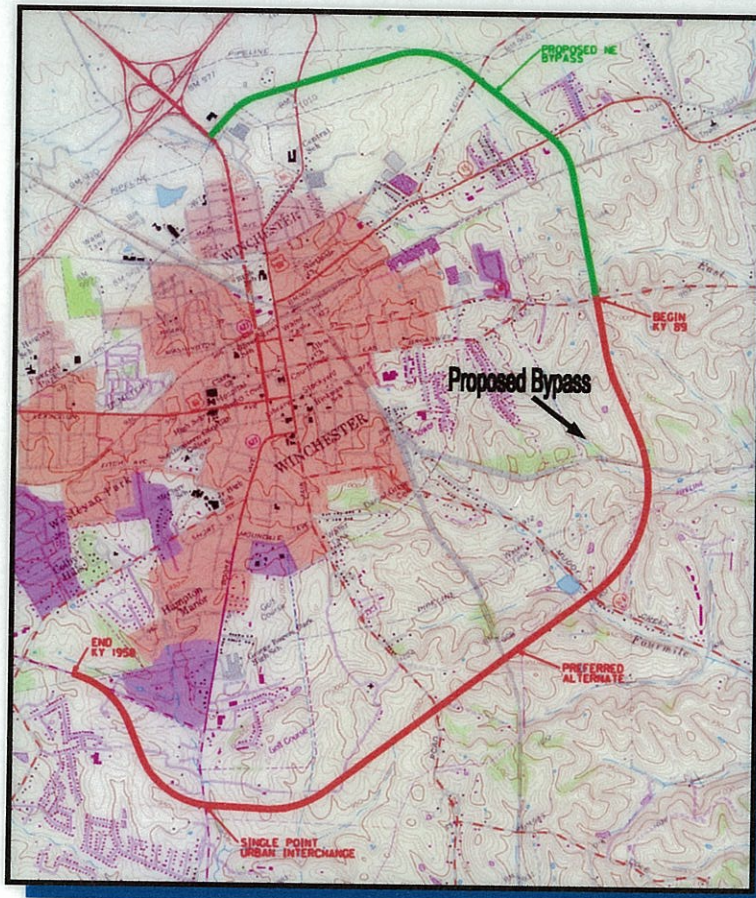


# Winchester Bypass Southeast Corridor Study



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# TABLE OF CONTENTS

	Page No.
Project Description .....	1
Public Participation .....	2
Purpose and Need.....	2
Proposed Improvements.....	3
Conclusion.....	7

## FIGURES

Figure 1: Project Corridor.....	1
Figure 2: Proposed Alternatives.....	4
Figure 3: Alternate 3 .....	6
Figure 4: Alternate 4 .....	6
Figure 5: Alternate 5 .....	7
Figure 6: Preferred Alternate .....	8

## TABLES

Table I: Estimated Costs .....	5
(Alternates 1 and 2)	
Table II: Estimated Costs.....	7
(Alternates 3, 4, and 5)	
Table III: Estimated Costs.....	8
(Estimated 6 Year and Preferred Alternate)	

## APPENDICES

Appendix A: Project Team Minutes of Meetings	
Appendix B: Advisory Committee Minutes of Meetings	
Appendix C: Public Meeting Transcript	
Appendix D: Environmental Overview	
Appendix E: Synchro/Sim Analysis	
Appendix F: Design Executive Summary	

## PROJECT DESCRIPTION

The proposed project, the Winchester Bypass Southeast, involves construction of the southeast portion of an eastern bypass around the City of Winchester, Clark County, Kentucky.

