

Appendix G : Meeting Summaries

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Grayson Small Urban Area Study Carter County



Project Team Meeting No. 1 FIVCO ADD Board Room July 8, 2016 10:00 AM

Project: Grayson Small Urban Area Study (SUA)
Purpose: Project Team Meeting No. 1
Place: FIVCO Area Development District – Grayson
Meeting Date: July 8, 2016; 10:00 AM
Prepared By: Tom Springer

Attendees:

Joe Callahan	KYTC D9 Planning	606.845.2551	joe.callahan@ky.gov
Jeremy Brickey	KYTC D9 Grayson Section	606.474.5721	jeremy.brickey@ky.gov
Jason Dean	KYTC D9 Ashland Section	606.920.2057	jason.dean@ky.gov
Deanna Mills	KYTC CO Planning	502.782.5085	deanna.mills@ky.gov
Mikael Pelfrey	KYTC CO Planning	502.782.5073	mikael.pelfrey@ky.gov
Scott Thomson	KYTC CO Planning	502.782.5086	scott.thomson@ky.gov
Eric Patton	FIVCO ADD	606.929.1366	eric@fivco.org
Kelly Ward	FIVCO ADD	606.929.1366	kelly@fivco.org
Tom Springer	Qk4, Inc.	502.585.2222	tspringer@qk4.com
Jeremiah Littleton	Qk4, Inc.	606.261.0684	jlittleton@qk4.com
Annette Coffey	Qk4, Inc.	502.352.2197	acoffey@qk4.com
Andy Gilley	Qk4, Inc.	502.585.2222	agilley@qk4.com

Introductions. Joe Callahan mentioned his conversations with Mayor Steele of Grayson and County Judge/Executive Malone, who both noted a recent planning study has not been completed for Grayson.

Study and Project Purpose. Annette Coffey reminded everyone the Grayson SUA Study is to identify and examine transportation issues related to safety and congestion in the defined study area centered on Grayson. The SUA will focus on short- and long-term improvements and concerns by examining future transportation needs. Options for future improvement projects will be developed that the Kentucky Transportation Cabinet (KYTC), the City of Grayson, Carter County, and/or private developers can take for further project development and implementation.

Project Schedule. The study began with a notice to proceed on May 11, 2016, and has the following schedule.



Existing Conditions. Annette gave a presentation of existing conditions. Each project team member was given the following handouts:

- Crashes
- Current Levels of Service (LOS)
- Environmental Overview
- Existing Conditions Review
- Field Review

The presentation is included as Attachment A, and the handouts are Attachment B.

To date, turn-movement data has been collected at key intersections; mapped and described the Project Identification Form (PIF) and 2016 Highway Plan projects. Mikael requested PIFs and other potential projects be considered in the prioritization process. Joe noted the Carter County High School project (PIF 09 022 D0001 45.80) was included in District 9's Transportation Plan (DTP). Qk4 will meet with Scott Thomson/Jay Balaji to discuss what priority projects to include in the future year traffic modeling.

Functional classifications, truck routes, lane widths, shoulder widths, structures (identifying those structurally deficient, functionally obsolete, and their corresponding sufficiency ratings), crashes, and potential high crash locations have been collected and mapped. Scott requested shape files of these conditions.

Using the Kentucky Transportation Center's methodology¹ for crashes between January 1, 2013 and December 31, 2015, fourteen (14) 0.1-mile spot locations were determined statistically

¹ Research Report KTC -15-21/KSP2-13-1F

significant, indicating crashes may not be occurring at random. Due to the large number of crashes, the following intersection crash report comments were reviewed for patterns:

- KY 1/KY 7/US 60
- KY 1947/CW Stevens Boulevard/KY 1
- US 60/Old Town Branch Road/Powers Street
- US 60/KY 3297
- KY 7/KY 773

Of particular note, KY 1 between US 60 and KY 9 had multiple 0.1 mile crash spot locations of concern. Those patterns are listed in the presentation.

Environmental Overview. Grayson is called the “Heart of the Parks,” identifying its location between Greenbo Lake State Park to the north and Grayson Lake State Park to the south. A literature search supplemented by a limited field review identified numerous churches, schools, and cemeteries; a public library, senior citizen center, medical facilities, and water wells. These and other community resources are located on the Environmental Overview handout. The Little Sandy River floods in many areas and will be a key issue with any proposed improvement. Historic markers and parks were identified as concerns. Five federally threatened or endangered species are common to Carter County. The socioeconomic review, conducted by FIVCO, identified disadvantaged populations that should be considered as improvements are recommended and implemented. The geological overview revealed shale and limestone as the common strata. In the study area there are coal seams and a fault; limited prime farmland; pipelines and transmission lines; and 39 underground storage tanks.

Traffic and Operational Performance. As shown in the Current Levels of Service (LOS) handout, a few areas on KY 1 and US 60 operate at LOS D and E. For KY 1, each signal will be analyzed to identify the need for low-cost improvement options. Scott explained the need to have the local officials/stakeholders identify the locations of new schools, hospitals, subdivision expansions, etc. According to the Kentucky Cabinet for Economic Development, the Smithfield plant is the only top-20 major industry in the Grayson study area that would be considered a major freight generator.

Scott requested Qk4 obtain the volume of heavy trucks in the corridor (this has been provided to Jay Balaji, KYTC Central Office Planning). The Smithfield plant will be provided a questionnaire to complete regarding plant expansion and truck data. Scott noted the two truck stops along KY 1 would possibly be considered a major truck generator. KYTC Central Office Planning will utilize the District 9 traffic model to determine a growth rate and future volumes for the study area. The model has eight (8) Kentucky counties (excluding Nicholas and Bath counties in District 9) and three (3) Ohio counties; and includes four times of day: (1) 6–9 AM, (2) 9–3 PM, (3) 3–6 PM, and (4) 6 PM–6 AM. The output is dependent on how well jobs and housing are predicted. Maps of the study area illustrating the locations of 4,219 jobs for 2015, 2015-2040 Change in Jobs (1,374 new), and the 2040 Change in Number of Homes (415) will be shown to

local officials/stakeholders for validation or identification of new growth areas by 2040. KYTC District 9 staff said a 100-bed rehabilitation facility, Shoney's (re-opening), and a Stake-n-Shake are planned along CW Stevens Boulevard.

The Existing Conditions Review handout showed locations of concern including: lane widths 9 feet or less, shoulders less than 5 feet, sharp curves, steep grades, route segments with LOS D, E, or F, and structurally deficient or functionally obsolete structures. Additional locations that may be of concern were identified through a field review and shown on the field review handout.

Discussion. The following were identified as a result of project team discussion.

- An advance warning sign is needed at the US 60/KY 1947 intersection.
- Mikael Pelfrey stated that new or improved sidewalks could be improvement options as they can reduce congestion. FIVCO staff has identified all road centerlines with sidewalks; however, they are not spatially located with an offset. The shapefiles will be provided to Qk4.
- KY 1910 has narrow lane and shoulder widths, substandard curves, slope stability issues, flooding problems, and a less than desirable grade near the intersection with KY 3297.

Next Steps. Mikael will help determine the prioritization effort later in the study process. He will provide examples for consideration by the project team.

Local Official/Stakeholders Meeting Discussion. The local officials/stakeholders meeting at 1:30 p.m. will be similar to the project team meeting, and will involve break-out groups with prompted questions to identify potential new freight generators, areas of future growth/expansion, issues of concern, and options for improvements.



GRAYSON SMALL URBAN AREA STUDY

PROJECT TEAM AND LOCAL OFFICIALS/STAKEHOLDERS MEETING 1
JULY 8, 2016

STUDY PURPOSE

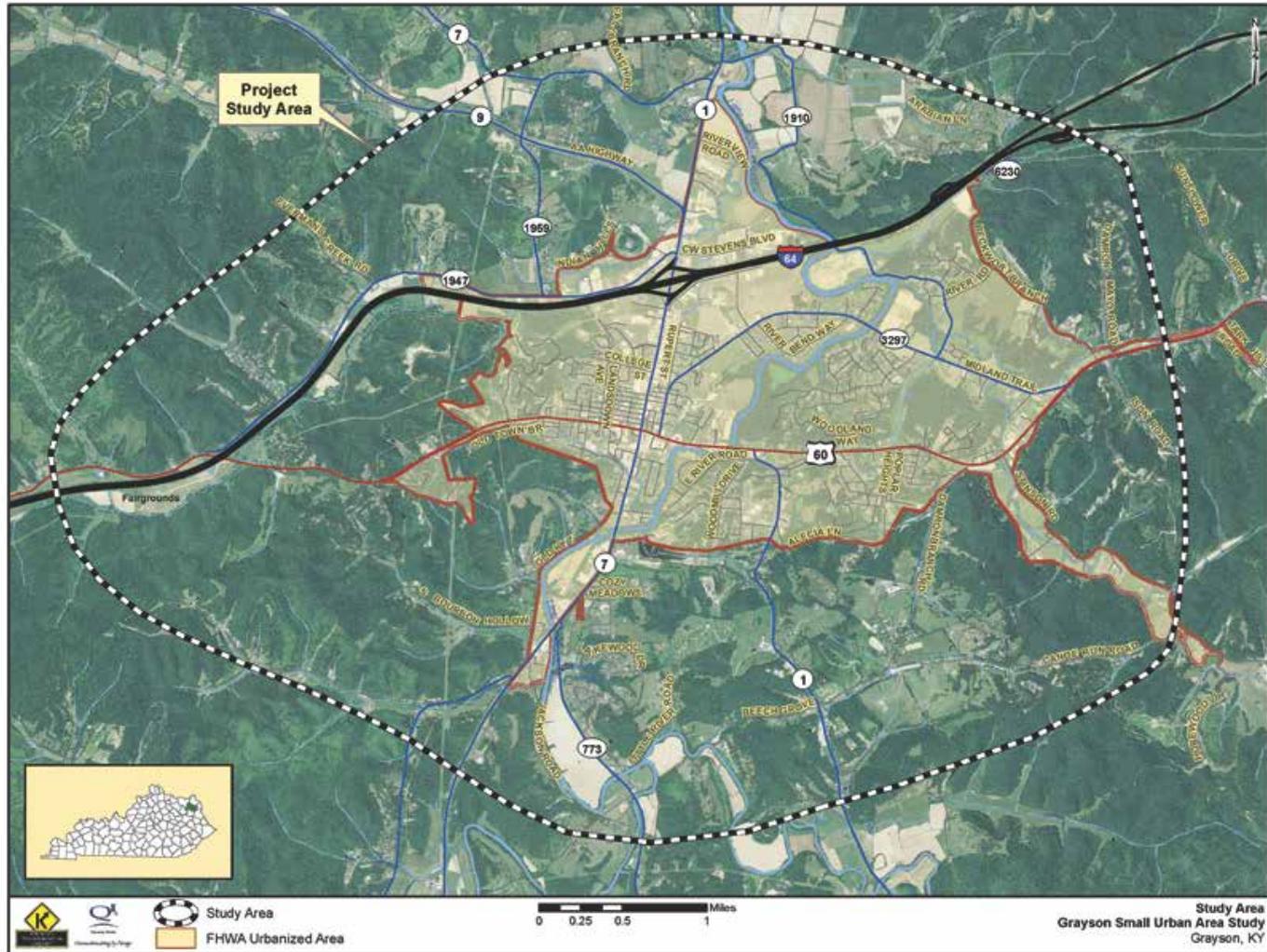
- § Evaluate existing conditions, crash history, and geometric deficiencies to identify possible safety improvements.
- § Evaluate capacity needs of the identified transportation network.
- § Develop a list of short-term recommendations that KYTC, the City of Grayson, Carter County, and/or private developers can take for further project development and implementation.
- § Examine the future transportation needs and determine options for future improvement projects.



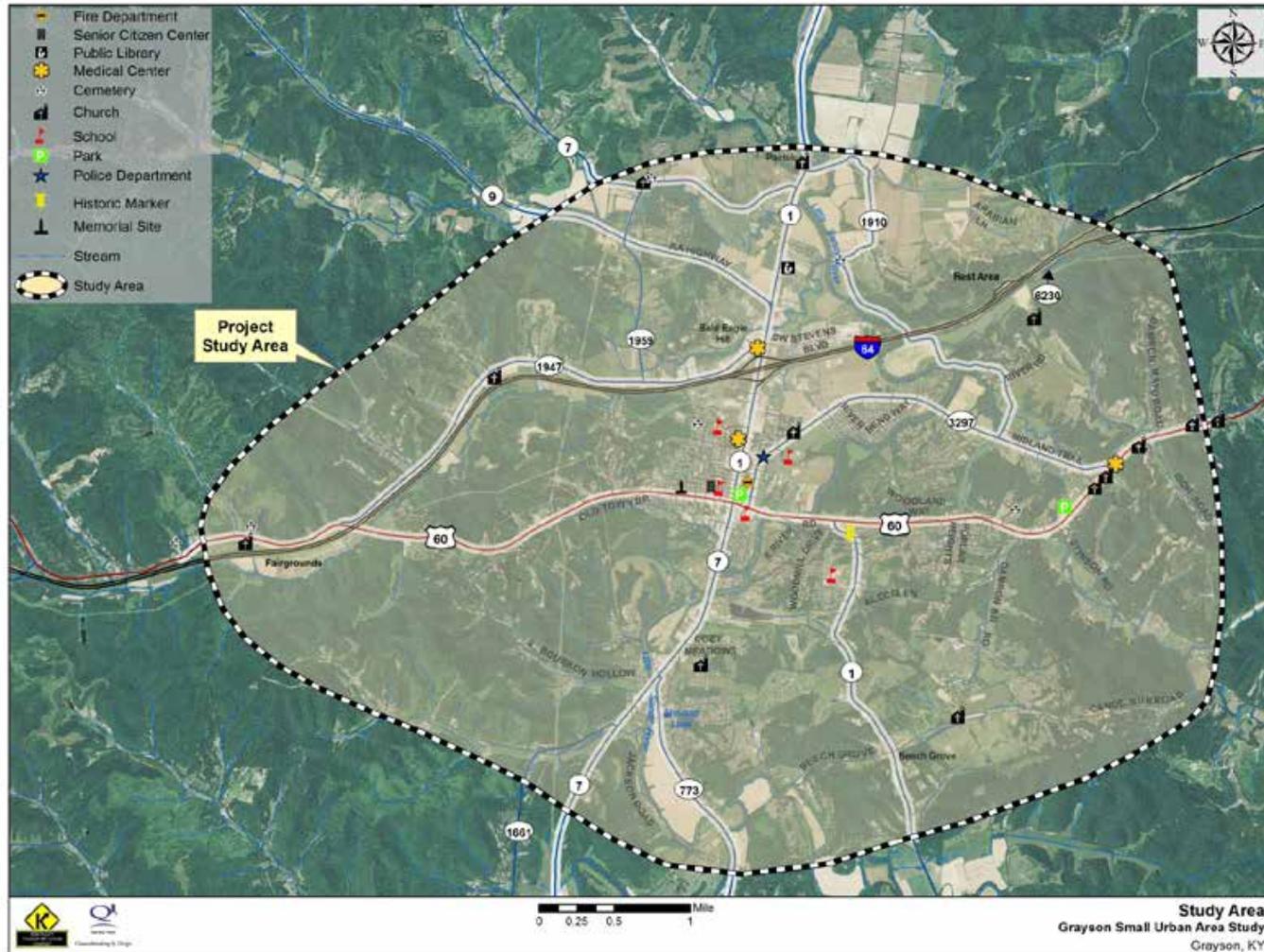
STUDY SCHEDULE



GRAYSON SMALL URBAN AREA STUDY



ROUTES TO ASSESS

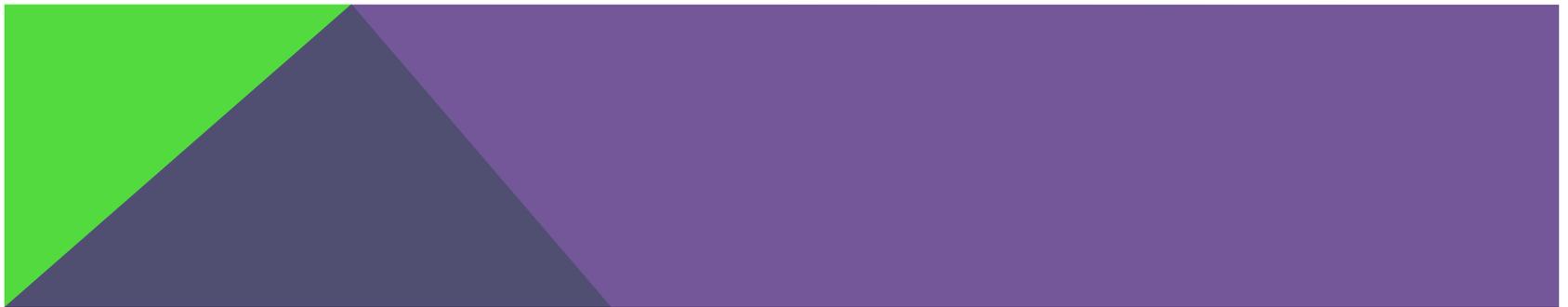


INTERSECTION TRAFFIC COUNTS

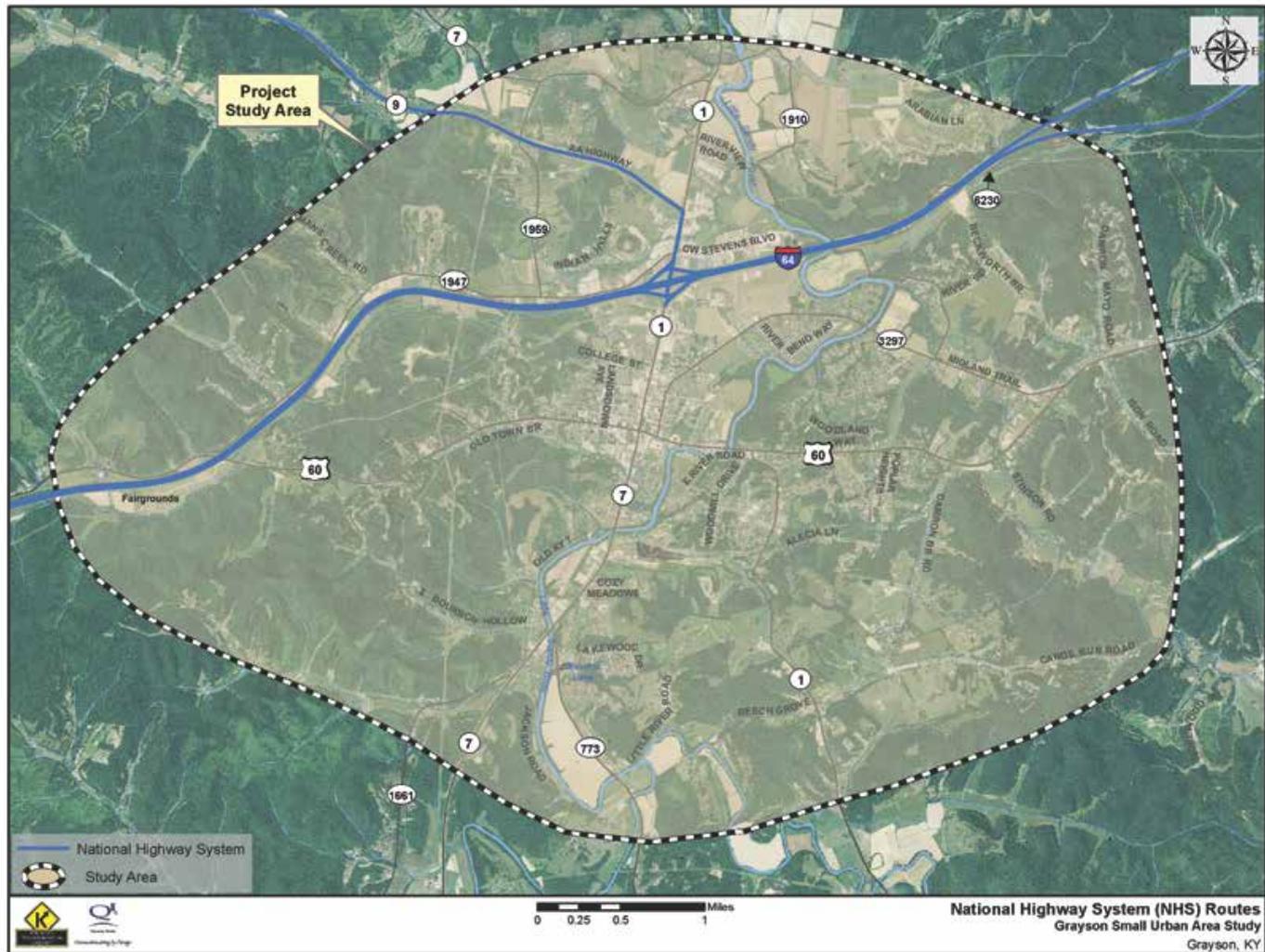
Table 1 Intersections for AM and PM Peak Hour Turning Movement Counts

Intersections for AM and PM Peak Hour Turning Movement Counts
KY 1/KY 9
KY 1/KY 1947
KY 1/I-64 EB ramp termini
KY 1/I-64 WB ramp termini
KY 1/College Street
US 60/Landsdown Avenue
US 60/South Hord Street/Hord Street
US 60/KY 3297
KY 1/Third Street
US 60/KY 1/KY 7 (US 60 MP 23.94)
US 60/KY 1 (US 60 MP 24.632)
KY 1/Academic Parkway (unsignalized)
KY 1/Super Eight Lane (unsignalized)
KY 1/McDonald's Entrance (unsignalized)
KY 1/Love's Truck Stop South Entrance (unsignalized)
KY 1/Love's Truck Stop North Entrance (unsignalized)
KY 1/Interstate Drive (KY 1 MP 11.391) (unsignalized)

