Appendix H: Visual Impacts

Abbreviated Visual Impacts Assessment
MDOT Job No. SP-0007-01(102)
Marshall County, Mississippi

Introduction

The Mississippi Department of Transportation (MDOT) is proposing to construct a new highway interchange with frontage roads and connections along United States Highway 72 (US 72) in Marshall County, Mississippi. The purpose of the proposed project is to provide safe and efficient access to the Chickasaw Industrial Park (CIP) and a planned electric-vehicle battery plant development. The proposed project would connect the industrial park and battery plant to US 72 and State Route 302 (SR 302). The purpose of this report is to evaluate possible visual impacts from the proposed project in accordance with the Federal Highway Administration (FHWA) *Guidelines for the Visual Impact Assessment of Highway Projects* (January 2015). A visual assessment questionnaire completed for the study area determined that an abbreviated Visual Impact Assessment (VIA) be prepared for the proposed project. See Attachment A for the completed questionnaire.

Project Description

Three build alternatives were presented at the public meeting held on May 30, 2024. An additional build alternative was developed after public involvement and is the preferred build alternative for the proposed project. The preferred alternative has a proposed realignment of Red Banks Road from SR 302 to connect to the planned battery plant development and the CIP. The preferred alternative consists of US 72 intersection improvements with proposed frontage road access. The preferred alternative includes a new rural arterial connection that extends from Highway 302 to the CIP and planned battery development. This new location roadway would consist of two 12-foot travel lanes, one lane in each direction with 8-foot shoulders, a 30-foot clear zone, and a design speed of 55 miles per hour. The frontage road access sections would consist of two 12-foot lanes with turn lanes at the intersections.

The study area, also known as the area of visual effect (AVE), is shown in **Figure 1**. The AVE considers the landform and land cover conditions identified using aerial imagery.

Affected Environment

The visual character of the study area is primarily rural. The current environment of the AVE includes agricultural/pasture fields, woodlands, some residential properties, and commercial developments. The study area is predominantly undeveloped; therefore, a natural environment of vegetation dominates the visual character of the area. The natural environment consists of open grass fields and woodland/forested areas. Both static and dynamic views from US 72 in the study area consist of trees and natural landscapes. As shown in Attachment B, existing tree lines limit views beyond the foreground and inhibit views to the middle and background environments. There are limited structures and buildings that can be observed in the study area. The existing developments are scattered throughout the project limits.

