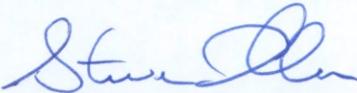


# **TRANSPORTATION PLANNING REPORT**

**MOUNTAIN VIEW INDUSTRIAL PARK ACCESS ROAD  
FROM JUST NORTH OF MOUNTAIN VIEW INDUSTRIAL DRIVE TO  
DOYLE-FRAZIER ROAD  
WARREN COUNTY  
PIN# 108446.00**



**PREPARED BY  
Florence & Hutcheson, Inc.  
FOR THE  
TENNESSEE DEPARTMENT OF TRANSPORTATION  
PROJECT PLANNING DIVISION**

Approved by:	Signature	DATE
CHIEF OF ENVIRONMENT AND PLANNING		4/3/08
TRANSPORTATION DIRECTOR PROJECT PLANNING DIVISION		4-1-08
TRANSPORTATION MANAGER 2 PROJECT PLANNING DIVISION		3/31/08

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

**MOUNTAIN VIEW INDUSTRIAL PARK ACCESS ROAD TPR  
Warren County, TN**

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## **1.0 BACKGROUND INFORMATION**

### **1.1 PROJECT HISTORY**

This Transportation Planning Report (TPR) examines the proposed 0.8 mile long Mountain View Industrial Park Access Road. The proposed road will provide access to 200+ acres of currently undeveloped industrial park land. The Mountain View Industrial Park Access Road project was initiated with federally earmarked funds. TDOT was asked to administer the project due to it containing federal funds and Warren County not having a licensed engineer on staff.

Considerable progress has occurred in the design of the industrial park surrounding the proposed access road. Environmental studies have been undertaken and the preliminary location and cross-section of the roadway has been proposed by local officials. Therefore, only one roadway alignment option, which meets the intended purpose and need of the project, is studied in this TPR.

This report was performed to fulfill the requirements of a federal earmark and is a continuation of several previous studies and meetings. A summary of previous activity concerning this project is provided in **Exhibit 1.1**. Correspondence concerning many of these activities is provided in the **Appendix**.

#### **EXHIBIT 1.1 PROJECT HISTORY**

<b>Date</b>	<b>Activity</b>
2004	Congressional representative Lincoln Davis, among others, attained federally earmarked funds totaling \$2.5 million for construction of the Mountain View Industrial Park Access Road.
May 2006	<u>Ensafe</u> performed a Phase I Environmental Site Assessment of the 210 acre undeveloped property in the Mountain View Industrial Park. The Phase I ESA did not identify evidence of " <i>recognized environmental conditions</i> " or " <i>historical recognized environmental conditions</i> " in connection with the subject property.
May 1, 2006	The Tennessee State Historic Preservation Office issued a letter stating "...it is our opinion that there are no National Register of Historic Places listed or eligible properties affected by this undertaking. This determination is made either because of location, scope...Therefore, this office has no objections to your proceeding with the project."

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**EXHIBIT 1.1 PROJECT HISTORY (CONTINUED)**

<b>Date</b>	<b>Activity</b>
May 25, 2007	The Tennessee Division of Natural Areas (TDEC) noted in an e-mail, "...no rare plants were found at the site to be disturbed or the proposed mitigation site, thus we have no further issues with the project relating to potential rare species."
November 2007	Warren County Executive, Mr. John Pelham, and the Executive Director of the Industrial Development Board of McMinnville-Warren County, Mr. Jeff McCormick, met with TDOT Chief Engineer, Mr. Paul Degges, and TDOT Local Programs representative, Ms. Nancy Sartor. In this meeting, it was requested that TDOT manage the road construction project, with Warren County's input.
January 7, 2008	Florence & Hutcheson, Inc. was hired by TDOT's Project Planning Division to produce a Transportation Planning Report for the proposed industrial park access road.
January 15, 2008	A site visit was conducted on Tuesday, January 15, 2008 at the project location. Those in attendance included John Pelham (Warren County Executive), Jeff McCormick (McMinnville-Warren County Economic Development), Harold Glenn (Warren County Highway Department), Levie Glenn (Warren County Highway Department), Danielle Hagedwood (TDOT Project Planning), and Jon Storey (Florence & Hutcheson). Items discussed included the appropriate shoulder width to recommend in the TPR and the project schedule. The proposed route was driven.
March 3, 2008	A meeting was held in TDOT's 6 <sup>th</sup> Floor (Local Programs) Conference Room. Those in attendance included John Pelham (Warren County Executive), Jeff McCormick (McMinnville-Warren County Economic Development), Nancy Sartor (TDOT Local Programs), Rick Pack (TDOT Local Programs), Susan Ralph (TDOT Local Programs), Bill Hart (TDOT Project Planning), Terry Gladden (TDOT Project Planning), and Jon Storey (Florence & Hutcheson). Items discussed included the preliminary cost estimate for the project, the proposed cross section width, and revisions needed to the TPR to address the earmark funding mechanism of the project.