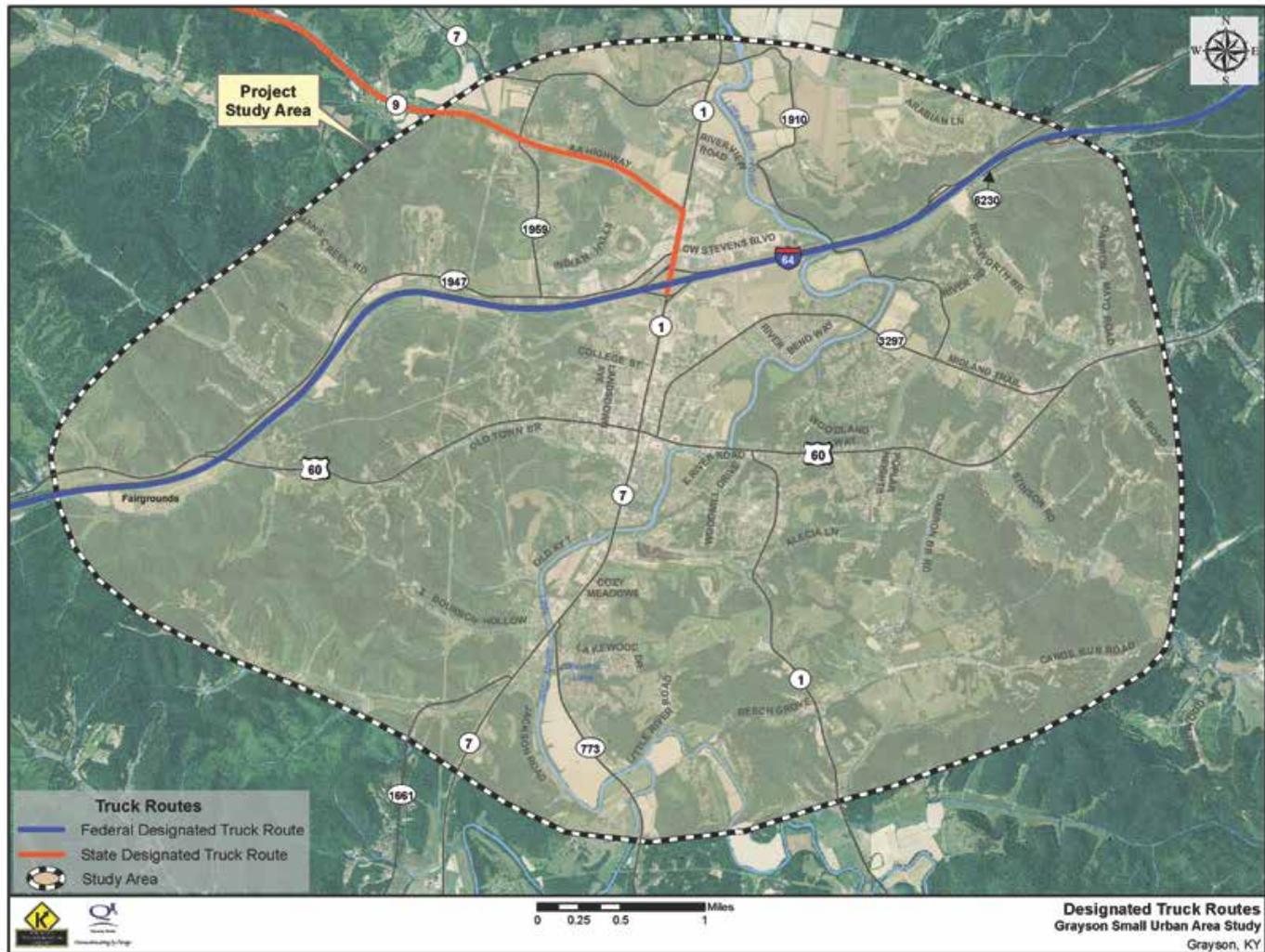
GENERAL ROADWAY NETWORK



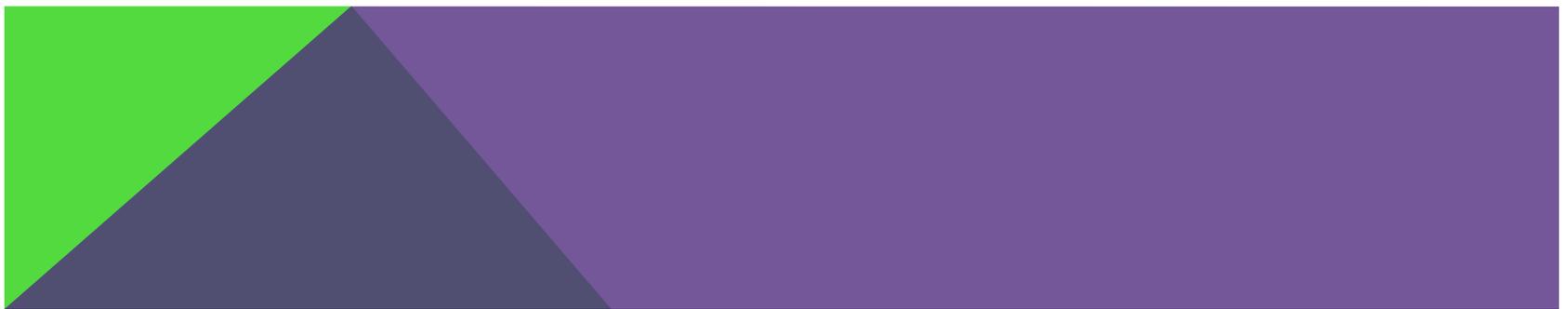
NATIONAL HIGHWAY SYSTEM



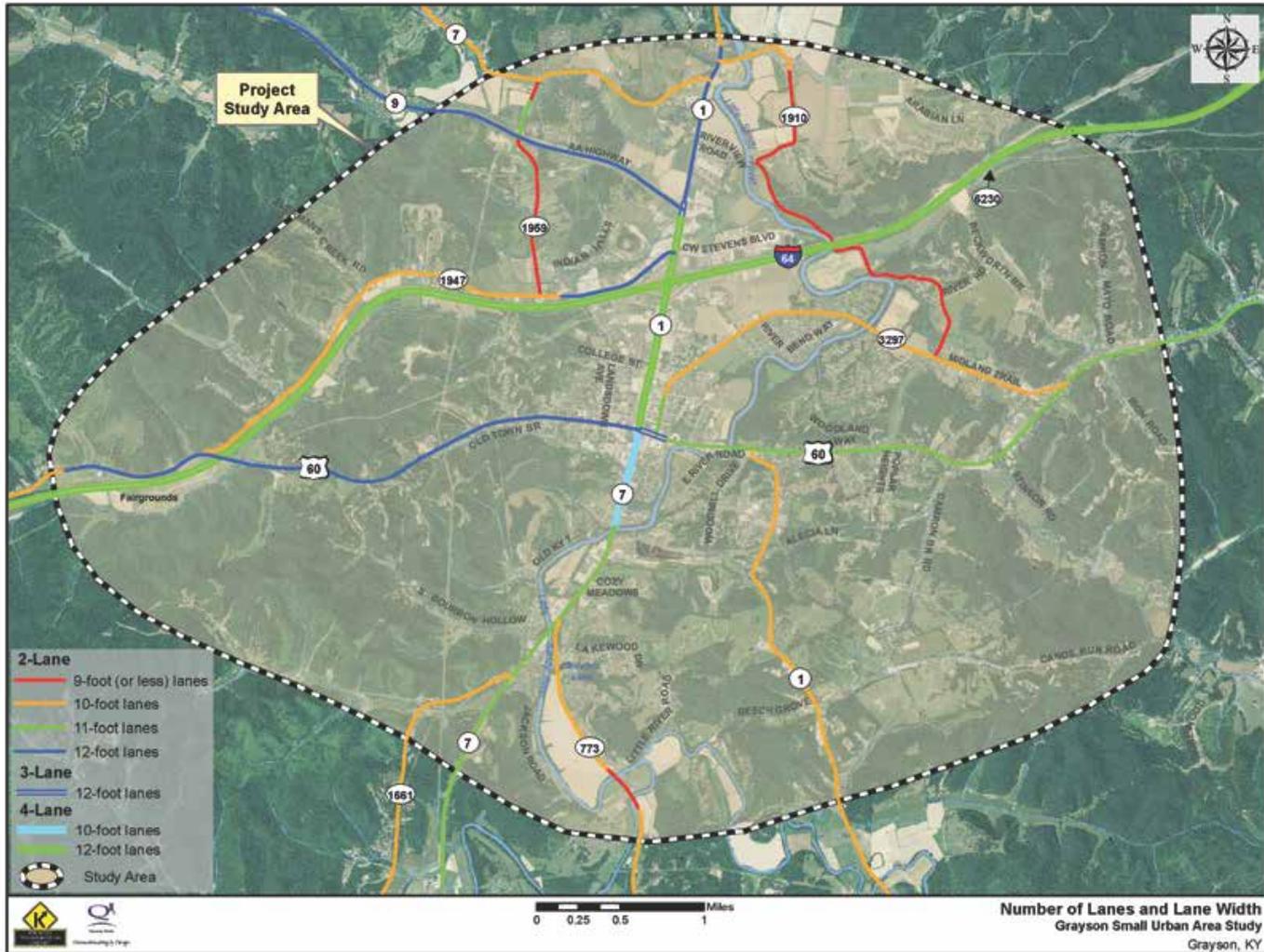
FEDERAL AND STATE TRUCK ROUTES



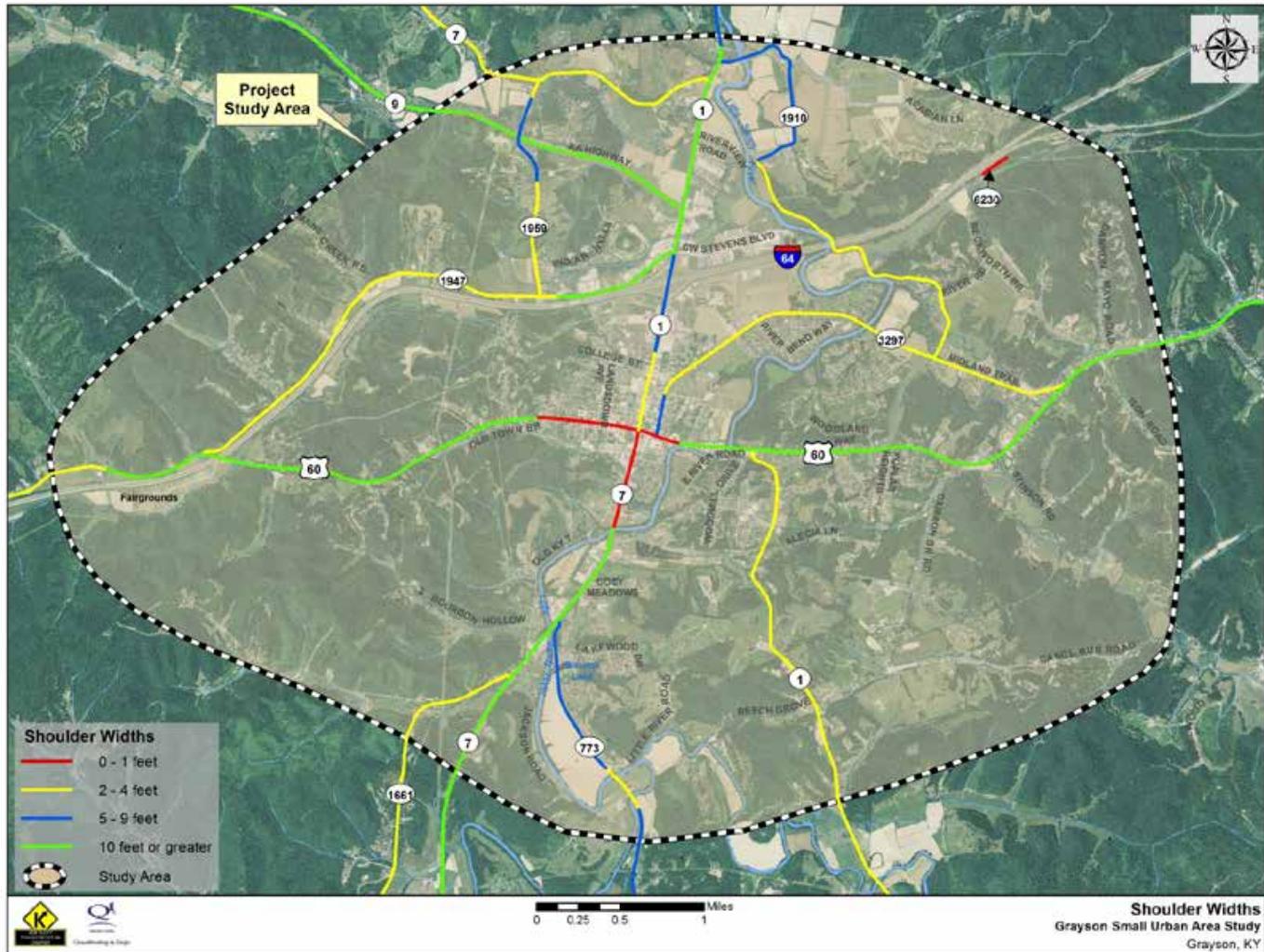
SAFETY



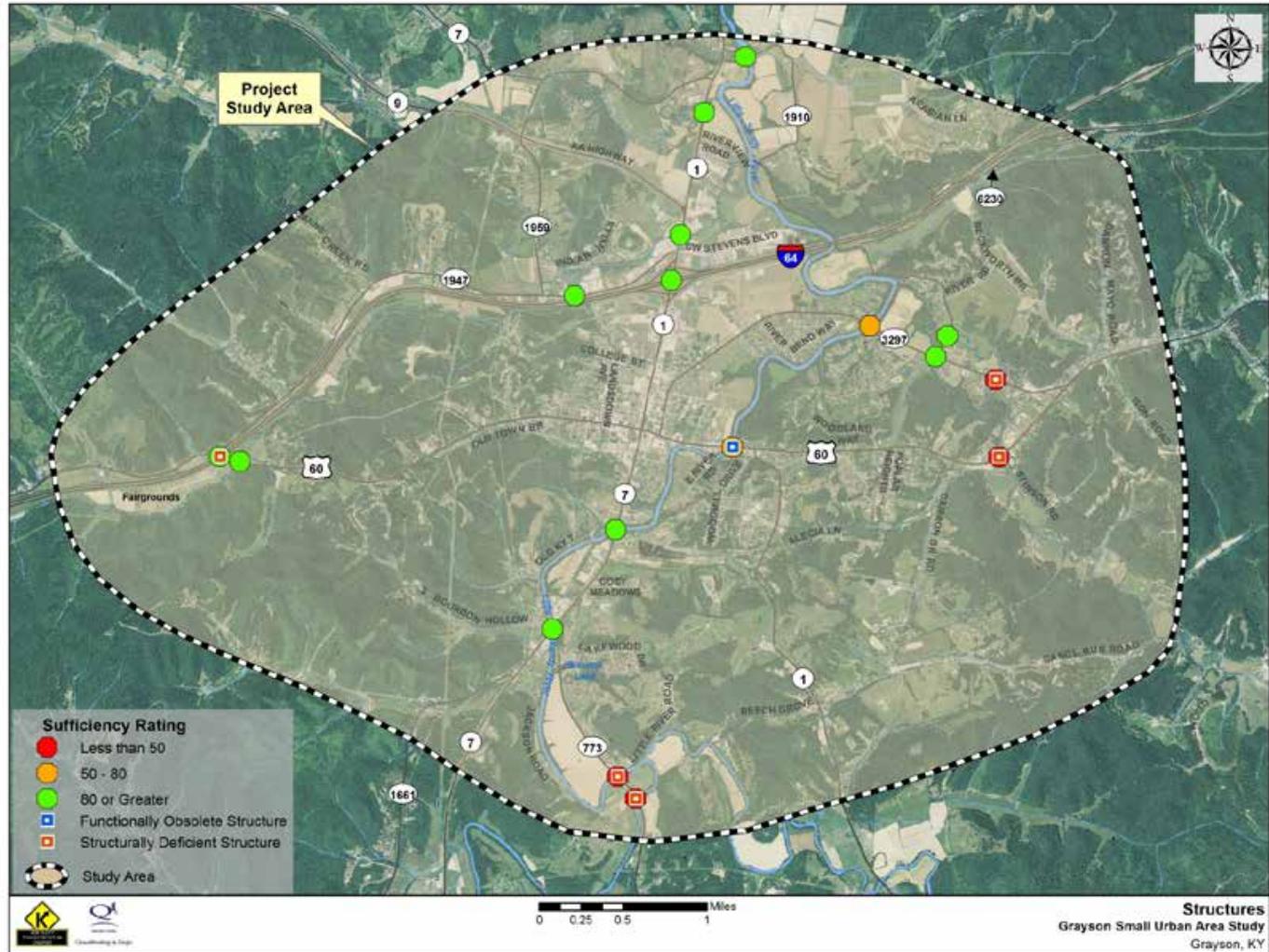
LANES



SHOULDER WIDTHS



STRUCTURES



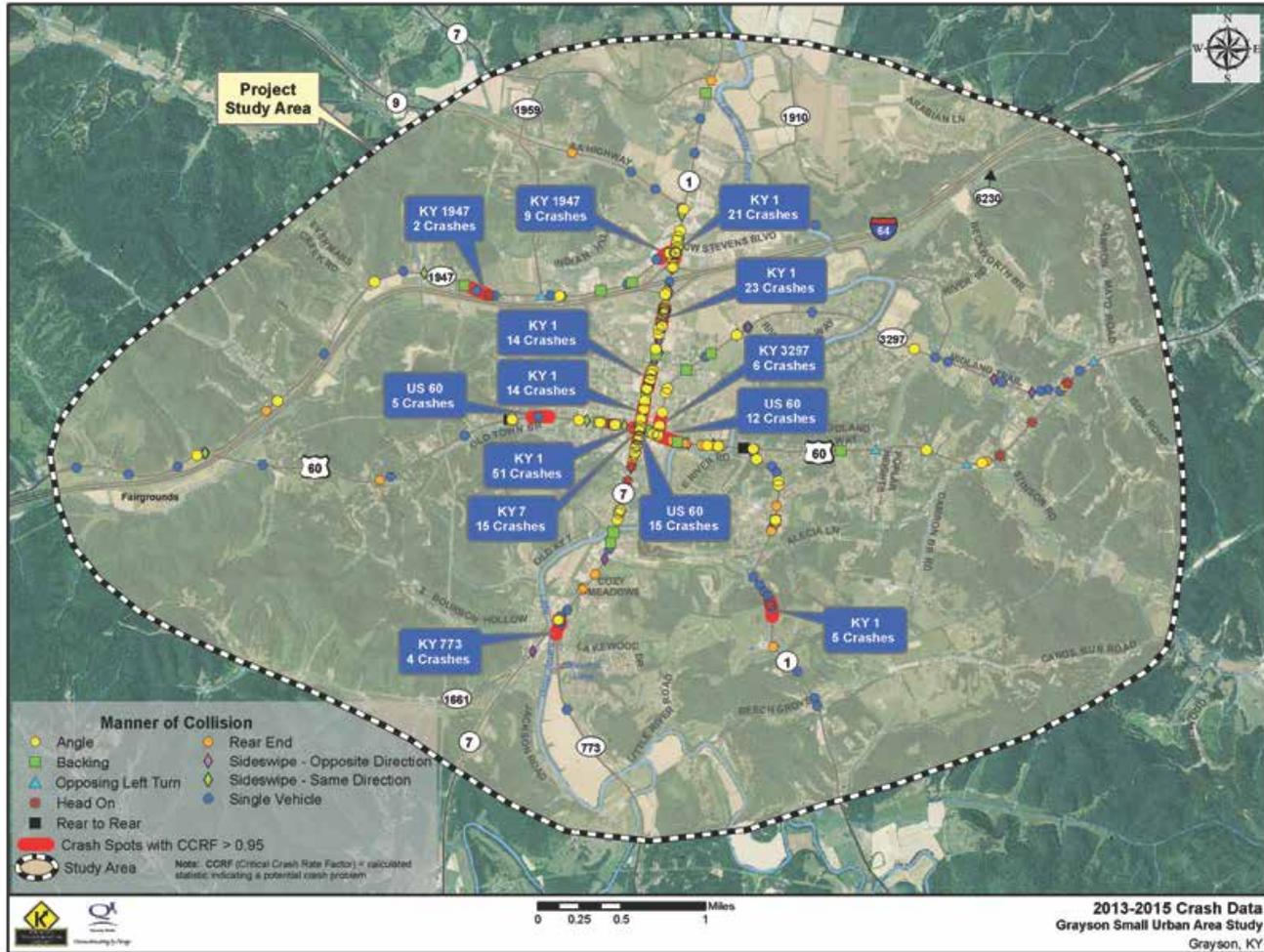


STRUCTURALLY DEFICIENT BRIDGE ON KY 3297 ACROSS FROM JAKE'S WAY

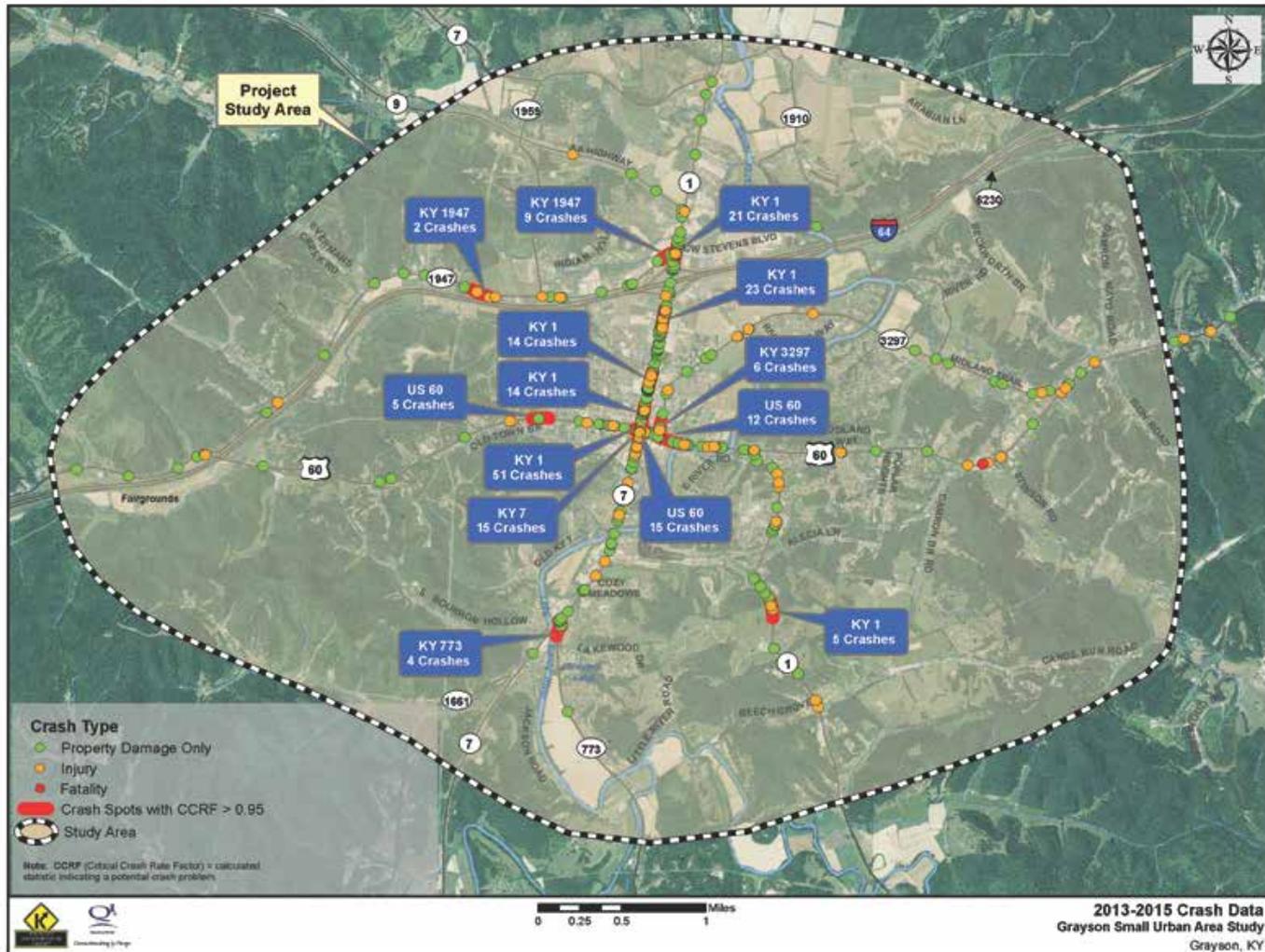
Date & Time: Wed Jun 29 13:35:06 EDT 2016
Position: 038.33577°N / 082.90721°W
Altitude: 579ft
Azimuth/Bearing: 128° S52E 2276mils (True)
Elevation Grade: -001%
Horizon Grade: +002%
Zoom: 1X
deficient bridge ky 3297



MANNER OF COLLISION WITH HIGH CRASH 0.1 MILE SPOTS



CRASH TYPE WITH 0.1 MILE SPOTS



KY 1947



KY 1



KY 1



KY 1 / US 60 INTERSECTION



US 60 EAST OF KY 1 LOOKING WEST



US 60 LOOKING WEST NARROW LANE



KY 773 TOWARD KY 7



KY 773 TOWARD KY 7

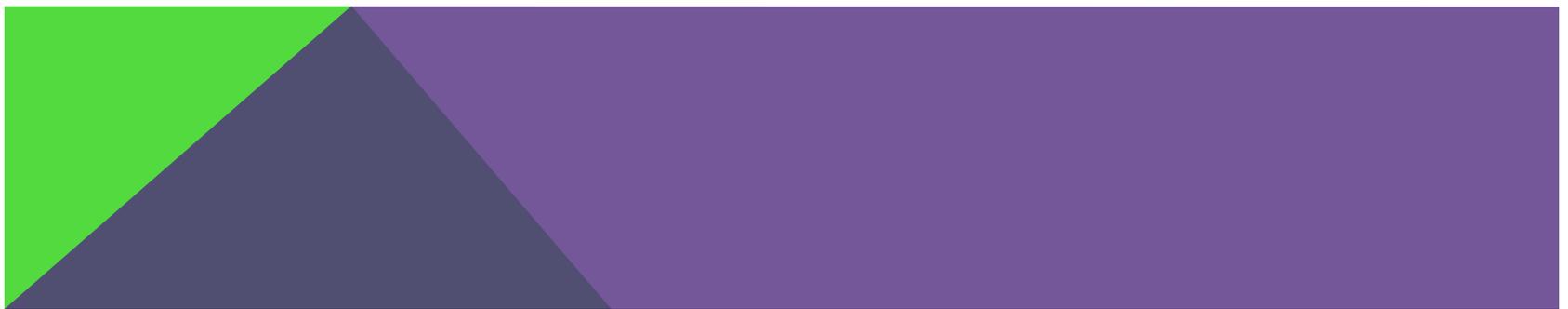


SUMMARY OF HIGH CRASH SPOTS

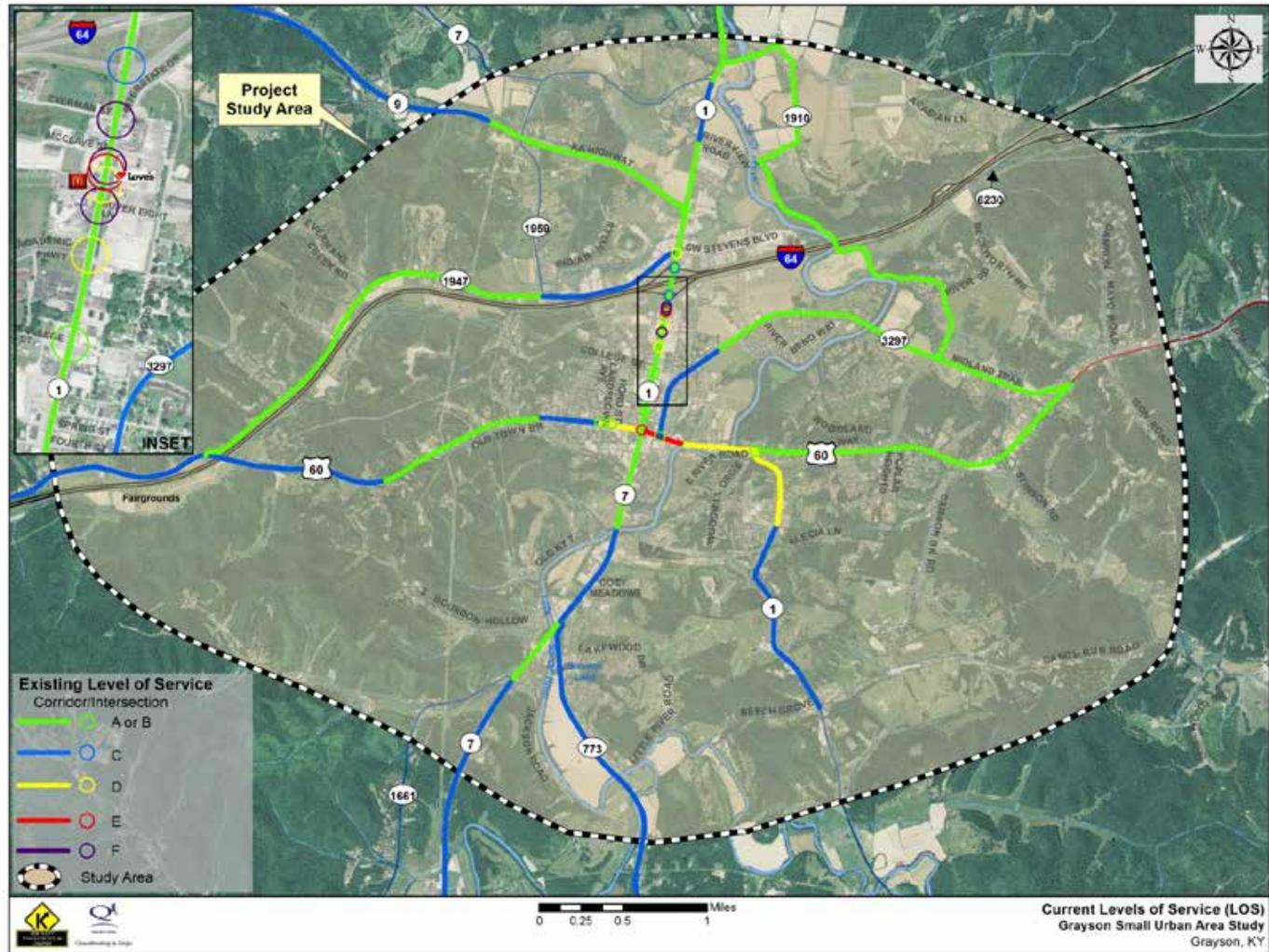
Route	Beginning MP	Ending MP	Total	Length (Miles)	Average ADT	CCRF	Predominant Crashes
KY 1	10.6	10.7	51	0.1	13,603	3.76	23 occurred in a parking lot 7 driver error 3 equipment failure 5 turning into or out of turn lane or establishment.
	10.7	10.8	14	0.1	13,603	1.03	9 rear ends, 1 sideswipe, 1 pedestrian collision, 3 angle,
	10.9	11.0	14	0.1	13,603	1.03	1 collision with animal 5 rear ends, 3 vehicles entering or leaving
	11.3	11.4	23	0.1	13,603	1.40	14 angle 12 of which are entering/leaving entrance, 3 rear-end and 3 sideswipe same direction
	11.7	11.8	21	0.1	7,713	1.92	7 angle 3 of which were vehicle entering/leaving entrance, 6 rear-end, 3 sideswipes. 5 red lights run Carol Mallone and CW Stevens BLVD.
KY 7	10.8	10.9	16	0.1	8,084	1.41	6 angle crashes vehicles leaving or entering businesses; 5 rear ends, 1 pedestrian, 1 lost consciousness
US 60	23.3	23.4	5	0.1	2,703	0.97	1 No report, 1 parking lot, 2 rear ends, 4 on straight and grade roadway character
	23.9	24.0	15	0.1	9,085	1.32	4 parking lot, 1 DUI, 5 rear ends, 1 pedestrian strike (pedestrian lost balance); 4 making lefts
	24.1	24.2	12	0.1	9,085	1.05	7 total rear ends with 2 rear ends cited bright sun; 2 changing lanes, 2 equipment failure (1 rear end)
KY 773	0.0	0.1	4	0.1	2,337	1.22	3 single vehicle crashes lost control in curves; 1 deer strike, 1 equipment failure, 1 rear end cited in curve
KY 1947	2.1	2.2	2	0.1	154	1.85	No Crash Reports, both occurred in darkness, both single vehicle on a clear, dry pavement, straight roadway.
	3.3	3.4	9	0.1	2,830	1.69	5 rear end, 2 in a parking lot; all in daylight, 1 fatality due to medical emergency; rest 1 failure to yield and 1 ran a red light
KY 3297	0.0	0.1	6	0.1	3,407	1.01	3 turning vehicles, 1 DUI, 1 pedestrian, 1 rear end.



CAPACITY



TRAFFIC

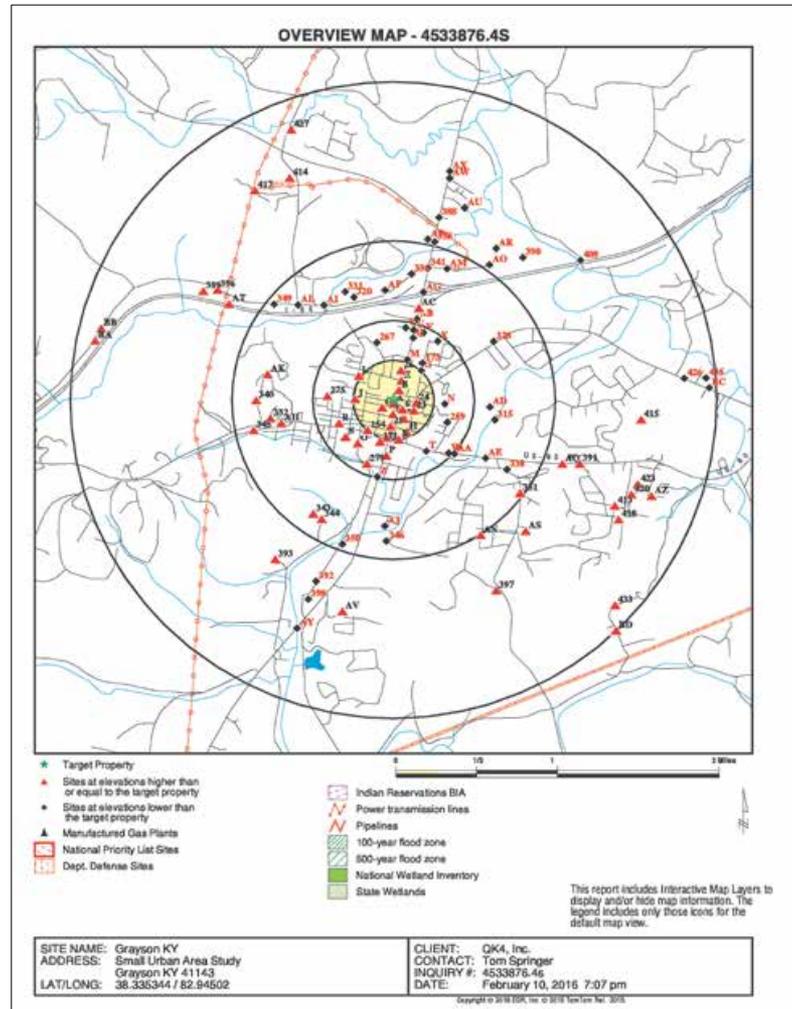


ENVIRONMENTAL OVERVIEW

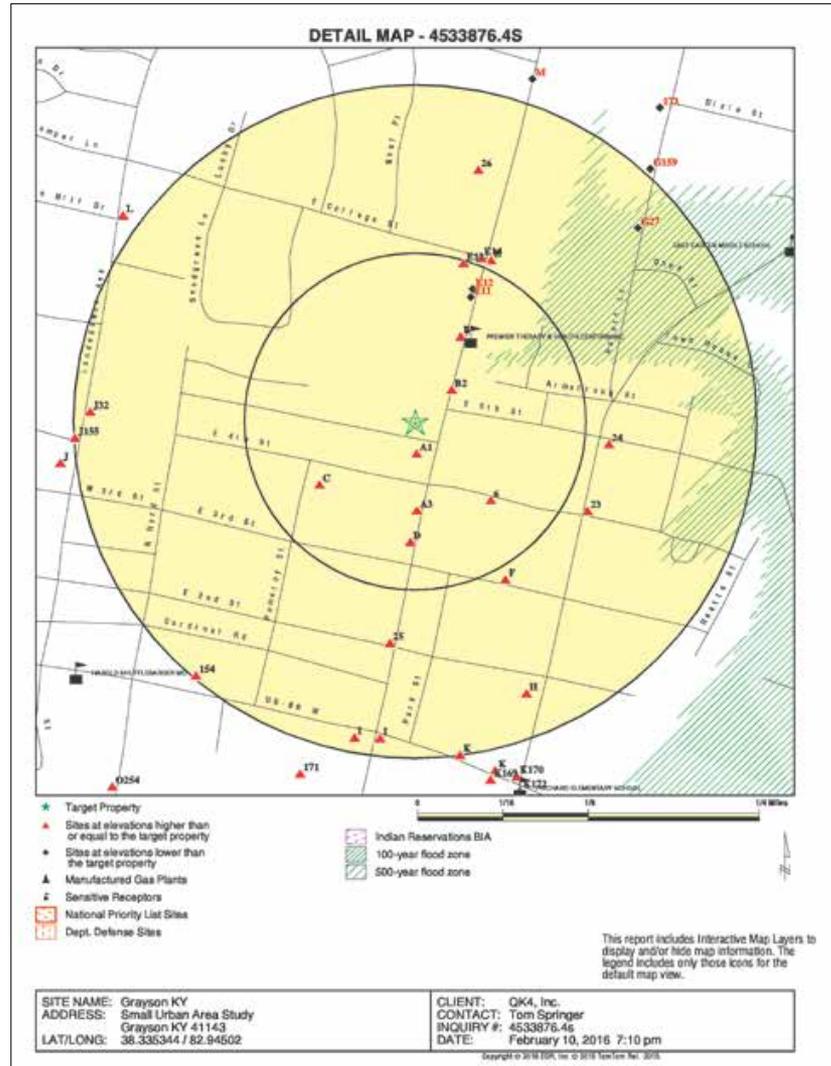


UNDERGROUND STORAGE TANK (UST)/HAZARDOUS MATERIALS (HAZMAT) DATABASE SEARCH

- 136 sites listed
- 39 registered USTs
- No Federal CERCLIS list, which is a list of sites that are on or proposed for the National Priorities List (NPL) sites.
- The Grayson/Carter County landfill is located east of Grayson, off I-64, outside the study area.



UST/HAZMAT GRAYSON CLOSEUP



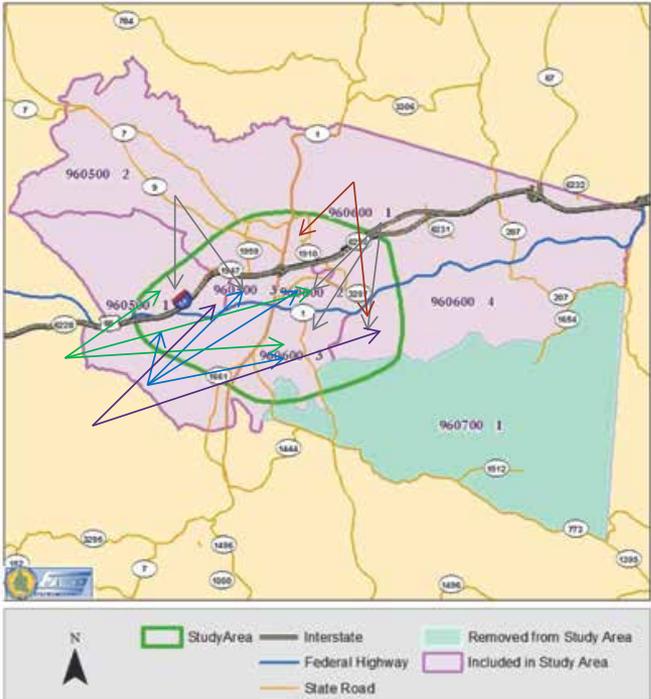
THREATENED AND ENDANGERED SPECIES

Based on coordination and review of available database information from the U.S. Fish and Wildlife Service (USFWS), the KDFWR, and the Kentucky State Nature Preserves Commission (KSNPC):

Group	Scientific Name	Common Name	Federal Status	Resource Agency
Mammals	<i>Myotis septentrionalis</i>	northern long-eared bat	Threatened	USFWS, KDFWR
	<i>Myotis sodalis</i>	Indiana bat	Endangered	USFWS, KDFWR, KSNPC
	<i>Myotis grisescens</i>	gray bat	Endangered	USFWS, KDFWR
Mussels	<i>Cyprogenia stegaria</i>	fanshell	Endangered	USFWS, KDFWR, KSNPC
	<i>Epioblasma triquetra</i>	snuffbox	Endangered	USFWS, KDFWR, KSNPC

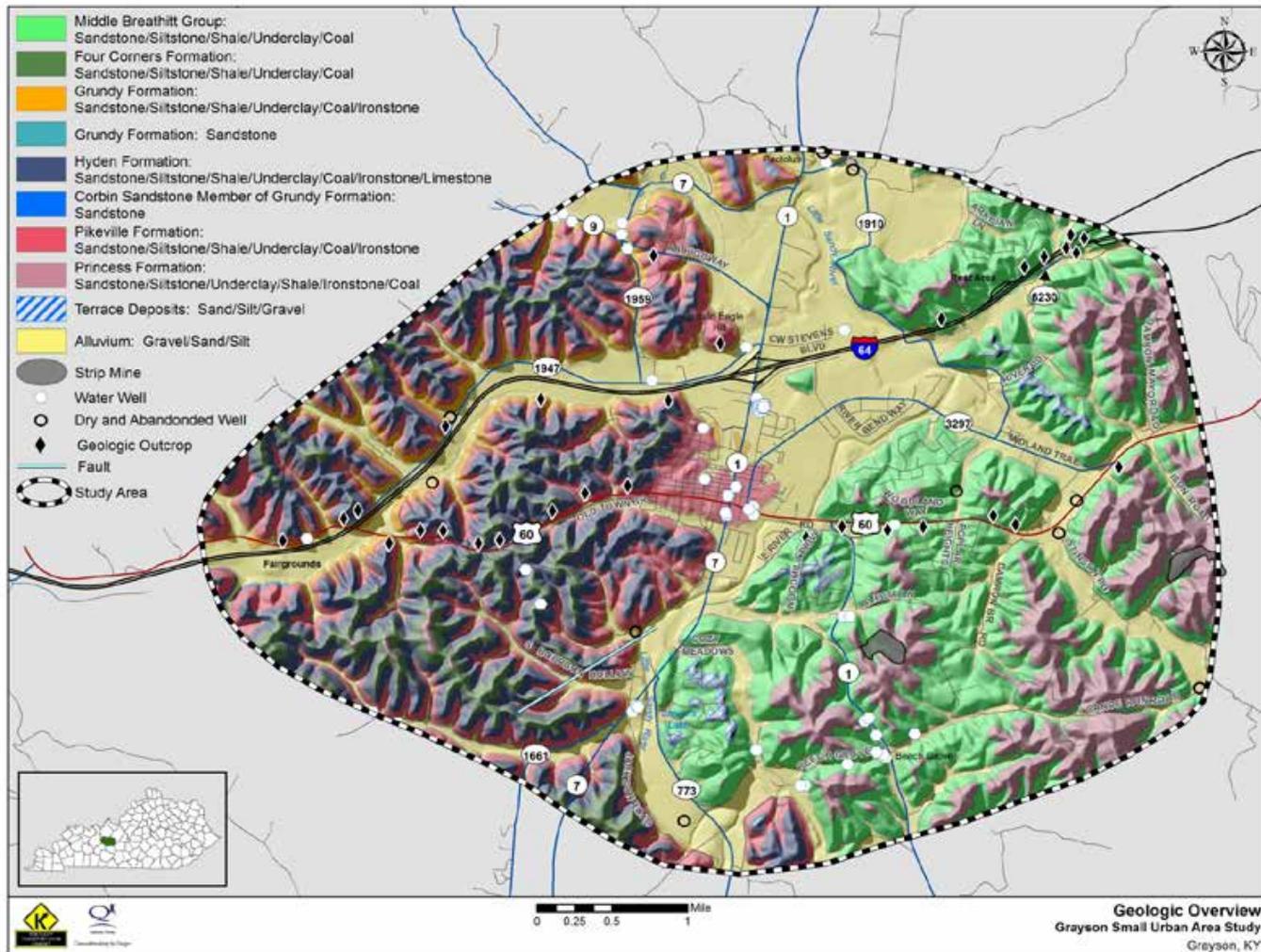


SOCIOECONOMIC REVIEW BY FIVCO

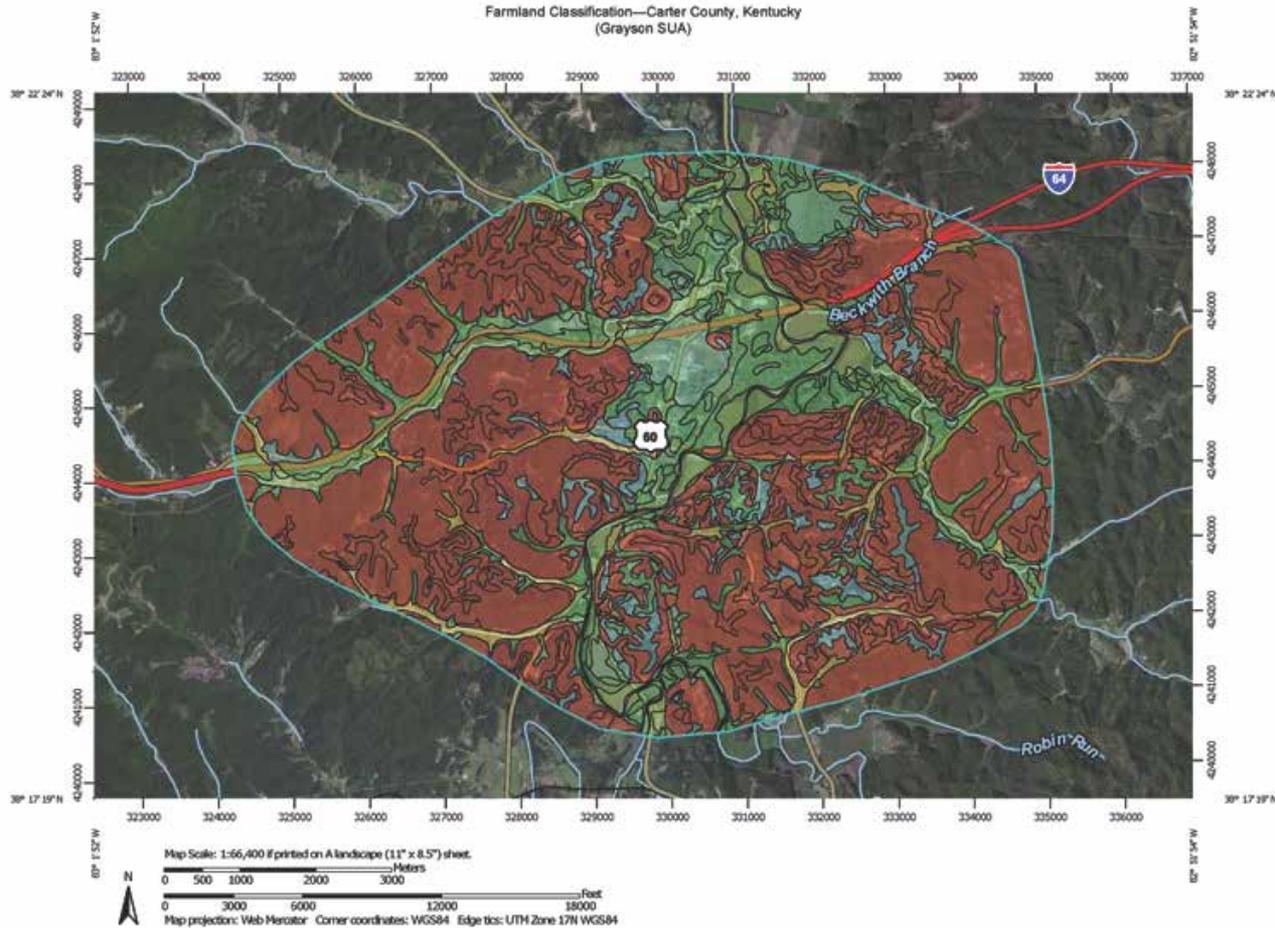


Census Tract	Block Group	Minority		Age 65 and Older		Poverty		Population Speaking English Less Than Very Well		Disabled Population between 16 and 64	
		Exceeds County Average	Exceeds State Average	Exceeds County Average	Exceeds State Average	Exceeds County Average	Exceeds State Average	Exceeds County Average	Exceeds State Average	Exceeds County Average	Exceeds State Average
960500	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
960600	1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