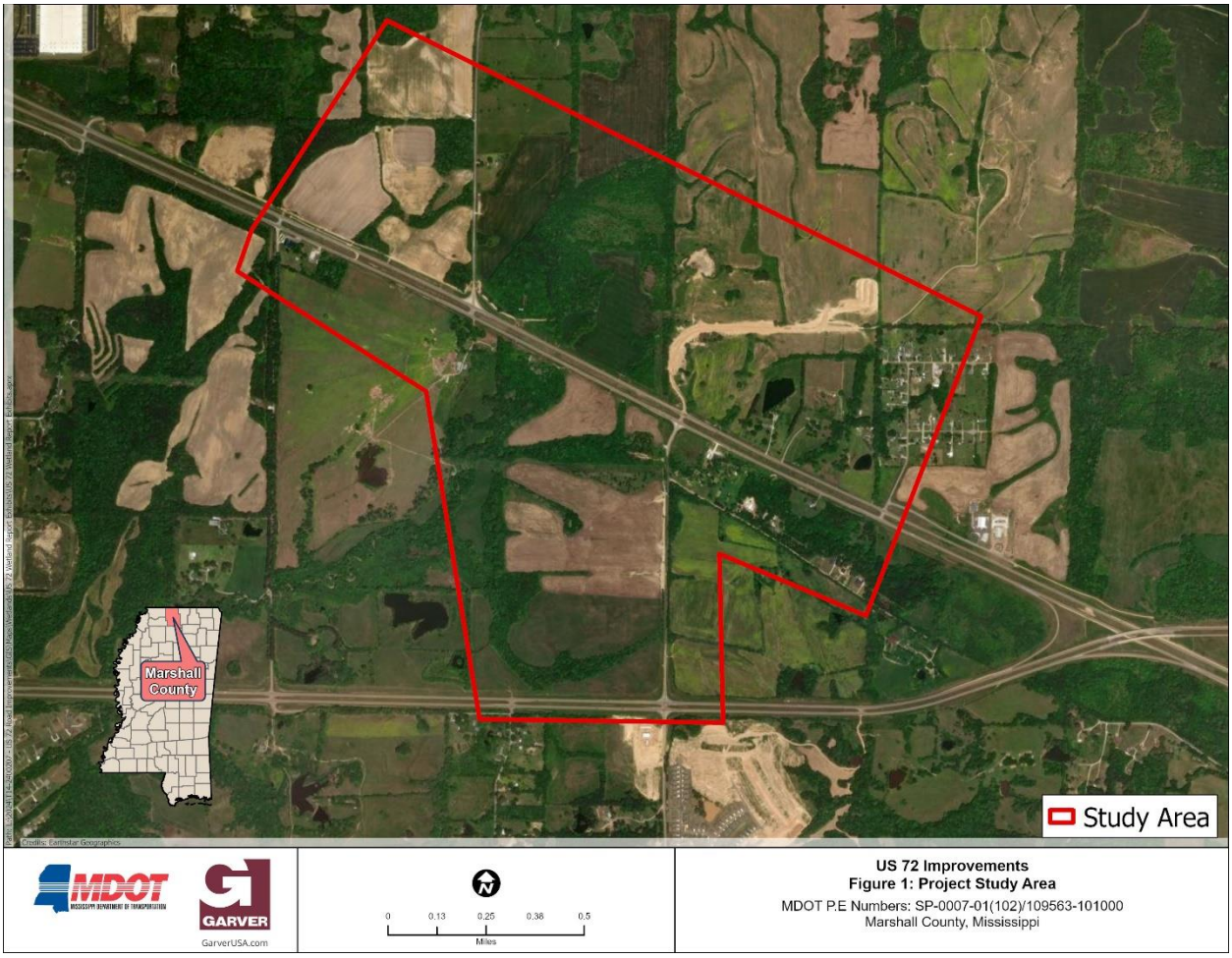


Figure 1 - Study Area

Existing Visual Character

The existing roadway does not hinder views across the facility and provides a more expansive view in certain portions of the roadway when the natural terrain does not pose an obstruction. The current experience by residents is neutral as the roadway is not a positive view, however, unobstructed views do not present a negative experience. For travelers, their current experience along the existing route is better than neutral consisting of cultural environment of buildings and a natural environment of undeveloped, vegetated fore and middle ground views. For various views depicted along the existing route, see Attachment B: Views at Existing Locations.

Visual Quality Impacts from the Build Alternatives

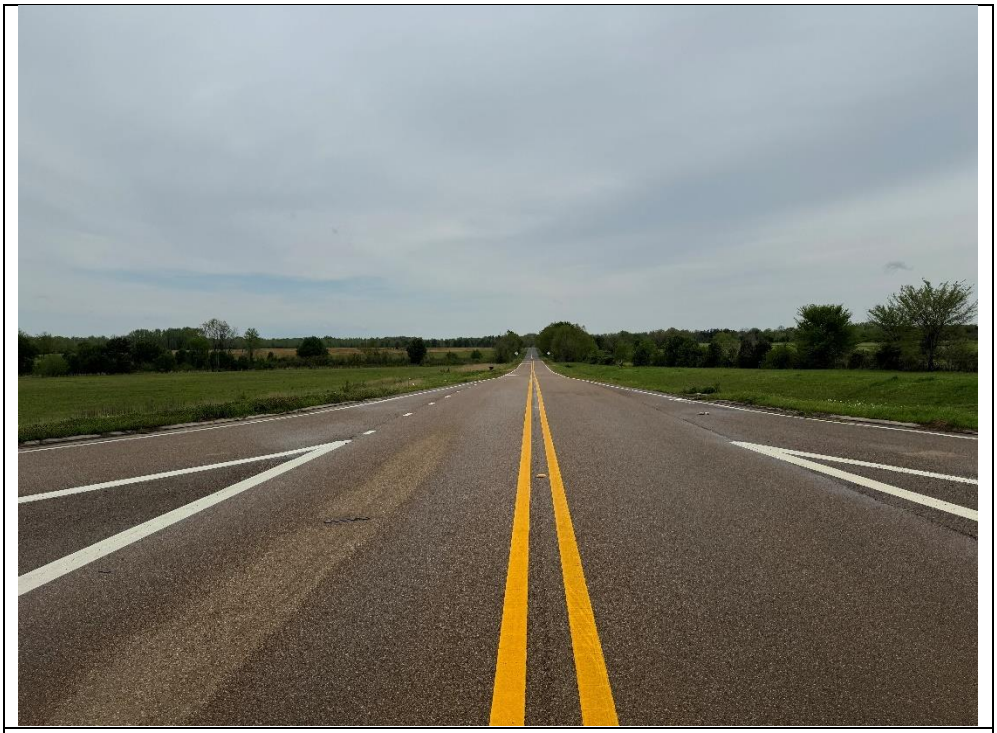
Overall, minor visual impacts are anticipated due to the addition of a new roadway. The proposed roadway is anticipated to consist of a similar roadway type, aesthetic look, configuration, and roadway features as the existing roadways in the study area as US 72 and SR 302. Roadway features would be newly constructed; therefore, the features would be more aesthetically pleasing for both residents and travelers.

