



**STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION  
PROJECT PLANNING DIVISION**  
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**Gerald F. Nicely**  
Commissioner

**Phil Bredesen**  
Governor

### **Existing System Conditions**

The limits of the State Route 19 Transportation Planning Report (TPR) extend from the proposed Interstate 69 in Lauderdale County to the Brownsville Bypass in Haywood County, a distance of approximately 15.3 miles. The route is a rural major arterial facility on the Surface Transportation Program System and is predominantly characterized as two 10-11 foot travel lanes, 1-2 foot shoulders and ditches inside 60 feet of right-of-way.

### **Purpose & Need**

The purpose of proposed improvements for the study corridor is to provide a transportation facility that enhances mobility within the region, supports economic development, improves safety, better provides for alternative modes of travel, and relieves potential traffic congestion that may emerge from increasing development and the completion of the Interstate 69 corridor through Ripley, Tennessee. The goals and objectives of an improved State Route 19 facility include improving geometric deficiencies, promoting safer operations, and supporting economic development within the region.

### **Options Analyzed**

Option A: No Build: This option assumes no modifications or improvements are made over the planning horizon. This option does address the goals for the corridor. There is no cost for the no build option.

Option B: Corridor widening to a four (4) lane divided section through Lauderdale County, tapering to a two (2) lane section through Haywood County: This option consists of widening State Route 19 to a four (4) lane roadway with twelve (12) foot travel lanes and ten (10) foot shoulders from the US 51/ State Route 3 junction in Ripley to Sanford Road/ Conor Whitfield Road on the Lauderdale County line. Approximately 150 feet of right-of-way will be required for the four-lane divided section. This section is planned to taper down from Sanford Road/ Conor Whitfield Road to Springhill Road in Haywood County and continue as a two (2) lane section with twelve (12) foot travel lanes and ten (10) foot shoulders to the Brownsville Bypass in Haywood County. Total estimated cost for Option B is \$114,500,000.

Option C: Spot Improvements: Seventeen (17) potential location improvements can be implemented independently or in combination and summarized as follows:

Option C: Location No. 1: U.S. Highway 51/ State Route 3/ Jefferson Davis Highway at State Route 19: Improve pavement markings and install signs. Total estimated cost is \$2,400.

Option C: Location No. 2: Bridge on State Route 19 near Ripley Elementary School: Replace guardrail end treatment. Total estimated cost is \$4,000.

Option C: Location No. 3: State Route 19 at Charles Griggs Street: Replace pavement markings. Total estimated cost is \$1,500.

Option C: Location No. 4: State Route 19 at South Jefferson Street: Replace pavement markings. Total estimated cost is \$1,500.

Option C: Location No. 5: State Route 19 at Highland Street: Repave and restripe intersection approach at Highland Street. Replace guardrail end treatment. Total estimated cost is \$5,100.

Option C: Location No. 6 State Route 19 at East End Street and John Lamar Road: Replace pavement markings. Total estimated cost is \$1,700.

Option C: Location No. 7: State Route 19 at Willie Paris Road: Realign and replace stop bar and stop sign. Total estimated cost is \$1,400.

Option C: Location No. 8: State Route 19 at Ross Road and Gause Road: Trim vegetation in right-of way and replace pavement markings and one stop sign. Total estimated cost is \$2,700.

Option C: Location No. 9: State Route 19 at Durhamville Road: Replace pavement markings. Total estimated cost is \$1,250.

Option C: Location No. 10: State Route 19 at Sanford Road and Conor Whitfield Road: Install pavement markings and replace signs. Total estimated cost is \$2,000.

Option C: Location No. 11: State Route 19 at Springhill Road: Replace pavement markings and signs. Total estimated cost is \$1,600.

Option C: Location No. 12: State Route 19 at Tibbs Road: Replace pavement markings. Total estimated cost is \$1,250.

Option C: Location No. 13: State Route 19 at State Route 180 (Forked Deer Road/ Nunn Road): Replace signs and pavement markings. Total estimated cost is \$3,750.

Option C: Location No. 14: State Route 19 at Woodlawn Road/ Briar Creek Road: Replace pavement markings and signs. Scarify and remove right-in right out access to Woodlawn Road. Total estimated cost is \$9,800.

Option C: Location No. 15: State Route 19 at Key Corner Road/ Patton Lane: Install signs and investigate replacement of the overflow bridge on Key Corner Road. Total estimated cost is \$2,700.

Option C: Location No. 16: State Route 19 at culvert, Log Mile 9.43: Add object markers. Total estimated cost is \$1,250.

Option C: Location No 17: State Route 19 at State Route 87 (Fulton Road): Install pavement markings and signs. Total estimated cost is \$3,450.

Total estimated cost for all Option C improvements is \$47,100.

### **Route Disposition**

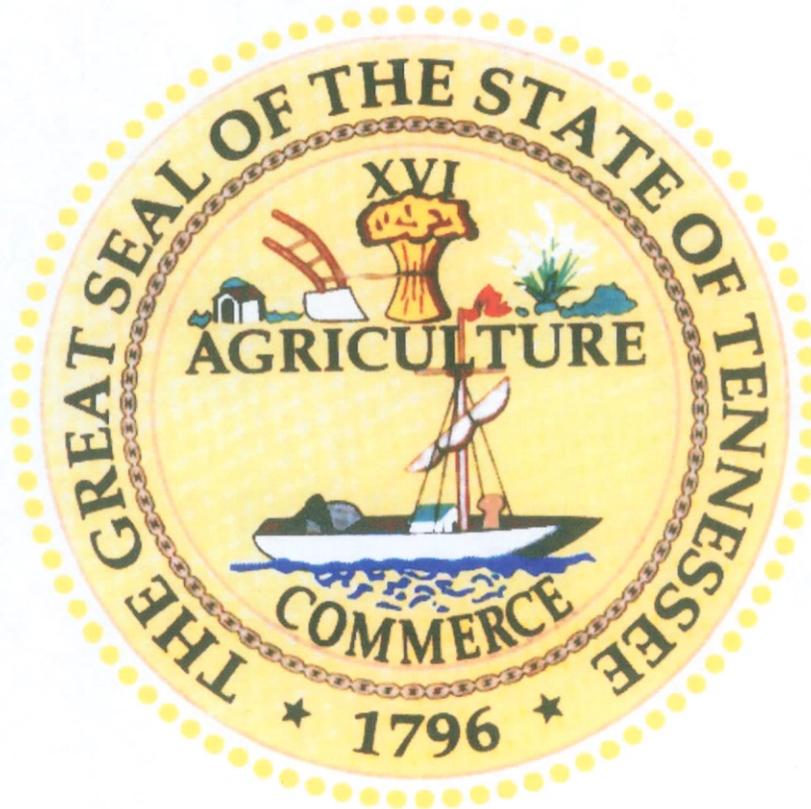
Future improvements to the existing State Route 19 corridor are examined to address the local and regional needs of the area by providing system connectivity from Ripley, Tennessee, through State Route 19 and State Route 76 to I-40, enhancing operational characteristics and providing for a safer route. An incremental improvement strategy initially focused on the seventeen (17) locations identified in this report will provide an enhanced facility for all users that best fits within TDOT's guiding principles.

# TRANSPORTATION PLANNING REPORT

## State Route 19

FROM INTERSTATE 69 AT RIPLEY TO THE BROWNSVILLE BYPASS  
LAUDERDALE AND HAYWOOD COUNTIES

PIN 102251.00



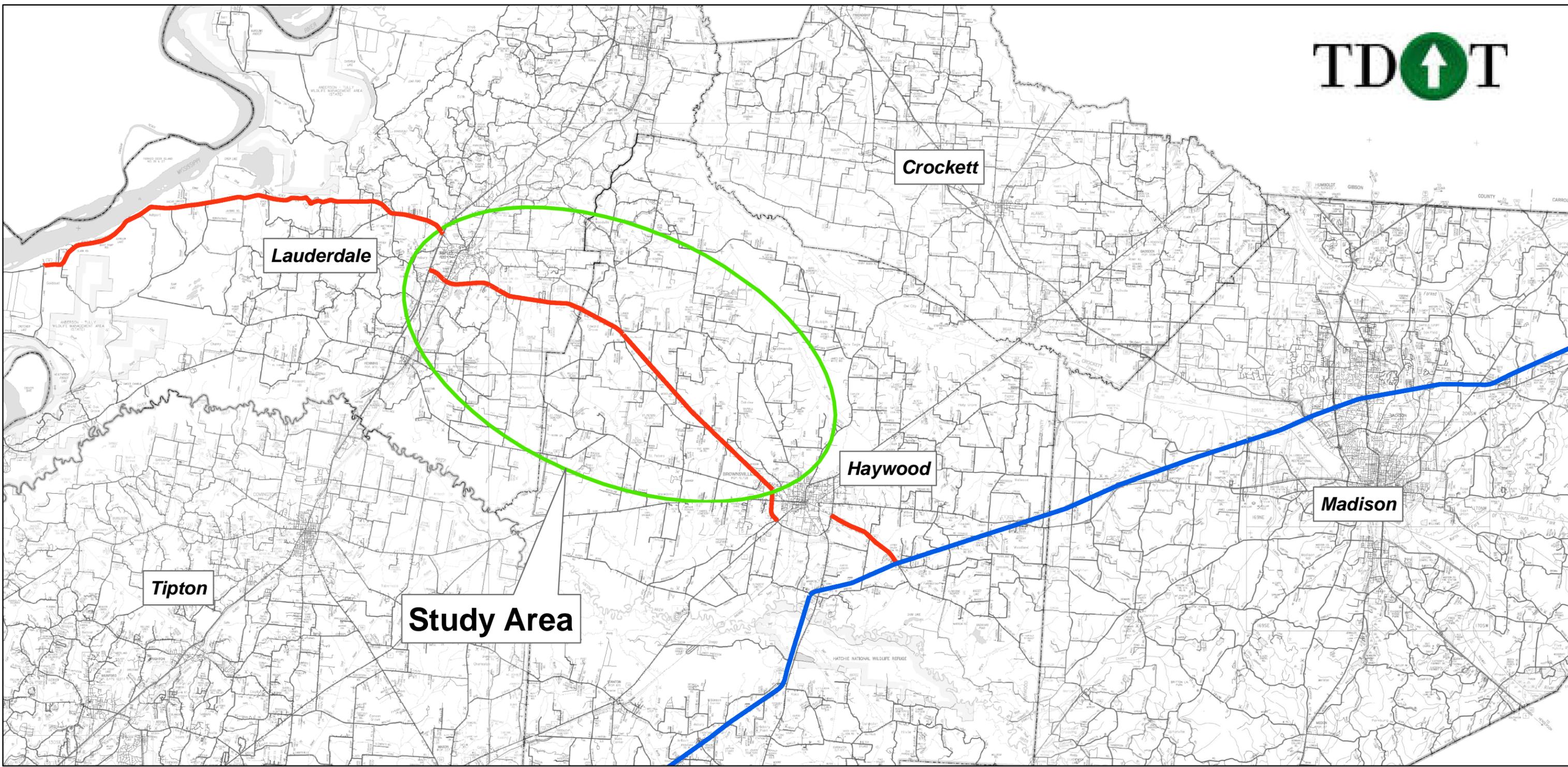
PREPARED BY

TENNESSEE DEPARTMENT OF TRANSPORTATION  
PROJECT PLANNING DIVISION

Approved by:	Signature	DATE
CHIEF OF ENVIRONMENT AND PLANNING	Ed Cole	2/12/09
TRANSPORTATION DIRECTOR PROJECT PLANNING DIVISION	John [unclear]	2-12-09
TRANSPORTATION MANAGER 2 PROJECT PLANNING DIVISION	Bill Hart	2/9/09

This document is covered by 23 USC § 409 and its production pursuant to fulfilling public planning requirements does not waive the provisions of § 409.

# State Route 19 Location Map



**Legend**

-  Interstate 40
-  State Route 19



p.2 Figure 1

## **1.0 Intent of Transportation Planning Report**

The intent for enhancements to State Route 19 is to provide geometric improvements to the facility in order to achieve the goal of a safer and higher capacity connector for users traveling between Ripley in Lauderdale County and Brownsville in Haywood County. The four (4) lane divided connector should also provide an alternate route for travelers leaving Interstate 40 at Brownsville and traveling to the proposed Interstate 69 junction in Ripley.

Local officials stated in various stakeholders' meetings that they want a facility that meets future traffic growth, that is conducive to creating jobs and attracting industry and provides good geometric features such as turn lanes, adequate sight distances, and wide shoulder widths.

Local citizens, however, voiced clear opposition to a high capacity roadway, citing fears that such a roadway will negatively impact their rural lifestyle. It is important to balance the needs of both officials and citizens in any changes to the existing roadway.

## **2.0 Study History and Background**

In 1996, the Tennessee Department of Transportation (TDOT) undertook a Feasibility Study for improvements to State Route 19. This study led TDOT to initiate an Advance Planning Report (APR) in 2003.

The APR studied State Route 19 from U.S. 51 (State Route 3) in Brownsville, Haywood County, to Eastland Avenue in Ripley, Lauderdale County. After completion of the APR, the project was placed on hold within the Environmental Division. In 2008, Chief Engineer Paul Degges and Chief of Environment and Planning Ed Cole asked the Project Planning and Environmental Divisions to restart the planning process for improvements to this facility.

The planning process revealed some strong opposition by citizens, particularly in the community of Nutbush in Haywood County, to any major improvements to the facility. Nutbush is a historic rural, agriculturally-based community that fears the loss of their traditional community to an improved facility. In the 2003 APR, TDOT recommended the construction of a four (4) lane facility along the entire corridor from Ripley to Brownsville. This plan resulted in the proposed acquisition of an estimated 55 houses and five businesses along the existing corridor to provide right-of-way for the four (4) lane section. These acquisitions included the cotton gin and store at Nutbush, which the residents consider central to their community and economy. As a result, the residents at Nutbush clearly oppose to a four-lane facility at that location. Residents living at the Brownsville terminus of the route, through Haywood County and into rural Lauderdale County also voiced their disapproval of a four (4) lane facility in previous public meetings held in 2003. Public opposition to the original plan kept the study as a placeholder until the current date.

### **3.0 Existing Conditions**

#### 3.1 Description of the Study Area

Figure 1 illustrates the corridor in the region of West Tennessee, and Figure 2 shows the corridor between Ripley and Brownsville through Nutbush. The study focuses on this particular corridor from the proposed Interstate 69 junction at Ripley to the Brownsville Bypass.

State Route 19 is a rural major arterial route that extends in a west-east orientation through Lauderdale County and into Haywood County, providing a connector from Ripley to Brownsville through Nutbush.

Existing land uses in the study area are predominantly agricultural, residential, and light industrial. The roadside contextual setting is small town rural.

Lauderdale County, at the western terminus of the corridor, is home to 26,732 people with the county seat and population center located at Ripley. Ripley is twenty miles from the nearest interstate, Interstate 40. Freight travels by the Canadian National Rail Service and two motor freight carriers. Passenger rail is not available, although passengers can travel by bus. The nearest navigable waterway and port is located fifty miles away at the Mississippi River. Air traffic travels through Dyersburg Municipal Airport 25 miles away, Covington Municipal Airport eleven miles away, and Memphis International Airport 50 miles away.

The county's major roads are U.S. Highway 51 (State Route 3) and State Routes 19 and 209. U.S. Highway 51 (State Route 3) is the major route to Memphis. Interstate 69 is proposed to run in a north-south direction to the east of Ripley.

Lauderdale County's largest employer is Marvin Windows of Tennessee with a total of 746 employees. Crops cultivated include cotton, corn, soybeans, and tomatoes, while natural resources include sand, gravel, and timber. The community provides recreation through eight parks, one golf course and country club, and two community swimming pools.

Demographically, 14,015 males and 12,730 females are residents of the county. 16,946 are white, 9,216 are African American, with Hispanics comprising the third-largest ethnic population. Per capita income for the county was \$19,291 in 2005, compared to the median income for Tennesseans of \$38,945 in 2004. As of August 2008, Lauderdale County had an unemployment rate of 14.5%, compared to 6.5% statewide.

Connecting Lauderdale County to Haywood County to the east is State Route 19, primarily a two-lane, rural minor arterial through this corridor with two eleven-foot travel lanes and two foot shoulders. There are a number of horizontal and vertical curves. Posted speed limit throughout the majority of the corridor is 45 miles per hour (MPH), with some areas increasing to 55 MPH. A total of 31 two-way stop controlled intersections exist along State Route 19, with no four-way or signalized intersections. Many residential and business driveways create more intersections, and few turn-lanes exist to ease the traffic burden. No major structures exist in the corridor.

State Route 19 enters Haywood County, with the eastern terminus of the study at Brownsville, the county seat and population center. Brownsville is accessed by

Interstate 40 to the south at State Route 76. The city is 27 miles west of Jackson and 55 miles east of Memphis.

Freight travels through Haywood County on lines owned by CSX Transportation. Passenger rail services are not available. The nearest navigable waterway and port is at Memphis on the Mississippi River. Aviation transportation is provided in Madison County, at Jackson’s McKellar-Sipes Regional Airport.

The county’s major roads include Interstate 40, U.S. Highways 70 and 79, and State Routes 19, 54, and 76.

Haywood County’s largest employer is Teknor Apex/ Haywood Company, with 610 employees. Crops cultivated include cotton, soybeans, and corn. Natural resources found in the county are sand and timber. The county provides recreation through two parks, one golf course and country club, and one community swimming pool.

Demographically, 10,408 females and 9,273 males call Haywood County home. Their ethnicity includes 10,147 African Americans, 9,073 whites, and 749 Hispanics. Per capita income in the county for the year 2005 was \$23,141. The median income for Tennesseans in 2004 was \$38,945. Unemployment for Haywood County was 13.8% as of August 2008, compared to the statewide unemployment rate of 6.5%.

The three following tables illustrate geographic data, population trends, and major industries/ traffic generators in the Lauderdale/ Haywood County area.

