

Tupelo Mississippi
Planning & Environmental Study
Railroad Relocation

FINAL

**Tupelo Railroad
Relocation Planning
& Environmental Study**

Environmental Impact Statement

July 2013

Prepared for:



TUPELO RAILROAD RELOCATION PLANNING & ENVIRONMENTAL STUDY

Mississippi Department of Transportation Project No. 104289-101000

FINAL ENVIRONMENTAL IMPACT STATEMENT

Submitted Pursuant to National Environmental Policy Act 42 U.S.C. 4332(2)(c)

by the

U.S. Department of Transportation
Federal Railroad Administration (FRA)

Mississippi Department of Transportation (MDOT)

And Cooperating Agencies

Federal Highway Administration (FHWA)

U.S. Environmental Protection Agency (EPA)

U.S. Department of the Interior – National Park Service (NPS)

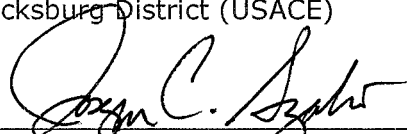
U.S. Department of the Interior – Fish & Wildlife Service (USFWS)

U.S. Army Corps of Engineers – Mobile District (USACE)

U.S. Army Corps of Engineers – Vicksburg District (USACE)

10/22/13

Date of Approval



for Federal Railroad Administration

7/29/13

Date of Approval



for Mississippi Department of Transportation

Abstract

The Build Alternative and the No-Build Alternative are being evaluated in the Tupelo Railroad Relocation Planning & Environmental Study for Tupelo, Mississippi. The Build Alternative would elevate the BNSF main line within the existing BNSF right-of-way on an approximately 2.8-mile viaduct consisting of a combination of retaining wall with earthen fill and bridge structure. The Build Alternative would also include a relocated interchange for exchange of railcars between the BNSF main line and the Kansas City Southern rail line. This Final Environmental Impact Statement (FEIS) considers environmental impacts and mitigation in the following areas: traffic, soils, geology and groundwater, surface waters, floodplains, wetlands, wildlife and vegetation, farmlands, Section 4(f) and cultural resources, aesthetics, socioeconomic resources, land use, community facilities, community cohesion, environmental justice, relocations, local economy, noise, air quality, contamination, indirect and cumulative impacts, and construction impacts.

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MDOT Commitments to Environmental Excellence

Project Name: Tupelo Railroad Relocation Planning and Highway: N/A Revision Date: July 3, 2013
Environmental Study

Project No.: MDOT – 104289-101000, FRA – 0430-00(013) County: Lee Page 1 of 4

*Value Engineering Study Recommended Yes No

Commitments/Requirements	Source of Commitment	Responsible Office	Place on Plans	Requires A Special Provision	Status of Commitment/Requirement
<p>Traffic: During construction, all local and through traffic will be adequately and safely accommodated.</p> <p>All construction operations will be scheduled to minimize delay to traffic.</p>	<p>EIS Document p. 4-65</p>	<p>MDOT's Environmental, Design, and Right-of-Way Divisions</p>	<p>No</p>	<p>No</p>	<p>To be considered during design and construction.</p>
<p>Noise: The contractor will comply with all state and local sound control ordinances.</p>	<p>EIS Document p. 4-66</p>	<p>MDOT's Environmental, Design, and Right-of-Way Divisions</p>	<p>No</p>	<p>No</p>	<p>To be considered during construction.</p>

Commitments/Requirements	Source of Commitment	Responsible Office	Place on Plans	Requires A Special Provision	Status of Commitment/Requirement
<p>Water Quality: A detailed sediment erosion plan for construction will be developed and approved by the appropriate agencies prior to construction of the Build Alternative.</p> <p>Construction materials will be stored and disposed of such that they are not discharged into or alongside streams and other water bodies.</p> <p>Stockpiling and staging sites will be re-established with vegetative cover after construction to reduce runoff and lessen sediment loadings.</p> <p>Special precautions will be taken during construction to ensure that groundwater is not contaminated.</p> <p>Construction measures will be incorporated into the design of the Build Alternative that will minimize water quality impacts to streams and tributaries.</p>	EIS Document p. 4-66	MDOT's Environmental, Design, and Right-of-Way Divisions	No	No	To be considered prior to and during construction.
<p>Wetlands/Waters of the U.S.: In accordance with Section 404(b)(1) guidelines, all practicable measures will be taken to avoid or minimize impacts to wetlands.</p> <p>During the design of the Build Alternative, affected wetlands will be delineated and mapped, and copies of the supporting documentation will be provided to the US Army Corps of Engineers (USACE) for field verification. An individual permit from the USACE will be required.</p>	EIS Document p. 4-32	MDOT's Environmental, Design, and Right-of-Way Divisions	No	No	To be considered during FEIS, design, and construction.

Commitments/Requirements	Source of Commitment	Responsible Office	Place on Plans	Requires A Special Provision	Status of Commitment/Requirement
<p>Floodplain: Bridges, pipes, and box culverts will be designed in accordance with appropriate floodplain impacts requirements per FRA, MDOT, FHWA, and TCMWMD.</p> <p>Flood studies will be performed as required.</p>	EIS Document p. 4-34	MDOT's Environmental, Design, and Right-of-Way Divisions	No	No	To be considered during design.
<p>Vegetation and Wildlife: Construction limits will be posted and enforced to minimize impacts to vegetation and wildlife.</p> <p>Exposed surfaces will be promptly re-vegetated after construction.</p>	EIS Document p. 4-45	MDOT's Environmental, Design, and Right-of-Way Divisions	No	No	To be considered during construction.
<p>Threatened and Endangered Species: During the design of the Build Alternative, field surveys will be conducted for Price's potato bean in potential habitat areas. These surveys will be completed by qualified biologists. If necessary, mitigation measures will be determined in consultation with USFWS prior to construction.</p>	EIS Document p. 4-46	MDOT's Environmental, Design, and Right-of-Way Divisions	No	No	To be considered during design.
<p>Hazardous Materials: During design of the Build Alternative, additional research may be conducted on sites that could be potentially affected.</p> <p>Any site impacted by the project that is determined to contain hazardous materials will be remediated as required by regulations and MDOT policy.</p>	EIS Document p. 4-48	MDOT's Environmental, Design, and Right-of-Way Divisions	No	No	To be considered during design and construction.

Commitments/Requirements	Source of Commitment	Responsible Office	Place on Plans	Requires A Special Provision	Status of Commitment/Requirement
<p>Archaeology: Although the Project has received archaeological clearance from SHPO, the possibility exists that evidence of cultural resources may yet be encountered within the project limits. Should any evidence of cultural resources be discovered during construction activities, all work in that portion of the project area shall stop. Representatives of MDOT will assist in the identification and preliminary assessment of the materials. If such evidence is found, the MDAH will be notified within two working days.</p> <p>In the unlikely event that human skeletal remains or associated burial artifacts are uncovered within the project area, all work in that area must stop. The discovery must be reported to local law enforcement, who will in turn contact the medical examiner. MDAH must be contacted.</p>	EIS Document p. 4-18	MDOT's Environmental, Design, and Right-of-Way Divisions	No	No	To be considered during construction.
<p>Historic Resources: The TVA "Tupelo" Sign at the Crosstown intersection will be further evaluated during the design and construction process for protection during construction activities.</p>	EIS Document p. 4-21	MDOT's Environmental, Design, and Right-of-Way Divisions	No	No	To be considered during design and construction.
<p>All practical and standard procedures and measures, including Best Management Practices will be implemented to avoid or minimize impacts.</p>					

- These commitments should be carried throughout each phase of the project development including Design, Right of Way, Construction, and Maintenance.

*Value Engineering (VE) Studies are recommended for projects on the NHS System and/or an Intermodal Connector with an estimated project costs approaching \$25 Million

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EXECUTIVE SUMMARY

FEDERAL RAILROAD ADMINISTRATION

Administrative Action Environmental Statement

- Draft Final
 Section 4(f) Statement attached

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BRIEF DESCRIPTION OF THE PROPOSED ACTION

The Mississippi Department of Transportation (MDOT) is proposing the relocation of the existing BNSF Railway Company (BNSF) main line through the City of Tupelo, Mississippi. The purpose of the Tupelo Railroad Relocation Planning and Environmental Study is to evaluate options to improve mobility and safety by reducing roadway congestion caused by the movement of trains running through the City of Tupelo, especially at the intersection of Main Street and Gloster Street (locally referred to as Crosstown).

The Federal Railroad Administration (FRA), an operating administration within the U.S. Department of Transportation, agreed to serve as the lead Federal agency in the preparation of this EIS.

The following Federal agencies agreed to participate in the development of this EIS as cooperating agencies:

- Federal Highway Administration (FHWA)
- U.S. Environmental Protection Agency (EPA)
- U.S. Department of the Interior – National Park Service (NPS)
- U.S. Department of the Interior – Fish & Wildlife Service (USFWS)
- U.S. Army Corps of Engineers – Mobile District (USACE)
- U.S. Army Corps of Engineers – Vicksburg District (USACE)

SUMMARY OF MAJOR ALTERNATIVES

The major alternatives in this study are:

- No-Build Alternative
- Build Alternatives

The No-Build Alternative would retain the existing roadway and railroad network and, therefore, would avoid the temporary negative impacts that railroad and roadway construction can cause to residences, businesses, wetlands, streams, cultural resources, and other resources. The No-Build Alternative would also not contribute potential viewshed impacts to the area. However, the No-Build Alternative would not meet the project's Purpose and Need goals of improving mobility and safety by reducing roadway congestion caused by the movement of trains running through the City of Tupelo.

The Build Alternatives include operational improvements, alternative corridors, and in-town options such as railroad and highway grade separations. These alternatives were investigated and refined in a five-tiered process, beginning with a Feasibility Study outlined in the *Phase 1 – Feasibility Analysis* (HDR, May 2006). The initial alternatives analysis for the EIS further refined the reasonable range of alternatives by evaluating engineering concerns, environmental impacts, operations, and costs. The refined alternatives included two alternative corridors going around Tupelo and an elevated rail viaduct with a relocated interchange yard through Tupelo. Through the alternatives development process, the two alternative corridors around Tupelo were eliminated from further consideration based on cost and the substantial adverse impacts anticipated to various environmental components. The elevated rail viaduct with the relocated interchange yard was considered to be the only reasonable Build Alternative and was brought forward for detailed study.

A Preferred Alternative (between the Build and No-Build) will be determined upon the issuance of a Record of Decision (ROD).

SUMMARY OF IMPACTS

This project would have some unavoidable impacts, regardless of which alternative is implemented. As summarized in **Table ES-1**, the primary impacts of the No-Build Alternative would include noise, safety, and mobility impacts, while the primary impacts of the Build Alternative would include construction cost and impacts to farmlands, cultural and historical resources, streams, floodplains, and utilities.

Table ES-1 Summary of Impacts

Impact Category	No-Build Alternative	Build Alternative
<i>Human Environment</i>		
Farmland Impacts (acres)	n/a	0.0
Residential Relocations (No.)	0	0
Business Relocations (No.)	0	1
Severe Noise Impacted Receptors (No.)	128	76
Vibration Impacted Receptors (No.)	28	46
Adverse Visual Impacts to Historic Sites or Districts (No.)	n/a	37
Hazardous Material Site Impacts (No.)	n/a	0
Environmental Justice Impacted Census Blocks (No.)	n/a	0
<i>Natural Environment</i>		
Perennial Stream Crossings (No.)	3	4
303 (d) Stream Crossings (No.)	2	3
Wetland Impacts (acres)	n/a	0.0
100-Year Floodplain Impacts (acres)	n/a	10.0
Natural Habitats (acres)	n/a	0.0
<i>Engineering</i>		
Electric Transmission Line Impacts (No.)*	n/a	3
Gas Pipeline Impacts (No.)*	n/a	0
Sanitary Sewer Impacts (No.)*	n/a	2
Railroad Bridges (Feet)	n/a	8,690
Roadway Bridges (Feet)	n/a	2,984
<i>Safety and Mobility</i>		
At-Grade Crossings within City of Tupelo (No.)	16	4
At-Grade Crossings with Unacceptable LOS in 2030 (No.)	3	0
Nearby Intersections with Unacceptable LOS in 2030 (No.)	3	1
At-Grade Crossings Blocked During Interchange Operation (No.)	8	0
Construction Costs (\$2008)	n/a	\$384,745,000

*Based Upon Field Observations of Above Ground Utilities and/or Markers

AREAS OF CONTROVERSY

Since meetings were held throughout the project planning process, the public, local elected officials, and state and federal agencies were actively involved in the development of the alternatives. Controversy has been limited to the discussion of specific issues along specific alignments.

The elevated rail viaduct alternative (i.e. the Build Alternative) is within the City of Tupelo, and residents expressed concern regarding the design of the elevated viaduct, particularly regarding the use of retaining walls. Most residents stated, however, that a bridge structure would be acceptable, especially since removing the at-grade rail crossings would have benefits, including reduced traffic congestion and noise from train horns.

The elevated rail viaduct alternative was developed by MDOT with considerable input from citizens and local officials, and particular care has been taken to maintain the integrity of existing facilities, with special regard for the viewshed of historic and cultural resources. The elevated rail viaduct would enhance economic opportunities for the Tupelo area, while

minimizing impacts to farmlands, wetlands, floodplains, and cultural resources (as compared with the dismissed alternatives).

COORDINATION REQUIRED

A permit from the USACE would be required for the Build Alternative under provisions of Section 404 of the Federal Water Pollution Control Act (Clean Water Act) Amendments of 1972. Section 404 requires the application for and approval of a permit before wetlands or other waters of the U.S. can be dredged or filled. The Clean Water Act requires public notice and review and USFWS review of Section 404 permits. Encroachment into floodways would be coordinated with the Federal Emergency Management Agency (FEMA). Involvement with historic sites and districts is being coordinated with the State Historic Preservation Office (SHPO) and the Mississippi Department of Archives and History (MDAH). The project area is in an attainment area for National Ambient Air Quality Standards; therefore, no conformity analysis under the provisions of the 1990 Clean Air Act, as amended, is required.

MEASURES TO AVOID OR MINIMIZE ADVERSE IMPACTS

Measures to avoid, minimize, or mitigate adverse impacts that could result from the proposed project include the following:

Farmland

The agricultural lands that would be converted to transportation right-of-way are all within the city limits of Tupelo and given an “urban” designation by the Natural Resources Conservation Service (NRCS); therefore, a permit is not required for acquisition. Federal and State acquisition and relocation policies would be followed, and any purchase of land would be based on fair market value. In addition, access would be provided to agricultural parcels separated by the interchange tracks.

Environmental Justice

There are no environmental justice concerns for low-income or minority populations within the affected environment, as impacts would be felt by all populations, not just those economically or racially sensitive populations. If such impacts are discovered in subsequent phases of this project, a community outreach program would be initiated.

Relocations

Relocation assistance would be conducted by MDOT in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646).

Traffic

During construction, all local rail, through-rail, and roadway traffic would be safely accommodated. All construction activities would be scheduled to minimize traffic delay.

Utilities

Construction would be coordinated by MDOT with affected utility companies. Any disruption to utility service during construction would be minimized by phased utility adjustments.

Noise

The elevated rail viaduct and rail interchange yard would decrease the noise impacts from train horns through Tupelo and create a “quiet zone” through downtown Tupelo. During construction, the contractor would comply with all State and local sound control ordinances. Each piece of equipment with internal combustion engines shall be equipped with a muffler.

Air Quality

During construction, MDOT will ensure all construction debris, such as vegetation and existing rail equipment, would be removed from the project site and disposed of in compliance with air quality laws and regulations.

Water Quality

MDOT will develop a detailed sediment and erosion control plan for construction would be developed and approved by the appropriate agencies prior to construction of the Build Alternative. Construction materials would be stored and disposed of in a manner that they are not discharged into or alongside of streams. Disturbed sites would be re-established with vegetative cover after construction to reduce runoff and lessen sediment loadings. Special precautions would be taken during construction to ensure that groundwater is not contaminated. Construction measures that would minimize water quality impacts to streams and tributaries would be incorporated into the design of the Build Alternative. Best Management Practices (BMPs) would be used to minimize water quality impacts.

Wetlands/Waters of the U.S.

In accordance with Section 404 (b)(1) guidelines, all practicable measures would be taken to avoid or minimize impacts to wetlands. If the Build Alternative were selected, affected wetlands would be delineated and mapped, and copies of the supporting documents would be provided to the USACE for field verification. An individual permit from the USACE would be required. Stream impacts are anticipated to be minimal due to the proposed bridge structures.

Floodplain

Bridges, pipes, and box culverts would be designed in accordance with FRA and FHWA floodplain impact requirements. Flood studies would be performed as required. The Build Alternative improvements will be designed to accommodate the floodway channel improvements proposed by the Town Creek Master Water Management District.

Vegetation and Wildlife

Construction activities would be limited to the project right-of-way and the construction sequence would be managed such that construction would be limited to select areas along the project corridor to limit impacts to vegetation and wildlife. BMPs used to reduce runoff

would benefit vegetation and aquatic habitat. Exposed surfaces would be re-vegetated during construction.

Hazardous Materials

No hazardous materials sites listed in available databases lie within the affected area of the Build Alternative. If the Build Alternative were selected, additional research would be conducted by MDOT to identify any potential hazardous material sites that could be affected. Any site impacted by the project that is determined to contain hazardous materials would be remediated as required by regulations and by MDOT policy.

Archaeology

As part of the analysis completed for this EIS, a detailed survey was completed and all archaeological sites located in the Build Alternative alignment were evaluated for eligibility for the National Register of Historic Places (NRHP). Construction of the Build Alternative would not physically impact any NRHP-eligible archaeological sites. Archaeological clearance of the Build Alternative was recommended for approval by the SHPO. However, if during construction any cultural materials are discovered, the appropriate parties (as delineated by the proposed Memorandum of Agreement [MOA], included in **Appendix F**) would be notified and appropriate mitigation implemented.

Historic Sites and Districts

All standing structures located in the Area of Potential Effects (APE) for the Build Alternative were evaluated for eligibility for the NRHP and impacts to their historic viewsheds. Consultation with the SHPO has determined that there are 37 NRHP-listed or NRHP-eligible properties or historic districts within the APE that would experience adverse visual impacts as a result of the proposed project. However, the FRA, MDOT, City of Tupelo, and the Mississippi Department of Archives and History (SHPO) are in the process of negotiating a MOA, which is included in **Appendix F**, to mitigate these visual effects. The MOA would be a binding document and the commitments entered into through the MOA must be satisfied during the final design and construction processes. FRA and MDOT have also concluded that the visual effects of the Build Alternative do not impair the functions or qualities of the affected historic resources that made those resources eligible for the NRHP. Therefore, there are no Section 4(f) impacts to historic properties or districts as a result of the Build Alternative.

Construction Costs

Funding sources for design, right-of-way acquisition, and construction of the Build Alternative have not been identified. Pending the selection of the Preferred Alternative, MDOT and/or the City of Tupelo would have to identify and Federal, State, local, and/or private funding sources for design, right-of-way acquisition, and construction in future phases of the project. A summary of available funding sources is described in **Chapter 6** of the EIS, but there has not been any funding, public or private, identified for construction of the Build Alternative.



1.0 PURPOSE AND NEED

1.1 INTRODUCTION

The Mississippi Department of Transportation (MDOT) and the Federal Railroad Administration (FRA) have prepared an Environmental Impact Statement (EIS) for the railroad relocation of the BNSF Railway Company (BNSF) main line through the City of Tupelo, Mississippi.

1.1.1 Project Location

Tupelo is a community with a population of approximately 35,000, located in the northeast region of Mississippi, shown on **Figure 1-1**. Because it serves as the region's major employment center, the population of the City more than doubles during the workday as the community workforce arrives. Major employers in the community include a regional hospital, which employs approximately 4,600 people, and an active furniture manufacturing center. On average, the Tupelo economy has been growing at a rate of approximately 1,000 new jobs per year since 1970. With the job market remaining relatively stable over the past 30 years, employment models and job forecasts for Lee County indicate this growth continuing through the year 2030.

1.1.2 Study Area Description

The project study area encompasses the greater Tupelo area. Specifically, this study area includes all of Lee County, the southeastern portion of Union County, and the eastern portion of Pontotoc County, shown on **Figure 1-1**. Two rail lines pass through Tupelo, the BNSF main line and the Kansas City Southern Railway (KCS) rail line.

1.1.3 Topography

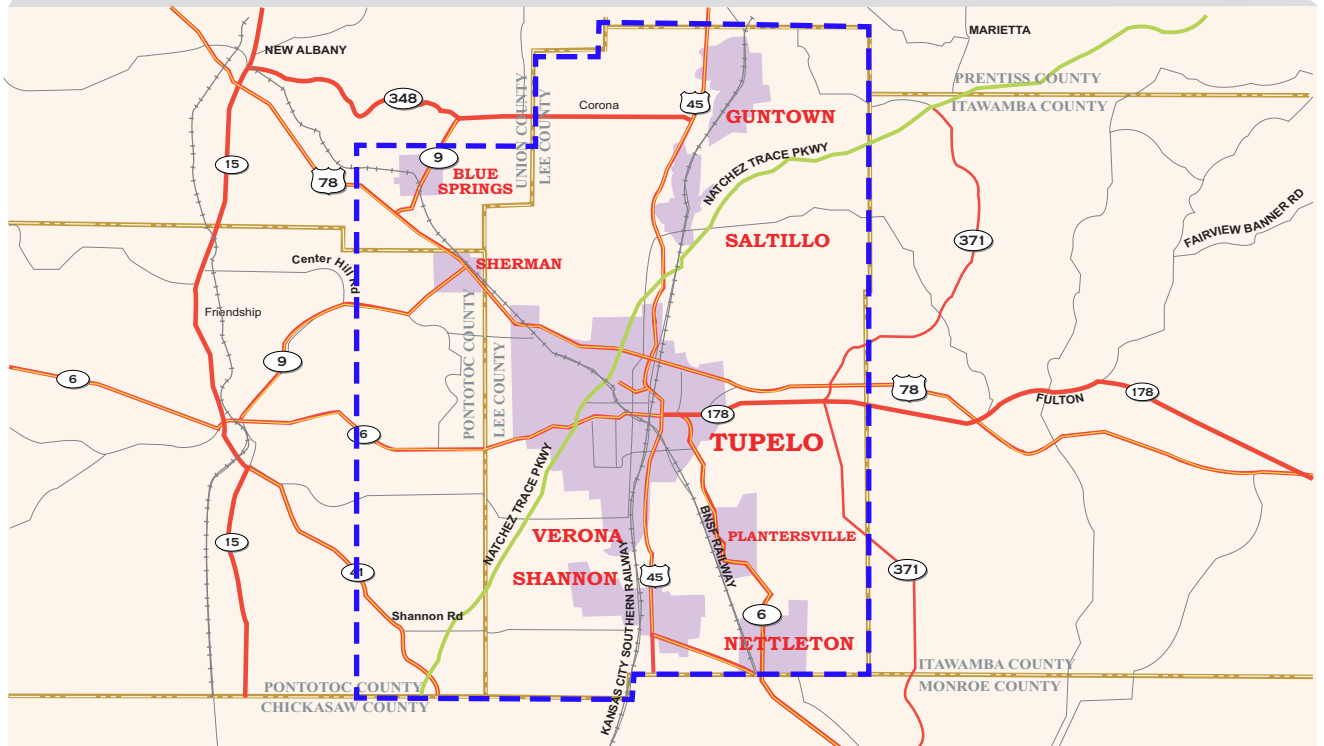
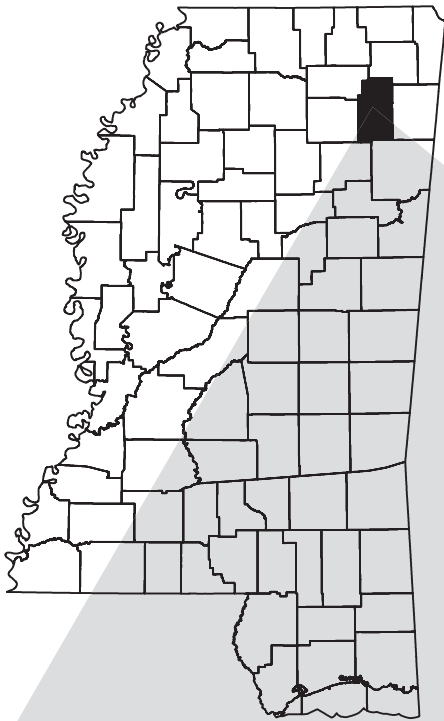
This region of Mississippi has many characteristics including urban areas, undulating rural terrain, and floodplain/floodway areas which mainly serve as agricultural lands. The area also has several creeks that are part of the Tombigbee River Basin.

1.1.4 Land Use

The land uses in the Tupelo region include agricultural, residential, commercial, industrial, and transportation. The region is also crossed by the Natchez Trace Parkway, a scenic roadway under the jurisdiction of the U.S. National Park Service (NPS). Agricultural and industrial uses are primarily found around the existing rail corridor.

1.1.5 History

The City of Tupelo was founded in 1859 after the completion of the Mobile and Ohio Railroad, which is now the KCS rail line, and later incorporated in 1870. Tupelo's modern history can be traced to 1887 with the construction of the Kansas City, Memphis & Birmingham Railroad, which is now the BNSF main line.



	LEGEND Primary Road Secondary Road Road Rail National Parkway US Highway State Highway County Boundary Study Area	Tupelo Mississippi Railroad Relocation Planning & Environmental Study	Location Map
			Figure 1-1



Tupelo's location and accessibility to the railroads have made it an industrial hub for many years, despite several changes in its economy.

1.2 PURPOSE

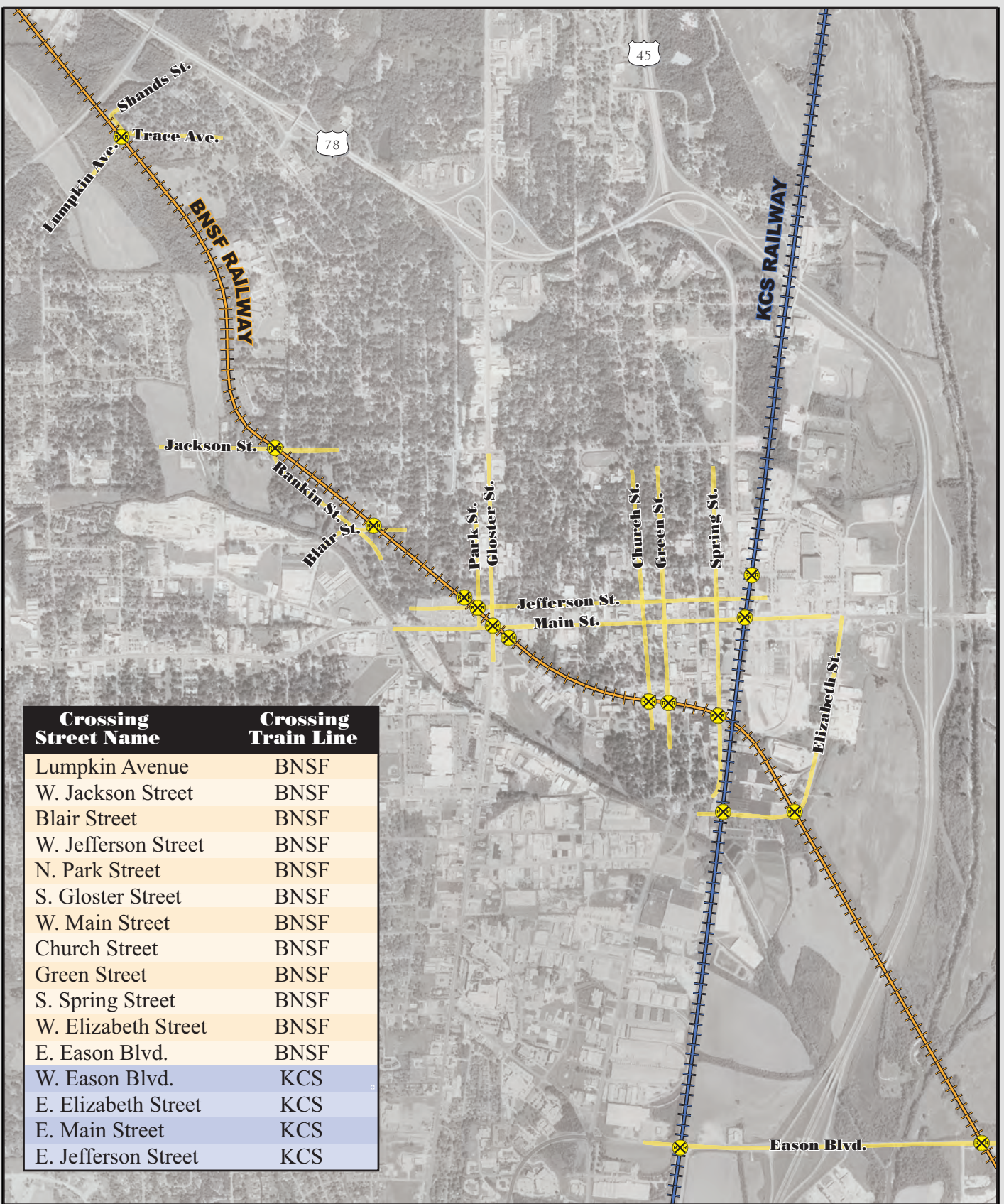
In recent years, the City of Tupelo has become concerned that highway-rail traffic conflicts are having an adverse impact on the community. These impacts include congestion, safety, efficiency of railroad operations, and quality of life issues, such as railroad and horn noise, vibration, and air pollution. The purpose of the Tupelo Railroad Relocation Planning and Environmental Study is to improve mobility and safety by reducing roadway congestion caused by the movement of trains running through the City of Tupelo, especially at the intersection of Main Street and Gloster Street (locally referred to as "Crosstown").

1.2.1 Project Background and Study History

The BNSF and KCS rail lines share an interchange to exchange rail cars just south of downtown Tupelo. There are approximately 86 at-grade highway/rail crossings within the study area. Sixteen of those at-grade highway/rail crossings are in downtown Tupelo, shown on **Figure 1-2**. Twelve of those are owned by BNSF and four by KCS. The BNSF main line crosses diagonally at-grade at the Crosstown intersection. This intersection has an annual average daily traffic (AADT) count of 39,000 vehicles per day (vpd), making it one of the busiest intersections in the City. Because of the highway traffic delays caused by the movement of trains in and through Tupelo, the City requested that MDOT conduct a rail relocation study to determine whether improvements could be made to the rail lines in the Tupelo area in order to alleviate some of the impacts from rail operations while maintaining railroad service, which is important to the City and surrounding areas.

In 2000, MDOT contracted with Wilbur Smith Associates to perform a reconnaissance study. The study concluded that various improvement options, including re-routing the rail traffic around the City, were feasible and that further study was warranted. A draft Purpose and Need Statement was developed as a result of that study. MDOT and the City agreed that from both feasibility and economic perspectives, further studies were justified and necessary. In 2004, Congress provided funding for the National Environmental Policy Act (NEPA) analysis necessary to advance the project, and shortly thereafter, MDOT commenced the Tupelo Railroad Relocation Planning and Environmental Study, and FRA agreed to serve as the lead Federal agency for the EIS.

MDOT's objectives for the Tupelo Railroad Relocation Planning and Environmental Study are to re-examine the feasibility of the options for improving rail operations in Tupelo, identify the benefits and costs of each; to prepare an EIS; determine a preferred alternative; and, ultimately, if a project is to be advanced, to obtain a Record of Decision (ROD). In May 2006, the FRA and MDOT completed Phase 1, the Feasibility Analysis, which evaluated the current and future traffic levels on both the local roadways and railroads. It also evaluated the cost of current and future traffic delay to the motoring public as a result of railroad crossings and discussed



Crossing Street Name	Crossing Train Line
Lumpkin Avenue	BNSF
W. Jackson Street	BNSF
Blair Street	BNSF
W. Jefferson Street	BNSF
N. Park Street	BNSF
S. Gloster Street	BNSF
W. Main Street	BNSF
Church Street	BNSF
Green Street	BNSF
S. Spring Street	BNSF
W. Elizabeth Street	BNSF
E. Eason Blvd.	BNSF
W. Eason Blvd.	KCS
E. Elizabeth Street	KCS
E. Main Street	KCS
E. Jefferson Street	KCS



LEGEND

- Street
- At Grade Railroad Crossing
- BNSF Railroad
- KCS Railroad

**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

Existing At-Grade
Rail Crossings

Figure 1-2



potential improvements to the existing rail lines and transportation network that would help reduce traffic delays. As detailed in *Phase I – Feasibility Analysis* (HDR, May 2006), the traffic level of service (LOS) was estimated at the 16 existing at-grade intersections and 13 nearby intersections for the initial year (2005) and the design year (2030), shown in **Table 1-1** and **Table 1-2**.

Table 1-1 At-Grade Crossing LOS Summary

Crossing Line	Crossing Street Name	2005 Peak Hour		2030 Peak Hour	
		LOS for Through Trains	LOS for Switching Operation	LOS for Through Trains	LOS for Switching Operation
BNSF	Lumpkin Ave.	B	F	D	F
	Jackson St.	B	F	D	F
	Blair St.	B	F	D	F
	Jefferson St.	B	F	D	F
	Park St.	B	F	D	F
	Gloster St.	B	F	D	F
	Main St.	B	F	D	F
	Church St.	B	F	D	F
	Green St.	B	F	D	F
	Spring St.	B	F	D	F
	Elizabeth St.	C	F	E	F
	Eason Blvd.	C	F	F	F
	KCS	Eason Blvd.	A	E	A
Elizabeth St.		A	F	A	F
Main St.		A	E	A	E
Jefferson St.		A	E	A	E

The LOS is a letter designation that describes a range of traffic operating conditions on a particular facility. Six levels of service are defined by the Transportation Research Board’s 2000 Highway Capacity Manual (HCM) for capacity analysis. They are given letter designations A through F, with LOS A representing ideal operating conditions, D representing unfavorable conditions, E representing unsatisfactory conditions, and F representing a failing LOS. LOS E and F are generally considered to be unacceptable conditions.

The results of the traffic analysis showed that all of the at-grade intersections on the BNSF main line would operate at LOS D or worse by the year 2030 with passing trains, with two at-grade intersections operating at an unacceptable LOS. In addition, four nearby intersections would operate at an unacceptable LOS with passing trains in the year 2030. All intersections would operate at an unacceptable LOS for the switching operations in both 2005 and in 2030.

Table 1-2 Nearby Intersection LOS Summary

Intersection	Intersection Traffic Control	2005 Peak Hour LOS		2030 Peak Hour LOS	
		No Train Traffic	With Train Traffic	No Train Traffic	With Train Traffic
Clark St. at Church St.	Un-signalized	A	C	A	D
Gloster St. at Main St.	Signalized	C	F	F	F
Clark St. at Spring St.	Un-signalized	A	C	B	D
Spring St. at Elizabeth St.	Un-signalized	A	B	A	D
Front St. at Main St.	Signalized	B	B	B	B
Front St. at Jefferson St.	Signalized	A	A	B	B
Park St. at Jefferson St.	Signalized	B	D	C	E
Rankin St. at Blair St.	Signalized	A	B	A	C
Rankin St. at Jackson St.	Un-signalized	A	C	A	E
Eason St. at Ryder St.	Un-signalized	A	C	A	C
Eason St. at Whitaker St.	Un-signalized	A	A	A	A
Lumpkin Ave. at Shands St./Trace Ave./Kincannon St.	Un-signalized	A	C	A	C
Gloster St. at Jefferson St.	Signalized	A	B	B	F

The traffic delay, as a result of this congestion, would have a cost to the community for the increased time and fuel consumption for idling vehicles. This congestion cost was calculated based on the Texas Transportation Institute congestion cost methodology for both the at-grade crossings and the nearby intersections for the time period between the initial year (2005) and the design year (2030). The total congestion cost as a result of the automobile traffic delay, summarized in **Table 1-3**, is approximately \$1.25 billion.

Table 1-3 Cumulative Cost of Congestion from Year 2005 to Year 2030

From 2005 to 2030	At-Grade Crossing	Near-by Intersections as Secondary Impact	Total Cost of Congestion
	\$402,621,900	\$848,183,750	\$1,250,805,650

As detailed in *Phase I – Feasibility Analysis* (HDR, May 2006), the Phase 1 study indicated that there were feasible alternatives and the study should proceed into Phase 2, the Environmental Analysis. The FRA published the Notice of Intent to proceed with the preparation of an EIS in the Federal Register on January 17, 2007. Several Federal agencies agreed to serve as cooperating and commenting agencies to assist in the development of the EIS, including:

- Federal Highway Administration (FHWA);
- U.S. Environmental Protection Agency (EPA);
- U.S. Department of the Interior – National Park Service (NPS);
- U.S. Department of the Interior – Fish & Wildlife Service (USFWS);
- U.S. Army Corps of Engineers – Mobile District (USACE); and



- U.S. Army Corps of Engineers – Vicksburg District (USACE).

1.3 NEED

The proposed project will address the following identified needs:

- **Reduce vehicular traffic delays** in downtown Tupelo
- **Improve response for emergency vehicles**
- **Improve the safety of the traveling public**
- **Improve efficiency of railroad operations** in the Tupelo area
- **Enhance quality of life** with regard to traffic flow, noise, and economic development

1.3.1 Traffic

Presently, the BNSF main line runs diagonally through the Crosstown intersection. This intersection is blocked for a total of over two hours each day by train traffic. In addition to the train traffic from through trains, BNSF and KCS exchange rail cars just south of Crosstown, and this compounds the amount of time this intersection is blocked by rail traffic. There are 12 at-grade roadway-rail crossings in the City of Tupelo, including Crosstown, on the BNSF main line and four at-grade roadway-rail crossings on the KCS rail line that contribute to the traffic and safety issues. The crossings are listed in the table shown on **Figure 1-2**. The BNSF currently operates 20 to 25 trains per day through the City, while KCS operates two to three trains per day.

According to the 2004 AADT maps from the MDOT Planning Division, Gloster Street has an AADT of 22,000 vpd while Main Street has an AADT of 17,000 vpd. Most of the BNSF trains are through-trains that run at a maximum speed of 20 miles per hour (mph), with each train blocking the intersection for only a few minutes, but the total delay is significant. One or two trains per day exchange an average of 15 cars each, but the interchange frequently includes exchanges of as many as 40 cars. This can block the intersection for a much longer time, as much as 15 or 20 minutes. The rail traffic causes significant vehicle traffic delays. By the year 2030, rail traffic is expected to grow to 40 trains per day on the BNSF rail line and four trains per day on the KCS rail line, creating more delays and traffic congestion. As documented in the *Phase 1 – Feasibility Analysis* (HDR, May 2006), automobile traffic in 2005 at Crosstown experienced a daily total of 210 hours of cumulative delay. Based on a 250-day work year, drivers experience over 52,500 hours of delay, which equates to a total annual workday delay cost of \$7.8 million. By 2030, this cost is estimated to increase to approximately \$25 million annually, with a cumulative cost of \$1.25 billion.



1.3.2 Safety

1.3.2.1 Emergency Vehicle Response Times

Delay to emergency vehicles is also a major concern. The North Mississippi Medical Center (NMMC) is the primary source of emergency care in Tupelo as well as throughout the entire northeast Mississippi region. NMMC is the largest hospital in Mississippi and the largest non-metropolitan hospital in the U.S. The hospital is located on South Gloster Street in the Crosstown area near the KCS classification yard. Because of its location, emergency vehicles traverse the railroad crossings at Crosstown and Eason Boulevard an estimated 80 to 100 times per day and are delayed an average of four times per day. When stopped at these railroad crossings, an emergency vehicle can be delayed up to an additional 15 minutes before reaching the hospital. Because of the possibility that a particular crossing may be blocked by a train, emergency vehicle drivers frequently must choose between risking that the crossing is clear and waiting when it is blocked, or taking a longer alternate route, either of which can dangerously increase response time.

1.3.2.2 Vehicular and Pedestrian Accidents

According to FRA accident data for Lee County for the period from 2000 through 2009, there have been 13 vehicular accidents and three pedestrian accidents involving BNSF trains and five vehicular accidents and no pedestrian accidents involving KCS trains. There are 16 at-grade crossings in the City of Tupelo, shown on **Figure 1-2**. FRA has ranked all of these crossings in the top quartile for predicted accidents in the State of Mississippi. The Crosstown at-grade crossing has an AADT of 39,000 vpd. Twenty-three trains per day travel through this intersection, resulting in an exposure index (number of trains multiplied by the AADT) of 897,000. The exposure index is an indication of the potential hazards at a crossing. With an exposure index of 897,000, this intersection has one of Mississippi's highest exposure ratings and, therefore, is a crossing with one of the highest probability for accidents in the state. Due to the nature of the crossing, only warning lights, crossbucks, and bells are in place at Crosstown. Gates are not present and would restrict right turns during train events if installed, which would further increase delays. Although the potential for accidents cannot be measured precisely and the crossing does not have a history of significant accidents, it is reasonable to conclude that reduced exposure of vehicle trips and train trips at these complicated at-grade crossings would result in improved safety for the traveling public.

1.3.3 Railroad Operations

Trains, trucks, and ships are used to provide long haul service. Following World War II, trucks took a large portion of the market share of long haul shipping from rail service. Since 1980, however, tonnage shipped by rail has increased dramatically due primarily to deregulation of the industry coupled with the growth of trade with



emerging Asian countries and technological advances that have made shipping by rail more cost-effective.

Various types of trains operate on the Tupelo area rail lines on a weekly basis. The types of trains include bulk (coal and rock), intermodal, autorack, manifest, and local trains. Currently, BNSF averages 20 to 25 trains per day totaling 65 to 75 million gross tons (MGT) annually, and KCS averages two to three trains per day totaling 2 to 3 MGT annually. Trains have been found to be three times more fuel efficient and carry goods at lower costs than trucking. In addition, recent fluctuations in fuel costs have led to an even greater demand for rail service. As a result, the number of trains traveling through the City of Tupelo is expected to increase to 44 trains per day by the year 2030. Because of this projected increase in trains per day, increasing speed and efficiency of freight movement through the region is a high priority.

Currently, because of the configuration of the existing rail lines, trains are required to traverse the downtown Tupelo area on the BNSF main line at a maximum speed of 20 mph. Improvement of the rail facilities would allow for train speeds to increase up to 40 mph, thereby greatly improving the efficiency of the freight rail movement in the region.

1.3.4 Social Demands

Railroads were essential to the growth and development of Tupelo. The City was organized in 1859 as a result of the completion of the Mobile and Ohio Railroad. Tupelo's development dramatically increased upon the completion of the Kansas City, Memphis & Birmingham Railroad in 1887. The railroads were heavily utilized and became the center of activity and industry for the town. Over the past half-century, however, the City has grown and become less dependent upon the railroads for economic survival. This is a recurring theme throughout the country as trains that once brought economic prosperity and social cohesion are now sometimes viewed as factors in the decline of both. As a result, the City of Tupelo now desires not only to improve mobility but also to improve overall quality of life. As currently configured, the rail lines have a detrimental impact on quality of life, most notably with regard to rail-related noise.

A freight train generates noise levels ranging from 70 decibels (dBA) when the train is idling to 115 dBA when the horn is blowing. As a comparison, 70 dBA is about the same noise level as that of a blender while 115 dBA is between the noise level of a siren and a jet plane. Excessive noise has the potential to disrupt routine activities, which can affect the overall quality of life, especially in sensitive areas such as residences, recreational facilities, churches, synagogues, parks, and schools. Removal of the rail traffic from the downtown area, or a reduction in horn sounding, would reduce the noise and, as a result, improve the quality of life for residents in the City.



Traffic delay and congestion in the downtown area also leads to excessive idling by vehicles delayed at the railroad crossings. This idling results in increased emissions of carbon monoxide. Because of harmful effects to the public health and the environment, carbon monoxide is referred to as a criteria air pollutant and is monitored by the U.S. Environmental Protection Agency (EPA) along with lead, nitrogen dioxide, ozone, sulfur dioxide, and particulate matter (dust). Although Tupelo is in an attainment area (i.e. levels of these pollutants do not exceed the national Ambient Air Quality Standards [NAAQS]) for these criteria pollutants, any decrease in the emission of carbon monoxide would improve air quality, improving the quality of life.

1.3.5 Economic Development

1.3.5.1 Economic Growth

This project could result in opportunities for economic growth resulting from the realignment of the rail lines. Historically, the railroad has been at the City's center of activity, and many businesses were located along the rail lines because the railroad offered the fastest and most convenient mode of transportation for their goods. The railroad is still a vital means of transportation, but most rail customers have relocated outside of the center of the City of Tupelo. Because there are very few rail customers located in downtown Tupelo, realigning the rail lines has the potential for enhancing economic development opportunities in the region, while minimizing disruption of rail service to existing industries. Removal of some or all of the at-grade roadway-rail crossings in central Tupelo would remove the majority of the \$1.25 billion congestion cost and allow for additional economic development as a result of reduced traffic delay.

1.3.5.2 Central Business District

The Tupelo Central Business District (CBD) is a vital part of the Tupelo's economy and defines its cultural heritage. The Tupelo CBD is home to an array of restaurants and shops as well as to the NMMC.

Tupelo is currently engaged in an urban renewal project designed to renovate the Fairpark District, the former fairgrounds area located in the heart of downtown. Fairpark is a mixture of commercial, residential, retail, and public structures that includes the City Hall, the Tupelo Auto Museum, the Hilton Garden Inn, and the BancorpSouth Arena and Conference Center. Improving mobility and safety for road users would provide better access to Tupelo's CBD, improving the attractiveness of the downtown area for businesses, residents, and tourists.



1.3.6 Modal Interrelationships

The City of Tupelo provides opportunities for intermodal connections in addition to the service provided by the two rail lines. The Tupelo Municipal Airport offers multiple commercial carriers and service for private use aircraft. The airport is undergoing an expansion of its facilities to provide additional services.

In addition, several major highways serve Tupelo. U.S. Highway 78 (US 78) is an east-west route that runs from Memphis, Tennessee to Charleston, South Carolina. The section of US 78 from Memphis, Tennessee to Birmingham, Alabama is also known as Appalachian Highway System Corridor X and is currently being upgraded to a controlled access freeway, future Interstate 22 (I-22). US 45 is a north-south route from Mobile, Alabama through central Tennessee. The Natchez Trace Parkway, the Appalachian Highway System Corridor V, and numerous other state and county roadways service the Tupelo area.

The removal of at-grade crossings within central Tupelo, especially at Crosstown, will allow for greater mobility of surface transportation to the airport and better traffic flow along the local highways.

2.0 ALTERNATIVES

This section describes all of the alternatives considered, including the No-Build Alternative, rail operational improvements, in-town grade separations of the railroad at specific locations in Tupelo, and proposed rail alignment alternatives. The No-Build, the operational improvements, and the in-town alternatives would permit the rail traffic to increase speed through Tupelo while potentially reducing auto traffic delay and improve safety. The proposed rail relocation alternatives would result in a new rail line for either a portion or all of the BNSF and KCS traffic around downtown Tupelo with a specific intention to remove the traffic conflict at Crosstown. Each alternative was evaluated based on its ability to satisfy the project's Purpose and Need.

2.1 NO-BUILD ALTERNATIVE (ALTERNATIVE A)

The No-Build Alternative would not construct any improvements to either the existing roadway network or the existing rail facilities, beyond any projects that are currently planned or programmed. The existing alignments for the BNSF main line and KCS rail line would remain in their existing locations, without any rail or automobile improvements. The existing BNSF-KCS interchange yard would also remain. The No-Build Alternative does not satisfy the project's Purpose and Need, but is required to be brought forward for further analysis and evaluation under NEPA (and 40 CFR §§ 1502.14(d) & 1508.25(b)).

2.2 FEASIBILITY ALTERNATIVES

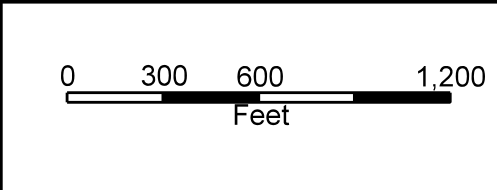
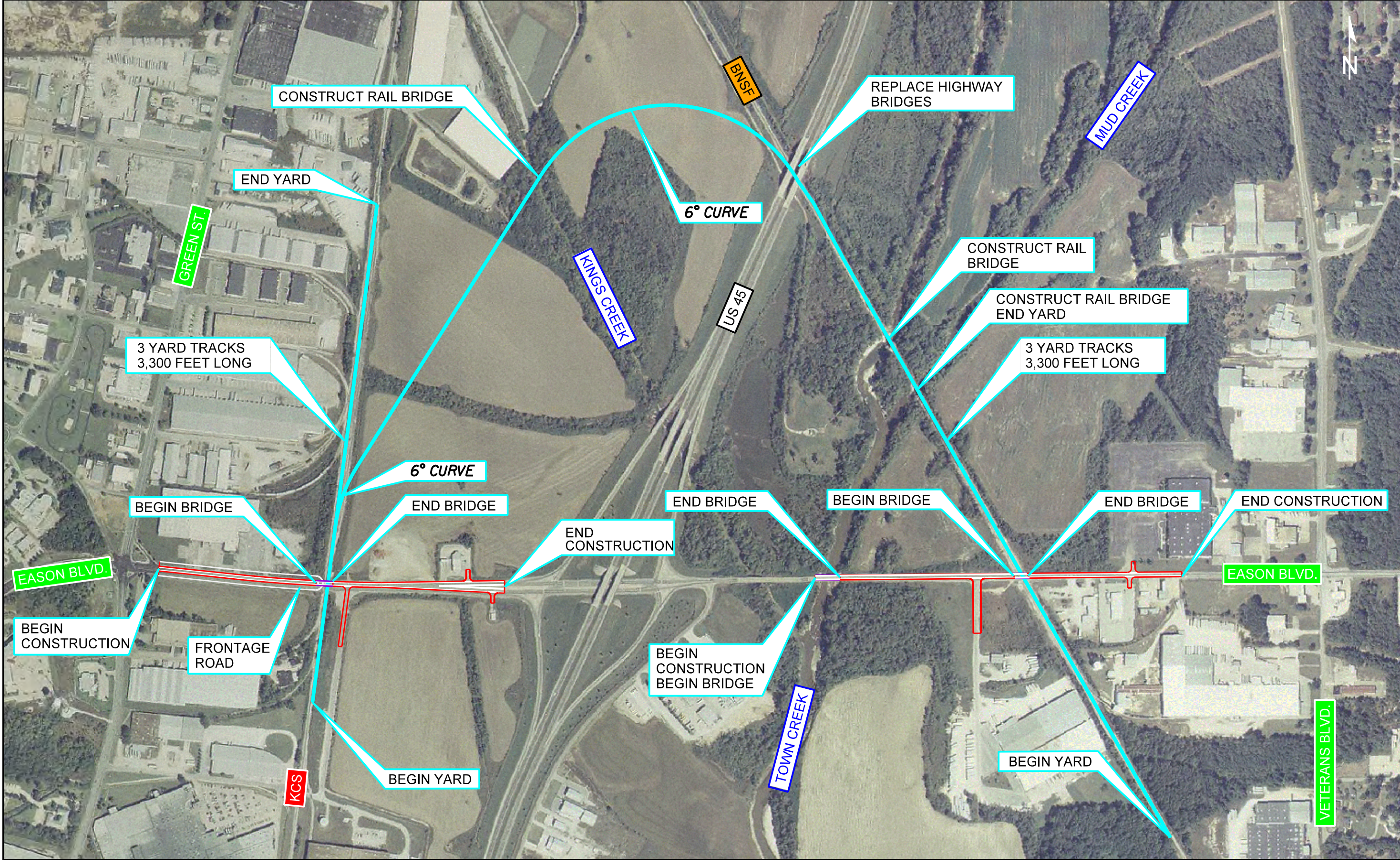
The following alternatives were identified and analyzed as part of the *Phase 1 – Feasibility Analysis* (HDR, May 2006). In June 2006, the FRA approved the document, and the Scoping Phase was initiated.

2.2.1 Operational Improvements

The amount of rail traffic through Tupelo contributes directly to the auto traffic delay and safety concerns at the at-grade crossing locations. A portion of the delay occurring in-town is due to the exchange of rail cars between BNSF and KCS. This exchange of cargo, while serving the needs of the community, blocks the major north-south and east-west arterial roadways. The BNSF and KCS interchange is located approximately 3,600 feet east of Crosstown.

The proposed operational improvement to address the exchange of rail cars between BNSF and KCS is to move the BNSF-KCS interchange to the southeast along the BNSF main line, shown on **Figure 2-1**. The interchange would be located south of the Pvt. John Allen National Fish Hatchery and north of US 45. Three rail storage tracks, turnouts and electric lock-out switches would be constructed along both the BNSF main line and KCS rail line for the exchange of rail cars. Roadway improvements would be the grade separation of Eason Boulevard over both the BNSF and KCS crossings, which would also reduce auto traffic delay and remove potential rail and vehicular conflicts. The existing highway overpass for US 45 would also require reconstruction to facilitate the additional storage track. **Figure 2-1**

Operational Improvement



Tupelo Railroad Relocation
 Planning and Environmental Study
 Operational Improvement

Figure
 2-1



2.2.2 In-town Alternative Scenarios

Improvements along the existing BNSF line in Tupelo were analyzed for upgrades and/or improvements to both the railroad and roadways. The Crosstown intersection was identified as a primary location for improvements. Two scenarios were analyzed for improvements in downtown Tupelo at the Crosstown intersection. Scenario 1 is to elevate the roadway intersection over the BNSF line. Scenario 2 is to elevate the BNSF main line over the existing roadway intersection.

2.2.2.1 Scenario 1

Scenario 1 consists of elevating the Crosstown intersection above the existing BNSF line. Although the highway overpass could be contained within the existing right-of-way, there would be significant impacts to the ability to maintain traffic volumes during construction as well as impacts to the access to adjacent properties.

Upgrading the railroad switch for the BNSF and KCS interchange with an electric switch lock system would improve the safe operation of switching operations in the rail yard and allow an increase in the speed of trains approaching the interchange. The recommended roadway improvements, shown on **Figure 2-2**, to improve the functional speed of the BNSF main line in its current alignment through Tupelo are:

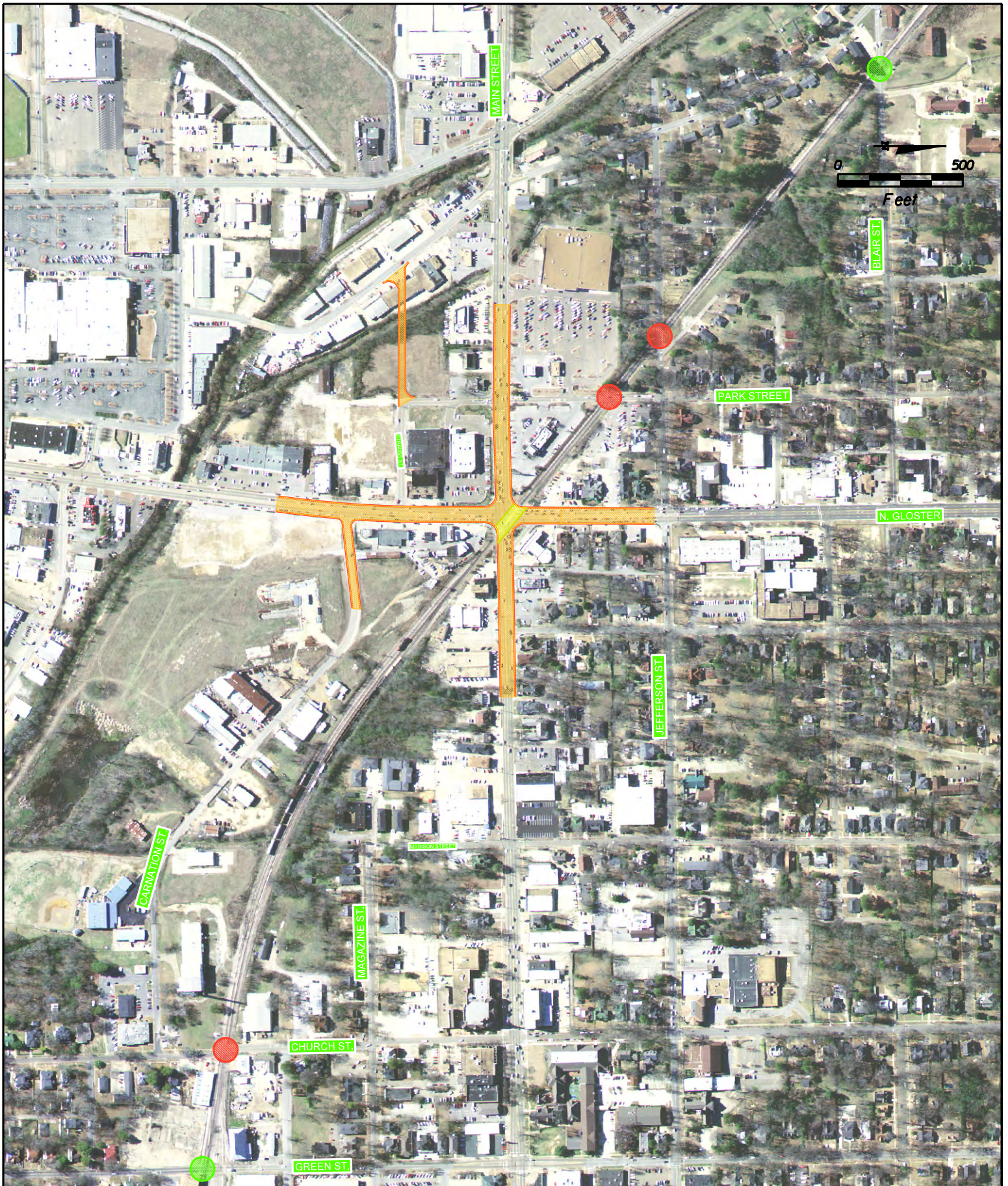
- Full closure of at-grade crossings at Jefferson Street, Park Street, and Church Street;
- Installation of warning gates with flashers at Spring Street, Green Street and Blair Street; and
- Construction of a grade separation at the Crosstown intersection by building a highway bridge structure over the existing railroad.





2.2.2.2 Scenario 2

Scenario 2 consists of constructing a railroad bridge over the Crosstown intersection. The proposed improvements would be constructed to the north of the existing track and would require right-of-way acquisition to allow for uninterrupted train service.

An elevated railroad bed, bridge and retaining walls would be constructed across the Crosstown intersection. The limits of the improvements would be between Jackson Street and 1,000 feet east of the KCS crossing. The switch point for access to the rail yard would need to be relocated to the east near the Spring Street crossing. The recommended roadway improvements, shown on **Figure 2-3**, to improve the functional speed of the BNSF main line in its current alignment through Tupelo are:

- Full closure of the at-grade crossing at Church Street;
- Installation of warning gates with flashers at Spring Street and Green Street; and

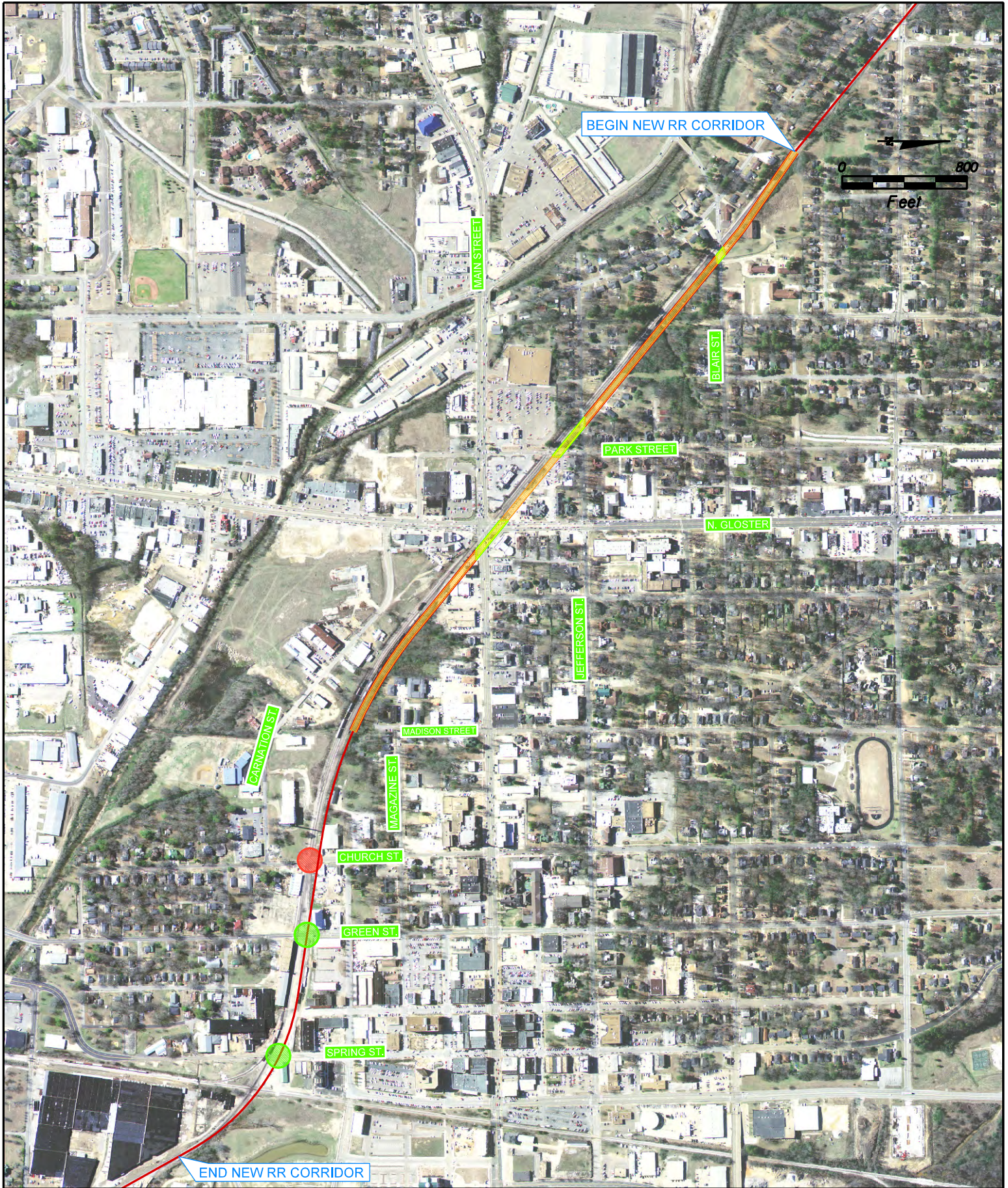


	LEGEND	
	PROPOSED BRIDGE	
	UPGRADED RR CROSSING	
	RR CROSSING CLOSED	
PROPOSED ROADWAY		

**Tupelo Railroad Relocation
 Planning and Environmental Study**

In-Town
 Alternative
 Scenario 1

**Figure
 2-2**



LEGEND	
PROPOSED RR BRIDGE	
UPGRADED RR CROSSING	
RR CROSSING CLOSED	
PROPOSED RETAINING WALL	

Tupelo Railroad Relocation Planning and Environmental Study

In-Town
Alternative
Scenario 2

Figure
2-3

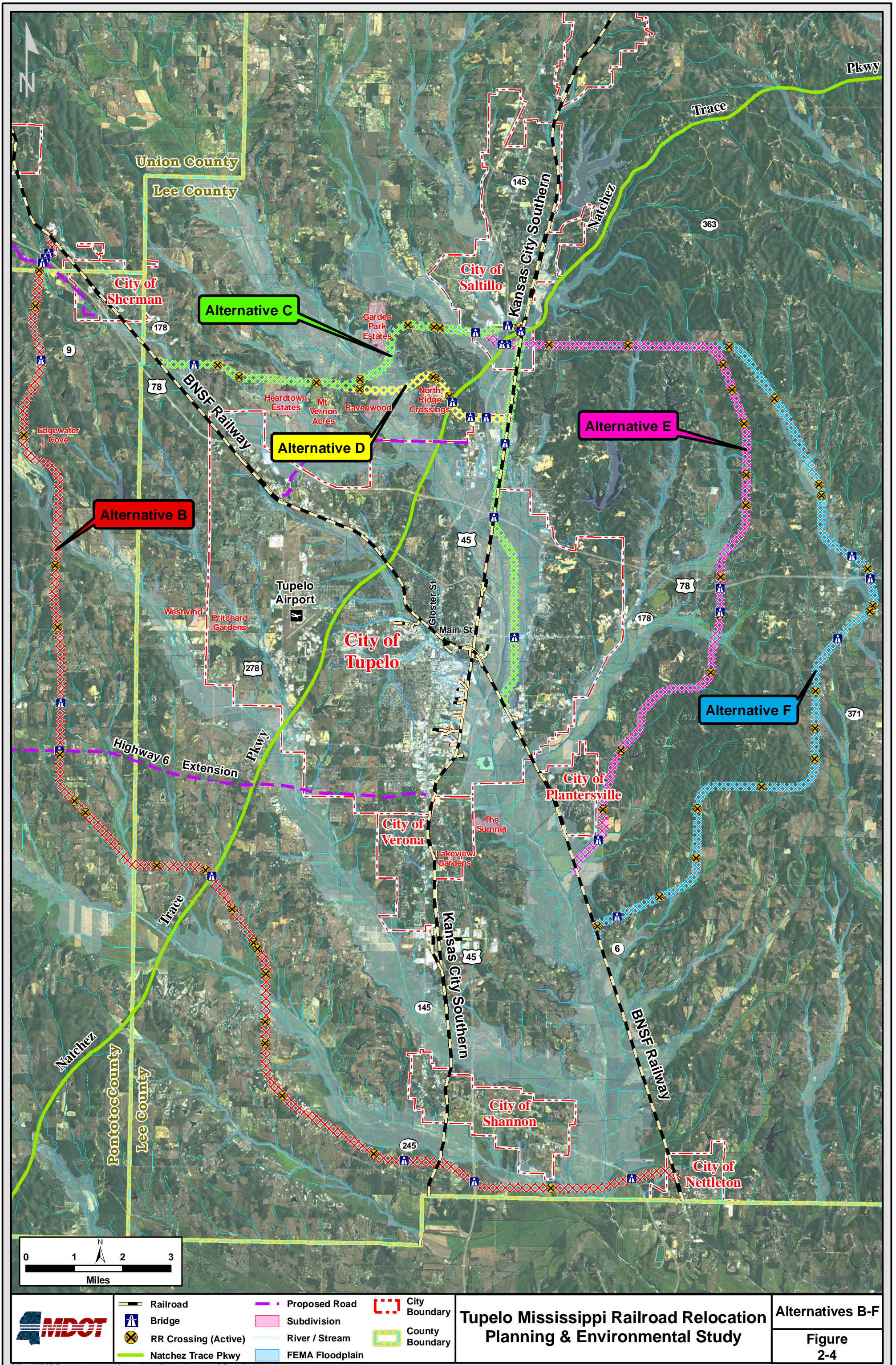
- Construction of a railroad overpass over the existing at-grade crossings at Blair Street, Jefferson Street, Park Street, and Crosstown.

2.2.3 Alternative B

Alternative B, shown on **Figure 2-4**, which would bypass Tupelo to the west, is approximately 29.7 miles in length and would begin just north of the Town of Sherman. The alignment turns south and enters Pontotoc County and continues south following Lilly Creek then Coonewah Creek then turns east into Lee County. The alignment curves southeast crossing the Natchez Trace Parkway and Chiwapa Creek, then turns east to follow the Chiwapa Creek floodplain. The alignment crosses the KCS line at approximately MP 268.1, south of Shannon, Mississippi, and an interchange yard would be constructed near this location. The route would cross Chiwapa Creek again and connect to the common southern point on the BNSF main line just north of the town of Nettleton. All 29.7 miles of Alternative B would be construction of new track. No existing track would require reconditioning, but the existing track between Eason Boulevard and the reconnection point north of Nettleton would remain as a spur to service existing rail customers. The length of bridges and trestle required to span floodplains and other water features would be approximately 6,400 feet. Twenty-one new public at-grade roadway crossings would be needed along the alternative corridor, but 17 existing public at-grade crossings including Crosstown would be closed, with four others reduced to spur traffic. Nine existing major roadways would require grade-separations over the new rail line. No existing highway overpasses would require modifications. The right-of-way width would vary from 100 to 200 feet.

2.2.4 Alternative C

Alternative C, approximately 30.4 miles in length, would bypass Tupelo to the east and depart the BNSF main line between the city limits of Sherman and Tupelo, shown on **Figure 2-4**. The route travels east and crosses Town Creek and Busfaloba Creek, Yonaba Creek, and Mud Creek. The route would then join the KCS rail line in the City of Saltillo and run along the existing KCS rail line to south of US 78. The route would run south to join the BNSF main line north of Eason Boulevard. Approximately 12.6 miles of new track would be constructed for Alternative C. Approximately 3.8 miles of existing KCS track would be upgraded. The remaining approximately 14.0 miles of existing BNSF track would not require additional improvements. The length of rail bridges and trestle required to span floodplains and other water features would be approximately 7,900 feet. Eight new public at-grade roadway crossings would be needed for this alternative. Eight existing public at-grade crossings would remain in use, but 15 existing public at-grade crossings would be closed for Alternative C, including Crosstown. Seven existing major roadways would require grade-separations and three existing highway overpasses would require modifications. The right-of-way width would vary from 100 to 200 feet.



Tupelo Mississippi Railroad Relocation Planning & Environmental Study

Alternatives B-F

Figure 2-4

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2.2.5 Alternative D

Alternative D is approximately 28.0 miles in length and would bypass Tupelo to the east. Alternative D would depart the BNSF main line between the city limits of Sherman and Tupelo, shown on **Figure 2-4**. The route travels east and crosses Town Creek, Busfaloba Creek, Yonaba Creek, the Natchez Trace Parkway, and Mud Creek. The alignment joins the KCS rail line at approximately MP 283.5 north of Barnes Crossing. After the departure from the KCS rail line, the route would run south to join the BNSF main line north of Eason Boulevard. Approximately 12.2 miles of new track would be constructed for Alternative D, while approximately 1.8 miles of existing KCS track would be upgraded. The remaining approximately 14.0 miles of existing BNSF track would not require additional improvements. The length of rail bridges and trestles required to span floodplains and other water features would be approximately 7,200 feet. Seven new public at-grade crossings would be required for this alternative. Eight existing public at-grade crossings would remain in use, but 15 existing public at-grade crossings would be closed for Alternative D, including Crosstown. Seven existing major roadways would require grade-separations. One existing highway overpass would require modifications. The right-of-way width would vary from 100 to 200 feet.

2.2.6 Alternative E

Alternative E would bypass Tupelo to the east and is approximately 35.1 miles in length. Alternative E would depart the BNSF main line between the city limits of Sherman and Tupelo, shown on **Figure 2-4**. The route travels east and crosses Town Creek, Busfaloba Creek, Yonaba Creek, Mud Creek, the Natchez Trace Parkway, and crosses the KCS rail line. The alignment then continues east to cross Sand Creek and Tulip Creek north of Lake Sequoyah. The route then turns south to roughly follow Tulip Creek and crosses US 78 and South Tulip Creek. The route then avoids Tombigbee State Park and Lakewood Park and roughly follows Garrett Creek and joins the BNSF main line at approximately MP 593.4, south of Plantersville. Approximately 24.9 miles of new track would be constructed for Alternative E. Approximately 10.2 miles of existing BNSF track would not be upgraded. The length of rail bridges and trestles required to span floodplains and other water features would be approximately 8,600 feet. Eight existing public at-grade crossings would remain in use, but three of those would be reduced to spur traffic. Nineteen new public at-grade roadway crossings would be needed along the alternative corridor. Thirteen existing public at-grade crossings would be closed, including Crosstown. Seven existing major roadways would require grade-separations. No existing highway overpasses would require modifications. The right-of-way width would vary from 100 to 200 feet.

2.2.7 Alternative F

Alternative F, approximately 38.8 miles in length, would depart the BNSF main line between the city limits of Sherman and Tupelo and bypass Tupelo to the east, shown on **Figure 2-4**. The route travels east and crosses Town Creek, Busfaloba Creek, Yonaba Creek, Mud Creek, the Natchez Trace Parkway, and crosses the KCS rail line. The alignment then continues east to cross Sand Creek and Tulip Creek north of



Lake Sequoyah. The route continues east, crossing Boguefala Creek, then turns south to roughly follow Boguefala Creek crossing US Highway 78. The route avoids the town of Mooreville and crosses Bougegaba Creek and continues south to roughly follow Smith Creek to join the BNSF main line at approximately MP 594.6 between Plantersville and Nettleton. Approximately 29.8 miles of new track would be constructed for Alternative F. Approximately 9.0 miles of existing track would not be upgraded. The length of rail bridges and trestles required to span floodplains and other water features would be approximately 9,600 feet. Eight existing public at-grade crossings would remain in use, but three of those would be reduced to spur traffic. Twenty-three new public at-grade roadway crossings would be needed along the alternative corridor. Thirteen existing public at-grade crossings would be closed, including Crosstown. Nine existing major roadways would require grade-separations. No existing highway overpasses would require modifications. The right-of-way width would vary from 100 to 200 feet.

2.3 SCOPING ALTERNATIVES

The scoping process involved the interaction of several government agencies, officials, stakeholders, and the public to compare and contrast the alternatives developed during the *Phase I Feasibility Analysis* (HDR, May 2006), develop additional alternatives, and recommend alternatives for further study.

2.3.1 Scoping Meeting

Several meetings were held to present the *Phase I - Feasibility Analysis* (HDR, May 2006) alternatives to the public, government agencies and public officials. These meetings included an Agency Scoping Meeting held on August 14, 2006, a Public Meeting held on August 15, 2006, and Public/Elected Officials Scoping Meetings held on November 29, 2005, August 15, 2006, and November 17, 2006. All of the meetings were held in Tupelo, Mississippi. Representatives from the following agencies were in attendance at these various meetings:

- City of Saltillo
- City of Tupelo
- City of Verona
- Environmental Protection Agency
- Federal Highway Administration
- Federal Railroad Administration
- Lee County
- Natchez Trace Parkway (U.S. National Park Service)
- Town of Plantersville
- Town of Shannon
- U.S. Fish and Wildlife Service

The following is a summary of verbal comments made by agencies at the scoping meetings:



- Natchez Trace Parkway Superintendent supports Alternative C because it utilizes an existing crossing and has the least amount of impact on the Natchez Trace Parkway.
- Invitation letters for agencies to become Cooperating Agencies would be mailed out as appropriate.

The public meeting generated 52 comments that mostly supported either an in-town alternative or an operational improvement and generally opposed any of the proposed bypass alignments.

2.3.2 New Scoping Alternatives

As a result of the scoping process, five new alternatives were recommended for further evaluation by the study team.

2.3.2.1 Alternative G

This alternative would lower the BNSF main line into a trench under Crosstown. Crosstown and other cross streets would be reconstructed on a bridge structure over the trench. Guardrail, barrier wall, and fencing would be mandatory so that people, vehicles, and debris are prevented from falling onto the tracks in the trench and disrupting rail service.



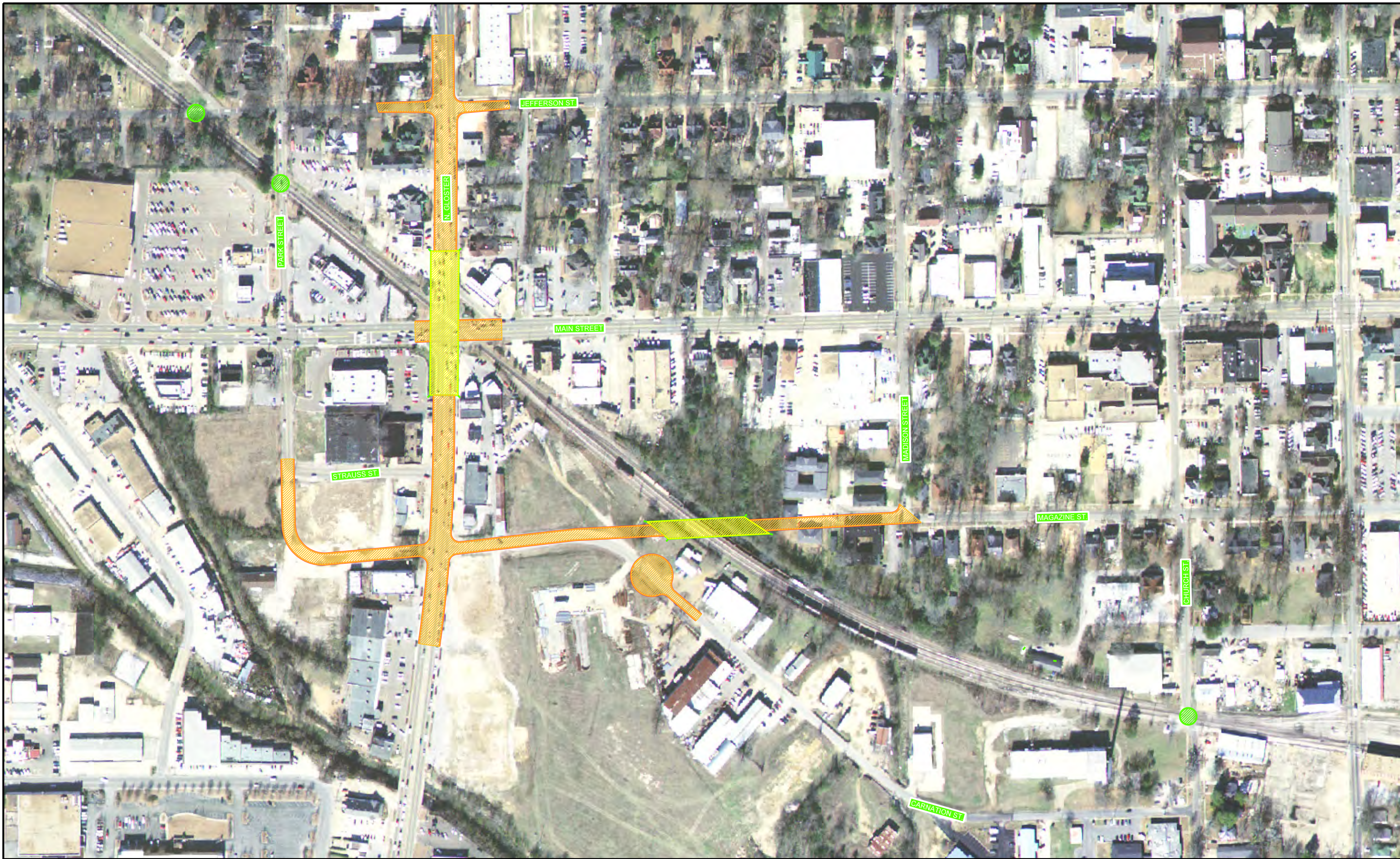
Railroad Trench in Reno, Nevada


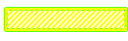


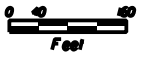

A separate and temporary rail corridor would be required to maintain railroad traffic during construction requiring significant temporary right-of-way.

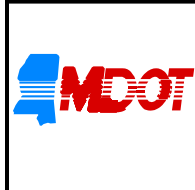
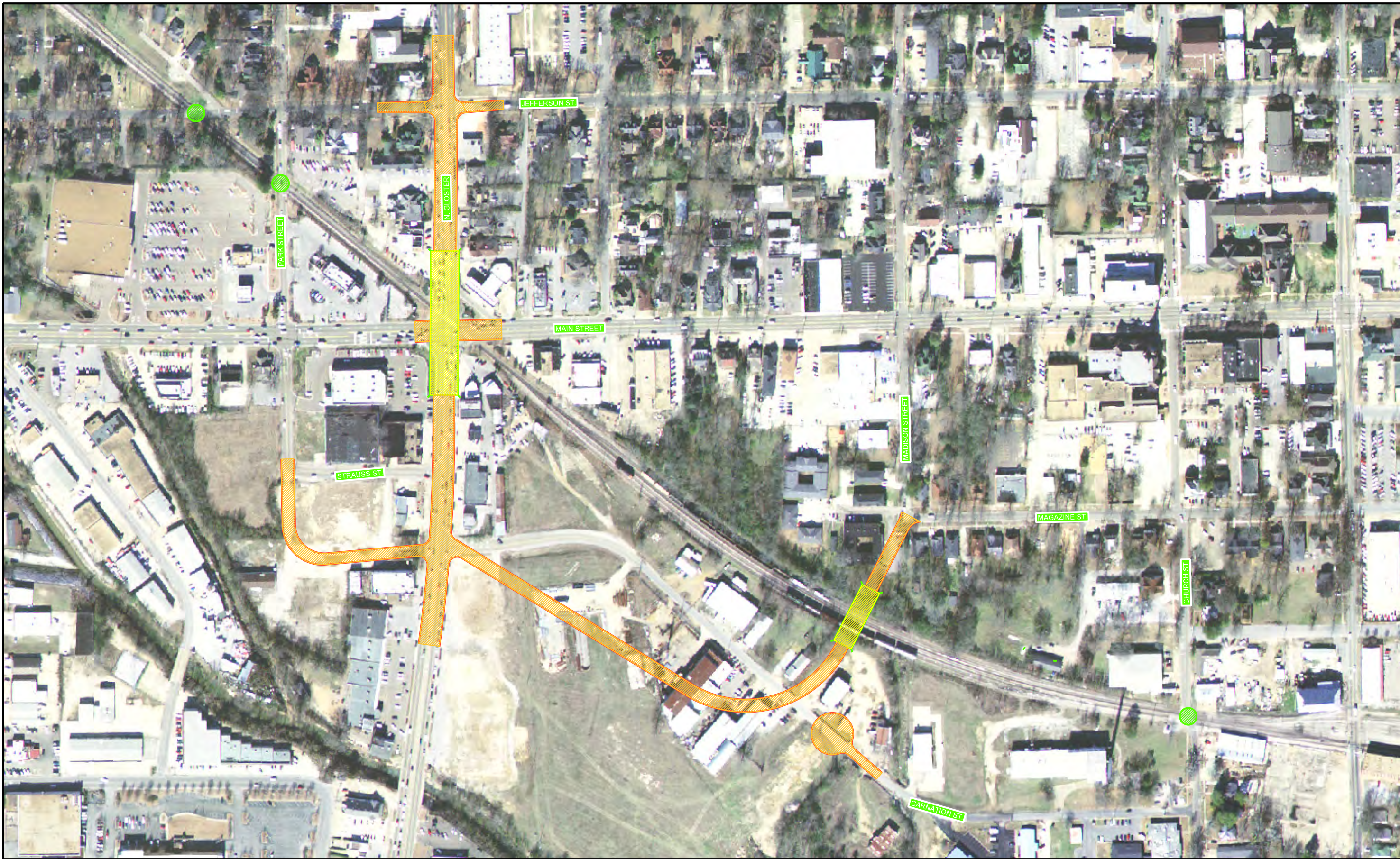
Lowering the BNSF profile grade would require the profile grade of the switching yard with the KCS rail line to be lowered. Since the existing yard is located within an existing floodplain, issues with drainage, permitting, and maintaining rail operations would need to be addressed.

2.3.2.2 Alternative H

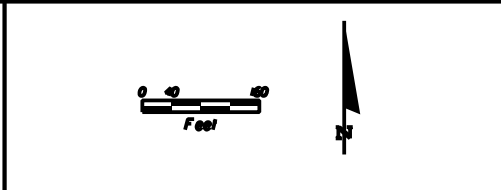
This alternative was derived from the In-town Scenario 1, but consists of the grade separation of Gloster Street over both Main Street and the BNSF main line, instead of both roadways over the BNSF. A significant portion of the traffic at Crosstown would be removed from conflict with the rail movements. This alternative would also require the construction of a second roadway overpass such that the Main Street traffic may bypass the at-grade crossing during interchange operations. Three options were developed based on this concept, shown on **Figure 2-5**, **Figure 2-6**, and **Figure 2-7**.



	LEGEND PROPOSED BRIDGE  UPGRADED RR CROSSING  PROPOSED ROADWAY 	 	Tupelo Railroad Relocation Planning and Environmental Study		Figure 2-5
			Alternative H - Option A		



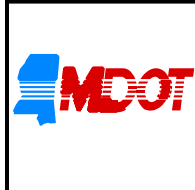
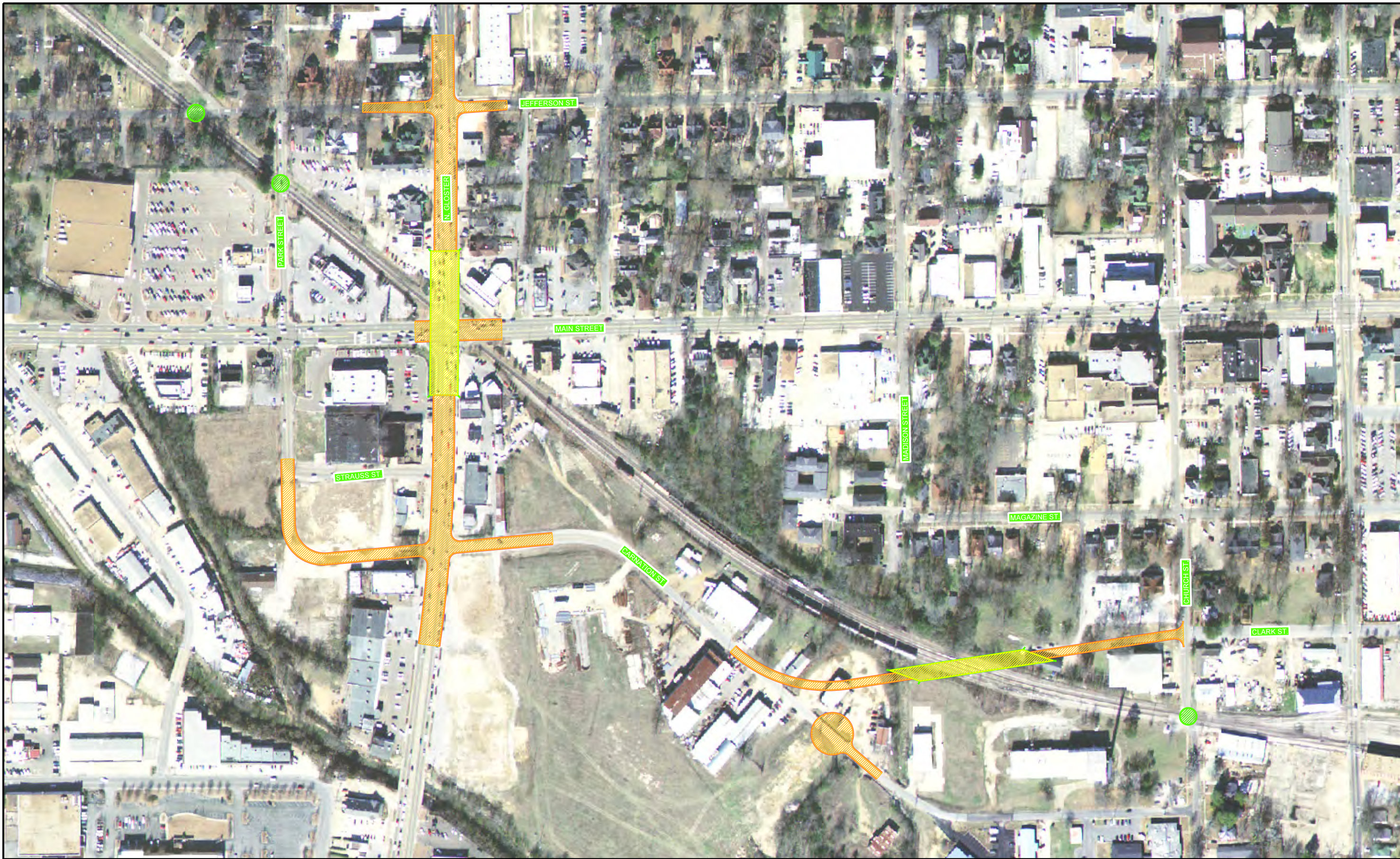
LEGEND	
PROPOSED BRIDGE	
UPGRADED RR CROSSING	
PROPOSED ROADWAY	






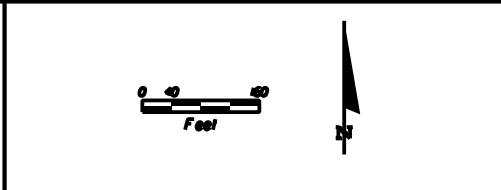
Tupelo Railroad Relocation
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Alternative H - Option B

Figure 2-6



LEGEND	PROPOSED BRIDGE	
	UPGRADED RR CROSSING	
	PROPOSED ROADWAY	



Tupelo Railroad Relocation
 Planning and Environmental Study

Alternative H - Option C

Figure 2-7

Each layout includes an overpass on Gloster Street over the railroad, while providing a bypass route for Main Street.

2.3.2.3 Alternative I

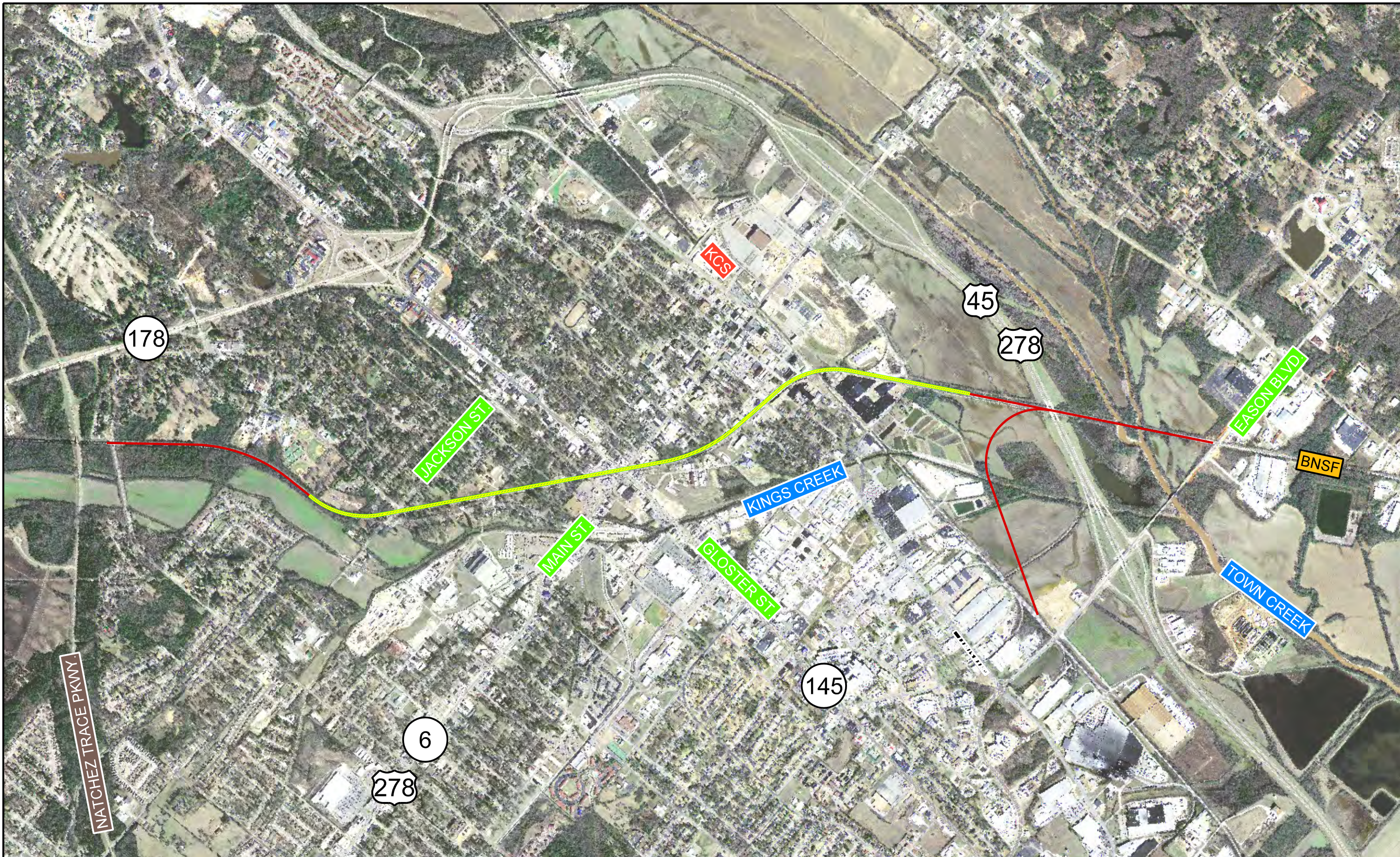
This alternative, shown on **Figure 2-8**, would consist of a long, completely elevated rail viaduct, predominantly located adjacent to the existing railroad right-of-way, to grade separate the BNSF main line over the at-grade road crossings through Tupelo and the KCS rail line, including Crosstown. Five elevated typical sections were developed to include single track, double track, and a potential shared-use path within the existing 100-foot railroad right-of-way, shown on **Figure 2-9**. The new route would parallel the existing track, except where modified curvature would allow trains to travel at 40 mph. The rail interchange would be as described in the operational improvement in **Section 2.2.1**.



2.3.2.4 Alternative J

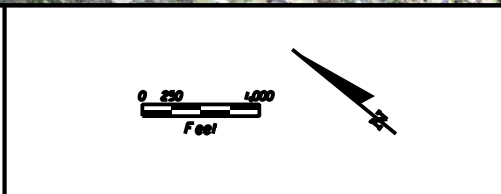
This alternative, approximately 22.6 miles long, was derived from Alternative D and parallels US 78 (I-22) along undeveloped properties to the north, shown on **Figure 2-10**. The alignment would bypass Tupelo, and then turn south to parallel Town Creek and intersect the existing BNSF main line north of Eason Boulevard. The existing interchange with the KCS rail line would be eliminated and replaced with a grade separated crossing. The rail interchange would be as described in the operational improvement in **Section 2.2.1**. Alternative J would require construction of approximately 10.8 miles of new track. Approximately 11.8 miles of existing track would not require additional improvements. The length of rail bridges and trestle required to span floodplains and other water features would be approximately 9,580 feet. Eight existing public at-grade crossings would remain in use, but 14 existing public at-grade crossings would be closed for Alternative J, including Crosstown. Nine existing major roadways would require grade-separations. One existing highway overpass would require modifications. The right-of-way width would vary from 100 to 200 feet.

2.3.2.5 Alternative K

This alternative, approximately 26.8 miles long, was developed from an alternative initially proposed by the *Urban Rail Relocations Study* (Wilbur Smith and Associates, March 2002) and Alternative B. The alignment would extend south from the BNSF main line north of Sherman and would roughly parallel Coonewah Creek south and west to intersect the BNSF main line north of Nettleton, shown on **Figure 2-11**. All 26.8 miles of Alternative K would require construction of new track. The length of rail bridges and trestle required to span floodplains and other water features would be approximately 13,880 feet. Four existing public at-grade crossings would remain in use, but 17 existing public at-grade crossings would be closed for Alternative K, including Crosstown. Nine existing major roadways would require grade-separations and 20 new at-grade crossings would be included. The right-of-way width would vary from 100 to 200 feet.



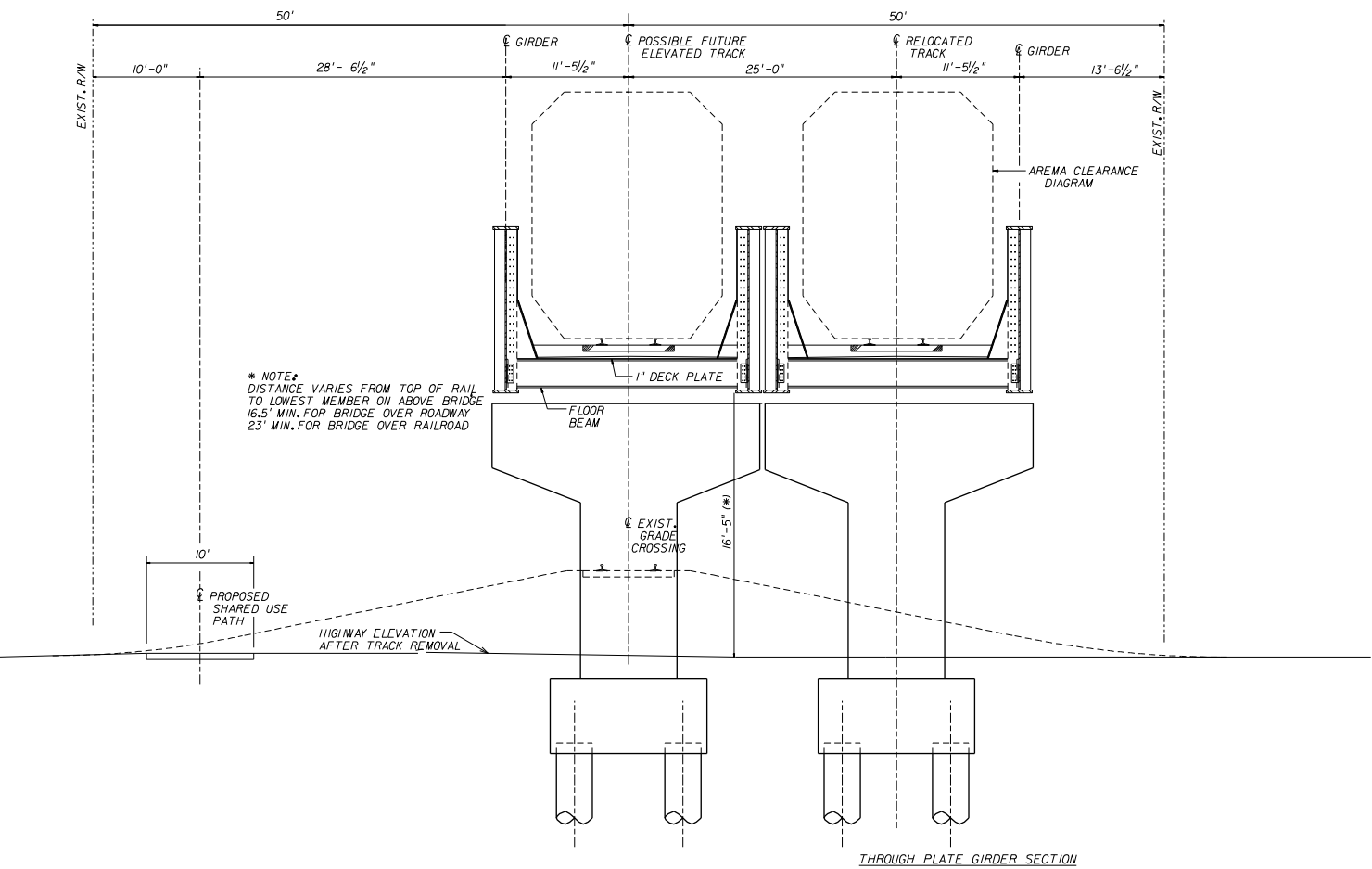
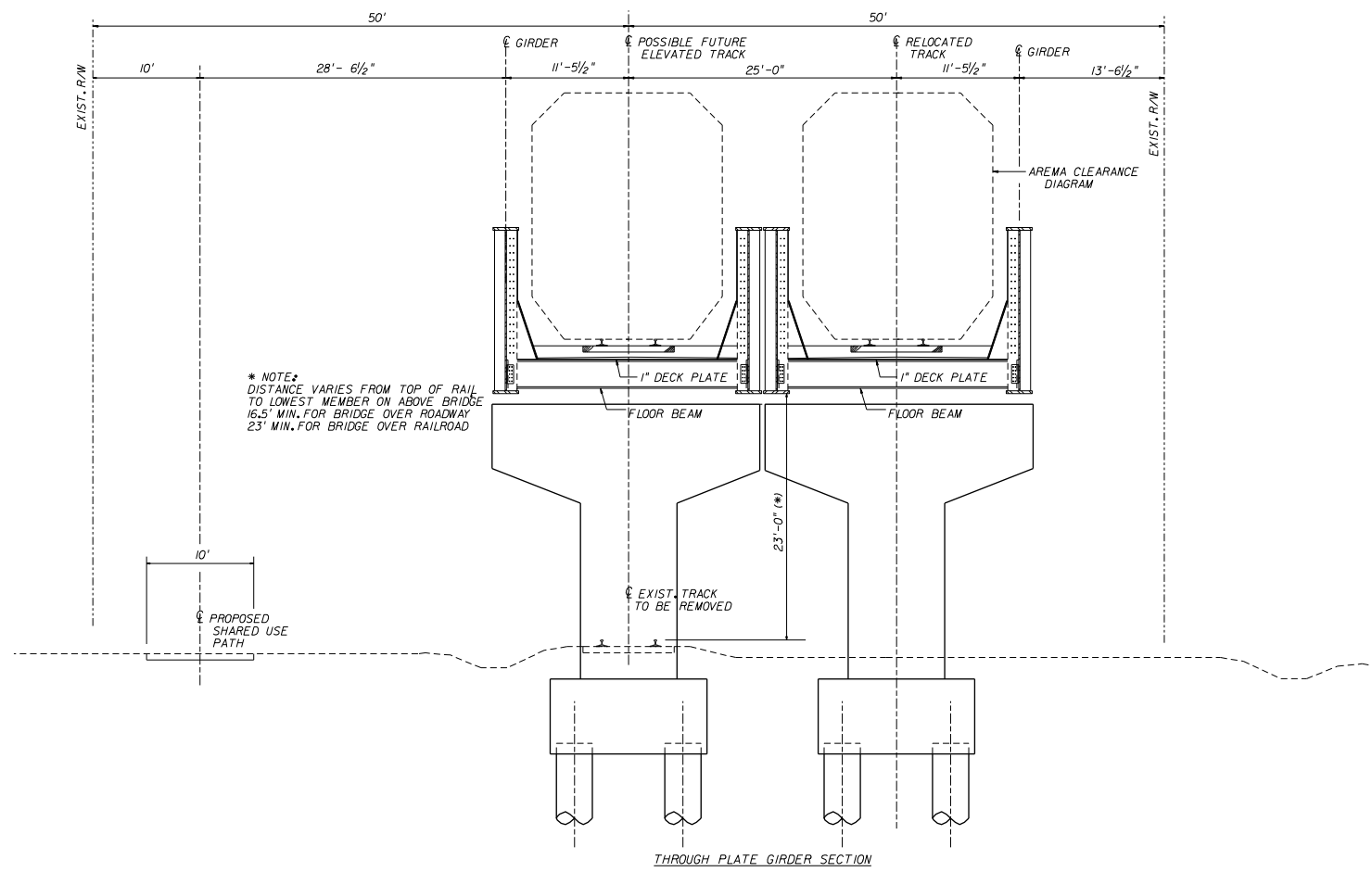
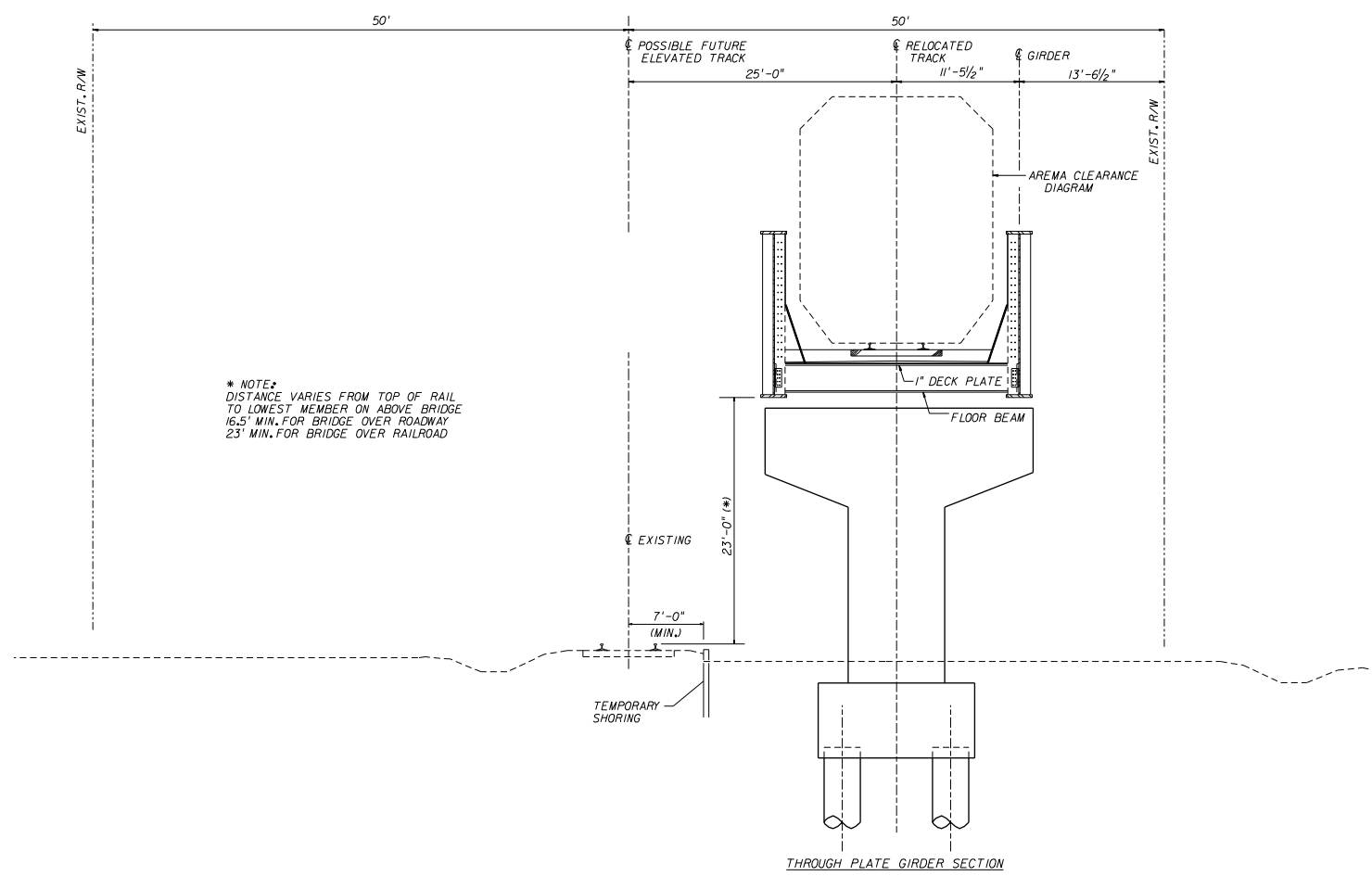
LEGEND	PROPOSED RR BRIDGE	
	PROPOSED AT-GRADE RR	

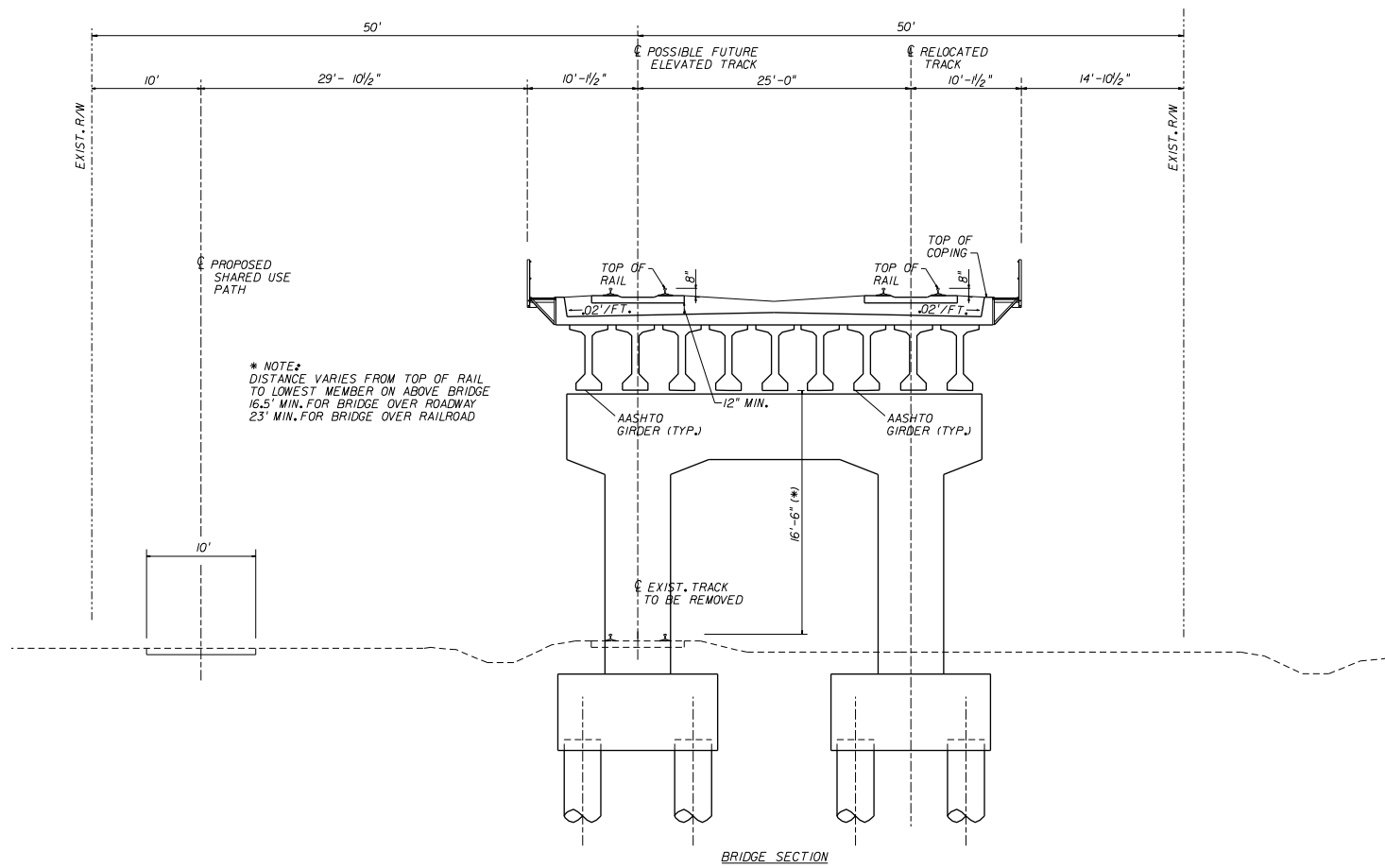
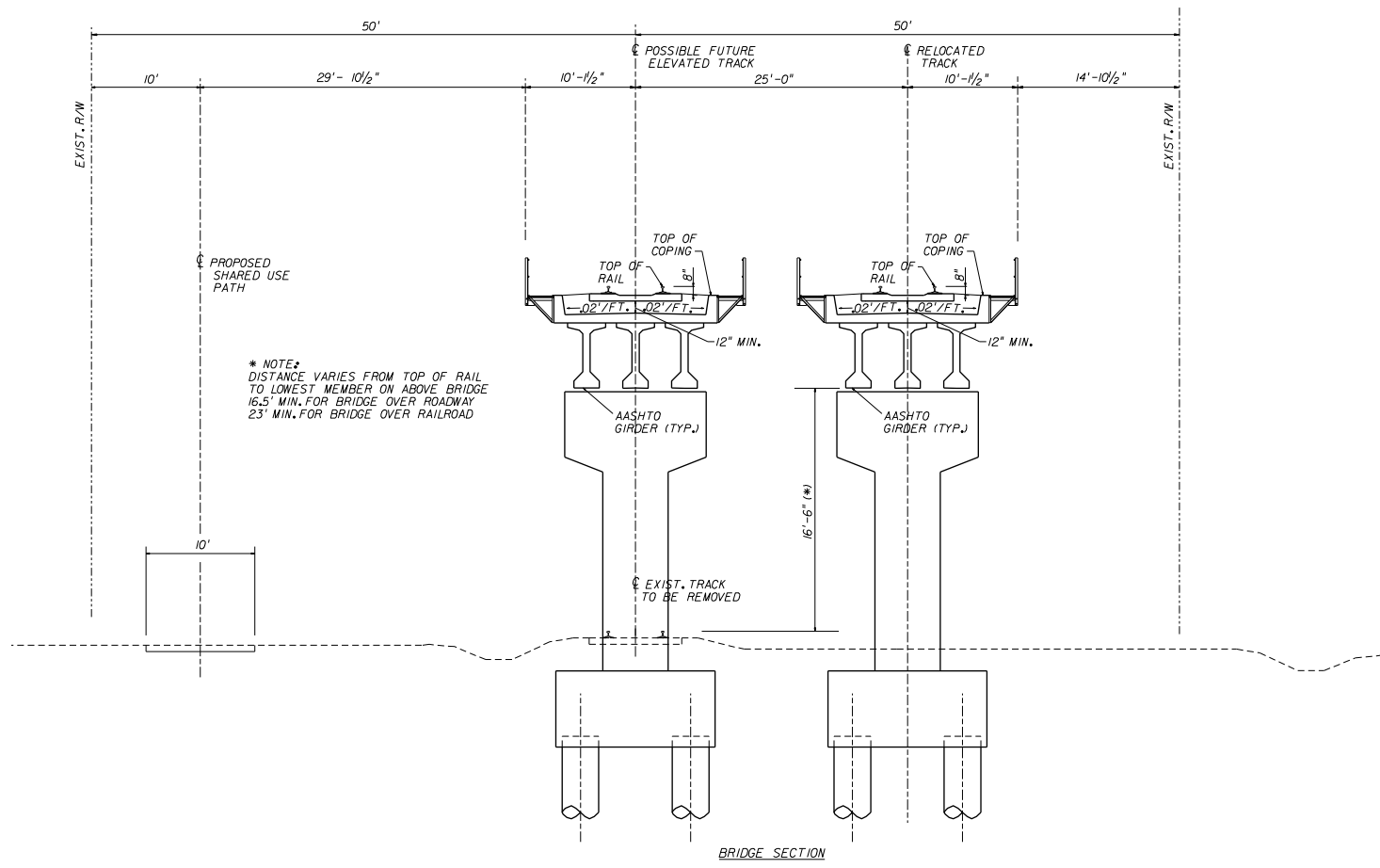


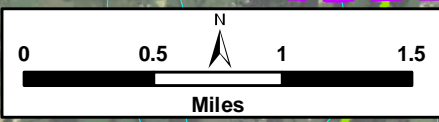
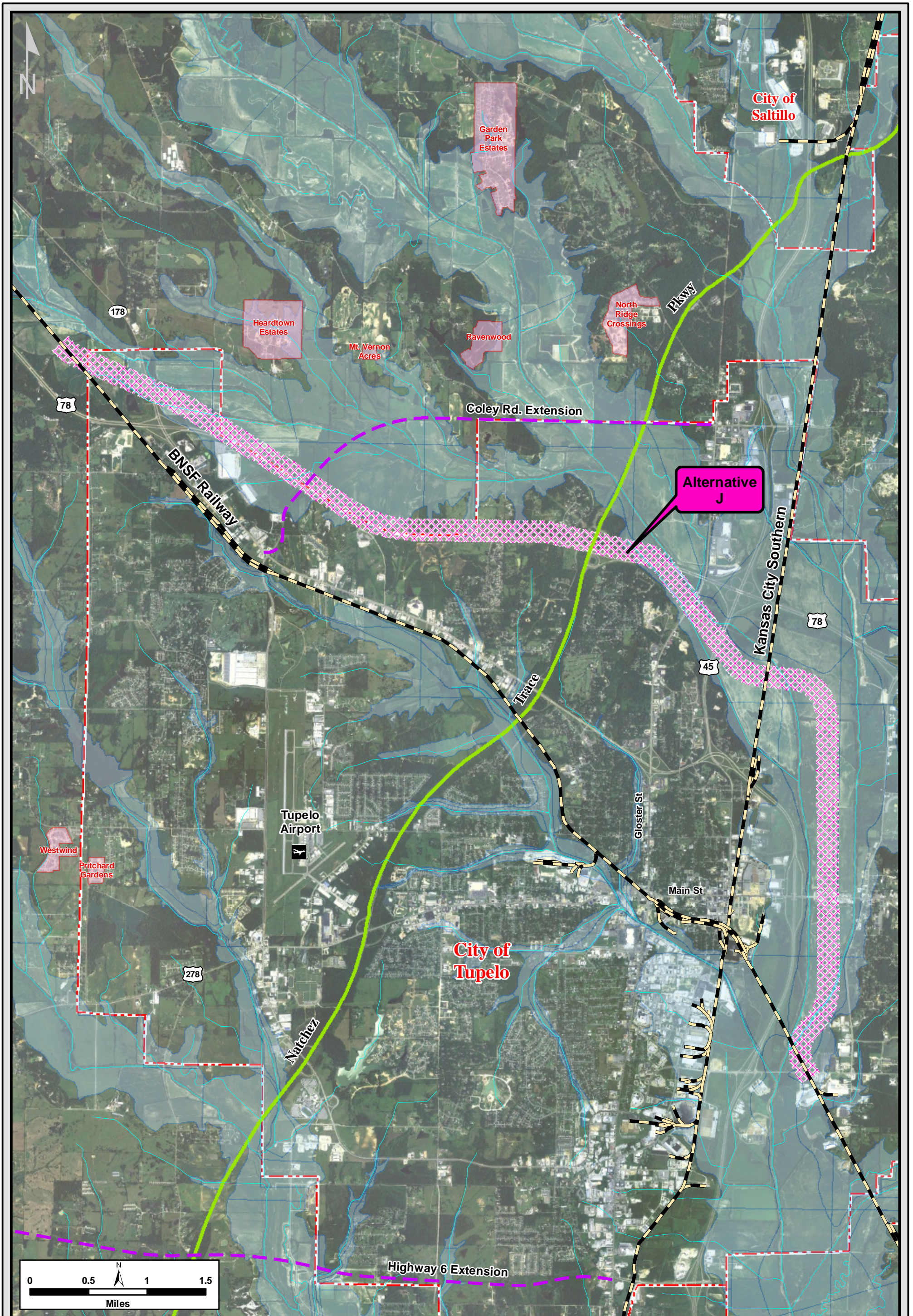
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Alternative I

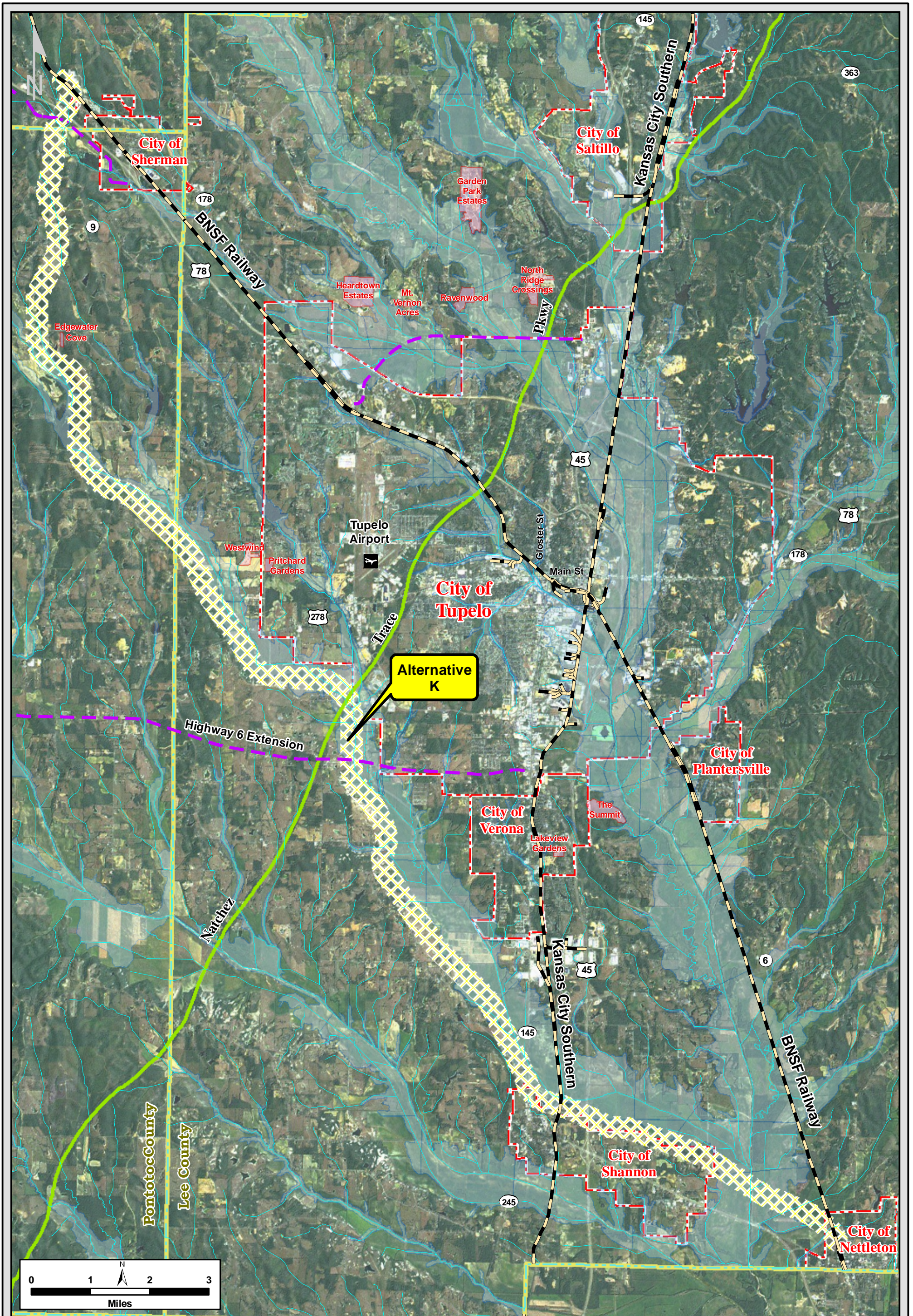
Figure 2-8







	LEGEND	<ul style="list-style-type: none"> --- Proposed Road Subdivision City Boundary --- Natchez Trace Pkwy Railroad --- River / Stream FEMA Floodplain 	<p>Tupelo Mississippi Railroad Relocation Planning & Environmental Study</p>	<p>Alternative J</p> <p>Figure 2-10</p>
	<p><small>E:\Data\MDOT_Tupelo\map_docs\mxd\Report_072008\Fig_2-7_Alternative_J_11x17.mxd</small></p>			



Alternative K



	LEGEND		City Boundary County Boundary	Tupelo Mississippi Railroad Relocation Planning & Environmental Study	Alternative K Figure 2-11
	Railroad Natchez Trace Pkwy Proposed Road	Subdivision River / Stream FEMA Floodplain			

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2.4 INITIAL ALTERNATIVE REFINEMENTS

2.4.1 Alternatives Meeting

MDOT held a meeting on February 21, 2007 with the project team in Tupelo to discuss the refinement of the proposed alternatives under consideration for the project. The advantages and disadvantages of each alternative were discussed.

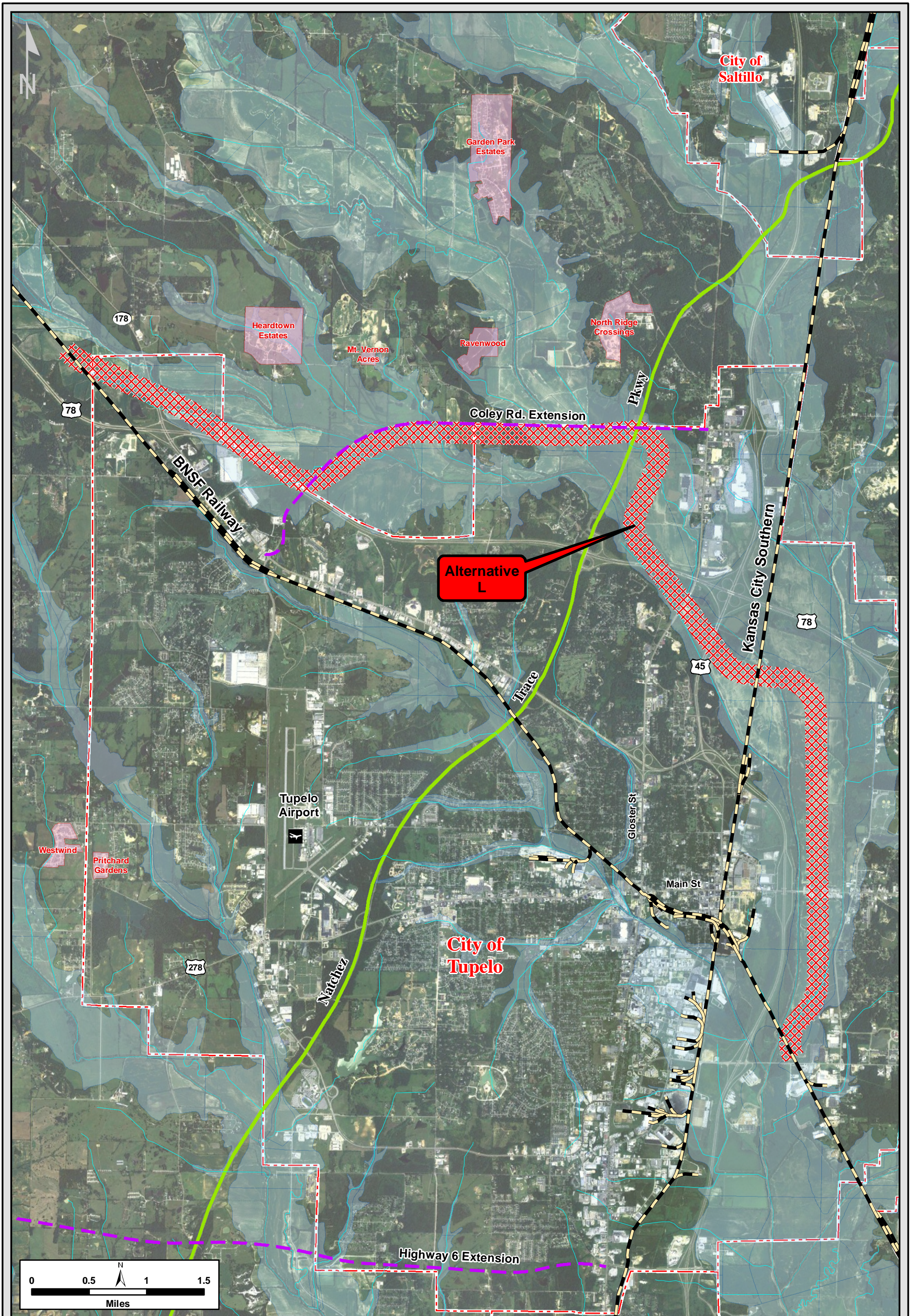
2.4.2 Alternative H

Three options were developed for Alternative H, shown on **Figure 2-5, Figure 2-6, and Figure 2-7**, with each layout including an overpass on Gloster Street over Main Street and the BNSF main line, while providing a bypass route for Main Street. Each bypass alternative would require right-of-way acquisition from both residential and industrial parcels.

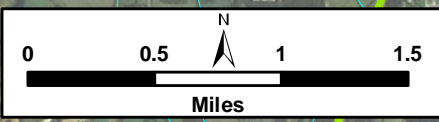
Utilizing more detailed topographic data not previously available for the *Phase 1 – Feasibility Analysis* (HDR, May 2006), a conceptual plan-profile for the Gloster Street overpass was developed using MDOT design criteria for arterial roadways. Based on the grades at each approach to elevate Gloster Street over the railroad, MDOT determined that a significant amount of retaining walls would be required north of Crosstown and within the vicinity of the public elementary school at Jefferson Street for the construction limits to remain within the existing right-of-way. The profile of Jefferson Street would have to be raised enough that access to the adjacent historic properties would be prohibited.

2.4.3 Alternative L

Alternative J presented many engineering challenges, including the rail line interfering with the interchange between the Natchez Trace Parkway and US 78 and skewed crossings at US 78, Gloster Street, US 45, and the KCS rail line. The new alignment (Alternative L) was considered to share the proposed crossing of the Natchez Trace Parkway with the proposed Coley Road Extension. Alternative L, approximately 26.8 miles long and shown on **Figure 2-12**, is the hybrid between Alternative D and Alternative J. This alternative would leave the existing BNSF main line north of State Road (MS) 178, cross under MS 178, then turn to cross under the proposed Coley Road Extension, and then turn parallel to the new roadway. The alignment would cross the Natchez Trace Parkway in a joint crossing with the proposed Coley Road Extension and would then turn south to cross US 78, Gloster Street, and US 45. It would then cross the KCS rail line, continue south to cross Main Street, and merge with the BNSF main line. Approximately 11.9 miles of new track would be constructed for Alternative L. The remaining approximately 14.9 miles of existing track would not require additional improvements. The length of rail bridges and trestle required to span floodplains and other water features would be approximately 13,370 feet. Eight existing public at-grade crossings would remain in use, but 14 existing public at-grade crossings would be closed for Alternative L, including Crosstown. Seven existing major roadways would require grade-separations. The right-of-way width would vary from 100 to 200 feet.



Alternative L



	LEGEND	<ul style="list-style-type: none"> — Proposed Road — Railroad City Boundary — Natchez Trace Pkwy Subdivision — River / Stream FEMA Floodplain 	<p>Tupelo Mississippi Railroad Relocation Planning & Environmental Study</p>	<p>Alternative L</p>
			<p>Figure 2-12</p>	

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2.4.4 Alternative M

Alternative M was derived from Alternative I, shown on **Figure 2-8**, and consists of an elevated rail viaduct with the limited use of retaining walls within the existing railroad right-of-way. The length of rail viaduct would be reduced with the addition of retaining walls. The rail would then be placed on earthen fill for the limits of the retaining wall. The route would parallel the existing track, except where modified curvature would allow trains to travel at 40 mph and stay within the existing BNSF right-of-way. The rail interchange would be as described in the operational improvement in **Section 2.2.1**. Eight existing public at-grade crossings would remain in use, but 11 existing public at-grade crossings would be closed for Alternative M, including Crosstown. Eleven existing roadways would require grade-separations and no new at-grade crossings would be included.

2.5 NATIVE AMERICAN RESOURCES

Northeast Mississippi is the historic home to the Chickasaw Indians. The Chickasaw people inhabited the Lee County area at least as long as, but probably much longer than, the tribe's contact with European visitors in the 1500's. The Chickasaw tribe moved northward from central Mississippi along the Black Prairie region as explorers encroached on their land. The majority of the Chickasaw settlements of the 17th and 18th Centuries were located to the south and west of where the present City of Tupelo footprint lies, shown on **Figure 2-13**.

The archaeology of the tribe's settlements has become a burgeoning field of study. All of the archaeological and documentary evidence suggest the Chickasaw towns were located in and around Lee County, with a particular concentration in present-day Tupelo. Traditionally, the Chickasaw are known to have buried their dead underneath their houses, so the disturbance of any Chickasaw village could mean the potential disturbance of a burial site. Since the majority of these village sites are not specifically identified, it is assumed that any new corridor or construction to the south and west of Tupelo could have a high probability of disturbance of a Chickasaw burial ground.

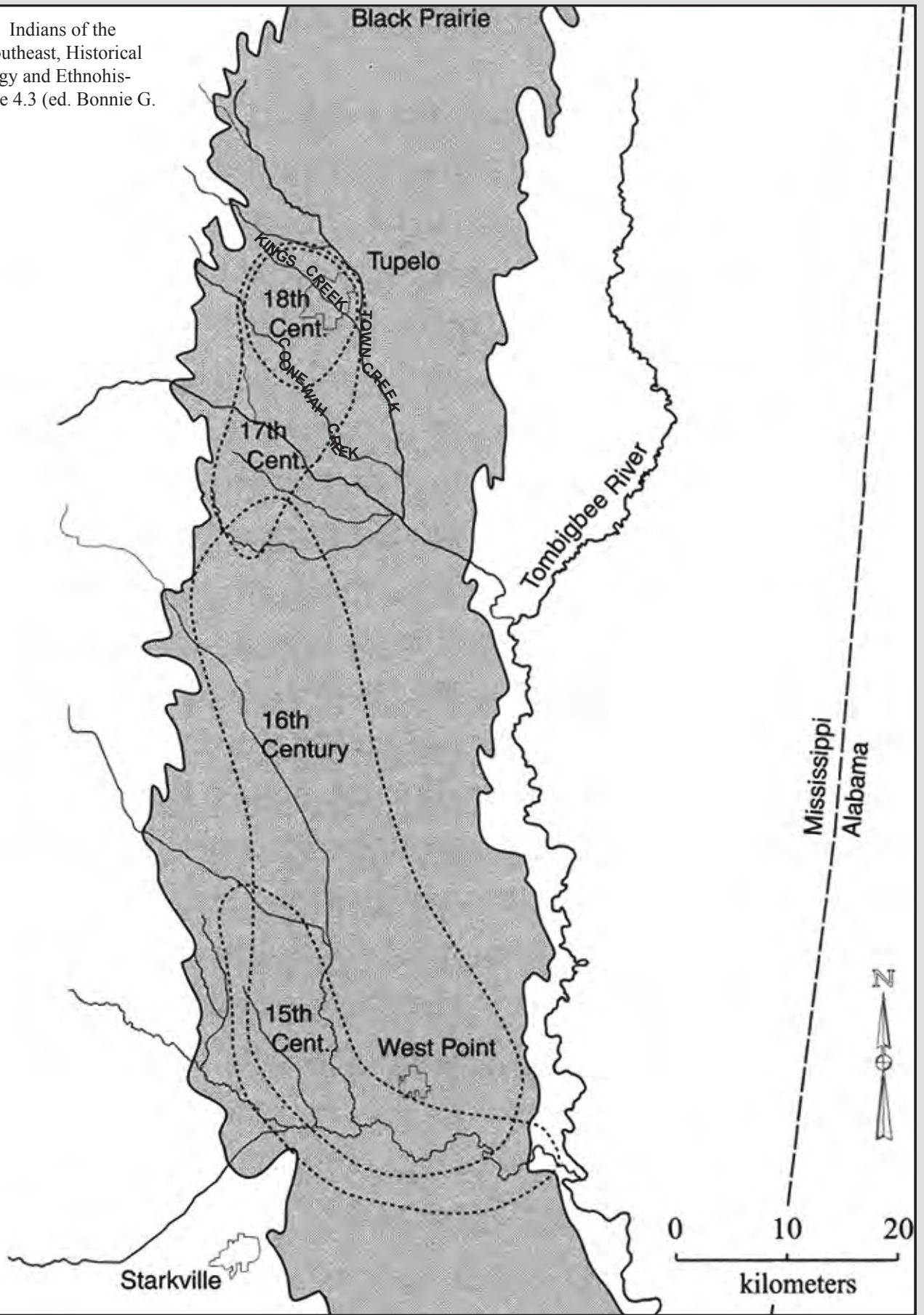
2.6 INITIAL ALTERNATIVES ANALYSIS

Each alternative was analyzed using the geographic information systems (GIS) data and aerial photography collected for the study area to determine whether it satisfied the aspects of the project's Purpose and Need, as defined in **Chapter 1**. Evaluation measures were also developed by MDOT to provide a comparison of the impacts among the alternatives.

2.6.1 Evaluation Measures

Evaluation measures were used to compare each of the proposed alternatives and used to determine how well the alternative satisfied the project's Purpose and Need. Evaluation measures were divided into four sections: Engineering, Environmental, Operations, and Costs. To standardize the analysis, the alternatives were compared from the common connection points to the existing BNSF main line. The northern point is north of the Town of Sherman at approximately MP 575.5. The southern connection point is north of the Town of Nettleton at approximately MP 600.0.

SOURCE: Indians of the Greater Southeast, Historical Archaeology and Ethnohistory, Figure 4.3 (ed. Bonnie G. McEwan)



	<p>LEGEND</p>	<p>Tupelo Mississippi Railroad Relocation Planning & Environmental Study</p>	<p>Chickasaw Settlements Figure 2-13</p>
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2.6.1.1 Engineering

The engineering factors were calculated based upon the preliminary alignment geometry for each alternative, and comparison to aerial photography and GIS data. The engineering factors considered for comparison include the following:

Alignment Statistics

The alignment statistics include total length of the new corridor, length of existing BNSF and KCS corridors to be used, number of proposed grade-separations, estimated total length of bridges/trestles required, additional operational distance for both BNSF and KCS, and number of interchange modifications required.

Safety

The safety factors include the total number of existing grade-separations used, the total number of existing public at-grade crossings used, the total number of public at-grade crossings closed (either by grade separation or track removal), the total number of proposed at-grade crossings, and the total number of proposed grade separations. All existing streets were assumed to require crossings, either by grade separations or at-grade crossings.

2.6.1.2 Environmental

The environmental factors were calculated based upon the respective preliminary alternative comparison to GIS data. The environmental factors considered for comparison include the following:

Human Environment

The human environment includes number of community facilities impacted, number of educational facilities near the alternative alignment, and population density.

Natural Environment

The natural environment includes number of stream crossings (perennial and intermittent), area of wetland impacts, area of floodplain encroachment, and assessment of likely occurrences of threatened and endangered species near the alternative alignment.

Physical Environment

The physical environment includes number of historical sites, number of water supply wells, and number of contamination sites near the alternative alignment.

2.6.1.3 Operations

With any new alternative alignment, there can be impacts to railroad operations. Typically, operational impacts can be analyzed in train-miles, ton-miles, or train-hours. These units of measure are referred to as operating units. Since carload and train traffic data are often difficult to forecast, the



operational impact analysis quantified the estimate change in train-miles. Distances for the BNSF trains were calculated from a common northern point (MP 575.5) to a common southern point (MP 600.0). The additional length of the alternative alignments would produce a cost to BNSF to operate and maintain both the trains and the physical improvements. The alternatives which maintain the existing alignment would not show an increase in travel distance. However, the alternatives which divert from the existing alignment would show an increase in both distance and time.

2.6.1.4 Costs

After the alternatives were developed, preliminary construction cost estimates were completed for the railroad physical plant, roadway improvements, and right-of-way acquisition. Unit costs were derived from average cost history.

The operating plan estimates the incremental costs associated with the rerouted rail traffic. The operational improvement and the alternatives remaining in downtown Tupelo would not create any significant additional operating costs since the modifications would be in proximity to the existing interchange operation. BNSF and KCS would incur additional transportation and infrastructure expenses as a consequence of the traffic rerouting for the alternatives that bypass Tupelo.

In addition to the benefit of reduced automobile traffic delay and the reduced risk of automobile/train collisions, the closing/opening of an existing public at-grade rail crossing has an economic value. An additional value from the reduced/increased annual maintenance cost associated with the signal equipment, track work and crossing surface has been calculated for each crossing at approximately \$17,000.

2.6.2 Analysis of Alternatives

The Purpose and Need of the Tupelo Railroad Relocation Project, as defined in **Chapter 1**, would be to reduce the impact of a growing rail service on the region in the following areas:

- Reduce vehicular traffic delays in downtown Tupelo
- Improve response for emergency vehicles
- Improve the safety of the travelling public
- Improve efficiency of railroad operations in the Tupelo area
- Enhance quality of life with regard to traffic flow, noise, and economic development.

In addition to the aspects of the project's Purpose and Need, answers to the following questions about project objectives influenced the development of alternatives and alignments:



- Does the alternative serve the commercial freight needs including existing industries?
- Does the alternative reduce the traffic conflict associated with the at-grade intersections?
- Does the alternative benefit or adversely impact the community or the environment?
- Does the cost of the alternative provide the maximum benefit to the community?

2.6.3 Impact Summary

The impacts associated with each of the alternatives were quantified and compared with the No-Build Alternative (Alternative A). Although the available data are meaningful for planning purposes only, the quantities demonstrate a magnitude of impact. Each alternative has advantages and disadvantages related to engineering, environmental, operations, cost, and other associated factors. **Table 2-1** summarizes the anticipated impacts for each of the evaluation measures for the initial alternatives as described in the *Phase 1 Feasibility Analysis* (HDR, May 2006) and for the scoping alternatives. The analysis for Alternative G and Alternative H was limited and construction costs were not developed for them, as these alternatives were determined to be infeasible early in the alternatives evaluation process, as discussed in **Section 2.6.4.2**.

2.6.4 Alternatives Screening

The impact summaries for each alternative were compared with the aspects of the project's Purpose and Need to determine which alternatives would be further evaluated in the next phase. **Table 2-2** provides a brief description of each alternative.

2.6.4.1 Feasibility Alternatives

Operational Improvements: The operational improvements would allow interchange operations between the BNSF main line and the KCS rail line without interfering with the at-grade crossings, especially Crosstown. However, passing through trains would continue to be the primary source of vehicular traffic delay and horn soundings in central Tupelo would not be eliminated. This alternative was eliminated from consideration as a stand-alone alternative because it did not adequately satisfy the traffic delay, emergency response, safety, and quality of life aspects of the project's Purpose and Need. Due to its ability to remove interchange operations from the at-grade crossings, the interchange concept was included with other alternative alignments.

In-town Alternative Scenario 1: While this alternative would effectively remove the traffic conflict at Crosstown, it would have several adverse impacts to central Tupelo including permanent roadway closures, property acquisition, and business damages. Adjacent properties would need to be acquired, requiring several buildings to be demolished, to provide temporary

Table 2-1 Alternative Evaluation Measures

Evaluation Measures	No-Build Alternative A	Operational Improvement	In-town Alternative		INITIAL ALIGNMENT ALTERNATIVES					SCOPING ALTERNATIVES						
			Scenario 1	Scenario 2	B	C	D	E	F	G	H	I	J	K	L	M
Alignment Statistics																
Est. Length (Miles)	24.5	1.7	n/a	n/a	29.7	30.4	28.0	34.6	38.4	24.5	n/a	24.5	25.5	26.8	26.8	24.5
Est. Length of New Track Construction (Miles)	n/a	1.7	n/a	n/a	29.7	12.6	12.2	24.9	29.8	1.0	n/a	3.0	10.8	26.8	11.9	2.8
Est. Length of Existing BNSF Track (Miles)	24.5	0.0	n/a	n/a	0.0	14.0	14.0	10.2	9.0	23.5	n/a	21.5	14.7	0.0	14.9	21.7
Est. Length of Existing KCS Track (Miles)	n/a	0.0	n/a	n/a	0.0	3.8	1.8	0.0	0.0	0.0	n/a	0.0	0.0	0.0	0.0	0.0
Est. Additional BNSF Operational Distance (Miles)	n/a	0.0	n/a	n/a	5.2	5.9	3.5	10.1	13.9	0.0	n/a	0.0	1.0	2.3	2.3	0.0
Est. Additional KCS Operational Distance (Miles)	n/a	0.9	n/a	n/a	10.4	0.9	0.9	6.7	6.7	0.0	n/a	0.0	0.9	10.4	0.9	0.0
Est. Proposed Total Bridge/Trestle Length (Feet)	n/a	500	n/a	n/a	6,400	7,900	7,200	8,600	9,600	n/a	n/a	16,000	9,580	13,880	13,370	7,200
Est. Proposed Highway Overpass Modifications (No.)	n/a	1	n/a	n/a	0	3	1	0	0	0	n/a	1	0	0	3	1
Human Environment																
Est. Community Facilities Displaced within 500 ft of R/W (No.)*	n/a	0	n/a	n/a	0	2	3	2	2	n/a	n/a	3	0	1	0	n/a
Est. Population Density (Population/acre)	0.84	0.01	n/a	n/a	0.12	0.07	0.19	0.12	0.12	0.84	n/a	0.84	0.1	0.01	0.17	0.84
Est. Education Facilities within 500 ft of R/W (No.)	3	0	n/a	n/a	0	0	2	0	0	3	n/a	3	0	0	0	3
Est. Proposed/Modified Natchez Trace Parkway Crossing (No.)	n/a	0	n/a	n/a	1	1	1	1	1	n/a	n/a	0	1	1	1	n/a
Est. Parks within 500 ft of R/W (No.)	n/a	0	n/a	n/a	0	0	0	1	0	n/a	n/a	2	0	0	0	n/a
Natural Environment																
Est. Environmentally Sensitive Sites within 500 ft of R/W (No.)	1	0	n/a	n/a	1	0	0	0	0	1	n/a	1	0	1	0	1
Est. Perennial Streams Crossings (No.)	6	3	n/a	n/a	8	7	4	5	8	6	n/a	6	2	5	6	6
Est. Intermittent Streams Crossings (No.)	18	2	n/a	n/a	22	9	7	23	31	18	n/a	18	3	11	7	18
Est. Hydric Soils Impacts (Acres)	n/a	0.0	n/a	n/a	58.3	38.3	17.3	27.5	28.6	n/a	n/a	0	2.5	18.6	7	0
Est. Wetland Impacts (Acres)**	n/a	0.0	n/a	n/a	32.8	22.3	6.5	10.7	22.3	n/a	n/a	n/a	6.8	4.9	6.8	n/a
Est. 100-year Floodplain Encroachment (Acres)**	n/a	40.1	n/a	n/a	65.0	254.3	192.7	120.5	114.3	n/a	n/a	n/a	202.8	266.4	261.8	n/a
Physical Environment																
Est. Historical/Archeological Sites within 500 ft of R/W (No.)	6	0	n/a	n/a	0	1	4	1	1	6	n/a	6	4	5	1	6
Est. Public Water Supply Wells within 500 ft of R/W (No.)	1	0	n/a	n/a	0	0	1	2	1	1	n/a	1	0	0	0	1
Est. Potential Contamination Sites within 500 ft of R/W (No.)	31	3	n/a	n/a	1	6	3	2	3	31	n/a	31	1	0	3	31
Safety																
Est. Existing Grade Separations (No.)	5	5	5	5	1	2	1	1	1	5	5	5	2	1	2	5
Est. Existing Public At-grade Crossings to Remain (No.)	21	20	17	16	4	8	8	8	8	16	21	10	8	4	8	11
Est. Existing Public At-Grade Crossings Closed (No.)	n/a	2	6	7	17	15	15	13	13	5	0	11	14	17	14	11
Est. Proposed Grade Separations (No.)	n/a	2	3	6	9	4	6	7	8	5	2	11	9	9	7	11
Est. Proposed Public At-grade Crossings (No.)	n/a	0	0	0	21	8	7	19	23	0	0	0	0	20	0	0
Project Costs (\$2005)	n/a	\$70,700,000	\$63,983,000	\$110,119,000	\$577,780,000	\$367,790,000	\$328,730,000	\$583,730,000	\$747,230,000	CND	CND[†]	\$558,150,000	\$504,450,000	\$670,130,000	\$516,490,000	\$333,450,000

Notes:
1. Quantities above have been estimated using GIS data and available mapping. Quantities should only be used for planning purposes.
2. * Community Facilities include Churches, Cemeteries and Recreational Facilities.
3. ** Wetlands and 100-year floodplain quantities includes all water body crossings. Proposed bridge structures would reduce or eliminate these impacts.
4. All alignment alternative lengths have been calculated from MP 575.5 to MP 600.0.
5. † Costs not determined due to unfeasibility of alternative
6. Bridge/Trestle length based on distance of stream crossings and 20% of distance of floodplain crossing.

Table 2-2 Alternative Evaluation Matrix

Alternative	Origin	Description	Length of New Track (miles)	Satisfies Purpose and Need	Issues	Estimated Cost (\$ Millions)	Brought Forward Into EIS
A	-	No-Build Alternative. Maintains the existing BNSF main line through Tupelo.	N/A	No	Does not solve any delays or provide any benefits.	\$0 (\$1,250 Congestion)	Yes ¹
Operational Improvement	Feasibility Study	Consists of moving BNSF-KCS interchange and switching yard to SE and constructing overpasses on Eason Blvd.	0.9	No	Does not remove trains from Crosstown. Can be integrated into other alternatives.	\$71	No
In-town Alternative Scenario 1	Feasibility Study	Grade separation at Crosstown. Elevates Gloster St. and Main St. over rail.	N/A	No	Potential impacts to historic structures and schools on Gloster St. and Main St. Doesn't provide same benefits as other alternatives.	\$64	No
In-town Alternative Scenario 2	Feasibility Study	Grade Separation at Crosstown. Elevates rail over Gloster St. and Main St.	N/A	No	Permanent road closures required. Impacts to several structures.	\$110	No
B	Feasibility Study	New Bypass Alternative. Western route located approximately 2 miles west of Coonewah Creek.	29.7	Yes	Long route in rural area. Must use existing track to serve customers. Crosses Natchez Trace Pkwy. at new location. New yard to the south.	\$578	No ²
C	Feasibility Study	New Bypass Alternative. Northern route located near Saltillo, then parallel to US 45.	16.4	No	Central alignment partially in urban area. Shares right-of-way with KCS. Crosses Natchez Trace Pkwy. in existing rail location. Requires operational improvements to the yard.	\$368	No
D	Feasibility Study	New Bypass Alternative. Northern route located north of Barnes Crossing then parallel to US 45.	14.0	Yes	Central alignment partially in urban area. Shares right-of-way with KCS. Crosses Natchez Trace Pkwy. in new location. Requires operational improvements to the yard.	\$329	No ²
E	Feasibility Study	New Bypass Alternative. Eastern route located near Saltillo, south along Tulip Creek and Garrett Creek.	24.9	Yes	Eastern alignment partially in urban area. Crosses Natchez Trace Pkwy. at New location. Requires new yard to the north.	\$584	No ²
F	Feasibility Study	New Bypass Alternative. Eastern route located near Saltillo, south along Boguefala Creek and Smith Creek.	29.8	Yes	Eastern alignment mostly in rural area. Crosses Natchez Trace Pkwy. at New location. Requires new yard to the north.	\$747	No ²
G	Scoping Meeting	Placing rail in trench through town.	N/A	No	Requires temporary rail corridor and yard to be below ground in floodplain. Significant drainage and safety issues with trench.	N/A	No
H	Scoping Meeting	Grade separation at Crosstown. Elevates Gloster St. over rail and includes second grade separated crossing to the south of Main St.	N/A	No	Potential impacts to historic structures and schools on Gloster St. and Main St. Doesn't provide same benefits as other alternatives.	N/A	No
I	Scoping Meeting	Elevated rail viaduct through town.	N/A	Yes	Uses existing Natchez Trace Pkwy. crossing. Requires right-of-way in urbanized area with many residential parcel and structure impacts and would create visual impacts. Eliminates whistles at intersections. Requires operational improvements to the yard.	\$558	No ³
J	Scoping Meeting	New Bypass Alternative. Parallels US 78 and US 45.	10.9	No	Crosses Natchez Trace Pkwy. at interchange with US 78. Crosses US 78, US 45, and Gloster St. in same proximity with high skew angle requiring three level interchanges. Requires operational improvements to the yard.	\$505	No
K	Alternative Refinement Meeting	New Bypass Alternative. Parallels Coonewah Creek.	26.8	Yes	Long route near urban area. Must use existing track to serve customers. Crosses Natchez Trace Pkwy. at new location. New yard to the south.	\$670	Yes
L	Alternative Refinement Meeting	New Bypass Alternative. Parallels Coley Road Extension and US 45.	11.9	Yes	Central alignment paralleling proposed roadway. Joint crossing with Natchez Trace Pkwy. Crosses US 78, Gloster St. and US 45 closer to perpendicular angle. Requires operational improvements to the yard.	\$517	Yes
M	Alternative Refinement Meeting	Elevated rail viaduct through town.	N/A	Yes	Similar to Alternative I, but uses more retaining walls and fill sections for the elevated rail. Viaduct to remain within existing right-of-way, but would have visual impacts to parcels.	\$333	Yes

1. No-Build Alternative required to be evaluated in alternatives analysis under NEPA Section 1502.14(d).

2. Feasibility Alternatives (B-F) were dismissed based on public, agency, and/or railroad concerns.

3. Alternative I dismissed due to property impacts and high potential for public controversy.

traffic detours during construction of the roadway bridge structure and the required utility relocations. This alternative could not be completed without adverse community and economic impacts to the public elementary school, businesses, and historic structures in downtown Tupelo. When viewed in light of the project's Purpose and Need Scenario 1 was eliminated from further consideration.

In-town Alternative Scenario 2: This alternative would require permanent roadway closures within central Tupelo, which would satisfy the safety and efficiency of railroad operations aspects of the Purpose and Need. However, while traffic at Crosstown would flow unimpeded by rail traffic, the traffic pattern would change and contribute higher traffic volumes elsewhere within the roadway network. The roadway closures would detract from the quality of life and impede emergency vehicles in the vicinity of the closures. Therefore, this alternative was eliminated from consideration. However, MDOT determined that if the limits of the elevated rail section were extended to avoid street closures, this could be considered a feasible option. This alternative was subsequently refined and is presented as Alternative I.

Alternative B: This alternative would require the crossing of 30 perennial or intermittent streams, affect over 90 acres of wetlands, and cross over 65 acres of 100-year floodplain. This alternative also had negative public sentiment from area residents who expressed opposition to a new railroad corridor through currently quiet lands. Alternative B traverses lands known to include possible Chickasaw settlements and has a construction cost over \$577 million. While this alternative would satisfy the project's Purpose and Need, it was eliminated from consideration due to high cost, large right-of-way requirements, poor public support, and the significant potential impacts to archeological sites, wetlands, and floodplains.

Alternative C: This alternative would cross over 254 acres of 100-year floodplain, although some of that acreage includes the shared corridor with the existing KCS rail line. This alternative would require a speed limit of 15 mph for an extremely sharp curve needed to merge with the KCS rail line, which would not satisfy the efficiency goal of the project's Purpose and Need. During the scoping meetings, the City of Saltillo expressed concern over the potential negative effects of increased rail traffic within their city limits. Both KCS and BNSF also expressed objection to sharing the rail corridor between Saltillo and US 78. This alternative was eliminated from further consideration during the scoping process due to limited speed potential, significant potential impacts to floodplains, and the disapproval of both the City of Saltillo and the railroads.

Alternative D: This alternative would require a new crossing of the Natchez Trace Parkway in close proximity to a residential development and a large retail center. The controlling grades required to grade separate the roadways from the railroad would make this crossing impractical. Alternative D would

cross over 197 acres of 100-year floodplain, although some of that acreage includes the shared corridor with the existing KCS rail line. Both KCS and BNSF also expressed objection to sharing the rail corridor between Saltillo and US 78. Without this crucial link in the alignment, Alternative D was eliminated from further consideration during the scoping process. However, with modifications, the alternative could satisfy the project's Purpose and Need, and subsequently was refined to reduce the potential environmental impacts and right-of-way requirements, and to eliminate the shared railroad corridor. This refined alternative is presented as Alternative J.

Alternative E: This alternative would cross 28 perennial and intermittent streams, affect over 38 acres of wetlands, and cross over 120 acres of 100-year floodplain. In addition, Alternative E would add over 10 miles to the BNSF operational distance. The alternative corridor would encroach on the Tombigbee State Park, run through the City of Saltillo, require a new crossing of the Natchez Trace Parkway, and cost over \$583 million to construct. Public sentiment for Alternative E was negative and the City of Saltillo expressed concern over the potential effects of increased rail traffic within their city limits. Despite the alternative's ability to satisfy the project's Purpose and Need, Alternative E was eliminated from further consideration during the scoping process due to high cost, extensive right-of-way requirements, significant impacts to wetlands and floodplains, and the disapproval of the City of Saltillo.

Alternative F: The easternmost alternative would cross 39 perennial and intermittent streams, affect over 40 acres of wetlands, and cross over 114 acres of floodplains. Alternative F would add almost 14 miles to the BNSF operational distance. The alternative corridor would run through the City of Saltillo, require a new crossing of the Natchez Trace Parkway, and cost over \$747 million to construct. Public sentiment for Alternative F was negative and the City of Saltillo expressed concern over the potential effects of increased rail traffic within their city limits. Despite the alternative's ability to satisfy the project's Purpose and Need, Alternative F was eliminated from further consideration during the scoping process due to high cost, extensive right-of-way requirements, significant impacts to wetlands and floodplains, and the disapproval of the City of Saltillo.

2.6.4.2 Scoping Alternatives

Alternative G: The construction cost of a trench is typically three times greater than that for an elevated rail viaduct. The depth of the rail trench for Alternative G would be approximately 35 feet below existing ground to provide sufficient vertical clearance under the existing roadways. The existing BNSF main line crosses five perennial streams between the Natchez Trace Parkway and Veterans Boulevard, including the floodway associated with King's Creek Tributary No. 1 and the floodway associated with both Town Creek and Mud Creek. The trench would tunnel underneath those

streams to maintain their channels and avoid flooding the trench. To maintain satisfactory profile grades for the BNSF main line, the trench would begin south of Lumpkin Avenue and extend south of Eason Boulevard, and would require the permanent closure of Veterans Boulevard. Several dozen residences and businesses would require relocation due to the right-of-way acquisition required to excavate and construct the trench. Four rail-served businesses would require relocation, including three with large physical plants. The trench would require fencing to restrict pedestrians and prevent objects from falling on the tracks, which would present a physical divide within the city. Within the City of Tupelo, the projected rail profile depth is anticipated to be below the existing groundwater table. If the rail is below the existing groundwater table, it may require measures to maintain positive drainage (e.g. pumping) to avoid the possibility of flooding the tracks. This is typically unacceptable to railroads due to the potential interruptions to railroad operations, which would not satisfy the efficiency of operations goal of the project's Purpose and Need. In addition, Alternative G would have a large impact on commercial freight needs in the area and could not be constructed without vast right-of-way acquisition in a dense urban residential and commercial area. The large amount of property impacts, a permanent road closure at Veterans Boulevard, significant groundwater elevation issues, and the failure of the alternative to satisfy the project's Purpose and Need all contributed to Alternative G being considered infeasible and eliminated from further consideration.

Alternative H: This alternative is not considered feasible or desirable to MDOT due to the adverse impacts to residences, businesses, and access to the historic properties north of Crosstown. The Gloster Street overpass would also restrict turning movements between Gloster Street and Main Street. Given the large quantity of adverse property and access impacts, this alternative would not satisfy the aspects of the project's Purpose and Need and was eliminated from further consideration.

Alternative I: Raising the BNSF main line would eliminate conflict between trains and vehicular traffic, reduce motorist delay, and create an opportunity for silencing of locomotive horns within the city. The rail line would not require extensive additional right-of-way as compared with other alternatives, but the right-of-way required contains a large number of residential and business structures within an urbanized area. This alternative would create public controversy and could increase anticipated right-of-way acquisition costs substantially. The right-of-way acquisition and possibility for public controversy associated with Alternative I would not satisfy the quality of life aspect of the project's Purpose and Need. Therefore, this alternative was eliminated from further consideration. However, this alternative was refined to remain within the existing BNSF right-of-way and to be constructed mostly on bridge structure with the limited use of retaining walls as Alternative M.

Alternative J: This alternative, refined from Alternative D, would reduce the right-of-way requirements and shorten the length of new railroad by nearly 2.5 miles as compared to Alternative D. This alternative would also reduce the wetland impacts to just over 9 acres, as compared to Alternative D's 24 acres. However, Alternative J would cross over 202 acres of 100-year floodplain, an increase of over 10 acres when compared to Alternative D. The proposed alignment was deemed impractical because it would cross the Natchez Trace Parkway at the US 78 interchange, forcing either permanent closure of a portion of the interchange or construction of flyover ramps, which would not only increase construction cost, but would detract from the aesthetics of the Natchez Trace Parkway. The impact on this interchange rendered this alternative infeasible because it would not satisfy the traffic, emergency services, or quality of life aspects of the project's Purpose and Need. Thus, Alternative J was eliminated from further consideration.

Alternative K: This alternative was refined from Alternative B to bring the alignment closer to the City of Tupelo in order to reduce the length of new track and potential environmental impacts. Alternative K would cross over 266 acres of 100-year floodplain, 16 perennial or intermittent streams, and 23 acres of wetlands. Alternative K would add approximately 2 miles of BNSF operational distance, but would include a new crossing of the Natchez Trace Parkway. This alternative would adequately satisfy the project's Purpose and Need, although it has a potential for public controversy and impact to cultural resources. This alternative was brought forward for further consideration based on the desire to have a corridor bypass alternative around each side of Tupelo.

Alternative L: This alternative was refined from Alternative J to avoid the Natchez Trace Parkway interchange with US 78. The alignment parallels the proposed Coley Road Extension to reduce the impacts to developed land and cross the Natchez Trace Parkway at the same location as the proposed Coley Road Extension. This alternative would cross over 262 acres of 100-year floodplain, 13 perennial or intermittent streams, and approximately 13 acres of wetlands. Alternative L would add approximately 2.3 miles to the BNSF operational distance and would not add an additional crossing of the Natchez trace Parkway, beyond a previously planned improvement. Alternative L adequately satisfies the project's Purpose and Need and was brought forward for further consideration.

Alternative M: Alternative M would provide the desired results as stated in Alternative I without the additional right-of-way acquisition and a reduced possibility for public controversy. In addition, the refinements result in a lower construction cost than Alternative I, increasing the attractiveness of the elevated rail viaduct as a feasible alternative. With the reduction of the right-of-way impacts and reduced project costs, this alternative adequately satisfied the project's Purpose and Need. This alternative was brought forward for further consideration.

2.6.4.3 Alternatives Screening Conclusion

Alternatives A, K, L, and M were considered for future study and were also further examined for refinements to reduce the potential environmental, cultural, traffic, and right-of-way impacts.

2.7 REFINED ALTERNATIVES

These alternatives were discussed with BNSF, KCS, federal, state and local government agencies, and the community for additional input.

2.7.1 Railroad Coordination Meeting

The study team met with MDOT, FRA, BNSF, and KCS representatives in Jackson, Mississippi on April 10, 2007 to discuss the alternatives suggested at the scoping meeting. Advantages and disadvantages for Alternatives A, K, L, and M were compared. In general, BNSF had concerns about new at-grade road crossings.

At this meeting, it was determined that all of the alternatives considered would implement the relocated interchange as described in the Operational Improvement in **Section 2.2.1**. The following is a summary of the advantages and disadvantages of Alternatives A, K, L, and M:

Alternative A (No-Build)

The advantages of this alternative are as follows:

- Would not impede automobile or train traffic flow during construction.
- Would not require expenditure of funds for right-of-way acquisition, engineering, design or construction.
- Would not result in additional impact on the adjacent natural, physical, and human environments.
- Would not result in disruption to existing land uses due to construction-related activities.

The disadvantages of this alternative are as follows:

- Would not satisfy the project Purpose and Need.
- Would not result in reduction in traffic delay.
- Could increase the emergency service response time due to increased congestion.
- Would not decrease train horn soundings or train noise.
- Would not improve freight rail operations.
- Could increase the evacuation time during emergency situations due to increase in safety-related accidents.

Alternative K

The advantages of this alternative are as follows:

- Would remove through trains from central Tupelo.
- Would reduce vehicular conflict at at-grade crossings.

- Would have a high potential for rail-served industrial development.
- Would eliminate the traffic delay created by the BNSF-KCS interchange.

The disadvantages of this alternative are as follows:

- Would require a new at-grade crossing of the KCS rail line.
- Would increase railroad operational mileage.
- Would require the existing BNSF main line from US 45 to remain as a spur to access interchange with KCS.
- Would have profile grade issues immediately south of Sherman.
- Could present public controversy.
- Would have a large number of new roadway crossings.

Alternative L

The advantages of this alternative are as follows:

- Would remove through trains from central Tupelo.
- Would use a shared corridor with proposed roadway.
- Would eliminate the BNSF-KCS at-grade railroad crossing.
- Would eliminate the vehicular traffic delay created by the BNSF-KCS interchange.
- Would have less track construction than any of the initial alternatives.
- Would have support of the U.S. National Park Service.

The disadvantages of this alternative are as follows:

- Would increase railroad operational mileage.
- Would have a limited potential for rail-served industrial development.
- Would have a number of new roadway crossings.
- Would have engineering challenges between Natchez Trace Parkway and Main Street.
- Could present public controversy.

Alternative M

The advantages of this alternative are as follows:

- Would eliminate at-grade crossings within central Tupelo.
- Would create a “quiet zone” through Tupelo.
- Would require minimal right-of-way.
- Would improve rail speed through Tupelo.
- Could minimize public controversy.
- Would not increase railroad operational mileage.
- Could include a multi-use trail.

The disadvantages of this alternative are as follows:

- Would not promote rail-served industrial development.
- Would result in visual and vibration impacts on adjacent residences and businesses.
- Would create maintenance and liability issues (BNSF would request MDOT to bear the responsibility of maintaining the elevated structure through Tupelo).

2.7.2 City of Tupelo Meeting

A meeting was held on June 11, 2007 with the Mayor and City of Tupelo staff. The purpose of the meeting was to update them on the status for this project and the Coley Road Extension. Alternative L, which would parallel the Coley Road Extension, could adversely impact the development along the roadway. The refined alternatives were discussed. Based on the information presented, the Mayor stated that Alternative M of elevating the rail was preferred by the City staff.

2.7.3 Thoroughfare Committee Meeting

A meeting was held on June 11, 2007 with the Thoroughfare Committee. The purpose of the meeting was to update them on the status of the project and present the EIS alternatives. The Committee was not in favor of the railroad being parallel to the Coley Road Extension (Alternative L), since the future land use would not be compatible with railroad uses. Alternative M, the elevated rail with aesthetic treatments, was preferred by the Thoroughfare Committee.

2.7.4 Public Meeting

An Alternatives Public Meeting was held on July 12, 2007. The meeting was conducted to afford the public the opportunity to express their views concerning the various alternatives. The meeting was held at the BancorpSouth Convention Center in Tupelo. In preparation for this meeting, notification mailings were sent to property owners, local elected officials, and other interested parties. In addition, standard advertisements, press releases and articles were published in the Northeast Daily Journal. The meeting format was an informal, open house to encourage the exchange of information between the public and the project team. Project information and comments cards were available to attendees. Representatives from MDOT and project team were available to speak with the public and answer questions.

A total of 30 written comment cards were received at the meeting. In many cases, individuals attending the meeting had multiple opinions regarding the project. Therefore, the number of comments given does not match the number of comment cards. The comments received are briefly summarized in **Table 2-3**. Copies of comments are located in the project files and summarized in the *Public Meeting #2 Summary* (ABMB, August 2007).

Table 2-3 Summary of Public Comments

Corridor Alternative	# of Comments Expressing Preference	# of Comments Expressing Opposition
Alternative A (No-Build)	5	0
Alternative K	3	3
Alternative L	3	2
Alternative M	22	2
Other	2	-

2.7.5 Alternative L Refinements

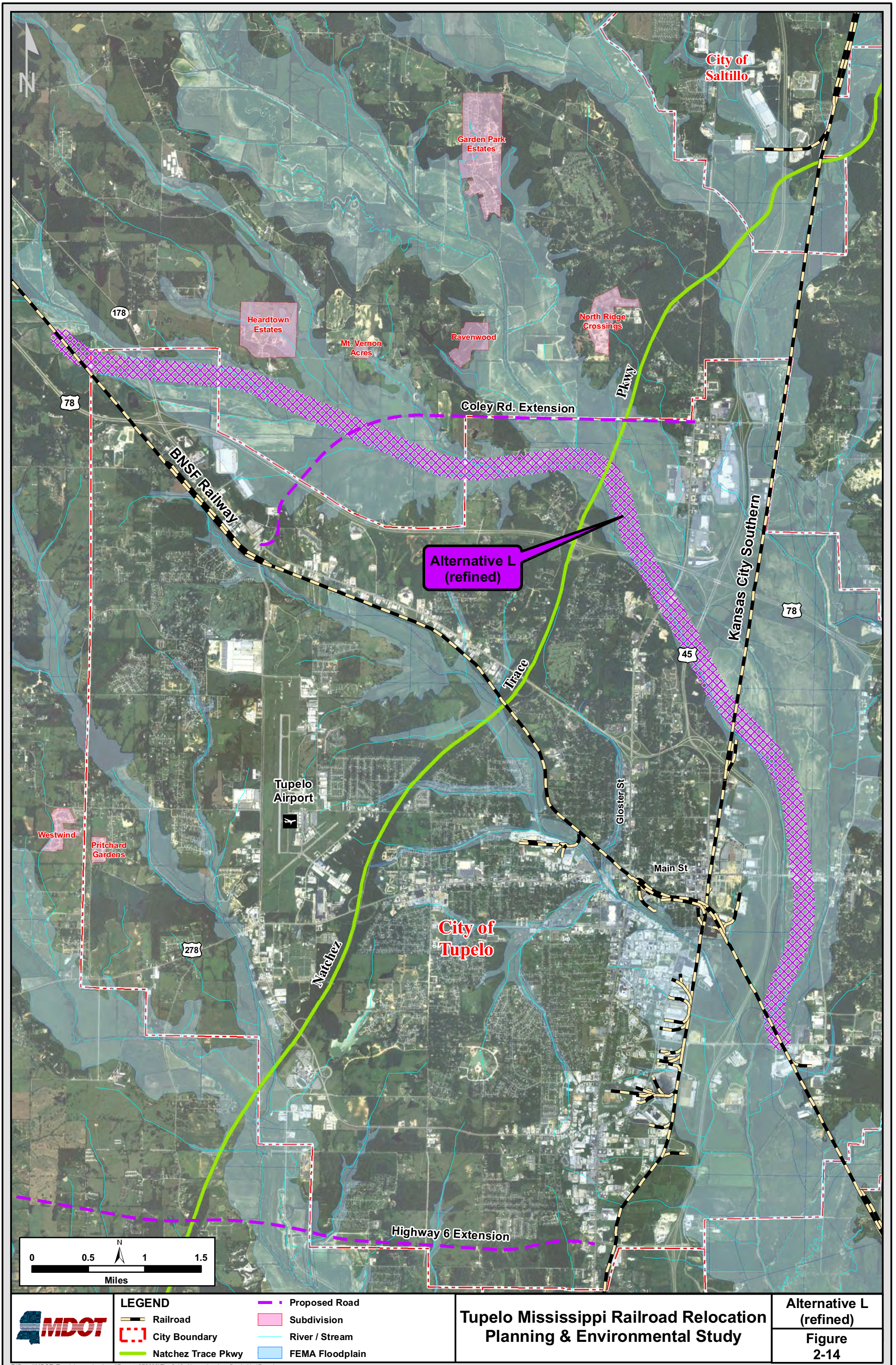
As a result of the feedback from the Alternatives Public Meeting, Alternative L was investigated further by project consultants to MDOT at the request of MDOT. The predominant issue with Alternative L, shown on **Figure 2-12**, is the effect that the alternative would have on the developing property along the proposed Coley Road Extension. The alternative was originally developed to share the proposed crossing of the Natchez Trace Parkway. However, the City of Tupelo and the Thoroughfare Committee opposed the rail alignment due to its proximity to the Coley Road Extension and the negative influence the rail could have on the development of the adjacent properties. Alternative L was then refined to cross the proposed Coley Road Extension and run parallel to Town Creek, which would require a new crossing of the Natchez Trace Parkway just north of Town Creek, and then turn south across the Natchez Trace Parkway north of the interchange with US 78. The refined Alternative L, shown on **Figure 2-14**, would continue south, as described previously, to intersect with the existing BNSF main line just north of Eason Boulevard.

The advantages of the refined Alternative L are as follows:

- Would remove through trains from central Tupelo;
- Would allow the existing Natchez Trace Parkway / US 78 interchange to remain;
- Would allow the properties along the proposed Coley Road Extension to develop unimpeded;
- Would eliminate the BNSF-KCS at-grade railroad crossing; and
- Would result in the least track to build than any of the other bypass alternatives.

The disadvantages of the refined Alternative L are as follows:

- Would increase railroad operational mileage;
- Would result in a limited potential for rail-served industrial development;
- Would require new at-grade roadway crossings;
- Would require much of the alignment to be built on either bridge or trestle;
- Would require a new crossing of the Natchez Trace Parkway; and
- Could present public controversy.



2.7.6 Native American Resource Impacts

As discussed in **Section 2.5**, the Chickasaw are known to have buried their dead underneath their houses, so the disturbance of any Chickasaw village could mean the potential disturbance of a burial site. Since the majority of these village sites are not specifically identified, it is assumed that any new corridor or construction to the south and west of Tupelo could have a high probability of disturbance of a Chickasaw burial ground.

Alternative K runs south of and roughly parallel to Coonewah Creek, through areas which were known to be inhabited by the Chickasaw in the 17th and 18th Centuries. Alternative K would, therefore, have a significant potential for disturbance of Chickasaw burial sites.

Alternative L runs north of and roughly parallel to Town Creek, which are lands that were not known to be inhabited by the Chickasaw. Alternative L would have a lower potential for disruption of Chickasaw burial sites.

Alternative M runs roughly parallel to and north of Kings Creek through the existing BNSF right-of-way. The existing BNSF right-of-way is outside of the known Chickasaw settlement areas and is already developed. Therefore, Alternative M would have a low potential for disruption of Chickasaw burial sites and would result in the least disruption potential of the three refined alternatives.

2.7.7 Refined Alternatives Analysis

Following the Alternatives Public Meeting, Alternative A (No-Build), Alternative K, Alternative L, and Alternative M were reexamined using the same evaluation criteria as outlined in **Section 2.6.1** of this report. The anticipated impacts for each alternative are summarized in **Table 2-4**.

2.7.8 Refined Alternatives Screening

The impact summaries for each Alternative were compared with the project's Purpose and Need to determine which alternatives would be further evaluated in the next phase. **Table 2-5** provides a brief description of each alternative.

Alternative K: This alternative would satisfy the project's Purpose and Need but would have potential for significant impacts to Native American resources as well as impacts to over 23 acres of wetlands and over 266 acres of 100-year floodplain. Alternative K would also require the most right-of-way acquisition of the three refined build alternatives, which would lead to public controversy. This alternative lacks support from BNSF and KCS because of additional operating distance and the BNSF-KCS crossing remaining at-grade.

Alternative K also lacks support from other public agencies because it would require a new crossing of the Natchez Trace Parkway and would have a high potential for disruption of Chickasaw burial sites. Therefore, this alternative was eliminated from further consideration.

Table 2-4 Refined Alternatives Evaluation Measures

Evaluation Measures	No Build Alternative A	Alternative K	Alternative L (Refined)	Alternative M
Alignment Statistics				
Est. Length (Miles)	24.5	26.8	26.8	24.5
Est. Length of New Track Construction (Miles)	n/a	26.8	12.5	3.0
Est. Length of Existing BNSF Track (Miles)	24.5	0.0	14.9	21.5
Est. Length of Existing KCS Track (Miles)	n/a	0.0	0.0	0.0
Est. Additional BNSF Operational Distance (Miles)	n/a	2.3	2.3	0.0
Est. Additional KCS Operational Distance (Miles)	n/a	10.4	0.9	0.0
Est. Proposed Total Bridge/Trestle Length (Feet)	n/a	13,880	19,710	7,200
Est. Proposed Highway Overpass Modifications (No.)	n/a	0	1	1
Human Environment				
Est. Community Facilities Displaced within 500 ft of R/W (No.)*	n/a	1	0	n/a
Est. Population Density (Population/acre)	0.84	0.01	0.15	0.84
Est. Education Facilities within 500 ft of R/W (No.)	3	0	0	3
Est. Proposed/Modified Natchez Trace Parkway Crossing (No.)	n/a	1	1	n/a
Est. Parks within 500 ft of R/W (No.)	n/a	0	0	n/a
Natural Environment				
Est. Environmentally Sensitive Sites within 500 ft of R/W (No.)	1	1	0	1
Est. Perennial Streams Crossings (No.)	6	5	5	6
Est. Intermittent Streams Crossings (No.)	18	11	3	18
Est. Hydric Soils Impacts (Acres)	n/a	18.6	7.0	n/a
Est. Wetland Impacts (Acres)**	n/a	4.9	1.9	n/a
Est. 100-year Floodplain Encroachment (Acres)**	n/a	266.4	242.7	n/a
Physical Environment				
Est. Historical/Archeological Sites within 500 ft of R/W (No.)	6	5	4	6
Est. Public Water Supply Wells within 500 ft of R/W (No.)	1	0	0	1
Est. Potential Contamination Sites within 500 ft of R/W (No.)	31	0	3	31
Safety				
Est. Total Grade Separations (No.)	5	9	8	16
Est. Total At-grade Crossings (No.)	51	38	53	40
Project Costs (\$2005)	n/a	\$670,130,000	\$769,140,000	\$333,450,000

Notes:

- Quantities above have been estimated using GIS data and available mapping. Quantities should only be used for planning purposes.
- * Community Facilities include Churches, Cemeteries and Recreational Facilities.
- ** Wetlands and 100-year floodplain quantities includes all water body crossings. Proposed bridge structures would reduce or eliminate these impacts.
- All alignment alternative lengths have been calculated from MP 575.5 to MP 600.0.

Table 2-5 Refined Alternatives Evaluation Matrix

Alternative	A	K	L	M
Description	No Build Alternative. Maintains the Existing BNSF Rail Line through Tupelo.	New Bypass Alternative. Parallels Coonewah Creek.	New Bypass Alternative. Parallels Town Creek and Mud Creek.	In-Town Alternative - Elevating Rail Through Town.
Length of New Track (miles)	N/A	26.8	11.6	0.9
Issues	Does not solve any delays or provide any benefits.	Long route near urban area. Must use existing track to serve customers. Crosses Trace at new location. New yard to south. Impacts to cultural resources. Railroad and Agency opposition.	New crossing with Trace. Crosses US 78, Gloster and US 45 closer to perpendicular angle. 70% of alignment on trestle. Requires operational improvements to yard.	Similar to Alternative I, but uses more retaining walls and fill sections for the elevated rail.
Satisfies Project Purpose and Need	No	Yes	Yes	Yes
Estimated Cost (\$ Millions)	\$0 (\$1,250 Congestion)	\$670	\$769	\$333
Moving Forward	Yes ¹	No	Yes	Yes

1. No-Build Alternative required to be evaluated in alternatives analysis under NEPA sections 1502.14(d) & 1508.25(b)

Alternative L: This refined alignment would affect over 242 acres of 100-year floodplain and nearly nine acres of wetlands. Alternative L has some support from BNSF, KCS, and other public agencies because it would require a nominal increase in BNSF operational mileage and does not run through culturally sensitive lands. However, other public agencies oppose this alternative because it would require a new crossing of the Natchez Trace Parkway. In addition, it has an estimated construction cost of over \$769 million, the highest construction cost of any of the refined alternatives. Alternative L's construction cost is estimated to be 15% higher than Alternative K and 131% higher than Alternative M. However, this alternative does satisfy the aspects of the project's Purpose and Need while minimizing the effects on the community and development. Despite the high cost, this alternative corridor was brought forward for further consideration.

Alternative M: Alternative M satisfies the aspects of the project's Purpose and Need, has the most support from the public, the railroads, and the public agencies, would result in the least environmental (wetlands and floodplains) and cultural impacts, and is estimated to have the lowest construction cost of the build alternatives. This alternative was brought forward for further consideration.

2.7.9 Refined Alternatives Conclusion

Based upon the responses from public and agency meetings, the alternatives to be carried forward for further evaluation are Alternative A (No-Build), Alternative L (Refined Coley Road) and Alternative M (Elevated Rail).