The degree of visual impact for the proposed project would generally be moderately greater to residents compared to travelers. Depending on the elevations of the structural elements of the proposed project, views would be affected across the facility for both travelers and residents.

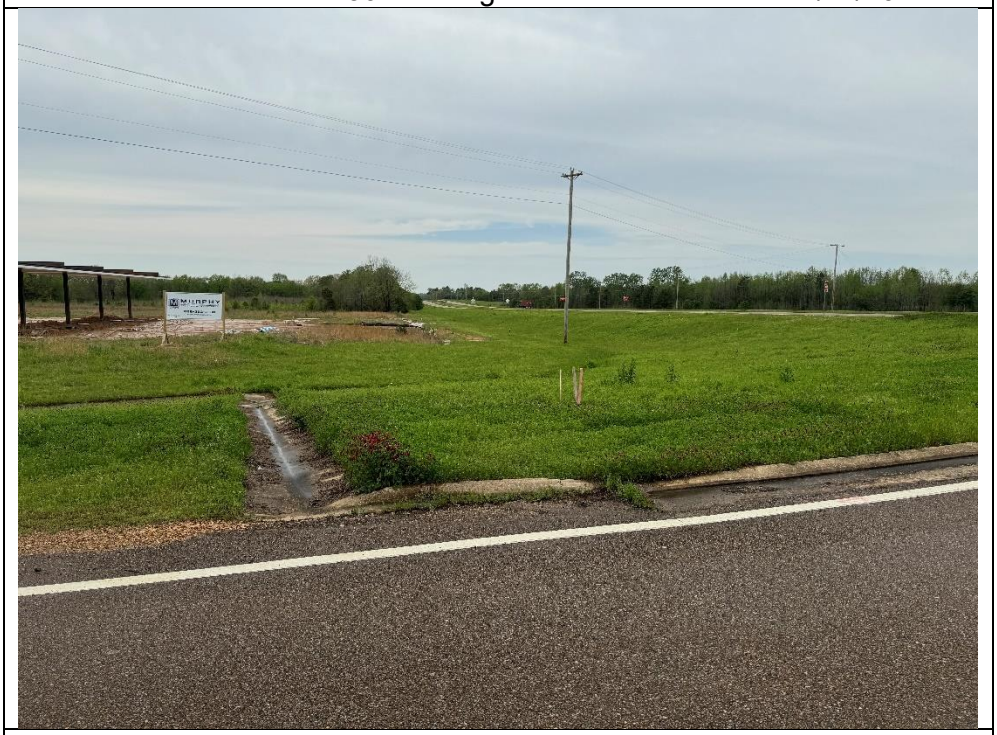
Mitigation

Any potential beneficial aesthetic features to be incorporated into the proposed project would be coordinated with the county. Potential visual impacts would be reduced over time through revegetation practices and maintenance of the roadway. Avoidance and minimization of adverse impacts may be provided through landscaping treatments and other aesthetic measures to minimize project impacts. The proposed project may also include mitigation measures such as site grading to mimic natural terrain, landscaping to lessen visual impacts, and creating berms to shield the adjacent properties from the roadway.

