


CATEGORICAL EXCLUSION LEVEL 1 FORM**Date:** March 18, 2020 **Initial Version** **Additional Information to CE Level 1 Dated:** _____**Purpose of this document:** CE Level 1 documentation for exempted projects State-funded categorical exemption documentation**Approval CE Level 1 or State-Funded CE:**


 Environmental Scoping Manager or
 Environmental Policy Manager

3/24/2020

Date

PROJECT INFORMATION			
County, Route	Gibson County, State Road 65	Des Number	1700165
Purpose and Need:	<p><u>Need</u></p> <p>The need for this project is due to the deteriorated condition of the existing structure (Bridge No. 065-26-00313) carrying SR 65 over Black River. As illustrated in the <i>Indiana Department of Transportation (INDOT) Bridge Inspection Report</i> dated June 5, 2019, existing beams 2 and 6 exhibit notable deterioration consisting of cracking, efflorescence, heavy scaling, and heavy spalling with exposed reinforcing. Minor spalls with exposed reinforcing are also visible near the ends of beams, and the deck underside surfaces exhibited a few minor spalls with exposed reinforcing.</p> <p><u>Purpose</u></p> <p>The purpose of this project is to maintain a safe vehicular crossing of SR 65 over Black River while maintaining an adequate hydraulic opening for Black River.</p>		
Project Description:	<p>INDOT and the Federal Highway Administration (FHWA) intend to proceed with a project involving bridge (Bridge No. 065-26-00313) carrying SR 65 over Black River in Gibson County, Indiana.</p> <p><u>Location</u></p> <p>The project is in Section 24, Township 3 South, Range 12 West in Montgomery Township, as shown on the United States Geological Survey (USGS) 7.5 Minute Cynthiana, Indiana Topographic Quadrangle Map (Appendix B, page 3). More specifically, the project is located approximately 2.09 miles south of SR 168 in Gibson County, Indiana.</p> <p><u>Existing Conditions</u></p> <p>The existing structure, built in 1924, is a single-span, reinforced concrete girder bridge, with a clear roadway width of 28 feet and a clear span of 30 feet, that conveys Black River beneath SR 65. SR 65 is classified as a rural major collector and has a posted speed limit of 55 miles per hour through the project area. The existing roadway consists of two 11-foot lanes with no paved shoulders.</p>		

	<p>Land use surrounding the project area is primarily agricultural (Appendix B, page 2). The existing structure is considered to be in fair condition based on the <i>INDOT Bridge Inspection Report</i> dated June 5, 2019.</p> <p><u>Preferred Alternative</u></p> <p>INDOT and FHWA intend to proceed with the following project. The project includes replacing the existing structure and guardrail, regrading the slope, and relocation of a field entrance southeast of the existing structure. The existing structure will be replaced with a precast, reinforced concrete three-sided flat top structure. The replacement structure has a clear roadway width of 30 feet and a clear span of 42 feet. The project termini are approximately 190 feet north and 195 feet south of the center of the structure. The project termini are considered logical, as they provide a sufficient area for replacement of the existing structure, placement of guardrail, and relocation of the field entrance. This project has independent utility as replacement of this bridge would be a reasonable expenditure even if no additional transportation improvements in the area are made. See Appendix B, pages 26-36, for preliminary design plans.</p> <p>The maintenance of traffic (MOT) plan will require closure of SR 65 during construction. Details of the MOT plan are included in the Public Facilities section of this CE document. Every effort to avoid, minimize, and/or mitigate project impacts will be made.</p> <p>The preferred alternative meets the purpose and need of the project by replacing the bridge to provide a structurally sufficient and hydraulically adequate crossing of SR 65 over Black River.</p>		
<p>Other Alternatives Considered:</p>	<p><u>Structure Replacement – Three-Sided Arch Top Structure</u></p> <p>INDOT considered replacement of the existing structure with a three-sided arch top structure. This alternative meets the project purpose and need; however, there was no arch top single span structure that had a large enough span. This alternative was therefore eliminated from further consideration.</p> <p><u>Spill Through Slope Option</u></p> <p>INDOT considered a spill through slope. This alternative meets the project purpose and need; however, this alternative wasn't feasible due to the pressure flow nature of the stream. This alternative was therefore eliminated from further consideration.</p> <p><u>“No Build” Alternative</u></p> <p>The no build alternative proposes continued use of the structure in the current condition. If selected, this alternative would result in continued deterioration of the structure, potentially becoming a hazard to the traveling public. This alternative would not meet the purpose and need of the project and was therefore eliminated from further consideration.</p>		
<p>Project Termini:</p>	<p>On SR 65, 02.09 miles South of SR 168.</p>		
<p>Funding Source(s):</p>	<p><input checked="" type="checkbox"/> Federal <input checked="" type="checkbox"/> State <input type="checkbox"/> Local <input type="checkbox"/> Other</p>	<p>Estimated Cost</p>	<p>\$5,773,387* (FY 2020/2022)</p>
<p>Project Sponsor:</p>	<p>INDOT</p>	<p>Project Length</p>	<p>Approx. 565 feet</p>

*This project is under lead Des #1700150, Contract #B-40553

Name and organization of CE Level 1 Preparer:

Kate Williams, HNTB

INDOT ES/District Env.
Reviewer Signature:



INDOT Environmental Manager II

Date: 03/24/2020

SCOPE OF THE PROPOSED ACTION				
Public Involvement*		No: <input checked="" type="checkbox"/>	Yes: <input type="checkbox"/>	Possible: <input type="checkbox"/>
Comments:	<p>Notice of Entry letters were mailed to potentially affected property owners near the project area on March 7, 2019, notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. A sample copy of the Notice of Survey letter is included in Appendix G, pages 1-2.</p> <p>The project does not meet any of the conditions set by the current INDOT Public Involvement Manual that require formal public involvement. Therefore, the project sponsor is not required to offer the public an opportunity to request a public hearing. The project is not anticipated to cause any public controversy. This does not preclude the need for public involvement or public information meeting in the future.</p>			
Right-of-way (permanent and temporary, in acres)		No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/>	Possible: <input type="checkbox"/>
Comments:	<p>Approximately 0.42 acre of permanent right-of-way will be acquired within agricultural land and maintained roadside adjacent to SR 65 (Appendix B, page 25). Approximately 0.03 acre of temporary right-of-way will be required within maintained roadside and along an access road for a utility building. Approximately 0.12 acre of apparent existing right-of-way is present within the project area and is considered reacquisition. At the location of the existing structure, permanent right-of-way limits will extend approximately 60 feet west and 55 feet east of the SR 65 edge of pavement. Permanent right-of-way will extend 275 feet north and 200 feet south from the center of the existing structure along the west side of SR 65. Permanent right-of-way will extend 200 feet north and 290 feet south of the existing structure along the east side of SR 65. Temporary right-of-way, located at the southwestern extent of the project, will begin approximately 200 feet south from the center of the existing structure, and extend approximately 33 feet west and 60 feet south. The land use of permanent right-of-way will be maintained roadside following construction.</p> <p>If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately.</p>			
Disruption to public facilities/services (such as schools, emergency service)		No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/>	Possible: <input type="checkbox"/>
Comments:	<p>Based on a desktop review, a site visit on October 7, 2019 by HNTB, the aerial map of the project area (Appendix B, page 2), and the Red Flag Investigation report (RFI) (Appendix E, page 2), there are no public facilities within the 0.5-mile search radius. There are no public facilities within or adjacent to the project area. Access to all properties will be maintained during construction. Therefore, no impacts are expected.</p> <p>Early coordination letters were sent to the Gibson County Highway Department, Gibson County Floodplain Administrator, Gibson County Emergency Management, Gibson County Board of Commissioners, Gibson County Sheriff's Department, Gibson County Surveyor, and South Gibson County School Corporation on May 10, 2019 (Appendix C, pages 1-3). No responses were received from local officials.</p> <p>The MOT plan requires the closure of SR 65 for approximately two months. An official state route detour utilizing SR 68, US 41, and SR 168 will be in place. The proposed detour will be approximately 20 miles long and will add approximately 14.87 miles to a trip through the area. A local detour may be available during construction. Access for local traffic will be provided during construction per INDOT Standard Specification 107.08(e).</p> <p>The closure will pose a temporary inconvenience to traveling motorists (including school buses and emergency services); however, no significant delays are anticipated and all inconveniences will cease upon project completion. To limit impacts to Owensville Community School, located approximately one mile north of the project area, construction is anticipated to occur during the summer when school is out of session. Delays may occur during construction but will cease with project completion.</p> <p>It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access.</p>			

SCOPE OF THE PROPOSED ACTION			
Involvement with existing bridge(s) (Include structure number(s))		No:	Yes: X
Comments:	The existing structure (Bridge No. 065-26-00313 / NBI No. 023210) is included on the INDOT Listing of Non-Historic Bridges. The existing structure is a single-span, reinforced concrete girder bridge with a clear roadway width of 28 feet and a clear span of 30 feet. The bridge will be replaced as part of this project.		

* Limited public involvement, CE-1 level projects will typically have no public hearing opportunity offered.

INVOLVEMENT WITH RESOURCES			
Streams, Rivers, and Watercourses Impacted (linear feet)		No:	Yes: X
Comments:	<p>Based on a desktop review, a site visit on October 7, 2019 by HNTB, the aerial map of the project area (Appendix B, page 2), and the water resources map in the RFI report (Appendix E, page 9), there are fifteen streams located within the 0.5 mile search radius. There are two streams mapped within the project area.</p> <p>A <i>Waters of the U.S. Determination / Wetland Delineation Report</i> was approved by the INDOT Ecology and Waterway Permitting Office (EWPO) on December 30, 2019. Please refer to Appendix F, pages 1-19 for the <i>Waters of the U.S. Determination / Wetland Delineation Report</i>. It was determined that two likely jurisdictional streams, Black River and Unnamed Tributary (UNT) to Black River are present within the investigated area (Appendix B, page 2). The United States Army Corps of Engineers (USACE) makes all final determinations regarding jurisdiction.</p> <p>Black River is mapped as a blue-line stream on the Cynthiana, Indiana USGS Topographic Quadrangle Map (Appendix B, page 3). Black River exhibited a 6-foot wide by 0.67-foot deep ordinary high-water mark (OHWM) during the site visit. Per the USGS Streamstats Database (https://water.usgs.gov/osw/streamstats/indiana.html), accessed on October 7, 2019, the upstream drainage area of Black River is 2.271 square miles. Black River is not listed as a Federal Wild and Scenic River, a State Natural, Scenic and Recreational River, nor is it on the Indiana Register's listing of Outstanding Rivers and Streams. The wider proposed structure will permanently impact approximately two linear feet of Black River due to encapsulation. Temporary cofferdams will be necessary to complete the scope of work and will temporarily impact approximately 150 linear feet of Black River.</p> <p>UNT to Black River is mapped as a blue-line stream on the Cynthiana, Indiana USGS Topographic Quadrangle Map (Appendix B, page 3). UNT to Black River exhibited a 6.3-foot wide by 1.5-foot deep OHWM during the site visit. Per the USGS Streamstats Database (https://water.usgs.gov/osw/streamstats/indiana.html), accessed on October 7, 2019, the upstream drainage area of UNT to Black River is 0.485 square miles. UNT to Black River is not listed as a Federal Wild and Scenic River, a State Natural, Scenic and Recreational River, nor is it on the Indiana Register's listing of Outstanding Rivers and Streams. UNT to Black River will be relocated due to relocating a field entrance, resulting in 60 linear feet of permanent impacts. A temporary pump around will be necessary to complete the scope of work and will temporarily impact approximately 60 linear feet of UNT to Black River.</p> <p>Permanent impacts for the project due to the encapsulation and stream relocation total 62 linear feet. Proper sediment and erosion control measures will be implemented for construction access areas and in-stream work. Temporary impacts due to the installation of temporary cofferdams and the use of pumparounds total 210 linear feet. Upon completion of work, temporary cofferdams and pumparounds will be removed. Stream impacts are not anticipated to reach thresholds that would trigger the need for stream mitigation. All disturbed areas will be restored per the current INDOT Standard Specifications. Based on a permit determination from INDOT ES EWPO on February 21, 2020 (Appendix F, page 20), impacts to Black River and UNT to Black River will require Section 401/404 permitting through the USACE and IDEM.</p> <p>Early coordination letters were sent on May 9, 2019 (Appendix C, pages 1-3). No response was received from USACE.</p>		

INVOLVEMENT WITH RESOURCES			
	<p>In their early coordination response dated May 13, 2019, US Fish and Wildlife Service (USFWS) provided standard recommendations pertaining to erosion and sediment control measures, bank stabilization, minimization of in-stream channel work, and evaluation of wildlife crossings (Appendix C, pages 5-6).</p> <p>An automated letter was generated from the Indiana Department of Environmental Management's (IDEM) website on February 14, 2020 recommending appropriate storm water quality measures to be implemented during construction and after project completion (Appendix C, pages 8-14).</p> <p>In their early coordination response dated June 6, 2019, the Indiana Department of Natural Resources Division of Fish and Wildlife (IDNR-DFW) provided recommendations pertaining to in-stream impacts due to the bridge replacement, bank stabilization, and minimizing impacts to streams (Appendix C, pages 18-20).</p> <p>All applicable IDNR-DFW, USFWS, and IDEM recommendations are included in the Environmental Commitments section of this CE document.</p>		
Wetlands (acres)		No: X	Yes:
		Yes: X	Possible:
Comments:	<p>Based on a review of the National Wetlands Inventory (NWI) online mapper (https://www.fws.gov/wetlands/data/Mapper.html), a site visit on October 7, 2019 by HNTB, the USGS topographic map (Appendix B, page 3), and the RFI report (Appendix E, page 9), there are two wetlands located within the 0.5 mile search radius. No wetlands are present within the project area; therefore, no impacts are expected.</p> <p>Early coordination letters were sent on May 9, 2019 (Appendix C, pages 1-3). The USACE did not respond to the early coordination letter.</p> <p>In their early coordination response dated May 13, 2019, USFWS did not provide recommendations pertaining to wetlands (Appendix C, pages 5-6).</p> <p>An automated letter was generated from the IDEM website on February 14, 2020, which included recommendations regarding permitting requirements (Appendix C, pages 8-14).</p> <p>In their early coordination response dated June 6, 2019, IDNR-DFW did not provide recommendations pertaining to wetlands (Appendix C, pages 18-20).</p> <p>All applicable IDNR DFW, USFWS, and IDEM recommendations are included in the Environmental Commitments section of this document.</p>		
Disturbance of Terrestrial Habitat (acres)		No:	Yes: X
		Yes: X	Possible:
Comments:	<p>Based on a desktop review, a site visit on October 7, 2019 by HNTB, and the aerial map of the project area (Appendix B, page 2), there are maintained state highway right-of-way habitat and forested habitat present within the project area. Vegetation within the project area consists primarily of tall fescue (<i>Schedonorus arundinaceus</i>), white clover (<i>Trifolium repens</i>), poverty grass (<i>Danthonia spicata</i>), southern crabgrass (<i>Digitaria ciliaris</i>), Japanese hops (<i>Humulus japonicus</i>), white mulberry (<i>Morus alba</i>), American beech (<i>Fagus grandifolia</i>), and black walnut (<i>Juglans nigra</i>). No wildlife was observed during the field survey; however, it is likely that the investigated area supports a variety of fauna typical to these habitats such as mice, rabbits, squirrels, and snakes.</p> <p>Approximately 0.57 acre of habitat disturbance will occur due to construction of the new bridge and for equipment to access the project area. The project will require approximately 0.01 acre of tree clearing. Due to the scope of the bridge replacement activities, it is not practical to perform construction from the existing roadway, and therefore disturbance to terrestrial habitat is unavoidable. Mitigation for terrestrial impacts are not expected. All disturbed areas will be restored according to current INDOT Standard Specifications.</p> <p>Early coordination letters were sent on May 9, 2019 (Appendix C, pages 1-3). The USACE did not respond to the early coordination letter.</p>		