2.8 REASONABLE ALTERNATIVES

Alternatives A, L, and M were identified as the reasonable alternatives for detailed evaluation. Specific railway corridors, using BNSF standards for track construction, were developed to identify, quantify, and mitigate to the fullest extent practicable some of the potential impacts. Detailed environmental, social, cultural, and physical investigations were conducted based on the results from database searches, field investigations, and GIS analysis for each of the three reasonable alternatives. These investigations were performed to identify a more detailed concept for each alternative.

2.8.1 Reasonable Alternatives Descriptions

Alternative A (No-Build)

This alternative would have the existing alignment for BNSF main line remain in its existing condition, without any rail or automobile improvements. The existing yard and interchange with the KCS rail line would also remain.

Alternative L

This alternative, shown on **Figure 2-14**, would depart the existing BNSF main line north of US 78, cross over MS 178 and Town Creek, then turn to parallel Town Creek, crossing under the Coley Road Extension. The alignment would cross over the Natchez Trace Parkway and would then turn south, to cross over US 78, Gloster Street, and US 45. It would then cross over the KCS rail line, continue south, cross over Main Street, and merge with the BNSF main line. Approximately 11.6 miles of

new track would be constructed for Alternative L, with an additional 0.9 miles of track for the interchange with the KCS rail line, as described in the operational improvement in **Section 2.2.1** of this report. Approximately 14.9 miles of existing track would not require additional improvements. The length of rail bridges and trestle required to span floodplains and other water features would be approximately 19,710 feet.

Alternative M

Alternative M, shown on **Figure 2-15**, consists of an elevated rail viaduct with retaining walls and bridges within the existing railroad right-of-way. The rail would then be placed on earthen fill for the limits of the retaining wall. The route would parallel the existing track, except where modified curvature would allow trains to travel at 40 mph. Approximately 2.8 miles of elevated track would be constructed for Alternative M, with an additional 0.9 miles of track for the rail interchange, as described in the operational improvement in **Section 2.2.1** of this report. Approximately 21.7 miles of existing track would not require additional improvements. The length of rail bridges and trestle required to span floodplains, roadways, neighborhoods, and streams would be approximately 8,386 feet.

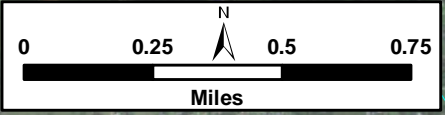
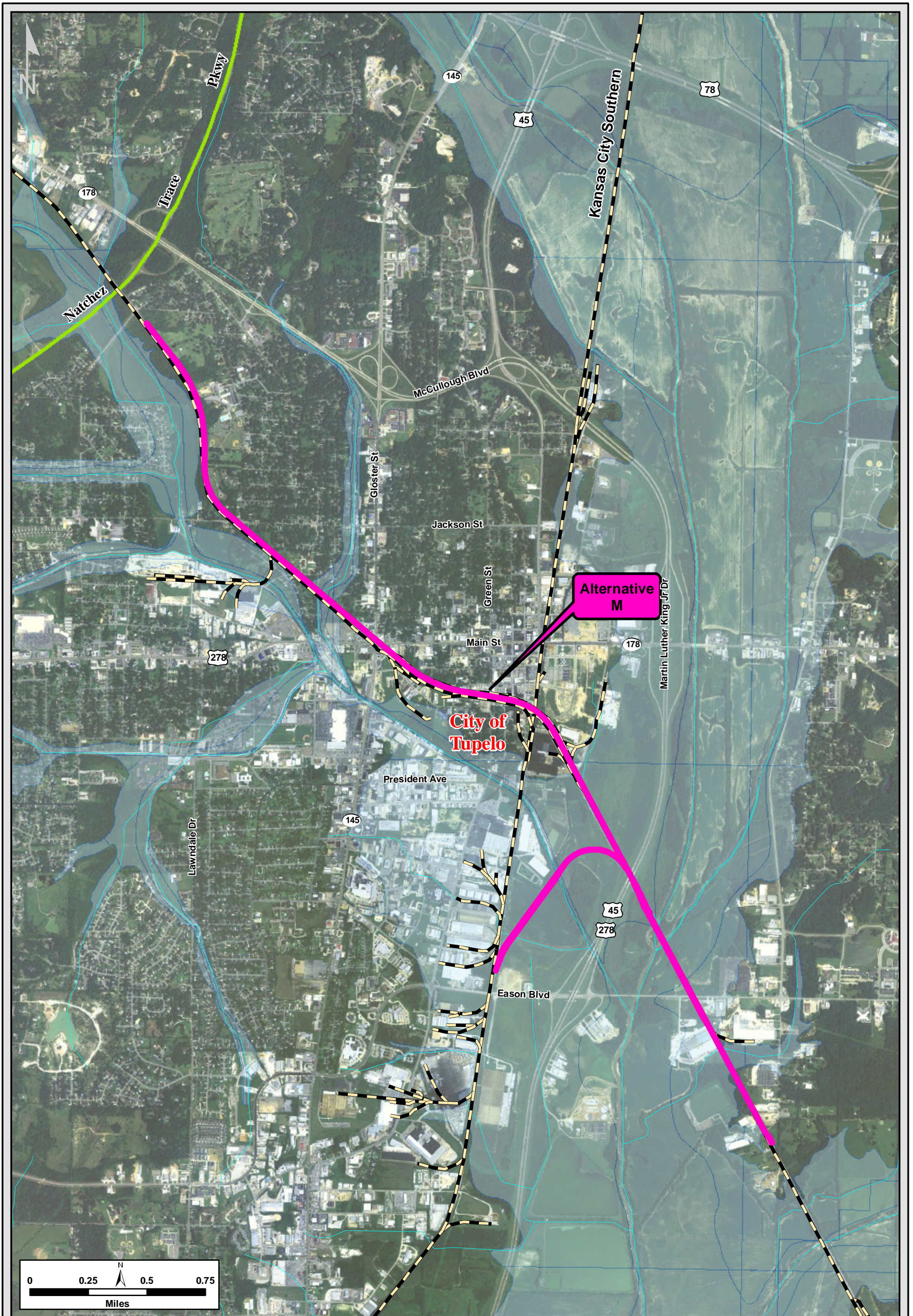
2.8.2 Reasonable Alternatives Analysis

Technical memoranda were prepared to outline the various potential impacts to the Tupelo area by the No-Build Alternative (Alternative A), and the Build Alternatives (Alternatives L and M) The findings of the technical memoranda are summarized in **Table 2-6** and the topics covered are summarized in this section and described in further detail in **Chapter 4**.

Archaeological & Cultural Sites

The investigations of Alternatives L and M involved database searches to document the previously recorded archaeological and historic sites and field investigations to determine the amount of archaeological or historic material within each affected site by shovel tests. The specific alignment for Alternative L was refined after the Alternatives Public Meeting to avoid as many impacts to known archaeological and historic sites as possible, while maintaining BNSF standards for rail alignment geometry at the design speed of 60 mph. The archaeological and cultural site investigations were documented in the *Cultural Resources Investigations for the Tupelo Railroad Relocation Study* (Brockington, January 2009) (CRS) which was forwarded to the State Historic Preservation Office (SHPO) for comment. In a letter dated March 17, 2009, included in **Appendix A**, the SHPO made several conclusions regarding the two reasonable build alternatives.

Alternative L would disturb five previously recorded archaeological sites, all located in farmland north of Town Creek between MS 178 and Mount Vernon Road. While none of these sites are listed on the National Register of Historic Places (NRHP), they do have the potential for cultural material and could be eligible for listing. The SHPO determined that construction of Alternative L had the potential to physically adversely affect three NRHP-eligible sites and intensive surveys would likely identify additional NRHP-eligible archaeological resources.



LEGEND	
	Railroad
	Natchez Trace Pkwy
	River / Stream
	FEMA Floodplain

**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

Alternative M
Figure 2-15

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Table 2-6 Reasonable Alternatives Evaluation Measures

Evaluation Measures	No Build Alternative A	Alternative L	Alternative M
Alignment Statistics			
Est. Length (Miles)	24.5	26.8	24.5
Est. Length of New Track Construction (Miles)	n/a	12.5	3.7
Est. Length of Existing BNSF Track (Miles)	24.5	14.9	22.8
Est. Length of Existing KCS Track (Miles)	n/a	0.0	n/a
Est. Additional BNSF Operational Distance (Miles)	n/a	2.3	0.0
Est. Additional KCS Operational Distance (Miles)	n/a	0.9	0.9
Est. Proposed Total Bridge/Trestle Length (Feet)	n/a	19,710	8,386
Est. Proposed Highway Overpass Modifications (No.)	n/a	1	1
Archaeological & Cultural Sites			
Impacted Archeological/Historic Sites within 500 ft of R/W (No.)	n/a	5	4*
Endangered Species			
Encountered Species within 500 ft of R/W (No.)	n/a	0**	0
Floodplains and Floodways			
Est. 100yr Floodplain Encroachment (Acres)	n/a	186	10
Est. Regulatory Floodway Encroachment (Acres)	n/a	47	2
Socioeconomic			
Neighborhood Associations within 500 ft of R/W (No.)	4	2	4
Schools within 500 ft of R/W (No.)	2	1	2
Parks within 500 ft of R/W (No.)	4	1	4
Percent of Minority Households within 500 ft of R/W	14%	19%	14%
Percent of Low Income Households within 500 ft of R/W	17%	15%	17%
Visual Impacts to Residential or Historic Districts	No	No	Yes
Land Area with 0.5 miles of R/W (Acres)	6,888	8,160	6,888
Topography and Soils			
Area of High Shrink-Swell Potential Soils (Acres)	n/a	69.6	5.1
Wetlands			
Est. Wetland Impacts (Acres)	n/a	0.97	0.68
Impacted Stream Length (Feet)	n/a	2,230	350
Est. Prior Converted Cropland Impacts (Acres)	n/a	115	8
Safety			
Est. Total Grade Separations (No.)	5	15	16
Est. Total At-grade Crossings (No.)	51	38	40
Project Costs (\$2005)	n/a	\$769,140,000	\$333,450,000

Notes:

1. Quantities above have been estimated using GIS data, available mapping, and field visits. Quantities should only be used for planning purposes.
2. * Impacts are only to the surrounding viewshed to these sites.
3. ** No species encountered. However, suitable habitat exists for Price's Potato Bean in R/W.
4. All alignment alternative lengths have been calculated from MP 575.5 to MP 600.0.

The SHPO also determined that Alternative M would not physically disturb any previously recorded NRHP-eligible archaeological sites and additional archaeological resources would unlikely be encountered during construction. SHPO determined, however, that four historic districts and 34 architectural resources documented in the CRS were either NRHP-listed or NRHP-eligible and would be adversely affected by Alternative M's visual impacts. None of these architectural resources would be physically impacted by Alternative M, and the visual impacts could be mitigated through aesthetic design or other measures.

Construction Impacts

Potential construction impacts include public safety, economic, emergency service, water quality, noise, vibration, and traffic impacts. The alignment of Alternative L would be located away from most residential, public, and business structures, so the construction impacts would be minimal and mostly limited to traffic delay. The impacts anticipated with the construction of Alternative M would be the noise and

vibration associated with the pile driving near existing structures. However, these impacts would be mitigated and would not result in any permanent damage.

Endangered Species

Habitat of any endangered plant or animal species that would either be found or likely to be found within the alternative alignments was evaluated. The only federal or state listed endangered or threatened species which has been known to inhabit portions of either alternative is the Price's potato bean, a threatened plant species. The alignment for Alternative L runs through a suitable habitat for the plant, although no Price's potato bean blooms were found within the alignment corridor. Alternative M runs through the existing BNSF right-of-way, which is not a suitable habitat for the plant, and no blooms were found along the alignment.

Floodplains

Each of the reasonable alternatives was compared in detail for the right-of-way that would cross the 100-year floodplain and regulatory floodways as designated by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) map data (effective October 20, 1999). In addition to the acreage of affected floodplain and floodway, each alternative was compared for the effects from the size and location of bridge structures.

Alternative L not only crosses approximately 186 acres of 100-year floodplain, but it also runs within and parallel to a regulatory floodway for almost three miles of its alignment. Even though the proposed railroad would be constructed on either bridge or trestle over most of the floodplain, Alternative L would have a high potential for impacts to both the 100-year floodplain and the designated floodways, which would make a no-rise certification difficult to obtain.

Alternative M would cross approximately 10 acres 100-year floodplain and would only perpendicularly cross three regulatory floodways, two of which are already crossed by the existing BNSF main line.

Natural Ecological Systems

The natural animal and vegetative habitats within the alternative alignments were evaluated. The investigation performed included review of aerial photographs, known habitats and field investigation. The conclusion of this investigation is that Alternative L would have permanent adverse impacts to natural ecosystems due to the proximity of the alignment to existing water bodies. Alternative M would have temporary adverse impacts during construction, but beneficial impacts in reduced animal/train collisions and more space for animals to cross the rail corridor.

Natural Resources

The amount of natural resources (e.g. fuel, raw materials) consumed or disturbed by the construction of each alternative was evaluated. Alternative L would use more natural resources than Alternative M because of the significantly longer physical improvements needed.

Permit Requirements

Preliminary estimates of all the environmental and regulatory permits required for each alternative were developed. Each alternative would require a Section 404 permit from the USACE and a Stormwater Pollution Prevention Plan. The permits are discussed in greater detail in **Chapter 4**.

Public Safety

The automobile vs. train accident histories at each of the at-grade crossings of both the BNSF and KCS railways through Tupelo within the last 30 years were evaluated. In total, 49 accidents (including eight involving trains carrying hazardous materials) were recorded through downtown Tupelo on the BNSF and KCS railways. With the removal of at-grade crossings through Tupelo, both Alternative L and Alternative M would decrease the likelihood of auto/train accidents on the BNSF main line and the KCS rail line.

Socioeconomics

The evaluation considered each alternative's effect on demographics, industry and commerce, education, tourism, housing, and recreation. The investigation used census data, planning documents, local school districts, U.S. Department of Housing and Urban Development (HUD) housing information, and local interviews to compare the various impacts of each of the alternatives. Alternative L was found to have fewer impacts to schools, parks, and neighborhoods than Alternative M. However, Alternative L would have more impacts to minority households and adjacent land area.

Topography and Soils

The GIS data and field investigation of the soils for each alternative were evaluated. The investigation revealed that the soils for the majority of Alternative L have high shrink-swell potential, which means that the soils have low suitability for bridge or trestle support. Because the trestle and bridge length required for Alternative L to span the 100-year floodplain and regulatory floodways is significantly longer than a typical railroad corridor crossing, this would significantly increase the construction cost. The soil excavation would include removal of unsuitable soil and replacement with suitable fill material which could increase the impacts to the floodplain and floodways and require additional permit coordination. In addition, Alternative L would impact an area designated by the National Resources Conservation Service (NRCS) through Form AD-1006 as prime and unique farmland. Alternative M crosses soils with low shrink-swell potential and, therefore, would provide better suitability for bridge and elevated rail support.

Water Quality

Water quality in the study area was determined using database information, GIS data, topographical map review, and field investigation. The Mississippi Department of Environmental Quality (MSDEQ) has prepared a 303(d) list of impaired water bodies, which details the state's water bodies that do not meet their designated use. According to the MSDEQ, Town Creek, Mud Creek, and Kings Creek are all listed

on the impaired water bodies list due to their relative inability to satisfy their designated use for aquatic life.

Alternative L would closely parallel Town Creek along its entire length and also would run parallel to Mud Creek for approximately two miles. The proximity of the railroad could lead to additional siltation of these streams that could affect the ability of these streams to recover. Alternative L could hinder the potential of these streams to be removed from the impaired list. In addition, Alternative L would encroach on the Town Creek Master Water Management District's easements and would impede the maintenance of the floodway to Town Creek by restricting access and possibly altering the channel.

Since Alternative M would lie within the existing railroad right-of-way, it would have much less impact to the surrounding streams. The impacts would be limited to bridge widening and a new crossing of Kings Creek for the BNSF-KCS interchange.

Wetlands

The investigation of potential wetland impacts included information gathered from USFWS National Wetland Inventory (NWI) maps, NRCS soil maps, Mississippi Automated Response Information System (MARIS) data, aerial photographs, and field investigation. The alternatives were designed to avoid impacts to wetland areas, wherever possible. Wetland areas were measured as designated wetlands, stream crossings, and prior converted cropland. Alternative L would impact more designated wetlands, prior converted cropland, and linear feet of streams than Alternative M.

2.8.3 Agency Coordination

The two reasonable build alternatives (Alternatives L and M) were sent to the railroads and to the U.S. National Park Service (NPS) for review. In a letter dated July 16, 2007, the NPS expressed preference for Alternative M due to the least impacts to the Natchez Trace Parkway (no new crossing) and its viewshed. In a letter dated November 16, 2007, included in **Appendix A**, BNSF expressed preference for the "railroad fly-over option" (Alternative M) over the other alternatives and gave a list of comments and requirements for the conceptual design. In a meeting held in Tupelo, MS on September 10, 2008, KCS representatives reviewed both alternatives and stated that KCS held usage rights for the BNSF main line between Tupelo and New Albany, Mississippi and that any design would have to accommodate the ability of northbound KCS trains to access the northbound BNSF main line. KCS expressed that, as presented, neither build alternative would allow that operation, but added that the addition of a wye to the relocated interchange for Alternative M and the addition of a wye just south of the US 45 overpass to the new corridor for Alternative L would allow the reasonable build alternatives to satisfy the usage rights.

2.8.4 Reasonable Alternatives Screening

Upon review of the technical memoranda, the impact summaries for each alternative were evaluated and compared to the aspects of the project’s Purpose and Need to determine which alternatives would be brought forward as design alternatives. **Table 2-7** provides a brief description of each alternative.

Table 2-7 Reasonable Alternatives Evaluation Matrix

Alternative	A	L	M
Description	No Build Alternative. Maintains the Existing BNSF Rail Line through Tupelo.	New Bypass Alternative. Parallels Town Creek and Mud Creek.	In-Town Alternative - Elevating Rail Through Town.
Length of New Track (miles)	N/A	12.5	3.7
Issues	Does not solve any delays or provide any benefits.	New crossing with Trace. 70% of alignment on trestle. More Floodplain, Wetlands, and Water Quality Impacts. Higher Cost. Requires operational improvements to yard.	Visual Impacts to historic districts and residential neighborhoods due to retaining walls, bridges, and fill sections for the elevated rail.
Estimated Cost (\$ Millions)	\$0 (\$1,250 Congestion)	\$769	\$333
Satisfies Goals of Project Purpose and Need	No	No	Yes
Moving Forward Into EIS	Yes ¹	No	Yes

1. Alternative required to be evaluated in alternatives analysis under NEPA sections 1502.14(d) & 1508.25(b).

Alternative L: Alternative L has unsuitable soils for bridge and trestle construction for approximately 70% of the new corridor’s alignment, which would present significant design and permitting challenges. It would also cross over 186 acres of 100-year floodplain and would encroach on nearly three miles of regulatory floodways. These design and permitting issues could increase the construction cost beyond the current estimate and could lengthen the project construction schedule. This alternative would adversely impact 0.97 acres of wetlands, 2,230 feet of streams, and five previously recorded archaeological sites. In addition, a large amount of natural resources, natural ecosystems, and potential endangered plant species habitat would be disturbed with the construction of this alternative. Alternative L would also hinder the ability to improve the water quality of Town Creek and Mud Creek and have those streams removed from the 303 (d) impaired water body list.

This alternative also had opposition from local residents, BNSF, KCS, the Natchez Trace Parkway, and the City of Tupelo, which each expressed concern regarding the impacts a new railroad corridor would have on adjacent property, aesthetics, and the environment.

When evaluated in light of the project's Purpose and Need, Alternative L appears to satisfy the aspects of reduced traffic delay, improved emergency response, improved safety, and enhanced quality of life. However, given the alignment's proportion of bridge and/or trestle structure and additional operating length (especially for interchange operations), improving efficiency of railroad operations would not be satisfied, and Alternative L would hinder the growth of rail-served development.

While some of these impacts and challenges could be mitigated, the combination of the adverse impacts along with the preliminary construction cost estimate being 131% higher than the cost for Alternative M, a new crossing of the Natchez Trace Parkway, and the lack of public, railroad, and agency support, Alternative L was determined to be infeasible. Therefore, Alternative L was eliminated from further consideration.

Alternative M: Despite the potential visual impacts to neighborhoods, historic districts, and historic properties, Alternative M would have no physical impacts to archaeological sites or potential endangered plant species habitat. Alternative M would have fewer impacts to wetlands, streams, floodplains, regulatory floodways, natural resources, natural ecosystems, and the water quality of Town Creek and Mud Creek than Alternative L. Alternative M satisfies the project's Purpose and Need, while providing the greatest efficiency to railroad operations and rail-served development. Alternative M could be constructed at a significantly lower cost than Alternative L, has support from local and state agencies, the railroads, and the citizens of Tupelo and Lee County. This alternative was brought forward for further consideration as the Build Alternative.

2.9 DESIGN ALTERNATIVES

The EIS alternatives process summarizes the development, refinement, comparison, and screening of various alternatives for the proposed Tupelo Railroad Relocation Project. The study relied on use of the best information available to evaluate and screen dozens of miles of possible rail routes, roadway improvements, and elevated rail. The activities included completing preliminary engineering and evaluating more than 160 miles of new rail. The alternative development process resulted in a design alternative that meets the project's Purpose and Need, is feasible and practical, and generally addresses agency and stakeholder concerns. The No-Build Alternative (Alternative A) and the Build Alternative (Alternative M) are the alternatives studied in detail in this EIS.

2.9.1 No Build Alternative

This alternative would have the existing alignment for BNSF remain in its existing condition, without any railroad or roadway improvements. The existing BNSF-KCS interchange and storage yards would also remain.

2.9.2 Build Alternative

This alternative, shown on **Figure 2-16** and in greater detail in **Appendix D**, consists of an elevated rail viaduct with limited retaining walls within the existing BNSF right-of-way and a new BNSF-KCS interchange constructed south of the Pvt. John Allen National Fish Hatchery.

2.9.2.1 Rail Typical Sections

The proposed rail typical sections for this improvement, shown on **Figure 2-17** and in greater detail in the concept plans in **Appendix D**, were developed using BNSF standards. Typical sections were developed for the at-grade rail improvements, including the proposed storage tracks, elevated rail on fill with retaining wall, and bridge sections.

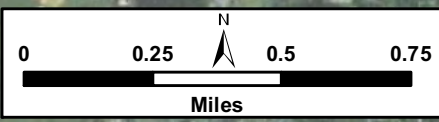
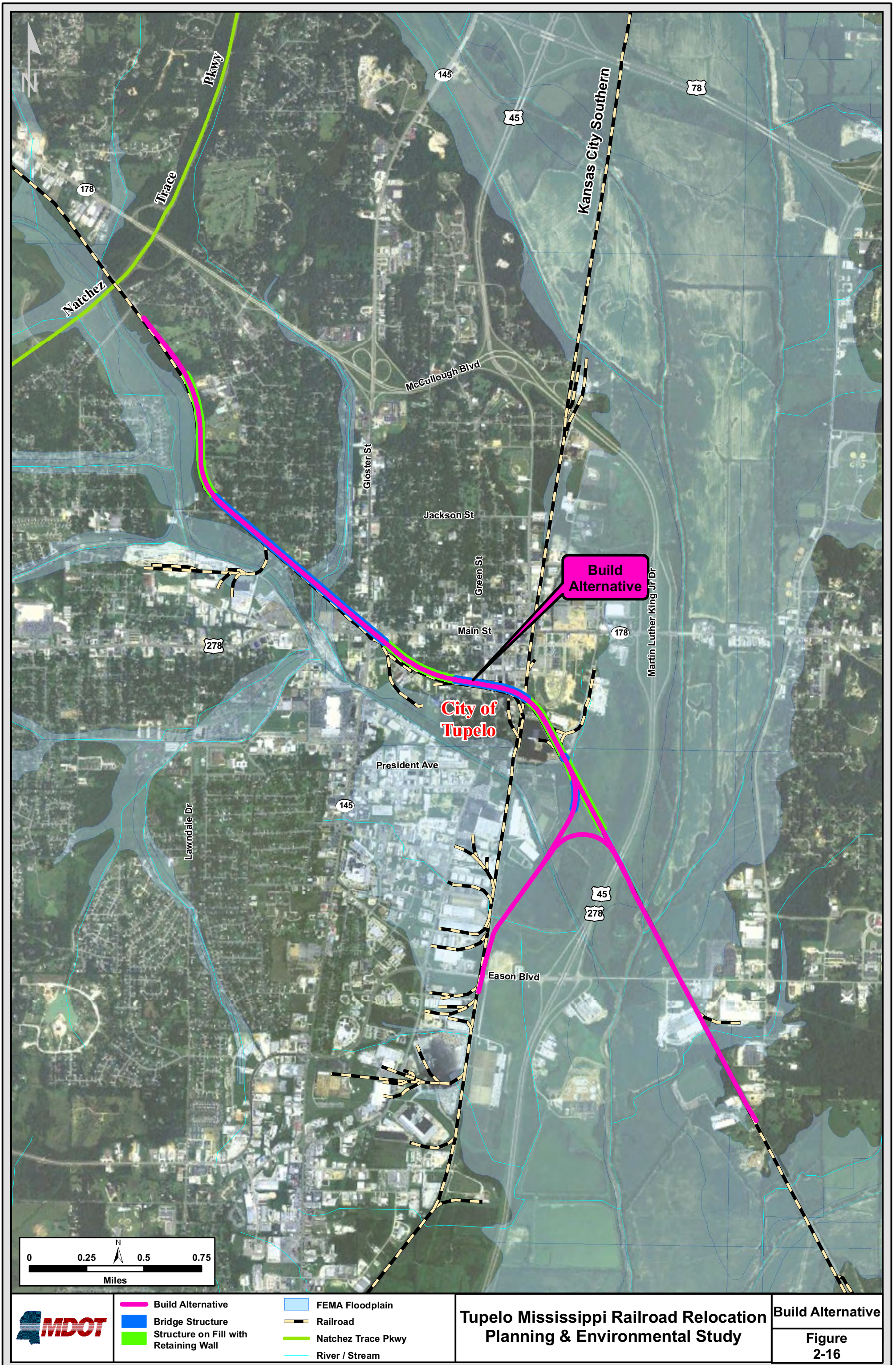
Based on consultations with BNSF, the entire main line between Memphis and Birmingham has been planned to become a double-track line, although those improvements are not included in BNSF's program for capital improvements and no other segments of the main line are double-tracked at this time. The typical sections for the elevated rail viaduct were developed to accommodate a future double-track of the BNSF main line through Tupelo, should BNSF expand the main line. However, because the double-track project would require significant improvements along the entire corridor between Memphis and Birmingham, not just through Tupelo, the double-track is not reasonably foreseeable. The proposed improvements only include a single rail line and the second track is not included as part of this project.

2.9.2.2 Rail Alignment

The horizontal and vertical alignment controls are much more stringent for trains than for roadways for several reasons. Railroads require gentler grades, wider turning radii, and larger transitional lengths than roadways due to the size and weight of trains. While FRA has developed design standards for railroads, each railroad has developed their own stringent horizontal and vertical controls to meet the specific needs of their train systems. The horizontal and vertical alignments for the Build Alternative, discussed here and detailed in the concept plans in **Appendix D**, were designed to meet or exceed BNSF design criteria.

2.9.2.2.1 Horizontal Alignment

The proposed main line alignment would maintain the existing track from north of the Natchez Trace Parkway to just south of Lumpkin Avenue. The track would then run on a new horizontal alignment, which begins at BNSF station 30930+22.59, or BNSF MP 585.73, and ends at BNSF station 31115+17.40, or BNSF MP 589.40 just north of Town Creek, for a total distance of 18,495 feet, or approximately 3.5 miles. The BNSF main line would continue to the south on the existing track. The proposed interchange track would begin at BNSF station 31103+73.07 just north of the US 45 highway overpass, at

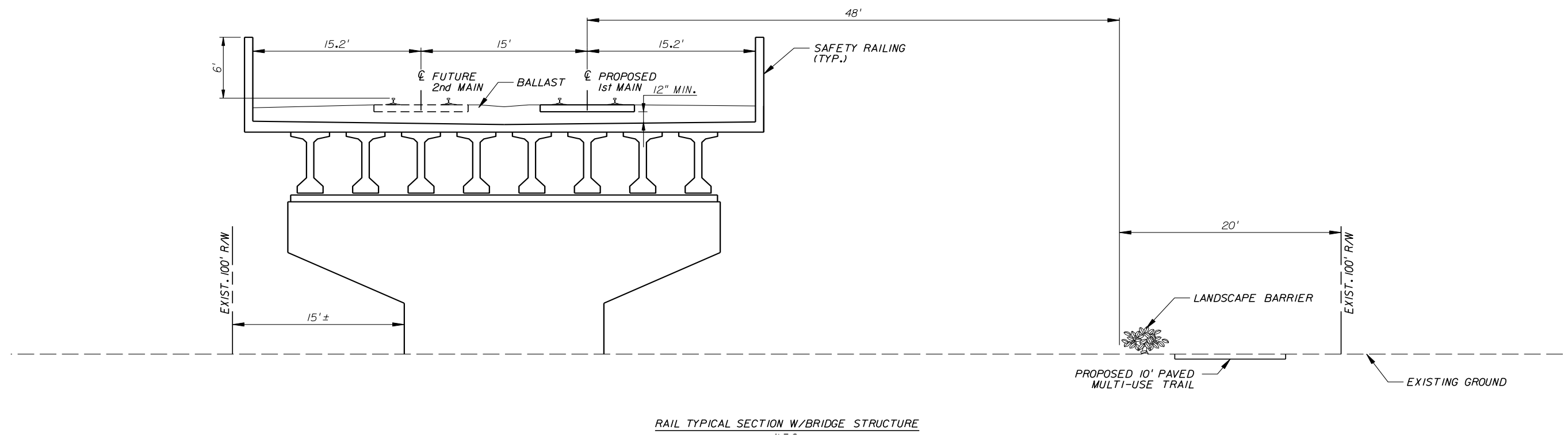
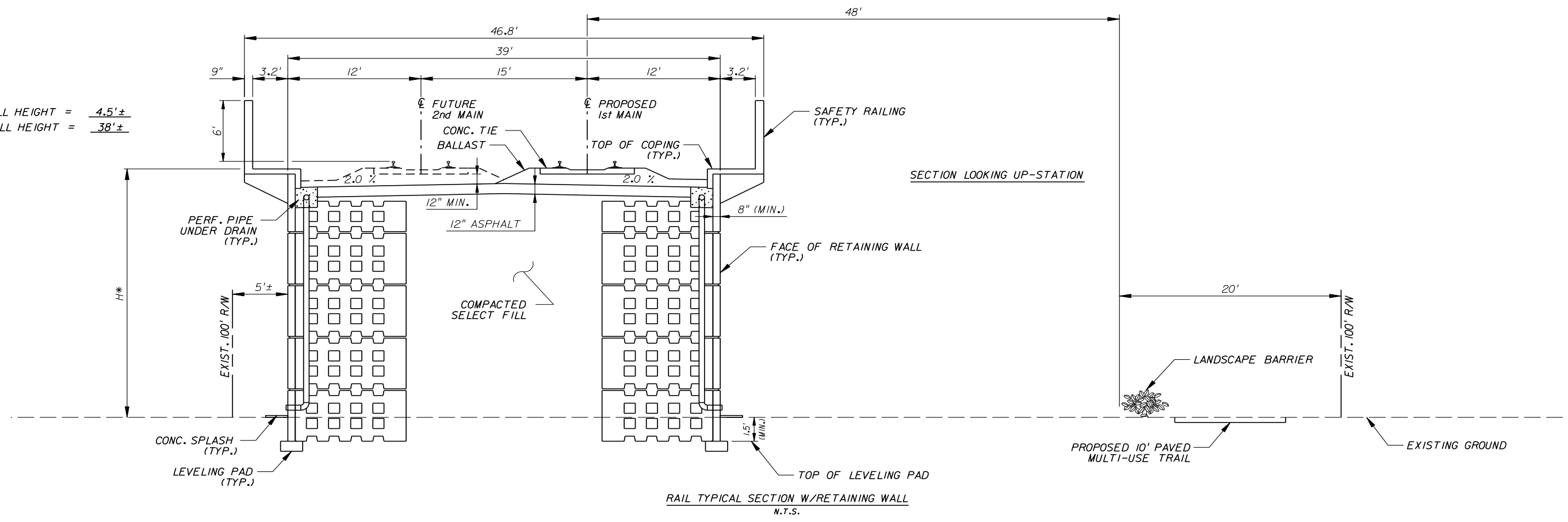


- █ Build Alternative
- █ Bridge Structure
- █ Structure on Fill with Retaining Wall
- Railroad
- █ Natchez Trace Pkwy
- █ FEMA Floodplain
- █ River / Stream

**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

Build Alternative
Figure 2-16

* MIN. WALL HEIGHT = 4.5'±
 * MAX. WALL HEIGHT = 38'±



interchange station 1+00.00 and ends at interchange station 55+16.68, which is KCS station 14673+00.00, for a total distance of 5,417 feet, or 1.03 miles.

The proposed storage track along the BNSF main line would parallel the existing BNSF main line, offset 25 feet, from approximate BNSF station 31107+00 just south of the US 45 overpass to approximate BNSF station 31174+00 just south of Veterans Boulevard, with a second track, offset an additional 15 feet also included to approximate BNSF station 31143+00 just south of Eason Boulevard, for a total clear storage length of 8,300 feet. The storage tracks would be accessed using turnouts just south of the US 45 overpass and just south of the Veterans Boulevard crossing. The proposed storage tracks along the proposed interchange track would parallel the interchange track, offset 15 feet each, from approximate station 18+00 to approximate station 45+00, for a total clear storage length of 3,710 feet. The storage tracks would be accessed from turnouts along the interchange track. The interchange also includes a wye branching off from approximate station 22+00, just south of the proposed Kings Creek bridge, to allow northbound KCS trains access to the northbound BNSF main line. The wye would intersect the BNSF main line at BNSF station 31080+29.77 just south of Elizabeth Street.

Table 2-8 describes the proposed mainline and interchange track horizontal alignment, curves, and superelevation within the project limits.

Table 2-8 Proposed Horizontal Alignment BNSF Main Line and Interchange

Curve/PI	TS/PC Station	Back Tangent	PI Station	Ahead Tangent	ST/PT Station	Degree of Curvature	Curve Direction	Curve Radius [ft]	Curve Length [ft]	Spiral Lengths [ft]	Design Speed [mph]	Superelevation [in]
BNSF Main Line												
C15	30930+22.59	S 38° 09' 01" E	30931+57.59	S 39° 09' 01" E	30932+92.59	0° 30' 00.00"	Left	11,459.19	130.00	70	60	3/4
C16	30940+14.79	S 39° 09' 01" E	30951+09.00	S 1° 32' 38" E	30961+53.65	1° 57' 35.39"	Right	2,923.65	1,698.87	220	60	3 1/8
C17	30965+24.20	S 1° 32' 38" E	30972+42.68	S 50° 40' 36" E	30979+16.55	4° 07' 14.87"	Left	1,390.70	992.35	200	45	4
31016+37.82	-	S 50° 40' 36" E	-	S 50° 51' 50" E	-	-	Left	-	-	-	-	-
C18	31030+37.99	S 50° 51' 50" E	31038+36.19	S 81° 09' 25" E	31046+00.67	1° 59' 22.09"	Left	2,880.10	1,482.67	40	45	7/8
31050+82.87	-	S 81° 09' 25" E	-	S 80° 54' 27" E	-	-	Left	-	-	-	-	-
C19	31055+17.47	S 80° 54' 27" E	31062+86.99	S 29° 03' 41" E	31070+00.35	4° 02' 29.37"	Right	1,417.98	1,082.88	200	45	3 3/4
C20	31107+94.63	S 29° 03' 41" E	31109+37.83	S 26° 41' 51" E	31110+81.01	1° 00' 00.00"	Right	5,729.65	186.38	50	60	3/4
C21	31112+31.01	S 26° 41' 51" E	31113+74.21	S 29° 03' 41" E	31115+17.40	1° 00' 00.00"	Left	5,729.65	186.38	50	60	3/4
Interchange Track												
L-1	1+00.00	N 29° 03' 41" W	14+06.95	S 35° 05' 11" W	17+56.06	6° 59' 44.33"	Left	819.02	1,656.06	0	10	0
L-2	39+85.53	S 35° 05' 11" W	41+54.59	S 15° 01' 00" W	43+20.18	5° 59' 50.13"	Left	955.37	334.65	0	10	0
Wye Track												
W-1	3+09.54	S 25° 14' 35" E	9+74.27	S 29° 52' 53" W	15+34.84	4° 29' 55.84"	Right	1,273.57	1,225.30	0	10	0

2.9.2.2.2 Vertical Alignment

The proposed main line and interchange track vertical alignment is provided in **Table 2-9**. The vertical alignment of the storage track along the BNSF main line would match the existing BNSF alignment. The storage track along the proposed interchange track would match the profile of the interchange track.

Table 2-9 Proposed Vertical Alignment BNSF Main Line and Interchange

PVI Station	Crest/ Sag/ PI	Grade In [%]	Grade Out [%]	Proposed Vertical Curve Length [ft]	Proposed "K" Value
BNSF Main Line					
30939+96.64	S	-0.040	0.500	1,086	2,000
30971+06.76	C	0.500	0.000	500	1,000
30980+72.22	C	0.000	-0.281	280	1,000
30999+51.14	S	-0.281	0.200	960	2,000
31016+44.82	C	0.200	0.100	100	1,000
31059+04.98	C	0.100	-1.000	1100	1,000
31102+56.70	S	-1.000	0.000	800	800
Interchange Track					
1+00.00	PI	0.000	0.000	-	-
46+27.94	PI	0.000	0.000	-	-
Wye Track					
1+00.00	PI	-1.000	-1.000	-	-
23+27.00	S	-1.000	0.000	500	500
27+04.87	PI	0.000	0.000	-	-

2.9.2.3 Right-of-Way and Relocations

The majority of the main line railroad improvements are proposed within the existing BNSF right-of-way. An additional 10 feet of right-of-way would be required on the south side of the BNSF main line from US 45 to just south of Eason Boulevard to accommodate the proposed storage tracks. The interchange would require 100 feet (50 feet on each side of the centerline) of right-of-way from station 1+00.00 to station 20+00.00 and 130 feet of right of way (50 feet north of the centerline and 80 feet south of the centerline) from station 20+00.00 to station 50+00.00. The wye would require 100 feet of right-of-way (50 feet on each side of the centerline) from station 1+00.00 to station 27+04.87. This would leave an isolated triangle remainder between the wye and the interchange track of approximately 8.9 acres. However, this remainder consists of agricultural land and would retain access underneath the



wye bridge. Right-of-way acquisition is required only from vacant or agricultural parcels and would not affect any existing residential or business parcels.

As documented in the *Current Railroad Operations Technical Memorandum* (HDR, November 2005), there are three active rail customers within the Tupelo city limits on the BNSF main line: Summerville Ties, Flexible Foam Products, and Inter-Pac Incorporated. Of these customers, only Summerville Ties lies in an area of elevated rail and would require relocation. Summerville's operations at this site are on a leased property within the BNSF right-of-way, and only include loading. The ties are cut elsewhere and trucked to the site. There are limited facilities at the site and no physical plant; therefore, relocation of this customer would be feasible. Since the property was not owned by Summerville Ties, relocation costs were assumed to be limited to the construction of the rail spur at another location, and property acquisition costs were not included. The cost to construct a new rail spur was estimated to be approximately \$692,000, which includes the track cost and signal cost. At the time of this study, there were available industrial properties within the Tupelo city limits which included rail spurs on the BNSF main line. Relocation costs could be higher or lower than the estimated cost, based upon leasing or purchase agreements.

2.9.2.4 Structures

The BNSF main line would be constructed on approximately 8,220 linear feet of fill with retaining wall for the climb and descent between the at-grade and bridge sections, and through the industrial section of Tupelo, shown on **Figure 2-17** and the concept plans in **Appendix D**. Since the trains would put more live-load demand on the fill and retaining wall than would a typical roadway, a special retaining wall, called "T-wall," would be used to support the fill in these sections. The T-wall would include extra straps which extend into the fill from the exterior panels to increase the stability of the vertical wall.

Between Jackson Street and Elizabeth Street, the BNSF main line would be constructed on approximately 6,860 feet of bridge structure, shown on the concept plans and bridge typical sections in **Appendix D**. Pre-cast beam bridges would be constructed over much of the corridor, with through-plate girder bridges across the existing roadways. The bridge over the Crosstown intersection would span approximately 316 feet, requiring a truss structure. All of the bridge structures would provide at least 16 feet, 6 inches of vertical clearance above the existing roadways and 23 feet, 6 inches of vertical clearance over the KCS rail line.

The at-grade storage track along the BNSF main line would also require construction of approximately 1,100 feet of bridge structure over the floodway associated with Town Creek and Mud Creek. This would consist of a pre-cast



box beam bridge with through-plate girder bridges over each of the active streams.

The proposed interchange track would require construction of approximately 110 feet of pre-cast beam bridge structure to span the floodway associated with Kings Creek.

2.9.2.5 Drainage

The BNSF main line has 13 existing cross culverts and three existing bridge structures within the limits of the proposed improvements, shown in **Table 2-10**. Two bridge structures would remain for the BNSF main line over Mud Creek and Town Creek, one existing culvert would be removed, and 12 culverts would require extension as part of the proposed improvements, including the temporary rail required for maintenance of rail traffic described in **Section 2.9.2.8** and the pedestrian / bicycle trail as described in **Section 2.9.2.7**.

In addition to these culverts on the BNSF main line, the proposed interchange track would require one bridge structure to span the floodway associated with Kings Creek and four culverts, shown on the concept plans in **Appendix D**, to mitigate flow from existing ditches across the proposed rail alignment.

The stormwater effluent from the elevated viaduct would drain to the infield area between the structure and the pedestrian path. The runoff would be treated in a grassed swale area and discharged to adjacent streams. As there is little contamination from railroad effluent, this treatment would likely satisfy the National Pollutant Discharge Elimination System requirements of the EPA and MDOT.

2.9.2.6 Roadway Improvements

The proposed grade separations of the BNSF main line and roadway would affect several intersections within the City of Tupelo. For the at-grade intersections where the railroad would be elevated over the roadway, the existing signals, striping, and warning signs would need to be removed. Most of the existing at-grade intersections could be milled and resurfaced once the rail has been removed.

Almost all of the at-grade crossings have an increased vertical profile or “hump” where the existing rail crosses the roadway. Most of these humps are small (less than one foot in total profile elevation) and do not have a severe profile grade. Given the 30 mph speed limit, most of the crossings would not require profile reconstruction. Jackson Street is the only intersection that could benefit from some profile adjustment. The existing rail crossing is elevated approximately three feet compared with the roadway elevation at both Rankin Street to the west and Joyner Avenue to the east. However, there is also an existing concrete box culvert underneath the roadway/railroad



crossing that may limit the profile reduction. The profile grade at the Jackson Street crossing is not severe, and removal of the hump at this intersection would be at the discretion of the City of Tupelo.

The roadway improvements required include the replacement of the US 45 bridges over the BNSF main line, shown on the concept plans in **Appendix D**. The existing bridges were each constructed as 9-span bridges with a 50-foot center span and eight 40-foot ancillary spans. The existing vertical clearance over the BNSF main line is approximately 22 feet, 6 inches, which is one foot lower than the required vertical clearance prescribed by BNSF.

The proposed bridges would consist of four spans with a 109-foot center span over the existing BNSF main line, the proposed BNSF main line, a provision for a future track if the BNSF is to be double-tracked through Tupelo, a 112-foot northern ancillary span, and two 60-foot southern ancillary spans. The main span would provide the minimum 25-foot horizontal clear distance from the center of each of the tracks, including the provisional future track, so crash walls are not required for the proposed bridge piers. The replacement of these bridges would also require an increase in the vertical profile elevation to allow for the required vertical clearance and to accommodate the deeper bridge section. This would require the reconstruction of approximately 3,420 feet of US 45, which would begin just north of the bridges over Kings Creek, shown on the concept plans in **Appendix D**.

The roadway improvements required also include the construction of two overpasses on Eason Boulevard, one over the KCS rail line and one over the BNSF main line, shown on the concept plans in **Appendix D**. The overpasses also include frontage roads to the parcels adjacent to Eason Boulevard. The overpass over the BNSF main line includes the replacement of the existing 1,020-foot long, two-lane bridge over Kings Creek and Town Creek.

2.9.2.7 Pedestrian and Bicycle Facilities

The proposed improvements would require the removal of two footprints of at-grade track, the existing BNSF main line and the temporary maintenance of traffic rail line. After the removal of all existing at-grade track between Jackson Street and Spring Street, the southernmost 20 feet of BNSF right-of-way can be converted into a paved pedestrian/bicycle (multi-use) path through Tupelo, shown on **Figure 2-17** and detailed in the concept plans in **Appendix D**, extending south from Jackson Street and terminating at Spring Street. This 10-foot wide path would be paved and include stop signs at each roadway crossing and a special pedestrian signal for the Crosstown intersection.

Table 2-10 Drainage Structures on BNSF Main Line

BNSF MP	Structure Type	Number of Pipes	Length [ft]	Width/ Diameter [in]	Height [in]	Build Recommendation	MOT* Requirements
585.70	CMP	2	40	42	-	Extend ¹	Extend
585.87	CMP	2	30	24	-	Extend ¹	Extend
586.06	CMP	2	50	24	-	Extend	Extend
586.24	CMP	2	50	48	-	Extend	Extend
586.80	CBC	1	80	72	72	To Remain	Extend
586.85	CMP	1	32	60	-	To Remain ²	Extend
587.03	CBC	1	20	36	36	To Remain ²	Extend
587.20	Bridge	-	-	-	-	Construct Pedestrian Bridge	Construct Temporary Railroad Bridge
587.80	CBC	2	75	90	72	Extend	To Remain
588.31	VCP	1	68	18	-	Remove ³	To Remain
588.72	CMP	2	58	72	-	Extend	Extend
589.40	Bridge	-	-	-	-	To Remain	To Remain
589.50	Bridge	-	-	-	-	To Remain	To Remain
589.60	CMP	1	60	48	-	Extend ⁴	Extend ⁴
589.86	CBC	1	30	120	96	Extend ⁴	Extend ⁴
590.28	RCP	1	36	24	-	Extend ⁴	Extend ⁴

Notes:

- 1 - Culverts to be extended for the construction of the future double-track.
- 2 - Structure to remain for proposed pedestrian/bicycle path only.
- 3 - Culvert parallels existing track under a signal foundation, which will be removed as part of the proposed improvements.
- 4 - Culverts to be extended for proposed at-grade storage track.

*MOT - Maintenance of Traffic

In addition to the multi-use path, the two existing sidewalk segments that terminate at the BNSF right-of-way could be connected. The segments are each located along the west side of Park Street and Church Street. No other streets which include sidewalks cross the existing BNSF main line. However, with the grade-separation of the rail over the roadway, a sidewalk connection could be installed along the roadway within the BNSF right-of-way.

2.9.2.8 Construction

In order to facilitate the construction of the Build Alternative, the construction process was divided into three phases. The construction phasing allows for both partial construction of the project and the uninterrupted flow of rail traffic through Tupelo during the entire construction process.

2.9.2.8.1 Phase I

The first phase of the construction would involve the construction of the BNSF-KCS interchange, the at-grade storage track along the BNSF main line, and the roadway improvements to Eason Boulevard. This first construction phase can be broken down into three sub-phases to create smaller projects that can be built as funding becomes available.

Phase IA

The first sub-phase, Phase IA, would be to construct the Eason Boulevard overpass over the KCS rail line. The overpass would have to accommodate the u-turn for the frontage road and the future interchange track to be constructed in a subsequent sub-phase.

Phase IB

The second sub-phase, Phase IB, would be to construct the Eason Boulevard overpass over the BNSF main line and Ryder Street and to reconstruct the Eason Boulevard bridge over Town Creek and Kings Creek. The overpass would have to accommodate the u-turns for the frontage roads and the future storage track to be constructed in a subsequent sub-phase.

Phase IC

The final sub-phase, Phase IC, would be to construct the railroad interchange track and storage tracks for the relocated railroad interchange.

These improvements would be constructed with little interruption of the BNSF operations as the construction would be offset a minimum of 25 feet from the existing BNSF main line. Three existing cross culverts would require extension to cross underneath the proposed storage track along the BNSF main line, shown in **Table 2-10**. The traffic on Eason Boulevard would be maintained on temporary at-

grade crossings for both the BNSF and KCS while the overpasses in Phase IA and Phase IB are being constructed. Upon completion of Phase IC, the new interchange would replace the operations of the old interchange and the interchange operation would no longer affect the Crosstown intersection. The construction of the wye would not be included in Phase IC, as it would interfere with the construction of the temporary track in Phase II. To maintain KCS track rights to the northbound BNSF main line, the existing interchange track would remain.

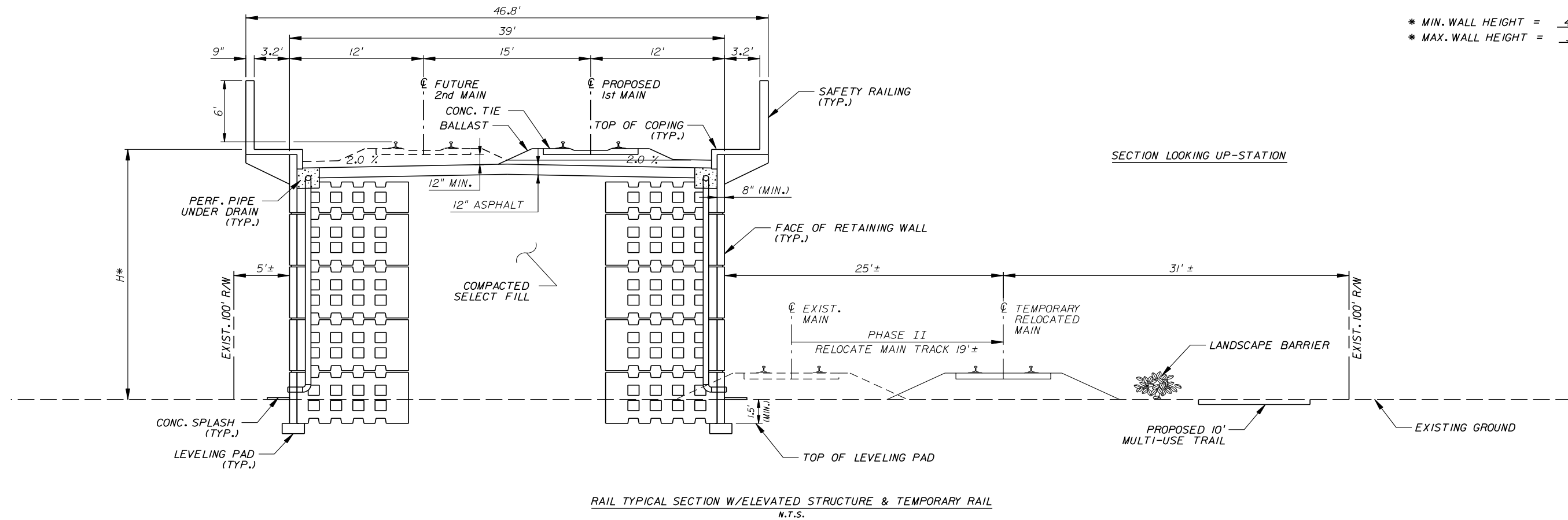
2.9.2.8.2 Phase II

Phase II would involve the construction of the temporary main line track, shown on **Figure 2-18** and on the maintenance of traffic (MOT) plans in **Appendix D**. Unlike temporary roadways, temporary rail is only termed temporary because it would be removed when the permanent improvements are completed. The temporary rail must be constructed using the same sub-grade, sub-ballast, ballast, tie, and rail standards as a permanent railroad. This temporary main line track would begin north of the Lumpkin Avenue crossing and be offset approximately 19 feet from the existing BNSF main line and continue south to just north of the relocated BNSF-KCS interchange from Phase IC. This second construction phase can be broken down into two sub-phases to create smaller projects that can be built as funding becomes available.

Phase IIA

The first sub-phase, Phase IIA, would be to construct the temporary main line track between Crosstown and the relocated BNSF-KCS interchange. This sub-phase would include a new at-grade crossing of the KCS rail line with a temporary diamond. This new at-grade alignment would include a larger horizontal curve radius, which would allow trains to move faster through Tupelo. Phase IIA would also require modified at-grade crossings at Church Street, Green Street, Spring Street, and Elizabeth Street, the removal of the existing BNSF-KCS interchange track between Crosstown and Spring Street and the relocation of the switch left in place from Phase IC from just south of Crosstown to some point between Spring Street and Green Street. This switch would be required to maintain KCS track rights to the northbound BNSF main line.

* MIN. WALL HEIGHT = 4.5'±
 * MAX. WALL HEIGHT = 38'±



SECTION LOOKING UP-STATION



Phase IIB

The second sub-phase, Phase IIB, would be to construct the remainder of the temporary main line track from just north of Lumpkin Avenue to join the track built in Phase IIA just south of Crosstown. Included in this temporary main line would be a bridge across the Kings Creek tributary between Blair Street and Jefferson Street, modified at-grade crossings at Lumpkin Avenue, Jackson Street, Blair Street, Jefferson Street, Park Street, and Crosstown.

All of the modified at-grade crossings in Phase IIA and Phase IIB would require the installation of new railroad signals. Most of these at-grade crossings would require some roadway profile adjustment, which can be achieved with asphalt overbuild. In addition, the temporary track in Phase IIA and Phase IIB would require the extension of eight cross culverts, shown on the MOT plans in **Appendix D** and in **Table 2-10**. The existing BNSF-KCS interchange track would be moved to tie-in to the temporary rail alignment to maintain the KCS track rights to the northbound BNSF main line.

Once Phase IIB is completed and the entire temporary track is in place, the existing main line track, storage track, and spur tracks would be removed between the beginning of the proposed main line track just south of Lumpkin Avenue and the end of the temporary track just north of the proposed interchange track north of the US 45 overpass.

Once Phase IIA is completed, funding for Phase III should be identified prior to commencement of Phase IIB. Construction of Phase IIB should only be done immediately prior to Phase III, as the realignment needed for Phase IIB moves the railroad closer to several residences. This realignment would produce additional noise and vibration impacts to these residences and, therefore, should be as short in duration as is feasible. In addition, the realignment in Phase IIB would require construction of a temporary bridge and impact a wetland area, which requires additional mitigation cost.

2.9.2.8.3 Phase III

Upon completion of Phase IIB, the construction of the wye track at the relocated interchange and the elevated rail viaduct between Lumpkin Avenue and US 45 would begin. This phase would include the construction of the proposed BNSF main line, including the retaining wall and bridge structures, and the reconstruction of the US 45 overpasses to accommodate the proposed track. The traffic on US 45 would be reduced to one lane in each direction across one of the bridges while the other bridge is removed and reconstructed. Once completed, the traffic would then be diverted to the new bridge while

the remaining bridge is likewise removed and reconstructed. Once the US 45 overpasses are reconstructed, the elevated viaduct would be connected to the existing BNSF main line at the bridge just north of Town Creek.

During Phase III, construction of the truss bridge across the Crosstown intersection would have significant impacts to the roadway traffic on both Main Street and Gloster Street. This bridge spans approximately 316 feet and would require, at a minimum, the off-peak closure of certain movements in addition to lane reductions across this intersection during its erection. While traffic could be diverted onto any number of local streets, most are only two-lane roads and would quickly reach capacity. Advance signing should be used to detour traffic around this intersection onto major roadways (i.e. Cliff Gookin Boulevard/Eason Boulevard for east/west travel and US 45 for north/south travel). Construction of the US 45 overpass replacement should not coincide with the construction of the bridge over the Crosstown intersection.

Upon completion of the elevated viaduct, the BNSF main line would run in its proposed alignment on the elevated viaduct. The temporary track would be removed, including all of the modified at-grade railroad crossings and temporary bridges. The grade-separated roadways would be milled and resurfaced and the rail crossing signs, signals, and striping would be removed. The multi-use path could then be constructed along the southwestern-most portion of the BNSF right-of-way.

2.9.2.9 Railroad Operations

Once the proposed improvements are constructed, trains on the BNSF main line could run at 40 mph through Tupelo, without having to sound their horns for at-grade crossings between Lumpkin Avenue (BNSF MP 585.71) and Veterans Boulevard (MP 590.32), for a distance of almost five miles. In addition, the rail interchange operations between the KCS and BNSF can occur without disruption to roadway traffic and with an increased storage area. All of the existing rail customers on the KCS rail line could continue their service uninterrupted. One existing rail customer, the Summerville Ties loading operation as discussed in **Section 2.9.2.3**, on the BNSF main line would require relocation while the other customers on the BNSF main line could continue their service uninterrupted. In addition, the proposed improvements would not inhibit the ability of BNSF to increase capacity at some point in the future with the addition of a second main line track on their railway through Tupelo. As discussed in **Section 2.9.2.1**, this second track is not a reasonably foreseeable project as significant improvements would be needed outside of Tupelo as well and is not currently programmed.



2.9.2.10 Project Costs

Preliminary construction cost estimates were prepared for the railroad physical plant, roadway, and multi-use path improvements. These preliminary cost estimates included specific design elements and were more detailed than the costs developed during the alternatives analysis process. The cost estimates are separated into three categories, one for each major construction phase. Each phase has railroad and roadway items associated with the corresponding phase. The quantities for certain items were estimated based on quantities generated from the concept plans.

The subcategories for the railroad category are trackwork, site work, signals, bridge structures, and mobilization. The trackwork subcategory includes items such as track construction, turnouts, and crossings. The site work subcategory includes such items as clearing and grubbing, grading, and drainage culvert extensions. The signals subcategory includes crossing signals and wayside signals associated with the railroad. The bridge structures subcategory includes all of the railroad bridge structures for that individual phase. The mobilization category only includes the mobilization cost for the railroad improvements.

The subcategories for the roadway category are more phase-specific to each roadway improvement. For Phase I and Phase III, the Eason Boulevard and US 45 subcategories, respectively, include all of the more typical roadway costs, including pavement, embankment, striping, curb, guardrail, and sod. For Phase II, the asphalt overbuild subcategory includes the pavement overbuild anticipated for each of the 11 at-grade crossings within the City of Tupelo. The bridge structure costs are estimated for each bridge and for each phase of the construction. The retaining wall costs in Phase I include only the precast concrete walls along Eason Boulevard. The mobilization costs are phase-dependent, ranging from 10% to 20% of the roadway and bridge construction costs. The maintenance of traffic costs are also phase-dependent and include roadway maintenance of traffic inclusive of the railroad improvements for each phase.

A contingency was added with a lump sum value of 20% of the railroad and roadway subtotals. The engineering cost was added with a lump sum value of 15% of the railroad and roadway subtotals and includes costs for preliminary engineering, final engineering, survey, geotechnical survey, and right-of-way mapping.

While the Build Alternative uses existing right-of-way in most locations, right-of-way acquisition would be necessary to implement the proposed improvements, including the relocated BNSF-KCS interchange and the roadway improvements along Eason Boulevard. Using available GIS parcel data, an average assessed value was determined for developed and undeveloped parcels. The developed parcels had an average assessed value of



approximately \$170,000 per acre, while the undeveloped parcels had an average assessed value per acre of approximately \$100,000. The estimated cost of land acquisition is more than the assessed value of the land and physical improvements. Other expenses may occur during acquisition, including eminent domain proceedings, attorney fees, business damages, and relocations. The assessed value per acre was multiplied by three to conservatively account for these items, which reflects historical trends for property acquisition. This would have a value in the developed and undeveloped parcels of approximately \$510,000 and \$300,000 per acre, respectively.

The project construction costs were segregated by construction phase, shown in **Table 2-11**, and were estimated to sum to approximately \$385 million for the entire Build Alternative.

Maintenance costs were estimated for the project for both the relocated interchange yard (Phase I) and the elevated viaduct (Phase III), shown in **Appendix C**. The maintenance costs for the temporary rail (Phase II) were not estimated as the design life of the temporary rail would exceed the timeframe that the rail would actually be used. The maintenance costs include such items as tie replacement, rail reconditioning, structure maintenance, repainting and other typical maintenance items.

The estimated annual maintenance costs for the relocated interchange yard (Phase I) are approximately \$33,000. The estimated annual maintenance costs for the elevated viaduct (Phase III) are \$318,000.

Funding for the project has not been identified at this point in the study. Funding for the design, right-of-way acquisition, and construction of the project would need to be secured from some combination of federal, state, local, or private funding sources. A more detailed discussion on potential funding sources is provided in **Chapter 6** of this report.

Table 2-11 Project Construction Costs

Phase I - Interchange Construction	
Cost Component	Cost
Railroad Construction	
Trackwork	\$3,555,000
Site Work	\$3,396,000
Signals	\$1,715,000
Bridge Structures	\$10,164,000
Mobilization	\$942,000
Railroad Subtotal	\$19,772,000
Roadway Construction	
Eason Boulevard	\$4,038,000
Bridge Structure over KCS	\$1,468,000
Bridge Structure over BNSF	\$16,293,000
Retaining Walls	\$3,268,000
Mobilization	\$2,507,000
Maintenance of Traffic	\$5,014,000
Roadway Subtotal	\$32,588,000
Construction Subtotal	\$52,360,000
Contingency (20%)	\$10,472,000
Engineering (15%)	\$7,854,000
Railroad Right-of-Way	\$3,510,000
Roadway Right-of-Way	\$1,479,000
Phase I Total	\$75,675,000

Phase II - Temporary Track Construction	
Cost Component	Cost
Railroad Construction	
Trackwork	\$4,017,000
Site Work	\$2,430,000
Signals	\$650,000
Bridge Structures	\$169,000
Mobilization	\$582,000
Railroad Subtotal	\$7,848,000
Roadway Construction	
Asphalt Overbuild @ Crossings	\$60,000
Mobilization	\$12,000
Maintenance of Traffic	\$700,000
Roadway Subtotal	\$772,000
Construction Subtotal	\$8,620,000
Contingency (20%)	\$1,724,000
Engineering (15%)	\$1,293,000
Railroad Right-of-Way	\$0
Roadway Right-of-Way	\$0
Phase II Total	\$11,637,000

Phase III - Elevated Rail Viaduct Construction	
Cost Component	Cost
Railroad Construction	
Trackwork	\$3,896,000
Site Work	\$54,311,000
Signals	\$618,000
Bridge Structures	\$141,555,000
Mobilization	\$10,019,000
Railroad Subtotal	\$210,399,000
Roadway Construction	
US 45	\$1,715,000
Bridge Structures over BNSF	\$3,465,000
Sidewalk Connections	\$4,000
Multi-Use Path	\$791,000
Mobilization	\$519,000
Maintenance of Traffic	\$1,737,000
Roadway Subtotal	\$8,231,000
Construction Subtotal	\$218,630,000
Contingency (20%)	\$43,726,000
Engineering (15%)	\$32,795,000
Railroad Right-of-Way*	\$2,282,000
Roadway Right-of-Way	\$0
Phase III Total	\$297,433,000

Total Construction Cost All Phases	\$384,745,000
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Notes:

Costs in 2008 Dollars, estimated by HDR based on similar projects in Southeastern U.S. and unit costs available from Get-A-Quote.net (2008 Mississippi Costs)

*Railroad Right-of-Way Costs for Phase III include relocation costs for Summerville Ties

3.0 AFFECTED ENVIRONMENT

This chapter provides a general description of the natural environment and the existing social and economic characteristics of the study area. The descriptions establish a baseline condition of the social and environmental settings of the study area and provide a basis for determining the environmental consequences of the design alternative, which are discussed in **Chapter 4** of this report.

3.1 STUDY AREA

The study area for the Tupelo Railroad Relocation Project is located in northeastern Mississippi. The study area, shown on **Figure 3-1**, includes the southeastern portion of Union County, the eastern portion of Pontotoc County, and all of Lee County. The incorporated towns and cities located within these counties include the following (U.S. Census Bureau 2006 estimated population in parentheses):

Union County

- Blue Springs (154)

Pontotoc County

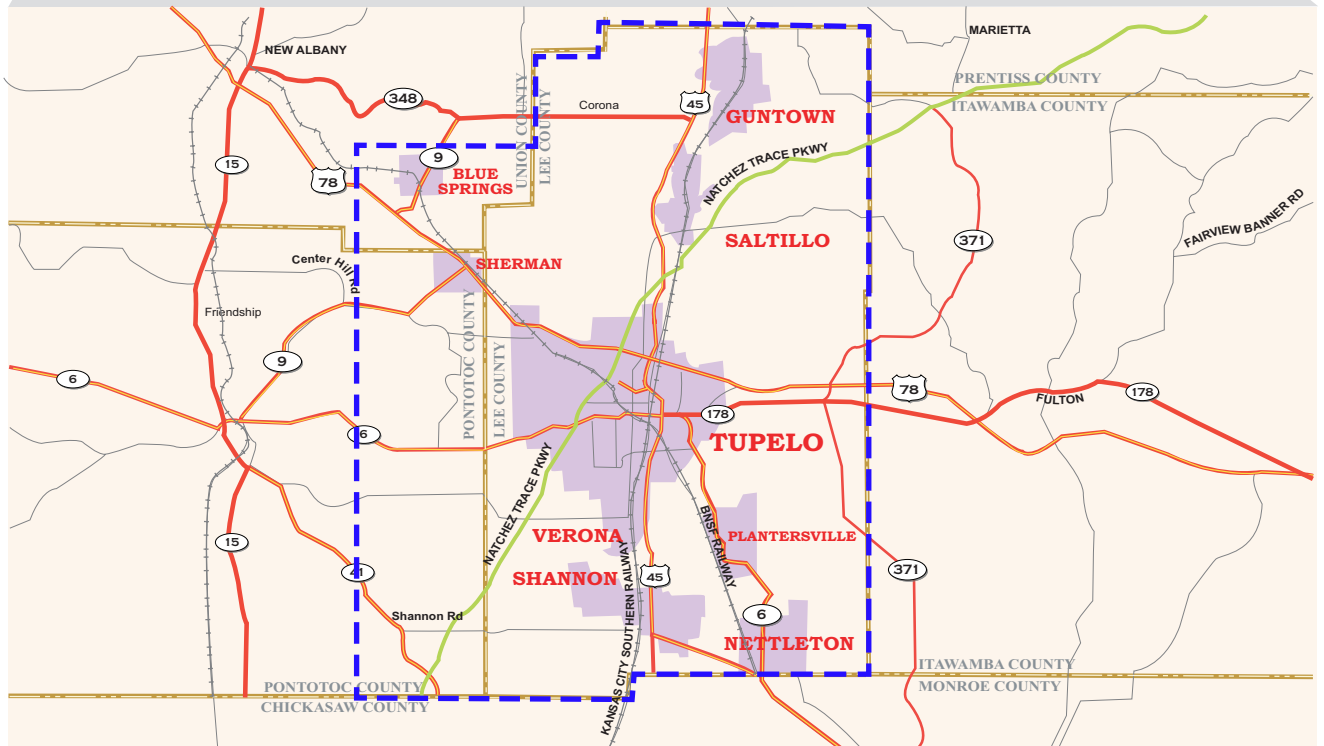
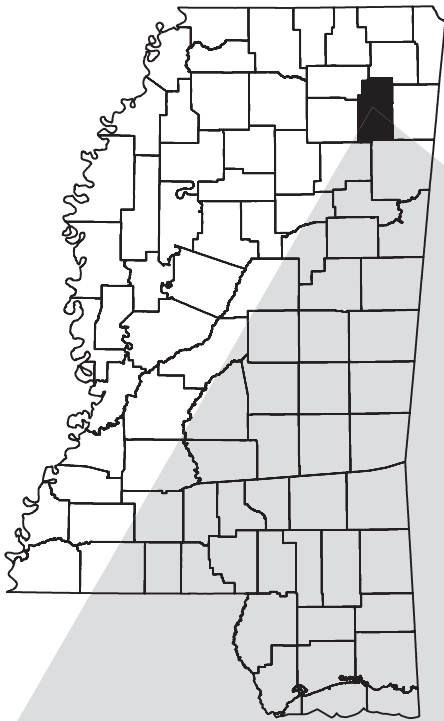
- Sherman (619)

Lee County

- Guntown (1,399)
- Nettleton (2,017)
- Plantersville (1,328)
- Saltillo (3,944)
- Shannon (1,726)
- Tupelo (35,930)
- Verona (3,390)

The City of Tupelo is also the county seat of Lee County and the largest city within the study area. In addition to the incorporated towns and cities, the study area also includes the unincorporated areas of Endville, Belden, and Mooreville.

During the alternatives analysis, the affected environment of the study area was reduced as bypass corridors were excluded from consideration. With the removal of Alternatives B and K from consideration, the study area in Union and Pontotoc Counties and the area to the south and west of the limits of the City of Tupelo were removed from the affected environment, including the incorporated cities of Blue Springs, Nettleton, Shannon, Sherman, and Verona, and the unincorporated area of Endville. With the removal of Alternatives C, D, E, F, G, H, I, J, and L from consideration, the study area to the north and east of the limits of the City of Tupelo were removed from the affected environment, including the incorporated cities of Guntown, Plantersville, and Saltillo, and the unincorporated areas of Belden and Mooreville.



	LEGEND <ul style="list-style-type: none"> — Primary Road — Secondary Road — Road Rail — National Parkway 192 US Highway 482 State Highway County Boundary Study Area 	Tupelo Mississippi Railroad Relocation Planning & Environmental Study	Study Area
			Figure 3-1

With only one Build Alternative considered for evaluation, the affected environment was then further reduced to the area adjacent to the proposed improvements. Since the improvements would be entirely within the limits of the City of Tupelo, the city limits became a logical demarcation for the affected environment. The City of Tupelo has also planned to annex some properties adjacent to the existing city limits. Therefore, the affected environment, as discussed in this chapter, is considered the portion of the study area defined as the city limits of the City of Tupelo and the proposed annexation area, shown on **Figure 3-2**.

3.2 LAND USE

3.2.1 Existing Land Use






In general, most of the land in the affected environment is rural. The majority of land use in the City of Tupelo is designated as either agricultural, residential, or rights-of-way for transportation corridors such as streets, highways, rail corridors and the Natchez Trace Parkway, shown in **Table 3-1** and on **Figure 3-3**. The Natchez Trace Parkway has a minimum 1,000-foot wide buffer along its corridor for viewshed protection.

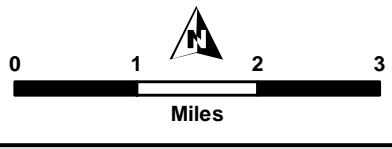
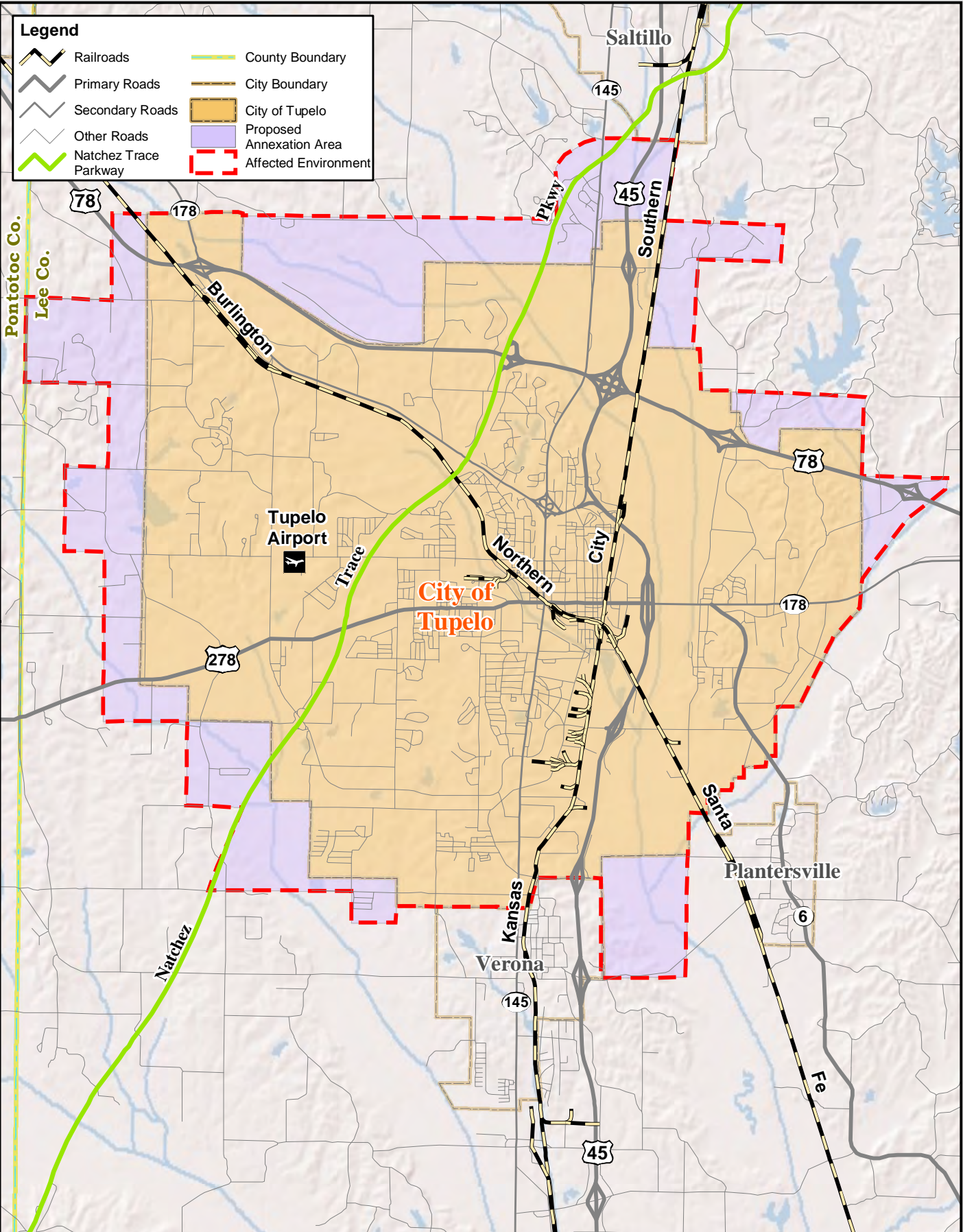
Table 3-1 Existing Land Use within the City of Tupelo

Land Use by Parcel	Area (acres)	% of City
Agricultural	9,560	26.07%
Commercial Retail-Wholesale	1,077	2.94%
Commercial Services-Office	1,172	3.20%
Industrial-Heavy	588	1.60%
Industrial-Light	351	0.96%
Medical	106	0.29%
Public Government	9	0.02%
Residential 1-2 Family	8,433	23.00%
Residential Mobile Home	67	0.18%
Residential Multi-Family	260	0.71%
Semipublic	756	2.06%
Transportation-Utilities-Communication	110	0.30%
Vacant Suitable for Development	5,557	15.16%
Unknown	462	1.26%
Transportation R/W (Streets, Highways, Railways, and Natchez Trace)	8,158	22.25%
Total	36,666	100%

Sources: Mississippi Automated Resource Information System (MARIS), City of Tupelo Planning and Development Department

Legend

-  Railroads
-  Primary Roads
-  Secondary Roads
-  Other Roads
-  Natchez Trace Parkway
-  County Boundary
-  City Boundary
-  City of Tupelo
-  Proposed Annexation Area
-  Affected Environment

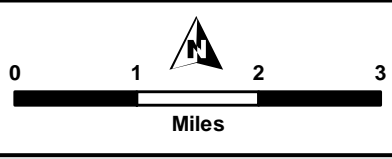
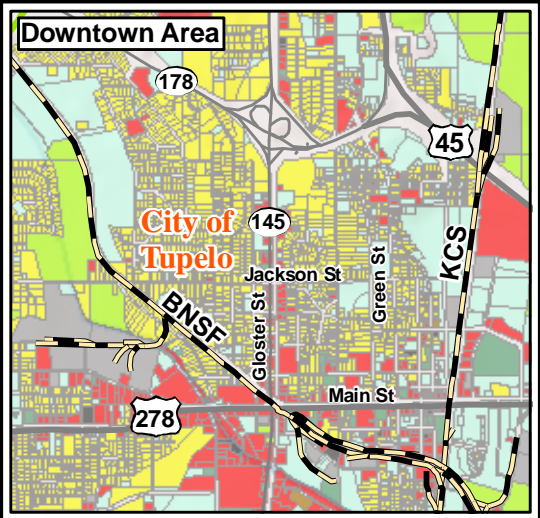
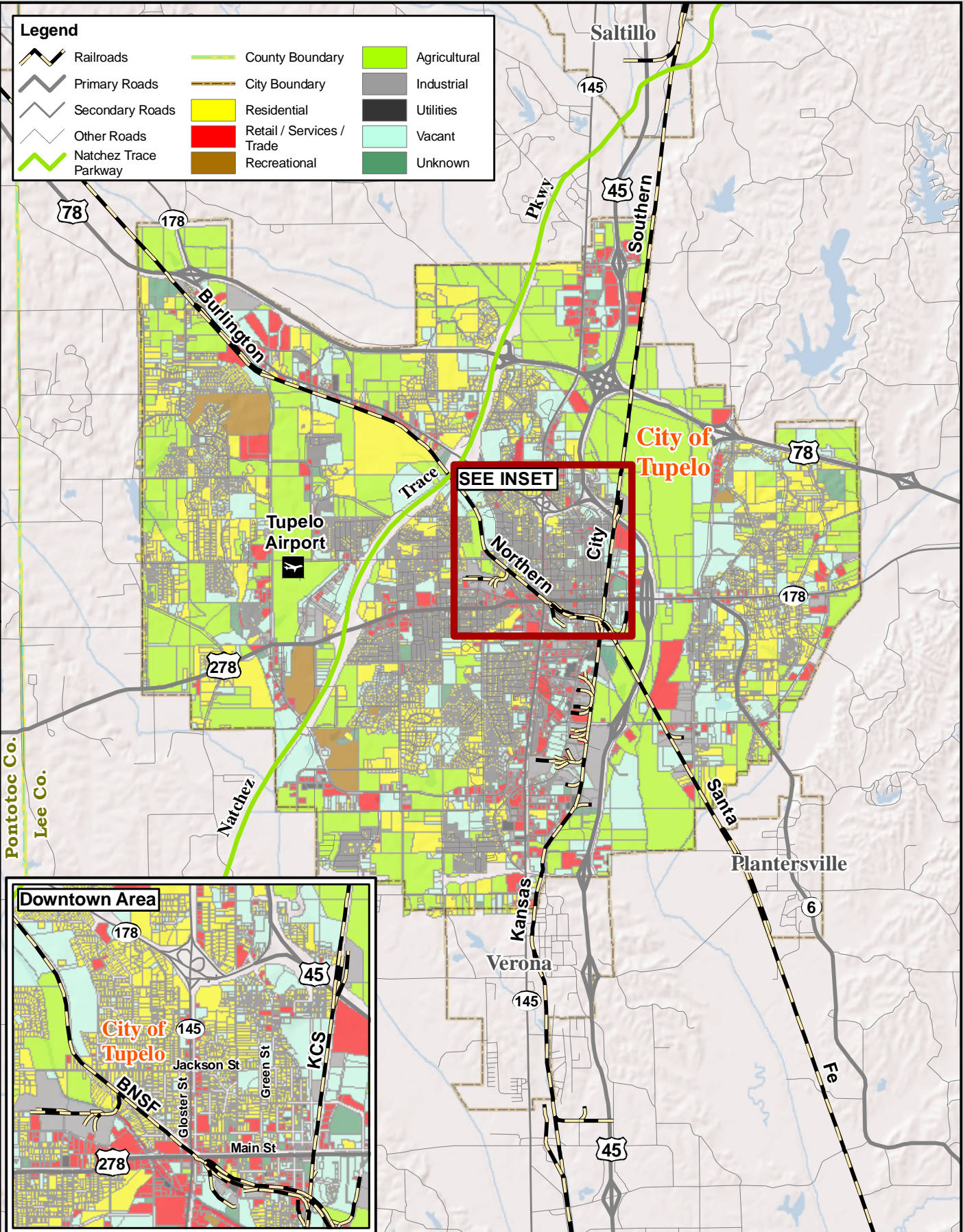


**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

Affected Environment
Figure 3-2

Legend

	Railroads		County Boundary		Agricultural
	Primary Roads		City Boundary		Industrial
	Secondary Roads		Residential		Utilities
	Other Roads		Retail / Services / Trade		Vacant
	Natchez Trace Parkway		Recreational		Unknown



**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

**Existing
Land Use**
**Figure
3-3**



3.2.2 Proposed Land Use

3.2.2.1 Zoning

The City of Tupelo has established zoning districts to help guide and direct development within the City and to ensure that growth is in character with the comprehensive plan of the City. The main land uses of the City are zoned for agriculture, residential, and transportation; however, the primary zoned districts are agriculture, and commercial, industrial and large and medium lot residential, shown in **Table 3-2** and on **Figure 3-4**. Tupelo is accommodating greater commercial and industrial growth within city limits and ensuring that growth is in line with the desires of residents living within the city limits.

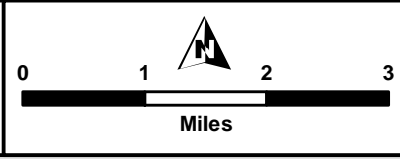
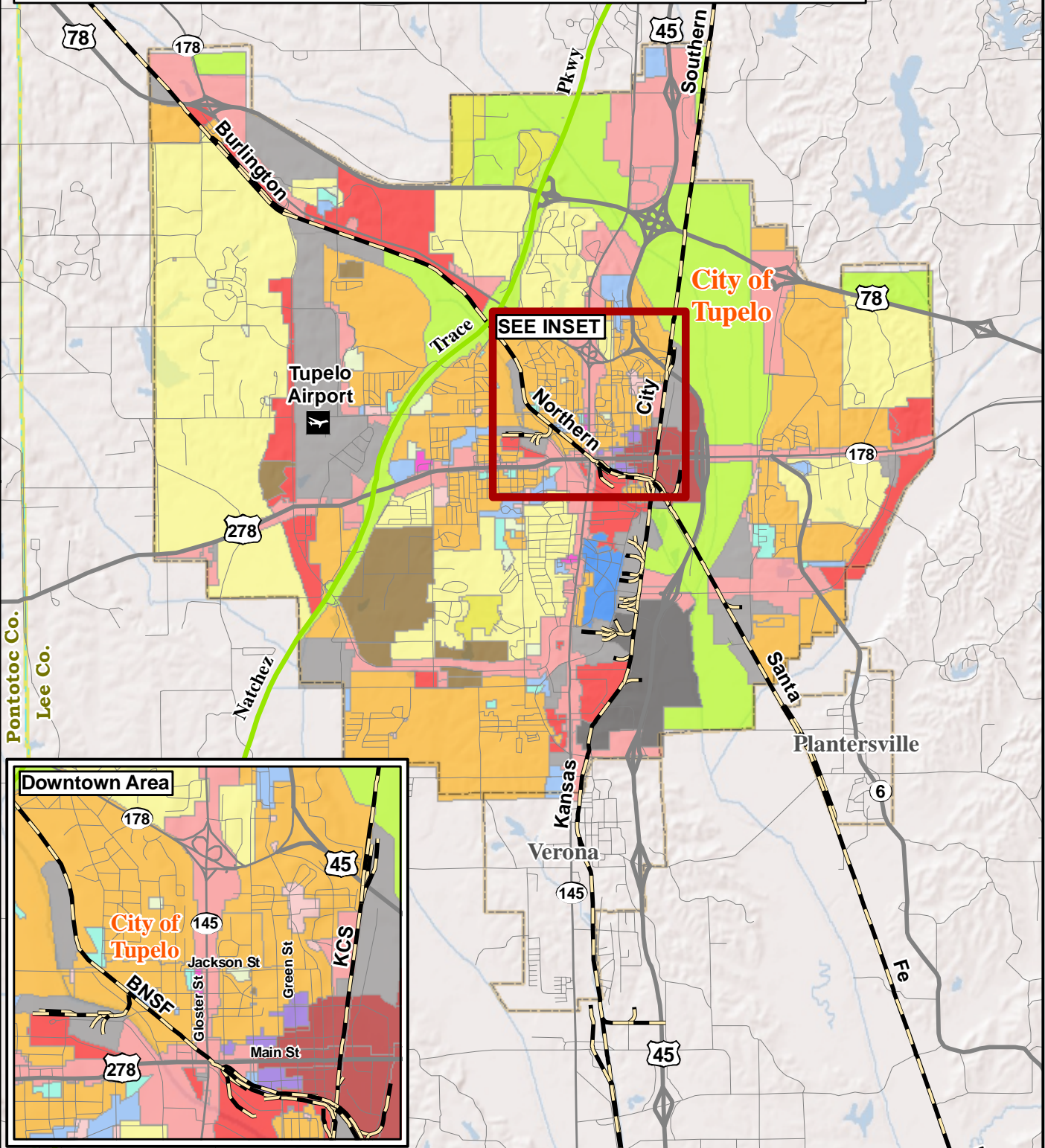
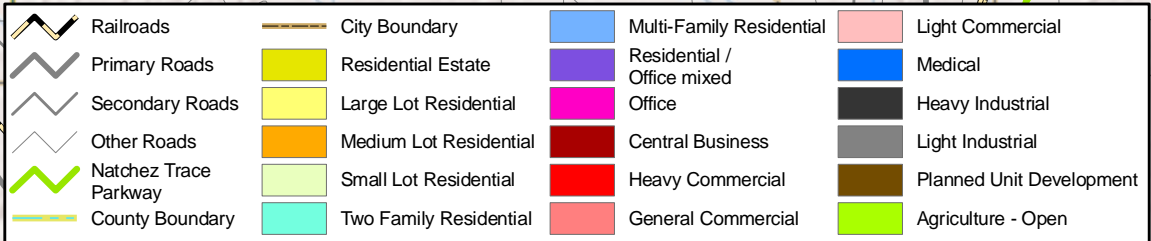
Table 3-2 Zoning within the City of Tupelo

Zoning District	Zoning Abbreviation	Area (acres)	% of City
Agricultural-Open District	A-O	5,335	14.55%
Light Commercial District	C-1	112	0.31%
General Commercial District	C-2	6,920	18.87%
Heavy Commercial District	C-3	1,989	5.42%
Central Business District	CBD	439	1.20%
Light Industrial District	I-1	2,721	7.42%
Heavy Industrial District	I-2	798	2.18%
Office District	O	33	0.09%
Planned Unit Development	PUD	1,799	4.91%
Medical District	M-1	206	0.56%
Residential Estate District	R1-E	425	1.16%
Large Lot Residential District	R1-L	8,014	21.86%
Medium Lot Residential District	R1-M	7,031	19.18%
Small Lot Residential District	R1-S	136	0.37%
Two Family Residential District	R-2	185	0.51%
Multi-Family Residential District	R-3	480	1.31%
Residential/Office Mixed District	R-O	45	0.12%
Total		36,667	100%

Sources: Mississippi Automated Resource Information System (MARIS),
 City of Tupelo Planning and Development Department

Tupelo has 17 zoning districts. They are defined as follows:

- **Agricultural-Open District (A-O)** - The purpose of this district is to protect agriculture and open space uses until urbanization is warranted. This zoning use makes room for eventual development or protects areas located in floodplains from development.
- **Light Commercial District (C-1)** - The purpose of this district is to provide retail and personal services for people in nearby residential neighborhoods. Strict guidelines are in place to protect adjacent neighborhoods.



Tupelo Mississippi Railroad Relocation
Planning & Environmental Study

Zoning
Figure
3-4



- **General Commercial District (C-2)** - These districts are primarily located along major thoroughfares. They are to provide appropriate appearance, ample parking, controlled traffic, and suitable landscaping.
- **Heavy Commercial District (C-3)** - The purpose of this district is to provide an area for intensive, high impact commercial and small scale industrial establishments. Residential areas and retail office space are not considered compatible.
- **Central Business District (CBD)** - This district is designed to permit a concentrated development of facilities in downtown Tupelo while maintaining the character of downtown Tupelo.
- **Light Industrial District (I-1)** - The purpose of this district is to provide an area for industries which can operate in a relatively clean and quiet manner and would not be obnoxious to adjacent residential or business districts.
- **Heavy Industrial District (I-2)** - The purpose of this district is to establish an area for heavy industries which by their nature may create some nuisances.
- **Office District (O)** - The purpose of this district is to provide centralized compatible location for professional and business offices.
- **Planned Unit Development (PUD)** - A PUD is a tract of land under single ownership, or under common control, evidenced by duly recorded contracts or agreements approved by the City Council. A PUD is planned and developed as an integral unit in a single development operation or in a programmed series of development operations in accordance with a master land use plan and detailed engineering and architectural plans as approved by the City Council.
- **Medical (M-1)** - The purpose of this district is to provide a centralized location for major medical and related services and to protect and promote complimentary facilities.
- **Residential Estate District (R-1E)** - The purpose of this district is to accommodate large “estate” sized lots where utility services do not support more dense development.
- **Large Lot Residential District (R-1L)** - The purpose of this district is to preserve the quiet residential nature of single-family dwellings located in this area.
- **Medium Lot Residential District (R-1M)** - The purpose of this district is for single-family dwellings and to encourage the wise use of land and natural resources with the aim of reducing sprawl and costly infrastructure requirements are associated with sprawl.



- **Small Lot Residential District (R-1S)** - The purpose of this district is to support single-family dwellings and the related recreational, religious and educational facilities which provide balanced and attractive residential area.
- **Two Family Residential District (R-2)** - The purpose of this district is to accommodate duplexes or two unit condominiums. These districts also serve as a transition from commercial and multifamily areas to single-family areas.
- **Multi-Family Residential District (R-3)** - The purpose of this district is to support multi-family dwellings, discourage uses which would interfere with the residential nature of these districts, and ensure developments have services, such as open space and recreational facilities to support persons living in the district.
- **Residential/Office Mixed District (R-O)** - The purpose of this district is to allow the conversion of older residential structures to limited office uses in older neighborhoods. The establishment of retail establishments is prohibited as it requires large amounts of short-term parking and high volumes of traffic.

3.2.2.2 Overlay Districts

In addition to zoning districts, the City has also established overlay districts, shown on **Figure 3-5**. These areas adhere to both zoning and overlay regulations to prevent growth that is deemed out of character for the area.

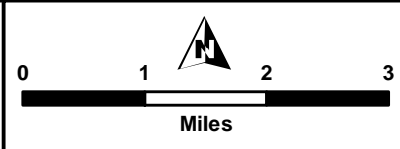
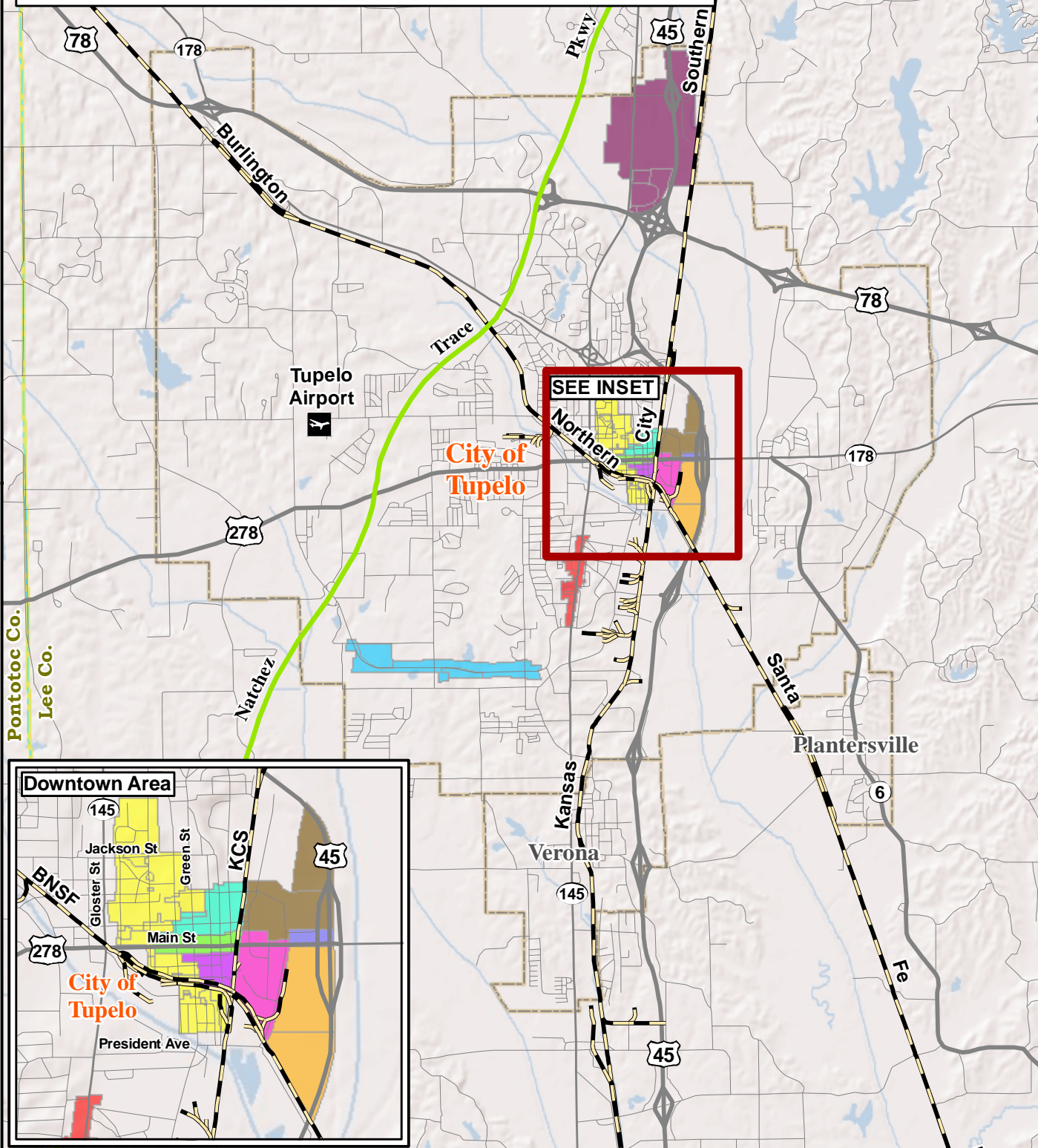
The 10 overlay districts (including subdistricts) are described as follows:

- **Downtown Overlay** - The purposes of this overlay district are to attract economic development and employment opportunities and preserve the existing character of the downtown area. Specific desired outcomes include:
 - enhancing the gateway to Tupelo,
 - reducing visual clutter,
 - enhancing landscaping, and
 - encouraging preservation of buildings.

This overlay district is subdivided into subdistricts to further guide activities occurring in this critical portion of the City. The subdistricts within the Downtown Overlay District are:

- City Center Retail Subdistrict
- Coliseum Center Subdistrict
- Downtown Gateway Subdistrict
- Fairgrounds Subdistrict

- | | | | | | |
|--|-----------------------|--|--------------------------------|--|---------------------------------------|
| | Railroads | | City Boundary | | Fairgrounds Redevelopment Subdistrict |
| | Primary Roads | | Barnes Crossing Overlay | | Financial Subdistrict |
| | Secondary Roads | | City Center Retail Subdistrict | | Historic Downtown Overlay |
| | Other Roads | | Cliff Gookin Overlay | | Judicial Subdistrict |
| | Natchez Trace Parkway | | Coliseum Center Subdistrict | | Major Development Subdistrict |
| | County Boundary | | Downtown Gateway Subdistrict | | South Gloster Street Overlay |



**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

**Overlay
Districts**
**Figure
3-5**

- Financial Subdistrict
 - Judicial Subdistrict
 - Major Development Subdistrict
-
- **Barnes Crossing Overlay** - This is an area of rapid commercial growth. The purpose of this overlay district is to set guidelines to encourage only high quality retail development in order to prevent the decline in retail activity.
 - **Cliff Gookin Overlay** - This overlay district is located adjacent to Tupelo High School and a large, planned unit development area. The purpose of this overlay district is to provide a high standard of growth to protect the quality of life in the area.
 - **South Gloster Overlay** - The largest employer in the City, the NMMC, is located in this district. The district was established to prevent commercial and retail facilities from leaving the area and to provide a higher standard of commercial and retail facilities for people who work and shop in this area.

3.3 FARMLAND

Farmland is defined as land used for crop production including livestock and timber. The U.S. Department of Agriculture (USDA) NRCS classifies farmland into several different categories as part of the Federal Farmland Protection Policy Act (FPPA) of 1981. FPPA was enacted to reduce permanent conversion of important agriculture areas to non-agriculture activities due to federally funded programs. Specific characteristics are given to soil types that exhibit best tendencies to produce food, fiber, forage, oilseed and other agriculture crops and are not in urban or built-up areas. “Prime farmland” is designated as areas that are best suited for crop production with minimum inputs of fuel, fertilizer, pesticides and labor without intolerable soil erosion. “Unique farmland” is further defined as areas having special combinations of conditions to produce specific high-value food and fiber crops, including citrus, tree nuts, olives, cranberries, fruits and vegetables. The Mississippi Department of Agriculture further defines areas as “statewide and locally important” farmland. All designated soil types do not have to be agriculture production to be considered prime and unique farmland. Land tracts can be forested land or some other use; however, urban or open water areas are not considered. As part of FPPA, NRCS completes a Farmland Conversion Form (AD-1006) for all federally funded projects to assess potential irreversible impacts to farmland. Farmland within Tupelo’s city limits is not subject to FPPA because it is considered “urban” based on FPPA guidelines.

Crops grown within the affected environment include cotton, soybeans, corn, and grain. Timber, cattle, poultry, dairy production, and catfish farming are also important to Lee County. Catfish is a growing industry in the Blackland Prairie region, where the aquifer is deep, so ponds are surface water driven. There are no catfish ponds within the affected environment; however, these ponds can be found throughout Lee County. The USDA has established conservation programs to help restore natural ecological systems on the nation’s



farms. The purposes of these programs are targeted toward protecting the nation's long term capability to produce food and fiber, reducing soil erosion and sedimentation, improving water quality and creating better habitat for wildlife. Programs such as the Conservation Reserve Program (CRP), the Wetland Reserve Program (WRP) and the Grassland Reserve Program (GRP) provide valuable tax incentives to preserve some of the nation's most sensitive areas. There are no CRP, WRP or GRP tracts within the affected environment.

3.4 HISTORY AND DEMOGRAPHICS

3.4.1 History

Originally home to the Chickasaw Nation, the Tupelo area was an important link along the trade route now known as the Natchez Trace Parkway. In the late 1830's, the Chickasaw people were forcibly removed from the area under the Federal Indian Removal Act of 1830. The City of Tupelo was founded in 1859 after the completion of the Mobile and Ohio Railroad, and later incorporated in 1870. Tupelo's modern history can be traced to the convergence of the Mobile & Ohio and the Kansas City, Memphis & Birmingham Railroads in 1887. As a hub of transportation corridors, Tupelo became known as a rail distribution and manufacturing center.

Today, as the county seat of Lee County, Tupelo is a manufacturing, retail and distribution center.

3.4.2 Demographics

The City of Tupelo has a population of 35,673. Based on the 2000 Census counts, there were approximately 13,395 households, with a median household income of \$36,165. Approximately 67% of the population of the City of Tupelo is white and approximately 30% is Black or African American. There is a small Asian population (0.6%), a small population of Hispanic origin (1.4%), and a small population self-reported as two or more races (0.8%). The median age is 32, with 70% of the population over the age of 18 and almost 10% of the population over the age of 65.

3.4.3 Environmental Justice

Executive Order 12898 requires federal agencies to identify and address disproportionately high and adverse effects of federally funded projects on minority and low-income populations as part of the environmental justice (EJ) analysis. The EJ analysis is discussed in detail in **Chapter 4** of this report. Of the households within ½-mile of the existing BNSF main line, 14% are classified as minority households and 17% are classified as low-income households. Low-income households have been defined as those who have an annual household income below 80% of the median household income of Tupelo, or a household income of \$28,932 or less.



3.5 COMMUNITY FACILITIES

Neighborhoods, schools, churches, cemeteries, public facilities, parks and recreation areas, and emergency services facilities were identified within the affected environment.

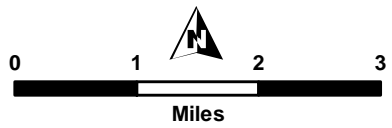
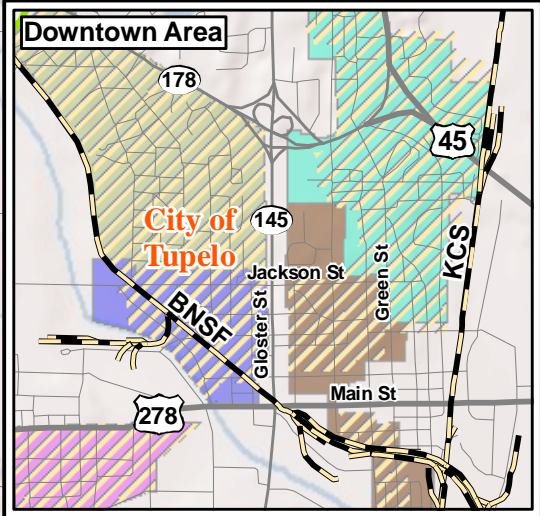
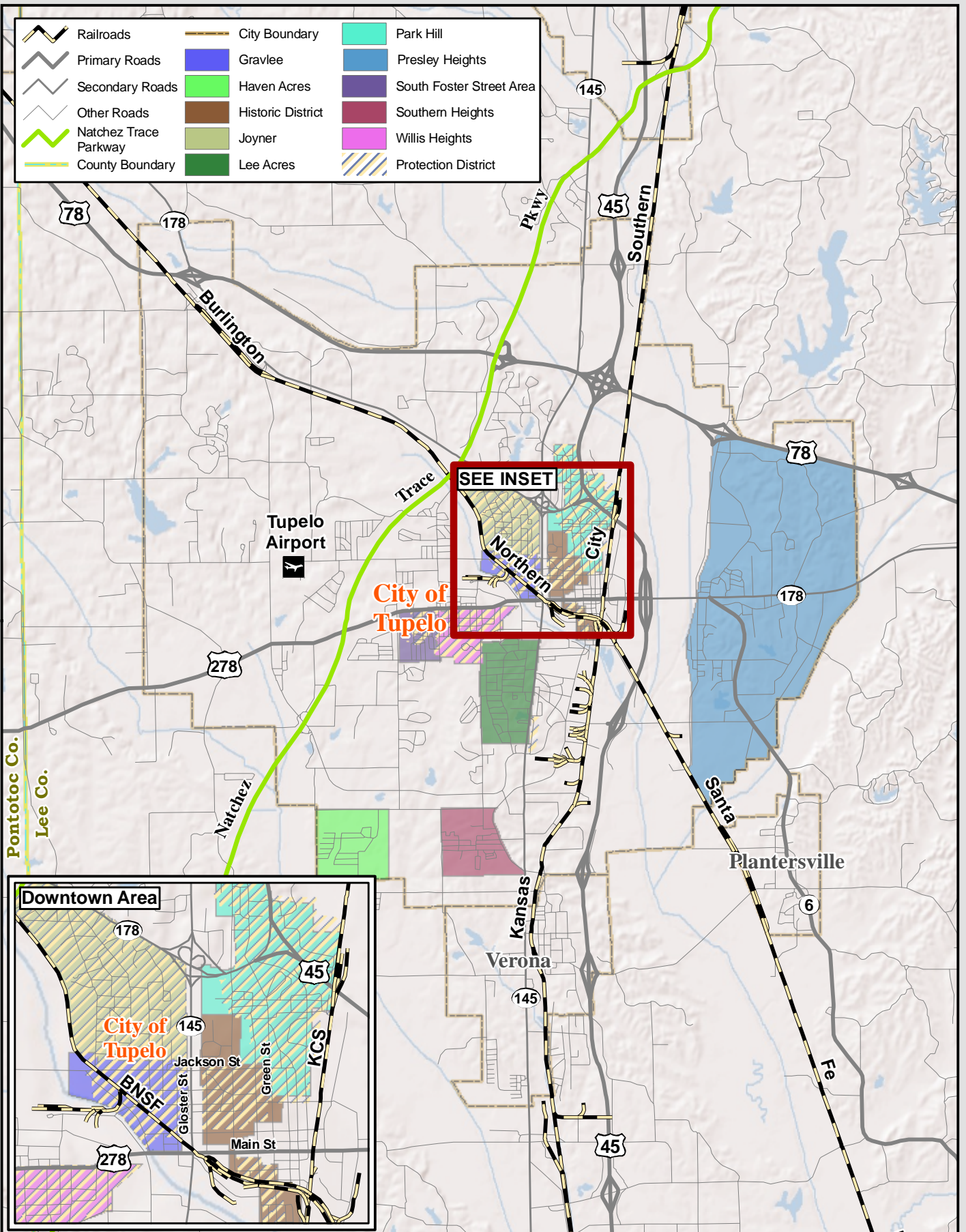
3.5.1 Neighborhoods

Tupelo has several areas of special concern, including those with neighborhood associations and neighborhood protection districts. A “neighborhood association” is a group of homeowners, renters, apartment dwellers, and neighborhood business, church, and school representatives who organize to improve conditions in the neighborhood. As members of an active neighborhood association, the people in the neighborhood decide what needs to be done and work together to make it happen. A group that represents the community has the stability, credibility, and political clout to be an effective force for a better neighborhood. The designated neighborhood associations in the City of Tupelo are shown on **Figure 3-6**.

Ten neighborhood associations are registered in Tupelo, including Downtown, Gravlee, Haven Acres, Lee Acres, Joyner, Park Hill, Presley Heights, South Foster Street, Southern Heights, and Willis Heights. Eight of the 10 districts are located within ½-mile of the proposed project:

- **Downtown** - This was the first neighborhood to form a neighborhood association. This community is recognized in the National Register of Historic Places (NRHP) and is economically and racially diverse.
- **Gravlee** - A diverse community of older, single-family dwellings, where many of the residents are tenants. West Jackson Street runs to the southeast of the district and serves as one of the gateways into the City.
- **Joyner** - This is the sister neighborhood to Gravlee, and the homes are primarily single-family cottages. Although racially diverse, there is a definite increase in income and property value as compared to the Gravlee neighborhood.
- **Lee Acres** – This west-side neighborhood includes primarily single-family housing in a diverse community with most of the residents being seniors and retirees with a small population of young families and singles.
- **Park Hill** - This is the oldest African American or Black community in the City, also another gateway both to the major retail hub at Barnes Crossing and to the City. The population is primarily retirees and senior citizens, mostly from the educational field with a diverse income base.
- **Presley Heights** - This is the largest neighborhood in terms of land area in the City. The area does not contain a large youth population, but rather contains more seniors and retirees. It is racially and economically diverse. It was originally a suburb, East Tupelo, before being annexed.

- | | | | | | |
|--|-----------------------|--|-------------------|--|--------------------------|
| | Railroads | | City Boundary | | Park Hill |
| | Primary Roads | | Gravlee | | Presley Heights |
| | Secondary Roads | | Haven Acres | | South Foster Street Area |
| | Other Roads | | Historic District | | Southern Heights |
| | Natchez Trace Parkway | | Joyner | | Willis Heights |
| | County Boundary | | Lee Acres | | Protection District |



**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

Neighborhoods &
Protection Dist.

Figure
3-6



- **Willis Heights** - The other west side neighborhood that anchors to Lee Acres is heavily populated with rental properties with minimal home ownership. The population ranges in age and is racially diverse.

Neighborhood Protection Districts, shown on **Figure 3-6**, are neighborhood areas designated for protection from declining property values, lack of maintenance, physical deterioration, disinvestment and abandonment, changes in ownership patterns, or changes in land use. Anyone who rents or buys a residence in this area would need a Residential Certificate of Occupancy in order to transfer utilities.

3.5.2 Schools

The public school system serves 7,624 students and is composed of 12 schools with student counts ranging from the low 100s (pre-K) to the high 1,000s (Tupelo High School). Of the 12 public schools, there are 10 elementary schools, one middle school, and one high school. In addition, the public school system also supports the King Early Childhood Center (pre-K), and the Career Center (grades 9 to 12). The University of Mississippi and Itawamba Community College have campus facilities in southeastern Tupelo near the intersection of Eason Boulevard and Veterans Boulevard. The University of Mississippi Advanced Education Center had 565 students (2006) and the Itawamba Community College Tupelo Campus had 1,165 students (2004 – 2005).

In general, development in the Tupelo area has moved to the western side of the City, and schools on the east side are now under-utilized. However, the school district is working to keep a demographic balance at all schools.

The existing BNSF main line passes most closely to the Joyner Avenue Elementary School just north of Jackson Street and to the Milam Elementary School just north of the Crosstown intersection.

Joyner Avenue Elementary is adjacent to the BNSF main line and with horn sounding required at the Jackson Street crossing, the elementary school is currently affected by approximately 23 trains per day, estimated to increase to approximately 40 trains per day by 2030. Joyner Avenue Elementary School has approximately 218 white, non-Hispanic children and 137 black, non-Hispanic children. The Joyner neighborhood is more typically associated with starter homes and typically has young families.

Milam Elementary School has approximately 319 white, non-Hispanic children and 359 black, non-Hispanic children. The Milam neighborhood contains older homes associated with the central and downtown Tupelo area. The Milam facility is proposed to be converted to a 6th grade school facility according to the Tupelo Public School District Future Excellence Plan (2009 restructuring).



3.5.3 Churches and Cemeteries

There are 58 churches and 12 cemeteries within the city limits of Tupelo. A public meeting was held in February 2008 at the Inspirational Community Baptist Church at 405 Clayton Avenue, which is one of several churches within close proximity to the existing BNSF main line. The comments received at this public meeting included statements that the church windows have been enclosed to mitigate the train noise and that train horns often interfere with studio recordings.

3.5.4 Public Facilities
















Public facilities within the City of Tupelo include City, County, and Federal government buildings, events centers, attractions, museums, and retail establishments. However, some of these facilities, such as the Barnes Crossing Mall, Oren Dunn City Museum, and the Elvis Presley Birthplace and Museum, are located more than ½-mile from the existing BNSF main line. The public facilities that lie within ½-mile of the existing BNSF main line include:

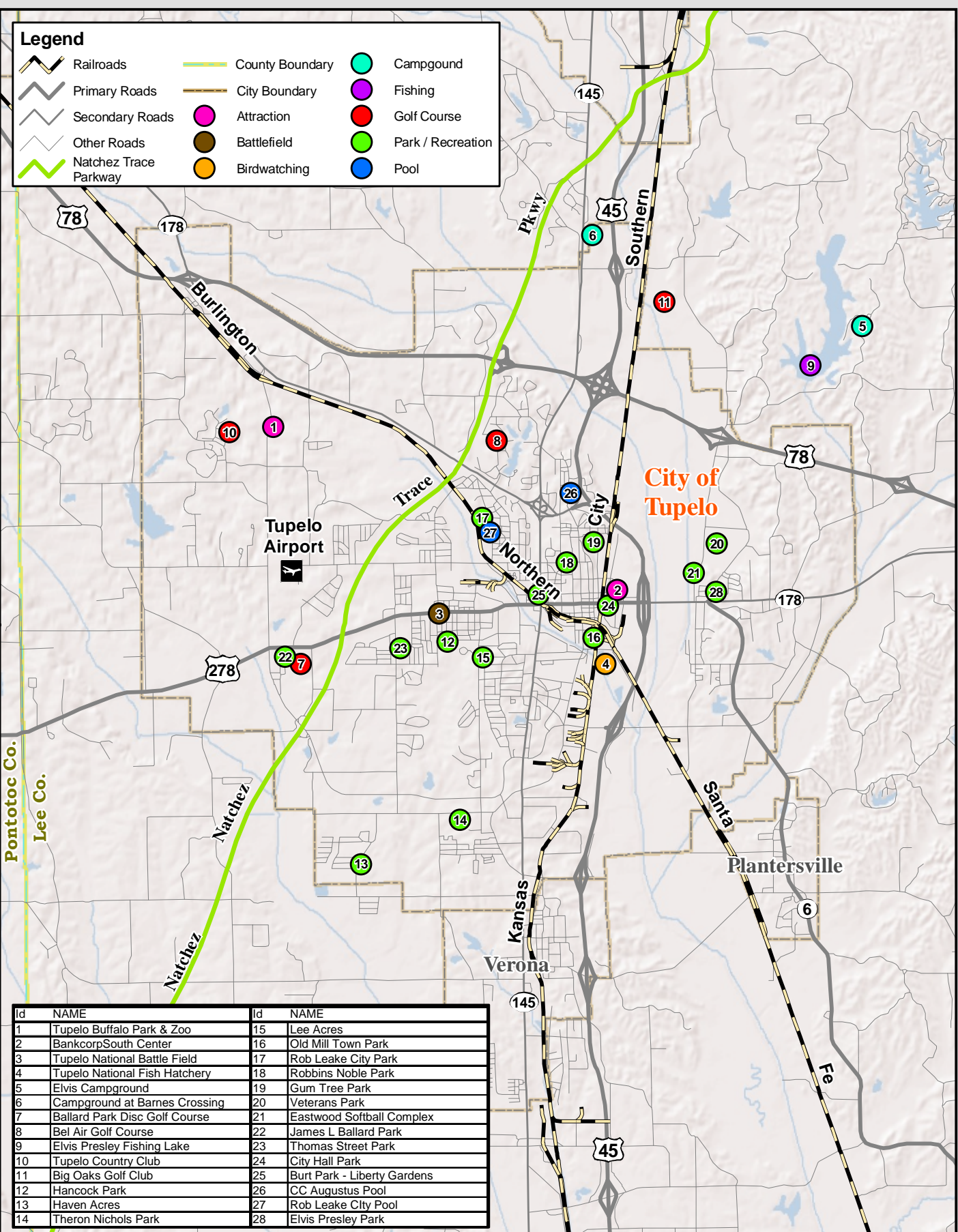
- Tupelo Buffalo Park and Zoo
- Tupelo Furniture Market
- West Main Shopping Center
- Willow Bend Village Shopping Center
- Gloster Creek Village Shopping Center
- Tupelo Public Library
- Tupelo Post Office and Federal Building
- Tupelo City Hall
- Lee County Courthouse
- Tupelo Artist Guild
- Lyric Theatre
- Tupelo Convention and Visitors Bureau
- BancorpSouth Arena
- VF Factory Outlet Stores

3.5.5 Parks and Recreation

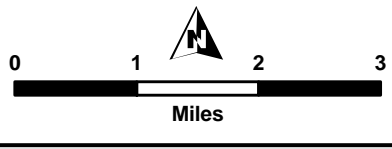
The City of Tupelo has 570 acres of City park land in 19 City parks and various walking tracks/trails, shown on **Figure 3-7**. Of the larger amenities, the Rob Leake City Park and the Tupelo Buffalo Park and Zoo are adjacent to the existing BNSF main line. Small parks and other open spaces exist at various points along the existing BNSF and KCS rail lines, such as Burt Park Liberty Gardens near the Crosstown intersection and Old Mill Town Park in the Mill Village area. The Tupelo National Battlefield and the Natchez Trace Parkway, a national scenic highway, are under the jurisdiction of the U.S. National Park Service and are also within the City of Tupelo. In addition, the Elvis Presley Lake and Campground and Tombigbee State Park are adjacent to the City of Tupelo, but both are outside the affected environment.

Legend

-  Railroads
-  Primary Roads
-  Secondary Roads
-  Other Roads
-  Natchez Trace Parkway
-  County Boundary
-  City Boundary
-  Attraction
-  Battlefield
-  Birdwatching
-  Campground
-  Fishing
-  Golf Course
-  Park / Recreation
-  Pool



Id	NAME	Id	NAME
1	Tupelo Buffalo Park & Zoo	15	Lee Acres
2	BankcorpSouth Center	16	Old Mill Town Park
3	Tupelo National Battle Field	17	Rob Leake City Park
4	Tupelo National Fish Hatchery	18	Robbins Noble Park
5	Elvis Campground	19	Gum Tree Park
6	Campground at Barnes Crossing	20	Veterans Park
7	Ballard Park Disc Golf Course	21	Eastwood Softball Complex
8	Bel Air Golf Course	22	James L Ballard Park
9	Elvis Presley Fishing Lake	23	Thomas Street Park
10	Tupelo Country Club	24	City Hall Park
11	Big Oaks Golf Club	25	Burt Park - Liberty Gardens
12	Hancock Park	26	CC Augustus Pool
13	Haven Acres	27	Rob Leake City Pool
14	Theron Nichols Park	28	Elvis Presley Park



Tupelo Mississippi Railroad Relocation Planning & Environmental Study

Parks & Recreation
Figure 3-7



Two golf courses are within the Tupelo city limits. The Tupelo Country Club is a private 18-hole golf course located near the existing BNSF main line just south of Coley Road. The Bel Air Golf Course is a public 9-hole golf course located along the Natchez Trace Parkway just north of the existing BNSF main line. In addition, disc golf is a popular sport in the region, with courses at Ballard Park and at Veterans Park within the Tupelo city limits.

3.5.6 Medical and Emergency Services

3.5.6.1 Medical and Health Services

Tupelo is the headquarters of the NMMC, the largest non-metropolitan hospital in the United States. Located at 830 South Gloster Street, shown on **Figure 3-8**, the 650-bed facility has a service area that includes northern Mississippi, northwest Alabama, and portions of Tennessee. The medical center was a winner of the prestigious Malcolm Baldrige National Quality Award in 2006. Emergency vehicles en route to NMMC traverse the railroad crossings at Crosstown and Eason Boulevard an estimated 80 to 100 times per day and are delayed an average of four times per day. When stopped at these railroad crossings, an emergency vehicle can be delayed up to an additional 15 minutes before reaching the hospital. Because of the possibility that a particular crossing may be blocked by a train, emergency vehicle drivers frequently must choose between risking that the crossing is clear and waiting for a train to pass or taking an alternate route, either of which can dangerously increase response time.

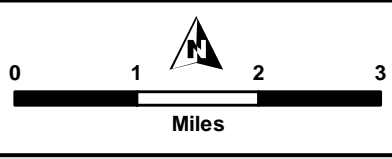
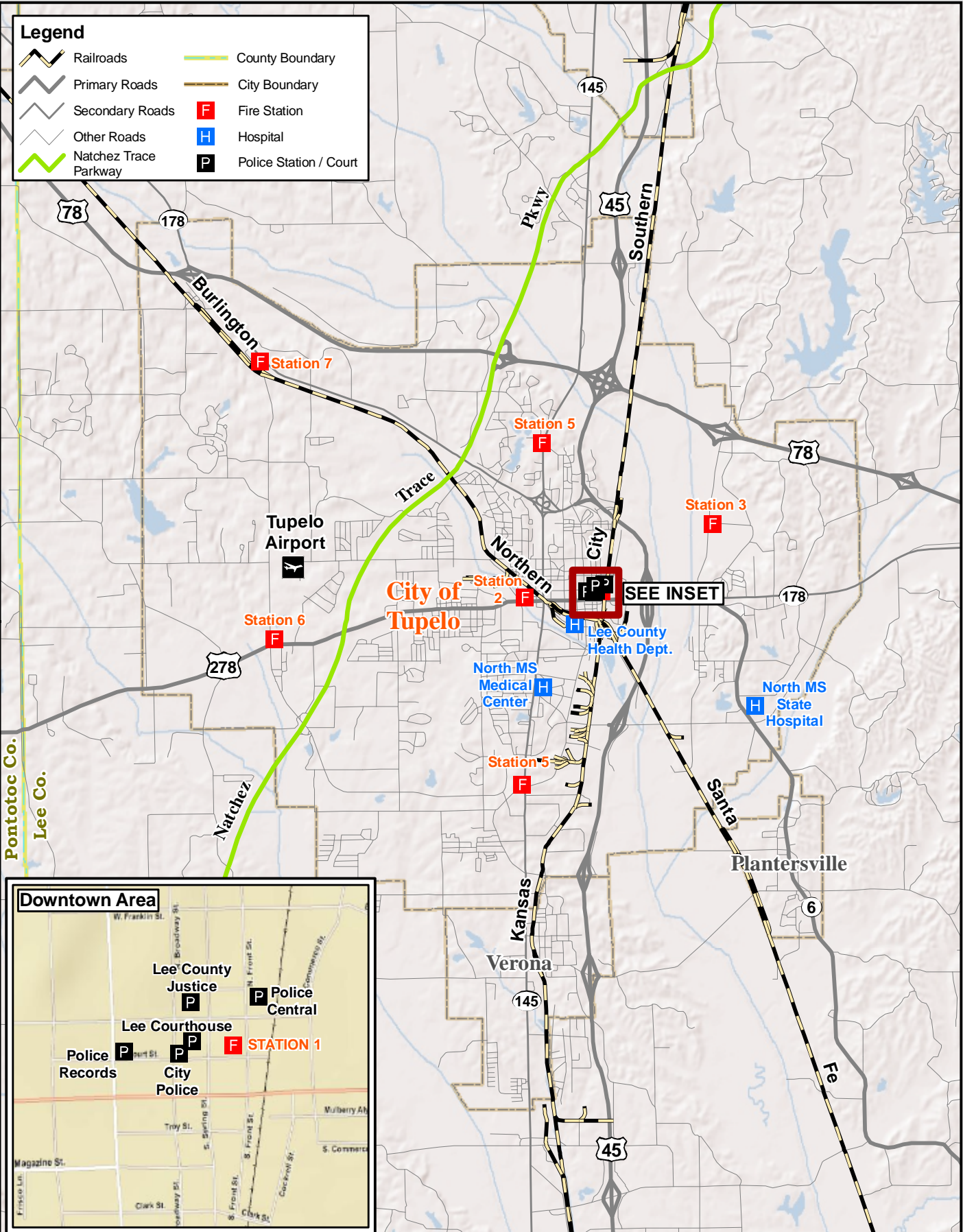
North Mississippi State Hospital is located in Tupelo at 1937 Briar Ridge Road, shown on **Figure 3-8**. North Mississippi State Hospital is a State-owned psychiatric and chemical dependency facility offering 50 licensed beds.

There are 28 other medical facilities within the City of Tupelo, including four ambulatory surgical facilities, four licensed long-term care facilities, four licensed personal care homes, seven certified hospice providers, two certified rehabilitation centers, two home health agencies, a certified rural health clinic, a certified portable X-ray service, an end-stage renal disease facility, a certified community home, and the Lee County Health Department.

3.5.6.2 Fire Department

The Tupelo Fire Department operates seven stations located throughout the City of Tupelo, shown on **Figure 3-8**, running seven Emergency-One Pumpers, a Rescue, a Truck Company (1998 Emergency-One) and a 2001 Pierce Special Response Unit. The Tupelo Fire Department has a total of 87 staff employees including 81 employees in the Emergency Services Division, three employees in the Special Services Division, which includes a Training/Safety Officer, Fire Investigator, Fire Inspector, and administrative officers and staff.

- Legend**
- Railroads
 - Primary Roads
 - Secondary Roads
 - Other Roads
 - Natchez Trace Parkway
 - County Boundary
 - City Boundary
 - Fire Station
 - Hospital
 - Police Station / Court



**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

Emergency Services
Figure 3-8

Other services provided by the Tupelo Fire Department include:

- Fire suppression
- Basic on-site life support EMS services
- Trained special operation group of Dive Rescue Specialists
- Hazardous Materials Technicians
- Confined Space and Rope Rescue Specialists
- Weapons of Mass Destruction (WMD) Regional Response Team for the State of Mississippi

All of these services help to keep the community safe and maintain an Insurance Class Rating of Five. According to the City of Tupelo's website, the City's fire department averages approximately seven responses per day with an average response time of three minutes and six seconds (3:06). The Tupelo Fire/Rescue Training Center and the cooperative effort of many City employees and departments brought state-wide recognition to the City of Tupelo by winning the 2007 Overall Excellence award sponsored by the Mississippi Municipal League and the Clarion Ledger. Tupelo's Fire Department is also featured in several national ad campaigns for Emergency-One.

The following excerpt was obtained from the City of Tupelo's Fire Department Standard Operating Guidelines Manual and provides railroad crossing standard operation procedures to be followed by all emergency response units.

“In an emergency response mode upon approaching an unguarded railroad crossing the driver and company officer shall observe the warning system for operation, open the windows of the vehicle, turn the siren off, bring the vehicle to a complete stop prior to entering the crossing area, listen for a train warning signal and observe all directions for on-coming train traffic. Once the company officer and the driver has determined there is no train approaching, the driver may proceed across the rail crossing. An exception to turning off the siren would be when the rail crossing is at a four way intersection (i.e. Crosstown). At crossings of this nature, the hazards associated with automobile traffic at an intersection dictates that the driver and company officer use extreme caution when proceeding through the intersection and leave the warning siren activated in order to clear automobile traffic from the intersection.”

3.5.6.3 Police Department

The Tupelo Police Department is divided into 14 divisions covering 10 patrol zones. These divisions include a records division, criminal investigative division, information technology division, reserve division, traffic division,

community outreach program division, patrol division, the North Mississippi narcotics unit, the school resource officers program, a special operations group, code enforcement division, special weapons and tactics (SWAT) division, and a crime stoppers division. The Tupelo Police Department also administers the North Mississippi Law Enforcement Training Academy.

The Lee County Sheriff’s Department, shown on **Figure 3-8**, offers a wide range of services including a patrol division, a criminal investigative division, a narcotics unit, a special operations unit, a SWAT division, and a reserve unit. The Lee County Sheriff’s Department also administers the Lee County Juvenile Detention Center, the Lee County Work Center, and the Tupelo/Lee County Adult Jail which holds prisoners for not only the Lee County Sheriff’s Department, but also for Tupelo and all other municipalities within Lee County. The adult jail was completed in 1997 and can house approximately 200 prisoners.

3.6 CULTURAL RESOURCES

Each cultural resource encountered as part of the Tupelo Railroad Relocation Planning and Environmental Study investigation, as documented in the *Cultural Resources Investigations for the Tupelo Railroad Relocation Study* (Brockington, January 2009), was assessed for potential eligibility for listing on the NRHP based on the significance criteria set forth in 36 CFR Part 60.4, shown in **Table 3-3**. The criteria for evaluation are based on the quality of significance in American history architecture, archaeology, engineering, and culture are present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association.

Table 3-3 Criteria for NRHP Eligibility

Criterion Level	Eligibility Description
A	Property associated with events that have made a significant contribution to the broad patterns of our history.
B	Property associated with the lives of persons significant in our past.
C	Property that embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represents a significant and distinguished entity whose components may lack individual distinction.
D	Property that has yielded, or may be likely to yield, information important in prehistory or history.

A resource may be eligible under one or more of these criteria. Criteria A, B, and C are most frequently applied to historic buildings, structures, objects, districts, or non- archaeological sites (e.g., battlefields, natural features, designed landscapes, or cemeteries). The eligibility of archaeological sites is most frequently considered with respect to Criterion D. Also, a general guideline of 50 years of age is employed to define “historic” in the NRHP evaluation

process. That is, all resources greater than 50 years of age may be considered. However, more recent resources may be considered if they display “exceptional” significance.

According to 36 CFR Section 800.16(d), the Area of Potential Effects (APE) for the affected environment is defined as that area within the existing BNSF right-of-way and an approximate 500-foot buffer on each side of the existing right-of-way, as well as a 500-foot buffer on each side of the right-of-way for the proposed interchange. The buffer width was coordinated with Mississippi Department of Archives and History (MDAH) to account for possible visual or noise impacts.

3.6.1 Archaeological Sites

As documented in the *Cultural Resources Investigations for the Tupelo Railroad Relocation Study* (Brockington, January 2009) (CRS), three previously unrecorded archaeological sites were located within or adjacent to the APE. At the previously unrecorded archaeological site located just east of the intersection of Jefferson Street and the BNSF main line, shovel tests produced a light density of archaeological materials dating to the late nineteenth and early twentieth century, indicating the presence of a domestic structure. The site had been disturbed and dates to a relatively recent time period. The previously unrecorded archaeological site located within the BNSF right-of-way just south of Jackson Street and was identified by the presence of historic debris, which was considered to be the result of incidental trash dumping rather than an archaeological site. The previously unrecorded archaeological site located in the proposed interchange area just south of the Pvt. John Allen Fish Hatchery consists of two sewer manholes. None of these archaeological sites was considered eligible for listing in the NRHP.

3.6.2 Architectural Resources

As documented in the CRS, 58 architectural resources (30 previously recorded and 28 previously unrecorded) were located within or adjacent to the APE, shown on **Figure 3-9**. The majority of the architectural resources fell within NRHP-eligible historic districts, consisting mainly of early to mid-20th Century residential architecture. Of those 58 resources, 13 had been demolished. Three architectural resources are listed on the NRHP.

- **Superintendent’s House, Pvt. John Allen Fish Hatchery**

The Pvt. John Allen Fish Hatchery includes the NRHP-listed Superintendent’s House. The property was listed in 1988 as an excellent example of the Queen Anne architectural style. The NRHP boundary was designed to include the house and 100 feet in each direction, totaling less than 0.5 acres, and excludes the grounds and non-contributing outbuildings. The present NRHP boundary is visually protected by dense vegetation along its northern and eastern perimeters and is oriented westward towards Elizabeth Street. In addition, upon review of 1958 aerial maps, the surrounding landscape has been subject to substantial changes, including the destruction of warehousing north of Elizabeth Street and the extension of Elizabeth Street eastward across the BNSF main line.



Under the authority of Section 304 of the National Historic Preservation Act, this map is not for public disclosure due to the sensitive nature of identified cultural resources.



- **Mill Village Historic District**

The Mill Village Historic District was listed on the NRHP in 1992. The Mill Village Historic District is located south of the existing BNSF main line along Green Street and includes an industrial complex and associated employee housing. During field inspection, it appeared as if some of the contributing houses were being prepared for removal or relocation. In addition, one mill building, identified as Mill #2 east of Spring Street, has been demolished. However, the District remains largely intact and retains its NRHP integrity. The northern border of this District abuts the BNSF right-of-way.

- **South Church Street Historic District**

In 1992, the South Church Street Historic District was listed on the NRHP as an intact example of an early 20th Century neighborhood, associated with the residential development of Tupelo. The District consists of local interpretations of the bungalow, Colonial Revival, Craftsman, and foursquare house types. The district includes 19 contributing residences. The boundary was designed to exclude offices and light industry located north of the Elliot Street intersection.

In a letter dated March 17, 2009, included in **Appendix A**, coordination with the SHPO determined that of the remaining 42 architectural resources not NRHP-listed or demolished, 35 were deemed eligible for listing with NRHP. The SHPO determined that these 35 NRHP-eligible individual properties or historic districts appear to retain their historic architectural integrity.

These include two proposed NRHP-eligible historic districts and one proposed local historic district. The proposed Gravlee Historic District is bisected by the existing BNSF main line between Jackson Street and Crosstown. The proposed North Neighborhood Historic District clips a small portion of the APE with its southwest boundary. This portion of the neighborhood is within view of modern commercial and business development along Main and Gloster Streets. The local Tupelo Preservation Commission has discussed designating a Joyner Avenue district as a local historic district. This proposed district, while not finalized, is bounded by the existing BNSF main line on the west and includes early to mid-20th Century residential housing, a school, ball fields, tennis courts and a swimming pool. The boundary was drawn to exclude the railroad.

3.6.3 Native American Resources

The Chickasaw people inhabited the Lee County area at least as long as, but probably much longer than, the tribe's contact with European visitors in the 1500s. The archaeology of the tribe's settlements has become a burgeoning field of study. All of the archaeological and documentary evidence suggest the Chickasaw towns were located in and around Lee County, with a particular concentration in present-day Tupelo.



The Cobb Institute of Archaeology, associated with Mississippi State University in Starkville, has conducted numerous Chickasaw surveys and data recovery projects in and around the Tupelo area. Based on experience and knowledge of the area, the Cobb Institute contends that previously unrecorded archaeological sites would be concentrated along ridgelines and on the upland areas, especially in those areas to the south and west of the City of Tupelo. Based on the Cobb Institute studies, these sites are also very likely to contain burials due to the Chickasaw tradition of burying the dead underneath their homes. However, the existing BNSF main line and proposed interchange area are in relatively low-lying areas near Kings Creek and Town Creek, which are areas not known to hold Chickasaw settlements. There are no documented Chickasaw settlements within the existing BNSF right-of-way or the proposed interchange area.

3.7 AIR QUALITY

The Clean Air Act directed the EPA to establish standards for clean air. As a result, the EPA established NAAQS for six atmospheric pollutants that affect the air quality of a region. These pollutants are carbon monoxide, particulate matter, volatile organic compounds, ozone, oxides of nitrogen, lead, and sulfur dioxide. Each pollutant is described below:

Carbon Monoxide (CO)

CO is an odorless, colorless gas formed by the burning of fuels containing carbon. Motor vehicles are the principal source of CO emissions in urban areas. Maximum concentrations usually occur near intersections and other areas of traffic congestion, and they decrease rapidly with distance from the source. CO exposure can cause dizziness and fatigue and can impair central nervous system functions. Exposure to high levels of CO can cause immediate death.

Particulate Matter (PM_{2.5} and PM₁₀)

Particulate matter enters the air from industrial operations, vehicular traffic and other sources, including fireplaces. Most of the particulate matter generated by motor vehicles consists of suspended road dust. Measurements of particulate matter concentrations include TSP (total suspended particulates), PM₁₀ (particles with a diameter less than or equal to 10 micrometers), and PM_{2.5} (particles with a diameter less than or equal to 2.5 micrometers). Particles of this size can be inhaled, and can irritate the human respiratory tract and aggravate pre-existing respiratory diseases. Certain populations, such as children, the elderly, exercising adults, and those suffering from asthma or bronchitis, are especially vulnerable. Very small particles of substances such as lead (Pb), sulfates, and nitrates can cause lung damage directly, can be absorbed into the blood stream and cause damage elsewhere in the body, and can transport adsorbed gases, such as chlorides or ammonium into the lungs and cause injury.



Volatile Organic Compounds (VOCs)

VOCs are a key component in the formation of ozone (O₃). These hydrocarbons are emitted or evaporate into the atmosphere from a variety of sources, particularly the storage and combustion of fuels in motor vehicles.

Ozone (O₃)

O₃ in the lower atmosphere is a harmful air pollutant and contributes to the formation of smog. It is a secondary pollutant formed by the reaction of VOCs and nitrous oxides (NO_x) in the presence of sunlight. O₃ levels are reduced by minimizing emissions of those precursor pollutants. O₃ can cause eye and respiratory irritation, reduces resistance to lung infections, and may aggravate pulmonary conditions in individuals with lung disease. Elevated O₃ levels can cause vegetation damage.

Oxides of Nitrogen (NO_x)

NO_x are gaseous mixtures of NO and NO₂ that can damage or irritate the human respiratory system and exacerbate damage from respiratory disease and other existing forms of irritation. NO₂ may reduce resistance to certain infections. It is also a precursor of O₃. NO₂ is a product of high-temperature combustion, emitted generally by the same sources as CO. High concentrations of NO₂ cause brown haze readily observed in urban areas during periods of heavy air pollution.

Lead

Lead (Pb) is a particulate pollutant that is also a carcinogenic air contaminant. In the past, automobiles were the chief contributors of Pb to the atmosphere in the U.S. Currently, lead is primarily emitted in the U.S. from a relatively small number of point sources such as smelters and battery plants.

Sulfur Dioxide (SO₂)

SO₂ is a product of the combustion of high-sulfur fuels, such as many grades of coal and oil. SO₂ is a human respiratory irritant. It combines with moisture in the atmosphere to form sulfuric acid and can damage vegetation and exterior facades of buildings.

According to the Center for Disease Control (CDC) website, transportation-related pollutants are large contributors to unhealthy air quality. The pollutants most attributed to motor vehicle use include CO, PM_{2.5} and PM₁₀, NO_x and VOCs, which combine with sunlight to form ground-level O₃, as well as other air toxins. The EPA reported that motor vehicles are responsible for nearly half of smog-forming VOCs, more than half of the NO_x emissions, and about half of the toxic air pollutant emissions in the United States. Motor vehicles, including non-road vehicles, account for 75% of CO emissions nationwide.

The Air Quality Index (AQI) is a tool used by EPA and other agencies to provide the public with timely and easy-to-understand information on local air quality and whether air pollution levels pose a health concern. The AQI tells the public how clean the air is and whether or not they should be concerned for their health. The AQI is focused on health effects that can

happen within a few hours or days after breathing polluted air. The annual maximum AQI level experienced in Lee County from 1999-2007 ranged from 107 in 2004 to 156 in 1999. An AQI level between 101 and 150 is classified as “unhealthy for sensitive groups” and means that the general public is not likely to be affected, but sensitive groups may experience some health effects. An AQI level of 156 is classified as “unhealthy” and means anyone may begin to experience health effects, especially members of sensitive groups. The annual minimum AQI level experienced in Lee County from 1999-2007 ranged from 2 in 2003 to 13 in 2007. An AQI level of 2 is classified as “good” and means the air quality is considered to be satisfactory and air pollution poses little or no risk.

Of the pollutants monitored in the Tupelo area in the past 10 years, O₃ has been the most problematic in terms of threatening possible noncompliance with the NAAQS. This is exacerbated by the fact that in 2007, the 8-hour O₃ NAAQS was reduced from 0.08 ppm to 0.075 ppm. The most recent data shows compliance with the reduced NAAQS, but by only a small margin (0.073 ppm). However, O₃ levels in Tupelo have been showing a general downward trend in recent years, probably due to national-level EPA efforts to better control O₃ precursor pollutants (VOCs and especially NO_x).

The current EPA designations have Lee County as in “attainment” with respect to NAAQS for all pollutants. Based on the monitoring data and the trends indicated, it does not appear that the area is likely to become a “nonattainment” area in the foreseeable future. For this reason, a conformity analysis is not required.

3.8 NOISE AND VIBRATION

3.8.1 Noise

Noise pollution can be defined as displeasing human or machine-created sound that disrupts the environment. This unwanted sound can seriously affect and damage physiological and psychological health. Noise pollution can cause annoyance and aggression, hypertension, high stress levels, tinnitus, hearing loss, and other harmful effects depending on the level of sound. Noise can interrupt ongoing activities and can result in community annoyance, especially in residential areas. In general, most residents become annoyed when noise interferes significantly with activities such as sleeping, talking, noise-sensitive work, listening to the radio, and watching television. In addition, some land uses, such as outdoor concert pavilions, are inherently incompatible with high noise levels.

Noise pollution in the downtown Tupelo area can be attributed to either traffic-related noise or railroad-related noise. Noise pollution generated by railroad operations is considerably higher than noise pollution created by motor vehicle traffic. Sources of railroad-related noise include the diesel exhaust engine, the interaction between the wheels and track, and the audible warning devices such as horns and bells.

Locomotive horns are loud, and horn noise is often the major contributor of adverse noise impacts in a community. Sound exposure from locomotive horns in the



downtown Tupelo area does not reach the cumulative levels that would exceed risk criteria for hearing damage. The horn noise model, established by measurements for the FRA, is based on a sound exposure level of 107 decibels (dBA) at 100 feet from the tracks for locations no closer than 660 feet from an at-grade crossing. In order to risk the onset of hearing damage, a person at that distance would have to hear more than 180 horn events during each eight-hour period for five days a week and continuously for 40 years. These conditions would yield an eight-hour equivalent continuous sound pressure level of 85 dBA.

The FRA and the Federal Transit Administration (FTA) have established noise level criteria to account for the startle effect on humans and wildlife and the noise sensitivity of different land uses. These criteria vary based upon the proposed land use of the receptor site. The land uses are segregated into three categories, shown in **Table 3-4**. The majority of the noise receptor sites adjacent to the existing BNSF corridor would be considered either Category 2 or Category 3 land uses. For Category 2 land uses, the noise impacts are measured using the outdoor day-night sound level (Ldn). The Category 3 land uses have the noise impacts measured using the hourly average sound level (Leq(h)).

Table 3-4 FTA/FRA Land Use Categories and Noise Metrics

Land Use Category	Noise Metric ⁽¹⁾ (dBA)	Description of Land Use Category
1	Outdoor Leq(h) ⁽²⁾	A tract of land where quiet is an essential element of their intended purpose. This includes lands set aside for serenity and quiet and such land uses as outdoor amphitheaters and concert pavilions, as well as National Historic Landmarks with significant outdoor use.
2	Outdoor Ldn	Residences and buildings where people normally sleep. This includes homes, hospitals and hotels where a nighttime sensitivity to noise is assumed to be of utmost importance.
3	Outdoor Leq(h) ⁽²⁾	Institutional land uses with primarily daytime and evening uses. This includes schools, libraries, and churches where it is important to avoid interference with such activities as speech, meditation, and concentration on reading material. Buildings with interior spaces where quiet is important, such as medical offices, conference rooms, recording studios and concert halls fall into this category, as well as places for meditation or study associated with cemeteries, monuments, museums. Certain historical sites, parks and recreational facilities are also included.
⁽¹⁾ For certain uses other than freight trains, “onset-rate” adjusted sound levels (Leq, Ldn) are used. There is no “onset-rate” adjustment for freight trains.		
⁽²⁾ Leq for the noisiest hour of transit-related activity during hours of noise sensitivity.		

Ambient noise levels above 65dBA are considered “normally unsatisfactory” by the HUD, however that is not the only metric used to evaluate noise impacts. The FTA/FRA noise impact model evaluates projects as having No Impact, Moderate Impact, or Severe Impact on a graduated scale based on the amount of existing



ambient noise. The FTA/FRA noise impact evaluation model is rather conservative, as improvements made to an existing corridor could have a noise impact even if the amount of noise is not increased by the proposed project. The FTA/FRA noise impact criteria are applied at the closest sensitive receptor, which generally means the closest sensitive human land use.

As documented in the *Noise and Vibration Assessment for the Tupelo Mississippi Railroad Relocation* (HDR, June 2008) (NVA), included in **Appendix E**, the existing noise conditions in the City of Tupelo were documented through a series of 24-hour continuous measurements performed at seven different sites and short-term measurements performed at two sites on May 12-15, 2008. The 24-hour measurement sites were selected within the project area to be representative of the sensitive receptors near the existing BNSF and KCS rail lines. All of the sites were either multi-family or single-family residential sites. The short-term measurement sites were located within 50 feet of the existing BNSF main line to capture the pass-by noise levels of BNSF trains.

Five of the seven 24-hour measurement sites recorded Ldn values exceeding the 65 dBA HUD threshold. Evaluation of these sites with the FTA/FRA noise impact evaluation model found that five of the seven sites would exceed the Severe Impact threshold and all seven of these sites would exceed the Moderate Impact threshold. This would mean that any improvements to the corridor could require noise abatement measures to reduce the level of noise from the railroad corridor. The short-term measurements recorded locomotive engine noise for six train pass-bys between 86 to 90 dBA, rail car noise between 96 to 105 dBA, and train horn noise of 101 to 117 dBA at a distance of 50 feet from the railroad. These measurements were used to develop the noise models for both the No-Build and Build Alternatives, as discussed in **Chapter 4**.

3.8.2 Vibration

Trains are also a common source for ground-borne vibration. Train wheels rolling on a rail create vibration energy that is transmitted through the track support system. The amount of energy that is transmitted is strongly dependent on factors such as how smooth the wheels and rails are and the resonance frequencies of the vehicle suspensions system and the track support system.

The track support system would influence the level of ground-borne vibration levels. A rail system would be either subway, at-grade, or elevated. It is rare for ground-borne vibration to be an issue with elevated railways except when guideway supports are located within 50 feet of buildings. For an at-grade guideway, directly radiated noise is usually the dominant issue, although vibration can be an issue.

The background vibration velocity level in residential areas is usually 50 vibration decibels (VdB) or lower, well below the threshold of perception for humans, which is around 65 VdB. Human response to vibration is not usually significant unless the



vibration exceeds 70 VdB. At 85 VdB, most people are strongly annoyed. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by 10 VdB or less. A vibration level that causes annoyance is well below the damage threshold for normal buildings. According to FTA, light rail systems typically generate vibration levels of 70 VdB or more near their tracks.

The effects of ground-borne vibration include detectable movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings. Ground-borne vibration is almost never annoying to people who are outdoors. Although the motion of the ground may be perceived, without the effects associated with the shaking of a building, the motion does not provoke the same adverse human reaction. In addition, the rumble noise that usually accompanies the building vibration is perceptible only inside buildings. Vibration impacts may unreasonably interfere with the comfortable enjoyment of life and property.

The FRA and FTA have also established vibration criteria to identify and mitigate annoyance from rail operations. These criteria are set far below the damage thresholds for normal structures. The impact thresholds are based on the maximum ground vibration caused by a typical train pass-by and are lower for frequent events than for infrequent events. A vibration event is defined as the vibration created from a passing locomotive or rail car. As documented in the NVA in **Appendix E**, FTA/FRA defines frequent as more than 70 vibration events per day. Tupelo averages more than 20 trains on the BNSF main line, and far exceeds the 70 events per day criteria, so the frequent criteria were applied to both locomotives and rail cars. The applicable vibration impact threshold for the BNSF main line was 72 VdB and the applicable vibration impact threshold for the KCS rail line was 80 VdB.










3.9 GEOLOGICAL RESOURCES

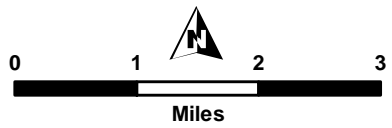
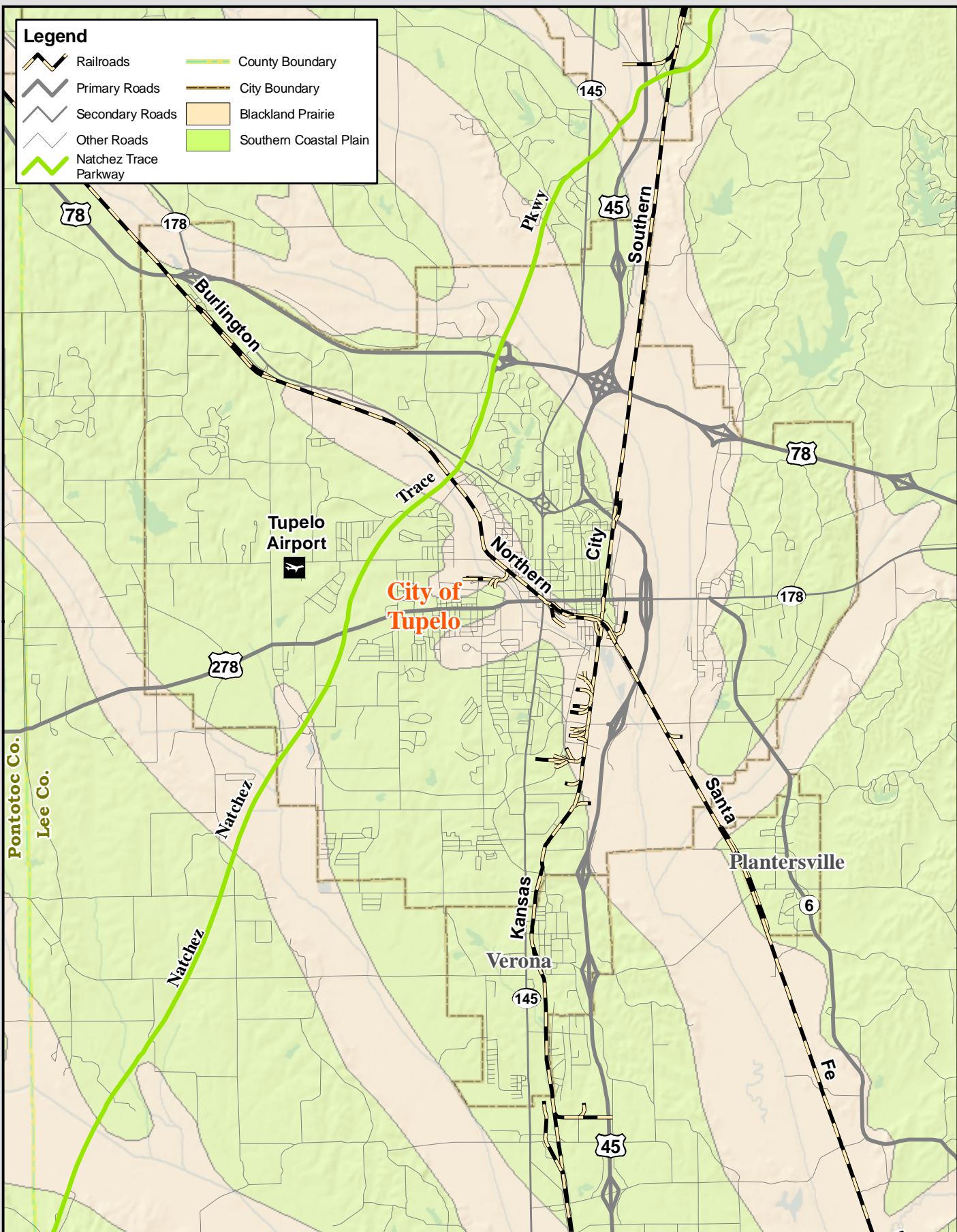
Geology and soils data of the region were compiled using GIS information as well as relevant literature. The affected environment was visited in December of 2007, and general geology and soil data were verified. The USDA NRCS was consulted in regard to prime and unique farmland as well as tracts enrolled in various conservation programs.

3.9.1 Geology and Topography

The affected environment is located in the USDA's Inner Coastal Plain Land Resource Region (LRR). Topography of the affected environment ranges from nearly level to undulating irregular plains. The affected environment lies in the Alabama and Mississippi Blackland Prairie Major LRR, shown on **Figure 3-10**. The Blackland Prairie is a thin, arc-shaped band of fertile, rolling hills curving from Tupelo to Columbus, Mississippi and south to Montgomery, Alabama. This thin belt of prairie land is flat to gently undulating. Near Tupelo, the Blackland Prairie region generally follows perennial streams, located in valleys of the Tombigbee Hills.

Legend

-  Railroads
-  Primary Roads
-  Secondary Roads
-  Other Roads
-  Natchez Trace Parkway
-  County Boundary
-  City Boundary
-  Blackland Prairie
-  Southern Coastal Plain



Tupelo Mississippi Railroad Relocation Planning & Environmental Study

Major Land Resources
Figure 3-10



3.9.2 Soils

The soils of Lee County formed from sediments deposited during the late Mesozoic and early Cenozoic eras when the Gulf of Mexico stretched northward to Cairo, Illinois. Sands, silts, clays, and calcareous formations remained as the Gulf of Mexico retreated to form parent material for the soils found today. The entire region is underlain by Selma Chalk formed from Upper Cretaceous marine deposits. The area's soils have a high clay content underlain by Cretaceous-age soft limestone, chalk or marl. Much of the affected environment is found in floodplains; therefore, the soils have formed from fairly recent alluvium and are underlain by Demopolis chalks.

The primary soil association for the affected environment is Leeper-Catalpa-Marietta, which is formed in clayey and loamy alluvium washed from nearby uplands. These soils range from somewhat poorly-drained to moderately well-drained soils and are located on floodplains. Almost all of this association is in row crop, pasture or urban land. Urban areas, located mainly within Tupelo's City limits, have been altered so extensively that soil series are no longer distinguishable.

Marietta is the dominant soil type composing over 40% of the affected environment. Marietta is a moderately well-drained, nearly level soil formed on loamy alluvium. This soil has a moderate shrink swell potential, and a high water holding capacity. This soil series is typically found on floodplains.

The Ora soil series is moderately well drained, formed in loamy material. This soil has a fragipan, which is an altered subsurface soil layer that restricts water flow and root penetration. Permeability is moderate in the upper portion and moderately slow in the fragipan. Water holding capacity and runoff is medium. Ora soils are typically found on side slopes and ridge tops.

Tuscumbia is a poorly-drained soil formed on clayey alluvium. Available water-holding capacity is high and runoff is slow. The soil has a moderate shrink-swell potential in the topsoil and very high potential in the subsoil. The soil shrinks and cracks when dry and is found along floodplains. This soil type is found primarily in the operational improvement zone of the Build Alternative.

Shrink-swell potential is rated according to the expected volume change of soil layers resulting from moisture. Ratings depend on the amount and volume of clay in soil horizons and are ranked as either low, moderate, high, or very high. Leeper (Le and Lp), Tuscumbia (Tu) and Una (Un) are soils which have high to very high shrink-swell potential. Site-specific engineering practices are required for structures placed on these soil types to avoid injury to the structure as the soil shrinks and swells.


3.10 WETLANDS

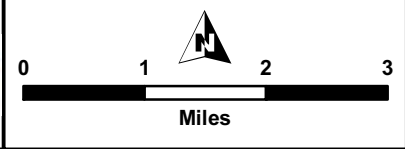
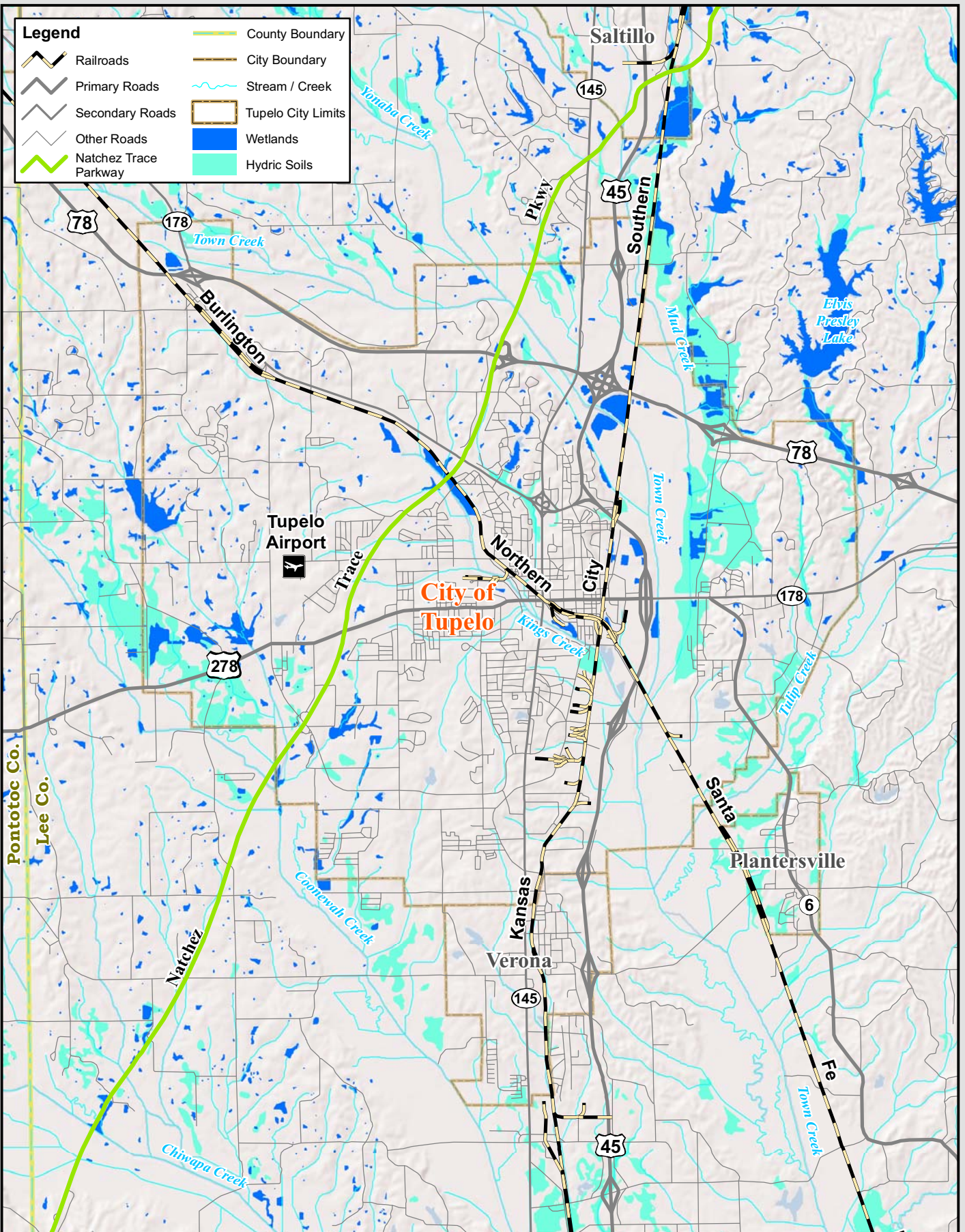
Wetlands are extremely important features in any landscape. They provide stormwater detention, nutrient cycling, organic carbon sequestration, flood water mitigation, contaminant removal, and critical fish and wildlife habitat. Due to the function and value of wetlands to a landscape and increased developmental pressures, wetlands are protected under the Clean Water Act (CWA). The USACE has regulatory authority over waters of the United States, including wetlands, under Section 404 of the CWA. Wetlands are defined in the *USACE Wetland Delineation Manual* (USACE, 1987) as “areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.” Areas must exhibit the following three characteristics: hydric soil, hydrophytic vegetation, and adequate hydrology. Dredging or filling activities in areas fitting this definition are required to receive a Section 404 permit from USACE.

Wetlands are further classified according to their placement in a landscape. All wetlands within the affected environment can be described as palustrine forested and palustrine scrub-shrub, shown on **Figure 3-11**. Although forested wetlands are located within the affected environment, the dominant class of wetlands is scrub-shrub. This is due to the fact that almost all the affected environment is either in an agricultural or urban land use. Most of the vegetation either has been cleared previously or is maintained as part of a utility or transportation right-of-way. Large, undisturbed forested wetland areas are not found within the affected environment.

Streams and open water habitat are also considered for a Section 404 permit from the USACE. Impacts that require a Section 404 permit include, but are not limited to, placement of culverts or pipes within the ordinary high water mark of a stream and alteration of channel morphology. Bridge construction over creeks that does not involve dredging or filling does not require a permit as no improvements take place in waters of the U.S. Within the affected environment ephemeral, intermittent, and perennial streams were evaluated, and jurisdictional determination forms were completed, according to guidelines set out in the Rapanos Guidance (2007). The three major streams within the affected environment are Kings Creek, Mud Creek, and Town Creek. There is also a wetland that parallels the existing BNSF main line southeast of its crossing with the Natchez Trace Parkway, shown on **Figure 3-11**.

Across the U.S., many historical wetlands have been converted to farmland. Wetland areas converted to agriculture prior to December 23, 1985 carry special exemption from the CWA, as long as the area continues to receive agricultural influences at a minimum of 5-year intervals, as defined by Section 512.15 of the National Food Securities Manual (1988). Prior converted cropland consists of wetlands that were both manipulated (drained or otherwise altered to remove excess water from the land) and cropped before December 23, 1985, to the extent that they no longer exhibit wetland values. These lands have experienced such extensive manipulation that “normal circumstances” cannot support a prevalence of hydrophytic vegetation and are not subject to regulation under Section 404 of the CWA.

- Legend**
-  Railroads
 -  Primary Roads
 -  Secondary Roads
 -  Other Roads
 -  Natchez Trace Parkway
 -  County Boundary
 -  City Boundary
 -  Stream / Creek
 -  Tupelo City Limits
 -  Wetlands
 -  Hydric Soils



**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

Wetlands & Hydric Soils
Figure 3-11

Most of the farmland in the affected environment can be classified as prior converted cropland.

These areas do not require a Section 404 permit for agricultural activities, and they typically do not require a permit for other uses because conditions of the site have been so altered that they no longer exhibit functions and values of a wetland. However, if USACE determines that any of the three wetland characteristics of a particular site are strong enough to support wetland functions, then a Section 404 permit may be required for land use change away from agriculture.












3.11 FLOODPLAINS

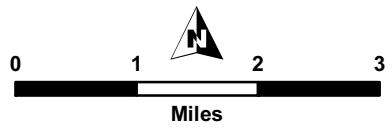
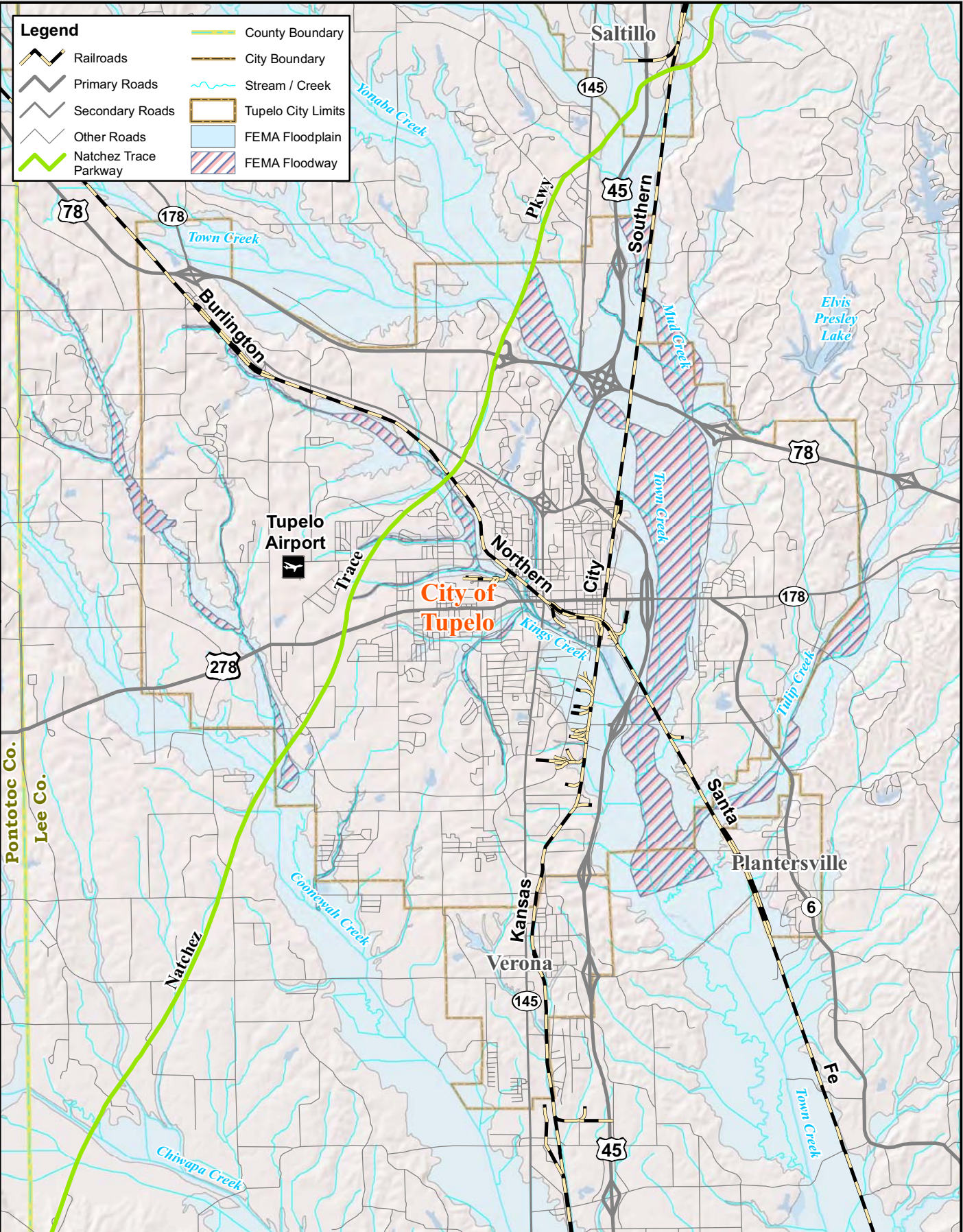
Flooding is the primary environmental concern around the City of Tupelo. Floodplains in the affected environment, shown on **Figure 3-12**, generally follow the wide, mostly flat Blackland Prairie physiographic region. This is due to the fact that these areas lie in valleys at the base of the Tombigbee Hills. Portions of the affected environment lie within the Town Creek, Mud Creek, and Kings Creek floodplains.

In 1968, the U.S. Congress created the National Flood Insurance Program (NFIP) to reduce damage and to provide protection for property owners from potential losses through an insurance mechanism. FEMA produces Flood Insurance Rate Maps (FIRMs), which outline areas subject to flooding. The flood risk information presented on a FIRM is based on historic, meteorological, hydrologic, and hydraulic data, as well as on open-space conditions, flood control structures, and development. A floodplain is any land area susceptible to being inundated by water from any source. Typically, floodplains are delineated by their 100-year flood, which is the one percent probability that flood levels would be equaled or exceeded in a given year on a given piece of land. The 100-year floodplain is accepted by FEMA as the base flood elevations.

Once a flood insurance study is conducted, base flood elevations for the 100-year flood are determined from hydrologic and hydraulic analysis. These zones are typically represented as Zone AE on flood maps. Areas without base flood elevations established within a floodplain are usually represented as Zone A on flood maps. Minimum federal standards limit increases to base flood elevations to one foot, provided that hazardous velocities are not produced. From the flood insurance study, specific portions of the floodplain may be further designated as a regulatory floodway.

A floodway is defined as the channel of the stream plus any adjacent flood plain areas that must be kept free of encroachment so that the 100-year flood can be carried without substantial increases in flood heights. At any location where an encroachment within the floodway is expected, a no-rise certification must be obtained. This is a hydrologic analysis done by a certified professional engineer certifying that the encroachment would not impact the 100-year floodplain. If a no-rise certification cannot be obtained, then the process to obtain a Letter of Map Revision (LOMR) must be pursued to effectively change the floodway for an area or to remove certain tracts from the floodplain. Map changes would officially alter the FEMA FIRM for flood insurance rate purposes.

- Legend**
-  Railroads
 -  Primary Roads
 -  Secondary Roads
 -  Other Roads
 -  Natchez Trace Parkway
 -  County Boundary
 -  City Boundary
 -  Stream / Creek
 -  Tupelo City Limits
 -  FEMA Floodplain
 -  FEMA Floodway



**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

**FEMA
Floodplains**

**Figure
3-12**

The Town Creek Master Water Management District (TCMWMD) maintains many of the channels around the City of Tupelo and was one of the first watershed organizations of its kind (formed in 1963). The main purpose of this organization is to manage floodwaters around the City of Tupelo, implement channel improvements, and apply land treatment measures. TCMWMD holds easements ranging from 250 feet to 550 feet in width along all the major channels within the City of Tupelo, and has coordinated with the USACE and the NRCS to implement a floodway channelization plan for the floodways associated with all of the channels in the Town Creek sub-basin. This plan includes either the enlargement of the existing channels or lining the channels with either concrete or rip-rap to facilitate rapid removal of floodwaters. All projects which encroach within these easements would require coordination with and approval from the TCMWMD to avoid any conflicts with the flood control structures and comply with the proposed channelization plan.

3.12 HYDROLOGY AND WATER RESOURCES










3.12.1 Surface Waters

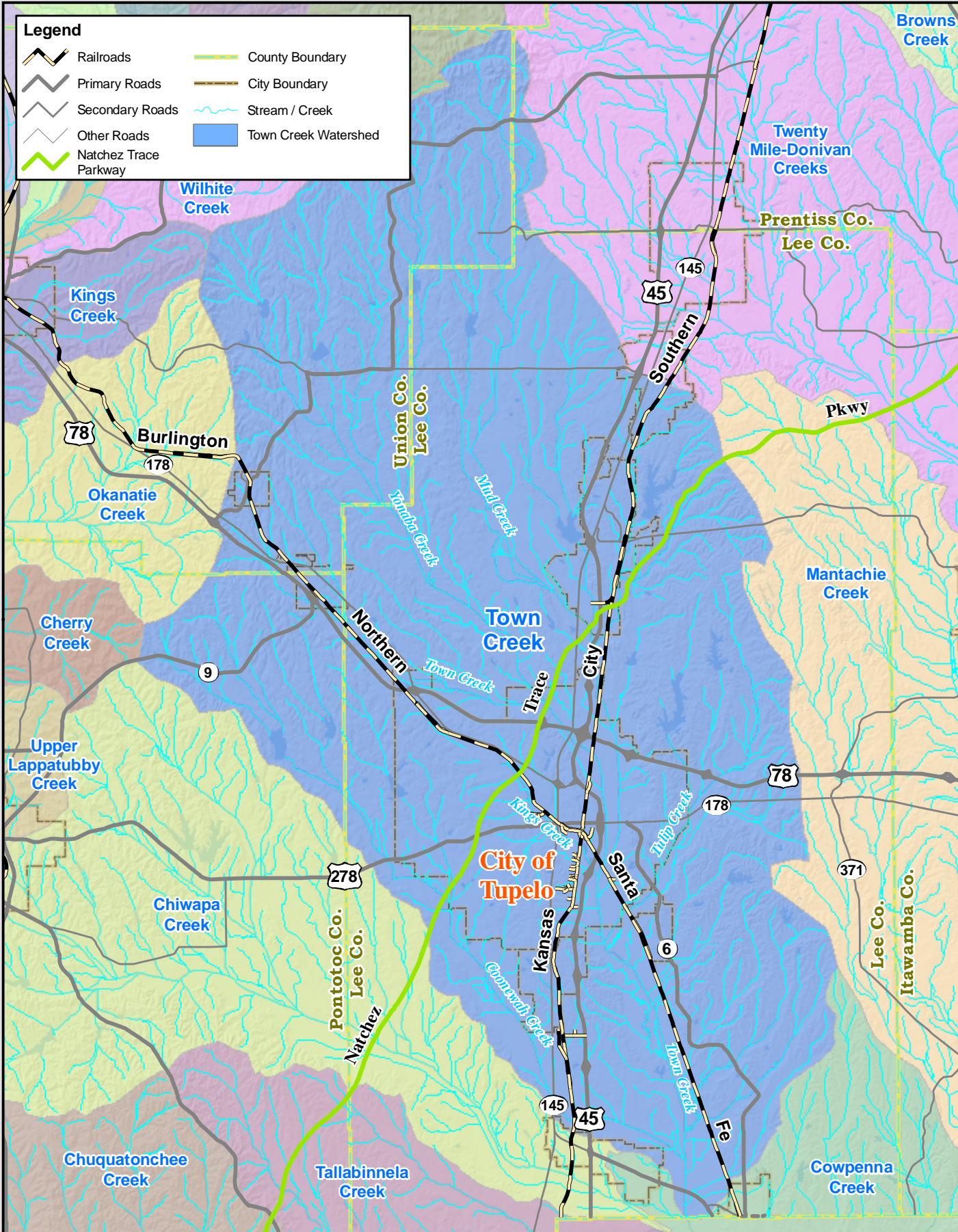
Located in the Tombigbee River Basin, the affected environment is drained by Town Creek, Mud Creek and Kings Creek. The affected environment is located in the Town Creek sub-basin, which covers 682 square miles, shown on **Figure 3-13**. Streams in the area are typically narrow in headwaters and become broad, widely meandering stream valleys downstream. However, around the City of Tupelo, many of the waters have been channelized to aid in stormwater removal. Instead of broad, winding streams, channels are straight, incised water bodies. Upper stream reaches are located in the Southern Coastal Plains-Tombigbee Hills physiographic regions and bottom reaches are located in Blackland Prairie physiographic regions. These waters flow into the Tombigbee River and eventually into the Tennessee-Tombigbee Waterway near Amory, Mississippi. The Tennessee-Tombigbee Waterway is a 234-mile man-made connection between the Tennessee and the Tombigbee Rivers. Waters from the Tombigbee River basin eventually connect to the Mobile River and out to the Gulf of Mexico.

Most of the land within the Town Creek and Mud Creek watersheds is in agricultural use. Streams in these areas receive seasonal increases of sediment loads corresponding with agricultural activities. The Kings Creek watershed receives typical urban runoff chemical contaminants, such as heavy metals, hydrocarbons, and sediment, as well as high sediment loads from construction sites.

Streams in the affected environment are actively incising, primarily due to downstream hydrologic changes resulting from the Tennessee-Tombigbee Waterway. The Tennessee-Tombigbee Waterway has effectively lowered the thalweg elevation of all water bodies flowing into it. Upstream channels are adjusting to this lower elevation and are incising to meet the new downstream gradient. Due to this natural channel process, streams are receiving large sediment loads. This increases the need for channelization and bank stabilizing activities.

Legend

-  Railroads
-  Primary Roads
-  Secondary Roads
-  Other Roads
-  Natchez Trace Parkway
-  County Boundary
-  City Boundary
-  Stream / Creek
-  Town Creek Watershed



Tupelo Mississippi Railroad Relocation Planning & Environmental Study

Sub-basins / Watersheds

Figure 3-13



3.12.2 Designated Use

Designated uses are prescribed by MSDEQ to determine activities that healthy stream segments should support, including aquatic life, secondary contact, recreation, and fish consumption. Town Creek, Mud Creek and Kings Creek each have an aquatic life designated use. The aquatic life designated use means that these stream segments should meet the basic needs of aquatic organisms and support healthy and diverse in-stream communities.

Streams unable to satisfy the requirements of their designated use are placed on Mississippi's 303(d) list, along with the possible causes of impairment, in compliance with Section 303 of the CWA. Once on the list, states are required to develop a plan to reduce the cause of impairment in order to restore the stream to healthy conditions.

Part of this restoration plan is the development of Total Maximum Daily Loads (TMDL), which is the maximum contaminant concentration in a water body that allows it to support its designated use. Town Creek, Mud Creek, and Kings Creek are all on Mississippi's 303(d) list for their inability to satisfy the requirements for aquatic life designated use.

3.12.3 Water Resources Management

The TCMWMD maintains 21 flood control structures constructed in the headwater tributaries of Town Creek, as well as other floodwater retarding structures. Many creeks within the City of Tupelo have been channelized to aid in stormwater removal. The TCMWMD aids in debris removal around culverts and bridges and holds easements, ranging from 250 feet to 550 feet, around all major channels within the Town Creek sub-basin.

All major perennial channels around the City of Tupelo have adequate riparian buffers due to management activities of the TCMWMD. This organization holds conservation easements and maintains riparian buffers of 75 to 250 feet along each side of the main channels around the City of Tupelo. Riparian buffers are important components for functioning streams. They provide stream bank stabilization, contaminant filtration, flood surge dampening, habitat for both in-stream and terrestrial organisms and provide important shading functions to the stream.

3.12.4 Wild and Scenic Rivers

As part of the Wild and Scenic Rivers Act of 1968, certain rivers and their immediate environments are designated Wild and Scenic and carry special protection. Mississippi has only one Wild and Scenic River which is located in the southern portion of the state. There are no designated Wild and Scenic rivers within the affected environment.

The State of Mississippi also oversees a Statewide Scenic Stream Stewardship Program (SSSP). This is a non-regulatory program to encourage private conservation efforts on exceptional streams in Mississippi. For a stream to be eligible for the



program, it must not have been channelized within the previous five years and must be designated a “public water.” In northeast Mississippi, there are several streams either enrolled in or nominated for the SSSP. However, none of them are located within the affected environment.

3.12.5 Groundwater

The affected environment lies on the boundary of the Southeastern Coastal Plain Aquifer and a Confining Unit, shown on **Figure 3-14**. The Confining Unit is an area composed of rock or sediment with low permeability so that water hardly moves through the unit. The Confining Unit generally follows the Blackland Prairie physiographic region.

The Southeastern Coastal Plain Aquifer is made up of unconsolidated sands and is a wedge of sediments which becomes thicker as it approaches the coast. The aquifer in this portion of Mississippi is typically very deep. U.S. Geological Survey (USGS) measurements at three wells near the BNSF main line indicate the aquifer is a minimum of 230 feet below the surface of the City of Tupelo.

The City of Tupelo acquires its drinking water from the Tombigbee River, 18 miles northeast of Tupelo.










3.13 FEDERALLY FUNDED AND PROTECTED PUBLIC FACILITIES

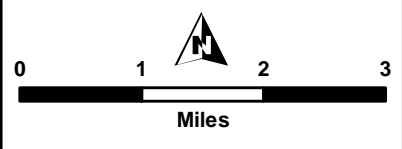
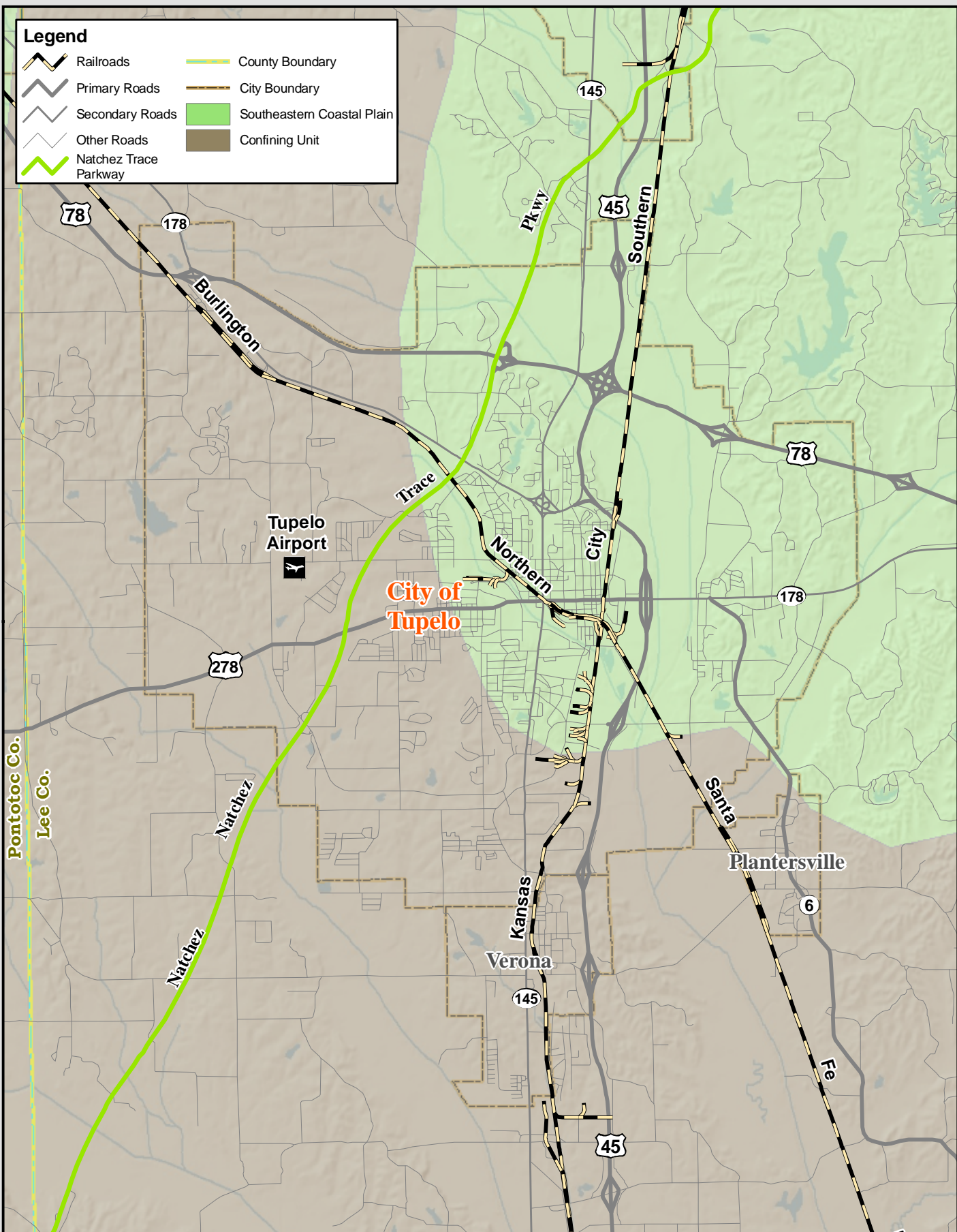
3.13.1 Section 4(f) of the Department of Transportation Act

Section 4(f) of the Department of Transportation Act of 1966 (49 USC 303(c)) allows for publicly owned parks and recreation areas, wildlife or waterfowl refuges, or significant historic sites to be “used” for transportation purposes only if there is no feasible and prudent alternative to the use of the land, and the action includes all possible planning to minimize harm resulting from such use. Use can be defined in three ways: Actual Use, Temporary Occupancy, or Constructive Use (23 CFR 774). Actual Use constitutes permanent incorporation of the resource into the project, such as land acquisition or demolition of a resource. Temporary Occupancy would be the extended intrusion into the property during construction, where construction would physically alter the land, or where full restoration of the resource could not be possible after construction. A Constructive Use determination could apply if a resource would experience ancillary impacts, despite the lack of a physical intrusion into the resource. Increased noise, increased vibration, restriction of access, ecological intrusion, or visual impairment are all examples of Constructive Use.