GEOLOGIC OVERVIEW



PRIME FARMLAND

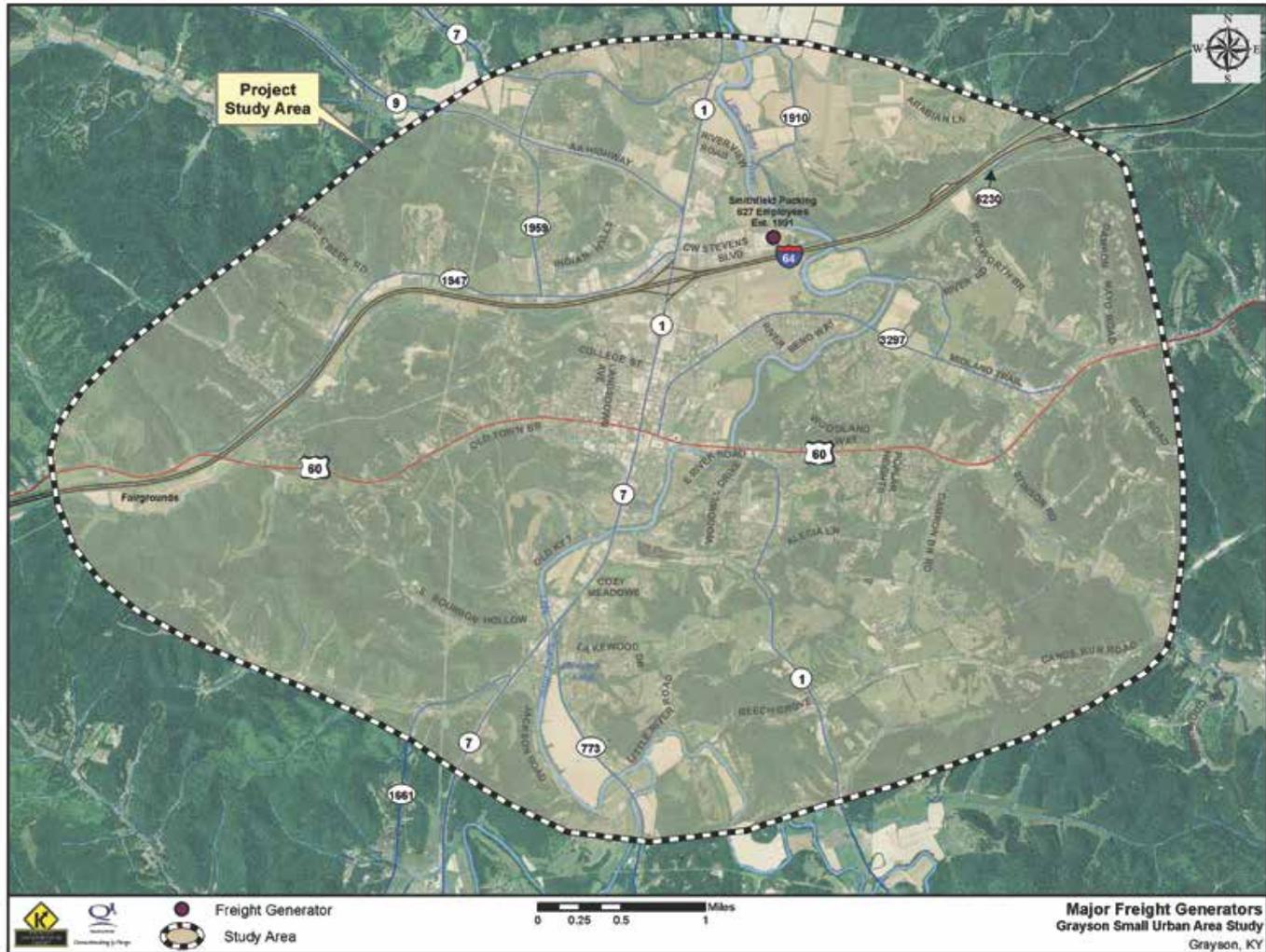


USDA
Natural Resources
Conservation Service

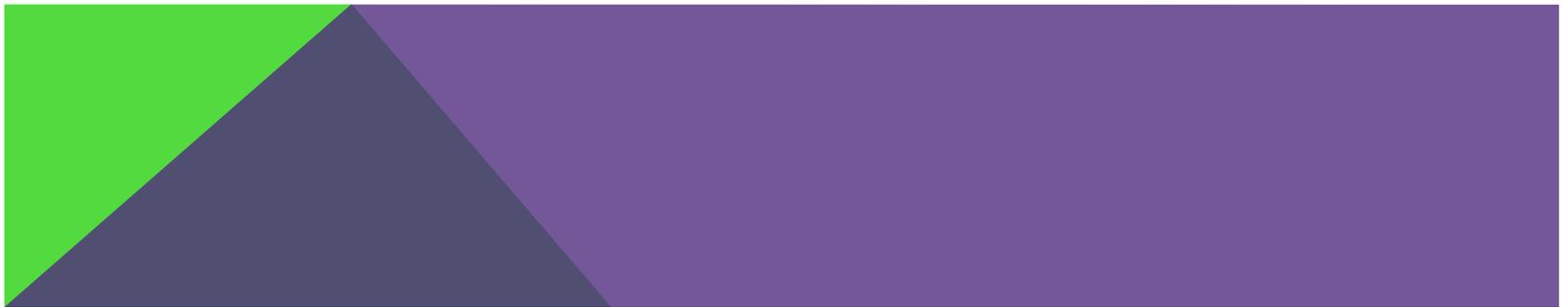
Web Soil Survey
National Cooperative Soil Survey

6/7/2016
Page 1 of 6

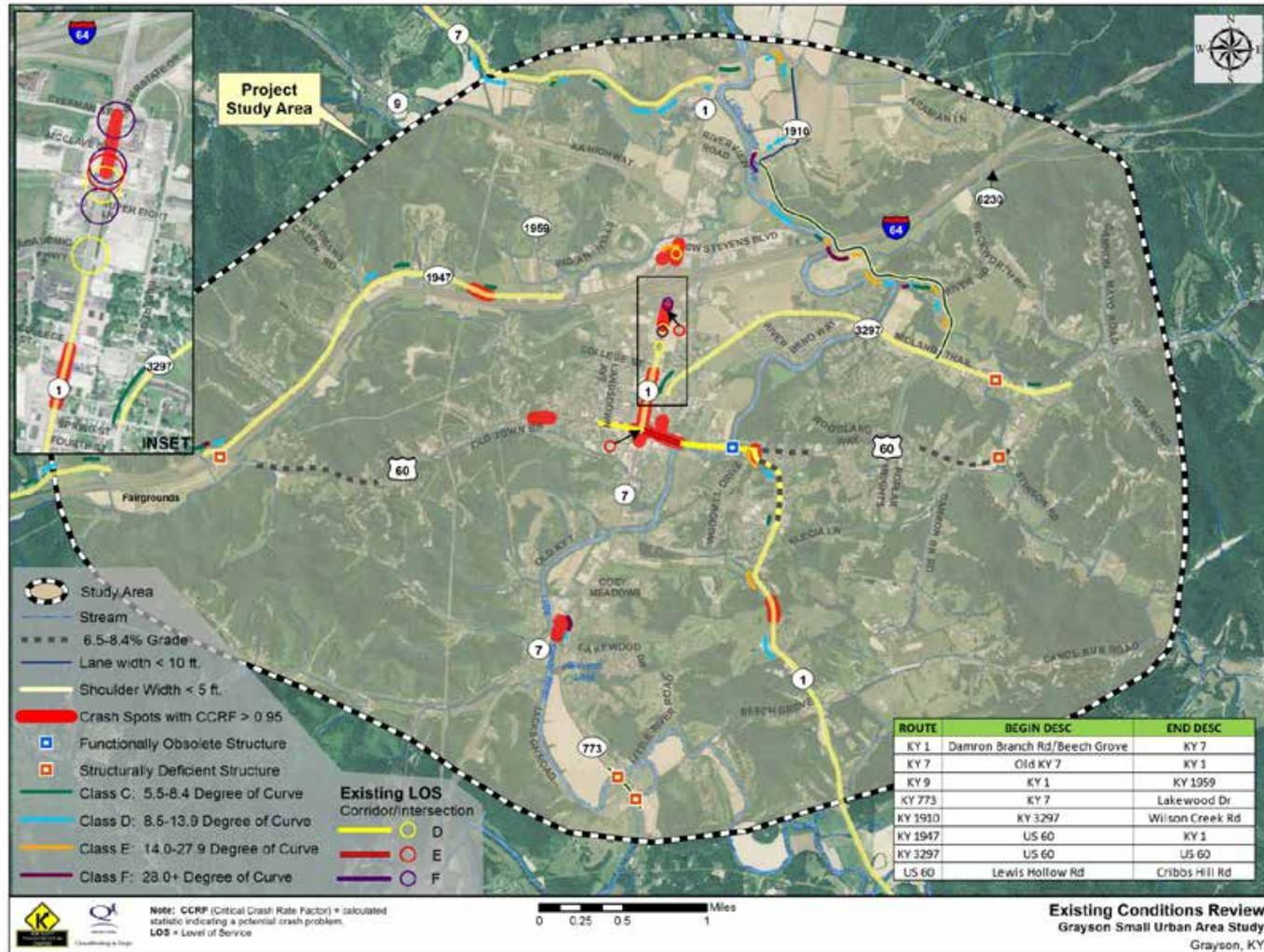
KNOWN FREIGHT GENERATORS



SUMMARY



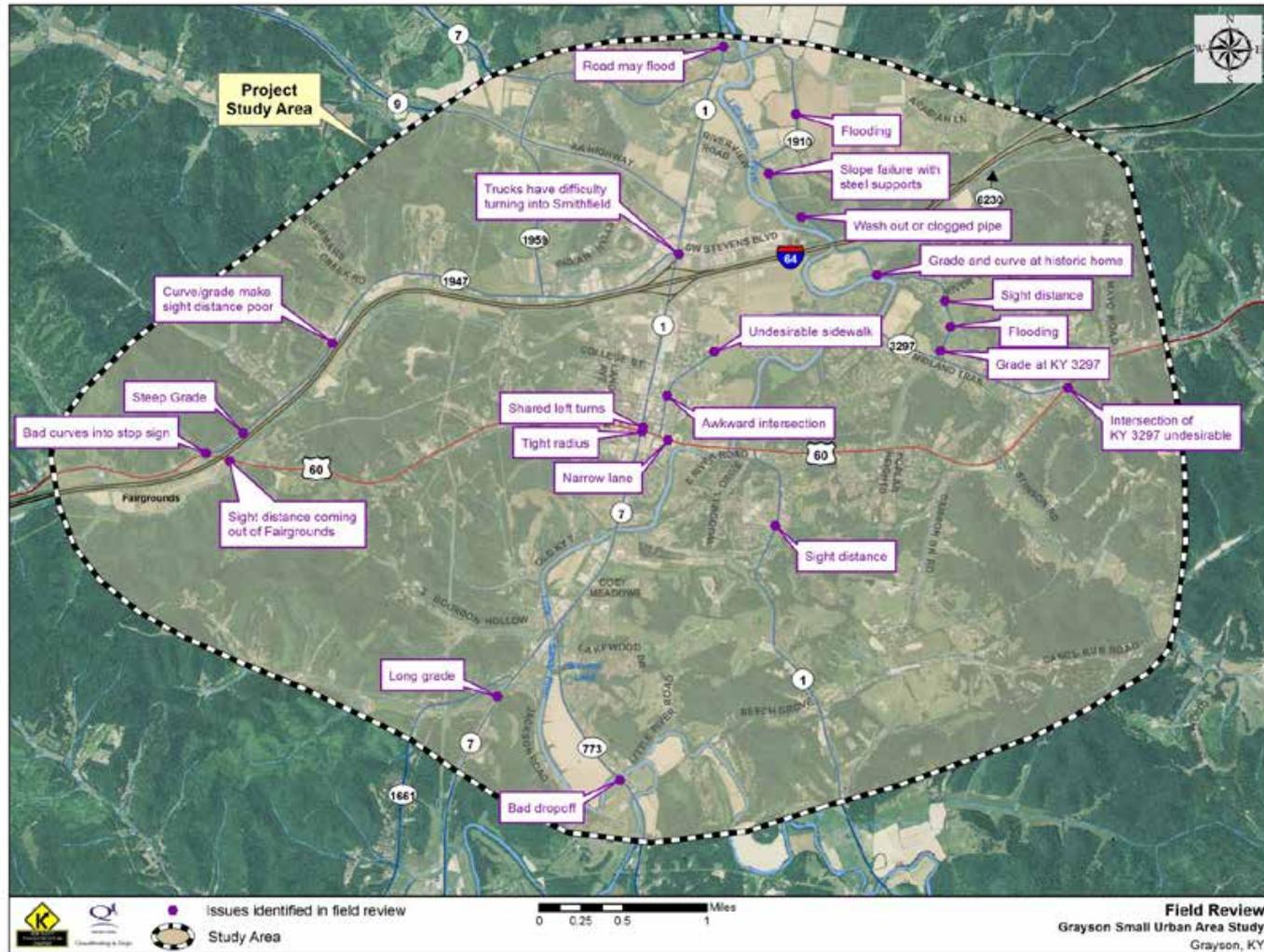
EXISTING CONDITIONS REVIEW



ADDITIONAL OBSERVATIONS FROM FIELD REVIEW



FIELD REVIEW



LEFT TURNS STACK IN THROUGH LANE



KY 1 AND OLD SAW MILL ROAD



HITCHENS ROAD AT US 60 - GRADE



KY 1947/US 60 INTERSECTION CURVE INTO STOP SIGN



KY 3297 AND US 60

Date & Time: Wed Jun 29 13:27:04 EDT 2016

Position: 038.33470° N / 082.89866° W

Altitude: 607ft

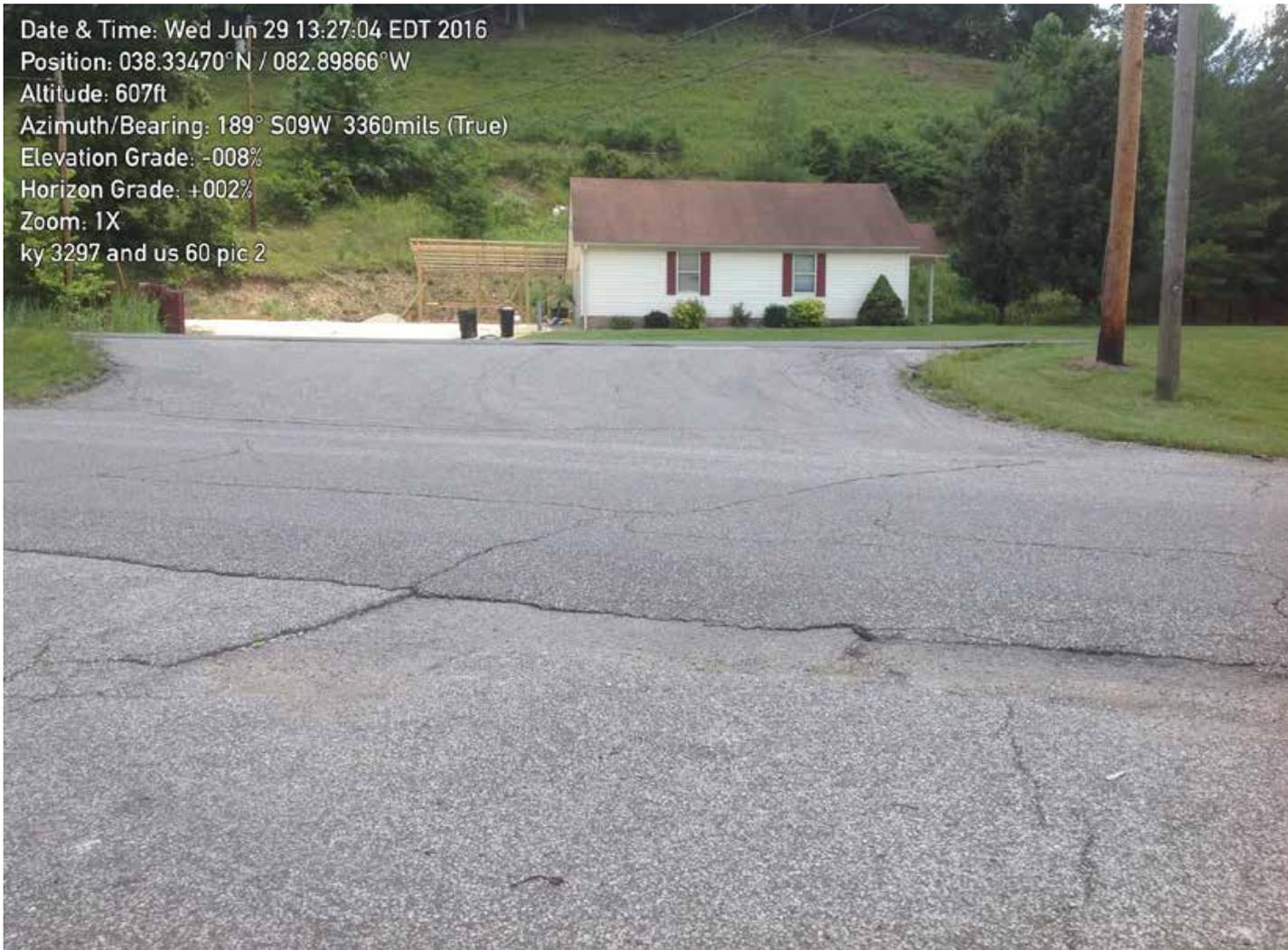
Azimuth/Bearing: 189° S09W 3360mils (True)

Elevation Grade: -008%

Horizon Grade: +002%

Zoom: 1X

ky 3297 and us 60 pic 2



KY 3297 AND US 60

Date & Time: Wed Jun 29 13:24:34 EDT 2016

Position: 038.33471°N / 082.89859°W

Altitude: 600ft

Azimuth/Bearing: 264° S84W 4693mils (True)

Elevation Grade: -013%

Horizon Grade: +002%

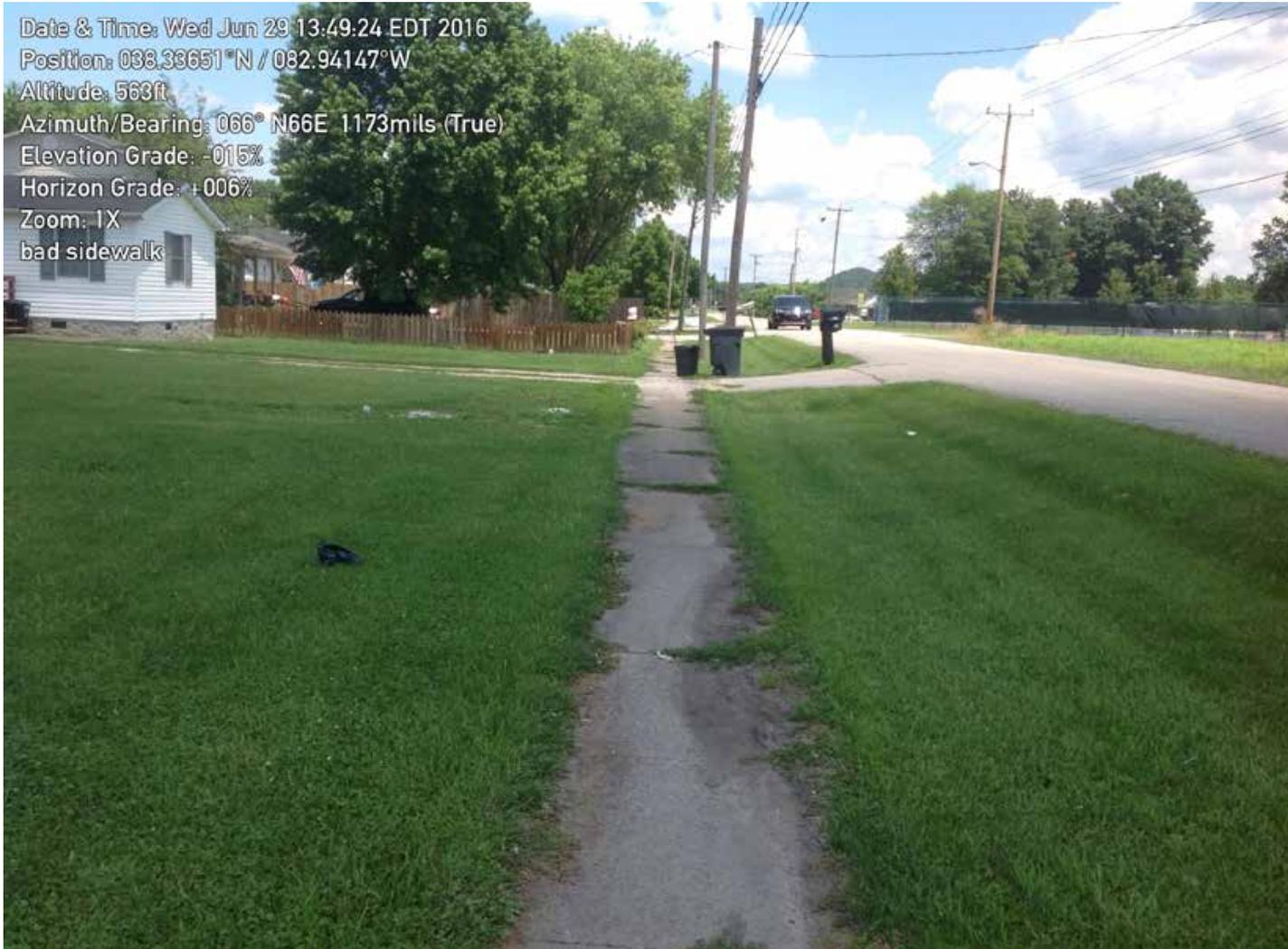
Zoom: 1X

ky3297 and us 60 grade



SIDEWALK ALONG EAST MIDLAND TRAIL (KY 3297)

Date & Time: Wed Jun 29 13:49:24 EDT 2016
Position: 038.38651°N / 082.94147°W
Altitude: 563ft
Azimuth/Bearing: 066° N66E 1173mils (True)
Elevation Grade: -015%
Horizon Grade: +006%
Zoom: 1X
bad sidewalk



SIDEWALK ALONG EAST MIDLAND TRAIL (KY 3297)



US 60 LOOKING WESTBOUND LESS THAN DESIRABLE SIDEWALK



KY 3297 (ROBERT AND MARY) / FIFTH STREET (E. MIDLAND TRAIL) INTERSECTION

Date & Time: Wed Jun 28 13:43:16 EDT 2016

Position: 038.38502°N / 082.94254°W

Altitude: 602ft

Azimuth/Bearing: 311° N49W 5529mils (True)

Elevation Grade: +002%

Horizon Grade: -001%

Zoom: 1X

3297 and robert and mary and fifth st intersection



KY 1910 FLOODING

Date & Time: Wed Jun 29 14:10:54 EDT 2016
Position: 038.35936°N / 082.92749°W
Altitude: 559ft
Azimuth/Bearing: 076° N76E 1351mils (True)
Elevation Grade: -008%
Horizon Grade: +004%
Zoom: 1X
ky 1910



KY 1910 ESSENTIALLY ONE-LANE EXCEPT FOR BOTH ENDS

Date & Time: Wed Jun 29 14:17:33 EDT 2016

Position: 038.34715°N / 082.92037°W

Altitude: 574ft

Azimuth/Bearing: 258° S78W 4587mils (True)

Elevation Grade: -003%

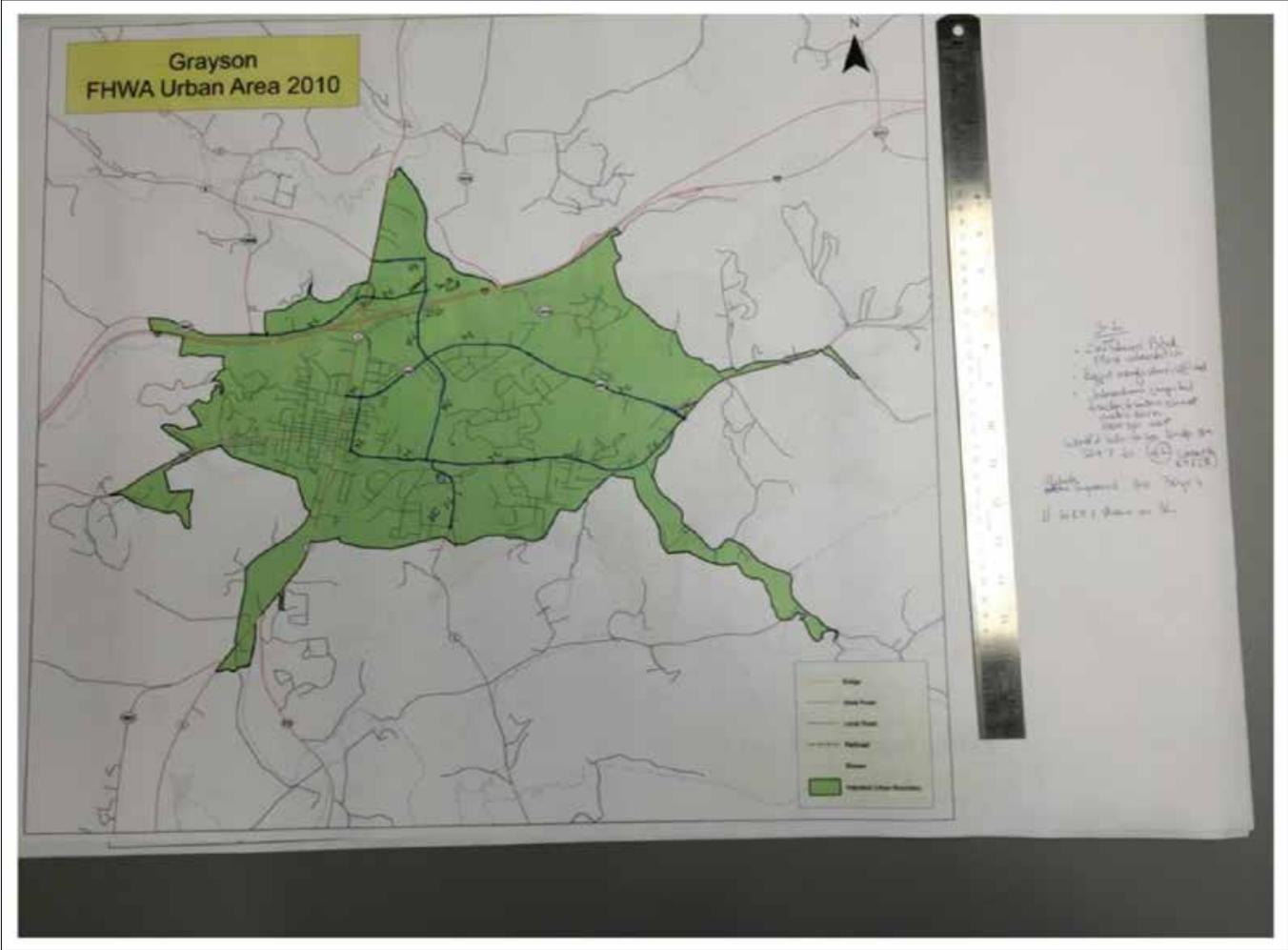
Horizon Grade: +010%

Zoom: 1X

ky 1910 gas lines



PRELIMINARY DISCUSSION WITH LOCAL OFFICIALS



SURVEY

Grayson Small Urban Area Study

Industry Questionnaire

This information will be shared with the Kentucky Transportation Cabinet's Division of Planning only. Any reports generated from this information will be grouped in such a way that individual business information cannot be identified.

1. Name: _____
Address: _____
City/Town: _____
State: _____
ZIP: _____
Email Address: _____
Phone Number: _____

2. Number of Employees per shift? Please include contract employees for cleaning and industrial sanitation if applicable. _____

3. Size (in square feet) of existing building space: _____

4. Type of Business (please include NAICS classification number)

5. Does your business distribute and/or receive materials via trucks?
 Yes *If you answered YES please continue to Question Number 6.*
 No *If you answered NO please skip to Question Number 10.*

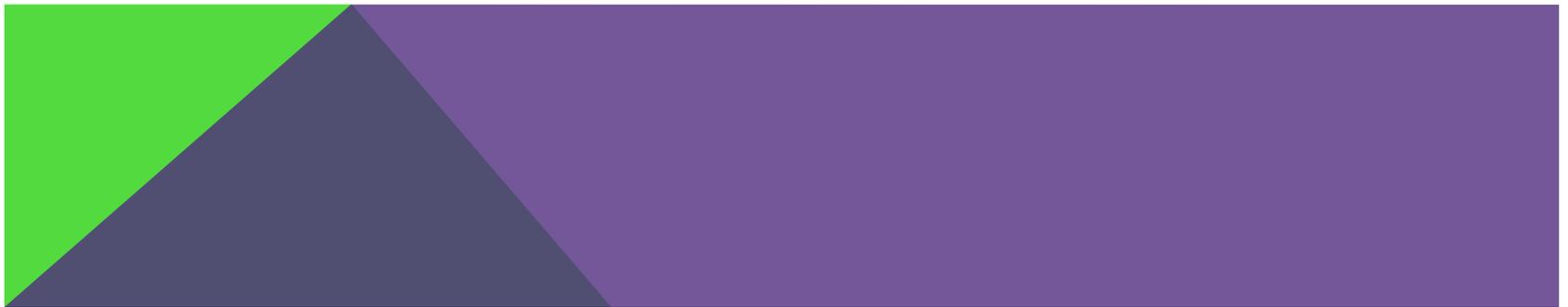
6. How many trucks per day access and leave your facility?