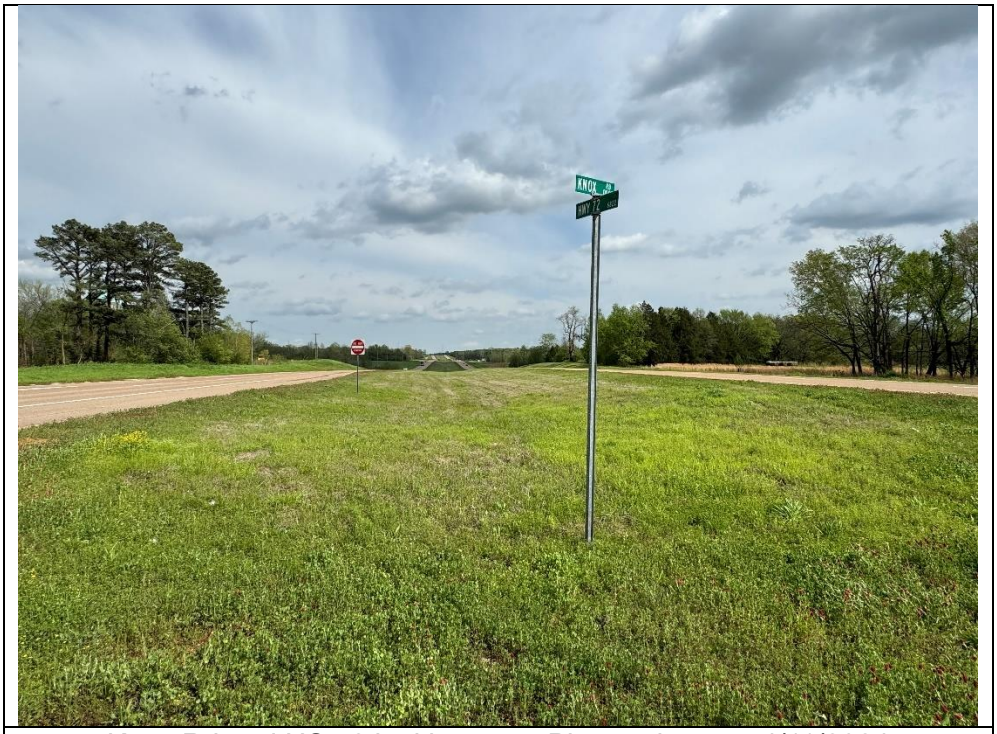
Attachment B:



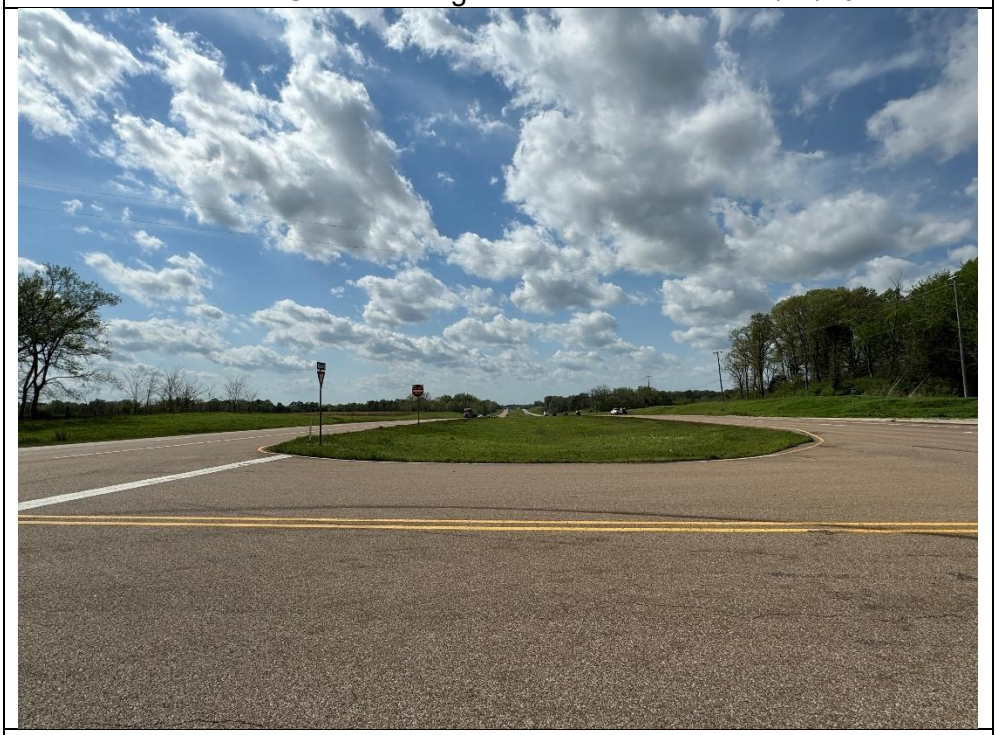
Red Banks Rd at SR 302 looking north. Photo taken on 4/11/2024



