pedestrian fatality at the north end of the corridor was reported.
- 17 crashes involved more than two vehicles.
- Most crashes were rear-end, congestion-related incidents.
- From Westport Road north to just past Boxwood Road, Herr Lane has a critically high crash rate of 1.48—i.e., a rate greater than 1.0 indicates more crashes occur there than can be contributed to random occurrence. No other section of Herr Lane had a critically high crash rate (Appendix D).

Figure 3: Manner of Collision



5.0 FUTURE LAND USE AND TRAFFIC

With no future development, future traffic volumes on Herr Lane are anticipated to remain the same as the current volumes. “Background growth” is not anticipated because this area of Louisville is mostly built-out and no major roadway projects, such as a new interchange with I-264 or new major roadway connections, are anticipated.

However, there are two major proposed developments in the study area that would impact traffic on Herr Lane—(1) Providence Point adjacent to Herr Lane across from Ballard H.S., and (2) the Midlands Development, the proposed Veterans Administration (VA) Hospital site adjacent to the I-264/KY 22 interchange. The sponsors of each of those developments published a Traffic Impact Study (TIS) (see Appendix G). For this study, the future traffic scenario assumes each of these projects are built, and the traffic from them is as published in each TIS, as follows:

- **Providence Point:** In 2007 a development for the 19-acre property across from Ballard H.S. was submitted to Metro Planning and Development Services for a proposed mixed-use development of commercial, apartments, and office space. The development plan was not realized and has since expired. However, this Corridor Study assumed a development similar to Providence Point would be approved in the future; therefore, the information from the 2007 TIS was used to forecast future Herr Lane volumes. To mitigate traffic impacts, the development plan included plans for widening Herr Lane, and installing a traffic signal at the future site entrance, which is proposed to be across from the entrance to Ballard H.S. These are binding elements that must be realized as part of the rezoning approval. As such they are included as Project 6 in Section 7.0, *Alternatives Development*, and would be the responsibility of the future developer.
- **Midlands:** In 2016 the VA Hospital Environmental Impact Statement (EIS) included a TIS that forecasted future traffic from either a VA Hospital or a future mixed-use development on the same 35-acre site. The traffic volume assigned to Herr Lane for both options were nearly identical; therefore, the information from the 2016 TIS was used to forecast the future Herr Lane volumes.

As common practice, TISs forecast AM and PM peak-hour volumes rather than an average daily volume. Therefore, the future traffic volumes from both TISs were combined and then added to existing AM and PM peak-hour volumes to create the future peak-hour traffic scenario for Herr Lane.

The binding elements for Providence Point would mitigate traffic north of Wesboro Road. The traffic forecasts summarized below are for south of Wesboro Road (see Tables 1 and 3).

Table 4: Existing Plus Future Traffic on Herr Lane South of Wesboro Road

	AM		PM	
	NB	SB	NB	SB
Existing Peak-Hour Volumes (from Tables 1 and 3)	569	309	460	621
Future from Providence Point*	126	92	101	117
Future from Midlands/VA Hospital	26	16	9	63
Total New in Future Scenario	152	108	110	180
Future Peak-Hour Volumes	721	417	570	801
% increase	30%		27%	

* These volumes have been adjusted to remove “pass-by” trips, as estimated in the 2007 TIS.

These forecasts represent an average 28% growth in traffic during the peak hours, and are assumed to be through-traffic to Westport Road. These volumes would exacerbate the existing peak-hour congestion for traffic turning onto Herr Lane from the side streets, and the traffic approaching the Westport Road signalized intersection.

Westport Road Growth: One of the biggest problems for traffic on Herr Lane is negotiating the Westport Road intersection. Per the KIPDA traffic database, volumes on Westport Road are 40,900 vpd west of Herr Lane and 35,200 vpd east of Herr Lane. Some tracts of land along Westport Road have not yet been developed. The more growth that occurs along Westport Road, the more delays can be expected on Herr Lane since Westport Road is the major street and will continue to require more “green time” at the traffic signal. It is not possible to forecast exact volumes, but traffic congestion should be taken into account when development plans along Westport Road are proposed.

6.0 PUBLIC MEETINGS

6.1 Public Meeting No. 1 – February 21, 2107

On February 21, 2017, the first of two public meetings was held. Advertisements for the meeting included notifications by Metro Council District-7 and a changeable message sign along the corridor. Sixty-two people signed in at the meeting.

A presentation identified the study area and explained the transportation planning process, feedback on existing conditions and area concerns was requested, and questions were answered by Councilwoman Leet and project consultants. Exhibits illustrated existing conditions, environmental resources, traffic volumes, and crash data.

A paper-copy of a survey was distributed and then an electronic copy (via SurveyMonkey.com) was emailed to the Councilwoman's distribution list. Forty-five people returned their surveys with one or more comments, a summary of which follows:

Respondents' Comments re: Corridor Use—

- 71% live along the corridor, while another 21% live elsewhere but use the route frequently.
- 58% drive the corridor with some frequency.
- 34% walk the corridor with some frequency (daily or at least monthly)

Top Comment Themes⁹—Issues raised by more than 5 respondents:

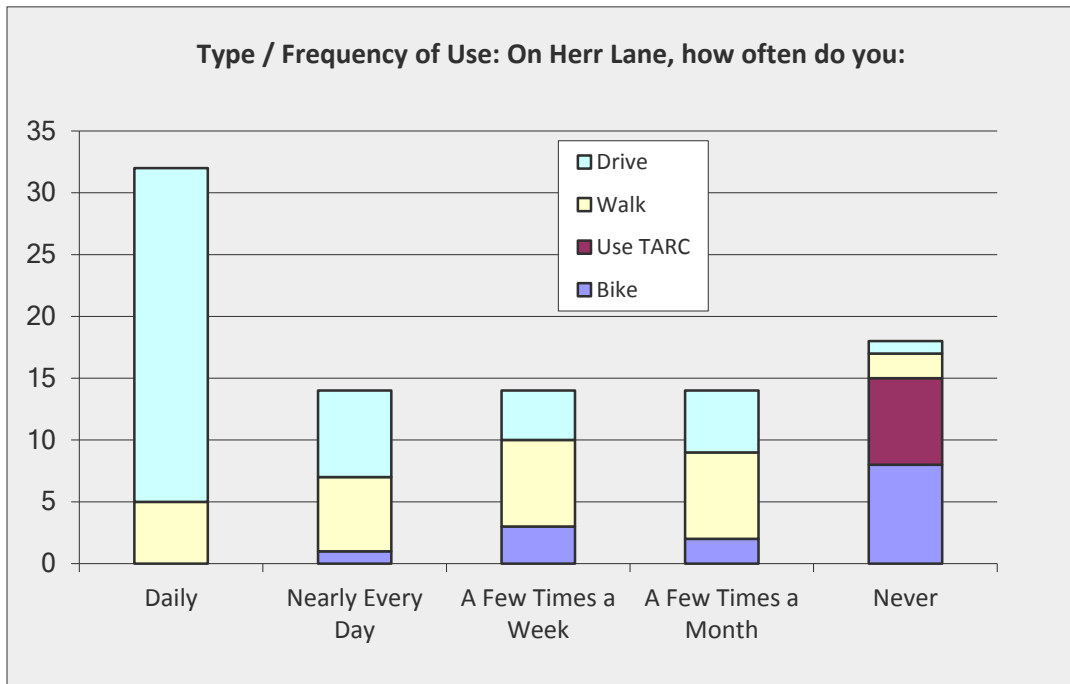
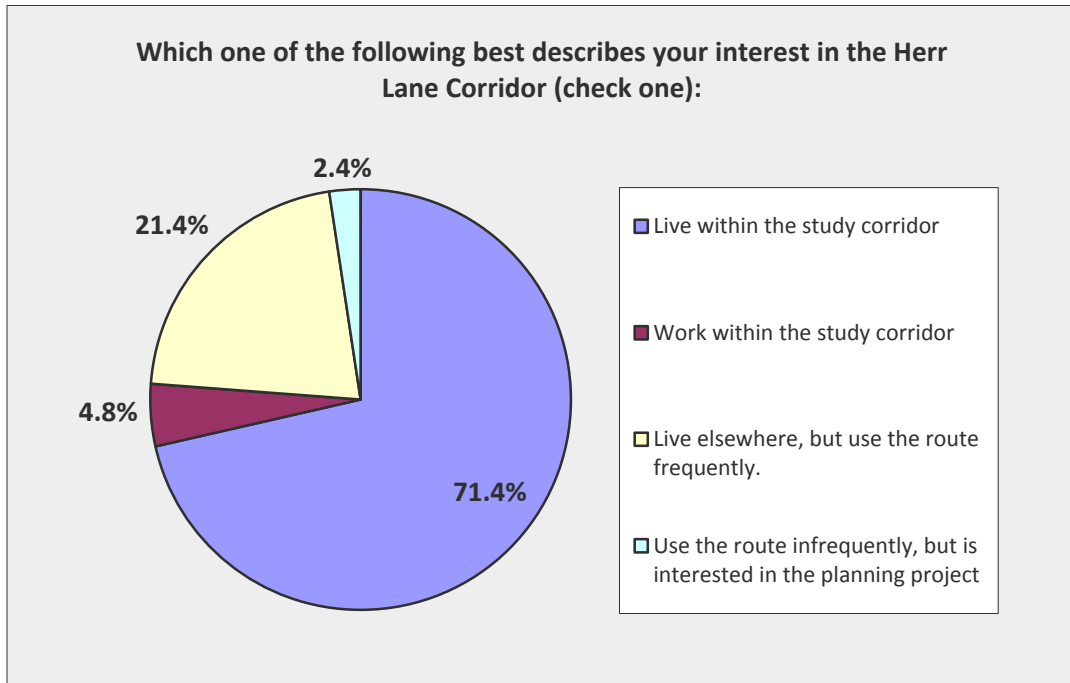
1. 32 (71%) mentioned the traffic light at Westport Road as a source of congestion that should be addressed.
2. 19 (42%) mentioned the need for improved sidewalks.
3. 17 (38%) cited the need for a two-way left-turn lane (TWLTL) along the entire Herr Lane corridor.
4. 15 (33%) mentioned the difficulty of turning left onto Herr Lane.
5. 10 (22%) noted concerns about the crosswalks.
6. 7 (15%) mentioned issues with riding a bicycle or with cyclists on the road.