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**1.2 PROJECT STUDY AREA**

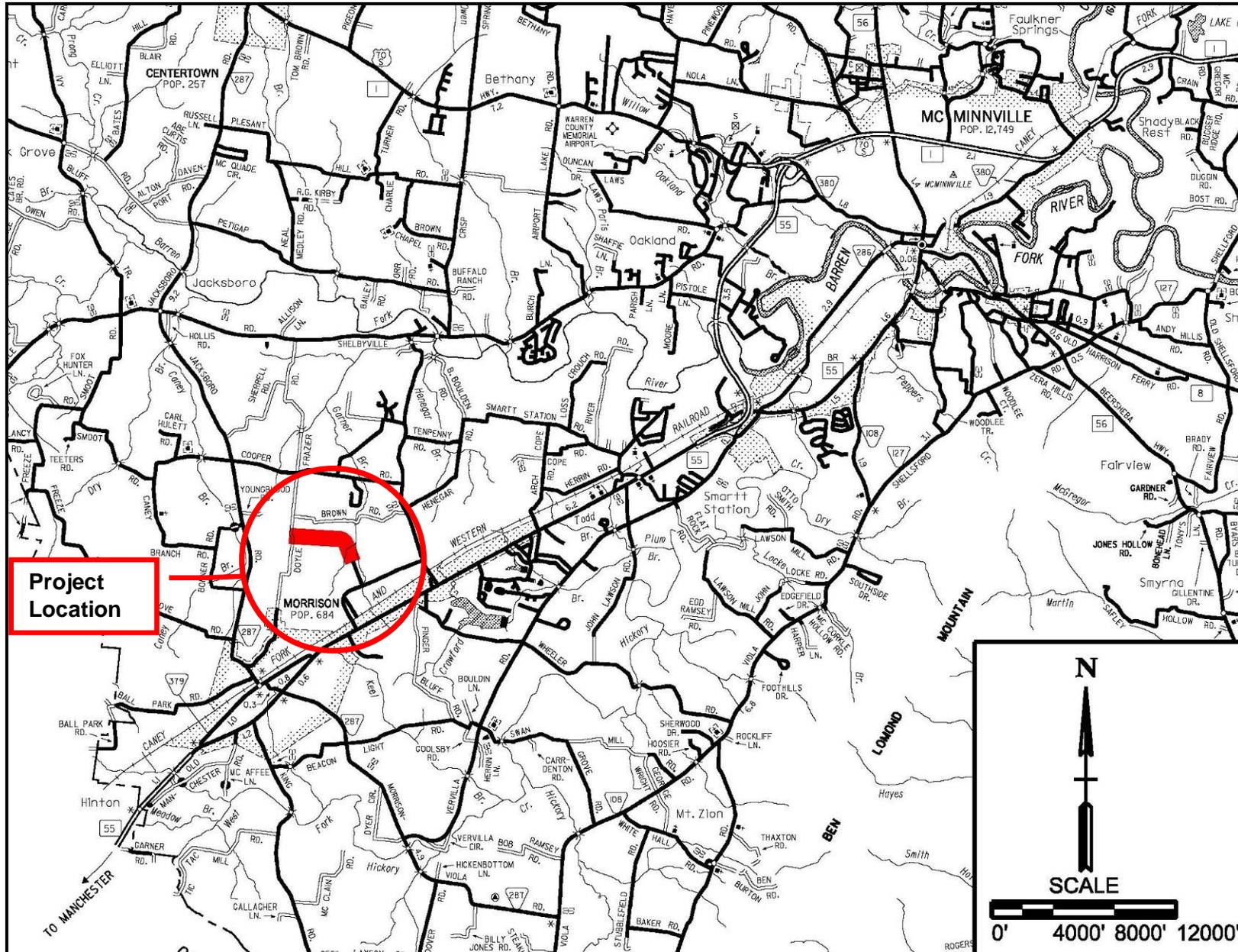
The project study area is located in Warren County, just outside the city of Morrison, TN. Morrison is located 10 miles west of McMinnville. Warren County is located near the geographic center of Tennessee. The project location is 10 miles east of I-24 along SR-55 and located approximately halfway between Nashville and Chattanooga. Additional primary routes crossing Warren County include SR-8, SR-30, SR-55, SR-56, SR-108, and U.S. Highway 70S.