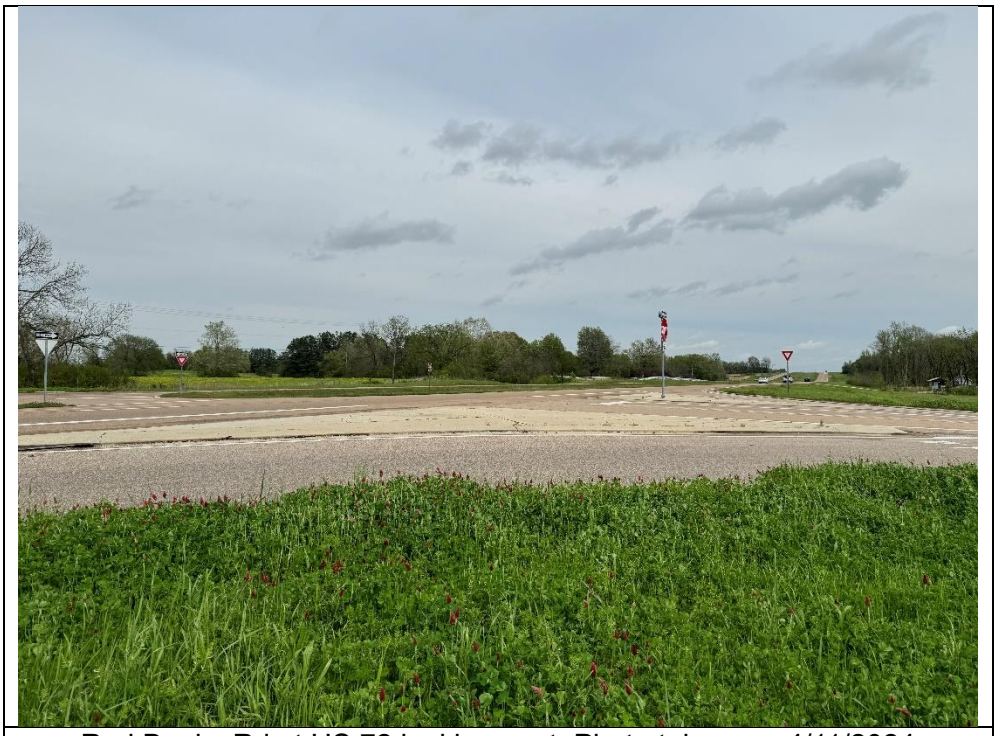
Red Banks Rd at SR 302 looking west. Photo taken on 4/11/2024



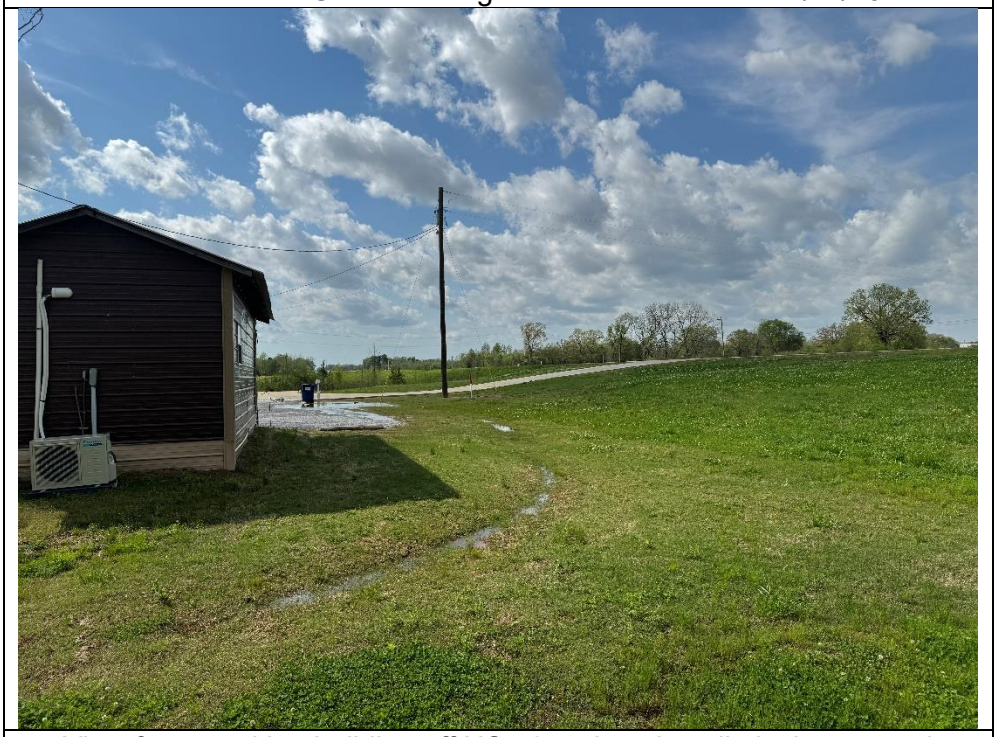
Knox Rd and US 72 looking east. Photo taken on 4/11/2024