**Table 3.1  
Geographic Data**

	<b>Lauderdale County</b>	<b>Haywood County</b>
<b>Land Area excluding water covered (Square Miles)</b>	470.45	533.20
<b>Persons per Square Mile</b>	57.7	37.1

**Table 3.2  
Population Trends**

<b>Year</b>	<b>Lauderdale County</b>			<b>Haywood County</b>		
	<b>Pop.</b>	<b>Percent Change</b>	<b>Avg. Growth Rate</b>	<b>Pop.</b>	<b>Percent Change</b>	<b>Avg. Growth Rate</b>
1990	23,491	-	-	19,437	-	-
2000	27,101	11.54%	1.15%	19,797	10.18%	0.98%
2006	26,732	-1.4%	0.99%	19,405	-2.0%	0.98%

**Table 3.3  
Industry/ Traffic Generators**

<b>Description/ Name</b>	<b>Service Type</b>	<b>Employed (Estimated)</b>
Marvin Windows	Wood Windows and Doors	746
Siegel Roberts Automotive Ripley South	Custom Electroplating	473
Siegel Roberts Automotive Ripley North	Plastic Auto Parts	445
Kotmatsu America	Parts Distribution	300
Baptist Memorial Hospital	Health Care	190
American Greetings	Color Printing	135
Teknor Apex/ Haywood Company	PVC Garden Hose, tread rubber	610
Lasco Fittings, Inc.	Plastic pipe fittings	550
MTD Cub Cadet	Riding lawn mowers	350
Dynametal Technologies	Powered metal components	120
Pictsweet	Frozen Food Distribution	100
<b>Other Facts</b>	<b>Total Manufacturing</b>	<b>Total Employed</b>
	82	4,597

**3.2 Crash History**

While several crashes have occurred on State Route 19 during the past three year study period, the crash ratio for the study segment does not exceed the statewide average. The Tennessee Roadway Information Management System (TRIMS) provides data for use in calculating crash rates for comparison to statewide averages. Table 3.4 presents currently available summarized crash data for the study segment.

**Table 3.4  
Traffic Crash Rate for 2004-2006**

<b>Location</b>	<b>Actual Crash Rate</b>	<b>Statewide Average</b>	<b>Fatal Crashes</b>	<b>Incapacitating Injury Crashes</b>
<b>John Lamar Rd. to Ripley Urban Boundary</b>	1.09	2.34	0	0
<b>Ripley Urban Boundary to Haywood County Line</b>	1.05	1.70	1	3
<b>Haywood County Line to Brownsville Bypass</b>	0.52	1.70	1	4

State Route 19 from John Lamar Road to the Ripley Urban Boundary (Log Miles 21.98 to 22.42)

The actual crash ratio of 1.09 on this section does not exceed the statewide average crash ratio of 2.341 for similar sections. There were no fatal or incapacitating injury crashes in the study section. During the study period from 2004-2006, there were a total of 4 crashes at this location.

State Route 19 from the Ripley Urban Boundary to the Haywood County Line (Log Miles 22.43 to 26.17)

The actual crash ratio of 1.05 on this section does not exceed the statewide average crash ratio of 1.701 for similar sections. During the study period from 2004-2006, a total of 36 crashes occurred on this section, including 1 fatality and 3 incapacitating injuries.

State Route 19 from the Haywood County Line to the Brownsville City Limits (Log Miles 0.00 to 11.10)

The actual crash ratio of 0.52 does not exceed the statewide average crash ratio of 1.701 for similar sections. During the study period of 2004-2006, a total of 38 crashes occurred on this section, including 1 fatality and 4 incapacitating injuries.

### 3.3 Geometrics

State Route 19 is a two-lane rural major arterial administered by the Tennessee Department of Transportation under the Surface Transportation Program (STP) system.

Within the study area, State Route 19 has a cross section that consists of two 11 foot travel lanes with 2 foot shoulders for the majority of the route within the study area. The right-of-way width is 60 feet throughout the corridor, with the exception of a short section with 150 foot right-of-way at Log Mile 19.11 in Ripley. The posted speed limit is 45 miles per hour throughout a majority of the corridor, with no four-way stop controlled intersections or signalized intersections in the study section. There are numerous two-way stop controlled intersections throughout the corridor, as well as residential and small commercial driveways. There are no turn lanes for access to these intersections.

There are a number of sight distance issues concurrent with rolling terrain throughout the corridor, especially at Springhill Road in Lauderdale County.

### 3.4 Level of Service Analysis

Existing (2007) annual average daily traffic (AADT) volumes on State Route 19 range from 3,263 near Ripley to 2,554 between Nutbush and Brownsville. These low traffic volumes are consistent with the adjacent rural setting. Although State Route 19 provides connectivity from State Route 3 (US 51) in Ripley to I-40 in Brownsville, there appears to be very little cut-through traffic on this route. Existing truck traffic on State Route 19 is approximately 364 trucks per day, for a percentage of 6 percent near Ripley and 7 percent near Brownsville.

Traffic forecasts for the horizon years 2013 and 2033 were prepared using historic traffic data and projections for traffic generation that would normally occur with average growth in the study corridor.

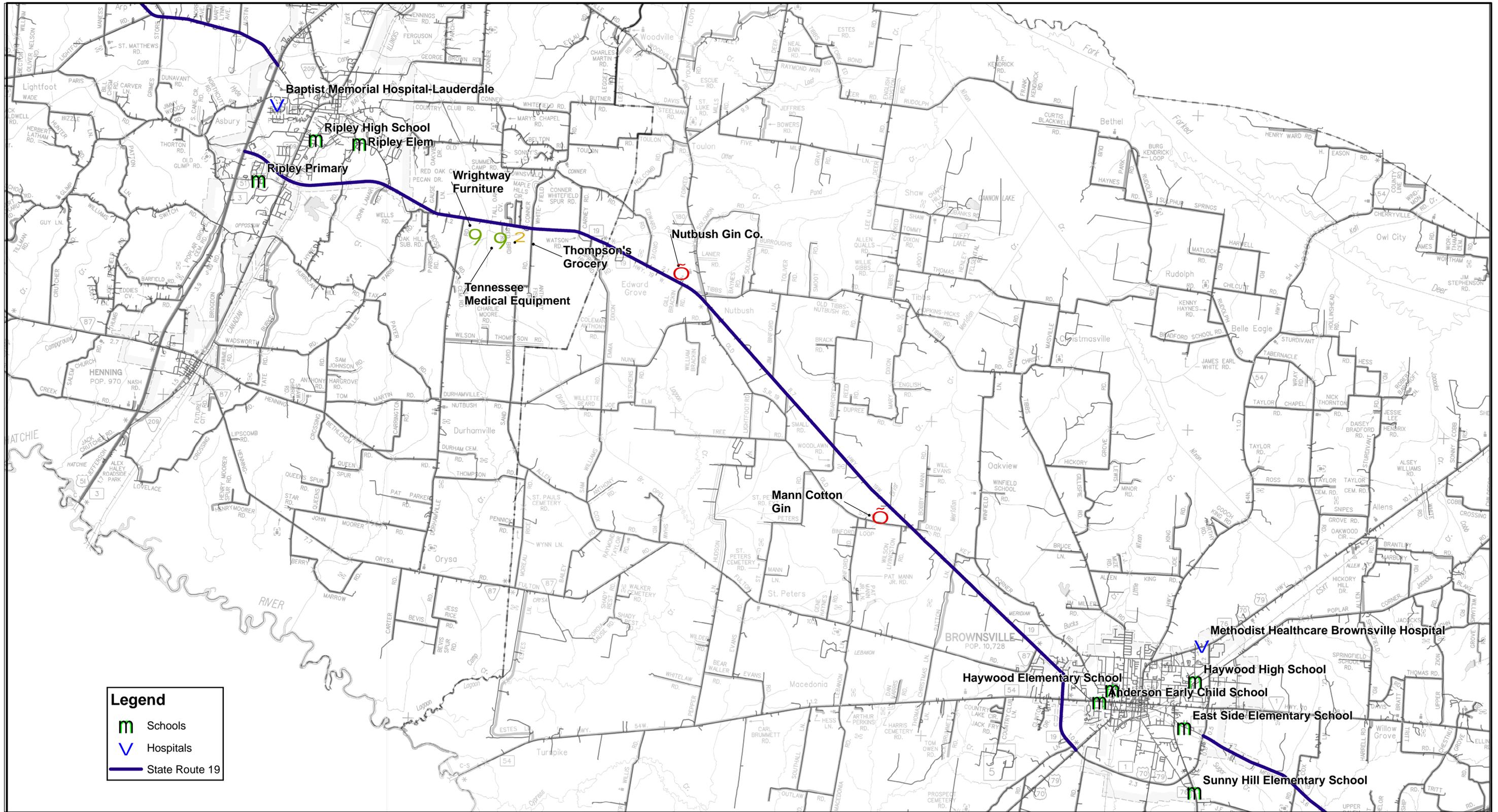
Table 3.4 describes the scoring system for LOS.

Figure 6.1 illustrates the forecasted AADT volumes for the existing State Route 19 system for the horizon years 2013 and 2033. These traffic volumes were analyzed to evaluate the Level of Service (LOS) that can be expected during each horizon year. LOS is a term used to describe operational conditions within a stream of traffic based upon qualitative measures, such as speed, travel time, maneuverability, flow interruptions, driver comfort, and convenience. For two (2) lane rural highways, such as State Route 19, service quality is based on the percent of time that a driver is likely to spend following another vehicle. LOS measures are stated in a sequence of letter grades from A to F, with LOS A being used to describe the highest quality of traffic flow while LOS F is used to describe the poorest quality. Table 3.4 describes the qualities of each LOS category for each segment of existing State Route 19.

**Table 3.4  
Level of Service (LOS) Description**

LOS	Service Description
<b>A</b>	Free flow operations. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream. The general level of physical and psychological comfort provided the driver is high.
<b>B</b>	Reasonably free flow operations. The ability to maneuver within the traffic stream is only slightly restricted and the general level of physical and psychological comfort provided to the driver is high.
<b>C</b>	Flow with speeds at or near free flow. Freedom to maneuver within the traffic stream is noticeably restricted and lane changes require more vigilance on the part of the driver. The driver notices an increase in tension because of additional vigilance required for safe operation.
<b>D</b>	Speeds decline with increasing traffic. Freedom to maneuver within the traffic stream is noticeably limited. The driver experiences reduced physical and psychological comfort levels.
<b>E</b>	At the lower boundary, the facility is at capacity. Operations are volatile because there are virtually no gaps in the traffic stream. There is little or no room to maneuver. The driver experiences poor levels of physical and psychological comfort.
<b>F</b>	Breakdowns in traffic flow. The number of vehicles entering the highway section exceeds the capacity, or ability of the highway to accommodate that number of vehicles. The driver experiences poor levels of physical and psychological comfort.

LOS analysis indicates traffic operations on existing State Route 19 will be D in the year 2013 and will continue at level D for 2033. By 2033, traffic operations on an improved State Route 19 will be LOS of A for the four (4) lane section in Lauderdale County and LOS of C in Haywood County.



**Legend**

- m Schools
- V Hospitals
- State Route 19

# State Route 19

## LAUDERDALE - HAYWOOD

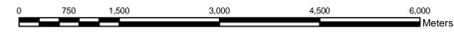


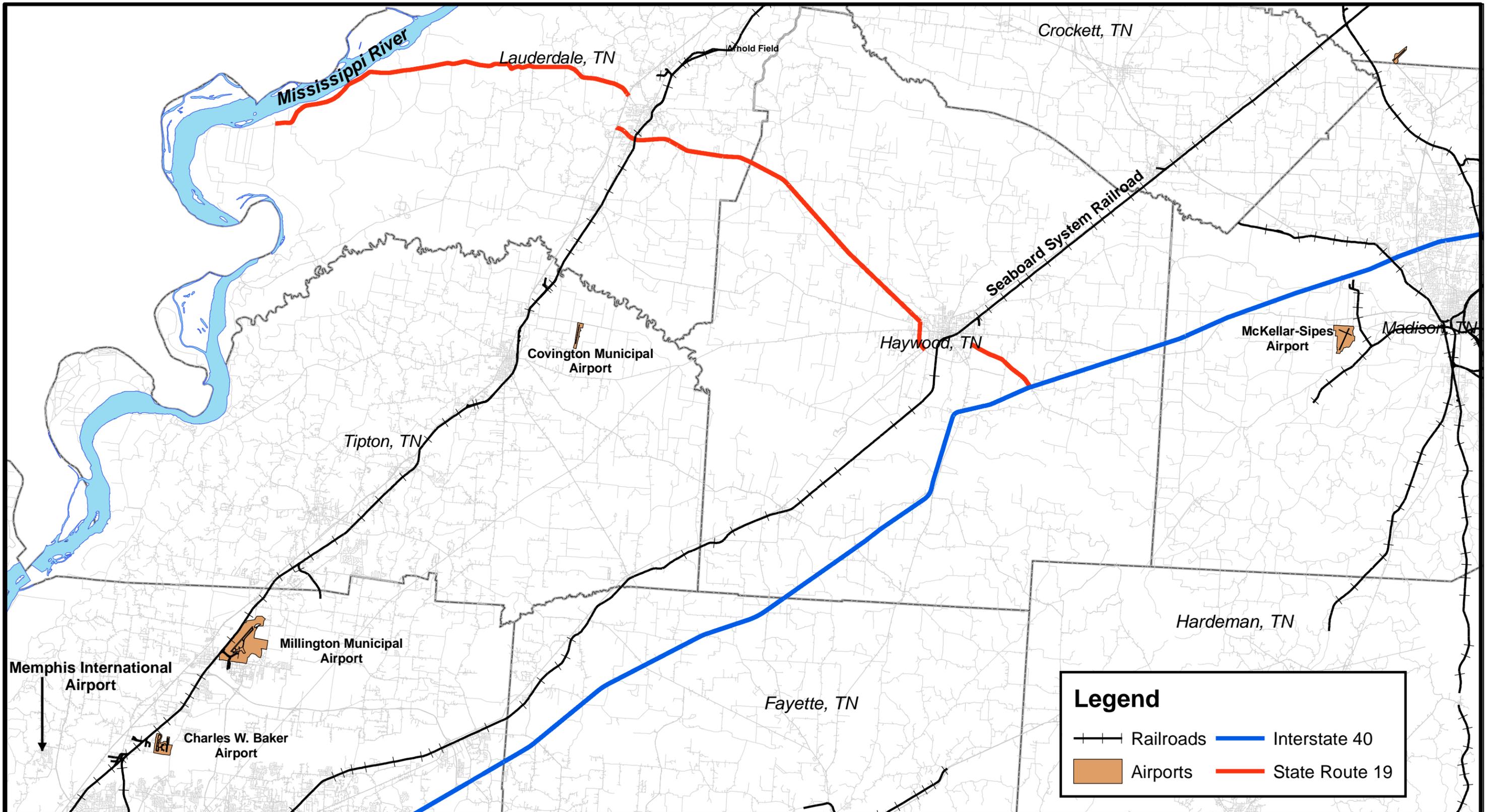
Figure 2  
p. 5

### Local Traffic Generators

Drawn By: **Chris Armstrong**

Checked by:

Date: **September 30, 2008**



**Legend**

- +—+— Railroads
- +—+— Airports
- Interstate 40
- State Route 19

**STATE ROUTE 19**  
**LAUDERDALE - HAYWOOD**

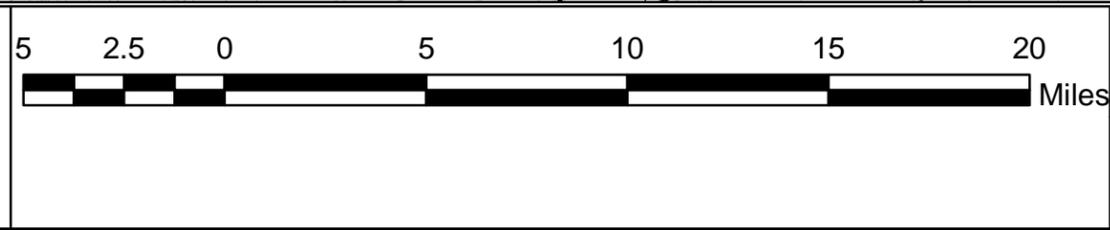
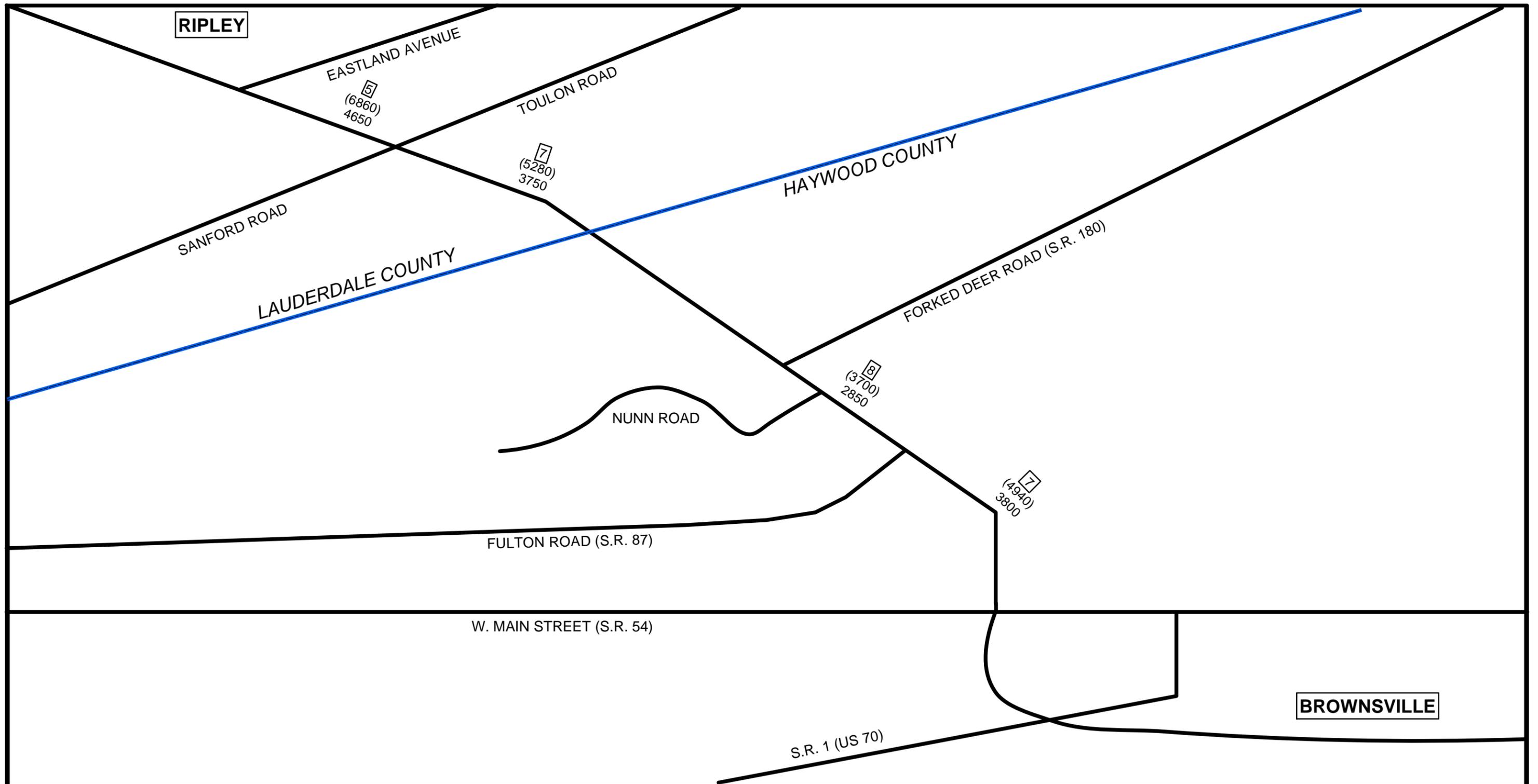


Figure 3  
 p. 6

**Multi-modal Map**  
 Drawn By: Chris Armstrong  
 Checked by:  
 Date: September 12, 2008



\*Not to Scale

**"NO BUILD"  
EXISTING SYSTEM  
AADT**

**LAUDERDALE-HAYWOOD**

**2013 AADT -- 000  
2033 AADT -- (000)  
ADT TRUCK % -- 0**

**RIPLEY - BROWNSVILLE**



Figure 4  
p. 10

**STATE ROUTE 19**

Drawn By: Chris Armstrong

Date: August 28, 2008

### 3.5 Land Uses/ Traffic Generators

Figure 3 is a map of the study area with symbols to indicate many of the traffic generators located throughout the study corridor. The traffic generators are separated into three land use categories: 1) industrial or manufacturing; 2) retail, and 3) public facility. Table 3.3 lists the name of each identified site.