The south terminus of the project is located near Mountain View Industrial Drive, just north of SR-55. The north terminus of the project is located at Doyle-Frazier Road. The project is 0.8 miles long and will be located entirely on land owned by the Industrial Development Board of McMinnville-Warren County (IDB). Please refer to **Exhibits 1.2.1** through **1.2.3** for maps of the study area.

The topography of the project location is rolling, with a valley located at the southern terminus of the project near Mountain View Industrial Drive. The proposed access road will cross Garner Branch in this valley. An existing gravel road currently accesses the project site. The proposed alignment is expected to generally follow this existing gravel road. It is anticipated that the right-of-way needed for the proposed Mountain View Industrial Park Access Road will be donated by the IDB as an “in-kind” match of the federal funding for the project. The IDB is currently allowing the land to be used for agricultural purposes. Photographs of the project site are provided in **Exhibits 1.2.4** and **1.2.5**.

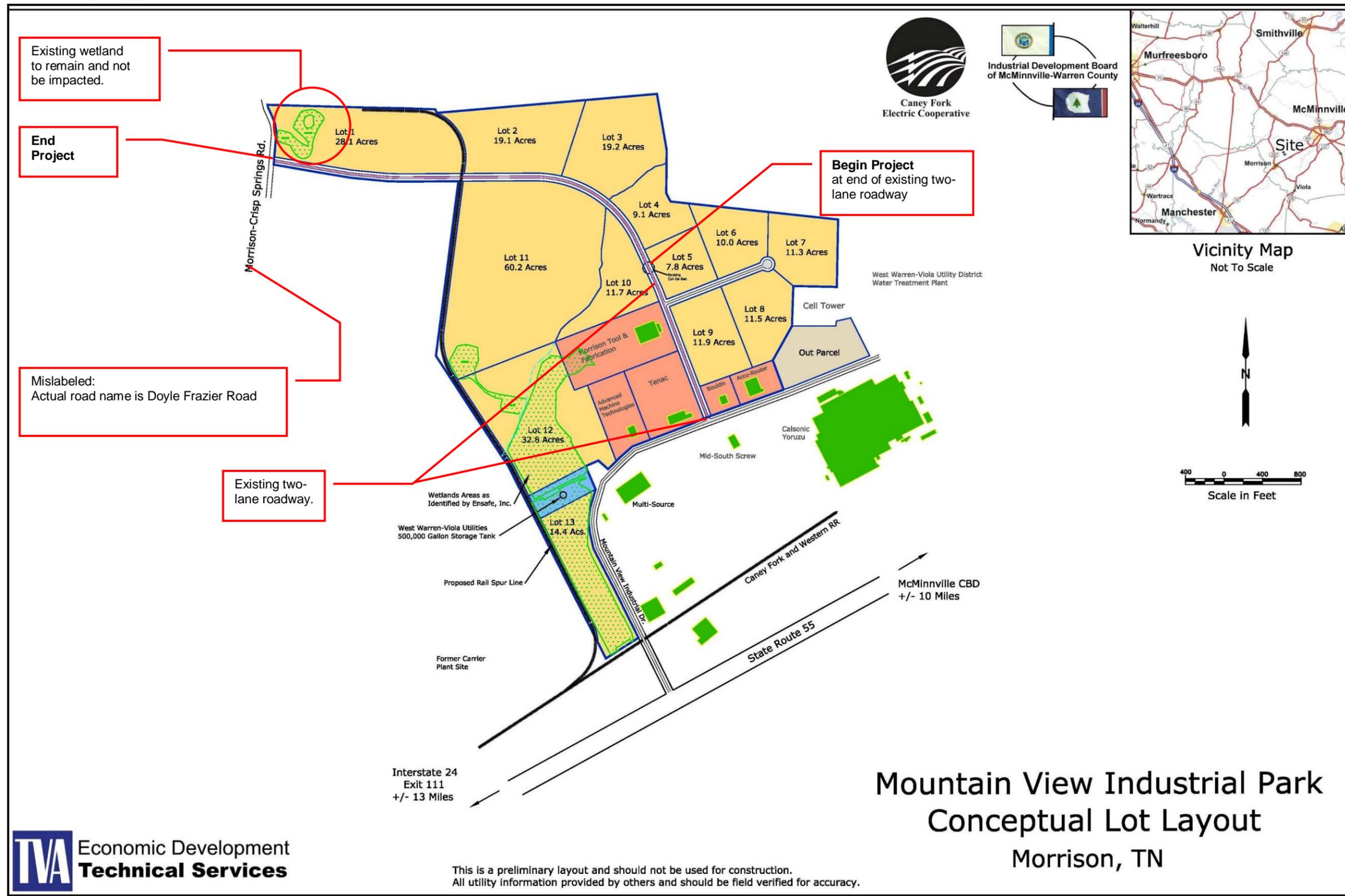
**MOUNTAIN VIEW INDUSTRIAL PARK ACCESS ROAD TPR**  
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**EXHIBIT 1.2.1 AREA VICINITY MAP**