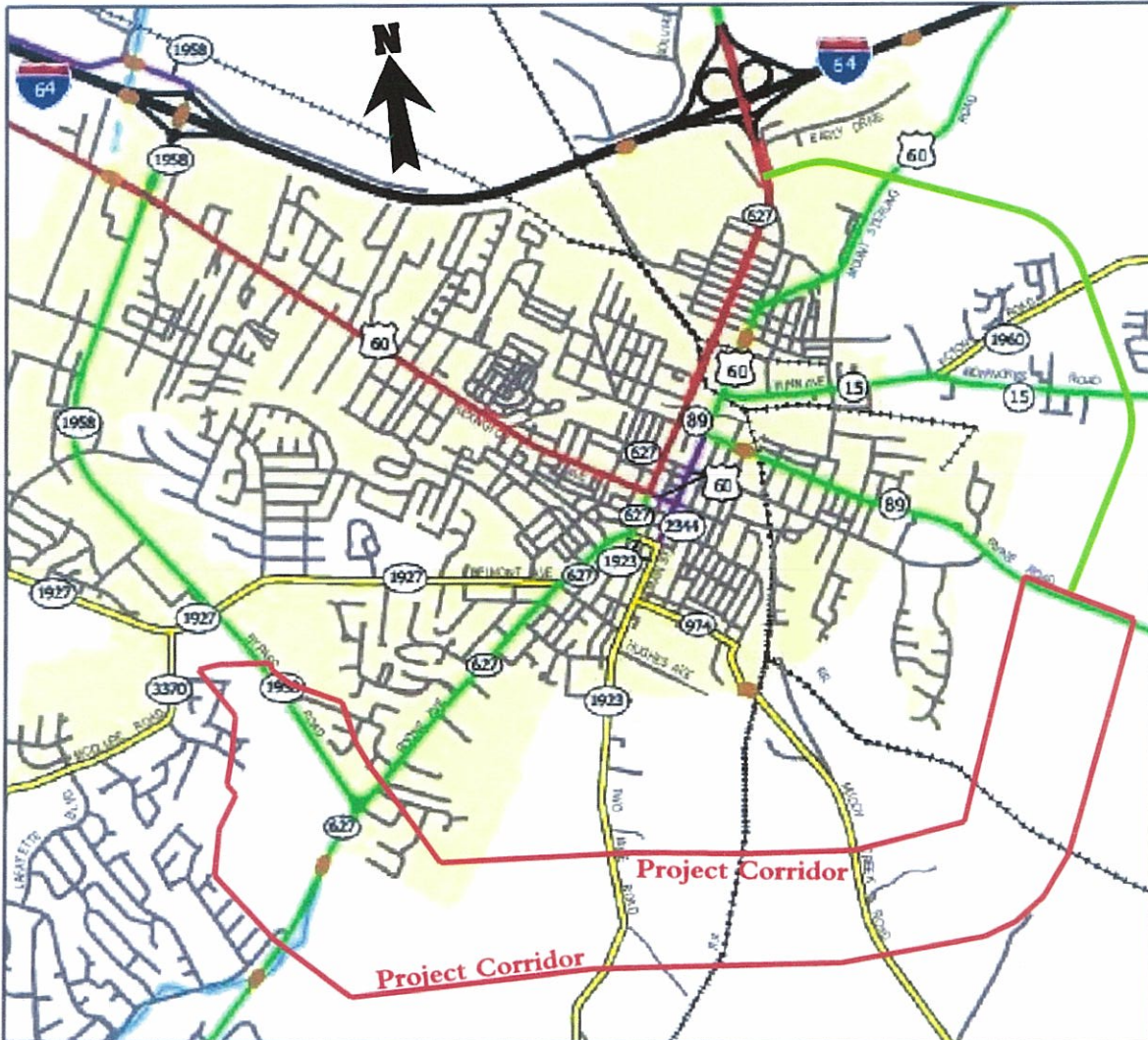


Figure 1: Project Corridor

The Winchester Bypass Southeast will be a new road to provide access from rural highways south and east of downtown Winchester to Interstate 64 (I-64) and to the existing western bypass, KY 158. This is the final part of a planned, complete bypass around Winchester and will connect the proposed Winchester Bypass Northeast to KY 158. More specifically, the project begins at the intersection of the Winchester Bypass Northeast and KY 89, extends southeast a distance of 4.15 miles to intersect with KY 158, near its present intersection with KY 627. The Winchester Bypass Southeast will intersect with KY 914 (Muddy Creek Road), KY 1923 (Two Mile Road) and KY 627S between KY 89 and KY 158.