If the lands or sites are determined to be impacted by Actual Use, Temporary Occupancy, or Constructive Use, a Section 4(f) evaluation would be prepared to assess the impacts to the affected lands. The Section 4(f) evaluation would be included in the EIS and would require MDOT and FRA approval in the final EIS.

Legend

-  Railroads
-  Primary Roads
-  Secondary Roads
-  Other Roads
-  Natchez Trace Parkway
-  County Boundary
-  City Boundary
-  Southeastern Coastal Plain
-  Confining Unit



**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

Aquifer
Figure 3-14



The inventory of land uses included a review of public parks, recreation areas, wildlife and waterfowl refuges of national, state, or local significance, or land of an historic site of national, state, or local significance.

There are no wildlife or waterfowl refuges within the affected environment. Land of an historic site of national, state, or local significance and public parks and recreation facilities within the affected environment subject to Section 4(f) protection include:

- Pvt. John Allen National Fish Hatchery
- Mill Village Historic District
- South Church Street Historic District
- Downtown Historic District
- Carnation Condensary
- Hamp Bryson House
- North Neighborhood Historic District
- Gravlee Historic District
- Joyner Historic District (proposed)
- Oren Dunn City Museum
- Tupelo National Battlefield
- Natchez Trace Parkway
- Rob Leake City Park
- Burt Park Liberty Gardens
- Veterans Park
- Old Mill Town Park
- Elvis Presley Birthplace and Museum
- Gum Tree Park
- Eastwood Softball Complex
- City Hall Park
- Ballard Park

3.13.2 Section 6(f)(3) of the Land and Water Conservation Fund Act

Section 6(f)(3) of the Land and Water Conservation Fund Act (LWCFA) requires that all land purchased or improved with LWCFA funds are to remain forever available for public outdoor recreation use or replaced by lands of equal market value and recreational usefulness, and any conversion of property must be approved by the Secretary of the U.S. Department of the Interior.

This "anti-conversion" requirement applies to all parks and other sites that have been the subject of LWCFA grants of any type, whether for acquisition of parkland, development or rehabilitation of facilities. In many cases, even a relatively small LWCFA grant (e.g., for development of a picnic shelter) in a park of hundreds, or even thousands, of acres provides anti-conversion protection to the entire park site.

The Natchez Trace Parkway, Oren Dunn City Museum, and Ballard Park and Sportsplex have been LWCFA grant recipients within the City of Tupelo and thus fall under Section 6(f)(3) protection.

3.13.3 National Trails System Act

The National Trails System Act promotes the preservation, enjoyment, and appreciation of the open-air, outdoor areas and historic resources, with provisions to include public access. Trails should be established primarily near urban areas and secondarily within scenic areas and along historic travel routes which are often remotely located.



The National Trails System Act identified the Natchez Trace National Scenic Trail as one of the initial 14 routes nationwide thought to have potential as a national scenic trail. The six-mile foot trail parallels the Natchez Trace Parkway from Jackson Street to the Natchez Trace Parkway Headquarters and Visitor Center.

3.14 WILDLIFE

3.14.1 Vegetative Communities

The affected environment is comprised of the confluence of the Blackland Prairie ecoregion and the Southern Coastal Plain, shown on **Figure 3-10**. The proposed project corridor lies exclusively within the Blackland Prairie ecoregion. The Blackland Prairie is a crescent-shaped region extending from northeast Mississippi, across central Alabama, and into western Georgia. The original vegetation of Blackland Prairie is not well known; however, it was probably prairie grasses scattered with wildflowers. This area was once believed to be connected to the Great Plains region of the United States and controlled by regular fire cycles. The Blackland Prairie area is considered a critically endangered ecosystem in the nation and has been identified by the USFWS partners group as one of their focus areas. In the 1800's, much of the prairie land was converted into agriculture production due to its relatively flat topography and fertile soils. Excessive grazing allowed expansion of eastern red cedar and other noxious species. At this time, there are no pristine prairie environments remaining in the Blackland Prairie around the City of Tupelo. Although the project is located in the Blackland Prairie, it is surrounded by rolling Tombigbee Hills which is part of the Southern Coastal Plain.

Most native prairie vegetation, such as blackbelt oak-cedar forests, has been replaced with row crop and grazing agriculture activities. It is estimated that less than one percent of the Blackland Prairie's open prairie habitat remain intact nationwide. Remaining prairie remnants are also threatened by development, erosion, incursion of eastern red cedar, waste disposal, suppression of fire, and other human activities. In recent years, areas in several of the higher quality prairies have been disturbed by recreational driving and planting green-fields for deer hunting.

The region supports both deciduous hardwoods and conifers in undeveloped areas. Red oak, white oak, sweetgum, blackgum, loblolly pine, and shortleaf pine are the dominant over story species. Mixed hardwoods dominate floodplains and forests of eastern red cedar and sugarberry dominate alkaline hills and side slopes. Eastern red cedar, dogwood, and osage orange are the major midstory species. Japanese honeysuckle, greenbrier, little bluestem, native lespedzas, plumegrass, low panicums, sedges and rushes are the dominate understory species. The affected environment generally contains either urban or agricultural areas. Few pristine deciduous or coniferous forests are found within the affected environment.



3.14.2 Terrestrial Habitat

Because the primary land use for the affected environment is either agriculture or urban, most wildlife species expected in the affected environment are generalists and are able to survive in a wide range of habitats. Organisms found in open areas, including agriculture, are bobwhite quail, cottontail rabbit, red fox, mourning dove, and species of songbirds. Squirrels, white tail deer, wild turkey, woodcock, raccoon, ducks, geese, rails, and shore birds can be found in, or near, the affected environment. No environmentally sensitive habitat or species is found within the affected environment.

3.14.3 Aquatic Habitat

Water bodies support numerous different forms of aquatic organisms including fish, macroinvertebrates, and phytoplankton. These organisms often require specific habitat requirements to thrive. Substrate type is typically a guiding factor in determining what communities can survive in a stream.

Large sediment loads are the leading cause of stream degradation of aquatic communities. Small interstitial spaces providing opportunities for retreat for aquatic insects can become saturated with sediment and many aquatic eggs become suffocated by high sediment loads. Fish gills can become clogged and sight-hunting fish species can have reduced visibility, and thus are unable to locate prey, with increased sedimentation. Primary producers, which obtain energy from the sun and are the base for all communities, are unable to photosynthesize due to the fact that light is unable filter through murky waters.

Organisms found in Kings Creek, Mud Creek, and Town Creek area are typical organisms able to survive in a range of environmental conditions and are capable of living in poor water quality due to high sediment loads and stream channelization activities. Common fish species found in these creeks include bass, bluegill, and channel catfish.

3.14.4 Threatened and Endangered Species

3.14.4.1 Federally Listed Species

In compliance with Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), the USFWS was consulted in regard to any Threatened or Endangered species within the affected environment. A USFWS record search revealed the presence of one federally threatened species in Lee County.

Price's potato bean (*Apios priceana*)

This species was listed by USFWS as Threatened in 1990 due to the small number of populations and threats to its habitat. At the time of listing, there were 25 known populations of the species in four states.



Price's potato bean (*Apios priceana*) is a yellow-green perennial vine in the pea family (*Fabaceae*). It was originally found by Sadie Price in Bowling Green, Kentucky in 1896. The compound leaves have five to seven (dark green above, lighter below) leaflets, growing from a stout, thick tuber. Twining vines are round in cross section, somewhat twisted and slightly ridged. Flowers are white and pink-purple-maroon, large pea-type flowers. Flowering in August with large pink fragrant blooms, the Price's potato bean can be distinguished from other legumes by its single large tuber.

Occurring in mesic (moderately moist) forests, it is often found along streams or tree fall gaps in open canopy habitats. The species is found in upland habitat near creeks and stream banks. Unlike many listed species, the Price's potato bean requires some openings in the tree canopy to allow sunlight. Excessive shading from canopy trees results in reduced growth and reproduction. The species can be found along roadsides and utility rights-of-way.

No critical habitat for the Price's potato bean has been established by the USFWS. The potato bean does not flower every year. Due to the fact that a single vine grows from a large tuber, it is easy to overlook this species when it is not flowering.

The population declines are primarily due to the fact that the plant produces very few seeds, resulting in a low level of sexual reproduction. Clear cutting logging practices can eliminate populations. Also, most populations are located on private lands where management for this species may not be a high priority. Trampling of species by cattle can cause severe damage.

The largest known population of Price's potato bean is located in Lee County, in the nearby Coonewah Creek watershed. The Nature Conservancy owns this five-acre tract of land with 1,300 to 1,500 individuals, the largest known population of Price's potato bean in the world. The preserve is located near the intersection of Coonewah Creek and MS 6 southwest of Tupelo. Because of this large concentration of individuals there is potential to find other populations in nearby watersheds, such as Town Creek or Mud Creek.

3.14.4.2 Critical Habitats

A critical habitat is defined in the Endangered Species Act as a habitat given special protection for the benefit of a listed species. No critical habitats for any species were recorded within the affected environment.

3.14.4.3 State Listed Species

Record searches of the Mississippi Department of Natural History did not reveal the presence of any state listed species in the affected environment.



3.14.5 Conservation Easements

Conservation easements are legal agreements entered into by a property owner and a qualified conservation organization such as a land trust or a government entity. The use of conservation easements is widely employed throughout the State of Mississippi to protect and preserve wildlife, wetlands, and agricultural land. Most easements involve permanent restrictions on the use of land whereas some are term easements. The TCMWMD holds conservation easements around many of the channels throughout the Tupelo area.

3.15 HAZARDOUS MATERIALS

3.15.1 Historical Information

Standard historical sources reviewed in this investigation were USGS (7.5-minute) Topographic Maps made available by the NRCS office in Tupelo. Aerial photographs reviewed were dated for the years 1958, 1980, 1985, and 1992. In addition, Sanborn Fire Insurance Maps were also reviewed for the years 1924, 1949, and 1963 for a more detailed view of the more industrial section of the affected environment.

Aerial photographs indicate that this entire section of the existing BNSF main line was developed during these years for light to heavy industrial use. US 45 had not been constructed in 1958. Although detail is poor on the aerials, the increasing level of development is readily apparent through the years.

The review of the aerial photographs and Sanborn maps shows significant change occurred in the more industrial area of the corridor from 1924 through 1992. However, the path of the railroad remained constant, and growth of the area and change in industry from more industrial to textile and light commercial does not suggest the potential for environmental impairment along the existing railroad.

3.15.2 Federal and State Records Storing Data on Industrial Waste

All database record reviews were obtained from Environmental Data Resources, Inc. (EDR), which incorporates databases from the EPA and the MSDEQ.

The EDR database provides extensive information regarding facilities which use, generate, or store hazardous materials. The EDR database includes information from the Resource Conservation and Recovery Act (RCRA), Mines Master Index, Sara Title III Toxic Chemical Release Inventory System (TRIS), Emergency Planning and Community Right-to-Know, Federal Insecticide, Fungicide and Rodenticide Act, and the Toxic Substances Control Act (FTTS and HIST FTTS). In addition, sites which utilize underground storage tanks (USTs) or above-ground storage tanks (ASTs) are listed. Facilities which have environmental permits such as National Pollutant Discharge Elimination System (NPDES) program, the Title V Air program or Solid and Hazardous Waste program permits are included. A separate EPA database called the Facility Index System (FINDS) provides additional data on sites included in the



above programs. According to the search performed of these databases, the following sites in the overall search area were reported:

- RCRA Small Quantity Generators - 7
- RCRA Non-Generators - 14
- FTTS - 2
- HIST FTTS - 2
- FINDS - 76
- Landfill - 1
- SWRCY (Solid Waste Recycler) - 1
- Underground Storage Tanks (UST) - 113
- Above Ground Storage Tanks (AST) - 2
- Permits - 18

Databases capturing information on spills or clean-up of releases and the number of sites reported by EDR for the overall search area include the following:

- Emergency Response Notification System (ERNS) -8
- Hazardous Materials Incident Report System (HMIRS) - 1
- Department of Transportation Office of Pipeline Safety (DOT-OPS) - 1
- State Voluntary Clean-Up Program (VEP) - 1
- State Hazardous Waste Sites (SHWS) - 7
- Leaking Underground Storage Tanks (LUSTS) - 28

Based on the database records, there have been no railroad-generated contamination spills in the Tupelo area. Releases of hazardous substances reported by ERNS included a small release of gasoline (approximately 10 gallons) from a saddle tank on a large truck parked at a Kroger Grocery store (241 South Park, west of the Crosstown intersection) and a release of floor scrubbing waste water entering a storm drain from the Cooper Tire Rubber Company (1804 Green Street, south of Eason Boulevard along the KCS rail line). The HMIRS also has listed the release at the Kroger location. EDR Site specific reports indicate that actions were taken to remedy the releases.

SHWS listed sites include the following:

- Day Brite Lighting/Thomas Industries
- Tupelo Recycling/Henry Oil
- Tupelo Fairgrounds-Long Laundry

The Day Brite Lighting site received a Federal No Further Action letter in November 1995. The site is located approximately 2.5 miles south of the intersection of the BNSF and the KCS railroads. Only one SHWS site, Tupelo Recycling/Henry oil was noted adjacent to the railroad. The Tupelo Recycling/Henry Oil site was reported by



EDR to have received a State No Further Action letter in May 1997. Because this site is immediately adjacent to the railroad, a file review was performed at the MSDEQ. Soils and groundwater at the site were documented to be contaminated with petroleum products. The May 1997 letter issued by MSDEQ required that additional groundwater delineation be performed onsite, that contaminated soils be removed, and that oily wastewater in a sump be removed. These activities were apparently performed by the facility to the satisfaction of the MSDEQ. The Tupelo Fairgrounds–Long Laundry, which is located in an area to the northeast of the existing BNSF main line, is being remediated by the Tupelo Redevelopment Authority which has worked to develop the surrounding area. Groundwater has been contaminated at the site by the dry cleaning solvent tetrachloroethene and its degradation products. Contamination appears to be localized and is being addressed under the MSDEQ Brownfields program.

The majority of the LUST sites reported were noted to be closed. Sites with an open status include the following:

- Mid Town BP at 220 North Gloster Street
- Savings Station at 447 East Main Street
- Cockrell Banana Company 405 Elizabeth Street

The Mid Town BP is undergoing clean-up under the State Trust Fund for remediation of leaking underground storage sites, and the USTs have been removed. The Savings Station and the Cockrell Banana sites are located near the intersection of Elizabeth Road and East Main Street, away from the BNSF main line.

EDR provides a list of “Orphan sites” that are included on various databases, but which have insufficient address information to provide locations. There are numerous Orphan sites listed for the overall affected environment. The majority of the Orphan sites are listed under a FINDS, RCRA, UST, or Permits database, and none was identified immediately adjacent to the railroad corridor during the site reconnaissance.

3.16 AESTHETICS AND VISUAL RESOURCES

The majority of the affected environment is flat and used for agriculture and urban residential areas. Even in the industrial areas adjacent to the existing BNSF and KCS rail corridors, there are few distinguishing visual characteristics in the landscape and few structures over 35 feet tall. The most prominent natural features are the streams and remaining wooded areas adjacent to them. Other visual features include an historic Tennessee Valley Authority (TVA) sign at the Crosstown intersection, the BancorpSouth Arena, and the 1,000-foot viewshed surrounding the Natchez Trace Parkway.

The existing BNSF and KCS railroad corridors serve as both a visual resource and a visual obstruction. The rail beds provide open space and the setting for train-watching enthusiasts, which can be viewed as providing a visual resource. However, the rail beds also provide the

setting for negative visual impacts resulting from passing and standing trains. The trains on the existing BNSF and KCS rail lines provide temporary and long-term viewshed impacts to cultural resources. The trains which pass through Tupelo or which are engaged in interchange operations can be considered a temporary viewshed impact. The rail cars which occupy the interchange yard storage tracks between Gloster Street and Church Street on the BNSF main line and between Eason Boulevard and Elizabeth Street on the KCS rail line can sit unmoving for several days. Even though individual cars may not spend a significant number of days in either of these yards, the cars are replaced often enough such that they would represent an almost permanent presence. This can be considered a long-term viewshed impact as rail cars are often rusty and covered with graffiti.

3.17 TRANSPORTATION AND UTILITIES

3.17.1 Highways

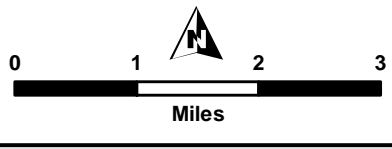
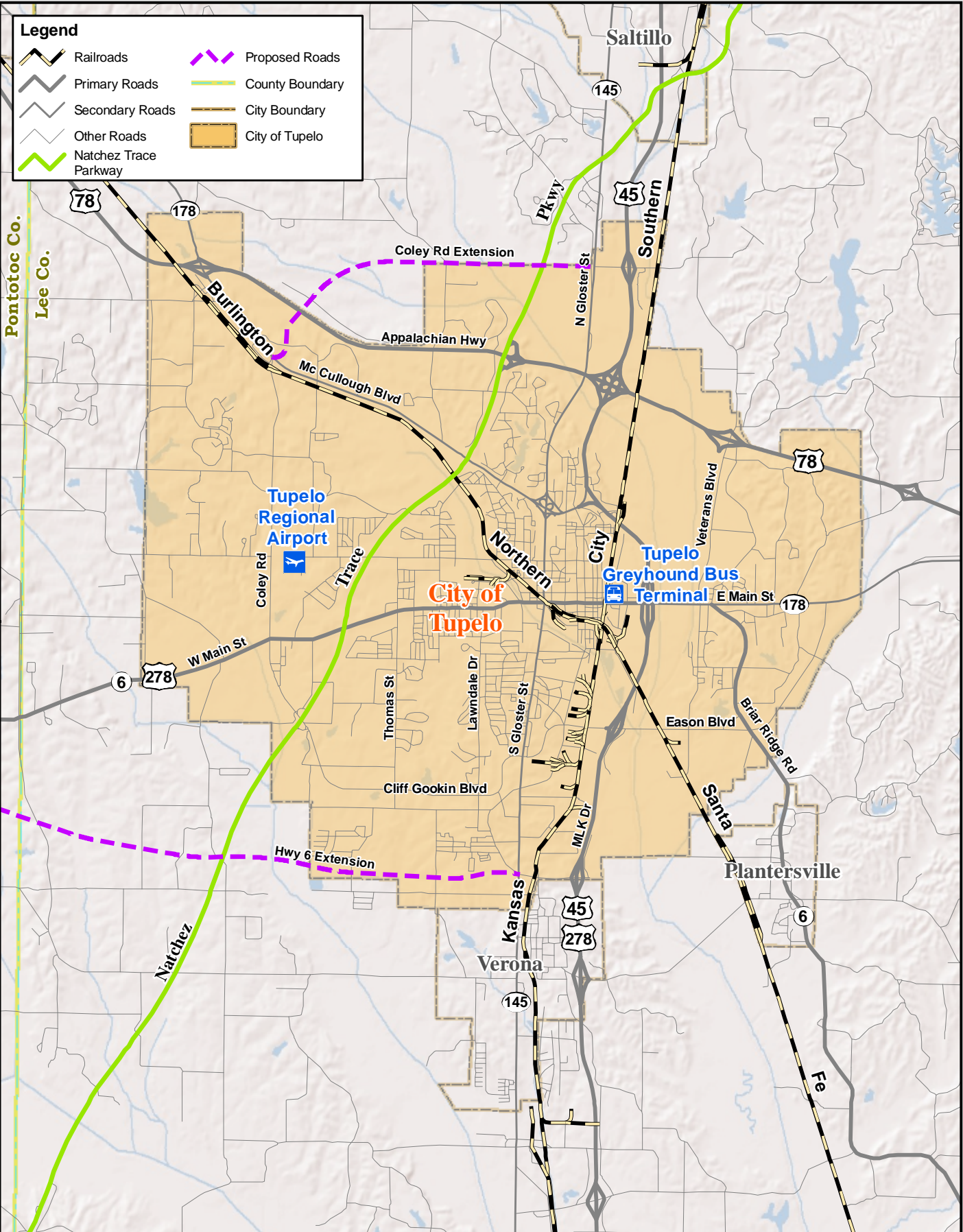
The transportation network within the City of Tupelo consists of a combination of local streets, state highways, U.S. highways, and a future Interstate highway corridor, shown on **Figure 3-15**. In addition, two corridors of the Appalachian Highway System run through the City of Tupelo.

- US 78 (future I-22) runs east to west as a four-lane, divided, limited-access highway across the northern portion of the Tupelo city limits. This highway is also part of Corridor X of the Appalachian Highway System and provides freeway access from Tupelo to Memphis, Tennessee and Birmingham, Alabama.
- US 45 (Martin Luther King Jr. Drive) runs north to south as a four-lane, divided, limited-access highway through the center of the Tupelo city limits. The highway is shared by MS 178 from McCullough Boulevard to Main Street and US 278 from Main Street to Shannon, Mississippi. US 45 provides a north-south freeway bypass around downtown Tupelo from Shannon to Saltillo.
- US 278 runs east to west as various road types, sharing MS 6 and US 45 through the City of Tupelo. US 278 is also part of Corridor V of the Appalachian Highway System.

MS 6 is a principal east to west road through the City of Tupelo. It shares Main Street from the west and through the downtown area and then turns south to Plantersville as Briar Ridge Road. However, MS 6 is being realigned to be constructed as a new four-lane, divided highway to run to the south of the City of Tupelo. MS 6 provides access from Tupelo to Pontotoc and serves as a local highway to the communities south of Tupelo.

Legend

-  Railroads
-  Primary Roads
-  Secondary Roads
-  Other Roads
-  Natchez Trace Parkway
-  Proposed Roads
-  County Boundary
-  City Boundary
-  City of Tupelo



**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

Transportation
Network
**Figure
3-15**



- MS 145 (Gloster Street) is a principal north to south road through the City of Tupelo. It provides local access from Tupelo to Shannon, Verona, and Saltillo.
- MS 178 is a principal east to west road through the City of Tupelo. It runs as McCullough Boulevard from the northwest corner of the City to US 45, then shares US 45 to Main Street, and then runs east as Main Street towards Mooreville. MS 178 provides local access from Tupelo to Sherman and Blue Springs.
- Natchez Trace Parkway, which is maintained by the U.S. National Park Service, is a national scenic, two-lane, limited-access roadway which runs north to south through the City of Tupelo. While the Natchez Trace Parkway is not a primary highway and does not allow trucks, this road does connect individual passenger cars from Tupelo with Jackson, Mississippi and Nashville, Tennessee.

3.17.2 Airports

Tupelo provides regional air service at the Tupelo Regional Airport, served by Northwest Airlin/Mesaba (three commercial flights per day). Located in the western portion of Tupelo, shown on **Figure 3-15**, the airport serves 13 Mississippi counties and accounts for 202 jobs with an annual payroll of \$4.1 million. The airport's total economic impact is almost \$14 million. Gross revenues for associated rental cars companies alone approached \$1 million in 1999. The airport operations also host Army aviation and Mississippi National Guard facilities and operations.

3.17.3 Public Transportation

Greyhound operates long-distance passenger bus service with a station in Tupelo, shown on **Figure 3-15**. Tupelo does not have local or regional bus service or passenger rail service.

3.17.4 Pedestrian and Bicycle Facilities

As part of the U.S. National Park Service, the Natchez Trace Parkway promotes bicycle use along its entire 444-mile route, including within the City of Tupelo. However, cyclists are discouraged from using the Natchez Trace Parkway during peak traffic times through the City of Tupelo, as the Natchez Trace Parkway does not provide any dedicated bicycle facilities, such as bicycle lanes, paved shoulders, or sidewalks. Some of the streets in downtown Tupelo have sidewalks, but there are no designated bicycle facilities within the City of Tupelo. Pedestrian trails within the City of Tupelo are limited to the city parks, such as Burt Park Liberty Gardens and Ballard Park, and the Natchez Trace National Scenic Trail.

The existing BNSF main line through the City of Tupelo has no pedestrian or sidewalk facilities which directly cross the railroad within the right-of-way. However, sidewalk segments along the west side of both Park Street and Church Street terminate on each side of the BNSF right-of-way, making a tacit or implied connection. In addition, sidewalk along both sides of Spring Street terminates on the



north side of the existing BNSF right-of-way with no sidewalk facilities south of the railroad. Pedestrians entering the BNSF or KCS right-of-way without consent are considered trespassing.

3.17.5 Utilities

The City of Tupelo includes many utilities, both subsurface and above-ground. The City of Tupelo provides potable water, sewer, and electricity to customers within the city limits. The electric service, however, is actually generated by the TVA. There are also five major TVA transmission lines which run through the entire affected environment. Mississippi Valley Gas Company (ATMOS Energy) provides natural gas in Tupelo, with a pipeline extending southeast from Tupelo. AT&T is the major provider of telephone service in Tupelo. Comcast provides television cable service in and around the Tupelo city limits.

4.0 ENVIRONMENTAL CONSEQUENCES

This chapter describes the potential beneficial and adverse social, economic, and environmental effects of the No-Build Alternative (Alternative A) and Build Alternative (Alternative M). In addition, impacts are described for the proposed roadway improvements associated with the Build Alternative. This chapter also includes discussion on measures proposed to avoid, minimize, and mitigate adverse impacts.

Since the Build Alternative consists of an elevated viaduct within the existing BNSF right-of-way, the impacts would be limited to the immediate vicinity of the proposed improvements. For the purposes of determining effects to various resources, a distance of ½-mile was selected for the analysis, unless otherwise noted.

4.1 LAND USE

4.1.1 Impacts to Existing Land Use
















The primary land uses within a ½-mile of the BNSF main line, shown in **Table 4-1** and shown on **Figure 4-1**, are agricultural (17%), total commercial (12%), total industrial (12%), total residential (17%), vacant (17%), and transportation (18%). Commercial and industrial land uses and vacant land suitable for development are good indicators that there is a great deal of development already existing in this area and that there is available land for continued growth.

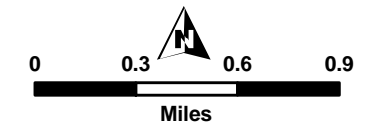
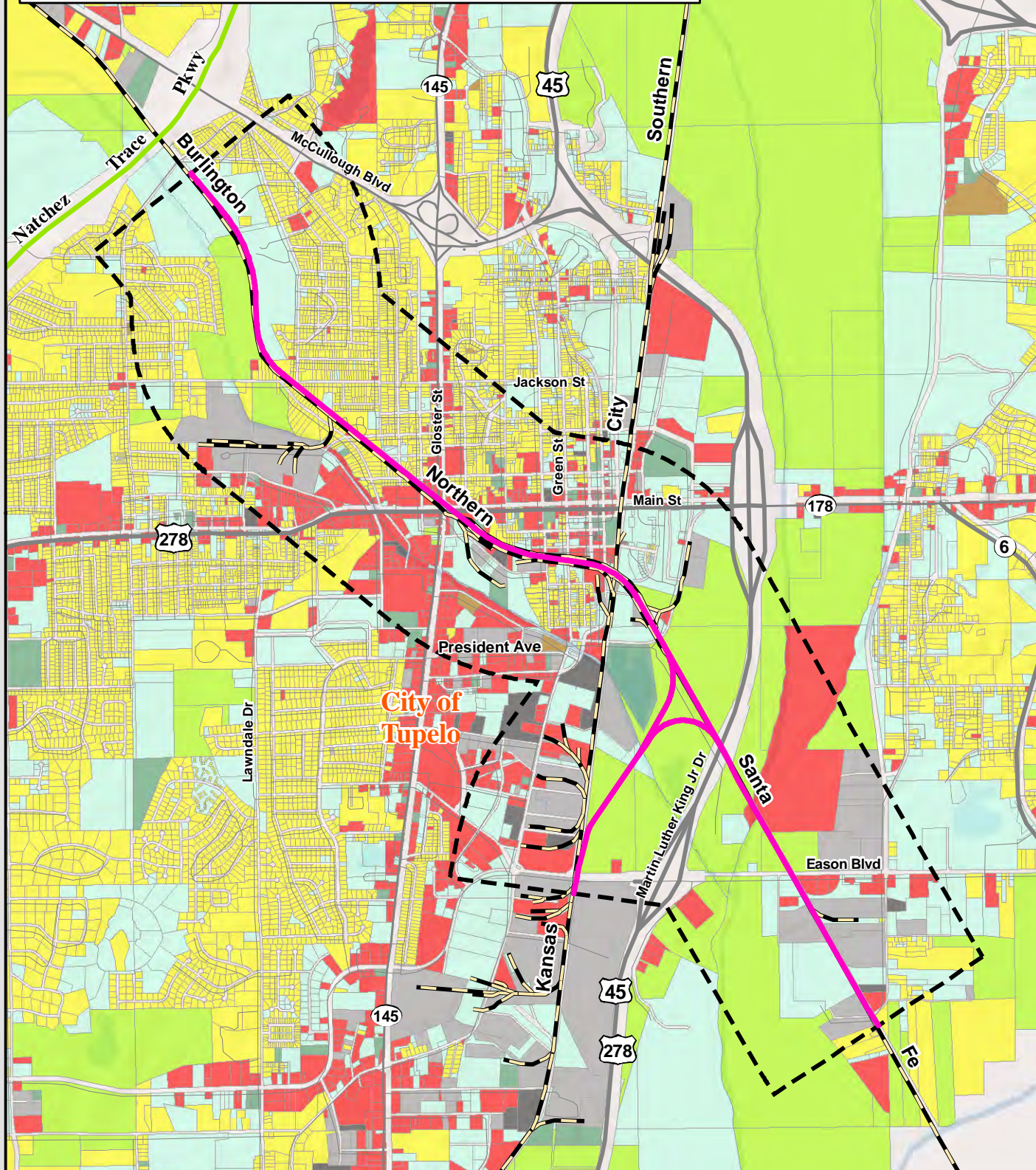
Table 4-1 Existing Land Use within ½-Mile of Build Alternative

Land Use by Parcel	Area (acres)	% of Area
Agricultural	607	17.46%
Commercial Retail-Wholesale	205	5.90%
Commercial Services-Office	255	7.34%
Industrial-Heavy	301	8.66%
Industrial-Light	104	2.99%
Medical	30	0.86%
Public Government	8	0.23%
Residential 1-2 Family	553	15.91%
Residential Mobile Home	0	0.00%
Residential Multi-Family	44	1.27%
Semipublic	39	1.12%
Transportation-Utilities-Communication	41	1.18%
Vacant Suitable for Development	582	16.74%
Unknown	76	2.19%
Transportation R/W (Streets, Highways, Railways, and Natchez Trace)	631	18.15%
Total	3,476	100%

Sources: Mississippi Automated Resource Information System (MARIS), City of Tupelo Planning and Development Department

Legend

- | | | | |
|---|---|---|--|
|  Railroads |  Natchez Trace Parkway |  Agricultural |  Industrial |
|  Primary Roads |  Build Alternative |  Residential |  Utilities |
|  Secondary Roads |  1/2 Mile Buffer Zone |  Retail / Services / Trade |  Vacant |
|  Other Roads | |  Recreational |  Unknown |



**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

Existing
Land Use
**Figure
4-1**



No-Build Alternative

Since there are no improvements involved, there would be no impacts to the existing land use as a result of the No-Build Alternative.

Build Alternative

The majority of the Build Alternative would remain within the existing BNSF right-of-way, with approximately two acres of right-of-way acquisition area from vacant parcels for the storage tracks and approximately 11 acres of either agricultural or vacant land for the interchange tracks. Land use changes adjacent to the Build Alternative are not anticipated as the proposed design would not disturb any occupied residential or commercial parcels. The agricultural areas would be bisected by the interchange track, but agricultural activities can be maintained on both sides of the right-of-way. All at-grade crossings would be eliminated between Lumpkin Avenue and Veterans Boulevard. This would reduce many of the adverse impacts of the current facility, such as traffic congestion and noise. By reducing adverse impacts associated with a rail facility, greater traffic flow and further economic development could be realized by neighboring land uses.

4.1.2 Impacts to Proposed Land Use

4.1.2.1 Consistency with Comprehensive Plans

Tupelo: The Story Continues - The 2025 Comprehensive Plan (December 2008 www.tupeloms.gov/development/tupelo-2025) was adopted by the City of Tupelo to outline the City's and region's growth and development plan for the next two decades. The plan is updated every five years and directs inter-agency coordination and molds policy. Some of the main goals of the comprehensive plan include revitalizing neighborhoods, expanding economic development, and improving transportation. The comprehensive plan identified the relocation of the BNSF railroad crossing at the Crosstown intersection as an immediate need to enhance transportation safety within Tupelo. The development of a network of greenways, bikeways, and sidewalks was also identified in the comprehensive plan as a long-term goal.

No-Build Alternative

Without improvements to the BNSF main line or relocation of the rail lines from the Crosstown intersection, the comprehensive plan would need to be adjusted in order to facilitate future development. These adjustments would include changes to the roadway network to accommodate the anticipated traffic delay. The comprehensive plan goal of removing the rail lines from the Crosstown intersection would not be satisfied. As a result, the No-Build Alternative would not be consistent with the revised comprehensive plan.

Build Alternative

The Build Alternative would effectively remove the at-grade railroad crossing from the Crosstown intersection, satisfying the immediate need identified in

the comprehensive plan. With this removal, the existing roadway network would require fewer enhancements to facilitate future development. In addition, the proposed multi-use trail could serve as the spine of a pedestrian/bicycle facility network within Tupelo. Therefore, the Build Alternative would be consistent with the recently adopted comprehensive plan.

4.1.2.2 Zoning Impacts

Zoning codes within ½-mile of the Build Alternative, shown in **Table 4-2** and shown on **Figure 4-2**, are diverse. The zoning district definitions are the same as discussed in **Section 3.2.2.1**. By traversing downtown Tupelo, many different zoning areas are bisected, including the many sub-districts of the downtown overlay districts.

Table 4-2 Zoning within ½-Mile of Build Alternative

Zoning District	Zoning Abbreviation	Area (acres)	% of Area
Agricultural-Open District	A-O	712	20.70%
Light Commercial District	C-1	2	0.06%
General Commercial District	C-2	435	12.65%
Heavy Commercial District	C-3	248	7.21%
Central Business District	CBD	285	8.28%
Light Industrial District	I-1	545	15.84%
Heavy Industrial District	I-2	139	4.04%
Office District	O	109	3.17%
Planned Unit Development	PUD	4	0.12%
Medical District	M-1	1	0.03%
Residential Estate District	R1-E	0	0.00%
Large Lot Residential District	R1-L	40	1.16%
Medium Lot Residential District	R1-M	862	25.06%
Small Lot Residential District	R1-S	7	0.20%
Two Family Residential District	R-2	26	0.76%
Multi-Family Residential District	R-3	22	0.64%
Residential/Office Mixed District	R-O	3	0.09%
Total		3,440	100%

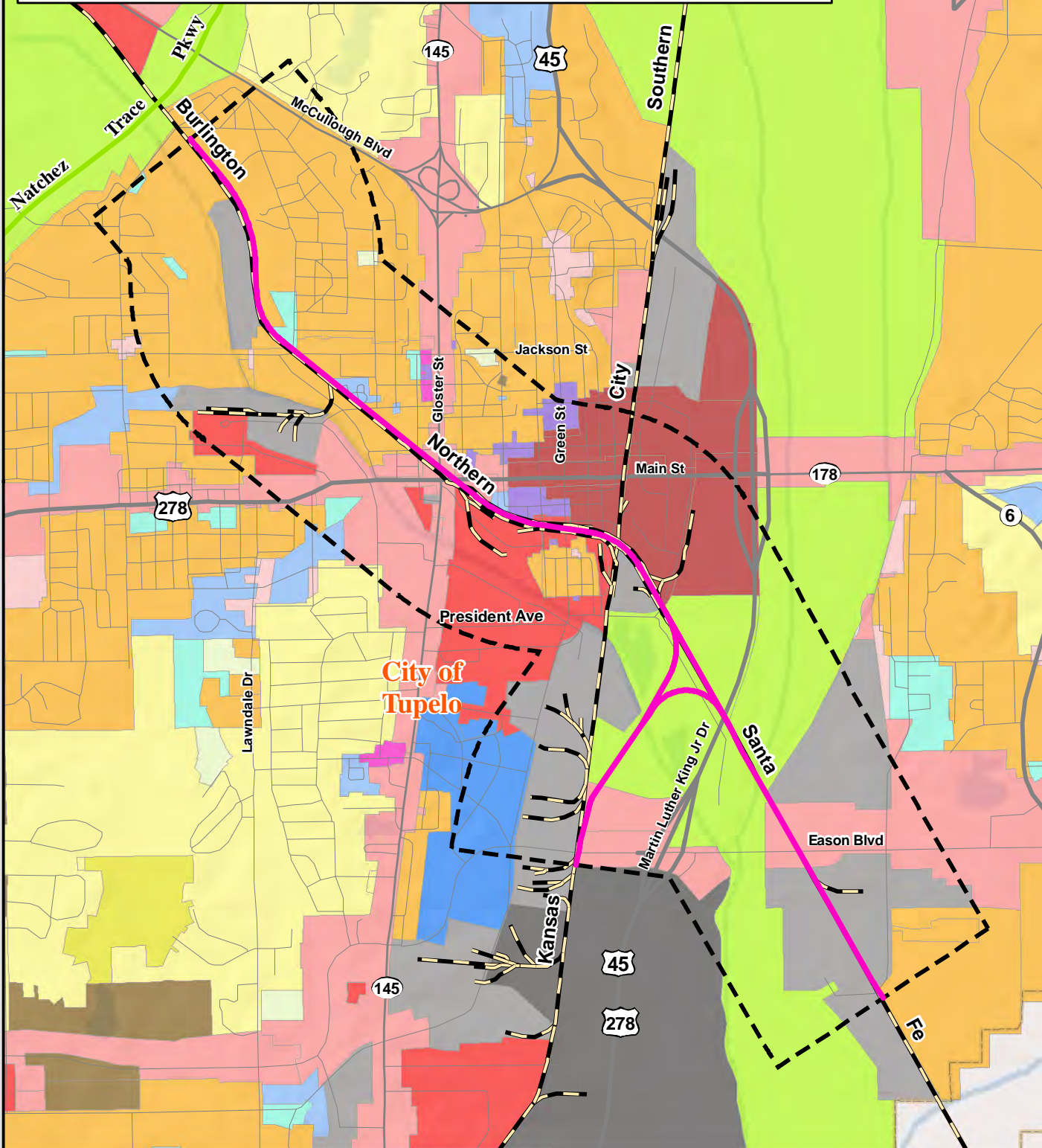
Sources: Mississippi Automated Resource Information System (MARIS),
 City of Tupelo Planning and Development Department

No-Build Alternative

Since no improvements would be involved, the intended zoned uses would be preserved. There would be no impact to zoning with the No-Build Alternative.

Build Alternative

The Build Alternative would preserve the intended zoned uses by retaining the location of the rail line throughout the city. No impacts to zoning are anticipated with the Build Alternative. However, the grade-separated rail would mean less opportunity for rail-served industrial uses along the BNSF main line, which could result in the rezoning of industrial areas into other uses.



**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

Zoning
Figure 4-2



4.1.2.3 Impacts to Overlay Districts

Nearly all of the downtown overlay districts are located within ½-mile of the BNSF main line.

No-Build Alternative

The downtown overlay districts would be preserved by the No-Build Alternative. No impacts to the downtown overlay districts would occur with the No-Build Alternative.

Build Alternative

The downtown overlay districts would be preserved by the Build Alternative. These districts would be better served by the alleviated congestion, and reduced noise which could be achieved by the Build Alternative. This also could potentially result in more economic investment and development for the downtown Tupelo area.

4.2 FARMLAND

The entire project is located within the city limits of Tupelo. There is little farmland, except for areas near the proposed interchange. In a letter dated March 19, 2008, included in **Appendix A**, the USDA NRCS stated that because the impacted farmlands are within the municipal boundaries of the City of Tupelo, they are not subject to the requirements of the FPPA. Therefore, Form AD-1006 would not be required and FPPA would not apply. In addition, the letter stated that no CRP, WRP, or GRP lands would be impacted with the Build Alternative.

4.3 ENVIRONMENTAL JUSTICE

Executive Order 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations – provides guidance for addressing minority and low-income populations in association with NEPA. Actions should identify and address disproportionately high and adverse impacts to minority and low-income populations. Disproportionately high and adverse effect on minority and low-income populations is defined as:

- An adverse effect that is predominately borne by a minority population and/or a low-income population; or
- An adverse effect that will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population.

The race and ethnicity of the population of the study area were analyzed. According to *U.S. Department of Transportation (DOT) Order to Address Environmental Justice in Minority Populations and Low-Income Populations* (DOT Order OST-95-141 (50125), 1997), population groups defined as minorities include the following:

- Black (having origins in any of the black racial groups of Africa);



- Hispanic (of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture of origin, regardless of race);
- Asian American (having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or
- American Indian and Alaskan Native (having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition).

According to the 2000 Census data, Lee County is primarily White (76.6%). The largest minority population is Black (22.1%), with the remaining races comprising approximately 1% of the population (Native American [0.1%], Asian [0.4%], and two or more races [0.5%]). Hispanic persons comprise only 0.8% of the County's population. Based on the income threshold defined in **Section 3.4.3**, 41.2% of the population of Lee County is classified as low-income.

2000 Census data were reviewed at the County and Census block group levels to identify localized minority and low-income populations. A potential EJ concern could exist if the minority or low-income percentage of the population of a Census block group within ½-mile of the Build Alternative is significantly greater than the Lee County percentages. The Census data shows a very small percentage of minority households other than black households in these Census block groups. The minority populations other than black populations are small enough to remove specific EJ concerns for minority groups other than black. Therefore, only the black minority percentages were used to identify EJ concerns for Census block groups within ½-mile of the Build Alternative.

For minority populations, a potential EJ concern could exist if the minority population percentage for the Census block group is at least 50%. For low-income populations, a potential EJ concern could exist if the median household income for the Census block group was below 80% of the median household income of Tupelo, or a household income of \$28,932 or less. The Census block groups within ½-mile of the Build Alternative were identified and tabulated for black households and low-income households, shown in **Table 4-3**.

Table 4-3 Potential Environmental Justice Concerns within ½-mile of Build Alternative

Census Tract	Block Group	Black Households		Low-Income Households	
		Percent	EJ Concern	Median Household Income	EJ Concern
9504 - Airport Area	1	9%	No	\$47,639	No
	2	13%	No	\$68,000	No
9505 - Park Hill/ Joyner/Downtown	1	4%	No	\$41,801	No
	4	2%	No	\$98,746	No
	5	7%	No	\$61,010	No
9506 - Gravlee & Joyner	1	6%	No	\$44,464	No
	2	0%	No	\$50,822	No
	4	32%	No	\$31,420	No
	5	23%	No	\$26,063	Yes
9507 - Mill Village	1	51%	Yes	\$18,966	Yes
	2	39%	No	\$30,500	No
	3	31%	No	\$28,519	Yes
9508 - Lee Acres	1	40%	No	\$25,292	Yes

No-Build Alternative

The No-Build Alternative would leave the BNSF main line in its existing configuration, including all of the at-grade crossings. The No-Build Alternative would not adversely affect discrete minority or low-income populations because there are no improvements associated with the No-Build Alternative. Therefore, there are no EJ concerns associated with the No-Build Alternative.

Build Alternative

The improvements associated with the Build Alternative would primarily be contained within the existing BNSF right-of-way, except for the interchange area. The overall percentages of minority population (14%) and overall median household income within ½-mile of the Build Alternative are well below those of the total population of Lee County. There is one Census block group that contains a population that is 51% minority and four Census block groups that would be considered low-income. Because the improvements would be constructed within the existing BNSF right-of-way within these Census block groups, no minority or low-income households would need to be relocated and no disproportionate adverse effects would occur. The potential adverse effects associated with the Build Alternative of visual obstruction and increased vibration would not be limited to these minority and/or low-income areas; they would be experienced along the entire corridor. As documented in the NVA, the Build Alternative would benefit these and other neighborhoods by greatly reducing train noise and reducing traffic delay by removing the at-grade crossings. Since the adverse impacts to minority and low-income households would not be disproportionate, there are no EJ concerns associated with the Build Alternative.



4.4 PUBLIC FACILITIES AND COMMUNITY COHESION

4.4.1 Neighborhoods

The following neighborhoods are either bisected or directly adjacent to the BNSF main line, shown on **Figure 4-3**:

- Gravlee
- Joyner
- Historic Downtown

No-Build Alternative

The BNSF main line bisects the Gravlee Neighborhood, runs through the southernmost portion of the Downtown Neighborhood, forms the western boundary of the Joyner Neighborhood, and forms the northern boundary of the Mill Village Historic District. While no construction or visual impacts would be experienced for these neighborhoods, the increased delay resulting from the at-grade crossings and other rail-associated environmental conflicts would remain.

Build Alternative

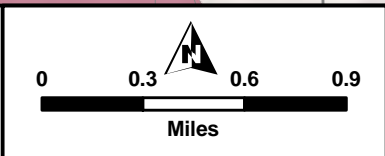
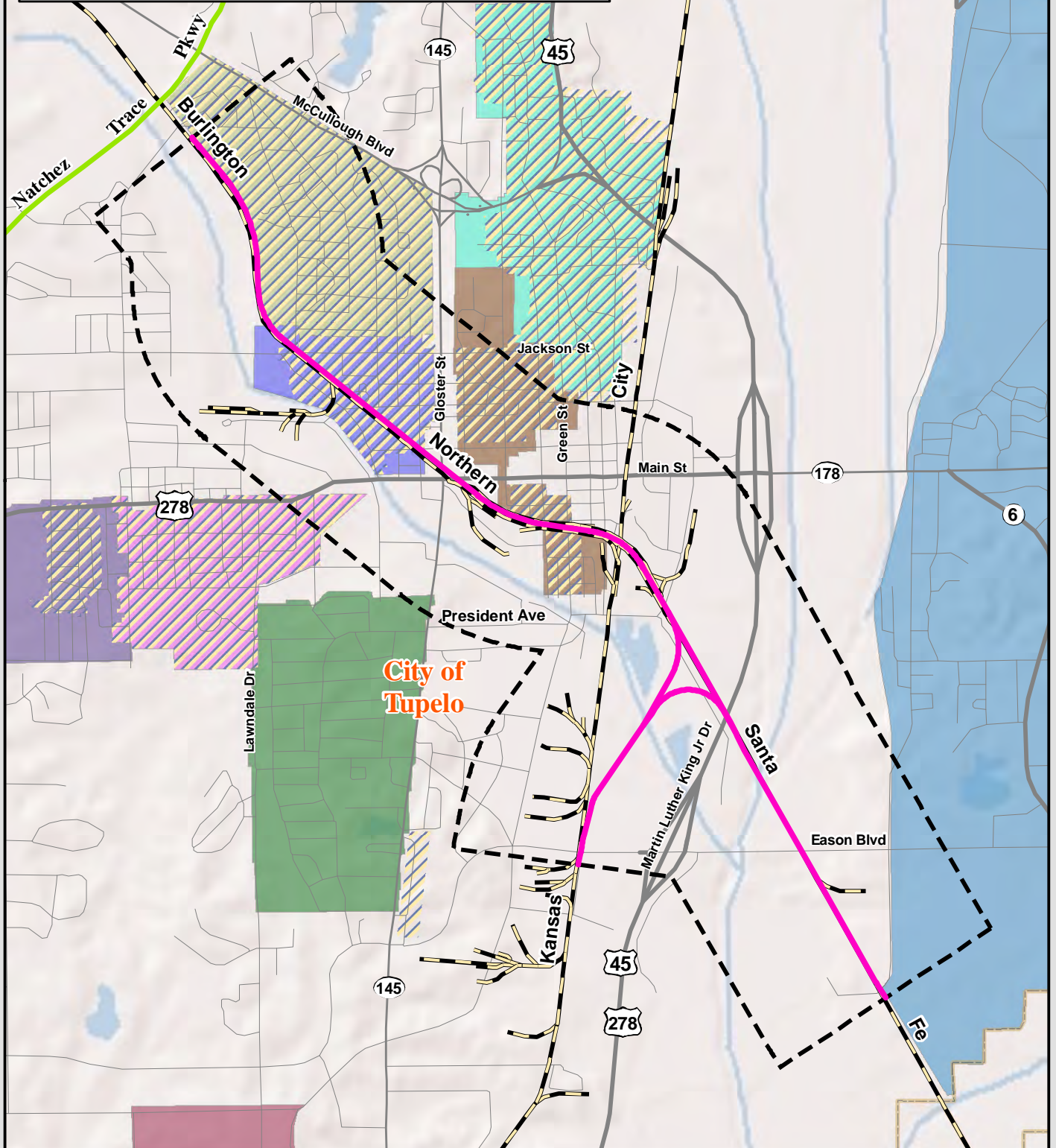
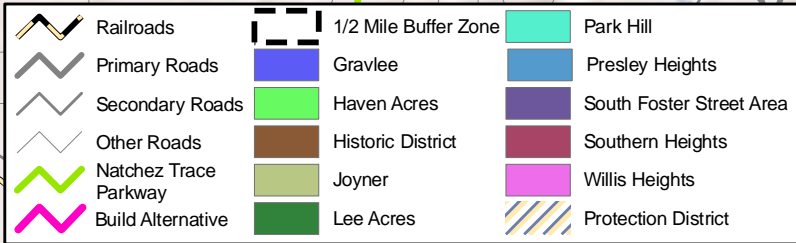
Elevating the existing railroad would improve these neighborhoods in terms of noise and traffic impacts. However, visual impacts within the Mill Village Historic District, the South Church Street Historic District, and the Downtown Historic District are anticipated due to the elevated corridor and are discussed in **Section 4.5**. The elevated rail structure would range in height from 20 to 30 feet. The existing residential zones allow for structures that are 35 feet high. Therefore, the elevated rail structure would conform to those zoning guidelines. Context sensitive solutions (such as public art, lighting, landscaping, and type of materials) would need to be applied to reduce these visual impacts.

4.4.2 Schools

The BNSF main line passes most closely to the Joyner Avenue Elementary School north of the Jackson Street crossing and the Milam Elementary School just north of the Crosstown intersection, shown on **Figure 4-4**. The grounds of Joyner Avenue Elementary School are adjacent to the BNSF main line.

No-Build Alternative

With horn sounding required at at-grade crossings for the No-Build Alternative, these schools are affected by approximately 23 trains per day, estimated to increase to approximately 40 trains per day by 2030. Therefore, the No-Build Alternative is anticipated to result in increased noise levels, which could adversely affect the learning environment at both Joyner Avenue Elementary School and Milam Elementary School as the train traffic increases.



**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

**Neighborhoods &
Protection Dist.**
**Figure
4-3**



Build Alternative

The Build Alternative would reduce the horn soundings and result in less noise disruption around these schools, which could result in a better learning environment. In addition, by removing the at-grade crossings, safer vehicle and pedestrian routes would be created.

4.4.3 Churches and Cemeteries

There are 58 churches and 12 cemeteries within the city limits of Tupelo. Of these, 12 churches and two cemeteries are within ½-mile of the BNSF main line, shown on **Figure 4-4**.

No-Build Alternative

The No-Build Alternative would leave the existing BNSF main line at-grade, including all of the at-grade road crossings. The trains would continue to sound their horns. Churches and cemeteries, especially those within ½-mile of the BNSF main line, would continue to experience disruption in services and other functions due to noise, vibration, and traffic delays in their vicinity, which would worsen as the train traffic increases.

Build Alternative

The Build Alternative would reduce noise disruption through downtown Tupelo, which will benefit both church and cemetery activities. The Red Oak Grove Baptist Cemetery on Eason Boulevard would adjoin the eastern edge of the proposed frontage road adjacent to the roadway overpass, shown in the concept plans in **Appendix D**, but the impact to the property is anticipated to be minimal, as the right-of-way acquisition area is on the periphery of the parcel and does not affect any gravesites. The impact can be further minimized through the use of other noise abatement measures, examples of which are discussed in the NVA, which would be determined during the final design phase.


4.4.4 Public Facilities

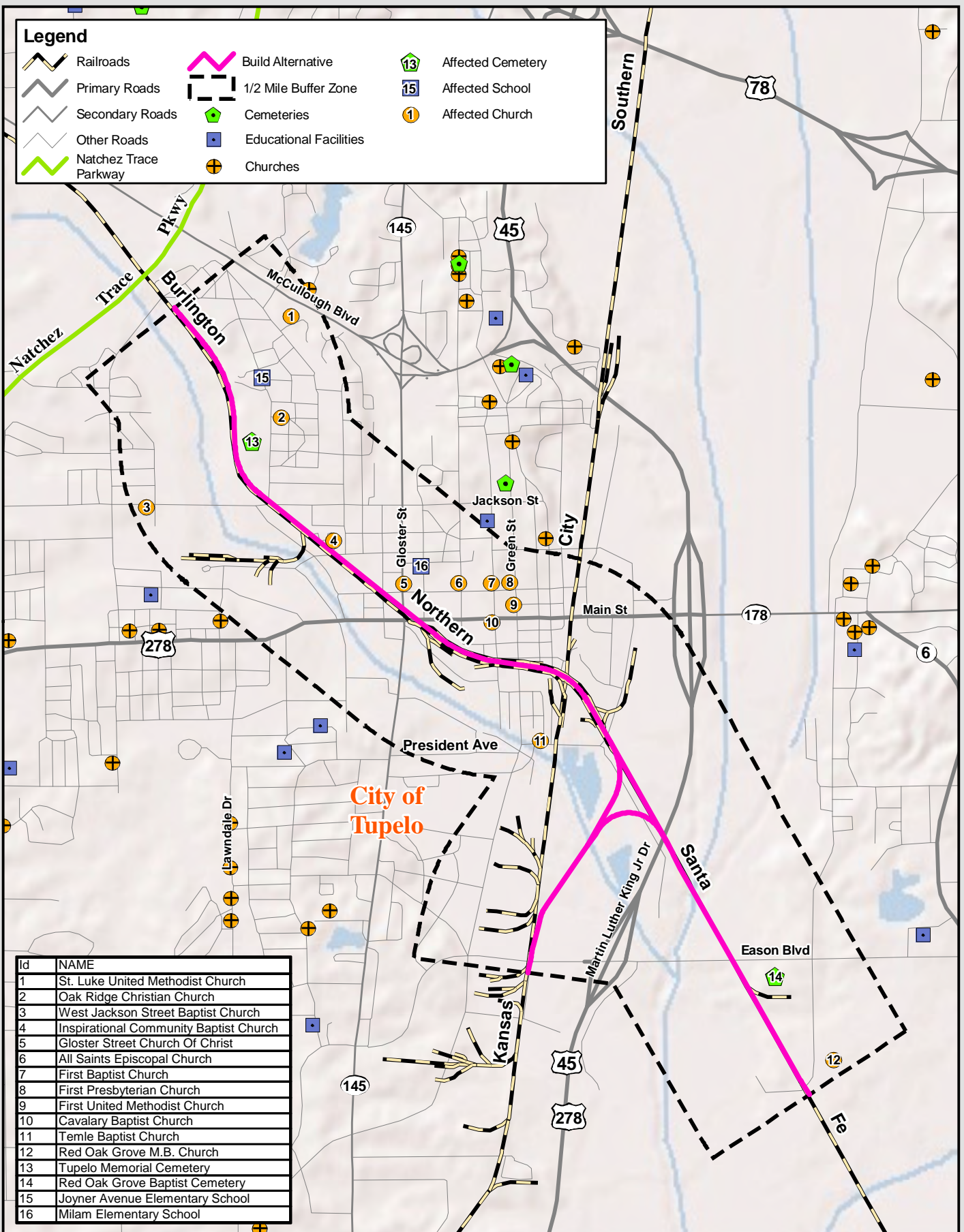
Public facilities within the City of Tupelo include city and government buildings such as the Lee County Courthouse and Tupelo City Hall, events centers such as the BancorpSouth Arena and Lyric Theater, attractions and museums such as the Elvis Presley home and driving tour and the Tupelo Automobile Museum, and retail establishments such as the Barnes Crossing Mall and the Tupelo Furniture Market.

No-Build Alternative

The increased train traffic could cause disruption of civic services and public activities caused by more frequent train noise and horn soundings as a result of the No-Build Alternative. In addition, access to these facilities would be hindered by the increased traffic delays associated with the existing at-grade crossings.

Legend

-  Railroads
-  Primary Roads
-  Secondary Roads
-  Other Roads
-  Natchez Trace Parkway
-  Build Alternative
-  1/2 Mile Buffer Zone
-  Cemeteries
-  Educational Facilities
-  Churches
-  Affected Cemetery
-  Affected School
-  Affected Church



Id	NAME
1	St. Luke United Methodist Church
2	Oak Ridge Christian Church
3	West Jackson Street Baptist Church
4	Inspirational Community Baptist Church
5	Gloster Street Church Of Christ
6	All Saints Episcopal Church
7	First Baptist Church
8	First Presbyterian Church
9	First United Methodist Church
10	Cavalary Baptist Church
11	Temle Baptist Church
12	Red Oak Grove M.B. Church
13	Tupelo Memorial Cemetery
14	Red Oak Grove Baptist Cemetery
15	Joyner Avenue Elementary School
16	Milam Elementary School



Tupelo Mississippi Railroad Relocation Planning & Environmental Study

Community Services

Figure 4-4



Build Alternative

The public facilities which lie within ½-mile of the Build Alternative include:

- West Main Shopping Center
- Willow Bend Village Shopping Center
- Gloster Creek Village Shopping Center
- Tupelo Public Library
- Tupelo Post Office and Federal Building
- Tupelo City Hall
- Lee County Courthouse
- Tupelo Artist Guild
- Lyric Theatre
- Tupelo Convention and Visitors Bureau
- BancorpSouth Arena
- VF Factory Outlet Stores

The Build Alternative would directly affect the VF Factory Outlet Stores on Eason Boulevard. The Build Alternative would require approximately 0.3 acres of right-of-way acquisition from the property and the redirection of traffic flow to and from the property, shown on the concept plans in **Appendix D**. The right-of-way acquisition would not disturb any structures or parking on the VF property. In addition, a new driveway access from the property to Veterans Boulevard would be constructed to mitigate the access to the VF Factory Outlet Stores.

The Build Alternative would remove traffic delays associated with the existing at-grade crossings. Context sensitive solutions (such as public art, lighting, landscaping, and type of materials), as agreed upon in the MOA, included in **Appendix F**, would be applied to reduce visual impacts of the elevated rail through the city center areas.

4.4.5 Parks and Recreation

Several parks and recreational facilities are adjacent to the existing BNSF right-of-way: the Pvt. John Allen National Fish Hatchery, the Natchez Trace Parkway and National Scenic Trail, the Burt Park Liberty Gardens, and the Rob Leake City Park, shown on **Figure 4-5**.

No-Build Alternative

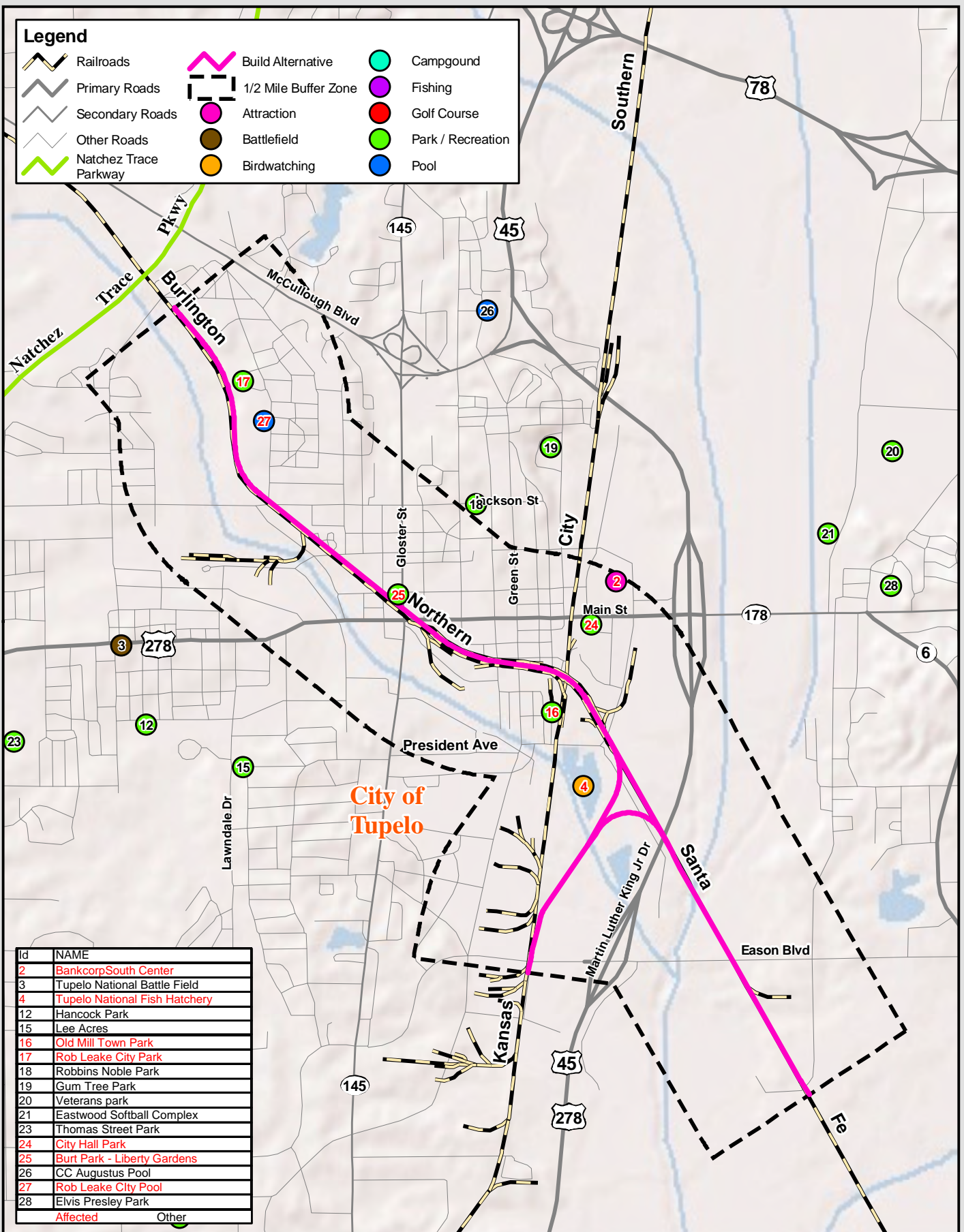
The No-Build Alternative would not result in impacts to parks and recreation facilities.

Build Alternative

Since the Build Alternative improvements would be within the existing BNSF right-of-way, there would be no physical impacts to any public parks or recreational facilities. However, visual impacts are anticipated due to the elevated corridor. These impacts are discussed further in **Section 4.15**.

Legend

-  Railroads
-  Primary Roads
-  Secondary Roads
-  Other Roads
-  Natchez Trace Parkway
-  Build Alternative
-  1/2 Mile Buffer Zone
-  Attraction
-  Battlefield
-  Birdwatching
-  Campground
-  Fishing
-  Golf Course
-  Park / Recreation
-  Pool



Id	NAME
2	BankcorpSouth Center
3	Tupelo National Battle Field
4	Tupelo National Fish Hatchery
12	Hancock Park
15	Lee Acres
16	Old Mill Town Park
17	Rob Leake City Park
18	Robbins Noble Park
19	Gum Tree Park
20	Veterans park
21	Eastwood Softball Complex
23	Thomas Street Park
24	City Hall Park
25	Burt Park - Liberty Gardens
26	CC Augustus Pool
27	Rob Leake City Pool
28	Elvis Presley Park
	Affected
	Other



Tupelo Mississippi Railroad Relocation Planning & Environmental Study

Parks & Recreation
Figure 4-5



Parks and recreation facilities would benefit from the Build Alternative through the removal of many of the at-grade crossings within the City of Tupelo. This would improve the access to the parks and recreational facilities. In addition, the elevated corridor would reduce the noise impacts throughout the City as trains would not need to sound the horn at at-grade crossings. The elevated corridor would also increase the safety of these parks by making the railroad inaccessible to pedestrians.

4.4.6 Medical and Emergency Services

The locations of Tupelo's major health care facilities, police stations, and fire stations are discussed in detail in **Section 3.5.6**.

No-Build Alternative

The No-Build Alternative would not result in adverse impacts to medical, fire, or police services in the study area. However, future growth unrelated to this project is expected. Without facilities to address the potential delays caused by trains at at-grade crossings, emergency response times are expected to increase, which would hinder emergency response capabilities.

Build Alternative

The Build Alternative would not result in adverse public health impacts to medical, fire, or police services in the study area. The Build Alternative is expected to benefit public health and emergency services in the study area by improving emergency response times through the removal of at-grade crossings in the downtown Tupelo area. The removal of the at-grade crossings at Crosstown and across Eason Boulevard would enhance the ability of those emergency services to respond and transport more rapidly.

4.4.7 Travel Patterns and Accessibility

The at-grade crossings and nearby intersections were evaluated for both the No-Build and Build Alternatives. The average vehicle delay experienced at the at-grade crossings was calculated for each crossing. Vehicle delay includes two components, the delay occurring at the at-grade rail crossings and the delay experienced by vehicles at nearby intersections. The latter component is considered because the queuing of vehicles at the at-grade crossing locations can extend into several nearby intersections and potentially impede traffic flow on other streets in the traffic network. This is considered a secondary delay related to crossing events. The LOS is a letter designation that describes a range of traffic operating conditions on a particular facility. Six levels of service are defined by the HCM for capacity analysis. They are given letter designations A through F, with LOS A representing ideal operating conditions and LOS F the worst.

The queuing model is based on the procedures contained in the HCM. Since there is not a fixed train schedule, the train volume was generally assumed to be uniformly distributed throughout the day. The arrival rate of vehicles approaching each at-grade crossing location is also assumed to be uniform. Vehicles start to queue at each



crossing whenever a train approaches the crossing. In addition to the train crossing events, a switching operation is performed daily between the BNSF main line and the KCS rail line. This creates severe delays at several crossings including Crosstown. The purpose of the switching operation is to allow train cars from the main line to be transferred to spur tracks and be delivered to the local industry destinations. Due to the lack of electronic lock switching, this operation typically takes 10 minutes to complete.

Each at-grade crossing was evaluated as a signalized intersection based on the HCM. The delay time, queuing length, and the LOS were determined using a computer-generated traffic model by the VISSIM traffic simulation computer software program. VISSIM is a micro-simulation program capable of analyzing and modeling complex traffic conditions on highway and street networks.

The 2005 and projected 2030 peak hour LOS for at-grade railroad crossings in the affected environment are shown in **Table 4-4**. The 2005 and projected 2030 peak hour LOS for various intersections near at-grade railroad crossings during the peak hour are shown in **Table 4-5**.

Table 4-4 At-Grade Crossing Peak Hour LOS

Railroad	Crossing Street Name	2005 Crossing LOS	2030 Crossing LOS (No-Build)	2030 Crossing LOS (Build)
BNSF	Lumpkin Ave.	B	D	D
	Jackson St.	B	D	A*
	Blair St.	B	D	A*
	Jefferson St.	B	D	A*
	Park St.	B	D	A*
	Gloster St.	B	E	A*
	Main St.	B	D	A*
	Church St.	B	D	A*
	Green St.	B	D	A*
	Spring St.	B	D	A*
	Elizabeth St.	C	F	A*
	Eason Blvd.	C	F	A*
	KCS	Eason Blvd.	A	A
Elizabeth St.		A	A	A
Main St.		A	A	A
Jefferson St.		A	A	A

*LOS A assumed due to grade-separated crossing



Table 4-5 Nearby Intersection Peak Hour LOS

Intersection	2005 LOS	2030 LOS With Trains (No-Build)	2030 LOS Without Trains (Build)
Clark St. at Church St.	D	C	A
Gloster St. at Main St.	F	F	F
Clark St. at Spring St.	C	C	B
Spring St. at Elizabeth St.	B	C	A
Front St. at Main St.	B	B	B
Front St. at Jefferson St.	A	B	B
Park St. at Jefferson St.	D	E	C
Rankin St. at Blair St.	C	C	A
Rankin St. at Jackson St.	C	D	A
Eason Blvd. at Ryder St.	B	C	A
Eason Blvd. at Whitaker St.	A	A	A
Gloster St. at Jefferson St.	C	F	B

No-Build Alternative

Under the No-Build Alternative, each at-grade crossing along the BNSF main line would exhibit unfavorable (D) or unacceptable (E or F) LOS by the year 2030. In addition, most of the nearby intersections’ LOS would fall at least one letter-grade by the year 2030.

Build Alternative

The construction of the Build Alternative would remove train traffic from the roadway network by creating grade separations between the roadway and railroad. This not only would remove most of the traffic delay at the at-grade intersections within Tupelo, but it would also improve the LOS of almost all of the nearby intersections to LOS C or better. The exception would be the intersection of Gloster Street at Main Street, which is projected to be over capacity during the peak hour, even without train crossing disruptions. The intersection appears to have capacity issues that should be addressed with other refinements, such as signal timing adjustments and addition of turning lanes.

4.5 CULTURAL RESOURCES

4.5.1 Archaeological and Historic Sites

The APE for the affected environment is defined as that area within the existing BNSF right-of-way and an approximate 500-foot buffer on each side of the existing right-of-way, as well as a 500-foot buffer on each side of the right-of-way for the proposed interchange. The buffer width was coordinated with MDAH to account for possible visual or noise impacts. As documented in the *Cultural Resources Investigations for the Tupelo Railroad Relocation Study* (Brockington, January 2009) three previously unrecorded archaeological sites and 58 architectural resources (thirty previously recorded and 28 previously unrecorded) were located within or adjacent to the APE.



At the previously unrecorded archaeological site located just east of the intersection of Jefferson Street and the BNSF main line, shovel tests produced a light density of archaeological materials dating to the late nineteenth and early twentieth century, indicating the presence of a domestic structure. The site had been disturbed and dates to a relatively recent time period. The previously unrecorded archaeological site located within the BNSF right-of-way just south of Jackson Street and was identified by the presence of historic debris, which was considered to be the result of incidental trash dumping rather than an archaeological site. The previously unrecorded archaeological site located in the proposed interchange area just south of the Pvt. John Allen Fish Hatchery, consists of two sewer manholes.

Of the 58 architectural resources documented, 13 had been demolished and three are currently listed on the NRHP: the Pvt. John Allen Fish Hatchery Superintendent's House, the Mill Village Historic District, and the South Church Street Historic District. In a letter dated March 17, 2009, included in **Appendix A**, coordination with the SHPO determined that of the remaining 42 architectural resources not NRHP-listed or demolished, 35 were deemed eligible for listing with NRHP. The SHPO determined that these 35 NRHP-eligible individual properties or historic districts appear to retain their historic architectural integrity.

No-Build Alternative

The No-Build Alternative would not result in impacts to historic or archaeological sites.

Build Alternative

With the Build Alternative, all construction activities would take place within the existing BNSF right-of-way, except for the proposed interchange. No NRHP-listed or NRHP-eligible properties would be directly impacted by project construction, demolition, or removal of NRHP contributing features. In a letter dated March 17, 2009, included in **Appendix A**, coordination with the SHPO determined that the Build Alternative would not affect any NRHP-listed archaeological sites and additional archaeological sites were not likely to be encountered. However, the SHPO did determine that the Build Alternative has potential to adversely affect 37 NRHP-listed or NRHP-eligible properties, shown on **Figure 4-6** and in **Table 4-6**, by altering their existing viewsheds. The FRA, SHPO, MDOT, and the City of Tupelo, have been consulted pursuant to Section 106 of the National Historic Preservation Act to discuss appropriate measures to mitigate these visual impacts. These proposed measures are contained in the draft MOA between the interested parties, included in **Appendix F**, and will be binding when the final MOA is signed and the project advances into final design and construction.

Although the Project has received archaeological clearance from SHPO, the possibility exists that evidence of cultural resources may yet be encountered within the project limits. Should any evidence of cultural resources be discovered during



Under the authority of Section 304 of the National Historic Preservation Act, this map is not for public disclosure due to the sensitive nature of identified cultural resources.

Table 4-6 Affected NHRP-Listed and -Eligible Sites within the APE

Resource	Type	NRHP Status	Project Effect	Resource	Type	NRHP Status	Project Effect
Pvt. John Allen Fish Hatchery Superintendent's House	House	Listed	Not Adverse	541 Magazine St.	House	Eligible	Adverse
Mill Village Historic District	District	Listed	Adverse	543 Magazine St.	House	Eligible	Adverse
South Church Street Historic District	District	Listed	Adverse	555 Magazine St.	House	Eligible	Adverse
North Tupelo Neighborhood District	District	Eligible	Adverse	557 Magazine St.	House	Eligible	Adverse
Joyner Neighborhood District	District	Eligible	Adverse	561 Magazine St.	House	Eligible	Adverse
Gravlee Neighborhood District	District	Eligible	Adverse	331 Park St.	House	Eligible	Adverse
Carnation Condensary	Industrial	Eligible	Adverse	623 Main St.	Commercial	Eligible	Adverse
TVA 'Tupelo' Sign	Sign	Eligible	Adverse	627 Main St.	House	Eligible	Adverse
308 S. Broadway	Industrial	Eligible	Adverse	631 Main St.	House	Eligible	Adverse
400 S. Broadway (Tupelo Oil & Ice Office)	Industrial	Eligible	Adverse	634 Main St.	Apartment	Eligible	Adverse
314 S. Church St.	House	Eligible	Adverse	637 Main St.	House	Eligible	Adverse
317 S. Church St.	House	Eligible	Adverse	640 Main St.	House	Eligible	Adverse
319 S. Church St.	House	Eligible	Adverse	641 Main St.	House	Eligible	Adverse
525 S. Church St.	House	Eligible	Adverse	646 Main St.	House	Eligible	Adverse
529 S. Church St.	House	Eligible	Adverse	123 S. Gloster St.	Commercial	Eligible	Adverse
105 Clark Pl.	House	Eligible	Adverse	208 N. Gloster St.	House	Eligible	Adverse
812 Jefferson St.	House	Eligible	Adverse	218 N. Gloster St.	House	Eligible	Adverse
405 Magazine St.	House	Eligible	Adverse	110 Robbins St.	House	Eligible	Adverse
411 Magazine St.	House	Eligible	Adverse	311 S. Green St.	House	Eligible	Adverse



construction activities, all work in that portion of the project area would stop. Representatives of MDOT will assist in the identification and preliminary assessment of the materials. If such evidence is found, the MDAH will be notified within two working days.

In the unlikely event that human skeletal remains or associated burial artifacts are uncovered within the project area, all work in that area would stop. The discovery must be reported to local law enforcement, who will in turn contact the medical examiner. MDAH must be contacted.

While there are no direct impacts to any cultural resources, there is a potential impact during construction to the TVA “Tupelo” sign at the Crosstown intersection, shown below. The sign could require special consideration to preserve its historic character during the construction of the truss bridge across the intersection. Even though the sign is not currently a NRHP-listed resource, it is eligible for listing with the NRHP. Although the Build Alternative would not require relocation of the sign, its existing position lies within a traffic island almost directly underneath the proposed bridge span across the intersection. The SHPO will be consulted during construction to determine whether the sign is adversely affected and if so, mitigation efforts, which could include temporary relocation to avoid damage during construction. Additionally, mitigation for the sign could be added to the provisions of the MOA, included in **Appendix F**.



TVA “Tupelo” Sign at the Crosstown Intersection



4.5.2 Native American Resources

The Tupelo area was once home to the Chickasaw Nation, meaning the entire affected environment can be regarded as Native American lands. While the existing BNSF main line does not run through any known Native American resources within the City of Tupelo, soil corings were performed at 21 locations along the Build Alternative alignment to identify any previously unrecorded Native American archaeological resources.

The soil corings revealed that the soils within the BNSF right-of-way east of Gloster Street were heavily disturbed from industrial and cultural activities. These areas contain minimal potential for cultural deposits. The BNSF right-of-way west of Gloster Street was found to contain intact, natural soils, and was then further recommended for systematic shovel tests to determine any archaeological value. The shovel tests found no cultural or Native American resources of any architectural value.

No-Build Alternative

The No-Build Alternative would not result in any impacts to Native American resources.

Build Alternative

No artifacts were found within the soil corings or shovel tests conducted along the BNSF main line. Further coordination with the Chickasaw Nation, SHPO and MDAH resulted in each entity granting archaeological clearance for the Build Alternative. However, the presence of intact and natural soils within the BNSF right-of-way provides the possibility for intact cultural resources and the remote possibility exists to recover Native American resources, despite the heavy disturbance of the area.

Should any evidence of cultural resources be discovered during construction activities, all work in that portion of the project would stop. Representatives of MDOT will assist in the identification and preliminary assessment of the materials. If such evidence is found, MDAH would be notified within two working days.

In the unlikely event that human skeletal remains or associated burial artifacts are uncovered within the project area, all work in that area would stop. The discovery must be reported to local law enforcement, who in turn, will contact the medical examiner. MDAH will also be contacted.



4.6 AIR QUALITY

The total delay times for the year 2030, without train traffic at the affected crossings, were calculated as part of the *Phase 1 Feasibility Analysis* (HDR, May 2006). The emission reductions for the year 2030, shown in **Table 4-7**, were calculated by multiplying the total net delay hours for all of the affected at-grade crossings and nearby intersections by the motor vehicle fleet-average emission factors generated by the EPA MOBILE6.2 emissions model. The MOBILE6.2 factors were generated based on annual average climate conditions for Tupelo and by assuming a national average fleet mix in terms of vehicle types, ages, and mileage accumulation rates.

Table 4-7 Emission Reduction in Year 2030 from Auto Traffic Delay

Pollutant	Reduced Emissions No-Build Alternative (tons/yr)	Reduced Emissions Build Alternative (tons/yr)
CO	--	18.75
NO _x	--	0.66
PM	--	0.07
SO ₂	--	0.01
VOC	--	2.86

Notes

- 1) Emission reduction calculated based on estimated hours of traffic delay removed by Build Alternative at at-grade and nearby intersections. (704,000 hrs/yr)
- 2) MOBILE 6.2 assumed emission factors for national fleet averages for year 2030 at a speed of 3.1 miles/hr under Tupelo climate conditions.

No-Build Alternative

The current EPA designations have Lee County, Mississippi as in attainment of the NAAQS for all criteria pollutants. Based on the monitoring data, it does not appear that the area is likely to become a nonattainment area in the foreseeable future. However, there would be an increase in pollutants as a result of the increased auto traffic delay associated with the No-Build Alternative.

Build Alternative

The Build Alternative is expected to result in a slight benefit to air quality. This slight benefit is attributed primarily to elimination of some delays of motor vehicles that would otherwise idle near highway/rail at-grade crossings while waiting for trains to pass.

The emissions decreases, shown in **Table 4-7**, are small in comparison to emissions from major stationary emissions sources. However, these reductions provide a slight benefit to the area and more so at locations near the affected crossings, where vehicles would otherwise idle waiting for trains to pass.

Another benefit of the proposed project is that it would enhance train speeds and movement of rail freight through the Tupelo area. While the emissions benefits of operation improvements have not been quantified, these improvements are expected to result in reduced fuel use and reduced emissions from locomotives operating on the rail line.

In addition to operation-related emissions decreases, there would be some temporary air pollutant emissions increases during the construction period. These emissions would result from construction equipment engine exhaust and from fugitive dust that may be suspended from exposed soils prior to re-vegetation. However, given the temporary and diffuse nature of such emissions, they are not expected to have a major impact on air quality in the Tupelo area.

4.7 NOISE AND VIBRATION

4.7.1 Noise

As documented in the NVA, included in **Appendix E**, predicted noise levels for future operation of the No-Build and Build Alternatives for the BNSF main line and the KCS rail line through Tupelo were modeled using the measurements of noise from the existing rail line. As discussed in **Section 3.8.1**, those noise measurements consisted of 24-hour measurements at seven locations within the City of Tupelo and short-term measurements at two locations within 50 feet of the existing BNSF main line. The noise levels recorded from the train pass-bys were used to calculate the average noise generated by a single train. The future noise levels were then predicted at representative sensitive receptors based on the estimated future train volumes, consists, and speeds. These noise models also considered the propagation path of the noise between the source and the receptors, including ground cover, physical obstructions, and elevations.

Train volumes are predicted to increase to approximately 40 trains per day on the BNSF main line through Tupelo and to approximately four trains on the KCS rail line by the year of 2030. The No-Build and Build Alternatives were modeled using the projected train traffic data, with train consist information as shown in **Table 4-8**, to determine the wayside noise impact contours and to the grade-crossing noise impact contours where train horns are used.

As documented in the NVA, included in **Appendix E**, once the noise model contours were established for the year 2030, the affected receptors and impacted areas within the City of Tupelo were identified within each level of noise impact for both the No-Build and Build Alternatives, based on the FTA/FRA noise impact criteria defined in **Section 3.8.1**.

Table 4-8 Existing and Future Train Volumes and Consists

Service Line and Type	Average Existing Daily Train Traffic (2005)			Average Future Daily Train Traffic (2030)		
	Trains	Engines per Train	Cars per Train	Trains	Engines per Train	Cars per Train
BNSF - Coal	8	5	135	13	6	160
BNSF - Freight	16	3	125	28	4	150
KCS - Through	1	2	95	3	3	110
KCS - Local	1	1	25	2	1	25

Source: *Noise and Vibration Analysis* (HDR, 2008)

The comparison was based on the area adjacent to the improvements recommended in the Build Alternative, as the noise in unimproved areas adjacent to the BNSF main line was assumed to be identical for both the Build Alternative and the No-Build Alternative. The receptor sites were identified using aerial and GIS data as existing structures and did not include any future development. The noise contours were used to estimate an area of impact for both moderate impacts and severe impacts. The summary of the predicted noise impacts is shown in **Table 4-9**.

Table 4-9 Predicted FTA/FRA Noise Impacts

Alternative	Total Predicted Impacted Sites	Moderate Noise Impact Sites	Severe Noise Impact Sites	Impact Reduced Sites	Impact Removed Sites	Total Noise Impact Area (Acres)	Severe Noise Impact Area (Acres)
No-Build Alternative	414	286	128	N/A	N/A	1,134	457
Build Alternative	385	309	76	23	29	1,093	395

Source: *Noise and Vibration Analysis* (HDR, 2008)

No-Build Alternative

A total of 414 noise impacted sites within the comparison area of the City of Tupelo, shown on **Figure 4-7**, were identified for the No-Build Alternative in the year 2030. Of these sites, 128 were determined to be considered severely impacted (as defined by the FTA/FRA, discussed in **Section 3.8.1**). In the comparison area, a total of 1,134 acres would experience a noise impact, including 457 acres that would experience a severe noise impact.

Build Alternative

A total of 385 noise impacted sites within the City of Tupelo, shown on **Figure 4-8**, were identified for the Build Alternative in the year 2030. Of these sites, 76 were determined to be severely impacted. The Build Alternative offers a reduction of 29 noise-impacted sites compared to the No-Build Alternative, and an additional 23 sites



experience a reduction of the noise impact designation from severe to moderate (as defined by the FTA/FRA noise criteria, as discussed in **Section 3.8.1**). The Build Alternative also removes, approximately 41 acres from having any noise impact and approximately 62 acres would move from being severely impacted to only being moderately impacted by train events as compared to the No-Build Alternative. All of the noise impacted sites and areas identified for the Build Alternative are also predicted to experience train noise levels that exceed FTA/FRA noise impact thresholds, as discussed in **Section 3.8.1**, under the No-Build Alternative, so the Build Alternative would not result in any additional noise impacts to any receiver as compared to the No-Build Alternative. The Build Alternative would result in the BNSF trains operating through Tupelo without sounding their horns between Lumpkin Avenue and Veteran's Boulevard, a distance of nearly five miles. The Build Alternative would result in a sizeable benefit to the reduction of train-related noise through Tupelo.

The substantial reduction of horn noise and increase in path length between the source and receivers both greatly reduce the noise generated by the trains on the BNSF main line as compared to the No-Build Alternative. However, the train noise, specifically wheel noise and engine noise would not be eliminated within downtown Tupelo. Additional options for further mitigating the noise levels predicted for the Build Alternative would be evaluated during the final design phase.

4.7.2 Vibration










To estimate potential vibration effects from the future No-Build and Build Alternatives, the FTA General Vibration Assessment methodology was applied to develop a prediction curve of vibration velocity as a function of distance from the tracks. This curve was used to estimate future vibration levels at each vibration sensitive receptor that were compared to the FTA vibration impact thresholds, as discussed in **Section 3.8.2**.

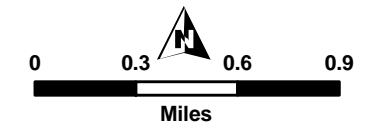
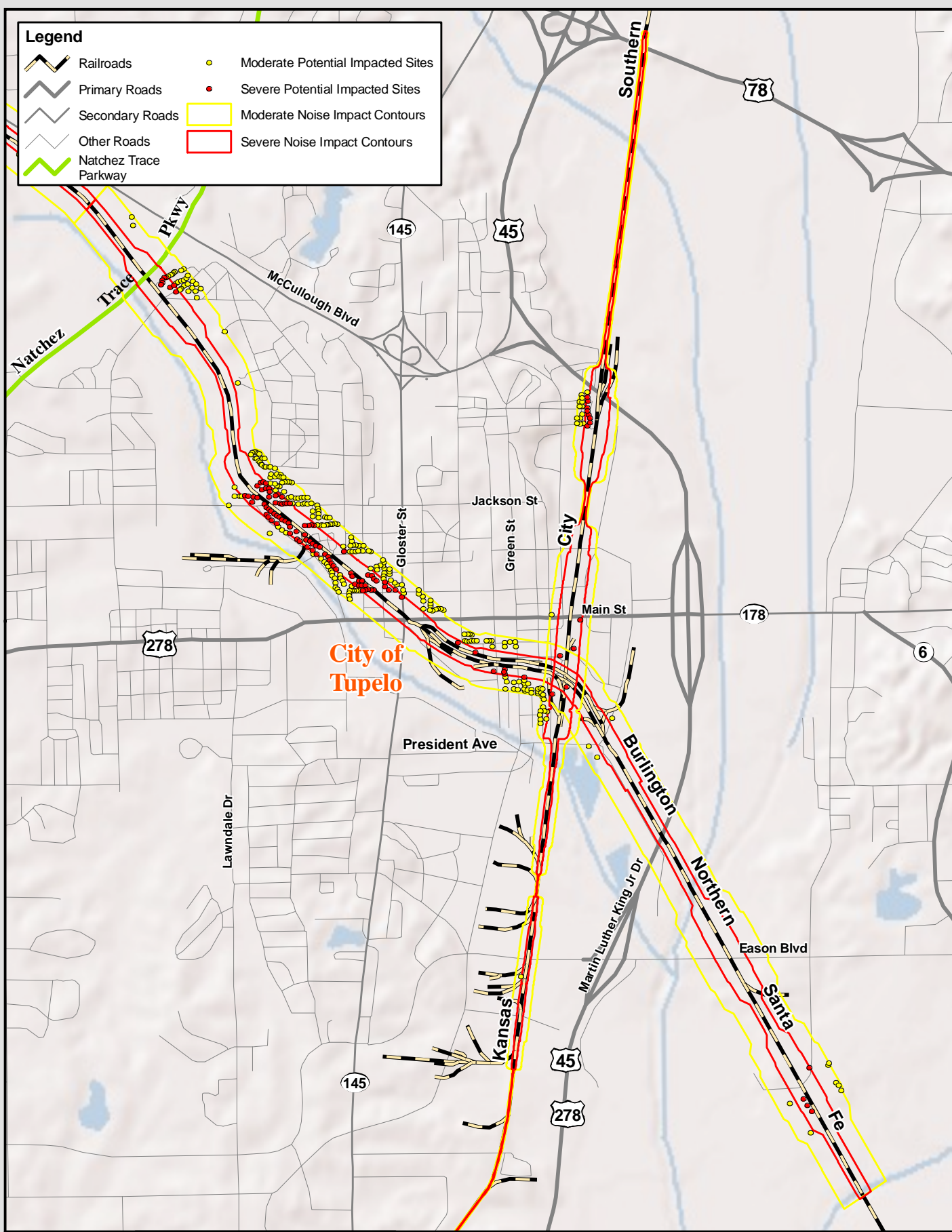
Vibration impacts are determined based on train speed and average number of vibration events during single train pass-bys. Therefore, distances to residential impacts changed where track upgrades are proposed as well as where the predicted speed and number of events changed.

The General Vibration Assessment uses generalized data to develop a curve of vibration levels as a function of distance from the track. The vibration levels at specific buildings are estimated by reading values from the curve and applying adjustments to account for factors such as track support system, vehicle speed, type of building, and track and wheel condition.

Once the base curve has been selected, adjustments are used to develop vibration projections for specific receiver positions. The adjustment parameters include speed, wheel and rail type and condition, type of track support system, type of building foundation, geologic conditions, and number of floors above the basement level.

Legend

-  Railroads
-  Primary Roads
-  Secondary Roads
-  Other Roads
-  Natchez Trace Parkway
-  Moderate Potential Impacted Sites
-  Severe Potential Impacted Sites
-  Moderate Noise Impact Contours
-  Severe Noise Impact Contours



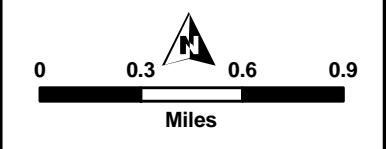
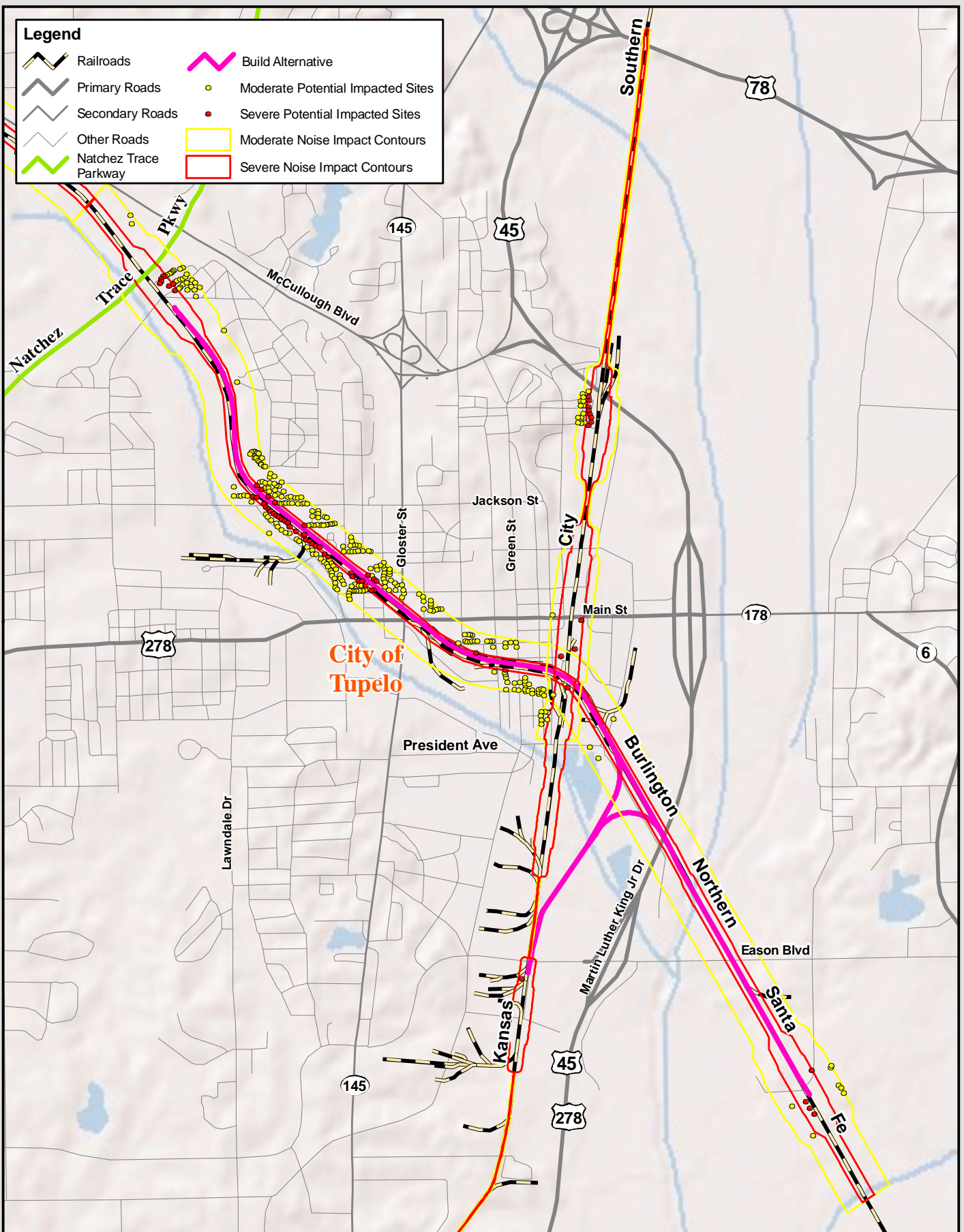
**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

No-Build Noise
Impact Contours

Figure
4-7

Legend

-  Railroads
-  Primary Roads
-  Secondary Roads
-  Other Roads
-  Natchez Trace Parkway
-  Build Alternative
-  Moderate Potential Impacted Sites
-  Severe Potential Impacted Sites
-  Moderate Noise Impact Contours
-  Severe Noise Impact Contours



**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

**Build Noise
Impact Contours**
**Figure
4-8**



The adjustments for the BNSF main line for the No-Build and Build Alternatives were considered identical. However, train speeds varied along the BNSF main line and the General Vibration Assessment applied lower adjustments to the slower train movements. In addition to the adjustment for train speed, a conservative adjustment for ground-borne propagation effects was applied to account for efficient propagation of the vibration between the source and the receptors within the City of Tupelo. This adjustment adds 10 VdB to each of the vibration projections. Because the adjusted vibration level for the locomotives is more than 10 VdB greater than the vibration level for the railcars, the railcar component of the vibration has been eliminated from further discussion.

The difference between the adjusted vibration level at the screening distance and the impact threshold was then used to determine the distance to the impact contour line. The distance to the vibration impact contour line for residential land uses was determined to range from 60 to 170 feet from the BNSF main line, with the variation due to the range of operating speeds, and 76 feet from the KCS rail line. For industrial land uses near the proposed interchange between the BNSF and KCS the vibration contour was determined to be 110 feet from the interchange track centerline.

As documented in the NVA, included in **Appendix E**, these vibration impact contours were overlaid upon a digital aerial photograph of the project areas using GIS technologies. The number of residences inside the vibration contour was determined.








No-Build Alternative

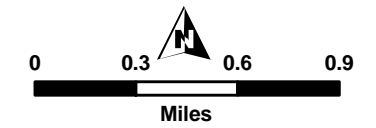
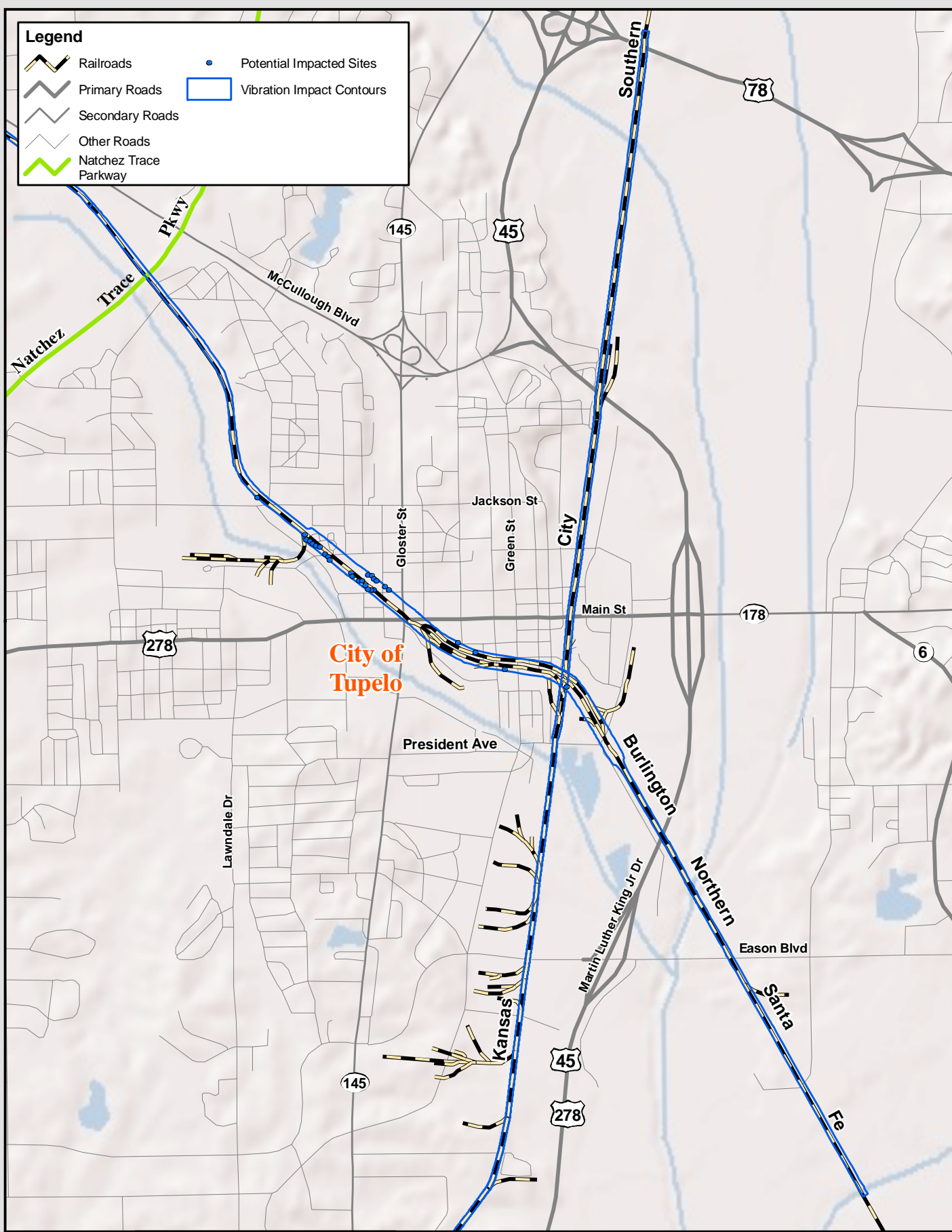
Twenty-eight vibration-impacted sites were identified for the No-Build Alternative, shown on **Figure 4-9**. All of these sites are residential structures located in the downtown Tupelo area.

Build Alternative

Forty-six vibration-impacted sites were identified for the Build Alternative, shown on **Figure 4-10**. All of the sites are residential structures located in the downtown Tupelo area. Eighteen additional impacted sites are predicted as compared to the No-Build Alternative, due to the increase in the train speed from 20 mph to 40 mph. Because there is no predicted change in the make-up of trains between the No-Build and Build Alternatives, the increased operational speed for the Build Alternative is the primary cause of predicted increases in vibration impacts. Despite the increase in vibration, the predicted impacts are conservative and may not fully account for the increased path length from the elevated track to the impacted receptors. However, the anticipated increase in vibration associated with the Build Alternative would be still well below the potential damage threshold. Vibration mitigation options would require extensive design and could significantly increase construction costs, while providing only a minimal dampening of the vibration effects. These additional mitigation measures would not be cost-beneficial, since even the anticipated increase in vibration would remain well below the potential damage threshold.

Legend

-  Railroads
-  Primary Roads
-  Secondary Roads
-  Other Roads
-  Natchez Trace Parkway
-  Potential Impacted Sites
-  Vibration Impact Contours











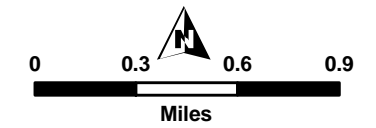
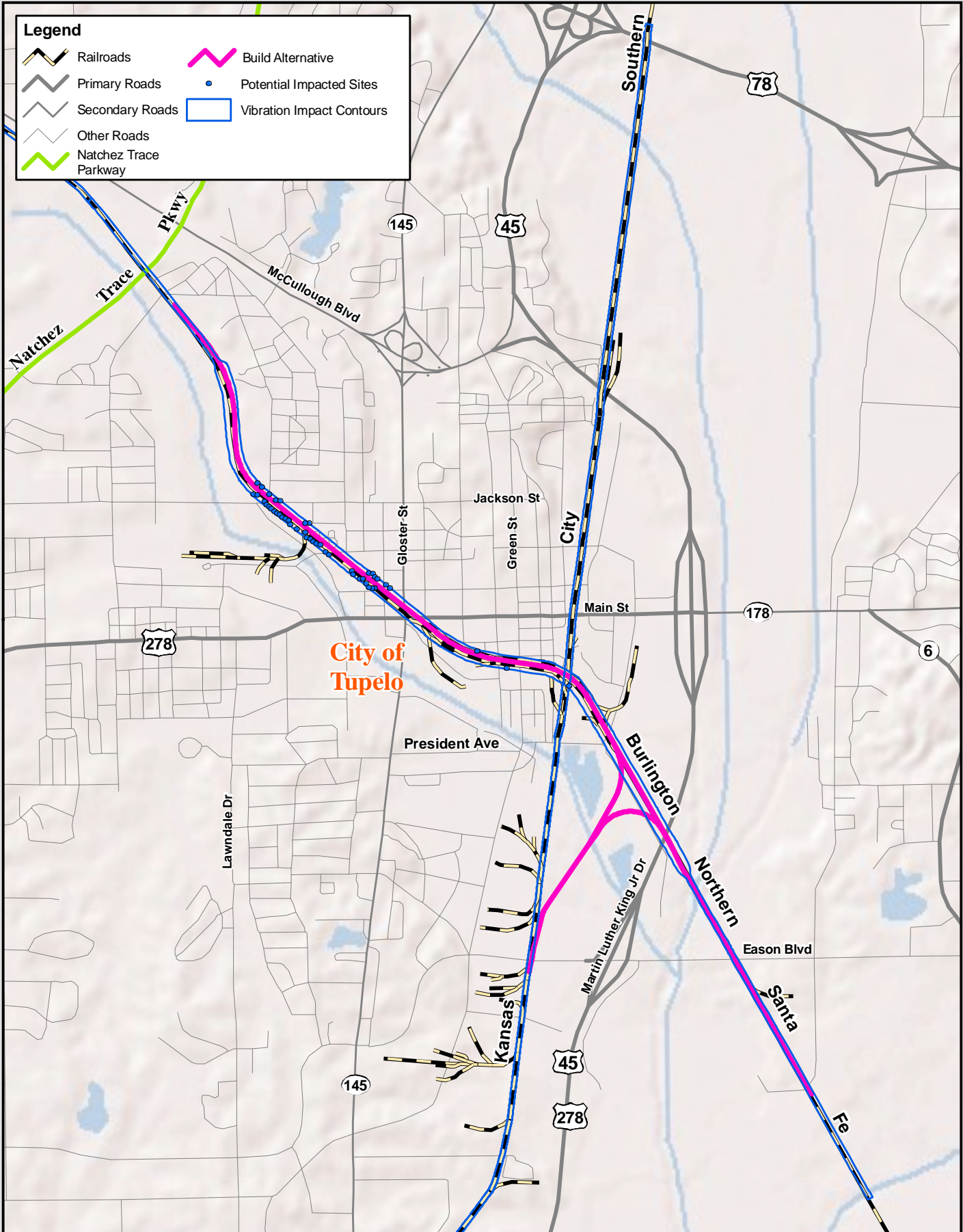
**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

No-Build Vibration
Impact Contours

Figure
4-9

Legend

-  Railroads
-  Primary Roads
-  Secondary Roads
-  Other Roads
-  Natchez Trace Parkway
-  Build Alternative
-  Potential Impacted Sites
-  Vibration Impact Contours



**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

**Build Vibration
Impact Contours**

**Figure
4-10**

4.8 GEOLOGICAL RESOURCES

The No-Build Alternative and the Build Alternative were each investigated concerning the potential geotechnical problem sites along the BNSF main line and the proposed interchange. This investigation included potential settlement and stability problems along the BNSF main line and the proposed interchange for structures such as bridges and overpasses. Soil borings were recovered from the existing BNSF main line and from the proposed interchange area.

No-Build Alternative

There would be no impact to geological resources associated with the No-Build Alternative.

Build Alternative

The Build Alternative runs primarily along the existing BNSF main line. The majority of soil types along the existing alignment have low to moderate shrink-swell potential, which is indicative of a good ability of the native soils to support the elevated structures without special engineering. Areas located along the interchange area have somewhat higher shrink-swell potential, as Tuscumbia and Una soils are found in this area. However, the interchange area would be constructed at-grade, which is much more flexible than an elevated structure and would suffer less damage due to soil expansion and contraction.

4.9 WETLANDS

The No-Build and Build Alternatives run through agricultural, urban, or industrial portions of the City of Tupelo. These areas typically do not support high-quality wetlands or other water systems.

Considerable effort was made during the alternatives development process to avoid areas identified on the USFWS NWI maps. All wetland sites identified were generally less than an acre and classified as shrub-scrub. These wetlands were often found along electric power transmission or transportation rights-of-way. Although these areas may not be the highest quality wetland features, their function in the landscape serves to filter contaminants and dampen floodwaters.

All wetland and stream impacts, as well as jurisdictional determination and mitigation assessments, should be considered preliminary for planning purposes and are subject to approval by the Mobile Regulatory Division and the Vicksburg Regulatory Division of the USACE.









No-Build Alternative

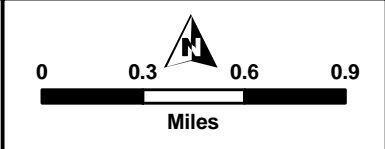
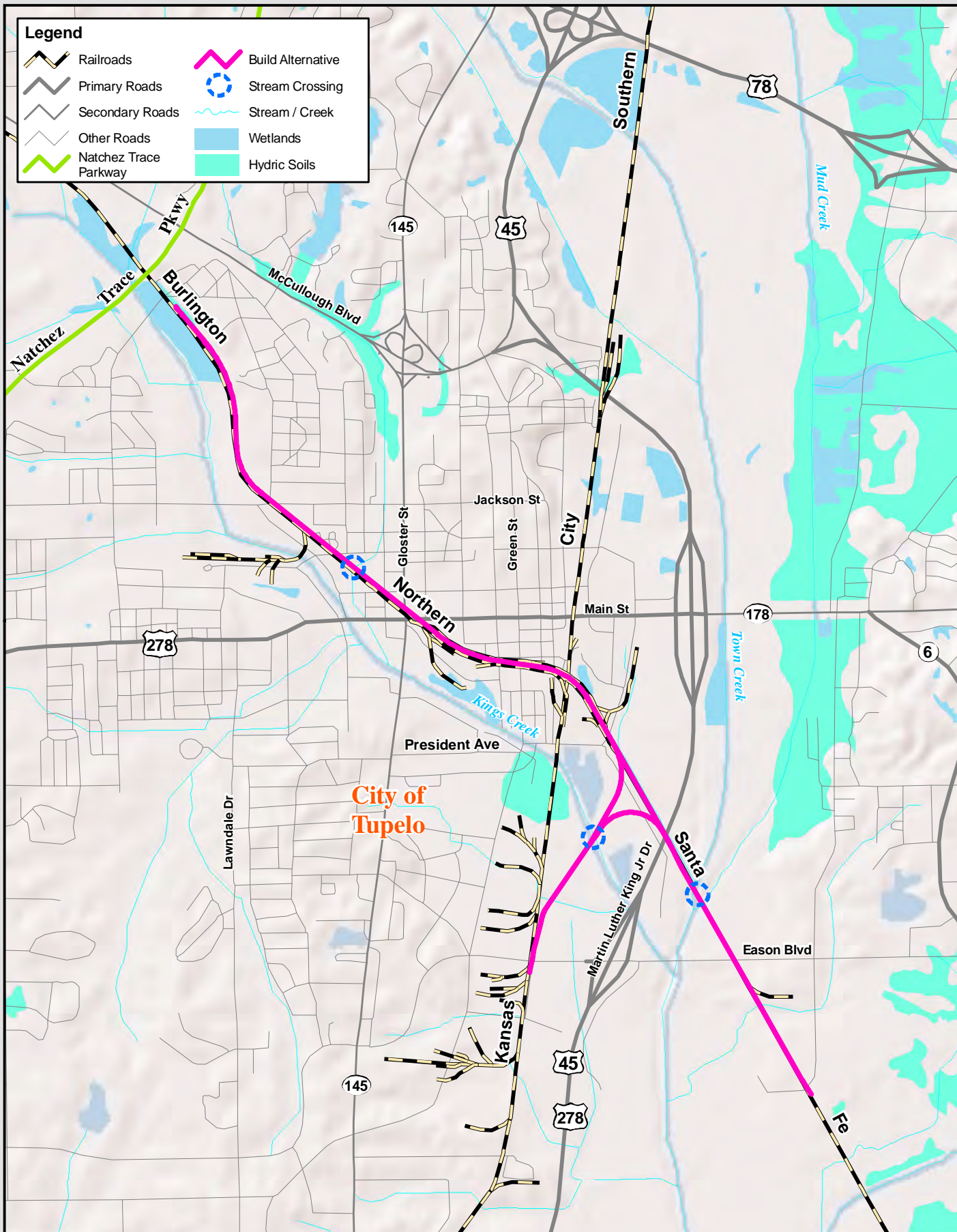
The No-Build Alternative would have no impact on wetlands and streams of the study area.

Build Alternative

One wetland area could be impacted by the Build Alternative, shown on **Figure 4-11**. A small wetland runs parallel to the existing BNSF main line southeast of the Natchez Trace Parkway crossing. The temporary rail used for the maintenance of rail traffic could encroach upon the wetland, but since the improvements are to be entirely within the BNSF right-of-way in this section, permanent impacts are not anticipated and the wetland would be restored

Legend

 Railroads	 Build Alternative
 Primary Roads	 Stream Crossing
 Secondary Roads	 Stream / Creek
 Other Roads	 Wetlands
 Natchez Trace Parkway	 Hydric Soils



**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

**Wetlands &
Hydric Soils**
**Figure
4-11**

when the temporary rail is removed. Proposed bridges on the BNSF main line would extend to the limits of the parallel existing bridges to minimize impacts to stream crossings. Because much of the Build Alternative would be bridged by the proposed structures or built outside of the designated wetlands, no mitigation would be required. A Section 404 permit would be required for any clearing that would need to take place inside a designated wetland.

Approximately 350 linear feet of stream impacts are anticipated with the Build Alternative. The existing BNSF main line already crosses most of the affected streams with existing bridge structures. The proposed bridges over the existing stream crossings would be wider than the existing bridges due to the need to accommodate a future second rail track. One new crossing of Kings Creek and two new crossings of intermittent streams would be part of the proposed interchange. However, the bridge work would require a Section 404 permit for the in-water work anticipated for bridge and pile construction.

4.10 FLOODPLAINS

As discussed in **Chapter 3**, flooding is the primary environmental concern around the City of Tupelo. Floodplains in Lee County generally follow the wide, mostly flat Blackland Prairie physiographic region, as these areas lie in valleys at the base of the Tombigbee Hills. Portions of the Build Alternative lie within the Town Creek, Mud Creek, and Kings Creek floodplains, shown on **Figure 4-12**.

There are many flood control measures located around the City of Tupelo in the Town Creek watershed. Many of the flood control measures in Lee County are managed by the TCMWMD. Any crossings of a regulatory floodway should be submitted to this organization for their review and given an opportunity for comment on final structures within their easements.

No-Build Alternative









The No-Build Alternative would have no impact to floodplains in Lee County, MS.

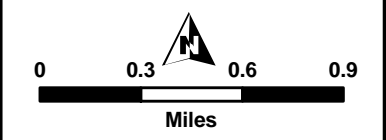
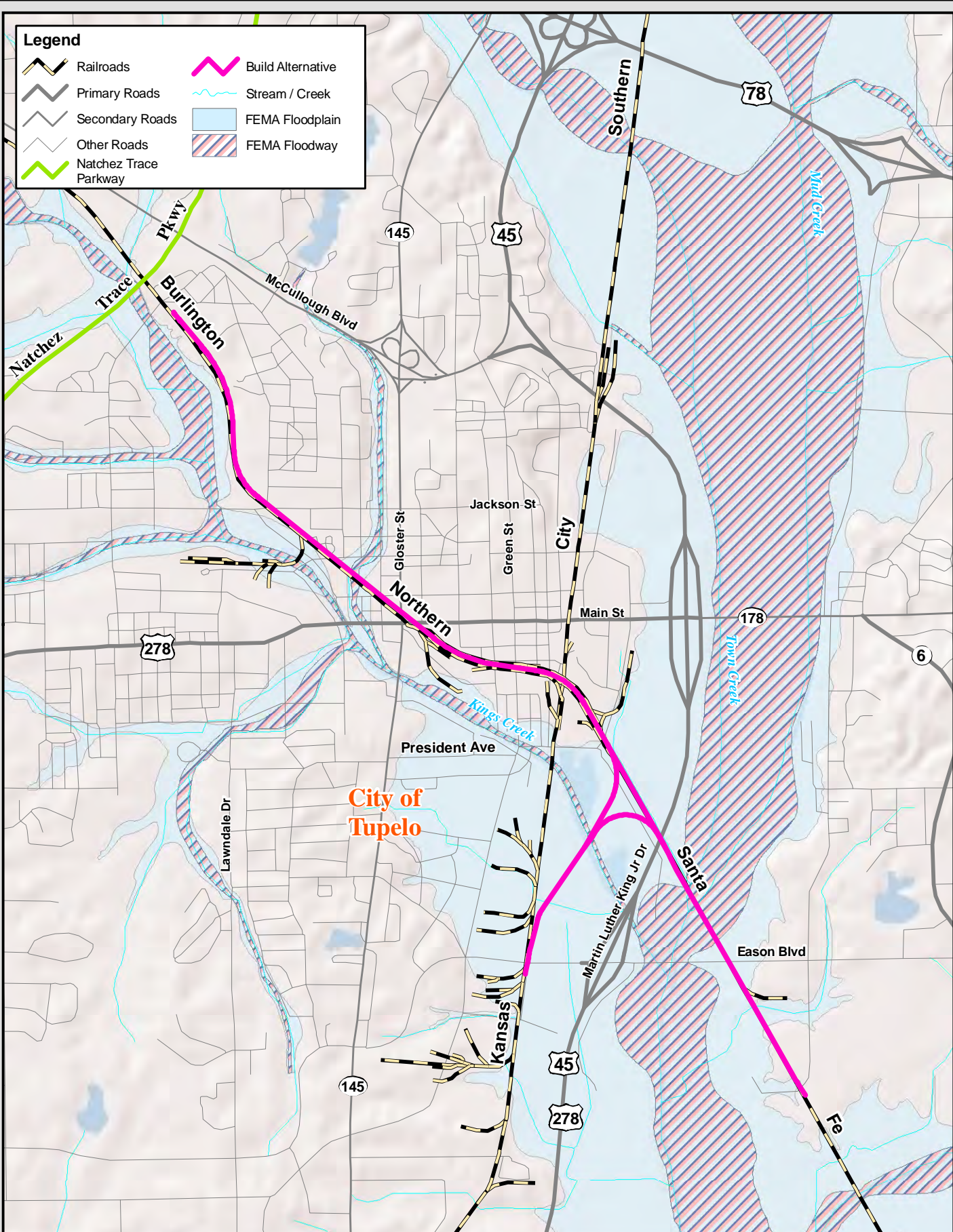
Build Alternative

The Build Alternative would be almost entirely placed on an elevated structure within the existing BNSF right-of-way. Little of the alignment would be placed at-grade, except for the proposed interchange.

The railway improvements of the Build Alternative cross three floodways and approximately 10 acres of 100-year floodplain. The Build Alternative crosses a regulatory floodway, designated as Kings Creek Tributary 1, in the heart of a residential section of Tupelo. This floodway is bridged by the existing BNSF main line. However, at no point does the Build Alternative run closely parallel or run along the flow line of a regulatory floodway or floodplain. The elevated railroad is on a bridge structure across this stream and would have no adverse impact to this floodway. In addition, the reduction in the number of bridge piers within the floodway and the increased low member elevation as a result of the elevated rail would enhance the floodway at this location.

Legend

-  Railroads
-  Primary Roads
-  Secondary Roads
-  Other Roads
-  Natchez Trace Parkway
-  Build Alternative
-  Stream / Creek
-  FEMA Floodplain
-  FEMA Floodway



**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

**FEMA
Floodplains**
**Figure
4-12**

The Build Alternative crosses the regulatory floodway associated with the confluence of Mud Creek and Town Creek east of US 45. This floodway crossing is also bridged by the existing BNSF main line and is proposed to be bridged by the additional track proposed for the interchange yard associated with the BNSF Line. The Build Alternative also crosses the regulatory floodway associated with Kings Creek as part of the proposed interchange track. These bridge structures were designed to be above the base flood elevation to ensure that the conveyance of the Kings Creek, Mud Creek, and Town Creek floodwaters would not be impaired.

The proposed structures were designed to adequately span the existing floodways. Coordination with the TCMWMD to accommodate their planned floodway channel improvements would occur in the final design phase of this project.

4.11 HYDROLOGY AND WATER RESOURCES

4.11.1 Surface Waters

Surface water impacts can be viewed as either short-term construction or long-term operational impacts. Short-term construction related impacts can be reduced by careful implementation of the erosion and sediment control plan. Sediment contamination can lead to aquatic habitat degradation through loss of spawning areas, macro-invertebrate habitat loss, aquatic egg suffocation, gill irritation, lack of visibility for visual aquatic predators, and increased biological oxygen demand. Increases in suspended solids are also linked to increases in coliform bacteria, phosphorus, heavy metals, and organic chemicals.

Erosion at construction sites can be reduced by following through on an erosion and sediment control plan which usually encompasses a combination of efforts to prevent the loss of sediment from a site. MDOT is the largest administrator of construction projects in Mississippi and has had a Storm Water Pollution Prevention Plan (SWPPP) in place since October 1992. This plan was approved by MSDEQ and is routinely used successfully throughout the State on MDOT construction projects.

Long-term efforts to protect surface water can be made by managing stormwater as it leaves a project's right-of-way. Should contaminants build up on-site as a result of engine wear and tear, stormwater retention and detention ponds would allow the majority of these contaminants to settle out before runoff entered surface waters. Long-term stormwater impacts are less of an issue with rail projects than with highway projects. Normally right-of-way widths are less for railroads than for multilane highways, and that provides a greater amount of pervious surface area where rainwater can infiltrate into the soil instead of discharging directly into surface waters. This advantage is particularly true for the Build Alternative because much of the elevated viaduct will be on an elevated structure without an impervious surface below.



A number of federal, state, and local laws, and regulations, govern activities that could affect surface waters. Brief descriptions of these follow:

The Federal Clean Water Act (33 U.S.C. 1251 et seq) (CWA) is the primary federal law protecting the quality of the nation's surface waters. The Act prohibits any discharge of pollutants into the nation's waters unless authorized by a permit. Section 404 of the CWA establishes a permit program, administered by the USACE, to regulate the discharge of dredged or fill material into waters of the United States.

Section 402 of the CWA requires a National Pollutant Discharge Elimination System (NPDES) permit for discharges into waters of the United States.

Section 401 of the CWA requires that an applicant for a federal license or permit to allow activities that would result in a discharge to waters of the U. S. must obtain a state certification that the discharge complies with other provisions of the CWA. MSDEQ administers the certification program in Mississippi.

Section 303[d] of the CWA requires each state to provide a list of impaired waters that do not meet or are expected not to meet state water quality standards as defined by that section. It also requires the state to develop total maximum daily loads (TMDLs) from the pollution sources for such impaired water bodies. This has been done in the project area. The Town Creek Watershed evaluation indicated that the impairment is due to phosphorus and nitrogen from point and nonpoint sources. The estimated existing ecoregion concentrations indicate reductions of nitrogen and phosphorus can be accomplished with installation of best management practices and reductions to point sources in the watershed. The proposed project does not include activities that would normally increase levels of nitrogen and phosphorus in streams.

Section 14 of Rivers and Harbors Act (33 U.S.C. Section 408) requires permission for the use, including modifications or alterations, of any flood control facility work built by the U.S. to ensure that the usefulness of the federal facility is not impaired. The permission for occupation or use is to be granted by "appropriate real estate instrument in accordance with existing real estate regulations." For USACE facilities, the Section 408 approval, known as a Section 408 permit, is required.

There are many flood control measures located around the City of Tupelo in the Town Creek watershed. Many of the flood control measures in Lee County are conducted by the TCMWMD. Any crossings of a regulatory floodway would be submitted to this organization for their review and concurrence.

Executive Order 11988 (Floodplain Management) requires that federal agency construction, permitting, or funding of a project avoid incompatible floodplain development, be consistent with the standards and criteria of the National Flood Insurance Program (NFIP), and restore and preserve natural and beneficial floodplain values.



Under the federal CWA, discharge of stormwater from construction sites must comply with the conditions of an NPDES permit. The state has adopted a statewide General Permit for Stormwater Discharges Associated with Construction Activity that applies to projects resulting in 1 or more acres of soil disturbance. For projects disturbing more than 1 acre of soil, a SWPPP is required that specifies site management activities to be implemented during site development. These management activities include construction stormwater best management practices (BMPs), erosion and sedimentation controls, dewatering (nuisance water removal), runoff controls, and construction equipment maintenance.

In 1987, Congress amended the Clean Water Act (CWA) to require implementation, in two phases, of a comprehensive national program for addressing storm water discharges. The first phase of the program, commonly referred to as “Phase I” was promulgated on November 16, 1990, (55 FR 47990). Phase I in 40 CFR Parts 9, 122, 123, and 124 requires NPDES permits for storm water discharge from a large number of priority sources including municipal separate storm sewer systems generally serving populations of 100,000 or more and several categories of industrial activity, including construction sites that disturb five or more acres of land. In response to this requirement MDOT developed a SWPPP in October 1992, which was subsequently approved by the MSDEQ.

This document serves as the standard for controlling storm water runoff from MDOT construction sites that disturb more than 5 acres. The Stormwater Phase II Rule extends coverage of the NPDES stormwater program to certain “small” MS4s but takes a slightly different approach to how the stormwater management program is developed and implemented.

Bridges were used as much as possible in development of the Build Alternative. Where culverts are designed, they would be placed below grade to avoid scouring downstream from the structure.

No-Build Alternative

There would be no impacts to surface waters as a result of the No-Build Alternative.

Build Alternative

The Build Alternative lies within the City of Tupelo, where many streams are already impacted due to intense urban land use. A total of six perennial and ephemeral streams would be crossed by this alternative. Many stream crossings are currently traversed with a bridge or culvert structure for the existing rail line. Although the proposed BNSF main line parallels Kings Creek, it is located approximately 500 feet from the stream and well outside of the associated floodway.

The Build Alternative would affect approximately 350 linear feet of streams. The existing BNSF main line already crosses most of the affected streams with existing bridge structures. The proposed bridges over the existing stream crossings would be



wider than the existing bridges because of the need to accommodate a future second rail track. One new crossing of Kings Creek and two crossings of existing intermittent streams would be part of the proposed interchange. However, the bridge work would require a Section 404 permit for the in-water work anticipated for bridge and pile construction.

All stream crossings would be updated and modified during construction activities. This could result in, at most, short-term impacts associated with minor discharges of sediment. Because of the use of best management practices in design and construction; and, since the proposed project is largely within existing railroad right of way, long-term land use changes are not expected to occur. During construction activities, aquatic organisms are expected to undergo minor displacement resulting from construction activities, but these organisms are expected to return once activities cease. The overall land use will not change once construction activities are completed. Long-term effects to these streams are expected to be minimal.

The proposed interchange area would be the only area of new railroad right-of-way. Three small drainage ditches would require some channel alteration with the placement of pipes or culverts, and a new bridge would be placed over Kings Creek. BMPs for erosion and sediment control would be provided during construction and stream bank stabilization post construction. Coordination with the TCMWMD would occur during the design stage to ensure all structures placed within easements are acceptable.

Bridges were used as much as possible in development of the Build Alternative. Where culverts are used they would be designed with their floors below the normal stream bottoms. This will avoid scouring downstream from the structure and provide better aquatic habitat.

4.11.2 Designated Use

As discussed in **Section 3.11.2**, Mud Creek, Town Creek, and Kings Creek, are all on the MSDEQ 303(d) impaired water bodies list. Once on the list, MSDEQ is required to develop a plan to reduce the cause of impairment in order to restore the stream to healthy conditions. Part of the restoration plan is the development of TMDL, which is the maximum contaminant concentration in a water body that allows it to support the aquatic life designated use for each of these streams. TMDLs have been developed for Mud Creek, Town Creek, and Kings Creek for biological impairments.

No-Build Alternative

There will be no impacts to surface waters or to the MSDEQ restoration plans for Mud Creek, Town Creek, or Kings Creek associated with the No-Build Alternative.

Build Alternative

The primary surface water impact expected during the construction of the Build Alternative would be sedimentation, and increases in sedimentation can often be



linked to higher nutrient and pathogen levels. Once constructed, the Build Alternative would have very little impact on sedimentation, since it is a railroad mostly constructed on an elevated structure. The structure effluent would be treated within the BNSF right-of-way. Railroads typically do not contribute much to surface water or groundwater contamination. The Build Alternative would not hinder the MSDEQ restoration plans for Town Creek, Mud Creek, and Kings Creek.

4.11.3 Water Resources Management

The TCMWMD maintains each of the main channels around the City of Tupelo, including managing floodwaters, implementing channel improvements, applying land treatment measures, and it aids in debris removal around culverts and bridges. This organization holds conservation easements ranging from 250 feet to 550 feet along each of the main channels.

No-Build Alternative

There would be no impacts to any of the existing channels around the City of Tupelo with the No-Build Alternative. Therefore, there would be no need to consult the TCMWMD. The existing railroad bridges can accommodate the channel improvements proposed by the TCMWMD.

Build Alternative

The proposed improvements would construct one new bridge crossing of Kings Creek, three new culverts, and new bridges across Town Creek and Mud Creek. The Build Alternative would also require the permanent extension of two existing culverts and allow for the removal of one existing culvert. However, for the maintenance of rail traffic during the construction of the Build Alternative, 13 existing culverts would require extension and one new bridge across the Kings Creek Tributary No. 1 would be required. The TCMWMD would be consulted as to the additional channel improvements associated with the Build Alternative and its construction.

4.11.4 Wild and Scenic Rivers









There are no designated Wild and Scenic rivers within the study area. Therefore, there are no impacts to any Wild and Scenic Rivers under either the No-Build or Build Alternatives.

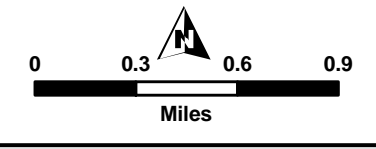
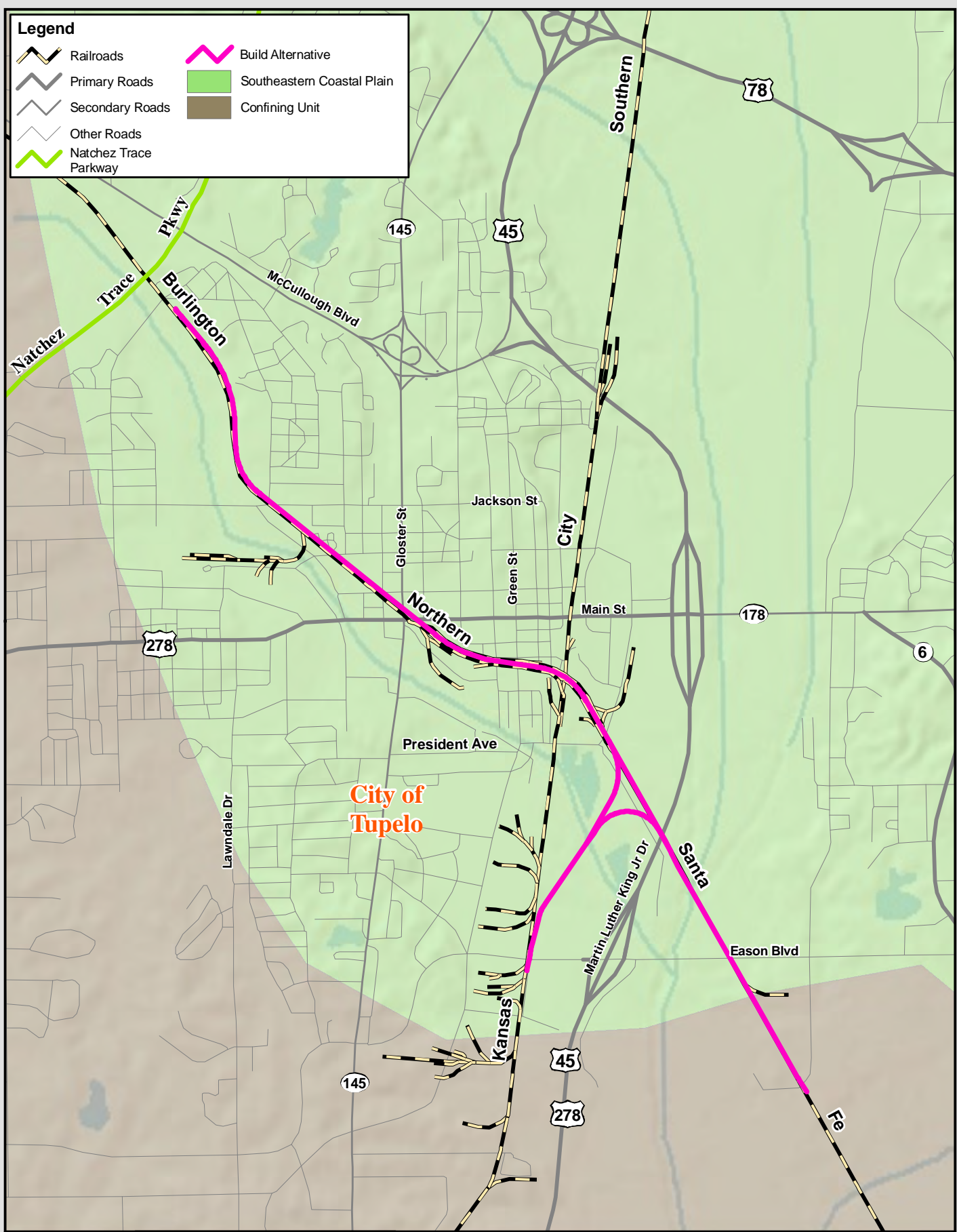
There are also no streams eligible for the Mississippi Statewide Scenic Stream Stewardship Program within the study area. Therefore, there are no impacts to any streams within this program associated with either the No-Build or Build Alternatives.

4.11.5 Groundwater

The City of Tupelo lies on the boundary of the Southeastern Coastal Plain Aquifer and a Confining Unit, shown on **Figure 4-13**. USGS measurements taken at wells near the BNSF main line show that the aquifer has a minimum depth of 230 feet below the ground surface. The City of Tupelo receives drinking water from the Tombigbee River, 18 miles northeast of Tupelo.

Legend

-  Railroads
-  Primary Roads
-  Secondary Roads
-  Other Roads
-  Natchez Trace Parkway
-  Build Alternative
-  Southeastern Coastal Plain
-  Confining Unit



**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

Aquifer
Figure 4-13



No-Build Alternative

There would be no impact to groundwater or drinking water as a result of the No-Build Alternative.

Build Alternative

Most of the proposed improvements, including all of the interchange area, are located over the Southeastern Coastal Plain Aquifer. Bridge piles are not anticipated to penetrate the aquifer. A small portion of the proposed storage yard along the BNSF main line would be over a Confining Unit, which prevents groundwater from percolating into an aquifer. With the aquifer insulated either by depth or by the Confining Unit, no impacts are expected to the Southeast Coastal Plain Aquifer. In addition, given the large distance between the Tombigbee River and the proposed improvements, no impacts are expected to the drinking water for the City of Tupelo.

4.12 FEDERALLY FUNDED AND PROTECTED PUBLIC FACILITIES

The inventory of land uses included a review of public parks, recreation areas, wildlife and waterfowl refuges of national, State, or local significance, or land of an historic site of national, State, or local significance.

4.12.1 Section 4(f) of the Department of Transportation Act Impacts

Section 4(f) of the Department of Transportation Act of 1966 (49 USC 303(c)), (Section 4(f)), declares that it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.

Section 4(f) specifies that the Secretary of Transportation may approve a transportation program or project requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if:

- 1) there is no prudent and feasible alternative to using that land; and
- 2) the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

Section 4(f) further requires consultation with the U.S. Department of the Interior and, as appropriate, the involved offices of the USDA and the HUD in developing transportation projects and programs that use lands protected by Section 4(f).

This study evaluated over a dozen alternatives to determine if they satisfied the Purpose and Need of the project, were buildable, and whether they were socially, economically, and environmentally realistic solutions to the conflicts between rail and vehicular traffic in Tupelo. All the alternatives, except the Build Alternative, were



determined either to fail to satisfy the project's Purpose and Need or be infeasible and dismissed from further consideration.

One of the primary reasons that some of the dismissed alternatives were removed from consideration was that they would impact lands from resources protected by Section 4(f). Some of the alternatives would impact lands that could have archaeological or cultural significance to the Chickasaw Nation. Other alternatives would impact Chickasaw burial sites, and many alternatives would have impacts to the Natchez Trace Parkway. The exact location and severity of the impacts varied, but all of the dismissed bypass alternatives were expected to physically impact lands protected by Section 4(f).

The Build Alternative would be constructed largely on existing developed right-of-way without the use of any land or structures protected by Section 4(f). It would have no physical impact on any park, recreational facility, or wildlife refuge.

While the Build Alternative would not result in a physical use of a property protected by Section 4(f), this EIS also considered the visual effects the Build Alternative may have on the adjacent parks and the adjacent properties that are listed or eligible for the NRHP. To constitute a Section 4(f) impact, the visual effect would have to be of such magnitude that construction of the alternative would substantially impair the features or attributes that made the properties eligible for the NRHP or detract from the use of a public park.

Historic Resources

In coordination with the SHPO, the Build Alternative would have an adverse visual effect on 37 NRHP-listed or NRHP-eligible resources, including the NRHP-listed Mill Village Historic District, the NRHP-listed South Church Street Historic District, and three NRHP-eligible historic districts--the Gravlee, North Tupelo, and Joyner neighborhoods, as shown in **Table 4-6**.

The affected neighborhoods adjoin the railroad at ground level. The Build Alternative would elevate the railroad within the existing right-of-way so that it would no longer be a physical barrier to circulation and to eye-level sight lines within the City of Tupelo and within the historic neighborhoods. The SHPO has also expressed that any of the bypass alternatives would also have presented an adverse effect on the historic properties through the removal of the railroad tracks from their present location.

Adverse visual effects could result from a change in the viewshed of and from these parks and historic resources as the railroad would change from at-grade to an elevated viaduct. However, the elevated viaduct would not result in physical take of the properties and would result in several benefits to these resources. The elevated rail viaduct would result in less train noise, especially horn soundings, and would project exhaust fumes from the locomotives upward and away from the parks and historic



neighborhoods. In addition, access to the historic districts would be improved as the proposed project would remove barriers to pedestrian and traffic movements.

The majority of the historic resources potentially affected by the proposed project are eligible for the NRHP under Criterion C, which defines eligibility based on their architectural type, their period, method of construction, or because they are the work of a master architect, or because of their high artistic value. Some of the historic resources identified in the *Cultural Resources Investigations for the Tupelo Railroad Relocation Study* (Brockington, January 2009) are adjacent to the proposed improvements, while most are not within the direct line of sight. In either case, although the SHPO has determined adverse visual effects for these historic resources, the architectural features that make them eligible under Criterion C will not change with construction of the proposed improvements.

Other historic resources are eligible under Criteria A and C. Criterion A is defined as having association with historic events or broad patterns of history. The resources that are eligible under Criterion A may lose one facet of the many that made them eligible for their contributions to the industrialization of Tupelo: the at-grade railroad. However, there would still be a railroad at the same location, and all of the other factors that affected the historical development of Tupelo would remain unchanged.

Parks

Two adjacent city parks, Burt Park Liberty Gardens and Rob Leake City Park, shown on **Figure 4-5**, would also experience visual impacts from the elevated rail viaduct. Burt Park Liberty Gardens is located on the corner of Park Street and Jefferson Street and consists of a landscaped footpath among trees in an urban environment. The park has no recreational facilities and occupies less than one-tenth of an acre adjacent to the railroad, which can easily be seen from anywhere in the park, and is bounded by two at-grade rail crossings. The park serves as an urban garden. The elevated viaduct would not physically impact the park, and the proposed bridge structure would maintain the park's sight lines.

Rob Leake City Park is located along Joyner Avenue and lies on a ridge overlooking the adjacent existing BNSF main line. The park has several recreation facilities, including ball fields, tennis courts, and a public pool. The elevated structure would be constructed on fill with retaining wall, which would not physically impact the park. The viaduct would be on an incline adjacent to the park and the structure would not be visible from much of the park due to an existing vegetative barrier and the grade difference.

The viaduct would allow for trains to pass without horn soundings and create a "quiet zone" in central Tupelo, which would include these parks. The elevated viaduct could be viewed as an enhancement for the patrons of these facilities, where train noise, especially horn soundings, can be intrusive to the enjoyment of these facilities.



No-Build Alternative

No lands which would fall under protection by Section 4(f) would be used with the No-Build Alternative. Therefore, a Section 4(f) evaluation would not be required for the No-Build Alternative.

Build Alternative

There are no wildlife or waterfowl preserves within the affected environment. As determined through coordination with MDOT and the SHPO, there would be adverse visual impacts to two public parks, five NRHP-listed or NRHP-eligible historic districts, and 37 NRHP-listed or NRHP-eligible structures that lie within the project APE. However, the majority of those affected structures are not adjacent to the proposed improvements included in the Build Alternative and any visual impacts to the viewshed of or from those structures would not impair the qualities that made them eligible for listing on the NRHP. The parks, structures, and historic districts adjacent to the proposed improvements, shown in **Table 4-10**, would be more directly impacted and would be at the center of any mitigation efforts.

Table 4-10 Potential Section 4(f) Impacts

Resource	Facility Type	Build Alternative Impact	
		Type	Mitigation
Rob Leake City Park	Park	Visual - Retaining Wall	Vegetative Barrier / Context Sensitive Design
Burt Park Liberty Gardens	Park	Visual - Bridge	Multi-Use Path / Landscaping / Context Sensitive Design
Carnation Condensary	Industrial	Visual - Bridge/Retaining Wall	Multi-Use Path / Landscaping / Context Sensitive Design
TVA 'Tupelo' Sign	Sign	Visual - Bridge	TBD
Joyner Historic District	Historic District	Visual - Bridge/Retaining Wall	Architectural Survey of District / Historic Signs / Context Sensitive Design
Gravlee Historic District	Historic District	Visual - Bridge	Architectural Survey of District / Historic Signs / Context Sensitive Design
North Tupelo Historic District	Historic District	Visual - Bridge	Architectural Survey of District / Historic Signs / Context Sensitive Design
South Church Street Historic District	Historic District	Visual - Bridge	Funding for Restoration Initiatives / Context Sensitive Design / Historic Signs
Mill Village Historic District	Historic District	Visual - Bridge	Funding for Restoration Initiatives / Context Sensitive Design / Historic Signs

The park functions of Burt Park Liberty Gardens and Rob Leake City Park would not be impaired by the Build Alternative. Both parks would remain intact as a result of the Build Alternative and both parks would experience a significant noise benefit from the construction of the elevated rail viaduct. Therefore, the Build Alternative would not involve a use of these parks.

The FRA, City of Tupelo, MDOT, and the SHPO are in the process of determining possible mitigation efforts, through a binding MOA, included in **Appendix F**, to



soften the appearance of the elevated rail viaduct and reduce the visual impacts to adjacent features. Potential mitigation could include context sensitive design, public art, and other visual treatments, as well as public involvement, restoration projects, and historic surveys. In addition, the elevated viaduct would introduce some benefits to these resources, such as reduced noise and the removal of stationary rail cars from the existing yard between Crosstown and Church Street.

The FRA in consultation with MDOT has concluded that the adverse visual effects on the historic resources resulting from the Build Alternative are not of such magnitude that they would substantially impair the features or attributes that give the properties their function or historic significance. Therefore, there are no Section 4(f) impacts as a result of the Build Alternative and a separate 4(f) Statement is not required.

4.12.2 Section 6(f)(3) of the Land and Water Conservation Fund Act Impacts

The Natchez Trace Parkway, Oren Dunn City Museum, and Ballard Park and Sportsplex have been LWCF grant recipients within the City of Tupelo and thus fall under Section 6(f)(3) protection. However, only The Natchez Trace Parkway is within 500 feet of the existing BNSF main line.

No-Build Alternative

There would be no impacts to Section 6(f)(3) lands with the No-Build Alternative.

Build Alternative

The proposed improvements associated with the Build Alternative begin more than 1,000 feet south of the Natchez Trace Parkway overpass over the BNSF main line and are entirely within the existing BNSF right-of-way. No lands under the protection of Section 6(f)(3) would be impacted by the Build Alternative.

4.12.3 National Trails System Act Impacts

The Natchez Trace National Scenic Trail is protected under the National Trails System Act. One of the segments of the Natchez Trace National Scenic Trail is a six-mile foot path that parallels the Natchez Trace Parkway through the City of Tupelo. The trail crosses the BNSF rail line at-grade, approximately 150 feet north of the Natchez Trace Parkway overpass over the BNSF main line.

No-Build Alternative

There are no impacts to any facilities protected by the National Trails System Act associated with the No-Build Alternative.

Build Alternative

The Build Alternative improvements begin approximately 1,000 feet south of the Natchez Trace Parkway overpass over the BNSF main line. The Build Alternative would not affect either the Natchez Trace National Scenic Trail or its associated viewshed since the improvements will be entirely within the existing BNSF right-of-way and are on the opposite side of the Natchez Trace Parkway from the trail.



4.13 WILDLIFE

During construction activities, nearly all vegetative species would be removed and most animal species would flee from the area as clearing begins. Construction impacts to local fish and wildlife species are expected to be temporary, as construction areas are cleared of vegetation. However, the Tupelo area is a growing urban area, and most major impacts have already occurred or are occurring in response to growth in and around the City of Tupelo.

Where bridges are located, permanent effects are expected to be less than those associated with embankment style construction. However, an adverse shading effect can be expected under bridges. Where bridging or elevation occurs, areas below the elevated structure would no longer receive the same amount of sunlight as they would normally receive, resulting in reduced primary production. This shading effect on both terrestrial and aquatic species could result in further habitat degradation.

4.13.1 Vegetative Communities

As described in **Section 3.14.1**, a portion of the study area is located within the Blackland Prairie ecoregion, which is considered a critically endangered ecosystem, and is surrounded by rolling Tombigbee Hills which is part of the Southern Coastal Plain. However, there are no pristine prairie environments remaining in the Blackland Prairie in or around the City of Tupelo, and the affected environment generally contains either urban or agricultural areas.

No-Build Alternative

There would be no change to the Blackland Prairie ecoregion as a result of the No-Build Alternative.

Build Alternative

No areas of pristine Blackland Prairie exist and little forested area remains along the Build Alternative. While the majority of the Build Alternative lies within the Blackland Prairie area of Tupelo, the improvements would be almost entirely on previously developed land. The existing BNSF right-of-way has little vegetation and is cleared periodically as a routine component of track maintenance. Temporary habitat effects could possibly be significant during construction activities, and these would be mitigated through proper erosion and sediment control practices (BMPs). Construction of the railroad within the existing right-of-way would greatly reduce the potential adverse impacts to species.

The interchange area would cross Kings Creek with a bridge to avoid impacts to vegetative communities. The interchange area would also bisect agricultural fields between an industrial portion of Tupelo and US 45. The area is rapidly being converted to more industrial areas and cannot be considered prime habitat due to encroaching industry and human activity. Therefore, impacts to vegetative communities as a result of the Build Alternative are anticipated to be minimal.



4.13.2 Terrestrial Habitat

Because the primary land use for the study area is either agriculture or urban, most wildlife species expected in the study area are generalists and are able to survive in a wide range of habitats. Organisms found in open areas, including agriculture, are bobwhite quail, cottontail rabbit, red fox, mourning dove, and species of songbirds. Squirrels, white tail deer, wild turkey, woodcock, raccoon, ducks, geese, rails, and shore birds can be found in or near the study area. No environmentally sensitive habitat or species was found within the affected environment.

No-Build Alternative

The existing BNSF main line will remain at-grade with the No-Build Alternative, increasing the likelihood of train and wildlife collisions will increase as train traffic increases through Tupelo. There would be no other impacts to terrestrial species as a result of the No-Build Alternative.

Build Alternative

Because the Build Alternative is proposed primarily within the existing BNSF right-of-way, the potential adverse impacts to species are minimized. Impacts to species would be reduced in the areas where the rail line is elevated, resulting in less inhibited movement of species through the railroad right-of-way and reducing train and wildlife collisions. The likelihood of an increase in bird strikes by trains on the elevated viaduct is minimal, since the trains would only be travelling at 40 miles per hour and birds should be able to avoid vehicles travelling at that speed. Furthermore, the proposed construction of a green space bike path, as described in **Section 2.8.2.7**, could increase the amount of wildlife habitat within the City of Tupelo. Minimization of terrestrial habitat degradation would occur by reducing erosion and sedimentation at construction sites and quickly re-vegetating once construction is completed. After construction is finished, maintaining a vegetated buffer along the rail line would offer habitat within a highly industrial land use.

4.13.3 Aquatic Habitat

Organisms found in Kings Creek, Mud Creek, and Town Creek area are able to survive in a range of environmental conditions and are capable of living in poor water quality due to high sediment loads and stream channelization activities. Common fish species include bass, bluegill, and channel catfish.

No-Build Alternative

There would be no impacts to aquatic habitat with the No-Build Alternative.

Build Alternative

Due to existing urban land uses, relative distance to streams, use of bridge structures, and elevation of the rail line, effects to aquatic systems associated with the Build Alternative along this corridor are anticipated to be minimal. Minimization of aquatic habitat degradation would occur by reducing erosion and sedimentation at construction sites and quickly re-vegetating once construction is completed.



4.13.4 Threatened and Endangered Species

The only Federal or State listed endangered species within the affected area is the Price's potato bean. No critical habitats for any endangered species were found within the affected environment.

No-Build Alternative

The No-Build Alternative would not have impact on any sensitive organisms within the study area.

Build Alternative

There is little suitable habitat for the Price's potato bean along the Build Alternative as it runs through an intense urban area and primarily within the existing BNSF railroad right-of-way. No individuals were observed, and there is little potential for this species to exist due to the fact that corridors have already been significantly impacted. Remaining on the footprint of the existing rail line reduces the potential for major impacts to this species. No further coordination with USFWS would be required.

If a Price's potato bean population were found in the area of the Build Alternative during construction, bridging the area would not be considered a viable mitigation option. This species needs an open sunlight canopy to survive and the shading provided by bridge structures would be detrimental to the plant's survival. If the species were found along the project right-of-way, there could be potential to relocate individuals to The Nature Conservancy preserve in the Coonewah Creek watershed. Further coordination with the USFWS and The Nature Conservancy would be required if an individual were identified along the location during construction; however, this is not anticipated.

4.13.5 Conservation Easements

The TCMWMD maintains conservation easements surrounding several channels throughout the Tupelo area.

No-Build Alternative

There would be no impacts to any conservation easements with the No-Build Alternative.

Build Alternative

The Build Alternative includes four bridge structures to either replace existing bridges or to construct new spans across existing water bodies within the City of Tupelo. The new bridge structures include a bridge across Mud Creek and Town Creek for the proposed storage tracks along the BNSF main line and a bridge across Kings Creek for the interchange track. The existing BNSF main line bridge across a Kings Creek Tributary No.1 would be replaced with the proposed mainline elevated bridge structure and the existing Eason Boulevard bridge across Kings Creek and Town Creek would be replaced with the proposed bridge over the BNSF main line.

Coordination with the TCMWMD during design and construction of the bridges would occur to avoid conflicts with the conservation easements.

4.14 HAZARDOUS MATERIALS

Based on a review of database records, interviews with State and local officials who have knowledge of the study area, documents on file with the MSDEQ, and a site reconnaissance, no sites were identified with potential to significantly impact the railroad corridor, as detailed in **Section 3.16**. Impacts may be considered significant if the proposed improvement appears to affect buildings, underground tanks, or requires the purchase of adjacent property.

No-Build Alternative

Since there are no known sources of contamination within the existing corridor and no improvements are included in the No-Build Alternative, there would be no impacts to hazardous materials sites.

Build Alternative













Based on information obtained from reviews of available government records and maps, and a field reconnaissance of the railroad corridor and the adjacent areas, there is limited potential for hazardous materials impacts from the Build Alternative, shown on **Figure 4-14**. During this reconnaissance, no sites that warrant further investigation were identified. Some of the properties adjacent to the corridor have previously been the location of several industries, including manufacturing and textile mills. Therefore, care should be taken during construction activities to identify any evidence of contamination, such as discolored or stained soils or unusual odors. If evidence of contamination is noted during construction, environmental professionals and/or the MSDEQ would be notified.

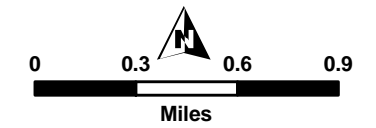
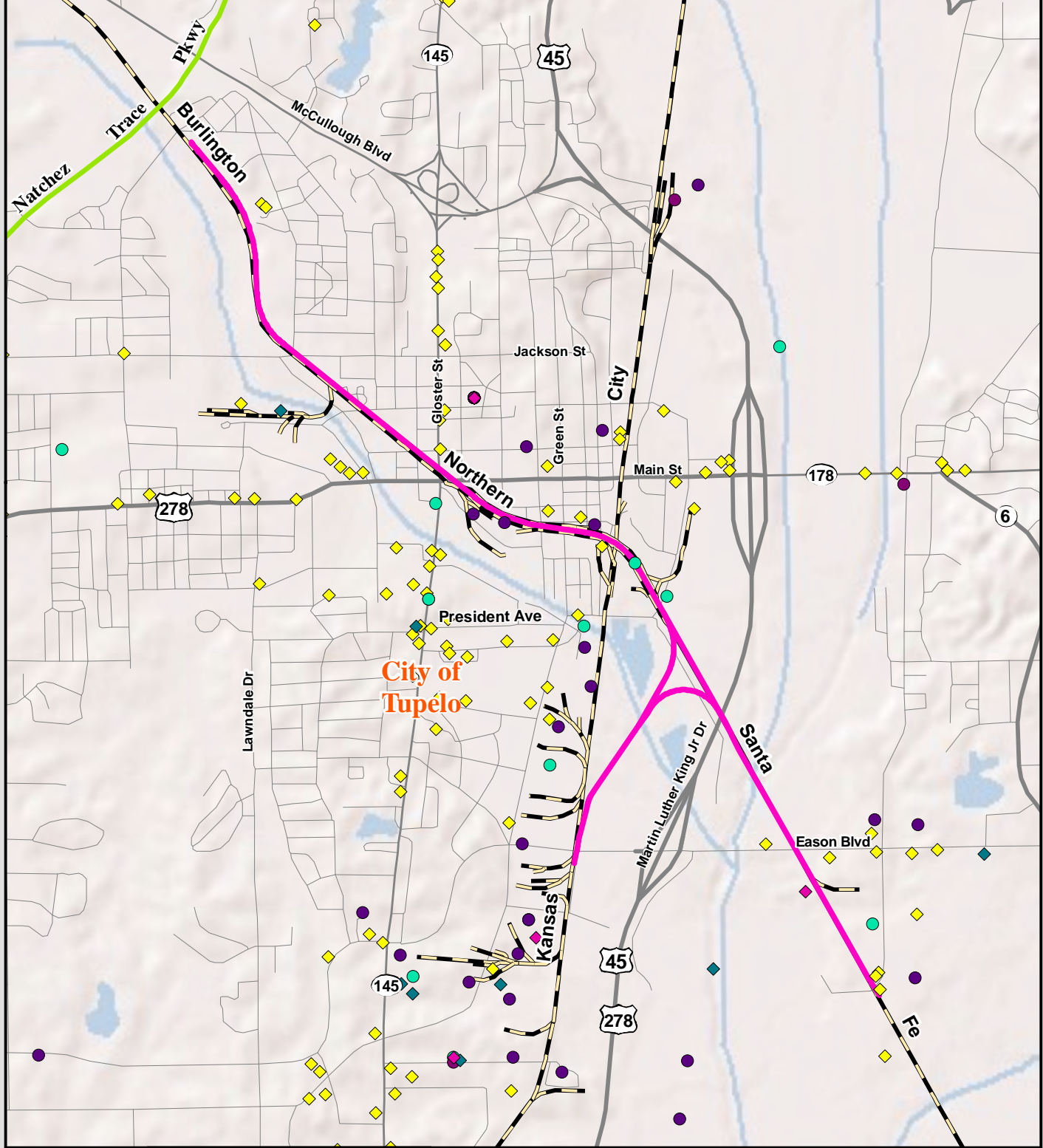
4.15 AESTHETICS AND VISUAL RESOURCES

Visually sensitive sites were identified within the City of Tupelo and included known cultural resources, parks, and other recreation facilities in the immediate vicinity of the Build Alternative. A viewshed model was created for the length of the Build Alternative to determine the distance at which the elevated viaduct could be seen into each neighborhood, shown on **Figure 4-15**. Observer locations on top of the proposed bridge structure were established at nodes along the Build Alternative, and a 360-degree sweep of the landscape was performed at an observer height of six feet above ground. The visually sensitive sites identified within the viewshed of the proposed elevated viaduct were rated on the level of impact, shown in **Table 4-11**. Impact scores were determined by the following criteria:

- **Low** - Minor adverse change to the existing visual resource, with low viewer response to the change in visual environment. May or may not require mitigation.
- **Moderate** - Adverse change to the visual resource, with moderate viewer response. Aesthetic impact can be mitigated within five years, using conventional practices.
- **Moderately High** - Moderate adverse visual resource change with high viewer response, or high adverse visual resource change with moderate viewer response. Landscape treatment required will generally take longer than five years to mitigate.

Legend















 Railroads	 Build Alternative	 Agricultural Chemical Sampling Sites
 Primary Roads	 RCRA Sites	 CERCLA Sites
 Secondary Roads	 Storage Tanks for Flammable Materials	 Discharge Elimination Sites
 Other Roads	 EPA Regulated Facilities Toxic Release Inventory Sites	
 Natchez Trace Parkway		

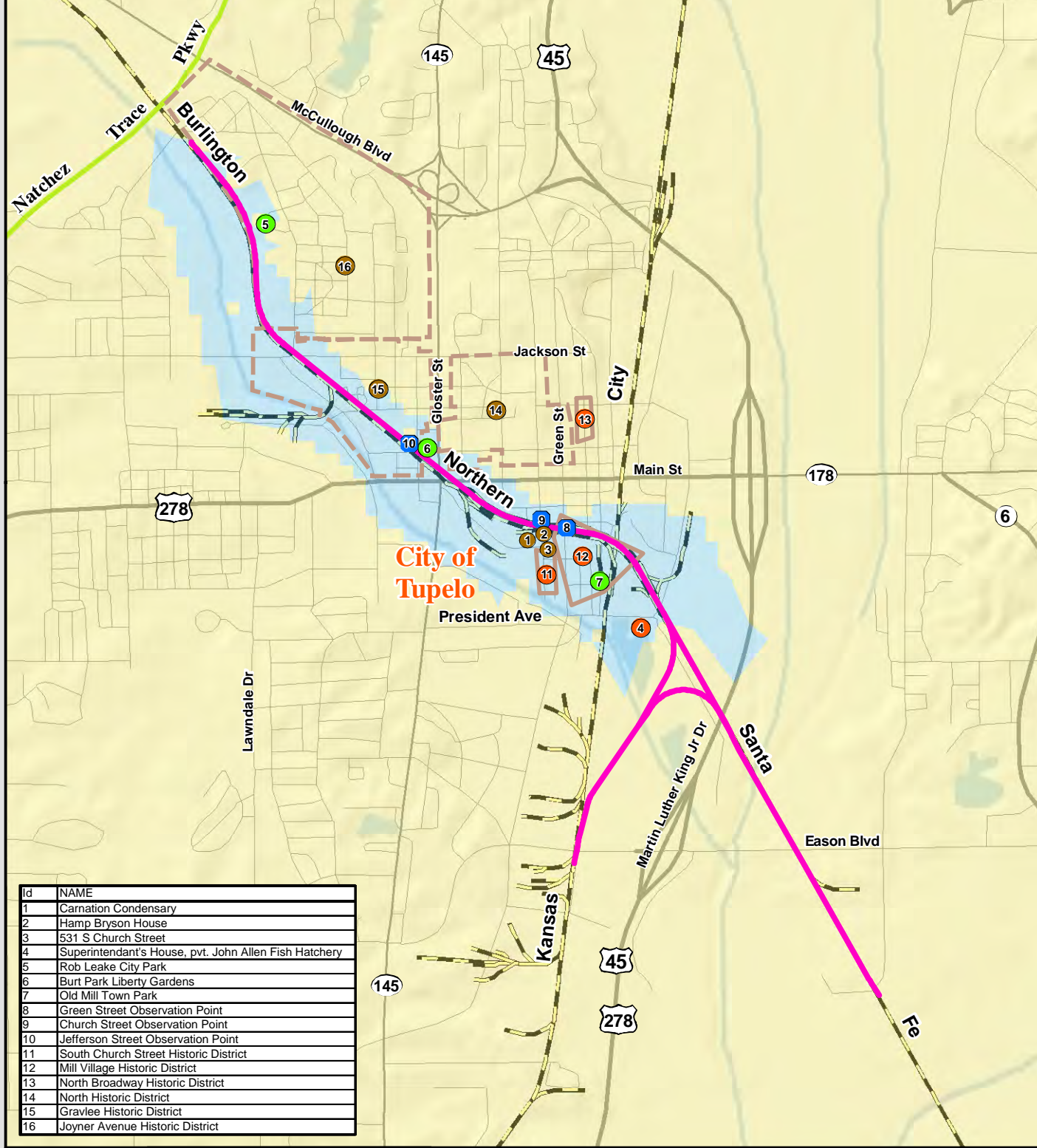


**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

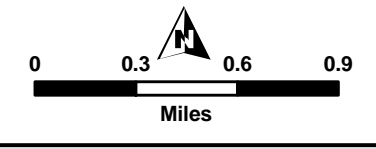
**Hazardous
Material Sites**
**Figure
4-14**

Legend

-  Railroads
-  Primary Roads
-  Secondary Roads
-  Other Roads
-  Natchez Trace Parkway
-  Build Alternative
-  NHRP Historic Site/District
-  Potential Historic Site/District
-  Observation Point
-  Park
-  NHRP Historic District/Site
-  Potential Historic District/Site
-  Within Bridge View
-  Out of Bridge View



Id	NAME
1	Carnation Condensary
2	Hamp Bryson House
3	531 S Church Street
4	Superintendant's House, pvt. John Allen Fish Hatchery
5	Rob Leake City Park
6	Burt Park Liberty Gardens
7	Old Mill Town Park
8	Green Street Observation Point
9	Church Street Observation Point
10	Jefferson Street Observation Point
11	South Church Street Historic District
12	Mill Village Historic District
13	North Broadway Historic District
14	North Historic District
15	Gravlee Historic District
16	Joyner Avenue Historic District



**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

Viewshed
Figure 4-15



- **High** - High level of adverse changes to the resource, or high level of viewer response to visual change, such that architectural design or landscape treatment cannot mitigate the impacts. An alternative project design may be required to avoid impacts.

Table 4-11 Aesthetic and Visual Impacts from Build Alternative

Visual Resource	NHRP Status	Visual Impact	Mitigation Option
Pvt. John Allen National Fish Hatchery	Listed	Low	None
Mill Village Historic District	Listed	Moderately High	Aesthetic design
South Church Street Historic District	Listed	Moderately High	Aesthetic design
Carnation Condensary	Eligible	Moderately High	Aesthetic design
Hamp Bryson House	Eligible	Moderate	Aesthetic design
531 S. Church Street	Eligible	Moderate	Aesthetic design
Joyner Historic District	Proposed	Low	None
Gravlee Historic District	Proposed	High	Elevated bridge w/ aesthetic design
Old Mill Town Park	N/A	Moderate	Aesthetic design
Burt Park Liberty Gardens	N/A	Moderate	Aesthetic design w/ pedestrian trail link
Rob Leake City Park	N/A	Moderate	Aesthetic design w/ vegetative barrier
TVA Sign at Crosstown Intersection	Proposed	High	Possible relocation or incorporation into bridge design

No-Build Alternative

The No-Build Alternative would not alter the viewsheds of any of the cultural resources, parks, and other recreational facilities within the City of Tupelo. The trains would still run through Tupelo at-grade and perform the interchange operations through the downtown Tupelo area. Trains would remain visible from the Old Mill Town Park and Burt Park Liberty Gardens, the NRHP-listed historic districts of Mill Village and South Church Street, and the NRHP-eligible structures and districts described in **Section 3.6.1**. Stationary rail cars would still be visible in the storage yard between Gloster Street and Church Street.

Build Alternative

The Build Alternative would replace an at-grade rail facility with an elevated rail facility within the existing railroad right-of-way. A large, permanent bridge structure approximately 25 to 30 feet high would cross through the heart of downtown Tupelo. The sentiment expressed by attendees at various project public meetings prevailed that the potentially

adverse aesthetic impact of a large bridge structure is offset substantially by the improvement of traffic flow issues associated with the current at-grade rail facility. However, while public opinion on the visual impacts is a significant factor in the design, visual impacts to historic structures, historic districts, and recreational facilities must also be evaluated.

Visual resources scoring High or Moderately High, identified in **Table 4-11**, would require some visual mitigation involved in the structure design, especially for NRHP-listed resources. Those highly affected resources are described with respect to their relative aesthetic impacts and mitigation recommendations, and photographic renderings of the Build Alternative were prepared for each resource to provide a visual benchmark as to the level of impact anticipated for each resource.

- **Mill Village Historic District - Moderately High** – This NRHP-listed historic district is bordered to the north by the BNSF main line. The existing heavy tree cover within the district will aid in masking the facility. However, the elevated rail viaduct would be visible from much of the historic district, especially looking along Spring Street and Green Street as well as from other breaks in tree cover. This district is listed on the NRHP for historic industrial structures. The bridge would be designed with context sensitive elements, to be determined during procedures outlined in the MOA included in **Appendix F**, which fits within the existing land uses.
- **South Church Street Historic District - Moderately High** - The BNSF railroad runs to the north of this NRHP-listed historic district. The proposed viaduct structure would be visible from much of the neighborhood. The South Church Street Historic District is NRHP listed for its historic homes. While the rail facility would not be residential in nature, the facility will be hidden by trees and other homes and buildings. Context sensitive design elements would lessen visual impacts to this historic neighborhood. The proposed pedestrian trail would add an opportunity for recreation and linkages to other recreational facilities within the City, enhancing the aesthetics of the district.
- **Carnation Condensary - Moderately High** - This is a closed factory building that borders the BNSF main line to the north and Church Street to the east. The factory itself is in a serious state of disrepair, but was purchased by the City of Tupelo with the intent of preserving its historic character. The existing viewshed regarding the BNSF main line includes the storage yard between Gloster Street and Church Street. The proposed viewshed would include the proposed fill structure with retaining wall, which could be considered a hindrance. However, because this viewshed is already compromised by stationary rail cars, the proposed fill structure with retaining wall in this area and the associated pedestrian trail could be considered an improvement.



Existing View Looking North from Mill Village Historic District (Spring St.)



View Looking North from Mill Village Historic District with Build Alternative



Existing View Looking North from Mill Village Historic District (Green St.)



View looking North from Mill Village Historic District with Build Alternative



Existing View Looking North within South Church Street Historic District



View Looking North within South Church Street Historic District with Build Alternative



Existing View Looking South into Church Street Historic District



View Looking South into Church Street Historic District with Build Alternative



Existing View Looking North Adjacent to Carnation Condensary



View Looking North Adjacent to Carnation Condensary with Build Alternative



Existing View Looking North at Crosstown Intersection



View Looking North at Crosstown Intersection with Build Alternative



Existing View Looking North within Gravlee District



View Looking North within Gravlee District with Build Alternative



Existing View Looking West from Rob Leake City Park



View Looking West from Rob Leake City Park with Build Alternative

- **Gravlee District - High** - This neighborhood has the highest potential for visual impacts as this district is bisected by the BNSF main line. A bridge structure would be critical for preserving cohesiveness within the district. An embankment style structure would be devastating to the continuity of the neighborhood, completely cutting off view from one side of the facility to the other. Because of the potential for major adverse visual impacts, this is the most important section of the project to receive a bridge structure rather than an embankment style structure. An aesthetic design is critical to preserve this historic neighborhood.



- **TVA Sign at Crosstown Intersection - High** - This sign was historically designed to be observed by visitors traveling towards the Crosstown intersection. While the setting of this resource has been dramatically altered in recent decades with the construction of modern commercial development, the sign has retained much of its historic value, including its colorful neon lighting. The Build Alternative would obstruct its view from visitors traveling on both Gloster Street and Main Street, and consultation with the SHPO would be coordinated to recommend possible mitigation measures. In addition, the construction of the truss bridge across Crosstown could require the temporary relocation of this sign, as it is located almost directly underneath the proposed structure. Mitigation options could include the relocation of this sign to another intersection within Tupelo along with the construction of a larger, more modern sign to be incorporated into the proposed truss bridge.

4.16 TRANSPORTATION AND UTILITIES

4.16.1 Highways

The effects on the highway network around the City of Tupelo can be measured in both capacity and travel delay. The impacts of the alternatives are likely to arise more from the construction process than as a permanent hindrance to the traffic flow.

No-Build Alternative

The highway network would experience greater vehicle delay with the No-Build Alternative as a result of the increased rail traffic across the at-grade intersections throughout Tupelo. Of particular concern would be the Crosstown intersection which is comprised of MS 145 (Gloster Street) and US 278/MS 6 (Main Street), which is also part of Appalachian Highway Corridor V. As discussed in **Section 4.4.7**, the traffic delay affects both the Crosstown intersection and adjacent intersections. Increased rail traffic would result in additional delays. Grade-separated highways, such as US 45 and US 78, would not experience the increased vehicle delay.

Build Alternative

Highways throughout Tupelo would be impacted by the Build Alternative, both by its construction and its final configuration. During the construction of the Build Alternative, the Crosstown intersection would require temporary lane closures to facilitate the construction of both the temporary track crossing and the proposed truss bridge structure across the intersection. These closures would occur during off-peak hours, and the intersection could remain open during peak traffic hours. Also, US 45 would be reduced to one lane in each direction as the overpass over the BNSF main line is reconstructed. All of the construction-related delays would be temporary.

The proposed Build Alternative would remove the majority of the at-grade railroad crossings within the City of Tupelo, especially those that experience the greatest amount of traffic. This would have a noticeable beneficial impact on the traffic flow in and around the Tupelo area, which would enhance the area's opportunity for future growth.



4.16.2 Airports

Tupelo provides regional air service at the Tupelo Regional Airport.

No-Build Alternative

There would be no impact to the Tupelo Regional Airport with the No-Build Alternative.

Build Alternative

The Tupelo Regional Airport is located more than one mile from the proposed improvements associated with the Build Alternative. Overall roadway traffic within Tupelo would see reduced delay with the Build Alternative, but none of the roads which access the airport would be impacted. Therefore, there would be no impact to the Tupelo Regional Airport associated with the Build Alternative.

4.16.3 Public Transportation

Greyhound operates long-distance passenger bus service with a station in Tupelo. Tupelo does not have local or regional bus service or passenger rail service. Therefore, there would be no impacts to public transportation with either the No-Build or Build Alternatives.

4.16.4 Pedestrian and Bicycle Facilities

Existing pedestrian and bicycle facilities are uncommon within the City of Tupelo.

No-Build Alternative

Pedestrian and bicycle facilities across the BNSF main line would remain unchanged with the No-Build Alternative. The sidewalk segments would remain disconnected across the railroad at Park Street and Church Street. In addition, future development for bicycle and pedestrian facilities would have to account for the at-grade railroad.

Build Alternative

The Build Alternative would greatly enhance pedestrian and bicycle facilities throughout Tupelo. The sidewalk segments at Park Street and Church Street would be connected across the BNSF right-of-way and a proposed pedestrian/bicycle trail would be constructed within the BNSF right-of-way from Lumpkin Avenue to Spring Street. In addition, sidewalk segments along all of the grade-separated crossings could be installed across the BNSF right-of-way. All such crossings would meet Americans with Disabilities Act (ADA) requirements.

The Build Alternative also includes a multi-use pedestrian/bicycle trail to be constructed within the outside 20 feet of the existing BNSF right-of-way once the elevated viaduct is complete and the temporary at-grade track has been removed. This trail would run from Jackson Street to Spring Street for a total length of approximately 1.5 miles. The trail would include a pedestrian crossing at Crosstown, which would require a pedestrian signal. Additional trail crossings at Blair Street, Jefferson Street, Park Street, Church Street, and Green Street would require stop signs

on the trail and appropriate signing and pavement markings on all cross-streets. The trail would also meet ADA requirements.

4.16.5 Utilities

The City of Tupelo includes many utilities, both subsurface and above-ground.

No-Build Alternative

There would be no impacts to utilities with the No-Build Alternative.

Build Alternative

The Build Alternative would impact several utilities within the City of Tupelo, shown in **Table 4-12**. These utilities were located based on a field reconnaissance performed in July 2008 and do not include all subsurface utilities. Potable water, sewer, and other underground utilities may exist within the existing BNSF right-of-way and the proposed interchange corridor, but they were not located with the surface evaluation of these corridors. In addition, overhead electric facilities may also carry telephone and cable television lines, but the specific carrier and utility owner information was not obtained for this study.

Table 4-12 Utilities Affected by the Build Alternative

Utility Type	Location	Relocation Needed	Utility Type	Location	Relocation Needed
Gas	Crossing BNSF R/W under Spring St. and KCS	Unknown	Overhead Electric (Distribution)	Along west edge of BNSF R/W between KCS and Elizabeth St.	N/A
Gas	Crossing BNSF R/W along north side of Eason Blvd	N/A	Overhead Electric (Distribution)	Crossing BNSF R/W along both sides of Elizabeth St.	Vertical
Gas	Crossing Eason Blvd west of US 45	N/A	Overhead Electric (Distribution)	Along south side of Eason Blvd. between Green St. and Veterans Blvd.	Horizontal
Overhead Electric (Distribution)	East edge of BNSF R/W along Shands Dr.	N/A	Overhead Electric (Distribution)	Crossing BNSF R/W south of Veterans Blvd.	N/A
Overhead Electric (Distribution)	Crossing BNSF R/W along south side of Jackson St.	Vertical	Overhead Electric (Distribution)	Along east edge of KCS R/W from south of Eason Blvd. to Main St.	Horizontal & Vertical
Overhead Electric (Distribution)	Along west edge of BNSF R/W between Jackson St. and Park St.	N/A	Overhead Electric (Distribution)	Along north side of Eason Blvd. between Green St. and US 45	Horizontal
Overhead Electric (Distribution)	East edge of BNSF R/W from north of King St. to Gloster St.	Horizontal	Overhead Electric (Transmission)	Crossing BNSF R/W 700' south of Elizabeth St.	Vertical
Overhead Electric (Distribution)	Crossing BNSF R/W south of Main St.	Vertical	Overhead Electric (Transmission)	Crossing BNSF R/W 1200' north of US 45	Vertical
Overhead Electric (Distribution)	Along south edge of BNSF R/W from south of Main St. to Church St.	N/A	Overhead Electric (Transmission)	Crossing BNSF R/W 750' north of US 45	Vertical
Overhead Electric (Distribution)	Crossing BNSF R/W along east side of Church St.	Vertical	Sanitary Sewer	East edge of BNSF R/W along Shands Dr.	N/A
Overhead Electric (Distribution)	Crossing BNSF R/W along east side of Green St.	Vertical	Sanitary Sewer	Manhole within BNSF R/W south of Elizabeth St.	Horizontal
Overhead Electric (Distribution)	Crossing BNSF R/W along east side of Spring St.	Vertical	Sanitary Sewer	Manholes (2) in field south of Pvt. John Allen Fish Hatchery	Horizontal

Horizontal relocations would include the repositioning of utility poles or the re-routing of an underground facility. Vertical relocations would include the transposition of an overhead line either to a taller utility pole or to an underground facility. The cost of these utility relocations would be the responsibility of the utility owner. Utility owners have been contacted and coordination with utility owners to

estimate relocation costs and further identify utilities within the project corridor is ongoing.

4.17 ENERGY IMPACTS

Energy generation and consumption data specific to Tupelo and Lee County were not available, thus energy data for the State of Mississippi was obtained from the U.S. Energy Information Administration.

Existing (2005) and future (2030) fuel consumption was calculated for the No-Build and Build Alternatives based on the VISSIM traffic modeling, described in **Section 4.5.7**, for the PM peak period and expressed in vehicle miles traveled (VMT). The VMT statistics represent the system-wide traffic projection and generally indicates the overall volume of traffic circulating under each alternative. Vehicle hours traveled (VHT) were summed for all the traffic in the model network to represent PM peak fuel consumption under each alternative. The hours traveled is indicative of the hours of fuel consumption for each alternative during the PM peak hours. This analysis does not estimate fuel consumed during off-peak hours or changes in technology that would lead to reduction of fuel consumption. Operational average daily peak miles, trips, and hours traveled by trains and vehicles for the No-Build and Build Alternatives are summarized in **Table 4-13**.

Table 4-13 Average Daily Vehicle Miles and Hours During PM Peak Hours

Parameter	2005 (Existing)	2030 No-Build Alternative	2030 Build Alternative
Vehicle Miles Traveled	5,383	7,062	7,254
Percent Change	-	31%	35%
Total Vehicle Trips	11,253	14,928	15,283
Percent Change	-	33%	36%
Vehicle Hours Traveled	326	829	519
Percent Change	-	154%	59%

Source: Production and Consumption of Energy Technical Memorandum (ABMB, 2008)

No-Build Alternative

The No-Build Alternative would require minimal construction energy. Any energy expended would be for periodic rail and roadway maintenance, which would occur over time until the condition of either the rail or roadway network significantly deteriorates and warrants complete reconstruction. As shown in **Table 4-13**, the No-Build Alternative would result in 154% more VHT as compared to the existing conditions, even though the traffic volumes are anticipated to increase by approximately one-third. This is representative of nearly a three-fold increase in fuel consumption as a result of automobile delay due to the No-Build Alternative.

Build Alternative

The Build Alternative would decrease the overall amount of energy consumed compared to the No-Build Alternative, as shown in **Table 4-13**. The VHT associated with the Build Alternative would increase by approximately 59% as compared to the existing condition, or by approximately one-third of the VHT increase associated with the No-Build Alternative. This decrease in VHT is inclusive of the relative increase in VMT and total vehicle trips as compared to the No-Build Alternative. The primary direct impacts on transportation energy use related to the Build Alternative would result from changes in traffic volumes and traffic patterns. Removing at-grade crossings reduces the fuel consumption per automobile because of the unrestricted flow of traffic and fewer delays while traveling. The operational energy required is anticipated to be less because of reduced vehicular congestion and increased safety near the elevated railroad.

The Build Alternative would have a net beneficial impact on energy expenditures of the BNSF freight rail line because it would separate train traffic from the existing at-grade crossings, reducing train delays. Energy consumption would be reduced because the newer, elevated rail tracks offer higher travel speed and decrease delays. The interchange between the KCS and the BNSF would increase the efficiency of the exchange and reduce energy consumption. Over the design life of the facility, the savings in operational energy would be anticipated to offset the energy required to construct the viaduct.

The use of energy for the construction of the Build Alternative would be a short-term impact on energy resources, representing only a minor age of the total energy consumed throughout the study area during the construction period. It is not anticipated to result in adverse impacts on the overall demand for energy during construction.

4.18 CONSTRUCTION IMPACTS

The construction activities associated with building the elevated viaduct and associated roadway improvements would create environmental impacts. These impacts are generally short-term in nature and would be controlled, minimized, or mitigated through conformance with established construction methods. Temporary impacts resulting from construction include traffic disruption, increases in noise pollution, increases in vibration, decreases in air quality, erosion, sedimentation, and encroachment on sensitive animal and vegetative habitat.

Construction activities would be performed to comply with applicable Federal, State, and local laws governing safety, health, and sanitation. These activities would include safeguards, safety devices, protective equipment, and any other needed action reasonably necessary to protect the life and health of employees on the job, the safety of the public, and property in connection with the performance of the work.

Traffic

During construction, all local and through traffic would be adequately and safely accommodated. All construction operations would be scheduled to minimize traffic delays, and the contractor will conform to standard construction practices. The plan for maintenance of traffic for each phase of construction of the Build Alternative would be developed during

the final design of the project and would include temporary lane or road closures and appropriate detours. A community relations/construction mitigation program would be developed and implemented in order to provide general construction scheduling information, coordination of construction work with local jurisdictions, and assistance with the resolution of problems concerning adjacent land uses associated with the construction work.

