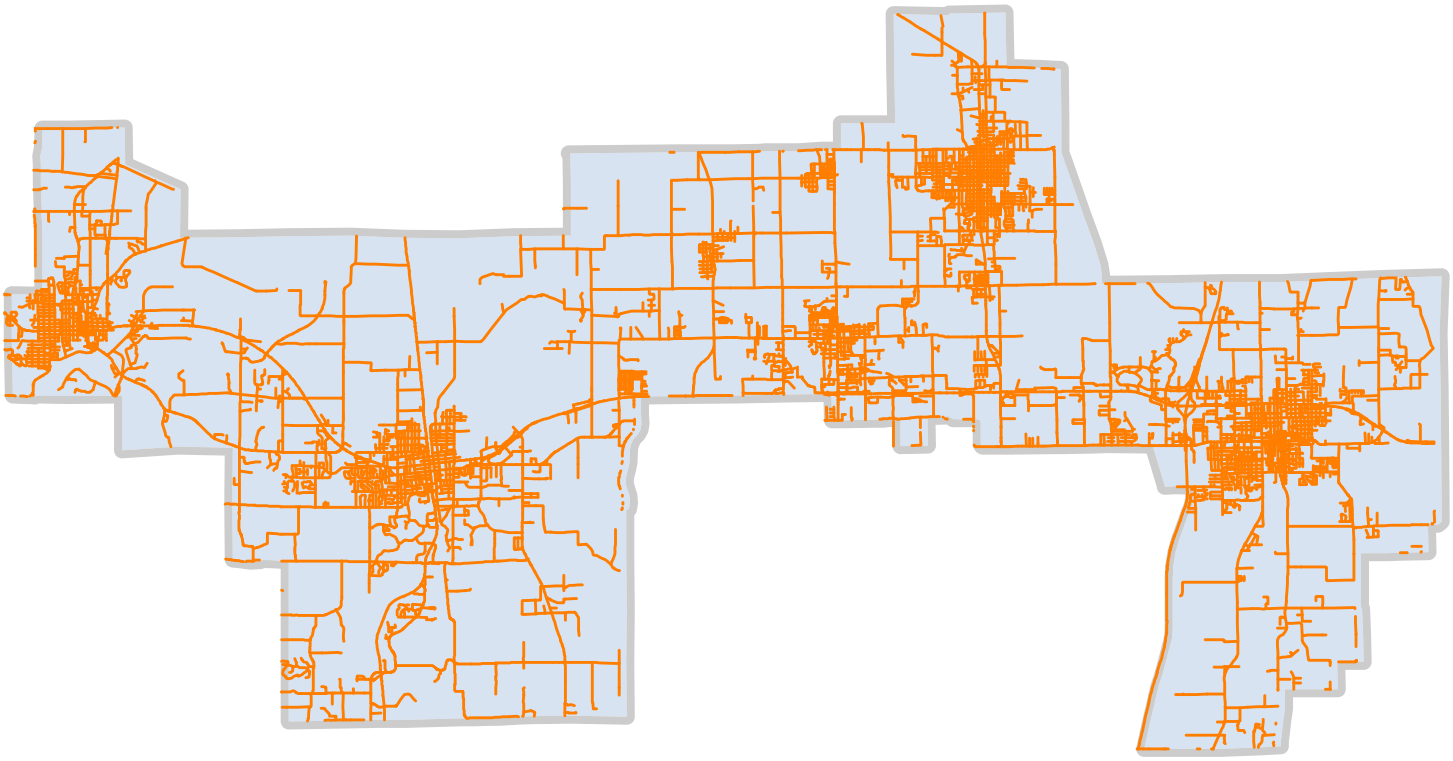
SIMPO

SOUTHERN ILLINOIS METROPOLITAN PLANNING ORGANIZATION



Final Report

Multi-modal Transportation System Assessment

JUNE 2014

Multi-modal Transportation System Assessment

Lochmueller Group Project No. 513-0107-TE

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Final Report

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LIST OF ACRONYMS

AADT – Annual Average Daily Traffic

FHWA: Federal Highway Administration

FTA: Federal Transit Administration

GIS: Geographic Information System

IDOT: Illinois Department of Transportation

ITS: Intelligent Transportation System

JMTD: Jackson County Mass Transit District

LOS: Level of Service

LRTP: Long Range Transportation Plan

MAP 21: Moving Ahead for Progress in the 21st Century (Transportation Funding Program for 2013-2014)

MPA: Metropolitan Planning Area

MPO: Metropolitan Planning Organization

RMTD: RIDES Mass Transit District

TIP: Transportation Improvement Program

UPWP: Unified Planning Work Program

INTRODUCTION

As the Greater Egypt region grows, the boundaries between communities become less apparent and communities must start to act as a cohesive unit. As of the 2010 Census, the Carbondale area became contiguous and has been identified as an Urbanized Area with a population of 67,821. It is with this in mind, along with the need to comply with federal regulations, that the Southern Illinois Metropolitan Planning Organization (SIMPO) was created. This newly formed agency is responsible for a variety of transportation planning tasks. To aid in the completion of these tasks, a multi-modal transportation system assessment was performed.

The purpose of this assessment was to gather data and solicit public input that will further establish a setting for regional decision making and help evaluate transportation alternatives. This will provide a foundation for the completion of a Long Range Transportation Plan in the near future. The assessment consisted of the compilation of a technical analysis using various GIS data, comprehensive stakeholder meetings, and public workshops. In addition, a bicycle and pedestrian assessment was completed to evaluate how suitable the SIMPO network is for biking and walking.

Metropolitan Planning Policy

The framework for transportation planning in urbanized areas is governed by federal regulations. Metropolitan transportation planning policy was first addressed by the 1962 Federal-Aid Highway Act in order to "promote the development of transportation systems, embracing various modes of transport in a manner that will serve the States and local communities efficiently and effectively". This Act requires urbanized areas of more than 50,000 population to develop long-range highway plans that are based on a Continuing, Comprehensive, and Cooperative planning process, also known as the 3-C's of planning.

Title 23 U.S. Code § 134 has since evolved to cover the basic functions of Metropolitan Planning Organizations (MPO), the agencies responsible for transportation planning within their Metropolitan Planning Area (MPA). The most recent transportation bill, MAP-21, specifies funding requirements for fiscal years 2013 and 2014.

Consistent with the Federal Highway Administration (FHWA), the Illinois Department of Transportation (IDOT) has identified the core functions of an MPO to be to:

- Establish a Setting
- Evaluate Alternatives
- Maintain a Long Range Transportation Plan
- Develop a Transportation Improvement Program
- Involve the Public

(Source: IDOT's *Overview of the Transportation Planning Process in Urbanized Areas*)

SIMPO has worked to develop "a fair and impartial setting for effective regional decision making". The method used for this multi-modal transportation system assessment was chosen to further reinforce that setting, to serve as a comprehensive look at the existing system and a crucial step in evaluating transportation alternatives, and to involve the public along each step. It will provide a solid foundation for the completion of a Long Range Transportation Plan.

All MPO's are required to complete a Long Range Transportation Plan (LRTP) with a planning horizon of at least 20 years. This document outlines the MPO's future transportation and land-use goals, strategies, and projects and must be updated every five years. The development of a Transportation Improvement Program (TIP) that is consistent with the LRTP must be completed for all federally funded projects and updated at least once every two years. Only projects that are included in the TIP can be funded for construction. Finally, the MPO is responsible for maintaining a Unified Planning Work Program (UPWP). The UPWP outlines all planning studies and tasks necessary to complete and update the LRTP and TIP, and it must be updated annually. Potential planning projects that could be included in the UPWP have been highlighted throughout this report, and are summarized in the UPWP section.

More information on Metropolitan Planning Organizations and the requirements for the Long Range Transportation Plan, Transportation Improvement Program, and Unified Planning Work Program can be found in IDOT's *Overview of the Transportation Planning Process in Urbanized Area*, in the United States Code *Title 23 U.S. Code § 134*, and on the USDOT's website (www.planning.dot.gov).

Southern Illinois Metropolitan Planning Organization

As of the 2010 Census, the urbanized areas of Carbondale and Marion, IL became contiguous, resulting in a single urbanized area with a population well over 50,000 people. SIMPO was formed in 2013 to conform to the federal policy outlined above. It is SIMPO's responsibility to balance the needs of multiple modes of transportation across multiple jurisdictions.

Organization Structure

The organization is formally made of the Policy Committee, which consists of elected officials from the member agencies. The Policy Committee is supported by the Technical Committee, consisting of technical and operational representatives from those same member agencies.

Member Agencies

- City of Carbondale
- City of Carterville
- City of Herrin
- City of Marion
- Jackson County
- Williamson County
- One Village President, representing all of Cambria, Colp, Crainville, Energy, and Spillertown
- One Transit Agency General Manager, representing JMTD and RMTD
- IDOT District 9 representative

Area Profile

The SIMPO Metropolitan Planning Area (MPA) makes up the most populated area of Southern Illinois. With a population well over 50,000 people, the area easily meets the criterion for requiring an MPO.

With the population below 200,000 people, the area does not qualify as a Transportation Management Area (TMA). This means that a Congestion Management Process is not required (CMP). While many of the principles of a CMP can be utilized in planning, few of the special requirements of that process are necessary.

As of 2012, the MPA continues to be an attainment area, which means that air quality is within acceptable parameters for common air pollutants. Areas of non-attainment must comply with certain standards relative to the Clean Air Act and are eligible for certain funding mechanisms that attainment areas, like SIMPO, are not eligible for.

Figure 1. Williamson and Jackson Counties and the SIMPO Planning Area

Currently, Murphysboro is not part of the Census Urbanized Area, and therefore does not have a vote on the Policy Committee. Because Murphysboro is within the designated MPA it should be considered in all planning activities, but it does not receive funding through the MPO and is not allowed to vote on which projects the MPO funds. It is expected that the urbanized area of SIMPO will become contiguous with the urban cluster of Murphysboro sometime over the next 20 years, at which time Murphysboro will become an official member of SIMPO.

The SIMPO MPA already contains a robust multi-modal transportation network. Along with the foundations for a bicycle and pedestrian network, a snapshot of the key features includes:

- **Major north-south roadway corridor:** Interstate 57
- **Major east-west roadway corridor:** Illinois Route 13
- **Other north-south routes:** US Route 51 and Illinois Routes 127, 148, and 37
- **Public Transportation:** RIDES Mass Transit District, Jackson County Mass Transit District and Southern Illinois University's Saluki Express
- **Airports:** Williamson County Regional Airport and Southern Illinois Regional Airport
- **Railroads:** Canadian National, Union Pacific, and BNSF regional lines; Progressive Rail short-line
- **Truck Freight:** There are several designated truck routes of all classes that run through the MPA

These modes of transportation are discussed in more detail in subsequent chapters of this report. **Exhibit 1** shows a more detailed view of the study area.

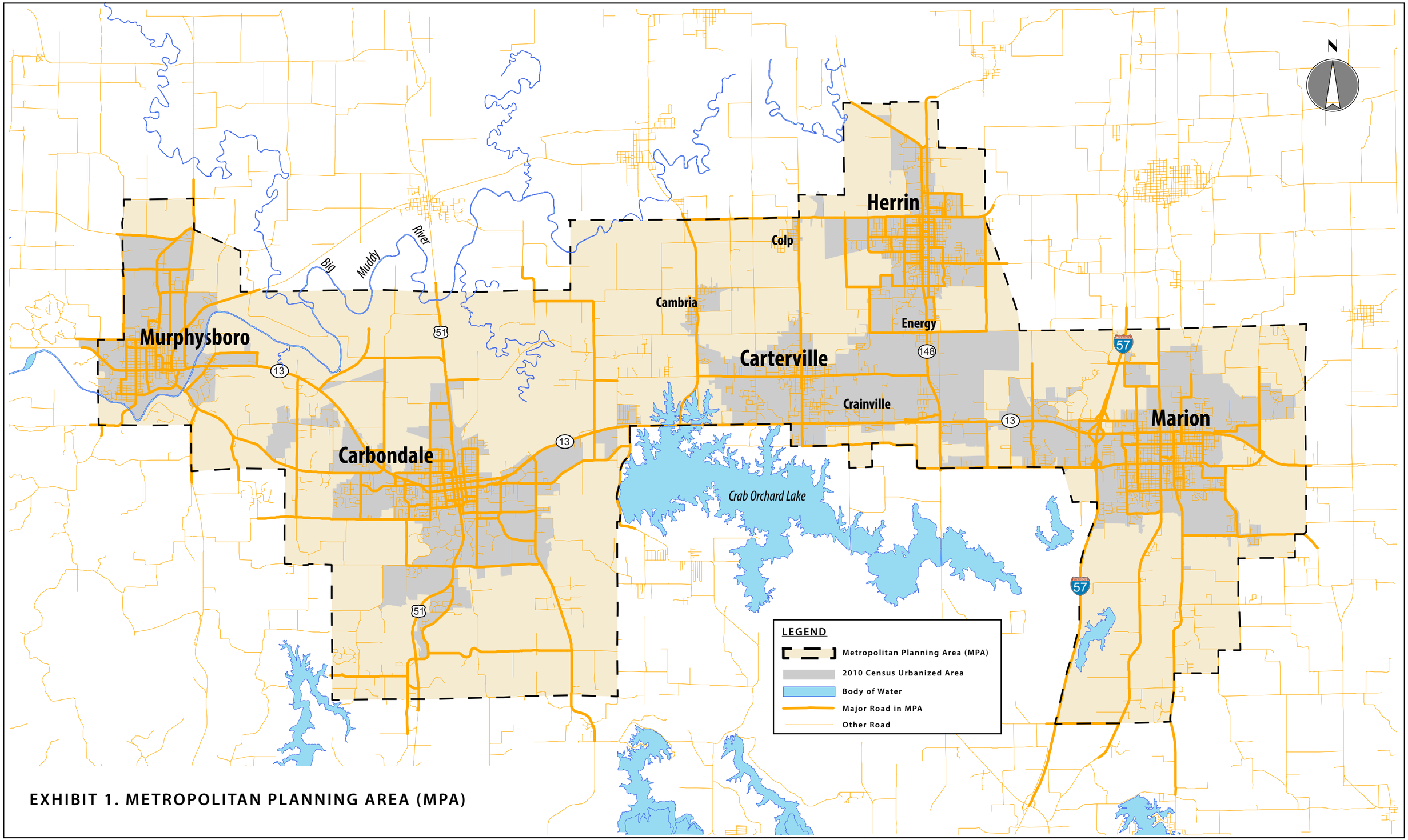


EXHIBIT 1. METROPOLITAN PLANNING AREA (MPA)

The existing urbanized area is flanked by Carbondale on the west and Marion on the east, connected by Route 13. There is a strong network of medical facilities along Route 13 throughout the MPA that play an integral part in the economic activity of the area. Two major retail centers are also located along Route 13, one in Marion near I-57 and the second just east of Carbondale. Southern Illinois University in Carbondale and John A. Logan College in Carterville serve as major educational institutions. Carbondale, Marion, Herrin, and Carterville each have their own school systems that also play an important role in the transportation movement in the area.

Recreational opportunities are plentiful in the surrounding area, and these areas warrant special environmental consideration. Crab Orchard Lake is the focal point of the MPA, providing over 43,000 acres of forests, lakes, and crop land. Outside the MPA to the southwest, there is the Trail of Tears State Forest and to the southeast, the Shawnee National Forest. The Big Muddy River and Crab Orchard Creek, along with thousands of small lakes, ponds, and reservoirs contribute to the wetlands designation that covers much of the MPA. These natural features are a valuable asset to the community, but they also present significant challenges for the transportation system.

SAFETY ALONG THE TRANSPORTATION SYSTEM

Once an afterthought of design and a reactionary effort, safety for all users is now a fundamental goal at all levels of transportation planning and design. However, the nature of transportation safety issues makes them difficult to identify and mitigate. All modes of transportation need to be addressed, and a variety of cost-benefit trade-offs must be considered.

SIMPO safety efforts should be closely coordinated with the efforts of IDOT, Jackson County, and Williamson County.

In accordance with federal and state objectives, IDOT has developed a state Highway Safety Improvement Program (HSIP) and is in the process of completing Strategic Highway Safety Plans (SHSP) for both Jackson and Williamson County. It is important that SIMPO coordinates with these efforts to maximize the benefits of safety resources.

The 4 E's of transportation safety are often used to describe the broad range of groups that play a role in improving safety. These groups should all be included at some point in discussion and planning:

- **Engineering:** Roadway design, traffic, maintenance, operations, planning
- **Enforcement:** State and local law enforcement agencies
- **Education:** Driver education, citizen advocacy groups, educators, prevention specialists
- **Emergency Response:** First responders, paramedics, fire fighters, rescue workers

The assessment described here focuses primarily on the engineering aspect, using data and stakeholder feedback to identify specific areas of focus. To take into account all aspects of safety analysis, the study team chose a multifaceted approach to identifying safety issues within the MPA.

Automobile Crash Analysis

Safety on the roadways is a very complex problem. To evaluate the conditions for vehicular traffic within the MPA, six elements of safety information were combined to give a comprehensive picture of traffic safety.

IDOT Potential for Safety Improvement (PSI)

For state routes, the PSI values were considered for each roadway segment. These values take the number of crashes that could be expected based on roadway characteristics, and compares that to the actual number of crashes that occurred, taking into account the severity of crashes as well. **Figure 2** below shows a simplified graphical representation of the PSI value. More information on this metric can be found in the Illinois Center for Transportation's Publication FHWA-ICT-10-066.

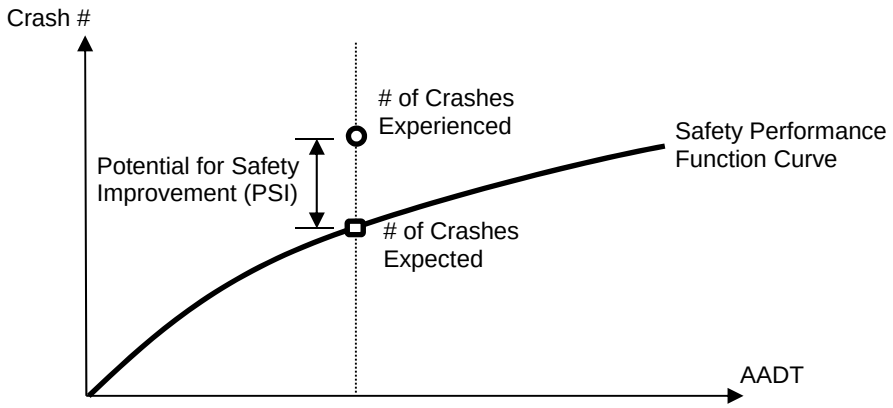


Figure 2. Graphical Description of PSI

Targeting roadways with a high PSI value can maximize the benefits of the region's safety resources. All state route segments with a positive PSI value (indicating that there is a potential for improvement) are shown in **Exhibit 2**. The state route segments with the highest PSI values are listed below:

Table 1. Locations with a High PSI Value

Roadway	Limits	PSI Value
Pershing Street	Brewster Road to W Clark Trail (Herrin)	91.69
US 51	South of S Illinois Avenue split to Rifle Range Road (Carbondale)	49.99
N Illinois Ave (US 51)	South of Dillinger Road to south of Charles Road (Carbondale)	32.33
IL 148	Just south of Route 13 to just north of Main Street (Herrin)	28.28
East Diagonal	Main Street to E Walnut Street (Carbondale)	26.00

IDOT State Five Percent Report

The IDOT State Five Percent Report is a study that identifies the top 5% of State-maintained roadways with the most pressing safety concerns for the entire state of Illinois. An analysis of the most recently available IDOT state Five Percent data revealed that there are 11 intersections and 5 segments within the MPO boundaries. Many of these locations were also among the locations with the highest PSI values. The 5% intersections and segments that are located within the MPO limits are listed below and can be seen in Exhibit 2. These locations, as well as locations with a high PSI value, are strong candidates for Highway Safety Improvement (HSIP) funds.

Table 2. IDOT State 5% Intersections in MPO

Intersection
Country Club Road and Route 13 (Carbondale)
Herrin Road and Cambria Road (Cambria)
Herrin Road and Division Street (Colp)
Herrin Road and Packer Lane (Colp)
Route 148 and Brewster Road (Herrin)
Route 13 and Greenbriar Road (Carterville)
Route 13 and Division Street (Carterville)
Route 13 and Main Street (Crainville)
Route 13 and Samuel Road (Crainville)
Route 13 and Pentecost Road (Marion)
Route 13 and Main Street (Marion)

Table 3. IDOT State 5% Segments in MPO

Roadway
US 51 - South of S Illinois Avenue split to Rifle Range Road (Carbondale)
Pershing Road - Brewster Road to W Clark Trail (Herrin)
IL 148 – Just south of Route 13 to just north of Main Street (Herrin)
W Herrin Road – Division Street to Allen Road (Herrin)
East Diagonal – Main Street to E Walnut Street (Carbondale)

Fatal Crashes

A spot map of fatalities provided a snap shot of where fatal crashes have occurred within the last five years of available data (2008-2012). As expected, because it carries the most traffic, the highest number of fatalities occurred on Route 13. While a few longer segments had more than one fatality, no specific location within the study area had more than one fatality within the last five years. Locations of fatalities are shown in Exhibit 2.

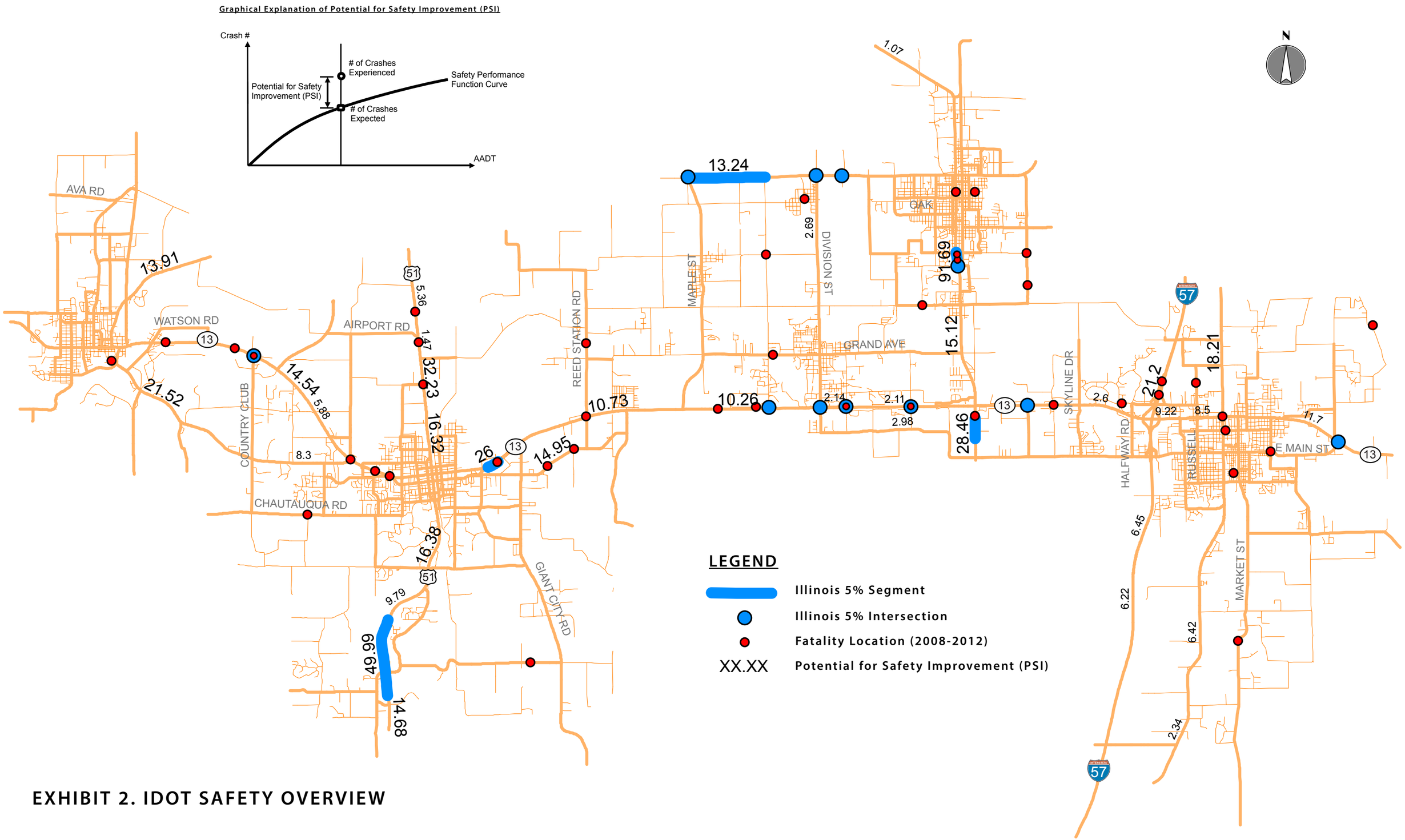


EXHIBIT 2. IDOT SAFETY OVERVIEW

Intersection and Segment Crash Rates

Intersection crash rates were calculated for all major intersections (intersections of Major Collectors and above). Crash rates take into account the volume of traffic, allowing for a more direct comparison of different roadways. Intersection crash rates are given in crashes per million entering vehicles by the following formula:

$$Intersection\ Crash\ Rate = \frac{No.of\ Crashes\ x\ 1{,}000{,}000}{No.of\ years\ x\ 365\ x\ Entering\ AADT}$$

Crash rates were also calculated for all major roadway segments (Major Collectors and above). Segment crash rates are given in crashes per hundred million vehicles by the following formula:

$$Segment\ Crash\ Rate = \frac{No.of\ Crashes\ x\ 100{,}000{,}000}{No.of\ years\ x\ 365\ x\ AADT\ x\ Length\ in\ miles}$$

While the PSI values and state Five Percent locations are strictly on IDOT state routes, these crash rates were developed for all roadways within the MPA classified as Major Collector and above. The intersections and segments with the highest crash rates are shown in **Exhibit 3** and **Exhibit 4**. Intersections and segments that averaged more than 5 crashes/year were displayed.

IDOT Local Roads Five Percent Report

The Local Roads Five Percent Report was recently commissioned by IDOT in order to expand the efforts of the State Five Percent Report. It uses a system of tiers and criteria to identify local roads with potential safety needs based on crash rates weighted for fatalities and severe crashes. Information from this report was cross-reference with the calculated crash rates.

Stakeholder Discussions and Public Workshops

Lastly, the stakeholder discussions and public workshops were used to get feedback on which roadways and intersections they felt had safety issues. These locations were reviewed with respect to the crash data and highlighted for further analysis.

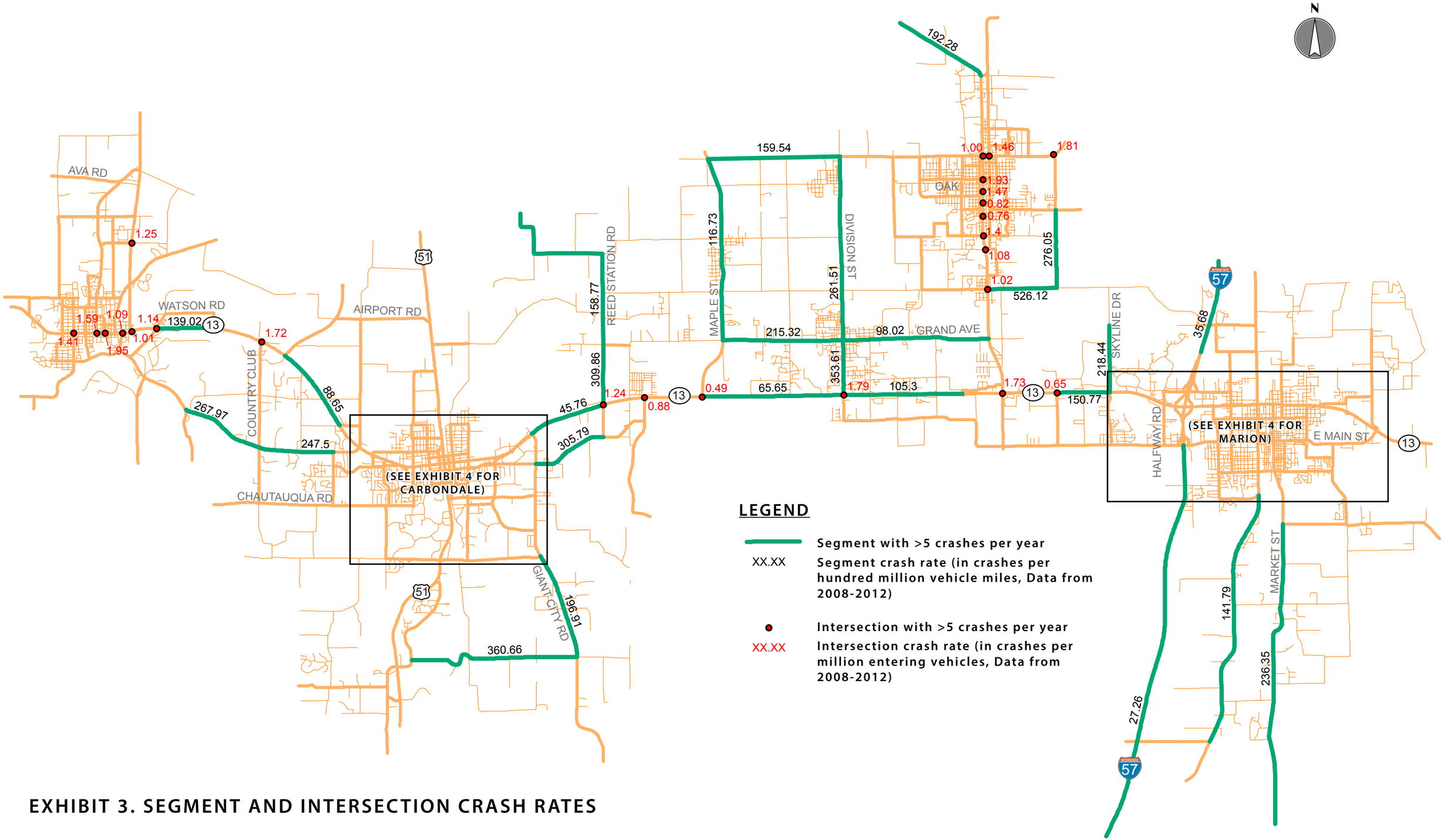
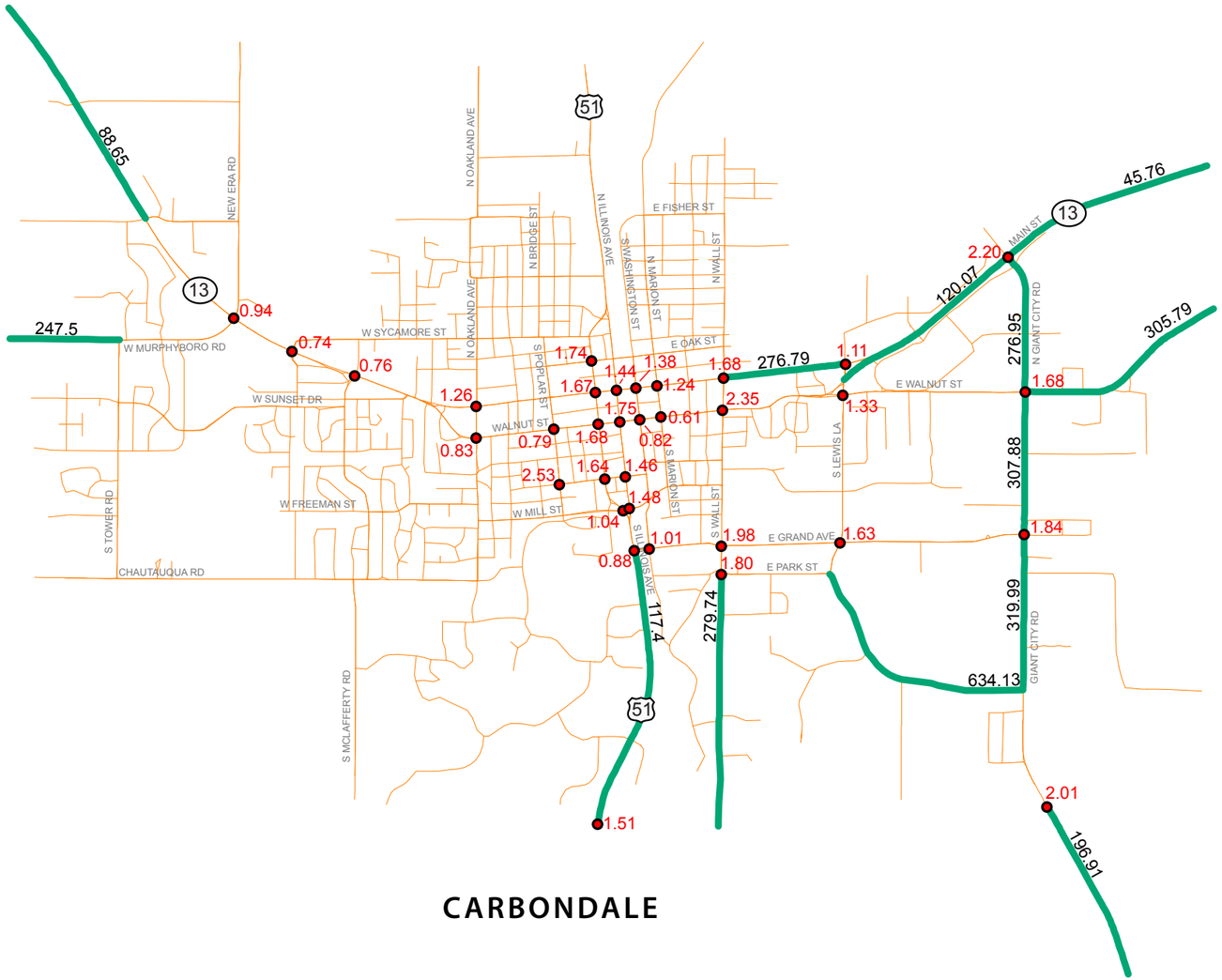
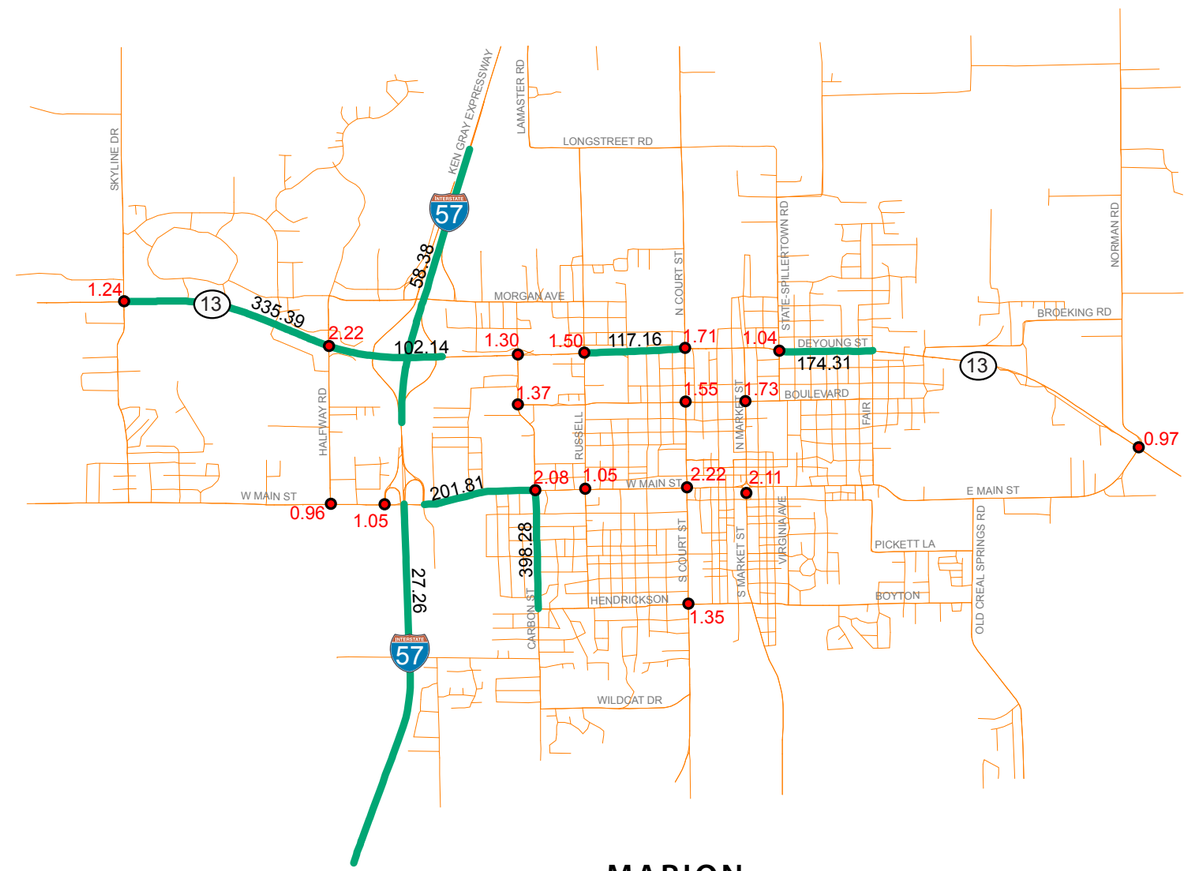


