Chapter 1

Description of Existing Transportation Facility

The existing facility is primarily a two-lane roadway with 12-foot driving lanes and four-foot shoulders. The 47-mile long study area is characterized by rolling hills with numerous sharp curves. Route 63 currently goes through four small communities and the numerous access points contribute to the uneven traffic flow, which increases the potential for high crash areas.

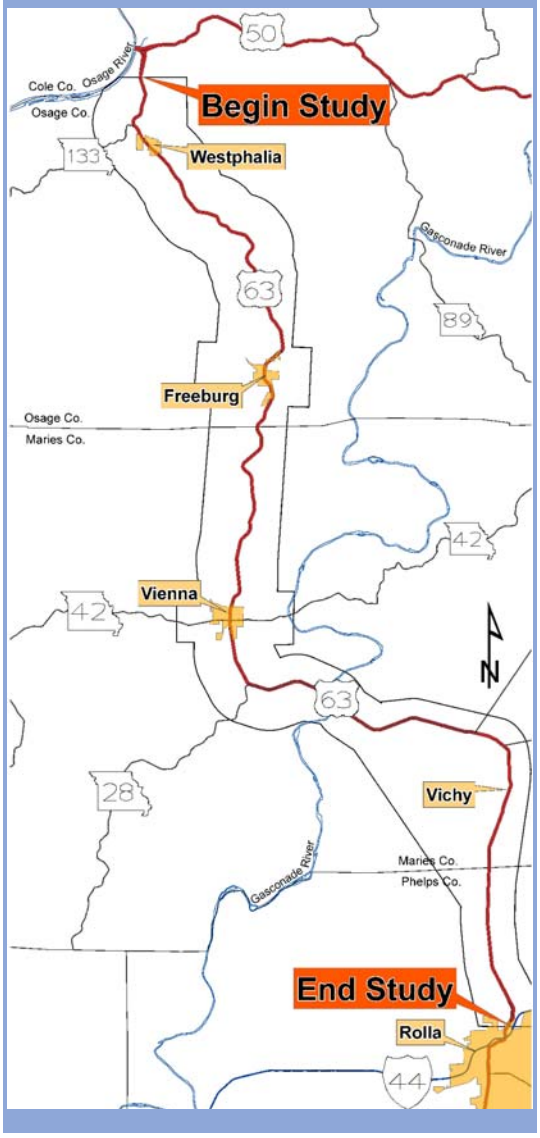
Purpose and Need for Action

What is an Environmental Impact Statement (EIS) and why is one needed?
The Federal Highway Administration (FHWA) under the National Environmental Policy Act (NEPA) requires federal agencies to integrate environmental values into their decision-making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions. An EIS is the documentation of studies of the project's impact to the human and natural environment.

How did the Route 63 environmental study originate?
On April 27, 2006, the Missouri Department of Transportation (MoDOT) and state planning partners gathered to present recommendations for future transportation needs. A total of 40 projects were presented and prioritized based upon statewide input. The Route 63 study, which evaluates solutions for current and future transportation needs in the study corridor, was ranked as the second highest transportation need in Missouri.

Studies were prepared in the early 1970s for portions of Route 63 in Osage and Maries Counties. These studies recommended proposed alternatives for the future of Route 63 and will be used as a reference during the consideration of alternatives for this study.

