

CATEGORICAL EXCLUSION LEVEL 1 FORM

GENERAL PROJECT INFORMATION

Road No./County:

United States (U.S.) 12 and Beverly Drive / LaPorte County

Designation Number(s):

2000607 (Lead), 2101096, 2500075

**Project
Description/Termini:**

Roadway, small structure project and traffic signal modernization on U.S. 12 and Beverly Drive begins west of Michigan City, from the Porter/LaPorte County line and continues east to the Michigan state line.

**CE Level 1 documentation for
exempted projects****Additional Information
to CE Level 1****Approval:**_____
INDOT DE/ESD Signature and Date**Release for Public Involvement:***SFM*

11/05/2025

INDOT DE/ESD Initials and Date**Certification of Public involvement:**_____
INDOT Consultant Services Signature and Date**INDOT DE/ESD Reviewer:**_____
Signature and Date**CE Preparer:**Lisa Harris, MSES/MPA - Lawson-Fisher Associates P.C._____
Name and Organization

Indiana Department of Transportation

County LaPorte

Route U.S. 12

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2101096, 2500075

GENERAL PROJECT INFORMATION, DESCRIPTION, AND DESIGN INFORMATION

Purpose and Need:	<p>Need</p> <p>The primary need for this project is based on the deteriorated state of the existing asphalt per the April 10, 2023 Engineering Assessment (Appendix I-28 to I-40) and the serious condition of the culverts CV 012-046-37.05 and CV 012-046-37.05 ADJ at the Beverly Drive and U.S. 12 intersection (See Bridge Scoping Application Report, Appendix I-147 to I-158), and outdated traffic signal equipment at the Liberty Trail and North Karwick Road intersections (Appendix I-29). Roadway deterioration conditions include pavement longitudinal joint damage and transverse cracking (Appendix I-6). The pavement condition expressed in the International Roughness Index (IRI) is used by INDOT as a standard to quantify road surface roughness of the ride with <95 inches/mile considered good condition. The IRI for this roadway is 93 inch/mile as shown on the Project Application Mini Scope (See Appendix I-32). Several existing Americans with Disabilities Act (ADA) structures located along the roadway in Michigan City are non-existent or not ADA-compliant. See ADA Table (Appendix I-120). The intersection at U.S. 12 and S.R. 212 has a unique layout which causes driver confusion. A section of damaged guardrail is present on the north side of U.S. 12 across from Douglas Avenue providing inadequate protection for pedestrians from traffic (Appendix I-30 and Appendix I-160). Two traffic signals have failing foundations and have outlasted their design life. There are several aging ground mounted sheet signs along the roadway. Culverts are assigned ratings on a scale from 0 to 9, where 0 indicates failed condition and 9 indicates excellent condition. Several small drainage structures along the U.S. 12 roadway have ratings from 3 (poor) to 7 (good). Structure CV 012-046-37.05 and CV 012-046-37.05 ADJ has a rating of 3 (poor) due to headwall deterioration, exposed rebar, and being under water. See Small Structure Replacement Table (Appendix I-118). This section of the U.S. 12 roadway has reduced through-lanes over time to accommodate safer turn lanes, widen a bicycle lane, protect bikers and pedestrians on paths, and reduce traffic speeds. This has created a patchwork of inconsistent traffic patterns through the corridor. The National Park Service (NPS) and Michigan City Parks have sought shoulder width for a bicycle connection from the Singing Sands Trail to the Mount Baldy parking lot, which this project is addressing (Appendix I-160). The intersection of U.S. 12 and Beverly Drive at the west end of the project area has radii and superelevation transitions that do not satisfy the criteria specified in the Indiana Design Manual, and that intersection has a limited sightline for merging traffic.</p> <p>Purpose</p> <p>The purpose of this project is to modernize the U.S. 12 corridor by: addressing pavement deficiencies to maintain at least a good condition rating ($IRI \leq 95$); addressing culvert deficiencies to maintain or improve structure ratings to at least a good condition (≥ 7); providing ADA compliant curb ramps; improving traffic pattern consistency; reducing bicycle/pedestrian exposure; accommodating bicycle connectivity; correcting roadway deficiencies at the U.S. 12 and Beverly Drive intersection; and updating two traffic signals and other supporting transportation infrastructure to current standards.</p>
Project Description (Preferred Alternative):	<p>The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intend to proceed with a roadway project on U.S. 12 in LaPorte County.</p> <p>Location</p> <p>The project is located on U.S. 12, beginning west of Michigan City, 1.93 miles west of the Junction with U.S. 421 on County Line Road at the Porter-LaPorte County Line and continues east to the border of Indiana and Michigan, in LaPorte County, Indiana. Specifically, this project is located in Sections 7 and 18, Township 38 North, Range 3 West</p>

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in Springfield Township, and Sections 13, 14, 21-23, and 28-31, Township 38 North, Range 4 West in Michigan Township, LaPorte County, Indiana 7.5-minute United States Geological Survey (USGS) topographic quadrangle (Appendix B-1).

There are three paving exceptions: bridge National Bridge Inventory (NBI) 003270 carries U.S. 12 over Trail Creek approximately 600-feet east of Spring Street; at the South Shore Railroad crossing which is approximately 300-feet east of the Singing Sands Trail crossing; and at the Amtrak Railroad crossing approximately 600-feet west of Wabash Street. See *Table 1, Project Scope* for project work type locations.

Table 1 Project Scope			
Des. No.	Work Type	Location	Structure No.
2000607	HMA Overlay, Preventive Maintenance	U.S. 12 from 0.2-mile east of the Porter/LaPorte County Line to Michigan State Line	Various
2101096	Small Structure Replacement	U.S. 12 over UNT Kintzele Ditch, 1.93-miles west Jct U.S. 421	CV 012-046-37.05 CV 012-046-37.05 ADJ
2500075	Traffic Signal Modernizations	U.S.12 - at the intersections of U.S.12 at Liberty Street and U.S.12 at Karwick Road	NA

Existing Conditions

According to the Engineering Assessment (Appendix I-28 to I-40) U.S. 12 is functionally classified as an Urban-Principal Arterial-Other and is not part of the U.S. National Highway System (NHS). A portion of the project limits from State Road (S.R.) 212 to the Michigan state line is on the National Truck Network (NTN). Surrounding features and land use from west to east include Indiana Dunes National Park's (INDU) Mount Baldy, forested and wetland INDU lands up to U.S. 12 and the Chicago South Shore & South Bend Railroad (South Shore Railroad) crossing. Land use eastward from this point to Willard Avenue is primarily residential. Willard Avenue to Blue Chip Drive is primarily urban commercial and includes parts of downtown Michigan City. From Blue Chip Drive to the Michigan state line land use along U.S. 12 consists of a mix of commercial and residential with wooded areas and wetlands.

One jurisdictional stream is within the project area. White Ditch flows under U.S.12 near east end of the project limits at the corner of Meer Road/N 600 W but is not within the project scope.

The Singing Sands Trail crosses U.S. 12 near the west end of the project, west of the South Shore Railroad crossing and at Spring Street. The trail runs along the north side of U.S. 12 between these crossings. The Singing Sands Trail doubles as a multi-use path/sidewalk from the Amtrak Railroad crossing east to Spring Street. The Amtrak Railroad runs parallel to the north of U.S. 12 along the project limits. The roadway crosses over Trail Creek in Michigan City and White Ditch east of the intersection with S.R. 212 within the project limits.

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	<p>The existing U.S. 12 roadway width varies from 43-feet to 92-feet from the centerline of composite and Hot Mix Asphalt (HMA) pavement. There are curbs for 0.9 mile and sidewalks that range from 5-feet to 16-feet in width within the project limits. Segment specific details are below:</p> <ul style="list-style-type: none">• From the beginning of the project limit on U.S. 12 going north to the Beverly Drive intersection the posted speed is 45 miles per hour (mph). The existing U.S. 12 approach cross section consists of two 12-foot travel lanes, 2-foot paved shoulders. There are no sidewalks within these limits.• The Beverly Drive sections that intersect with U.S. 12 have a posted speed of 30 mph. The existing Beverly Drive north-south leg approach cross section consists of two 10-foot travel lanes, and 4-foot aggregate shoulders. The existing eastbound and westbound Beverly Drive leg consists of two 13-foot lanes and a 6-foot paved shoulder. There are no sidewalks within these limits.• From the Beverly Drive intersection to Singing Sands Trail the posted speed is 45 mph. The existing U.S. 12 approach cross section consists of four 11-foot travel lanes, 2-foot to 3-foot usable shoulders and a 0-1-foot paved shoulder. There are no sidewalks within these limits.• From Singing Sands Trail to Wabash Street, the posted speed is 35-mph and 45 mph. The existing U.S. 12 approach cross section consists of four 11-foot travel lanes, 2-foot to 3-foot usable shoulders and a 0-1-foot paved shoulder. There are intermittent sidewalks within these limits.• From Wabash Street to Blue Chip Drive the posted speed is 25 mph. The existing U.S. 12 approach cross section consists of four 12-foot travel lanes with a median that has occasional left turn lanes, 0-foot usable shoulder (curb and gutter) and 0-foot paved shoulder (curb and gutter). There are sidewalks within these limits.• From Blue Chip Drive to the eastern end of the project limit the posted speed varies between 35-mph, 45-mph, and 55-mph. The existing U.S. 12 approach cross section consists of four 12-foot travel lanes with turn lanes, 2-foot to 15-foot usable shoulders and 2-foot to 15-foot paved shoulders. There are sidewalks that extend approximately 300-feet from Blue Chip Drive. <p>Snowplowable raised pavement markers are present, while milled centerline or shoulder corrugations are not. Guardrail is present along the north side of U.S. 12 from 450-feet west of Sheridan Avenue to Douglas Avenue (0.25 miles) protecting bike riders and pedestrians on the Singing Sands Trail where it is immediately adjacent to U.S. 12. Damaged guardrail was noted on the north side of U.S. 12 across from Douglas Avenue. Guardrails with standard end treatments are present at the bridge over Trail Creek.</p> <p>There are 38 public road approaches, 127 stop sign-controlled T-intersection public road approaches with 18 exclusively accessing residential communities, one signal-controlled T-intersection public road approach, six stop sign-controlled four-way intersection public road approaches, five signal-controlled four-way intersection public road approaches, and 136 private driveway approaches.</p> <p>According to the Engineering Assessment (Appendix I-6) the U.S. 12 pavement is showing longitudinal joint damage and transverse cracking.</p>
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Several deficient small drainage structures are within the project limits. Eight small culverts are proposed to be replaced in kind. One inlet and 20-ft of storm sewer will be replaced. Twenty-three castings will be replaced. Eighteen castings will be adjusted to grade. Five inlets and one drywell will be cleared of debris. The existing culvert carrying the UNT to Kintzele Ditch on the west end of the project area is comprised of two culverts and will be replaced with a single culvert structure in the intersection improvement area.

Beverly Drive intersects with U.S. 12 and County Line Road at the west end of the project area. The existing intersections between U.S. 12, County Line Road and Beverly Drive consist of two sections with two different radii and superelevation transitions that do not satisfy the criteria specified in the Indiana Design Manual. Reconstruction of the curve would correct the superelevation and also improve the sightlines for turning traffic.

There are 17 intersections with non-compliant ADA pedestrian crossings within the U.S. 12 project limits. See ADA Table (Appendix I-120). Also, there are aging INDOT-maintained ground mounted sheet signs located along the project limits.

Preferred Alternative

The preferred alternative would consist of milling the existing asphalt 1.5-inches in depth and paving 1.5-inch HMA. Full depth and partial depth patching will be performed as needed within the project limits. Approximately 300-feet of roadway at the west end of the project limits will be widened from the Singing Sands Trail crossing toward the west to maintain a 6-foot safety buffer between car and bike traffic at the median island located at the trail crossing. Three paving exceptions will be required at the South Shore Railroad crossing, Amtrak Railroad crossing, and the bridge over Trail Creek, NBI #003270. In addition to the HMA overlay of U.S. 12, curb ramps at 17 intersections will be reconstructed to meet ADA compliance. See ADA Table (Appendix I-120). Traffic signals will be modernized for the U.S. 12 intersections with Liberty Trail and North Karwick Road, and a bike lane is proposed at the west end of the project limits. Damaged guardrail along the north side of U.S. 12 at Douglas Avenue will be replaced and extended to protect the Singing Sands Trail pedestrians and bikes. Edgeline rumble stripes will be used where shoulder width is greater than 2-feet due to existing narrow shoulders. Snowplowable raised pavement markers will be replaced. INDOT-maintained ground mounted sheet signs 15 years and older will be replaced. Excavation is required for sign replacement, signal modernization, ADA curb ramp installation, replacement of drainage structures, and a new bike lane. Project paving will extend to the headers of each railroad crossing. Railroad advanced signage and pavement markings will be upgraded to current standards.

The proposed project includes various preventive maintenance activities. Eighteen castings will be adjusted to grade. Castings of 23 inlet structures will be replaced. Four 18-inch and four 15-inch culverts will be replaced in-kind. Twelve feet of 12-inch pipe will be installed with a replacement inlet (Structure #12). Five inlets and one drywell will be cleaned. One inlet will be replaced. See Small Structure Tables (Appendix I-116 to I-118). Six small culvert headwalls and nine small culvert end sections will be constructed as part of this project.

An existing culvert comprised of two separate structures (CV 012-046-37.05 and CV 012-046-37.05 ADJ) consists of two rectangular reinforced concrete box culverts (RCB) that are four feet wide and 2.5 feet tall and separated by a median is located under U.S. 12 and County Line Road near Beverly Drive at the west end of the project area (Appendix F-127 to F-146). The small structure will be replaced with a single 6-foot wide, 4-foot tall, rectangular precast RCB culvert.

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	<p>The project proposes a right sizing lane re-configuration for sections of U.S. 12 between the Porter/LaPorte County line and the Michigan state line. Right-sizing lane configurations reduce the number of through travel lanes from two in each direction to one each direction and convert existing excess lanes to a center two-way turn lane. The TWLTL configuration begins near the western end of the project area where the Calumet Trail crosses U.S. 12, stops at the Wabash intersection in Michigan City, begins again at F Street, stops at the S.R. 212 interchange, begins east of the connecting road that crosses the railroad tracks to the north to Corymbe Road and continues all the way to the Michigan state line. The existing four lane section from the Mount Baldy Park approach to the intersection with the Singing Sands Trail crossing just west of the South Shore Railroad will be converted to a single through lane in each direction. A new bike lane extension will be included on the north side of U.S. 12 adjacent to the westbound lane from INDU Mount Baldy approach to the Singing Sands Trail. The existing four lane section from the intersection with Singing Sands Trail to the Amtrak Railroad crossing will be converted to a single through lane in each direction with a TWLTL. A transition back to four lanes will occur between the Amtrak Railroad crossing and Wabash Street. Existing lane configurations will remain from Wabash Street to Blue Chip Drive. From Cook Street to Liberty Trail, the existing four lane section will be converted to single through lanes in each direction with a TWLTL. The proposed 3-lane section will be transitioned back to the existing four lane configuration at Liberty Trail. From Liberty Trail to the eastern project limit the existing lane configurations will remain, except for the S.R. 212 intersection where eastbound U.S. 12 will be reduced to one through lane, which would then return to two lanes beyond the intersection. A single through lane is proposed for eastbound U.S. 12 and a single through lane for northbound to eastbound S.R. 212 within the U.S. 12-S.R. 212 intersection with added dedicated turn lanes and hatch pavement markings. See Appendix B-93 to B-107.</p> <p>Full depth pavement widening is anticipated in two locations: on the north side of U.S. 12 immediately west of the Singing Sands Trail between the bike lane and U.S. 12, and at the U.S. 12 intersection with S.R. 212 to accommodate the eastbound to southbound turning traffic.</p> <p>Damaged guardrail along the north side of U.S. 12 at Douglas Avenue will be replaced and extended to the east to protect the Singing Sands Trail up to where the trail moves outside the roadway clear zone, which is the area adjacent to the roadway that cannot have obstructions in the instance a vehicle leaves the road. Excavation is required for the installation of new guardrail. See guardrail locations (Appendix B-55). Updated railroad crossing signs and pavement markings per Manual on Uniform Traffic Control Devices (MUTCD) are proposed.</p> <p>An intersection improvement is proposed at Beverly Drive at the west end of the U.S. 12 project area. It is anticipated that Beverly Drive will be realigned with U.S. 12 by removing the two existing portions of road that currently connect Beverly Drive and County Line Road, and Beverly Drive and U.S. 12. A new intersection at a single point will be constructed by realigning a portion of Beverly Drive. The superelevation through U.S. 12 will be corrected and the horizontal curve will be revised. A full-depth pavement replacement and mill and HMA overlay is planned on the existing pavement along U.S. 12. The roadway's proposed typical section will consist of two 12-foot wide travel lanes with six-foot wide shoulders. See Appendix B-48 to 52.</p>
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	<p>The apparent existing right-of-way (ROW) varies throughout the project corridor, ranging from a minimum full ROW width (the total width from either side of the roadway) of 60-feet to 200-feet. See <i>Right-of-Way</i> section of this CE document for specific distances and locations. Approximately 0.239 acre of permanent ROW acquisition, 0.144 acre of reacquired ROW acquisition, and 0.066 acre of temporary ROW is anticipated for this project across seven parcels.</p> <p>Tree clearing is not anticipated for this project. Wetlands are anticipated to be impacted by this project from small structure activities due to excavation, riprap installation, cofferdams, and construction access. See the <i>Wetlands</i> section of this CE document for more details. Over one acre of soil will be disturbed primarily in the intersection improvement site.</p> <p>The Maintenance of Traffic (MOT) for the HMA overlay will require vehicular traffic to be maintained with a single lane closure utilizing flaggers. A minimum of one lane eastbound and westbound shall be maintained at all times. Signal modernization construction will also coincide with the HMA construction and utilize the same MOT. Full road closures with detours will be implemented during the small structure replacements. Pedestrian traffic will be re-routed during ADA curb ramp closure and re-construction. See the <i>MOT During Construction</i> section of this CE document for more information regarding MOT.</p> <p>The preferred alternative meets the purpose and need of the proposed project by maintaining the roadway surface in good condition and improving culvert deficiencies to a rating of 7 or higher, also bringing ADA curb ramps into compliance, improving traffic pattern consistency, reducing bicycle and pedestrian exposure, accommodating bicycle connectivity, correcting roadway deficiencies of the U.S. 12 and Beverly Drive intersection, and updating other transportation infrastructure to be consistent with current standards.</p> <p>This project is located along U.S. 12 from the Porter/LaPorte county line to the Michigan state line. The project termini are logical because they encompass only the area necessary to complete the proposed road repair and preventive maintenance activities. Therefore, the project has logical termini. The project has independent utility because the project does not depend upon any other project to meet its purpose and need.</p>
Other Alternatives Considered:	<p>No Build Alternative</p> <p>This No Build alternative eliminates the cost of construction and potential environmental impacts. However, it was not considered feasible, prudent, or practicable as it would not address the purpose and need of the project by maintaining the roadway surface in good condition, bring ADA curb ramps and pedestrian crossings into compliance, improve deficient drainage structures along the roadway to a rating of 7 or higher, correct the Beverly Drive intersection roadway deficiencies, update traffic signals and other transportation infrastructure to current standards, or address the pedestrian, bicycle and vehicle traffic safety concerns of the corridor. This alternative does not meet the purpose and need of the project; therefore, this alternative was discarded from further consideration.</p> <p>HMA Overlay, Preventive Maintenance Alternative</p> <p>This HMA Overlay alternative would maintain the U.S. 12 pavement in good condition by milling the existing asphalt 1.5 inches in depth and paving 1.5 inches of HMA. However, this alternative would not bring ADA curb ramps and pedestrian crossings into compliance, improve deficient drainage structures along the roadway to a rating of 7 or higher, correct the Beverly Drive intersection roadway deficiencies, update traffic signals and other transportation infrastructure to current standards, or address the pedestrian, bicycle and</p>

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	vehicle traffic safety concerns of the corridor. This alternative does not meet the purpose and need of the project; therefore, this alternative was discarded from further consideration.		
Funding Source(s):	<input checked="checked" type="checkbox"/> Federal <input checked="checked" type="checkbox"/> State <input type="checkbox"/> Local <input type="checkbox"/> Other		
Project Sponsor:	INDOT		
Estimated Cost:	\$15,429,449	Project Length:	8.05 miles
Public Involvement:	No:		Yes: X
<p>Notice of Entry (NOE) letters were mailed to potentially affected property owners near the original U.S. 12 project area on July 16, 2021, and on October 12, 2022, regarding the Kintzele Ditch project, notifying them about the project, and that individuals responsible for land surveying and field activities may be seen in the area. Sample copies of the NOE letters are included in Appendix G-1 to G-2.</p> <p>INDOT held a Public Information Meeting regarding the roadway reconfiguration with a TWLTL on November 21, 2024, at the City Hall of Michigan City, 100 East Michigan Boulevard, Michigan City, Indiana 46360. A public notice describing the project and offering a Public Information Meeting was advertised in the Beacher Weekly Newspaper for the week of November 18, 2024, The LaPorte Herald Dispatch on November 8, 2024, and again on November 14, 2024. During the meeting LFA Engineers presented information regarding the overall project but focused on the TWLTL locations. Fifteen people signed in at the meeting. Participants expressed interest in the TWLTL and the resulting impacts on speed limits, grade changes at Moore Road and Liberty Road, intersection configurations, and the traffic data acquisition for roadway project decision making. There was discussion regarding safety concerns and the configuration at Moore Road, the grade at that intersection, the RR crossing signal arms, and cars in the U.S. 12 westbound right hand travel lane stopped and waiting for a train to pass. There were also questions about intersection signage, traffic lights, and a concern about freight trains changing cars and blocking the intersection at the Liberty Trail and other railroad (RR) crossings. Participants brought up frustration with bike lanes in the way of right turn lanes, asked if there will be a stop sign at the new Beverly Drive intersection, confusion with traffic lights and lane configuration at the corner of Michigan Boulevard and U.S. 12, questions about pedestrian crossings at the Mt Baldy and Singing Sands Trails, and if INDOT follows proposed or new development and the impact on roads. Finally, participants asked if the new configuration at S.R. 212 will still allow a right turn going south; how the project might impact seasonal traffic; and if the information presented will be online or otherwise available. Documentation from that Public Information Meeting can be found in Appendix G-3 to G-7.</p> <p>The project will meet the minimum requirements described in the current <i>Indiana Department of Transportation (INDOT) Project Development Public Involvement Procedures Manual</i> which requires the project sponsor to offer the public an opportunity to submit comments and/or request a public hearing regarding road configurations with a TWLTL. Therefore, a legal notice will appear in a local publication contingent upon the release of this document for public involvement. This document will be revised after the public involvement requirements are fulfilled.</p>			
Right-of-Way: (permanent and temporary, in acres)	No:		Yes: X
<p>The existing apparent ROW varies throughout the entire corridor. The full ROW width (the total width from either side of the roadway) on the U.S. 12 approach from the south end of the project is 80-feet, the approach from the east on U.S. 12 the full width is 100-feet, and the full width at the new Beverly Drive intersection is 100-feet. East of the intersection of U.S. 12 and Beverly Drive at the Porter-LaPorte County Line to Wabash Street full ROW widths range from 60-feet to 100-feet. From Wabash Street to Spring Street the full ROW width is 100-feet. From Blue Chip Drive to the intersection at S.R. 212 the full ROW width ranges from 80-feet to 160-feet. The full ROW width at the S.R. 212 intersection varies widely, widening out to 200-feet, and the full ROW width from S.R. 212 to the Indiana/Michigan state line ranges from 142-feet to 145-feet.</p>			

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This project requires approximately 0.004 acre of permanent ROW from municipal property for ADA structure compliance; 0.018 acre from commercial/industrial, 0.063 acre from commercial, and 0.154 acre from industrial for railroad traffic signal modernization. All parcels are comprised of mowed grass areas and/or sidewalks.

This project also requires approximately 0.066 acre of temporary ROW for site access: 0.063 acre to complete ADA structure compliance and 0.003 acre to complete traffic signal modernization. Parcels are comprised of mowed grass areas or sidewalks.

The project also requires approximately 0.144 acre of reacquired ROW from industrial property for traffic signal foundation removal and construction. The parcel is comprised of mowed grass and sidewalk.

See ROW and Parcels Table (Appendix I-115) and Appendix B-22 to B-26 plat sheets.

If the scope of work or permanent or temporary ROW amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately.

Maintenance of Traffic (MOT) During Construction:**No:****Yes: X**

The current MOT for the HMA overlay, small structure maintenance and replacement, and the Beverly Drive intersection improvement would utilize a full closure and detour using I-94 beginning at U.S. 12 in Michigan, U.S. 20 to S.R. 520 to U.S. 12 for approximately six months (Appendix B-28). The total length of the proposed detour is approximately 19.3 miles and adds approximately 3.3 miles and an estimated 1 minute of driving time to the existing U.S. 12 route. The milling and resurfacing will be maintained with flagging and alternating through traffic, with one lane of traffic open eastbound and westbound on U.S. 12 at all times for local traffic. The vehicular traffic at the traffic signal modernization sites, Liberty Trail and Karwick Road, are anticipated to follow the same road closure as described above. ADA structure sites will involve re-routing pedestrian traffic during curb ramp closure and reconstruction sites with a combination of temporary ramps, signage, and other appropriate methods per the INDOT MUTCD guidance and are required to be ADA compliant. ADA MOT is still in development. Full closures with detours will be implemented during the eight small structure replacements using S.R. 212 to U.S. 20 to S.R. 520 (Appendix B-28).

The closures/lane restrictions will pose a temporary inconvenience to traveling motorists (including school buses and emergency services); however, no significant delays are anticipated, and all inconveniences and delays will cease upon project completion.

Bridge(s) and/or Small Structure(s) (include structure number(s)):**No:****Yes: X**

The project includes 53 small structures and drains that require various maintenance activities. Eighteen castings are maligned with the road grade and will be adjusted to grade. Castings of 23 inlet structures are damaged and will be replaced. Four 18-inch and four 15-inch culverts are deficient and will be replaced in-kind. A new structure consisting of 12-feet of 12-inch pipe will be installed with a replacement inlet (Structure #12). Four inlets and one drywell will be cleaned. See Small Structure Tables (Appendix I-116 to I-118). Six small culvert headwalls and nine small culvert end sections will be constructed as part of this project.

Only one of the small structures (CV 012-046-37.05 and CV 012-046-37.05 ADJ), a 4-feet wide by 2.5-feet high, 133.62-Linear Feet (Lft.) long Concrete 4-sided Box Culvert, is large enough to be listed in the Indiana Total Asset Management System (iTAMS) database. It is located at the west end of the project area. See Culvert Inspection Reports (Appendix I-127 to I-146) and Small Structure Tables (Appendix I-116 to I-118) for details.

There is a paving exception for bridge NBI #003270 which carries U.S. 12 over Trail Creek approximately 600-feet east of Spring Street.

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IDENTIFICATION AND EVALUATION OF IMPACTS

Early Coordination:

Early Coordination Letters (ECLs) were sent on 1/21/22, 2/21/22, 2/14/23, 2/20/23, 5/21/25, 6/18/25, and 7/9/25. (Appendix C-1 to C-11).

Agency	Date Sent	Response Received	Appendix C Page(s)
Federal Highway Administration (FHWA)	1/21/22 5/21/25	NA NA	NA NA
INDOT LaPorte District Manager	1/21/22 5/21/25	NA 6/17/25	NA C-92 to C-93
INDOT Project Manager	1/21/22 5/21/25	NA NA	NA NA
State Conservationist - Natural Resources Conservation Service (NRCS)	2/21/22	6/6/23	C-76 to C-77
Indiana Geological and Water Survey	1/21/22	1/21/22	C-12 to C-14
INDOT Office of Aviation	1/21/22 5/21/25	1/24/22 5/23/25	C-38 to C-39 C-40 to C-41
National Park Service, Midwest Regional Office	1/21/22 6/18/25	NA NA	NA NA
Indiana Department of Natural Resources – Division of Fish and Wildlife (IDNR-DFW)	1/21/22 5/21/25	2/18/22 6/20/25	C-17 to C-20 C-21 to C-27
U.S. Department of Housing and Urban Development	1/21/22 5/21/25	NA NA	NA NA
Indiana Department of Environmental Management (IDEM) Wellhead Proximity Determinator Website	1/21/22	2/3/22	C-15 to C-16
IDEM Early Coordination Auto - Response	6/30/25	7/3/25	C-28 to C-34
U.S. Army Corps of Engineers (USACE) – Chicago District	1/21/22 5/21/25	NA NA	NA NA
Northwest Indiana Regional Planning Commission (NIRPC)	1/21/22 5/21/25	NA NA	NA NA
U.S. Fish and Wildlife Service (USFWS)	1/21/22 5/21/25	1/31/22 NA	C-35 to C-36 NA
LaPorte County Surveyor	1/21/22 5/21/25	1/26/22 NA	C-37 NA
LaPorte County Drainage Board	1/21/22	1/26/22	C-37
LaPorte County Engineer	1/21/22	NA	NA
LaPorte County Highway Department	1/21/22 5/21/25	NA NA	NA NA
LaPorte County MS4 Coordinator	1/21/22	NA	NA
LaPorte County Council	1/21/22	NA	NA
LaPorte County Board of Commissioners	1/21/22 5/21/25	NA NA	NA NA
LaPorte County Sheriff	1/21/22	NA	NA
LaPorte County Emergency Medical Services, Michigan City	1/21/22	NA	NA
City Engineer, Michigan City (MS4 Coordinator)	1/21/22	NA	NA
Michigan City Sanitary District/MS4 Coordinator	9/16/25	NA	NA
Michigan City Council	1/21/22	NA	NA
LaPorte County Emergency Management of Homeland Security	1/21/22	NA	NA
Mayor Duane Perry, Michigan City	1/21/22	NA	NA
Michigan City Police Department	1/21/22	NA	NA
Michigan City Municipal Airport	1/21/22	NA	NA
LaPorte County Health Department	1/21/22	NA	NA
LaPorte County EMS	1/21/22	NA	NA

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Agency	Date Sent	Response Received	Appendix C Page(s)
Michigan City Fire Department	1/21/22	NA	NA
IDEM Wetlands and Stormwater Programs x2	1/21/22	NA	NA
U.S. Coast Guard – Ninth Coast Guard District x2	1/21/22	NA	NA
Michigan City Parks & Recreation Superintendent	1/21/22	NA	NA
LaPorte County Floodplain Administrator	2/20/23	NA	NA
Michigan City Floodplain Administrator	2/20/23	NA	NA
Town of Long Beach, Pottawattomi Park, LaPorte County Municipal Separate Storm Sewer System (MS4) Coordinator	2/20/23	2/20/23	C-78
Porter County Highway Department	5/21/25	NA	NA
Porter County Board of Commissioners	5/21/25	NA	NA
Porter County Surveyor	5/21/25	NA	NA
Michigan City Sanitation Department	5/21/25	NA	NA
IDNR Lake Michigan Coastal Program	5/21/25	NA	NA
USFWS Official Species List	7/9/25	7/9/25	C-42 to C-58
USFWS Concurrence Verification Letter	7/9/25	7/15/25	C-59 to C-71
USFWS Standard Informal Consultation for Eastern Massasauga Rattlesnake (EMR)	8/8/25	8/11/25	C-72 to C-75

Streams, Rivers, and Other Jurisdictional Features Impacted:

No: X

Yes:

Based on the desktop review, the aerial map of the project area, and a site visit by Lawson-Fisher Associates P.C. (LFA) on June 25, 2021, it was confirmed that two streams are adjacent to the project area. Trail Creek, a navigable river, is located within the project area, and will not be impacted by the project. White Ditch is also located within the project area and will not be impacted by the project.

A *Waters of the U.S. Determination Report* was completed on September 23, 2022, by Metric Environmental, LLC, to investigate the proposed small drainage structure replacement locations along the U.S. 12 roadway, and was approved by the INDOT Ecology, Waterway Permitting, and Stormwater Office (EWPSO) on September 27, 2022 (Appendix F-7 to F-145). No streams were identified within the project corridor study limits. Therefore, no impacts are expected along the U.S. 12 project corridor.

A second *Waters of the U.S. Determination Report* was completed by Metric Environmental, LLC, on February 1, 2023, to investigate a small drainage structure (CV 012-046-37.05 and CV 012-046-37.05 ADJ) to be replaced, which was described as carrying U.S. 12 over UNT to Kintzele Ditch at the intersection of U.S. 12 and Beverly Drive, and was approved on February 9, 2023, by INDOT EWPSO (Appendix F-146 to F-204). After the field visit, the investigation found that no waterway was conveyed by this structure. The small drainage structure does not carry a jurisdictional waterway but aids in roadside drainage and stormwater conveyance, with the purpose of equalizing the roadside drainage under U.S. 12. The Kintzele Ditch site will be impacted from the realignment of the Beverly Drive and U.S. 12 intersection, and the replacement of the CV 012-046-37.05 and CV 012-046-37.05 ADJ drainage structure.

There are no Federal, Wild and Scenic Rivers in the area. There are no State Natural, Scenic, and Recreational Rivers, Outstanding Rivers, or National Rivers Inventory present in the area. Therefore, no impact is expected.

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Open Water Feature(s):	No: X	Yes:
<p>Based on the desktop review, the aerial map of the project area, and the site visit by LFA on June 25, 2021, there are 51 open water features located within 0.5 mile of the project area. There were no open water features within or adjacent to the project area. Therefore, no impacts are expected.</p> <p><i>Waters of the U.S. Determination Reports</i> were completed on September 23, 2022, and February 1, 2023, by Metric Environmental, LLC, and approved by the INDOT EWPSO on September 27, 2022 and February 9, 2023, respectively (Appendix F-7 to F-204). No open water features were observed within the project corridor</p>		
Wetlands:	No:	Yes: X
<p>Based on the desktop review, the aerial map of the project area, and the site visit by LFA on June 25, 2021, there are 137 wetlands within 0.5 mile of the project area. Ten emergent wetlands were identified within the investigative area (IA) by Metric Environmental, LLC on May 12, 2022 (Appendix F-19) and October 6, 2022 (Appendix F-154).</p> <p><i>Waters of the U.S. Determination Reports</i> were completed on September 23, 2022, and February 1, 2023, by Metric Environmental, LLC, and approved by the INDOT EWPSO on September 27, 2022 and February 9, 2023, respectively, (Appendix F-7 to F-204). It was determined that ten wetlands are located along the U.S. 12 project corridor. Eight of the wetlands (A1, B1, D1, F1, A2, B2, C2, and D2) present within the project area are anticipated to be impacted as part of this project. See Wetland Impacts Table for locations (Appendix I-119). All of these wetlands were classified as palustrine emergent persistent wetlands (PEM1A) and considered of poor quality.</p> <p>Wetland A1 is anticipated to be impacted from this project due to the replacement of structure 101. Wetland A1 is located in a ditch between U.S. 12 and the Frazie Road exit ramp at the west junction with S.R. 212. Approximately 0.004 acre was contained within the IA. The boundaries were delineated by lack of wetland vegetation and increased elevation. Wetland A1 receives drainage from a roadside ditch outside the IA and likely receives runoff on a consistent basis from adjacent paved sources during rain events. The wetland exhibited poor plant species diversity with the dominant species being reed canary grass (<i>Phalaris arundinacea</i>), an invasive species. Poor plant species diversity and the conclusion that Wetland A1 can support a limited amount of wildlife or aquatic habitat led to the conclusion that the wetland should be considered poor quality. Based on topography, it can be deduced that water drains north from Wetland A1 into White Ditch, which flows into Lake Michigan. Because Wetland A contributes flow to a Traditional Navigable Waterway (TNW), it should be considered a jurisdictional Water of the U.S. Approximately 0.0005 acre of temporary impacts from a cofferdam and sump hole, and 0.0001 acre of permanent impacts from ditch re-grading, headwall installation, and riprap are anticipated. See Wetland Impacts Table, Appendix I-119.</p> <p>Wetland B1 is anticipated to be impacted from this project due to the replacement of structure 101. Wetland B1 is located in the median of U.S. 12 at the west junction with S.R. 212. Approximately 0.015 acre was contained within the IA. The boundaries were delineated by lack of wetland vegetation and increased elevation. Wetland B1 is located adjacent to U.S. 12 and likely receives run-off from the adjacent paved roads. The wetland exhibited poor plant species diversity with the dominant species being reed canary grass. These factors contribute to the conclusion that Wetland B1 can support a limited amount of wildlife or aquatic habitat and therefore should be considered poor quality. Based on topography, it can be deduced that water drains north from Wetland B1 into White Ditch, which flows into Lake Michigan. Because Wetland B1 contributes flow to a TNW, it should be considered a jurisdictional Water of the U.S. Approximately 0.0005 acre of temporary impacts from a cofferdam and sump hole, and 0.0018 acre of permanent impacts from ditch re-grading and seeding are anticipated. See Wetland Impacts Table, Appendix I-119.</p> <p>Wetland D1 is anticipated to be impacted from this project due to the replacement of structure 102. Wetland D1 is located in the median of U.S. 12 just west of the east junction with S.R. 212 and is approximately 0.018 acre. The boundaries were delineated by lack of wetland vegetation and increased elevation. Due to its location, Wetland D1</p>		

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likely receives drainage on a consistent basis during rain events. The wetland is located adjacent to U.S. 12 and likely receives run-off from the adjacent paved roads. The wetland exhibited poor plant species diversity with the dominant species being reed canary grass and hybrid cattails (*Typha x glauca*). These factors contribute to the conclusion that Wetland D1 can support a limited amount of wildlife or aquatic habitat and therefore should be considered poor quality. Based on topography, it can be deduced that water drains north from Wetland D1 into White Ditch, which flows into Lake Michigan. Because Wetland D1 contributes flow to a TNW, it should be considered a jurisdictional Water of the U.S. Approximately 0.0005 acre of temporary impacts from a cofferdam and sump hole, and 0.0009 acre of permanent impacts from ditch re-grading and seeding are anticipated. See Wetland Impacts Table, Appendix I-119.

Wetland F1 is anticipated to be impacted from this project due to the replacement of structure 103. Wetland F1 is located in a ditch south of U.S. 12 at the east merge of S.R. 212 and U.S. 12. Approximately 0.024 acre was contained within the IA. The boundaries were delineated by lack of wetland vegetation and increased elevation. Due to its location within a ditch, Wetland F1 likely receives drainage on a consistent basis during rain events. The wetland is located adjacent to U.S. 12 and a boat storage facility and likely receives run-off from the adjacent paved roads. The wetland exhibited poor plant diversity with dominant vegetation species being hybrid cattail, lamp rush (*Juncus effusus*) and lesser poverty rush (*Juncus tenuis*), contributing to the conclusion that Wetland F1 can support a limited amount of wildlife or aquatic habitat and therefore should be considered to be of poor quality. Based on topography, it can be deduced that water drains north from Wetland F1 into White Ditch, which flows into Lake Michigan. Because Wetland F1 contributes flow to a TNW, it should be considered a jurisdictional Water of the U.S. Approximately 0.0005 acre of temporary impacts from a cofferdam and sump hole, and 0.0009 acre of permanent impacts from ditch re-grading and seeding are anticipated. See Wetland Impacts Table, Appendix I-119.

A *Waters of the U.S. Determination Report* was completed by Metric Environmental, LLC, on February 1, 2023, and was approved on February 9, 2023, by INDOT EWPSO (Appendix F-146 to F-204) to investigate a small drainage structure which carries U.S. 12 over UNT to Kintzele Ditch. This particular site will also involve an intersection improvement. Wetland A2 was determined to be in the project area, and wetlands B2, C2, and D2 were determined to be within and adjacent to the project area. All four wetlands will be impacted as part of this project. All of these wetlands were classified as palustrine emergent persistent wetlands (PEM1A) and considered of poor quality.

Wetland A2 is anticipated to be impacted from this project due to the replacement of Structures CV 012-046-37.05 and CV 012-046-37.05 ADJ and intersection reconfiguration. Wetland A2 is located in a concave toe of slope in the median between U.S. 12 and Beverly Drive. Approximately 0.003 acre was contained within the IA. The boundaries were delineated by lack of wetland vegetation and increased elevation. Due to its location within the toe of slope, Wetland A2 likely receives drainage on a consistent basis during rain events. The wetland is located adjacent to U.S. 12 and likely receives run-off from the adjacent areas. The wetland exhibited poor plant species diversity. These factors contribute to the conclusion that Wetland A2 can support a limited amount of wildlife or aquatic habitat and therefore should be considered to be of poor quality. Based on topography, it can be deduced that water drains west via CV 2 into Wetland B2, a jurisdictional Water of the U.S. Therefore, Wetland A2 should be considered a jurisdictional Water of the U.S. Approximately 0.0304 acre of permanent impacts from ditch re-grading and seeding are anticipated from the intersection improvement and replacement of a small culvert structure, CV 012-046-37.05 and CV 012-046-37.05 ADJ. See Wetland Impacts Table, Appendix I-119.

Wetland B2 is anticipated to be impacted from this project due to dewatering activities from the replacement of Structures CV 012-046-37.05 and CV 012-046-37.05 ADJ, and intersection reconfiguration. Wetland B2 is located within a depression west of U.S. 12 within National Park Service property. Approximately 0.733 acre of Wetland B2 is contained within the IA. The boundaries were delineated by lack of wetland vegetation and increased elevation. Due to its location within the toe of slope, Wetland B2 likely receives drainage on a consistent basis during rain events. The wetland is located adjacent to U.S. 12 and likely receives run-off from the adjacent areas.

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The wetland exhibited good plant species diversity and extended over a large area beyond the IA. These factors contribute to the conclusion that the wetland can support a large amount of wildlife or aquatic habitat and therefore should be considered to be of excellent quality. Based on topography and Wetland B directly abutting UNT to Kintzele Ditch, it can be deduced that water drains north from Wetland B2 into Kintzele Ditch which contributes flow to Lake Michigan, a TNW. Therefore, Wetland B2 should be considered a jurisdictional Water of the U.S. Approximately 0.0065 acre of temporary impacts from a cofferdam and sump hole, and 0.00957 acre of permanent impacts from ditch re-grading are anticipated. See Wetland Impacts Table, Appendix I-119.

Wetland C2 is anticipated to be impacted from this project due to dewatering activities from the replacement of Structures CV 012-046-37.05 and CV 012-046-37.05 ADJ. Wetland C2 is located within a depression east of U.S. 12. Approximately 2.252 acres of Wetland C2 was within the IA. The boundaries were delineated by lack of wetland vegetation and increased elevation. Due to its location within a depression, Wetland C2 likely receives flood waters and drainage on a consistent basis during rain events. The wetland is located adjacent to U.S. 12 and likely receives run-off from the adjacent areas. The wetland exhibited moderate plant species diversity and contained a dominant invasive species of common reed (*Phragmites australis*, FACW). These factors contribute to the conclusion that the wetland can support an average amount of wildlife or aquatic habitat and therefore should be considered to be of average quality. Based on topography, it can be deduced that water drains west via CV 2 into Wetland B2, a jurisdictional Water of the U.S. Therefore, Wetland C2 should be considered a jurisdictional Water of the U.S. Approximately 0.0051 acre of temporary impacts from a cofferdam and sump hole are anticipated. See Wetland Impacts Table, Appendix I-119.

Wetland D2 is anticipated to be impacted from this project due to intersection reconfiguration. Wetland D2 is located in a concave depression north of U.S. 12. The boundaries of Wetland D2 were delineated by lack of wetland vegetation and increased elevation. Due to its location within the depression, Wetland D2 likely receives drainage on a consistent basis during rain events. The wetland is located adjacent to U.S. 12 and likely receives run-off from the adjacent areas. The wetland exhibited poor plant species diversity and contained a dominant invasive species of reed canary grass. These factors contribute to the conclusion that Wetland D2 can support a limited amount of wildlife or aquatic habitat and therefore should be considered to be of poor quality. Based on connection to an NHD line, it can be deduced that water drains south from Wetland D2 into Wetland C2 a jurisdictional Water of the U.S. Therefore, Wetland D2 should be considered a jurisdictional Water of the U.S. Approximately 0.0094 acre of permanent impacts from ditch re-grading and seeding are anticipated. See Wetland Impacts Table, Appendix I-119.

All eight of the wetlands to be impacted were determined to be jurisdictional. The USACE makes all final determinations regarding jurisdiction.

Avoidance of all eight wetlands is not feasible; however, proposed permanent and temporary impacts to these wetlands will be minimized. A firm commitment has been included in the *Environmental Commitments* section of this CE document stating that non-impacted wetlands shall be marked "Do Not Disturb" on the final project plans. Section 401 and 404 permits will likely be required. Mitigation will likely not be required.

Wetland C2 is an active INDOT mitigation site. The mitigation area shall be clearly marked in plans and onsite. The contractor shall not introduce any temporary or permanent fill to the wetland beyond what is detailed in the permit application and all operators and contractors working in and around wetland C2 will be made aware that this wetland is an active INDOT mitigation site. The contractor shall avoid all other areas within Wetland C2 that are not necessary for the cofferdam placement.

The IDNR-DFW responded to early coordination on February 18, 2022, and June 20, 2025, with recommendations to avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible, and compensate for impacts. Further, due to the presence of wetland habitat on site, IDNR-DFW recommended contacting and coordinating with the Indiana Department of Environmental Management (IDEM) 401 and USACE

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404 programs as well as stating that impacts to wetland habitat should be mitigated at the appropriate ratio according to the 1991 INDOT/IDNR/USFWS Memorandum of Understanding (Appendix C-17 to C-25).

All applicable recommendations are included in the *Environmental Commitments* section of this CE document.

Terrestrial Habitat:**No:****Yes: X**

Based on the desktop review, the aerial map of the project area, The *Waters of the U.S. Determination Reports* (Appendix F-7 to F-204), and the site visit by LFA on June 25, 2021, there are terrestrial habitats present within and adjacent to the project area. Most of the U.S. 12 roadway is bordered by mowed grasses and lawns in the right-of-way with a few shrubs and trees scattered along the route. Trees, shrubs, grasses, and wetland plants line the road on the National Park properties. Dominant upland species in upland areas are listed in *Table 2 Terrestrial Species* below.

Table 2 Terrestrial Species	
Location	Dominant upland species
Beverly Drive and U.S. 12 Intersection	Japanese bristle grass (<i>Setaria faberi</i>) and red fescue (<i>Festuca rubra</i>), Kentucky blue grass (<i>Poa pratensis</i>), northern red oak (<i>Quercus rubra</i>), American hazelnut (<i>Corylus americana</i>), common red raspberry (<i>Rubus idaeus</i>), and Asian bittersweet (<i>Celastrus orbiculatus</i>)
U.S. 12 and S.R. 212 Intersection	tall false rye grass (<i>Schedonorus arundinaceus</i>), eastern red cedar (<i>Juniperus virginiana</i>), sticky-willy (<i>Galium aparine</i>), nodding onion (<i>Allium cernuum</i>), Kentucky blue grass, red fescue, dandelion (<i>Taraxacum officinale</i>), reed canary grass, Canada thistle (<i>Cirsium arvense</i>)

The soil disturbance for the project includes 0.15 acre due to structure installation, 0.08 acre for roadway widening, 0.046 acre for full depth patching, 0.259 acre for ADA curb ramp construction along the U.S 12 project area, and approximately 2.253 acres of soil disturbance at the Beverly Drive intersection improvement site for an estimated total of 2.788 acres of soil disturbance for the entire project. This project will require a Construction Stormwater General Permit (CSGP) due to total soil disturbance over one acre.

Every effort to avoid, minimize, or mitigate impacts to the terrestrial environment will be made. No trees are anticipated to be trimmed or removed. Mitigation is not anticipated.

IDNR-DFW responded to early coordination on February 18, 2022, and noted that there are four high quality natural communities documented within 0.5 mile of the project area. However, the Division of Nature Preserves does not anticipate any impacts to the natural communities, Indiana Dunes State Park property, or associated plant species. IDNR-DFW also recommended revegetating disturbed areas upon completion of the project and use appropriate measures for controlling erosion and sediment until the area is stabilized (Appendix C-17 to C-25).

All applicable recommendations are included in the *Environmental Commitments* section of the CE document.

Protected Species:**No:****Yes: X**

Based on the desktop review, a site visit by LFA on June 25, 2021, the Limited Red Flag Investigation (LRFI) Investigation completed on June 12, 2023 by LFA (Appendix E-1 to E-18), the IDNR LaPorte County Endangered, Threatened and Rare (ETR) Species list has been checked. According to the IDNR-DFW early coordination response letters dated February 18, 2022 (Appendix C-17 to C-20) and June 20, 2025, (Appendix C-21 to C-27)

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the Natural Heritage Program's Database has been checked. There are eight managed lands, four natural communities, 23 State Endangered species (13 plants, one insect, seven birds and one fish) and 24 State Threatened plant species have been documented within 0.5 mile of the project area. The IDNR-DFW Division of Nature Preserves does not anticipate any impacts to the preserves, communities, or plant species as a result of this project. In particular, IDNR-DFW does not foresee any impacts to the common mudpuppy (*Necturus maculosus*), a species of State Special Concern (SSC), or the other documented bird or fish species listed in Appendix C-21 to C-27 as a result of this project. Recommendations include avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible, and compensate for impacts. IDNR-DFW also mentioned the Eastern Red Bat (*Lasiurus borealis*), a state SSC, which has no strong preference to certain tree species for roosting. To minimize impacts to this species, recommendations were made to avoid cutting deciduous canopy trees from April 1 through September 30. An INDOT 0.5 mile bat review of the USFWS database occurred on June 27, 2022, and did not indicate the presence of endangered bat species within 0.5 mile of the project area.

Bats, Programmatic Informal Consultation (i.e., IPaC) – Not Likely to Adversely Affect

The project qualifies for Range-wide Programmatic Informal Consultation under the December 13, 2024, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat, Northern Long-eared Bat, and Tricolored Bat. Bridge/Structure inspections for all eight small structures occurred on May 12, 2022, (Appendix C-79 to C-88) and structure CV 012-046-37.05 and CV 012-046-37.05 ADJ were inspected on May 9, 2025, (Appendix C-89) and found no evidence of bats on or near any of the structures. USFWS Bridge/Structure Assessments are only valid for two years. Due to the most recent USFWS guidance, the eight small structures will not require re-inspection as they are less than 36 inches in diameter. If construction will begin after May 9, 2027, inspections of structures CV 012-046-37.05 and CV 012-046-37.05 ADJ by a qualified individual, must be performed. Inspections of the structures should check for presence of bats/bat indicators and/or presence of birds. The results of the inspections must indicate no signs of bats or birds. If signs of bats or birds are documented during these inspections, the INDOT District Environmental Manager must be contacted immediately. This firm commitment is included in the *Environmental Commitments* of this document. An effect determination key was completed on July 9, 2025, and based on the responses provided, the project was found to "may affect, not likely to adversely affect" the Indiana bat, the NLEB, or the Tricolored bat (Appendix C-59 to C-71). INDOT reviewed and verified the effect finding on July 15, 2025, and requested USFWS's review of the finding. No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with the finding. Avoidance and Minimization Measures (AMMs) pertaining to worker awareness of bat habitat and temporary lighting are included as firm commitments in the *Environmental Commitments* section of this document.

Other Federally Listed Species

The official USFWS species list generated from IPaC on May 9, 2025, indicated five other Federally listed species and two species not currently listed that are present within the project area (Appendix C-42 to C-58). See *Table 3, Federally Listed Species and Candidate Species Present Within the Project Area* below.

Table 3 Federally Listed Species and Candidate Species Present Within the Project Area		
Common Name	Scientific Name	Status
Indiana Bat	<i>Myotis sodalis</i>	Federally Endangered
Northern Long-eared Bat	<i>Myotis septentrionalis</i>	Federally Endangered
Piping Plover	<i>Charadrius melodus</i>	Federally Endangered
Rufa Red Knot	<i>Calidris canutus rufa</i>	Federally Threatened
Eastern Massasauga Rattlesnake (EMR)	<i>Sistrus catenatus</i>	Federally Threatened
Mitchell's Satyr Butterfly	<i>Neonympha mitchellii mitchellii</i>	Federally Endangered
Pitcher's Thistle	<i>Cirsium pitcher</i>	Federally Threatened

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Currently Not Listed Species

Tricolored Bat	<i>Perimyotis subflavus</i>	Proposed Federally Endangered
Monarch Butterfly	<i>Danaus plexiups</i>	Proposed Federally Threatened

A Standard Informal Consultation (SIC) letter for a Not Likely to Adversely Affect (NLAA) determination for the EMR was submitted by INDOT to USFWS for review on August 8, 2025. On August 11, 2025, USFWS issued a concurrence email stating that a No Effect determination was reached through IPaC regarding the piping plover, rufa red knot, Mitchell's satyr butterfly, and Pitcher's thistle; INDOT indicated the project will not jeopardize the tricolored bat or the monarch butterfly; and, no critical habitats were identified. The USFWS stated that "although the project is within the range of the [EMR], we do not show any records in the vicinity of your project and suitable habitat is limited due to the project location along the disturbed roadside. Therefore, we concur your project is not likely to adversely affect the EMR." See Appendix C-72 to C-75.

The two bat species were evaluated utilizing the Range-wide Programmatic Section 7 Informal Consultation process, and there is no habitat for the other five species within the proposed project area. Therefore, no further consultation with USFWS is required under Section 7 of the Endangered Species Act of 1973, as amended.

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.

Geological and Mineral Resources:

No: X

Yes:

Based on a desktop review and the Indiana Karst Region map, the project is located outside the designated Indiana Karst Region as outlined in the most current *Protection of Karst Features during Project Development and Construction*. According to the topo map of the project area (Appendix B-1), there are no karst features identified within or adjacent to the project area. In the early coordination response January 21, 2022, the Indiana Geological and Water Survey (IGWS) did not indicate that karst features exist in the project area (Appendix C-12 to C-14). The IGWS did indicate a high liquefaction potential, a floodway, moderate potential for bedrock resources, low potential for sand and gravel, presence of petroleum wells, and presence of abandoned industrial mineral sand gravel pits. The response from IGWS was communicated to the designer on January 30, 2023. No impacts are expected.

Drinking Water Resources:

No:

Yes: X

Sole Source Aquifer

Outside of Sole Source Aquifer (SSA)

The project is located in LaPorte County, which is not located within the area of the St. Joseph SSA, the only legally designated sole source aquifer in the state of Indiana. Therefore, the FHWA/Environmental Protection Agency (EPA)/INDOT SSA MOU is not applicable to this project, a detailed groundwater assessment is not needed, and no impacts are expected.

Wellhead Protection Area and Source Water Area

The IDEM Wellhead Proximity Determinator website (<http://www.in.gov/idem/cleanwater/pages/wellhead>) was accessed on June 30, 2025, by LFA and it was determined that a portion of this project is located within a Wellhead Protection Area (WPA) and a Source Water Area. The ECL was sent to IDEM's Office of Water Quality, Drinking Water Branch, Groundwater Section on January 21, 2022. In an ECL response dated February 3, 2022, IDEM stated the project is located within the Long Beach Water Department's WPA and Michigan City's Source Water Assessment Area for a Public Water Supply System's (PWSS) surface water intake (Appendix C-15 to C-16). IDEM provided contact information for both the WPA and the Public Source Water Assessment Area for the PWSS surface water intake.

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The Long Beach Water Department's Water Supervisor was contacted by LFA through a letter sent by email on October 7, 2021 with an Initial Notice of Proposed Improvements for utility coordination. Long Beach Water Department responded on March 24, 2022, stating that facilities are not present on the project. A signed work plan was also provided. Therefore, it is determined that there will be no impacts to the Town of Long Beach WPA. An ECL was sent to the Michigan City Engineer on January 21, 2022, and no response was received. An email was sent by LFA to the Michigan City Water Department on October 7, 2021 with an Initial Notice of Proposed Improvements for utility coordination, a Verification of Existing Facilities letter was emailed on March 24, 2022, and a Conflict Analysis and Preliminary Field Check (PFC) Notification letter was emailed on August 19, 2022. Follow up utility coordination emails were sent on April 21, 2023, May 8, 2023, and August 24, 2023. Impacts to the Michigan City PWSS are not anticipated since excavation activities are not anticipated to exceed ten feet in depth for the proposed construction activities, however, utility coordination efforts by LFA are ongoing. The WPA and Michigan City Engineer will be contacted should any issues arise that could potentially impact water quality during the course of the project, which is included as a firm commitment in the *Environmental Commitments* section of this CE document.

Water Wells

The IDNR Water Well Record Database website (<https://www.in.gov/dnr/water/3595.htm>) was accessed on August 11, 2023, and July 15, 2025, by LFA. Multiple wells are located along the project corridor; however, none of them are within or adjacent to the project limits. The well that is nearest to the small structure excavation is located 45-feet southwest of the project site. Therefore, no impacts are expected. Should it be determined during the ROW phase that these wells will be affected, a cost to cure will likely be included in the appraisal to restore the wells.

Urban Area Boundary

Based on a desktop review of the IDEM MS4 Boundary Map (<https://www.in.gov/idem/cleanwater/ms4s-boundaries-map-for-indiana/>) by LFA on August 11, 2023, this project is located in an Urban Area Boundary (UAB). An ECL was sent on January 21, 2022, to the LaPorte County MS4 Coordinator, and on February 20, 2023, to the Long Beach, the Town of Pottawattomi Park, and the LaPorte County MS4 coordinators. The MS4 coordinator for LaPorte did not respond within the 30-day time frame; however, the Long Beach/Town of Pottawattomi Park/LaPorte County MS4 Coordinator acknowledged receipt of the ECL. They did not offer any other response (Appendix C-115). An ECL was sent to the MS4 Coordinator for Michigan City on September 16, 2025, and responded only by confirming receipt of the letter with no comments. The project is not anticipated to negatively impact storm water quality; however, coordination is ongoing with Michigan City.

Public Water System

Based on a desktop review, a site visit on June 25, 2021, and the aerial map of the project area (Appendix B-2), this project is located where there is a public water system.

An ECL was sent to the Michigan City Engineer on January 21, 2022, and no response was received. Emails were sent by LFA to the Michigan City Water Department on the following days: October 7, 2021; March 24, 2022; from Michigan City Water Department August 19, 2022 re: new contact; April 21, 2023; May 8, 2023; August 24, 2023. Impacts to the Michigan City PWSS are not anticipated since excavation activities are not anticipated to exceed ten feet in depth for the proposed construction activities, however, utility coordination efforts by LFA are ongoing. The WPA and Michigan City Engineer will be contacted should any issues arise that could potentially impact water quality during the course of the project, which is included as a firm commitment in the *Environmental Commitments* section of this CE document.

In an ECL response dated February 3, 2022, IDEM stated the project is located within Michigan City's Source Water Assessment Area (Appendix C-15 to C-16). IDEM responded with contact information for both the WPA and the Source Water Assessment Area for the PWSS surface water intake if further coordination is necessary. No impacts are anticipated.

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Floodplains:	No: X	Yes:
<p>Based on a desktop review of the IDNR Indiana Floodway Information Portal website (https://www.in.gov/dnr/water/surface-water/indiana-floodplain-mapping/indiana-floodplain-information-portal/) on February 14, 2023, (Appendix F-6) by LFA and the <i>Waters of the U.S Determination Report</i> approved February 9, 2023, (Appendix F-146 to F-204), one mapped floodplain is located within the IA and is associated with the UNT to Kintzele Ditch and Wetland B. An ECL was sent on February 20, 2023, to Michigan City and LaPorte County Floodplain Administrators. The floodplain administrators did not respond within the 30-day time frame. This project qualifies as a Category 1, per the INDOT CE Manual, which states that although this project involves work within the horizontal limits of the 100-year floodplain, no work is being performed below the 100-year flood elevation and as a result this project does not encroach upon the base floodplain.</p>		
Farmland:	No: X	Yes:
<p>Based on a desktop review, a site visit on June 25, 2021, the aerial map of the project area (Appendix B-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 ECL was sent on February 21, 2022, to NRCS. In the response dated June 6, 2023, NRCS stated that the project will not cause a conversion of prime farmland (Appendix C-76 to C-77).</p>		
Cultural Resources:	No:	Yes: X
<p>On September 11, 2025, the INDOT Cultural Resources Office (CRO) determined that this project falls within the guidelines of Category B, Type 6 under the Minor Projects Programming Agreement (Appendix D-1 to D-9). The project will involve a HMA overlay along U.S. 12, small structure repairs and replacements, ADA curb ramp reconstructions, traffic signal modernizations, installation of edgeline rumble stripes, guardrail replacement and extension, ground mounted INDOT sheet sign replacements, extension of a bike lane, and additional signage at railroad crossings. The project also involves Right Sizing Lane reconfigurations along U.S. 12, and full depth pavement widening at two locations. The Beverly Drive intersection will be reconfigured, and a culvert at the same location will be replaced.</p> <p>Category B-6: Includes other minor actions if deemed appropriate for coverage under this MPPA, by consultation and mutual agreement between INDOT, FHWA, and the SHPO.</p> <p>A Phase Ia Archaeological Reconnaissance Survey for the Beverly Drive culvert over Kintzele Ditch was conducted by Metric Environmental LLC on . No archaeological sites were documented as a result of the survey, and no further investigation is recommended. Based on the available information that the structure does not exhibit non-modern wood, stone or brick structures therein, and lacks a context that would suggest that it might have engineering or historical significance, no above-ground concerns exist. The MPPA clearance is conditional.</p> <p>According to Category B-1, Condition B-ii-b-1, a firm commitment must be made to avoid the concrete retaining wall on the southeast corner of U.S. 12 and Washington Street. A note will be added to the plans to reflect this commitment. See plan sheet (Appendix B-57). Also, it will be added to INDOT's project commitment database and included in the environmental documentation for this project. If it is later determined that any feature will be disturbed, INDOT CRO must be consulted prior to proceeding. If damage is discovered or occurs during construction, work should be stopped and INDOT CRO notified. Notification must be sent to Clint Kelly, INDOT-CRO, via both phone (317-447-8707) and email (ckelly1@indot.in.gov). This firm commitment is included in this environmental document.</p> <p>Category B-1: Includes replacement, repair, or installation of curbs, curb ramps, or sidewalks, including when such projects are associated with roadway work</p>		

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Condition B (Above-Ground Resources)

- ii. b. 1. Work occurs within a National Register-listed above-ground resource with unusual features which will not be impacted by the project. The firm commitment must be maintained: Concrete retaining wall on the southeast corner of US 12 and Washington Street must be avoided.

A desktop review was performed by an INDOT Cultural Resources Office historian who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61. No listed resources are located immediately adjacent to the project area, a distance that serves as an adequate potential area of effects given the project setting and scope. Temporary ROW is anticipated to be acquired adjacent to a "Notable" rated and an "Outstanding" rated building for sidewalk reconstruction. INDOT and FHWA, therefore, considers taking this minimal amount of temporary ROW from the property as a *de minimis* 4(f) use of the historic property.

If any archaeological artifacts or human remains are uncovered during construction, demolition, or earth moving activities, construction within 100 feet of the discovery will be stopped, and INDOT-CRO and the Indiana Department of Natural Resources-Division of Historic preservation and Archaeology (IDNR-DHPA) will be notified immediately.

No further consultation is required. This completes the Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

Section 4(f) and Section 6(f) Resources:

No:

Yes: X

Section 4(f)

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 National Register of Historic Places (NRHP) eligible or listed historic properties regardless of ownership. Lands subject to this law are considered Section 4(f) resources.

Based on a desktop review and the aerial map of the project area (Appendix B-2) there are eight 4(f) resources located within the 0.5-mile search radius. Per the site visit on June 25, 2021, by LFA, there are 4(f) resources located within or adjacent to the project area.

Indiana Dunes National Park

INDU is located adjacent to U.S. 12 at the western end of the project area. The INDU is available for public recreational use; therefore, they are eligible for protection under Section 4(f). The project will not use this resource by taking permanent ROW and will not indirectly use the resource in such a way that the protected activities, features, and attributes that qualify the resource for protection under Section 4(f) are substantially impaired. Therefore, no 4(f) use is expected.

Singing Sands Trail

Singing Sands Trail is Michigan City's portion of the multi-state Marquette Greenway that stretches from Chicago to Michigan. A segment of the trail is located at the western end of the project, crosses U.S. 12 and runs parallel to part of the roadway. It is owned and under the jurisdiction of the Michigan City Parks and Recreation Department and is publicly available for recreational use; therefore, the Trail is eligible for protection under Section 4(f). The roadway resurfacing activities and extension of the Singing Sands bike lane will enhance but will not negatively impact the 4(f) resource. The project will not use this resource by taking permanent ROW and will not indirectly use the resource in such a way that the protected activities, features, and attributes that qualify the resource for protection under Section 4(f) are substantially impaired.

Coordination with Michigan City has occurred. A letter was sent to the Official With Jurisdiction (OWJ) regarding the impact on this resource, the Mayor of Michigan City, who concurred with a signature the finding that the 4(f)

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resource, Singing Sands Trail, is enhanced and not negatively impacted. See OWJ coordination documentation (Appendix C-90 to C-91). This work qualifies as an exception under 23 CFR 774.13. Therefore, no 4(f) use is expected.

Pullman Park/Michigan City Skate Park

Pullman Park is located adjacent to U.S. 12 on the west side of Michigan City. The park is administered by the Michigan City Parks and Recreation Department and is publicly available for recreational use; therefore, the park is eligible for protection under Section 4(f). The project will not use this resource by taking permanent ROW and will not indirectly use the resource in such a way that the protected activities, features, and attributes that qualify the resource for protection under Section 4(f) are substantially impaired. Access to the park will not be impeded. Therefore, no 4(f) use is expected.

Charles R. Westcott Park

Charles R. Westcott Park is located adjacent to U.S. 12 at the corner of East Michigan Boulevard in Michigan City. The park is administered by the Michigan City Parks and Recreation Department and is publicly available for recreational use; therefore, the park is eligible for protection under Section 4(f). The project will not use this resource by taking permanent ROW and will not directly or indirectly use the resource in such a way that the protected activities, features, access, and attributes that qualify the resource for protection under Section 4(f) are substantially impeded or impaired. Therefore, no 4(f) use is expected.

A "Notable" rated National Register protected historical site, which involves an Industrial Building, is adjacent to the project area where ADA construction will take place. Approximately 0.001 acre of temporary ROW is anticipated to be acquired from this site. The proposed work within this temporary ROW does not have the potential to adversely impact any of the characteristics that make the resource eligible for continued listing or inclusion in the National Register. As such, INDOT CRO and FHWA, therefore, considers taking this minimal amount of temporary ROW from the property as a *de minimis* 4(f) use of the historic property (Appendix D-7).

An "Outstanding" rated National Register structure, which involves a concrete retaining wall, is located adjacent to the project area where sidewalk reconstruction will take place. Approximately 0.003 acre of temporary ROW is anticipated to be acquired from this site. The proposed work within this temporary ROW does not have the potential to adversely impact any of the characteristics that make the resource eligible for continued listing or inclusion in the National Register. As such, INDOT CRO and FHWA, therefore, consider taking this minimal amount of temporary ROW from the property as a *de minimis* 4(f) use of historic property (Appendix D-7).

According to Category B-1, Condition B-ii-b-1, a firm commitment must be made to avoid the concrete retaining wall on the southeast corner of U.S. 12 and Washington Street. A note will be added to the plans to reflect this commitment. See plan sheet (Appendix B-57). Also, it will be added to INDOT's project commitment database and included in the environmental documentation for this project. If it is later determined that any feature will be disturbed, INDOT CRO must be consulted prior to proceeding. If damage is discovered or occurs during construction, work should be stopped and INDOT CRO notified. Notification must be sent to Clint Kelly, INDOT-CRO, via both phone (317-447-8707) and email (ckelly1@indot.in.gov). This firm commitment is included in this environmental document.

Section 6(f)

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.

A review of 6(f) properties on the INDOT ESD website revealed a total of 12 properties in LaPorte County and 31 properties in Porter County (Appendix I-1). None of these properties are located within or adjacent to the project area. Therefore, there will be no impact to 6(f) resources.

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Air Quality:	No: X	Yes:
<p>STIP/TIP This project is included in the Fiscal Year (FY) 2026-2030 Northwest Indiana Regional Planning Commission Transportation Improvement Program (NIRPC TIP) Statewide Transportation Improvement Program (STIP) which has been directly incorporated into the FY 2026-2030 STIP (Appendix H-1 to H-6).</p> <p>Attainment Status This project is located in LaPorte County, which is currently a maintenance area for 8-hour ozone, under the 1997 standard, which was revoked in 2015 but is being evaluated for conformity due to the February 16, 2018, South Coast Air Quality Management District V. Environmental Protection Agency, Et. Al. Decision. This is according to the U.S. EPA Nonattainment Areas for Criteria Pollutants Green Book (https://www.epa.gov/green-book). The project's design concept and scope are accurately reflected in both the NIRPC Transportation Plan (TP) and the TIP and both conform to the State Implementation Plan (SIP). Therefore, the conformity requirements of 40 CFR 93 have been met.</p> <p>MSAT 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 (MSAT) analysis is not required.</p>		
Community Impacts:	No: X	Yes:
<p><i>Due to the issuance of recent federal Executive Orders (EO) from January 2025, including EO 14154, EO 14148, and EO 14173, EO 12898 has been rescinded and this section is no longer applicable.</i></p>		
Public Facilities and Services (e.g., schools, emergency services):	No:	Yes: X
<p>Based on a desktop review and the aerial map of the project area (Appendix B-2), and a site visit by LFA on June 25, 2021, there are eleven religious facilities, one cemetery, one hospital, seven schools, twenty-six recreation facilities, three pipelines, twenty-three railroads, sixteen trails, one fire station, and twelve managed lands located within 0.5 mile of the project area.</p> <p>There is one fire station, one pipeline, one church, two city parks, one national park, and two railroad tracks cross or are adjacent to the project area. That number was confirmed by a desktop review by LFA, and a site visit on June 25, 2021, by LFA. The project involves an HMA overlay, ADA structure installations, small structure repairs and replacements, and an intersection improvement at Beverly Drive. The proposed method of traffic maintenance for the HMA overlay is the use of single lane closures utilizing flaggers. Full closures with detours will be implemented during eight structure replacements. Pedestrian traffic will be rerouted during curb ramp closures. Access to all properties will be maintained during construction.</p> <p>INDOT-Aviation responded to early coordination on May 23, 2025, stating that if any equipment or structure, temporary or permanent, is taller than 139 feet to follow up with their office (Appendix C-38 to C-41). All applicable recommendations are included in the <i>Environmental Commitments</i> section of this CE document.</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>		
Hazardous Materials and Regulated Substances:	No:	Yes: X
<p>Based on coordination with INDOT LaPorte District, it was determined that completing an LRFI was appropriate for this project. Only the hazardous material 0.5 mile radius search was reviewed for this LRFI. Based on a review of Geographic Information System (GIS) and available public records, a LRFI was completed on June 12, 2023, by LFA and approved by INDOT-SAM on June 13, 2023 (Appendix E-1 to E-18). An Addendum LRFI was approved</p>		

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on June 18, 2025, to include the Beverly Drive and Kintzele Ditch small structure replacement location (Appendix E-19 to E-28). Two Superfund sites are located within 0.5 mile of the project area. Seven Resource Conservation and Recovery Act (RCRA) Generator/Treatment Storage and Disposal (TSD) sites are located within 0.5 miles of the project area. Six State Cleanup Sites are located within 0.5 miles of the project area. Twenty-two Underground Storage Tank (UST) sites are located within 0.5 miles of the project area. Three Voluntary Remediation Program sites are located within 0.5 miles of the project area. Two Solid Waste Landfill sites are located within 0.5 miles of the project area. Twenty-two Leaking Underground Storage sites are located within 0.5 miles of the project area. One Waste Transfer Station site is located within 0.5 miles of the project area. Eighteen Brownfields sites are located within 0.5 miles of the project area. Twenty-two Institutional Controls sites are located within 0.5 miles of the project area. Forty-one National Pollutant Discharge Elimination System (NPDES) Facility sites are located within 0.5 mile of the project area. Seventeen NPDES Pipe Location sites are located within 0.5 mile of the project area. One State Cleanup Site, one Institutional Controls Site, one UST site, two NPDES Facilities, and one Leaking Underground Storage Tank (LUST) could affect the project area.

LRFI Recommendations

State Cleanup Site and Institutional Controls Site:

- Moran Industries, 209 West Michigan Boulevard, AI ID No. 23199, is adjacent to the northwest of the project area. IDEM issued a No Further Action Confirmation on August 1, 2012. Low levels of soil and groundwater contamination from petroleum COCs in addition to arsenic, lead, and possibly mercury remain on the site. An Environmental Restrictive Covenant (ERC) was recorded on the property on July 9, 2012. The ERC specifically prohibits the use of groundwater, use of the Real Estate for residential purposes, and requires restoration of disturbed soil from excavation and construction. A Phase II Environmental Site Assessment (ESA) is recommended to occur before Request for Comments (RFC). Prior to any investigation activities, an SOW Plan will be prepared and submitted to INDOT SAM for review and approval. Coordination will occur with Institutional Controls section (institutionalcontrols@idem.IN.gov) before RFC.

UST Site:

- Jaymar Ruby Incorporated, 229 W Michigan Boulevard, AI ID No. 32036, is adjacent to the northwest of the project area. According to the Notification for Underground Storage Tanks report signed September 25, 1992, the property was purchased in 1970 from an oil and refining company. A condition of sale was to not use or permit the use of four underground tanks on the property for any purpose. In 1990 the tanks were sealed. A small amount of waste oil and fuel oil was found at that time. No further information is available in the IDEM VFC. No other investigation has ever been conducted on this property. A Phase II ESA is recommended to occur before RFC. Prior to any investigation activities, an SOW Plan will be prepared and submitted to INDOT SAM for review and approval.
- Bill & Genes Service Incorporated (Formerly Knoll Brothers Retail), 1515 U.S. 12, AI ID 33575, is located adjacent to the central portion of the project area (Map: Hazardous Material Concerns 2). This site is also a LUST active facility that is currently undergoing quarterly groundwater monitoring. The site was operated as a gasoline service station and repair facility from the mid-1950's to 2011. Five UST operated on the site from 1986-2010. The UST's, one 10,000-gallon diesel fuel UST, two 6,000-gallon gasoline UST, one 1,000-gallon kerosene UST, and one 500-gallon used oil UST were removed as part of the decommissioning activities completed in July 2022. Please see LUST section for more details.

NPDES Facility Site:

- Freyer Rd Circuit 12-268 Rebuild, U.S. Hwy 12 & S.R. 212, Permit No. INRA02889, is located adjacent to the southeast of the project area. The permit will expire January 28, 2024. Coordination will occur with the Northern Indiana Public Service Company.
- Peepers Facility Improvement, 9935 E U.S. 12, Permit No. INRA02190, is located 0.06 mile southwest of the project area. The permit expires August 26, 2023. Coordination with the facility will occur.

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- LaPorte County Courthouse, 300 Washington Street, Permit Number INRA06028, is located adjacent to the south- central portion of the project area (Map: Hazardous Material Concerns 2). The permit status is effective, with an expiration date of August 19, 2025. Coordination with the LaPorte County Courthouse will occur.
- Kankakee Storage Facility, 4901 U.S. 12, Permit Number INRA0661, is located adjacent to the northern portion of the project area (Map: Hazardous Material Concerns 4). The permit is effective, with an expiration of October 26, 2025. Coordination with Kankakee Storage Facility will occur.

LUST and Institutional Controls Site:

- Springville Petroleum, formerly Long Beach Service, 2909 E Hwy 12, AI ID No. 33590, is adjacent to the southwest of the project area. IDEM issued an NFA Approval Determination Pursuant to RCG dated February 21, 2020. An ERC was recorded on December 12, 2019, that places restrictions on groundwater and land uses. Low levels of soil and groundwater petroleum contamination remain on the site. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater may be necessary. Coordination will be conducted with the IDEM Institutional Controls section (institutionalcontrols@idem.IN.gov) before RFC. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination.
- Gold Eagle Motor Incorporated, 303 West Michigan Boulevard, AI ID 31882, is located adjacent to the southern central portion of the project area (Map: Hazardous Material Concerns 2). The property owner submitted an Intent to Close letter to IDEM for the three 6,000-gallon, one 1,000-gallon, and one 550-gallon LUST on December 9, 1991. Soil samples were taken on December 23, 1991 and analyzed for TPH. All soil samples were non-detect with the exception of one of the side walls next to the waste oil tank. Additional sample results for disposal were taken on February 24, 1992; however, no details of disposal were submitted. If excavation occurs in this area, it is possible that petroleum and heavy metal contamination may be encountered. Proper handling, removal, and disposal of soil and/or groundwater may be necessary. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination.
- Michigan City Fire Department, 117 West 4th Street, AI ID 39429, is located 0.08 mile south of the southern central portion of the project area (Map: Hazardous Material Concerns 2). Three USTs, one 500-gallon gasoline tank, one 500-gallon diesel tank, and one 1,000-gallon used oil UST were removed from the site on February 12, 1996. According to the May 20, 1996, Underground Storage Tank Closure and Subsurface Investigation Report, contamination still exists within the area of the UST. If excavation occurs in this area, it is possible that petroleum contamination may be encountered. Proper handling, removal, and disposal of soil and/or groundwater may be necessary. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination.
- Next Door Food Store #103, 10201 U.S. 12, AI ID 32955, is located adjacent to the northern portion of the project area (Map: Hazardous Material Concerns 5). IDEM issued a NFA Approval Determination Pursuant to RCG on March 25, 2024. Low levels of soil and groundwater contamination remain on the site. An ERC was placed on the property on April 16, 2021. The ERC specifically prohibits the use or extraction of groundwater for any purpose except environmental investigation and/or remediation. If soil is disturbed during excavation activities it shall be restored in such a manner that the remaining contaminant concentrations do not present a threat to human health or the environment. Prior to the change in use or construction of new structures, the owner shall confirm that there is no unacceptable risk due to vapor migration. If excavation occurs in this area, it is possible that petroleum contamination may be encountered. Proper handling, removal, and disposal of soil and/or groundwater may be necessary. Coordination will be conducted with the IDEM Institutional Controls section (institutionalcontrols@idem.IN.gov) before RFC. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination.

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- Bill & Genes Service Incorporated (Formerly Knoll Brothers Retail), 1515 U.S. 12, AI ID 33575, is located adjacent to the central portion of the project area (Map: Hazardous Material Concerns 2). A release was reported to IDEM on August 4, 2022. An initial site characterization was completed after samples indicated petroleum hydrocarbon impacts to soil and groundwater that exceeded the IDEM Risk-based Closure Guide (R2). Soil and groundwater samples detected volatile organic compounds (VOCs) in the soil and groundwater that exceeded the R2 limits. Additionally, free product was encountered in the groundwater. Delineation and monitoring continues at the site. Coordination will be conducted with the IDEM project manager Morgan Willis, (MIWillis@idem.IN.gov) before RFC.

Brownfields Site:

- Spidey Sense Property, US 12 and F Street, AI ID 133000, is located adjacent to the central portion of the project area (Map: Hazardous Material Concerns 2). Two (2) large aboveground tanks containing petroleum remain on site. A petroleum spill reportedly occurred; however, there is no data on the VFC about this spill. If excavation occurs in this area, it is possible that petroleum contamination may be encountered. Proper handling, removal, and disposal of soil and/or groundwater may be necessary. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination.

Permits:

No:

Yes: X

Based on the anticipated 0.04288 acre of permanent impacts, and 0.0634 acre of temporary impacts to eight jurisdictional wetlands in the project area, it is anticipated that Section 401 (IDEM) and Section 404 (USACE) permits will be required. Due to 2.53 acre of soil disturbance (greater than one acre), a CSGP will be completed.

Per the February 18, 2022, and June 20, 2025, ECL responses from IDNR-DFW (Appendix C-17 to C-25), this project is within the Lake Michigan Coastal Program's boundary. According to the Federal Consistency (FC) guidance document, if a state permit equivalent to the Federal permit is issued then the FC requirement is met. If the same activity requiring a federal license or permit also requires a state permit, the issuance of a permit by the state will include and constitute a consistency decision. This project has acquired a Section 401 Water Quality Certification and therefore has met the Federal Consistency requirement.

Applicable recommendations provided by resource agencies are included in the *Environmental Commitments* section of this document. If permits are found to be necessary, the conditions of the permit will be the requirements of the project and will supersede these recommendations.

It is the responsibility of the project sponsor to identify and obtain all required permits.

ENVIRONMENTAL COMMITMENTS:

Firm:

1. If the scope of work or permanent or temporary ROW amounts change, INDOT ESD and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT LaPorte 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 activity that would block or limit access. The MOT Plan for the project shall provide emergency services and school vehicles local access during construction. Access to all parcels shall also be provided. (INDOT ESD)
3. GAMM1: Ensure all operators, employees, and contractors working in areas of Indiana bat, NLEB, or TCB habitat are aware of all Transportation Agency environmental commitments, including all applicable AMMs. (USFWS)

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4. LAMM1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)
5. Any work in a wetland area within right-of-way or in borrow/waste areas is prohibited unless specifically allowed in the U.S. Army Corps of Engineers permit. (INDOT EWPSO)
6. The WPA and Michigan City Engineer will be contacted should any issues arise that could potentially impact water quality during the course of the project. (IDEM)
7. Bridge/Structure inspections for structure CV 012-046-37.05 and CV 012-046-37.05ADJ occurred on August 14, 2025 and August 18, 2025, by INDOT and found no evidence of bats or birds on or near any of the structures. Bridge/Structure Assessments are only valid for two years. If construction will begin after August 14, 2027, 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 LaPorte District)
8. Temporary ROW is anticipated to be acquired for ADA construction activities from the northwest corner of U.S. 12 and Washington St., which is adjacent to a "Notable" rated Industrial Building. This feature will be avoided during construction and will be flagged for quality assurance reviews by INDOT Cultural Resources Office during/after project construction. (INDOT CRO)
9. Temporary ROW is anticipated to be acquired for ADA construction activities from the southeast corner of U.S. 12 and Washington St. which is adjacent to the "Outstanding" rated La Porte County Courthouse. According to Category B-1, Condition B-ii-b-1 a firm commitment is made to avoid the concrete retaining wall, and a note has been added on the plans to reflect this commitment. This feature will be avoided during construction and will be flagged for quality assurance reviews by INDOT Cultural Resources Office during/after project construction. If it is later determined that any feature will be disturbed, INDOT Cultural Resources Office must be consulted prior to proceeding. If damage is discovered or occurs during construction, work should be stopped and INDOT-CRO notified. Notification must be sent to Clint Kelly, INDOT-CRO, via both phone (317- 447-8707) and email (ckelly1@indot.in.gov). (INDOT CRO)
10. State Cleanup Site and Institutional Controls - Moran Industries, 209 West Michigan Boulevard is adjacent to the northwest of the project area. Low levels of soil and groundwater contamination from petroleum COCs in addition to arsenic, lead, and possibly mercury remain on the site. An Environmental Restrictive Covenant (ERC) was recorded on the property on July 9, 2012 which specifically prohibits the use of groundwater, use of the Real Estate for residential purposes, and requires restoration of disturbed soil from excavation and construction. A Phase II ESA is recommended to occur before Request for Comments (RFC). Prior to any investigation activities, a scope of work plan will be prepared and submitted to INDOT SAM for review and approval. Coordination will occur with Institutional Controls section (institutionalcontrols@idem.IN.gov) before RFC. (INDOT SAM)
11. UST Site - Jaymar Ruby Incorporated, 229 W Michigan Boulevard is adjacent to the northwest of the project area. According to the Notification for Underground Storage Tanks report signed September 25, 1992, the property was purchased in 1970 from an oil and refining company. A condition of sale was to not use or permit the use of four underground tanks on the property for any purpose. In 1990 the tanks were sealed. A small amount of waste oil and fuel oil was found at that time. No further information is available in the IDEM VFC. A Phase II ESA is recommended to occur before RFC. Prior to any investigation activities, a Scope of Work plan (SOW) will be prepared and submitted to INDOT SAM for review and approval. (INDOT SAM)

Indiana Department of Transportation

County	LaPorte	Route	U.S. 12	Des. No.	2000607 (Lead), 2101096, 2500075
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12. NPDES Facility Site - East of S.R. 212 Merge with U.S. 12, Freyer Rd Circuit 12-268 Rebuild, U.S. Hwy 12 & S.R. 212, is located adjacent to the southeast of the project area. The permit will expire January 28, 2024. Coordination will occur with the Northern Indiana Public Service Company. (INDOT SAM)
13. NPDES Facility Site - Peepers Facility Improvement, 9935 E U.S. 12, is located 0.06 mile southwest of the project area. The permit expired August 26, 2023. Coordination with the facility will occur. (INDOT SAM)
14. LUST and Institutional Controls Site - Springville Petroleum, formerly Long Beach Service, 2909 E Hwy 12, is adjacent to the southwest of the project area. IDEM issued an NFA Approval Determination Pursuant to RCG dated February 21, 2020. An ERC was recorded on December 12, 2019, that places restrictions on groundwater and land uses. Low levels of soil and groundwater petroleum contamination remain on the site. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater may be necessary. Coordination will be conducted with the IDEM Institutional Controls section (institutionalcontrols@idem.IN.gov) before RFC. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination. (INDOT SAM)
15. NPDES Facility Site - LaPorte County Courthouse, 300 Washington Street, Permit Number INRA06028, is located adjacent to the south- central portion of the project area (Map: Hazardous Material Concerns 2). The permit status is effective, with an expiration date of August 19, 2025. Coordination with the LaPorte County Courthouse will occur. (INDOT SAM)
16. NPDES Facility Site - Kankakee Storage Facility, 4901 US 12, Permit Number INRA0661, is located adjacent to the northern portion of the project area (Map: Hazardous Material Concerns 4). The permit is effective, with an expiration of October 26, 2025. Coordination with Kankakee Storage Facility will occur. (INDOT SAM)
17. LUST and Institutional Controls Site - Gold Eagle Motor Incorporated, 303 West Michigan Boulevard, AI ID 31882, is located adjacent to the southern central portion of the project area (Map: Hazardous Material Concerns 2). The property owner submitted an Intent to Close letter to IDEM for the three 6,000-gallon, one 1,000-gallon, and one 550-gallon LUST on December 9, 1991. Soil samples were taken on December 23, 1991 and analyzed for TPH. All soil samples were non-detect with the exception of one of the side walls next to the waste oil tank. Additional sample results for disposal were taken on February 24, 1992; however, no details of disposal were submitted. If excavation occurs in this area, it is possible that petroleum and heavy metal contamination may be encountered. Proper handling, removal, and disposal of soil and/or groundwater may be necessary. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination. (INDOT SAM)
18. LUST and Institutional Controls Site - Michigan City Fire Department, 117 West 4th Street, AI ID 39429, is located 0.08 mile south of the southern central portion of the project area (Map: Hazardous Material Concerns 2). Three USTs, one 500-gallon gasoline tank, one 500-gallon diesel tank, and one 1,000-gallon used oil UST were removed from the site on February 12, 1996. According to the May 20, 1996, Underground Storage Tank Closure and Subsurface Investigation Report, contamination still exists within the area of the UST. If excavation occurs in this area, it is possible that petroleum contamination may be encountered. Proper handling, removal, and disposal of soil and/or groundwater may be necessary. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination. (INDOT SAM)
19. LUST and Institutional Controls Site - Next Door Food Store #103, 10201 US 12, AI ID 32955, is located adjacent to the northern portion of the project area (Map: Hazardous Material Concerns 5). IDEM issued a NFA Approval Determination Pursuant to RCG on March 25, 2024. Low levels of soil and groundwater contamination remain on the site. An ERC was placed on the property on April 16, 2021. The ERC specifically prohibits the use or extraction of groundwater for any purpose except environmental

Indiana Department of Transportation

County LaPorte

Route U.S. 12

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2101096, 2500075

investigation and/or remediation. If soil is disturbed during excavation activities it shall be restored in such a manner that the remaining contaminant concentrations do not present a threat to human health or the environment. Prior to the change in use or construction of new structures, the owner shall confirm that there is no unacceptable risk due to vapor migration. If excavation occurs in this area, it is possible that petroleum contamination may be encountered. Proper handling, removal, and disposal of soil and/or groundwater may be necessary. Coordination will be conducted with the IDEM Institutional Controls section (institutionalcontrols@idem.IN.gov) before RFC. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination. (INDOT SAM)

20. LUST and Institutional Controls Site - Bill & Genes Service Incorporated (Formerly Knoll Brothers Retail), 1515 US 12, AI ID 33575, is located adjacent to the central portion of the project area (Map: Hazardous Material Concerns 2). A release was reported to IDEM on August 4, 2022. An initial site characterization was completed after samples indicated petroleum hydrocarbon impacts to soil and groundwater that exceeded the IDEM Risk-based Closure Guide (R2). Soil and groundwater samples detected volatile organic compounds (VOCs) in the soil and groundwater that exceeded the R2 limits. Additionally, free product was encountered in the groundwater. Delineation and monitoring continues at the site. Coordination will be conducted with the IDEM project manager Morgan Willis, (MIWillis@idem.IN.gov) before RFC. (INDOT SAM)
21. Brownfield Site - Spidey Sense Property, US 12 and F Street, AI ID 133000, is located adjacent to the central portion of the project area (Map: Hazardous Material Concerns 2). Two (2) large aboveground tanks containing petroleum remain on site. A petroleum spill reportedly occurred; however, there is no data on the VFC about this spill. If excavation occurs in this area, it is possible that petroleum contamination may be encountered. Proper handling, removal, and disposal of soil and/or groundwater may be necessary. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination. (INDOT SAM)
22. According to Category B-1, Condition B-ii-b-1, a firm commitment must be made to avoid the concrete retaining wall. A note will be added to the plans to reflect this commitment. Also, it will be added to INDOT's project commitment database and included in the environmental documentation for this project. If it is later determined that any feature will be disturbed, INDOT Cultural Resources Office must be consulted prior to proceeding. If damage is discovered or occurs during construction, work should be stopped and INDOT CRO notified. Notification must be sent to Clint Kelly, INDOT-CRO, via both phone (317-447-8707) and email (ckelly1@indot.in.gov). (INDOT CRO)
23. The non-impacted wetlands shall be marked "Do Not Disturb" on the project plan set. (INDOT EWPSO)
24. Ensure all operators and contractors working in and around Wetland C2 (located along the south and east shoulder of U.S. 12 at the Beverly Drive intersection) are aware that it is an active INDOT mitigation site. The mitigation area shall be clearly marked in plans and onsite. The contractor shall not introduce any temporary or permanent fill to the wetland beyond what is detailed in the permit application. The contractor shall avoid all other areas within Wetland C2 that are not necessary for the cofferdam placement. (INDOT EWPSO)
25. The project is located within 12,500 feet of the Michigan City Airport. If any equipment or structure, temporary or permanent, is taller than 139 feet coordination with INDOT Aviation will occur (INDOT Aviation)

Indiana Department of Transportation

County LaPorte

Route U.S. 12

Des. No. 2000607 (Lead),
2101096, 2500075

For Consideration:

- 26.** Avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible, and compensate for impacts. (IDNR-DFW)
- 27.** Eastern Red Bat: This bat is a foliage roosting species that shows no strong preference to certain tree species. To minimize impacts to this bat species, avoid cutting deciduous canopy trees from April through September 30. (IDNR-DFW)
- 28.** Due to the presence or potential presence of wetland habitat on site, IDNR-DFW recommends contacting and coordinating with the IDEM 401 program and also the U.S. Army Corps of Engineers (USACE) 404 program. Impacts to wetland habitat should be mitigated at the appropriate ratio according to the 1991 INDOT/IDNR/USFWS Memorandum of Understanding. (IDNR-DFW)
- 29.** Revegetate disturbed areas upon completion of the project and use appropriate measures for controlling erosion and sediment until the area is stabilized. (IDNR-DFW)

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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 Impacts³	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	USACE Individual 404 Permit ⁴
Wetland Impacts³	No adverse impacts to wetlands	< 0.1 acre	-	< 1.0 acre	≥ 1.0 acre
Right-of-way⁵	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
Relocations⁶	None	-	-	< 5	≥ 5
Threatened/Endangered Species (Species Specific Programmatic for Indiana bat & northern long eared bat)*	"No Effect", "Not likely to Adversely Affect" (With select AMMs ⁷)	"Not likely to Adversely Affect" (With any AMMs or commitments)	-	"Likely to Adversely Affect"	Project does not fall under Species Specific Programmatic ⁸
Threatened/Endangered Species (Any other species)*	Falls within guidelines of USFWS 2013 Interim Policy or "No Effect"	"Not likely to Adversely Affect"	-	-	"Likely to Adversely Affect"
Environmental Justice	No disproportionately high and adverse impacts	-	-	-	Potential ⁹
Sole Source Aquifer	No Detailed Groundwater Assessment	-	-	-	Detailed Groundwater Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Section 4(f) Impacts	None	-	-	-	Any ¹⁰
Section 6(f) Impacts	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes ¹¹
Approval Level <ul style="list-style-type: none"> District Env. (DE) Env. Serv. Div. (ESD) FHWA 	Concurrence by DE or ESD	DE or ESD	DE or ESD	DE and/or ESD	DE and/or ESD; and FHWA

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

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

³ Total permanent impacts to streams (linear feet) and wetlands (acres).

⁴ US Army Corps of Engineers Individual 404 Permit

⁵ Total permanent and temporary right-of-way. This does not include reacquisition of existing apparent right-of-way.

⁶ If any relocations are within an area with a known or suspected Environmental Justice (EJ) or disadvantaged population, or has greater than 5 relocations, a conversation with FHWA, through INDOT ESD, is needed to confirm NEPA classification and outreach plan for the project.

⁷ Avoidance and Mitigation Measures (AMMs) determined by the IPAC determination key to be required that are not tree AMMs, bridge AMMs, or structure AMMs.

⁸ Projects that do not fall under a Species Specific Programmatic and results in a "Likely to Adversely Affect". Other findings can be processed as a lower-level CE.

⁹ Potential for causing a disproportionately high and adverse impact.

¹⁰ Section 4(f) use resulting in an Individual, Programmatic, or *de minimis* evaluation. The only exception is a *de minimis* evaluation for historic properties (Effective January 2, 2020). If a historic property *de minimis* and no other use, mark the *None* column.

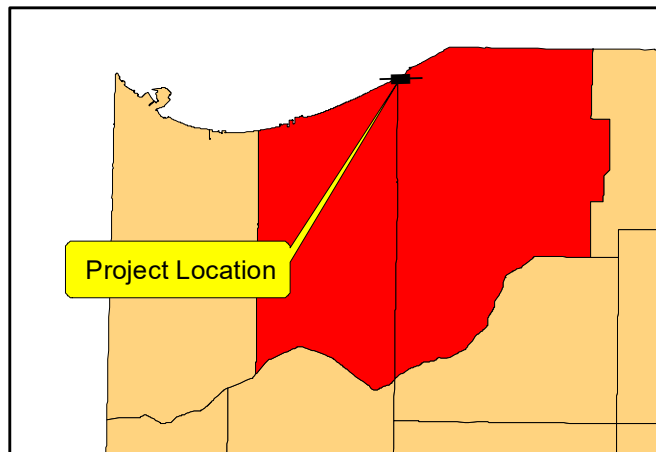
¹¹ Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.