EXHIBIT 3. SEGMENT AND INTERSECTION CRASH RATES



CARBONDALE



MARION

LEGEND

———	Segment with >5 crashes per year
XX.XX	Segment crash rate (in crashes per hundred million vehicle miles, Data from 2008-2012)
●	Intersection with >5 crashes per year
XX.XX	Intersection crash rate (in crashes per million entering vehicles, Data from 2008-2012)

EXHIBIT 4. SEGMENT AND INTERSECTION CRASH RATES - CARBONDALE AND MARION

Summary of Crash Data

This diverse collection of safety information can be difficult to comprehend and determine which aspects should be focused on. However, by accumulating all the data in one place, some patterns do begin to emerge. **Table 4** and **Table 5** provide a summary of the information compiled for both intersections and segments. Each list is comprised of locations that averaged at least 5 crashes per year from 2008 to 2012. They were then ranked in order from highest to lowest by crash rate.

Table 4, Summary of Intersection Safety, shows which locations were cited as 5% locations. If a 5% location is included in the State report, there is an "S" next to it in the *IDOT 5%* column. If a 5% location is included in the Local Roads report, there is an "L" next to it in this column. Locations that experienced a fatal crash have a dot in the *Fatal Crash* column. Locations that were mentioned during the stakeholder discussions or public workshops have a dot in the *Stakeholder or Public Mentioned* column.

Table 5, Summary of Segment Safety, shows the same information as the intersection summary, but also includes the calculated PSI for State roadways. A positive PSI indicates that there may be potential to improve the safety conditions at that location. A negative PSI indicates that the location has had fewer crashes than expected based on roadway characteristics, and therefore there may not be much potential to improve safety.

Table 4. Summary of Intersection Safety

Roadway N/S	Roadway E/W	Township	Crash Rate	IDOT 5%	Fatal Crash	Stakeholder Mentioned	Entering AADT	Total Crashes (2008-2012)
S Poplar St	W College St	Carbondale	2.53	L			5,625	**26**
S Wall St	Walnut St	Carbondale	2.35				30,250	**130**
Halfway Rd	SR 13	Marion	2.22				41,400	**168**
N Court St	W Main St	Marion	2.22				23,200	**94**
N Giant City Rd	SR 13	Carbondale	2.20	L		●	45,350	**182**
Marktet St	Main St	Marion	2.11				7,775	**30**
Carbon St	W Main St	Marion	2.08			●	19,800	**75**
Giant City Rd	Pleasant Hill Rd	Carbondale	2.01				8,975	**33**
S Wall St	E Grand St	Carbondale	1.98				20,500	**74**
N 11th St	Walnut St	Murphysboro	1.95				14,900	**53**
Park Ave	E Monroe St	Herrin	1.93				16,775	**59**
Giant City Rd	E Grand St	Carbondale	1.84				12,800	**43**
Bandyville Rd	Herrin Rd	Herrin	1.81				7,575	**25**
S Wall St	E Park St	Carbondale	1.80				10,950	**36**
Division St	SR 13	Carterville	1.79	S			30,875	**101**
S Illinois Ave	Walnut St	Carbondale	1.75				26,550	**85**
University Ave	W Oak St	Carbondale	1.74				9,125	**29**
SR 148	SR 13	Herrin	1.73				36,675	**116**
N Market St	Boulevard St	Marion	1.73				8,250	**26**
Country Club Rd	SR 13	Carbondale	1.72	S	●		19,725	**62**
N Court St	DeYoung St	Marion	1.71		●		32,300	**101**
University Ave	Walnut St	Carbondale	1.68				27,100	**83**
S Wall St	Main St	Carbondale	1.68				26,450	**81**
Giant City Rd	Walnut St	Carbondale	1.68				17,000	**52**
University Ave	Main St	Carbondale	1.67				25,000	**76**
University Ave	College St	Carbondale	1.64				11,025	**33**
S Lewis Ln	E Grand Ave	Carbondale	1.63				13,100	**39**
N 14th St	Walnut St	Murphysboro	1.59				15,175	**44**
N Court St	Boulevard St	Marion	1.55		●		16,950	**48**
SR 51	W Pleasant Hill Rd	Carbondale	1.51				21,400	**59**
Russell St	DeYoung St	Marion	1.50				31,350	**86**
S Illinois Ave	W Mill St	Carbondale	1.48			●	14,450	**39**
E Lyerla Dr	Park Ave	Herrin	1.47				16,050	**43**
S Illinois Ave	E College St	Carbondale	1.46				9,750	**26**
13th St	Herrin St	Herrin	1.46				9,375	**25**
S Illinois Ave	Main St	Carbondale	1.44				23,950	**63**
N 20th St	Walnut St	Murphysboro	1.41				10,525	**27**

Table 4. Summary of Intersection Safety (cont.)

Roadway N/S	Roadway E/W	Township	Crash Rate	IDOT 5%	Fatal Crash	Stakeholder Mentioned	Entering AADT	Total Crashes (2008-2012)
Park Ave	W Clark Tr	Herrin	1.40	S	●	●	22,275	**57**
N Washington St	Main St	Carbondale	1.38				20,275	**51**
Carbon St	Boulevard St	Marion	1.37			●	11,600	**29**
S Court St	Hendrickson St	Marion	1.35				13,350	**33**
Lewis Ln	E Walnut St	Carbondale	1.33				14,450	**35**
Carbon St	DeYoung St	Marion	1.30				36,350	**86**
N Oakland Ave	Main St	Carbondale	1.26			●	21,800	**50**
SR 127	W Industrial Park	Murphysboro	1.25				14,025	**32**
Skyline Dr	SR 13	Marion	1.24		●		29,500	**67**
Reed Station Rd	SR 13	Carbondale	1.24		●		36,575	**83**
Marion St	Main St	Carbondale	1.24				21,200	**48**
Williams St	Walnut St	Murphysboro	1.14				19,700	**41**
Lewis Ln	Main St	Carbondale	1.11				26,200	**53**
5th St	Walnut St	Murphysboro	1.09				15,025	**30**
Park Ave	Railroad Ave	Herrin	1.08			●	19,825	**39**
Russell St	W Main St	Marion	1.05				17,225	**33**
I-57 SB Ramp	Main St	Marion	1.05				16,225	**31**
Spillertown Rd	DeYoung St	Marion	1.04				22,025	**42**
University Ave	W Mill St	Carbondale	1.04				15,250	**29**
Pershing St	College St	Herrin	1.02				19,250	**36**
S Washington St	E Grand Ave	Carbondale	1.01				15,700	**29**
SR 127	SR 13	Murphysboro	1.01				21,800	**40**
Park Ave	Herrin St	Herrin	1.00				19,225	**35**
E Main St	SR 13	Marion	0.97	S		●	14,625	**26**
Halfway Rd	W Main St	Marion	0.96				15,450	**27**
New Era Rd	SR 13	Carbondale	0.94		●		27,900	**48**
Spillway Rd	SR 13	Carbondale	0.88				34,850	**56**
S Illinois Ave	E Grand Ave	Carbondale	0.88				25,600	**41**
S Oakland Ave	Walnut St	Carbondale	0.83				21,825	**33**
Washington St	Walnut St	Carbondale	0.82				23,300	**35**
Park Ave	E Poplar St	Herrin	0.82				17,450	**26**
S Poplar St	Walnut St	Carbondale	0.79				21,500	**31**
N Glenview Dr	Main St	Carbondale	0.76		●		27,425	**38**
Park Ave	E Grant St	Herrin	0.76				18,112	**25**
N Emerald Ln	SR 13	Carbondale	0.74				26,775	**36**
N Pentecost Dr	SR 13	Marion	0.65				26,175	**31**
Marion St	Walnut St	Carbondale	0.61				24,225	**27**
Cambria Rd	SR 13	Carterville	0.49				33,475	**30**

Table 5. Summary of Segment Safety

Roadway	*From*	*To*	*Township*	*Crash Rate*	*PSI*	*IDOT 0.05*	*Fatal Crash*	*Stakeholder Mentioned*	*AADT*	*Length*	*Total Crashes (2008-2012)*
E PARK ST	Lewis Ln	Giant City Rd	Carbondale	**634.13**	-	L			2,300	1.09	**29**
CRENSHAW RD	Pershing St	Bandyville Rd	Herrin	**526.12**	-			●	2,200	1.33	**28**
CARBON ST	Hendrickson St	W Main St	Carbondale	**398.28**	-			●	6,700	0.60	**29**
BOSKYDELL RD	S Illinois Ave	Giant City Rd	Carbondale	**360.66**	-		●		1,500	3.34	**33**
DIVISION ST	SR 13	Grand Ave	Carterville	**353.61**	-0.750				9,600	1.00	**62**
SR 13	Skyline Dr	Halfway Rd	Marion	**335.39**	2.597				25,200	1.07	**165**
GIANT CITY RD	E Park St	E Grand Ave	Carbondale	**319.99**	-				7,800	0.66	**30**
REED STATION RD	SR 13	E Clayton Rd	Carbondale	**309.86**	-	L	●	●	4,000	1.15	**26**
S GIANT CITY RD	E Grand Ave	E Walnut St	Carbondale	**307.88**	-				12,300	0.61	**42**
OLD ILL 13 EAST	Giant City Rd	Reed Station Rd	Carbondale	**305.79**	14.950		●●		4,300	1.46	**35**
S WALL ST	Pleasant Hill Rd	E Park St	Carbondale	**279.74**	-	L			6,700	1.08	**37**
N GIANT CITY RD	E Walnut St	SR 13	Carbondale	**276.95**					10,900	0.60	**33**
MAIN ST	Wall St	Lewis Ln	Carbondale	**276.79**	-143.662				23,100	0.52	**61**
BANDYVILLE RD	Crenshaw Rd	Stotlar St	Herrin	**276.05**	-	L	●		4,650	1.49	**35**
OLD IL 13	Pump House Rd	Country Club Rd	Murphysboro	**267.97**	7.878				4,700	1.61	**37**
DIVISION ST	Grand Ave	Herrin Rd	Carterville	**261.51**	2.689			●	5,800	3.50	**97**
OLD IL 13	Country Club Rd	N Tower Rd	Carbondale	**247.50**	9.957				4,950	1.43	**32**
S MARKET RD	Deer Run Rd	Golf Course Rd	Marion	**236.35**	-	L	●		1,750	5.83	**44**
SKYLINE DR	SR 13	Redco Dr	Marion	**218.44**	-			●	5,100	1.28	**26**
GRAND AVE	Cambria Rd	Division St	Carterville	**215.32**	-		●	●	5,300	2.30	**48**
W MAIN ST	I-57 NB Ramps	Carbon St	Marion	**201.81**	-				14,400	0.57	**30**
GIANT CITY RD	Boskydell Rd	Pleasant Hill Rd	Carbondale	**196.91**	-				6,100	2.05	**45**
N PARK AVE	Smith St	Big Buck Ln	Herrin	**192.28**	1.074				4,150	1.85	**27**
DEYOUNG ST	State Rd	Fair St	Marion	**174.31**	-2.413				17,400	0.47	**26**
HERRIN RD	Maple St	Division St	Colp	**159.54**	13.245	S			5,700	2.53	**42**
REED STATION RD	E Clayton Rd	Dietz Rd	Carbondale	**158.77**	-	L	●		3,000	4.03	**35**
SR 13	Pentecost Dr	Skyline Dr	Marion	**150.77**	-6.061		●		25,000	1.02	**70**
S COURT ST	Grassy Rd	Wildcat Dr	Marion	**141.79**	6.424			●	6,400	4.95	**82**
WALNUT ST	Williams St	Watson Rd	Murphysboro	**139.02**	-4.041		●		16,700	1.09	**46**
MAIN ST	Lewis Ln	Giant City Rd	Carbondale	**120.07**	26.003	S	●	●	26,500	0.88	**51**
S ILLINOIS AVENUE	Pleasant Hill Rd	E Grand Ave	Carbondale	**117.40**	16.376				18,400	1.22	**48**
DEYOUNG ST	Russell St	N Court St	Marion	**117.16**	8.500		●		24,000	0.51	**26**
MAPLE ST	Grand Ave	Herrin Rd	Carterville	**116.73**	-				4,800	3.52	**36**
SR 13	Division St	Briggs Rd	Carterville	**105.30**	2.140		●●		24,900	2.28	**109**
SR 13	Halfway Rd	I-57 NB Ramps	Marion	**102.14**	9.223				31,800	0.57	**34**
GRAND AVE	Division St	SR 148	Herrin	**98.02**	-				6,200	2.80	**31**
SR 13	Airport Rd	Striegel Rd	Carbondale	**88.65**	14.539				18,900	1.70	**52**
SR 13	Cambria Rd	Division St	Carterville	**65.65**	10.257		●●	●	24,900	2.72	**81**
KEN GRAY EXPRESSWAY	SR 13 Ramps	Morgan Ave Ramps	Marion	**58.38**	21.197		●●		34,300	1.42	**52**
SR 13	Giant City Rd	Reed Station Rd	Carbondale	**45.76**	5.513			●	35,400	1.49	**44**
KEN GRAY EXPRESSWAY	Morgan Ave Ramps	North MPO Limit	Marion	**35.68**	-3.916				34,300	1.79	**40**
KEN GRAY EXPRESSWAY	SR 13 Ramps	South MPO Limit	Marion	**27.26**	6.454				27,100	7.71	**104**

Pedestrian and Bicycle Crash Analysis

Safety is often a primary reason why people choose not to bike and walk. Inadequate facilities and dangerous intersections make people feel uncomfortable. While the bicycle and pedestrian Level of Service analyses described in a later section evaluated the physical characteristics of the roadways within the MPA for safety and comfort, **Exhibit 5** and **Exhibit 6** show where actual crashes have occurred. ***Figures 3 and 4*** below give a snapshot of bicycle and pedestrian crashes from 2008 to 2012. Recommended bicycle and pedestrian facility improvement projects are included in a subsequent section.

Figure 3. Pedestrian Crashes in MPA (2008-2012)

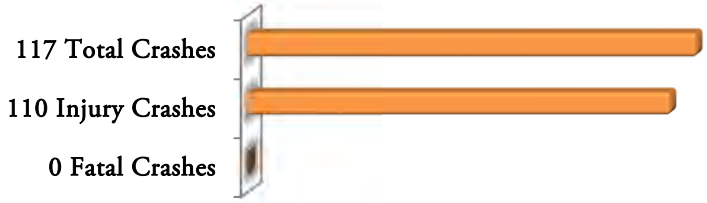


Figure 4. Pedalcyclist Crashes in MPA (2008-2012)

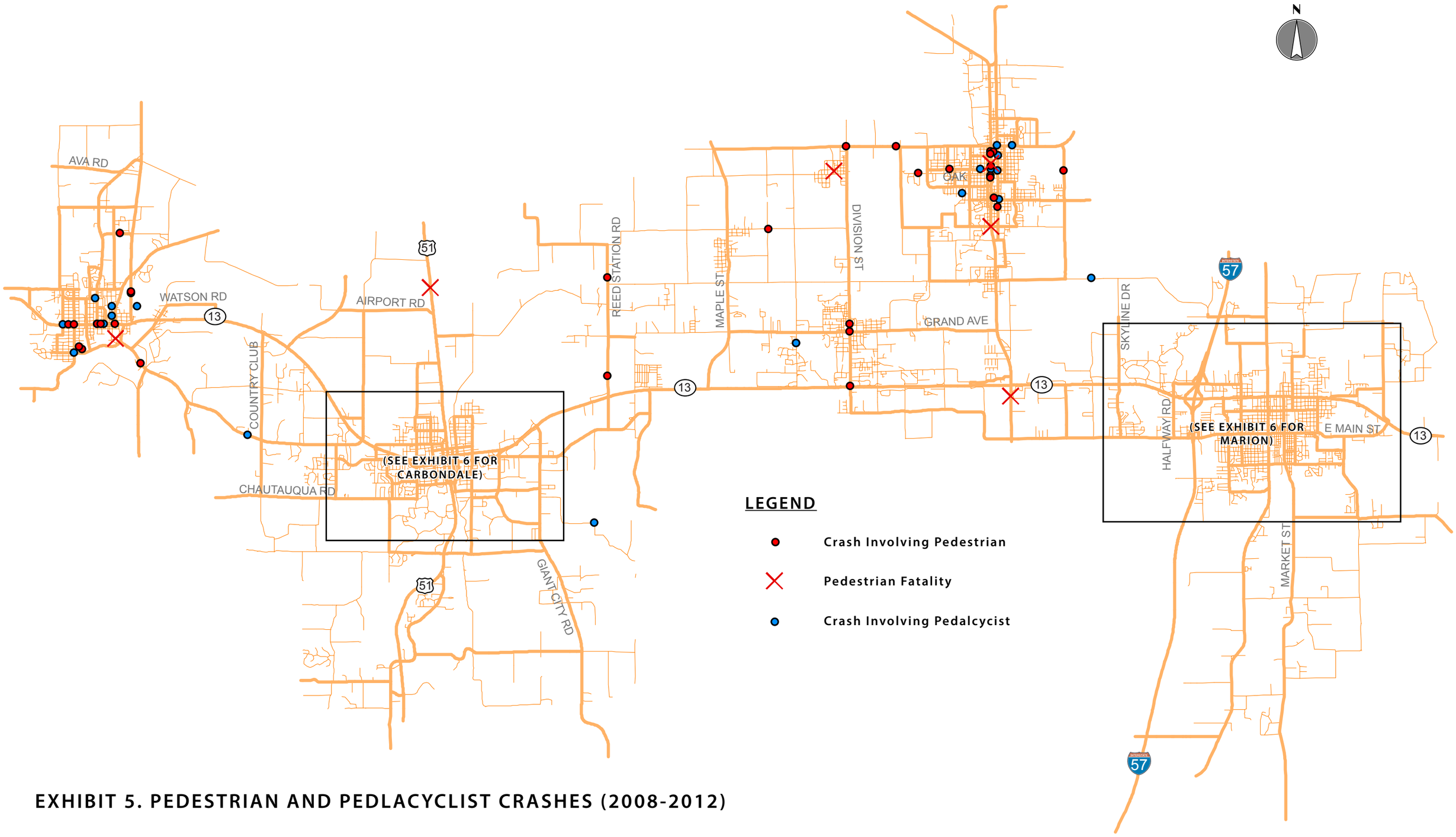
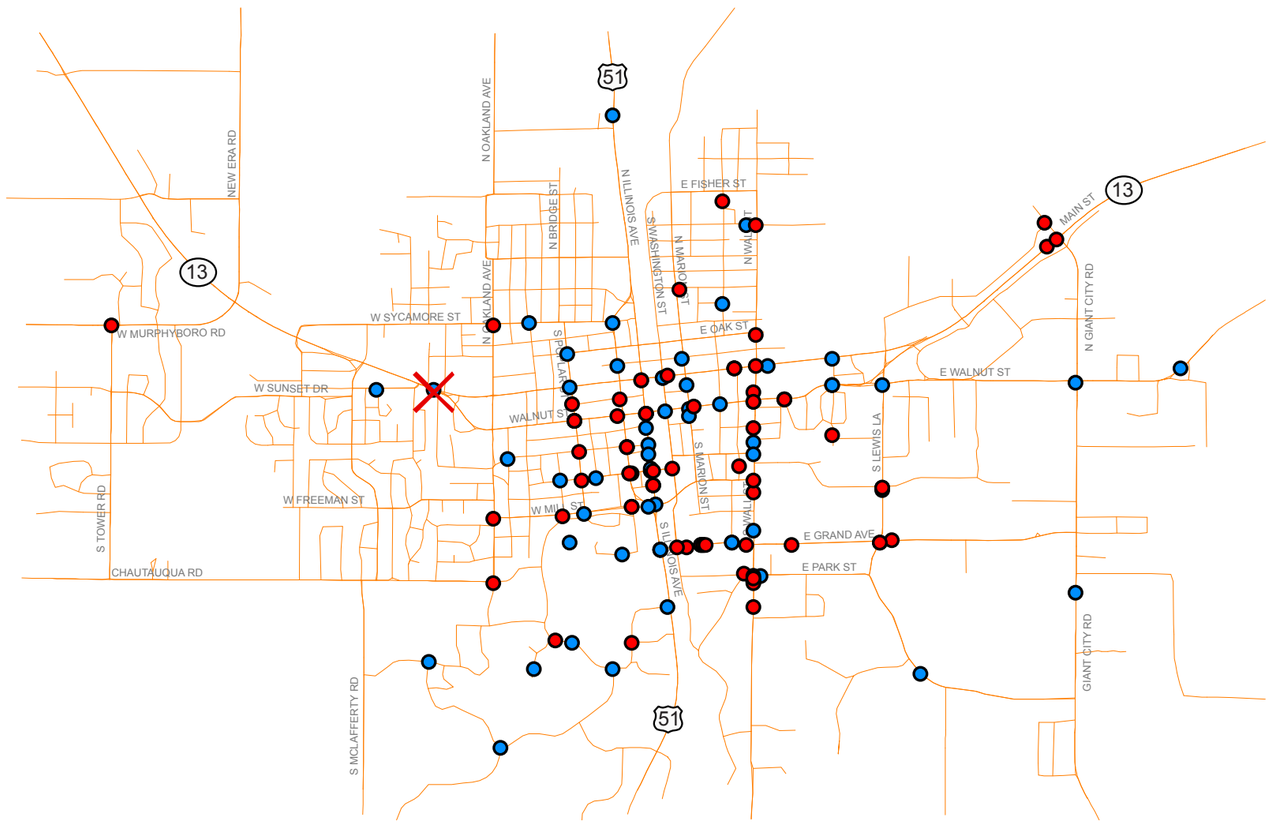
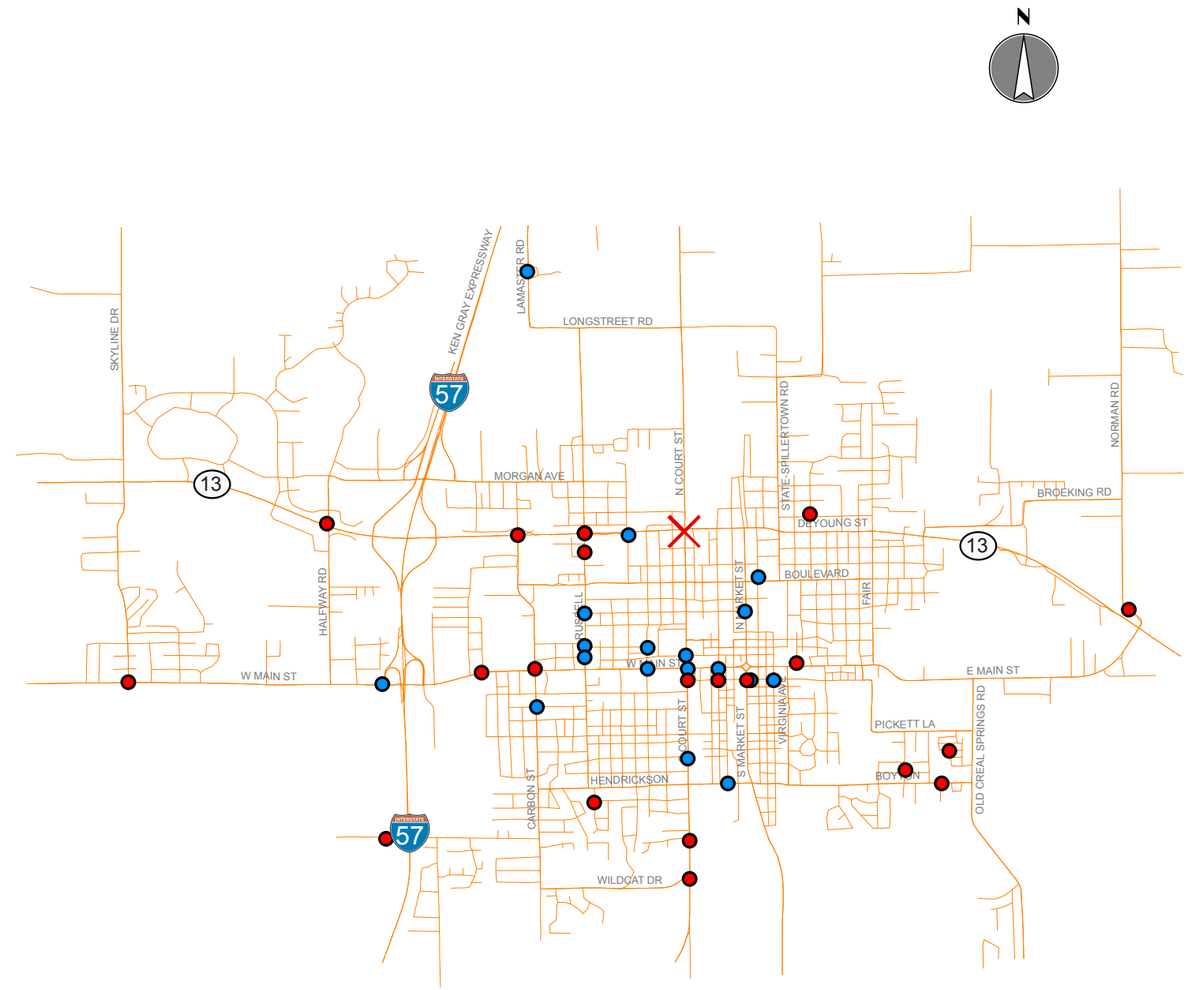


EXHIBIT 5. PEDESTRIAN AND PEDLACYCLIST CRASHES (2008-2012)



CARBONDALE



MARION

LEGEND

- Crash Involving Pedestrian
- Pedestrian Fatality
- Crash Involving Pedalcycist

EXHIBIT 6. PEDESTRIAN AND PEDALCYCLIST CRASHES (2008-2012) - CARBONDALE AND MARION

Potential Safety Project Ideas

Below is a comprehensive list of project ideas that were developed using the various elements of the safety analysis. The study then selected a number of projects from this list that illustrate the most efficient use of funding.

Locations from Table 4 that satisfied at least two of the four elements (Crash rate >1.2, IDOT 5%, Fatal Crash, and Stakeholder Mentioned) are included in the list under intersections. Locations from Table 5 that had a crash rate greater than 150.00, a positive PSI value (or no PSI value), and satisfied at least one of the remaining elements are included in the list under segments. Beyond this, there were a few items that the stakeholders and public mentioned that were more general in nature or did not satisfy the criteria, but are worth highlighting. This list was important in further refining the safety data to determine prioritized projects.

Table 6. List of Improvement Ideas Based on Safety

Intersections (based on safety data)	General Location
Poplar St and College St	Carbondale
Giant City Rd and Route 13	Carbondale
Carbon St and Main St	Marion
Division St and Route 13	Carterville
Country Club Rd and Route 13	Carbondale
Court St and DeYoung St	Marion
Court St and Boulevard St	Marion
Illinois Ave and Mill St	Carbondale
Park Ave (Route 148) and Clark Trail	Herrin
Carbon St and Boulevard St	Marion
Oakland Ave and Main St	Carbondale
Skyline Dr and Route 13	Marion
Reed Station Rd and Route 13	Carbondale
Main St and Route 13	Marion
Segments (based on safety data)	**General Location**
PARK ST – Lewis Ln to Giant City Road	Carbondale
CRENSHAW RD – Pershing St to Bandyville Rd	Herrin
CARBON ST – Hendrickson St to Main St	Marion
REED STATION RD – Route 13 to Clayton Rd	Carbondale
OLD ROUTE 13 EAST – Giant City Rd to Reed Station Rd	Carbondale
WALL ST – Pleasant Hill Rd to Park St	Carbondale

BANDYVILLE RD – Crenshaw Rd to Stotlar St	Herrin
DIVISION ST – Grand Ave to Herrin Rd	Carterville
MARKET RD – Deer Run Rd to Golf Course Rd	Marion
SKYLINE RD – Route 13 to REDCO Dr	Marion
GRAND AVE – Cambria Rd to Greenbriar Rd, Greenbriar Rd to Division St*	Carterville
HERRIN RD – Maple St to Division St	Colp
REED STATION RD – Clayton Rd to Dietz Rd	Carbondale
ROUTE 13 – Pentecost Dr to Skyline Dr	Marion
Other Ideas Identified by Stakeholders and Public	**General Location**
Install emergency pre-emption along Route 13 and other critical intersections	Multiple
Install flashing lights to warn of intersection at Cambria Rd and Sycamore Rd	Cambria
Realign Spillway Rd curve on the south side of Crab Orchard Lake	Carbondale
Provide pedestrian crossing improvements at W Grand Ave and Greenbriar Rd	Carterville
Provide pedestrian crossing improvements at Grand Ave and Division St	Carbondale
Install LED lights on the four-way stop sign at Herrin-Colp Rd and Mayor Caliper Dr	Colp
Improve at-grade rail crossings	Multiple

ROADWAYS

The MPA is served by a roadway network consisting of everything from local roadways in downtown city grids to major state and interstate highway routes. Interstate 57 is the primary north-south corridor, while Illinois Route 13 is the primary east-west corridor. These corridors are supplemented by a large network of two-lane rural highways and urban grids.

