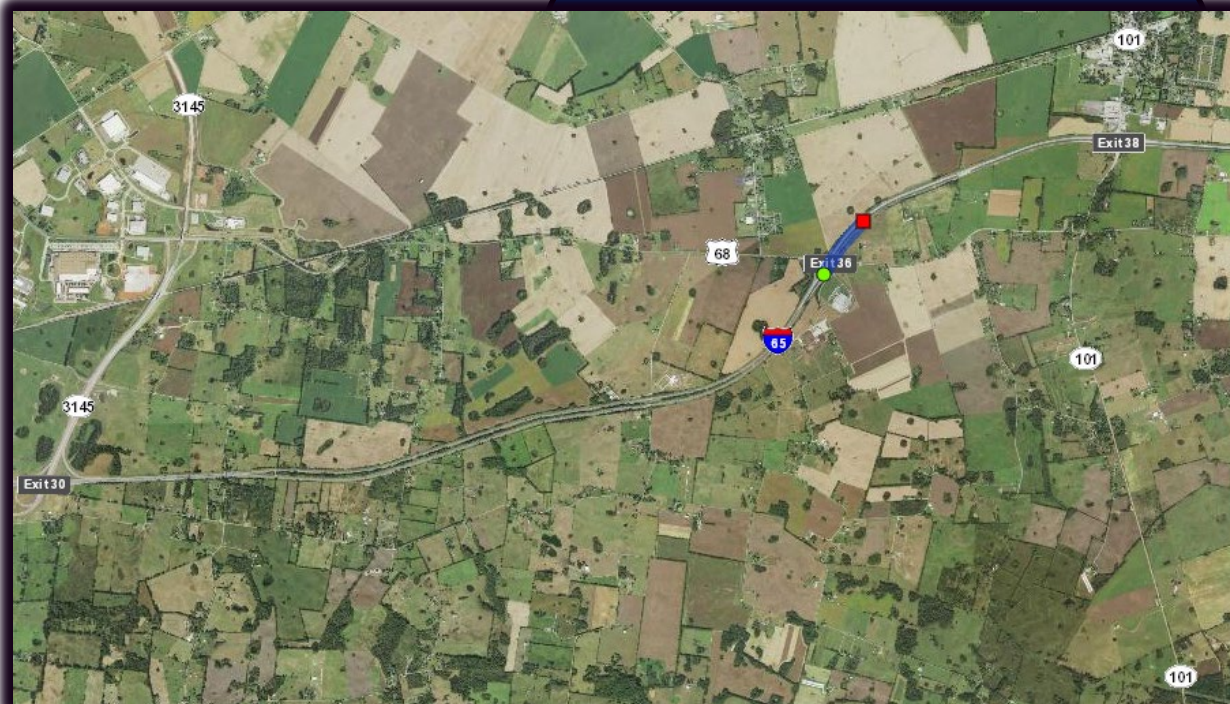
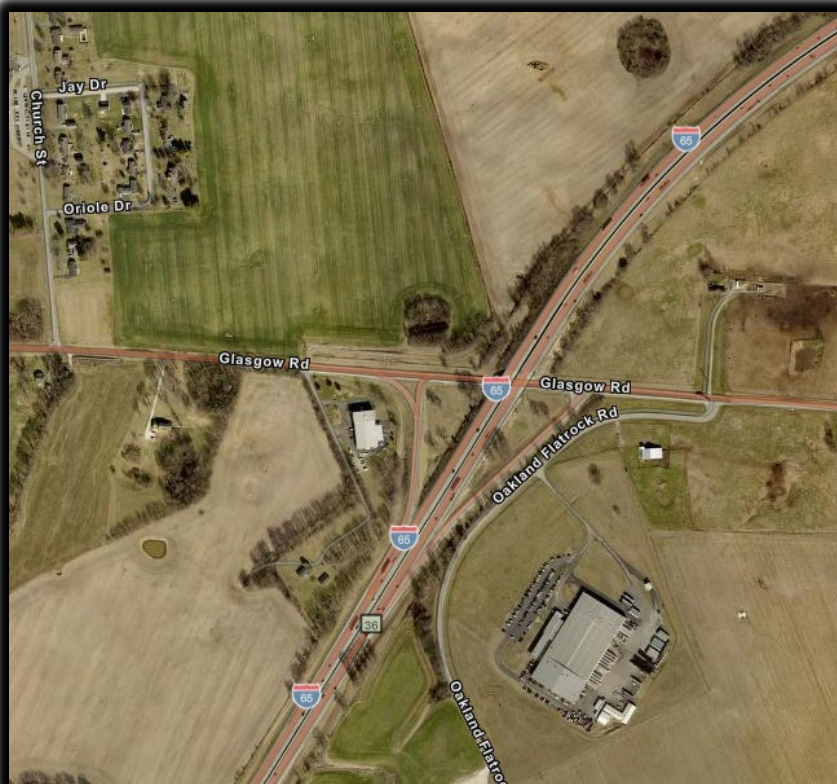