* Includes the threatened/endangered species critical habitat

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

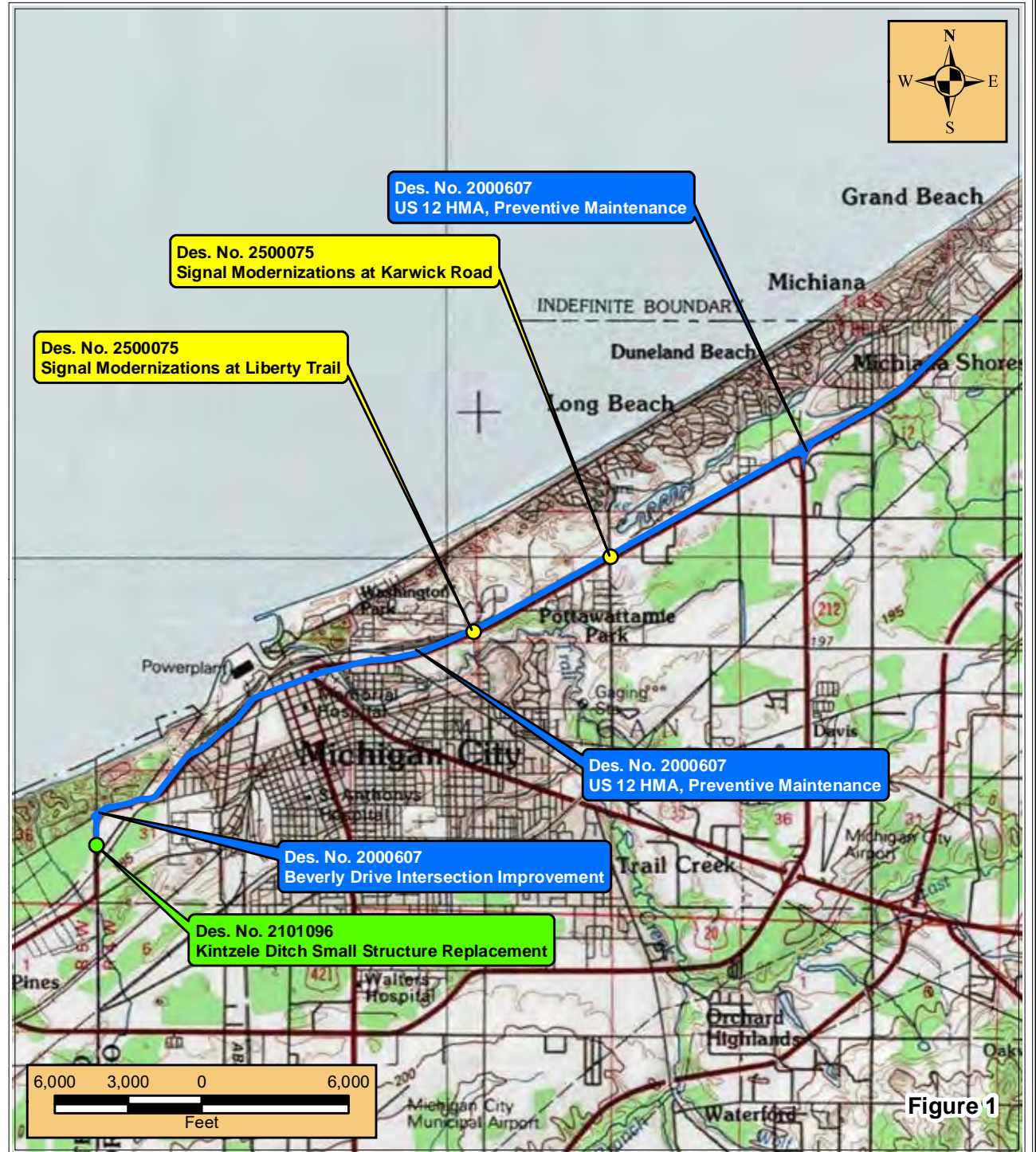


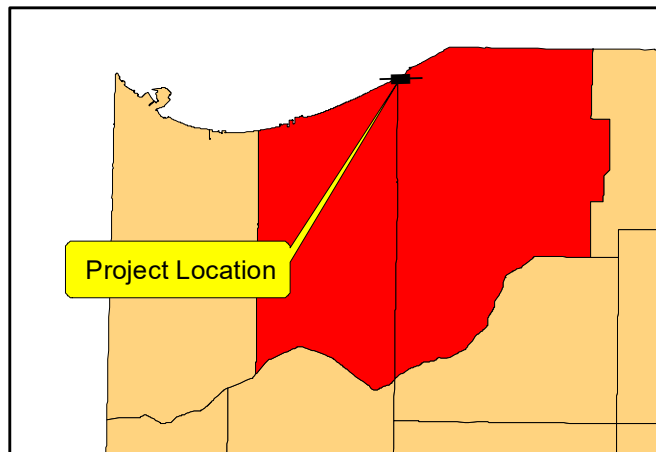
APPENDIX B GRAPHICS



HMA Overlay, Preventive Maintenance from
 Porter/LaPorte County Line to Michigan State Line,
 Small Structure Replacements on U.S. 12,
 and Kintzele Ditch, and Traffic Signal Modernization
 Des. No. 2000607 (Lead), Des. No. 2500075
 and Des. No. 2101096

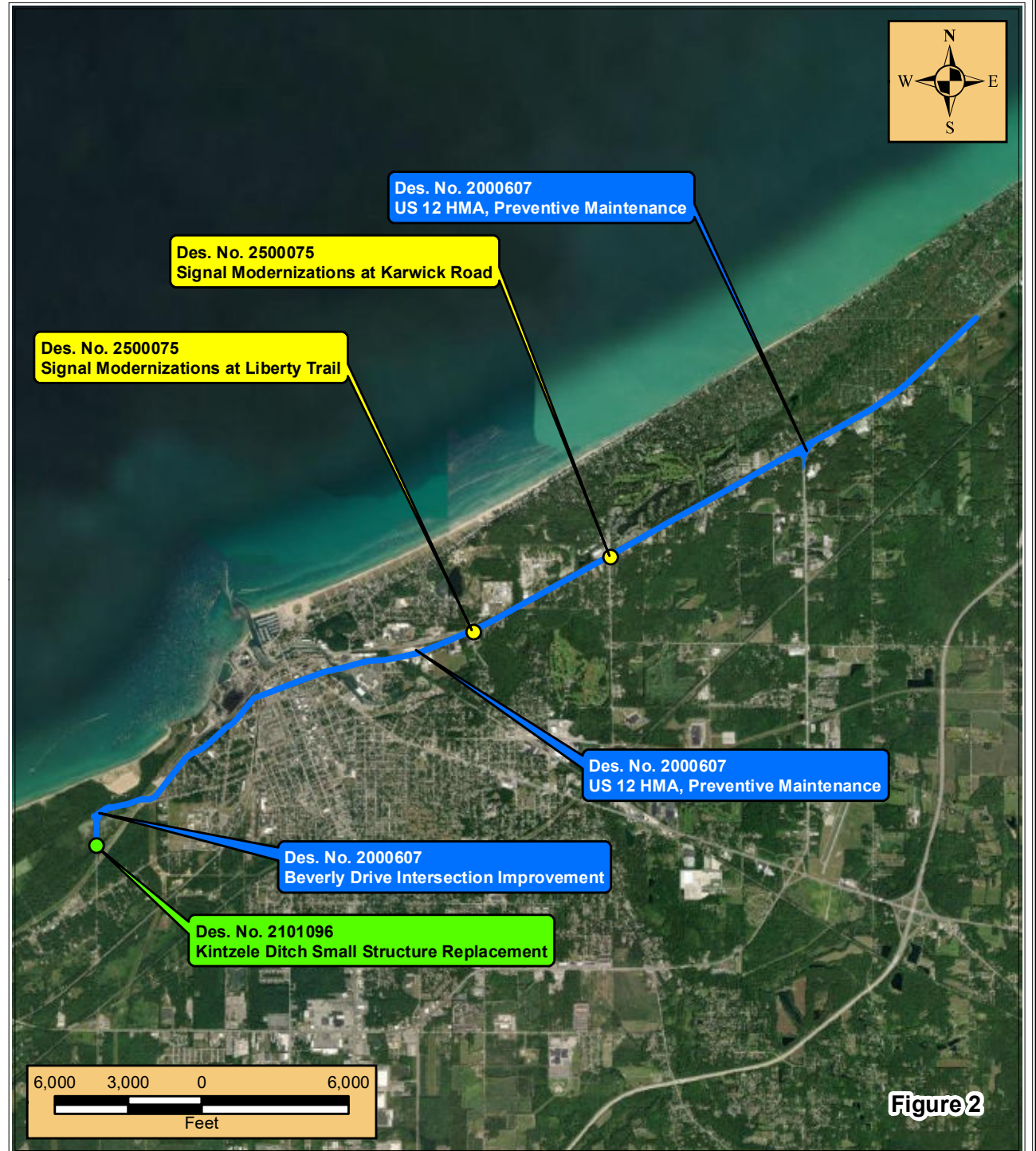
LFA
 LAWSON-FISHER ASSOCIATES P.C.
 525 W WASHINGTON AVENUE
 SOUTH BEND, INDIANA 46601
 PH. (574) 234-3167





HMA Overlay, Preventive Maintenance from
 Porter/LaPorte County Line to Michigan State Line,
 Small Structure Replacements on U.S. 12,
 and Kintzele Ditch, and Traffic Signal Modernization
 Des. No. 2000607 (Lead), Des. No. 2500075
 and Des. No. 2101096

LFA
 LAWSON-FISHER ASSOCIATES P.C.
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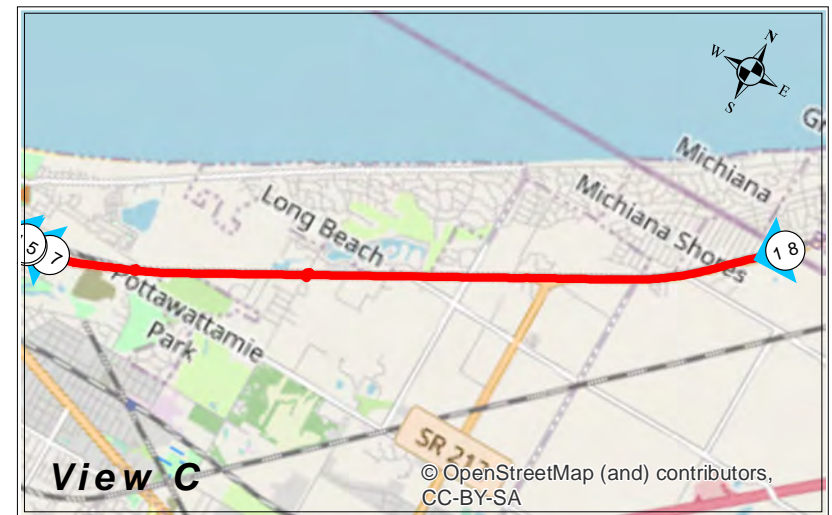
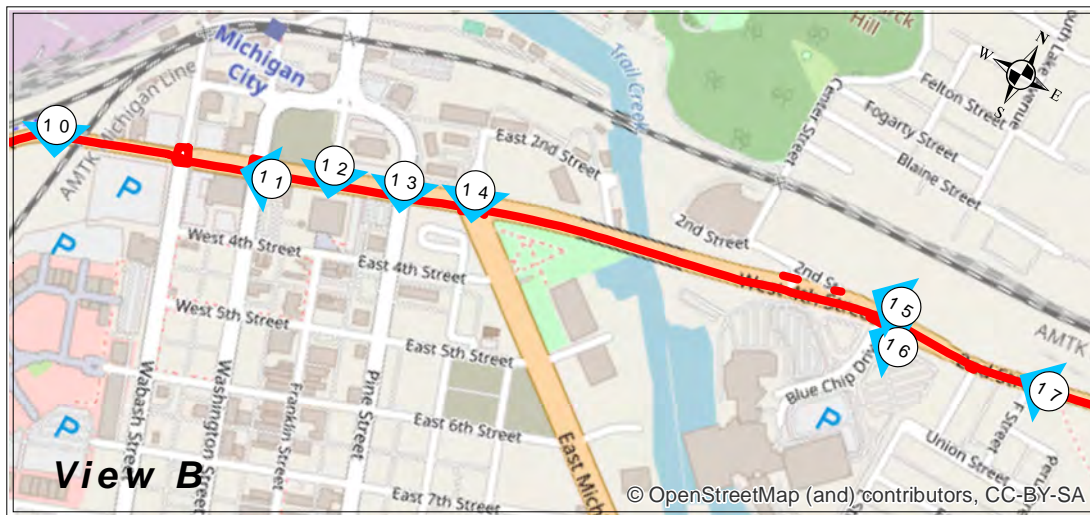
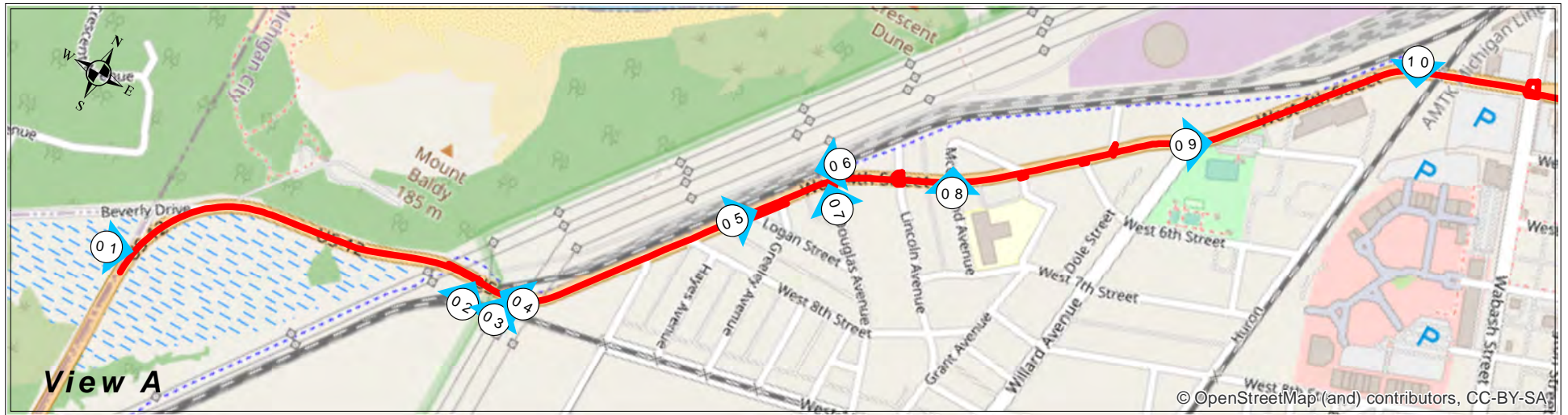




Figure 1

LFA
 LAWSON-FISHER ASSOCIATES P.C.
 525 W WASHINGTON AVENUE
 SOUTH BEND, INDIANA 46601
 PH. (574) 234-3167

Legend

 Photo Designation

 Project Limits

*HMA Overlay and Preventive Maintenance
 US 12 From Porter/LaPorte County Line
 to Michigan State Line
 Des. No. 2000607
 Photo Orientation Map*



**LAPORTE DISTRICT – INDIANA DEPARTMENT OF TRANSPORTATION
U.S. 12 PORTER/LAPORTE COUNTY LINE TO MICHIGAN STATE LINE
HMA PREVENTIVE MAINTENANCE PROJECT
INDOT DES. NO. 2000607
EARLY COORDINATION PHOTOGRAPHS**



Photograph 1: West End of Project Pavement Looking East



Photograph 2: West End Trail Crossing Looking Northeast



**LAPORTE DISTRICT – INDIANA DEPARTMENT OF TRANSPORTATION
U.S. 12 PORTER/LAPORTE COUNTY LINE TO MICHIGAN STATE LINE
HMA PREVENTIVE MAINTENANCE PROJECT
INDOT DES. NO. 2000607
EARLY COORDINATION PHOTOGRAPHS**



Photograph 3: West End Railroad Crossing Looking Northeast



Photograph 4: West End Railroad Crossing Trail Looking West



**LAPORTE DISTRICT – INDIANA DEPARTMENT OF TRANSPORTATION
U.S. 12 PORTER/LAPORTE COUNTY LINE TO MICHIGAN STATE LINE
HMA PREVENTIVE MAINTENANCE PROJECT
INDOT DES. NO. 2000607
EARLY COORDINATION PHOTOGRAPHS**



Photograph 5: Logan Street Curb Ramps Looking Northeast



Photograph 6: U.S. 12 and Douglas Intersection and Curb Ramps Looking Southwest



**LAPORTE DISTRICT – INDIANA DEPARTMENT OF TRANSPORTATION
U.S. 12 PORTER/LAPORTE COUNTY LINE TO MICHIGAN STATE LINE
HMA PREVENTIVE MAINTENANCE PROJECT
INDOT DES. NO. 2000607
EARLY COORDINATION PHOTOGRAPHS**



Photograph 7: Douglas Pavement Looking Northwest



Photograph 8: McClelland Avenue Intersection Sidewalks Looking Northwest



**LAPORTE DISTRICT – INDIANA DEPARTMENT OF TRANSPORTATION
U.S. 12 PORTER/LAPORTE COUNTY LINE TO MICHIGAN STATE LINE
HMA PREVENTIVE MAINTENANCE PROJECT
INDOT DES. NO. 2000607
EARLY COORDINATION PHOTOGRAPHS**



Photograph 9: Willard Avenue Intersection Pavement Looking Northeast



Photograph 10: Amtrak Railroad Crossing Pavement Looking Southeast



**LAPORTE DISTRICT – INDIANA DEPARTMENT OF TRANSPORTATION
U.S. 12 PORTER/LAPORTE COUNTY LINE TO MICHIGAN STATE LINE
HMA PREVENTIVE MAINTENANCE PROJECT
INDOT DES. NO. 2000607
EARLY COORDINATION PHOTOGRAPHS**



Photograph 11: Washington Street Intersection Looking Southwest



Photograph 12: Franklin Street Intersection and Curb Ramps Looking Southeast



**LAPORTE DISTRICT – INDIANA DEPARTMENT OF TRANSPORTATION
U.S. 12 PORTER/LAPORTE COUNTY LINE TO MICHIGAN STATE LINE
HMA PREVENTIVE MAINTENANCE PROJECT
INDOT DES. NO. 2000607
EARLY COORDINATION PHOTOGRAPHS**



Photograph 13: Looking South Across U.S. 12 at Pine Street



Photograph 14: Spring Street Intersection Pavement Looking Southeast



**LAPORTE DISTRICT – INDIANA DEPARTMENT OF TRANSPORTATION
U.S. 12 PORTER/LAPORTE COUNTY LINE TO MICHIGAN STATE LINE
HMA PREVENTIVE MAINTENANCE PROJECT
INDOT DES. NO. 2000607
EARLY COORDINATION PHOTOGRAPHS**



Photograph 15: East 2nd Street Looking West at Pavement and Curb Ramps



Photograph 16: Blue Chip Drive Pavement Looking West



**LAPORTE DISTRICT – INDIANA DEPARTMENT OF TRANSPORTATION
U.S. 12 PORTER/LAPORTE COUNTY LINE TO MICHIGAN STATE LINE
HMA PREVENTIVE MAINTENANCE PROJECT
INDOT DES. NO. 2000607
EARLY COORDINATION PHOTOGRAPHS**



Photograph 17: Looking West Across Cook Street Curb Ramps



Photograph 18: East End of Project Pavement Looking Southwest

*Lawson-Fisher Associates P.C.
Project File No. 202017.22
Page 9 of 9*

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DESIGNATION
2000607
CONTRACT
R-43027

CULVERT ASSETS		
DES. NO.	CULVERT ASSET ID	WORK TYPE
2000607	CLV 012-064-37.05	Replacement

KIN PROJECT INFORMATION	
DESIGNATION	PROJECT DESCRIPTION
2000607 (Lead)	HMA Overlay, Preventative Maintenance
2100844	Small Structure Replacement
2101096	Small Structure Replacement

INDIANA DEPARTMENT OF TRANSPORTATION



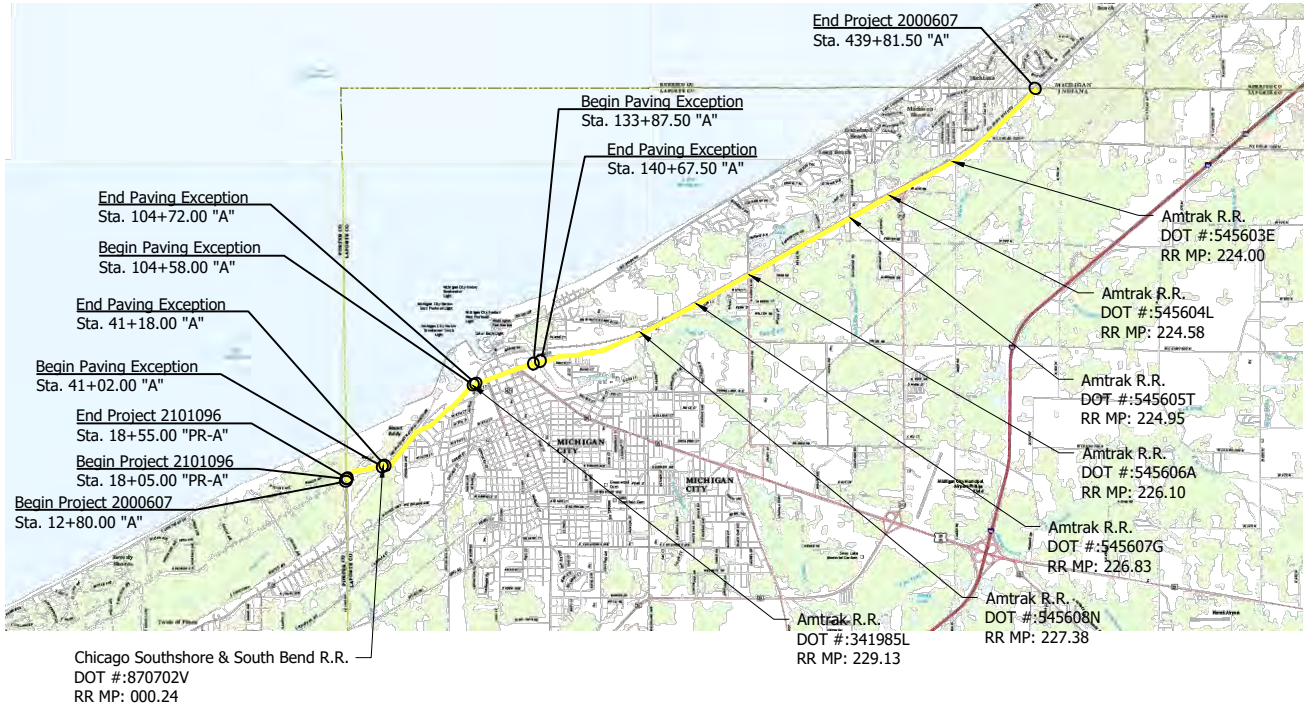
RP 37+18 ROAD PLANS

ROUTE: U.S. 12

FROM: 37+34 TO: 45+16

DESIGNATION NO. 2000607

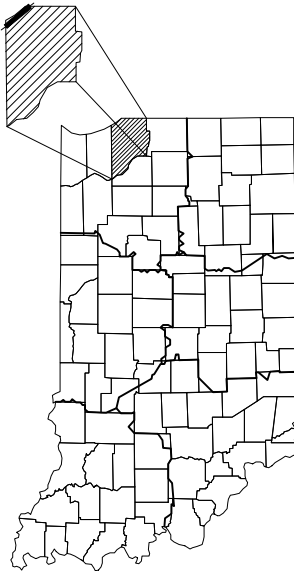
HMA Overlay, Preventive Maintenance From Porter/La Porte County Line to Michigan State Line and
Small Structure Replacement on U.S. 12, Over Kintzele Ditch, 1.93 Mi. W Jct. U.S. 421
in Sections 7 and 18, T-38-N, R-3-W, Springfield Township
and Sections 13-14, 21-23, 28-31, T-38-N, R-4-W, Michigan Township, La Porte County, Indiana



LOCATION MAP
LA PORTE COUNTY

TRAFFIC DATA		U.S. 12 - West Project Limit to Wabash Ave.	U.S. 12 - Wabash Ave. to Blue Chip Dr.	U.S. 12 - Blue Chip Dr. to Michigan State Line
A.A.D.T. (2024)		6,626 V.P.D.	10,741 V.P.D.	7,454 V.P.D.
A.A.D.T. (2044)		7,004 V.P.D.	11,355 V.P.D.	7,880 V.P.D.
D.H.V (2044)		679 V.P.H.	997 V.P.H.	761 V.P.H.
DIRECTIONAL DISTRIBUTION		49.69 %	51.87 %	51.34 %
TRUCKS		5.47 % A.A.D.T. 5.21 % D.H.V.	3.66 % A.A.D.T. 4.95 % D.H.V.	7.17 % A.A.D.T. 7.19 % D.H.V.

DESIGN DATA			
DESIGN SPEED	35-55 MPH	25-35 MPH	35-55 MPH
PROJECT DESIGN CRITERIA	PARTIAL 3R (NON-FREEWAY)	PARTIAL 3R (NON-FREEWAY)	PARTIAL 3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	PRINCIPAL ARTERIAL	PRINCIPAL ARTERIAL	PRINCIPAL ARTERIAL
RURAL/URBAN	URBAN (SUBURBAN)	URBAN (BUILT-UP)	URBAN (SUBURBAN)
TERRAIN	LEVEL	LEVEL	LEVEL
ACCESS CONTROL	NONE	NONE	NONE



PROJECT LOCATION SHOWN BY
LA PORTE COUNTY

LATITUDE: 41°43'50"N LONGITUDE: 86°51'48"W

GROSS LENGTH: 7.95 MI.
NET LENGTH: 7.82 MI.
MAX. GRADE: 0.32 %

HUC(S): 040400010601,
04040001070030,
04040001080040,
04040001090020

FINAL FIELD CHECK
JUNE 10, 2025

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2026
TO BE USED WITH THESE PLANS



NOT FOR
CONSTRUCTION

PLANS PREPARED BY:	LAWSON-FISHER ASSOCIATES P.C.	574-234-3167 PHONE NUMBER
CERTIFIED BY:		DATE
RECOMMENDED FOR LETTING:	INDIANA DEPARTMENT OF TRANSPORTATION	DATE

DESIGNATION		
2000607		
SHEETS		
1	of	122
CONTRACT		
R-43027		

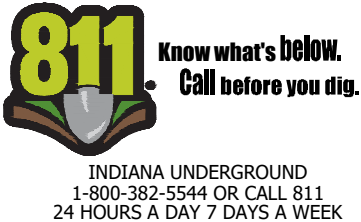
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UTILITIES		
UTILITY	OWNER	ADDRESS
CABLE TV-	Comcast North	720 Taylor St.
	Contact: Larry Smith	Fort Wayne, IN 46802
	Phone: (260) 410-3504	
	Email: larry_smith3@comcast.com	
COMMUNICATIONS -	ACME Communications	618 Franklin St.
	Contact: William Richey	Michigan City, IN 46360
	Phone: (219) 879-6600	
	Email: bwrichey@mse.adsnet.com	
	AT&T- Distribution	302 S East St.
	Contact: Dennis Protega	Crown Point, IN 46307
	Phone: (219) 662-4689	
	Email: dp7986@att.com	
ELECTRIC -	Nipsco Electric (La Porte)	801 E 86th Ave.
	Contact: Dean Garrett	Merrillville, IN 46410
	Phone: (219) 647-5134	
	Email: dagarrett@nisource.com	
FIBER OPTIC -	Intelligent Fiber Network (ZAYO)	5520 W 76th St.
	Contact: Glen Hudson	Indianapolis, IN 46268
	Phone: (765) 341-1199	
	Email: glen.m.hudson@gmail.com	
	Michigan City Information Technology	1100 E 8th St.
	Contact: Anthony Bazil	Michigan City, IN 46360
	Phone: (219) 874-7799	
	Email: abazil@mcsan.org	
GAS -	Nipsco Gas (La Porte)	801 E 86th Ave.
	Contact: Dean Garrett	Merrillville, IN 46410
	Phone: (219) 647-5134	
	Email: dagarrett@nisource.com	
INDOT HIGHWAY MAINTENANCE -	INDOT La Porte District	315 Boyd Blvd.
	Contact: Steve Giese	La Porte, IN 46350
	Phone: (219) 910-0009	
	Email: sgiese@indot.in.gov	
WATER	Michigan City Water	532 Franklin St.
	Contact: Christopher Johnsen	P.O. Box 888
	Phone: (219)874-6683	Michigan City, IN 46360
	Email: cjohnsen@mcwaterdept.com	
SEWER -	Michigan City Sanitary District	1100 E 8th St.
	Contact: Anthony Bazil	Michigan City, IN 46360
	Phone: (219) 874-7799	
	Email: abazil@mcsan.org	
STREET LIGHTS -	Michigan City Street Lights	1100 E 8th St.
	Contact: Anthony Bazil	Michigan City, IN 46360
	Phone: (219) 874-7799	
	Email: abazil@mcsan.org	
TRAFFIC SIGNAL TECH SUPERVISOR -	INDOT La Porte District	315 Boyd Blvd.
	Contact: Michah Glossinger	La Porte, IN 46350
	Phone: (219) 325-7483	
	Email: mglossinger@indot.in.gov	

GENERAL NOTES
All earth shoulders, median area, cut and fill slopes shall be plain or mulched seeded except where sodding is specified.
The final cross sections of the grading contract will be the original cross sections of the paving contract. However, partial or complete cross sections shall be taken if necessary to determine the actual excavation quantities.
It is the Contractor's responsibility to contact any and all utility companies within the limits of this project 3 weeks prior to any construction.
This set of plans shall not be construed to be a property retracement survey. Where apparent property lines, corners, subdivision or section corner information is shown, it is based on physical evidence or testimony.

INDEX	
SHEET NO.	DRAWINGS INDEX
1	Title Sheet
2	Index and General Notes
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10 - 14	Plat No. 1
15 - 35	Maintenance of Traffic
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59	Structure Layout
60	General Plan
61	Intersection Detail
62	Construction Details and Milling Table
63	Construction Details - Approach Details
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81 - 95	Pavement Marking and Signing Plans
96 - 97	Traffic Signal Plans
98	Pump Around Plan
99	Patching Table and Details
100	Design Summary Table
101 - 122	Cross Sections

REVISIONS		
SHEET NO.	DATE	REVISED



RAILROAD -	Amtrak Contact: Brandon Scalea Phone: (201) 551-9148 Email: Brandon.Scalea@amtrak.com	383 West 31st Street New York, NY 10001
	CSS - SB RR Contact: Mike Shore Phone: (219) 214-4299 Email: mshore@anacostia.com	505 N Carrol Ave Michigan City, IN 46360
	CSS - SB RR Road Master Contact: Kevin Weller Phone: (219) 727-2806 Email: kweller@anacostia.com	505 N Carrol Ave Michigan City, IN 46360

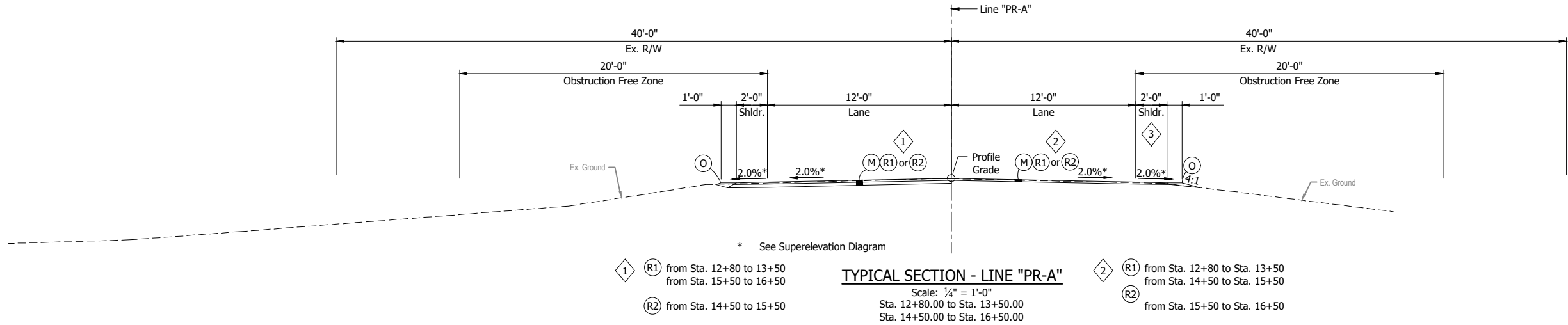
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CHECKED: DGD	CHECKED: DJT

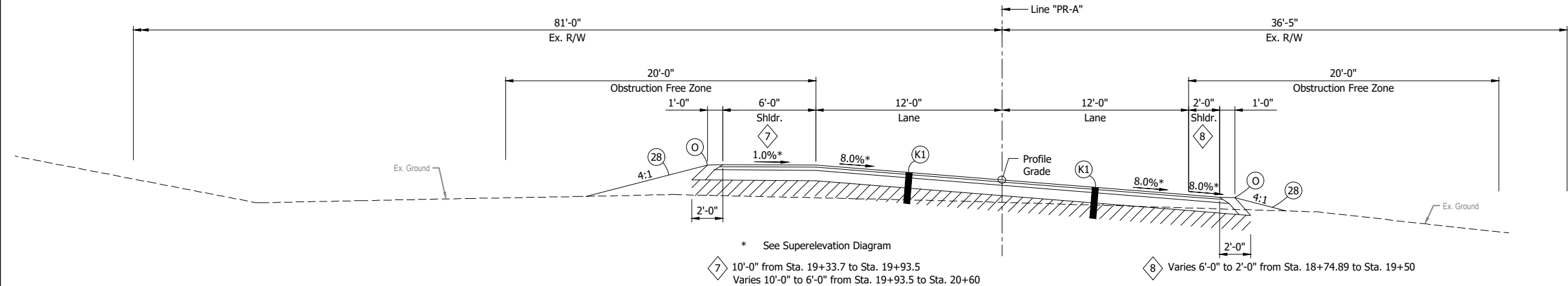
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INDEX AND GENERAL NOTES	

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2	of 122
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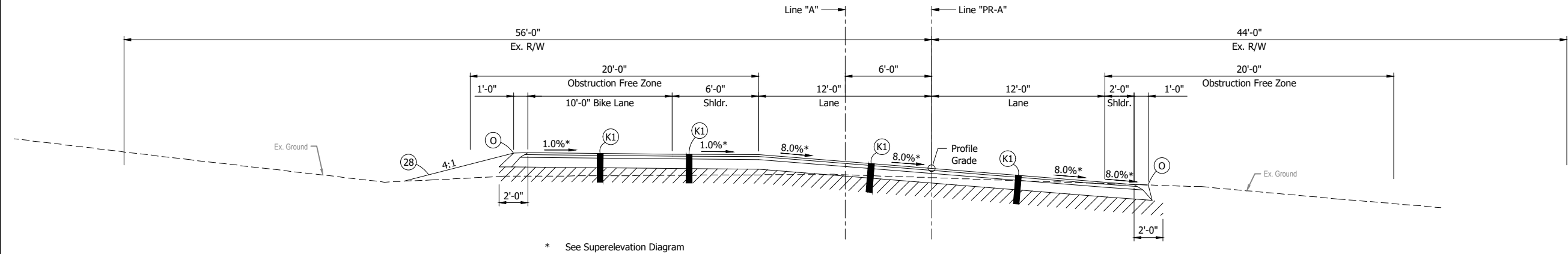
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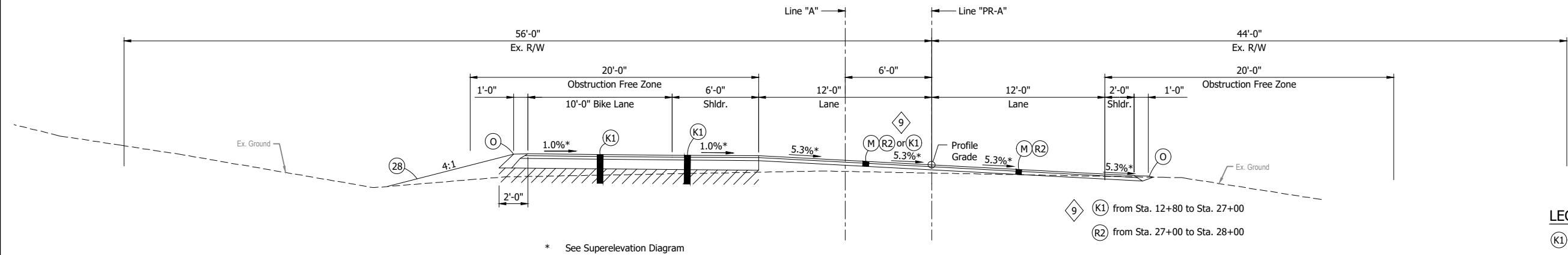
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TYPICAL SECTION - LINE "PR-A"
Scale: 1/4" = 1'-0"
Sta. 18+74.89 to Sta. 23+85.00



TYPICAL SECTION - LINE "PR-A"
Scale: 1/4" = 1'-0"
Sta. 23+85.00 to Sta. 26+00.00



TYPICAL SECTION - LINE "PR-A"
Scale: 1/4" = 1'-0"
Sta. 26+00.00 to Sta. 28+00.00

LEGEND:

- (K1) 165 #/sys QC/QA-HMA, 3, 58H, Surface, 9.5 mm on
275 #/sys QC/QA-HMA, 3, 58H, Intermediate, 19.0 mm on
660 #/sys QC/QA-HMA, 3, 58S, Base, 19.0 mm on
4" of Compacted Aggregate, No. 53 on
Subgrade Treatment, Type IC
- (M) Profile Milling (0" Min. to 4" Max.)
- (O) Compacted Aggregate, No. 53
- (R1) 165 #/sys QC/QA-HMA, 3, 58H, Surface, 9.5 mm
- (R2) 165 #/sys QC/QA-HMA, 3, 58H, Surface, 9.5 mm on
275 #/sys QC/QA-HMA, 3, 58H, Intermediate, 19.0 mm
- (28) Mulched Seeding, Type U

NOT FOR
CONSTRUCTION

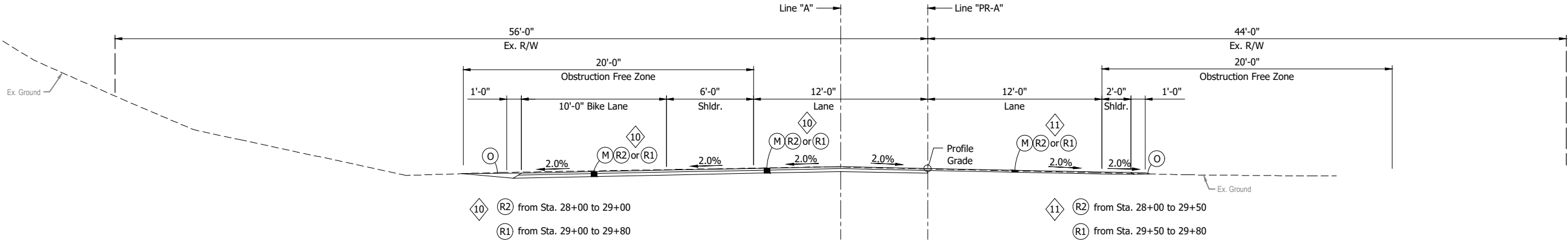
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INDIANA
DEPARTMENT OF TRANSPORTATION

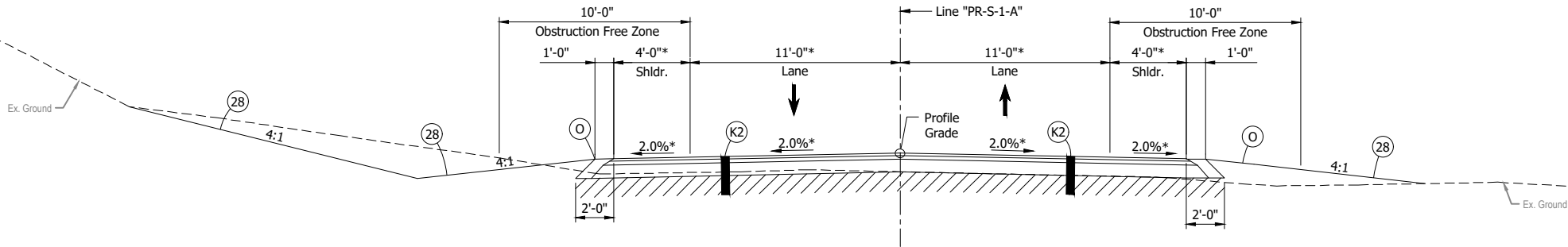
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LINE "PR-A"

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		CONTRACT R-43027	

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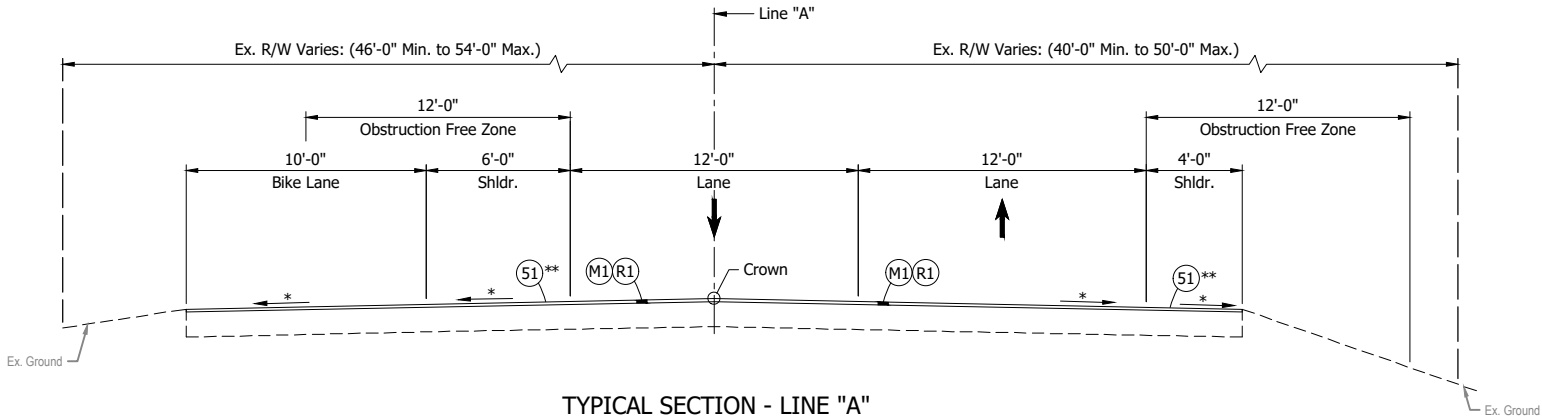


TYPICAL SECTION - LINE "PR-A"
Scale: 1/4" = 1'-0"
Sta. 28+00.00 to Sta. 29+80.00



* Lane Widths, Shoulder Widths, and Cross Slopes Vary As Beverly Rd. Approaches US 12. See Intersection Detail Sheet.

TYPICAL SECTION - LINE "PR-S-1-A"
Scale: 1/4" = 1'-0"
Sta. 48+50.00 to Sta. 50+88.98



TYPICAL SECTION - LINE "A"
Scale: 1/4" = 1'-0"
Sta. 29+80.00 to Sta. 38+00.00

- LEGEND:**
- (K2) 165 #/sys QC/QA-HMA, 3, 58H, Surface, 9.5 mm on 275 #/sys QC/QA-HMA, 3, 58H, Intermediate, 19.0 mm on 660 #/sys QC/QA-HMA, 3, 58S, Base, 19.0 mm on 4" Compacted Aggregate, No. 53 on Subgrade Treatment, Type IC
 - (M) Profile Milling (0" Min. to 4" Max.)
 - (M1) Milling, Asphalt, 1.5"
 - (O) Compacted Aggregate, No. 53
 - (R1) 165 #/sys QC/QA-HMA, 3, 58H, Surface, 9.5 mm
 - (R2) 165 #/sys QC/QA-HMA, 3, 58H, Surface, 9.5 mm on 275 #/sys QC/QA-HMA, 3, 58H, Intermediate, 19.0 mm
 - (28) Mulched Seeding, Type U
 - (51) Milled HMA Corrugations, Conventional (Shoulder)

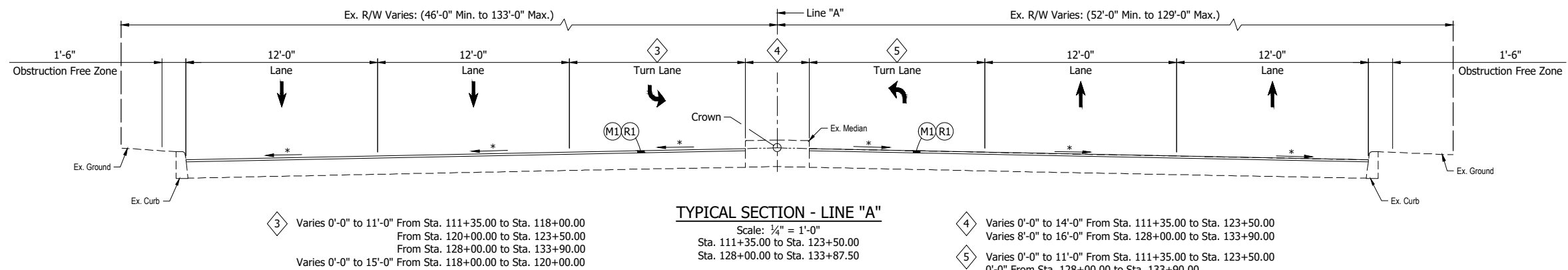
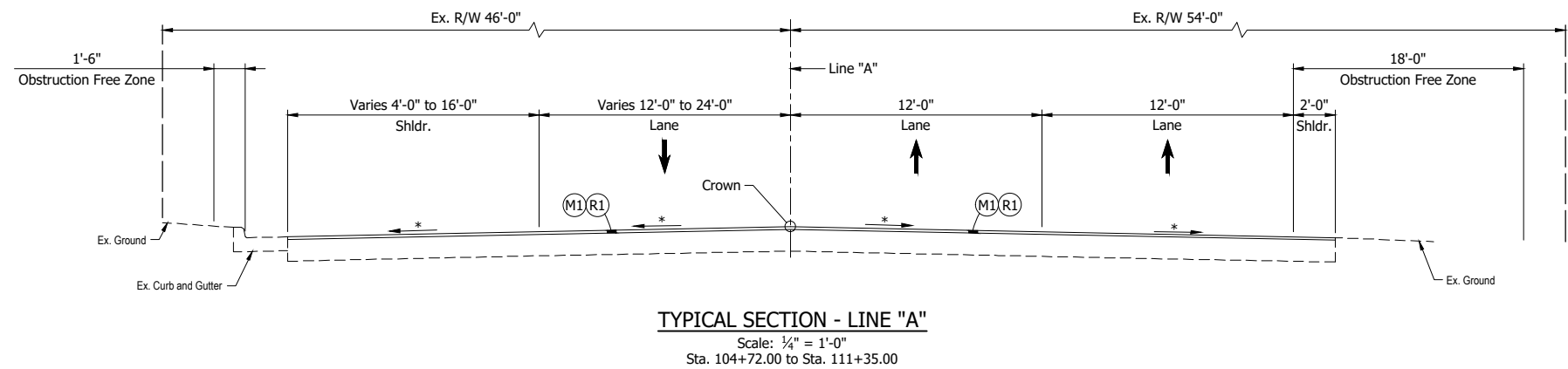
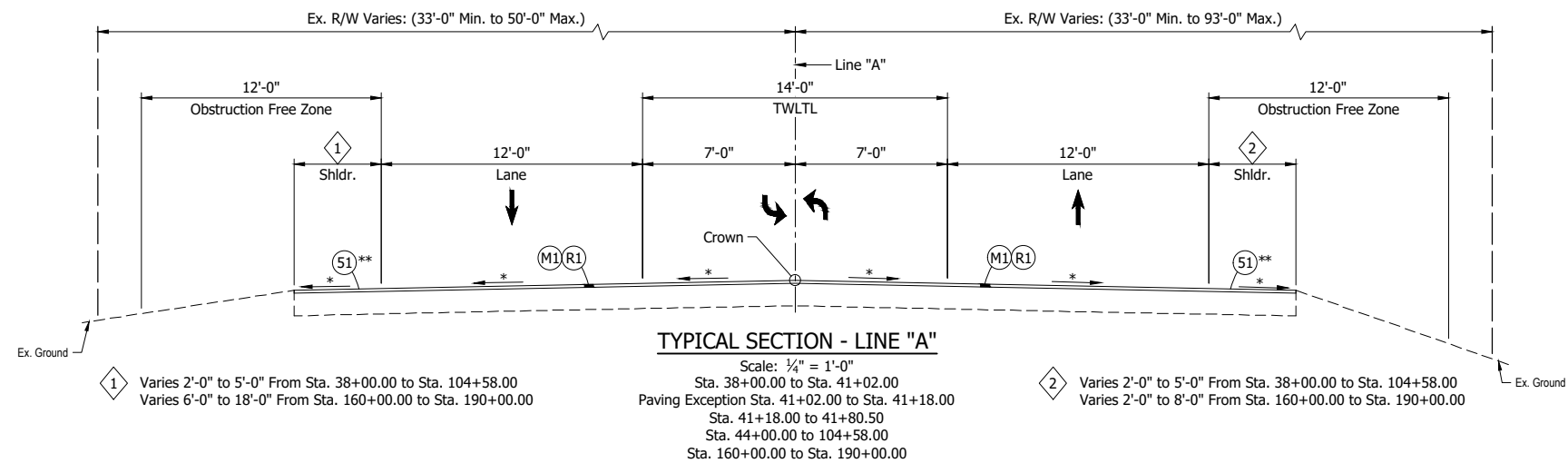
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DESIGNED: DJT	DRAWN: PJV
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
TYPICAL SECTIONS LINES "PR-A", "PR-S-1-A", & "A"	

SCALE 1/4" = 1'-0"	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 5 of 122
	CONTRACT R-43027

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Note:
Compacted aggregate no. 53 should extend no deeper than the existing pavement. The 10.5 inch depth is an average based on pavement cores.

* Match ex. cross slopes (2% min.) unless otherwise noted

LEGEND:

- (M1) Milling, Asphalt, 1.5"
- (R1) 165 #/sys QC/QA-HMA, 3, 70, Surface, 9.5 mm
- (S1) Milled HMA Corrugations, Conventional (Shoulder)

NOT FOR
CONSTRUCTION

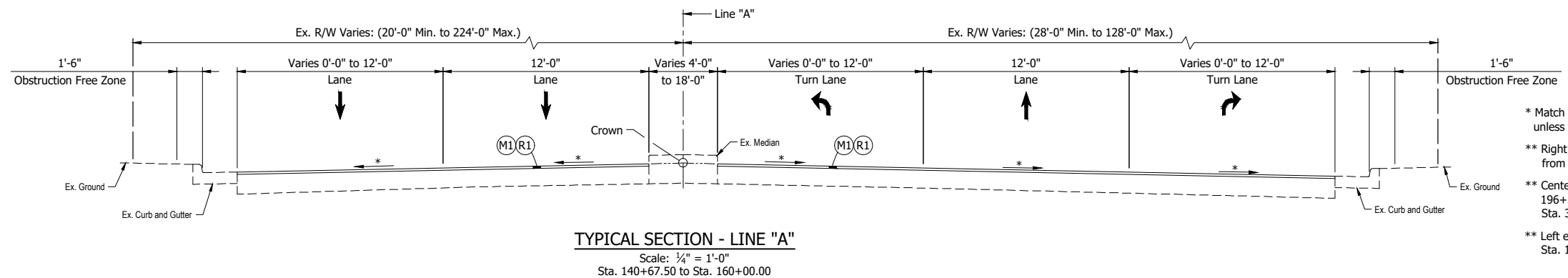
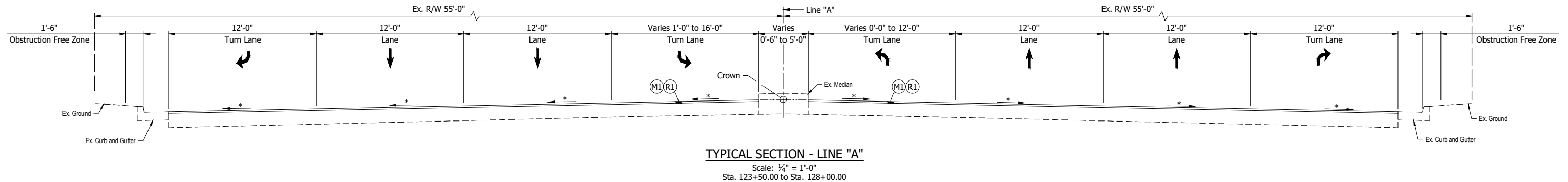
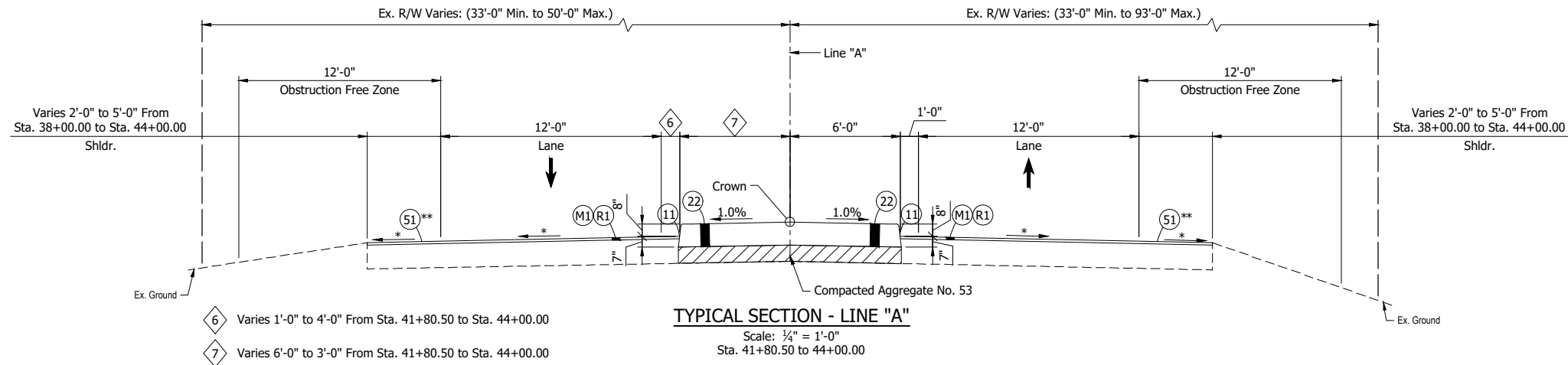
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DESIGNED: DJT	DRAWN: GDH	
CHECKED: DGD	CHECKED: DJT	

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE	BRIDGE FILE
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	DESIGNATION
	2000607
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- * Match ex. cross slopes (2% min.) unless otherwise noted
- ** Right edge line corrugations extend from Sta. 360+59.00 to Sta. 439+81.50
- ** Centerline corrugations extend from Sta. 196+35.00 to Sta. 341+25.25 and from Sta. 360+59.00 to Sta. 439+81.50
- ** Left edge line corrugations extend from Sta. 196+35.00 to Sta. 439+81.50

LEGEND:	
(M1)	Milling, Asphalt, 1.5"
(R1)	165 #/sys QC/QA-HMA, 3, 70, Surface, 9.5 mm
(11)	Saw Cut
(22)	Concrete Center Curb, Type C, on 10.5" Compacted Aggregate No. 53
(51)	Milled HMA Corrugations, Conventional (Shoulder)

NOT FOR
CONSTRUCTION

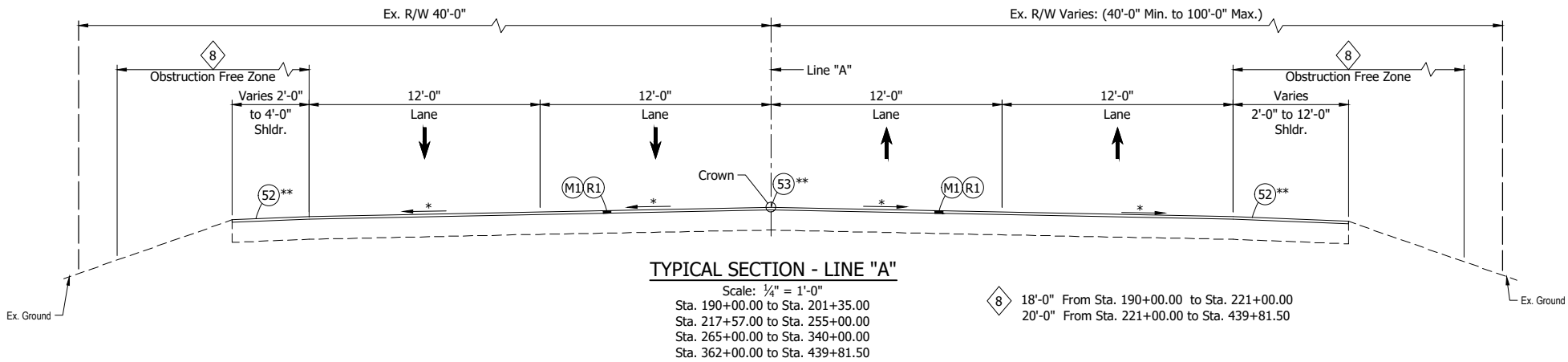
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INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

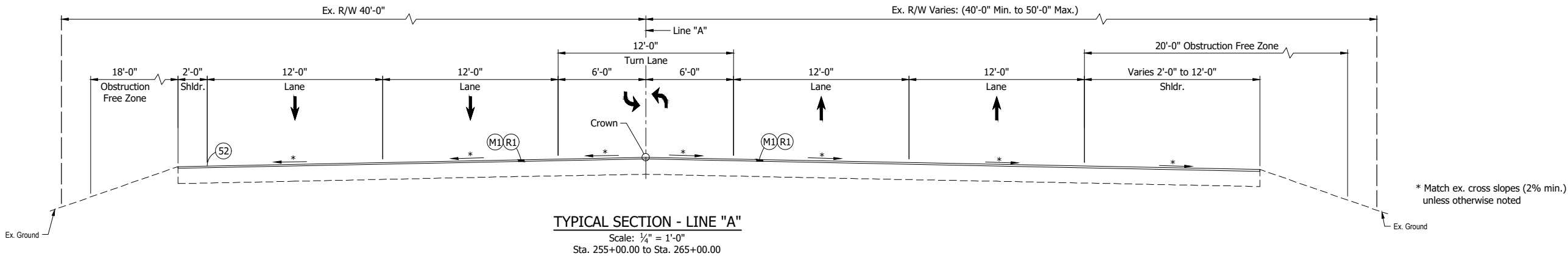
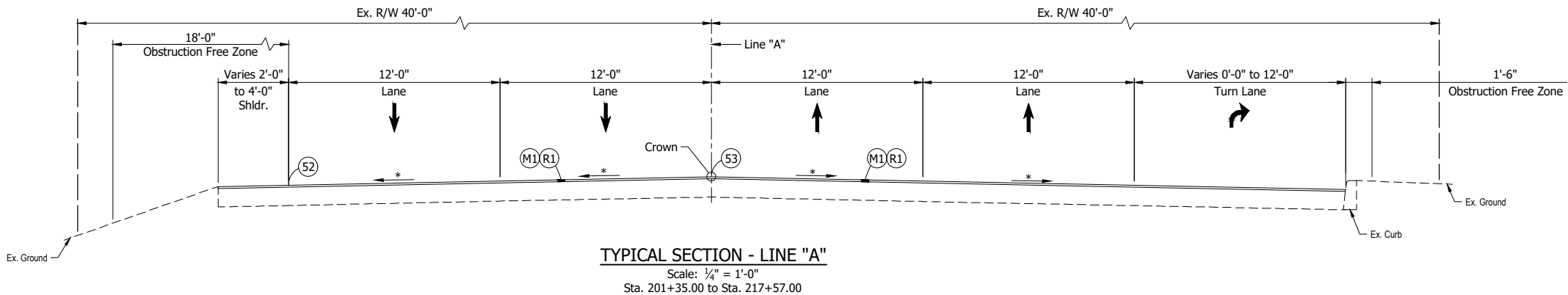
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7		of 122	
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NOTES:

- See Pavement Marking sheets 89-92 for lane marking configuration from Sta. 190+00.00 to Sta. 204+00.00 and Sta. 303+70.00 to Sta. 333+80.00.
- See Pavement Marking sheet 93 for lane configurations and markings for the US 12 and SR 212 Interchange. Sta. 340+00.00 to Sta. 362+00.00.



NOTE:

This section of U.S. 12 also called "Frazie Rd." located in the S.W. quadrant of the U.S. 12 and S.R. 212 Interchange.

LEGEND:

- (M1) Milling, Asphalt, 1.5"
- (R1) 165 #/sys QC/QA-HMA, 3, 70, Surface, 9.5 mm
- (S2) Milled HMA Corrugations, Sinusoidal (Edgeline)
- (S3) Milled HMA Corrugations, Sinusoidal (Centerline)

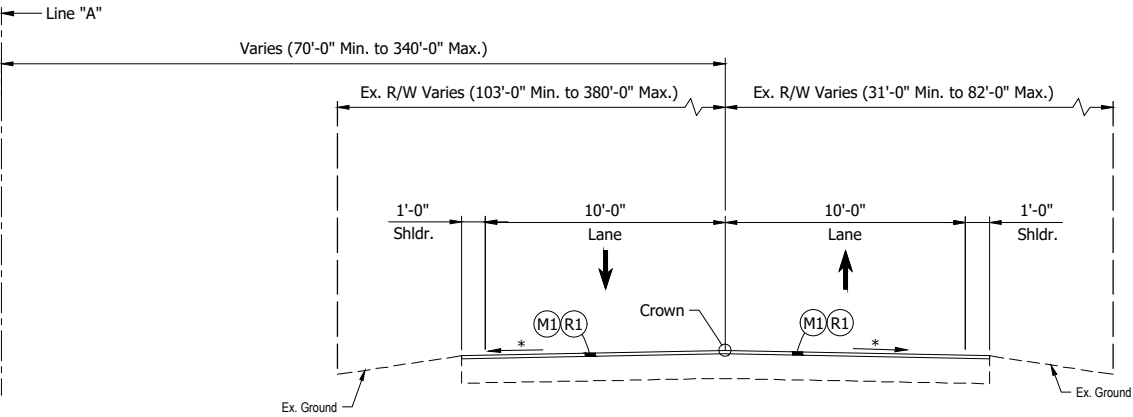
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RECOMMENDED FOR APPROVAL _____	
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INDIANA DEPARTMENT OF TRANSPORTATION	
TYPICAL SECTIONS	

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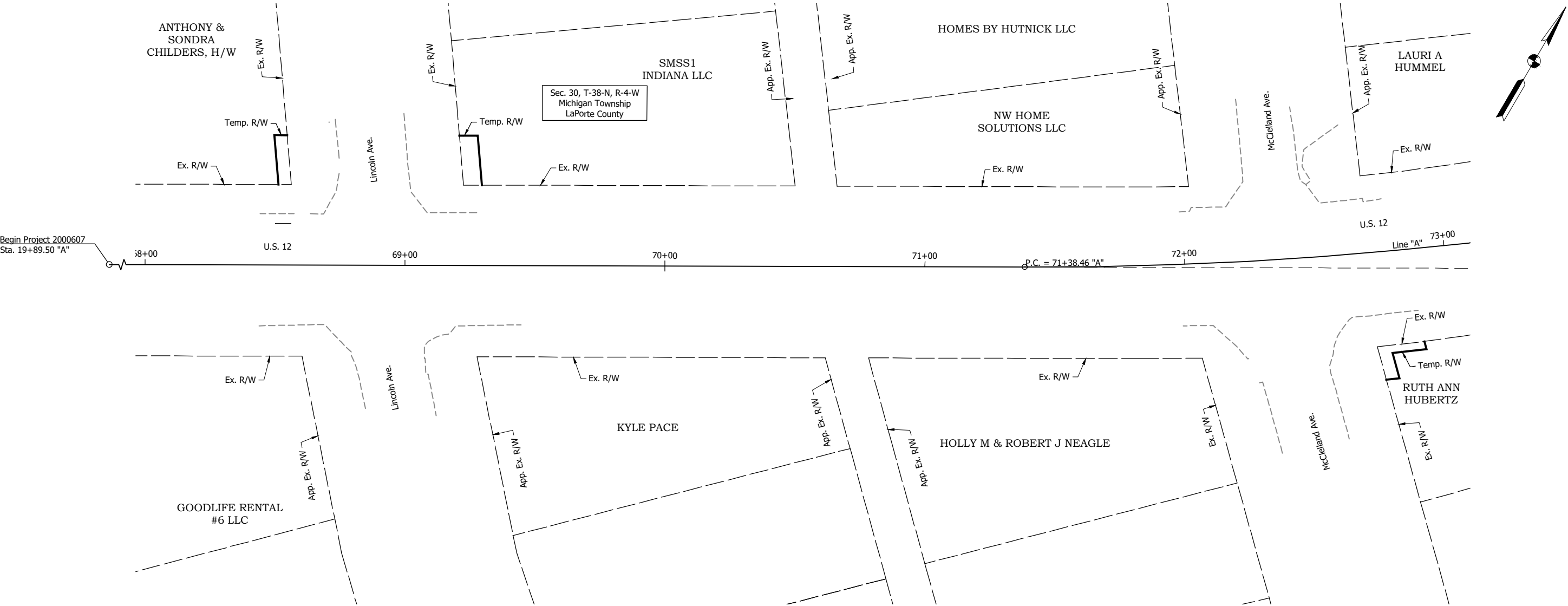
TYPICAL SECTION - LINE "A" U.S. 12 "FRAZIE ROAD"
Scale: 1/4" = 1'-0"
Sta. 340+28.00 to Sta. 348+78.00

NOTE:
This section of U.S. 12 also called "Frazie Rd." located in the S.W. quadrant of the U.S. 12 and S.R. 212 Interchange.

- LEGEND:**
- (M1) Milling, Asphalt, 1.5"
 - (R1) 165 #/sys QC/QA-HMA, 3, 70, Surface, 9.5 mm

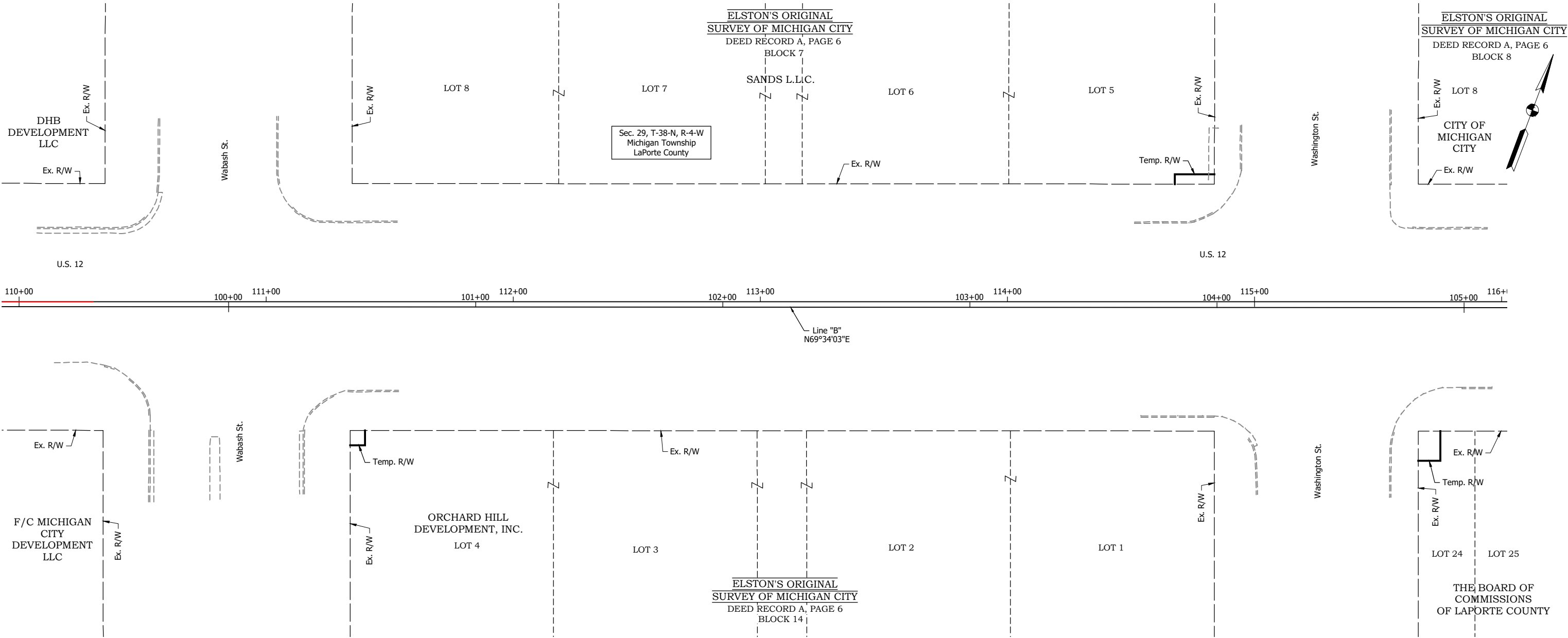
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	DESIGNED: <u>DJT</u>	DRAWN: <u>GDH</u>	TYPICAL SECTIONS				SHEETS	
	CHECKED: <u>DGD</u>	CHECKED: <u>DJT</u>					9	of 122
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REVISED PLAT OF BLOCK 13 OF
ELSTON'S SURVEY OF MICHIGAN CITY
Plat Book 1, Page 259

NOT FOR
CONSTRUCTION

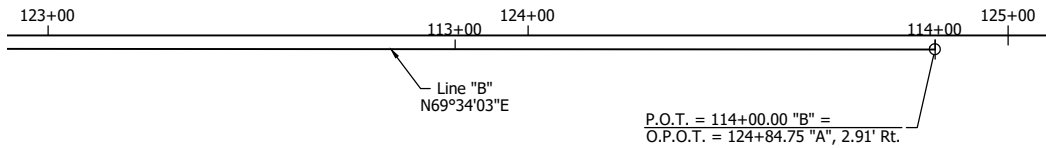
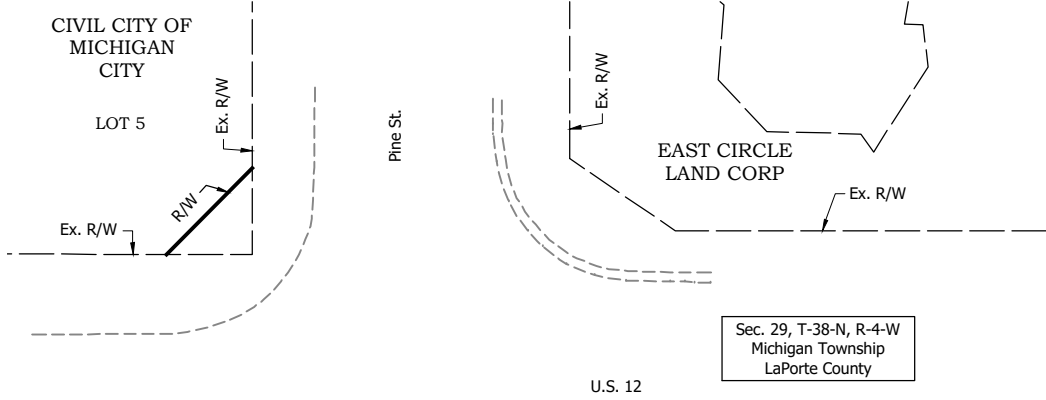
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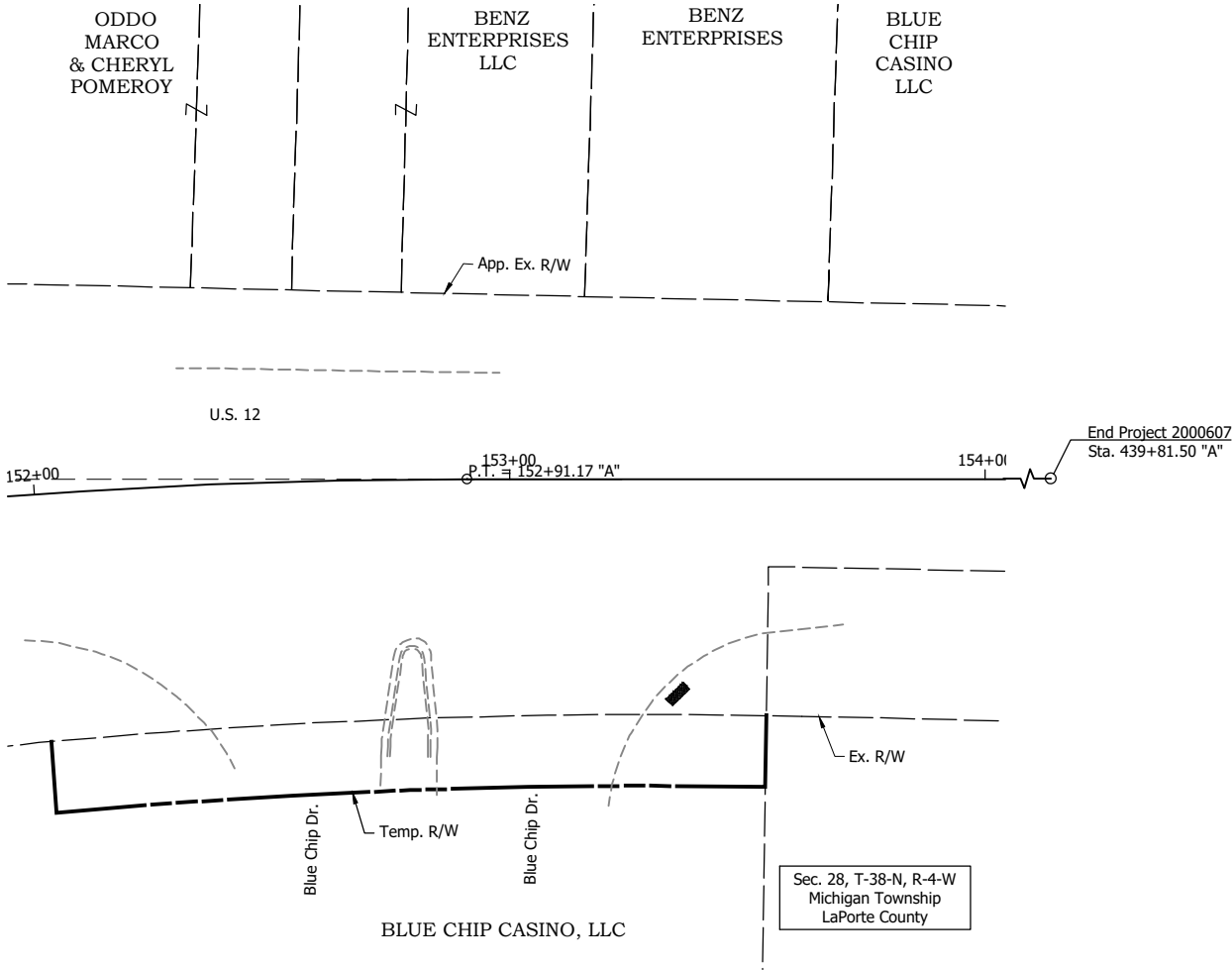
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ELSTON'S ORIGINAL
SURVEY OF MICHIGAN CITY
DEED RECORD A, PAGE 6
BLOCK 9



ELSTON'S ORIGINAL
SURVEY OF MICHIGAN CITY
DEED RECORD A, PAGE 6
BLOCK 12



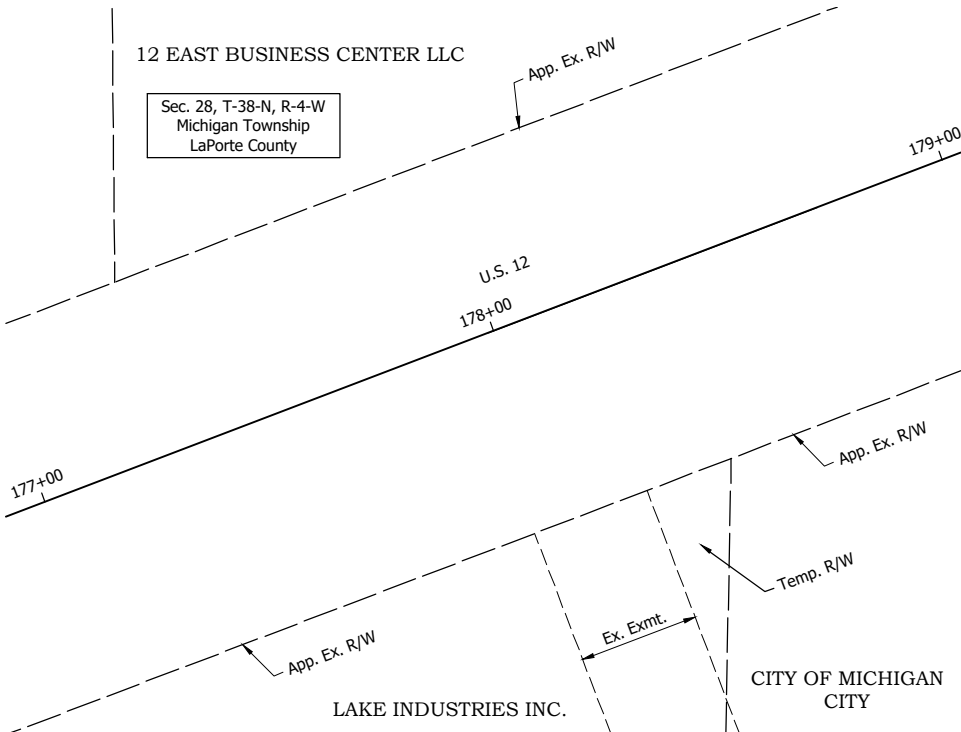
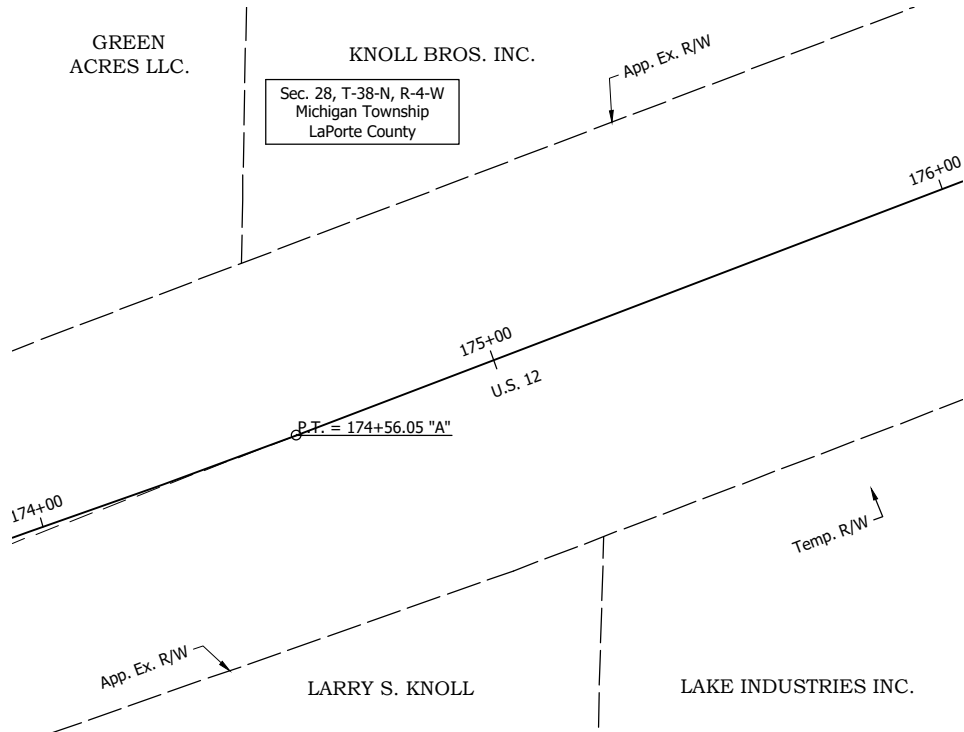
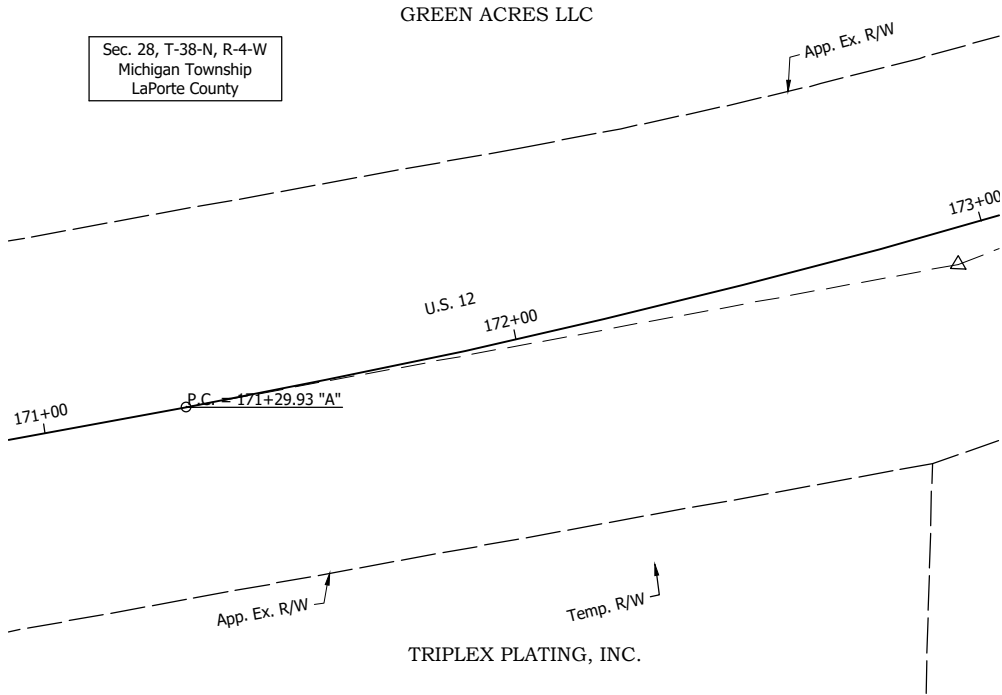
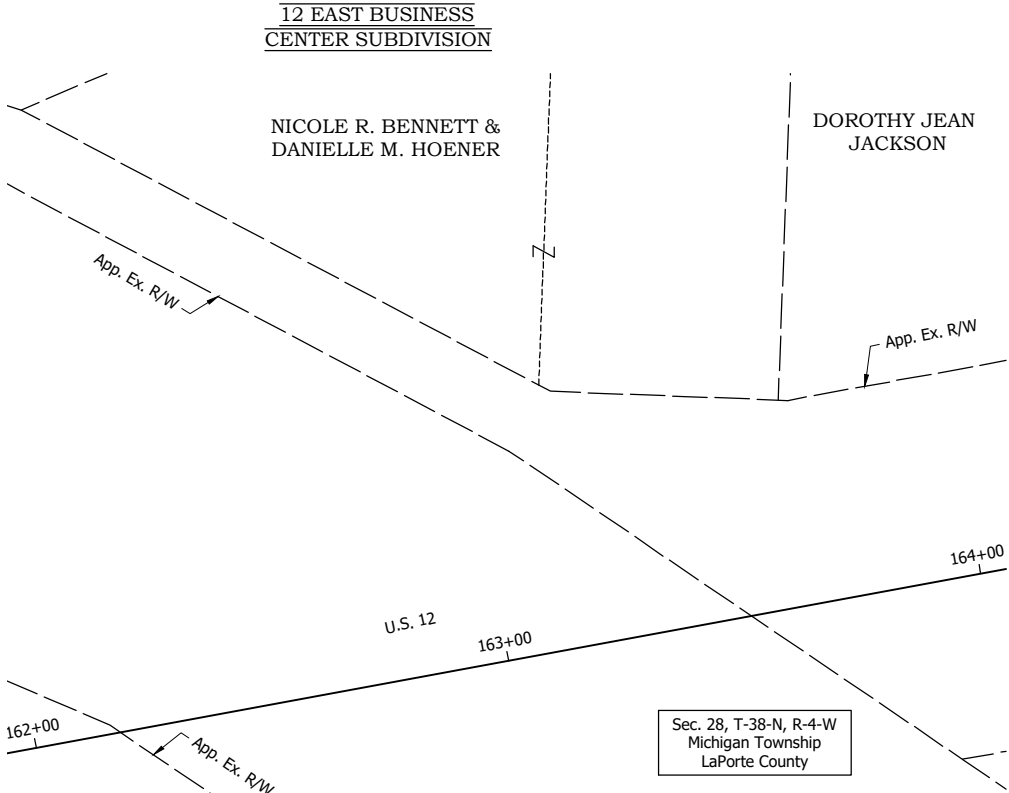
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PLAT NO. 1	

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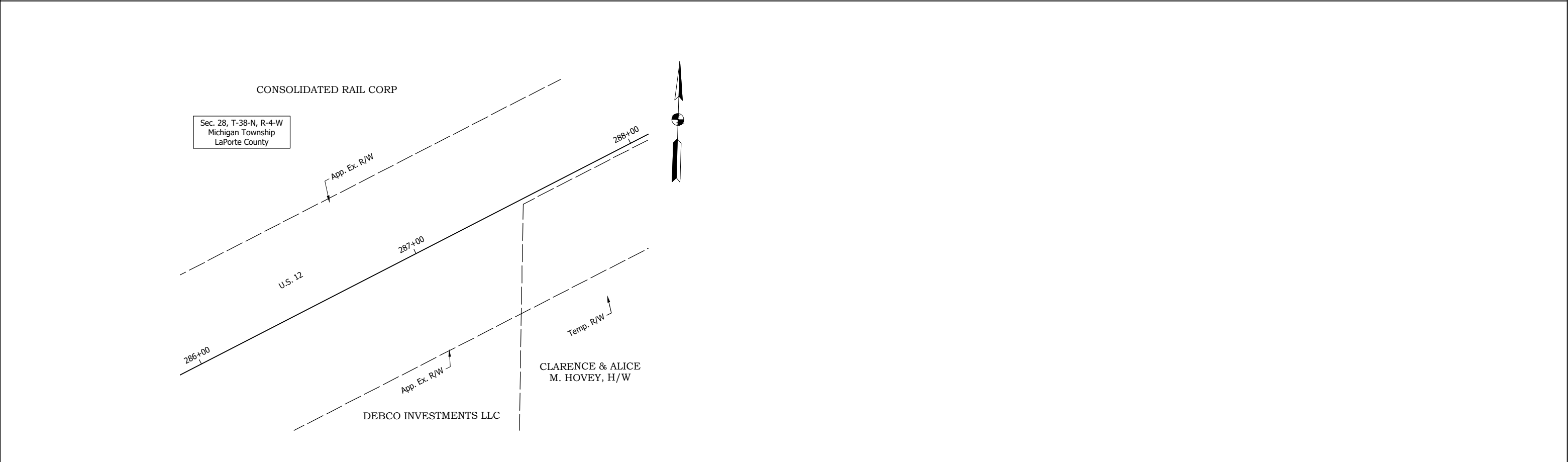
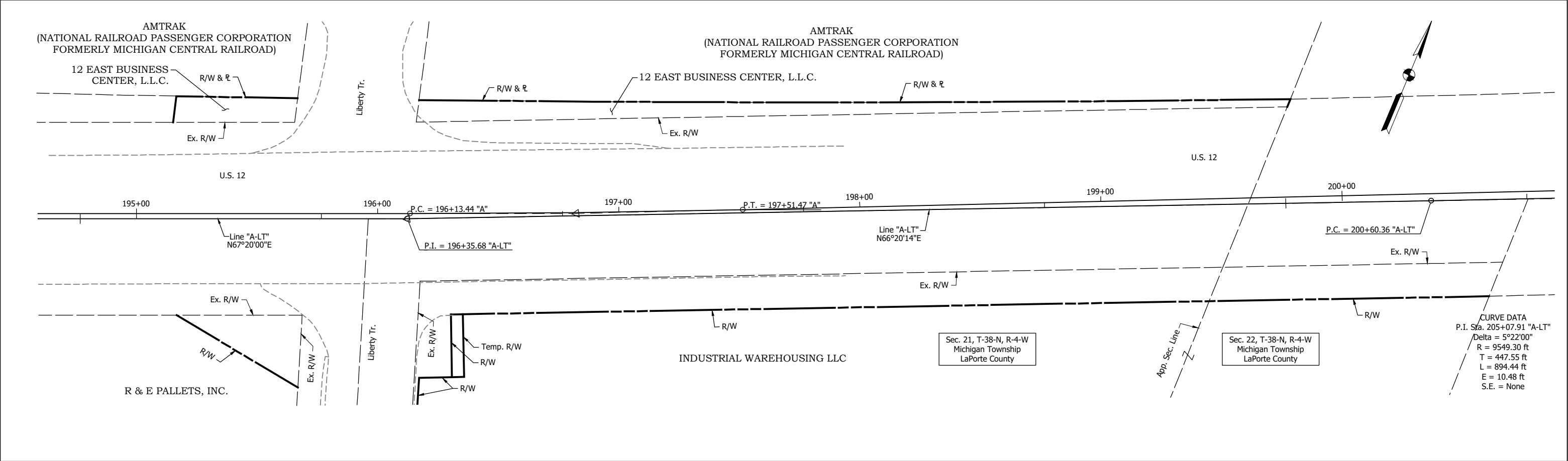
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INDIANA
DEPARTMENT OF TRANSPORTATION

PLAT NO. 1

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		CONTRACT	
		R-43027	

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NOT FOR CONSTRUCTION	RECOMMENDED FOR APPROVAL _____		INDIANA DEPARTMENT OF TRANSPORTATION		SCALE 1" = 20'	BRIDGE FILE
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						CONTRACT R-43027

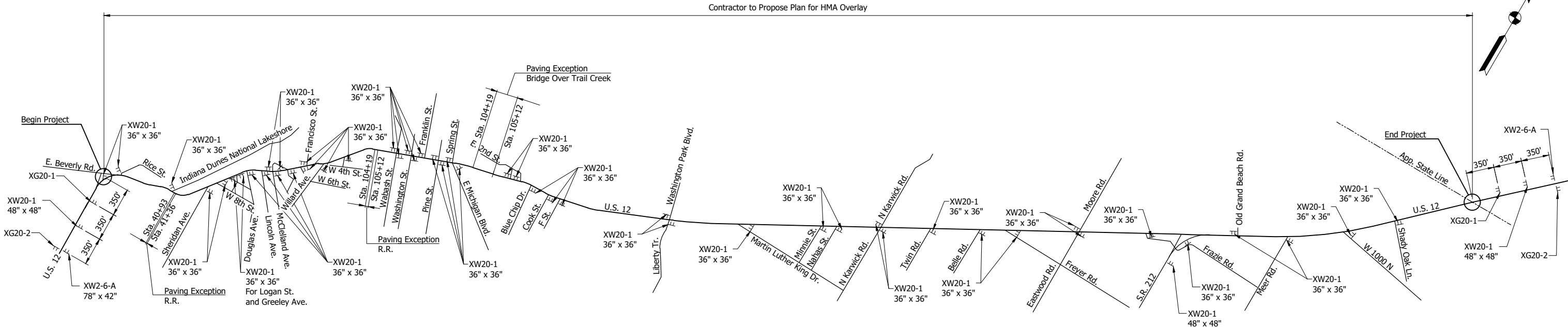
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ESTIMATE OF QUANTITIES - U.S. 12 ADVANCED SIGNING		
Item	Quantity	Unit
Maintaining Traffic	-	Lump Sum
Construction Sign Type A (+2 Undistributed)	-	Each
Construction Sign Type C (+2 Undistributed)	-	Each
Temporary Pavement Marking, 4"	-*	LFT

* Also Shown on Pavement Marking Summary Table

GENERAL NOTES:

- U.S. 12, intersecting roads, and private approaches shall remain open at all times. Traffic will be maintained with flagging and alternating thru traffic.
- Construction zone speed limit: 10 mph below existing posted speed.
- Contractor to provide speed limit reduction signing as needed within project limits and in advance of construction zone.
- Contractor to propose and provide M.O.T. plans for project limits and area indicated. M.O.T. plans must be submitted to and approved by the Project Engineer.
- Construction signs shown near side streets shall be placed on side streets, not mainline.
- Per INDOT revisions to Standard Specifications section 801.12, Temporary Pavement Marking for lane lines and centerlines shall be placed within 10 workdays of opening a segment of re-surfaced roadway to traffic.
- Pavement Order of operations:
Phase I: Full depth patching, partial depth patching (as necessary).
Phase II: Mainline milling and preventative maintenance overlay.