7. What types of trucks?
 Single Unit
 Trailered

8. How many trucks access your facility during the peak hours of 7AM to 9AM; 4PM to 6PM?

NEXT STEPS

- SUMMARIZE TODAY'S INPUT
- MAKE CHANGES TO TRAFFIC MODEL FOR SURVEY RESULTS
- DEVELOP IMPROVEMENT ALTERNATIVES AND COST ESTIMATES
- RETURN TO THIS GROUP FOR REVIEW OF ALTERNATIVES AND PRIORITIZATION
- DRAFT REPORT
- FINAL REPORT





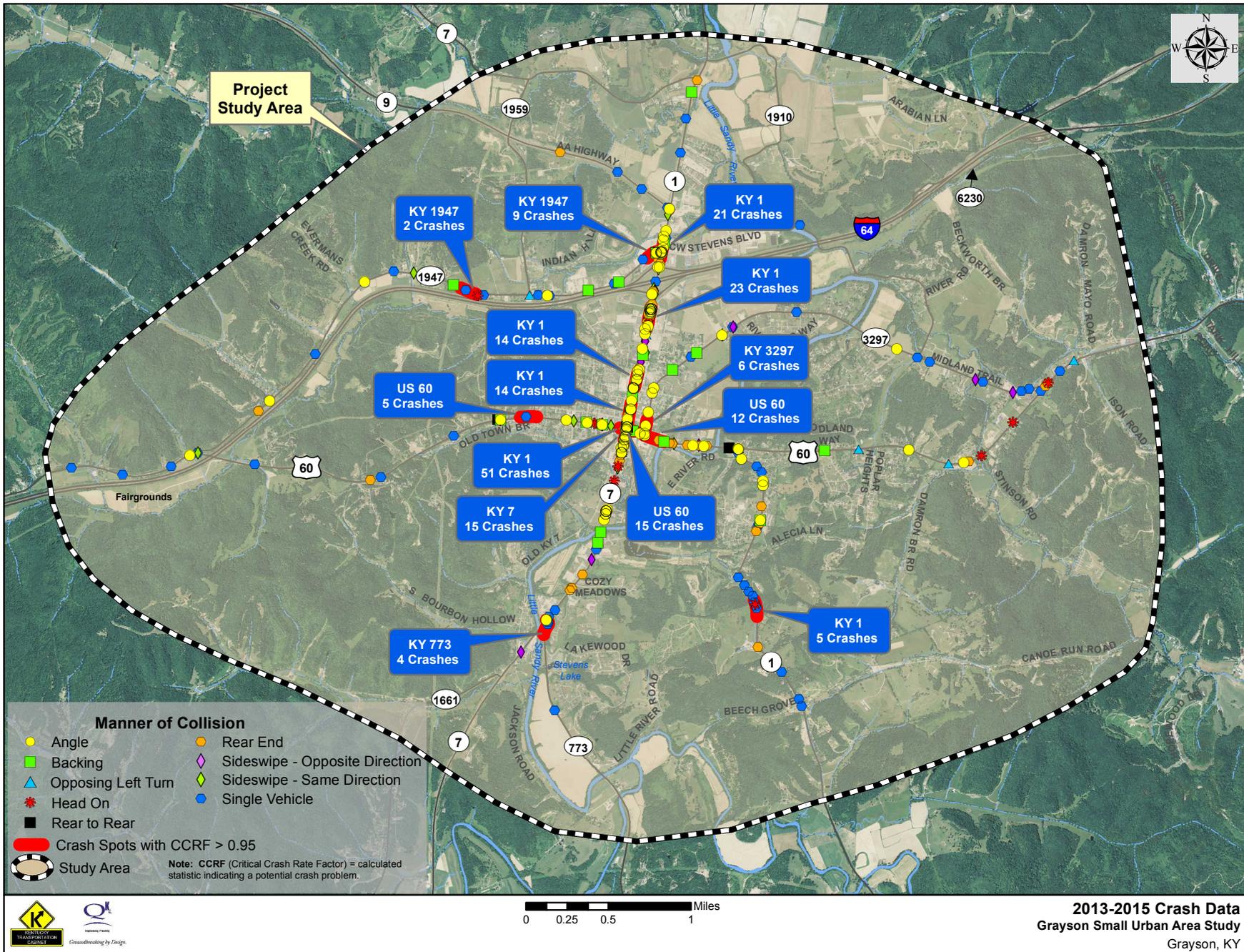
Groundbreaking by Design.

Grayson Small Urban Area Study Carter County



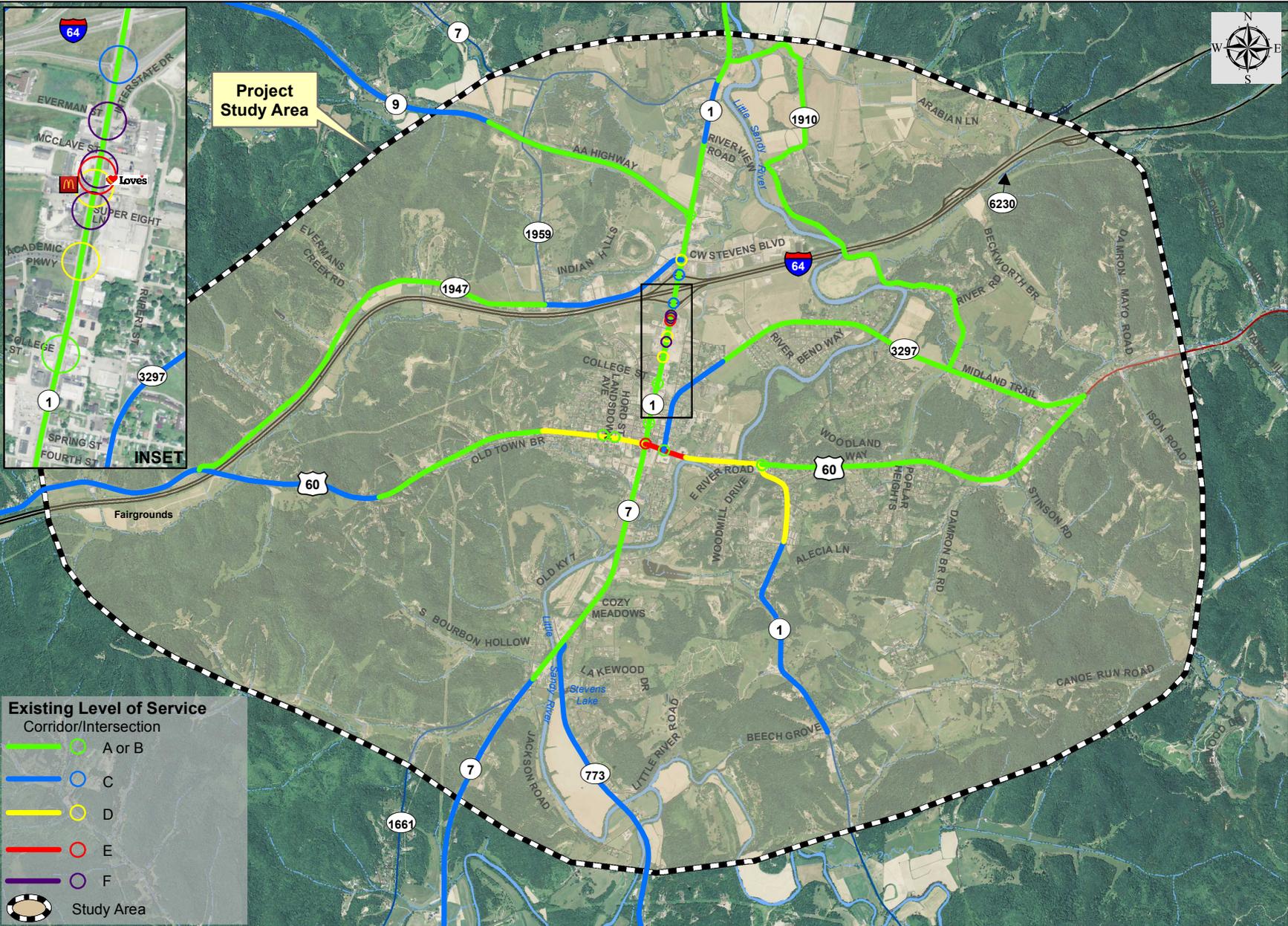
AGENDA **Project Team Meeting #1** **FIVCO ADD Board Room** **July 8, 2016** **10:00 AM**

- I. Introductions
- II. Study and Project Purpose
- III. Project Schedule
- IV. Existing Conditions
- V. Environmental Overview
- VI. Traffic and Operational Performance
- VII. Next Steps
- VIII. Local Officials Meeting Discussion





Project Study Area



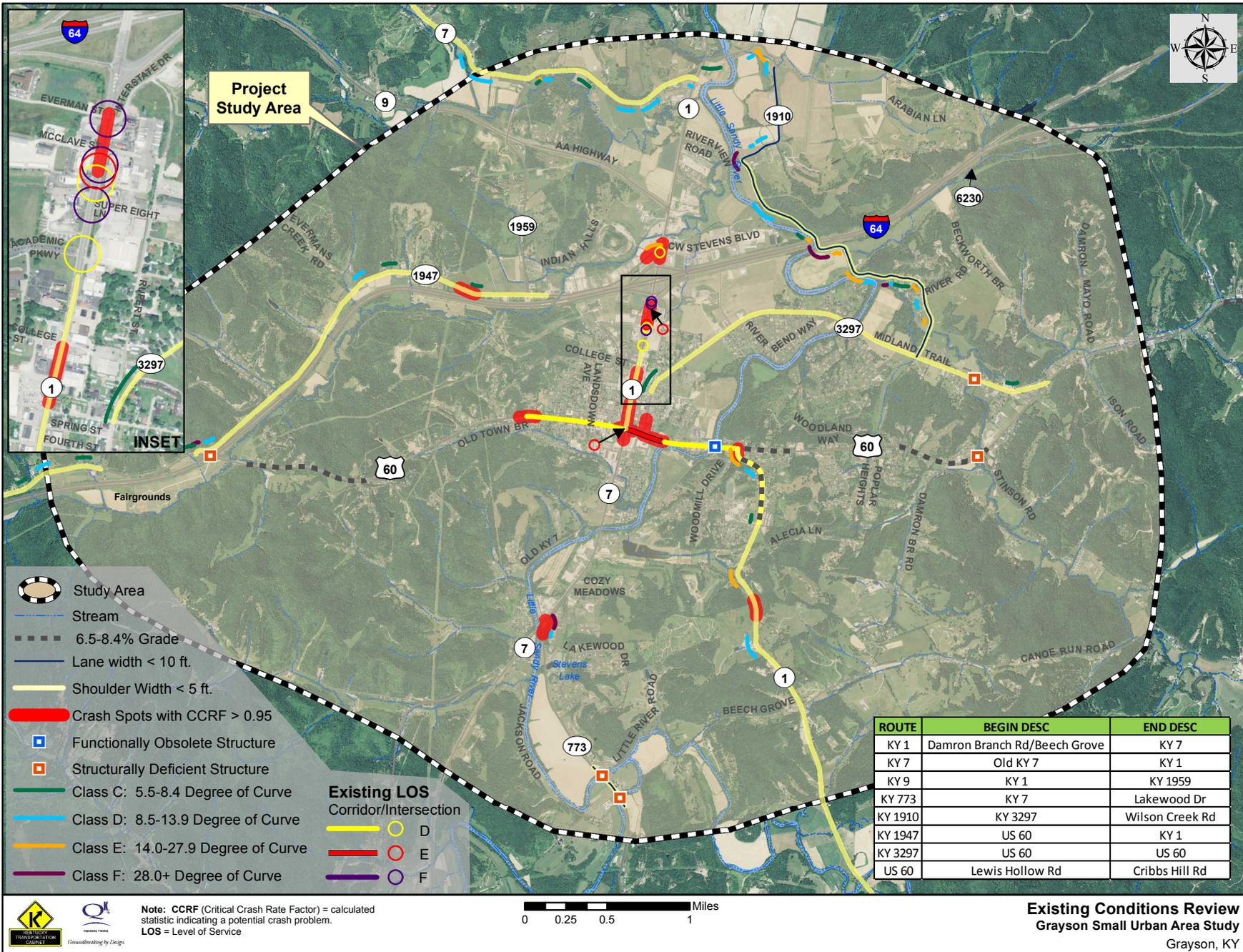
Existing Level of Service
Corridor/Intersection

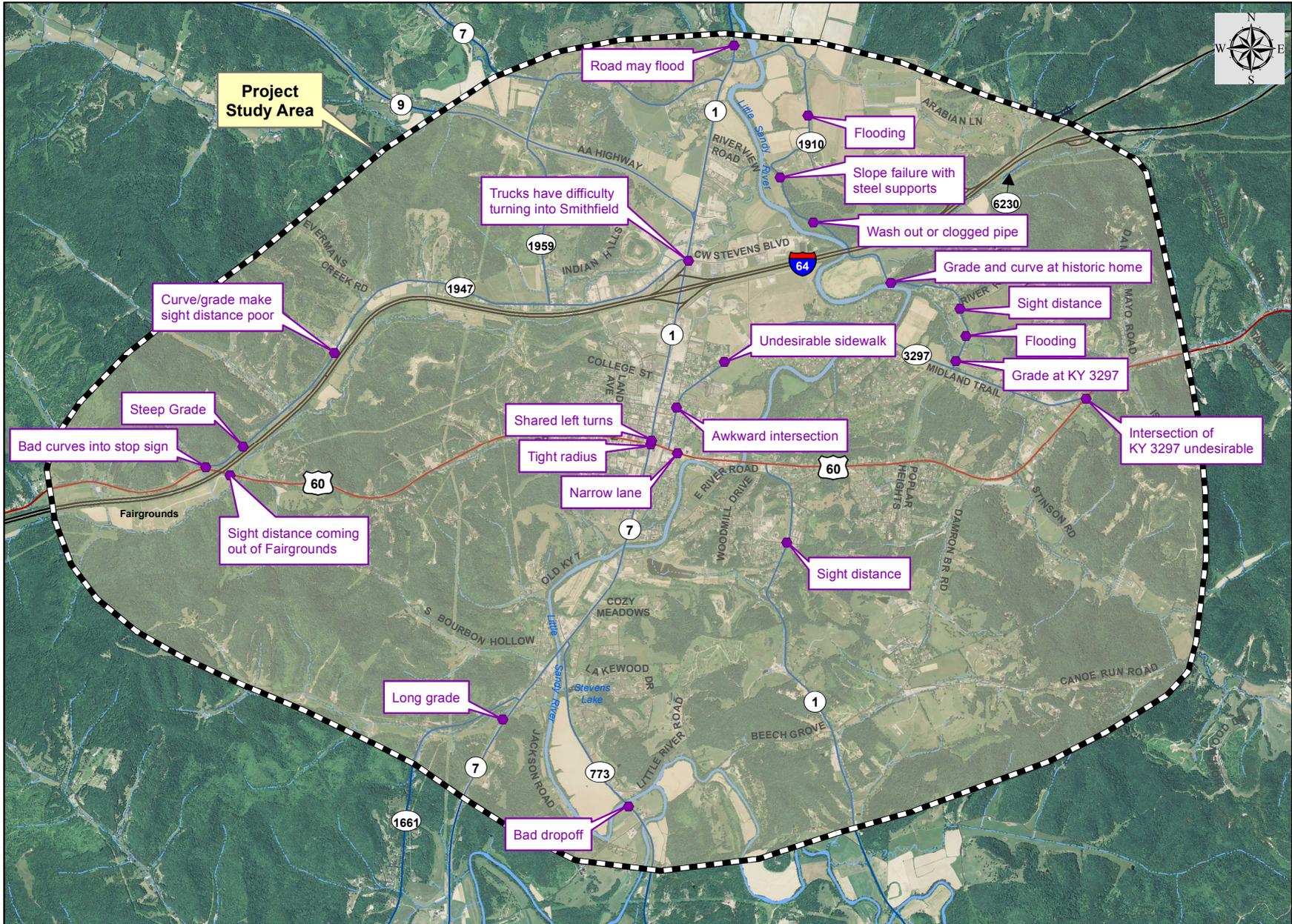
- A or B
- C
- D
- E
- F
- Study Area



Current Levels of Service (LOS)
Grayson Small Urban Area Study
Grayson, KY







Project Study Area

Road may flood

Flooding

Slope failure with steel supports

Wash out or clogged pipe

Grade and curve at historic home

Sight distance

Flooding

Grade at KY 3297

Intersection of KY 3297 undesirable

Trucks have difficulty turning into Smithfield

Curve/grade make sight distance poor

Steep Grade

Bad curves into stop sign

Sight distance coming out of Fairgrounds

Shared left turns

Tight radius

Narrow lane

Awkward intersection

Sight distance

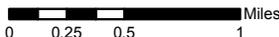
Long grade

Bad dropoff



Issues identified in field review

Study Area



Field Review
 Grayson Small Urban Area Study
 Grayson, KY



Grayson Small Urban Area Study Carter County



Local Officials/Stakeholders Meeting No. 1 FIVCO ADD Board Room July 8, 2016 1:30 PM

Project: Grayson Small Urban Area Study
Purpose: Local Officials /Stakeholders Meeting No. 1
Place: FIVCO ADD Board Room
Meeting Date: July 8, 2016; 1:30 PM
Prepared By: Tom Springer

Attendees:

Joe Callahan	KYTC D9 Planning	606.845.2551	joe.callahan@ky.gov
Jason Dean	KYTC D9 Ashland Section	606.920.2057	jason.dean@ky.gov
Jeremy Brickey	KYTC D9 Grayson Section	606.474.5721	jeremy.brickey@ky.gov
Mikael Pelfrey	KYTC CO Planning	502.782.5073	mikael.pelfrey@ky.gov
Scott Thomson	KYTC CO Planning	502.782.5086	scott.thomson@ky.gov
Deanna Mills	KYTC CO Planning	502.782.5085	deanna.mills@ky.gov
George Steele	Mayor, City of Grayson	859.494.5548	georgesteele@graysonky.net
Duane Suttles	Councilman, City of Grayson	606.922.7671	dsuttles@graysonky.net
Joanne Dunfee	City of Grayson Em. Mgmt.	606.315.4119	jdunfeegem@gmail.com
Roger Dunfee	Carter County Em. Mgmt.	606.316.4070	rdunfeegem@gmail.com
Tom Thompson	Carter Co. E-911	606.255.7535	cartercoemg@hotmail.com
Dennis Midkiff	Carter Co. Ambulance Svc.	606.474.8181	carterems@windstream.net
Grant Harper	Carter Co. Schools	606.286.0212	grant.harper@carter.kyschools.us
Edwin Rucker	Grayson Fire Dept.	606.923.2345	dp911@hotmail.com
Greg Felty	Grayson Fire Dept.	606.316.6377	gregg1012000@yahoo.com
Troy Combs	Senator Robin L. Webb	606.316.7335	tpcombs@moreheadstate.edu
Charlie Borders	Senator Rand Paul	606.316.9000	cb4381@outlook.com
Adam Rice	Congressman Hal Rogers	606.886.0844	adamrice@mail.house.gov
Mike Malone	Carter Co. Judge/Executive	606.474.5366	mikemalone48@gmail.com
Eric Patton	FIVCO ADD	606.929.1366	eric@fivco.org
Kelly Ward	FIVCO ADD	606.929.1366	kelly@fivco.org
Mike Mullins	Summit Engineering	606.432.1447	mmullins@summit-engr.com
Nathan Webb	Smithfield	606.225.7934	nwebb@smithfield.com
Tom Springer	Qk4, Inc.	502.585.2222	tspringer@qk4.com
Jeremiah Littleton	Qk4, Inc.	606.261.0684	jlittleton@qk4.com
Annette Coffey	Qk4, Inc.	502.352.2197	acoffey@qk4.com
Andy Gilley	Qk4, Inc.	502.585.2222	agilley@qk4.com

Public involvement with local officials/stakeholders will help guide the study and assist in identifying project issues and improvement alternatives. The scope of work identified two meetings as a means of affording local representatives an opportunity to provide input during the study process. The first meeting was held the same day as the first project team meeting to present the project, solicit feedback on existing conditions, and identify a broad range of potential problem areas and possible solutions.

The following paragraphs summarize the meeting.

Introductions. Joe Callahan began the meeting with an overview of the study and the introduction of attendees.

Presentation. Annette Coffey, Qk4 Project Manager, gave the same presentation of existing conditions (Attachment A) given to the project team earlier in the day. Each participant received the following handouts:

- Crashes
- Capacity
- Environmental Overview
- Existing Conditions Review

Scott Thomson told attendees that a traffic model of eight Kentucky counties (excluding Nicholas and Bath counties) and three Ohio counties will be used to analyze and project traffic for the study area. The model includes four times of day: (1) 6–9 AM, (2) 9–3 PM, (3) 3–6 PM, and (4) 6 PM–6 AM. The output is dependent on how well jobs and housing are predicted. Maps of the study area illustrating the locations of 4,219 jobs for 2015, 2015-2040 Change in Jobs (1,374 new), and the 2040 Change in Number of Homes (415) were shown to local officials/stakeholders who were asked to either validate the predictions or identify new areas of growth for 2040. They identified new growth in the student population south of US 60, 100 new jobs in the I-64/KY 1 northwest quadrant, and a 100-bed rehabilitation center along KY 1 north of I-64. The addition of 415 homes is expected between 2015 and 2040. Local officials/stakeholders identified a 50-home subdivision east of KY 1910 and north of KY 3297, 100–200 homes south of KY 3297, and the potential for 50 homes along KY 1910. Other smaller housing projections are shown in Appendix C.

Following the presentation, attendees divided into four small groups and participated in an exercise to identify transportation issues in the Grayson study area. Each small group reported its issues to the entire group. The identified issues are summarized below and illustrated on maps in Attachment C.

Table 1 – Andy Gilley

- The fire station is located at 316 East Third Street. The turning radius at East Third Street and KY 3297 is substandard and difficult for fire trucks to negotiate.
- The KY 1/Everman Street/Interstate Drive intersection needs a traffic signal or right-in/right-out access only. A service road west of Carol Malone Boulevard connecting College Street,

Academic Parkway, McClave Street, and Everman Street would allow safer left turns at the KY 1/College Street traffic signal.

- Improve access and truck movement to/from Love's and Super Quick "truck stops" on KY 1.
- KY 7 hill outside the study area is a crash location. Trucks miss KY 9 (AA) and turn on KY 7.
- KY 1 near East Carter High School has poor sight distance and steep hills. Add a left- and right-turn lane from KY 1 into the school.
- US 60 has narrow lanes and tight turning radii. Widen route from west of town to the Little Sandy River Bridge or to KY 1/Hitchens Road.
- Improve the signal timing at the KY 1/CW Stevens Boulevard intersection for Smithfield employees at shift change. Also, possibly connect CW Stevens Boulevard and KY 1910 or span I-64 to connect with KY 3297 to improve employee access to the east, bypassing KY 1.
- Redesign the McDonald's/Love's entrance on KY 1.
- The "3 Cross Hill" (southeast of I-64 interchange along Interstate Drive) is a potential major development area that could cause traffic problems.
- GPS units guide tractor trailers to KY 1910. This road needs "No Trucks" signage and improved turning radii at KY 3297.
- The new rehabilitation hospital and Shoney's on CW Stevens Boulevard will cause more congestion.
- Heavy congestion occurs between 7:00–8:00 a.m. on KY 1 near I-64 due to school traffic destined for Olive Hill, school buses, and Smithfield employees.
- KY 3297 becomes congested when long queues form as motorists wait to turn into the East Carter Middle School parking lot.
- A new I-64 interchange with US 60 west of town is needed. Gas lines may be a problem if the interchange is constructed.
- Crashes on KY 773 at its intersection with KY 7 are due not to the curves, but to the many vehicles turning from the gas station and KY 773, and to high speeds on KY 7. Turn lanes would help.
- The fairgrounds has only one access point. A secondary access would improve traffic flow.
- Investigate creating a roundabout at US 60 and KY 1/KY 7 intersection.
- Widen/improve KY 3297.
- Drainage problems and flooding occur on KY 1 from US 60 to Hillview Drive and on Damron Branch Road.
- Sidewalk improvement is needed from Prichard Elementary down Robert and Mary Street and Rupert Lane.
- Provide better sidewalks along KY 1 and a crosswalk near Academic Parkway for the safety of students and other young people who cross there to attend events.

- Extend sidewalks along KY 7 to Little Sandy River Bridge and on US 60 to KY 1.

Table 2 – Jeremiah Littleton

- KY 1 – Issues and Options
 - Road needs to be widened.
 - Consider access control.
 - Consider protected left turns.
 - Address traffic lights.
 - Pedestrians crossing KY 1 from College Street pose a concern due to the traffic volumes.
- KY 1/Everman Street/Interstate Drive Intersection
 - Needs lighting.
 - Needs right-turn lane to Interstate Drive from KY 1.
 - Crash area due to so many conflicts.
 - KY 1/KY 1947 intersection is too close to the I-64 westbound on ramp from KY 1.
- Connect KY 9 and CW Stevens Boulevard behind Kmart with a new roadway (loop).
- KY 9/KY 1/KY 7 intersection is a concern due to crashes.
- Turn lanes are needed on KY 1 at Carter County High School; poor sight distance exists at this location.
- School traffic along KY 3297 is a problem.
- Speeding is an issue at the following locations:
 - Along KY 7, especially just north of the first Little Sand River Bridge.
 - US 60 near the KY 1 east junction with US 60.
- A strong desire was expressed for an “Eastern Bypass” of KY 1 through town.
- KY 3297 Bridge just west of US 60 is too narrow.
- US 60/KY 3297 intersection has poor sight distance.
- A subdivision expansion is anticipated along US 60 west near Paradise Hill and Woodland Heights.
- Drainage issues were identified at the following locations:
 - Damron Branch Road near its intersection with US 60
 - On South Hord Street (CS 1047) along Town Branch west of KY 7 behind the Papa John’s area.
 - Along Rupert Street.
 - Along KY 1 near the Food Fair.
 - KY 1 in the vicinity of Beech Grove Road.
 - KY 1 near its east junction with US 60 in the vicinity of East River Road.
- KY 773 is too narrow and motorists drive too fast for the safety of runners along the route.
- KY 7/KY 773 intersection needs lighting and a left-turn lane on KY 7 at KY 773.

Table 3 – Annette Coffey

- Immediate needs (Number 1) on CW Stevens Boulevard are sidewalks, widening, and drainage.
- CW Stevens Boulevard needs safe walking areas.
- Widen KY 1.
- Flooding occurs across KY 1 at the former location of Ralphs Food Fair.
- A crosswalk on KY 1 at the Kentucky Christian College is needed for pedestrian safety.
- School traffic along KY 3297 and US 60 is a major problem area.
- The left-turn is dangerous at the KY 1/East Carter High School entrance intersection.
- Connect Interstate Drive to Rupert Street then to KY 1 to facilitate left turns onto KY 1 at Arby's.
- Damron Branch Road is narrow and has cut-through traffic.
- The following are poorly lighted areas:
 - KY 1947/US 60 intersection.
 - KY 7 from Cabin Creek Road to KY 773 (including the KY 7/KY 773 intersection)
- The intersection of US 60/KY 3297 intersection has poor sight distance looking right (west)
- Sidewalks are needed throughout Grayson, with many pedestrians identified along KY 3297 near US 60.
- Flooding occurs on Rupert Lane and the approach to the US 60/KY 1 intersection
- US 60/KY 1/KY 7 intersection needs to be widened to better accommodate right turns
- The KY 1/Everman Street intersection is difficult for trucks to “get in and get out of”
- A two-way-left-turn lane (TWLTL) is needed on KY 1 from Academic Parkway to the Little Sandy River.

Table 4 – Tom Springer

- Rupert Street is a residential road and does not need more traffic; however, a new parallel road to KY 1 is needed.
- KY 1 has 40% of city's jobs and payroll tax, yet it is the “worst” street.
- CW Stevens Boulevard:
 - Provide an overpass of I-64 from CW Stevens Boulevard and a new connection south to US 60.
 - A new connection from CW Stevens Boulevard north and northwest to KY 9 (AA Highway) is needed.
 - A 100-bed rehabilitation center will be located along CW Stevens Boulevard.
- KY 1/Interstate Drive and KY 1/Arby's intersections should be right-in/right-out only.
- TWLTL is needed along US 60 from KY 7 east to near McDavid Boulevard.
- KY 1910 (south of Wilson Creek Road) will need an entrance for potential development.

*Grayson Small Urban Area Study
First Local Officials/Stakeholders Meeting
July 8, 2016
Page 2*

- A subdivision expansion is expected on US 60 (west of KY 1) near Paradise Hill.
- Provide an extension of KY 3297 to KY 1 near East Carter Middle School.
- US 60 should be widened and sidewalks provided from the KY 1 east junction west to KY 1947.
- A turn lane is needed from KY 773 onto KY 7.
- KY 1 has a drainage issue near its east junction with US 60 between the Raider Mart and Hillview Drive.
- Consider a roundabout option for the KY 1/US 60/KY 7 intersection.
- Sight distance is an issue in front of the East Carter County High School.
- Development potential exists along Interstate Drive.

Open Discussion

- Motorists' vehicles hydroplane on KY 1 near East Carter County High School.
- Connecting KY 1 to the AA-Highway is a great idea.
- The east side of Grayson is an area for new residential development.
- Schools in Grayson have one-way in and one-way out that contribute to a huge traffic volume and low capacity along US 60, KY 3297, and KY 1.

The meeting concluded at approximately 3:30 p.m.

Attachment A is the presentation given in
Project Team Meeting 1 located on page D-
5



Groundbreaking by Design.

Grayson Small Urban Area Study Carter County



AGENDA

Local Officials/Stakeholders Meeting No. 1

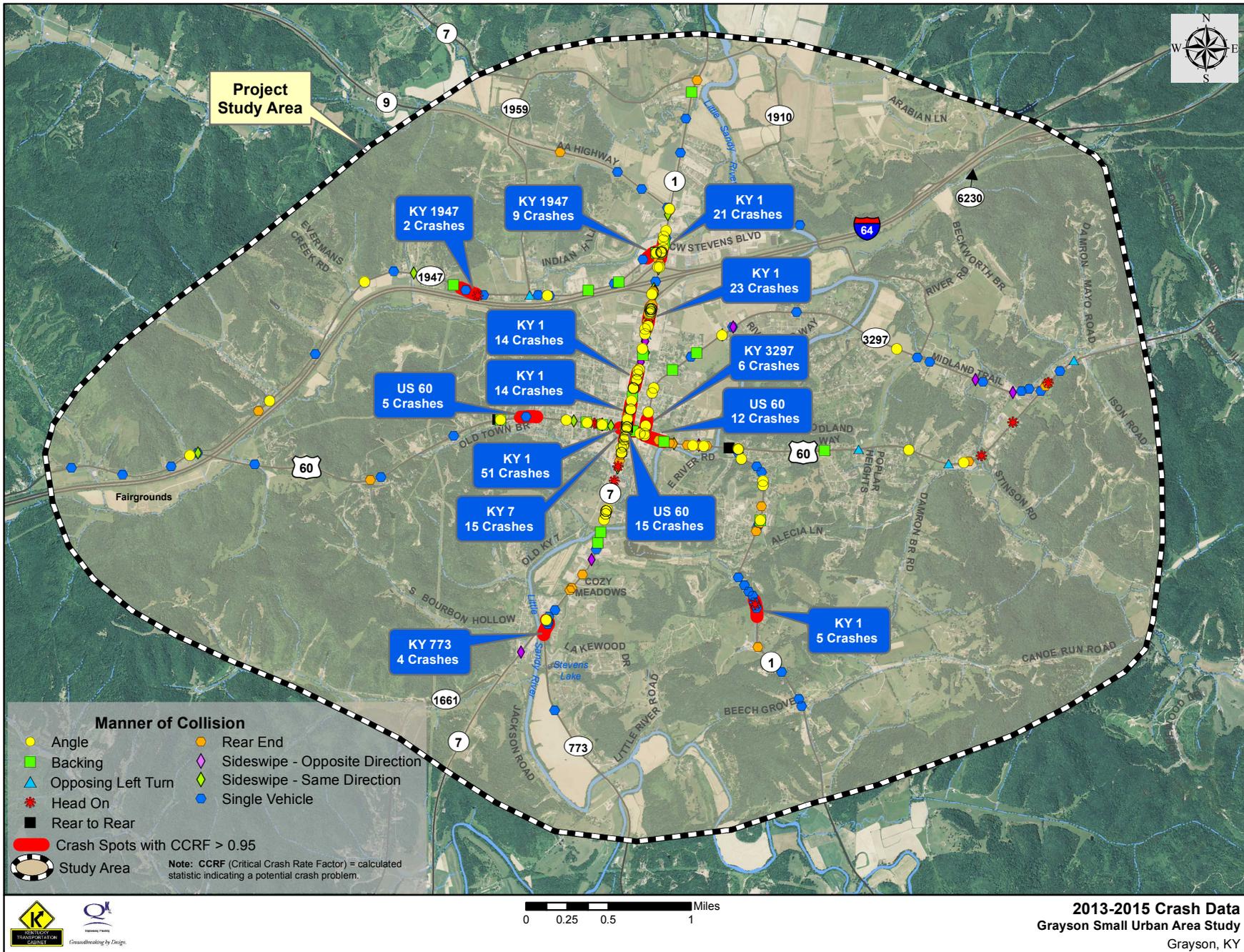
FIVCO ADD Board Room

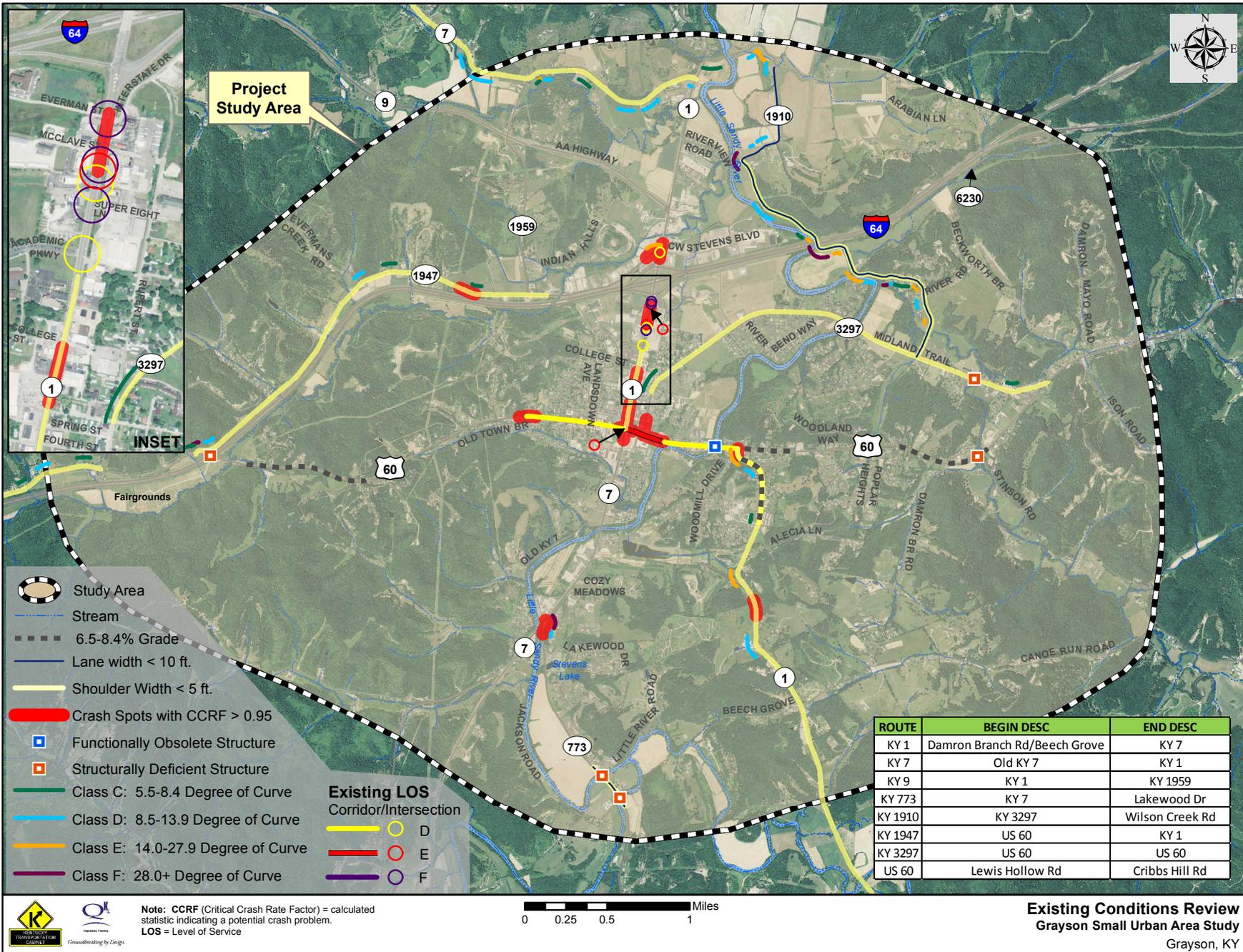
July 8, 2016

1:30 PM

- I. Introductions
- II. Study and Project Purpose
- III. Project Schedule
- IV. Existing Conditions
- V. Environmental Overview
- VI. Traffic and Operational Performance
- VII. Next Steps
- VIII. Breakout Session