**EXHIBIT 1.2.3 INDUSTRIAL PARK MAP**



**MOUNTAIN VIEW INDUSTRIAL PARK ACCESS ROAD TPR  
Warren County, TN**

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**EXHIBIT 1.2.4 SOUTH TERMINUS OF PROJECT PHOTOGRAPH**



**EXHIBIT 1.2.5 PROJECT LOCATION PHOTOGRAPH**

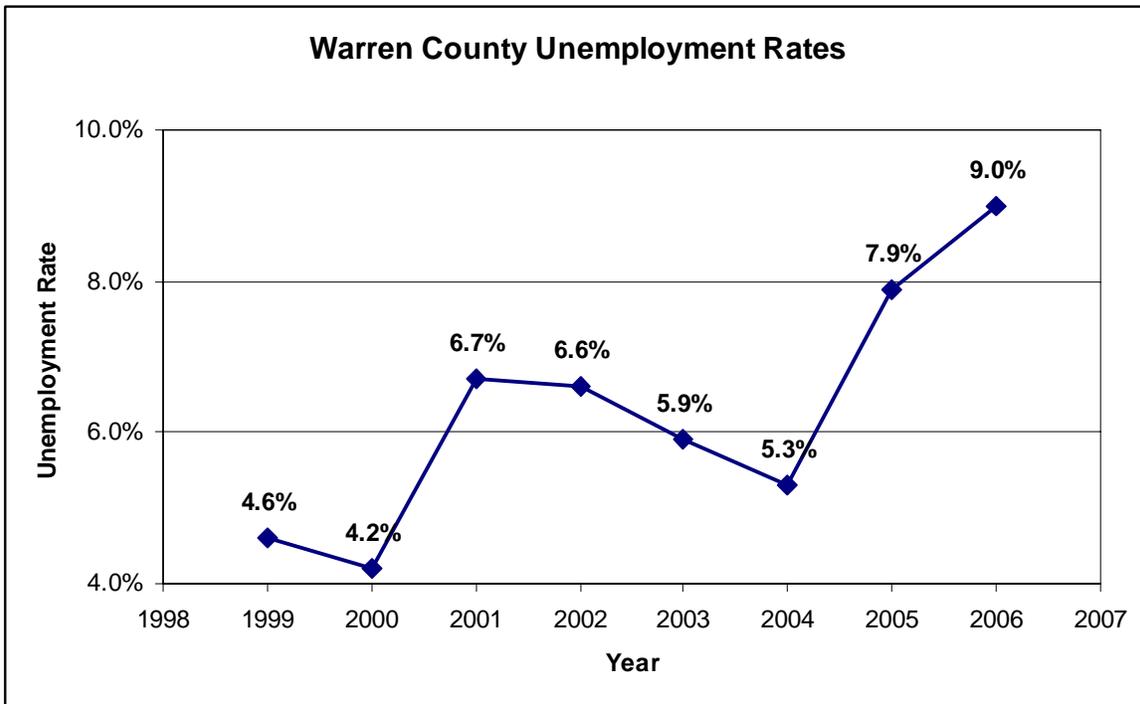


**1.3 COMMUNITY DESCRIPTION**

There are 95 counties in Tennessee. Warren County is the 52<sup>nd</sup> largest County by land area in Tennessee with an area of 433 square miles. Warren County is the 38<sup>th</sup> most populous county in Tennessee with 40,016 residents (2006 U.S. Census estimate). The population of Warren County grew 16% from 1990 to 2000. The 2004 median household income in Warren County was \$33,032, which was lower than the 2004 median household income for Tennessee of \$38,945 and ranks 55<sup>th</sup> out of the 95 counties in Tennessee.