The following issues received five or fewer comments: add trees and lighting, maintain vegetation to improve line of sight, add a new traffic signal at Greenlawn Road, add curb and gutter, do not add a TWLTL, make no changes to Herr Lane, install roundabouts, install traffic calming, provide better enforcement, improve stormwater management, improve KY 22 at Herr, add turn lanes at Ballard H.S., and add TARC pull-off areas.



⁹ Of the 45 respondents, the number (and percent of total) who mentioned needs/ issue of concern. Those identified as "Top Comments" were noted by more than 5 respondents. Some respondents mentioned more than one topic.

Figure 4: Public Input Summary



6.2 Public Meeting No. 2 – May 31, 2017

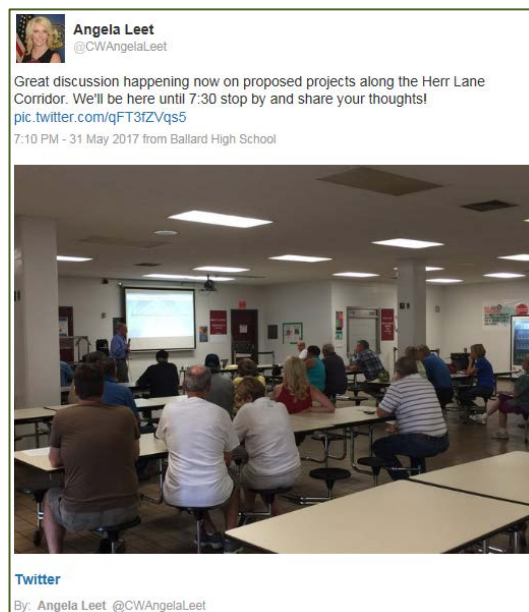
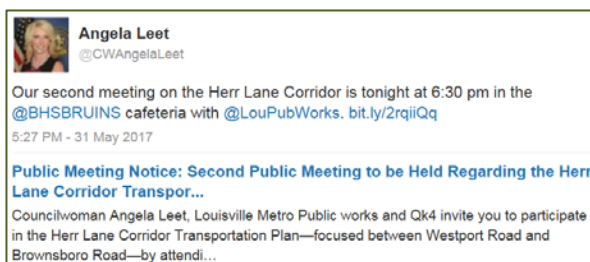
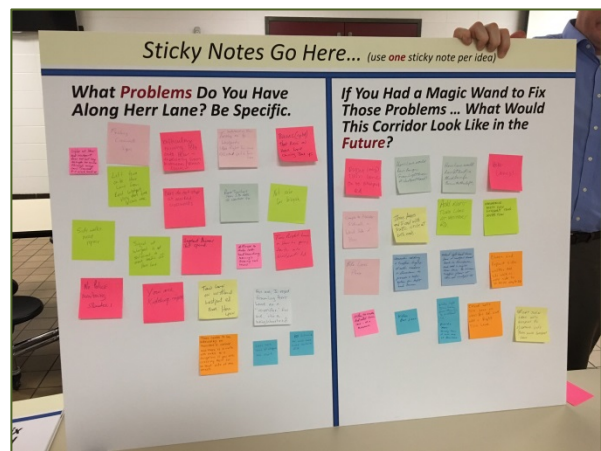
On May 31, 2017, the second public meeting was held. Advertisements for the meeting included notifications by Metro Council District-7 and a changeable message sign along the corridor. Twenty people signed in at the meeting.

The purpose was to present the set of proposed projects for improving mobility in the study area. A presentation was provided and questions were answered by Councilwoman Leet and the consultants. Images of tweets from Councilwoman Leet to promote the meeting are provided below.

A paper-copy of a survey, with the table and map from the Executive Summary, herein, were provided as a handout to describe the proposed concepts.

Comments received, which numbered fewer than 10, are summarized as follows:

- All concurred that Project 1 should be Priority 1.
- All supported sidewalks, improved crosswalks, and improved access between Kammerer M.S. and Ballard H.S.
- Some supported the neighborways¹⁰ and some raised concern about their usefulness.
- Some supported the turn lanes at Ballard H.S. (Project 6.1), others skipped the question, and none were opposed.



¹⁰ <https://louisvilleky.gov/government/bike-louisville/louisville-neighborways>

7.0 ALTERNATIVES DEVELOPMENT

7.1 Complete Streets

In the Frequently Asked Question section on their website, Smart Growth America provided the following definition of Complete Streets¹¹:

“Complete Streets are streets for everyone. They are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from train stations.”



Traditional streets converted to complete streets have been proven to reduce accidents, increase property values, increase health benefits, provide better stormwater management, increase a sense of place, reduce transportation costs, and improve air quality. Complete Street concepts were shared with the public and have been taken into consideration during the development of the alternatives presented in this planning study. They include:



¹¹ <https://smartgrowthamerica.org/program/national-complete-streets-coalition/what-are-complete-streets/>

7.2 Alternatives Considered but Not Advanced

Several alternatives identified throughout the planning process, including some from public comments, are not recommended for advancement. It is worthwhile to summarize those herein to be responsive to public comments and disclose the breadth of the decision making process undertaken.

