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## 3.14 VISUAL IMPACTS

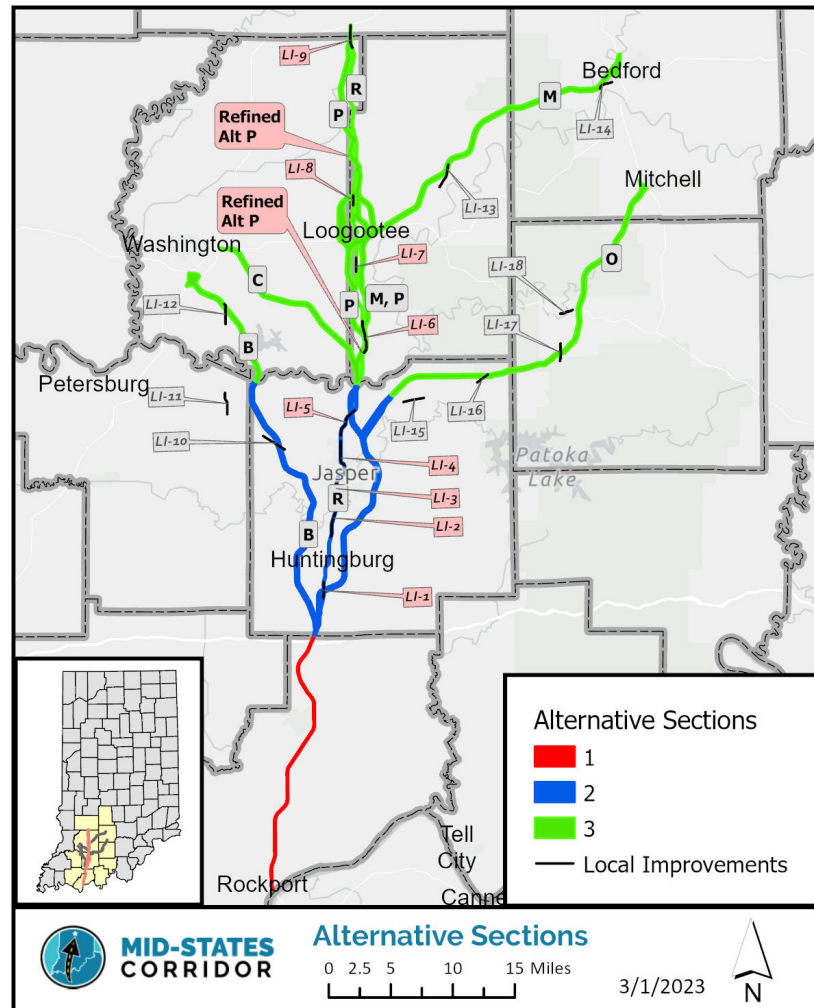
### 3.14.1 Introduction and Background

The following substantive changes have been made to this section since the Draft Environmental Impact Statement (DEIS) was published:

- A small portion of text has been added to the “North Central Family” description to describe RPA P and Alternative R.
- In response to comments on the DEIS by the Indiana Department of Natural Resources (IDNR), **Section 3.14.6 – Lighting Effects on Wildlife** has been added.

Highway construction has both temporary and permanent visual impacts. Temporary visual impacts include the presence of construction equipment and traffic congestion where alternatives intersect or overlap other roads. Permanent impacts include increased light from vehicles and roadway lighting, the presence of the roadway, the presence of highway traffic and conversion of various landscapes, such as forests, wetlands, farmland and urban/suburban, to a highway. Construction in environmentally sensitive areas requires care to preserve existing visual resources.<sup>1</sup>

Common terrain types in the project area include open farmland, forested areas and residences. Farmland and residential areas tend to be flat to slightly hilly. A motorist typically can see for several miles across open spaces. Forested areas are more common on rolling hills. That combination of vegetation and landscape reduces the viewshed.



### 3.14.2 Methodology

Viewsheds for each alternative were evaluated using Street View and Ground-Level View in Google Earth Pro. Analysis of visual impacts of each alternative addresses both the “View of the Road” and the “View from the Road.” Both perspectives discuss

<sup>1</sup> Federal Highway Administration, U. S. Department of Transportation, defines visual resources as “Components of the natural, cultural, or project environments which are capable of being seen.” [https://www.environment.fhwa.dot.gov/env\\_topics/other\\_topics/VIA\\_Guidelines\\_for\\_Highway\\_Projects.aspx](https://www.environment.fhwa.dot.gov/env_topics/other_topics/VIA_Guidelines_for_Highway_Projects.aspx)

Figure 3.14-1: Alternative Sections



visual impacts using groupings, referred to as “Families,” of alternatives in the three project Sections. Section 1 is common to all alternatives. There are two general alternatives in Section 2. Section 3 has three alternative families. Each alternative is labeled by its letter and the sections are color coded in **Figure 3.14-1**. This figure also shows local improvements to existing state highways which are part of each alternative other than Alternative R.