Local officials noted that several employers have left Warren County in the past few years, contributing to a high unemployment rate. The 2006 unemployment rate of Warren County was 9.0%, which is 73% higher than the 2006 unemployment rate for Tennessee of 5.2% and ranks 91<sup>st</sup> out of the 95 counties in Tennessee. The unemployment rate has increased 114% since 2000, when the county's unemployment rate was 4.2%. Recent unemployment rates in Warren County are charted in **Exhibit 1.3.1**.

**EXHIBIT 1.3.1 WARREN COUNTY UNEMPLOYMENT RATES**



**MOUNTAIN VIEW INDUSTRIAL PARK ACCESS ROAD TPR  
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The city of McMinnville is the Warren County Seat and the county's most populous city with a population of 13,311 (2006 U.S. Census estimate). The proposed project is located just outside the city of Morrison, TN. Morrison is located 10 miles west of McMinnville along SR-55. Morrison has a population of 705 (2006 U.S. Census estimate).

Several major industries are located within or near the study limits of this TPR. The ten leading employment sectors are listed in **Exhibit 1.3.2**. Industries with 100 or more employees in Warren County are listed in **Exhibit 1.3.3**. These industries are mapped in **Exhibit 1.3.4**.

**EXHIBIT 1.3.2 WARREN COUNTY EMPLOYMENT SECTORS**

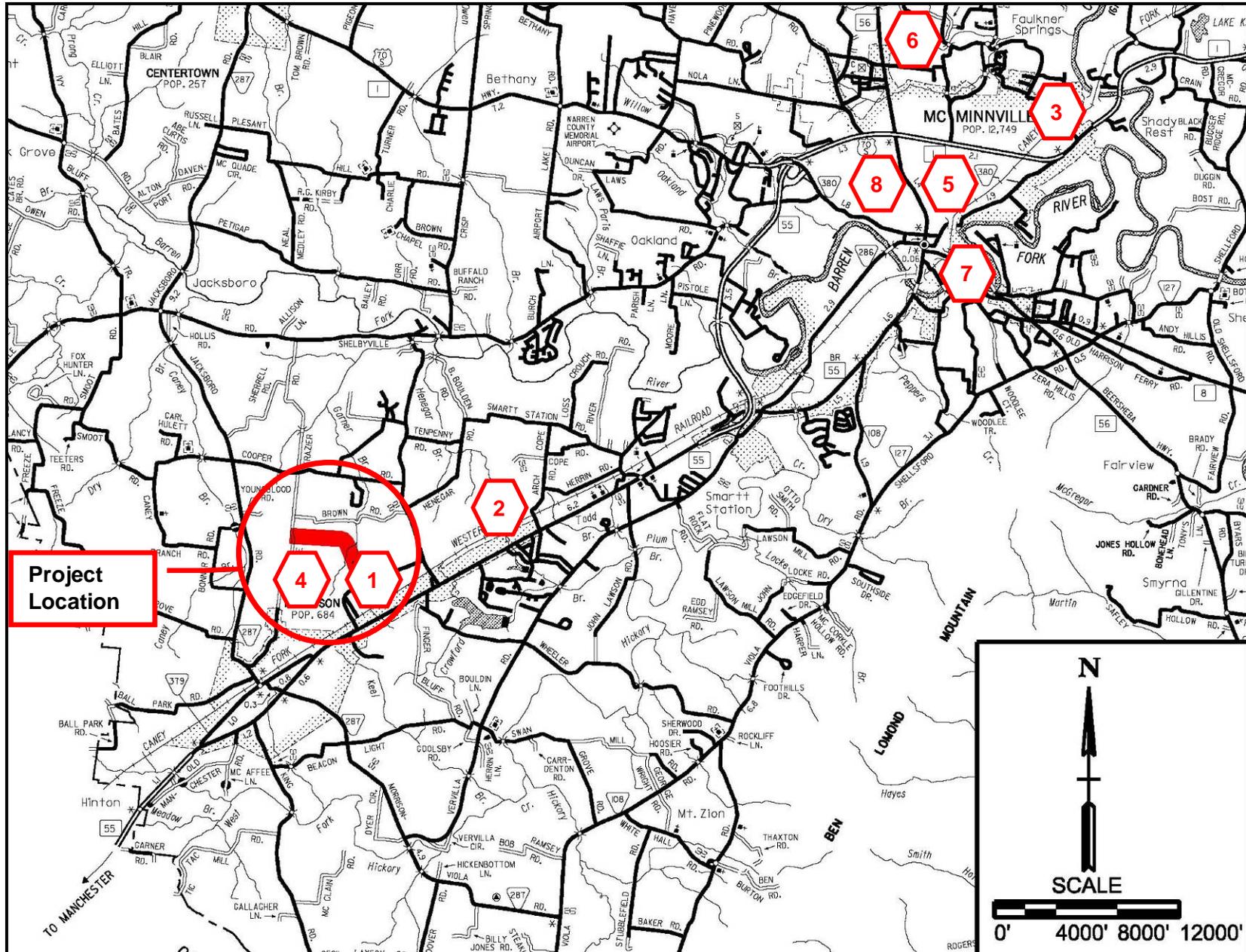
Total Employees by Establishment Type (2006)		
	Total	%
Heavy Construction	1,887	11.30%
Machinery and Equipment Manufacturing	1,473	8.80%
Hospitals	1,339	8.00%
Building Materials, Hardware and Garden	1,274	7.60%
Government	1,060	6.30%
Durables Wholesale	994	5.90%
Metals Fabrication	968	5.80%
Restaurants	700	4.20%
Primary and Secondary Education	643	3.80%
General Merchandise Stores	518	3.10%