- Re-time Traffic Signal at Westport Road and Herr Lane
 - Citing the difficulty of turning left or right onto Westport Road, this was the public's most often suggested improvement. Unfortunately for the drivers on southbound Herr Lane, no changes to the signal timing can be made due to the significant traffic volume on Westport Road and the length of time required for pedestrians to cross Westport Road. Prior to this study, the signal had been studied by Louisville Metro and the Kentucky Engineering Center at the University of Kentucky, both of which concluded the signal is operating as efficiently as possible for the high volume of vehicles through the intersection. For this Corridor Study, the 2017 traffic data collected was provided to Louisville Metro Public Work's Traffic Division for use in revisiting the issues. It was again concluded that changes to the signal timing could not be made.
- Bike Lanes
 - Bike lanes added to the outside of the travel lane are not recommended on Herr Lane for a variety of reasons. They would require a wider roadway, as there is not enough width in the current roadway to stripe a bike lane. There are numerous driveway access points, which can be hazardous to bicyclists; and there is no bicycle network, existing or planned, to connect with. (Projects 4 and 5, below, *do* address bicycle mobility in the study area, but *do not* address dedicated bike lanes.)
- Multi-Use Path
 - A multi-use path (MUP) is an 8- to 10-foot-wide concrete path intended for shared use by bicyclists and pedestrians, as is the Louisville Loop. MUPs are often built along only one side of a roadway. An MUP is not proposed along either side of Herr Lane because there is not a bicycle or trail network or a public park it could connect with; furthermore, in settings such as Herr Lane, an MUP can often have right-of-way impacts and require the removal of trees and landscaping that can increase costs and impacts to the landowners. In addition, pedestrian needs can be addressed with the existing sidewalks and by constructing new sidewalks where there are gaps.
- Mid Block Traffic Signal
 - Several public comments requested a traffic signal at Greenlawn Road or other crossroads. Based on the current traffic counts, a mid-block signal is not warranted.
- Widening Herr Lane to Four Through-Lanes
 - While several public comments requested a four-lane road, it is not warranted. The impacts of a four-lane roadway can be significant, producing a facility that is not fitting for a neighborhood setting: right-of-way requirements often remove

trees and other landscaping, reduce lot sizes, and create hazards such as those experienced when turning left onto a four-lane road.

- Do Nothing
 - At the first public meeting several public commenters requested no changes along the corridor. “Do nothing” comments are often based on anticipation that any change will be significantly different and have unacceptable impacts to residents. In fact, all of the “do nothing” comments were received before any alternatives were presented, and none were received afterward.

While the concern is understood, in the face of future land use changes and current operations that are less than desirable, lack of action is an irresponsible approach to managing public infrastructure. With the resistance to impacts being a legitimate concern, the project team has taken an incremental approach to developing low-impact projects with benefits that outweigh the costs.

Even so, doing nothing is an option, and should be carried forward for analysis purposes to compare with each of the future “build option” presented below.

7.3 Alternatives Recommended

Individual project sheets of the recommended alternatives follow. The project sheets include descriptions, project concepts, cost estimates, responsible agencies, and photos of each project. The detailed cost estimates are included Appendix E, and are subject to change as each project progresses through the development process. **Figure 4** shows the general location of each project.

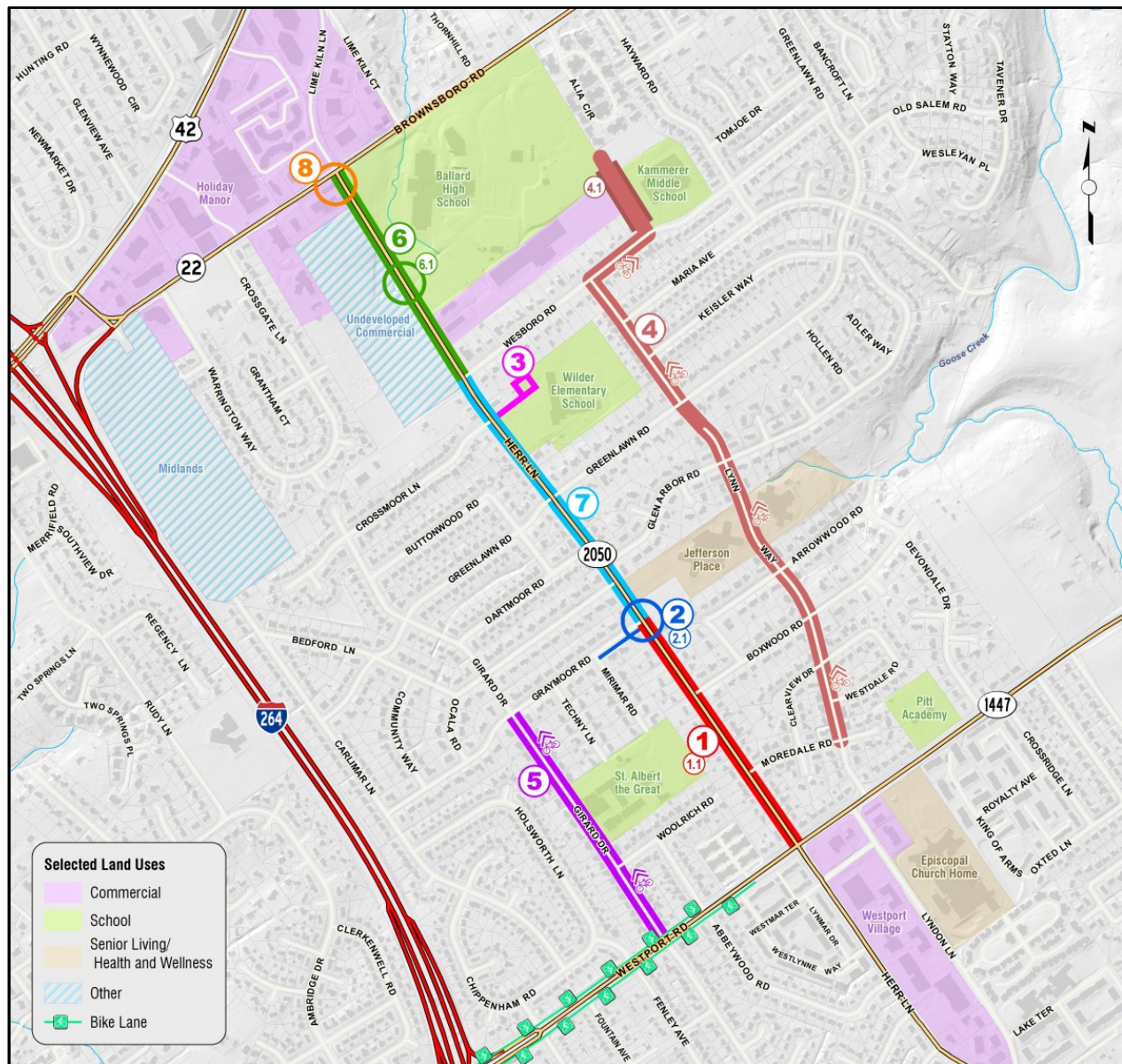
Table 5: Herr Lane Corridor Improvement Projects

Project ID ¹²	Priority	Description	Responsibility	Construction Cost Estimate
Public Funding—Louisville Metro (LM), KYTC, or Jefferson Co. Public Schools (JCPS)—Ranked by Highest to Lowest Priority:				
1	1	Herr Lane Widening – Southern Section, between Graymoor Road and Westport Road	LM/KYTC	\$1,630,000
6.1	2	Ballard High School (H.S.) Entrance	LM/KYTC	\$80,000
3	3	Wilder Elementary School (E.S.) Staging Area	LM/JPCS	\$7,000
2.1	4	Graymoor Road at Herr Lane Crosswalk	LM/KYTC	\$5,000
2	5	Graymoor Road Sidewalk	LM	\$37,000
1.1	6	Southern Section of Herr Lane, Sidewalk Only	LM/KYTC	\$100,000
4	7	Neighborway on Lynne Way to Kammerer Middle School (M.S.)	LM	\$15,000

¹² The project numbering has evolved with the development of alternatives throughout this study. Those with a “.1” are either independent subsets of or closely related to the lead number. Specifically, Project 1 would include 1.1, but should 1 not advance 1.1 could be built as in independent project (the same is true of Project 6 and 6.1); 2 and 2.1 (as well as 4 and 4.1) are closely related and could be built together or as independent phases of one project.