Figure 1. Study Corridor



Route 63
Environmental Impact Statement

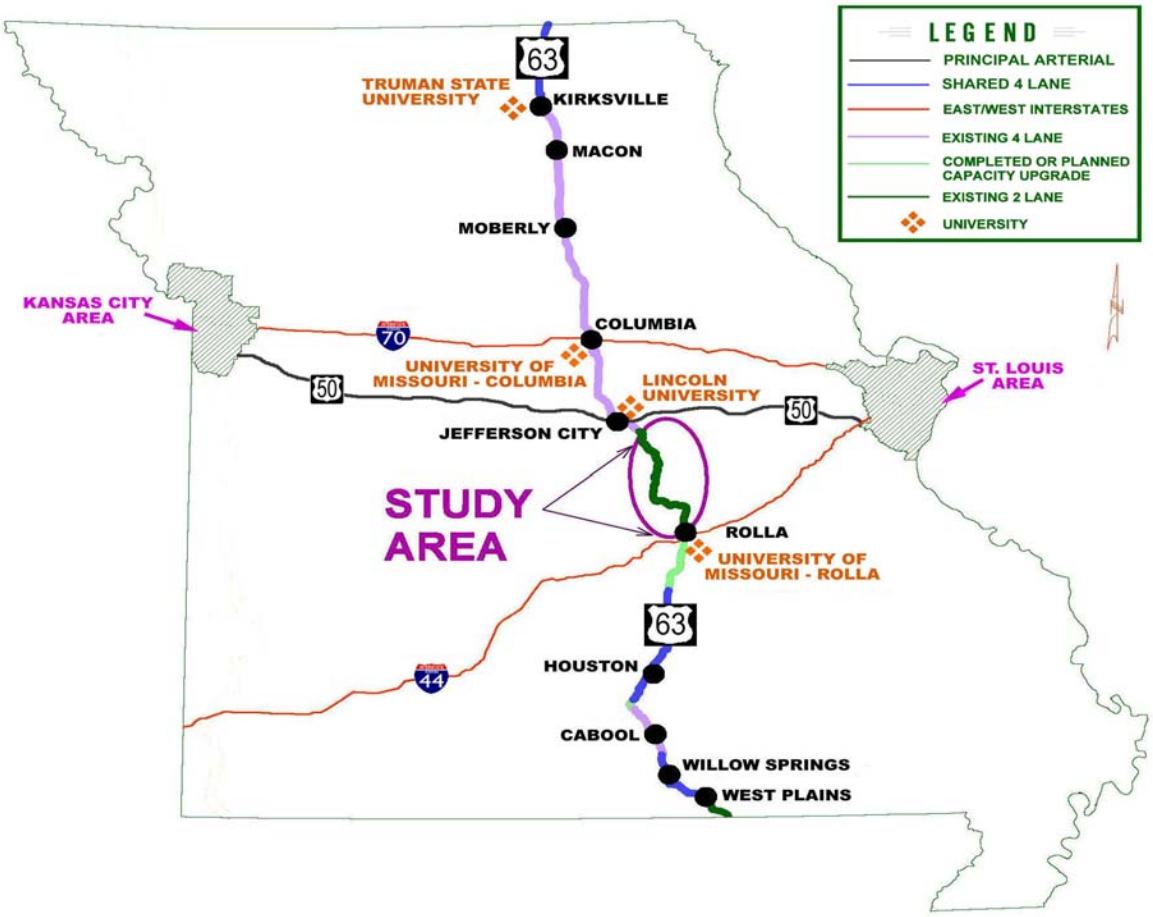
What portion of Route 63 is being studied?
The portion of Route 63 being studied is located in Osage, Maries and Phelps Counties (Figure 1). The study corridor begins south of the Route 50/Route 63 interchange in Osage County and ends near Rolla in Phelps County. Communities along its length include the towns of Westphalia, Freeburg, Vienna, and Vichy. The study area is approximately 47 miles long and ranges in width from one to three miles.

A study was completed and a Record of Decision (ROD) signed on June 6, 2002 by the Federal Highway Administration for the portion of Route 63 south of where this project ends. This EIS was primarily a bypass of Rolla, including a new interchange with I-44 and ended at Vida near Route W, approximately 5 miles south of Route I-44. Construction of this project has not yet begun.

North of the current project area, a study was completed on the Route 50/Route 63 interchange and included a new bridge over the Osage River. This study included widening Route 63 to four lanes to a point north of Westphalia, where the current project begins. A Categorical Exclusion determination was granted for this project on September 30, 1997 and the project was constructed in 2003.

Significant portions of the existing roadway follow a ridgeline that divides the Maries and Gasconade River watersheds. The original 1930 alignment included a 20-foot concrete driving surface, the placement of which was dictated by the curves and hills of this ridgeline. Constructing Route 63 along this ridgeline minimized excavation quantities and the need for several drainage structures, such as pipes, bridges, and culverts.

Figure 2. Major North/South Corridor through Central Missouri



What is the significance of the Route 63 highway?
Route 63 is important because it is a major north/south corridor through the mid-section of the state (Figure 2). Route 63 extends from Wisconsin to Louisiana while passing through the cities of Kirksville, Macon, Moberly, Columbia, Jefferson City, Rolla, Houston, Cabool, Willow Springs, and West Plains in Missouri.