Attachment A is the presentation given in
Project Team Meeting 1 located on page D-
D-7





Question prompts

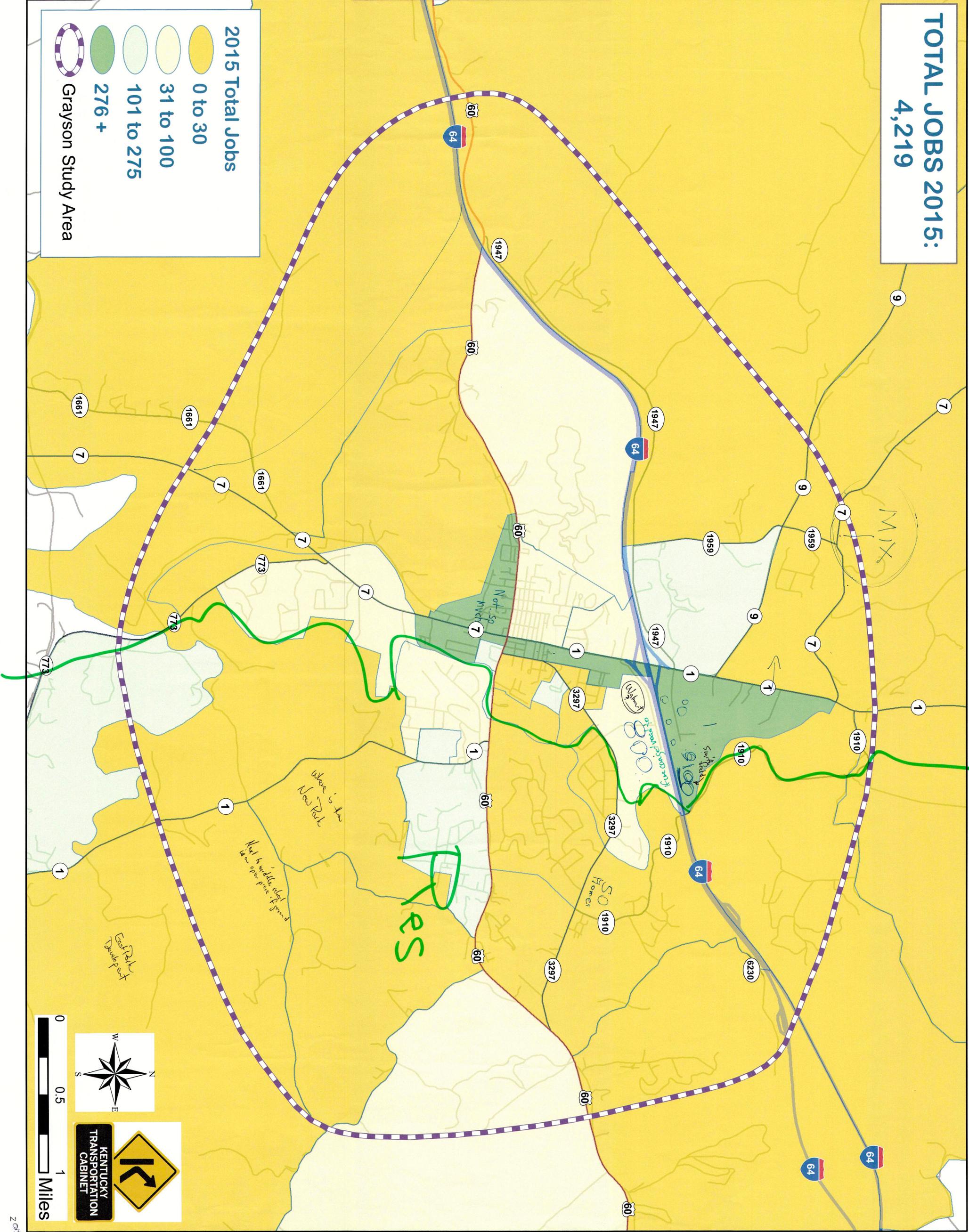
1. Are there any specific locations where crashes occur?
2. Are there locations where people drive too fast or dangerously?
3. Are there locations where it is hard to see on-coming vehicles, due to vegetation, terrain, or the geometrics of the roads?
4. Are there locations where the road is too narrow, or needs better shoulders?
5. Are there locations where it feels unsafe for pedestrians?
6. Are there intersections that are confusing, or feel unsafe?
7. Are there intersections that need a right or left turn lane?
8. Are heavy trucks an issue?
9. Are there places poorly lit, or the roadway striping needs improvement?
10. Are there places where flooding occurs over the road?
11. Do you know of problems for elderly drivers?
12. Is emergency response an issue?
13. Any other comments regarding safety on the area roadways?
14. Are there areas that are expected to expand, e.g. new subdivisions, expanding industry, new parks?

TOTAL JOBS 2015:
4,219

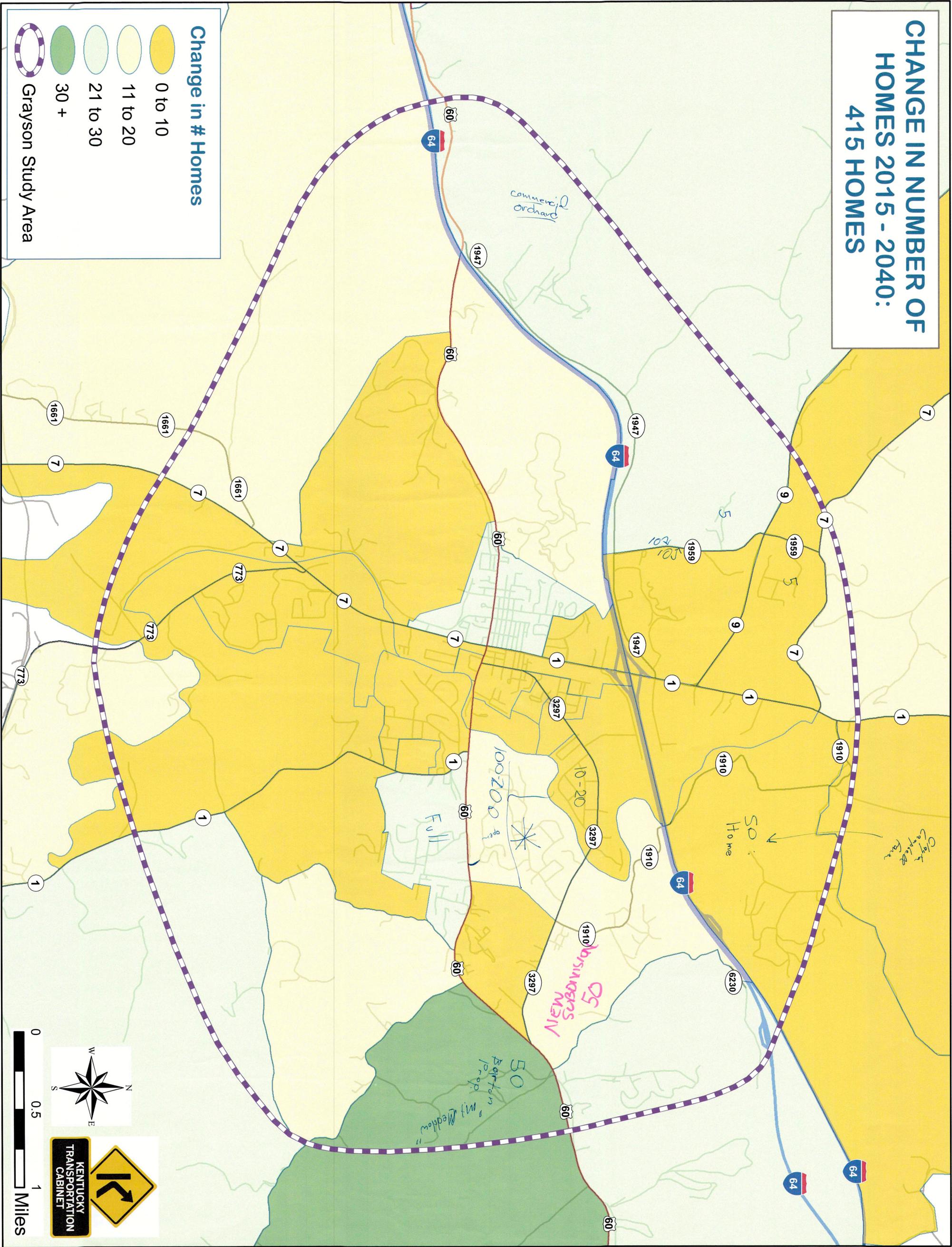
2015 Total Jobs

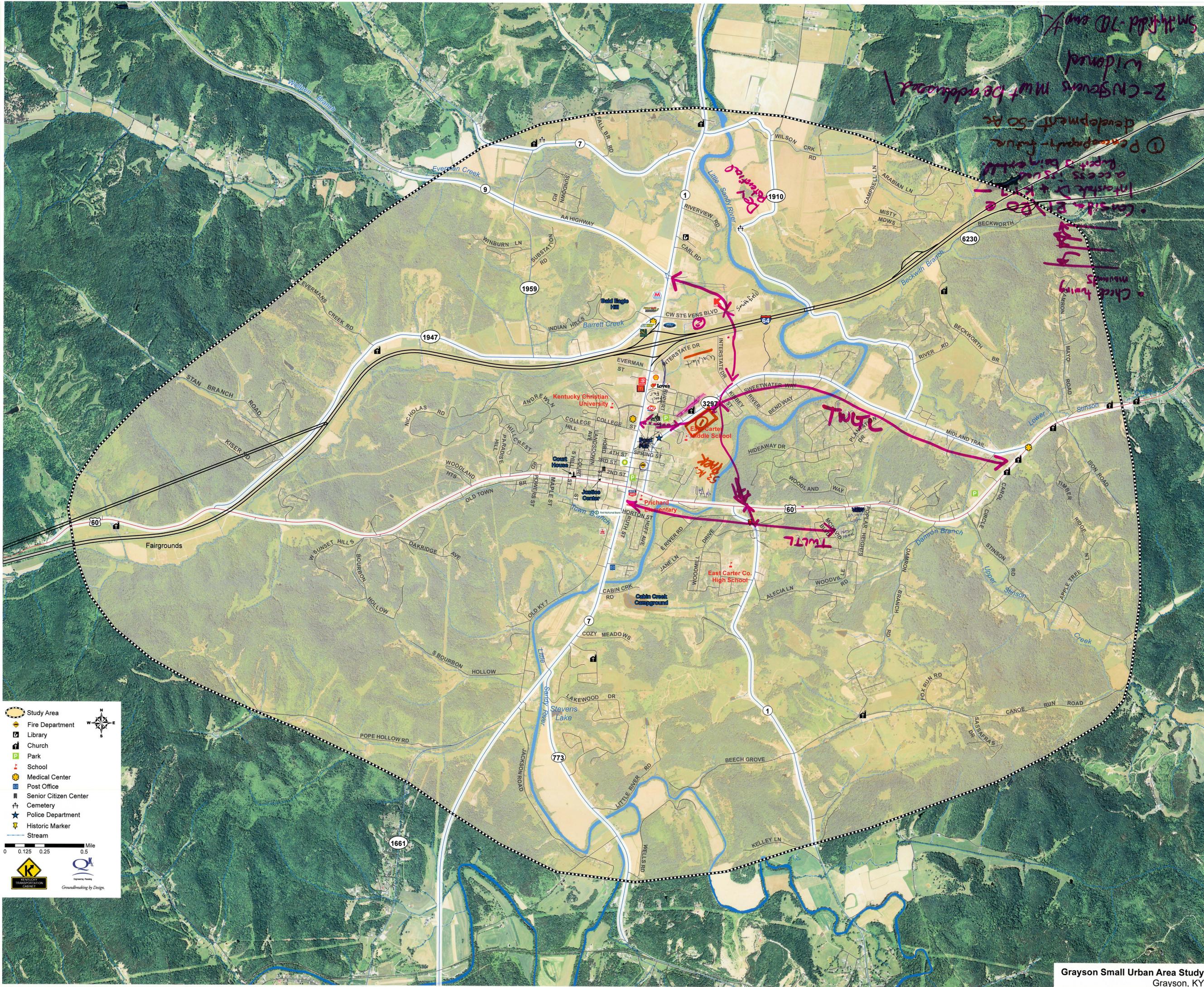
- 0 to 30
- 31 to 100
- 101 to 275
- 276 +

Grayson Study Area



CHANGE IN NUMBER OF HOMES 2015 - 2040: 415 HOMES





2-CN Stevens must be addressed
 development - 50 ac
 1 Parcel - future
 access - issue
 Intake D + K -
 Consider B + B -
 Check timing

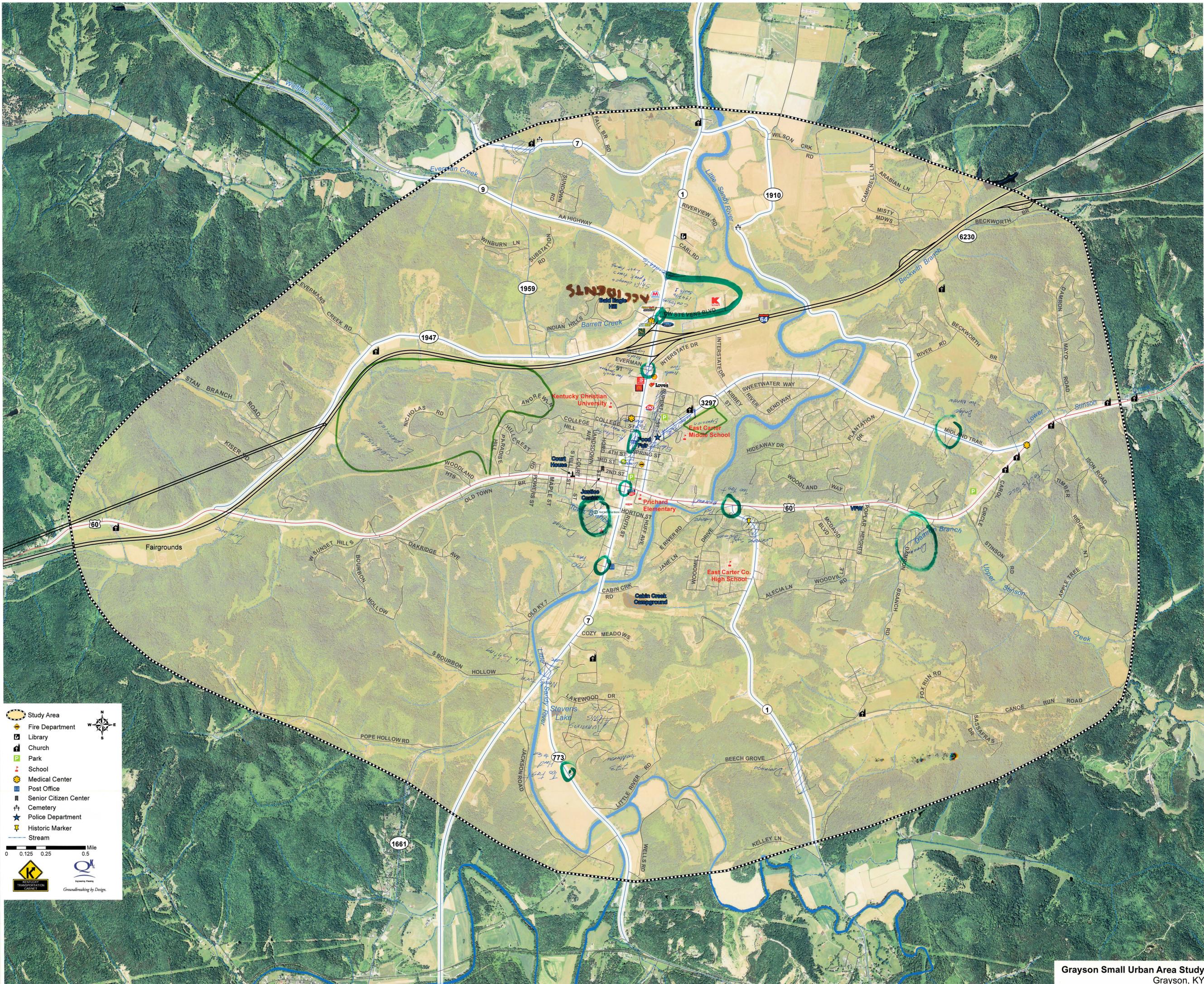
Dev Potential

TWTL

TWTL

Study Area
 Fire Department
 Library
 Church
 Park
 School
 Medical Center
 Post Office
 Senior Citizen Center
 Cemetery
 Police Department
 Historic Marker
 Stream

0 0.125 0.25 0.5
 Mile
 Kentucky Transportation Cabinet
 Groundmarking by Design



Study Area

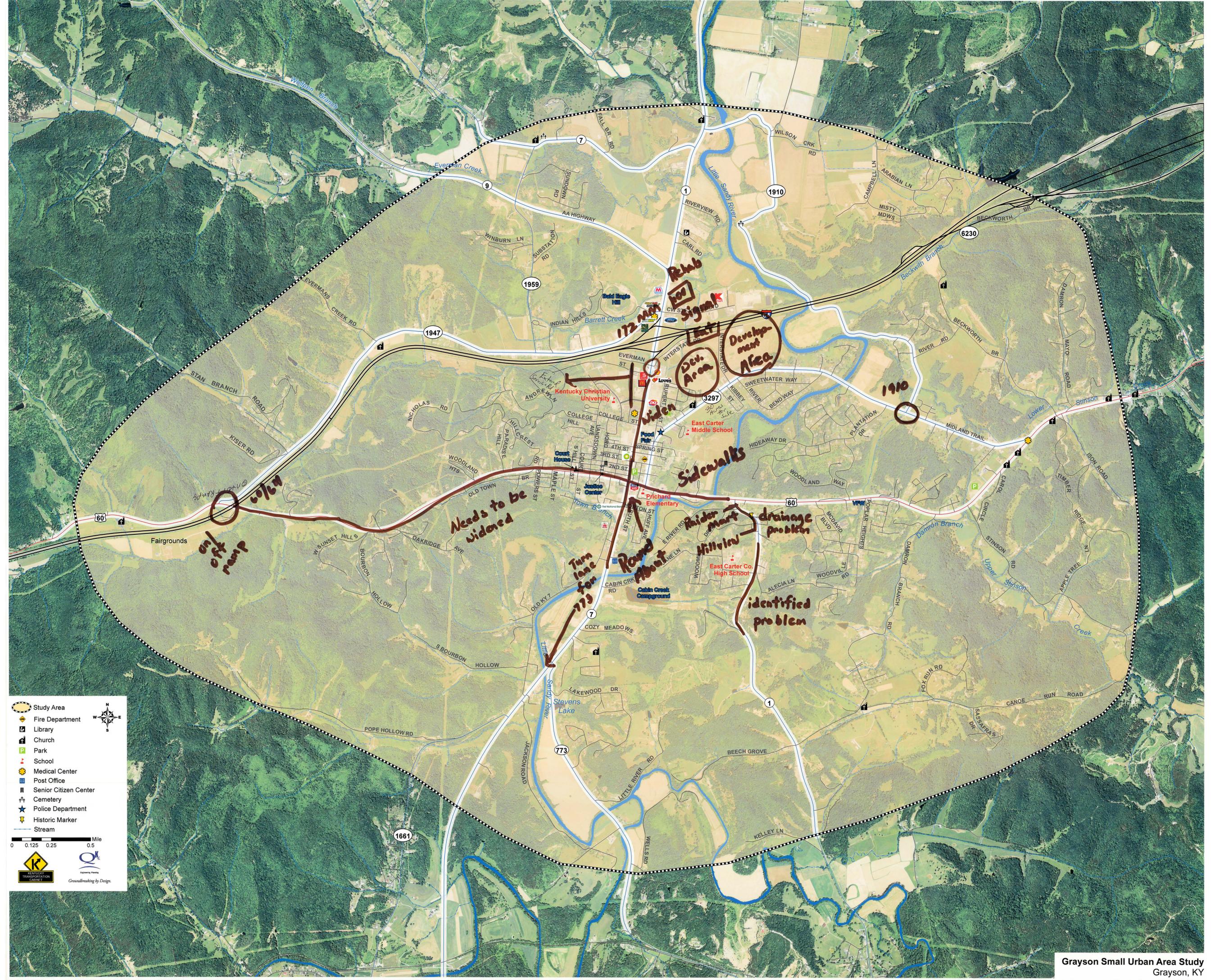
- Fire Department
- Library
- Church
- Park
- School
- Medical Center
- Post Office
- Senior Citizen Center
- Cemetery
- Police Department
- Historic Marker
- Stream

0 0.125 0.25 0.5 Mile

KENTUCKY TRANSPORTATION CABINET

Groundbreaking by Design

Grayson Small Urban Area Study
Grayson, KY



Legend

- Study Area
- Fire Department
- Library
- Church
- Park
- School
- Medical Center
- Post Office
- Senior Citizen Center
- Cemetery
- Police Department
- Historic Marker
- Stream

Scale: 0, 0.125, 0.25, 0.5 Miles



D - 90



















Grayson Small Urban Area Study Carter County



Project Team Meeting No. 2 District 9 - Flemingsburg November 1, 2016 10:00 AM Meeting Minutes

Project: Grayson Small Urban Area Study (SUA)
Purpose: Review of Alternative Concepts
Prepared By: Tom Springer

Attendees:

Joe Callahan	KYTC D9 Planning	606.845.2551	joe.callahan@ky.gov
Darrin Eldridge	KYTC D9 Project Dev.	606.845.2551	darrin.eldridge@ky.gov
Jeremy Brickey	KYTC D9 Grayson Section	606.474.5721	jeremy.brickey@ky.gov
Terry Ishmael	KYTC D9 Traffic	606.845.2551	terry.ishmael@ky.gov
Karen Mynhier	KYTC D9 Environmental	606.845.2551	karen.mynhier@ky.gov
Rachel Catchings	KYTC D9 Design	606.845.2551	rachel.catchings@ky.gov
Deanna Mills	KYTC CO Planning	502.782.5085	deanna.mills@ky.gov
Jayalakshmi Balaji	KYTC CO Planning	502.782.5045	jayalakshmi.balaji@ky.gov
Mikael Pelfrey	KYTC CO Planning	502.782.5073	mikael.pelfrey@ky.gov
Tom Springer	Qk4, Inc.	502.585.2222	tspringer@qk4.com
Andy Gilley	Qk4, Inc.	502.585.2222	agilley@qk4.com
Annette Coffey	Qk4, Inc.	502.352.2197	acoffey@qk4.com

Following introductions, Annette reminded the team of the goals of the study—to identify roadway projects that will improve safety and congestion. The purpose of the meeting is to review each proposed project alternative in preparation of the Local Officials/Stakeholders (LO/S) Meeting, which has been scheduled for December 7, 2016 in the AM. KYTC Project Team Meeting No. 3 will follow the LO/S meeting, in the PM.

A handout matrix of alternative concepts was provided, and is attached to these minutes. Minor edits to the table have been made since the meeting to clarify and simplify information, only. For the LO/S meeting, the table will be modified based on the discussion at PTM No. 2 as summarized in these meeting minutes.

Project Specific Discussion:

- No revisions to the descriptions of the following alternatives: B, H, N, O, P, Q, R, V, W, X, Z, BB, CC, DD, EE, FF, and HH.
- Concept BB was conceived during LO/S Meeting No. 1 to provide congestion relief to Carol Malone Boulevard (KY 1/KY 7) and the KY 1/KY 7/I-64 interchange area as well as to efficiently move employees from CW Stevens Boulevard to and from work, employment and shopping. According to the traffic model output, 2040 Build traffic for the three connections could carry approximately:
 - KY 9 to CW Stevens – 2,700 vehicles per day (vpd)
 - CW Stevens to KY 3297 – 9,500 vpd
 - KY 3297 to US 60 – 5,100 vpd

In addition, the model shows 5,000 vpd would be diverted from KY 1/KY 7 (Carol Malone Boulevard). The above 2040 Build traffic includes three existing plus committed projects:

- KY 3297 – widening from two to three lanes from Rupert Lane to US 60 (09 022 D3297 40.00 and 09 022 D3297 39.00)
- KY 7 -- widen to four lanes from KY 1661 to existing four lane section at the Little Sandy River Bridge (09 022 D 0007 46.20)
- Revisions to the following project descriptions will be made prior to the LO/S Meeting No. 2:
 - US 60 (Alternatives A and GG). District 9 requested for the LO/S Meeting we present both the TWLTL concept (GG) (with parking on one side) and the concept with extended left-turn lanes (A) (with a similar arrangement of parking that exists today). As part of either alternative concept, it was requested the entrance to Park Street in the northeast quadrant of the US 60/KY 1 intersection be closed as it is in the functional area of the intersection and contributes to congestion. After a discussion of short- and long-term projects, the closure of Park Street was identified as a KYTC short-term project.
 - US 60 (Alternative C). Qk4's cost estimate does not include widening the bridge. District 9 requested the estimates include curb and gutter as part of the sidewalk. In the future the bridge will warrant replacement. At that time the sidewalk could be extended to KY 1, but would not be a project presented in this SUA. Qk4 will change the milepoint range to exclude the bridge.
 - US 60 (Alternative D). Add to the project description and costs (approximately \$15,000) to remove a hill (along the south side of KY 1947) to improve sight distance.
 - KY 1 East (Alternative E). Prior to the LO/S Meeting, revise to read "Drainage Improvements" and remove the detailed descriptions.
 - KY 1 East (Alternative F). Revise cost estimate to include 600 feet of ditching, and prior to the LO/S Meeting revise description to say "Drainage Improvements" only, and not include the detailed descriptions.

- Carol Malone Blvd. KY 1 (Alternative H). The Project Team agreed no additional improvements were necessary since KYTC has made numerous safety improvements on KY 9 to mitigate crashes at the KY 9/KY 1 intersection and the reported three-year crash history showed three crashes at or near this location – which does not indicate a crash safety issue (one crash was a collision with an animal).
- KY 1 (Alternative K). Shown on map as K and M. Qk4 will separate these as two projects on the table and remove the cost for a traffic signal.
- Alternative O will be removed from the map and table, as it will be included with KYTC Item Number 9-144.00 (KY 1 widening from the Little Sandy River Bridge to Academic Parkway).
- KY 1 (Alternative S). Reduce length and cost estimates of sidewalk because the on-going KYTC project will include sidewalks on both sides to Little Sandy Lane (KYTC Item Number 9-144.00).
- New Bypass (BB-CW Stevens Boulevard to KY 3297). Add \$3 million dollars to the utility cost estimate due to the presence of three underground gas transmission lines.
- CW Stevens Boulevard (Alternative HH). In the recent past, new drainage and striping has been added to a portion of CW Stevens Blvd. District 9 requested the proposed typical section include curb and gutter.
- KY 1947 (Alternative "II") and KY 1/I-64 WB Ramp (Alternative JJ) have been added by Qk4 since the last meeting. These two concepts improve traffic congestion if the connector roadway (BBs), is not realized.
 - Alternative "II" is to add a right-turn lane pocket at KY 1.
 - Alternative JJ would widen the I-64 WB exit ramp to provide dual lefts.

The projects were divided between Local, KYTC Short-Term, and KYTC Long-Term.

- The five Local projects are: Rupert Lane/CS 1059 (Alternatives CC and FF), Damron Branch Road (Alternative DD), South Hord Street/CS 1047 (Alternative EE), and CW Stevens Boulevard (Alternative HH)
- The six KYTC Short-Term projects are: D, E, F, V, Q, and the new project to close Park Street access to KY 1 in the northwest quadrant of US 60/KY 1 intersection (KK).
- The remaining projects are KYTC Long-Term.

For the next LO/S meeting, the improvement alternatives table will be "renumbered" in consecutive order leaving no gaps e.g. Alternatives A, B, C, D.... and the milepoints will be extended to three decimal places. The accompanying Recommended Projects exhibit will be modified accordingly.

At the second LO/S meeting, the Local projects will be presented first, and ranked by the attendees, followed by KYTC Short-Term Projects and then KYTC Long-Term Projects. Lastly, the following Project Identification Forms will be ranked by the LO/S.

Route	Begin MP	End MP	PIF Description	PIF Number
KY 1 East	0.000	10.600	Correct horizontal, vertical and width deficiencies on KY 1 from the Lawrence Co Line (MP 0.0) to US 60 in Grayson (MP 10.6) to improve safety, sight distances, systems connectivity, and operational efficiency, and southern access into Grayson for area residents.	09 022 D0001 45.00
KY 1 (Carol Malone Boulevard)	11.502	16.520	Needs improvements for safety and better accessibility	09 022 D0001 43.00
KY 7	9.157	10.296	Correct geometric and width deficiencies on KY 7 from KY 1661 (MP 9.2) to and including the Little Sandy Bridge (MP 10.3) to improve access and systems connectivity between Grayson and Sandy Hook, increase efficiency of route and enhance economic growth in area.	09 022 D0007 46.20
KY 3297	0.200	1.634	Improve operational efficiency and provide congestion relief on KY 3297 beginning at Rupert Lane (MP 0.279) extending east to the Bridge over the Little Sandy River (MP 1.634	09 022 D3297 39.00
	1.750	2.930	Correct geometric and width deficiencies (narrow shoulders) on KY 3297 from the Little Sandy River Bridge (MP 1.750) extending to the US 60 intersection (MP 2.932) to improve operational efficiency and systems connectivity.	09 022 D3297 40.00

It was noted the Project Team would use the LO/S rankings as another tool with safety, congestion, costs, etc. to develop final rankings. Mikael will provide a sample scoring system following this meeting.