## **PUBLIC PARTICIPATION**

The Winchester Bypass Southeast, like the Winchester Bypass Northeast, was designed in conjunction with a Transportation Advisory Committee. This committee was comprised of local city officials, local county officials, civic groups, property owners, the Kentucky Transportation Cabinet and the design consultant team. The mission statement for the Winchester Bypass Transportation Advisory Committee was as follows:

“The Advisory Committee shall assist the Kentucky Transportation Cabinet in setting “Goals and Objectives” for the proposed Eastern Bypass and work with the Cabinet to ensure that as many of the “Goals and Objectives” can be achieved, as feasible, without sacrificing the safety criteria, environmental requirements and efficiency of the facility, as set forth in the Kentucky Transportation Cabinets Current Design Criteria. The Advisory Committee shall express the views of the citizens in the area and their ideas as to what they consider important factors in determining an alignment for the Bypass. The ultimate goal is to achieve a safe and efficient transportation system, with the least amount of disturbance to the surrounding area, meet safety requirements and serve the need of all citizens of the Commonwealth of Kentucky who travel this route.”

The “Goals and Objectives” derived and adapted by the Advisory Committee for this eastern bypass project were as follows:

### **Goal 1: Improve traffic flow and safety.**

Objectives: Reduce traffic congestion on the east side of town.  
Increase pedestrian and bicycle safety.  
Provide adequate transportation facilities for the entire area.  
Access management.

### **Goal 2: Balance growth of community.**

Objectives: Insure adequate coordination of infrastructure and capital facilities planning.

### **Goal 3: Land use management.**

Objectives: Minimize conflicts of land usage to their surroundings.  
Plan for future growth.  
Minimize access points.  
Adopt design standards for project corridor.

**Goal 4: Minimize disruption to existing facilities.**

Objectives: Neighborhoods.  
Area schools:  
Central;  
Conkwright.  
Downtown business district.  
Existing area businesses.

**Goal 5: Minimize environmental harm.**

Objectives: Limit number of drainage problems.  
Conserve energy.  
Minimize:  
Right of Way acquisition;  
Noise pollution;  
Air pollution;  
Impact on historic sites.  
Aesthetics.

Minutes from the Advisory Committee meetings are included in Appendix B of this report for further reference.

**PROPOSED IMPROVEMENTS**

Several alternates were studied within the project corridor and presented to the Advisory Committee for their consideration. After a couple of Advisory Committee meetings, the Committee selected two (2) alternates to continue through this design process. An environmental overview was performed on these alternatives and is included in Appendix D for further reference. Following is a discussion of the two (2) alternates as well as a discussion for the "Do-Nothing" alternate for this project.

**Alternate 1**

Alternate 1 begins on KY 89 at a point 0.30 miles from the intersection of KY 89 and East Broadway. From this point, it proceeds in a southerly direction crossing the CSX Railroad at a point 1.15 miles from the Winchester Station. It then proceeds in a southwesterly direction crossing Muddy Creek Road (KY 974) at a point 1.44 miles from the intersection of Main Street and KY 974. After crossing Muddy Creek Road, it continues southwesterly and crosses the CSX Railroad at a point 1.12 miles from the Winchester Station and then crosses Twomile Road (KY 1923) at a point 1.36 miles from the intersection of KY 627 and KY 1923. It continues in a southwesterly direction before turning west to its termini at KY 627, a point 0.49 miles from the intersection of KY 1958 and KY 627. Also included with this alternate is the upgrading of existing KY 627 to a five-lane urban facility from KY 1958 to the project terminus.

**Alternate 2**

Alternate 2 begins at the same point as Alternate 1. From this point, it proceeds in a southerly direction crossing the CSX Railroad at a point 1.06 miles from the Winchester Station. It then proceeds in a southwesterly direction crossing Muddy Creek Road (KY 974) at a point 1.33 miles from the intersection of Main Street and KY 974. After crossing Muddy Creek Road, it continues southwesterly and crosses the CSX Railroad at a point 0.97 miles from the Winchester Station and then crosses Twomile Road (KY 1923) at a point 1.20 miles from the intersection of KY 627 and KY 1923. It continues in a southwesterly direction before turning west and crossing KY 627 at a point 0.32 miles from the intersection of KY 1958 and KY 627. It continues across KY 627 to its termini on KY 1958, a point 0.60 miles from the intersection of KY 627 and KY 1958.