**EXHIBIT 1.3.3 MAJOR INDUSTRIES**

ID	Name	Product	Number of Employees
1	Yorozu Corporation	Metal Stamping	1,100
2	Bridgestone/Firestone	Truck and Bus Tires	900
3	Sunbeam-Oster Household	Pet & Human Hair Clippers	400
4	Morrison Tool & Fabricating	Welding and Fabrication	312
5	Cumberland Lumber & Mfg.	Hardwood Strip Flooring	200
6	Bouldin & Lawson, Inc.	Greenhouse Equipment	100
7	Burroughs-Ross-Colville	Striking Tool Handles	100
8	Metal Products Company	Metal Stamping	100

**MOUNTAIN VIEW INDUSTRIAL PARK ACCESS ROAD TPR**  
**Warren County, TN**

**EXHIBIT 1.3.3 MAJOR INDUSTRIES MAP**



## **2.0 PROJECT STATUS**

This report was performed to fulfill the requirements of a federal earmark and to advance the Mountain View Industrial Park Access Road Project. The proposed 0.8-mile long route will serve as a local county road, providing access to 200+ acres of currently undeveloped industrial park land. The south terminus of the proposed Mountain View Industrial Park Access Road connects to an existing 2-lane roadway just north of existing Mountain View Industrial Drive. The north terminus of the proposed access road connects to Doyle-Frazier Road. Existing Mountain View Industrial Drive and Doyle-Frazier Road are both local county roads. Further development of the Mountain View Industrial Park is desired by local officials to recruit new industries to Warren County. Warren County has recently lost several employers. The most significant employer loss was the Carrier air conditioning and heating systems plant in 2005. This plant employed 1,200 people.

The proposed road will serve primarily as an access road to adjacent development. Because minimal through-traffic volumes are expected, no traffic capacity issues are anticipated along the route. In addition, there are no recent or planned transportation improvements near the study limits of this TPR. Because the project is largely located on new location, there are no existing geometric conditions or deficiencies, and no existing safety issues concerning the project.

The Mountain View Industrial Park Access Road Project was initiated with federally earmarked funds. Local agencies are responsible for 20% of the project cost. The remaining 80% will be funded through a federal government match. TDOT was asked to administer the project due to it containing federal funds and Warren County not having a licensed engineer on staff. At the completion of construction, the road will become the responsibility of local agencies and will function as a local county road.