### 3.6 Major Structures

There are no major structures directly located on State Route 19, excluding some minor bridges and culverts. A bridge (380A3140001) at the intersection of State Route 19 and Key Corner Road has a sufficiency rating of 31.9 and is listed on the Special Bridge Replacement Program.

### 3.7 Topography

There is mixed topography in the study section, consisting of gently rolling hills and flat terrain. There are no severe grade changes but the rolling hills do restrict sight distance in some areas.

### 3.8 Multi-Modal Facilities

Within the study area, there are no alternative modes of transportation. There are no dedicated pedestrian, bicycle, or transit facilities in the study area. Figure 3 illustrates the location of an air transportation facility, a rail line, highways, and a navigable waterway. The Dyersburg Municipal Airport in Dyersburg north of Ripley provides general aviation, taxi, and rental car service. A rail line operated by the Illinois Central Railway intersects State Route 19 at Log Mile 20.21. An overpass for State Route 19 prevents the railway from interrupting traffic on the state route. No rail passenger service is provided. The Mississippi River is a navigable waterway to the west, with no river access in the study area.

## **4.0 Field Review**

A number of field reviews including TDOT planning staff took place during the TPR process. Various locations were identified for geometric and safety improvements. Key elements of the discussion on July 23, 2008 with employees Tyler King, Christopher Armstrong, and Gena Gilliam included:

- Elimination of the vertical crest on State Route 19 at Springhill Road
- Addition of stop bars at intersections along the route
- Elimination of the ramp at Woodlawn Road
- Further study to determine need for replacement of the bridge at Key Corner Road

Other field reviews were held on May 16, 2008 and June 26, 2008 to better define existing conditions of State Route 19 and to better identify possible spot improvements.

## **5.0 Purpose and Need for Improvements**

### 5.1 Purpose and Need

The purpose of proposed improvements for the study corridor is to provide a transportation facility that improves access through the study corridor from Ripley in Lauderdale County to Brownsville in Haywood County. This facility should enhance mobility within the region, support economic development, improve safety, support alternative modes of travel, and relieve potential traffic congestion that may emerge from increasing development in and around the city of Ripley, taking into consideration the proposed addition of a junction from the new Interstate 69 into Ripley. The corridor provides a connector from this junction to the Interstate 40 junction in Brownsville.

### 5.2 Safety

There are some sight distance issues stemming from the rolling terrain along the corridor. In addition, there are many residential driveways, small commercial driveways, and local street and state route intersections with no turn lanes along the highway. In several locations, these physical characteristics result in the possibility of unsafe travel conditions.

According to an analysis by the Safety Planning Section of the Project Planning Division at TDOT, none of the sections analyzed have a crash ratio that exceeds the statewide average for similar sections. Within the three-year study period, total crashes for the corridor is 78, with 2 fatalities and 7 incapacitating injuries. Most of the severe crashes occurred when the vehicles left the travel lane.

### 5.3 System Linkage

This section of the State Route 19 corridor is a primary west-east route for Lauderdale and Haywood counties. The roadway accesses employment opportunities, provides an opportunity for the movement of agricultural products, and allows access to hospitals and emergency services in Brownsville and Ripley. Other opportunities include access to education in Ripley at the Tennessee Technology Center and access to retail facilities.

Initial findings, as documented in section 6.0 of this report, indicate multiple areas of concern along State Route 19 that merit some form of improvement. A review of the corridor reveals several areas of deficient shoulder width and less than recommended clear zones.

### 5.4 Capacity

Traffic volumes within the 20-year planning horizon do not support additional through travel lanes to increase capacity. However, localized improvements and increased travel lane and shoulder width is warranted in many areas to improve operations and safety.

### 5.5 Transportation Demand

There are no plans for improvement of State Route 19 in the State Transportation Improvement Plan (STIP) or the Long-Range Transportation Plan. Traffic forecasts were developed for this study using a historical growth rate for State Route 19.

### 5.6 Legislation

There is no federal, state, or local government mandate for improvement of State Route 19.

### 5.7 Social Demands or Economic Development

Local officials in Ripley believe that an improved State Route 19 will enable the city to attract industry by providing quicker and safer access to I-40. However, residents in Nutbush generally oppose a four (4) lane divided highway through a traditionally rural area.

### 5.8 Modal Inter-relationships

There are no alternative modes of transportation in the corridor and no plans for their implementation.

### 5.9 Roadway Deficiencies

The options considered in this study would provide correction or mitigation of existing deficiencies either by widening the existing facility or by making spot improvements along the existing route. The widening option provides the benefit of wider shoulders and clear zones, improving safety in the corridor as well as easing congestion in the Ripley Urban Boundary. Widening will meet the current roadway design standards that can accommodate higher speed traffic. The spot improvement option would correct deficiencies leading to improved safety, maneuverability, and driver comfort. A combination of Options B and C would provide both improved roadway design and a safer facility through elimination of current roadway deficiencies.

## **6.0 Improvement Options**

Several options were considered and evaluated as a means of addressing the transportation needs within the study area. The options include the following:

- No Build (Option A)—Make no physical changes to the existing roadway;
- Option B— Construct a four (4) lane divided facility from Ripley (at SR 3) to Springhill Road in Lauderdale County, tapering to an improved 2-lane facility through Haywood County to the Brownsville Bypass;
- Option C—Make spot improvements to deficient geometrics and intersections to improve safety and sight distance.

The following sections of this report summarize the concept, typical section, identified environmental and cultural resource concerns, structural impacts, and preliminary cost (based on a per mile estimate) of each considered option. For each option, an operational performance assessment was conducted to provide an objective measure of

the benefits and/ or shortcomings of each option. The operational performance assessment is based upon future traffic (AADT) projections with a peak hour factor. Traffic projections for State Route 19 were developed for two horizon years (2013 and 2033) by applying a historical growth rate to existing traffic counts then adding the calculated trip generation traffic that would be likely to be generated by future regional growth.

Future AADT volumes for each option are summarized in Table 6.1. Traffic volume maps are included in the detailed description of each option.

**Table 6.1  
Future AADT-2013**

<b>Road Segment</b>	<b>No Build (Option A)</b>	<b>Option B</b>	<b>Option C</b>
Eastland Road to Toulon/Sanford Road	<b>D</b>	<b>A</b>	<b>D</b>
Toulon/Sanford Road to SR-180	<b>D</b>	<b>A</b>	<b>D</b>
SR-180 to SR-87	<b>D</b>	<b>C</b>	<b>D</b>
SR-87 to SR-54	<b>D</b>	<b>C</b>	<b>D</b>

**Future AADT-2033**

<b>Road Segment</b>	<b>No Build (Option A)</b>	<b>Option B</b>	<b>Option C</b>
Eastland Road to Toulon/Sanford Road	<b>E</b>	<b>A</b>	<b>E</b>
Toulon/Sanford Road to SR-180	<b>D</b>	<b>A</b>	<b>D</b>
SR-180 to SR-87	<b>D</b>	<b>C</b>	<b>D</b>
SR-87 to SR-54	<b>D</b>	<b>D</b>	<b>D</b>

The forecasted peak hour volumes for each option were analyzed using the Highway Capacity Software.

**6.1 Corridor Improvements**

**No Build Option**

The no-build option provides no improvements and serves as a baseline option for comparison with all other options. Therefore, with no provisions for improvement, the no-build option is rarely accepted as the preferred alternative. However, it should be noted that public meetings and citizen comments collected from the citizens of Nutbush in Haywood County revealed that the no-build option is the preferred option for the Nutbush section of the proposed project. Citizens in the Nutbush area voiced opposition

to roadway improvements through Nutbush due to the change they feel a higher-capacity roadway would bring to their traditional rural community.

The no-build option will have no impact on congestion in the corridor. The LOS is projected through the corridor to be within an unacceptable range through the year 2033. The study area has a projected LOS of D for the two (2) lane section of roadway. It can be assumed that congestion will increase and the overall operations will become worse. Regardless of the LOS, there are safety concerns in both the Lauderdale and Haywood County sections that will not be addressed with a no-build option.

Option B: Consists of a four (4) lane divided roadway in the Lauderdale County section of the study area (Log Miles 19.11-24.75) to an improved two (2) lane roadway section at Sanford Road/ Toulon Road (Log Mile 24.75). The tapering down to an improved two (2) lane roadway will begin at Sanford/Toulon Road and continue through Haywood County to the Brownsville Bypass (Log Mile 11.53). The projected LOS of the Lauderdale section is A, and the LOS for the Haywood section is C.

Option B begins at US Highway 51/ State Route 3/ Jefferson Davis Highway in Ripley, Lauderdale County as a four (4) lane divided roadway with 12-foot travel lanes with 10-foot shoulders. Figure 5 illustrates this location on a U.S.G.S. map. This four (4) lane divided roadway is planned to continue along State Route 19 to a point just west of the Haywood County line at Sanford Road/ Connor Whitfield Road. Approximately 150 feet of right-of-way will be required for a 4-lane roadway. The highway will begin to taper at the Sanford Road intersection (Log Mile 24.75), completing this taper by Springhill Road at Log Mile 25.86. The improved two (2) lane roadway will consist of two 12-foot travel lanes with 10 foot shoulders then continue through the town of Nutbush, ending at the Brownsville Bypass, at Log Mile 11.53. Figure 6 illustrates the taper, while Figure 7 illustrates the improved two (2) lane sections through Nutbush and Haywood County. Total estimated cost for option B is \$114.5 million.

While Lauderdale County public officials and citizens support a four (4) lane divided section through the county from State Route 3 to the Haywood County line, the citizens of Haywood County, especially in the town of Nutbush, are generally against a four (4) lane divided improvement in the Haywood County section. Nutbush citizens, according to public workshop comments, do support the No-Build option, and would accept, at most, a two (2) lane highway with improved shoulders.

## 6.2 Spot Improvements

### Option C: Spot Improvements

The implementation of spot improvements at deficient locations throughout the corridor can improve safety and accessibility for motorists. The following pages and photographs depict seventeen locations throughout the corridor that were identified for safety and/ or geometric improvements. Total estimated cost for option C is \$47,100.

Location No. 1: US Highway 51/ State Route 3/ Jefferson Davis Highway at State Route 19, Ripley, Lauderdale County, Log Mile 19.11



It is recommended to improve this intersection by replacing the stop ahead pavement markings headed west in front of Ripley Elementary School and install one (1) W3-1 stop ahead warning sign on westbound State Route 19. One (1) R1-1 stop sign should be installed on westbound State Route 19, and one (1) D1-2 "Dyersburg/ Covington" destination sign should be added approximately 200' from the intersection. Total estimated cost for these improvements is \$2,400.

Location No. 2: Bridge on State Route 19 near Ripley Elementary School, Ripley, Lauderdale County, Log Mile 19.35



It is recommended to replace the guardrail end treatment on westbound State Route 19 with Type 38 end treatment as per S-GR-43 at Log Mile 19.35. Total estimated cost of this improvement is \$4000.

Location No. 3 State Route 19 at Charles Griggs Street Ripley, Lauderdale County Log Mile 19.54



It is recommended to restripe Charles Griggs Street for approximately 100' from the intersection with State Route 19. A stop bar should be installed on Charles Griggs Street with the turning radius from Charles Griggs Street to State Route 19 restriped to 50' each. A stop bar should be installed on the left turn lane on State Route 19. Total cost of these improvements is \$1,500.

Location No. 4 State Route 19 at South Jefferson Street Ripley, Lauderdale County Log Mile 19.91



It is recommended to restripe the stop bar on the southbound approach of South Jefferson Street and to install a stop bar on the left turn lane on State Route 19 at the intersection with South Jefferson Street. Total cost of these improvements is \$1,500.

Location No. 5: Highland Street at State Route 19, Ripley, Lauderdale County, Log Mile 21.10



At this intersection it is recommended to pave approximately 200' of the Highland Street approach at the State Route 19 intersection and restripe all approaches. A stop bar should be installed on Highland Street and at both turn lanes on State Route 19.

Location No. 5: Highland Street at State Route 19, Ripley, Lauderdale County, Log Mile 21.10



The guardrail end treatment on westbound State Route 19 should be replaced with Type 38 as per S-GR-43. Total cost for the intersection and guardrail improvements is \$5,100.

Location No. 6, East End Street and John Lamar Road at State Route 19, Ripley, Lauderdale County, Log Mile 21.98



It is recommended to install stop bars on the turn lane on State Route 19 and on Eastland Avenue at this intersection. Also, it is necessary to restripe approximately 100' along John Lamar Road approach and install stop bar. Total cost for these improvements is \$1,700.

Location No. 7, Intersection of State Route 19 and Willie Paris Road, Lauderdale County, Log Mile 22.26



It is recommended to realign the stop bar and replace the stop sign (R1-1) at this intersection. Total estimated cost for this improvement is \$1,400.

Location No. 8, Ross Road and Gause Road at State Route 19, Lauderdale County, Log Mile 22.92



It is recommended to trim the vegetation in the right-of-way along State Route 19. The intersection and approach on both Gause Lane and Ross Road should be restriped approximately 100' and a stop bar should be installed on Ross Road. A stop sign (R1-1) need to be installed on Ross Road. Total cost for these improvements is estimated to be \$2,700.

Location No. 9, Durhamville Road at State Route 19, Lauderdale County, Log Mile 23.49



It is recommended to restripe approximately 100' from the intersection of approach on Durhamville Road and to install a stop bar at the intersection. Total estimated cost for this improvement is \$1,250.

Location No. 10, Sanford Road/ Connor Whitfield Road at State Route 19, Lauderdale County, Log Mile 25.86



It is recommended to install stop bars to both Sanford Road and Connor Whitfield Road. Install one stop ahead sign (W3-1) on Connor Whitfield Road approximately 300' from the intersection. A directional sign (D1-2) reading Ripley (right arrow) and Brownsville (left arrow) should be replaced on Connor Whitfield Road approximately 200' from the intersection due to wear and tear. Total estimated cost for this improvement is \$2,000.

Location No. 11, Springhill Road at State Route 19, Lauderdale County, Log Mile 25.86



It is recommended to install a stop bar at the intersection of Springhill Road and State Route 19. Install two (2) side road warning signs (W2-2 R/L) on either side of the intersection, 300' east and west. Total estimated cost for this improvement is \$1,600.

Location No. 12, Tibbs Road at State Route 19, Haywood County, Log Mile 1.92



It is recommended to install a stop bar and 100 foot centerline through the intersection on Tibbs Road. Total estimated cost for this improvement is \$1,250.

Location No. 13, State Route 180 (Forked Deer Road)/ Nunn Road at State Route 19, Haywood County, Log Mile 2.13-2.17



On State Route 180, replace one (1) R1-1 stop sign and stop bar, replace one (1) D1-2 "Ripley/ Brownsville" destination sign 200' from intersection, replace one (1) TN-6C primary state route sign and (1) TN-39 cardinal direction supplemental plate approximately 400' from SR 180 intersection, replace one (1) TN-6C primary state route sign and one (1) M2-1 auxiliary junction sign approximately 600' from intersection at SR 180, and replace one (1) W3-1 stop ahead warning sign approximately 300' from intersection. At the Nunn Road intersection, remove the existing stop sign and install one (1) R1-1 stop sign with one (1) R1-1 supplemental stop sign on the left side of Nunn Road. Total estimated cost for these improvements is \$3,750.

Location No. 14 Woodlawn Road/ Briar Creek Road at State Route 19, Haywood County, Log Mile 5.65



The approaches on Woodlawn Road and Briar Creek Road to SR 19 should be restriped approximately 100' from the intersection with stop bars installed on both approaches. Stop ahead signs (W3-1) should be installed 300' from the intersection on both roads. The right in-right out access to Woodlawn Road should be scarified and removed. Stop signs (R1-1) are recommended on Woodlawn and Briar Creek Roads at the SR 19 intersection. Total cost of these improvements is estimated at \$9,800.