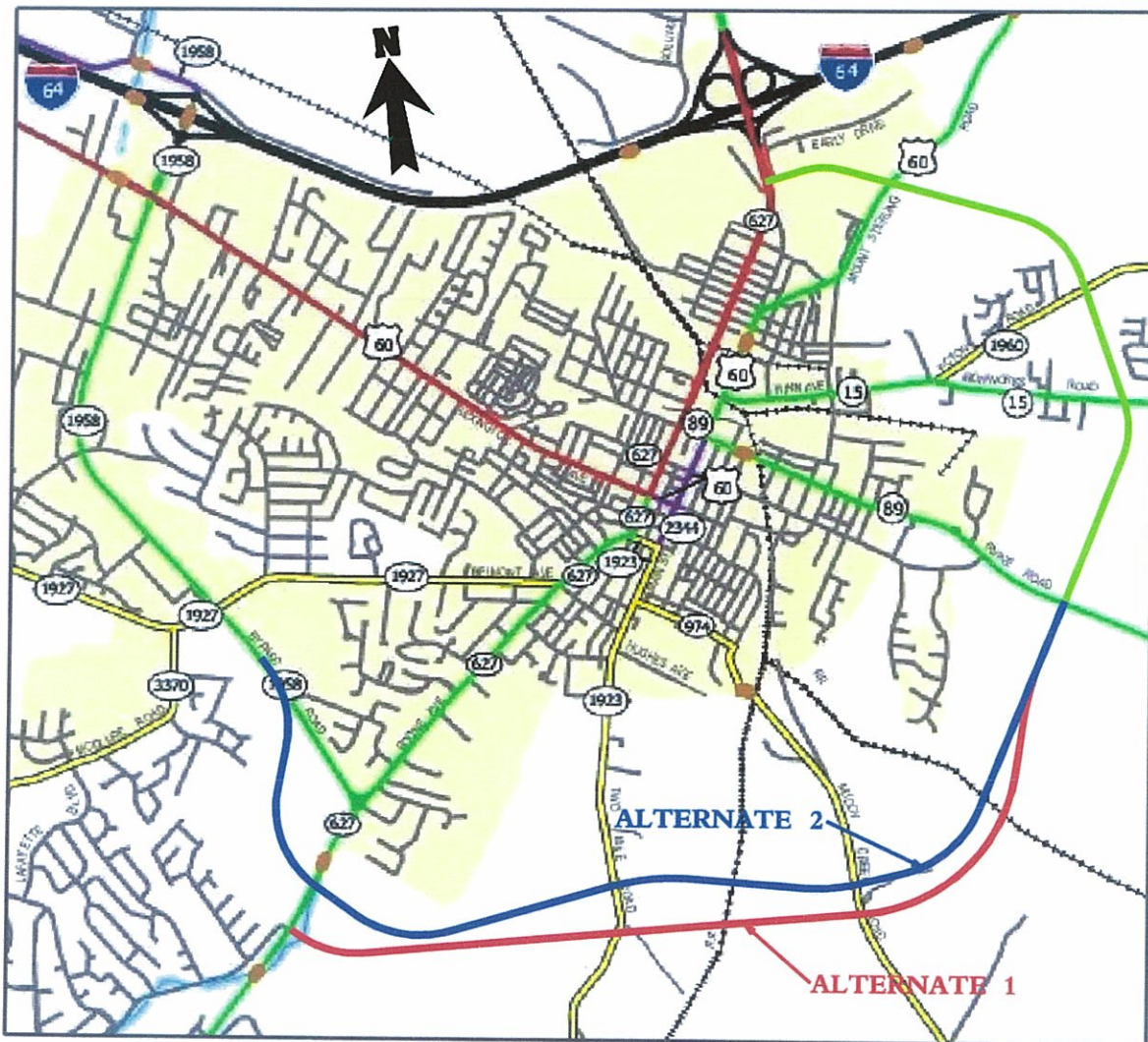


Figure 2: Proposed Alternatives

**Do-Nothing Alternate**

Due to the scope of this project being a new route to bypass the City of Winchester, the “Do-Nothing” alternate is not an option considered for this study.