Data Needs Analysis



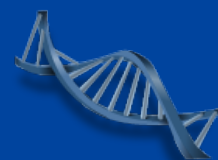
Scoping Study



I-65 / US 68
Interchange
Warren County
Item No. 3-20.00

Prepared by
KYTC District 3

November 2024



I. PRELIMINARY PROJECT INFORMATION			
County:	Warren	Item No.:	3-20.00
Route Number(s):*	I-65	Road Name:	I-65
Program No.:	1834901D	UPN:	FD52 114 065 035-036
Federal Project No.:	651106	Type of Work:	I-CHANGE RECONST(O)
2024 Highway Plan Project Description:			
COMPLETE I65/US68 (GLASGOW ROAD) DIAMOND INTERCHANGE BY ADDING NORTHBOUND ON-RAMP AND SOUTHBOUND OFF-RAMP. (2024CCR)			
Beginning MP:	35.5	Ending MP:	35.9 Project Length: 0.4
In TIP:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Use PDP/CHAF to Verify Project Data		
State Class.:	<input checked="" type="checkbox"/> Primary <input type="checkbox"/> Secondary	Route is on:	<input checked="" type="checkbox"/> NHS <input type="checkbox"/> NN <input type="checkbox"/> Ext Wt
Functional Class.:	<input type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural Interstate ▼	Truck Class.:	AAA ▼ % Trucks: 27.86
MPO Area:	Bowling Green ▼	Terrain:	Level ▼
ADT (current):	57096 2023		
Access Control:	<input type="checkbox"/> None <input type="checkbox"/> Permit <input checked="" type="checkbox"/> Fully Controlled <input type="checkbox"/> Partial Spacing: ▼		
Median Type:	<input type="checkbox"/> Undivided <input checked="" type="checkbox"/> Divided (Type): Barrier Wall		
Existing Bike Accommodations:	None ▼	Ped:	<input type="checkbox"/> Sidewalk
Posted Speed:	<input type="checkbox"/> 35 mph <input type="checkbox"/> 45 mph <input type="checkbox"/> 55 mph <input checked="" type="checkbox"/> Other (Specify): 70 mph/50 mph		
KYTC Guidelines Preliminarily Based on : 50 MPH Proposed Design Speed			
COMMON GEOMETRIC			
Roadway Data:	EXISTING	PRACTICES**	
No. of Lanes	1	1	Existing Rdwy. Plans available?
Lane Width	16'	14'	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Shoulder Width	6-8'	10-14'	Year of Plans: 1964
Max. Superelevation***	varies	8%	<input type="checkbox"/> Traffic Forecast Requested
Minimum Radius***	716'	760'	Date Requested: ▼
Maximum Grade	6%	3-5%	<input type="checkbox"/> Mapping/Survey Requested
Minimum Sight Dist.	425'	425'	Date Requested: ▼
Sidewalk Width(urban)	N/A	N/A	Type: ▼
Clear-zone [†]	N/A	20-26'	
Project Notes/Design Exceptions?		N/A	
Bridge No.†	114B00091N	(Bridge #2)	
Sufficiency Rating	83.2		Existing Geotech Data Available?
Total Length	146		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Width, curb to curb	61		
Span Lengths	40-60-40		
Year Built	2002		
Posted Weight Limit	N/A		Detour Length(s): N/A
Structurally Deficient?	No		
Functionally Obsolete?	No		
Existing Bridge Type	PCIB		
<small>*If more than one road is included in the project, include additional sheets. **Based on proposed Design Speed ***AASHTO's A Policy on Geometric Design of Highways and Streets +AASHTO's Roadside Design Guide †If more than two bridges are located on the project, include additional sheets.</small>			