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	<p>In their early coordination response dated May 13, 2019, USFWS provided standard recommendations pertaining to erosion and sediment control measures, tree and understory vegetation clearing, and evaluation of wildlife crossings (Appendix C, pages 5-6).</p> <p>An automated letter generated on IDEM’s website on February 14, 2020, did not include recommendations specific to terrestrial habitat (Appendix C, pages 8-14).</p> <p>In their early coordination response dated June 6, 2019, IDNR-DFW provided recommendations to minimize potential effects to wildlife passage within the project area (Appendix C, pages 18-20). These recommendations include post-construction revegetation, placement of riprap and use of geotextiles, and erosion and sediment control measures.</p> <p>All applicable IDNR DFW, USFWS, and IDEM recommendations are included in the Environmental Commitments section of this document.</p>		
Karst Features		No: X	Yes:
		Yes:	Possible:
Comments:	<p>Based on a desktop review, the project is located outside the designated karst region of Indiana as outlined in the October 13, 1993 Memorandum of Understanding (MOU). According to the topo map of the project area (Appendix B, page 3) and the RFI report (Appendix E, pages 1-11), there are no karst features identified within or adjacent to the project area. In the early coordination response, the Indiana Geological Survey (IGS) did not indicate that karst features exist in the project area (Appendix C, pages 15-17). The IGS response also indicated that there is a high liquefaction potential, low potential for bedrock resources, low potential for sand and gravel resources, and the project is located within a floodway. Response from IGS was communicated with the designer on February 17, 2020. No impacts are expected.</p>		
Threatened and Endangered Species		No:	Yes:
		Yes:	Possible: X
Comments:	<p>Based on a desktop review and the RFI report (Appendix E, pages 1-13), completed by HNTB on May 10, 2018, the IDNR Gibson County Endangered, Threatened and Rare (ETR) Species List has been checked and is included in Appendix E, pages 11-13. The highlighted species on the list reflect the federal and state identified ETR species located within the county. According to the IDNR-DFW early coordination response letter dated June 6, 2019, the Natural Heritage Program’s Database has been checked and, to date, no plant or animal species listed at state or federally threatened, endangered, or rare have been reported to occur within the project vicinity (Appendix C, pages 18-20).</p> <p>Project information was submitted through the USFWS’s Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, pages 23-29). The project is within range of the federally-endangered Indiana bat (<i>Myotis sodalis</i>) and the federally-threatened northern long-eared bat (NLEB) (<i>Myotis septentrionalis</i>).</p> <p>The project qualifies for the <i>Range-wide Programmatic Informal Consultation for the Indiana bat and Northern Long-eared Bat (NLEB)</i>, dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), and USFWS. An effect determination key was completed on November 11, 2019, and based on the responses provided, the project was found to “<i>May Affect - Not Likely to Adversely Affect</i>” the Indiana bat and the NLEB. INDOT reviewed and verified the effect finding on November 12, 2019, and requested USFWS’s review of the finding (Appendix C, pages 32-46). No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with the finding. Avoidance and Mitigation Measures (AMMs) are included as firm commitments in the Environmental Commitments section of this CE document.</p> <p>The official species list generated from IPaC indicated one other species present within the project area. Gibson County is within range of the federally endangered least tern (<i>Sterna antillarum</i>). The project qualifies for the USFWS Interim Policy. In their early coordination letter, dated May 13, 2019, USFWS noted that the least tern (<i>Sterna antillarum</i>) are known to occur in Gibson County. Based on information provided to USFWS, The USFWS stated “There does appear to be any suitable habitat for the terns in the project vicinity” and indicated they had no objections to the project as proposed. USFWS included standard</p>		

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	<p>recommendation in their response (Appendix C, pages 5-6). All applicable USFWS recommendations are included in the Environmental Commitments section of this document.</p> <p>Bridge No. 060-10-03312 has shown evidence of use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA) as noted in the <i>INDOT Bridge Inspection Report</i> dated June 5, 2019. Avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the “Potential Migratory Bird on Structure Unique Special Provision”. This firm commitment is included in the Environmental Commitments of this document.</p> <p>This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act, as amended. If new information on endangered species at the site becomes available, or if project plans are changed, USFWS will be contacted for consultation.</p>		
Drinking Water Resources		No: <input checked="" type="checkbox"/>	Yes: <input type="checkbox"/> Possible: <input type="checkbox"/>
Comments:	<p><u>Sole Source Aquifer</u></p> <p>The project is located in Gibson County, which is not located within the area of the St. Joseph Sole Source Aquifer, the only legally designated sole source aquifer in the state of Indiana. Therefore, the FHWA/ Environmental Protection Agency (EPA) Sole Source Aquifer MOU is not applicable to this project. Therefore, a detail groundwater assessment is not needed and no impact is expected.</p> <p><u>Wellhead Protection Area and Source Water</u></p> <p>HNTB sent a wellhead protection area proximity determination request to IDEM Groundwater Section on September 20, 2019. In their response dated October 23, 2019, IDEM stated that the project is not within a Wellhead Protection Area or source water protection area (Appendix C, page 22). No impacts are expected.</p> <p><u>Water Wells</u></p> <p>The IDNR Water Well Record Database website (https://www.in.gov/dnr/water/3595.htm) was accessed on February 19, 2020 by HNTB. No wells are located near this project. Therefore, no impacts are expected.</p> <p><u>Urban Area Boundary</u></p> <p>Based on a desktop review of the INDOT MS4 website (https://entapps.indot.in.gov/MS4/) by HNTB on February 19, 2020 and the RFI report; this project is not located in an Urban Area Boundary location. No impacts are expected.</p> <p><u>Public Water System</u></p> <p>Based on a desktop review, a site visit on October 7, 2019 by HNTB, the aerial map of the project area (Appendix B, page 2), no public water systems were identified. Therefore, no impacts are expected.</p>		
Flood Plains (note transverse or longitudinal impact)		No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> Possible: <input type="checkbox"/>
Comments:	<p>Based on a desktop review of The Indiana Department of Natural Resources Indiana Floodway Information Portal website (http://dnrmaps.dnr.in.gov/appsphp/fdms/) by HNTB on February 17, 2020, and the RFI report (Appendix E, page 9); this project is located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, page 7). Transverse impacts to the Black River floodplain will result from the replacement of the SR 65 bridge over Black River. An early coordination letter was sent on May 10, 2019, to the local Floodplain Administrator. The Floodplain Administrator did not respond within the 30-day time frame. This project qualifies as a Category 3 per the current INDOT CE Manual, which states:</p>		

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	<p>“The modifications to drainage structures included in this project will result in an insubstantial change in their capacity to carry flood water. This change could cause a minimal increase in flood heights and flood limits. These minimal increases will not result in any substantial adverse impacts on the natural and beneficial floodplain values; they will not result in substantial change in flood risks or damage; and they do not have substantial potential for interruption or termination of emergency service or emergency routes; therefore, it has been determined that this encroachment is not substantial.”</p>		
Farmland (acres)		No: <input checked="" type="checkbox"/>	Yes: <input type="checkbox"/> Possible: <input type="checkbox"/>
Comments:	<p>Based on a desktop review, a site visit on October 7, 2019 by HNTB, and the aerial map of the project area (Appendix B, page 2), there is no land that meets the definition of farmland under the Farmland Protection Policy Act (FPPA) within or adjacent to the project area. The requirements of the FPPA do not apply to this project; therefore, no impacts are expected. An early coordination letter was sent on May 9, 2019, to Natural Resources Conservation Services (NRCS). In their response dated February 21, 2020, NRCS indicated the projected will not cause a conversion of prime farmland.</p>		
Cultural Resources		No: <input checked="" type="checkbox"/>	Yes: <input type="checkbox"/> Possible: <input type="checkbox"/>
Comments:	<p>On March 3, 2020, the INDOT Cultural Resource Office (CRO) determined that this project falls within the guidelines of Category B, Type 12 under the Minor Projects Programmatic Agreement, (Appendix D, pages 1-3). MPPA Category B-12 projects include the replacement, widening, or raising the elevation of the superstructure on existing bridges, and bridge replacement projects (when both the superstructure and substructure are removed), under certain conditions. An archaeological records check and Phase Ia reconnaissance survey of the project area were conducted by Cultural Resource Analysts, Inc. (Appendix D, pages 4-5). No previously recorded archaeological surveys were identified in or adjacent to the project area. A 0.7-acre survey area was examined through a combination of soil test probing and visual survey. No archaeological sites were identified within the project area and it was recommended that the project be allowed to proceed as planned. No further consultation is required. This completes the Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.</p>		
Section 4(f) and Section 6(f) Resources		No: <input checked="" type="checkbox"/>	Yes: <input type="checkbox"/> Possible: <input type="checkbox"/>
Comments:	<p>Section 4(f) of the U.S. Department of Transportation Act of 1966 prohibits the use of certain public and historic lands for federally funded transportation facilities unless there is no feasible and prudent alternative. The law applies to significant publicly owned parks, recreation areas, wildlife / waterfowl refuges, and NRHP eligible or listed historic properties regardless of ownership. Lands subject to this law are considered Section 4(f) resources.</p> <p>Based on a desktop review, a site visit on October 7, 2019 by HNTB, the aerial map of the project area (Appendix B, page 2), and the RFI report (Appendix E, page 2) there are no Section 4(f) resources located within the 0.5 mile search radius. There are no Section 4(f) resources within or adjacent to the project area. Therefore, no use is expected.</p> <p>The U.S. Land and Water Conservation Fund Act of 1965 established the Land and Water Conservation Fund (LWCF), which was created to preserve, develop, and assure accessibility to outdoor recreation resources. Section 6(f) of this Act prohibits conversion of lands purchased with LWCF monies to a non-recreation use.</p> <p>A review of 6(f) properties on the LWCF website at https://www.lwcfcoalition.com/tools revealed one property in Gibson County (Appendix I, page 1). This property is not located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources as a result of this project.</p>		

Air Quality Impacts		No: <input checked="" type="checkbox"/>	Yes: <input type="checkbox"/>	Possible: <input type="checkbox"/>
Comments:	<p>The Fiscal Year (FY) 2020-2024 Statewide Transportation Improvement Program (STIP) is listed based on the lead DES number in the contract. The lead DES number for this contract is Des. No. 1700150 (Appendix H, page 1). The FY 2020-2024 STIP includes DES number 1701449 by reference with the contract number B-40553.</p> <p>This project is located in Gibson County, which is currently in attainment for all criteria pollutants according to the IDEM Office of Air Quality. Therefore, the conformity procedures of 40 CFR Part 93 do not apply.</p> <p>This project is of a type qualifying as a categorical exclusion (Group 1) under 23 CFR 771.117(c), or exempt under the Clean Air Act conformity rule under 40 CFR 93.126, and as such, a Mobile Source Air Toxics analysis is not required.</p>			
Community/Economic Impacts		No: <input checked="" type="checkbox"/>	Yes: <input type="checkbox"/>	Possible: <input type="checkbox"/>
Comments:	<p>Indirect impacts are effects which are caused by the 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. Cumulative impacts affect the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such actions.</p> <p>This project is not of a type that is likely to cause substantial indirect or cumulative effects. This project is not expected to affect growth, changes in land use, or population density. The project will not add capacity to the existing roadway network or provide additional access to any currently undeveloped area. Therefore, the project is not expected to increase development in the area or result in substantial indirect or cumulative impacts.</p> <p>Under FHWA Order 6640.23A, FHWA and INDOT, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. This project will have no relocations and will require less than 0.5 acre of additional permanent right-of-way; therefore, an EJ analysis is not required per the INDOT Categorical Exclusion Manual.</p>			
Hazardous Materials		No: <input checked="" type="checkbox"/>	Yes: <input type="checkbox"/>	Possible: <input type="checkbox"/>
Comments:	<p>Based on a review of GIS and available public records, a RFI was approved on July 23, 2019 by the INDOT Site Assessment and Management (SAM) Unit (Appendix E, page 3). No sites with hazardous material concerns (hazmat sites) or sites involved with regulated substances were identified in or within 0.5 mile of the project area. Further investigation for hazardous material concerns or regulated substances is not required at this time.</p>			
Permits		No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/>	Possible: <input type="checkbox"/>
Comments:	<p>Based on a permit determination from INDOT ES EWPO on February 21, 2020 (Appendix F, page 20), the following permits are needed:</p> <ul style="list-style-type: none"> • Section 401 Water Quality Certification from IDEM as approved for the Indiana Individual Permit • Section 404 Indiana Regional General Permit from the USACE <p>Applicable recommendations provided by IDEM are included in the Environmental Commitments section of this document. If permits are found to be necessary, the conditions of the permit will be requirements of the project and will supersede these recommendations.</p> <p>It is the responsibility of the project sponsor to identify and obtain all required permits.</p>			