End of Minutes

GRAYSON SUA PROJECT IDENTIFICATION

Route	New Alternative Label	Alternative Label pre PTM#2	Local (L) Short-Term (ST) Long-Term (LT) post PMT#2--	Begin MP	End MP	Identified Issue	Concept for PTM 2	Planning	Design	Right of Way	Utilities	Construction	Sub-Total	Grand Total (Rounded Up)
US 60	A	A	LT	23.346	23.940	Access, on-street parking and safety concerns.	Restripe and provide TWLTL from Court St. to KY 1/KY 7 with parking on one side only. (See Alternative G)	\$ -	\$ 20,000	\$ -	\$ -	\$ 171,000	\$ 191,000	\$ 200,000
	A1	A-1	LT	23.620	23.940	Access, on-street parking and safety concerns.	Restripe and provide left turn lanes.	\$ -	\$ -	\$ -	\$ -	\$ 5,000	\$ 5,000	\$ 10,000
	B	B	LT	21.380		Access to Fairgrounds is insufficient and traffic backs up on major roadways during large events.	Provide another point of egress on US 60 from the Fairgrounds east of the existing entrance.	\$ -	\$ 350,000	\$ 50,000	\$ 75,000	\$ 540,000	\$ 1,015,000	\$ 1,100,000
	C	C	LT	23.950	24.500	Incomplete Sidewalks.	Reconstruct and extend existing deficient sidewalks from KY 1 east to the Little Sandy River Bridge. Due to bridge's age, width and length, a sidewalk from the bridge to KY 1 will be included in a future project when this bridge is replaced.	\$ -	\$ 25,000	\$ -	\$ 50,000	\$ 540,000	\$ 615,000	\$ 620,000
	D	D	ST	21.220		KY 1947 Intersection (MP 0) dark conditions at the intersection with US 60.	Provide lighting at the intersection and remove a hill (along the south side of KY 1947) to improve sight distance at US 60 near I-64.	\$ -	\$ -	\$ -	\$ 50,000	\$ 15,000	\$ 65,000	\$ 70,000
KY 1 (East)	E	E	ST	10.414	10.646	Drainage problems and flooding from US 60 to Hillview Drive.	Widen, deepen and regrade existing ditch. Construct two ~ 30-foot culverts adjacent to the existing pipe. An optional solution would be to widen and deepen the existing roadside ditch, cap the existing pipe under KY 1, construct a new ditch to East River Road and construct a 54-inch pipe under that roadway.	\$ -	\$ -	\$ -	\$ -	\$ 50,000	\$ 50,000	\$ 50,000
	F	F	ST	8.863		Drainage problems along KY 1 near Beech Grove Road.	Clean the existing 18-inch RCP under KY 1 and construct a new 24-inch pipe adjacent to the existing structure. Remove the existing 24-inch RCP and relay approximately 1-foot lower than its existing inlet elevation. Construct a new 30-inch pipe adjacent to the relayed 24-inch pipe. The existing ditch between the outlet end of the existing 18-inch RCP and the inlet of the existing 24-inch, should be regraded and cleaned and includes 600 feet of ditching.	\$ -	\$ -	\$ -	\$ -	\$ 50,000	\$ 50,000	\$ 50,000
US 60	G	GG	LT	23.355	24.500	Access, congestion, on-street parking, and safety concerns through downtown Grayson. Congestion near KY 1/US 60/KY 7 intersection, motorists traveling east waiting to turn left onto Park Street block the area and causing queues to back into the KY 7/US 60/KY 1 intersection. Park Street entrance is within functional area of the intersection.	Add TWLTL, widen lanes, and provide signage to direct motorists to the appropriate lane from Babgy Street to the Little Sandy River Bridge and close Park Street entrance from US 60.	\$ -	\$ 40,000	\$ 50,000	\$ 75,000	\$ 325,000	\$ 490,000	\$ 490,000
KY 1 (Carol Malone Boulevard)	H	H	LT	12.010		KY 9 Intersection is a concern due to crashes. This was raised by local officials; however, crash analysis did not yield an issue. Three crashes reported in 3 years and 1 was collision with animal.	D-9 staff will review signage/stripping, but no alternative concept is recommended.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
KY 1947	I	II	LT	3.337	3.398	If Alternative J (new connector) cannot be realized, improvements are needed to improve LOS and reduce delay.	Provide a right-turn lane pocket.	\$ -	\$ 50,000	\$ 75,000	\$ 75,000	\$ 238,000	\$ 438,000	\$ 440,000
KY 1 (Carol Malone Boulevard)	J	J	LT	N/A		Improve accessibility to CW Stevens Boulevard for Smithfield employees and trucks and improve accessibility to the CW Stevens Boulevard area and KY 9.	(1) Construct new 0.36 mile two-lane roadway from CW Stevens Boulevard north to KY 9 (AA Highway) to provide relief at the existing intersection, (2) move left turns farther from the I-64/KY 1 interchange, and (3) align with the existing traffic signal at KY 9. (Section 1 of possibly 3, see BB1 and BB2.)	\$ -	\$ 250,000	\$ 500,000	\$ 150,000	\$ 2,030,000	\$ 2,930,000	\$ 3,000,000
KY 1 (Carol Malone Boulevard)	K	K	LT	11.390		Everman St./Interstate Drive Intersection is a crash location.	Connect Everman Drive and Academic Parkway with a two-lane roadway. Two options are provided, only one would be built.	\$ -	\$ 250,000	\$ 1,000,000	\$ 400,000	\$ 1,180,000	\$ 2,830,000	\$ 2,900,000
KY 1/I-64 WB Ramp	L	JJ	LT	0.252	0.176	If Alternative J (new connector) cannot be realized, improvements are needed to improve LOS and reduce delay.	Provide dual left turn lanes on I-64 WB Ramp.	\$ -	\$ 75,000	\$ 75,000	\$ 75,000	\$ 369,000	\$ 594,000	\$ 600,000
KY 1 (Carol Malone Boulevard)	M	M	LT	11.390		Improve access and truck movement at KY 1 and Loves Truck Stop	Close the two entrances closest to the KY 1/I-64 eastbound on-ramp, and route those motorists to Super Eight Lane and the roadway directly across KY 1 from McClave Street. Relocate existing truck parking and improve internal circulation.	\$ -	\$ 250,000	\$ 1,000,000	\$ 400,000	\$ 580,000	\$ 2,230,000	\$ 2,230,000
KY 1 (Carol Malone Boulevard)	N	N	LT	10.650	11.385	Access, traffic flow, and safety along KY 1/KY 7 are a problem between US 60 and I-64. Many of the crashes are angle and sideswipe crashes and are the result of the number of existing entrances along the corridor.	Conduct an access management study to provide for a more efficient corridor.	\$ 700,000	\$ -	\$ -	\$ -	\$ -	\$ 700,000	\$ 700,000
US 60	O	KK	ST	23.98		Congestion near KY 1/US 60/KY 7 intersection, motorists traveling east waiting to turn left onto Park Street block the area and causing queues to back into the KY 7/US 60/KY 1 intersection.	Close Park Street entrance from US 60, and provide curb and sidewalk across the entrance.	\$ -	\$ -	\$ -	\$ -	\$ 5,000	\$ 5,000	\$ 5,000

GRAYSON SUA PROJECT IDENTIFICATION

Route	New Alternative Label	Alternative Label pre PTM#2	Local (L) Short-Term (ST) Long-Term (LT) post PMT#2--	Begin MP	End MP	Identified Issue	Concept for PTM 2	Planning	Design	Right of Way	Utilities	Construction	Sub-Total	Grand Total (Rounded Up)
KY 1 (Carol Malone Boulevard)		Q	LT	11.160	11.160	<p>Pedestrians from the College are not provided a crosswalk from Academic Parkway to the commercial part of KY 1. This issue was raised by the local officials. Following is information considered while trying to identify possible solutions:</p> <p>1. A crosswalk exists at College Street with a traffic signal, but it is 800+ feet from Academic Parkway and therefore not used.</p> <p>2. No refuge is present for a pedestrian, and it would be difficult to provide one giving the driveway accesses on KY 1.</p> <p>3. There is no receiving sidewalk to connect to on the east side of KY 1.</p> <p>4. There are traffic signals to stop vehicles or provide signed crosswalks.</p> <p>5. Pedestrian would cross 5 lanes of traffic.</p> <p>6. High traffic volumes are a concern.</p>	No specific project is proposed. However, a crosswalk can be reviewed when the TWLTL or other redesign concept is implemented from Academic Parkway to south of US 60.							\$
KY 1 (Carol Malone Boulevard)	P	P	LT	N/A		Grayson enjoys a walking community; however, some sidewalks are in disrepair and connectivity is lacking.	Conduct a pedestrian walkability, safety, and ADA compatibility study for the community of Grayson to supplement the sidewalk information collected by KYTC and the ADD.	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ 150,000	\$ 150,000
KY 1 (Carol Malone Boulevard)	Q	Q	ST	10.900		Drainage issues near the old Ralph's Food Fair	Possible short term solutions include paving the outlet ditch from the existing 6 x 3.5-foot RCBC to the inlet of the existing 48-inch CMP, and flushing /cleaning the existing 48-inch CMP under the parking lot and buildings to insure the downstream outlet system is not clogged and is functioning properly.	\$ -	\$ -	\$ -	\$ 10,000	\$ 52,000	\$ 62,000	\$ 70,000
KY 7	R	R	LT	9.580	10.230	Poor Lighting from KY 773 to Cabin Creek Rd	Install lighting along KY 7.	\$ -	\$ 20,000	\$ -	\$ 50,000	\$ 249,000	\$ 319,000	\$ 320,000
	S	S	LT	10.200	10.400	Provide for pedestrian mobility along KY 1/ KY 7 to KY 1 from KYTC Item Number 9-144.00 crossing the Little Sandy River Bridge to Cabin Creek Road.	Construct sidewalks along both sides of KY 7 from Sandy Lane over the Sandy River Bridge (estimated one side of the bridge).	\$ -	\$ 150,000	\$ -	\$ -	\$ 532,000	\$ 682,000	\$ 690,000
South Hord St (CS 1126)	T	EE	Local	0.25		Drainage Issues along Town Branch south of Womack Road.	Due to the existing hillside on the south side of CS 1047, it would potentially be very expensive to re-route the channel into the existing box culvert at a less severe angle. One potential solution would be to improve the inlet channel by cleaning and widening and removing much of the overgrown vegetation and large trees. In addition, utilize channel lining to form a berm/dike to better direct flow into the inlet. The cost estimate includes Fees In Lieu Of (FILO) of \$50,000 for the stream .	\$ -	\$ -	\$ -	\$ -	\$ 63,000	\$ 63,000	\$ 70,000
CW Stevens Boulevard (CS 1110)	U	HH	Local	0.000	0.484	CW Stevens has notable congestion and lacks roadway striping and sidewalks.	Widen CW Stevens Boulevard, and add sidewalks on both sides.	\$ -	\$ 100,000	\$ 100,000	\$ 250,000	\$ 1,664,000	\$ 2,114,000	\$ 2,120,000
KY 1 (north)	V	V	ST	12.940		No Through Truck Signs at KY 1910 Intersection. KY 1910 is a narrow windy road that does not lead to the industrial areas or I-64.	Install a "No Through Trucks" sign at the intersection of KY 1/KY 1910 intersection.	\$ -	\$ -	\$ -	\$ -	\$ 1,000	\$ 1,000	\$ 1,000
KY 1910	W	W	LT	0.000	0.004	Insufficient turn radius at KY 3297 Intersection with KY 1910.	Shift KY 1910 approach to KY 3297 eastward and improve turn radii from KY 1910 to KY 3297.	\$ -	\$ 25,000	\$ 25,000	\$ 75,000	\$ 100,000	\$ 225,000	\$ 230,000
KY 3297	X	X	LT	0.148		Poor turning Radii at E. Third St. (MP 0.083) especially for Fire trucks.	Improve turning radii from KY 3297 to East Third Street.	\$ -	\$ 25,000	\$ 30,000	\$ 50,000	\$ 50,000	\$ 155,000	\$ 160,000
Rupert Street (CS 1059)	Y	FF	Local	0.100	0.400	Flooding Issues.	The addition of a number of catch basins and storm sewer pipe would help mitigate the flooding issues along Rupert Street by collecting the runoff and removing it from the roadway. Between KY 3297 and Dixie Street, the catch basins and storm pipe could be connected to the elliptical pipe with junction boxes. From Dixie Street to Super Eight Lane the catch basins and storm pipe can outlet into the existing paved ditch adjacent to Rupert Street. It is assumed the catch basins would be built on both sides of the roadway and be spaced approximately 200 feet apart. Fifteen-inch storm sewer pipe would be used to connect the catch basins as well connect to the existing elliptical pipe or existing paved ditch.	\$ -	\$ 100,000	\$ -	\$ 75,000	\$ 200,000	\$ 375,000	\$ 380,000
KY 3297	Z	Z	LT	0.360	0.420	Long traffic queues at East Carter Middle School due to school traffic.	Provide right-turn lane at the southernmost entrance.	\$ -	\$ 35,000	\$ -	\$ 50,000	\$ 150,000	\$ 235,000	\$ 240,000
	AA	AA	LT	0.000	0.660	Improve pedestrian mobility from Prichard Elementary (at US 60) north past East Carter Middle School to Prichard Street Rupert Lane. School children walk this corridor to/from home and school.	Reconstruct existing sidewalks from US 60 Prichard Elementary School to Prichard Street.	\$ -	\$ 50,000	\$ -	\$ 75,000	\$ 329,000	\$ 454,000	\$ 460,000

GRAYSON SUA PROJECT IDENTIFICATION

Nov 2, 2016, post PTM #2 - Attachment to PTM#2 Minutes

Route	New Alternative Label	Alternative Label pre PTM#2	Local (L) Short-Term (ST) Long-Term (LT) post PMT#2--	Begin MP	End MP	Identified Issue	Concept for PTM 2	Planning	Design	Right of Way	Utilities	Construction	Sub-Total	Grand Total (Rounded Up)
New Bypass	BB	BB CW Stevens to KY 3297	LT	N/A		Congestion on Carol Malone (KY 1/KY 7) and at CW Stevens intersection due to lack of alternative north-south route. Lack of access road for new development east of Carol Malone Blvd.	Construct new two-lane roadway from CW Stevens Boulevard south 0.540 mile to KY 3297 (MP 0.800) (over I-64). (Section 2 of 3, See J for Section 1.)	\$ -	\$ 560,000	\$ 250,000	\$ 3,150,000	\$ 5,580,000	\$ 9,540,000	\$ 9,600,000
New Bypass	BB1	BB KY 3297 to US 60	LT	N/A			Construct new two-lane roadway 0.720 mile from KY 3297 (over Little Sandy River) to US 60 (MP 24.632) at KY 1. (Section 3 of 3, see J for Section 1.)	\$ -	\$ 850,000	\$ 500,000	\$ 250,000	\$ 6,900,000	\$ 8,500,000	\$ 8,500,000
Rupert Street (CS 1059)	CC	CC	Local	0.000	0.310	Improve pedestrian mobility along Rupert Lane from KY 3297 through neighborhoods.	Provide sidewalks along both sides of Rupert Street.	\$ -	\$ 50,000	\$ 50,000	\$ 75,000	\$ 308,000	\$ 483,000	\$ 490,000
Damron Branch Road	DD	DD	Local	0.107		Flooding Issue near US 60 Intersection at MP 25.934.	Due to the large drainage area, the proximity of the existing channel to the roadway, and the flooding issue is in a documented flood zone, it appears there is not an easy fix to this flooding problem. To mitigate the flooding in this area the roadway would possibly have to be moved away from the existing channel at a higher elevation and would entail additional right-of-way and possible utility relocations. The existing entrance pipes may have to be replaced with larger box culverts.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
KY 1 East	EE		09 022 D0001 45.00 LT	0.000	10.646	Corrects horizontal, vertical and width deficiencies on KY 1 from the Lawrence Co Line (MP 0.0) to US 60 in Grayson (MP 10.6) to improve safety, sight distances, systems connectivity, and operational efficiency, and southern access into Grayson for area residents.	Correct horizontal, vertical and width deficiencies on KY 1 from the Lawrence Co Line (MP 0.0) to US 60 in Grayson (MP 10.6) to improve safety, sight distances, systems connectivity, and operational efficiency, and southern access into Grayson for area residents.	\$ 740,000	\$ 9,031,000	\$ 21,460,000	\$ 5,181,000	\$ 74,974,000	\$ 111,386,000	\$ 111,390,000
KY 1	FF		09 022 D0001 43.00 LT	11.502	16.520	Correct geometric and width deficiencies for safety and better accessibility	Correct geometric and width deficiencies for safety and better accessibility	\$ 281,000	\$ 3,374,600	\$ 4,499,000	\$ 2,812,000	\$ 25,792,000	\$ 36,758,600	\$ 36,760,000
KY 7	GG		09 022 D0007 46.20 LT	9.157	10.296	Correct geometric and width deficiencies on KY 7 from KY 1661 (MP 9.2) to and including the Little Sandy Bridge (MP 10.3) to improve access and systems connectivity between Grayson and Sandy Hook, increase efficiency of route and enhance economic growth in area.	Correct geometric and width deficiencies on KY 7 from KY 1661 (MP 9.2) to and including the Little Sandy Bridge (MP 10.3) to improve access and systems connectivity between Grayson and Sandy Hook, increase efficiency of route and enhance economic growth in area.	\$ -	\$ 1,300,000	\$ 2,080,000	\$ 1,560,000	\$ 4,940,000	\$ 9,880,000	\$ 9,880,000
KY 3297	HH		09 022 D3297 39.00 LT	0.211	1.634	Improve operational efficiency and provide congestion relief on KY 3297 beginning at Rupert Lane (MP 0.279) extending east to the Bridge over the Little Sandy River (MP 1.634)	Improve operational efficiency and provide congestion relief on KY 3297 beginning at Rupert Lane (MP 0.279) extending east to the Bridge over the Little Sandy River (MP 1.634)	\$ 84,000	\$ 844,000	\$ 3,375,000	\$ 1,687,000	\$ 7,222,000	\$ 13,212,000	\$ 13,220,000
	II		09 022 D3297 40.00 LT	1.750	2.930	Correct geometric and width deficiencies (narrow shoulders) on KY 3297 from the Little Sandy River Bridge (MP 1.750) extending to the US 60 intersection (MP 2.932) to improve operational efficiency and systems connectivity.	Correct geometric and width deficiencies (narrow shoulders) on KY 3297 from the Little Sandy River Bridge (MP 1.750) extending to the US 60 intersection (MP 2.932) to improve operational efficiency and systems connectivity.	\$ 112,000	\$ 844,000	\$ 2,250,000	\$ 1,687,000	\$ 5,158,000	\$ 10,051,000	\$ 10,060,000

Drainage
Miscellaneous
Strike through and eliminate from table as per PTM No. 2



Groundbreaking by Design.

Grayson Small Urban Area Study Carter County



Local Officials/Stakeholders Meeting No. 2 FIVCO Area Development District (ADD) Board Room December 7, 2016; 9:30 AM Meeting Minutes

Project: Grayson Small Urban Area Study

Purpose: Prioritize Improvement Alternatives

Place: FIVCO ADD Board Room - Grayson

Meeting Date: December 7, 2016; 9:30 AM

Prepared By: Jim Smith

Attendees:

Joe Callahan	KYTC D9 Planning	606.845.2551	joe.callahan@ky.gov
Darrin Eldridge	KYTC D9 Project Dev.	606.845.2551	darrin.eldridge@ky.gov
Jeremy Brickey	KYTC D9 Grayson Section	606.474.5721	jeremy.brickey@ky.gov
Karen Mynhier	KYTC D9 Environmental	606.845.2551	karen.mynhier@ky.gov
Rachel Catchings	KYTC D9 Design	606.845.2551	rachel.catchings@ky.gov
Mikael Pelfrey	KYTC CO Planning	502.782.5073	mikael.pelfrey@ky.gov
Deanna Mills	KYTC CO Planning	502.782.5085	deanna.mills@ky.gov
George Steele	Mayor, City of Grayson	859.494.5548	georgesteele@graysonky.net
Duane Suttles	Councilman, City of Grayson	606.922.7671	dsuttles@graysonky.net
Joanne Dunfee	City of Grayson Em. Mgmt.	606.315.4119	jdunfeegem@gmail.com
Roger Dunfee	Carter County Em. Mgmt.	606.316.4070	rdunfeegem@gmail.com
Grant Harper	Carter County Schools	606.286.0212	grant.harper@carter.kyschools.us
Gayle D Smith	FIVCO Chairman	606.316.4913	gayle@fivco.org
Eric Patton	FIVCO ADD	606.929.1366	eric@fivco.org
Jeff Kiser	FIVCO ADD	606.922.5022	jkisercroads@gmail.com
Nathan Webb	Smithfield	606.225.7934	nwebb@smithfield.com
Annette Coffey	Qk4, Inc.	502.352.2197	acoffey@qk4.com
Andy Gilley	Qk4, Inc.	502.585.2222	agilley@qk4.com
Jim Smith	Qk4, Inc.	502.352.2197	jsmith@qk4.com

The purpose of this meeting was to present, discuss, and rank improvement projects that have been developed since the Local Officials/Stakeholders (LO/S) Meeting No. 1 on July 8, 2016. Joe Callahan initiated the meeting with introductions and a brief summary of the progress of the study.

Following introductions, Annette Coffey provided a short presentation (Attachment A) that reminded the team of the goals for the study—to identify roadway projects that will improve safety and congestion on primarily state-maintained routes for a 20-year horizon. Annette noted the LO/S had identified problem areas at the July meeting. She then provided an update on project team activities since the meeting:

- Alternative concepts have been developed taking into consideration high crash locations, existing and future year traffic and levels of service, identified areas of growth, and LO/S input.
- Projects currently underway (highway plan projects) with either funds not authorized or projects not progressing, and previously identified Project Identification Forms (unfunded identified needs not in the current highway plan) were considered new projects, but no improvement concepts were prepared.
- Project Cost has been estimated for each alternative concept.
- The Project Team reviewed each project location, alternative concept, and associated cost at Project Team Meeting No. 2 held November 1, 2016. Each project was categorized as Local, Short-Term, or Long-Term.

After the update, the LO/S were given handouts (Attachment B) that included an agenda, a map identifying improvement alternative locations, and Project Evaluation Worksheets for Local, Short-Term, and Long-Term projects.

Annette provided an explanation of the overall scoring system. For example, Local projects included four projects for a total of four points (one point for each project). Each LO/S was requested to vote for at least two projects, keeping all four points from being used for one project. It was also explained that giving each project a score of one would not provide the project team with any discernable difference among LO/S priorities; therefore, care should be given when applying scores to priorities. Annette emphasized the alternatives presented were preliminary in nature and could change in future project development phases.

Annette and Andy Gilley then presented the Local improvement projects, after which time was allotted for the LO/S to score Local projects. Detailed discussion was generated regarding the Local drainage projects and CW Stevens Boulevard. After Local projects were discussed, Short-Term projects followed by Long-Term projects were presented and scored.

The following represent substantive discussions or questions regarding improvement projects. (Projects are identified by their Alternative ID included on Project Evaluation Worksheets.)

Local Projects (4 points)

(T) – Provide drainage improvements on South Hord Street (CS 1126) along Town Branch south of Womack Road.

- Does project extends beyond city limits?
- There is a drainage issue where Old Town Branch ties into US 60. (Note: This issue was not identified at the first meeting.)
- The apartment's parking lot behind the Papa John's has been known to flood.
- Area behind Grayson Rural Electric between Court Street and South Hord Street floods.
- Would fixing problem at this location cause problems further downstream?

(U) – Widen CW Stevens Boulevard, and add sidewalks on both sides.

- Discussion included whether additional improvements were necessary because of recent improvements by the City of Grayson (November 2016), which included: drainage, widening the roadway five feet on one side, and striping. KYTC stated the recent improvements did not include all drainage necessary for sidewalks and curb and gutter. The drainage structures installed would additionally need to be retrofitted. Alternative U would provide for improved turning radii at KY 1, curb and gutter widening, sidewalks, and elimination of on-street parking. Additional LO/S comments were as follows:
 - CW Stevens Boulevard contains approximately 25% of the City's revenue.
 - Kmart is closing, but may be replaced by Wal-Mart.
 - With projected traffic (over 9,000 expected) is there a need to widen CW Stevens Boulevard to four lanes?
 - Turning radii at KY 1 is still an issue.
 - Nathan Webb stated the dual left-turn lane at KY 1 has helped Smithfield employees, but does not provide enough room for two trucks to turn at the same time.

(Y) – Provide drainage improvements along Rupert Street.

- Floods at Super 8 Motel.
- A drainage study should be conducted before improvements are made to ensure drainage improvements for one area do not worsen drainage upstream and downstream.
- Paved ditch along Rupert Street is full of overgrown vegetation and needs to be cleaned out.
- Reconstruct, lower, or fix the structure over the drainage ditch at the Rupert Street/Super 8 Lane intersection; one side is higher than the other by as much as six inches, which could be causing some of the drainage issues.

- Flooding along Rupert Street is a potential health hazard because it overflows the sanitary sewer system.

(CC) – Provide sidewalks along both sides of Rupert Street.

- With drainage issues and the large paved ditch on the west side of Rupert Street, is Alternative CC feasible?
- Add sidewalks on the east side only.
- Expand the project to include drainage?
- Pond forms behind McDonalds due to flooding (opposite side of KY 1/Carol Malone Boulevard).

Short-Term Projects (7 points)

(A1) – Restripe US 60, provide left-turn pockets from Court Street to KY 1/KY 7, and provide left-turn lanes.

- Vehicles are driving through marked parking spaces rather than in their designated lane, below Baptist Church.
- An existing, midblock crosswalk is located between South Hord Street and Hillview Court. If this alternative concept is implemented, KYTC would not restripe this crosswalk because there are existing crosswalks at cross streets.
- At US 60/South Hord Street intersection, the crosswalks leads to a sidewalk that is not ADA accessible.

(O) – Close Park Street entrance from US 60, and provide curb and sidewalk across the entrance.

- Mayor George Steele agreed with this alternative.

(Q) – Provide drainage improvements to minimize flooding on KY 1 near old Ralph's Food Fair.

- Will project help drainage on Rupert Street or KY 1/KY 7?
- Will the paved ditch adjacent to Rupert Street necessitate widening?
- Conduct drainage study/analysis.

(V) – Install a "No Through Trucks" sign at the intersection of KY 1/KY 1910 intersection.

- Joe said the UK Transportation Center is conducting a study in regard to how GPS routes trucks and the problems created.

Long-Term Projects (27 points)

(C) – Reconstruct and extend existing deficient sidewalks from KY 1 east to the Little Sandy River Bridge.

- Questions were raised regarding wide entrances/driveways. Could curb and gutter be used to channelize entrances?
- A \$3 million city- or county-maintained Sports Complex (34 acres) is proposed off US 60 at the end of Crossbar Road that will include soccer/baseball fields. The LO/S said if the complex is approved, a controlled intersection with turn lanes on US 60 may be required. Additionally, this could lend more importance to improvements included in Alternatives C and G.

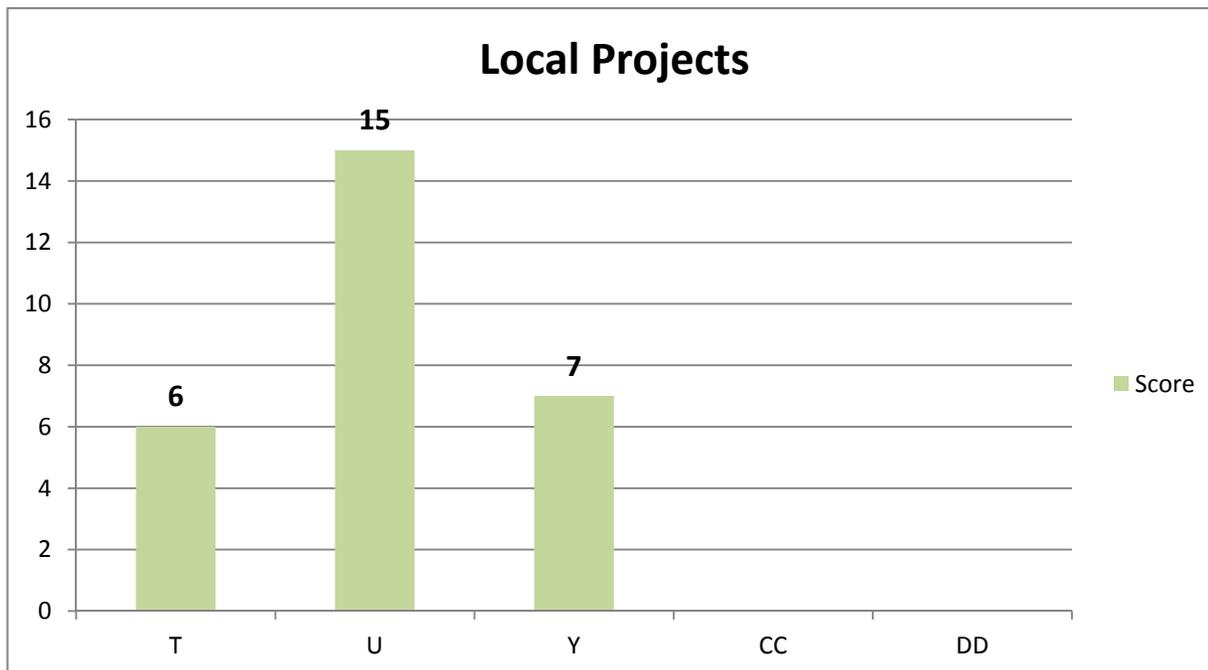
(W) – Shift KY 1910 approach to KY 3297 eastward and improve turn radii from KY 1910 to KY 3297.

- Might no longer be needed if the sign at KY 1/KY 1910 intersection is erected and large trucks no longer travel KY 1910.

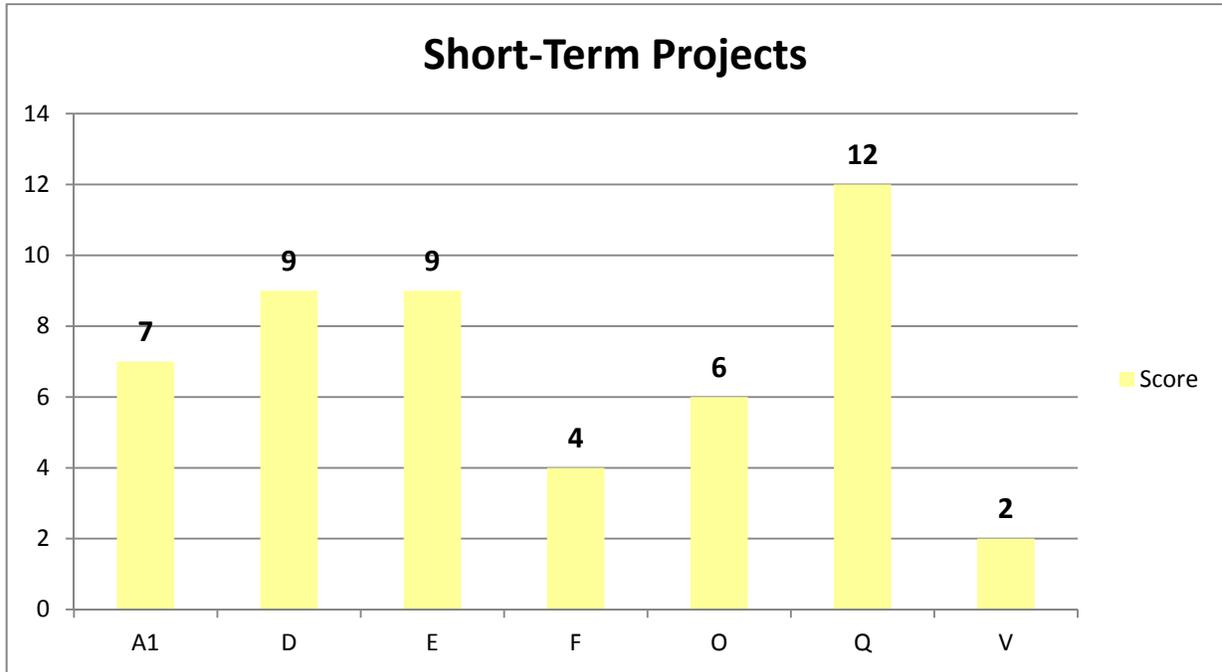
Additional

A summary of rankings from today’s meeting will be available to the LO/S in the final report expected in March 2017. The following are the results of the scoring by the LO/S.

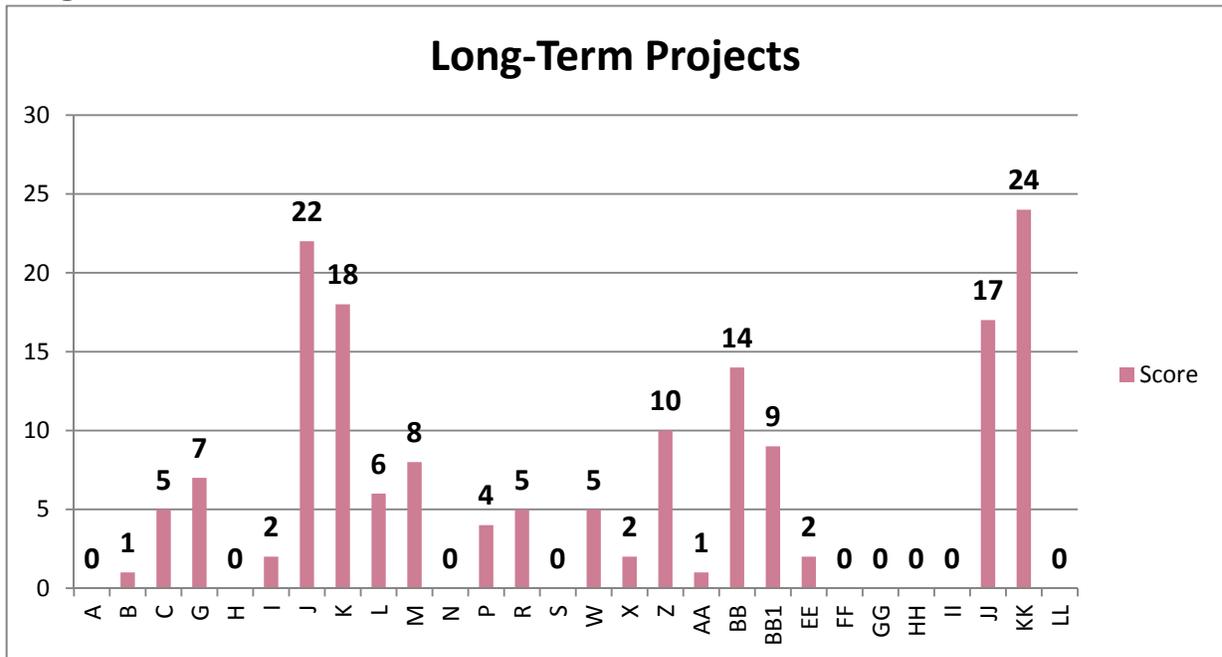
Local



Short-Term



Long-Term



The meeting concluded at approximately 12:30 PM.