This route connects two major east-west interstate corridors, I-70 in Columbia and I-44 in Rolla. It also provides a primary means for roadway travel from I-44 to the state capital and connection to four of Missouri's major state universities, located in Kirksville, Columbia, Jefferson City and Rolla. In addition, Route 63 provides access to and from the Rolla-Vichy Airport.

What is the purpose of the project and why is it needed?
The primary purpose of the Route 63 project is to improve the operational efficiency and safety of the existing roadway for both through and local traffic. Proposed improvements will take into account the needs of neighboring communities and residents. Specifically, the project is needed to:

- Improve safety on Route 63
- Improve traffic flow on Route 63
- Improve north-south four-lane design continuity.

What are some of the safety concerns?
Several people who attended the first public meeting for this study expressed concerns about the safety of Route 63, identifying specific locations along the route that needed to be addressed. A typical section for the vast majority of Route 63 in the study corridor includes 12-foot driving lanes and four-foot shoulders on each side. Photos from the study area represent typical sections with four-foot gravel shoulders along Route 63.

Typical section of Route 63, with four-foot gravel shoulders, near Freeburg

Historical crash data from 2003 to 2007 was used to evaluate safety issues and specific areas of concern. Portions of the study area on Route 63 have crash rates close to two times higher than the statewide average of other similar rural two-lane highways. The crash rates for the study area range from 117.88 to 407.65 in comparison to the statewide rate of 211.26.

During the same five-year period, the predominant type of crash throughout the entire length of the study area was out-of-control collisions. Approximately 34 percent of the 756 crashes in the study area were out-of-control and 35 of the 756 crashes were head-on collisions. Of those 756 crashes there were 19 fatalities and 64 disabling injuries. Annual crash costs in 2007 along the study area portion of Route 63 exceeded $18 million.

The red squares in Figure 3 mark the locations of fatal crashes on Route 63. Also summarized in Figure 3 is the total number of crashes along the corridor per 0.5-mile section. The larger green circles signify locations along the corridor where higher volumes of crashes are occurring.

In general, sharp curves in combination with the hilly terrain on Route 63 make passing difficult. In Osage and Maries Counties, no-passing zones exist on approximately two-thirds of the corridor. There is an approximate seven-mile stretch of highway between the communities of Freeburg and Westphalia without sufficient opportunities for motorists to pass. When passing opportunities are limited, passing maneuvers are often performed where there is inadequate sight distance, resulting in crashes.

Weather conditions and the time of day at which crashes occur are also important considerations in determining the cause of crashes and the need for roadway improvements. The vast majority of crashes on Route 63 occur during the daytime (71.2 percent) and under dry conditions (78.1 percent). This implies that characteristics of the existing roadway are a contributor to a significant number of accidents, even under ideal driving conditions. Traffic volume may also play a part in the number of crashes.