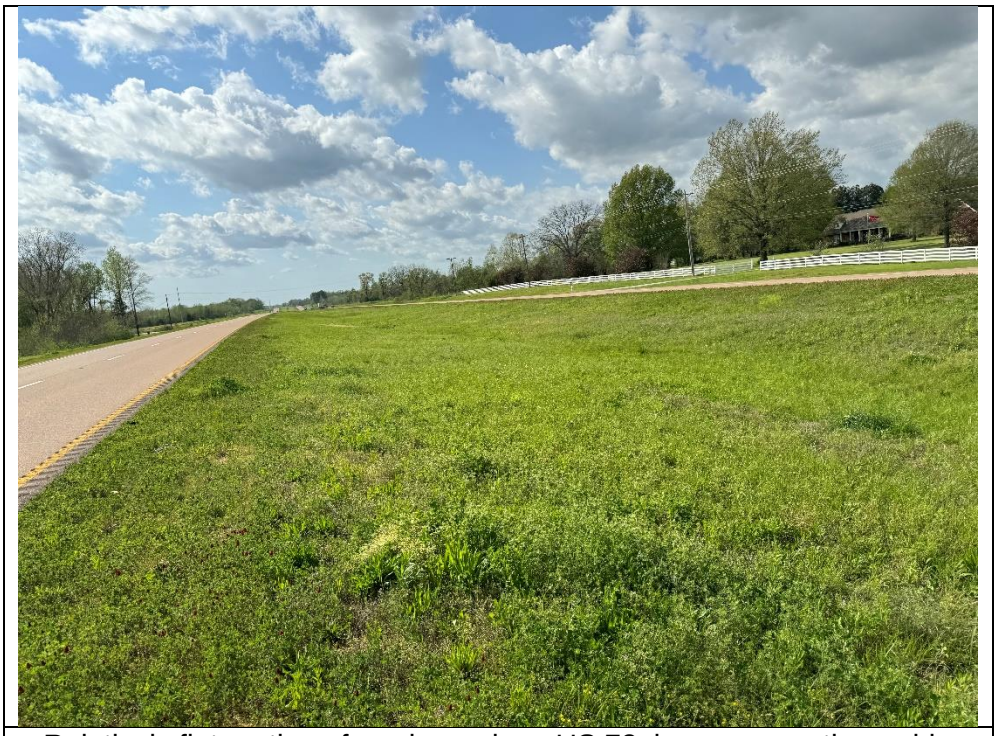
Knox Rd and US 72 looking west. Photo taken on 4/11/2024