Noise and Vibration

Noise generated by haul trucks and other heavy equipment used in railroad, roadway, and bridge construction and paving is anticipated. The range of construction noise depends on the noise characteristics of the equipment and activities involved (e.g. pile driving), the construction schedule (time of day and duration of activity), and the distance from sensitive receptors. Expected phases of construction include land clearing and excavation, demolition, utility relocation, drainage construction, and bridge construction. Noise impacts, including pile driving and vibratory compaction of embankments, would be temporary and control measures would be implemented to reduce the impacts.

Water Quality

During project construction, potential short-term increases in water turbidity, which could affect wetlands and water quality, would vary from none to moderate. Qualitative short-term construction impacts to water quality, listed below, would not be permanent and would be minimized by using BMPs, consistent with State and local standards.

- Chemical Pollutants – Minor
- Turbidity – Moderate
- Biota – Minor
- Sedimentation – Minor

Direct effects on water quality during construction may include spills or discharges. However, BMPs and proper planning should prevent such occurrences.

Water quality degradation as a result of stormwater runoff is expected to be minimal as stormwater management rules and regulations are strict, and compensation for this type of impact would be provided. Adverse impacts on water quality during construction can be successfully mitigated through a variety of good construction and stormwater management practices. Water quality impacts resulting from erosion and sedimentation would be controlled in accordance with standard construction practices and through the use of BMPs.

Air Quality

Air quality impacts would be temporary and would primarily be in the form of exhaust emissions from trucks and construction equipment as well as from fugitive dust from construction sites. Almost all of the trucks and other equipment involved in construction activities would be diesel-powered. Overall, construction vehicle emissions would not be significant compared with the emissions from automobile traffic in the area. Detours and other delays in traffic during construction typically result in local increases in vehicle emissions. These impacts would be minimized by adherence to State and local regulations and in accordance with standard construction practices.

Construction Waste

All construction waste material generated during clearing, grubbing, and other construction phases would be removed from the project site and disposed of by the contractor in accordance with State and local regulations. Litter and other general trash would be collected and disposed of at landfill locations. Construction waste deposition in and borrow from jurisdictional wetlands would not be allowed unless permitted by the USACE.

Utility Service

Construction of the Build Alternative would require some adjustment, relocation, or modification to existing public utilities. The impacts to these utilities are described in **Section 4.16.5**. Any disruptions to utility service during construction would be minimized by phased adjustments to the utility lines. All modifications, adjustments, or relocations would be coordinated with the affected utility owners.

Borrow Pits and Spoil Sites

Approved borrow material would be taken from sites in conformance with Federal, State, and local regulations. MDOT has worked closely with USFWS, SHPO, and other regulatory agencies to develop better procedures for evaluating and selecting borrow pits and spoil sites. All required permits (e.g. utility protection and erosion control) would be obtained before gathering the borrow material and the pit sites are determined satisfactory from an archaeological standpoint. Tribal governments would be consulted where necessary.

Any material excavated would be disposed of in accordance with Federal, State, and local regulations. Excavated materials would not be disposed of in wetlands. After the completion of pit operations, water would not be allowed to pond.

4.19 INDIRECT AND CUMULATIVE IMPACTS

4.19.1 Indirect Impacts

Indirect effects are defined by the Council on Environmental Quality (CEQ) as:

“...caused by an action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems” (40 CFR §1508.8).

In many cases, these indirect effects would occur outside of a specific project area. As to the cause and effect relationship between the project and the indirect impact, CEQ states that indirect effects may include induced changes to land use resulting in resource impacts (40 CFR §1508.8). Other indirect effects include the potential alteration of or encroachment on the affected environment. Examples of this include fragmentation of a habitat and functional effects to water resources.

This analysis follows guidance from the National Cooperative Highway Research Program (NCHRP) Report 466, *Desk Reference for Estimating Indirect Effects of*



Proposed Transportation Projects, from the Transportation Research Board and NCHRP Report 25-25, Task 22, *Land Use Forecasting for Indirect Impacts Analysis*.

NCHRP Report 466 identifies three general categories of indirect land use effects:

- Those stemming from projects planned to serve a particular land development project;
- Projects likely to produce complementary land development (highway-oriented businesses); and
- Projects likely to influence intraregional location decisions.

Although the Build Alternative (elevation of an existing rail line) is not anticipated to induce development adjacent to the corridor, it would result in improved efficiency for the transportation network within the City of Tupelo. As a result, it could provide enhanced opportunities for development elsewhere in the City. The City of Tupelo and other local planners in the surrounding areas agree that a more efficient transportation network could enhance development opportunities. However, it is not possible to precisely quantify development that would occur as a result of the enhanced opportunities. Because the amount of development associated with the proposed project cannot be quantified, the following resource sections contain a qualitative assessment of the indirect effects that could occur as a result of enhanced development opportunities. Because the Build Alternative would remove the majority of the at-grade crossings within the City of Tupelo, the affected environment for the indirect effects analysis is bounded by the city limits. However, based on input from the City of Tupelo, it is anticipated that the majority of the enhanced development opportunities would be concentrated in downtown Tupelo.

4.19.1.1 Land Use

Tupelo: The Story Continues - The 2025 Comprehensive Plan (December 2008) was adopted by the City of Tupelo to outline the City's and region's growth and development plan for the next two decades. The plan is updated every five years and directs inter-agency coordination and molds policy. Some of the main goals of the comprehensive plan include revitalizing neighborhoods, expanding economic development, and improving transportation. The comprehensive plan identified the relocation of the BNSF railroad crossing at the Crosstown intersection as an immediate need to enhance transportation safety within Tupelo. The development of a network of greenways, bikeways, and sidewalks was also identified in the comprehensive plan as a long-term goal.

The majority of the proposed project would occur in a developed area. Existing land uses within ½-mile of the Build Alternative include residential, commercial, industrial, and agricultural. The City of Tupelo and the surrounding area are experiencing rapid growth and as a result, agricultural areas both within and outside of the city limits are being converted into



housing and business developments. This on-going trend of conversion from agricultural or undeveloped lands to residential and commercial areas is likely to continue with or without the proposed project. To the extent that the rate of development is increased by the proposed project, indirect effects could occur. Development is anticipated to be consistent with the comprehensive plan and zoning regulations, and, as a result, the change from undeveloped to developed uses is not anticipated to be significant.

4.19.1.2 Farmlands

Although some of the land that would be converted to developed uses is currently in agricultural use, the NRCS has stated that farmland within the city limits is considered to be in “urban” use. As a result, any conversion of agricultural land to developed uses would not be considered an adverse effect.

4.19.1.3 Socioeconomic Conditions

Indirect economic impacts include the impact on the local and regional economy due to enhanced development opportunities. These impacts are generally beneficial, such as increased tax revenue from developed land, increased household income and employment opportunities from new commercial development, reduced costs due to reduction in travel times and congestion, and increased income from construction of new development. Adverse economic impacts may occur during construction as traffic may be diverted around Tupelo. However, long-term employment opportunities could be increased as the growth following improvements in rail and roadway transportation. Population growth could follow employment growth and could increase additional demand for housing, and services. The Build Alternative would allow local traffic better access to residential, commercial, and industrial services within central Tupelo.

4.19.1.4 Environmental Justice

The on-going trend of conversion from agricultural or undeveloped lands to residential and commercial areas is likely to continue with or without the proposed project. Although there are minority and low-income populations within the City, the enhanced development opportunities afforded by the proposed project is not anticipated to result in disproportionate adverse effects to these vulnerable populations because those impacts will be felt by all populations.

4.19.1.5 Public Facilities and Community Cohesion

Any enhanced development opportunities would be anticipated with the City of Tupelo’s comprehensive plan and zoning regulations and would not result in adverse effects to public facilities. The Build Alternative would not separate any neighborhoods as the alignment primarily follows the existing railroad. Because the affected environment is moderately developed, it is unlikely that additional development, regardless of whether or not is it



enhanced by the proposed project, would result in adverse effects to community cohesion.

4.19.1.6 Cultural Resources

Archeological sites are typically directly affected through site clearing, grading, or excavation during development. Due to the history of the Tupelo area regarding the Chickasaw Nation, many archeological resources in the affected environment are unknown. Determination of whether any of the development forecasted by local planners would result in adverse effects to these sites cannot be made because the quantity, location, and character of individual resources are unknown.

Indirect effects, as defined by Section 106 of the National Historic Preservation Act, would occur where the integrity of the resources would be affected by a change in viewshed. The MOA, discussed in **Section 4.5.1** and included in **Appendix F**, is anticipated to account and mitigate for the direct effects and in so doing, will also mitigate for any indirect effects. Although it is possible that other archaeological sites exist in the affected environment, it is not possible to determine potential effects, as the exact location and nature of the resources are unknown and areas for potentially enhanced development cannot be quantified.

Some development may fall under Federal or State regulatory resource protection review, and therefore, archeological and historic resources could be protected, preserved, or mitigated. If development is publicly funded, or if private development requires certain Federal permits, such as a permit under Section 404 of the CWA, then it would likely be subject to Federal or State regulations. However, most of the development, such as residential and commercial development, would not fall under the regulatory review process; therefore, these resources would have no protection under Federal or State laws.

4.19.1.7 Air Quality

Any future development may cause degradation of air quality as a result of increased traffic volumes within the affected environment. However, based on the comprehensive plan and zoning, most of the development would be residential and commercial.

Potential indirect effects to air quality are not considered to be significant, and air quality may improve over time. Overall emissions would likely decrease due to the rapidly improving fuel and vehicle technology and vehicle turnover in the future years. Improved traffic flow in areas of existing congestion would also result in improved air quality.



4.19.1.8 Noise and Vibration

Increases in vibration are not anticipated with any potential development that would be enhanced by the proposed project. Additional noise could result from future development. To the extent that this development is induced by the proposed project, an indirect effect of increased noise levels could occur. Noise is essentially a localized physical condition, with most of the noise from any increased development resulting from increased traffic within the study area. The proposed project is only anticipated to enhance the rate of development, rather than induce additional development within the study area. As a result, potential indirect effects to noise levels are not anticipated to be significant.

4.19.1.9 Geological Resources

The development in the study area is anticipated to be primarily residential and commercial. Any development, regardless of whether it is accelerated by the proposed project, would be anticipated to conform to current building codes and would not be in conflict with geological resources.

4.19.1.10 Wetlands

The proposed project is only anticipated to enhance opportunities for development rather than induce additional development beyond what is already planned. Regardless of whether development is public or private, it would be subject to Sections 404 and 401 of the CWA, which regulates impacts to waters of the U.S., including wetlands. As a result, significant indirect effects to wetlands are not anticipated.

4.19.1.11 Floodplains

In general, floodplains pose a constraint to development regardless of whether it is accelerated by the proposed project. This constraint relates to the regulation of these floodplains through county and local ordinances. While these ordinances do not prohibit development within the floodplain, they limit and regulate development to eliminate or reduce potential damage from future floods. Development within floodways is prohibited. Any enhanced development opportunities would be subject to the local ordinances governing development within floodplains. As a result, significant indirect effects to floodplains are not anticipated.

4.19.1.12 Hydrology and Water Resources

Development effects that contribute to degradation of surface waters include increased impermeable surface and increased non-point source pollution (e.g. from fertilizers, pesticides, sediments, and vehicle residues). However, the proposed project is only anticipated to accelerate the rate of development, rather than induce additional development within the affected environment. Any development would have to comply with MSDEQ requirements, which will help minimize impacts to water quality.



4.19.1.13 Federally Funded and Protected Public Facilities

Any enhanced development opportunities would be anticipated with the City of Tupelo's comprehensive plan and zoning regulations and would not result in adverse effects to Federally funded and protected public facilities.

4.19.1.14 Wildlife

The majority of the undeveloped and agricultural lands within the City are interspersed within currently developed areas and do not provide high quality wildlife habitat. In addition, there are no known populations of Federal or State listed threatened or endangered species in the affected environment. Any enhanced development opportunities are not anticipated to occur in natural habitats or environmentally sensitive lands. In addition, because any accelerated development would occur within undeveloped pockets in currently developed areas, it is unlikely that this development would result in significant habitat encroachment or alteration.

Impacts to Federally-listed endangered and threatened species are regulated by the USFWS under Sections 7, 9, and 10 of the Endangered Species Act. The Mississippi Department of Wildlife, Fisheries, and Parks (MDWFP) has regulatory authority over State-listed animals where direct take (killing or injuring) is involved, but the agency does not have authority over destruction of habitat of State-listed animals. For State-listed plants, MDWFP does not regulate either direct or indirect take except for lands owned or managed by MDWFP. For any of the development anticipated to be induced by the proposed project, it would be the responsibility of the individual developers, in coordination with USFWS and MDWFP, to determine if their projects have the potential to affect threatened or endangered species. Because the proposed project is only anticipated to accelerate the rate of the planned development and the regulations governing projected species, indirect effects to protected species are not anticipated.

4.19.1.15 Hazardous Materials

Although a database search was completed for the affected environment, it is possible that development induced as a result of the proposed project could encounter sites contaminated with hazardous materials. To minimize the risk of impacting these sites through land disturbing activities, a Phase I Environmental Site Assessment to identify potential hazardous materials could be conducted prior to property acquisition and development. This is a standard practice in commercial and residential subdivision land development.

The potential adverse effect is associated with additional costs and schedule. There would be a beneficial effect to soil and ground water resources by remediation of the contamination. Potential indirect effects are not considered to be substantial. Although hazardous materials may increase from future development of commercial areas, potential effects would likely be abated



from recent, more stringent regulations regarding hazardous materials management. Therefore, these potential effects are not considered to be substantial.

4.19.1.16 Aesthetic and Visual Resources

The aesthetic and visual direct effects of the elevated viaduct are generally limited to those properties within the immediate vicinity of the viaduct. The MOA, discussed in **Section 4.5.1** and included in **Appendix F**, is anticipated to account and mitigate for the direct effects and in so doing, will also mitigate for any indirect effects. The potential development anticipated would be subject to the regulations of the City of Tupelo. Indirect impacts to the aesthetic and visual resources are not anticipated.

4.19.1.17 Summary of Potential Impacts

Table 4-14 provides a summary of the potential direct and indirect effects. Indirect impacts to other resources are described in further detail. Actual impacts to some of these resources could be reduced, as Federal and State regulations and local ordinances regulate development affecting these resources. In other cases, such as historic and archeological resources, regulation of development applies only to projects requiring Federal monies or permits, and these regulations mandate consideration not protection of the resource. Other resources, such as farmlands, wildlife habitat, and open space, are not effectively regulated for either public or private development.

4.19.2 Cumulative Impacts

Cumulative impacts are defined by CEQ regulations as:

“...the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from minor but collectively significant actions taking place over a long period of time” (40 CFR §1508.7).

Cumulative effects (impacts) include both direct and indirect, or induced, effects that would result from the project, as well as the effects from other projects (past, present, and reasonably foreseeable future actions) not related to or caused by this project. Therefore, the cumulative effects analysis includes the direct effects and indirect effects of the proposed project and effects of other past, present, and reasonably foreseeable actions. The cumulative effects analysis considers the magnitude of the cumulative effect on the resource health. Health refers to the general overall condition, stability, or vitality of the resource and the trend of that condition. Therefore, the resource health and trend are key components of the cumulative effects analysis. Laws, regulations, policies, or other factors that may change or sustain the resource trend would be considered to determine if more or less stress on the resource is likely in the foreseeable future. Opportunities to mitigate adverse cumulative

Table 4-14 Summary of Direct and Indirect Impacts

Resource or Topic Evaluated	Summary of Direct Effects	Summary of Indirect Effects
Land Use	Approximately 11 acres of agricultural and vacant land would be converted to railroad right-of-way.	No Effect
Farmlands	No Effect*	No Effect*
Socioeconomic Conditions	Increased traffic flow on roadway network, leading to economic development and growth.	Increased tax revenue, growth, employment, and improved access.
Environmental Justice	No disproportionate effects anticipated.	No disproportionate effects anticipated.
Public Facilities & Community Cohesion	No Effect	No Effect
Cultural Resources	Visual impacts to 37 NRHP-listed or NRHP-eligible sites & districts. MOA to mitigate adverse effects.	Potential viewshed impacts and potential impacts to unknown resources.
Air Quality	Improvement of air quality via reduction of emissions from idling automobile traffic	No Effect
Noise	Decrease in noise severity level at 52 sites	No Effect
Vibration	Increase in vibration impacts at 18 sites	No Effect
Geological	No Effect	No Effect
Wetlands	Short-term impacts during construction.	No Effect
Floodplains	Impact to 10 acres of 100-year floodplain and 3 new floodway crossings	No Effect
Hydrology & Water Resources	No Effect	No Effect
Section 4(f)	No Effect	No Effect
Wildlife	Not likely to adversely affect Price's potato bean. No effect to other listed species or habitat.	No Effect
Hazardous Materials	Low concern for encountering materials during construction.	No Effect
Visual & Aesthetic	Impacts to resources within immediate vicinity of viaduct. MOA to mitigate adverse effects.	No Effect

*Land that is in agricultural production will be affected, but it is not Prime Farmland as designated by the Farmland Protection Act.



effects on a stressed resource, or a resource that would continue to be stressed would be presented.

The cumulative effects of an action may be undetectable when viewed in the individual context of direct and indirect impacts. Nonetheless, they can add to other disturbances and eventually lead to a measurable environmental change.

The following eight-step evaluation process is intended to provide an efficient, consistent, and logical method of evaluating cumulative effects of a project. The following sections describe each of the eight steps used in this cumulative effects analysis.

Step 1: Identify Resources to Consider

Evaluation of cumulative effects should be completed for any resource that was found to be affected by the project. Resources that were not found to be directly or indirectly affected by the project were not considered in the cumulative effects analysis (CEA). Specific resources and environmental effects categories evaluated in this CEA are listed in **Table 4-14**. These resources include land use, noise and vibration, waters of the U.S., and floodplains.

Step 2: Define the Study Area for Each Resource

The CEA considered both geographic and temporal study limits. A Resource Study Area (RSA) was defined for each resource and is discussed in the pertinent sections. The RSAs are used for characterization of the health condition and trend for each resource and to determine the potential cumulative effects on a resource. Cumulative effects were determined considering the potential cumulative effect on the health and trend within the RSA. Additionally, the temporal limits were considered for the CEA from 1980 to 2030. The US 45 freeway bypass of Tupelo was constructed in 1980 and has since altered the development patterns of the City.

Step 3: Describe the Current Status/Viability and Historical Context for Each Resource

The historical context and health of each resource is described and presented in the resource sections. This information is important to establish the baseline condition and trend the resource is experiencing to be able to estimate the magnitude of the resource effect. The historical context is first described to provide an explanation of the factors that have caused the current health of the resource.

Step 4: Identify the Direct and Indirect Impacts of the Project

This step identifies the direct and indirect effects that could result from the proposed project that may contribute to a cumulative effect when added to non-project related effects. Direct and indirect impacts are defined by CEQ regulations (40 CFR 1508.8) as follows:



“Direct impacts are caused by the action and occur at the same time and place”.
(40 CFR 1508.8)

“Indirect (secondary) impacts are caused by the action and are later in time and farther removed in distance, but are still reasonably foreseeable. Indirect impacts may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate and related effects on air and water and other natural systems, including ecosystems.” (40 CFR 1508.8)

The CEA considers the direct and indirect effects, as previously described. A summary of these effects is presented for each resource in **Table 4-14**.

Step 5: Identify Other Reasonably Foreseeable Effects

A CEA requires consideration of past, present and reasonably foreseeable future actions. This is important to provide a context for the types of development projects that have caused the current health of the land and other resources, and the trends the resources are experiencing.

Step 6: Identify and Assess Cumulative Impacts

The CEA considered the direct and indirect effects of the project, together with the effects of past, present, and reasonably foreseeable future projects. The magnitude of the cumulative effect was determined by comparing the effect to the health and trend of the affected resource.

Step 7: Report the Results

The results of the CEA are reported herein. Direct effects and indirect effects are summarized in this section as they are included in the cumulative effects analysis. The assumptions and methods used are described in the appropriate resource sections.

Step 8: Assess the Need for Mitigation

Opportunities for mitigation of adverse effects, where applicable, are discussed for each resource. These are not meant to be mitigation measures that FRA, MDOT, BNSF, or other agencies would, or have the authority to implement. Rather, they are intended to disclose steps or actions that could be undertaken by local, State and Federal agencies and organizations to minimize the potential cumulative effect on each resource health and trend.

4.19.2.1 Land Use

Resource Study Area

For purposes of this CEA, the RSA includes the City of Tupelo. The RSA is the area to which development may or has the potential to occur as a result of the proposed project. Based on the City of Tupelo’s comprehensive plan, with the exception of floodplains and existing parks located in the RSA, it can be



assumed that the land within the RSA that is not already developed would be available for future development in one form or another.

Historical Context and Current Health

Existing zoning and land use within and surrounding the City of Tupelo reveal single-family residential and general business development as the main drivers of land development. This follows the trend of the last decade of Lee County as a whole with continuous development and expansion. While the rate of population growth and physical development in this area of Mississippi has been quite high during the last decade compared to State and national trends, the City of Tupelo still maintains the potential to continue development as long as vacant parcels are available for conversion to residential, commercial, or industrial land uses. The majority of the city limits are well-developed. The floodplain areas still remain mostly undeveloped and are used for agricultural purposes. The development patterns have included areas over the entire affected environment, including the Barnes Crossing area north of US 78 and the Fairpark district adjacent to downtown.

Direct and Indirect Effects

Approximately 11 acres of vacant and agricultural land would be converted to transportation right-of-way. To the extent that the opportunity for development is enhanced by the proposed project, indirect effects could occur. Development is anticipated to be consistent with the comprehensive plan and zoning regulations, and, as a result, indirect effects to land use are not anticipated to be significant.

Effects of Other Reasonably Foreseeable Future Actions

Based on the City of Tupelo comprehensive plan, none of the adjacent lands to the BNSF main line are considered for major future development. The zoning designations predominantly match the existing land uses.

Beyond the continued development within the City of Tupelo, three roadway corridors are planned for improvement. MDOT plans to reconstruct MS 6 as a four-lane, divided highway south of the city limits, US 78 is proposed to become I-22, and the City of Tupelo is planning to extend Coley Road north of MS 178 to connect to Barnes Crossing. Although these improvements are not likely to result in development adjacent to the BNSF main line, they would improve development opportunities within Tupelo since better roads can provide more incentive for residents to move to new and existing developments.

Increased mobility and better traffic congestion management would contribute to the continued maintenance of air quality standards in Lee County, which would be considered a beneficial cumulative effect.



Results of the Cumulative Effects Analysis

Although it is not possible to quantify the development from reasonably foreseeable future actions, given the growth in the Tupelo area, the RSA that is not already developed could be available for future development in one form or another. Development is anticipated to be consistent with the comprehensive plan and zoning regulations, and as a result, adverse cumulative effects to land use are not anticipated.

Mitigation

Because adverse cumulative effects to land use are not anticipated, no mitigation has been proposed.

4.19.2.2 Noise and Vibration

Resource Study Area

For purposes of this analysis, the noise and vibration RSA is the same as the Land Use RSA.

Historical Context and Current Health

As the pace of residential and commercial development continues in and around Tupelo, it has likely contributed to higher ambient noise levels in project vicinity. However, these levels within the project vicinity are consistent with those expected in residential and commercial areas, with the exception of train events where noise from train horns and vibration from locomotives and rail cars exceed normal thresholds.

Direct and Indirect Effects

Direct effects of the Build Alternative would include the benefit of decreased noise levels at 52 receivers and the increase in vibration levels at 18 receivers. The vibration impacts would increase, but would not be adverse. Additional noise could result from future development. To the extent that this development is induced by the proposed project, an indirect effect of increased noise levels could occur. The proposed project is only anticipated to enhance the potential for development, rather than induce additional development within the study area. As a result, potential indirect effects to noise levels are not anticipated to be significant. Indirect effects to vibration are not anticipated to occur.

Effects of Other Reasonably Foreseeable Future Actions

It is reasonable that the current trend in growth, including residential and commercial development would continue. As population grows in the Tupelo area and as development spreads into vacant and traditionally rural areas, associated noise and vibration levels would continue to increase.



Results of the Cumulative Effects Analysis

Adverse cumulative effects to noise and vibration are not anticipated. The Build Alternative would result in the benefit of reduced noise impacts and a small, but not adverse, increase in vibration impacts.

Mitigation

Because adverse cumulative effects to either noise or vibration are not anticipated, no mitigation has been proposed.

4.19.2.3 Waters of the U.S.

Resource Study Area

For purposes of this analysis, the RSA is the watersheds of Town Creek, Mud Creek and Kings Creek and their associated tributaries.

Historical Context and Current Health

The four streams crossed by the Build Alternative are designated as impaired in the MSDEQ 303(d) list for their inability to satisfy the requirements of the aquatic life designated use. MSDEQ has established restoration plans, including TDMLs to restore these streams.

Direct and Indirect Effects

The Build Alternative would bridge these four streams, resulting in no adverse impacts to the restoration plans set forth by the MSDEQ or the flood control measures managed by the TCMWMD. Total impacts to waters of the U.S. are anticipated to be approximately 350 linear feet. No wetlands or other special aquatic sites would be permanently impacted by the Build Alternative. The proposed project is only anticipated to enhance opportunities for development rather than induce additional development beyond what is already planned. Regardless of whether development is public or private, it would be subject to Sections 404 and 401 of the CWA, which regulates impacts to waters of the U.S., including wetlands. As a result, significant indirect effects to wetlands are not anticipated.

Effects of Other Reasonably Foreseeable Future Actions

It is reasonable that the current trend in growth, including residential and commercial development would continue and the TCMWMD plans to channelize the floodways in the Tupelo area would be implemented. Although this development may impact waters of the U.S., any new development would be regulated by Federal, State, and local policies and the USACE would be coordinated with for the TCMWMD channelization plan. As a result, significant adverse impacts to waters of the U.S. from other reasonably foreseeable developments are not anticipated.



Results of the Cumulative Effects Analysis

Significant adverse cumulative effects to waters of the U.S. are not anticipated. Regardless of whether reasonably foreseeable future development would be public or private, these developments would have to comply with Sections 404 and 401 of the CWA, which regulates the filling of and encroachment on these resources and the USACE would oversee the TCMWMD channelization plans. Given the regulatory requirements governing impacts to waters of the U.S., and the mitigation measures discussed in the following section, substantial cumulative effects to these resources are not anticipated.

Mitigation

Because adverse cumulative effects to waters of the U.S. are not anticipated, no mitigation has been proposed. Any new development within these watersheds would be regulated under Section 404 of the CWA. In addition, the TCMWMD maintains easements over all of these local streams and serves to protect water resources, including waters of the U.S.

4.19.2.4 Floodplains

Resource Study Area

For purposes of this analysis, the RSA is the portion of the 100-year floodplain and designated floodways within the City of Tupelo.

Historical Context and Current Health

As discussed in the direct impacts section, flooding is the primary environmental concern around the City of Tupelo. The 100-year floodplain follows the wide, mostly flat Blackland Prairie region. Most of the 100-year floodplain consists of agricultural or vacant land surrounding Town Creek, Mud Creek, and Kings Creek.

Direct and Indirect Effects

Approximately 10 acres of 100-year floodplain would be crossed by the Build Alternative, including three crossings of designated floodways. However, each of the floodway crossings would be on bridge structure and would not run along or parallel to the flow line of the floodway. Much of the impacted floodplain falls within the proposed right-of-way, which could require floodplain compensation ponds, but that determination would be made during the design phase. Indirect effects are not anticipated from the Build Alternative due to the adjacent land also being within the 100-year floodplain and its limited potential for development.

Effects of Other Reasonably Foreseeable Future Actions

It is reasonable that the current trend in growth, including residential, industrial, and commercial development would continue. Although this development may impact the floodplains, the floodplains are not considered



desirable for such development. Any development would be subject to the local ordinances governing development within floodplains. As a result, significant effects to floodplains from reasonable foreseeable future development are not anticipated. The TCMWMD channelization plan for the floodways around Tupelo would be overseen by the USACE.

Results of the Cumulative Effects Analysis

Adverse cumulative effects to floodplains and floodways are not anticipated. Any development would be subject to the local ordinances governing development within floodplains. The TCMWMD channelization plan for the floodways around Tupelo would be overseen by the USACE.

Mitigation

Because adverse cumulative effects to floodplains and floodways are not anticipated, no mitigation has been proposed.

4.20 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

As with any new construction project, the Build Alternative would require certain irreversible and irretreivable commitment of natural resources, manpower, materials, and fiscal resources. As noted above in **Section 4.1.1**, the majority of the Build Alternative would remain within the existing BNSF right-of-way, with a small right-of-way acquisition area from vacant parcels for the storage tracks and approximately 11 acres of either agricultural or vacant land for the interchange tracks. These lands within the proposed right-of-way would be converted from agricultural and vacant land use to transportation use. Use of these lands is considered an irreversible commitment during the time period that the land is used for railroad and roadway facilities. However, if a greater need arises for the land use, or if the railroad or roadway facilities are no longer needed, the land would be converted to another use. At the time of this report, reasons for such a conversion are not anticipated.

Maintenance is an important long-term cost and includes major items such as roadway resurfacing and railroad track conditioning, as well as routine maintenance such as mowing, cleaning drainage structures, bridge maintenance, and weed control. Over time, maintenance cost can be a major expense. Since the Build Alternative is proposing the majority of its improvements on the existing roadway and railroad footprints, much of the maintenance cost will remain unchanged between the No-Build and Build Alternatives. The rail-mile difference between the No-Build and Build Alternatives is comprised solely of the interchange track and the associated storage tracks. The larger differences in maintenance costs between these alternatives is the cost associated with the existing at-grade rail crossings (which would be removed with the Build Alternative) and the maintenance costs associated with the elevated railroad viaduct and Eason Boulevard overpasses.

No-Build Alternative

While the No-Build Alternative would not require an irreversible and irretreivable commitment of resources for construction, the additional maintenance cost for the at-grade

rail crossings and the costs associated with the traffic congestion can be seen as irretrievable commitments. At an annual cost of \$17,000 per crossing (\$34,000 for the Crosstown intersection due to its size and complexity), the No-Build Alternative would commit \$272,000 annually to at-grade crossing maintenance, or a total cost of \$6,800,000 by the year 2030. As discussed in the *Phase 1 - Feasibility Analysis* (HDR, May 2006), the total cost of congestion with the No-Build Alternative for the year 2030 will be \$81,945,000, with a cumulative cost of congestion from year 2005 to year 2030 of \$1,251,000,000. The congestion cost includes the cost of fuel consumption as well as time spent in delay.

Build Alternative

Considerable amounts of fossil fuels, labor, and construction materials such as steel, cement, aggregate, and bituminous material would be expended to complete the project. Additionally, large amounts of labor and natural resources would be used in the fabrication and preparation of construction materials. These materials are generally not retrievable, but they are also not in short supply, and their use would not have an adverse effect on the availability of these resources. Any construction would also require a substantial one-time expenditure of State and Federal funds, which is not retrievable.

The commitment of these resources would benefit local residents, the State, and the railroads by removing the rail/auto traffic conflict and increasing traffic flow throughout the Tupelo area. The benefits of improved accessibility, savings in time, and greater availability of quality services are anticipated to outweigh the necessary commitment of resources.

4.21 RELATIONSHIP BETWEEN SHORT-TERM IMPACTS AND LONG-TERM BENEFITS

The most disruptive local short-term impacts associated with the Build Alternative would occur during project construction. As discussed in **Section 2.9.2.3**, one existing business within the proposed right-of-way would require relocation. However, this business, the Summerville Ties loading operation, has few permanent structures, is able to be relocated easily, and is on land already owned by BNSF. Coordination with Summerville Ties is ongoing regarding the relocation to estimate costs and operations requirements. Improved mobility in the downtown Tupelo area could stimulate economic and business growth as well as long-term residential interest.

Construction activities would create short-term air quality, noise, vibration, and visual impacts for nearby residents and businesses. Normal traffic patterns would be disrupted by construction. MDOT standard construction practices and procedures would help minimize these impacts.

Localized water quality could be affected temporarily, specifically by increased turbidity levels in Kings Creek, Mud Creek, and Town Creek and their tributary systems. Use of BMPs would minimize potential water quality impacts. In addition, MDOT would consult with the appropriate Federal and State resource and regulatory agencies to identify measures to minimize these impacts.

The local short-term impacts and use of resources by the Build Alternative would be consistent with the maintenance and enhancement of long-term productivity. Completion of the Build Alternative would be consistent with local, county, regional, and State transportation plans. The Build Alternative would help achieve these long-term goals.

4.22 SUMMARY OF IMPACTS

The quantifiable impacts have been assessed for the No-Build and Build Alternatives of the Tupelo Railroad Relocation Project and are shown in **Table 4-15**.

Table 4-15 Summary of Impacts

Impact Category	No-Build Alternative	Build Alternative
Human Environment		
Farmland Impacts (acres)	n/a	0.0
Residential Relocations (No.)	0	0
Business Relocations (No.)	0	1
Severe Noise Impacted Receptors (No.)	128	76
Vibration Impacted Receptors (No.)	28	46
Adverse Visual Impacts to Historic Sites or Districts (No.)	n/a	37
Hazardous Material Site Impacts (No.)	n/a	0
Environmental Justice Impacted Census Blocks (No.)	n/a	0
Natural Environment		
Perennial Stream Crossings (No.)	3	4
303 (d) Stream Crossings (No.)	2	3
Wetland Impacts (acres)	n/a	0.0
100-Year Floodplain Impacts (acres)	n/a	10.0
Natural Habitats (acres)	n/a	0.0
Engineering		
Electric Transmission Line Impacts (No.)*	n/a	3
Gas Pipeline Impacts (No.)*	n/a	0
Sanitary Sewer Impacts (No.)*	n/a	2
Railroad Bridges (Feet)	n/a	8,690
Roadway Bridges (Feet)	n/a	2,984
Safety and Mobility		
At-Grade Crossings within City of Tupelo (No.)	16	4
At-Grade Crossings with Unacceptable LOS in 2030 (No.)	3	0
Nearby Intersections with Unacceptable LOS in 2030 (No.)	3	1
At-Grade Crossings Blocked During Interchange Operation (No.)	8	0
Construction Costs (\$2008)	n/a	\$384,745,000

*Based Upon Field Observations of Above Ground Utilities and/or Markers

5.0 AGENCY COORDINATION AND PUBLIC INVOLVEMENT

Coordination with appropriate agencies and interested citizens was accomplished throughout the project scoping, meetings with regulatory agencies, and an extensive public involvement program. The public involvement process is a key component of the project and provides a forum to share project information with the individuals who live and work in this area; to listen to ideas and concerns; and to incorporate input received is an important step in the study process. This section of the Final EIS (FEIS) provides a summary of the agency coordination efforts and public involvement process, as well as summaries of comments made at the public meetings.

5.1 AGENCY COORDINATION

5.1.1 Kick-Off Meeting

The initial coordination meeting was held on September 29, 2005 at the MDOT Administration Building at 401 North West Street in Jackson, Mississippi. The meeting was conducted to provide the background of the project, to introduce the project team, and to discuss initial project concerns. Six representatives from the FRA and MDOT were in attendance.

The conclusions of this meeting included the decision to hold the scoping meeting upon the completion of the Feasibility Study (*Phase 1 – Feasibility Analysis* [HDR, May 2006]), and to keep the six Native Americans tribes apprised of the progress of the study.

5.1.2 Notice of Intent

FRA is the lead federal agency for the Tupelo Railroad Relocation Project, in cooperation with MDOT. In accordance with the NEPA, a notice of intent (NOI) to prepare an NEPA EIS was published in the Federal Register on June 29, 2006. No comments were received in response to the NOI.

5.1.3 Scoping Meetings

Prior to the scoping meetings, scoping letters were mailed to all applicable federal and state agencies and/or officials requesting comments on the project and inviting them to the scoping meetings. The agency scoping meeting was held on August 14, 2006 at the Tupelo Community Development Foundation (CDF) offices at 300 West Main Street in Tupelo, Mississippi. Three public and elected officials meetings were held at the CDF offices on August 15, 2006, November 17, 2006, and November 29, 2006. The purpose of these meetings was to introduce the agencies to the project and to present the findings of the *Phase 1 – Feasibility Analysis* (HDR, May 2006). Representatives from the following agencies and public officials were in attendance:



- City of Saltillo
- City of Tupelo
- City of Verona
- EPA
- FHWA
- FRA
- Lee County
- Natchez Trace Parkway (U.S. National Park Service)
- Town of Plantersville
- Town of Shannon
- USFWS

Display maps were used to show representatives the project's progression. Representatives were asked to contribute any information that would aid in the project's development.

This meeting generated the following comments regarding the alternatives presented from the *Phase 1 – Feasibility Analysis* (HDR, May 2006):

- Natchez Trace Parkway Superintendent supports Alternative C because it utilizes an existing crossing and has the least amount of impact on the Parkway.
- Discussion ensued regarding Participating Agencies and Cooperating Agencies. It was determined that invitation letters would be mailed out as appropriate.

FHWA, USACE and the U.S. National Park Service have been included as Cooperating Agencies for the project. The minutes from these meetings are included in **Appendix A**.

5.1.4 Other Agency Meetings

In addition to the full agency scoping meeting, the project team also coordinated with individual agencies as part of the EIS process. These meetings fulfilled requirements of the NEPA/Section 404 merger process and were scheduled as needed.

Alternatives Development Meeting

A meeting with MDOT was held on February 21, 2007 at the CDF Office in Tupelo, Mississippi. The purpose of this meeting was to evaluate alternatives presented in the *Phase 1 – Feasibility Analysis* (HDR, May 2006) and other additional alternatives, and to select three alternatives for study during the EIS. The minutes from this meeting are included in **Appendix A**.



City of Tupelo

A meeting with the City of Tupelo was held on June 11, 2007 at the Tupelo City Hall. The purpose of this meeting was to discuss the impacts of the Scoping Alternatives and the proposed Coley Road extension. The conclusion of this meeting was that the City objected to Alternative L due to its proximity to the proposed Coley Road extension. The City stated the railroad would inhibit residential and commercial development along the proposed corridor. The minutes from this meeting are included in **Appendix A**.

A second meeting with the City of Tupelo was held on September 9, 2008 at the Tupelo City Hall. The purpose of this meeting was to discuss the process of evaluation leading to the selection of the Build Alternative and to discuss the impacts the Build Alternative could have on the City. The conclusion of this meeting was that the City approved of the selection of the Build Alternative. The minutes from this meeting are included in **Appendix A**.

Prior to the Public Hearing, two meetings were held with members of the Tupelo City Commission on August 11, 2011. These meetings were to inform the members of the City Commission of the study history, background, process, and results, including the impacts the Build Alternative could have on the City. The conclusion of these meetings was that the City agreed that the Build Alternative was the best solution, but the impacts and costs of the Build Alternative presented significant issues. The summary of these meetings is included in the Public Hearing Summary included in **Appendix G**.

Natchez Trace Parkway

A meeting was held with the U.S. National Park Service on February 5, 2008 at the Natchez Trace Parkway Headquarters in Tupelo, Mississippi. The purpose of this meeting was to discuss the EIS alternatives and the impacts to the Natchez Trace Parkway. The conclusion of this meeting was that the U.S. National Park Service expressed preference for Alternative M. The minutes from this meeting are included in **Appendix A**.

Community Development Foundation

A meeting with the City of Tupelo and MDOT was held on April 24, 2008 at the Community Development Foundation (CDF) office in Tupelo, Mississippi. The purpose of this meeting was to inform the City and the CDF of the progress of the alternatives development. The conclusion of this meeting was that the City expressed preference for Alternative M, provided that retaining wall use was kept to a minimum. The minutes from this meeting are included in **Appendix A**.

A second meeting with the City of Tupelo and MDOT was held on September 9, 2008 at the Community Development Foundation office in Tupelo, Mississippi. The purpose of this meeting was to inform the CDF, local agencies, MDOT maintenance, and the U.S. National Park Service of the process of evaluation leading to the selection of the Build Alternative and to discuss the impacts the Build Alternative



could have on the City and surrounding environment. The conclusion of the meeting was that the CDF, U.S. National Park Service, and the local agencies generally approved of the selection of the Build Alternative, and many issues were introduced regarding the multi-use path, maintenance of the structure, and mitigation of the visual effects. The minutes from this meeting are included in **Appendix A**.

A third meeting with the City of Tupelo, MDOT, MDAH, and local historic groups was held on April 14, 2009 at the Community Development Foundation office in Tupelo, Mississippi. The purpose of this meeting was to discuss the visual impacts of the proposed elevated rail viaduct on the historic properties and the surrounding area. The conclusion of this meeting was that the City of Tupelo, MDOT, SHPO, and the Tupelo Historic Preservation Commission would be parties to an MOA to mitigate the visual effects of the proposed improvements. Several proposals were discussed and some of the local agencies expressed opposition to the Build Alternative, but conceded that a relocated interchange would be acceptable as a minimum improvement. The minutes from this meeting are included in **Appendix A**.

Railroad Meetings

A meeting with MDOT and representatives from BNSF and KCS was held at the Hilton Garden Inn in Tupelo, MS on September 10, 2008. The purpose of this meeting was to present the evaluation process and the selection of the Build Alternative and discuss the impacts it would have on railroad operations. The conclusion of this meeting was that KCS stated they had track rights to the northbound BNSF between Tupelo and New Albany and the design must accommodate those track rights. In addition, BNSF also stated that they were not willing to maintain the structure below the ballast. BNSF also stated that the multi-use path could only be constructed in the outer 20 feet of the right-of-way, provided that all indemnifications for the trail have been secured. The minutes from this meeting are included in **Appendix A**.

5.2 PUBLIC INVOLVEMENT

A public involvement plan was developed at the initiation of the study process, and was updated throughout the course of the study. The public involvement plan included use of several communications media in addition to meetings scheduled after certain milestones during the study. These communications and meetings are described in the following sections.

5.2.1 Public Information

Elected officials, civic groups, business groups, local government agencies, and interested citizens were included in mailing lists compiled for this project. The mailing lists, as well as announcements in local newspapers, were used to notify the public of the study's initiation, progress, and public meeting locations. In addition, citizens were given opportunity to contact the project team with questions or comments throughout the project process. Contact information was located on comment cards and in the presentation materials at the public meetings.



5.2.2 Scoping Meeting

A public meeting was held on Tuesday, August 15, 2006, at the BancorpSouth Conference Center, 375 East Main Street in Tupelo, Mississippi. The public meeting was an open-house format. Meeting attendees were asked to sign-in and each attendee was given:

- a “quick facts” sheet providing a brief overview of the project’s background, project team contact information, and the purpose and need of the project; and
- a comment card that could be completed at the meeting or at a later date and mailed in.

Display boards and larger scale drawings with the preliminary alternatives were set up for public review and discussion. Project team members were available to explain the alternatives, answer questions and receive comments. In addition, attendees were encouraged to provide project team members with any additional information about the project area that was not represented or incorrectly depicted on the maps.

Approximately 52 individual comments were received at the public meeting. Some individuals’ comments pertained to more than one alternative, so the number of comments exceeds the number of comment cards. Sign-in sheets and copies of all comments received from the public documenting the issues addressed in each comment are contained in **Appendix B**. The comments received from the public regarding various issues are summarized in **Table 5-1**.

Table 5-1 Summary of Comments from Scoping Meeting

Corridor Alternative	No. of Comments Expressing Preference	No. of Comments Expressing Opposition
Alterantive A (No-Build)	10	-
In-Town Alternative – Overpass, Underpass, or Tunnel at Crosstown	16	-
Operational Improvement	9	-
Alterantive B	6	4
Alterantive C	2	7
Alterantive D	1	3
Alterantive E	1	1
Alternative F	1	2



5.2.3 Public Alternatives Meeting

The second public meeting was held on July 12, 2007 at the BancorpSouth Convention Center in Tupelo, Mississippi. The meeting was conducted in an open-house format and citizens attending this meeting were given information about the project and a comment card. This meeting presented the Refined Alternatives as discussed in **Section 2.6**.

Approximately 30 individual comment cards were received as a result of the second public meeting. In addition, a private citizen wrote a letter to Congressman Roger Wicker, and this was forwarded to MDOT personnel for inclusion in the comments for this meeting. Copies of the comment cards and correspondence received are included in **Appendix B**. The comments received from the public regarding various issues are summarized in **Table 5-2**. In many cases, individuals attending the meeting had multiple opinions regarding the project. Therefore, the number of comments given exceeds the number of comment cards.

Table 5-2 Summary of Comments from Alternatives Meeting

Corridor Alternative	# of Comments Expressing Preference	# of Comments Expressing Opposition
Alternative A (No Build)	5	0
Alternative K	3	3
Alternative L	3	2
Alternative M	22	2
Other	2	-

5.2.4 Public Hearing

A Public Hearing was held on August 11, 2011 at the BancorpSouth Convention Center in Tupelo, Mississippi. The meeting opened in an open-house format and citizens were given information about the project and a comment form. A formal presentation was given by project staff and citizens were permitted to voice their comments publicly at the conclusion of the presentation. A court reporter was present to document all of the citizens' comments. This meeting presented the Build Alternative and the No-Build Alternative.

Approximately 30 people attended the hearing, including members of the public, a representative from KCS, and elected officials. During the hearing, the public had an opportunity to give verbal comments following the technical presentation and also directly to a court reporter stationed at the hearing. The court reporter transcribed both the comments that were given to her directly and the comments openly expressed by attendees following the presentation. One person gave verbal comments directly to the court reporter, and nine people provided verbal comments after the presentation. The court reporter's transcript is included in **Appendix G**. The following is a synopsis of the verbal comments received during the hearing.



- The project is too expensive to build. How could it ever be funded?
- Concerns about potential safety issues with an elevated rail (derailments, flying debris, etc.).
- Concerns about the impacts on property values and historic resources such as Mill Village.
- Concerns about the aesthetic of the elevated rail sections; it won't blend with the surrounding built environment.
- Concerns about community cohesion; the elevated structure has the appearance of a wall that will further divide the city physically, socially, and psychologically.

In addition to formal comments given verbally at the public hearing, MDOT also accepted written comments on the comment cards that were provided at the hearing. Attendees were also informed that they could provide written comments via fax or email to MDOT. One person provided a letter to the court reporter, which is transcribed in the reporter's notes in **Appendix G**. Copies of all written comments are included in **Appendix G** of this report. There were 12 people who submitted written comments. Overall, the written comments tracked closely with the verbal comments described above, particularly the concerns about community cohesion and project cost. Two comments submitted preferred the No-Build Alternative, and two comments submitted preferred the Build Alternative. Eight of the comments submitted expressed preference for other options, ranging from suggesting that the crossings be double gated to silence the horns, to proposing that the rail line be located somewhere outside of Tupelo. There was a good variety of comments received for the Build Alternative both supporting and opposing it, but a predominant public opinion on the project could not be determined by these comments.

6.0 FUNDING ALTERNATIVES

Currently, there is no identified funding for the Build Alternative. This section provides a summary of the available potential alternatives for funding for the Build Alternative. There are several finance mechanisms for investing in freight rail improvements projects. The most common are appropriations from Congress or State agencies such as MDOT, where the project is specifically funded through a legislative or departmental program and authorized by the legislature. There are also other methods of funding capital projects at both the State and Federal level. These other funding sources can be categorized as grants, loans, and tax-expenditure finance programs.

Grants give States and the Federal government the best control over the use of funds. Funds can be targeted to specific projects that solve freight and passenger rail needs. At the Federal level, the longstanding FHWA Section 130 Rail-Highway Grade Crossing Program provides dedicated funding to improve safety at rail grade crossings. The Congestion Mitigation and Air Quality Improvement Program (CMAQ), created in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), has benefited passenger and freight rail intermodal projects where there is an air quality benefit. There are also discretionary grant programs such as the Corridors and Borders Programs established in the Transportation Equity Act for the 21st Century (TEA-21). There are proposals for a Program for Projects of National Significance and a National Infrastructure Investment Bank that may be included in future Federal transportation system funding reauthorization bills. There are also Federal grant programs such as the Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant program and the Rail Line Relocation and Improvement Capital Grant Program that target freight rail projects such as the proposed action described in the Build Alternative.

Loan programs such as Transportation Infrastructure Finance and Innovation Act (TIFIA), Railroad Rehabilitation and Improvement Financing (RRIF), and State Infrastructure Banks (SIBs) are existing loan programs specific to railroad and other transportation infrastructure projects. TIFIA provides loans, loan guarantees, and lines of credit for large capital improvement projects. To qualify for assistance under TIFIA, a project needs a source of revenue to cover debt service costs; the total project must be valued at more than \$100 million or 50 percent of the State's annual Federal-aid highway apportionments, whichever is less; the Federal TIFIA loan cannot exceed one-third of the total project cost; and the project's senior debt obligations must receive an investment-grade rating from at least one of the major credit rating agencies. These factors limit its applicability, and private rail projects are not eligible today (although eligibility is proposed for reauthorization); but TIFIA is an important tool that can be used for financing joint highway and rail projects that meet the program guidelines. RRIF is a loan and credit enhancement program for freight rail. It seems particularly oriented to needs of regional and short-line railroads. The program has been slow to catch on because of features such as "lender of last resort" and a requirement that project recipients assume the credit risk premium. SIBs are designed to complement traditional Federal-aid highway and transit grants by providing States increased flexibility for financing infrastructure investments. Approximately 32 States (not including Mississippi) have SIBs

that provide loans for highway and in some cases transit improvements. Expanded SIB authority in reauthorization could provide States with a mechanism to provide revolving loans and possibly credit enhancement for freight rail improvements in the future. State-only SIBs are another possibility, such as Pennsylvania's initiation of a new State SIB for freight rail.

Tax-expenditure finance programs include accelerated depreciation, tax-exempt bond financing, and tax-credit bond financing. Expansion of tax-exempt private activity bonds for surface transportation has been proposed in the Obama Administration's surface transportation reauthorization bill; these could potentially be beneficial for rail investment. Tax-credit bond financing is a new form of federally subsidized debt financing, where the investor receives a Federal tax credit in lieu of interest payments on the bonds. From the borrower's perspective, it provides a zero-interest-cost loan. These programs can be used to provide targeted, income-tax benefits for investments made to improve the efficiency or increase the capacity of the freight rail system. They have the potential to elevate the rail system's rate of return and simultaneously reduce its cost of capital. States and local agencies will likely want to explore all of these tools including new or expanded ones that may be included in the surface transportation reauthorization legislation, tailoring them to projects that produce public and system-wide benefits.

6.1 FEDERAL PROGRAMS

Federal funding for freight rail projects in the past have largely been limited to rail highway grade crossing safety enhancements and projects that benefit air quality. Recently, however, the U.S. Department of Transportation (USDOT) has developed new finance programs for transportation infrastructure improvements resulting from the American Recovery and Reinvestment Act (ARRA), the Passenger Rail Investment and Improvement Act of 2008 (PRIIA), and related programs sponsored by other federal agencies such as the EPA, HUD, and the Department of Homeland Security. The following Federal sources may be applicable for providing funding for the Build Alternative.

6.1.1 Section 130 Rail-Highway Grade Crossing Program

Under this program, the entire cost of construction projects for the elimination of hazards of railroad-highway at-grade crossings could be funded. Funding under this program must be applied to safety improvements; capacity expansion projects are not eligible. The Build Alternative would almost certainly qualify for funding under this program, as capacity improvements for the roadways are not considered and the Build Alternative would include grade separations or upgraded safety gates at each of the existing at-grade crossings. However, the available funding for this program would not be able to cover the entire cost of the Build Alternative and several applications for this program might be required to secure funding through each construction phase.

6.1.2 National Highway System (NHS) Program

Provides funding to improve highway links on the NHS network, or designated highway connectors to intermodal terminals. Since Main Street (US 278/MS 6) and US 45 are considered part of the NHS, funding from this program could be applied for construction of the Build Alternative.



6.1.3 Surface Transportation Program (STP)

The STP provides funding for roadway improvements over any Federal-aid highway, including improvements that benefit freight rail movement such as lengthening or increasing vertical clearances on highway bridges, or improving at-grade rail crossings. Since Main Street (US 278/MS 6) and US 45 are considered part of the NHS, funding from this program could be applied for construction of the Build Alternative.

6.1.4 Congestion Mitigation and Air Quality Improvement (CMAQ) Program

Jointly administered by FHWA and FTA, the CMAQ program was reauthorized under the TEA-21 in 1998, and, most recently in 2005 under the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). Under SAFETEA-LU, the program has provided just under \$9 billion in authorizations to State departments of transportation and metropolitan planning organizations, and their project sponsors, for a growing variety of transportation-environmental projects. As with its predecessor legislation, the SAFETEA-LU has provided CMAQ funding to areas that still face the challenge of attaining or maintaining the NAAQS. In addition, States that have no nonattainment or maintenance areas-facing much less of a clean air challenge-still receive a minimum apportionment of CMAQ funding. An apportioned program, each year's CMAQ funding is distributed to the States via a statutory formula based on population and air quality classification as designated by the EPA.

CMAQ provides funding for transportation projects that improve air quality in designated non-attainment areas. Intermodal freight facility improvements are eligible, and funded projects have included rail yards, branch lines, and clearance improvements.

6.1.5 Transportation Infrastructure Finance and Innovation Act (TIFIA)

TIFIA authorizes credit assistance on flexible terms directly to public-private sponsors of major surface transportation projects of national significance to assist in gaining access to private capital markets. It can provide direct loans, loan guarantees, and lines of credit to support up to one third of a project's cost. TIFIA is restricted to projects costing at least \$50 million, with the exception of projects for Intelligent Transportation System (ITS) projects, which must cost at least \$15 million.

TIFIA has been previously used to assist major transportation investments of national significance, including international bridges and tunnels, intercity passenger rail facilities, and publicly owned intermodal freight rail facilities on or adjacent to the NHS. The construction of the Build Alternative would require a private entity for either sponsorship or partnership to utilize TIFIA.

6.1.6 Railroad Rehabilitation and Improvement Financing (RRIF)

The RRIF program provides loans and credit assistance for public and private sponsors of intermodal and rail projects, including Class I and short-line railroads.



This program enables USDOT to make direct loans and loan guarantees to State and local governments, government sponsored authorities and corporations, and railroads and joint ventures that include at least one railroad. Eligible projects include:

- Acquisition, improvement or rehabilitation of intermodal or rail equipment or facilities (including tracks, components of tracks, bridges, yards, buildings and shops);
- Refinancing outstanding debt incurred for these purposes; or
- Development or establishment of new intermodal or railroad facilities.

The FRA can authorize direct loans and loan guarantees up to \$35 billion and up to \$7 billion for projects benefiting non-Class I carrier freight railroads. The loans can fund up to one hundred percent of a railroad project with a repayment period of up to 25 years and interest rates equal to the cost of borrowing from the government. The Build Alternative would qualify for this loan program to cover some or all of the project construction costs, but the funds would need to be repaid over time and with interest.

6.1.7 Grant Anticipation Revenue Vehicle (GARVEE)

GARVEE is a type of bond or similar financing method issued by a State or State infrastructure bank under the guidelines of the National Highway System Designation Act of 1995, eventually made permanent in Section 122 of Title 23 of the United States Code. States must repay the bonds using Federal funds expected to be received in the future. Some financing under this plan is referred to using the term Grant Anticipation Note (GAN).

GARVEE bonds may be used for major projects receiving federal funding. They do not guarantee that the Federal government will provide the expected financing, and they are not guaranteed by the Federal government. Details of projects must be sent to the appropriate FHWA division office to make sure the project follows Federal rules for eligibility. FHWA approves only the projects, not the financing method. The State may also elect to use methods other than federal funding for repayment, and it may receive federal funds through a trustee or depository.

Eligible costs for projects may include interest, retirement of principal, costs for issuing bonds, and other incidental costs which must be approved. Bond proceeds not used for projects may be used to pay principal and interest, but they may not be reimbursed. FHWA may also repay a debt service reserve fund used to pay bondholders when Federal funds come later than needed. Reimbursement of a surety provider for interest and principal is also eligible; interest and penalties associated with payments to surety providers are not.



6.1.8 High Priority Project Program

The High Priority Projects Program provides designated funding for specific projects identified in Federal legislation such as SAFETEA-LU. In this program, a total of 5,091 projects have been identified, each with a specified amount of funding over the five years of SAFETEA-LU. These projects are funded by contract authority, available until expended. The funds designated for a project are available only for that project with the following exception:

- Funds allocated for a project specified below may be obligated for any other of these projects in the same State:
 - High Priority Projects listed in Section 1702 and numbered 3677 or higher;
 - Projects of National and Regional Significance listed in Section 1301 and numbered 19 or higher;
 - National Corridor Infrastructure Improvement Program projects listed in Section 1302 and numbered 28 or higher; or
 - Any Transportation Improvements project listed in Section 1934.

The authorization for a project from the category list may not be reduced.

Advance construction, using State funds until Federal funds are available, remains as an allowable method for States to construct these high priority projects. High priority projects may also be advanced with funds apportioned from a program under which the project would be eligible, and the funds are to be restored from future allocations of the high priority project funds for the project.

The High Priority Projects program is subject to obligation limitation that is set aside specifically for this program. The funds are available only for the activities described for each project specified in the subject federal legislation.

6.1.9 National Corridor Planning and Development (NCPD) and Coordinated Border Infrastructure (CBI) Programs

The NCPD and CBI provide funding for planning, project development, construction, and operation of projects that serve border regions near Canada and Mexico and for high-priority corridors throughout the United States. These programs are for highway corridors and border projects but a few projects were funded that benefited rail; such as the FAST corridor in Washington State.

The use of NCPD and/or CBI programs should be explored to fund the construction of the Build Alternative, but the likelihood of these programs being applied to the Build Alternative is low.



6.1.10 Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant Program

The TIGER Discretionary Grant program provides a unique opportunity for the USDOT to invest in road, rail, transit and port projects that promise to achieve critical national objectives. Representative projects are multi-modal, multi-jurisdictional or otherwise challenging to fund through existing programs. The TIGER program enables USDOT to use a rigorous process to select projects with exceptional benefits, explore ways to deliver projects faster and save on construction costs, and make investments in our Nation's infrastructure that make communities more livable and sustainable.

The construction of the Build Alternative would qualify for TIGER grants, but the widespread application of the resources for TIGER has created fierce competition for those funds. Most TIGER grant applications are either denied or receive only a small portion of what is requested. Despite the high level of competition, the Build Alternative would be an ideal project for TIGER grant funding.

6.1.11 Rail Line Relocation and Improvement Capital Grant Program

In order to assist State and local governments in mitigating the adverse effects created by the presence of rail infrastructure, Congress authorized the Rail Line Relocation and Improvement Capital Grant Program in 2005 through SAFETEA-LU. The final rule was published in the Federal Register on July 11, 2008. States, political subdivisions of States (such as a city or county), and the District of Columbia are eligible for grants under the program. Grants may be awarded for construction projects that improve the route or structure of a rail line and:

- are carried out for the purpose of mitigating the adverse effects of rail traffic on safety, motor vehicle traffic flow, community quality of life, or economic development; or
- involve a lateral or vertical relocation of any portion of the rail line.

Pre-construction activities, such as preliminary engineering, design, and costs associated with project-level compliance with NEPA, are considered part of the overall construction project and are also eligible for funding. However, activities such as planning studies and feasibility analyses are not eligible for funding.

This grant program was created for a project such as the Build Alternative and was authorized for up to \$350 million a year from 2006 through 2009. However, since the program was established in 2006, Congress has appropriated only approximately \$90 million and nothing for fiscal year 2012. Funding for the Build Alternative could be achieved through this program, but supplemental funding would likely be necessary as appropriations for this program have been well below the amount needed for the construction of the Build Alternative.



6.1.12 Rail Safety Improvement Act of 2008

The Rail Safety Improvement Act of 2008 Requires Class I railroads, intercity, and commuter railroads to develop safety programs. The Rail Safety Improvement Act provides Railroad Safety Infrastructure improvement grants that cover as much as 80 percent of project costs for eligible railroads, States and local governments. The legislation provides \$1.6 billion for rail safety for FY 2009 through FY 2013. The bill also authorizes \$250 million in Railroad Safety Technology Grants. These grants require a 20 percent minimum State or local funding match, but priority is given to projects that provide a larger percentage of matching funds. For projects to be eligible, they must be in the respective State's rail plan. Five percent of the funds are reserved for projects of less than \$2 million in total cost.

6.1.13 Summary of Federal Programs

The most beneficial Federal programs for freight rail to date have been the FHWA Section 130 grade crossing and CMAQ programs, and the FTA Rail Modernization Program (which has funded commuter rail improvements that have been indirectly beneficial to freight rail). The recent TIGER and Rail Line Relocation programs have also been largely successful in providing funding for freight railroad projects. For the future, the proposed changes for the next surface transportation reauthorization noted in **Table 6-1** all have the potential to spur additional investment in freight rail projects. For large-scale projects, the proposed program for Projects of Regional and National Significance is of most interest along with the Section 130 grade crossing program or its successor. CMAQ remains as another eligible funding source. The TIFIA loan and credit enhancement program offers possibility if a revenue stream is identified. RRIF will likely continue as the program of choice for smaller regional and short-line railroads. Private Activity Bonds and Tax Credit Bonds present two interesting funding possibilities on the horizon. Private activity bonds could give private railroads access to tax-exempt financing for rail improvements, thus significantly reducing the cost of capital. This could allow the railroads, States, and local governments to jointly pursue tax-exempt borrowing.

Table 6-1 Current and Proposed Federal Funding Programs

Current and Proposed Federal Programs	Current Eligibility for Freight Rail-Related Improvements	Impediments	Proposed Reauthorization Changes
NHS	Can fund highway intermodal connectors to rail terminals.	Connectors are normally lower priority on NHS system and there is no eligibility for rail improvements.	Future reauthorization bills propose set-asides for intermodal connectors.
STP (including Section 130 Rail-Highway Grade Crossing Program)	Section 130 funds rail highway grade crossing safety improvements. STP in general can fund improvements to accommodate freight rail, under certain circumstances. Work allowed includes: "...lengthening or increasing vertical clearances of bridges, adjusting drainage facilities, lighting, signage, utilities, or making minor adjustments to highway alignment..."*	STP normally can't fund freight rail other than highway grade crossings, which must have safety benefit.	Increased funding for Section 130 in Safe, Accountable, Flexible, and Efficient Transportation Equity Act A Legacy for Users (SAFETEA-LU) and Transportation Equity Act: (TEA-21); Administration and SAFETEA –LU makes all STP funds eligible for publicly owned intermodal facilities including rail.
CMAQ	Can fund any transportation project that improves air quality including operations for up to 3 years.	Air quality oriented, not for capacity improvements.	No change for freight.
TIFIA	Provides loans and credit assistance for highway and public intermodal rail facilities.	Private rail not eligible. Current project minimum \$100 million.	Administration proposes to make private rail eligible. Project minimum reduced to \$50 million. Requires a revenue stream.
RRIF	Provides loans and credit assistance to private railroads.	Applicant must provide Credit Risk Premium. "Lender of last resort" provision has caused some concern.	No changes proposed.
GARVEE	The Grant Anticipation Revenue Vehicle (GARVEE) bond is a financing instrument with principal and/or interest repaid with future Federal-aid highway funds.	Eligibility is constrained by the underlying Federal-aid highway programs.	Same as for SIBs, underlying Federal program eligibility carries through into GARVEEs.
TIGER	Can be used to fund projects that can be completed quicker, that cannot be funded under traditional programs, are nationally significant, and promote sustainable and livable communities.		Proposed reauthorization language should continue with this program.
Rail Line Relocation	Can fund construction projects that improve the route or structure of a rail line.	Funding allocation is usually under \$30 million per year, with the average grant award being \$2.5 million.	Proposed reauthorization language should continue with this program.
Borders and Corridors	Border and corridor programs are for improvements to highway trade corridors and border crossings and have been used for rail grade crossings; e.g., FAST.	Very limited eligibility for rail; highway needs dominate.	Administration proposes eligibility for multiState, multimodal corridor planning; SAFETEA and TEA-LU propose expanded funding with current eligibilities. All bills separate borders and corridors.

Table 6-1 Current and Proposed Federal Funding Programs (cont'd)

Current and Proposed Federal Programs	Current Eligibility for Freight Rail-Related Improvements	Impediments	Proposed Reauthorization Changes
Rail Modernization	Public transit program – can fund commuter rail improvements that have associated benefits for freight.	Must have primarily passenger benefit.	Likely source for flyover projects benefiting commuter rail.
High-Priority Projects	Rail Intermodal Projects occasionally earmarked by Congress, such as Detroit rail intermodal terminal in TEA-21.	Normally focused on large highway projects.	This source and new program for “Projects of Regional and National Significance.”
Projects of Regional and National Significance	Proposed program.		TEA-21 proposes new discretionary program for “Projects of Regional and National Significance” that could include freight rail projects.
Private Activity Bonds	Allows private sector access to tax-exempt debt. Currently not available for surface transportation.		Administration and SAFETEA-LU propose \$15 billion private activity bond volume for highway and rail projects. This would allow railroads to participate in tax-exempt borrowing along with city and State.
Tax Credit Bonds	Tax-credit bond financing is a new form of federally subsidized debt financing, where the investor receives a Federal tax credit in lieu of interest payments on the bonds. Currently not available for transportation.		AASHTO proposes a Transportation Investment Corporation to issue \$80 billion in tax credit bonds, a portion to benefit intermodal freight. An institutional mechanism, Bonds for America, has been proposed in SAFETEA-LU but no funding has been provided.
Short Line Railroad Tax Credit	Expenditures that qualify for the credit include gross expenditures for maintaining railroad track, which includes roadbed, bridges, and related track structures, that are owned or leased as of January 1, 2005, by a Class II or Class III railroad.		An extension of the tax credit is being pursued by the ASLRRRA.
Rail Safety Improvement Act	For projects to be eligible, they must be in the State’s Rail Plan.		An extension of this program is being proposed in the new surface transportation reauthorization bill.

6.2 STATE PROGRAMS

In addition to Federal funding, many States provide funding for freight rail projects. In most cases, State programs were initiated by the Federal rail service assistance program established by the Railroad Revitalization and Regulatory Reform Act of 1976 (4R Act), and amended by the Local Rail Service Assistance Act of 1978 (LRSA). The LRSA program provided funding on a Federal/local matching share basis for four types of projects: rehabilitation, new construction, substitute service, and acquisition. The LRSA program permitted States to provide funds on a grant or loan basis. LRSA was updated in 1990 to the Local Rail Freight Assistance program (LRFA) and the criteria for lines eligible to receive assistance were revised. Funds for the program were dramatically reduced in the 1990s, and congressional appropriations ceased in 1995. Despite the lack of Federal funds, many States have continued their freight rail assistance programs through remaining LRFA funds (repaid loans) or through apportionment of State funds. The objectives of most of these programs have been job retention, economic development, and safety. More recently, benefits accrued to highway congestion mitigation and avoided highway costs are being considered.

Transportation finance at the State level in Mississippi (via MDOT) is dominated by a series of user-based revenues. The most prominent of these revenues are the State motor fuel tax, tag fee, and privilege tax. Mississippi also receives contract authority in the form of Federal-aid apportionments as authorized by the ISTEA, and successor legislation (TEA-21 and SAFETEA-LU). MDOT shares State-generated user fees with local governments. Counties receive a significant portion of the State motor fuel tax and the State privilege tax, while municipalities receive a small share of the State motor fuel tax. Counties and municipalities also share federal funds with MDOT. A substantial share of local transportation funding is derived from portions of local real estate property taxes, bonds and the Personal Property Tax.

6.2.1 Mississippi Freight Rail Service Projects Revolving Loan/Grant Program (RAIL)

The Mississippi Freight Rail Service Projects Revolving Loan/Grant Program (RAIL) administered by the Mississippi Development Authority (MDA) is designed for making loans and grants to municipalities and/or counties to finance freight rail service projects in the State of Mississippi. Counties and municipalities are encouraged to use these funds in connection with other State and Federal programs. Funding for loans and grants to applicants is derived from the issuance of State bonds. RAIL was enacted by the State Legislature during the Regular 1995 Session. The governing authority of a municipality or county is eligible to apply for this program. Under this program, a project which involves the acquisition, construction, installation, operation, modification, renovation or rehabilitation of any freight rail service facilities is eligible. Also eligible are projects which may include any fixtures, machinery or equipment, used in conjunction with any freight rail service facilities, including construction costs (including reasonable and customary site work for buildings, right of ways, easements, etc.). Under the grant program, there is a maximum amount of \$250,000 per project. Under the loan program, the cumulative maximum loan amount is limited to \$1,000,000 per project per calendar year. Up to 8% of the principal loan amount may be used for design work, (i.e. engineer or



architect;engineering and/or architectural costs above 8% may be paid from other funding sources). The loan term is a maximum of 15 years or estimated life of project, whichever is less. Interest rates are 1% below the Federal Reserve Discount Rate at the time of loan approval. Funding is derived from the issuance of State general obligation bonds.

6.2.2 Industrial Rail Access Program (IRAP)

An Industrial Rail Access Program (IRAP) is created to provide financial assistance to improve industrial access to rail. These programs aim to preserve freight rail service, stimulate economic development through new or expanded freight rail service, and increase the use of rail transportation. An IRAP program would provide funding assistance for the construction or improvement of railroad tracks and facilities to serve industrial or commercial sites where freight rail service is currently needed, anticipated in the future, or in need of an upgrade. The funding program can allow financial assistance to localities, businesses and/or industries seeking to provide freight rail service between the site of an existing or proposed commercial facility and common carrier railroad tracks. It typically entails a partnership among the public sector, business owner, and railroad, which can all realized benefits from new or improved rail access.

IRAP programs are well-established in a number of States. Each State’s IRAP program, shown in **Table 6-2**, varies in terms of budget and the percent of local and private funds that are required. At the time of this study, Mississippi does not have an IRAP program.

Table 6-2 Sampling of State Industrial Rail Access Programs

State	Program Name	Match	Budget	Comments
Maine	Maine Industrial Rail Access Program (IRAP)	50% Minimum	\$1 million total program (2007)	
New York	New York State DOT Industrial Access Program (IAP)	\$1 million or 20% annual appropriation	60% Grant, 40% loan. Interest free 5 years	
North Carolina	Rail Industrial Access Program	50% Minimum	60% Grant, 40% loan. Interest free 5 years	
Pennsylvania	Pennsylvania Rail Freight Assistance Program (RFAP)	30% Minimum	Grant program	\$250,000 construction or 70%
Virginia	Virginia Rail Industrial Access Program (RIAP)	1 to 1 match above \$300,000	\$300,000 unmatched funds per project. No more than \$450,000 to any one county, town, or city in one FY.	Funds cannot be more than 15% of recipients capital outlay
Wisconsin	Freight Rail Infrastructure Improvement Program	\$3 million per project.	Loans require minimum of 2% annual interest	



6.3 PUBLIC-PRIVATE PARTNERSHIPS

Several States have instituted policies and programs that encourage public-private partnerships (PPP) to help leverage private investment into transportation infrastructure. There are two distinct forms of PPP arrangements: one where private entities lease public infrastructure and one where investment in infrastructure is shared by public and private entities, regardless of ownership.

There are a number of State and Federal programs that have been created to make public funds available to private railroads. Although public funds will benefit the private sector, public investment comes with restrictions and eligibility requirements. Projects generally have to provide measurable economic benefits, require matching funds, and in the case of rail may require accommodation of additional passenger service. The following are examples of existing PPP arrangements:

Alameda Corridor – This is a \$2 billion 20-mile rail expressway connecting Ports of Los Angeles and Long Beach to rail yards near Los Angeles. The project has allowed for faster, more efficient freight flows.

Chicago Region Environmental and Transportation Efficiency Program (CREATE) – This program is a partnership between the State of Illinois, City of Chicago, and the freight and passenger railroads. The program will upgrade track connections and expand routes, meaning faster connections and operations. The first stage of construction is underway now at \$330 million. This program also received TIGER funds.

Heartland Corridor – This project is a partnership between the Federal Highway Administration and a private railroad that will raise bridge and tunnel heights to allow double stacking between the East Coast and Chicago.

Texas PPP Legislation – Recent legislation allows PPP agreements through Comprehensive Development Agreements (CDA) for project development and execution for transportation corridors with rail.

Virginia Department of Rail and Public Transportation – This department accepts solicited and unsolicited proposals from private entities to construct, improve, maintain, and operate highways.

CSX Boston/Worcester Line – The MBTA acquired the property rights of the Boston to Worcester rail line from CSX Corporation, increasing the potential for additional commuter service. As part of this transaction, the Commonwealth and CSX will increase the vertical clearances of bridges along the railroad main line between I-495 and the New York State line to accommodate double-stack freight trains. The Commonwealth will assume responsibility for raising highway bridges, while CSX will be responsible for lowering tracks.



These partnerships allow private and public entities to pool resources together to make key infrastructure investments possible. For example, financing through public entities may allow for low interest loans that the private sector would not otherwise have access to, or key investments by both parties in land and rail could lead to improved access to intermodal/distribution facilities resulting in economic benefits.

The public sector has fairly limited experience with PPP arrangements and must be careful when defining contractual terms to ensure that private interests are not out-weighting those of the public. As of now, PPP agreements have yet to be standardized and vary for each project and program. Effective PPP should provide positive public and private benefits, and offer equitable cost sharing arrangements between the parties.

6.4 OLATHE CASE STUDY

The freight railroad viaduct in Olathe, Kansas consisted of an 8,000-foot long viaduct built mostly on fill with four bridge structures for the BNSF railroad to cross over roadways to alleviate the roadway congestion and air quality issues caused by trains at at-grade crossings. The project is similar to, but smaller than, the Build Alternative and used a variety of funding mechanisms to finance the \$45 million construction cost, including:

- \$20 million from Kansas Highway Bill funds;
- \$15 million from the sale of City bonds;
- \$5 million from Federal appropriations;
- \$3 million from the CMAQ program; and
- \$2 million from BNSF.

The project utilized a PPP between the railroad and the City, and engaged funds from the State and Federal governments as well as secured grant funding through a Federal grant. This strategy allowed the project to move into design in 2005, and construction was completed in 2009. The Build Alternative would likely have to include a variety of funding mechanisms, as the Olathe project has done.

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9.0 GLOSSARY

A

Adjacent Track:

In relation to excepted track and for the purposes of the Track Safety Standards, any track or tracks next to a track that is designated as an excepted track. Any tracks with centerlines that are 30 feet or closer to the excepted track in question are considered as adjacent and speeds on those tracks must not exceed 10 mph.

Advanced Signal:

A fixed signal used in connection with one or more signals to govern the approach of a train or engine to such signal.

Adverse:

Negative or detrimental.

Affected Environment:

The physical, biological, social, and economic setting potentially affected by one or more of the alternatives being considered.

Air Quality:

A measure of the concentrations of pollutants, measured individually, in the air.

Alignment:

The horizontal and vertical general location for the centerline of railroad tracks or a roadway within study corridors.

Alignment Alternatives:

The general location for tracks, structures and systems for the system between logical points within study corridors.

Alternative:

As used in the transportation analysis in this EIS, a variation of a rail corridor segment to mitigate a potential adverse environmental or engineering factor. See *variation, option, corridor*.

AREMA:

American Railway Engineering and Maintenance Association. North American body for determination of railway engineering standards.

At Grade:

At ground surface level; a term used to describe roadways, river crossings, and track alignments.

Attainment:

An air basin is considered to be in *attainment* for a particular pollutant if it meets the federal or state standards set for that pollutant. See also *Maintenance, Nonattainment*.

A-Weighted Sound Level:

A measure of sound intensity that is weighted to approximate the response of the human ear, so it describes the way sound will affect people in the vicinity of a noise source.

B

Ballast:

Rock, gravel or other granular material placed on a road bed to support cross ties and rails and to aid in holding the desired track geometry.

Borrow:

Material, such as sand and gravel, which is extracted from an excavation or pit area that can be used to fill another site.

Branch:

A portion of a division designated by a time table. Rules and instructions pertaining to subdivisions apply on branches.

Branch Line:

A secondary, local or feeder line of railway connecting with the main line; also any line other than a main line. See Main Line.

Branch Line Tracks:

These are secondary line track(s) on a railway. Trains and engines might be operated with or without time table, train order, or block signal.

BNSF:

BNSF Railway Company.

C

Capital Cost:

The total cost of acquiring an asset or constructing a project.

Carbon Dioxide: (CO₂):

A colorless, odorless gas that occurs naturally in the earth's atmosphere; significant quantities are also emitted into the air by fossil fuel combustion.

Carbon Monoxide (CO):

A colorless, odorless gas that is generated in the urban environment, primarily by the incomplete combustion of fossil fuels in motor vehicles.

Classes of Track:

A categorization of track based on the maximum allowable operating speed.

Classification:

The act of switching rail cars for sorting, segregating or grouping according to their kind, contents or destination.

Classification Yard:

A set of tracks where rail cars are sorted, segregated or grouped according to their kind, contents or destination.

Clearance Limits:

The dimensions beyond which the size of, or projections of a shipment may not extend in order to clear such things as switch stands, platforms, tunnels, and low bridges.

Community Cohesion:

The degree to which residents have a sense of belonging to their neighborhood, a commitment to the community, or a strong attachment to neighbors, groups, and institutions, usually as a result of continued association over time.

Concrete Ties:

Ties made of concrete are gaining wider use as the demand and cost of wood increases. For large-scale projects, the cost for concrete ties is generally comparable to wooden ties. Concrete ties are reported to be stronger and have a longer life than wooden ties, but they lack the elasticity of wood. Some companies use concrete ties on curves or grades where their strength is an asset. Abrasion from the ballast sometimes leads to concrete tie failure. Rail clips are used to fasten the rail concrete ties.

Conductor:

The person officially in charge of the train's overall operation. S/he also does most of the paperwork associated with the handling of the train.

Consist:

A listing showing the train number, the dates and times of departure as well as arrival; the locomotive, radio and caboose number; the initial and car numbers of each car on the train; the billing of these cars; the special handling of the cars and the name of the conductor. It reflects all activities that took place on the movement of cars between any two stations.

Continuous Welded Rail (CWR):

Traditionally, track was laid in lengths of 39' with a joint between each to allow for expansion and contraction due to heat and cold. Joints were points of high maintenance. Continuous Welded Rail typically consists of lengths between 400 and 1,600 feet in length and the joints between them are eliminated by in-place welding using portable equipment. Without joints, expansion and contraction can result in buckling in high temperatures and breaking in cold conditions.

Construction:

Any activity related to building projects, including highways or rail infrastructure (e.g., track, yards, bridges) that directly alters the environment.

Cooperating agency:

Under NEPA, any agency other than the lead agency that has legal jurisdiction over, or technical expertise regarding, environmental impacts associated with a proposed action and has agreed to participate.

Corridor:

A geographic belt or band that follows the general route of a transportation facility (highway, railroad, etc). See also *Study corridors*.

Crossbucks:

A term for railway crossing sign with crossed arms.

Crossing (Track):

A structure, used where one track crosses another at grade, and consisting of four connected frogs. See *Rail Crossing, Diamond*

Crosstown:

The intersection of Main Street (US 278/MS 6) and Gloster Street (MS 145) in central Tupelo, MS.

Cultural Resources:

Resources related to the tangible and intangible aspects of cultural systems, living and dead, that are valued by a given culture or contain information about the culture. These include, but are not limited to sites, structures, buildings, districts, and objects associated with or representative of people, cultures, and human activities and events.

Cumulative Impact:

As defined by NEPA, and impact on the environment that results from the incremental impact of the action when added to other past, present, reasonably foreseeable future actions.

Curved Track:

Curved track is measured by degrees, with most main track curves falling between 1 and 5 degrees. The degree of curvature is the angle subtended at the center of a simple curve by a 100-foot chord. Curves require more power from locomotives, and the forces present while a train negotiates a curve increases rail and car wear. Stronger track, ties and additional spikes are used in curves in order to take the added loads.

D

Dangerous or Hazardous Goods:

Articles or substances, which are capable of posing a significant risk to health, safety or property when transported.

Decibel (dB):

A logarithmic measurement of noise intensity.

Dewatering:

The process of removing water from an area or substance, such as fill material.

Diamond:

A place where two railway tracks cross each other.

Division:

A portion of the railroad designated by time table.

E

Electric Switch Lock:

An electric lock connected with a hand-operated switch to prevent its operation until the lock is released.

Endangered Species:

A species that is in danger of extinction throughout all or a significant part of its range, and has a formal listing of the U.S. Fish and Wildlife Service under the Endangered Species Act.

Engine (Eng):

A unit propelled by any form of energy, or a combination of such units operated from a single control, used in train or yard service.

Environment:

Includes water, air and land and all plants and humans and other animals living therein, and the interrelationship existing among these.

Environmental Impact Statement (EIS):

A detailed information document that analyzes a project's potential effects and identifies mitigation measures and reasonable alternatives to reduce the significant effects. This document is part of the NEPA environmental review process.

Environmental Justice:

Identifying and addressing the potential for disproportionately high and adverse effects of programs, policies, and activities on minority populations and low-income populations.

Erosion:

Process by which earth materials are worn down by the action of flowing water, ice, or wind.

Ethnicity:

A grouping or category of people based on shared cultural traits, such as ancestral origin, language, custom or social attitude.

F

Farmland of Local Importance:

Farmlands that are important to the local agricultural community, as determined by each county's board of supervisors and local advisory committee. See also *Farmland of Statewide Importance, Prime Farmland*.

Farmland of Statewide Importance:

Farmlands similar to prime farmlands but that have been evaluated as less valuable because they have steeper slopes, less ability to retain moisture in the soil, or other characteristics that limit their use. To qualify as farmland of statewide importance, a property must have been used for production of irrigated crops at some time during the previous four years.

Federal Railroad Administration (FRA):

A Federal agency attached to the Department of Transportation. The FRA serves as the principal organization for assistance to the Secretary of Transportation on all matters relating to rail transport and safety.

Floodplain:

The lowlands adjoining inland and coastal waters and relatively flat areas and floodprone areas of offshore islands including, at a minimum, that area inundated by a 1% or greater chance flood in any given year. The base floodplain is defined as the 100-year (1.0%) floodplain. The critical action floodplain is defined as the 500-year (0.2%) floodplain.

Flyover:

A bridge that carries one road or rail alignment aerially over another.

G

Gauge (of Track):

The distance between the rails, measured at right angles thereto 5/8 inches below the top of the rail. (Standard gauge is 4 feet 8-1/2 inches or 56-1/2 inches.)

Geographic Information Systems (GIS):

An information management system designed to store and analyze data referenced by spatial or geographic coordinates.

Grade Crossing:

The intersection of a railroad and a highway at the same elevation (grade); an intersection of two or more highways; an intersection of two railroads.

Grade Separated:

At different elevations; on separate levels.

Gross Ton Miles:

The movement in line-haul service of transportation equipment and contents, for a distance of one mile. The weight of the haul is expressed in tons (2,000 pounds).

Gross Ton Miles Per Train Mile:

The number of gross ton miles divided by the number of train miles. Gross ton miles of locomotive and tender are excluded unless otherwise stated.

Ground Vibration:

The rapid linear motion of a compression wave in the ground caused by a single or repeated force or impact to the ground as in the action of a pile driver or a tire hitting a bump or pothole in a road.

Groundwater:

Water contained and transmitted through open spaces in rock and sediment below the ground surface.

H

Habitat:

An environment where plants or animals naturally occur; an ecological setting used by animals for a particular purpose, such as roosting or breeding.

Hazardous Materials:

Cargo that poses a risk to individuals and/or the environment, the movement of which is governed by the Department of Transportation and other regulations. Hazardous Materials (hazmat) include corrosive materials, poisons and explosives among other substances.

High Visual Impact:

Impact sustained if features of a project alternative are very obvious, such that they begin to dominate the landscape and detract from the existing landscape characteristics or scenic qualities.

High/Wide Load:

A load that exceeds clearance limits.

Hours of Service:

A government regulation which determines the number of hours covered employees (defined by law and regulations) may work before going off duty for a specified length of time.

I

Impact:

For an EIS, the positive or negative effect of an action (past, present, or future) on the natural environment (land use, air quality, water resources, geological resources, ecological resources, aesthetic and scenic resources) and the human environment (infrastructure, economics, social, and cultural).

In-Situ:

In the original or natural position.

Insulated Joint:

A rail joint designed to arrest the flow of electric current from rail to rail by means of insulation so placed as to separate the rail ends and other metal parts connecting them.

Interchange or Interchange Point:

A place where the line of a railway company connects the line of another railway company and where loaded or empty cars may be stored until delivered or received by that other company.

Interlocking:

A configuration of switches and signals interconnected to direct trains along different routes, the limits of which are governed by interlocking signals. An arrangement of interconnected signals and signal appliances for which interlocking rules are in effect. An arrangement of signal appliances so interconnected that their movements must succeed each other in proper sequence. It may be operated manually or automatically. Interlocking consists for most of them of controlled block signals with dual-control switches that are controlled by the dispatcher.

Interlocking Limits:

The tracks between the extreme or outer opposing interlocking signals of an interlocking.

Interlocking Signals:

The fixed signals of an interlocking, governing trains and engines using the interlocking limits.

Intermodal Traffic:

Traffic, which moves in containers, trailers on flatcars. Traffic, which moves in via two or more different modes of transport.

Invasive Species:

An alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health.

J

Joint Facility:

Two or more railways jointly operating on the same segment of tracks, covered by agreement between the affected railroads.

K

KCS:

Kansas City Southern Railroad

L

Lading:

That which constitutes a load. The freight in a car, vessel, or truck.

Land Use Compatibility Assessment:

An assessment of the compatibility of a proposed project or land use with existing and projected land uses in nearby areas, based on the sensitivity of various land uses to change related to the alternatives and the impact of these changes on the land use.

Lead Agency:

The public agency that has the principal responsibility for carrying out or approving a project or action and is thus responsible for preparing environmental review documents in compliance with NEPA.

L_{eq}:

A measure of the average noise level during a specified period of time.

$L_{eq}(h)$, dBA:

Equivalent or average noise level for the noisiest hour, expressed in A-weighted decibels. See also *A-Weighted Sound Level*.

Level of Service (LOS):

A rating using qualitative measures that characterizes operational conditions within a traffic stream and the perception by motorists and passengers of these conditions.

Limits:

A segment of track that can be controlled by signals or other identifiable means.

Line:

The condition of the track in regard to uniformity in direction over short distances on tangents, or uniformity in variation in direction over short distances on curves.

Line Capacity:

The maximum possible number of trains capable of being operated over a line in one direction. Usually expressed as trains per hour, it will depend on all trains running at the same speed, having equal braking capacity and on how the signaling is arranged.

Local Train:

A train, which stops at all stations, as required, on its route.

Locomotive:

A unit propelled by any energy form, or a combination of such units, operated from a single control, as defined in the railroads Operating Rules (an engine).

Low-Income Population:

One in which 20% or more of the persons in the population live in poverty, as reported by the Bureau of the Census in accordance with Office of Management and Budget requirements. For the purposes of Environmental Justice analysis used in this document, low-income households are considered as those who have an annual household income below 80% of the median income of Tupelo, or a household income of \$28,932 or less.

Low Visual Impact

Impact sustained if features of a project alternative are consistent with the existing line, form, texture, and color of other elements in the landscape and do not stand out.

M

Main Line:

A main line track is the principal line of a given railroad company's rail network. Main lines consist of either single, double or multiple track lines extending between major stations. Trains are operated by time table, train order, or governed by block signals. A track extending through yards and between stations, upon which trains or engines are authorized and operated by time table or train order, or both, or the use of which is governed by block signals by one or more methods of control. May not be occupied without proper authority or protection.

Main Track:

For the purposes of the Track Safety Standards, a track other than an auxiliary track extending through yards and between stations.

Maintenance of Way (MOW):

On-track maintenance of repairing, testing, and inspecting track, including ties, ballast, and rail. MOW work is usually conducted by the Engineering Department of a railway.

Manifest Train:

Manifest traffic refers to the freight trains that carry the bulk of the freight along regularly scheduled runs. Manifest traffic routes are advertised as regularly occurring, yet the actual composition of the train will vary from day to day based upon the specific commodities being shipped. Regularly scheduled mixed freight trains can be referred to as manifest trains.

Mechanical Services:

The railroad's Mechanical Services Department is responsible for the maintenance, repair and inspection of engines and rail cars.

Medium Visual Impact:

Impacts sustained if features of a project alternative are readily discernable but do not dominate the landscape or detract from existing dominant features.

Mile Post:

Post along a railroad right of way, which indicates the distance, in miles, to or from a given point.

Million Gross Tons Of Traffic (MGT):

The total amount of traffic on a track based on the sum of the weight of all trains that operate over the track over a period of one year.

Minority Population:

A community, census block, or block group in which the portion of the population of a racial or ethnic minority is 50% or greater.

Mitigation:

Action or measure undertaken to minimize, reduce, eliminate, or rectify the adverse impacts of a project, practice, action or activity.

MSDEQ:

Mississippi Department of Environmental Quality

N

National Ambient Air Quality Standards (NAAQS):

Federal standards stipulating the allowable ambient concentrations of specific criteria pollutants.

National Environmental Policy Act (NEPA):

Federal legislation requiring federal agencies to consider the environmental impacts of major federal projects or decisions, to share information with the public, to identify and assess reasonable alternatives, and to coordinate efforts with other planning and environmental reviews taking place.

Native Species:

With respect to a particular ecosystem, a species that, other than as a result of an introduction, historically occurred or currently occurs in that ecosystem.

No Action:

Under NEPA, refers to an alternative under which no action would be taken (no infrastructure would be built and no new management or operational practices would be instituted).

No-Build Alternative:

Represents the region's (and state's) transportation system (highway, air, and conventional rail) as it is today and with implementation of programs or projects that are in regional transportation plans and have identified funds for implementation by 2030.

Noise:

Any sound that is undesirable because it interferes with speech and hearing; if intense enough, it can damage hearing.

O

On-track Equipment:

A machine that operates on a railway track and is used in connection with construction or work on, or inspection of, a railway track.

Operating Employee:

Means on board train employees directly involved in operating or assisting in the operation of the train, including those employees who are trainee candidates for such positions.

P

Poverty Level:

A federally established income guideline published each year by the U.S. Department of Health and Human Service used to define persons who are economically disadvantaged. For 2008, in the contiguous U.S., this level is set at income less than \$21,200 per year for a family of four.

Preferred Alternative:

The alternative identified as preferred by the lead agency.

Prime Farmland:

Land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion.

Pull:

Picking up loaded cars and moving them to switching districts or yards where they will be classified according to destination.

Purpose and Need:

The reason(s) why a project or action is undertaken, and the need(s) it is intended to meet or fulfill.

Q

Qualitative:

With regard to a variable, a parameter, or data, an expression or description of an aspect in terms of non-numeric qualities or attributes.

Quantitative:

A numeric expression or variable.

R

Rail (Track):

A rolled steel shape, commonly a T-section, designed to be laid end to end in two parallel lines on cross-ties or other suitable supports to form a track for railway rolling stock. It has three main parts:

1. The head that comes into contact with car wheels.
2. The web, which is the thinner, middle part of the rail; and
3. The base.

Rail Anchors:

Rail anchors are fastening devices that put contact pressure on the rail to keep it stationary. Rail anchors are used with CWR to prevent longitudinal movement due to thermal expansion or train movement.

Rail Classification Yard

A railroad switching yard where railcars arriving in inbound freight trains are classified and reassembled according to their routing to make up outbound freight trains.

Rail Fasteners:

Rail fasteners (except for rail anchors) keep the rail in gauge and prevent rail roll over. The weight of the train and the design of the rails keep the rails upright. Rail fasteners also prevent the rail from stretching lengthwise under the force of the train.

Rail Joints:

Rail joints are plates of metal with holes used to join two pieces of rail end-to-end.

Rail Section:

The shape of the end of a rail cut at right angles to its length. The rail mills identify the different shapes and types of rails by code numbers, as for example 131-28 for the 131 RE rail section.

Record of Decision:

A document that provides a concise public record of a decision made by a government agency. Under NEPA, a federal agency must issue a record of decision following the issuance of the final EIS, and explain therein: 1) its decision; 2) the alternatives and reasons for deciding upon them; 3) any significant expected impacts; and 4) a mitigation plan for those impacts.

Resource Study Areas (RSA):

Areas examined for potential environmental impacts as part of the NEPA analysis process. Examples include air quality, hydrology, and biological resources.

Right of Way:

The property owned by a railway company on which tracks have been laid, including the track and land surrounding that track.

S

Set Off (Set Out):

A car left by a train at a station. Also when a railroad delivers a car to another railroad at one of its terminals so that it can be placed within that terminal.

Scoping:

A process used under NEPA to determine the scope of issues to be addressed and to identify the significant issues related to the proposed action or project to be addressed in an EIS.

Section 4(f):

Provisions originally enacted as Section 4(f) of the U.S. Department of Transportation Act of 1966 (23 C.F.R. 771.135) and subsequently codified in 49 U.S.C., Subtitle I, Section 303(c). The Section 4(f) provisions address the potential for conflicts between transportation needs and the protection of lands for recreational use and resource conservation by regulating the use of publicly owned parkland, recreation areas, and historic sites. Specifically, they prohibit the Secretary of Transportation from approving any program or project that would require the use of any publicly owned land from a public park, recreation area, wildlife or waterfowl refuge, or land of an historic site of national significance as determined by the officials having jurisdiction over these lands, unless there are no feasible and prudent alternatives to the use of these lands. In addition, a proposed program or project must include all possible planning to minimize harm resulting from the proposed use.

Shoulder of Track:

The outside portion of the track comprised of the ballast. The width of the shoulder is usually expressed as the level top portion of the ballast up to the point where it begins to slope down.

Siding:

A track auxiliary to the main track, for meeting and passing trains, which is so designated in Timetable, General Bulletin Order, or Dispatchers Operations Bulletin.

Signal:

Visual indication passed to the locomotive engineer to advise the speed, direction or route of the train. Some signals are: engine whistle signals, display of headlights, markers, blue signal protection, signals imperfectly displayed, and emergency protection signals.

Signaled Turnout:

A turnout that is controlled by signals.

Single Track:

One main track upon which trains are operated in both directions.

Slow Order:

A train speed restriction order.

Speed:

Note: speed definitions may vary from one railroad to another and from one country to another. However, for purposes of this document, *speed* has the following meanings:

Limited Speed: A speed not exceeding 45 mph.

Maximum Authorized Speed: The fastest speed that trains are permitted to operate over a track as designated in a railroad timetable or special instruction.

Medium Speed: A speed not exceeding 30 mph.

Reduced Speed: A speed that permits complying with flagging signals and stopping short of train or obstruction.

Restricted Speed: A speed that will permit stopping within half of the range of vision of equipment, also prepared to stop short of a switch not properly lined and in no case exceeding Slow Speed. At restricted speed, the engineer should be on the lookout for broken rails.

Slow Speed: A speed not exceeding 15 mph.

Special Instructions:

Instructions located in a time table or other publication that modify railroad operating rules and procedures.

Speed Restriction:

An imposed speed restriction of a train to below the maximum speed for the railroad, division, or subdivision, caused by track, signal, train equipment, or environmental conditions.

Spoil:

Material composed of a variety of rocks and minerals having different chemical and physical characteristics and in varying proportions and sizes.

Spur Track:

Side track that is connected at one end only to a running track. Some form of bumping post or other solid obstruction usually protects the other end.

Stakeholder:

A person or organization with an interest in or affected by FRA actions (representatives from Federal, state, tribal, or local agencies; members of Congress or state legislatures; unions; educational groups; environmental groups; industrial groups, etc.; and members of the general public).

Standard Gauge:

The distance between the rails of railway track. Standard gauge in North America is four feet eight and one-half inches (56-1/2 inches).

Station:

A location designated in the time table by name.

Subballast:

Any material of a superior character, which is spread on the finished subgrade of the roadbed and below the top ballast, to provide better drainage, prevent upheaval by frost, and better distribute the load over the roadbed.

Subgrade:

The finished surface of the roadbed below the ballast and track.

Superelevation:

As a train goes around a curve, the cars tend to tip towards the outside of the curve, especially with tall and top-heavy loads. To compensate, the outside rail is raised or superelevated to force the load back toward the inside of the curve. The amount of superelevation is determined by the degree of the curve and the intended train speed.

Surface (Track):

The condition of the track as to vertical evenness or smoothness. Track surface may need to be measured while under load, since some setting of the track can occur.

Switch:

A track structure used to divert rolling stock from one track to another.

Switching:

The physical movement of rail cars from one place to another within the limits of a yard, terminal or station.

T

Tail Room:

In yard operations, the track space available to pull out of one track and then switch over to another. Desirable tail room is as long as the longest yard track.

Terminal Area:

A location that includes one or more yards together with the tracks connecting the yard or yards and the industries within that area.

Thalweg Elevation

The elevation of a stream channel bed at the deepest part of the channel.

Threatened Species:

A species that is likely to become an endangered species within the foreseeable future throughout all or a significant part of its range.

Tie, Cross:

The transverse member of the track structure to which the rails are spiked or otherwise fastened to provide proper gauge and to cushion, distribute, and transmit the stresses of traffic through the ballast to the roadbed.

Tie, Switch:

The transverse member of the track structure, which is longer than but functions as does the crosstie and in addition supports a crossover or turnout.

Time Table:

The document, which contains subdivision information footnotes and special instructions relating to movements of trains, engines and track units.

Track:

An assembly of rails, ties, and fastenings over which cars, locomotives, and trains are moved.

Body: Each of the parallel tracks of a yard upon which cars are placed or stored.

Classification: One of the body tracks in a classification yard, or a track used for classification purposes.

Connecting: Two turnouts with the track between the frogs arranged to form a continuous passage between one track and another intersecting or oblique track or another remote parallel track.

Departure: Tracks where rail cars are classified and assembled into trains for line-haul movement.

House: A track alongside of, or entering a freight house, and used for cars receiving or delivering freight at the house.

Interchange: A track on which cars are delivered or received, as between railways.

Ladder: A track connecting successively the body tracks of a yard.

Lead: An extended track connecting either end of a yard with the main track.

Main Track: For the purposes of the Track Safety Standards, a track other than an auxiliary track extending through yards and between stations.

Passing: A track auxiliary to the main track for meeting or passing trains. Same as a Siding. The correct term to use is "Siding" for repairs.

Receiving Track: Tracks where incoming trains are received.

Running: A track reserved for movement through a yard.

Scale: A track leading to and from and passing over a track scale.

Side: A track auxiliary to the main track for purposes other than for meeting and passing trains.

Spur: A stub track diverging from a main or other track.

Storage: One of the body tracks in storage yards or one of the tracks used for storing equipment.

Stub: A track connected with another one at one end only.

Team: A track on which cars are placed for transfer of freight between cars and highway vehicles.

Wye: Railway tracks arranged in the form of a “Y” which are used for turning locomotives and rail cars in the opposite direction.

Track Gauge:

Measured at right angles, the distance between running rails of a track at the gauge lines, which are 5/8 inches below top of rail.

Train:

An engine or more than one engine coupled, with or without cars, or a track unit(s) so designated by its operating authority, displaying a marker(s).

Turnout:

An arrangement of a switch and a frog with closure rails, by means of which rolling stock may be diverted from one track to another.

U

Unique Farmland:

Land other than prime farmland that is used for the production of specific high-value food and fiber crops such as citrus, tree nuts, olives, cranberries, fruits and vegetables.

V

Viaduct:

A bridge that conveys a road or a railroad over a valley; often constructed of a series of arches supported by piers.

Viewshed:

A total field of vision or a vista. In particular, an area with visual boundaries seen from various points within the area.

W

Watershed:

The area that contributes water to a drainage system or stream.

Water Table:

(1)The upper limit of the saturated zone (the portion of the ground wholly saturated with water). (2)The upper surface of a zone of saturation above which the majority of pore spaces and fractures are less than 100% saturated with water most of the time (unsaturated zone) and below which the opposite is true (saturated zone).

Wetland:

An area of ground that is saturated with water either permanently or seasonally. A community composed of hydric soil and hydrophytes.

Wildlife Corridor:

A belt of habitat that is essentially free of physical barriers such as fences, walls, and development and connects two or more larger areas of habitat, allowing wildlife to move between physically separate areas.

Wood Trestle:

A wood structure composed of bents supporting stringers, the whole forming a support for loads applied to the stringers through the deck.

X

Y

Yard:

A system of tracks within defined limits provided for making up trains, storing cars, and other purposes, over which movements not authorized by time table or by train-order may be made, subject to prescribed signals and rules, or special instructions. Under freight yard, the definition is: “A network of tracks set aside for a railway’s own working purpose, such as classification, switching and holding rail equipment.” It is common to use the words yard and track interchangeable in some instances, but they are basically tracks used for a specific purpose and located within the yard limits.

Yard Limits:

That portion of the main track or main tracks within limits defined by yard limit signs.

Z

APPENDIX A – Agency Correspondence

Analysis in Section 3011 of SAFETEA-LU, codified at 49 U.S.C. 5309(a)(1), aligns it more closely with the MPO planning process; and (b) section 6002 requires that the "type of work" be identified by the project sponsor at the initiation of the environmental review process. The FTA seeks comment on any implications of these provisions for the New Starts Alternatives Analysis and the NEPA review of the New Starts project.

The FHWA specifically seeks comment on the following questions and issues:

1. *Flexibility.* Are there specific areas where the guidance could and should provide greater flexibility, while still complying with the relevant section 6002 requirement? Within the limits of section 6002, would flexibility in a particular area allow for customization by the State departments of transportation, transit agencies, and FHWA and FTA field offices in response to issues of greater regional concern?

2. *Adequacy of guidance.* Are there areas that need additional guidance or instruction on how best to implement the new requirement?

3. *Lead agency responsibilities.* Some responsibilities of the lead agency have been retained by FHWA and FTA, some have been essentially assigned to the State or local lead agency, and some have been left for the Federal and non-Federal lead agencies to allocate between themselves, project by project as they see fit. Does the description of the roles of the various lead agencies adequately communicate their respective responsibilities, authorities, and limitations? Is the division of labor, responsibility, and authority appropriate?

4. *Methodologies for project analyses.* Is the process for involving participating agencies in the development of methodologies adequate? Will it serve to minimize late-in-the-process methodological debates between transportation agencies and resource agencies?

5. *Coordination with participating agencies.* Does the proposed guidance present the required coordination with participating agencies, including the development of a schedule and its resulting implications, in sufficient detail? Should changes in the schedule require coordination with all participating agencies or just with the cooperating agencies, as stated in SAFETEA-LU?

The FTA and FHWA will respond to comments on the guidance generated by this Notice in a second **Federal Register** notice to be published after the close of

the comment period. That second notice will also announce the availability of the revised Section 6002 guidance that reflects the changes implemented as a result of comments received. In the meantime, the proposed guidance provides the current FHWA and FTA interpretation of Section 6002, the requirements of which became effective on August 10, 2005, the date of SAFETEA-LU's enactment.

Authority: 23 U.S.C. 315; Pub. L. 109-59, 119 Stat. 1144; 49 U.S.C. 5334; 23 U.S.C. 139; 49 CFR 1.48; 49 CFR 1.51.

Issued on: June 23, 2006.

Sandra K. Bushue,

Deputy Administrator, Federal Transit Administration.

J. Richard Capka,

Administrator, Federal Highway Administration.

[FR Doc. E6-10217 Filed 6-28-06; 8:45 am]

BILLING CODE 4910-57-P

DEPARTMENT OF TRANSPORTATION

Federal Railroad Administration

Environmental Impact Statement: Relocation or Reconstruction of Rail Lines in Tupelo, MS

AGENCY: Federal Railroad Administration (FRA), Department of Transportation (DOT).

ACTION: Notice of intent to prepare an Environmental Impact Statement.

SUMMARY: The Federal Railroad Administration (FRA) is issuing this notice to advise the public that FRA will prepare an Environmental Impact Statement (EIS) for the relocation or reconstruction of railroad lines in the Tupelo, Mississippi central business district. The study area is defined to extend from the vicinity of Plantersville, MS, southeast of Tupelo, to the vicinity of Sherman, northwest of Tupelo. Tupelo is the primary business center of northeast Mississippi.

Currently, within the central business district there are more than 25 at-grade rail crossings on two railroad lines. One of the rail lines is owned by the BNSF Railway Company (BNSF) and the other by the Kansas City Southern Railroad (KCS). The two rail lines cross at an interchange near downtown Tupelo. There are between twenty and twenty-five trains per day on the BNSF line, and three or four per day on the KCS line. There are few rail customers remaining in the central business district, and most of the trains are through trains operating in the Birmingham, Alabama to Memphis, Tennessee corridor.

Traffic congestion is already a significant problem in the central business district, and the current rail line configuration is a contributing cause to this congestion. The switchyard between the two lines is within the central business district, and the BNSF line runs diagonally through the highest volume intersection in the city. Tupelo's employment has been growing at a steady pace of about 1,000 jobs per year for the last few years, which only increases vehicular traffic to the area and further exacerbates the situation. Moreover, issues with access to emergency facilities exist in that many Tupelo residents may be cut off from the regional medical center due to delays caused by the rail line and switching station.

The FRA has entered into a cooperative agreement with the Mississippi Department of Transportation (MDOT), with FRA as the lead Federal agency and MDOT as the lead state agency. Funding for the EIS was provided through an appropriation in the Transportation, Treasury, and Independent Agencies Appropriations Act, 2004, Public Law 108-199 (January 23, 2004).

FOR FURTHER INFORMATION CONTACT: Mr. Wayne Parrish, Planning Division, Mississippi Department of Transportation, 401 N. West Street, Jackson, MS 39201, telephone number (601) 359-7685; Mr. John Winkle, Project Manager, Federal Railroad Administration, 1120 Vermont Avenue, NW., Washington, DC 20590, telephone number (202) 493-6067.

Environmental Issues: Possible environmental impacts include displacement of commercial and residential properties, increased noise in some areas, effects to historical properties or archaeological sites, impacts to parks and recreational resources, viewshed effects, impacts to water resources, wetlands, and sensitive biological species and habitat, land use compatibility impacts, energy use, and impacts to agricultural lands.

Alternatives: The EIS will consider alternatives that include: (1) Taking no action; (2) reconstruction with grade separation of rail and highway facilities within the existing corridors; and (3) relocation and construction of the railroad line(s) in new location(s).

Scoping and Comment: FRA encourages broad participation in the EIS process and review of the resulting environmental documents. Comments, questions, and suggestions related to the project and potential environmental concerns are invited from all interested agencies and the public at large to

ensure that the full range of issues related to the proposed action and all reasonable alternatives are addressed and all significant issues are identified. These comments, questions, and suggestions should be addressed to the MDOT or the FRA at the addresses provided above. The public is invited to participate in the scoping process, to review the Draft EIS when published, and to provide input at all public meetings. Letters describing the proposed scope of the EIS and soliciting comments will be sent to appropriate Federal, State, and local agencies, elected officials, community organizations, and to private organizations and citizens who express interest in this proposal. Several public meetings to be advertised in the local media will be held in the project area regarding this proposal. Release of the Draft EIS for public comment and public meetings and hearings related to that document will be announced as those dates are established. A scoping meeting will be conducted in the Tupelo area at a date and place, which will be widely publicized well in advance of the meeting.

Persons interested in providing comments on the scope of the EIS should do so within 30 days of the publication of this Notice of Intent. Comments can be sent in writing to the points of contact listed above.

Issued in Washington, DC, on June 23, 2006.

Mark E. Yachmetz,

Associate Administrator for Railroad Development, Federal Railroad Administration.

[FR Doc. 06-5822 Filed 6-28-06; 8:45 am]

BILLING CODE 4910-06-P

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

[Docket No. NHTSA-2006-24964]

Highway Safety Programs; Model Specifications for Devices To Measure Breath Alcohol

AGENCY: National Highway Traffic Safety Administration, DOT.

ACTION: Notice.

SUMMARY: This notice amends the Conforming Products List published in 2004 (69 FR 42237) for instruments that conform to the Model Specifications for Evidential Breath Testing Devices (58 FR 48705).

DATES: *Effective Date:* June 29, 2006.

FOR FURTHER INFORMATION CONTACT: Dr. Maria E. Vegega, Office of Behavioral Safety Research, Behavioral Research Division (NTI-131), National Highway Traffic Safety Administration, 400 Seventh Street, SW., Washington, DC 20590; Telephone: (202) 366-4892.

SUPPLEMENTARY INFORMATION: On November 5, 1973, the National Highway Traffic Safety Administration (NHTSA) published the Standards for Devices to Measure Breath Alcohol (38 FR 30459). A Qualified Products List of Evidential Breath Measurement Devices comprised of instruments that met this standard was first issued on November 21, 1974 (39 FR 41399).

On December 14, 1984 (49 FR 48854), NHTSA converted this standard to Model Specifications for Evidential Breath Testing Devices (Model Specifications), and published a Conforming Products List (CPL) of instruments that were found to conform to the Model Specifications as Appendix D to that notice (49 FR 48864).

On September 17, 1993, NHTSA published a notice (58 FR 48705) to amend the Model Specifications. The notice changed the alcohol concentration levels at which instruments are evaluated, from 0.000, 0.050, 0.101, and 0.151 BAC, to 0.000, 0.020, 0.040, 0.080, and 0.160 BAC;

added a test for the presence of acetone; and expanded the definition of alcohol to include other low molecular weight alcohols including methyl or isopropyl. On July 14, 2004, the most recent amendment to the Conforming Products List (CPL) was published (69 FR 42237), identifying those instruments found to conform with the Model Specifications.

Since the last publication of the CPL, five (5) instruments have been evaluated and found to meet the Model Specifications, as amended on September 17, 1993, for mobile and non-mobile use. In alphabetical order by company, they are:

(1) The "Alcotest 6810" manufactured by Draeger Safety, Inc., Durango, Colorado. This is a hand held device intended for use in stationary or roadside operation and is powered by an internal battery. It uses a fuel cell sensor.

(2) & (3) The "Alcotector BAC-100" and the "Alcotector C2H5OH", both sold by Guth Laboratories, Inc. of Harrisburg, Pennsylvania. These devices are hand held devices intended for use in stationary or roadside operations. Both devices use fuel cell sensors and are powered by 4 "AA" batteries. The two devices are identical except for their printers. The BAC-100 has an internal printer. The C2H5OH does not have an internal printer, but can use an optional wireless printer.

(4) The "EV 30" manufactured by Lifeloc Technologies, Inc. of Wheat Ridge, Colorado. This device is a hand held device that uses a fuel cell sensor and is powered by an internal battery. It is intended for stationary or roadside operations.

(5) The "DataMaster DMT", manufactured by National Patent Analytical Systems, Inc. of Mansfield, Ohio. This is a bench-top, AC powered, infrared type breath tester with an analytical filter at 3.44 microns, and interference filters at 3.37 and 3.50 microns.

The CPL has been amended to add the five instruments identified above.

In accordance with the foregoing, the CPL is therefore amended, as set forth below.

CONFORMING PRODUCTS LIST OF EVIDENTIAL BREATH MEASUREMENT DEVICES

Manufacturer and Model	Mobile	Nonmobile
Alcohol Countermeasure Systems Corp. Mississauga, Ontario, Canada:		
Alert J3AD*	X	X
Alert J4X.ec	X	X
PBA3000C	X	X
BAC Systems, Inc., Ontario, Canada:		
Breath Analysis Computer*	X	X
CAMEC Ltd., North Shields, Tyne and Ware, England:		

Harry Lee James
Deputy Executive Director/
Chief Engineer

Brenda Znachko
Deputy Executive Director/
Administration



Larry L. "Butch" Brown
Executive Director

Ray Balentine
Director
Office of Intermodal Planning

Willie Huff
Director
Office of Enforcement

P. O. Box 1850 / Jackson, Mississippi 39215-1850 / Telephone (601) 359-7249 / FAX (601) 359-7110 / GoMDOT.com

Interdepartmental Memorandum

RECEIVED

JUN 30 2006

HDR

June 26, 2006

To: Mr. Claiborne Barnwell
Environment/Location Engineer

From: Jeffrey A. Pierce JP
State Planning Engineer

Subject: Transmittal of Letters to Chickasaw Officials from FRA on the Tupelo Railroad Relocation EIS

Attached hereto are the letters from the Federal Railroad Administration to Chickasaw Cultural Preservation officials, informing them of the FRA Notice of Intent to conduct an EIS on the relocation of railroads from the Tupelo central business district. The letters are forwarded to you for inclusion in the file on the project. A copy of this memo and the letters are also being furnished to the HDR team for inclusion in the EIS documentation.

Attachment

JAP:GWP:gwp

Pc: ✓ Mr. Jim Lee, HDR Engineering, Inc., 315 East Robinson Street, Suite 400, Orlando, FL 32801
Ms. Joce Pritchett, ABMB Engineers, 700 N. State Street, Suite 300, Jackson, MS 39202



U.S. Department
of Transportation

**Federal Railroad
Administration**

1120 Vermont Ave., N.W.
Washington, D.C. 20590

JUN 19 2006

Ms. Gingy Nail
Director, Cultural Preservation
Chickasaw Nation
Post Office Box 1548
Ada, OK 74821-1548

Re: Tupelo, Mississippi Rail Relocation Project

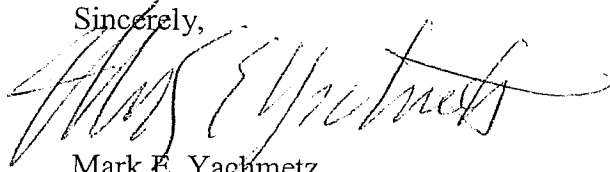
Dear Ms. Nail:

The Federal Railroad Administration (FRA), in cooperation with the Mississippi Department of Transportation (MDOT) is preparing an Environmental Impact Statement (EIS) for the possible relocation of rail lines that run through the central business district of the City of Tupelo. In anticipation of the EIS, FRA and MDOT have prepared a Feasibility Analysis intended to determine the feasibility of alternatives to alleviate roadway congestion caused by the existing rail lines and to quantify the actual cost of congestion in the future. Because the Chickasaw Nation has already expressed an interest in the project, the FRA is sending to you an electronic copy of the Feasibility Study before it is released to the media and the general public.

Shortly, FRA will publish in the Federal Register a Notice of Intent to prepare the EIS. Following the Notice of Intent, MDOT will hold several public hearings where interested parties will be able to comment on the proposed project and the EIS. MDOT will also hold a hearing specifically for interested Native American tribes, and you will be receiving notice of this special hearing once a time and location have been set.

Should you have any questions concerning the Feasibility Study, the proposed project or the EIS process, please contact FRA environmental program manager Mr. John Winkle at (202)493-6067 or at John.Winkle@dot.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark E. Yachmetz", written in a cursive style.

Mark E. Yachmetz
Associate Administrator for
Railroad Development

cc: Wayne Parrish, MDOT

Enclosure



U.S. Department
of Transportation

**Federal Railroad
Administration**

1120 Vermont Ave., N.W.
Washington, D.C. 20590

JUN 19 2006

Mr. Kirk Perry
Administrator, Heritage Preservation
Chickasaw Nation
Post Office Box 1548
Ada, OK 74821-1548

Re: Tupelo, Mississippi Rail Relocation Project

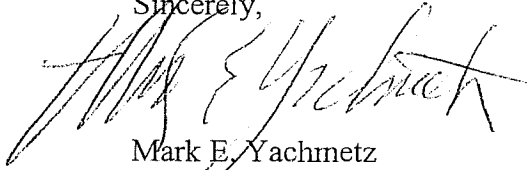
Dear Mr. Perry:

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Sincerely,

A handwritten signature in black ink, appearing to read "Mark E. Yachmetz". The signature is written in a cursive style with a large, sweeping initial "M".

Mark E. Yachmetz
Associate Administrator for
Railroad Development

cc: Wayne Parrish, MDOT

Enclosure

July 26, 2006

«Name»

«Title»

«Agency»

«Address»

«City», «State» «Zip_Code»

Re: The Tupelo Railroad Relocation Planning and Environmental Study
MDOT project number FRA-0430-00 (013) / 104289 101000

«Greeting»

Federal Rail Administration in conjunction with Mississippi Department of Transportation is conducting an Environmental Impact Statement (EIS) to evaluate the impacts of relocating or rebuilding the two railroad lines which currently traverse downtown Tupelo. The firms of HDR, Inc and ABMB Engineers, Inc along with others have been contracted to conduct the EIS and related studies.

We would like to take this opportunity to invite you to an Agency Scoping Meeting to discuss the environmental impacts of the proposed project. The meeting will be held **Monday, August 14, 2006** at the **Tupelo Community Development Foundation Boardroom in Tupelo, MS at 1:00 pm**. A map is attached for your convenience.

300 W Main St
Tupelo, MS 38804
(662) 842-4521

You are also invited to attend an open-house style public meeting the following day at 4:00 pm. The public meeting will be held at the Bancorpsouth Conference Center, located at 375 E. Main St. between Monaghan and Mulberry Streets.

Please find enclosed, a CD containing the Feasibility Study recently completed for this project. The Feasibility Study outlines the project area, preliminary environmental constraints and proposed alternatives. These alternatives were developed to determine feasibility of the project only.

Your input and suggestions would be appreciated in this endeavor. If you have any questions please contact MDOT Project Managers Wayne Parrish at (601) 359-7685 in the Planning Division or Kim Thurman at (601) 359-7920 in the Environmental Division.

Sincerely,

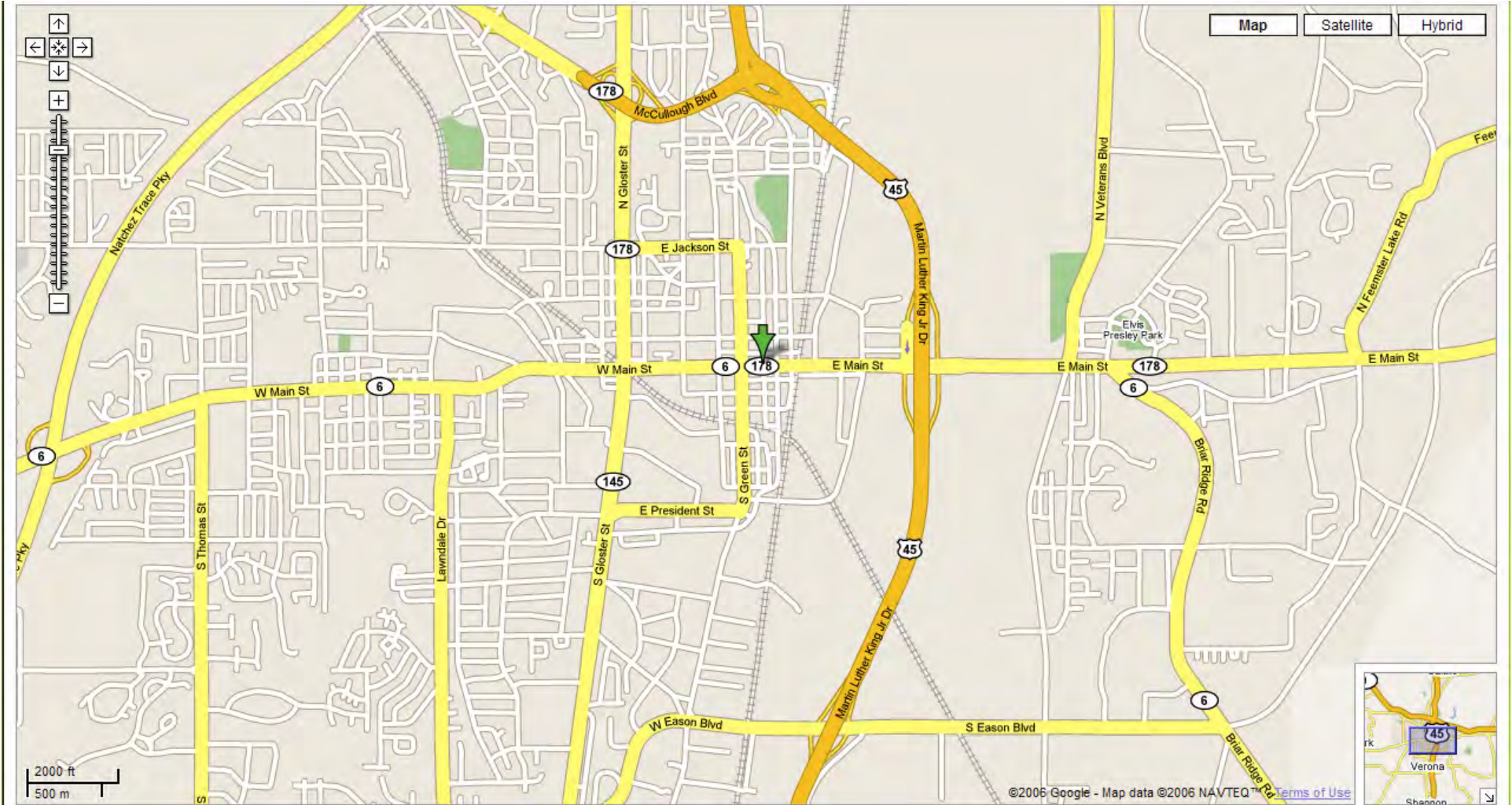
Jeffrey Pierce, PE
Planning Division Engineer, Project Director
Mississippi Department of Transportation

Enclosure

The Tupelo Railroad Relocation Planning and Environmental Study
MDOT project number FRA-0430-00 (013) / 104289 101000

Tupelo Community Development Foundation
Boardroom
300 W Main St
Tupelo, MS 38804

Agency Scoping Meeting
Monday, August 14, 2006



MISSISSIPPI DEPARTMENT OF TRANSPORTATION
(P.O. Box 1850, Jackson, MS 39215-1850)



Dr. Sam Polles
MS Department of Wildlife, Fisheries and Parks
1505 Eastover Drive
Jackson, MS 39211-6322

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
(P.O. Box 1850, Jackson, MS 39215-1850)



Mr. Cecil Vick
Federal Highway Administration
666 North St., Ste. 105
Jackson, MS 39202-3199

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
(P.O. Box 1850, Jackson, MS 39215-1850)



Mr. Andy Hughes
Federal Highway Administration
666 North St., Ste. 105
Jackson, MS 39202-3199

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
(P.O. Box 1850, Jackson, MS 39215-1850)



Mr. Charles Chisolm
MS Department of Environmental Quality
P.O. Box 20305
Jackson, MS 39289-1305

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
(P.O. Box 1850, Jackson, MS 39215-1850)



Mr. Craig Stubblefield
NPS-Natchez Trace Parkway
2680 Natchez Trace Parkway
Tupelo, MS 38804

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
(P.O. Box 1850, Jackson, MS 39215-1850)



Mr. Dave Hobbie
Mobile District, Corps of Engineers
109 St. Joseph Street
Mobile, AL 36628

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
(P.O. Box 1850, Jackson, MS 39215-1850)



Mr. David Felder
U.S. Fish and Wildlife Service
6578 Dogwood View Parkway
Jackson, MS 39213

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
(P.O. Box 1850, Jackson, MS 39215-1850)



Mr. Don Neal
National Forests in Mississippi
100 West Capitol St., Ste. 1141
Jackson, MS 39269

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
(P.O. Box 1850, Jackson, MS 39215-1850)



Mr. Don Underwood
MS Soil & Water Conservation Commission
P.O. Box 23005
Jackson, MS 39225-3005

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
(P.O. Box 1850, Jackson, MS 39215-1850)



Mr. H.T. Holmes
MS Department of Archives and History
P.O. Box 571
Jackson, MS 39205-0571

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
(P.O. Box 1850, Jackson, MS 39215-1850)



Mr. Homer Wilkes
USDA-Natural Resources Conservation Service
100 West Capitol St., Ste. 1321
Jackson, MS 39269

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
(P.O. Box 1850, Jackson, MS 39215-1850)



Mr. James Sledge
MS Forestry Commission
301 North Lamar St., Ste.300
Jackson, MS 39201

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
(P.O. Box 1850, Jackson, MS 39215-1850)



Mr. Jim Woodrick
MS Department of Archives and History
P.O. Box 571
Jackson, MS 39205-0571

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
(P.O. Box 1850, Jackson, MS 39215-1850)



Mr. Matthew Hicks
MS Department of Wildlife, Fisheries and Parks
2148 Riverside Drive
Jackson, MS 39202

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
(P.O. Box 1850, Jackson, MS 39215-1850)



Mr. Ray Aycock
U.S. Fish and Wildlife Service
6578 Dogwood View Parkway
Jackson, MS 39213

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
(P.O. Box 1850, Jackson, MS 39215-1850)



Mr. Robert Seyfarth
MS Department of Environmental Quality
P.O. Box 10385
Jackson, MS 39289-0385

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
(P.O. Box 1850, Jackson, MS 39215-1850)



Mr. Ted Leininger
U.S. Forestry Service
P.O. Box 227
Stoneville, MS 38776-0227

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
(P.O. Box 1850, Jackson, MS 39215-1850)



Mr. Tom Mann
MS Department of Wildlife, Fisheries and Parks
2148 Riverside Drive
Jackson, MS 39202

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
(P.O. Box 1850, Jackson, MS 39215-1850)



Mr. Tony Dixon
National Forests in Mississippi
100 West Capitol St., Ste.1141
Jackson, MS 39269

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
(P.O. Box 1850, Jackson, MS 39215-1850)



Ms. Beth Guynes
Vicksburg District, Corps of Engineers
4155 Clay Street
Vicksburg, MS 39183-3435

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
(P.O. Box 1850, Jackson, MS 39215-1850)



Ms. Ntale Kajumba
U.S. Environmental Protection Agency
Atlanta Federal Center, 61 Forsyth St., SW
Atlanta, GA 30303-8960

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
(P.O. Box 1850, Jackson, MS 39215-1850)

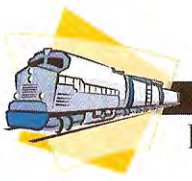


Ms. Susan Jarvis
Vicksburg District, Corps of Engineers
4155 Clay Street
Vicksburg, MS 39183-3435

Tupelo Railroad Relocation Planning and Environmental Study
Public Involvement Plan
Agency Scoping Meeting
August 14, 2006
1:00 pm

AGENDA

- ❖ Introduction of Project – **Wayne Parrish (MDOT)**
- ❖ Federal Rail Administration role – **John Winkle (FRA)**
- ❖ **Jim Lee, PE (HDR)**
 - Introduce Consultant Team
 - Guide the Agency introductions
 - Outline 4-Phase Study Process
- ❖ **Chad Luedtke, PE (HDR)**
 - Brief overview of feasibility study and outcomes
 - Outline the Purpose and Need of the Project
- ❖ **John Morton, PE (HDR); Joce Pritchett, PE (ABMB)** – NEPA Discussion
 - Purpose and Need
 - Environmental Streamlining issues
 - Cooperating / Participating Agencies
 - Establish Project Communication patterns
 - Environmental Information Sharing
 - GIS data sharing
 - Set Field Trip Agenda



Tupelo Mississippi
 Planning & Environmental Study
Railroad Relocation

**TUPELO RAILROAD RELOCATION
 PLANNING AND ENVIRONMENTAL STUDY
 AGENCY SCOPING MEETING
 TUPELO, MISSISSIPPI
 August 14, 2006; 1:00 pm**

SIGN-IN SHEET

Name / Agency	Address	Phone / Fax	E-mail
STENNIS YOUNG / NATCHEZ TRACE RAILWAY		662-680-4005	
D. CRAIG SCUMBLE FIELD	NATCHEZ TRACE	662-680-4004	
Ntale Kajumba	1338 Bluefield Dr	(404) 562-9620	kajumba.ntale@epa.gov
DAVID RUMBARGER	300 West Main	662-620-0805	rum@cdfms.org
Emily Le Coz	1242 Green	662-678-1588	emily.lecoz@djournal.com
Cecil Vick	666 North St. Jackson, MS	601-965-4217	Cecil.vick@fwa.dot.gov
John Winkle	1120 Vermont Ave NW	202/493-6067	JOHN.WINKLE@FZA.DOT.GOV
Caribon Barnwell	401 North West Jackson MS	601 359 7920 7355	C.Barnwell@MDOT.STATE.MS.US
Lavelle	8605 ^{Citron TN 38138} Hartley Way	901-759-1864	wmsonfitch@bellsouth.net
Paul Brackington	6611 Big Circle Suite 224 Norcross GA 30071	770 662-5807 x11	paul@brackington.org
Patricia Stallings	"	" x32	patriciastallings@brackington.org



2006-08-03 USFS Coop agency decline.txt

From: Thurman, Kim [kthurman@mdot.state.ms.us]
Sent: Thursday, August 03, 2006 3:18 PM
To: Parrish, Wayne; Joce Pritchett
Subject: FW: railroad realignment project in Tupelo

FYI

Kim

Kim D. Thurman
Environmental Manager
Mississippi Department of Transportation
Phone: (601) 359-7922
Fax: (601) 359-7355
e-mail: kthurman@mdot.state.ms.us

-----Original Message-----

From: Don R Neal [mailto:donneal@fs.fed.us]
Sent: Thursday, August 03, 2006 1:58 PM
To: john.winkle@dot.gov
Cc: Thurman, Kim; Barnwell, Claiborne; Antoine L Dixon; R E Vann; Gerald D Lawrence;
John Baswell; Vick, Cecil; Don R Neal
Subject: railroad realignment project in Tupelo

John,

I have reviewed the Tupelo Railroad Relocation Planning and Environmental Study CD and discussed the project with Kim Thurman (MDOT). The realignment alternatives in Tupelo are well outside the proclaimed boundaries of the Tombigbee National Forest and Holly Springs National Forest. The Forest Service does not need to be established as a Cooperating Agency to this proposed project. I appreciate your contact with me on this project.

Thanks, Don

Richard D. (Don) Neal
Staff Officer
Fire/Safety/Lands/Minerals
100 W. Capitol St.
Suite 1141
Jackson, MS 39269
(601) 965-4391 office
(601) 209-4764 cell
(601) 965-5524 Fax
donneal@fs.fed.us



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Mississippi Field Office
6578 Dogwood View Parkway, Suite A
Jackson, Mississippi 39213

August 10, 2006

Mr. John Winkle
Federal Railroad Administration
400 Seventh St. S.W.
Washington, D.C. 20590

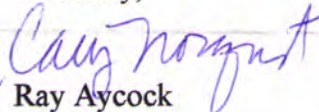
Dear Mr. Winkle:

The U.S. Fish and Wildlife Service (Service) has received your letter dated August 4, 2006, requesting our assistance as a cooperating agency in the development of an Environmental Impact Statement for the proposed rail line relocation project in Tupelo, Lee County, Mississippi.

The Service agrees to be a cooperating agency for this project. We will provide fish and wildlife resources information; review all environmental documents, and will participate in coordination meetings as they relate to the rail line relocation project

Thank you for the opportunity to participate in the planning and development of this project. If you have any questions, please contact David Felder in our office at 601-321-1139.

Sincerely,

for 
Ray Aycock
Field Supervisor



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE

Natchez Trace Parkway
2680 Natchez Trace Parkway
Tupelo, Mississippi 38804



L7617 (NAIR)
xA3823

AUG 15 2006

Mr. Mark E. Yachmetz
United States Department of Transportation
Federal Railroad Administration
400 Seventh St., S.W.
Washington, DC 20590

Dear Mr. Yachmetz:

This is in reference to your letter dated August 1, 2006, and the Public Scoping Meetings on August 14 – 15, 2006, concerning the Environmental Impact Statement (EIS) for relocation of the BNSF and the Kansas City Southern Railroads running through Tupelo, Mississippi.

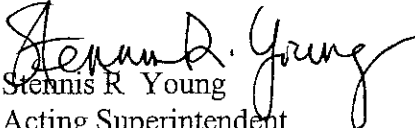
The railroads are being proposed for relocation to alleviate vehicular traffic congestion through Tupelo due to the frequency of rail traffic through the center of the city. As suggested, the Natchez Trace Parkway is requesting to be listed as a Cooperating Agency in development of the EIS, as the alternatives must interface with the Parkway motor road in all of the proposed crossings. We request a detailed analysis of how each alternative will impact the resources of the Natchez Trace Parkway, as well as the scenic viewshed.

In the preliminary scoping meetings, numerous alternatives were presented that require new rail crossings of the Natchez Trace Parkway. Only one alternative (Alternative C) utilizes an existing crossing. We would like to go on record in support of Alternative C, because it has the least impact on the Natchez Trace Parkway and the Parkway's viewshed. Alternative D has the most impact on the Parkway, as the alignment could impact the Historic Tupelo Homesteads, the Parkway Headquarters/Visitor Center, and a segment of the Natchez Trace National Historic Trail as well. Alternatives B, D, E, and F all require new crossings of the Parkway, which will severely impact the Parkway motor road and its viewshed.

Because the Natchez Trace Parkway in its entirety is eligible for inclusion on the National Register of Historic Places and is a unit of the National Park Service, we feel that Section 4 (f) of the National Environmental Policy Act (NEPA) applies to all of the proposed crossings of the Parkway. We feel that only Alternative C is a viable alternative because it utilizes an existing crossing and thus has the least impact to the Parkway.

Thank you for allowing us to be a Cooperating Agency in development of the EIS. We look forward to working with you to minimize the impacts to the Natchez Trace Parkway. Should you require additional information, please feel free to contact D. Craig Stubblefield, Chief of Resource Management, at (662) 680-4004.

Sincerely,


Stennis R. Young
Acting Superintendent

cc: John Winkle, USDOJ, Washington, DC
Claiborne Barnwell, MDOT, Jackson, MS
Cecil Vick, FHWA, Jackson, MS
Wayne Parrish, MDOI, Jackson, MS



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Mississippi Division
666 North Street, Suite 105
Jackson, Mississippi 39202

August 24, 2006

IN REPLY REFER TO
HRW-MS

Mr. Mark E. Yachmetz
Associate Administrator for Railroad Development
Federal Railroad Administration
400 Seventh St., SW
Washington, DC 20590

Dear Mr. Yachmetz:

Subject: EIS, Rail Line Relocation
Tupelo, Mississippi

As requested in your letter of August 1, 2006, the Mississippi Division of the Federal Highway Administration accepts your invitation to be a cooperating agency in the development of an Environmental Impact Statement for the proposed rail line relocation project in Tupelo, Mississippi. Your point of contact at the Division for this project should be: Cecil W. Vick, Jr., Project Development Team Leader, 601/965-4217, cecil.vick@fhwa.dot.gov.

Sincerely yours,

A handwritten signature in black ink, appearing to read "AH Hughes".

Andrew H. Hughes
Division Administrator

cc: W. Parrish, 85-01
File: Tupelo Rails

CWVICK:cv





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

August 25, 2006

U.S. Department of Transportation
Federal Railroad Administration
1120 Vermont Ave., N.W. (7th Floor)
Washington, DC 20005
Attn: Mr. John Winkle

Subject: Participation of EPA, Region IV as a Cooperator in the Preparation of a
Draft Environmental Impact Statement (DEIS) for the Tupelo Railroad Relocation

Dear Mr. Winkle:

This is in reference to your subject request of August 1, 2006, for assistance in the development of the above EIS. In accordance with the Federal Railroad Administration's request under 40 CFR Part 1501.6, EPA agrees to be a Cooperating Agency in the preparation of the DEIS on the basis of its special expertise in environmental areas. In the past we have been able to assist in activities associated with the scoping process, participate in site inspections of the subject area, and help in the development of some aspects of the study plan (e.g., alternatives analysis, water resources, and environmental justice). The level of our participation may be constrained by staff and travel resources.

Furthermore, EPA will be able to provide review and comment on preliminary documents above and beyond our normal responsibilities. Of course, any involvement as a cooperating agency will not negate our responsibilities pursuant to Section 309 of the Clean Air Act, Section 102 (2)(C) of the National Environmental Policy Act, and the Clean Water Act. With these general qualifications we are willing to provide assistance.

When we can be of further assistance in this matter, Ntale Kajumba (404-562-9620) will serve as initial point of contact.

Sincerely,

A handwritten signature in black ink, appearing to read "Heinz Mueller".

Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

Attachment

MOA with MDOT and FHWA

I. Introduction and Purpose

The Federal Railroad Administration (FRA), in cooperation with the Mississippi Department of Transportation (MDOT), has begun an Environmental Impact Statement (EIS) for a proposed rail relocation in Tupelo. Five potential rail corridors were developed for consideration in the DEIS.

The document will address various environmental impacts associated with selected alignments. EPA's review of a prospective NEPA document will consist of an examination of the proposed projects environmental impacts on the water quality, air quality, hazardous waste, natural resources and socioeconomic issues.

The purpose of this Memorandum of Agreement (MOA) is to establish an understanding between FRA, MDOT, and the U.S. Environmental Protection Agency (EPA) regarding certain conditions and procedures to be followed in the proposed cooperation.

In accordance with the FRA's request under 40 CFR Part 1501.6, EPA agrees to be a Cooperating Agency in the preparation of the EIS on the Basis of its special expertise in environmental areas. Specifics in this regard will be determined during staff contacts.

The parties intend that the development and the preparation of the information provided for the EIS will satisfy the requirement of National Environmental Policy Act (NEPA).

II. General Provisions

1. FRA and MDOT shall act as the lead agency and shall be responsible for assuring compliance with all applicable requirements of NEPA and other pertinent regulations. FRA and MDOT, with consultation, advise, and assistance from EPA
2. FRA and MDOT will consider any additional alternatives developed by EPA during preparation of the EIS.
3. EPA, as a cooperating agency, will assist in scoping, development of alternatives, participate in site investigations, and other areas to be determined. EPA has the right of concurrence on language in the EIS on all matters relating to its input.
4. The EIS will include a complete review of alternatives considered by the FRA and MDOT including the criteria used in alternative selection and the relative environmental impacts of alternatives.
5. EPA retains its review or comment authority over the EIS under Section 309 of the Clean Air Act.

6. An EPA representative may attend interagency meeting and other meetings (i.e., public hearings and tribal meetings), and will be available to respond to inquiries, correspondence, etc., pertinent to any information prepared by EPA.

7. EPA NEPA Program Office will coordinate and share draft environmental documents and request feedback from other relevant EPA program offices.

Harry Lee James
Deputy Executive Director/
Chief Engineer

Brenda Znachko
Deputy Executive Director/
Administration



Ray Balentine
Director
Office of Intermodal Planning

Willie Huff
Director
Office of Enforcement

Larry L. "Butch" Brown
Executive Director

P. O. Box 1850 / Jackson, Mississippi 39215-1850 / Telephone (601) 359-7249 / FAX (601) 359-7110 / GoMDOT.com

June 29, 2007

Honorable Roger Wicker
First District, Mississippi
United States House of Representatives
2350 Rayburn House Building
Washington, DC 20515

Subject: Tupelo Railroad Relocation Planning and Environment Study

Dear Congressman Wicker:

Thank you for calling Mr. Jim Lee of HDR, Inc., our consultant project manager for the Tupelo study. Jim related your comments and questions about the project to us, and has provided the information below. We appreciate very much all your support for the project, and especially your continuing interest. We have scheduled a public meeting on the project for July 12, 2007, from 4 p.m. to 6:30 p.m., at the Bancorpsouth Center. I know how busy you are right now with mark-ups and other actions, but you or anyone from your offices are cordially invited. Please let me know if you need any additional information. The responses to your questions follow below.

Question #1: Please provide cost estimates for the US-78 Alternative

The US-78 Alternative (High Alternative) that was considered by HDR is depicted in the attached Figure 8. As envisioned, this Alternative would run adjacent to the north right-of-way line of US-78 from the existing BNSF Railroad and cross the Natchez Trace at the existing interchange. It would head south, crossing US-78 just before reaching Gloster Street, cross over Gloster Street, US-45, and KCS Railroad at an angle and then cross Main Street near its interchange with US-45 and head due south to existing BNSF.

Key points about this Alternative are:

- Estimated cost - \$505 Million
- Complete reconstruction of interchange with Trace and US-78 is required, and removal of the northern ramps may be required due to the location of railroad.
- Reconstruction of US-78 and US-45 interchange required. Crossing of rail (1st level) on those roadway facilities (2nd and 3rd levels) would be at an extreme skew angle and would require unique structures.
- Since US-78 is designated as a future interstate corridor (I-22), and due to anticipated railroad requirements, the proposed corridor would require separate right-of-way for the rail. Since railroads has significantly more stringent



geometric criteria over roadways, significant right-of-way would have to be acquired due to uneconomical remainders of land parcels remaining based upon larger roadway curves.

- Due to flood plain, much of the corridor will need to be elevated east of the Natchez Trace.

Question #2: For the In-town Option, did HDR look at depressing or tunneling the BNSF Railroad instead of elevating it? How long is the bridge structure for the elevated option In-town?

Generally, from HDR's experience, the cost of depressing a railroad is more expensive than elevating it.

Elevated Railroad Alternative:

- Estimated Cost - \$407 Million.
- Bridge structure length is approximately 12,000 ft. The length may be shortened using sections of fill material, slopes and retaining walls.
- 12 at grade railroad crossings would be alleviated along the BNSF. No KCS crossings would be grade separated.
- Elevating the rail allows the current operation to continue during construction.
- It is anticipated that minimal new right-of-way is required along the existing corridor. The locations of the new right-of-way will be determined as the alternative is studied in more detail.
- Elevating the railroad is more acceptable to the railroad and the City of Tupelo as discussed in meetings held on June 11, 2007 with Mayor Neelly and the Tupelo Thoroughfare Committee.

Depressed Rail Alternative:

- Significant retaining walls would be required. Emergency accesses would be required from above and below. Protection measures such as guardrail, barrier wall, fencing, etc. would be mandatory so that people / vehicles / debris are prevented from falling into U-shaped hole and disrupting railroad service. The use of side slopes would be preferred to alleviate some of these concerns, but may require up to 200 feet of new R/W through town.
- A separate and temporary corridor would be required to maintain railroad traffic while depressed corridor is constructed. This would require significant right-of-way either adjacent to the existing corridor or for a new corridor.
- Since the depth of the rail would be approximately 30 feet below existing ground to provide clearance under the existing roadways, it is anticipated that the depth is below the existing groundwater table. If the rail is below the existing groundwater table, it may require pumping or other measure to maintain positive drainage. This is typically unacceptable to railroads due to the liability of flooding tracks and shutting down their operation.

- As previously discussed, every roadway crossing would require a bridge structure. The bridge structure would require guardrail, barrier wall, fencing and retaining walls which will add to the construction costs. In addition, the length of these safety features may impact the adjacent roadway network.
- Depressing the BNSF rail would require the switching yard with KCS to be partially depressed as well. Since the existing yard is located within an existing floodplain, this will be extremely difficult with drainage, permitting and maintaining rail operations.

Question #3: How long is the bridge structure currently being constructed in Olathe, Kansas? What is the cost? What is the population of Olathe, Kansas?

Through preliminary research, we have assembled the following information regarding the Olathe, Kansas Railroad Bridge as shown in the attached figures:

- Length – 3,000 feet
- Cost - \$40 Million.
- Population – 75,000 People.
- At-grade crossings improved – Four (4)
- Bridge structure – Partial Fill, Partial Span.

If you have any other questions or concerns regarding the project, please contact me or the project manager for this study, Mr. Wayne Parrish, at telephone number (601) 359-7910 or via email at wparrish@mdot.state.ms.us.

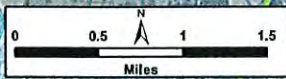
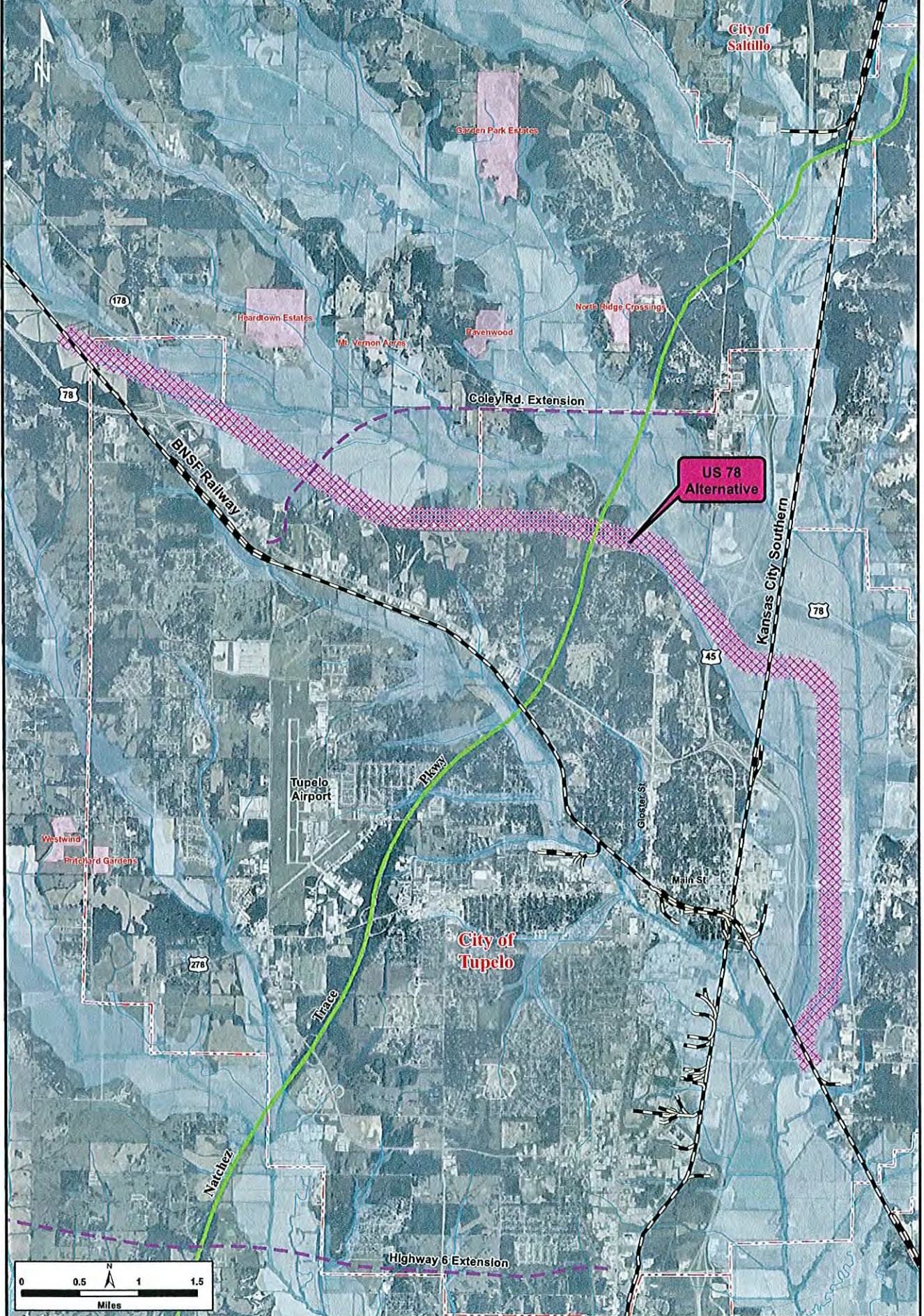
Sincerely,



Larry L. Brown
Executive Director

LLB:GWP:gwp

Attachment



	LEGEND	— Proposed Road
	Railroad City Boundary Natchez Trace Parkway	Subdivision River / Stream FEMA Floodplain

**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

**US 78
Alternative
Figure
8**









IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE

Natchez Trace Parkway
2680 Natchez Trace Parkway
Tupelo Mississippi 38804

JUL 16 2007



L3215, N4615, L7617 (NAIR)
xA3823, L303D

Mr Wayne Parrish
Director of Freight, Rails, Ports and Waterways
Mississippi Department of Transportation
P.O. Box 1850
Jackson, Mississippi 39215

Dear Mr Parrish:

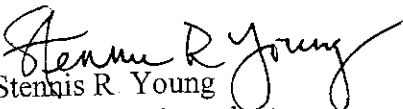
This is in reference to your letter dated June 28, 2007, and the Public Scoping Meeting on July 12, 2007, concerning the Environmental Impact Statement (EIS) for relocation of the BNSF Railroad running through Tupelo, Mississippi.

The BNSF Railroad is being proposed for relocation to alleviate vehicular traffic congestion due to the frequency of rail traffic through the center Tupelo. In the July 12th scoping meeting, numerous alternatives were presented that require new rail crossings of the Natchez Trace Parkway. Only Alternatives A and M utilizes an existing crossing. We would like to go on record in support of Alternative A (No Build) or Alternative M (Elevate the Existing Track) because it has the least impact on the Natchez Trace Parkway and the Parkway's viewshed. Alternative L (Parallel with Coley Road Extension) has the most impact on the Parkway being as the alignment would severely impact the scenic viewshed of the Parkway visitors, and a segment of the Natchez Trace National Historic Trail as well. Alternative K (Coonewah Creek) would also require a new crossing of the Parkway which will impact the Parkway motor road and the viewshed of the Natchez Trace Parkway.

Being as the Natchez Trace Parkway in its entirety is eligible for inclusion on the National Register of Historic Places and is a unit of the National Park Service, we feel that Section 4 (f) of the National Environmental Policy Act (NEPA) applies to all of the proposed new crossings of the Parkway. We feel that only Alternative M of the action alternatives is a viable alternative because it has the least impact to the Parkway because it utilizes an existing crossing.

Thank you for allowing us to be a Cooperating Agency in development of the EIS. We look forward to working with you to minimize the impacts to the Natchez Trace Parkway. Should you require additional information, please feel free to contact D. Craig Stubblefield, Chief of Resource Management, at (662) 680-4055.

Sincerely,


Stennis R. Young
Acting Superintendent

cc: Kim Thurman
Mississippi Department of Transportation
Environmental Division
P.O. Box 1850
Jackson, Mississippi 39212



TIMOTHY J. HUYA
Manager Public Projects
(States of LA, MS and TX)

BNSF Railway Company

5800 North Main Street
Fort Worth, Texas 76179

817-352-2902
817-352-2912 Fax

Tim.Huya@BNSF.com

RECEIVED

NOV 26 2007

November 16, 2007

HDR ENGINEERING, INC
JACKSONVILLE, FLORIDA

G. Wayne Parrish
Director, Freight, Rails, Ports and Waterways
Mississippi DOT
P.O. Box 1850
Jackson, MS 39215-1850

RE: Tupelos, MS Railroad Relocation Study – BNSF Preferred Alternative

Mr. Parrish:

Please reference our previous discussions and meetings regarding the proposed alternatives for the Tupelo, MS railroad relocation study.

BNSF has reviewed the State's alternatives and prefers the "Railroad Fly-over option" which also includes the new connection track with KCS south of the City. Attached is a summary page of notes for the proposal with BNSF comments and requirements for planning purposes.

Please review this information and advise if you have any questions.

BNSF looks forward to working with the State and the City on this project.

Sincerely,

Timothy J. Huya
Manager Public Projects

File: Tupelo, MS – RR Relocation Study

✓ Cc: Larry Romain (HDR) – Jacksonville, FL

TUPELO, MS RAILROAD RELOCATION STUDY - BNSF PREFERRED ALTERNATIVE (11/16/07)

- A) Railroad Fly-over (MP 586.47 to 588.69) – 100% Agency Cost (~\$225M as of 5/03/07)
- a. ½-mile maximum grade of 1% on each end of RR Bridge
 - b. 2 ½-mile RR Bridge
 - i. Use concrete I-beams (typical)
 - ii. Use Thru-plate Girder Sections across longer spans (i.e. Crosstown Intersection)
 - c. Results in 9 at-grade crossing closures via 9 new underpasses (MP 586.79-588.64)
 - i. Underpasses at W. Jackson St, Blair St, Jefferson Ave, Park Ave, Gloster/Main St, S. Church St, S. Greene St, S. Spring St, and Elizabeth St
 - d. Construction Sequence:
 - i. Agency to relocate RR Customer @ MP 588.35 (CLIC 3410) south of town
 1. Agency to construct subgrade
 2. Agency to meet Industry off-loading requirements/specs
 3. Agency/BNSF to construct new industry track
 - ii. Construct shoo-fly main track on 25-foot temporary alignment – south/west of existing MT.
 1. Agency to construct subgrade
 2. BNSF to construct track section
 3. BNSF to install new crossing surfaces
 4. BNSF to modify/relocate or install new crossing/wayside signals
 - iii. Agency to construct 2-track structure
 1. BNSF to provide railroad flagging.
 2. BNSF to provide Bridge Inspection via engineering/consultant firm
 3. Structure to have escape stairs for train/MOW and EMS access
 - a. Located at 1,000-foot intervals (typical)
 - b. Stairs to have 2-lock system at ground-level door/gate
 4. BNSF to construct single main track on structure
 5. Agency to construct handrails/fencing on structure
 - a. Solid or fine-mesh to prevent lignite pellets, etc. from falling
 - b. Height of fencing to be determined
 - iv. Agency to construct RR Access Road entire length of Structure
 1. 12-foot wide roadway
 2. Controlled-access gates at each former street intersection
 - e. Maintenance Responsibilities
 - i. Agency to own and maintain structure (including the deck)
 1. Agency to perform 2 inspections per year and submit reports to BNSF Structures Department
 - ii. BNSF to maintain walkways and handrails
 - iii. BNSF to maintain from ballast section up to and including track section.
 - f. BNSF not interested in Agency's proposed Hike/Bike Trail
 - g. BNSF to retain existing ROW width, but could consider future landscaping needs
- B) New BNSF-KCS Connection Track
- a. Estimated at \$71M
 - b. Proposed 6-degree curve is acceptable to BNSF
 - c. Proposed 3 yard tracks @ 3,300 feet each are acceptable to BNSF
 - i. Track Centers to be 25-ft
 - ii. North end yard tracks @ MP 589.10 and South end @ MP 589.63
 - d. Main Track turnouts to be No. 15's
 - e. Eason Avenue (MP 589.64) crossing will be closed via new overpass
 - f. Agency to construct new RR yard office (~1,000 SF)
 - i. Parking lot
 - ii. Driveway
 - g. Agency to acquire all necessary ROW and deed back to Railroads
 - h. New connection track to parallel west side of MT (from US Hwy 45 to Eason Road) and tie-in to MT at south-end of yard tracks @ MP 589.63 (Eason Road)
 - i. Agency to construct MOW Access Road from Eason Avenue (north & south)

Public Involvement Record Sheet

Tupelo Railroad Relocation EIS



Date of Meeting	February 5, 2008
Location of Meeting	Natchez Trace Parkway offices, Tupelo, MS
Meeting Style	Conference style meeting
Duration of meeting	About 1 hour
Parties involved	MDOT: Claiborne Barnwell, Kim Thurman Natchez Trace Parkway Officials
Exhibits Used	
Original Objective	Discuss the 2 proposed build alternatives with the Natchez Trace
Accomplishment	The Natchez Trace Parkway's position remains the same. They prefer Alternative M.
Summary of Meeting	<p>The City of Tupelo has met with the Natchez Trace Parkway about the Coley Road Extension and it seems that the issues with the ROW have been worked out to move forward with the City's plan. However, the Natchez Trace Parkway informed the City that they would require an EA for the Natchez Trace Parkway Crossing and the EA would determine the best location to cross the Parkway not where the ROW has been negotiated. Based on our conversation with the Natchez Trace Parkway, the City has hired ESI, Inc., to conduct the EA.</p> <p>We discussed the possible of the elevated rail structure being double tracked and the Natchez Trace Parkway raised an issue about bridge width. We will need to assess whether or not the existing Natchez Trace Railroad Bridge has the width to accommodate double tracks. We need to assess this soon.</p>

The purpose of this document is to serve as a record of meetings and Public Involvement held for the Tupelo Railroad Relocation EIS.



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Mississippi Field Office
6578 Dogwood View Parkway, Suite A
Jackson, Mississippi 39213

February 11, 2008

Mr. Claiborne Barnwell
Environmental Division Engineer
Mississippi Department of Transportation
Post Office Box 1850
Jackson, Mississippi 39215

Dear Mr. Barnwell:

The U.S. Fish and Wildlife Service (Service) has reviewed the information in your letter dated February 1, 2008, regarding the proposed Tupelo Railroad Relocation Project in Lee County, Mississippi. Our comments are submitted in accordance with the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

One federally protected plant could be found within the proposed project area. The threatened plant Price's potato bean (*Apios priceana*) is an herbaceous, twining vine that belongs to the pea family. Populations typically occur in open woods and woodland edges in limestone areas, often where bluffs grade into creek or river bottoms. Several populations extend onto roadside or powerline rights-of-ways. There are only four known populations within Mississippi, with one being located off Highway 6 near Bissell. We recommend that Alternative L be surveyed for the presence of this species. Please forward the results of your survey so that section 7 consultation may be completed for the Tupelo Railroad Relocation Project.

If you have any questions, please contact our office, telephone: (601) 321-1139.

Sincerely,

David Felder
Fish and Wildlife Biologist

United States Department of Agriculture



Natural Resources Conservation Service
Tupelo Field Office
3098 Cliff Gookin Blvd. Suite 1
Tupelo, MS 38801-7005
Phone: (662) 680-9991 ext. 3
FAX: (662) 844-2036

March 19, 2008

Kristi Walski Hall, Environmental Scientist
ABMB Engineers, Inc.
700 North State Street Suite 300
Jackson, MS 39202

Dear Ms. Hall:

I have reviewed the proposed build alternatives for the Tupelo Railroad Relocation Study, specifically "Alternative L" and "Alternative M". There are no known USDA program easements (Conservation Reserve Program – CRP, Grasslands Reserve Program -- GRP, or Wetland Reserve Program – WRP) along either proposed route. The Farmland Protection Policy Act (FPPA) does not apply to land within municipal boundaries or along existing rights of way, which is the case for *Alternative M*. There are prime and unique farmlands along the proposed *Alternative L* outside the municipal boundaries of Tupelo that would require a form AD-1006 *Farmland Conversion Impact Rating*.

Proposed routes immediately adjacent to or that cross over Town Creek or Kings Creek may be subject to existing permanent easements held by the Town Creek Master Water Management District. These easements range from 125 to 350 feet in total width. David Sparks, General Counsel for the District would be your contact person relative to these easements. He may be reached by phone at 662-842-0261 or by mail at P.O. Box 716, Tupelo, MS 38802.

Please contact me if additional information or assistance is needed.

Sincerely,

A handwritten signature in black ink that reads "Dan Bagley". The signature is written in a cursive, flowing style.

Dan Bagley
District Conservationist

C: Bebe Yarbrough, Civil Engineer
USDA, NRCS Project Engineer Office
Tupelo, MS

David Sparks, General Counsel
Town Creek Master Water Management District
P. O. Box 661
Tupelo, MS 38802



Jena Band of Choctaw Indians

P. O. Box 14 • Jena, Louisiana 71342-0014 • Phone: 318-992-2717 • Fax: 318-992-8244

May 19, 2008

U. S. Department of Transportation
Federal Railroad Administration
ATTN: MR. JOHN WINKLE
1200 New Jersey Ave, SE
Washington, DC 20590

**RE: PROPOSED TUPELO, MISSISSIPPI, RAILROAD RELOCATION
PROJECT**

To Whom It May Concern:

Reference is made to your letter dated April 29, 2008, concerning the above-proposed project.

After thorough review of the documents submitted, it has been determined that there will be no significant impact in regards to the Jena Band of Choctaw Indians.

Should you have any questions, please feel free to call me.

Sincerely,

A handwritten signature in cursive script that reads "Lillie McCormick".

Lillie McCormick
Environmental Director
Jena Band of Choctaw Indians
318-992-8258
lstrangejbc@centurytel.net

Public Involvement Record Sheet Tupelo Railroad Relocation EIS



Date of Meeting	September 9, 2008
Location of Meeting	Mayor's office, Tupelo, MS
Meeting Style	Conference style meeting
Duration of meeting	About 1 hour
Parties involved	MDOT: Claiborne Barnwell, Bill Jamison, John Underwood HDR: Jim Lee, Chad Luedke, Carnot Evans ABMB: Joce Pritchett, Eric Jefferson, Wendel Ruff (See attached sign-in sheet)
Exhibits Used	Powerpoint presentation handout
Original Objective	Update the Mayor on the progress of the project and upcoming deadlines
Accomplishment	
Summary of Meeting	<p>Jim Lee presented the update on the history and development of the project, which is an attempt to address the traffic delay problems in Tupelo resulting from the BNSF and KCS at-grade crossings such as Crosstown. From the feasibility study performed by HDR and ABMB and the public meetings conducted to date, three build alternatives emerged for consideration:</p> <p>Alt. K – The “Coonewah Creek” Alternative Alt. L – The “Coley Road” Alternative Alt. M – The “In-town” elevated rail Alternative</p> <p>Alt. K was dismissed due to anticipated significant cultural and archeological impacts, opposition from the National Park Service to a new crossing of the Natchez Trace Pkwy, and BNSF objection that the route was too long.</p>

The purpose of this document is to serve as a record of meetings and Public Involvement held for the Tupelo Railroad Relocation EIS.

Alt. L received negative feedback from the Thoroughfare Committee which feared that it would jeopardize their negotiations with property owners along the new Coley Road Extension route who have agreed to transfer property for Right-of-Way to build the new roadway project in exchange for new access.

Alt. M is considered the preferred option based on public comment and relatively fewer impacts on the human and natural environment and support from National Park Service, the City, and both railroads.

Due to the potential cost, the project could be phased with the operational improvement at the KCS switching yard being the first phase of construction.

A “rails-to-trails” concept to convert the proposed temporary track that would be built prior to construction of the elevated structure to a multi-use path for the City of Tupelo was suggested during the last meeting with the Community Development Foundation (CDF). The railroad has concerns about liability resulting from having a public park or trail adjacent or near to its structure. Decorative fencing between the trail and the viaduct is one option that has been discussed to reduce incursions. Mr. Barnwell suggested that the walk be placed on the south and west side of the alignment away from the backyard of adjacent residences.

The Mayor stated his pleasure with the project and the preferred alternative, especially with the placement of the Toyota plant and the anticipated increase in freight rail traffic in the coming years. He also liked the multi-use path idea.

Jim and Claiborne mentioned that former MDOT staff member Wayne Parrish thought there was a federal rail reconstruction fund available that could be tapped for this project, but it would required congressional assistance to be secured.

The City engineer asked about the expected schedule. Claiborne’s response was that the environmental phase must be completed first, which is anticipated by the end of 2009, and that a funding source must then be indentified to move into design phase. Wendel Ruff added that funding for the entire project must be secured before project can begin even if it is intended to be phased work. Claiborne then mentioned that the railroads must commit to a fair share of the funding since they receive a significant benefit as users of the viaduct.

The purpose of this document is to serve as a record of meetings and Public Involvement held for the Tupelo Railroad Relocation EIS.

Action Items	None
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The purpose of this document is to serve as a record of meetings and Public Involvement held for the Tupelo Railroad Relocation EIS.

Public Involvement Record Sheet

Tupelo Railroad Relocation EIS



Date of Meeting	September 9, 2008
Location of Meeting	CDF Boardroom, Tupelo, MS
Meeting Style	Conference style meeting
Duration of meeting	About 1-1/2 hour
Parties involved	MDOT: Claiborne Barnwell, John Underwood, Bill Jamison HDR: Jim Lee, Chad Luedtke, Carnot Evans ABMB: Joce Pritchett, Eric Jefferson, Wendel Ruff (See attached sign-in sheet)
Exhibits Used	Powerpoint presentation handout, Roll Plot of the project concept design
Original Objective	Update the City, CDF, and Natchez Trace on the progress of the project and upcoming deadlines
Accomplishment	
Summary of Meeting	<p>Jim Lee provided a slideshow presentation on the history and development of the project, which is an attempt to address the traffic delay problems in Tupelo resulting from the BNSF and KCS at-grade crossings such as Crosstown. From the feasibility study performed by HDR and ABMB and the public meetings conducted to date, three build alternatives emerged for consideration:</p> <p>Alt. K – The “Coonewah Creek” Alternative Alt. L – The “Coley Road” Alternative Alt. M – The “In-town” elevated rail Alternative</p> <p>Alt. K was dismissed due to anticipated significant cultural and archeological impacts, as well as opposition from the National Park Service to a new crossing of the Natchez Trace Pkwy and BNSF objection that the route was too long.</p>

The purpose of this document is to serve as a record of meetings and Public Involvement held for the Tupelo Railroad Relocation EIS.

Alt. L received negative feedback from the Major Thoroughfare Committee which feared that it would jeopardize their negotiations with property owners along the new Coley Road Extension route who have agreed to transfer property for Right-of-Way to build the new roadway project.

Alt. M is considered the preferred option based on public comment and relatively fewer impacts on the human and natural environment and supported by the railroads.

Commenting on archeological impacts, John Underwood explained the history of settlements by the Chickasaw around the Coonewah, Town Creek, Kings Creek drainage basins. These areas have been known to be rich with artifacts and it is generally anticipated the alternatives would have negative impacts on cultural resources. However, Alternate M is considered to have the least impacts on cultural or archeological artifacts since it follows an existing route that has already been significantly disturbed.

Patricia Stallings then mentioned that the Mill Village and South Church Street area are historical districts which would receive significant visual impacts from Alternative M. Brockington intends to work w/MDOT to determine the impacts to these historical districts.

Representatives from the National Park Service were generally supportive of Alt. M because it did not include a new crossing of the Natchez Trace Parkway and commented on the importance of creating visual appealing structure.

Shane Holman reiterated his comments that he would prefer structure over walls. He also added there could be opportunities resulting from this project to redevelop the brownfield sections in industrial areas downtown that could benefit from an attractive structure.

John B asked if the temporary track could be reused as local trolley connection by the City. Claiborne replied that it could be considered but thought there may be liability issues with a trolley track located next to walking trail, in addition to the liability issues that need to be considered for the elevated railroad being adjacent to the multi-use path. Shane Holman suggested that the City should assume ownership of R/W to resolve liability issues, which would allow the City the flexibility to develop land below the structure for a multi-use path. He mentioned a "Rail banking" process/mechanism could be used

The purpose of this document is to serve as a record of meetings and Public Involvement held for the Tupelo Railroad Relocation EIS.

	<p>to transfer title of the R/W from railroad to the City.</p> <p>Claiborne stressed the need for a local “champion” to work with the necessary officials to secure financing for the project, as well as assisting in working out legal and liability issues and agreements.</p> <p>Chad Luedtke added that there needs to be an understanding w/ the railroads on who assumes liability and responsibility for maintenance of the viaduct to prevent vandalism that could damage or ruin the structure.</p> <p>Shane also asked if there an environmental impact associated with the trail. His concern is that if the trail is included as part of the recommended design without showing some environmental benefit, the railroad won’t approve or commit to including it as part of the final design. The design team added that the trail was included in the recommendations in response to public comments that suggested it would be beneficial to the City of Tupelo. Ultimately FRA will make the final determination as to whether a trail can be included.</p> <p>The City commented that several old-growth trees were either within or immediately adjacent to the existing R/W and asked how the loss of trees and the green canopy effect created by them was to be mitigated within the railroad R/W. The City suggested that a landscaped trail could mitigate the loss of trees resulting from the viaduct construction. The City is also interested in knowing who would maintain the trail and landscaping? Claiborne responded that the City would likely have to assume maintenance responsibilities since MDOT typically doesn’t include such local projects in its budget.</p> <p>Bill Jamison added that MDOT does not have funds for maintenance of the structure or associated landscaping.</p>
<p>Resolutions</p>	<p>Further discussion with the railroads revealed that the temporary tracks would be removed as part of the construction of the maintenance access road along the entire length of structure (fill or bridge), so the idea of keeping the temporary rail for the use of a trolley was dismissed. Even if the tracks were to remain, the railroads would not want an adjacent active track within 40 feet of elevated structure. The development of a trolley would require a separate environmental study and would not be included in this EIS.</p>

The purpose of this document is to serve as a record of meetings and Public Involvement held for the Tupelo Railroad Relocation EIS.

Action Items	<ul style="list-style-type: none">• Further coordination with BNSF, KCS, and FRA required regarding the multi-use trail. The City considers the exclusion of a trail a deal-breaker.• Brockington will work w/MDOT to determine the impacts to historical districts.• Maintenance and liability commitments regarding structure and landscaping need to be resolved.
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The purpose of this document is to serve as a record of meetings and Public Involvement held for the Tupelo Railroad Relocation EIS.

Public Involvement Record Sheet

Tupelo Railroad Relocation EIS



Date of Meeting	September 10, 2008
Location of Meeting	Hilton Garden Inn, Oak Room, Tupelo, MS
Meeting Style	Conference style meeting
Duration of meeting	About 2 hours
Parties involved	MDOT: Claiborne Barnwell, Robby Burt HDR: Jim Lee, Chad Luedke, Carnot Evans ABMB: Joce Pritchett, Eric Jefferson, Wendel Ruff (See attached sign-in sheet)
Exhibits Used	August 18 Draft Letters from HDR to BNSF and KCS regarding commitments to the RR by the EIS document, Roll Plot of the project concept design, 11x17 prints of the project
Original Objective	Discuss project issues with the railroad companies, get feedback on the concepts developed for the Alternative M alignment
Accomplishment	
Summary of Meeting	<p>Presentation of railroad improvements was made by Jim Lee in person and by Larry Romaine via conference call.</p> <p>The temporary (“shoo-fly”) track would be constructed on the south & west side of the existing tracks, including an at-grade crossing of the KCS.</p> <p>It was mentioned that the CDF wants more structure & less T-wall.</p> <p>BNSF stated that Evergreen wall was preferred to T-wall because Evergreen has fewer problems, but stated that this is a design preference which would be worked out in subsequent phases of this project.</p>

The purpose of this document is to serve as a record of meetings and Public Involvement held for the Tupelo Railroad Relocation EIS.

BNSF and HDR estimated a possible 1.5 – 2 year timeframe for temporary rail operation.

MDOT Doesn't want maintenance responsibility for bridge.

BNSF does not want the maintenance responsibility for the bridge or retaining wall as it does not have the expertise or experience in dealing with a structure of this magnitude.

BNSF wants to review a final typical section including structure, fence, bike trail, and maintenance road. BNSF also wants a detail included in the concept plans to show how trail & fencing would terminate at the intersecting local roads. BNSF trails policy (BNSF) recommends trail to be 50'-100' from track to edge of trail based on 30 mph train speed. Typically trail should be near the outer edge of R/W.

From the 9/9/08 meeting at the CDF, the question was asked if the temporary track could be left in place for future trolley operation:

HDR: The temporary track was to be removed as part of construction of the maintenance access road, so it was not planned to remain. Also, the trolley would require a separate study and should not be included in this EIS.

BNSF: Tim Huya added that any development by Tupelo within the BNSF R/W would restrict the railroad's ability to expand, which might make BNSF less willing to go along with the idea.

BNSF stated that it is typically the railroad policy to resist selling R/W, except as a last resort, and that it is typical for railroad to only grant easements and require liability insurance. With an easement, the BNSF still owns the R/W and can expand. If they sell the R/W, BNSF cannot expand without repurchase. The trail could be built on an easement, the trolley could not.

BNSF stated that the interchange track should be built by a contractor to save on construction cost.

MDOT suggested that most of the details on liability & property exchanges should be worked out after environmental process.

KCS wanted to confirm that the trail would not cross KCS. The trail was planned to run from Lumpkin Ave. to Spring St and not cross the KCS. KCS also stated that they would oppose any trolley crossing of their tracks.

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	<p>KCS requested that the interchange track connect to their main line and not to the yard track, as originally proposed. KCS would allow for a reduction of the length of the yard tracks to accommodate this intersection.</p> <p>KCS wants north leg of wye to be included in the interchange to allow KCS to continue share agreement to use BNSF tracks to New Albany. HDR is developing a redesign of the interchange yard to include this north wye on the elevated viaduct. The details are still being worked out.</p> <p>KCS also wanted to know about vertical clearance of the structure over the KCS line. KCS would want to elevate their line at the existing diamond location to remove the existing depression required to cross the BNSF at-grade.</p>
<p>Action Items</p>	<p>HDR to revise the response letter and concept drawings to BNSF to reduce the amount of items that may be considered commitments in the EIS document.</p> <p>HDR to write letter to KCS (John Jacobsen) in response to the interchange design comments.</p> <p>Further coordination required between BNSF, MDOT, and the City of Tupelo regarding commitments to maintenance of the structure and landscaping.</p>

The purpose of this document is to serve as a record of meetings and Public Involvement held for the Tupelo Railroad Relocation EIS.



HISTORIC PRESERVATION

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March 17, 2009

Mr. Claiborne Barnwell
 MDOT
 Environmental Division
 P.O. Box 1850
 Jackson, Mississippi 39125-1850

RE: Cultural Resources Investigations for the Tupelo Relocation Study, MDAH
 Project Log #02-074-09, Lee County

Dear Claiborne:

We have reviewed the January 2009 cultural resources survey report by Jessica Allgood and F. Patricia Stallings, Brockington and Associates, Inc., received on February 9, 2009, for the above referenced undertaking, pursuant to our responsibilities under Section 106 of the National Historic Preservation Act and 36 CFR Part 800. After review, we concur that construction Alternative 'L' has the potential to adversely affect three National Register-eligible sites (22LE 517, 22LE518 and 22LE922) and that more intensive surveys would likely identify additional NR-eligible archaeological resources. We also concur that in Alternative 'M,' site 22LE1030 is ineligible for listing in the National Register of Historic Places, and that it is unlikely that additional archaeological resources would be encountered during construction of Alternative 'M.'

For the assessment of architectural resources, we concur with Brockington's determinations of eligibility as outlined in Table 4.1 (P. 66) of the report, with the following exceptions. For each of these resources, it is our determination that the properties are eligible for listing in the NRHP, either individually or as contributing resources of a district, and that the proposed undertaking would have an Adverse Effect on each resource.

<u>Resource #</u>	<u>Address/Description</u>	<u>MDAH Determination</u>
081-TUP-0046	314 South Church Street	NRHP Eligible
081-TUP-0049	525 South Church Street	NRHP Eligible
081-TUP-0076	400 South Broadway (Oil & Ice Office)	NRHP Eligible
081-TUP-0079	105 Clark Place	NRHP Eligible
081-TUP-0163	557 Magazine Street	NRHP Eligible
081-TUP-0164	561 Magazine Street	NRHP Eligible
081-TUP-0200	331 Park Street	NRHP Eligible
	308 South Broadway	NRHP Eligible
	319 Church Street	NRHP Eligible
	623 Main Street	NRHP Eligible
	627 Main Street	NRHP Eligible
	123 South Gloster	NRHP Eligible

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218 North Gloster	NRHP Eligible
110 Robbins Street	NRHP Eligible
311 Green Street	NRHP Eligible

Joyner Neighborhood

1163 Woodlawn Street	NRHP Eligible
1162 Woodlawn Street	NRHP Eligible
1159 Woodlawn Street	NRHP Eligible
1153 Woodlawn Street	NRHP Eligible
1151 Woodlawn Street	NRHP Eligible
1149 Woodlawn Street	NRHP Eligible
621 Joyner Avenue	NRHP Eligible
624 Joyner Avenue	NRHP Eligible
City Pool	NRHP Eligible

Gravlee Neighborhood

808 Allen Street	NRHP Eligible
811 Allen Street	NRHP Eligible
901 Allen Street	NRHP Eligible
902-904 Allen Street	NRHP Eligible
903 Allen Street	NRHP Eligible
906-908 Allen Street	NRHP Eligible
923 Blair Street	NRHP Eligible
925 Blair Street	NRHP Eligible
928 Blair Street	NRHP Eligible
1006 Blair Street	NRHP Eligible
1011 Blair Street	NRHP Eligible
1020 Blair Street	NRHP Eligible
1039 Blair Street	NRHP Eligible
1043 Blair Street	NRHP Eligible
1122 Blair Street	NRHP Eligible
1109 Chapman Drive	NRHP Eligible
1111 Chapman Drive	NRHP Eligible
1113 Chapman Drive	NRHP Eligible
1114 Chapman Drive	NRHP Eligible
1115 Chapman Drive	NRHP Eligible
1117 Chapman Drive	NRHP Eligible
1119 Chapman Drive	NRHP Eligible
1125 Chapman Drive	NRHP Eligible
1127 Chapman Drive	NRHP Eligible

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1129 Chapman Drive	NRHP Eligible
1131 Chapman Drive	NRHP Eligible
410 Clayton Avenue	NRHP Eligible
1129 Jackson Street	NRHP Eligible
1133 Jackson	NRHP Eligible
1136 Jackson	NRHP Eligible
1142 Jackson	NRHP Eligible
1146 Jackson	NRHP Eligible
1148 Jackson	NRHP Eligible
1149 Jackson	NRHP Eligible
1153 Jackson	NRHP Eligible
1155 Jackson	NRHP Eligible
1157 Jackson	NRHP Eligible
1162 Jackson	NRHP Eligible
1001 Jefferson	NRHP Eligible
330 King Street	NRHP Eligible
331 King Street	NRHP Eligible
333-335 King Street	NRHP Eligible
337 King Street	NRHP Eligible
301 Park Street	NRHP Eligible
303 Park Street	NRHP Eligible
307 Park Street	NRHP Eligible
309 Park Street	NRHP Eligible
323 Rankin	NRHP Eligible
318 Riley Street	NRHP Eligible
321 Riley Street	NRHP Eligible
325 Riley Street	NRHP Eligible
502 Shirley Avenue	NRHP Eligible
503 Shirley Avenue	NRHP Eligible
504 Shirley Avenue	NRHP Eligible
508 Shirley Avenue	NRHP Eligible

For the following resources, we concur with the determinations of eligibility, but do not concur with the consultants' recommendation of effect. Specifically, for each of the properties listed below (on page 4), we do not concur with the finding of Potential Adverse Effect and/or No Adverse Effect. Rather, it is our determination that the proposed undertaking would have an Adverse Effect on each resource.