Location No. 15 Key Corner Road/ Patton Lane at State Route 19, Haywood County, Log Mile 8.75



Improvements to the intersection are recommended, including the installation of one (1) stop ahead (W3-1) warning sign approximately 300' from the intersection of Key Corner Road and SR 19, and one (1) stop ahead (W3-1) warning sign approximately 300' from the intersection of Patton Lane and SR 19. Deer Traffic warning signs (W11-3) should be installed on both eastbound and westbound approaches to the intersection on SR 19. The replacement of the overflow bridge (see photograph above) on Key Corner Road needs investigation. Total cost of these improvements is estimated to be \$2,700.

Location No. 16 Culvert on State Route 19, Haywood County, Log Mile 9.43



Four object markers (OM-1 R/L) are recommended to be installed at this location. This improvement is expected to cost \$1,250.

Location No. 17, State Route 87 (Fulton Road) at State Route 19, Haywood County, Log Mile 10.57



Recommendations for this intersection include installation of a stop bar on SR 87 at the SR 19 intersection, installation of one (1) W3-1 stop ahead warning sign approximately 300' from the SR 87/ SR 19 intersection, replacement of one (1) TN-6C primary state route sign and one (1) TN-39 cardinal direction supplemental plaque approximately 400' from the SR 87/SR 19 intersection, replacement of one (1) W1-7 two direction large arrow sign with two (2) Type 1 object markers-yellow across the SR 87/ SR 19 intersection, installation of one (1) W2-2R side road warning sign approximately 300' before the intersection on eastbound SR 19 and one (1) W2-2L side road warning sign approximately 300' before the intersection on westbound SR 19. Total cost of these improvements is estimated at \$3,450.

Total estimated cost for all improvements in the corridor is \$47,100.

### 6.3 Early Environmental Screening (EES)

In preparation of Transportation Planning Reports (TPR), the Tennessee Department of Transportation (TDOT) has introduced an environmental screening process for the project study area. By screening the latest available Geographic Information Systems (GIS) environmental data during the early stages of project planning TDOT and the public will be better prepared to anticipate potential environmental issues and mitigation requirements. This screening process involves using GIS to assess environmental data

as it spatially relates to the project's Area of Potential Effect (APE). In broad terms, the GIS environmental data reviewed in this TPR include the following layers:

- ❖ 1,000 ft EES Corridor
  - Community Impact--Cemetery Sites: Cemetery & Cemetery Property
  - Institutions—Churches, Schools, Hospitals
  - Sensitive Community Populations
  - Ecology—Rare & Protected Species: Bats
  - Railroads & Public Lands—Railroads
- ❖ 2,000 ft EES Corridor
  - Historic Architecture—National Register
  - Hazardous Substances & Geology
    - Superfund Sites
    - Geology—Superfund Sites
  - Railroads & Public Lands—TWRA Lakes & Other Public Lands
- ❖ 4,000 ft EES Corridor
  - Ecology—Terrestrial Species
  - TDEC Conservation Sites
  - TDEC Scenic Waterways
  - Large Wetland Impacts
  - Railroads & Public Lands
    - Tennessee Natural Areas Programs & Wildlife Management Areas
- ❖ 10,000 ft EES Corridor
  - Ecology—Rare & Protected Species: Aquatic Species
  - Hazardous Substances & Geology—Geology: Caves

As of the publication of this document, the GIS data within each layer was up to date relevant to date of its publication. This data will be updated as part of the ongoing project development process.

All of the previously referenced GIS data is shown on the study area location map included in this TPR.

#### 6.4 Impacts evaluated within 1000 ft EES Corridor

##### *Cemetery Sites & Cemetery Properties*

No impact on the project as there are no known cemetery sites within or abutting the project study area or corridor. It is anticipated that a 'normal' effort to complete this environmental review as part of NEPA.

##### *Institutions & Sensitive Community Properties*

Institutions (Hospital, School, Church, & Public Buildings): None are located within or abutting the project study area or corridor.

Populations: The following sensitive population groups were identified because they are located within or abutting to the project study area or corridor:

- No population present
- Minority populations 24%
- Linguistically isolated populations
- Populations below poverty – State average – 13%
- Populations below poverty – State average – 27%

##### *Rare and protected species*

*Bats:* None – No project impact is anticipated. There is no occurrence of Indiana or gray bats within four (4) miles of the proposed project study area or corridor.

##### *Railroads*

No impact on the project is anticipated. There are no railroads located within the project study area or corridor.

#### 6.5 Impacts evaluated within 2000 ft Corridor

*National Register Sites*—No project impact is anticipated as there are no National Register listed properties abutting or within the project study area or corridor.

*Superfund Site*—No project impact is anticipated as there are no known contaminated land tracts abutting or within the project study area or corridor.

*Pyritic Rock*—No project impact is anticipated. Pyritic rock is not known to occur in the study area/corridor or project does not involve excavation. Limestone (symbolized as dark green) and dolomite (symbolized as light green) are present.

*TWRA Lakes & Other Public Lands*—No impact on the project is anticipated as there are no parks located within or abutting the project study area or corridor.

#### 6.6 Impacts evaluated within 4,000 ft Corridor

*Terrestrial Species*—No impact to the project is anticipated. There is no known occurrence of a rare, state, or federally protected species within the project study area or corridor.

*TDEC Conservation Sites & TDEC Scenic Waterways*—No project impact is expected as there are no scenic waterways or TDEC Conservation Sites within the project study area or corridor.

*Large Wetland Impacts*—Substantial – Region 4: A substantial impact to the project is probable as there is greater than 5 acres of wetlands within the project study area or corridor. Compensatory mitigation will be required. Design effort will be needed to avoid and minimize impacts to wetlands to the maximum extent practicable. If a floodplain is crossed by the project, flood culverts may be necessary.

*Tennessee Natural Areas Program*—No impact on the project is anticipated as the project study area or corridor does not include a Natural Area.

*Wildlife Management Areas*—No project impact is anticipated as a WMA does not abut nor is located within the project study area or corridor.

**6.7 Impacts evaluated within 10,000 ft Corridor**

*Aquatic Species*—No impact on the project is anticipated. There is no known occurrence of a rare state or federally protected aquatic species within the project study area or corridor.

*Caves*—No project impact is anticipated as there are no caves in the project area or corridor.

**6.8 Structural Impacts**

The no-build Option A incurs no structural impacts.

Options B and C impact sixteen (16) culverts and recommends the replacement of a bridge on Key Corner Road at State Route 19 in Haywood County.

No other impacts are known.

**6.9 Cost Estimate**

Preliminary cost estimates were prepared for Option B based upon per mile costs. Costs for Options B were estimated considering expansion of the current route over rolling terrain. The cost estimate for this corridor option includes purchasing sufficient right-of-way for the typical section and relocating utilities at all local road crossings. The preliminary cost estimate for spot improvements on Option C is based on per location costs for reconstruction of the existing two-lane highway with no access control in rolling terrain. The Option C cost estimate includes purchasing sufficient right-of-way to improve the existing roadway as warranted and relocating utilities.

**Table 6.2 Cost Estimates**

<b>Option</b>	<b>Cost</b>
Option A (No Build)	N/A
Option B	\$114.5 million
Option C (Spot Improvements)	\$47,100

## **7.0 Assessment of Corridor Options**

The Tennessee Department of Transportation has adopted seven guiding principles against which all transportation projects are to be evaluated. These guiding principles address concerns for system management, mobility, economic growth, safety, community, environmental stewardship, and fiscal responsibility. These guiding principles are discussed in the following paragraphs as they relate to Options A, B, and C.

### **7.1 Preserve and Manage the Existing Transportation System**

Options B involves construction of a four (4) lane and two (2) lane improved roadway over the existing corridor. Options A and C preserve the existing corridor either through a No-Build option (Option A) or through spot improvements to the existing roadway (Option C). Each of these options preserves the existing corridor with optimal changes or no changes at all.

### **7.2 Move a Growing, Diverse, and Active Population**

While industrial growth is a primary concern of citizens and civic leaders in Lauderdale County, it is important to residents of Haywood County to maintain a sense of their rural community. If industrial growth continues in Lauderdale County, it will be necessary to make improvements to State Route 19 in the Ripley area. Option B's four (4) lane divided roadway through Lauderdale County should satisfy community concerns for expansion, while the two (2) lane section through Haywood County preserves the roadway already in existence, thereby having little to no effect on a predominantly rural area that is not looking for industrial growth. Option C's spot improvements would increase safety and travel speeds but not capacity through the corridor, while the no-build Option A provides no improvement to the current roadway.

### **7.3 Support the State's Economy**

With unemployment in the two-county area running higher than the statewide average, it is important for Lauderdale County to attract the industrial growth it is seeking. Improved access for the county increases the likelihood of attracting this growth. However, with the state's economy on the decline, Options A and C provide minimal to no improvements with little or no negative impact on an economy already stretched to its limit.

### **7.4 Maximize Safety and Security**

A traffic crash rate was calculated for State Route 19 from crash data for the years 2004 through 2006. During that period a total of 78 crashes occurred throughout the study corridor. Of these crashes, 2 resulted in fatalities and 6 involved incapacitating injuries. Most of the crashes occurred when vehicles left the travel lane and collided with roadside objects. The overall crash rate for the corridor is less than the statewide average.

Option C includes spot improvements to the existing State Route 19 that could yield some improvement in safety performance if traffic volumes are consistent or increase

only moderately. These safety improvements could be negated if the corridor sees a large increase in traffic as a result of the junction with I-69 at Ripley.

Option B includes the safety improvements described in Option C plus an increase in lane capacity could accommodate any increases in traffic as a result of the new interstate junction, resulting in a safer roadway. The ability for vehicles to travel faster on a wider road with higher design speeds also affords increased security for the local and wider populations by allowing emergency vehicles greater access to the community.

#### 7.5 Build Partnerships for Livable Communities

Throughout the process of this study, TDOT staff has coordinated with local leaders and citizens to identify their concerns and objectives. The study documentation includes minutes and comments from a public workshop held in the Nutbush community on June 26, 2008. The public involvement process will continue throughout the study as mandated by the provisions of the National Environmental Policy Act (NEPA).

It is noted that Options B and C will have a greater impact on residential, agricultural, and industrial lands than Option A. The impacts to the community should be mitigated as much as possible to ensure both community and transportation needs are met.

As noted previously in this report, residents of the Nutbush community generally support of the No Build Option A. They also support the spot improvement Option C and will accept Option B as a two (2) lane improved roadway. Further improvements would not be acceptable to the community at large.

#### 7.6 Promote Stewardship of the Environment

The Early Environmental Screening tool (EES) provides a tool for environmental screening to help planners identify early on in the process major issues that may arise. EES is not intended to replace traditional, more intensive methods of environmental impact evaluation. Its main purpose is to identify potential impacts and clarify where additional analysis will be required. The quality of results produced by EES will only be as accurate and up-to-date as the data used.

#### 7.7 Promote Financial Responsibility

This Transportation Planning Report (TPR) is prepared in accordance with the Goals and Objectives set forth in Tennessee's Long Range Transportation Plan (LRTP).

In achieving the LRTP's goal of providing responsibility, accountability, and sustainability in the expenditure of transportation funds, this planning document includes the estimate cost for roadway improvements. These cost estimates are important decision-making tools when evaluating and maximizing the use of available transportation resources.

Additionally, the historic, existing, and projected study data documented in the TPR is instrumental in achieving the LRTP's objective of selecting and programming transportation projects based on regional needs and effectiveness.

Preliminary construction cost estimates were prepared for each considered option. According to the preliminary estimates, Option B is the costliest option with a cost of \$114.5 million. The estimate for spot improvements on Option C is \$47,100, while no cost is incurred for the No Build Option A.



Existing State Route 19

2000' Corridor

# STATE ROUTE 19

## LAUDERDALE - HAYWOOD

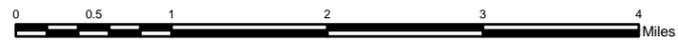


Figure 8  
p. 37

### Study Area

Drawn By: Chris Armstrong

Checked by:

Date: September 11, 2008

Route:	State Route 19
Description:	From: Jefferson Davis Hwy/ U.S. 51
	To: near Conner Whitfield Road
County:	Lauderdale/Haywood
Length:	5.9 ± MILE(s)
Date:	12/17/2008

CLEAR AND GRUBBING	\$	355,000
EARTHWORK	\$	2,905,000
PAVEMENT REMOVAL	\$	250,000
DRAINAGE	\$	3,575,000
STRUCTURES	\$	6,335,000
RAILROAD CROSSING OR SEPARATION	\$	0
PAVING	\$	16,820,000
RETAINING WALLS	\$	0
MAINTENANCE OF TRAFFIC	\$	295,000
TOPSOIL	\$	175,000
SEEDING	\$	120,000
SODDING	\$	60,000
SIGNING	\$	30,000
LIGHTING	\$	0
SIGNALIZATION	\$	0
FENCE	\$	0
GUARDRAIL	\$	170,000
RIP RAP OR SLOPE PROTECTION	\$	220,000
OTHER CONST. ITEMS (15%)	\$	4,695,000
MOBILIZATION	\$	1,260,000
CONSTRUCTION COST	\$	37,265,000
10% ENG. & CONT.	\$	3,725,000
TOTAL CONSTRUCTION COST	\$	40,990,000
10% PRELIMINARY ENGINEERING	\$	3,725,000
10%x 5 years= 50%		22,360,000
TOTAL COST	\$	67,075,000

Prepared by Conceptual Planning Office

Route:	State Route 19
Description:	From: near Conner Whitfield Road
	To: Brownsville Bypass
County:	Lauderdale/Haywood
Length:	12.72 ± MILE(s)
Date:	10/27/2008

CLEAR AND GRUBBING	\$	580,000
EARTHWORK	\$	1,645,000
PAVEMENT REMOVAL	\$	535,000
DRAINAGE	\$	2,255,000
STRUCTURES	\$	565,000
RAILROAD CROSSING OR SEPARATION	\$	0
PAVING	\$	15,085,000
RETAINING WALLS	\$	0
MAINTENANCE OF TRAFFIC	\$	635,000
TOPSOIL	\$	190,000
SEEDING	\$	130,000
SODDING	\$	65,000
SIGNING	\$	65,000
LIGHTING	\$	0
SIGNALIZATION	\$	0
FENCE	\$	0
GUARDRAIL	\$	220,000
RIP RAP OR SLOPE PROTECTION	\$	120,000
OTHER CONST. ITEMS (15%)	\$	3,315,000
MOBILIZATION	\$	940,000
CONSTRUCTION COST	\$	26,345,000
10% ENG. & CONT.	\$	2,635,000
TOTAL CONSTRUCTION COST	\$	28,980,000
10% PRELIMINARY ENGINEERING	\$	2,635,000
10%x 5 years= 50%		15,810,000
TOTAL COST	\$	47,425,000

Prepared by Conceptual Planning Office

<b>Route:</b>	<b>State Route 19</b>
<b>Description:</b>	<b>Site 1</b>
<b>County(s):</b>	<b>Lauderdale/Haywood</b>
<b>Date:</b>	<b>11/13/2008</b>

<b>Signs</b>	<b>\$</b>	<b>800</b>
<b>Pavement Marking</b>	<b>\$</b>	<b>500</b>
<b>Maintenance of traffic</b>	<b>\$</b>	<b>500</b>
<b>Mobilization</b>	<b>\$</b>	<b>100</b>
<b>CONSTRUCTION COST</b>	<b>\$</b>	<b>1,900</b>
<b>10% ENG. &amp; CONT.</b>	<b>\$</b>	<b>200</b>
<b>TOTAL CONSTRUCTION COST</b>	<b>\$</b>	<b>2,100</b>
<b>10% PRELIMINARY ENGINEERING</b>	<b>\$</b>	<b>200</b>
<b>4%x 1 year= 4%</b>	<b>\$</b>	<b>100</b>
<b>TOTAL COST</b>	<b>\$</b>	<b>2,400</b>

Prepared by Conceptual Planning Office

<b>Route:</b>	<b>State Route 19</b>
<b>Description:</b>	<b>Site 2</b>
<b>County(s):</b>	<b>Lauderdale/Haywood</b>
<b>Date:</b>	<b>11/13/2008</b>

<b>Guardrail End Terminal (Type 38)</b>	<b>\$</b>	<b>2,500</b>
<b>Maintenance of traffic</b>	<b>\$</b>	<b>500</b>
<b>Mobilization</b>	<b>\$</b>	<b>200</b>
<b>CONSTRUCTION COST</b>	<b>\$</b>	<b>3,200</b>
<b>10% ENG. &amp; CONT.</b>	<b>\$</b>	<b>300</b>
<b>TOTAL CONSTRUCTION COST</b>	<b>\$</b>	<b>3,500</b>
<b>10% PRELIMINARY ENGINEERING</b>	<b>\$</b>	<b>300</b>
<b>4%x 1 year= 4%</b>	<b>\$</b>	<b>200</b>
<b>TOTAL COST</b>	<b>\$</b>	<b>4,000</b>

Prepared by Conceptual Planning Office

<b>Route:</b>	<b>State Route 19</b>
<b>Description:</b>	<b>Site 3</b>
<b>County(s):</b>	<b>Lauderdale/Haywood</b>
<b>Date:</b>	<b>11/13/2008</b>

<b>Stop Bar(s)</b>	<b>\$</b>	<b>360</b>
<b>Pavement Marking</b>	<b>\$</b>	<b>250</b>
<b>Maintenance of traffic</b>	<b>\$</b>	<b>500</b>
<b>Mobilization</b>	<b>\$</b>	<b>100</b>
<b>CONSTRUCTION COST</b>	<b>\$</b>	<b>1,200</b>
<b>10% ENG. &amp; CONT.</b>	<b>\$</b>	<b>100</b>
<b>TOTAL CONSTRUCTION COST</b>	<b>\$</b>	<b>1,300</b>
<b>10% PRELIMINARY ENGINEERING</b>	<b>\$</b>	<b>100</b>
<b>4%x 1 year= 4%</b>	<b>\$</b>	<b>100</b>
<b>TOTAL COST</b>	<b>\$</b>	<b>1,500</b>

Prepared by Conceptual Planning Office

<b>Route:</b>	<b>State Route 19</b>
<b>Description:</b>	<b>Site 4</b>
<b>County(s):</b>	<b>Lauderdale/Haywood</b>
<b>Date:</b>	<b>11/13/2008</b>