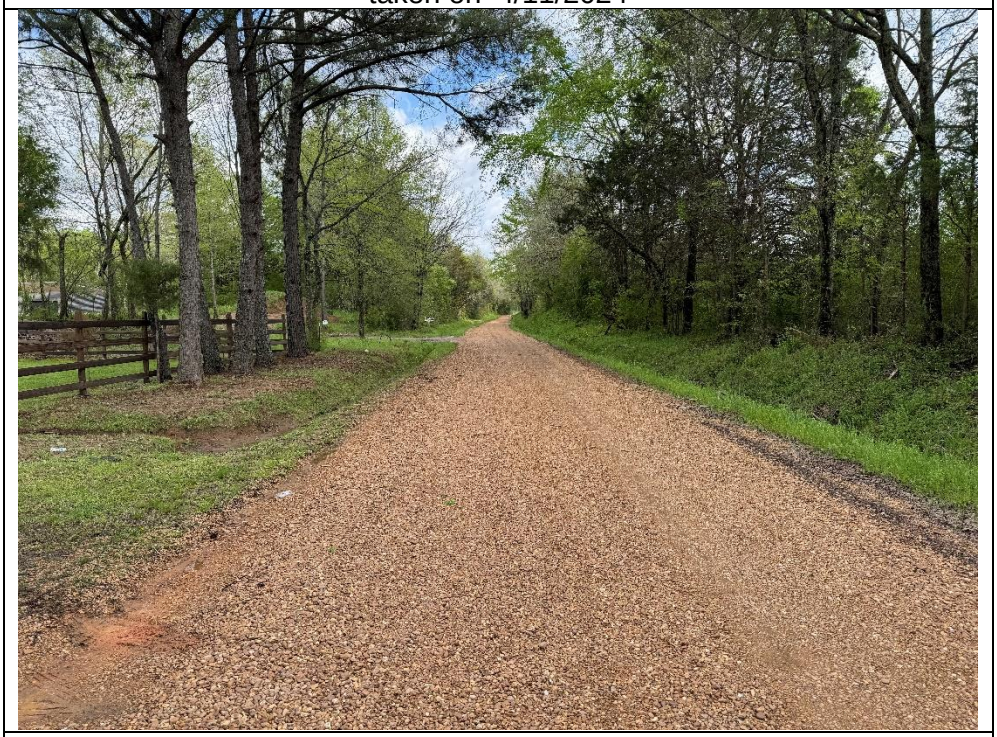
Red Banks Rd at US 72 looking east. Photo taken on 4/11/2024



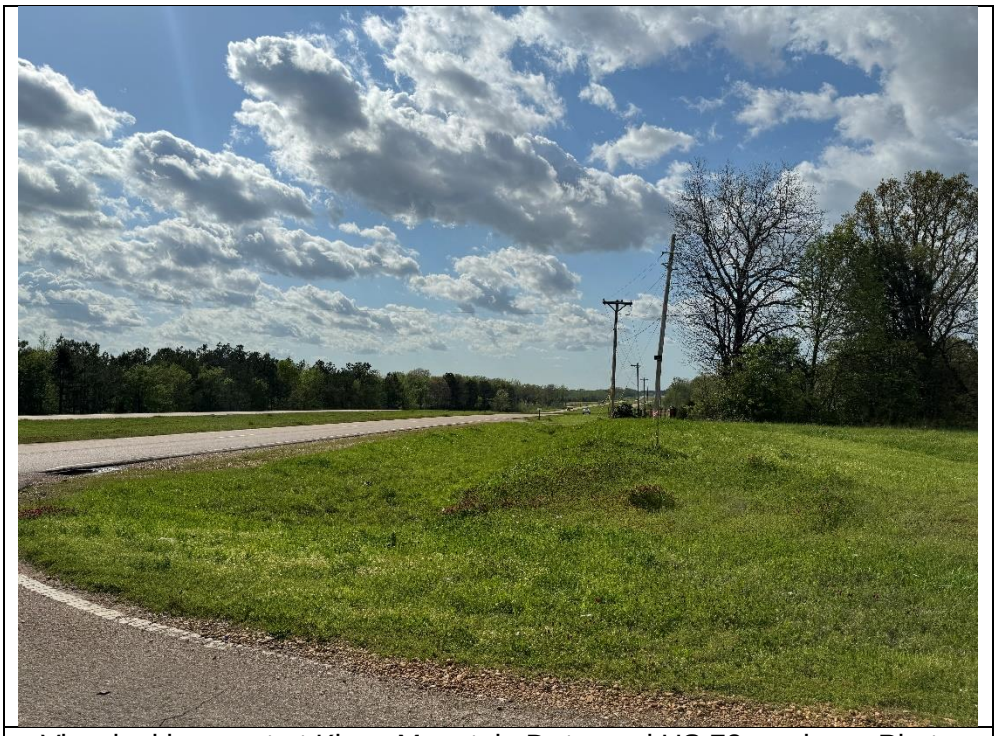
View from nutrition building off US 72 – elevations limit view toward roadway and not currently a beneficial view. Photo taken on 4/11/2024



Relatively flat portion of roadway along US 72; however, northern side with residence shown in background is slightly elevated and would block views across facility. Just east of Red Banks Rd facing northwest. Photo taken on 4/11/2024



View along Mount Pleasant Road looking east. Photo taken on 4/11/2024



View looking west at Kings Mountain Dr toward US 72 roadway. Photo taken on 4/11/2024