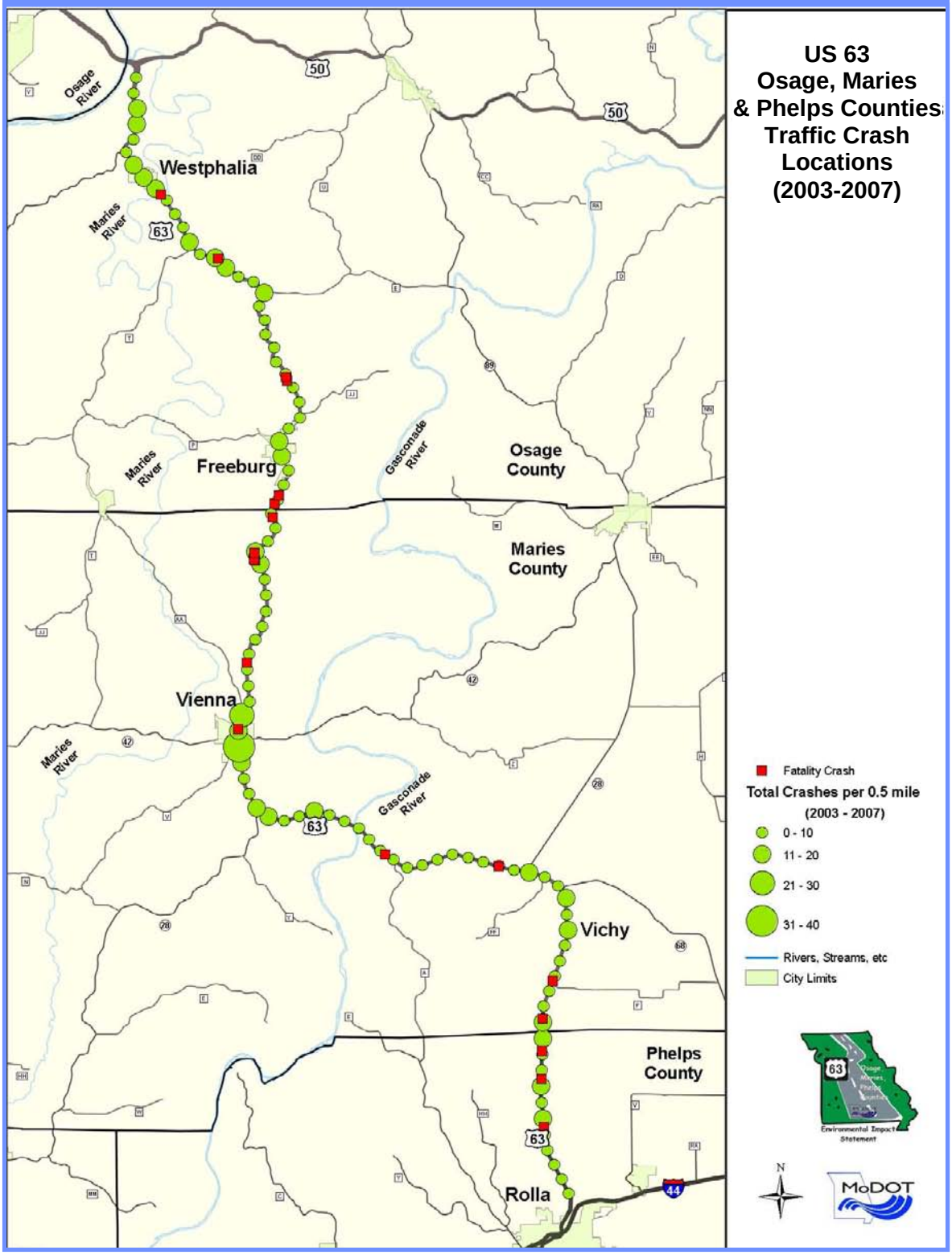
The National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321-4370f, requires that this analysis of the proposed project must consider and discuss its effects and impacts on mankind, plants, animals, resources, and the natural world in general. One of the key elements to be discussed in any NEPA analysis of a proposed highway project is its effects and impacts on the safety of those who use those highways. However, Congress has recognized that even while this document summarizes and presents traffic accident and safety information and benefit of the public, pursuant to federal law, some people may attempt to use the information to establish federal, state or local liability in lawsuits arising from highway accidents. Congress has enacted a law, 23 USC Section 409, which prohibits the discovery or use, in litigation, of highway accident and safety data, developed under federal law to make highway safety improvements. Congress's rationale is obvious: the safety data was compiled and collected at their request, to help prevent future accidents, injuries and death on our nation's highways. If that information can be used in expensive damage suits, then the millions of dollars that litigation may cost the Missouri Department of Transportation (MoDOT) and local governments will not be available for their use to make Missouri's highways safer. The collection of this safety data should be encouraged, not discouraged.

Traffic accident statistics and safety data are compiled, presented and summarized in portions of this NEPA document. Where noted in an introductory footnote to a segment of this document, the discussion, reports, lists, tables, diagrams and data present throughout that chapter, unit, section or subsection was compiled or collected for the purpose of identifying, evaluating or planning the safety enhancement of potential accident sites or hazardous roadway conditions pursuant to federal law. Thus, that information and its supporting reports, schedules, lists, tables, diagrams and data are not subject to discovery, and they are prohibited by federal law (23 USC § 409) from being admitted into evidence in a federal or state court proceeding, or from being considered for other purposes, in any action for damages arising from an occurrence on the highways, intersections or interchanges discussed in this document.