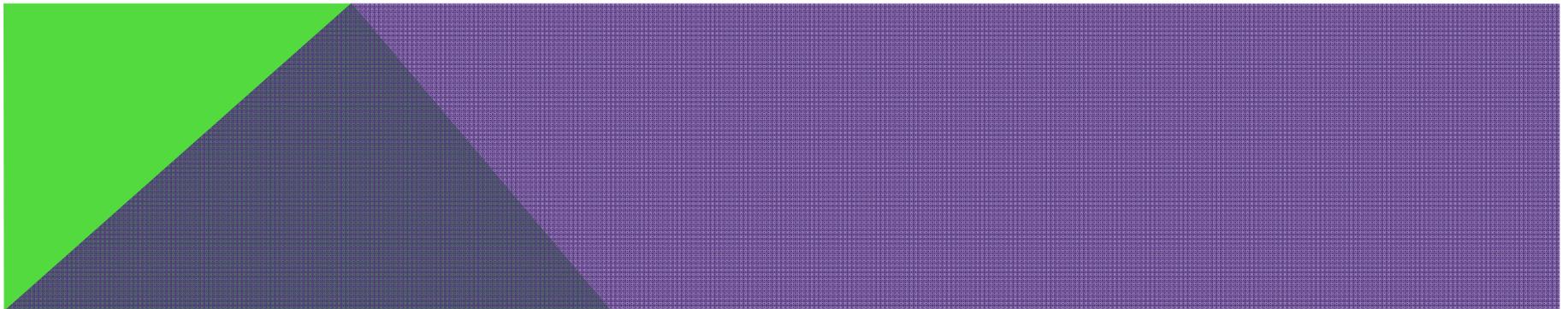


GRAYSON SMALL URBAN AREA STUDY

LOCAL OFFICIALS/STAKEHOLDERS MEETING NO. 2
DECEMBER 7, 2016

STUDY PURPOSE

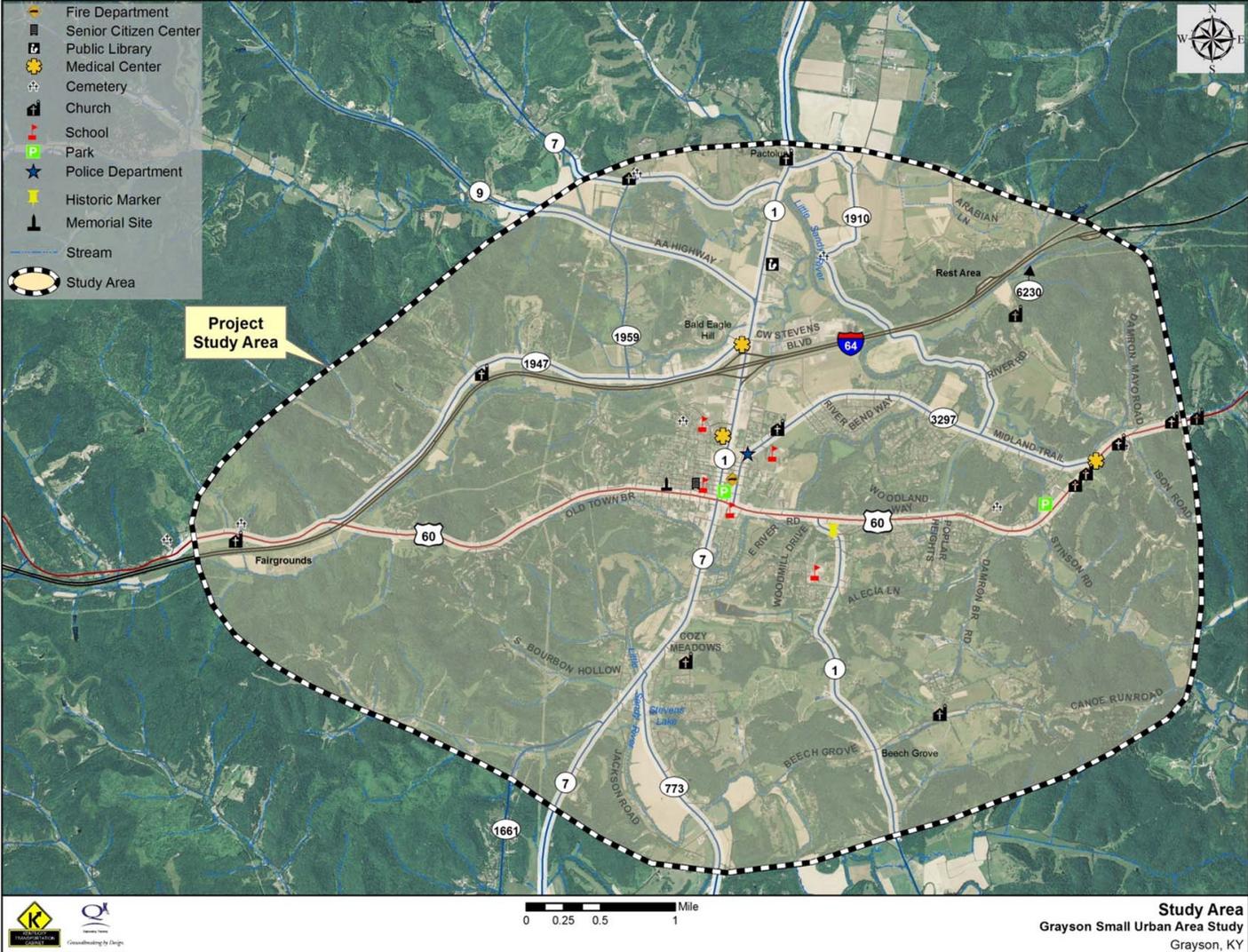
- Evaluate existing conditions, crash history, and geometric deficiencies to identify possible safety improvements.
- Evaluate capacity needs of the identified transportation network.
- Develop a list of short-term recommendations that KYTC, the City of Grayson, Carter County, and/or private developers can take for further project development and implementation.
- Examine the future transportation needs and determine options for long-term improvement projects.



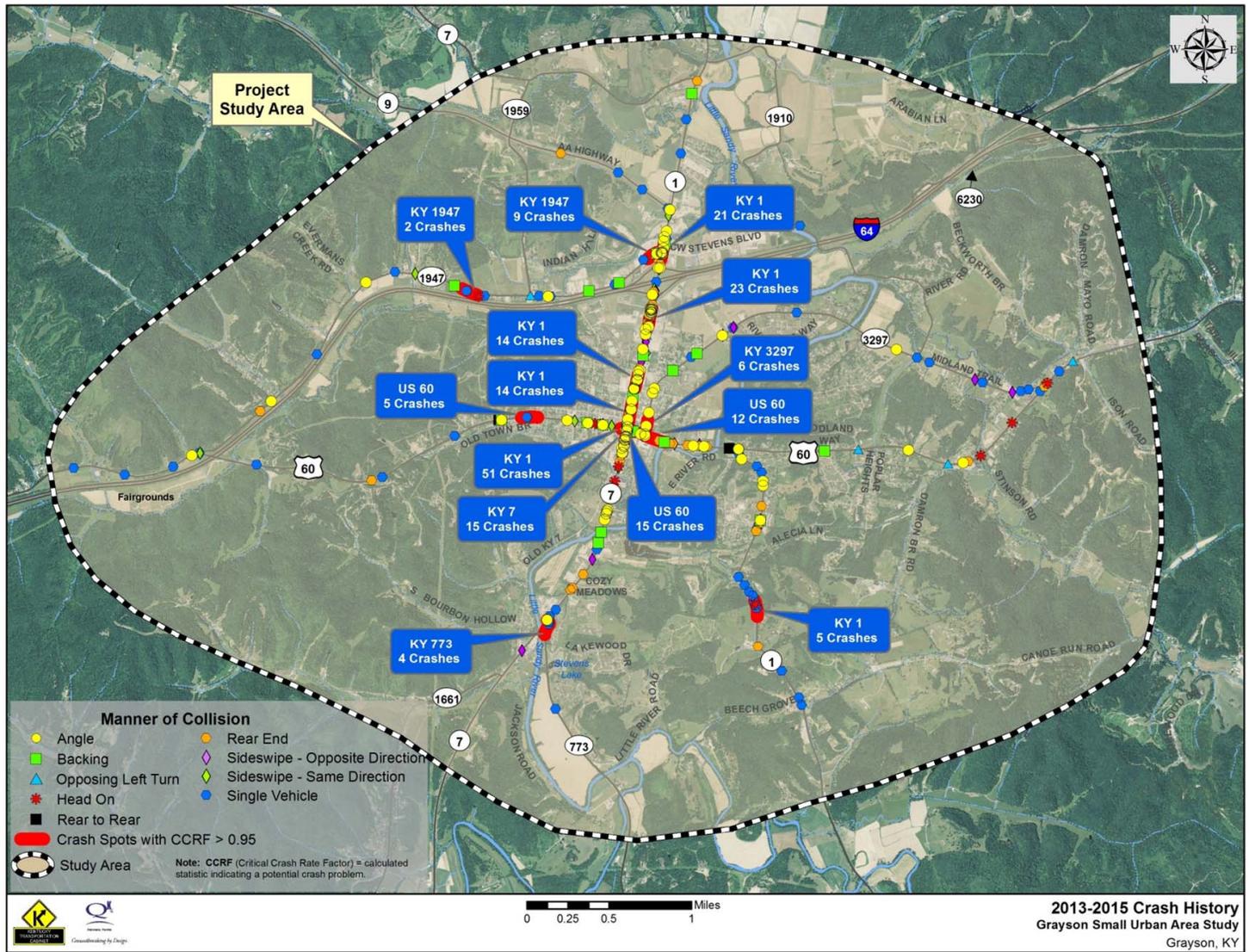
STUDY SCHEDULE



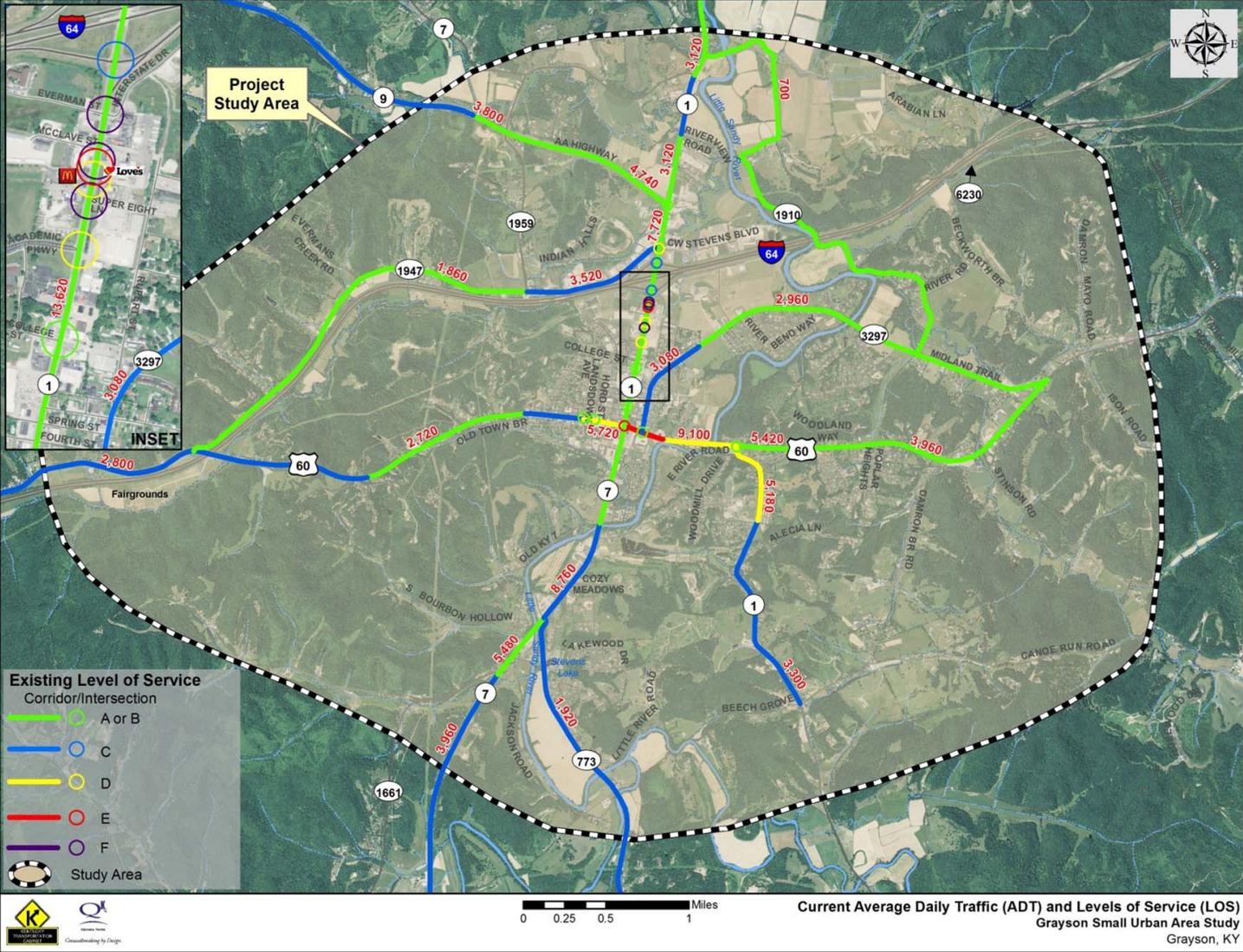
ROUTES TO ASSESS



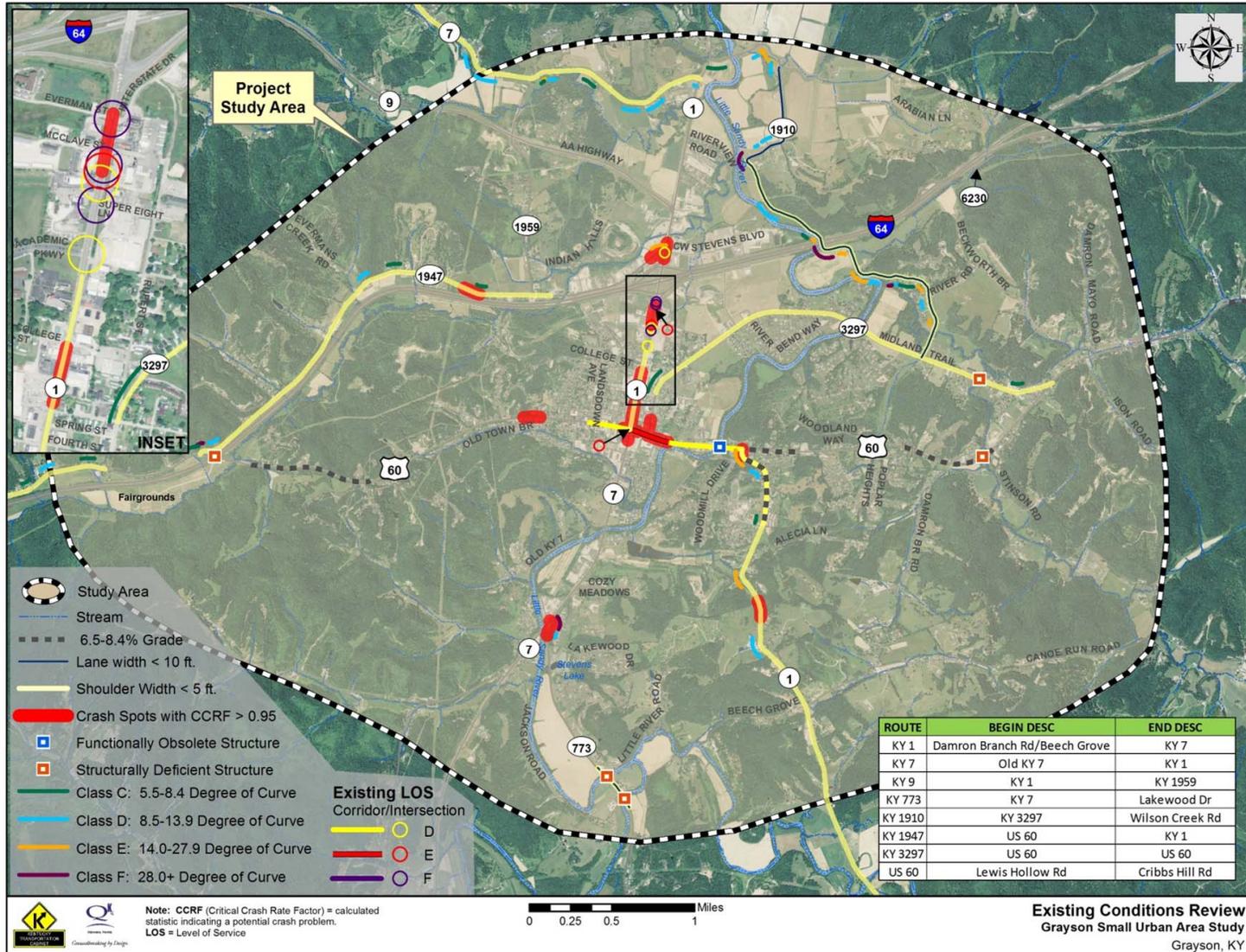
2013-2015 CRASH HISTORY



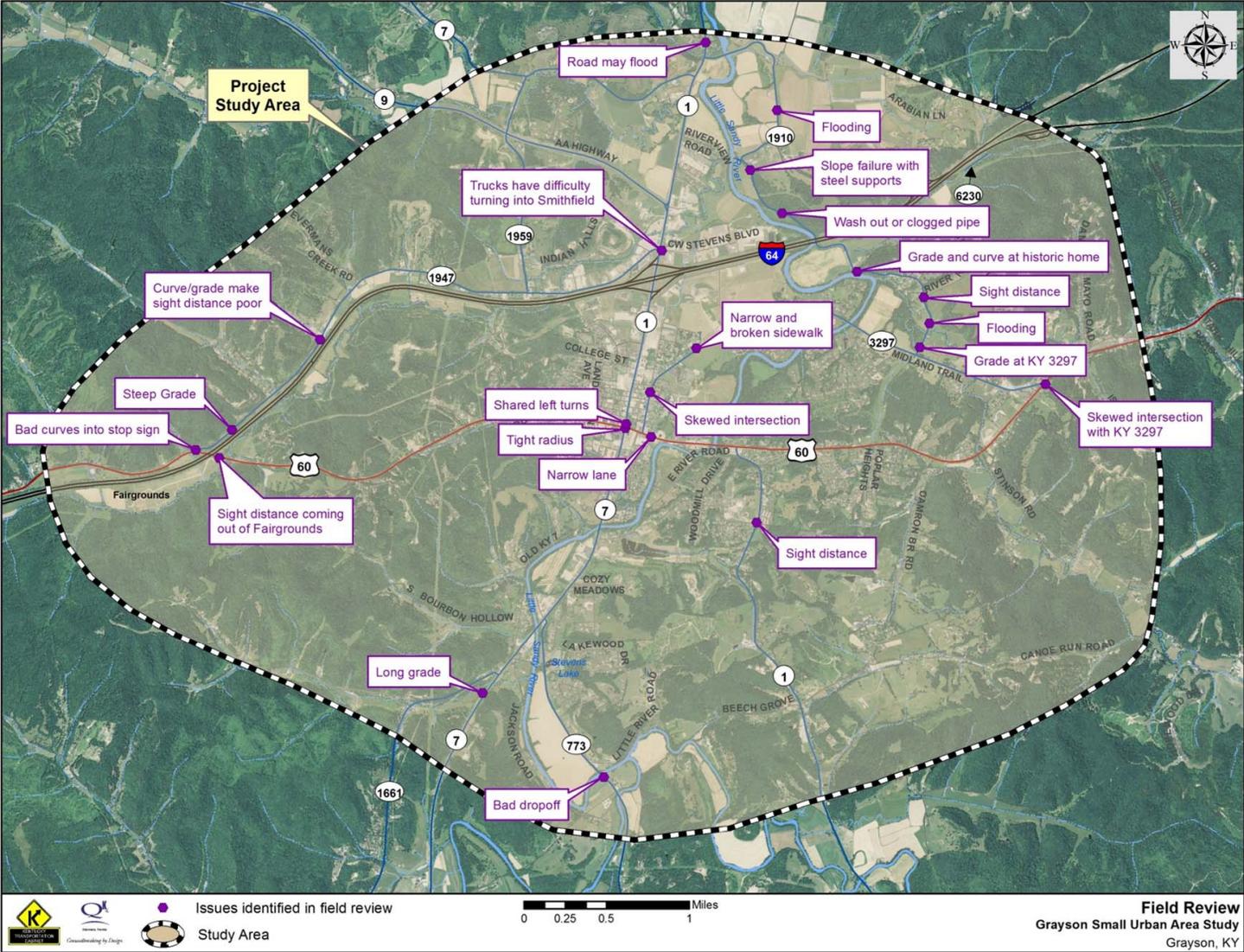
2016 LOS AND TRAFFIC



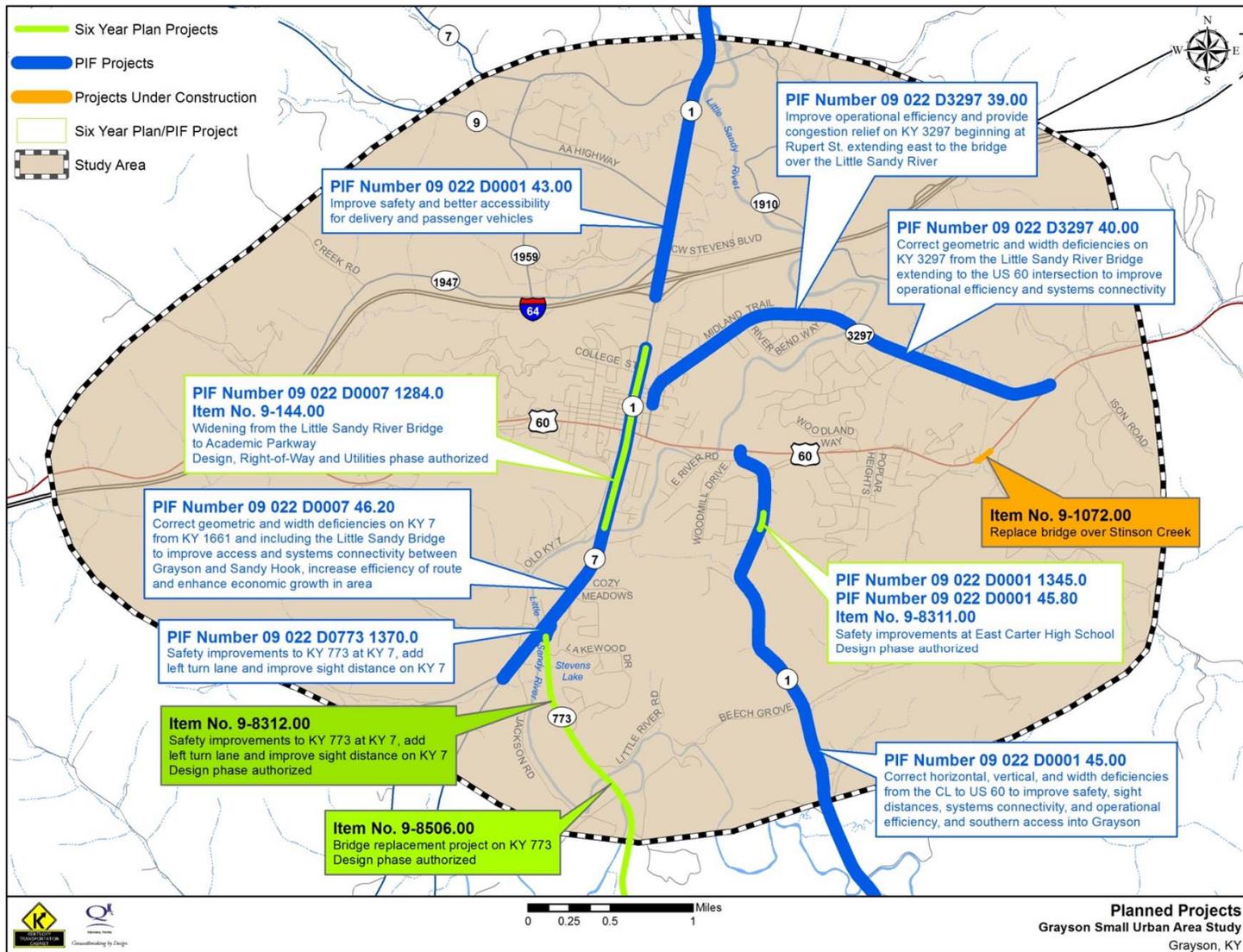
EXISTING CONDITIONS REVIEW



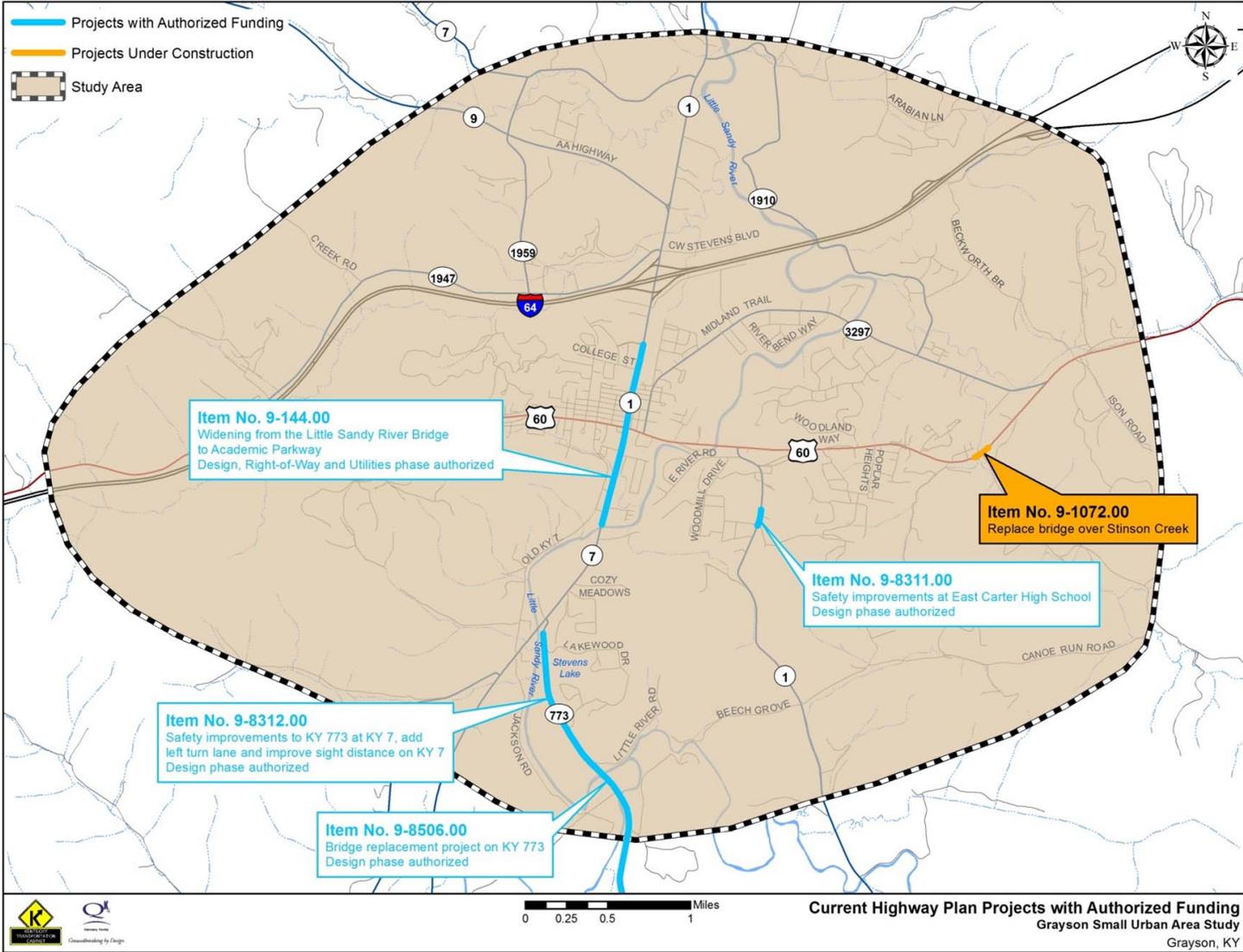
FIELD REVIEW



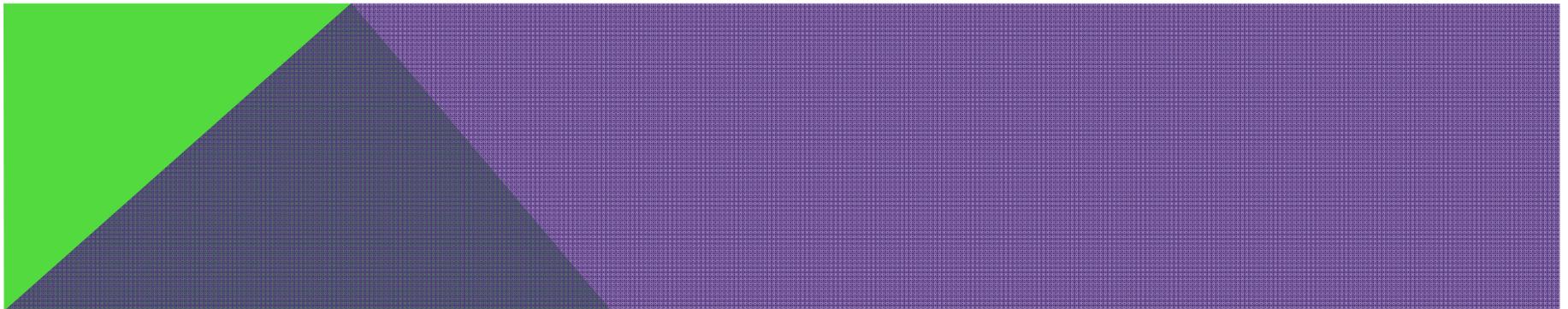
HIGHWAY PLAN AND PIF PROJECTS



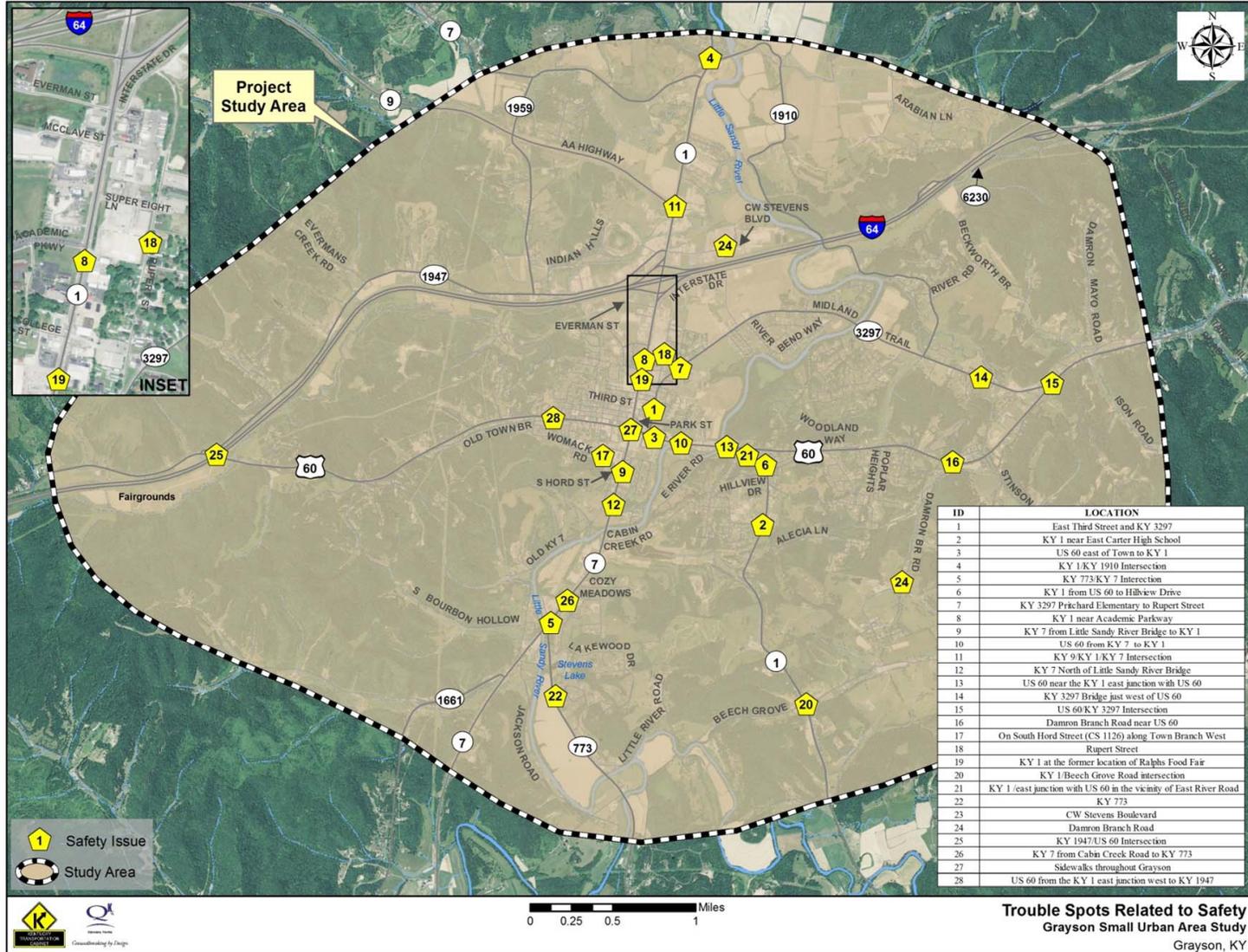
HIGHWAY PLAN PROJECTS AUTHORIZED



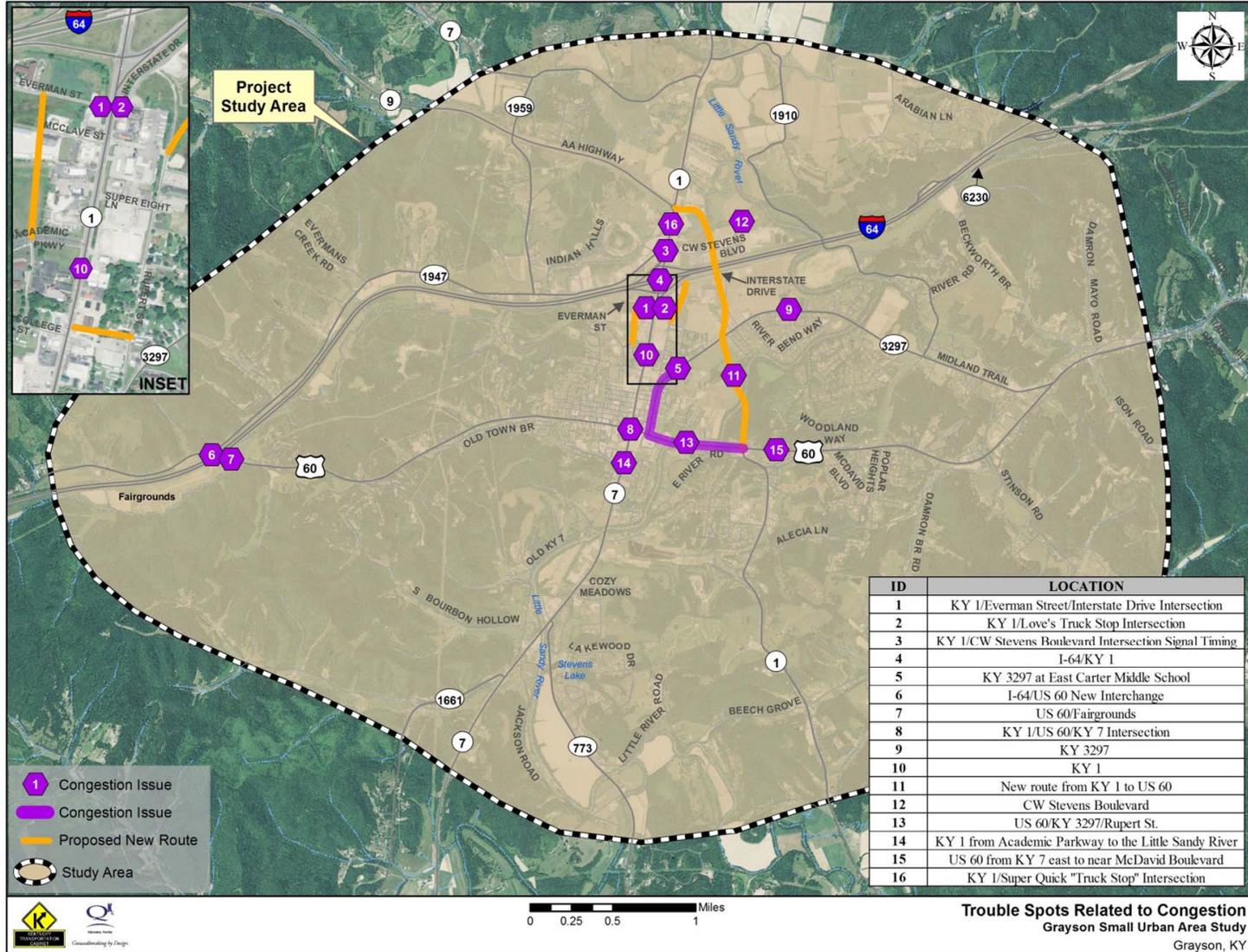
LOCAL OFFICIALS/STAKEHOLDER MEETING NO. 1