<u>Resource</u>	<u>Recommendation of Effect</u>	<u>MDAH Determination of Effect</u>
Mill Village HD	Potential Adverse	Adverse Effect
South Street HD	Potential Adverse	Adverse Effect
Carnation Condensary	Potential Adverse	Adverse Effect
317 South Church Street	Not Adverse	Adverse Effect
529 South Church Street	Potential Adverse	Adverse Effect
805 Jefferson Street	Not Adverse	Adverse Effect
812 Jefferson Street	Not Adverse	Adverse Effect
405 Magazine Street	Not Adverse	Adverse Effect
411 Magazine Street	Not Adverse	Adverse Effect
539 Magazine Street	Not Adverse	Adverse Effect
555 Magazine Street	Not Adverse	Adverse Effect
North Tupelo Neigh.	Not Adverse	Adverse Effect
543 Magazine Street	Not Adverse	Adverse Effect
631 Main Street	Not Adverse	Adverse Effect
634 Main Street	Not Adverse	Adverse Effect
637 Main Street	Not Adverse	Adverse Effect
640 Main Street	Not Adverse	Adverse Effect
641 Main Street	Not Adverse	Adverse Effect
646 Main Street	Not Adverse	Adverse Effect
116 North Gloster	Not Adverse	Adverse Effect
208 North Gloster	Not Adverse	Adverse Effect
305 North Gloster	Not Adverse	Adverse Effect
1164 Woodlawn Street	Not Adverse	Adverse Effect
1161 Woodlawn Street	Not Adverse	Adverse Effect
1157 Woodlawn Street	Not Adverse	Adverse Effect
902 Blair Street	Not Adverse	Adverse Effect
1002 Blair Street	Not Adverse	Adverse Effect
1010 Blair Street	Not Adverse	Adverse Effect
1121 Chapman Drive	Not Adverse	Adverse Effect
1123 Chapman Drive	Not Adverse	Adverse Effect
406 Clayton Avenue	Not Adverse	Adverse Effect
1137 Jackson Street	Not Adverse	Adverse Effect
1140 Jackson	Not Adverse	Adverse Effect
1142B Jackson	Not Adverse	Adverse Effect
1150A Jackson	Not Adverse	Adverse Effect
1151 Jackson	Not Adverse	Adverse Effect
1159-1161 Jackson	Potential Adverse	Adverse Effect
826 Jefferson	Potential Adverse	Adverse Effect
911 Jefferson	Potential Adverse	Adverse Effect


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913 Jefferson	Potential Adverse	Adverse Effect
915 Jefferson	Potential Adverse	Adverse Effect
1002 Jefferson	Potential Adverse	Adverse Effect
1005 Jefferson	Potential Adverse	Adverse Effect
1007 Jefferson	Not Adverse	Adverse Effect
1011 Jefferson	Not Adverse	Adverse Effect
1100 Jefferson	Not Adverse	Adverse Effect
1102 Jefferson	Not Adverse	Adverse Effect
312 Park Street	Not Adverse	Adverse Effect
322 Rankin	Potential Adverse	Adverse Effect
326 Rankin	Potential Adverse	Adverse Effect
501 Shirley Avenue	Not Adverse	Adverse Effect
505 Shirley Avenue	Not Adverse	Adverse Effect
510 Shirley Avenue	Not Adverse	Adverse Effect

In addition to these individual properties (all of which are likely contributing resources), it is our determination that the proposed undertaking would have an adverse effect on the Mill Village Historic District, the South Church Street Historic District (as well as an expanded area along Magazine Street), and two potential historic districts (Gravlee and Joyner).

Please provide a copy of this letter to Jessica Allgood and F. Patricia Stallings at Brockington and Associates, Inc. If you have any questions, please let us know.

Sincerely,


Jim Woodrick
Review and Compliance Officer

FOR: H.T. Holmes
State Historic Preservation Officer

c: Clearinghouse for Federal Programs

RECORD OF PUBLIC INVOLVEMENT



Cultural Resource Impacts Discussion

Community Development Foundation Boardroom

300 West Main St., Tupelo, MS

April 14, 2009 at 9 a.m. – 11:30 a.m.

Meeting Notes:

This meeting was held to explain the history of the project, discuss the alternatives considered, present the preferred option, discuss findings in the cultural resources investigation, propose mitigation for impacts to cultural and historic resources along the preferred alternative, and initiate the Section 106 consultation process. The following paragraphs summarize the major items discussed during this meeting.

Eighteen individuals attended the meeting. They represented: the Tupelo Historic Preservation Commission, the Mill Village Historic District, the Oren Dunn City Museum, the City of Tupelo, the Mississippi Department of Transportation (MDOT), the Mississippi Department of Archives and History (SHPO), the Tupelo Community Development Foundation (CDF), HDR, Brockington and Associates, and ABMB Engineers.

After opening remarks by Tupelo Mayor Ed Neelly and MDOT's Environmental Division Engineer, Claiborne Barnwell, Mr. Barnwell asked that each person in attendance introduce themselves. Introductions were made. A sign-up sheet is attached.

Mr. Jim Lee with HDR then explained the purpose of the meeting;

- To summarize the alternative analysis process,
- To review the recent cultural resource assessment,
- To discuss potential options for mitigating adverse effects on historic properties,
- To review 4(f) requirements.

Mr. Carnot Evans with HDR then presented a PowerPoint giving the project history, including the purpose and need for the project. He explained that the process began with a feasibility study. He discussed operational improvements and the development of numerous relocation alternatives. The PowerPoint showed how the location alternatives were analyzed and gradually eliminated as one by one they turned out to have fatal flaws. Finally, the study was left with two alternatives--the "no-build" alternative and a build alternative that would elevate the BNSF railroad through central Tupelo in its present location and within existing railroad Right-of-Way and incorporate operational improvements to relocate the BNSF/KCS interchange yard.

A representative of the Historic Preservation Commission asked where the railroad would be on bridge and where it would be on fill. Mr. Evans explained that railroad would be on fill with retaining walls as it transitioned from ground level to its full height

The purpose of this document is to serve as a record of meetings and Public Involvement held for the Tupelo Railroad Relocation EIS.

RECORD OF PUBLIC INVOLVEMENT



Cultural Resource Impacts Discussion

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April 14, 2009 at 9 a.m. – 11:30 a.m.

and between Crosstown and Church Street. In other areas it would be on structure. Approximately 30% of the elevated structure would be on fill.

John Underwood, MDOT's Chief Archeologist, and Patricia Stallings with Brockington and Associates began a discussion of the Section 106 process and how it fits into the process of conducting an environmental impact study. Mr. Underwood concentrated on archeological issues, and Ms. Stallings concentrated on architectural issues.

John Underwood discussed the purpose of the National Environmental Policies Act (NEPA) and the reasons for conducting an Environmental Impact Statement (EIS). His point was that EIS's are conducted when it is known or expected that a project will have significant environmental impacts. Thus, it comes as no surprise that the project adversely affects some National Register listed and eligible properties. He then discussed the National Historic Preservation Act and how it relates to Section 106. This was followed with a discussion of the archeological findings of the project's Cultural Resources Study. Mr. Underwood gave a good explanation of how the American Indian Tribes fit into the process and of the special concerns of the Chickasaw Nation whenever public works projects are undertaken in the Tupelo area.

Patricia Stallings then provided an overview of the results of the architectural investigations. She explained that her firm had surveyed every structure within a 1,000 foot wide swath centered on Alternative M. Within that area she found three properties listed on the National Register—the main house at the fish hatchery, the Mill Village Historic District, and the South Church Street Historic District. There was a discussion of the fact that the Tupelo Historic Preservation Commission considers the Mill Village Historic District to occupy both sides of the railroad while the National Register shows it as only being on one side. Ms. Stallings also showed photographs of Register eligible houses that had been in the historic districts when her original survey was undertaken, but had since been demolished.

John Underwood then described coordination efforts that are underway to resolve the adverse effects of the proposed project on historic properties. MDOT and the Federal Railroad Administration (FRA) have received the SHPO's comments on the effects of the proposed project on historic properties. The SHPO is actively working with MDOT and FRA to minimize and address those effects. MDOT and FRA began coordinating with the Native American Tribes in January, 2007, and that coordination is still underway. The tribes were sent a copy of the latest cultural resources survey in April 2009.

The purpose of this document is to serve as a record of meetings and Public Involvement held for the Tupelo Railroad Relocation EIS.

Cultural Resource Impacts Discussion

Community Development Foundation Boardroom

300 West Main St., Tupelo, MS

April 14, 2009 at 9 a.m. – 11:30 a.m.

Following the discussion of ongoing coordination, John Underwood (MDOT) presented a PowerPoint showing conceptual renderings of possible viewsheds in the historic areas after the elevated railroad is in service. The PowerPoint also included photographs of aesthetic treatments used on elevated railroads in other areas. This prompted considerable discussion:

- **Karen Keeney** with the Tupelo Historic Preservation Commission asked why the renderings did not include a railroad service road and fencing of the railroad's right of way. She believes fencing would make the proposed walking trail unusable.
Claiborne Barnwell, MDOT's Environmental Division Engineer, said he did not believe a separate service road would be needed since there would be dual tracks. It should not be necessary to fence the right of way of an elevated railroad. He believes the City and the railroad can negotiate these items to everyone's satisfaction. The final EIS can include firm commitments to such things as a viable walking trail and no right of way fencing. He also said that some members of the public favored a fence between their homes and a walking trail.
- **John Milstead**, Director of Planning with the CDF, said that while the project would have great economic benefits for Tupelo, he believes Tupelo does not wish to sacrifice its communities and culture. He noted that the renderings are not an architectural match for surrounding features like the buildings in Mill Village.
John Underwood replied that environmental studies are limited in their level of detail.
Claiborne Barnwell suggested a charette or design contest in Tupelo to find ways to blend the elevated railroad into its surroundings.
- **Karen Keeney** said that she believes Tupelo should not celebrate the industrial use of the railroad. She stated that an elevated railroad would completely divide the city into the "right side of the tracks" and the "wrong side of the tracks." The railroad would be the tallest structure in the city and would be visible from a great distance. She fears that commitments to aesthetic design made today would be cut for financial reasons later. She believes an elevated railroad would further cripple economic development in the city core.

The purpose of this document is to serve as a record of meetings and Public Involvement held for the Tupelo Railroad Relocation EIS.

Cultural Resource Impacts Discussion

Community Development Foundation Boardroom

300 West Main St., Tupelo, MS

April 14, 2009 at 9 a.m. – 11:30 a.m.

Claiborne Barnwell said that the Commitment Sheet, or Gold Sheet, that MDOT will have in the final EIS assures that guarantees to the public and to agencies will be met. The entire community should decide what aesthetic treatments will be used. The tracks already divide Tupelo and will continue to do so whether they are elevated or not. The number of trains is going to increase, and elevating the tracks will increase traffic safety.

- **Kenneth McGhee** with the Oren Dunn Museum and the Tupelo Historic Preservation Commission said that he fears the view of the railroad will discourage development and the redevelopment of blighted neighborhoods. Based on his observation of elevated trains in Chicago, elevated railroads are noisy and project pollution into the air.

Carnot Evans explained that concrete structures which include rail ballast would be much quieter than the open-deck steel structures in Chicago.

- **Karen Keeney** said that the Historic Commission wants what is best for Tupelo, not what is best for the Natchez Trace Parkway or for the railroad.

Jim Lee pointed out that 80% of the attendees at the project's previous public meetings preferred the elevated structure through the City.

Karen Keeney asked that MDOT and FRA consider upgrading all railroad crossings with crossing arms and construct the operational improvement instead of elevating the railroad. She pointed out that most trains only block local roads for two to three minutes. If upgrading the crossings did not alleviate the congestion and safety problems, additional improvements could be considered later.

Kenneth McGhee asked if, since double tracks are coming, wouldn't some of them be crossing at a given street simultaneously? Would that not reduce delays at crossings?

Jim Lee responded that the increases in train traffic through downtown would increase delays and avoiding those delays was the major purpose and need for undertaking the study.

Cecil Vick with ABMB then discussed 4(f). He gave a history of the regulation and explained how it works. Someone asked if the "no-build" alternative were not a feasible and prudent alternative. Mr. Vick said yes, but only if no other alternatives are viable. He explained that alternatives that do not meet a project's stated purpose and need are not considered feasible and prudent.

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RECORD OF PUBLIC INVOLVEMENT



Cultural Resource Impacts Discussion

Community Development Foundation Boardroom

300 West Main St., Tupelo, MS

April 14, 2009 at 9 a.m. – 11:30 a.m.

Mayor Neelly presented the City's view of the project. He thinks there is popular support for the project. As fuel becomes more expensive, the costs of delays to commerce and to the public will require consideration of the elevated alternative. Certainly the elevated railroad should be made aesthetically pleasing. The mayor felt that a walking/biking trail would be a great benefit to the City. The mayor knows that not everyone is going to be happy with the proposed solution, but thinks we should proceed with the project, because it is the best solution we have. He said that everyone needs to also consider emergency response times due to delays from the at-grade crossings.

Mr. Underwood then discussed the role of the Memorandum of Agreement (MOA) in the Section 106 process. He explained that it is an agreement between the consulting parties on actions to be taken to avoid, minimize, and mitigate adverse effects on historic properties. As a minimum MDOT, FRA, and the SHPO must agree. The Advisory Council on Historic Preservation can be a party to the MOA if it wishes. John Underwood and Patricia Stallings will be leading the consulting parties through the 106 process. Mr. Underwood thinks visual impacts should be the primary focus. It was noted that of the 2.8 miles of elevated railroad, approximately one mile will be constructed on fill.

Karen Keeney reiterated that the historic districts do not think an elevated railroad is a good solution. They prefer operational improvements and upgrading the crossings with protection devices such as crossing arms. She felt that \$500 million is just too large an expenditure for convenience of travel. She suggested implementing the operational improvements, seeing how well they work, and then considering whether the elevated railroad is really needed. Mr. Barnwell told everyone that the comments received today will be incorporated into the Draft EIS document, which will be made available to the public and interested agencies for review and comment. A public hearing will be held, and decisions will be made based on the outcome of the process.

In response to a question from Ms. Stallings, Jim Woodrick, the SHPO, said that he doesn't believe adding crossing gates and lights would adversely affect historic properties. Mr. Woodrick went on to explain that aesthetic treatments for the proposed structures are not the only potential ways to mitigate adverse effects on the historic properties. Alternative mitigations would include such things as grant programs for rehabilitating endangered historic buildings and funding archeological studies.

The Draft EIS will disclose many of the findings of the study to the public, but to protect individual properties and archeological resources from potential vandalism and theft,

The purpose of this document is to serve as a record of meetings and Public Involvement held for the Tupelo Railroad Relocation EIS.

RECORD OF PUBLIC INVOLVEMENT



Cultural Resource Impacts Discussion

Community Development Foundation Boardroom

300 West Main St., Tupelo, MS

April 14, 2009 at 9 a.m. – 11:30 a.m.

detailed information regarding the locations and conditions of architectural and archeological resources may not be included as part of the EIS document.

Mr. Barnwell felt that today was a helpful exchange of ideas and reiterated that comments received today will be incorporated into Draft EIS document. He said that that efforts will continue to be made to work with the community and with parties interested in the protection of historic structures as part of the development of the elevated rail alternative concept.

Mr. Barnwell and Mr. Lee thanked everyone attending for their participation, and the meeting adjourned at approximately 11:30 a.m.

The purpose of this document is to serve as a record of meetings and Public Involvement held for the Tupelo Railroad Relocation EIS.

RECEIVED

JUL 06 2009

HDR



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
MOBILE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, AL 36628-0001

June 29, 2009

Inland Branch
Regulatory Division

SUBJECT: SAM-2009-00868-CHE; Tupelo Rail Link

Mr. Jim Lee
Sr. Vice President
National Business Class Director – Transportation Planning
HDR Engineering, Inc.
315 East Robinson Street, Suite 400
Orlando, Florida 32801-1949

Ladies and Gentlemen:

We have reviewed the Draft Environmental Impact Statement for the Tupelo, Mississippi Rail Line Relocation Project, and are providing the following comments:

1. If the "build alternative" is selected, a Department of the Army Permit may be required, based on a review of the national wetland inventory maps, and soil data available for the area.

Please contact me at (205) 290-9096 or Casey.H.Ehorn@usace.army.mil if you have questions. For additional information about our Regulatory Program, visit our web site at www.sam.usace.army.mil/RD/reg, and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services

Sincerely,

A handwritten signature in black ink that reads "Casey Ehorn".

Casey Ehorn
Project Manager
Birmingham Field Office
Regulatory Division

cc:

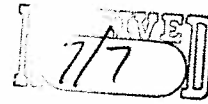
U.S. Department of Transportation
Mr. John Winkle
Transportation Industry Analyst
Federal Railroad Administration
1200 New Jersey Avenue Southeast
Washington, DC 20590

E. Claiborne Barnwell, P.E.
Environmental Division Engineer
Mississippi Department of Transportation
Post Office Box 1850
Jackson, Mississippi 39215-1850



the
Chickasaw
Nation HEADQUARTERS

Arlington at Mississippi / Box 1548 / Ada, OK 74821-1548 / (580) 436-2603



Bill Anoatubby
Governor

Jefferson Keel
Lieutenant
Governor

June 30, 2009

Mr. Mark E. Yachmetz
Associate Administrator for
Railroad Development
Federal Railroad Administration
1200 New Jersey Ave., SE
Washington, D.C. 20590

Dear Mr. Yachmetz:

In your letter dated April 3, 2009 you indicate the Federal Railroad Administration (FRA) and the Mississippi Department of Transportation (MDOT) have narrowed the list for the relocation or reconstruction of railroad lines in the Tupelo, Mississippi central business district to two potential alternatives. Further, you state the environmental impact statement (EIS) revealed that one of those two alternatives may adversely affect three archaeological sites considered eligible for inclusion in the National Register of Historic Places.

We request copies be provided, as soon as possible, for our review as we have not previously been invited to consult nor have we been provided a copy of the EIS or cultural resources survey. Through consultation, commencing at the early stages of project planning, federal agencies are able to develop plans for the treatment of burial sites, human remains and funerary objects that may be inadvertently discovered. Avoidance of historic or prehistoric Chickasaw sites, whether or not they are eligible for listing in the national register, remains our preference for mitigation.

As you are aware, Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to seek agreement with consulting parties on measures to avoid, minimize, or mitigate adverse effects to historic properties. In many cases federal agencies will be bound by other applicable federal, tribal, state, or local laws that do prescribe a specific outcome, such as the Native American Graves Protection and Repatriation Act (NAGPRA). For undertakings on federal and tribal land that encounter American Indian human remains and funerary objects, NAGPRA applies. NHPA and NAGPRA are separate and distinct laws with individual implementing regulations. You should also be aware; State of Mississippi Antiquities Law preserves and protects sites, objects, buildings, shipwrecks and locations of historic, archaeological and architectural significance including historic and prehistoric American Indian or aboriginal campsites, dwellings and habitation sites.

Within the proposed area of potential effect (APE) you indicate "Alternative L" may adversely affect three archaeological sites considered eligible for inclusion in the National Register of Historic Places. Although the Chickasaw Nation does not attach religious or cultural significance to

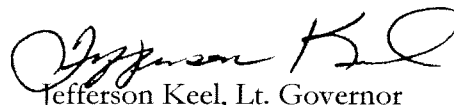


God Bless America!

these sites, we know the APE is in a location that contains properties of traditional religious and cultural importance to us that may be determined eligible for inclusion in the National Register of Historic Places. Consequently, the Chickasaw Nation desires to enter into consultation with FRA for this undertaking. If it is more convenient and expedient, we offer to host the consultation with the federal agency official at the Chickasaw Nation.

If you have any questions, please contact Ms. Gingy Nail, historic preservation officer at (580) 559-0817 gingy.nail@chickasaw.net or Ms. Julie Ray, historic preservation and repatriation manager at (580) 559-0825 julie.ray@chickasaw.net.

Sincerely,


Jefferson Keel, Lt. Governor
The Chickasaw Nation



Choctaw Nation of Oklahoma

P.O. Box 1210 • Durant, OK 74702-1210 • (580) 924-8280

Gregory E. Pyle
Chief

Gary Batton
Assistant Chief

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JUL 01 2011

HDR

June 28, 2011

Mr. Jim Lee
Sr. Vice President
National Business Class Director-Transportation Planning
HDR Engineering, Inc.
315 E. Robinson Street, Suite 400
Orlando, FL 32801-1949

Dear Jim Lee:


We have reviewed the following proposed project (s) as to its effect regarding religious and/or cultural significance to historic properties that may be affected by an undertaking of the projects area of potential effect.

**RE: *Draft Environmental Impact Statement
Tupelo Railroad Relocation Planning & Environmental Study***

Comments: After further review of the above mentioned project (s), and based on the information provided we *defer to the Chickasaw Nation*. However, should construction expose buried archaeological or building materials such as chipped stone, tools, pottery, bone, historic crockery, glass or metal items, or should it uncover evidence of buried historic building materials such as rock foundations, brick, or hand poured concrete, this office should be contacted immediately @ 1-800-522-6170 ext. 2137.

Sincerely,

Terry D. Cole
Tribal Historic Preservation Officer
Choctaw Nation of Oklahoma

By: 
Caren A. Johnson
Administrative Assistant

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JUL 05 2011



TOWN CREEK MASTER WATER MANAGEMENT DISTRICT OF LEE, PONTOTOC, PRENTISS AND UNION COUNTIES

BOARD OF COMMISSIONERS:

KENNETH OSWALT, CHAIRMAN
JOHN MORGAN
JIMMY BUCY
JAMES ROBINSON
MICHAEL PANNELL

DAVID R. SPARKS, JD
DISTRICT COUNSEL
POST OFFICE BOX 716
206 N. SPRING ST., SUITE 2
TUPELO, MS 38802
TELEPHONE: 662/842-0261
FACSIMILE: 662/841-7595

June 29, 2011

James W. Lee, P.E.
HDR Engineering, Inc.
315 E. Robinson Street
Suite 400
Orlando, FL 32801-1949

RE: Draft Environmental Impact Statement
Tupelo Railroad Relocation Planning & Environmental Study

Dear James:

Thank you for providing us with a copy of the Draft Environmental Impact Statement. I noted in reviewing it there was a reference to easements held by this District over and along certain channels. As you know this District covers parts of four counties and its primary function has been the construction and maintenance flood water retarding structures. Your report listed twenty-one and we actually have twenty-six such structures.

You Statement also referred to the width of our easements and stated a maximum width of 250 feet. Some of our channel easements extend as much as 500 feet. Our channel easements are from the centerline of the channel in both directions; for example a 500 foot easement would be 250 feet either way from the centerline of the channel. It is possible that in the areas about which you are concerned it may be no more than 250 feet but I am not certain that is correct.

This District will certainly be willing to provide you with any information that you may need. Our interest is in making sure that your information is accurate and that our easements are protected. Please advise us if you require any additional information or documentation.

DAVID R. SPARKS, J.D.
DISTRICT COUNSEL

DRS/clw



PO Box 571, Jackson, MS 39205-0571
601-576-6850 • Fax 601-576-6975
mdah.state.ms.us
H.T. Holmes, Director

July 13, 2011

Mr. Jim Lee
Sr. Vice President
National Business Class Director, Transportation Planning
HDR Engineering, Inc.
315 E. Robinson Street, Suite 400
Orlando, FL 32801-1949

RE: Draft Environmental Impact Statement for the Tupelo Railroad Relocation,
MDAH Project Log #06-149-11, Lee County

Dear Mr. Lee:

We received the draft Environmental Impact Statement (EIS) for the above referenced project on June 21 2001. We appreciate the opportunity to comment. After reviewing the information provided, in accordance with our responsibilities under Section 106 of the National Historic Preservation Act and 36 CFR Part 800, we reiterate our comments from our letter of March 17, 2009 regarding the Adverse Effect the project will have on the Mill Village and South Street Historic Districts, two potential historic districts and at least 50 structures that are contributing historic resources. As such, we recommend the No Build alternative. However, if this alternative is not possible, we will be happy to consult with all appropriate parties to minimize the negative impacts of the project or to develop a Memorandum of Understanding to mitigate the adverse effect to cultural resources.

We look forward to receiving additional information in the future and will provide appropriate comments at that time. If we can be of further assistance, please do not hesitate to contact us at (601) 576-6940.

Sincerely,

A handwritten signature in black ink, appearing to read "Greg Williamson".

Greg Williamson
Review and Compliance Officer

FOR: H.T. Holmes
State Historic Preservation Officer

C: Ms. Kim Thurman, MDOT
Mr. John Winkle, Federal Railroad Administration



United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
Richard B. Russell Federal Building
75 Spring Street, S.W.
Atlanta, Georgia 30303

ER- 11/552
9043.1

March 9, 2012

Mr. John A. Winkle
Federal Railroad Administration
1200 New Jersey Avenue, SE
Room W38-311
Washington, DC 20590

Re: Comments and Recommendations on the Draft Environmental Impact Statement (DEIS) for
Tupelo Railroad Relocation Planning and Environmental Study to Improve Mobility and
Safety by Reducing Roadway Congestion in the City of Tupelo, Mississippi

Dear Mr. Winkle:

The Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement (DEIS) for the Tupelo Railroad Relocation Planning and Environmental Study to improve mobility and safety by reducing roadway congestion. The Department offers the following comments and recommendations for your consideration.

We welcome this opportunity to cooperate with the Federal Railroad Administration (FRA) and the Mississippi Department of Transportation (MDOT) in evaluating the proposed rail line improvements.

Specific Comments

General: The List of References cited in the text of the DEIS is missing.

Sections 3.12 and 4.11

These sections contain many factual statements on surface and groundwater but do not provide references to support the statements. For example, (pg. 3-37) the document states that "The Tennessee-Tombigbee Waterway has effectively lowered the thalweg elevation of all water bodies flowing into it. Upstream channels are adjusting to this lower elevation and are incising to meet the

new downstream gradient. Due to this natural channel process, streams are receiving large sediment loads." Suggest the Final Environmental Impact Statement (FEIS) include a reference for this statement, and a discussion of the available sediment data and an assessment of how in channel construction activities may add to the already large sediment loads. In addition, section 4.11 would benefit from a discussion of mitigation to prevent further increases in the downstream sediment loads during construction.

Sections 3.12.5 and 4.11.5

These sections refer to U.S. Geological Survey (USGS) groundwater measurements, but no source reference is provided. For example, (pg. 3-40) the document states that the groundwater elevation is over 230 feet below land surface in the affected area. We suggest the FEIS include references for the USGS groundwater data.

Summary Comments

We appreciate the opportunity to provide these comments. The Department has a continuing interest in working with the FRA and the MDOT to ensure that impacts to resources of concern to the Department are adequately addressed. If you have any questions concerning these comments, please contact Gary LeCain on (303) 236-1475 or via email at gdlecain@usgs.gov. I can be reached on (404) 331-4524 or via email at joyce_stanley@ios.doi.gov.

Sincerely,



Joyce Stanley, MPA
Regional Environmental Protection Assistant

for

Gregory Hogue
Regional Environmental Officer

cc: Jerry Ziewitz - FWS
Brenda Johnson - USGS
David Vela – NPS
OEPC – WASH



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AUG 15 2011
H.D.B.

**MISSISSIPPI
DEPARTMENT OF WILDLIFE, FISHERIES, AND PARKS**

Sam Polles, Ph.D.
Executive Director

August 12, 2011

Jim Lee, HDR Engineering, Inc.
315 East Robinson Street
Suite 400
Orlando, FL 32801

John Winkle, Federal Railroad Administration
1200 New Jersey Avenue, SE
Room W38-11
Washington, D.C. 20590

Kim Thurman, Mississippi Department of Transportation
401 North West Street
Jackson, MS 39201

**Re: Draft Environmental Impact Statement
Tupelo Railroad Relocation Planning & Environmental Study R# 8412
Tupelo, Lee County, Mississippi**

To Whom It May Concern:

In response to your request for information dated June 17, 2011, we have searched our database for occurrences of state or federally listed species and species of special concern that occur within 2 miles of the site of the proposed project. Please find our concerns and recommendations below.

We do not currently have any records of rare, threatened, or endangered species or communities in the vicinity of your proposed project route of Alternative M. However, the quantity and quality of data collected by the Mississippi Natural Heritage Program are dependent on the research and observations of many individuals and organizations and, in many cases, this information is not the result of comprehensive or site-specific field surveys. In fact, most natural areas in Mississippi have not been thoroughly surveyed and new occurrences of plant and animal species are often discovered.

Based on information provided, and if Alternative M is the chosen route, we conclude that the proposed project likely poses no threat to listed species or their habitats.

Recommendations:

We agree that Alternative M would likely cause the least environmental impacts. In order to minimize the potential for impacts to rare and endangered species downstream from the proposed project, we recommend that best management practices be properly implemented, monitored, and maintained for compliance, specifically measures that will prevent suspended silt and contaminants from leaving the site in stormwater run-off as this may negatively affect water quality and habitat conditions within nearby streams and waterbodies.

In addition, portions of this project site are underlain by hydric soils and are designated wetlands and/or other waters of the U.S. If this project is approved, we ask that serious consideration be given to the cumulative impacts of wetland/stream disturbance and elimination, and that appropriate in-kind mitigation be provided.

Please feel free to contact us if we can provide any additional information, resources, or assistance that will help minimize negative impacts to this area. We are happy to work with you to ensure that our state's precious natural heritage is conserved and preserved for future Mississippians.

Sincerely,



Larry Castle
Director of Technical Programs

LC:ss

RECEIVED

AUG 15 2011

H.R.R.



Tennessee Valley Authority
1101 Market Street
Chattanooga, Tennessee 37402

Brenda Brickhouse
Vice President
Environmental Permits & Compliance

August 10, 2011

Mr. Jim Lee
Senior Vice President
National Business Class Director
Transportation Planning
HDR Engineering, Incorporated
315 East Robinson Street, Suite 400
Orlando, Florida 32801-1949

Dear Mr. Lee:

**DRAFT ENVIRONMENTAL IMPACT STATEMENT TUPELO RAILROAD RELOCATION
PLANNING AND ENVIRONMENTAL STUDY**

The Tennessee Valley Authority has reviewed this Draft Environmental Impact Statement. The following are our comments on this document.

- The Build Alternative would likely require modifications (vertical relocations) to three TVA transmission lines. We anticipate learning more about these line modifications if and when the Build Alternative is selected for implementation.
- The Build Alternative would affect the setting of the historic TVA-Tupelo sign at the intersection of Gloster Street and Main Street. Although we have no control over this sign, we hope that the impacts to the sign would be mitigated in a manner that would preserve its historic interest.
- The analysis of potential disproportionate impacts to minority and low income populations conducted under Executive Order 12898 on environmental justice is based on a 20 percent difference threshold in population percentages. The basis for this threshold should be explained.
- Table 4-14 - Summary of Direct and Indirect Impacts and the associated text discussions state that there will be no effect on farmlands. The table and text discussions should be revised to note that there will be no effect on prime farmland as defined by the Farmland Protection Policy Act. As stated in the Land Use sections and illustrated in various figures, land that is currently in agricultural production and thus considered farmland, although not prime farmland, would be affected by the Build Alternative.

Mr. Jim Lee
Page 2
August 10, 2011

Thank you for the opportunity to review this Draft Environmental Impact Statement. If you have questions about our comments, please contact Charles P. Nicholson in Knoxville, Tennessee, at (865) 632-3582, or cpnicholson@tva.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Brenda E. Brickhouse", with a long horizontal flourish extending to the right.

Brenda E. Brickhouse

cc: Ms. Kim Thurman, P.E.
Environmental Division Manager
Mississippi Department of Transportation
401 North West Street
Jackson, Mississippi 39201

Mr. John Winkle
Federal Railroad Administration
1200 New Jersey Avenue Southeast
Room W38-311
Washington, DC 20590



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
SAM NUNN
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA GEORGIA 30303-8960

September 12, 2011

U.S. Department of Transportation
Federal Railroad Administration
1120 Vermont Ave., N.W. (7th Floor)
Washington, DC 20005
Attn: Mr. John Winkle

Subject: EPA Comments on the Draft Environmental Impact Statement (DEIS)
for the Tupelo Railroad Relocation Project
CEQ No. 20110236; ERP No. FRA-E40838-MS
City of Tupelo, MS, Lee County

Dear Mr. Winkle:

The U.S. Environmental Protection Agency (EPA), Region 4, participated in an interagency scoping meeting on August 14, 2006 and agreed to act as a cooperating agency on August 25, 2006 and provided scoping comments on August 29, 2006. Consistent with our responsibilities under Section 309 of the Clean Air Act and Section 102(2)(c) of the National Environmental Policy Act (NEPA), EPA Region 4 has evaluated the consequences of the Mississippi Department of Transportation's (MDOT) and the Federal Railroad Administration's (FRA) proposed relocation of the existing Burlington Northern Santa Fe Railway Company (BNSF) main rail line through the City of Tupelo, Mississippi.

The purpose of the project is to evaluate options to improve mobility and safety by reducing roadway congestion resulting from train traffic moving through the City of Tupelo, especially at the intersection of Main and Gloster Streets (locally referred to as Crosstown). Initially a No-Build and several Build Alternatives were considered. The Build Alternatives included rail operational improvements, in-town grade separations of the railroad and highways and alternative corridors. However, through the scoping and alternatives analysis process all of the Build alternatives were eliminated except for a proposed elevated rail viaduct with the relocated interchange yard (Alternate M).

The preferred Build Alternative (Alternate M) is approximately 25 miles long with approximately 2.9 miles of new elevated track construction and an additional 0.9 miles of new track for the rail interchange. The main line railroad improvements are primarily located within the existing BNSF right-of-way. Nevertheless, the DEIS indicates that the proposed project may impact up to 350 linear feet of streams (4 stream crossings), three 303(d) listed streams, 10 acres within the 100-year floodplain, 76 noise sensitive sites (severe impacts), 46 vibration receptors/sites, 37 visual impacts to historic sites or districts and 1 business relocation. However, this alternative would avoid any new crossings of the Natchez Trace Parkway.

Based on our review of the DEIS, EPA's environmental concerns are related to noise and vibration, water resources and the visual impacts to historic resources associated with the proposed rail relocation project.

Noise and Vibration - According to the DEIS, the noise and vibration impacts anticipated with the construction of Build Alternative are associated with the pile driving near existing structures. The implementation of the Build Alternative will result in severe noise impacts to 76 receptors while 46 receptors will be affected by vibration. With the proposed Build Alternative, the number of noise receptors along the project corridor that experience severe noise will actually decrease from the No-Build's 128 receptors to 76. The DEIS states that, "the elevated rail viaduct and rail interchange yard would decrease the noise impacts from train horns through Tupelo and create a quiet zone "through downtown Tupelo." It also notes that further noise reductions are possible by reducing the train's proposed operating speed. However, reducing the train's proposed operating speed was not deemed to be a viable mitigation strategy because it was inconsistent with the project's goal and purpose and need.

While the number of severe noise sites decrease with the preferred alternative, EPA notes that the number of residential receptors affected by the vibration from the railroad tracks will actually increase from 26 to 46 due to the proposed increase in train speed. Again, the DEIS indicates that the mitigation measures examined would only minimally reduce the vibration impacts and would not be cost-effective. The DEIS also notes that the anticipated increase in vibration is "well below the damage threshold."

EPA Recommendation: EPA appreciates the efforts made to reduce the number of noise impacted sites in the project area. The FEIS should discuss additional noise abatement measures to further reduce the number of noise sensitive impact sites (i.e., construction of noise barriers, installation of soundproof windows, brake technologies, and rail and wheel absorbers, etc) and their feasibility. In addition, measures to reduce the pile driving noise during construction should also be discussed. These measures may include hiring a qualified acoustical engineer consultant to develop noise mitigation strategies, installing sound absorbing blankets, restricting work times in residential areas from 7:00 a.m. – 7:00 p.m. and installing noise and vibration monitors.

Water Resources – According to the DEIS, the Build Alternative will only perpendicularly cross three regulatory floodways, two of which are already crossed by the existing BNSF main rail line. One wetland area near the Natchez Trace Parkway crossing will also be impacted by this alternative. This impact is described as "temporary" because it would be impacted by a temporary rail line while the permanent rail line was being constructed. In addition to the floodway crossings and the wetland fills, the DEIS indicates that approximately 350 linear feet of streams will be impacted by the Build Alternative. Extended bridge crossings are proposed to minimize impacts to streams and to accommodate a future second track.

The DEIS indicates that stream organisms are expected to be displaced during the construction of the bridge. However, the DEIS caveats the statement by suggesting that the aquatic organisms are expected to return once the construction activities cease. EPA has some concerns about the

fact that aquatic organisms will be displaced (even “short-term”) in a reach of a 303(d) listed stream that is biologically impaired.

In the project area, there are three major streams (Town Creek, Mud Creek, and Kings Creek) that are impaired due to their relative inability to satisfy their designated use for aquatic life. The proposed Build Alternative would lie within the existing railroad right-of-way, and would have much less impact to the surrounding streams compared to some of the previously examined alternatives. The impacts would be limited to bridge widening and a new crossing of Kings Creek for the BNSF-Kansas City Southern interchange.

EPA Recommendations: EPA notes the efforts made to select a Build Alternative that minimizes the impacts to wetlands, floodplains and streams. We also note that wetlands that are filled for a “temporary” rail line, are still impacted and any impact to wetlands needs a baseline assessment and needs to be compensated, albeit onsite, according to the documentation required by the 2008 Mitigation Rule. In addition, EPA notes that the proposed bridge crossings may provide some opportunity to allow more space for the stream to flood and the floodway to be unencumbered. It may be an appropriate consideration to construct the bridges to allow enough area for a natural stream design floodprone area. Eventually, channel downcutting and bank instability may need to be addressed; so planning for that need by bridging at an appropriate width is appropriate. EPA also recommends that MDOT and FRA consult with MDEQ on best management practice measures to ensure that the construction of the rail line does not result in any further degradation to impaired waterbodies within the project area.

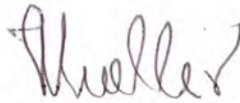
Historic Resources - The proposed railroad relocation and elevated design will visually impact Historic Sites and Districts. According to the DEIS, there are four historic districts and 34 architectural resources that are National Registry of Historic Places (NRHP)-listed or NRHP-eligible properties or historic districts within the Area of Potential Effect that could experience adverse visual impacts. MDOT and FRA are consulting with the State Historic Preservation Office (SHPO) and the Mississippi Department of Archives and History (MDAH). In addition to the state agencies listed above, the lead agencies are also coordinating with the Chickasaw Nation and the City of Tupelo on a Memorandum of Agreement (MOA) to address these visual effects during the final design and construction phases of the project. According to FRA and MDOT, the visual effects of the Build Alternative will not affect the “functions or qualities of the affected historic resources which made those resources eligible for the NRHP.

Recommendation: EPA supports MDOTs and FRA’s coordination efforts and recommends that the final MOA be included in the FEIS along with other documented coordination, consultation or concurrence activities. We appreciate the inclusion of both the visual renderings of the elevated rails lines and retaining walls at specific locations along the corridor and the listing of potential resources, sources of the visual impact and preliminary mitigation strategies for addressing those impacts closest to the proposed Build Alternative. EPA requests that a final copy or summary of the finalized MOU be included in the FEIS that describes the specific strategies that will be used to mitigate (i.e., aesthetic design, etc) for the adverse visual impacts.

Based on our review of the DEIS, EPA assigned a rating of EC-2 (Environmental Concerns - with more information requested) to the document. Specifically, more information is requested regarding additional noise reduction strategies, water resources and historic resources. Enclosed is a summary of definitions of EPA ratings.

We appreciate the opportunity to provide these comments and look forward to reviewing the FEIS for the proposed project. If you have any further questions or concerns, you may contact Ntale Kajumba at (404) 562-9620 or kajumba.ntale@epa.gov and William Ainslie of the Wetlands Regulatory Branch at (404) 562-9400 or ainslie.william@epa.gov.

Sincerely,



Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

Enclosure: EPA Rating Definition

APPENDIX B – Public Comments



Public Meeting
COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Beth Graham Telephone 662-840-0059

Address 1959 Valley Rd

City Tupelo State Ms Zip 38801

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

Yes No
If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: overpass at Crosstown
cost and less disruption of homeowners & businesses
along other routes

Issues and/or concerns about the project: COST

Recommendations for the project: _____

PLEASE SUBMIT AT THE MEETING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC MEETING

Visit us on the web at www.goMDOT.com, or e-mail environmental_comments@mdot.state.ms.us



Public Meeting
COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name JACK + SANDRA DILLARD Telephone 662-844-1846

Address 981 Mt Vernon Rd

City Tupelo State Ms Zip 38804

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

Yes No
If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: Leave railroad where
it has been for past 100 years - Tupelo has built
around it.

Issues and/or concerns about the project: going through good farm

land - too close to several new subdivisions -
will lower value of land around it -

Recommendations for the project: make overpass at Crosstown

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Public Meeting
COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name George Adams Telephone 662-
Address 520 Jackson St
City Tupelo State MS Zip 38804

How did you hear about this meeting?

- Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

- Yes No
If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why:

I would rather ^{shearman} the rails run south because you're moving straight thru a pristine area.

Issues and/or concerns about the project:

There's a spring under that land (aquifer) that is a national treasure. The oil will ruin the water.

Recommendations for the project:

Decide and move to the south west.

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COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name PHILIP GRAMM Telephone 662-840-0059
Address 1959 Valley Road
City Tupelo State MS Zip 38801

How did you hear about this meeting?

- Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

- Yes No
If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why:

OVER PASS @ CROSS TOWN - COST

Issues and/or concerns about the project:

Cost

Recommendations for the project:

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Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name CARLYLE S. HARRIS Telephone 844 8796

Address 1314 PINECREST DR.

City TUPELO State MS Zip 38804

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

Yes No
If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: I recommend C, E, or F. All of these cross the KCS line. Enough right of way should be purchased for C, E or F to accommodate moving KCS on the same ROW in the future. Should it ever be desirable (50 or more years) to move KCS out of Tupelo this would

Issues and/or concerns about the project: provide room to do so. if done, KCS could then join its existing ROW some where between Verona and Shannon (a short distance). This latter movement of KCS would make its existing ROW in Tupelo

Recommendations for the project: available to extend Front Street south from Main St. (following the old FCS ROW) to intersect Carson Blvd. -- a much needed north-south artery.

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PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Joan Blackwell Telephone 942-7223

Address 635 Magnolia Drive,

City Tupelo State MS Zip 38804

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

Yes No
If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: Alternative B. It gets the railroad as far away as possible.

Issues and/or concerns about the project: Environmental + cost. It may cost more initially, but I believe that it will save money in the long run. We need a long term solution.

Recommendations for the project: _____

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PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Ernie Joyner Telephone 662-842-5058

Address 2317 Pare Monceau

City Tupelo State MS Zip 38804

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

Yes No
If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: Western Alternative B

Seems to interfere less with developed areas

Issues and/or concerns about the project: Cost

Recommendations for the project: _____

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PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Andy Parker Telephone 841-2530

Address 1225A Rd 811

City Satullo State MS Zip 38806

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

Yes No
If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: Alternative C+D

Issues and/or concerns about the project: _____

Recommendations for the project: Construct a public Train Viewing Location Somewhere. You might be suprised at Response

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PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Tammy Allred Telephone 842-6376

Address 104 CR 1760

City Tupelo State MS Zip 38804

mailing P O Box 354 Belden MS 38826-0354

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

Yes No
 If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why:

any route but not Sherman

Issues and/or concerns about the project: I lived by a railroad off Colonial Estates for 9 years. I moved out here to get away from the trains. We don't want the train to be placed out here near Sherman, there should be another good path for the train, it would not help our subdivisions at all.

Recommendations for the project: You definitely need to find another route for the trains. I don't want to be any closer to a train, than I am right now. I have great concerns about the speeds of the trains and my personal items in my house that shake and rattle when the train comes speeding by our old house. Move the train else where.

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PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Margaret M. Gratz Telephone 662-844-5649

Address 3675 Old Town Circle

City Tupelo State MS Zip 38804

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

Yes No
 If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why:

The land these alternative routes would traverse is beautiful farmland and would defile the beauty of the scenic Natchez Trace Parkway and would contribute to urban sprawl.

Issues and/or concerns about the project: This is a very costly project, and one that I deem is unnecessary. To spend millions and millions of the taxpayers' money just so a few are not inconvenienced is foolish. We are currently involved in a costly war that is going to be prolonged, and the Southern half of Mississippi is still trying to rebuild after one of the most devastating natural disasters to ever hit our country. How can we afford such an exorbitant project at this time in our history?

Recommendations for the project: With rising gas prices, which is inevitable, the cities with a public transit system will be the only ones to survive.

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PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Rita Vinson Telephone (662) 842-6985

Address 401 Road 183

City Tupelo State MS Zip 38801

How did you hear about this meeting?

- Newspaper
- Website
- Other _____
- Radio
- Flyer

Are the time and location satisfactory?

- Yes
 - No
- If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: I think the street of
Western should be routed over the
railroad especially at Crossman

Issues and/or concerns about the project: The railroad would
kill our community land value if it
is routed through here.

Recommendations for the project: _____

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PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Wayne S. Rutherford Telephone 662-844-1734

Address 123 CR 1740

City Tupelo State MS Zip 38804

How did you hear about this meeting?

- Newspaper
- Website
- Other _____
- Radio
- Flyer

Are the time and location satisfactory?

- Yes
 - No
- If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: The western-most rerouting - starting
at/near Sherman/Blue Spring and running down the western side
of Lee Co. and rejoining near Sherman

Issues and/or concerns about the project: Do not build alternate routes that go
through or near developed or developing neighborhoods; you will only
duplicate the problems associated with the existing through-town route.

Recommendations for the project: The best way to do it is to use existing
US 78 & US 75 ROW plus add ROW and create a multi-lane
corridor.

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Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Bobby + Cheryl McNeal Telephone (662) 842-3663

Address 577 CR 183

City Tupelo State MS Zip 38804

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

Yes No
 If no, what time of day and where?
Notice of Date Time,
+ Place (Evenings Preferred)
(2 wks. min advance notice)
prior to meetings

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: Was unable to attend meeting
as information was received too late! Also, this flyer
only showed a date - where's the time + location??
Future Meetings should require a 2-wk notice (min.)
to residents of the proposed area

Issues and/or concerns about the project: ① We have recently purchased our home
and would not be happy to have the railroad relocated closer.
We already bear the railway and neither was disclosed at
escrow closing. ② Devalue property. ③ Noise pollution

Recommendations for the project: Relocate Railroad in an unpopulated
non-residential area. Unfamiliar with best place to locate
it as this information (alternatives) was not
provided.

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PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Jimmy + Doretha Franks Telephone 662-842-0592

Address 162 CR 159

City Tupelo State MS Zip 38804

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

Yes No
 If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: _____

Issues and/or concerns about the project: Our concern is Alignment C - We
do not want this in our neighborhood!

Recommendations for the project: Leave it like it is or route it
thru open agricultural land.

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August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Tom Tindall Telephone 662-844-5569

Address 309 CR 183

City Tupelo State MS Zip 38804

How did you hear about this meeting?

- Newspaper
- Website
- Other
- Radio
- Flyer

Are the time and location satisfactory?

- Yes
 - No
- If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why:

Issues and/or concerns about the project: Tupelo embraced the RR years ago, built around it knowing that in the future it would become a problem. Now they want the people in the county to give up their land to solve a problem that has a simple solution.

Recommendations for the project: Build a four lane overpass on Glaster St. or leave it like it is and install automatic baracodes with a four lane overpass, main st. traffic can make a few turns on side streets go over the overpass make three more turns & be back on main. Two signals a few blocks east & west of cross town could serve as a warning that a train is crossing. Plan ahead.

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August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Mitchell Lessele Telephone 662-842-7578

Address 323 CR 183

City Tupelo State MS Zip 38804

How did you hear about this meeting?

- Newspaper
- Website
- Other by someone who attended
- Radio
- Flyer

Are the time and location satisfactory?

- Yes
 - No
- If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why:

Keep in current position have one to go over I go under

Issues and/or concerns about the project: Tupelo allowed itself to put itself in this position, had been going on for 40 yrs or more. County should not be held responsible for this

Recommendations for the project: Expand 100m. present location instead of spending 300 Million for other location

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PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Wilson Long Telephone 662 842 6110
Address 224 CR 1740
City Tupelo State Ms Zip 38804

How did you hear about this meeting?

- Newspaper
- Website
- Other _____
- Radio
- Flyer

Are the time and location satisfactory?

- Yes
 - No
- If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: Present location or
Alignment A

Issues and/or concerns about the project: clown property that would
come to the other Alignments B, C, D, E

Recommendations for the project: I feel the RR should be left as
is. Tupelo was built around the RR and the
expense to move is not worth the benefit.

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PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Louise S. Vinson Telephone 842-6030
Address 454 Road 1740
City Tupelo State MS Zip 38804

How did you hear about this meeting?

- Newspaper
- Website
- Other _____
- Radio
- Flyer

Didn't hear til it was over!

Are the time and location satisfactory?

- Yes
 - No
- If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: I do not like the proposal
"Alignment C". It seems to me that laying all the
new track, building trestles, etc. would cost too much.
Leave the tracks where they are & run street
over them or under them.

Issues and/or concerns about the project: Property values will go down
immediately with tracks near property.

Recommendations for the project: Leave it in the Tupelo City
Limits!

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PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Walter Woody Telephone 601 898 3412

Address 150 Rd 1790

City Tupelo State MS Zip 38804

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

Yes No
 If no, what time of day and where?
Weekends

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why:
In Tupelo city limit alternatives are best
since that is where the Railroad and
the problems exist in non-residential section.

Issues and/or concerns about the project:
concerned about destruction of current/future
Residential property & values of same
in an area of prime residential development
potential needed for this area desperately.

Recommendations for the project:
Keep railroad solutions
within the city where problem exists
Don't compound the problem by moving elsewhere
to create new problems.

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PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Joseph Brouillette Telephone 662-690-1943

Address 453 road 183

City Tupelo State MS Zip 38804

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other Friend

Are the time and location satisfactory?

Yes No
 If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: A

Issues and/or concerns about the project: Economic Impact on the
community. Property VALUE.

Recommendations for the project: Take Route with less population.

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Public Meeting
COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Mike Thompson Telephone 891-0878
Address 390 HWY 178
City Tupelo State Ms Zip 38804

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

Yes No
If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:
The preliminary alternative you like best and why: The moving of the switching yard to South Tupelo. @ Alternative Alignment A;

Issues and/or concerns about the project: Spending tax dollars for convenience instead of need. Has anyone been to our gulf coast?

Recommendations for the project: _____



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Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name J.K. Wilson Telephone (662) 680-9934
Address 215 ROAD 1836
City TUPELO State MS Zip 38804-7052

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

Yes No
If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:
The preliminary alternative you like best and why: Can only comment on the one proposed railroad relocation route I saw, affecting Hwy 178 + eastward between Belden + Sherman. That proposed route cuts across my neighborhood. Definitely opposed to this route.

Issues and/or concerns about the project: My major concerns are the loss of peace + tranquility of our homes + the devaluation of property. Who would buy SFR properties to live next to a railroad track? NOT ME. In the winter when all the leaves are gone, awakened nightly by the noise from trains.

Recommendations for the project: As people + traffic increases, why not do what many cities do + relocate the tracks underground? It wouldn't interrupt or delay anyone, especially emergency personnel. In my way of thinking there are only 3 options: 1) Go over the tracks 2) Go under the tracks 3) Move the tracks. Recommend put the tracks underground.



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PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Lisa Brisco Telephone 662-231-2789
Address P O Box 2882 (County Road 183)
City Tupelo State MS Zip 38803

How did you hear about this meeting?

- Newspaper Radio
- Website Flyer
- Other _____

Are the time and location satisfactory?

- Yes No
- If no, what time of day and where?
Should have been advertised more. I felt like you were trying to keep it quiet.

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: The in town options. The railroad has always been there and I feel that we need to do whatever we can to improve it in its current location.

Issues and/or concerns about the project: Disruption in Quality of Life and Devastation to property value. In September 2001, my husband and I purchased our property for \$8,000/acre and in preparation of building our home have invested a great deal more. What do you think it will be worth with a railroad next to it?

Recommendations for the project: Keep the railroad in town and give more thought to either sinking the highway or the tracks. The in town alternatives seem to be the best options.
Lisa M. Brisco

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PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Katie Thompson Telephone 662-401-5131
Address 390 Hwy 178
City Tupelo State MS Zip 38804

How did you hear about this meeting?

- Newspaper Radio
- Website Flyer
- Other Mr. Brisco

Are the time and location satisfactory?

- Yes No
- If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: ① The operational re-location of the existing yard. ② Alignment A would be my second choice.

Issues and/or concerns about the project: -The destroying of property values and opportunities if any of the other alignments are chosen. -The spending of tax dollars on this much work.

Recommendations for the project: Cancel it, and Re-build the Gulf Coast of Mississippi.

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PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Aileene Brisco Telephone 662-842-0482
Address 490 Hwy 178
City Tupelo State MS Zip 38804

How did you hear about this meeting?

- Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

- Yes No
If no, what time of day and where?

4:00 pm - 7:00 pm

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: Any of the in town
Alternatives.

Issues and/or concerns about the project: I have many concerns with the primary
one being the immediate and severe depreciation to the
value of my home and the surrounding acreage. This
area of the county is a rapidly appreciating residential
community.

Recommendations for the project: Leave the railroad where it is and use the in
town alternatives. In the county alternatives, the devastation to the
property values must be taken into consideration and quantified
in the study. Has a below grade railroad corridor
been considered? If not, I would like to know why not?

PLEASE SUBMIT AT THE MEETING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC MEETING



Public Meeting
COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name LAWRENCE BRISCO Telephone 662-401-1334
Address PO BOX 2882
City TUPELO State MS Zip 38803

How did you hear about this meeting?

- Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

- Yes No
If no, what time of day and where?

JUST NEED TO EXTEND
TIME UNTIL 8 PM

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: I BELIEVE THE IN-TOWN
ALTERNATIVES ARE THE ONLY ONES TO CONSIDER.
THEY WOULD SOLVE 90% OF THE PROBLEM FOR THE
LOWEST TAXPAYER DOLLARS AND THE LEAST COST
IN DAMAGES TO EVERYONE INVOLVED.

Issues and/or concerns about the project: MY FAMILY OWNS 62 ACRES OF PRIME
RESIDENTIAL PROPERTY IN THE COUNTY. FOUR OF THE FIVE COUNTY
ROUTES GO THROUGH THIS LAND. THIS WOULD RESULT IN SEVERE
AND IMMEDIATE DESTRUCTION OF THE VALUE OF THIS LAND.
NO ONE WILL MOVE INTO THE COUNTY AND BUILD OR BUY
A HOME NEXT TO A RAILROAD.

Recommendations for the project: WE SHOULD IMPROVE CROSSTOWN WITH ONE
OF THE IN-TOWN ALTERNATIVES. THE DESTRUCTION OF
COUNTY PROPERTY VALUES ON BOTH SIDES OF THE COUNTY
ALTERNATIVES SHOULD BE CONSIDERED AND QUANTIFIED IN
THE STUDY. THIS IS THE MAIN ENVIRONMENTAL FACTOR IN THE
PROPOSED COUNTY AND MUST BE CONSIDERED.

PLEASE SUBMIT AT THE MEETING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC MEETING



Public Meeting
COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Dwayne Garner Telephone 662-844 7065

Address 193 RD 1758

City Tupelo State MS Zip 38804

How did you hear about this meeting?

- Newspaper
- Website
- Other _____
- Radio
- Flyer

Are the time and location satisfactory?

- Yes
 - No
- If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: Where Does it come by our house exactly

Issues and/or concerns about the project: property value

Recommendations for the project: Train Tunnel at cross town

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Public Meeting
COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name GARner Millwork + cabinets LLC Telephone 662-8447007

Address 177A Tupelo MS

City Tupelo State MS Zip 38804

How did you hear about this meeting?

- Newspaper
- Website
- Other _____
- Radio
- Flyer

Are the time and location satisfactory?

- Yes
 - No
- If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: WAS not shown ALL MAPS

Issues and/or concerns about the project: Our Business + Employee

Recommendations for the project: Leave it Alone

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Public Meeting
COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name _____ Telephone (662) 841-1992

Address  Charles Dawson
PO Box 282

City Belden, MS 38826-0282 State _____ Zip _____

How did you hear about this meeting?

- Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

- Yes No
If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: _____

It appears that Alignment C relocation
would put the tracks in my front yard on Lee Rd 181
I do not like that one.

Issues and/or concerns about the project: _____

Recommendations for the project: Let the RR pay not the taxpayers.

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Public Meeting
COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Wilson Casey Telephone 662-844-0850

Address 467 Road 183

City Tupelo State Ms Zip 38804

How did you hear about this meeting?

- Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

- Yes No
If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: _____

I do not like any of the
plans because I think it is fine like it is. The railroad
is part of Tupelo's history

Issues and/or concerns about the project: _____

I think it is ridiculous that so
much money has been spent to even do the survey for this.
when it is not necessary.

Recommendations for the project: Dismiss the project totally.

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Public Meeting
COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Salli Long Telephone 662-8426110

Address 224 C.R. 1740

City Tupelo State MS Zip 38804

How did you hear about this meeting?

- Newspaper
- Website
- Other _____
- Radio
- Flyer

Are the time and location satisfactory?

- Yes
 - No
- If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: Present location or Alignment A

Issues and/or concerns about the project: Cl own property that would come thru the other Alignments B, C, D, E.

Recommendations for the project: I feel the R/R's should be left as is. Tupelo was built around the R/R's and the expense to move is not worth the benefit.

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Public Meeting
COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name LEE CALDWELL Telephone 255-7777

Address 388 Hwy 178

City TUPELO State MS Zip 38804

How did you hear about this meeting?

- Newspaper
- Website
- Other Word of Mouth From Affected Landowners
- Radio
- Flyer

Are the time and location satisfactory?

- Yes
 - No
- If no, what time of day and where?

EVENING - SAME LOCATION

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: In Town Alt. 2 / Operational Plan I don't know, if In Town Alt. 2 includes Operation Plan or if it is separate. Both together make the most sense. (1) Least affecting property with growing value or immediate plans for development or renovation. (2) A reasonable cost solution that corrects the greatest problems with least amount of disruption.

Issues and/or concerns about the project: All North route plans are absurd. Cost way out of line vs. solution. Way too many people, way too much valuable property affected. Property affected from North Tupelo over to Sherman connection is extremely desirable, extremely valuable for future residential development. RR would destroy this. South route would be better, if bypass is chosen, but still seems absurd considering cost and creation of many new at grade conflicts.

Recommendations for the project: Concentrate on combination Operational Plan / In Town Alt. 2. It is doable at reasonable cost & provides most solution vs creation of minor disruptions to fewest businesses and residences. Also, county voters cannot claim that Tupelo is dumping it's problem on the county. If we spend 700-800 million\$ on this RR project, then we have no right to complain about all the other park projects in other areas of the U.S.

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Public Meeting
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August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name LARRY SALMON Telephone 662-840-8435
Address 2729 VALLEY Rd.
City TUPELO State MS Zip 38801-0631

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

Yes No
If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:
The preliminary alternative you like best and why: Do nothing because the cost wouldn't be worth the benefit.

Issues and/or concerns about the project: Re-location would cause safety problems and noise problems to people who would not benefit from re-location. Re-location would damage natural resources and farm land.

Recommendations for the project: _____



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PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Sean Towery Telephone 842-4184
Address 1703 OAKVIEW Cln
City Tupelo State MS Zip 38804

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

Yes No
If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:
The preliminary alternative you like best and why: _____
1. LEAVE TRACK WHERE IS, BUT USE BRIDGES - EVERYONE WILL BE HAPPY, CHEAP!
2. Pontotoc Route - LEAST RESISTANCE

Issues and/or concerns about the project: NEW ROUTE WILL LOWER PROPERTY VALUE AND MAKE EVERYONE SORRY THEY BUILT A HOUSE IN THE COUNTRY TO GET AWAY FROM NOISE

Recommendations for the project: LEAVE IT AS IS, BUILD SMALL BRIDGES NEAR CROSSTOWN, SOME MATERIAL WILL SEE IT IN TIME, SOME WANT TO USE SAVINGS FOR WALKING PARK, FERRIS WHEEL AT BARNES CROSSING.



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PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Susan Thompson Telephone 662 841 0032
Address 3910 Hwy 178 W
City Tupelo State MS Zip 38804

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

Yes No
If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: The Operational re-locating of the existing yard

Issues and/or concerns about the project: The cost. Declining of home value — go fix the Gulf Coast!!

Recommendations for the project: Look again at the growth patterns in Tupelo — nothing is going on in South Tupelo!

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Public Meeting
COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Vicki Housley Telephone 842-8766
Address 101 Edgewater Cove
City Belden State MS Zip 38826

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

Yes No
If no, what time of day and where?
need evening time later

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: _____

Issues and/or concerns about the project: just not route B

Recommendations for the project: _____

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Public Meeting
COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Lamar Hunter Telephone 662-842-2248
Address 630 Hwy 178 West
City Tupelo State MS Zip 38804

How did you hear about this meeting?

- Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

- Yes No
If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: Alternate B.
I think it goes through the least congestive areas. It
would be located on the least expensive land to purchase
for right of way. The switch yard needs to be moved
South of town.

Issues and/or concerns about the project: Cost

Recommendations for the project: Use Alternate B - or build bypass
at Crestown. With either plan I recommend moving
switch yard south of town.

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Public Meeting
COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name JERRY PENDLETON Telephone 662-680-4054
Address 109 W Shore Dr
City Saltville State MS Zip 38866

How did you hear about this meeting?

- Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

- Yes No
If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: _____

Issues and/or concerns about the project: Alternative D will adversely impact
3-4 subdivisions, the only alternative to do so. It will
also adversely impact the Natchez Trace Parkway in an area
that will also be impacted by Cole's Rest. It will adversely
impact the Natchez Trace National Scenic Trail. Alt D
may impact the greatest number of homeowners
Recommendations for the project: in Lee Co. It is in the area of greatest
residential growth. The impact to adjacent landowners
should be staggering. Recommendation - Not Alt. D.
Dech Spinn Road is a major connector for residents in New
Lee Co/Saltville Barnes Crossing and the Parkway. Alt
will adversely impact this road as well.

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one of your presenters was very cordial and helpful, but he told our group, the project would take 15-30 yrs. the paper says 5-6 - the same true info should be offered by all presenters.



COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Gale Henderson Telephone 662-566-7530
Address 144 Rd. 784
City Tupelo State MS Zip 38801

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

Yes No
 If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:
Please do not choose alternative B, on the west side.
The preliminary alternative you like best and why:

most cities would have built an overpass 25 years ago. I would prefer alternatives that are not Plan B.

Issues and/or concerns about the project: Noise + property devaluation. Five months ago after living in Tupelo for 27 yrs. (where we heard the train) from 2-3 miles away at Crosstown during the night, we moved just out of town in the Palmetto community. We paid a top price to get the location

Recommendations for the project: and lot we wanted. Likely, we or our children cannot re-sell for what we paid, we love quiet country life - as do the other residents of Trace Oaks and those who have chosen the country. We did not want the

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noise of HO trains (quality of life) and ... are concerned about property value.

Those of us in Portcharlotte/Seale Co. probably have little to do when compared to Saltville and other major cities down here.



COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name RALPH HENDERSON Telephone 566-7530
Address 144 ROAD 784
City TUPELO State MS Zip 38801

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

Yes No
 If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:
The preliminary alternative you like best and why: OVERPASS OR TUNNEL AT CROSSTOWN

Issues and/or concerns about the project: I DO NOT WANT PLAN B. IT WILL DEVALUE OUR HOUSE + PROPERTY

Recommendations for the project: DO NOT DO PLAN B.

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Public Meeting
COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Malcolm Harden Telephone 662-566-7558
Address 297 Road 684
City Tupelo, MS 38801 State MS Zip 38801

How did you hear about this meeting?

- Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

- Yes No
If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: The existing railroad route should be tweaked.

Issues and/or concerns about the project: I have lived all my adult life in the southern part of Lee County. I would like to spend my remaining years of life in a quiet community. The train would make life intolerable where I live.

Recommendations for the project: I would like the train tracks to remain where they are located through Tupelo.

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Public Meeting
COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Bruce Chappell Telephone 662-844-9615
Address 2016 Strain St.
City Tupelo State MS Zip 38804

How did you hear about this meeting?

- Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

- Yes No
If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: I support the alternative which will cost the least money... which is, according to the Daily Journal "to tweak the existing railroad route to improve efficiency." I live in Tupelo all my life (58 years) and cross the intersection at "Crosstown" multiple times daily... waiting 15 minutes once or twice a week is NOT A BIG DEAL!

Issues and/or concerns about the project: I DO NOT SUPPORT THE FOUR PROPOSED ROUTES WHICH WILL DESTROY THE CHARACTER OF WELL ESTABLISHED NW LEE COUNTY RESIDENTIAL NEIGHBORHOODS BETWEEN BELDEN AND SHERMAN RESULTING IN HUGE LOSS OF PROPERTY VALUE AND CAUSING TREMENDOUS EMOTIONAL STRESS TO THE RESIDENTS OF THE AFOREMENTIONED AREA.

Recommendations for the project: IN ADDITION, I THINK IT IS MORALLY IRRESPONSIBLE (IF NOT OBSCENE) TO SPEND 70 TO 750 MILLION DOLLARS TO RELOCATE A MERELY INCONVENIENT RAIL TRACK WHILE SO MANY MISSISSIPPIANS ARE STILL LIVING IN FEMA TRAILERS AND DRIVING ON HEAVILY DAMAGED ROADS ON THE GULF COAST!

PLEASE SUBMIT AT THE MEETING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC MEETING

Visit us on the web at www.goMDOT.com, or e-mail environmental_comments@mdot.state.ms.us

From: Ann Downing [adowning@mindspring.com]
Sent: Friday, September 08, 2006 9:40 AM
To: Environmental_Comments
Subject: Tupelo Railroad Relocation Study comments

From: salmon0102@bellsouth.net
Sent: Wednesday, August 23, 2006 5:08 PM
To: Environmental_Comments
Subject: Comments on Tupelo Rail Relocation

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why:

*I strongly suggest that **Alternative B** be given the highest priority. Alternatives C, D, E, and F all cross the northwest section of Lee County where significant residential development is in progress. Alternative B skirts farther to the west where there is a sparser population.*

Issues and/or concerns about the project:

The addition of another railroad in the areas of Alternatives C, D, and F will have serious negative impact on both the existing residents and continued development in this area. As a landowner in the area north of Belden, I am concerned about my investment and the interruption to the current quiet lifestyle we enjoy.

Recommendations for the project:

PLEASE SUBMIT AT THE MEETING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC MEETING

I was unable to attend the meeting but I sincerely hope you will consider my concerns.

Visit us on the web at www.goMDOT.com, or e-mail environmental_comments@mdot.state.ms.us

Submitted by
Ann Heard Downing
129 Road 1740
Tupelo, MS 38804

The alternative I like best, although I did not see it listed at the public meeting, is to do nothing. The alternative I like second best would be Alternative G (construct a new switching yard southeast of downtown Tupelo).

Issues and concerns: I did not find any information at the public meeting indicating the cost of doing nothing compared to the cost of relocation or reconstruction which will certainly be in the hundreds of millions of dollars. I am not convinced that there is a major problem, at least not one that warrants a solution that costs hundreds of millions of dollars. I am concerned about the relocation of the noise, traffic delays, reduced property values and grade crossing dangers to a group of people that will ultimately have no recourse when their property is acquired through the eminent domain process.

Recommendations: This is Tupelo's problem. Implement the least expensive solution within the city limits of Tupelo.



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PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Michael S. Cook Telephone 810-7534

Address 655 Cr. 173

City Tupelo State MS Zip 38804

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other Friend

Are the time and location satisfactory?

Yes No
 If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: I don't like any of them

Issues and/or concerns about the project: The cost is one concern. I think the money could be used for other & better things.

The Railroad would lower the value of our homes & property

Recommendations for the project: Leave it like it is or build an overpass. The Railroad has been at Cross Timon for years. It is a part of Tupelo. I really don't see it as a problem.

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Public Meeting
COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Bruce E Porter Telephone 662-690-9163 (H)

Address 141 County Road 1836 662-841-8830/8831 (W)

City Tupelo State MS Zip 38804

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other Neighbors

Are the time and location satisfactory?

Yes No
 If no, what time of day and where?
after 9pm or on Sundays
I work long hours

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: Given the number of houses and people adversely affected by all of the proposals except the single proposal that runs south out of Sherman then east to plantersville, the only reasonable proposal that will not ruin my property value if not take my land, is that single route - truly the only one that makes any sense.

Issues and/or concerns about the project: Any of the four routes that run north then west or east than south (depending on where you start) will ruin not just impact, my land and home. I propose we run the train through your back yard and see how you like it - but only after we spend millions of taxpayers dollars to wreck thousands of acres and hundreds of homes

Recommendations for the project: Go south out of Sherman - through the fields - buy the land from the Hancocks or from whatever dynasty owns it - and leave the rest of us alone - we moved into the country for the peace and quiet but sure enough, leave it to the government to find a way to ruin that - all the while raising our taxes. This is a "no-brainer" - there is only one sensible,

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realistic route and that is south out of Sherman then east to plantersville.



Public Meeting
COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Bill Williams Telephone 602-869-5431

Address PO BOX 1426

City Saltville State MS Zip 38866

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other Letter from MDOT

Are the time and location satisfactory?

Yes No
If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: Alternative B - Most rural.

Issues and/or concerns about the project: 40 Trains/day through the City of Saltville - Not desirable for our city.

Recommendations for the project:



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Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name BILL CHERRY Telephone 662-869-5121

Address 143 SCOTLAND DR

City SALTILLO MISS 38866 State _____ Zip _____

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

Yes No
If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: ALT B - BECAUSE IT WILL HAVE LESS IMPACT ON THE AREA THAT ARE LESS POPULATION

Issues and/or concerns about the project: _____

Recommendations for the project: I BELIEVE ALT B WILL BE THE BEST ROUTE FOR ALL CONCERN

PLEASE SUBMIT AT THE MEETING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC MEETING

Visit us on the web at www.goMDOT.com, or e-mail environmental_comments@mdot.state.ms.us



Public Meeting COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Torrent, Stephen Telephone _____

Address 1004 Van Buren

City Tupelo State MS Zip 38801

How did you hear about this meeting?

- Newspaper
- Website
- Other _____
- Radio
- Flyer

Are the time and location satisfactory?

- Yes
 - No
- If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: ^{request} Need blow up of presentation (aerial)
local map, intermediate
& macro line map for best input from Engineer (logistic)

Issues and/or concerns about the project: Increased revenue / funding ✓
traffic

Recommendations for the project: Pursue w/n operational perimeters until
money pools to fund 'committee' etc

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Public Meeting
COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Dick Hill Telephone 844-1330

Address 2108 Daugherty

City Tupelo State Ms Zip 38804

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

Yes No
If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: Southward corridor
impacts the fewest number of people & provides
best sites for future industrial growth

Issues and/or concerns about the project: # of trains - length of trains
~~_____~~ 2030- and beyond

Recommendations for the project: Hurry

PLEASE SUBMIT AT THE MEETING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC MEETING

Visit us on the web at www.goMDOT.com, or e-mail environmental_comments@mdot.state.ms.us

August 18, 2006

Mr. Wayne Parrish
MDOT
401 N West St.
Jackson, MS 39201

Mr. Parrish,

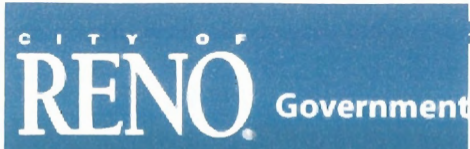
Please see the enclosed copies of a 2.1 mile double track railroad channel in Reno Nevada. The final costs in 2001 ended at 279 million dollars. I would think that Tupelo would only need about a one mile single track channel at the most and which might be within other alternate cost ranges.

I believe that a channel should be considered in the Tupelo Mississippi railroad study.
Thank you for your consideration

Sincerely,



Lawrence Brisco
PO Box 2882
Tupelo, MS 38803



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Friday, August

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NOTE: In order to view any of the PDF documents below, you must have Acrobat Reader. If you don't have it installed on your computer, click below to download



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- [Alternatives Screening Report](#)
- [Geotechnical Engineering Report](#)
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Other Documents

Reno Railroad Corridor Environmental Impact Statement (EIS)

Now! [Record of Decision February 23, 2001](#)

[Final Environmental Impact Statement January 2001](#)

This document evaluates the environmental impacts associated with construction of railroad grade separation improvements in downtown Reno, Nevada, along the existing transcontinental Union Pacific Railroad (UPRR) main line. The Reno Railroad Corridor project will eliminate at-grade conflicts in central Reno, which would have been exacerbated by increased rail traffic due to the recent merger of the Union Pacific and Southern Pacific Railroads. The merger presented an opportunity for an agreement to be developed between the UPRR and City of Reno to jointly fund and develop the project. In addition to the No Build Alternative, four build alternatives were considered: Depressed Trainway, Extended Depressed Trainway, Cover-and-Cut Tunnel, and Modified Extended Depressed Trainway. The Modified Extended Depressed Trainway has been identified as the preferred alternative. It consists of a fully grade-separated two-track main line railroad corridor, from a point approximately 250 feet west of West Se on the west end to approximately 50 feet west of Sutro Street on the east end. The corridor would become a depressed trainway descending at a 1.2 % grade on the west end and ascending at a 1.0 % grade on the east. The length of it is about 12,500 feet. The depressed trainway would be approximately 54 feet wide and 30 feet deep at its greatest. Second Street undercrossing would be eliminated. The costs shown in this FEIS are for the purposes of comparing and are not intended to be a detailed nor final estimate of costs.

[Draft Environmental Impact Statement May 2000](#)

Reno Railroad Corridor Technical Reports

In addition to the Reno Railroad Corridor Final Environmental Impact Statement (FEIS) in three volumes, a number of reports have been prepared as supporting documentation for the FEIS. These are some of the technical reports.

[Scoping Summary Report](#) (November 1999) prepared by Myra L. Frank & Associates, Inc. for the Nolte Team
[File Size: 59Mb PDF]

[Alternatives Screening Report](#) (December 1999) prepared by Myra L. Frank & Associates, Inc. for the Nolte Team
[File Size: 113Mb PDF]

[Geotechnical Engineering Report](#) (May 2000) prepared by Kleinfelder for the Nolte Associates, Inc. dated May 9, 2000

[Historic Railroad Building Treatment Report](#) (May 2000) prepared by Stantec Consulting for the Nolte Team

Reno Railroad Corridor Preliminary Engineering (PE)

Preliminary Engineering Project Plans

Peer Review Panel Meeting Notes (January 2001)

Notes from 4 Peer Review Meetings and one conference call. Notes include discussion on constructibility of approp and invert systems.

Underpinning Analysis Report of the Southern Pacific Railroad Passenger Depot (January 2001) prepared by Kleinf Nolte Associates, Inc. dated January 23, 2001

The Underpinning Report for the SPRR Passenger Depot including a description of the existing foundation type and available, dimensions; a discussion of typical and appropriate method or methods for underpinning, including appro: dimensions and depths of underpinning construction; and preliminary cost estimates for underpinning.

Underpinning Analysis Report of the Fitzgerald's Parking Garage (January 2001) prepared by Steven L. Hiatt, P.E., Nolte Associates, Inc. dated January 23, 2001

The Underpinning Report for the Fitzgerald's Garage includes text and a section showing the existing foundation. It presents two different underpinning types that may be used to support the garage with sketches depicting these cor methods. A recommended method is presented with relative construction costs for this recommendation.

Underpinning Analysis Report of the Rainbow Pedestrian Bridge (January 2001) prepared by Steven L. Hiatt, P.E., ; Nolte Associates, Inc. dated January 23, 2001

The Underpinning Report for the Rainbow Pedestrian Bridge includes a description of the existing foundation type a available, dimensions; a discussion of typical and appropriate method or methods for underpinning, including appro: dimensions and depths of underpinning construction; and preliminary cost estimates for underpinning.

Alternative Wall and Invert Report (January 2001) prepared by Steven L. Hiatt, P.E., S.E. for Nolte Associates, Inc. January 23, 2001

The Alternative Wall and Invert report addresses wall and invert systems, the close proximity of UP operations to w; other agency comments. The final report combines both the Draft Wall Report and the Draft Invert Report.

Bridge Report (January 2001) prepared by Kleinfelder for Nolte Associates, Inc. dated January 23, 2001

The Bridge Report consists of geotechnical parameters for bridge design. Parameters for vehicular bridges are prov pages 53 through 55 of the Geotechnical Report.

Bridge Analysis Report (January 2001) prepared by Steven L. Hiatt, P.E., S.E. for Nolte Associates, Inc. dated Janu 2001

The Bridge Analysis Report describes each of the seven superstructure alternatives, address pros and cons of the e with respect to superstructure depth, construction costs, construction duration, flexibility in construction staging, ove construction impacts on the remainder of the project, ability to support utilities, and long term maintenance. The rep recommends a superstructure type.

Rights-of-Way: A Preliminary Valuation Analysis (limited Summary Appraisal) of Various Properties (January 2001) by Johnson-Perkins & Associates, Inc. for Stantec Consulting Inc. dated January 19, 2001

In support of the right-of-way appraisal process, approximate areas of permanent and temporary impacts were calc along the corridor for Alternative 5 and are presented. Digital parcel information based on the Washoe County GIS v obtained from the City of Reno. This data was registered and adjusted against the orthophotography to produce a v consistent representation of the project area and along the corridor. Utilizing these maps and Washoe County Asse: Office records, the appraiser identified subject properties and provide basic physical data such as building areas ; condition and areas and zoning for each parcel.

Means and Methods Analysis Report (January 2001) prepared by Steven L. Hiatt, P.E., S.E. for Nolte Associates, ; January 23, 2001

A report summarizing the logic of the selection of the sequences, means and methods of construction is provided to

basis for construction schedule and staging . Railroad Construction Staging – Preliminary railroad connection alignn "cut-over" drawings are provided for each end of each shoofly and the main line track cut-overs.

Reno Railroad Corridor Cost Estimate

[Cost Estimates](#) (January 2001) prepared by Leroy Saage, P.E. for Nolte Associates, inc. dated January 23, 2001
Quantity calculations were prepared on the major items of work and then preliminary cost estimates were assigned these items. Estimates are separated into quantities and costs and displayed in a bid list. Unit costs are attached to items.

Real Estate

[Acquiring Real Property for Federal and Federal-Aid Programs and Projects](#)

[Your Rights and Benefits as a Displaced Person](#)

ReTRAC

[Final - Proposed ReTRAC Project "Plan" - May 7, 1999](#)

This is the City of Reno's initial plan submitted to FHWA in the summer of 1999. Please see Alternative 5 in the [Final Environmental Impact Statement](#) for the City's current proposed project.

Other Documents

Also...[Available Documents related to the ReTRAC Project](#) [File Size:135Kb PDF]

In an attempt to provided all interested parties complete access to public domain documents related to the ReTRAC the City of Reno has compiled a list of relevant public domain documents. The documents are all in the public doma be available from other sources. The City of Reno has made each of these documents available through an outside See this link for further details.



City of Reno, Nevada
PO Box 1900 - Reno, NV 89505 | Phone 775 334 2099
renodirect@cityofreno.com

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Project Fact Sheet



Reno Transportation Rail Access Corridor (ReTRAC)

Reno, NV

Approved FY 2001

Project Sponsor

Retired: Paid in Full

<http://www.cityofreno.com/gov/retrac/>

City of Reno, Nevada.

Description

This project involves a 2.25-mile below-grade rail freight corridor with two mainline tracks and an access road, replacement of 10 at-grade rail crossings with bridges, and construction of one new bridge. A "shoofly" track served as a temporary bypass route during construction.

Reno is situated in a major rail corridor linking west coast ports, especially the Port of Oakland, to inland destinations. The Union Pacific Railroad is expected to increase train traffic through central Reno from 14 trains to at least 24 trains per day. The project allows Union Pacific to improve freight capacity by increasing train lengths to 8,000 feet with double-stacked containers.

Project Status

The trench opened to train service on November 18, 2005. Using a design/build contractor, Reno completed the entire project in the spring of 2006.

Funding Sources

Anticipated funding sources are as follows (dollars in millions):

• Senior bond proceeds:	\$111.5 [*]
• TIFIA direct loan:	50.5
• Federal grants:	21.3
• Railroad payment:	17.0
• Other:	79.6 ^{**}

Total:

279.9

*(revenue bonds issued by City of Reno)

** (includes cash on hand and interest earnings)

TIFIA Credit Assistance

The original TIFIA commitment amounted to \$73.5 million, comprised of three separate obligations:

- Sales and room tax loan: \$50.5 million, secured by county sales and city hotel room taxes.
- Lease-backed loan: \$5 million, secured by lease income from property contributed by Union Pacific.
- Assessment district loan: \$18.5 million, secured by tax assessments on real property in a downtown business district. Adjoining the ReTRAC corridor

The sales and room tax loan closed in 2002 and was funded in 2004. Negotiations concluded in 2005 on the assessment district loan, although litigation prevented its closing. Recently, Reno indicated it will not proceed with either of the two smaller loans.

TIFIA Financial Performance

With revenues securing the \$50.5 million sales and room tax loan performing as projected, the City repaid the original \$50.5 million loan with interest in May 2006.

{ [Recent Postings](#) | [Public Notices](#) | [Legislation and Regulations](#) | [Program Guide and Application](#) }
{ [Background Reference](#) | [TIFIA Projects](#) }
{ [TIFIA Times](#) | [Report to Congress](#) | [Contact Us](#) }
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This page last modified on August 17, 2006

UNITED STATES DEPARTMENT OF TRANSPORTATION



Public Meeting

COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355

E-mail: environmental_comments@mdot.state.ms.us

www.goMDOT.com

Name Perry Whitaker Telephone 662-680-9052
 Address 839 Mt. Vernon Rd.
 City Tupelo State MS Zip 38804

How did you hear about this meeting?

- Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

- Yes No
 If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: Leave the railroad in the current location. There must be more beneficial and cost effective ways to spend public money than moving a railroad.

Issues and/or concerns about the project: I do not see any benefits from the program other than improving traffic flow in Tupelo. Also, 4 of the 5 proposals bring the railroad through property that has been in my family for 80+ years. This will decrease my property values and change the lay of the land for something that I do not see as benefitting the greater good.

Recommendations for the project: move the switching yard out of Tupelo. Move it toward Belden + Sherman or toward Nettleton. ~~the~~ The same trains come through Nettleton at full-speed. Slow them down that way with a new switching yard.



Public Meeting
COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Diane Flowers Telephone 680-7194
Address 155 CR 1758
City Tupelo State MS Zip 38804

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

Yes No
If no, what time of day and where?
I missed this meeting

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: Alternative B - because it circles the city in a wider range allowing for future growth - not as many crossings and away from populated areas - where more deaths could occur.

Issues and/or concerns about the project: Alternatives C-F have this new railway coming across my front yard on the other side of the road - my property value will decline drastically

Recommendations for the project: why cant the railway follow US Hwy 78 & tie in to the last part of Alternative E. Most tracks follow major highways.

PLEASE SUBMIT AT THE MEETING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC MEETING

Visit us on the web at www.goMDOT.com, or e-mail environmental_comments@mdot.state.ms.us



Public Meeting
COMMENT SHEET

August 15, 2006

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name ROBERT A. DALE, JR. - MD Telephone 840-4648
Address 110 RAVENWOOD COVE
City TUPELO State MS Zip 38804

How did you hear about this meeting?

Newspaper Radio
 Website Flyer
 Other _____

Are the time and location satisfactory?

Yes No
If no, what time of day and where?

MDOT is interested in your comments about the proposed project. Please indicate:

The preliminary alternative you like best and why: THE ROUTE WEST OF TUPELO

Issues and/or concerns about the project: ALL THE ROUTES NORTH OF TUPELO WILL RUN THROUGH DEVELOPING NEIGHBORHOODS WITH NICE NEIGHBORHOOD HOUSES. THE NOISE AND INCONVENIENCE FROM WAITING ON THOSE SEVERAL TRAINS EACH DAY WILL BE QUITE DISRUPTIVE.

Recommendations for the project: BUILD AN ELEVATED RAIL OR TUNNEL ROADWAY SYSTEM AT CROSSTOWN. KEEP THE TRAIN THERE. RECOMMEND STUDYING THE BRIDGE IN AMORY, MS OR THE ELEVATED RAMP IN PORTSMOUTH, OHIO WHICH CORRECTED THE PROBLEM FOR THOSE COMMUNITIES!

PLEASE SUBMIT AT THE MEETING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC MEETING

Visit us on the web at www.goMDOT.com, or e-mail environmental_comments@mdot.state.ms.us

RECEIVED
DEC 18 2006
H D R

December 13, 2006

Jim Lee
HDR Project Manager
315 E. Robinson St. – Suite 400
Orlando, FL 32801-1949

John Winkle
FRA Project Manager
1120 Mt. Vernon Ave., NW
Washington, DC 20590

Wayne Parrish
MDOT Planning Division
401 N. West Street
Jackson, MS 39201

Kim Thurman
MDOT Planning Division
401 N. West Street
Jackson, MS 39201

Bill Jameison, P.E.
MDOT Dist. 1
1909 N. Gloster St.
Tupelo, MS 38804

Mayor Ed Neelly
City of Tupelo
P. O. Box 1485
Tupelo, MS 38802

RE: Railroad Relocation Study
Tupelo, Mississippi

I was unable to attend the first public meetings where the current relocation routes were presented. Therefore, I would like to give each of you my opinions concerning the proposed routes, and then explain what I feel is the best and only solution, if the railroad tracks are to ever be moved from the center of Tupelo.

All of the proposed alternatives are expensive. Way too expensive, in my opinion, especially when zero dollars are available after your 3-year study for this project. There is a more economical and much easier to build option.

The routes proposed would all require 100% purchase of right of way. Can you imagine the legal fights that will occur when this process starts? I can, and none of these routes will ever happen, in my opinion. However, there is government property already owned and available that could be used for most of this relocation.

The proposed routes require the building of numerous grade separations. However, there is a route that would require only the adjustment of three existing bridges.

The proposed routes leave many roads without grade separations. This would just cause more problems down the road. However, there is a route where the train could travel through Tupelo without any at grade crossings. Allowing the trains to zip quietly through without slowing down and without the need to blow their horns.

Who at this point can know the outcome of the Environmental Impact Studies that will be required for these proposed routes? There is a route where these studies have already been done.

So here for your review, and more important, for the review of the citizens of Tupelo is the only route that seems to make any sense for the relocation of the railroad. Use the existing right of way on Highways 78 and 45. If some small amount of additional right of way is required along these routes, buying a 25 or 50 foot strip along the side of the existing right of way would be much easier to accomplish, and from looking at this route that is not going to be necessary for most of the route. That is right, this route has one huge advantage. Everyone, including you, can just ride along the route now on the highway and see that it would work. It is possible for the citizens to see the relocation route before the first dollar is spent. That is not possible with the proposed routes in your study, which would make it much harder to build public support for them.

I have enclosed a map where my suggested route is marked for your review. But here is it in words. Leave the Burlington-Northern rail line just north of its underpass at Highway 78 at Belden and cross old Highway 78 with an at grade crossing. This is the old highway with light traffic and crossing arms should be installed here. This crossing is outside the City of Tupelo and the train would be going very fast at this crossing, so the wait time should be no more than a normal red light traffic signal. Then proceed east along the north side of new Highway 78 all the way to the Natchez Trace. This land is flat and straight. Here is where the three bridges would have to be adjusted to allow the train to go beneath Mt. Vernon Road, Old Town Road and the Natchez Trace. These are the only three crossings and the bridges are already there. The existing bridges would just require minor adjustments on their northern ends to allow the train to pass beneath the bridge.

The Major Thoroughfare Committee of the City of Tupelo in the next five years is building a new bridge over Highway 78 to carry traffic from Coley Road around to the Mall at Barnes Crossing area. This new bridge could be built to accommodate the train passing under it along with Highway 78. I have already spoken to them about this plan.

Then since the ground is high at the Natchez Trace compared to the bottomland for the rest of the route, the railroad would use a trestle for the remainder of the route crossing over Highway 78 (Future Interstate 22), North Gloster Street, Highway 45, the tracks of the Kansas City Southern Railroad, going east through the bottomland and then south alongside Highway 45 crossing over Main Street and Eason Boulevard to rejoin the Burlington-Northern main line southeast of Tupelo.

Since you will be using a trestle for this roughly 60% of the route no bridges will have to be built, not over roads, creeks or other railroads. And the current drainage of this area is not affected at all. I have enclosed photos of several such trestle systems, which clearly illustrate that this can be done.

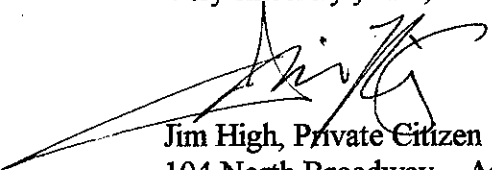
This is the shortest and most direct route. It should be the most economical, if the estimates are not prepared in a biased manner. There are many places in this country where railroads travel for much longer distances using trestles. There are many places in this country where railroads run along the sides of major highways. Highway 72 just 65 north of Tupelo is a great example as the railroad runs along the highway for miles and slips easily under the Natchez Trace.

And I remind you that 30 years ago, before Highways 78 & 45 were relocated out of the center of Tupelo plans were made for a huge Intermodal Highway and Railway System to be built from Jacksonville, Florida, to Kansas City, Missouri, using the very route I am proposing through Tupelo. Of course, that system was never built because it was just too grand.

That is the real problem with all the routes currently proposed in your study, they are just too grand and they will never happen. The obstacles in the way of these routes is just too great. The Highway 78 & 45 solution has far fewer obstacles in its path to completion.

Tupelo, Mississippi, has a real and pressing problem with the number of trains passing through our city every day, and it is getting worst every year. We need to do something about it. Let's do what is reasonable, much less expensive and that has the least impact on the environment and the population. I firmly believe that solution is the route shown on the enclosed map. The green is railroad built on the ground. The pink is railroad on a trestle system like the photos enclosed.

Very sincerely yours,



Jim High, Private Citizen
104 North Broadway - Apt. # 3
P. O. Box 467
Tupelo, MS 38802-0467

CC: Dick Hill, President
Tupelo City Council
Tupelo, Mississippi

**David Rumbarger, President
Community Development Foundation
Tupelo, Mississippi**

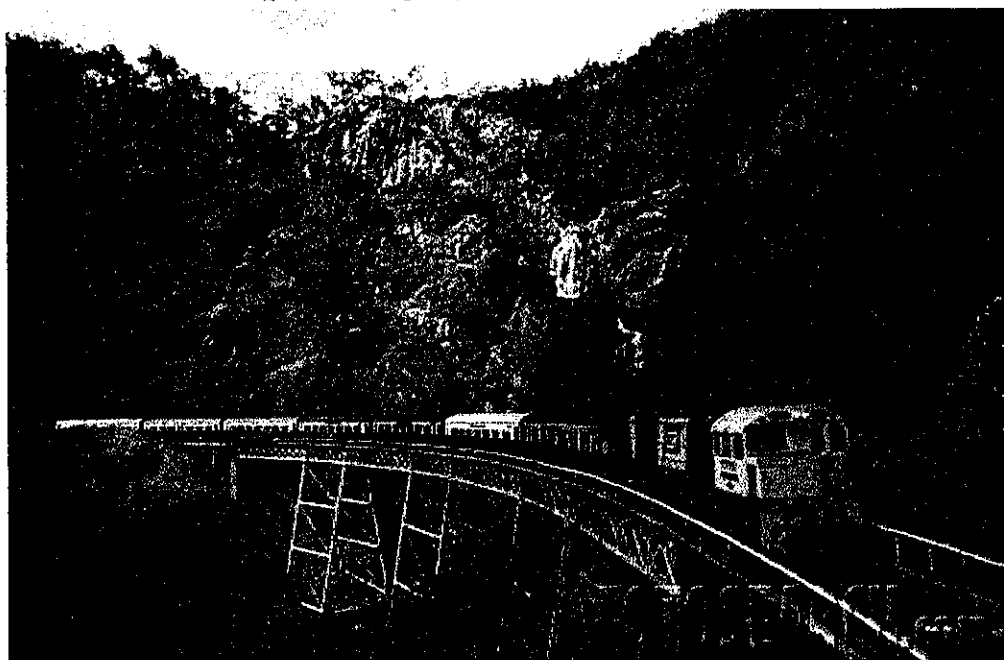
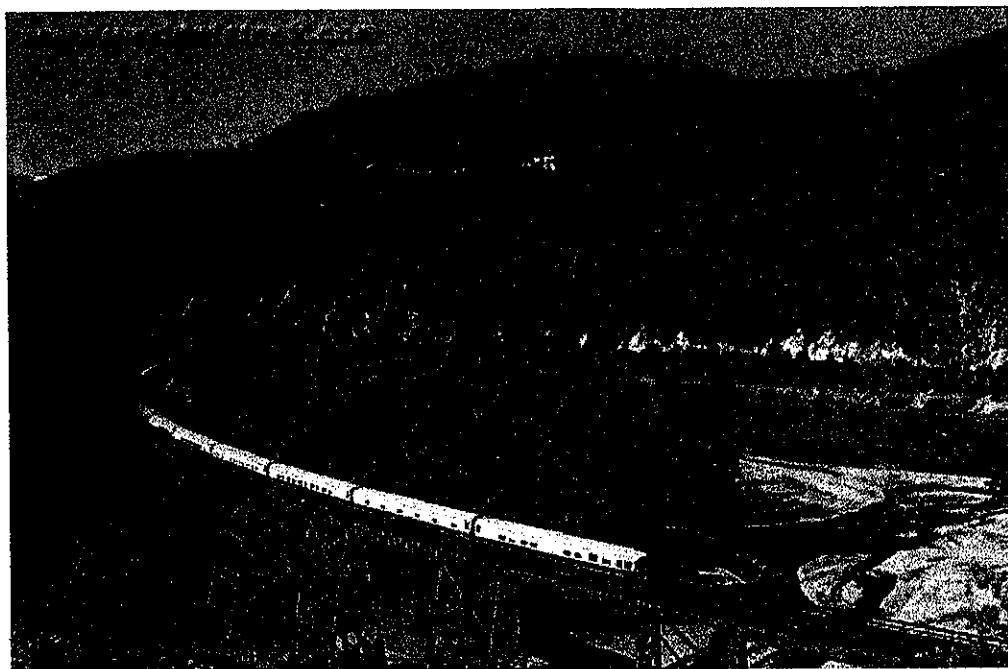
**Emily LeCoz, Reporter
Northeast Mississippi Daily Journal
Tupelo, Mississippi**

**Rep. Roger Wicker
United States Congress
Tupelo, Mississippi**

**Phil Morgan, President
Lee County Board of Supervisors
Tupelo, Mississippi**

**Former Mayor Larry Otis
City of Tupelo
Tupelo, Mississippi**

**Greg Pirkle, Chairman
Major Thoroughfare Committee
Tupelo, Mississippi**



January 4, 2007

RECEIVED
JAN 08 2007
H D R

Mr. James W. Lee, P.E.
HDR Engineering, Inc.
315 E. Robinson Street – Suite 400
Orlando, FL 32801-1949

RE: Tupelo, MS Railroad Relocation Study

Dear Mr. Lee:

Thank you for responding to my letter and proposed alternative for the relocation of the railroad from the middle of Tupelo. Please know that I have lived here all my life and right near Crosstown (I hope you know about Crosstown), which is Tupelo's biggest problem with the trains.

Since you have probably never been to Tupelo, let me explain. Crosstown is where Tupelo's only two major north/south and east/west streets meet. The BNSF Railroad bisects this intersection of Gloster Street and Main Street. And in addition, the switch for their railroad switchyard is located immediately to the S/E of this intersection on the railroad's main track. This means that any switching causes a complete blocking of Crosstown every time railroad freight cars are switched in Tupelo. This in addition of the 24+ major freight trains that come through Tupelo causes Crosstown to be the most congested intersection in the State of Mississippi.

Only someone who has lived with and close to these problems for so long could possibly know much about how to fix them. That, coupled with a long time interest in improving Tupelo's railroad problems, is the bases for my suggestion of a simpler route than all those so far suggested by HDR. I am glad to know that my suggestions will now be given serious consideration.

As I believe I stated in my first letter. My suggested route has one huge advantage over any other suggested route for relocation. You can go drive it right now and actually look at where the tracks would be placed. Anyone, including all the private citizens of Tupelo, can see for themselves right now what would be involved and how my proposed relocation route would actually work. I encourage you to come to Tupelo and ride the route.

I noticed in your letter the idea that only Professional Engineers have the ability to know what is possible and all the things that must be considered for the building of railroads. Obviously there are many technical things that I do not know, but I will be glad to have the problems of my suggested route studied in light of all the facts. However, rejection of any of the proposed routes, including the one suggested by me, should be made only on the bases of specific facts and real cost estimates, not some general opinions.

Now let me address remarks made by Chad Luedke's as quoted in the Daily Journal newspaper story about my plan on Wednesday, December 13, 2006. First off, he immediately stated that it was "impractical from an engineering standpoint and would only create a new set of problems". I trust now that he and you have had a chance to look more carefully at what I sent to both of you and to others, that this is still not your immediate first impression.

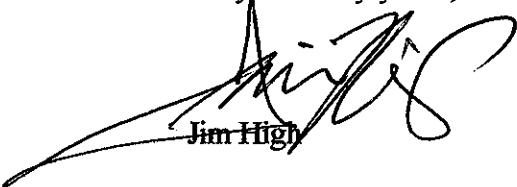
Next Mr. Luedke claimed that railroad tracks need to follow different "geometric criteria" and for this reason railroads could not follow the curves, hills and valleys like highways do. Please bring Mr. Luedke with you when you come to Tupelo, since he has probably never been here either. I'll be glad to take both of you on a tour of my route to show you that there are no hills, curves or valleys on my route, and that smart engineers should be well able to design a railroad relocation to fit where I have suggested is the most economical and easiest place to put it.

Mr. Luedke was quoted as saying "to be honest, you're moving the problem from one place to another". Everyone here in Tupelo, and especially those that take the time to go ride the route and look at it, know that he is in complete error with this statement, which clearly shows that he is not familiar with anything along the route I have suggested, or the future commercial and residential development of Tupelo.

I am not trying to be argumentative, just factual. I just want to make sure that what I feel is the best and most economical route is not dismissed out of hand. And I am going to continue to work to see that it is not. Surely HDR Engineering wants what is best for Tupelo, even if that turns out to be a plan not initially suggested by HDR.

My invitation to tour you and others here in Tupelo will remain open. I hope that you will avail yourselves of the opportunity. And if I get down to my Marriott Condo at Marriott's Orlando World Center Hotel this summer, I will try to schedule a visit with you.

Very sincerely yours,



Jim High

COPY

RECEIVED

APR 06 2007

H D R

April 2, 2007

~~Claiborne Barnwell, P.E.
MDOT
P. O. Box 1850
Jackson, MS 39215-1850~~

RE: Railroad Relocation Study
Tupelo, Mississippi

Dear Mr. Barnwell:

Thank you for your letter of March 18th, and I most appreciate your phone call in advance of the letter. I feel we had a positive open and honest conversation about this Relocation Study and other options that the City of Tupelo might need to consider in the future.

I am not sure that I completely understand the chart that you included with your letter. About the major thing I learned from it is that my proposed route is approximately 11 miles in length. Of that, some 6 miles would be on the trestle that I propose. I realize that \$5,000 per foot seems high for building a trestle, but in reality that is only \$26.5 Million per mile and for the 6 miles, only \$159 Million dollars. This amount added to the cost of the other 5 miles along the flat land north of Highway 78 would, in my opinion, make this route far cheaper to build than any of the other proposals.

Something else in your letter needs clarification. You talk about the problems of adjusting the heights of the bridges and the off/on ramps. Actually of the three existing bridges that would need adjustment, only the Natchez Trace Parkway Bridge has any off/on ramps. Changing the height of a bridge without any off/on ramps while not a simple process, I think you will admit is really not all that difficult. Yes, the whole Natchez Trace Parkway Interchange might have to be rebuilt. But building one new interchange on the entire route is a far cry from the 10 to 20 grade separations that are proposed in the other routes. And remember those grade separations put the roads over the railroad on new bridges and interchanges, not the railroad over the roads as my trestle proposal does without the need for bridges or interchanges.

Everywhere I go here in Tupelo people talk to me about the route that I have proposed and tell me that it makes perfect sense. The public is for this route, and I don't believe that any other route can ever win public acceptance. The right of way battles would be enormous.

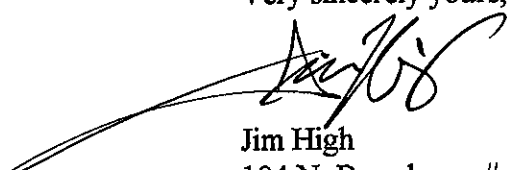
Moving this track out of the middle of Tupelo is one of the most important issues that Tupelo will have to face in the years ahead. Yes, my route might have a few design problems. But they can be overcome.

Why not do what is possible. What causes the least problems. What fixes the problem for ever. What will have public support. And what in the end will also probably be the least expensive.

I look forward to further developments as this Relocation Study moves forward. And I certainly hope and expect that the High Alternative, as you call it, can be given the careful study that the other routes receive.

I have one additional question for you. It was my understand that HDR Engineering, Inc. was hired by MDOT to do this study. If that is so, why is MDOT doing what appears to be all the work?

Very sincerely yours,



Jim High
104 N. Broadway # 3
Tupelo, MS 38802

cc: Mr. Bill Jameison, District Engineer, Tupelo
Mr. Wayne Parrish, Planning Division
✓ Mr. Jim Lee, HDR Consultants
Representative Roger Wicker
Emily LeCoz, Northeast Mississippi Daily Journal



Public Meeting
COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
 E-mail: environmental_comments@mdot.state.ms.us
 www goMDOT.com

Name Quinn Moore Hendry Telephone 662-842-7138
 Address 2060 Eastlake Drive
 City Tupelo State MS Zip 38804

Which best describes your primary interest?

<input type="checkbox"/> Affected	<input checked="" type="checkbox"/> Resident
<input checked="" type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input checked="" type="checkbox"/> Relocations	<input type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input checked="" type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input checked="" type="checkbox"/> Traffic Volume	<input type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: M - in Town Alternative
Elevating Rails Through
Town

Issues and/or concerns about the project: _____

Recommendations for the project: _____

PLEASE SUBMIT AT THE MEETING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC MEETING



Public Meeting
COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Bill Martin Telephone 662 844-4485
 Address PO BOX 1091
 City Tupelo State MS Zip 38802

Which best describes your primary interest?

<input type="checkbox"/> Affected	<input type="checkbox"/> Resident
<input checked="" type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input checked="" type="checkbox"/> Relocations	<input type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input type="checkbox"/> Traffic Volume	<input type="checkbox"/> Economics
<input checked="" type="checkbox"/> Other <u>RAISED TRACK</u>	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: RAISED TRACK ON SAME ROAD BED

Issues and/or concerns about the project: OTHER ROUTES AFFECT LIVES OF OTHERS, THEIR HOMES, ETC.

Recommendations for the project: RAISED TRACK THROUGH TOWN.

PLEASE SUBMIT AT THE MEETING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC MEETING

Visit us on the web at www.goMDOT.com, or e-mail environmental_comments@mdot.state.ms.us



Public Meeting COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name FRANK BOETTCHER Telephone 662-401-0258
 Address 4439 RIDGEWAY DR
 City BELDEN State MS Zip 38826

Which best describes your primary interest?

<input checked="" type="checkbox"/> Affected	<input checked="" type="checkbox"/> Resident
<input type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input type="checkbox"/> Relocations	<input checked="" type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input type="checkbox"/> Traffic Volume	<input type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: ALTERNATIVE L, FOLLOWED BY K
L IS THE LEAST COSTLY OF THE ALTERNATIVES THAT WILL
REDUCE THE NOISE ALL THE WAY TO THE WEST LIMIT
IT SOLVES THE CROSS TOWN PROBLEM BUT NOT THE WEST
SIDE NOISE

Issues and/or concerns about the project: COST & THAT THE PLANNING,
ENVIRONMENTAL DOMAIN PROCESS & CONSTRUCTION WILL TAKE
LONGER.

Recommendations for the project: PICK L OR K & GO!

PLEASE SUBMIT AT THE MEETING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC MEETING



Public Meeting COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Louise W. White Telephone 662-842-1927

Address 344 Highway 178 W

City Tupelo State MS Zip 38804

Which best describes your primary interest?

<input type="checkbox"/> Affected	<input checked="" type="checkbox"/> Resident
<input type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input checked="" type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input checked="" type="checkbox"/> Relocations	<input type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input type="checkbox"/> Traffic Volume	<input checked="" type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: M - Does not affect my property.

Issues and/or concerns about the project: _____

Recommendations for the project: _____



Public Meeting COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED
<p>Tupelo Railroad Relocation</p> <p>Environmental Division FAX Number: 601-359-7355 E-mail: environmental_comments@mdot.state.ms.us www.goMDOT.com</p>

Name _____ Telephone _____

Address _____

City _____ State _____ Zip _____

Which best describes your primary interest?

<input type="checkbox"/> Affected	<input type="checkbox"/> Resident
<input type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input type="checkbox"/> Relocations	<input type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input type="checkbox"/> Traffic Volume	<input type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: _____

Issues and/or concerns about the project: _____

Recommendations for the project: _____

PLEASE SUBMIT AT THE MEETING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC MEETING

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Public Meeting COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Mary Lou Parks Telephone 844-6715
 Address 417 Hwy 178 W
 City Tupelo State MS Zip 38804

Which best describes your primary interest?

<input checked="" type="checkbox"/> Affected	<input checked="" type="checkbox"/> Resident
<input type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input checked="" type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input checked="" type="checkbox"/> Relocations	<input type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input type="checkbox"/> Traffic Volume	<input checked="" type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: (M) Selfishly, I like this because it doesn't affect my property (because one of the early plans put the track going through my house!) But economically, it makes more sense and no one will be any closer to the railroad than they are now.

Issues and/or concerns about the project: _____

Recommendations for the project: listen to the people. Don't put this off for another 10-20 years.



Public Meeting
COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Margaret Boss Telephone 869-2201
 Address 1785 Birmingham Ridge Rd
 City Satullo State MS Zip 38866

Which best describes your primary interest?

<input checked="" type="checkbox"/> Affected <u>Maybe</u>	<input type="checkbox"/> Resident
<input checked="" type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input checked="" type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input type="checkbox"/> Relocations	<input checked="" type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input checked="" type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input checked="" type="checkbox"/> Social
<input type="checkbox"/> Traffic Volume	<input type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: The raised bridge. This railroad has been at its present location for years and there is no reason to move it when it affects other property owners and residences. We do not need Tupelo's problem - they should have thought about the problem B-4 it was created

Issues and/or concerns about the project: that it devalue property, create the same problem in another area cause a lot of noise and that this will be passed on to taxpayers cost wise

Recommendations for the project: Put it underground.

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Public Meeting COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Lacey Holland Telephone 662-419-0535
 Address 1811 Birmingham Ridge
 City Saltville State MS Zip 38866

Which best describes your primary interest?

<input checked="" type="checkbox"/> Affected	<input checked="" type="checkbox"/> Resident
<input checked="" type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input checked="" type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input checked="" type="checkbox"/> Relocations	<input checked="" type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input checked="" type="checkbox"/> Safety
<input checked="" type="checkbox"/> Wildlife	<input checked="" type="checkbox"/> Social
<input checked="" type="checkbox"/> Traffic Volume	<input checked="" type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: Alternative "M" reduces safety hazards.

Issues and/or concerns about the project: will devalue our land, increase noise pollution, studies show increase in crime

Recommendations for the project: Leave it where it is! Each Supervisor should hold meeting within each district to meet with citizens who cannot ~~reach~~ travel to this meeting



Public Meeting COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name C. LAMAR CROCKER Telephone 662.840.6999

Address P.O. Box 7236

City Tupelo State MS Zip 38802.7236

Which best describes your primary interest?

<input type="checkbox"/> Affected	<input checked="" type="checkbox"/> Resident
<input type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input checked="" type="checkbox"/> Relocations	<input checked="" type="checkbox"/> Noise
<input checked="" type="checkbox"/> Wetlands	<input checked="" type="checkbox"/> Safety
<input checked="" type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input checked="" type="checkbox"/> Traffic Volume	<input type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: Alternative K - although it is expensive it is the best use of land resources & provides the traffic relief also. In its northern part at Sherman, it will have a positive effect on the Toyota plant.

Issues and/or concerns about the project: The elevated alternative is not a viable option at all!
• Time constraints - a decision for Alt "K" should be made ASAP & implemented ASAP!

Recommendations for the project: Whatever is done the project should be given "top priority" as it relates to the city of Tupelo, traffic flow overall and future benefits @ the Toyota plant.



Public Meeting COMMENT SHEET

July 12, 2007

<p align="center">PROJECT BEING CONSIDERED</p> <p align="center">Tupelo Railroad Relocation</p> <p>Environmental Division FAX Number: 601-359-7355 E-mail: environmental_comments@mdot.state.ms.us www.goMDOT.com</p>

Name Rachel S. Crocker Telephone 662-842-3338 (day)
 Address 1403 Ruffwood Rd
 City Tupelo State MS Zip 38801

Which best describes your primary interest?

<input type="checkbox"/> Affected	<input checked="" type="checkbox"/> Resident
<input type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input type="checkbox"/> Relocations	<input type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input type="checkbox"/> Traffic Volume	<input checked="" type="checkbox"/> Economics
<input checked="" type="checkbox"/> Other <u>aesthetics</u>	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: (K)
L would rapidly create another malfunction/bottleneck in the area where most area growth already exists.
M would ruin the city's aesthetics & cause further migration out of the city thereby doing economic harm to the city.

Issues and/or concerns about the project: see L & M above

Recommendations for the project: K seems in my opinion the only sensible thing to do. It would be foolish to spend money on L or M and still/soon have problems.



Public Meeting
COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Jim High Telephone 842-1932
 Address P.O. Box 467
 City Tupelo State MS Zip 38802

Which best describes your primary interest?

<input type="checkbox"/> Affected	<input type="checkbox"/> Resident
<input type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input type="checkbox"/> Relocations	<input type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input type="checkbox"/> Traffic Volume	<input type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: _____

~~Issues and/or concerns about the project:~~ _____

To Further help
Cross town problems

Recommendations for the project: _____

Move Switch to East End of
The Current Switch yard

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Public Meeting COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name M. BRISCOE Telephone 662-321-1452

Address 4386 OLD TOWN

City TUPELO State MS Zip 38804

Which best describes your primary interest?

<input checked="" type="checkbox"/> Affected	<input checked="" type="checkbox"/> Resident
<input type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input checked="" type="checkbox"/> Relocations	<input type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input type="checkbox"/> Traffic Volume	<input type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: RAISING OR NOTHING

Issues and/or concerns about the project: EXPENSE TO TAXPAYERS
& AFFECTED LANDOWNERS

Recommendations for the project:

PLEASE SUBMIT AT THE MEETING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC MEETING



Public Meeting COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED
<h2>Tupelo Railroad Relocation</h2> <p>Environmental Division FAX Number: 601-359-7355 E-mail: environmental_comments@mdot.state.ms.us www.goMDOT.com</p>

Name Daniel Adrian Doss, Ph.D. Telephone (662) 869 2020
Address 1811 Birmingham Ridge Rd
City Saltillo State MS Zip 38866

Which best describes your primary interest?

<input type="checkbox"/> Affected	<input checked="" type="checkbox"/> Resident
<input checked="" type="checkbox"/> Concerned	<input checked="" type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input checked="" type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input type="checkbox"/> Relocations	<input checked="" type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input checked="" type="checkbox"/> Traffic Volume	<input checked="" type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: Alternative "M." Potential of using the existing infrastructure; one of lower-cost alternatives; may demonstrate shortest path alternative; etc.

Issues and/or concerns about the project: Lack of dissemination of information regarding the amalgamation of studies and their outcomes. Lack of Q/A sessions and formal presentation of materials.

Recommendations for the project: Better communication with populace; Better dissemination of information; presentation of data + information with much greater details (e.g., streets, houses, etc.).



Public Meeting
COMMENT SHEET

July 12, 2007

<p>PROJECT BEING CONSIDERED</p> <p>Tupelo Railroad Relocation</p> <p>Environmental Division FAX Number: 601-359-7355</p> <p>E-mail: environmental_comments@mdot.state.ms.us</p> <p>www.goMDOT.com</p>
--

Name Margaret Gratz Telephone 844-5649

Address 3675 Old Town

City Tupelo State MS Zip 38804

Which best describes your primary interest?

<input checked="" type="checkbox"/> Affected	<input checked="" type="checkbox"/> Resident
<input type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input checked="" type="checkbox"/> Relocations	<input checked="" type="checkbox"/> Noise
<input checked="" type="checkbox"/> Wetlands	<input checked="" type="checkbox"/> Safety
<input checked="" type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input type="checkbox"/> Traffic Volume	<input type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: None

Moving the railroad is only moving the problem. Have surrounding communities' needs & desires been considered? These so-called solutions would exacerbate problems.

Issues and/or concerns about the project: Moving the tracks would impact existing homes & neighborhoods - eminent domain is frequently abused & benefits private businesses & individuals. Filling in the flood plain will adversely effect the environment.

Recommendations for the project: Just keep as is - tunnel under tracks or elevate road over. The best solution is leave as is.

Does the railroad want to move?

Who is paying the exorbitant cost???

PLEASE SUBMIT AT THE MEETING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC MEETING



Public Meeting COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED
<h2>Tupelo Railroad Relocation</h2> <p>Environmental Division FAX Number: 601-359-7355 E-mail: environmental_comments@mdot.state.ms.us www.goMDOT.com</p>

Name William Rutledge Telephone 662-842-2786

Address 413 Ione

City Tupelo State MS Zip 38801

Which best describes your primary interest?

<input type="checkbox"/> Affected	<input checked="" type="checkbox"/> Resident
<input checked="" type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input type="checkbox"/> Relocations	<input checked="" type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input checked="" type="checkbox"/> Social
<input type="checkbox"/> Traffic Volume	<input type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: ALT L SEEMS THE BEST, BUT SOME ADJUSTMENTS MIGHT BE ADVISABLE.

Issues and/or concerns about the project: THE ROUTE THRU TOWN SEEMS TOO INVASIVE.

Recommendations for the project: IS IT POSSIBLE TO MAKE THE EAST-WEST PORTION OF THE ROUTE SHORTER WITHOUT THE JOG TO THE NORTH TO BARNES CROSSING?



Public Meeting
COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Beverly Chappell Telephone 662-844-9615
 Address 2016 Strain St.
 City Tupelo State MS Zip 38804

Which best describes your primary interest?

<input type="checkbox"/> Affected	<input checked="" type="checkbox"/> Resident
<input checked="" type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input checked="" type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input checked="" type="checkbox"/> Relocations	<input checked="" type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input type="checkbox"/> Safety
<input checked="" type="checkbox"/> Wildlife	<input checked="" type="checkbox"/> Social
<input type="checkbox"/> Traffic Volume	<input type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: I would like to see this relocation plan entirely scrapped, dropped in the trash because it is ridiculous expense! too expensive for a nation at war with untold numbers of fanatic muslim "extremists". We should be spending this \$ on national security!
 Issues and/or concerns about the project: Waiting 10 or 15 minutes a day for a train to pass is no big inconvenience... not worth a 400 to 600 million dollar expenditure.

Recommendations for the project: I further feel that electing the train through downtown Tupelo would be extremely unattractive! Put the train in a trench if you must... that would at least muffle the noise.

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Public Meeting COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Brenda Spearman Telephone _____

Address 901 CR 1498

City Tupelo, MS State _____ Zip 38804

Which best describes your primary interest?

<input type="checkbox"/> Affected	<input checked="" type="checkbox"/> Resident
<input type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input checked="" type="checkbox"/> Relocations	<input checked="" type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input checked="" type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input checked="" type="checkbox"/> Social
<input type="checkbox"/> Traffic Volume	<input checked="" type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: Elevated Railway

Issues and/or concerns about the project: _____

Recommendations for the project: _____



Public Meeting COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
 E-mail: environmental_comments@mdot.state.ms.us
 www.goMDOT.com

Name Ernie Joyner Telephone 842-5058

Address 2317 Parc Monceau N.

City Tupelo State MS Zip 38804

Which best describes your primary interest?

<input type="checkbox"/> Affected	<input checked="" type="checkbox"/> Resident
<input type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input type="checkbox"/> Relocations	<input checked="" type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input checked="" type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input checked="" type="checkbox"/> Traffic Volume	<input checked="" type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: M. Maintains the same right-of-way.
Not as expensive as some other alternatives.

Issues and/or concerns about the project: Northern route would interfere
with development around Major Thoroughfare road to
Barnes Crossing

Recommendations for the project: _____

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Public Meeting
COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Sam M. Carter Telephone 841-1303
 Address 1829 Creely Road
 City Tupelo State MS Zip 38804

Which best describes your primary interest?

<input checked="" type="checkbox"/> Affected	<input checked="" type="checkbox"/> Resident
<input checked="" type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input checked="" type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input checked="" type="checkbox"/> Relocations	<input checked="" type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input type="checkbox"/> Safety
<input checked="" type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input checked="" type="checkbox"/> Traffic Volume	<input type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: Alternative M,
This would be the least amount of money. No one
would have to buy land or make people move.
My land borders 78 to the North. I live between Mt Vernon
Road and the trace. I live South of Town Creek.

Issues and/or concerns about the project: Alternative K would kill other
developments, have to buy land, make people move.
Alternative K would get people's land & be more
costly.

Recommendations for the project: Alternative M makes better sense.



Public Meeting COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
 E-mail: environmental_comments@mdot.state.ms.us
 www.goMDOT.com

Name Gale Henderson Telephone 662-566-7530
 Address 144 Rd. 784
 City Tupelo State MS Zip 38801

Which best describes your primary interest?

Affected Resident
 Concerned Business
 Other _____ Landowner
 Other _____

What are the major issues?

Relocations Noise
 Wetlands Safety
 Wildlife Social
 Traffic Volume Economics
 Other _____

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: Alternative M -

It is the least expensive and follows existing tracks. People who bought houses or businesses knew the train tracks were there. It is a Tupelo problem and should be "fixed" in Tupelo. An overpass at Crosstown should have been built long ago.

Issues and/or concerns about the project: We recently chose to live in the county to have acreage and quietness. We do not want the noise or property devaluation - We probably "over-paid" and do not think it is fair to have our neighborhood adversely affected.

Recommendations for the project: Also, Pontotoc landowners should not shoulder Tupelo's problems - They should not.

DO NOT choose alternative K - These livins in this area do not have

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Handwritten notes: representatives like a lawyer to represent them. Disagree with Alternative M - the cheapest choice.



Public Meeting COMMENT SHEET

July 12, 2007

<p align="center">PROJECT BEING CONSIDERED</p> <p align="center">Tupelo Railroad Relocation</p> <p>Environmental Division FAX Number: 601-359-7355 E-mail: environmental_comments@mdot.state.ms.us www.goMDOT.com</p>

Name RALPH HENDERSON Telephone 566-7530

Address 144 RD. 784

City Tupelo, MS. 38801 State MS Zip 38801

Which best describes your primary interest?

<input type="checkbox"/> Affected	<input checked="" type="checkbox"/> Resident
<input checked="" type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input checked="" type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input checked="" type="checkbox"/> Relocations	<input checked="" type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input type="checkbox"/> Traffic Volume	<input type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: ALTERNATIVE M

Issues and/or concerns about the project: THIS IS A TUPELO PROBLEM. THIS IS NOT A LEE COUNTY OR PONTOTOC PROBLEM. KEEP THE RAILROAD IN TUPELO WHERE IT IS SUPPOSE TO BE AND DON'T PUT IT IN THE COUNTY.

Recommendations for the project: I THINK ALTERNATIVE M IS THE BEST WAY TO GO. IT IS CHEAPER PLUS THE RIGHT-OF-WAY HAS ALREADY BEEN ESTABLISHED.

PLEASE SUBMIT AT THE MEETING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC MEETING

Visit us on the web at www.goMDOT.com, or e-mail environmental_comments@mdot.state.ms.us



Public Meeting
COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355
 E-mail: environmental_comments@mdot.state.ms.us
 www.goMDOT.com

Name Mike Stroup Telephone 840-1720
 Address 262 Ranch land Rd
 City Balden State MS Zip 38826

Which best describes your primary interest?

<input type="checkbox"/> Affected	<input checked="" type="checkbox"/> Resident
<input type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input type="checkbox"/> Relocations	<input checked="" type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input type="checkbox"/> Traffic Volume	<input type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: A L Moves Noise +
danger out of populated areas.
M would be my next choice

Issues and/or concerns about the project: Alternative K would disrupt land
+ watersheds in a nice rural area.

Recommendations for the project: Choice L is the best.

This format for the meeting is great! Maps + Staff to answer
questions are a big help. The pass through and visit allows
good communication and avoids arguments and emotional outbursts.



Public Meeting COMMENT SHEET

July 12, 2007

<p align="center">PROJECT BEING CONSIDERED</p> <p align="center">Tupelo Railroad Relocation</p> <p>Environmental Division FAX Number: 601-359-7355 E-mail: environmental_comments@mdot.state.ms.us www.goMDOT.com</p>

Name Ken Lemons Telephone 662-790-3092
 Address 1138 D. L. Collins Dr.
 City Tupelo State MS Zip 38801

Which best describes your primary interest?

<input checked="" type="checkbox"/> Affected	<input checked="" type="checkbox"/> Resident
<input checked="" type="checkbox"/> Concerned	<input checked="" type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input checked="" type="checkbox"/> Relocations	<input type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input checked="" type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input checked="" type="checkbox"/> Traffic Volume	<input checked="" type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: I am in favor of the elevated tracks over the existing TR.

Issues and/or concerns about the project: Grade crossing At Eason ^{INSE} & on the KCS on Eason

Recommendations for the project: Recommend the elevated and make overpass over INSE & KCS on Eason

PLEASE SUBMIT AT THE MEETING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC MEETING



Public Meeting COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name LAWRENCE BRISCO Telephone 662-842-0482

Address PO BOX 2882

City TUPELO State MS Zip 38803

Which best describes your primary interest?

<input type="checkbox"/> Affected	<input checked="" type="checkbox"/> Resident
<input type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input checked="" type="checkbox"/> Relocations	<input checked="" type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input checked="" type="checkbox"/> Traffic Volume	<input type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: M, IN TOWN ALTERNATIVE, THIS JUST
MAKES THE MOST SENSE. I THINK IT WILL LOOK GOOD
AND ACTUALLY MAKE TUPELO LOOK MORE
"METROPOLITAN". ~~IT IS~~ ~~THE~~ THIRTY YEARS FROM NOW
THERE ~~WILL~~ MIGHT BE SHORT HAUL COMMUTER TRAINS FROM
TUPELO TO WELLSRING TO NEW ALBANY

Issues and/or concerns about the project: DO THE PROJECT RIGHT

Recommendations for the project: FIND THE MONEY TO DO
THE IN TOWN ALTERNATIVE M



Public Meeting
COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Leon Herring Telephone 566-8596
 Address 886 Palmetto Rd
 City Tupelo State MS Zip 38801

Which best describes your primary interest?

<input checked="" type="checkbox"/> Affected	<input type="checkbox"/> Resident
<input type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input checked="" type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input type="checkbox"/> Relocations	<input checked="" type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input type="checkbox"/> Traffic Volume	<input type="checkbox"/> Economics
<input type="checkbox"/> Other <u>Don't want to give up land</u>	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: Alternative M- Because it would cost less and I don't want the train crossing my land.

Issues and/or concerns about the project: ① I don't want to give up my land ② Cost involved ③ Noise + Safety

Recommendations for the project: Leave it like it is now or Alternative M. The train has gone through Tupelo for years and people have adjusted to it. I think the cost involved should naturally be a deciding factor.



Public Meeting
COMMENT SHEET

July 12, 2007

<p align="center">PROJECT BEING CONSIDERED</p> <p align="center">Tupelo Railroad Relocation</p> <p>Environmental Division FAX Number: 601-359-7355 E-mail: environmental_comments@mdot.state.ms.us www.goMDOT.com</p>

Name Tommie Lee Ivy Telephone (662) 767-3311

Address 292 Rd 154

City Shannon State MS Zip 38868

Which best describes your primary interest?

<input type="checkbox"/> Affected	<input type="checkbox"/> Resident
<input type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input checked="" type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input type="checkbox"/> Relocations	<input checked="" type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input checked="" type="checkbox"/> Traffic Volume	<input type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: Alternative M Because it cost less
Money

Issues and/or concerns about the project: Citizen are Concern noise and Safety in
the areas

Recommendations for the project: Leave Just like it is



Public Meeting COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Lay Reed Telephone _____
 Address 2136 Deer Run
 City Tupelo State MS Zip 38804

Which best describes your primary interest?

<input checked="" type="checkbox"/> Affected	<input type="checkbox"/> Resident
<input type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input type="checkbox"/> Relocations	<input type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input type="checkbox"/> Traffic Volume	<input checked="" type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: Raise crosstown tracks

Issues and/or concerns about the project: moving tracks to Mt Vernon
Rel area would directly hurt our
property value of our home

Recommendations for the project: _____



Public Meeting COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name Ronnie Bell Telephone (662) 844-7971

Address 141 Road 159

City Tupelo State MS Zip 38804

Which best describes your primary interest?

<input checked="" type="checkbox"/> Affected	<input checked="" type="checkbox"/> Resident
<input type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input checked="" type="checkbox"/> Relocations	<input checked="" type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input checked="" type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input checked="" type="checkbox"/> Traffic Volume	<input type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: M - seems to be most economical and least intrusive.

Issues and/or concerns about the project: Have all reasonable alternatives been explored?

Recommendations for the project: For the amount of money in the estimator, is this a worthwhile project?



Public Meeting COMMENT SHEET

July 12, 2007

<p align="center">PROJECT BEING CONSIDERED</p> <p align="center">Tupelo Railroad Relocation</p> <p>Environmental Division FAX Number: 601-359-7355 E-mail: environmental_comments@mdot.state.ms.us www.goMDOT.com</p>

Name Patsy Hitt Telephone 840-8444
 Address 2071 Deer Run Road
 City Tupelo State MS Zip 38804

Which best describes your primary interest?

<input type="checkbox"/> Affected	<input checked="" type="checkbox"/> Resident
<input type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input type="checkbox"/> Relocations	<input checked="" type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input type="checkbox"/> Traffic Volume	<input checked="" type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: Elevating tracks
- cheaper
- won't affect housing

Issues and/or concerns about the project: The northern route would compromise real estate in an area that is growing. The railway would be extremely close to my home and would decrease my property value.

Recommendations for the project: Go with raising tracks or street at Crosstown - cheaper and more feasible. Let those of us who chose to purchase a home away from the tracks still have that amenity. Thank you!



Public Meeting COMMENT SHEET

July 12, 2007

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmental_comments@mdot.state.ms.us
www.goMDOT.com

Name KEVIN HITT Telephone 662-840-8444

Address 2071 DEER RUN RD

City TUPELO State MS Zip 38804

Which best describes your primary interest?

<input checked="" type="checkbox"/> Affected	<input checked="" type="checkbox"/> Resident
<input type="checkbox"/> Concerned	<input type="checkbox"/> Business
<input type="checkbox"/> Other _____	<input type="checkbox"/> Landowner
	<input type="checkbox"/> Other _____

What are the major issues?

<input type="checkbox"/> Relocations	<input checked="" type="checkbox"/> Noise
<input type="checkbox"/> Wetlands	<input type="checkbox"/> Safety
<input type="checkbox"/> Wildlife	<input type="checkbox"/> Social
<input type="checkbox"/> Traffic Volume	<input checked="" type="checkbox"/> Economics
<input type="checkbox"/> Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: ELEVATING TRACKS

- 1) CHEAPEST ALTERNATIVE
- 2) DOES NOT "AFFECT" ANYONE NEGATIVELY. ONLY IMPROVES A BAD SITUATION
- 3) IF DONE RIGHT CAN BE AESTHETICALLY PLEASING, AND AN EXAMPLE FOR OTHER CITIES TO FOLLOW.

Issues and/or concerns about the project: _____

THE NORTHERN PROPOSED ROUTE WILL TRANSECT SOME OF THE MOST PROMISING REAL ESTATE - BOTH RESIDENTIAL AND COMMERCIAL THAT TUPELO HAS. HOUSING LAND IS AT A PREMIUM. THIS WILL KEEP PEOPLE FROM BUILDING MY HOUSE (AND MY NEIGHBORS) ARE VERY CLOSE TO THE TRACK, AND THIS WILL CAUSE OUR HOME VALUES TO PLUMMET.

Recommendations for the project: _____

AS ABOVE. YOU DON'T WANT TO CREATE ANOTHER PROBLEM WHILE SOLVING ONE. EITHER ELEVATE THE TRACKS, OR IF MONEY IS AN ISSUE, DO NOTHING.

THANK YOU! 

PLEASE SUBMIT AT THE MEETING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC MEETING

APPENDIX E

Letter to Representative Roger Wicker
Jim High's Handouts at the Public Meeting

Thursday, July 12, 2007

Representative Roger Wicker
U. S. House of Representatives
2350 Rayburn House Office Building
Washington, DC 20515-0001

Dear Roger:

I picked up a copy of the letter from Butch Brown with MDOT today before the Public Meeting to look at the three routes now proposed by MDOT for the relocation of the BNSF railroad tracks

I'll get to my High Alternative, as MDOT calls it, in a moment, but first let me comment on the three routes proposed by MDOT.

The elevated route through the middle of Tupelo along the present railroad line would create a "Great Wall of China" through the middle of Tupelo and will proved to be unacceptable to the general public. I use to own property along this route, so I know how little right of way BNSF has as it passed through Tupelo, especially in the Crosstown area. Can you image the headaches involved in getting right of way and actually building this huge two or three mile wall? It is interesting to note that while they seem to dismiss my trestle design, they are proposing to put the trains in the air on top of a huge concrete wall. What does this say?

Their route that would follow Coley Road extended to the Mall @ Barnes Crossing area will not be good for the development of Tupelo in the future, and that area is where most new development will occur. And how on earth do they think moving the trains from the middle of town to the middle of the largest retail shopping area in North Mississippi is a step in the right direction? It is also interesting to note that this route does follow pretty much my route along side of U.S. Hwy 45 as it heads south, but I think they plan on building bridges on all the roads over the tracks. What does this say about MDOT's thinking? They know bridges and little else, I'm afraid.

Their third option, the most expensive at some 3/4ths of a BILLION dollars, would run the new route almost completely out of Lee county from Blue Springs south through Pontotoc County and then cutting back across southern Lee County near Shannon to reconnect with BNSF near Nettleton. Everyone in Tupelo would love this route. But by the time we get around to actually building it the cost will be well over a BILLION dollars. And would we really ever get to the point of building it? Probably not because not a single landowner all along that long route would want the train tracks. And how does it look for Tupelo to be moving it's problem out into Lee County, let alone moving all the way over to the folks in Pontotoc county

So these three plans are all very bad, in my opinion.

Now let me address Mr Brown's comments in his letter of June 29th to you. First he seems to not understand what I (we) are talking about. He says due to the flood plan east of the Natchez Trace much of the corridor will need to be elevated. Duh? All of it is elevated on a trestle. That is why it is so easy to build in this area.

He says that my route would head south from Main Street to the existing BNSF route, but he seems to forget that my trestle would also take the railroad over Eason Blvd. before it begins to come back to ground level beyond Eason Blvd. as the railroad heads toward Nettleton.

He says that the entire U.S. 45 and 78 interchange would have to be rebuilt. What on earth is he talking about? My route, which I showed to his people on the tour we took, comes no where near that interchange.

He talks about extreme angles and elevation changes on my route. If he understood the route he would know that these do not exist.

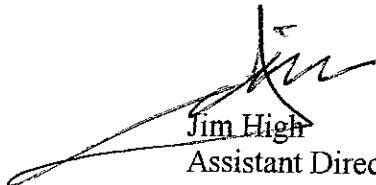
He talks all about different criteria for railroads Vs highways, and seems to try to throw in complications with future I-22, which is important to Tupelo and the new Toyota plant. These are all non-issues. The only place where the railroad and the US Highways intersect the railroad is in the air on a trestle going over the highway. Don't tell me this never happens, I drive under several such bridges every time I go to Memphis on future I-22.

I can't understand why MDOT and HDR can't see that the High Alternative is the only route that puts the railroad issue to bed forever. Because it is along the existing U.S. 78 & 45 routes it will never ever be in the way of anything in the future. And why can't the highways and the rail relocation route at least share some of the present right of way of these highways. MDOT does not own this property. The people of Mississippi do, and that is us in Tupelo.

Attached is a detailed map showing the High Alternative and notes on the back to help anyone understand this relocation route. I even use figures that MDOI gave me to come up with a rough cost estimate.

Please don't let us get pushed in the direction of a plan that will never happen, at least not in our lifetimes. The problems that Tupelo has right now in 2007 with the trains are too great to let this happen.

Sincerely,



Jim High
Assistant Director

Notes for Railroad Relocation Route that follows U.S. Hwy 78 and U.S. Hwy 45 (See Map)

1. At grade crossing for old Hwy 78. This is at the edge of Tupelo where the trains are traveling every fast. So the time the train blocks the road would be short. The crossing should have Crossing Guards. There is also ample room to build a bridge over the railroad, if funds are available and the traffic count justifies this.
2. Mt. Vernon Road has no on or off ramps to deal with. Only the height of the bridge needs to be adjusted a little to allow the train to pass under the bridge on the north side.
3. Old Town Road has no on or off ramps to deal with. Only the height of the bridge needs to be adjusted a little to allow the train to pass under the bridge on the north side.
4. Natchez Trace – This entire interchange may need to be rebuilt to accommodate the on and off ramps to the trace and to allow for the train to pass under the Natchez Trace and onto the trestle that will carry the train for the rest of its route through Tupelo. A complete engineering review will determine the best method to handle this interchange.
5. The railroad is on a trestle at this point and goes over U.S. 78 without the need for any bridge or changes to U.S. 78.
6. The railroad is on a trestle at this point and goes over Gloster Street without the need for any bridge or changes to Gloster Street.
7. The railroad is on a trestle at this point and goes over U.S. 45 without the need for any bridge or changes to U.S. 45.
8. The railroad is on a trestle at this point and goes over the Kansas City Southern Railroad without the need for any bridge or changes to this other railroads track.

9. The railroad is on a trestle at this point and goes over Main Street without the need for any bridge or changes to Main Street.
10. The railroad is on a trestle at this point and goes over Eason Blvd. without the need for any bridge or changes to Eason Blvd.

This route is approximately 11 miles long. Five miles is on the flat land along the north side of U.S. Hwy 78. Six miles is on an elevated trestle.

MDOT says that a trestle cost \$26,500,000 per mile to build. This is only \$ 159,000,000. Assuming half that for a railroad on flat land, those 5 miles would be \$ 66,250,000.

Rebuilding the Natchez Trace Interchange and adjusting the height of two bridges should not cost over \$25,000,000.

Total estimate for this route - \$ 250,250,000

This is the least expensive, the least disruptive, easiest to build and best route."

NORTH
↑

Welcome To
TUPELO, MISSISSIPPI

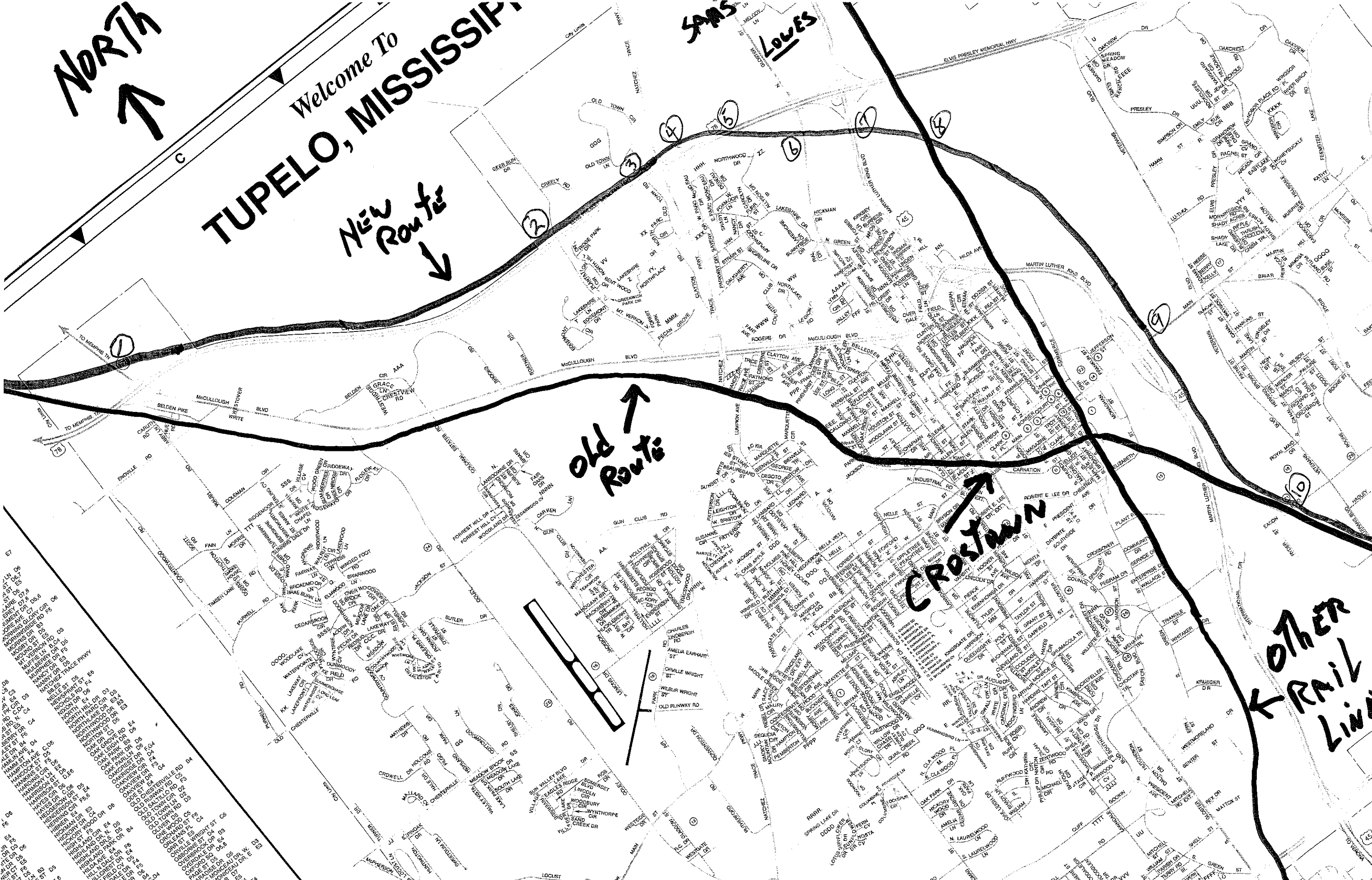
New Route
↓

Old Route
↑

CROSTOWN
↑

**Other
RAIL
Lines**
↑

Sears
Lowes



Public Involvement Record Sheet

Tupelo Railroad Relocation EIS



Date of Meeting	February 5, 2008, 4:45 pm
Location of Meeting	Ms. Crowley's home, Tupelo, MS
Meeting Style	Individual meeting with a citizen who lives on the track
Duration of meeting	30 minutes
Parties involved	MDOT, ABMB, Fitch Williamson and Assoc.
Exhibits Used	none
Original Objective	To meet with a local citizen who is directly impacted by the train and evaluate how her day to day living is affected
Accomplishment	Met with Ms. Crowley in her home and back yard.
Summary of Meeting	<ul style="list-style-type: none"> • Trains appear to traverse the area more often on the weekends • Horn blowing is more frequent and longer on the weekends (maybe from the anticipation of more public activity in the area on weekends?) • Vibration is bad in the back of the house • Noise is not so bad in most of the house but is most negatively felt in the sunroom in the back. • Largest noise impact is from the horn blowing • The train interrupts phone calls – Ms crowly must stop phone conversations until the horn stops • Ms Crowley loves this neighborhood – she is close to work • She has lived her since 2005 and has lived in Tupelo for over 20 years

The purpose of this document is to serve as a record of meetings and Public Involvement held for the Tupelo Railroad Relocation EIS.

	<ul style="list-style-type: none">• Traffic congestion at the nearby street crossing is an issue for her – the traffic backs up into her street when a train is crossing• Rising insurance rates was a question she had – would her homeowners insurance go up because of the elevated track in her neighborhood?• She also questioned the removal of trees on her property. She has some old growth oak trees along the back of her yard that provide a visual buffer from the train. She would like to see them remain.• Ms. Crowley was not open to the idea of a walking trail alongside the track in her neighborhood for safety reasons. Lighting might also be undesirable in that it would shine in her windows at night.
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The purpose of this document is to serve as a record of meetings and Public Involvement held for the Tupelo Railroad Relocation EIS.

Public Involvement Record Sheet

Tupelo Railroad Relocation EIS



Date of Meeting	February 5, 2008, 6:00 pm
Location of Meeting	Inspirational Community Baptist Church, 405 Clayton Ave, Tupelo, MS
Meeting Style	Small public meeting for the neighborhood
Duration of meeting	1 ½ hours
Parties involved	MDOT: Claiborne Barnwell, Kim Thurman; ABMB: Joce Pritchett, Latonya Graham; Fitch Williamson & Cartwright, Inc.: Lavelle Fitch
Exhibits Used	Tupelo RR Relocation video, 24x36 poster plots of the rail bridge renderings and ortho renderings
Original Objective	To meet with citizens of the neighborhood that would be most affected by Alternative M, the in-town rail bridge alternative
Accomplishment	Met with 9 citizens and the pastor and discussed the implications of the in-town alternative
Summary of Meeting	<ul style="list-style-type: none"> • Church has a recording studio where they record services and music and they often have horn noise on their tapes. • Pastor stated that the proximity of the train is the reason the church has no windows – they were closed in to keep out the noise • Train horn can be heard from inside the church as far away as crosstown • Audible sounds heard were from the engine, wheels, and horn • The BNSF has upgraded their engines and the new engines are much quieter than they use to be. Most of the existing noise is from the track and the horn. • Pastor stated that there is a high turnover in apartments and rental housing in the area because of the train noise • Flashing lights and gate alarm are also a nuisance.

The purpose of this document is to serve as a record of meetings and Public Involvement held for the Tupelo Railroad Relocation EIS.

	<ul style="list-style-type: none">• Much of the noise (other than the horn) seems to be from the train hitting the intersection.• Church does not limit children's activities because of the train – they play in the front of the property. Train is actually an attraction or novelty for the children.• Citizens stated that the train interferes greatly with trips to work making people late for work and coming back from lunch. Workers with a 30 minute lunch are greatly impacted by a train event.• Citizens generally seemed to be of the consensus that the M-alternative was very much needed and a great idea• There didn't seem to be much as much concern over the visual aspects of the elevated structure as there was the need to alleviate the congestion issues.• Concern for emergency vehicle mobility was discussed: ambulance and fire traffic is hampered now• The whole town shuts down as the train crosses the intersection of Main and Gloster.• It is difficult to hold conversations while standing outside of the church. The horn is so loud that it prevents one from hearing. You must wait until it passes.• There is some concern about safety. People speed after they hear a train coming. They attempt to cross the tracks before they are required to wait. There have been a few accidents.
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The purpose of this document is to serve as a record of meetings and Public Involvement held for the Tupelo Railroad Relocation EIS.

TUPELO RAILROAD RELOCATION PLANNING AND ENVIRONMENTAL STUDY

Neighborhood Meeting

February 5, 2008 6:00 pm

Inspirational Community Baptist Church
405 Clayton Ave, Tupelo, MS

SIGN-IN SHEET

Name / Agency	Address	Phone / Fax	E-mail
Bertha Cowley	214 Rankin Blvd.	662-840-9389	
Cordell Phillips	405 Clayton Ave	662-841-2915	inspirational.com@bellsouth.net
Johna Rush	610 Mont St	662-841-5954	
Michelle Ceman	110 Stephen St	(662) 222-6528	
Kimmie Stevenson	3545 Mitchell Pd	(662) 620-1172	kimmie.stevenson@yahoo.com
Wkatha Shupert	133 Savannah	(662) 260-8533	
Bonnie Ceman	116 Stephen St	(662) 231-5856	
Johnnie Pinson	614 Maynard Dr	(662) 322-5257	
Kenice Shupert	846 Zolop Court	(662) 610-6078	



Jim High

P. O. Box 467

Tupelo, MS 38802

April 17, 2009

(662) 842-1932

Mr. Wayne Parrish
MDOT Planning Division
401 N. West Street
Jackson, MS 39201

RE: Tupelo, MS – Railroad Re-Location Study

Dear Mr. Parrish:

I was very disappointed to see that after almost four years the railroad relocation study has boiled down to only one proposed solution. What happened to all those other lines on the map that ran all over the county? Frankly to me they looked much like big magic marker arcs drawn without much regard for the facts on the ground. But according to reports that I have read in the paper the single, only, and final solution proposed after the expenditure of \$2,000,000 is for a “Great Wall of China” to be built through the center of Tupelo to elevate the railroad in its present location.

You must realize that the citizens of this city will never agree with this. And this is beside the fact that the right-of-way does not now exist to accomplish this elevation of the tracks and at the same time keep the trains running while the elevated route is built.

All of this leads me to ask how the citizens of Tupelo can get an accounting of where and how \$2,000,000 of our taxpayer money was spent? Who was hired? What were they suppose to do? Did they do it? How much were they paid? Have they been paid? Is any of the \$2,000,000 still available for further review of our railroad problems?

And I am not looking for generalizations and categories of expenses showing percentages spent on various phases or parts of the study. I am looking for names, details and actual dollar amounts. Since most of us who live here in Tupelo and deal with these trains daily feel that this \$2,000,000 has been completely wasted, some accounting from MDOT would be very helpful in our understanding of where we are now and what our next steps should be, since the problem is still with us, getting worse by the month as both the railroad traffic and Tupelo’s street traffic grow, and we don’t have a workable permanent solution in sight.

Will MDOT be able to provide the people of Tupelo with this financial accounting? And I have one more question for you. At the meeting held recently with the residents of Mill Village here in Tupelo, I understand the question of increasing the speed of the trains through Tupelo was brought up, a suggestion that I have made on several occasions in the past. I was not informed of this meeting and did not attend, but I was told that MDOT said this was not a viable solution since the speed could not be increased, except from the current 20 mph to 25 mph due to the BNSF Railroad crossing the tracks of the Kansas City Southern Railroad in the middle of Tupelo.

Since this is not what I have been told by railroad officials, I got in touch with the Federal Railroad Administration and posed this question to them. The attached return email would indicate that information given out by MDOT at the Mill Village meeting was incorrect. Can you explain this?

There was great hope almost four years ago when the City of Tupelo working with then Representative Roger Wicker obtained \$2,000,000 from the Federal Government (our tax dollars) for what was to be a final proposed solution to Tupelo's ever growing problem with the BNSF Railroad. But I think I speak for almost everyone when I say that we are back at square one, and really have nothing to show for our \$2,000,000. I think we deserve to know in detail where the money went. And by the copies of this letter shown below, I hope you know that I do intend to find out. MDOT could speed this process along by providing a full, detailed accounting of all expenditures down to the last penny. Surely that kind of bookkeeping report is available at the push of some computer button.

Very sincerely yours,



Jim High

CC: Senator Roger Wicker
Senator Thad Cochran
Congressman Travis Childers
Northern District MDOT Commissioner Bill Minor
MDOT Executive Director Butch Brown
City of Tupelo Mayor Ed Neelly
Tupelo City Council President Burdell Jones
Mississippi State Auditor Stacy Pickering
Northeast Mississippi Daily Journal

“For over 14 years in Congress, I have supported policies that keep your taxes low for a simple reason: I believe tax dollars are your money, not the government’s money.” From Senator Roger Wicker’s Weekly Email Update

SmartZone Communications Center Collaboration Suite

jimhigh@comcast.net

Response Control #011752

Monday, March 09, 2009 9:48:24 AM

From: Carlo.Patrick@dot.gov

To: jimhigh@comcast.net

Cc: RCorrespondenceStaff@dot.gov

Mr. High,

The Federal Railroad Administration has no regulations for posting operating speeds at railroad track crossings. Speeds are assigned to track crossings by the individual railroad with consideration to the construction (manganese steel or bolted heat-treated rail), manufacturer's recommendations, and whether it is located on a heavy or high-speed traffic route. The only speeds the FRA regulates are curve tracks described in Title 49 CFR Part 213 Subpart C Sec. 212.57 (Curves), and any speed restrictions needed when a segment of track does not meet the requirements of the Federal Track Safety Standards. If you have any further questions, please feel free to notify us.

Regards,

Carlo M. Patrick
Chief - Rail Integrity
Federal Railroad Administration
1200 New Jersey Ave. SE - Mail Stop 25
Office 33-301
Washington D.C. 20590
Phone: 202-493-6399
Cell: 202-253-6484
E-mail: carlo.patrick@dot.gov

SmartZone Communications Center Collaboration Suite

jimhigh@comcast.net

A Question

Friday, March 06, 2009 12:43:45 PM

From: jimhigh@comcast.net

To: rrs.correspondence@fra.dot.gov; rrs.correspondence@fra.dot.gov

Bcc: joe.rutherford@djournal.com

Where two different rail lines cross each other is there any regulation as to the speed the trains can travel at the crossing point?

I understand that municipalities can set train speed limits within their city limits, but was told that the Federal Railroad Administration sets the speed limit at the point where two separate rail lines cross each other, and that the limit was 25 mph.

Is this correct?

Where in all your regulations is this posted if, in fact, it is correct.

Thanks for your help.

Jim High
P. O. Box 467
Tupelo, MS 38804

(662) 842-1932

jimhigh@comcast.net

Jim High

P. O. Box 467

Tupelo, Mississippi 38802

May 10, 2009

(662) 842-1932 / cell (662) 401-1932

jimhigh@comcast.net

Mr. Claiborne Barnwell, P.E.
MDOT – Environmental Division
P. O. Box 1850
Jackson, MS 39215-1850

RE: Tupelo Railroad Relocation Study

Dear Mr. Barnwell:

Good to hear from you again, and thank you for your most comprehensive letter about the steps in the process that have gotten us to the present point over the last four plus years. However, your letter did not even mention the central point of my concern. Where and with who has this \$2,000,000 been spent? And, has it all been spent? Or do we have a balance still available in the account?

I am pretty sure that I speak for the majority of the people in Tupelo when I repeat what I said in my first letter. We do not think that we have gotten very much for the expenditure of \$2,000,000, and only by knowing in detail where, with whom, and how the money was spent will we be able to make a determination about the results that are being presented to the citizens of Tupelo.

I was given a copy of the minutes of the meeting with the Mill Village residents and after reading them carefully I am even more confused. They state that the elevation of the railroad will take place between Church Street and Crosstown. Does the proposed elevation of the railroad not cover all the intersections in Tupelo from Jackson Street on the western end to Eason Blvd. on the eastern end? The minutes talk about only 2.8 miles of elevated tracks. This would not seem long enough to solve the grade crossing problems at all the intersections within Tupelo. Could you clarify this point for me?

Also the proposal to elevate the tracks would mean the relocation of the rail switchyard. Where will this switchyard be relocated to under your single solution proposal? And speaking of a single solution, you are careful to always mention the No-Build Alternative, as if you were proposing two solutions, but isn't the No-Build Alternative more properly called the Do-Nothing Alternative?

I also do not completely understand the reason that the speed cannot be increased to 40 m.p.h. Certainly somewhere in the country trains go across switches and other tracks at 40 m.p.h. or even faster. I do understand the sharp curve just east of the crossing with the other railroad, but don't see what the actual crossing has to do with the curve, which I feel could be made less sharp. And no one here in Tupelo would care how fast the trains

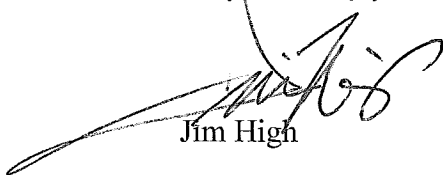
would go on an elevated track. They would no longer be a problem for traffic regardless of their speed or lack thereof, if they were elevated over the roads.

I also challenge your assertion that the public overwhelmingly supported the viaduct alternative. First, 35 people voting in a town of 35,000 residents is not a viable sample, and second, I attended that meeting and know from personal experience that most of the attendees were from the county where at the time you were proposing routes all over the place. They, of course, did not want the trains in their area, and so they voted for the solution that left them in the middle of Tupelo. Sort of a “not in my backyard” attitude and vote, in my opinion.

Let me also take this opportunity to say what I did not say in my other letter. I believe that my suggested route along the north side of Hwy 78 from Belden to the Natchez Trace where the railroad would transition to a trestle as it passes over Hwy 78, Gloster Street, Hwy 45, and the other railroad, then turning south and running still elevated along side Hwy 45 crossing over Main Street and Eason Blvd. before coming back to ground level is the **BEST POSSIBLE PERMANENT SOLUTION** for totally solving Tupelo’s railroad problem for all time. I’ve been told that MDOT feels that wetland issues and Indian lands issues would prevent consideration of this route. But since it follows your two highways for about 90% of this route and is on a trestle in the bottomlands, I find it hard to understand what the problem really is, except that it might be hard to pick this solution, which is free, when \$2,000,000 of taxpayer money was spent on something that is not as good.

Sooner or later a full detailed accounting of the expenditures of this study will be made public. Sooner will be a lot better than later, and I encourage the cooperation of MDOT in this regard.

Very sincerely yours,



Jim High

Senator Roger Wicker
Senator Thad Cochran
Northern District MDOT Commissioner Bill Minor
MDOT Executive Director Butch Brown
City of Tupelo Mayor Ed Neelly
Tupelo City Council President Burdell Jones
Mississippi State Auditor Stacey Pickering
Northeast Mississippi Daily Journal



APPENDIX C – Preferred Alternative Cost Estimates

Phase I - Interchange Construction	
Cost Component	Cost
Railroad Construction	
Trackwork	\$3,555,000
Site Work	\$3,396,000
Signals	\$1,715,000
Bridge Structures	\$10,164,000
Mobilization	\$942,000
Railroad Subtotal	\$19,772,000
Roadway Construction	
Eason Boulevard	\$4,038,000
Bridge Structure over KCS	\$1,468,000
Bridge Structure over BNSF	\$16,293,000
Retaining Walls	\$3,268,000
Mobilization	\$2,507,000
Maintenance of Traffic	\$5,014,000
Roadway Subtotal	\$32,588,000
Construction Subtotal	\$52,360,000
Contingency (20%)	\$10,472,000
Engineering (15%)	\$7,854,000
Railroad Right-of-Way	\$3,510,000
Roadway Right-of-Way	\$1,479,000
Phase I Total	\$75,675,000

Phase II - Temporary Track Construction	
Cost Component	Cost
Railroad Construction	
Trackwork	\$4,017,000
Site Work	\$2,430,000
Signals	\$650,000
Bridge Structures	\$169,000
Mobilization	\$582,000
Railroad Subtotal	\$7,848,000
Roadway Construction	
Asphalt Overbuild	\$60,000
Mobilization	\$12,000
Maintenance of Traffic	\$700,000
Roadway Subtotal	\$772,000
Construction Subtotal	\$8,620,000
Contingency (20%)	\$1,724,000
Engineering (15%)	\$1,293,000
Railroad Right-of-Way	\$0
Roadway Right-of-Way	\$0
Phase II Total	\$11,637,000

Phase III - Final Build Construction	
Cost Component	Cost
Railroad Construction	
Trackwork	\$3,896,000
Site Work	\$54,311,000
Signals	\$618,000
Bridge Structures	\$141,555,000
Mobilization	\$10,019,000
Railroad Subtotal	\$210,399,000
Roadway Construction	
US 45	\$1,715,000
Bridge Structures over BNSF	\$3,465,000
Sidewalk Connections	\$4,000
Pedestrian Trail	\$791,000
Mobilization	\$519,000
Maintenance of Traffic	\$1,737,000
Roadway Subtotal	\$8,231,000
Construction Subtotal	\$218,630,000
Contingency (20%)	\$43,726,000
Engineering (15%)	\$32,795,000
Railroad Right-of-Way	\$2,282,000
Roadway Right-of-Way	\$0
Phase III Total	\$297,433,000

Total Construction Cost All Phases \$384,745,000

**BNSF Main Line Permanent Track Construction
Tupelo, Mississippi**

<u>Mobilization & De-Mobilization</u>		\$ 2,856,000.00
<u>Site Work</u>		\$ 53,804,870.00
<u>Trackwork</u>		
Material		
Track	\$ 1,720,743.00	
Turnouts	\$ -	
Road Crossings	\$ 7,200.00	
Miscellaneous	\$ 453,931.00	
Total Material		\$ 2,181,874.00
Labor		
Track	\$ 941,120.00	
Turnouts	\$ -	
Road Crossings	\$ 174,600.00	
Total Material		\$ 1,115,720.00
Signals		
Wayside	\$ -	
Crossings	\$ 615,000.00	
Total Material		\$ 615,000.00
Sub Total		\$ 59,958,464.00
Contingencies	20%	\$ 11,991,693.00
Total Estimated Cost		\$ 71,950,157.00

**Interchange Track Construction (Including Wye)
Tupelo, Mississippi**

<u>Mobilization & De-Mobilization</u>		\$ 403,000.00
<u>Site Work</u>		\$ 3,902,426.00
<u>Trackwork</u>		
Material		
Track	\$ 1,533,155.00	
Turnouts	\$ 805,000.00	
Road Crossings	\$ 18,000.00	
Miscellaneous	\$ 618,962.00	
Total Material		\$ 2,975,117.00
Labor		
Track	\$ 625,338.00	
Turnouts	\$ 529,000.00	
Road Crossings	\$ 24,000.00	
Total Material		\$ 1,178,338.00
Signals		
Wayside	\$ 2,050,000.00	
Crossings	\$ 215,000.00	
Total Material		\$ 2,265,000.00
Sub Total		\$ 8,458,881.00
Contingencies	20%	\$ 1,691,777.00
Total Estimated Cost		\$ 10,150,658.00

**Temporary Track Construction
Tupelo, Mississippi**

<u>Mobilization & De-Mobilization</u>		\$ 516,000.00
<u>Site Work</u>		\$ 2,430,306.00
<u>Trackwork</u>		
Material		
Track	\$ 1,816,702.00	
Turnouts	\$ 140,000.00	
Road Crossings	\$ 26,880.00	
Miscellaneous	\$ 521,087.00	
Total Material		\$ 2,504,669.00
Labor		
Track	\$ 1,229,774.00	
Turnouts	\$ 90,000.00	
Road Crossings	\$ 192,000.00	
Total Material		\$ 1,511,774.00
Signals		
Wayside	\$ 50,000.00	
Crossings	\$ 600,000.00	
Total Material		\$ 650,000.00
Sub Total		\$ 7,612,749.00
Contingencies	20%	\$ 1,522,550.00
Total Estimated Cost		\$ 9,135,299.00

Rail Bridge Superstructure							
Description	Quantity	Unit	Length (LF)	Total	Unit	Cost Per Unit	Total Cost
Typical Section - Beams	8.00	EA/LF	5,994.50	47,956.00	LF	\$ 350.00	\$ 16,784,600.00
Typical Section - Concrete	2.00	CY/LF	5,994.50	11,989.00	CY	\$ 900.00	\$ 10,790,100.00
Typical Section - Reinforcing	300.00	LB/LF	5,994.50	1,798,350.00	LB	\$ 1.50	\$ 2,697,525.00
Thru Plate Girder Section	8,500.00	LB/LF	1,124.71	9,560,053.07	LB	\$ 2.75	\$ 26,290,145.94
Typical 24' PC Box Spans	2.00	EA/LF	1,128.00	2,256.00	LF	\$ 325.00	\$ 733,200.00
Special Span - Gloster & Main	9,200.00	LB/LF	316.84	2,914,967.28	LB	\$ 4.00	\$ 11,659,869.11
KCS over Kings Creek - Beams	13.00	EA/LF	109.78	1,427.19	LF	\$ 350.00	\$ 499,516.22
KCS over Kings Creek - Concrete	2.40	CY/LF	109.78	263.48	CY	\$ 900.00	\$ 237,132.97
KCS over Kings Creek - Reinforcing	360.00	LB/LF	109.78	39,522.16	LB	\$ 1.50	\$ 59,283.24
24' spans for temporary bridge	2.00	EA/LF	72.00	144.00	LF	\$ 325.00	\$ 46,800.00
							Subtotal = \$ 69,798,172.48

Rail Bridge Substructure							
	Quantity	Unit	Piers	Total	Unit	Cost Per Unit	Total Cost
Main Span							
Concrete - Substructure	500.00	CY/Pier	20.00	10,000.00	CY	\$ 1,000.00	\$ 10,000,000.00
Reinforcing Steel - Substructure	75,000.00	LB/Pier	20.00	1,500,000.00	LB	\$ 1.50	\$ 2,250,000.00
Concrete - Drilled Shafts	400.00	CY/Pier	20.00	8,000.00	CY	\$ 1,000.00	\$ 8,000,000.00
Reinforcing Steel - Drilled Shafts	60,000.00	LB/Pier	20.00	1,200,000.00	LB	\$ 1.50	\$ 1,800,000.00
							\$ 22,050,000.00
Typical Span							
Concrete - Substructure	350.00	CY/Pier	67.00	23,450.00	CY	\$ 1,000.00	\$ 23,450,000.00
Reinforcing Steel - Substructure	52,500.00	LB/Pier	67.00	3,517,500.00	LB	\$ 1.50	\$ 5,276,250.00
Concrete - Drilled Shafts	300.00	CY/Pier	67.00	20,100.00	CY	\$ 1,000.00	\$ 20,100,000.00
Reinforcing Steel - Drilled Shafts	45,000.00	LB/Pier	67.00	3,015,000.00	LB	\$ 1.50	\$ 4,522,500.00
							\$ 53,348,750.00
Typical Span 24' Box							
Concrete - Substructure	12.00	CY/Pier	43.00	516.00	CY	\$ 1,000.00	\$ 516,000.00
Reinforcing Steel - Substructure	1,800.00	LB/Pier	43.00	77,400.00	LB	\$ 1.50	\$ 116,100.00
Piles	360.00	LF/Pier	43.00	15,480.00	LF	\$ 115.00	\$ 1,780,200.00
							\$ 2,412,300.00
Special Span - Gloster & Main							
Concrete - Substructure	750.00	CY/Pier	2.00	1,500.00	CY	\$ 1,000.00	\$ 1,500,000.00
Reinforcing Steel - Substructure	112,500.00	LB/Pier	2.00	225,000.00	LB	\$ 1.50	\$ 337,500.00
Concrete - Drilled Shafts	600.00	CY/Pier	2.00	1,200.00	CY	\$ 1,000.00	\$ 1,200,000.00
Reinforcing Steel - Drilled Shafts	90,000.00	LB/Pier	2.00	180,000.00	LB	\$ 1.50	\$ 270,000.00
							\$ 3,307,500.00
KCS over Kings Creek							
Concrete - Substructure	200.00	CY/Pier	2.00	400.00	CY	\$ 1,000.00	\$ 400,000.00
Reinforcing Steel - Substructure	30,000.00	LB/Pier	2.00	60,000.00	LB	\$ 1.50	\$ 90,000.00
Piles	1,560.00	LF/Pier	2.00	3,120.00	LF	\$ 115.00	\$ 358,800.00
							\$ 848,800.00
Temporary Span 24' Box							
Concrete - Substructure	8.00	CY/Pier	4.00	32.00	CY	\$ 1,000.00	\$ 32,000.00
Reinforcing Steel - Substructure	1,200.00	LB/Pier	4.00	4,800.00	LB	\$ 1.50	\$ 7,200.00
Piles	180.00	LF/Pier	4.00	720.00	LF	\$ 115.00	\$ 82,800.00
							\$ 122,000.00
							Total = \$ 151,887,522.48

**Eason Boulevard Reconstruction
Preliminary Construction Cost Estimate
PREFERRED ALTERNATIVE**

August 21, 2008

Description	Quantity	Unit	Unit Cost	Item Cost
Roadway				
Roadway Clearing & Grubbing	15.30	AC	\$ 4,000.00	\$ 61,200
Roadway Earthwork	140,800	CY	\$ 3.00	\$ 422,400
Lime Stabilized Subgrade	37,192	SY	\$ 5.00	\$ 185,959
Bituminous Base Course (Mainline)	41,430	SY	\$ 23.00	\$ 952,890
Bituminous Base Course (Shoulder)	1,170	SY	\$ 12.00	\$ 14,040
Asphalt Pavement (SP) (Traffic C)	9,211	TN	\$ 55.00	\$ 506,612
Concrete Curb & Gutter (Type E)	2,195	LF	\$ 17.00	\$ 37,315
Concrete Curb & Gutter (Type F)	18,312	LF	\$ 13.00	\$ 238,050
Concrete Traffic Separator (6' Wide)	4,590	LF	\$ 26.00	\$ 119,340
Concrete Barrier Wall (Rigid)	180	LF	\$ 145.00	\$ 26,100
Turf Complete (Sod)	26,800	SY	\$ 7.00	\$ 187,600
Roadway Subtotal:				\$ 2,751,506
Structures				
Retaining Walls	86,000	SF	\$ 38.00	\$ 3,268,000
Bridge over KCS	1	LS	\$ 1,467,700.00	\$ 1,467,700
Bridge over creeks & BNSF	1	LS	\$ 16,292,800.00	\$ 16,292,800
Structures Subtotal:				\$ 21,028,500
Drainage				
Storm Sewer Pipe	9,750	LF	\$ 50.00	\$ 487,500
Curb/Ditch Bottom Inlets	34	EA	\$ 4,000.00	\$ 136,000
Drainage Subtotal:				\$ 623,500
Signing, Pavement Marking & Signalization				
Multi-Post Sign	10	EA	\$ 1,500.00	\$ 15,000
Single Post Sign	30	EA	\$ 200.00	\$ 6,000
Pavement Markings	39,605	LF	\$ 2.50	\$ 99,013
Signalization	0.25	EA	\$ 150,000.00	\$ 37,500
Signing, Pavement Marking & Signalization Subtotal:				\$ 157,513
Lighting				
Highway Aluminum Pole	37	EA	\$ 7,000.00	\$ 259,000
Lighting Subtotal:				\$ 259,000
Miscellaneous				
Mobilization	1	LS	10%	\$ 2,482,002
Maintenance of Traffic	1	LS	20%	\$ 4,964,004
Erosion & Sediment Control	12,330	LF	\$ 20.00	\$ 246,600
Miscellaneous Subtotal:				\$ 7,692,606
Contingency (20%):				\$ 6,502,525
Right-of-Way				\$ 1,479,000
SUBTOTAL:				\$ 40,494,150
TOTAL:				\$ 40,495,000

Note: Right-of-way Cost for Retention Ponds, Earthwork for Retention Ponds, Landscaping, and Utility Relocations are not included in this estimate

US 45/278 Reconstruction
Preliminary Construction Cost Estimate
PREFERRED ALTERNATIVE

August 21, 2008

Description	Quantity	Unit	Unit Cost	Item Cost
Roadway				
Roadway Clearing & Grubbing	23.10	AC	\$ 4,000.00	\$ 92,400
Roadway Earthwork	42,100	CY	\$ 3.00	\$ 126,300
Lime Stabilized Subgrade	23,664	SY	\$ 5.00	\$ 118,319
Bituminous Base Course (Mainline)	16,240	SY	\$ 15.00	\$ 243,600
Bituminous Base Course (Shoulder)	4,750	SY	\$ 12.00	\$ 57,000
Miscellaneous Asphalt	54	TN	\$ 150.00	\$ 8,100
Asphalt Pavement (SP) (Traffic C)	4,357	TN	\$ 55.00	\$ 239,610
Friction Course	840	TN	\$ 55.00	\$ 46,178
Guardrail	1,600	LF	\$ 15.00	\$ 24,000
Guardrail End Treatments	4	EA	\$ 500.00	\$ 2,000
Turf Complete (Sod)	90,300	SY	\$ 7.00	\$ 632,100
Roadway Subtotal:				\$ 1,589,608
Structures				
Bridge over BNSF	1	LS	\$ 3,464,670.00	\$ 3,464,670
Structures Subtotal:				\$ 3,464,670
Signing, Pavement Marking & Signalization				
Multi-Post Sign	1	EA	\$ 1,500.00	\$ 1,500
Single Post Sign	2	EA	\$ 200.00	\$ 400
Pavement Markings	20,213	LF	\$ 2.50	\$ 50,533
Signing, Pavement Marking & Signalization Subtotal:				\$ 52,433
Miscellaneous				
Mobilization	1	LS	10%	\$ 510,671
Maintenance of Traffic	1	LS	20%	\$ 1,021,342
Erosion & Sediment Control	3,623	LF	\$ 20.00	\$ 72,460
Miscellaneous Subtotal:				\$ 1,604,473
Contingency (20%):				\$ 1,342,237
Right-of-Way				\$ -
SUBTOTAL:				\$ 8,053,420
TOTAL:				\$ 8,054,000

Note: Right-of-way Cost for Retention Ponds, Earthwork for Retention Ponds, Landscaping, and Utility Relocations are not included in this estimate

Trail Construction
Preliminary Construction Cost Estimate
PREFERRED ALTERNATIVE

August 21, 2008

Description	Quantity	Unit	Unit Cost	Item Cost
Roadway				
Roadway Clearing & Grubbing	3.70	AC	\$ 4,000.00	\$ 14,800
Roadway Earthwork	6,400	CY	\$ 3.00	\$ 19,200
Lime Stabliized Subgrade	15,805	SY	\$ 5.00	\$ 79,023
Bituminous Base Course	14,370	SY	\$ 12.00	\$ 172,440
Asphalt Pavement (SP) (Traffic C)	1,581	TN	\$ 55.00	\$ 86,939
Concrete Sidewalk (4" Thick)	160	SY	\$ 3.00	\$ 480
Fencing (Decorative)	13,075	LF	\$ 20.00	\$ 261,500
Turf Complete (Sod)	3,600	SY	\$ 7.00	\$ 25,200
Roadway Subtotal:				\$ 659,581
Signing, Pavement Marking & Signalization				
Single Post Sign	14	EA	\$ 200.00	\$ 2,800
Pavement Markings	13,075	LF	\$ 1.00	\$ 13,075
Signalization	1	EA	\$ 50,000.00	\$ 50,000
Signing, Pavement Marking & Signalization Subtotal:				\$ 65,875
Miscellaneous				
Mobilization	1	LS	10%	\$ 72,546
Maintenance of Traffic	1	LS	5%	\$ 36,273
Erosion & Sediment Control	13,075	LF	\$ 5.00	\$ 65,375
Miscellaneous Subtotal:				\$ 174,193
Contingency (20%):				\$ 179,930
Right-of-Way				\$ -
SUBTOTAL:				\$ 1,079,580
TOTAL:				\$ 1,080,000

Note: Right-of-way Cost for Retention Ponds, Earthwork for Retention Ponds, Landscaping, and Utility Relocations are not included in this estimate

20 Year Maintenance Estimate

Bridge

Name	Description	Begin Station	End Station	Length (LF)	Year 1		Year 2		Year 3		Year 4		Year 5		Year 6		Year 7		Year 8	
					\$/LF	Total \$	\$/LF	Total \$	\$/LF	Total \$	\$/LF	Total \$	\$/LF	Total \$	\$/LF	Total \$	\$/LF	Total \$	\$/LF	Total \$
Concrete Beam Spans	Concrete	30976+01.64	30980+31.64	430.00	15.00	6,450.00	16.22	6,976.32	16.87	7,255.37	17.55	7,545.59	18.25	7,847.41	18.98	8,161.31	19.74	8,487.76	20.53	8,827.27
BNSF over W. Jackson St.	Steel TPG	30980+31.64	30981+75.60	143.95	50.00	7,197.71	54.08	7,785.05	56.24	8,096.45	58.49	8,420.31	60.83	8,757.12	63.27	9,107.40	65.80	9,471.70	68.43	9,850.57
Concrete Beam Spans	Concrete	30981+75.60	30998+91.60	1716.00	15.00	25,740.00	16.22	27,840.38	16.87	28,954.00	17.55	30,112.16	18.25	31,316.65	18.98	32,569.31	19.74	33,872.08	20.53	35,226.97
BNSF Over Blair St.	Steel TPG	30998+91.60	31000+13.38	121.78	50.00	6,089.24	54.08	6,586.12	56.24	6,849.57	58.49	7,123.55	60.83	7,408.49	63.27	7,704.83	65.80	8,013.03	68.43	8,333.55
Concrete Beam Spans	Concrete	31000+13.38	31012+85.38	1272.00	15.00	19,080.00	16.22	20,636.93	16.87	21,462.41	17.55	22,320.90	18.25	23,213.74	18.98	24,142.29	19.74	25,107.98	20.53	26,112.30
BNSF Over W. Jefferson St.	Steel TPG	31012+85.38	31014+06.34	120.97	50.00	6,048.30	54.08	6,541.84	56.24	6,803.51	58.49	7,075.65	60.83	7,358.68	63.27	7,653.02	65.80	7,959.15	68.43	8,277.51
Concrete Beam Spans	Concrete	31014+06.34	31015+66.34	160.00	15.00	2,400.00	16.22	2,595.84	16.87	2,699.67	17.55	2,807.66	18.25	2,919.97	18.98	3,036.77	19.74	3,158.24	20.53	3,284.57
BNSF Over N. Park St.	Steel TPG	31015+66.34	31016+79.00	112.67	50.00	5,633.50	54.08	6,093.19	56.24	6,336.92	58.49	6,590.40	60.83	6,854.01	63.27	7,128.17	65.80	7,413.30	68.43	7,709.83
Concrete Beam Spans	Concrete	31016+79.00	31021+36.50	457.50	15.00	6,862.50	16.22	7,422.48	16.87	7,719.38	17.55	8,028.15	18.25	8,349.28	18.98	8,683.25	19.74	9,030.58	20.53	9,391.81
BNSF Over Gloster St. & W. Main St.	Steel (Truss)	31021+36.50	31024+53.34	316.84	60.00	19,010.66	64.90	20,561.93	67.49	21,384.40	70.19	22,239.78	73.00	23,129.37	75.92	24,054.54	78.96	25,016.73	82.11	26,017.40
Concrete Beam Spans	Concrete	31024+53.34	31027+11.34	258.00	15.00	3,870.00	16.22	4,185.79	16.87	4,353.22	17.55	4,527.35	18.25	4,708.45	18.98	4,896.78	19.74	5,092.66	20.53	5,296.36
Concrete Beam Spans	Concrete	31045+97.07	31046+77.07	80.00	15.00	1,200.00	16.22	1,297.92	16.87	1,349.84	17.55	1,403.83	18.25	1,459.98	18.98	1,518.38	19.74	1,579.12	20.53	1,642.28
BNSF Over S. Church St.	Steel TPG	31046+77.07	31047+62.93	85.86	50.00	4,293.20	54.08	4,643.53	56.24	4,829.27	58.49	5,022.44	60.83	5,223.34	63.27	5,432.27	65.80	5,649.56	68.43	5,875.54
Concrete Beam Spans	Concrete	31047+62.93	31051+62.93	400.00	15.00	6,000.00	16.22	6,489.60	16.87	6,749.18	17.55	7,019.15	18.25	7,299.92	18.98	7,591.91	19.74	7,895.59	20.53	8,211.41
BNSF Over S. Green St.	Steel TPG	31051+62.93	31052+41.03	78.09	50.00	3,904.62	54.08	4,223.23	56.24	4,392.16	58.49	4,567.85	60.83	4,750.57	63.27	4,940.59	65.80	5,138.21	68.43	5,343.74
Concrete Beam Spans	Concrete	31052+41.03	31059+61.03	720.00	15.00	10,800.00	16.22	11,681.28	16.87	12,148.53	17.55	12,634.47	18.25	13,139.85	18.98	13,665.45	19.74	14,212.06	20.53	14,780.55
BNSF Over Spring St.	Steel TPG	31059+61.03	31060+52.53	91.50	50.00	4,574.83	54.08	4,948.13	56.24	5,146.06	58.49	5,351.90	60.83	5,565.98	63.27	5,788.61	65.80	6,020.16	68.43	6,260.97
Concrete Beam Spans	Concrete	31060+52.53	31061+97.53	145.00	15.00	2,175.00	16.22	2,352.48	16.87	2,446.58	17.55	2,544.44	18.25	2,646.22	18.98	2,752.07	19.74	2,862.15	20.53	2,976.64
BNSF Over KCS RR	Steel TPG	31061+97.53	31063+01.25	103.72	50.00	5,185.97	54.08	5,609.15	56.24	5,833.51	58.49	6,066.85	60.83	6,309.53	63.27	6,561.91	65.80	6,824.39	68.43	7,097.36
BNSF Over Elizabeth St.	Steel TPG	31078+63.92	31079+30.08	66.16	50.00	3,308.24	54.08	3,578.19	56.24	3,721.32	58.49	3,870.17	60.83	4,024.98	63.27	4,185.98	65.80	4,353.42	68.43	4,527.55
Concrete Beam Spans	Concrete	31115+26.00	31117+90.00	264.00	15.00	3,960.00	16.22	4,283.14	16.87	4,454.46	17.55	4,632.64	18.25	4,817.95	18.98	5,010.66	19.74	5,211.09	20.53	5,419.53
BNSF Over Town Creek	Steel TPG	31117+90.00	31118+90.00	100.00	50.00	5,000.00	54.08	5,408.00	56.24	5,624.32	58.49	5,849.29	60.83	6,083.26	63.27	6,326.60	65.80	6,579.66	68.43	6,842.85
Concrete Beam Spans	Concrete	31118+90.00	31121+54.00	264.00	15.00	3,960.00	16.22	4,283.14	16.87	4,454.46	17.55	4,632.64	18.25	4,817.95	18.98	5,010.66	19.74	5,211.09	20.53	5,419.53
BNSF Over Mud Creek	Steel TPG	31121+56.00	31122+56.00	100.00	50.00	5,000.00	54.08	5,408.00	56.24	5,624.32	58.49	5,849.29	60.83	6,083.26	63.27	6,326.60	65.80	6,579.66	68.43	6,842.85
Concrete Beam Spans	Concrete	31122+56.00	31127+84.00	528.00	15.00	7,920.00	16.22	8,566.27	16.87	8,908.92	17.55	9,265.28	18.25	9,635.89	18.98	10,021.33	19.74	10,422.18	20.53	10,839.07
KCS Over Kings Creek 20+45 to 21+55	Concrete	20+45.11	21+54.89	109.78	20.00	2,195.68	21.63	2,374.84	22.50	2,469.84	23.40	2,568.63	24.33	2,671.38	25.31	2,778.23	26.32	2,889.36	27.37	3,004.93
KCS (New)	Concrete	5+80.00	11+82.00	602.00	15.00	9,030.00	16.22	9,766.85	16.87	10,157.52	17.55	10,563.82	18.25	10,986.38	18.98	11,425.83	19.74	11,882.86	20.53	12,358.18

Note: \$/LF estimates are based on structure types at each bridge. Annual inspections and general maintenance have been included in price per LF. A single paint job for steel spans has been estimated at Year 10.