After selection of these alternatives for further design, a public meeting was held in October 2000 to obtain input from the public concerning the location of the selected alignments of the proposed bypass. A public meeting transcript is included in Appendix C.

Following the public meeting, the Advisory Committee selected a preferred alignment for this portion of the bypass. The preferred alternate selected by the Committee was Alternate 1. These alternates were presented to the Transportation Cabinet’s Project Team at a Preliminary Line and Grade Inspection in December 2000. Minutes for this meeting are included in Appendix A for further reference. The estimated costs for these alternates are shown in Table I below. The Project Team concurred with the Advisory Committee in their selection of the preferred alternate with one exception. This exception was the treatment of the area around the intersection of the proposed bypass and KY 627S.

**TABLE I – Estimated Costs**

	Alternate 1	Alternate 2
Right of Way	5,000,000	5,700,000
Utility	7,409,059	6,803,040
Construction	13,108,611	14,861,970
Total	\$25,517,670	\$27,365,010

Based upon recommendations from the Advisory Committee and the Project Team, Alternate 1 was selected as the preferred alternate up to approximate Station 240+00. The Project Team requested that the Consultant study an additional alternate for the KY 627S area. This alternate was studied and presented to the Project Team at a meeting held in April 2001. Minutes from this meeting are included in Appendix A for further reference. After a presentation to the Advisory Committee, there was still no determination as to a preferred alternate for the KY 627S area.

After receiving some updated traffic information, a simulated traffic analysis was performed for the three (3) intersection alternates and presented to the Advisory Committee for their consideration. This meeting still did not yield a preferred treatment for the intersection at KY 627S. After some revisions to the traffic information and simulated model, a Project Team meeting was held in January 2003. Minutes from this meeting are included in Appendix A for further reference. The recommendation from the Project Team was to study two (2) additional alternates for the intersection of Alternate 2 and KY 627S. This included the investigation of a standard diamond interchange and a single-point urban interchange.

Following is a description of the three (3) additional alternates studied for the proposed bypass and KY 627S intersection on this project. The associated costs for these alternates are shown in Table II below.

**Alternate 3**

Alternate 3 begins at Station 239+21.52 of Alternate 1 and proceeds westwardly crossing KY 627 at a point 0.20 miles from the intersection of KY 1958 and KY 627. It continues across KY 627 to its termini on KY 1958, a point 0.40 miles from the intersection of KY 627 and KY 1958. Alternate 3 utilizes a grade separation at its intersection with KY 627. The grade separation is a modified diamond interchange to promote the free-flow of traffic at ramp intersections.