II. PROJECT PURPOSE AND NEED

A. Legislation

The following funding is listed in KY's FY24-FY30 Enacted Highway Plan.

<i>Funding</i>	<i>Phase</i>	<i>Year</i>	<i>Amount</i>
NH	D	2024	\$700,000
NH	R	2025	\$500,000
NH	U	2026	\$1,100,000
NH	C	2028	\$8,000,000

B. Project Status

The design funding of \$700,000 has been authorized by FHWA. The plan is to advertise for consultant services in the January 2025 bulletin.

C. System Linkage

I-65 is federally functionally classified as Rural Interstate that primarily connects the city of Bowling Green, and the surrounding area, with the Louisville region to the north and Nashville region to the south. US 68 is classified as a Rural Major Collector that serves to connect the Bowling Green area with Oakland, Smiths Grove, and Glasgow. Both highways connect the residential and industrial areas, as well as educational facilities to Bowling Green, Smiths Grove, and Glasgow. The existing interchange helps connect the local commercial/economic/agricultural hub with Bowling Green and Nashville.

D. Modal Interrelationships

Because a significant percentage of local industrial users such as Clark Beverage Group, Inc., Mammoth Cave Dairy Auction, and South State Contractors, as well as the Oakland Elementary School make use of this section of rural interstate corridor, the movement of large trucks (freight) should be considered. With no existing northern ramps at the interstate interchange, users seeking to travel north, or exit from the north, must utilize alternate routes. There are presently no bike or pedestrian facilities along this section of roadway.

E. Social Demands & Economic Development

Warren County continues to experience residential and industrial growth. Interstate 65 provides a major connection to the Bowling Green area for local commuters and businesses as well as a connection to the Nashville metropolitan area further to the south. Oakland and the surrounding communities use I-65 as the primary connection to access Bowling Green and the services found there. Services such as business, school, healthcare, government, agriculture, and recreational activity.

II. PROJECT PURPOSE AND NEED (cont.)

F. Transportation Demand

The last actual traffic counts for I-65 in this section of Warren County between MP 30.401 and MP 35.578 (2021) was 64,107 AADT and between MP 35.578 and MP 37.537 (2023) was 57,096 AADT. These counts have grown fairly consistent over the past decade. This is a AAA route and is vital for the transportation of freight (28% trucks). This route is on the National Truck Network.

G. Capacity

This corridor does not experience noteworthy congestion issues.

H. Safety

In the last five years (2019-2023), there have been 19 reported collisions on I-65 from MP 35.5 to MP 35.9 in Warren County. Eighteen of which were reported as Property damage, one sever (A, non-fatal) collision. The ECC of the I-65 corridor is 3.9, which is more than expected for similiar Kentucky roadways. In the last five years (2019-2023), there have been 9 reported crashes on US-68 from MP 20.5 to MP 20.8 in Warren County. Eight of which were reported as Property damage, one potential injury (B) collision. The ECC of US - 68 in this section is listed at 5.7, again higher than expected for a similiar type corridor in Kentucky. The LOSS (Level of Service of Safety) for all crashes on I-65 in this section is 3, indicating less than expected safety performance and moderate potential for crash reduction. The LOSS (Level of Service of Safety) for all crashes on US-68 in this section is 4, indicating less than expected safety performance and moderate potential for crash reduction. In summary, there is potential for safety improvement on this corridor.