A curve on Route 63 marked with no-passing zones

Crash Data collected from MoDOT's Traffic Management System (TMS), which is compiled from Highway Patrol accident reports.

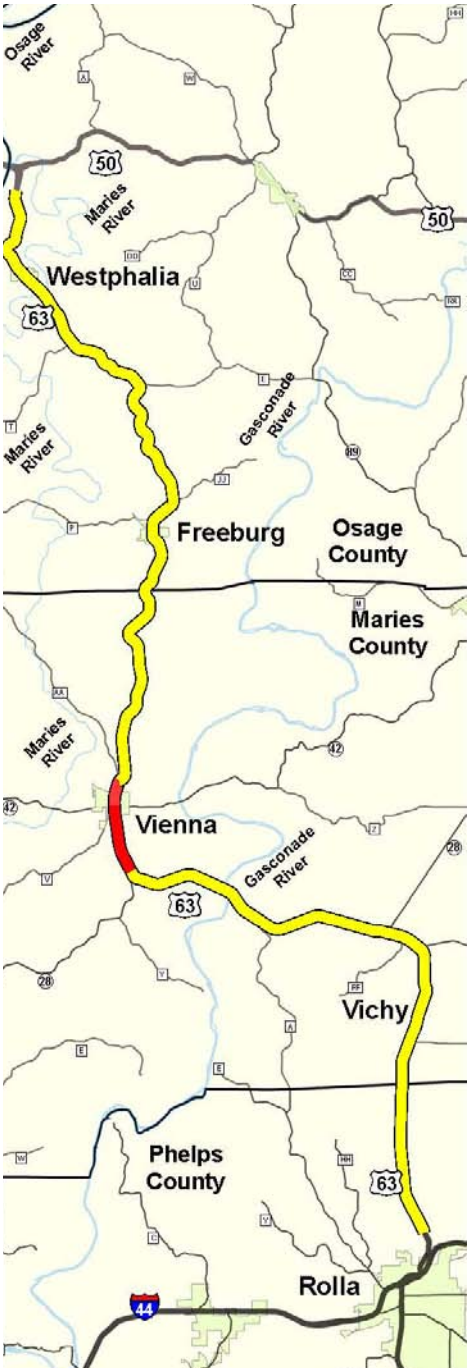
Figure 3. Traffic Crash Locations Along Route 63 (2003 – 2007 data)



What is the current condition of traffic flow on Route 63?

The measure of traffic flow along Route 63 is based upon the average travel speed of motorists and the percent of time a vehicle spends following another vehicle. For good traffic flow operations, a driver might travel an average speed of 50 to 55 mph and spend between 35 and 50 percent of travel time following another vehicle. For fair traffic flow a driver might travel an average speed between 40 to 50 mph and spend between 50 and 65 percent of travel time following another vehicle. A driver would spend more than 80 percent of his/her time following another vehicle and have an average travel speed of less than 40 mph for poor traffic flow. The existing traffic flow operations for Route 63, based upon 2007 data, are illustrated in Figure 4.