Throughout the development of this Transportation Planning Report, TDOT staff has coordinated with local leaders, including the Warren County Executive and the Industrial Development Board of McMinnville-Warren County, to identify their concerns and objectives. The public involvement process will continue as mandated by the provisions of the National Environmental Policy Act (NEPA).

A preliminary environmental scan was performed as part of this project. Other than a blue line stream (Garner Branch) and an existing wetland located near Doyle-Frazier Road (that is not to be impacted), no environmentally sensitive locations or community resources were located by the environmental scan of the study area. As discussed in Section 1.1 **Project History** of this TPR, environmental studies have already been conducted and no issues are anticipated with the construction of the access road.

Sources utilized in the environmental/community resources scan include the following: EPA Envirofacts, USGS Topographic Mapping, Aerial Photography, National Register of Historic Places, and the Tennessee Historical Commission.

### **3.0 PROPOSED IMPROVEMENTS**

#### **3.1 PROPOSED ALIGNMENT**

The south terminus of the proposed alignment connects to an existing 2-lane roadway just north of Mountain View Industrial Drive. The existing road currently dead-ends just past a cul-de-sac. The proposed route will continue north on new location. It will cross Garner Branch, then turn west. It will proceed west to its north terminus at Doyle Frazier Road. The total length of improvements is 0.8 miles.

Doyle Frazier Road is a two lane local county road. It is paved and approximately 18' wide with no shoulders and geometrically deficient curves. It is recommended that Doyle Frazier Road be posted to not allow truck traffic to/from the industrial park. Please refer to **Exhibits 1.2.1** through **1.2.3** for maps of the 0.8-mile route.

#### **3.2 CROSS SECTION DESIGN**

The proposed Mountain View Industrial Park Access Road will have two travel lanes (one in each direction). The shoulders will be 8-feet wide, 6-feet of which will be paved. Turn lanes should be incorporated into the design wherever applicable. It is anticipated that a "rural" cross section will be utilized. A rural cross section includes roadside ditches, in contrast to an "urban" cross section that would include enclosed drainage with curb and gutter.

#### **3.3 ROADSIDE DESIGN**

A roadside environment free of fixed objects, with stable flattened slopes, enhances the opportunity for reducing lane departure crash severity and should be incorporated into any improvement option chosen. Including an adequate clearzone into the roadside design allows for errant vehicles leaving the roadway and supports a roadside design where the serious consequences of such an incident are reduced. An adequate clear zone will improve truck-turning operations along the proposed industrial access road, also. Where roadside obstacles exist, design options include (in order of preference):

1. Remove the obstacle.
2. Redesign the obstacle so it can be safely transversed.
3. Relocate the obstacle to a point where it is less likely to be struck.
4. Reduce impact severity by using an appropriate breakaway device.
5. Shield the obstacle with a longitudinal traffic barrier designed for redirection or use a crash cushion.
6. Delineate the obstacle if the above alternatives are not appropriate.

The roadside design concepts outlined in the American Association of State Highway and Transportation Officials (AASHTO) Roadside Design Guide will be incorporated into the roadway design.

**MOUNTAIN VIEW INDUSTRIAL PARK ACCESS ROAD TPR**  
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**3.4 ACCESS CONTROL**

The proposed road will provide access to 200+ acres of currently undeveloped industrial park land. Because the purpose of the road is to provide access to adjacent parcels, no access control measures (beyond what is necessary to meet local driveway standards) are recommended.

**3.5 DESIGN SPEED**

The design speed of 40 mph (minimum) is proposed to ensure the grades and horizontal curvature of the proposed roadway will accommodate the anticipated heavy truck volumes. It is recommended to assign a lower posted speed limit due to the frequent turning movements anticipated to occur as the trucks access the adjacent parcels and to help minimize the use of the roadway for through traffic.

**3.6 PEDESTRIAN AND BICYCLE ACCOMMODATIONS**

The cross-section for the industrial access road will meet AASHTO design standards. The minimum paved shoulder recommended is six feet. The paved shoulder, in combination with the recommended twelve-foot wide travel lanes, will accommodate any potential pedestrian and bicycle use. Sidewalks are not recommended along the project because of the industrial nature of the surrounding area and lack of foot travel destinations.

**3.7 DISPOSITION OF EXISTING ROUTE**

The route is on new location. Therefore, the project will not relocate or dispose any section of existing roadway.