U.S. 12
PROJECT LIMITS CONSTRUCTION SIGNING
Not to Scale

XW20-1
36" x 36"
48" x 48"

XG20-1
60" x 36"

Speeding
Max \$1000
Reckless Driving
Max 6 Yrs

END
CONSTRUCTION

XW20-1
36" x 36"
48" x 48"

XG20-1
60" x 36"

Speeding
Max \$1000
Reckless Driving
Max 6 Yrs

END
CONSTRUCTION

LEGEND:

- | | |
|------------------------------------|--------------------------------------|
| XG20-1
(60" x 36") | Road Construction Next _ Miles - 'A' |
| XG20-2
(60" x 24") | End Construction - 'A' |
| XW2-6-A
(78" x 42") | Speeding Max. \$1000 - 'C' |
| XW20-1
(36" x 36" or 48" x 48") | Reckless Driving Max. 6 Years |
| XW20-1
(36" x 36" or 48" x 48") | Road Construction Ahead - 'A' |

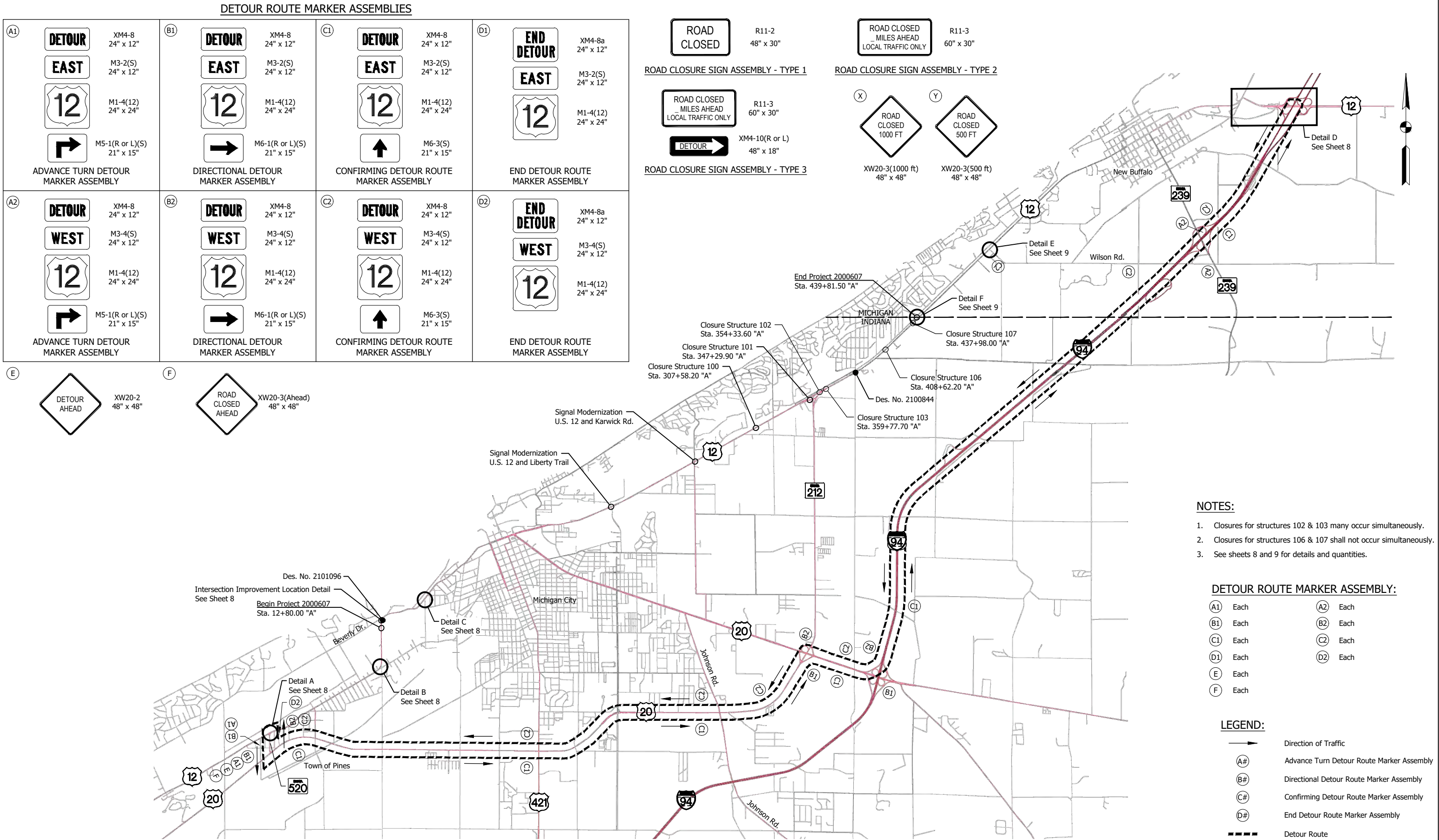
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____	
DESIGNED: DJT	DRAWN: JAJ
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
MAINTENANCE OF TRAFFIC SIGNING	

SCALE NOT TO SCALE	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 15 of 122
	CONTRACT R-43027

P:\J - 7/1/2025 8:15 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722MT_DR01.dwg (DETOUR ROUTE 01)



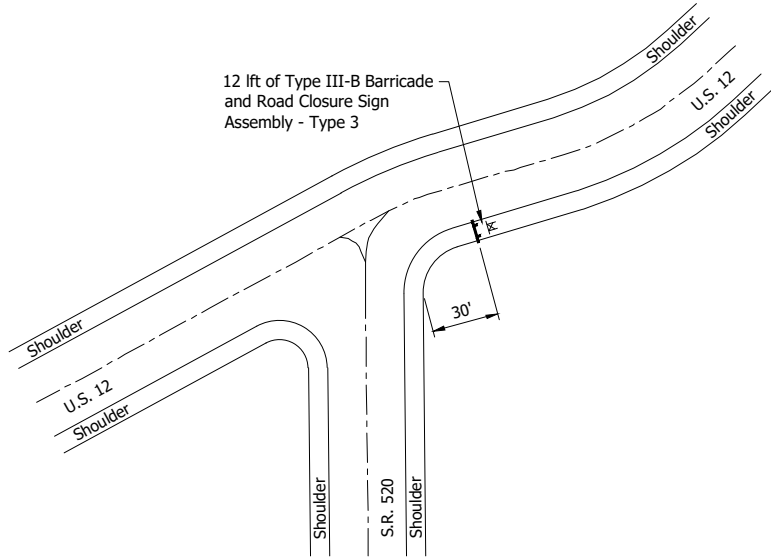
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL	
DESIGNED: DJT	DRAWN: JAJ
CHECKED: DGD	CHECKED: DJT

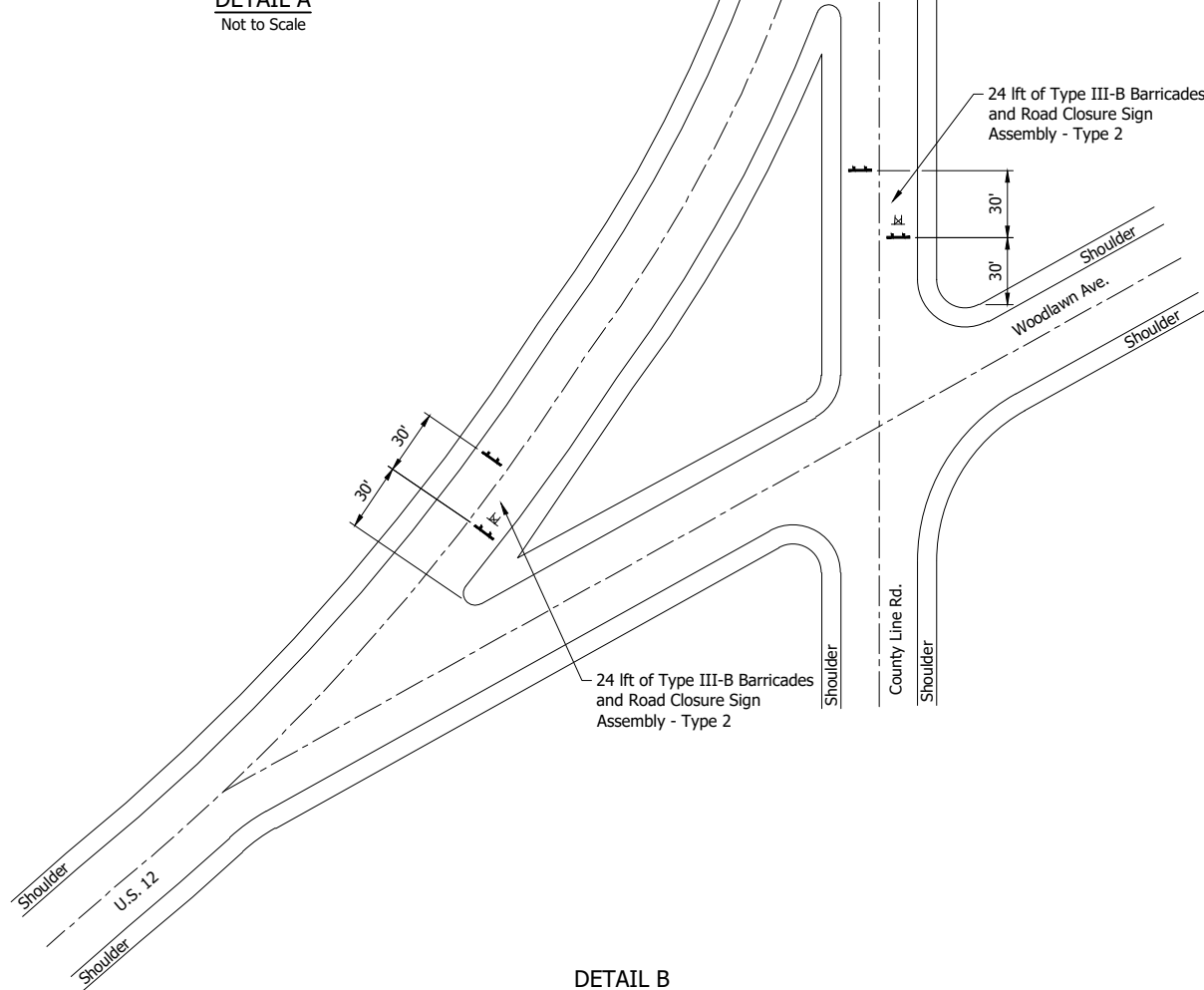
INDIANA DEPARTMENT OF TRANSPORTATION	
MAINTENANCE OF TRAFFIC DETOUR ROUTE	

SCALE 1" = 3000'	BRIDGE FILE
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	SHEETS 16 of 122
	CONTRACT R-43027

P:\J - 7/1/2025 8:20 AM - U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte MI\Cad\Plan Set\Civil\201722_223800MT_DR03.dwg (MOT DETAILS)

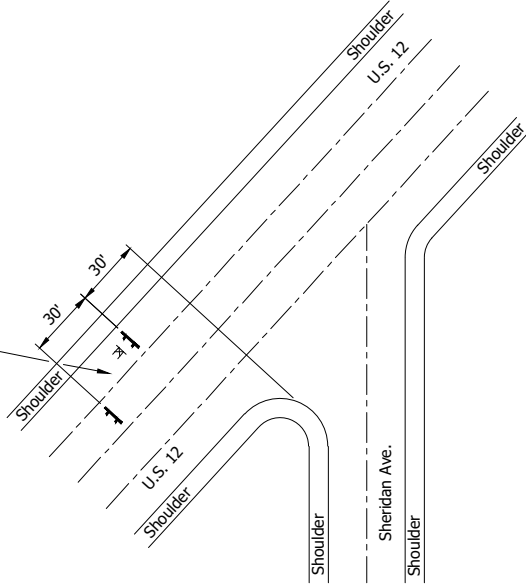


DETAIL A
Not to Scale

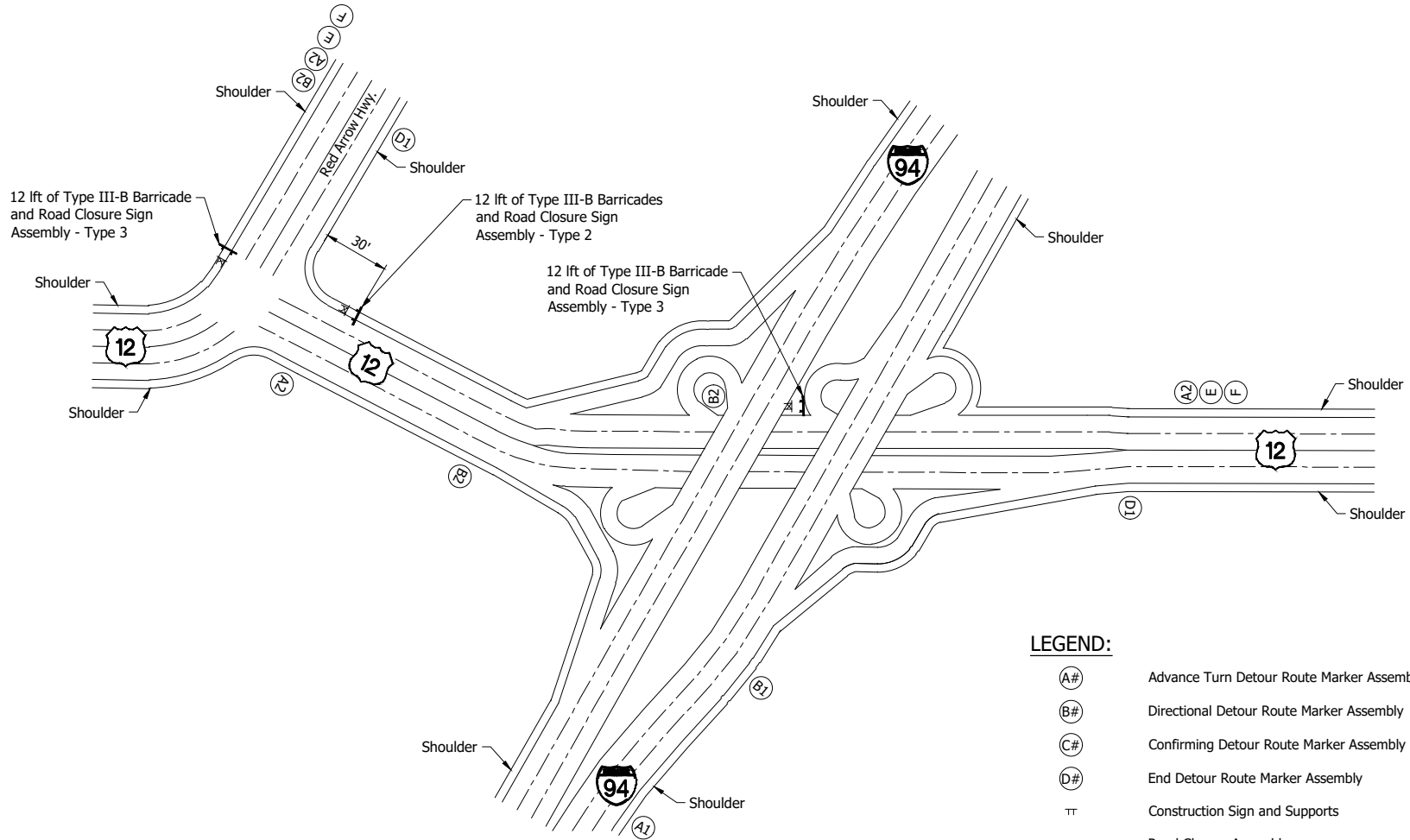


DETAIL B
Not to Scale

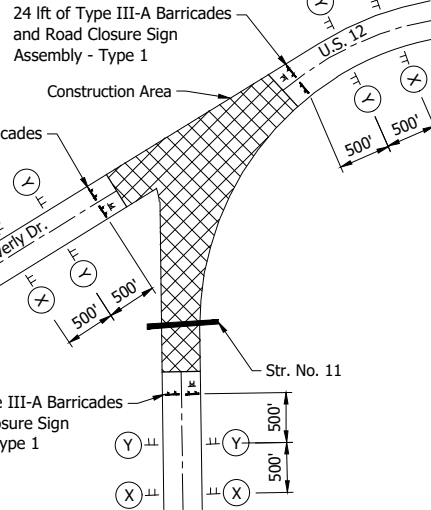
24 ft of Type III-B Barricades
and Road Closure Sign
Assembly - Type 2



DETAIL C
Not to Scale



DETAIL D
Not to Scale



INTERSECTION IMPROVEMENT LOCATION DETAIL
Not to Scale

LEGEND:

- (A#) Advance Turn Detour Route Marker Assembly
- (B#) Directional Detour Route Marker Assembly
- (C#) Confirming Detour Route Marker Assembly
- (D#) End Detour Route Marker Assembly
- TT Construction Sign and Supports
- TT Road Closure Assembly
- TT Type III-A Barricade
- Detour Route
- Construction Area

NOT FOR
CONSTRUCTION

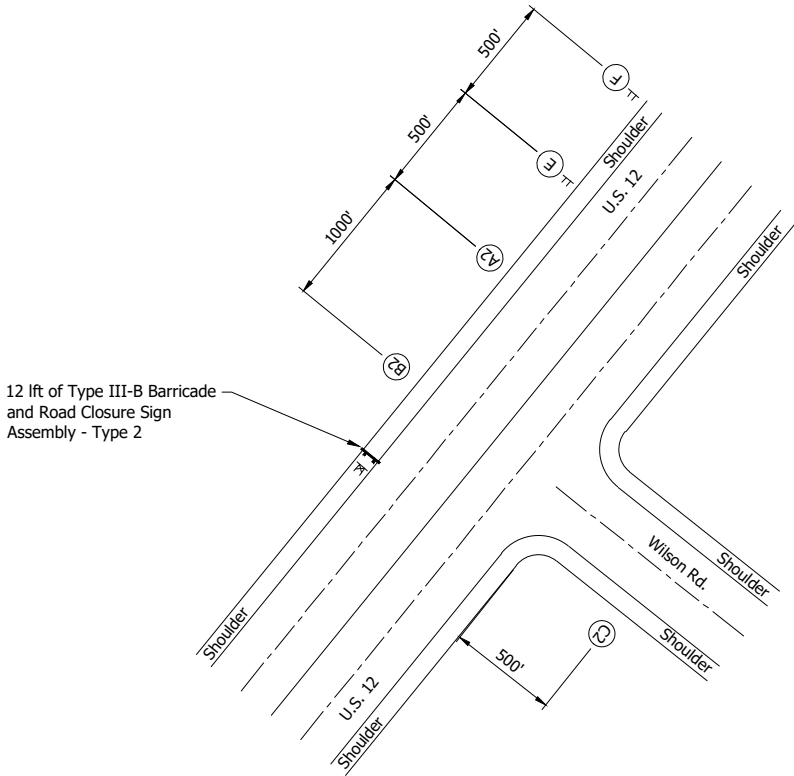
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DESIGNED: TMC	DRAWN: GDH	
CHECKED: DGD	CHECKED: TMC	

INDIANA
DEPARTMENT OF TRANSPORTATION

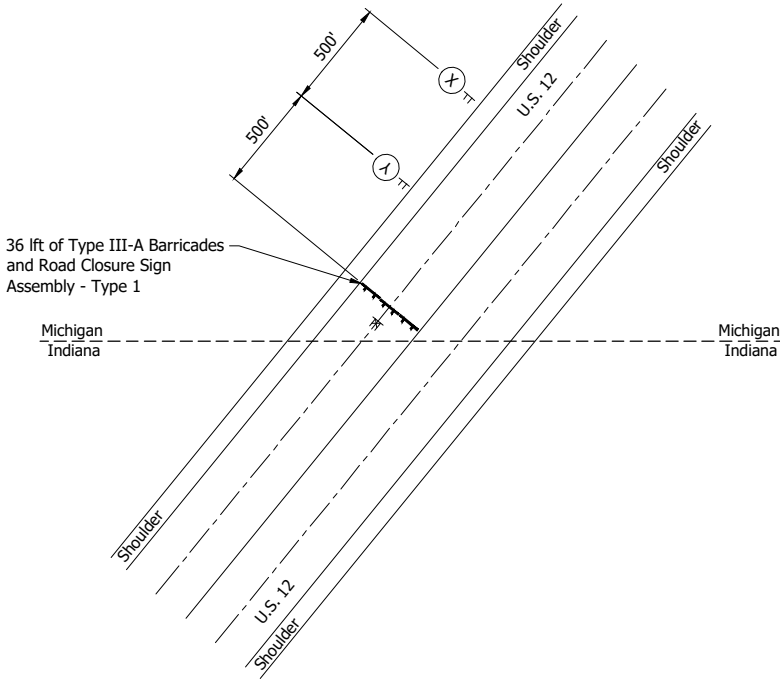
MAINTENANCE OF TRAFFIC
DETAILS

SCALE	BRIDGE FILE
NOT TO SCALE	
	DESIGNATION
	2000607
	SHEETS
17	of 122
	CONTRACT
	R-43027

P:\J - 7/1/2025 8:20 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722_223800MT_DR04.dwg (MOT DETAILS)



DETAIL E
Not to Scale



DETAIL F
Not to Scale

ESTIMATE OF QUANTITIES - U.S. 12		
ITEM	QUANTITY	UNIT
Maintaining Traffic	1	Lump Sum
Construction Sign Type A	16	Each
Barricade Type III-A	72	Lft
Barricade Type III-B	96	Lft
Detour Route Sign Assemblies	19	Each
Road Closure Sign Assemblies	8	Each

GENERAL NOTES:

1. Install construction signs as shown on plans and as directed.
2. Construction activities shall include installation of Structure No. 11.
3. Traffic shall be detoured along S.R. 212, U.S. 20, and S.R. 520.
4. All type 'A' construction signs to have low intensity flashing yellow light, type 'A'.
5. Contractor shall notify local fire department, police, ambulance services, and schools of the work schedule and temporary traffic layouts.

LEGEND:

- (A#)

Advance Turn Detour Route Marker Assembly
- (B#)

Directional Detour Route Marker Assembly
- (C#)

Confirming Detour Route Marker Assembly
- TT

Construction Sign and Supports
- TT

Road Closure Assembly
- TT

Type III-A Barricade

NOT FOR
CONSTRUCTION

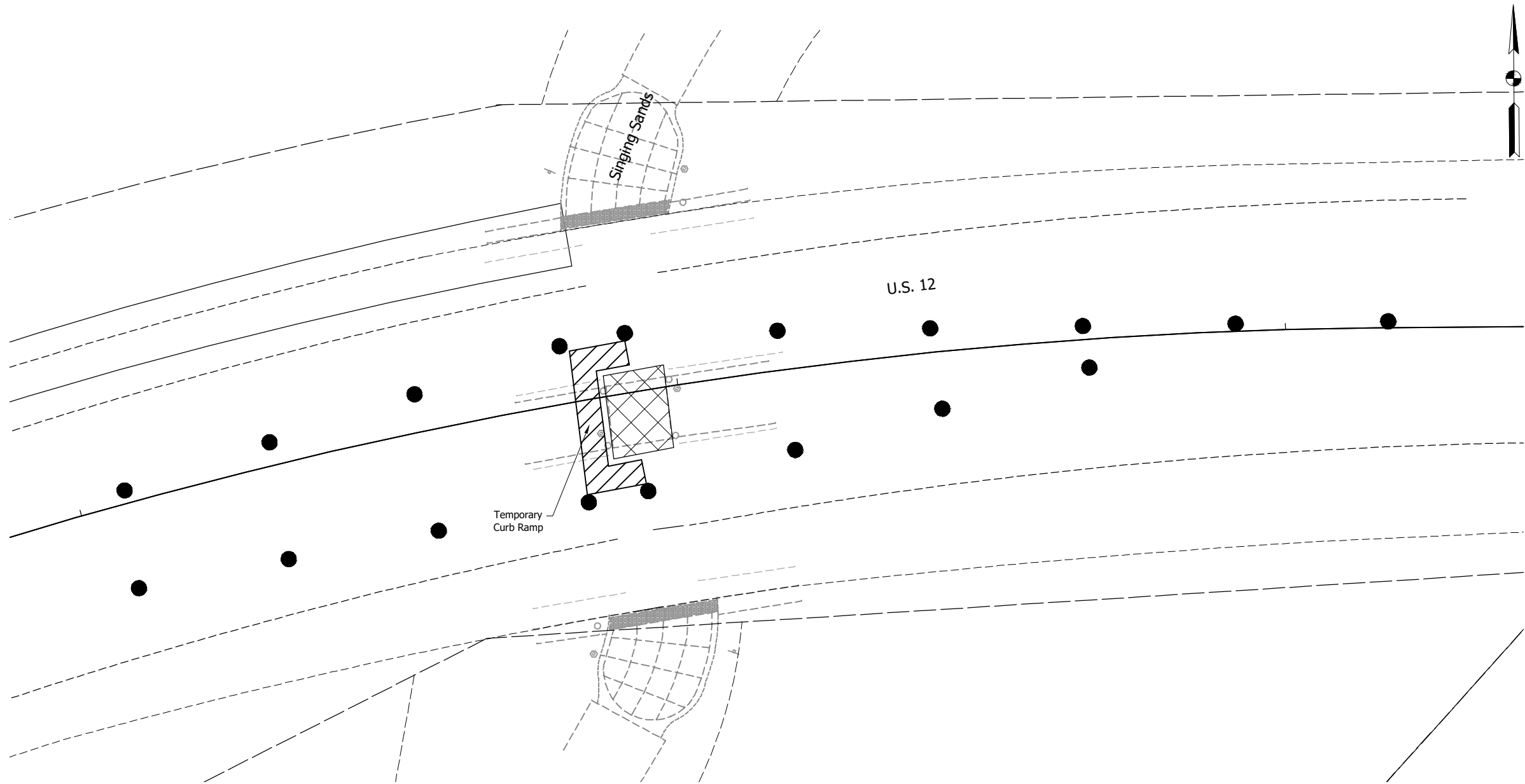
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DESIGNED: TMC	DRAWN: GDH
CHECKED: DGD	CHECKED: TMC

INDIANA DEPARTMENT OF TRANSPORTATION	
MAINTENANCE OF TRAFFIC DETAILS	

SCALE NOT TO SCALE		BRIDGE FILE	
		DESIGNATION 2000607	
		SHEETS	
		18 of 122	
		CONTRACT R-43027	



P:\J - 7/1/2025 8:14 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722MT_PL01.dwg (MT02)



PEDESTRIAN MOT DETAIL
U.S. 12 AND SINGING SANDS
Scale: 1"=10'

LEGEND:

 Construction Area

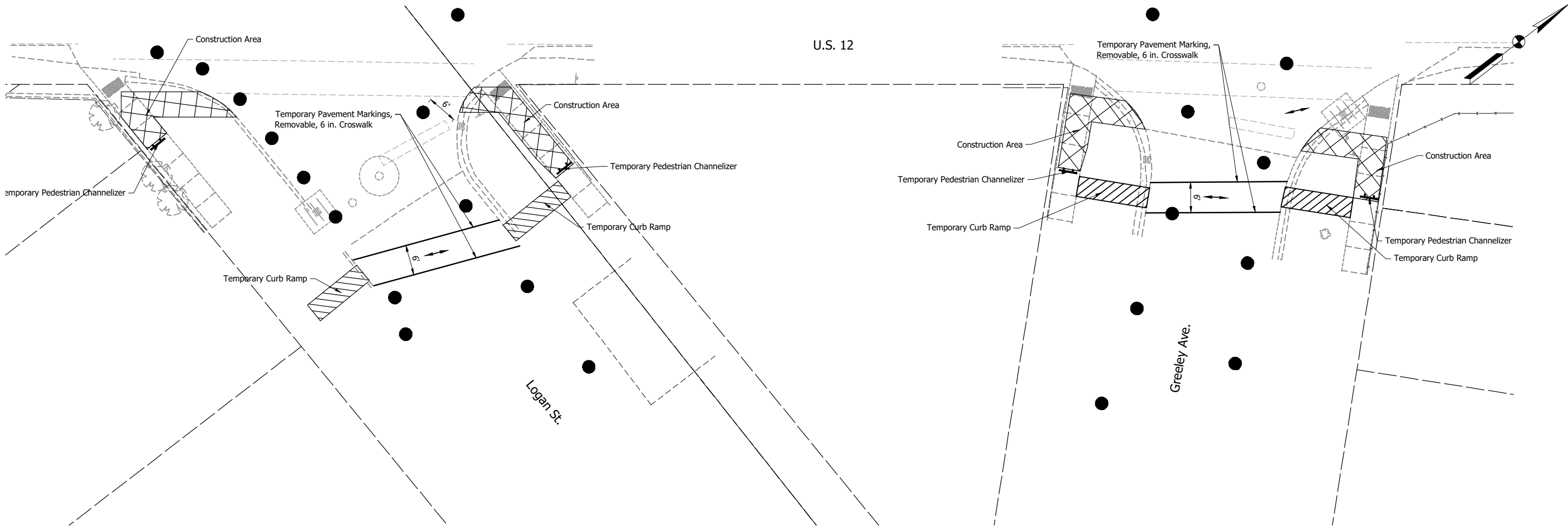
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
MAINTENANCE OF TRAFFIC PEDESTRIAN	

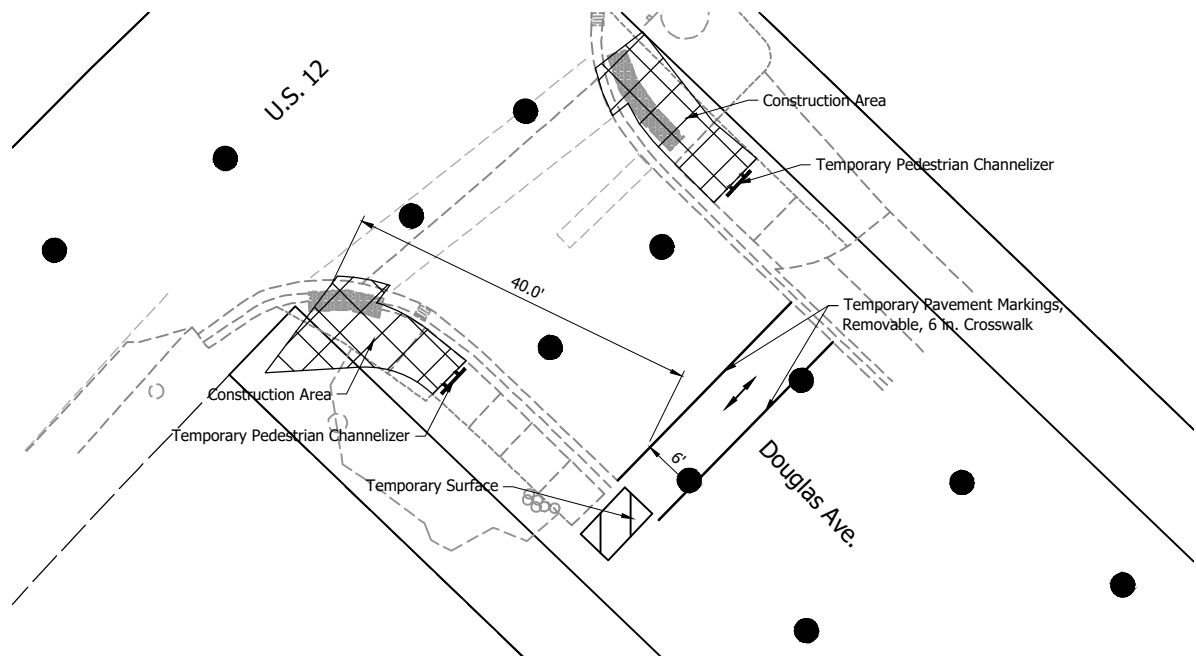
SCALE 1" = 10'		BRIDGE FILE	
		DESIGNATION 2000607	
		SHEETS 19 of 122	
		CONTRACT R-43027	

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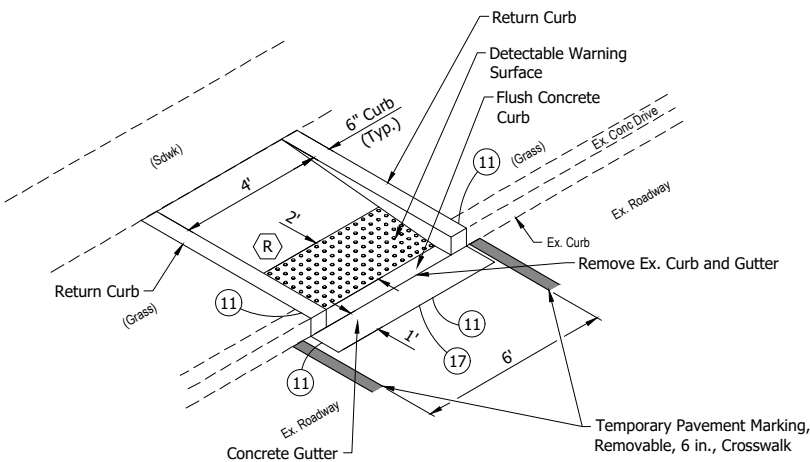
PEDESTRIAN MOT DETAIL
U.S. 12 AND LOGAN ST., U.S. 12 AND GREELEY AVE.

Scale: 1"=10'



PEDESTRIAN MOT DETAIL
U.S. 12 AND DOUGLAS AVE.

Scale: 1"=10'



NOTES:

1. Ramp cross slopes shall be less than 2.0% at top (at existing walk) and bottom (at existing roadway).
2. Ramp running slope shall be less than 8.33%.
3. Counter slope of road back toward bottom of ramp shall not exceed 5.0%.

PERPENDICULAR RAMP INSTALLATION

Not to Scale

LEGEND:

- 11 Sawcut
- 17 Curb and Gutter, Concrete, Modified
- R Concrete Curb Ramp
- Direction of Pedestrian Traffic
- Drum
- Construction Sign
- Barricade, Type II w/ Type 'C' Warning Light
- Temporary Surface
- Construction Area

NOT FOR
CONSTRUCTION

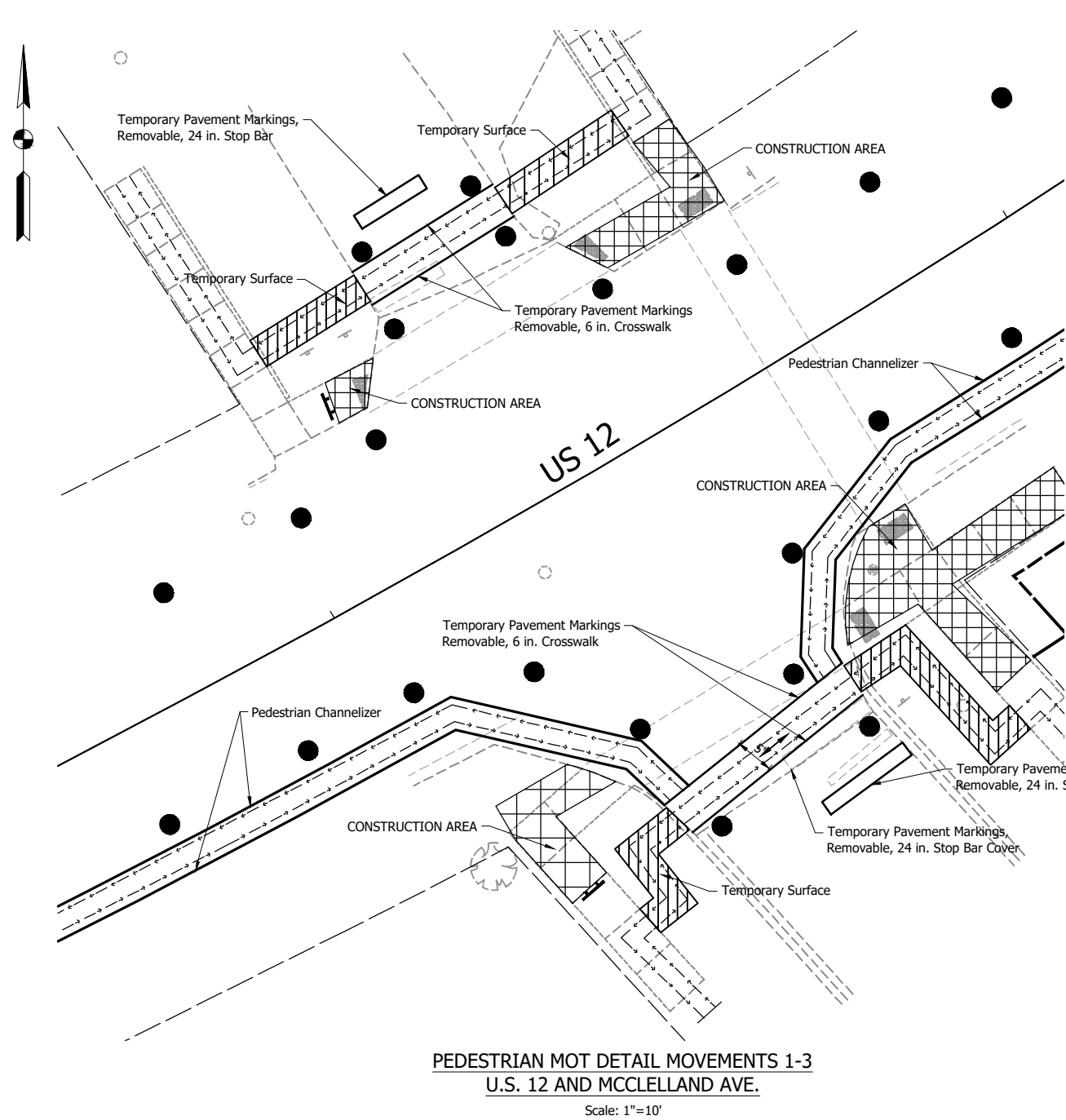
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: DJT	DRAWN: GDH	
CHECKED: DGD	CHECKED: DJT	

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PEDESTRIAN

SCALE AS NOTED	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 20 of 122
	CONTRACT R-43027

P:\J - 7/1/2025 8:15 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722MT_PL01.dwg (MT05)



- LEGEND:**
- Direction of Pedestrian Traffic
 - Drum
 - Construction Sign
 - Barricade, Type II w/ Type 'C' Warning Light
 - Temporary Surface
 - Construction Area
 - NB/SB Along South Side of US 12
 - Crossing McClelland South Side of US 12
 - Crossing McClelland North Side of US 12



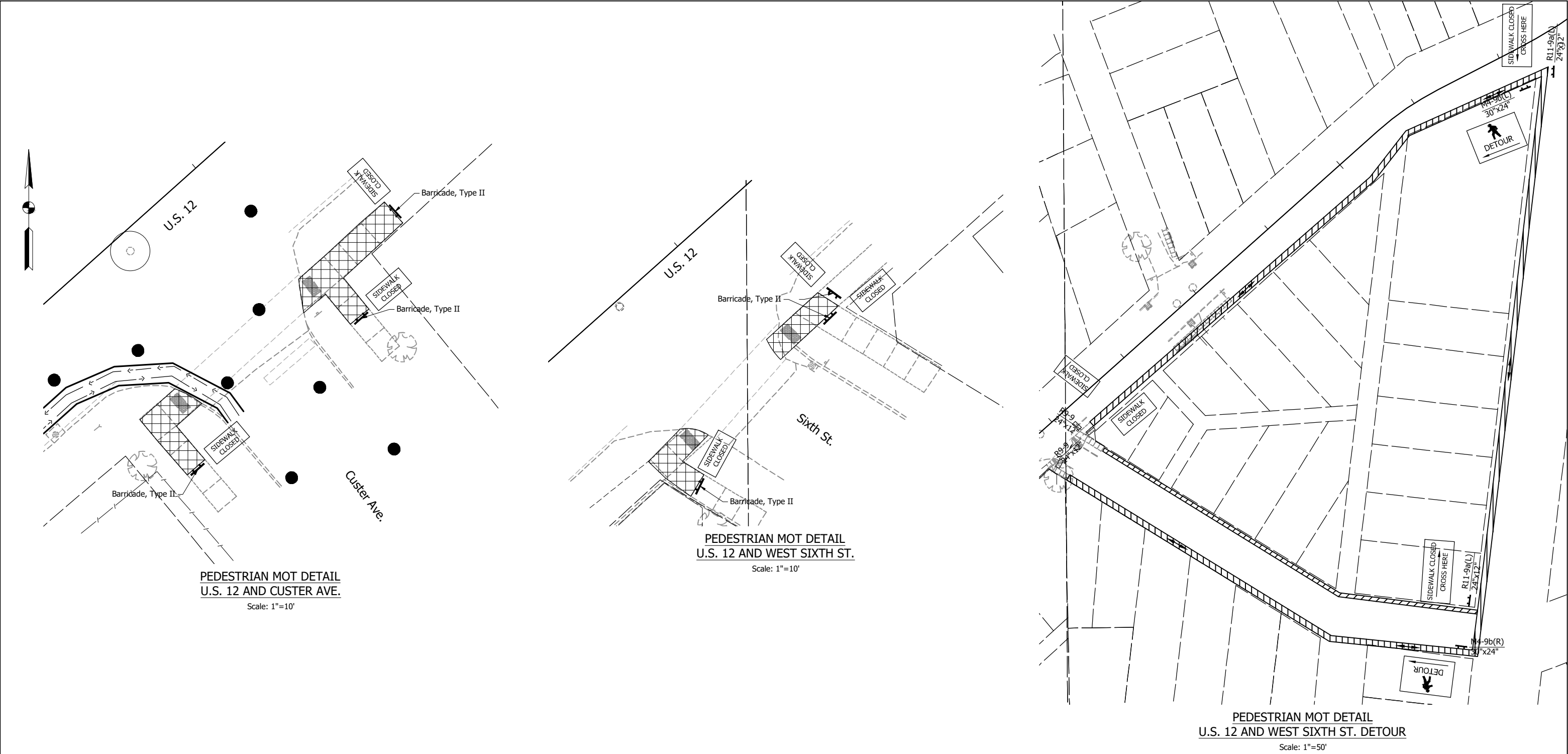
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: DJT	DRAWN: GDH	
CHECKED: DGD	CHECKED: DJT	

INDIANA DEPARTMENT OF TRANSPORTATION
MAINTENANCE OF TRAFFIC PEDESTRIAN

SCALE AS NOTED	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 21 of 122
	CONTRACT R-43027

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- LEGEND:**
- Direction of Pedestrian Traffic
 - Drum
 - Construction Sign
 - Barricade, Type II w/
Type 'C' Warning Light
 - Temporary Surface
 - Construction Area

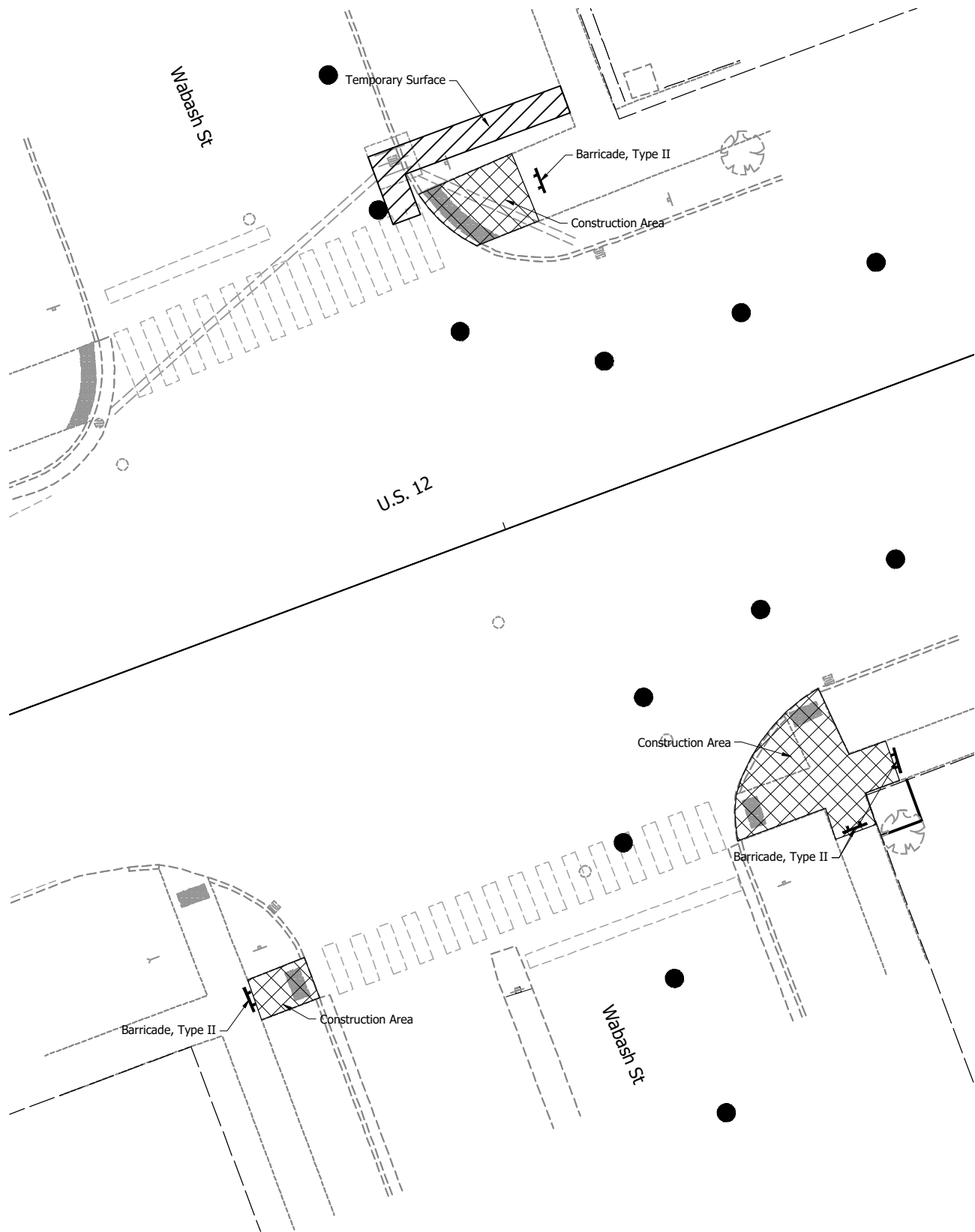
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: DJT	DRAWN: GDH	
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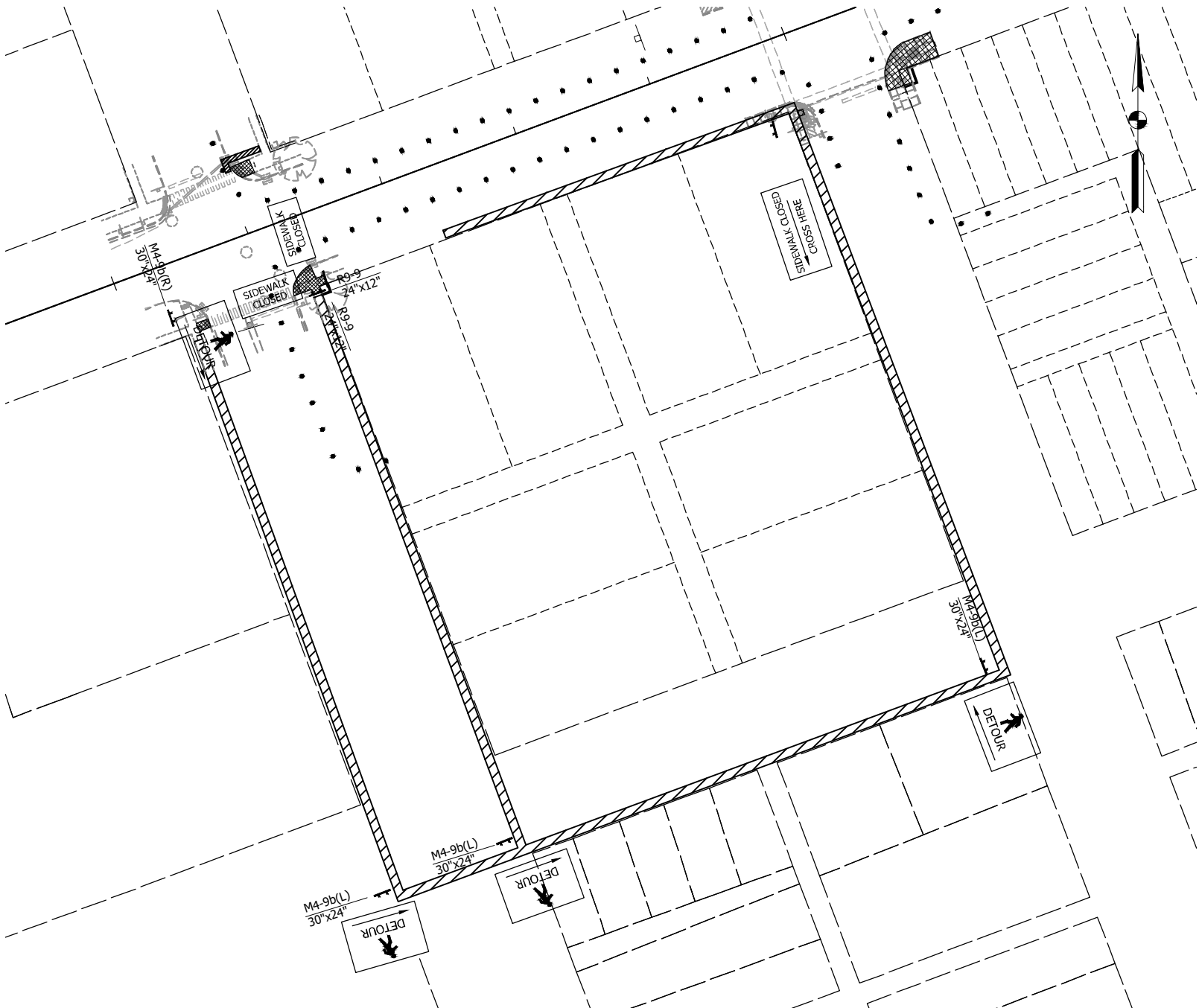
INDIANA DEPARTMENT OF TRANSPORTATION
MAINTENANCE OF TRAFFIC PEDESTRIAN

SCALE AS NOTED	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 22 of 122
	CONTRACT R-43027

P:\J - 7/1/2025 8:20 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte MI\Cad\Plan Set\Civil\201722MT_PL01.dwg (MT07)



PEDESTRIAN MOT DETAIL
U.S. 12 AND WABASH ST.
Scale: 1"=10'



PEDESTRIAN MOT DETAIL
U.S. 12 AND WABASH ST. DETOUR
Scale: 1"=50'

LEGEND:	
	Direction of Pedestrian Traffic
	Drum
	Construction Sign
	Barricade, Type II w/ Type 'C' Warning Light
	Temporary Surface
	Construction Area

NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: DJT	DRAWN: GDH	
CHECKED: DGD	CHECKED: DJT	

INDIANA DEPARTMENT OF TRANSPORTATION
MAINTENANCE OF TRAFFIC PEDESTRIAN

SCALE AS NOTED	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 23 of 122
	CONTRACT R-43027

P:\J - 7/1/2025 8:13 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722MT_PL01.dwg (MT08)

LEGEND:

- Direction of Pedestrian Traffic
- Drum
- Construction Sign
- Barricade, Type II w/
Type 'C' Warning Light
- Temporary Surface
- Construction Area

PEDESTRIAN MOT DETAIL
U.S. 12 AND WASHINGTON ST. PHASE I
Scale: 1"=10'

PEDESTRIAN MOT DETAIL
U.S. 12 AND WASHINGTON ST. PHASE II
Scale: 1"=10'

NOT FOR
CONSTRUCTION

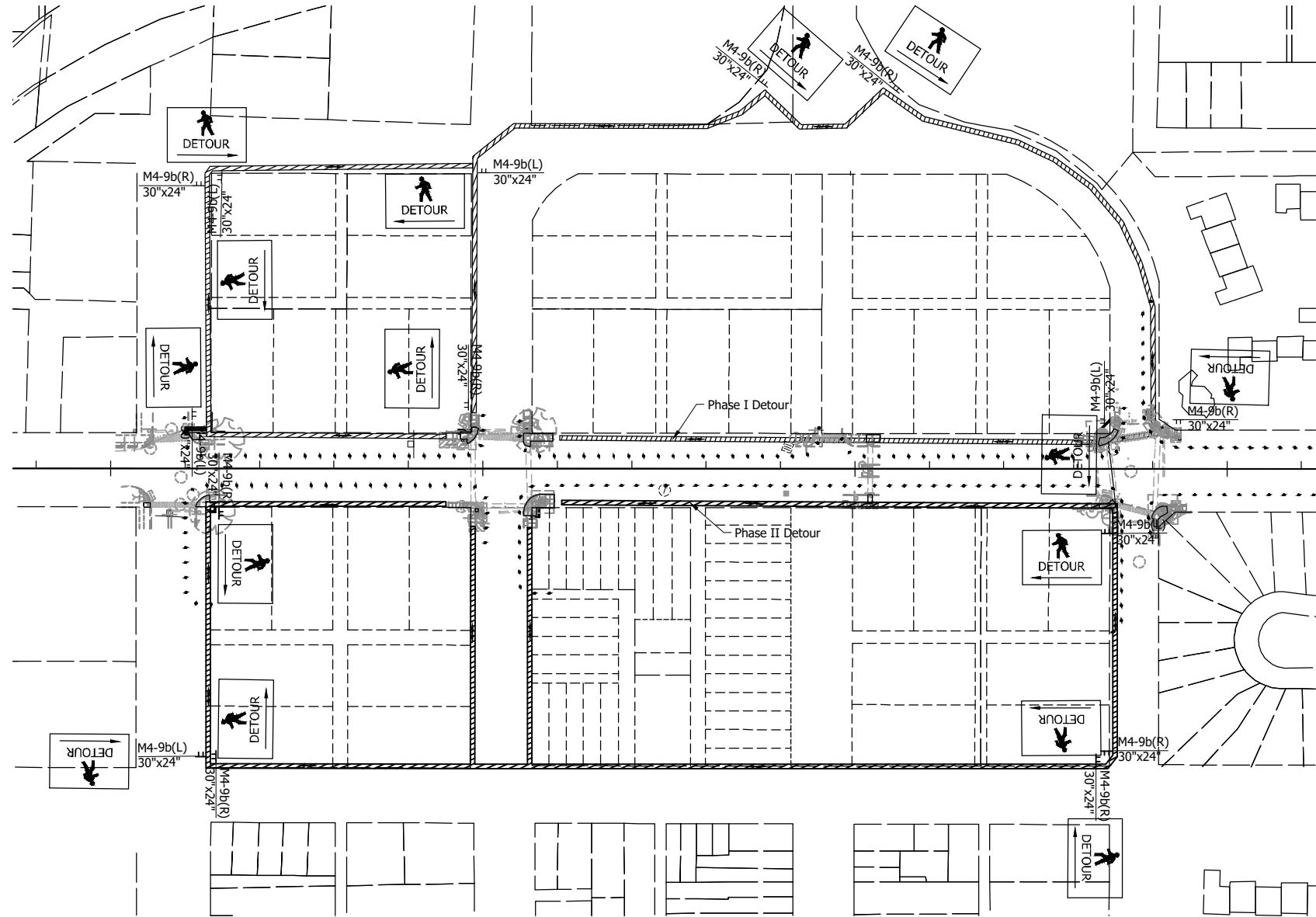
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: DJT	DRAWN: GDH	
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INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PEDESTRIAN

SCALE 1" = 10'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 24 of 122
	CONTRACT R-43027

P:\J - 7/1/2025 8:19 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722MT_PL01.dwg (MT09)



PEDESTRIAN MOT DETAIL
U.S. 12 AND WASHINGTON ST. DETOUR

Scale: 1"=100'

LEGEND:

- Direction of Pedestrian Traffic
- Drum
- Construction Sign
- Barricade, Type II w/
Type 'C' Warning Light
- Temporary Surface
- Construction Area

NOT FOR
CONSTRUCTION

RECOMMENDED
FOR APPROVAL

DESIGN ENGINEER

DATE

DESIGNED: DJT

DRAWN: GDH

CHECKED: DGD

CHECKED: DJT

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PEDESTRIAN

SCALE
1" = 100'

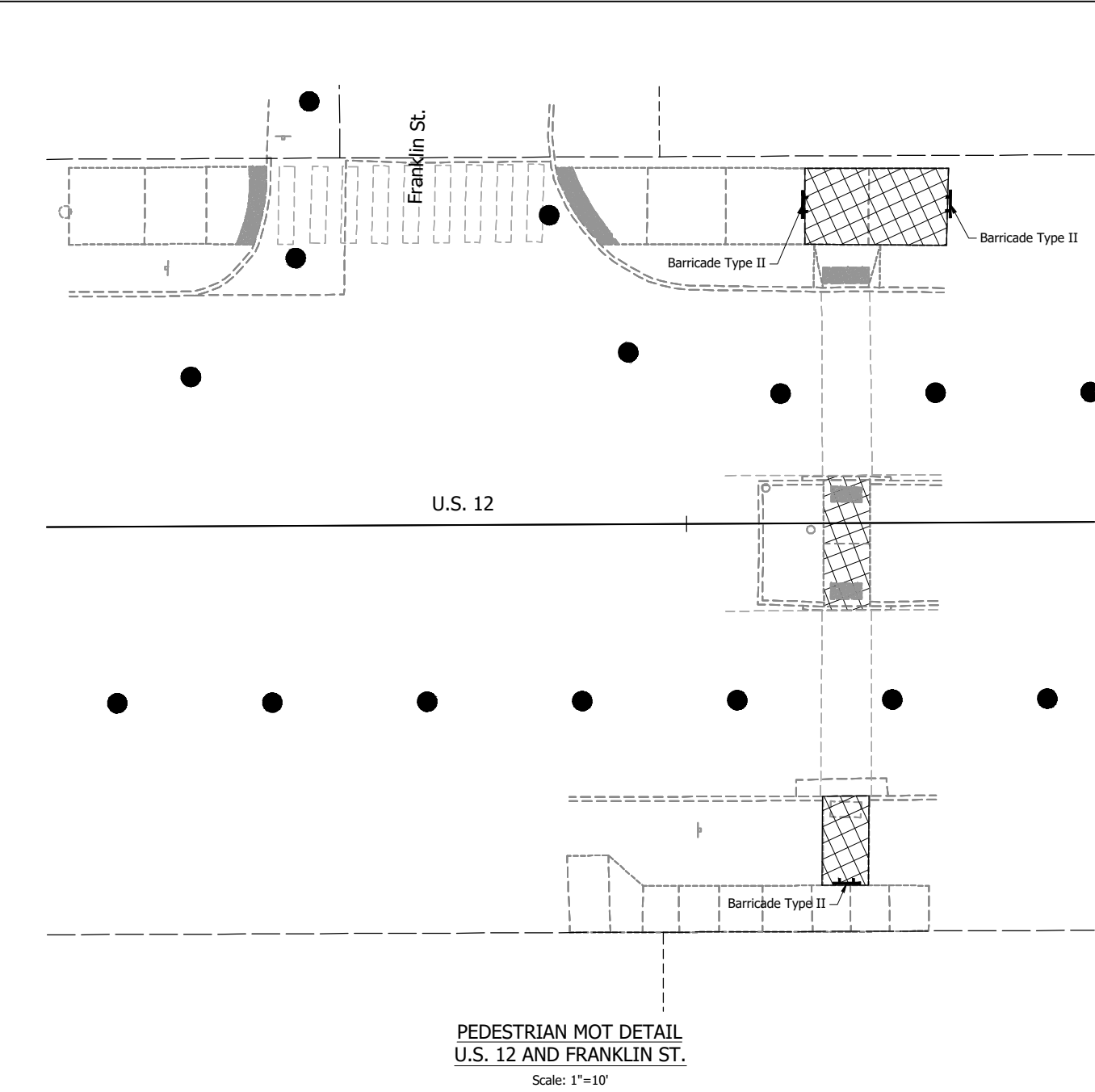
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DESIGNATION
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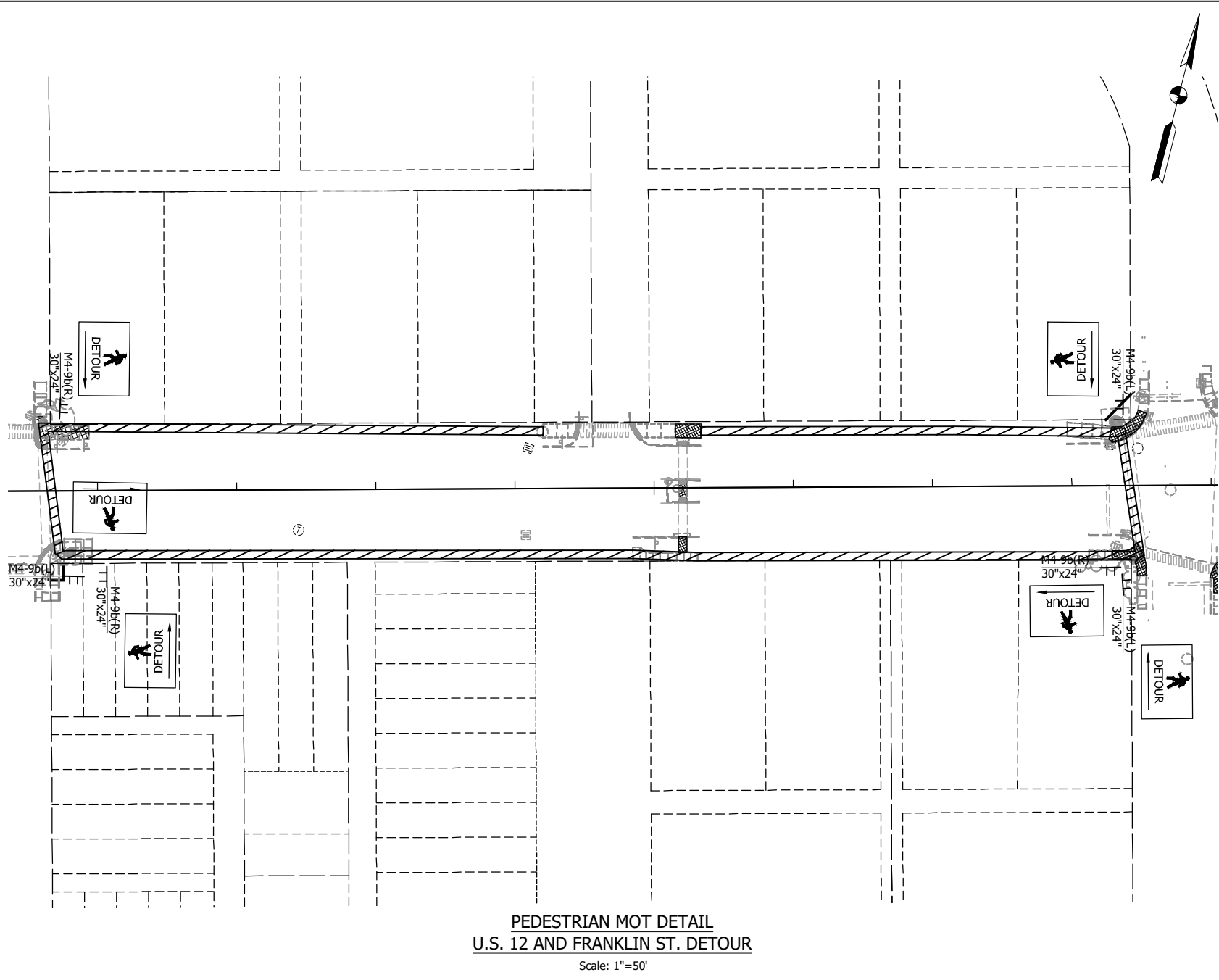
SHEETS
25 of 122

CONTRACT
R-43027

P:\J - 7/1/2025 8:16 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722MT_PL01.dwg (MT10)



PEDESTRIAN MOT DETAIL
U.S. 12 AND FRANKLIN ST.
Scale: 1"=10'



PEDESTRIAN MOT DETAIL
U.S. 12 AND FRANKLIN ST. DETOUR
Scale: 1"=50'

LEGEND:

- Direction of Pedestrian Traffic
- Drum
- Construction Sign
- Barricade, Type II w/
Type 'C' Warning Light
- Temporary Surface
- Construction Area

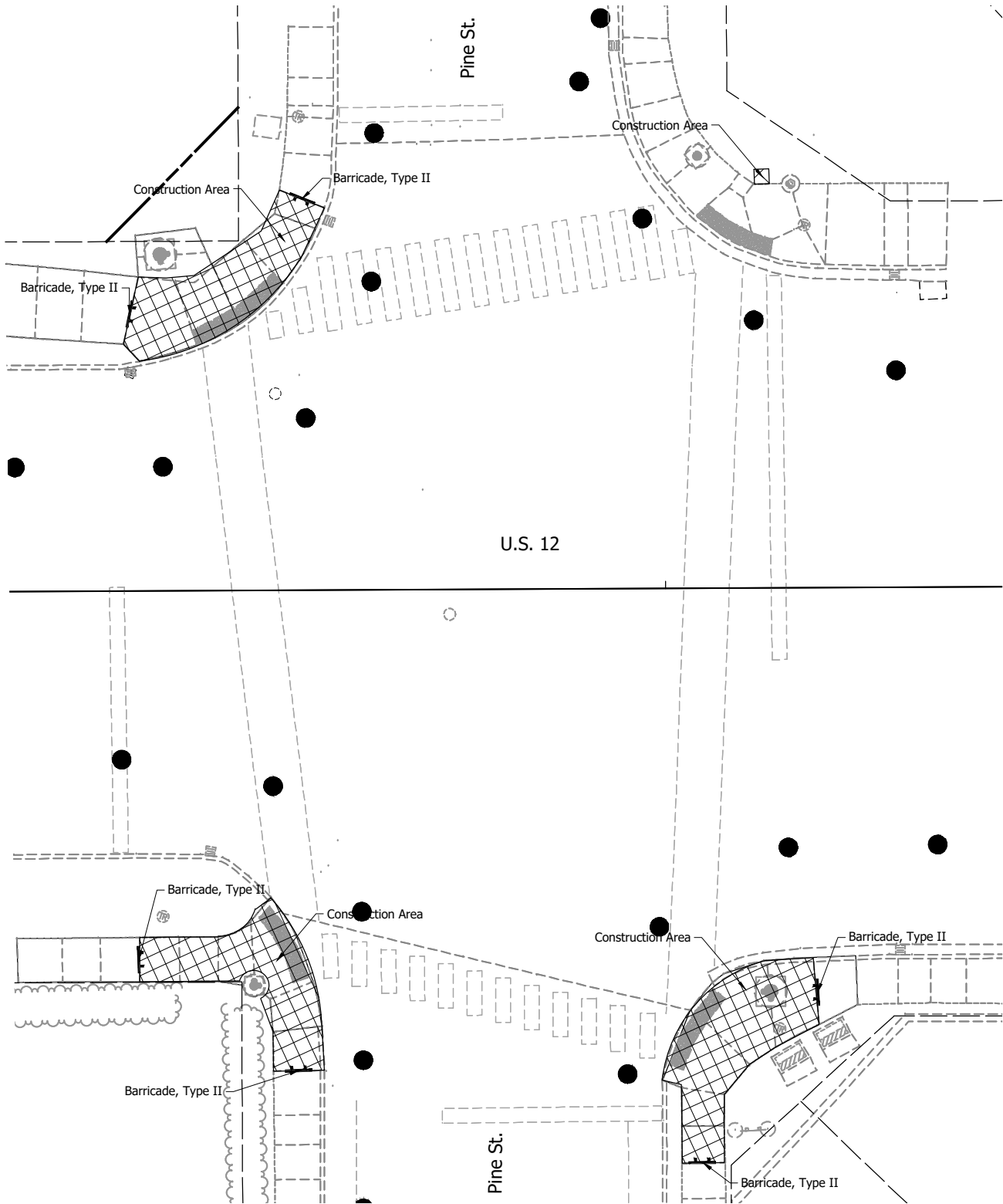
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CONSTRUCTION

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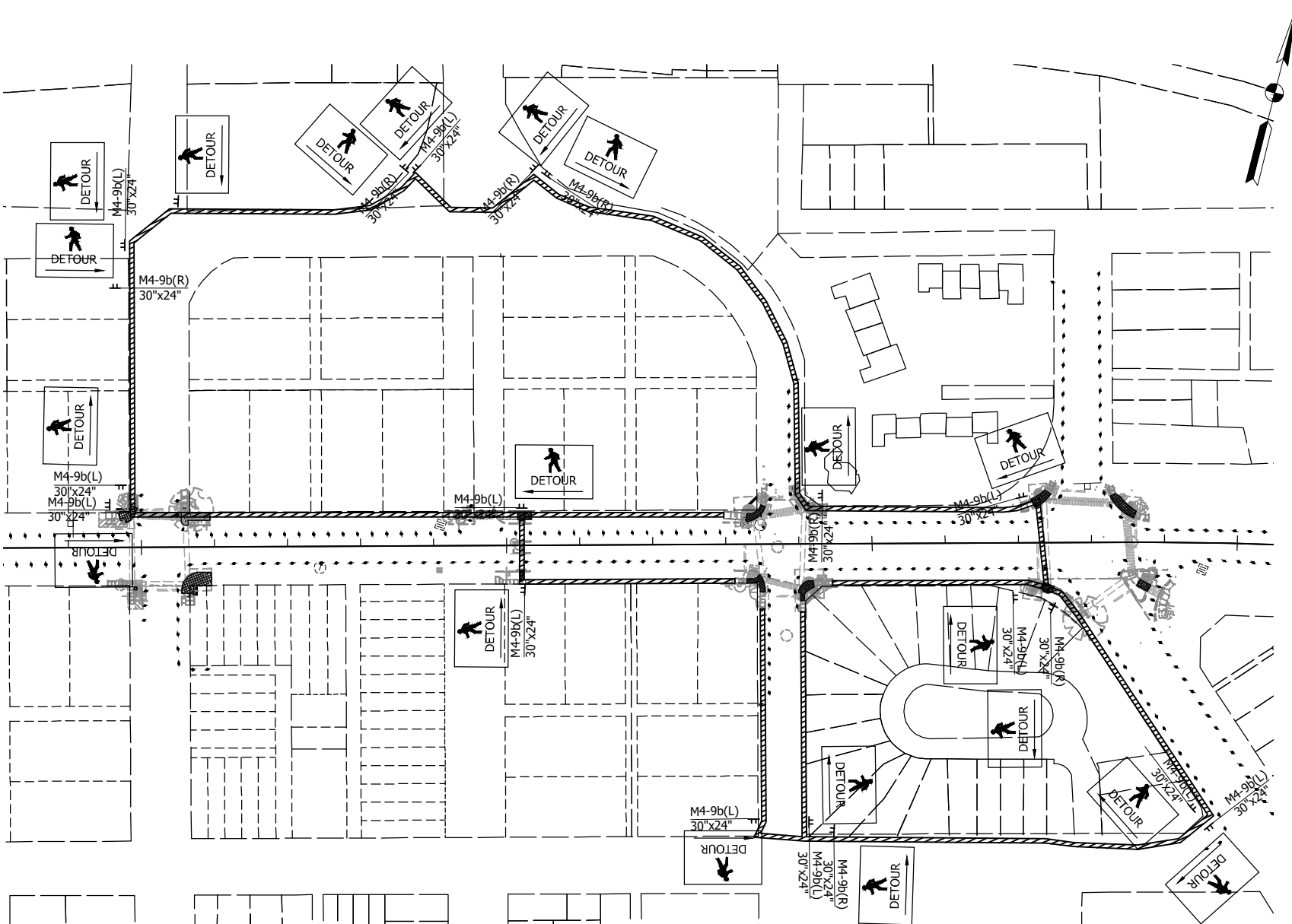
INDIANA DEPARTMENT OF TRANSPORTATION	
MAINTENANCE OF TRAFFIC PEDESTRIAN	

SCALE AS NOTED		BRIDGE FILE	
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		SHEETS	
		26 of 122	
		CONTRACT R-43027	

P:\J - 7/1/2025 8:20 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722MT_PL01.dwg (MT11)



PEDESTRIAN MOT DETAIL
U.S. 12 AND PINE ST.
Scale: 1"=10'



PEDESTRIAN MOT DETAIL
U.S. 12 AND PINE ST. DETOUR
Scale: 1"=100'

LEGEND:

- Direction of Pedestrian Traffic
- Drum
- Construction Sign
- Barricade, Type II w/
Type 'C' Warning Light
- Temporary Surface
- Construction Area

NOT FOR
CONSTRUCTION

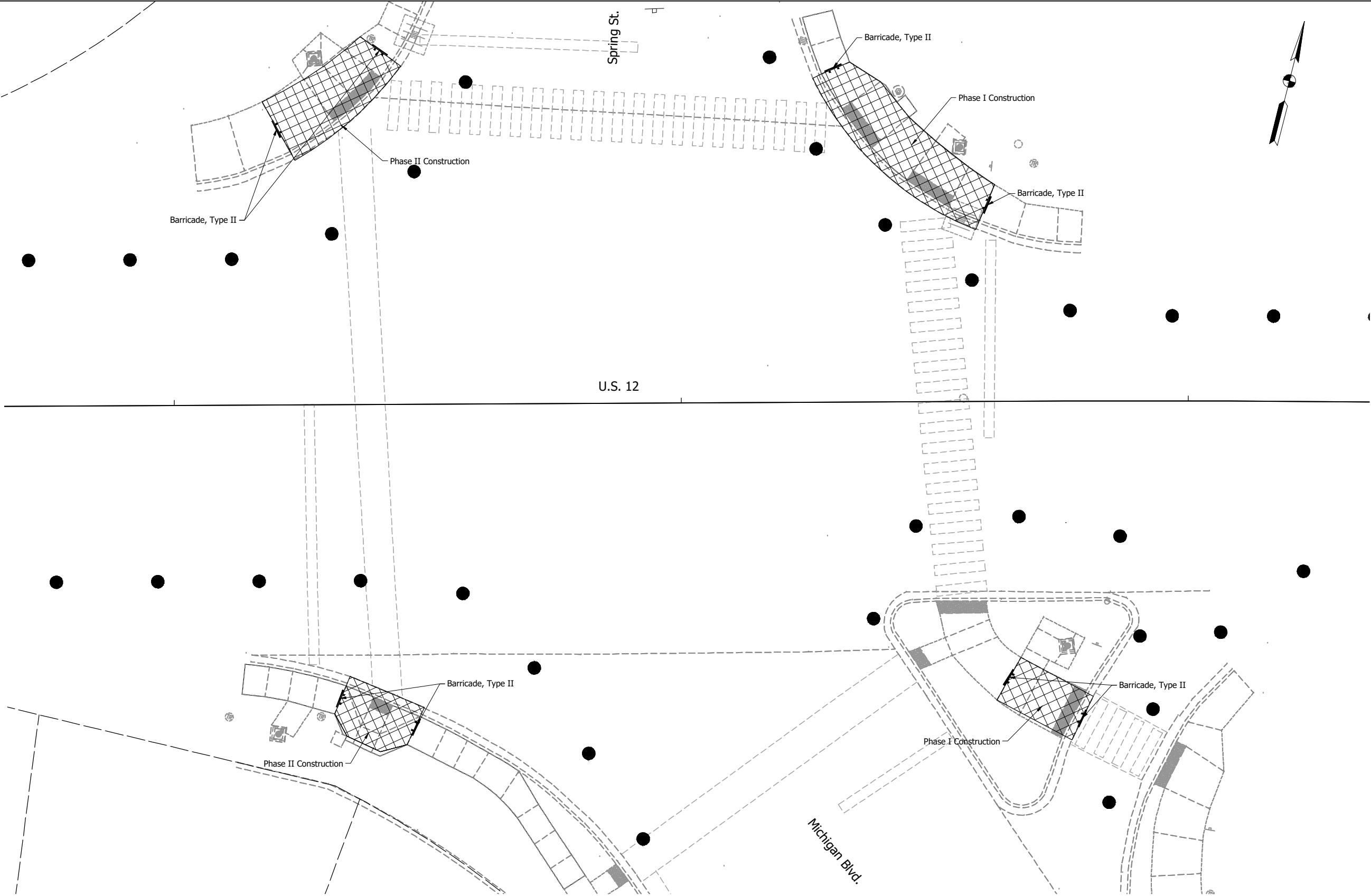
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INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PEDESTRIAN

SCALE AS NOTED	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 27 of 122
	CONTRACT R-43027

P:\J - 7/1/2025 8:16 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722MT_PL01.dwg (MT12)



PEDESTRIAN MOT DETAIL
U.S. 12 AND SPRING ST.
Scale: 1"=10'

LEGEND:

- Direction of Pedestrian Traffic
- Drum
- Construction Sign
- Barricade, Type II w/ Type 'C' Warning Light
- Temporary Surface
- Construction Area

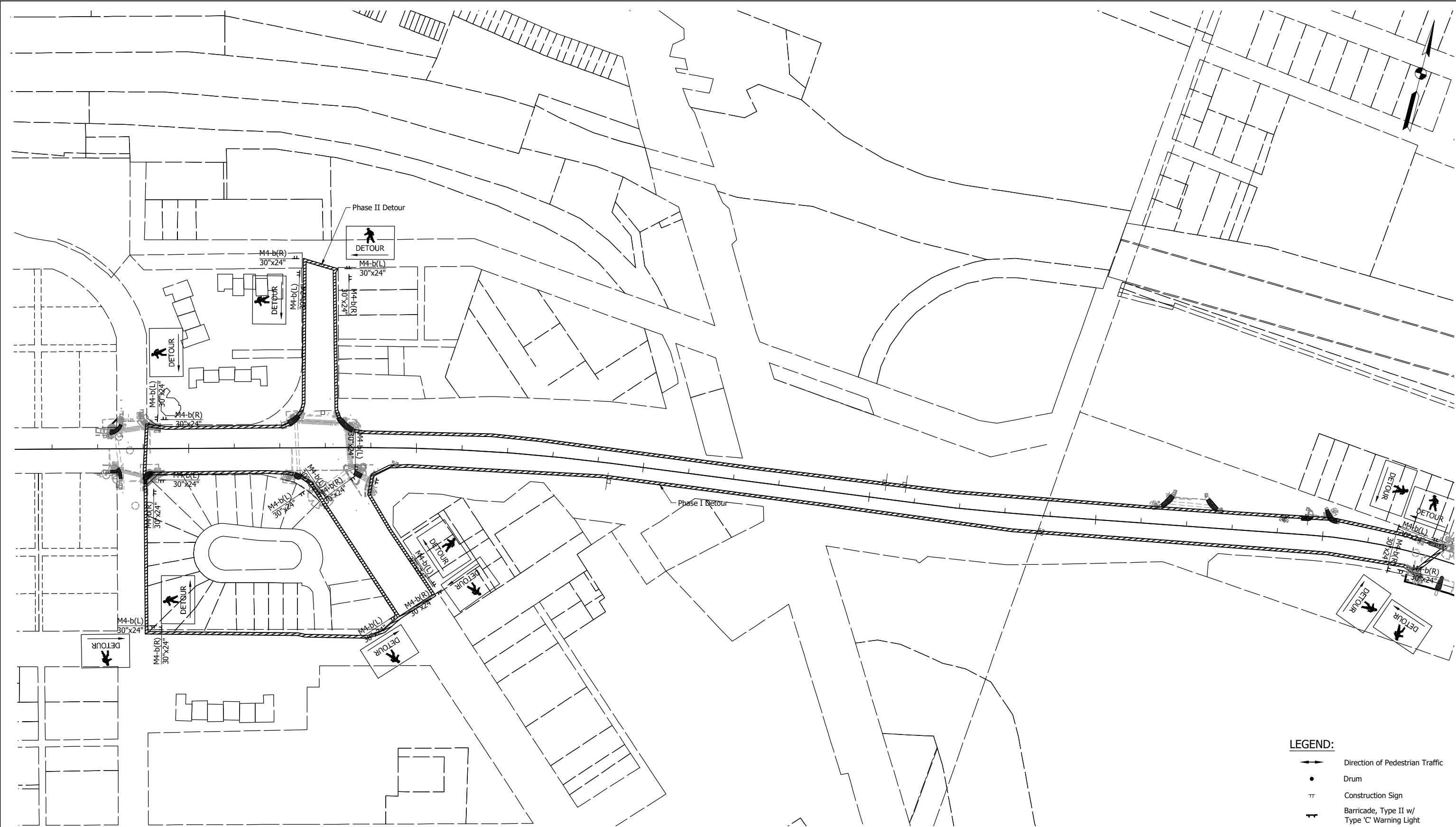
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
MAINTENANCE OF TRAFFIC PEDESTRIAN	

SCALE 1" = 10'		BRIDGE FILE	
		DESIGNATION 2000607	
		SHEETS	
		28 of 122	
		CONTRACT R-43027	

P:\J - 7/1/2025 8:11 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte MI\Cad\Plan Set\Civil\201722MT_PL01.dwg (MT13)



PEDESTRIAN MOT DETAIL
U.S. 12 AND SPRING ST. DETOUR

Scale: 1"=100'

LEGEND:

- Direction of Pedestrian Traffic
- Drum
- Construction Sign
- Barricade, Type II w/
Type 'C' Warning Light
- Temporary Surface
- Construction Area

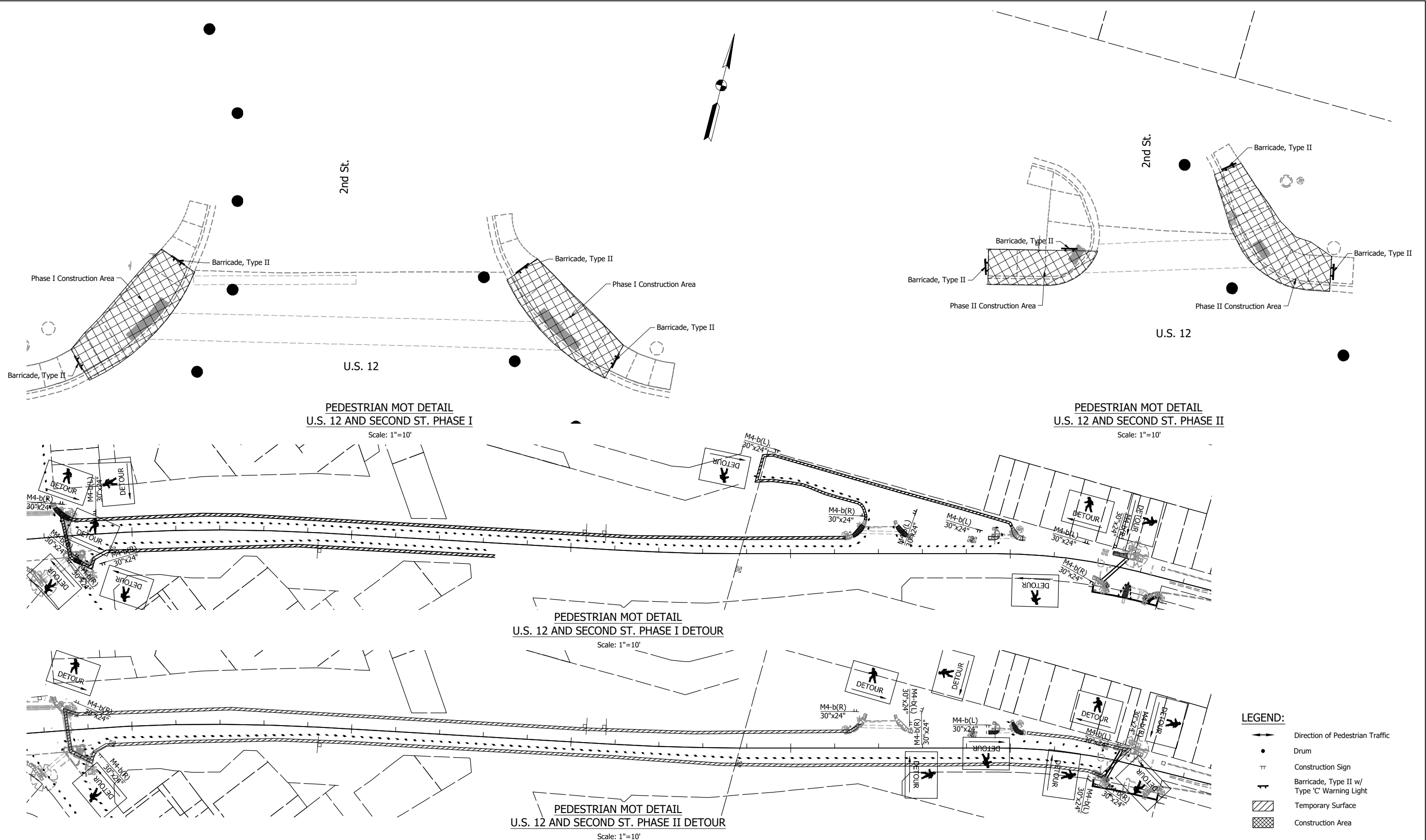
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CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
MAINTENANCE OF TRAFFIC PEDESTRIAN	

SCALE 1" = 100'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 29 of 122
	CONTRACT R-43027

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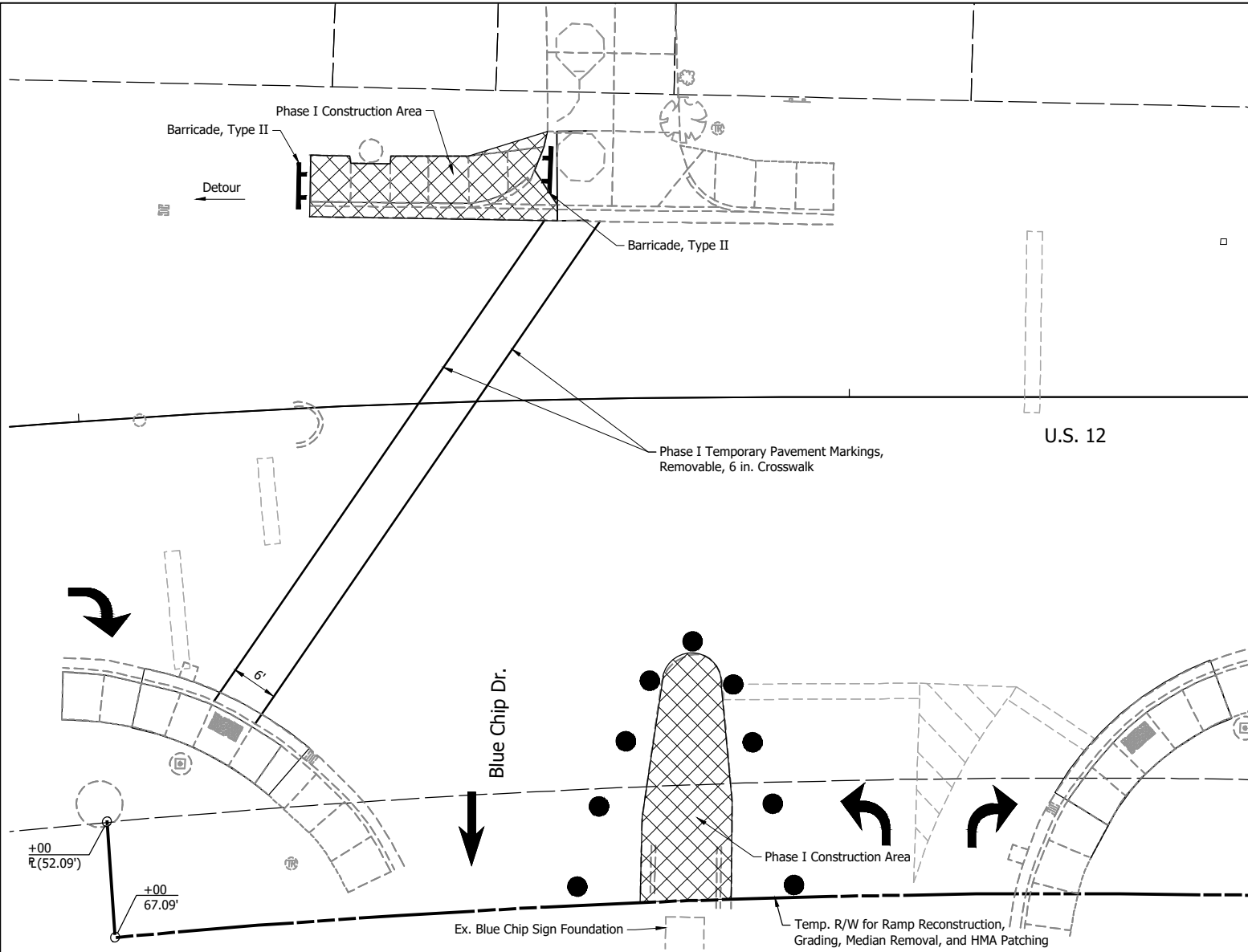
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
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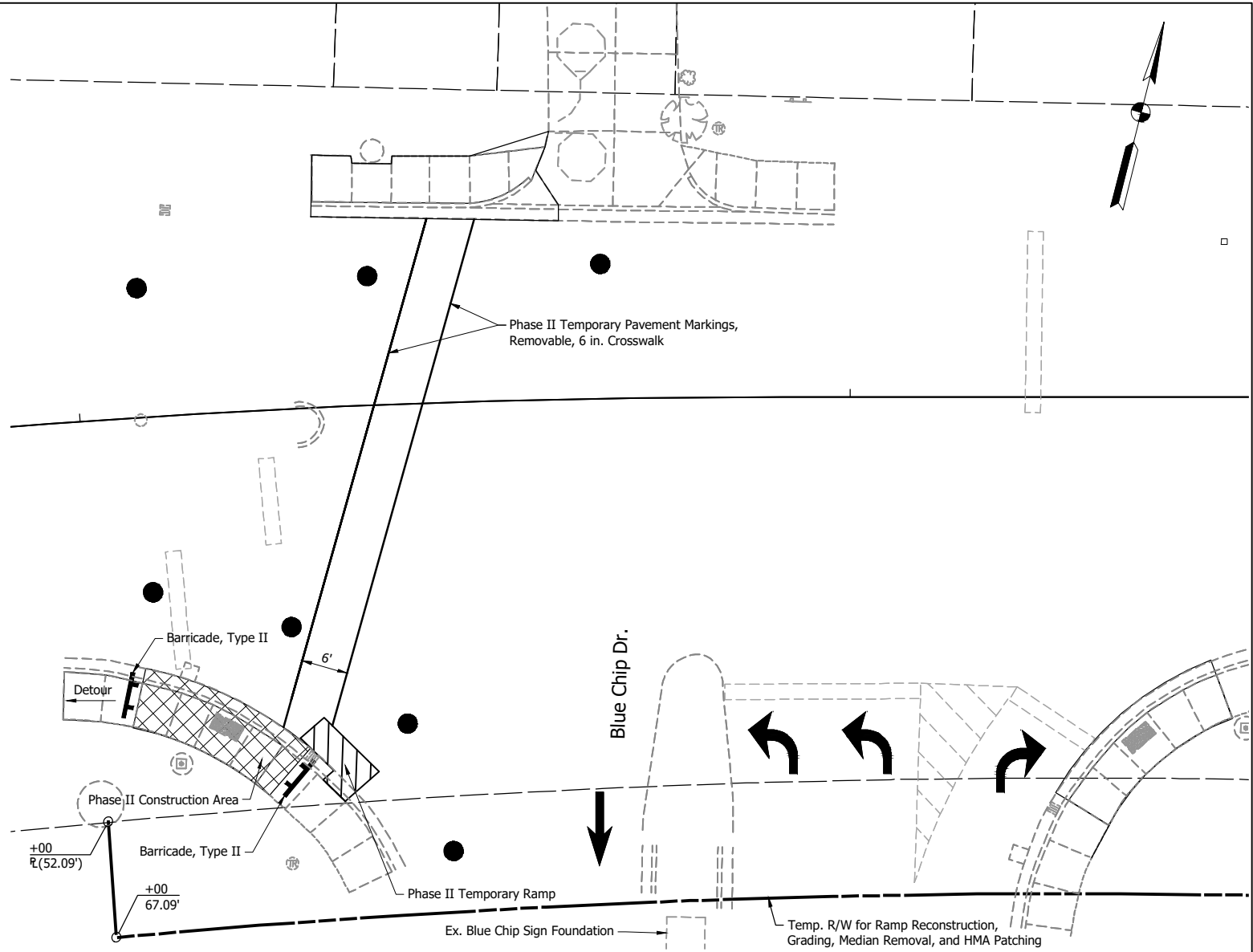
INDIANA DEPARTMENT OF TRANSPORTATION
MAINTENANCE OF TRAFFIC PEDESTRIAN

SCALE 1" = 10'	BRIDGE FILE
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	SHEETS 30 of 122
	CONTRACT R-43027

P:\J - 7/1/2025 8:15 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722MT_PL01.dwg (MT15)



PEDESTRIAN MOT DETAIL
U.S. 12 AND BLUE CHIP DR. PHASE I
Scale: 1"=10'



PEDESTRIAN MOT DETAIL
U.S. 12 AND BLUE CHIP DR. PHASE II
Scale: 1"=10'

- LEGEND:
- Direction of Pedestrian Traffic
 - Drum
 - Construction Sign
 - Barricade, Type II w/ Type 'C' Warning Light
 - Temporary Ramp
 - Construction Area

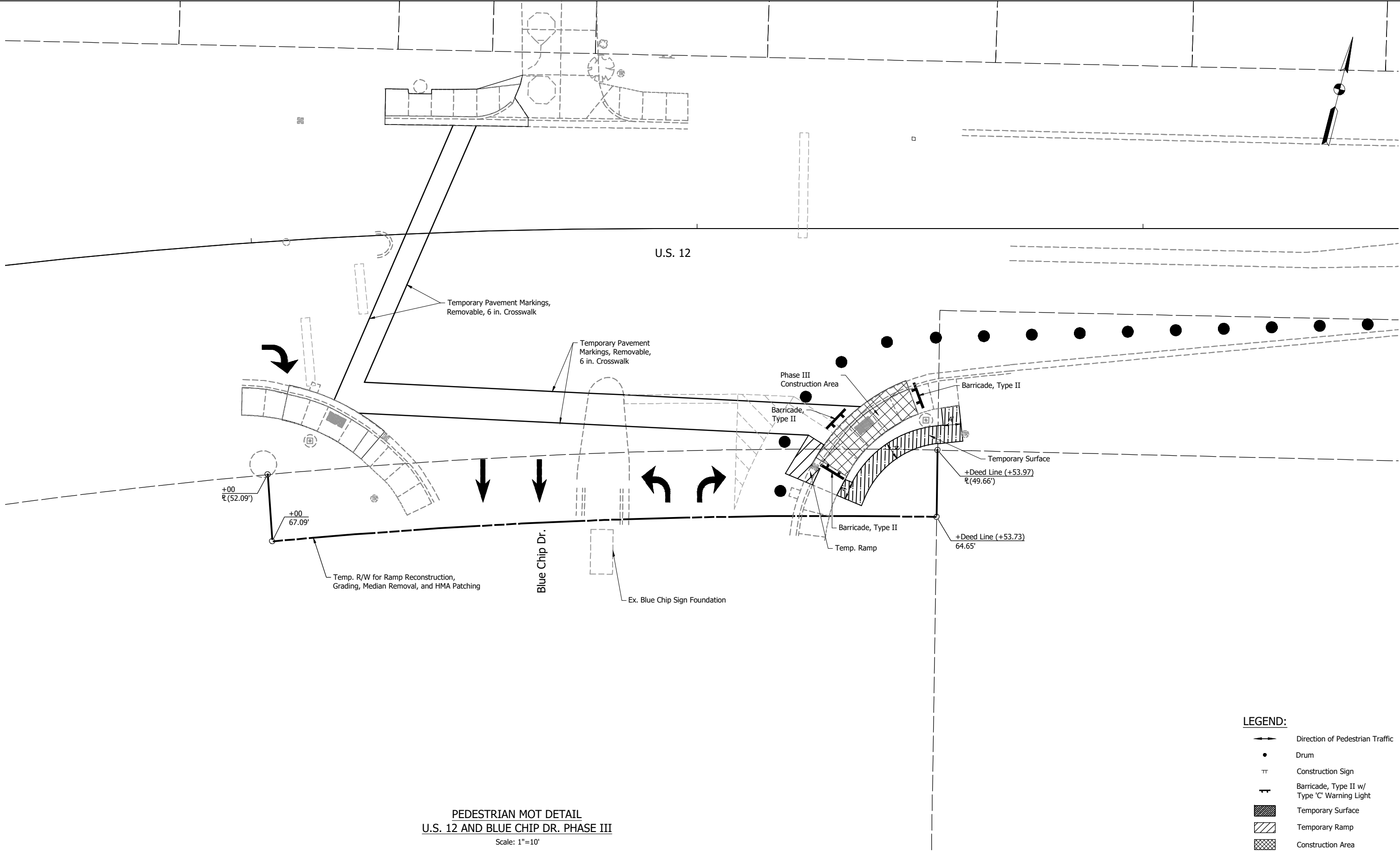
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
MAINTENANCE OF TRAFFIC PEDESTRIAN	

SCALE 1" = 10'		BRIDGE FILE	
		DESIGNATION 2000607	
		SHEETS 31 of 122	
		CONTRACT R-43027	

P:\J - 7/1/2025 8:17 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722MT_PL01.dwg (MT16)



PEDESTRIAN MOT DETAIL
U.S. 12 AND BLUE CHIP DR. PHASE III

Scale: 1"=10'

LEGEND:

- Direction of Pedestrian Traffic
- Drum
- Construction Sign
- Barricade, Type II w/ Type 'C' Warning Light
- Temporary Surface
- Temporary Ramp
- Construction Area

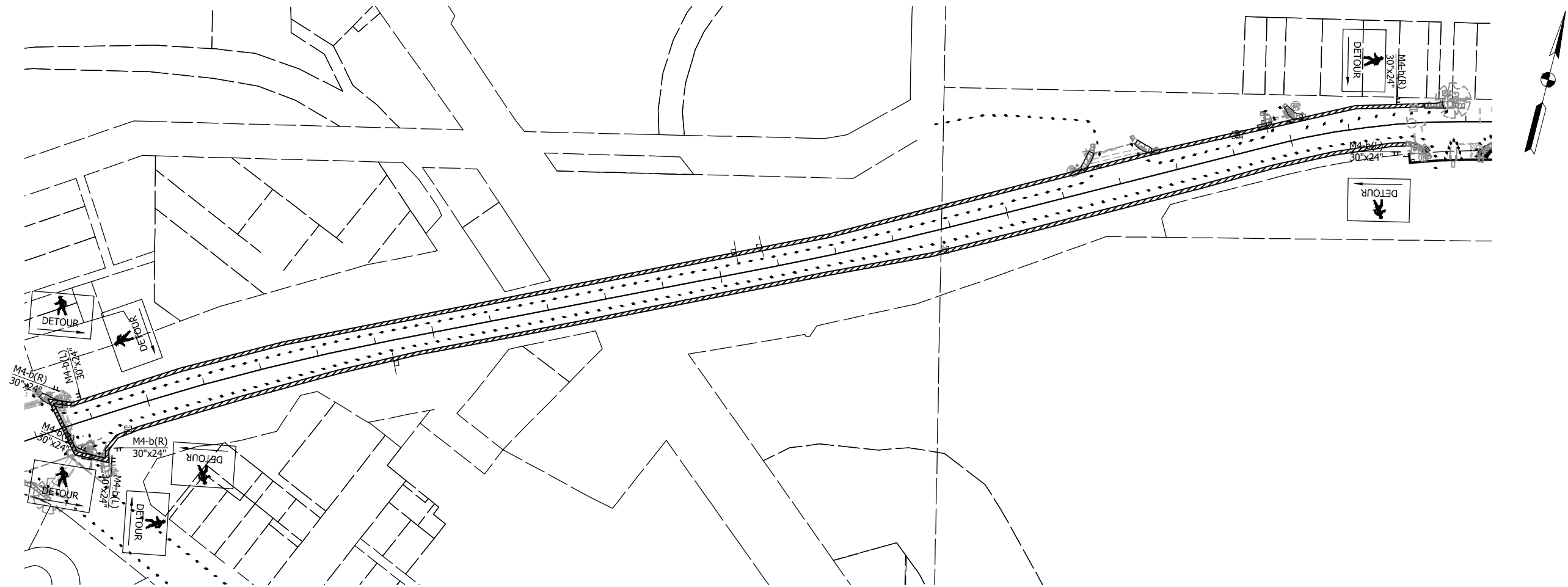
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
MAINTENANCE OF TRAFFIC PEDESTRIAN	

SCALE 1" = 10'		BRIDGE FILE	
		DESIGNATION 2000607	
		SHEETS	
		32 of 122	
		CONTRACT R-43027	

P:\J - 7/1/2025 8:20 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722MT_PL01.dwg (MT17)



PEDESTRIAN MOT DETAIL
U.S. 12 AND BLUE CHIP DR. DETOUR
Scale: 1"=100'

LEGEND:

- Direction of Pedestrian Traffic
- Drum
- Construction Sign
- Barricade, Type II w/
Type 'C' Warning Light
- Temporary Surface
- Construction Area

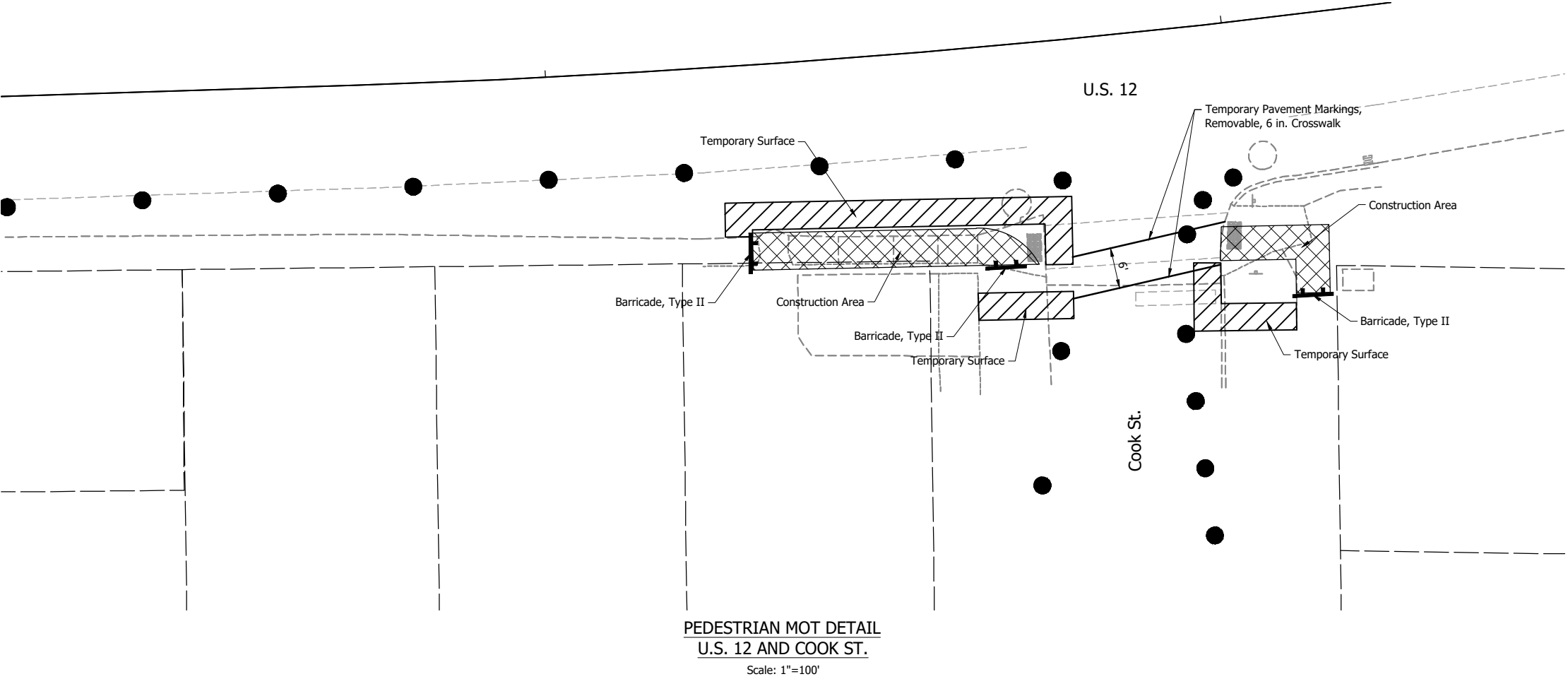
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
MAINTENANCE OF TRAFFIC PEDESTRIAN	

SCALE 1" = 100'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 33 of 122
	CONTRACT R-43027

P:\J - 7/1/2025 8:14 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722MT_PL01.dwg (MT18)



LEGEND:

- Direction of Pedestrian Traffic
- Drum
- Construction Sign
- Barricade, Type II w/ Type 'C' Warning Light
- Temporary Surface
- Construction Area

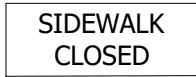
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

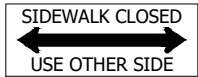
INDIANA DEPARTMENT OF TRANSPORTATION	
MAINTENANCE OF TRAFFIC PEDESTRIAN	

SCALE 1" = 100'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 34 of 122
	CONTRACT R-43027

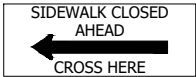
P:\J - 7/1/2025 8:12 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722MT_DT01.dwg (LAYOUT1)



R9-9



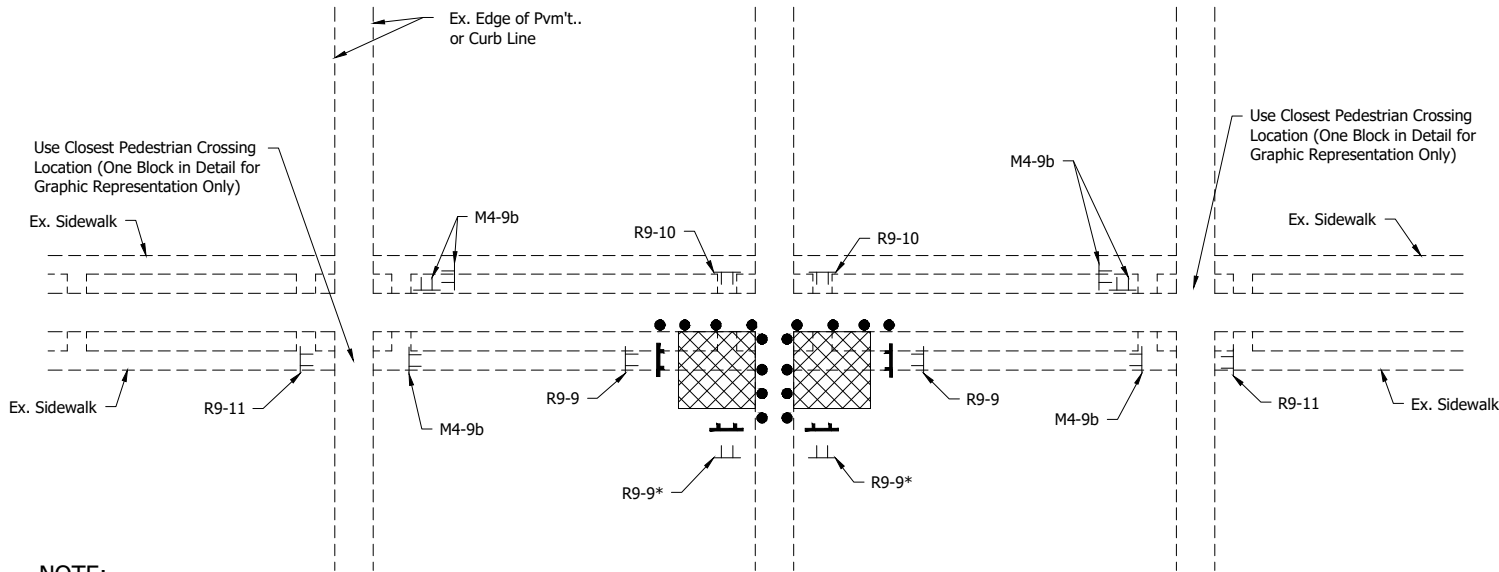
R9-10



R9-11 (L or R)



M4-9b (L or R)



NOTE:

Sidewalk closures/work shall not be at consecutive intersections.

LEGEND:

- Drum
- Barricade, II w/ Type 'C' Warning Light
- TT Construction Sign and Support
- ▨ Sidewalk Work Zone

**MAINTENANCE OF TRAFFIC
TYPICAL PEDESTRIAN DETOUR**

Not to Scale

* Where side street walk exists, intersection quadrant closure to be reduced to one quadrant with pedestrian traffic re-routed to other quadrant. Use R9-9, R9-11, and M4-9b signs and barricade, II similar to shown above for INDOT roadway as needed.



PX-1

XW11-2
48"x48"



PX-2

XW11-2
48"x48"

XW16-7p
30"x18"

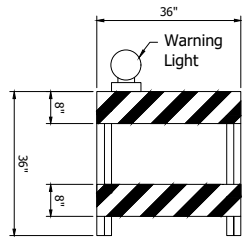
AHEAD

XW16-9p
30"x18"

ROAD TYPE	DISTANCE BETWEEN SIGNS (ft)
Urban ≤ 45 mph	200
Urban ≥ 50 mph	350
Rural	500

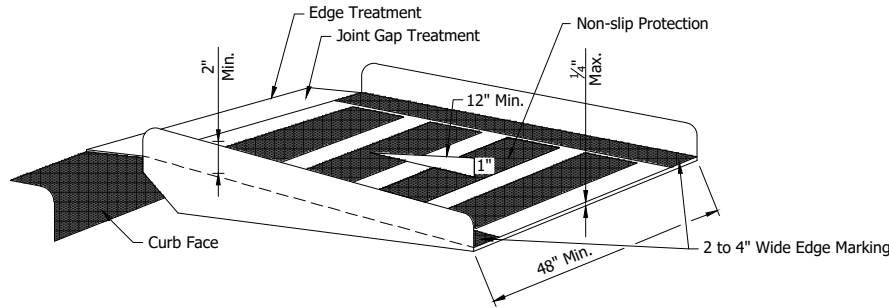
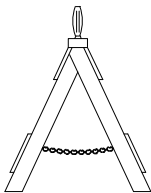
NOTE:

PX-1 and PX-2 to be placed upstream of vehicular traffic at temporary pedestrian crosswalk. PX-1 to be just before pedestrian crosswalk. PX-2 to be a distance upstream of PX-1 for both directions of vehicular traffic based on road type.