Functional Classification

The intended character of a roadway and the adjacent land-uses can be described by the functional classification it is given. The process for assigning a functional classification to a roadway is relatively standardized and consistent across the nation, and is the responsibility of IDOT in cooperation with local agencies, the MPO, and FHWA. In addition to indicating the intended character of the roadway, the functional classification can also dictate whether a certain roadway is eligible for some funding programs. For example, only roadways classified as collector and above are eligible for certain types of Federal transportation funding. Data supplied by IDOT identified seven types of roadways, six of which are found in the MPA. The breakdown by functional classification is as follows:

Table 7. Functional Classification Breakdown

Miles	% Total	Functional Classification	Services Provided
14.53	2.5%	Interstate	Full access control, high speed travel
52.88	6%	Other Principal Arterial	High speeds and long, uninterrupted travel
63.57	7%	Minor Arterial	High speeds and long, uninterrupted travel
148.81	17%	Major Collector	Collects traffic from local roads, distributes to arterials
5.54	0.5%	Minor Collector	Collects traffic from local roads, distributes to arterials
585.64	67%	Local Road or Street	Provides access to land, little or no through movement
870.97	**Total**		

It is important that the designated functional classification matches the actual roadway characteristics and intended use. There are a number of roadway segments that could be considered for a change in functional classification during the next IDOT review. These include Greenbriar Road from Route 13 to Grand Avenue, Crenshaw Road from Bandeyville Road to Skyline Drive, and Skyline Drive from just north of REDCO Drive to Crenshaw Road.

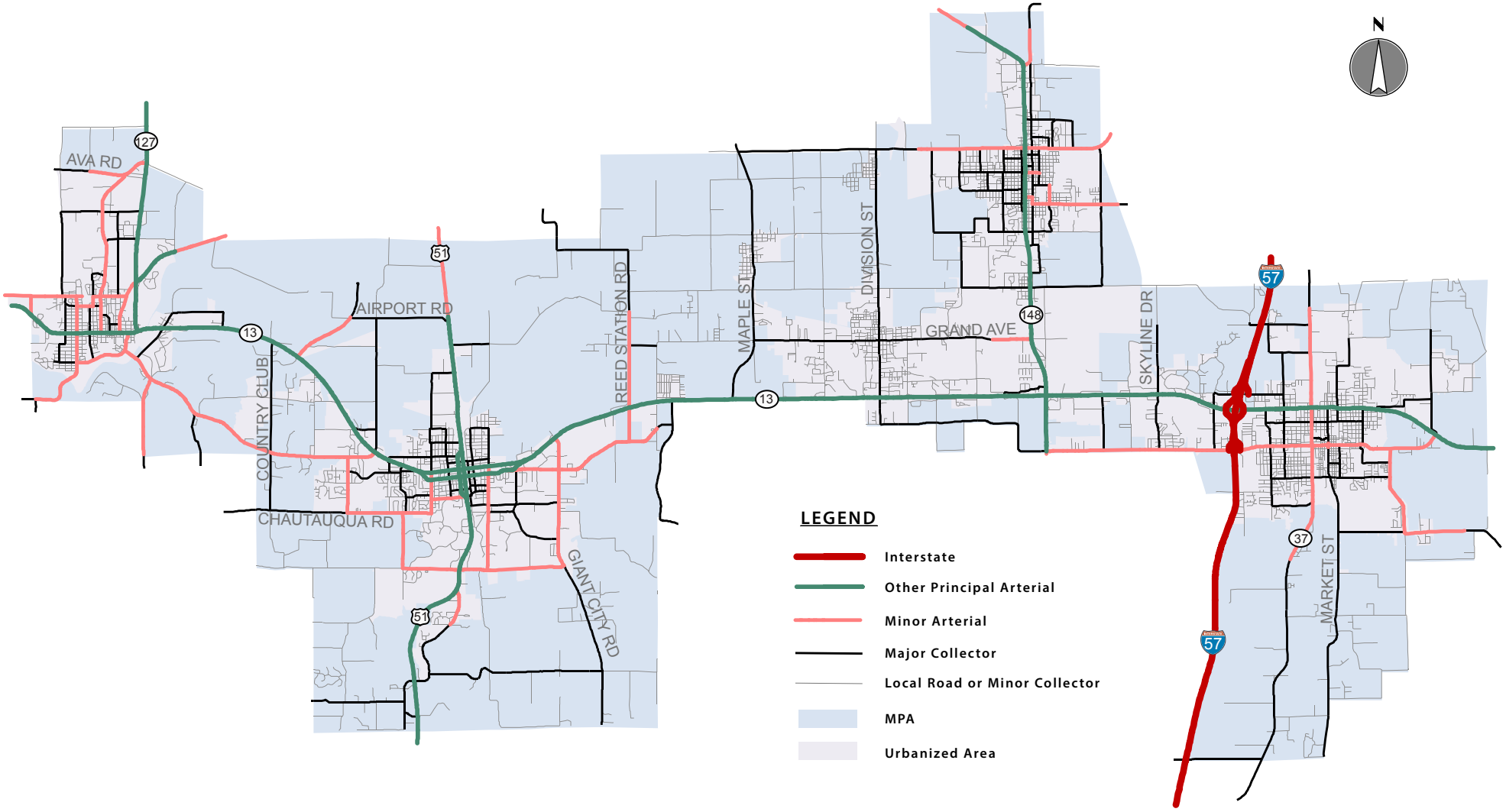


EXHIBIT 7. FUNCTIONAL CLASSIFICATION

Roadway Traffic and Congestion

Overall, the roadways within the SIMPO MPA are not heavily congested. This is supported both by data provided by IDOT as well as input from the public who use the system every day. There are, however, specific locations that were identified that experience significant delays during certain times of day.

Segments

The Annualized Average Daily Traffic (AADT) volumes for the roadway network are shown in **Exhibit 8** and **Exhibit 9**, which were created using data from IDOT. These volumes were analyzed for capacity at a macro-scale by reviewing the number of vehicles per lane. The number of vehicles for a given roadway was divided by the number of lanes on that roadway. While there are many factors that affect roadway capacity, a general conservative estimate assumes that interrupted flow (roadways with traffic signals and stop signs) can readily support a flow rate of 1,000 vehicles/lane/hour at mid-block locations between intersections. If the number of vehicles/lane/hour exceeds this value, more analysis is necessary to determine the operating conditions.

Route 13 between Reed Station Rd and Giant City Rd carries the most traffic per lane with a peak hour flow rate of approximately ***885 vehicles/lane/hour****.*

Under existing traffic conditions, the most heavily congested segment in the MPA is along Route 13 between Reed Station Road and Giant City Road. With a daily volume of 35,400 vehicles traveling on this 4 lane section, the estimated peak hour flow rate is 885 vehicles/lane/hour. This is consistent with input from stakeholders and the public, who both mentioned capacity issues along Route 13 east of Carbondale as well as capacity issues at the intersection of Route 13 and Giant City Road.

Other notable congested segments include Pershing Street in Herrin and Carbon Street in Marion. While these segments do not carry a high volume that would indicate traffic issues, the large number of cross streets create problems in the peak hour.

Potential Planning Activity: Complete a long-range traffic forecast to evaluate the direction and magnitude of traffic growth. This information will be critical for the completion of the LRTP

Intersections

The intersection of two major streets carrying moderately heavy traffic can cause issues as well. Many of the intersections along Route 13 cause frustration due to the large east-west volumes. Many smaller intersections in the vicinity of schools operate over capacity for short periods of time when the schools let out. Another example, Mill Street and Route 51 in Carbondale can be confusing due as Route 51 transitions from one-way to two-way traffic among heavy traffic volumes.

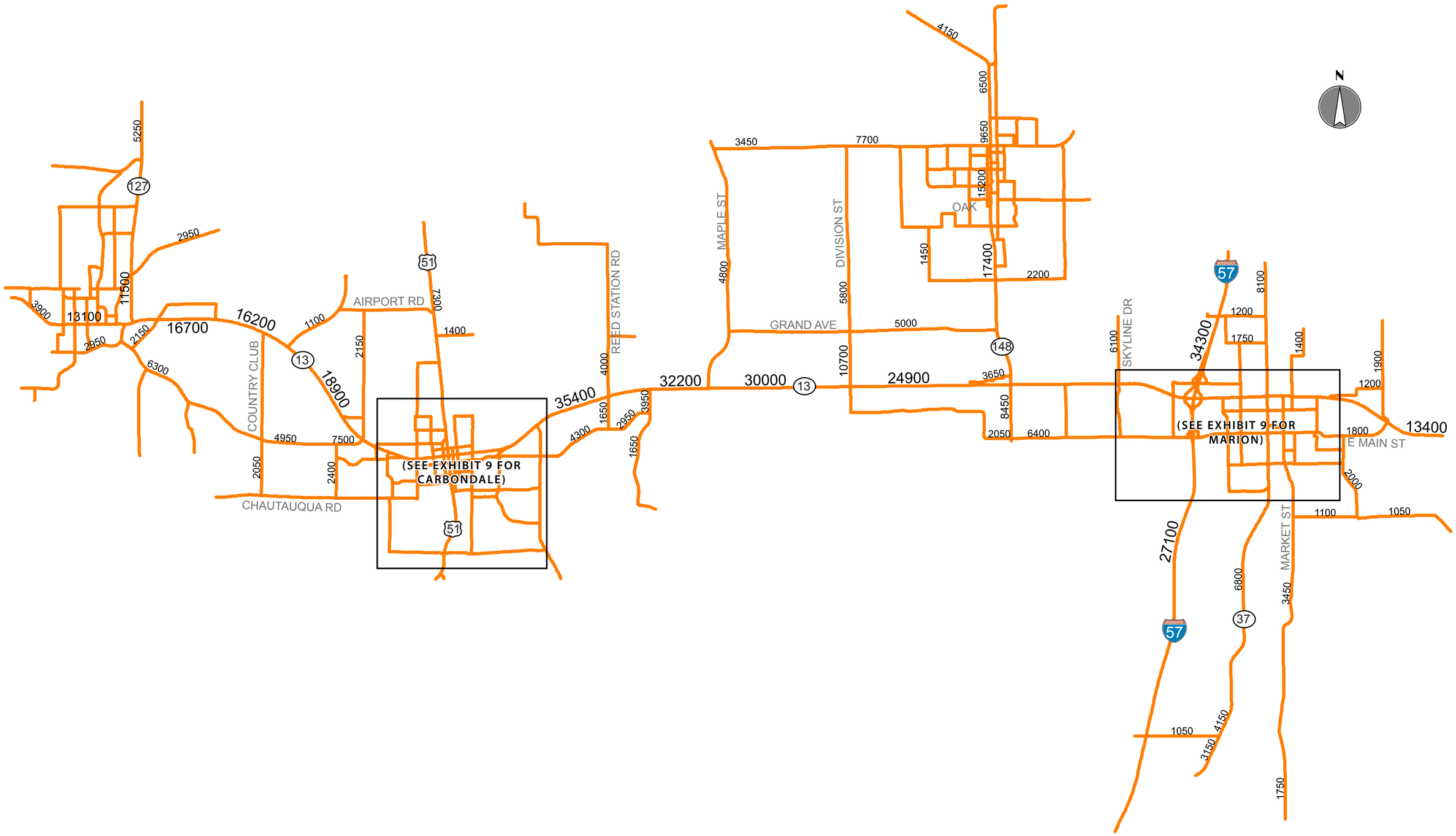
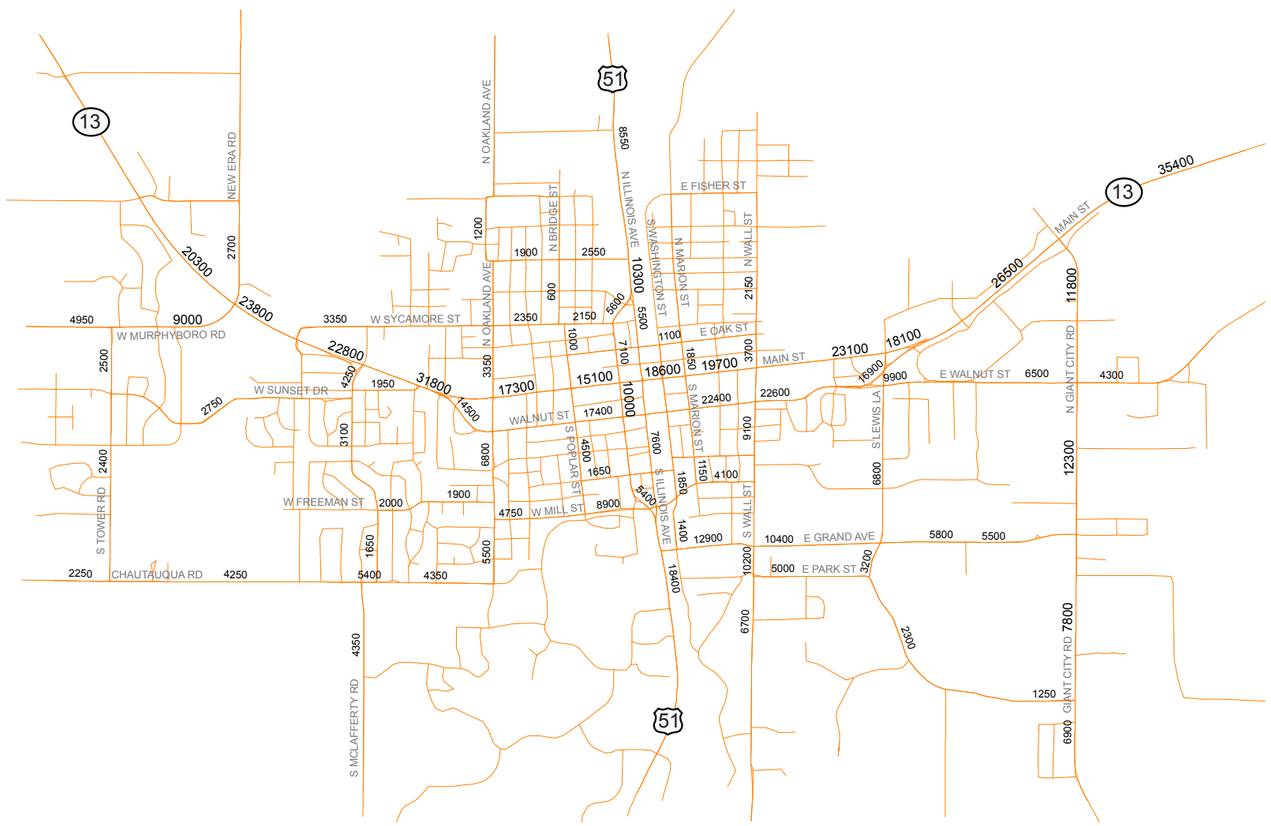
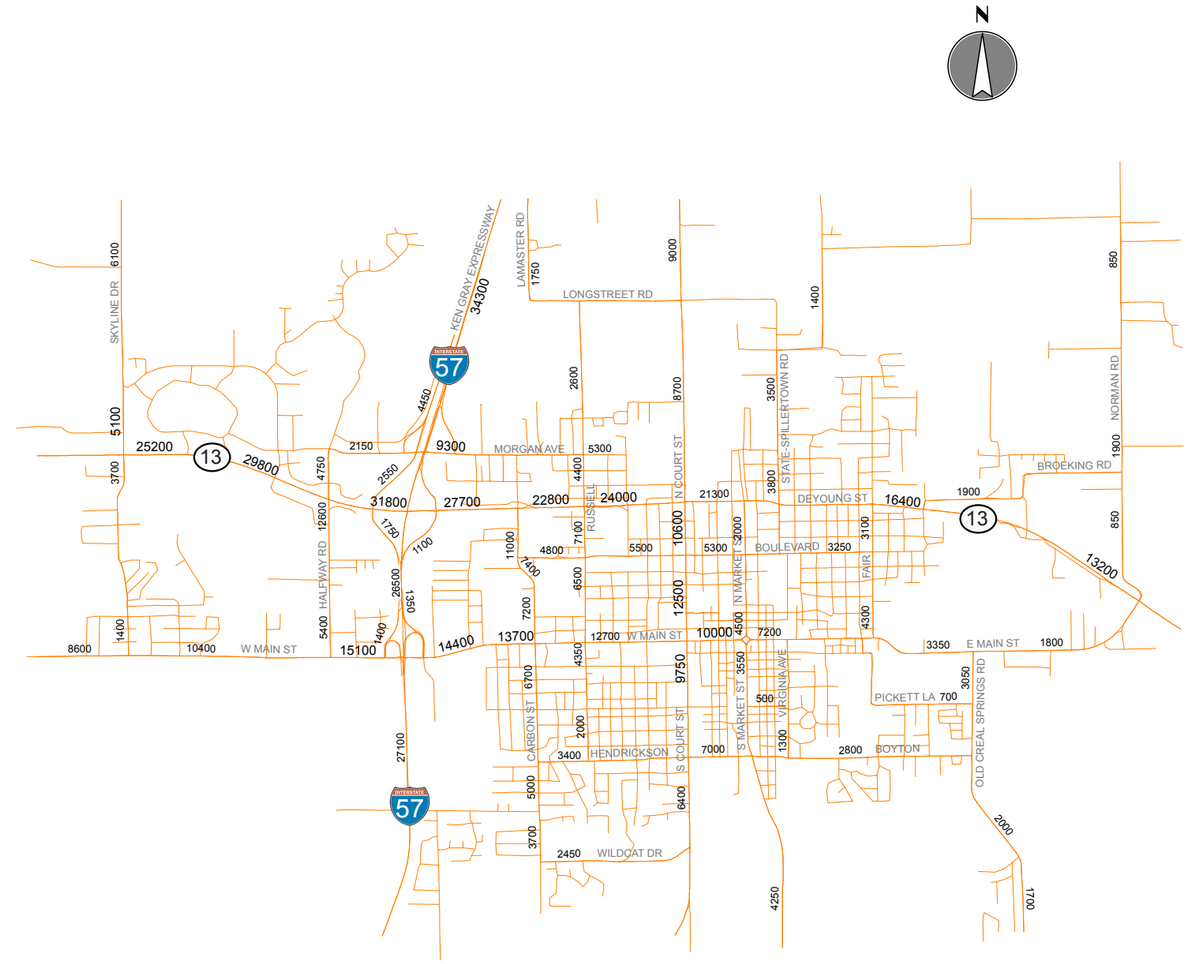


EXHIBIT 8. ANNUALIZED AVERAGE DAILY TRAFFIC (AADT)



CARBONDALE



MARION

EXHIBIT 9. ANNUALIZED AVERAGE DAILY TRAFFIC (AADT) - CARBONDALE AND MARION

Primary Corridors

Roadways designated as primary corridors are intended for regional travel connecting wide-spread communities. The characteristics of these roadways, such as wide lanes and shoulders, controlled access, and limited traffic control devices are deliberately chosen to encourage long, uninterrupted travel.

Interstate 57 – The primary north-south roadway through the MPA, I-57 is a major traffic and economic generator on a regional scale. While the interstate itself will not be the focus of local transportation planning in the area, it plays a role in all decisions that are made. IDOT has invested in I-57 in the area, particularly in improving the Route 13 and Morgan Avenue interchanges to encourage economic growth opportunities.

No. of Lanes:	*4*
AADT:	*34,300*
Lane Width:	*12 ft*
Shoulder Width:	*12 ft*
Functional Classification:	*Interstate*
Strengths:	*Major regional economic and traffic generator*
Weaknesses:	*More of a regional asset than a local asset*

Illinois Route 13 – The primary east-west route, Route 13 is the artery that connects all the communities of the SIMPO area and is a major economic asset. IDOT has invested heavily in the Route 13 corridor and has plans to continue their investment. However, while the focus on Route 13 has been the movement of vehicles, other modes of transportation have suffered.

No. of Lanes:	*6 lanes from Marion to Carterville, 4 lanes from Carterville to Carbondale* *4 lanes in Marion, 6 lanes in Carbondale (one-way pairs)*
AADT:	*13,400 to 35,400*
Lane Width:	*12 to 13 ft*
Shoulder Width:	*8 to 10 ft typical, no shoulder in Carbondale*
Functional Classification:	*Principal Arterial*
Strengths:	*Significant regional asset, moves vehicles very effectively*
Weaknesses:	*Heavily favors vehicular travel, hindering bike and pedestrian travel and making those modes unsafe.*

Secondary Corridors

Other corridors that connect significant destinations or run along particular land-uses become secondary corridors, sometimes even despite poor physical characteristics.

Dillinger/Lavern/Sycamore/Crenshaw/College – Despite crossing several jurisdictions and experiencing several name changes, this local route represents the most continuous east-west alternative to Route 13 connecting Energy, Herrin, Carterville, and Carbondale. Adjacent land uses are primarily large-tract single

family homes. Because no single agency is responsible for its maintenance, some sections have been properly repaved, while other sections have not.

No. of Lanes:	*2*
AADT:	*950 to 2,200*
Lane Width:	*9 to 12 ft*
Shoulder Width:	*0 to 3 ft*
Functional Classification:	*Major Collector near Energy/Herrin, Local Road for remaining sections*
Strengths:	*Good connectivity through Energy, Herrin, Carterville, and Carbondale*
Weaknesses:	*Poor pavement condition, lack of shoulders and pavement markings, and narrow lanes*

Figure 5. Dillinger/Lavern/Sycamore/Crenshaw/College at different points along the route

Potential Planning Activity: Perform a study to identify potential east-west corridors for alternatives to Route 13. One possible corridor would be the Dillinger/Lavern/Sycamore-Crenshaw/College Route from just east of Energy to US Route 51.

Old Route 13 (W Main Street) – Old Route 13 from I-57 to Division Street runs on the south side of Route 13. It primarily serves as a commuter route alternative to Route 13, and as access to some residential developments and churches. It also serves as the northern border of the Crab Orchard Wildlife Refuge.

No. of Lanes:	*2*
AADT:	*15,100 just west of I-57; 2,100 just east of Division St*
Lane Width:	*9 ft west of Halfway Rd, 12 ft east of Halfway Rd*
Shoulder Width:	*4 ft*
Functional Classification:	*Minor Arterial from I-57 to Route 148, Major Collector west of Route 148*
Strengths:	*Quality connection from Route 148 to I-57 and Marion, avoiding the congested retail corridor around Route 13.*
Weaknesses:	*Two-lanes throughout. Narrow lanes, narrow shoulders, and poor alignment west of Route 148.*

Morgan Avenue/17th Street – This east-west corridor serves the robust retail district in Marion, providing an direct alternative to Route 13. As of April 2014, the Morgan Avenue interchange and roadway were under construction for significant improvements. However, the extents of capacity improvements to the west are limited by right-of-way restrictions. During the midday and Saturday peak periods, when retail traffic is highest, this corridor experiences some of the most congested traffic conditions in the MPA.

No. of Lanes:	*2*
AADT:	*5,100 to 9,300*
Lane Width:	*12 to 13 ft*
Shoulder Width:	*9 ft*
Functional Classification:	*Major Collector near Russell St to Halfway Rd, Local Road west of Halfway Rd*
Strengths:	*Direct access to retail developments and I-57*
Weaknesses:	*Often congested and limited availability to improve capacity*

Illinois Route 37 (Court Street) – Marion's primary north-south roadway running along the Union Pacific Railroad connects Route 13 to a commercial and retail corridor, residential neighborhoods, and the high school. Route 37 also provides an alternative to I-57 for regional trips to and from Marion. Within Marion, this route is also supplemented by Carbon Street to the west.

No. of Lanes:	*2*
AADT:	*5,100 to 9,300*
Lane Width:	*12 ft*
Shoulder Width:	*1 to 5 ft outside Marion grid, no shoulder inside Marion grid*
Functional Classification:	*Minor Arterial inside Marion, Major Collector outside Marion*
Strengths:	*Connects several traffic generators to Route 13 and surrounding communities*
Weaknesses:	*Number of cross-streets within the Marion grid make through movements difficult.*

Illinois Route 148 (Pershing St/Park Ave) – The primary access route into Herrin, this four-lane state highway serves residential neighborhoods, retail developments, and regional traffic. It also functions as Herrin's downtown main street with parking on both sides in some sections. These widely varying uses sometimes conflict, making the corridor less than ideal for all users, but offering great opportunity overall.

No. of Lanes:	*4 lanes with two-way left-turn lane in the center*
AADT:	*6,500 to 19,400*
Lane Width:	*11 to 13 ft*
Shoulder Width:	*4 ft outside Herrin/Energy grids, no shoulder inside Herrin/Energy grids*
Functional Classification:	*Principal Arterial*
Strengths:	*Connects several traffic generators to Route 13 and surrounding communities*
Weaknesses:	*Many conflicting uses on one street*

US Route 51 (Illinois Ave/University Ave) – As the major north-south roadway in Carbondale, this route serves regional traffic, commercial and retail corridors, and residential neighborhoods. It connects Route 13, Southern Illinois University, and downtown Carbondale. Within most of Carbondale's grid, this route consists of a one-way pair with 3 lanes in each direction.

No. of Lanes:	*6 lanes within Carbondale (one-way pairs), 4 lanes south of Carbondale grid*
AADT:	*5,500 to 16,400*
Lane Width:	*10 to 13 ft*
Shoulder Width:	*10 ft outside Carbondale grid, no shoulder inside Carbondale grids*
Functional Classification:	*Principal Arterial*
Strengths:	*Provides good north-south movement connecting university, Route 13, and commercial/retail*
Weaknesses:	*One-way pairs can be confusing and make for some dangerous intersections*

Illinois Route 127 – Route 127 enters the MPA just east of Murphysboro and provides an alternative to I-57 for regional travel to destinations like St. Louis.

No. of Lanes:	*4 lanes within Murphysboro, 2 lanes north of Murphysboro*
AADT:	*5,250 to 11,500*
Lane Width:	*12 ft*
Shoulder Width:	*10 to 12 ft*
Functional Classification:	*Principal Arterial*
Strengths:	*Provides good regional access to the MPA*
Weaknesses:	*Divided highway in Murphysboro, limited accessibility*

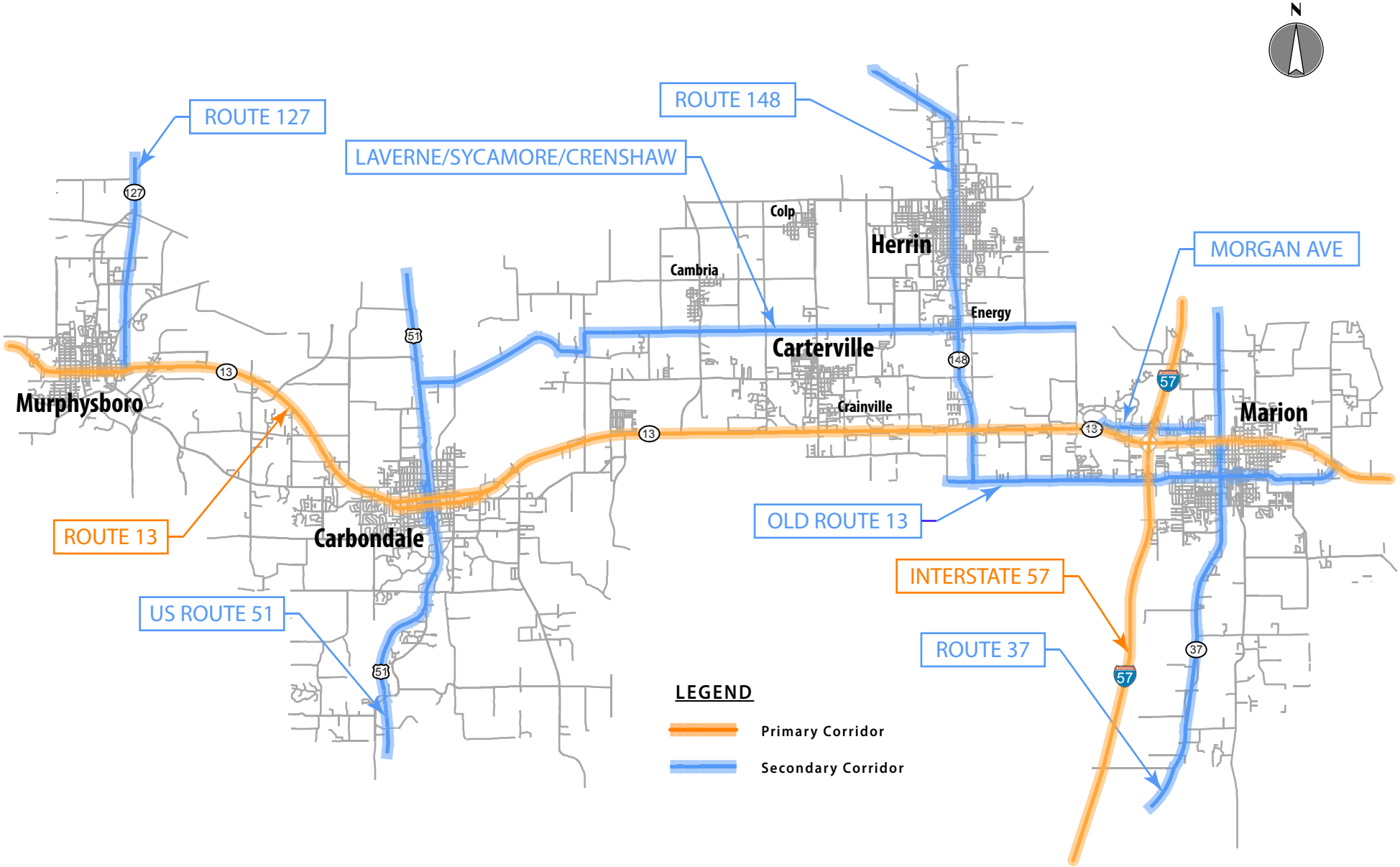


EXHIBIT 10. PRIMARY AND SECONDARY ROADWAY CORRIDORS

Access Management

Access Management consists of proactive decision-making regarding the number of access points and the spacing between them. It is complimentary to the adjacent land uses, as well as the Functional Classification, as seen in **Figure 6**. The higher the Functional Classification, the fewer amount of access points should be allowed. Proper Access Management can help improve the flow of traffic, increase safety, and reduce the number of conflict points for all users.

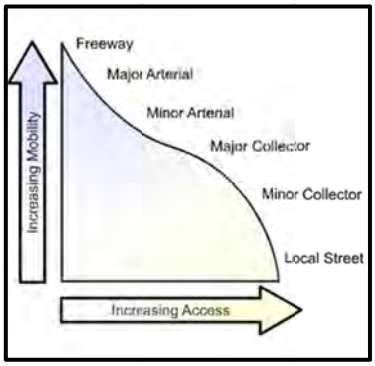


Figure 6. Conceptual relationship between Functional Classification and Access

Within the MPA there are several roadway segments that are examples of locations that have outgrown their existing access configurations and now operate poorly.

Route 13 and Giant City Road

As previously mentioned, this location experiences many traffic issues. The closely spaced frontage roads on the north and south side of Route 13 create dangerous movements for vehicles, pedestrians, and Pedalcyclist, especially considering the wide roadway width of Route 13. While the problems posed at this location are more than a matter of access spacing, proper access management could result in a significant improvement.