4.1	8	Sidewalk between Kammerer M.S. and Ballard H.S.	LM/JCPS	\$30,000
5	9	Neighborway on Girard Drive	LM	\$1,000
7	10	Herr Lane Widening – Middle Section, between Graymoor Road and Crossmoor Lane	LM/KYTC	\$1730,000
Private/Other Funding—Implement When Opportunity Occurs / Non-Prioritized:				
6	N/A	Herr Lane Widening – Northern Section, between Crossmoor Lane and Brownsboro Road, per Past Rezoning	Other	\$1,680,000
8	N/A	SW Quadrant of Herr Lane and Brownsboro Road— Close Entrances in Functional Area of Intersection	Other	N/A

Figure 5: Summary of Projects



Herr Lane from Westport Road to Brownsboro Road—Widening Herr Lane is proposed to include a three-lane section by providing a 13-foot-wide Two-Way Left-Turn Lane (TWLTL), right-turn lanes (RTL) when warranted, and sidewalks on both sides. (Turn lane warrants are included in Appendix F.) The cost estimates (Appendix E) are based on an “urban” curb and gutter system for stormwater management; however, using a “rural” grass ditch collection system, which mostly exists today, is a viable option that would reduce costs. A rural system is a valid cost effective option because (1) drainage issues were not found to be a major problem in the corridor, and (2) the existing sidewalks are on average offset about 20 feet from the road. That offset is relatively large and could provide room to add a third lane without rebuilding the existing sidewalks. Likewise, one option is to implement a hybrid design that includes curb, gutter, and new sidewalk where necessary, and using the existing ditches and sidewalks where possible. The decisions on the exact cross-section for each portion and side of Herr Lane, and if the widening would occur equally on both sides, on one side only, or a combination, would be made during the Design phase. During that phase engineers will base the decisions on utility impacts, the ability to maintain traffic during construction, drainage, constructability, and other such issues. It should be noted the proposed design of Herr Lane between KY 22 and north of Crossmoor Lane, as part of the Providence Point development, includes an urban curb and gutter section with sidewalks.

Completing the widening as a single project, with curb, gutter, and sidewalks is estimated to cost \$5.04 million (**Table 6**). If sufficient funding is not available to support that approach, this study proposes the widening proceed in three phases:


- Project 1, Priority 1—Westport Road to Graymoor Road
- Project 7, Priority 10—Graymoor Road to Crossmoor Lane
- Project 6, Private Funding/Not Prioritized—Crossmoor Lane to Brownsboro Road

Table 6: Herr Lane Widening Cost Estimates

	Project 1	Project 7	Project 6	Total
Design	\$180,000	\$180,000	\$180,000	\$540,000
Right-of-Way	\$150,000	\$150,000	\$0	\$300,000
Utilities	\$200,000	\$400,000	\$250,000	\$850,000
Construction	\$1,100,000	\$1,000,000	\$1,250,000	\$3,350,000
Totals	\$1,630,000	\$1,730,000	\$1,680,000	\$5,040,000

“Planning level,” as opposed to “engineering level,” cost estimating involves many assumptions and unknown potential expenses such as those often associated with handling underground utilities. Regarding the right-of-way costs, while it is assumed the road would be reconstructed within the existing state-owned right-of-way, there could be a need for temporary construction easements for staging areas, and/or easements for utilities. Available property mapping shows existing property lines extending to the center of Herr Lane—a common practice on older roads. To address that issue, in 2006 Kentucky passed KRS 178.025 (see Appendix A), which stipulates that, in such circumstances, the state-owned right-of-way extends to the back of the ditch, typically located 15 feet outside the edge of pavement, and the sidewalk.

Cost estimates prepared for this study were compared with past estimates from the KYTC, and updated for this study based by KYTC, but should be again revisited prior to programming..

<p>PROJECT 1 PRIORITY 1</p> <p>-----</p> <p>PROJECT 1.1 (PRIORITY 6)</p>	<p>Widen Herr Lane from Westport Road to Graymoor Road—Southern Section</p>	
	<p>Responsibility: Louisville Metro and KYTC</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div>	<p>Cost Estimate:</p> <p>Design: \$180,000</p> <p>Right-of-Way: \$150,000</p> <p>Utilities: \$200,000</p> <p>Construction: \$1,100,000</p> <p>Total: \$1,630,000</p>

Widen Herr Lane’s approach to Westport Road by providing a 300-foot-long Right-Turn Lane (RTL), extend the Left-Turn Lane (LTL) north and transition it into a Two-Way Left-Turn-Lane (TWLTL) to Crossmoor Lane, and add a sidewalk on the west side. During the Design phase, the decision would be made about which side of the road to widen and how drainage would be managed (either a curb and gutter system, a ditch system, or a hybrid).

Approximately one-third of the vehicles turn right or turn left on Westport Road from Herr Lane. Field observation identified queues backing up over 1,500 feet, resulting in an LOS of “F”, vehicles waiting through several cycles of the traffic signal, and vehicles using the opposing travel lane to access cross streets or the left turn lane. While the turn lanes are warranted now, traffic forecasts from the TISs for Providence Point and the Midlands would add approximately 180 vehicles to southbound Herr Lane, thus increasing the delay and congestion. A right-turn lane and a longer left-turn lane would provide notable benefits, although due to the large volumes on Westport Road, delays would still occur during the peak conditions for both existing and future traffic conditions.

Existing SB Turning Movements – Herr Lane at Westport Road (KY 1447):

	SB Left	SB Thru	SB Right
AM Peak	136	174	155
PM Peak	165	180	115

As show in the table below, the seconds of delay would notably decrease for the SB Right and Through movements with addition of a right turn lane, which would improve the overall delay of the intersection. The Build scenario includes traffic from the Midlands and Providence Point sites.