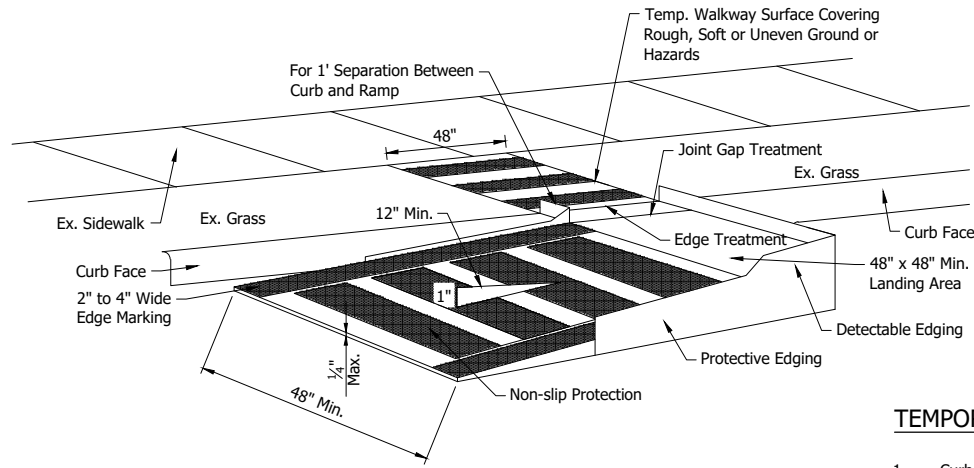
BARRICADE TYPE II W/ TYPE 'C' WARNING LIGHT

Not to Scale



**TEMPORARY CURB RAMP
PERPENDICULAR TO CURB**

Not to Scale

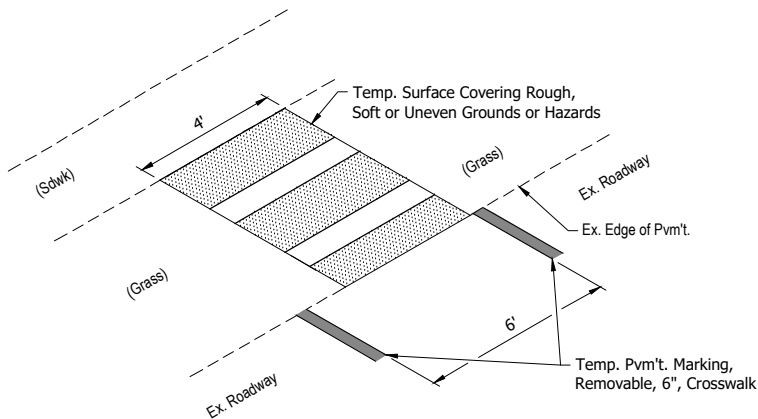


**TEMPORARY CURB RAMP
PARALLEL TO CURB**

Not to Scale

TEMPORARY CURB RAMP NOTES:

- Curb ramps and temporary surfaces shall be 48" minimum width with a firm, stable and non-slip surface that is sufficiently anchored.
- Protective edging with a 2" minimum height shall be installed when the curb ramp or landing platform has a vertical drop of 6" or greater or has a side apron slope steeper than 1:3 (33%). Protective edging should be considered when curb ramps or landing platforms have a vertical drop of 3" or more.
- Detectable edging with 6" minimum height and contrasting color shall be installed on all curb ramp landings where the walkway changes direction (turns).
- Curb ramps and landings should have a 1:50 (2%) maximum cross-slope.
- Clear space of 48" x 48" minimum shall be provided above and below the curb ramp.
- The curb ramp walkway edge shall be marked with a contrasting color 2" to 4" wide marking. The marking is optional where color contrasting edging is used.
- Water flow in the gutter system shall have minimal restriction.
- Lateral joints or gaps between surfaces shall be less than 0.5" width.
- Changes between surface heights should not exceed 0.5". Lateral edges should be vertical up to 0.25" high, and beveled at 1:2 between 0.25" and 0.5" height.
- Sod disturbance to be replaced as needed.



**TEMPORARY SURFACE BETWEEN ROADWAY AND
EXISTING SIDEWALK**

Not to Scale

NOT FOR
CONSTRUCTION

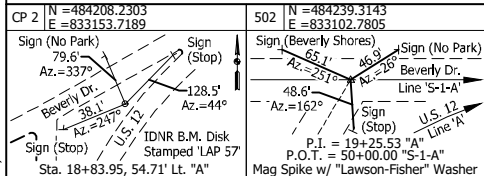
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: DJT	DRAWN: GDH	
CHECKED: DGD	CHECKED: DJT	

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PEDESTRIAN DETOUR

SCALE	BRIDGE FILE
NOT TO SCALE	
	DESIGNATION
	2000607
	SHEETS
	35 of 122
	CONTRACT
	R-43027

NOTE:
Vegetation trimming shall be performed without wetland disturbance.



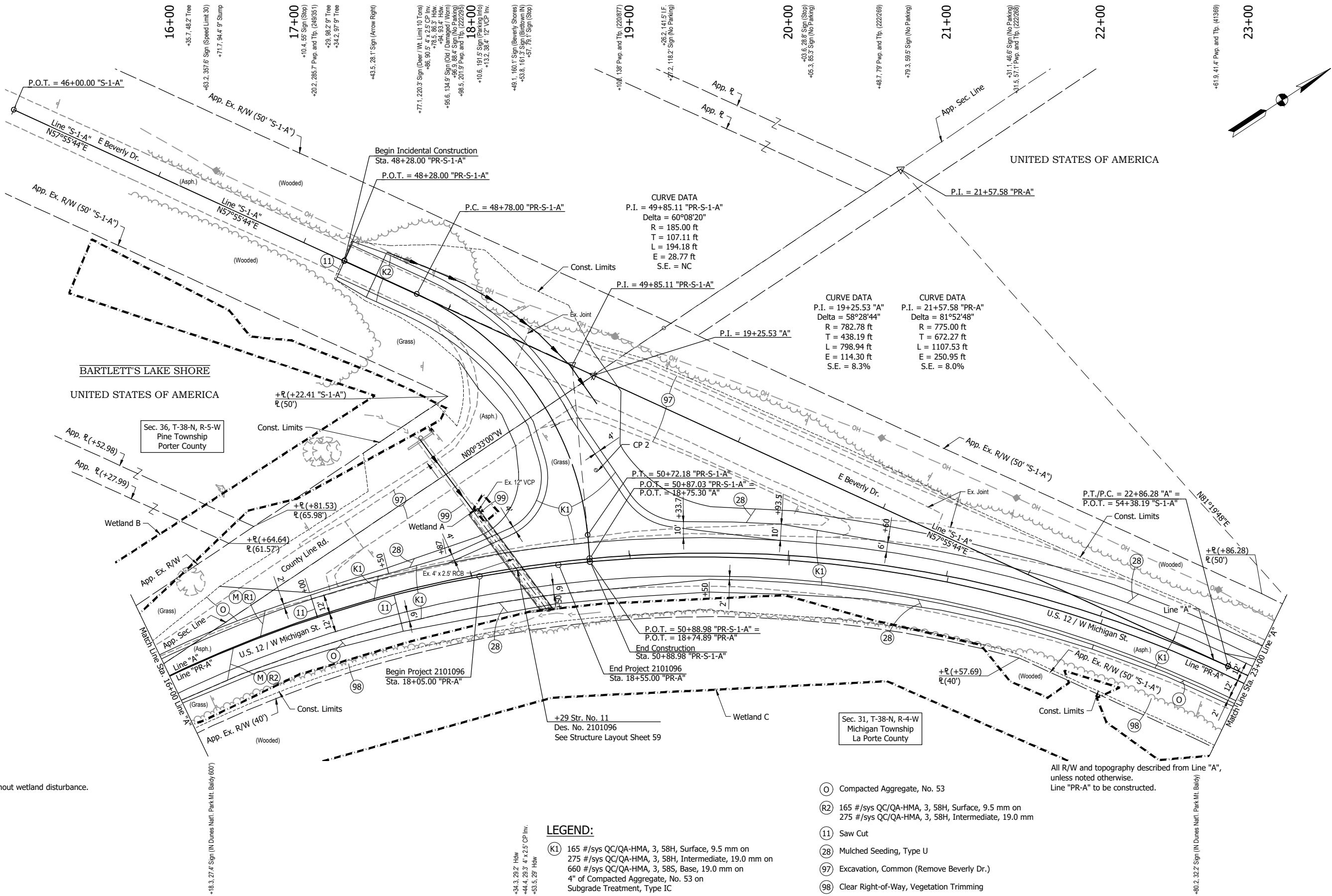
- LEGEND:**
- (K1) 165 #/sys QC/QA-HMA, 3, 58H, Surface, 9.5 mm on 275 #/sys QC/QA-HMA, 3, 58H, Intermediate, 19.0 mm on 660 #/sys QC/QA-HMA, 3, 58S, Base, 19.0 mm on 4" of Compacted Aggregate, No. 53 on Subgrade Treatment, Type IC
 - (M) Profile Milling (0" Min. to 4" Max.)

NOT FOR CONSTRUCTION

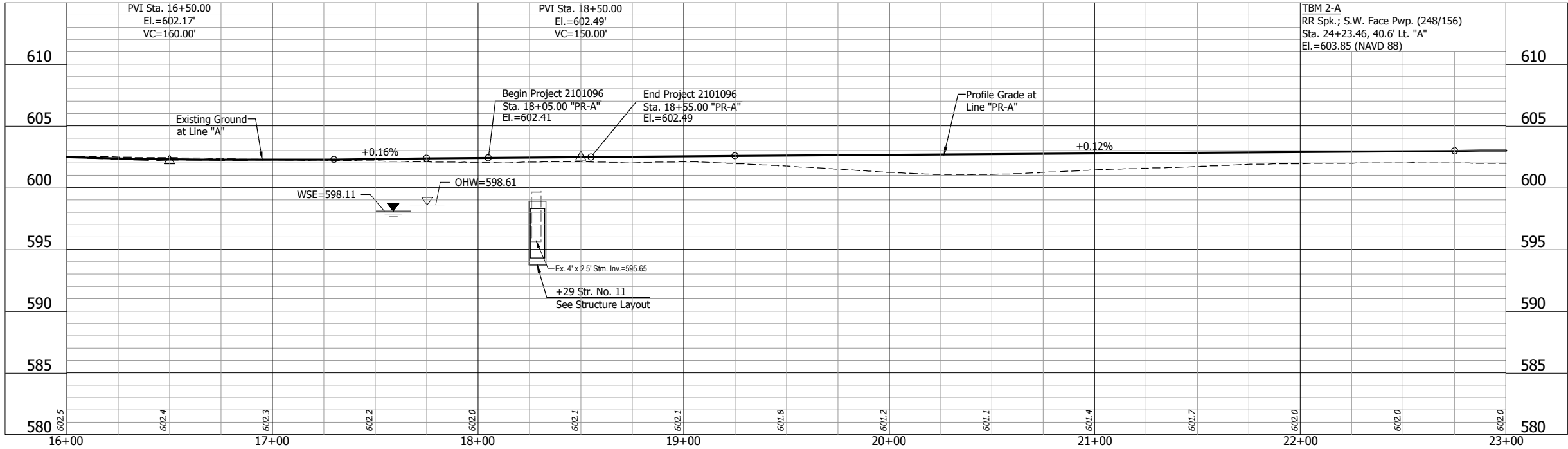
RECOMMENDED FOR APPROVAL	
DESIGN ENGINEER	DATE
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
PLAN - LINE "PR-A" STA. 16+00 TO STA. 23+00	

HORIZONTAL SCALE		BRIDGE FILE	
1" = 30'		DESIGNATION	
VERTICAL SCALE		2000607	
SHEETS		R-43027	
37	of 122	CONTRACT	



TMC - 7/1/2025 8:13 AM - U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte MI\Cad\Plan Set\Civil\201722_223800TR_PL02.dwg (PROFILE - 16-23 - A)



NOT FOR
CONSTRUCTION

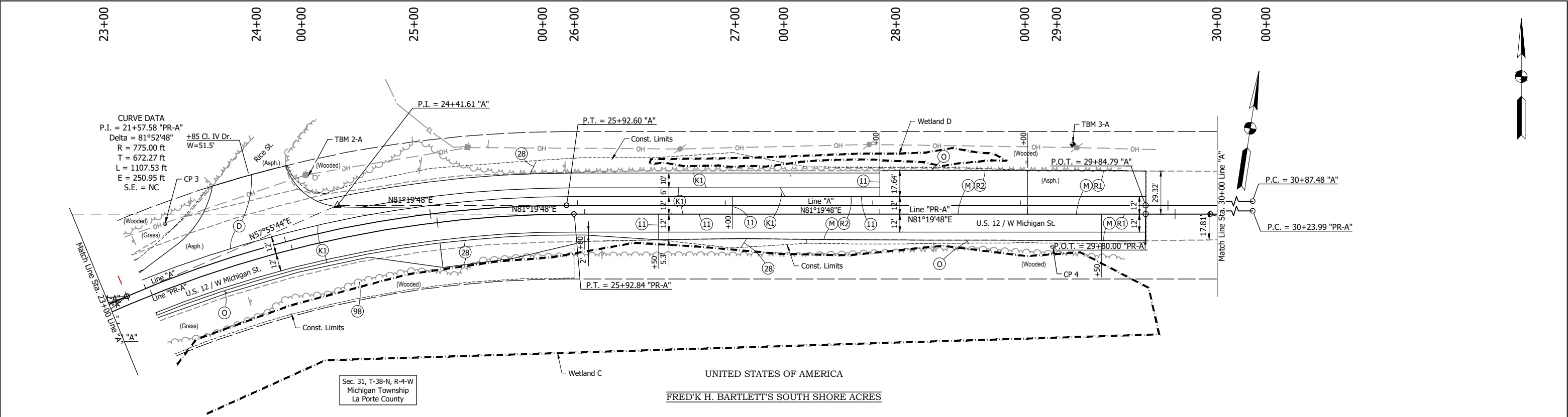
RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE - LINES "PR-A" & "A"
STA. 16+00 TO STA. 23+00

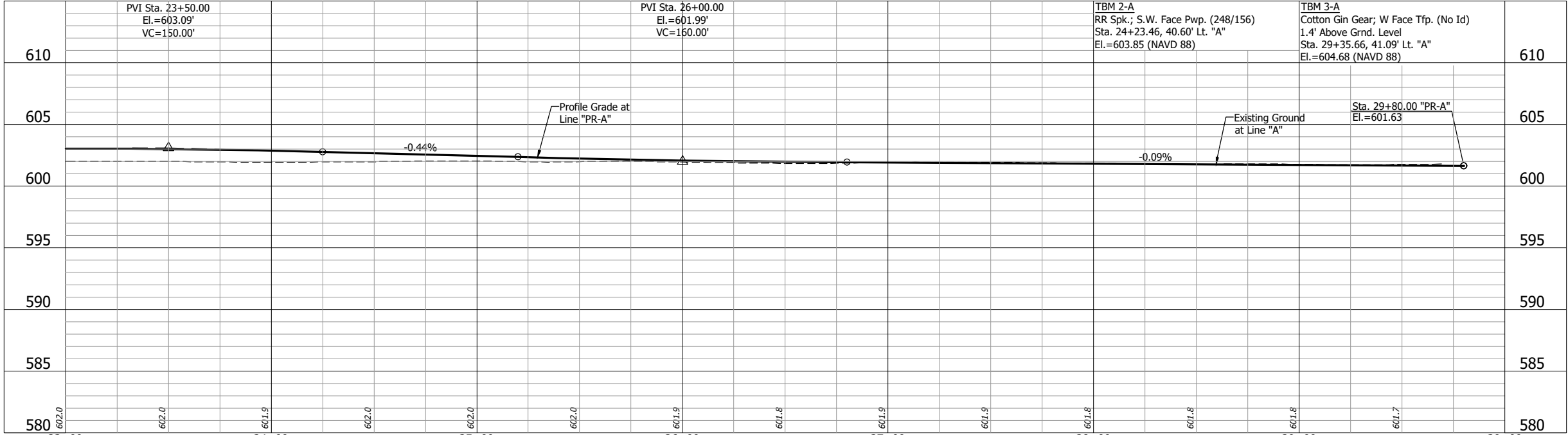
HORIZONTAL SCALE 1" = 30'		BRIDGE FILE	
VERTICAL SCALE 1" = 5'		DESIGNATION 2000607	
		SHEETS 38 of 122	
		CONTRACT R-43027	

T:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte MI\Cad\Plan Set\Civil\201722_223800TR_PP03.dwg (P & P - 23-30



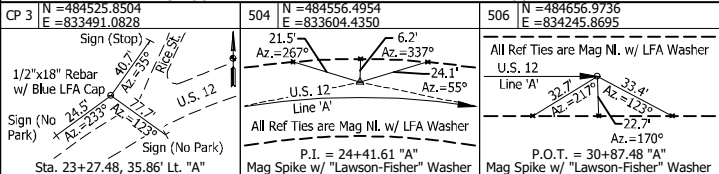
NOTE:

Vegetation trimming shall be performed without wetland disturbance.



LEGEND:

- (D) HMA for Approaches, Type B
165 #/sys HMA Surface, Type B on
275 #/sys HMA Intermediate, Type B on
660 #/sys HMA Base, Type B on
Subgrade Treatment, Type II on
Geogrid, Type IB
- (K1) 165 #/sys QC/QA-HMA, 3, 58H, Surface, 9.5 mm on
275 #/sys QC/QA-HMA, 3, 58H, Intermediate, 19.0 mm on
660 #/sys QC/QA-HMA, 3, 58S, Base, 19.0 mm on
4\" of Compacted Aggregate, No. 53 on
Subgrade Treatment, Type IC
- (M) Profile Milling (0\" Min. to 4\" Max.)
- (O) Compacted Aggregate, No. 53
- (R1) 165 #/sys QC/QA-HMA, 3, 58H, Surface, 9.5 mm
- (R2) 165 #/sys QC/QA-HMA, 3, 58H, Surface, 9.5 mm on
275 #/sys QC/QA-HMA, 3, 58H, Intermediate, 19.0 mm
- (11) Saw Cut
- (28) Mulched Seeding, Type U
- (98) Clear Right-of-Way, Vegetation Trimming

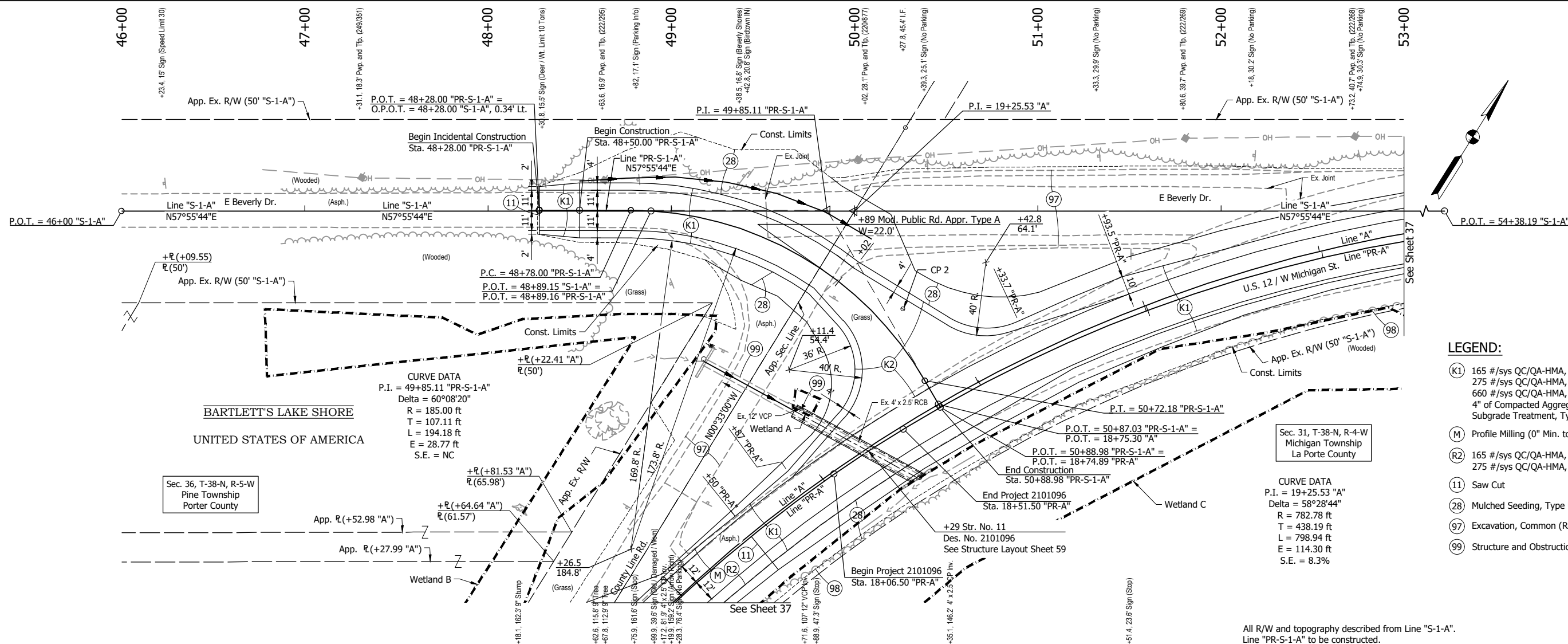


NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL	
DESIGN ENGINEER	DATE
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

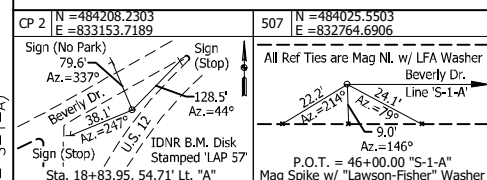
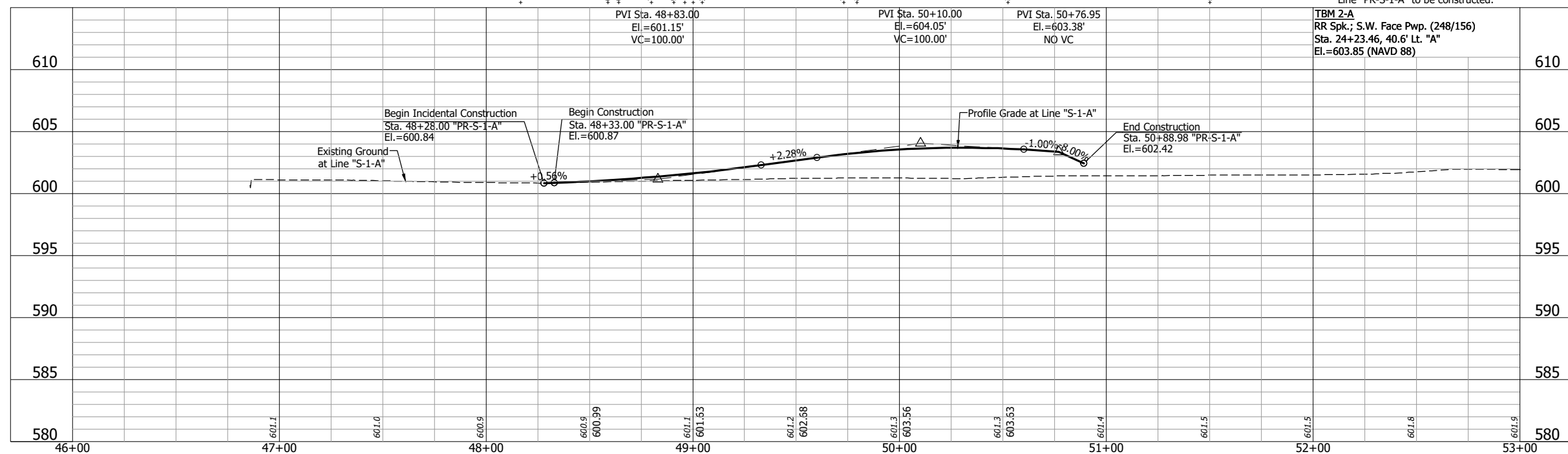
INDIANA DEPARTMENT OF TRANSPORTATION	
PLAN AND PROFILE - LINES "PR-A" & "A" STA. 23+00 TO STA. 30+00	

HORIZONTAL SCALE 1" = 30'	BRIDGE FILE
VERTICAL SCALE 1" = 5'	DESIGNATION 2000607
SHEETS	
39	of 122
CONTRACT	
R-43027	



LEGEND:

- (K1) 165 #/sys QC/QA-HMA, 3, 58H, Surface, 9.5 mm on 275 #/sys QC/QA-HMA, 3, 58H, Intermediate, 19.0 mm on 660 #/sys QC/QA-HMA, 3, 58S, Base, 19.0 mm on 4" of Compacted Aggregate, No. 53 on Subgrade Treatment, Type IC
- (M) Profile Milling (0" Min. to 4" Max.)
- (R2) 165 #/sys QC/QA-HMA, 3, 58H, Surface, 9.5 mm on 275 #/sys QC/QA-HMA, 3, 58H, Intermediate, 19.0 mm
- (11) Saw Cut
- (28) Mulched Seeding, Type U
- (97) Excavation, Common (Remove Beverly Dr.)
- (99) Structure and Obstructions Remove



NOT FOR
CONSTRUCTION

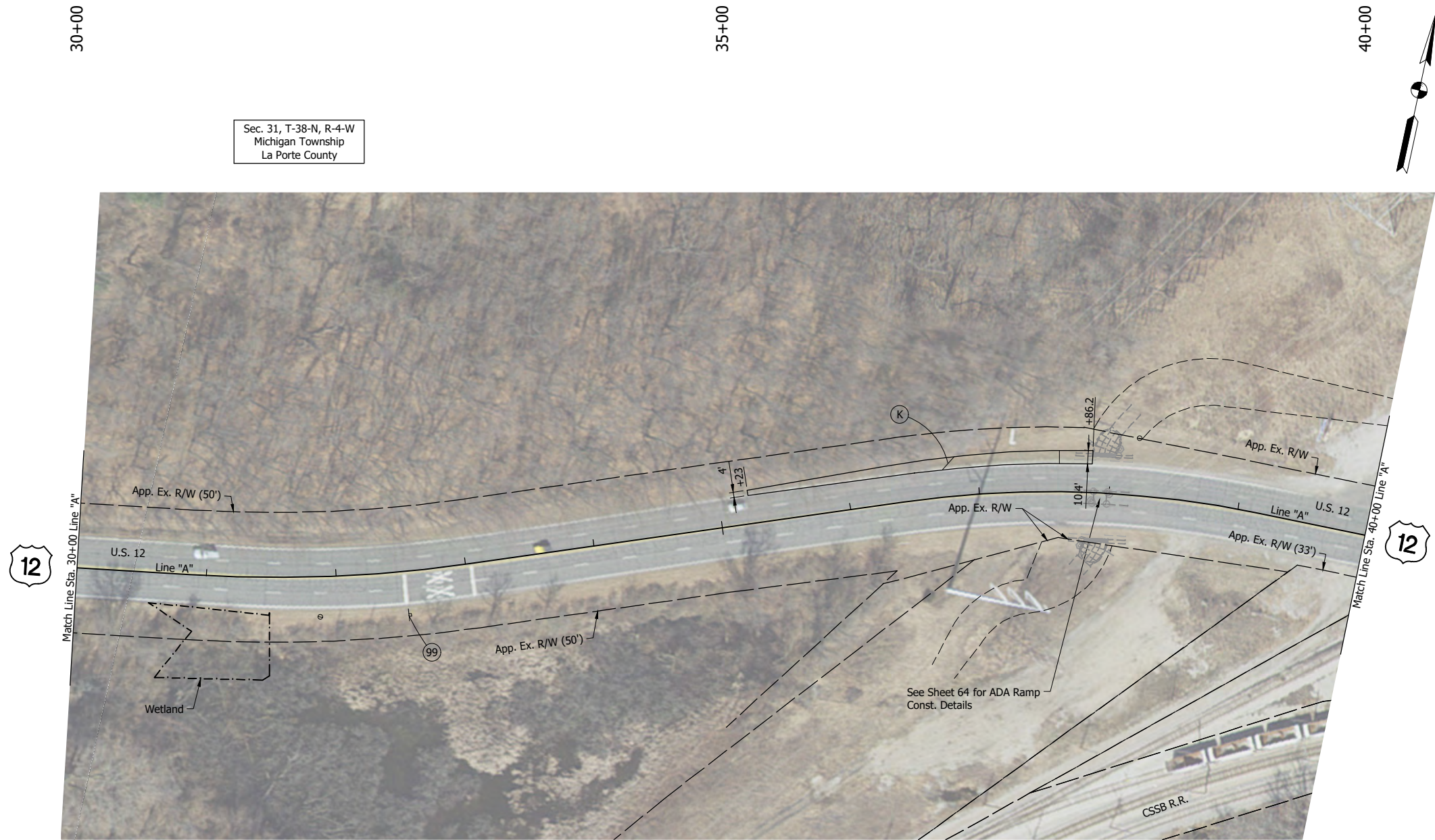
RECOMMENDED FOR APPROVAL _____		DESIGN ENGINEER _____	DATE _____
DESIGNED: <u>DJT</u>		DRAWN: GDH	
CHECKED: <u>DGD</u>		CHECKED: <u>DJT</u>	

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "PR-S-1-A"
STA. 46+00 TO STA. 53+00

HORIZONTAL SCALE		BRIDGE FILE	
1" = 30'			
VERTICAL SCALE		DESIGNATION	
1" = 5'		2000607	
		SHEETS	
		40	of 122
		CONTRACT	
		D. 43027	

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LEGEND:

- (K) 165 #/sys QC/QA-HMA, 3, 58H, Surface, Type B on
275 #/sys QC/QA-HMA, 3, 58H, Intermediate, Type B on
6" Compacted Aggregate, No. 53 on
Subgrade Treatment, Type II
- (99) Remove

NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN - LINE "A"
STA. 25+00 TO STA. 40+00

SCALE 1" = 50'		BRIDGE FILE
		DESIGNATION 2000607
		SHEETS 41 of 122
		CONTRACT R-43027

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Note:
Compacted aggregate no. 53 should extend no deeper than the existing pavement. The 10.5 inch depth is an average based on pavement cores.

LEGEND:

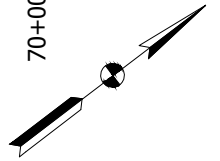
- 11 Saw Cut
- 22 Concrete Center Curb, Type C on 10.5" Compacted Aggregate No. 53
- 99 Remove

NOT FOR
CONSTRUCTION

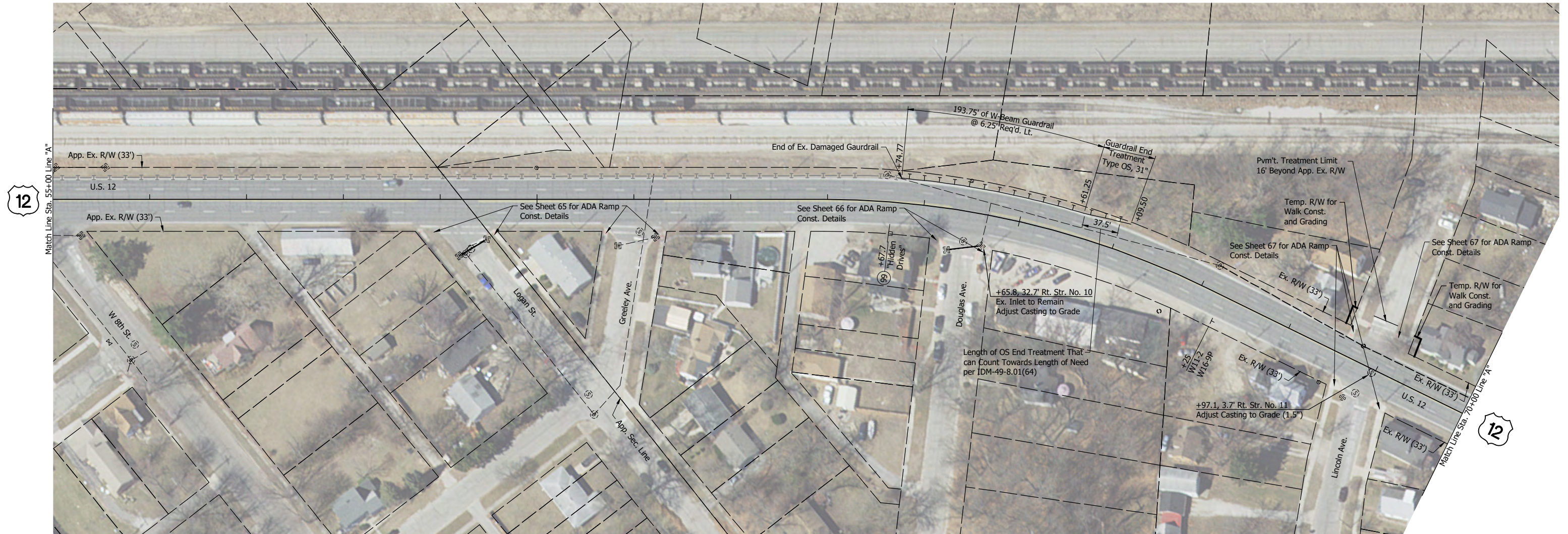
RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
PLAN - LINE "A" STA. 40+00 TO STA. 55+00	

SCALE 1" = 50'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 42 of 122
	CONTRACT R-43027



Sec. 31, T-38-N, R-4-W
Michigan Township
La Porte County



99 Remove

SCALE	BRIDGE FILE
-------	-------------

1" = 50'	
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	DESIGNATION
	2000607

	SHEETS		
	43	of	1

CONTRACT
R-43027

NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
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DESIGNED: DJT DRAWN: GDH

CHECKED: DGD CHECKED: DJT

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN - LINE "A"
STA. 55+00 TO STA. 70+00

P:\J - 7/1/2025 8:21 AM - U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte M\Cad\Plan Set\Civil\201722TR_PL01.dwg (201722TR_PL01 - PL05 RW)



LEGEND:

99 Remove

NOT FOR
CONSTRUCTION

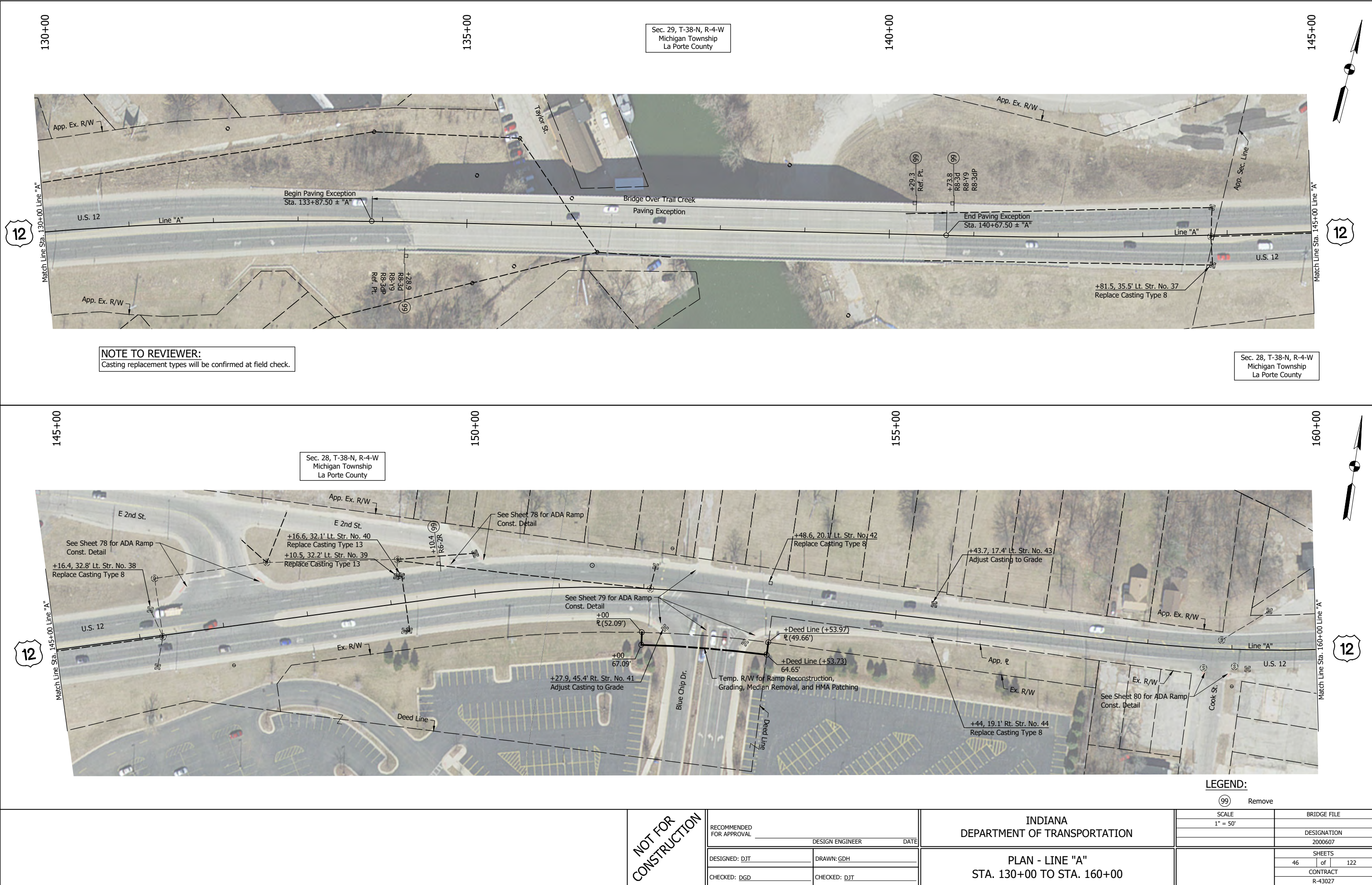
RECOMMENDED FOR APPROVAL	
DESIGN ENGINEER	DATE
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN - LINE "A"
STA. 70+00 TO STA. 100+00

SCALE 1" = 50'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 44 of 122
	CONTRACT R-43027

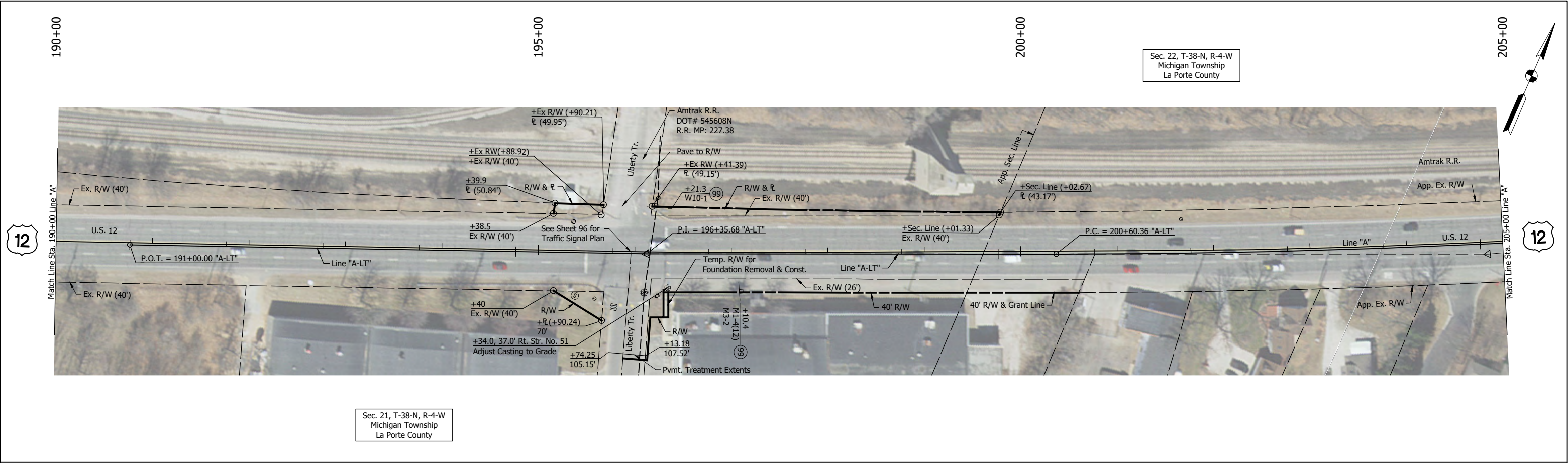
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NOT FOR CONSTRUCTION	RECOMMENDED FOR APPROVAL _____ <div>DESIGN ENGINEER</div> <div>DATE</div>		INDIANA DEPARTMENT OF TRANSPORTATION		SCALE		BRIDGE FILE	
					1" = 50'			
							DESIGNATION	
					2000607			
	DESIGNED: <u>DJT</u>		DRAWN: <u>GDH</u>		PLAN - LINE "A" STA. 160+00 TO STA. 190+00		SHEETS 47 of 122	
	CHECKED: <u>DGD</u>		CHECKED: <u>DJT</u>					
							CONTRACT	
						R-43027		

P:\V - 7/1/2025 8:13 AM - U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte M\Cad\Plan Set\Civil\201722TR_PL01.dwg (201722TR_PL01 - PL09 RW)



LEGEND:

(99) Remove

CP 19 N=418796.6016 E=752930.8049 U.S. 12 S.E. Cor. Traffic Sign Curb Box Sta. 195+59.29, 49.83' Rt. "A" Sta. 195+82.62, 47.62' Rt. "A-LT" 1/2" X 18" Rebar w/Blue LFA Cap	CP 20 N=419116.2800 E=753454.5799 U.S. 12 S.E. Cor. Traffic Sign Curb Box Sta. 201+66.78, 32.21' Lt. "A" Sta. 201+90.33, 35.01' Lt. "A-LT" 1/2" X 18" Rebar w/Blue LFA Cap	520 N=418654.5585 E=752467.1049 U.S. 12 Sign (Michigan City) Sta. 191+00.00 P.O.T. = 191+00.00 "A-LT" Mag Spike w/"Lawson-Fisher" Washer	521 N=418860.9927 E=752961.4105 U.S. 12 Pwp. (958/371) Sta. 196+35.68 P.I. = 196+35.68 "A-LT" Mag Spike w/"Lawson-Fisher" Washer	523 N=419031.4391 E=753350.3843 U.S. 12 Pwp. (958/371) Sta. 200+60.36 P.C. = 200+60.36 "A-LT" Mag Spike w/"Lawson-Fisher" Washer
--	--	--	--	--

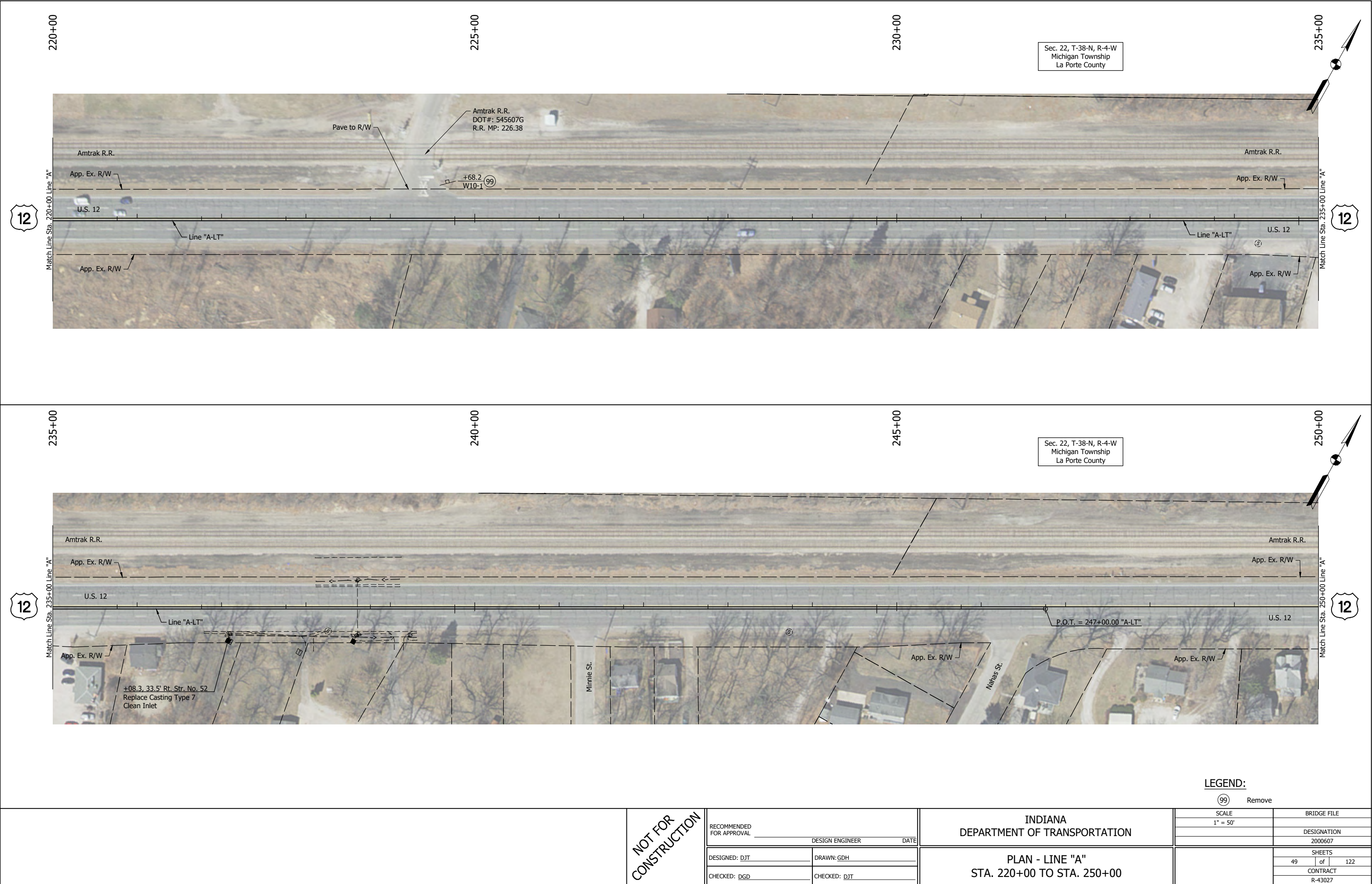
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: DJT	DRAWN: GDH	
CHECKED: DGD	CHECKED: DJT	

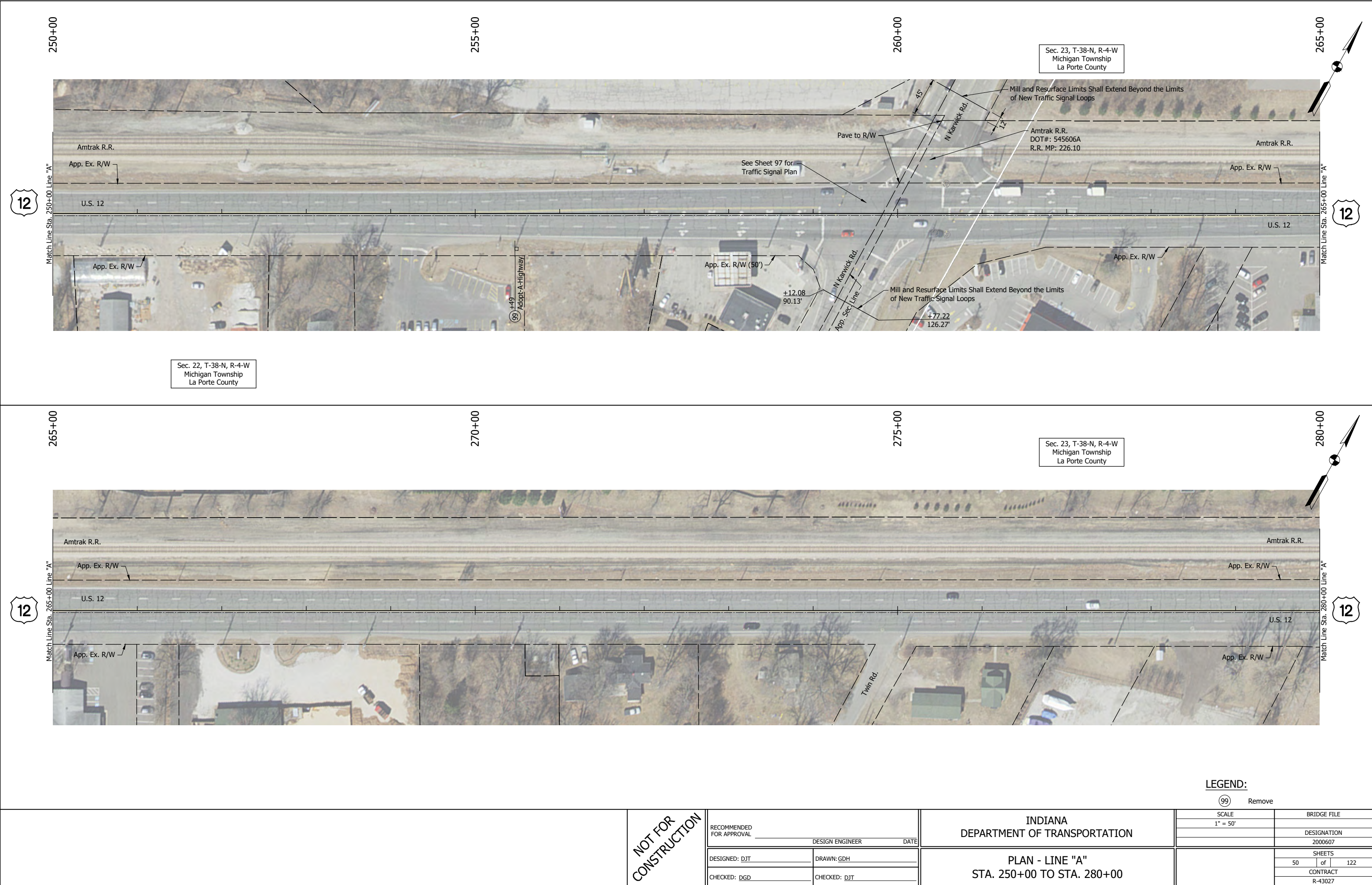
INDIANA DEPARTMENT OF TRANSPORTATION
PLAN - LINE "A" STA. 190+00 TO STA. 220+00

SCALE 1" = 50'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 48 of 122
	CONTRACT R-43027

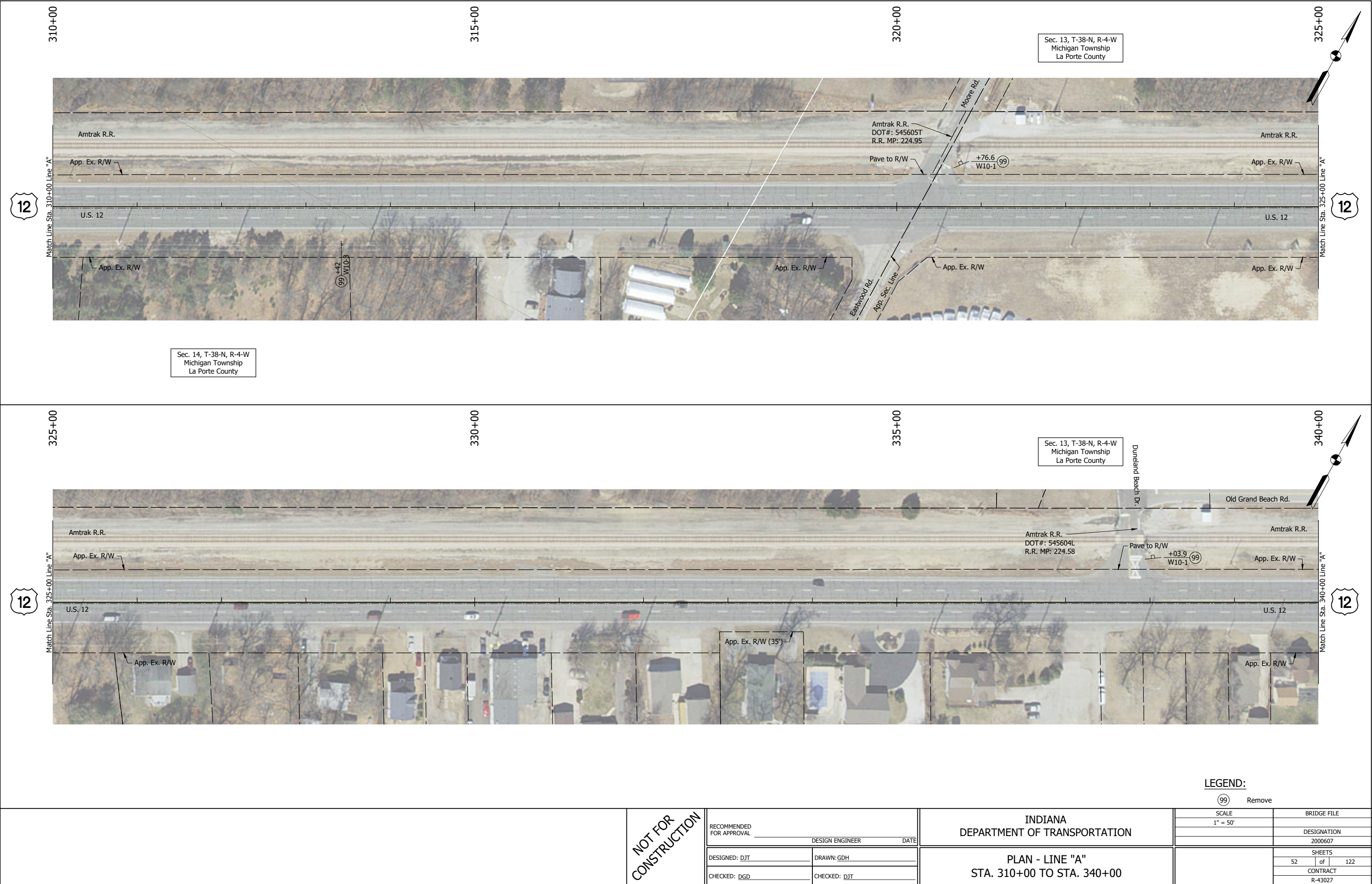
P:\J - 7/1/2025 8:19 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722TR_PL01.dwg (PL10)



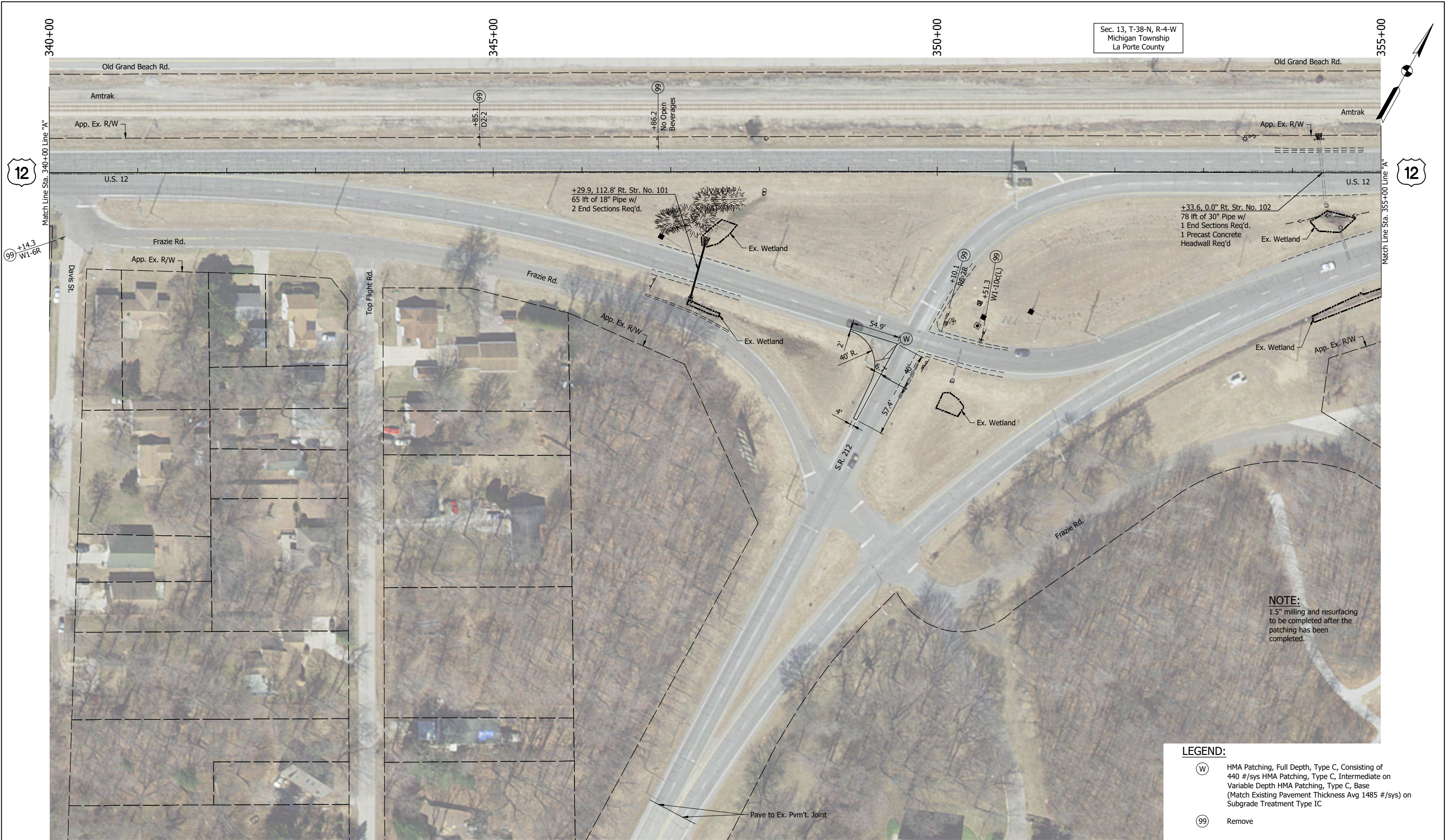
FTP -- 7/1/2025 8:13 AM -- U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722TR_PL02.dwg (PL11)



FTP -- 7/1/2025 8:15 AM -- U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte MI\Cad\Plan Set\Civil\201722TR_PL02.dwg (PL13)



FTP - 7/1/2025 8:11 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte MI\Cad\Plan Set\Civil\201722TR_PL02.dwg (PL14)



NOTE:
1.5" milling and resurfacing
to be completed after the
patching has been
completed.

- LEGEND:**
- (W) HMA Patching, Full Depth, Type C, Consisting of 440 #/sys HMA Patching, Type C, Intermediate on Variable Depth HMA Patching, Type C, Base (Match Existing Pavement Thickness Avg 1485 #/sys) on Subgrade Treatment Type IC
 - (99) Remove

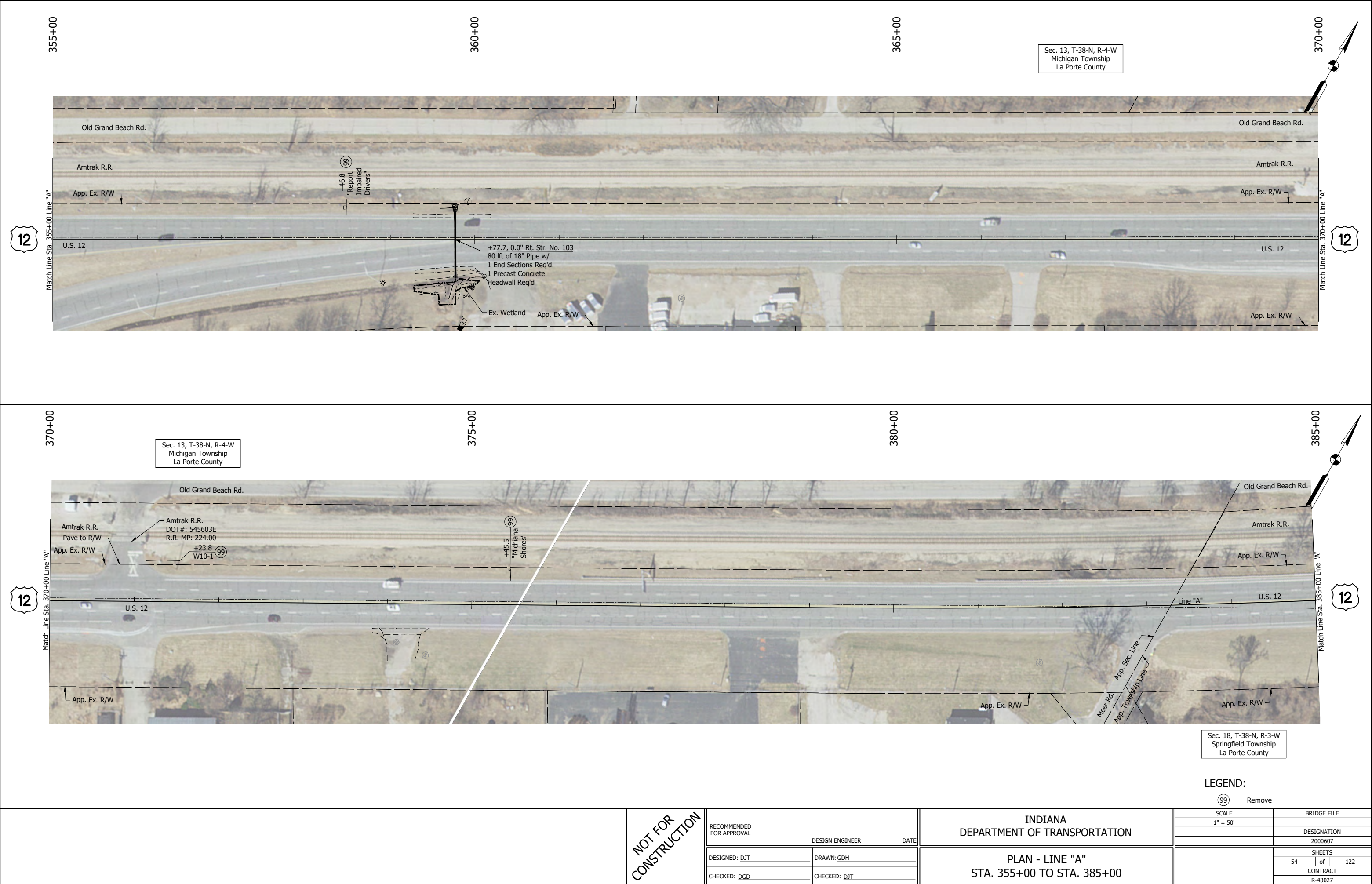
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

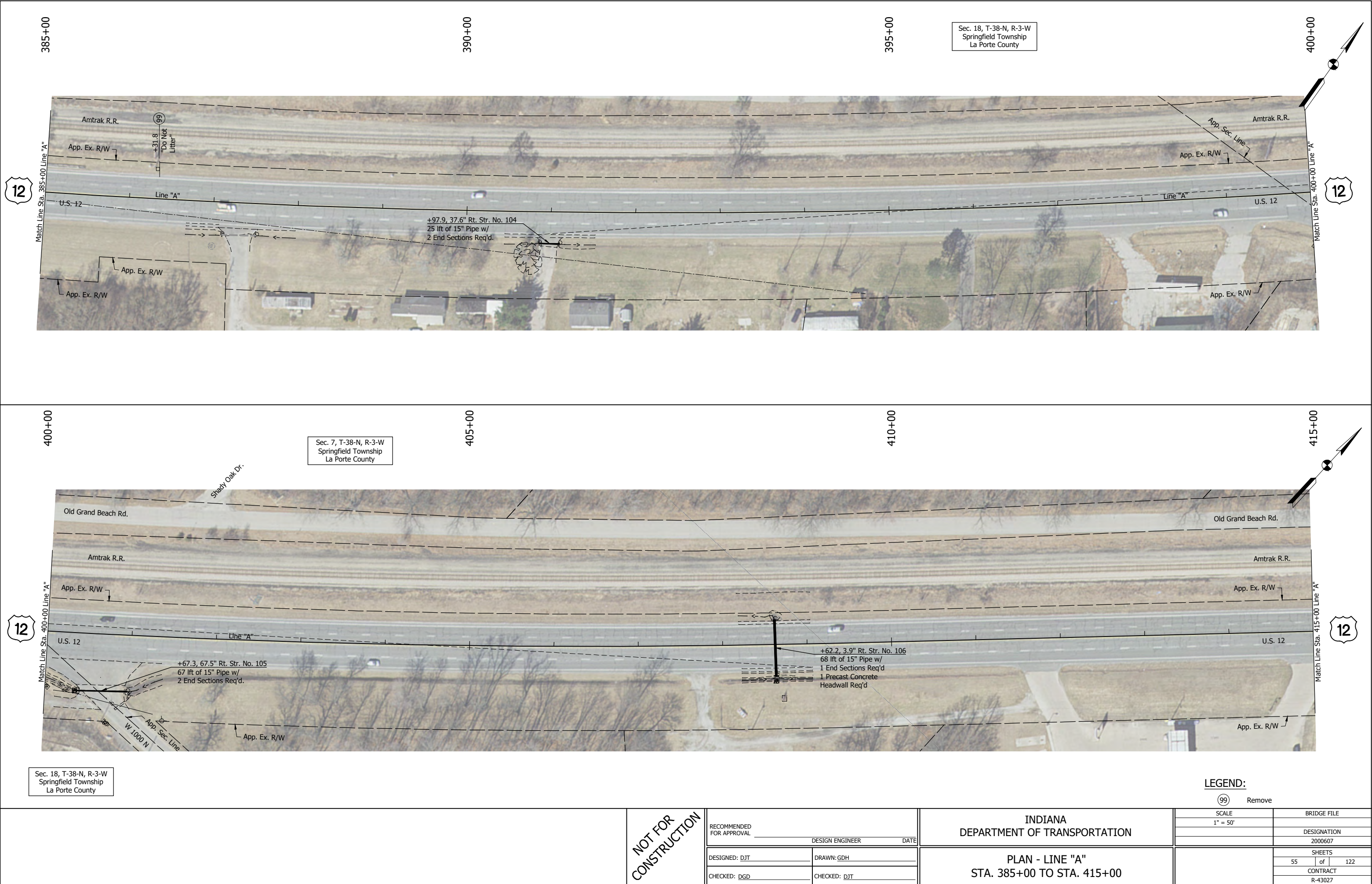
INDIANA DEPARTMENT OF TRANSPORTATION	
PLAN - LINE "A" STA. 340+00 TO STA. 355+00	

SCALE 1" = 50'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 53 of 122
	CONTRACT R-43027

FTP -- 7/1/2025 8:14 AM -- U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte MI\Cad\Plan Set\Civil\201722TR_PL02.dwg (PL15)



FTP -- 7/1/2025 8:16 AM -- U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\2017222TR_PL02.dwg (PL16)



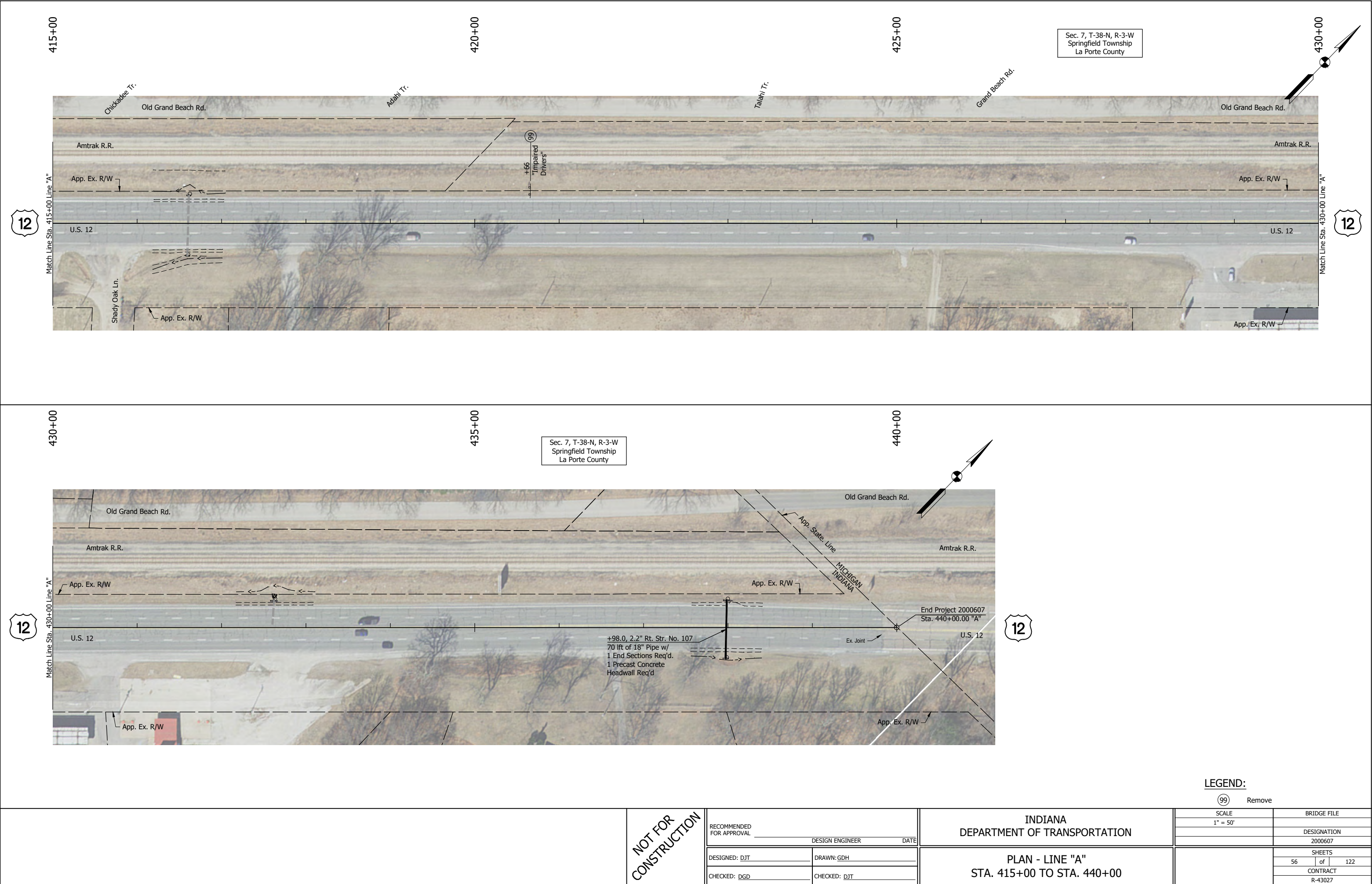
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

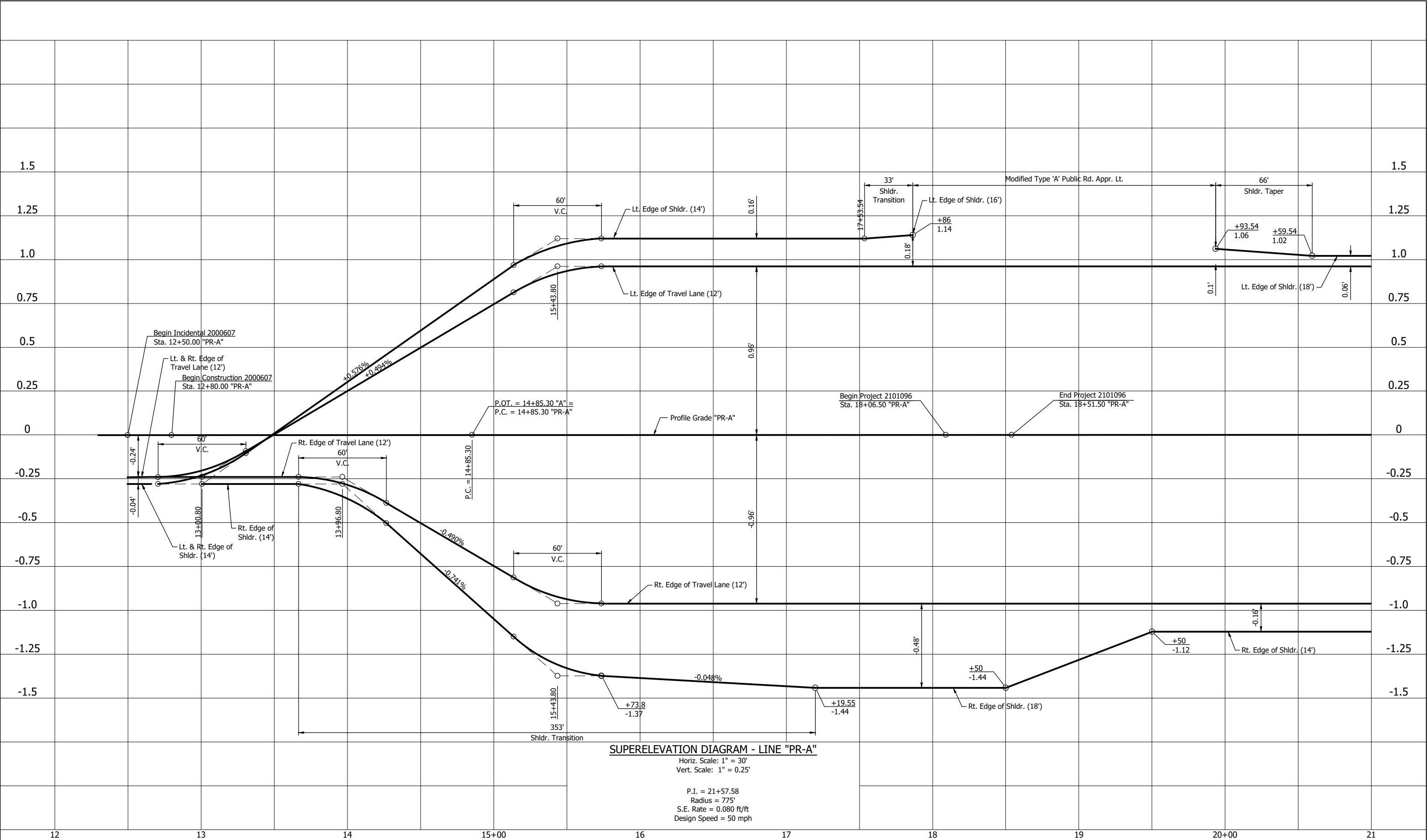
INDIANA DEPARTMENT OF TRANSPORTATION	
PLAN - LINE "A" STA. 385+00 TO STA. 415+00	

LEGEND:	
(99) Remove	
SCALE 1" = 50'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 55 of 122
	CONTRACT R-43027

FTP -- 7/1/2025 8:16 AM -- U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722TR_PL02.dwg (PL17)



P:\J - 7/1/2025 8:16 AM - U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte M\Cad\Plan Set\Civil\201722_223800TR_SD.dwg (SUPERELEVATION DIAGRAM)



SUPERELEVATION DIAGRAM - LINE "PR-A"

Horiz. Scale: 1" = 30'
Vert. Scale: 1" = 0.25'

P.I. = 21+57.58
Radius = 775'
S.E. Rate = 0.080 ft/ft
Design Speed = 50 mph

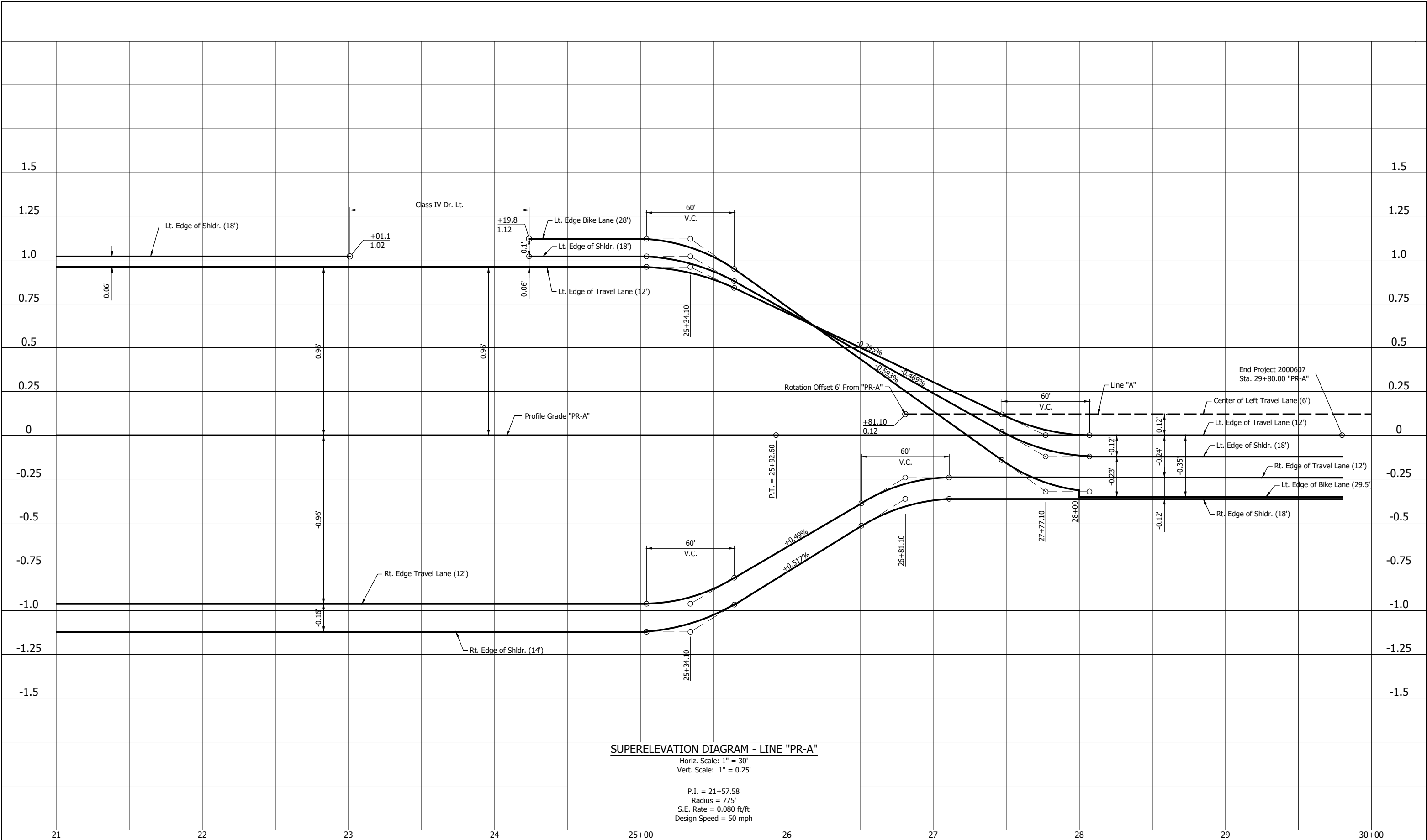
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
SUPERELEVATION DIAGRAM LINE "PR-A"	

HORIZONTAL SCALE 1" = 30'		BRIDGE FILE	
VERTICAL SCALE 1" = 0.25'		DESIGNATION 2000607	
		SHEETS	
		57	of 122
		CONTRACT R-43027	

P:\J - 7/1/2025 8:18 AM - U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte M\Cad\Plan Set\Civil\201722_223800TR_SD.dwg (SUPERELEVATION DIAGRAM (2))



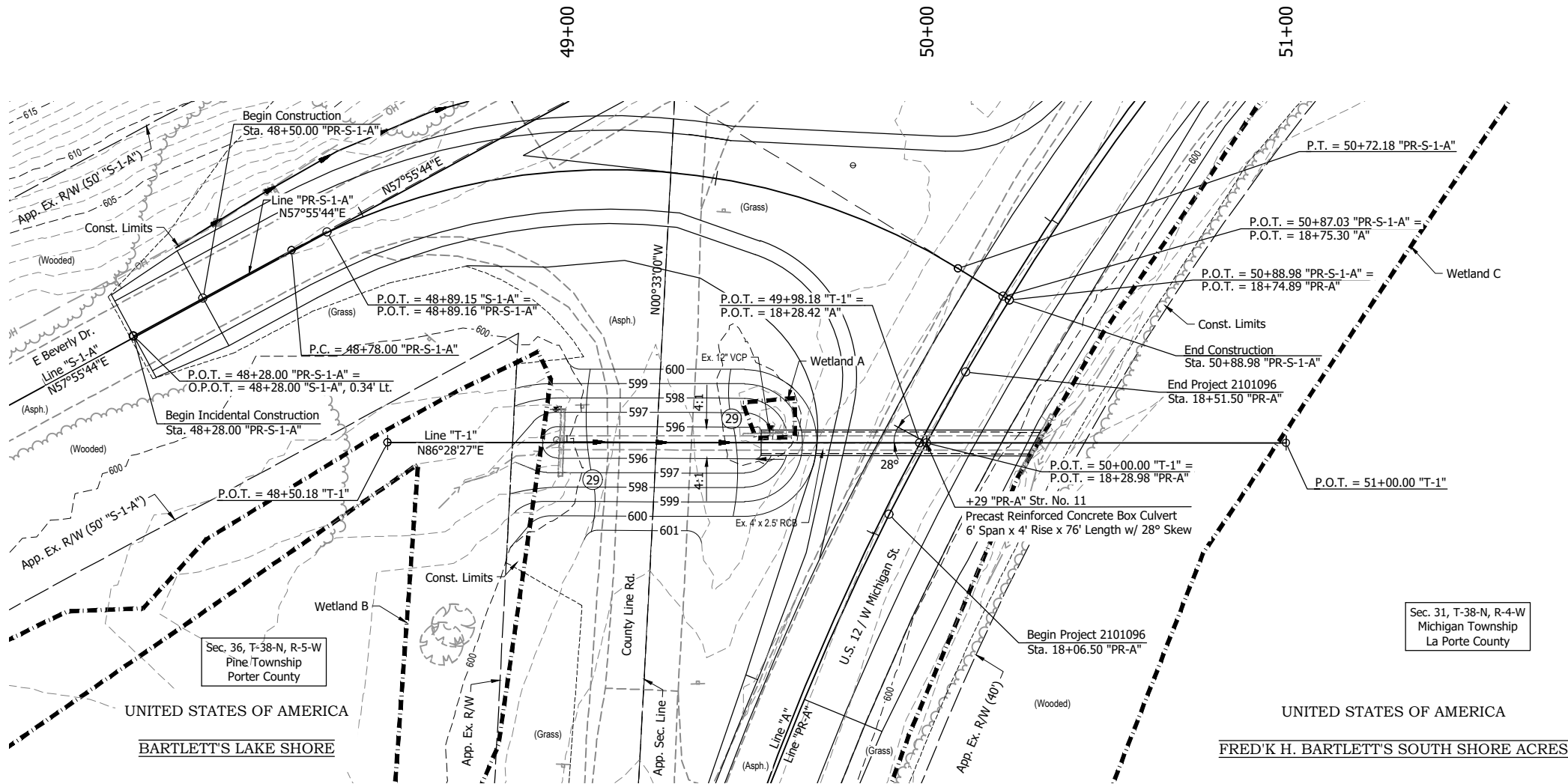
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
SUPERELEVATION DIAGRAM LINE "PR-A"	

HORIZONTAL SCALE 1" = 30'		BRIDGE FILE	
VERTICAL SCALE 1" = 0.25'		DESIGNATION 2000607	
		SHEETS	
		58	of 122
		CONTRACT R-43027	

P:\J - 7/1/2025 8:14 AM - U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte MI\Cad\Plan Set\Civil\201722_223800TR_SL.dwg (STR. LAYOUT)

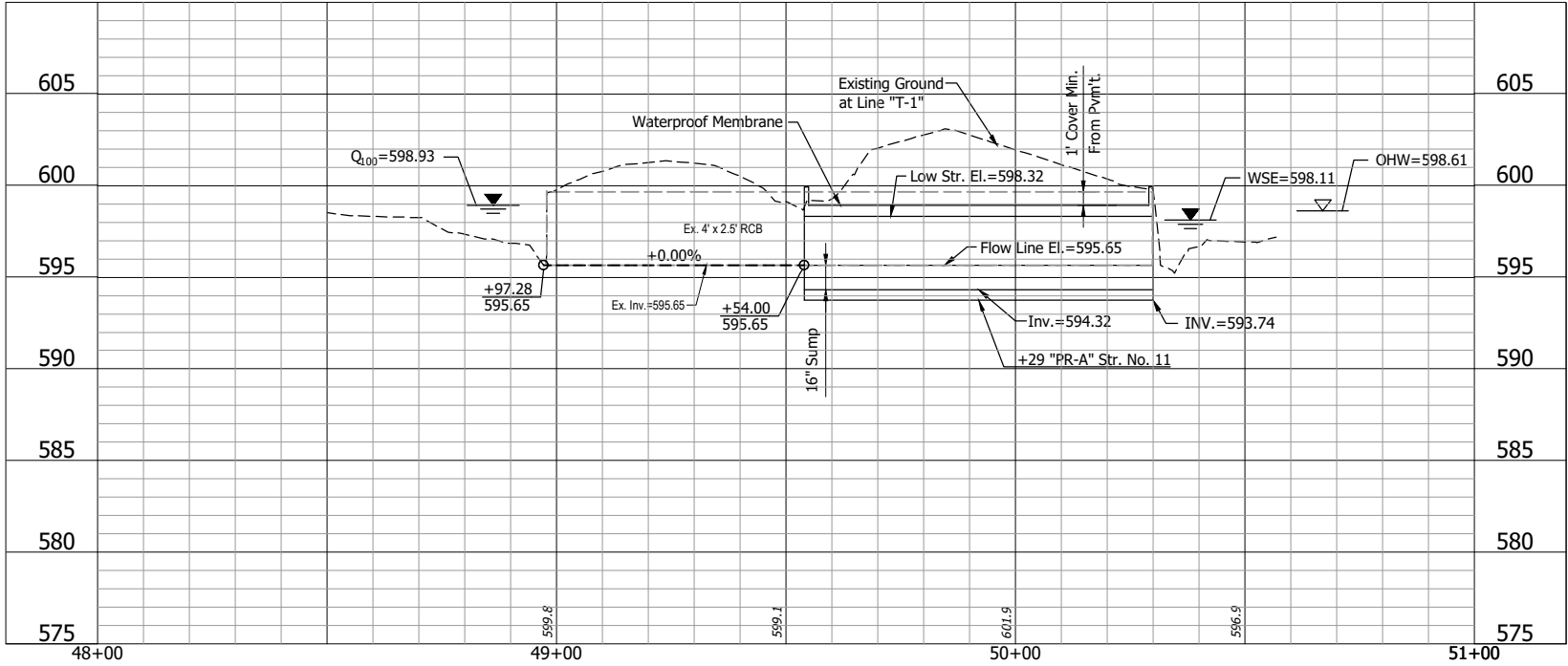


HYDRAULIC DATA

Drainage Area	92 Ac
Q ₁₀₀ Discharge	66.2 ft ³ /sec.
Q ₁₀₀ Headwater Elevation	598.87 ft
Backwater	1.15 ft
Velocity at Q ₅₀	5.14 ft/sec.
Gross Waterway Area (Below Q ₁₀₀ Elevation)	24 ft ²
Required Waterway Opening	24 ft ²
Waterway Opening Provided	24 ft ²
Roadway Overflow Area	0 ft ²
Low Structure Elevation Provided	598.32 ft
Skew	28° Rt.
Ex. 48" x 30" RCB Waterway Opening	10 ft ²
Ex. 48" x 30" RCB Low Structure Elevation	598.19 ft
Ex. 48" x 30" RCB Backwater	2.85 ft
Ex. 48" x 30" RCB Roadway Overflow Area	21 ft ²

NOTE:
Contractor shall verify the existing flow line elevation to set appropriate sump depth.

All R/W described from Line "A", unless noted otherwise.
Line "PR-A" to be constructed.



PROPOSED KINTZELE DITCH
TYPICAL SECTION

Scale: 1" = 5'

EXISTING STRUCTURE

The existing structure 4' Span x 2.5' Reinforced Concrete Box structure. Existing structure to be removed.

PRECAST 6'-0" SPAN X 4'-0" RISE
REINFORCED CONCRETE BOX CULVERT
CLEAR ROADWAY: 37'-6"; 28° SKEW RT.
U.S. 12 OVER KINTZELE DITCH
LA PORTE COUNTY

LEGEND:

(29) Wetland Seed Mixture

NOT FOR
CONSTRUCTION

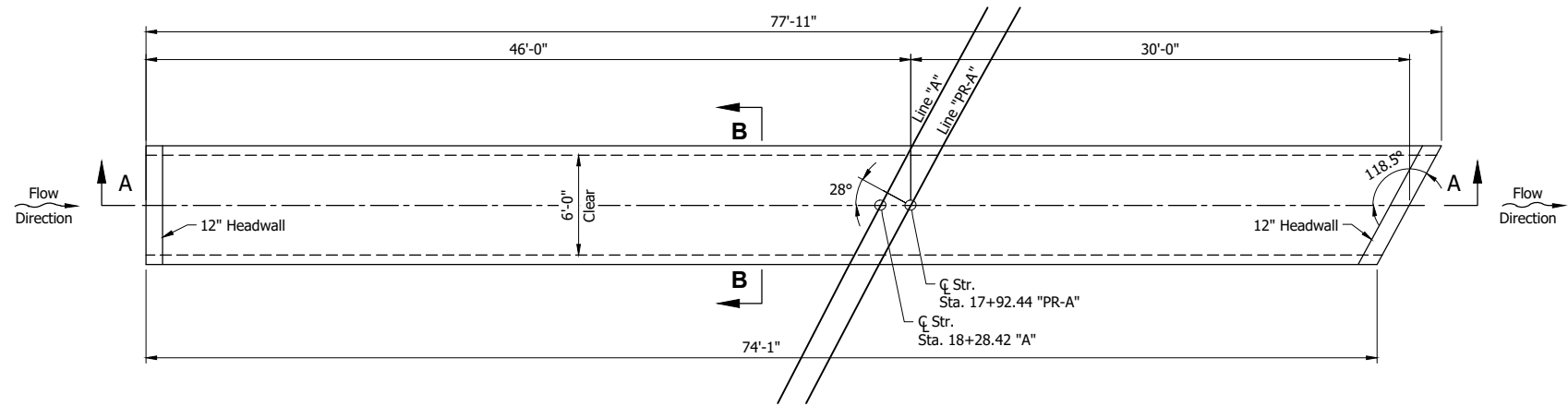
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: DJT	DRAWN: GDH	
CHECKED: DGD	CHECKED: DJT	

INDIANA
DEPARTMENT OF TRANSPORTATION

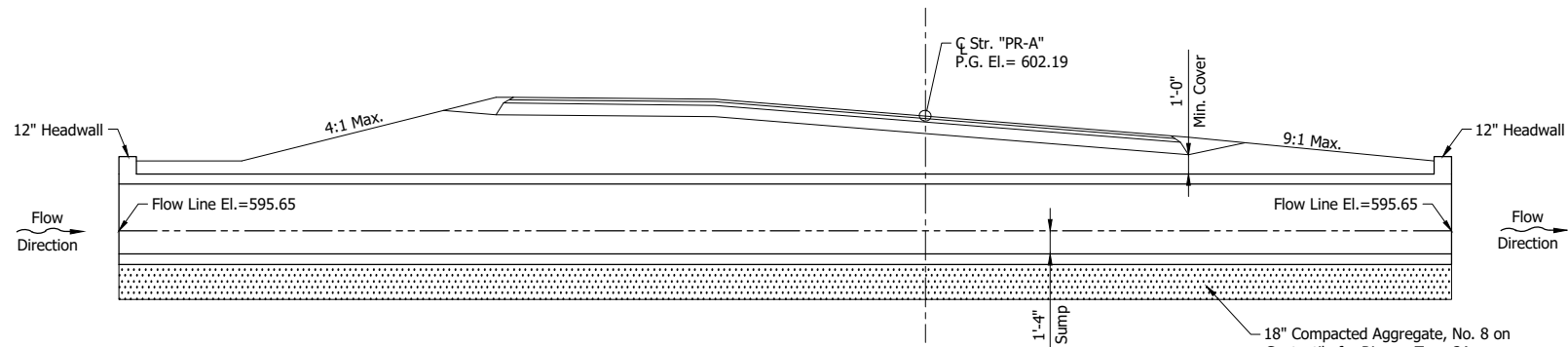
STRUCTURE LAYOUT

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	2000607
SHEETS	
59	of 122
CONTRACT	
R-43027	

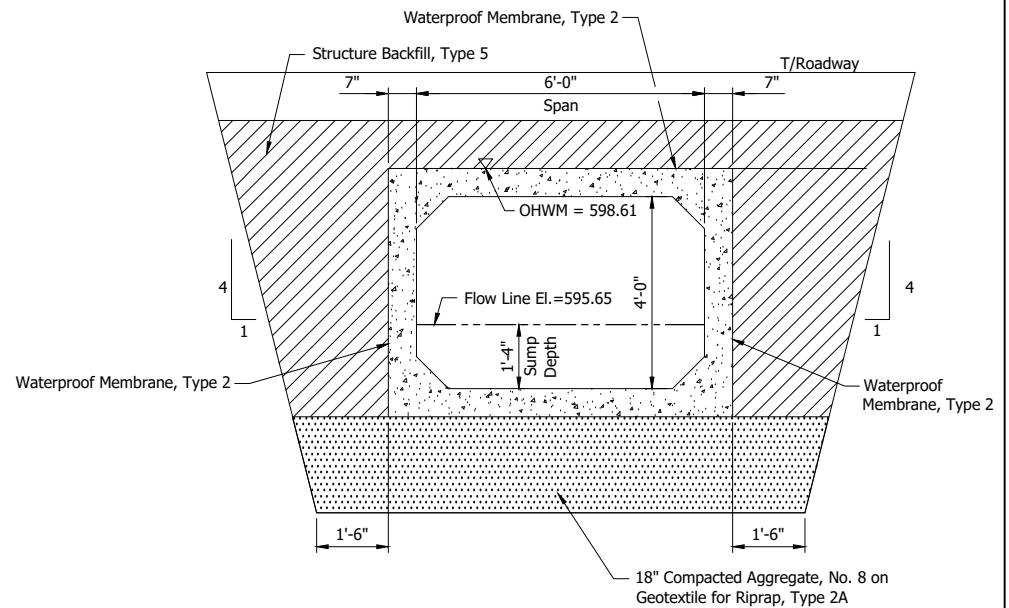
TMC - 7/1/2025 8:19 AM - U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte MI\Cad\Plan Set\Civil\201722-223800TR_CP.dwg (GENERAL PLAN)



PLAN
Scale: $\frac{3}{16}" = 1'-0"$



SECTION A-A
Scale: $\frac{3}{16}" = 1'-0"$



SECTION B-B
Scale: $\frac{1}{2}" = 1'-0"$

NOTE:
The waterproof membrane shall extend up the back of the headwalls.

DESIGN DATA:
Box Culvert, Wingwalls and Foundations shall be designed in accordance with AASHTO LRFD Bridge Design Specifications, 9th Edition 2020, and all subsequent interims.

Dead load shall be actual weight plus 35 psf for future wearing surface.

**PRECAST 6'-0" SPAN X 4'-0" RISE
REINFORCED CONCRETE BOX CULVERT
CLEAR ROADWAY: 37'-6"; 28° SKEW RT.
U.S. 12 OVER KINTZELE DITCH
LA PORTE COUNTY**

NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: PJV
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
GENERAL PLAN	

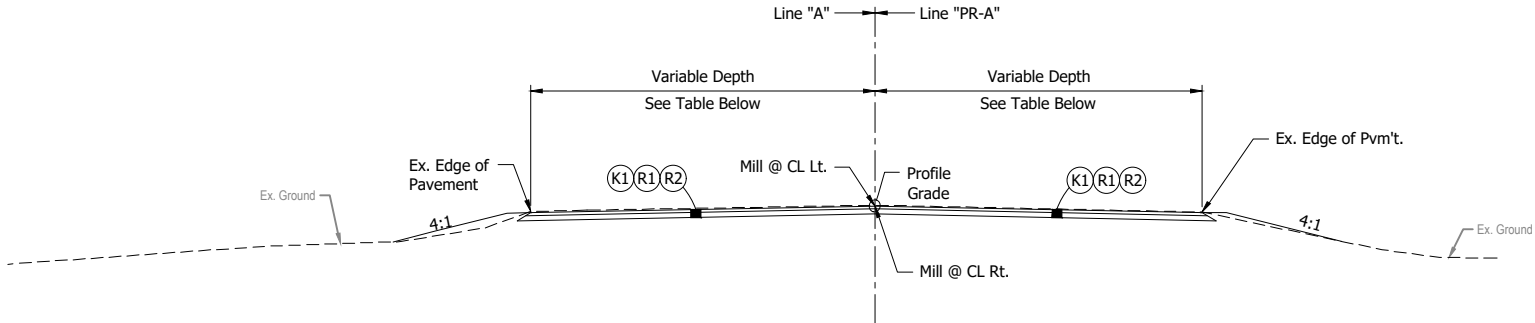
SCALE AS NOTED	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 60 of 122
	CONTRACT R-43027



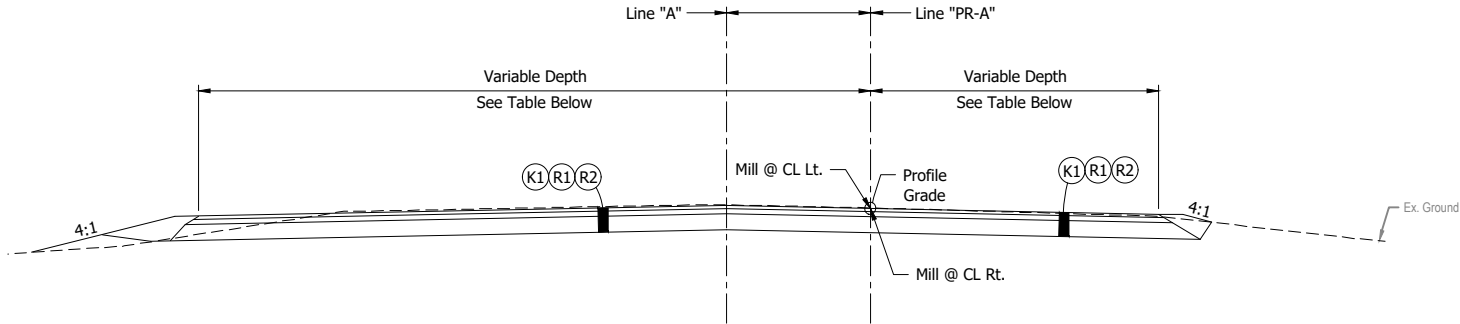
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DESIGNED: DJT	DRAWN: GDH	
CHECKED: DGD	CHECKED: DJT	

P:\J - 7/1/2025 8:17 AM - U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte M\Cad\Plan Set\Civil\201722_223800TR_CD01.dwg (CONST. DETAIL - MILLING)

NOTE TO REVIEWER:
The milling table is for Des. No. 2000607 and is still under development.