Division Street just north of Route 13

This location experiences heavy peak hour traffic from John A Logan College, commuters, and the adjacent retail developments. Frontage road access is located just 150' north of Route 13, and the right turn coming off of westbound Route 13 has a wide radius. In addition there are several consecutive driveways for the retail developments. The relocation of the frontage roads as part of IDOT's work along Route 13 should alleviate some of these issues and represents a proactive approach to a transportation issue.

Park Avenue between Brewster Road and Clark Trail

Two closely spaced intersections and several major retail entrances have resulted in this location being the focus of safety in Herrin. With four lanes of high speed traffic and a two-way left-turn lane, many people cited dangerous conditions for pedestrians crossing the street and vehicles pulling out into traffic.

Access Management Guidelines

Many agencies have developed Access Management Guidelines that specify the desired distance between access points, usually based on Functional Classification. Rather than a set of steadfast rules, this document is generally intended to be a reference to guide designers and city officials develop safer, more efficient roadways.

Potential Planning Activity: Perform an Access Management study that consists of reviewing the MPA for existing locations that have poor access management, and developing Access Management Guidelines that help direct future planning efforts and prevent proposed projects from creating additional problems.

Multi-Modal Connectivity

The following graphic describes some key issues surrounding multi-modal connectivity, particularly with regards to vehicular traffic. Similar graphics are included for each modal type.

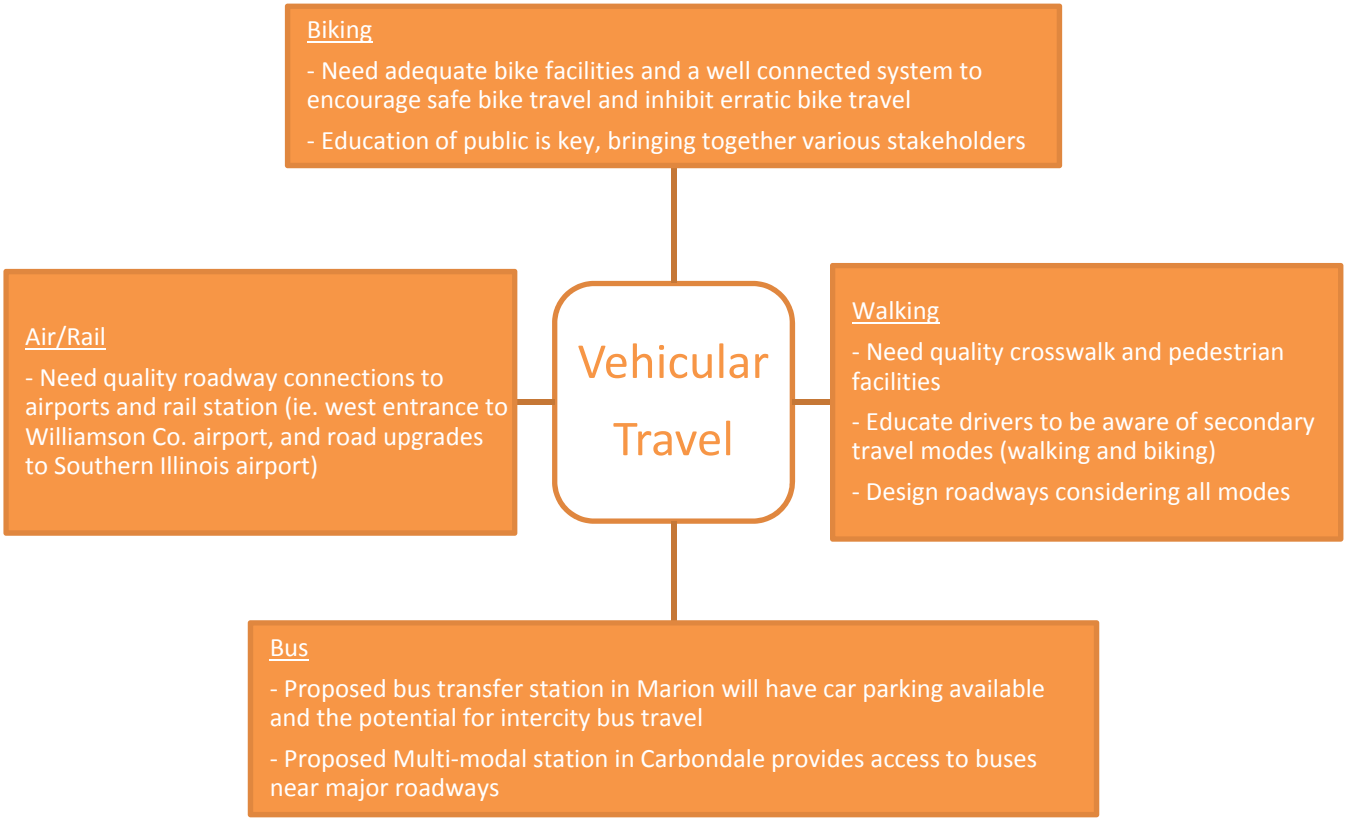


Figure 7. Multi-modal relationships with regards to Vehicular travel

Potential Roadway Project Ideas

Below is an exhaustive list of project ideas that were brought up during the stakeholder discussions, ideas that address issues cited at the public workshops, and ideas developed by the study team based on data in order to improve the connectivity of the region and provide more efficient traffic flow. Each of these roadway improvement ideas could be enhanced with bicycle and pedestrian improvements where appropriate.

Table 8. List of Roadway Improvement Ideas

Idea	General Location
Widen Route 13 to six lanes from Carterville to Carbondale	Multiple
Improve access to Southern Illinois Airport from US 51 via Airport Rd	Carbondale
Further improvements at US 51 and Mill Street	Carbondale
Extend Oak St east from Wall St to Lewis Ln	Carbondale
Extend W Sycamore to northwest to tie into Ramada Ln and close intersection with Route 13	Carbondale
Improve Chautauqua Rd	Carbondale

Reclassify Greenbriar Rd as a major collector to make it eligible for all future funding opportunities	Carterville
Improve entrance/exit to John A Logan College, ie. Extending Tippy Rd to provide direct access to Division St	Carterville
Improve entrance to Walker's Bluff Vineyard by widening Hill Rd from Reed Station to the west entrance	Carterville
Improve W Grand Ave from S Dent St to Greenbriar Rd	Carterville
Improve W Grand Ave from Greenbriar Rd to high school	Carterville
Provide an alternative north/south connection from W Grand Ave to Route 13 at the high school (potentially utilizing Shawnee Trail)	Carterville
Improve S Greenbriar Rd from W Grand Ave to Route 13	Carterville
Improve N Division St up to Sycamore Rd	Carterville
Improve Samuel Road from Route 13 to Grand Avenue	Crainville
Better connection from Murphysboro to St. Louis utilizing the 127 corridor	Murphysboro
Consider reclassifying Norman Rd as a major collector and making improvements depending on future growth	Marion
Improvements to increase capacity along 17th Street	Marion
West entrance to Williamson Co Regional Airport from Ryan Dr	Marion
Improve Skyline Dr from SR 13 to Crenshaw Rd	Marion
Traffic signal at Old SR 13 and SR 13	Marion
Improve intersection of Boulevard St and Russell St	Marion
New roadway from S Carbon St to S Fosse Rd at high school	Marion
New roadway from S Market St to SR 37 just to the south of Wildcat Rd	Marion
Improve Morgan Ave west of I-57 to 17th St and Halfway Rd*	Marion
Extend Morgan Ave to connect to Route 37	Marion
Extend Halfway Rd south to Westminster Dr	Marion
Extend Frontage Rd between Heartland St and the Ike Honda dealership	Marion
Install traffic signal at Wildcat Rd and Route 37	Marion
Improve Rushing Rd from Route 148 to Briggs Rd	Herrin
Improve safety and traffic movements at Rushing Road and Route 148*	Herrin
South Connector from Grand Ave to Flushing/Rushing Dr	Herrin
Resurface Colp Rd between Herrin and Colp	Herrin
Reconstruction of Herrin Rd to the east of Herrin with RR crossing and realignment	Herrin

BICYCLE AND PEDESTRIAN TRAVEL

Bicycling and walking are integral components of a balanced, sustainable, and efficient multi-modal transportation system. Whether for short trips to nearby destinations or for longer recreational trips to regional parks and open spaces throughout the region, non-motorized transportation can play an important role in several areas:

- **Reducing vehicle miles traveled,**
- **Minimizing wear and tear on vital transportation infrastructure,**
- **Increasing physical activity,**
- **Lowering individuals' transportation costs,**
- **Supporting local economic activity,**
- **Improving quality of life.**

As the MPA continues to grow, incorporating non-motorized transportation into future roadway projects will ensure that people of all ages and abilities have the opportunity to travel about their community, regardless of their mode of choice.

Potential Planning Activity: Develop a comprehensive Bike and Pedestrian Master Plan for the SIMPO area.

Throughout the course of the SIMPO Multi-Modal Transportation Assessment process, stakeholders and residents throughout the planning area have expressed their desires for a diverse range of bicycle and pedestrian improvements, often times reflecting the geographic diversity of priorities and needs as they relate to walking and bicycling. For example, Jackson County residents have expressed a greater interest in the development of a comprehensive network of bicycle facilities that serve both transportation and recreation needs. Williamson County residents, on the other hand, have communicated a greater interest in increased pedestrian safety but focus bicycle facilities on recreation, like off-street multi-use trails. Regardless of differences such as these, residents throughout the region value non-motorized transportation and feel that much can be done to make bicycling and walking safer, more convenient transportation choices.

The FHWA has stated that it is Federal transportation policy to promote the increased use and safety of bicycling and walking as transportation modes. All on-street facilities must be included in the TIP. If an off-street trail is expected to be funded through programs requiring FHWA or FTA approval and is determined to serve primarily a transportation purpose (connecting logical origins and destinations) it should also be included in the TIP.

An assessment of the existing network, completed by *Alta Planning and Design*, included an on-street Level of Service analysis for bicycles and pedestrians, the identification of off-street facilities, the highlighting of bicycle and pedestrian crashes (discussed in the Safety section above), and a summary of the stakeholder meetings and public workshops.

The Level of Service analysis utilized GIS data and industry accepted models to evaluate how attractive biking and walking are on roadways throughout the study area. The complete analysis is located in **Appendix A** and a summary is included below. These analyses identify gaps in service and help direct future planning efforts.

Potential Planning Activity: Develop Complete Streets policy and Complete Streets Design Guidelines covering rural and urban contexts.

On-Street Bicycle Level of Service Analysis

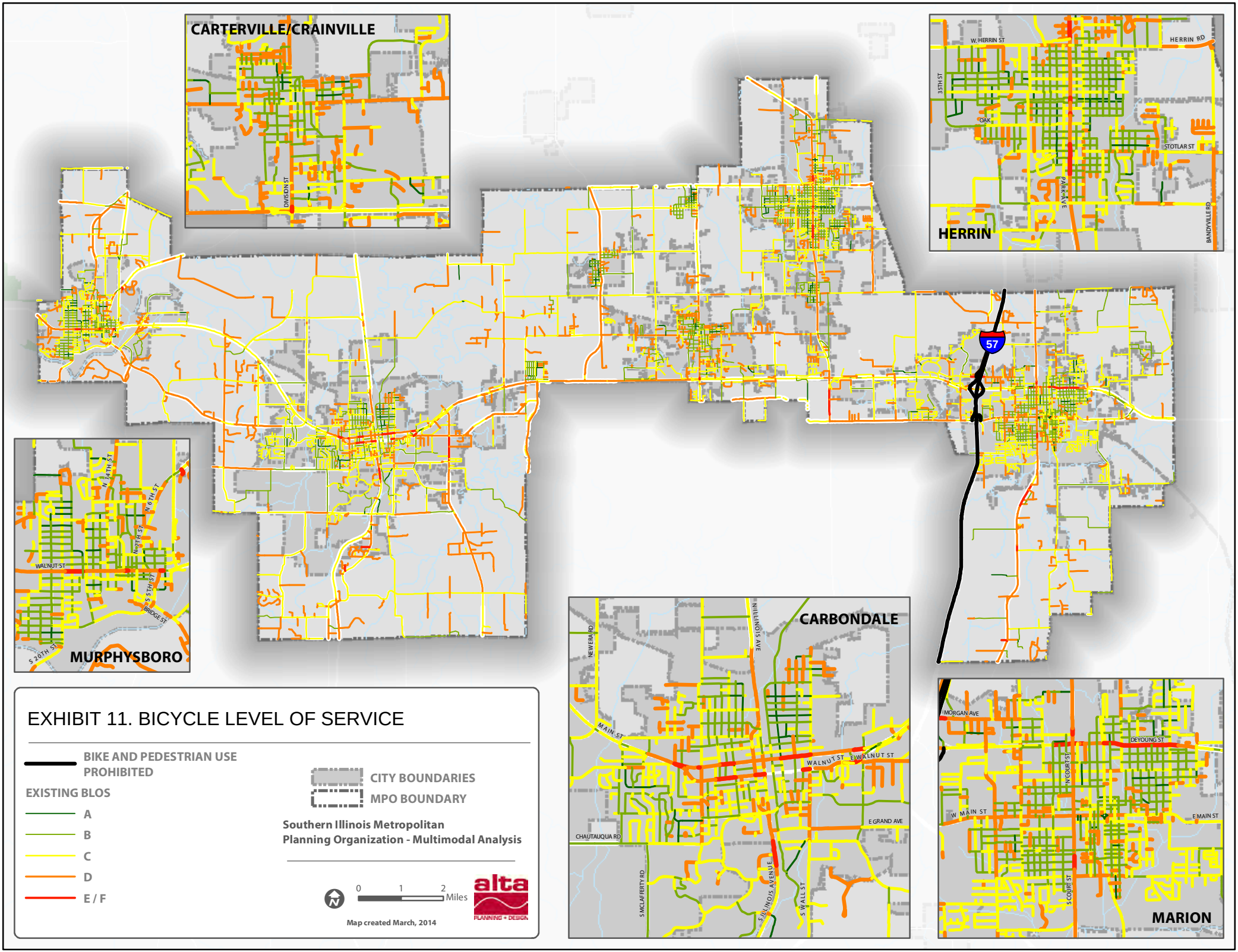
The bicycle analysis resulted in each roadway segment being assigned a letter grade, which indicates the road segment's suitability for bicycle use. The evaluation criteria are shown in **Table 9** and results are shown in **Table 10**. A graphical representation of the results is given in **Exhibit 11**.

Table 9. Bicycle Level of Service Evaluation Criteria

BLOS Grade	BLOS Score	Description
A	<=1.5	Excellent bicycle environment
B	1.5-2.5	Good bicycle environment
C	2.5-3.5	Fair bicycle environment (acceptable to experienced and novice bicyclists)
D	3.5-4.5	Poor bicycle environment (acceptable to experienced bicyclists)
E	4.5-5.5	Deficient environment (unacceptable to experienced and novice bicyclists)
F	> 5.5	Unsafe environment (unsuitable for any bicycle travel)

Table 10. Bicycle Level of Service Results

BLOS Grade	Miles	% of Total	Description
A	26	3%	Short segments existing within city boundaries
B	205	24%	Pockets or island, generally within city boundaries. Generally connecting to grade C or D facilities
C	370	44%	Corridors within and connecting cities
D	234	28%	Corridors within and connecting cities
E/F	6.5	<1%	Mostly higher order roadways between cities


CARTERVILLE/CRAINVILLE
DIVISION ST
HERRIN
W. HERRIN ST
HERRIN RD
3 5TH ST
OAK
STOTLAR ST
PARKWAY
BANDYVILLE RD
57
MURPHYSBORO
N 4TH ST
N 6TH ST
N 7TH ST
WALNUT ST
S 5TH ST
BRIDGE ST
S 20TH ST
CARBONDALE
NEWERA RD
N ILLINOIS AVE
MAIN ST
WALNUT ST
E WALNUT ST
E GRAND AVE
CHAUTAUQUA RD
S MCLAFFERTY RD
S ILLINOIS AVENUE
S WALL ST
MARION
MORGAN AVE
DEYOUNG ST
N COURT ST
W MAIN ST
E MAIN ST
S COURT ST
EXHIBIT 11. BICYCLE LEVEL OF SERVICE
BIKE AND PEDESTRIAN USE PROHIBITED
EXISTING BLOS
A
B
C
D
E / F
CITY BOUNDARIES
MPO BOUNDARY
Southern Illinois Metropolitan Planning Organization - Multimodal Analysis
0
1
2
Miles
alta
PLANNING + DESIGN
Map created March, 2014

Pedestrian Level of Service Analysis

The pedestrian analysis provides a similar output as the bicycle analysis, but is determined using different metrics. The evaluation criteria and results are shown in **Table 11** and **Table 12**, respectively. A graphical representation of the results is given in **Exhibit 12**.

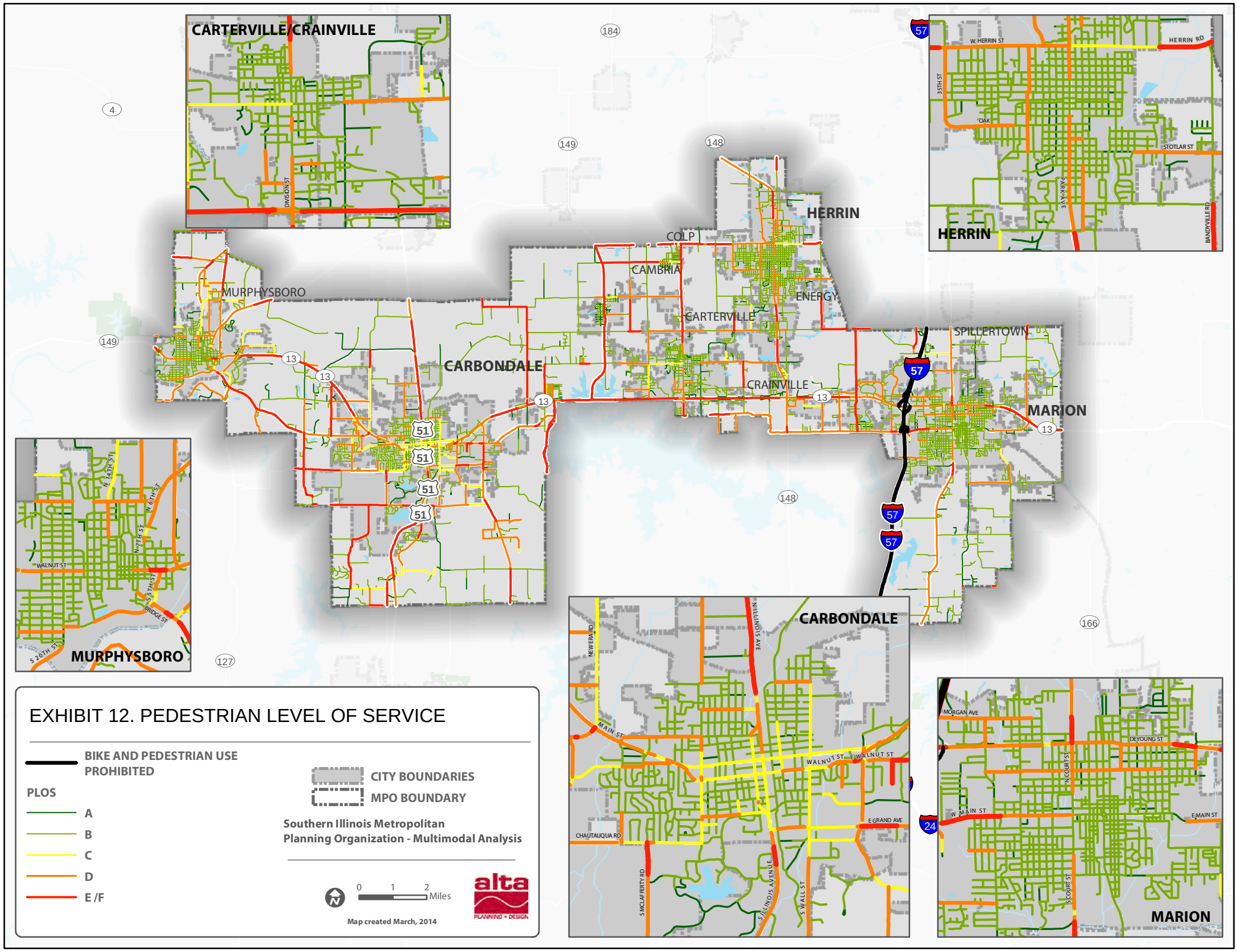
Table 11. Pedestrian Level of Service Evaluation Criteria

PLOS Grade	PLOS Score	Pedestrian Environment	Speed	Space
A	5	Best	<30 mph	Complete sidewalk or at least one 4 ft shoulder
B	4	Good	<30 mph	No dedicated space
C	3	Fair	30-35 mph	Complete sidewalk or at least one 4 ft shoulder
D	2	Moderate	30-35 mph 40-50 mph	No dedicated space Complete sidewalk or at least one 4 ft shoulder
E/F	1	Deficient/unsafe	40+ mph	No dedicated space

Table 12. Pedestrian Level of Service Results

PLOS Grade	Miles	% of Total	Description
A	81	10%	Mainly residential roadways that may or may not have a centerline, travel lanes are 9-12 ft. Sidewalk or shoulder is present
B	122	15%	Mainly residential roadways that may or may not have a centerline, travel lanes are 9-12 ft.
C	30	4%	Characterizes main streets in urbanizes areas with complete sidewalks
D	520	62%	Category contains the most variation in roadway configuration, characterizes approaches to more urbanized areas, roadways in Carbondale with 'partial' sidewalk completion are included
E/F	86	10%	Typically large order roadways connecting more populous areas, roads have 2 to 4 travel lanes, lanes are typically 12 feet wide or greater

Potential Planning Activity: Perform a comprehensive sidewalk inventory and develop a plan for funding and constructing sidewalks on existing properties and encouraging or requiring sidewalks within new developments.


CARTERVILLE/CRAINVILLE
DIVISION ST
HERRIN
W. HERRIN ST
HERRIN RD
3 STH ST
OAK
STOTLAR ST
E AVENUE
BANDYVILLE RD
COLP
CAMBRIA
ENERGY
CARTERVILLE
MURPHYSBORO
CARBONDALE
CRAINVILLE
SPILLERTOWN
MARION
MURPHYSBORO
WALNUT ST
N 14TH ST
N 6TH ST
N 7TH ST
S 5TH ST
BRIDGE ST
S 20TH ST
CARBONDALE
NEW ERA RD
N ILLINOIS AVE
MAIN ST
WALNUT ST
E WALNUT ST
E GRAND AVE
CHAUTAUQUA RD
S MCLAFFERTY RD
S ILLINOIS AVENUE
S WALL ST
MARION
MORGAN AVE
DEYOUNG ST
N COURT ST
W MAIN ST
E MAIN ST
S COURT ST
184
4
149
148
13
51
57
166
127
24
EXHIBIT 12. PEDESTRIAN LEVEL OF SERVICE
BIKE AND PEDESTRIAN USE PROHIBITED
PLOS
A
B
C
D
E /F
CITY BOUNDARIES
MPO BOUNDARY
Southern Illinois Metropolitan Planning Organization - Multimodal Analysis
0 1 2 Miles
alta PLANNING + DESIGN
Map created March, 2014

Off-Street Multi-use Trails

The MPA contains a limited network of multi-use trails within the urbanized area and a number of recreational trails in the surrounding region. Railroad right-of-ways, the wildlife refuge, and the transportation planning structure of the new MPO all provide the opportunity to expand these networks.

Carbondale has secured funding through the Transportation Alternatives Program (TAP) to complete the both phases of a multi-use trail along the railroad right-of-way from SIU to the Amtrak station at Walnut Street. There is an existing multi-use trail running through Carbondale just east of Wall Street from Grand Avenue to Walnut Street.

Stakeholder Meetings and Public Workshop Support

A variety of representatives from the stakeholder meetings and public workshops expressed support for improving bicycle and pedestrian infrastructure. Some of the key issues identified were:

The Section 402 State and Community Highway Grant Program can be utilized for education programs and general community information and awareness programs

- **Sidewalk Network –** All four public workshops and many stakeholders identified some aspect of the sidewalk network as a weakness. The primary issues revolved around gaps in the network, poor conditions of existing sidewalk, insufficient funding to construct/maintain sidewalks, and inadequate public policy to support sidewalk construction.
- **Multi-use paths –** There is widespread support for multi-use trails as recreation and tourism assets. There was some concern that multi-use trails do a poor job of encouraging biking and walking as a means of transportation because they often do not connect origins and destinations directly.
- **General attitudes toward biking and walking –** Many people feel that the general attitude toward biking and walking is poor, resulting in the impression that it is dangerous to bike and walk because vehicular traffic does not pay attention to secondary modes.
- **Public Policy and Incentives –** Some municipalities encourage sidewalk construction through tax incentives and assistance, but they are fearful of making sidewalks a mandatory policy because they may lose developments and therefore tax base.

Multi-Modal Connectivity

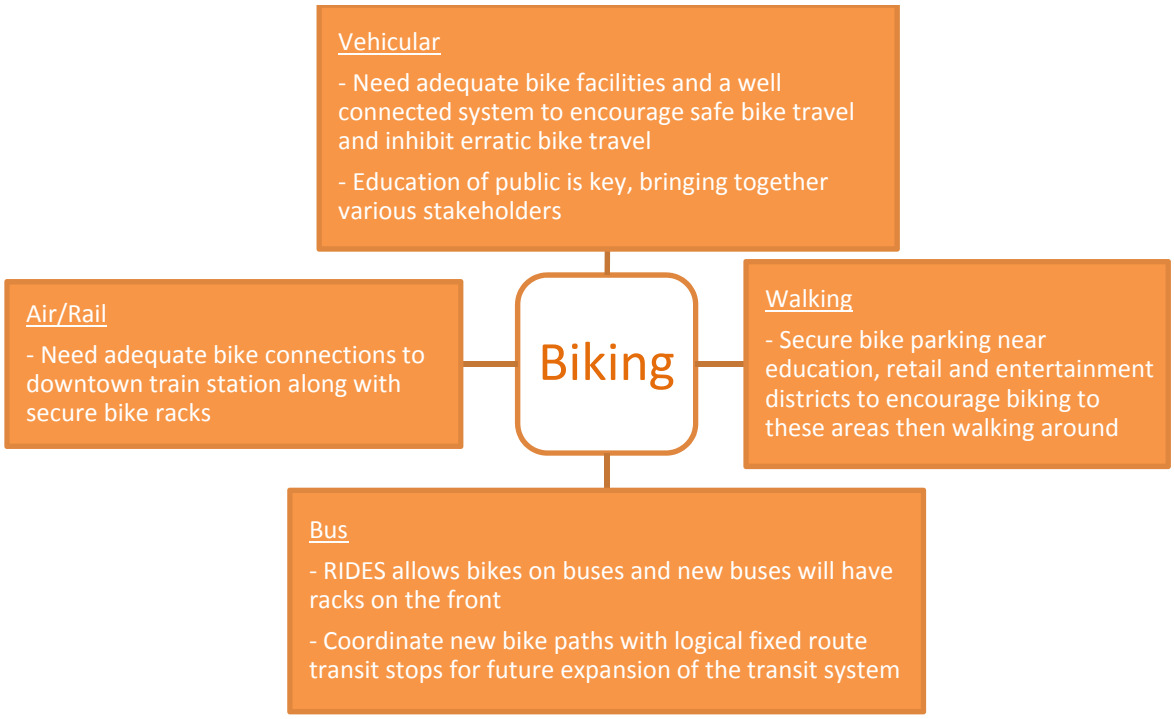


Figure 8. Multi-modal relationships with regards to Bike travel

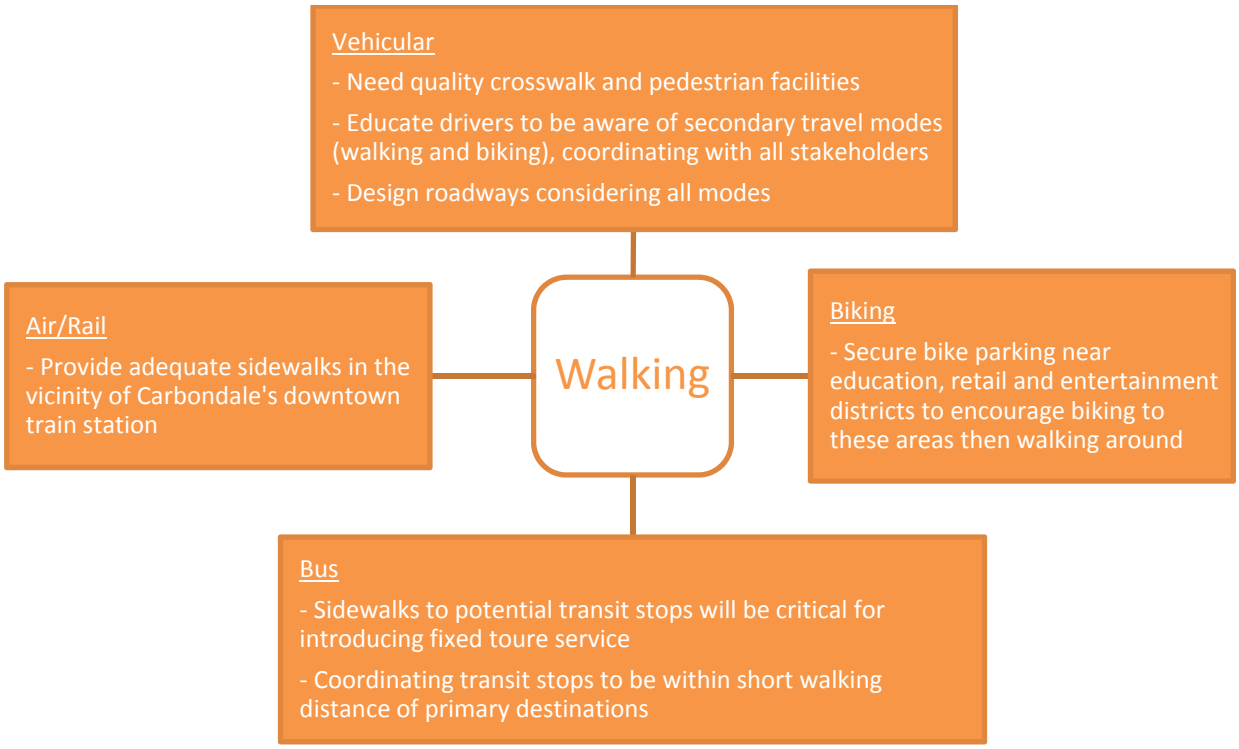


Figure 9. Multi-modal relationships with regards to Walking

Potential Bicycle and Pedestrian System Project Ideas

The following recommendations have been identified to improve bicycle and pedestrian connectivity, access, safety, and level of service that address the range of desires expressed by the community. These recommendations are based on an analysis of existing roadway conditions and bicycle/pedestrian crash locations, as well as input provided by area stakeholders and members of the public.

Whether to improve regional connectivity, increase school zone safety, or catalyze economic development in historic commercial districts, the bicycle and pedestrian projects listed in **Table 13** have the potential to impact travel patterns and reposition non-motorized transportation as a viable option within a more diverse multi-modal system. In many cases, the recommendations can be incorporated into larger roadway projects like scheduled overlay and resurfacing projects in order to maximize cost-benefit. The recommended bicycle project ideas, particularly on Highways 13, 51, and 37, as well as National Bike Route 76, build on recommendations for the study area identified in the Illinois Bike Transportation Plan, an outgrowth of 2012 Long-Range State Transportation Plan, Transforming Transportation for Tomorrow.