**3.8 ESTIMATED COST**

The construction cost of the Mountain View Industrial Park Access Road project is estimated to be \$1.65 million. The estimate does not include R.O.W. or utility costs. The project will be located entirely on land owned by the Industrial Development Board of McMinnville-Warren County (IDB). It is anticipated that the right-of-way needed for the proposed Mountain View Industrial Park Access Road will be donated by the IDB as an "in-kind" match of the federal funding for the project. Utilities will be constructed specific to future industrial needs on an as-needed basis, and are therefore not included in the cost estimate. Please refer to the **Appendix** for the cost estimate calculations.

## **4.0 SUMMARY OF OPTION**

The Mountain View Industrial Park Access Road Project will provide access to 200+ acres of currently undeveloped industrial park land in Warren County. The project was initiated with \$2.5 million in federally earmarked funds. Local agencies are responsible for 20% of the project cost. The remaining 80% will be funded through a federal government match. It is possible that the local match may be in the form of R.O.W. currently owned by the Industrial Development Board of McMinnville-Warren County.

Local officials proposed the alignment and have already undertaken several environmental studies to assess the road's impact. TDOT was asked to administer the project due to it containing federal funds and Warren County not having a licensed engineer on staff. At the completion of construction, the road will become the responsibility of local agencies and will function as a local county road. The construction cost of the Mountain View Industrial Park Access Road project is estimated to be \$1.65 million.

**MOUNTAIN VIEW INDUSTRIAL PARK ACCESS ROAD TPR  
Warren County, TN**

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**CHECKLIST OF DETERMINANTS FOR LOCATION STUDY**

**Location: Mountain View Industrial Park Access Road, Warren County, TN**

If preliminary field reviews indicate the presence of any of the following facilities or ESE categories, place an "X" in the blank opposite the item. Where more than one alternate is to be considered, place its letter designation in the blank.

1. Agricultural land usage.....X
2. Airport (existing or proposed).....
3. Commercial area, shopping center.....
4. Floodplains.....
5. Forested Land.....X
6. Historical, archaeological, cultural, or natural landmark  
or cemeteries.....
7. Industrial park, factory.....X
8. Institutional usage's
  - a. School or other educational institution.....
  - b. Church or other religious institution.....
  - c. Hospital or other medical facility.....
  - d. Public building, e.g., fire station.....
  - e. Defense Installation.....
9. Recreational Usage's
  - a. Park or recreational area, State Natural Area.....
  - b. Wildlife refuge or wildlife management area.....
10. Residential Establishment.....X
11. Urban area, town, city or community.....  
Title 6, low income/minority community.....
12. Waterway, lake, pond, river, stream, spring, wetland.....  
Permit required:  
    Coast Guard.....  
    Section 404.....X  
    Section 10.....  
    TVA Section 26a review.....  
    NPDES.....X  
    Aquatic Resource Alteration Permit.....X  
    Class V Injection Wells.....
13. Location coordinated with local officials.....X
14. Railroad Crossings.....
15. Hazardous Material Site.....  
Underground Storage Tanks – U.S.T.).....
16. Other.....

**MOUNTAIN VIEW INDUSTRIAL PARK ACCESS ROAD TPR  
Warren County, TN**

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**TENNESSEE DEPARTMENT OF TRANSPORTATION  
DESIGN CRITERIA FOR LOCATION AND DESIGN PHASE**

<b>Route:</b>	Proposed Mountain View Industrial Park Access Road	<b>Option:</b>	n/a
<b>Section:</b>	N/A	<b>Region:</b>	2
<b>County:</b>	Warren	<b>PIN #</b>	108446.00

**Location**

<b>From:</b>	Mountain View Industrial Drive
<b>To:</b>	Dolye-Frazier Road

<b>Parameter</b>	<b>Criteria</b>
2009 AADT	n/a
2029 AADT	n/a
Percent Trucks (DHV)	n/a
DHV (11% AADT 2029)	n/a
Functional Classification	Local
Minimum Design Speed	40
Access Control	None
Minimum Radius	565 ft.
Maximum Grade	7%
Minimum Stopping Sight Distance	305 ft.
Surface Width (Paved)	36 ft.
Number of Lanes	2 @ 12 ft.
Usable Shoulder Width	8 ft. (6 ft. paved)
Median Width	n/a
Minimum R.O.W.	150 ft.
Signalization	n/a