<b>Stop Bar(s)</b>	<b>\$</b>	<b>360</b>
<b>Maintenance of traffic</b>	<b>\$</b>	<b>500</b>
<b>Mobilization</b>	<b>\$</b>	<b>100</b>
<b>CONSTRUCTION COST</b>	<b>\$</b>	<b>1,000</b>
<b>10% ENG. &amp; CONT.</b>	<b>\$</b>	<b>100</b>
<b>TOTAL CONSTRUCTION COST</b>	<b>\$</b>	<b>1,100</b>
<b>10% PRELIMINARY ENGINEERING</b>	<b>\$</b>	<b>100</b>
<b>4%x 1 year= 4%</b>	<b>\$</b>	<b>50</b>
<b>TOTAL COST</b>	<b>\$</b>	<b>1,250</b>

Prepared by Conceptual Planning Office

Route:	State Route 19
Description:	Site 5
County(s):	Lauderdale/Haywood
Date:	11/13/2008

Stop Bar(s)	\$	360
Guardrail End Terminal (Type 38)	\$	2,500
Pavement Marking	\$	500
Maintenance of traffic	\$	500
Mobilization	\$	200
<b>CONSTRUCTION COST</b>	<b>\$</b>	<b>4,100</b>
10% ENG. & CONT.	\$	400
<b>TOTAL CONSTRUCTION COST</b>	<b>\$</b>	<b>4,500</b>
10% PRELIMINARY ENGINEERING	\$	400
4%x 1 year= 4%	\$	200
<b>TOTAL COST</b>	<b>\$</b>	<b>5,100</b>

Prepared by Conceptual Planning Office

<b>Route:</b>	<b>State Route 19</b>
<b>Description:</b>	<b>Site 6</b>
<b>County(s):</b>	<b>Lauderdale/Haywood</b>
<b>Date:</b>	<b>11/13/2008</b>

<b>Stop Bar(s)</b>	<b>\$</b>	<b>540</b>
<b>Pavement Marking</b>	<b>\$</b>	<b>250</b>
<b>Maintenance of traffic</b>	<b>\$</b>	<b>500</b>
<b>Mobilization</b>	<b>\$</b>	<b>100</b>
<b>CONSTRUCTION COST</b>	<b>\$</b>	<b>1,400</b>
<b>10% ENG. &amp; CONT.</b>	<b>\$</b>	<b>100</b>
<b>TOTAL CONSTRUCTION COST</b>	<b>\$</b>	<b>1,500</b>
<b>10% PRELIMINARY ENGINEERING</b>	<b>\$</b>	<b>100</b>
<b>4%x 1 year= 4%</b>	<b>\$</b>	<b>100</b>
<b>TOTAL COST</b>	<b>\$</b>	<b>1,700</b>

Prepared by Conceptual Planning Office

<b>Route:</b>	<b>State Route 19</b>
<b>Description:</b>	<b>Site 7</b>
<b>County(s):</b>	<b>Lauderdale/Haywood</b>
<b>Date:</b>	<b>11/13/2008</b>

<b>Stop Bar(s)</b>	<b>\$</b>	<b>280</b>
<b>Sign(s)</b>	<b>\$</b>	<b>250</b>
<b>Maintenance of traffic</b>	<b>\$</b>	<b>500</b>
<b>Mobilization</b>	<b>\$</b>	<b>100</b>
<b>CONSTRUCTION COST</b>	<b>\$</b>	<b>1,100</b>
<b>10% ENG. &amp; CONT.</b>	<b>\$</b>	<b>100</b>
<b>TOTAL CONSTRUCTION COST</b>	<b>\$</b>	<b>1,200</b>
<b>10% PRELIMINARY ENGINEERING</b>	<b>\$</b>	<b>100</b>
<b>4%x 1 year= 4%</b>	<b>\$</b>	<b>100</b>
<b>TOTAL COST</b>	<b>\$</b>	<b>1,400</b>

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Route:	State Route 19
Description:	Site 8
County(s):	Lauderdale/Haywood
Date:	11/13/2008

Stop Bar(s)	\$	360
Sign(s)	\$	250
Vegetation Removal	\$	500
Pavement Marking	\$	500
Maintenance of traffic	\$	500
Mobilization	\$	100
<b>CONSTRUCTION COST</b>	<b>\$</b>	<b>2,200</b>
<b>10% ENG. &amp; CONT.</b>	<b>\$</b>	<b>200</b>
<b>TOTAL CONSTRUCTION COST</b>	<b>\$</b>	<b>2,400</b>
<b>10% PRELIMINARY ENGINEERING</b>	<b>\$</b>	<b>200</b>
<b>4%x 1 year= 4%</b>	<b>\$</b>	<b>100</b>
<b>TOTAL COST</b>	<b>\$</b>	<b>2,700</b>

Prepared by Conceptual Planning Office

<b>Route:</b>	<b>State Route 19</b>
<b>Description:</b>	<b>Site 9</b>
<b>County(s):</b>	<b>Lauderdale/Haywood</b>
<b>Date:</b>	<b>11/13/2008</b>

<b>Stop Bar(s)</b>	<b>\$</b>	<b>180</b>
<b>Pavement Marking</b>	<b>\$</b>	<b>250</b>
<b>Maintenance of traffic</b>	<b>\$</b>	<b>500</b>
<b>Mobilization</b>	<b>\$</b>	<b>100</b>
<b>CONSTRUCTION COST</b>	<b>\$</b>	<b>1,000</b>
<b>10% ENG. &amp; CONT.</b>	<b>\$</b>	<b>100</b>
<b>TOTAL CONSTRUCTION COST</b>	<b>\$</b>	<b>1,100</b>
<b>10% PRELIMINARY ENGINEERING</b>	<b>\$</b>	<b>100</b>
<b>4%x 1 year= 4%</b>	<b>\$</b>	<b>50</b>
<b>TOTAL COST</b>	<b>\$</b>	<b>1,250</b>

Prepared by Conceptual Planning Office

<b>Route:</b>	<b>State Route 19</b>
<b>Description:</b>	<b>Site 10</b>
<b>County(s):</b>	<b>Lauderdale/Haywood</b>
<b>Date:</b>	<b>11/13/2008</b>

<b>Stop Bar(s)</b>	<b>\$</b>	<b>360</b>
<b>Sign(s)</b>	<b>\$</b>	<b>550</b>
<b>Maintenance of traffic</b>	<b>\$</b>	<b>500</b>
<b>Mobilization</b>	<b>\$</b>	<b>100</b>
<b>CONSTRUCTION COST</b>	<b>\$</b>	<b>1,500</b>
<b>10% ENG. &amp; CONT.</b>	<b>\$</b>	<b>200</b>
<b>TOTAL CONSTRUCTION COST</b>	<b>\$</b>	<b>1,700</b>
<b>10% PRELIMINARY ENGINEERING</b>	<b>\$</b>	<b>200</b>
<b>4%x 1 year= 4%</b>	<b>\$</b>	<b>100</b>
<b>TOTAL COST</b>	<b>\$</b>	<b>2,000</b>

Prepared by Conceptual Planning Office

<b>Route:</b>	<b>State Route 19</b>
<b>Description:</b>	<b>Site 11</b>
<b>County(s):</b>	<b>Lauderdale/Haywood</b>
<b>Date:</b>	<b>11/13/2008</b>

<b>Stop Bar(s)</b>	<b>\$</b>	<b>180</b>
<b>Sign(s)</b>	<b>\$</b>	<b>500</b>
<b>Maintenance of traffic</b>	<b>\$</b>	<b>500</b>
<b>Mobilization</b>	<b>\$</b>	<b>100</b>
<b>CONSTRUCTION COST</b>	<b>\$</b>	<b>1,300</b>
<b>10% ENG. &amp; CONT.</b>	<b>\$</b>	<b>100</b>
<b>TOTAL CONSTRUCTION COST</b>	<b>\$</b>	<b>1,400</b>
<b>10% PRELIMINARY ENGINEERING</b>	<b>\$</b>	<b>100</b>
<b>4%x 1 year= 4%</b>	<b>\$</b>	<b>100</b>
<b>TOTAL COST</b>	<b>\$</b>	<b>1,600</b>

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Route:	State Route 19
Description:	Site 12
County(s):	Lauderdale/Haywood
Date:	11/13/2008

Stop Bar(s)	\$	180
Pavement Marking	\$	250
Maintenance of traffic	\$	500
Mobilization	\$	50
<b>CONSTRUCTION COST</b>	<b>\$</b>	<b>1,000</b>
<b>10% ENG. &amp; CONT.</b>	<b>\$</b>	<b>100</b>
<b>TOTAL CONSTRUCTION COST</b>	<b>\$</b>	<b>1,100</b>
<b>10% PRELIMINARY ENGINEERING</b>	<b>\$</b>	<b>100</b>
<b>4%x 1 year= 4%</b>	<b>\$</b>	<b>50</b>
<b>TOTAL COST</b>	<b>\$</b>	<b>1,250</b>

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<b>Route:</b>	<b>State Route 19</b>
<b>Description:</b>	<b>Site 13</b>
<b>County(s):</b>	<b>Lauderdale/Haywood</b>
<b>Date:</b>	<b>11/13/2008</b>

<b>Stop Bar(s)</b>	<b>\$</b>	<b>180</b>
<b>Sign(s)</b>	<b>\$</b>	<b>2,250</b>
<b>Maintenance of traffic</b>	<b>\$</b>	<b>500</b>
<b>Mobilization</b>	<b>\$</b>	<b>100</b>
<b>CONSTRUCTION COST</b>	<b>\$</b>	<b>3,000</b>
<b>10% ENG. &amp; CONT.</b>	<b>\$</b>	<b>300</b>
<b>TOTAL CONSTRUCTION COST</b>	<b>\$</b>	<b>3,300</b>
<b>10% PRELIMINARY ENGINEERING</b>	<b>\$</b>	<b>300</b>
<b>4%x 1 year= 4%</b>	<b>\$</b>	<b>150</b>
<b>TOTAL COST</b>	<b>\$</b>	<b>3,750</b>

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<b>Route:</b>	<b>State Route 19</b>
<b>Description:</b>	<b>Site 14</b>
<b>County(s):</b>	<b>Lauderdale/Haywood</b>
<b>Date:</b>	<b>11/13/2008</b>

<b>Stop Bar(s)</b>	<b>\$</b>	<b>360</b>
<b>Pavement Marking</b>	<b>\$</b>	<b>500</b>
<b>Pavement Removal</b>	<b>\$</b>	<b>5,000</b>
<b>Sign(s)</b>	<b>\$</b>	<b>1,000</b>
<b>Maintenance of traffic</b>	<b>\$</b>	<b>500</b>
<b>Mobilization</b>	<b>\$</b>	<b>400</b>
<b>CONSTRUCTION COST</b>	<b>\$</b>	<b>7,800</b>
<b>10% ENG. &amp; CONT.</b>	<b>\$</b>	<b>800</b>
<b>TOTAL CONSTRUCTION COST</b>	<b>\$</b>	<b>8,600</b>
<b>10% PRELIMINARY ENGINEERING</b>	<b>\$</b>	<b>800</b>
<b>4%x 1 year= 4%</b>	<b>\$</b>	<b>400</b>
<b>TOTAL COST</b>	<b>\$</b>	<b>9,800</b>

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<b>Route:</b>	<b>State Route 19</b>
<b>Description:</b>	<b>Site 15</b>
<b>County(s):</b>	<b>Lauderdale/Haywood</b>
<b>Date:</b>	<b>11/13/2008</b>

<b>Stop Bar(s)</b>	<b>\$</b>	<b>360</b>
<b>Sign(s)</b>	<b>\$</b>	<b>1,250</b>
<b>Maintenance of traffic</b>	<b>\$</b>	<b>500</b>
<b>Mobilization</b>	<b>\$</b>	<b>100</b>
<b>CONSTRUCTION COST</b>	<b>\$</b>	<b>2,200</b>
<b>10% ENG. &amp; CONT.</b>	<b>\$</b>	<b>200</b>
<b>TOTAL CONSTRUCTION COST</b>	<b>\$</b>	<b>2,400</b>
<b>10% PRELIMINARY ENGINEERING</b>	<b>\$</b>	<b>200</b>
<b>4%x 1 year= 4%</b>	<b>\$</b>	<b>100</b>
<b>TOTAL COST</b>	<b>\$</b>	<b>2,700</b>

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<b>Route:</b>	<b>State Route 19</b>
<b>Description:</b>	<b>Site 16</b>
<b>County(s):</b>	<b>Lauderdale/Haywood</b>
<b>Date:</b>	<b>11/13/2008</b>

<b>Sign(s)</b>	<b>\$</b>	<b>400</b>
<b>Maintenance of traffic</b>	<b>\$</b>	<b>500</b>
<b>Mobilization</b>	<b>\$</b>	<b>50</b>
<b>CONSTRUCTION COST</b>	<b>\$</b>	<b>1,000</b>
<b>10% ENG. &amp; CONT.</b>	<b>\$</b>	<b>100</b>
<b>TOTAL CONSTRUCTION COST</b>	<b>\$</b>	<b>1,100</b>
<b>10% PRELIMINARY ENGINEERING</b>	<b>\$</b>	<b>100</b>
<b>4%x 1 year= 4%</b>	<b>\$</b>	<b>50</b>
<b>TOTAL COST</b>	<b>\$</b>	<b>1,250</b>

Prepared by Conceptual Planning Office

<b>Route:</b>	<b>State Route 19</b>
<b>Description:</b>	<b>Site 17</b>
<b>County(s):</b>	<b>Lauderdale/Haywood</b>
<b>Date:</b>	<b>11/13/2008</b>

<b>Stop Bar(s)</b>	<b>\$</b>	<b>180</b>
<b>Sign(s)</b>	<b>\$</b>	<b>1,900</b>
<b>Maintenance of traffic</b>	<b>\$</b>	<b>500</b>
<b>Mobilization</b>	<b>\$</b>	<b>100</b>
<b>CONSTRUCTION COST</b>	<b>\$</b>	<b>2,700</b>
<b>10% ENG. &amp; CONT.</b>	<b>\$</b>	<b>300</b>
<b>TOTAL CONSTRUCTION COST</b>	<b>\$</b>	<b>3,000</b>
<b>10% PRELIMINARY ENGINEERING</b>	<b>\$</b>	<b>300</b>
<b>4%x 1 year= 4%</b>	<b>\$</b>	<b>150</b>
<b>TOTAL COST</b>	<b>\$</b>	<b>3,450</b>

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# Index Of Sheets

SHEET NO.	DESCRIPTION
1	..... TITLE SHEET
2	..... TYPICAL SECTION
3-44	..... PRESENT AND PROPOSED PLAN SHEETS
45	..... SHEET INDEX

# STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION BUREAU OF ENGINEERING

## LAUDERDALE-HAYWOOD COUNTIES

### STATE ROUTE 19

FROM : U.S. 51 (JEFFERSON DAVIS HWY.)  
TO : S.R. 19 (BROWNSVILLE BY-PASS)

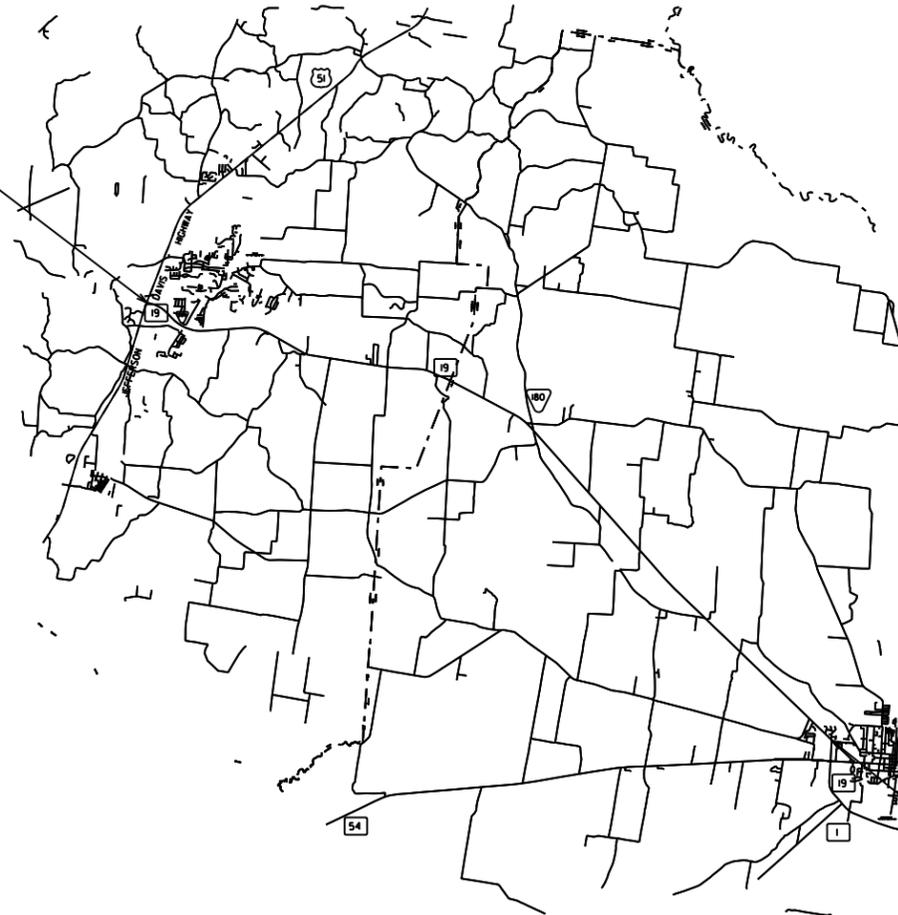
STATE HIGHWAY NO.      F.A.H.S. NO.

TENN.	YEAR	SHEET NO.
	2008	1
FED. AID PROJ. NO.		
STATE PROJ. NO.		