I. Roadway Deficiencies

The existing I-65 diamond intersection interchange is not complete, it does not have connectively to the north. Local traffic does not have an on-ramp to acces I-65 north at this interchange, and I-65 south traffic does not currently have a southbound off-ramp to exit at the existing interchange.

III. PRELIMINARY ENVIRONMENTAL OVERVIEW	
A. Air Quality Project is in: <input type="checkbox"/> Attainment area <input checked="" type="checkbox"/> Nonattainment or Maintenance Area <input type="checkbox"/> PM 2.5 County STIP Pg.#: (2025-2028) #59 TIP Pg.#: FY 2024-2028 TIP Amendment #2, PG 23 As this is a federally-funded project, it is listed in the STIP.	
B. Archeology/Historic Resources <input type="checkbox"/> Known Archeological or Historic Resources are present Section 106 will apply and SHPO clearances for archeology and historic will be required.	
C. Threatened and Endangered Species The Gray, Indiana, and Tricolored Bat are endangered. Clams and Kentucky Cave Shrimp are endangered. Anticipate seasonal tree cutting restrictions will be required to minimize potential adverse effects to Indiana Bats.	
D. Hazardous Materials <input type="checkbox"/> Potentially Contaminated Sites are present <input type="checkbox"/> Potential Bridge or Structure Demolition There are no known hazardous materials in the project area.	
E. Permitting Check all that may apply: <input checked="" type="checkbox"/> Waters of the US <input type="checkbox"/> MS4 area <input checked="" type="checkbox"/> Floodplain Impacts <input type="checkbox"/> Navigable Waters of the US Impacts Are 401/404 Permits likely to be required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Impacts to: <input checked="" type="checkbox"/> Wetlands <input type="checkbox"/> Stream/Lake/Pond <input checked="" type="checkbox"/> ACE LON <input type="checkbox"/> ACE NW <input type="checkbox"/> ACE IP <input type="checkbox"/> DOW IWQC <input type="checkbox"/> Special Use Waters A KYTC BMP Plan and KYR10 permit will be applied if disturbance is greater than 1 acre. There are freshwater habitats in the project area.	
F. Noise Are existing or planned noise sensitive receptors adjacent to the proposed project? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is this considered a "Type I Project" according to KYTC Noise Analysis and Abatement Policy? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No A Traffic Noise Impact Analysis must be performed in accordance with the KYTC Noise Policy.	
G. Socioeconomic Check all that may apply: <input type="checkbox"/> Low Income/Minority Populations <input type="checkbox"/> Relocations <input type="checkbox"/> Local Land Use Plan available There are no relocations on this project.	
H. Section 4(f) or 6(f) Resources The following are present on the project: <input type="checkbox"/> Section 4(f) Resources <input type="checkbox"/> Section 6(f) Resources There are none present.	
<div style="display: flex; justify-content: space-between; align-items: center;"> Anticipated Environmental Document: <div style="border: 1px solid #ccc; padding: 2px 10px; display: flex; align-items: center;"> CE Level 1 ▼ </div> </div>	
IV. PROJECT NEED, PURPOSE & SCOPE	

A. Need:

The existing interstate interchange at Oakland is a half-diamond that is lacking northbound on-ramps and southbound off-ramps. Continued development and growth both on US 68 and at the nearest interstate exit (Exit 38 - Smith's Grove) create a need for better connectivity at this interchange.

B. Purpose:

The purpose of this project is to improve mobility and safety at Oakland by adding two interstate ramps to complete the interstate interchange at Oakland.

C. Scope:

This project will reconstruct the existing half-diamond interchange into a full diamond interchange between I-65 and US-68 at Oakland (MP 36). The estimated improvements are based on the Highway Plan description for adding an I-65 northbound on-ramp and an I-65 southbound off-ramp. Impacts to the US-68 corridor where the new ramps intersect can potentially be improved with roundabouts. Significant impacts to right-of-way and utilities should be expected.