ENVIRONMENTAL COMMITMENTS:**FIRM:**

1. If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT Vincennes District Environmental Section will be contacted immediately. (INDOT ESD and INDOT Vincennes District)
2. It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access. (INDOT ESD)
3. USFWS Bridge/Structure Assessment shall take place no earlier than two (2) years prior to the start of construction. If construction will begin after 10/7/2021, an inspection of the structure by a qualified individual, must be performed. Inspection of the structure should check for presence of bats/bat indicators and/or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately. (INDOT ES)
4. General AMM 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs. (USFWS)
5. Tree Removal AMM 1: Ensure all phases/aspects of the project (e.g., temporary work areas, alignments) be modified, to the extent practicable, to avoid tree removal in excess of what is required to implement the project safely. (USFWS)
6. Tree Removal AMM 2: Ensure all tree removal activities are restricted to when Indiana bats are not likely to be present (e.g., the inactive season). (USFWS)
7. Tree Removal AMM 2: Ensure all tree removal activities are restricted to when Northern long-eared bats are not likely to be present (e.g., the inactive season). (USFWS)
8. Tree Removal AMM 3: Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits. (USFWS)
9. Tree Removal AMM 4: Avoid cutting down/removal of all documented Indiana bat or NLEB roosts (that are still suitable for roosting), trees within 0.25 miles of roosts, and documented foraging habitat any time of year. (USFWS)
10. Lighting AMM 1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)
11. Bridge No. 065-26-00313 has shown evidence of use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA) during the June 5, 2019 INDOT bridge inspection. Avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the “Potential Migratory Bird on Structure USP”. (INDOT)
12. Three pipelines, associated with Community Natural Gas Company Inc. and Texas Eastern Transmission Corporation are within the project area. Coordination with INDOT Utilities and Railroads will occur. (INDOT)

FOR FURTHER CONSIDERATION:

13. For purposes of maintaining fish and wildlife passage through a crossing structure, the Environmental Unit recommends bridges rather than culverts and bottomless culverts rather than box or pipe culverts. Wide culverts are better than narrow culverts, and culverts with shorter through lengths are better than culverts with longer through lengths. If box or pipe culverts are used, the bottoms should be buried a minimum of 6” (or 20% of the culvert height/pipe diameter, whichever is greater up to a maximum of 2’) below the stream bed elevation to allow a natural streambed to form within or under the crossing structure. Crossings should: span the entire channel width (a minimum of 1.2 times the OHWM width); maintain the natural stream substrate within the structure; have a minimum openness ratio (height x width / length) of 0.25; and have stream depth, channel width, and water velocities during low-flow conditions that are approximate to those in the natural stream channel. (IDNR-DFW)
14. Conditions for wildlife passage under the current bridge are not optimal, but could and should be improved when the new bridge is designed and built. A level area of natural ground under the structure is ideal for wildlife passage. If channel clearing will result in a flat bench area above the normal water level under the structure, this area should allow

ENVIRONMENTAL COMMITMENTS:

- wildlife passage and should remain free of riprap and other similar materials that can impair wildlife passage. (IDNR-DFW)
15. Minimize the use of riprap and use alternative erosion protection materials whenever possible. Riprap must not be placed in the active thalweg channel or placed in the streambed in a manner that precludes fish or aquatic organism passage (riprap must not be placed above the existing streambed elevation). Where riprap must be used, IDNR recommends placing only enough riprap to provide stream bank toe protection, such as from the toe of the bank up to the OHWM. The banks above the OHWM must be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to the area and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. (IDNR-DFW)
 16. While hard armoring alone (e.g. riprap or glacial stone) may be needed in certain instances, soft armoring and bioengineering techniques should be considered first. In many instances, one or more methods are necessary to increase the likelihood of vegetation establishment. Combining vegetation with most bank stabilization methods can provide additional bank protection and help reduce impacts upon fish and wildlife. If hard armoring is needed, wildlife passage can be facilitated by using a smooth-surfaced armoring material instead of riprap, such as articulated concrete block mats, fabric-formed concrete mats, or other similar smooth-surfaced material. (IDNR-DFW)
 17. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30. (IDNR-DFW)
 18. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure. (IDNR-DFW)
 19. Do not construct any temporary runarounds, causeways, cofferdams, pump around or stream diversion systems.
 20. Plant native hardwood trees along the top of the bank and right-of-way to replace the vegetation destroyed during construction. (IDNR-DFW)

THE CATEGORICAL EXCLUSION CANNOT BE PROCESSED AS A LEVEL ONE IF YES IS SELECTED FOR ANY OF THE FOLLOWING ITEMS*:		
Formal noise analysis required?	No: X	Yes:
Environmental Justice analysis required?	No: X	Yes:
Right-of-Way acquisition greater than 0.5 acre?	No: X	Yes:
Relocation of residences/businesses/etc.?	No: X	Yes:
Added through-traffic lanes?	No: X	Yes:
Facility on new location or realignment?	No: X	Yes:
Permanent alteration of local traffic pattern?	No: X	Yes:
Section 4(f) and Section 6(f) resource impacts?	No: X	Yes:
Sole Source Aquifer Groundwater Assessment required?	No: X	Yes:
Is the project "Likely to Adversely Affect" Threatened and Endangered Species?	No: X	Yes:
Stream impacts greater than 300 linear feet, or work beyond 75 feet from pavement?	No: X	Yes:
Wetland impacts greater than 0.1 acre?	No: X	Yes:
Does the project have historic bridge involvement, or a Section 106 finding of No Adverse Effect / Adverse Effect?	No: X	Yes:

* Please note, this table is not applicable for state funded CE's.

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SR 65 over Black River Bridge Replacement
Gibson County, Indiana
Des. No. 1700165

Appendix A: INDOT Supporting Documentation

Categorical Exclusion Level Thresholds

	PCE	Level 1	Level 2	Level 3	Level 4 ¹
Section 106	Falls within guidelines of Minor Projects PA	“No Historic Properties Affected”	“No Adverse Effect”	-	“Adverse Effect” Or Historic Bridge involvement ²
Stream Impacts	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	Individual 404 Permit
Wetland Impacts	No adverse impacts to wetlands	< 0.1 acre	-	< 1 acre	≥ 1 acre
Right-of-way³	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
Relocations	None	-	-	< 5	≥ 5
Threatened/Endangered Species (Species Specific Programmatic for Indiana bat & northern long eared bat)	“No Effect”, “Not likely to Adversely Affect” (Without AMMs ⁴ or with AMMs required for all projects ⁵)	“Not likely to Adversely Affect” (With any other AMMs)	-	“Likely to Adversely Affect”	Project does not fall under Species Specific Programmatic
Threatened/Endangered Species (Any other species)	Falls within guidelines of USFWS 2013 Interim Policy	“No Effect”, “Not likely to Adversely Affect”	-	-	“Likely to Adversely Affect”
Environmental Justice	No disproportionately high and adverse impacts	-	-	-	Potential ⁶
Sole Source Aquifer	Detailed Assessment Not Required	-	-	-	Detailed Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Coastal Zone Consistency	Consistent	-	-	-	Not Consistent
National Wild and Scenic River	Not Present	-	-	-	Present
New Alignment	None	-	-	-	Any
Section 4(f) Impacts	None	-	-	-	Any
Section 6(f) Impacts	None	-	-	-	Any
Added Through Lane	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Coast Guard Permit	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes ⁷
Approval Level <ul style="list-style-type: none"> • District Env. Supervisor • Env. Services Division • FHWA 	Concurrence by INDOT District Environmental or Environmental Services	Yes	Yes	Yes Yes	Yes Yes Yes

¹Coordinate with INDOT Environmental Services. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.

²Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.

³Permanent and/or temporary right-of-way.

⁴AMMs = Avoidance and Mitigation Measures.

⁵AMMs determined by the IPAC decision key to be needed that are listed in the USFWS *User’s Guide for the Range-wide Programmatic Consultation for Indiana bat and Northern long-eared bat* as “required for all projects”.

⁶Potential for causing a disproportionately high and adverse impact.

⁷Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.

*Substantial public or agency controversy may require a higher-level NEPA document.

SR 65 over Black River Bridge Replacement
Gibson County, Indiana
Des. No. 1700165

Appendix B: Graphics

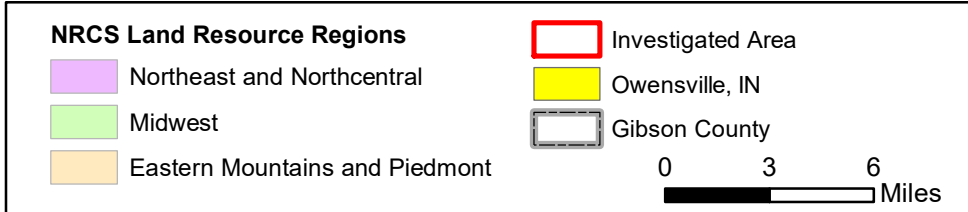
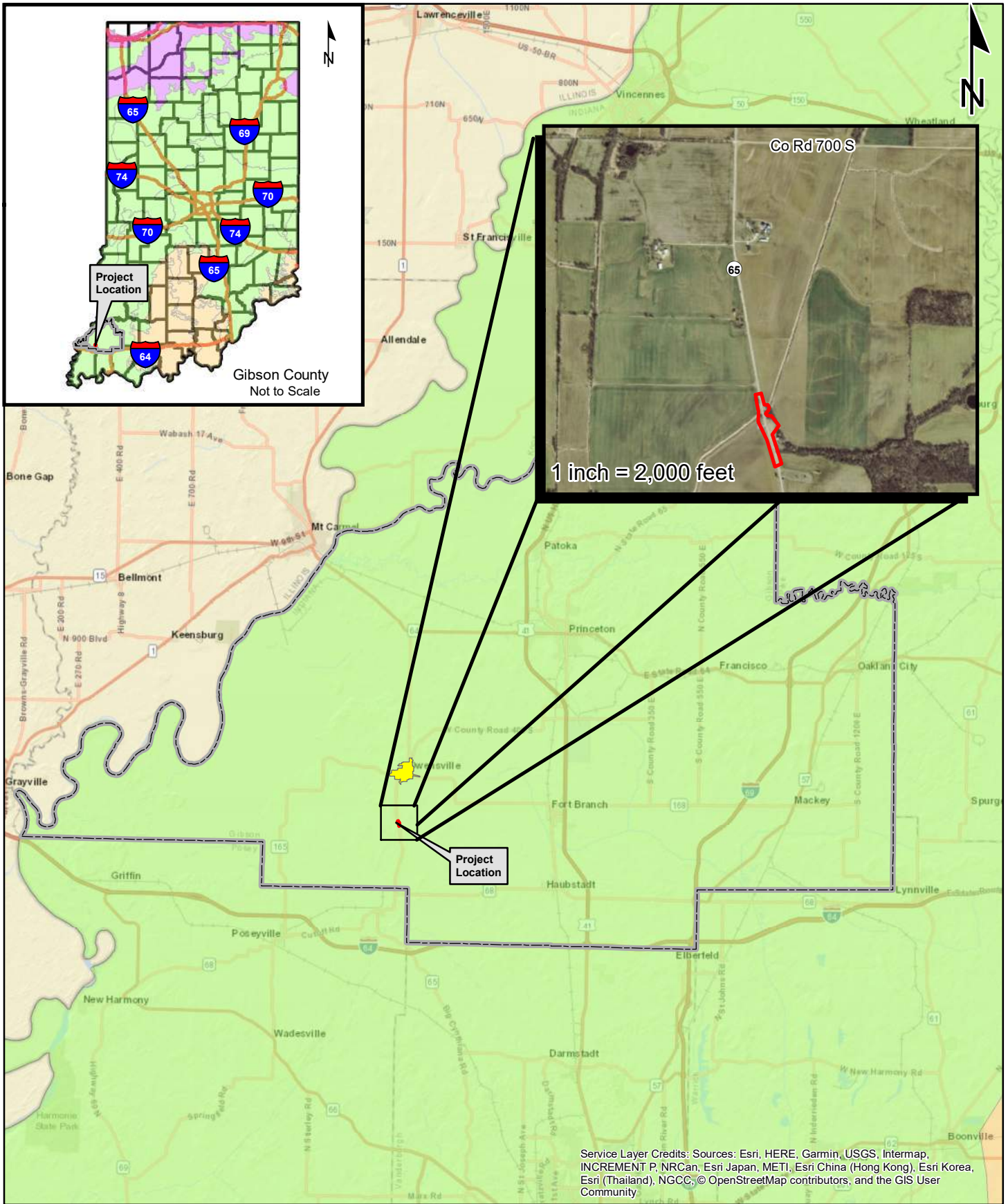
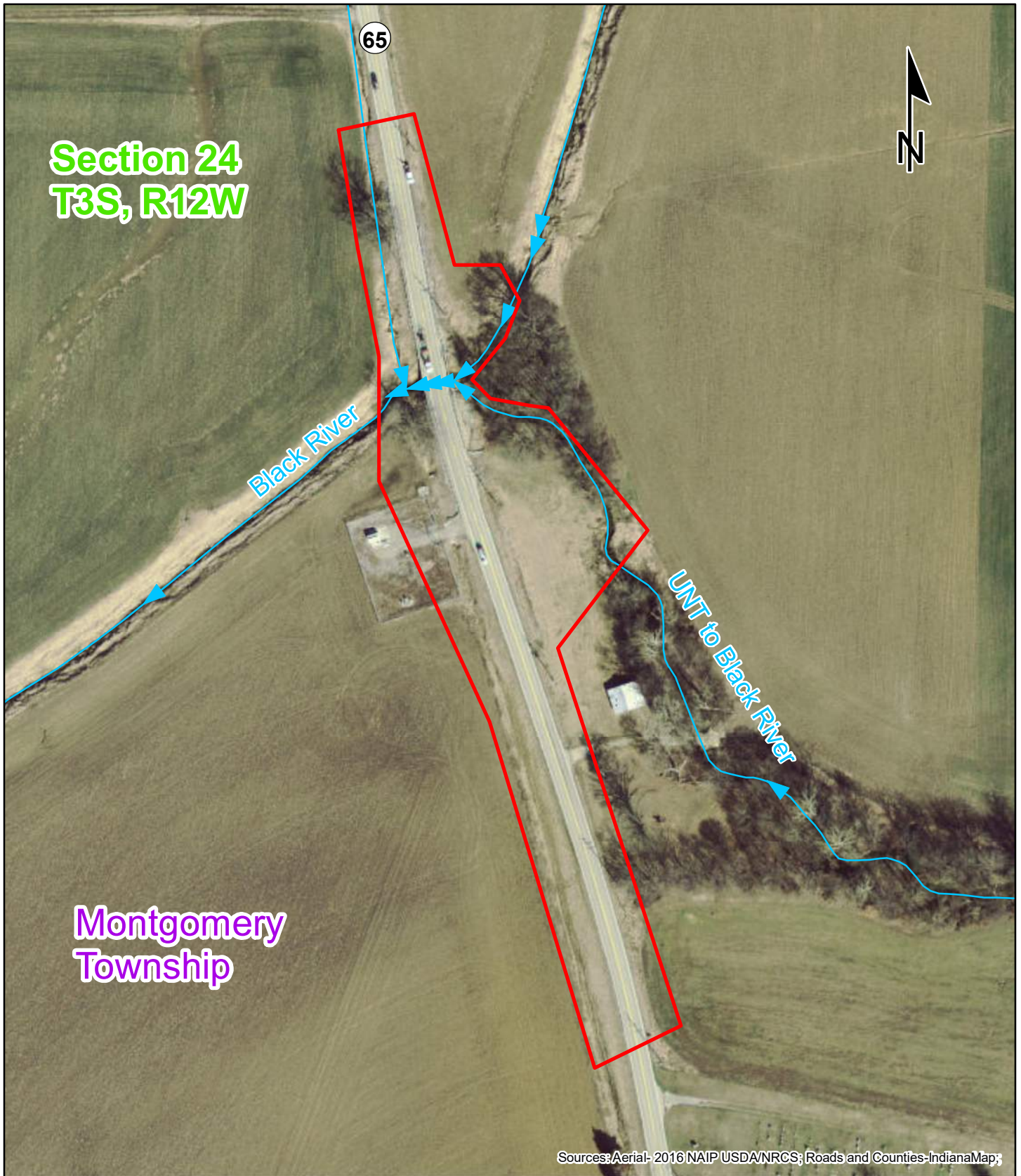