PROFILE MILLING - LINE "PR-A"
Scale: 1/4" = 1'-0"



PROFILE MILLING - LINE "PR-A"
Scale: 1/4" = 1'-0"

- LEGEND:**
- (K1) 165 #/sys QC/QA-HMA, 3, 58H, Surface, 9.5 mm on 275 #/sys QC/QA-HMA, 3, 58H, Intermediate, 19.0 mm on 660 #/sys QC/QA-HMA, 3, 58S, Base, 19.0 mm on 4" of Compacted Aggregate, No. 53 on Subgrade Treatment, Type IC
 - (R1) 165 #/sys QC/QA-HMA, 3, 58H, Surface, 9.5 mm
 - (R2) 165 #/sys QC/QA-HMA, 3, 58H, Surface, 9.5 mm on 275 #/sys QC/QA-HMA, 3, 58H, Intermediate, 19.0 mm on 660 #/sys QC/QA-HMA, 3, 58S, Base, 19.0 mm on 4" of Compacted Aggregate, No. 53 on Subgrade Treatment, Type IC

PROFILE MILLING TABLE - LINE "PR-A"										PROFILE MILLING TABLE - LINE "PR-A"									
STATION	PROPOSED PVM'T. DEPTH @ LT.	MILL @ EX. E.P. LT.	DIFFERENCE BETWEEN PROFILE GRADE & O.G. @ EX. E.P. LT.	MILL @ CL LT.	DIFFERENCE BETWEEN PROFILE GRADE & O.G. @ CL	MILL @ CL RT.	DIFFERENCE BETWEEN PROFILE GRADE & O.G. @ RT.	MILL @ EX. E.P. RT.	PROPOSED PVM'T. DEPTH @ RT.	STATION	PROPOSED PVM'T. DEPTH @ LT.	MILL @ EX. E.P. LT.	DIFFERENCE BETWEEN PROFILE GRADE & O.G. @ EX. E.P. LT.	MILL @ CL LT.	DIFFERENCE BETWEEN PROFILE GRADE & O.G. @ CL	MILL @ CL RT.	DIFFERENCE BETWEEN PROFILE GRADE & O.G. @ RT.	MILL @ EX. E.P. RT.	PROPOSED PVM'T. DEPTH @ RT.
	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.		IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.
12+50	R1 (1.5)	1.50	0	1.50	0	1.50	0	1.50	R1 (1.5)	17+50	Full Depth Reconstruction								
										To									
12+80	R1 (1.5)	0.06	1.44	2.70	-1.20	2.70	0.36	1.14	R1 (1.5)	26+00	Full Depth Reconstruction								
13+00	R1 (1.5)	0.54	0.96	1.14	0.36	1.14	0.60	0.90	R1 (1.5)	26+50	Full Depth Reconstruction				3.00	1.00	0.00	4.00	R2 (4)
13+50	Full Depth Reconstruction				0.60	0.90	1.20	0.30	R1 (1.5)	27+00	Full Depth Reconstruction				1.08	2.92	2.04	1.96	R2 (4)
14+00	Full Depth Reconstruction				1.92	2.08	2.28	1.72	R2 (4)	27+50	Full Depth Reconstruction				1.68	2.32	2.76	1.24	R2 (4)
14+50	Full Depth Reconstruction				2.52	-1.20	0.72	0.78	R1 (1.5)	28+00	R2 (4)	4.48	-0.48	1.72	2.28	1.72	3.96	0.04	R2 (4)
15+00	R2 (4)	1.72	2.28	2.80	1.20	0.30	-1.20	2.70	R1 (1.5)	28+50	R2 (4)	4.84	-0.84	2.32	1.68	2.32	3.12	0.88	R2 (4)
15+50	R1 (1.5)	0.06	1.44	1.14	0.36	1.14	-1.08	2.58	R1 (1.5)	29+00	R1 (1.5)	1.98	-0.48	0.30	1.20	2.80	1.56	2.44	R2 (4)
16+00	R1 (1.5)	1.86	-0.36	1.86	-0.36	4.36	2.04	1.96	R2 (4)	29+50	R1 (1.5)	2.34	-0.84	0.90	0.60	0.90	0.96	0.54	R1 (1.5)
16+50	R1 (1.5)	0.06	1.44	2.58	-1.08	5.08	1.80	2.20	R2 (4)	29+80	R1 (1.5)	2.70	-1.20	1.14	0.36	1.14	0.84	0.66	R1 (1.5)
17+00	Full Depth Reconstruction				0.84	3.16	2.64	1.36	R2 (4)										

R1 = Surface, 1.5"
R2 = Surface, 1.5"
Intermediate, 2.5"

R1 = Surface, 1.5"
R2 = Surface, 1.5"
Intermediate, 2.5"

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL

DESIGNED: DJT

CHECKED: DGD

DESIGN ENGINEER

DRAWN: GDH

CHECKED: DJT

DATE

INDIANA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS AND MILLING TABLE

SCALE
1/4" = 1'-0"

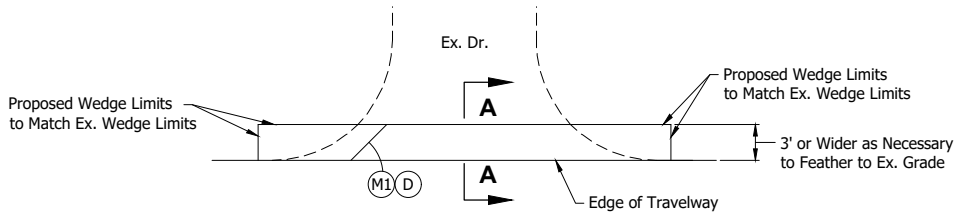
BRIDGE FILE

DESIGNATION
2000607

SHEETS
62 of 122

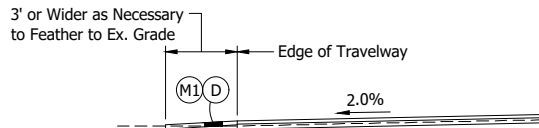
CONTRACT
R-43027

P:\J - 7/1/2025 8:19 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722TR_DT01.dwg (APPROACH DETAILS)



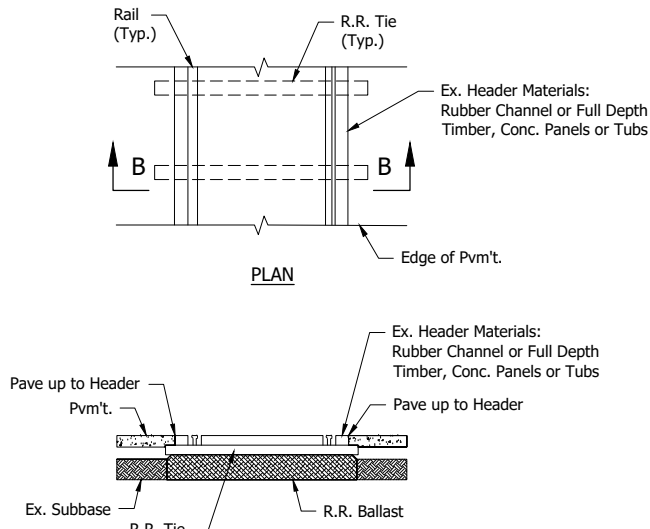
**DRIVE HMA FOR APPROACHES
EXISTING WEDGE DETAIL**

Not to Scale



SECTION A-A

Not to Scale

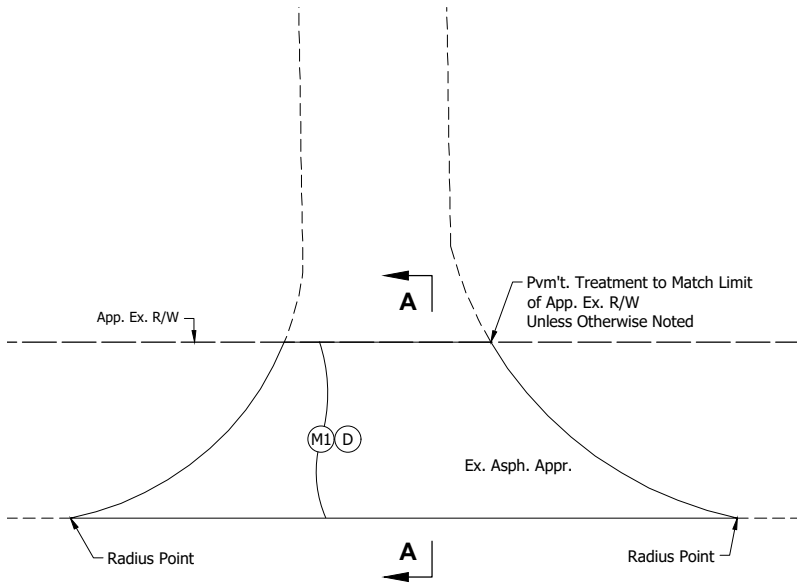


PLAN

SECTION B-B

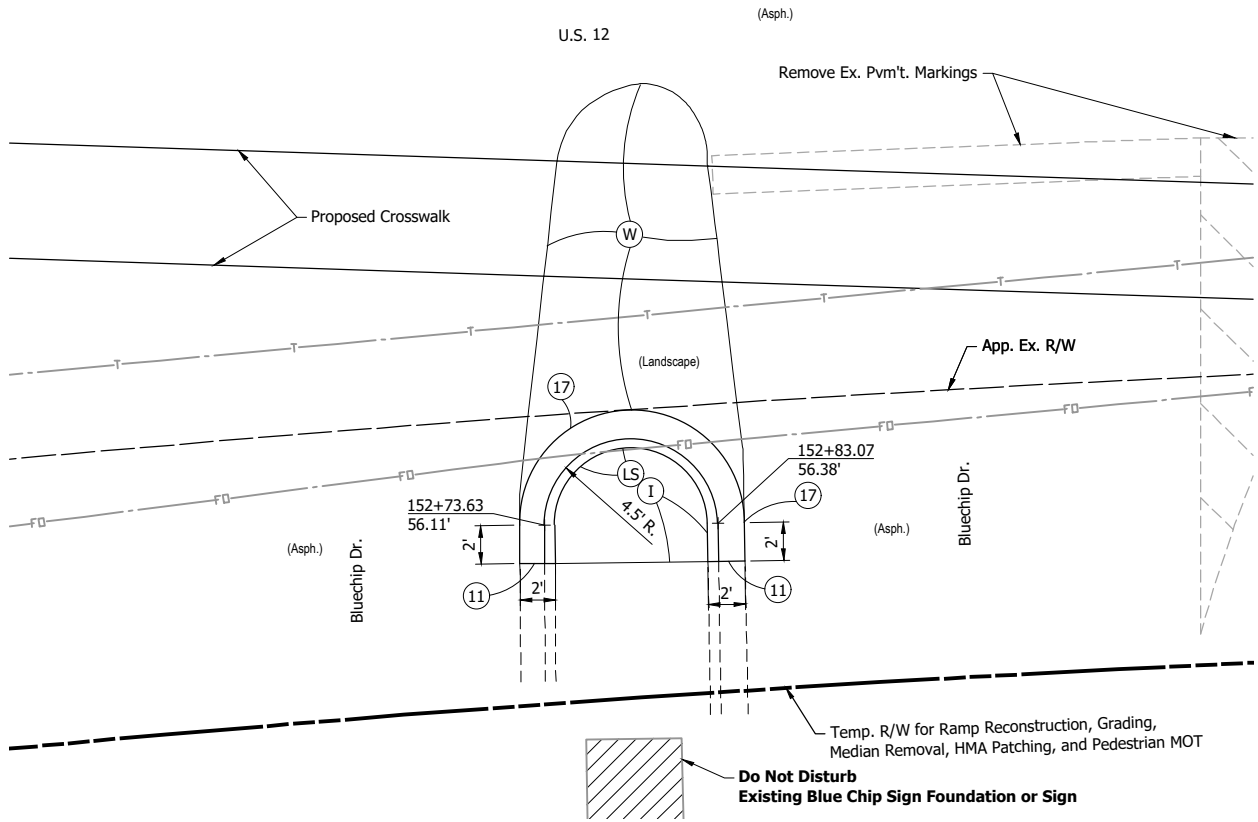
RAILROAD CROSSING HEADER DETAIL

Not to Scale



PUBLIC ROAD APPROACH WITH EXISTING ASPHALT DETAIL

Not to Scale



BLUE CHIP ST. CENTER MEDIAN

APPROACH DETAIL

Sta 152+72.3 TO Sta 152+84.5

Scale 1" = 5'

LEGEND:

- (D) HMA for Approaches, Type B
165 #/sys HMA, Type B, Surface
- (I) Irrigation (Match Existing)
- (LS) Landscaping (Match Existing)
- (M1) Milling, Asphalt, 1.5"
- (W) HMA Patching, Full Depth, Type C, Consisting of
440 #/sys HMA Patching, Type C, Intermediate on
Variable Depth HMA Patching, Type C, Base
(Match Existing Pavement Thickness Avg 1485 #/sys) on
Subgrade Treatment Type IC
- (11) Saw Cut
- (17) Concrete Curb and Gutter

- E Beverly Rd. (West)
- Rice St. (North)
- Indiana Dunes National Lakeshore (North)
- Sheridan Ave. (South)
- W 8th St. (South)
- Logan St. (South)
- Greeley Ave. (South)
- Douglas Ave. (North & South)
- Lincoln Ave. (South)
- McClelland Ave. (North and South)
- Sherman Ave. (North)
- Custer Ave. (South)
- W 6th St. (South)
- Francisco St. (North)
- Willard Ave. (South)
- W 4th St. (South)
- Wabash St. (North & South)
- Washington St. (North & South)
- Franklin St. (North)
- Pine St. (North & South)
- E Michigan Blvd. (South)
- Spring St. (North)
- E 2nd St. (North)
- Blue Chip Dr. (South)
- Cook St. (South)
- F St. (South)
- Liberty Tr. (South)
- Washington Park Blvd. (North)
- Martin Luther King Dr. (South)
- Minnie St. (South)
- Nahas St. (South)
- Karwick Rd. (North and South)
- Twin Rd. (South)
- Belle Rd. (South)
- Freyer Rd. (South)
- Eastwood Rd. (South)
- Moore Rd. (North)
- IN Hwy. 212 (South)
- Old Grand Beach Rd. (North)
- Meer Rd. (South)
- W 1000 N (South)
- Shady Oak Ln. (South)

NOT FOR
CONSTRUCTION

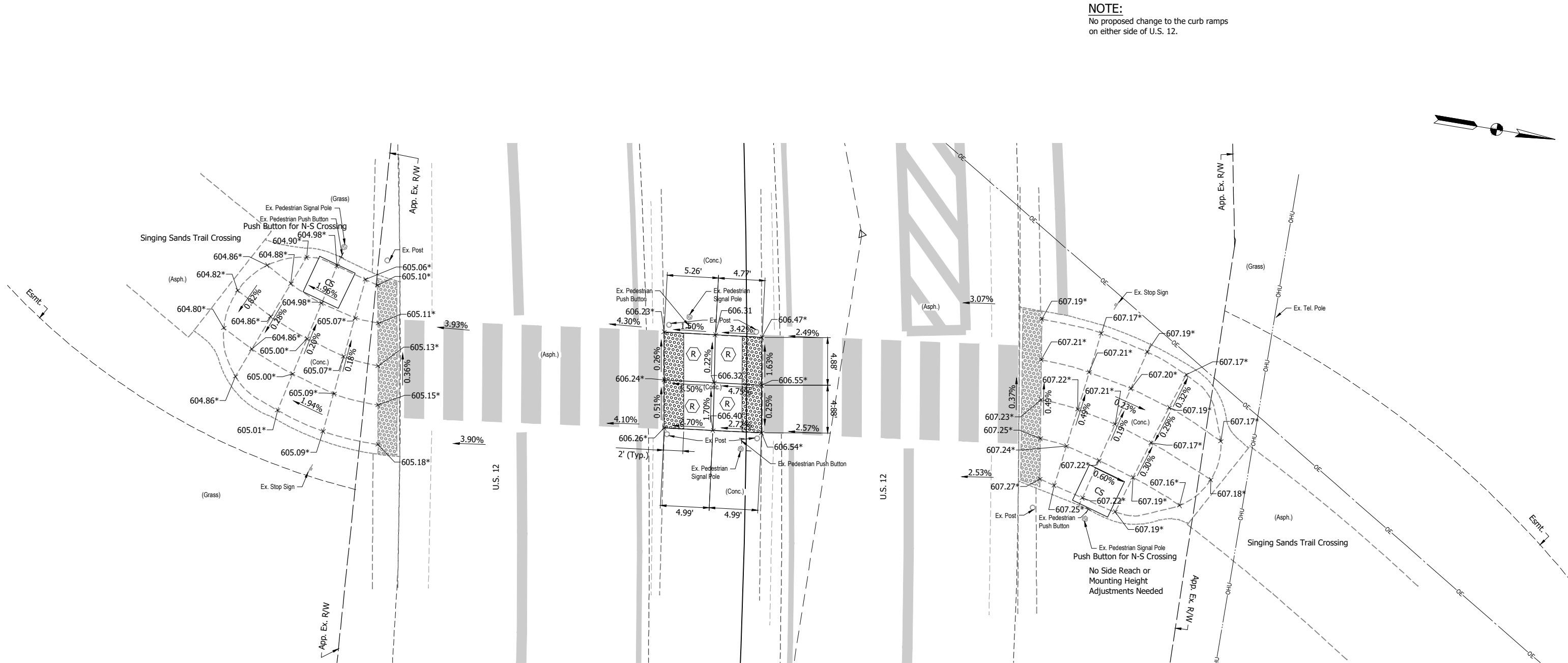
RECOMMENDED FOR APPROVAL	
DESIGNED: DJT	DRAWN: JAJ
CHECKED: DGD	CHECKED: DJT

INDIANA
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
APPROACH DETAILS

SCALE AS NOTED	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 63 of 122
	CONTRACT R-43027

P:\V - 7/1/2025 8:15 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722TR-CR01.dwg (ADA DTL - SINGING SANDS)



NOTE:
No proposed change to the curb ramps
on either side of U.S. 12.

NOTE TO REVIEWER:
As of September 2023 pedestrian
signal pole and push button
adjacent to median crossing have
been removed.

LEGEND:

CS Clear Space

R Concrete Curb Ramp

* Existing Elevation

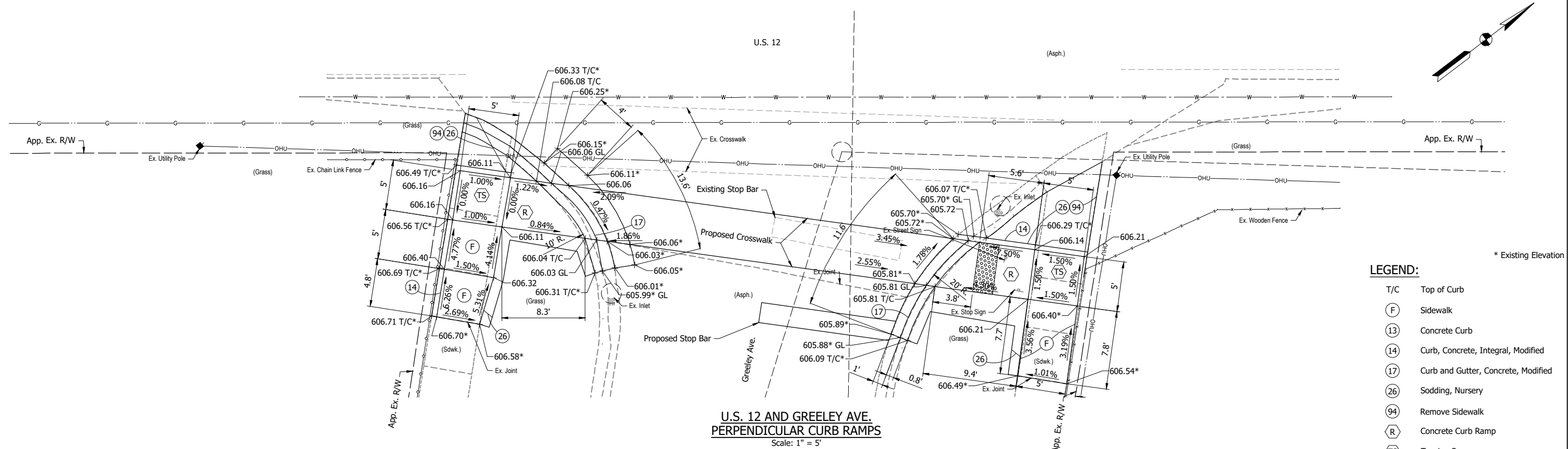
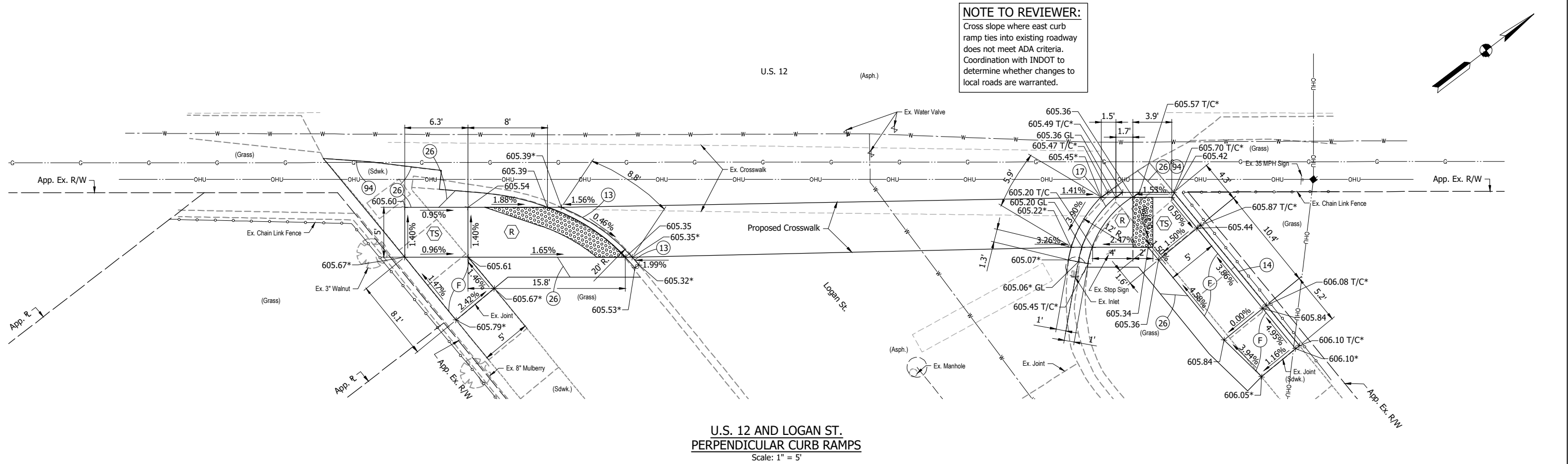
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
ADA RAMP CONSTRUCTION DETAILS U.S. 12 AND SINGING SANDS TRAIL CROSSING	

SCALE 1" = 5'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 64 of 122
	CONTRACT R-43027

P:\J - 7/1/2025 8:20 AM - U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte M\Cad\Plan Set\Civil\201722TR_CR02.dwg (ADA DTL - LOGAN AND GREELEY)



* Existing Elevation

LEGEND:	
T/C	Top of Curb
(F)	Sidewalk
(13)	Concrete Curb
(14)	Curb, Concrete, Integral, Modified
(17)	Curb and Gutter, Concrete, Modified
(26)	Sodding, Nursery
(94)	Remove Sidewalk
(R)	Concrete Curb Ramp
(TS)	Turning Space

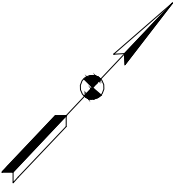
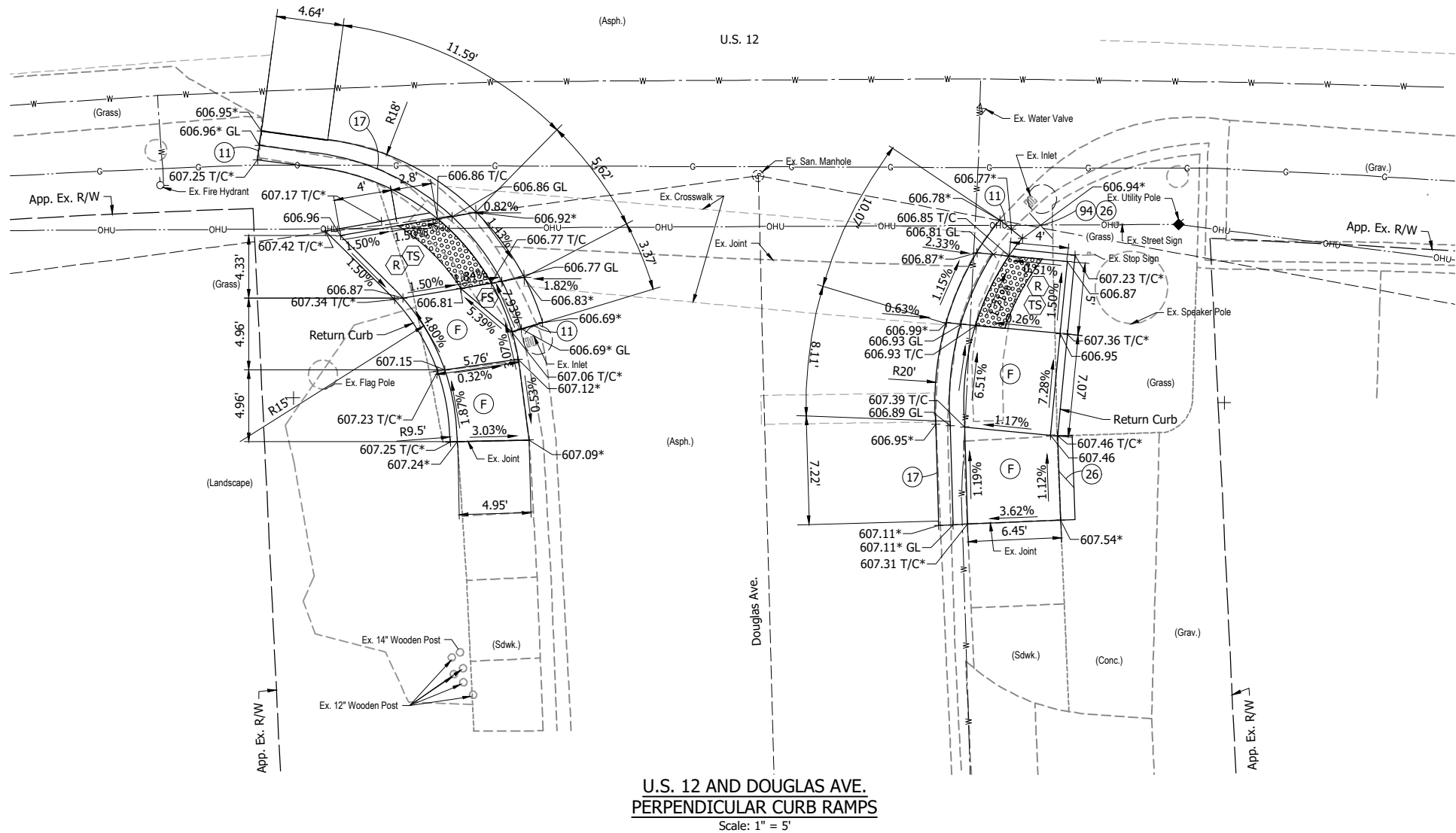
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
ADA RAMP CONSTRUCTION DETAILS U.S. 12 AND LOGAN ST. AND GREELEY AVE.	

SCALE 1" = 5'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 65 of 122
	CONTRACT R-43027

P:\J - 7/1/2025 8:18 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722TR_CR03.dwg (ADA DTL - DOUGLAS)



* Existing Elevation

LEGEND:

- T/C Top of Curb
- (F) Sidewalk
- (17) Curb and Gutter, Concrete Modified
- (26) Sodding, Nursery
- (94) Remove Sidewalk
- (FS) Flared Side
- (R) Concrete Curb Ramp
- (TS) Turning Space

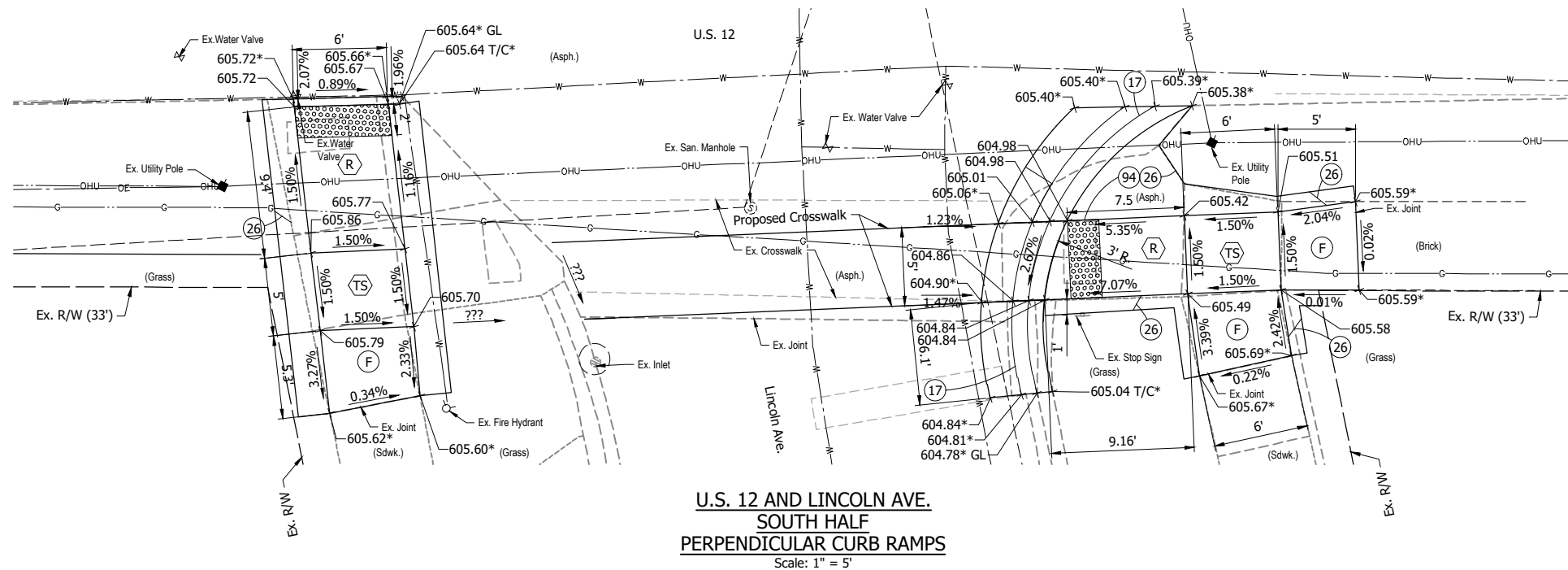
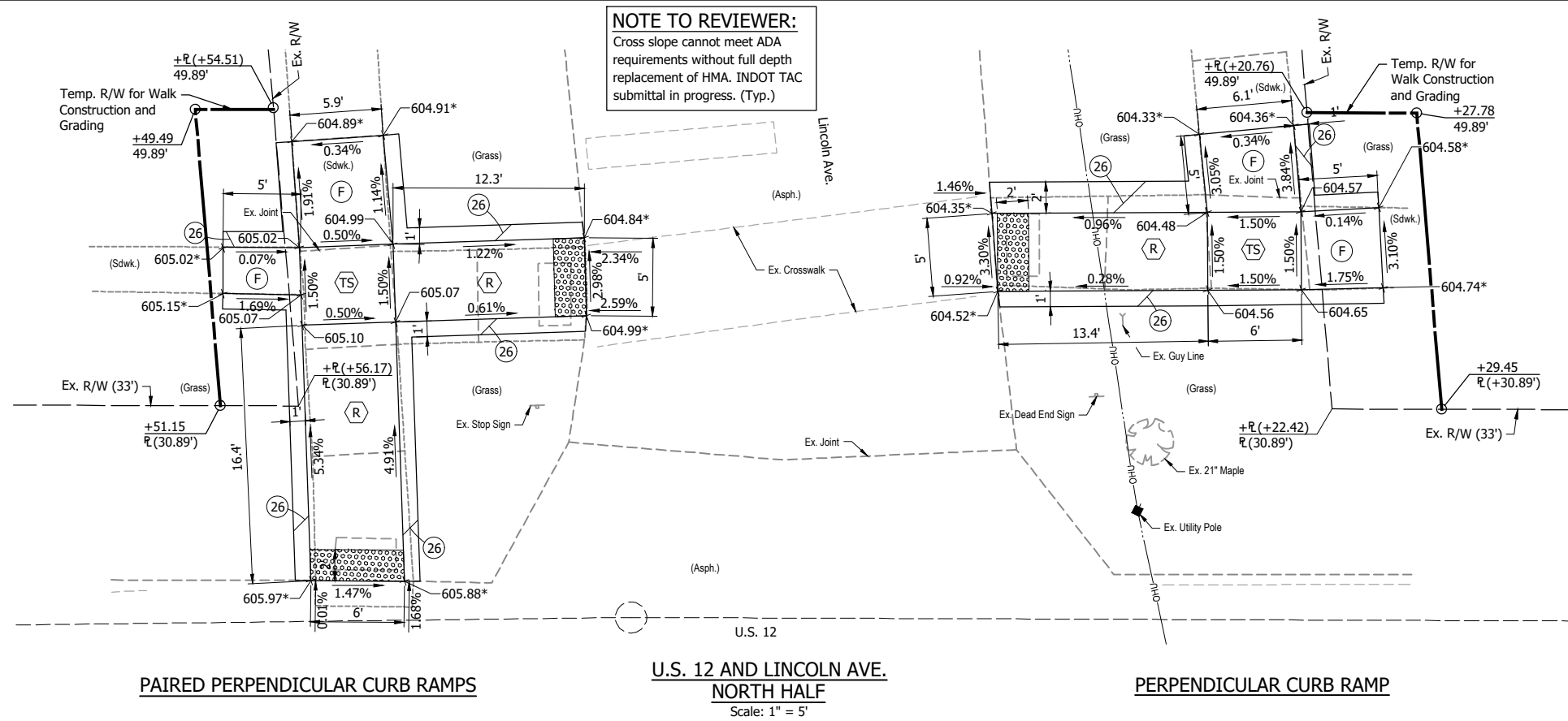
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
ADA RAMP CONSTRUCTION DETAILS U.S. 12 AND DOUGLAS AVE.	

SCALE 1" = 5'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 66 of 122
	CONTRACT R-43027

P:\J - 7/1/2025 8:12 AM - U:\2020\202017 INDOT LoPorte M\Cod\Plan Set\Civil\2017222R_CR04.dwg (ADA DTL - LINCOLN)



- LEGEND:**
- (F) Sidewalk
 - (FS) Flared Side (R)
 - (P) HMA Patching, Type "C"
440 #/sys HMA Intermediate, Type "C" on
1155 #/sys HMA Base, Type "C" on
Subgrade Treatment, Type IC
 - (17) Curb and Gutter, Concrete Modified
 - (26) Sodding, Nursery
 - (R) Concrete Curb Ramp
 - (TS) Turning Space
- * Existing Elevation

NOT FOR
CONSTRUCTION

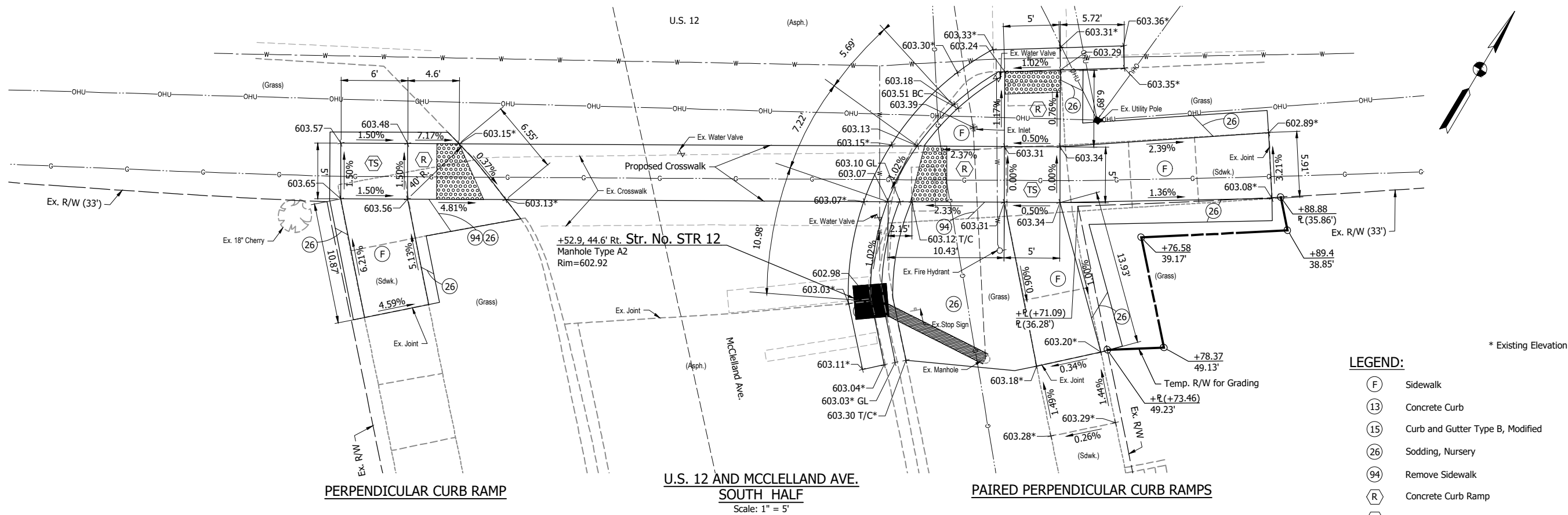
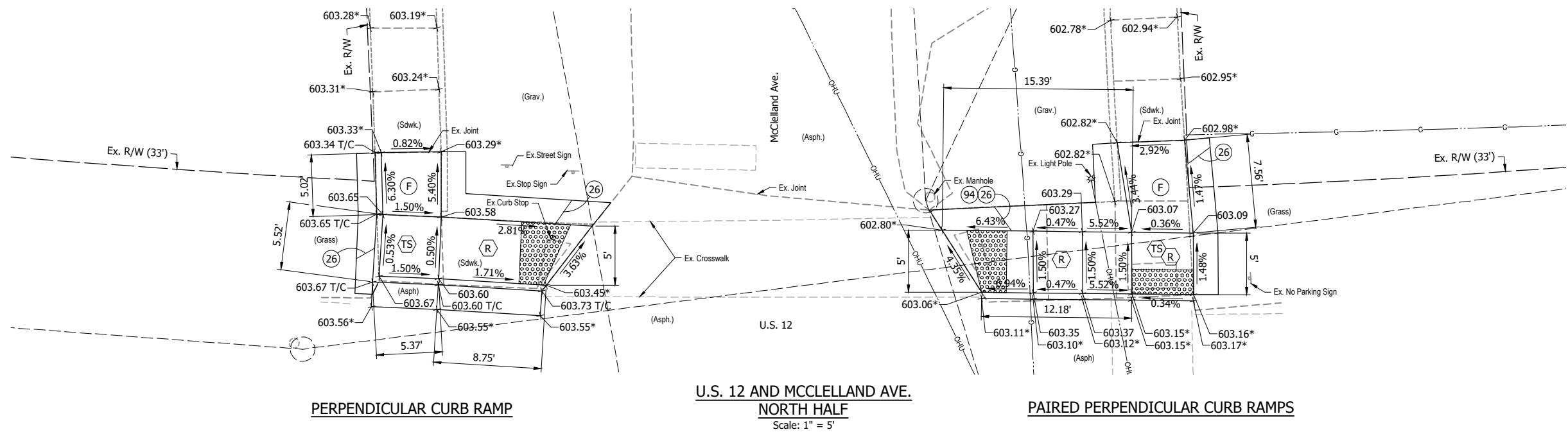
RECOMMENDED FOR APPROVAL	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA
DEPARTMENT OF TRANSPORTATION

ADA RAMP CONSTRUCTION DETAILS
U.S. 12 AND LINCOLN AVE.

SCALE 1" = 5'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 67 of 122
	CONTRACT R-43027

P:\J - 7/1/2025 8:20 AM - U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte\Plan Set\Civil\2017222R-CR05.dwg (ADA DTL - MCCLELLAND)



NOT FOR
CONSTRUCTION

RECOMMENDED
FOR APPROVAL

DESIGN ENGINEER

DATE

DESIGNED: DJT

DRAWN: GDH

CHECKED: DGD

CHECKED: DJT

INDIANA
DEPARTMENT OF TRANSPORTATION

ADA RAMP CONSTRUCTION DETAILS
U.S. 12 AND MCCLELLAND AVE.

SCALE

1" = 5'

BRIDGE FILE

DESIGNATION

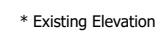
2000607

SHEETS

68 of 122

CONTRACT

R-43027

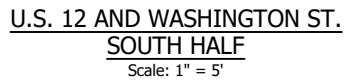


U.S. 12 AND WASHINGTON ST.
NORTH HALF
Scale: 1" = 5'

LEGEND:

- | | |
|------|-------------------------|
| (F) | Sidewalk |
| (FS) | Flared Side (R) |
| (13) | Concrete Curb |
| (26) | Sodding, Nursery |
| (30) | Adjust Casting to Grade |
| (94) | Remove Sidewalk |
| CS | Clear Space |
| (R) | Concrete Curb Ramp |
| (TS) | Turning Space |

SCALE	BRIDGE FILE		
1" = 5'			
	DESIGNATION		
	2000607		
	SHEETS		
	71	of	122
	CONTRACT		
	D. 42037		

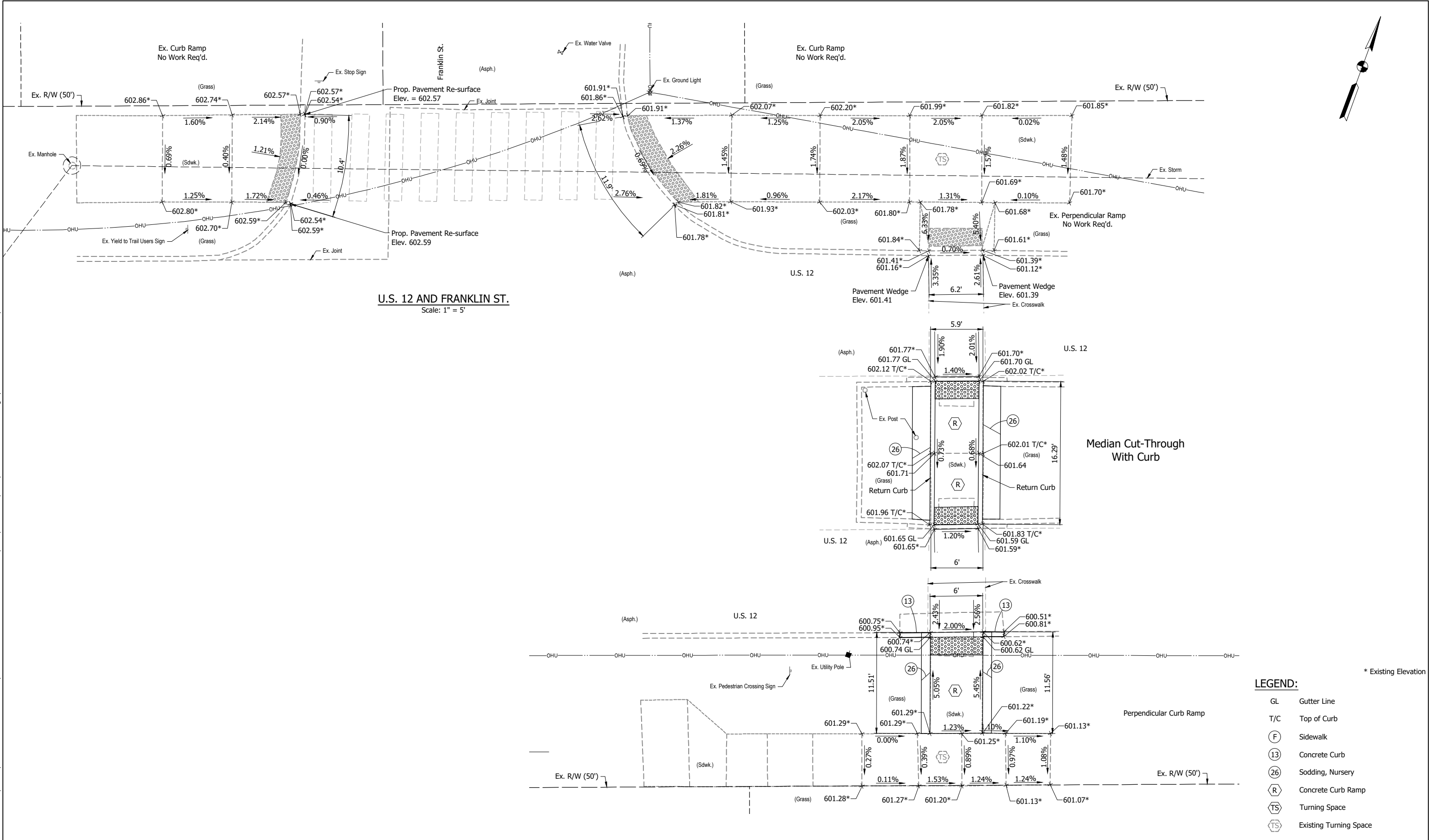


* Existing Elevation

(F)	Sidewalk
(26)	Sodding, Nursery
(FS)	Flared Side (R)
cs	Clear Space
(R)	Concrete Curb Ramp
(TS)	Turning Space
(TS)	Existing Turning Space

NOT FOR
CONSTRUCTION

P:\J - 7/1/2025 8:12 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722TR-CR09.dwg (ADA DTL - FRANKLIN)



* Existing Elevation

LEGEND:	
GL	Gutter Line
T/C	Top of Curb
(F)	Sidewalk
(13)	Concrete Curb
(26)	Sodding, Nursery
(R)	Concrete Curb Ramp
(TS)	Turning Space
(TS)	Existing Turning Space

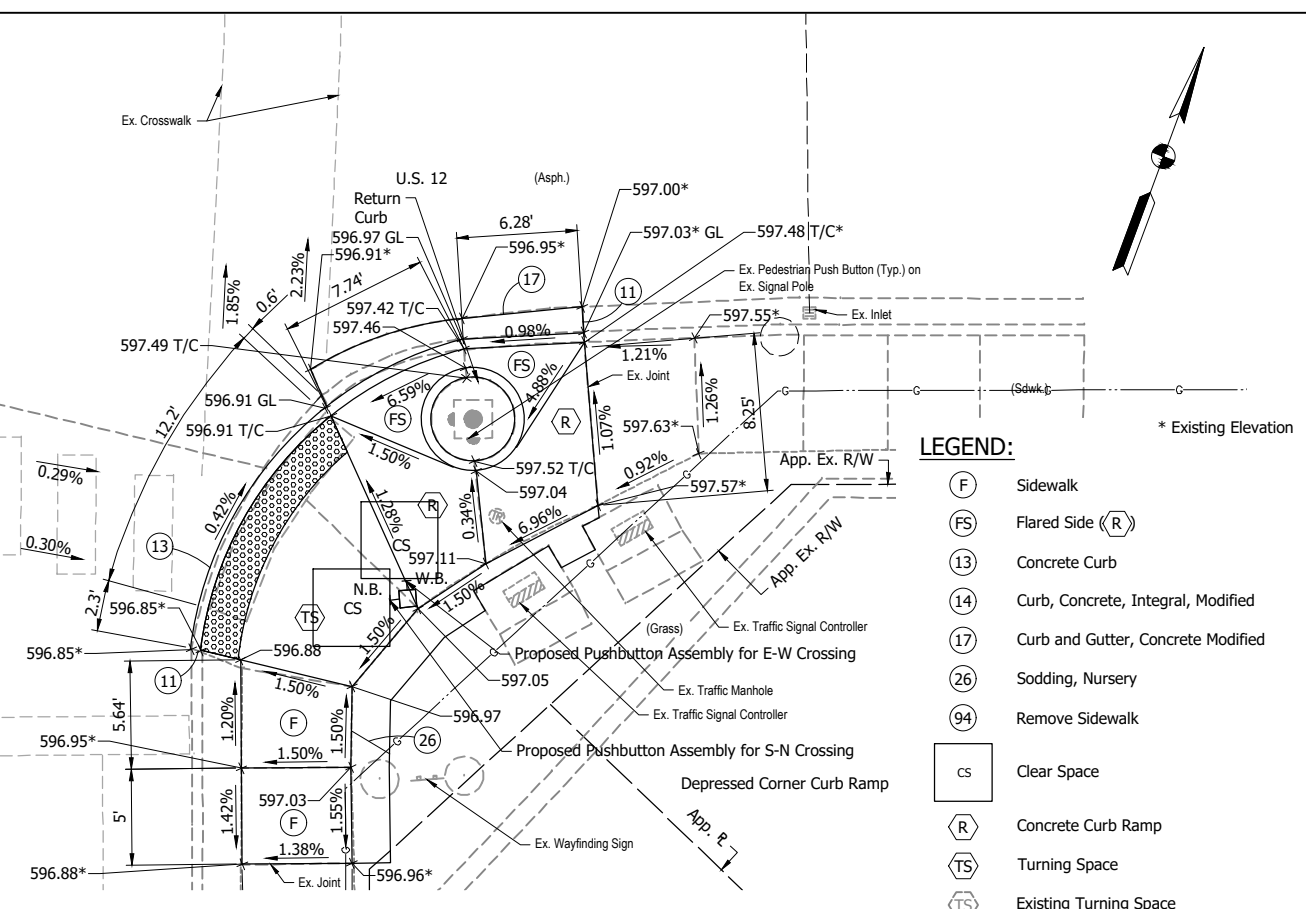
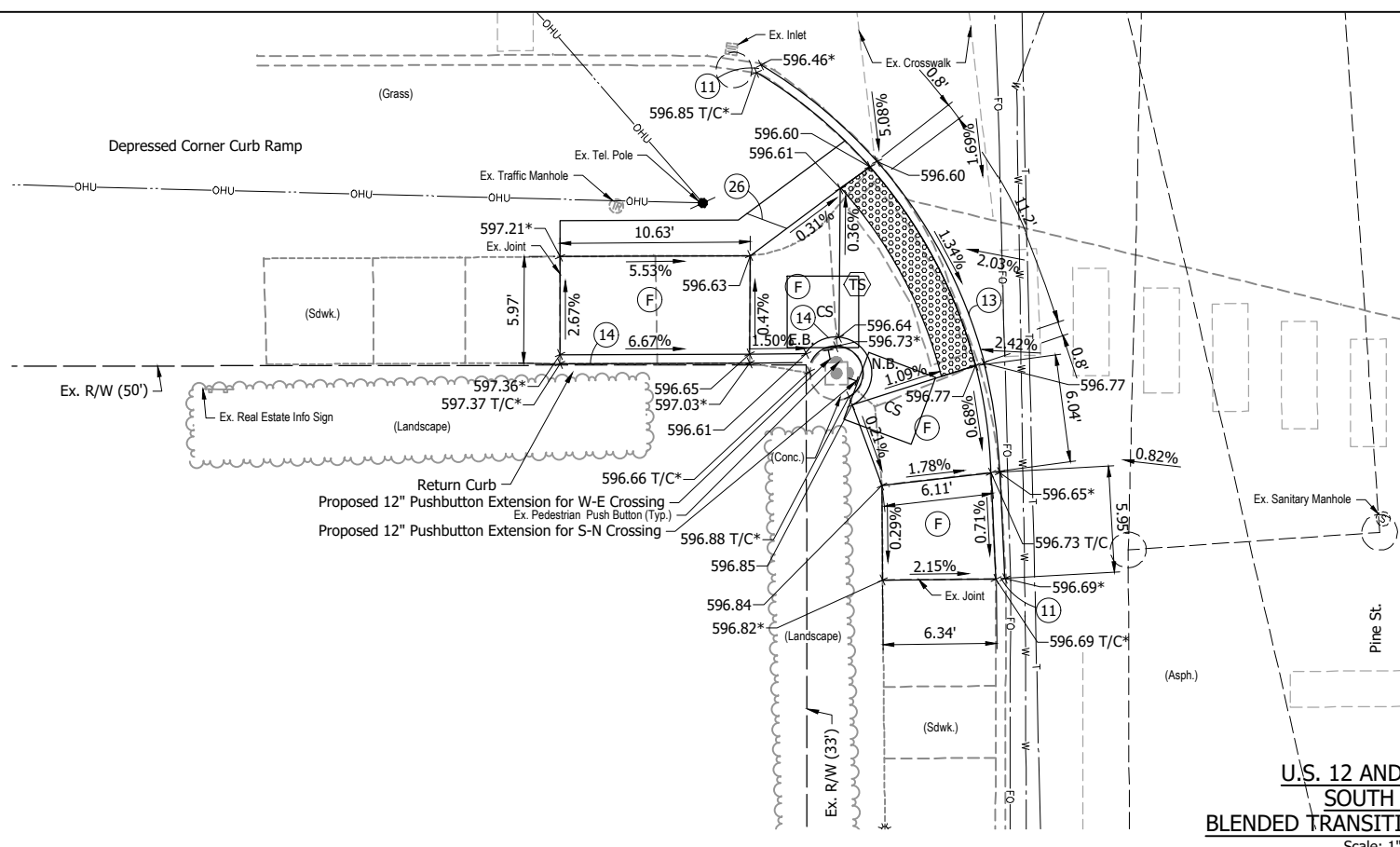
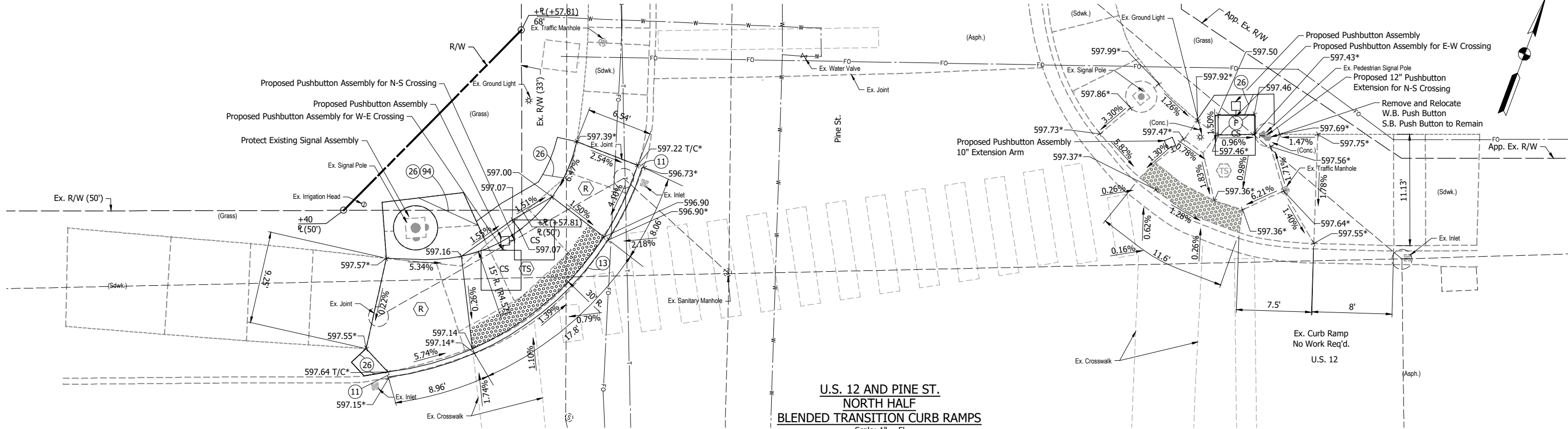
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
ADA RAMP CONSTRUCTION DETAILS U.S. 12 AND FRANKLIN ST.	

SCALE 1" = 5'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 73 of 122
	CONTRACT R-43027

P:\V - 7/1/2025 8:13 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722TR_CR10.dwg (ADA DTL - PINE)



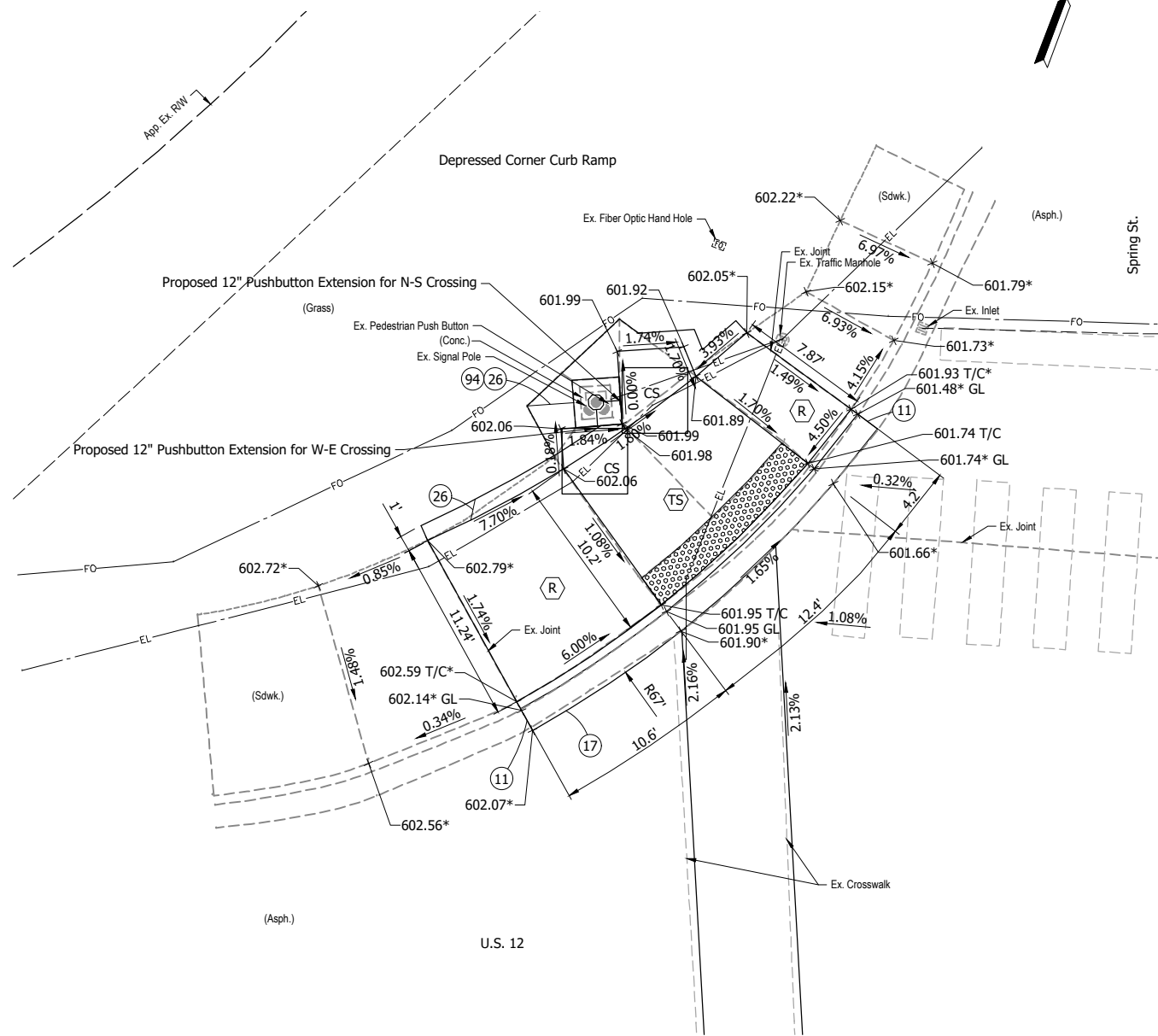
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

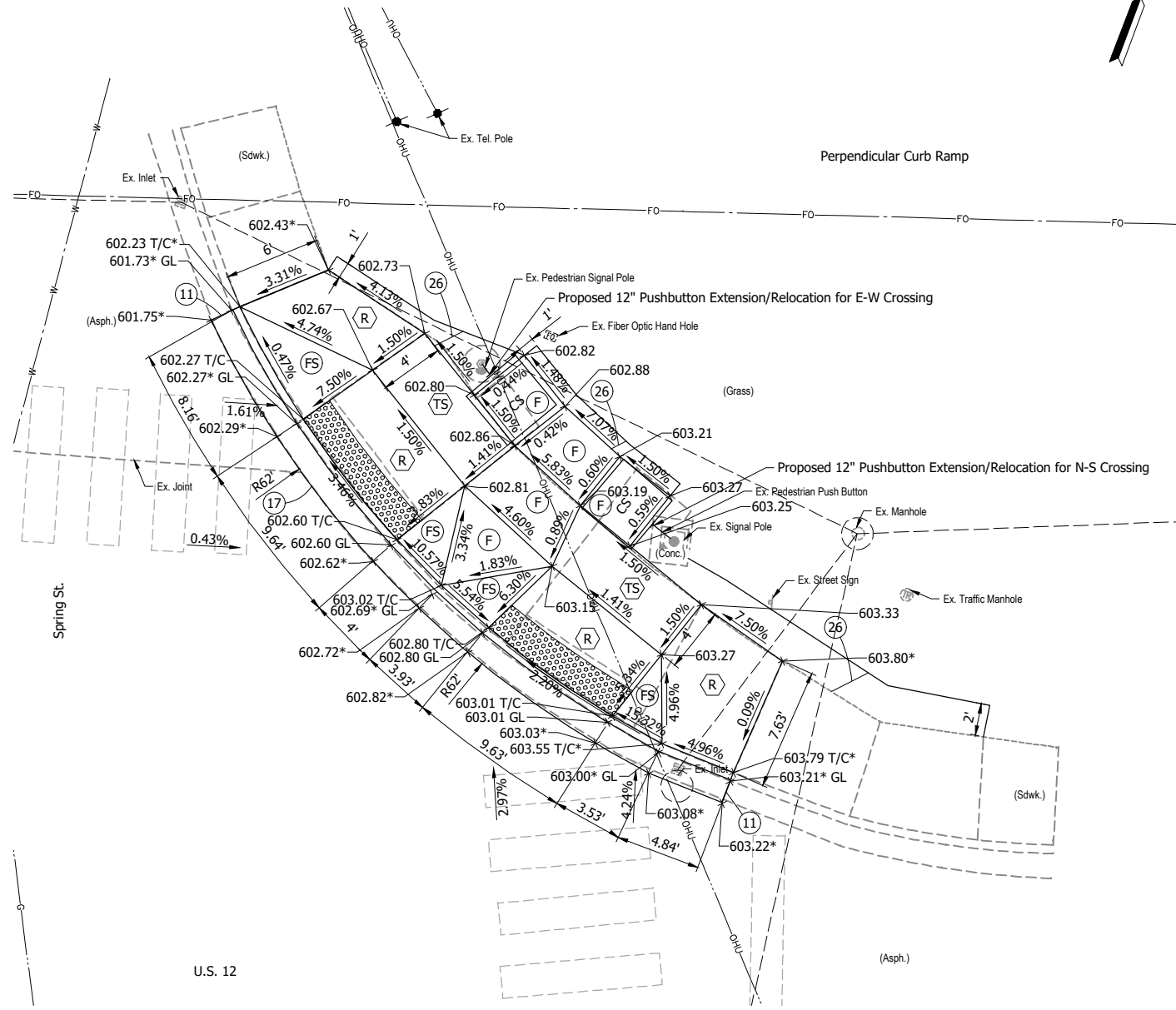
INDIANA DEPARTMENT OF TRANSPORTATION	
ADA RAMP CONSTRUCTION DETAILS U.S. 12 AND PINE ST.	

SCALE 1" = 5'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 74 of 122
	CONTRACT R-43027

P:\J - 7/1/2025 8:17 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722TR_CR11.dwg (ADA DTL - SPRING (NORTH))



U.S. 12 AND SPRING ST.
NORTH WEST QUADRANT
BLENDED TRANSITION CURB RAMP
Scale: 1" = 5'



U.S. 12 AND SPRING ST.
NORTHEAST QUADRANT
PAIRED PARALLEL CURB RAMP
Scale: 1" = 5'

* Existing Elevation

LEGEND:

- (F) Sidewalk
- (FS) Flared Side (R)
- (17) Concrete Curb and Gutter
- (26) Sodding, Nursery
- (94) Remove Sidewalk
- CS Clear Space
- (R) Concrete Curb Ramp
- (TS) Turning Space

NOT FOR
CONSTRUCTION

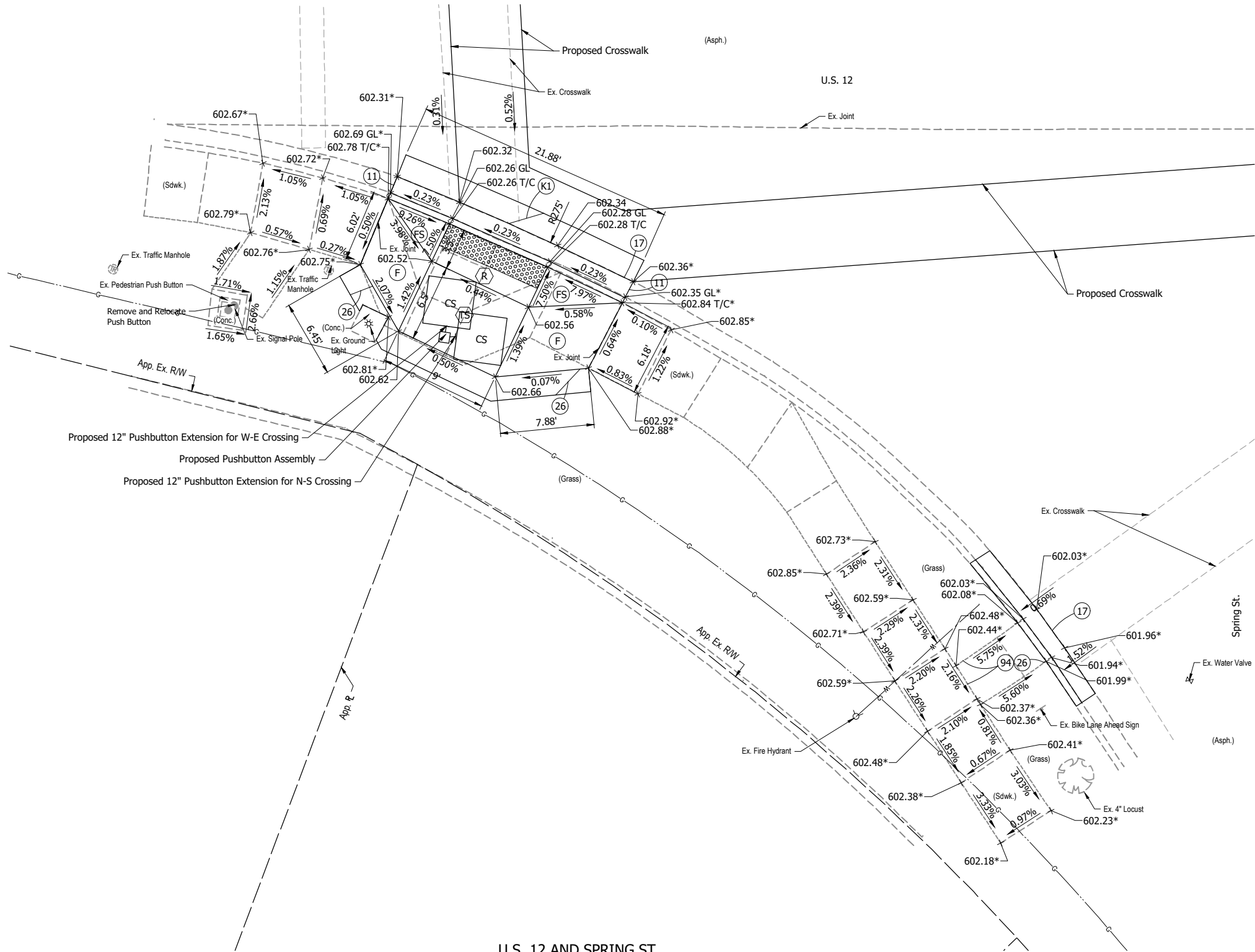
RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA
DEPARTMENT OF TRANSPORTATION

ADA RAMP CONSTRUCTION DETAILS
U.S. 12 AND SPRING ST. NORTH

SCALE 1" = 5'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 75 of 122
	CONTRACT R-43027

P:\J - 7/1/2025 8:19 AM - U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722IR_CR11.dwg (ADA DTL - SPRING (SW))



U.S. 12 AND SPRING ST.
SOUTHWEST
DIAGONAL CURB RAMP
Scale: 1" = 5'

LEGEND:

(F)

Sidewalk

(FS)

Flared Side ($\langle R \rangle$)

(K1)

165 #/sys QC/QA-HMA, 3, 70, Surface, 9.5mm on 440 #/sys HMA Intermediate, Type "C" on 1485 #/sys HMA Base, Type "C" on Subgrade Treatment Type IC

(26)

Sodding, Nursery

(94)

Remove Sidewalk

CS

Clear Space

$\langle R \rangle$

Concrete Curb Ramp

$\langle TS \rangle$

Turning Space

* Existing Elevation

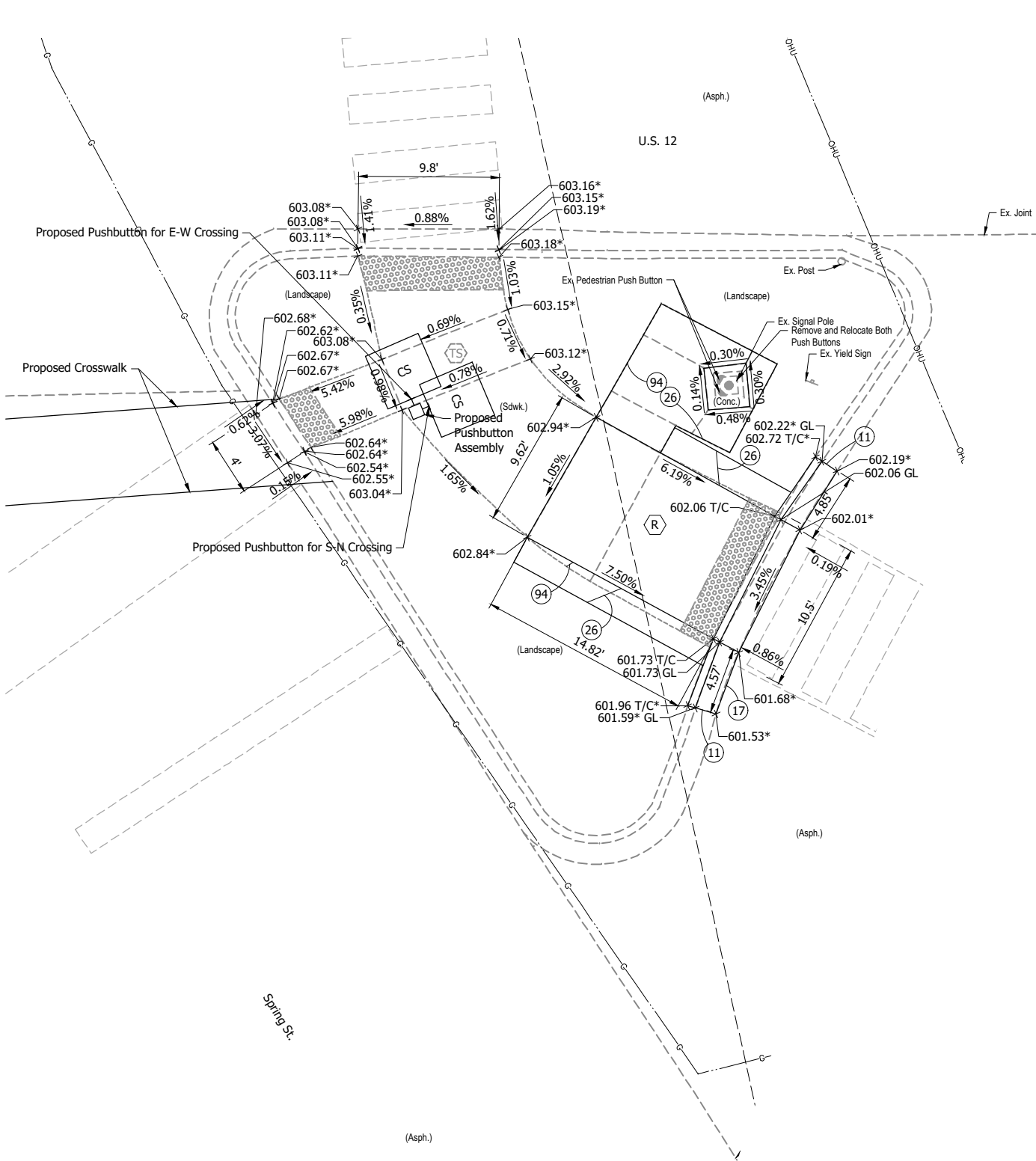
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
ADA RAMP CONSTRUCTION DETAILS U.S. 12 AND SPRING ST. SOUTHWEST	

SCALE 1" = 5'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 76 of 122
	CONTRACT R-43027

P:\J - 7/1/2025 8:20 AM - U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte M\Cad\Plan Set\Civil\201722IR_CR11.dwg (ADA DTL - SPRING (SE))



U.S. 12 AND SPRING ST.
SOUTHEAST
PAIRED PERPENDICULAR CURB RAMP
Scale: 1" = 5'

NOTE:
Existing curb ramps and sidewalk to be protected.

* Existing Elevation

- LEGEND:**
- (26) Sodding
 - (94) Remove Sidewalk
 - CS Clear Space
 - TS Turning Space
 - TS Existing Turning Space

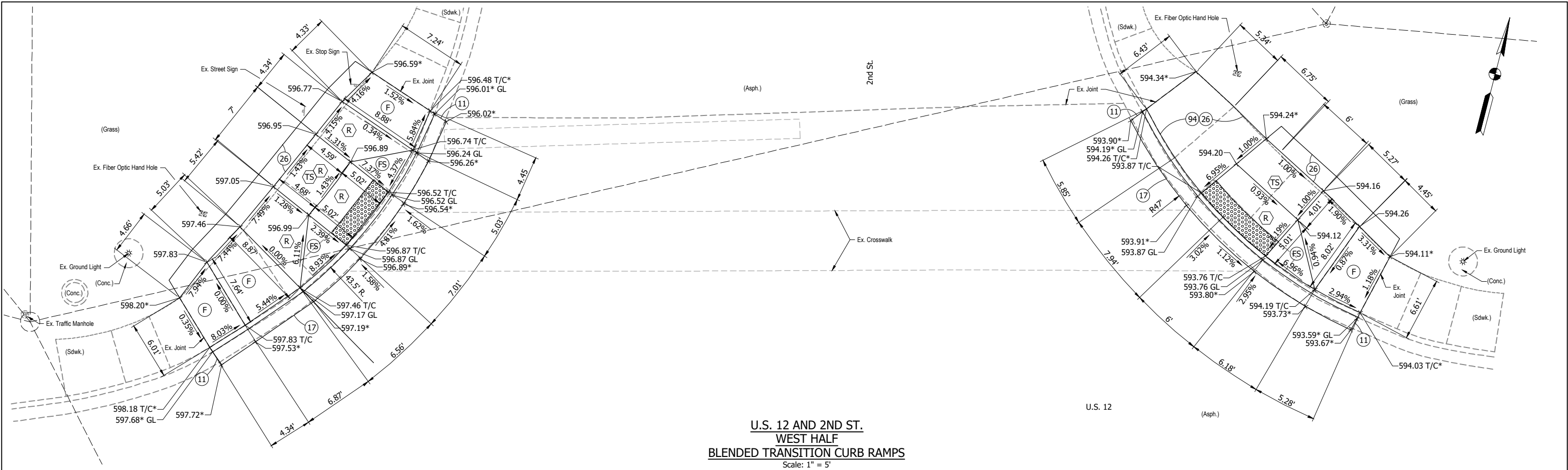
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

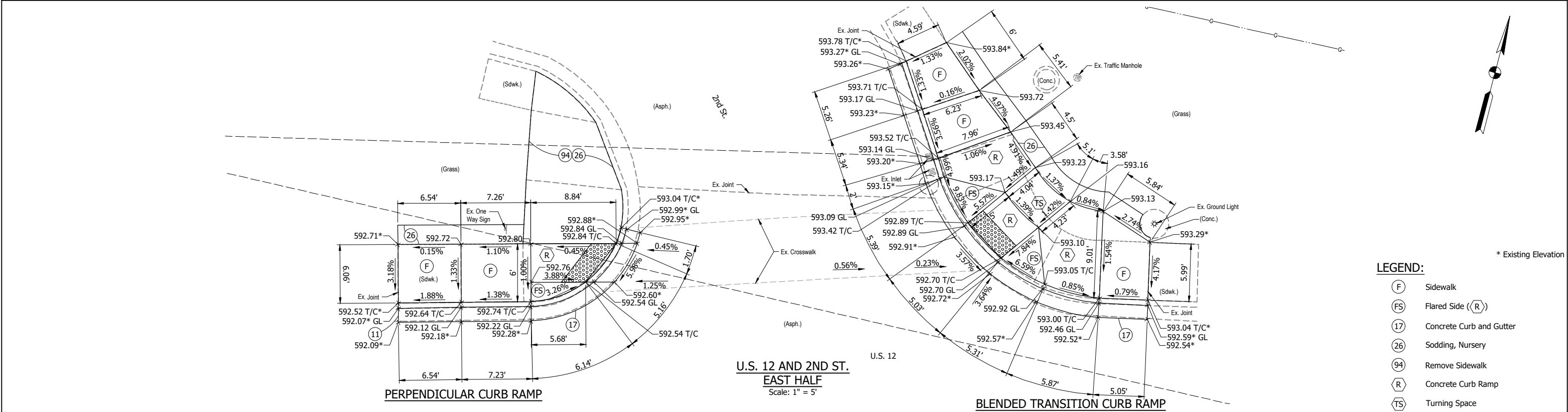
INDIANA DEPARTMENT OF TRANSPORTATION	
ADA RAMP CONSTRUCTION DETAILS U.S. 12 AND SPRING ST. SOUTHEAST	

SCALE 1" = 5'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 77 of 122
	CONTRACT R-43027

P:\J - 7/1/2025 8:12 AM - U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte M\Cad\Plan Set\Civil\2017222IR_CR12.dwg (ADA DTL - 2ND WEST AND EAST)



U.S. 12 AND 2ND ST.
WEST HALF
BLENDED TRANSITION CURB RAMP
Scale: 1" = 5'



U.S. 12 AND 2ND ST.
EAST HALF
PERPENDICULAR CURB RAMP
BLENDED TRANSITION CURB RAMP
Scale: 1" = 5'

LEGEND:

- (F) Sidewalk
- (FS) Flared Side ((R))
- (17) Concrete Curb and Gutter
- (26) Sodding, Nursery
- (94) Remove Sidewalk
- (R) Concrete Curb Ramp
- (TS) Turning Space

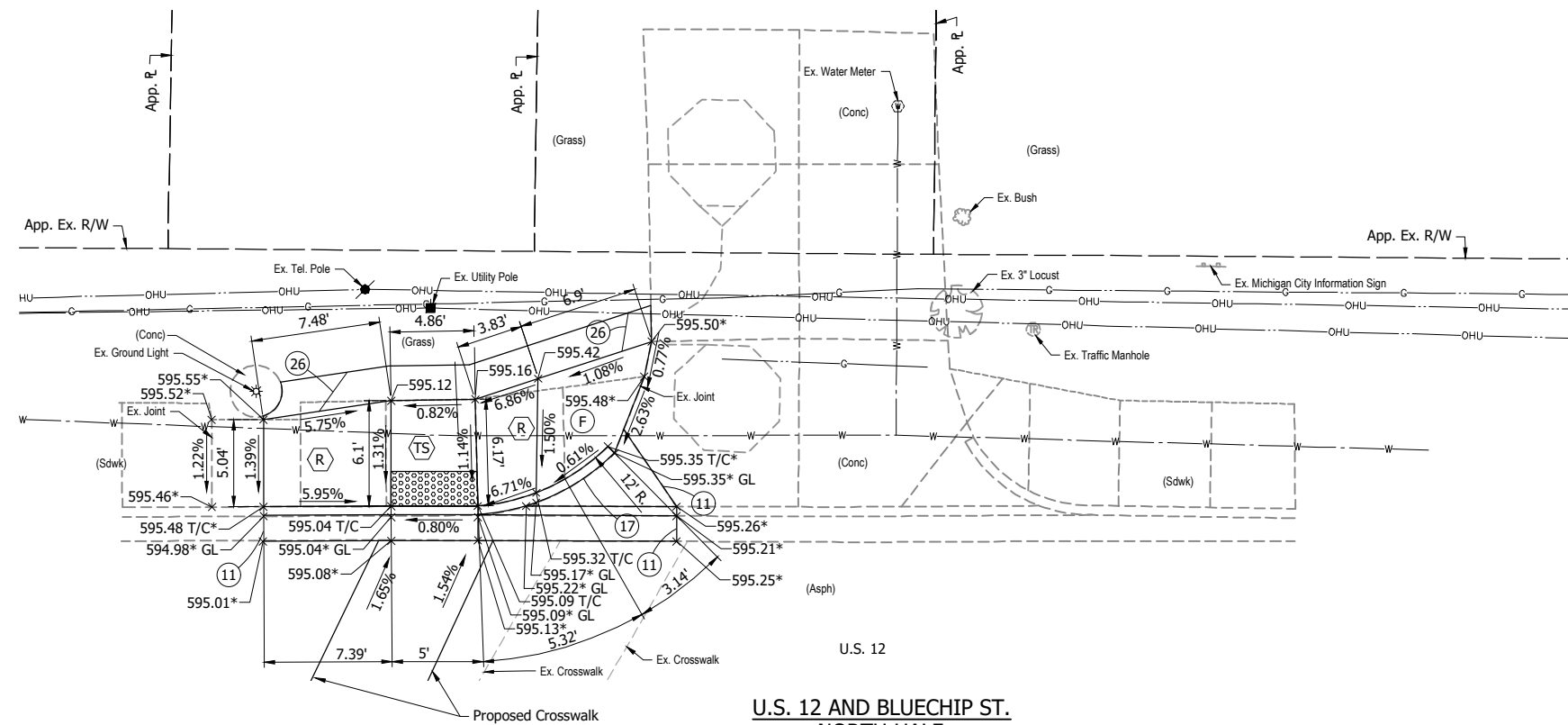
* Existing Elevation

NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL	
DESIGN ENGINEER	DATE
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
ADA RAMP CONSTRUCTION DETAILS U.S. 12 AND 2ND ST.	

SCALE 1" = 5'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 78 of 122
	CONTRACT R-43027

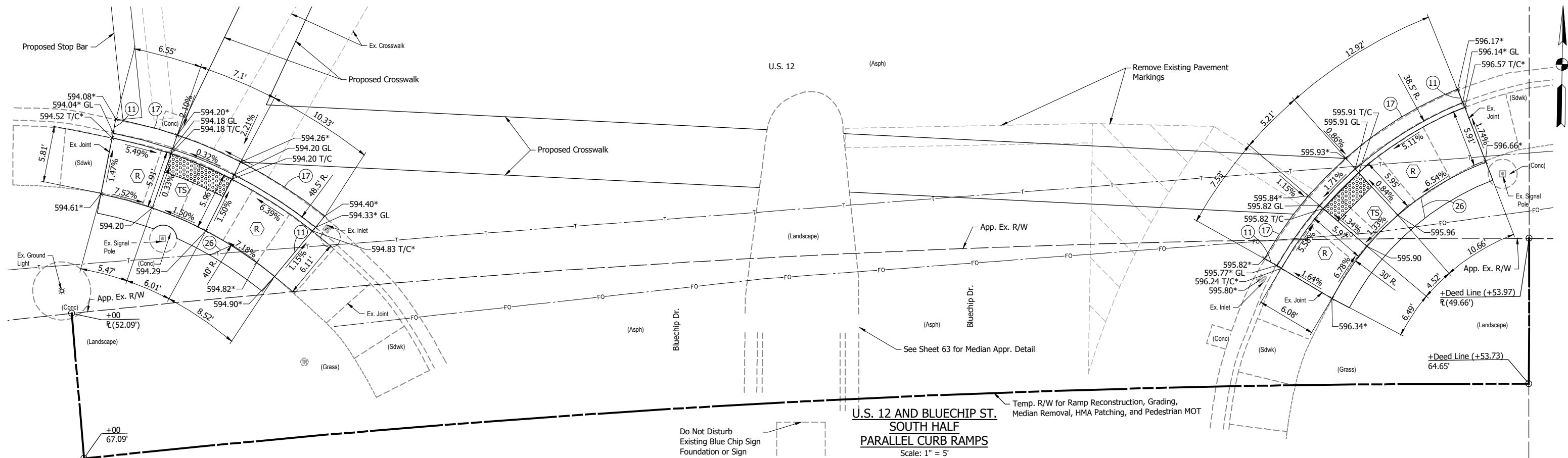


U.S. 12 AND BLUECHIP ST.
NORTH HALF
PARALLEL CURB RAMP
Scale: 1" = 5'

Existing Elevation

LEGEND:

- | | |
|------|--------------------------|
| GL | Gutter Line |
| T/C | Top of Curb |
| (F) | Sidewalk |
| (11) | Saw Cut |
| (17) | Concrete Curb and Gutter |
| (26) | Sodding, Nursery |
| (R) | Concrete Curb Ramp |
| (TS) | Turning Space |



U.S. 12 AND BLUECHIP ST.
SOUTH HALF
PARALLEL CURB RAMPS

Scale: 1" = 5'

NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____		DESIGN ENGINEER _____	DATE _____
DESIGNED: DJT		DRAWN: GDH	
CHECKED: DGD		CHECKED: DJT	

INDIANA
DEPARTMENT OF TRANSPORTATION

ADA RAMP CONSTRUCTION DETAILS

U.S. 12 AND BLUECHIP

SCALE		BRIDGE FILE	
1" = 5'			
		DESIGNATION	
		2000607	
		SHEETS	
		79	of 122
		CONTRACT	
		D-43077	

FTP -- 7/1/2025 8:19 AM -- U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte MI\Cad\Plan Set\Civil\201722PM_PL01.dwg (PL01)



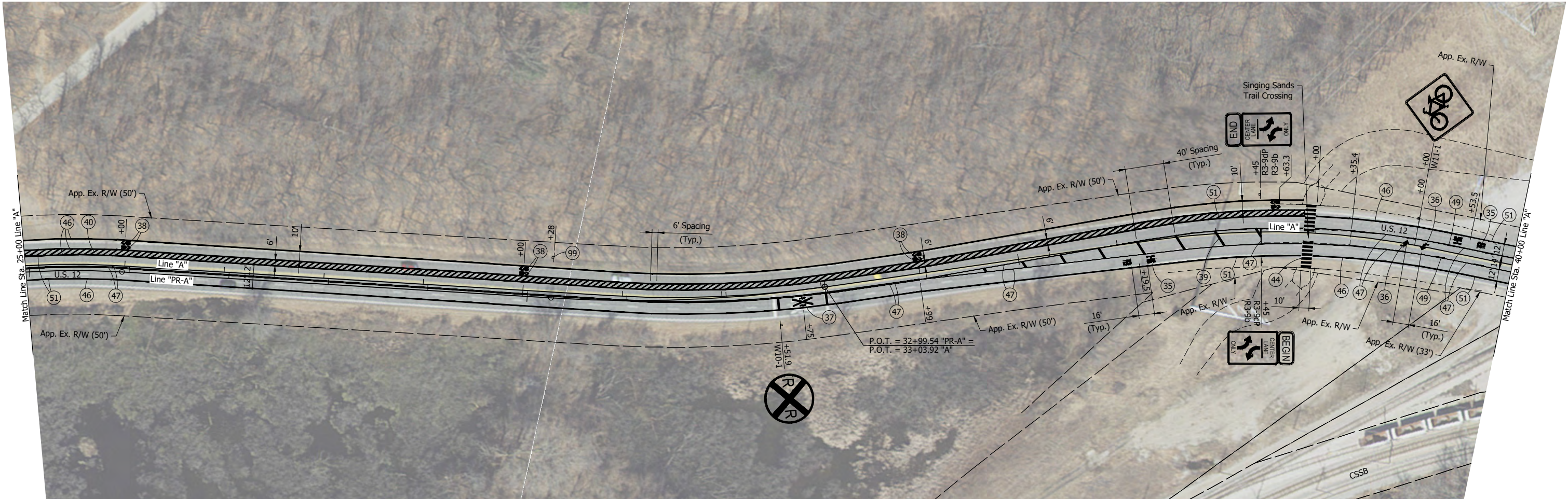
- LEGEND:**
- ④0 Transverse Marking, Thermoplastic, Crosshatch Line, White, 12"
 - ④6 Line, Thermoplastic, Solid, White, 6"
 - ④7 Line, Thermoplastic, Solid, Yellow, 6"
 - ⑤1 Milled HMA Corrugations, Sinusoidal (Shoulder)
 - ⑨9 Remove
 - ⌞ Ground Mounted Sign

NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
PAVEMENT MARKING AND SIGNAGE STA. 10+00 TO STA. 25+00	

SCALE 1" = 50'		BRIDGE FILE	
		DESIGNATION 2000607	
		SHEETS 81 of 122	
		CONTRACT R-43027	



NOTE:
Singing Sand Trail Project Constructed in 2019 is not reflected on the current aerial imagery. The crossing was surveyed as a part of this project.

- LEGEND:**
- 35 Pavement Message Marking, Thermoplastic, PED X-ING
 - 36 Pavement Message Marking, Thermoplastic, Lane Indication Arrow
 - 37 Pavement Message Marking, Thermoplastic, RR
 - 38 Pavement Message Marking, Thermoplastic, Bike Symbol
 - 39 Transverse Marking, Thermoplastic, Crosshatch Line, Yellow, 24"
 - 40 Transverse Marking, Thermoplastic, Crosshatch Line, White, 12"
 - 44 Transverse Marking, Thermoplastic, Crosswalk Line, White, 24"
 - 46 Line, Thermoplastic, Solid, White, 6"
 - 47 Line, Thermoplastic, Solid, Yellow, 6"
 - 49 Line, Thermoplastic, Broken, Yellow, 6"
 - 51 Milled HMA Corrugations, Sinusoidal (Shoulder)
 - 99 Remove
 - Ground Mounted Sign

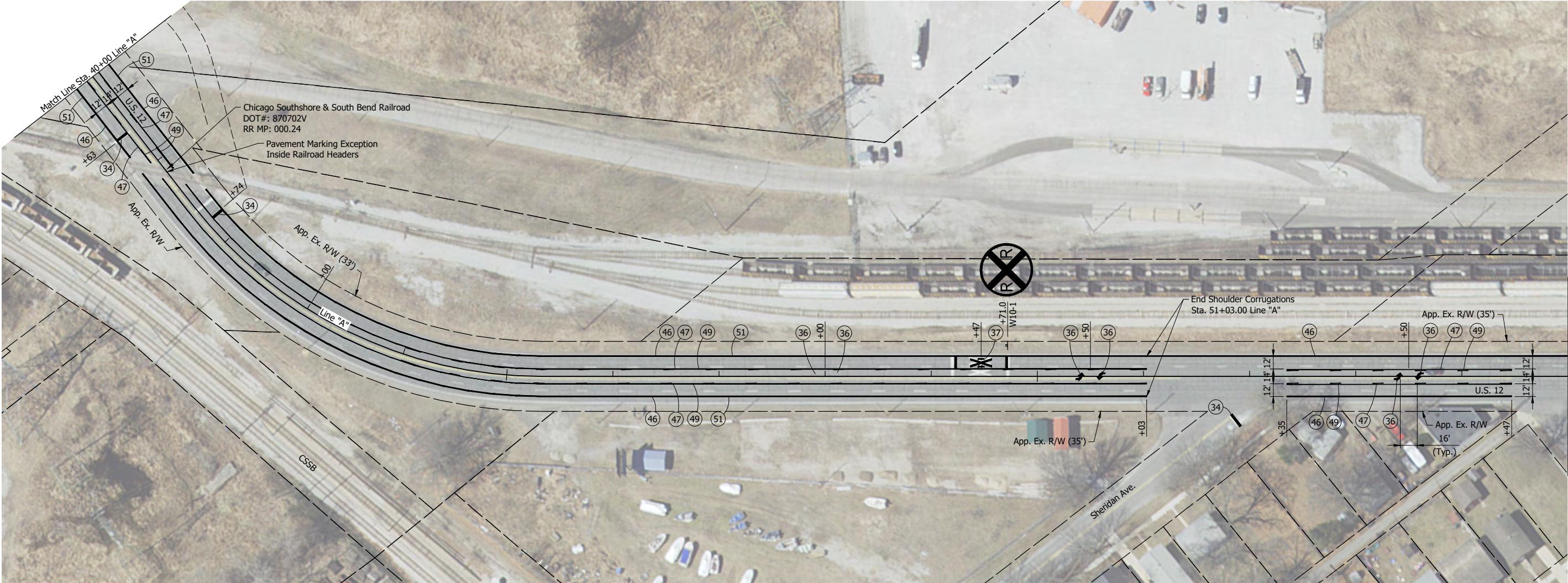
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
PAVEMENT MARKING AND SIGNAGE STA. 25+00 TOSTA. 40+00	

SCALE 1" = 50'		BRIDGE FILE	
		DESIGNATION 2000607	
		SHEETS 82 of 122	
		CONTRACT R-43027	

FTP -- 7/1/2025 8:13 AM -- U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte MI\Cad\Plan Set\Civil\201722PM_PL01.dwg (PL03)



NOTE:
Singing Sand Trail Project Constructed in 2019
is not reflected on the current aerial imagery.

- LEGEND:**
- (34) Transverse Marking, Thermoplastic, Stop Line, 24"
 - (36) Pavement Message Marking, Thermoplastic, Lane Indication Arrow
 - (37) Pavement Message Marking, Thermoplastic, RR
 - (46) Line, Thermoplastic, Solid, White, 6"
 - (47) Line, Thermoplastic, Solid, Yellow, 6"
 - (49) Line, Thermoplastic, Broken, Yellow, 6"
 - (51) Milled HMA Corrugations, Sinusoidal (Shoulder)
 - Ground Mounted Sign

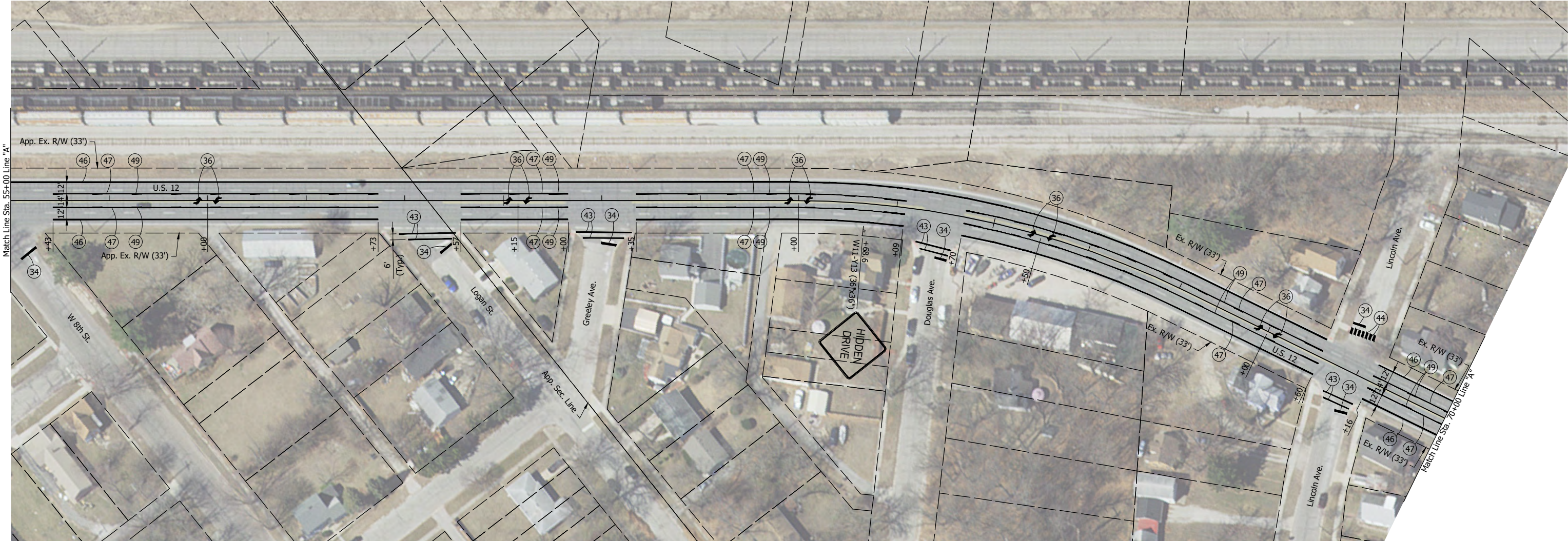
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
PAVEMENT MARKING AND SIGNAGE STA. 40+00 TO STA. 55+00	

SCALE 1" = 50'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 83 of 122
	CONTRACT R-43027

FTP -- 7/1/2025 8:17 AM -- U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte MI\Cad\Plan Set\Civil\201722PM_PL01.dwg (PL04)

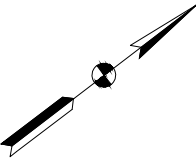


55+00

60+00

65+00

70+00



NOTE:
Singing Sand Trail Project Constructed in 2019
is not reflected on the current aerial imagery.