### 3.14.3 Analysis

Reviews of visual impacts begin at the southern end of Section 1 at the intersection of SR 66 and US 231. These continue north along US 231 to Section 2. Section 2 begins for all alternatives at the southern border of Dubois County, about 0.7 miles northeast of the intersection of I-64 and US 231. Section 3 of Alternatives C, M, P, RPA P and R begins at the southern bank of the White River. Section 3 begins for Alternative B and Alternative O at SR 56. Section 3 extends from the end of Section 2 to a connection at I-69, either directly or via SR 37.

**Section 3.14-4** and **Section 3.14-5** describe the landforms and terrain in different parts of the Study Area. **Figure 3.14-3** through **Figure 3.14-8** provide a “before” and “after” view of the effects of a roadway in the Study Area.

A series of local improvements to existing state-jurisdictional highways is a part of each alternative other than Alternative R. Their temporary visual impacts would be similar to those described below. These local improvements would have minimal permanent visual impacts since they would result in minor widening or modification of existing roads.

### 3.14.4 View of the Road

Each alternative will present potential visual impacts to adjacent properties. Nearby homes or workplaces will have both temporary and permanent visual impacts. Common visual resources that may be impacted include open, cultivated land and forested areas. **Figure 3.14-2** illustrates a roadway where pavement, utility poles and other roadside objects replace views of farmland and forested areas.

Section 1 uses existing US 231, which is lined by open farmland with isolated forested areas and residences. The Super-2 and expressway facility types will not change the view of the road in Section 1.

Alternatives B, C, M, O, P and RPA P in Section 2 cross through open cultivated areas and forested areas near Huntingburg and Jasper. These alternatives would experience pronounced visual impacts, both temporary and permanent, associated with Alternative R, due to the expansion of existing right-of-way along US 231 and business/residential relocations required as a result of the increased right-of-way. These impacts will be significant in Huntingburg, Jasper and Haysville. Towns and cities whose residents may experience visual impacts from construction of Alternative B include Johnsburg, Holland, Huntingburg, Jasper and Ireland. Construction, construction equipment, roadway lighting and loss of vegetation would be visible to town and city residents. Towns and cities whose residents may experience visual impacts from construction of Alternatives C, P, RPA P, M and O include Johnsburg, Huntingburg, Maltersville and Jasper.



**Figure 3.14-2: Typical Rural Roadway**





**Figure 3.14-3: Typical Terrain – Section 3 (Northwest Family)**



**Figure 3.14-4: Typical Terrain – Section 3 (North Central Family (Alternatives R, P and RPA P))**

Section 3 includes open cultivated land, forested areas and residences. In Section 3, Alternative B and Alternative C in the Northwest Family use mostly flat farmland with isolated forested areas and few residences. Construction, roadway lighting and loss of vegetation would be visible from rural residences along these alternatives. Residents of Hudsonville, Glendale, Alfordsville, Corning and Black Oak may experience both temporary and permanent visual impacts. **Figure 3.14-3** portrays visual impacts of a road running through Northwest portions of Section 3.

Resources that would be impacted by construction in Section 3 of Alternatives P, RPA P and R in the North Central Family include open cultivated areas and woodlands with some housing. Most land in this area is slightly hilly, with some forested areas on rolling hills. Nearby residents, as well as those who use the planned trail north of Loogootee, would experience typical temporary and permanent visual impacts from road construction. Temporary visual impacts could include sighting of construction equipment, staged construction material, temporary lighting, loss of vegetation and tree removal. Permanent visual impacts could include conversion of forests, farmland, and rural landscapes to a highway, permanent lighting, traffic, and landscape changes that would range from leveling land in some areas to elevating the highway in others, which would cause an obstruction of view in flat, open landscapes. Residents of Whitfield, Loogootee, Scenic Hill, Bramble, Farlen and Scotland may experience visual impacts from Alternatives P and RPA P. Comparatively, Alternative R would create visual impacts for a larger group of residents in both rural and developed areas of these communities due to the development adjacent to US 231. Alternative R and RPA variation P2 would create significant visual impacts in Loogootee. **Figure 3.14-4** shows landforms typical of the North Central area in Section 3.

In Section 3, Alternatives M and O in the Northeast Family generally would use rolling hills through woodlands with some hilly farmland and residences. Alternatives in this family cross the boundary of the Hoosier National Forest, Martin State Forest and three associated hiking trails. People who use these resources for recreation would experience temporary and permanent visual impacts associated with road construction. Temporary visual impacts could include sighting of construction equipment, staged construction material, temporary lighting, loss of vegetation and tree removal. Permanent visual impacts could include conversion of forests, farmland, and rural landscapes to a highway, permanent lighting, traffic, and landscape changes that would range from leveling land in some areas to elevating the highway in others, which would cause an obstruction of view in flat, open landscapes. Residents of Whitfield, Loogootee, Scenic Hill, Dover Hill, Cale, Bedford, Oolitic, Patton Hill, Avoca, Needmore, Judah,



**Figure 3.14-5: Typical Terrain – Section 3  
(Northeast Family)**



**Figure 3.14-6: Potential Visual impacts — Section 3  
(Northwest Family)**

Harrodsburg, Clear Creek, Hillham, French Lick, West Baden Springs, Orangeville, Mitchell, Tarry Park and Englewood may experience temporary and permanent visual impacts. **Figure 3.14-5** shows landforms typical of the Northeast area in Section 3.