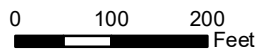
Figure 1: Project Location Map
 SR 65 over Black River
 Bridge Replacement
 Gibson County, Indiana

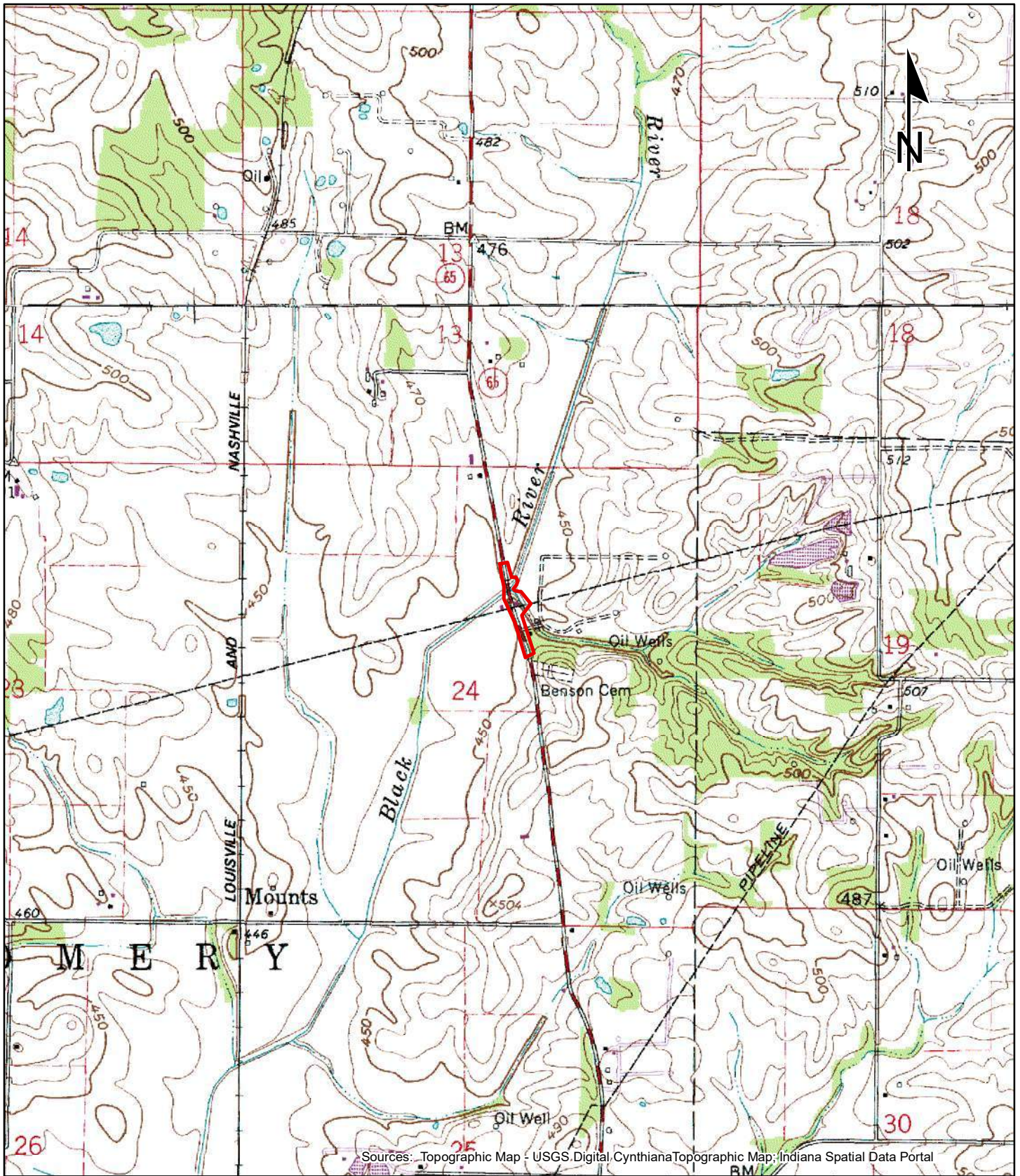
Des. No. 1700165	
1 in = 6 miles	



Graphics created by HNTB Corporation (2020)

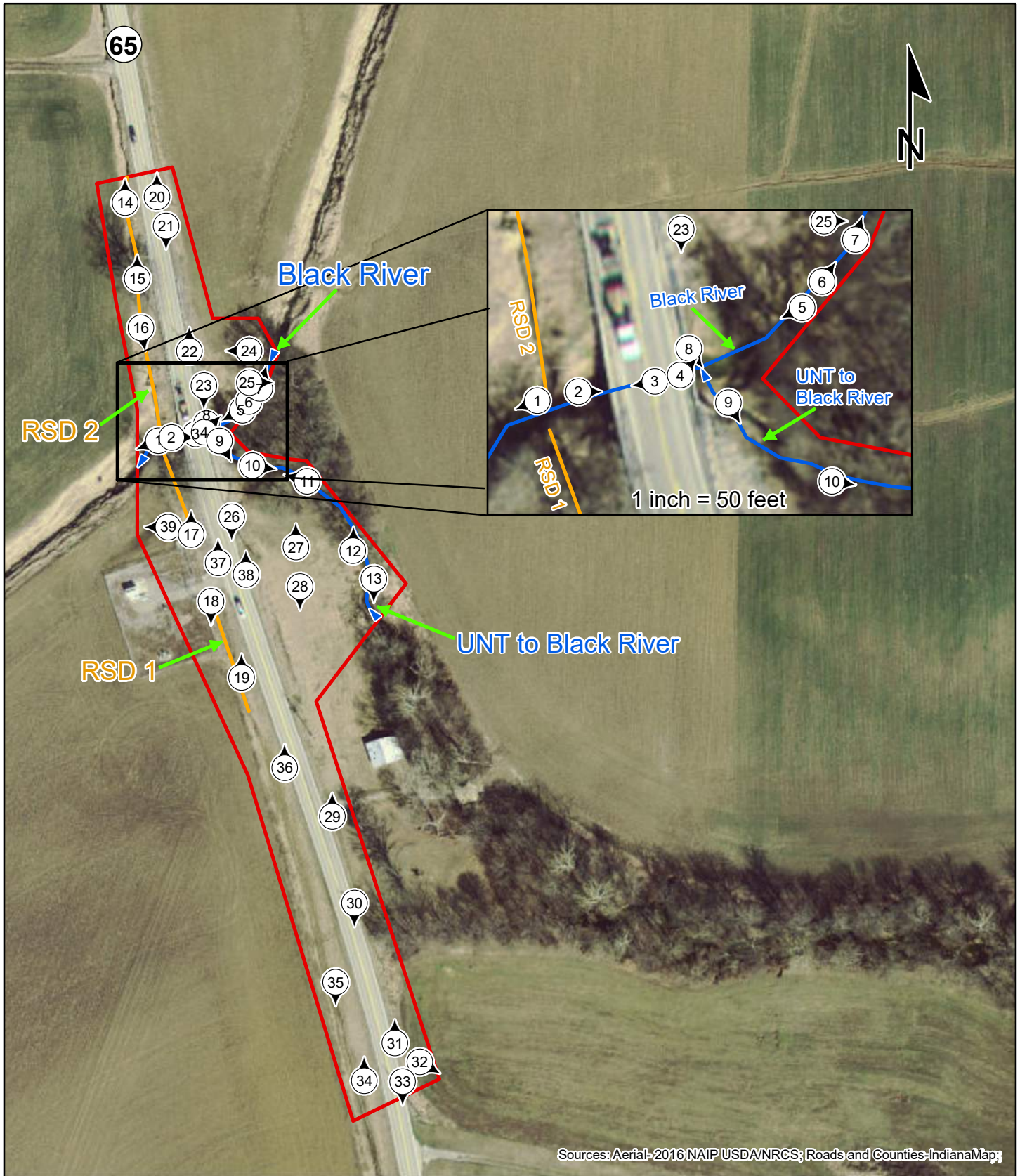


 Investigated Area  National Hydrography Flowlines	Figure 2: Project Aerial Map SR 65 over Black River Bridge Replacement Gibson County, Indiana	
	Des. No. 1700165 1 inch = 200 feet	 Graphics created by HNTB Corporation (2020)





 Investigated Area	Figure 3: USGS (1:24,000 scale) Topographic Map SR 65 over Black River Bridge Replacement Gibson County, Indiana	
	Des. No.1700165 0 1,000 2,000 Feet 	1 inch = 2,000 feet



Sources: Aerial-2016 NAIP USDA/NRCS; Roads and Counties-IndianaMap;

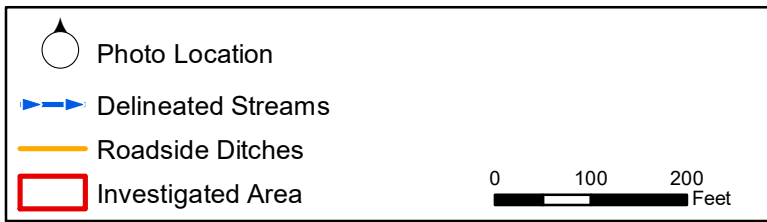


Figure 4: Photo Location Map SR 65 over Black River Bridge Replacement Gibson County, Indiana	
Des. No. 1700165	 Graphics created by HNTB Corporation (2020)
1 inch = 200 feet	



1. View of Black River and investigated area looking downstream to the west



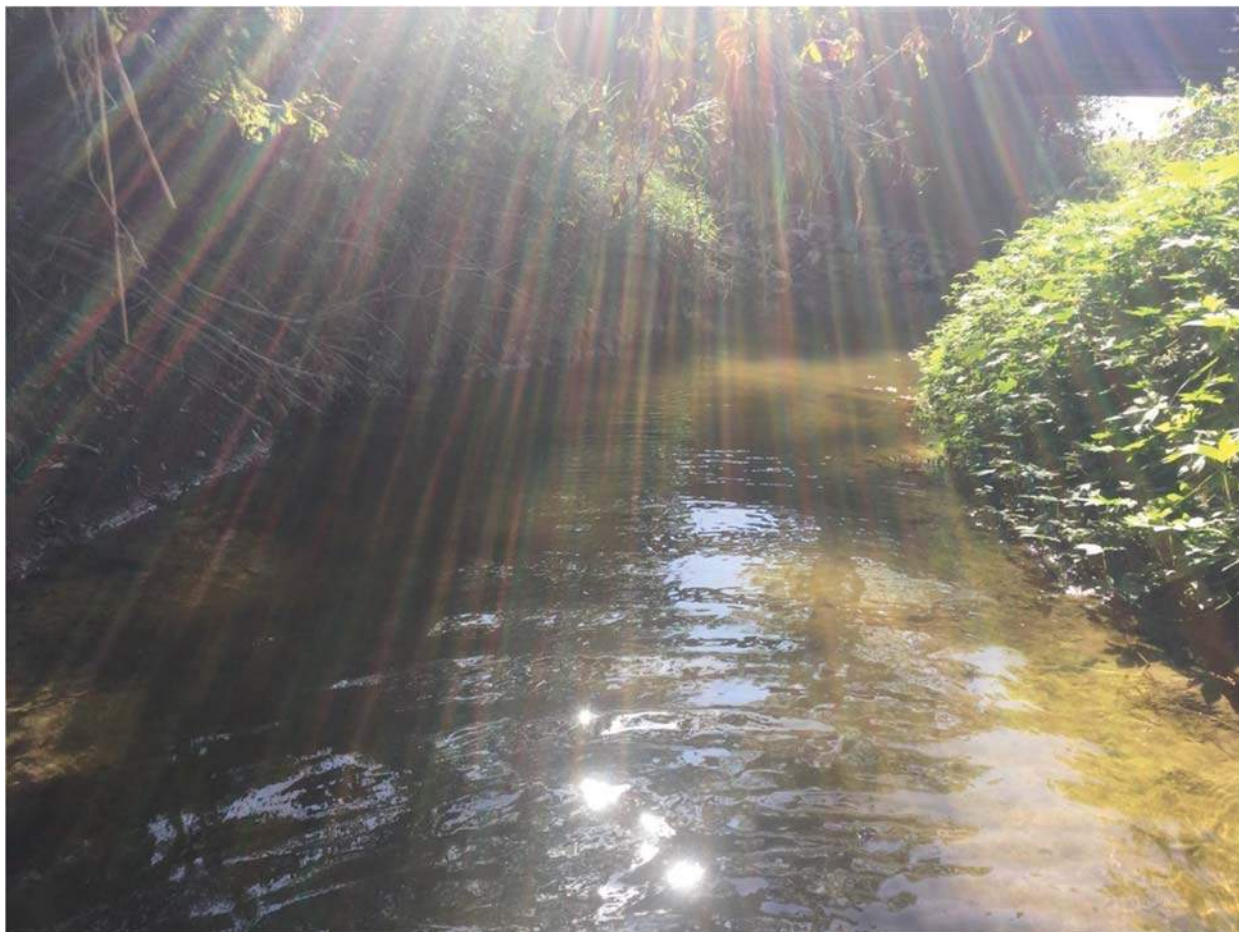
2. View of Black River and investigated area looking upstream to the east