Table 13. List of Bicycle and Pedestrian System Improvement Idea

Idea	General Location
Install continuous, bikeable shoulders and signing on National Bike Route 76 and Illinois Grand Trail Routes (Hwy 13, 51, and 37)	Multiple
Continuous, regional multi-use trail facility from Murphysboro to Marion (recreational facility)	Multiple
Include bicycle parking at major destinations and transit stops to encourage bicycle transportation	Multiple
Install continuous sidewalk along Grand Avenue from Main Street to Tri-C Elementary	Carterville
Improve pedestrian safety on Giant City Road at the intersections of Highway 13 and North and South Main Frontage Roads	Carbondale
Install sidewalk and pedestrian crossings along Morgan Avenue, 17th Street, and Out Drive from North Russell Street to Civic Circle Blvd, creating a continuous pedestrian connection for Marion residents to commercial destinations west of Interstate 57	Marion
Install continuous sidewalks and pedestrian crossings on N Park Ave (Highway 148) from Herrin St south to W Brewster Rd	Herrin
Install bike lanes and address sidewalk gaps Highway 37 from Wildcat to DeYoung	Marion
Improve pedestrian safety on Walnut St from 22nd St to 2nd St	Murphysboro
Install continuous sidewalks and pedestrian crossings along McKinney Avenue from East Main Frontage Road South to East Main Frontage Road North	Carbondale
Develop east-west spur to existing greenway utilizing existing bridge over adjacent creek and connecting to Lewis Lane and Lewis Elementary	Carbondale
Install continuous sidewalk and bike lanes along Wildcat Road	Marion
Install multi-use trail from the Herrin CUSD 4 Sports Complex to Herrin City Park, incorporating a connection to Herrin High School	Herrin
Improve the condition and connection of the sidewalk network	Multiple
Phase II of multi-use path along rail line from Mill Street to SIU	Carbondale
Multi-use path between Sycamore Rd and New Era Rd on the north side of Route 13	Carbondale
Provide pedestrian crossing improvements at W Grand Ave and Greenbriar Rd	Carterville
Provide pedestrian crossing improvements at Grand Ave and Division St	Carbondale

PUBLIC TRANSPORTATION

The MPA is served by three distinct bus providers: RIDES Mass Transit District, Jackson County Mass Transit District, and SIU's Saluki Express. Each of these providers fills a particular need and operates in a slightly different manner. A 'one-call' service has recently been established that includes RIDES and Jackson County, as well as two agencies outside the MPA (Shawnee Mass Transit District and South Central Mass Transit District). This service aims to help coordinate the operations of the various transit agencies, initially for non-emergency medical transport. The one-call service will assist in the exploration of fixed routes and eventually may be expanded to non-medical uses.

There is a variety of destinations that attract transit users in the area. Because a large number of these are located on or near Route 13, there is a strong opportunity for this corridor to act as the primary artery for an MPA-wide transit service.

- **Medical Centers –** Heartland Medical Center, Marion VA Medical Center, Rushing Drive in Herrin, and Memorial Hospital
- **Educational Institutions –** Southern Illinois University and John A Logan College
- **Retail Centers** – Illinois Center, University Mall, Wal-Mart (Carbondale and Marion)
- **Airports –** Williamson County and Southern Illinois Regional Airport

Summary of Transit Providers

RIDES Mass Transit District (RMTD)

RIDES covers an 18-county area in southeastern Illinois. Within the MPA, the agency serves Williamson County, which joined the district in 2007 and constitutes the most western county in the system. RIDES provides a point-deviated service. This means that the buses operate along a route that covers specific zones in a consistent order (point service), and the buses will pick-up and drop-off customers who have called requesting service right at the door of their origin and destination (deviated service). Most pick-ups require the customer to call ahead, although there are a number of high-volume locations that the buses stop at whether or not a customer has called requesting service.

RIDES connects many of the major destinations along Route 13 in Williamson County, and even into Carbondale and Murphysboro, including large retail centers, medical complexes, educational institutions, as well as other modes of transportation with connections to Williamson County Regional Airport and the Carbondale Amtrak Station. The agency is also in the planning stages of a new bus transfer station on Main Street near the I-57 interchange in Marion. This complex would provide bus transfer stalls, passenger car parking, an indoor waiting area, and connections to Greyhound intercity buses.

Jackson County Mass Transit District (JMTD)

Jackson County Mass Transit provides bus service for trips that start and end in Jackson County. It operates on a call-basis Monday through Friday 7:00 a.m. to 6:00 p.m. Customers must call the business day before the ride is needed in order to request a ride. Carbondale is in the planning phase of a multi-modal transfer center in downtown. This would provide a single location for many modes of transportation and be very beneficial to bus service.

Saluki Express

Bus service was created by Southern Illinois University in an effort to reduce traffic and parking problems experienced in the vicinity of the campus. Students of the University ride for free, but anyone in the Carbondale community is eligible to ride for a fee. When school is in session, there are seven fixed routes operated during the weekday and three fixed routes during the weekend. There is also a late night route and a break route that operates when school is not in session. The Saluki Express does offer bus tracking via a web browser, mobile device, or text message.

All routes operate within close proximity to the Carbondale urbanized area, with connections throughout the University, downtown Carbondale, University Mall, and the airport.

Moving Forward with Transit

The designation of the MPO results in an excellent opportunity for coordination of the services and planning of these three transit providers. The Route 13 corridor and the contiguous urbanized areas would be best served by a unified or coordinated system.

A critical step in transit planning in the area is the completion of a comprehensive transit study that explores the feasible expansion and potential for fixed route service throughout the MPA. Fixed route bus service was frequently highlighted during stakeholder discussions and public workshops. While the foundation for fixed route service is already there, the physical infrastructure needed to support that level of service is not. The most critical obstacle is the need for adequate sidewalks connecting to proposed bus stops. Beyond this, there is the need for bus shelters, signing, and transfer centers. Both major transit providers are in the process of developing new transfer centers, which will be valuable resources for the future of bus service in the area.

Potential Planning Activity: A comprehensive transit study should be completed for the MPA that explores the existing service and potential for expansion, particularly fixed-route service and infrastructure.

Multi-Modal Connectivity

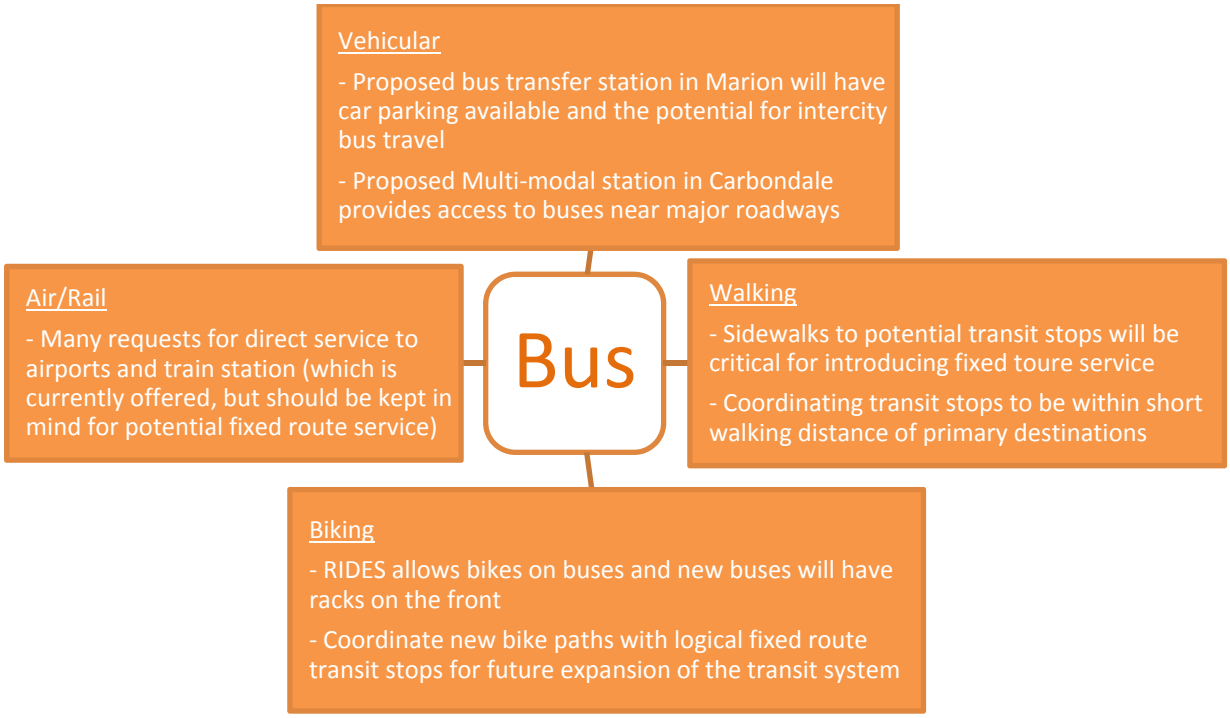


Figure 10. Multi-modal relationships with regards to Bus travel

Potential Public Transportation Project Ideas

Below is a list of project ideas that were brought up during the stakeholder discussions, ideas that address issues cited at the public workshops, and ideas that the study team developed based on data.

Table 14. List of Public Transportation Improvement Ideas

Idea	General Location
Coordination between Rides and Jackson County Mass Transit	Multiple
Implement a Fixed Route Transit System	Multiple
Improved sidewalk conditions for potential fixed route transit stops	Multiple
Improved routing and public awareness of Saluki Express service	Carbondale
Multi-modal transfer station serving Amtrak, Greyhound intercity buses, and local bus systems	Carbondale
Bus transfer station serving RIDES regional buses and Greyhound Intercity buses	Marion
Fixed route transit service to Williamson Co. Airport	Marion

AIR, RAIL, AND FREIGHT

Many challenges and opportunities are posed by the MPA's network of air, rail, and freight systems. The region has changed considerably since these systems were first developed. The relation of each of these modes to one another and the roadway system can be seen in **Exhibit 13**.

Airports and Air Travel

There are two airports in the MPA providing passenger air travel, military services, and emergency response operations.

Williamson County Regional Airport

Williamson County Regional Airport is located in the northeast quadrant of Route 13 and Route 148. Cape Air operates passenger service to St. Louis, offering as many as six flights on an average weekday. Extensive military aircraft services and maintenance are available. There was an average of 88 takeoffs and landings per day in 2012 (according to www.airnav.com). Many stakeholders cited opportunities to expand passenger services out of this airport, improve transit connections into the airport, and explore freight and business expansions.

Southern Illinois Regional Airport

Southern Illinois Regional Airport is located to the northwest of Carbondale. While it does not provide passenger air travel, it is a full service airport. The most significant roles of Southern Illinois regional Airport are as the American Red Cross Little Egypt network's hub for preventing, preparing for, and responding to disasters, as well as being the home of a number of SIU educational facilities.

Freight Railroad Network

There are three major railroads running north-south through the MPA and one short-line rail provider. These offer unique opportunities for industry and the movement of goods in the area, but they also result in a large number of at-grade crossings posing traffic and safety concerns.

While there are a considerable number of railroad crossings in the MPA, there were no reported crashes at these crossings. However, many people in the stakeholder discussions and public workshops cited frustrations with trains cutting through town. Even more concerning is that when trains stop along the Union Pacific RR in Marion they cut the town in two, preventing emergency vehicles from reaching patients or hospitals.

The Union Pacific RR in Marion cuts the town in half and prevents emergency vehicles from reaching patients and hospitals when trains stall on tracks.

Passenger Rail

Amtrak offers service from Carbondale to Chicago, Memphis, and New Orleans. A new multi-modal station in downtown Carbondale would provide a great opportunity for a first-class train station.

Truck Route Network

As seen in Exhibit 7, several roadways within the MPA are IDOT designated truck routes. These routes provide opportunities for industry and the movement of goods, but need to be taken into consideration during bicycle and pedestrian corridor planning. A high percentage of trucks can also affect traffic operations. The three classes of truck routes are defined as:

- **Class I** – Interstate highways, tollways, and other highways deemed appropriate
- **Class II** – major arterials not built to interstate highway standards that have at least 11 feet lane widths
- **Class III** – state highways that have lane widths of less than 11 feet

Multi-Modal Connectivity

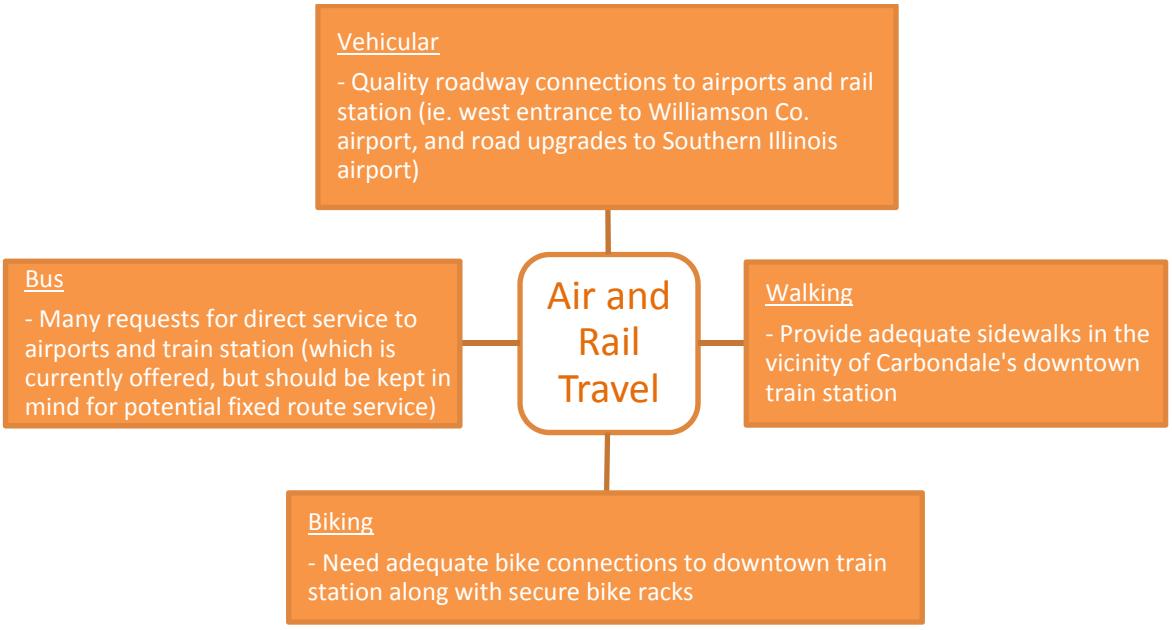


Figure 11. Multi-modal relationships with regards to Air and Rail travel

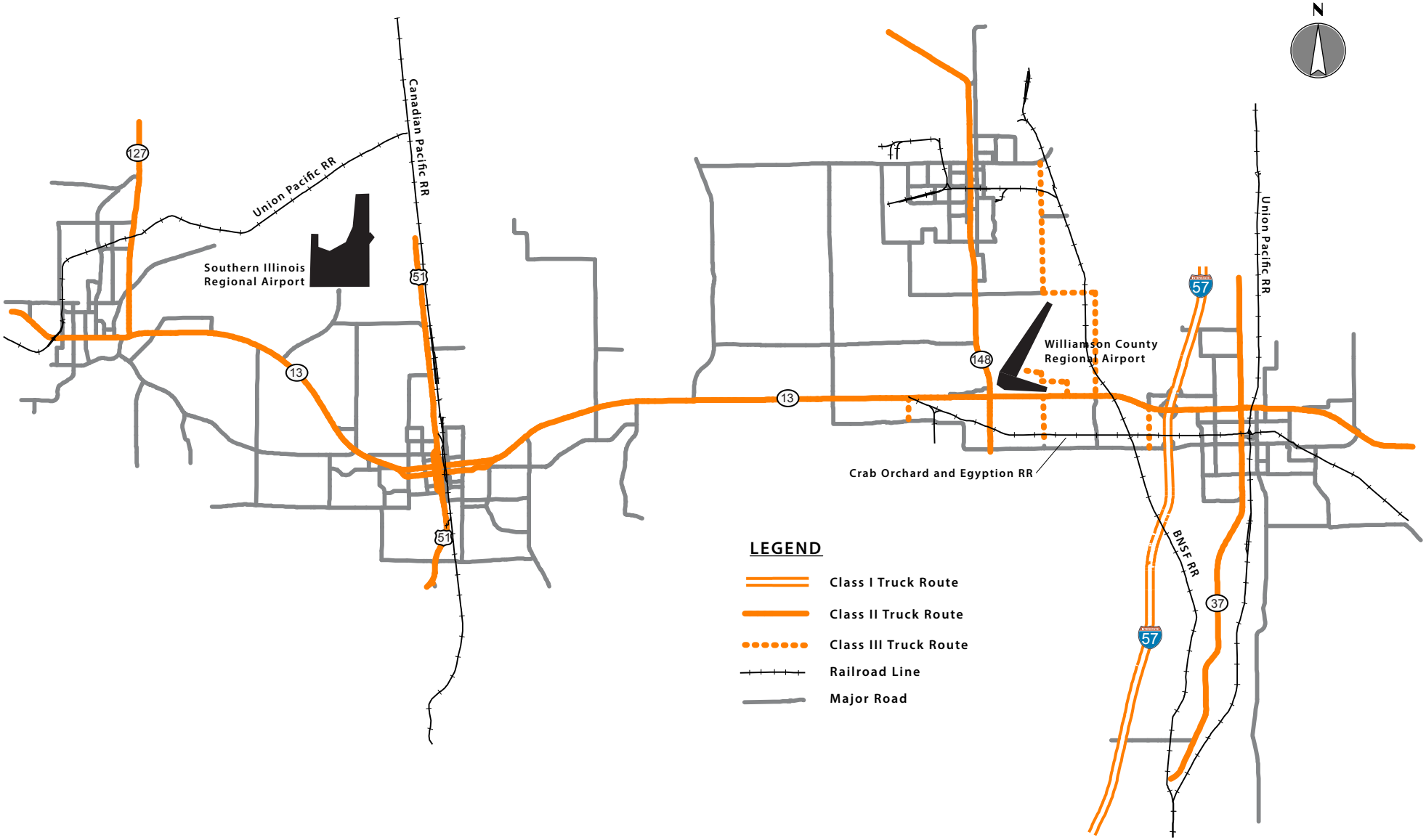


EXHIBIT 13. AIR, RAIL, AND FREIGHT NETWORK

Potential Airport, Railroad, and Freight Network Project Ideas

Below is a list of project ideas that were brought up during the stakeholder discussions, ideas that address issues cited at the public workshops, and ideas that the study team developed based on data.

Table 15. List of Potential Air, Rail, and Freight Network Improvement Ideas

Idea	General Location
Amtrak service from Carbondale to St. Louis	Multiple
Improve access to Southern Illinois Regional Airport from Route 51 via Airport Road	Carbondale
New entrance to Williamson County Regional Airport	Marion
Improved rail crossing along Route 13 east of I-57	Marion
Improved rail crossings and rail crossing information in Carbondale	Carbondale
New rail spur connecting REDCO industrial site to BNSF railroad	Marion

PUBLIC INVOLVEMENT

An extensive public involvement process was implemented as part of this multi-modal transportation study. The two main components of the process consisted of stakeholder discussions and public workshops. Complete information on the execution of the stakeholder discussions and public workshops as well as the results that came from them can be found in **Appendix B**.

Stakeholder Discussions

The stakeholder discussions were conducted between the study team and a diverse group of governmental, educational, and economical representatives. In total, these 15 meetings were attended by over 50 individuals who provided input related to the current strengths and shortcomings of the transportation system within the SIMPO planning area. Discussions ranged from issues as broad as regional passenger rail connectivity to St. Louis to as local as specific sidewalk upgrades that are needed on a given street. All modes of transportation in the region were discussed, including vehicles, freight, transit, bicycles, pedestrians, air and rail.

- Illinois Department of Transportation (IDOT)
- Jackson County
- Williamson County
- City of Carterville
- City of Carbondale
- City of Herrin
- City of Marion
- Villages of Colp, Cambria, and Crainville
- Southern Illinois University and John A. Logan College
- Carterville, Herrin, and Marion school districts
- RIDES Mass Transit
- Williamson County Regional Airport and Progressive Rail

- Southern Illinois Healthcare, Heartland Regional Medical Center, and Rural Medical Transportation Network
- Williamson County Regional Development Corporation, Carbondale Economic Development Office, and Jackson Growth Alliance
- Century 21, Property With TLC, Dave Thompson Realty, Re/Max, and Man-Tra-Con

Public Workshops

Four public workshops were held in the SIMPO region during the month of March 2014 as part of the development of the Multi-Modal Transportation System Assessment. A presentation was given at each workshop informing participants of the role of the MPO, required planning elements, and an update on the progress of the ongoing multi-modal assessment. A Strengths, Weaknesses Opportunities and Threats (SWOT) exercise was conducted at each workshop. Participants were asked to offer feedback on the strengths, weaknesses, opportunities and threats associated with the entire transportation system for the region including pedestrian, biking, transit, air, rail and vehicular accommodations. Overall, more than 70 people attended these workshops. Coupled with the stakeholder discussions, this resulted in over 120 active members of the community voicing their opinions and participating in the transportation assessment process.

Figure 12. SWOT Analysis at a Public Workshop

UPWP AND POTENTIAL PROJECT RECOMMENDATIONS

Unified Planning Work Program (UPWP)

Various planning projects were recommended in previous sections of this report. They are suggestions intended to feed the UPWP, and the entire list is given here. Based on the anticipated transportation needs of the MPA, federal policy, and the preferences of the stakeholders and general public, the following planning projects are recommended by the study team.

Table 16. Recommended Planning Projects and Activities

Planning Project or Activity
Complete a long-range traffic forecast to evaluate the direction and magnitude of traffic growth. This is a critical component of the LRTP.
Perform a comprehensive sidewalk/bicycle facility inventory and develop a plan for funding and constructing sidewalks on existing properties and encouraging sidewalks within new developments.
Complete the Long Range Transportation Plan (LRTP).
Complete a comprehensive transit study that explores the existing service and potential for expansion of the system, particularly fixed-route service and infrastructure.
Develop a regional bicycle and pedestrian master plan for entire SIMPO study area.
Review the Functional Classification of existing roadways based on physical characteristics, operational characteristics, and adjacent land uses. Update the Functional Classification designations, if needed, to ensure funding eligibility for all appropriate roadways.
Begin feasibility studies for a continuous, regional multi-use trail facility from Murphysboro to Marion.
Complete a feasibility study for east-west alternatives to Route 13, most notably upgrading the Dillinger/Laverne/Sycamore/Crenshaw/College/Skyline route (Higher priority near-term improvements for this route could include College, from Pershing to Skyline, and Skyline south to the mall). One other alternative on the east end of the MPA is Old Route 13.
Develop complete street plans for Route 148 from Route 13 to Herrin Road.
Develop Complete Streets policy and design guidelines covering urban and rural context.
Develop a plan to incorporate bike-able shoulders (minimum five feet) into rural roadway projects throughout the SIMPO study area.
Develop trail feasibility studies for greenways along Crab Orchard Creek, Mule Creek, and/or West End Creek, connecting Marion High School and athletic fields, Pyramid Park, Ashley Park, and other significant community destinations.
Develop Safe Routes to School Plans for elementary and middle schools to improve pedestrian safety through infrastructure and education/encouragement programs. While an explicit plan is not required to apply for SRTS funding, it would be good policy to have individual school SRTS plans, to conduct circulation studies around schools, and to utilize MPO resources when applying for funding.
Perform an Access Management study that consists of reviewing the MPA for existing locations that have poor access management, and developing Access Management Guidelines that help direct future planning efforts and prevent proposed projects from creating negative access conditions.
Develop a GIS database specific for the MPO and for MPO planning activities.
Various data collection tasks to support future planning and construction projects.

Potential Projects

The numerous lists of potential project ideas found in each section of this report were refined by the study team to generate the following list of projects that illustrate efficient use of transportation funding. These are the projects that can be expected to provide the most value by enhancing multi-modal options, improving safety, completing missing connections or alternate routes, and alleviating congested corridors.

At the time this study was completed, the following projects were under construction or scheduled to be funded. Many of these projects will mitigate issues identified in this report.

Table 17. Projects Under Construction or Scheduled to be Funded

Project
Morgan Avenue – West of I-57 to 17th St intersection; new interchange and roadway widening
Route 13 – I-57 to Route 148; new interchange, intersection improvements, and grade separated railroad crossing
Grand Avenue – School complex to Greenbriar Road; roadway reconstruction
Grand Avenue – Dent Street to Lions Drive; new sidewalk
Division St and Route 13 – Realignment of frontage roads
Reed Station Road – Ponce Trail to Lavern Road; reconstruction
Rushing Road and Route 148; intersection improvements
South Connector from Grand Ave to Flushing/Rushing Dr; new roadway
Phase II of multi-use path along rail line from Mill Street to SIU
Bus transfer station serving RIDES and other regional buses

Building upon these planned improvements, the following projects are recommended by the study team. This list is not ranked in any way, and includes projects across the entire MPA. A magnitude of cost was estimated for each project based on a scale of Low (<$350,000), Medium ($350,000 – $700,000), and High (>$700,000). These estimates are purely conceptual based on the study team's understanding of the issues and expected improvements. Acronyms for potential funding sources are as follows:

- STU – Surface Transportation Urban
- STR – Surface Transportation Rural
- NHPP – National Highway Performance Program
- HSIP – Highway Safety Improvement Program
- TAP (Safe Routes to School and Enhancements) – Transportation Alternatives Program
- MFT – Motor Fuel Tax
- EDP – Economic Development Program
- TIGER – Transportation Investment Generating Economic Recovery
- CDBG – Community Development Block Program

Project: Route 13 – Division Street to Giant City Road (Carterville to Carbondale)
Proposed Improvement: Reconstruction and Widening from 4 lanes to 6 lanes
Project Length: ~ 6.5 miles
Potential Funding Sources: IDOT Capital Plan, STU, NHPP
Magnitude of Cost: High

This section of Route 13, currently consisting of four lanes, carries some of the densest traffic flow in the MPA at 35,400 vehicles per day (885 vehicles/lane/hour). To the east and to the west of this section, Route 13 consists of six lanes and several stakeholders and the public expressed frustration about congestion in the four-lane section during peak travel times. There are several safety concerns in this corridor that could be addressed by a full reconstruction as well, including an IDOT State 5% intersection at Greenbriar Road and Route 13.

There are two critical constraints involved with this project, one being the overall length of the corridor and the other being the physical characteristics of the section that crosses Crab Orchard Lake. These result in a large magnitude of cost that could likely only be funded through IDOT's Capital Plan.

IDOT is currently conducting a Phase I study for this section of Route 13.

Project: 17th Street in Marion – Halfway Road to Civic Circle Boulevard
Proposed Improvement: Increase Capacity
Project Length: ~ 0.5 miles
Potential Funding Sources: STU, MFT, EDP
Magnitude of Cost: Medium (Short-term Option) to High (Long-term Option)

As a critical retail corridor and economic driver of both Marion and the east end of the MPA, maintaining available capacity along 17th Street is important to the region. IDOT and the City of Marion are currently constructing improvements to this roadway (known as Morgan Avenue east of Halfway Road) between Halfway Road and Carbon Street, including a new interchange at I-57. This will likely result in even more traffic being funneled into 17th Street, which currently consists of one lane in each direction and a two-way left-turn lane down the center. Long queues are already regular occurrences during peak travel times, particularly at the intersections of 17th Street with Halfway Road and 17th Street with Williamson County Parkway.

Long-term improvements would consist of reconstructing and widening the roadway from Halfway Road to Civic Circle Boulevard. This would provide the additional capacity, necessary turn lanes, and space for vehicles to maneuver. While this would be the preferred option, right-of-way constraints are anticipated and could result in a large magnitude of cost.

Short term improvements could be completed within the existing right-of-way that would still provide significant benefit, but at a much lower cost. These improvements would be focused on the intersections at Halfway Road and Williamson County Parkway, and would focus on signing, striping, signal timings, and potential turn lane additions.

Project: Park Avenue (Route 148) in Herrin – Clark Trail to Brewster Road
Proposed Improvement: Increase safety and operational efficiency through access management and pedestrian facilities
Project Length: ~ 0.3 miles
Potential Funding Sources: STU, HSIP, NHPP, MFT
Magnitude of Cost: High

Route 148, also known as Park Avenue in Herrin, serves as a State maintained highway for regional traffic, a retail corridor, and a critical connection for residential traffic into and out of Herrin. This wide variety of uses and proliferation of access results in safety and operational issues along the entire corridor, but the segment from Clark Trail to Brewster Road experiences some of the most critical issues. The roadway has two lanes in each direction with a two-way left-turn lane down the center, 16 points of access in a ¼-mile stretch, a speed limit of 35 mph, and an AADT of 19,400.

The intersection of Park Avenue and Brewster Road is an IDOT State 5% intersection and the segment of Park Avenue just south of Clark Trail is an IDOT State 5% segment and has the highest Potential for Safety Improvement (PSI) value in the entire MPO at 91.69. There is a lack of pedestrian facilities for both crossing and walking along Park Avenue.

Pedestrian improvements would potentially include new facilities including sidewalks, crosswalks, and pedestrian signals. A review of traffic and retail patterns, as well as discussions with the adjacent businesses could lead to access management improvements such as turn restrictions, signing and striping, or a new traffic signal.

Figure 13. Aerial of Park Avenue showing the large number of access points

Project: Carbondale Multi-modal Transfer Station
Potential Funding Sources: TIGER Grant, STU, Transit Funds, TAP (Enhancements), CDBG
Magnitude of Cost: High

Carbondale has been in the planning stages for a new multi-modal transfer station in downtown. This would provide a valuable asset that interconnects transit, intercity bus, and train services. It would connect roadway, bicycle, and pedestrian facilties to those services and present an opportunity for a prominent community structure in downtown, while serving the heavy SIU student demand for regional transportation services.

This multi-modal center would complement the funded transfer center planned in Marion and facilitate the expansion of transit services along the Route 13 corridor.

Project: Multi-use Trail in Carbondale – Existing trail to Lewis Elementary School
Proposed Improvement: Multi-use Trail Extension
Potential Funding Sources: TAP (Safe Routes to School), TAP (Enhancements), CDBG
Magnitude of Cost: Low (assuming minimal right-of-way costs)

Leveraging the existing off-street trail just east of Wall Street, this project proposes an east-west extension connecting to Lewis Lane and Lewis Elementary School. While a major extension to the trail network (parallel to Illinois Avenue) has already been funded, other relatively low cost trail extensions and upgrades are encouraged to continue towards a robust trail network. A potential route is shown in **Figure 14**:

Figure 14. Potential Route for Multi-use Trail Extension in Carbondale

Project: New Multi-Use Trail in Herrin – Herrin CUSD 4 sports complex to Herrin City Park
Project Length: ~ 1.5 miles
Potential Funding Sources: TAP (Safe Routes to School), TAP (Enhancements), CDBG
Magnitude of Cost: Low (assuming minimal right-of-way costs)

Taking advantage of Herrin's quality green spaces, this project proposes a new multi-use trail that connects the Herrin CUSD 4 sports complex with Herrin City Park, the high school, and the surrounding residential communities. A new multi-use trail in this area has the potential to increase safety for bicyclists and pedestrians, encourage the use of the city's green spaces, and allow people to get from place to place without the use of an automobile. A potential route is shown in **Figure 15**.

Figure 15. Potential Route for Multi-Use Trail in Herrin

Project: Route 13 in Carbondale – Giant City Road to Lewis Lane
Proposed Improvement: Vehicular and Pedestrian Safety, Access Management, and Operations
Potential Funding Sources: IDOT Capital Plan, STU, HSIP, TAP (Enhancements), MFT, EDP, NHPP
Magnitude of Cost: High (with opportunities for Low and Medium cost projects of independent utility)

This location and the widely varying issues surrounding it surfaced during stakeholder interviews, public workshops, and data analysis for nearly every element considered. Many of the problems arise from the heavy traffic generated by the retail land uses, poor access management, and the heavy commuter traffic along Route 13.

The section of Route 13 to the east of Giant City Road carries the highest volume of traffic in the entire MPA at 35,400 vehicles per day. There are traffic signals at each intersection of Route 13 with Giant City Road, McKinney Avenue, and Lewis Lane, and the retail centers on each side generate a large number of turning movements and side street traffic at these intersections. Almost all retail traffic flows through these three intersections.

The frontage roads on the north and south side of Route 13 serve the retail centers. These roads do not provide adequate spacing from Route 13 at Giant City Road and McKinney Avenue, especially given the large amount of traffic volumes at these intersections. The layout and operations at the frontage roads can be very confusing. At Giant City Road, there were 182 crashes reported (61 of which resulted in some form of injury) at Main Frontage Road N, Route 13, and Main Frontage Road S. The section of Route 13 between McKinney Avenue and Lewis Lane has a PSI of 26.0, indicating there is a strong potential for safety improvement.

There is a lack of pedestrian facilities throughout the surrounding area. As a result, pedestrians tend to cross the street and walk in random locations. The study team witnessed several people crossing Route 13 at carrying midblock locations, and several stakeholders and members of the public confirmed this. IDOT is making pedestrian crossing improvements to mitigate this, but a comprehensive analysis for the whole retail corridor is necessary to properly address this issue.

Overall, a corridor analysis is necessary to determine how the safety and operations of this area can be improved. Potential improvements include realigning the frontage roads to provide better spacing and operations, implementing access management controls to prevent unsafe movements, optimize the traffic signals along Route 13, provide a robust network of pedestrian facilities to encourage walking in designated areas only, and provide alternative access points aside from Route 13 (such as an extension of Oak Street from Wall Street to Lewis Lane) that would provide better connectivity and lessen the burden on the Route 13 intersections.