PROJECT LOCATION

BEGIN PROJECT



END PROJECT

SCALE: 1" = 6 MILES

### SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED MARCH 1, 1995 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT

TRANSPORTATION MANAGER 1 PAUL LANE

DESIGNER TYLER KING      DRAFTER JONATHAN ROGERS

APPROVED: \_\_\_\_\_  
CHIEF ENGINEER

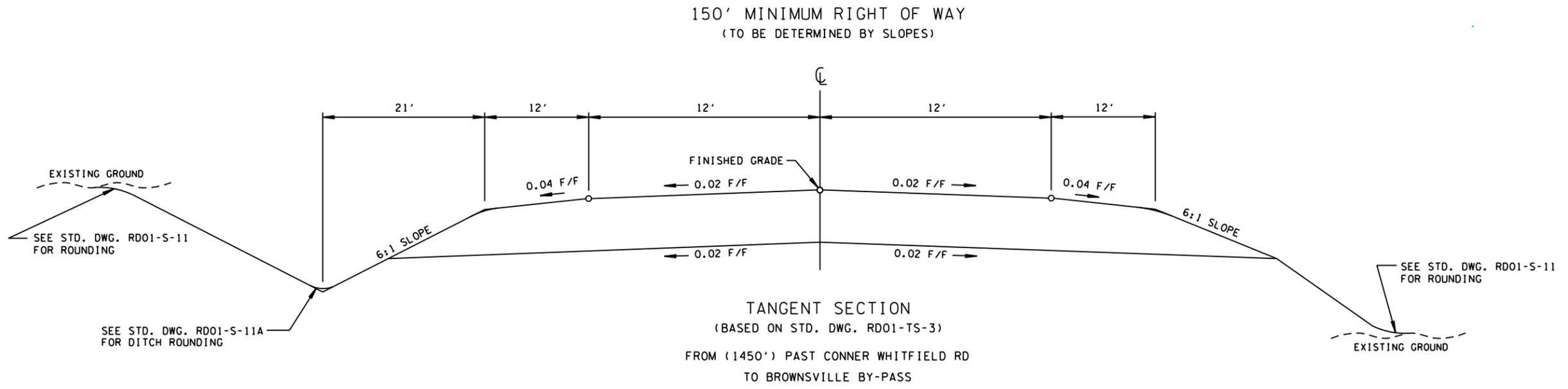
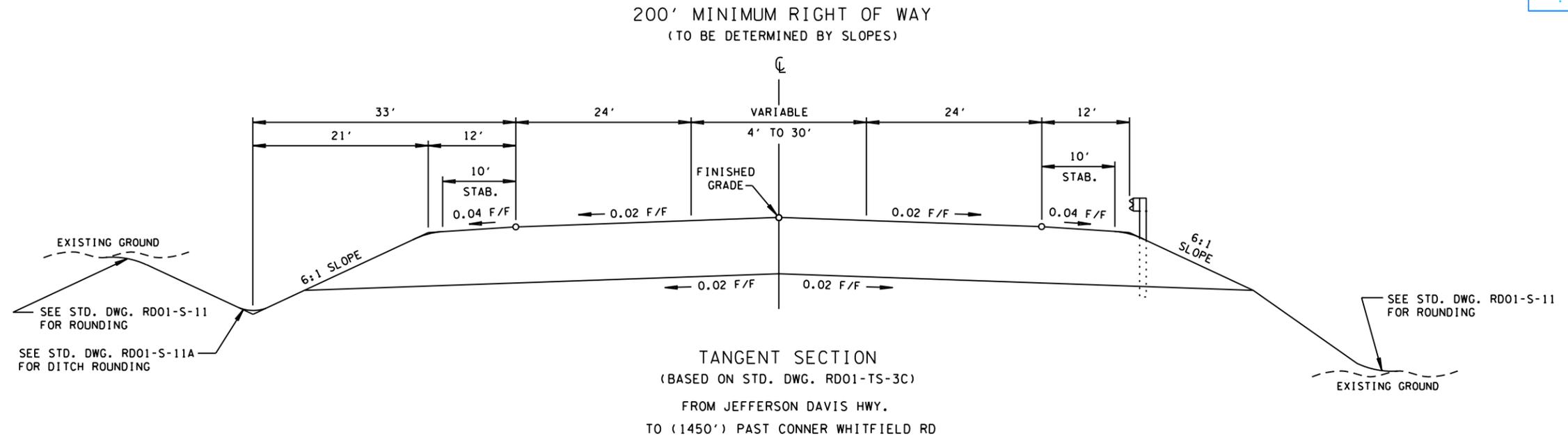
DATE: \_\_\_\_\_

APPROVED: \_\_\_\_\_  
COMMISSIONER

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: \_\_\_\_\_  
DIVISION ADMINISTRATOR      DATE

TYPE	YEAR	PROJECT NO.	SHEET NO.
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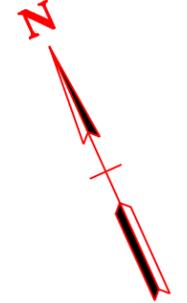


STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

**LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19**

TYPE	YEAR	PROJECT NO.	SHEET NO.
.	2008	.	4
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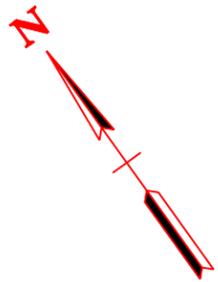


STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

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STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION  
 LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
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STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2008		7

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MATCH LINE

SEE SHEET 6

MATCH LINE

SEE SHEET 8



STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19



TYPE	YEAR	PROJECT NO.	SHEET NO.
	2008		8

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SEE SHEET 7

MATCH LINE

HIGHLAND ST.

HYDE RD.

SEE SHEET 9

MATCH LINE



STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION  
 LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
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STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

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STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

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	2008		11

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SEE SHEET 10

SEE SHEET 12

MATCH LINE

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WILLIE



STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
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STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
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STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

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	2008		15

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SEE SHEET 13

MATCH LINE

SEE SHEET 15

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STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2008		15

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SEE SHEET 14

MATCH LINE

TALL OAKS CV.

MAPLE HILLS CIR.

MAPLE HILLS CIR.

SEE SHEET 16

MATCH LINE



STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

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STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2008		17

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SEE SHEET 16

SEE SHEET 18

MATCH LINE

MATCH LINE



STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
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STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
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SEE SHEET 18

MATCH LINE

SEE SHEET 20

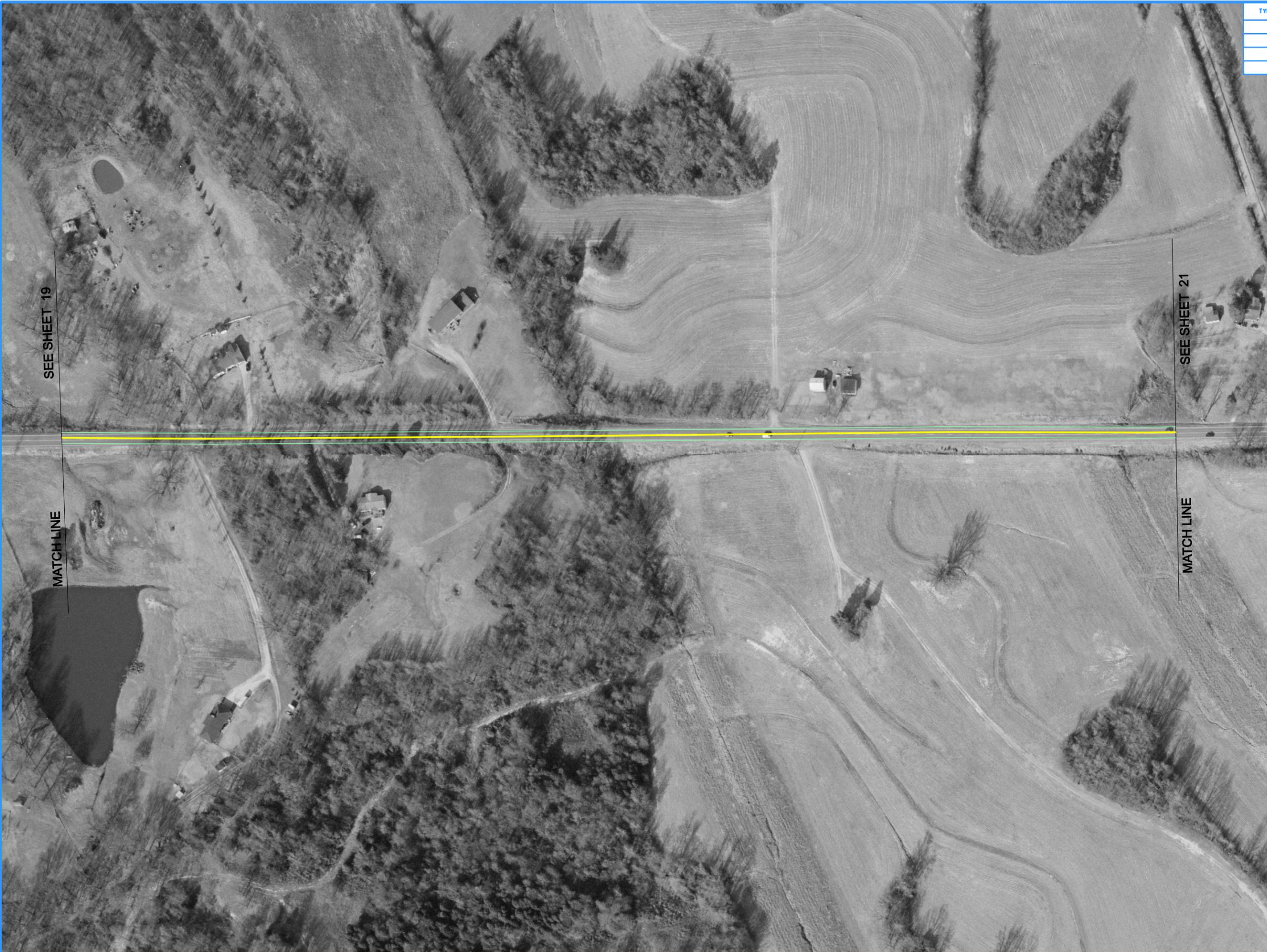
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STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2008		20



SEE SHEET 19

SEE SHEET 21

MATCH LINE

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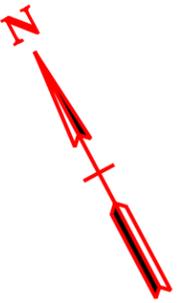


STATE OF TENNESSEE  
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LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2008		21

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STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2008		22

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SEE SHEET 21

SEE SHEET 23

MATCH LINE

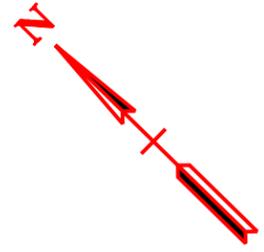
MATCH LINE



STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
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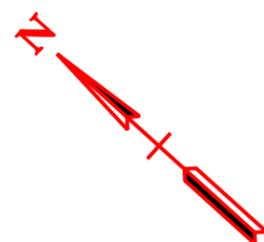


STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

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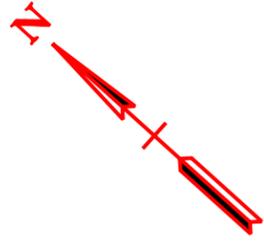


STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
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STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION  
 LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
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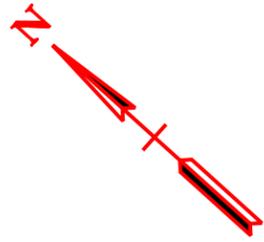


SEE SHEET 25

SEE SHEET 27

MATCH LINE

MATCH LINE



STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
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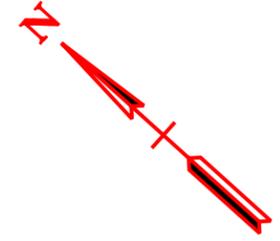
SEE SHEET 26

MATCH LINE

JIM BINFORD LN.

SEE SHEET 28

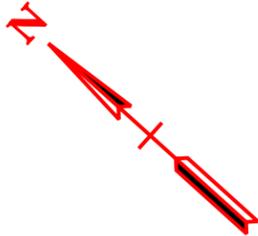
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STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION  
 LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
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STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
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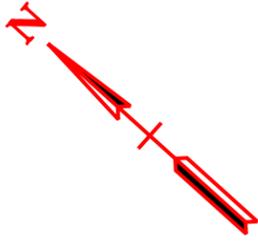


SEE SHEET 28

MATCH LINE

SEE SHEET 30

MATCH LINE

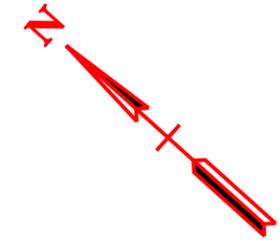


STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

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STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION  
 LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
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SEE SHEET 30

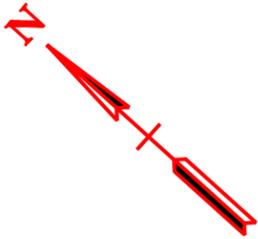
MATCH LINE

SEE SHEET 32

MATCH LINE

BRIARCREEK RD.

WOODLAWN RD.

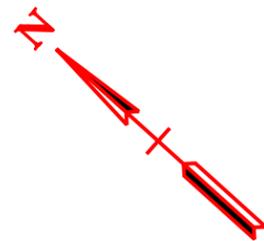


STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
COUNTIES  
STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
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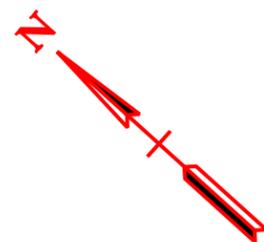
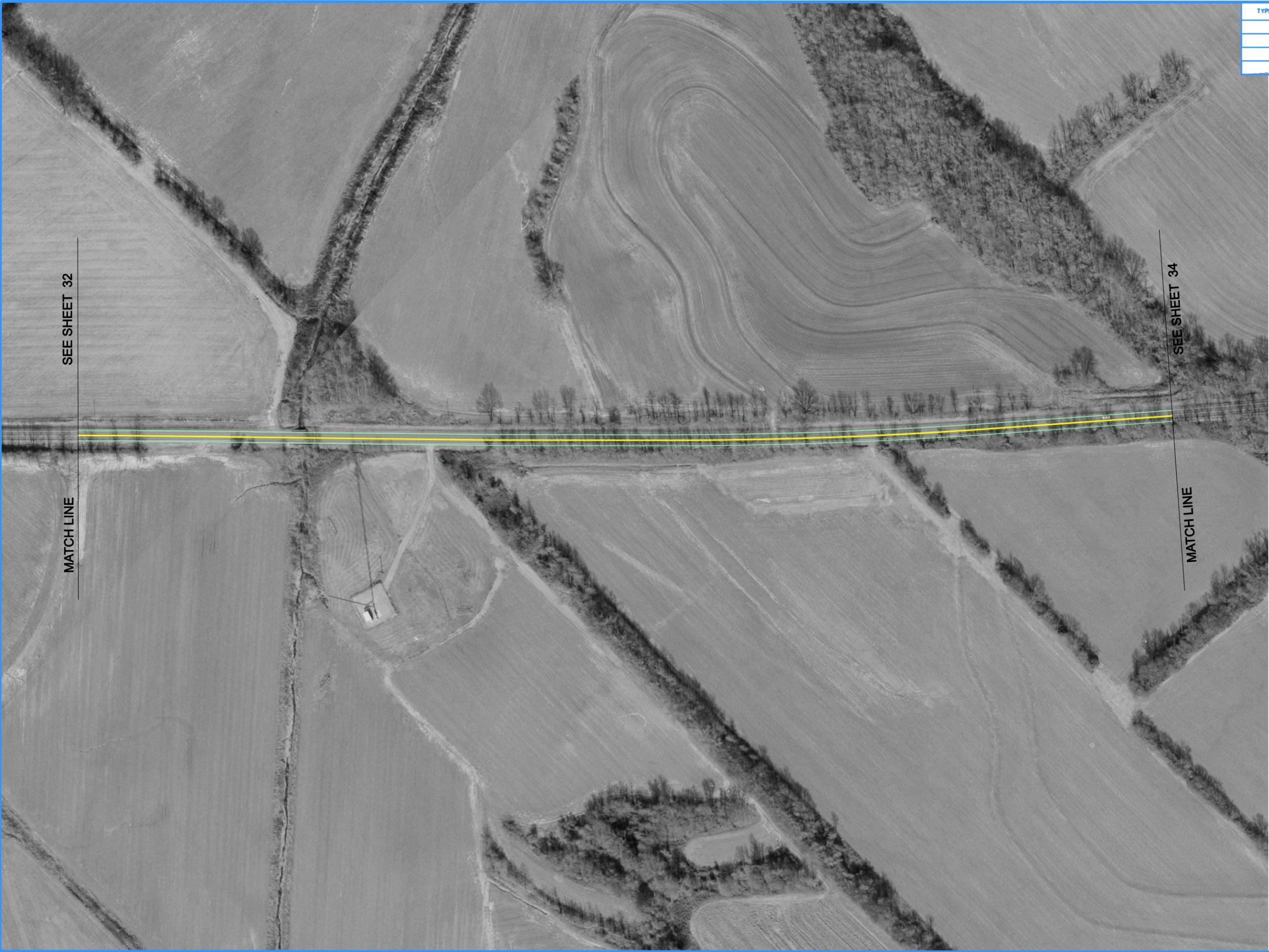
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STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION  
 LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2008		33

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STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION  
 LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
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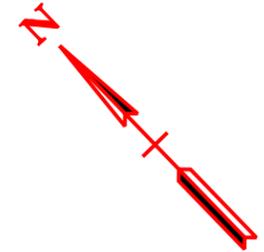


SEE SHEET 33

MATCH LINE

SEE SHEET 35

MATCH LINE



STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
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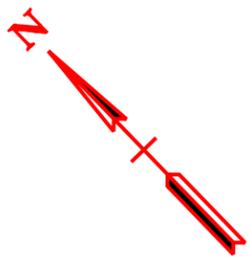
SEE SHEET 34

MATCH LINE

SEE SHEET 36

MATCH LINE

OLD S.R. 19



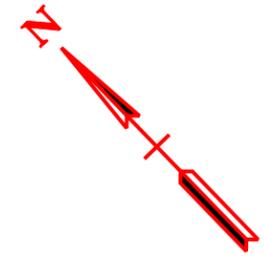
STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
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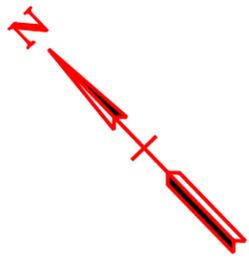
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STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION  
 LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2008		37