3. View of Black River and investigated area looking downstream to the west



4. View of Black River and investigated area looking upstream to the northeast



5. View of Black River and investigated area looking downstream to the southwest



6. View of Black River and investigated area looking upstream to the northeast



7. View of Black River and investigated area looking upstream to the north



8. View of Black River and UNT to Black River confluence and investigated area looking south



9. View of UNT to Black River and investigated area looking upstream to the southeast



10. View of UNT to Black River and investigated area looking upstream to the east



11. View of UNT to Black River and investigated area looking downstream to the northwest



12. View of UNT to Black River and investigated area looking north



13. View of UNT to Black River and investigated area looking upstream to the south



14. View of RSD 2, SR 65, and investigated area looking north



15. View of RSD 2 and investigated area looking north



16. View of RSD 2 and investigated area looking south



17. View of RSD 1 and investigated area looking north



18. View of RSD 1 and investigated area looking south



19. View of RSD 1 and investigated area looking north



20. View of investigated area and SR 65 looking north



21. View of investigated area and SR 65 looking south



22. View of investigated area and SR 65 looking north



23. View of investigated area and SR 65 bridge looking south



24. View of investigated area looking west



25. View of investigated area and Black River looking east



26. View of investigated area and SR 65 looking south



27. View of investigated area looking north



28. View of investigated area looking south



29. View of investigated area looking north



30. View of investigated area and SR 65 looking south



31. View of investigated area and SR 65 looking north



32. View of investigated area and Benson Cemetery looking southeast



33. View of investigated area and SR 65 looking south



34. View of investigated area and SR 65 looking north



35. View of investigated area and SR 65 looking south



36. View of investigated area and SR 65 looking north



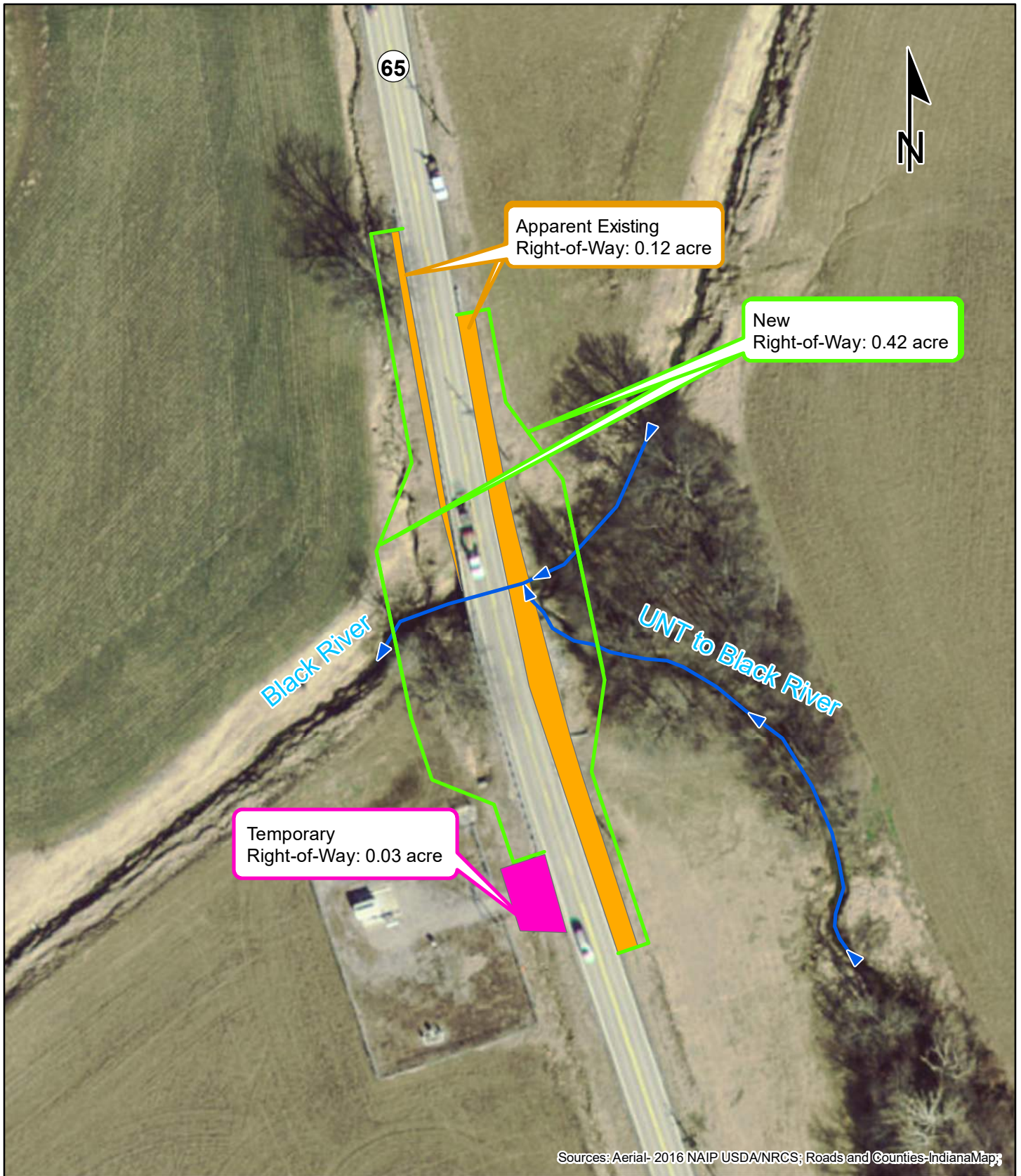
37. View of investigated area and SR 65 looking north



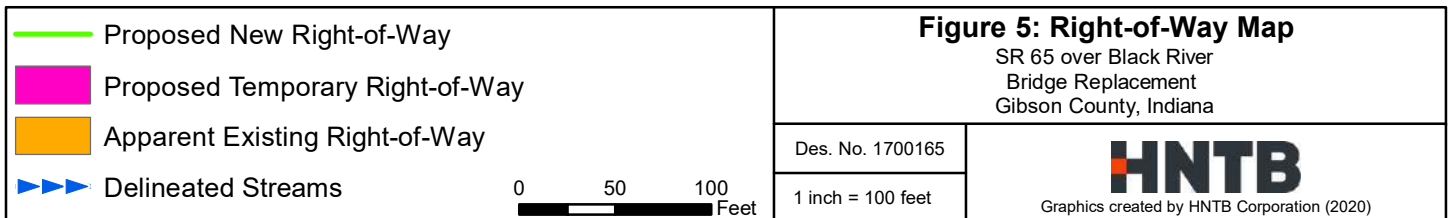
38. View of investigated area and SR 65 looking north



39. View of investigated area looking west



Sources: Aerial- 2016 NAIP USDA/NRCS; Roads and Counties-IndianaMap;



PROJECT	DESIGNATION
1700165	1700165
CONTRACT	BRIDGE FILE
B-40553	065-26-10331

STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
065-26-10331	PRECAST REINFORCED CONCRETE THREE SIDED FLAT TOP STRUCTURE	1 SPAN: 42'-0" SKEW: 36°00'00"	BLACK RIVER	126+18.99 LINE "A"

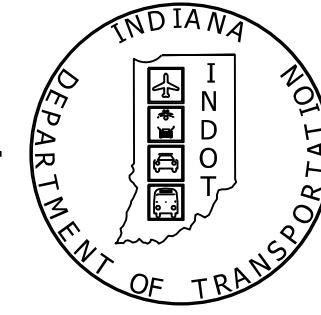
KIN PROJECT INFORMATION		
DESIGNATION	PROJECT DESCRIPTION	LEAD DES
1700150	SR 356 OVER MUD CREEK	
1700166	SR 65 OVER BRANCH HARDIN CREEK	
1700160	SR 65 OVER HARDIN CREEK	
1700165	SR 65 OVER BLACK RIVER	

NOTE TO REVIEWER

PLEASE SEE
CORRESPONDENCE FILE
FOR DOCUMENTATION OF
DESIGN DECISIONS

**STAGE 1 PLANS
NOVEMBER 8, 2019**

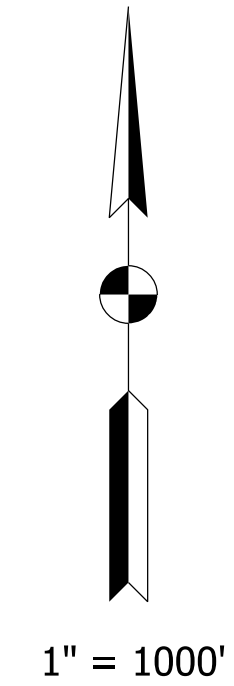
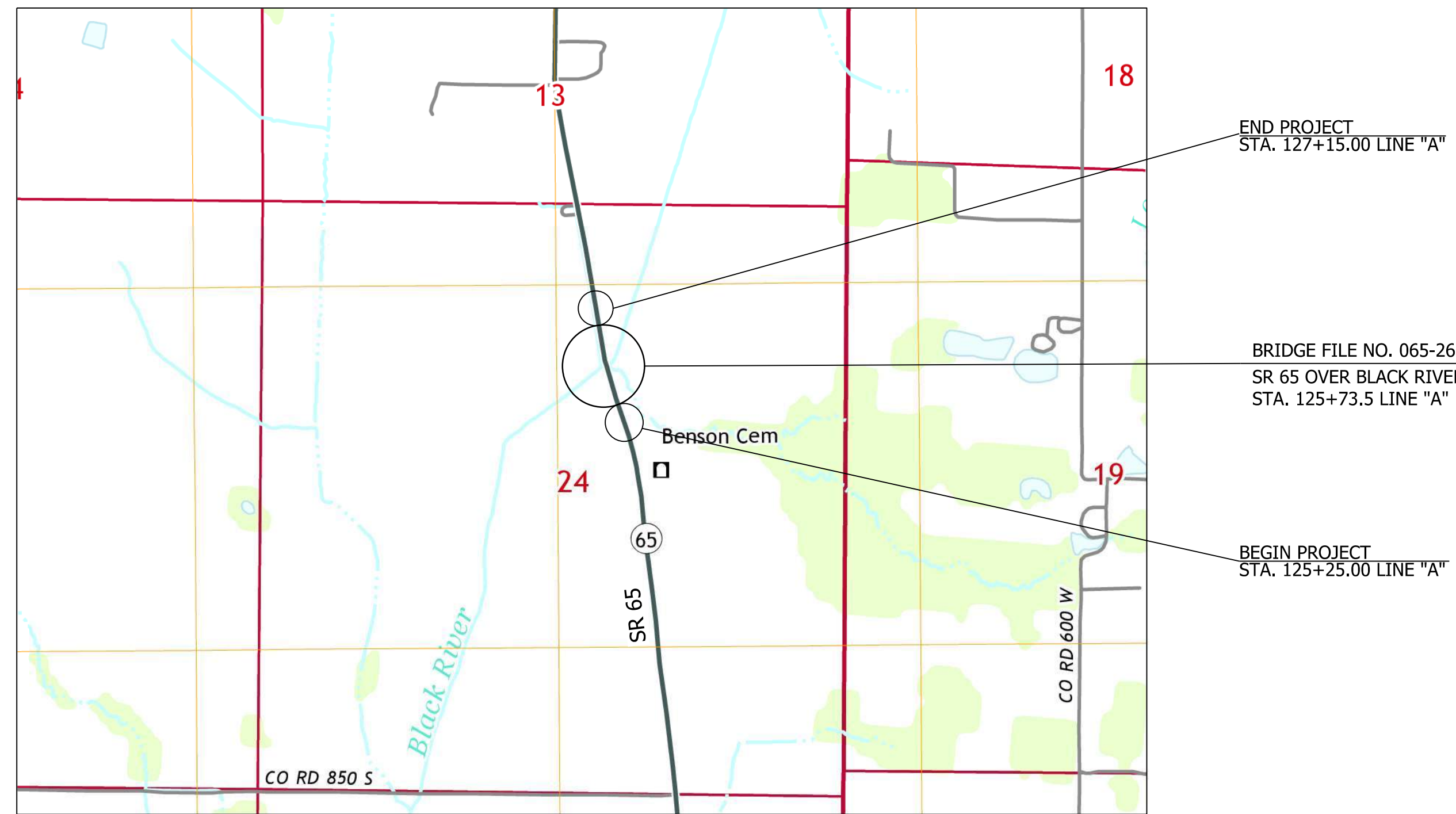
INDIANA DEPARTMENT OF TRANSPORTATION



BRIDGE PLANS FOR SPANS OVER 20 FEET ROUTE: SR 65 AT: RP 18+03 PROJECT NO. 1700165 (P.E., CONST., R/W)