There will likely be many constraints and obstacles for implementing improvements. These include high costs, right-of-way constraints, pushback from retailers, and the difficult balance of all modes of transportation. However, this location offers dramatic opportunities for making positive safety, operational, and economic impacts, while facilitating a multi-modal transportation experience.

Project: Route 13 and Main Street/Norman Road in Marion
Proposed Improvement: Intersection Safety
Potential Funding Sources: HSIP, STU, MFT
Magnitude of Cost: Low

Route 13 and Main Street is an unsignalized intersection on the east side of Marion. At this location, Route 13 is a divided highway with two lanes in each direction and left-turn lanes. It carries 13,400 vehicles per day through the intersection. On the south leg of the intersection, Main Street has a shared left/thru lane and a channelized right-turn lane. On the north leg, Norman Road is a narrow two-lane road with no shoulders and a shared left/thru/right lane.

There were 26 crashes reported in the vicinity of the intersection between 2008 and 2012. There were eleven injury crashes, four of which resulted in severe injuries. A majority of these were Turning and Angle crash types, which are consistently more hazardous.

The alignment of the left-turn lanes on Route 13 and the large width of the street create sight-distance issues. This is the first major intersection for vehicles coming into Marion, so it is expected that vehicles will be traveling at high speeds. Also, during certain times of year, the sun poses issues because of the low terrain. All these factors contribute to this being an IDOT State 5% intersection and several stakeholders mentioning it as a problem location.

This location was selected as a potential project due to the opportunity for relatively low cost improvements. Possible crash mitigation efforts include realignment ("burying") of the Route 13 left-turn lanes to create a better sight angle across the intersection and re-striping to create a designated staging area for vehicles crossing over Route 13.

Figure 16. The wide intersection at Route 13 and Main Street in Marion

Project: Grand Avenue in Carterville – Cambria Road to Carterville school complex
Proposed Improvement: Reconstruction and Widening
Project Length: ~ 0.5 miles
Potential Funding Sources: STU, HSIP, MFT
Magnitude of Cost: High

This segment of Grand Avenue west of Carterville school complex consists of narrow lanes, no shoulder, and a steep drop-off on each side. While it only carries 2,850 vehicles per day, this route has the potential of alleviating some of the congestion and safety issues that occur on Grand Avenue to the east of the school complex during the brief, but heavy school peaks. Traffic on this section is also expected to increase as residential development continues to the west of the school complex.

Figure 17. Looking east down Grand Avenue

The intersection with Cambria Road (an IDOT Local 5% intersection) can present difficulties for vehicles turning off of Grand Avenue onto Cambria Road, primarily due to sight distance constraints and the high speed of vehicles on Cambria Road. There were 21 total crashes reported at this intersection between 2008 and 2012, resulting in an overall crash rate of 1.69. While the total number of crashes is not overly concerning, 13 of these 21 crashes resulted in an injury and 5 of those resulted in a severe injury.

Upgrades to this section of Grand Avenue could potentially start with safety enhancements at Cambria Road, coinciding with IDOT's planned improvements of Cambria Road for 2016. Then reconstruction and widening of the segment to the high school with pedestrian and bicycle infrastructure could be completed as funding becomes available.

Project: New north-south route in Carterville – Carterville school complex to Route 13
Proposed Improvement: New Roadway
Project Length: ~ 1.0 mile
Potential Funding Sources: STU, MFT
Magnitude of Cost: High

To alleviate some of the congestion issues along Grand Avenue to the east of the school complex that occur during the brief, but heavy school peaks, Carterville has explored the possibility of a new north-south connection from the school complex south to Route 13, likely utilizing Shawnee Trail. This would provide a direct connection to Route 13 and allow vehicles to avoid Cambria Road, but it would also send more vehicles to an unsignalized intersection on Route 13. Also, it is uncertain how this connection with Route 13 would operate if this section is upgraded to six lanes, so coordination with IDOT's planning efforts for Route 13 is critical. Bicycle and pedestrian considerations would be important with such close proximity to the school.

Project: Cambria Road/Sycamore Road in Cambria; Mayor Caliper/Herrin Road in Colp
Proposed Improvement: Low Cost Stop-controlled Intersection Safety Improvements
Project Length: ~ 1.0 mile
Potential Funding Sources: STU, MFT
Magnitude of Cost: Low

Providing low cost advanced warning devices for the intersection of Cambria Road and Sycamore Road would help enhance this stop-controlled intersection, which is the first intersection prior to entering Cambria from Route 13. The stakeholder suggestion of providing flashing LED stop-signs for Mayor Caliper Road and Herrin Road, the only stop sign along Herrin Road between Route 148 and Cambria Road, would also be appropriate.

Project: Halfway Road in Marion – Old Route 13 to Westminster Drive
Proposed Improvement: New Roadway Extension
Project Length: ~ 0.75 miles
Potential Funding Sources: STU, MFT, EDP
Magnitude of Cost: High

An extension of Halfway Road from the current southern terminus at Old Route 13 down to Westminster Drive has the potential to connect the major retail district with the high school and residential areas on the south side of Marion. For getting to Route 13, this provides an alternative to Carbon Street and Court Street (which carry 11,000 and 10,000 vehicles per day near Route 13, respectively). Both roadways were cited as being congested during peak travel times, most likely due to the large number of closely spaced cross streets.

The City of Marion has been in the planning process for this extension for some time, experiencing difficulties with right-of-way constraints. Another issue involved with this project is the condition of Westminster Road, which is a narrow two-lane roadway with no pavement markings or shoulders; it should be updated as well. Despite these issues, this project has the potential to provide a quality regional connection and alleviate peak hour congestion on existing roadways. Bicycle and pedestrian considerations could also be made for this corridor.

Project: Airport Road in Carbondale – Route 51 to New Era Road
Proposed Improvement: Roadway reconstruction and widening
Project Length: ~ 1.35 miles
Potential Funding Sources: STU, MFT, EDP
Magnitude of Cost: High

Creating better access to Southern Illinois Regional Airport from Route 51 provides a more robust entrance and has the potential to stimulate economic growth associated with the airport and the surrounding property. SIU has invested heavily into academic facilities at the airport and there is a desire to encourage industrial development in this area. With 10-foot lanes and no paved shoulder, the existing roadway is inadequate for truck traffic and is a poor entrance to a regional transportation service center.

Project: Wildcat Road in Marion – Carbon Street to Court Street
Proposed Improvement: New Continuous Sidewalk
Project Length: ~ 0.75 miles
Potential Funding Sources: STU, TAP (Safe Routes to School), TAP (Enhancements)
Magnitude of Cost: Low

New sidewalk along Wildcat Road, from Carbon Street to Court Street in Marion, would provide a critical connection from the high school to Pyramid Park and the residential neighborhoods to the north. The only significant obstacle for this route is the creek on the west side of Pyramid Park (just east of the high school). Safely connecting schools with housing and green space is important in ensuring children and parents alike have the opportunity to travel throughout town without relying on a vehicle.

Project: Park Street in Carbondale – Brush Hill Road to Giant City Road
Proposed Improvement: Reconstruction, Widening, and Safety Improvements
Project Length: ~ 0.75 miles
Potential Funding Sources: STU, HSIP, MFT
Magnitude of Cost: Medium

This location has one of the highest crash rates in the MPA and is identified as a Local 5% segment. It has already been improved from Lewis Lane to Brush Hill Road, but the remaining 0.75 miles continue to pose a significant safety concern with potential for safety improvement. **Figure 18** shows both the unimproved section and the improved section as they exist today.

From 2008 to 2012 there were 25 crashes reported in the unimproved section, 10 of which resulted in an injury (4 severe injury crashes). The improved segment of Park Street experienced 6 crashes during that same time frame, despite carrying almost double the traffic as the unimproved section. Potential upgrades include widening, expanded shoulders, new striping, and improvement of sight distance at Warren Road. There is also the opportunity to include quality pedestrian and bicycle infrastructure on this corridor.

Figure 18. The Unimproved Section of Park Street (Left) and the Improved Section (Right)

Project: Wall Street and Walnut Street in Carbondale
Proposed Improvement: Intersection Safety Improvements
Potential Funding Sources: STU, HSIP, MFT
Magnitude of Cost: Low to Medium (pending detailed study of safety countermeasures)

This Carbondale intersection has one of the highest crash rates of all intersections in the MPA. With 130 crashes in 5 years (31 of which resulted in some form of injury), it has an unusually high number of crashes compared to similar intersections along Route 13 within Carbondale along the one-way pair. Almost half of these crashes were Turning and Angle, which are considered dangerous crash types. The study team feels many of these crashes are correctable by implementing relatively low to medium cost improvements to lane usage, signal timing, and sight distance.

Safety improvements that reduce crashes can also provide significant operational and economic impacts for locations such as this that carry such heavy peak hour traffic. Walnut Street carries 22,400 vehicles per day into this intersection while Wall Street carries 9,100 vehicles per day. Limiting the delay caused by crashes for this many vehicles can have very positive overall impacts.

Project: Routes 13, 51, and 37 throughout the MPA
Proposed Improvement: Install Bikeable Shoulders
Potential Funding Sources: STU, STR, TAP (Enhancements), MFT, NHPP
Magnitude of Cost: Low to High (depending on length of each individual project)

Install continous, bikeable shoulders and signing on National Bike Route 76 and Illinois Grand Trail Routes. IDOT recommends a minimum of 4 feet for shoulders and this can implemented with larger roadway projects as they become available.

Project: Route 13 Medical Corridor – Carbondale to Marion
Proposed Improvement: Improve Traffic Effects on Emergency Response
Potential Funding Sources: STU, Rail-Highway Safety, Health grants and public health funding
Magnitude of Cost: Pre-emption – Low; Rail Crossing Improvements – High

With several medical districts and emergency services along Route 13, improvements could be made to decrease travel times for emergency response vehicles. Two major components of this include emergency pre-emption at traffic signals that allow emergency vehicles to receive a green signal and addressing the way that the Union Pacific railroad cuts off half of Marion from emergency response when trains stop on the tracks.

CONCLUSION

As the Greater Egypt region grows, the boundaries between communities become less apparent and communities must start to act as a cohesive unit. As of the 2010 Census, the Carbondale area has been identified as an Urbanized Area with a population of over 50,000 people. It is with this in mind, along with the need to comply with federal regulations, that the Southern Illinois Metropolitan Planning Organization (SIMPO) was created. This newly formed agency is responsible for a variety of transportation planning tasks. To aid in the completion of these tasks, this multi-modal transportation system assessment was performed.

The purpose of this assessment was to gather data and solicit public input that will further establish a setting for regional decision making and help evaluate transportation alternatives. This will provide a foundation for the completion of a Long Range Transportation Plan in the near future. With an understanding of the existing transportation network, the MPO is poised to move forward with the Long Range Transportation Plan and is armed with the necessary tools to make responsible funding decisions.

APPENDIX A. BICYCLE AND PEDESTRIAN ANALYSIS

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RE: Bicycle and Pedestrian Level of Service Analysis

1 Introduction

1.1 Overview

This report provides a summary of the findings to date and next steps for the evaluation and update of the bicycle and pedestrian Level of Service (LOS) within the Carbondale Urbanized Area (CUA) of the Southern Illinois Metropolitan Planning Organization (SIMPO). The selected analysis approach is described, and the findings of the completed Bicycle Level of Service (BLOS) and Pedestrian Level of Service (PLOS) analysis are provided. The report concludes with next steps, which can be used to integrate this data into the SIMPO Multimodal Transportation System Assessment. Ultimately, this analysis can be used throughout the planning process: in review of existing conditions, in support of route and project development, and then again as part of the project prioritization process.

1.2 LOS Analysis and Data Availability

Numerous state governments, regional organizations, and national organizations have been creating frameworks for the development of bicycle route systems and review of pedestrian facilities. Road/shoulder width, speed limits, average daily traffic volume (ADT), scenic attractions, connectivity, and other measures of route safety and quality are important criteria in bicycle routing. Pedestrian analysis typically involves roadway speeds, availability of dedicated pedestrian space, roadway function, lighting, intersection treatments, and measures of urban form.

Recently, some MPOs and organizations have used variations of a sophisticated, quantitative/objective approach to develop criteria for ranking road segments and for suitability of use by bicyclists. While there are several types of models, BLOS is the type most widely used. This type of approach uses roadway characteristic data that can be overlaid on a specific roadway segment to produce a suitability score. The effectiveness of the BLOS approach is dependent upon the quality and quantity of available data and the specific context for which it is applied. This approach calculates and ranks road suitability for bicycling with a level of service score from A (most suitable) to F (least suitable).

PLOS is a similar approach used to quantify the pedestrian experience. PLOS model inputs tend to vary more than BLOS models because the available data used to describe the pedestrian realm is varied in nature. For example, some communities have a sidewalk inventory indicating presence or absence of a sidewalk, while other jurisdictions may include information on planting buffers, street trees, and pedestrian lighting.

The CUA BLOS and PLOS metrics presented in this memorandum are based primarily on SIMPO's roadway network data layer. Based on NCHRP's Report 616, BLOS data inputs include lane width, shoulder availability, and Average Daily Traffic (ADT). The data used for PLOS considers provision of dedicated space for use by pedestrians in relation to posted motor vehicle speed. These PLOS metrics were selected based on analyses of research describing pedestrian fatalities in relation to travel speeds.

2 Selected Approach

2.1 Bicycle Level of Service Analysis

Based on SIMPO's available data, the BLOS model described in NCHRP's Report 616 is the model selected for the roadway conditions assessment for bicycle use. The model, based on empirical research, has been applied in bicycle route system developments at city, county, and state levels. It was chosen over other systems of weighting and combining criteria because of its empirical basis. While several data gaps required assumptions to run this model, it still provides a useful comparison between roads in this case. The results of this analysis should not, however, be compared to BLOS results in other regions, because of the data gaps and applied assumptions. BLOS scores are calculated using the following equation:

BLOS = 0.507 ln(Vol15/L) + 0.199 SPt(1+10.38HV)2 + 7.066(1/PavementCondition)^2− 0.005(We)2 + 0.760

Whereas:

Vol15 = Directional motorized vehicle count in the peak 15 minute time period

L = Total number of directional through lanes

SPt = Effective speed factor = 1.1199 Ln (SPp – 20) + 0.8103

SPp = Posted speed limit (use for average running speed) (mph)

HV = Percentage of heavy vehicles

PR_5 = FHWA's five point pavement surface condition rating (1-5)

We = Average effective width of outside through lane (ft)

Because not all data were available, some assumptions were made to allow the calculation to effectively function. These are principally based on standardized assumptions developed in the NCHRP's Report 599.[1] Where data gaps occurred and no other standardized assumptions were available, mean or median values were used.

[1] Transportation Research Board. 2008. National Cooperative Highway Research Program Report 599.

Field work completed for this study provided corridor-specific lane widths. The analysis used the assumed average effective width of outside through lane (W_e), which is 10.5 feet, for only two roadways. Field measured widths were available for all other roadways in the analysis.

Table of Assumptions				
Sub-formulas				
Sub	Vol_{15} = (ADT x D x Kd) / (4 x PHF)			
Sub	SPt = 1.1199 ln(SPp - 20) + 0.8103			
		Assumed Value where Missing		
Variable	**Description**	Urban/Suburban	Rural	**Sources**
D	Directional Factor	0.55	0.6	From MDOT traffic report citing HCM:NCHRP report 599
K	Peak to Daily Factor	0.09	0.1	NCHRP report 599
PHF	Peak Hour Factor	0.92	0.88	NCHRP report 599
HV	% of Heavy Vehicles	Principal Arterial	3.50%	Federal Highway Administration's Bicycle Compatibility Index Level of Service Concept, Implementation Manual (1998)
		Minor Arterial	2%	
		Collector Street	1.50%	
		Local Street	0%	
		No Data	1%	
		Interstate/Freeways	5%	
ADT	Average Daily Traffic	3390 (Mean)		SIMPO
Ln	# of Through Lanes	1 (Median)		SIMPO
Sp_p	Post Speed Limit	25 mph in urban settings 30 mph local rural roadway 45 mph rural collector roadway 50 mph rural arterial roadway		*Subbed 25 mph for all speeds below 20 mph for the formula to work
PR_5	FHWA's 5 point pavement surface condition rating	4 points (used on all roadway links)		SIMPO
W_A	Average Effective Width of outside through lane	10.5 (Mean)		SIMPO

Based on this equation and subsequent output, each roadway segment is assigned a letter grade, which indicates the road segment's suitability for bicycle use. Score ranges along with their corresponding letter grades are included in the chart below. Brief descriptions of each letter grades' bicycle level of service are also included.

BLOS Evaluation		
BLOS Grade	BLOS Score	Description
A	<= 1.5	Excellent bicycle environment
B	1.5 - 2.5	Good bicycle environment
C	2.5 - 3.5	Fair bicycle environment (acceptable to experienced and novice bicyclists
D	3.5 - 4.5	Poor environment (acceptable to experienced bicyclists
E	4.5 - 5.5	Deficient environment (unacceptable to experienced and novice bicyclists)
F	> 5.5	Unsafe environment (unsuitable for any bicycle travel)

Results

The following table summarizes the average BLOS scores of roadways within SIMPO. Calculating BLOS for all roadways in the CUA helps to identify roadways where bicycle travel is already relatively pleasant as well as insight into how new routes may be developed to serve the area effectively. Results are shown in **Figure 1**, included at the end of this memorandum.

BLOS Results			
BLOS Grade	Miles	% of Total	Notes
A	26	3%	Short segments existing within city boundaries.
B	205	24%	Pockets or island, generally within city boundaries. Generally connecting to grade C or D facilities.
C	370	44%	Corridors within and connecting cities.
D	234	28%	Corridors within and connecting cities.
E/F	6.5	Less than 1%	Mostly higher order roadways between cities.

As the map shows, conditions for bicyclists are best within urbanized areas, along roadways with lower ADT and wider outside lanes. Conditions are poorest along higher order roadways that provide connection between cities. While these roadways are designed primarily to serve motor vehicle traffic they also represent important and often the only connection between cities. Bicyclists would benefit from long term plans to provide continuous roadway shoulders, or other separated cycling facilities.

A review of the data indicate that they are relatively complete, but the year of data collection was not available and it may not represent improved conditions due to roadway modification or addition of shoulders. When posted speeds were missing a default value was assigned based on functional classification and review of comparable roadways in the MPO. It is worthwhile to note that roadway quality information was not available so a default value of moderate to good pavement quality was assumed. This means that while results are comparable within this dataset, the values may not directly correlate to a BLOS grade in an analysis system where pavement quality data was used.

2.2 Pedestrian Level of Service Analysis

The selected PLOS analysis is rooted in the concept that a doubling of travel speed results in a four-fold increase in stopping time and resulting crash severity. According to one study, speed has the following impact on pedestrian fatalities[2]:

- At 20 mph the odds of pedestrian fatality are 5%
- At 30 mph the odds of pedestrian fatality are 45%
- At 40 mph the odds of pedestrian fatality are 85%

While other studies have found some variation, these approximate numbers are reported consistently across the literature.

It is imperative that dedicated travel facilities are provided to create safe travel conditions for pedestrians. This model is based primarily on safety and does not consider factors of the built environment known to make walking an attractive and preferred form of transportation. While this is true, lower posted speeds and more dedicated pedestrian space will typically correlate with places people want to walk based on the surrounding land uses and urban form (e.g., residential and commercial uses in urban areas).

PLOS Evaluation				
PLOS Grade	PLOS Score	Description	Conditions – Speed	Conditions - Space[3]
A	5	Best pedestrian environment	Less than 30 mph	Complete sidewalk or at least one shoulder wider than 4 feet
B	4	Good bicycle environment	Less than 30 mph	No dedicated space
C	3	Fair pedestrian environment	30 – 35 mph	Complete sidewalk or at least one shoulder wider than 4 feet
D	2	Moderate environment	30 – 35 mph	No dedicated space
			40 – 50 mph	Complete sidewalk or at least one shoulder wider than 4 feet
E/F	1	Deficient/unsafe environment	40 + mph	No dedicated space

[2] Killing Speed and Saving Lives, UK Dept. of Transportation, London, England. See also Limpert, Rudolph. Motor Vehicle Accident Reconstruction and Cause Analysis. Fourth Edition. Charlottesville, VA. The Michie Company, 1994, p. 663.

[3] Sidewalk data was only available for Carbondale. Sidewalk data values for each parcel could be: "yes", "no", "incomplete" or "null." Shoulder conditions were available for the entire MPO.

Results

The following table summarizes the average PLOS scores of roadways within CUA. Calculating PLOS for all roadways in the study area helps to identify roadways where pedestrian travel is already relatively pleasant as well as insight into how new routes may be developed to serve the area effectively. Results are shown in **Figure 2**, included at the end of this memorandum.

PLOS Results			
PLOS Grade	Miles	% of Total	Notes
A	81	10%	Mainly residential roadways that may or may not have a centerline. Travel lanes are 9 – 12 feet. Sidewalk or shoulder for pedestrian travel is present.
B	122	15%	Mainly residential roadways that may or may not have a centerline. Travel lanes are 9 – 12 feet.
C	30	4%	Characterizes main streets in urbanized areas with complete sidewalks.
D	520	62%	Category contains the most variation in roadway configuration. This condition characterizes approaches to more urbanized areas. Roadways in Carbondale with 'partial' sidewalk completion are included.
E/F	86	10%	Typically large order roadways connecting more populous areas. Roads have 2 to 4 travel lanes. Lanes are typically 12 feet wide or greater.

As described in the table above, the majority of roadways within CUA were assigned a score of D. The conditions in this category are also the most variable. For example, some roadways within Carbondale have 'partial' sidewalk coverage. A number of these sidewalk segments could be completed relatively quickly to improve the segment grade from a D to a C

Figure 1. SIMPO Bicycle Level of Service

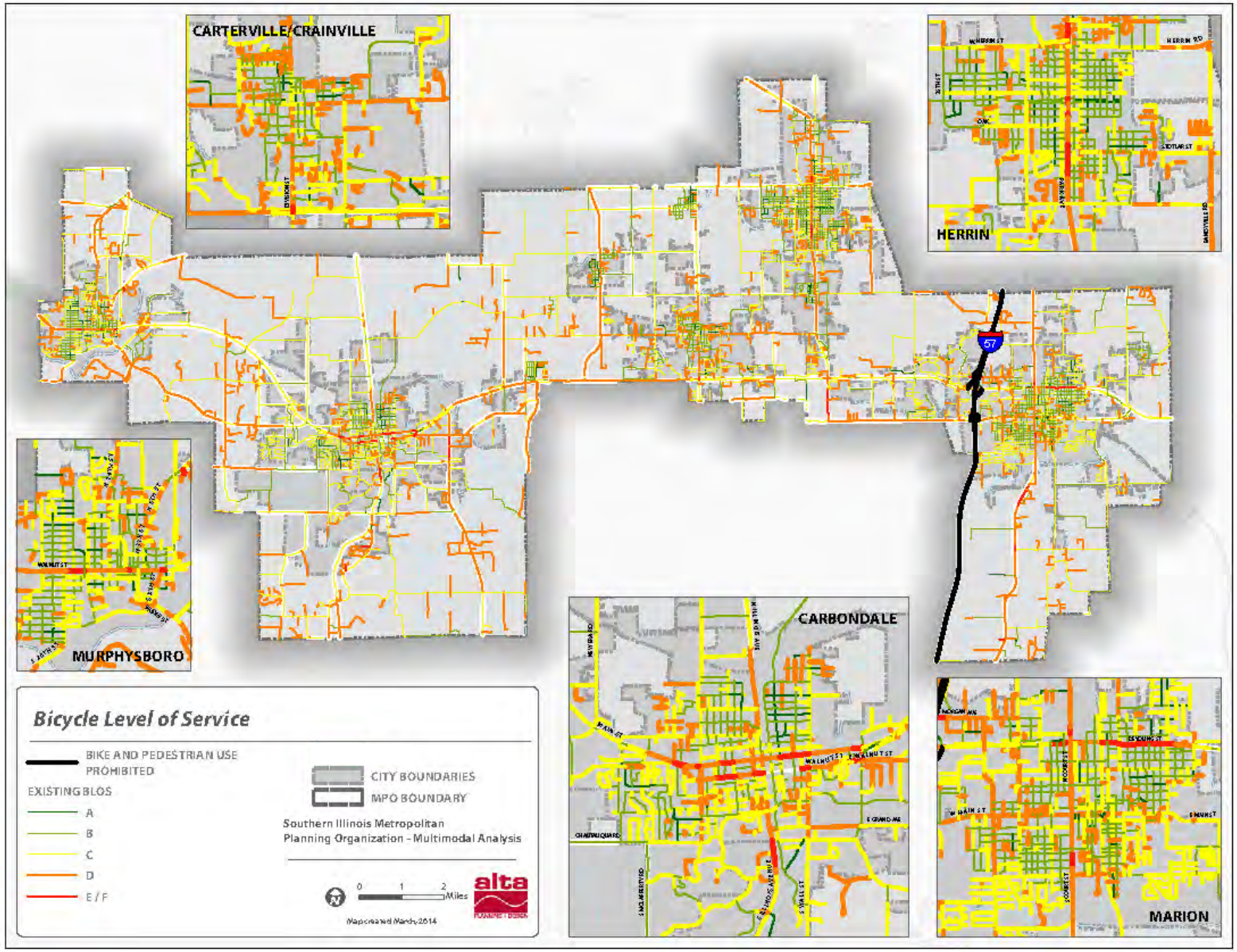
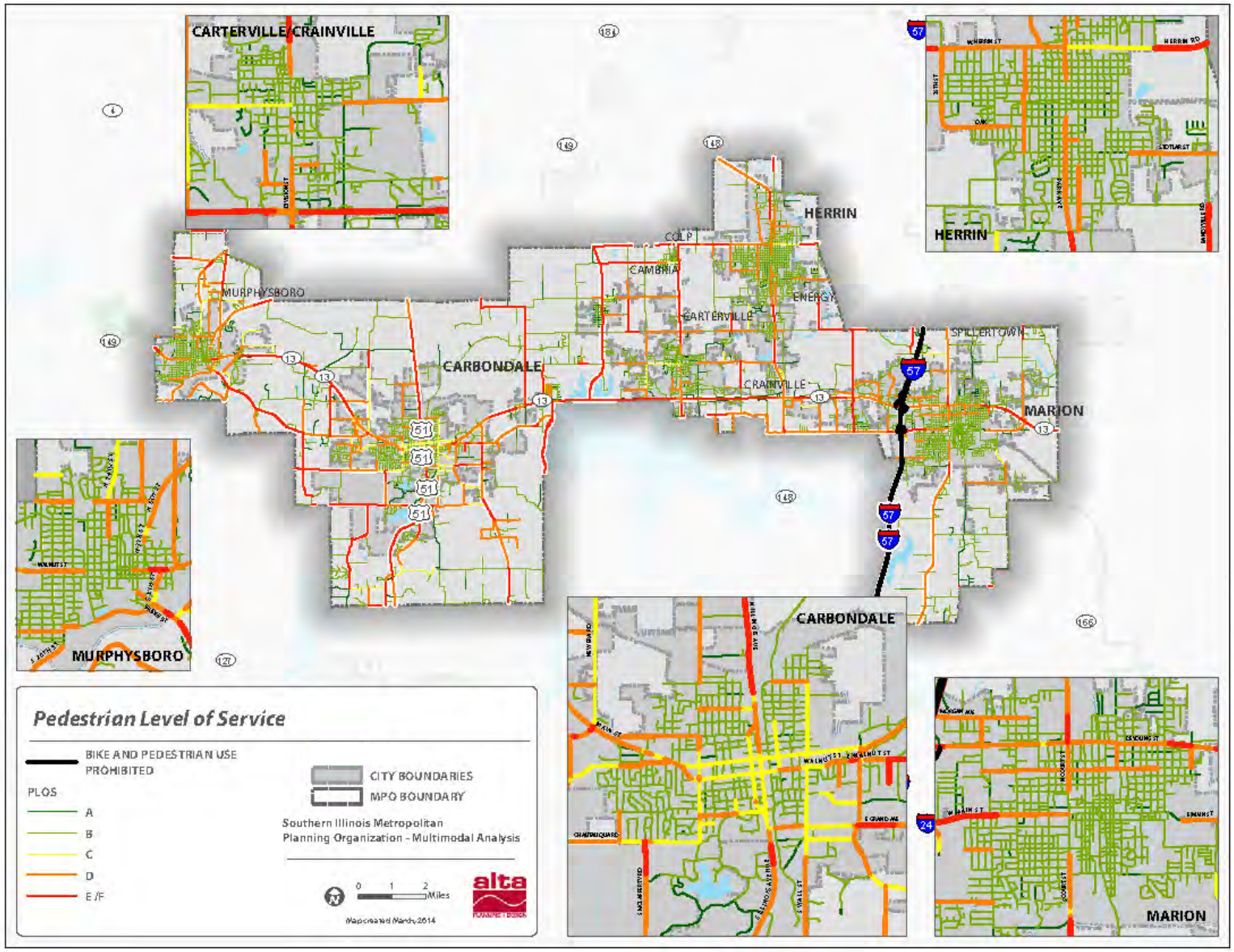


Figure 2. SIMPO Pedestrian Level of Service



Memorandum

To: Dustin Riechmann, Bernardin Lochmueller & Associates, Inc.

CC: Ryan Bumb, Bernardin Lochmueller & Associates, Inc.

From: Paul Wojciechowski and Kevin Neill, Alta Planning + Design

Date: April 24, 2014

Re: Bicycle and Pedestrian Narrative and Recommended Projects

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1.1 Bicycle and Pedestrian Recommendations

Bicycling and walking are integral components of a balanced, sustainable, and efficient multi-modal transportation system. Whether for short trips to nearby destinations or for longer recreational trips to regional parks and open spaces throughout the region, non-motorized transportation can play an important role in several areas:

- reducing vehicle miles traveled,
- minimizing wear and tear on vital transportation infrastructure,
- increasing physical activity,
- lowering individuals' transportation costs,
- supporting local economic activity,
- improving quality of life.

As the Metropolitan Planning Area continues to grow, incorporating non-motorized transportation into future roadway projects will ensure that people of all ages and abilities have the opportunity to travel about their community, regardless of their mode of choice.

Throughout the course of the SIMPO Multi-Modal Transportation Assessment process, stakeholders and residents throughout the planning area have expressed their desires for a diverse range of bicycle and pedestrian improvements, often times reflecting the geographic diversity of priorities and needs as they relate to walking and bicycling. For example, Jackson County residents have expressed a greater interest in the development of a comprehensive network of bicycle facilities that serve both transportation and recreation needs. Williamson County residents, on the other hand, have communicated a greater interest in increased pedestrian safety but focus bicycle facilities on recreation, like off-street multi-use trails. Regardless of differences such as these, residents throughout the region value non-motorized transportation and feel that much can be done to make bicycling and walking safer, more convenient transportation choices.

The following recommendations have been identified to improve bicycle and pedestrian connectivity, access, safety, and level of service that address the range of desires expressed by the community. These recommendations are based on an analysis of existing roadway conditions and bicycle/pedestrian crash locations, as well as input provided by area stakeholders and members of the public. The projects are divided into two categories – capital projects and planning/feasibility studies.

The recommended bicycle and pedestrian capital projects, listed below in Table 1, are distributed throughout the region and cover a variety of contexts and purposes. Whether to improve regional connectivity, increase school zone safety, or catalyze economic development in historic commercial districts, these bicycle and pedestrian projects have the potential to impact travel patterns and reposition non-motorized transportation as a viable option within a more diverse multi-modal system. In many cases, the recommendations can be incorporated into larger roadway projects like scheduled overlay and resurfacing projects in order to maximize cost-benefit. The recommended bicycle projects, particularly on Highways 13, 51, and 37, as well as National Bike Route 76, build on recommendations for the study area identified in the Illinois Bike Transportation Plan, an outgrowth of 2012 Long-Range State Transportation Plan, *Transforming Transportation for Tomorrow*.