Existing and Future Delay, Build vs. No Build – SB Herr Lane at Westport

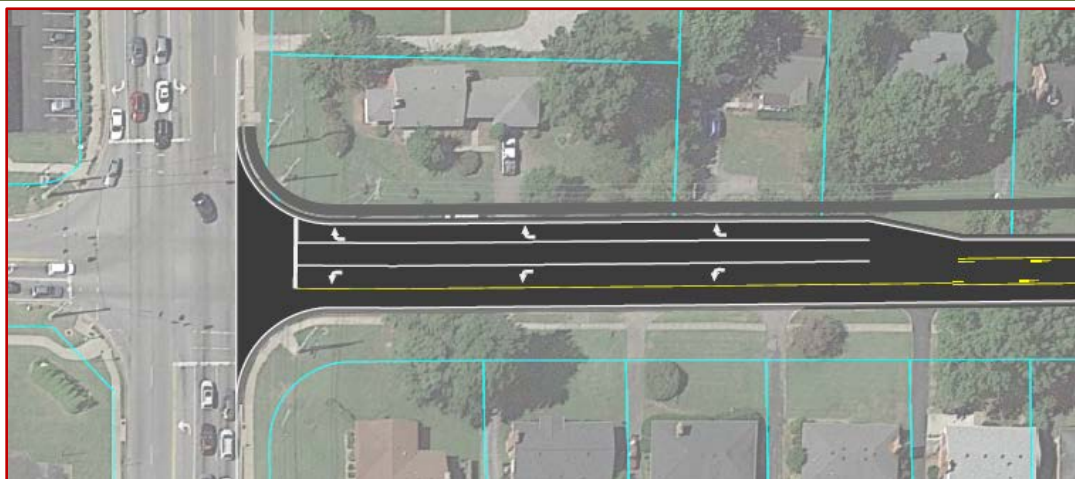
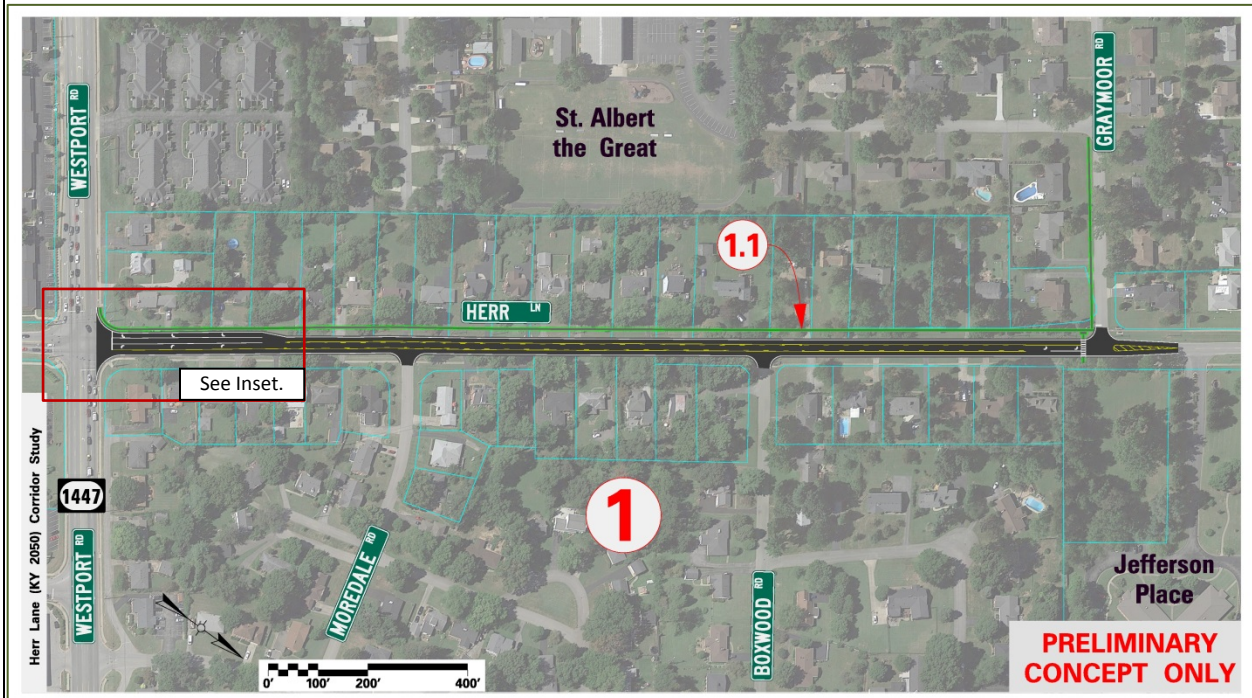
	AM Peak Hour			PM Peak Hour		
	Existing	Future No-Build	Future Build	Existing	Future No-Build	Future Build
SB Through/Right	74.8	111.9	n/a	73.5	186.4	
SB Through	n/a	n/a	49.1	n/a	n/a	45.0
SB Right	n/a	n/a	61.5	n/a	n/a	50.2
Intersection	38.2	56.6	32.6	39.4	65.9	55.2

At the north end of this project, a left turn lane is currently warranted at Graymoor Road during the AM and PM School Peak hours (but not the PM non-school peak hour).

Right-of-Way. The intent is to widen within the existing right-of-way. While some property lines in LOJIC

mapping extend to the center of Herr Lane, per KRS 178.025 the state owns to the backside of the existing drainage ditch, which is typically 15 feet from the edge of pavement. Therefore, the fee estimate provided is in anticipation of the need for either utility easements or temporary easements for construction staging, not permanent right-of-way.

Utilities. Known utilities include a fiber optic line on the east side of Herr Lane, sanitary sewer main on the west side and crossing Herr Lane three times (at Westport Road, Moredale Road, and Boxwood Road), stormwater drainage at Westport Road, a 16-inch water main on the east side, a 6-inch gas main on the east side, and an overhead three-phase electrical line on the west side.



1.1 PRIORITY 6: Sidewalk Only—Construct with Project 1 or in the near-term if Project 1 is delayed. The 1,900-foot-long sidewalk should be designed to accommodate the future roadway widening. The sidewalk could attract pedestrians to the west side of the Westport Road intersection, reducing crossings to the east side, and, thereby increasing the opportunity for vehicles to turn left from Herr Lane. The construction cost estimate is \$100,000, assuming no utility or right-of-way impacts/costs.

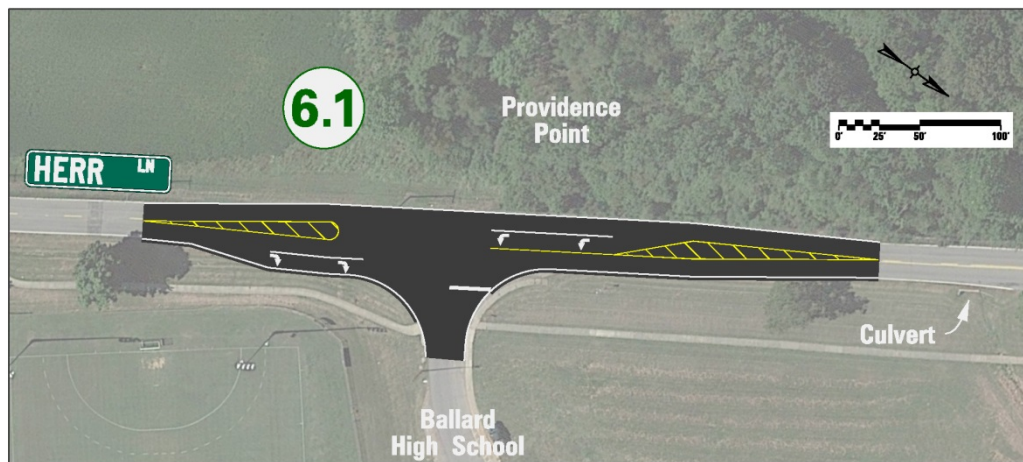
<p>PROJECT 6.1</p> <p>PRIORITY 2</p>	<p>Herr Lane at Ballard H.S. Entrance</p>	
	<p>Responsibility: Louisville Metro and KYTC</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div>	<p>Cost Estimate:</p> <p>Design: \$10,000</p> <p>Right-of-Way: \$0</p> <p>Utilities: \$20,000</p> <p>Construction: \$50,000</p> <hr/> <p>Total: \$80,000</p>

If a future development at Providence Point is not reasonably foreseeable, a LTL and a RTL into Ballard H.S. are currently warranted during the AM and PM non-school peak hours and AM and PM school hours. This intersection is approximately 900 feet south of the signal at KY 22. A signal is not warranted until Providence Point is developed.

To maintain the cost estimate, avoid impacting the culvert under Herr Lane by tapering reconstruction to the north into the existing roadway before reaching the culvert.



Utilities. Known utilities include a fiber optic line on the east side, a 6-inch gas main on the east side, a 16-inch water main on the east side, and an overhead three-phase electrical line on the west side. Impacts to these utilities are not known and could be avoided.

This project would improve traffic flow on Herr Lane, but would be a negligible improvement for the operations for Ballard H.S.