Note: Avg. rate of inflation used for this estimate is 4%

Year 9		Year 10		Year 11		Year 12		Year 13		Year 14		Year 15		Year 16		Year 17		Year 18		Year 19		Year 20		Total Cost Over 20 Yrs Per Bridge
\$/LF	Total \$	\$/LF	Total \$	\$/LF	Total \$	\$/LF	Total \$	\$/LF	Total \$	\$/LF	Total \$	\$/LF	Total \$	\$/LF	Total \$	\$/LF	Total \$	\$/LF	Total \$	\$/LF	Total \$	\$/LF	Total \$	
21.35	9,180.36	22.20	9,547.58	23.09	9,929.48	24.02	10,326.66	24.98	10,739.72	25.98	11,169.31	27.01	11,616.09	28.09	12,080.73	29.22	12,563.96	30.39	13,066.52	31.60	13,589.18	32.87	14,132.74	\$199,493.35
71.17	10,244.59	74.01	43,763.85	76.97	11,080.55	80.05	11,523.77	83.25	11,984.72	86.58	12,464.11	90.05	12,962.67	93.65	13,481.18	97.40	14,020.43	101.29	14,581.25	105.34	15,164.50	109.56	15,771.08	\$255,728.99
21.35	36,636.05	22.20	38,101.49	23.09	39,625.55	24.02	41,210.57	24.98	42,858.99	25.98	44,573.35	27.01	46,356.29	28.09	48,210.54	29.22	50,138.96	30.39	52,144.52	31.60	54,230.30	32.87	56,399.51	\$796,117.65
71.17	8,666.89	74.01	37,024.08	76.97	9,374.11	80.05	9,749.07	83.25	10,139.03	86.58	10,544.60	90.05	10,966.38	93.65	11,405.04	97.40	11,861.24	101.29	12,335.69	105.34	12,829.11	109.56	13,342.28	\$216,345.89
21.35	27,156.79	22.20	28,243.06	23.09	29,372.78	24.02	30,547.69	24.98	31,769.60	25.98	33,040.39	27.01	34,362.00	28.09	35,736.48	29.22	37,165.94	30.39	38,652.58	31.60	40,198.68	32.87	41,806.63	\$590,129.17
71.17	8,608.61	74.01	36,775.12	76.97	9,311.07	80.05	9,683.52	83.25	10,070.86	86.58	10,473.69	90.05	10,892.64	93.65	11,328.35	97.40	11,781.48	101.29	12,252.74	105.34	12,742.85	109.56	13,252.56	\$214,891.13
21.35	3,415.95	22.20	3,552.59	23.09	3,694.69	24.02	3,842.48	24.98	3,996.18	25.98	4,156.02	27.01	4,322.26	28.09	4,495.15	29.22	4,674.96	30.39	4,861.96	31.60	5,056.44	32.87	5,258.70	\$74,230.08
71.17	8,018.23	74.01	34,253.05	76.97	8,672.51	80.05	9,019.41	83.25	9,380.19	86.58	9,755.40	90.05	10,145.61	93.65	10,551.44	97.40	10,973.50	101.29	11,412.44	105.34	11,868.93	109.56	12,343.69	\$200,153.74
21.35	9,767.48	22.20	10,158.18	23.09	10,564.50	24.02	10,987.08	24.98	11,426.57	25.98	11,883.63	27.01	12,358.97	28.09	12,853.33	29.22	13,367.47	30.39	13,902.17	31.60	14,458.25	32.87	15,036.58	\$212,251.65
85.40	27,058.09	88.81	260,070.42	92.37	29,266.03	96.06	30,436.67	99.90	31,654.14	103.90	32,920.31	108.06	34,237.12	112.38	35,606.60	116.87	37,030.87	121.55	38,512.10	126.41	40,052.59	131.47	41,654.69	\$819,914.42
21.35	5,508.22	22.20	5,728.55	23.09	5,957.69	24.02	6,195.99	24.98	6,443.83	25.98	6,701.59	27.01	6,969.65	28.09	7,248.44	29.22	7,538.37	30.39	7,839.91	31.60	8,153.51	32.87	8,479.65	\$119,696.01
21.35	1,707.97	22.20	1,776.29	23.09	1,847.34	24.02	1,921.24	24.98	1,998.09	25.98	2,078.01	27.01	2,161.13	28.09	2,247.58	29.22	2,337.48	30.39	2,430.98	31.60	2,528.22	32.87	2,629.35	\$37,115.04
71.17	6,110.56	74.01	26,103.71	76.97	6,609.19	80.05	6,873.55	83.25	7,148.49	86.58	7,434.43	90.05	7,731.81	93.65	8,041.08	97.40	8,362.73	101.29	8,697.24	105.34	9,045.13	109.56	9,406.93	\$152,533.99
21.35	8,539.87	22.20	8,881.47	23.09	9,236.72	24.02	9,606.19	24.98	9,990.44	25.98	10,390.06	27.01	10,805.66	28.09	11,237.89	29.22	11,687.40	30.39	12,154.90	31.60	12,641.10	32.87	13,146.74	\$185,575.21
71.17	5,557.49	74.01	23,741.03	76.97	6,010.98	80.05	6,251.42	83.25	6,501.48	86.58	6,761.54	90.05	7,032.00	93.65	7,313.28	97.40	7,605.81	101.29	7,910.04	105.34	8,226.44	109.56	8,555.50	\$138,727.97
21.35	15,371.77	22.20	15,986.64	23.09	16,626.10	24.02	17,291.15	24.98	17,982.79	25.98	18,702.11	27.01	19,450.19	28.09	20,228.20	29.22	21,037.33	30.39	21,878.82	31.60	22,753.97	32.87	23,664.13	\$334,035.38
71.17	6,511.40	74.01	27,816.06	76.97	7,042.73	80.05	7,324.44	83.25	7,617.42	86.58	7,922.12	90.05	8,239.00	93.65	8,568.56	97.40	8,911.31	101.29	9,267.76	105.34	9,638.47	109.56	10,024.01	\$162,539.93
21.35	3,095.70	22.20	3,219.53	23.09	3,348.31	24.02	3,482.25	24.98	3,621.53	25.98	3,766.40	27.01	3,917.05	28.09	4,073.73	29.22	4,236.68	30.39	4,406.15	31.60	4,582.40	32.87	4,765.69	\$67,271.01
71.17	7,381.26	74.01	31,531.98	76.97	7,983.57	80.05	8,302.91	83.25	8,635.02	86.58	8,980.43	90.05	9,339.64	93.65	9,713.23	97.40	10,101.76	101.29	10,505.83	105.34	10,926.06	109.56	11,363.10	\$184,253.45
71.17	4,708.66	74.01	20,114.90	76.97	5,092.88	80.05	5,296.60	83.25	5,508.46	86.58	5,728.80	90.05	5,957.95	93.65	6,196.27	97.40	6,444.12	101.29	6,701.89	105.34	6,969.96	109.56	7,248.76	\$117,539.09
21.35	5,636.31	22.20	5,861.77	23.09	6,096.24	24.02	6,340.09	24.98	6,593.69	25.98	6,857.44	27.01	7,131.74	28.09	7,417.01	29.22	7,713.69	30.39	8,022.23	31.60	8,343.12	32.87	8,676.85	\$122,479.64
71.17	7,116.56	74.01	30,401.22	76.97	7,697.27	80.05	8,005.16	83.25	8,325.37	86.58	8,658.38	90.05	9,004.72	93.65	9,364.91	97.40	9,739.50	101.29	10,129.08	105.34	10,534.25	109.56	10,955.62	\$177,646.01
21.35	5,636.31	22.20	5,861.77	23.09	6,096.24	24.02	6,340.09	24.98	6,593.69	25.98	6,857.44	27.01	7,131.74	28.09	7,417.01	29.22	7,713.69	30.39	8,022.23	31.60	8,343.12	32.87	8,676.85	\$122,479.64
71.17	7,116.56	74.01	30,401.22	76.97	7,697.27	80.05	8,005.16	83.25	8,325.37	86.58	8,658.38	90.05	9,004.72	93.65	9,364.91	97.40	9,739.50	101.29	10,129.08	105.34	10,534.25	109.56	10,955.62	\$177,646.01
21.35	11,272.63	22.20	11,723.53	23.09	12,192.48	24.02	12,680.18	24.98	13,187.38	25.98	13,714.88	27.01	14,263.47	28.09	14,834.01	29.22	15,427.37	30.39	16,044.47	31.60	16,686.25	32.87	17,353.70	\$244,959.28
28.47	3,125.13	29.60	83,611.87	30.79	3,380.14	32.02	3,515.35	33.30	3,655.96	34.63	3,802.20	36.02	3,954.29	37.46	4,112.46	38.96	4,276.96	40.52	4,448.04	42.14	4,625.96	43.82	4,811.00	\$148,272.23
21.35	12,852.51	22.20	13,366.61	23.09	13,901.27	24.02	14,457.32	24.98	15,035.61	25.98	15,637.04	27.01	16,262.52	28.09	16,913.02	29.22	17,589.54	30.39	18,293.12	31.60	19,024.85	32.87	19,785.84	\$279,290.69

Grand Total =	\$6,351,316.65
Amortized Total =	\$318,000.00

**Relocation Track Construction
Tupelo, Mississippi**

<u>Mobilization & De-Mobilization</u>		\$ 28,000.00
<u>Site Work</u>		\$ -
<u>Trackwork</u>		
Material		
Track	\$ 367,600.00	
Turnouts	\$ -	
Road Crossings	\$ -	
Miscellaneous	\$ 126,000.00	
Total Material	\$ 493,600.00	
Labor		
Track	\$ 55,000.00	
Turnouts	\$ -	
Road Crossings	\$ -	
Total Material	\$ 55,000.00	
Signals		
Wayside	\$ 325,000.00	
Crossings		
Total Material	\$ 325,000.00	
Sub Total		\$ 576,600.00
Contingencies	20%	\$ 115,320.00
Total Estimated Cost		\$ 691,920.00



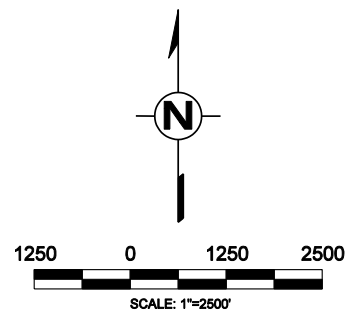
Tupelo Mississippi
Planning & Environmental Study
Railroad Relocation

Final Environmental Impact Statement

Appendix D - Preferred Alternative Concept Plans

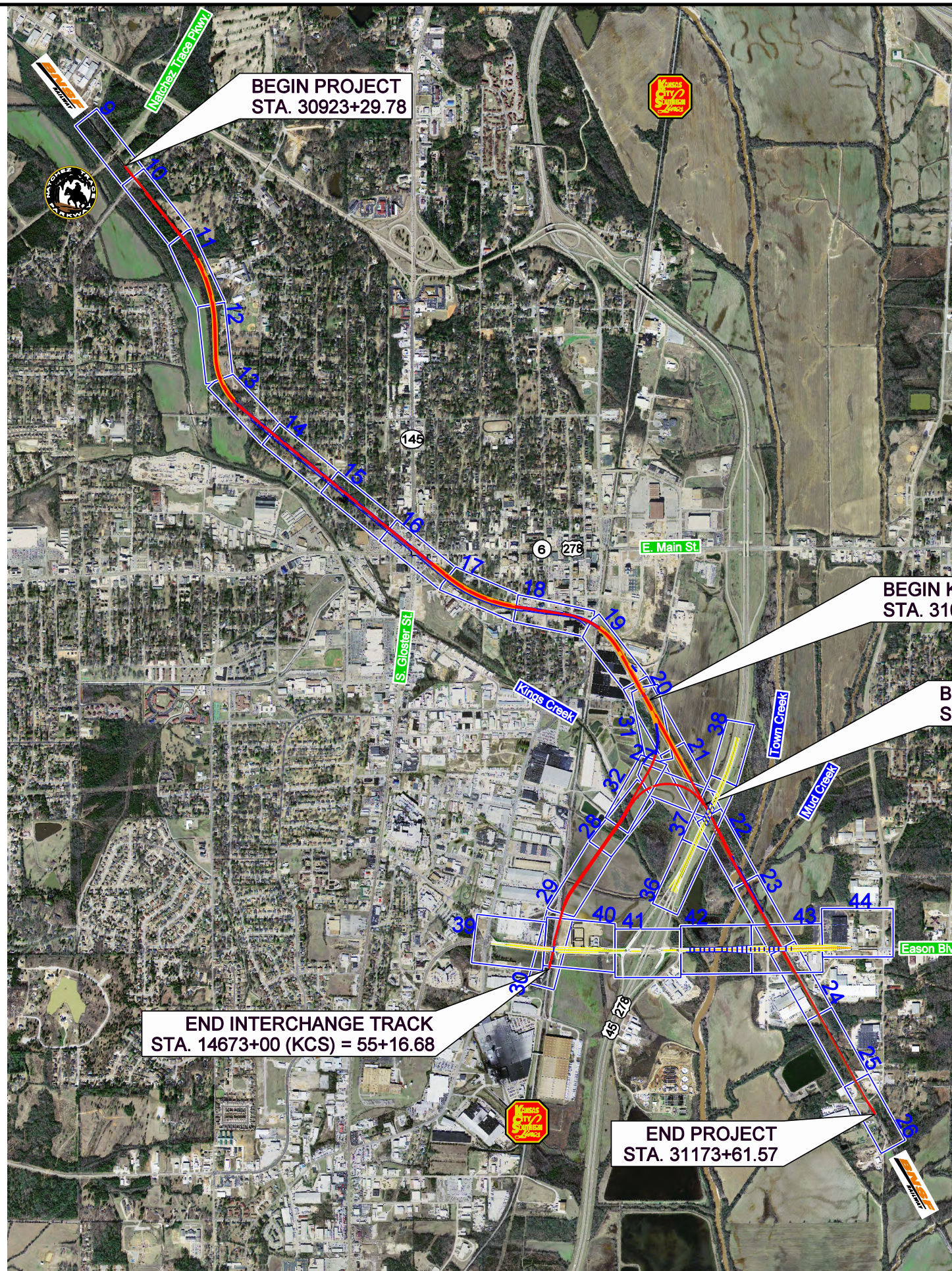
July 2013

Sheet	Description
1	Cover
2	Project Layout
3-8	Railroad Typical Sections
9-32	Railroad Plans and Profiles
33-35	Roadway Typical Sections
36-49	Roadway Plans and Profiles
50-51	Bridge Structure Details
52-60	Railroad MOT Concept Plans

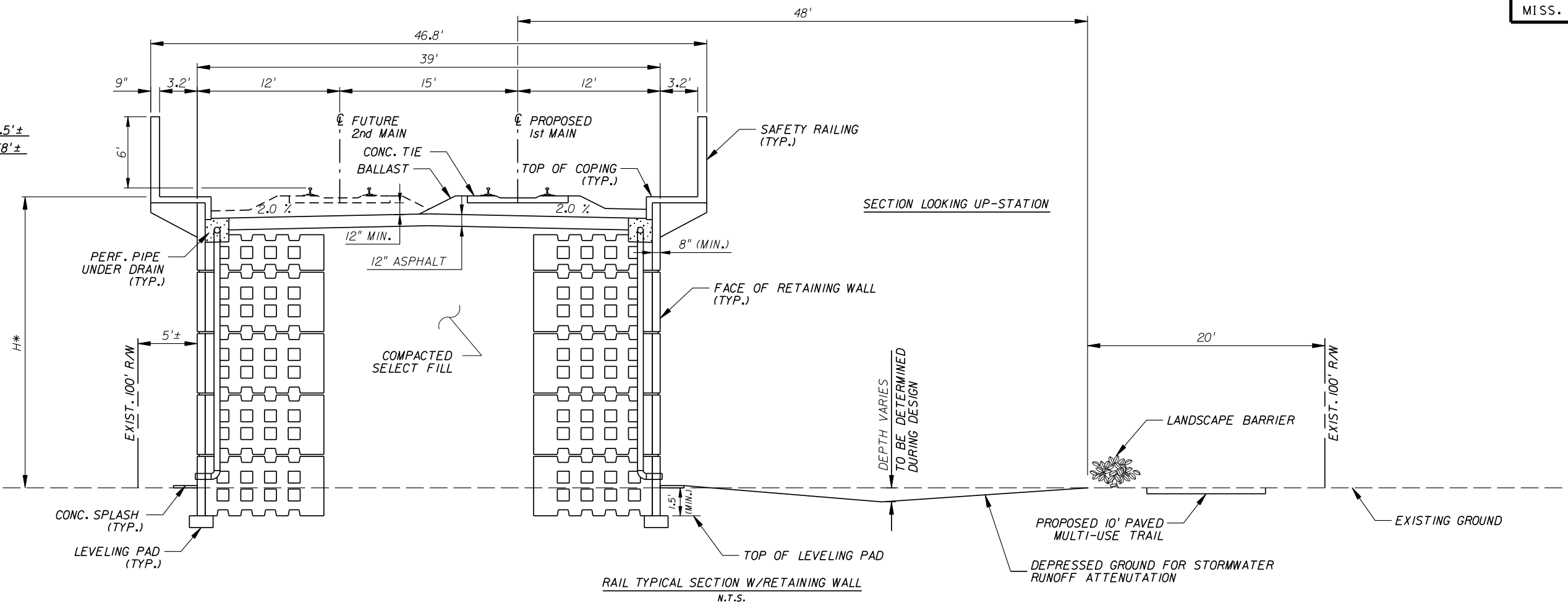


PLAN VIEW LEGEND:

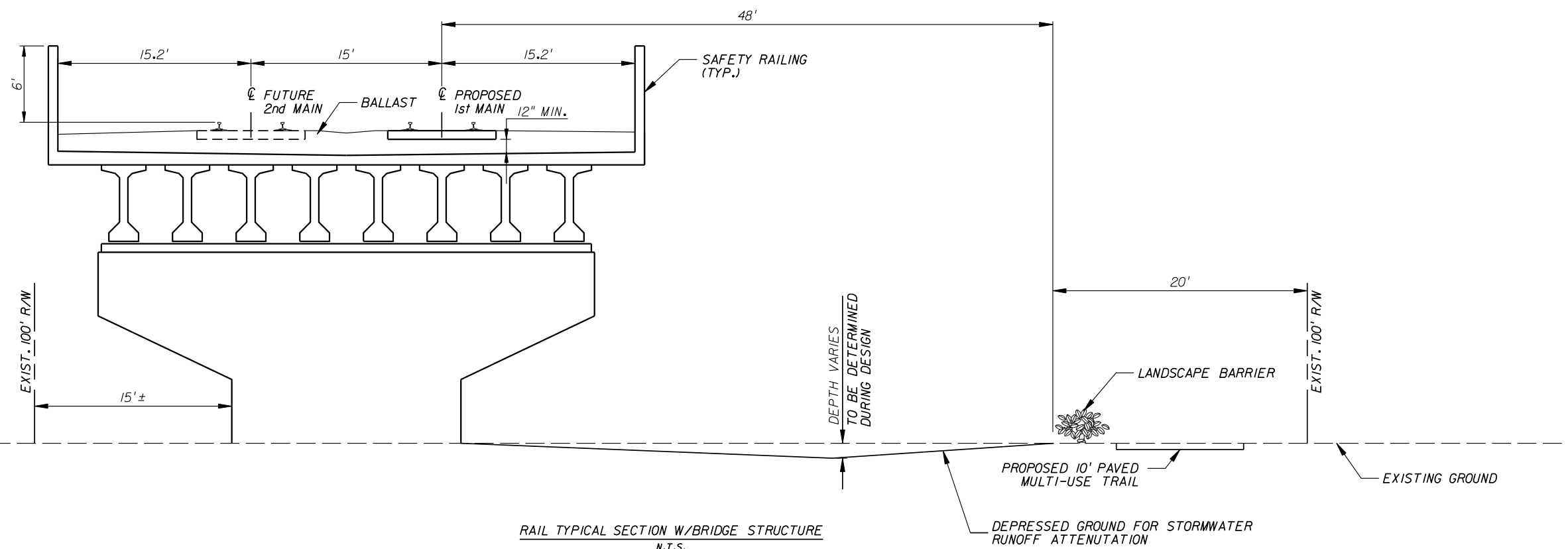
PARCEL LINE	
EXISTING RIGHT-OF-WAY	
EXISTING L.A. RIGHT-OF-WAY	
PROPOSED RIGHT-OF-WAY	
EXISTING TRACK CENTERLINE	
PROPOSED TRACK CENTERLINE	
FUTURE TRACK CENTERLINE	
EXISTING TRACK TO BE REMOVED	
TEMPORARY TRACK CENTERLINE	
EXISTING CULVERT	
PROPOSED CULVERT	
100-YR. FLOODPLAIN AREA	
WETLAND AREA	
PROPOSED THRU-PLATE GIRDER BRIDGE	
PROPOSED PRE-CAST BEAM BRIDGE	
PROPOSED T-WALL (FILL)	
PROPOSED TRACK AT-GRADE	
RAILROAD MILEPOST	



* MIN. WALL HEIGHT = 4.5'±
 * MAX. WALL HEIGHT = 38'±



RAIL TYPICAL SECTION W/RETAINING WALL
N.T.S.

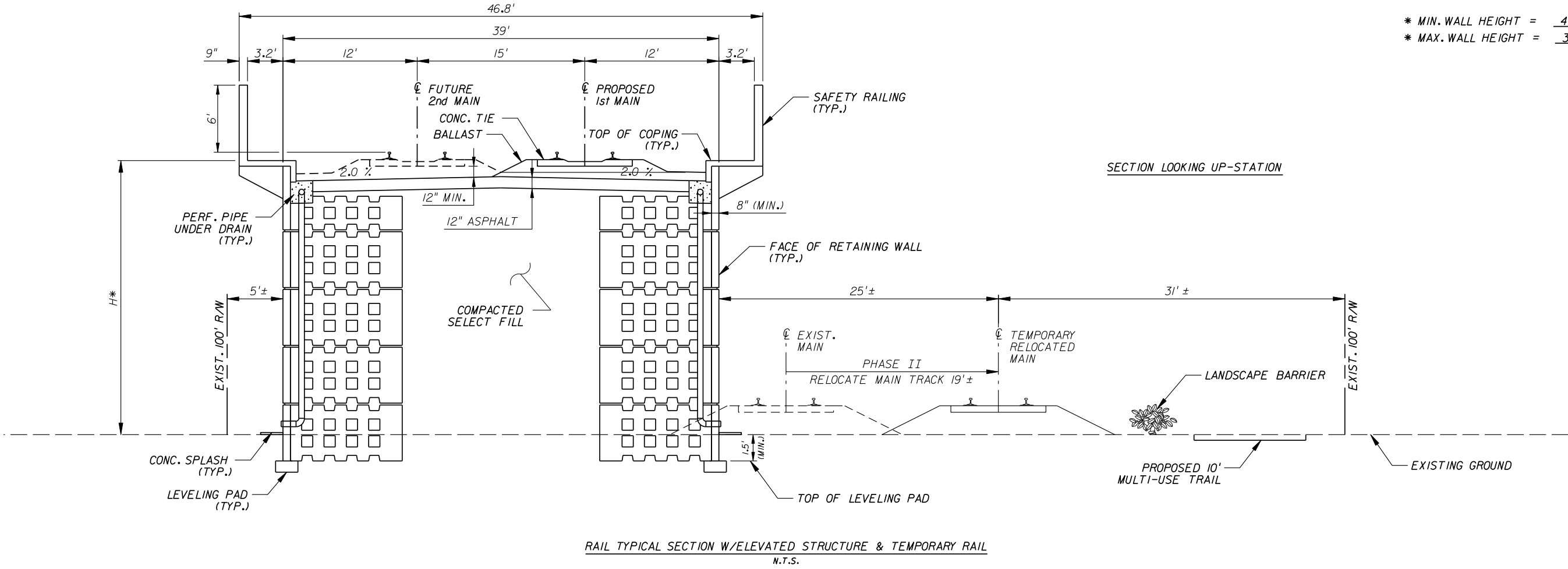


RAIL TYPICAL SECTION W/BRIDGE STRUCTURE
N.T.S.

ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

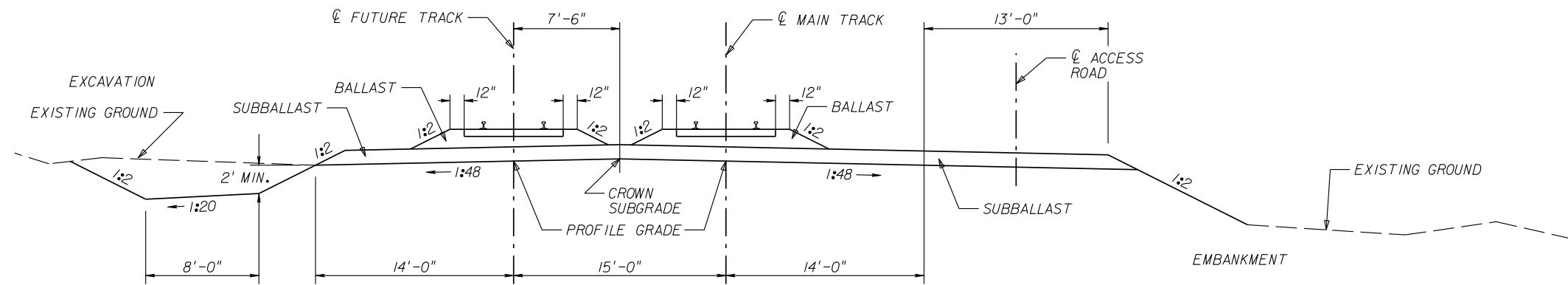
* MIN. WALL HEIGHT = 4.5'±
* MAX. WALL HEIGHT = 38'±



SECTION LOOKING UP-STATION

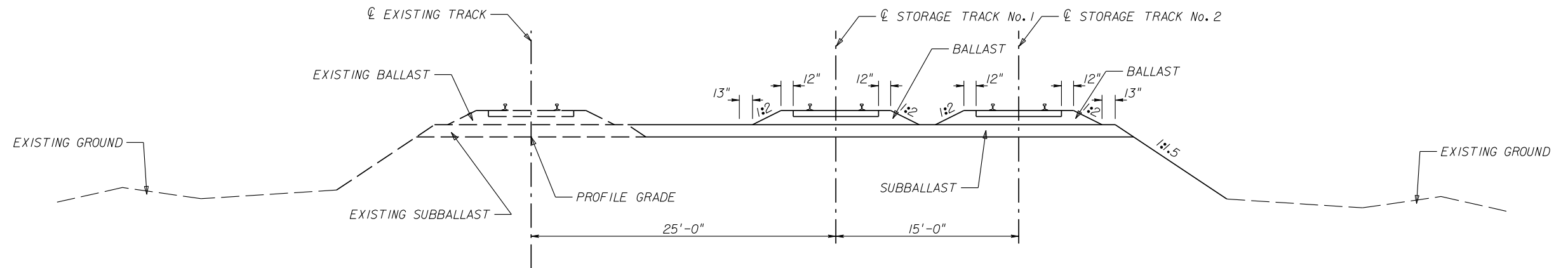
NOTES:

1. FILL AND CUT SLOPES SHALL BE AS INDICATED ON SITE EXPLICIT CONSTRUCTION PLANS AND PROFILES.
2. WHERE DOUBLE TRACK CROSSES A ROADWAY, ADJUST BALLAST SECTION TO PROVIDE UNIFORM ROADWAY PROFILE.
3. REMOVE AND REPLACE TOP SOIL TO DEPTH AS SHOWN ON PLAN AND PROFILE.
4. TRACK CENTERS ON DESIGNATED CORRIDORS WILL BE CONSTRUCTED AT 25'-0".
5. BALLAST DEPTH:
WOOD TIE - 8" MIN.
CONCRETE - 12" MIN.
6. SUBBALLAST DEPTH: 12" MIN.
7. MAXIMUM PROFILE ELEVATION RELATIVE TO NATURAL GROUND:
EXCAVATION: 25 FT.
EMBANKMENT: 30 FT.



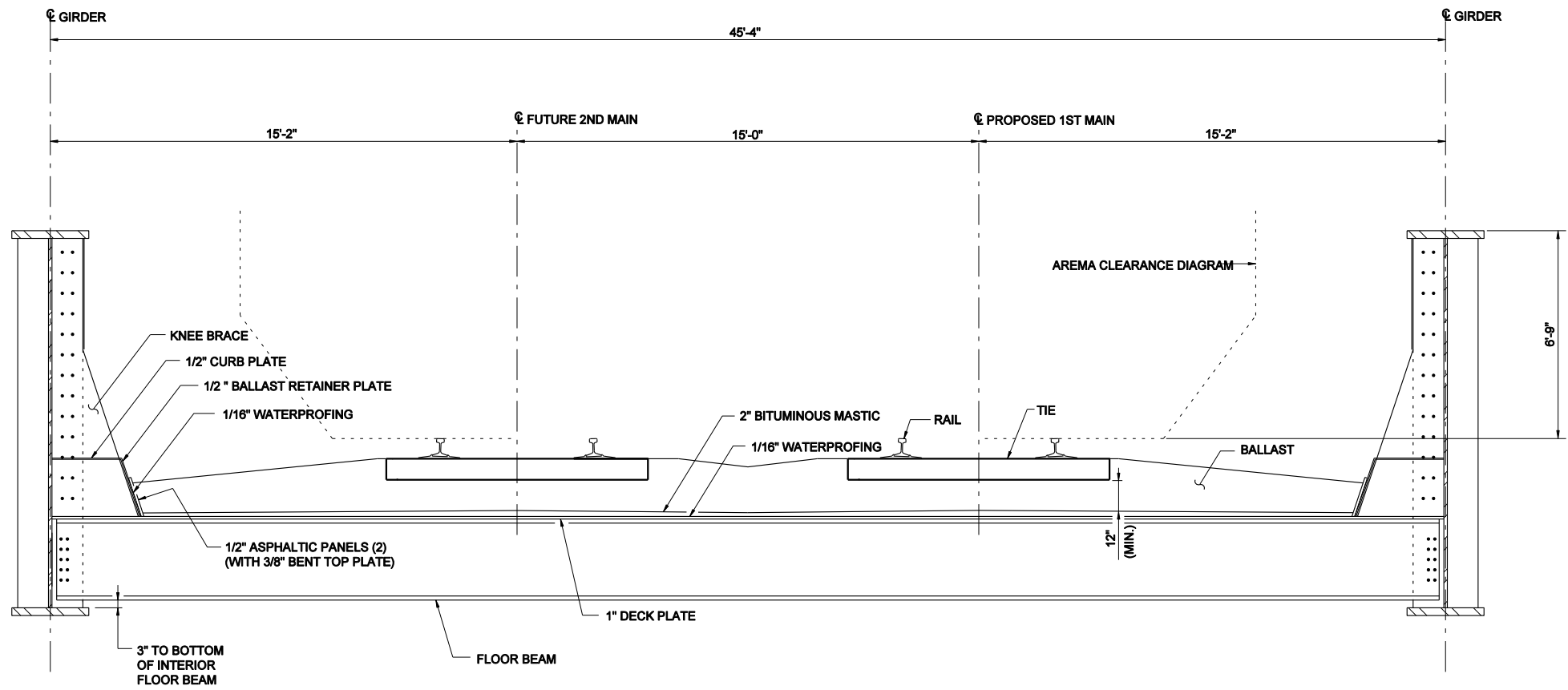
DOUBLE TRACK - TANGENT WITH 13' ACCESS ROADWAY (NEW CONSTRUCTION)

CUBIC YARDS PER MILE OF TRACK			
TANGENT	8" BALLAST	12" BALLAST	12" SUBBALLAST
SINGLE TRACK	2750	3600	5775
DOUBLE TRACK	5500	7200	8475

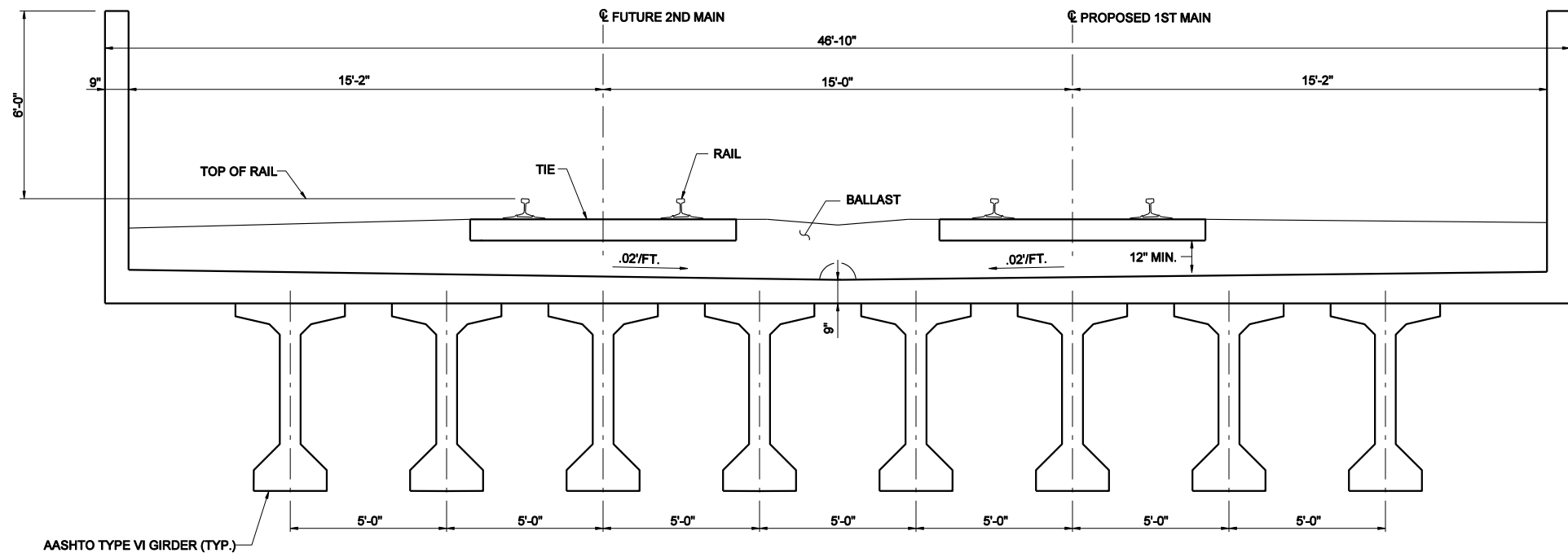


AT-GRADE STORAGE TRACK - WITH EXISTING TRACKAGE

ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

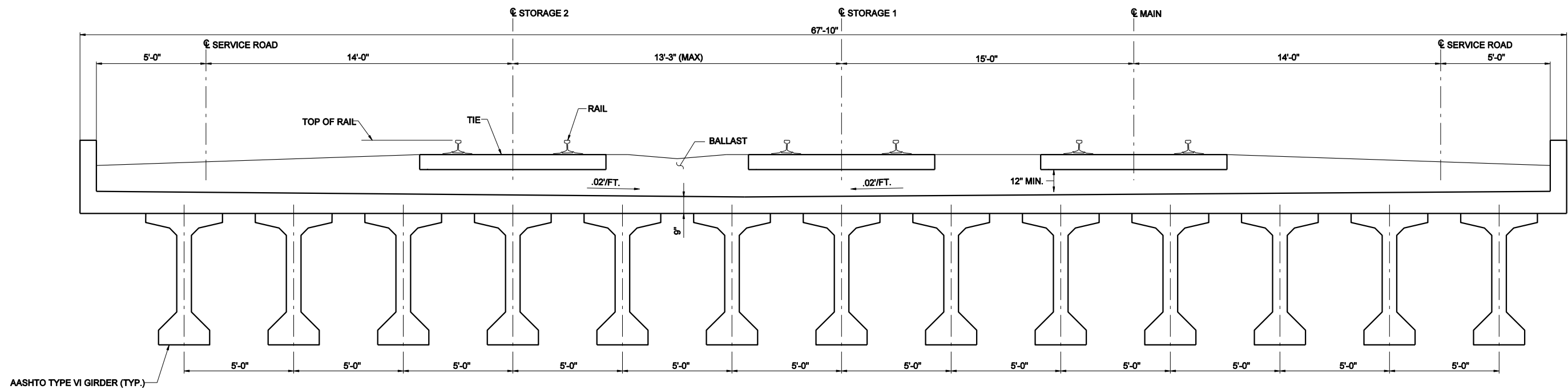


THRU-PLATE GIRDER BRIDGE SECTION

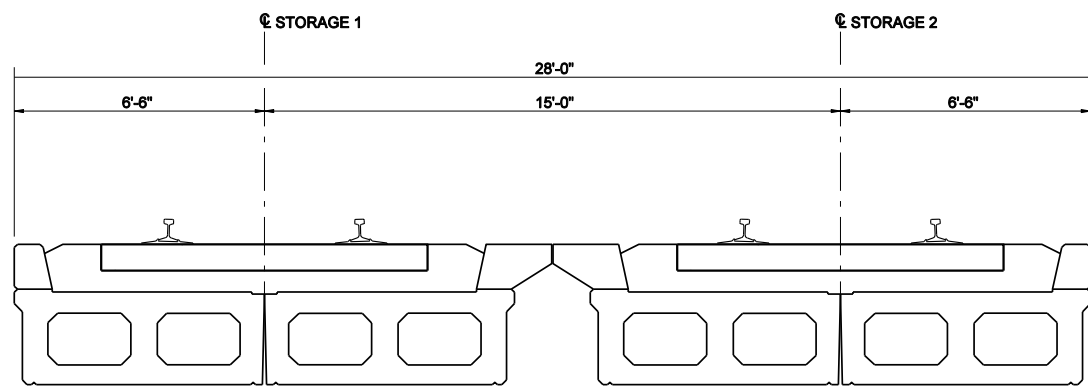


PRE-CAST 8 - BEAM BRIDGE SECTION

ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

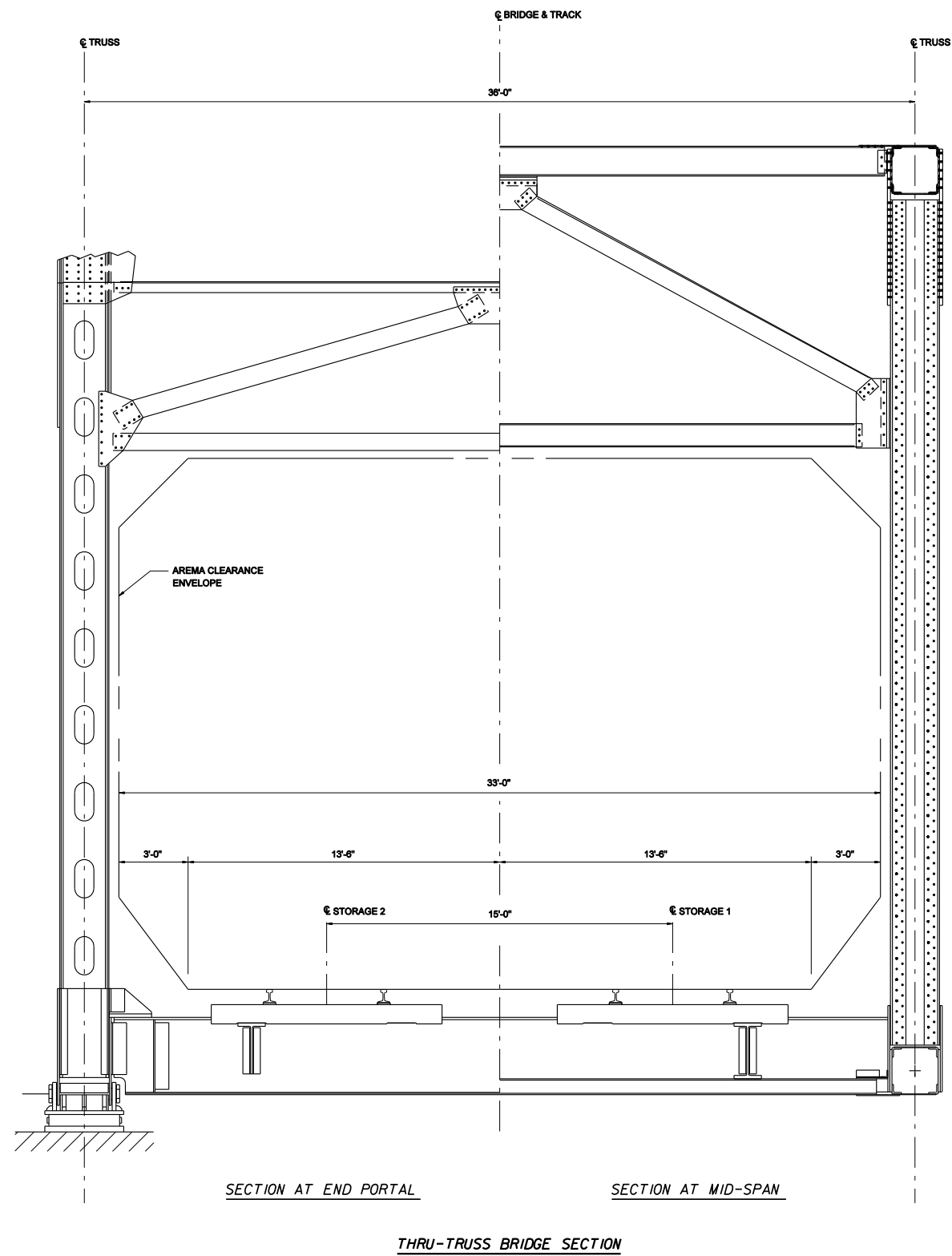


PRE-CAST 13 - BEAM BRIDGE SECTION



PRE-CAST BOX BEAM BRIDGE SECTION

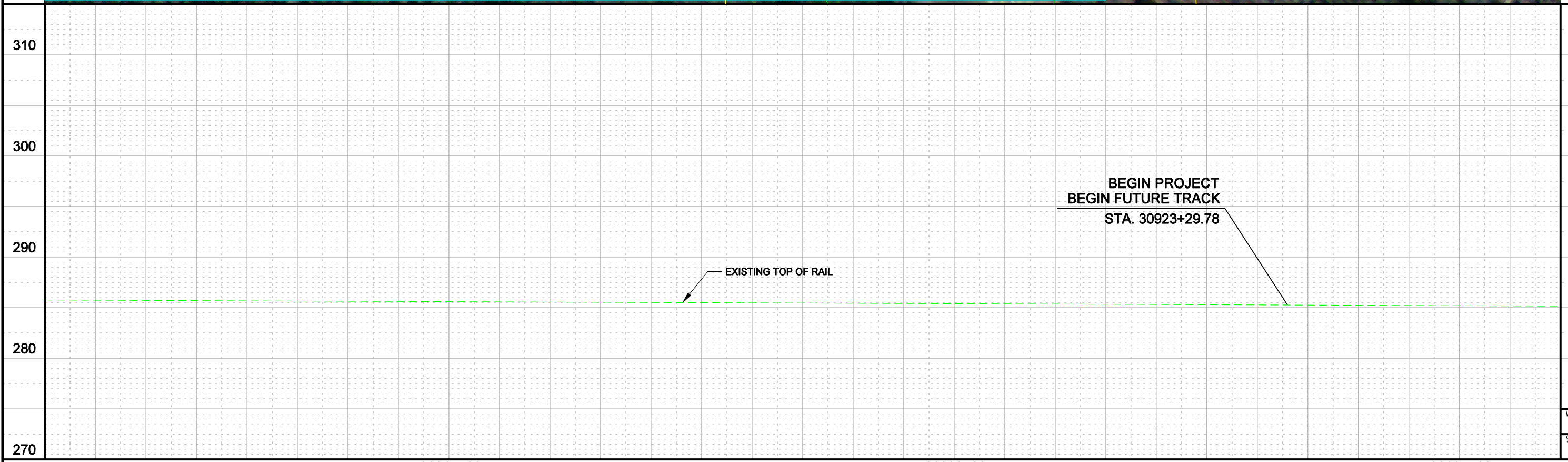
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION



MISSISSIPPI DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN DIVISION



MISSISSIPPI DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN DIVISION
 PLANNING FILE

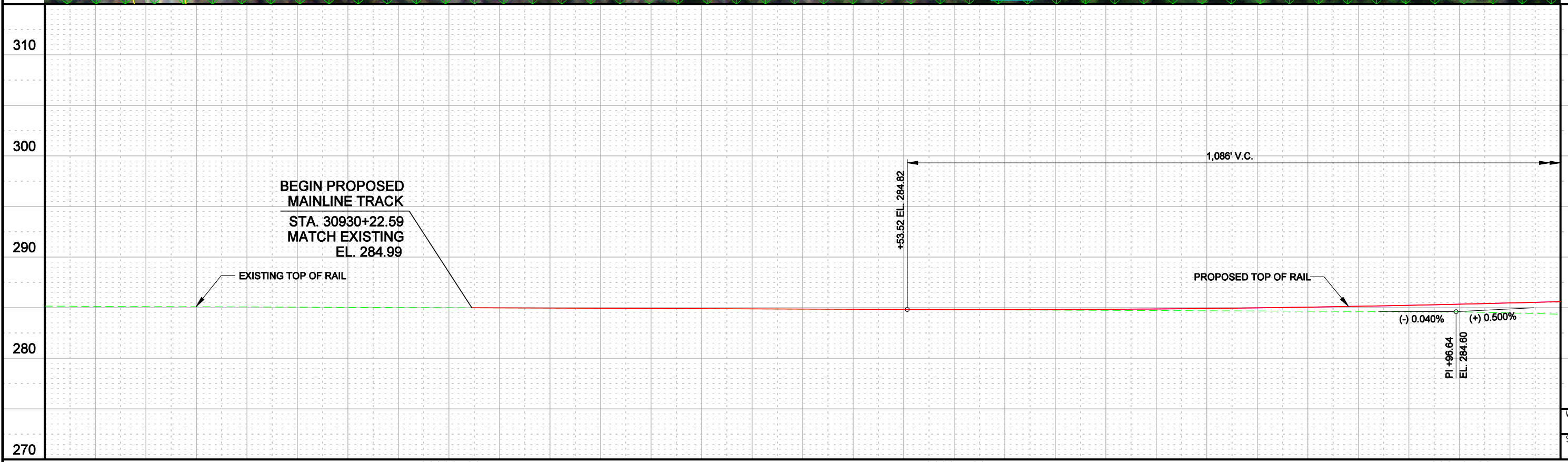
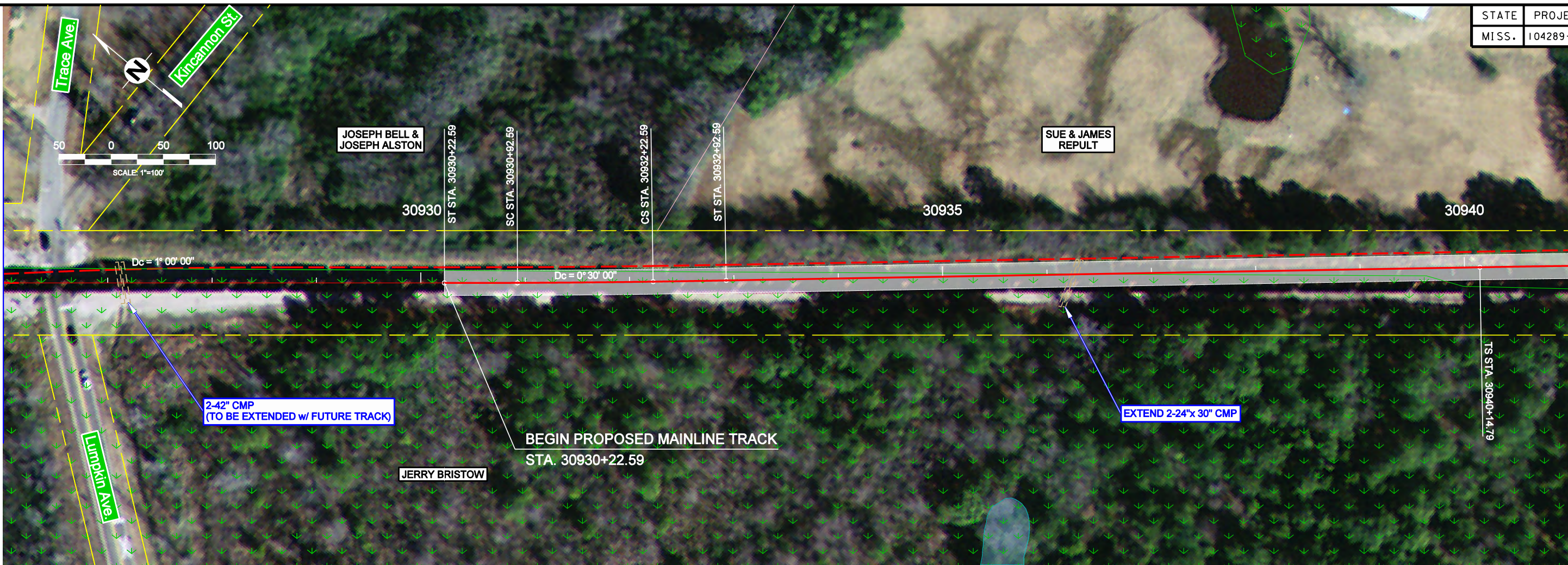


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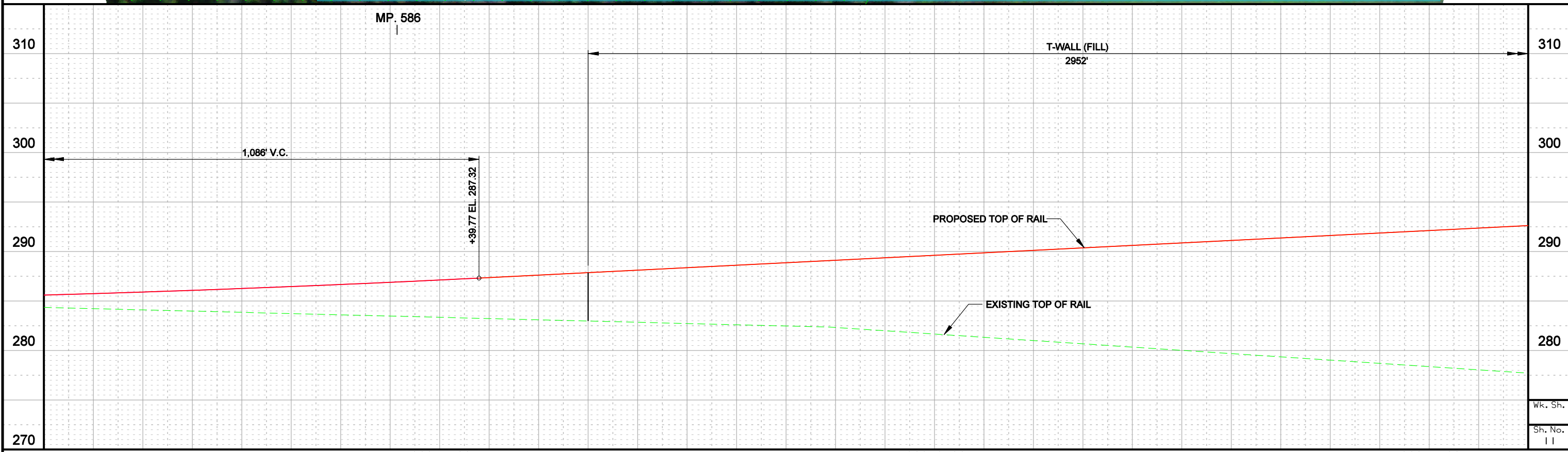
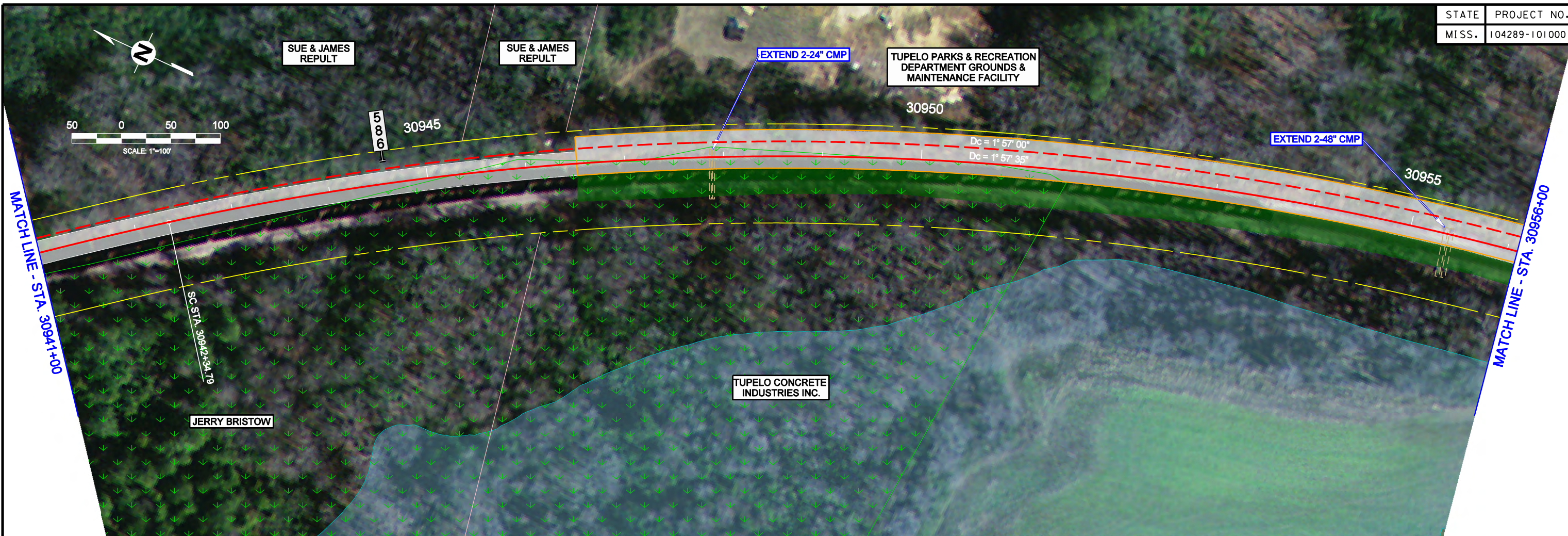
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN DIVISION
 PLANNING & ENVIRONMENTAL STUDY

MATCH LINE - STA. 30926+00

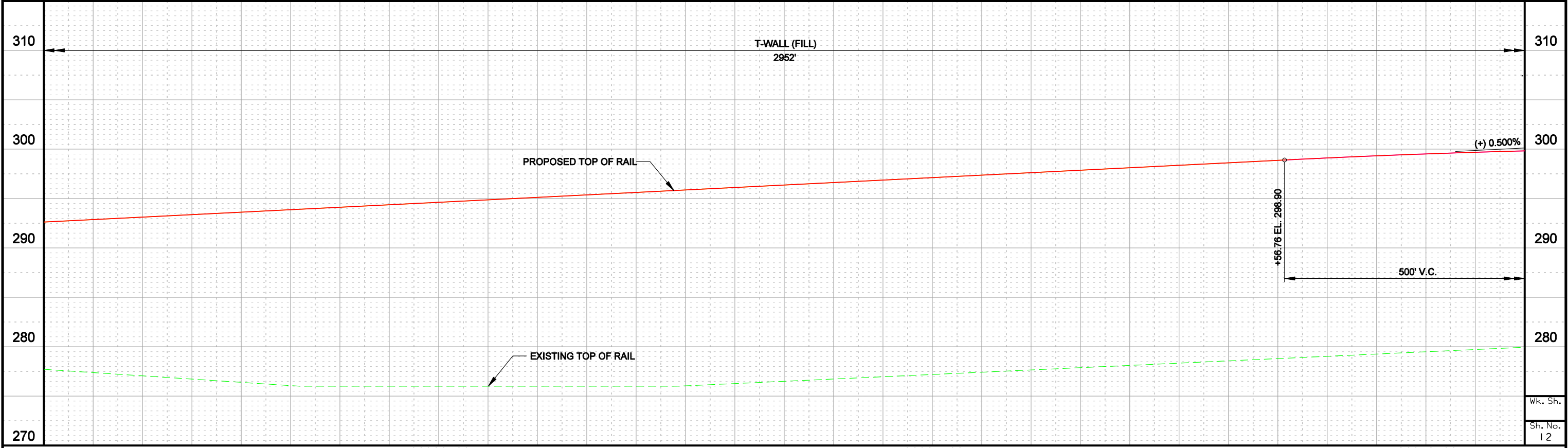
MATCH LINE - STA. 30941+00



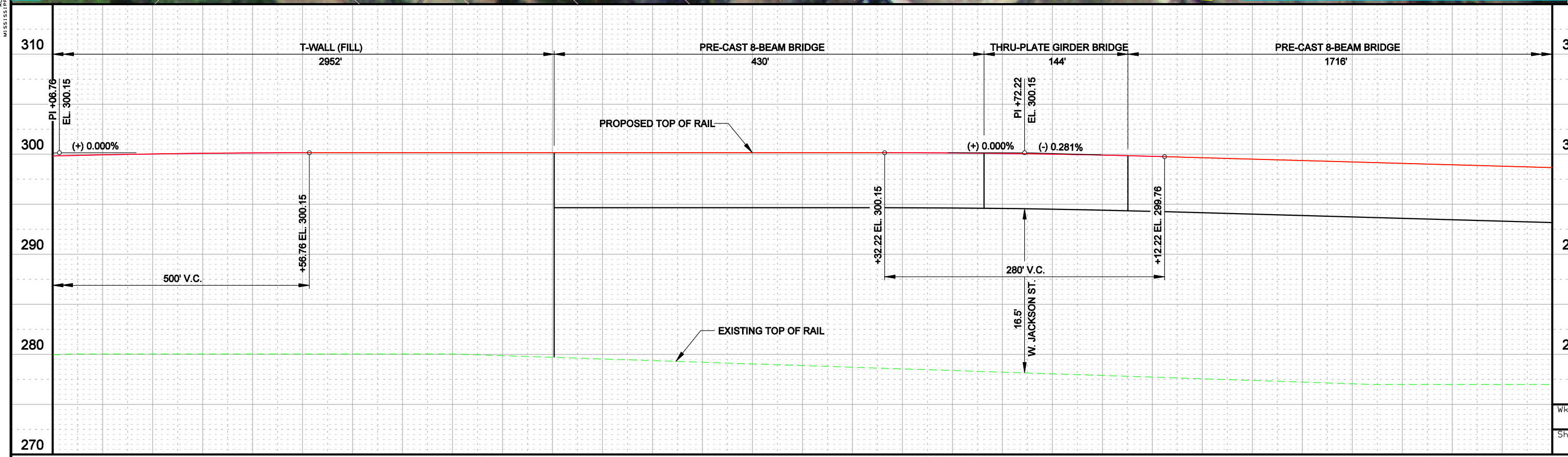
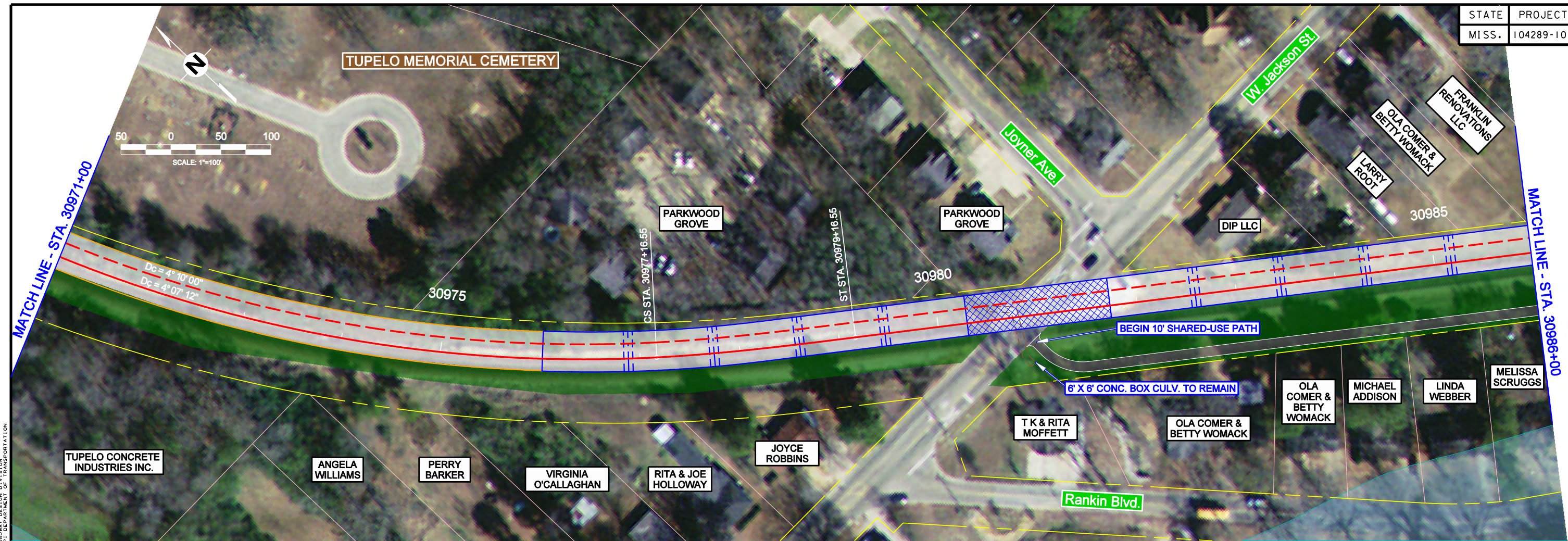
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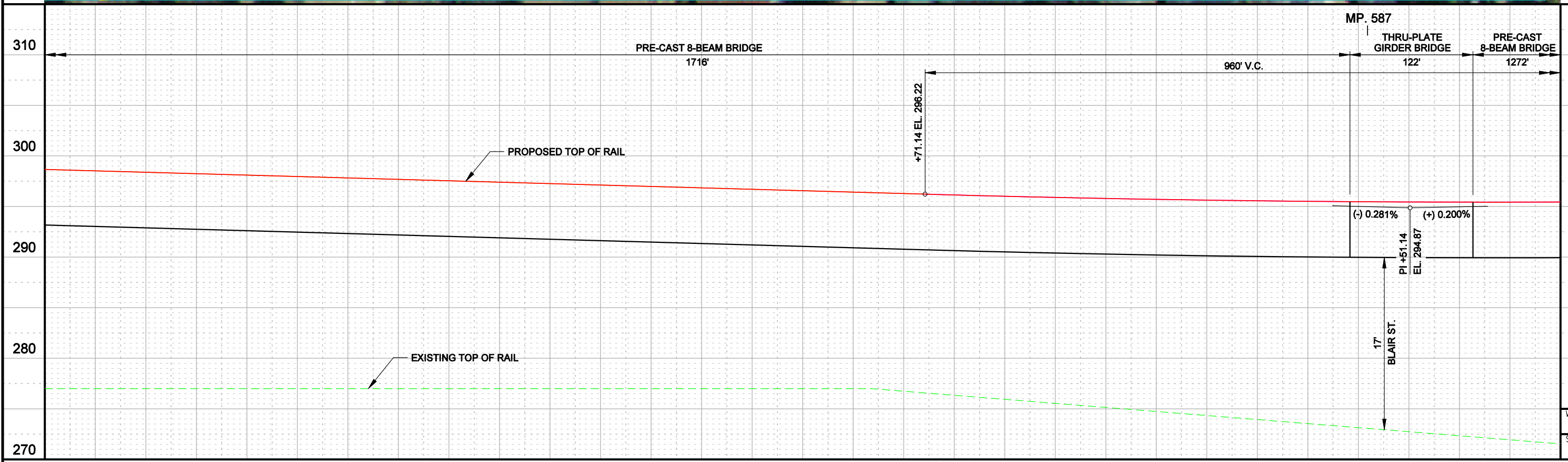
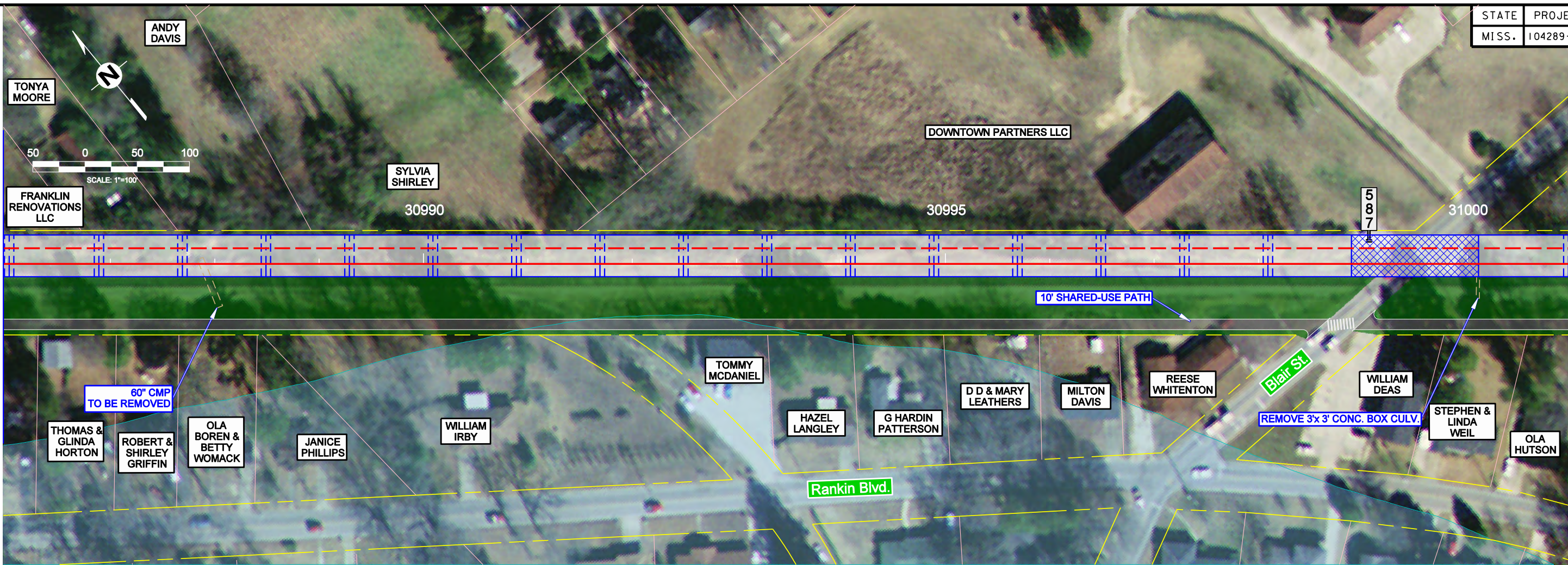


PLANNING & DESIGN DIVISION
 MISSISSIPPI DEPARTMENT OF TRANSPORTATION

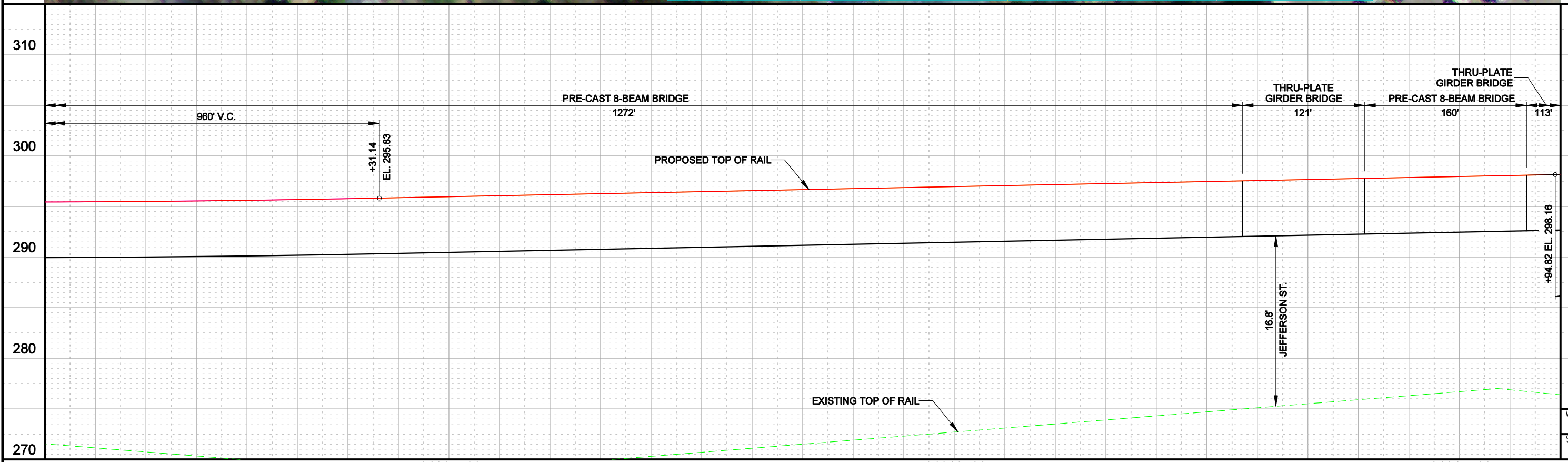
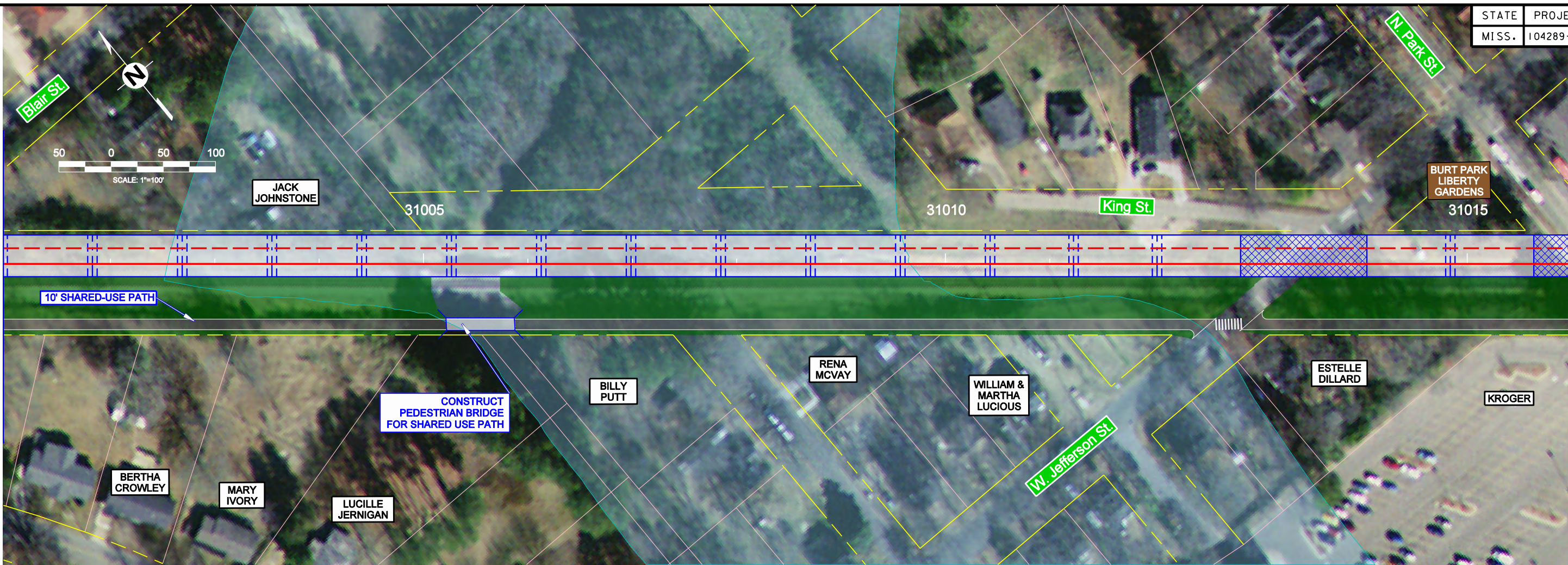


MISSISSIPPI DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN DIVISION
 PLANNING & DESIGN SECTION

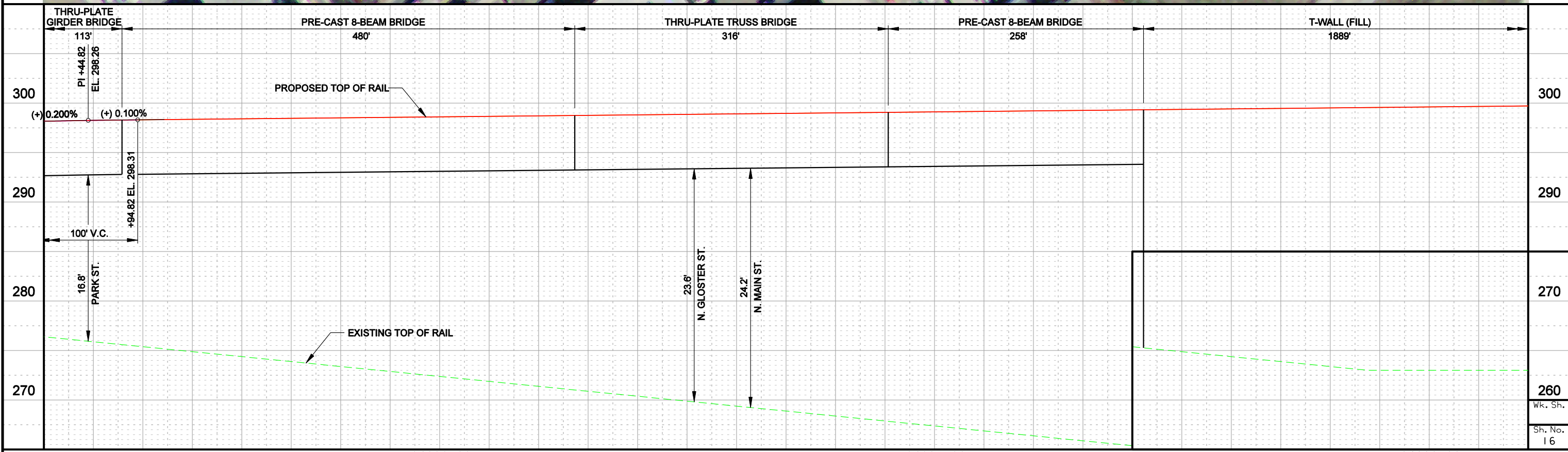
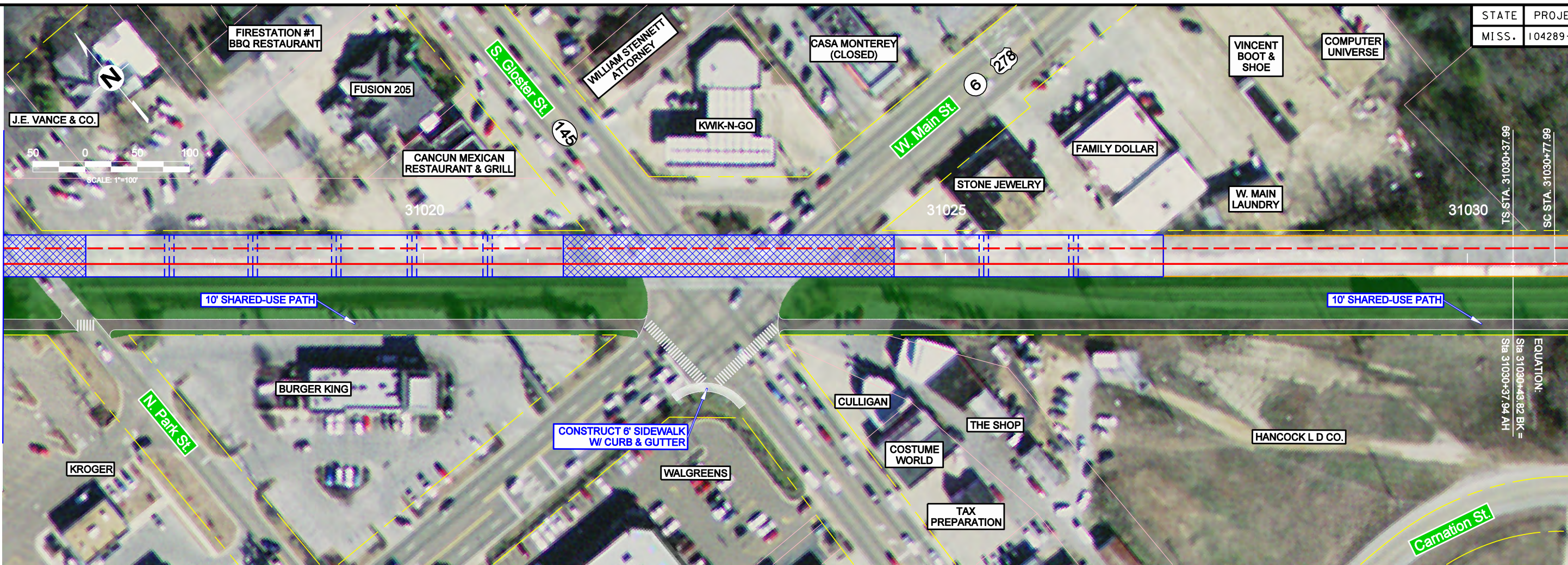




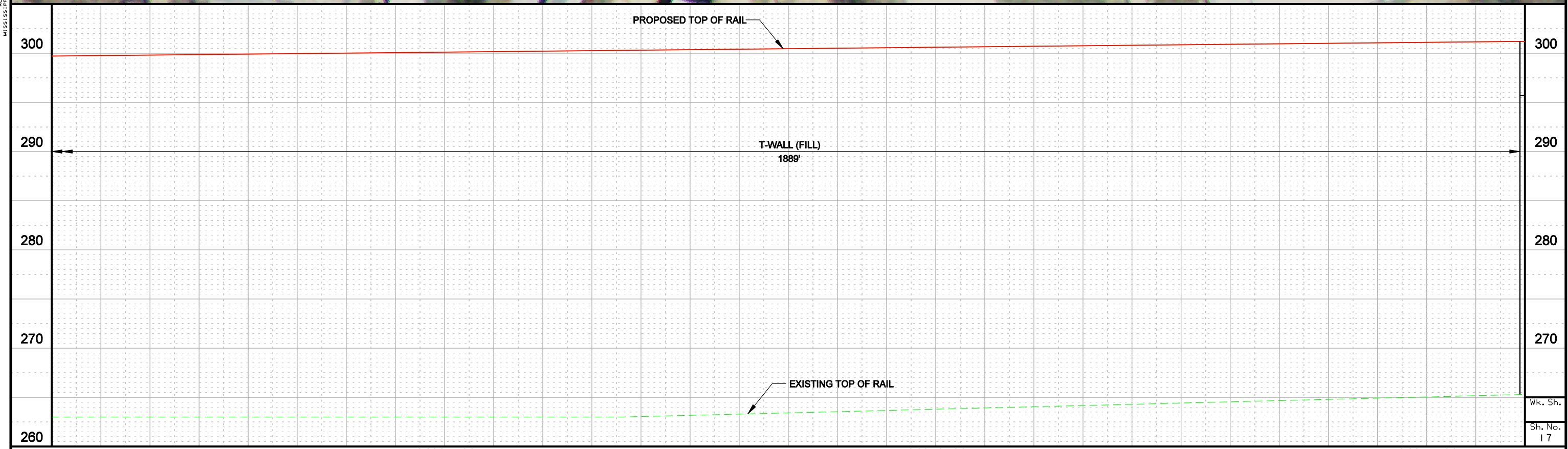
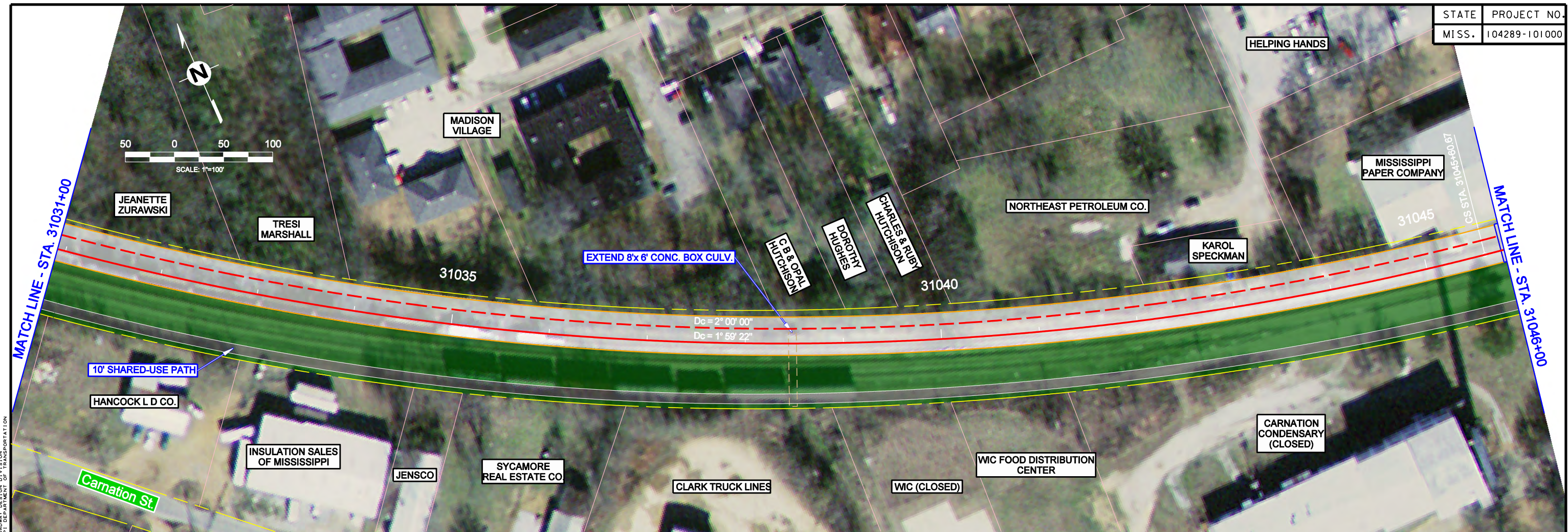
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 ROADWAY DESIGN DIVISION
 PLANNING & ENVIRONMENTAL STUDY



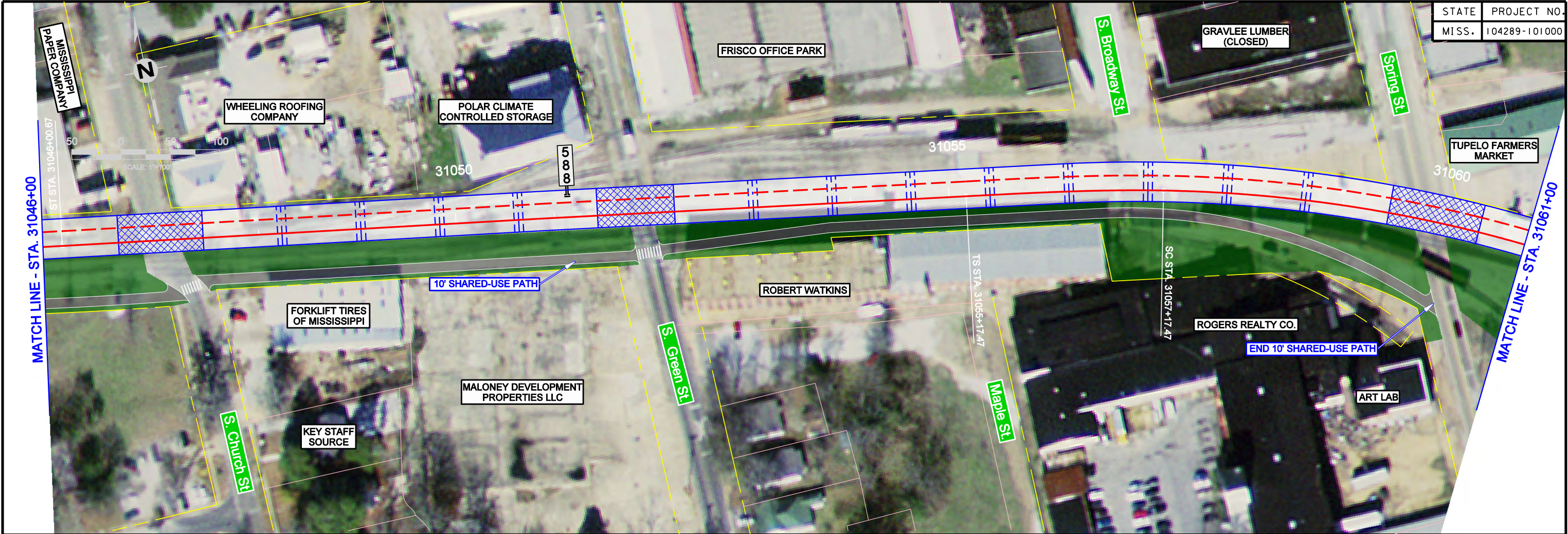
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ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION



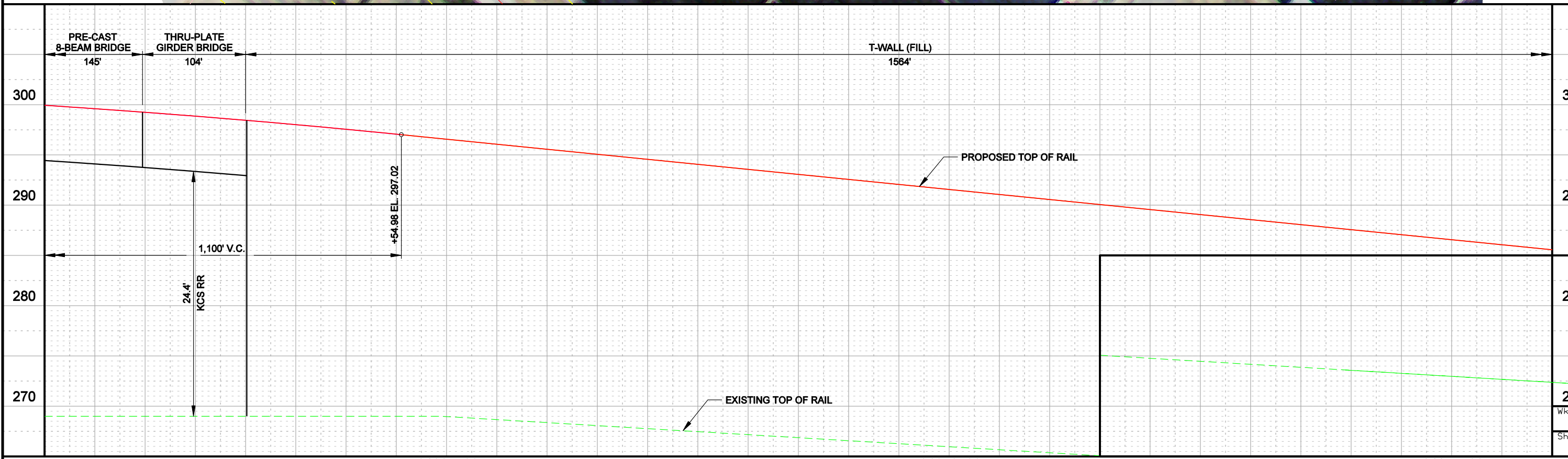
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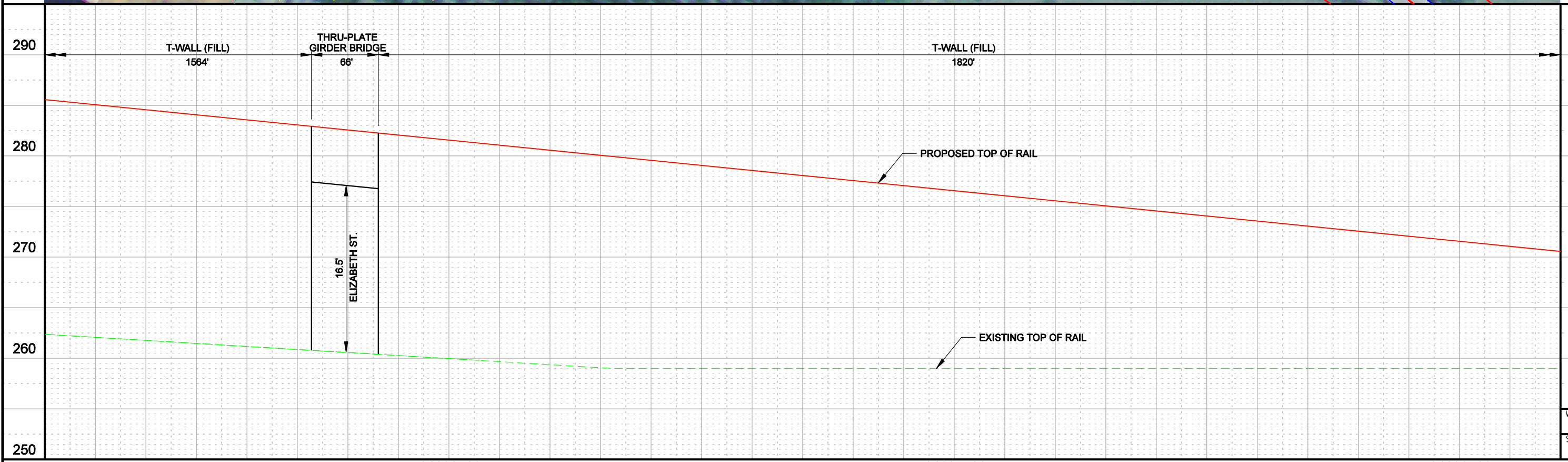
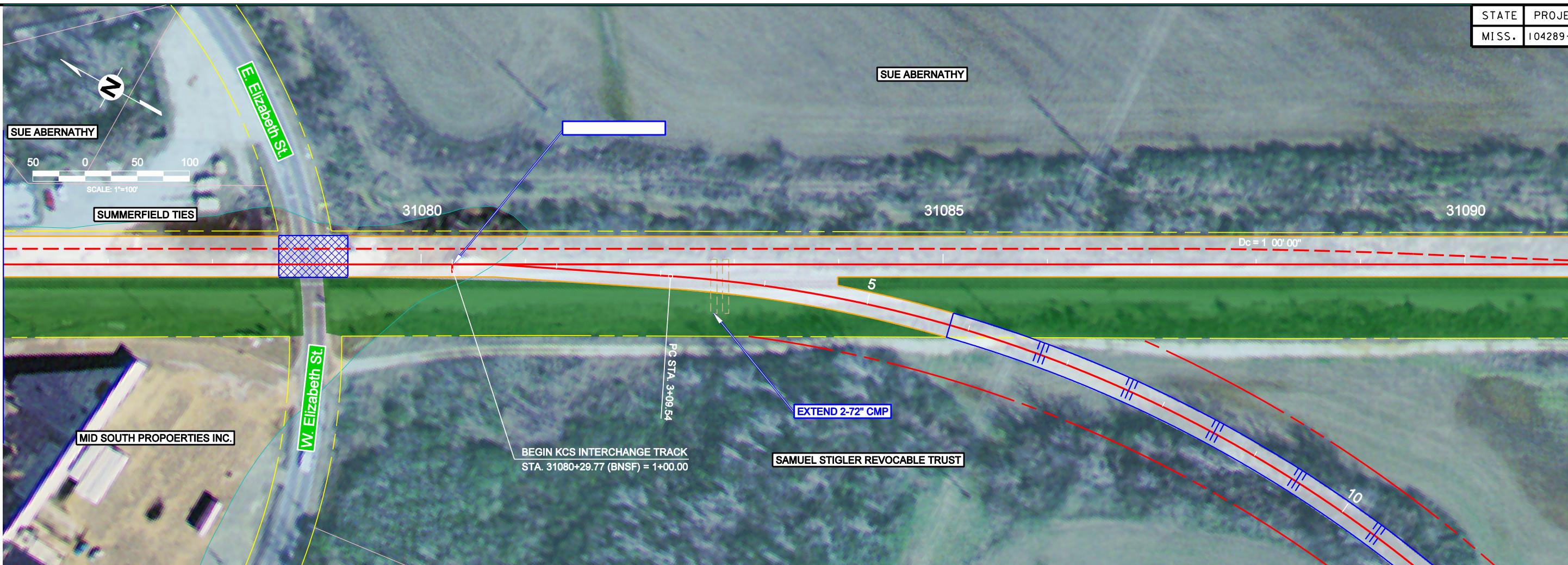


MISSISSIPPI DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN DIVISION
 PLANNING & DESIGN



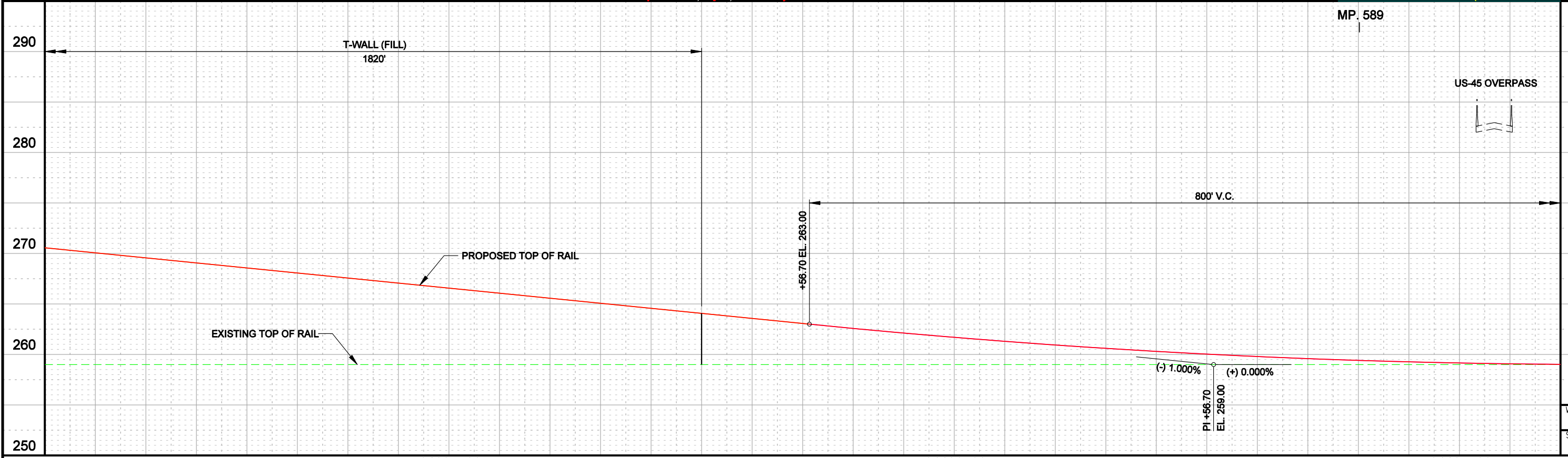
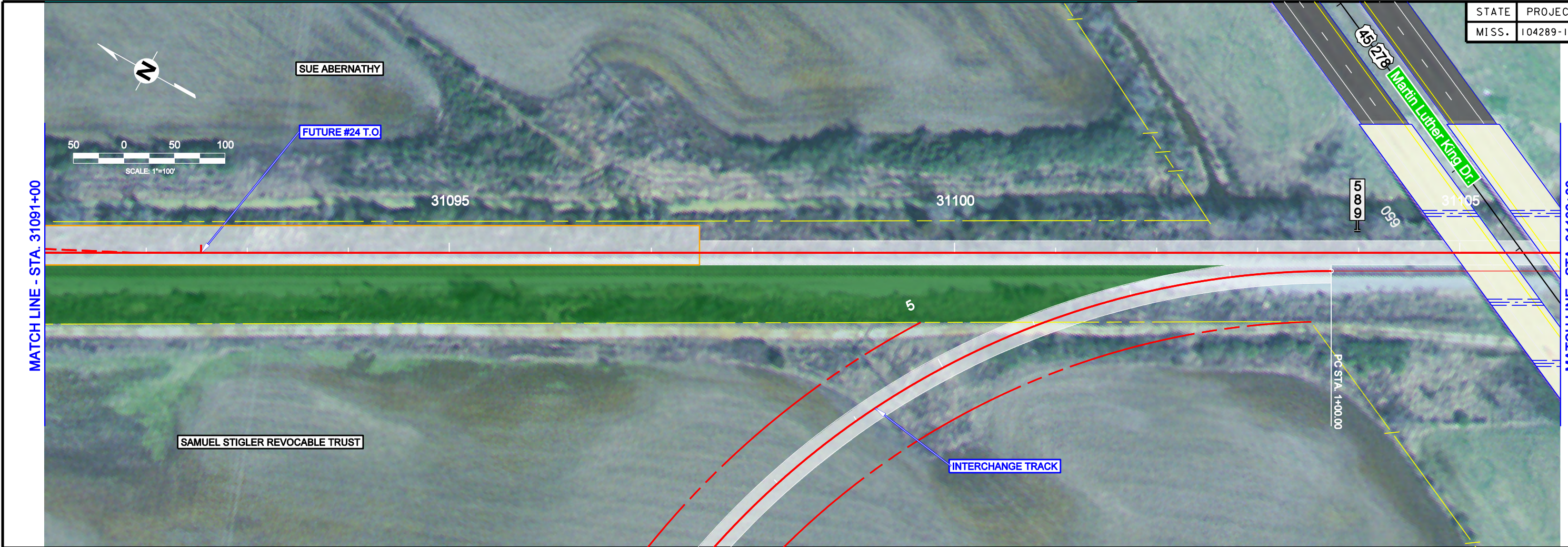
PLAN SHEET 18
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION



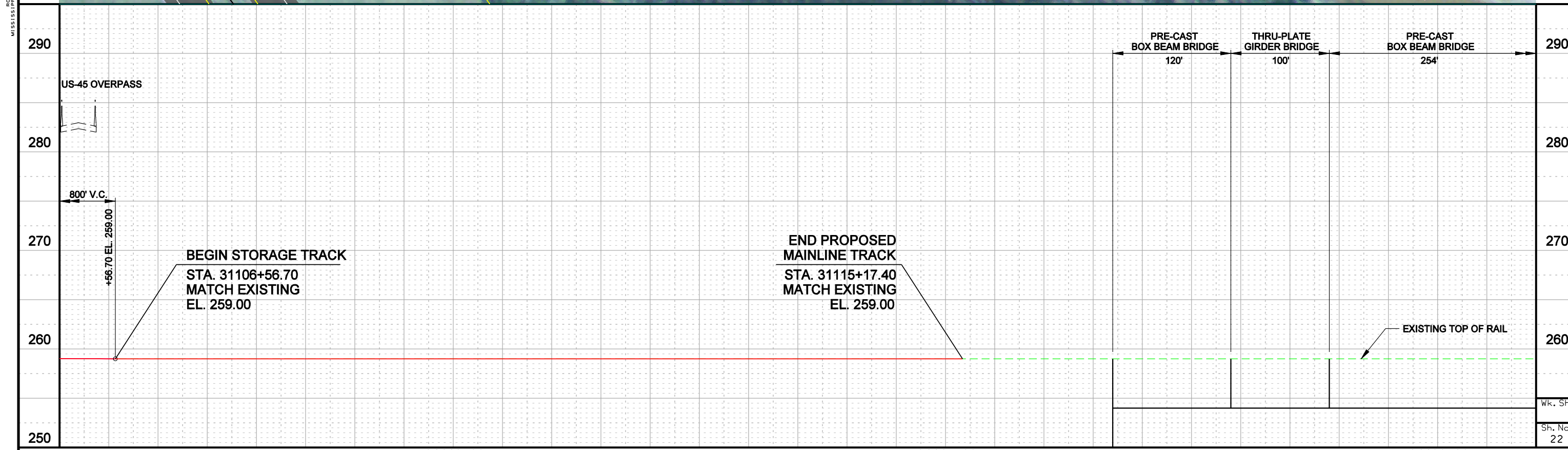
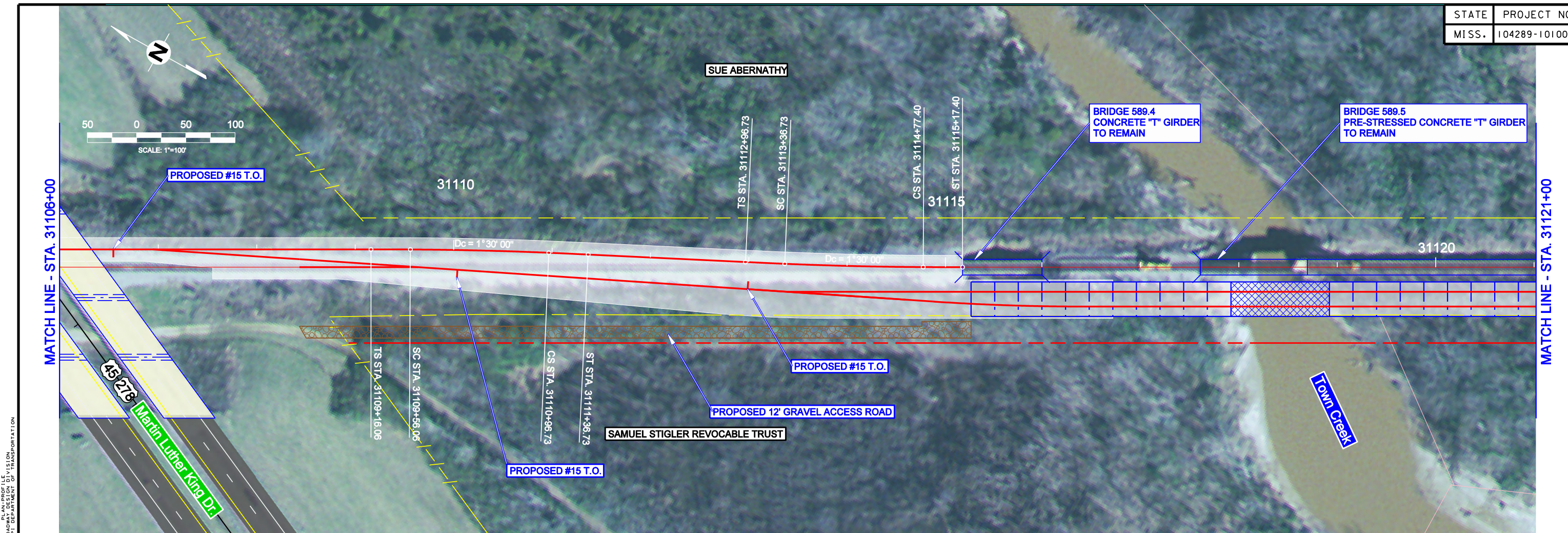


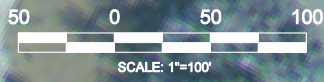
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 ROADWAY DESIGN DIVISION
 PLANNING & DESIGN

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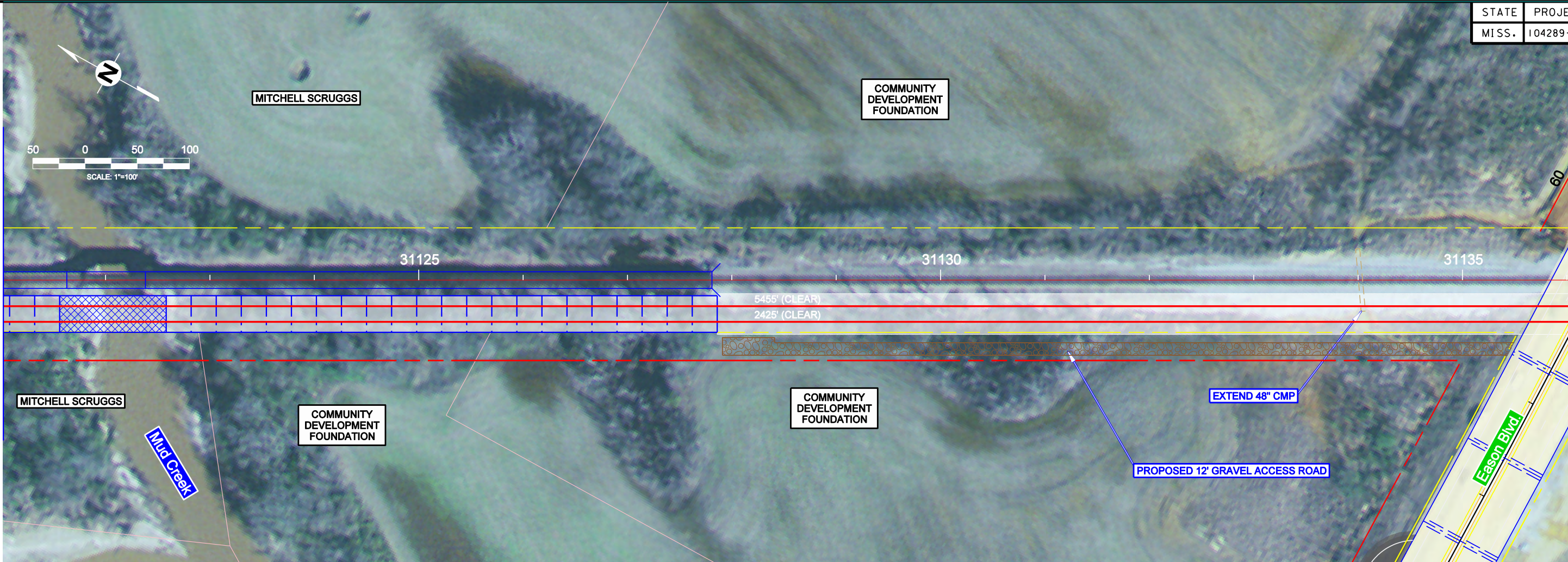
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 ROADWAY DESIGN DIVISION
 PLANNING & DESIGN SECTION



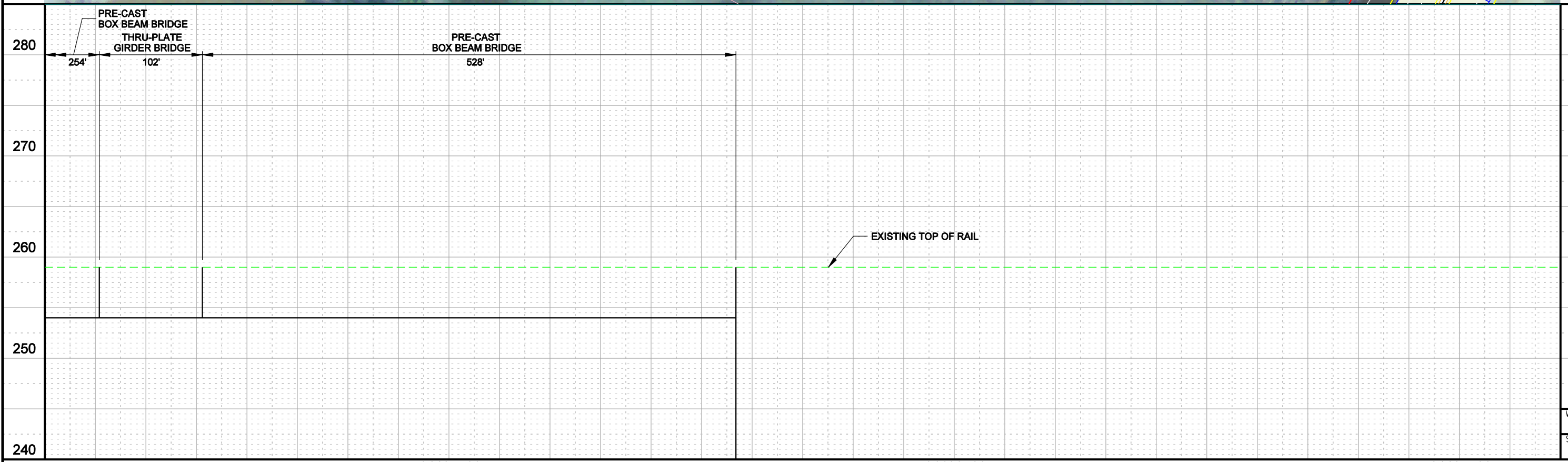


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MATCH LINE - STA. 31136+00



PLANNING & DESIGN DIVISION
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION



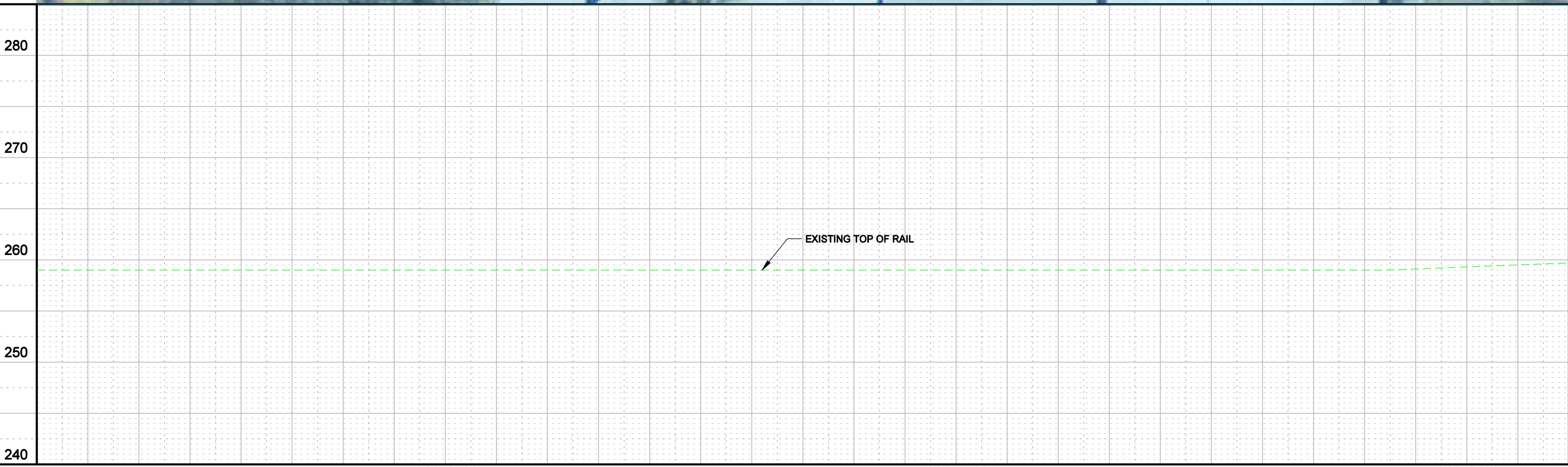
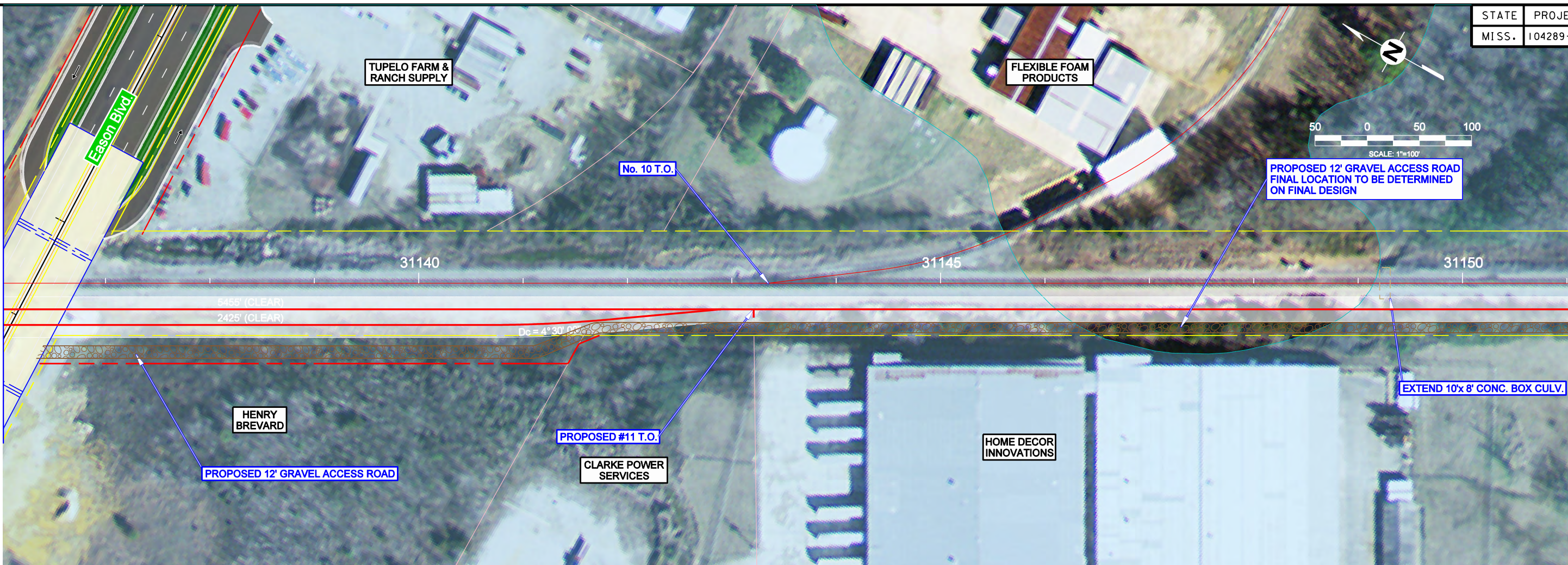
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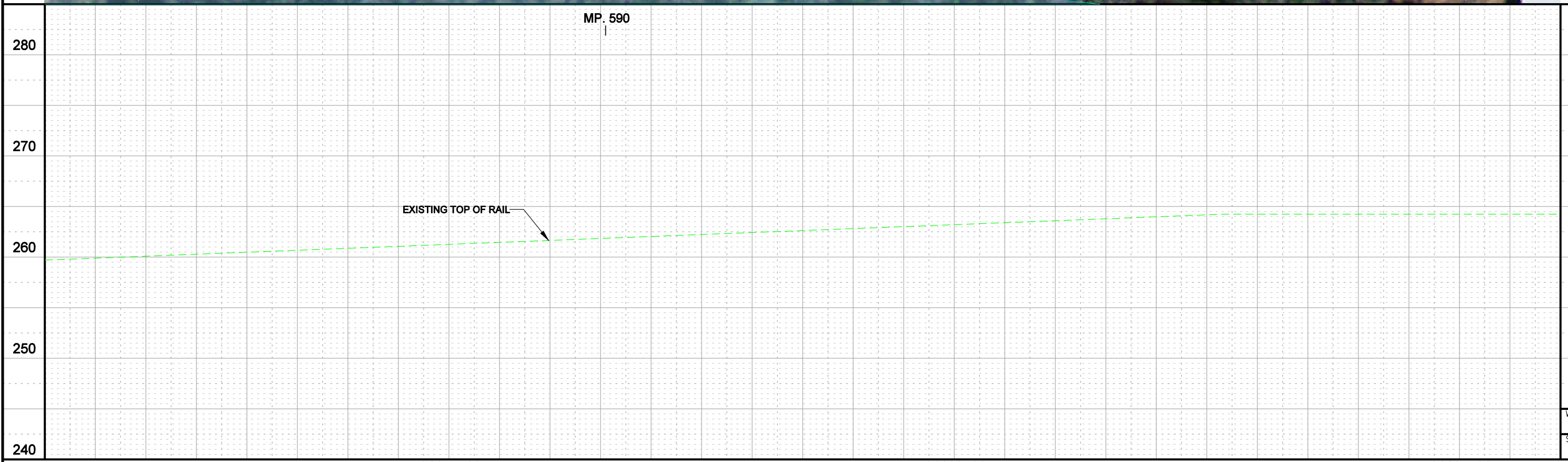
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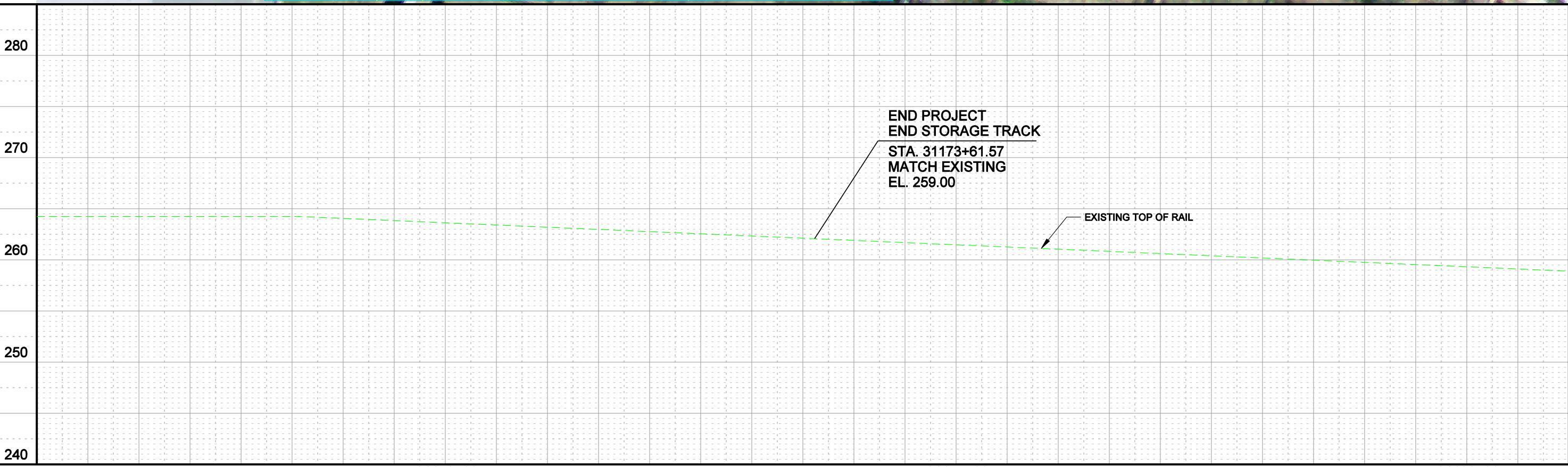
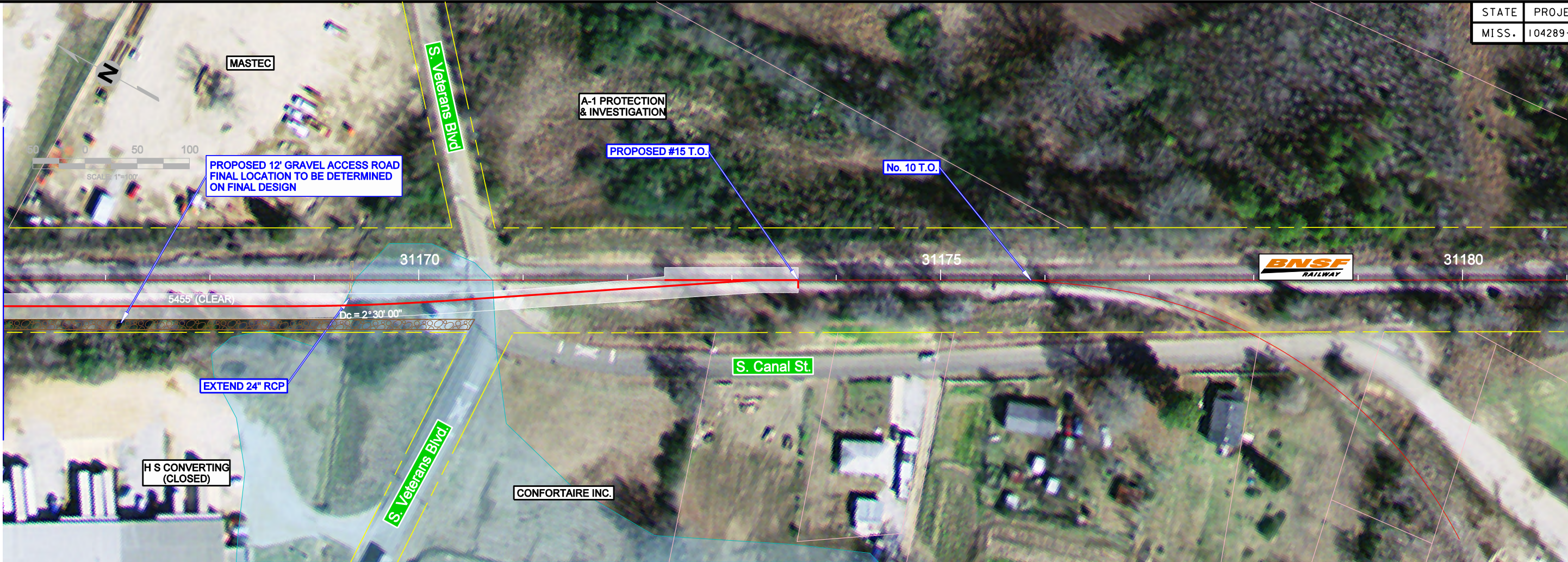
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PLANNING & DESIGN DIVISION
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION



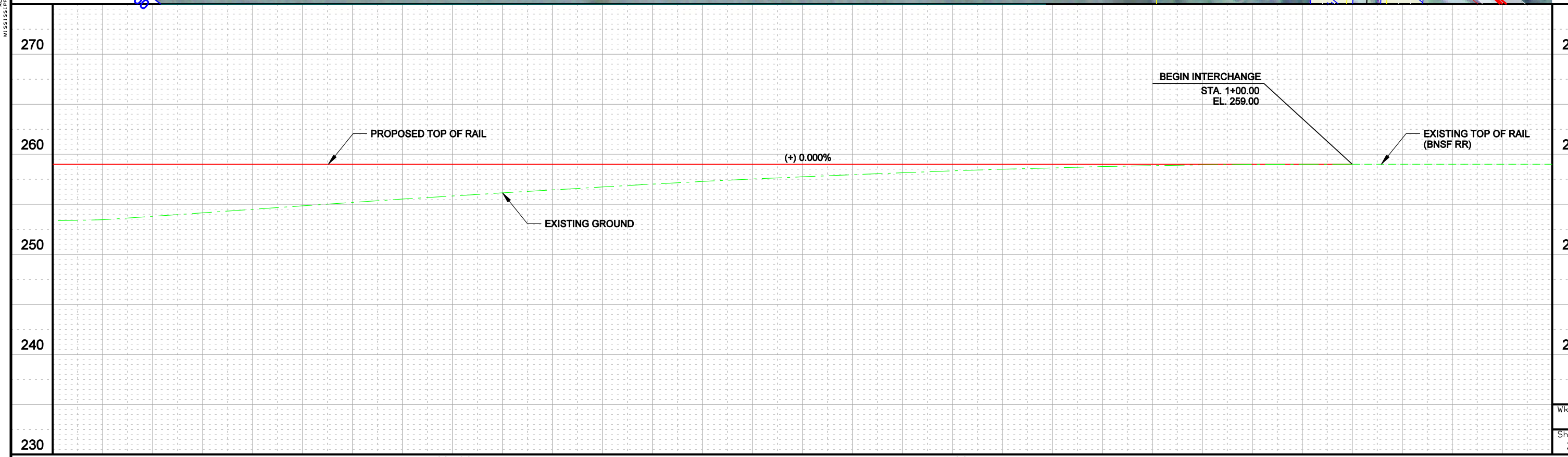
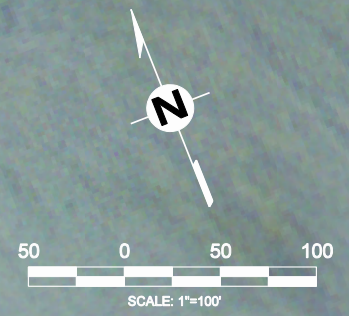
PLANNING & DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION



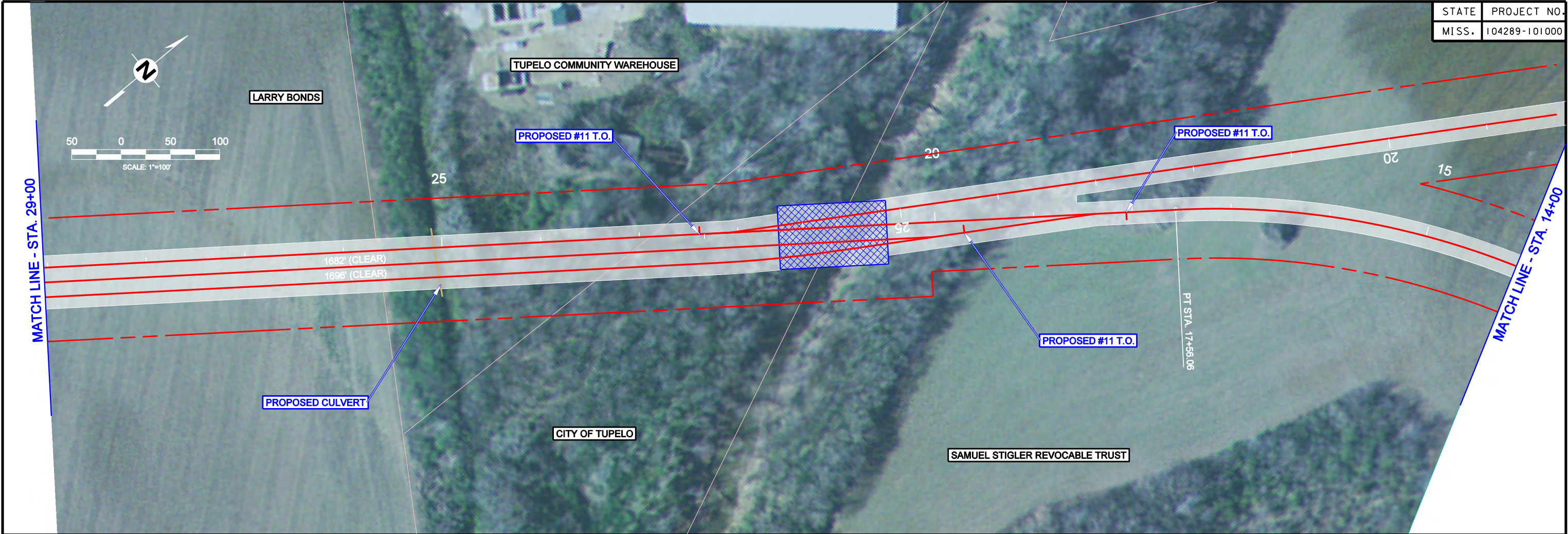
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN DIVISION
 PLANNING & DESIGN

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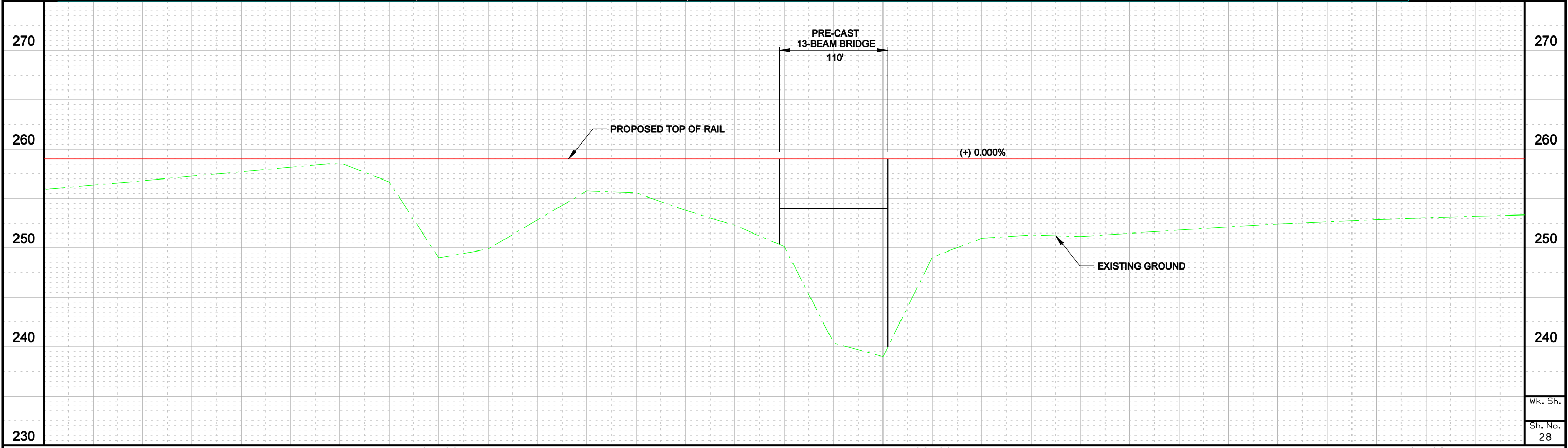
SAMUEL STIGLER REVOCABLE TRUST



PLANNING & DESIGN DIVISION
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

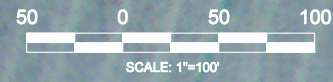


MISSISSIPPI DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN DIVISION
 PLANNING & DESIGN

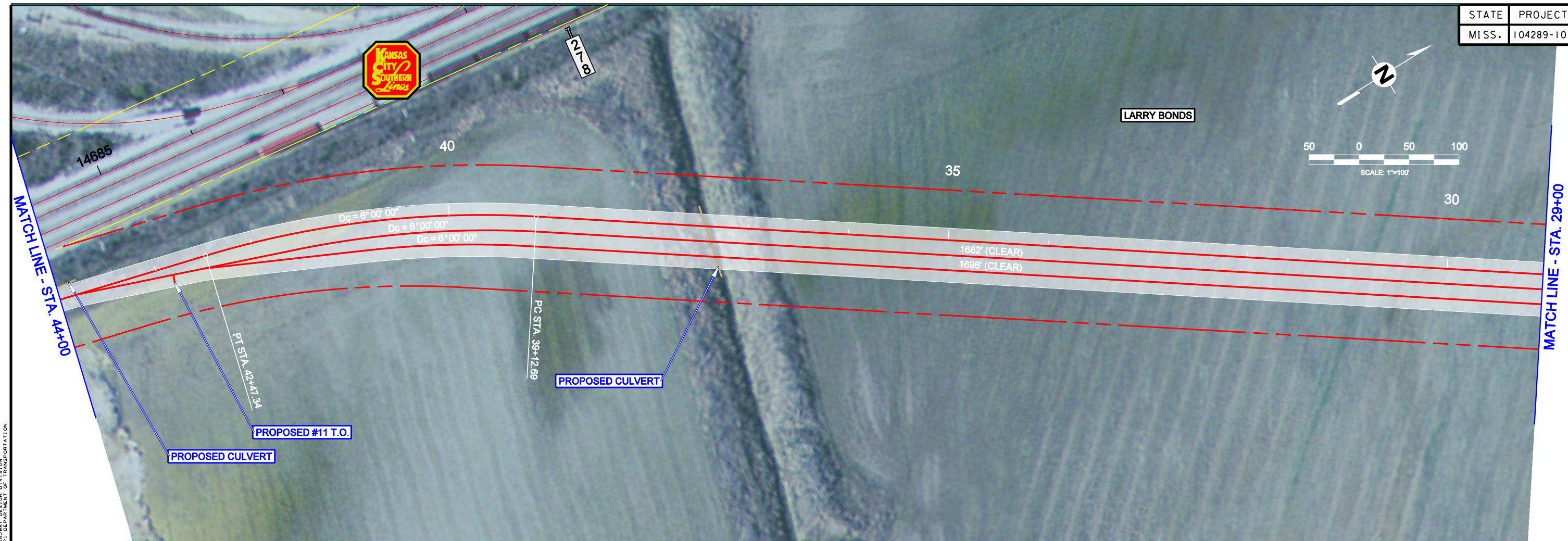




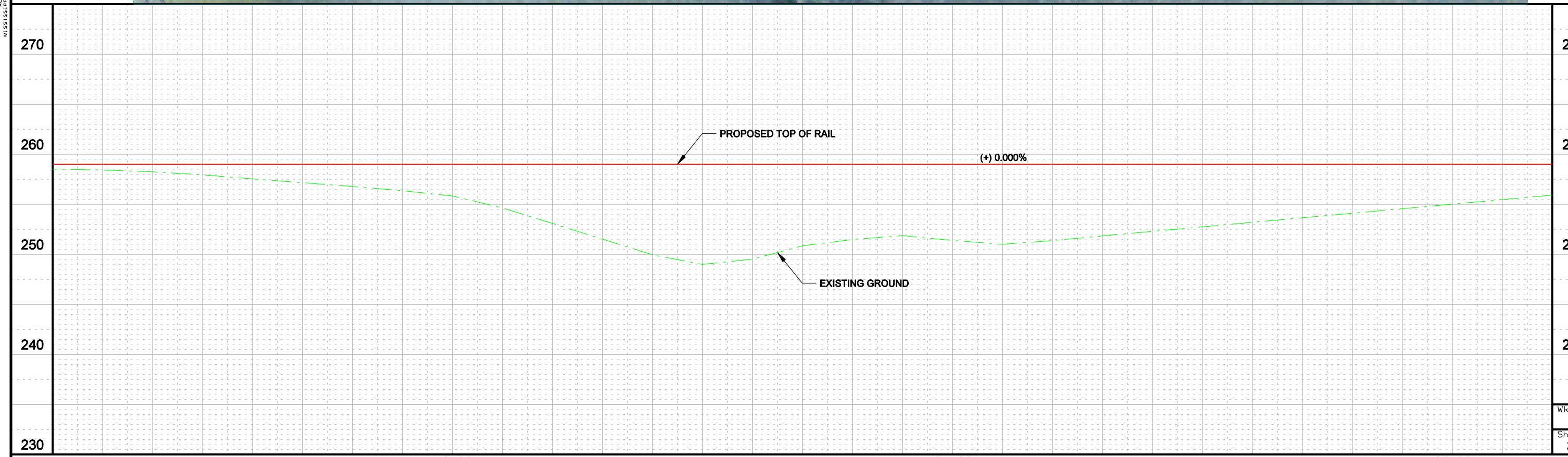
27-8



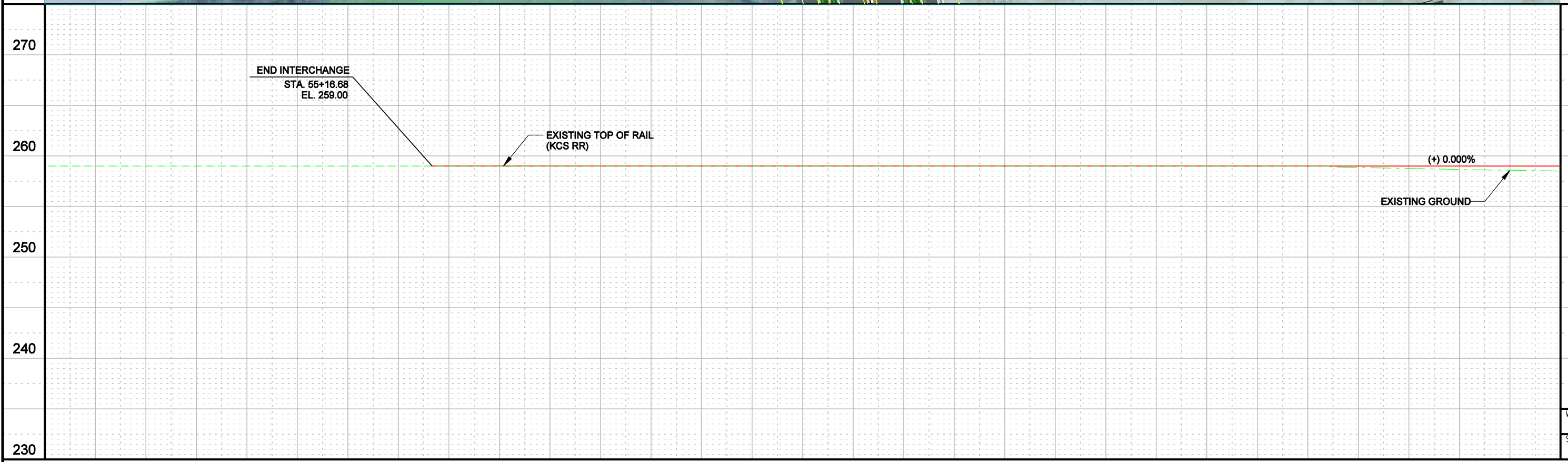
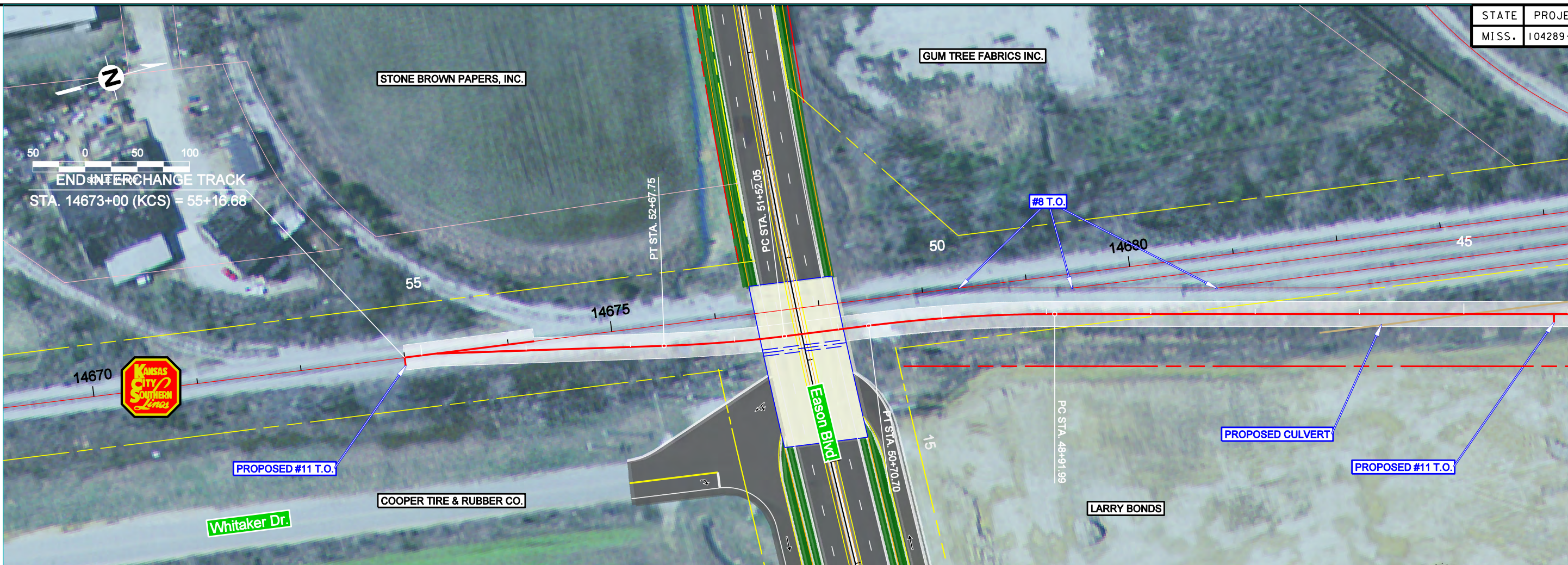
LARRY BONDS



PLANNING DIVISION MISSISSIPPI DEPARTMENT OF TRANSPORTATION



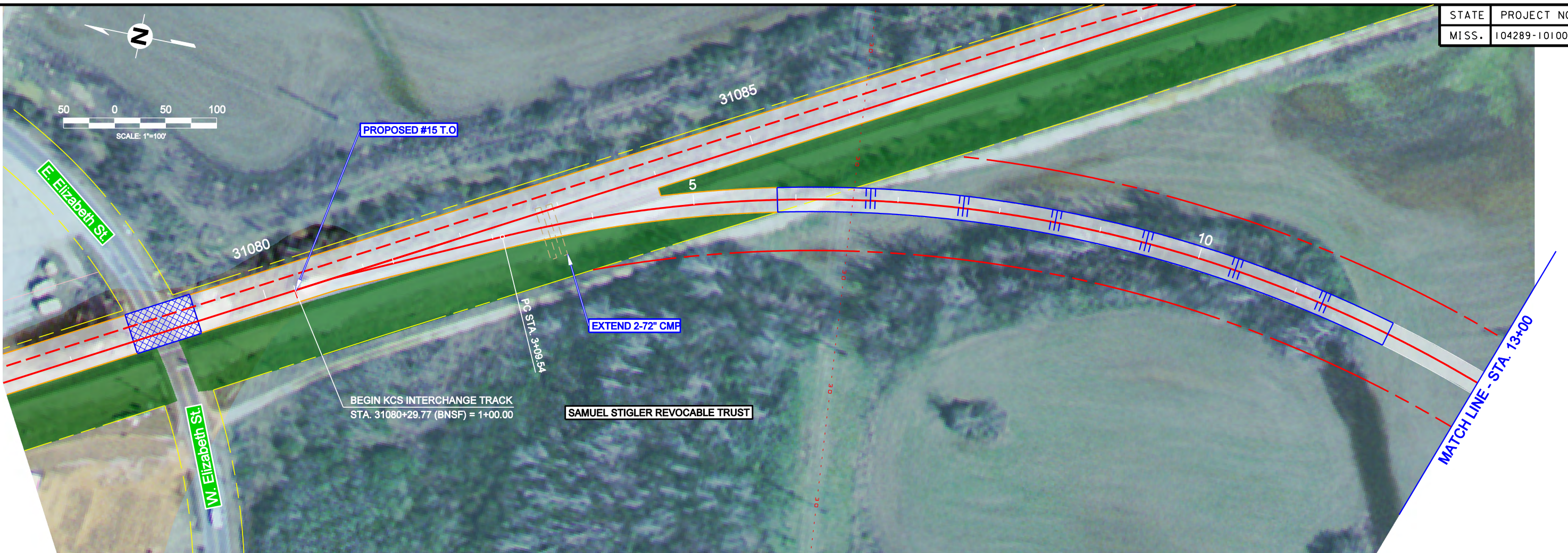
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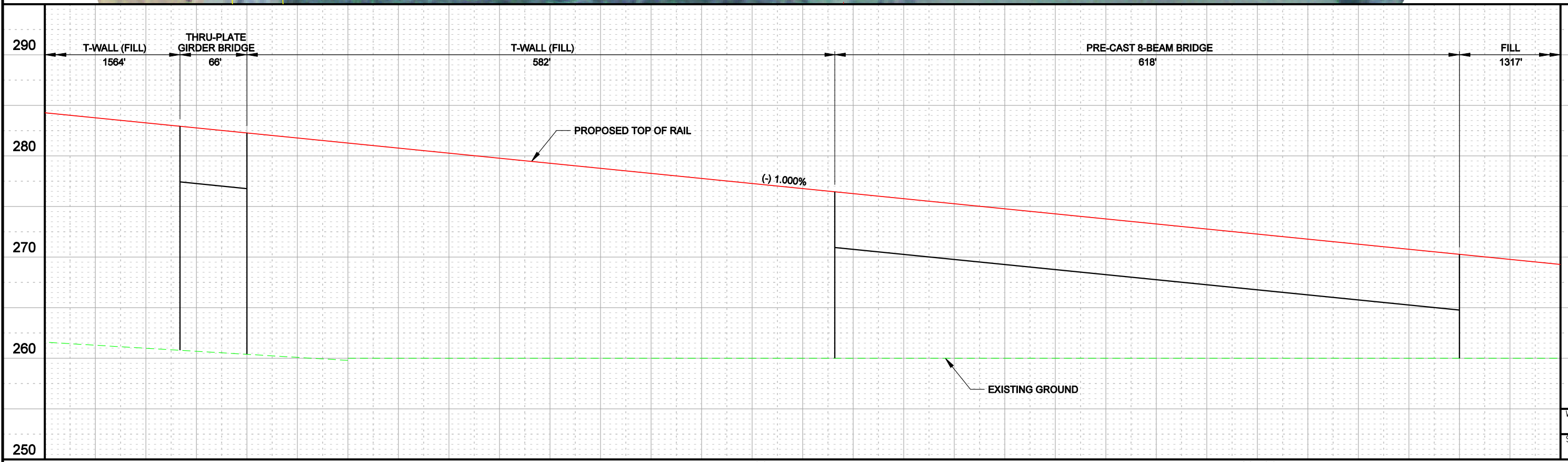
PLANNING DIVISION
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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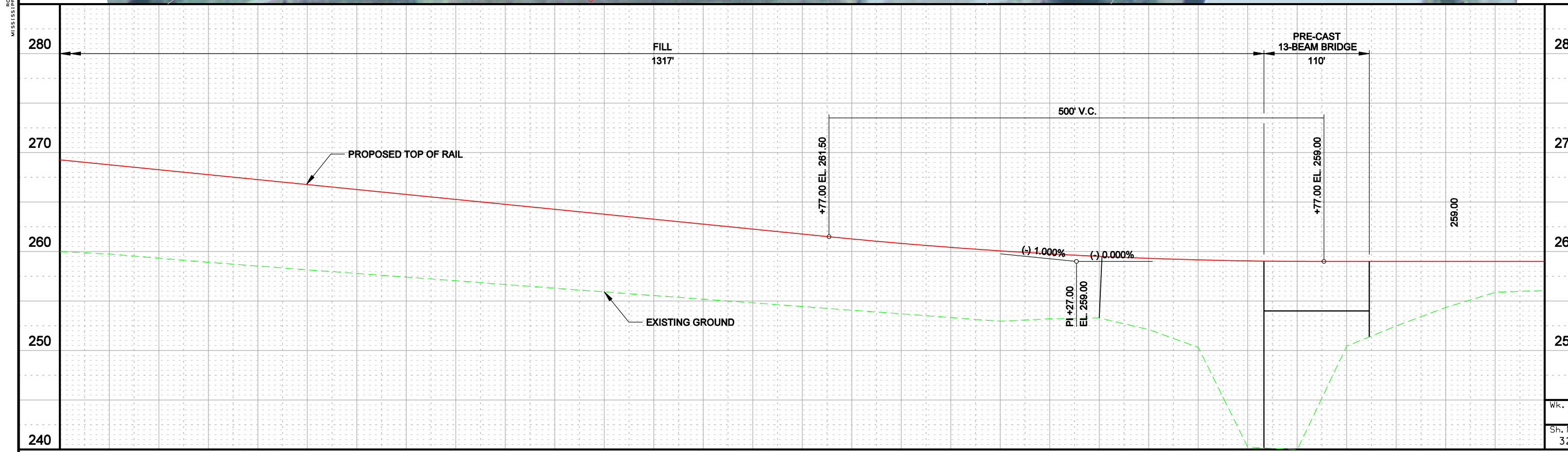
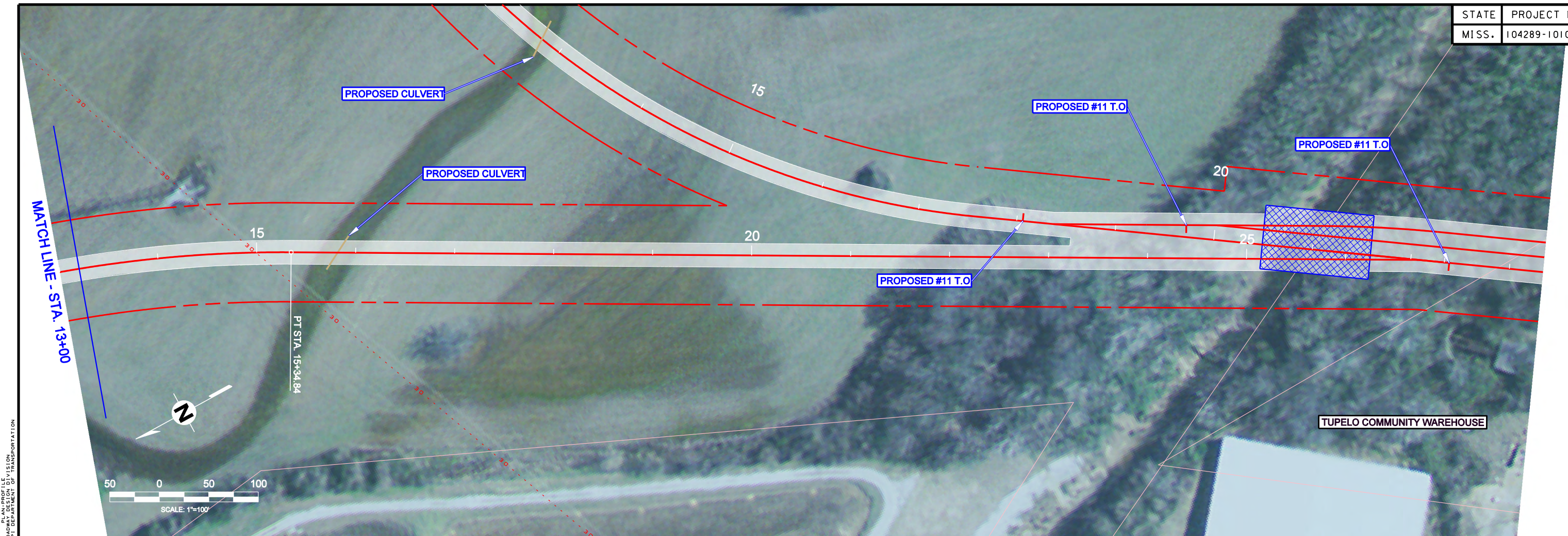
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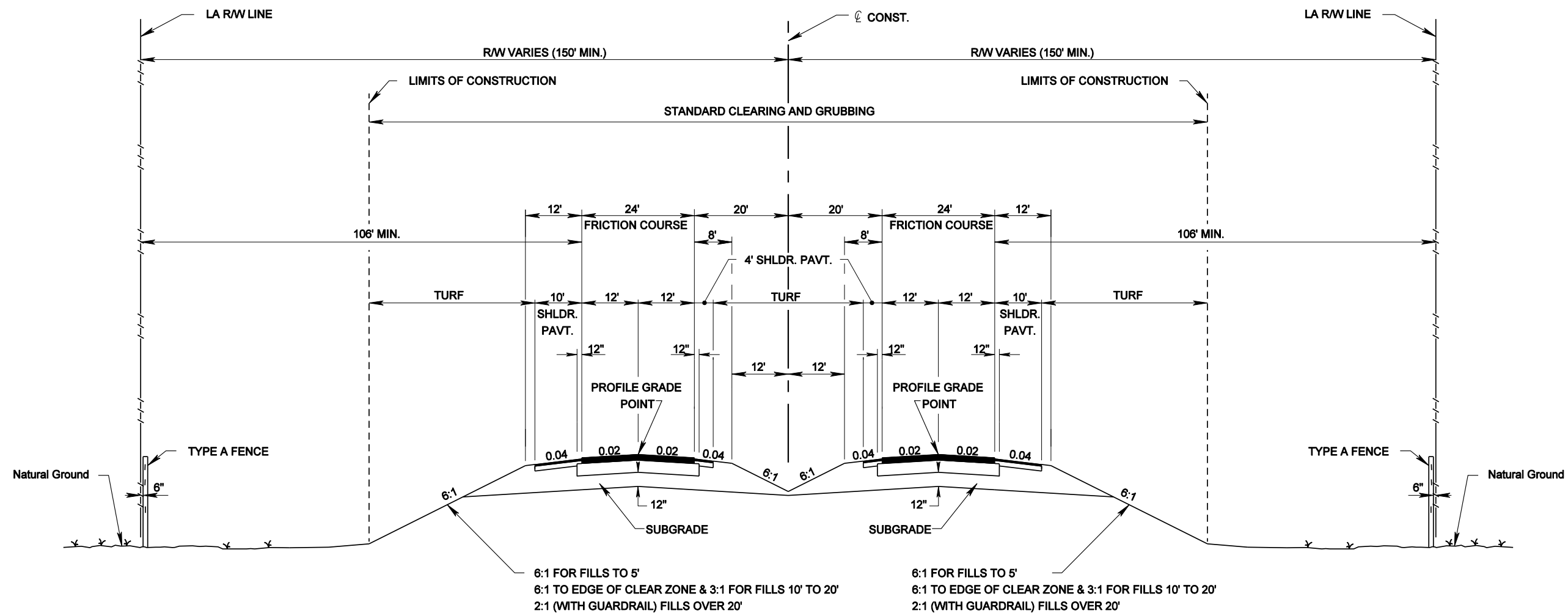
PLANNING DIVISION
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION



Wk. Sh.
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31

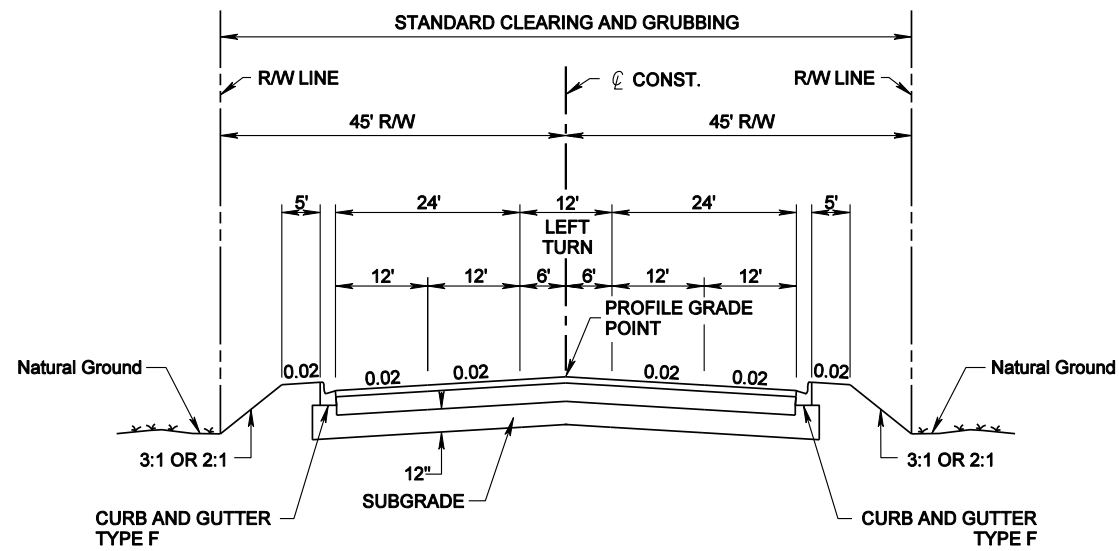


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MISSISSIPPI DEPARTMENT OF TRANSPORTATION

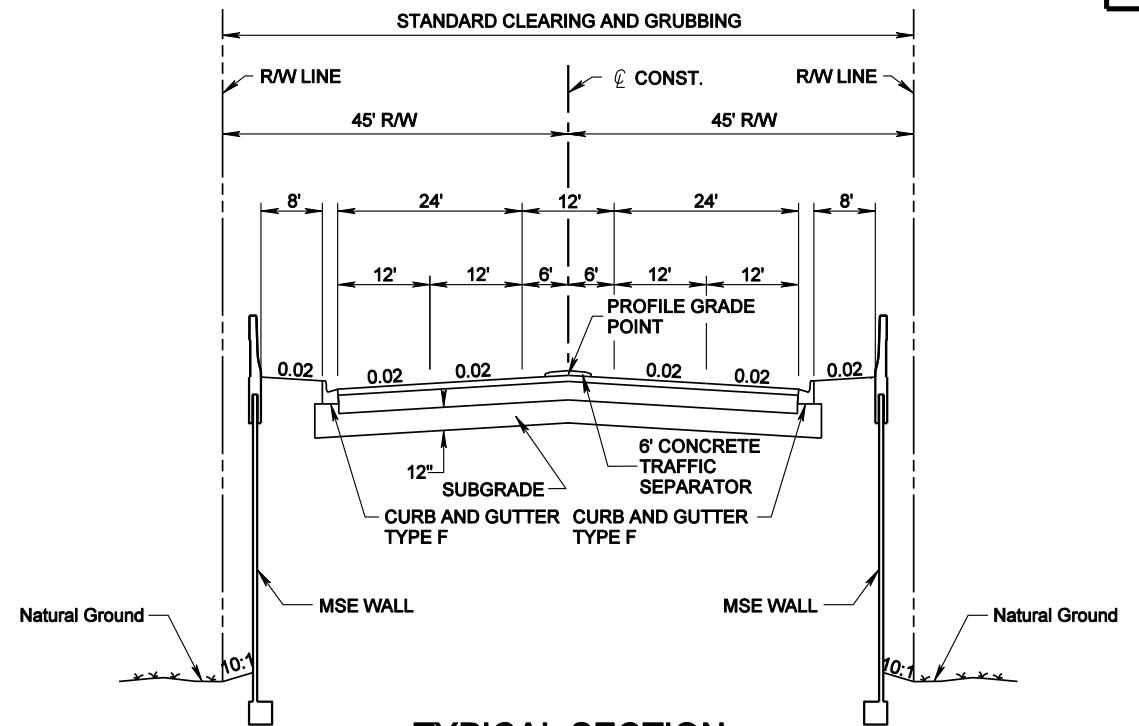


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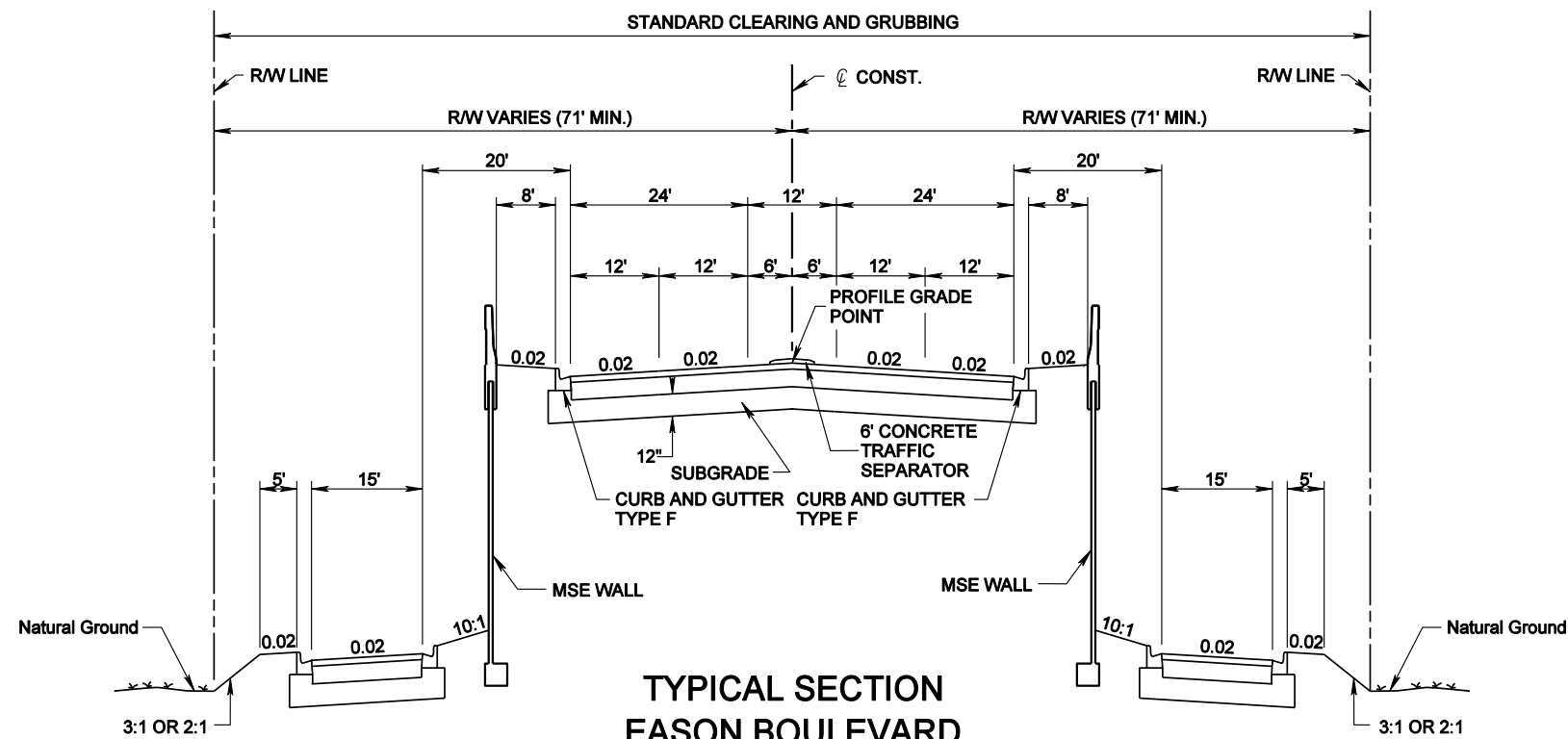
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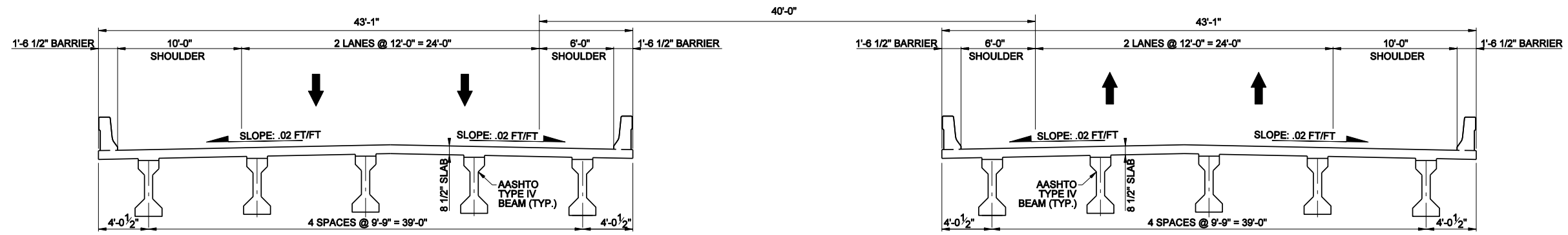


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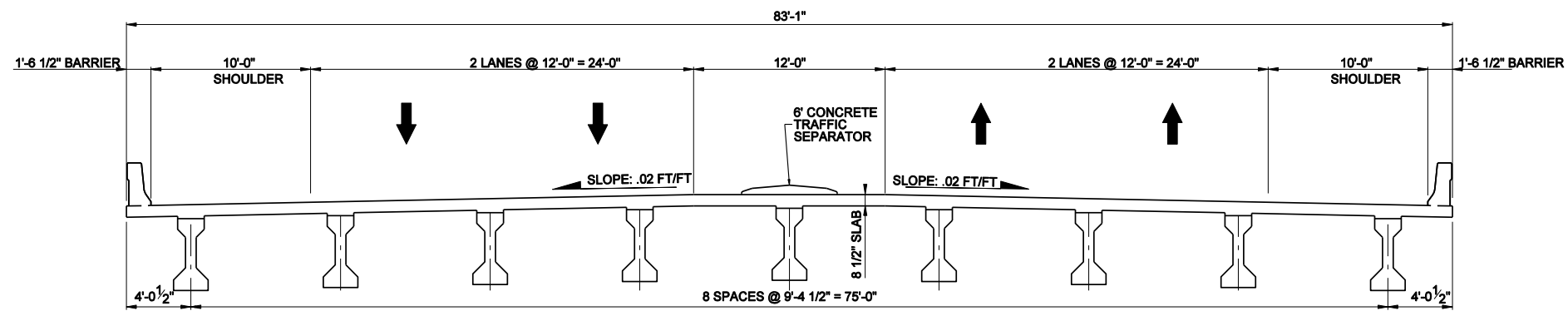


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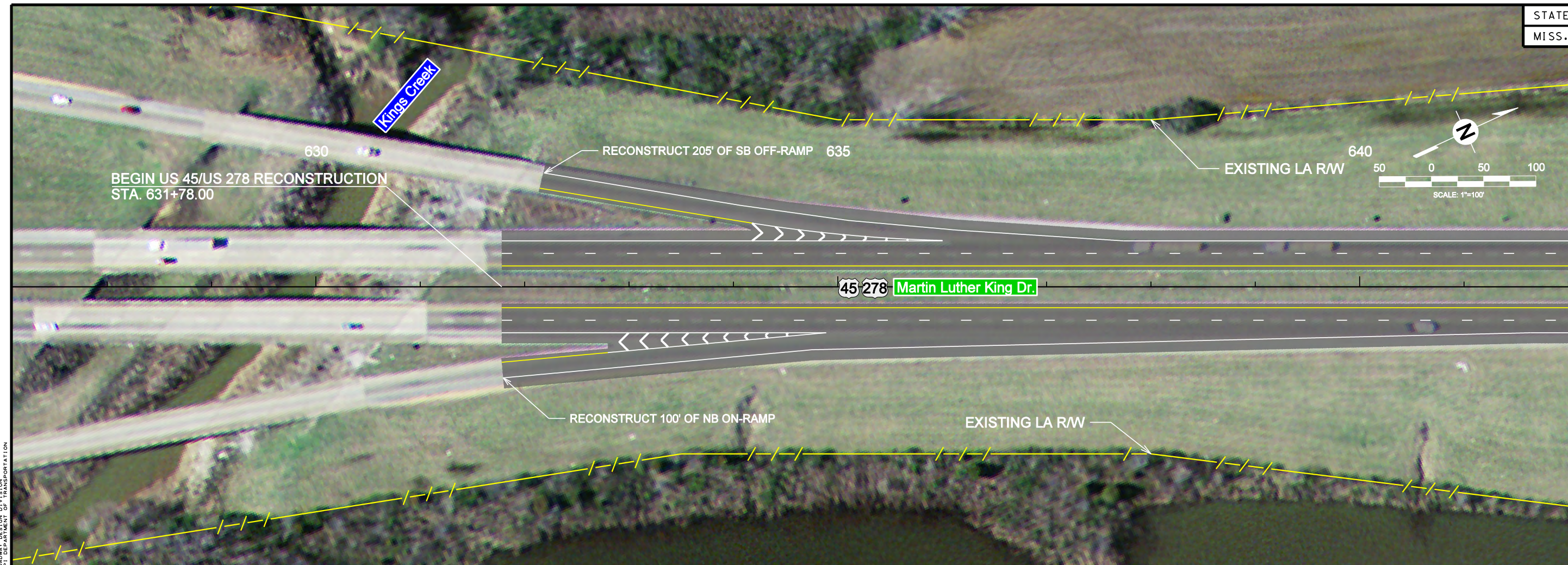


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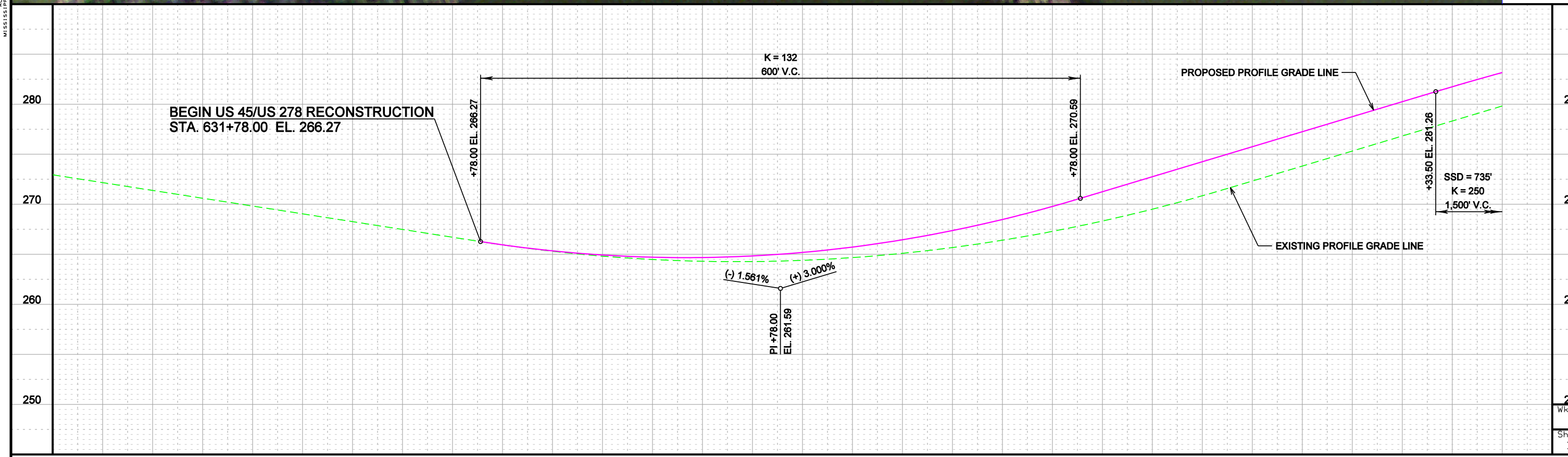
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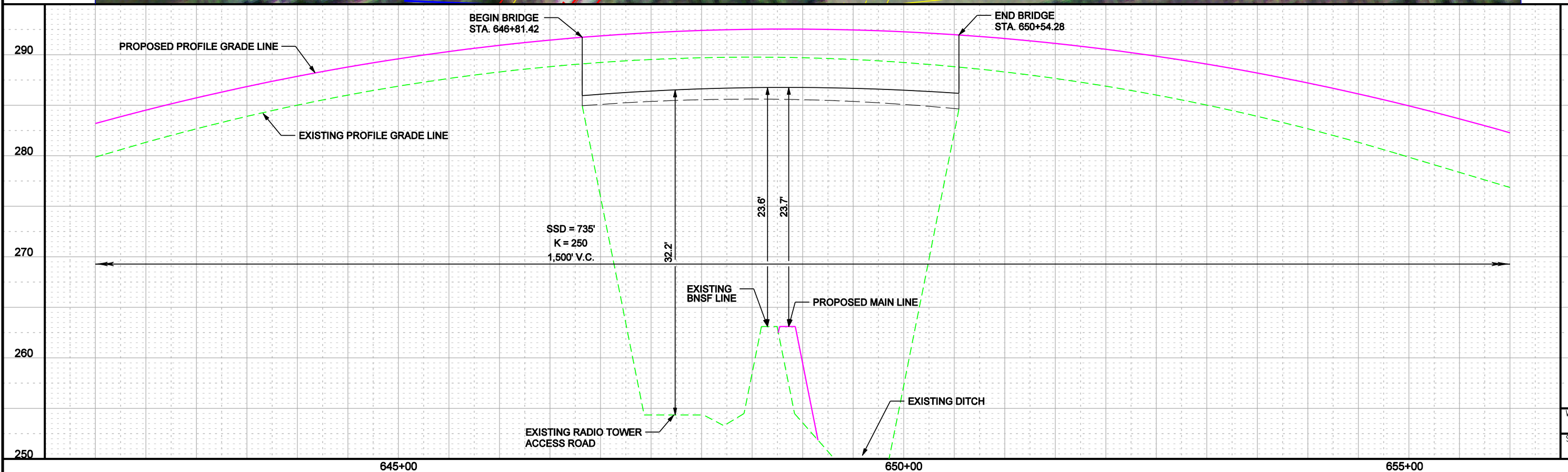
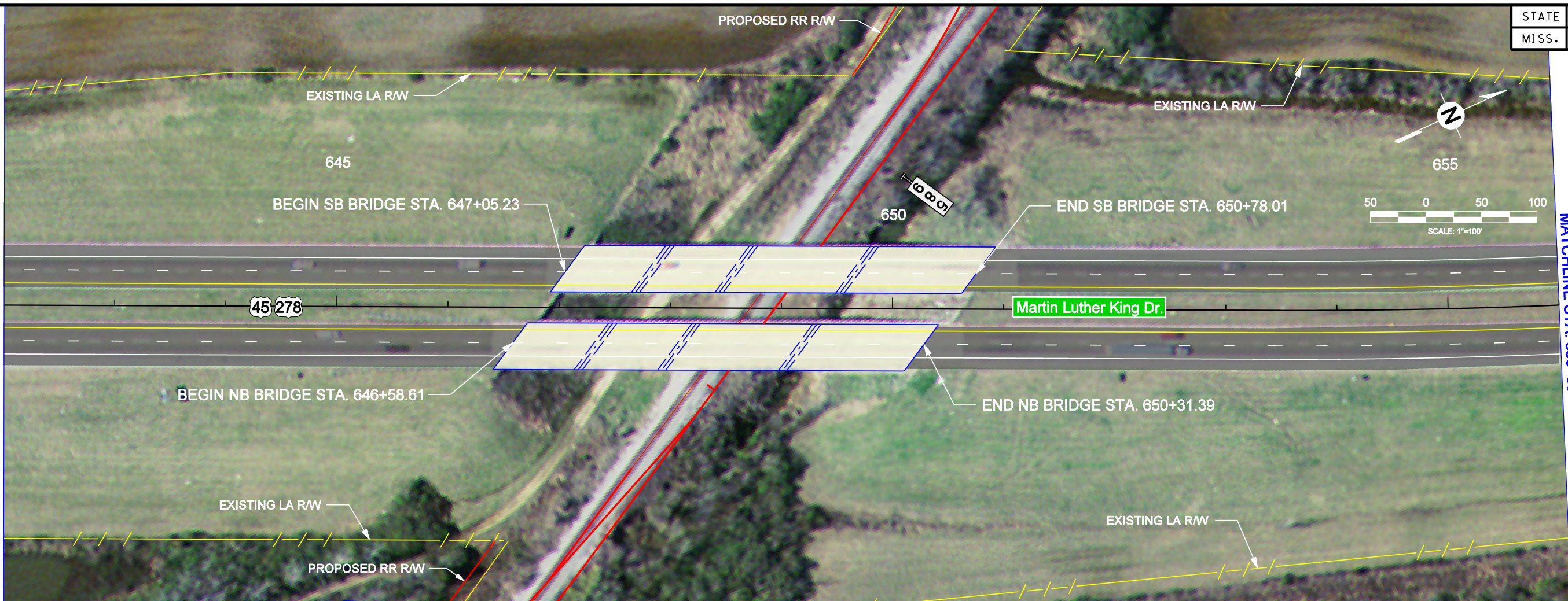
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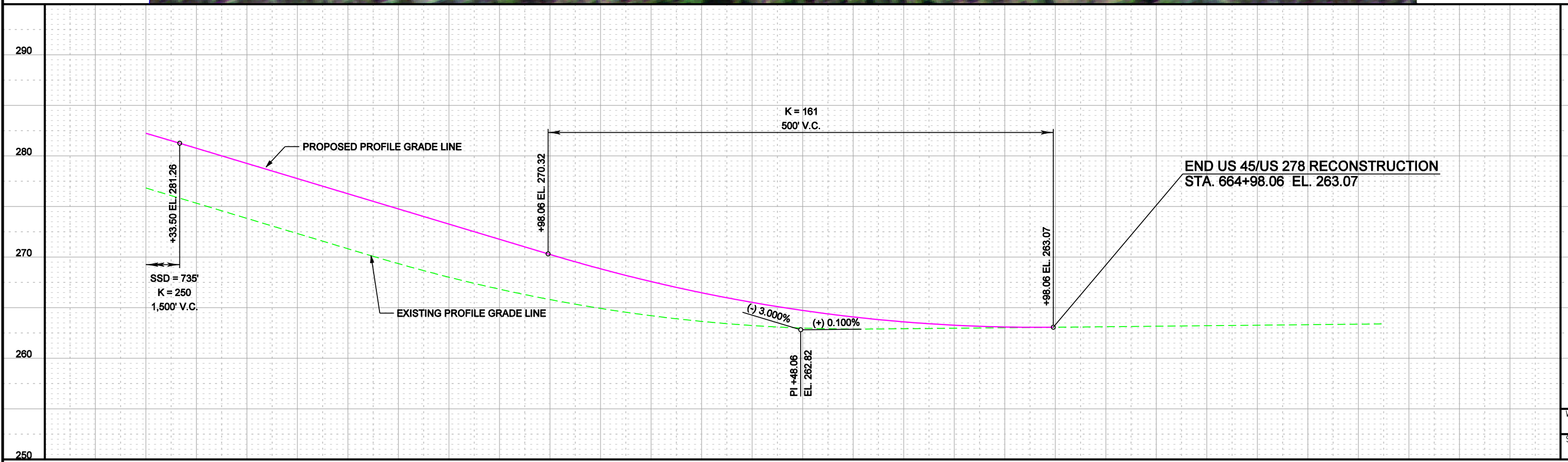
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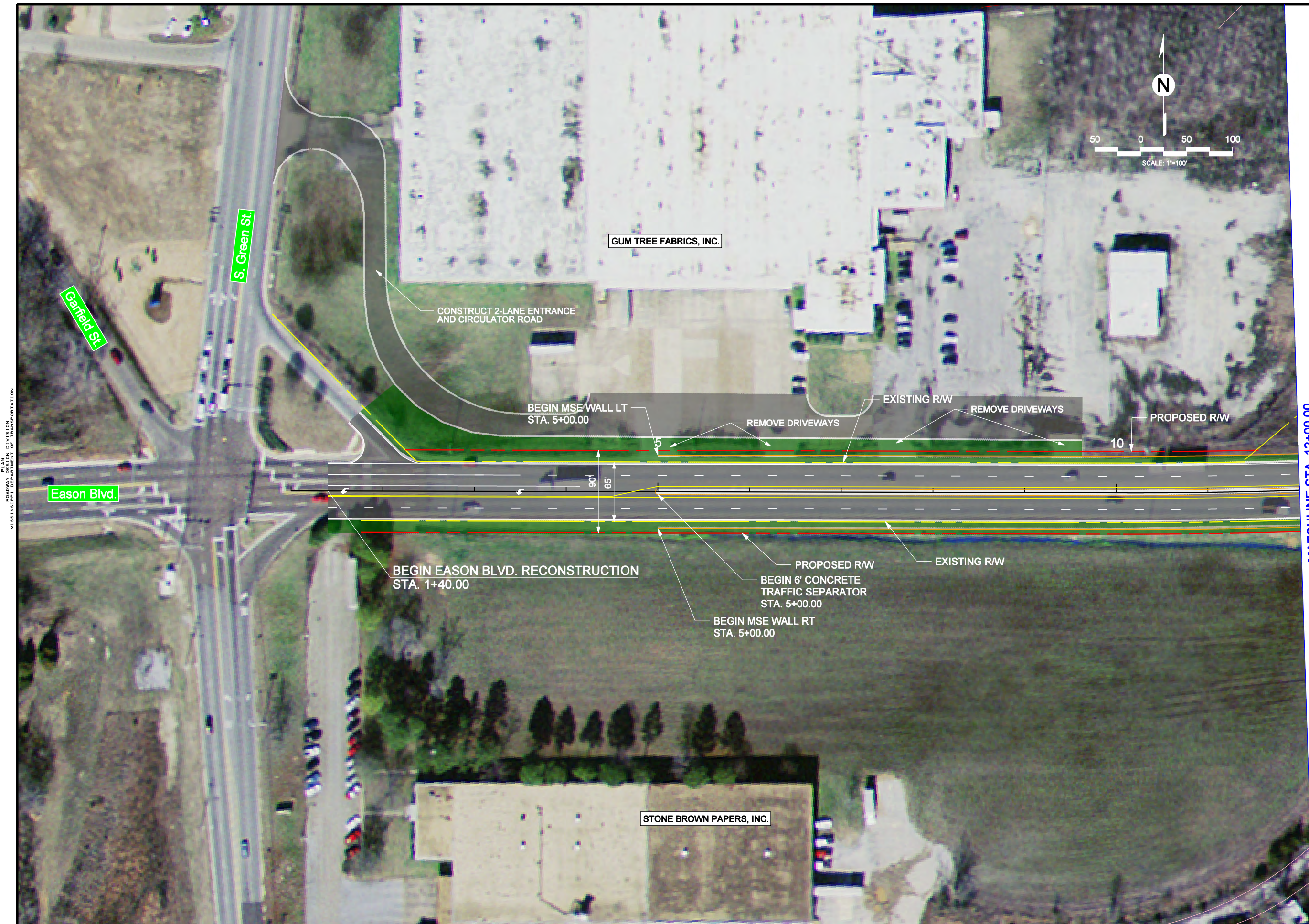
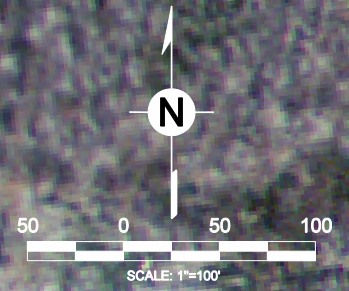
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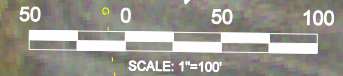
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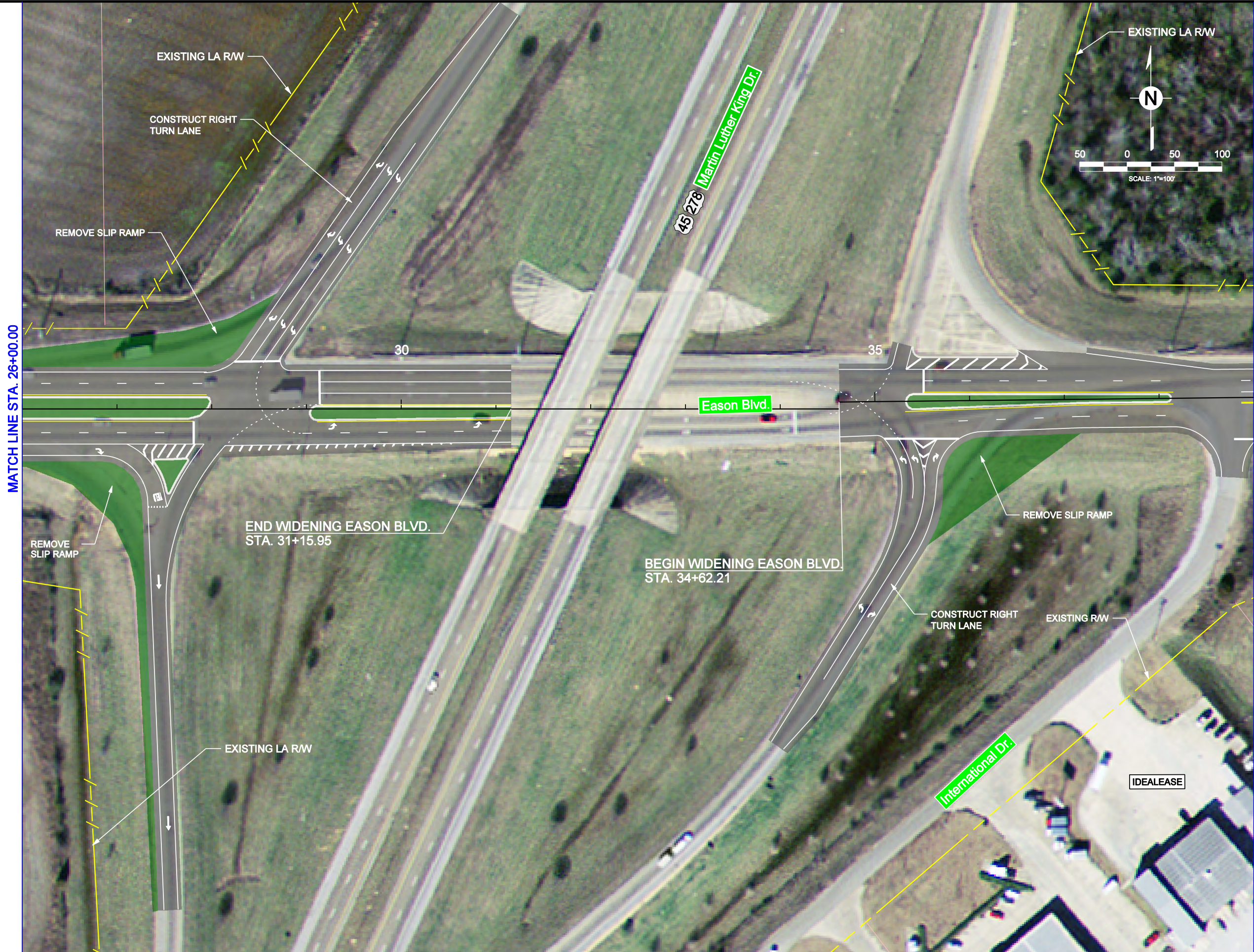
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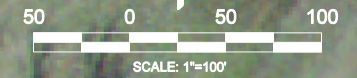
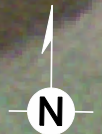
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Kings Creek

Town Creek

Town Creek

COMMUNITY DEVELOPMENT FOUNDATION

CITY OF TUPELO

BSB ASSOCIATES

IDEALEASE

Eason Blvd.