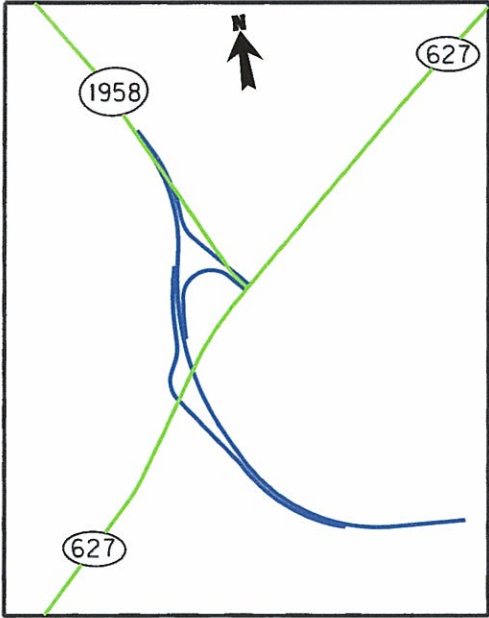


Figure 3: Alternate 3 – Modified Diamond Interchange

**Alternate 4**

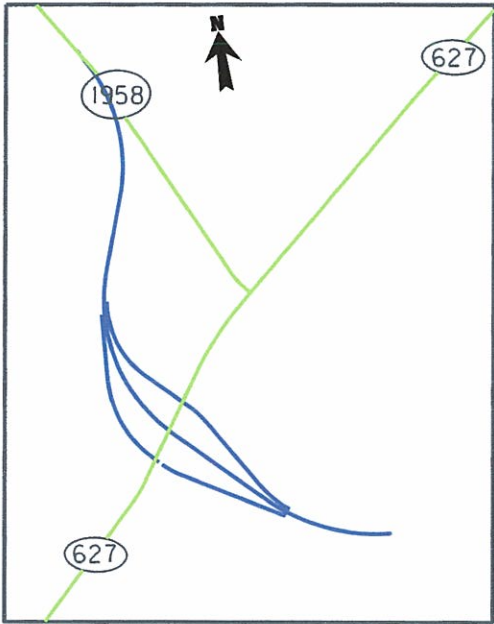


Figure 4: Alternate 4 – Diamond Interchange

Alternate 4 begins at Station 247+67.24 of Alternate 1 and proceeds along the Alternate 2 alignment to its termini on KY 1958. Alternate 4 utilizes a grade separation at its intersection with KY 627. The grade separation is a diamond interchange with the uninterrupted movement being on the proposed bypass.



**Alternate 5**

Alternate 5 begins at Station 247+67.24 of Alternate 1 and proceeds along the Alternate2 alignment to its termini on KY 1958. Alternate 4 utilizes a grade separation at its intersection with KY 627. The grade separation is a single point urban interchange with the uninterrupted flow movement being on KY 627.

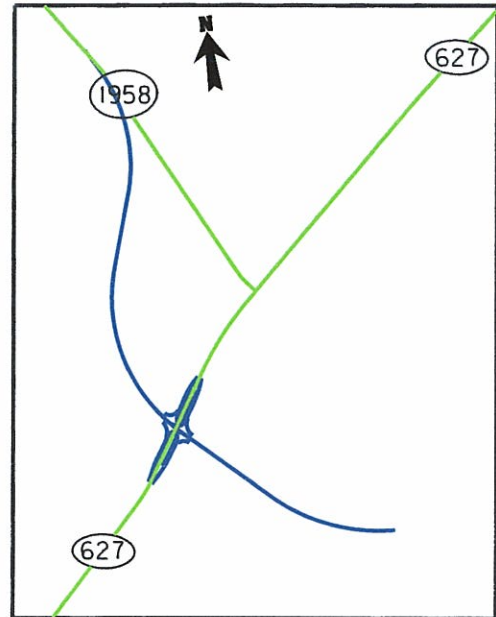


Figure 5: Alternate 5 – Single Point Urban Interchange

**TABLE II – Estimated Costs**

	Alternate 3	Alternate 4	Alternate 5
Right of Way	6,600,000	8,671,000	9,429,600
Utility	8,449,059	7,620,000	7,620,000
Construction	17,509,153	20,514,147	20,334,584
Total	\$32,558,212	\$36,805,147	\$37,384,184

These alternates and their respective traffic simulations were presented to the Project Team at a meeting in April 2003. The minutes of this meeting are included in Appendix A for further reference. The Project Team did not select a preferred alternate pending presentation of findings to the Advisory Committee. A presentation of these findings was made to the Advisory Committee in May 2003. After some discussion, the committee selected Alternate 5 as their preferred alternate for the treatment of the intersection of the proposed bypass and KY 627S.

**CONCLUSION**

The preferred alternate for the proposed southeast bypass based upon recommendations from the Project Team and Advisory Committee is a combination of Alternate 1 and Alternate 5. Alternate 1 was selected as the preferred from KY 89 to Station 247+67.24, while Alternate 5 was selected as the preferred from Station 247+67.24 to KY 1958. The preferred alternate includes a grade separation, single

point urban interchange, at KY 627S. An estimated cost comparison of the preferred alternate and the estimated 6-year plan are shown in Table III below.