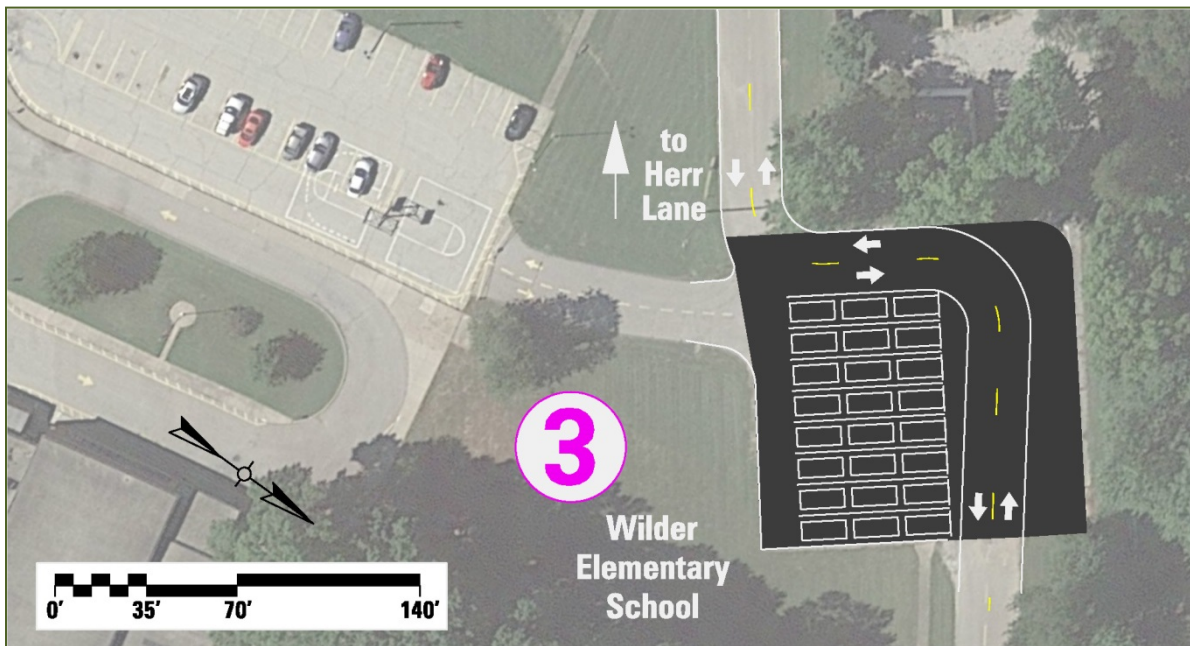


Existing Turning Movements for School Peak Hour Traffic:

	NB Thru	NB Right	WB Right	WB Left	SB Thru	SB Left
AM Peak	335	216	140	89	319	126
PM Peak	398	50	100	94	475	41

<p>PROJECT 3</p> <p>PRIORITY 3</p>	<p>Wilder Elementary School Parking</p>										
	<p>Responsibility: Louisville Metro and JCPS</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div>	<p>Cost Estimate:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Design:</td> <td style="text-align: right; padding: 2px;">\$0</td> </tr> <tr> <td style="padding: 2px;">Right-of-Way:</td> <td style="text-align: right; padding: 2px;">\$0</td> </tr> <tr> <td style="padding: 2px;">Utilities:</td> <td style="text-align: right; padding: 2px;">\$0</td> </tr> <tr> <td style="padding: 2px;">Construction:</td> <td style="text-align: right; padding: 2px; border-top: 1px solid black;">\$7,000</td> </tr> <tr> <td style="padding: 2px;">Total:</td> <td style="text-align: right; padding: 2px;">\$7,000</td> </tr> </table>	Design:	\$0	Right-of-Way:	\$0	Utilities:	\$0	Construction:	\$7,000	Total:
Design:	\$0										
Right-of-Way:	\$0										
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Construction:	\$7,000										
Total:	\$7,000										

Improve “car-rider” storage capacity at Wilder E.S. to reduce the likelihood of vehicles stopping on Herr Lane to drop off/pick up school children. While other options were considered, this is the lowest-cost scenario because it would require no new asphalt or construction. Adding black sealcoat over the existing asphalt before restriping is recommended. The proposed scenario could provide for up to 24 vehicles, plus stacking on the driveway, if needed.

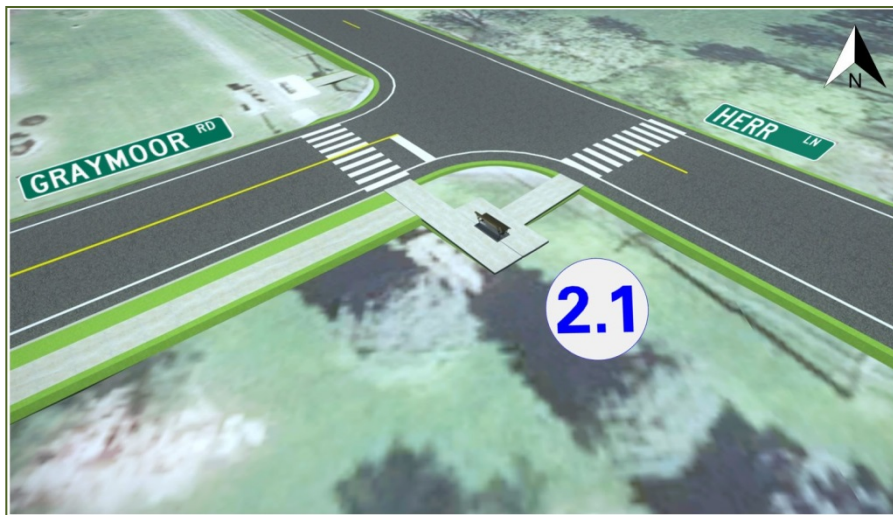



Crosswalk at Graymoor Road												
<p>PROJECT 2.1</p> <p>PRIORITY 4</p>	Responsibility: Louisville Metro and KYTC	<p>Cost Estimate:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Design:</td> <td style="text-align: right; padding: 2px;">\$0</td> </tr> <tr> <td style="padding: 2px;">Right-of-Way:</td> <td style="text-align: right; padding: 2px;">\$0</td> </tr> <tr> <td style="padding: 2px;">Utilities:</td> <td style="text-align: right; padding: 2px;">\$0</td> </tr> <tr> <td style="padding: 2px;">Construction:</td> <td style="text-align: right; padding: 2px;"><u>\$5,000</u></td> </tr> <tr> <td style="padding: 2px;">Total:</td> <td style="text-align: right; padding: 2px;">\$5,000</td> </tr> </table>	Design:	\$0	Right-of-Way:	\$0	Utilities:	\$0	Construction:	<u>\$5,000</u>	Total:	\$5,000
	Design:	\$0										
Right-of-Way:	\$0											
Utilities:	\$0											
Construction:	<u>\$5,000</u>											
Total:	\$5,000											
 												

Shift the crosswalk to the south side of the Herr Lane/Graymoor Road intersection, and build a new concrete landing in the southwest quadrant.

This would better serve the pedestrians heading to/from St. Albert the Great elementary school by keeping the pedestrians on the south side of Graymoor Road. Also, in the AM more vehicles are turning to/from the north than the south (92 and 88 vs. 62 and 53, respectively). Placing the crosswalk to the south would reduce vehicle/pedestrian conflicts.

Project 2 is to provide a sidewalk along Graymoor Road west for one block. If funding for that project is delayed, Project 2.1 could be implemented as a standalone project. If Project 1 (widening Herr Lane from Graymoor Road south) is delayed, this project could also be implemented prior to that widening.



<p>PROJECT 2</p> <p>PRIORITY 5</p>	<p>Sidewalk along South Side of Graymoor Road</p>										
	<p>Responsibility: Louisville Metro</p> 	<p>Cost Estimate:</p> <table border="0"> <tr> <td>Design:</td> <td style="text-align: right;">\$0</td> </tr> <tr> <td>Right-of-Way:</td> <td style="text-align: right;">\$0</td> </tr> <tr> <td>Utilities:</td> <td style="text-align: right;">\$0</td> </tr> <tr> <td>Construction:</td> <td style="text-align: right;"><u>\$37,000</u></td> </tr> <tr> <td>Total:</td> <td style="text-align: right;">\$37,000</td> </tr> </table>	Design:	\$0	Right-of-Way:	\$0	Utilities:	\$0	Construction:	<u>\$37,000</u>	Total:
Design:	\$0										
Right-of-Way:	\$0										
Utilities:	\$0										
Construction:	<u>\$37,000</u>										
Total:	\$37,000										

Provide a 5-foot-wide sidewalk along the south side of Graymoor Road from Herr Lane west approximately 425 feet to Mirimar Road.

This would better serve the school-age pedestrian traffic heading to/from St. Albert the Great elementary school by keeping the pedestrians on the south side of Graymoor Road.