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EXISTING RW

PROPOSED RW

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45

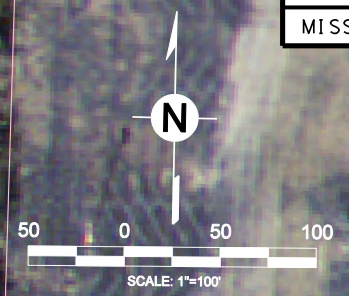
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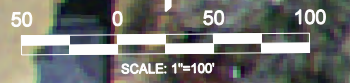
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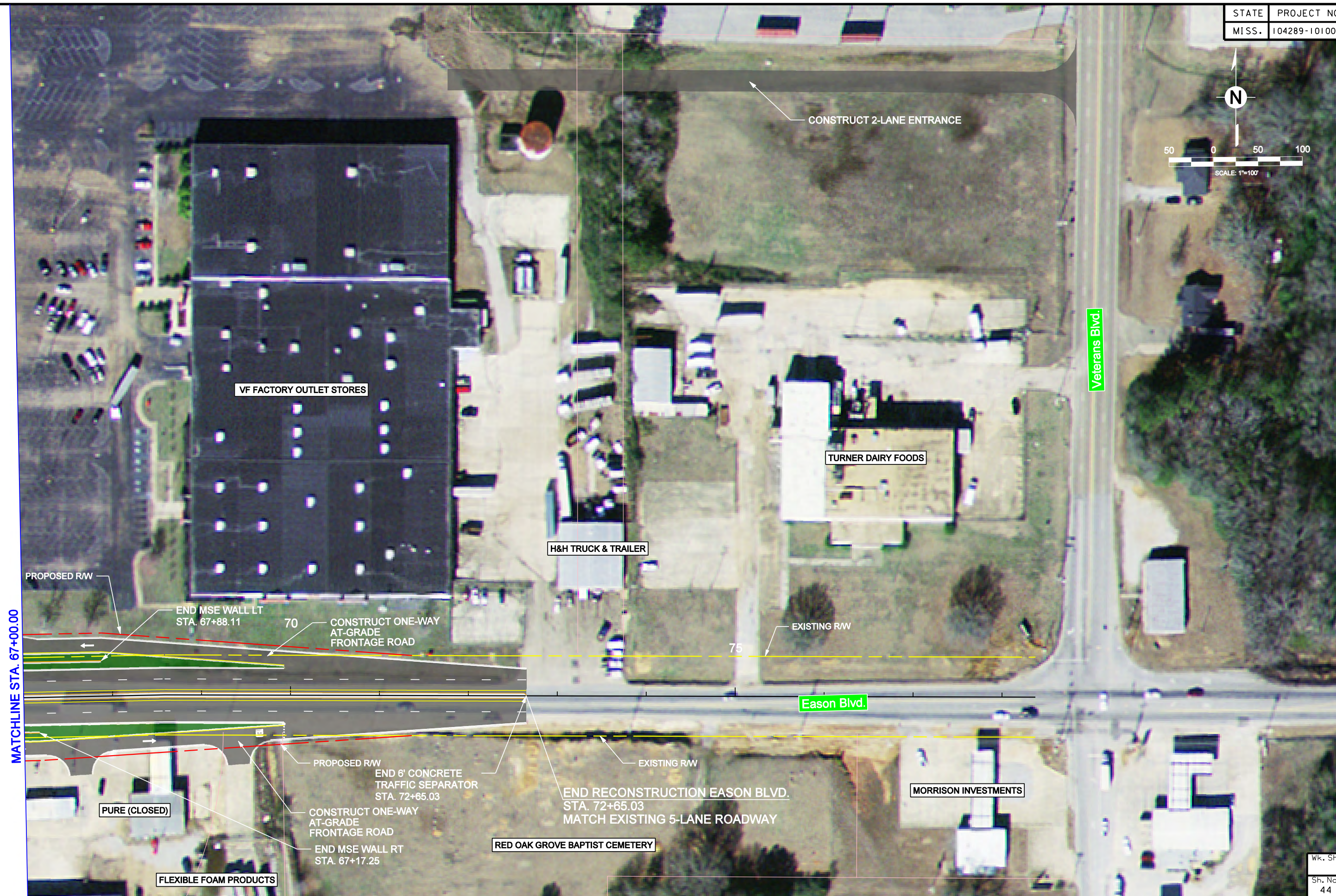
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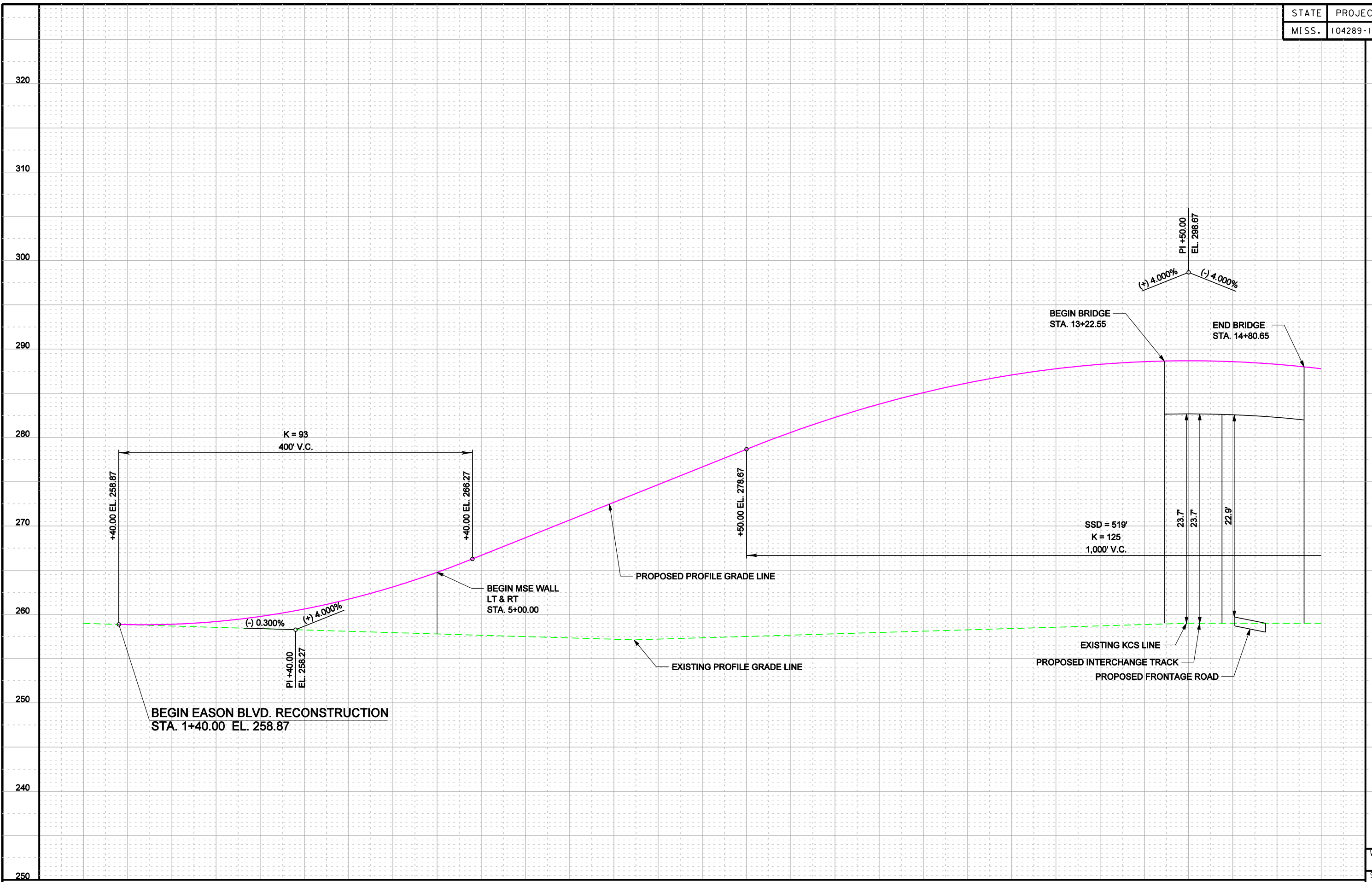
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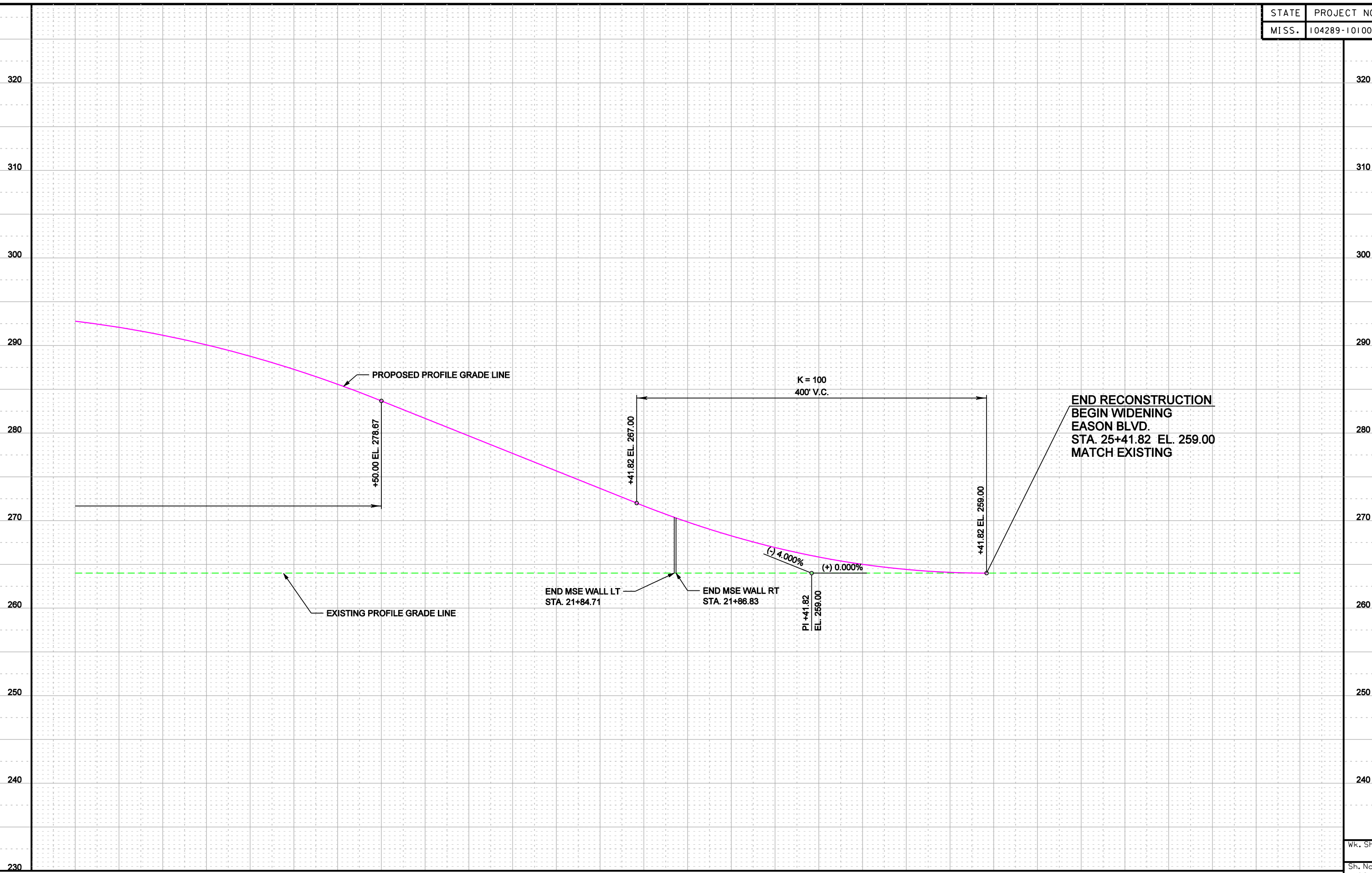
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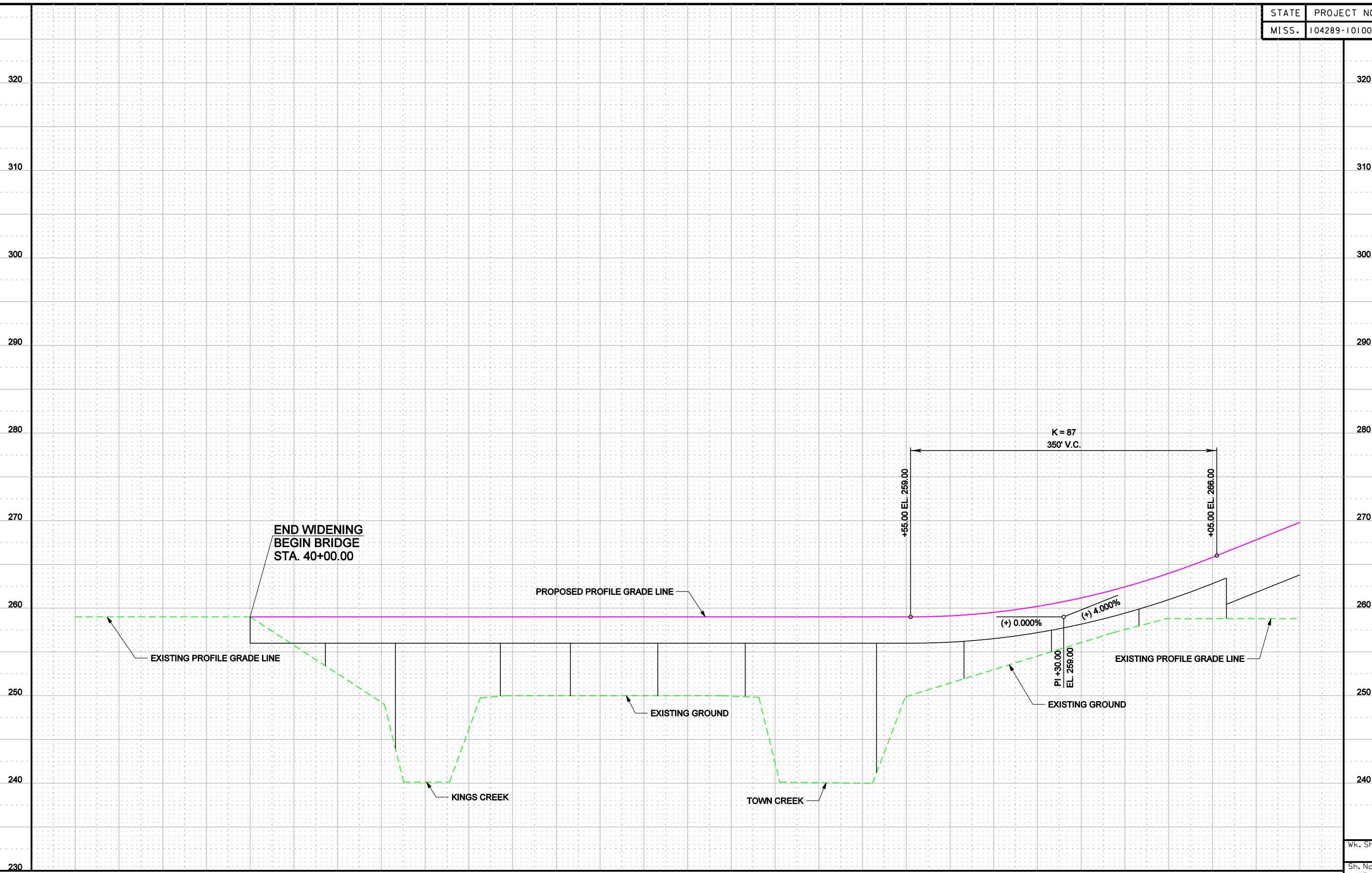
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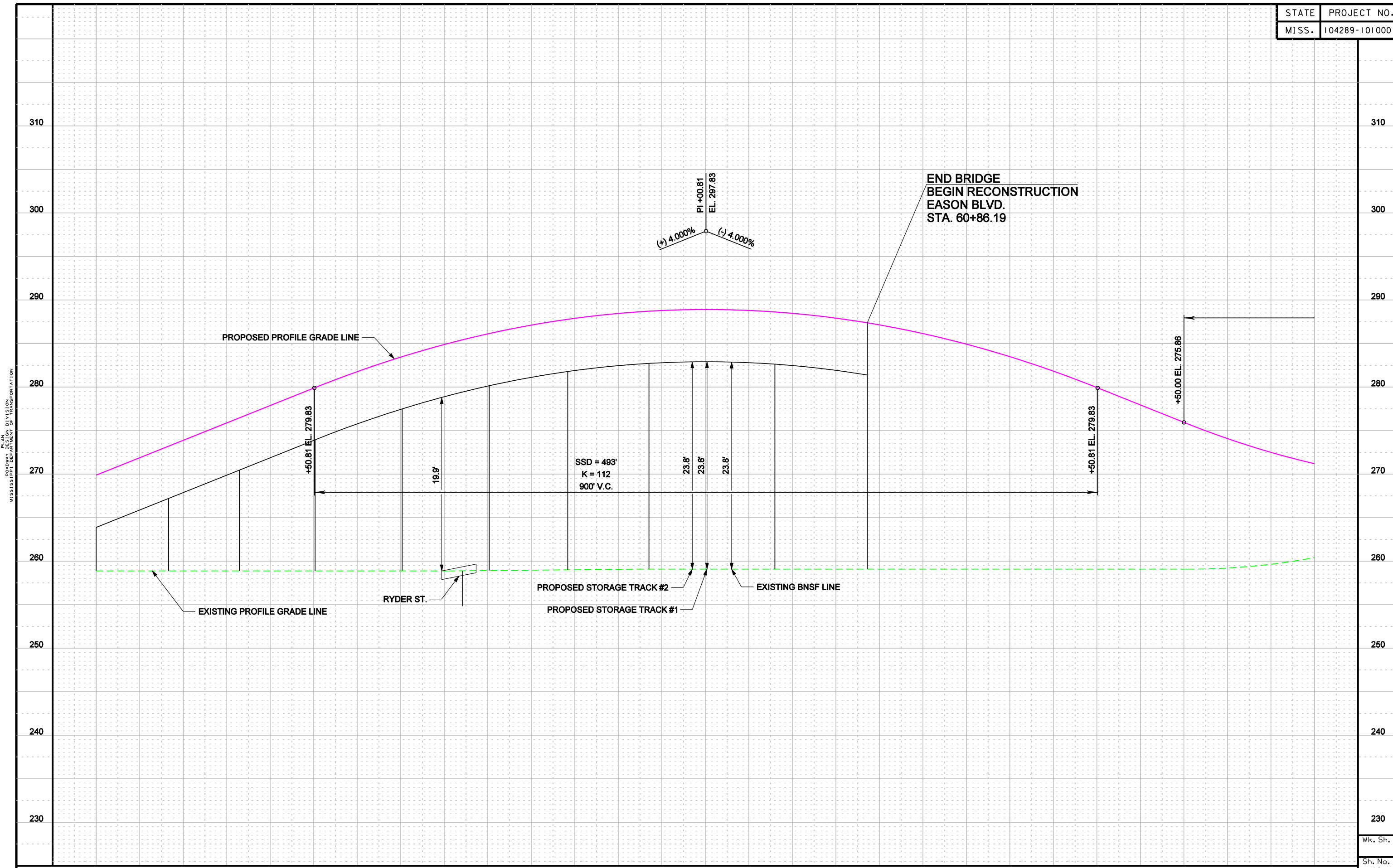


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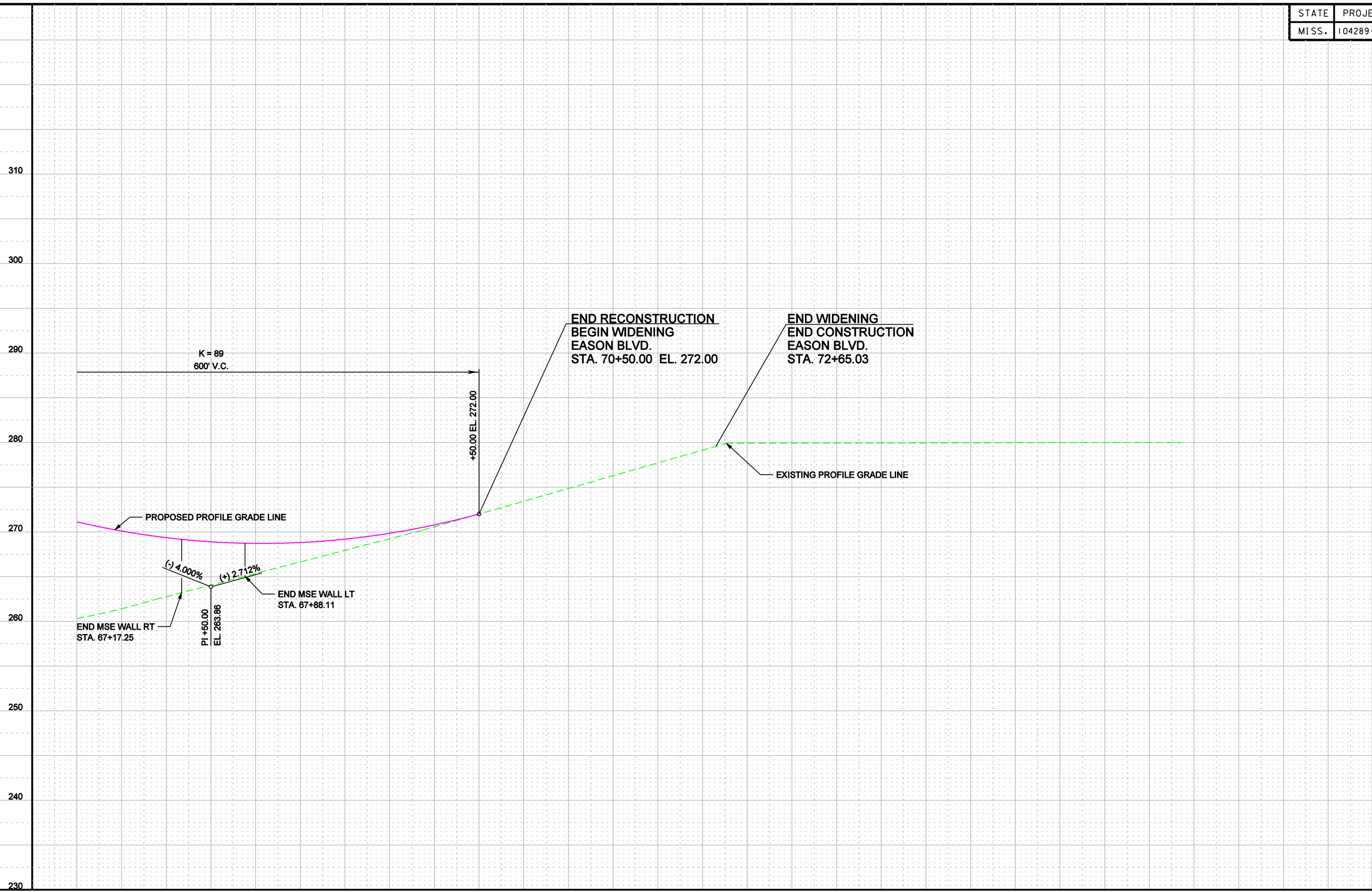


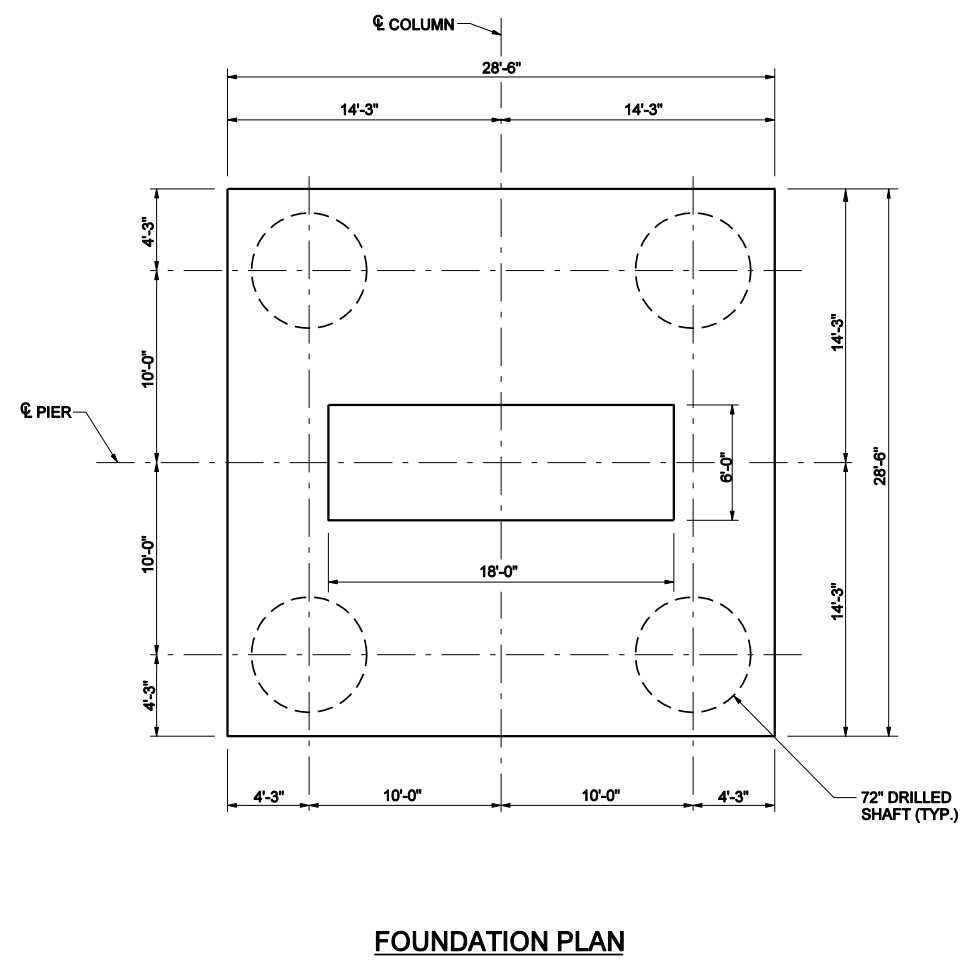
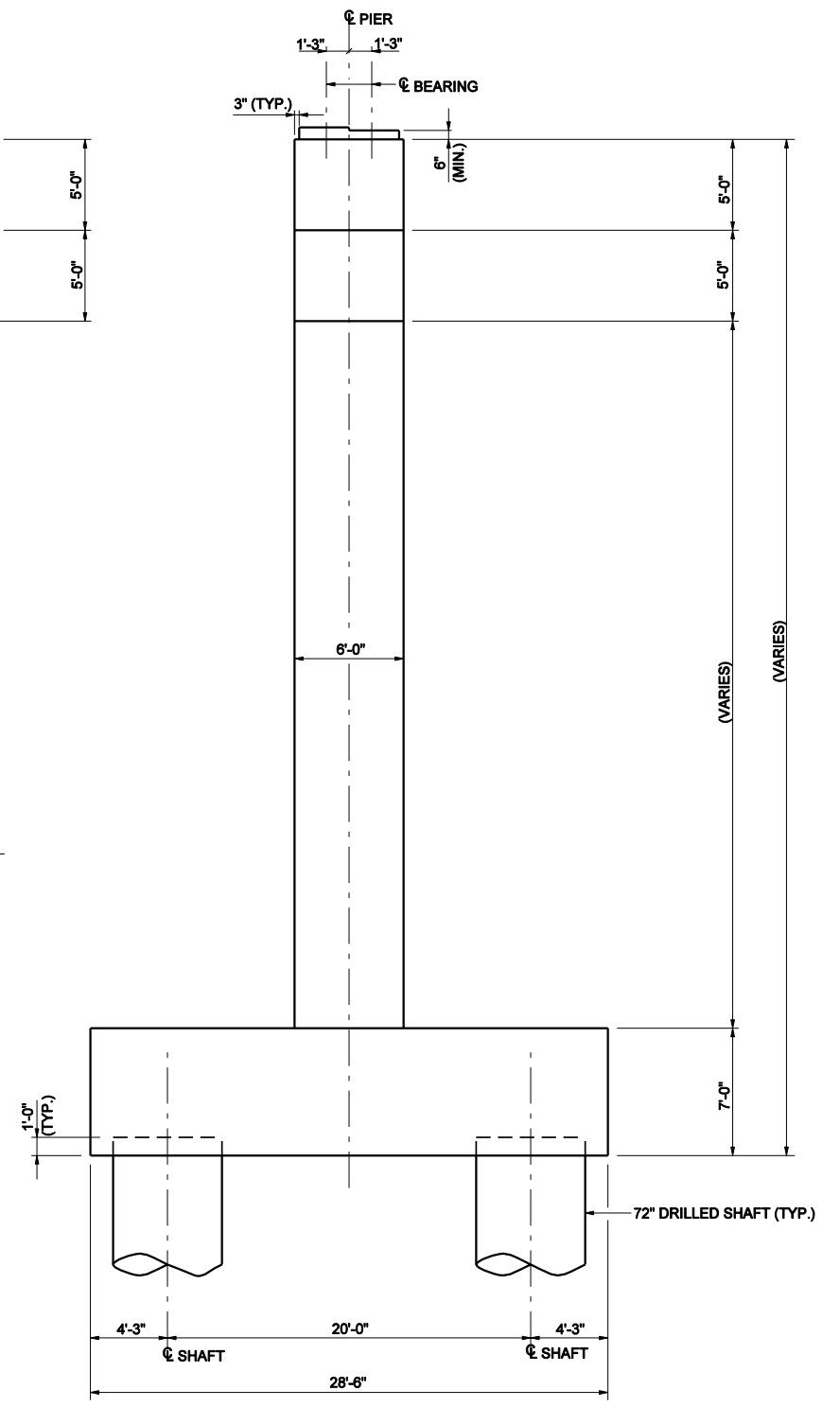
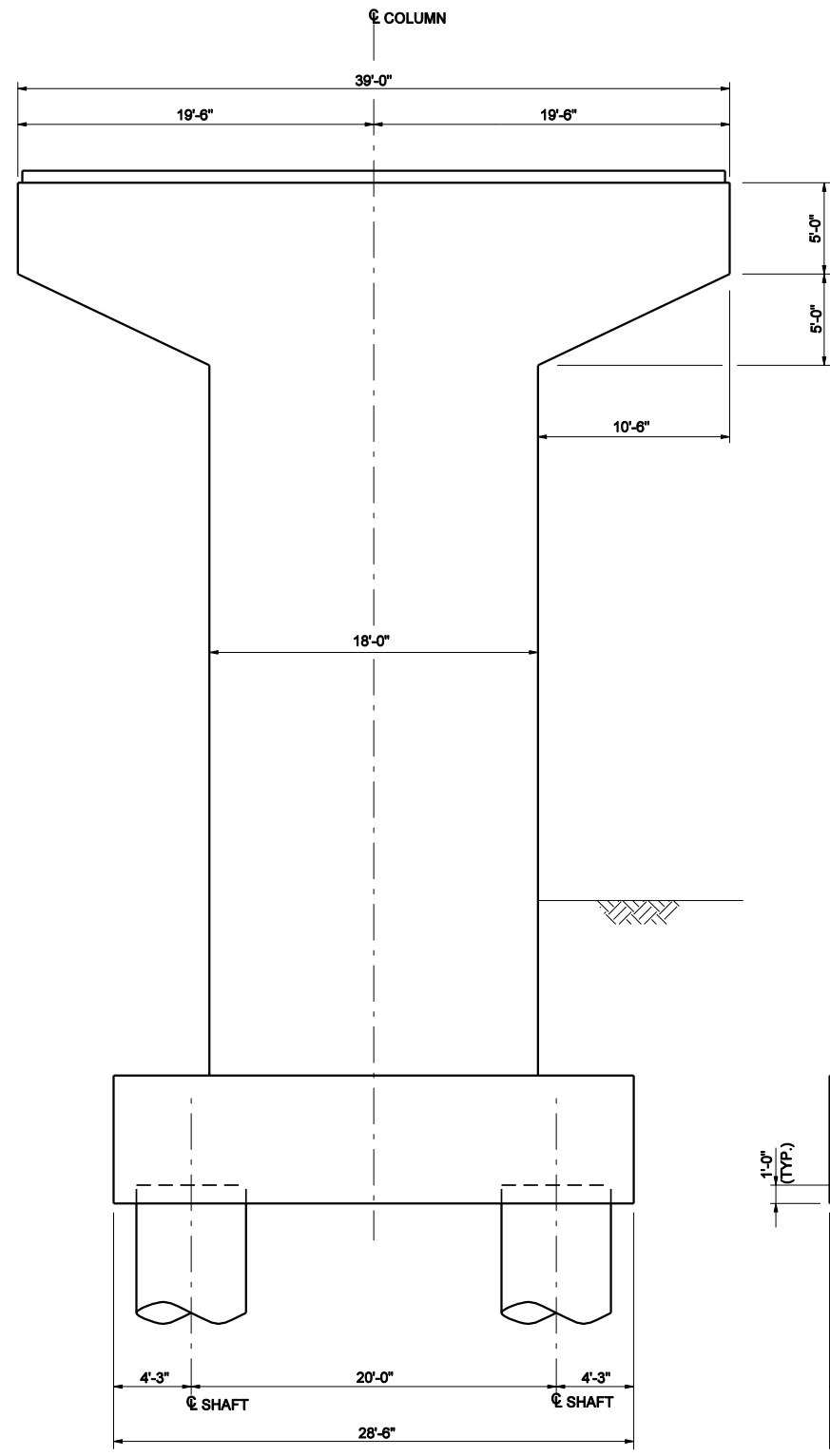
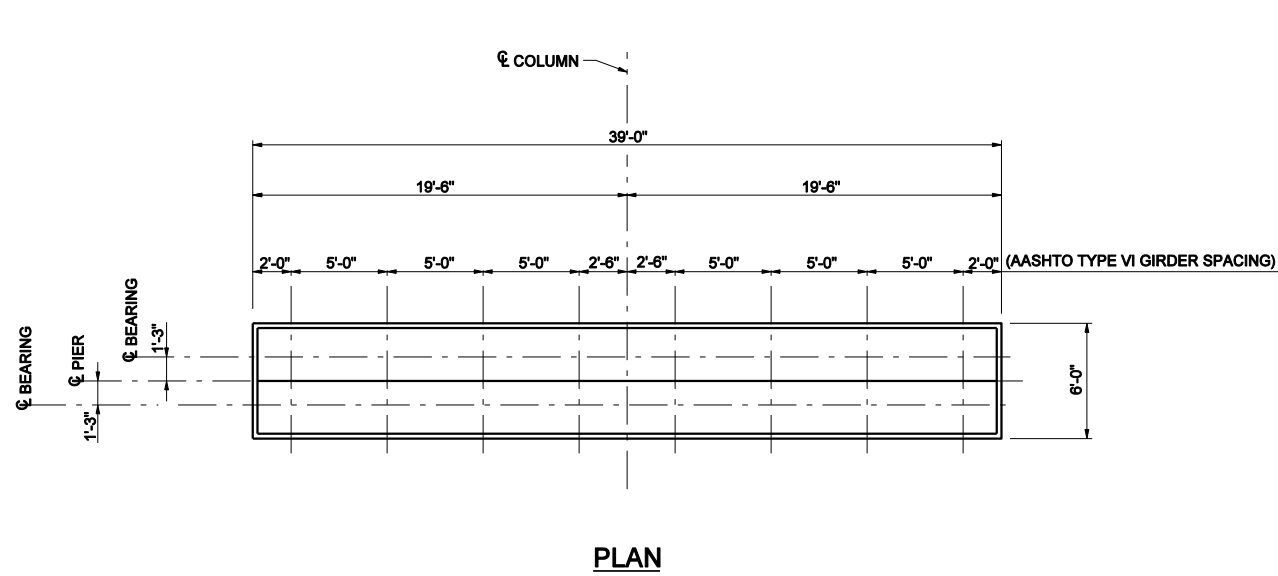
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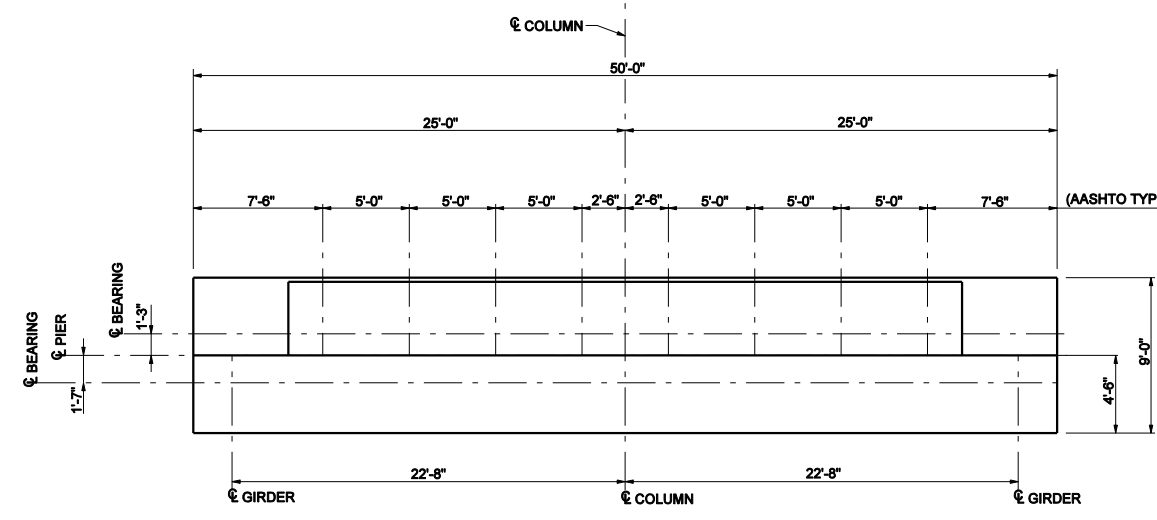
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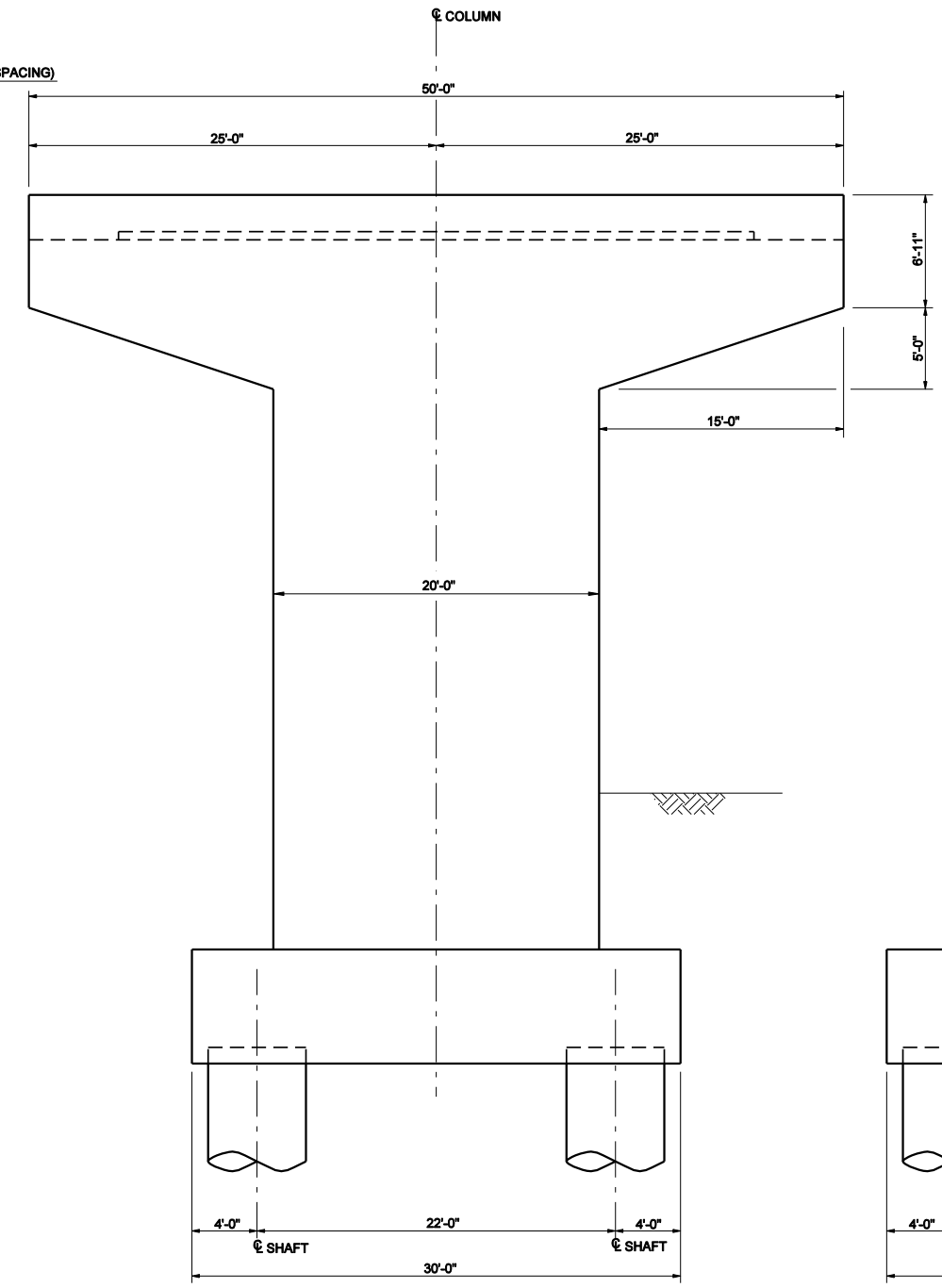


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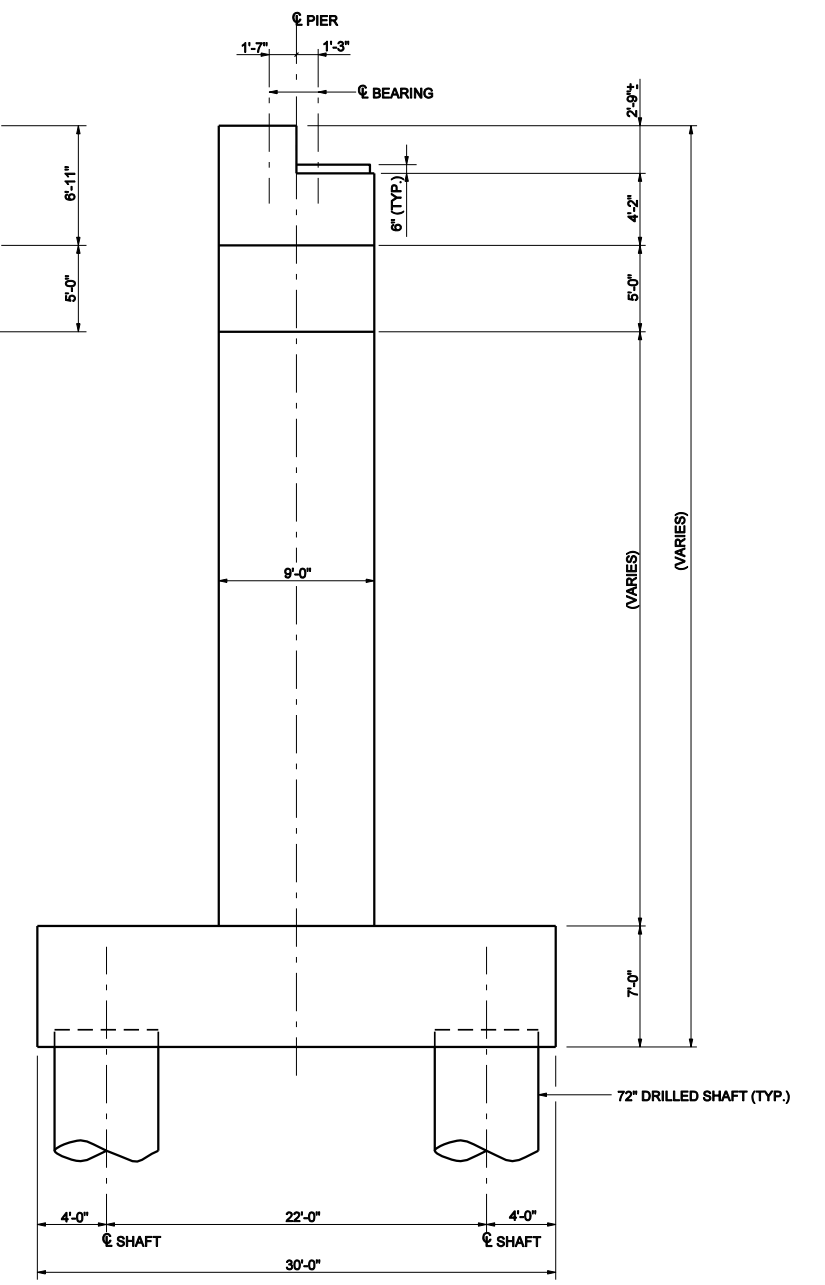
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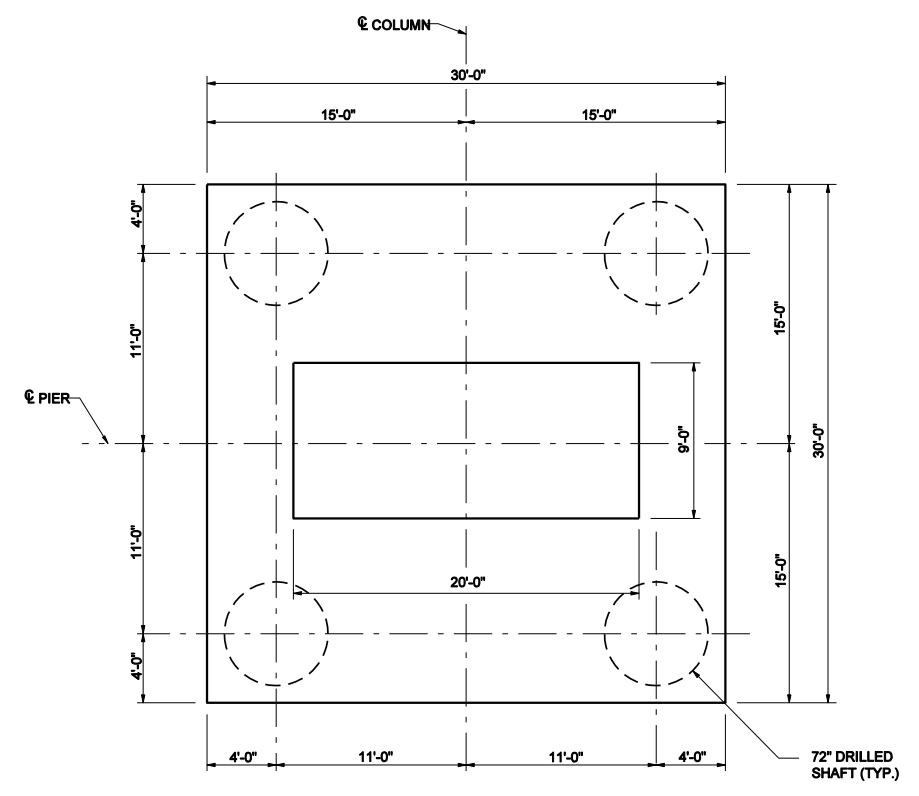
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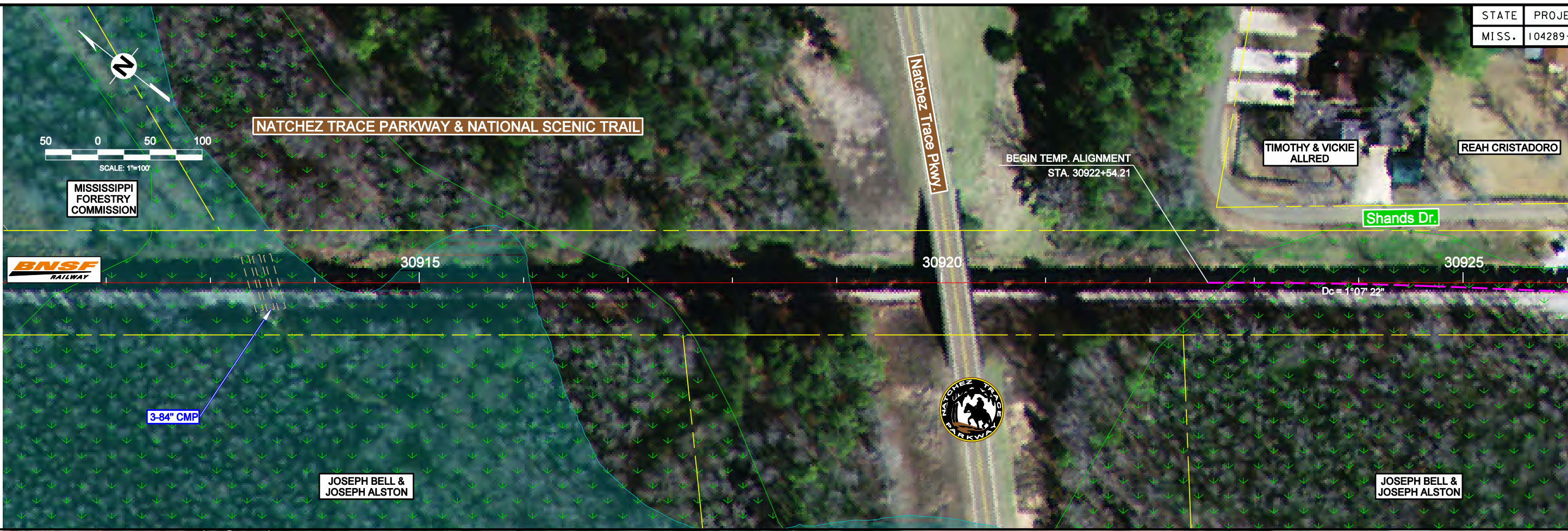
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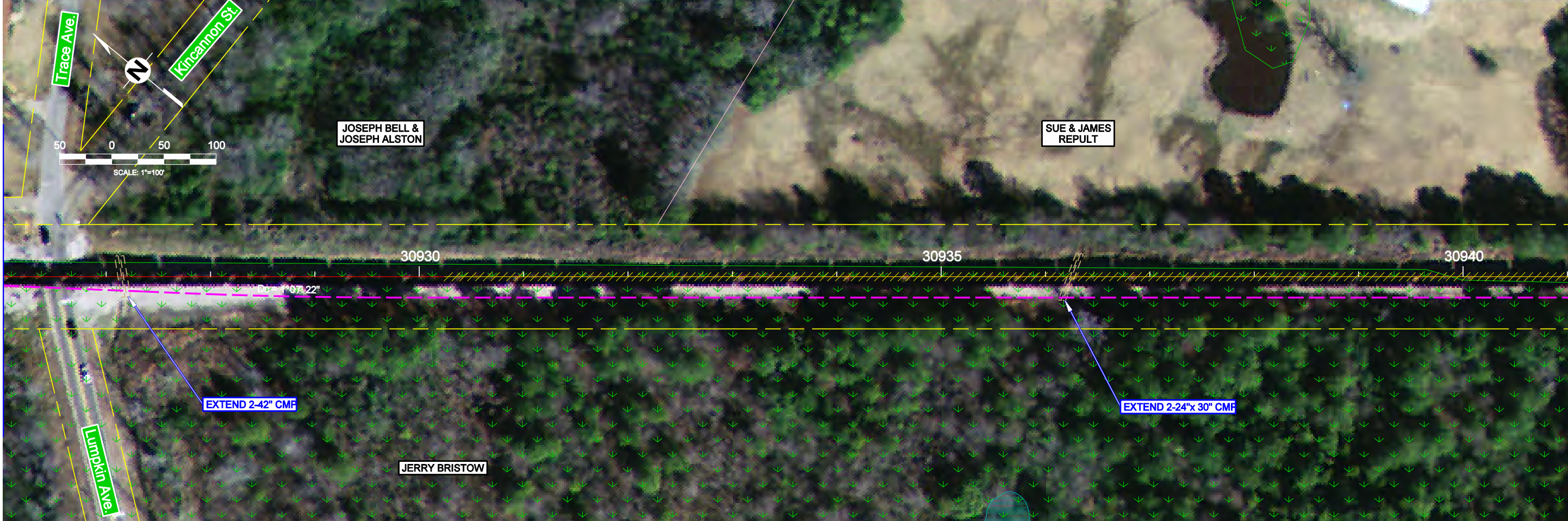
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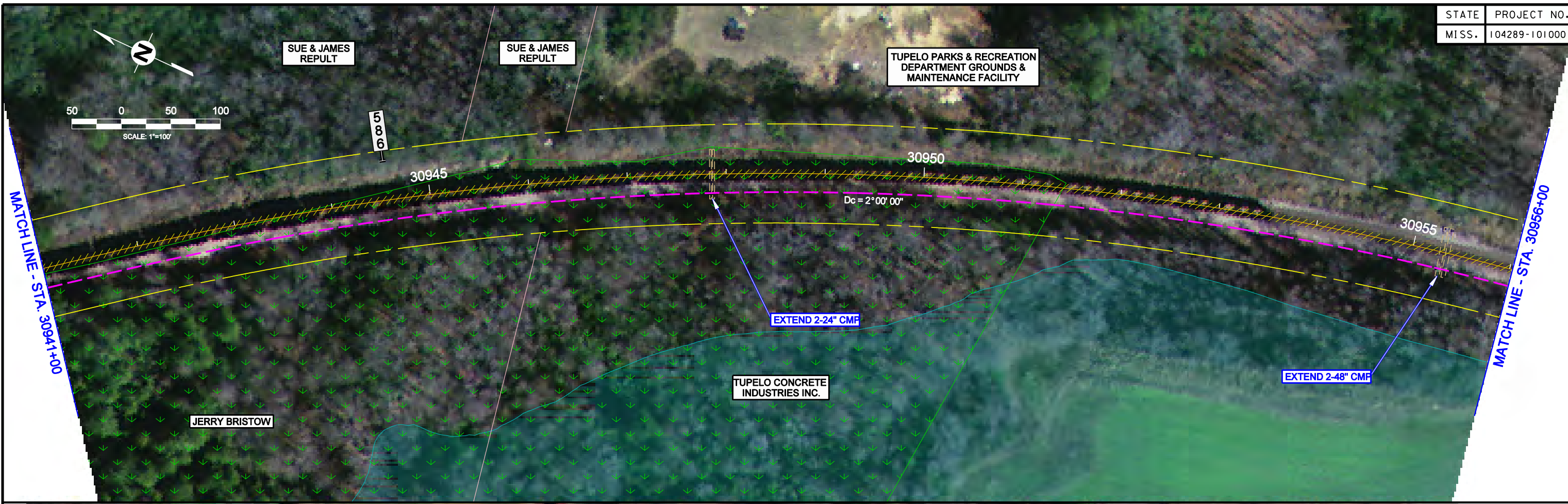
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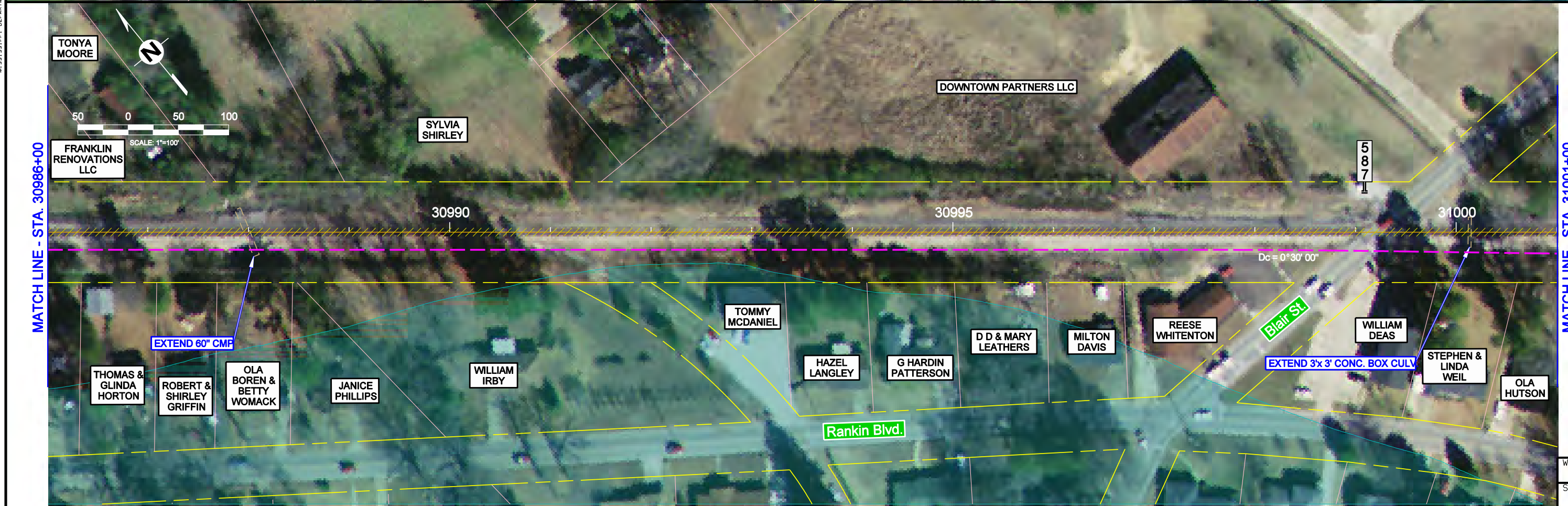
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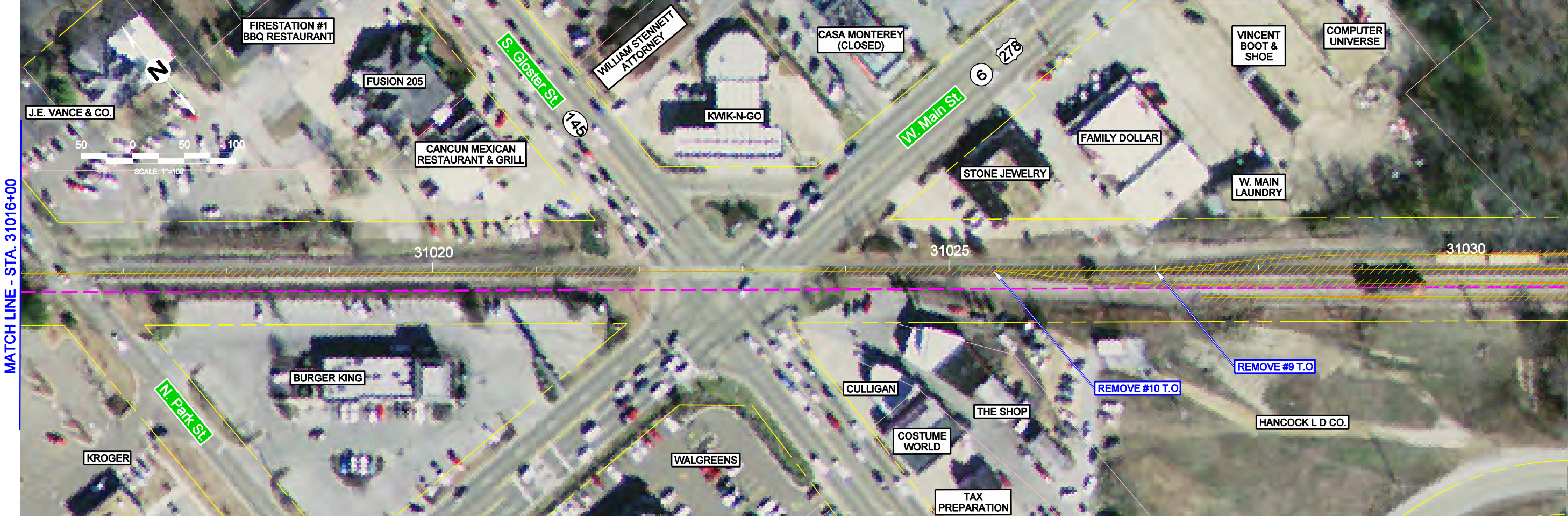
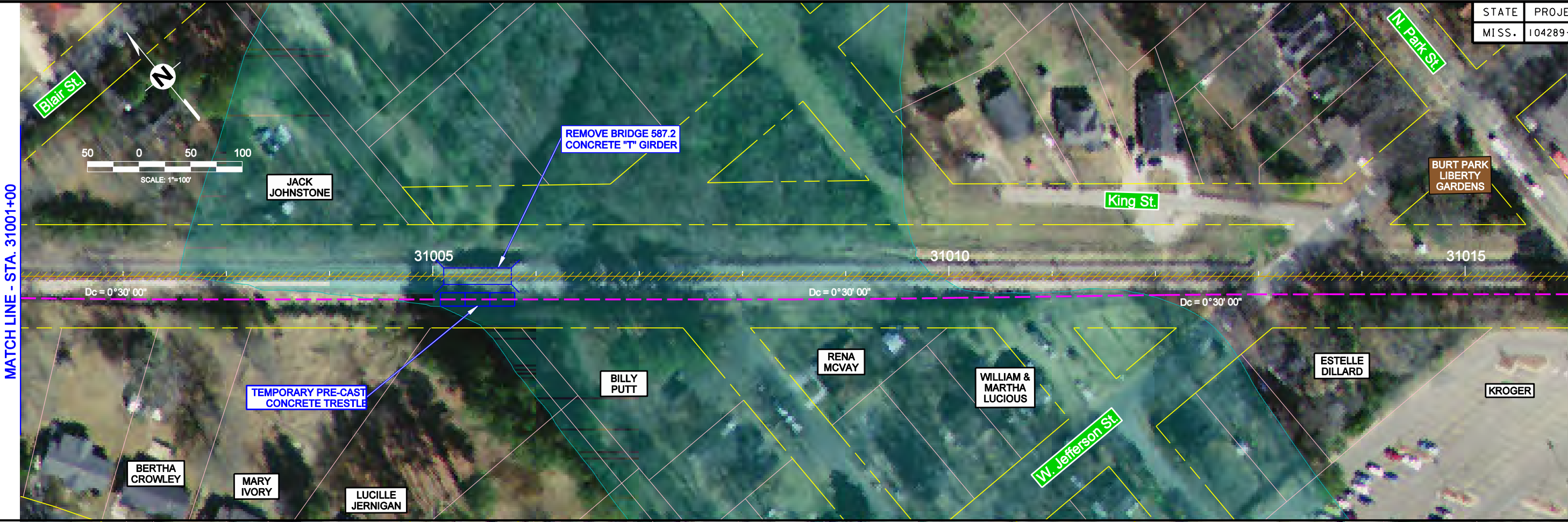


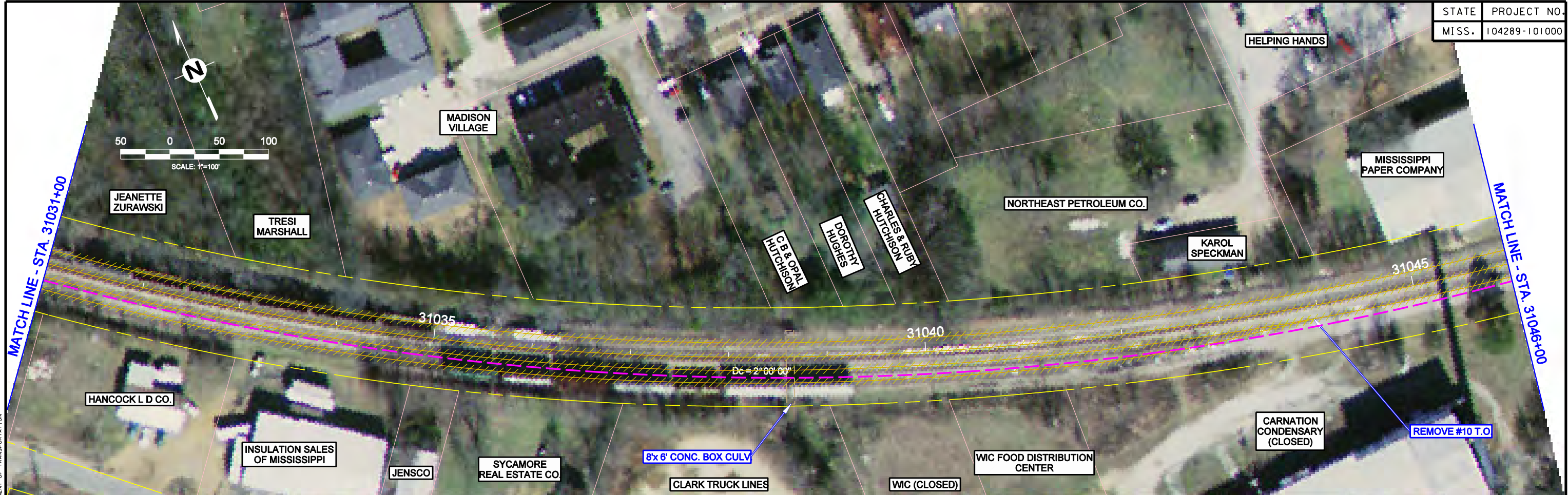
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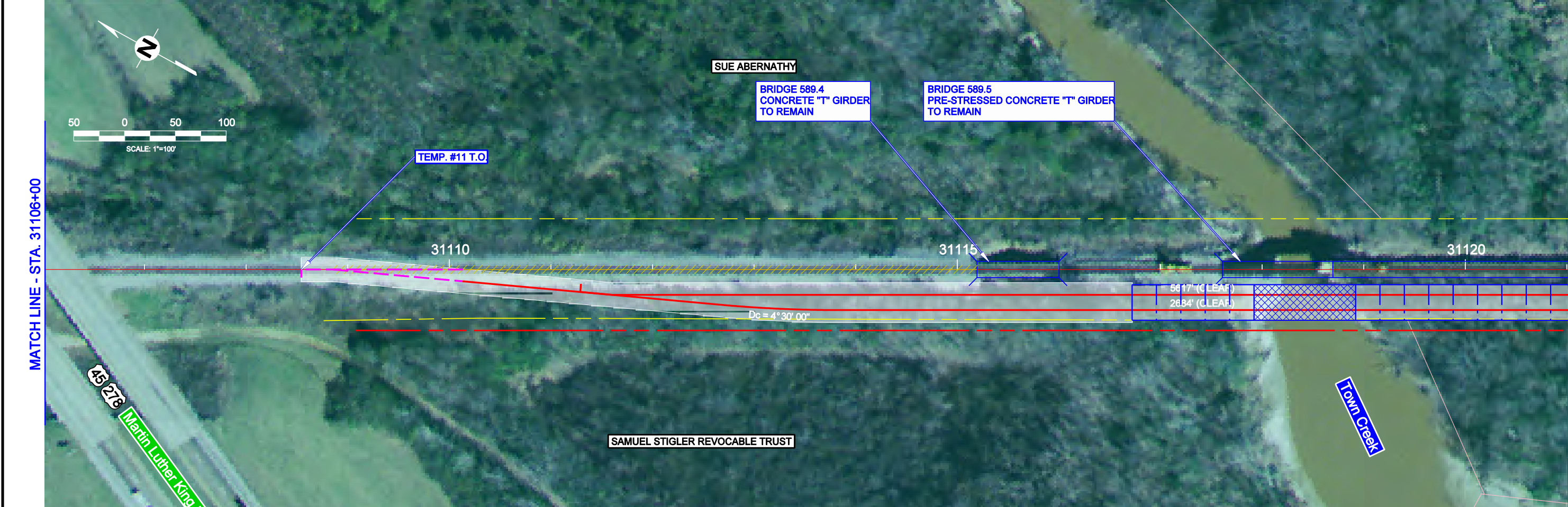
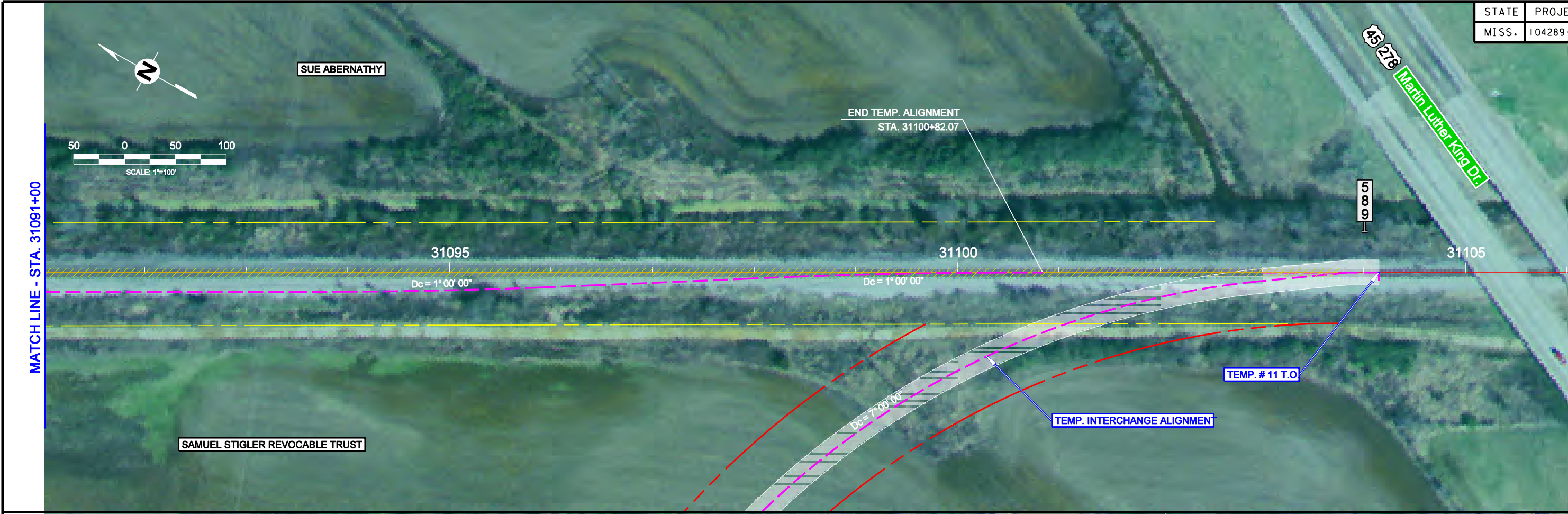


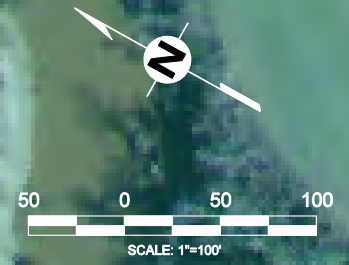
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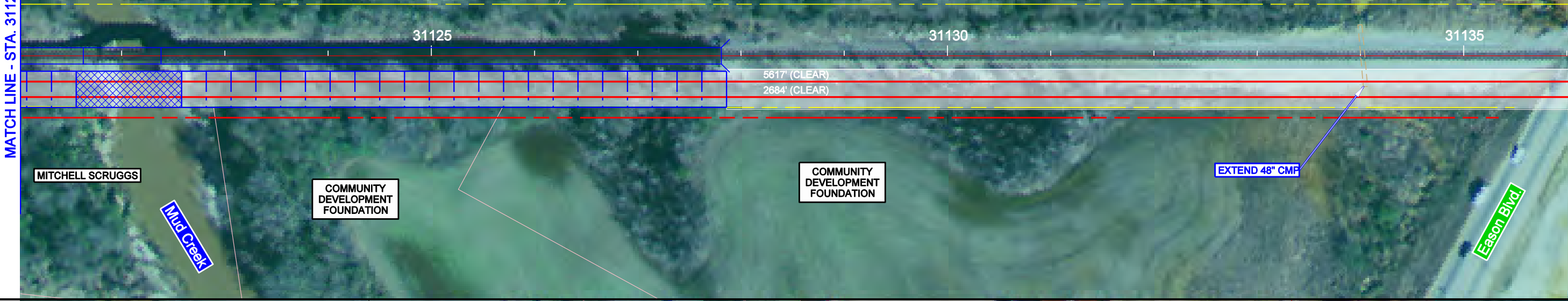
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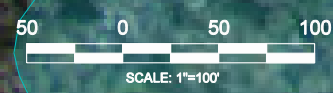


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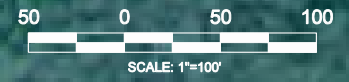


MISSISSIPPI ARMY
NATIONAL GUARD
ORGANIZATIONAL
MAINTENANCE SHOP

USF DUGAN
(CLOSED)

INTER-PAC INC.

No. 10 T.O.



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31155

31160

31165

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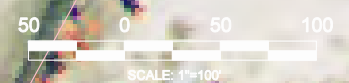
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CITY OF TUPELO

MASTEC

A-1 PROTECTION
& INVESTIGATION

No. 10 T.O.



31170

31175

31180

5617' (CLEAR)

Dc = 4 30' 00"

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EXTEND 24" RCP

S. Canal St.

H S CONVERTING
(CLOSED)

S. Veterans Blvd

CONFORTAIRE INC.

Wk. Sh.

Sh. No.
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APPENDIX E – Draft Noise and Vibration Study

NOISE AND VIBRATION ASSESSMENT

TUPELO MISSISSIPPI RAILROAD RELOCATION

DRAFT

June 20, 2008

Prepared for:
Mississippi Department of Transportation

Prepared by:
HDR Engineering, Inc.

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EXECUTIVE SUMMARY

Tupelo is a community with a population of approximately 35,000 located in the northeast region of Mississippi and is the region's major employment center. During the daytime, the population of the city multiplies between two to three times. Two rail lines pass through Tupelo, the Burlington Northern Santa Fe Railway (BNSF) main line and the Kansas City Southern Railway (KCS) branch line. The BNSF currently operates approximately 20 to 25 trains per day through the city and the KCS operates approximately 2 to 3 trains per day. The two railroads have an interchange near downtown Tupelo. There are approximately 16 at-grade highway/rail crossings near the interchange in downtown Tupelo. Congestion and delays to highway traffic are caused by the movement of trains in and through the city. It has been estimated that the volume of the BNSF trains could grow to approximately 40 trains per day in the year 2030. The KCS is estimated to grow to approximately 4 trains per day in the year 2030.

This report documents the evaluation of potential noise and vibration emissions from freight train activity on each of two proposed alternative alignments for the BNSF mainline and affected areas of the KCS branch line.

1. INTRODUCTION

The BNSF Railway Company ("BNSF") plans to construct one of two alternative alignments for the north-south mainline that transects Tupelo, Mississippi. Alternative L will abandon the portion of existing track that runs through the center of Tupelo and build a new track to the east and north of Tupelo. Alternative M will construct an elevated mainline near downtown Tupelo that will provide separated crossings at several intersections near downtown Tupelo. Both alternatives will also include operational improvements to allow for the exchange of BNSF and KCS cars south of the downtown area. The alternatives are discussed in more detail below.

Alternative L is approximately 25.6 miles long and would leave the existing BNSF line north of MS 178, cross under MS 178 then parallel Town Creek and cross under the Coley Road Extension and Mount Vernon Road. The alignment would cross over Yonaba Creek, Natchez Trace Parkway and Town Creek as part of a long bridge structure (approximately 4,400 feet). The alignment then turns south to cross over US 78 via a 400 feet bridge. The alternative crosses over both Gloster Street and US 45 as part of another long bridge structure (approximately 3,500 feet). It would then cross over the KCS line, continue south, cross over Main Street, and merge with the BNSF line. Approximately 10.7 miles of new track, including approximately 9,350 feet of rail bridges for roadway and rail crossings would be constructed for Alignment L. Thus, approximately 14.9 miles of existing track would not require additional improvements. The length of rail bridges and trestle required to span floodplains and other water features would be approximately 10,360 feet.

This alternative will eliminate 14 at-grade roadway crossings and the BNSF/KCS railroad crossing in Tupelo; The at-grade roadway crossings will include Endville Rd., Colonial Estates Rd., Trace Ave., Jackson St., Blair St., Jefferson St., Park St., Gloster St., Main St., Church St., Green St., Spring St., Elizabeth St. and the KCS crossing at Eason Blvd.

Alternative M consists of an elevated rail viaduct within the existing railroad right-of-way, to grade separate the BNSF line over the at-grade road crossings through Tupelo and the KCS line. The route would parallel the existing track, except where modified curvature will allow trains to travel at 40 mph. The Alternative is approximately 2.85 miles long and would begin the elevation change east of the Natchez Trace Parkway and remain elevated until near the US 45 grade separation. The length of rail bridge will be approximately 1,200 feet minimum, but is expected to increase to approximately 7,500 feet based upon visual impacts from Blair Street to the KCS crossing.

Alternative M would eliminate the BNSF/KCS interchange and 11 at-grade roadway crossings; BNSF (Jackson St., Blair St., Jefferson St., Park St., Gloster St., Main St., Church St., Green St., Spring St., Elizabeth St.) and KCS (Eason Blvd.).

Operational Improvements (Both Proposed Alternatives)

The amount of rail traffic through Tupelo contributes directly to the auto traffic delay and safety concerns at the at-grade crossing locations. A portion of the delay occurring in-town is due to the exchange of rail cars between BNSF and KCS. This exchange of cargo, while serving the needs of the community, blocks the major north-south and east-west arterial roadways. The BNSF and KCS crossing is located approximately 3,600 feet east of the Main Street and Gloster Street at-grade intersection (locally known as Crosstown).

The proposed operational improvement would move the interchange to the southeast along the BNSF line. It would be located south of the Pvt. John Allen National Fish Hatchery and north of US Highway 45. Additional three (3) rail storage tracks, turnouts and electric lock-out switches would be constructed along both BNSF and KCS lines for the exchange of rail cars. Roadway improvements which would also reduce auto traffic delay and remove potential rail and vehicular conflicts would be the grade separation of Eason Boulevard at both the BNSF and KCS crossings. The existing highway overpass for US Highway 45 would also require reconstruction to facilitate the additional storage track.

1.1 Assessment Approach

This analysis is based on FTA and FRA guidance documents. Following is a general outline of the approach used for noise & vibration analyses.

1. **Identify potential sensitive receptors:** The term “sensitive receptors” normally is used to refer to land uses such as residences, schools, and churches. Representative locations of sensitive receptors were identified through a site visit to the project area and through examining aerial photographs.
2. **Determine appropriate impact thresholds:** This includes the standard criteria for human exposure to rail related noise and vibration.
3. **Document existing conditions:** Noise and vibration measurements were performed at several representative locations within the project area.
4. **Develop noise and vibration prediction models:** The noise measurement results were used to develop models of train noise based on the Federal Transit Administration (FTA) document, “Transit Noise and Vibration Impact Assessment” (FTA report FTA-VA-90-1003-06 May 2006), referred to herein as the FTA Guidance Manual with input parameters including distance from the tracks to sensitive receptors, train speed, and average train consist and daily train volumes. The vibration

prediction model was based on the vibration screening methodology contained in the FTA methodology with input parameters including, average train consist and daily train volumes, train speeds and adjustment factors such as, track condition, special trackwork, path and receiver characteristics.

5. **Predict potential impacts:** The prediction models were used along with the forecasted operations provided by BNSF to estimate future noise and vibration levels at each sensitive receptor.

1.2 Noise and Vibration Sources from BNSF Operations in Tupelo

Following is a discussion of the primary noise and vibration sources from freight train operations in Tupelo.

Locomotive engines: Noise from the locomotive engine is caused by the engines, cooling fans, and exhaust. The locomotive reference noise level used in this analysis was based on pass-by noise monitoring data collected in the project area.

Wheel/rail noise: This noise is caused by the interaction of the train's steel wheels rolling on the steel rails. This noise increases with speed and can be relatively low up to speeds of approximately 60 mph for trains operating on tangent (straight) track with wheels and rails that are in good condition. Factors that increase levels of wheel-rail noise are wheel squeal on tight radius curves, wheel impacts at rail joints, and poor condition of the wheel or rail operating surface. The currently existing and proposed tracks on the BNSF mainline are continuously welded rail (i.e. no rail joints) and do not operate through any tight corners. A portion of the KCS branchline located north of Tupelo contains jointed rail, however this area is located outside of the area affected by the project and is therefore not included in the noise analysis.

Wheel/rail vibration: Vibration from trains is caused by the wheels rolling on the rails. The forces caused by the interaction of the wheels, rails and trackbed cause vibration in the ground that propagates away from the track. When there are residences 200 feet or less from the tracks, the ground vibration interacting with building structures will sometimes cause perceptible vibration of the floors and walls of living spaces or rattling of windows, items on shelves, or items hanging on walls. It is very unusual for train generated vibration to be sufficient to cause even minor cosmetic damage to buildings. Vibration levels will increase at special trackwork for switches and turnouts because of wheel impacts where two rails cross. Note that standard practice for BNSF is to use continuously welded rail on it's mainline. This eliminates the additional vibration that can be generated by wheel impacts at rail joints.

Train horns: Federal Railroad Administration (FRA) regulations require that the lead locomotive be equipped with an audible warning device that generates a minimum of 96 dBA at 100 ft from the front of the locomotive and a maximum of 110 dBA. On freight trains, the warning device is usually a set of air horns mounted on the top of the lead locomotive. FRA regulations require sounding the train horn prior to all at-grade rail/highway crossings, otherwise the horn is used only when the locomotive engineer perceives that an audible warning is needed. Train horns are currently used throughout Tupelo at all at-grade roadway crossings and at the BNSF/KCS intersection at the southeast end of town.

2. NOISE AND VIBRATION CRITERIA

The criteria used to assess each type of potential noise and vibration impact are discussed in the following sections.

2.1 Sensitive Receptors

This category includes traditional noise sensitive receptors such as residences, schools, libraries, and churches. Criteria for noise and vibration impacts from federally-funded transit projects are usually based on criteria given in the FTA Guidance Manual. The FTA noise criteria are founded on well-documented research on community reaction to noise. Virtually identical noise and vibration impact criteria are included in the recently released Federal Railroad Administration (FRA) document “High-Speed Ground Transportation Noise and Vibration Impact Assessment” (October 2005).

The FRA/FTA noise and vibration impact criteria are summarized below:

Noise Impact

Designed to prevent annoyance, the FTA criteria take into account (1) the startle effect on humans and wildlife, and (2) the noise sensitivity of different land uses. Table 1 includes a description of the three categories FTA used for noise-sensitive land uses and the applicable noise metric for each land use category. The residences in the vicinity of Tupelo, Mississippi are considered as Category 2. Outdoor day-night sound level (Ldn)¹ is the noise metric used by FTA criteria for Category 2 land uses. Category 1 includes areas that have been officially designated as parks where “quiet is an essential element of their intended purpose.” None of the areas within the project area have been designated as such. Although portions of the project area include undeveloped rural landscapes, these areas were given a more sensitive Category 2 land use classification for purposes of this analysis. The predicted impact levels may therefore be considered conservative in these areas.

The FTA noise criteria are a sliding scale as shown in Figure 1. The existing noise is shown on the horizontal axis and the amount of new noise created by the project is shown on the vertical axis. For Category 2 land uses, the left vertical axis is used and noise exposure is measured using Ldn. The right vertical axis is used for Category 3 land uses and noise exposure for Category 3 land uses is measured using hourly average sound level (Leq(h)). The basic concept of the FTA noise impact criteria is that more project noise is allowed to be added in areas where existing noise is higher, but that the decibel increase in total noise exposure (existing noise plus project noise) decreases.² This means that noise from the existing BNSF operations are part of the existing environment and affect the threshold for noise impact. Note that the FTA noise impact criteria are applied at the closest sensitive receptor, which generally means the closest sensitive human land use.

¹ See Appendix A for definitions of key technical terms used in this report.

² As discussed in the Appendix, noise is measured on a logarithmic scale such that the existing noise and the project noise in decibels cannot be added directly to one another.

Table 1. FTA/FRA Land Use Categories and Noise Metrics

Land Use Category	Noise Metric ⁽¹⁾ (dBA)	Description of Land Use Category
1	Outdoor Leq(h) ⁽²⁾	A tract of land where quiet is an essential element of their intended purpose. This includes lands set aside for serenity and quiet and such land uses as outdoor amphitheaters and concert pavilions, as well as National Historic Landmarks with significant outdoor use.
2	Outdoor Ldn	Residences and buildings where people normally sleep. This includes homes, hospitals and hotels where a nighttime sensitivity to noise is assumed to be of utmost importance.
3	Outdoor Leq(h) ⁽²⁾	Institutional land uses with primarily daytime and evening uses. This includes schools, libraries, and churches where it is important to avoid interference with such activities as speech, meditation, and concentration on reading material. Buildings with interior spaces where quiet is important, such as medical offices, conference rooms, recording studios and concert halls fall into this category, as well as places for meditation or study associated with cemeteries, monuments, museums. Certain historical sites, parks and recreational facilities are also included.

⁽¹⁾ For certain uses other than freight trains, “onset-rate” adjusted sound levels (Leq, Ldn) are used. There is no “onset-rate” adjustment for freight trains.
⁽²⁾ Leq for the noisiest hour of transit-related activity during hours of noise sensitivity.

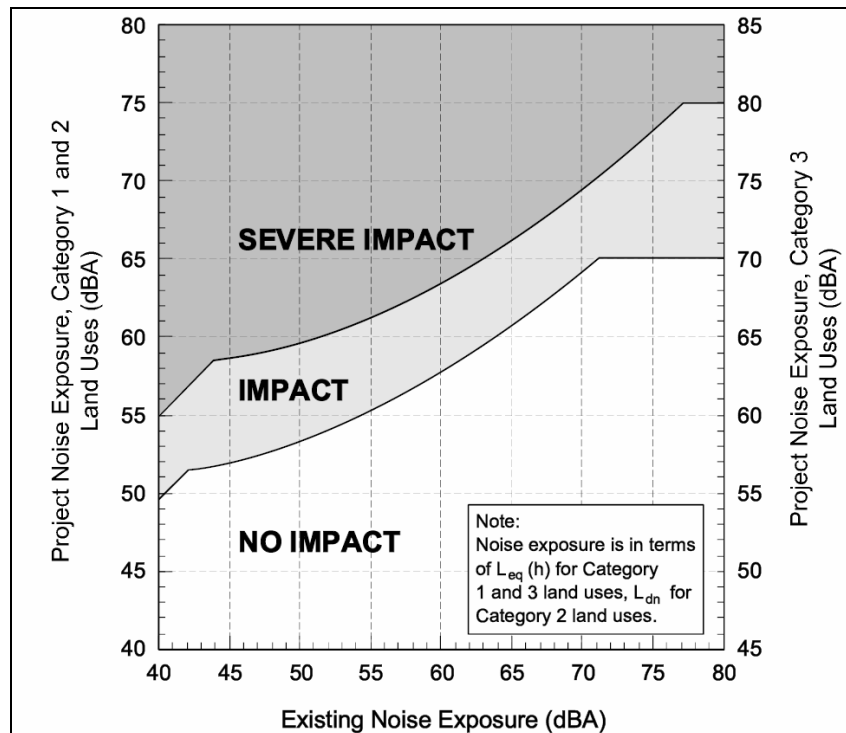


Figure 1. FTA and FRA Noise Impact Criteria

Vibration Impact

The FTA/FRA vibration criteria also are designed to prevent annoyance from operations and are far below the damage thresholds for normal structures. The impact thresholds are based on the maximum RMS ground vibration caused by a typical train pass by, and are lower for frequent events than for infrequent events. FTA defines “frequent” service to be more than 70 vibration events per day. Because the BNSF trains average more than 3 locomotives and more than 70 cars per day, through Tupelo, the frequent criteria were applied to both the locomotives and rail cars for the project. The KCS trains which average 2 trains per day with typically less than 70 cars were considered to be infrequent events.

Similar to the FTA noise criteria, the FTA vibration criteria are based on three land use categories, although the categories are slightly different than for noise. One important difference is that FTA did not include outdoor spaces in Category 3 for vibration. This is because human annoyance from ground-borne vibration typically requires the interaction of the ground vibration with a building structure.

Table 2 shows FTA/FRA criteria for ground-borne vibration from rail systems. The values in Table 2 are in terms of decibel units termed vibration decibels with a reference unit of 1 micro-inch per second (VdB).

Table 2. FTA/FRA Impact Thresholds for Ground-Borne Vibration

Land Use Category	Vibration Impact Levels (VdB re 1 μ in/sec)	
	Frequent Events ⁽¹⁾	Infrequent Events ⁽²⁾
Category 1. Buildings where low ambient vibration is essential for interior operations.	65	65
Category 2. Residences and buildings where people normally sleep.	72	80
Category 3. Institutional land uses with primarily daytime use.	75	83
Notes: ⁽¹⁾ Frequent events defined as more than 70 vibration events per day. ⁽²⁾ Infrequent events defined as less than 70 events per day.		

3. EXISTING CONDITIONS

Existing noise conditions in Tupelo were documented through a series of 24-hour continuous measurements performed at seven sites and short term measurements measured at two sites on May 12 through 15, 2008. The 24-hour measurements sites were selected within the project area to be representative of the sensitive receptors near the existing and proposed BNSF alignments. The short term measurements sites were located within 50 feet of the BNSF mainline to capture the pass by noise levels of BNSF trains.

3.1 24-Hour Measurement Locations

Based on a site visit and review of aerial photographs, the noise measurements were performed at the seven sites labeled 1 through 7 in Figure 2. Photographs of individual measurement sites 1 through 5 are presented in Appendix B.

Site 1 (337 King Street, Single-Family Residence): HDR performed a 24-Hour continuous measurement of noise on May 12-13, 2008 near the single-family residence located at 337 King Street adjacent to and north of the BNSF mainline ROW. This residence is near the at-grade crossings of Jefferson and Park Streets and is affected by train horn noise from north and south bound trains.

Site 2 (330 Rankin Boulevard, Single Family Residence): HDR performed a 24-Hour continuous measurement of noise on May 12-13, 2008 in the back yard of the single-family residence located at 330 Rankin Street, adjacent to and south of the BNSF mainline ROW. This residence is near the at-grade crossings of Jackson Street and Rankin Boulevard and is affected by train horn noise from north and south bound trains.

Site 3 (130 Madison Street, Madison Arms Apartments): HDR performed a 24-Hour continuous measurement of noise on May 12-13, 2008 near the Madison Arms Apartments located adjacent to and north of the BNSF mainline ROW. The apartments are near the at-grade crossings of Church and Green Streets and are affected by train horn noise from north and south bound trains.

Site 4 (Heardtowntown Estates, Residential Development, County Road 1740): HDR performed a 24-Hour continuous measurement of noise on May 12-13, 2008 near the entrance to the Heardtowntown Estates Residential Development located along County Road 1740. This area is located to the north of the proposed Alternative L alignment. The surrounding area is rural with the primary noise sources identified as roadway traffic and agricultural activities.

Site 5 (1505 Trace Avenue, Single Family Residence): HDR performed a 24-Hour continuous measurement of noise on May 13-14, 2008 in the side yard of the single-family residence located at 1505 Trace Avenue, north of the BNSF mainline ROW. This residence is near the at-grade crossing of Trace Avenue and is affected by train horn noise from north and south bound trains.

Site 6 (Abby Lane, Single Family Residence): HDR performed a 24-Hour continuous measurement of noise on May 13-14, 2008 near a single-family residence located on Abby Lane adjacent to and north of the BNSF mainline ROW. This residence is near the at-grade crossing of Endville Road and is affected by train horn noise from north and south bound trains.

Site 7 (Hilda Avenue, Single Family Residence): HDR performed a 24-Hour continuous measurement of noise on May 14-15, 2008 near a single-family residence located on Hilda Avenue adjacent to and west of the KCS branch line and proposed BNSF Alternative L alignment. The surrounding area is primarily undeveloped with noise sources identified as roadway traffic and KCS train pass bys.



Figure 2. Aerial Photograph Showing Project Area and Measurement Sites

3.2 24-Hour Noise Measurement Results

As discussed above, the noise monitoring consisted of continuous 24-hour measurements at seven sites in the Tupelo, Mississippi project area (Sites 1-7). The project team collected the 24-hour noise monitoring data using Larson Davis 820 sound level meters (Appendix C). Twenty-four consecutive one-hour Leq measurements were performed at these locations, and an Ldn was determined at each site. The results of the 24-hour noise measurements are summarized in Table 3.

Table 3. 24-Hour Noise Monitoring Data

Receptor ID	Location	Land Use Category/ Noise Metric	Measured Ldn	FTA Moderate Impact Threshold (Ldn)	FTA Severe Impact Threshold (Ldn)
Site 1	337 King Street - Residence	2/ Outdoor Ldn	82	66 dBA	75 dBA
Site 2	330 Rankin Boulevard - Residence	2/ Outdoor Ldn	83	66 dBA	75 dBA
Site 3	130 Madison Street - Madison Arms Apartments	2/ Outdoor Ldn	72	66 dBA	71 dBA
Site 4	Heardtwn Estates – Cty Road 1740	2/ Outdoor Ldn	63	60 dBA	65 dBA
Site 5	1505 Trace Avenue - Residence	2/ Outdoor Ldn	79	66 dBA	75 dBA
Site 6	Abby Lane - Residence	2/ Outdoor Ldn	78	66 dBA	75 dBA
Site 7	Hilda Avenue - Residence	2/ Outdoor Ldn	62	59 dBA	64 dBA

Existing noise levels exceed FTA’s moderate noise impact thresholds at all of the monitoring locations. Existing noise levels also exceed FTA’s severe noise impact thresholds at five of the seven monitoring locations.

3.3 Short-Term Measurements

In addition to looking at the overall noise levels, short term measurement data was collected to characterize the noise emissions of the freight trains. Sound Exposure Levels (SEL) were measured utilizing Larson Davis 824 and 812 Sound Level Meters at two locations within 50 feet of the BNSF mainline to characterize the noise emissions specific to the locomotives, rail cars and train horns (Appendix C). This data was then used in the Noise Prediction Model. An SEL is defined as a measure of the total acoustic energy of a noise event. It is a useful intermediate quantity for estimating Leq(h) and Ldn from train pass bys.

A total of 6 train pass bys were recorded during the short-term measurements. At a distance of 50 feet from the tracks, the measured SEL for locomotives ranged from 86 to 90 dBA, 96 to 105 dBA for rail cars, and 101 to 117 dBA for train horns.

4. NOISE IMPACT ASSESSMENT

Predicted noise levels for future operation of the two proposed Build alternatives and the no-build condition for the BNSF mainline through Tupelo were modeled using the measurements of noise from the existing rail line. As discussed in Section 3, those noise measurements consisted of seven 24-hour measurements and short-term measurements. The noise from the train pass bys was used to calculate the average noise generated by a single train. The future noise levels were then predicted at representative sensitive receptors based on the estimated future train volumes, consists and speeds.

The following sections summarize the noise prediction model and the predicted levels at sensitive receptors.

4.1 Noise Prediction Model Input Parameters

As discussed in Section 2, the noise impact criteria are based on the amount of additional noise that would result from the proposed project. Based on the projections by BNSF and KCS that are summarized in Table 4, by 2030 there would be an average of an additional 16 trains per day using the BNSF mainline and 3 trains per day using the KCS branch line through the project area.

Table 4. Summary of Existing and Future Train Volumes and Consists

Train service	Existing Trains			Future Trains (2030)		
	Average number of locomotives	Average number of cars	Trains per day	Average number of locomotives	Average number of cars	Trains per day
BNSF - Coal	5	135	8	6	160	13
BNSF - Freight	3	125	16	4	150	28
KCS - Through	2	95	1	3	110	3
KCS - Local	1	25	1	1	25	2

The model predicts the train noise emissions based on the train consists, volumes, train speeds, pathway between the noise source and receiver, and train horn use. The existing BNSF speeds throughout the project area vary between 20 miles per hour within downtown Tupelo to 60 mph north and south of Tupelo. Future train speeds on the elevated portion of the BNSF mainline under Alternative M are predicted to be 40 mph and 60 mph for the entire length of the Alternative L alignment. The KCS branch line existing and future speed within Tupelo is 20 mph.

4.2 Model Application

The following sections explain the development of the noise model used to evaluate future conditions in the project area. These sections define the study areas and discuss how the model was applied to evaluate future noise impacts.

To establish background noise levels for comparison to future conditions, existing 24-hour noise levels were measured at several locations in the project area. Section 3.0, Existing Conditions, describes the monitoring locations and presents the noise monitoring results.

The study area for the train activities was defined as the northern point of the BNSF rail corridor northwest of I-78 where the Alternative L alignment will re-connect with the existing BNSF mainline northwest of Tupelo. The southern terminus is southeast of Tupelo near the Veteran’s Boulevard Crossing. The entire BNSF rail corridor through Tupelo, Alternative L Alignment area, and a small section of KCS branch line through Tupelo were considered affected by the project because new track alignments and grade crossing changes will occur as part of the projected project and an increase in train traffic is predicted for 2030.

The first step in the FTA noise analysis is to individually calculate a Leq(h) for locomotives, railcars, and locomotive horns, then combine them into an overall Leq(h) using the equations in Table 6-4 of the FTA manual. SEL values for locomotives and railcars used in this step were determined by collecting measurements of train pass-bys throughout the project area and are as follows: 92 dBA for locomotives and 88 dBA for railcars. The default reference SEL of 110 dBA provided in the FRA manual for locomotive horns was also used. All reference SELs are based on a distance of 50 feet from the source.

The second step in the analysis is to individually calculate a daytime Leq for locomotives, railcars, and locomotive horns, then combine them into an overall daytime Leq. Next, the nighttime Leqs for all three items are also calculated independently, and summed for an overall nighttime Leq. Using the daytime and nighttime Leq, the Ldn at 50 feet is calculated.

The third step in the moving train analysis is to evaluate the propagation path between source and receiver. The FTA manual provides calculations (FTA Table 6-5) to determine the effective path height and from it a ground factor for soft or acoustically absorptive groundcover using distance and elevation as variables. The distances between the source and receivers, the terrain features and elevations in the proposed project area were confirmed by evaluating digital aerial photographs using Arcview, a geographic information system, and plan drawings. For this analysis, the equation for calculating the effective source height for a source and receiver on flat ground was used throughout the corridor except in the area of the proposed elevated track alignment under Alternative M. Results of this analysis can be considered to be conservatively high in areas where the terrain between the proposed tracks and the nearest receptors are not completely flat.

The fourth step in the moving train analysis evaluated the shielding of wayside or grade-crossing noise provided by the first and subsequent rows of buildings adjacent to the rail corridor. During the final step, the existing noise levels were compared to predicted future freight and passenger generated noise levels for the Build Alternatives to determine project related noise impacts.

4.3 Predicted Noise Impacts

4.3.1 No Build

Train volumes are predicted to increase to approximately 40 trains per day on the BNSF mainline through Tupelo and to approximately 4 trains on the KCS branch line by the build year of 2030. The No-Build Alternative was modeled using the projected train traffic data, with train consist information as shown in Table 4, to determine distances to the wayside noise impact contours and to the grade-crossing noise impact contours where train horns are used. Figures 3A-E present the noise impact contours for the No-Build condition.

Four hundred fourteen (414) noise impacts, 128 of which are classified as severe were identified under the No Build Alternative. Table 5 summarizes the number of impacts by project area location.

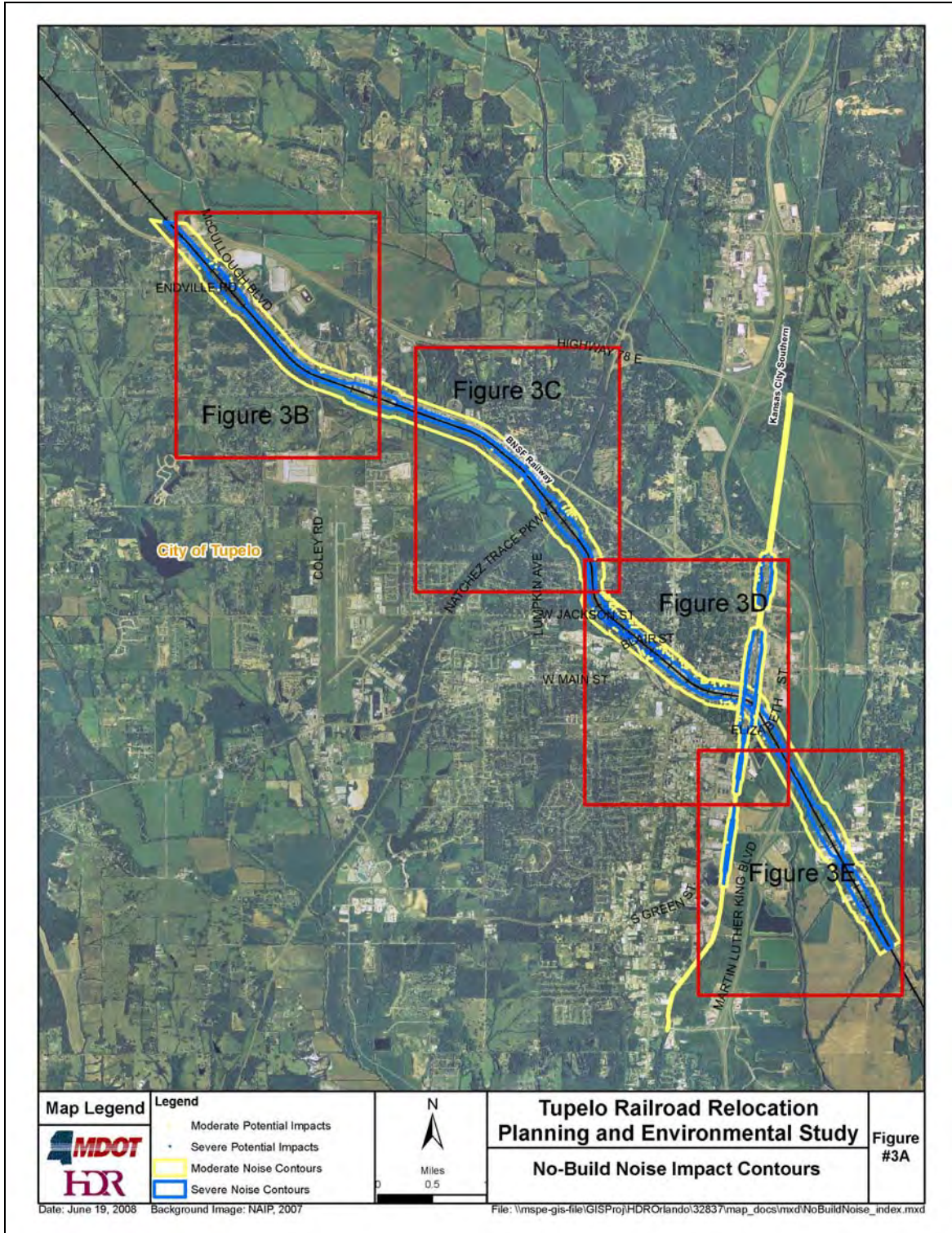
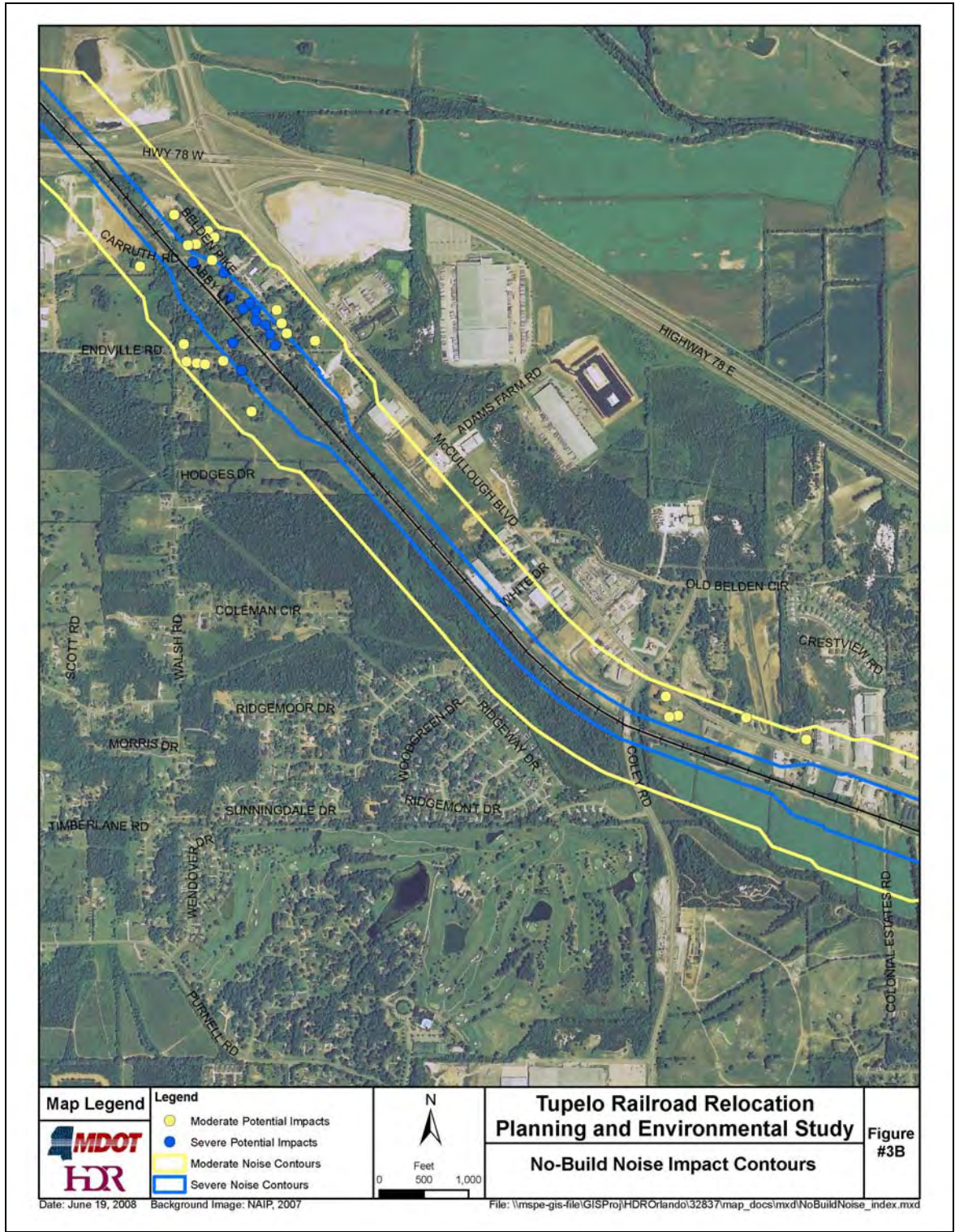
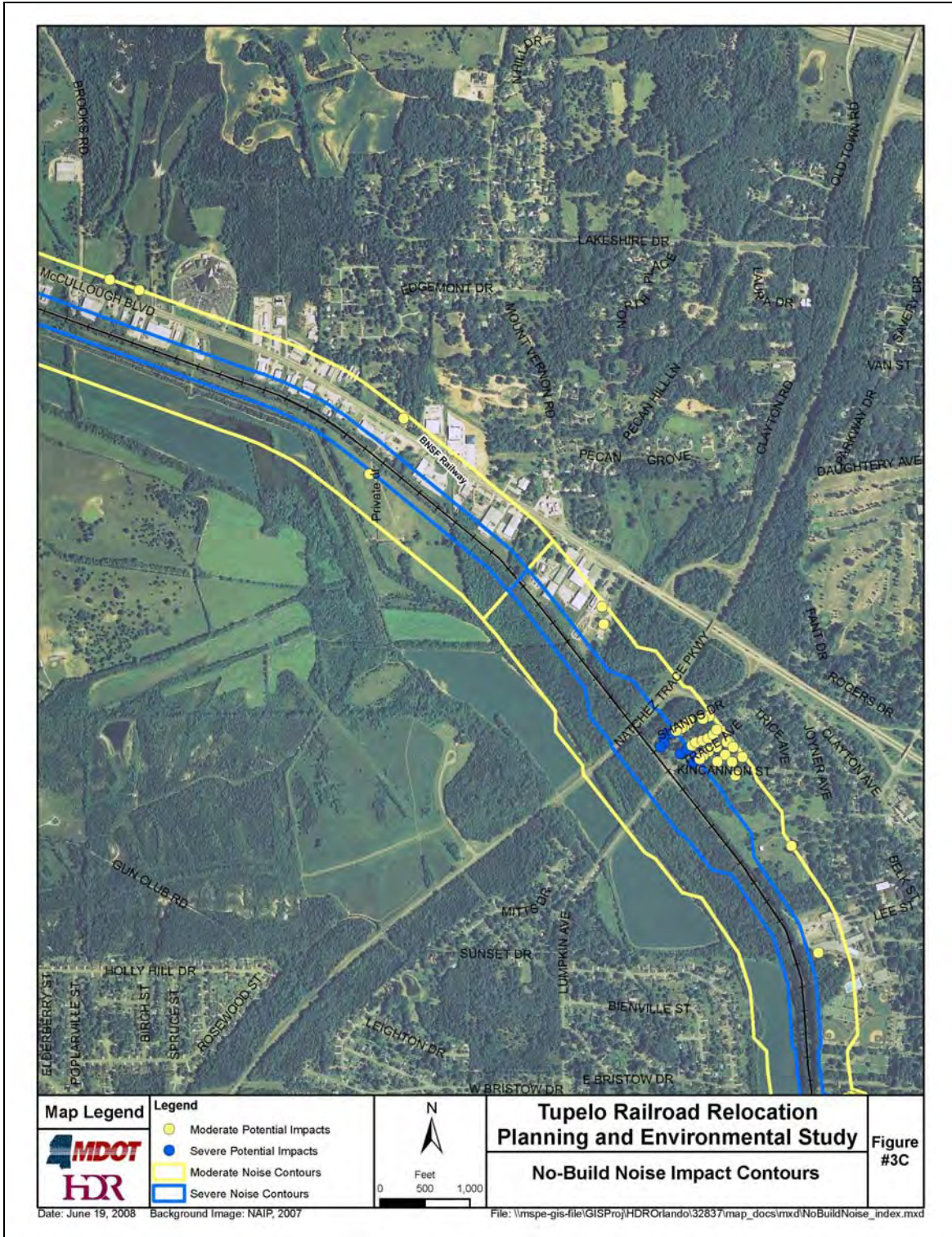


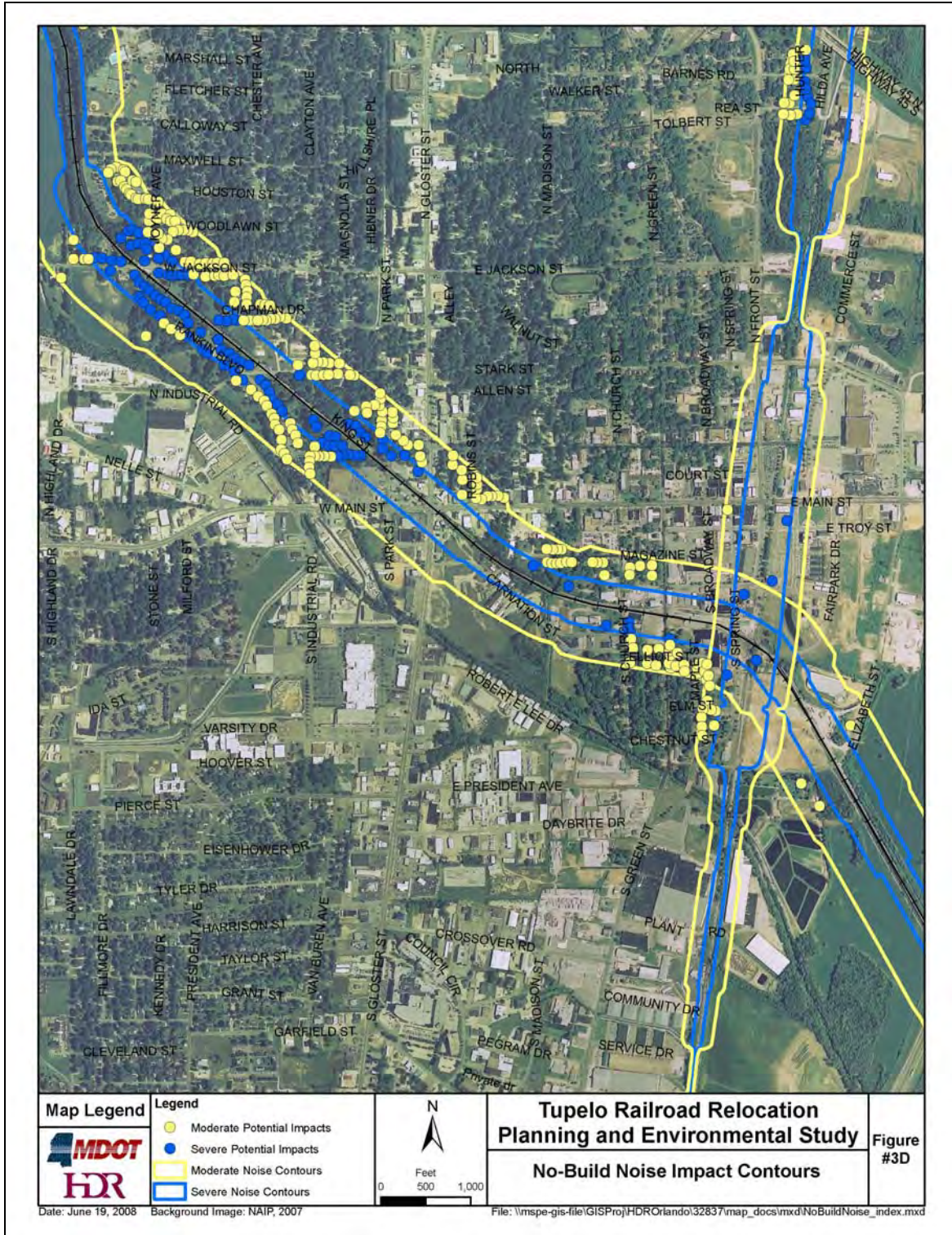
Figure 3 A-E. No-Build Noise Impact Contours



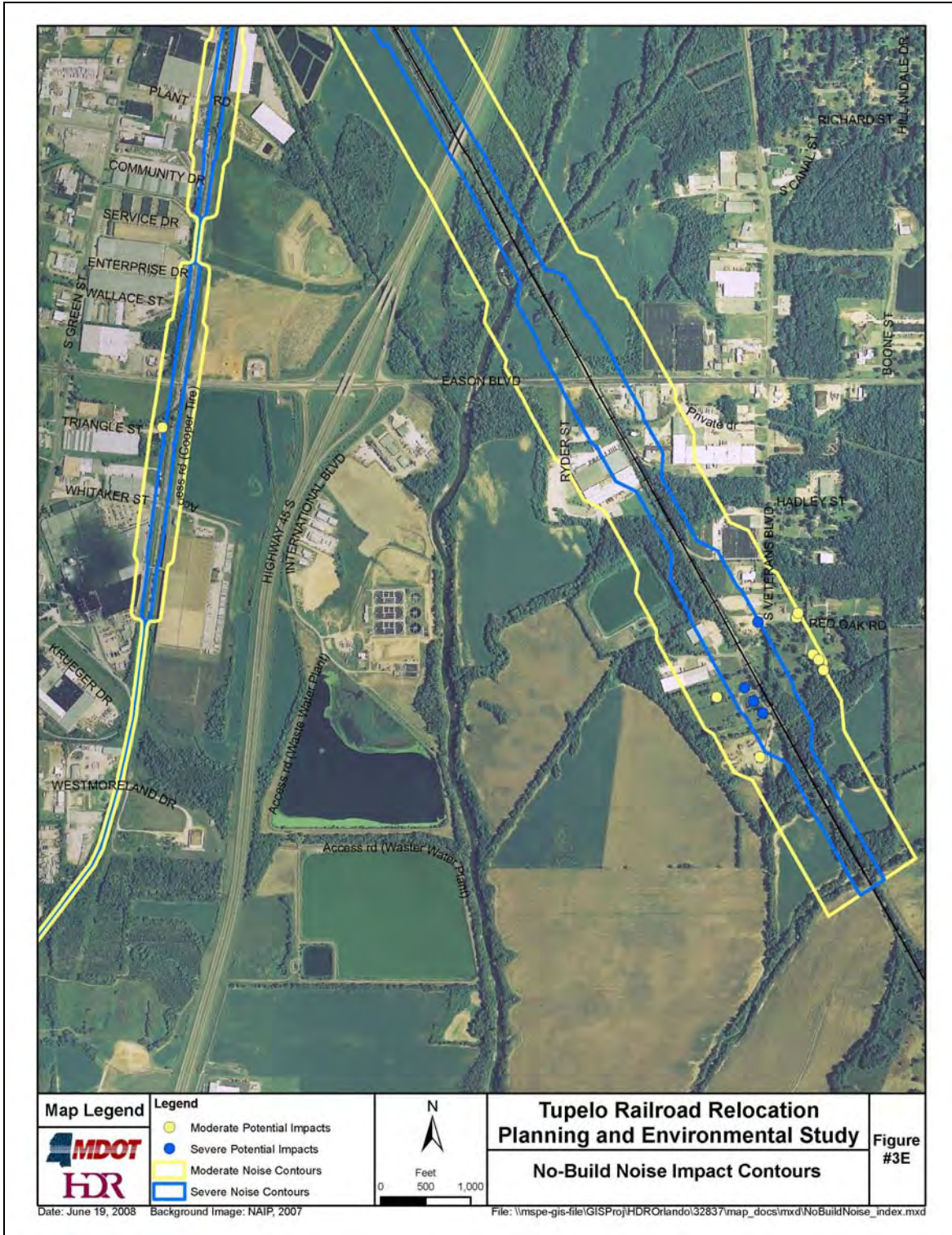
B.



C.



D.



E.

4.3.2 *Alternative M (Elevated BNSF Mainline)*

Alternative M was modeled using train traffic projected for the Build year of 2030 to determine distances to the wayside noise impact contours and to the grade-crossing contours where train horns are used. Figures 4A-E present the contours for Alternative M. Under Alternative M, the mainline will be elevated and grade separated through downtown Tupelo eliminating 11 grade crossings and the BNSF/KCS interchange causing a decrease in predicted Ldn levels and impacted receivers when compared to the No-Build condition due to a decrease in train horn use.

Three hundred eighty-five (385) noise impacts, 76 of which are classified as Severe, were identified for Alternative M. Table 5 summarizes the number of noise impacts by project area location.

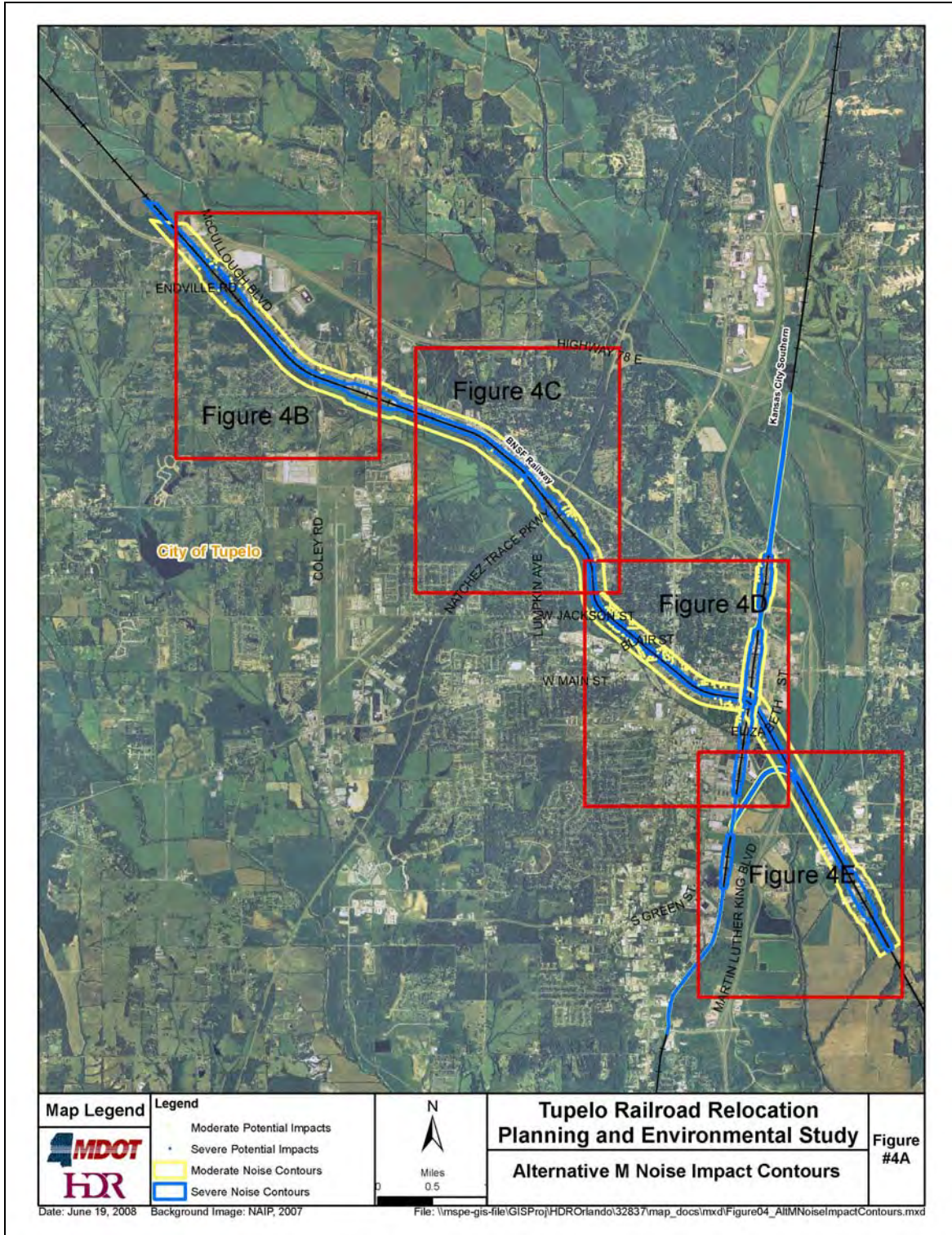
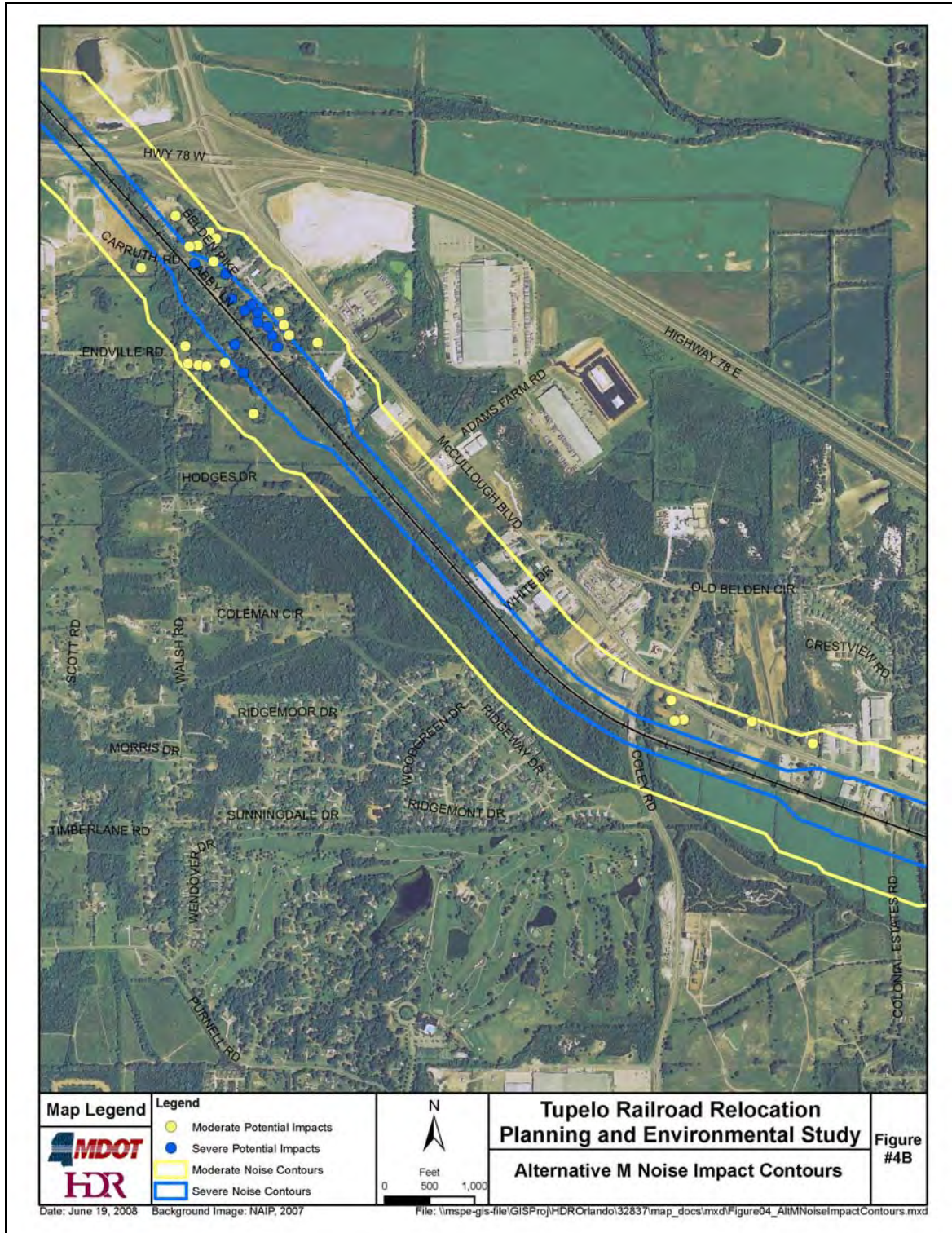
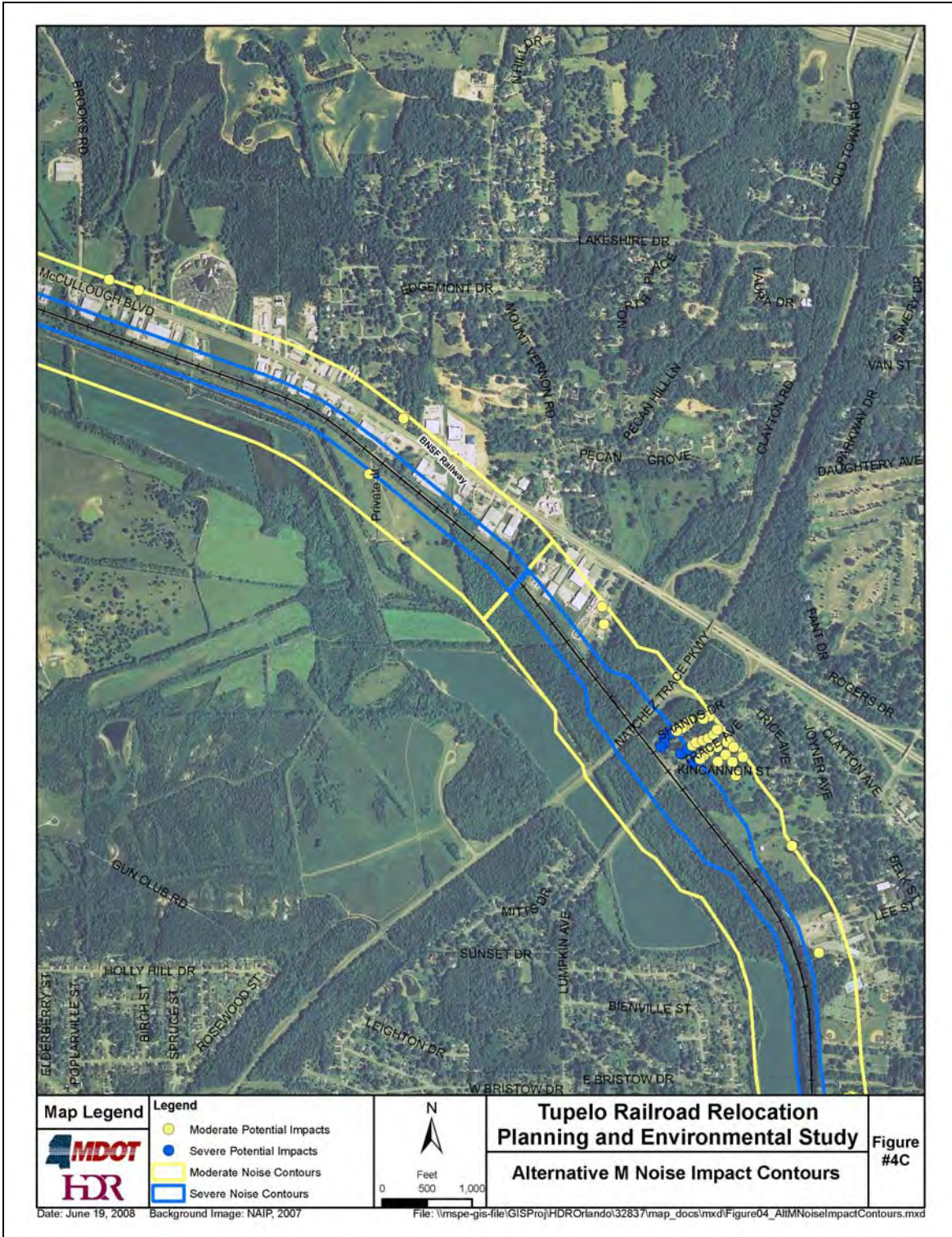


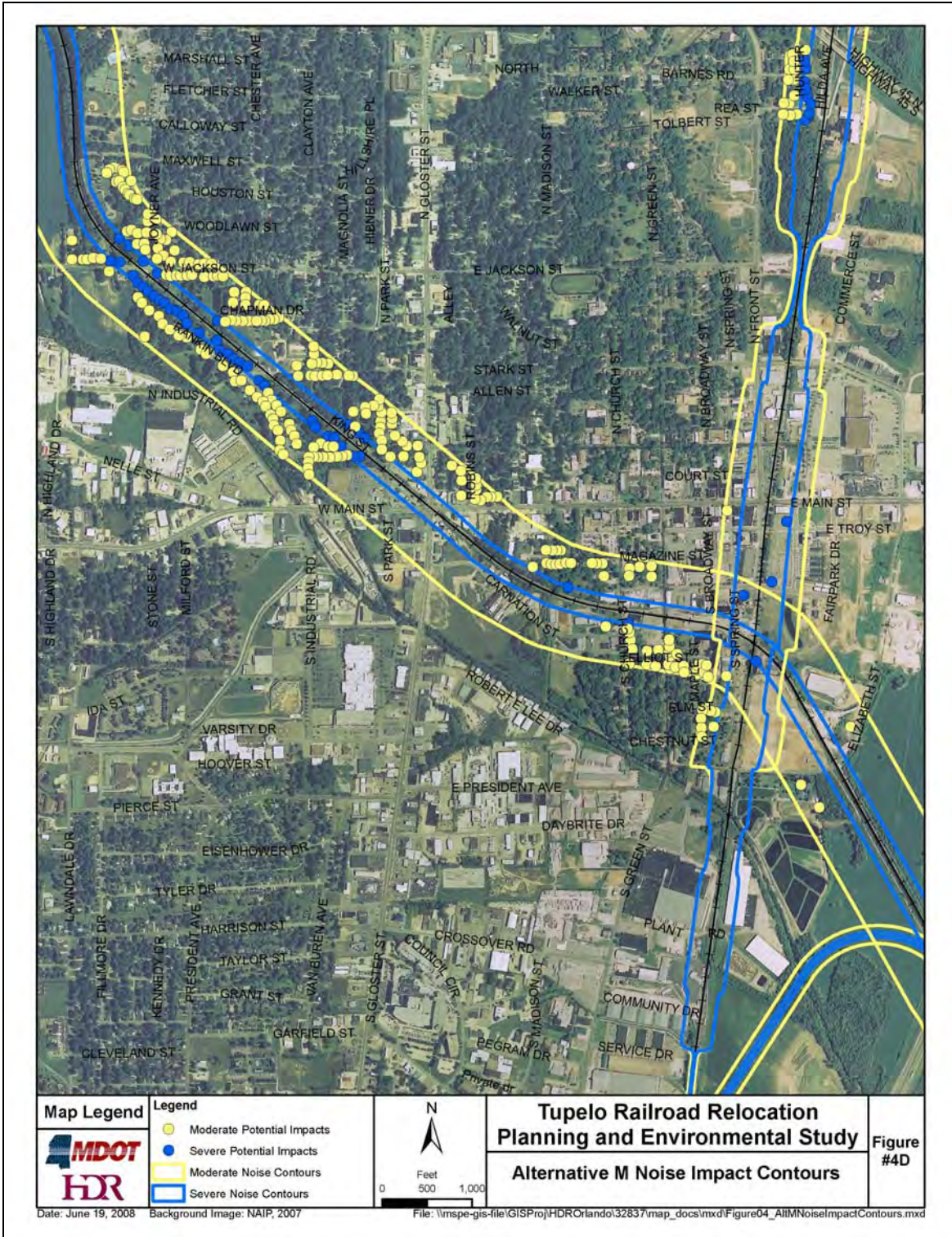
Figure 4 A-E. Alternative M Noise Impact Contours



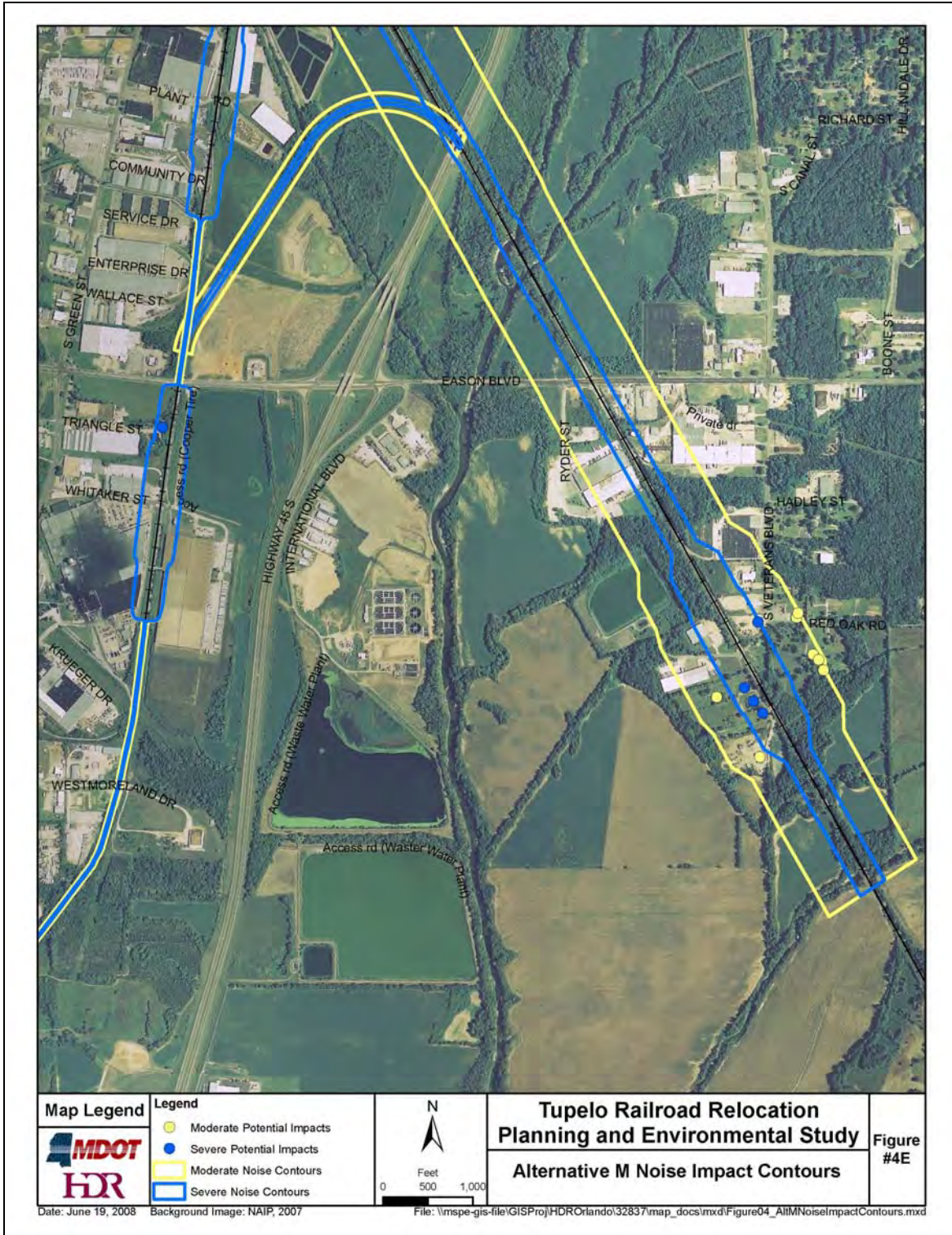
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C.



D.



E.

4.3.3 *Alternative L*

Alternative L was modeled using train traffic projected for the Build year of 2030 to determine distances to the wayside noise impact contours and to the grade-crossing contours where train horns are used. Figures 5A-E present the contours for Alternative L. Under Alternative L, the mainline will be relocated to the east and north of Tupelo eliminating the mainline track, 14 grade crossings and the BNSF/KCS interchange in the town of Tupelo.

Two hundred twenty-two (222) noise impacts, 22 of which are classified as Severe, were identified for Alternative L. Table 5 summarizes the number of noise impacts by project area location.

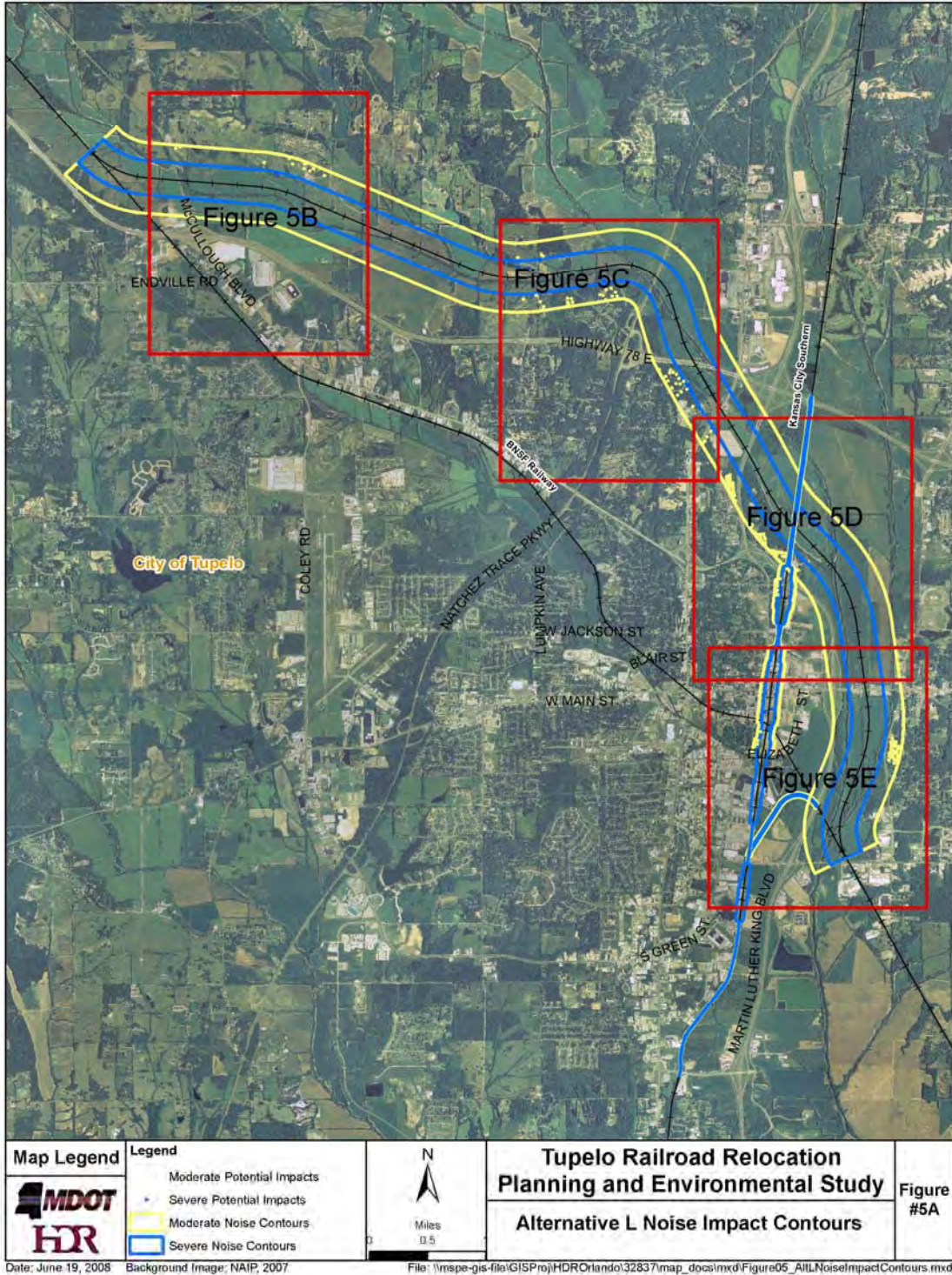
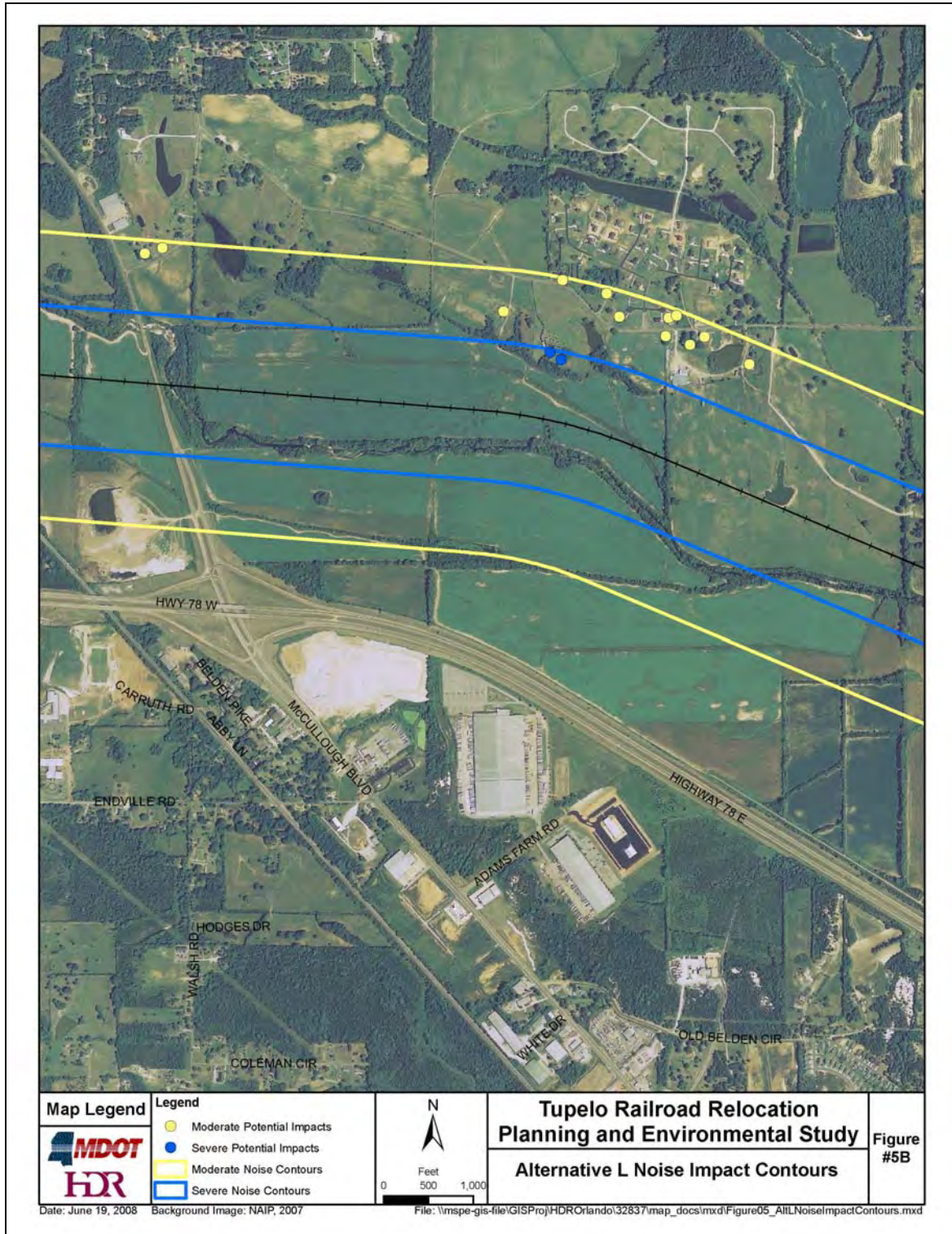
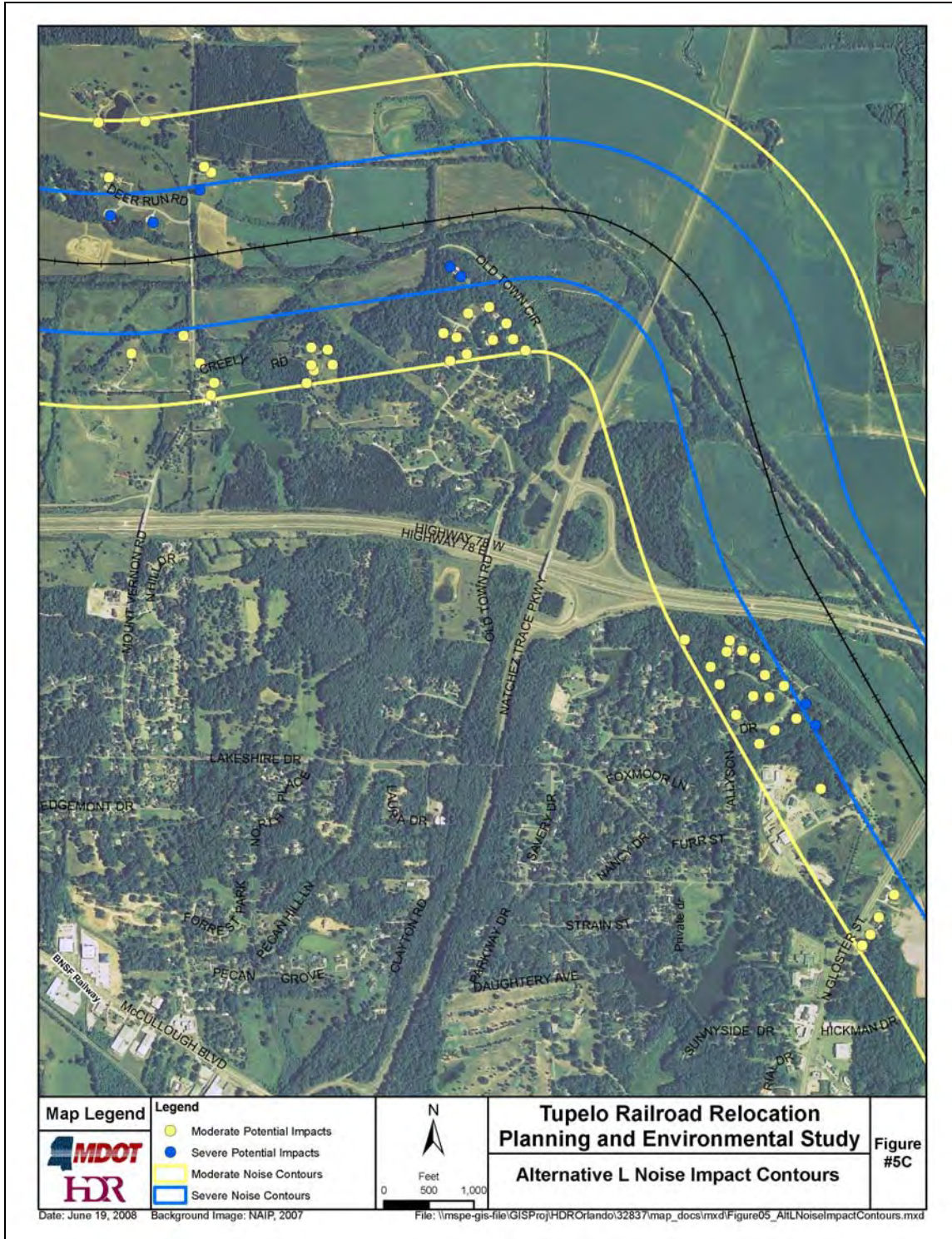


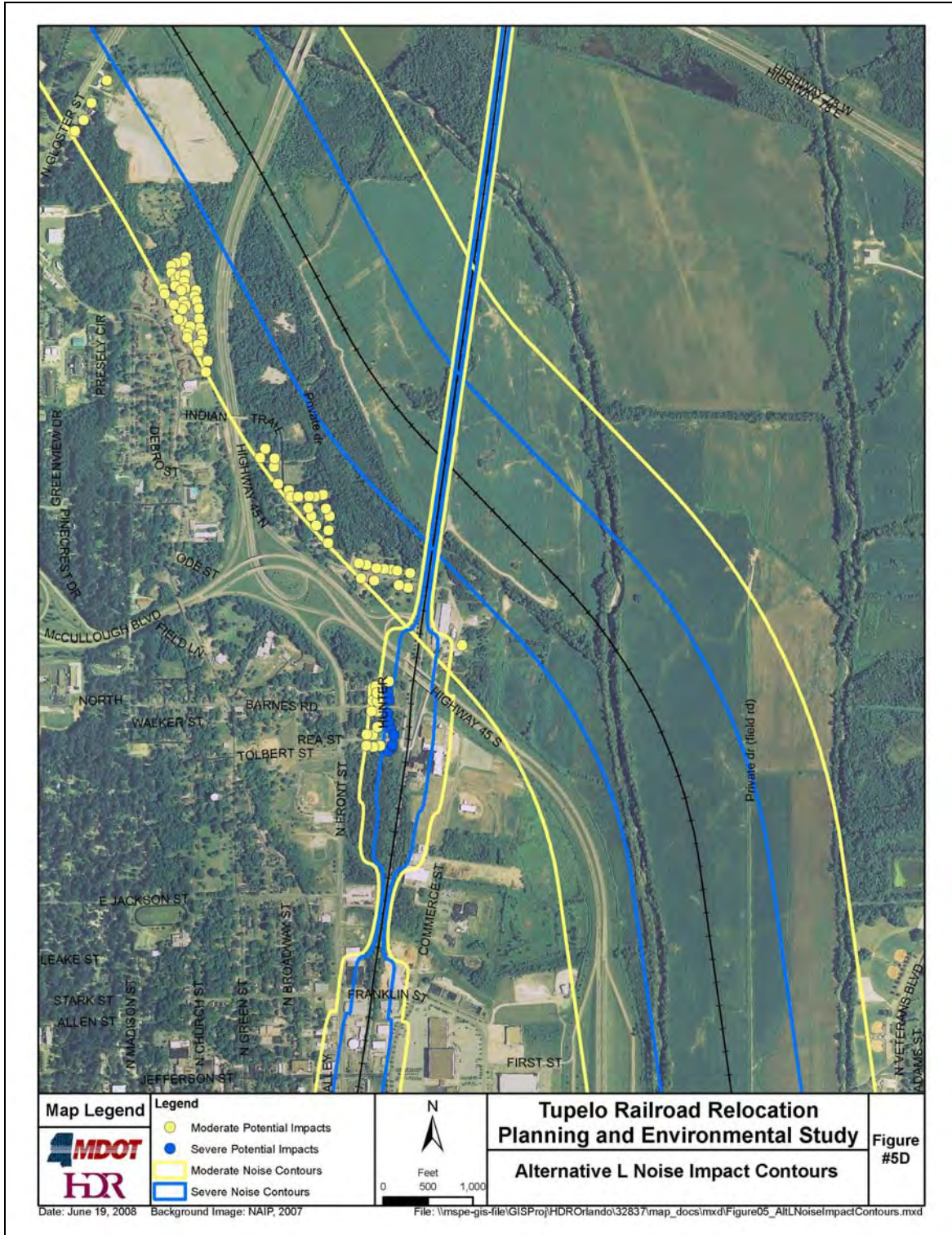
Figure 5 A-E. Alternative L Noise Impact Contours



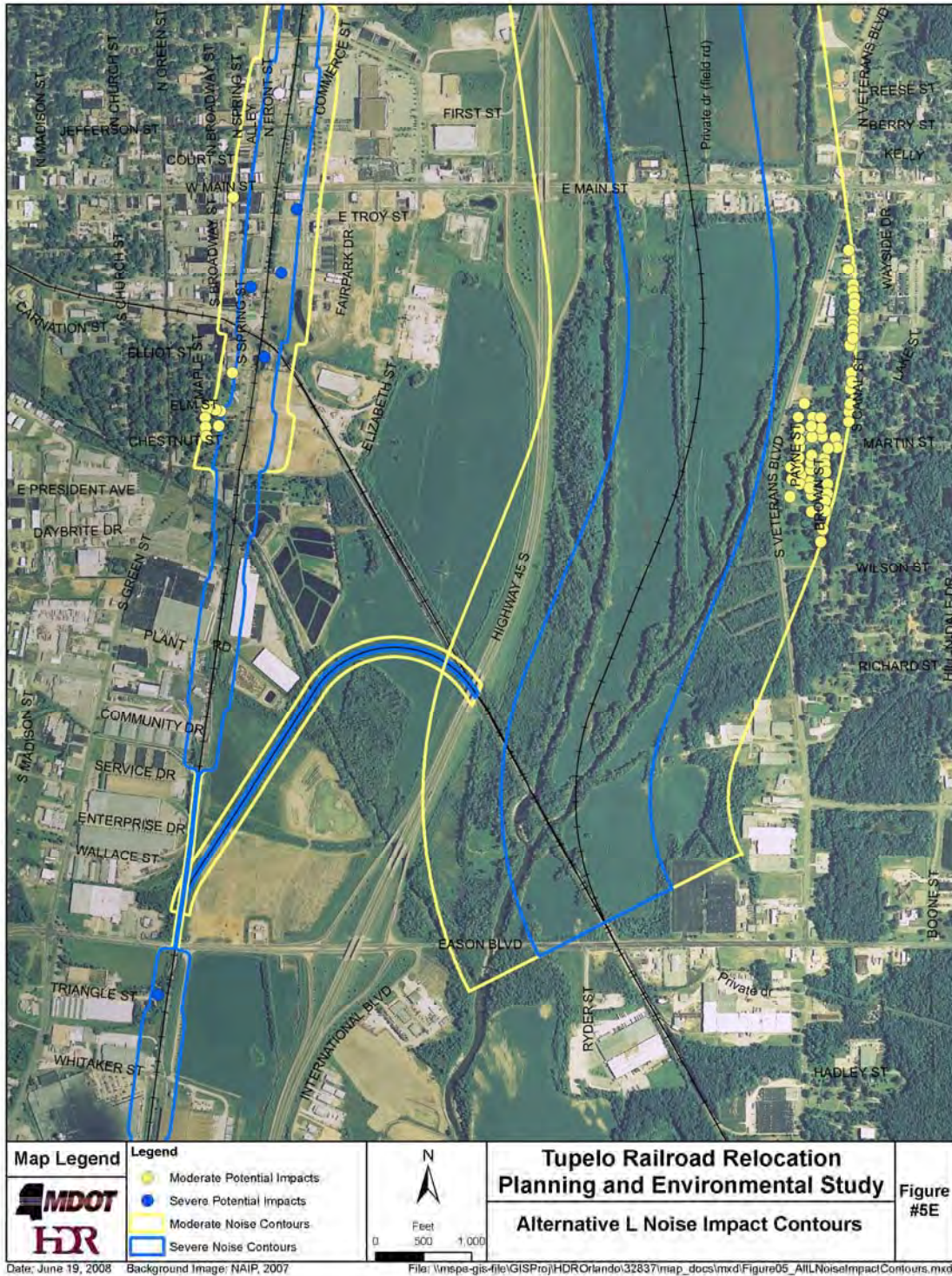
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E.

Table 5. Summary of FTA Land Use Noise Impacts Predicted for No Build and Build Alternatives

Alternative	Predicted Moderate Noise Impacts (as defined by FTA)	Predicted Severe Noise Impacts (as defined by FTA)	Total Impacts	Total Benefits
No-Build	286	128	414	--
Alternative M	309	76	385	29**
Alternative L	222	22	244	170

**Does not account for 23 reductions from severe to moderate.

Analysis results show that predicted noise levels associated with Alternative M reach FTA’s severe noise impact threshold at 52 fewer receptors than are predicted to occur under the No-Build Alternative. This is a net benefit associated with Alternative M. Analysis results also show an increase in the total number of moderate noise impacts under Alternative M vs. the No-Build alternative. However under this alternative, predicted noise impacts at 23 noise-sensitive receptors change from severe to moderate noise impacts (as defined by FTA). This is a benefit associated with Alternative M that a simple comparison of overall predicted noise impacts may not otherwise communicate. The noise-sensitive receptors predicted to experience noise impacts associated with Alternative M are also predicted to experience train noise levels that exceed FTA impact thresholds under the No-Build Alternative.

Analysis results show that predicted noise levels associated with Alternative L reach FTA’s severe noise impact threshold at 64 fewer receptors than are predicted to occur under the No-Build Alternative. This is a net benefit associated with Alternative L. Analysis results also show a decrease in the total number of moderate noise impacts under Alternative L vs. the No-Build alternative. Finally, analysis results show a net benefit (reduction in the number of predicted noise impacts) at 170 receptors associated with Alternative L. Most of the noise-sensitive receptors predicted to experience noise impacts associated with Alternative L are not predicted to experience train noise levels that exceed FTA impact thresholds under the No-Build Alternative. In this regard, Alternative L displaces or relocates most of the noise impacts to areas that currently are not affected by train noise.

5. VIBRATION IMPACT ASSESSMENT

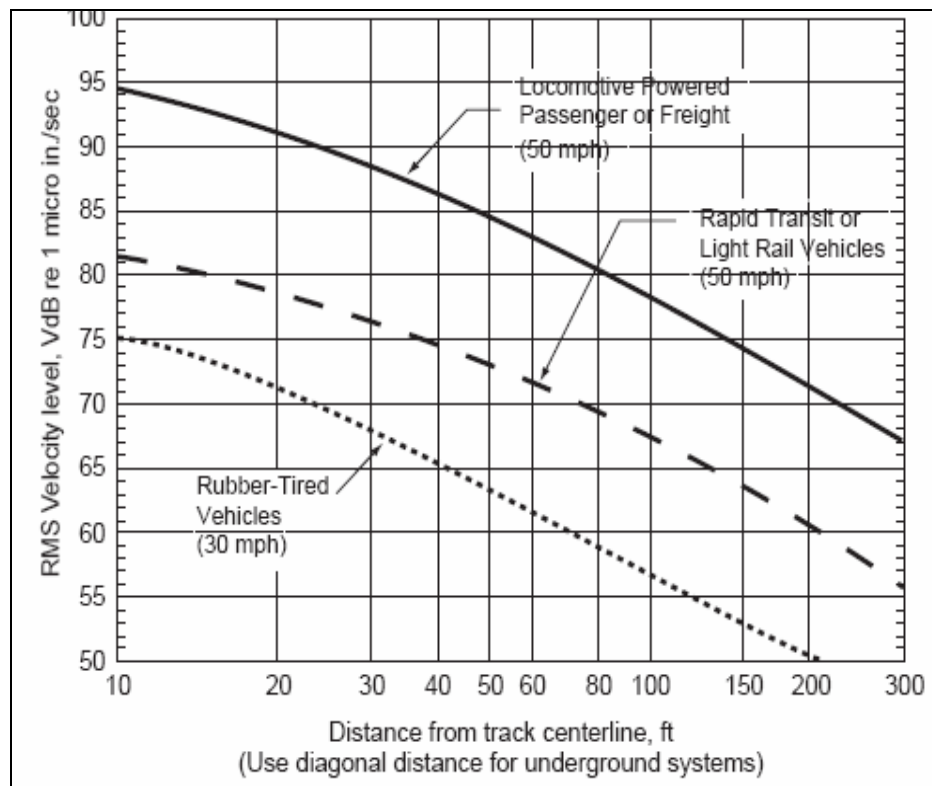
To estimate potential vibration effects from the future No-Build and Build alternatives, HDR applied the FTA General Vibration Assessment methodology to develop a prediction curve of vibration velocity as a function of distance from the tracks. This curve was used to estimate future vibration levels at each vibration sensitive receptor that were compared to vibration impact thresholds discussed in Section 2.

5.1 Vibration Prediction Model

The vibration analysis study area utilized the same area defined for the noise analysis. Vibration impacts are determined based on train speed and average number of vibration events during single train pass-bys, therefore distances to Category 2 impacts changed where track realignments and upgrades are proposed as well as where the predicted speed and number of events changed. These areas include the existing BNSF mainline and the proposed alignment under Alternative L.

The General Vibration Assessment uses generalized data to develop a curve of vibration levels as a function of distance from the track. The vibration levels at specific buildings are estimated by reading values from the curve and applying adjustments to account for factors such as track support system, vehicle speed, type of building, and track and wheel condition.

The first step in a general vibration assessment is the selection of an appropriate base curve for use in estimating project-related vibration emission levels. Figure 6 (Figure 10-1 in the FTA manual) shows the base curve options. Locomotives and railcars have different vibration emission characteristics. Diesel locomotives are typically much heavier than railcars, and therefore have greater potential to generate ground-borne vibration than railcars do. This information is used to identify the appropriate vibration emissions curve in Figure 12. The upper curve (Locomotive Powered Passenger or Freight) is representative of locomotive-induced ground-borne vibration in the project area. For the purposes of this assessment, the middle curve (Rapid Transit or Light Rail Vehicles) is considered representative of railcar-induced, ground-borne vibration in the project area.



Source: FTA, 2006.

Figure 6. Generalized Ground Surface Vibration Curves

Once the base curve has been selected, adjustments are used to develop vibration projections for specific receiver positions. The adjustment parameters include speed, wheel and rail type and condition, type of track support system, type of building foundation, geologic conditions and number of floors above the basement level. The full list of adjustment parameters is contained in Table 10-1 of the FTA manual.

The adjustments for the BNSF mainline under the existing conditions, No-Build, and Build Alternatives were considered identical. However, train speeds varied throughout the project area and therefore the General Vibration Assessment applies lower adjustments to the slower train movements. In addition to the adjustment for train speed, HDR applied a conservative adjustment for ground-borne propagation effects to account for efficient propagation of the vibration from the source to the receptors throughout the project area. This adjustment adds 10 VdB to each of the vibration projections.

Because the adjusted vibration level for the locomotives is more than 10 VdB greater than the vibration level for the railcars, the railcar component of the vibration has been eliminated from further discussion.

As stated in Section 2.1 above, approximately 40 trains are predicted to travel through Tupelo on the BNSF mainline each day and 4 trains on the KCS branch line daily in 2030. This frequency of trains leads to the following ground-borne vibration impact criteria (Table 6):

Table 6. Project Specific Vibration Impact Thresholds

Location	Category Land Use	Events Classification	Vibration Impact Threshold (VdB)
BNSF Mainline	Category 2	Frequent	72
KCS Branchline	Category 2	Infrequent	80
Operational Track	Category 3	Infrequent	83

The difference between the adjusted vibration level at the screening distance and the impact threshold was then used to determine the distance to the impact contour line. By extending the base curve in Figure 6 (FTA's Figure 10-1) the distance to the vibration impact contour line for Category 2 land uses was determined to range from 60 to 170 feet from the BNSF mainline (mainly due to the range of operating speeds), and 76 feet from the KCS Branch Line. For Category 3 land uses near the proposed operational connection between the BNSF and KCS the vibration contour was determined to be 110 feet from the track connection centerline.

This vibration impact contours were overlaid upon a digital aerial photograph of the project areas using Geographic Information System (GIS) technologies. The number of residences inside the vibration contour was determined.

5.2 Predicted Vibration Impacts

5.2.1 No-Build

Twenty-eight (28) vibration impacts were identified under the No-Build Alternative. Table 7 summarizes the number of vibration impacts by location.

Figures 7A and 7B present vibration impact contours for the No-Build Alternative.

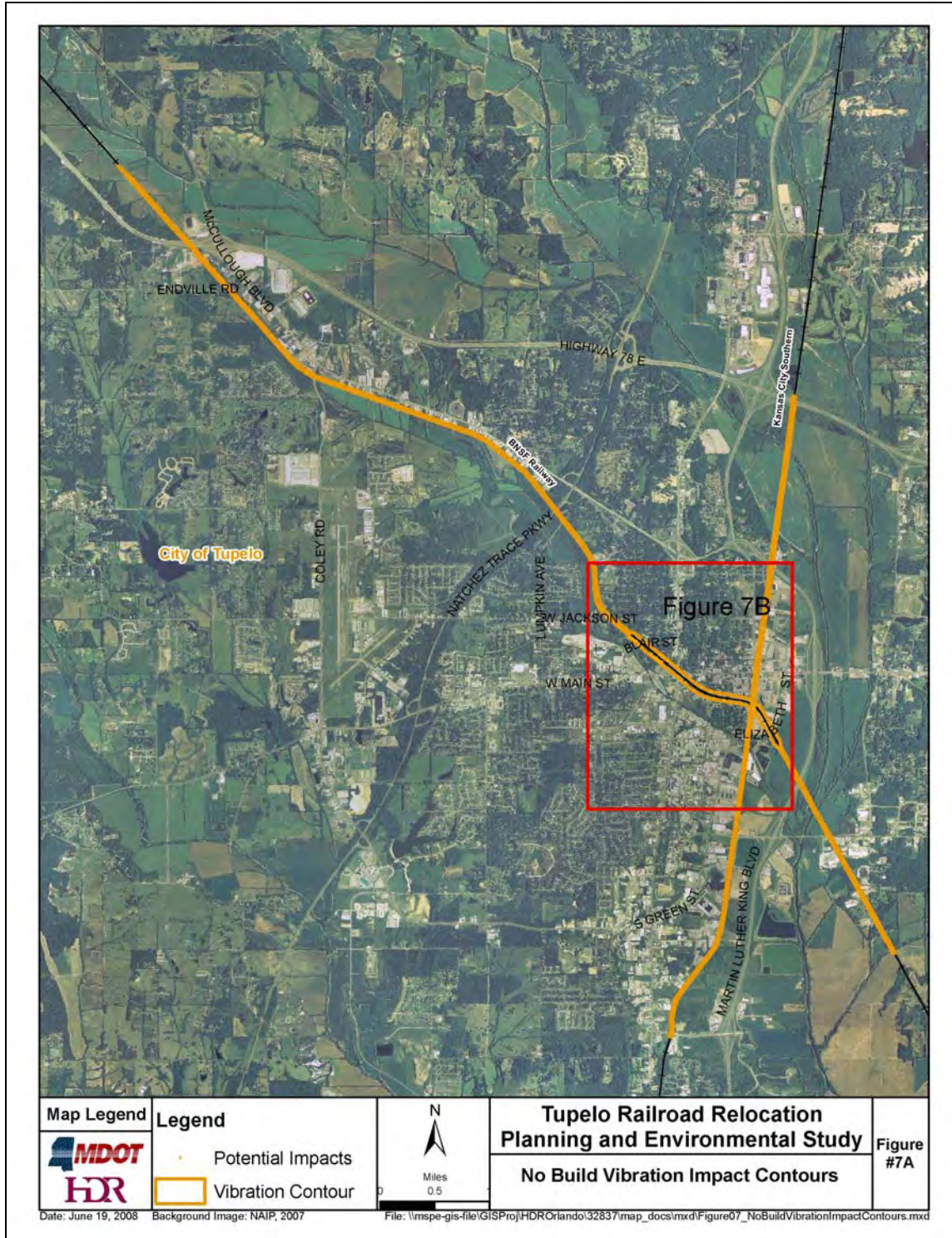


Figure 7 A-B. No-Build Vibration Impact Contour



B.

5.2.2 *Alternative M*

Forty-six (46) vibration impacts were identified under Alternative M. Table 7 summarizes the number of vibration impacts by location.

Figures 8A and 8B present vibration impact contours for Alternative M.

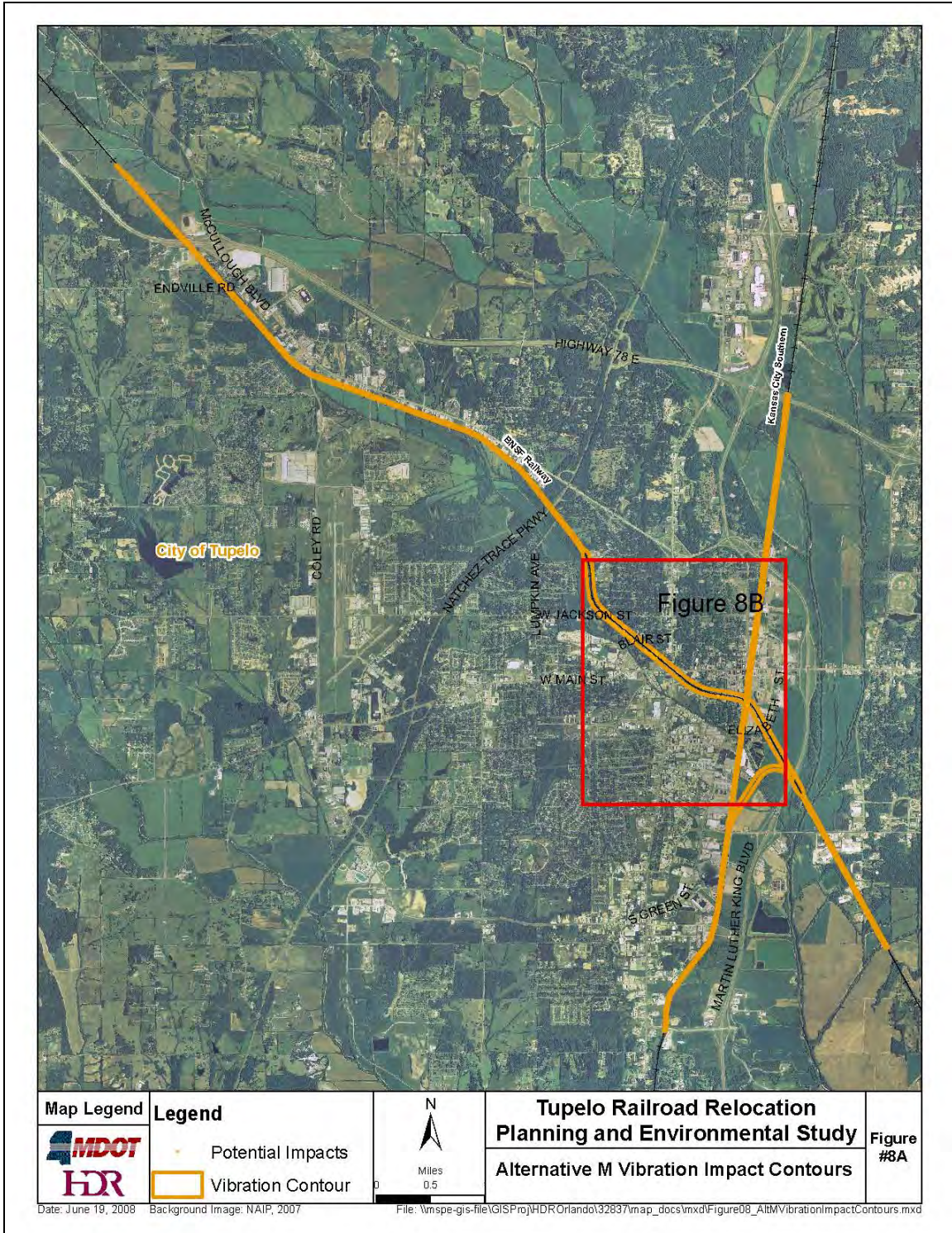
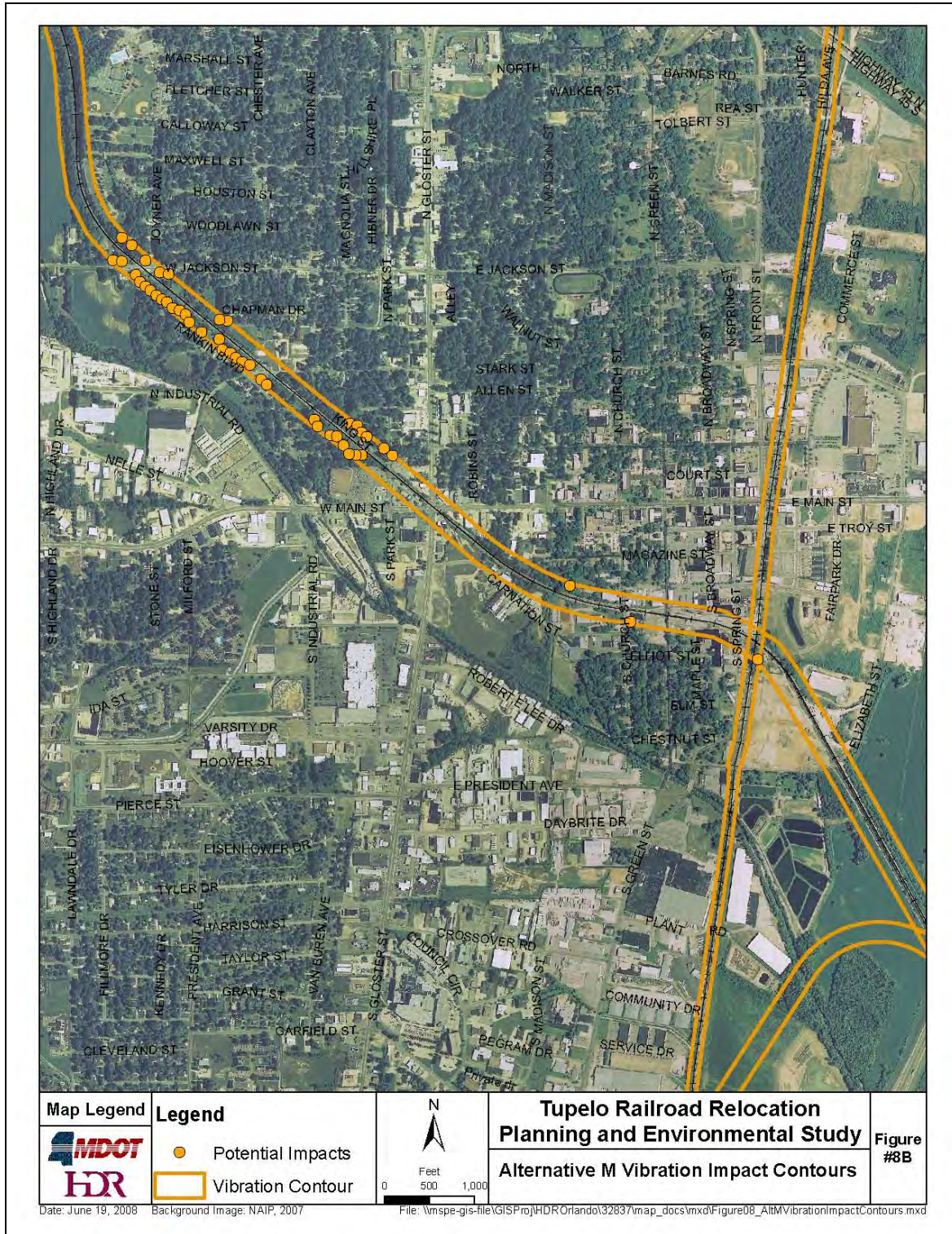


Figure 8 A-B. Alternative M – Vibration Impact Contours



B.