V. PROJECT ESTIMATE & METHODOLOGY		
Estimate Methodology:	Current Estimate	
Construction cost estimates were developed to complete the two northern ramps for a standard diamond interchange at Oakland (MP 36). These numbers are subject to change depending on the finalized scope.	<u>Phase</u>	<u>Estimate</u>
	Planning	
	Design	\$700,000
	R/W	\$500,000
	Utilities	\$1,100,000
	Const	\$8,000,000
	Total	\$10,300,000

VI. UTILITIES POTENTIALLY AFFECTED - CONTACT INFORMATION
<p>Company - Warren Rural Electric Cooperative Corporation Contact - Jonathan Lindsey, Sr. Field Engineer Address - 951 Fairview Avenue, P.O. Box 1118, Bowling Green, I Phone No. - 270-842-6541</p> <p>Company - Warren Rural Electric Cooperative Corporation Fiber (C Contact - Travis Garner, Fiber Optic OP Supervisor Address - 951 Fairview Avenue, P.O. Box 1118, Bowling Green, I Phone No. - 270-842-6541</p> <p>Company - Windstream Communications Contact - Steve Johnson, Sr Engineer OSP Address - 130 W. New Circle Road, Lexington, Kentucky 40505 Phone No. - 859-357-6209</p> <p>Company - Atmos Energy Corporation Contact - Ryne White, Sr. Engineer Address - 3275 Highland Point Drive, Owensboro, Kentucky 423 Phone No. - 270-685-8140</p> <p>Company - AT&T Legacy Contact - Mike Diederich, Primary, SR Tech Project Managemer Address - 7555 East Pleasant Valley Road, Suite 140, Independe Phone No. - 216-750-0135</p> <p>Company - BlueGrass Network LLC Contact - Bryan Bell, Vice President - Business Operations Address - 115 West Williams Street , Elizabethtown, KY 42701 Phone No. - 270-982-8860 ext. 1002</p> <p>Company - Spectrum Cable</p>

Contact - Justin Sturgeon, Construction Coordinator
Address - 133 South 3rd Street, Louisville, Kentucky 40202
Phone No. - 812-253-2767
Company - Warren County Water District
Contact - Clint Harbison, P.E., Manager of Engineering
Address - 523 Highway US-31W Bypass, P.O. Box 10180, Bowling Green, Kentucky 42102
Phone No. - 270-842-0052