- LEGEND:**
- 34 Transverse Marking, Thermoplastic, Stop Line, 24"
 - 36 Pavement Message Marking, Thermoplastic, Lane Indication Arrow
 - 43 Transverse Marking, Thermoplastic, Crosswalk Line, White, 6"
 - 44 Transverse Marking, Thermoplastic, Crosswalk Line, White 24"
 - 46 Line, Thermoplastic, Solid, White, 6"
 - 47 Line, Thermoplastic, Solid, Yellow, 6"
 - 49 Line, Thermoplastic, Broken, Yellow, 6"

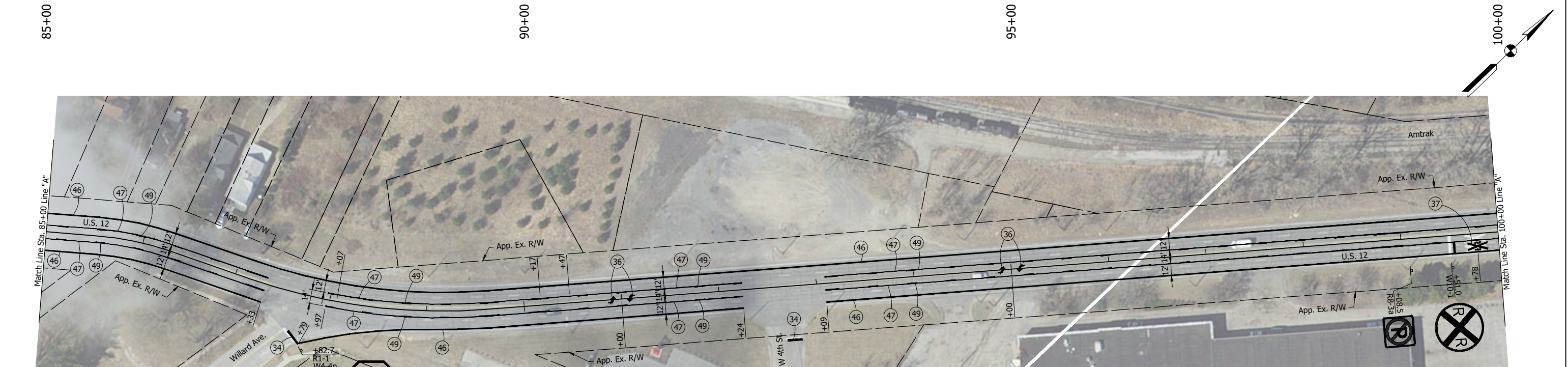
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
PAVEMENT MARKING AND SIGNAGE STA. 55+00 TO STA. 70+00	

SCALE 1" = 50'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 84 of 122
	CONTRACT R-43027

FTP -- 7/1/2025 8:17 AM -- U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722PM_PL01.dwg (PL05)



- LEGEND:**
- | | | | |
|------|--|------|---|
| (34) | Transverse Marking, Thermoplastic, Stop Line, 24" | (46) | Line, Thermoplastic, Solid, White, 6" |
| (36) | Pavement Message Marking, Thermoplastic, Lane Indication Arrow | (47) | Line, Thermoplastic, Solid, Yellow, 6" |
| (37) | Pavement Message Marking, Thermoplastic, RR | (49) | Line, Thermoplastic, Broken, Yellow, 6" |
| (43) | Transverse Marking, Thermoplastic, Crosswalk Line, White, 6" | | Ground Mounted Sign |

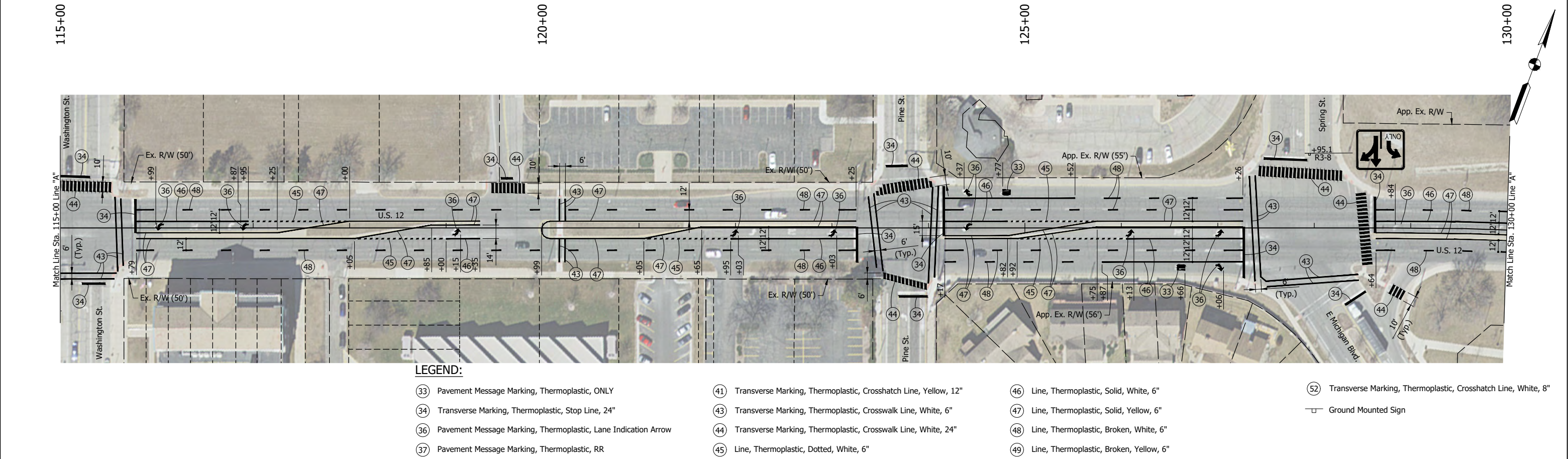
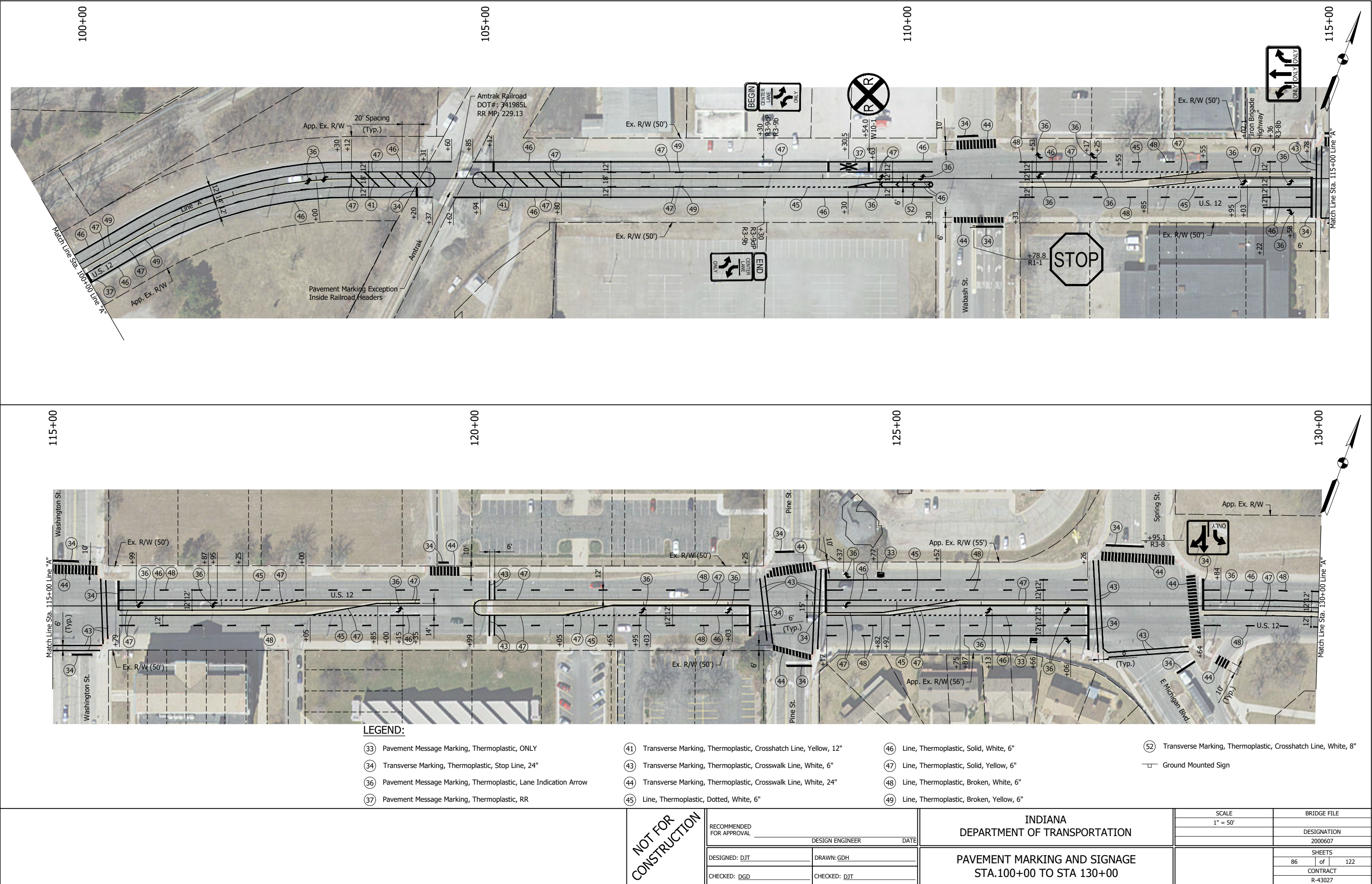
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
PAVEMENT MARKING AND SIGNAGE STA. 70+00 TO STA. 100+00	

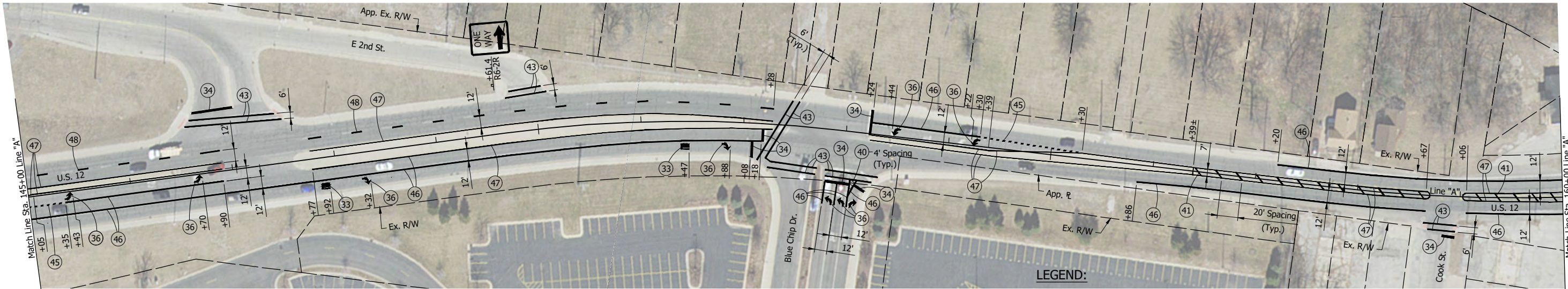
SCALE 1" = 50'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 85 of 122
	CONTRACT R-43027

FTP -- 7/1/2025 8:12 AM -- U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte MI\Cad\Plan Set\Civil\201722PM_PL01.dwg (PL06)



NOT FOR CONSTRUCTION	RECOMMENDED FOR APPROVAL		INDIANA DEPARTMENT OF TRANSPORTATION		SCALE 1" = 50'	BRIDGE FILE
	DESIGNED: DJT		PAVEMENT MARKING AND SIGNAGE STA.100+00 TO STA 130+00			DESIGNATION 2000607
	CHECKED: DGD					SHEETS 86 of 122
						CONTRACT R-43027

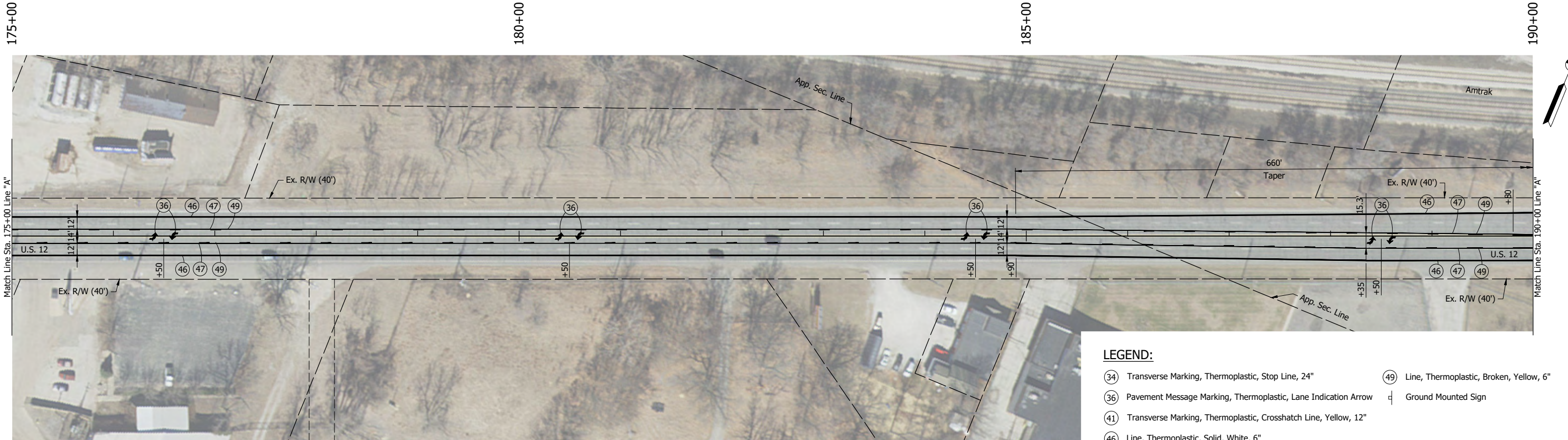
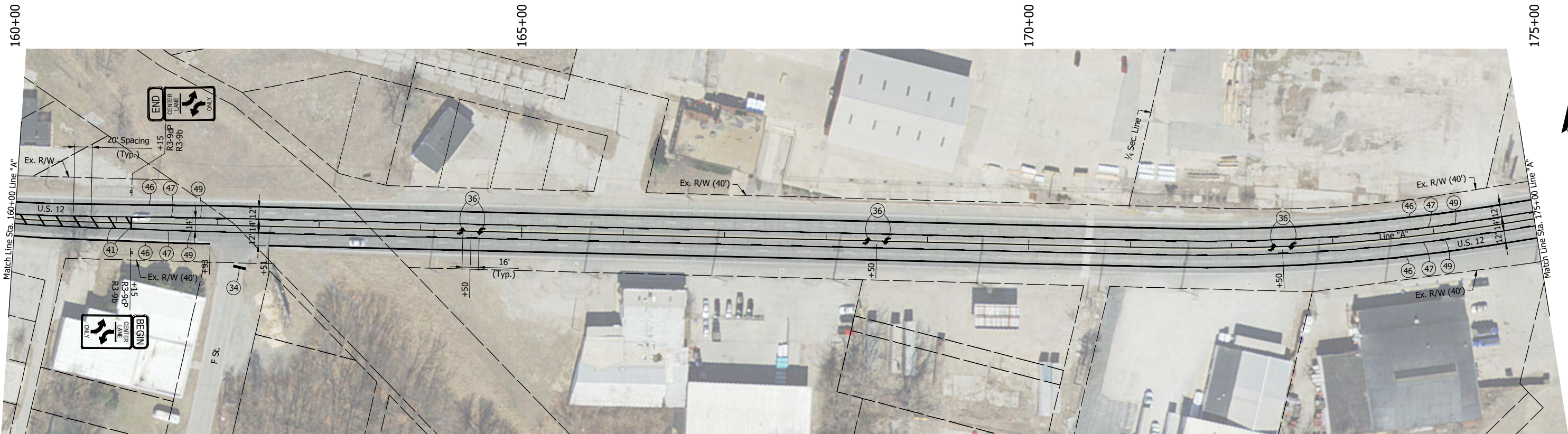
FTP -- 7/1/2025 8:17 AM -- U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte MI\Cad\Plan Set\Civil\201722PM_PL01.dwg (PL07)



- LEGEND:**
- (33) Pavement Message Marking, Thermoplastic, ONLY
 - (34) Transverse Marking, Thermoplastic, Stop Line, 24"
 - (36) Pavement Message Marking, Thermoplastic, Lane Indication Arrow
 - (41) Transverse Marking, Thermoplastic, Crosshatch Line, Yellow, 12"
 - (43) Transverse Marking, Thermoplastic, Crosswalk Line, White, 6"
 - (45) Line, Thermoplastic, Dotted, White, 6"
 - (46) Line, Thermoplastic, Solid, White, 6"
 - (47) Line, Thermoplastic, Solid, Yellow, 6"
 - (48) Line, Thermoplastic, Broken, White, 6"
 - Ground Mounted Sign

NOT FOR CONSTRUCTION	RECOMMENDED FOR APPROVAL		INDIANA DEPARTMENT OF TRANSPORTATION		SCALE 1" = 50'		BRIDGE FILE	
	DESIGNED: DJT		PAVEMENT MARKING AND SIGNAGE STA. 130+00 TO STA. 160+00				DESIGNATION 2000607	
	CHECKED: DGD						SHEETS 87 of 122	
							CONTRACT R-43027	

FTP -- 7/1/2025 8:21 AM -- U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte MI\Cad\Plan Set\Civil\201722PM_PL01.dwg (PL08)



- LEGEND:**
- (34) Transverse Marking, Thermoplastic, Stop Line, 24"
 - (36) Pavement Message Marking, Thermoplastic, Lane Indication Arrow
 - (41) Transverse Marking, Thermoplastic, Crosshatch Line, Yellow, 12"
 - (46) Line, Thermoplastic, Solid, White, 6"
 - (47) Line, Thermoplastic, Solid, Yellow, 6"
 - (49) Line, Thermoplastic, Broken, Yellow, 6"
 - Ground Mounted Sign

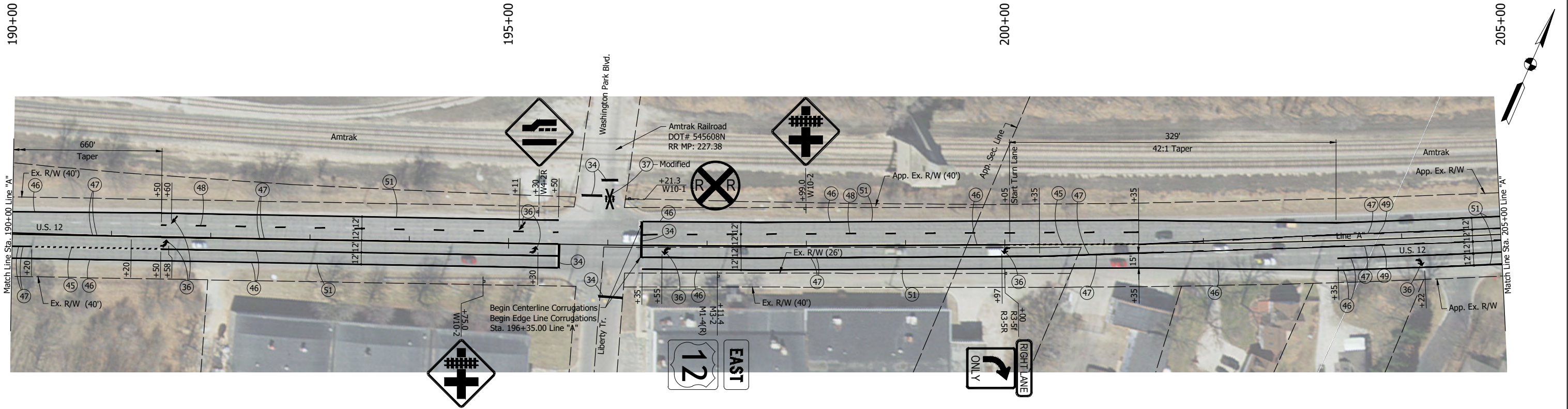
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
PAVEMENT MARKING AND SIGNAGE STA. 160+00 TO STA. 190+00	

SCALE 1" = 50'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 88 of 122
	CONTRACT R-43027

FTP -- 7/1/2025 8:20 AM -- U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722PM_PL01.dwg (PL09)



- LEGEND:**
- | | | |
|--|---|--|
| (34) Transverse Marking, Thermoplastic, Stop Line, 24" | (45) Line, Thermoplastic, Dotted, White, 6" | (51) Milled HMA Corrugations, Conventional |
| (36) Pavement Message Marking, Thermoplastic, Lane Indication Arrow | (46) Line, Thermoplastic, Solid, White, 6" | □ Ground Mounted Sign |
| (37) Pavement Message Marking, Thermoplastic, RR | (47) Line, Thermoplastic, Solid, Yellow, 6" | |
| (39) Transverse Marking, Thermoplastic, Crosshatch Line, Yellow, 24" | (48) Line, Thermoplastic, Broken, White, 6" | |

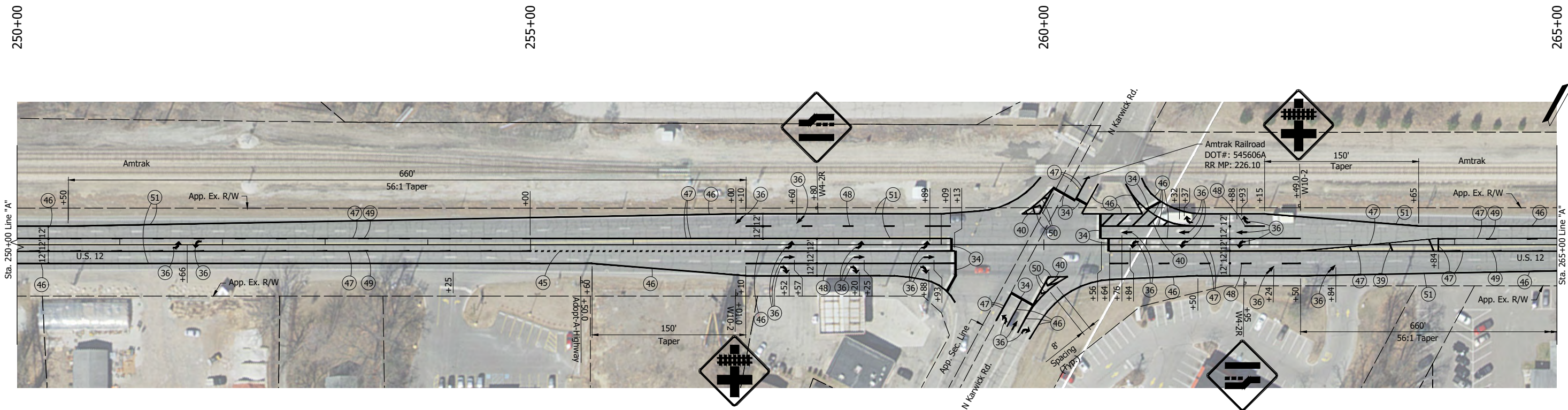
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
PAVEMENT MARKING AND SIGNAGE STA. 190+00 TO STA. 220+00	

SCALE 1" = 50'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 89 of 122
	CONTRACT R-43027

FTP -- 7/1/2025 8:20 AM -- U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722PM_PL01.dwg (PL10)



LEGEND:

- (34)

Transverse Marking, Thermoplastic, Stop Line, 24"
- (36)

Pavement Message Marking, Thermoplastic, Lane Indication Arrow
- (39)

Transverse Marking, Thermoplastic, Crosshatch Line, Yellow, 24"
- (40)

Transverse Marking, Thermoplastic, Crosshatch Line, White, 12"
- (45)

Line, Thermoplastic, Dotted, White, 6"
- (46)

Line, Thermoplastic, Solid, White, 6"
- (47)

Line, Thermoplastic, Solid, Yellow, 6"
- (48)

Line, Thermoplastic, Broken, White, 6"
- (49)

Line, Thermoplastic, Broken, Yellow, 6"
- (50)

Line, Thermoplastic, Solid, White, 10"
- (51)

Milled MHA Corrugations, Conventional
- Ground Mounted Sign

NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
PAVEMENT MARKING AND SIGNAGE STA. 250+00 TO STA. 280+00	

SCALE 1" = 50'	BRIDGE FILE	
	DESIGNATION 2000607	
	SHEETS 90 of 122	
	CONTRACT R-43027	

FTP -- 7/1/2025 8:18 AM -- U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722PM_PL01.dwg (PL11)



LEGEND:

34

Transverse Marking, Thermoplastic, Stop Line, 24"

36

Pavement Message Marking, Thermoplastic, Lane Indication Arrow

46

Line, Thermoplastic, Solid, White, 6"

47

Line, Thermoplastic, Solid, Yellow, 6"

49

Line, Thermoplastic, Broken, Yellow, 6"

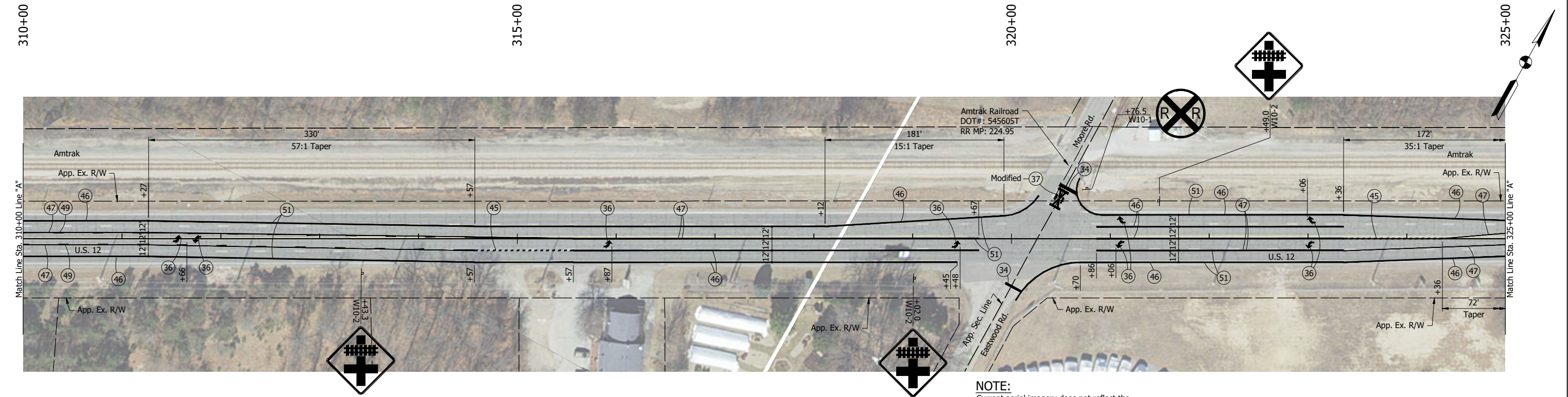
51

Line, Thermoplastic, Solid, White, 10"

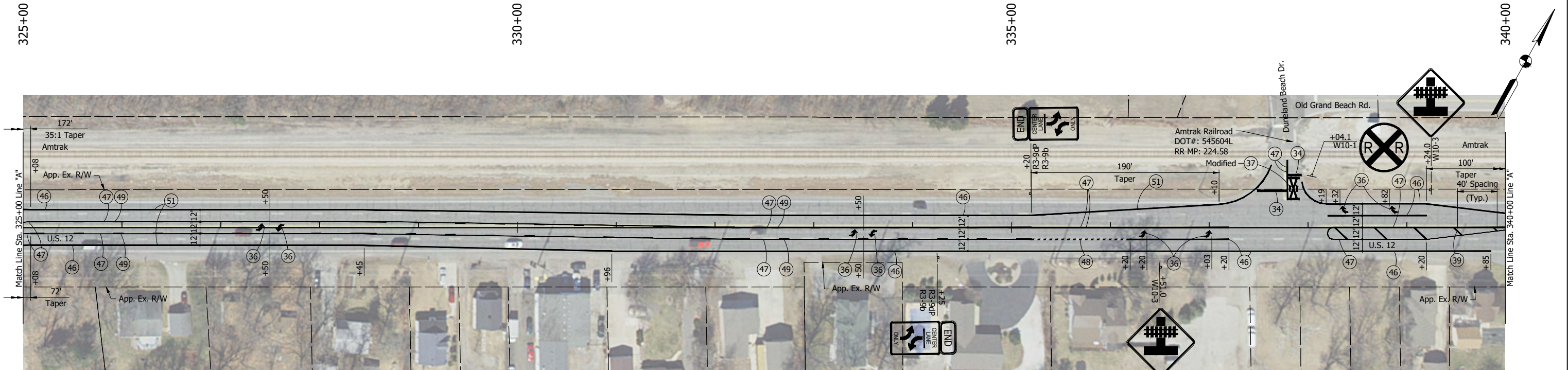
Ground Mounted Sign

NOT FOR CONSTRUCTION	RECOMMENDED FOR APPROVAL		INDIANA DEPARTMENT OF TRANSPORTATION		SCALE 1" = 50'		BRIDGE FILE	
	DESIGNED: TMC		PAVEMENT MARKING AND SIGNAGE STA. 280+00 TO STA. 310+00				DESIGNATION 2000607	
	CHECKED: DGD						SHEETS 91 of 122	
							CONTRACT R-43027	

CDH — 7/1/2025 8:19 AM — U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte MI\Cad\Plan Set\Civil\201722PM_PL02.dwg (PL12)



NOTE:
Current aerial imagery does not reflect the
existing condition at Eastwood Rd. / Moore Rd.
of single thru lanes with dedicated left turn lanes.



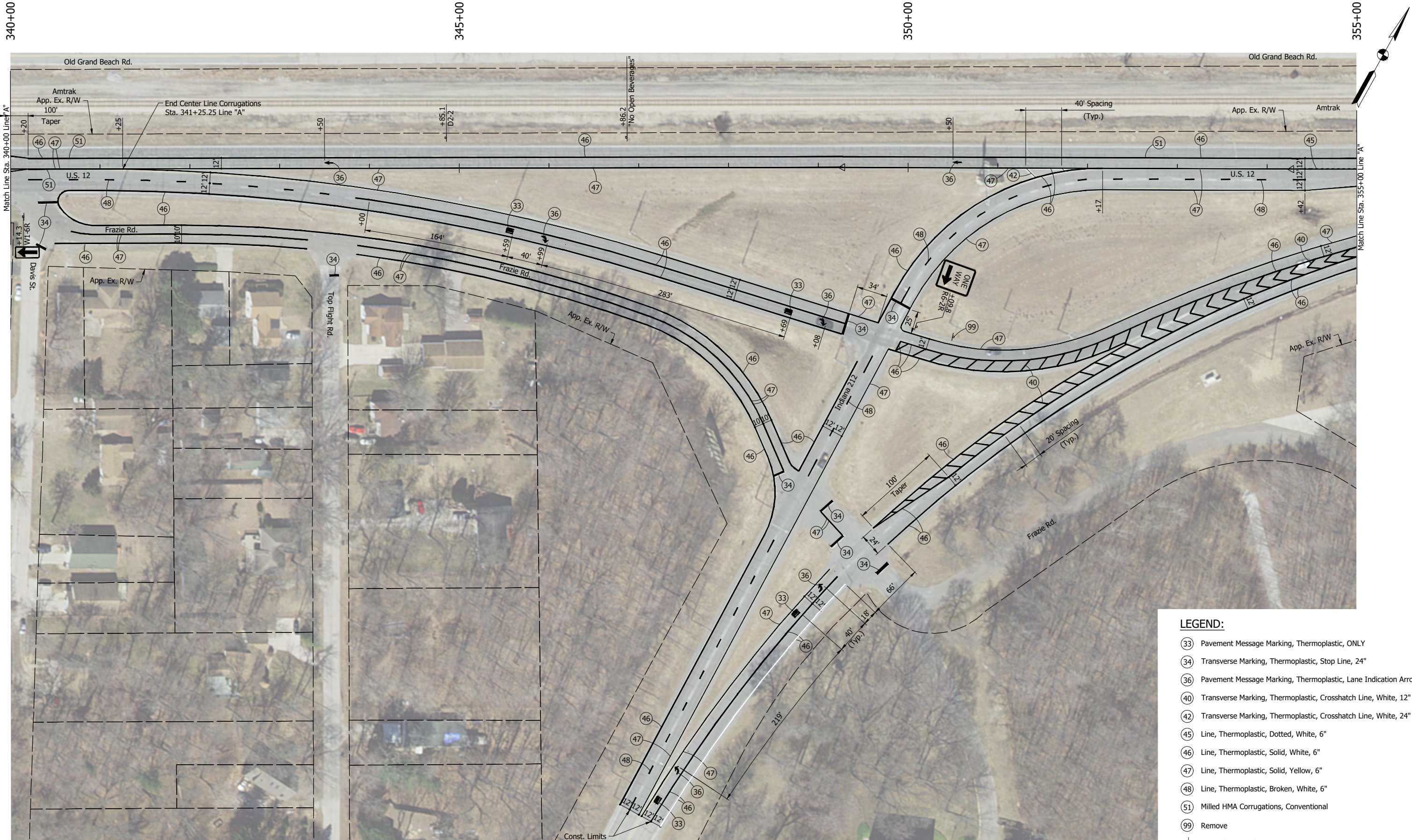
- LEGEND:
- | | | |
|--|---|--|
| (34) Transverse Marking, Thermoplastic, Stop Line, 24" | (45) Line, Thermoplastic, Dotted, White, 6" | (49) Line, Thermoplastic, Broken, Yellow, 6" |
| (36) Pavement Message Marking, Thermoplastic, Lane Indication Arrow | (46) Line, Thermoplastic, Solid, White, 6" | (51) Milled HMA Corrugations, Conventional |
| (37) Pavement Message Marking, Thermoplastic, RR | (47) Line, Thermoplastic, Solid, Yellow, 6" | Ground Mounted Sign |
| (39) Transverse Marking, Thermoplastic, Crosshatch Line, Yellow, 24" | (48) Line, Thermoplastic, Broken, White, 6" | |

NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA DEPARTMENT OF TRANSPORTATION	
PAVEMENT MARKING AND SIGNAGE STA. 310+00 TO STA. 340+00	

SCALE 1" = 50'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 92 of 122
	CONTRACT R-43027

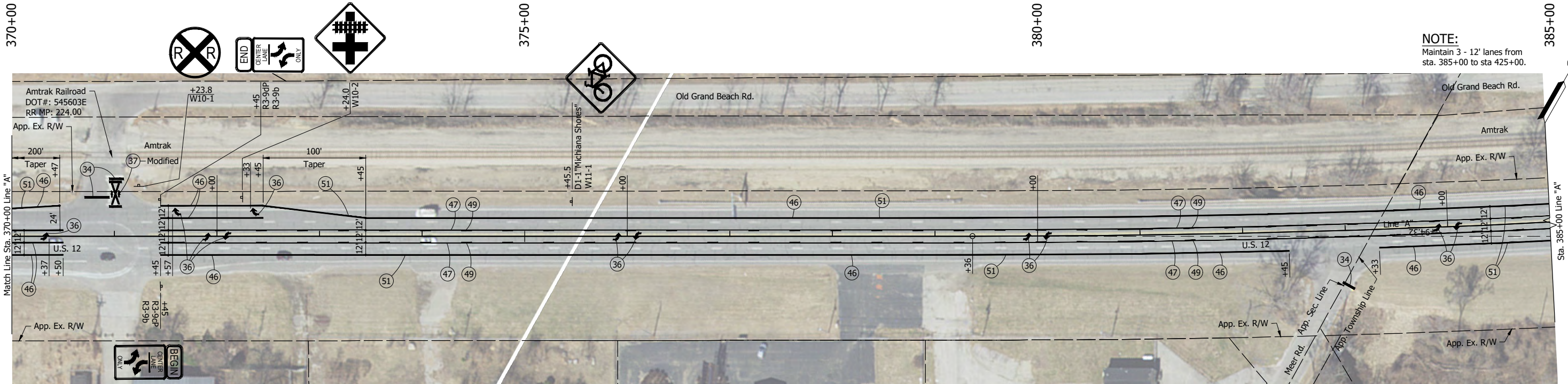
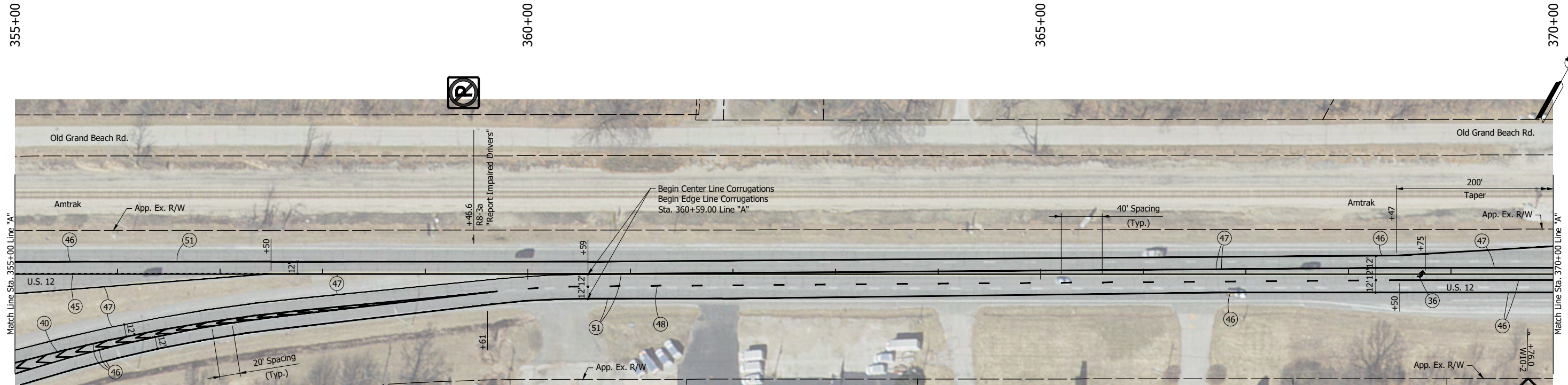


LEGEND:

33	Pavement Message Marking, Thermoplastic, ONLY
34	Transverse Marking, Thermoplastic, Stop Line, 24"
36	Pavement Message Marking, Thermoplastic, Lane Indication Arrow
40	Transverse Marking, Thermoplastic, Crosshatch Line, White, 12"
42	Transverse Marking, Thermoplastic, Crosshatch Line, White, 24"
45	Line, Thermoplastic, Dotted, White, 6"
46	Line, Thermoplastic, Solid, White, 6"
47	Line, Thermoplastic, Solid, Yellow, 6"
48	Line, Thermoplastic, Broken, White, 6"
51	Milled HMA Corrugations, Conventional
99	Remove
d	Ground Mounted Sign

RECOMMENDED FOR APPROVAL _____		DESIGN ENGINEER _____		DATE _____		INDIANA DEPARTMENT OF TRANSPORTATION				SCALE		BRIDGE FILE			
										1" = 50'					
DESIGNED: <u>DJT</u>		DRAWN: <u>GDH</u>		PAVEMENT MARKING AND SIGNAGE STA. 340+00 TO STA. 355+00						DESIGNATION					
										2000607					
CHECKED: <u>DGD</u>		CHECKED: <u>DJT</u>						SHEETS		93		of		122	
										CONTRACT					
										R-43027					

GDH - 7/1/2025 8:16 AM - U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte MI\Cad\Plan Set\Civil\201722PM_PL02.dwg (PL14)



- LEGEND:**
- | | | |
|---|--|--|
| (34) Transverse Marking, Thermoplastic, Stop Line, 24" | (46) Line, Thermoplastic, Solid, White, 6" | (51) Milled HMA Corrugations, Conventional |
| (37) Pavement Message Marking, Thermoplastic, RR | (47) Line, Thermoplastic, Solid, Yellow, 6" | □ Ground Mounted Sign |
| (40) Transverse Marking, Thermoplastic, Crosshatch Line, White, 12" | (48) Line, Thermoplastic, Broken, White, 6" | |
| (45) Line, Thermoplastic, Dotted, White, 6" | (49) Line, Thermoplastic, Broken, Yellow, 6" | |

NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

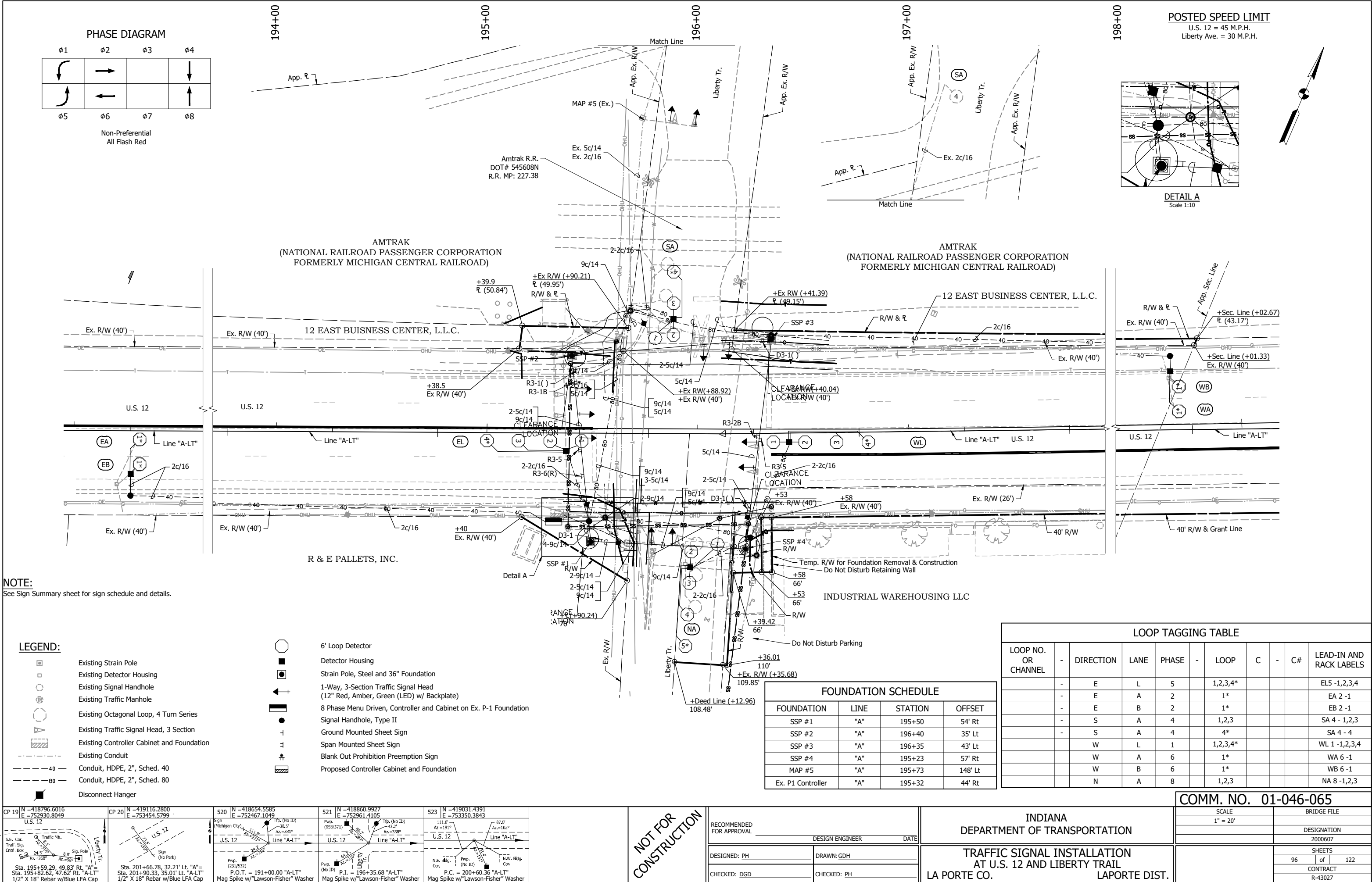
INDIANA DEPARTMENT OF TRANSPORTATION	
PAVEMENT MARKING AND SIGNAGE STA. 355+00 TO STA. 385+00	

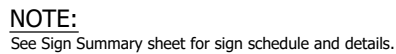
SCALE 1" = 50'	BRIDGE FILE
	DESIGNATION 2000607
	SHEETS 94 of 122
	CONTRACT R-43027



NOT FOR
CONSTRUCTION

P:\J - 7/1/2025 8:15 AM - U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte M\Cad\Plan Set\Civil\201722SG_PL01.dwg (201722SG_PL01 - SIG PLAN 01 RW)





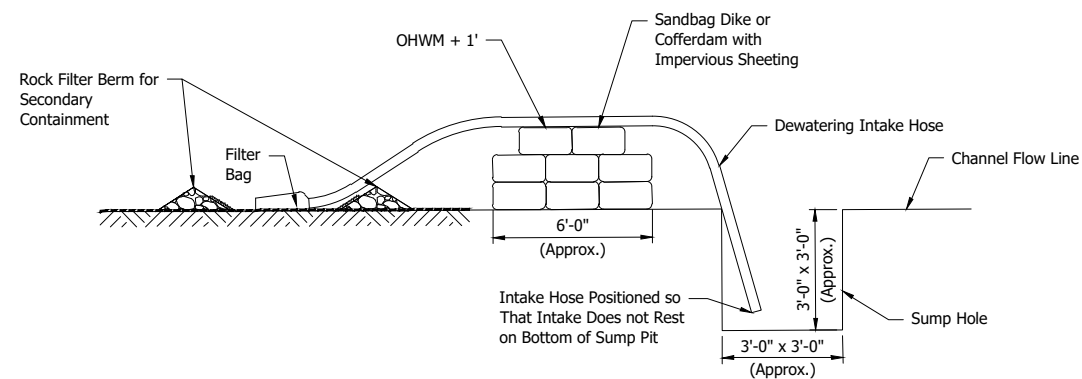
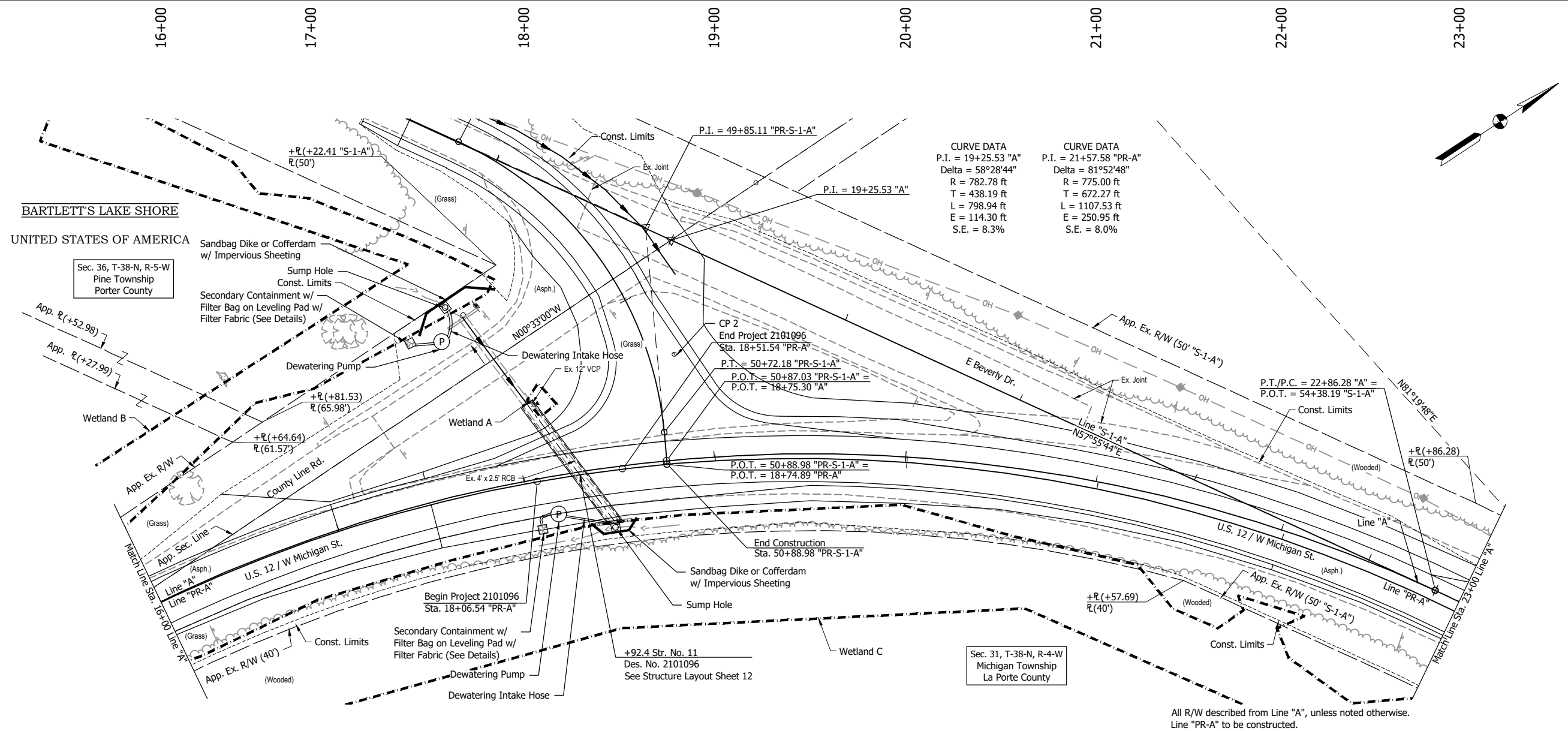
LOOP TAGGING TABLE										
LOOP NO. OR CHANNEL	-	DIRECTION	LANE	PHASE	-	LOOP	C	-	C#	LEAD-IN AND RACK LABELS
	-	E	L	5		1,2,3,4				-EL5-1,2,3,4
	-	E	A	2		1				-EA2-1
	-	E	B	2		1				-EB2-1
	-	S	L	4		1,2				-SL4-1,2
	-	S	L	4		3,4,5,6				-SL4-3,4,5,6
	-	S	A	4		1				-SA4-1
	-	S	A	4		2,3,4,5				-SA4-2,3,4,5
	-	S	R	4		1				-SR4-1
	-	W	L	1		1,2,3,4				-WL1-1,2,3,4
	-	W	A	6		1				-WA6-1
	-	W	B	6		1				-WB6-1
	-	N	L	8		1,2,3				-NL8-1,2,3
	-	N	A	8		1,2,3				-NL8-1,2,3

NOT FOR
CONSTRUCTION

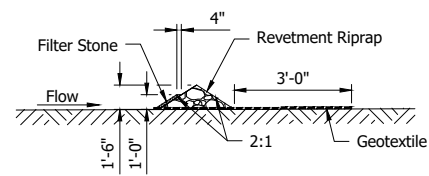
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: PH	DRAWN: GDH	
CHECKED: DGD	CHECKED: PH	

INDIANA
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION
AT U.S. 12 AND KARWICK ROAD
LA PORTE CO. LAPORTE DIST.



DEWATERING & COFFERDAM / SUMP HOLE DETAIL
Not to Scale



ROCK FILTER BERM DETAIL

Not to Scale

TEMPORARY WETLAND B IMPACTS	
Area (Cofferdams and Sump Hole)	285 sft
Length (Cofferdams and Sump Hole)	9 ft
Volume (Cofferdams and Sump Hole)	6.11 cys

TEMPORARY WETLAND C IMPACTS	
Area (Cofferdams and Sump Hole)	221 sft
Length (Cofferdams and Sump Hole)	9 ft
Volume (Cofferdams and Sump Hole)	4.93 cys

NOTE:
Temporary dewatering materials to be removed upon completion.

EROSION CONTROL	
No. 2 Stone	100 Tons

NOTES:

1. An adequate pump around system for this project will be the responsibility of the Contractor. This detail provides a typical pump around system.
2. Duration of use: 30 days.
3. Secondary Containment zones shall be placed outside of the wetlands on dry land.

NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL		
	DESIGN ENGINEER	DATE
DESIGNED: DJT	DRAWN: PJV	
CHECKED: DGD	CHECKED: DJT	

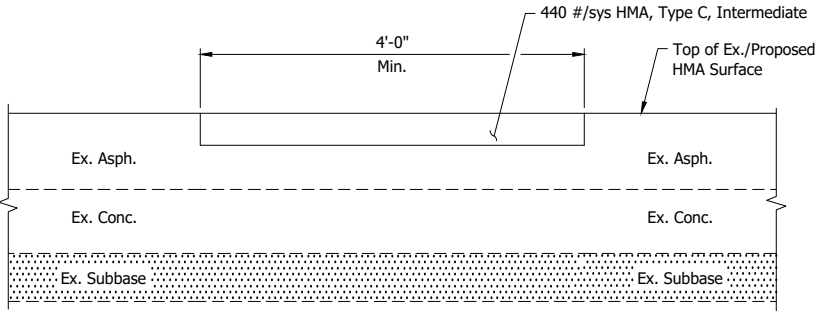
INDIANA
DEPARTMENT OF TRANSPORTATION

PUMP AROUND PLAN

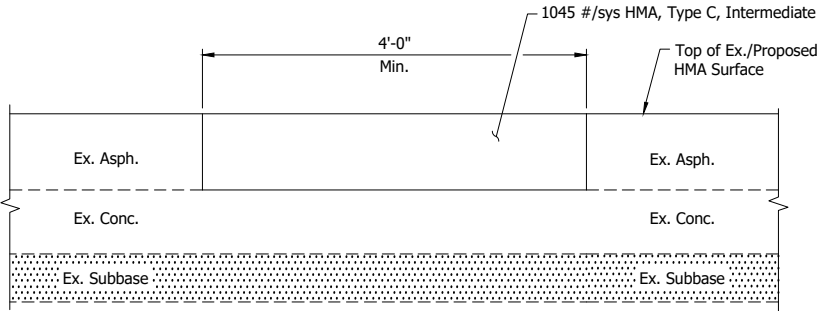
SCALE		BRIDGE FILE	
1" = 30'			
		DESIGNATION	
		2000607	
		SHEETS	
		98	122
		CONTRACT	
		R-43027	

FTP -- 7/1/2025 8:13 AM -- U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte MI\Cad\Plan Set\Civil\201722IB_PS.dwg (PATCHING TABLE)

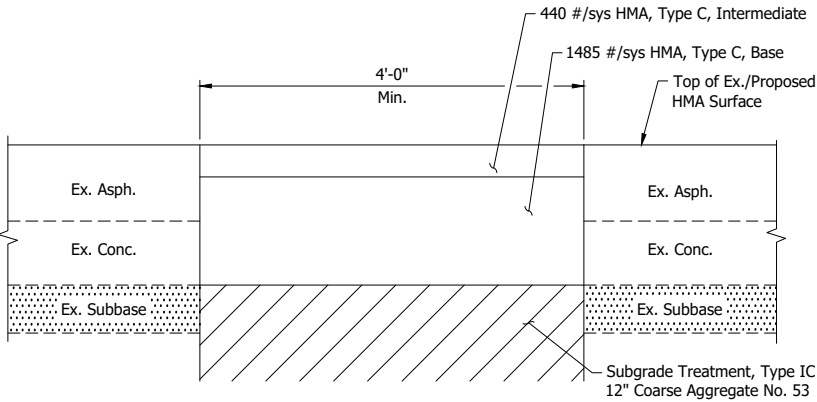
PATCHING SUMMARY TABLE											
START STATION	DIRECTION	LOCATION	TYPE OF PATCHING	PAVEMENT TYPE	HMA DEPTH	WIDTH	LENGTH	AREA	CONCRETE PAVEMENT REMOVE	HMA FOR PATCHING, TYPE C	SUBGRADE TREATMENT, TYPE II
					IN						
Line "A"											
28+65	WB	Driving Lane	Partial	Asphalt	4	6	10	6.7		1.5	
36+90	EB	Passing Lane	Partial	Asphalt	4	1	20	26.7		5.9	
41+50	EB	Travel Lane	Partial	Asphalt	4	4	80	35.6		7.9	
65+90	EB	Shoulder	Partial	Asphalt	4	4	50	22.2		4.9	
77+40	EB	ALL	Partial	Asphalt	4	48	10	53.3		11.8	
80+50	EB	Travel Lane	Partial	Asphalt	4	4	70	31.1		6.9	
114+50	EB	LTL THRU South Approach	Partial Deeper	Asphalt	9.5	24	172	458.7		239.7	
117+00	WB	Left Turn Lane	Full	Asphalt	17.5	12	10	13.3		12.8	
117+72	EB	Driving Lane	Full	Asphalt	17.5	12	10	13.3		12.8	
119+35	WB	Driving Lane	Full	Asphalt	17.5	12	12	16.0		15.4	
119+70	EB & WB	ALL	Partial Deeper	Asphalt	9.5	64	10	71.1		37.2	
122+87	EB	Travel Lane	Full	Asphalt	17.5	24	25	66.7		64.2	
123+15	WB	Left Turn Lane	Partial Deeper	Asphalt	9.5	30	60	200.0		104.5	
124+07	EB	Driving Lane	Full	Asphalt	17.5	4	12	5.3		5.1	
126+50	WB	Left Turn Lane	Partial Deeper	Asphalt	9.5	24	100	266.7		139.4	
132+70	WB	Passing Lane	Partial Deeper	Asphalt	9.5	12	40	53.3		27.9	
157+40	EB	Shoulder	Partial Deeper	Asphalt	9.5	4	10	4.4		2.3	
169+50	WB	Driving Lane	Full	Asphalt	17.5	12	12	16.0		15.4	
275+60	EB	Driving Lane	Full	Asphalt	17.5	12	6	8.0		7.7	
338+44	WB	Travel Lane	Full	Asphalt	17.5	24	12	32.0		30.8	
387+38	WB	Travel Lane	Full	Asphalt	17.5	24	12	32.0		30.8	
		Undistributed	Partial	Asphalt				200.0			
TOTALS								1632.4		784.9	



PARTIAL-DEPTH HMA PATCH IN COMPOSITE PAVEMENT
Scale: 1" = 1'-0"



PARTIAL-DEPTH DEEPER HMA PATCH IN COMPOSITE PAVEMENT
Scale: 1" = 1'-0"



FULL DEPTH HMA PATCH IN COMPOSITE PAVEMENT
Scale: 1" = 1'-0"

NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: DJT _____	DRAWN: PJV _____	
CHECKED: DGD _____	CHECKED: DJT _____	

INDIANA DEPARTMENT OF TRANSPORTATION	SCALE	BRIDGE FILE
PATCHING SUMMARY TABLE AND DETAILS		DESIGNATION 2000607
		SHEETS 99 of 122
		CONTRACT R-43027

SHEET SIGN & POST SUMMARY TABLE

SIGN										POST							
PLAN SHEET NO / LINE	SIGN LOCATION (STA.)	SIGN CODE	SIGN SIZE (IN x IN)	GROUND - MOUNTED SIGN AREA (FT²)			GROUND - MOUNTED DOUBLE-FACED SIGN AREA (FT²)			SQUARE							
				0.080"	0.100"	.125"	0.080"	0.100"	.125"	2 ½" x 2 ½" - 12 GA. (TYPE 3)			2" x 2" - 12 GA. (TYPE 2)			2 ¼" x 2 ¼" - 12 GA. (TYPE 1)	
										UNREINFORCED ANCHOR			UNREINFORCED ANCHOR			UNREINFORCED ANCHOR	
										POST LENGTH (FT)			POST LENGTH (FT)			POST LENGTH (FT)	
							1	2	TOTAL	1	2	TOTAL	1	TOTAL			
Line "PR-A"																	
	11+00 Rt.	MM47	12 x 6	.50											8.17	8.17	
	32+52 Rt.	W10-1	36 Dia. Cir.		7.07										10.67	10.67	
Line "A"																	
	37+45 Lt.	R3-9dP	30 x 12	2.50											11.67	11.67	
		R3-9b	24 x 36	6.00													
	37+45 Rt.	R3-9cP	30 x 12	2.50											11.67	11.67	
		R3-9b	24 x 36	6.00													
	49+71 Lt.	W10-1	36 Dia. Cir.		7.07										10.67	10.67	
	63+69 Rt.	W11-Y13	36 x 36		9.00										10.67	10.67	
	87+83 Rt.	R1-1	30 x 30	6.25											11.17	11.17	
		W4-4p	24 x 12	2.00													
	99+09 Rt.	R8-3a	24 x 30	5.00											10.17	10.17	
	99+51 Rt.	W10-1	36 Dia. Cir.		7.07										10.67	10.67	
	108+30 Lt.	R3-9cP	30 x 12	2.50											11.67	11.67	
		R3-9b	24 x 36	6.00													
	108+30 Rt.	R3-9dP	30 x 12	2.50											11.67	11.67	
		R3-9b	24 x 36	6.00													
	109+54 Lt.	W10-1	36 Dia. Cir.		7.07										10.67	10.67	
	110+79 Rt.	R1-1	30 x 30	6.25											10.17	10.17	
	114+02 Lt.	Iron Brigade Highway	24 x 24	4.00											9.67	9.67	
	127+95 Lt.	R3-8	36 x 30		7.50										10.17	10.17	
	134+30 Rt.	R8-Y9	30 x 36	7.50											13.00	13.00	
		R8-3dP	24 x 18	3.00													
		MM 39	12 x 6	.50													
		RP+43	21 x 4	.58													
	140+29 Lt.	MM 39	12 x 6	.50											8.5	8.5	
		RP+43	12 x 4	.33													
	140+73 Lt.	R8-Y9	30 x 36	7.50											12.17	12.17	
		R8-3dP	24 x 18	3.00													
	149+61 Lt.	R6-2R	18 x 24	3.00											9.67	9.67	
	161+15 Lt.	R3-9dP	30 x 12	2.50											11.67	11.67	
		R3-9b	24 x 36	6.00													
SUBTOTAL 1				92.41	44.78										214.56	214.56	

SIGN										POST								
PLAN SHEET NO / LINE	SIGN LOCATION (STA.)	SIGN CODE	SIGN SIZE (IN x IN)	GROUND - MOUNTED SIGN AREA (FT²)			GROUND - MOUNTED DOUBLE-FACED SIGN AREA (FT²)			SQUARE								
				0.080"	0.100"	.125"	0.080"	0.100"	.125"	2 ½" x 2 ½" - 12 GA. (TYPE 3)			2" x 2" - 12 GA. (TYPE 2)			2 ¼" x 2 ¼" - 12 GA. (TYPE 1)		
										UNREINFORCED ANCHOR			UNREINFORCED ANCHOR			UNREINFORCED ANCHOR		
										POST LENGTH (FT)			POST LENGTH (FT)			POST LENGTH (FT)		
1	2	TOTAL	1	2	TOTAL	1	TOTAL											
	161+15 Rt.	R3-9cP R3-9b	30 x 12 24 x 36	2.50 6.00												11.67	11.67	
	194+76 Rt.	W10-2	36 x 36		4.50											10.67	10.67	
	196+24 Lt.	W10-1	36 Dia. Cir.		7.07											10.67	10.67	
	197+11 Rt.	M1-4 (R) M3-2	24 x 24 24 x 12	4.00 2.00												10.67	10.67	
	197+99 Lt.	W10-2	36 x 36		4.50											10.67	10.67	
	223+06 Rt.	W10-2	36 x 36		4.50											10.67	10.67	
	224+68 Lt.	W10-1	36 Dia. Cir.		7.07											10.67	10.67	
	225+54 Lt.	W10-2	36 x 36		4.50											10.67	10.67	
	255+50 Rt.	Adopt Hwy	48 x 48		16.00								11.67	11.67	23.34			
	257+01 Rt.	W10-2	36 x 36		4.50											10.67	10.67	
	262+49 Lt.	W10-2	36 x 36		4.50											10.67	10.67	
	313+43 Rt.	W10-3	36 x 36		4.50											10.67	10.67	
	319+02 Rt.	W10-2	36 x 36		4.50											10.67	10.67	
	320+76 Lt.	W10-1	36 Dia. Cir.		7.07											10.67	10.67	
	321+49 Lt.	W10-2	36 x 36		4.50											10.67	10.67	
	334+15 Rt.	R3-9cP R3-9b	30 x 12 24 x 36	2.50 6.00												12.17	11.67	
	335+20 Lt.	R3-9dP R3-9b	30 x 12 24 x 36	2.50 6.00												12.17	11.67	
	336+51 Rt.	W10-2	36 x 36		4.50											10.67	10.67	
	338+04 Lt.	W10-1	36 Dia. Cir.		7.07											10.67	10.67	
	339+24 Lt.	W10-2	36 x 36		4.50											10.67	10.67	
	340+14 Rt.	W1-6R	48 x 24		8.00								11.67	11.67	23.34			
	344+85 Lt.	D2-2	84 x 30			17.50					14.67	14.67	29.34					
	346+86 Lt.	No Open Bev	48 x 24		8.00									11.67	11.67	23.34		
	350+10 Rt.	R6-2R	24 x 30	5.00												9.67	9.67	
	350+51 Rt.	W1-10c (L)	36 x 36		4.50											10.67	10.67	
SUBTOTAL 2				36.50	114.28	17.50					14.67	14.67	29.34	35.01	35.01	70.02	227.07	226.07

NOTE:
] Indicates Signs to be Mounted on Common Post(s)

NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____		INDIANA DEPARTMENT OF TRANSPORTATION		SCALE _____		BRIDGE FILE _____	
						DESIGNATION 200607	
DESIGNED: <u>TMC</u> DRAWN: <u>PJV</u> CHECKED: <u>DGD</u> CHECKED: <u>TMC</u>		SHEET SIGN & POST SUMMARY TABLE		SHEETS 101 of 122		CONTRACT R-43027	

PJV -- 7/1/2025 8:20 AM -- U:\2020\202017 INDOT LoPorte\22 HMA US12 Porter LoPorte M\Cad\Plan Set\Civil\201722IB_SN.dwg (SHEET SIGN SUMMARY TABLE 02)

SHEET SIGN & POST SUMMARY TABLE																		
SIGN									POST									
PLAN SHEET NO / LINE	SIGN LOCATION (STA.)	SIGN CODE	SIGN SIZE (IN x IN)	GROUND - MOUNTED SIGN AREA (FT²)			GROUND - MOUNTED DOUBLE-FACED SIGN AREA (FT²)			SQUARE								
				0.080"	0.100"	.125"	0.080"	0.100"	.125"	2 ½" x 2 ½" - 12 GA. (TYPE 3)			2" x 2" - 12 GA. (TYPE 2)			2 ¼" x 2 ¼" - 12 GA. (TYPE 1)		
										UNREINFORCED ANCHOR			UNREINFORCED ANCHOR			UNREINFORCED ANCHOR		
										POST LENGTH (FT)			POST LENGTH (FT)			POST LENGTH (FT)		
										1	2	TOTAL	1	2	TOTAL	1	TOTAL	
	359+47 Lt.	Impair. Dri.	48 x 48		16.00									11.67	11.67	23.34		
	369+76 Rt.	W10-2	36 x 36		4.50												10.67	10.67
	371+24 Lt.	W10-1	36 Dia. Cir.		7.07												10.67	10.67
	371+45 Lt.	R3-9dP	30 x 12	2.50													12.17	11.67
		R3-9b	24 x 36	6.00														
	371+45 Rt.	R3-9cP	30 x 12	2.50													12.17	11.67
		R3-9b	24 x 36	6.00														
	372+24 Lt.	W10-2	36 x 36		4.50												10.67	10.67
	375+46 Lt.	W11-1	90 x 15			9.38				15.17	15.17	30.34						
	432+34 Lt.	R3-9cP	30 x 12	2.50													12.17	11.67
		R3-9b	24 x 36	6.00														
SUBTOTAL 3				25.50	32.07	9.38				15.17	15.17	30.34	11.67	11.67	23.34	68.52	67.02	
SUBTOTAL 1				92.41	44.78											214.56	214.56	
SUBTOTAL 2				36.50	114.28	17.50				14.67	14.67	29.34	35.01	35.01	70.02	227.07	226.07	
SUBTOTAL 3				25.50	32.07	9.38				15.17	15.17	30.34	11.67	11.67	23.34	68.52	67.02	
OVERALL TOTALS				154.41	191.13	26.88				29.84	29.84	59.68	46.68	46.68	93.36	510.15	507.65	

NOTE:
] Indicates Signs to be Mounted on Common Post(s)

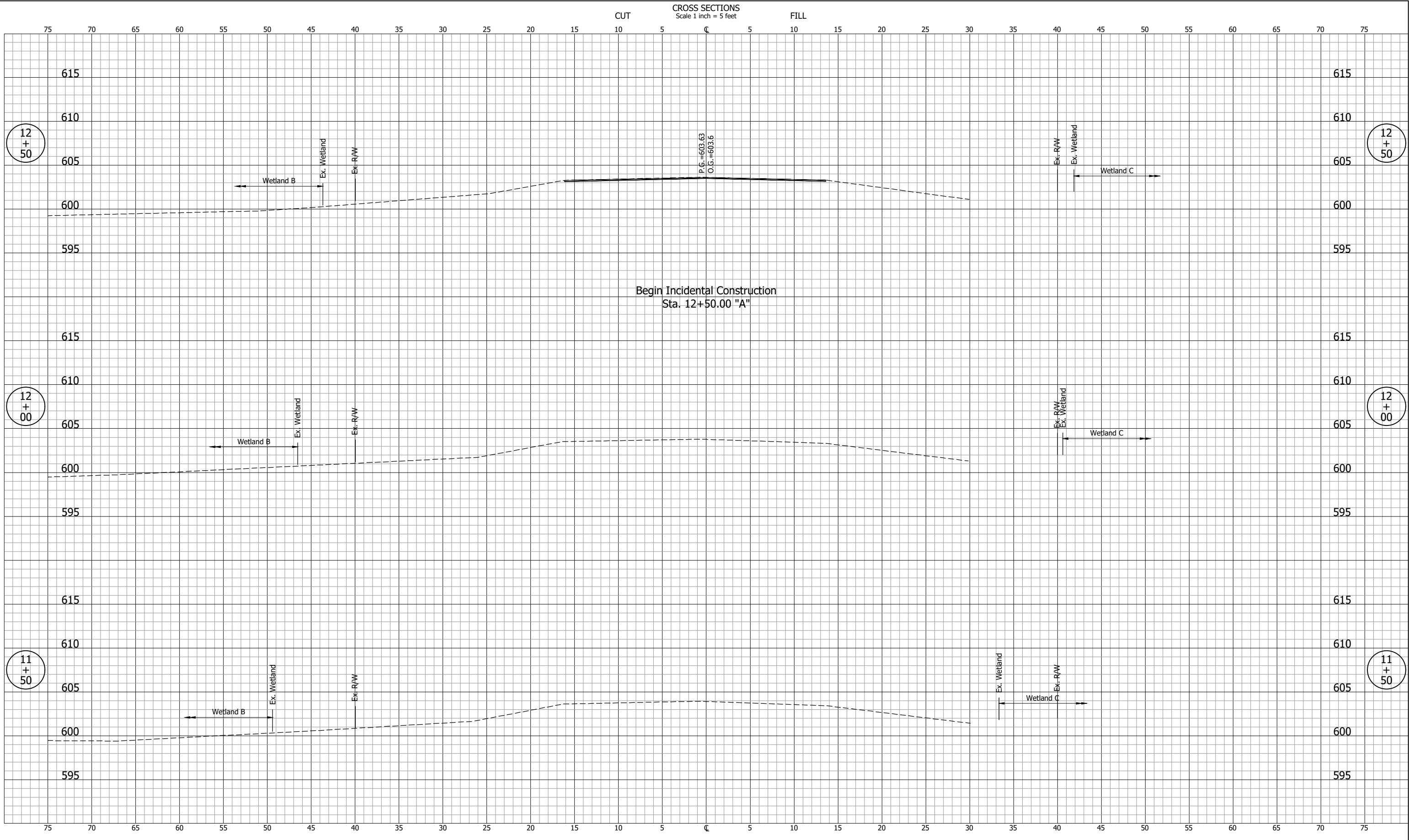
NOT FOR
CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: TMC _____	DRAWN: PJV _____	
CHECKED: DGD _____	CHECKED: TMC _____	

INDIANA DEPARTMENT OF TRANSPORTATION
SHEET SIGN & POST SUMMARY TABLE

SCALE _____	BRIDGE FILE _____
	DESIGNATION 2000607
	SHEETS 102 of 122
	CONTRACT R-43027

P:\J - 7/1/2025 8:18 AM - U:\2022\202238 INDOT US12 Kintzele\Cad\C3D\Design Files\223800D_CO.dwg (XS_101_PR-A)



NOT FOR CONSTRUCTION

DESIGNED: TMC

CHECKED: DGD

DRAWN: GDH

CHECKED: TMC

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
LINE "A"

HORIZONTAL SCALE
1" = 5'
VERTICAL SCALE
1" = 5'

BRIDGE FILE

DESIGNATION
2000607

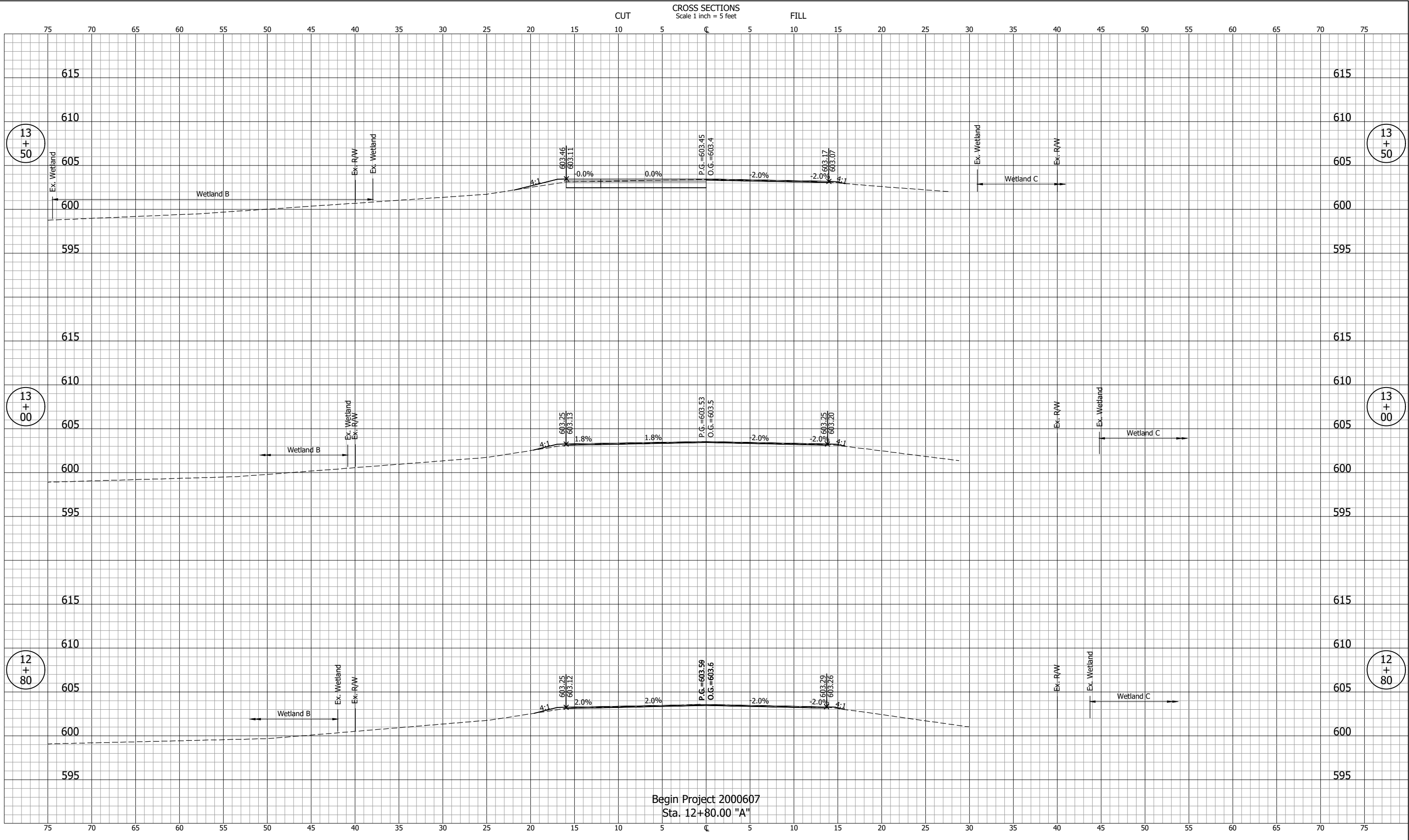
SHEETS

101 of 122

CONTRACT

R-43027

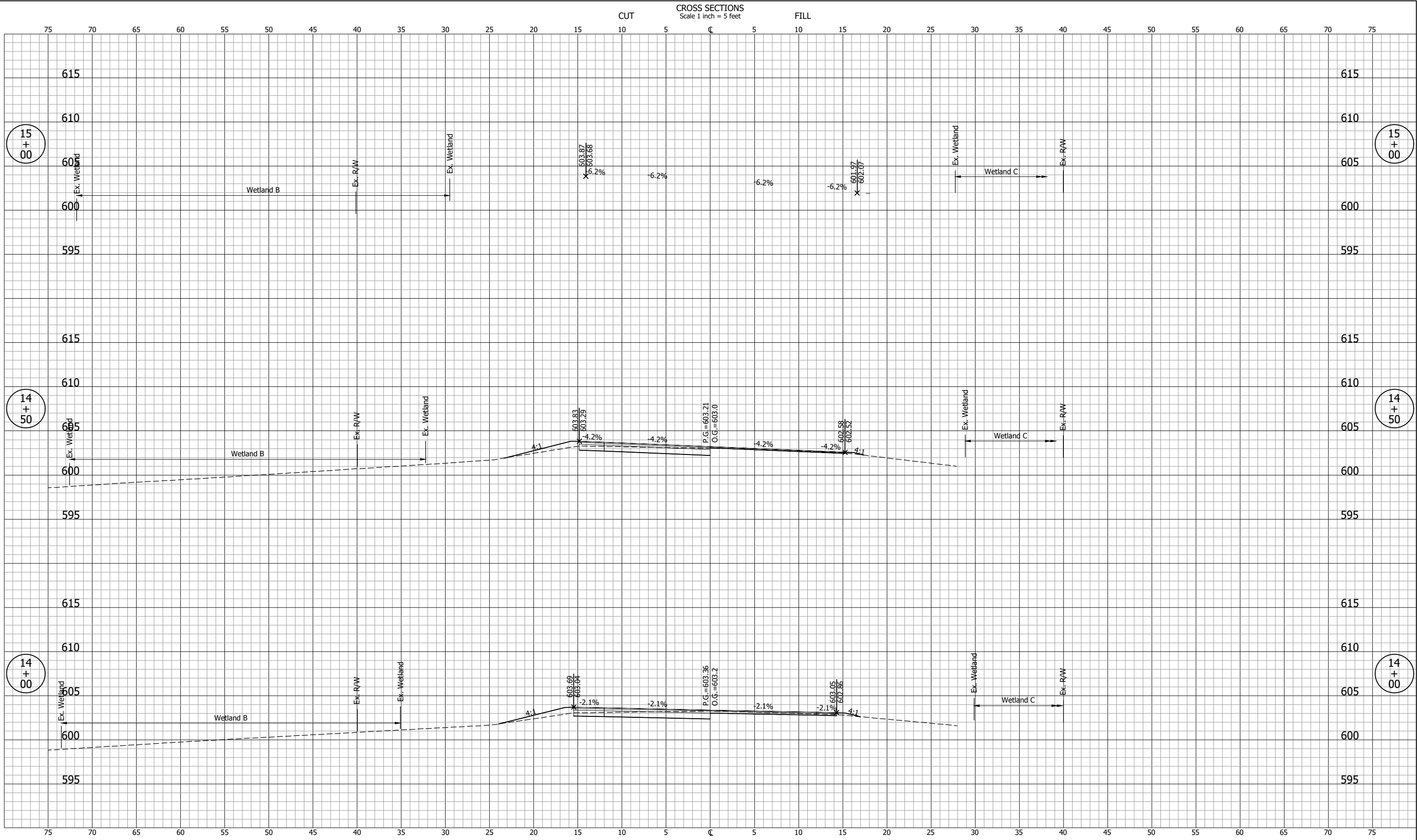
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Begin Project 2000607
Sta. 12+80.00 "A"

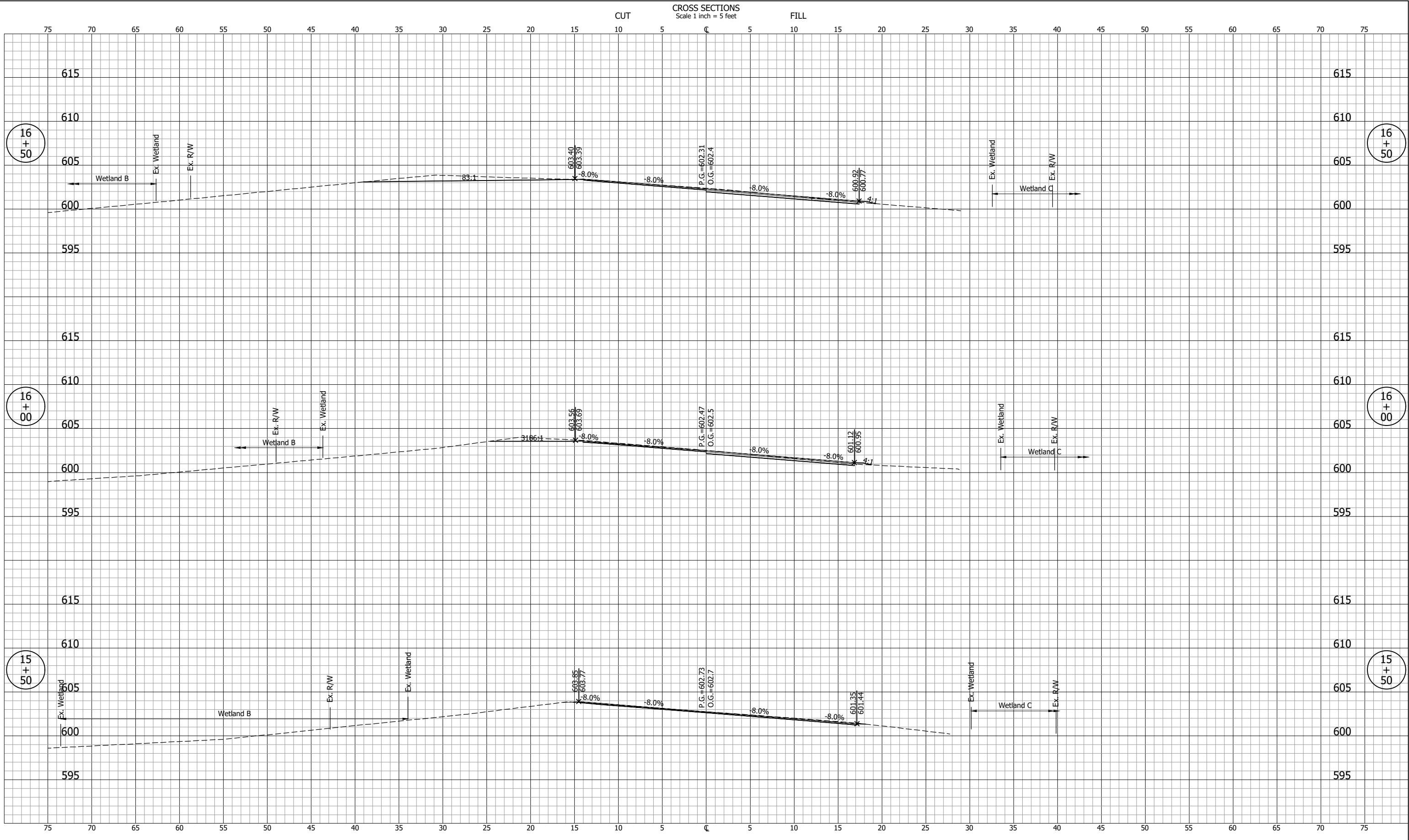
NOT FOR CONSTRUCTION		INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE		BRIDGE FILE	
				1" = 5'			
				VERTICAL SCALE		DESIGNATION	
				1" = 5'		2000607	
DESIGNED: <u>TMC</u>	DRAWN: <u>GDH</u>	CROSS SECTIONS LINE "A"					
				SHEETS			
				102 of 122			
				CONTRACT			
CHECKED: <u>DGD</u>	CHECKED: <u>TMC</u>			R-43027			

P:\J - 7/1/2025 8:18 AM - U:\2022\202238 INDOT US12 Kintzele\Cad\C3D\Design Files\223800D_CO.dwg (XS_103_PR-A)



NOT FOR CONSTRUCTION		INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE		BRIDGE FILE	
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				VERTICAL SCALE		DESIGNATION	
				1" = 5'		2000607	
DESIGNED: <u>TMC</u>		DRAWN: <u>GDH</u>		CROSS SECTIONS LINE "PR-A"		SHEETS	
		103				of	122
CHECKED: <u>DGD</u>		CHECKED: <u>TMC</u>				CONTRACT	
						R-43027	

P:\J - 7/1/2025 8:21 AM - U:\2022\202238 INDOT US12 Kintzele\Cad\C3D\Design Files\223800D_CO.dwg (XS_104_PR-A)



NOT FOR CONSTRUCTION

DESIGNED: TMC
CHECKED: DGD

DRAWN: GDH
CHECKED: TMC

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
LINE "PR-A"

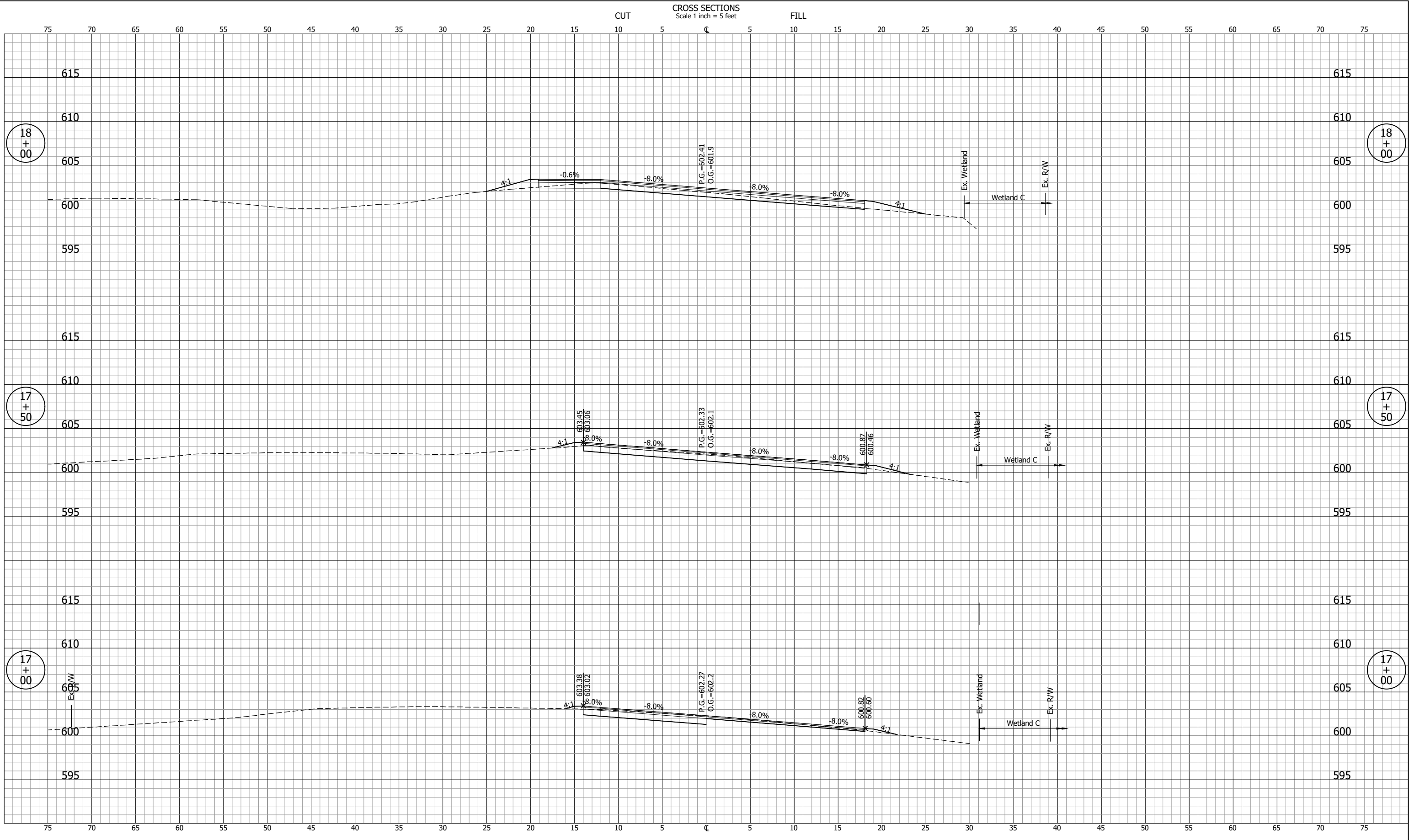
HORIZONTAL SCALE
1" = 5'

VERTICAL SCALE
1" = 5'

BRIDGE FILE
DESIGNATION
2000607

SHEETS
104 of 122
CONTRACT
R-43027

P:\J - 7/1/2025 8:15 AM - U:\2022\202238 INDOT US12 Kintzele\Cad\C3D\Design Files\2238000_CO.dwg (XS_105_PR-A)



NOT FOR CONSTRUCTION

DESIGNED: TMC

DRAWN: GDH

CHECKED: DGD

CHECKED: TMC

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
LINE "PR-A"

HORIZONTAL SCALE
1" = 5'
VERTICAL SCALE
1" = 5'

BRIDGE FILE

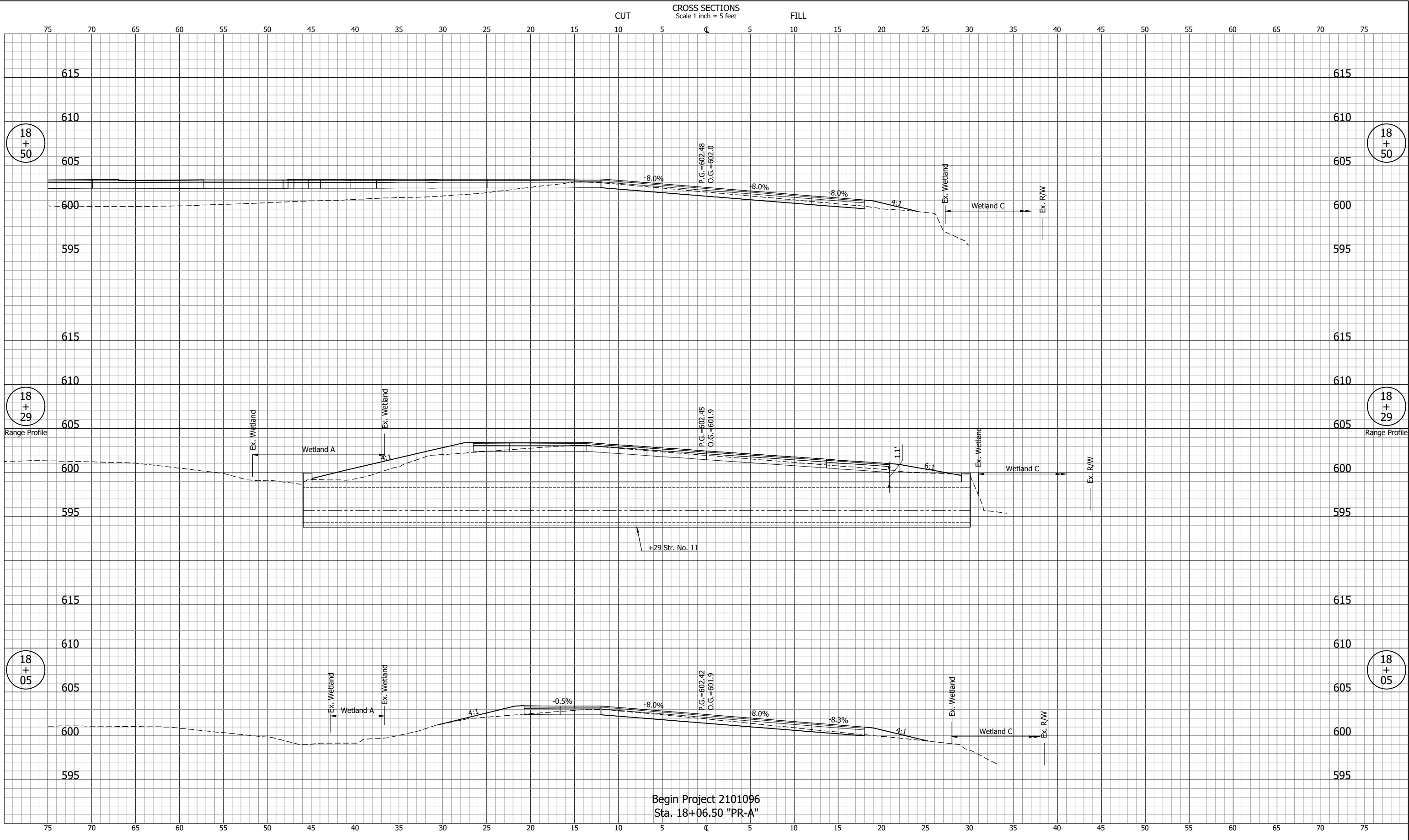
DESIGNATION
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SHEETS

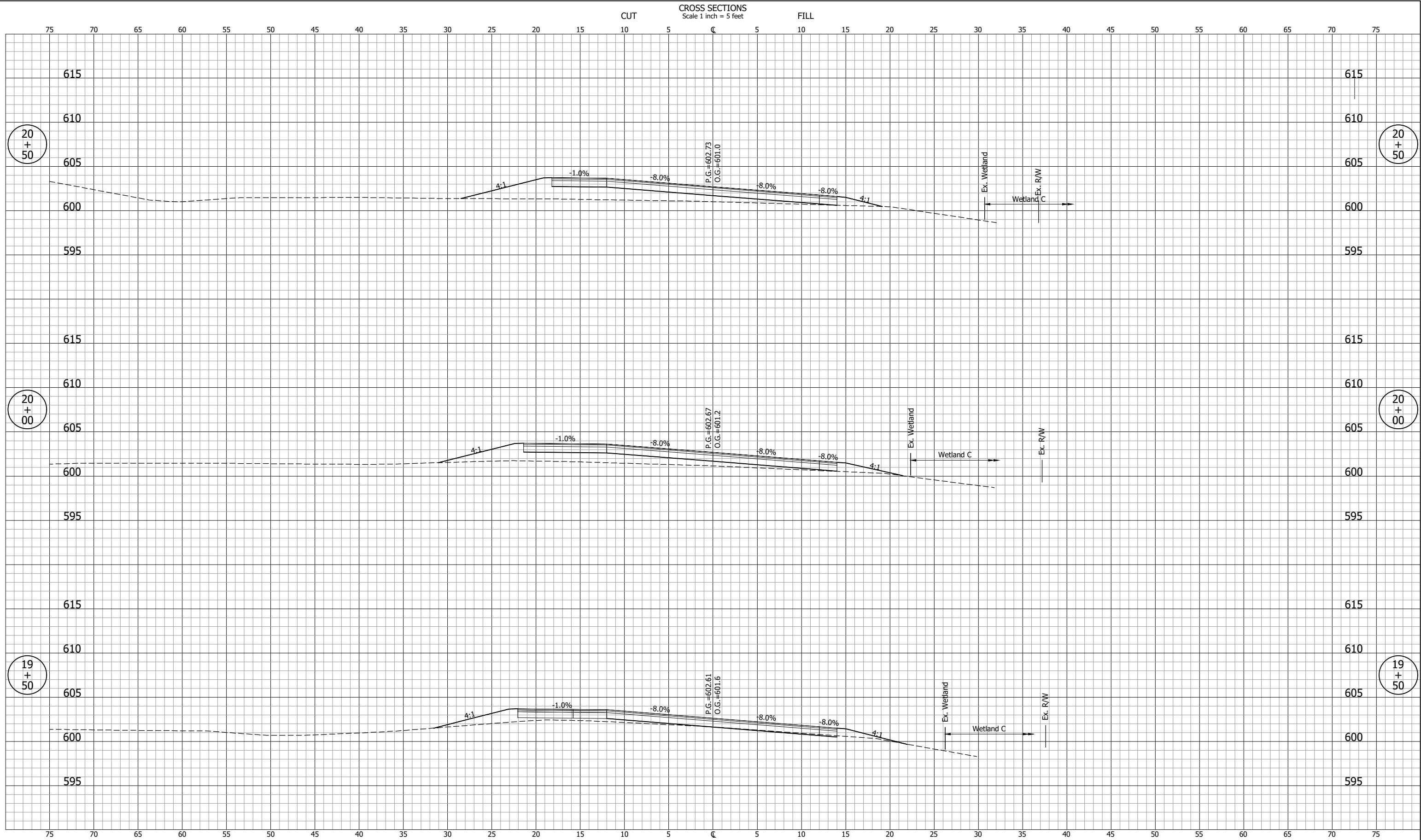
105 of 122

CONTRACT
R-43027

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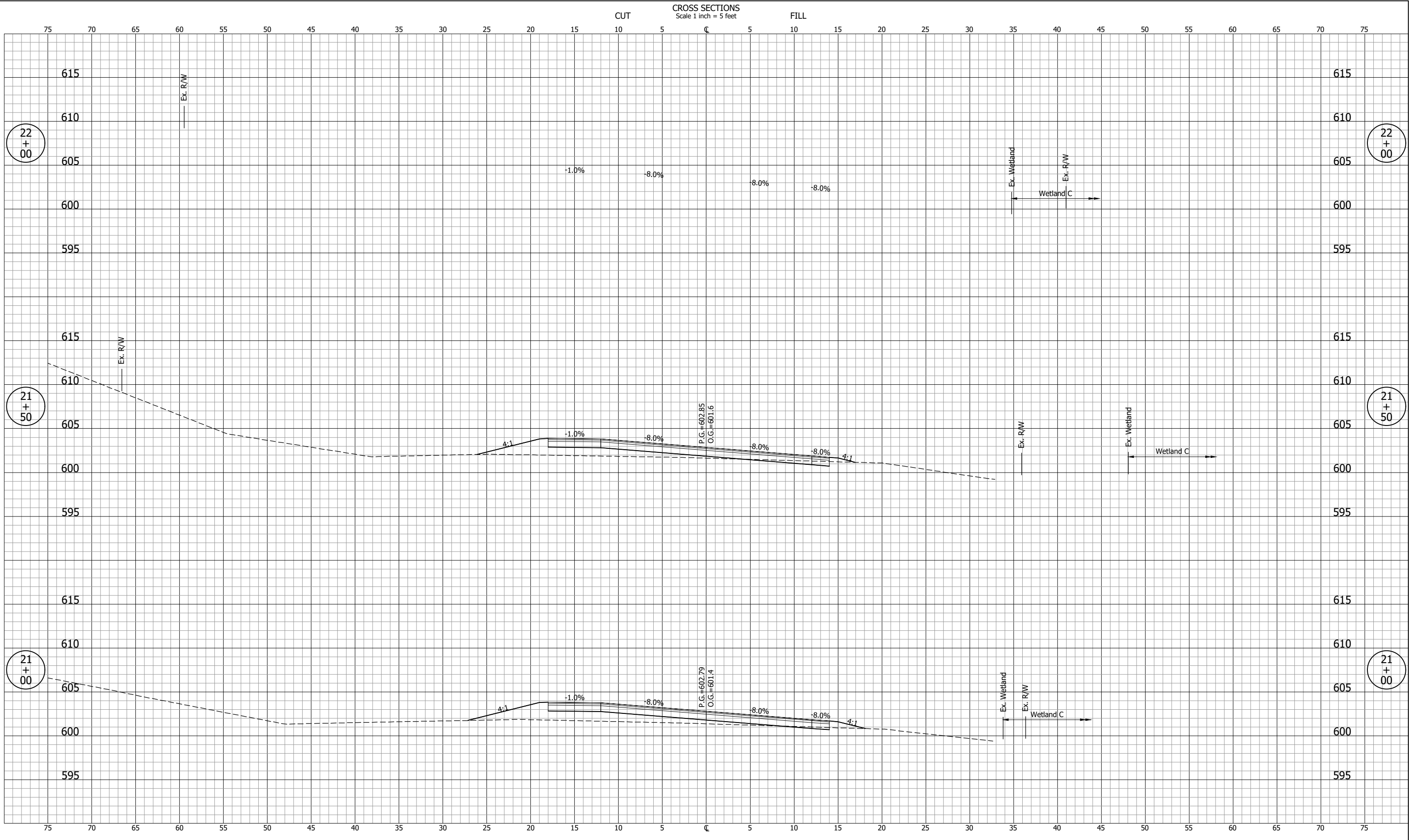