**TABLE III – Estimated Costs**

	Estimated 6 Year	Preferred Alternate
Right of Way	5,700,000	9,429,600
Utility	7,410,000	7,620,000
Construction	25,000,000	20,334,584
Total	\$38,110,000	\$37,384,184

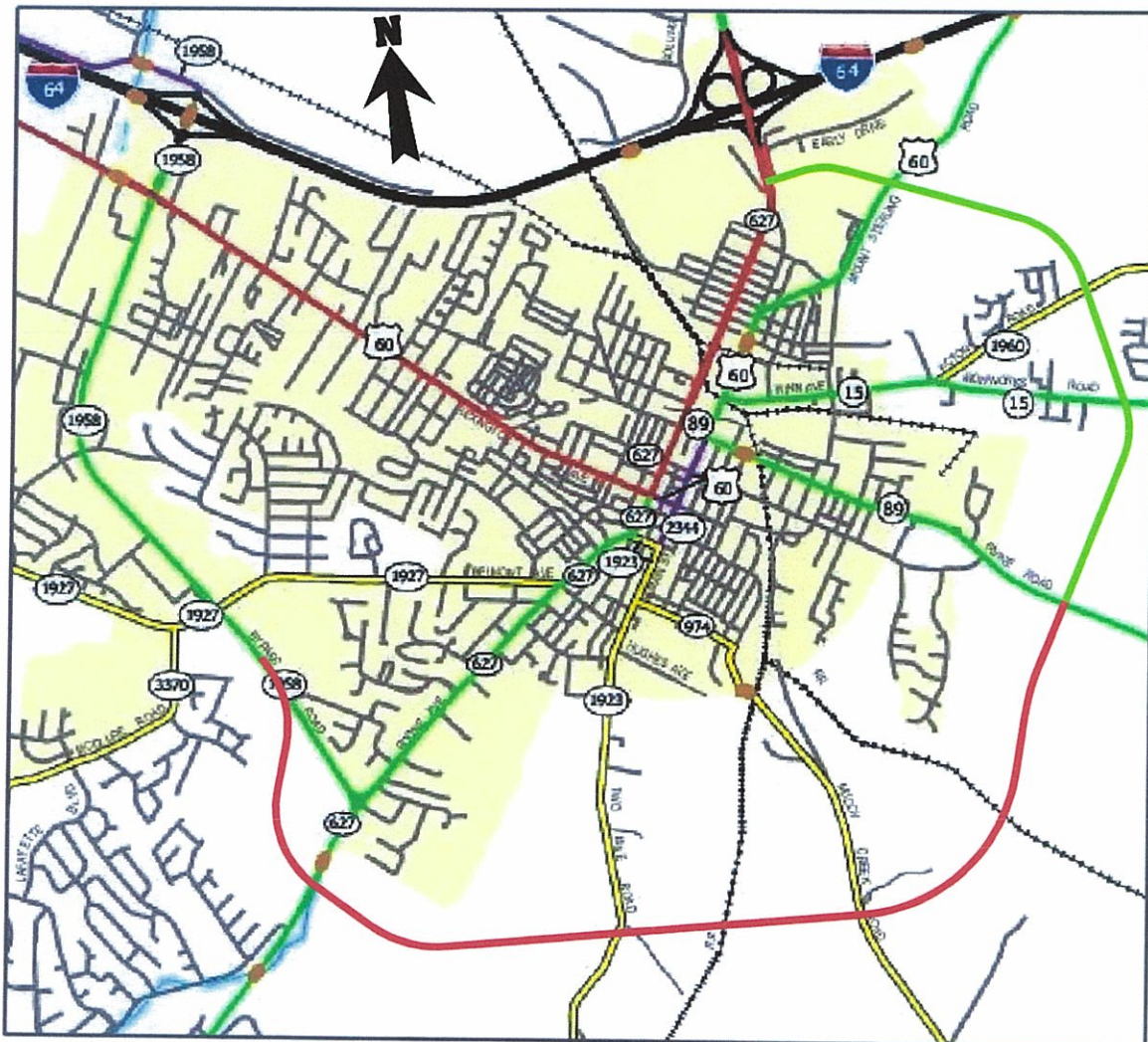


Figure 6: Preferred Alternate