Figure 4. Route 63 Traffic Flow



Fair Traffic Flow

Fair Traffic Flow

Poor Traffic Flow

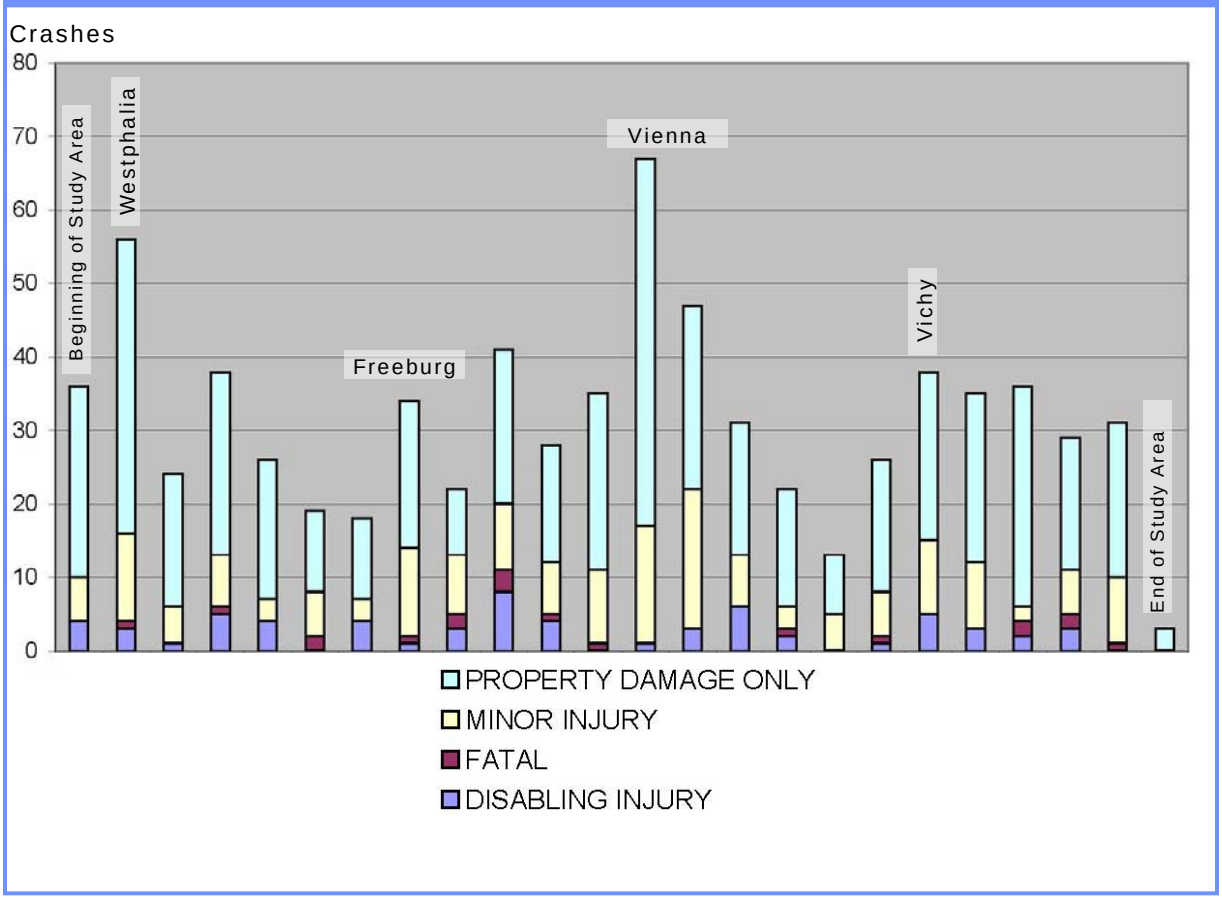
Poor Traffic Flow

Why does traffic flow on Route 63 need to be improved?
Improving the traffic flow on Route 63 would result in less cost to the traveling public and improve the safety for both through and local traffic.

Route 63 is a major state route that carries an average of 6,000 vehicles per day through the study corridor. Trucks currently make up 16 percent of the total traffic. In the past 10 years, the Route 63 corridor has experienced a 23 percent to 33 percent increase in traffic.

In general, the combination of considerable truck traffic, steep grades, and limited passing opportunities on Route 63 have led to a reduction in traffic flow during peak travel times. This has resulted in additional travel time for motorists. Lower speed limits within the communities along Route 63 and an abundance of entrances also impede traffic flow. An individual crash analysis within the communities along Route 63 showed a predominance of rear-end crashes. Typically, these rear-end crashes result from higher volumes of traffic being forced to slow down or stop due to entrances. Westphalia, Freeburg, Vienna and Vichy account for approximately 225 entrances along Route 63. Highlighted in Chart 1 are the various types of crashes along the corridor by location. Note the peak in crashes as motorists travel through the various communities.

Chart 1. Route 63 Crashes by Location



Why should this study provide system continuity?
North and south of the ending and starting points of the corridor, Route 63 is a four-lane divided highway with a 60-foot grass median, and with access restrictions to the highway. Within the study area, Route 63 is a hilly and curvy two-lane facility with varying shoulder widths, at-grade intersections and many access points.

Improvements to this portion of Route 63 would improve safety and provide a continuous four-lane roadway for the efficient movement of people and goods from Jefferson City to Rolla.

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