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				VERTICAL SCALE		DESIGNATION		
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DESIGNED: TMC	DRAWN: GDH	CROSS SECTIONS LINE "PR-A"				SHEETS		
						106	of	122
CHECKED: DGD	CHECKED: TMC					CONTRACT		
						R-43027		



NOT FOR CONSTRUCTION		INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE		BRIDGE FILE		
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				VERTICAL SCALE		DESIGNATION		
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DESIGNED: TMC		DRAWN: GDH		CROSS SECTIONS LINE "PR-A"		SHEETS		
						108	of	122
CHECKED: DGD		CHECKED: TMC				CONTRACT		
						R-43027		

P:\J - 7/1/2025 8:15 AM - U:\2022\202238 INDOT US12 Kintzele\Cad\C3D\Design Files\223800D_CO.dwg (XS_109_PR-A)



NOT FOR CONSTRUCTION

DESIGNED: TMC

CHECKED: DGD

DRAWN: GDH

CHECKED: TMC

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
LINE "PR-A"

HORIZONTAL SCALE
1" = 5'
VERTICAL SCALE
1" = 5'

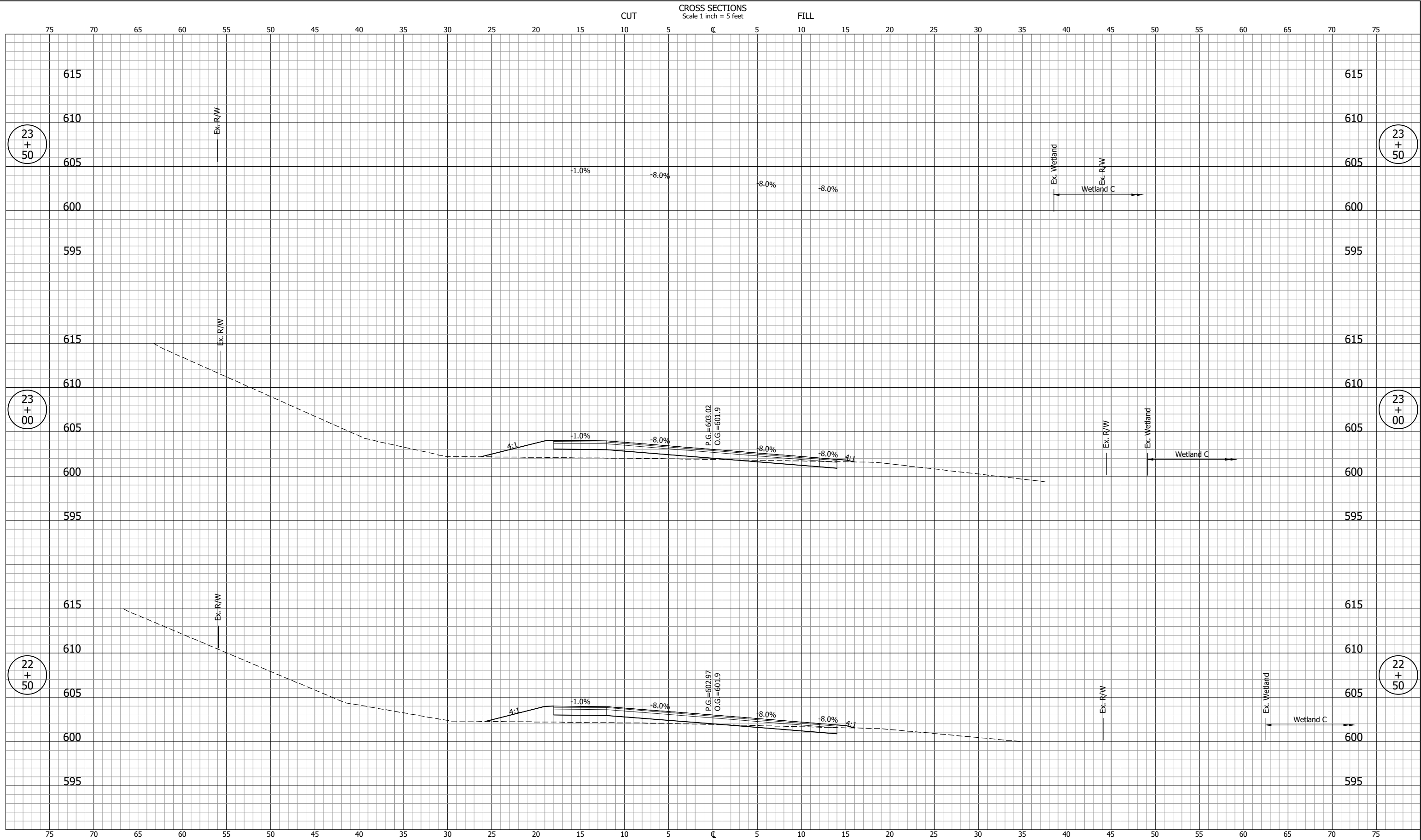
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DESIGNATION
2000607

SHEETS

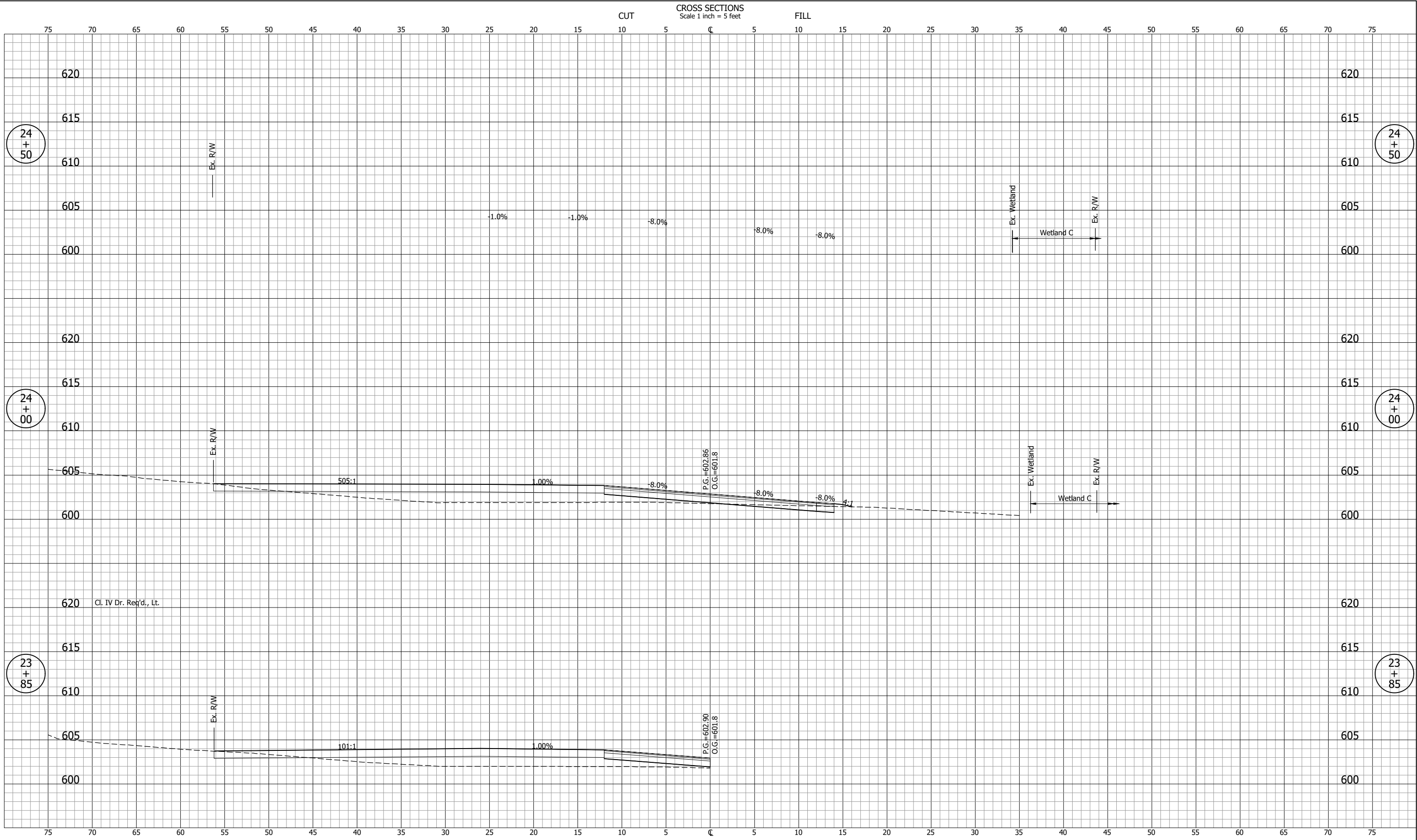
109 of 122

CONTRACT
R-43027



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DESIGNED: <u>TMC</u>	DRAWN: <u>GDH</u>	CROSS SECTIONS LINE "PR-A"		<div> <div></div> <div>110</div> <div>of</div> <div>122</div> </div> <div>CONTRACT</div> <div>R-43027</div>			
CHECKED: <u>DGD</u>	CHECKED: <u>TMC</u>						

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NOT FOR CONSTRUCTION

DESIGNED: TMC

DRAWN: GDH

CHECKED: DGD

CHECKED: TMC

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
LINE "PR-A"

HORIZONTAL SCALE
1" = 5'
VERTICAL SCALE
1" = 5'

BRIDGE FILE

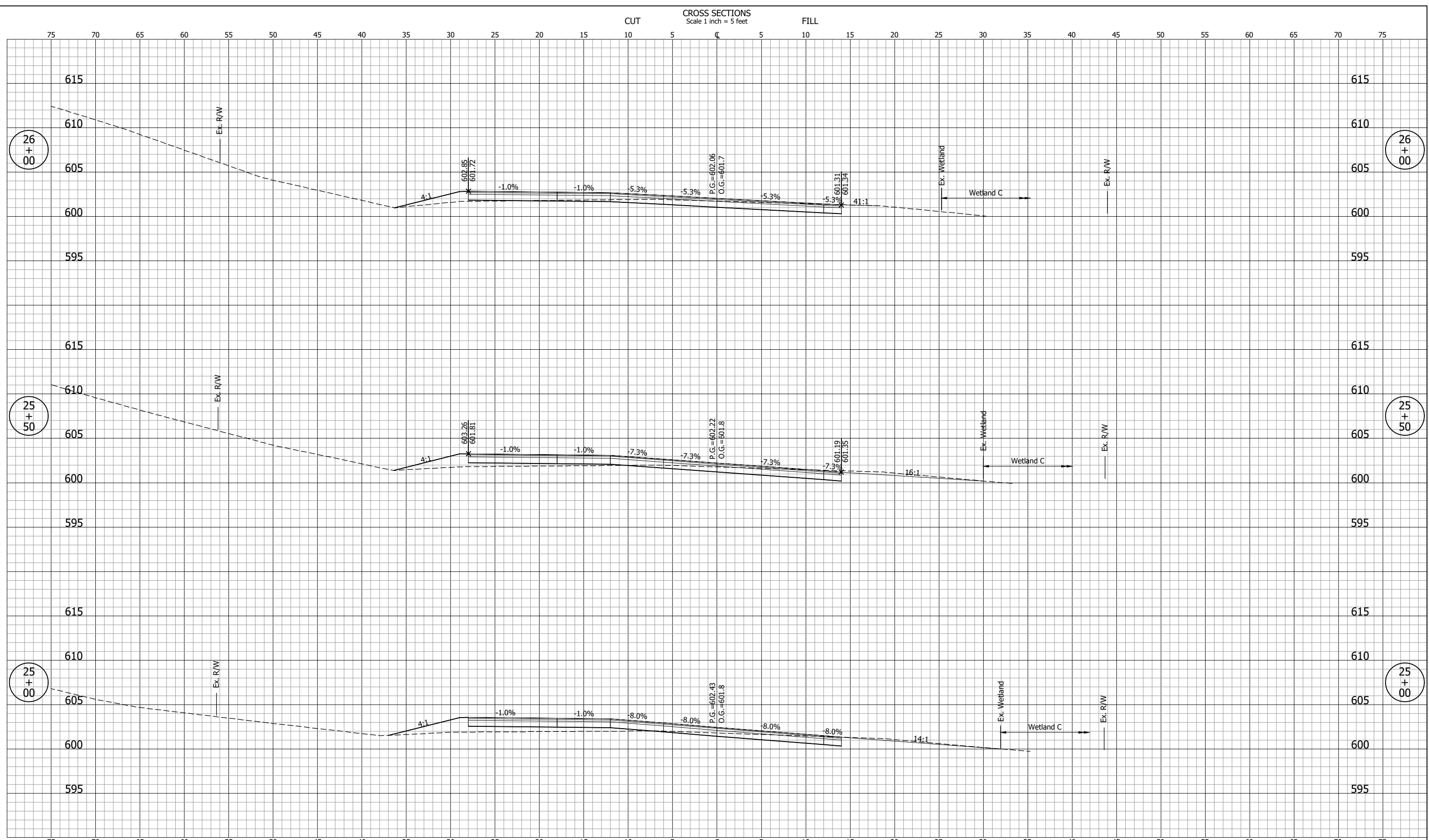
DESIGNATION
2000607

SHEETS

111 of 122

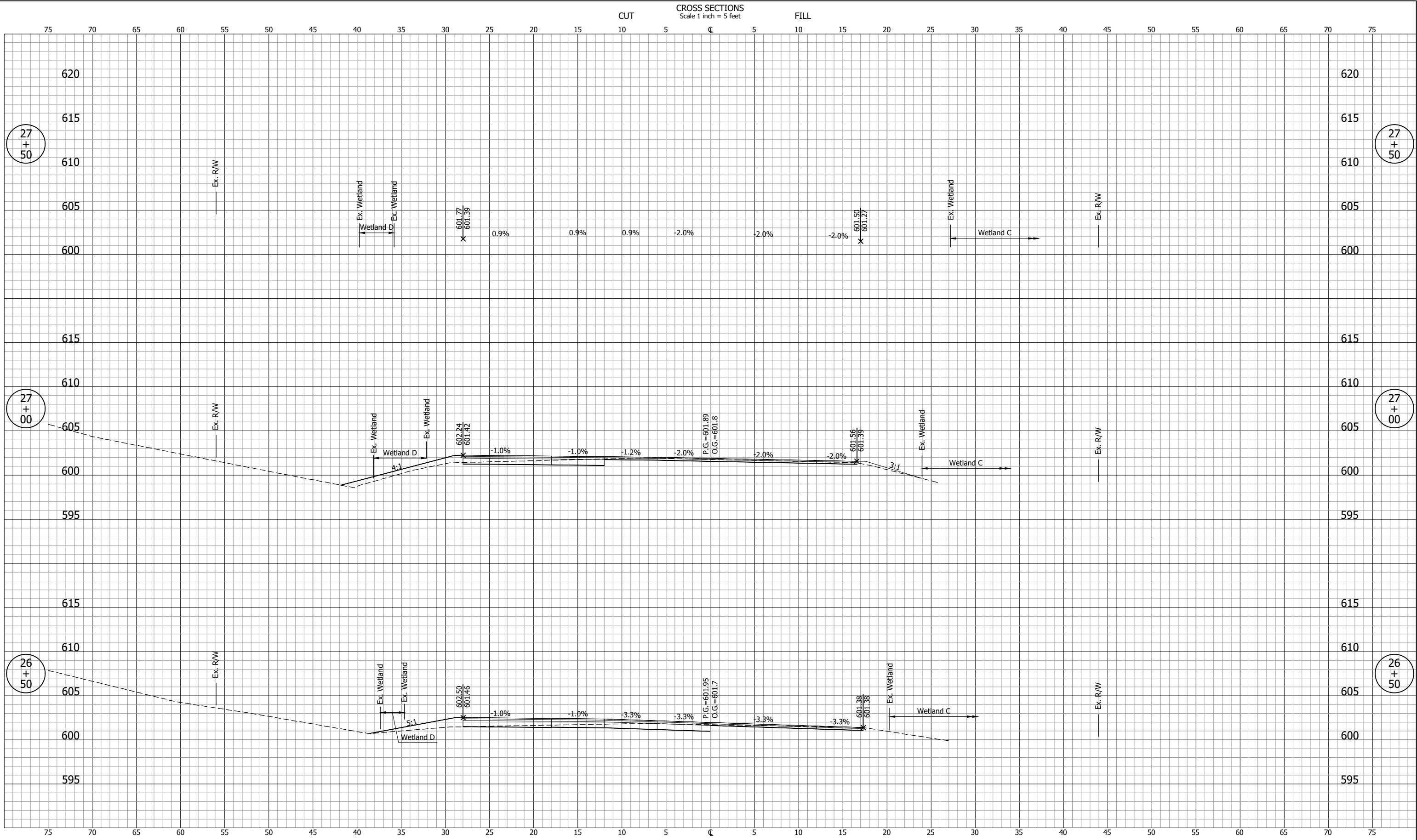
CONTRACT

R-43027



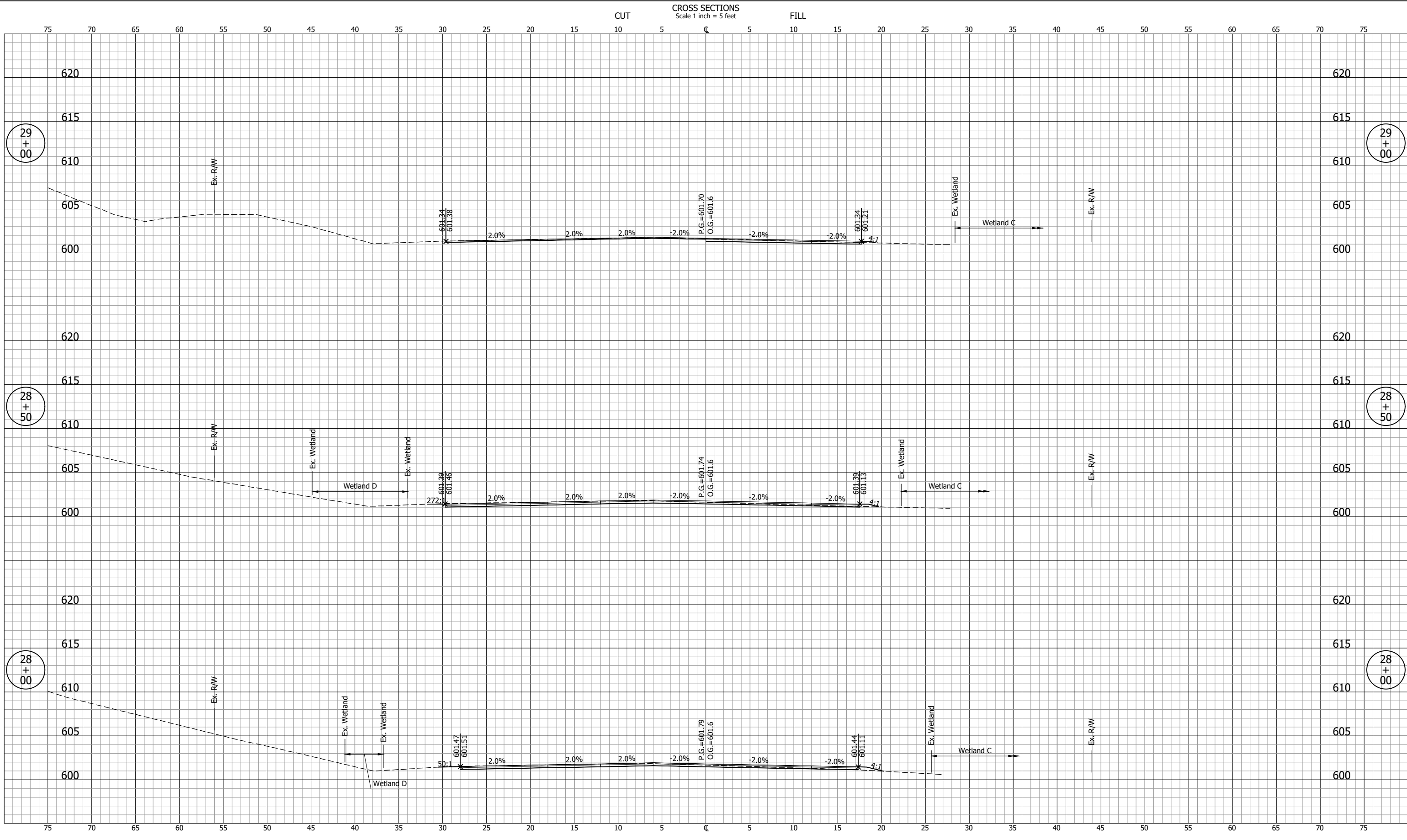
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				1" = 5'		2000607		
DESIGNED: <u>TMC</u>	DRAWN: GDH	CROSS SECTIONS LINE "PR-A"				SHEETS		
						112	of	122
CHECKED: <u>DGD</u>	CHECKED: <u>TMC</u>					CONTRACT		
				R-43027				

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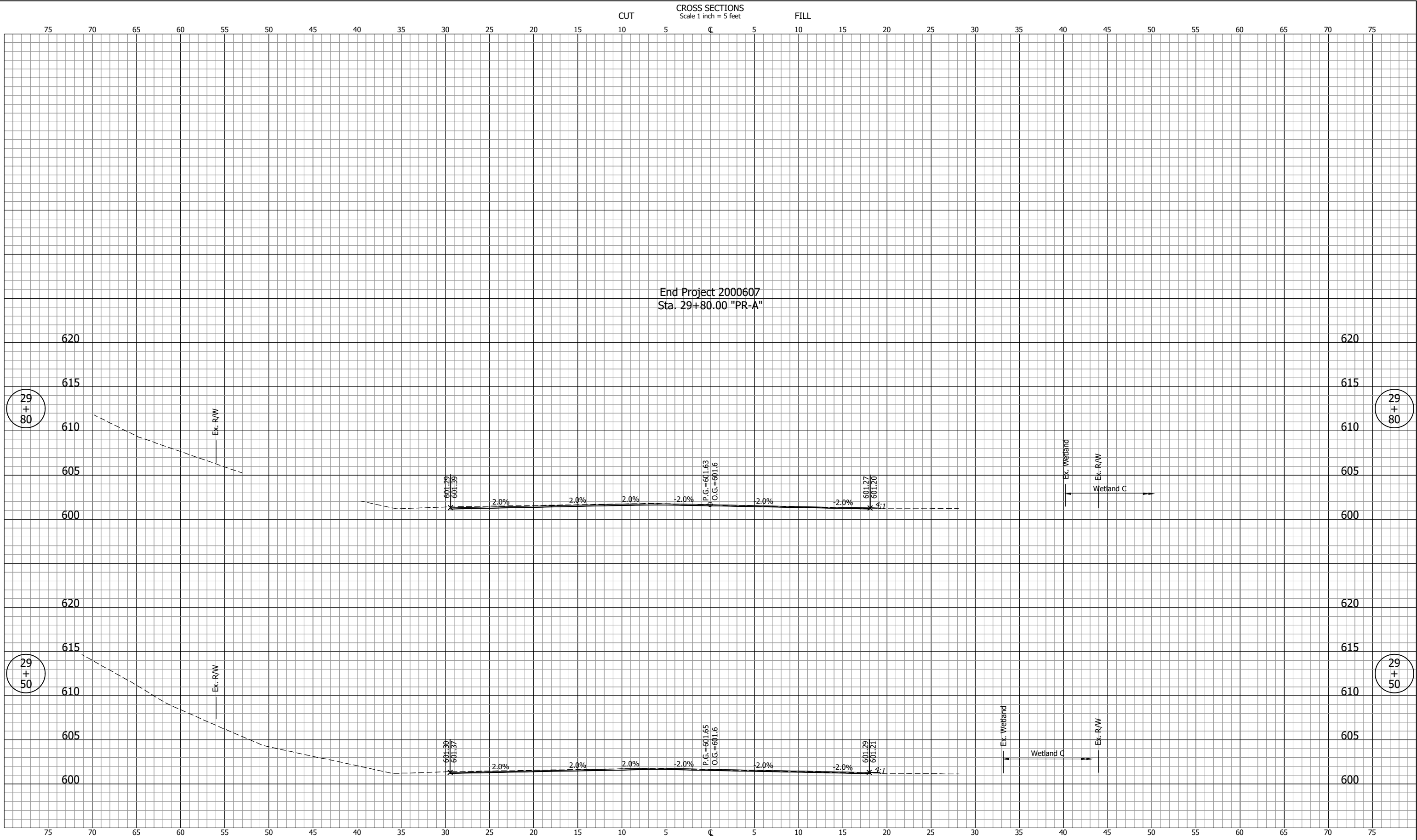
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DESIGNED: TMC		DRAWN: GDH		CROSS SECTIONS LINE "PR-A"		SHEETS	
						113 of 122	
CHECKED: DGD		CHECKED: TMC				CONTRACT	
						R-43027	

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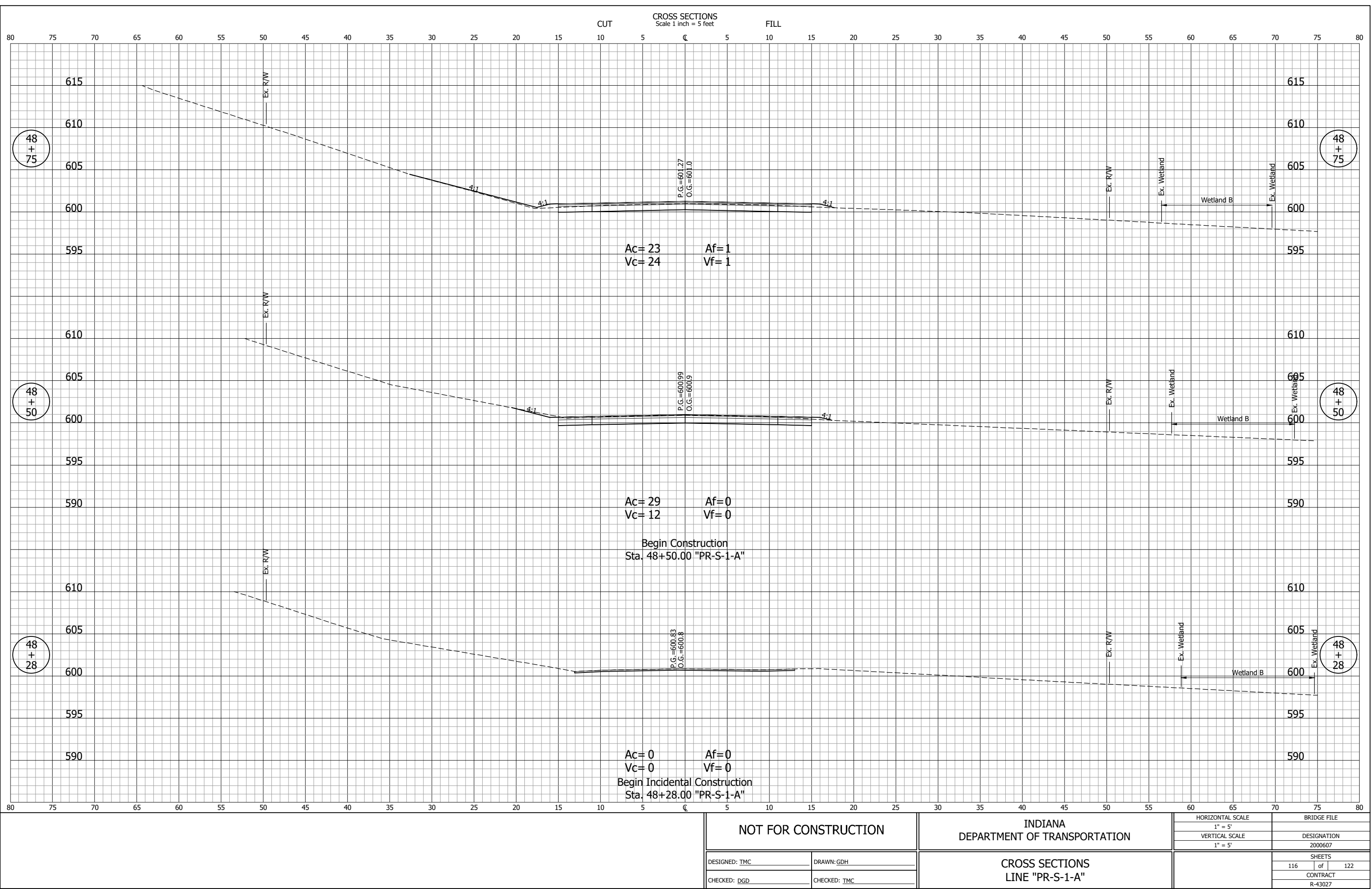


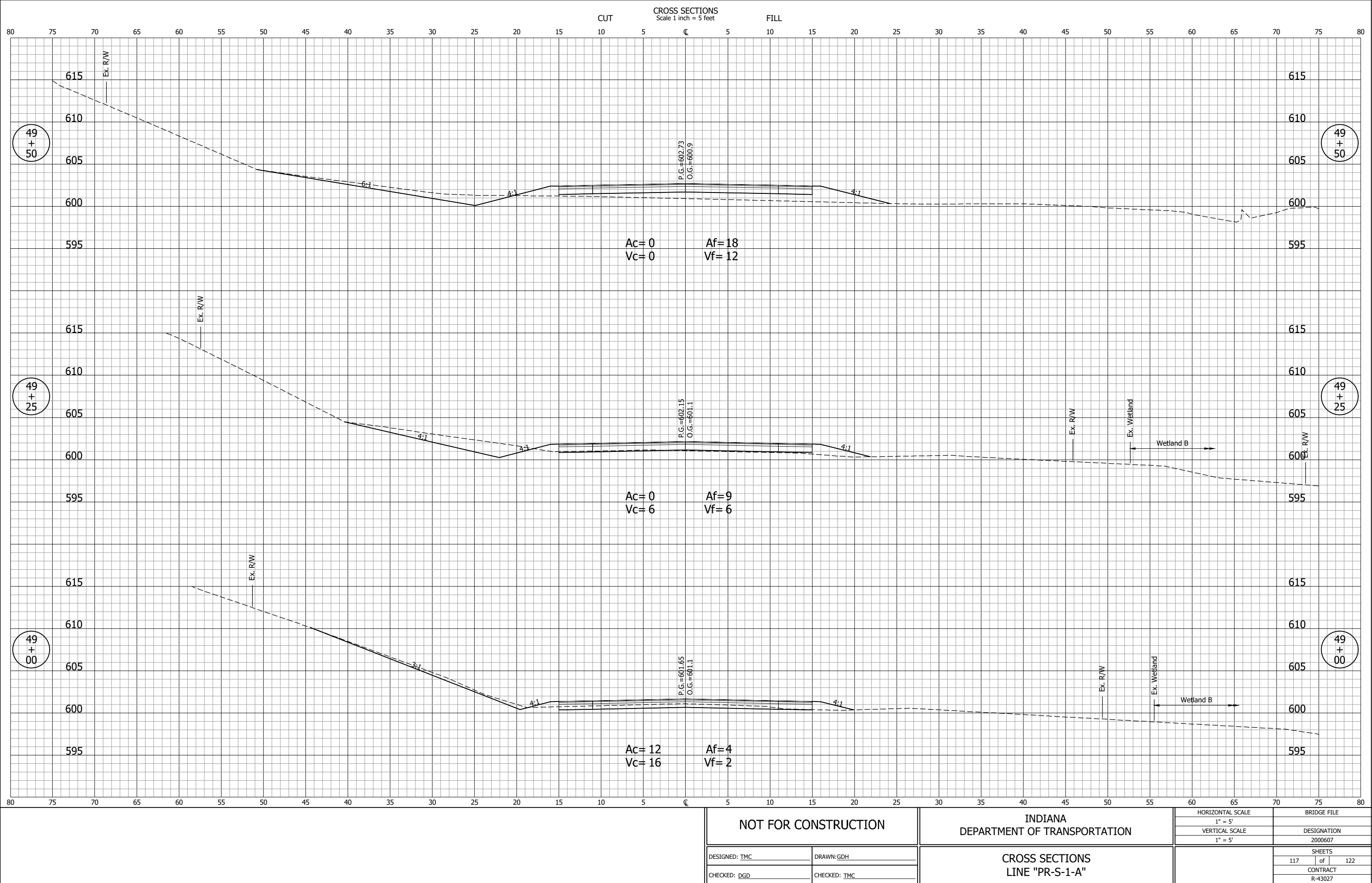
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DESIGNED: TMC	DRAWN: GDH	CROSS SECTIONS LINE "PR-A"				SHEETS		
						114	of	122
CHECKED: DGD	CHECKED: TMC					CONTRACT		
						R-43027		

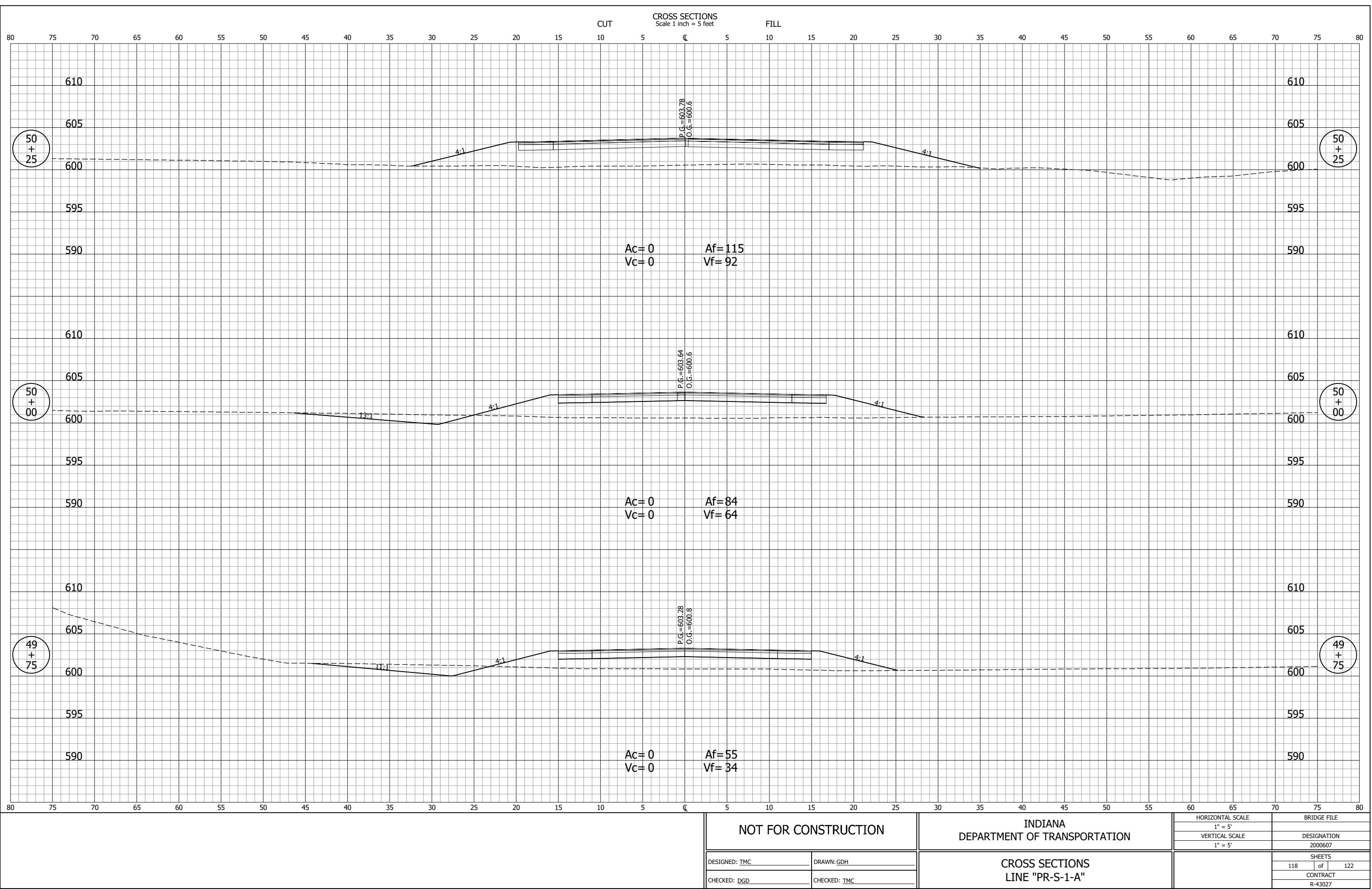
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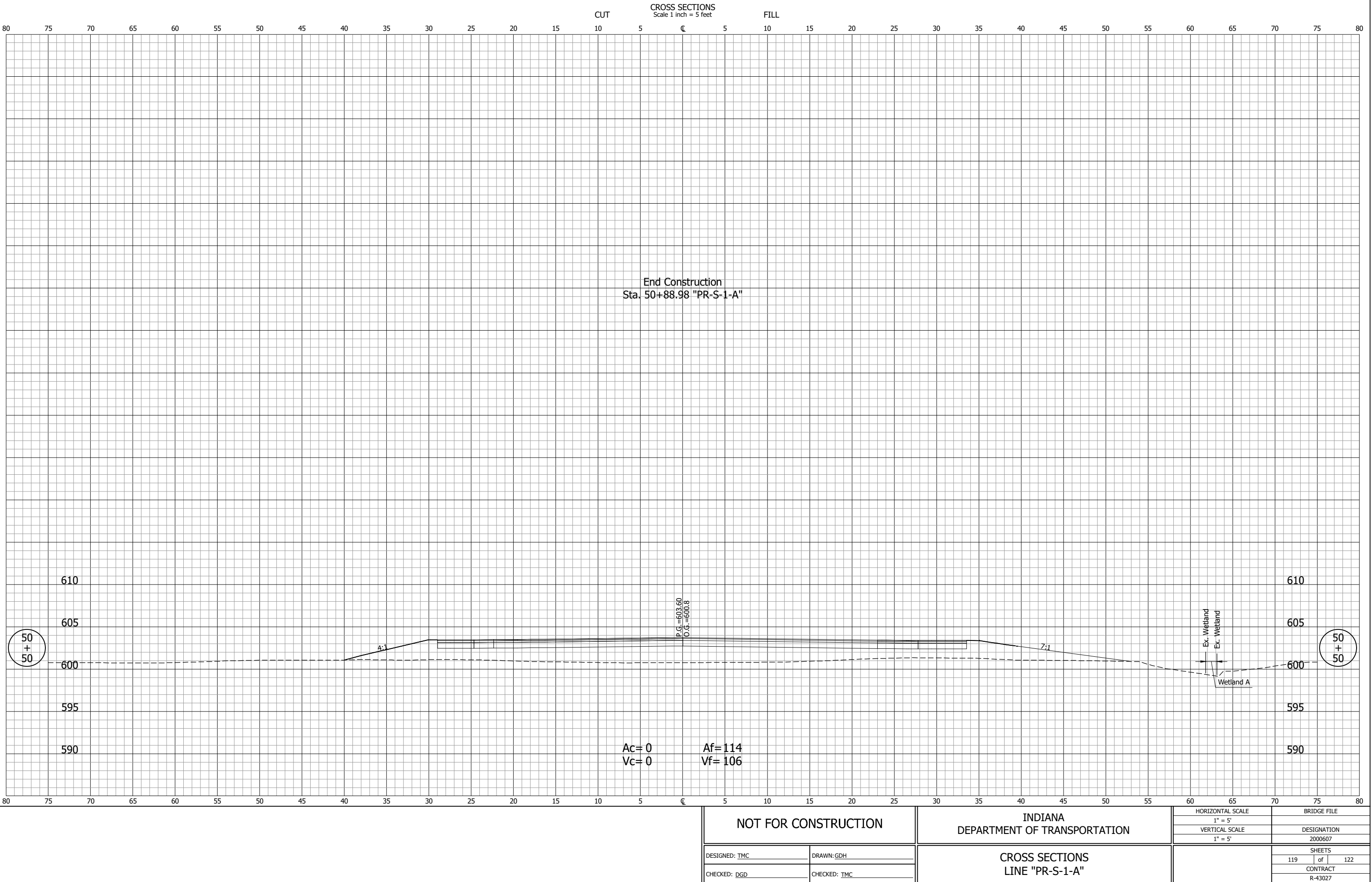
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				VERTICAL SCALE		DESIGNATION	
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DESIGNED: <u>TMC</u>		DRAWN: <u>GDH</u>		CROSS SECTIONS LINE "PR-A"		SHEETS	
		115 of 122					
CHECKED: <u>DGD</u>		CONTRACT					
CHECKED: <u>TMC</u>		R-43027					



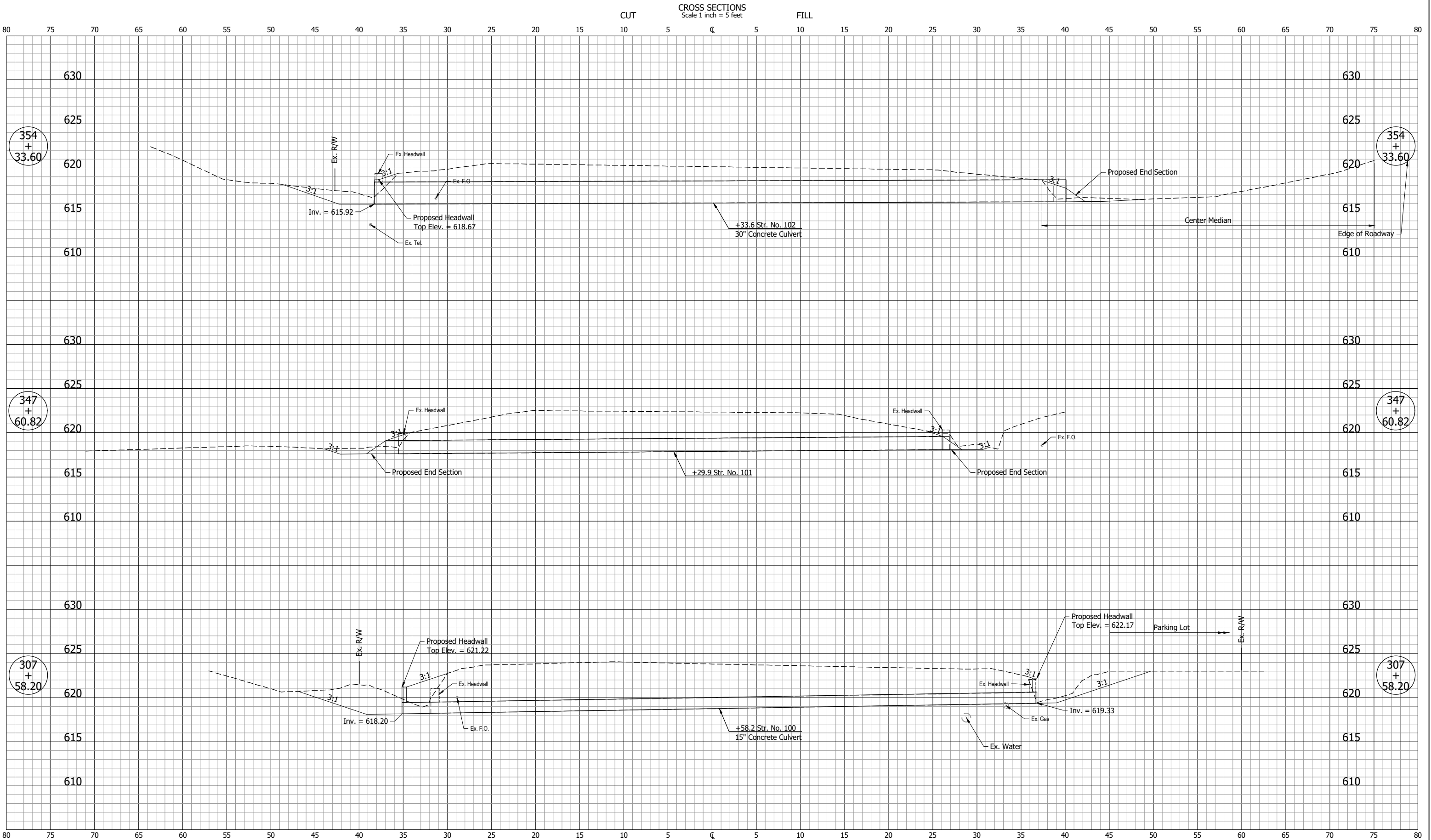




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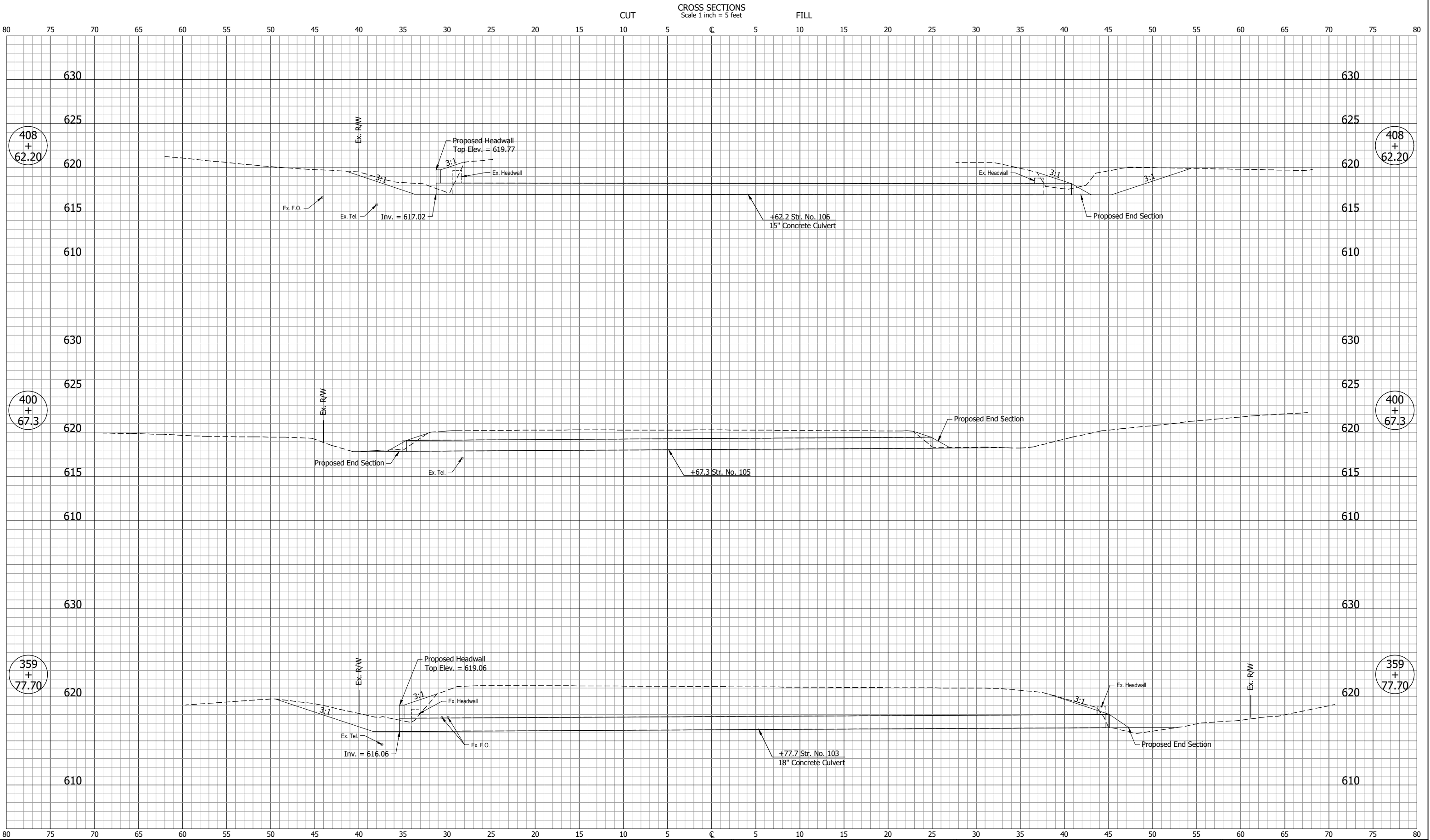


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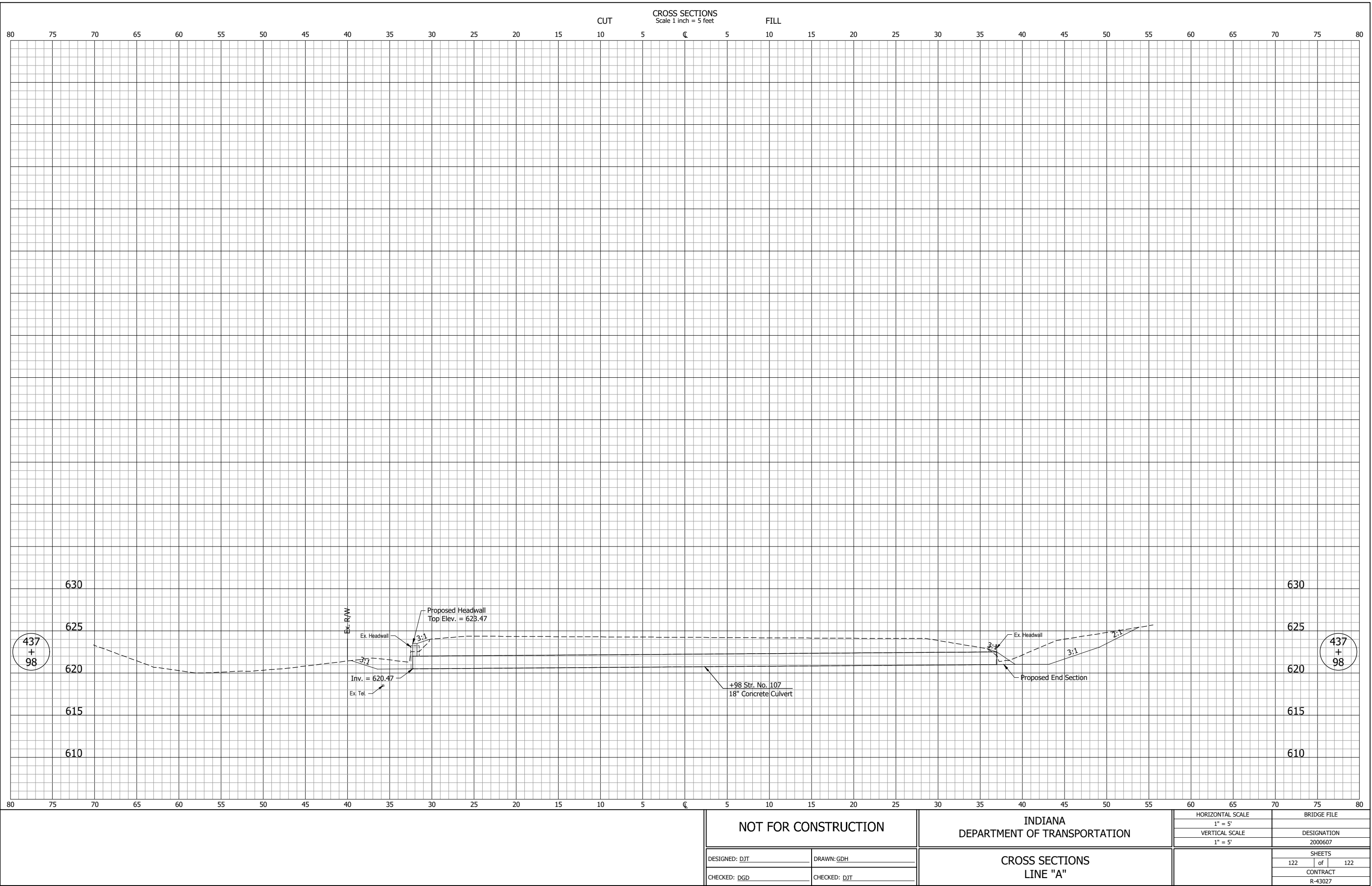


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DESIGNED: <u>DJT</u>	DRAWN: <u>GDH</u>	CROSS SECTIONS LINE "A"		SHEETS 120 of 122 CONTRACT R-43027			
CHECKED: <u>DGD</u>	CHECKED: <u>DJT</u>						

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				VERTICAL SCALE		DESIGNATION		
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DESIGNED: DJT		DRAWN: GDH		CROSS SECTIONS LINE "A"		SHEETS		
						121	of	122
CHECKED: DGD		CHECKED: DJT				CONTRACT		
						R-43027		



PROJECT	DESIGNATION
2000607	2000607
CONTRACT	
R-43027	

INDIANA DEPARTMENT OF TRANSPORTATION



RIGHT-OF-WAY PLANS

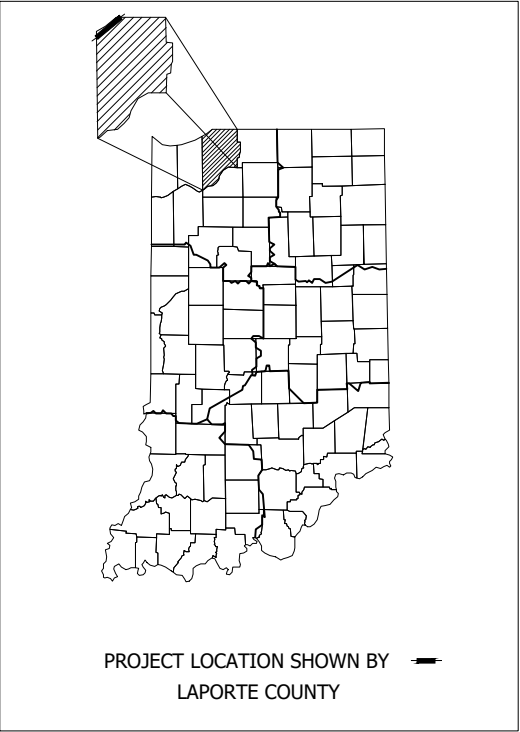
TRAFFIC DATA	U.S. 12 - West Project Limit to Wabash Ave.	U.S. 12 - Wabash Ave. to Blue Chip Dr.	U.S. 12 - Blue Chip Dr. to Michigan State Line
A.A.D.T. (2024)	6,626 V.P.D.	10,741 V.P.D.	7,454 V.P.D.
A.A.D.T. (2044)	7,004 V.P.D.	11,355 V.P.D.	7,880 V.P.D.
D.H.V. (2044)	679 V.P.H.	997 V.P.H.	761 V.P.H.
DIRECTIONAL DISTRIBUTION	49.69 %	51.87 %	51.34 %
TRUCKS	5.47 % A.A.D.T. 5.21 % D.H.V.	3.66 % A.A.D.T. 4.95 % D.H.V.	7.17 % A.A.D.T. 7.19 % D.H.V.

DESIGN DATA

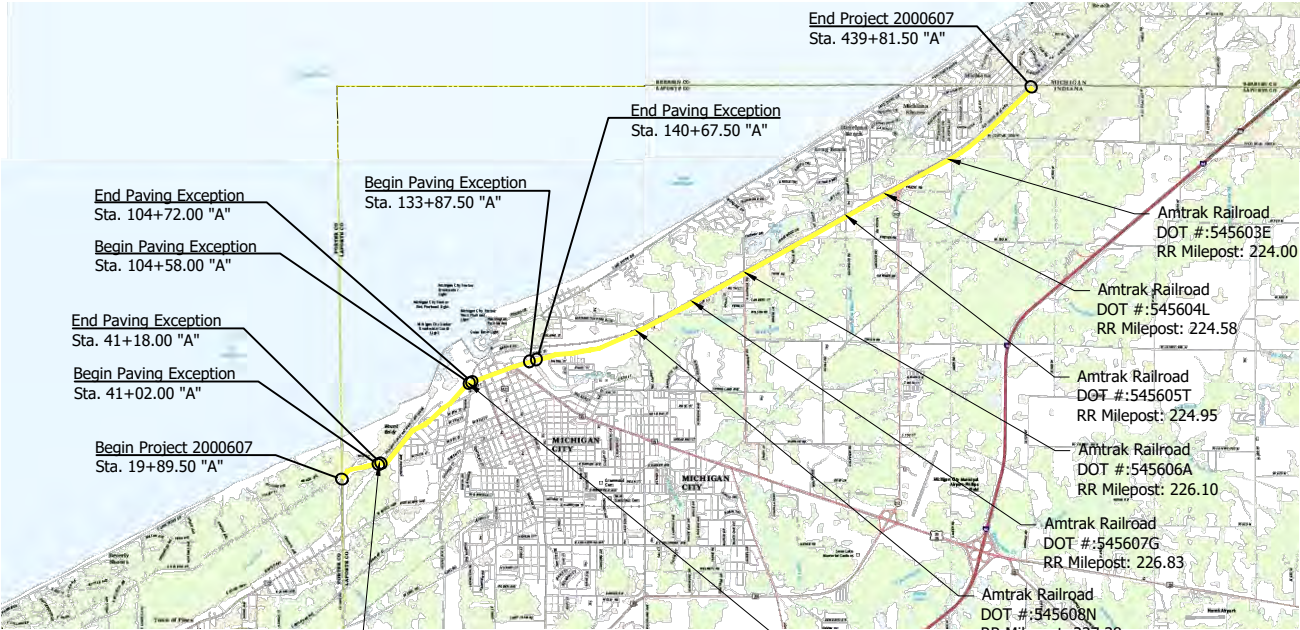
DESIGN SPEED	35-55 MPH	25-35 MPH	35-55 MPH
PROJECT DESIGN CRITERIA	PARTIAL 3R (NON-FREEWAY)	PARTIAL 3R (NON-FREEWAY)	PARTIAL 3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	PRINCIPAL ARTERIAL	PRINCIPAL ARTERIAL	PRINCIPAL ARTERIAL
RURAL/URBAN	URBAN (SUBURBAN)	URBAN (BUILT-UP)	URBAN (SUBURBAN)
TERRAIN	LEVEL	LEVEL	LEVEL
ACCESS CONTROL	NONE	NONE	NONE

ROUTE: U.S. 12 FROM: 37+34 TO: 45+16
PROJECT NO. 2000607 R/W

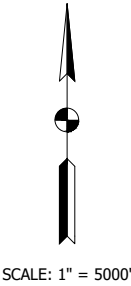
L.A. CODE: 7660
DES. NO.: 2000607



HMA Overlay, Preventive Maintenance
From Porter/LaPorte County Line to Michigan State Line
in Sections 7 and 18, T-38-N, R-3-W, Springfield Township
and Sections 13-14, 21-23, 28-31, T-38-N, R-4-W, Michigan Township, LaPorte County, Indiana



LOCATION MAP
LAPORTE COUNTY



LATITUDE: 41°43'50"N LONGITUDE: 86°51'48"W

GROSS LENGTH: 7.95 MI.
NET LENGTH: 7.82 MI.
MAX. GRADE: %

HYDROLOGIC UNIT CODE (S): 04040001070030,
04040001080040,
04040001090020

PARTIAL FINAL R/W PLANS
JUNE 6, 2023

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2022
TO BE USED WITH THESE PLANS

LFA

LAWSON-FISHER ASSOCIATES P.C.

525 W. WASHINGTON AVENUE
SOUTH BEND, INDIANA 46601
PH. (574) 234-3167

PLANS PREPARED BY: LAWSON-FISHER ASSOC. P.C. 574-234-3167
PHONE NUMBER

CERTIFIED BY: DATE

APPROVED FOR LETTING: INDIANA DEPARTMENT OF TRANSPORTATION DATE

DESIGNATION	2000607
SURVEY BOOK	SHEETS
CONTRACT	PROJECT
R-43027	2000607

DJT -- 7/1/2025 8:15 AM -- U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte MI\Cad\Plan Set\Civil\201722RW_IN.dwg

UTILITIES		
UTILITY	OWNER	ADDRESS
CABLE TV-	Comcast North Contact: Larry Smith Phone: (260) 410-3504 Email: larry_smith3@comcast.com	720 Taylor St. Fort Wayne, IN 46802
COMMUNICATIONS -	ACME Communications Contact: William Richey Phone: (219) 879-6600 Email: bwrichey@mse.adsnet.com	618 Franklin St. Michigan City, IN 46360
	AT&T- Distribution Contact: Matt Smith Phone: (219) 662-4418 Email: ms2827@att.com	302 S East St. Crown Point, IN 46307
ELECTRIC -	Nipsco Electric (LaPorte) Contact: Dean Garrett Phone: (219) 647-5134 Email: dagarrett@nisource.com	801 E 86th Ave. Merrillville, IN 46410
FIBER OPTIC -	Intelligent Fiber Network (ZAYO) Contact: Waylon Higgins Phone: (765) 341-1199 Email: waylon.higgins@zayo.com	5520 W 76th St. Indianapolis, IN 46268
	Michigan City Information Technology Contact: Anthony Bazil Phone: (219) 874-7799 Email: abazil@mcsan.org	1100 E 8th St. Michigan City, IN 46360
GAS -	Nipsco Gas (LaPorte) Contact: Dean Garrett Phone: (219) 647-5134 Email: dagarrett@nisource.com	801 E 86th Ave. Merrillville, IN 46410
INDOT HIGHWAY MAINTENANCE -	INDOT LaPorte District Contact: Steve Giese Phone: (219) 910-0009 Email: sgiese@indot.in.gov	315 Boyd Blvd. LaPorte, IN 46350
WATER	Michigan City Water Contact: Christopher Johnsen Phone: (219)874-6683 Email: cjohnsen@mcwaterdept.com	532 Franklin St. P.O. Box 888 Michigan City, IN 46360
SEWER -	Michigan City Sanitary District Contact: Anthony Bazil Phone: (219) 874-7799 Email: abazil@mcsan.org	1100 E 8th St. Michigan City, IN 46360
STREET LIGHTS -	Michigan City Street Lights Contact: Anthony Bazil Phone: (219) 874-7799 Email: abazil@mcsan.org	1100 E 8th St. Michigan City, IN 46360
TRAFFIC SIGNAL TECH SUPERVISOR -	INDOT LaPorte District Contact: Michah Glossinger Phone: (219) 325-7483 Email: mglossinger@indot.in.gov	315 Boyd Blvd. LaPorte, IN 46350

GENERAL NOTES
All earth shoulders, median area, cut and fill slopes shall be plain or mulched seeded except where sodding is specified.
The final cross sections of the grading contract will be the original cross sections of the paving contract. However, partial or complete cross sections shall be taken if necessary to determine the actual excavation quantities.
It is the Contractor's responsibility to contact any and all utility companies within the limits of this project 3 weeks prior to any construction.
This set of plans shall not be construed to be a property retracement survey. Where apparent property lines, corners, subdivision or section corner information is shown, it is based on physical evidence or testimony.

INDEX	
SHEET NO.	DRAWING INDEX
1	Title Sheet
2	Index and General Notes
3 - 5	Location Control Route Survey Plat
6 - 10	Plat No. 1
# # - 14	Typical Sections
15 - 21	Plans
22 - 24	ADA Ramp Construction Details
25	Traffic Signal Installation

L.A. CODE: 7660

LEGEND

R/W	Right-of-Way	App. Ex. R/W	Apparent Existing Right-of-Way
L.A. R/W	Limited Access Right-of-Way	L.S.R.	Local Service Road
A.C.L.	Access Control Line	B	Begin L.A.R/W
C.L.T.F.	Chain-Link Type Fence	E	End L.A.R/W
F.F.T.F.	Farm-Field Type Fence	N.E.P.L.	No Evidence of Property Line
ℙ	Property Line	Ex. R/W & E.P.	Existing Right-of-Way and Edge of Pavement

INDIANA 811



Per Indiana State Law IC-8-1-26-16: It is against the law to excavate without notifying the underground location service two (2) working days before commencing work.

INDIANA 811
1-800-382-5544 OR CALL 811
24 HOURS A DAY 7 DAYS A WEEK

Note: Utility locations are shown based upon information (maps and paint marks) supplied by others, and there is not guarantee of the accuracy or completeness of said locations.

REVISIONS

SHEET NO.	DATE	REVISED

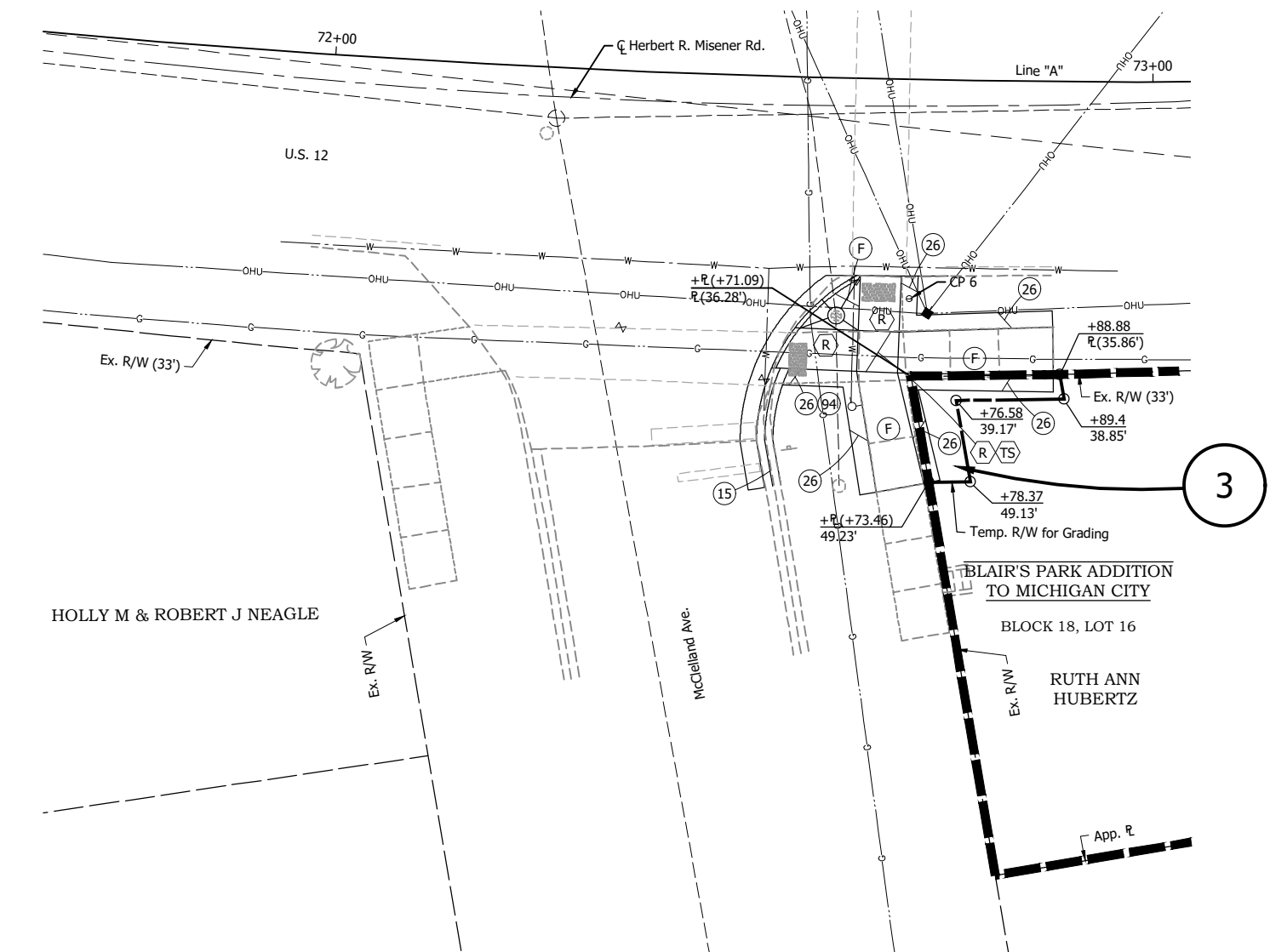
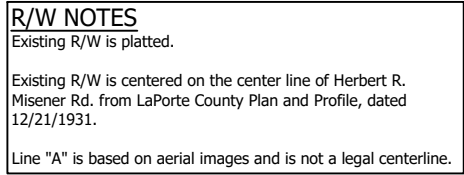
RAILROAD -	Amtrak Contact: Jason Young Phone: (215) 964-2247 Email: Jason.Young@amtrak.com	1801 Market Street Philadelphia, PA 19103
	CSS - SB RR Road Master Contact: Don Trent Phone: (215) 214-4292 Email: dtrent@anacostia.com	505 N. Carrol Ave Michigan City, In. 46360

INDIANA
DEPARTMENT OF TRANSPORTATION

INDEX AND GENERAL NOTES

RECOMMENDED FOR APPROVAL _____	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

SCALE	BRIDGE FILE
	DESIGNATION
	2000607
SURVEY BOOK	SHEETS
	2 of 25
CONTRACT	PROJECT
R-43027	2000607

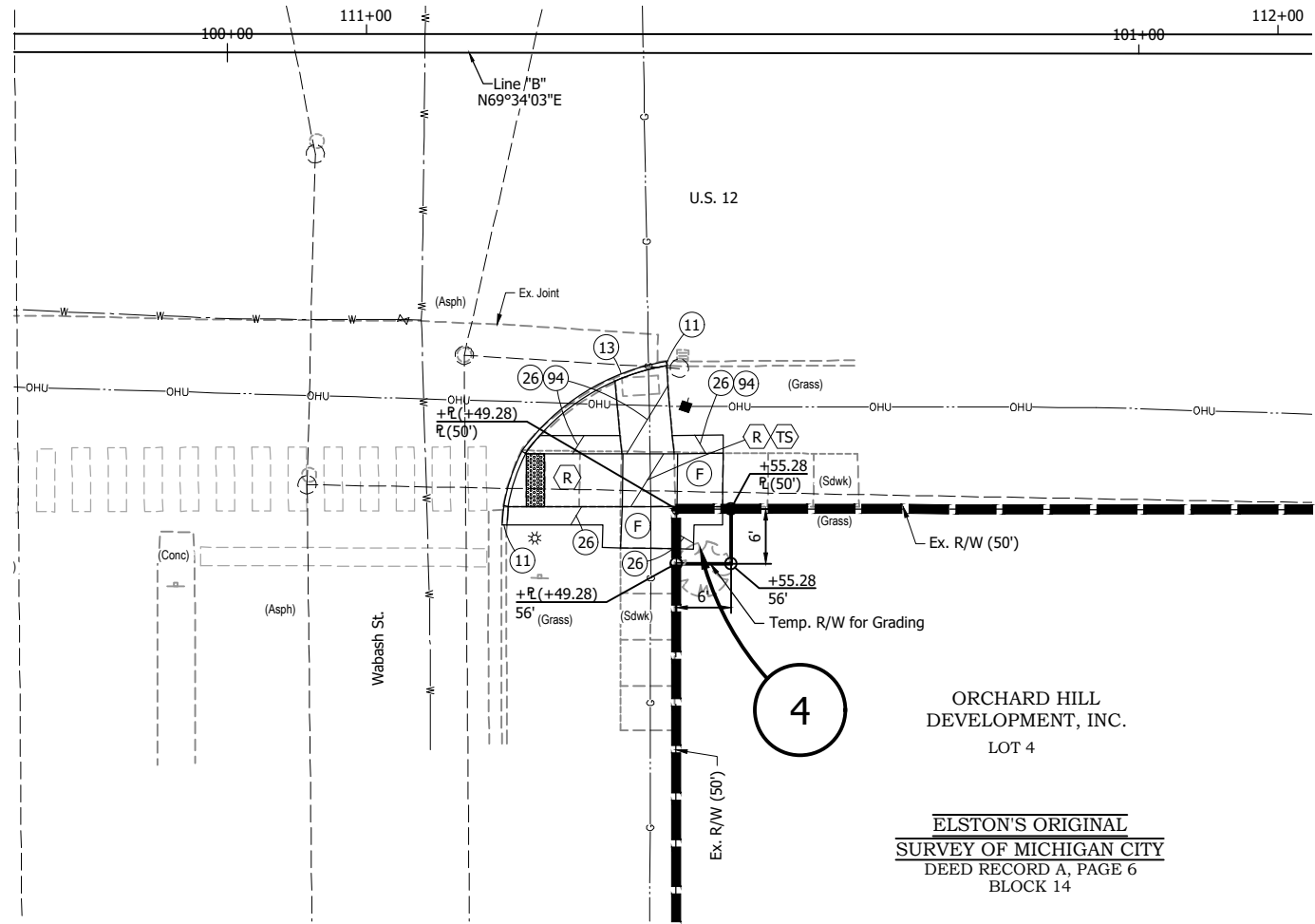


LEGEND:

(F)	Sidewalk
(15)	Curb and Gutter Type B, Modified
(26)	Sodding, Nursery
(94)	Remove Sidewalk
(R)	Concrete Curb Ramp
(TS)	Turning Space

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____	INDIANA DEPARTMENT OF TRANSPORTATION		SCALE		BRIDGE FILE		
			1" = 10'				
					DESIGNATION		
				2000607			
DESIGNED: <u> DJT </u>	DRAWN: <u> GDH </u>	ADA RAMP CONSTRUCTION DETAILS U.S. 12 AND LINCOLN AVE.		SURVEY BOOK		SHEETS	
					22	of	25
CHECKED: <u> DGD </u>	CHECKED: <u> DJT </u>			CONTRACT		PROJECT	
			R-430027	2000607			

U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte M\Cod\Plan Set\Civil\201722RW_CR07.dwg (201722RW_CR07 - RW ADA DTL - WABASH)

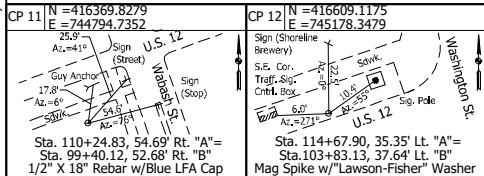


R/W NOTES
Existing R/W is platted.

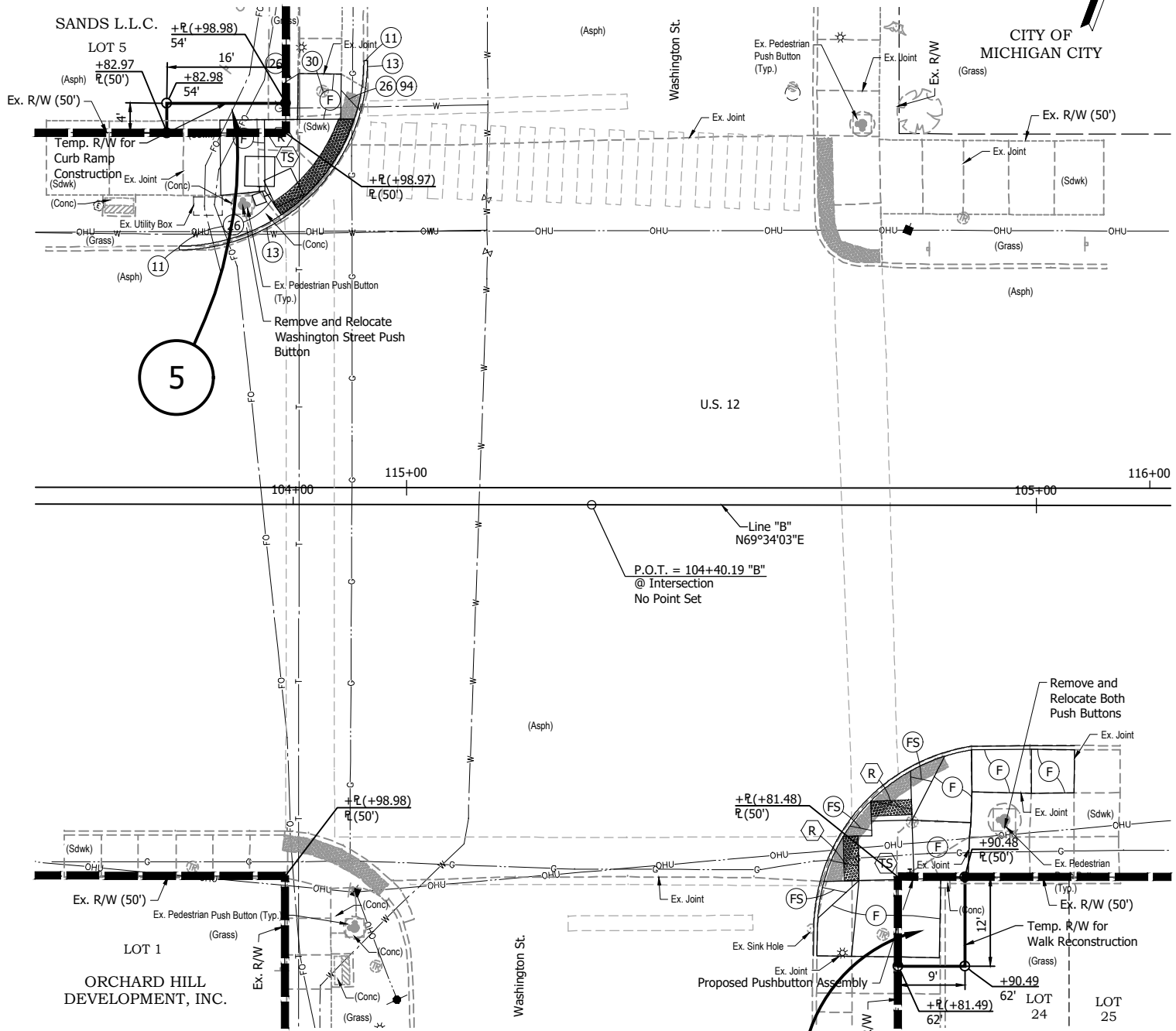
Existing R/W is centered on Line "B", which is defined in the Location Control Route Survey Plat.

Line "A" is based on aerial images and is not a legal centerline.

- LEGEND:**
- (F) Sidewalk
 - (11) Saw Cut
 - (13) Concrete Curb
 - (26) Sodding, Nursery
 - (30) Adjust Casting to Grade
 - (94) Remove Sidewalk
 - (R) Concrete Curb Ramp
 - (TS) Turning Space



**ELSTON'S ORIGINAL
SURVEY OF MICHIGAN CITY
DEED RECORD A, PAGE 6
BLOCK 7**



**ELSTON'S ORIGINAL
SURVEY OF MICHIGAN CITY
DEED RECORD A, PAGE 6
BLOCK 14**

**REVISD PLAT OF BLOCK 13 OF
ELSTON'S SURVEY OF
MICHIGAN CITY
Plat Book 1, Page 259**

All topography described from Line "A"
All R/W described from Line "B"

RECOMMENDED FOR APPROVAL	
DESIGNED: DJT	DRAWN: GDH
CHECKED: DGD	CHECKED: DJT

INDIANA
DEPARTMENT OF TRANSPORTATION

ADA RAMP CONSTRUCTION DETAILS
U.S. 12 AND WABASH ST.

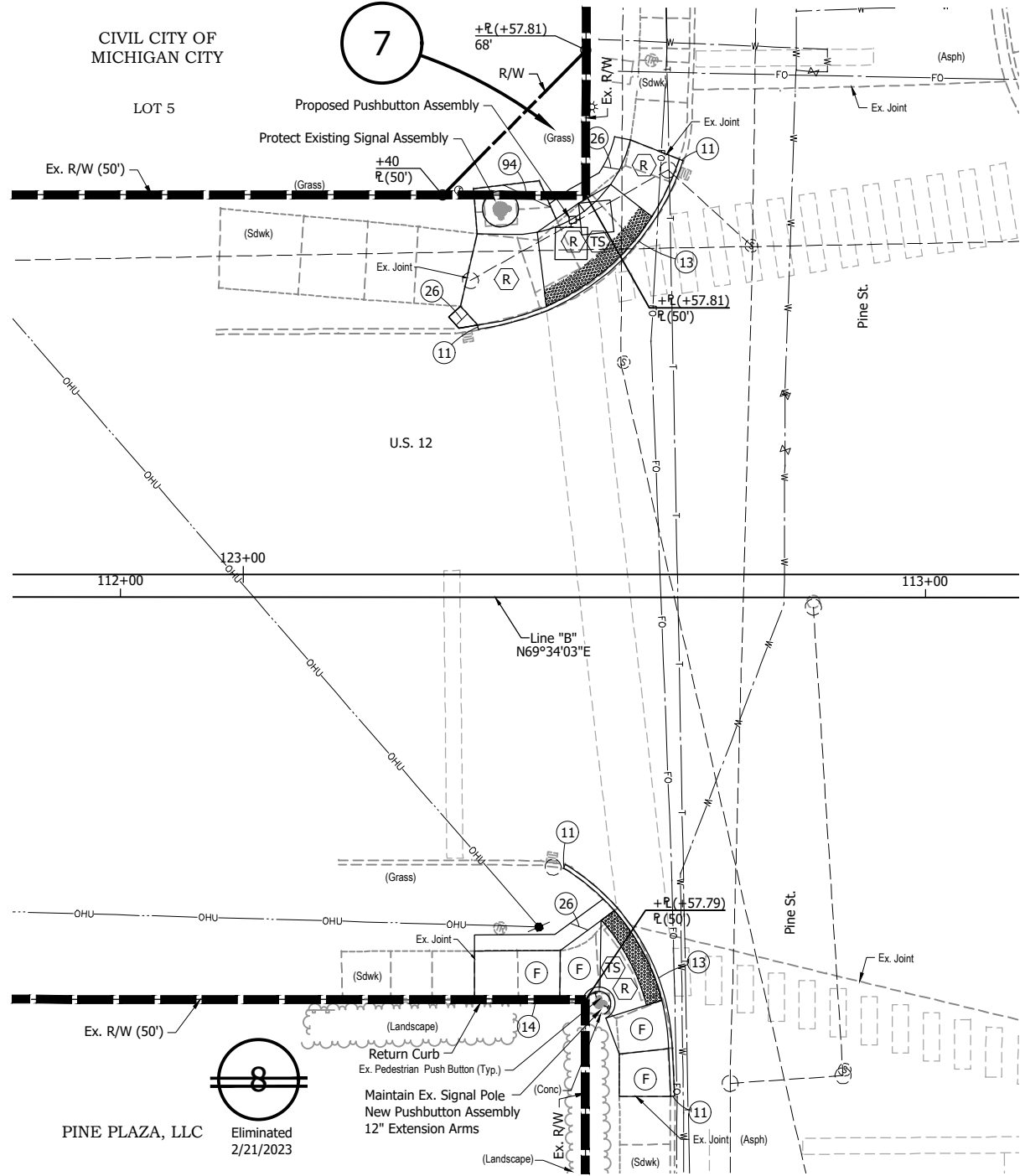
SCALE 1" = 10'	BRIDGE FILE
SURVEY BOOK	DESIGNATION 2000607
CONTRACT R-43027	SHEETS 23 of 25 PROJECT 2000607

U:\J - 7/1/2025 8:20 AM - U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte M\Cad\Plan Set\Civil\201722RW_CR10.dwg (201722RW_CR10 - RW ADA DTL - PINE)

ELSTON'S ORIGINAL
SURVEY OF MICHIGAN CITY
DEED RECORD A, PAGE 6
BLOCK 9

CIVIL CITY OF
MICHIGAN CITY

LOT 5



R/W NOTES

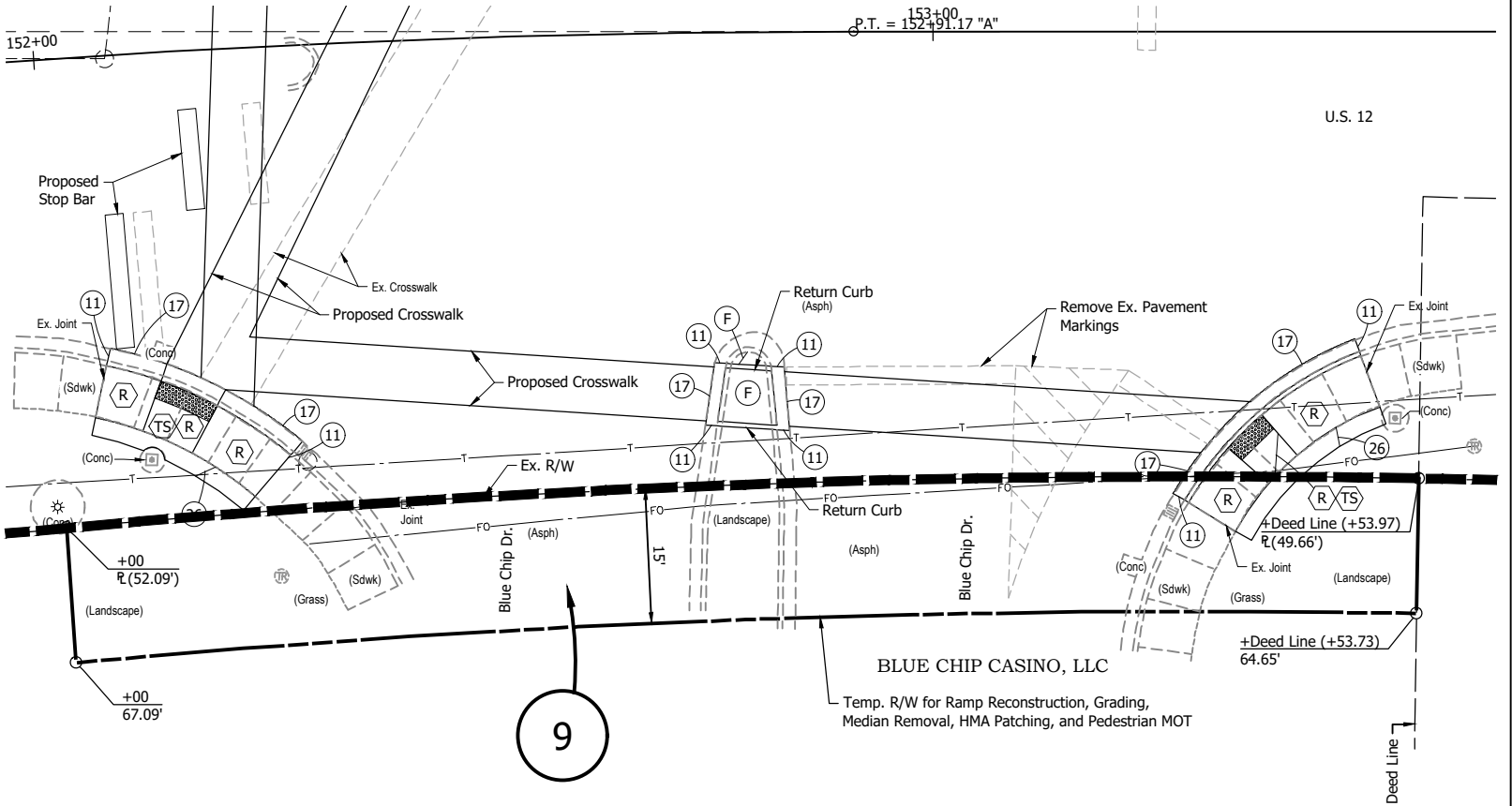
Existing R/W is platted.

Existing R/W is centered on Line "B", which is defined in the Location Control Route Survey Plat.

Line "A" is based on aerial images and is not a legal centerline.

All R/W described from Line "B" unless otherwise noted.

L.A. CODE: 7660



R/W NOTES

Existing R/W for Parcel 9 was established by a Quit Claim Deed from the State of Indiana to Blue Chip Casino, LLC, Inst. #2004R-10973

Line "A" is based on aerial images and is not a legal centerline.

All R/W described from Line "A" unless otherwise noted.

LEGEND:

- (F) Sidewalk
- (11) Saw Cut
- (13) Concrete Curb
- (14) Curb, Concrete, Integral, Modified
- (17) Concrete Curb and Gutter
- (26) Sodding, Nursery
- (94) Remove Sidewalk
- (R) Concrete Curb Ramp
- (TS) Turning Space

RECOMMENDED
FOR APPROVAL

DESIGN ENGINEER

DATE

DESIGNED: DJT

DRAWN: GDH

CHECKED: DGD

CHECKED: DJT

INDIANA
DEPARTMENT OF TRANSPORTATION

ADA RAMP CONSTRUCTION DETAILS
U.S. 12 AND PINE ST.

SCALE

1" = 10'

BRIDGE FILE

DESIGNATION

2000607

SURVEY BOOK

SHEETS

24 of 25

CONTRACT

PROJECT

R-43027

2000607



APPENDIX C EARLY COORDINATION



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758-ES
Indianapolis, Indiana 46204

Eric Holcomb, Governor
Joe McGuinness, Commissioner

January 21, 2022

(Sent Via UPS)

Sample Early
Coordination Letter

Mr. Anthony Hendricks, PS
LaPorte County Surveyor
555 Michigan Avenue, Suite 104
LaPorte, Indiana 46350

RE: Early Coordination Letter, Des. No.: 2000607
Roadway Project on U.S. 12 from the Porter/LaPorte County Line
to the Michigan State Line, LaPorte County, Indiana

Dear Mr. Hendricks:

The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intend to proceed with a project involving the aforementioned roadway in LaPorte County. This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the above designation numbers and description in your reply.** We will incorporate your comments into a study of the project's environmental impacts.

This project is located on U.S. 12, beginning west of Michigan City near the intersection of U.S. 12 and Beverly Drive at the Porter-LaPorte County Line, and continues east to the Michigan State Line, LaPorte County. This section of U.S. 12 is a four (4) lane *Urban-Principal Arterial-Other*. The existing U.S. 12 approach cross section from the West project limit to Wabash Street intersection consists of four (4) 11 feet (ft.) travel lanes bordered by 2-3 ft. usable and 0-1 ft. paved shoulders. The existing U.S. 12 approach cross section from Wabash Street intersection to Blue Chip Drive intersection consists of four (4) (plus median) 12 ft. travel lanes bordered by 0 ft. shoulders. The existing U.S. 12 approach cross section from Blue Chip Drive intersection to the East project limit consists of four (4) 12 ft. travel lanes bordered by two (2) 15 ft. paved shoulders. Deficient drainage structures (less than 48 inches diameter) identified for replacement by the District will be included in the project scope. The draft need is based on the deteriorated state of the existing asphalt pavement, having longitudinal joint damage and transverse cracking, and an International Roughness Index (IRI) rating of 93 inch/mile (10/24/19 Project Application Mini Scope) which is a good condition. The draft purpose is to increase the strength of the pavement structure, improve the riding surface of the pavement while correcting any cross-slope deficiencies, replace deficient drainage structures, and construct ADA-compliant curb ramps and pedestrian crossings. The approximate existing right-of-way (ROW) varies throughout the entire corridor. The West end of the project from beginning to Wabash Street has ROW widths ranging from 60 ft. to 100 ft. The middle portion of the project from Wabash Street to Spring Street has a platted ROW width of 100 ft. Between Spring Street and Blue Chip Drive there is varying ROW for the bridge over Trail Creek. From Blue Chip Drive to the Indiana/Michigan State Line there is a consistent 80 ft. ROW width, with a few jogs widening out to 100 ft. at S.R. 212 and beyond.

Mr. Anthony Hendricks, PS
LaPorte County Surveyor
January 21, 2022
Page 2


The proposed project is anticipated to repair the existing roadway with an HMA overlay. The proposed structure scope also involves various construction activities: cured-in-place pipe (CIPP) liners for 28 pipes and 11 pipes/culverts will be replaced in-kind; 17 inlets will be replaced in-kind and new castings will be installed on an additional 8 structures; castings will be reviewed for vane type grates and replaced or adjusted as necessary; obstructed inlets and pipes will be cleaned as part of this project with additional items to replace, if necessary; curb ramps at intersections within the project scope will be evaluated for ADA compliance and reconstructed as needed; centerline rumble stripes will be constructed from S.R. 212 to the Michigan State Line; edgeline rumble stripes will be evaluated at this location for areas that are 2 ft. or greater in width; snowplowable raised pavement markers will be replaced; and, INDOT-maintained ground mounted sheet signs 15 years and older will be replaced. The project will involve Right Sizing Lane re-configuration in various sections of the project route. Damaged guardrail along the north side of U.S. 12 at Douglas Avenue will be replaced and extended to protect the Singing Sands Trail. Signal modernizations will be constructed at the Liberty Trail and North Karwick Road intersections. There is a paving exception at the bridge crossing Trail Creek, approximately 600 ft. east of Spring Street. The project is anticipated to require approximately 0.071 acres of permanent ROW across 15 parcels and 0.033 acres of temporary ROW across 29 parcels for ADA ramp construction, structure replacements, CIPP lining, and traffic signal modernization. The project will be approximately 8.05 mi. in length. The proposed method of traffic maintenance for the HMA overlay is the use of single lane closures utilizing flaggers. Full closures with detours will be implemented during six (6) structure replacements. Pedestrian traffic will be re-routed during curb ramp closure and re-construction and will be ADA compliant. No trees are anticipated to be cleared as part of this project. The project is anticipated to begin construction in 2024.

Land use in the vicinity of the project route: the west end of the project is adjacent to the Indiana Dunes National Park; South Shore Railroad Crossing to Willard Avenue is primarily residential; Willard Avenue to Blue Chip Drive is primarily urban commercial and includes parts of downtown Michigan City; the eastern section from Blue Chip Drive to the Michigan State Line is a mix of commercial and residential with undeveloped wooded areas throughout. Waters and wetland determinations will be performed if deemed necessary, along with a biological assessment, to identify any ecological resources that may be present. Informal consultation for the Indiana Bat, Northern Long-eared Bat (NLEB), and project information and coordination with U.S. Fish and Wildlife Service (USFWS) will occur. Investigation of areas for archaeological and historic resources will occur for Section 106 compliance; investigation results will be forwarded to the State Historic Preservation Officer (SHPO) for review and concurrence as appropriate.

Should we not receive your response within thirty (30) calendar days from the date of this letter, it will be assumed your agency feels there will be no adverse effects incurred as a result of the proposed project. However, should you find that an extension to the response time is necessary, a reasonable amount may be granted upon request. If you have any questions regarding this matter, please feel free to contact Ms. Lisa Harris, MSES/MPA of Lawson-Fisher Associates P.C. at (574) 234-3167, lharris@lawson-fisher.com, or Mr. Scott Mason, INDOT Project Manager Associate, at (219) 325-7523, smason@indot.in.gov, should you have any questions regarding this matter. Thank you in advance for your input.

Very truly yours,

LAWSON-FISHER ASSOCIATES P.C.



Lisa A. Harris, MSES/MPA
Environmental Document Specialist

LAH/cas
Encls.

c: **The following agencies received Early Coordination Letters with Enclosures:**

Mr. Jerry Raynor, State Conservationist
Natural Resources Conservation Service
6013 Lakeside Boulevard
Indianapolis, Indiana 46278
(Sent via Email)
john.allen@usda.gov

Section Head
Environmental Geology Section
Indiana Geological and Water Survey
611 North Walnut Grove
Bloomington, Indiana 47405
(Sent via Email)

Regional Environmental Coordinator
Midwest Regional Office
National Park Service
601 Riverfront Drive
Omaha, Nebraska 68102
(Sent via Email)

Ms. Kari Carmany-George
Federal Highway Administration
Federal Office Building, Room 254
575 North Pennsylvania Street
Indianapolis, Indiana 46204
(Sent via Email)

Environmental Coordinator
Indiana Department of Natural Resources
Division of Fish and Wildlife
402 West Washington Street, Room W273
Indianapolis, Indiana 46204
(Sent via Email)

Federal Environmental Officer
Chicago Regional Office
U.S. Department of Housing and Urban
Development
Metcalf Federal Building
77 West Jackson Boulevard, Room 2401
Chicago, Illinois 60604
(Sent via Email)

Section Chief, Groundwater Section
Indiana Department of Environmental
Management 100 North Senate Avenue
Indianapolis, Indiana 46204-2251
(Sent via Email)
ATurnbow@idem.in.gov

Mr. Stewart Michels,
Environmental Section Manager
LaPorte District Office
Indiana Department of Transportation
315 East Boyd Boulevard
LaPorte, Indiana 46350
(Sent via Email)

Mr. Scott Mason, Project Manager Associate
LaPorte District
Indiana Department of Transportation
Second Floor, Traffic Operations Building
315 East Boyd Boulevard
LaPorte, Indiana 46350
(Sent via Email)

Mr. Paul Leffler, Chief
Environmental Resources
Department of the Army
Chicago District – Corps of Engineers
231 South LaSalle Street, Suite 1500
Chicago, Illinois 60604
(Sent via Email)

Mr. Ty Warner, Executive Director
Northwestern Indiana Regional Planning
Commission
6100 Southport Road
Portage, Indiana 46368-6409
(Sent via UPS)

Ms. Elizabeth McCloskey
U.S. Fish and Wildlife Service
P.O. Box 2616
Chesterton, Indiana 46304
(Sent via Email)

Mr. Anthony Hendricks, PS
LaPorte County Surveyor
January 21, 2022
Page 4

c: The following agencies received Early Coordination Letters with Enclosures (Continued):

Ms. Jessica Ward, Airport Manager
Michigan City Municipal Airport
Phillips Field
1300 North Highway 212
Michigan City, Indiana 46360
(Sent via UPS)

Mr. Anthony Hendricks, PS
LaPorte County Surveyor
555 Michigan Avenue, Suite 104
LaPorte, Indiana 46350
(Sent via UPS)

LaPorte County Drainage Board
809 State Street
LaPorte, Indiana 46350
(Sent via UPS)

Mr. Jerry Sullivan
LaPorte County Engineer
1805 West 5th Street
LaPorte, Indiana 46350-8380
(Sent via UPS)

LaPorte County Council
County Complex
80 State Street
LaPorte, Indiana 46350
(Sent via UPS)

LaPorte County Highway Department
1805 West 5th Street
LaPorte, Indiana 46350-8380
(Sent via UPS)

LaPorte County Board of Commissioners
555 Michigan Avenue, Suite 202
LaPorte, Indiana 46350
(Sent via UPS)

Sheriff John T. Boyd
LaPorte County Sheriff
809 State Street, Suite 202A
LaPorte, Indiana 46350
(Sent via UPS)

Mr. Rick Brown
LaPorte County MS4 Coordinator
LaPorte County Soil and
Water Conservation District
2857 West State Road 2, Suite B
LaPorte, Indiana 46350
(Sent via UPS)

Office of Aviation
Indiana Department of Transportation
100 North Senate Avenue, Room 955
Indianapolis, Indiana 46204
(Sent via Email)

LaPorte County Health Department
302 West 8th Street, Suite 4
Michigan City, Indiana 46360
(Sent via UPS)

Michigan City Police Department
1201 East Michigan Boulevard
Michigan City, Indiana 46360
(Sent via UPS)

Michigan City Fire Department
2510 East Michigan Boulevard
Michigan City, Indiana 46360
(Sent via UPS)

LaPorte County EMS
809 State Street, Suite 301
LaPorte, Indiana 46350
(Sent via UPS)

c: The following agencies received Early Coordination Letters with Enclosures (Continued):

LaPorte County Emergency Medical Services -
Michigan City
201 West Coolspring Avenue
Michigan City, Indiana 46360
(Sent via UPS)

Mayor Duane Parry
City of Michigan City
100 East Michigan Boulevard Michigan City,
Indiana 46360
(Sent via UPS)

Michigan City Council
100 East Michigan Boulevard
Michigan City, Indiana 46360
(Sent via UPS)

Mr. Jeffrey Wright, City Engineer
Michigan City
100 East Michigan Boulevard
Michigan City, Indiana 46360
(Sent via Email)

Mr. Larry Butcher, Director
LaPorte County Emergency
Management of Homeland Security
809 State Street
LaPorte, Indiana 46350
(Sent via UPS)

Section Chief
Wetlands and Stormwater
Programs Indiana Department of
Environmental Management
100 North Senate Avenue
Indianapolis, Indiana 46204
(Sent via Email)
rbraun@idem.in.gov

Section Chief
Wetlands and Stormwater Programs
Indiana Department of Environmental
Management
100 North Senate Avenue
Indianapolis, Indiana 46204
(Sent via Email)
Email: JTurner2@idem.in.gov

Chief, Bridge Branch
Ninth Coast Guard District
1240 East 9th Street, Room 2043
Cleveland, Ohio 44199
(Sent via Email)
Email: Michael.o.walker2@uscg.mil

Chief, Bridge Branch
Ninth Coast Guard District
1240 East 9th Street, Room 2043
Cleveland, Ohio 44199
(Sent via Email)
WilliamB.Stanifer@uscg.mil

Mr. Ed Shinn, Superintendent
Michigan City Parks & Recreation
Department 100 East Michigan
Boulevard, Suite 2 Michigan City,
Indiana 46360

All graphics included with the original
can be found in Appendix B, page 1
through page 12.