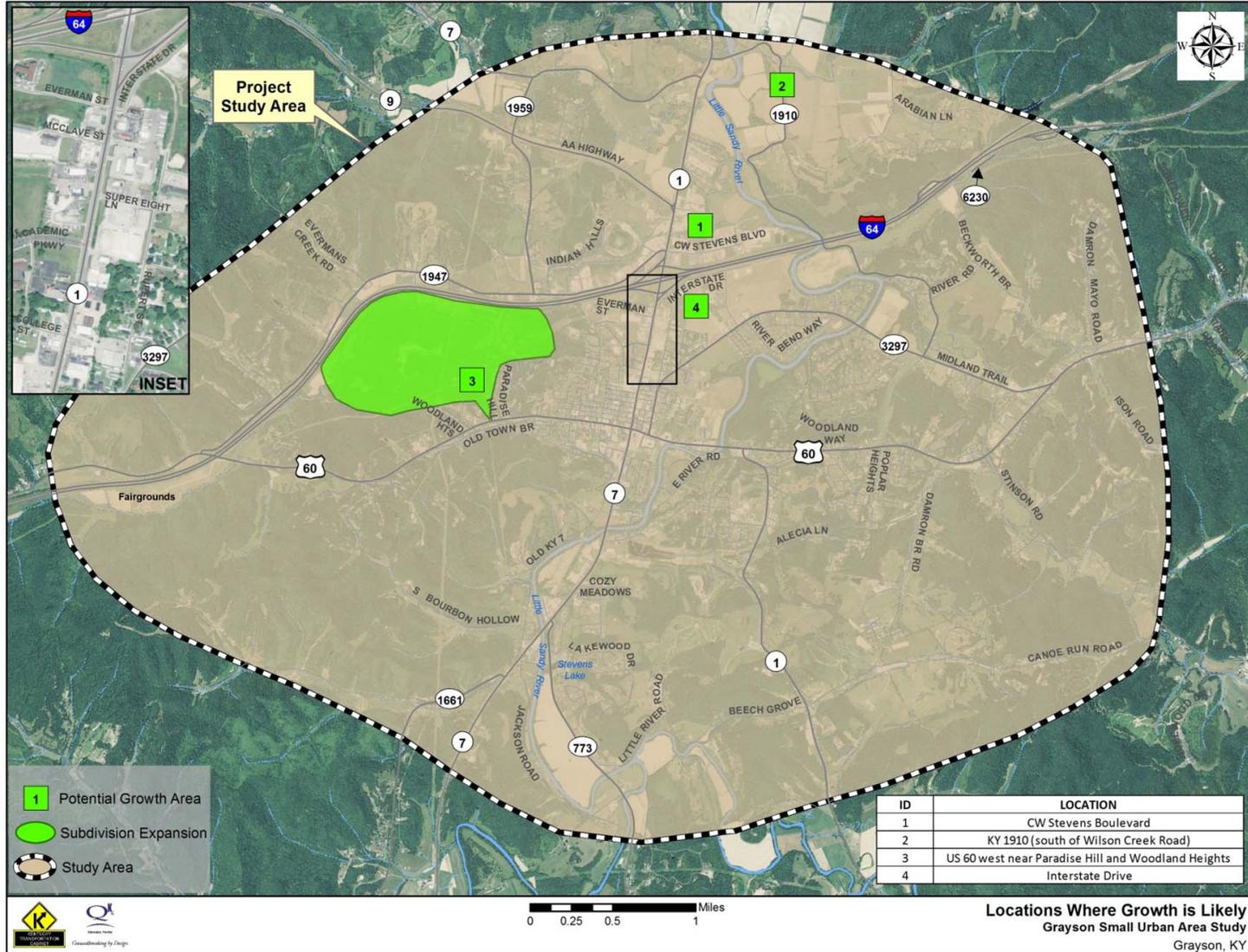
TROUBLE SPOTS RELATED TO SAFETY



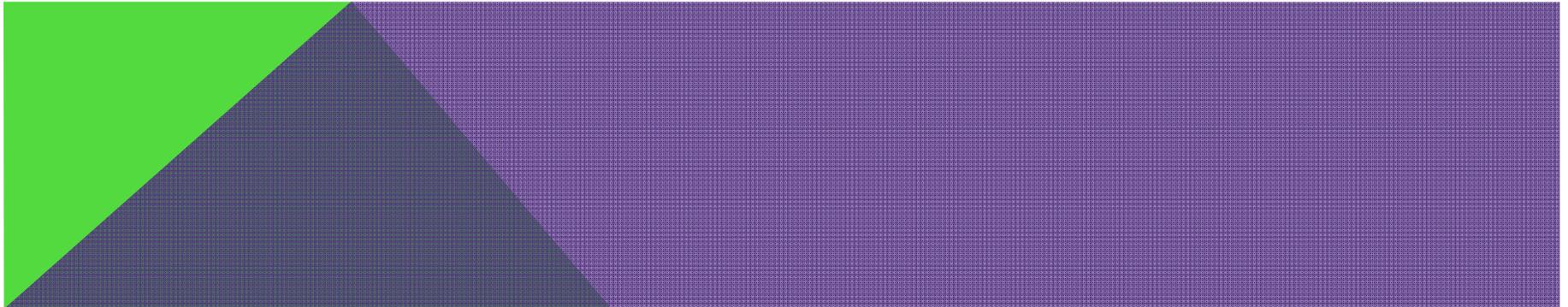
TROUBLE SPOTS RELATED TO CONGESTION



TROUBLE SPOTS RELATED TO GROWTH



ALTERNATIVES PRESENTATION



SURVEY/SCORING INSTRUCTIONS

Grayson Small Urban Area Study
 Long-Term Projects
 December 7, 2016

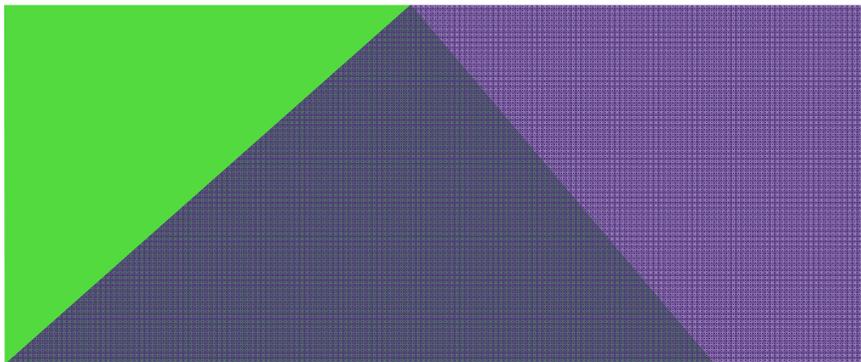
Name: _____

Agency: _____

GRAYSON Project Evaluation Worksheet

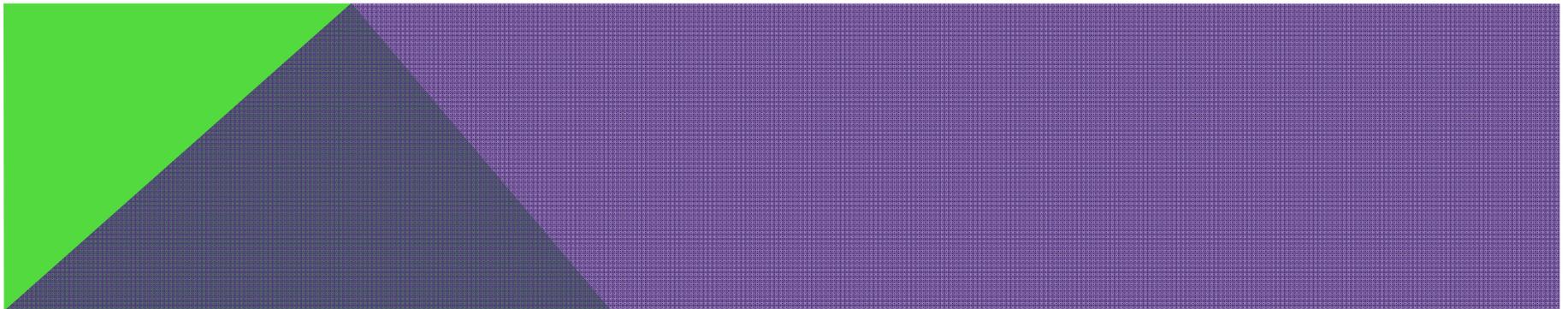
Directions: Score projects by assigning points based on project priority. All points must be distributed between at least two projects. The total points cannot be assigned to only one project.

Project Type	Alternative ID	Project Description	Cost Estimate (2016 Dollars)	ID#	
					Score
Long-Term (27 pts)	A	Restripe US 60 and provide TWLTL from Old Town Branch Road to KY 1/KY 7 with parking on one side only. (See Alternative G)	\$200,000		
	B	Provide another point of egress on US 60 from the Fairgrounds east of the existing entrance.	\$1,100,000		
	C	Reconstruct and extend existing deficient sidewalks from KY 1 east to the Little Sandy River Bridge.	\$620,000		
	G	Add TWLTL, widen lanes, and provide signage to direct motorists to the appropriate lane from Bagby Street to the Little Sandy River Bridge and close Park Street entrance from US 60.	\$490,000		
	H	D-9 staff will review signage/stripping, but no alternative concept is recommended.	\$0		
	I	Provide a right-turn lane pocket on KY 1947.	\$440,000		
	J	Provide a new two-lane roadway connecting CW Stevens Boulevard north to KY 9 (AA Highway). (Section 1 of 3)	\$3,000,000		
	K	Connect Everman Drive and Academic Parkway with a two-lane roadway. Close entrance from KY 1 to Everman Drive once constructed.	\$2,900,000		
	L	Provide dual left turn lanes on I-64 WB Ramp.	\$600,000		
	M	Close two entrances closest to KY 1/I-64 eastbound on-ramp, and route those motorists to Super Eight Lane and the roadway directly across from McClave Street. Relocate existing truck parking and improve internal circulation.	\$2,230,000		
	N	Conduct an access management study to provide for a more efficient corridor.	\$700,000		
	P	Conduct a pedestrian walkability, safety, and ADA compatibility study for the community of Grayson to supplement the sidewalk information collected by KYTC and the ADD.	\$150,000		
	R	Install lighting along KY 7 from KY 773 to Cabin Creek Road.	\$320,000		
	S	Construct sidewalks along both sides of KY 7 from Sandy Lane over the Sandy River Bridge (estimated one side of the bridge).	\$690,000		
	W	Shift KY 1910 approach to KY 3297 eastward and improve turn radii from KY 1910 to KY 3297.	\$230,000		
	X	Improve turning radii from KY 3297 to East Third Street.	\$160,000		
	Z	Provide a right turn lane from KY 3297 at East Carter Middle School's southernmost entrance.	\$240,000		
AA	Reconstruct existing sidewalks from US 60 Prichard Elementary School to Prichard Street.	\$460,000			
BB	Construct new two-lane roadway from CW Stevens Boulevard south 0.540 mile to KY 3297 (MP 0.800) (over I-64). (Section 2 of 3. See J for Section 1.)	\$9,600,000			
BB1	Construct new two-lane roadway 0.720 mile from KY 3297 (over Little Sandy River) to US 60 (MP 24.632) at KY 1. (Section 3 of 3, see J for Section 1.)	\$8,500,000			



NEXT STEPS

- SUMMARIZE TODAY'S INPUT
- PROJECT TEAM MEETING 3 DIRECTLY FOLLOWING THIS MEETING
- DRAFT REPORT
- FINAL REPORT





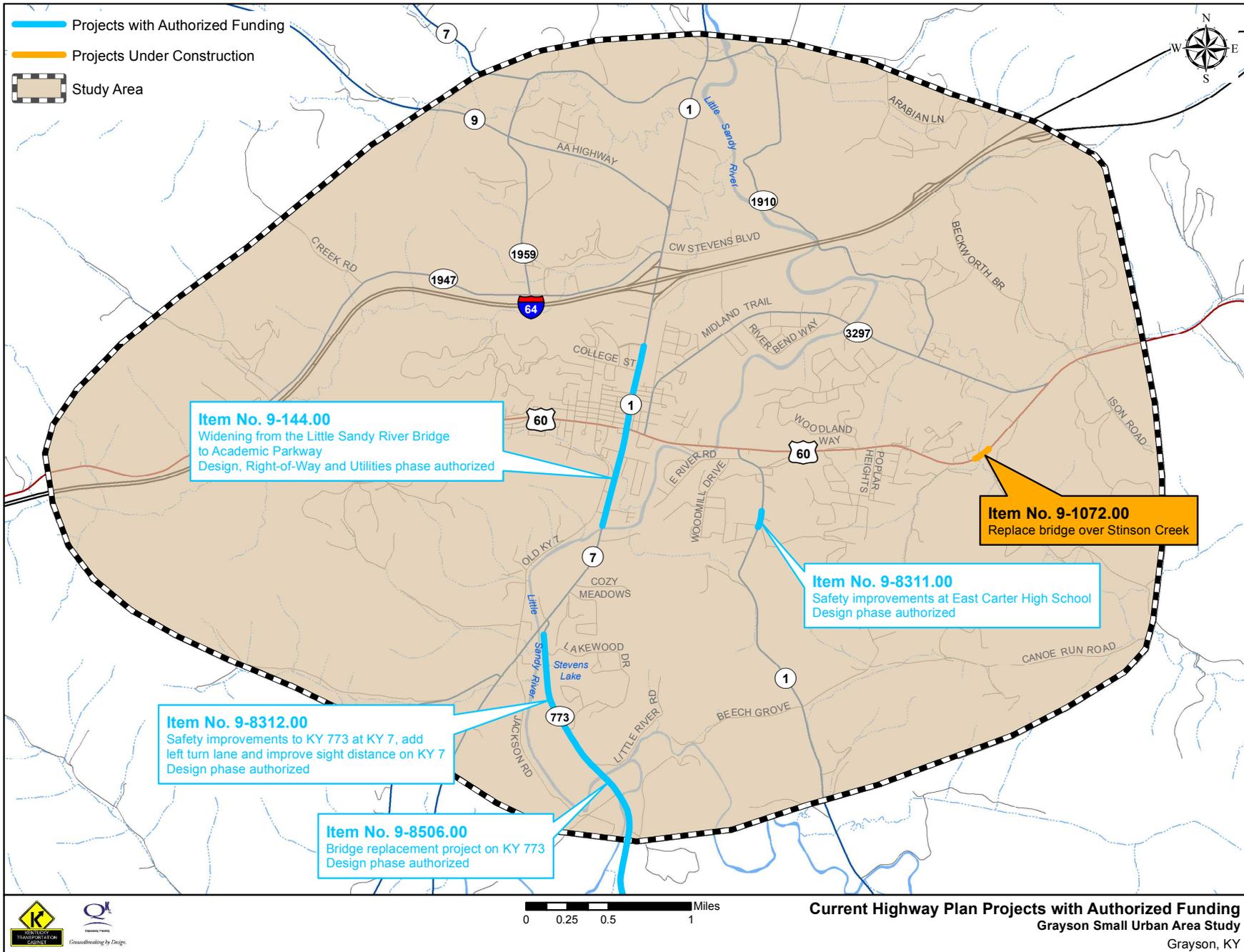
Groundbreaking by Design.

Grayson Small Urban Area Study Carter County



AGENDA **Local Officials/Stakeholders Meeting No. 2** **FIVCO ADD Board Room** **December 7, 2016** **9:30 AM**

- I. Introductions
- II. Study Purpose
- III. Project Schedule
- IV. Local Officials/Stakeholders Meeting No. 1 Brief Review
- V. Improvement Alternatives
- VI. Project Scoring
- VII. Next Steps



Name: _____

Agency: _____

GRAYSON Project Evaluation Worksheet

Directions: Score projects by assigning points based on project priority. All points must be distributed between at least two projects. The total points cannot be assigned to only one project.

Project Type	Alternative ID	Project Description	Cost Estimate (2016 Dollars)	ID#
				Score
Local (4 pts)	T	Provide drainage improvements on South Hord Street (CS 1126) along Town Branch south of Womack Road.	\$70,000	
	U	Widen CW Stevens Boulevard, and add sidewalks on both sides.	\$2,120,000	
	Y	Provide drainage improvements along Rupert Street.	\$380,000	
	CC	Provide sidewalks along both sides of Rupert Street.	\$490,000	
	DD	An alternative concept is not recommended, much of Damron Branch Road would require relocation where the creek is parallel to the roadway, right of way, and utility relocations.	\$0	

**Grayson Small Urban Area Study
Short-Term Projects
December 7, 2016**

Name: _____

Agency: _____

GRAYSON Project Evaluation Worksheet

Directions: Score projects by assigning points based on project priority. All points must be distributed between at least two projects. The total points cannot be assigned to only one project.

Project Type	Alternative ID	Project Description	Cost Estimate (2016 Dollars)	Score	ID#
Short-Term (7 pts)	A1	Restripe US 60 and provide left-turn pockets from Court Street to KY 1/KY 7 and provide left turn lanes.	\$10,000		
	D	Provide lighting at the intersection and remove a hill (along the south side of KY 1947) to improve sight distance at US 60 near I-64.	\$70,000		
	E	Provide drainage improvements along KY 1 from US 60 to Hillview Drive.	\$50,000		
	F	Provide drainage improvements along KY 1 East near Beech Grove Road including 600 feet of ditching.	\$50,000		
	O	Close Park Street entrance from US 60, and provide curb and sidewalk across the entrance.	\$5,000		
	Q	Provide drainage improvements to minimize flooding on KY 1 near old Ralph's Food Fair.	\$70,000		
	V	Install a "No Through Trucks" sign at the intersection of KY 1/KY 1910 intersection.	\$1,000		

GRAYSON Project Evaluation Worksheet

Directions: Score projects by assigning points based on project priority. All points must be distributed between at least two projects. The total points cannot be assigned to only one project.

				ID#
Project Type	Alternative ID	Project Description	Cost Estimate (2016 Dollars)	Score
Long-Term (27 pts)	A	Restripe US 60 and provide TWLTL from Old Town Branch Road to KY 1/KY 7 with parking on one side only. (See Alternative G)	\$200,000	
	B	Provide another point of egress on US 60 from the Fairgrounds east of the existing entrance.	\$1,100,000	
	C	Reconstruct and extend existing deficient sidewalks from KY 1 east to the Little Sandy River Bridge.	\$620,000	
	G	Add TWLTL, widen lanes, and provide signage to direct motorists to the appropriate lane from Bagby Street to the Little Sandy River Bridge and close Park Street entrance from US 60.	\$490,000	
	H	D-9 staff will review signage/stripping, but no alternative concept is recommended.	\$0	
	I	Provide a right-turn lane pocket on KY 1947.	\$440,000	
	J	Provide a new two-lane roadway connecting CW Stevens Boulevard north to KY 9 (AA Highway). (Section 1 of 3)	\$3,000,000	
	K	Connect Everman Drive and Academic Parkway with a two-lane roadway. Close entrance from KY 1 to Everman Drive once constructed.	\$2,900,000	
	L	Provide dual left turn lanes on I-64 WB Ramp.	\$600,000	
	M	Close two entrances closest to KY 1/I-64 eastbound on-ramp, and route those motorists to Super Eight Lane and the roadway directly across from McClave Street. Relocate existing truck parking and improve internal circulation.	\$2,230,000	
	N	Conduct an access management study to provide for a more efficient corridor.	\$700,000	
	P	Conduct a pedestrian walkability, safety, and ADA compatibility study for the community of Grayson to supplement the sidewalk information collected by KYTC and the ADD.	\$150,000	
	R	Install lighting along KY 7 from KY 773 to Cabin Creek Road.	\$320,000	
	S	Construct sidewalks along both sides of KY 7 from Sandy Lane over the Sandy River Bridge (estimated one side of the bridge).	\$690,000	
	W	Shift KY 1910 approach to KY 3297 eastward and improve turn radii from KY 1910 to KY 3297.	\$230,000	
	X	Improve turning radii from KY 3297 to East Third Street.	\$160,000	
	Z	Provide a right turn lane from KY 3297 at East Carter Middle School's southernmost entrance.	\$240,000	
AA	Reconstruct existing sidewalks from US 60 Prichard Elementary School to Prichard Street.	\$460,000		
BB	Construct new two-lane roadway from CW Stevens Boulevard south 0.540 mile to KY 3297 (MP 0.800) (over I-64). (Section 2 of 3, See J for Section 1.)	\$9,600,000		
BB1	Construct new two-lane roadway 0.720 mile from KY 3297 (over Little Sandy River) to US 60 (MP 24.632) at KY 1. (Section 3 of 3, see J for Section 1.)	\$8,500,000		

**Grayson Small Urban Area Study
Long-Term Projects (continued)
December 7, 2016**

Name: _____

Agency: _____

GRAYSON Project Evaluation Worksheet

Directions: Score the projects by assigning points based on project priority. All points must be distributed between at least two projects. The total points cannot be assigned to only one project.

				ID#
Project Type	Alternative ID	Project Description	Cost Estimate* (2016 Dollars)	Score
Long-Term (27 pts)	EE	Correct horizontal, vertical and width deficiencies on KY 1 from the Lawrence Co Line (MP 0.0) to US 60 in Grayson (MP 10.6) to improve safety, sight distances, systems connectivity, and operational efficiency, and southern access into Grayson for area residents. PIF 09 022 D0001 45.00	\$111,390,000	
	FF	Correct geometric and width deficiencies for safety and better accessibility PIF 09 022 D0001 43.00	\$36,760,000	
	GG	Correct geometric and width deficiencies on KY 7 from KY 1661 (MP 9.2) to and including the Little Sandy Bridge (MP 10.3) to improve access and systems connectivity between Grayson and Sandy Hook, increase efficiency of route and enhance economic growth in area. PIF 09 022 D0007 46.20	\$9,880,000	
	HH	Improve operational efficiency and provide congestion relief on KY 3297 beginning at Rupert Street (MP 0.279) extending east to the Bridge over the Little Sandy River (MP 1.634) PIF 09 022 D3297 39.00	\$13,220,000	
	II	Correct geometric and width deficiencies (narrow shoulders) on KY 3297 from the Little Sandy River Bridge (MP 1.750) extending to the US 60 intersection (MP 2.932) to improve operational efficiency and systems connectivity. PIF 09 022 D3297 40.00	\$10,060,000	
	JJ	Safety improvements at the East Carter High School. Item Number 9-8311.00	\$3,520,000	
	KK	KY-7 (Carol Malone Boulevard) Widening from the Little Sandy River to Academic Parkway. Item Number 9-144.00	\$3,640,000	
	LL	Improve safety at KY 7/KY 773 intersection. Add left-turn lane and improve sight distance on KY 7. Item Number 9-8312.10	\$1,050,000	



Groundbreaking by Design.

Grayson Small Urban Area Study Carter County



Project Team Meeting No. 3 FIVCO Area Development District (ADD) Board Room December 7, 2016 2:45 PM Meeting Minutes

Project: Grayson Small Urban Area Study (SUA)

Purpose: Ranking and Prioritization of Alternative Concepts

Place: FIVCO ADD Board Room

Meeting Date: December 7, 2016; 2:45 PM

Prepared By: Jim Smith

Attendees:

Joe Callahan	KYTC D9 Planning	502 845-2551	joe.callahan@ky.gov
Darrin Eldridge	KYTC D9 Project Dev.	606 845-2551	darrin.eldridge@ky.gov
Jeremy Brickey	KYTC D9 Grayson Section	606 474-5721	jeremy.brickey@ky.gov
Rachel Catchings	KYTC D9 Design	606 845-2551	rachel.catchings@ky.gov
Karen Mynhier	KYTC D9 Environmental	606 845-2551	karen.mynhier@ky.gov
Mikael Pelfrey	KYTC CO Planning	502 782-5073	mikael.pelfrey@ky.gov
Deanna Mills	KYTC CO Planning	502 782-5085	deanna.mills@ky.gov
Andy Gilley	Qk4, Inc.	502 585-2222	agilley@qk4.com
Annette Coffey	Qk4, Inc.	502 352-2197	acoffey@qk4.com
Jim Smith	Qk4, Inc.	502 352-2197	jsmith@qk4.com

Each project team member was provided an agenda (Attachment A) at the start of the meeting.

Project Team Meeting No. 3 was initiated by reviewing the local officials/stakeholders (LO/S) scores entered during the LO/S Meeting No. 2. Based on project scores, crash data, current and future traffic, recent improvements, cost, benefit, status of highway plan and previously identified Project Identification forms (PIF), and other information, the project team ranked the projects as High, Medium, and Low. Local projects were prioritized first, followed by Short-Term and Long-Term projects.

Local Projects

As shown below, one project was ranked High priority, two were Medium priority, one was Low priority, and one was not recommended.

Project Type	Alternative ID	Project Description	Cost Estimate (2016 Dollars)	Score	Prioritization
Local (4 pts)	T	Provide drainage improvements on South Hord Street (CS 1126) along Town Branch south of Womack Road.	\$70,000	6	Medium
	U	Widen CW Stevens Boulevard, and add sidewalks on both sides.	\$2,120,000	15	High
	Y	Provide drainage improvements along Rupert Street.	\$380,000	7	Medium
	CC	Provide sidewalks along both sides of Rupert Street.	\$490,000	0	Low
	DD	An alternative concept is not recommended, much of Damron Branch Road would require relocation where the creek is parallel to the roadway, right of way, and utility relocations.	\$0		

Additional discussions regarding specific Local projects are as follows:

- Alternative U – CW Stevens Boulevard ranked High priority despite recent improvements by City of Grayson, which were considered a “band aid.” The corridor still needs sidewalks, curb and gutter, radius improvements at KY 1/KY 7, and drainage improvements including retrofitting drainage basins for curb and gutter.
- Alternative DD – Not recommended because much of Damron Branch Road would require relocation where the creek is parallel to the roadway, right-of-way, and utility relocations.

Short-Term Projects

Three projects were ranked High priority, three were Medium priority, and one was Low priority, as shown below.

Project Type	Alternative ID	Project Description	Cost Estimate (2016 Dollars)	Score	Prioritization
Short-Term (7 pts)	A1	Restripe US 60 and provide left-turn pockets from Court Street to KY 1/KY 7 and provide left turn lanes.	\$10,000	7	Low
	D	Provide lighting at the intersection and remove a hill (along the south side of KY 1947) to improve sight distance at US 60 near I-64.	\$70,000	9	High
	E	Provide drainage improvements along KY 1 from US 60 to Hillview Drive.	\$50,000	9	Medium
	F	Provide drainage improvements along KY 1 East near Beech Grove Road including 600 feet of ditching.	\$50,000	4	Medium
	O	Close Park Street entrance from US 60, and provide curb and sidewalk across the entrance.	\$5,000	6	High
	Q	Provide drainage improvements to minimize flooding on KY 1 near old Ralph's Food Fair.	\$70,000	12	Medium
	V	Install a "No Through Trucks" sign at the intersection of KY 1/KY 1910 intersection.	\$1,000	2	High

Long-Term Projects

As shown below, eight projects were ranked High priority, eight were Medium priority, and eleven were Low priority.

Project Type	Alternative ID	Project Description	Cost Estimate (2016 Dollars)	Score	Prioritization
Long-Term (27 pts)	A	Restripe US 60 and provide TWLTL from Old Town Branch Road to KY 1/KY 7 with parking on one side only. (See Alternative G)	\$200,000	0	Low
	B	Provide another point of egress on US 60 from the Fairgrounds east of the existing entrance.	\$1,100,000	1	Low
	C	Reconstruct and extend existing deficient sidewalks from KY 1 east to the Little Sandy River Bridge.	\$620,000	5	Medium
	G	Add TWLTL, widen lanes, and provide signage to direct motorists to the appropriate lane from Bagby Street to the Little Sandy River Bridge and close Park Street entrance from US 60.	\$490,000	7	Medium
	H	D-9 staff will review signage/stripping, but no alternative concept is recommended.	\$0		
	I	Provide a right-turn lane pocket on KY 1947.	\$440,000	2	High
	J	Provide a new two-lane roadway connecting CW Stevens Boulevard north to KY 9 (AA Highway). (Section 1 of 3)	\$3,000,000	22	High
	K	Connect Everman Drive and Academic Parkway with a two-lane roadway. Close entrance from KY 1 to Everman Drive once constructed.	\$2,900,000	18	Low
	L	Provide dual left turn lanes on I-64 WB Ramp.	\$600,000	6	High
	M	Close two entrances closest to KY 1/I-64 eastbound on-ramp, and route those motorists to Super Eight Lane and the roadway directly across from McClave Street. Relocate existing truck parking and improve internal circulation.	\$2,230,000	8	Low
	N	Conduct an access management study to provide for a more efficient corridor.	\$700,000	0	Medium
	P	Conduct a pedestrian walkability, safety, and ADA compatibility study for the community of Grayson to supplement the sidewalk information collected by KYTC and the ADD.	\$150,000	4	Low
	R	Install lighting along KY 7 from KY 773 to Cabin Creek Road.	\$320,000	5	Low
	S	Construct sidewalks along both sides of KY 7 from Sandy Lane over the Sandy River Bridge (estimated one side of the bridge).	\$690,000	0	Low
	W	Shift KY 1910 approach to KY 3297 eastward and improve turn radii from KY 1910 to KY 3297.	\$230,000	5	Medium
	X	Improve turning radii from KY 3297 to East Third Street.	\$160,000	2	Low
	Z	Provide a right turn lane from KY 3297 at East Carter Middle School's southernmost entrance.	\$240,000	10	High
	AA	Reconstruct existing sidewalks from US 60 Prichard Elementary School to Prichard Street.	\$460,000	1	Medium
BB	Construct new two-lane roadway from CW Stevens Boulevard south 0.540 mile to KY 3297 (MP 0.800) (over I-64). (Section 2 of 3, See J for Section 1.)	\$9,600,000	14	High	
BB1	Construct new two-lane roadway 0.720 mile from KY 3297 (over Little Sandy River) to US 60 (MP 24.632) at KY 1. (Section 3 of 3, see J for Section 1.)	\$8,500,000	9	High	

Long-Term Projects (continued)

Project Type	Alternative ID	Project Description	Cost Estimate (2016 Dollars)	Score	Prioritization
Long-Term (27 pts)	EE	Correct horizontal, vertical and width deficiencies on KY 1 from the Lawrence Co Line (MP 0.0) to US 60 in Grayson (MP 10.6) to improve safety, sight distances, systems connectivity, and operational efficiency, and southern access into Grayson for area residents. PIF 09 022 D0001 45.00	\$111,390,000	2	Low
	FF	Correct geometric and width deficiencies for safety and better accessibility PIF 09 022 D0001 43.00	\$36,760,000	0	Low
	GG	Correct geometric and width deficiencies on KY 7 from KY 1661 (MP 9.2) to and including the Little Sandy Bridge (MP 10.3) to improve access and systems connectivity between Grayson and Sandy Hook, increase efficiency of route and enhance economic growth in area. PIF 09 022 D0007 46.20	\$9,880,000	0	Low
	HH	Improve operational efficiency and provide congestion relief on KY 3297 beginning at Rupert Street (MP 0.279) extending east to the Bridge over the Little Sandy River (MP 1.634) PIF 09 022 D3297 39.00	\$13,220,000	0	Medium
	II	Correct geometric and width deficiencies (narrow shoulders) on KY 3297 from the Little Sandy River Bridge (MP 1.750) extending to the US 60 intersection (MP 2.932) to improve operational efficiency and systems connectivity. PIF 09 022 D3297 40.00	\$10,060,000	0	Medium
	JJ	Safety improvements at the East Carter High School. Item Number 9-8311.00	\$3,520,000	17	High
	KK	KY-7 (Carol Malone Boulevard) Widening from the Little Sandy River to Academic Parkway. Item Number 9-144.00	\$3,640,000	24	High
	LL	Improve safety at KY 7/KY 773 intersection. Add left-turn lane and improve sight distance on KY 7. Item Number 9-8312.10	\$1,050,000	0	Medium

Additional discussion regarding specific projects follows:

- Project I (prioritized as High by the Project Team) – Rather than add a right turn-lane pocket, KYTC asked that the right-turn lane be extended on KY 1947 at KY 1 to allow more queuing space. Cost estimate will need to be revised.

The meeting was adjourned at approximately 4:00 PM.