Alternatives M and O use SR 37 to reach I-69 at Bloomington. The Super-2 and expressway facility types considered for these alternatives will not change the view of the road in this portion of Section 3.

The No-Build Alternative has no visual impacts.

## 3.14.5 View from the Road

View from the Road affects those who use the alternatives. Typical landscape along the alternatives includes flat to gently rolling cultivated land, flat to hilly forests and residential areas.

There will be no change of the view from the road in Section 1, where there will be no modifications to existing US 231.

Section 2 crosses through flat to shallowly-hilled to rolling hills to the north. Views generally include open cultivated spaces with isolated wooded areas and housing. Woodlands are more common further north. The Buffalo Pond Nature Preserve is near Alternatives C, P, RPA P, M and O in Section 2.

Alternative R includes upgrades to existing US 231 from I-64 to I-69. Along the alignment of Alternative R, urban areas in Section 2 include Huntingburg, Jasper, and Haysville. Through Huntingburg, Jasper and Haysville, construction may cause temporary unsightly disturbances and permanently altered views. Temporary visual impacts would be a byproduct of construction activities. Permanent visual impacts could be caused by removal of buildings and implementation of additional lanes, grade separations, noise walls, traffic signals, lighting, or signage required near the urban areas.

On alternatives in the Northwest Family (Alternatives B and C) of Section 3, views include flat cultivated land with small woodlands. Viewsheds in some areas change due to crops seasonally restricting views.





**Figure 3.14-7: Potential Visual impacts—Section 3 (North Central Family)**



**Figure 3.14-8: Potential Visual impacts — Section 3 (Northeast Family)**

Alternatives in the North Central Family (Alternatives R, P and RPA P) of Section 3 primarily travel over slightly hilly farmland with occasional rolling hills and forested areas. Hills and patches of woodlands in some areas reduce viewsheds. Alternative R and RPA P variation P2 would both traverse the urban area of Loogootee in Section 3. Construction in Loogootee would cause temporarily unsightly disturbance and permanently altered view. Temporary visual impacts would be a byproduct of construction activities. Permanent visual impacts could be caused by removal of buildings and implementation of additional lanes, grade separations, noise walls, traffic signals, lighting or signage required near the urban areas.

Much of the Northeast Family (Alternatives O and M) of Section 3 crosses forests and rolling hills, with some farms and residences. Viewsheds are limited by the hilly, wooded landscape, however, there will still be potential for visual impacts. Parts of the Northeast Family (Alternatives O and M) of Section 3 will traverse Hoosier National Forest acquisition boundary, which is primarily composed of dense, uninterrupted forest with rolling topography, that would provide scenic views. **Figure 3.14-6** depicts a typical view entering a wooded area.

The No-Build Alternative has no visual impacts.

### 3.14.6 Lighting Effects On Wildlife

Each alternative would require strategically placed lighting fixtures for motorist safety. It has been shown that certain types of LED lighting can have negative impacts on both human and wildlife health and safety. Evidence suggests that nighttime use of artificial light has negative impacts on amphibians, birds, mammals, insects and plants. To mitigate these impacts, the intensity of each light will be minimized, and the appropriate color of light will be emitted.

Steps can be taken to minimize the visual impacts of light to both humans and wildlife. Shielding and careful aiming of lighting fixtures prevents excess lighting where it is not needed. Dimmers and timers provide the opportunity to decrease the intensity of light, or turn it off altogether, to save energy and eliminate excess light. Additionally, choosing the appropriate color of light can reduce the effects of introducing artificial light to a previously unlit area. In response to its comments on the DEIS, INDOT will confer with the Indiana Department of Natural Resources (IDNR) during Tier 2 studies regarding the type and placement of lighting.



## 3.14.7 Mitigation

These aforementioned areas of concern, along with lighting guidance standards, will be considered in the project design. Efficient lighting fixtures will be chosen to mitigate visual impacts inherent with the introduction of artificial light. These strategies can lessen adverse effects to protect humans and wildlife. The lighting fixtures for RPA P would primarily be in rural areas and confined to interchanges and other select access points where they are warranted to enhance safety. Restricting artificial lighting to these areas will lessen the severity of lighting impacts.

Mitigation will be site-specific and determined during Tier 2 studies. Potential mitigation includes traffic control measures to minimize visual impacts on nearby residences, quick revegetation of areas cleared during construction and appropriate highway lighting.

## 3.14.8 Summary

All alternatives have both temporary and permanent visual impacts. Common temporary visual impacts include siting of construction equipment and traffic congestion. Permanent visual impacts include loss of farmland and forested areas, light from the presence of traffic and expressway lighting and grading work. Clearing of vegetation can result in either temporary or permanent impacts. Revegetation efforts may not occur in the same locations and/or with the same type of vegetation as that which is impacted.

The No-Build Alternative has no visual impacts.