Table 1: Recommended Bicycle and Pedestrian Capital Projects

Priority	Project	Location	Mode
1	Install continuous, bikeable shoulders and signing on National Bike Route 76 and Illinois Grand Trail Routes (Hwy 13, 51, and 37)	SIMPO	B
2	Continuous, regional multi-use trail facility from Murphysboro to Marion (recreational facility)	SIMPO	B/P
3	Install continuous sidewalk along Grand Avenue from Main Street to Tri-C Elementary	Carterville	P
4	Improve pedestrian safety on Giant City Road at the intersections of Highway 13 and North and South Main Frontage Roads	Carbondale	P
5	Install sidewalk and pedestrian crossings along Morgan Avenue, 17th Street, and Out Drive from North Russell Street to Civic Circle Blvd, creating a continuous pedestrian connection for Marion residents to commercial destinations west of Interstate 57	Marion	P
6	Install continuous sidewalks and pedestrian crossings on N Park Ave (Highway 148) from Herrin St south to W Brewster Rd	Herrin	P
7	Install bike lanes and address sidewalk gaps Highway 37 from Wildcat to DeYoung	Marion	B/P
8	Improve pedestrian safety on Walnut St from 22nd St to 2nd St	Murphysboro	P
9	Install continuous sidewalks and pedestrian crossings along McKinney Avenue from East Main Frontage Road South to East Main Frontage Road North	Carbondale	P
10	Develop east-west spur to existing greenway utilizing existing bridge over adjacent creek and connecting to Lewis Lane and Lewis Elementary	Carbondale	B/P
11	Install continuous sidewalk and bike lanes along Wildcat Road	Marion	B/P
12	Install multi-use trail from the Herrin CUSD 4 Sports Complex to Herrin City Park, incorporating a connection to Herrin High School	Herrin	B/P

Planning studies should be undertaken to more closely analyze current conditions for walking and bicycling and identify specific improvements to enhance safety, accessibility, and connectivity. While some projects are regional in scope, such as the development of a SIMPO bicycle and pedestrian master plan, other studies are local in scale, such as Safe Routes to School plans or streetscape plans for commercial corridors. Whether administered through SIMPO or undertaken independently by individual communities, these recommended planning and feasibility studies can provide the framework for strategic and coordinated investment in walking and bicycling infrastructure for years into the future.

Table 2: Recommended Planning and Feasibility Studies

Priority	Project	Location	Mode
1	Develop regional bicycle and pedestrian master plan for entire SIMPO study area	SIMPO	B/P
2	Develop Safe Routes to School Plans for elementary and middle schools to improve pedestrian safety through infrastructure and education/encouragement programs	SIMPO	B/P
3	Develop complete street plans for commercial districts and corridors to identify and prioritize infrastructure investments that will improve bicycle and pedestrian safety, accessibility, and comfort for pedestrians and function as a catalyst for private investment and economic development	SIMPO	B/P
4	Incorporate bikeable shoulders (minimum five feet) into rural roadway projects throughout the SIMPO study area	SIMPO	B/P
5	Develop trail feasibility studies for greenways along Crab Orchard Creek, Mule Creek, and/or West End Creek, connecting Marion High School and athletic fields, Pyramid Park, Ashley Park, and other significant community destinations	Marion	B/P

APPENDIX B. STAKEHOLDER DISCUSSION AND PUBLIC WORKSHOP DOCUMENTS

Stakeholder Discussion Notes

Group: IDOT

Meeting Date: 12/18/13

General Information

1. The IDOT stakeholder meeting was primarily used to inform IDOT of the feedback we have been receiving at various stakeholder meetings
2. IDOT was surprised by the level of interest shown in fixed route transit service for the region
3. IDOT has recognized the level of interest for cycling as driven primarily by quality of life and recreation uses and has seen a difference in enthusiasm from Williamson County and Jackson County although Carterville leans more positively for cycling.
4. January 30th deadline for submittals on SRTS at 80/20 match – waiting to see if there are applications locally
5. IDOT curious if Beelman Truck Company will integrate rail into their operations through an intermodal transfer facility
6. Multi-modal center at proposed new AMTRAK station in Carbondale is on IDOT radar
7. Marion utilizes Glen Clarida as their local engineer for projects
8. Considering intersection improvements at SR 148 and Rushing Drive with right turn free flow and raised median for east bound on Rushing Drive
9. Continue to see HSIP as opportunity for region projects
10. Giant City @ SR 13 with city-owned Frontage Roads are problem areas in Carbondale
11. Frontage Road to Division Street associated with Wolf Creek Road interchange at SR 13 will have a 10' multi-use facility with a pedestrian overpass of SR 13
12. Discussed Sycamore/College/Crenshaw Road as a regionally significant road that provides parallel alternative to SR 13
13. Discussed 127 corridor improvement and interest in multi-lane route to St. Louis – no money identified to construct
14. SR 13/US 51 intersections in Carbondale are problem areas
15. Discussed multi-use trail on south side of SR 13 connecting Spillway Road to Greenbriar Road moving access to Crab Orchard Campground to Greenbriar via a frontage road.
16. Discussed Carterville's interest in alternative connection to SR 13 via Shawnee Trail and new road connecting to Grand
17. City of Marion extending Sinclair Drive to south frontage road to open up economic development opportunities to south
18. Construction Schedules
    a. SR 13/I-57 interchange July 2014
    b. Wolf Creek Road Interchange end of 2016

All ongoing construction of SR 13 complete end of 2016

Group: Jackson County

Meeting Date: 12/05/13

Modes of Transportation

1. Pedestrian – Quality of life is big in Jackson County – desire to hold SIU students and John A. Logan students – county improvements including 4 foot shoulders when possible – pedestrian crossings on SR 13 need serious attention – University Mall – pedestrian refuges
2. Bicycle – Chautauqua Road utilized but no shoulders - Giant City Road gets use but is not suited for cycling - need to verify national bike route through southwest Illinois – route includes route 76 (Ava Road), Ellis Road, 127, Chautauqua, McLafferty, Pleasant Hill and others – Boskydell Road and Union Hill Road have had some improvements with 4 foot shoulders which will accommodate cyclists
3. Rail – AMTRAK, north/south along US 51, east/west along SR 149
4. Air – SI Airport growth plan
5. Freight – Truck Routes include all IDOT facilities, heavy use around coal mines using route 4 to mine, route 4 to US 51, Route 4 to quarry and Rock Pressure Road (oil & chip facility) – also Chautauqua Road which is an oil & chip road that is hilly and is near Amish residences – talk of bypass to north of Carbondale and Murphysboro although studies did not advance due to lack of through-traffic to west
6. Transit – would like transit stations and fixed routes, but at least would like a one-call service, Carbondale multi-modal transfer center is important to region

Local Transportation Needs

1. Chautauqua Road needs significant upgrades
2. SR 13 and old SR 13 (West Murphysboro Road) bridge construction needed
3. Williams Street / 127 Connector?
4. Expansion of SR 13 to 6 lanes from Carterville to Carbondale
5. "T" intersection at SR 127 and Old Highway 13 during peak a.m. hours is bad
6. Ava Road and SR 127 crossing is tough crossing – left turn movement is problem perhaps due to Jersey barrier inhibiting sight lines
7. Walker's Bluff – Hill Road widening to Reed Station to meet west entrance
8. Gaps in improvements on Reed Station Road
9. Gaps in improvements on Union Hill Road (finish to south)
10. Gaps in improvements on Boskydell Road to US 51

Future Plans that may impact transportation system

1. Southern Illinois Airport improvements – growth area
2. Subdivision developments between Carbondale and Murpysboro, also along Chautauqua Road and south on US 51
3. Oil and gas extraction through fracking

Regional Project Needs

1. 127 to St. Louis expand to 4 lanes
2. Northern alternative around Carbondale tie into US 51 and Airport Road or Dillinger Road
3. Dillinger - Reed Station Road – Lavern - Sycamore – College – Crenshaw – Cedar Grove
4. SR 3 to SR 127 from Cape Girardeau

Funding options utilized – STR resurfacing about 300K/year, MFT for micro-surface work (woefully underfunded), property tax revenue for townships and some MFT but not enough, HSIP grants have been a tremendous resource for the county

<u>Group: Williamson County</u>

Meeting Date: 11/26/13

Modes of Transportation

7. Pedestrian –
8. Bicycle – constructing additional facilities is a maintenance concern
9. Rail – Burlington Northern Santa Fe (BNSF) primarily coal, Canadian National primarily chemicals including oil – crossings of union Pacific and Lake of Egypt Road getting rebuilt; Crenshaw Road crossing deteriorates quickly – crossings at SR 13 cause problems (crossing east of I-57 will remain a problem)
10. Air – Ryan Drive important to Williamson County Airport
11. Freight – county has multiple truck routes identified – active coal mine traffic places biggest burden on roads to Southern Illinois Power Company – SR 37 (north/south), Lake of Egypt Road (east/west), SR 166 (north/south), and Corinth Road (east/west)
12. Transit –

Local Transportation Needs

11. Maintenance of county highway system is challenge with over 100 miles of hot –mix roads and MFT revenues decreasing
12. Crenshaw Road improvements – road extends through multiple jurisdictions posing challenges to improve entire stretch from Energy (East College Street) to SR 37 (Cedar Grove Road)
13. Lake of Egypt Road including deck of dam
14. Stonefront Road and Saraville Road improvement needed – outside urban area
15. Skyline Drive from SR 13 to Crenshaw Road needs improvements and when landfill starts will receive much more pressure – concerns about possible road vacation request on Crenshaw due to landfill
16. Thompsonville Road gravel portion needs to be hot-mix facility – between Thompsonville and SR 13
17. Spillway Road curve concern south of Crab Orchard Lake

Future Plans that may impact transportation system

4. Marion Regional Landfill
5. Carterville and Crainville growing
6. South Marion growing
7. SIU workers – many live in Williamson County
8. Walker's Bluff – tourism destination in northwest of Cambria – Meridian Road and Vermont Road – flooding concerns with the Big Muddy and low area on Vermont Road – look at possible alternative access to west via Vaughn Road
9. Planned and funded improvements to roads include: Pittsburg from SR 13 to Pittsburg; Bandyville Road from Stotlar Road to Herrin Road; and Cambria Road north of Cambria to Herrin Road

Regional Project Needs

5. Old SR 13 (Main Street) from SR 13 to SR 148 is seeing much diverted traffic and expect much to stay

Funding options utilized – SDR for hot-mix, HVP for bridges, MFT for Chip & Oil, property tax levy, and HSIP safety projects

<u>Group: City of Carterville</u>

Meeting Date: 11/26/13

Modes of Transportation

13. Pedestrian – local sidewalk improvements needed, sidewalks along West Grand near schools
14. Bicycle – recreational uses associated with the Crab Orchard National Wildlife Refuge – on frontage roads along SR 13, Greenbriar to West Grand (attached bike path) – cyclist use Greeebriar, Shawnee Trail, John A, Logan campus, Spillway Road and Old SR 13 to west and south of SR 13
15. Rail – outside city limits
16. Air – not close enough to impact
17. Freight – There is some pass through on Division Street (north/south) some use Division to avoid SR 148 which is patrolled heavier
18. Transit – would like fixed route system that ties into Carterville

Local Transportation Needs

18. West Grand Avenue – Cambria Road to SR 148 is major transportation corridor – improvements
    a. South Dent to Greenbriar
    b. Greenbriar to high school
    c. If western alternative to SR 13 comes to fruition, the portion of West Grand to Cambria Road may not need improved
    d. Hot Spots
        i. West Grand and Greenbriar Road – need pedestrian crossing improvements

ii. West Grand and South Division Street - need pedestrian crossing improvements

19. Alternative north/south road from West Grand, west of high school property, to SR 13 utilizing a portion of Shawnee Trail to make the final connection
20. Improvements to South Greenbriar between West Grand and SR 13 – not currently federally-eligible road
21. Improvements to North Division to Sycamore
22. Tippy Road extension from Trails End Road through John A. Logan campus to Shawnee Trail provide parallel alternative to SR 13

Future Plans that may impact transportation system

10. Bedroom community – foster this while enticing additional business development
11. TIF district at SR 13 and Spillway Road – annexed this area by jumping the refuge property
12. TIF district in downtown along Division Street
13. Wolf Creek Road interchange at SR 13 will provide frontage road system to Main Street in Crainville
14. REDCO Development area at abandoned ordinance plant between Wolf Creek Road and SR 148 south of SR 13
15. South Division Street conversion to more commercial uses
16. South Division Street to south of SR 13 will have growth potential

Regional Project Needs

6. Complete expansion to 6 lanes on SR 13 from Carterville to Carbondale
    a. Cambria Road Intersection – if an alternative route on west side of high school from West Grand to SR 13 comes to fruition Cambria Road access needs and traffic change
7. Sycamore Road improvements from Carbondale (Dillinger Road) to Carterville to Energy to Marion (Crenshaw Road) – major crowning problems, rough road, narrow and little to no shoulders
8. North Main Street out of Crainville to East Grand carries heavy traffic and is not adequate in condition, width, surface type, etc.

Funding options utilized – SRTS, Motor Fuel Tax (MFT) – primary, Local Gas Tax (2 cents on gallon) goes into general fund, ITEP – IDOT Transportation Enhancement Program, STU – Surface Transportation Urban

Group: City of Carbondale

Meeting Date: 12/13/13

General Notes

1. City of Carbondale is enthusiastic about the opportunities the MPO brings to their region
2. The city's comprehensive plan includes an entire chapter on transportation
3. City does not have an ADA transition plan or compliance officer identified
4. Flat population growth in recent past
5. Recent and future expected residential growth on west side of city, some north along Reed Station Road and some multi-family on east side of city

Modes of Transportation

1. Pedestrian
    . the city has a good network of sidewalks within the traditional grid
    a. intersections are ADA compliant
    b. budget approximately $90,000 annually for sidewalk maintenance and improvements
    c. the downtown one-way pairs east/west with SR 13 and north/south with US 51 do provide some pedestrian challenges, but it is perceived more as a business/economic development problem
2. Bicycle
    . the city has a good grid of wide city streets that will make good candidates for bike lanes
    a. they are in process of identifying 2 to 3 north/south and east/west roadways parallel to SR 13 and US 51 for bike lanes
    b. over 60% of population are from millennial generation
    c. Do have some bike lane striping in city but is fragmented at this time
    d. Secured ITEP grant to construct phase I of a dedicated multi-use path along the rail line through city using 65' wide portion of former railroad r/w – phase I runs from the town square to the Mill Street underpass – phase II runs from Mill Street to SIU
    e. SIU beginning to see a smaller percentage of incoming students with cars on an annual basis
    f. Former CN rail bed from Carbondale to Murphysboro has been abandoned
    g. the city is developing a bike/pedestrian multi-use trail from North Oakland Avenue to New Era Road along this rail bed (approximately 2,000')
    h. also can tie into a future bike/pedestrian facility associated with SR 13 (approximately 7,000')
    i. could be extended to Murphysboro over time
    j. existing greenway from Grand Avenue to Walnut east of Wall Street needs resurfaced and lighting – built in 70s
3. Rail
    . AMTRAK passenger service with station

a. Canadian National owns the rail line
b. 16 to 20 trains/day run from Chicago to New Orleans
c. CN rail line does have a siting stop in rail yard north side of town for coal company – not currently used
d. Intertech Polymer plant looking at possible spur at their location in north industrial park
e. CN line not currently a major economic driver for industry
f. Multi-modal transfer station serving AMTRAK, Greyhound, Saluki Express, Rides Mass Transit, Jackson County Mass Transit and possibly others is the highest priority project for the city at this time
g. The Carbondale to Chicago line is slated to be upgraded to a high speed line but that is well into the future
h. Community believes an AMTRAK route from the region using the old CN line from Du Quoin to St. Louis should be under consideration for the long-term future of passenger rail travel in the region

4. Air
   . the city sees the Southern Illinois Airport as a major development opportunity and is advocating for additional improved access to the airport from US 51 via Airport Road
5. Freight
   . SR 13 and US 51 are the primary truck routes in the city
   a. the city does not have a large industrial base so truck traffic is not a significant issue
   b. the industrial park areas north of town on both sides of US 51 do see some truck traffic
6. Transit
   . Saluki Express has fixed route and schedule serving student (free) and local (@ $1/ride) populations
   a. City pays $15,000/year to keep service running while school is not in session and to allow local ridership
   b. 7 routes with approximately 1 hour or less headways (3 have 20 minute headways)
   c. One route goes as far north as SI Airport to transport to Aviation and Automotive Training facilities
   d. No bike accommodations on the buses – do have lifts for handicap accessibility
   e. Saluki Transit is a separate service which is for student population only and is a call demand service

Local Transportation Needs

23. Frontage roads on east side of city on north and south side of SR 13 at North Giant City Road crossing are serious congestion and safety concerns – ADTs on north frontage is 15,400, south frontage is 13,500 and SR 13 is 35,000 (between South Reed Station and North Giant City Road); SR 13 through city is approximately 24,000 ADT on both directions of one-way split
24. Giant City Road / SR 13 intersection and associated frontage roads intersections are a mess

25. Signal timing/progression through city is challenging, especially when trains force the system to recycle – 36 signalized intersections in city – 4 belong solely to the city while the rest are shared with IDOT under a maintenance agreement
26. Intersection of New Era Road and SR 13 has bad back-ups in morning – IDOT issue
27. Giant City Road from SR 13 to Grand Avenue has become part of the "showcase" entry for SIU and is need of upgrades
28. Intersections at Mill Street, South Illinois (US 51 NB), South University (US 51 SB) is problematic – was improved in 2001 but still a problem
29. If US 51 one-way pair (University Avenue SB and Illinois Avenue NB) is converted back to two-way travel with Illinois or University becoming Business 51 Alternative, the above-mentioned intersection could be even more challenging
30. Expand Oak Street east from Wall Street to Lewis Lane at Rendleman Road
31. Extend West Sycamore to northwest to tie into Ramada Lane and close intersection with SR 13 – Ramada Lane runs to New Era - the intersection of SR 13 with New Era is better – Sycamore currently ties into Emerald Lane at SR 13
32. Charles Road to Oakland Avenue needs improved to serve new hospital - ?
33. Pedestrian crossing at Grand Avenue and South Illinois Avenue (US 51) is dangerous because student population assumes cars on South Illinois will stop – is pedestrian refuge in middle of South Illinois on south side of Grand
34. At-grade crossing of SR 13 between Giant City Road and McKinney Avenue at US Post office is on IDOT books for next summer
35. IDOT looking at multi-use path between Sycamore/Emerald and New Era on north side of SR 13

Future Plans that may impact transportation system

17. Downtown TIF district to support development of the Multi-modal Transfer Station

Regional Project Needs

9. Completion of SR 13 to 6 lanes from Carterville to Carbondale
10. Better connection from Murphysboro to St. Louis utilizing the 127 corridor or at least expand US 51 to 4-lane to I-64
11. Upgrades to Dillinger Road to Laverne Road to Sycamore Road and well to the east as a second alternative to SR 13 for east west county to county travel

Funding options utilized

1. Local 2 cent/gallon Improvement Fund – approximately $300,000/year – most is obligated for bond debt which should pay off in 2017
2. MFT – approximately $700,000/year of which $400,000 is obligated for bond debt too
3. SRTS – ITEP – IDOT Safety – STU
4. TIF District for Multi-modal Center

Group: City of Herrin

Meeting Date: 12/03/13

Modes of Transportation

7. Pedestrian – ADA compliance for sidewalks is an issue, Logan Park has no pedestrian facilities, multi-use path associated with construction of South Connector Road
8. Bicycle – little to no interest in community - recreational at Tunnel Hill and Shawnee National Park perhaps linking with Rend Lake
9. Rail – city owns line through town (short line) and leases it to CO & E – connects to the industrial park – rail crossing improvements will be needed at various locations throughout city and repairs to actual rail line
10. Air –
11. Freight – primary roads include SR 148 (Park Avenue), East Stotlar is class 3 truck route, Bandyville Road and Herrin Road
12. Transit – would prefer fixed route with identified stops possibly at Herrin Hospital, Logan park, City Hall, Walmart/Kroger

Local Transportation Needs

36. Rushing Road is already pressured and expanding the medical park will increase the pressure
37. South Connector Road – from Grand to Fleming/Rushing Drive – funding for phase 1 was available (1/2 mile) – phase II takes it the rest of the way to Grand
38. Signal at Rushing and 148 (South Park Avenue)
39. SR 148 south of Clark Trail near Walmart is a safety concern with no identified resolution – Brewster Road signal has been considered with timing to allow Walmart traffic onto SR 148 – IDOT project
40. Aging infrastructure including roads, water, wastewater is problem

Future Plans that may impact transportation system

18. Wolf Creek interchange on SR 13 will have regional impacts
19. Maytag Property – reuse of the facility
20. Anticipated build out in medical park around new South Connector

Regional Project Needs

12. SR 13 to Carbondale
13. Herrin – Colp Road between Herrin and Colp needs resurfaced
14. Herrin Road to East - reconstruction with grade crossing of RR and realignment (is state road)

Funding options utilized – STP (legislative money), EDP, TARP, DECA, STU, MFT (resurfacing), and residential TIF district

Group: City of Marion

Meeting Date: 12/04/13

Modes of Transportation

13. Pedestrian – ADA compliance is issue – making improvements in city – many sidewalks in bad shape - pedestrian crossing on West Main (old SR 13) from Pepsi to Moto Mart is dangerous crossing
14. Bicycle – no off street bike paths
15. Rail – crossings at SR 13 cause problems (Union Pacific crossing east of I-57 will remain a problem after SR 13 improvements completed) – safety concern for city, especially with no fire station on east side of tracks… have land but not funding to construct station
16. Air – Terminal Drive belongs to airport wants city to take it over
17. Freight – Fair Street and Skyline Drive are truck routes
18. Transit – want fixed routes but don't want to share STU dollars

Local Transportation Needs

41. Traffic signal needed at OLD SR 13 (East Main/Norman) and SR 13
42. Intersection improvement at West Boulevard and Russell Street
43. Area around Marion High School - need new road from South Carbon to South Fosse Road
44. New road between South Market and SR 37 just south of Wildcat Road
45. Morgan Avenue improvements west of I-57 to 17th Street intersection
46. Extend Halfway Road south to Westminster Drive
47. Frontage Road extension between Heartland and Ike Honda (Heartland Street)

Future Plans that may impact transportation system

21. Star Bond Development District - Morgan Avenue north of SR 13 both sides of I-57 interchange
22. Future annexation plans to square off city limits
23. Morgan and Russell upgrades underway

Regional Project Needs

15.

Funding options utilized – MFT used for major projects, Local Gas Tax used for resurfacing, bridges and sidewalk improvements ($40,000/month), STU, DECA

Group: Towns/Villages

Meeting Date: 12/30/13

Villages Represented

1. Colp: population approximately 250
2. Cambria: population approximately 1300
3. Crainville: population approximately 1300

Modes of Transportation

19. Pedestrian
    . Colp: No Sidewalks
    a. Crainville: funding to maintain existing sidewalk infrastructure is inadequate – there are a number of deteriorating sidewalks – there is a demand for facilities to accommodate walking and running
    b. Cambria: have sidewalks but they are old and in need of repair – recently installed about a quarter mile of new sidewalks
20. Bicycle
    . Cambria and Crainville believe residents would use facilities if they had them but they don't currently have any
21. Rail
    . Cambria and Crainville have abandoned rail lines running through them but the tracks were pulled and property was sold back to adjacent property owners
22. Freight
    . Crainville: have a few issues with freight primarily associated with American Magnetics on Jackson Street manufactures transformers and hauls materials and finished products
    a. Colp: trucks hauling to and from the De Soto landfill on Herrin-Colp Road through Blairsville north on Cambria Road to Hurst then west on Russell Street (149) to De Soto
23. Transit
    . Cambria: believe there would absolutely be used if a fixed route included their community
    a. Crainville: believe there would absolutely be used if a fixed route included their community
    b. Colp: don't see a real need
    c. All see the one-call service as helpful for their communities

Local and Regional Transportation Needs

48. Crainville: as growth occurs they expect Samuel Road from Grand to SR 13 to carry more and more traffic and will need improvements – portion from Marion Street to SR 13 is oil & chip and surface in pretty good shape – rest not

49. Crainville: with construction of Wolf Creek Road interchange and closing of Main Street/SR 13 intersection driving patterns will change, development will occur and other road improvements may be necessary
50. Colp: four-way stop at Herrin-Colp and North Mayor Caliper Drive/Clifford Road needs LED lights on stop signs
51. Cambria: intersection of Cambria Road and Sycamore Road needs a flashing light to warn Sycamore Road drivers of upcoming stop condition
52. Sycamore Road corridor is heavily used from Cambria to Energy and beyond in both directions

Funding

1. Crainville: utilize MFT and have a 1% sales tax fund which generates about $20,000/month
2. Cambria: utilize MFT but their 1% sales tax fund only generates about $20,000/year – work in conjunction with county to address oil & chip roads north/south one year and east/west the other
3. Colp: utilize MFT and work with county

<u>Group: SIU and JAL</u>

Meeting Date: 12/13/13

Modes of Transportation

24. Pedestrian – Mall area and near Walmart is not well-designed for pedestrian access
25. Bicycle
    . both would like to see a bike trail from Marion to Carbondale parallel to SR 13
    a. both are seeing more people on bikes
    b. see cyclists on South Illinois Avenue from 13 to Pleasant Hill Road
    c. SIU in support of multi-use trail from AMTRAK Station and downtown to campus
    d. SIH Center for Medical Arts on west side of Carbondale needs bike access
    e. Both sides of Greenbriar Road in Carterville has bike facilities
26. Freight – blocking local streets in Carbondale for local deliveries is minor problem
27. Air
    . SI Airport integral part of SIU and future economic development in Carbondale/Murphysboro area – support need for better access to/from US 51 to airport
    a. Would like to see additional flight options to other cities, such as Springfield coming out of Williamson County Airport
28. Rail
    . SIU: AMTRAK is major asset for university as it relates to students traveling to and from home and to Chicago – estimates indicate nearly half of Siu students live within the "Saluki Corridor" between Carbondale and Chicago – as much as 85% of Carbondale ridership on AMTRAK associated with SIU
    a. SIU: Would like to see passenger rail to St. Louis as well

b. JAL: rail crossings in Marion, especially one on east side that will remain after SR 13 construction are minor inconvenience for commuters

29. Transit
    . JAL would like a better arrangement for to and from transfer of students from Jackson County via transit for school purposes
    a. Better coordination between Rides and Jackson County Mass Transit services would be helpful to both
    b. SIU and City of Carbondale have good working relationship associated with Saluki Express

Local and Regional Transportation Needs

1. Entrance/exit to JAL campus needs major improvements
    a. looking at Tippy Road extension from east to campus providing direct route to Division Street
    b. Greenbriar access intersection is challenging for left turn movements onto Greenbriar
2. West Grand Avenue problems associated with the new schools actually causes problems for JAL students coming to campus from north
3. Intersection of Giant City Road and Pleasant Hill Road in Jackson County south of SR 13 getting more pressure
4. Intersection of US 51 and SR 149 (De Soto Road) is 4-way stop that has long back-ups when SIU and JAL in session

Future Plans that may impact transportation system

24. JAL Master Plan calls for additional training center and buildings that would be on Tippy Road side of campus – expecting significant student population growth in the foreseeable future
25. SIU as the largest freshman class in the past twenty years and is expecting to expand campus facilities and reconstruction of some residential units

<u>Group: Education Group</u>

Meeting Date: 12/18/13

General Information

19. Cary Minnis discussed SIMPO functions and operating budget – noted the schools should look closely into the ramifications for the region status changing from rural to urban – he indicated the Carbondale/Marion region is qualified as a Metropolitan Statistical Area (MSA) and will now have additional information that could be useful for the schools when applying for funding and grants
20. The group generally agreed the major thoroughfares, primarily state facilities, were in good shape but noted that a number of oil & chip and dirt/gravel roads their buses travel are not in good shape, are not adequate in width and are challenging for bus travel

21. Each saw the long-term benefit of fixed-route transit as a potential way to relieve some of the burden to their tight transportation budgets, but realized this was only viable as an alternative when routes and schedules were regular and headways were minimal
22. Schools required to provide bus transport outside a 1.5-mile radius of schools and in those circumstances when adequate walking facilities are not available
23. State fund for transportation has reduced by 60 % in recent years
24. Very few kids ride bikes to school throughout region
25. Each saw value in improvements and additions to bicycle facilities for recreational purposes and quality of life issues
26. There is a strong demand for walking to school but a recognition that improvements to existing sidewalk facilities and new sidewalks are needed in each community
27. Schools willing to send out surveys to families in their districts to garner additional information about transit needs and wants

Herrin

5. Utilize 1% sales tax capture for infrastructure improvements on and around school grounds (within 1,000')
6. Are seeing more multi-family residential groupings in the City of Herrin in the recent past
7. Access to rural households for busing is challenge
8. Schools have widened roads, installed traffic signals and constructed sidewalks using sales tax revenues
9. Herrin still has some brick roads and a number of needed sidewalk improvements and extensions – are using TIF revenues to help on this front
10. Some bikers at Middle School – none at elementary school (no sidewalks or multi-use facilities) and none at high school
11. Many walkers except for elementary schools
12. Herrin Street/Road is a regionally important road that needs improvements
13. Stotlar Avenue needs sidewalks
14. Some new subdivisions do not have sidewalks
15. Signalized pedestrian crossings at SR 148 are needed
16. People bike at the sports complex
17. Sidewalks within 1.5-mile radius of schools are priority
18. Multi-use trail from sports complex to Herrin City Park would be nice improvement

Marion

1. Have pockets of lower income populations that may use transit as an option for school transportation if subsidized
2. Carbon Street congestion is bad – street is narrow – some sidewalk improvements occurring
3. New high school will be located closer to SR 37 – improvements to Wildcat Road and sidewalks/trail facility along SR 37 and Wildcat Road would be nice improvement

4. Extending Halfway Road south to Westminster Drive would provide a much-needed alternative access from the north and west of Marion
5. Have many walkers to their schools
6. Neighborhood schools have adequate sidewalks and/or the city has been improving those that are insufficient

Carterville

1. Greenbriar/West Grand intersection needs signal
2. No pedestrian crossings at Division, especially Grand and Division
3. Experiencing large growth in student populations
4. Division needs sidewalk improvements
5. No sidewalk facilities along much of West Grand – road is narrow with roadside ditches
6. Transit access for rural populations to destinations such as the library would be beneficial
7. Alternative road to SR 13 along west side of new schools to Shawnee Trail is high priority – Grand to Cambria is not the preferred alternative access option
8. Very few bikers to any school in system
9. Many walkers to the schools despite some of the challenges
10. Two subdivisions (Greenbriar and Twin Lakes) within close proximity of elementary school have no sidewalk access to school

Group: Transit – Rides Mass Transit

Meeting Date: 12/19/13

Transit Discussion

1. One-Call Service Update
    a. Board of directors is formed
    b. Funded through New Freedom Grant
    c. Stakeholders include heartland, SIH, Shawnee, SIU
    d. SIU applied for money – 2-year grant to establish a user fee standard
    e. Includes Rides, Jackson County, SMART, and South Central
    f. Serve 13 counties along SR 13 corridor medical facilities only until reach a critical mass at which point the service could be expanded beyond non-emergency medical transport
    g. Will be gathering data during trial period to assist analysis of future fixed route studies
2. RIDES
    a. Deviated route – point deviation system – is not solely an “on call” service
    b. Have secured funding for transfer center to be constructed near VA Medical Center – money not yet in hand and center not yet designed
    c. See opportunities for joint collaboration through SIMPO using either funds (road or transit) for improvements that accommodate transit needs
    d. Currently funding cannot cover fixed routes
    e. No local taxes support transit services

f. Downstate transit fund covers approximately 65% of operating expenses (5311 rural transit – will change since not rural anymore)
g. Baseline appropriation was $200,000 with 10% annual inflation for Williamson County
h. Current state allocation for transit dollars to Williamson and Jackson counties is approximately $480,000 for WC and $350,000 for JC which was allocated on a per capita basis by the MPO – this will be revisited annually
i. Fares cover about $350,000/year of the $9.2M operating budget for RIDES
j. Point deviation provides flexible routes with work-through zones and limited stops
k. As time passes and ridership increase, the idea is to reduce the point deviations to become a more fixed route with lesser headways
l. The necessary infrastructure including transfer centers in Williamson County and Jackson County, along with stops, benches and possibly even covers for weather purposes need to be in place before starting the fixed routes
m. Road system does not currently provide major challenges for transit operators

3. Ridership opportunities raised at previous stakeholder meetings
    a. Seniors for healthcare
    b. Young pre-drivers to entertainment opportunities like the mall
    c. Workforce accessibility
    d. SIU and JAL students
    e. Urban areas within 1.5-mile radius of schools provided this is within the law
    f. After hour school services
    g. RIDES would like to see the schools get involved in stakeholder meetings for transit services

<u>Group: Rail and Air</u>

Meeting Date: 12/05/13

Special Notes:

- Progressive Rail recently purchased CO&E and is the owner/operator of 6 short line railroads in the Midwest. They also have been working with the City of Herrin to operate rail service on the line running through the city. They have interchanges with both BNFS and Union Pacific and have a transload intermodal facility on the east side of Marion. This facility transfers freight on and off rail cars and semi-tractor trailers for distribution to and from local markets.
- Williamson County Regional Airport once served as an air cargo distributor working with Airborne Express. That service was discontinued when DHL bought out Airborne. Currently Cape Air provides direct flights from Marion to St. Louis and back. The airport is poised for future expansion owning over 120 acres of property west and north of the runway along Ryan Drive and College Street. Also looking at uses for former Airborne Express building perhaps to offer a future leisure service through a provider such as Allegiant Air.