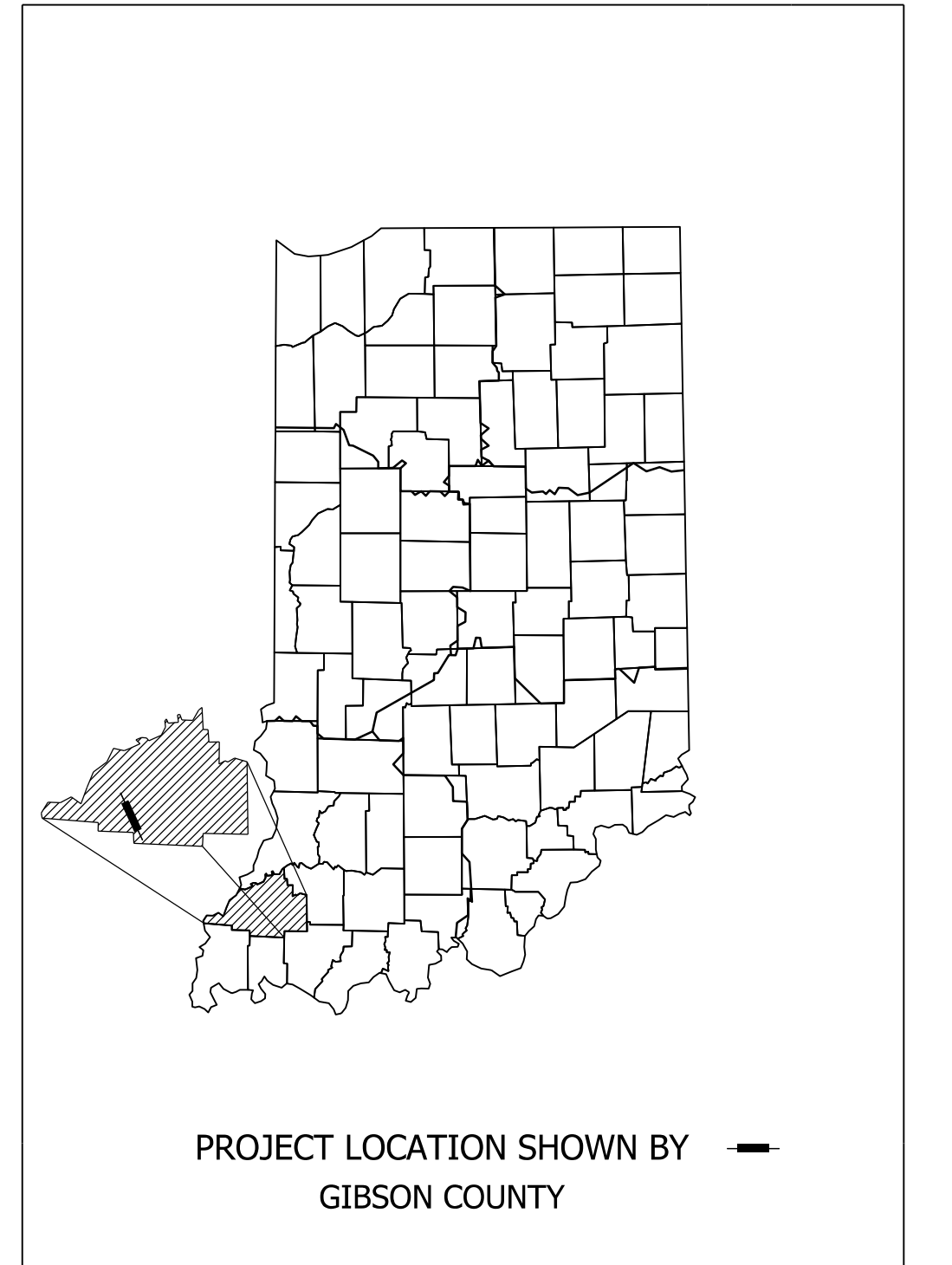
ADDITIONAL RIGHT-OF-WAY
REQUIRED FOR THIS PROJECT

BRIDGE REPLACEMENT ON SR 65 OVER BLACK RIVER,
LOCATED APPROXIMATELY 2.09 MILES SOUTH OF SR 168,
IN SECTION 24, T-3-S, R-12-W,
MONTGOMERY TOWNSHIP, GIBSON COUNTY, INDIANA.



TRAFFIC DATA		
A.A.D.T. (2022)	1380	V.P.D.
A.A.D.T. (2042)	1406	V.P.D.
D.H.V. (2042)	137	V.P.H.
DIRECTIONAL DISTRIBUTION	49.53	%
TRUCKS	16.68	% A.A.D.T.
	7.46	% D.H.V.

DESIGN DATA	
DESIGN SPEED	55 MPH
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	MAJOR COLLECTOR
RURAL/URBAN	RURAL
TERRAIN	LEVEL
ACCESS CONTROL	NONE



LATITUDE: 38° 14' 27"	LONGITUDE: 87° 41' 44"
BRIDGE LENGTH: 0.010 MI.	ROADWAY LENGTH: 0.026 MI.
TOTAL LENGTH: 0.036 MI.	MAX. GRADE: -0.647 %
HUC: 051201130502	

LOCATION MAP
(GIBSON COUNTY)

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2020
TO BE USED WITH THESE PLANS.

mwallace
 2/26/2020 11:45:59 am
 model: Sheetsesd
 file: \\inr\w001\289\projects\70946_indot\2018_bridges\1080-sr65_black_des\1700165\cadd\br1\cadd\1700165-br-tt01.dgn



HNTB Indiana, Inc.
The HNTB Companies
Infrastructure Solutions
111 Monument Circle
Suite 1200
Indianapolis, IN 46204

DRAFT
NOT FOR CONSTRUCTION

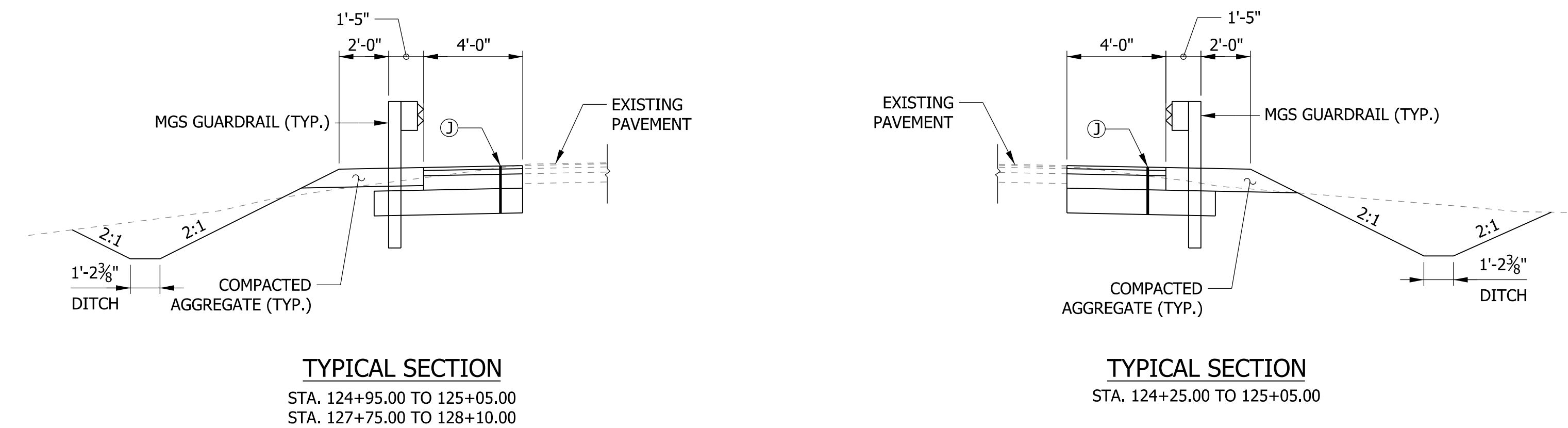
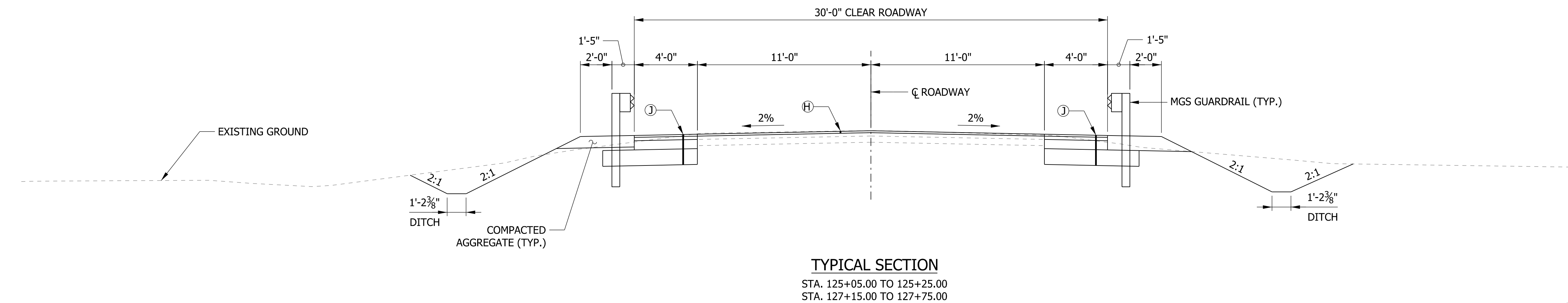
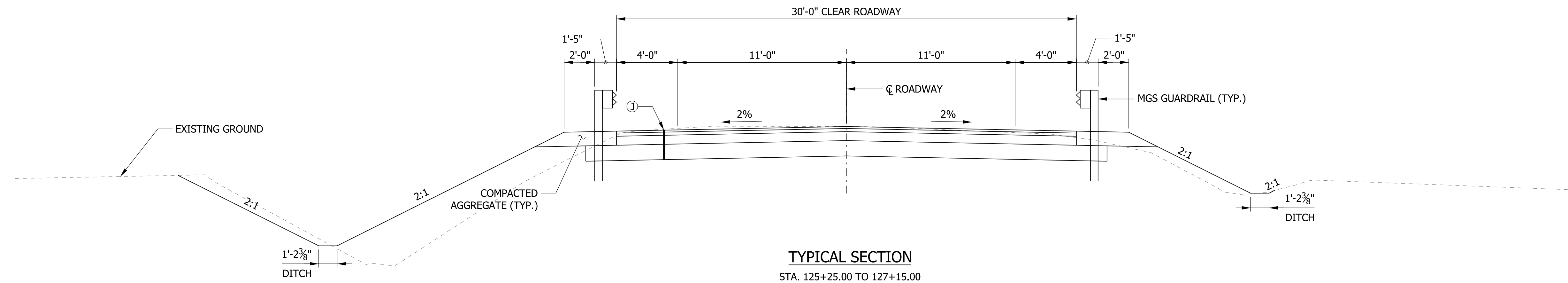
PLANS PREPARED BY: HNTB Indiana, Inc. (317) 636-4682
PHONE NUMBER

CERTIFIED BY: _____ DATE _____

APPROVED FOR LETTING: _____ DATE _____

INDIANA DEPARTMENT OF TRANSPORTATION

BRIDGE FILE	
065-26-10331	
DESIGNATION	
1700165	
SURVEY BOOK	SHEETS
ELECTRONIC	1 of 11
CONTRACT	PROJECT
B-40553	1700165



LEGEND

- Ⓜ 165 LBS/SYS QC/QA-HMA, 2, 64, SURFACE, 9.5 MM
- Ⓜ 165 LBS/SYS QC/QA-HMA, 2, 64, SURFACE, 9.5 MM ON
275 LBS/SYS QC/QA-HMA, 2, 64, INTERMEDIATE, 19.0 MM ON
770 LBS/SYS QC/QA-HMA, 2, 64, BASE, 25.0 MM ON
SUBGRADE TREATMENT, TYPE IC

NOTE TO REVIEWER

SECTIONS WILL BR UPDATED
FOLLOWING RECEIPT OF
FINAL PAVEMENT DESIGN.

rwallace
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DRAFT
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: EAH	DRAWN: EAH	
CHECKED: ALR	CHECKED: MEW	

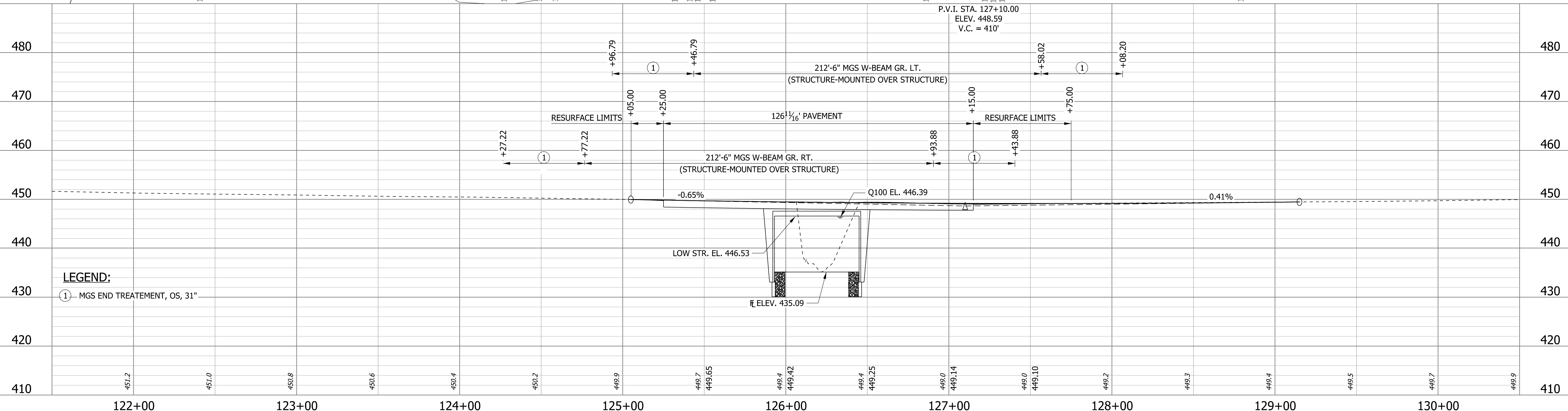
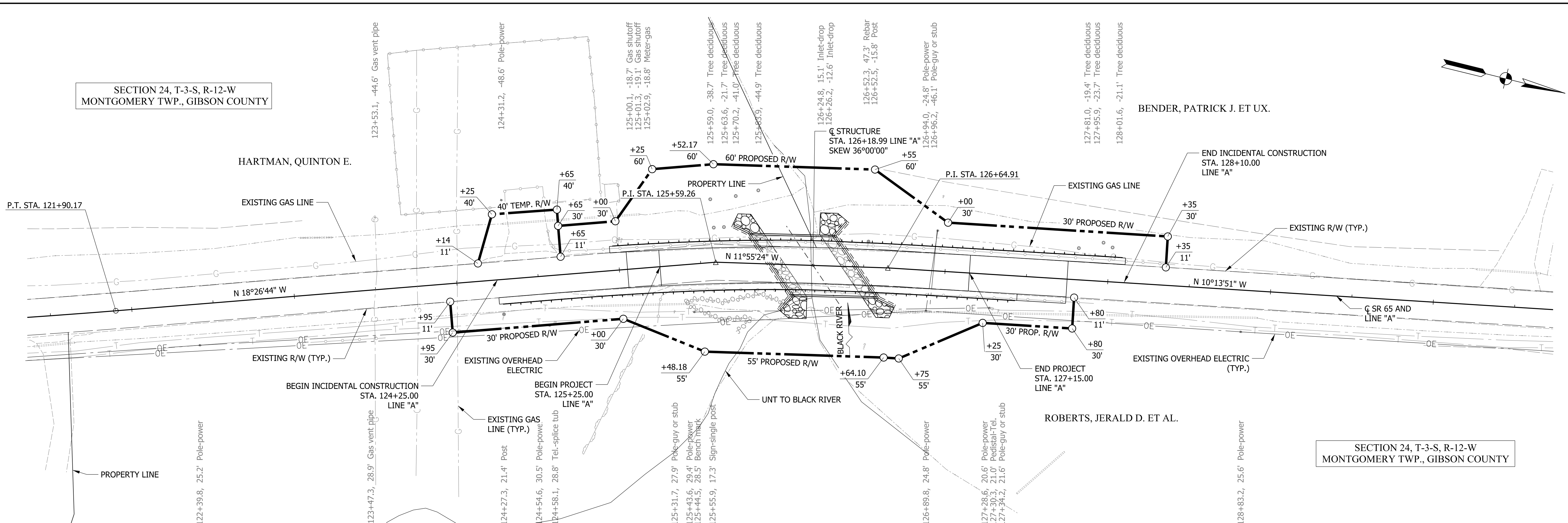
INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	065-26-10331
VERTICAL SCALE	DESIGNATION
1/4" = 1'-0"	1700165
SURVEY BOOK	SHEETS
ELECTRONIC	3 of 11
CONTRACT	PROJECT
B-40553	1700165