5.2.3 *Alternative L*

One vibration impacts were identified under Alternative L. Table 7 summarizes the number of vibration impacts by location.

Figures 9A and 9B present vibration impact contours for Alternative L.

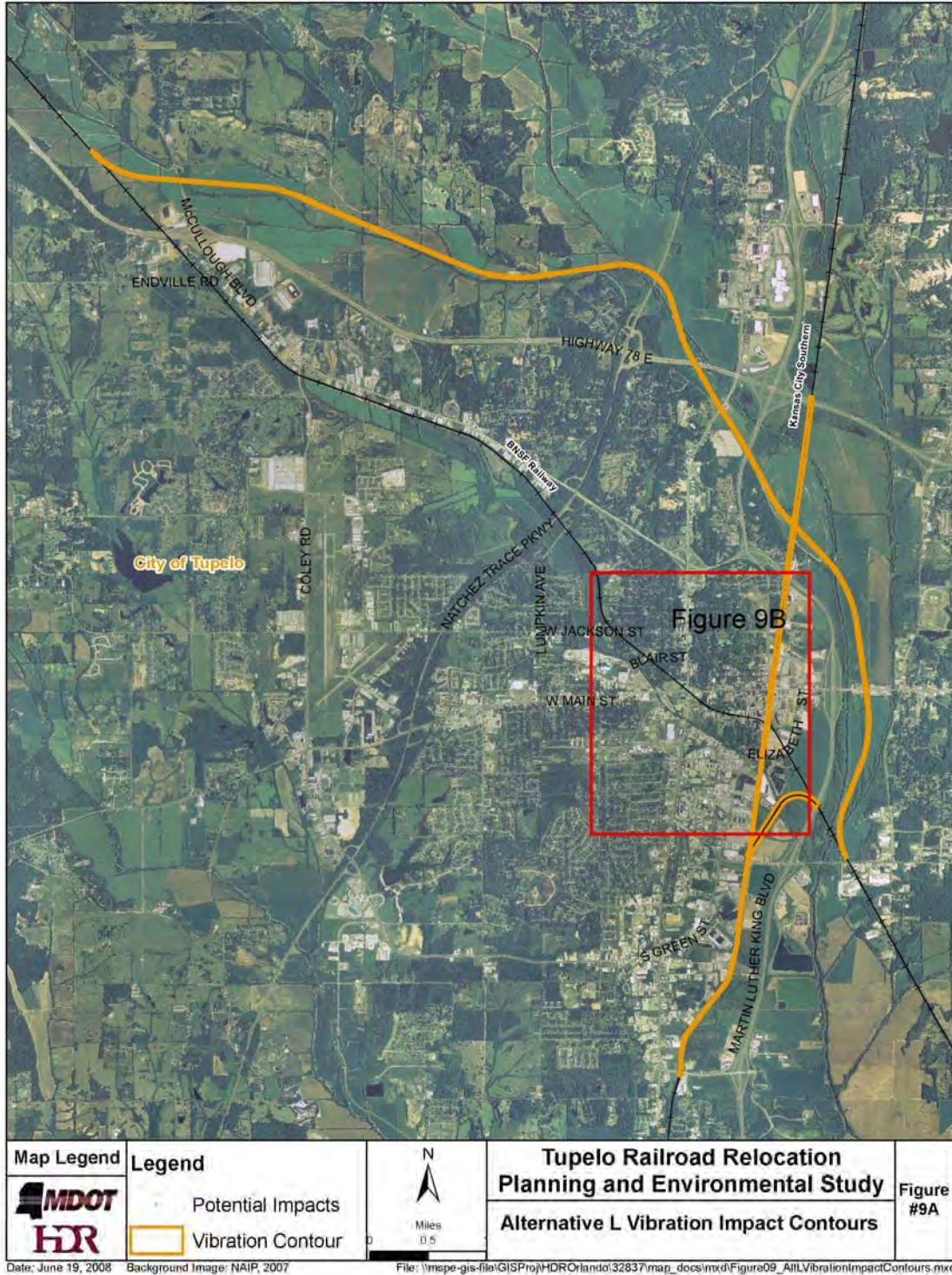
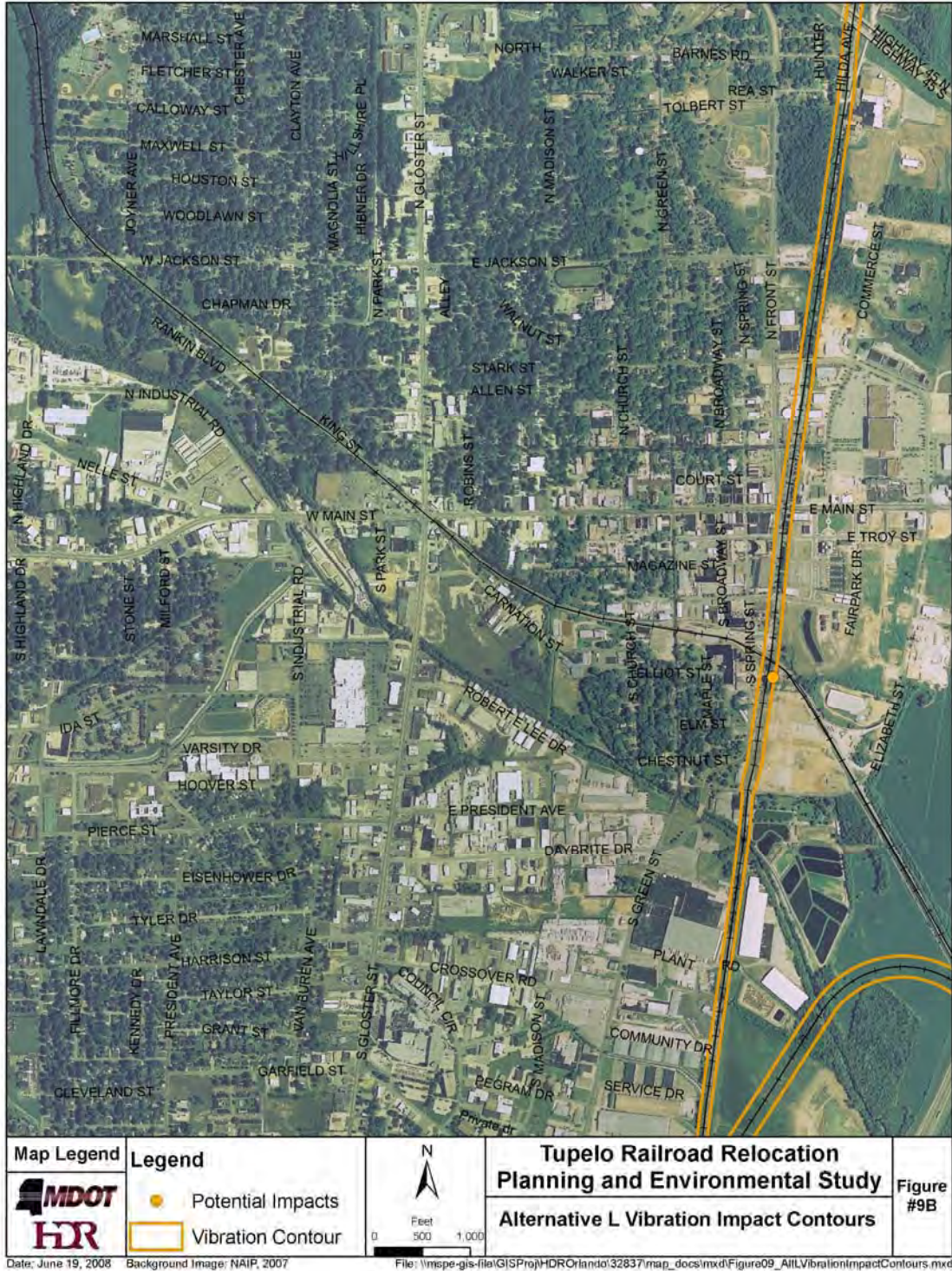


Figure 9 A-B. Alternative L Vibration Impact Contours



B.

Table 7. Summary of FTA Land Use Vibration Impacts Predicted for No Build and Build Alternatives

Alternative	Predicted Category 2 Vibration Impacts	Predicted Category 3 Vibration Impacts Operational Connection between BNSF & KCS
No-Build	28	NA ¹
Alternative M	46	0
Alternative L	1	0

1. Not applicable.

Analysis results show that predicted vibration velocity levels associated with Alternative M reach FTA's vibration impact threshold at 18 additional receptors than are predicted to occur under the No-Build Alternative. The increase in the number of predicted vibration impacts is due to the increase in train speed, from 20 mph to 40 mph.

Analysis results also show that predicted vibration velocity levels associated with Alternative L reach FTA's vibration impact threshold at 1 receptor. The predicted impact exists immediately adjacent to the BNSF-KCS intersection, and also occurs under Alternative M.

APPENDIX A. FUNDAMENTALS OF NOISE AND VIBRATION

Fundamentals of Noise

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. Noise is generally defined as unwanted or excessive sound. Sound can vary in intensity by over one million times within the range of human hearing. Therefore, a logarithmic scale, known as the decibel scale (dB), is used to quantify sound intensity and to compress the scale to a more manageable range.

Sound is characterized by both its amplitude and frequency (or pitch). The human ear does not hear all frequencies equally. In particular, the ear deemphasizes low and very high frequencies. To better approximate the sensitivity of human hearing, the A-weighted decibel scale (dBA) has been developed. On this scale, the human range of hearing extends from approximately 3 dBA to around 140 dBA. Figure 10 shows a range of typical noise levels from common indoor and outdoor activities.

Using the decibel scale, sound levels from two or more sources cannot be directly added together to determine the overall sound level. Rather, the combination of two sounds at the same level yields an increase of 3 dB. The smallest recognizable change in sound level is approximately 1 dB. A 3-dB increase in the A-weighted sound level is generally considered noticeable, whereas a 5-dB increase is readily noticeable. A 10-dB increase is judged by most people as an approximate doubling of the perceived loudness.

The two primary factors that reduce levels of environmental sounds are increasing the distance between the sound source and the receiver and having intervening obstacles such as walls, buildings, or terrain features that block the direct path between the sound source and the receiver. Factors that act to make environmental sounds louder include moving the sound source closer to the receiver, sound enhancements caused by reflections, and focusing caused by various meteorological conditions.

Below are brief definitions of the measurements and other terminology used in this report:

- **Root Mean Square (RMS):** The average of the squared amplitude of the vibration signal. The amplitudes of sound are almost always given in terms of the RMS sound level.
- **Equivalent Sound Level (Leq):** Environmental sound fluctuates constantly. The equivalent sound level (Leq), sometimes referred to as the energy average sound level, is the most common means of characterizing community noise. Leq represents a constant sound that, over the specified period, has the same sound energy as the time-varying sound.
- **Maximum Sound Level (Lmax):** Lmax is the maximum sound level over the measurement period. Sound level meters usually have a selector for measuring sound with either the fast or slow meter setting, which represent time constants of 0.25 and 1 second respectively. Lmax measured using the fast meter setting will typically be 1 to 3 decibels higher than when measured using the slow meter setting. If not stated, the term Lmax is usually taken to indicate the fast sound level meter setting.
- **Sound Exposure Level (SEL):** SEL describes a receiver's cumulative noise exposure from a single noise event. It is represented by the total A-weighted sound energy during the event, normalized to a one-second interval. SEL is used in the FRA manual on high-speed train noise to define thresholds for noise impact on wildlife. It is also a useful intermediate quantity for estimating Ldn from train pass bys.

- Day-Night Sound Level (Ldn): Ldn is basically a 24-hour Leq with an adjustment to reflect the greater sensitivity of most people to nighttime noise. The adjustment is a 10-dB penalty for all sound that occurs between the hours of 10 p.m. and 7 a.m. The effect of the penalty is that, when calculating Ldn, any event that occurs during the nighttime is equivalent to 10 of the same event during the daytime. Ldn is the most common measure of total community noise over a 24-hour period and is used by the Federal Transit Administration (FTA) to evaluate residential noise impacts from proposed transit projects.

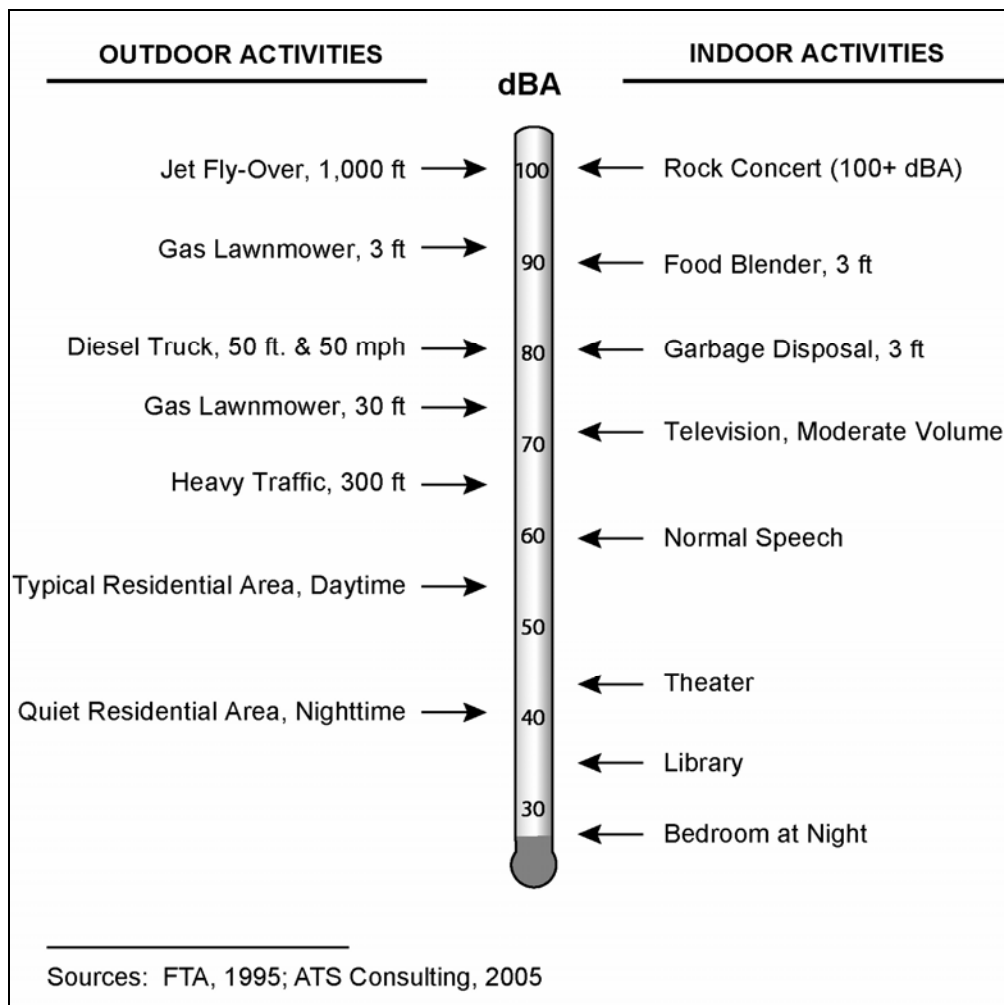


Figure 10. Graph of Typical Indoor & Outdoor Noise Sources and Levels

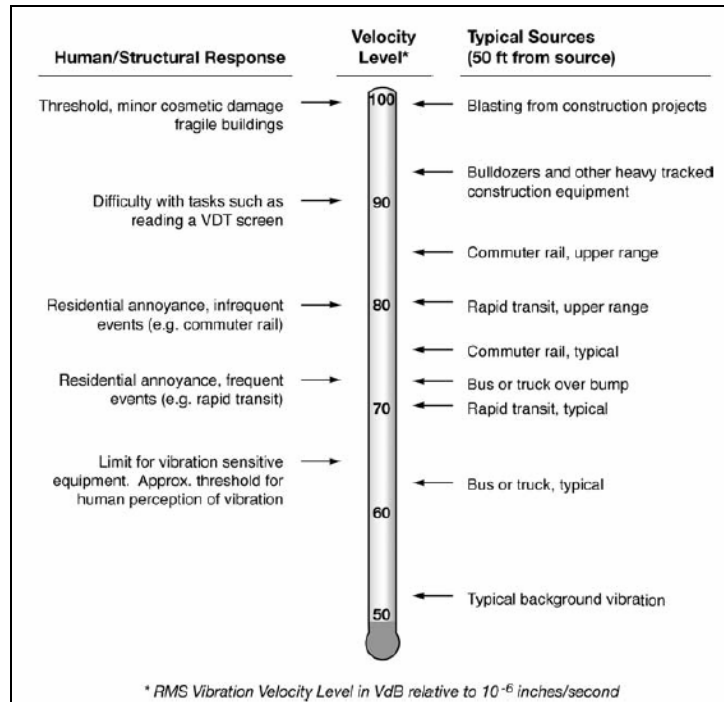
Fundamentals of Vibration

Vibration is an oscillatory motion that can be described in terms of displacement, velocity, or acceleration. The response of humans to vibration is very complex. However, the general consensus is that for the vibration frequencies generated by sources such as rail trains, human response is best approximated by the vibration velocity level. Therefore, vibration velocity has been used in this study to describe train-generated vibration levels.

Train-generated vibration, which is caused by the interaction of the wheels and rails, may be perceived by building occupants as perceptible vibration. It is also common for ground-borne vibration to cause windows, pictures on walls, or items on shelves to rattle. Although the perceived vibration from train pass bys can be intrusive to building occupants, the vibration is almost never of sufficient magnitude to cause even minor cosmetic damage to buildings.

When evaluating human response, ground-borne vibration is usually expressed in terms of root mean square (RMS) vibration velocity. RMS is defined as the average of the squared amplitude of the vibration signal.

Figure 11 shows typical vibration levels from rail and non-rail sources as well as the human and structure response to such levels. The threshold of perception for most people is around 65 VdB. Vibration levels below 72 VdB are often noticeable but acceptable and levels in excess of 80 VdB are often considered unacceptable.



Source: FTA, 2006

Figure 11. Typical Vibration Levels

APPENDIX B. PHOTOS OF 24-HOUR SOUND MEASUREMENT SITES



SITE 1. 337 KING STREET



SITE 2. 330 RANKIN BOULEVARD



SITE 3. MADISON ARMS APARTMENTS, 130 MADISON AVENUE



SITE 4. HEARDTOWN ESTATES, COUNTY ROAD 1740



SITE 5. 1505 TRACE AVENUE

APPENDIX C. MEASUREMENT PROCEDURES AND EQUIPMENT

The noise measurements discussed in this report were all performed with measurement equipment that is in conformance with ANSI S1.4-1983 Type 1, ANSI S1.43-1997 Type 1, IEC 60651 type 1, IEC 60804 type 1 and IEC 61672-1, class 1. An acoustic calibrator was used to check the instrument calibrations immediately before and after each noise measurement.

HDR used Larson Davis 820 sound level meters to record the 24-Hour continuous measurements at the seven sites that represent the project area. At the completion of each measurement, the data was downloaded, converted to a text file and imported to an Excel spreadsheet for analysis.

The short-term noise measurements were performed using Larson Davis 824 and 812 sound level meters. Sound Exposure levels were measured during train pass bys.



APPENDIX F – Draft Historic Resources Memorandum of Agreement

*******REVISED DRAFT (02-2012)*******

**MEMORANDUM OF AGREEMENT
Among the Federal Railroad Administration,
Mississippi Transportation Commission/Mississippi Department of Transportation,
The Chickasaw Nation,
Mississippi Department of Archives and History,
City of Tupelo, Mississippi,
and the Tupelo Historic Preservation Commission,
Regarding Mitigation of Impacts to Historic Resources
Associated with the Proposed Tupelo Railroad Relocation Study
City of Tupelo, Lee County, Mississippi**

WHEREAS, the Mississippi Transportation Commission/Mississippi Department of Transportation (hereinafter MDOT) is proposing the relocation of the existing BNSF Railway Company (hereinafter BNSF) main line through the Tupelo, Lee County, Mississippi central business district (Undertaking); and

WHEREAS, as the project sponsor, MDOT is seeking approval for the Undertaking from the Federal Railroad Administration (FRA), and accordingly, FRA is the lead federal agency pursuant to the National Environmental Policy Act (NEPA, codified at 42 USC4312 et seq.) and is the federal agency responsible for compliance with Section 106 of the National Historic Preservation Act, and hereinafter 16 U.S.C. 470f (Section 106); and

WHEREAS, FRA and MDOT, along with the Chickasaw Nation, “a federally recognized and sovereign Indian Nation” (Chickasaw), Mississippi Department of Archives and History (SHPO), the City of Tupelo (Tupelo), and the Tupelo Historic Preservation Commission (THPC), as a result of the consultation process in accordance with Section 106, have determined that it is appropriate to enter into this Memorandum of Agreement, pursuant to Section 800.6 of the regulations implementing Section 106 (36 CFR Part 800, and hereinafter Section 106 Regulations), which will govern the implementation of the Undertaking and satisfy FRA’s compliance with Section 106; and

WHEREAS, FRA has coordinated its compliance with Section 106 Regulations and NEPA, pursuant to 36 CFR 800.8 though the preparation of an Environmental Impact Statement (EIS) for the Undertaking; and

WHEREAS, through the process of preparing the EIS, FRA has determined that the Build Alternative will have an adverse effect on National Register of Historic Places (NRHP) listed and eligible historic properties qualifying for protection under Section 106. These properties are identified in Table 4-6 of the EIS and are mapped in Figure 4-6 of the EIS (annexed as Appendix A); and

|

WHEREAS, through the consultation process, FRA, the Chickasaw, MDOT, SHPO, City of Tupelo, and THPC have reviewed the undertakings to consider feasible and prudent alternatives, including a No Build Alternative, to avoid or satisfactorily mitigate adverse effects; and

WHEREAS, the BNSF, who has jurisdiction over the management and operation of the existing main line through the City of Tupelo, has been notified of the adverse effect finding pursuant to 36 CFR 800.8 and elected to participate through submission of a Letter of Support (annexed as Appendix B); and

WHEREAS, Signatory or Concurring Party status is achieved only through signing this MOA.

NOW, THEREFORE, FRA, the Chickasaw, MDOT, SHPO, City of Tupelo, and THPC agree that if the Undertaking proceeds, the Undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the Undertaking on historic properties, and further agree that these stipulations shall govern the Undertaking and all of its parts until this MOA expires or is terminated.

STIPULATIONS

FRA shall ensure that the following measures are implemented:

1. APPLICABILITY

1.1 This MOA applies to areas of concern within the Build Alternative as described by the Chickasaw Nation and NRHP-listed and eligible historic properties listed in the EIS and determined to be adversely effected by The Build Alternative.

1.2 The Build Alternative consists of elevating the existing BNSF mainline railroad on bridge or fill structure for approximately 2.8 miles within the BNSF's current legal Right-of-Way (ROW) as described in more detail in the EIS.

2. MITIGATION

To mitigate impacts to historic properties, the below listed parties commit to use the following mitigation measures:

2.1. FRA, MDOT, City of Tupelo, and THPC commit to use plantings and landscaping aimed at softening the appearance of the elevated railroad and providing a buffer to the surrounding viewscape.

2.1.1. Plantings and other landscaping choices will be determined by a committee including but not limited to representatives of the FRA, MDOT, City of Tupelo, THPC, SHPO, and affected city neighborhood associations (Downtown, Joyner,

and Gravlee). Only those considerations that receive a vote by at least fifty percent of the committee membership will be recommended for use.

2.1.2. Plantings and other landscaping will be located at the outer edges of or immediately adjacent to the BNSF ROW, require BNSF review and approval for use, and be maintained by the City of Tupelo.

2.2. FRA, MDOT, City of Tupelo, and THPC commit to eliminate proposed ROW fencing and maintenance service roads, where possible, during the design phase of the project, and to construct a pedestrian/multi-use trail within the outside 20 feet of the BNSF ROW.

2.2.1. Allowance of this pedestrian/multi-use trail will be subject to execution of a BNSF 30-day Cancellation License and procurement of required insurances and indemnifications by the project sponsor.

2.2.2. The pedestrian/multi-use trail must provide an adequate, physical barrier between it and operating railroad and railroad structure for the length of the trail on BNSF ROW. Vegetation such as a row of hedges or decorative fencing is acceptable.

2.3. FRA, MDOT, and the City of Tupelo shall commit to the incorporation of context sensitive design elements including but not limited to masonry walls, special lighting, long bridge spans, and brick paver treatments. All items relating to safety and structure are subject to FRA and BNSF approval prior to implementation. To fully achieve this, FRA, MDOT, and the City of Tupelo, shall utilize face-to-face meetings with residents adjacent to the project corridor (in this case affected citizens/citizen groups (e.g. THPC, Oren Dunn Museum, and city neighborhood associations [Downtown, Joyner, and Gravlee]) to generate ideas on how best to integrate the railroad and railroad structure into the fabric and character of the project area. The format of and venue for these meetings will be determined at a later date.

2.4. FRA, MDOT, and the City of Tupelo shall commit to remove the existing sign in the form of an arrow, pointing to the Tupelo Business District and referring to Tupelo as the "First TVA City," to temporary storage during construction, and return it to its present location when construction is complete.

2.4.1. Since the TVA sign has been recently designated a local landmark by the THPC, FRA, MDOT, and the City of Tupelo will submit a scope of work detailing the removal, temporary storage, and reinstallation of the TVA sign to the THPC for review.

2.4.2. Upon receipt of the draft of the scope, the THPC will have 60 calendar days from receipt to review and provide comments to FRA, MDOT, and the City of Tupelo. All comments shall be in writing with copies provided to the other

consulting parties if requested. Lack of response within this review period will be taken as concurrence with the plan.

2.4.3. If revisions to the scope are required, FRA, MDOT, and the City of Tupelo have 20 calendar days from receipt to review the revisions and submit a revised scope to the THPC.

2.4.4. Once the scope is determined adequate by the THPC (with SHPO concurrence), the THPC shall issue a Certificate of Appropriateness to proceed with implementation of the scope.

2.5. MDOT, in consultation with the City of Tupelo, the THPC, SHPO, and city neighborhood associations [Downtown, Joyner, and Gravlee]), shall fund an intensive architectural field survey and inventory of the Gravlee and Joyner neighborhoods, located within the incorporated limits of Tupelo, Mississippi.

2.6. MDOT, in consultation with the City of Tupelo, the THPC, SHPO, and city neighborhood associations [Downtown, Joyner, and Gravlee]), shall design and erect interpretive public displays (signs), which will depict the City of Tupelo's railroad history and be distributed in appropriate areas throughout the project area.

2.7. FRA and MDOT, in consultation with the City of Tupelo and the SHPO, shall sponsor/fund a workshop/training session for the THPC in state and federal historical and archaeological preservation laws and regulations to assist the City of Tupelo and the THPC in promoting historic preservation at the "grass roots" level through existing Certified Local Government and Preserve America Community programs. These training sessions will also outline the responsibility of Federal agencies to consult with any Indian tribe that attaches religious and cultural significance to historic properties that may be affected by an undertaking in accordance with Advisory Council on Historic Preservation's (ACHP's) regulations, "Protection of Historic Properties" (36 CFR Part 800), implementing Section 106 of the National Historic Preservation Act (NHPA). The regulations remind Federal agencies they should be respectful of tribal sovereignty in conducting consultation and must recognize the government-to-government relationship that exists between the Federal Government and federally recognized Indian tribes.

2.8. FRA and MDOT shall ensure that any and all proposed ground disturbing activities associated with construction of the project will be monitored by professional archaeologists, qualified in accordance with the Secretary of the Interior's "Standards and Guidelines for Archeology and Historic Preservation," and the guidelines for archeological fieldwork and report writing in *Standards and Guidelines for Archaeological Investigations and Reports in Mississippi* (2001) and MDOT's *Guidelines for Contractors on Archaeological Investigations and Reports* (2007).

2.9. Pursuant to 36 CFR § 800.11(a), and prior to initiation of construction activities, FRA and MDOT shall ensure a plan of action is in place should archaeological resources be inadvertently or accidentally discovered during the construction phase of the project. In the event of a discovery, all construction or demolition activities will cease in the area of the discovery and consulting parties notified to provide for an assessment of the significance of the discovery and for data recovery/mitigation if necessary. If judged necessary, the FRA and MDOT will develop a treatment plan for historic properties which shall be reviewed and approved by the SHPO and the Chickasaw.

2.10. Human remains are not expected to be discovered during this undertaking. However, prior to initiation of construction activities, FRA and MDOT shall ensure a plan of action is in place if they are encountered during implementation of the project. Should human remains be discovered, all activity in the vicinity of the discovery shall cease and the FRA and MDOT notified immediately. The FRA and MDOT shall then notify the SHPO and the Mississippi Band of Choctaw Indians, the Choctaw Nation of Oklahoma, the Chickasaw, the Jena Band of Choctaw Indians, the Quapaw Tribe of Oklahoma, the Tunica-Biloxi Tribe of Louisiana, and the Alabama-Coushatta Tribe of Texas. The treatment of human remains shall follow the guidelines in the ACHP's "Policy Statement Regarding Treatment of Burial Sites, Human Remains, and Funerary Objects" published February 23, 2007. Additionally, the treatment of human remains shall follow the guidelines developed in accordance with Mississippi Code (hereinafter MC) §39-7-31, "The Antiquities Law of Mississippi" (1972, amended 1983) and §97-29-19, "Crimes against Public Morals and Decency."

3. SUBMITTALS

3.1. Intensive Architectural Field Survey/Inventory of the Gravlee and Joyner Neighborhoods

3.1.1. MDOT, in consultation with the City of Tupelo, the THPC, SHPO, and city neighborhood associations [Downtown, Joyner, and Gravlee]), shall fund the inspection and documentation of all resources within these neighborhoods meeting the 50-year age guidelines for inclusion in the NRHP that fell outside the scope of the cultural resources survey conducted in association the DEIS (see the report *Cultural Resources Investigations for the Tupelo Railroad Relocation Study* [2009] by Brockington and Associates, Inc. [Brockington]).

3.1.2. All resources documented as part of this architectural survey shall be photographed and accompanied by notes as to the design, character defining features or any other architecturally significant components. Resource documentation should be done on approved SHPO forms and comply with SHPO survey guidelines (annexed as Appendix C).

- 3.1.3. Historical information about the resources shall be gleaned from tax assessor's records, real estate plats, and property owners when available. In addition, archived cartography, such as Sanborn Fire Insurance Maps, as well as historic aerial photography, historic topographic and soil survey maps at the Natural Resources Conservation Service shall be consulted.
- 3.1.4. The draft architectural survey report, summarizing the results and SHPO Historic Resources Inventory Forms, shall be submitted to FRA, MDOT, the SHPO, City of Tupelo, and the THPC for review and comment.
- 3.1.5. The SHPO, City of Tupelo, and the THPC shall provide FRA and the MDOT review comments no later than 60 days after receipt of the draft architectural survey report.
- 3.1.6. FRA and the MDOT shall take into consideration SHPO, City of Tupelo, and the THPC comments during preparation of the final architectural survey report.
- 3.1.7. FRA and the MDOT shall provide the SHPO with the final report as well as final SHPO Historic Resources Inventory Forms upon completion of the study. Additional architectural survey reports will be made available to the City of Tupelo, THPC, and interested individuals and organizations such as libraries, historical societies, and museums.

3.2 Interpretative Public Displays

- 3.2.0 FRA and MDOT shall consult with the SHPO, the Chickasaw, the City of Tupelo, the THPC, and city neighborhood associations [Historic Mill Village, Downtown, Joyner, and Gravlee]) to identify appropriate sites for interpretive public displays (signs) and to determine the content of the displays.
- 3.2.1 FRA and MDOT shall notify the SHPO, the Chickasaw, the City of Tupelo, THPC, and city neighborhood associations [Historic Mill Village, Downtown, Joyner, and Gravlee]) in writing regarding the content and completion of the display designs.
- 3.2.2 The SHPO, the Chickasaw, the City of Tupelo, the THPC, and city neighborhood associations [Historic Mill Village, Downtown, Joyner, and Gravlee]) shall provide FRA and MDOT with review comments no later than 60 days after receipt of the notification letter described above (Section 3.2.1).

- 3.2.3 FRA and the MDOT shall take into consideration SHPO, Chickasaw, City of Tupelo, THPC, and city neighborhood associations [Historic Mill Village, Downtown, Joyner, and Gravlee] comments prior to fabrication and installation of the interpretive displays.

4. PROFESSIONAL STANDARDS

All work pursuant to this MOA requiring such oversight shall be prepared using documents developed by or with the assistance of a person or persons meeting the minimum professional qualifications for Historic Architect, Architectural Historian or Historian included in “Secretary of the Interior’s Historic Preservation Professional Qualification Standards” (Federal Register Vol. 62, No.119, pp. 33719).

5. AMENDMENT

The FRA, the Chickasaw, MDOT, SHPO, City of Tupelo, and THPC may request that this MOA be amended, whereupon they shall consult in accordance with 36 CFR Part 800 to consider such amendment. No amendment shall take effect until it has been executed by the signatories to this MOA.

6. TERMINATION

The FRA, the Chickasaw, MDOT, SHPO, City of Tupelo, or THPC may propose to terminate this MOA by providing 30-calendar days notice to the other signatories explaining the reasons for the proposed termination. The parties shall consult during this period to seek agreement on amendments or other actions that shall avoid termination.

7. DURATION

This MOA shall become effective upon execution by FRA, MDOT, and SHPO and shall remain in effect until all terms of this MOA have been satisfactorily fulfilled. In the event that any obligation under the MOA cannot be performed, the FRA agrees to use its best efforts to renegotiate the provision, and if necessary, to initiate consultation regarding development of an amendment to this MOA.

EXECUTION AND IMPLEMENTATION of this MOA evidences that FRA has consulted with the Chickasaw, MDOT, SHPO, City of Tupelo, and THPC on this Undertaking and its effects on historic properties, made assurances regarding and then to the extent possible mitigated the determined adverse effects of the undertaking on historic properties, and, therefore, satisfied its Section 106 responsibilities. All provisions and stipulations stated in this MOA shall not be executed and implemented until a Record of Decisions (ROD) has been signed by FRA.

MEMORANDUM OF AGREEMENT
Among the Federal Railroad Administration,
Mississippi Transportation Commission/Mississippi Department of Transportation,
The Chickasaw Nation,
Mississippi Department of Archives and History,
City of Tupelo, Mississippi,
and the Tupelo Historic Preservation Commission,
Regarding Mitigation of Impacts to Historic Resources
Associated with the Proposed Tupelo Railroad Relocation Study
City of Tupelo, Lee County, Mississippi

Submitted to the Advisory Council on Historic Preservation
Pursuant to 36 CFR 800.6(a)

Execution of this MOA by FRA, the MDOT, the Chickasaw Nation, SHPO, City of Tupelo, and the THPC and implementation of its terms evidences that the FRA will ensure the aforementioned stipulations are carried forth in order to mitigate the effects of the undertaking upon NRHP- listed and eligible historic properties qualifying for protection under Section 106.

THE FEDERAL RAILROAD ADMINISTRATION

By: _____
(Name, Title)

Date: _____

MEMORANDUM OF AGREEMENT
Among the Federal Railroad Administration,
Mississippi Transportation Commission/Mississippi Department of Transportation,
The Chickasaw Nation,
Mississippi Department of Archives and History,
City of Tupelo, Mississippi,
and the Tupelo Historic Preservation Commission,
Regarding Mitigation of Impacts to Historic Resources
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City of Tupelo, Lee County, Mississippi

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MISSISSIPPI STATE HISTORIC PRESERVATION OFFICER

By: _____
H.T. Holmes, State Historic Preservation Officer

Date: _____

MEMORANDUM OF AGREEMENT
Among the Federal Railroad Administration,
Mississippi Transportation Commission/Mississippi Department of Transportation,
The Chickasaw Nation,
Mississippi Department of Archives and History,
City of Tupelo, Mississippi,
and the Tupelo Historic Preservation Commission,
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CHICKASAW NATION

By: _____ Date: _____
Governor Bill Anoatubby, Chickasaw Nation

“Nothing contained in this agreement shall be construed to waive the sovereign rights of the Chickasaw Nation, its officers, employees or agents.”

MEMORANDUM OF AGREEMENT
Among the Federal Railroad Administration,
Mississippi Transportation Commission/Mississippi Department of Transportation,
The Chickasaw Nation,
Mississippi Department of Archives and History,
City of Tupelo, Mississippi,
and the Tupelo Historic Preservation Commission,
Regarding Mitigation of Impacts to Historic Resources
Associated with the Proposed Tupelo Railroad Relocation Study
City of Tupelo, Lee County, Mississippi

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Pursuant to 36 CFR 800.6(a)

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MISSISSIPPI DEPARTMENT OF TRANSPORTATION

By: _____
Executive Director

Date: _____

MEMORANDUM OF AGREEMENT
Among the Federal Railroad Administration,
Mississippi Transportation Commission/Mississippi Department of Transportation,
The Chickasaw Nation,
Mississippi Department of Archives and History,
City of Tupelo, Mississippi,
and the Tupelo Historic Preservation Commission,
Regarding Mitigation of Impacts to Historic Resources
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City of Tupelo, Lee County, Mississippi

Submitted to the Advisory Council on Historic Preservation
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CITY OF TUPELO

By: _____
(Name, Title)

Date: _____

MEMORANDUM OF AGREEMENT
Among the Federal Railroad Administration,
Mississippi Transportation Commission/Mississippi Department of Transportation,
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Mississippi Department of Archives and History,
City of Tupelo, Mississippi,
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|
TUPELO HISTORIC PRESERVATION COMMISSION

By: _____
(Name, Title)

Date: _____

APPENDIX G – Public Hearing Summary and Transcript



ONE COMPANY
*Many Solutions*SM

Public Hearing Summary Report

To:	Jim Lee, PE / HDR Project Manager		
From:	Eric Jefferson, PE	Project:	Tupelo, MS RR Relocation Planning Study and EIS
CC:	Carnot Evans, PE (HDR), Rhea Vincent, PE (MDOT), Kim Thurman (MDOT)		
Date:	September 28, 2011	Job No:	ABMB P.N. 2034

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APPENDIX C Handout and Presentation Materials
APPENDIX D Summary of City Officials Briefing
APPENDIX E Summary and Transcript of Hearing
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Tupelo Railroad Relocation Planning and Environmental Study Public Hearing Summary Report

Introduction

The Mississippi Department of Transportation (MDOT) and the Federal Railroad Administration (FRA) held briefings for city officials and a public hearing for the Tupelo Railroad Relocation Planning and Environmental Study. The purpose of the hearing was to give all interested parties an opportunity to learn about the status of the project and to comment on their concerns to MDOT. Both the briefings and the hearing were held on Thursday, August 11 in rooms 3, 4, and 5 at the BancorpSouth Arena at 375 East Main Street in Tupelo, Mississippi. The city officials' briefings were conducted from 1:30 p.m. to 3:45 p.m., and the public hearing was held from 4:00 p.m. to 7:00 p.m. This public hearing summary report documents these meetings and the comments captured.

Pre-Hearing Publicity

The date of the hearing was included in the Notice of Availability of the Draft Environmental Impact Statement in the Federal Register that was issued on Thursday, July 14, 2011. A legal notice announcing the availability of the DEIS for public viewing and the date of the hearing was published in the Northeast Mississippi Daily Journal on July 10 and July 26, 2011. To further publicize the hearing, a print advertisement was published in the Northeast Mississippi Daily Journal on July 30 and August 5. A copy of the advertisement and the legal notice are included in **Appendix A** of this report.

Two articles about the project were found on the internet prior to the hearing:

The Northeast Mississippi Daily Journal (NEMS360.COM). “*Tupelo Rail Study Ends.*” Last retrieved August 9, 2011 at http://nems360.com/view/full_story/14971583/article-Tupelo-rail-study-ends?instance=commented

Mississippi Business Journal. “*Officials to Unveil Findings of Railroad Study.*” Last retrieved August 9, 2011 at <http://msbusiness.com/2011/08/officials-to-unveil-findings-of-railroad-study/>

Staff

The following agency and consultant staff were in attendance during the local officials briefing and the public hearing.

Kim Thurman – MDOT
Rhea Vincent – MDOT
Sedrick Durr – MDOT
John Underwood – MDOT
Kenny Foote – MDOT
Ralph Farrell – MDOT
Juan Flores – MDOT
Bill Jamieson – MDOT
John Winkle – FRA

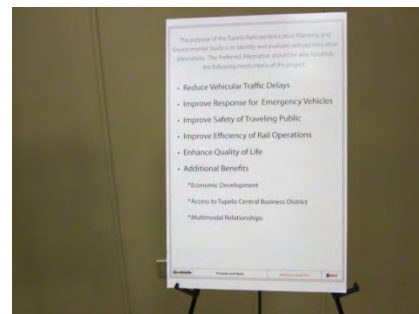
Jim Lee – HDR
Carnot Evans – HDR
John Morton – HDR
Kevin Keller – HDR
Tim Casey – HDR
Cecil Vick – ABMB Engineers
Eric Jefferson – ABMB Engineers
Patricia Stallings – Brockington & Assoc.
Brett Brooks – Cook Coggin Engineers

A copy of the staff sign-in sheet is included in **Appendix B** of this report. Not all of the persons listed above signed the sign-in sheet, but their presence was noted.

Meeting Content

The following displays were presented at these meetings:

- Welcome Sign Board
- Purpose and Need Board
- Evaluation Matrix Board
- Impact Summary Board
- Build Alternative Renderings Board
- Alternative Alignments Overview Board
- In-Town Alternatives Overview Board
- The Build Alternative Board
- The Build Alternative Details (Table layout)



Tupelo City Officials Briefing

Mr. Carnot Evans gave a formal presentation, including a video, in two separate briefings with the Mayor and a few council members. The first briefing began at 1:30 p.m. and was attended by Mayor Jack Reed and Councilpersons Mike Bryan and Markel Whittington. The second briefing began at approximately 2:30 p.m. and was attended by Mayor Jack Reed, and Councilpersons Nettie Davis and Willie Jennings. The briefings were conducted in a conference style, with a question and comment period following the technical presentation. The city officials were also encouraged to view the display boards and ask questions about them. A copy of the PowerPoint presentation can be found in **Appendix C**. A summary of the city official briefings is included in **Appendix D**.



Public Hearing



The public hearing was conducted in an open house style from 4:00 p.m. to 5:00 p.m., followed by a formal presentation/public testimony session beginning at 5:30 p.m., and then resumed an open house format until 7:00 p.m. The formal presentation was given by Carnot Evans beginning at 5:30 pm and lasted approximately 30 minutes. Attendees were asked to fill out a sign-in sheet at the entrance to the meeting room; the sign-in sheets are included in **Appendix B** of this report. Handouts that explained to the public the purpose of the meeting, the alternatives that were considered, the

Build Alternative, and how to provide comments to MDOT were available for attendees. A copy of the handout can be found in **Appendix C**. Comment cards were provided for written comments. The comment card included a self-mailer for participants who wanted to mail their comments at a later time. Persons who wished to express their opinions orally during the public testimony segment were asked to fill out and submit a speaker card to any member of the project team. The handouts also indicated that comments could be submitted until September 12th, 2011 including by mail, fax, or e-mail.

From the sign-in sheets, approximately 30 people attended the hearing, including members of the public, a representative from the KCS Railway, and elected officials. Written and verbal comments were received for this meeting. At the hearing, Cecil Vick of ABMB went around the room asking attendees about their concerns to determine how the public felt about the project; his summary is in **Appendix E**.

During the hearing, the public had an opportunity to give verbal comments following the technical presentation and also directly to a court reporter stationed at the hearing. The court reporter transcribed both the comments that were given to her directly and the comments openly expressed by attendees following the presentation. One person gave verbal comments directly to the court reporter, and nine people provided verbal comments after the presentation. The court reporter's transcript is included in **Appendix E**. The following is a synopsis of the verbal comments received during the hearing.

- The project is too expensive to build. How could it ever be funded?
- Concerns about potential safety issues with an elevated rail (derailments, flying debris).
- Concerns about the impacts on property values and historic resources such as Mill Village.
- Concerns about the aesthetic of the elevated rail sections; it won't blend with the surrounding built environment.
- Concerns about community cohesion; the elevated structure has the appearance of a wall that will further divide the city physically, socially, and psychologically.

In addition to formal comments given verbally at the public hearing, MDOT also accepted written comments on the comment cards that were provided at the hearing. Attendees were also informed that they could provide written comments via fax or email to MDOT. One person provided a letter to the court reporter, which is transcribed in the reporter's notes. Copies of all written comments are included in **Appendix F** of this report. There were 12 people who submitted written comments. Overall, the written comments tracked closely with the verbal comments described above, particularly the concerns about community cohesion and project cost. The comments submitted can be summarized as preferring the following:

No-build	2
Alternative L or J	2
Alternative M	2
Other preferences	6

From those characterized as having "other preferences", the comments ranged from suggesting that the crossings be double gated to silence the horns, to proposing that the rail line be located somewhere outside of Tupelo. There were a good mix of comments received for the Build Alternative both supporting and opposing it, but a predominant public opinion on the project could not be determined by these comments.

APPENDIX A

PUBLISHED ADVERTISEMENT and LEGAL NOTICE

STATE OF MISSISSIPPI, LEE COUNTY:

Personally appeared before me, DIANNE P. POWELL Notary Public, in and for said County and State, H. CLAY FOSTER, JR. Publisher of a newspaper printed and published in the City of Tupelo, Lee County, Mississippi, called The Northeast Mississippi Daily Journal, who being duly sworn, deposes and says that the publication of a certain notice, a true copy of which is hereunto attached, has been made in said newspaper for 2 weeks consecutively to-wit:

Vol. 138 No. 101 Date July 10 2011
Vol. 138 No. 117 Date July 26 2011
Vol. _____ No. _____ Date _____ 20____
Vol. _____ No. _____ Date _____ 20____
Vol. _____ No. _____ Date _____ 20____
Vol. _____ No. _____ Date _____ 20____

H. Clay Foster
Witness my hand and seal this 26 day of July, 2011
Dianne P. Powell

My Commission expires _____



#23180
LEGAL NOTICE

LEGAL NOTICE FOR OPEN FORUM PUBLIC HEARING
TUPELO RAILROAD RELOCATION
LEE COUNTY
The Mississippi Department of Transportation in conjunction with the Federal Railroad Administration (FRA) has scheduled a public hearing to discuss the proposed relocation of the BNSF Railway Company railroad through the city of Tupelo, MS. The hearing will take place from 4:00-7:00 p.m. on Thursday, August 11, 2011 at the BancorpSouth Arena, 375 Main Street, Tupelo, Miss.

Citizens are invited to come and go hearing with project team representatives to discuss location, right-of-way and environmental issues. Although there will be no provisions made for formal presentations by individuals or groups, citizens are encouraged to make written and/or taped comments that will become part of the hearing's permanent record.

The Draft Environmental Impact Statement document will be available for public inspection at the Mississippi Department of Transportation Administrative Office Building, Environmental/Location Division, 401 North West Street, Jackson, MS; the MDOT First District Office, Tupelo, MS; the Lee County Chancery Clerk, Tupelo, MS; Tupelo City Hall, Tupelo, MS; Lee County Public Library, Tupelo, MS and the Federal Railroad Administration, Region 3, 61 Forsyth Street, SW, Suite 16720, Atlanta, GA 30303-3104.

Any individual who needs auxiliary aids or special accommodations to attend the hearing should call the MDOT Environmental Division at (601) 359-7920.
Kim Thurman,
Environmental Administrator,
Miss. Dept. of Transportation
July 10, 26, 2011.

PRINTERS FEES

To 227 words at 22 Cents per word \$49.94

89
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Open Forum

052000

PUBLIC HEARING



TUPELO RAILROAD RELOCATION

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Citizens are invited to come and go hearing with project team representatives to discuss location, right-of-way and environmental issues. Although there will be no provisions made for formal presentations by individuals or groups, citizens are encouraged to submit written and/or taped comments that will become part of the hearing's permanent record.

THE PUBLIC IS ENCOURAGED TO ATTEND

Thursday, August 11, 2011 4:00 - 7:00 pm
BancorpSouth Arena

375 East Main Street, Tupelo, Miss.

APPENDIX B

SIGN-IN SHEETS

REGISTRATION SIGN-IN SHEET
 TUPELO RAILROAD (TUPELO, MS)
 THURSDAY, AUGUST 11, 2011 4:00-7:00 P.M.

(PLEASE PRINT)



NAME	ADDRESS	HOW DID YOU HEAR ABOUT THE PUBLIC HEARING
• <u>Nettie J. Davis</u>	<u>326 Barnes St. Tupelo, MS 38804</u>	<input type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input type="checkbox"/> Other <u>Councilwoman City of Tupelo</u>
• <u>Rick Franks</u>	<u>675 Lake Crest Drive Hoover, AL 35226</u>	<input checked="" type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input type="checkbox"/> Other _____
• <u>Joyce C. Logan</u>	<u>106 Rankin Blvd. Tupelo, Ms.</u>	<input type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input type="checkbox"/> Other _____
• <u>Dwenda Crook</u>	<u>911 Jefferson Tupelo Ms</u>	<input checked="" type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input type="checkbox"/> Other _____
• <u>Bill Martin</u>	<u>P.O. Box 1091 Tupelo, ms 38802</u>	<input checked="" type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input type="checkbox"/> Other _____
• <u>Jim High</u>	<u>P.O. Box 467 Tupelo, MS 38802</u>	<input type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input type="checkbox"/> Other _____
• <u>George Copen</u>	<u>1213 Zentwood Road Tupelo, MS 38801</u>	<input checked="" type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input type="checkbox"/> Other _____
• <u>Malcolm Harden</u>	<u>297 Road 684 Tupelo, MS 38801</u>	<input checked="" type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input type="checkbox"/> Other _____
• <u>Jacqui Setellier</u>	<u>119 CR 1684 Saltville, MS 38861</u>	<input checked="" type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input type="checkbox"/> Other _____

REGISTRATION SIGN-IN SHEET
 TUPELO RAILROAD (TUPELO, MS)
 THURSDAY, AUGUST 11, 2011 4:00-7:00 P.M.

(PLEASE PRINT)



NAME	ADDRESS	HOW DID YOU HEAR ABOUT THE PUBLIC HEARING
• Karen Keeney	325 N Park St 38804	<input type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input checked="" type="checkbox"/> Flyer <input type="checkbox"/> Other _____
• Bill Smith	1139 Hidden Ave 38804	<input type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input checked="" type="checkbox"/> Flyer <input type="checkbox"/> Other _____
• Phyllis Lewis	P.O. Box 7061 Tupelo, MS 38802	<input type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input checked="" type="checkbox"/> Flyer <input type="checkbox"/> Other _____
• Joyce H. Deas	645 Highland Circle Tupelo, MS 38804	<input type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input checked="" type="checkbox"/> Other _____
• Dale + Ralph Henderson	144 Rd. 784 Tupelo, MS 38801	<input checked="" type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input checked="" type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input type="checkbox"/> Other _____
• RUSSELL PESKO	1901 CARDINAL TUPELO MS 38801	<input type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input checked="" type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input type="checkbox"/> Other _____
• _____	_____	<input type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input type="checkbox"/> Other _____
• _____	_____	<input type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input type="checkbox"/> Other _____
• _____	_____	<input type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input type="checkbox"/> Other _____

REGISTRATION SIGN-IN SHEET (PLEASE PRINT)
 TUPELO RAILROAD (TUPELO, MS)
 THURSDAY, AUGUST 11, 2011 4:00-7:00 P.M.



NAME	ADDRESS	HOW DID YOU HEAR ABOUT THE PUBLIC HEARING
• C W Jacks	1015 Tyler Dr, Tupelo	<input checked="" type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input type="checkbox"/> Other _____
• Alvin Jacks	1015 Tyler Dr, Tupelo	<input checked="" type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input type="checkbox"/> Other _____
• Carolyn Watson	216 Rankin Blvd. Tupelo,	<input checked="" type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input checked="" type="checkbox"/> Television <input checked="" type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input type="checkbox"/> Other _____
• Jacquie Platts	1826 JACKSON TOWER	<input checked="" type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input type="checkbox"/> Other _____
• Lawrence Stanley	2660 East Lake Dr, Tupelo	<input type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input checked="" type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input type="checkbox"/> Other _____
• John Carruth	511 MAGAZINE	<input type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input type="checkbox"/> Other _____
• Dave Carruth	511 MAGAZINE	<input type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input type="checkbox"/> Other _____
J. Greg Pirkle	4216 Ridemont Dr Belden, MS 38824	<input checked="" type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input type="checkbox"/> Other _____
• Jimmy Repull	1413 Joyner St. Tupelo, MS 38804	<input type="checkbox"/> Newspaper <input type="checkbox"/> Radio <input type="checkbox"/> Television <input checked="" type="checkbox"/> Word of Mouth <input type="checkbox"/> Flyer <input type="checkbox"/> Other _____

Staff Sign In

Tupelo Railroad (Tupelo, MS)
Thursday, August 11, 2011
(PLEASE PRINT)



NAME	ORGANIZATION	PHONE / E-MAIL
• <u>Kenny Frote</u>	<u>MDOT</u>	<u>601-946-7520</u>
• <u>Ralph Farnow</u>	<u>KADOT</u>	<u>601-359-9874</u>
• <u>Kim Thurman</u>	<u>MDOT</u>	<u>601-359-7920</u>
• <u>Allen Pezzer</u>	<u>KCS RAILWAY</u>	<u>662-617-0727</u>
• <u>Sedrick Duce</u>	<u>MDOT</u>	<u>601-359-7920</u>
• <u>Eric Jefferson</u>	<u>ABMB</u>	<u>601-354-0696</u>
• <u>Cecil Vick</u>	<u>ABMB</u>	<u>601-354-0696</u>
• _____	_____	_____
• _____	_____	_____

APPENDIX C

HANDOUT AND PRESENTATION MATERIALS



Tupelo Mississippi

Planning & Environmental Study

Railroad Relocation

August 11, 2011

BancorpSouth Arena

375 East Main Street, Tupelo, MS 38804

4:00 PM to 7:00 PM

Tupelo Railroad Relocation, Planning, & Environmental Study Public Hearing

Tonight's Public Hearing is being held to inform the general public of the preliminary study results for alternatives to relieve automotive / train traffic conflicts that has been selected for presentation in Tupelo, Mississippi. The Build Alternative raises the existing rail alignment to an elevation suitable for road traffic underneath while providing an efficient passageway for the rail line through Tupelo.

THINK UP!

Presented By:



Points of Interest:

- Two Railroad Lines the BNSF and the KCS
- 20 to 25 Trains per Day for BNSF and 3 per Day for the KCS
- Up to 40 Trains per Day in 2030
- 955.5 Vehicle-Hours Total Daily Aggregate Delay for 2005



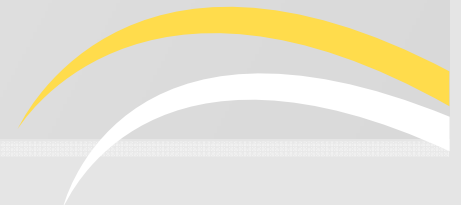
Introduction:

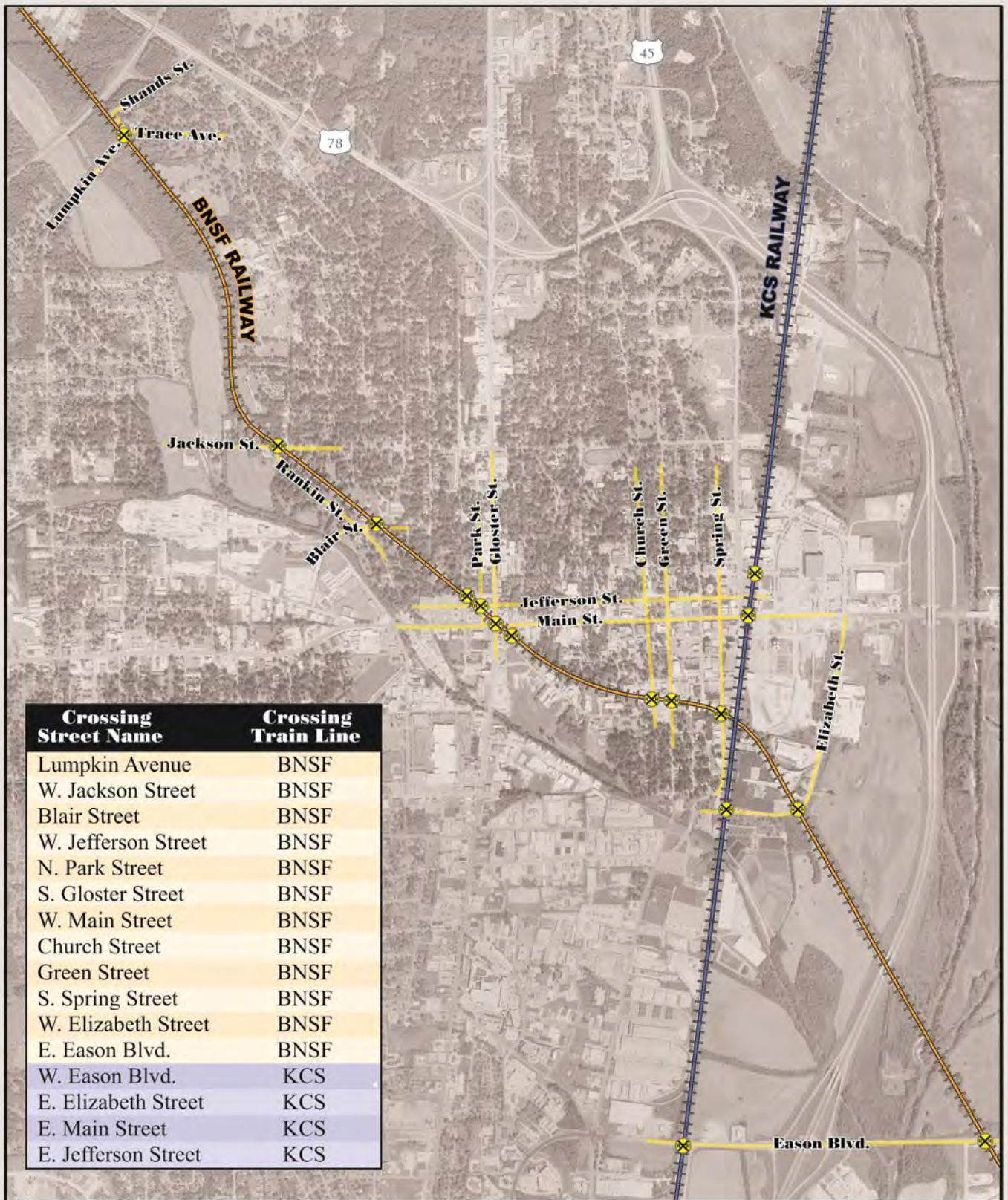
Tupelo is a community with a population of approximately 35,000 located in the northeast region of Mississippi and is the region's major employment center. Two rail lines pass through Tupelo, the BNSF main line and the Kansas City Southern Railway (KCS) branch line. The BNSF main line currently operates approximately 20 to 25 trains per day through the city and the KCS rail line operates approximately 2 to 3 trains per day. The two railroads exchange rail cars near downtown Tupelo.

Background and History:

In recent years, the City of Tupelo has become concerned that highway-rail traffic conflicts are having an adverse impact on the community. These impacts included congestion, safety, efficiency of railroad operations, and quality of life issues, such as railroad and horn noise, vibration, and air pollution.

In 2000, MDOT conducted a reconnaissance study which concluded that various improvement options, including re-routing the rail traffic around the City, were feasible and that further study was warranted. MDOT and the City agreed that from both feasibility and economic perspectives, further studies were justified and necessary. In 2004, Congress provided funding necessary to advance the project, and shortly thereafter, the Tupelo Railroad Relocation Planning and Environmental Study commenced. The detailed Feasibility Analysis was completed in 2006. The Environmental Impact Statement began in 2006 and the preliminary results are presented in tonight's public hearing.





Crossing Street Name	Crossing Train Line
Lumpkin Avenue	BNSF
W. Jackson Street	BNSF
Blair Street	BNSF
W. Jefferson Street	BNSF
N. Park Street	BNSF
S. Gloster Street	BNSF
W. Main Street	BNSF
Church Street	BNSF
Green Street	BNSF
S. Spring Street	BNSF
W. Elizabeth Street	BNSF
E. Eason Blvd.	BNSF
W. Eason Blvd.	KCS
E. Elizabeth Street	KCS
E. Main Street	KCS
E. Jefferson Street	KCS



LEGEND

- Street
- At Grade Railroad Crossing
- BNSF Railroad
- KCS Railroad

**Tupelo Mississippi Railroad Relocation
Planning & Environmental Study**

Existing At-Grade
Rail Crossings

Figure 1.

Think Up!

Why This Project?

- 39,000 AADT Traffic Count at the Crosstown Intersection.
- 16 Highway/ Railroad At-grade Crossings in Downtown
- Reduced Congestion and Delays
- Improved Safety for the Traveling Public
- Improved Response for Emergency Vehicles
- Enhanced Quality of Life



Purpose:

The purpose of the Tupelo Railroad Relocation Planning and Environmental Study is to improve mobility and safety by reducing congestion caused by the movement of trains running through the City of Tupelo.

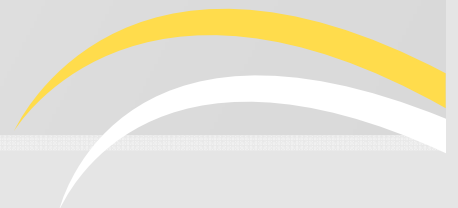
The BNSF and KCS rail lines share an interchange to exchange rail cars just south of downtown Tupelo. There are 16 at-grade highway/rail crossings within vicinity of downtown Tupelo, shown on the previous page in **Figure 1**. Twelve of those are owned by BNSF and four by KCS. The BNSF main line crosses diagonally at-grade at the Crosstown intersection. The Main Street/Gloster Street intersection has an annual average daily traffic (AADT) count of 39,000 vehicles per day, making it one of the busiest intersections in the City.

The projected train traffic for 2030 indicates approximately 40 trains per day on the BNSF main line. This would result in all 12 BNSF crossings having unacceptable levels of service in 2030, with traffic backups affecting 3 more intersections.

Need:

The proposed project will address the following identified needs:

- To **reduce vehicular traffic delays** in downtown Tupelo
- To **improve response for emergency vehicles**
- To **improve the safety of the traveling public**
- To **improve efficiency of railroad operations** in the Tupelo area
- To **enhance quality of life** with regard to traffic flow, noise, and economic development



Alternative Alignments Overview

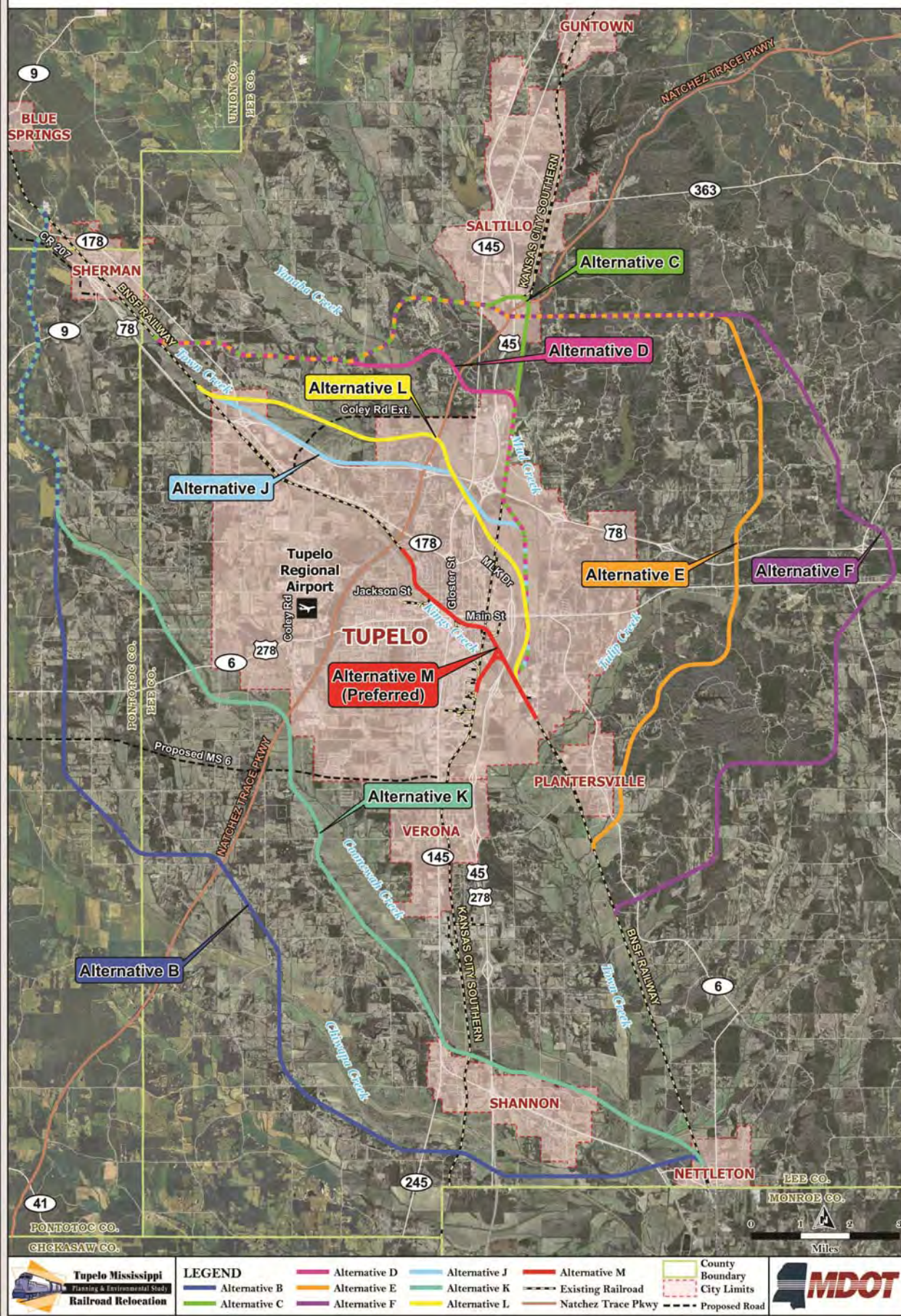


Figure 2.

Think Up!

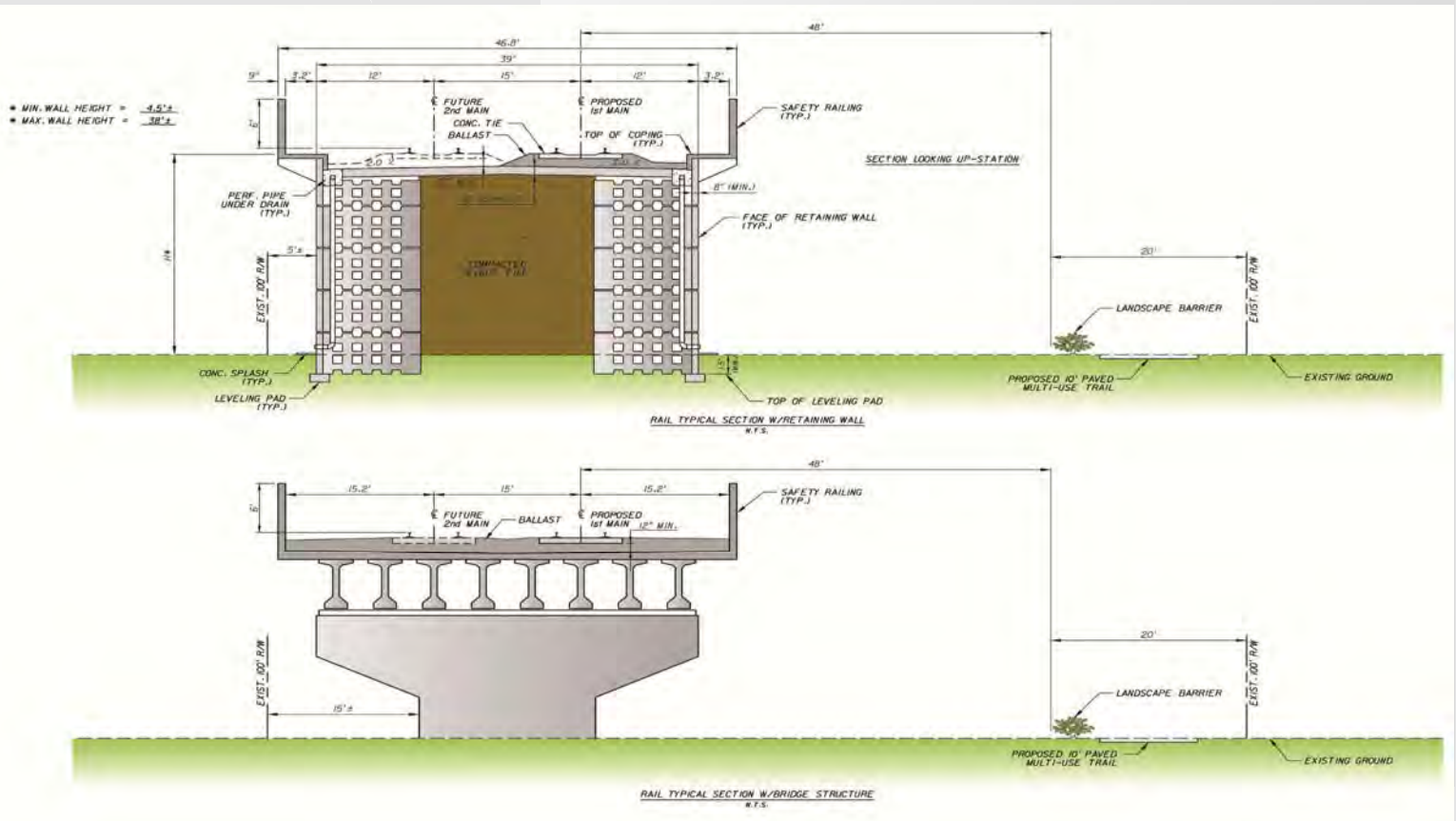
How We Got Here!

- 16 Alternatives Studied
- Railroad Line Speeds up to 40 mph
- Reduced Noise Impacts
- Cumulative Cost Savings of over \$1.2 Billion Dollars

Build Alternative:

The Environmental Impact Statement (EIS) studied 16 alternatives in and around the Tupelo area, as shown in **Figure 2**. on the previous page. The study encompassed the No Build, roadways bridging the railroad, the railroad bridging the roadways, various railroad alignments being relocated around the major metropolitan area, and the railroad being put in a trench. The Alternatives were evaluated based on the purpose and need for the project through an iterative process. The study concluded that only one Build Alternative was feasible.

The Build Alternative raises the existing rail line in place while staying within existing right-of-way. The rail line would be raised to a sufficient height on a combination of bridges and fill sections, see **Figure 3**. below, as to allow road traffic to travel freely underneath each existing crossing while providing a safe efficient passageway for the rail line. This combination of structure and fill allows for reduced noise from train horns, less traffic congestion, and increases efficiency and safety of railroad operations in Tupelo.



Think Up!

Figure 3.

Build Alternative

PRELIMINARY AUGUST 2011

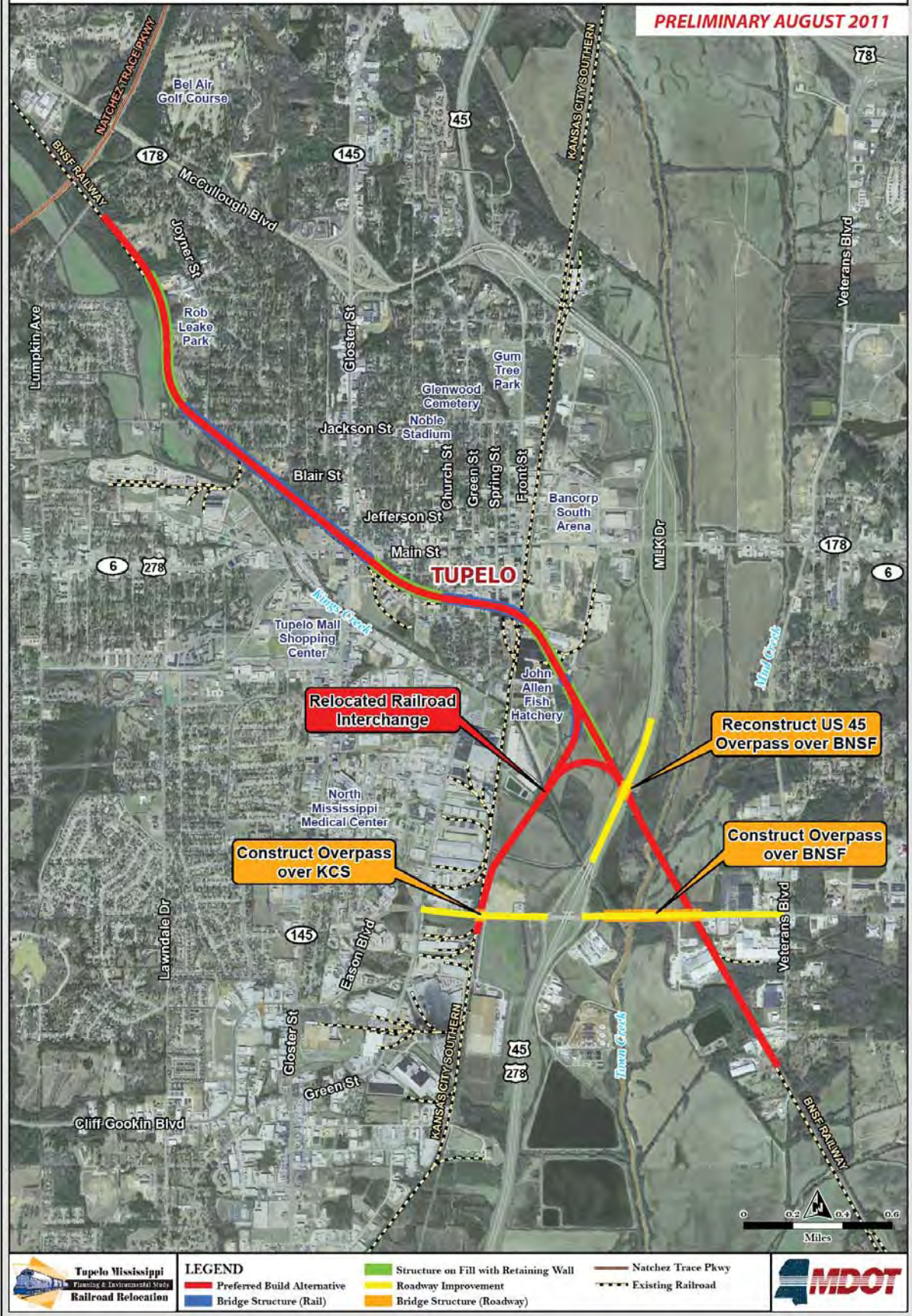


Figure 4.

Think Up!

Table ES-1 Summary of Impacts

Impact Category	No-Build Alternative	Build Alternative
Human Environment		
Farmland Impacts (acres)	n/a	0.0
Residential Relocations (No.)	0	0
Business Relocations (No.)	0	1
Severe Noise Impacted Receptors (No.)	128	76
Vibration Impacted Receptors (No.)	28	46
Adverse Visual Impacts to Historic Sites or Districts (No.)	n/a	37
Hazardous Material Site Impacts (No.)	n/a	0
Environmental Justice Impacted Census Blocks (No.)	n/a	0
Natural Environment		
Perennial Stream Crossings (No.)	3	4
303 (d) Stream Crossings (No.)	2	3
Wetland Impacts (acres)	n/a	0.0
100-Year Floodplain Impacts (acres)	n/a	10.0
Natural Habitats (acres)	n/a	0.0
Engineering		
Electric Transmission Line Impacts (No.)*	n/a	3
Gas Pipeline Impacts (No.)*	n/a	0
Sanitary Sewer Impacts (No.)*	n/a	2
Railroad Bridges (Feet)	n/a	8,690
Roadway Bridges (Feet)	n/a <td 2,984	
Safety and Mobility		
At-Grade Crossings within City of Tupelo (No.)	16	4
At-Grade Crossings with Unacceptable LOS in 2030 (No.)	3	0
Nearby Intersections with Unacceptable LOS in 2030 (No.)	3	1
At-Grade Crossings Blocked During Interchange Operation (No.)	8	0
Construction Costs (\$2008)	n/a	\$384,745,000

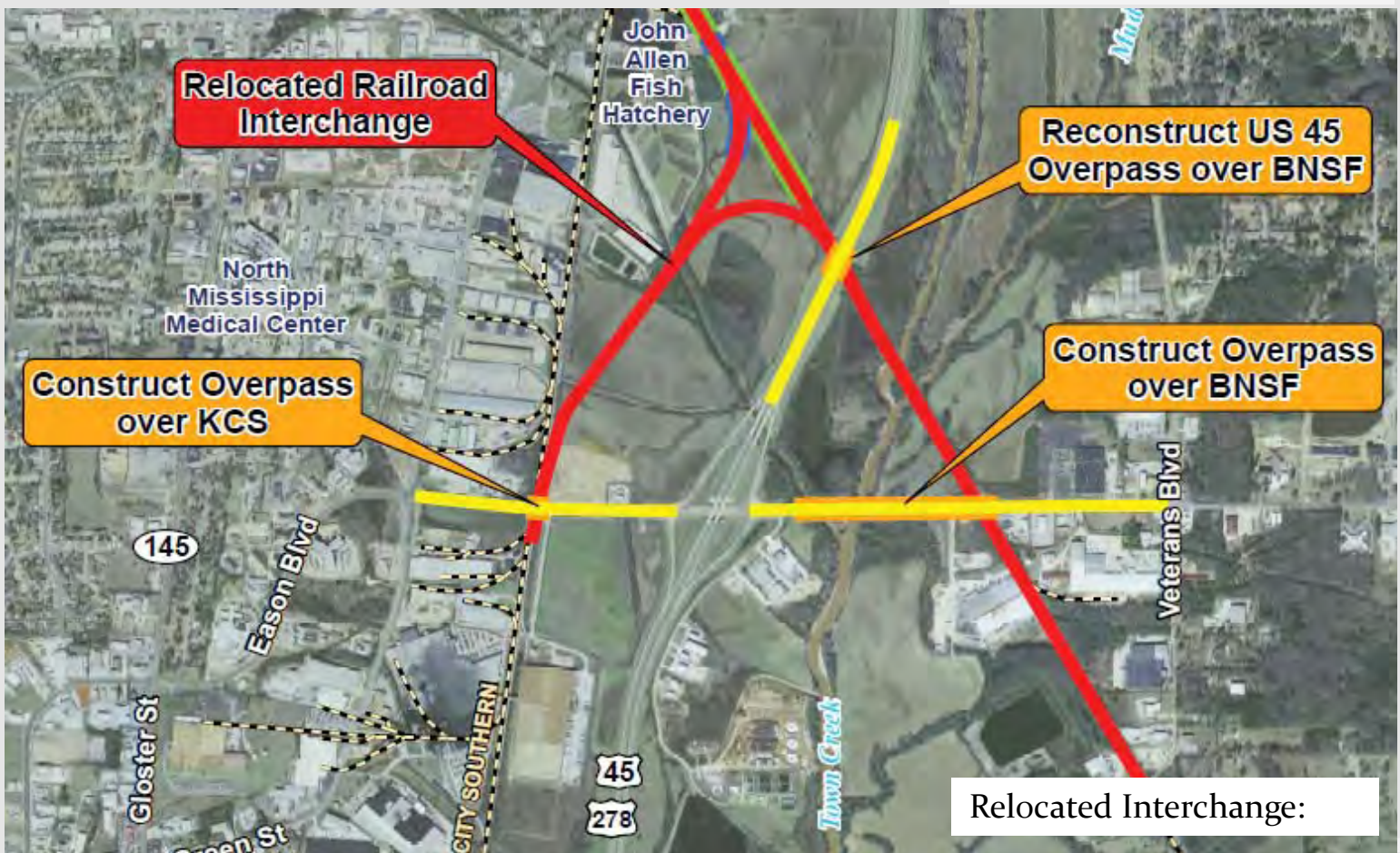
*Based Upon Field Observations of Above Ground Utilities and/or Markers

Phased Construction:

Traffic delays are induced downtown due to major north-south and east-west roadways being blocked during the necessary exchange of rail cars between BNSF and KCS.

The proposed interchange relocation, **Figure 5**, shown below, reduces auto traffic delays by moving the BNSF-KCS interaction away from downtown and placing the exchange to the southeast along the BNSF main line.

The relocated interchange could be the first phase of a phased construction strategy with subsequent phases evaluated at a later date.



Relocated Interchange:

Figure 5.



Tupelo Mississippi
 Planning & Environmental Study
Railroad Relocation

Public Hearing

August 11, 2011

Presented by:




Agenda

4:00 – 5:30 PM	Open House
5:30 PM	Public Hearing Presentation -Alternatives Evaluation Process -Build Alternative -Summary of Impacts
7:00 PM	Closing



2

Public Hearing Purpose and Need

- Share information with the public about proposed improvements, including the conceptual design, potential benefits, and adverse social, economic, and environmental impacts
- Provide an official forum for the public to express their opinions and concerns
- Maintain an official record of all proceedings, comments, and materials submitted



3

Public Comments

- Submit Comments to the Court Reporter Tonight
- Turn in Comment Forms Tonight
- Submit Written Comments, Exhibits, and/or Statements
 - Postmarked, FAX, or E-mail by September 12, 2011
 - Mail to: Mississippi Department of Transportation
Environmental Division (87-01)
P.O. Box 1850
Jackson, MS 39215-9947
 - FAX: 601-359-7355
 - E-mail to: environmental_comments@mdot.state.ms.us
 - Project Website: www.gomdot.com



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Study Information

This Public Hearing is being held for:
Mississippi Department of Transportation (MDOT)
Project Number 104289-101000

In coordination with U.S. Department of Transportation
Federal Railroad Administration (FRA)

Draft Environmental Impact Statement (DEIS)



5

Public Hearing Compliance

- Title VI, Civil Rights Act of 1964 and related statutes
- Title VIII of the Civil Rights Act of 1968, as amended
- Public Participation is Encouraged and Solicited without Regard to Race, Color, Creed, Religion, Sex, Age, National Origin, Disability, or Family Status
- Federal Codes
 - U.S.C. Title 23 Section 128
 - 23 CFR 771 – Environmental Impact
 - 40 CFR Parts 1500-1508 – Protection of Environment
- Executive Orders
 - 11593 – Protection and Enhancement of the Cultural Environment
 - 11988 – Floodplain Management
 - 11990 – Protection of Wetlands
 - 12898 – Environmental Justice
- National Environmental Policy Act (NEPA) of 1969



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Agency Coordination

- Federal Agencies
 - FRA (Lead Agency)
 - Federal Highway Administration
 - EPA
 - U.S. Army Corps of Engineers
 - National Park Service
 - U.S. Fish & Wildlife Service
- Other Entities
 - City of Tupelo
 - State and Local Agencies
 - Native American Tribes
 - Railroads (BNSF, KCS)



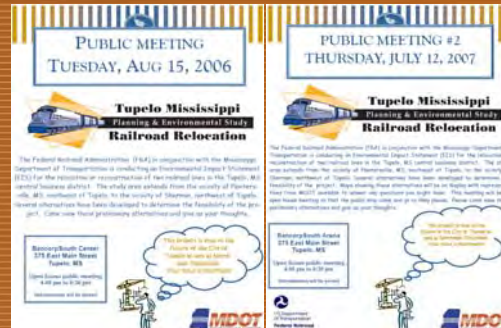
US Army Corps of Engineers



7

Public Involvement Program

- Public Scoping Meeting (2006)
- Public Alternatives Meeting (2007)
- Project briefings to local communities and special interest groups
- Coordination meetings with local, state, and federal agencies
- www.gomdot.com

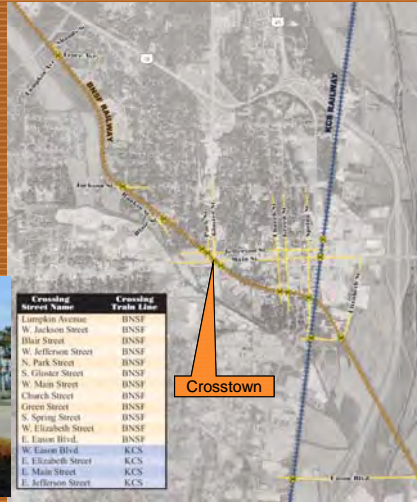


8

Project Background

- ▶ BNSF and KCS Railroads Interchange in Downtown Tupelo
- ▶ Railroads Cross 16 Streets in Central Tupelo

(Main St. & Gloster St.)



9

Project Background

- ▶ Delays Impact Tupelo
 - ▶ Vehicular and Emergency Service Delays
 - ▶ Extended Delay During Interchange Operations
- ▶ Federal Grant
- ▶ MDOT Support
- ▶ Railroads' Support



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Project Purpose and Need

- ▶ Reduce Vehicular Traffic Delays
- ▶ Improve Response for Emergency Vehicles
- ▶ Improve Safety of Traveling Public
- ▶ Improve Efficiency of Rail Operations
- ▶ Enhance Quality of Life
- ▶ Additional Benefits
 - ▶ Economic Development
 - ▶ Access to Tupelo CBD
 - ▶ Multimodal Relationships



11

Railroad Operations

- ▶ Existing Train Volumes (2005)
 - ▶ BNSF – 20 to 25 Trains Per Day
 - ▶ KCS – 2 to 3 Trains Per Day
- ▶ Future Train Volumes (2030)
 - ▶ BNSF – 39 to 41 Trains Per Day
 - ▶ KCS – 3 to 5 Trains Per Day



12

At-Grade Traffic Delay Analysis

- ▶ At-Grade Vehicle Delay (2005 & 2030)
- ▶ 16 At-Grade Crossings
- ▶ Secondary Impacts on 13 Near-by Intersections
- ▶ All At-Grade Crossings & 4 Near-by Intersections Fail in the Design Year (2030)



13

Cost of Congestion

- ▶ Annual Cost of Congestion – 2005 and 2030

Year	At-Grade Crossing	Near-by Intersections as Secondary Impact	Total Cost of Congestion
2005	\$7,817,200	\$10,466,100	\$18,283,300
2030	\$24,556,700	\$57,388,600	\$81,945,300

- ▶ Cumulative Cost of Congestion – 2005 to 2030

From 2005 to 2030	At-Grade Crossing	Near-by Intersections as Secondary Impact	Total Cost of Congestion
	\$402,621,900	\$848,183,750	\$1,250,805,650



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Alternatives Considered

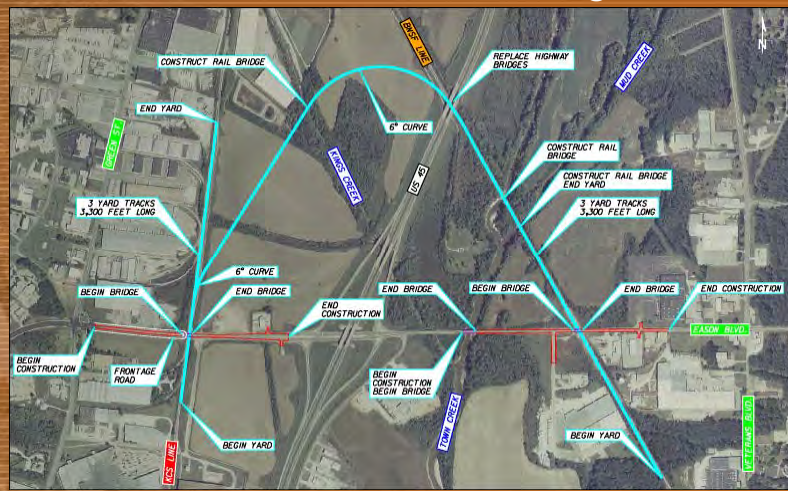
- ▶ Operational Improvements
 - ▶ Relocated Railroad Interchange
 - ▶ Safety Improvements
- ▶ In-Town Grade Separations
 - ▶ Roadways Over BNSF
 - ▶ BNSF Over Roadways
- ▶ New Rail Bypass Alignments



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Operational Improvements

- ▶ Relocated Railroad Interchange



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Operational Improvements

- ▶ Disadvantages
 - ▶ Does Not Address Crosstown or Other In-town Crossings for Through Trains
 - ▶ Does Not Satisfy Project Purpose and Need



17

In-Town Grade Separations

- ▶ 2 Alternatives Elevating Roadways over BNSF
 - ▶ Crosstown over BNSF
 - ▶ Gloster Street over BNSF & Build New East-West Overpass Connection to Carnation Street



18

In-Town Grade Separations

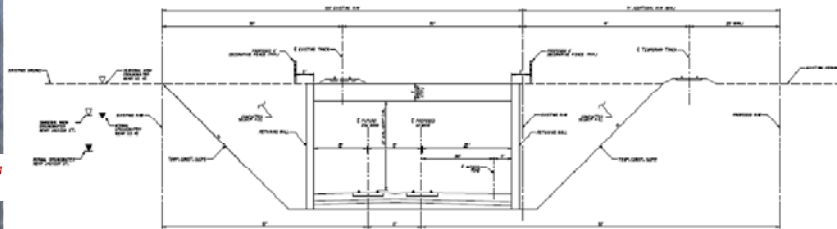
- ▶ 3 Alternatives Elevating BNSF over Roadways
 - ▶ Central Overpass
 - ▶ All Bridge Overpass Viaduct
 - ▶ Combination Bridge/Retaining Wall Overpass Viaduct



19

In-Town Grade Separations

- ▶ Railroad Trench
 - ▶ 30-35 feet of excavation
 - ▶ 5 Perennial Stream Crossings
 - ▶ Mostly Below Water Table



20

In-Town Grade Separations

- ▶ Disadvantages
 - ▶ Business Impacts on Main & Gloster
 - ▶ Some Alternatives Require Permanent Closure of Streets
 - ▶ Some Alternatives Do Not Address Noise Issue
 - ▶ Some Alternatives Do Not Address other High-Volume Crossings
 - ▶ Trench Not Feasible
- ▶ Longer Elevated Viaduct Feasible



21

New Rail Bypass Alignments

- ▶ 8 Bypass Corridors
 - ▶ 2 Western
 - ▶ 2 to Share KCS
 - ▶ 2 Eastern
 - ▶ 1 to Parallel US 78
 - ▶ 1 to Parallel Town Creek



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New Rail Bypass Alignments

Disadvantages

- National Park Service Disapproved of New Crossings of Natchez Trace Parkway
- Railroads Disapproved of Shared Corridor
- Saltillo Disapproved of New Track in City
- Cultural Impacts to Native American Sites
- Floodplain and Wetlands Impacts
- Large Right-of-Way Acquisition
- Increase in Railroad Operations Costs
- No Public Support for Any Bypass Alternative at Public Meetings



Detailed Alternative Analysis

- Engineering Refinements / Cost Analysis
- Environmental Impacts
- Iterative Process Narrowed Build Alternatives from 15 to 3, then to 1
- Analysis Concluded Only No-Build and Alternative M Viable

Evaluation Measure	Alternative A (No-Build)	Operational Improvement (Reduced Interchange)	In-Track Alternatives		Alternative B (Western Bypass)	Alternative C (Northern Bypass w/CKC Cutside)	Alternative D (Northern Bypass w/CKC Cutside)	Alternative E (Eastern Bypass)	Alternative F (Eastern Bypass)	Alternative G (Towhee)	Alternative H (Gaines over BNSF)	Alternative I (Elevated Viaduct over Bridge)	Alternative J (US 75 Bypass)	Alternative K (Conner Creek Bypass)	Alternative L (Town Creek Bypass)	Alternative M (Elevated Viaduct)	
			Scenario 1 (Construction over BNSF)	Scenario 2 (BNSF over Construction)													
General Statistics																	
Est. Length (Miles)	24.0	1.7	8.9	8.9	29.7	30.0	30.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	
Est. Length of Core Deck Construction (Miles)	8.9	1.7	8.9	8.9	29.7	12.0	12.0	24.0	24.0	1.6	8.9	1.6	10.0	28.0	12.0	8.7	
Est. Length of Existing BNSF Track (Miles)	8.9	0.0	8.9	8.9	0.0	14.0	14.0	10.0	8.0	33.0	14.0	0.0	14.0	0.0	14.0	13.0	
Est. Length of Existing US 75 Track (Miles)	8.9	0.0	8.9	8.9	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Est. Additional BNSF Operational Distance (Miles)	8.9	0.0	8.9	8.9	1.7	1.0	1.0	10.0	13.0	0.0	8.9	0.0	1.0	3.0	3.0	0.0	
Est. Additional US 75 Operational Distance (Miles)	8.9	0.0	8.9	8.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Est. Proposed Steel Bridge Structure Length (ft)	8.9	500	8.9	8.9	6,000	3,000	3,000	6,000	6,000	8.9	8.9	18,000	6,100	11,000	10,100	6,100	
Est. Proposed Highway Overpass Modifications (ft)	8.9	1	8.9	8.9	0	3	1	0	0	0	8.9	1	0	0	1	1	
Operational Characteristics																	
Est. Construction Facilities (Equivalent within 500 ft of R/W (ft)²)	8.9	0	8.9	8.9	0	3	3	3	3	8.9	8.9	3	0	1	1	8.9	
Est. Population Density (Equivalent within 500 ft of R/W (ft)²)	8.9	0.00	8.9	8.9	0.10	0.02	0.02	0.10	0.10	0.00	8.9	0.00	0.10	0.00	0.10	0.00	
Est. Education Facilities (Equivalent within 500 ft of R/W (ft)²)	3	0	3	3	0	0	0	0	0	3	3	0	0	0	0	3	
Est. Proposed Interchange/Underpass/Overpass/Retaining Wall	8.9	0	8.9	8.9	0	0	0	0	0	8.9	8.9	0	0	0	0	8.9	
Est. Parks within 500 ft of R/W (ft)²	8.9	0	8.9	8.9	0	0	0	0	0	8.9	8.9	2	0	0	0	8.9	
Special Characteristics																	
Est. Environmentally Sensitive Sites within 500 ft of R/W (ft)²	1	0	8.9	8.9	1	0	0	0	0	1	8.9	1	0	1	0	1	
Est. Forested/Urban Coverage	8	3	8.9	8.9	8	7	4	3	6	8.9	8	2	1	1	6	8	
Est. International Stream Coverage	10	2	8.9	8.9	10	0	0	7	10	10	10	3	3	10	7	10	
Est. Historic/Scenic Impact (Acres)	8.9	0.0	8.9	8.9	10.0	10.0	17.0	27.0	28.0	8.9	8.9	0	2.0	16.0	7	0	
Est. Wetland Impact (Acres)	8.9	0.0	8.9	8.9	12.0	12.0	6.0	10.0	12.0	8.9	8.9	6.0	6.0	6.0	6.0	8.9	
Est. 100-year Floodplain Encroachment (Acres)	8.9	40.0	8.9	8.9	67.0	254.0	192.0	129.0	114.0	8.9	8.9	202.0	286.4	185.0	185.0	10.0	
Physical Characteristics																	
Est. Estimated Archeological Sites within 500 ft of R/W (ft)²	0	0	8.9	8.9	0	1	4	1	1	0	8.9	0	4	0	1	0	
Est. Public Water Supply Wells within 500 ft of R/W (ft)²	11	0	8.9	8.9	0	1	1	1	1	11	8.9	1	0	0	0	11	
Est. Proposed Construction Time within 500 ft of R/W (ft)²	11	1	8.9	8.9	1	6	3	3	3	11	8.9	1	1	0	3	11	
Quality																	
Est. Existing Grade Separation (ft)	3	3	3	3	3	1	2	1	1	1	3	3	3	2	1	2	3
Est. Existing Public Access/Grade Separation to Routes (ft)	21	10	17	14	4	8	8	8	8	14	21	10	8	4	8	11	
Est. Existing Public Access/Grade Separation to Crossings (ft)	8.9	2	8	7	17	15	15	13	13	5	8	8	14	17	14	11	
Est. Proposed Grade Separation (ft)	8.9	2	3	2	2	4	4	7	8	3	2	11	8	8	7	11	
Est. Proposed Public Access/Grade Separation (ft)	8.9	0	8.9	8.9	0	0	0	0	0	8.9	8.9	0	0	0	0	8.9	
Est. Proposed Public Access/Grade Separation (ft)	8.9	0	8.9	8.9	0	0	0	0	0	8.9	8.9	0	0	0	0	8.9	
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Est. Proposed Public Access/Grade Separation (ft)	8.9	0	8.9	8.9	0	0	0	0	0	8.9	8.9	0	0	0	0	8.9	
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Est. Proposed Public Access/Grade Separation (ft)	8.9	0	8.9	8.9	0	0	0	0	0	8.9	8.9	0	0	0	0	8.9	
Est. Proposed Public Access/Grade Separation (ft)	8.9	0	8.9	8.9	0	0	0	0	0	8.9	8.9	0	0	0	0	8.9	
Est. Proposed Public Access/Grade Separation (ft)	8.9	0	8.9	8.9	0	0	0	0	0	8.9	8.9	0	0	0	0	8.9	
Est. Proposed Public Access/Grade Separation (ft)	8.9	0	8.9	8.9	0	0	0	0	0	8.9	8.9	0	0	0	0	8.9	
Est. Proposed Public Access/Grade Separation (ft)	8.9	0	8.9	8.9	0	0	0	0	0	8.9	8.9	0	0	0	0	8.9	
Est. Proposed Public Access/Grade Separation (ft)	8.9	0	8.9	8.9	0	0	0	0	0	8.9	8.9	0	0	0	0	8.9	
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Est. Proposed Public Access/Grade Separation (ft)	8.9	0	8.9	8.9	0	0	0	0	0	8.9	8.9	0	0	0	0	8.9	
Est. Proposed Public Access/Grade Separation (ft)	8.9	0	8.9	8.9	0	0	0	0	0	8.9	8.9	0					

No-Build Alternative (Alternative A)

- ▶ No New Improvements



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No-Build Alternative Impacts

- ▶ Increase in Traffic Delay at All At-Grade Crossings & 4 Near-by Intersections
- ▶ Increased Emergency Service Response Times
- ▶ Noise from Train Horns
 - ▶ 414 Noise Impacted Residences
 - ▶ 128 Severely Impacted
- ▶ Decreased Air Quality



26

Elevated Rail Viaduct (Build Alternative)

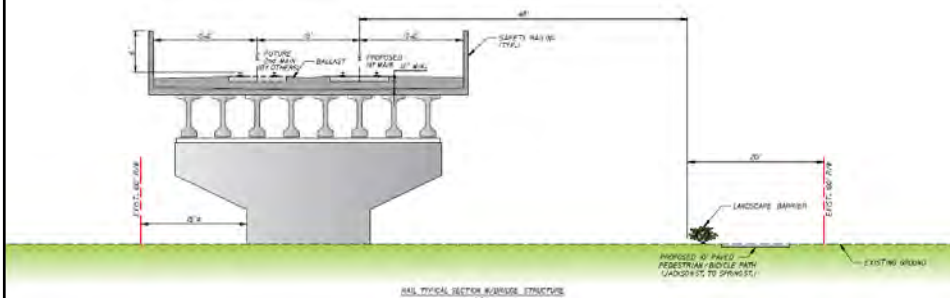
- ▶ Elevates Rail Through Town
 - ▶ Combination Bridge & Fill Structure
 - ▶ Lumpkin Ave. to US 45
- ▶ Includes Relocated Railroad Interchange
 - ▶ New Grade Separations at Eason Blvd. (BNSF & KCS)
- ▶ Pedestrian/Bicycle Path in R/W



27

Elevated Rail Viaduct (Build Alternative)

- ▶ Elevated Structure



28



Elevated Rail Viaduct (Build Alternative)

- ▶ Potential Benefits
 - ▶ 12 Grade Crossings Eliminated with No Road Closures
 - ▶ Creates “Quiet Zone” – No Train Horns on BNSF
 - ▶ Improves rail speed (25 MPH to 40 MPH)
 - ▶ Eliminates BNSF/KCS mainline crossing
 - ▶ No net increase in rail miles
 - ▶ Support from Public, BNSF, KCS, and NPS
- ▶ Potential Impacts
 - ▶ Minimal R/W Required
 - ▶ Only for Interchange
 - ▶ One Relocation
 - ▶ Visual Impacts Due to Structure



29



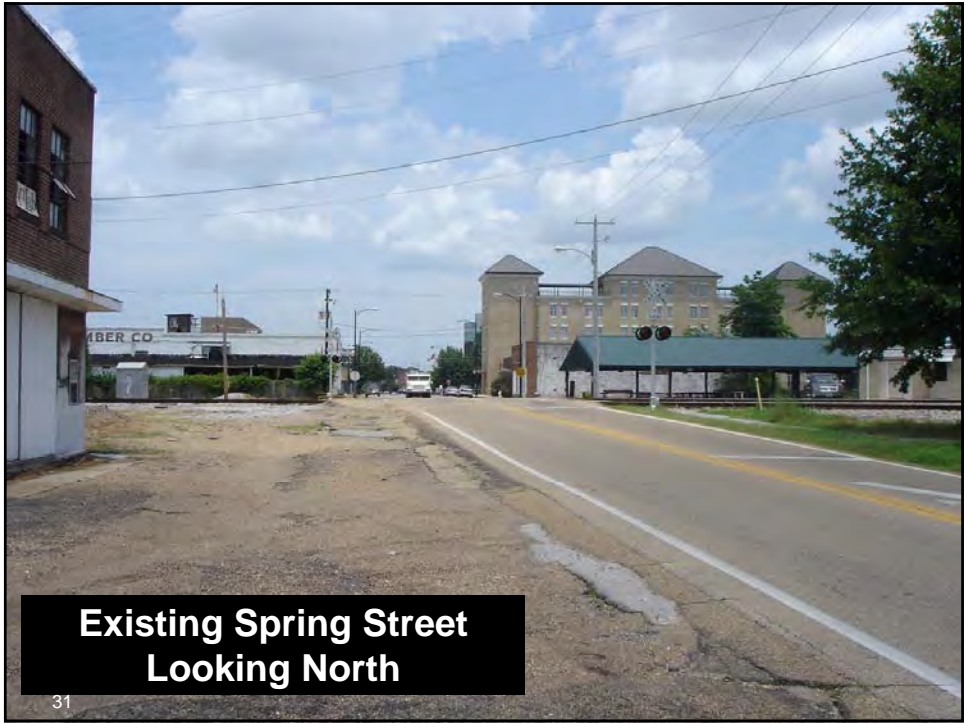
Elevated Rail Viaduct (Build Alternative)

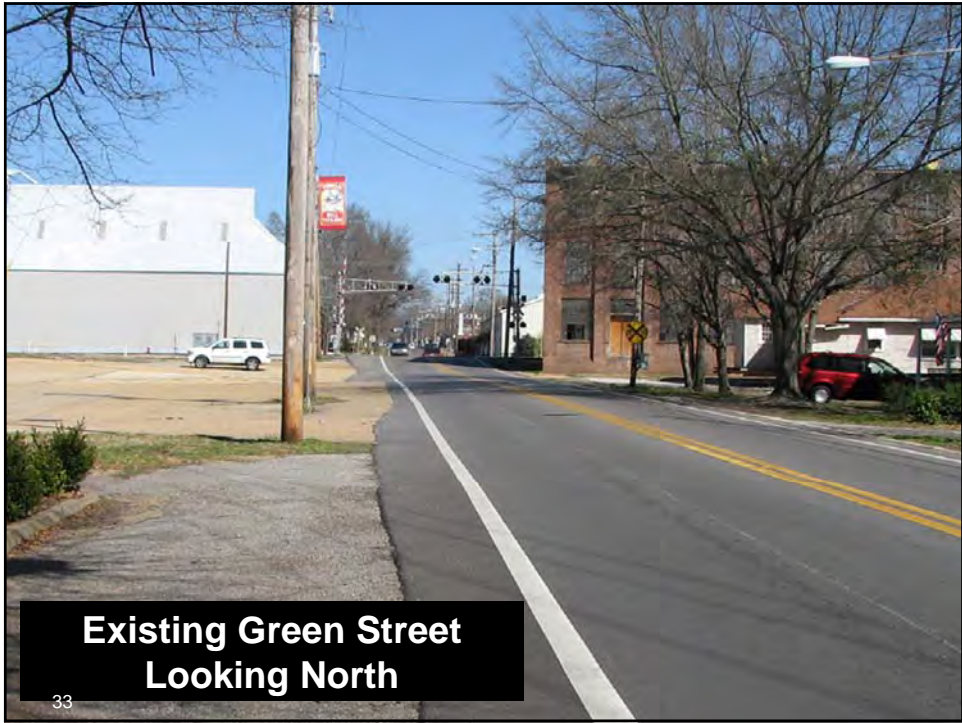
12 At-Grade Crossings Removed

- ▶ 11 BNSF
 - ▶ Jackson St.
 - ▶ Blair St.
 - ▶ Jefferson St.
 - ▶ Park St.
 - ▶ Gloster St. (MS 145)
 - ▶ Main St. (US 278/MS 6)
 - ▶ Church St.
 - ▶ Spring St.
 - ▶ Green St.
 - ▶ Elizabeth St.
 - ▶ Eason Blvd. (Roadway over Rail)
- ▶ 1 KCS
 - ▶ Eason Blvd. (Roadway over Rail)



30





**Existing Green Street
Looking North**

33



**Green Street w/ Proposed
Improvement**

34



35



36



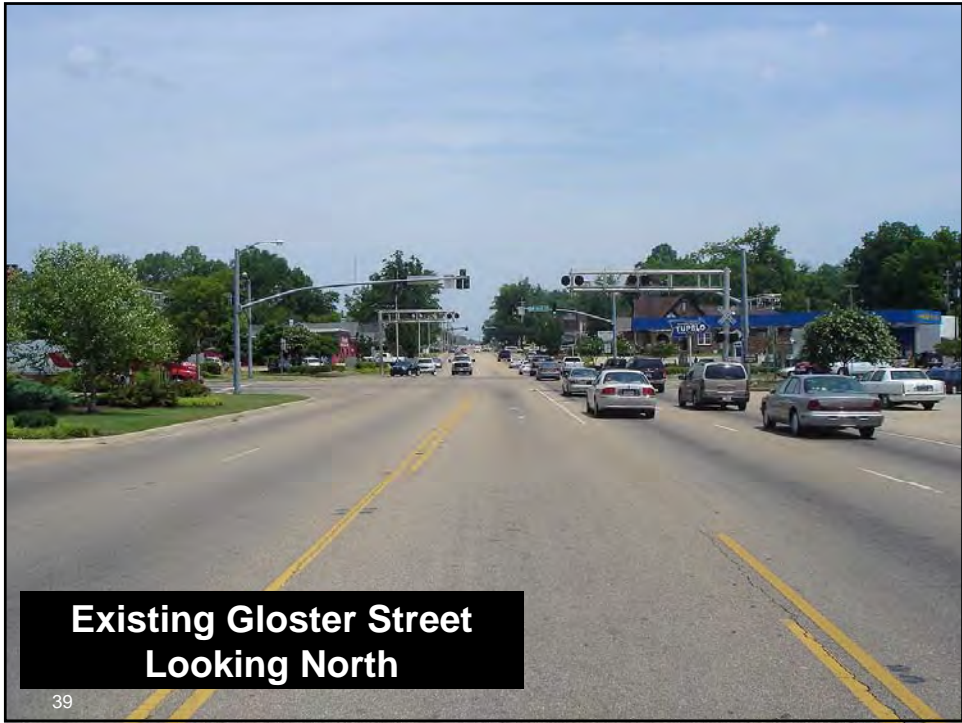
**Existing Magazine Street
Looking South**

37



**Magazine Street w/
Proposed Improvement**

38



**Existing Gloster Street
Looking North**

39



**Gloster Street w/
Proposed Improvement**

40



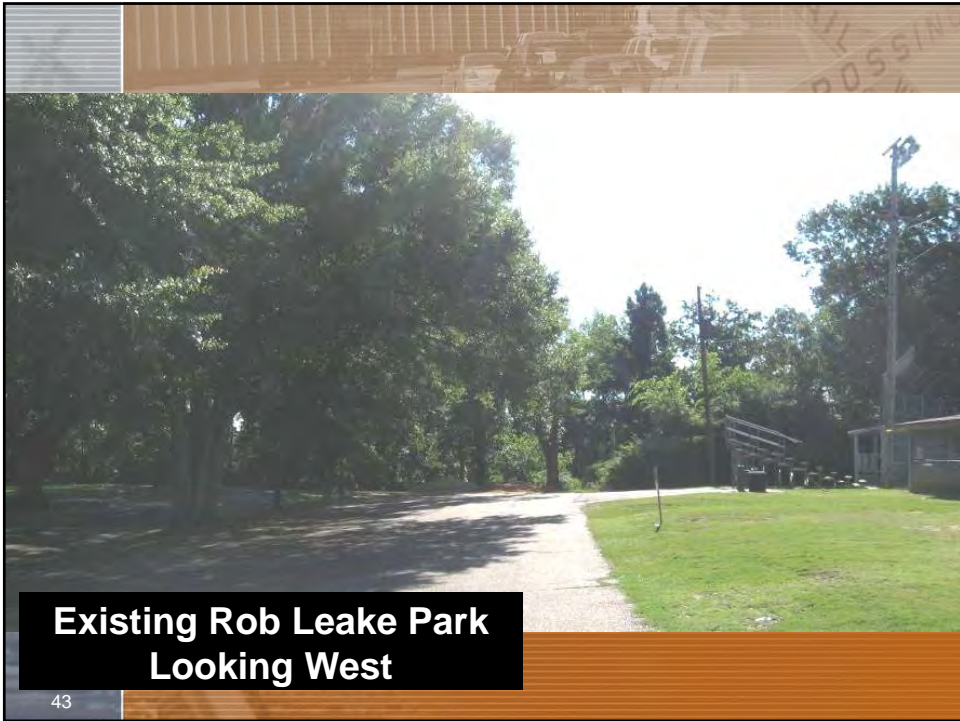
**Existing Riley Street
Looking North**

41



**Riley Street w/ Proposed
Improvement**

42



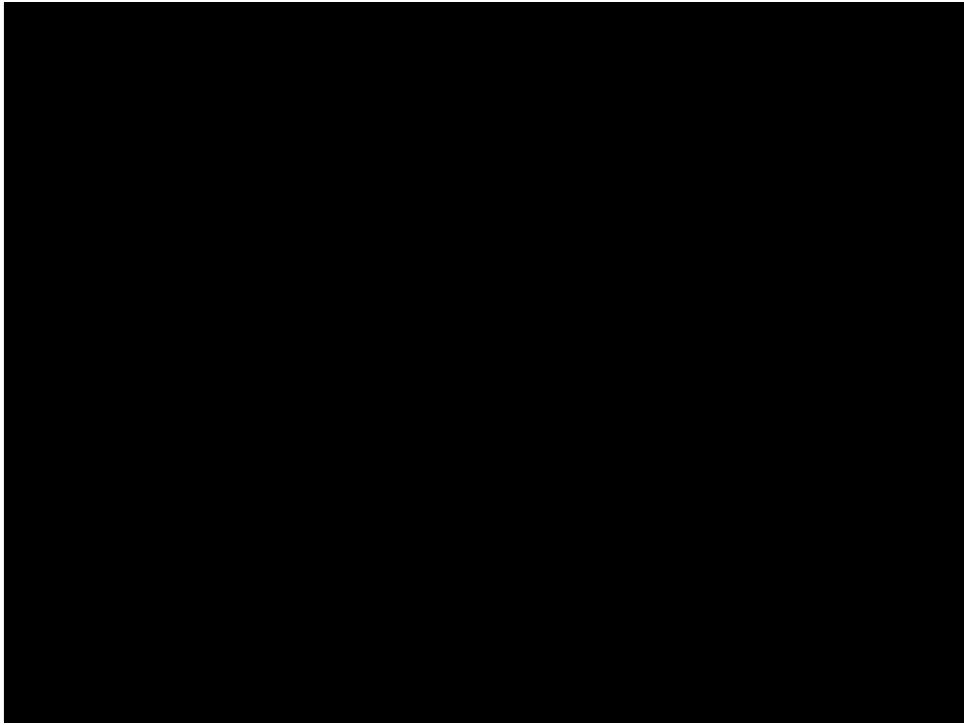
**Existing Rob Leake Park
Looking West**

43



**Rob Leake Park w/
Proposed Improvement**

44



Impacts of Build Alternative

- ▶ **Social Environment Impacts**
 - ▶ **Neighborhoods**
 - ▶ Increased Access
 - ▶ Reduced Auto Traffic Delay
 - ▶ Increased Safety
 - ▶ **Community Cohesion – No Impacts**
 - ▶ **Public Lands – No Impacts**
 - ▶ **Historic Resources**
 - ▶ Visual Impacts to Viewshed
 - ▶ Mitigation Efforts Through Memorandum of Agreement
 - ▶ Design to Include Aesthetic Treatments
 - ▶ Survey of Historic Properties
 - ▶ Pedestrian/Bike Path



47

Impacts of Build Alternative

- ▶ **Natural Environment Impacts**
 - ▶ **Water Quality – No Impacts**
 - ▶ May Improve Water Quality
 - ▶ **Floodplains**
 - ▶ 10 Acres of 100-Year Floodplain
 - ▶ 3 Crossings of Designated Floodways
 - ▶ All by Bridge Structures
 - ▶ **Wetlands**
 - ▶ Construction Impacts
 - ▶ **Threatened & Endangered Species – No Impacts**



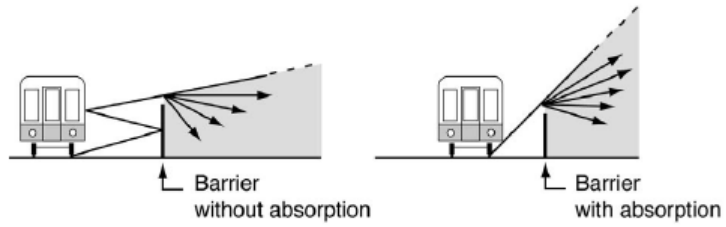
48

Impacts of Build Alternative

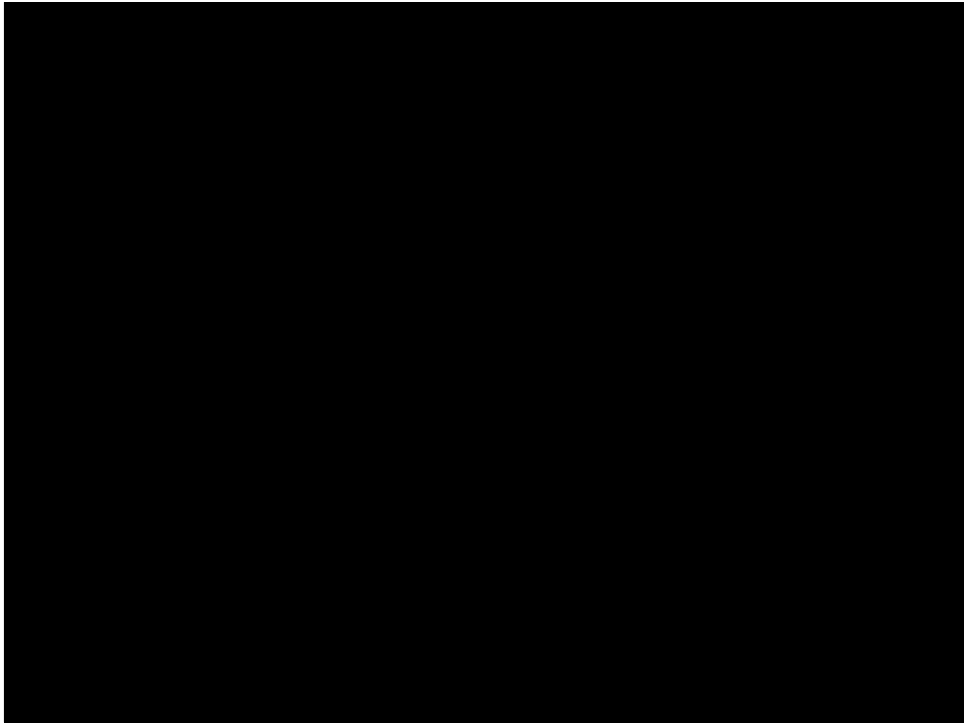
▶ Physical Environment

▶ Noise

- ▶ No Horn Soundings on BNSF through Central Tupelo
- ▶ 52 Sites Reduced Noise Severity
 - ▶ 23 Severe Impact → Moderate Impact
 - ▶ 29 Moderate Impact → No Impact
- ▶ Structure Includes 6-foot Safety Railing Not Included in Noise Model



49



Impacts of Build Alternative

- ▶ **Physical Environment**
 - ▶ **Vibration**
 - ▶ Increase in Vibration Due to Faster Trains
 - ▶ Increase from 28 to 46 Impacted Sites
 - ▶ Vibration Impacts Would Fall Well Below Damage Threshold
 - ▶ Mitigation Measures Would Dramatically Increase Cost With Little Benefit
 - ▶ **Air Quality – No Impact**
 - ▶ Improvement of Air Quality Due to Reduction of Idling Vehicles
 - ▶ **Contamination – No Impact**
 - ▶ **Energy**
 - ▶ Reduced Energy Consumption



52

Impacts of Build Alternative

- ▶ Phase I – Relocate Railroad Interchange
 - ▶ Includes Eason Blvd. Overpasses
 - ▶ \$76 Million
- ▶ Phases II & III – Build Elevated Railroad Viaduct
 - ▶ Phase II – Temporary Track Construction
 - ▶ Needed to Construct Elevated Viaduct
 - ▶ \$12 Million
 - ▶ Phase III – Viaduct Construction
 - ▶ Includes US 45 Overpass Reconstruction
 - ▶ Includes Pedestrian/Bike Path
 - ▶ \$297 Million
- ▶ Total Construction Cost - \$385 Million
 - ▶ Annual Maintenance Cost - \$350,000
 - ▶ No Funds Identified for Design, Right-of-Way, or Construction



53

Public Comments

- Submit Comments to the Court Reporter Tonight
- Turn in Comment Forms Tonight
- Submit Written Comments, Exhibits, and/or Statements
 - Postmarked, FAX, or E-mail by September 12, 2011
 - Mail to: Mississippi Department of Transportation
Environmental Division (87-01)
P.O. Box 1850
Jackson, MS 39215-9947
 - FAX: 601-359-7355
 - E-mail to: environmental_comments@mdot.state.ms.us
 - Project Website: www.gomdot.com



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Tupelo Mississippi
Planning & Environmental Study
Railroad Relocation

Public Hearing

August 11, 2011

Presented by:

APPENDIX D

SUMMARY OF CITY OFFICIALS BRIEFING

Public Involvement Record Sheet Tupelo Railroad Relocation EIS



MEETING WITH CITY OFFICIALS

Date of Meeting	August 11, 2011
Time of Meeting	1:30 pm
Location of Meeting	BancorpSouth Arena, Tupelo, MS
Meeting Style	Conference style meeting
Purpose of Meeting	To brief the Mayor and interested City officials on the status of the project prior to the public hearing
Duration of Meeting	About 2 hours (2 sessions, approx.1 hour each)

City Attendees – Meeting 1:
Mayor Jack Reed
Councilman Mike Bryan
Councilman Markel Whittington

City Attendees – Meeting 2:
Mayor Jack Reed
Councilwoman Nettie Davis
Councilman Willie Jennings

Summary:

Rhea Vincent opened the first briefing with a round of self-introductions by attending staff from FRA, MDOT, HDR, ABMB, Brockington & Associates, and Cook Coggin Engineers. Carnot Evans explained that the purpose of the public hearing is to share information with the public and to provide a forum for them to express their opinions and provide comments about the project. The public hearing will be a combination of an open house style format from 4 – 5:30 p.m. At 5:30, a formal presentation will be given immediately after which the public will be invited to ask questions. Following the formal presentation and Q&A period, the hearing will return to an open-house informal style format until 7 p.m. Mr. Evans then presented the PowerPoint presentation that would be shown to the public at 5:30 p.m.

During the PowerPoint, the Mayor asked what the term “design year” means. Mr. Evans explained that future traffic is modeled from projections based on historic growth patterns to a future year, typically 20 - 25 years from the year the analysis was conducted. In this case, the

The purpose of this document is to serve as a record of meetings and Public Involvement held for the Tupelo Railroad Relocation EIS.

base year is 2005 and the design year is 2025. Mr. Vincent and Mr. Evans also explained the concept of delay and cost of congestion. Future rail traffic projections were figured differently from vehicular traffic, however, since rail operations are driven by national economic conditions. Mr. Evans described the alternatives that were considered and studied, and how from the 16 alternatives considered, Alternative M became the preferred alternative through the NEPA process.

Mr. Evans described the features, benefits, and impacts of Alternative M, and presented a video “rendering” of how the elevated rail would look at various locations along the alignment in Tupelo. With an estimated total construction cost of \$385 million, no funds have been allocated at this time to design or construct the facility. The City would be required to maintain the structure, while the railroad would maintain the track and surface.

A few of the questions asked by the City officials:

1.) How long will this project take to build?

Response: Design would take about 1-1/2 to 2 years, and right-of-way acquisition would take about 1-1/2 to 2 years. Construction of the project will take up to 2 years. Construction would be phased.

2.) What would the annual maintenance require?

Response: Repainting the structure as needed, maintain the footpath below the structure,

3.) How can this project be funded?

Response: Congress is the most likely source for the majority of the funding. The City may be required to put up a match, typically 20%.

4.) Would MDOT take the lead role in this project?

Response: Only if requested by the City and permitted to by the Commission.

5.) Could passenger service such as Amtrak be introduced as a potential funding source for the City?

Response: Not likely. It would have to come from State, local, or private sources.

Notes taken by: Eric Jefferson, PE, ABMB Engineers, Inc.

The purpose of this document is to serve as a record of meetings and Public Involvement held for the Tupelo Railroad Relocation EIS.

APPENDIX E

SUMMARY AND TRANSCRIPT OF HEARING

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MISSISSIPPI DEPARTMENT OF TRANSPORTATION
PUBLIC HEARING

IN RE: TUPELO RAILROAD RELOCATION PLANNING AND ENVIRONMENTAL
STUDY, TUPELO, MISSISSIPPI

THE FOLLOWING VERBAL COMMENTS WERE TAKEN DURING THE
PUBLIC HEARING HELD BY MDOT IN THE BANCORPSOUTH CENTER,
TUPELO, MS, ON AUGUST 11, 2010, COMMENCING AT 4:00 P.M.

Reported by: KATHRYN H. BOYER, CSR #1349

ADVANCED COURT REPORTING
P.O. BOX 761
TUPELO, MS 38802-0761

ORIGINAL

1 MR. JACQUE PRATHER: (This is a verbatim copy
2 of the typed sheet of concerns Mr. Prather gave the court
3 reporter). Titled: Problems and Concerns with Elevating
4 Railroad through Tupelo that need answers, August 11, 2011.

- 5 1. Eye sore
- 6 2. Having seen elevated tracks before, I noticed:
- 7 A. Accumulation of trash and debris
- 8 underneath
- 9 B. Danger of children climbing on structure
- 10 C. Lack of upkeep of structure
- 11 D. Noise of passing trains increased due to
- 12 elevation
- 13 E. Falling items and fluids from train cars
- 14 3. Will City of Tupelo be responsible for any
- 15 upkeep of structure?
- 16 4. Will City of Tupelo have any expense with
- 17 approaches at intersections?
- 18 A. Relocation of traffic lights
- 19 B. Realignment of streets
- 20 C. Landscaping
- 21 D. Will work be required outside railroad
- 22 right-of-way?
- 23 E. Who will pay damage to property owners, if
- 24 any?
- 25 5. Will City of Tupelo have any responsibility

1 for any upkeep after completion?

2 6. What would happen if railroad stopped using
3 this line?

4 A. Would City of Tupelo have to remove
5 structure?

6 B. What effect would it have if railroad went
7 bankrupt?

8 7. Trains do derail. What would happen?

9 A. Could cars be lifted back on the track if
10 they fell off?

11 B. How would this effect Crosstown if it
12 happened there?

13 C. What if a tank car burst and spilled its
14 contents? Could anyone in our area handle the clean-up?

15 There are many other problems that might have to
16 be dealt with. Those noted are enough to not elevate the
17 railroad through Tupelo. Maybe our city council members
18 should visit a few cities with elevated tracks before voting
19 on this issue. They should:

20 A. Look at condition of structure

21 B. Walk at least 100 yards under track at
22 five or more locations, not just at street crossings

23 C. Check noise of passing train

24 D. Ask city government about improvements and
25 problems with elevated tracks in their cities

1 During construction there would be some problems:

2 A. Spring Street could be closed with traffic
3 diverted to Green Street

4 B. Green Street could be closed with traffic
5 diverted to Church Street and Spring Street

6 C. Church Street could be closed with traffic
7 diverted to Green Street

8 D. Any two of the above streets could be
9 closed with traffic diverted to the remaining street

10 E. Crosstown would be a great problem if Main
11 Street and Gloster Street were closed for construction. If
12 traffic was diverted to Park Street, this would be a problem.
13 If traffic was diverted to Robins Street and Jefferson Street
14 and back to Gloster Street, this would be a great problem for
15 Milam School.

16 If this is done, it will be a part of Tupelo for a
17 very long time. My suggestion is to go around Tupelo or do
18 nothing. Signed, Jacque Prather, 662-842-8345.

19 MR. DAVID CROOK: Basically, I don't want it
20 because it would have to interfere with my property and take
21 out all my trees and everything. My front door is, like, 25
22 feet from the railroad, so I definitely don't want it.

23 MR. CARNOT EVANS: Good evening, ladies and
24 gentlemen. As representative of the Mississippi Department
25 of Transportation, we'd like to welcome you to the public

1 hearing for the Tupelo Railroad Relocation Planning and
2 Environmental Study. This presentation will discuss the
3 study's history, progress, alternatives considered and the
4 environmental impacts of the no-build and build alternatives.

5 Before I begin, I know we had some people stand
6 up, but I would like to recognize any elected officials who
7 are with us tonight or any appointed officials or their
8 representatives. Please stand and introduce yourselves for
9 the public record.

10 MAYOR REED: Mayor Jack Reed, Jr., Mayor of
11 Tupelo.

12 MR. MARKEL WHITTINGTON: Markel Whittington,
13 councilman for Tupelo.

14 MR. WILLIE JENNINGS: Willie Jennings,
15 councilman for Tupelo.

16 MR. CARNOT EVANS: Anyone else? And I'd also
17 like to point out that the representative from FRA, John
18 Winkle, is here in the audience as well. First I would like
19 to discuss the agenda for this evening's hearing. This
20 hearing is being held from 4:00 to 7:00 p.m. at the
21 BancorpSouth Center at 375 East Main Street in Tupelo,
22 Mississippi, with an open house forum from 4:00 to 5:30 p.m.,
23 a formal presentation including public testimony at 5:30 p.m.
24 and concludes at 7:00 p.m. The public are encouraged to make
25 comments. If you wish to speak tonight, please fill out a

1 speaker card and hand it to one of our study team members.
2 Just look for someone with one of these name tags.

3 The purpose of tonight's public hearing is to
4 share information about the proposed project and serve as the
5 official forum to give interested parties the opportunity to
6 express their views concerning the location, the conceptual
7 design and social, economic and environmental impacts of the
8 proposed improvements.

9 We are here tonight to provide project background
10 information and receive comments on the preliminary study
11 results. In a few moments, we will have a technical
12 presentation which will provide an overview of the study
13 process and the preliminary results of these evaluations.

14 If you wish to speak tonight at the conclusion of
15 the technical presentation, please fill out a speaker card
16 and turn it in to one of our designated study team members.
17 If you need a speaker card, we have some team members
18 available to hand them out to you.

19 We recognize that there are also some people who
20 are not comfortable speaking in front of a large crowd. We
21 will not require you to speak publically. Aside from
22 speaking tonight, there are three methods by which the public
23 can leave comment on this project to be entered into the
24 public record. The first option is to dictate your comments
25 directly to the court reporter located here next to me.

1 Comments can be made after this presentation or at anytime
2 during this public hearing.

3 The second option is to provide written comments.
4 As you signed in this evening, you should have received a
5 comment form. Please feel free to fill it out and put it in
6 the comment box located at the back of the room or you can
7 mail the form to us later. The name and address to mail the
8 form is located on the comment form.

9 The third option is to provide comments -- written
10 comments via fax or e-mail. The fax number and e-mail
11 address are shown here and are also on the project's website
12 at www.gomdot.com. All comments that are mailed, faxed or
13 e-mailed to MDOT should be either postmarked or received no
14 later than 5:00 p.m., September 12th, 2011.

15 All comments, regardless of form, will be given
16 equal weight and will become part of the public record for
17 this project.

18 The technical staff are available throughout the
19 hearing to answer any questions you may have. There are a
20 number of study team members. Just look for someone with a
21 name tag.

22 Now I would like to go ahead and cover the
23 administrative items for this evening's hearing which are
24 required by law.

25 This public hearing is being held relative to

1 Mississippi Department of Transportation, or MDOT, project
2 number 104289-101000 and was done in coordination with the
3 U.S. Department of Transportation Federal Railroad
4 Administration or FRA. The Tupelo Railroad Relocation
5 Planning and Environmental Study has prepared a Draft
6 Environmental Impact Statement, or DEIS, to evaluate the
7 impacts of the no-build and build alternative on the social,
8 economic and cultural environments. The proposed
9 improvements include providing railroad and roadway
10 structures to reduce the conflict of railroad and automobile
11 traffic at at-grade crossings on the BNSF main line in the
12 central Tupelo, Mississippi, area.

13 This public hearing is being held to give all
14 interested persons the right to understand the project and
15 comment on their concerns to MDOT. Public participation at
16 this hearing is encouraged and solicited without regard to
17 race, color, creed, religion, sex, age, national origin,
18 disability or family status. This public hearing is
19 conducted in accordance with Title 6 of the Civil Rights Act
20 of 1964 and related statutes and Title 8 of the Civil Rights
21 Act of 1968, as amended. This public hearing is also being
22 held in accordance with 23 United States Code 128, 40 Code of
23 Federal Regulations 1500-1508, 23 Code of Federal Regulations
24 771; Executive Order 11593, Protection and Enhancement of the
25 Cultural Environment; Executive Order 11988, Floodplain

1 Management; Executive Order 11990, Protection of Wetlands;
2 and Executive Order 12898, Environmental Justice.

3 This public hearing was advertised consistent with
4 federal and state requirements and is being conducted
5 consistent with the Americans with Disabilities Act of 1990.
6 The Tupelo Railroad Relocation Planning and Environmental
7 Study was authorized by Mississippi statutes to comply with
8 the requirements of the National Environmental Policy Act, or
9 NEPA, of 1969 and is required to secure federal government
10 approval.

11 MDOT serves as the lead agency on this study. The
12 proposed project is being coordinated with the appropriate
13 federal, state and local agencies. Six federal agencies have
14 been involved with the project and serve as commenting and
15 cooperating agencies in support of MDOT. The federal
16 agencies involved are the FRA, who serves as the lead federal
17 agency, the Federal Highway Administration, the Environmental
18 Protection Agency, the U.S. Army Corps of Engineers, the
19 National Park Service and the U.S. Fish and Wildlife Service.
20 Other entities which have been consulted include the State
21 Historic Preservation Office, the City of Tupelo, the Tupelo
22 Community Development Foundation, the Tupelo Major
23 Thoroughfare Committee, the Tupelo Historic Preservation
24 Society and the Town Creek Master Water Management District.
25 The Chickasaw, the Quapaw, the Choctaw and the Tunica Native

1 American Tribes have also been consulted with during the
2 course of this study, as well as both railroad companies BNSF
3 and Kansas City Southern, or KCS.

4 The proposed improvements are consistent with
5 other transportation improvements planned for the study area
6 and coordinated with on-going projects and various developers
7 in the area.

8 This concludes the required administrative
9 statements.

10 (A video presentation was made lasting
11 approximately 30 minutes)

12 MR. RHEA VINCENT: Carnot, thank you. We
13 appreciate your presentation here. Nice job. Ladies and
14 gentlemen, at this point in time, we're going to start the
15 speaker session here. We have seven people that signed cards
16 wishing to either make a statement or ask a question to the
17 MDOT and/or consultant personnel. I do not have them in --
18 they are in random order. If you will, I'll ask you to raise
19 your hand when I call out your name. I'll walk over to you
20 and hand the mike to you. Each person will be allowed two
21 minutes to either make a speech or ask a question. And at
22 this time, we'll start the process. My first card here says
23 -- I guess it's Ms. Joyce Logan.

24 MS. JOYCE LOGAN: Well, I think you've
25 answered most of the questions that I had. The presentation

1 was very good. The most important thing is the money.

2 MR. RHEA VINCENT: Money.

3 MS. JOYCE LOGAN: Show us the money. Show me
4 the money.

5 MR. RHEA VINCENT: Okay. I'm going to go
6 ahead and try to answer your question the best I can. At
7 this point in time, we know that the City of Tupelo does not
8 have 385 million dollars. Point blank. We also know that
9 MDOT at this point in time does not have 385 million dollars.
10 With respect to the State of Mississippi, we haven't asked,
11 but we suspect they don't have it either. Finally, we have
12 talked with the federal regs about this and there is no
13 scheduled money for this project at all, so there's no 385
14 million dollars available. The only choice that we have at
15 this time that I know of would be to go to Congress and
16 request the funds.

17 MS. JOYCE LOGAN: Won't find it there right
18 now.

19 MR. RHEA VINCENT: Okay. Our next speaker
20 will be Ms. Carolyn Watson.

21 MS. CAROLYN WATSON: I don't like the way the
22 white walls look on the sections that are not elevated and I
23 just -- I don't like that at all and I wish that didn't have
24 to be that way because I -- I don't like the fact of a wall
25 blocking part of the city and the view of the city too

1 looking through the train. And I had question about -- it
2 said you would have to build an alternative track while the
3 elevated track was being built. Where will that be? Will it
4 take up part of our property while that's being built? The
5 tracks that are -- you know, the alternative. Like, the
6 train is in my backyard. Will it take up too much of my
7 backyard?

8 MR. RHEA VINCENT: See if I can answer your
9 question. I can handle the second question pretty easily and
10 the first question I'll see. The retaining wall structure
11 out there, depending on what -- how much you want to spend
12 will depend on how much of that retaining wall you want out
13 there. The bottom line for that retaining wall at this point
14 in time, the cost of it is \$2,500 a foot. The bridge
15 structure itself, the concrete bridge structure, is \$8,500 a
16 foot. That's why we are putting some of this out there.
17 It's expensive. Where we have it marked on the plans here,
18 we just are speculating that these might be good places to
19 show them, but they do not have to be there. They can be
20 mixed and matched depending on what you want to do with it.

21 Finally, there can be artistic impressions put
22 against these walls provided the City of Tupelo wants to do
23 that and the people of Tupelo would like it. Does that
24 answer your question there?

25 Now your second question. Your second question

1 was: The railroad is to be shifted off to the side of where
2 it currently is. That line will stay on rail right-of-way.
3 As far as we can tell with this study -- and it's not perfect
4 -- that rail line will not require us to buy anymore
5 right-of-way, that alternative line, that temporary line on
6 the site. However, in the event that that does happen, that
7 we have to buy extra right-of-way, the Uniform Relocation Act
8 will kick in, which means that we will basically go in,
9 evaluate the property that we would be purchasing and try to
10 give you a good, honest value for that piece of property that
11 we purchase. Does that answer your question?

12 MS. JOYCE LOGAN: Well, would it be after --
13 after the elevated track would be built, would that be just
14 taken away? I mean, that --

15 MR. RHEA VINCENT: It's a temporary track.
16 We anticipate it being removed.

17 All right. Our next participant here is Mr. David
18 Crook.

19 MR. DAVID CROOK: I live at 911 Jefferson and
20 the tracks are, like, probably closer to that wall than to
21 me, so would there be any chance with them going with the
22 relocation of the switch track or do we have to go with the
23 bridge because it would be over -- I mean, if a train come
24 off, it'd be in my bedroom. It'd be in the top of my house.
25 I mean, I'm right on it.

1 MR. RHEA VINCENT: Okay. It -- I'm going to
2 paraphrase here and I'm not trying to twist any words. Your
3 basic question is: What are the safety issues with a raised
4 rail? With the railroad that we currently have in place,
5 we're hitting cars now. Okay. Derailment is just as likely,
6 if not more likely, where it's at. A raised rail --
7 railroad, less likely. There's less impact. There's -- the
8 structure itself is going to be sound. If there's going to
9 be any problem at all, I don't foresee it.

10 MR. DAVID CROOK: What about as far as
11 property values go because it would have to take out all my
12 trees and I have, like, historic trees. It's, like, right on
13 my property.

14 MR. RHEA VINCENT: Is it on your property?

15 MR. DAVID CROOK: Well, it's like --

16 MR. RHEA VINCENT: Or is it on their
17 property?

18 MR. DAVID CROOK: I've got a fence and it's
19 like in the center of -- my trees are in the center of the
20 fence, so I don't know --

21 MR. RHEA VINCENT: Don't know which one it is
22 or not. All right. I can answer that question only in
23 saying that at this time, we plan on having this totally
24 built on rail property. We don't anticipate going outside
25 those rail right-of-way limits. If there are some structures

1 or trees that are on that rail line or in that rail
2 right-of-way, they are subject to be removed.

3 MS. JOYCE LOGAN: Would that -- when they're
4 constructing it -- I'm talking out of turn, I guess. When
5 they're constructing this, will that take up our property
6 with all the construction equipment? Would that be on our
7 property?

8 MR. RHEA VINCENT: At this point in time, we
9 don't anticipate any of that, but if there are some problems
10 that -- later on down the line, yes, they could go out there
11 and ask to purchase some property from you or -- basically,
12 that'd be what they do. They'd go out and purchase some
13 property just for easement or something of that nature to
14 build the structure. We good?

15 All right. This one I can -- my eyesight isn't
16 quite as good as it used to be. I think it's George
17 P-I-R-K-L-N?

18 MR. GREG PIRKLE: Greg Pirkle maybe?

19 MR. RHEA VINCENT: Okay. Sorry about that.

20 MR. GREG PIRKLE: That's all right. Greg
21 Pirkle. I do -- I don't want to be two-faced about it. I do
22 want to -- I do think the city needs to do something about
23 the noise and the train and the horn and things like that.
24 So I do appreciate the fact that we have to do something
25 within the City of Tupelo, but three concerns that I have.

1 Number one, I've made an investment in a property downtown
2 and one concern that I have is making sure that the Mill
3 Village is a continuation of the downtown. I know we've done
4 studies and things like that and to me, I just want us to
5 look at is this -- is this raised railroad track going to
6 separate downtown from Mill Village and make that a permanent
7 separation when what we're trying to do is to connect the
8 two.

9 Number two, much of the investment potential that
10 I want down there depends significantly on the site line from
11 downtown to the building that I have and this, according to
12 the structure that we've seen, comes right about the second
13 floor of the building that I have purchased down there. You
14 would not be able to see the building, nor would you be able
15 to see downtown from the building itself. So I would have a
16 concern on that as well, construction of the site line
17 between Mill Village and downtown and vice versa.

18 Finally has to do with the aesthetic of the train
19 track, of the elevated track itself. I have seen some
20 elevated tracks and bridges that I think, you know, maybe
21 that's not so bad to live with, but if it's going to be the
22 ones that we've seen examples of, the industrial steel and
23 concrete and things like that, the aesthetics are just not
24 very appealing and particularly, the drawing going through
25 Mill Village and downtown where it's very industrial and

1 we're trying to soften that. I just have some serious
2 concerns and hope that that would be addressed.

3 MR. RHEA VINCENT: Thank you. With respect
4 to Mill Village, I know we've gotten into -- talked with
5 Archives and History on this one and I'm not a professional
6 in that arena. We do have a professional here to cover this
7 topic. Mr. John Underwood, would you mind stepping forward
8 and answering these.

9 MR. JOHN UNDERWOOD: When Carnot earlier
10 mentioned a memorandum agreement was being drafted, the
11 memorandum agreement is in existence whenever we have
12 identified impacts to the cultural environment and being the
13 fact that we have all the construction proposed -- proposed
14 construction currently within the existing right-of-way,
15 archeological impacts are negligible with this proposed
16 route.

17 We're still having proposals in there to monitor
18 certain sections because this historic track has been in
19 existence since the late 1880s and for those of you who are
20 -- know much about Tupelo history, this area was the center
21 point of the Chickasaw culture back in the 16th, 17th, 18th
22 centuries. So there's always that potential to encounter
23 some things in the actual railroad bed itself. So there are
24 provisions in place. We have professionals monitoring
25 activities there so that nothing is disturbed and potentially

1 lost because that's part of our collective cultural heritage.

2 In terms of the standing environment, the
3 architectural environment, there is a lot of important
4 history in Tupelo related to the actual industrial age of the
5 railroad coming into existence and, in fact, Tupelo's, you
6 know, founded along that industrial route. Mill Village and
7 other areas -- that area, the concepts that are proposed
8 tonight are just those, concepts. They are probably some of
9 the most easily replicated kinds to be put on the screen.
10 There is nowhere written they have to look like that. The
11 whole purpose of the memorandum agreement is to have
12 collective buy-in from the citizens of Tupelo into developing
13 the most context sensitive design and do what we can for the
14 particular areas that it flows through.

15 There's no reason to have one particular design
16 consistent with the entire route. We can have different
17 elements to be more consistent with the surrounding
18 landscape. It's all about perception with the route as it
19 comes through town and the perception may need to be changed
20 as it goes through town because certain areas do not reflect
21 the same meaning to people that live there. Mill Village was
22 initially established as an out-growth of the industrial
23 nature of that portion of Tupelo and there are other areas
24 that are more residential.

25 There's no reason why you have to make one appear

1 like the other. There should be a conceptual sensitivity to
2 the entire route that involves having some buy-in to kind of
3 help design something most appropriate to that area. And
4 that's what this -- the memorandum is all about is having
5 this -- if you'll excuse the expression -- blend in as much
6 as possible to the surrounding concerning landscape that it
7 -- there's a collective sense of ownership to it. The
8 assessment would be collective eyesight to be incorporated in
9 and embraced by the city to kind of incorporate into its
10 identity. I don't know if that answers your question.

11 MR. GREG PIRKLE: Have you seen that happen
12 in other areas?

13 MR. JOHN UNDERWOOD: Not in Mississippi. To
14 be honest, this is the first kind of urban project that we've
15 had, and so, we are kind of encountering a brave new world at
16 this outlet. Most of our mitigations have dealt with -- on
17 the archeological side. We've had a lot of those mitigation
18 hearings and we're having to reach other states and other
19 (inaudible) and other preservation offices to ask different
20 groups what are the solutions that you've been presented with
21 up in the Northeast and then out in the American West.

22 What has worked there? You know, what kind of
23 design elements have been best incorporated? What are some
24 ways to help soften the appearance here? How can you best
25 incorporate building a retaining wall and have it not look

1 like the Great Wall of China coming through the middle of
2 your downtown? How can you best incorporate this and make
3 this, you know, flow into an environment? We're still
4 gathering these ideas. The conceptions that were drawn up
5 here are just those, conceptions.

6 The whole idea behind the memorandum agreement is
7 to have all of Tupelo or at least, you know, those who want
8 to participate provide suggestions and ideas on how
9 physically that could work. What kind of materials would you
10 use, what kind of aesthetic surface treatment would you use
11 to kind of make this appear as much at home here as we can.
12 And so, by -- what you've seen here tonight is by no way,
13 shape or form what it could -- should look like. It's only
14 what it possibly could look like.

15 So the whole memorandum process is to try to get
16 as much public buy-in as what we think you might have a good
17 look at. Hope that answers your question. There is by no
18 mean, shape or form a set look for any of the structure.
19 We're just proposing what may be considered as a structured
20 form in certain areas.

21 MR. RHEA VINCENT: That answer your question,
22 sir? Okay. Our next participant, Mr. Bill Smith.

23 MR. BILL SMITH: Here. Well, one of my
24 questions is with this railroad being elevated at -- what's
25 the height? Possibly?

1 MR. RHEA VINCENT: It ranges in height from
2 the bottom -- for the rails, the bottom of the construction
3 itself is about 16 to 17 feet for construction and cars to go
4 under and it'd be about five or six more feet above that for
5 the concrete part of it. The steel trusses will go up a good
6 bit higher because we have to form around it or we're going
7 to have to go and design something else other than what you
8 see there in the picture.

9 MR. BILL SMITH: Okay.

10 MR. RHEA VINCENT: That's just a proposal in
11 the picture.

12 MR. BILL SMITH: Okay. Well, my concern
13 would be, like, I would hate for us to look kind of like
14 Jackson, Mississippi, with the train coming through town and
15 it creates a division and you can distinctly drive through
16 Jackson and see that when you're passing that area. And I
17 would hate for our downtown to be divided. As a small town
18 as we are and we are trying to mend ourselves to be better
19 citizens and better stewards among ourselves and friends that
20 with a railroad that high coming through the center of town,
21 it would create a problem. That's just a personal opinion.

22 MR. RHEA VINCENT: Is that a statement or
23 would you like me to try to answer it?

24 MR. BILL SMITH: If you can.

25 MR. RHEA VINCENT: Okay. I think we're

1 following along the lines of what Mr. Underwood just said
2 here. Will there be a train here? Yes. Can you take this
3 proposal? Yes. Does it have to look like anything else
4 you've ever seen? No. It's up to y'all basically of what
5 y'all want out there. But there is a limit. I mean, money
6 is going to play a role in this. At this point in time, all
7 we're doing here is proposing what it might look like. We
8 haven't gone through any of the procedures that were to
9 beautify the route, although we do have some examples on our
10 other screens over here if y'all would like to look at them.
11 And that's about all I could say about the statement you
12 made.

13 Our next participant is Ms. Karen Keeney. There
14 you go, ma'am.

15 MS. KAREN KEENEY: I'm the chair of the
16 Historic Preservation Commission. This impacts a lot of our
17 historic resources within Tupelo, especially Mill Village.
18 This elevated structure would actually divide Mill Village.
19 Mill Village is actually on both sides of the railroad track.
20 And we've seen the draft of the MOA and I think that -- you
21 know, we're sending in some written comments to that, so this
22 is not just a two-minute blurb, you know, so -- of what we'll
23 send in.

24 But one of the things that we would like to see
25 is, obviously, a no-build alternative happen, but the second

1 item is if this went forward and -- we would actually like to
2 see more mitigation efforts than what's offered in the MOA.
3 We'd like to see more than just a survey of the resources
4 that are going to be effected, but possibly some grant money
5 for those impacted areas because this will impact them in a
6 negative way when it comes to property values.

7 The vibration area -- I live in Gravlee, so it
8 would effect my personal property and there is a vibration
9 aspect. Carolyn and Joyce both live in Gravlee and they can
10 tell you their walls shake and stuff like that and the
11 vibration would actually go up, increase, even though there
12 may not be structural damage.

13 So there are some impacts that would effect those
14 properties in a negative way, so we'd like to see some seed
15 money for those areas, not just Mill Village, but future
16 potential historic neighborhoods of Gravlee and Joyner that
17 may not be relevant and listed on the national register
18 today, but are indeed old enough to be listed on the national
19 register and, therefore, are effected resources. So we'd
20 like to see a little bit more given for that.

21 As well as in the MOA, there's 30 days given for
22 replies and buy-ins from the neighborhoods, the commission,
23 the city to give anything that we want to add to it after
24 that -- you know, the final draft is given and we don't
25 believe that 30 days is enough time to get an organized group

1 of people together and be able to formulate exactly what we
2 want it to look like and exactly what we want. So I think
3 that we would -- we would prefer to see a longer timetable
4 for that, a minimum of 60 days to 90 days that we can
5 actually give you a better idea.

6 And I think that maybe one thing that people have
7 touched on a little bit is the aesthetics. The aesthetics is
8 the -- what you're showing here is, like, a one-way
9 structural system, you know, the industrial concrete ties and
10 -- which we understand and realize that, but we need to see
11 some other alternatives of structural systems, not just
12 applied facades of the actual built-up retaining wall because
13 those are all applied systems, but actually a different
14 structural system needs to be probably presented to the city
15 for us to have comment on.

16 MR. RHEA VINCENT: Okay. I don't know if I
17 have a question in there.

18 MS. KAREN KEENEY: There's not really a
19 question.

20 MR. RHEA VINCENT: Okay. As we said earlier,
21 the design is not -- has not been finalized. We haven't
22 started on it. No one has started on the design. It will be
23 between the citizens of Tupelo and Tupelo itself on what they
24 really want out of this. Of course, cost will be a factor.
25 I have to bring that up. It always is, but that doesn't say

1 that we can't do it.

2 With respect to the MOA, I'm thinking -- John, and
3 help me with this -- that 30-day period, can it be extended?

4 MR. UNDERWOOD: Well, the spirit of the MOA
5 was designed so that whenever we're -- the whole purpose
6 around those various subsections and review period was to get
7 some kind of consensus on agreeing that that may be a good
8 approach. I don't -- I wasn't trying to portray that we need
9 to make a decision on appearances in a 30-day period. That
10 was never part of my -- that was never part of the spirit of
11 the MOA.

12 The MOA was designed to see if -- if these are
13 elements we can all agree on to be mitigation approaches.
14 And when it got down to the point of drafting actual concepts
15 and renderings and -- it would be a far longer process than
16 just 30 days. That's what was communicated. That's my fault
17 and I apologize.

18 MS. KAREN KEENEY: Well, it's more than just
19 that. Like, you're wanting input from the neighborhood
20 associations that will be involved, the preservation
21 commission. All these things meet sometimes quarterly. They
22 don't necessarily always meet every month. Neighbor
23 associations meet every other month or quarterly a year. And
24 so, you're -- they all have different structures and I know
25 we're not on the same timetable and I think that the 30 days

1 is too long (sic) to ask somebody that may not even meet that
2 month that it's coming out to get back any type of answer,
3 even if it's just, look this over and see if you agree with
4 it. You might not be able to get those people together in 30
5 days. So I think that that's a big concern.

6 MR. JOHN UNDERWOOD: And that's fine. As I
7 said earlier, this MOA is different than just about anything
8 else we've ever drafted because we're dealing with
9 circumstances we've never really dealt with before in these
10 resources environment. So there is no reason why we can't
11 have it in a different format. As Carnot said earlier, the
12 MOA is in a draft format for this reason itself.

13 Each MOA, when we design it for a project, is
14 going to be specific to that project. We have -- it may have
15 a general form that's recognized as a process, but each --
16 the language and the specifics are project individualized.
17 And so, there is no reason why the specific details and
18 stipulations that are being spelled out in this agreement
19 cannot be tailored for this project that's (inaudible) what's
20 being done.

21 And some things that are being kicked around
22 currently are, you know, education sponsorship ideas or
23 possibly ways of fostering some kind of preservation money.
24 That has been kicked around before and (inaudible),
25 especially following different agreements in place and we

1 want those communities to have those kind of reciprocal --
2 you know, seed money in place and educational opportunities
3 to have, you know, local focus groups setup that are more
4 cognizant of what the federal regulations and laws are for
5 what the citizens can and cannot do in certain 106
6 situations.

7 So all of these are still on the table. And,
8 again, the draft is just that, a draft and I'm trying to get
9 all the comments I can because I want to have as much buy-in
10 for all of those that are effected as I can and, you know,
11 the limit to this agreement is far more reaching than the
12 previous things that you've had. I'm being given the yank on
13 my Oscar speech.

14 MR. RHEA VINCENT: I apologize for that,
15 John. What I'm going to offer to you, young lady -- I
16 apologize because I forget your name. What I would have John
17 do is call you.

18 MS. KAREN KEENEY: I've got his contact
19 information, so -- and I'm going send him my comments.

20 MR. RHEA VINCENT: We have no problems with
21 this type of communication. This is an opportunity for
22 helping Tupelo along. Our next participant will be
23 Ms. Doyce Deas.

24 MS. DOYCE DEAS: I'm Doyce Deas. I am a
25 former member of the city council and I'm a current member of

1 the Historic Preservation Commission. I would like to go on
2 record as being adamantly opposed to this plan. I don't care
3 if it's gold-plated and enshrined with roses, it will not be
4 attractive and it will be the Great Wall of Tupelo. It's a
5 psychological as well as a physical barrier within our city.
6 We're working too hard to pull all of our neighborhoods
7 together and this will only exacerbate many problems that we
8 have now. I am adamantly opposed to this. I think to spend
9 almost 400 million dollars on something that could have a
10 better solution is really outrageous and if we've got 400
11 million dollars laying around, I think we can find a better
12 use for it in Tupelo.

13 As far as the safety issue, it's often mentioned
14 that it's difficult, you know, for people to get to the
15 hospital, but as far as I know, no one has ever died sitting
16 there waiting for that train to go through. The elevation,
17 16, 18 feet in the air to me seems quite hazardous. If any
18 of the derailments could occur, it would just be -- they
19 would become projectiles and I just think that there are
20 better ways to solve this issue.

21 Tupelo exists because of the railroad track. It
22 is our history and we can -- if you put down -- if you put up
23 gates and speed up the trains, you can get them through town
24 much more quickly. It's much more cost effective and quite
25 honestly, I just think this is an exercise in futility.

1 There are better solutions to this problem.

2 MR. RHEA VINCENT: Thank you, ma'am. At this
3 time, we'll open the floor to the general public for
4 questions. If there are any questions that you'd like to ask
5 of the consultants or MDOT, we'll be more than happy to
6 entertain them right now. Are there any -- is there anybody
7 -- yes, sir.

8 MR. RUSSELL PESKO: If memory serves reading
9 the paper on the original articles and proposals, the one
10 thing I was particularly shocked at is the alternative of
11 taking the railroad tracks around the city instead of
12 building a bridge through there and they were talking about
13 something, like, 780 million dollars in cost. And there's
14 nothing but a lot of, what, some farm land out there that I
15 can't believe would be that expensive to buy and you're
16 telling me that a raised bridge, which, obviously, is not
17 going to be inexpensive to build, there's going to be that
18 much of a cost difference? And to echo what the lady just
19 said, that 400 million dollars, there's got to be a better
20 way, and I agree with that, and I also agree with the idea
21 that -- I'm not --

22 I belong to a lot of groups. I'm not speaking as
23 part of any of them, just as myself, but essentially, you put
24 a bridge through the middle of town, you're going to create
25 the wrong side of the tracks. The South Gloster area has

1 been fighting hard to stay alive and come back since all the
2 business and all the new stuff is up by Barnes Crossing. And
3 that will be a barrier and, you know, we're trying to pull
4 people together, not divide them, but I just still can't
5 believe -- I mean, some of these maps on here quite don't
6 make sense to me, at least not from what I remember reading
7 originally, and I fail to believe that we can't find a
8 reasonably-priced route around the city as opposed to saying,
9 look, we're going to run a bridge through here or not. So
10 these other alternatives, are they really that expensive?

11 MR. RHEA VINCENT: The other alternatives,
12 yes, sir, they are. Let me get your name first.

13 MR. RUSSELL PESKO: Russell Pesko.

14 MR. RHEA VINCENT: Mr. Pesko, yes, all the
15 other alternatives are that expensive. Especially the ones
16 that are in the lower areas of the streams and creeks that we
17 have out there. In those areas, we're basically dealing with
18 floodplains or floodways and in those areas, we end up
19 building on bridges to keep the rail out of those waters.
20 You've got to let these people continue to produce a product
21 there, their rail line.

22 The range in costs have been from the 385 million
23 up to a billion and a half with a viaduct, believe it or not
24 -- excuse me, not the viaduct, but the trench. That was a
25 rough estimate. We knew that that one just wasn't going to

1 fly. We've done what we could with the estimates that we
2 had.

3 MR. RUSSELL PESKO: Well, what about that one
4 fellow's suggestion, for instance, of using the right of way
5 along the highway, along 78 where you've got the median
6 there? You would have the infrastructure and there wouldn't
7 be a lot of bridge work to be done. The sewer pipes are
8 already there. I would think that you could get a lot of
9 miles of track taken care of, not to mention it's easily
10 accessible, although that's not in one of the plans, but I'm
11 just curious why that was overlooked or why that's not
12 feasible.

13 MR. RHEA VINCENT: Actually, it was
14 dismissed.

15 MR. RUSSELL PESKO: Why?

16 MR. RHEA VINCENT: For the most part because
17 if you try and parallel the road with the rail, because of
18 the fluctuation of the road's grade, up and down of the road,
19 versus what a rail line requires, that is, a little, flat
20 line and that's it, then you end up with a disparity so vast
21 that you have to move the rail further out away from the
22 road. I don't think I can answer your question there.

23 Basically, a road can have a four percent slope on
24 it, as much as a four percent grade. A rail line can have a
25 maximum of one percent. That's -- yeah. That's three feet

1 for every 100-foot difference. So a road can really get up
2 quickly where a rail line has to stay flat. Paralleling --
3 and we did this in MDOT itself -- I believe it was 78 out
4 there? What would happen here is if we kept the rail
5 parallel to 78, what we'd end up doing is creating a huge
6 trench right there 20-some-odd feet deep and creating a river
7 that just basically flowed right into the Natchez Trace.
8 That's what would happen. That's why we did not pursue that
9 alternative.

10 Yes, sir. I'll need your name.

11 MR. GEORGE COPEN: George Copen. Okay. Why
12 couldn't we -- I know it's more expensive to go around
13 Tupelo. Could we not float a city, a state or a government
14 bond and pay it out long-term and keep Tupelo like it is?

15 MR. RHEA VINCENT: Okay. Very good question.
16 We did not address the issue of floating bonds or methods of
17 payment in this document. That will be for the City of
18 Tupelo to work out later on down the line. I don't know how
19 else to answer that one except that we did not do that.
20 Methods of payment for these projects usually come about
21 after the EEA has come into play -- or EIS has come into
22 play.

23 Anybody else?

24 Well, ladies and gentlemen, that concludes our
25 question and answer session here. We'll still be out here

1 till seven o'clock answering personal questions about the
2 project. Please feel free to grab a snack, fill out a
3 comment card or come and look at our pictures here. Thank
4 you.

5 (Whereupon, there were no further comments
6 given to the court reporter and the public hearing was
7 adjourned at 7:00 p.m.)

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C E R T I F I C A T E

STATE OF MISSISSIPPI)
COUNTY OF CHICKASAW)
RE: PUBLIC HEARING ON TUPELO RAILROAD RELOCATION PLANNING
AND ENVIRONMENTAL STUDY

I, Kathryn H. Boyer, CSR #1349, a Notary Public within and for the aforesaid county and state, duly commissioned and acting, hereby certify that the foregoing proceedings were taken before me at the time and place set forth above; that the statements were written by me in machine shorthand; that the statements were thereafter transcribed by me, or under my direct supervision, by means of computer-aided transcription, constituting a true and correct transcription of the proceedings; and that the witness was by me duly sworn to testify to the truth and nothing but the truth in this cause.

I further certify that I am not a relative or employee of any of the parties, or of counsel, nor am I financially or otherwise interested in the outcome of this action.

Witness my hand and seal on this 14th day of August, 2011.

My Commission Expires:
June 25, 2015

CSR #1349
Notary Public



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	send 22:23 27:19	significantly 16:10	standing 18:2	surrounding
	sending 22:21	sir 20:22 29:7 30:12 32:10	start 10:14,22	
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		situations 27:6	statement 8:6 10:16 21:22 22:11	
		six 9:13 21:4	statements 10:9	
		slope 31:23		
		small 21:17		
		Smith 20:22,23 21:9,12,24		
		snack 33:2		

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system 24:9,14	third 7:9	trains 2:11 3:8	typed 2:2	29:2 30:11,14
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	three 6:22 15:25	34:13	underneath 2:8	voting 3:18
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14:11 15:5	22:6 23:25	trees 4:21 14:12	upkeep 2:10,15	24:12 28:4
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17:4	Titled 2:3	true 34:15	usually 32:20	15:21,22 16:4
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	1	4
	1 2:5	4 2:16
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	11988 8:25	5:00 7:14
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	12898 9:2	60 24:4
	14th 34:21	662-842-8345
	1500-1508 8:23	4:18
	16 21:3 28:17	7
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	18th 17:21	771 8:24
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	1968 8:21	8
	1969 9:9	8 8:20
	1990 9:5	9
	2	90 24:4
	2 2:6	911 13:19
	20-some-odd	
	32:6	
	2010 1:11	
	2011 2:4 7:14	
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	375 5:21	
	385 11:8,9,13	
	30:22	
	38802-0761 1:25	

CECIL VICK'S NOTES ON THE PUBLIC HEARING FOR THE TUPELO RAILS
PROJECT
Transcribed 09-13-2011

Considering the attendance at other public meetings for this project, the formal public hearing had relatively low turnout. Despite that it went smoothly and well. It was an open forum hearing with two formal presentations and two question and answer sessions. This format worked well for both MDOT and for the public. Everyone I talked to was happy with the venue, the displays, and the presentations.

The local politicians, representing the people, expressed these sentiments:

The Mayor:

- He clearly likes the preferred alternative more than any bypass.
- He has concerns about the City assuming maintenance responsibilities for the proposed structure.
- He recognizes that some citizens are concerned that a long railroad bridge could become a hangout for homeless people.
- He thinks that it might be possible to elevate the railroad over Eason Boulevard only.
- He has no idea where the city would get \$400 million to construct the project.
 - The city does not have it.
 - MDOT said they do not have it.
 - Traditionally you build such projects with earmarks, but earmarks of that magnitude are very unlikely.

The City Council:

- At least one councilperson does not like construction on fill, because it would act as a wall to separate neighborhoods.
- The Council is also concerned about the viaduct becoming a refuge for the homeless.

The Historic Community:

- The Historic Preservation Commission, and some residents of the historic community, opposed the preferred alternative. They say MDOT should put up more gates and increase the speeds of the trains.
- A developer with investments in the Mill Village Community expressed his concerns that the project would destroy the area's historic integrity and ruin his investment.

The Public in general:

- The citizens I talked to generally liked the proposal.

- Generally any opposition was over historic concerns and how lessening the integrity of the historic district could diminish property values.
- Basically, among the private citizens there was relatively little opposition—even by those who live adjacent to the tracks.
- I talked to a heart patient who explained the critical nature of not having the train block access to the hospital.
- Among the people I talked to, there was strong opposition to putting the structure on fill and using retaining walls. The people did not want aesthetically pleasing retaining walls—the wanted the transparency beneath a bridge. Otherwise, they saw the project as creating a wall dividing the City.
- Most people though that \$400 million was just too much money to spend to fix the existing problem.

A handwritten signature in blue ink, appearing to read "Craig W. Vining". The signature is fluid and cursive, with a large initial "C" and a long, sweeping underline.

APPENDIX F

WRITTEN COMMENTS



Public Hearing COMMENT SHEET

August 11, 2011, Tupelo, MS

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmentalcomments@mdot.state.ms.us
www.goMDOT.com

Name Mary Connor Adcock Telephone 662-205-4696
 Address 1304 Lawhan Drive
 City Tupelo State MS Zip 38804

Which best describes your ~~primary interest?~~

Affected	<u>Resident</u>
Concerned	Business
Other _____	Landowner
	Other _____

What are the major issues?

Relocations	Noise
Wetlands	Safety
Wildlife	Social
Traffic Volume	Economics
Other <u>neighborhoods</u>	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: no build

Issues and/or concerns about the project: _____

Recommendations for the project: _____

George J. Copen

1213 Zentwood
Tupelo, MS 38801
Phone: 662-844-5267
e-mail: gcopen@bellsouth.net

August 12, 2011

The alternative you like the best and why: **Alternative L or J** – Rail traffic would swing around Tupelo preserving our way of life. I know there are issues with the Indian Nations, wet lands, and costs. But you must also look at what will attract more people to live in Tupelo, and how many people would leave looking for an **All-American City** where you can live and grow a family.

Issues and/or concerns about the project: The **Build Alternitve** would disrupt lives and traffic for at least 24 months, and most likely beyond. Although the elevated tracks may be made attractive, I do not think the city of Tupelo is prepared to put into its budget funds to clean the blank canvas the concrete posts offer to graffiti artists.

Recommendation for the project: The project does need to move forward. This could be accomplished by creative funding; perhaps by funding with long-term bonds, 30 years or beyond (when the railroads first put in the tracks I'm sure the paid for their construction is less time). As Mr. Vincent indicated "Not even Congress has the funds right now".

Cc: Mayor Jack Reed Jr.
The Editor, Daily Journal

Eric Jefferson

From: Vincent, Rhea <vincent@mdot.state.ms.us>
Sent: Wednesday, September 28, 2011 3:19 PM
To: Eric Jefferson
Subject: FW: Tupelo Railroad Relocation

From: Pat Falkner [<mailto:Pat.Falkner@tupeloms.gov>]
Sent: Monday, August 15, 2011 7:48 AM
To: Environmental_Comments
Subject: Tupelo Railroad Relocation

The proposed elevated structure for the railroad would be visually disruptive to a large part of the older section of Tupelo, which the city has been trying to make more attractive for residential location and reinvestment. The elevated structure would undermine this goal of our comprehensive plan. The plan's transportation goals refer to the need to study the Crosstown intersection and the possibility of relocating the railroad, but this alternative would impose unwanted change to the character of several older neighborhoods. Preservation of those neighborhoods is of greater importance than eliminating the train-caused traffic delays. Outside the question of environmental impact, the estimated cost of the elevated structure makes the alternative financially unrealistic, to put it mildly. Neither local taxpayers nor any other taxpayers should be asked to pay for this.

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Eric Jefferson

From: Vincent, Rhea <vincent@mdot.state.ms.us>
Sent: Wednesday, September 28, 2011 3:20 PM
To: Eric Jefferson
Subject: FW: Tupelo Railroad changes

From: Eric Feng [<mailto:tfsincms@bellsouth.net>]
Sent: Sunday, August 07, 2011 7:42 AM
To: Environmental_Comments
Subject: Re: Tupelo Railroad changes

I wonder what's the cost if the train go underground instead of raising it plus the underground structure can serve as shelter for people if tornado hits.

Eric Feng

President
The Feng's System, Inc.

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If you have received this message in error, please notify the sender at the above e-mail address and delete it and all copies from your system.

August 10, 2011

To: MDOT

CC: Mayor Jack Reed and Tupelo City Council

We are dismayed to learn that the \$2 million railroad study results suggest that the best solution for train delays in downtown Tupelo is to elevate the tracks. This would prove to be very detrimental to the revitalization of downtown Tupelo...property values would decrease, the noise from the faster traveling trains would be annoying and vagrants would soon be living under the tracks since that area would not be able to be utilized for anything else. Aesthetically, Crosstown and Mill Village's appearance would be destroyed by tracks 20 feet above street level. The Mill Village area, with many recent renovation improvements, would become blighted again. In recent years, more development has taken place north of Main Street; the elevated tracks would further divide the City into two areas.

We live on Robins Street, less than a mile from Crosstown. Therefore, we travel through that intersection numerous times daily. Although it is a slight inconvenience to be stopped by trains, most citizens are used to this so simply add a few extra minutes to their travel time. We aren't disturbed by the sounds from current train travel through Tupelo, but would be by the sounds made if trains traveled at a fast speed and higher altitude.

Ideally the tracks should be moved so that the trains do not run through the downtown area; however we realize that is cost prohibitive. We suggest simply adding crossing arms at every intersection in the downtown area so that the trains don't have to whistle as they travel through the city limits. This would also allow the trains to go through at a faster speed so that the intersections wouldn't be blocked for as long as they are now.

During this difficult economic period in our country's history it makes no sense to even consider spending a possible \$400 million to elevate trains in Tupelo. Please look for alternatives that would make better financial sense and that would help maintain the present aesthetic appeal to our residential, as well as commercial areas in downtown Tupelo. We are totally opposed to this costly, preposterous plan to elevate the tracks.

Sincerely,

Dr. and Mrs. Don McGukin

502 Robins Street

Tupelo, MS 38804



Public Hearing COMMENT SHEET

August 11, 2011, Tupelo, MS

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmentalcomments@mdot.state.ms.us
www.goMDOT.com

Name Brenda Crook Telephone 731-432-3038
 Address 911 Jefferson
 City Tupelo State MS Zip 38804

Which best describes your primary interest?

Affected	<u>Resident</u> X
Concerned	Business
Other _____	<u>Landowner</u> X
	Other _____

What are the major issues?

<u>Relocations</u>	Noise
Wetlands	Safety
Wildlife	Social
Traffic Volume	Economics
Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: I purchased my house because I Love trains, I am against the Bridge being built. I would ruin the neighbor hood and my property. R&R being 25ft from my front door. I just paid my house off- and have to have a heart transplant- This would ruin my dreams of loving trains

Issues and/or concerns about the project: Would ruin my property, cause more crime, and seperate the city, there are not 20-25 trains per-day more like 10-15 if that.

Recommendations for the project: Relocate switch yard, put up crossing gates, speed trains up. This would help with traffic, and take care of problems, plus save money.

PLEASE SUBMIT AT THE HEARING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC HEARING

Visit us on the web at www.goMDOT.com, or e-mail environmentalcomments@mdot.state.ms.us



Public Hearing COMMENT SHEET

August 11, 2011, Tupelo, MS

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355

E-mail: environmentalcomments@mdot.state.ms.us

www.goMDOT.com

Name Lisa Hansberger Telephone 662-678-6769
 Address 1229 Houston St
 City Tupelo State MS Zip 38804

Which best describes your primary interest?

- | | |
|---|---|
| <input checked="" type="radio"/> Affected | <input checked="" type="radio"/> Resident |
| <input type="radio"/> Concerned | <input type="radio"/> Business |
| <input type="radio"/> Other _____ | <input type="radio"/> Landowner |
| | <input type="radio"/> Other _____ |

What are the major issues?

- | | |
|---|---|
| <input type="checkbox"/> Relocations | <input checked="" type="checkbox"/> Noise |
| <input type="checkbox"/> Wetlands | <input checked="" type="checkbox"/> Safety |
| <input type="checkbox"/> Wildlife | <input type="checkbox"/> Social |
| <input type="checkbox"/> Traffic Volume | <input checked="" type="checkbox"/> Economics |
| <input type="checkbox"/> Other _____ | |

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: rerouting tracks along
45 & 78 highways / interstate

Issues and/or concerns about the project: The economic impact on
neighborhoods with an elevated track running through
the center of our urban area.

Recommendations for the project: no more studies, either
reroute OR - double gate all crossings,
cease the use of horns and speed up the trains
change the switch point.

PLEASE SUBMIT AT THE HEARING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC HEARING

Visit us on the web at www.goMDOT.com, or e-mail environmentalcomments@mdot.state.ms.us



Public Hearing COMMENT SHEET

August 11, 2011, Tupelo, MS

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmentalcomments@mdot.state.ms.us
www.goMDOT.com

Name Ide Henderson Telephone 662-255-5725
 Address 144 Rd. 784
 City Tupelo State MS Zip 38801

Which best describes your primary interest?

Affected	Resident
Concerned	Business
Other _____	Landowner
	Other _____

What are the major issues?

Relocations	Noise
Wetlands	Safety
Wildlife	Social
Traffic Volume	Economics
Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: _____

Issues and/or concerns about the project: I do not want Alternative
R - please!

Recommendations for the project: Build the overpass,
if necessary, or let it exist as it
is ~~if~~ rather than going around -
Do not push Tupelo's problems to the
country. We do not want the noise
of a train.

PLEASE SUBMIT AT THE HEARING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC HEARING



Public Hearing COMMENT SHEET

August 11, 2011, Tupelo, MS

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355

E-mail: environmentalcomments@mdot.state.ms.us

www.goMDOT.com

Name RALPH HENDERSON Telephone 566-7530

Address 144 RO. 784

City Tupelo State MS Zip 38801

Which best describes your primary interest?

- | | |
|---|---|
| <input checked="" type="checkbox"/> Affected | <input checked="" type="checkbox"/> Resident |
| <input checked="" type="checkbox"/> Concerned | Business |
| Other _____ | <input checked="" type="checkbox"/> Landowner |
| | Other _____ |

What are the major issues?

- | | |
|----------------|---|
| Relocations | <input checked="" type="checkbox"/> Noise |
| Wetlands | <input checked="" type="checkbox"/> Safety |
| Wildlife | <input checked="" type="checkbox"/> Social |
| Traffic Volume | <input checked="" type="checkbox"/> Economics |
| Other _____ | |

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: ALTERNATIVE M
THIS IS A TUPELO PROBLEM AND NOT THE
COUNTY PROBLEM. TUPELO NEEDS TO SOLVE IT
BUT KEEP THE TRACKS IN TUPELO.

Issues and/or concerns about the project: _____

I DO NOT WANT ALTERNATIVE K

Recommendations for the project: ALTERNATIVE M

PLEASE SUBMIT AT THE HEARING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC HEARING

Visit us on the web at www.goMDOT.com, or e-mail environmentalcomments@mdot.state.ms.us



Public Hearing COMMENT SHEET

August 11, 2011, Tupelo, MS

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmentalcomments@mdot.state.ms.us
www.goMDOT.com

Name JACQUE PRATHER Telephone 842-8345
 Address 1826 W JACKSON
 City TUPELO State MS Zip 38901

Which best describes your primary interest?

Affected	<u>Resident</u>
Concerned	Business
Other _____	Landowner
	Other _____

What are the major issues?

Relocations	Noise
Wetlands	Safety
Wildlife	<u>1 Social</u>
<u>3 Traffic Volume</u>	<u>2 Economics</u>
Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: ALTERNATIVE L
TAKES TRAIN OUT OF PRESENT PATH
THAT CORRECTS EXISTING PROBLEMS
" WE DO NOT NEED THE GREAT WALL OF TUPELO "

Issues and/or concerns about the project: THE WALL WILL AGAIN
DEVIDE TUPELO. YEARS AGO TUPELO WAS
KNOWN AS 3 AREAS. (1) TUPELO - (2) SOUTH
OF FRISCO AS SOUTH TUPELO AND (3)
EAST OF G.M.D AS SHAKIE RAG.
THIS WILL REVERT TO A SEPERATION OF TUPELO

Recommendations for the project: GO AROUND OR DO NOTHING.
QUESTION: WHO WOULD PAY THE
\$1,000 PER DAY UPKEEP

PLEASE SUBMIT AT THE HEARING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC HEARING



Public Hearing COMMENT SHEET

August 11, 2011, Tupelo, MS

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmentalcomments@mdot.state.ms.us
www.goMDOT.com

Name Russell PESKO Telephone 662 680-3093
 Address 1901 CARDINAL
 City TUPELO State MS Zip 38801

Which best describes your primary interest?

Affected	<u>Resident</u>
Concerned	Business
Other _____	Landowner
	Other _____

What are the major issues?

Relocations	Noise
Wetlands	Safety
Wildlife	Social
<u>Traffic Volume</u>	<u>Economics</u>
Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: PLAN E - LESS INVASIVE

Issues and/or concerns about the project: A BRIDGE THRU THE MIDDLE OF TOWN WILL HURT BUSINESS ALONG S. GLOSTER WHICH HAS BEEN FIGHTING FOR SURVIVAL SINCE THE N-GLOSTER BARNES CROSSING COMPLEX, AS WELL AS LOWER PROPERTY VALUE S OF THE TRACKS - YOU WOULD CREATE "WALK SIDE OF THE TRACKS"

Recommendations for the project: GO AROUND THE CITY AS MUCH AS POSSIBLE AND NO LARGE BIG BRIDGE RIGHT THRU THE HEART OF TOWN



Public Hearing COMMENT SHEET

August 11, 2011, Tupelo, MS

PROJECT BEING CONSIDERED

Tupelo Railroad Relocation

Environmental Division FAX Number: 601-359-7355

E-mail: environmentalcomments@mdot.state.ms.us

www.goMDOT.com

Name John Carruth Telephone 662-322-8842

Address 511 Magazine

City Tupelo State MS Zip 38804

Which best describes your primary interest?

- Affected
- Resident
- Concerned
- Business
- Other all listed
- Landowner
- Other all listed

What are the major issues?

- Relocations
- Noise
- Wetlands
- Safety
- Wildlife
- Social
- Traffic Volume
- Economics
- Other _____

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: None mentioned
Crossing arms or nothing.

Issues and/or concerns about the project: The railroad is & was
a reason for Tupelo to prosper. Not as bad as people
make it. We should be astounded to expect
anyone to spend that amount of money.

Recommendations for the project: Small town - not metropolitan
area. Let our ourselves and go on.
None of the citizens want this and I live close
trying to improve our area. Not destroy

PLEASE SUBMIT AT THE HEARING OR MAIL TO ADDRESS ON REVERSE SIDE WITHIN 10 DAYS OF THE PUBLIC HEARING

Visit us on the web at www.goMDOT.com, or e-mail environmentalcomments@mdot.state.ms.us



Public Hearing COMMENT SHEET

August 11, 2011, Tupelo, MS

PROJECT BEING CONSIDERED
Tupelo Railroad Relocation
Environmental Division FAX Number: 601-359-7355
E-mail: environmentalcomments@mdot.state.ms.us
www.goMDOT.com

Name CAL SMITH Telephone 841-0800 (H) 255-1761 CELL
 Address 1218 MARSHALL ST
 City TUPELO State MS Zip 38804

Which best describes your primary interest?

Affected	Resident
Concerned	Business
Other _____	Landowner
	Other _____

What are the major issues?

Relocations	Noise
Wetlands	Safety
Wildlife	Social
Traffic Volume	Economics
Other _____	

MDOT is interested in your comments about the proposed project. Please indicate:

The alternative you like best and why: #1 NO CHANGE FROM PRESENT. (NO CONFLICT)
#2 ALTERNATIVE L

Issues and/or concerns about the project: MONEY SPENT. LIFE CYCLE COSTS.

Recommendations for the project: POSTPONE PROJECT