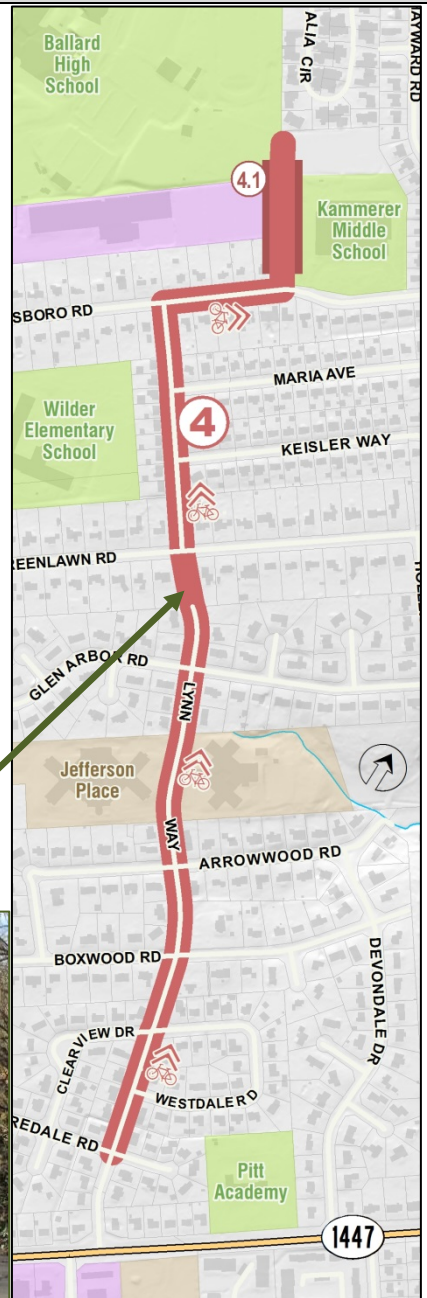
<p>PROJECT 4</p> <p>PRIORITY 7</p>	<p>Neighborway on Lynn Lane to Kammerer M.S. and Ballard H.S.</p>										
	<p>Responsibility: Louisville Metro</p> 	<p>Cost Estimate:</p> <table border="0"> <tr> <td>Design:</td> <td style="text-align: right;">\$0</td> </tr> <tr> <td>Right-of-Way:</td> <td style="text-align: right;">\$0</td> </tr> <tr> <td>Utilities:</td> <td style="text-align: right;">\$0</td> </tr> <tr> <td><u>Construction:</u></td> <td style="text-align: right;"><u>\$15,000</u></td> </tr> <tr> <td>Total:</td> <td style="text-align: right;">\$15,000</td> </tr> </table>	Design:	\$0	Right-of-Way:	\$0	Utilities:	\$0	<u>Construction:</u>	<u>\$15,000</u>	Total:
Design:	\$0										
Right-of-Way:	\$0										
Utilities:	\$0										
<u>Construction:</u>	<u>\$15,000</u>										
Total:	\$15,000										



Install “neighborways” on Lynn Way east of Herr Lane. This would connect to Wilder E.S. (via an existing sidewalk), Kammerer M.S. (via Wesboro Road), and Ballard H.S. (with Project 4.1, an improved connection between the two schools). The intent of this project is to reduce traffic demand on Herr Lane and increase active transportation for school-aged children and others.



Based on public input, when school lets out at Wilder Elementary school, parents park along Lynn Way to receive the children who access the school via the sidewalk. This raises a mobility and safety issue that should be addressed through local enforcement.


In order to create a continuous north-south connection between Glen Arbor Road and Greenlawn Road, a 240-foot long 5-foot-wide sidewalk (no vehicles) would need to be constructed. At present, this 240-foot section is public-owned right-of-way but is grass and fenced off to block vehicle traffic, as shown in the picture below. A 5-foot sidewalk was selected over a 10-foot paved path to reduce costs. It was agreed by the project team a 5-foot wide path would meet the need since it is only 240-feet long.



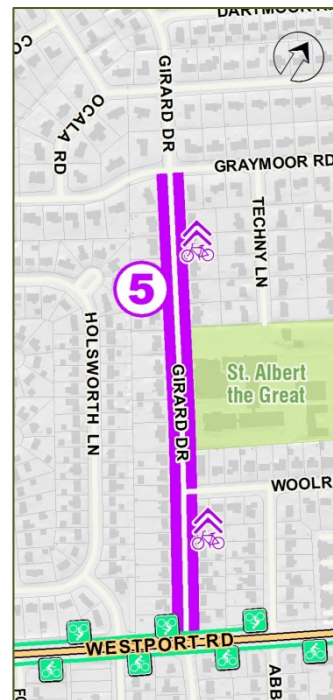
PROJECT 4.1 PRIORITY 8	Sidewalk between Kammerer M.S. and Ballard H.S.	
	Responsibility: Louisville Metro and JCPS  	Cost Estimate: Design: \$0 Right-of-Way: \$0 Utilities: \$0 Construction: \$5,000 Total: \$5,000 (for 100-foot long sidewalk)

Project 4.1 can be implemented with or without Project 4. This project includes constructing a sidewalk between Kammerer M.S. and Ballard H.S. The most cost effective option would be to tie into the existing parking lot at the M.S. and the sidewalk behind the baseball fields at Ballard H.S. (100-foot long, for about \$5,000). A more costly, yet safer option would be to construct a new sidewalk on Kammerer M.S. property outside the parking area, south to Wesboro Road (600-foot long, for about \$30,000).



<p>PROJECT 5</p> <p>PRIORITY 9</p>	<p>Neighborway on Girard Drive</p>										
	<p>Responsibility: Louisville Metro</p> 	<p>Cost Estimate:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding-left: 20px;">Design:</td> <td style="text-align: right;">\$0</td> </tr> <tr> <td style="padding-left: 20px;">Right-of-Way:</td> <td style="text-align: right;">\$0</td> </tr> <tr> <td style="padding-left: 20px;">Utilities:</td> <td style="text-align: right;">\$0</td> </tr> <tr> <td style="padding-left: 20px;">Construction:</td> <td style="text-align: right; border-bottom: 1px solid black;">\$1,000</td> </tr> <tr> <td style="padding-left: 20px;">Total:</td> <td style="text-align: right;">\$1,000</td> </tr> </table>	Design:	\$0	Right-of-Way:	\$0	Utilities:	\$0	Construction:	\$1,000	Total:
Design:	\$0										
Right-of-Way:	\$0										
Utilities:	\$0										
Construction:	\$1,000										
Total:	\$1,000										

Install “neighborways” on Girard Drive to connect the existing bike lanes on Westport Road north to Graymoor Road, in front of St. Albert The Great school.



<p>PROJECT 7</p> <p>PRIORITY 10</p>	<p>Widen Herr Lane from Graymoor Road to Wesboro Road—Middle Section</p>										
	<p>Responsibility: Louisville Metro and KYTC</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div>	<p>Cost Estimate:</p> <table border="0"> <tr> <td>Design:</td> <td style="text-align: right;">\$150,000</td> </tr> <tr> <td>Right-of-Way:</td> <td style="text-align: right;">\$150,000</td> </tr> <tr> <td>Utilities:</td> <td style="text-align: right;">\$350,000</td> </tr> <tr> <td><u>Construction:</u></td> <td style="text-align: right;"><u>\$900,000</u></td> </tr> <tr> <td>Total:</td> <td style="text-align: right;">\$1,550,000</td> </tr> </table>	Design:	\$150,000	Right-of-Way:	\$150,000	Utilities:	\$350,000	<u>Construction:</u>	<u>\$900,000</u>	Total:
Design:	\$150,000										
Right-of-Way:	\$150,000										
Utilities:	\$350,000										
<u>Construction:</u>	<u>\$900,000</u>										
Total:	\$1,550,000										

Widen Herr Lane by providing a TWLTL between Graymoor Road and Wesboro Road. Sidewalks exist on both sides of Herr Lane in this section, which should either be left in place or rebuilt as part of this project. During the Design phase, the decision would be made about which side of the road to widen and how drainage would be managed (either curb and gutter system, a ditch system, or a hybrid).