VII. TABLES AND EXHIBITS

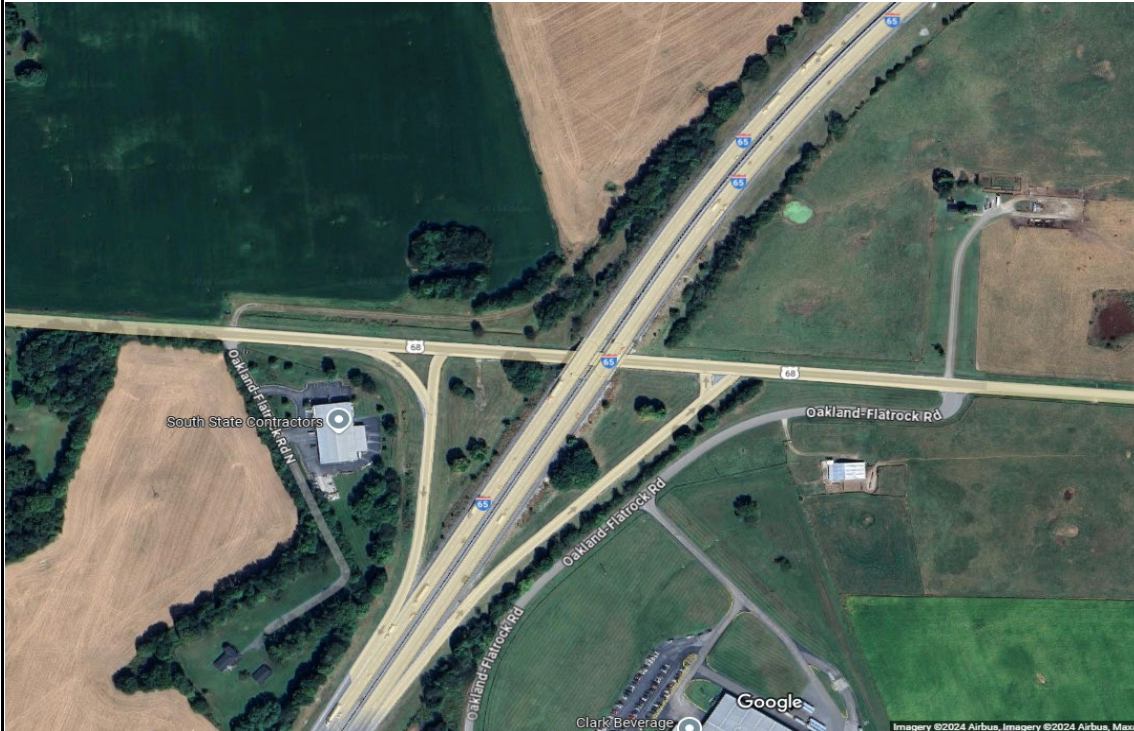


Photo 1: Top view of existing I-65/US-68 Interchange (MP 36)



Photo 2: Start of the project at the US-68 / I-65 Ramp intersection facing east toward Glasgow



Photo 3: End of the project at the US-68 / I-65 Ramp facing west toward Bowling Green



Photo 4: End of the project on I-65 North facing south toward Bowling Green

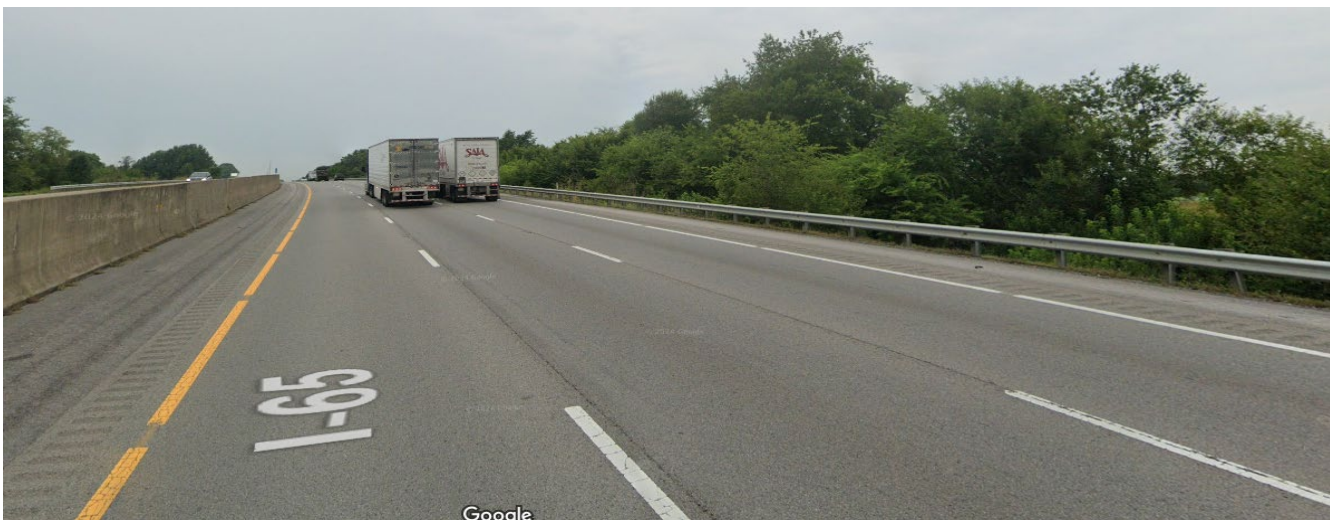


Photo 5: End of the project on I-65 South facing south toward Bowling Green