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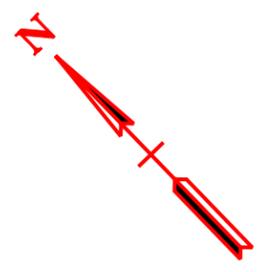


STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2008		38

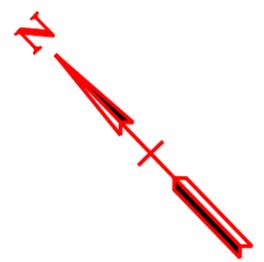
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STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION  
 LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2008		39

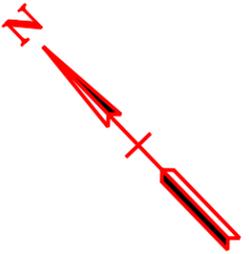
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STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION  
 LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
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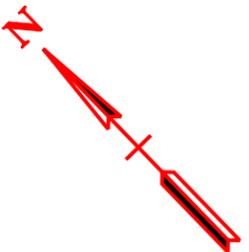
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STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

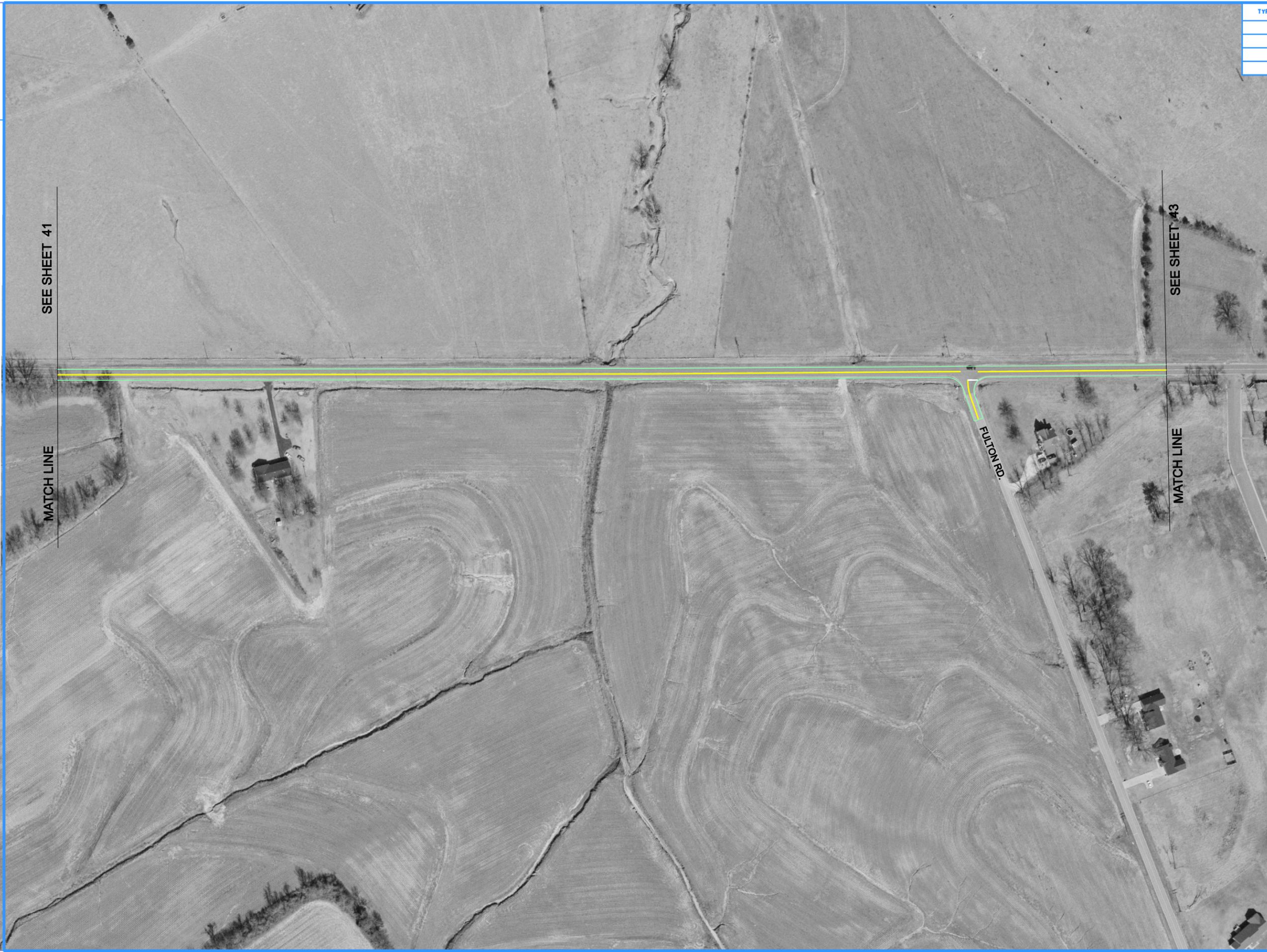
TYPE	YEAR	PROJECT NO.	SHEET NO.
	2008		41



STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
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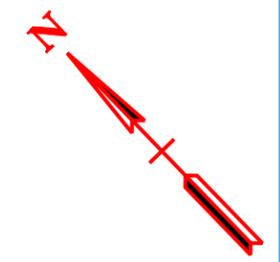
SEE SHEET 41

MATCH LINE

SEE SHEET 43

MATCH LINE

FULTON RD.



STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

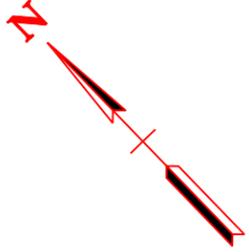
TYPE	YEAR	PROJECT NO.	SHEET NO.
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STATE OF TENNESSEE  
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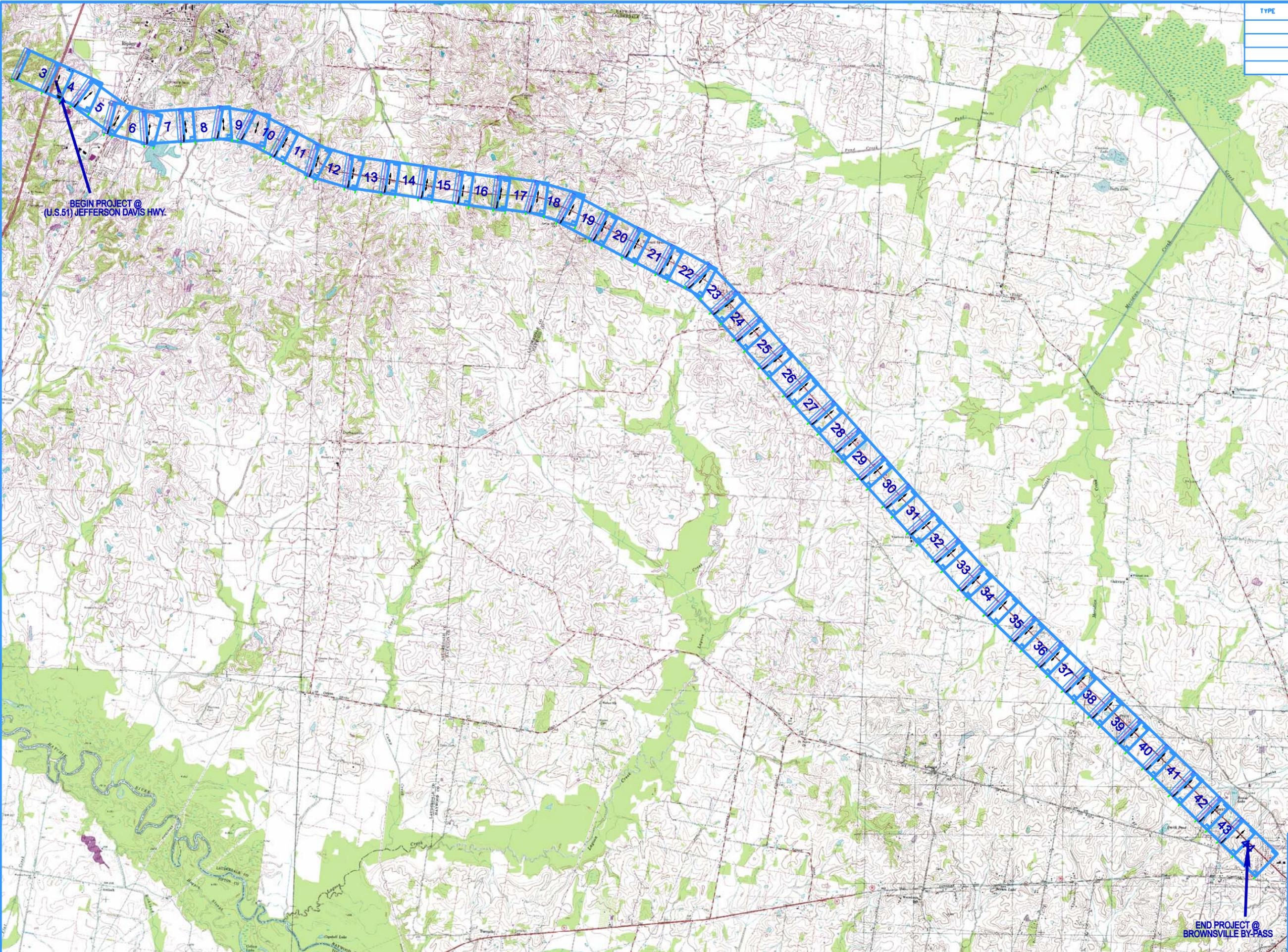
TYPE	YEAR	PROJECT NO.	SHEET NO.
.	2008	.	44
.	.	.	.
.	.	.	.



STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2008		INDX



BEGIN PROJECT @  
 (U.S.51) JEFFERSON DAVIS HWY.

END PROJECT @  
 BROWNSVILLE BY-PASS

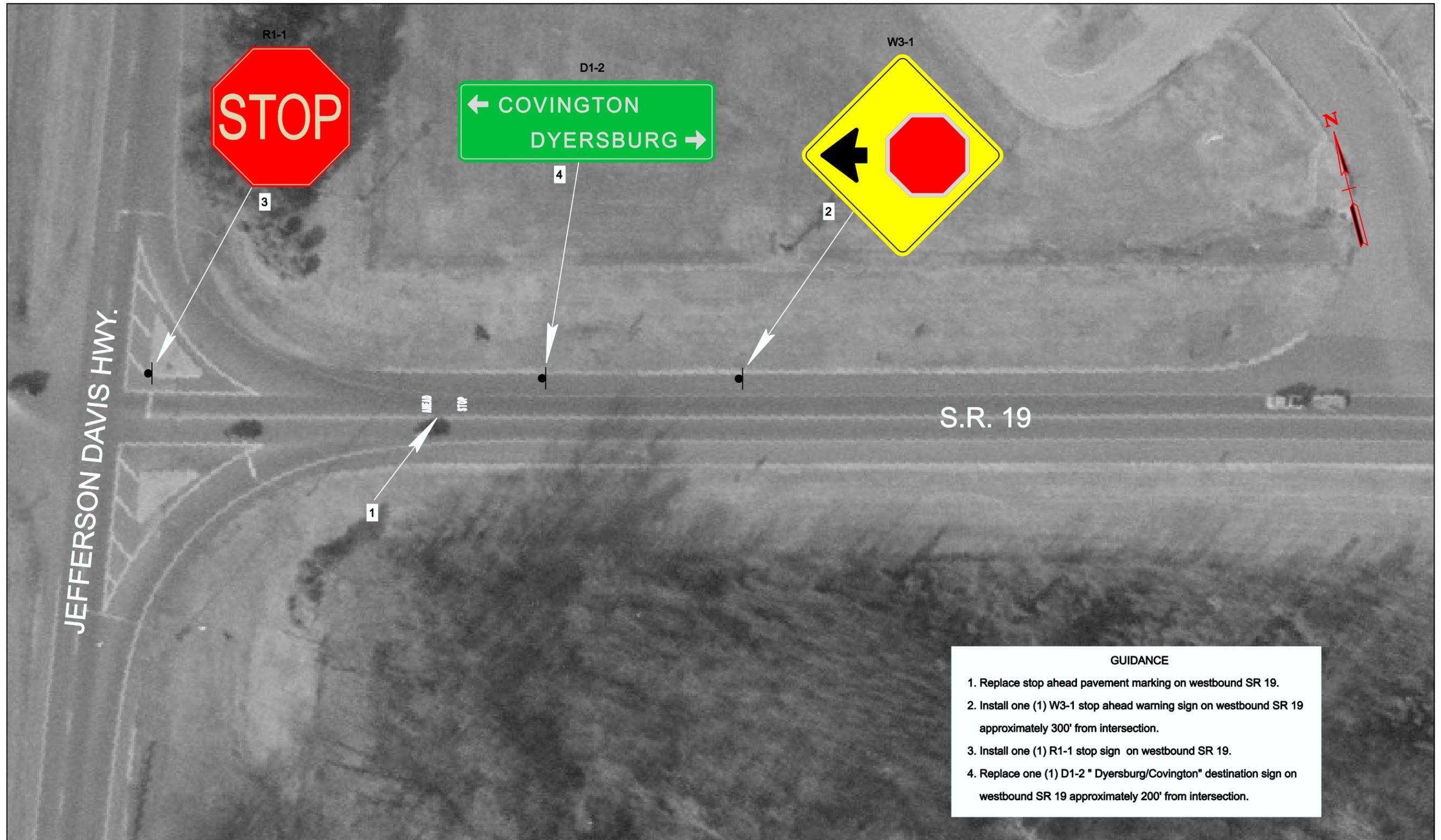


NOT TO SCALE

STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

LAUDERDALE-HAYWOOD  
 COUNTIES  
 STATE ROUTE 19  
 SHEET INDEX

# Option C - Site #1 State Route 19 in Lauderdale County L.M. 19.11



# Option C - Site #2 State Route 19 in Lauderdale County L.M. 19.35



**GUIDANCE**  
1. Replace guardrail end treatment on westbound SR 19 with Type 38 end treatment as per S-GR-43 at L.M. 19.35.



# Option C - Site #3 State Route 19 in Lauderdale County L.M. 19.54



# Option C - Site #4 State Route 19 in Lauderdale County L.M. 19.91



**GUIDANCE**

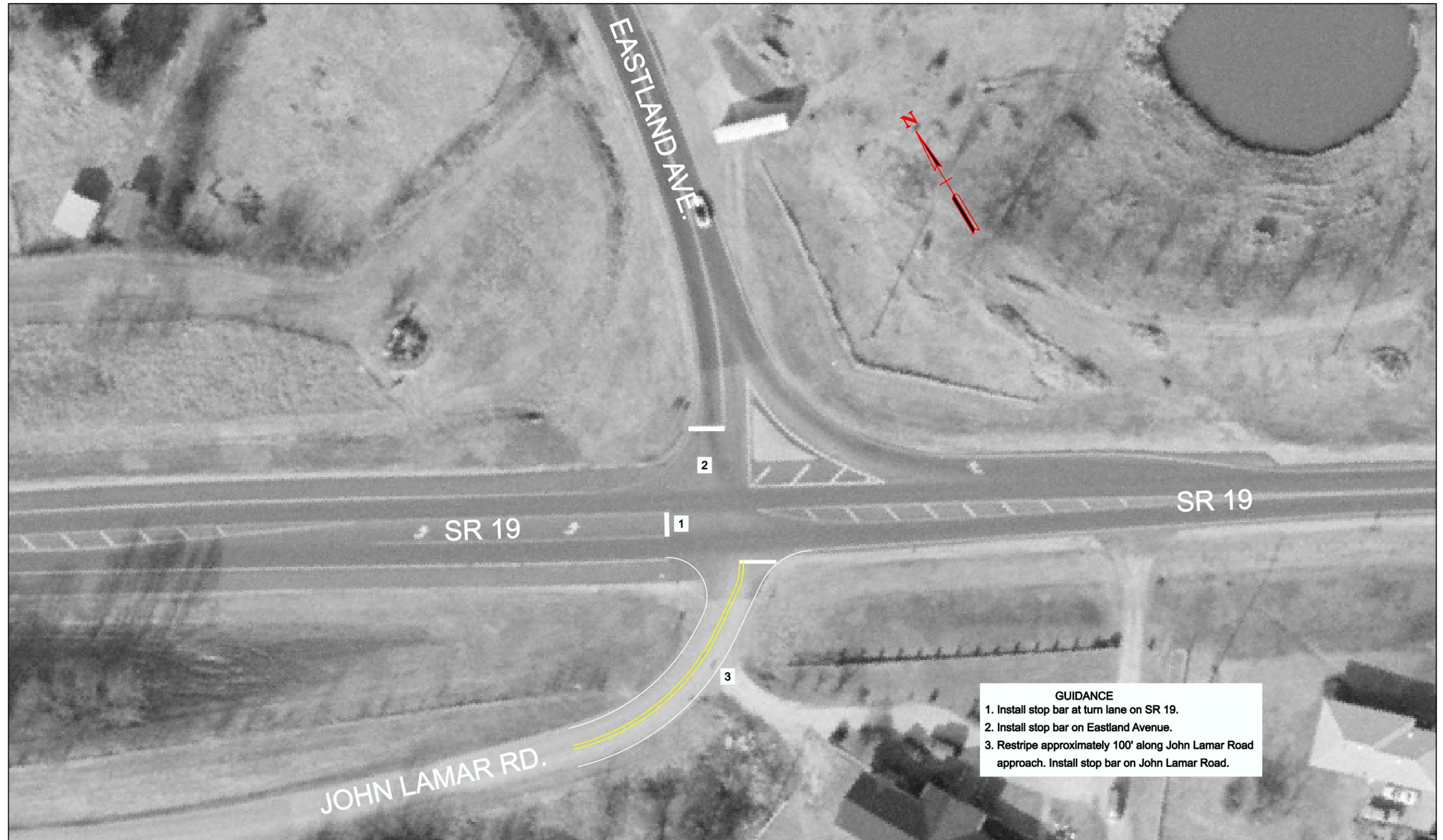
1. Restripe the stop bar on southbound approach of South Jefferson Street.
2. Install stop bar on left turn lane on SR 19 at intersection with South Jefferson Street.