- Southern Illinois Airport was unable to attend the meeting due to weather concerns but arrangements have been made to secure a copy of the growth plan recently completed. The plan identifies road upgrades and needs to serve their identified growth needs.

Modes of Transportation

30. Pedestrian –
31. Bicycle –
32. Rail –REDCO industrial site east of Williamson County Regional Airport has interest in rail spur and access to BNFS for future economic development opportunities – Jordan Buck explained how that process could work
33. Air –
34. Freight – Transload operations are extremely important to CO&E (Progressive Rail) – as such, freight access to north-south-east-west is vital. Future development in the region necessitating freight hauling and material distribution will benefit CO&E – transportation improvements to serve freight will only benefit their operations
35. Transit – Williamson County Regional would like to see a fixed route service with pickup/drop-off at the airport

Local and Regional Transportation Needs

53. Completion of six lanes on SR 13 to Carbondale
54. West entrance to airport from Ryan Drive and on to SR 148 (future development)
55. Improvements to City of Herrin rail line including road crossings

Future Plans that may impact transportation system

26. Southern Illinois Airport growth plan
27. Future industry development requiring short line rail service
28. Expanded air services from WCRA including flights to Chicago and/or tourist destinations along with growth to the west of runway

<u>Group: Medical Providers</u>

Meeting Date: 12/19/13

Modes of Transportation

36. Pedestrian and Biking
    . Lack of facilities throughout the region is problem for both walking and biking
    a. Recreational trails are major interest yet not enough of them
    b. Alarming to see people cycling on SR 13
    c. Carbondale is starting to place emphasis on biking
    d. Sidewalks near SR 13 in Marion are non-existent and many need to walk to commercial areas without safe opportunity

e. Lack of sidewalk and biking facilities near many schools in region is evident
f. John A. Logan is a draw for walkers and bikers although the facilities are limited in that area
g. Healthy Communities Initiative is identifying "safe areas" for walking and biking and are struggling to find adequate facilities

37. Transit
    . SIU RMTW: medical transportation one-call center involving the VA, Shawnee Hospital, SIH and Heartland
    a. Key persons include case managers, emergency room directors, mobility managers
    b. One-call service for non-emergency medical transportation services
    c. Should be up and running by middle of March 2014
    d. Currently is an absence of a common level of service for patients throughout the multi-county region
    e. Effort to get people to quit using ambulance service for a taxi service
    f. Also a major challenge for psychiatric patient runs to mental health providers
    g. Will involve and require coordination between RIDES, Jackson County Mass Transit and Saluki Express
    h. Perhaps eventually serve medical staff needs of transportation to work during inclement weather
    i. Nursing homes would be another user of the system
    j. Eventually even employers, day care centers, schools, etc.
    k. Need the physical infrastructure in place for transfer of rider to and from bus
    l. Transfer families to trauma centers

Local and Regional Transportation Needs

1. Emergency preemption signaling at SR 13 and other critical intersections nearest emergency facilities
2. Rail crossing of SR 13 on Marion east end
3. Signal coordination in Marion is not good
4. General lack of full-time planning staffs in region is evident
5. Redundancy in vicinity of Crab Orchard Lake with east/west access is concerning for disaster evacuation

<u>Group: Economic Development</u>

Meeting Date: 12/04/13

Modes of Transportation

38. Pedestrian – 3 lane one-way facilities in downtown Carbondale pose challenge for pedestrian crossings (SR 51 and SR 13)
39. Bicycle – region is not bicycle-friendly – with pedestrian facilities, additions would provide quality of life improvement which are essential to attract economic development

40. Rail – Canadian National through Carbondale (AMTRAK) uses this facility – possible intermodal facility; Carterville Industrial Park near Wolf Creek Road interchange REDCO property can be served by CO & E
41. Air – Southern Illinois Airport growth plan looks at road improvements south of airport on Airport Road and others
42. Freight – complete expansion of SR 13 to Carbondale, state routes in good shape
43. Transit – nobody knows it exists – no identified stops, no signs, no fixed routes need transfer centers – possibly at Marion VA Center – shuttle services to employment centers – Star Bond development – multimodal transfer station at AMTRAK station in Carbondale
44. Ports – continue to promote development opportunities that would support the expansion and/or opening of the Metropolis and Cairo ports
45. Complete Streets – IDOT program – consider allowing a banking program where identified projects with associated multi-use paths could "bank" dollars for multi-use work in other locations that provide better connectivity, i.e. crossings on SR 13 – reduce piece-meal approach at multi-use facilities

Local and Regional Transportation Needs

56. Rail crossing of SR 13 east of I-57 in Marion is problem
57. Morgan Avenue is improving but need to look at extending frontage road system to stretch from SR 148 to SR 37 with no gaps
58. Pedestrian crossing improvements in downtown Herrin needed
59. 3 lane one-way facilities in downtown Carbondale pose challenge for pedestrian crossings (SR 51 and SR 13)
60. Parking in downtown areas, especially in Carbondale around AMTRAK station
61. Brewster and SR 148 in Herrin near Walmart is problem area
62. Rushing Drive and SR 148 (South Park Avenue) near medical park is congested and looks to get worse if development continues – South Connector/Ritter Road project could provide alternative access options
63. Carbondale – frontage road on north and south of SR 13 just east of split to Giant City Road is overloaded with traffic
64. Wildcat Drive at SR 37 in Marion needs traffic signal
65. Morgan Avenue in front of Black Diamond to 17th Street area is congested
66. Old SR 13 (East Main Street) is seeing significant traffic and has potential for additional development
67. Carbon Street in Marion near high school is problematic during peak hours – young drivers too
68. Access to SR 51 near Murphysboro from Airport Road is needed to support expansion plans
69. AMTRAK currently the only connection to St. Louis requires riders to go to Centralia then bus to St. Louis – is there another possibility
70. IDOT facilities support vehicular travel well… not so much when it comes to pedestrian and biking.

71. Walker's Bluff – Reed Station Road from SR 13 to Vaughn to Vermont at Meridian Road – consider access road to west of parking lot to Vaughn Road
72. Laverne, Sycamore, College, Crenshaw, Cedar Grove west /east connectivity – improvements needed along route

Future Plans that may impact transportation system

29. Star Bond Development District - Morgan Avenue north of SR 13 both sides of I-57 interchange
30. Southern Illinois Airport growth plan
31. Industrial Park south of SR 13
32. Free Trade Zone classification
33. Expanded air services including flights to Chicago and/or tourist destinations

<u>Group: Realtors</u>

Meeting Date: 12/30/13

Modes of Transportation

46. Pedestrian
    . Lack of subdivision design requirements mandating sidewalks has led to many new subdivisions without sidewalk access
    a. Are generally concerned that the current market and perhaps even future will inhibit ability of developers making enough margin on lot/home sales in subdivisions to justify the added expense
    b. However, there is a recognition that quality of life expectations of perspective buyers is there should be facilities for recreational purposes provided throughout communities and that this is not well served at this time
    c. Believe a plan needs developed with each local municipality demonstrating a commitment to repair/retrofit existing sidewalk infrastructure along with needed upgrades of curb and gutters and other stormwater problems
    d. Feel both young "move-in" families and aging baby boomer population have expectations that quality of life issues should be addressed
    e. Some Herrin schools lack sidewalk access especially from nearby subdivisions
47. Bicycle
    . Envision a multi-use trail extending from Marion to Carbondale either weaving through communities along the route or with at least "spurs" to each
    a. Appreciate improvements to SR 13 and look forward to completion from Carterville to Carbondale but believe the facility will not make a good alternative for cyclist to travel between cities… even if travel lanes are provided on the highway
    b. Similarly, they believe the facilities within the communities should avoid integration with major thoroughfares as much as possible
    c. Believe that aging baby boomers will be looking at lower speed alternative mobility options such as golf carts that could possibly be accommodated on a multi-use facility

d. Grassy Road south of Crab Orchard Lake is part of the national bike trail and is used by cyclists, but it is a dangerous facility for this (hilly and narrow)
e. During strategic planning efforts in Herrin, participants identified walking and biking facilities as a priority

48. Rail
    . Asked about potential for higher speed passenger rail from Harrisburg to Murphysboro, a "river to river" line… Dustin indicated that a more likely long-term possibility would be a Bus Rapid Transit line along SR 13, but that even something like that would have to be heavily subsidized – he went on further to indicate that there are nearly no examples nationally where public transit options of any type could survive without heavy subsidies
49. Air
    . Raised question about how the Mid-America Airport in O'Fallon has not expanded into what was originally expected and whether or not support from this MPO and/or plan could support their efforts… indicated it was well outside the MPO region and the scope of this effort
50. Freight
    . Hwy 37 south of Marion near power plant is pressured with trucks
    a. Hwy 148 from Lake of Egypt near power plant to Herrin is pressured with trucks
    b. See freight hauling becoming a bigger problem as industry base increases
51. Transit
    . Feel a more robust service is needed
    a. Feel there needs to be "terminals" or transfer centers in logical locations in Marion and Carbondale, and perhaps John A. Logan
    b. Workforce development recognizes a need for fixed route service to address anticipated long-term needs in providing transportation to and from work for those that have limited mobility opportunities

Local and Regional Transportation Needs

73. Identified the need to extend Halfway Road to the south through to Winchester Road to provide alternative route to south side of Marion and to reduce pressure off existing options
74. Noted that the Morgan Avenue/17th Street corridor in Marion is already a nightmare to travel and that future development in that area is going to make this a major traffic concern – feel it is very important to extend Morgan to SR 37 to allow better access to and across SR 13

Future Growth Areas

1. Carterville is the main growth area at this time and the consensus is this will continue into the foreseeable future
2. See growth in Marion as strong and expect that to continue as well, especially to the north and east
3. Expect growth in Herrin to be steady, but not significant

4. Believe Carbondale is losing population and that they will not capture a significant share of the future growth in the region... attribute it somewhat to the more stringent subdivision design restrictions/requirements

Public Workshop Summaries

Marion/Williamson County Workshop

SIMPO Multi-Modal Transportation System Assessment
Public Workshop SWOT Analysis
Wednesday, March 19, 2014

Strengths

1. Flights to St. Louis via Cape Air out of Williamson County Regional Airport
2. Good transit provider in Williamson County
3. Commitment of money to improve Route 13 both public and private dollars
4. State of Illinois provides significant support, financially, to public transit
5. Good local support from IDOT, including good engineering support
6. Region moves cars well
7. Great short-line rail provider
8. Transportation assets all converge in Marion providing huge development potential, especially on prime real estate along the extensive frontage road system

Weaknesses

1. AMTRAK trains often late from identified schedule
2. Local airports don't provide flights to other locations besides St. Louis
3. No passenger rail service from Marion to Chicago – which was in existence MANY years ago
4. Construction frequently presents traffic nuisances/annoyance which lead to safety hazards
5. Holes in broadband service hinder development
6. Local governments do not have enough state-supported revenue to maintain the transportation system.
7. Maintenance of roads, water and sewer infrastructure is inadequate – many condition issues
8. History of lack of attendance at public meetings – general apathy from the public
9. Transit stops are not identifiable – "can see the buses, but don't know where to get on one"
10. Maintenance of roads from curb to curb is challenge enough, let alone adding sidewalk maintenance to the mix – simply not enough money
11. Current transportation system does not move people via walking and biking well and lack a good system of multi-use trails to accommodate this need
12. No good crosswalks through Marion and existing sidewalks and ramps often are not ADA-compliant
13. State Complete Street Policy isn't "complete" – i.e. proposed connection from Rushing Drive to Route 148 to Division Street in Carterville is planned with bike lanes and sidewalks without connections on the "ends" – and policy is inflexible and does not allow for banking bike lanes, sidewalks, and multi-use trails for more logical applications that WOULD "complete" connections

14. Lack coordination between county and city on zoning and subdivision controls so annexation leads to bringing in connection gaps, especially with sidewalks
15. New subdivision developments are not required to install sidewalks
16. State of the national economy is challenging local community's ability to generate revenue, grow and prosper
17. The Route 13 bridges over Crab Orchard Lake lack "redundancy" – i.e. if an emergency forced a bridge to shut down, movement of people and goods from one end of the region to the other would be compromised
18. Railroad on east side of Route 13/Route 37 intersection (Union Pacific) bisects the entire city and there are frequent occurrences when long trains block one side of the city from the other for extended periods of time (15 minutes or more) – no overpasses/underpasses available so presents emergency issues
19. The region has not previously work collaboratively for development opportunities that would be good for the entire region
20. Multiple roads exist throughout the region that have multiple jurisdictional ownership creating challenges for maintenance and improvement commitments

Opportunities

1. The pedestrian crosswalk on East Main (Old Route 13) at the Pepsi plant and Moto Mart is very dangerous. Overhead lighting needs to be installed in the area for walkers using the crossing at night and additional warning devices are needed to make drivers aware of the crossing
2. Need program to identify locations for pedestrian crosswalks throughout Marion. Areas of interest would include crossings of the 6-lane Route 13 which would need push-button with timed crossing signals and possibly pedestrian refuges. Other areas along Route 13 such as Court (37), Russell and Garfield near the City Pool and Ray Fosse Park.
3. Need to look for solutions to address peak time congestion issues on Morgan/17th north of Route 13 as well as Carbon/Westminster, Carbon/West Main and other locations near Marion High School where traffic will back for 3 or more blocks at a time
4. Need to remove temporary crosswalks for overflow parking at local church near Marion High School once new school is constructed
5. Look at possibility of reestablishing light passenger rail line from Carbondale to Harrisburg – city of Marion owns railroad bed from end of existing short line on east side of Marion to Creal Springs
6. Expand east/west runway of Williamson County Regional Airport for future commerce opportunities
7. Extend S. Fosse Road over Crab Orchard Creek to Limb Branch Road
8. Huge regional development potential from Mt. Vernon (north) to Marion (south) and Route 37 (east)to Route 148 (west)
9. Halfway Road/Vernal Road (frontage road)/Route 13 intersection area is dangerous and has potential to get even worse. Need to address the issue before additional growth and development makes the problem as bad as the Giant City Road/East main Frontage (north/south)/Route 13 intersection

10. Upgrades and improvements to Cedar Grove, Crenshaw Road, College Street, Sycamore Road, Laverne Road, Reed Station Road and Dillinger Road to provide alternative "parallel" route for travel between Marion and Carbondale

Threats

1. Lack of funding to maintain and improve transportation system
2. Overcoming territorial and competitive tendencies of local leaders to embrace regional planning and decision-making
3. Statutory challenges associated with prescriptive easements, right-of-way issues and the need for legislative approval for eminent domain for local road improvements
4. Earthquake or other natural disaster

Section 106 challenges associated with Native American Indians that once lived throughout the region

Carbondale/Jackson County Workshop

SIMPO Multi-Modal Transportation System Assessment
Public Workshop SWOT Analysis
Thursday, March 20, 2014

Strengths

9. Easy to get around Carbondale and the region by car
10. MPO region has low traffic relative to other MPO regions
11. AMTRAK service and proximity of station to SIU campus makes it viable option for student travel to and from home and students can walk from one to the other if desired
12. Carbondale has good sidewalk system, especially within typical grid area
13. Carbondale is relatively flat making it convenient for biking and walking
14. Carbondale has some bike lanes in place
15. K-12 schools are near residences making it easy to get to them using a variety of modes (walk, bike, drive)
16. Affordable passenger rail service to Chicago with good frequency of trips per day
17. Affordable air service to St. Louis (Williamson County Regional Airport using Cape Air) with good frequency of trips daily
18. Parking at the Williamson County Regional Airport is free
19. Reasonable parking availability in Carbondale and relatively inexpensive
20. Multiple recreational areas are close to Carbondale and easy to get there by car
21. It is easy to get out of the city to cycle in the "country" away from most vehicular traffic
22. AMTRAK service from New Orleans to Chicago
23. Proximity of region within day trip of St. Louis, Chicago, Evansville, Nashville, Memphis, and other locations
24. Demand/response public transit service with Jackson County Mass Transit, RIDES Mass Transit and BART as well as fixed route service from Saluki Express
25. SIU campus is easily accessible for walkers, drivers, bikers and persons with disabilities
26. Most government buildings have good accessibility for persons with disabilities
27. Easy access between communities in the region by vehicle and transit

Weaknesses

21. 3 different school campuses make it challenging for families with children at different ages to get them to school, especially since 40% of children do NOT ride bus to school
22. Students are NOT walking or riding bikes to school
23. Peak driving times (am/pm) around school, especially Carbondale H.S. make for dangerous driving in vicinity of schools
24. Poor timing of bus drop-offs of students in the vicinity of the high school make for dangerous integration of vehicles and students coming off buses
25. Route 13/Giant City Road/East main Frontage (n/s) travel patterns and flow are unpredictable and dangerous
26. Bicycling and walking are not respected as an alternative mode of transportation in Carbondale and the rest of the region
27. Multi-Modal paths/trails viewed solely as recreational and as such often don't have good connectivity and logical destinations – sometimes as a result of the State Complete Streets Policy
28. Carbondale has substantial gaps in its sidewalk system
29. Carbondale has many sidewalks and roads that are in poor condition
30. One-way pairs for Route 13 and US 51 make pedestrian, bicycle and even vehicular travel in downtown challenging
31. Lack connectivity for existing bike lanes and multi-use paths/trails
32. Biking and pedestrian travel in the vicinity of the mall is very dangerous – no crosswalks in the Giant City Road/Route 13 and McKinney Avenue/Route 13 commercial development areas
33. Losing concept of neighborhood development that is mixed-use in nature as commercial development has left the city and moved to the far east side
34. Residential options for SIU students is removed from the campus leaving a shuttle service as the only option for getting to and from campus
35. Saluki Express is not respected as a viable alternative for transportation – route choices don't make sense (route structure), wait time is too lengthy, buses do not have bicycle accommodations (racks) and buses are inadequate for persons with disabilities
36. Transportation via transit for medical purposes, especially across county lines, is difficult
37. Access to International flights out of St. Louis is challenged by scheduling of Cape Air flights out of Williamson County and AMTRAK no longer serves ST. Louis out of Carbondale
38. Division Street/Route 13 intersection at Carterville is dangerous, especially with Plaza Drive and Commercial Drive frontage road systems so close to intersection
39. No longer have light rail passenger service from Murphysboro to Harrisburg
40. The Mill Street/US 51 southbound/US 51 northbound intersection is confusing and dangerous
41. Public transportation via transit is still not the "easy" choice
42. East College Street at South Wall Street has missing sidewalk connectivity
43. There is not good freight access to St. Louis out of Carbondale and Murphysboro area
44. It is difficult if not impossible to get bikes on AMTRAK
45. Pedestrian crossings of US 51 at Grant Street near SIU campus are dangerous

46. Rumble strips on rural roads compromise bicycling efforts in the county
47. Pedestrian crosswalk at Reed Station Road/Route 13 is on “wrong” side of road
48. AMTRAK stops traffic frequently in Carbondale – another overpass/underpass is needed
49. Oak Street is the last east/west crossing of US 51 and AMTRAK lines in the city grid raising the question of whether another crossing, especially as a bridge is needed
50. Road rage is prevalent in Carbondale making alternative transportation modes more dangerous

Opportunities

1. Build a new Multi-Modal “Train” Station serving AMTRAK, transit services, Greyhound, bike/ped trailhead, etc.
2. Consider parking garage so curbside parking and even entire roads could be converted to walking/biking lanes or areas such as a plaza concept near the new Multi-Modal “Train” Station
3. Develop Williamson County transfer station for transit service as part of development of fixed-route service
4. Develop a car-free pedestrian mall in Carbondale downtown while converting US 51 back to a two-directional street
5. Consider “Bike may use full lane” signs in downtown Carbondale
6. Need to commit to urban infill with walkable neighborhoods and transit availability while stopping urban sprawl
7. Use SIU housing renovations and reconstruction as an opportunity to address walking and biking issues
8. Construct signature buildings in downtown that are “21st Century” design for residential and mixed uses
9. Develop technological solutions to help motorists “miss the train” - such as informational sign boards or I-phone apps to notify you when AMTRAK is running through town
10. Provide better transportation options for persons with disabilities
11. Repair and expand the system of sidewalks – develop a plan that addresses connectivity, condition, and funding along with a capital improvement program to start addressing the problems
12. Work with local schools to encourage more walking and biking
13. Expand and build upon success of Williamson County Regional Airport Cape Air flights to St. Louis and consider ways to better utilize Southern Illinois Airport for passenger use
14. Consider a shuttle service for whole region to airport(s) using route 13 as the “rail”
15. Develop identifiable bus stops in urban areas of the region with a detailed fixed route schedule
16. Encourage mixed use development from Murphysboro to Marion where neighborhoods are walkable, transit-served, and rich with green space
17. Switch to “Green” buses that use alternative fuels are sleek and more likely to draw choice ridership
18. Conduct more thorough safety analysis at locations identified for improvements to avoid another US 51/Mill Street dilemma
19. Develop a “super block” where kids can be kids again, including plaza, water park and other “cool” things to do

Threats – there was so much input on the other elements that there was simply not enough time to go through the perceived threats

Herrin Workshop

SIMPO Multi-Modal Transportation System Assessment
Public Workshop SWOT Analysis
Thursday, March 27, 2014

Strengths

28. The region has short commute times, with the exception of issues caused by construction on Route 13
29. Alternative routes (to route 13) exist that have been used during construction efforts
30. The area is well served with I-57 providing north/south access and I-64, Route 13 and I-24 providing quality east/west access
31. There is only one stop light in Herrin between the Johnston City/I-57 interchange providing for easy access to Herrin for freight and people movement
32. Major thoroughfares in the region are generally in good condition
33. Traffic on the local system is minimal
34. There is an active short-line railroad (CO&E) in the region
35. There is easy airport access to an international airport in St. Louis via Cape Air out of the Williamson County Regional Airport
36. AMTRAK service both north to Chicago and south to New Orleans is a definite asset

Weaknesses

51. Local taxi service is not reliable
52. There is not a unified mass transit system in place
53. The region is auto-centric, to get anywhere you need a car even in "walkable" areas cars still dominate traffic decisions
54. The local road system throughout the region is plagued with maintenance issues and in some cases roads are under-designed for the purpose they now serve
55. There is a dangerous intersection at 22nd and Brewster where site distance issues make the three-way intersection troublesome
56. The Bandeyville Road/Stotlar Street (route 4) intersection is awkward and dangerous
57. The Herrin Street (route 2)/Bandyville Road intersection is dangerous – improvements to change Herrin Street and this intersection have been funded
58. The A.M. peak period for elementary school drop-off on Herrin Road is dangerous
59. The elementary school is located well away from city where walking and biking to school simply are not an option
60. The distance of the Herrin High School to the sports complex poses problems for getting students to events and practices other than by car

61. The left turn lane of Route 148 through Herrin is often used as a “sidewalk” or “bike lane” elevating the possibility of serious pedestrian/vehicle accidents (especially between Walmart and nearby car dealership)
62. There are no sidewalks along Route 148 (Park Avenue) through much of Herrin
63. Route 148 (Park Avenue) splits the City of Herrin and has very few crosswalks, challenging the walkability of the downtown
64. Vehicular speeds on Route 148 through the city are dangerous for the integration of pedestrian and vehicular traffic
65. Traffic conflicts along Route 148 (Park Avenue) between Clark trail and Brewster Road are many and danger level is high
66. There is a lack of useful parking options in downtown Herrin, which is especially troublesome during the Herrin Fest
67. The culture in the entire region is very auto-centric making alternative modes such as walking and biking dangerous
68. There are no crosswalks at the intersection of Clark Trail and Park Avenue
69. There are often “lay-overs” between flights with Cape Air at Williamson County Regional Airport and St. Louis International, additionally there are perhaps even more “lay-overs” when using BART Shuttle service to Lambert St. Louis International
70. Shuttle service from local transit to Williamson County Regional is “spotty”
71. There is a lack of effective long distance transit from Harrisburg to Carbondale and points between – light rail is not an option

Opportunities

11. Study the downtown roadway grid in Herrin to identify possibility of converting roads to one-way and expanding sidewalks to a trail-like conditions to improve walkability
12. Identify potential locations for pedestrian refuges, bump-outs and push-button crosswalk options along Route 148 (Park Avenue)
13. Is there potential for evening transit service to increase ridership
14. Study region and look for areas to introduce traffic calming measures and other features to improve walkability
15. Look for opportunity to introduce a multi-use path along Route 148 (Park Avenue) – this may involve a road-diet (reduce lanes), parking restrictions or bump-outs
16. Review alternative parallel routes to Route 148 to identify needed improvements to accommodate all modes, perhaps a one-way pair should be considered – perhaps a multi-use trail along 13th street – also look at 14th, 15th, 16th and 17th
17. Resurface College Street in Energy using SSTU dollars – as part of improvement of multi-jurisdictional roadway from Marion to Carbondale including Crenshaw, Sycamore, Lavern, and Dillinger
18. Develop sidewalk plans throughout the region looking at connectivity gaps (especially subdivisions), condition issues, logical destinations, etc. – include maintenance program, funding options, and timeframes

19. Evaluate local subdivision ordinances and consider requiring sidewalks or a multi-use path alternative
20. Identify locations for actual identifiable bus stops along fixed routes, major transfer stations and improved route schedules
21. Identify safety improvements along Route 148 (Park Avenue) to address traffic issues, as well as pedestrian and biking integration
22. Consider joint maintenance agreements for roadways passing through multiple jurisdictions

Threats

5. Lack of money
6. Lack of citizen engagement in transportation planning – apathy
7. Opposition to change
8. Lack of education on multi-modal transportation
9. Local opposition to improvements to Route 148 to improve other modes of transportation that might actually cause more congestion to vehicular travel
10. Concerns that local improvements to improve walkability might impact local businesses financially, i.e. improvements may reduce parking options
11. Jurisdictional challenges of alternative routes to major thoroughfares

<u>Carterville Workshop</u>

SIMPO Multi-Modal Transportation System Assessment
Public Workshop SWOT Analysis
Wednesday, March 26, 2014

Strengths

37. Route 13 corridor is asset that provides connectivity for business, residents, schools, recreation, etc.
38. Traffic congestion in the region is fairly light with only a few exceptions especially during peak times – we have short commute times
39. Flight to St. Louis via Cape Air out of Williamson County Regional Airport
40. AMTRAK service from south to New Orleans north to Chicago
41. IDOT commitment to complete Route 13 to Carbondale is very important
42. New roads funded through IDOT will be complete streets with bike paths/lanes and pedestrian accommodations
43. Private railhead – short-line provider
44. Local transit has a strong infrastructure base through multiple providers from region all the way to Harrisburg
45. There is good access to the industrial park (REDCO) via Route 13
46. There is easy access to and from I-57 for the region and proximity between I-64 and I-24, in conjunction with the Route 13 corridor provides for great north/south and east/west access
47. Williamson County Regional Airport is great service for residents, has great commercial potential and is conveniently located along Route 13 corridor

48. Collaboration with local agencies, including intergovernmental local agreements, through MPO provides mechanism for collaborative discussion about complete streets and other transportation-related topics
49. Southern Illinois Airport serves as the hub for Southern Illinois Healthcare, National Guard Armory, and the Regional Red Cross for disaster response
50. Where they have been put in place, there are good bike and pedestrian paths/trails
51. The region has three Class I railroads: Canadian National, Burlington Norfolk Santa Fe, and Union Pacific

Weaknesses

72. Region has struggled embracing multi-modalism as viable transportation options
73. Many people complain of parking problems when there are lots available only a few blocks away from their destination
74. Pedestrian crossings of Route 13 in the vicinity of University Mall in Carbondale is unsafe
75. No sidewalk access in the front or back of the mall in Carbondale
76. Sidewalks and roads in historically neglected neighborhoods are in disrepair and need serious maintenance attention – this problem is system-wide, not in only one city
77. There are locations in Carbondale where persons with disabilities that utilize wheelchairs are literally riding in the streets because there are not adequate accommodation alternatives
78. Very few marked pedestrian crossings in Carterville and other cities in the region
79. Many schools in the region are on the outskirts of town on busy streets where bicycle and pedestrian accommodations are not in place
80. Downtown areas in region have good sidewalk grids, but new areas, especially recreational areas outside the downtowns seldom have sidewalks
81. Local ordinances do not require developers to install sidewalks or trails – there are some minimal incentive programs in place, but they are not producing consistent results
82. Lack of identified bike lanes in many obvious locations and beyond
83. Traffic signal sensors are not triggered by cyclists, so adds to the challenge of sharing the roads with bikes and vehicles
84. Lack walking and biking accessible retail shopping areas
85. Some neighborhoods “cut off” by road closures to major highways such as US 51 in north Carbondale and by route 13 in other locations
86. The scheduling of Saluki Express route stops is not well coordinated with AMTRAK stops resulting in students being forced to use taxis more often than necessary
87. The Southern Illinois Airport is “locked in” due to inadequate access roads that are too narrow and unsafe – Airport Road, New Era Road, North Airport Road
88. Carbondale North industrial Park lacks “good” road access
89. Lack of railroad spur access to the Canadian National system
90. Railroad on east side of Route 13/Route 37 intersection (Union Pacific) bisects the entire city and there are frequent occurrences when long trains block one side of the city from the other for extended periods of time (15 minutes or more) – no overpasses/underpasses available so presents emergency issues

91. Williamson County Regional Airport only provides flights to St. Louis – need others to places like Memphis, Nashville, etc.
92. Alternative parallel route from Carbondale to Marion north of Route 13 using Sycamore, Reed Station and many other roads along the way is in need of improvements
93. No good north/south road choice to the west of the high school from Grand Avenue to Route 13
94. Bus system has long headways and lacks ridership

Opportunities

23. Build an alternative north/south roadway from Grand Avenue to Route 13 on west side of High School property
24. Offer incentives to developers for adding trails to subdivisions outside incorporated areas
25. Work with schools and healthcare providers to develop a healthy lifestyles educational program geared towards walking and biking
26. Identify attractive areas for more active transportation choices throughout the region and look for ways to make sure they connect to logical destinations
27. Initiate conversations with policymakers in villages and towns to level the playing field on subdivision controls and even building code requirements
28. Develop region-wide sidewalk maintenance program that looks at connectivity gaps, condition issues and a defined maintenance plan that considers alternative funding options, such as cost-sharing
29. Cambria is poised to develop and grow over time so work with IDOT to develop a quality ingress/egress design for Cambria Road when Route 13 is developed to Carbondale
30. Identify mechanism by which tourism dollars can be captured to grow a regional trail system that will in turn grow tourism to local wineries, bed and breakfasts, National Parks, etc.
31. Identify road improvement needs on Reed Station, Lavern Road, Sycamore Road, Clayton and Cardinal Roads to support access roads to Walker's Bluff Winery
32. Identify critical areas in the region where traffic calming measures with additional signage will create safer crossings and integration of traffic with pedestrian, bicycle and wheelchair users
33. Partner with bicycle advocacy groups to develop educational program on sharing roads (bikes and cars)
34. Enhance one of previously identified programs to include general education on integrating ALL modes of transportation, especially walking and biking with vehicular traffic
35. Identify areas where road connectivity is not consistent or was previously closed off to major thoroughfares, especially in Carbondale where east/west streets crossing Route 51 and railroad tracks and determine if reconnections are possible
36. Work with local schools to make sure their existing driver education courses incorporate adequate multi-modal transportation elements
37. Completing the Route 13 corridor to Carbondale will open up much better access to the STC campus via the Wolf Road interchange
38. The Carterville 2 cent per gallon and Marion 3 cent per gallon tax revenue generator is not publicized enough to stimulate more local purchase of gas

Threats

12. There are certain portions of the Route 13 corridor that are growing (build-out, development and population) that revenue needed to address needs simply is outpaced by growth
13. Revenue sources simply not enough, especially when thinking about using more dollars for non-motorized modes of transportation
14. There is little overlap that allows transit money and other transportation dollars to be sued jointly
15. Southern Illinois Airport access is bad due to hazardous roads around it
16. The region has a number of bedroom communities that struggle generating revenue to address local needs, whereas the cities that cater more to major commercial growth areas are able to capture more revenue