SECTION 24, T-3-S, R-12-W
MONTGOMERY TWP., GIBSON COUNTY

SECTION 24, T-3-S, R-12-W
MONTGOMERY TWP., GIBSON COUNTY



LEGEND:
① MGS END TREATMENT, OS, 31"

DRAFT
NOT FOR CONSTRUCTION

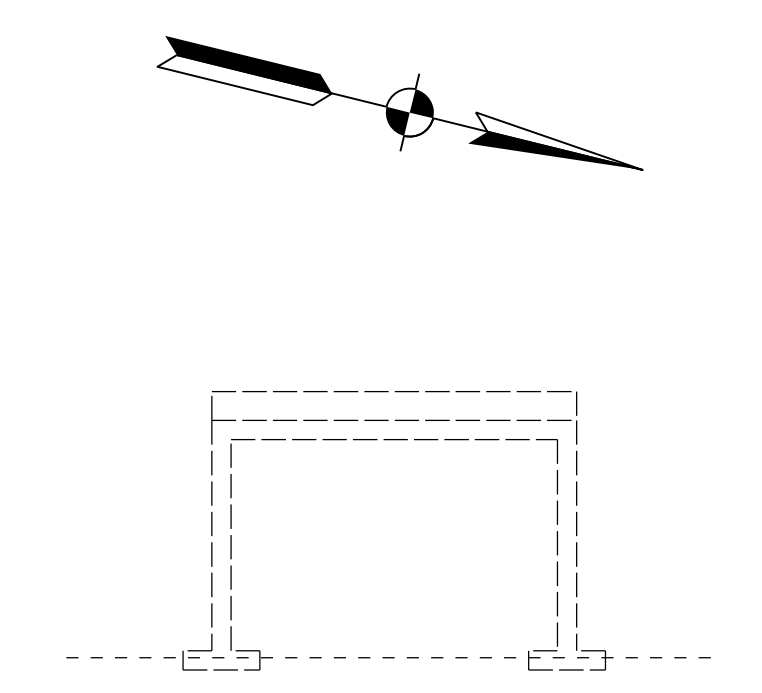
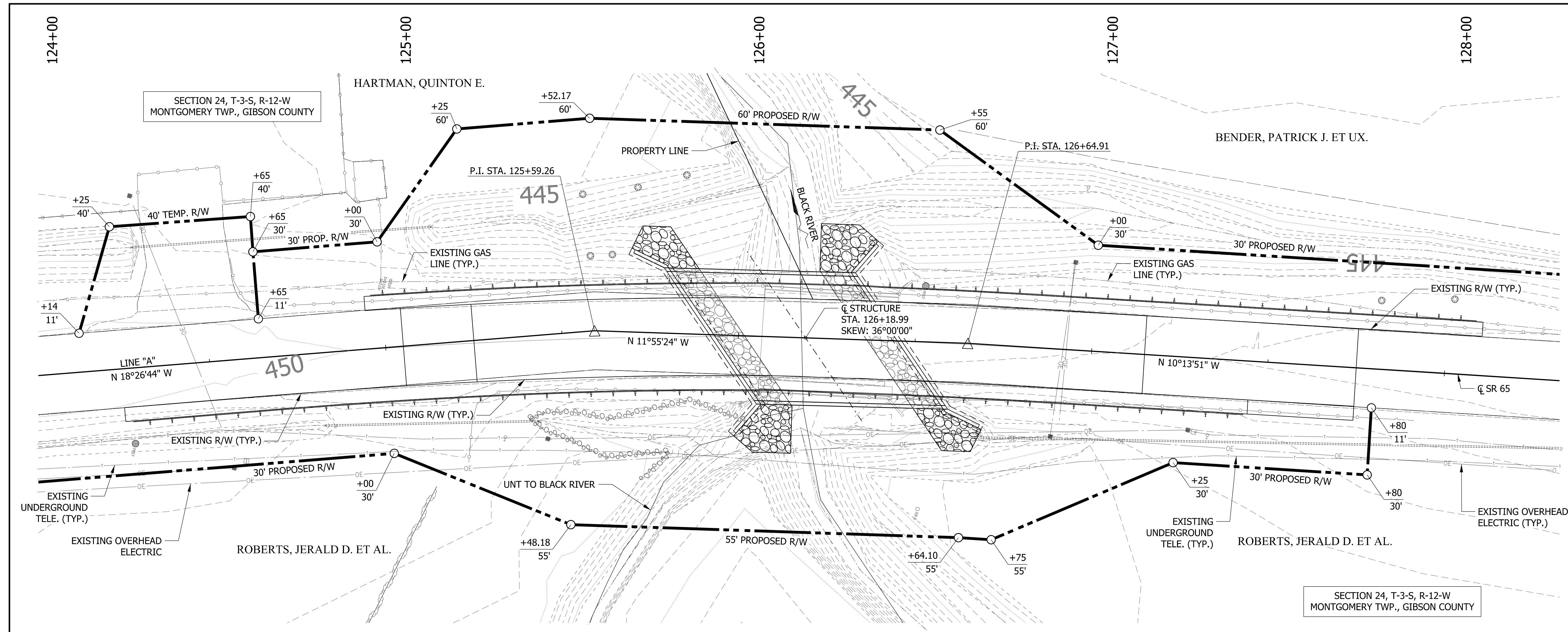
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: EAH	DRAWN: EAH	
CHECKED: ALR	CHECKED: MEW	

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE

HORIZONTAL SCALE 1" = 30'	BRIDGE FILE 065-26-10331
VERTICAL SCALE 1" = 10'	DESIGNATION 1700165
SURVEY BOOK ELECTRONIC	SHEETS 4 of 11
CONTRACT B-40553	PROJECT 1700165

rwallace
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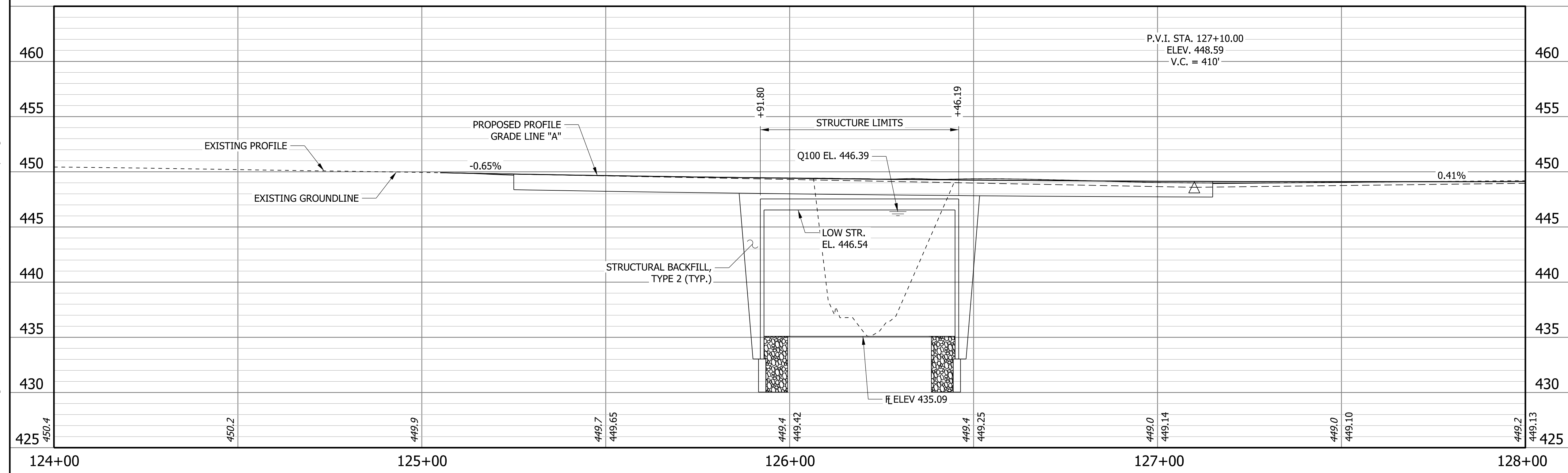


EXISTING STRUCTURE
(NOT TO SCALE)

THE EXISTING STRUCTURE (065-26-00313) IS A SINGLE SPAN REINFORCED CONCRETE GIRDER BRIDGE BUILT IN 1924 WITH A SINGLE SPAN OF 30'-0" AND A CLEAR ROADWAY WIDTH OF 28'-0" (TO BE REMOVED)

HYDRAULIC DATA

WATERWAY OPENING REQUIRED	237.1	SFT
WATERWAY OPENING PROVIDED	474.60	SFT
DRAINAGE AREA	2.3	SQ MI
DESIGN DISCHARGE, Q100	1619	CFS
VELOCITY	6.67	FT/S
Q100 ELEV.	446.39	FT
BACKWATER AT Q100	1.00	FT
EXISTING WATERWAY OPENING	216	SFT
EXISTING BACKWATER	1.28	FT
MIN. LOW STRUCTURE ELEV. REQ.	446.54	FT
EXISTING LOW STRUCTURE ELEV.	446.54	FT



NOTE TO REVIEWER

LOW STRUCTURE ELEVATION TO MEET EXISTING LOW STRUCTURE ELEVATION PER APPROVED HYDRAULICS MEMO IN LEIU OF PROVIDING 1'-0" FREEBOARD.

PRECAST REINFORCED CONCRETE
THREE-SIDED FLAT TOP STRUCTURE
42'-0" SPAN 13'-6" RISE
SKEW: 36°00'00" LT.
30'-0" CLEAR ROADWAY
SR 65 OVER BLACK RIVER
GIBSON COUNTY

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DRAFT
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: EAH	DRAWN: EAH	
CHECKED: ALR	CHECKED: MEW	