# Option C - Site #5 State Route 19 in Lauderdale County L.M. 21.10



# Option C - Site #6 State Route 19 in Lauderdale County L.M. 21.98



**GUIDANCE**  
1. Install stop bar at turn lane on SR 19.  
2. Install stop bar on Eastland Avenue.  
3. Restripe approximately 100' along John Lamar Road approach. Install stop bar on John Lamar Road.



# Option C - Site #7 State Route 19 in Lauderdale County L.M. 22.26



**GUIDANCE**  
1. Replace one (1) R1-1 stop sign and stop bar on Willie Harris Road.

# Option C - Site #8 State Route 19 in Lauderdale County L.M. 22.92



# Option C - Site #9 State Route 19 in Lauderdale County L.M. 23.49



**GUIDANCE**  
1. Restripe approximately 100' from intersection of approach on Durhamville Road and install stop bar.



# Option C - Site #10 State Route 19 in Lauderdale County L.M. 24.75



# Option C - Site #11 State Route 19 in Lauderdale County L.M. 25.86



**GUIDANCE**

1. Install stop bar on Springhill Road at intersection with SR 19.
2. Install one (1) W2-2R side road warning sign approximately 300' from intersection on eastbound SR 19.
3. Install one (1) W2-2L side road warning sign approximately 300' from intersection on westbound SR 19.



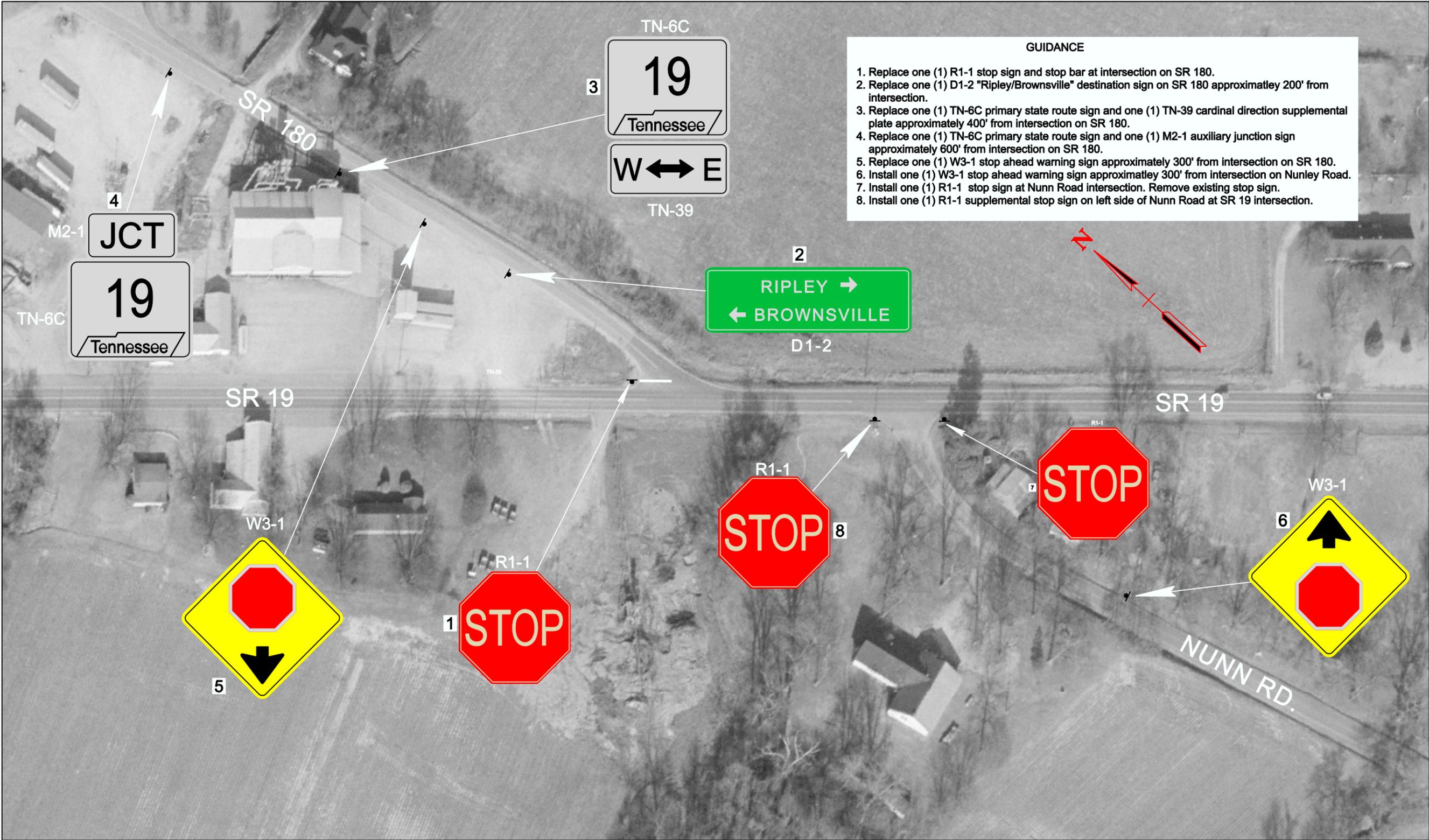
# Option C - Site #12 State Route 19 in Haywood County L.M. 1.92



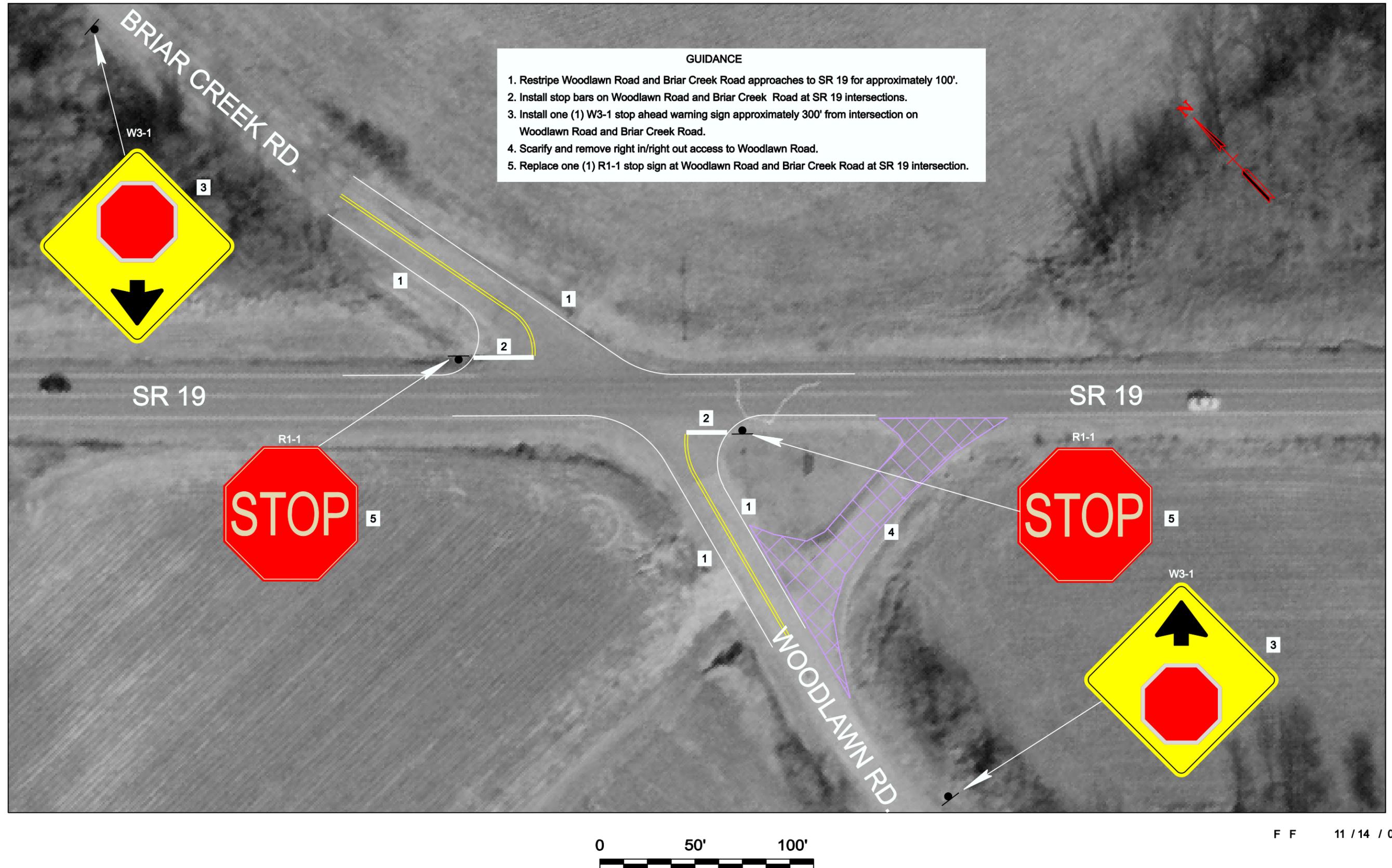
**GUIDANCE**  
1. Install stop bar and restripe approximately 100' from intersection on Tibbs Road.



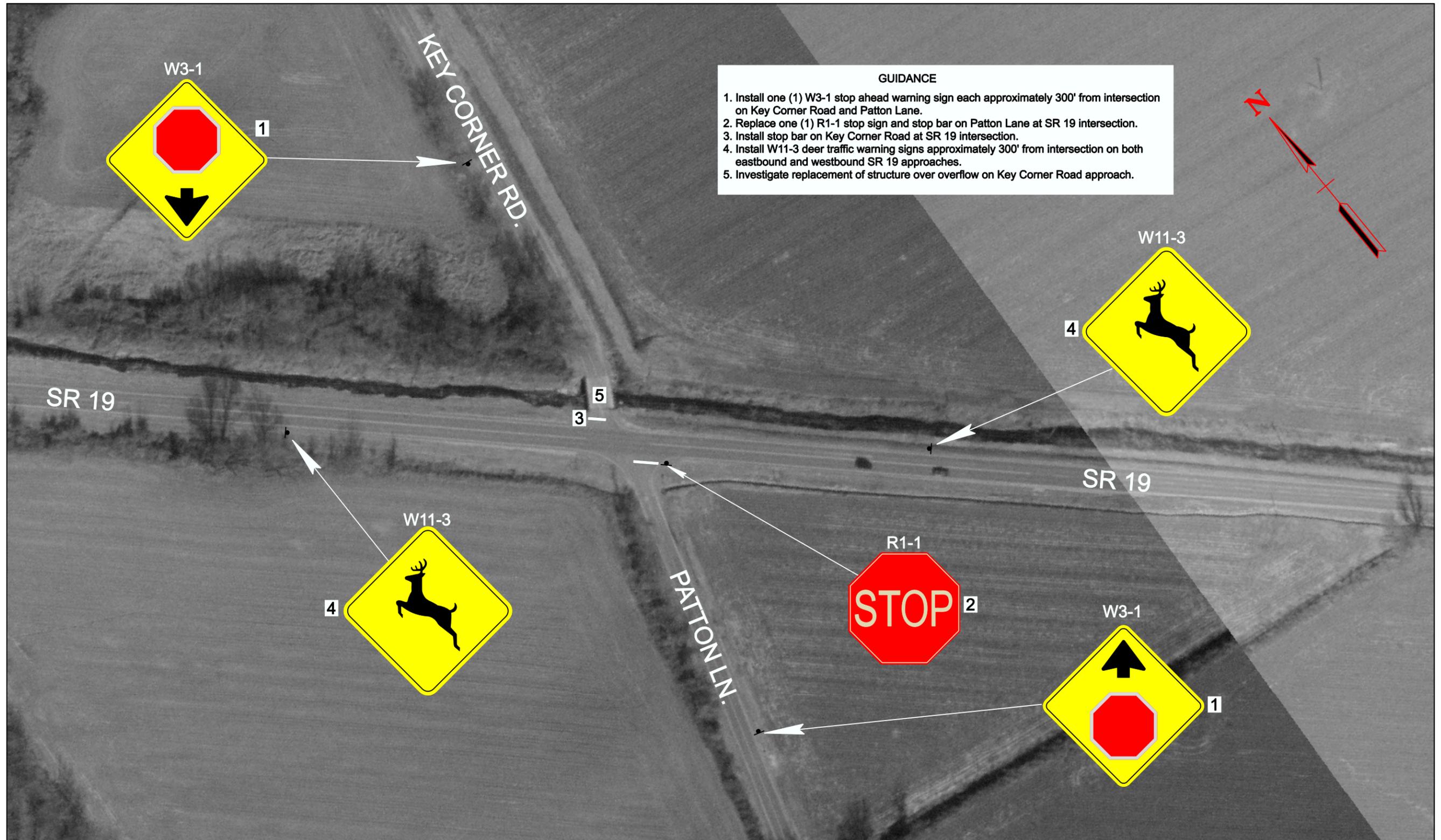
# Option C - Site #13 State Route 19 in Haywood County L.M. 2.13-2.17



# Option C - Site #14 State Route 19 in Haywood County L.M. 5.65



# Option C - Site #15 State Route 19 in Haywood County L.M. 22.26



**GUIDANCE**

1. Install one (1) W3-1 stop ahead warning sign each approximately 300' from intersection on Key Corner Road and Patton Lane.
2. Replace one (1) R1-1 stop sign and stop bar on Patton Lane at SR 19 intersection.
3. Install stop bar on Key Corner Road at SR 19 intersection.
4. Install W11-3 deer traffic warning signs approximately 300' from intersection on both eastbound and westbound SR 19 approaches.
5. Investigate replacement of structure over overflow on Key Corner Road approach.

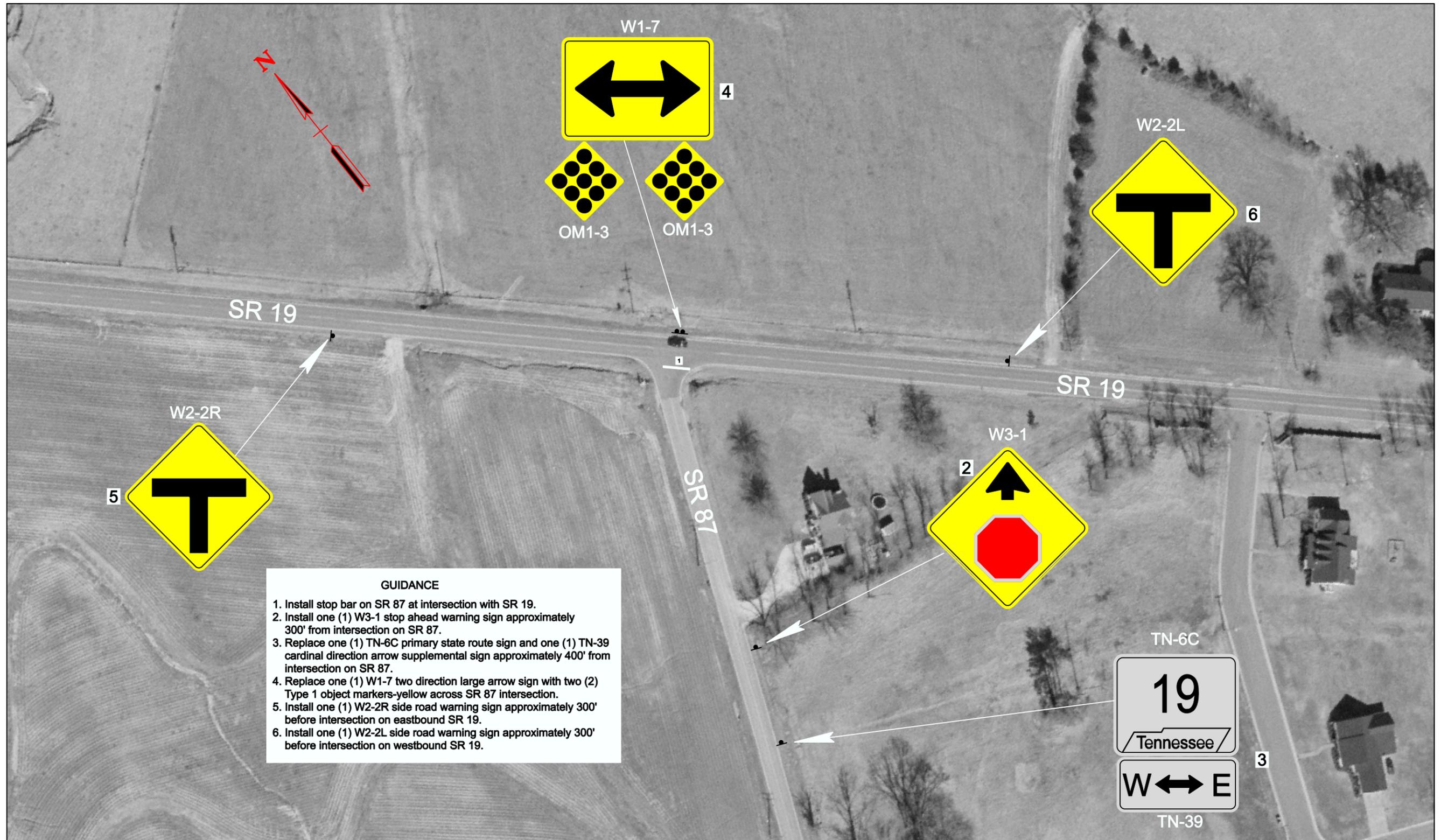
# Option C - Site #16 State Route 19 in Haywood County L.M. 9.43



**GUIDANCE**  
1. Install two (2) OM-1R object markers on each side of culvert.  
2. Install two (2) OM-1L object markers on each side of culvert.



# Option C - Site #17 State Route 19 in Haywood County L.M. 22.36



**GUIDANCE**

1. Install stop bar on SR 87 at intersection with SR 19.
2. Install one (1) W3-1 stop ahead warning sign approximately 300' from intersection on SR 87.
3. Replace one (1) TN-6C primary state route sign and one (1) TN-39 cardinal direction arrow supplemental sign approximately 400' from intersection on SR 87.
4. Replace one (1) W1-7 two direction large arrow sign with two (2) Type 1 object markers-yellow across SR 87 intersection.
5. Install one (1) W2-2R side road warning sign approximately 300' before intersection on eastbound SR 19.
6. Install one (1) W2-2L side road warning sign approximately 300' before intersection on westbound SR 19.