Timing. If Herr Lane is not widened at once but rather prioritized, widening this section of Herr Lane is the lowest priority among the projects. It is anticipated to occur after the sections to the south (Project 1) and north (Project 6) are completed. In this middle section a LTL is currently warranted at only one location for one movement—Greenlawn Road southbound. If the Midlands site and Providence Point develop as previously planned, a LTL would be warranted at Crossmoor Lane, and is anticipated to be warranted at other intersections in this middle section. KYTC and Louisville Metro should monitor traffic in the future to identify when a TWLTL is warranted throughout the corridor.

Right-of-Way. The widening should be within the existing right-of-way. The fee estimate is provided in anticipation of the need for easements, either temporary for construction staging or utility easements, not permanent right-of-way. The need for such will be determined during final design.

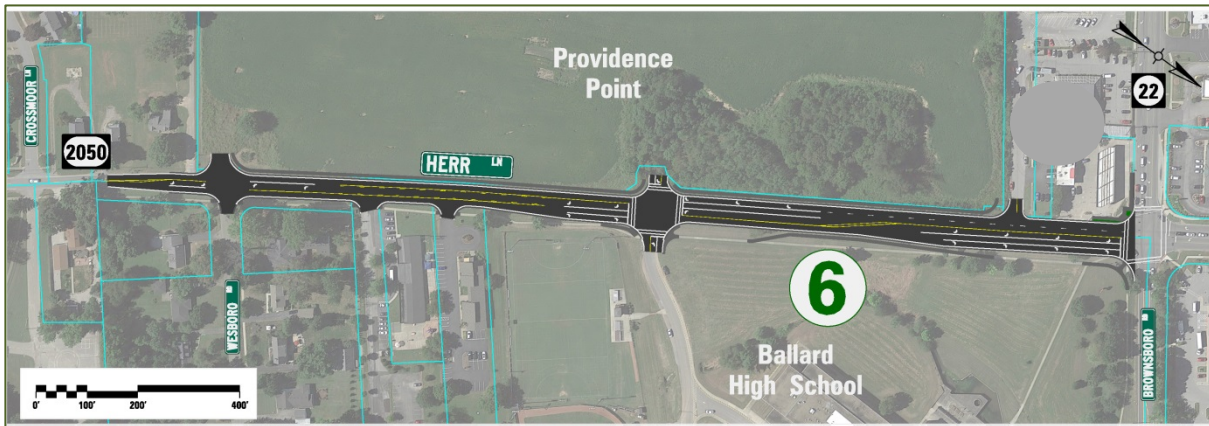
Utilities. Known utilities include a fiber optic line on the east side, sanitary sewer main on the west side and crossing Herr Lane three times (at Glen Arbor Road, Greenlawn Road, and Wesboro Road), a 16-inch water main on the east side, a 6-inch gas main on the east side, and an overhead three-phase electrical line on the west side.




<p>PROJECT 6</p> <p>PRIORITY N/A Required with Providence Point</p>	<p>Widen Herr Lane from Wesboro Road to Brownsboro Road—Northern Section</p>										
	<p>Responsibility: Louisville Metro and KYTC (for project oversight)</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div>	<p>Cost Estimate:</p> <table border="0"> <tr> <td>Design:</td> <td style="text-align: right;">\$150,000</td> </tr> <tr> <td>Right-of-Way:</td> <td style="text-align: right;">\$0</td> </tr> <tr> <td>Utilities:</td> <td style="text-align: right;">\$250,000</td> </tr> <tr> <td>Construction:</td> <td style="text-align: right;"><u>\$1,100,000</u></td> </tr> <tr> <td>Total:</td> <td style="text-align: right;">\$1,500,000</td> </tr> </table>	Design:	\$150,000	Right-of-Way:	\$0	Utilities:	\$250,000	Construction:	<u>\$1,100,000</u>	Total:
Design:	\$150,000										
Right-of-Way:	\$0										
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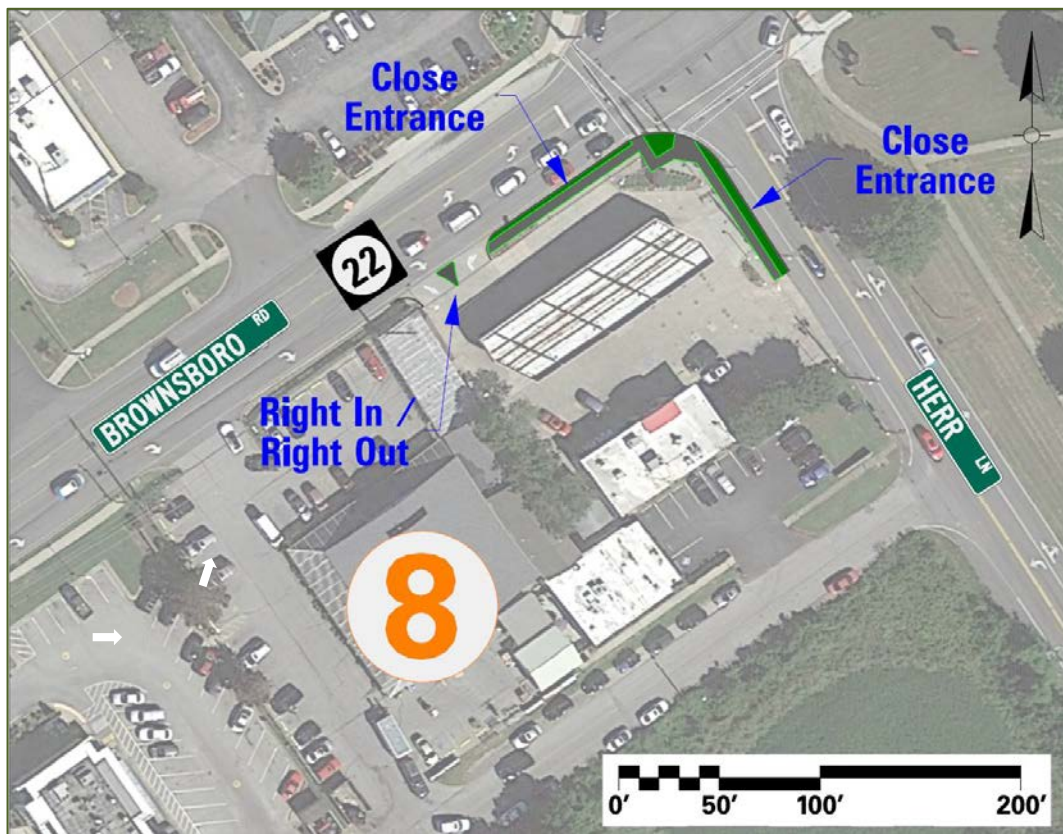
This project is a binding element attached to the rezoning for the Providence Point development. The approved plan includes a three-lane section (four lanes at intersections), a new traffic signal at Ballard H.S., sidewalks, two TARC-stop shelters, curb, gutter, and on-site drainage facilities to avoid the costly expense of extending the culvert under Herr Lane.

The responsibility for this construction would be the developer of Providence Point.

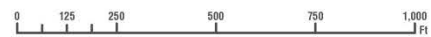


PROJECT 8 PRIORITY N/A To be required with building application	Northwest Quadrant of KY 22 and Herr Lane — Close Two of Four Entrances, Replace with Sidewalks	
	Responsibility: Louisville Metro 	Cost Estimate: N/A

If/when development is proposed on the site of a former gas station in the southwest quadrant of the KY 22 /Herr Lane intersection, require closure of the site's northernmost access on Herr Lane and easternmost access on KY 22 to remove those entrances from the functioning area of the intersection, extend the sidewalk west along KY 22 and south along Herr Lane, and consider a right-in/right-out only access along KY 22.



Traffic and Accident Data



**Herr Lane Corridor
Transportation Study
Exhibit 1**

Other Corridor Details