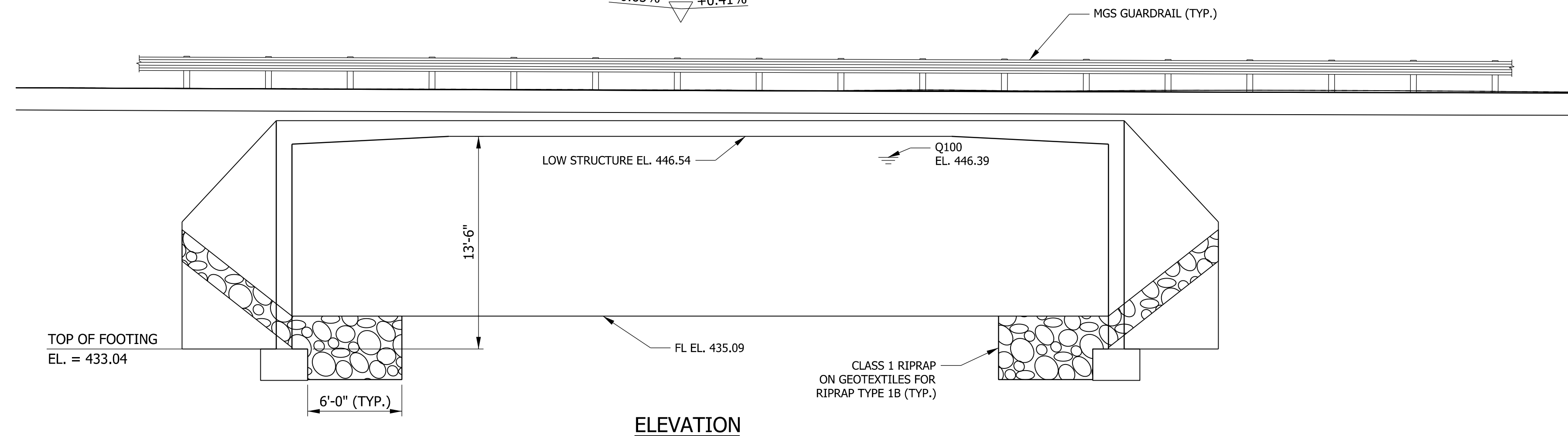
INDIANA
DEPARTMENT OF TRANSPORTATION

LAYOUT

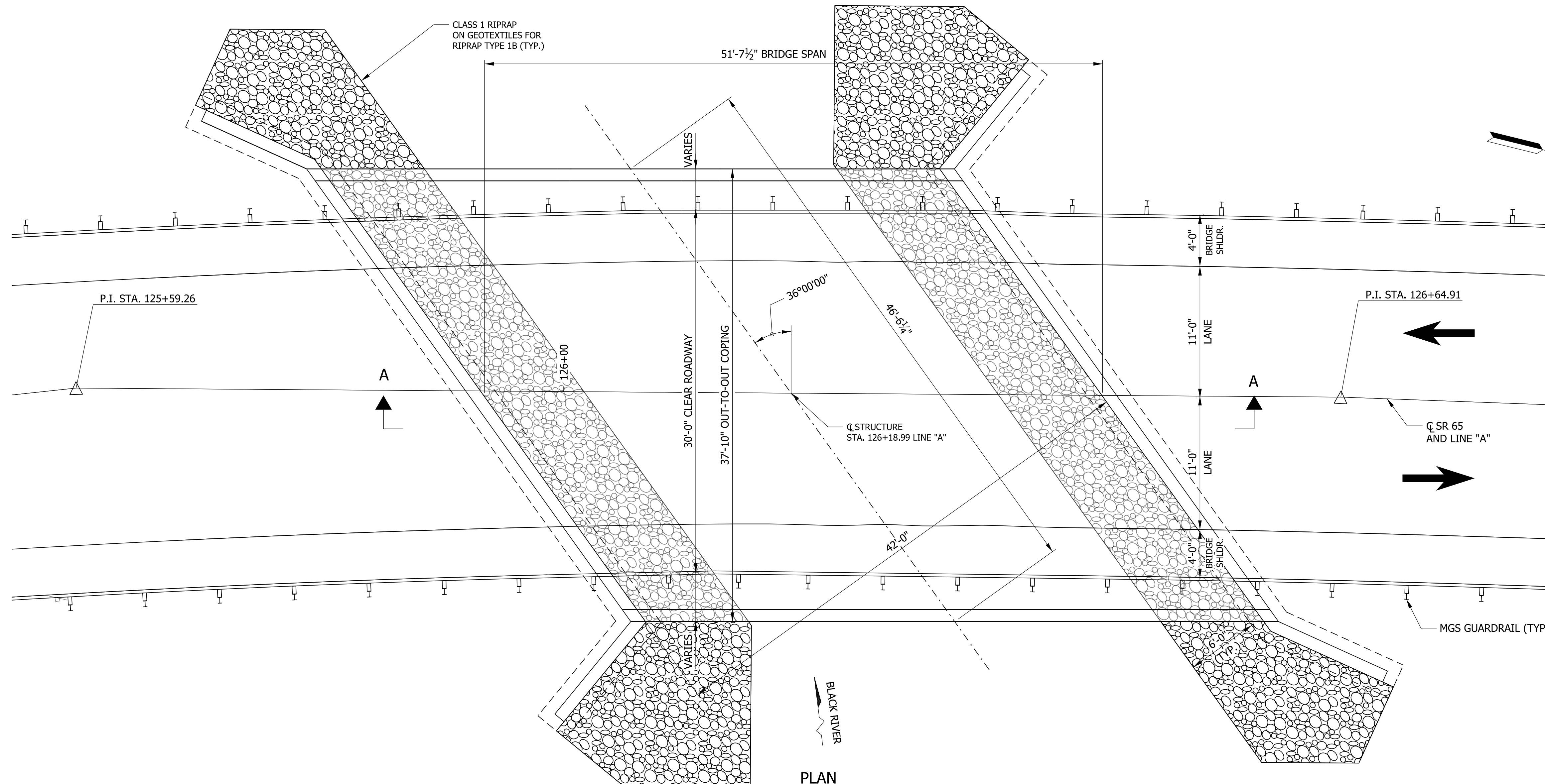
HORIZONTAL SCALE	BRIDGE FILE
1/8" = 1'-0"	065-26-10331
VERTICAL SCALE	DESIGNATION
3/8" = 1'-0"	1700165
SURVEY BOOK	SHEETS
ELECTRONIC	5 of 11
CONTRACT	PROJECT
B-40553	1700165

STRUCTURE TO BE BUILT ON A 410' VERTICAL CURVE

PVI STA. 127+10
 EL. 448.59
 V.C. = 410'
 -0.65% +0.41%



ELEVATION



PLAN

GENERAL NOTES

SURFACE SEAL SHALL BE APPLIED TO ALL EXPOSED FACES OF HEADWALLS, WINGWALLS, AND FACE OF STRUCTURE SECTIONS. MODIFIED SURFACE SEAL MAY BE APPLIED TO PRECAST CONCRETE MEMBERS IN THE SHOP OR IN THE FIELD

A THREE-SIDED ARCH-TOPPED OR TRUE-ARCH STRUCTURE WILL NOT BE PERMITTED AT THIS LOCATION.

FOOTING DIMENSIONS SHALL BE DETERMINED BY THE PRECAST UNIT MANUFACTURER.

ALL DIMENSIONS AND ELEVATIONS ARE IN FEET (FT.), EXCEPT AS NOTED.

MAXIMUM NOMINAL SOIL BEARING RESISTANCE = XXXX PSF.

DESIGN DATA

LIVE LOAD
 STRUCTURE SHALL BE DESIGNED FOR HL-93 AND PEDESTRIAN LOADING, IN ACCORDANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION, 2017 AND ITS SUBSEQUENT INTERIMS.

DEAD LOAD
 DESIGN FOR ACTUAL WEIGHT PLUS 35 PSF FOR FUTURE WEARING SURFACE.

SEISMIC DESIGN DATA

SEISMIC PERFORMANCE ZONE = 1
 ACCELERATION COEFFICIENT = XXXX
 SEISMIC SOIL PROFILE TYPE = XXXX

DESIGN STRENGTHS

THE MINIMUM DESIGN CONCRETE COMPRESSIVE STRENGTH FOR STRUCTURE SECTIONS SHALL BE 5000 PSI. FOR WINGWALLS, HEADWALLS, AND SPANDREL WALLS, IT SHALL BE 4000 PSI. THE YIELD STRENGTH FOR REINFORCING BARS SHALL BE 60000 PSI.

REINFORCING BARS $f_y = 60,000$ PSI

NOTE TO REVIEWER
 WINGWALL LENGTHS SHOWN ARE APPROXIMATE AND WILL BE DETERMINED AT THE NEXT SUBMITTAL.

PRECAST REINFORCED CONCRETE
 THREE-SIDED FLAT TOP STRUCTURE
 42'-0" SPAN x 13'-6" RISE
 SKEW: 36°00'00" LT.
 30'-0" CLEAR ROADWAY
 SR 65 OVER BLACK RIVER
 GIBSON COUNTY

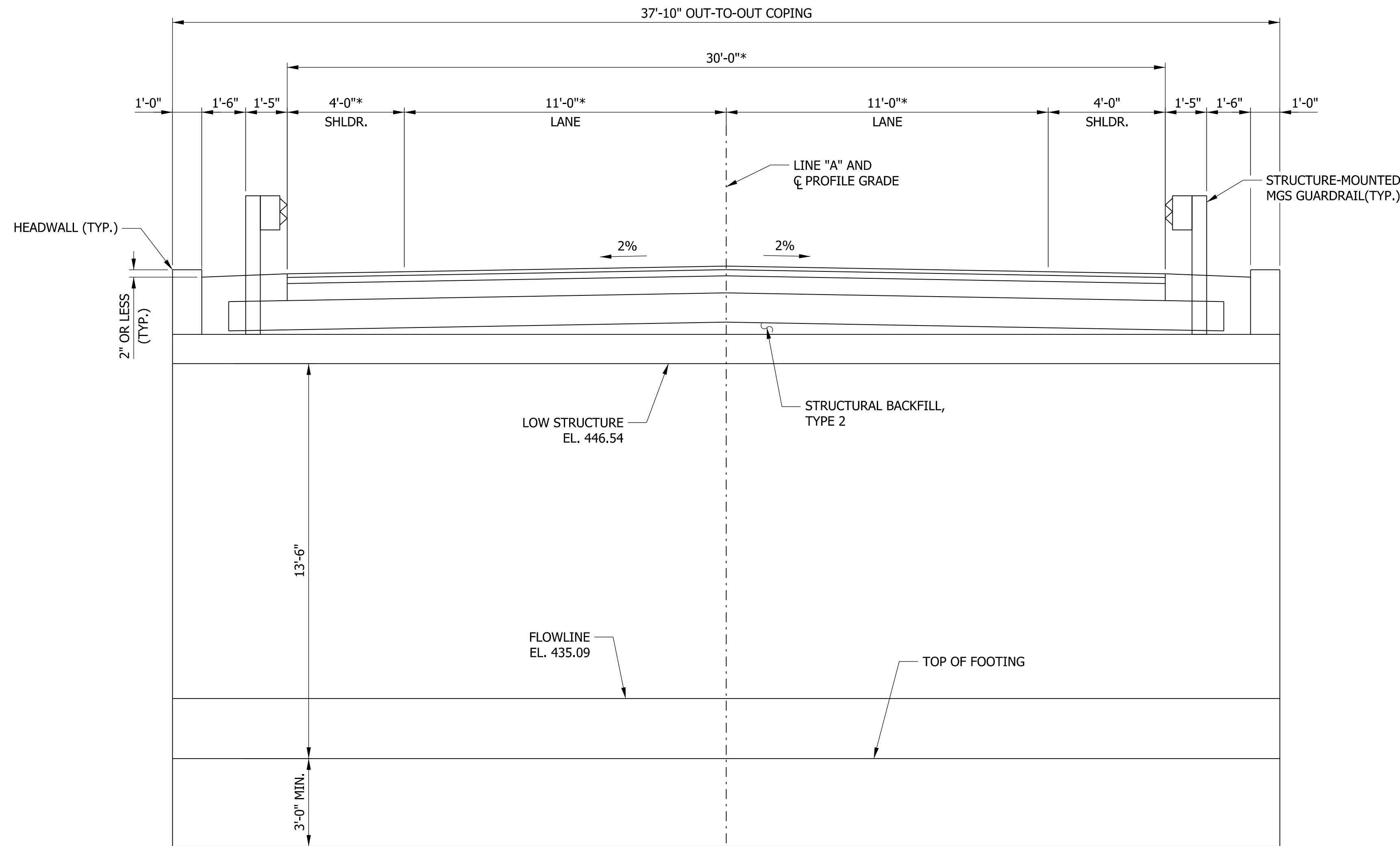
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 NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: EAH	DRAWN: EAH	
CHECKED: ALR	CHECKED: MEW	

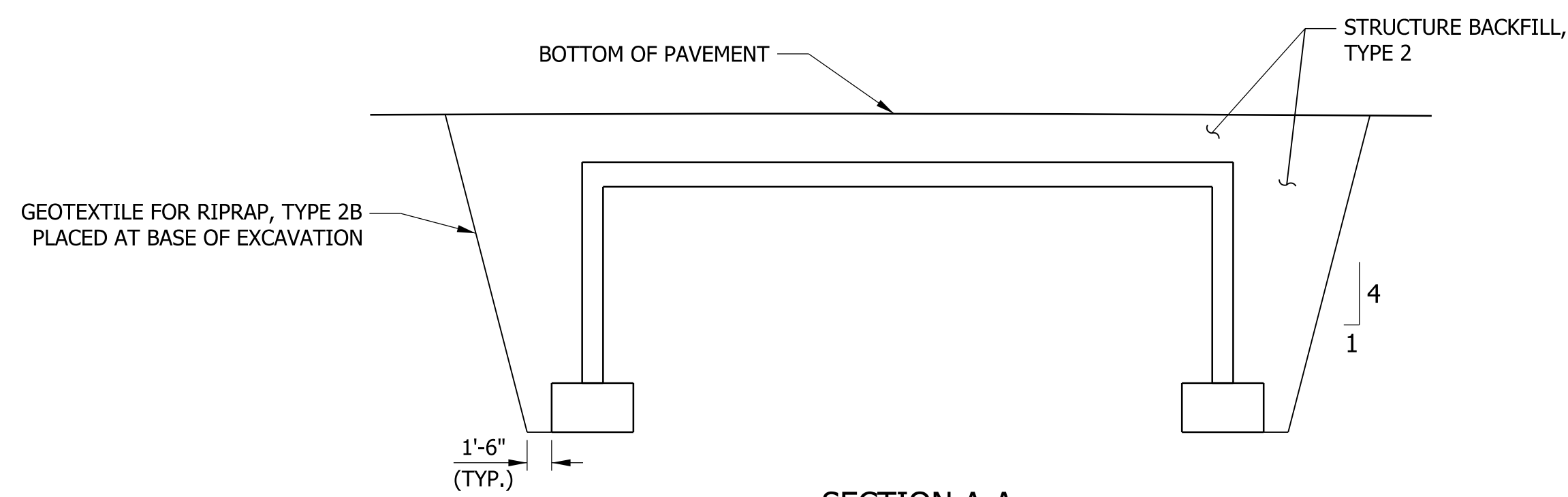
INDIANA
 DEPARTMENT OF TRANSPORTATION
 GENERAL PLAN

HORIZONTAL SCALE	BRIDGE FILE
3/8" = 1'-0"	065-26-10331
VERTICAL SCALE	DESIGNATION
3/8" = 1'-0"	1700165
SURVEY BOOK	SHEETS
ELECTRONIC	6 of 11
CONTRACT	PROJECT
B-40553	1700165



*MEASURED PERPENDICULAR TO ROADWAY

TYPICAL SECTION
(LOOKING AHEAD STATION)
SCALE: 3/8"=1'-0"



SECTION A-A
NOT TO SCALE

PRECAST REINFORCED CONCRETE
THREE-SIDED FLAT TOP STRUCTURE
42'-0" SPAN x 13'-6" RISE
SKEW: 36°00'00" LT.
30'-0" CLEAR ROADWAY
SR 65 OVER BLACK RIVER
GIBSON COUNTY

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DRAFT
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: _____ EAH _____	DRAWN: _____ EAH _____	
CHECKED: _____ ALR _____	CHECKED: _____ MEW _____	

INDIANA
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

HORIZONTAL SCALE	BRIDGE FILE
AS SHOWN	065-26-10331
VERTICAL SCALE	DESIGNATION
AS SHOWN	1700165
SURVEY BOOK	SHEETS
ELECTRONIC	7 of 11
CONTRACT	PROJECT
B-40553	1700165