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758-ES
Indianapolis, Indiana 46204

PHONE: (855) 463-6848

Mike Braun, Governor
Lyndsay Quist, Commissioner

Sample
Early Coordination
Letter

May 21, 2025
(See Attached List)

Re: Early Coordination Letter, Des. Nos: 2000607, 2500075, and 2101096, Roadway Project along United States (US) 12, from 1.93 Miles West of US 421 to the Michigan State Line, LaPorte and Porter Counties, Indiana.

Dear Agency:

The Indiana Department of Transportation (INDOT), with federal funding, intends to proceed with a project involving US 12, from 1.93 miles west of US 421 to the Michigan state line in LaPorte County. This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the above designation numbers and description in your reply.** We will incorporate your comments into a study of the project's environmental impacts.

This project is located along US 12, from 1.93 miles west of US 421 to the Michigan state line in LaPorte and Porter Counties, Indiana. US 12 is classified as an Urban-Principal Arterial-Other roadway. The existing U.S. 12 approach cross section from the west project limit to the Wabash Street intersection consists of four (4) 11 feet (ft.) travel lanes bordered by 2-3 ft. usable and 0-1 ft. paved shoulders. The existing U.S. 12 approach cross section from the Wabash Street intersection to the Blue Chip Drive intersection consists of four (4) 12 ft. travel lanes (plus median) with no shoulders. The existing U.S. 12 approach cross section from the Blue Chip Drive intersection to the east project limit consists of four (4) 12 ft. travel lanes bordered by two (2) 15 ft. paved shoulders. Land use in the vicinity of the project route: the west end of the project is adjacent to the Indiana Dunes National Park; from South Shore Railroad Crossing to Willard Avenue is primarily residential; from Willard Avenue to Blue Chip Drive is primarily urban commercial and includes parts of downtown Michigan City; the eastern section from Blue Chip Drive to the Michigan state line is a mix of commercial and residential with undeveloped wooded areas throughout.

The existing roadway shows signs of deterioration with longitudinal joint damage and transverse cracking. Sidewalks within the project area are not Americans with Disabilities Act (ADA) compliant, and drainage structures were found to be deficient and identified for replacement by the District. The project scope also includes the replacement of culvert (CV) 012-064-37.05 and CV 012-064-37.05 ADJ, which carries US 12 over an unnamed tributary (UNT) to Kintzele Ditch. The existing structure (CV 012-064-37.05 and CV 012-064-37.05 ADJ) is a six-foot-wide, four-foot-high reinforced concrete box (RCB) culvert originally constructed in 1934. The structure is comprised of two culverts of the same dimension that meet at an angle, separated by a small gap. The overall length is 134 feet.

At this time, the preferred alternative is to rehabilitate the roadway with a Hot Mix Asphalt (HMA) overlay and realign the intersection of US 12 and East Beverly Drive. In addition, CV 012-064-37.05 and CV 012-064-37.05 ADJ will be replaced with a six-foot-wide, four-foot-high, 76-foot-long RCB culvert. Throughout the project area the following improvements are planned:

- eight pipes will be replaced in-kind;
- one inlet and 20 ft. of storm sewer will be replaced in-kind;
- 23 castings will be replaced and 18 castings will be adjusted to grade;
- five obstructed inlets and one drywell will be cleared of debris;
- curb ramps at 17 intersections will be reconstructed to meet ADA standards;
- edge line rumble stripes will be used where the shoulder is 2 ft. or greater in width;
- INDOT-maintained ground mounted sheet signs 15 years and older will be replaced;
- additional signage will be added to improve the railroad crossing and comply with railroad standards.

The project will involve Right Sizing Lane re-configuration except through the downtown area (Wabash Street to Spring Street/East Michigan Boulevard). A bike lane will be delineated on the north side of US 12 from the entrance of Mount Baldy National Park to the intersection of US 12 with the Singing Sands Trail. Full depth pavement widening is anticipated at two locations. The first location is on the north side of US 12 immediately to the west of the Singing Sand Trail. This extra pavement is to provide separation between westbound traffic and the bike lane. The second location is at the US 12 intersection with SR 212. Pavement will be added to accommodate the eastbound to southbound turning movement. Damaged guardrail along the north side of U.S. 12 at Douglas Avenue will be replaced and extended to satisfy INDOT length of need requirements. Signal modernizations are planned at the US 12 and Liberty Trail and North Karwick Road intersections.

Right of way will be permanently acquired for this project and is anticipated to be less than 0.5-acres. The proposed method of traffic maintenance for the HMA overlay is the use of single lane closures utilizing flaggers. Full closures with detours will be implemented during seven (7) structure replacements. Pedestrian traffic will be rerouted during curb ramp closure and re-construction and will be ADA compliant. No trees are anticipated to be cleared as part of this project. Construction for this project is anticipated to occur between Spring and Fall of 2026.

Ten mapped streams are located within 0.5 mile of the project area. Metric Environmental will perform a Waters of the US determination and coordinate with INDOT Ecology and Waterways Permitting Office (EWPO) to prepare a Waters Determination Report and submit the appropriate Clean Water Act permit applications.

The project is anticipated to qualify for the Rangewide Programmatic Agreement for the Indiana bat and northern long-eared bat by completing the Information for Planning and Consultation (IPaC).

This project appears to fall under Categories B-1, B-2, B-3, B-9 and B-14 of the Minor Programmatic Agreement (MPPA) among the FHWA, INDOT, the Advisory Council on Historic Preservation, and the Indiana State Historic Preservation Office Regarding the Implementation of the Federal Aid Highway Program in the State of Indiana (2006, Rev. 2018). Metric will coordinate with the INDOT Cultural Resources Office for verification.



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758-ES
Indianapolis, Indiana 46204

PHONE: (855) 463-6848

Mike Braun, Governor
Lyndsay Quist, Commissioner

Please provide your response within thirty (30) calendar days from the date of this letter. However, should you find that an extension to the response time is necessary, a reasonable amount may be granted upon request. If you have any questions regarding this matter, please feel free to contact Catherine Holland, Assistant Project Manager, at Metric Environmental, 6958 Hillsdale Court, Indianapolis, Indiana 46250, or by email at catherineh@metricenv.com, or by telephone at 317.348.2537, or Scott Mason, INDOT Project Manager, INDOT LaPort District, 315 East Boyd Boulevard, La Porte, IN 46350, by email at smason@indot.in.gov, or by telephone at 219.380.2979. Thank you in advance for your input.

Sincerely,

X *Catherine Holland*

Catherine Holland

Catherine Holland
Assistant Project Manager
Metric Environmental, LLC

cc: File No. 23-0221-5
Dan Delgado, Project Manager, at Lawson-Fisher Associates, ddelgado@lawson-fisher.com
Scott Mason, INDOT PM, INDOT LaPorte District, smason@indot.in.gov

Attachment –
Recipient List, Location Map, USGS Topographic Map

The following agencies received Early Coordination Letters:

Federal Highway Administration

erica.tait@dot.gov

paige.story@dot.gov

Indiana Geological and Water Survey

<https://igws.indiana.edu/eAssessment>

IDEM Wellhead Proximity Determinator

Electronic Review of Location

<http://www.in.gov/idem/cleanwater/2456.htm>

Indiana Department of Natural Resources

Division of Fish and Wildlife

environmentalreview@dnr.in.gov

US Department of Housing & Urban Development

Chicago Regional Office

Erik.r.sandstedt@hud.gov

Indiana Department of Transportation

LaPorte District

smason@indot.in.gov

SMichels@indot.in.gov

Indiana Department of Transportation

Office of Aviation

plamb@indot.in.gov

Ms. Deborah Snyder

US Army Corps of Engineers

ChicagoRequests@usace.army.mil

US Fish and Wildlife Service (USFWS)

Robin_mcwilliams@fws.gov

LaPorte County Commissioners

jhaney@laporteco.in.gov

Laporte County Surveyor

ahendricks@LaPorteCo.in.gov

Laporte County Highway Department

astevens@laporteco.in.gov

Northwestern Indiana Regional Planning Commission

twarner@nirpc.org

cbradsky@nirpc.org

INDOT LaPorte District

smichels@indot.in.gov

Porter County Highway Department

Jim.polarek@porterco.org

Porter County Commissioners

Kathy.merle@porterco.org

Porter County Surveyor

kbreitzke@porterco.org

Michigan City Sanitation Department

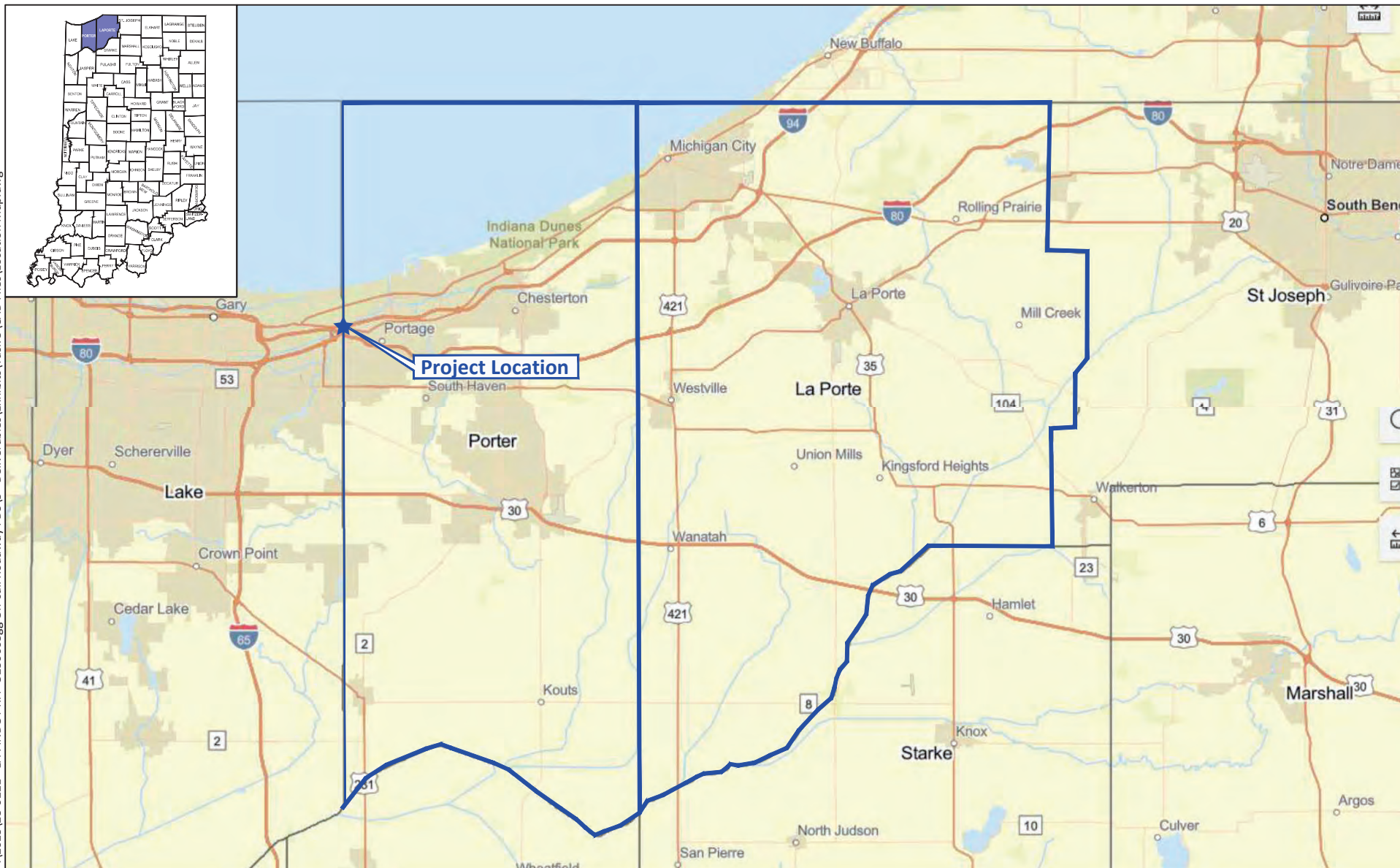
mcsd@emichigancity.com

Jenny Orsburn

Lake Michigan Coastal Program

Jeorsburn@dnr.IN.gov

P:\2023\23-0221 - IFA-INDOT RFP 0230603gg On-call Roadway PDS\5 - Deliverables\Exhibits\Task 5\CAD Files\Location Map.dwg



Source: <http://maps.indiana.edu/>

Project Location Map

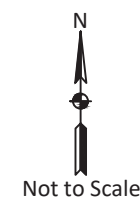
US 12 Improvements

Des. Nos. 2000607, 2101096, and 2500075

LaPorte and Porter Counties, Indiana

Metric Project # 23-0221

Note: All locations are approximate



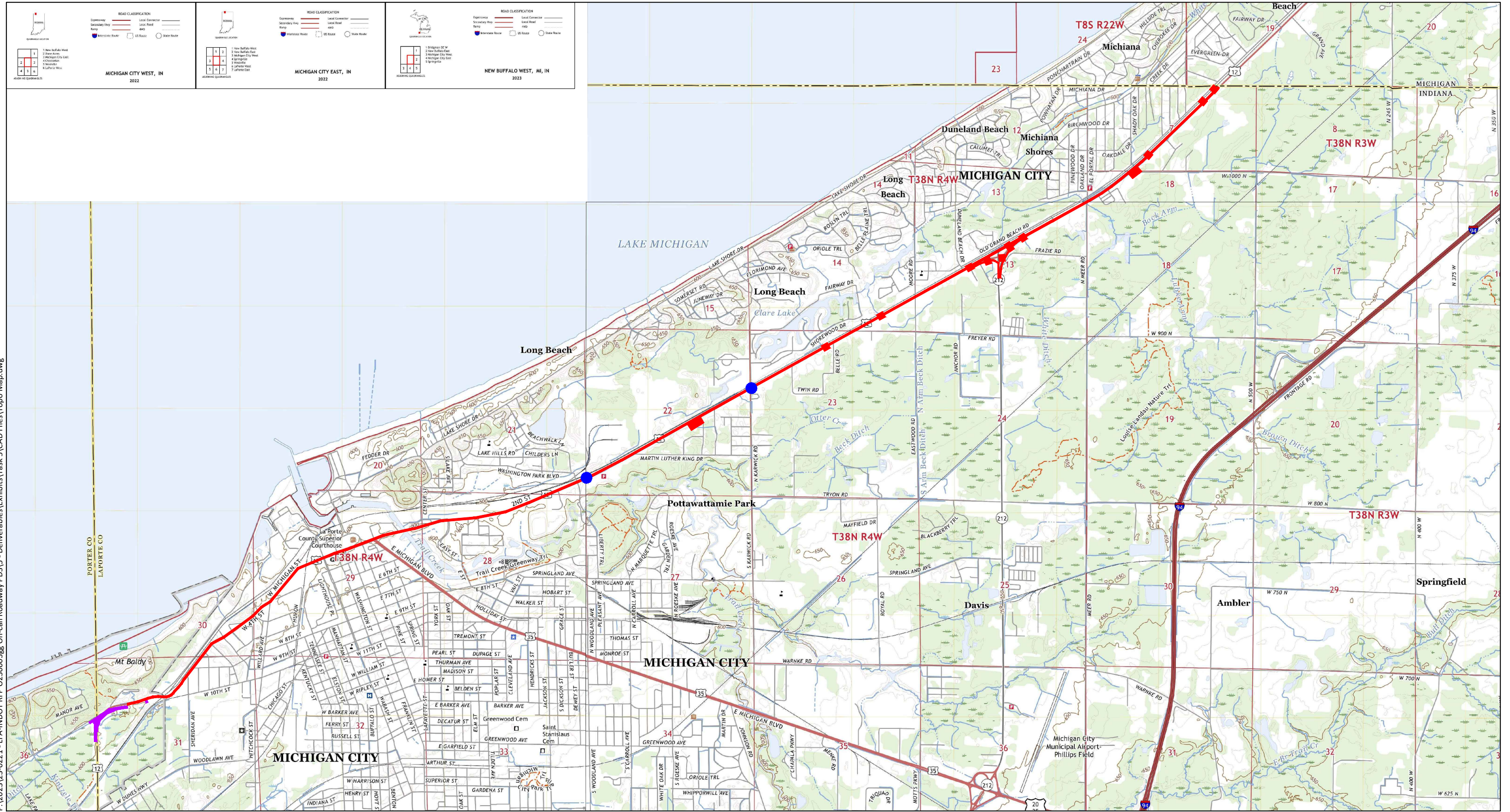
Drawn by: ILJ

Checked by: LZ

Approved by: SC




Date: May, 2025

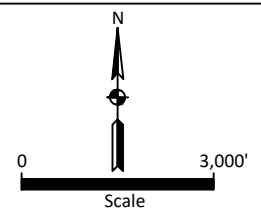
P:\2023\23-0221 - LFA-INDOT RFP 0230603agg On-call Roadway PDS\5 - Deliverables\Exhibits\Task 5\CAD Files\Topo Map.dwg



USGS Topographic Map
US 12 Improvements
Des. Nos. 2000607, 2101096, and 2500075
LaPorte and Porter Counties, Indiana
Metric Project # 23-0221

Note: All locations are approximate

Des. No. 2000607  US 12 from Beverly Drive to the Michigan State Line
Des. No. 2101096  US 12 Beverly Drive / Kintzele Ditch
Des. No. 2500075  US 12 @ Karwick Road and Liberty Trail



METRIC ENVIRONMENTAL
Drawn by: ILJ
Checked by: LZ
Approved by: SC
Date: May, 2025



Organization and Project Information

Project ID: 2000607
Des. ID: 2000607
Project Title: U.S. 12 HMA Overlay Preventive Maintenance Project
Name of Organization: Lawson-Fisher Associates P.C.
Requested by: Lisa Harris

Environmental Assessment Report

1. Geological Hazards:

- High liquefaction potential
- Floodway

2. Mineral Resources:

- Bedrock Resource: Moderate Potential
- Sand and Gravel Resource: Low Potential

3. Active or abandoned mineral resources extraction sites:

- Petroleum Exploration Wells
- Abandoned Industrial Minerals Sand Gravel Pits

*All map layers from Indiana Map (maps.indiana.edu)

DISCLAIMER:

This document was compiled by Indiana University, Indiana Geological Survey, using data believed to be accurate; however, a degree of error is inherent in all data. This product is distributed "AS-IS" without warranties of any kind, either expressed or implied, including but not limited to warranties of suitability to a particular purpose or use. No attempt has been made in either the design or production of these data and document to define the limits or jurisdiction of any federal, state, or local government. The data used to assemble this document are intended for use only at the published scale of the source data or smaller (see the metadata links below) and are for reference purposes only. They are not to be construed as a legal document or survey instrument. A detailed on-the-ground survey and historical analysis of a single site may differ from these data and this document.

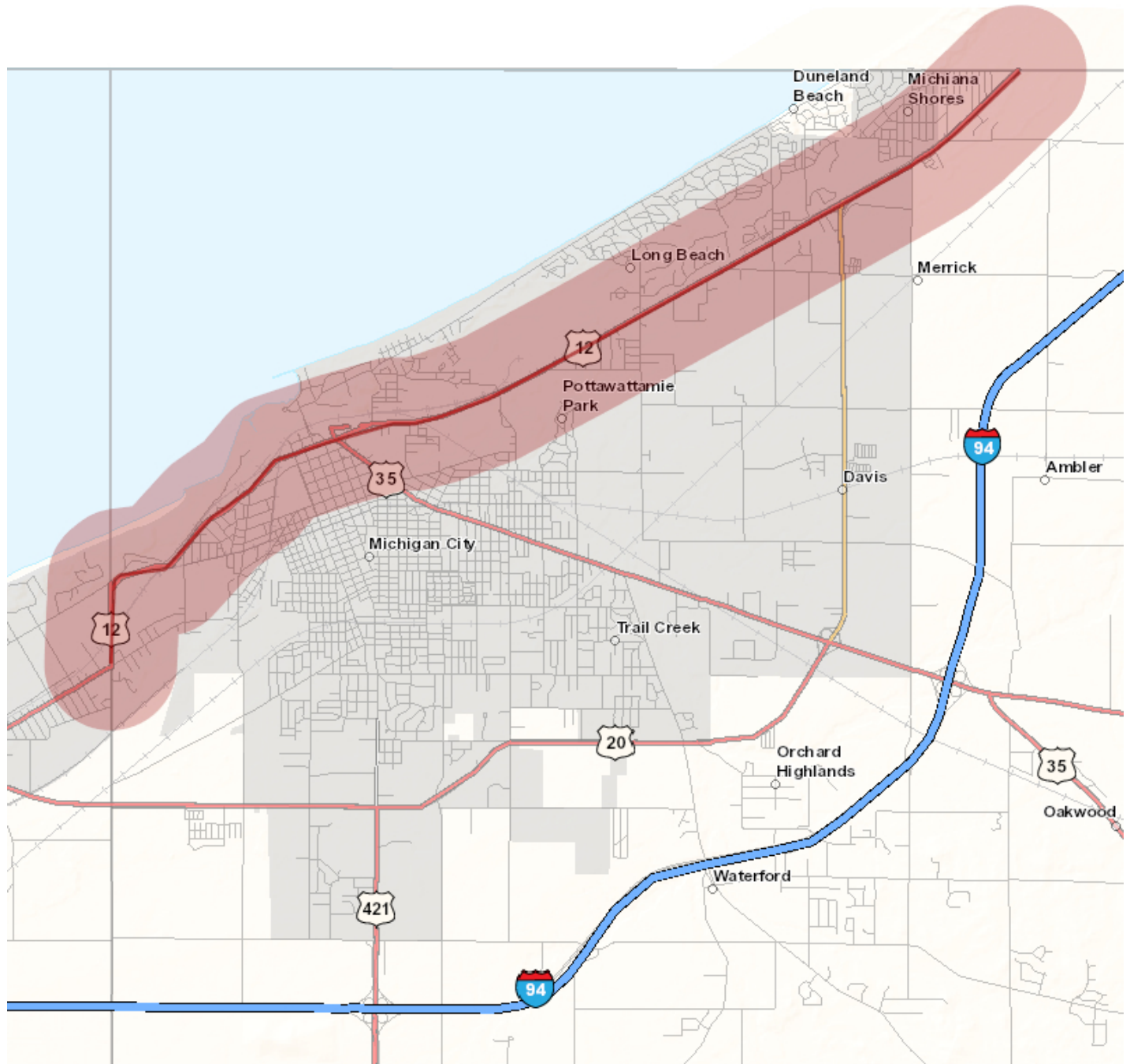
This information was furnished by Indiana Geological Survey

Address: 420 N. Walnut St., Bloomington, IN 47404

Email: IGSEnvir@indiana.edu

Phone: 812 855-7428

Date: January 21, 2022



Metadata:

- https://maps.indiana.edu/metadata/Geology/Petroleum_Wells.html
- https://maps.indiana.edu/metadata/Geology/Industrial_Minerals_Sand_Gravel_Pits_Abandoned.html
- https://maps.indiana.edu/metadata/Geology/Seismic_Earthquake_Liquefaction_Potential.html
- https://maps.indiana.edu/metadata/Geology/Industrial_Minerals_Sand_Gravel_Resources.html
- https://maps.indiana.edu/metadata/Hydrology/Floodplains_FIRM.html
- https://maps.indiana.edu/metadata/Geology/Bedrock_Geology.html



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Brian C. Rockensuess
Commissioner

February 3, 2022

LAWSON-FISHER ASSOCIATES P.C.

Attention: Lisa A. Harris
525 West Washington Avenue
South Bend, IN 46601

Dear Lisa A. Harris:

Re: Wellhead Protection Area
Proximity Determination
Des No 2000607
Roadway Project on U.S. 12 from the
Porter/LaPorte County Line
to the Michigan State Line,
LaPorte County, Indiana

Upon review of the above referenced project site, it has been determined that the proposed project area **is located within** a Wellhead Protection Area. If the contact information is needed for the WHPA, please contact the reference located at the bottom of the letter for the appropriate information. The information is accurate to the best of our knowledge; however, there are in some cases a few factors that could impact the accuracy of this determination. Some Wellhead Protection Area Delineations have not been submitted, and many have not been approved by this office. In these cases, we use a 3,000-foot fixed radius buffer to make the proximity determination. To find the status of a Public Water Supply System's (PWSS's) Wellhead Protection Area Delineation please visit our tracking database at <http://www.in.gov/ideM/cleanwater/2456.htm> and scroll to the bottom of the page.

In addition to the proposed project area being located within a Wellhead Protection Area; the project area **is located within** a Source Water Assessment Area for a PWSS's surface water intake. The Source Water Assessment Area relates to the surface water drainage area that water could potentially flow and influence water quality for a PWSS's source of drinking water. The PWSS that could be impacted by the project is Michigan City Department of Water Works. A contact person for Michigan City Department of Water Works is Christopher Johnsen, and they could be reached via e-mail and/or phone at: cjohnsen@mcwaterdept.com and 219-874-3228. The contact information is provided as a courtesy and reference for you if any issues arise that could potentially impact the water quality for the PWSS during the course of the project. It is not a requirement of IDEM that you contact the system regarding the project.



A State that Works

C-15

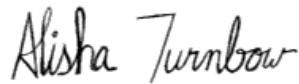
Please Reduce, Reuse, Recycle

Lisa A. Harris
Page 2

In the future, **please consider using this self-service tool** if it suits your needs. The Drinking Water Branch has a self-service tool which allows one to determine wellhead proximity without submitting the application form. Go to <https://www.in.gov/ide/cleanwater/pages/wellhead/> and use the instructions at the bottom of the page.

If you have any additional questions please feel free to contact me at the address above or at 317-233-9158 and aturnbow@idem.in.gov.

Sincerely,

A handwritten signature in black ink that reads "Alisha Turnbow". The signature is written in a cursive, flowing style.

Alisha Turnbow,
Environmental Manager
Ground Water Section
Drinking Water Branch
Office of Water Quality

Electronic cc: Christopher Johnsen, Michigan City Department of Water Works

State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife
Early Coordination/Environmental Assessment

DNR #: ER-24425

Request Received: January 21, 2022

Requestor: Lawson-Fisher Associates PC
Lisa Harris
525 West Washington Avenue
South Bend, IN 46601-0000

Project: US 12 HMA overlay and several small structure pipe linings, replacements, and preventative maintenance, from Beverly Drive west of Michigan City to the Michigan state line; Des #2000607

County/Site info: LaPorte

The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.

If our agency has regulatory jurisdiction over the project, the recommendations contained in this letter may become requirements of any permit issued. If we do not have permitting authority, all recommendations are voluntary.

*NOTE: This project is within the Lake Michigan Coastal Program's boundary; therefore, it may be subject to Federal Consistency (FC) review. Please go to <http://www.in.gov/dnr/lakemich/files/20070214-IR-312070085NRA.xml.pdf> (Section III, pages 8-16) to see the federal activities that require a project to go through the FC process which is outlined at <http://www.in.gov/dnr/lakemich/6041.htm>.

Regulatory Assessment: This proposal may require the formal approval of our agency pursuant to the Flood Control Act (IC 14-28-1) for any proposal to construct, excavate, or fill in or on the floodway of a stream or other flowing waterbody which has a drainage area greater than one square mile, unless it qualifies under the INDOT and IDNR Memorandum of Understanding for Maintenance Activity Exemption, dated March 1997. Please include a copy of this letter with the permit application, if required.

Natural Heritage Database: The Natural Heritage Program's data have been checked. A list of managed lands, high quality natural communities, and species that have been documented within 1/2 mile of the project area is attached. The Division of Nature Preserves does not anticipate any impacts to the preserves, communities, or plant species as a result of this project.

Fish & Wildlife Comments: We do not foresee any impacts to the common mudpuppy or the documented bird or fish species as a result of this project.

Avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible, and compensate for impacts. The following are recommendations that address potential impacts identified in the proposed project area:

1) Eastern Red Bat:

This bat is a foliage roosting species that shows no strong preference to certain tree species. To minimize impacts to this bat species, avoid cutting deciduous canopy trees from April 1 through September 30.

2) Crossing Structures:

For any stream crossing replacements, the Environmental Unit recommends bridges rather than culverts and bottomless culverts rather than box or pipe culverts for

Attachments: A - General Information

State of Indiana
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purposes of maintaining fish and wildlife passage through a crossing structure. 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; and have stream depth, channel width, and water velocities during low-flow conditions that are approximate to those in the natural stream channel. Banklines should be restored within box and pipe structures to allow for wildlife passage above the ordinary highwater mark.

The new, replacement, or rehabbed structure, and any bank stabilization under the structure, should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. When determining an appropriate bridge or culvert size, consider whether or not wildlife/vehicle collisions are a concern at the crossing site. If feasible, a larger bridge or culvert opening can allow for the movement of wildlife under the roadway in order to minimize wildlife/vehicle collisions.

3) Pipe Linings:

During construction, lining the existing pipes should result in fewer impacts compared to a complete replacement. However, upon completion of the project, the liner could produce more negative in-stream impacts compared to culvert replacement. Installing a culvert liner generally reduces the size of the culvert, which can increase flow velocity, thereby causing negative impacts on fish and wildlife passage, as well as increased turbidity and potential scour in the surrounding area. Liners can also create a perched culvert in which the inlet or outlet are placed above the streambed elevation, causing a barrier to fish and wildlife species using the culvert. Installing a liner is a practical option when there is very little habitat surrounding the culvert and use by fish and wildlife is expected to be minimal.

Installing a new bridge or culvert (preferably 3-sided) can provide better passage for fish and wildlife even though initial impacts to the stream bed, banks, and riparian habitat could occur. These disturbances are expected to be temporary. A new structure would likely help reduce debris blockage, provide better fish and wildlife passage, maintain stream substrate continuity, and reduce or maintain flow velocities.

Cured-in-place pipe (CIPP) liners pose a notable environmental threat. A recent study conducted by Purdue University has indicated that this technique may pose health risks to humans and wildlife species alike (see <https://www.purdue.edu/newsroom/releases/2017/Q3/materials-emitted-by-a-water-pipe-repair-method-may-pose-health-risks,-new-safeguards-and-research-needed.html>). Exposure to toxic chemicals in the air and water associated with the CIPP pipe lining method may be dangerous to workers installing the liner and CIPP waste was found to dissolve freshwater test organisms within 24 hours at room temperature. If the CIPP technique will be used, the Division of Fish & Wildlife recommends following INDOT's USP (Unique Special Provision) for CIPP liners to protect installers and aquatic resources that may be exposed to CIPP waste.

The culvert, either with a liner or a replacement, should be allowed to accumulate some amount of natural bed substrate in order to maintain or improve the biological integrity of the stream.

4) Bank Stabilization:

Establishing vegetation along the banks is critical for stabilization and erosion control. In addition to vegetation, some other form of bank stabilization may be needed. While hard

State of Indiana
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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. Information about bioengineering techniques can be found at <http://www.in.gov/legislative/iac/20120404-IR-312120154NRA.xml.pdf>. Also, the following is a USDA/NRCS document that outlines many different bioengineering techniques for streambank stabilization: <http://directives.sc.egov.usda.gov/17553.wba>.

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). Riprap may be used only at the toe of the sideslopes up to the ordinary high water mark (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 Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion.

5) Riparian Habitat:

We recommend a mitigation plan be developed (and submitted with the permit application, if required) for any unavoidable habitat impacts that will occur. The DNR's Habitat Mitigation Guidelines (and plant lists) can be found online at: <http://iac.iga.in.gov/iac/20200527-IR-312200284NRA.xml.pdf>.

Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, at least 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10" dbh or greater (5:1 mitigation based on the number of large trees) or by using the 1:1 replacement ratio based on area depending on the type of habitat impacted (individual canopy tree removal in an urban streetscape or park-like environment versus removal of habitat supporting a tree canopy, woody understory, and herbaceous layer). Impacts under 0.10 acre in an urban area may still involve the replacement of large diameter trees but typically do not require any additional mitigation or additional plantings beyond seeding and stabilizing disturbed areas. There are exceptions for high quality habitat sites however.

6) Wetland Habitat:

Due to the presence or potential presence of wetland habitat on site, we recommend contacting and coordinating with the Indiana Department of Environmental Management (IDEM) 401 program and also the US Army Corps of Engineers (USACE) 404 program. Impacts to wetland habitat should be mitigated at the appropriate ratio according to the 1991 INDOT/IDNR/USFWS Memorandum of Understanding.

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:

1. Revegetate all bare and disturbed areas within the project area using a mixture of grasses (excluding all varieties of tall fescue), sedges, wildflowers, shrubs, and trees native to Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion.
2. Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush.
3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.

State of Indiana
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4. 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.
5. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure.
6. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds.
7. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
8. Do not use broken concrete as riprap.
9. Underlay the riprap with a bedding layer of well graded aggregate or a geotextile to prevent piping of soil underneath the riprap.
10. Minimize the movement of resuspended bottom sediment from the immediate project area.
11. Do not deposit or allow construction/demolition materials or debris to fall or otherwise enter the waterway.
12. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
13. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.
14. Do not excavate or place fill in any riparian wetland.

Contact Staff:

Christie L. Stanifer, Environ. Coordinator, Fish & Wildlife
Our agency appreciates this opportunity to be of service. Please contact the above staff member at (317) 232-4080 if we can be of further assistance.

Christie L. Stanifer

Christie L. Stanifer
Environ. Coordinator
Division of Fish and Wildlife

Date: February 18, 2022

THIS IS NOT A PERMIT

State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife
Early Coordination/Environmental Assessment

DNR#: ER-27524

Request Received: May 22, 2025

Requestor:

Catherine Holland
Metric Environmental, LLC
6958 Hillsdale Court
Indianapolis, IN 46250

Project:

US 12 HMA overlay and several small structure replacements, from 1.93 miles west of US 421 to the Michigan State Line; Des #2000607, 2500075, & 2101096

County/Site Info: LaPorte & Porter Counties

The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.

If our agency has regulatory jurisdiction over the project, the recommendations contained in this letter may become requirements of any permit issued. If we do not have permitting authority, all recommendations are voluntary.

Regulatory Assessment:

This proposal may require the formal approval of our agency pursuant to the Flood Control Act (IC 14-28-1) for any proposal to construct, excavate, or fill in or on the floodway of a stream or other flowing waterbody which has a drainage area greater than one square mile, unless it qualifies for a bridge exemption (see enclosure) or qualifies under the INDOT and IDNR Memorandum of Understanding for Maintenance Activity Exemption, dated March 1997. Please include a copy of this letter with the permit application, if required.

Natural Heritage Database:

The Natural Heritage Program's data have been checked. The Division of Nature Preserves does not anticipate any significant impacts to the below-listed property, communities, or species of flora. The following have been documented within 0.5 mile of the project area:

Property

Indiana Dunes State Park

Communities

Dry Sand Prairie
Northwestern Morainal Dry Forest
Northwestern Morainal Dry-mesic Forest
Wet-mesic Floodplain Forest

Flora

American Cow-wheat (*Melampyrum lineare*), State endangered
Beach Peavine (*Lathyrus japonicus*), State endangered
Bristly Sarsaparilla (*Aralia hispida*), State endangered

Common's Panic-grass (*Dichanthelium commonsianum*), State endangered
Dune Thistle (*Cirsium pitcheri*), State endangered
Finely-nerved Sedge (*Carex leptoneura*), State endangered
Northern Bog Clubmoss (*Lycopodiella inundata*), State endangered
Nuttall Pondweed (*Potamogeton epihydrus*), State endangered
Pipsissewa (*Chimaphila umbellata*), State endangered
Slender Mountain-ricegrass (*Piptatheropsis pungens*), State endangered
Strict Blue-eyed-grass (*Sisyrinchium montanum*), State endangered
Water-plantain Spearwort (*Ranunculus ambigens*), State endangered
White-grained Mountain-ricegrass (*Oryzopsis asperifolia*), State endangered
Bearberry (*Arctostaphylos uva-ursi*), State threatened
Blackseed Needlegrass (*Piptochaetium avenaceum*), State threatened
Carey's Smartweed (*Persicaria careyi*), State threatened
Deep-root Clubmoss (*Diaphasiastrum tristachyum*), State threatened
Eastern Jointweed (*Polygonum articulatum*), State threatened
Eastern White Pine (*Pinus strobus*), State threatened
Fire Cherry (*Prunus pensylvanica*), State threatened
Golden-fruited Sedge (*Carex aurea*), State threatened
Ground Juniper (*Juniperus communis* var. *depressa*), State threatened
Hickey's Clubmoss (*Dendrolycopodium hickeyi*), State threatened
Jack Pine (*Pinus banksiana*), State threatened
Jointed Rush (*Juncus articulatus*), State threatened
Lesser Bladderwort (*Utricularia minor*), State threatened
Long Sedge (*Carex folliculata*), State threatened
Michaux's Stitchwort (*Minuartia michauxii* var. *michauxii*), State threatened
Scirpus-like Rush (*Juncus articulatus*), State threatened
Seabeach Needlegrass (*Aristida tuberculosa*), State threatened
Shining Ladies'-tresses (*Spiranthes lucida*), State threatened
Silverweed (*Potentilla anserina*), State threatened
Smaller Forget-me-not (*Myosotis laxa*), State threatened
Sticky Goldenrod (*Solidago simplex* var. *gillmanii*), State threatened
Trailing Arbutus (*Epigaea repens*), State threatened
Zigzag Bladderwort (*Utricularia subulate*), State threatened

Mammal

Eastern Red Bat (*Lasiurus borealis*), State special concern

Amphibian

Common Mudpuppy (*Necturus maculosus*), State special concern

Fish

Lake Sturgeon (*Acipenser fulvescens*), State endangered

Longnose Dace (*Rhinichthys cataractae*), State special concern

Birds

Migratory Bird Concentration Area

Shorebird Migratory Concentration Area

American Bittern (*Botaurus lentiginosus*), State endangered

Black-crowned Night-heron (*Nycticorax nycticorax*), State endangered

Common Gallinule (*Gallinula galeata*), State endangered

Marsh Wren (*Cistothorus palustris*), State endangered

Piping Plover (*Charadrius melodus*), State endangered

Rufa Red Knot (*Calidris canutus rufa*), State endangered

Virginia Rail (*Rallus limicola*), State endangered

Black-and-white Warbler (*Mniotilta varia*), State special concern

Peregrine Falcon (*Falco peregrinus*), State special concern

Other

Wisconsin Stripetail (*Isoperla frisoni*), State endangered

Fish and Wildlife Comments:

Avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible, and compensate for impacts. The following are recommendations that address potential impacts identified in the proposed project area:

A) Heritage Species

The Division of Fish and Wildlife does not anticipate any significant impacts to the above-listed bird, fish, or amphibian species due to this project. Do not cut any trees within the project area from April 1 through September 30 to avoid impacts to the Red Bat. The Red Bat is a foliage roosting species and shows no strong preference for tree size or species.

B) Wetlands

Due to the presence or potential presence of wetland habitat on site, we recommend contacting and coordinating with the Indiana Department of Environmental Management (IDEM) 401 program and the US Army Corps of Engineers (USACE) 404 program.

C) Pavement Rehabilitation

Pavement rehabilitation projects typically do not have a significant impact on fish, wildlife, and botanical resources if best management practices (BMPs) are in place to limit the migration of polycyclic aromatic hydrocarbons (PAHs) into local waterways. PAHs are a byproduct of asphalt and coal tar-based sealants and negatively impact aquatic systems. The use of sealants that are free of petroleum and coal tar-based products is encouraged whenever possible. Contaminated road runoff can significantly impact the aquatic environment through increased turbidity and release of sediment into the stream which can be harmful to fish and other aquatic organisms, their eggs, and their food supply. Where possible, road runoff should be directed to riprap turnouts and sediment filtration prior to entering a stream to reduce impacts to aquatic species. We recommend the use of pollutant trapping technology such as storm drain inserts to reduce the runoff of roadside pollutants where appropriate.

D) Drainage and Stormwater Management

The Division of Fish and Wildlife recommends considering a more sustainable approach to stormwater management. The traditional model of stormwater management aims to drain runoff as quickly as possible with the help of channels and pipes, which increases peak flows and costs of stormwater management. This type of solution only transfers drainage problems from one section of a basin to another. A more sustainable approach should aim to rebuild the natural water cycle by using storage techniques (retention basins, constructed wetlands, raingardens, etc.) and recharging groundwater using infiltration techniques (infiltration basins or trenches, pervious pavement, etc.). The following links give a good overview of traditional and sustainable stormwater management systems and their pros and cons for consideration during the design of the proposed project: <https://www.epa.gov/greeningepa/epa-facility-stormwater-management>; <https://www.epa.gov/greeningepa/stormwater-management-practices-epa-facilities>.

E) Stream Crossing Design

Wildlife passage across the impacted roadway is likely. Bridges are preferred over culverts, and three-sided culverts are preferred over box or pipe culverts. Multiple culverts or culverts with multiple openings are not recommended for approval. These types of structures are often problematic for fish and wildlife passage as they tend to accumulate debris and become blocked. If box and pipe culverts are used, the culvert bottoms should be sumped a minimum of 6" (or 20% of the culvert height or diameter, whichever is greater up to a maximum of 2') below the stream bed elevation. Sumping is not required for bridges or three-sided culverts. Crossings must span the entire channel width (a minimum of 1.2 times the ordinary high-water mark width). Crossings must maintain the natural stream substrate within the structure (natural stream substrate must be replaced in sumped box and pipe culverts up to the existing flowline). Scour protection at the inlet and outlet must not extend above the existing flowline elevation. Stream depth, channel width and water velocities in the crossing structure during low-flow conditions must approximate those in the natural stream channel.

The new/replacement/rehabilitated crossing structures, and any bank stabilization under or around the structures, must not create conditions that are less favorable for wildlife passage when compared to existing conditions. Upgrading wildlife passage for replacement/rehabilitated structures is recommended whenever possible to improve wildlife/vehicle safety. White-tailed deer passage must be incorporated into all new structures where no structure previously existed. Minimum structure dimensions for white-tailed deer passage are 20 feet of width clearance (overall span of the structure) and 8 feet of height clearance measured from the ordinary high-water mark (OHWM). Bank lines must be maintained or restored within structures to allow for wildlife passage above the OHWM. All wildlife passage designs must include a smooth level pathway preferably 3 feet wide but a minimum of 1-2 feet in width composed of natural substrate (soil, sand, gravel, etc.) or compacted aggregate fill over riprap (#2, #53, #73, etc.) tied into existing elevations both upstream and downstream. The width and location of the wildlife pathway is dependent on the wildlife species using the area.

There are several techniques and materials for incorporating wildlife passage into the design of a crossing structure. Coordination with a Regional Environmental Biologist to address wildlife passage issues before submitting a permit application (if required) is encouraged to avoid delays in the permitting process. The following links are good resources to consider in the design of stream crossing structures to maintain fish and wildlife passage:

<https://www.fs.usda.gov/ccrc/tool/fishxing-fish-passage-learning-systems>
<https://www.fs.usda.gov/wildlifecrossings/library/index.php>
https://www.fhwa.dot.gov/clas/ctip/wildlife_crossing_structures/
<https://www.fhwa.dot.gov/engineering/hydraulics/pubs/11008/hif11008.pdf>

F) Streambank Stabilization

Some form of bank stabilization is almost always needed with the construction, repair, replacement, or modification of a stream channel or crossing structure. For streambank stabilization and erosion control, regrading to a stable slope (2:1 or shallower) and establishing native vegetation along the banks are typically the most effective techniques and allow a vegetated stream bank to develop. A variety of methods to accomplish this include planting plugs, whips, container stock, seeding, and live stakes. In addition to vegetation establishment, some additional level of bioengineered bank stabilization may be needed under certain circumstances (inability to regrade to a stable slope, flow velocities that exceed the limits of vegetation alone, etc.). Combining vegetation with any of the following bank stabilization methods can provide additional bank protection while not compromising benefits to fish, wildlife, and botanical resources:

- Geotextiles (erosion control blankets and/or turf reinforcement mats that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles)
- Vegetated geogrids or soil lifts, fiber rolls, glacial stone, or riprap.

Riprap or other hard bank stabilization materials should be used only at the toe of the sideslopes up to the OHWM with the exception of areas directly under bridges for instance. The banks above the OHWM should be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. Information about bioengineering techniques can be found at the following link to a USDA/NRCS document that outlines many different bioengineering techniques for streambank stabilization: https://irrigationtoolbox.com/NEH/Part650_EngineeringFieldHandbook/H_210_650_16.pdf.

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:

1. Revegetate all bare and disturbed areas that are not currently mowed and maintained with a mixture of grasses, sedges, and wildflowers native to Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion; turf-type grasses (including low-endophyte, friendly endophyte, and endophyte free tall fescue but excluding all other varieties of tall fescue) may be used in currently mowed areas only. A native herbaceous seed mixture must include at least 5 species of grasses and sedges and 5 species of wildflowers.
2. Minimize and contain within the project limits inchannel disturbance and the clearing of brush.

3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.
4. Do not cut any trees suitable for Indiana Bat or Northern Long-eared Bat roosting (3 inches or greater diameter-at-breast height, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
5. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds.
6. Use minimum average 6-inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
7. Do not use broken concrete as riprap.
8. Underlay the riprap with a bedding layer of well graded aggregate or a geotextile to prevent piping of soil underneath the riprap.
9. All excavated material must be properly spread or completely removed from the project site such that erosion and off-site sedimentation of the material is prevented.
10. Minimize the movement of resuspended bottom sediment from the immediate project area.
11. Do not deposit or allow construction/demolition materials or debris to fall or otherwise enter the waterway. Any incidental fallen material or debris in the waterway must be removed within 24 hours using best management practices, particularly lifting material out of the waterway and not dragging it across the streambed whenever possible.
12. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the waterbody or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
13. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

Contact Staff:

Our agency appreciates this opportunity to be of service. Please contact me at RVanVoorhis@dnr.IN.gov or (317) 232-8163 if we can be of further assistance.

Rachel Van Voorhis

Rachel Van Voorhis
Environmental Coordinator
Division of Fish and Wildlife

Date: June 20, 2025

ER-24425: Managed lands, natural communities, and species documented within 1/2 mile of the project area.
(Rank: SE=state endangered, ST=state threatened, WL=state watch list, SSC=state special concern)

A) MANAGED LANDS:

Michigan City Fish & Wildlife Headquarters; DNR
Robert Peo Public Access Site; DNR
Indiana Dunes National Park; NPS
Ambler Flatwoods; Shirley Heinze Land Trust
Hansen Park/Winding Creek Cove & Greenway; Michigan City Parks (LWCF property)
Jerrigan's Hill Park; Michigan City Parks
Trail Creek Public Access Site; Michigan City Parks
Washington Park; Michigan City Parks

B) NATURAL COMMUNITIES:

Dry Sand Prairie
Northwestern Morainal Dry-mesic Upland Forest
Northwestern Morainal Dry Upland Forest
Wet-mesic Floodplain Forest

C) PLANTS:

Bristly Sarsaparilla	(<i>Aralia hispida</i>)	SE
Finely-nerved Sedge	(<i>Carex leptoneura</i>)	SE
Pipsissewa	(<i>Chimaphila umbellata</i> ssp. <i>cisatlantica</i>)	SE
Dune Thistle	(<i>Cirsium pitcheri</i>)	SE
Northern Bog Clubmoss	(<i>Lycopodiella inundata</i>)	SE
Nuttall Pondweed	(<i>Potamogeton epihydrus</i>)	SE
Strict Blue-eyed-grass	(<i>Sisyrinchium montanum</i>)	SE
Seabeach Needlegrass	(<i>Aristida tuberculosa</i>)	ST
Golden-fruited Sedge	(<i>Carex aurea</i>)	ST
Long Sedge	(<i>Carex folliculate</i>)	ST
Hickey's Clubmoss	(<i>Dendrolycopodium hickeyi</i>)	ST
Tree Clubmoss	(<i>Dendrolycopodium obscurum</i>)	ST
Deep-root Clubmoss	(<i>Diphasiastrum tristachyum</i>)	ST
Trailing Arbutus	(<i>Epigaea repens</i>)	ST
Scirpus-like Rush	(<i>Juncus scirpoides</i>)	ST
Ground Juniper	(<i>Juniperus communis</i> var. <i>depressa</i>)	ST
Michaux's Stitchwort	(<i>Minuartia michauxii</i> var. <i>michauxii</i>)	ST
Smaller Forget-me-not	(<i>Myosotis laxa</i>)	ST
Carey's Smartweed	(<i>Persicaria careyi</i>)	ST
Jack Pine	(<i>Pinus banksiana</i>)	ST
Blackseed Needlegrass	(<i>Piptochaetium avenaceum</i>)	ST
Eastern Jointweed	(<i>Polygonum articulatum</i>)	ST
Silverweed	(<i>Potentilla anserina</i>)	ST
Fire Cherry	(<i>Prunus pensylvanica</i>)	ST
Sticky Goldenrod	(<i>Solidago simplex</i> var. <i>gillmanii</i>)	ST
Shining Ladies'-tresses	(<i>Spiranthes lucida</i>)	ST
Lesser Bladderwort	(<i>Utricularia minor</i>)	ST
Zigzag Bladderwort	(<i>Utricularia subulate</i>)	ST
Slim-spike Three-awn Grass	(<i>Aristida longespica</i> var. <i>geniculate</i>)	WL
Shining Clubmoss	(<i>Huperzia lucidula</i>)	WL
Baltic Rush	(<i>Juncus balticus</i> var. <i>littoralis</i>)	WL

D) INSECT:

Wisconsin Stripetail	(Isoperla frisoni)	SE
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E) BIRDS:

American Bittern	(Botaurus lentiginosus)	SE
Marsh Wren	(Cistothorus palustris)	SE
Common Gallinule	(Gallinula galeata)	SE
Black-crowned Night-heron	(Nycticorax nycticorax)	SE
Virginia Rail	(Rallus limicola)	SE
Black-and-white Warbler	(Mniotilta varia)	SSC

F) FISH:

Lake Sturgeon	(Acipenser fulvescens)	SE
Longnose Dace	(Rhinichthys cataractae)	SSC

G) AMPHIBIAN:

Common Mudpuppy	(Necturus maculosus)	SSC
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H) MAMMAL:

Eastern Red Bat	(Lasiurus borealis)	SSC
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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • Fax (317) 233-6647 • www.idem.IN.gov

Mike Braun, Governor

Date: June 30, 2025

INDOT – LaPorte District
Scott Mason
315 E Boyd Blvd
LaPorte, IN 45350

Lawson-Fisher Associates P.C.
Lisa Harris
525 West Washington Avenue
South Bend, IN 46601

Dear Grant Administrator or Other Finance Approval Authority:

RE: The INDOT and FHWA intend to proceed with the U.S. 12 HMA Overlay, Preventive Maintenance Project from the Porter/LaPorte County Line to the Michigan State Line, Des. Nos. 200607 (Lead), 2101096, and 2500075. The project scope involves: HMA Overlay from the Porter/LaPorte line to the Michigan state line and roadway right sizing at select locations; curb ramp reconstruction to ADA standards at 17 intersections; the replacement of 23 castings, four 18-inch and four 15 inch culverts, 1 inlet, and 20-ft of 12-inch storm sewer; adjusting 18 castings to grade; clearing of 5 inlets and 1 dry well; a culvert replacement and an intersection improvement on the west end of the project area; two traffic signal modernizations; replacing INDOT ground mounted sheet signs 15 years and older; installing compliant RR crossing signs; and, full depth pavement widening at the Singing Sands Trail and at the U.S. 12 intersection with S.R. 212. The existing culvert at Kintzele Ditch on the west end of the project area is comprised of two culverts to be replaced with one 6-foot wide, 4-foot high, 76-foot long RCB culvert with no riprap at the ends due to its function as an equalizer structure between wetlands on both sides of U.S. 12. Riprap is anticipated at the 15-inch and 18-inch culvert outlets. The intersection improvement will entail removing the two existing junctures between U.S. 12 and the east end of Beverly Drive and reconstructing a single juncture between U.S. 12 and Beverly Drive with a superelevation correction, revised horizontal curve, and pavement construction.

The Indiana Department of Environmental Management (IDEM) is aware that many local government or not-for-profit entities are seeking grant monies, a bond issuance, or another public funding mechanism to cover some portion of the cost of a public works, infrastructure, or community development project. Additionally, eligibility for funding assistance, requires applicants to evaluate the potential impacts that their project may have on the environment. To assist applicants seeking such financial assistance and to ensure that such projects have no adverse impacts on the environment, IDEM has prepared the following list of environmental issues that each applicant must consider minimizing environmental impacts to ensure compliance with all relevant state laws.

IDEM recommends that each applicant consider the following issues when moving forward with their project. IDEM also requests that, in addition to submitting the information requested above, each applicant also sign the attached certification, attesting to the fact that they have read the letter in its entirety, agree to abide by the recommendations of the letter, and to apply for any permits required from IDEM for the completion of their project.



IDEM recommends that any person(s) intending to complete a public works, infrastructure, or community development project using any public funding consider each of the following applicable recommendations and requirements:

Water and Biotic Quality

1. Section 404 of the Clean Water Act requires that you obtain a permit from the U.S. Army Corps of Engineers (USACE) before discharging dredged or fill materials into any wetlands or other waters, such as rivers, lakes, streams, and ditches. Other activities regulated include the relocation, channelization, widening, or other such alteration of a stream, and the mechanical clearing (use of heavy construction equipment) of wetlands. Thus, as a project owner or sponsor, it is your responsibility to ensure that no wetlands or other waters are disturbed without the proper permit. Although you may initially refer to the U.S. Fish and Wildlife Service National Wetland Inventory maps as a means of identifying potential areas of concern, please be mindful that those maps do not depict jurisdictional wetlands regulated by the USACE or the Department of Environmental Management. A valid jurisdictional wetlands determination can only be made by the USACE, using the 1987 Wetland Delineation Manual.

USACE recommends that you have a consultant check to determine whether your project will abut, or lie within, a wetland or other water. To view a list of consultants that have requested to be included on a list posted by the USACE on their Web site, click the following link: <https://www.lrl.usace.army.mil/Missions/Regulatory/Consultants.aspx> Please note that the USACE posts all consultants that request to appear on the list, and that inclusion of any particular consultant on the list does not represent an endorsement of that consultant by the USACE, or by IDEM.

Much of northern Indiana (Newton, Jasper, Starke, Marshal, Kosciusko, Whitley, Noble, Allen, southern LaPorte, St. Joseph, Elkhart, LaGrange, Steuben, and Dekalb counties) is served by the USACE Detroit District Michiana Branch in South Bend (574-232-1952). The counties of Lake, Porter, and the northern part of LaPorte are served by the USACE Chicago District in Chicago (312-846-5530). All other remaining counties in the central and southern part of the state are served by the USACE Louisville District Office (502-315-6733).

Additional information on contacting these U.S. Army Corps of Engineers (USACE) District Offices, government agencies with jurisdiction over wetlands, and other water quality issues, can be found at <https://www.in.gov/idem/wetlands/information-about/us-army-corps-of-engineers/>. IDEM recommends that impacts to wetlands and other water resources be avoided to the fullest extent.

2. In the event a Section 404 wetlands permit is required from the USACE, you also must obtain a Section 401 Water Quality Certification from the IDEM Office of Water Quality. To learn more about the water quality certification program, visit: <https://www.in.gov/idem/wetlands/information-about/section-401-water-quality-certification/>.
3. If the USACE determines that a wetland or other body of water is isolated and not subject to Clean Water Act regulation, it may still be regulated by the state of Indiana. A state isolated wetland permit from IDEM's Office of Water Quality is required for any activity that results in the discharge of dredged or fill materials into isolated wetlands. To learn more about isolated wetlands, contact the Office of Water Quality at 317-233-8488 or visit: <https://www.in.gov/idem/wetlands/contact/>.
4. If your project will impact more than 0.5 acres of wetland, stream relocation, or other large-scale alterations to bodies of water such as the creation of a dam or a water diversion, you should seek additional input from the Office of Water Quality, Wetlands staff at 317-233-8488 or visit: <https://www.in.gov/idem/wetlands/contact/>.
5. Work within the one-hundred-year floodway of a given body of water is regulated by the Department of Natural Resources, Division of Water. Contact this agency at 317-232-4160 or toll free 1-877-928-3755 for further information.

6. The physical disturbance of the stream and riparian vegetation, especially large trees overhanging any affected water bodies should be limited to only that which is absolutely necessary to complete the project. The shade provided by the large overhanging trees helps maintain proper stream temperatures and dissolved oxygen for aquatic life.
7. For projects involving construction activity (which includes clearing, grading, excavation, and other land disturbing activities) that result in the disturbance of one (1), or more, acres of total land area, project will be required to obtain permit coverage.

For additional information on permitting procedures under the Construction Stormwater General Permit (CSGP) please contact the Office of Water Quality, Stormwater Program at Stormwat@idem.in.gov. Visit the following webpage for additional information: <https://www.in.gov/idem/stormwater/construction-land-disturbance-permitting/>

To obtain permit coverage an applicant will need to identify if the project is within a Municipal Separate Storm Sewer System (MS4). Information may be obtained at <https://www.in.gov/idem/stormwater/construction-land-disturbance-permitting/construction-plan-submittal-and-review/>.

If the project is within a MS4, the Construction Plan must be developed to meet the requirements of the local MS4 stormwater ordinance. For projects outside an MS4 or owned and operated by a MS4, construction plans may be submitted through the Regulatory ePortal at <https://stormwater.idem.in.gov/ncore/external/home>. When accessing the portal, you will also be informed if your plans should be submitted to a local Soil and Water Conservation District that reviews construction plans on behalf of IDEM.

The construction plan must be reviewed prior to obtaining permit coverage under the CSGP. Upon receipt of the construction plan, the MS4 or personnel of the SWCD or the Indiana Department of Environmental Management will review the plan to determine if it meets the requirements of an applicable MS4 ordinance or the CSGP. Plans that are deemed deficient will require re-submittal. If the plan is sufficient, you will be notified and instructed to submit the verification to IDEM as part of the CSGP Notice of Intent (NOI) submittal. All NOI submittals must be submitted to IDEM electronically through the Regulatory ePortal at <https://stormwater.idem.in.gov/ncore/external/home>.

Regardless of the size of your project, or which agency you work with to meet stormwater requirements, IDEM recommends that appropriate structures and techniques be utilized both during the construction phase, and after completion of the project, to minimize the impacts associated with stormwater run-off. The use of appropriate planning and site development and appropriate stormwater quality measures are recommended to prevent sediment from leaving the construction site during active land disturbance and for post-construction water quality concerns.

8. For projects involving impacts to fish and botanical resources, contact the Department of Natural Resources - Division of Fish and Wildlife (317-232-4080) for additional project input.
9. For projects involving water main construction, water main extensions, and new public water supplies, contact the Office of Water Quality - Drinking Water Branch (317-234-7418) regarding the need for permits.
10. For projects involving effluent discharges to waters of the State of Indiana, contact the Office of Water Quality - Permits Branch (317-232-8704) regarding the need for a National Pollutant Discharge Elimination System (NPDES) permit.
11. For projects involving the construction of wastewater facilities and sewer lines, contact the Office of Water Quality - Permits Branch (317-232-5579) regarding the need for permit.

The above-noted project (see page 1) should be designed to minimize any impact on ambient air quality in, or near, the project area. The project must comply with all federal and state air pollution regulations. Consideration should be given to the following:

1. If your project involves the construction of a new source of air emissions or the modification of an existing source of air emissions or air pollution control equipment, it will need to be reviewed by the IDEM Office of Air Quality (OAQ). A registration or permit may be required under 326 IAC 2 (<http://www.in.gov/legislative/iac/T03260/A00020.PDF>). For more information on air permits, visit <https://www.in.gov/idem/airpermit/>, or to initiate the IDEM air permitting process, please contact the Office of Air Quality Permits Branch at 317-233-3861 or to request a pre-application meeting / discuss application call 317-234-5132 or email mccline@idem.in.gov. You can also contact IDEM's Compliance and Technical Assistance Program (CTAP) for free, confidential compliance and technical assistance at 317-232-8172, toll free: 800-988-7901 (in-state only), or visit <https://www.in.gov/idem/ctap/about-compliance-and-technical-assistance/>.

If your project involves asphalt paving, ensure that asphalt paving plants are permitted and operate properly. The use of cutback asphalt, or asphalt emulsion containing more than seven percent (7%) oil distillate, is prohibited during the months of April through October (see the Asphalt Paving Rule, 326 IAC 8-5-2 <http://www.in.gov/legislative/iac/T03260/A00080.PDF>).

2. Sources that use or emit hazardous air pollutants may be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) of the Clean Air Act and corresponding state air regulations governing hazardous air pollutants. Information on the NESHAP source categories and their corresponding requirements can be found at: <https://www.epa.gov/stationary-sources-air-pollution/national-emission-standards-hazardous-air-pollutants-neshap-8> and the corresponding State rules at 326 IAC 20 <http://www.in.gov/legislative/iac/T03260/A00200.PDF>. Contact the IDEM's Compliance and Technical Assistance Program (CTAP) for free, confidential compliance and technical assistance at 317-232-8172, toll free: 800-988-7901 (in-state only), or visit <https://www.in.gov/idem/ctap/about-compliance-and-technical-assistance/> for help determining if a NESHAP applies to your business.
3. Indiana's open burning laws and rules make it illegal to burn trash and generally prohibit open burning in Indiana, but allows for exemptions for some types of burning. Many of the types of open burning allowed under specific conditions require prior approval before burning <https://www.in.gov/idem/openburning/open-burning-that-requires-idems-prior-approval/>. You also can seek an open burning approval for land clearing for development or change in land use, live fire training, and prescribed burning for natural land management purposes. For more information on open burning, please contact the Air Compliance and Enforcement Branch at 317-233-2721 or burnapprovals@idem.IN.gov.
4. With respect to asbestos removal, all facilities slated for renovation or demolition (except residential buildings that have four (4) or fewer dwelling units and that will not be used for commercial purposes) must be inspected by an Indiana-licensed asbestos inspector prior to the commencement of any renovation or demolition activities. If regulated asbestos-containing material (RACM) that may become airborne is found, any subsequent demolition, renovation, or asbestos removal activities must be performed in accordance with the proper notification and emission control requirements. Indiana's Asbestos Rules can be found at <http://iac.iga.in.gov/iac/T03260/A00140.PDF>. For questions on asbestos demolition and renovation activities, please visit <https://www.in.gov/idem/asbestos/>, <https://www.in.gov/idem/asbestos/contact/>, or contact the Asbestos Program at AsbestosDemoReno@idem.in.gov or 317-232-4861.

If no asbestos is found where a renovation activity will occur, or if the renovation involves removal of less than 260 linear feet of RACM off pipes, less than 160 square feet of RACM off other facility components, or less than 35 cubic feet of RACM from all facility components, the owner or operator of the project does not need to notify IDEM before beginning the renovation activity.

In all cases where a demolition activity will occur (even if no asbestos is found), the owner or operator must still notify IDEM 10 working days prior to the demolition, using the form found at https://www.in.gov/idem/forms/idem-agency-forms/#oag_compliance_asbestos.

Anyone submitting a renovation/demolition notification form will be billed a notification fee based upon the amount of friable asbestos containing material to be removed or demolished. Projects that involve the removal of more than 2,600 linear feet of friable asbestos containing materials on pipes, or 1,600 square feet or 400 cubic feet of friable asbestos containing material on other facility components, will be billed a fee of \$150 per project; projects below these amounts will be billed a fee of \$50 per project. Billings will occur on a quarterly basis.

5. Reasonable precautions must be taken to minimize fugitive dust emissions from construction and demolition activities. For example, wetting the area with water, constructing wind barriers, or treating dusty areas with chemical stabilizers (such as calcium chloride or several other commercial products). Dirt tracked onto paved roads from unpaved areas should be minimized. A copy of the Fugitive Dust Rule, 326 IAC 6-4 can be found at <http://www.in.gov/legislative/iac/T03260/A00060.PDF> and information on controlling fugitive dust can be found at <https://www.in.gov/idem/aircompliance/fugitive-dust/>

If construction or demolition is conducted in a wooded area where starlings and blackbirds have roosted or abandoned buildings or building sections in which pigeons or bats have roosted for 3 to 5 years, precautionary measures should be taken to avoid an outbreak of histoplasmosis. This disease is caused by the fungus *Histoplasma capsulatum*, which stems from bird or bat droppings that have accumulated in one area for 3 to 5 years. The spores from this fungus become airborne when the area is disturbed and can cause infections over an entire community downwind of the site. The area should be wetted down prior to cleanup or demolition of the project site. For more detailed information on histoplasmosis prevention and control see <https://www.in.gov/health/erc/infectious-disease-epidemiology/histoplasmosis-a-hoosier-concern/> or please contact the Epidemiology Resource Center of the Indiana Department of Health at 317-234-7125.

6. The U.S. EPA further recommends that all homes and apartments (within three stories of ground level) be tested for radon. If in-home radon levels are determined to be 4 pCi/L or higher, then U.S. EPA recommends a follow-up test. If the second test confirms that radon levels are 4 pCi/L or higher, then U.S. EPA recommends the installation of radon-reduction measures. For a list of qualified radon testers and radon mitigation (or reduction) specialists, visit <https://www.in.gov/health/lead-and-healthy-homes-division/radon-information/information-for-homeowners/>. Also, it is recommended that radon reduction measures be built into all new homes, particularly in areas like Indiana that have moderate to high predicted radon levels.

To learn more about radon, radon risks, and ways to reduce exposure, visit <https://www.in.gov/idem/health/common-environmental-health-threats/radon/> or <https://www.epa.gov/radon>

7. With respect to lead-based paint removal, the Indiana Department of Health (IDOH) encourages all efforts to minimize human exposure to lead-based paint chips and dust. IDOH is particularly concerned that young children exposed to lead can suffer from learning disabilities. Indiana law states that any companies or individuals who perform lead abatement on targeted housing (houses or child occupied facilities built before 1978) must:

- be licensed by IDOH as an abatement contractor,
- provide written notification to the IDOH of each abatement project,
- conduct a pre-abatement lead inspection or lead hazard screen,
- conduct abatement activities using appropriately licensed individuals,
- conduct the abatement activities using lead safe work practices, and
- pass a post-abatement clearance procedure.

For more information about lead-based paint removal, visit <https://www.in.gov/health/lead-and-healthy-homes-division/abatement-information/>

Land Quality

To maintain compliance with all applicable laws regarding contamination and proper waste disposal, IDEM recommends that:

1. If the site is found to contain any areas used to dispose of solid or hazardous waste, you need to contact the Office of Land Quality (OLQ) at 317-234-6923.
2. All solid wastes generated by the project, or removed from the project site, need to be taken to a properly permitted solid waste processing or disposal facility. For more information, visit https://www.in.gov/idem/waste/files/permits_issued_SW_facilities.pdf.
3. If any contaminated soils are discovered during this project, they may be subject to disposal as solid and/or hazardous waste. Please contact the OLQ at 317-234-6923 to obtain information on proper disposal procedures.
4. If Polychlorinated Biphenyls (PCBs) are found at any concentration at this site, please contact the Industrial Waste Section of OLQ at 317-234-6951 for information regarding management of any PCB wastes from this site.
5. If there are any asbestos disposal issues related to this site, please contact the Solid Waste Compliance of OLQ at 317-234-6923 for information regarding the management of asbestos wastes. (Asbestos removal is addressed above, under Air Quality.
6. If the project involves the installation or removal of an underground storage tank, or involves contamination from an underground storage tank, you must contact the IDEM Underground Storage Tank program at 317-234-5745, or at <https://www.in.gov/idem/tanks/contact/>.

Final Remarks

Should the applicant need to obtain any environmental permits in association with this proposed project, please be mindful that IC 13-15-8 requires that they notify all adjoining property owners and occupants within ten days of your submittal of each permit application. Applicants seeking multiple permits, may still meet the notification requirement with a single notice if all required permit applications are submitted with the same ten-day period.

Please note that this letter does not constitutes a permit, license, endorsement, or any other form of approval on the part of either the Indiana Department of Environmental Management or any other Indiana state agency.

Should you have any questions relating to the content or recommendations of this letter, or if you have additional questions about whether a more complete environmental review of your project should be conducted, please feel free to contact Patrick Colcord at (317) 234-7134, pcolcord@idem.in.gov.

Signature(s) of the Applicant

I acknowledge that I am seeking grant monies, a bond issuance, or other public funding mechanism to cover some portion of the cost of the public works, infrastructure, or community development project as described herein, which I am working (possibly with others) to complete.

Project Description

The INDOT and FHWA intend to proceed with the U.S. 12 HMA Overlay, Preventive Maintenance Project from the Porter/LaPorte County Line to the Michigan State Line, Des. Nos. 200607 (Lead), 2101096, and 2500075. The project scope involves: HMA Overlay from the Porter/LaPorte line to the Michigan state line and roadway right sizing at select locations; curb ramp reconstruction to ADA standards at 17 intersections; the replacement of 23 castings, four 18-inch and four 15 inch culverts, 1 inlet, and 20-ft of 12-inch storm sewer; adjusting 18 castings to grade; clearing of 5 inlets and 1 dry well; a culvert replacement and an intersection improvement on the west end of the project area; two traffic signal modernizations; replacing INDOT ground mounted sheet signs 15 years and older; installing compliant RR crossing signs; and, full depth pavement widening at the Singing Sands Trail and at the U.S. 12 intersection with S.R. 212. The existing culvert at Kintzele Ditch on the west end of the project area is comprised of two culverts to be replaced with one 6-foot wide, 4-foot high, 76-foot long RCB culvert with no riprap at the ends due to its function as an equalizer structure between wetlands on both sides of U.S. 12. Riprap is anticipated at the 15-inch and 18-inch culvert outlets. The intersection improvement will entail removing the two existing junctures between U.S. 12 and the east end of Beverly Drive and reconstructing a single juncture between U.S. 12 and Beverly Drive with a superelevation correction, revised horizontal curve, and pavement construction.

With my signature, I do hereby affirm that I have read the letter from the Indiana Department of Environmental Management that appears directly above. In addition, I understand that to complete the project in which I am interested, with a minimum impact to the environment, I must consider all the issues addressed in the letter, and further, that I must obtain any required permits.

Dated Signature of the Public Owner
Contact/Responsible Elected Official

Scott Mason

7/3/2025

Scott Mason

Date

Dated Signature of the Project
Planner/Consultant Contact Person

Lisa Harris

June 30, 2025

Lisa Harris

Date



United States Department of the Interior Fish and Wildlife Service



Indiana Field Office (ES)
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

January 31, 2022

Ms. Lisa A. Harris
Lawson-Fisher Associates
c/o INDOT
100 North Senate Avenue, Room N758-ES
Indianapolis, Indiana 46204

Project No.: Des. 2000607
Project: Rehabilitation of US 12
Location: LaPorte County

Dear Ms. Harris:

This responds to your letter dated January 21, 2022, requesting our comments on the aforementioned project.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

The proposed project consists of a pavement overlay throughout the 8.05 miles of US 12 through LaPorte County, from the Porter/LaPorte County line on the west to the Michigan State Line on the northeast. The project also includes improvements to drainage structures, with cured-in-place pipe liners (CIPP) for 28 pipes and replacement of 11 pipes/culverts; additional structures will be repaired as needed, perhaps with new inlets or outlets. The structures will be cleaned as necessary. Curb ramps at pedestrian crossings will be evaluated for ADA compliance and repaired/replaced as necessary. Traffic signals will be modernized. The bridge crossing Trail Creek is not included within the project. Minor amounts of temporary and permanent right-of-way will be needed.

ENDANGERED SPECIES

The proposed project is within the range of the Federally endangered Indiana bat (*Myotis sodalis*) and piping plover (*Charadrius melodus*), the threatened northern long-eared bat (*Myotis septentrionalis*), eastern massasauga rattlesnake (*Sistrurus catenatus*), and Pitcher's thistle (*Cirsium pitcheri*), and the candidate Monarch butterfly (*Danaus plexippus*). Project impacts on the 2 bat species will be evaluated utilizing the Range-wide Programmatic Section 7 Informal Consultation process. There is no habitat for the other 4 species within the proposed project area, which is the right-of-way of US 12.

This precludes the need for further consultation on this project for the piping plover, eastern massasauga, Pitcher's thistle, and Monarch butterfly as required under Section 7 of the Endangered Species Act of 1973, as amended. However, should new information arise pertaining to project plans or a revised species list be published, it will be necessary for the Federal agency to reinitiate consultation.

We appreciate the opportunity to comment on this proposed project. For further discussion, please contact Elizabeth McCloskey at elizabeth_mccloskey@fws.gov.

Sincerely yours,

/s/ *Elizabeth S. McCloskey*

for Scott E. Pruitt
Supervisor

Sent via email January 31, 2022; no hard copy to follow.

From: [Keil, Christine](#)
To: [Lisa Harris](#)
Cc: [Hendricks, Anthony](#); [Lahners, Adam](#); [Mason, Scott](#)
Subject: Early Coord Letter Des No 2000607 US 12
Date: Wednesday, January 26, 2022 12:06:32 PM
Attachments: [image001.png](#)
[INDOT Early Coord Lttr.pdf](#)

Lisa:

We have received the packet regarding the above named project. Neither the LaPorte County Surveyor nor the LaPorte County Drainage Board have any jurisdiction at the site and therefore no comments.

We would like to request that you update our contact information as shown below. In the future, could you also please email the packets rather than sending them UPS? We greatly appreciate it.

Mr. Anthony Hendricks, PS
LaPorte County Surveyor
ahendricks@laporteco.in.gov

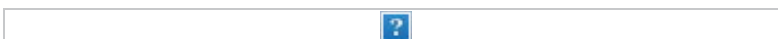
The address for the LaPorte County Drainage Board is listed as 809 State Street. This is incorrect, see below. The Drainage Board is in the County Surveyor's office.

LaPorte County Drainage Board
555 Michigan Avenue, Suite 104
LaPorte, Indiana 46350
ckeil@laporteco.in.gov

Thank you very much.

Christine J. Keil, PS
Party Chief
La Porte County Drainage Board
555 Michigan Avenue, Suite 104
La Porte, Indiana 46350
(219) 326-6808 X2285
ckeil@laporteco.in.gov

Due to the nature of the work performed by the staff, occasionally there are times when no one will be in the office. Please call before making a special trip.



From: [Courtade, Julian](#)
To: [Lisa Harris](#)
Subject: RE: Environmental Early Coordination - U.S. 12 HMA Overlay Preventive Maintenance Project - Des No. 2000607
Date: Monday, January 24, 2022 8:26:22 AM
Attachments: [image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)

Lisa –

After reviewing the Early Coordination Letter, I have determined that if any object, obstruction, or equipment will exceed 150 ft. in height, further coordination will be required with our office and the FAA. This is due to the close proximity of Michigan City Airport and the need for any obstructions within 5 miles to meet a 100:1 glideslope to the nearest runway according to 14 CFR Part 77 standards. You can find these standards and information on filing at the website below:

<https://oeaaa.faa.gov/oeaaa/external/portal.jsp>

Please let me know if you have any questions!

Best,

Julian L. Courtade

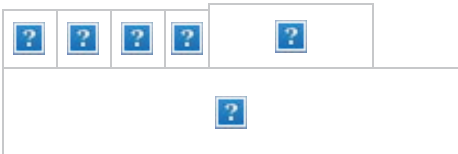
Chief Airport Inspector

100 North Senate Ave, N758-MM

Indianapolis, IN 46204

Cell: (317) 954-7385

Email: jcourtade@indot.in.gov



From: Lisa Harris <lharris@lawson-fisher.com>
Sent: Friday, January 21, 2022 12:45 PM
To: Courtade, Julian <JCourtade@indot.IN.gov>
Subject: Environmental Early Coordination - U.S. 12 HMA Overlay Preventive Maintenance Project - Des No. 2000607

**** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ****

Good Afternoon,

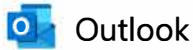
On behalf of the Indiana Department of Transportation (INDOT), please find the attached pdf containing information related to the Environmental Early Coordination Efforts for the U.S. 12 HMA and Small Structure Maintenance Project in LaPorte County, Indiana (INDOT Des No. 2000607).

Please feel free to contact me with any questions or comments.

Thank you,
Lisa



Lisa Harris, MSES/MPA | Environmental Document Specialist
525 West Washington Avenue | South Bend, IN 46601
O: 574-234-3167
C: 802-989-5403
www.lawson-fisher.com



Re: Early Coordination Letter Des. 2000607, 2101096, 250075 Roadway Project Along US 12 Porter and LaPorte Counties

From Lamb, Patrick A <PLamb@indot.IN.gov>
Date Fri 5/23/2025 7:52 AM
To Catherine Holland <catherineh@metricenv.com>

Hello Catherine!

After review, the closest your project site gets to a public-use facility is around 12,500 feet. If any equipment or structure, temporary or permanent, is taller than 139 feet please follow up with our office.

Thanks!

Patrick Lamb
Aviation Program Manager
Indiana Department of Transportation
Central Office
Mobile: (317) 495-4875
Email: plamb@indot.in.gov
Find us on social media!



From: Catherine Holland <catherineh@metricenv.com>
Sent: Thursday, May 22, 2025 4:33 PM
To: Tait, Erica (FHWA) <erica.tait@dot.gov>; Story, Paige (FHWA) <Paige.Story@dot.gov>; DNR Environmental Review <environmentalreview@dnr.IN.gov>; erik.r.sandstedt@hud.gov <erik.r.sandstedt@hud.gov>; Michels, Stewart <SMichels@indot.IN.gov>; Lamb, Patrick A <PLamb@indot.IN.gov>; chicagorequests@usace.army.mil <chicagorequests@usace.army.mil>; McWilliams, Robin <robin_mcwilliams@fws.gov>; jhaney@laporteco.in.gov <jhaney@laporteco.in.gov>; ahendricks@laporteco.in.gov <ahendricks@laporteco.in.gov>; astevens@laporteco.in.gov <astevens@laporteco.in.gov>; twarner@nirpc.org <twarner@nirpc.org>; cbradsky@nirpc.org <cbradsky@nirpc.org>; jim.polarek@porterco.org <jim.polarek@porterco.org>; kathy.merle@porterco.org <kathy.merle@porterco.org>; kbreiztke@porterco.org <kbreiztke@porterco.org>; mcsd@emichigancity.com <mcsd@emichigancity.com>; Orsburn, Jenny R <JeOrsburn@dnr.IN.gov>
Cc: Linda Zug <lindaz@metricenv.com>; Dan Delgado <ddelgado@lawson-fisher.com>; Mason, Scott <SMason@indot.IN.gov>; Lisa Harris <lharris@lawson-fisher.com>
Subject: Early Coordination Letter Des. 2000607, 2101096, 250075 Roadway Project Along US 12 Porter and LaPorte Counties

Good morning,

EXTERNAL EMAIL: This email was sent from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Metric Environmental has been contracted by Lawson-Fisher Associates to prepare the Categorical Exclusion Environmental Document for the above referenced project along US 12 from 1.93 miles west of US 421 to the Michigan state line in Porter and LaPorte Counties. We respectfully request your review of the attached early coordination packet for your respective county and response within the 30-day limit.

Thank you,



Catherine Holland

Assistant Project Manager

O 317.400.1633 ext. 195

M 317.348.2537

6958 Hillsdale Court

Indianapolis, IN 46250

www.metricenv.com

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273



In Reply Refer To:

07/09/2025 18:35:44 UTC

Project Code: 2023-0028596

Project Name: Des. 2000607, 2101096, and 2500075, Roadway Rehabilitation Project, US 12

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The purpose of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.), is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Act.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. You can complete this verification formally or informally or request an updated list by visiting the IPaC website at regular intervals during project planning and implementation.

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at [Midwest Section 7 Technical Assistance | U.S. Fish & Wildlife Service](#). This website contains step-by-step instructions to help you determine if your project will have an adverse effect on listed species and to lead you through the Section 7 process.

We appreciate your concern for threatened and endangered species. Federal agencies should

include conservation of threatened and endangered species into their project planning to further the purposes of the Act. **Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.**

Other Trust Resources and Activities

Bald and Golden Eagles - Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act and the Migratory Bird Treaty Act. It is the responsibility of the project proponent to survey the area for any migratory bird nests. If there is an eagle nest on-site while work is on-going, eagles may be disturbed. We recommend avoiding and minimizing disturbance to eagles whenever practicable. If you cannot avoid eagle disturbance, you may seek a [permit](#). A [nest take permit](#) is always required for removal, relocation, or obstruction of an eagle nest. For communication and wind energy projects, please refer to additional guidelines below.

Migratory Birds - The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA to proactively prevent the mortality of migratory birds whenever possible and we encourage implementation of [recommendations that minimize potential impacts to migratory birds](#). Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.

Communication Towers - Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed [voluntary guidelines for minimizing impacts](#).

Transmission Lines - Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please refer to [guidelines](#) developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to wetlands or other areas that support large numbers of raptors and migratory birds.

Wind Energy - To minimize impacts to migratory birds and bats, wind energy projects should follow the Service's [Wind Energy Guidelines](#). In addition, please refer to the Service's [Eagle Conservation Plan Guidance](#), which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

Note: IPaC has provided all available attachments because this project is in multiple field office jurisdictions.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Indiana Ecological Services Field Office

620 South Walker Street
Bloomington, IN 47403-2121
(812) 334-4261

This project's location is within the jurisdiction of multiple offices. However, only one species list document will be provided for all offices. The species and critical habitats in this document reflect the aggregation of those that fall in each of the affiliated office's jurisdiction. Other offices affiliated with the project:

Michigan Ecological Services Field Office

2651 Coolidge Road Suite 101
East Lansing, MI 48823-6360
(517) 351-2555

PROJECT SUMMARY

Project Code: 2023-0028596
Project Name: Des. 2000607, 2101096, and 2500075, Roadway Rehabilitation Project, US 12
Project Type: Road/Hwy - Maintenance/Modification
Project Description: Indiana Department of Transportation (INDOT), with funding from Federal Highway Administration, intend to proceed with a roadway rehabilitation project along US Highway 12 (US 12) , beginning west of Michigan City near the intersection of US 12 and Beverly Drive at the Porter-LaPorte County Line, and continues east to the Michigan State Line, LaPorte and Porter Counties, Indiana.

The preferred alternative is to rehabilitate the roadway with a Hot Mix Asphalt (HMA) overlay and realign the intersection of US 12 and East Beverly Drive. In addition, one structure, CV 012-064-37.05, will be replaced with six-foot-wide, four-foot-high, 76-foot-long reinforced concrete box (RCB) culverts. Throughout the project area the following improvements are planned:

- eight (8) pipes will be replaced in-kind;
- one (1) inlet and 20 feet of storm sewer will be replaced in-kind;
- 23 castings will be replaced and 18 castings will be adjusted to grade;
- five (5) obstructed inlets and one (1) drywell will be cleared of debris;
- curb ramps will be reconstructed to meet ADA standards at 17 intersections;
- edge line rumble stripes will be used where the shoulder is two feet or greater in width;
- INDOT-maintained ground-mounted sheet signs 15 years and older will be replaced;
- additional signage will be added to improve the railroad crossing and comply with railroad standards.

The project will involve Right Sizing Lane re-configuration except through the downtown area (Wabash Street to Spring Street/East Michigan Boulevard). A bike lane will be delineated on the north side of US 12 from the entrance of Mount Baldy National Park to the intersection of US 12 with the Singing Sands Trail. Full depth pavement widening is anticipated at two (2) locations. The first location is on the north side of US 12 immediately to the west of the Singing Sand Trail. This extra pavement is to provide separation between westbound traffic and the bike lane. The second location is at the US 12 intersection with State Road 212. Pavement will be added to accommodate the eastbound to southbound turning movement. Damaged guardrail along the north side of US 12 at Douglas Avenue will be replaced and extended to satisfy INDOT length of need requirements. Signal modernizations are planned at the US

12 and Liberty Trail and North Karwick Road intersections.

Less than 0.5 acre of new, permanent right-of-way is expected to be acquired for this project. The proposed method of traffic maintenance for the HMA overlay is the use of single lane closures utilizing flaggers. Full closures with detours will be implemented during seven (7) structure replacements. Pedestrian traffic will be rerouted during curb ramp closures. No new, permanent lighting is planned. Temporary lighting may be necessary.

Based on consultation with INDOT LaPorte District, a March 27, 2023, review of the U.S. Fish and Wildlife Service (USFWS) database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. Tree clearing is not anticipated. No mitigation is anticipated. A Metric Environmental biologist completed an inspection of CV 012-064-37.05 on May 9, 2025. No evidence of use by bats was observed.

The project is planned to begin in winter of 2025 and be completed by winter 2026.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.731323700000004,-86.86112292597261,14z>



Counties: Indiana and Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Piping Plover <i>Charadrius melodus</i> Population: [Great Lakes watershed DPS] - Great Lakes, watershed in States of IL, IN, MI, MN, NY, OH, PA, and WI and Canada (Ont.) There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6039	Endangered
Rufa Red Knot <i>Calidris canutus rufa</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> Only actions that occur along coastal areas during the Red Knot migratory window of MAY 1 - SEPTEMBER 30. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2202 General project design guidelines: https://ipac.ecosphere.fws.gov/project/XPB7UZDJCFVCVXPGRCLEAK3PAA/documents/generated/5280.pdf	Threatened

INSECTS

NAME	STATUS
Mitchell's Satyr Butterfly <i>Neonympha mitchellii mitchellii</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8062	Endangered

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

FLOWERING PLANTS

NAME	STATUS
Pitcher's Thistle <i>Cirsium pitcheri</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8153	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

-
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
 2. The [Migratory Birds Treaty Act](#) of 1918.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are Bald Eagles and/or Golden Eagles in your [project](#) area.

Measures for Proactively Minimizing Eagle Impacts

For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the [National Bald Eagle Management Guidelines](#). You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

If disturbance or take of eagles cannot be avoided, an [incidental take permit](#) may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the [Do I Need A Permit Tool](#). For assistance making this determination for golden eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

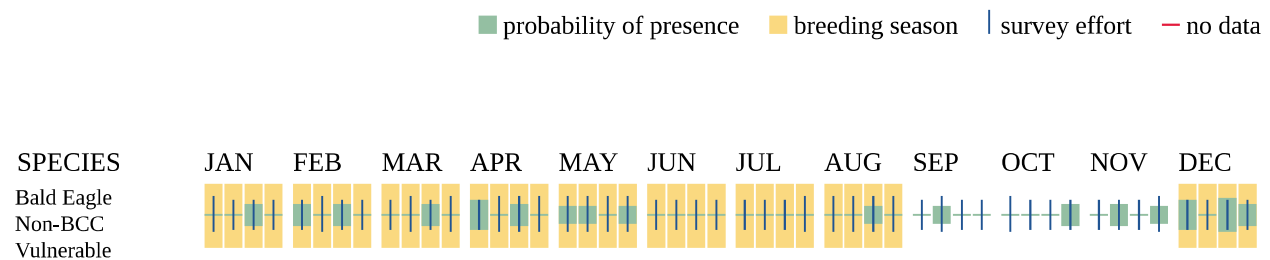
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black Tern <i>Chlidonias niger surinamenis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093	Breeds May 15 to Aug 20
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10
Cerulean Warbler <i>Setophaga cerulea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 22 to Jul 20
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10678	Breeds May 1 to Aug 20

NAME	BREEDING SEASON
Golden-winged Warbler <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745	Breeds May 1 to Jul 20
Grasshopper Sparrow <i>Ammodramus savannarum perpallidus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8329	Breeds Jun 1 to Aug 20
Henslow's Sparrow <i>Centronyx henslowii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3941	Breeds May 1 to Aug 31
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Marbled Godwit <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481	Breeds May 1 to Jul 31
Pectoral Sandpiper <i>Calidris melanotos</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561	Breeds elsewhere
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Ruddy Turnstone <i>Arenaria interpres morinella</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/10633	Breeds elsewhere
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Semipalmated Sandpiper <i>Calidris pusilla</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9603	Breeds elsewhere

NAME	BREEDING SEASON
Short-billed Dowitcher <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Upland Sandpiper <i>Bartramia longicauda</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9294	Breeds May 1 to Aug 31
Western Grebe <i>aechmophorus occidentalis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

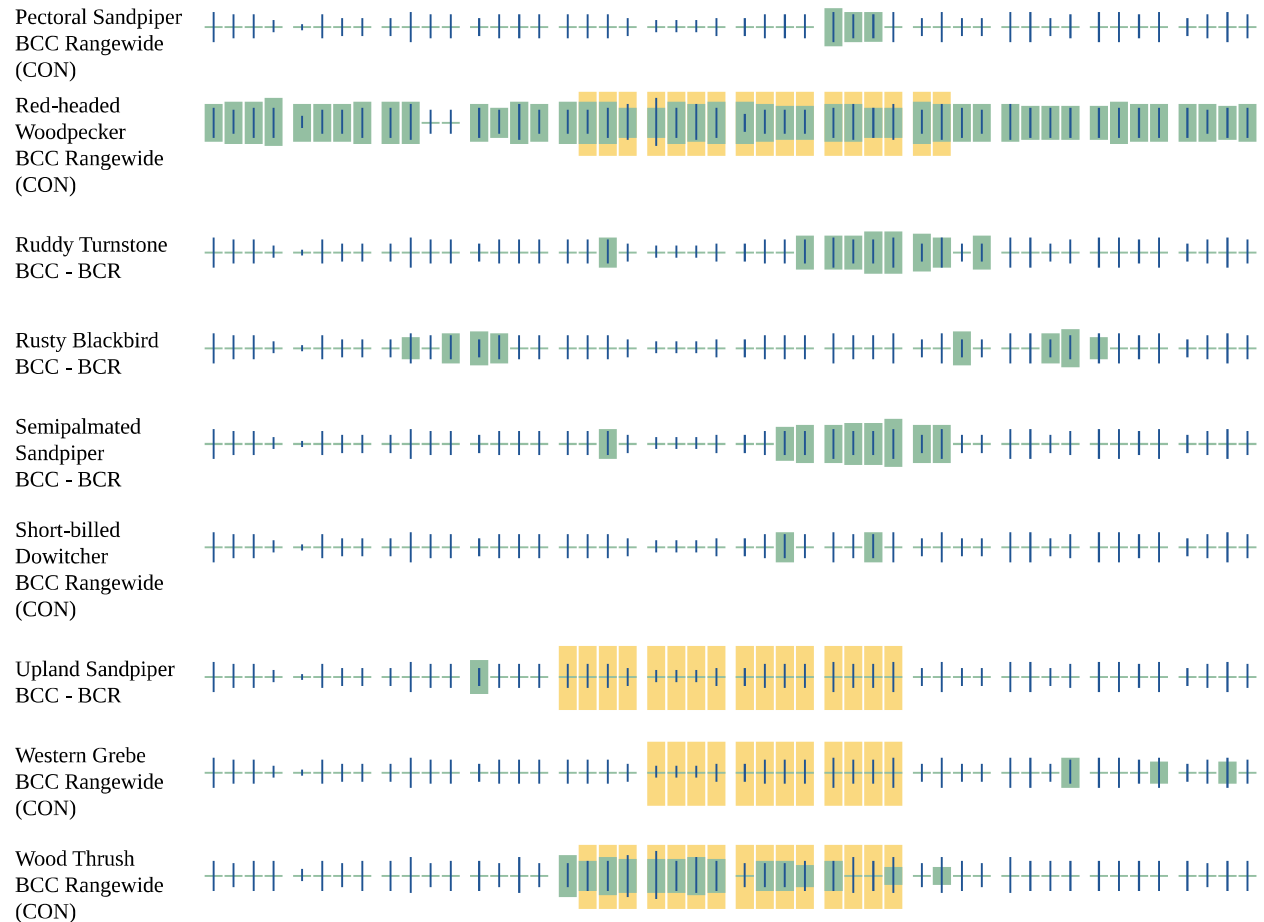
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

■ probability of presence ■ breeding season | survey effort — no data





Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER POND

- PABH

FRESHWATER EMERGENT WETLAND

- PEM1C
- PEM1/5C
- PEM5C

RIVERINE

- R2UBH
- R2UBFx

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1/SS1C
- PFO1C
- PSS1/EM1C

IPAC USER CONTACT INFORMATION

Agency: Indiana Department of Transportation

Name: Jason Damm

Address: 6958 Hillsdale Court

City: Indianapolis

State: IN

Zip: 46250

Email: jasond@metricenv.com

Phone: 3176052392

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Assistant Director-Ecological Services

1849 C Street Nw

Room 3345

Washington, DC 20240-0001

Phone: (202) 208-4646 Fax: (202) 208-5618



In Reply Refer To:

07/15/2025 19:07:01 UTC

Project code: 2023-0028596

Project Name: Des. 2000607, 2101096, and 2500075, Roadway Rehabilitation Project, US 12

Subject: Not Likely to Adversely Affect Concurrence verification letter for the 'Des. 2000607, 2101096, and 2500075, Roadway Rehabilitation Project, US 12' project under the December 13, 2024, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat, Northern Long-eared Bat, and Tricolored Bat.

To whom it may concern:

This letter records the determination of effects to federally listed (or proposed) bat species anticipated to result from the Des. 2000607, 2101096, and 2500075, Roadway Rehabilitation Project, US 12 (the Project). This determination is based upon information you entered into the assisted determination key (Dkey) associated with the above referenced Programmatic Biological Opinion/Conference Opinion (PBO/PCO) in the U.S. Fish and Wildlife Service's (Service) Information for Planning and Consultation (IPaC) system on the date listed above to verify that the Project may rely on the concurrence provided in the PBO/PCO to satisfy requirements under section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (16 USC 1536), as amended.

Ensuring Accurate Determinations When Using IPaC:

The Service developed the IPaC system and this Dkey in accordance with the ESA and based on the PBO/PCO. All information submitted by the project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in the Dkey invalidates this letter. Answers to certain questions in the Dkey commit the project proponent to implementation of conservation measures that must be followed for the ESA determinations to remain valid. Carefully review this letter, your ESA requirements are NOT yet complete.

Determinations:

Based on the information you provided (Project Description shown below), you have determined that the Project is within the scope and adheres to the criteria of the PBO/PCO, including the adoption of applicable avoidance and minimization measures. Based on your IPaC submission and the PBO/PCO, the Project is consistent with the following effect determinations:

Species	Listing Status	Determination
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	NLAA
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed Endangered	NLAA

The tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can confer under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a no effect or not likely to adversely affect (NLAA) determination from the key to confirm that the determination is still accurate.

The Service has 14 calendar days to notify the lead Federal action agency or designated non-federal representative if we determine that the Project does not meet the criteria for a NLAA determination under the PBO/PCO. **If the Service does not notify the lead Federal action agency or designated non-federal representative within that timeframe, you may proceed with the Project under the terms of the NLAA concurrence provided in the PBO/PCO.** This verification period allows Service Field Offices to apply local knowledge to implementation of the PBO, as we may identify a small subset of actions having impacts that were unanticipated. In such instances, Service Field Offices may request additional information that is necessary to verify inclusion of the proposed action under the PBO/PCO.

If the Project is modified, or new information reveals that it may affect the Indiana bat, northern long-eared bat, or tricolored bat in a manner or to an extent not considered in the PBO/PCO, further review to conclude the requirements of ESA section 7(a)(2) may be required.

For Proposed Actions that include bridge/culvert or structure removal, replacement, and/or maintenance activities:

If your initial bridge, culvert, or structure assessment failed to detect Indiana bat, northern long-eared bat, or tricolored bat use or occupancy, yet bats are later detected prior to, or during construction, promptly notify the local Service Field Office within 2 working days of the discovery. In addition, please document whether incidental take occurred, and if so, the type (i.e. kill or harm) and amount (i.e. number of individuals) and submit documentation to the local Service Field Office within 5 working days from the completion of the bridge, culvert, or structure construction (use Appendix E - Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form in the [User's Guide](#)). In these instances, potential incidental take of Indiana bats, northern long-eared bats, or tricolored bats may be exempted provided that the take is reported to

the Service. In these instances, potential incidental take of Indiana bats, northern long-eared bats, or tricolored bats may be exempted provided that the take is reported to the Service.

If the Project may affect any other federally listed or proposed species and/or designated critical habitat, additional consultation between the lead Federal action agency and this Service Field Office is required for those species/designated critical habitat. If the Project has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please advise the lead Federal action agency to contact this Service Field Office

The following species may occur in your project area and **are not** covered by this determination:

- Eastern Massasauga (=rattlesnake) *Sistrurus catenatus* Threatened
- Eastern Prairie Fringed Orchid *Platanthera leucophaea* Threatened
- Mitchell's Satyr Butterfly *Neonympha mitchellii mitchellii* Endangered
- Monarch Butterfly *Danaus plexippus* Proposed Threatened
- Piping Plover *Charadrius melodus* Endangered
- Pitcher's Thistle *Cirsium pitcheri* Threatened
- Rufa Red Knot *Calidris canutus rufa* Threatened

PROJECT DESCRIPTION

The following project name and description was collected in IPaC as part of the endangered species review process.

NAME

Des. 2000607, 2101096, and 2500075, Roadway Rehabilitation Project, US 12

DESCRIPTION

Indiana Department of Transportation (INDOT), with funding from Federal Highway Administration, intend to proceed with a roadway rehabilitation project along US Highway 12 (US 12) , beginning west of Michigan City near the intersection of US 12 and Beverly Drive at the Porter-LaPorte County Line, and continues east to the Michigan State Line, LaPorte and Porter Counties, Indiana.

The preferred alternative is to rehabilitate the roadway with a Hot Mix Asphalt (HMA) overlay and realign the intersection of US 12 and East Beverly Drive. In addition, one structure, CV 012-064-37.05, will be replaced with six-foot-wide, four-foot-high, 76-foot-long reinforced concrete box (RCB) culverts. Throughout the project area the following improvements are planned:

- eight (8) pipes will be replaced in-kind;
- one (1) inlet and 20 feet of storm sewer will be replaced in-kind;
- 23 castings will be replaced and 18 castings will be adjusted to grade;
- five (5) obstructed inlets and one (1) drywell will be cleared of debris;
- curb ramps will be reconstructed to meet ADA standards at 17 intersections;
- edge line rumble stripes will be used where the shoulder is two feet or greater in width;
- INDOT-maintained ground-mounted sheet signs 15 years and older will be replaced;
- additional signage will be added to improve the railroad crossing and comply with railroad standards.

The project will involve Right Sizing Lane re-configuration except through the downtown area (Wabash Street to Spring Street/East Michigan Boulevard). A bike lane will be delineated on the north side of US 12 from the entrance of Mount Baldy National Park to the intersection of US 12 with the Singing Sands Trail. Full depth pavement widening is anticipated at two (2) locations. The first location is on the north side of US 12 immediately to the west of the Singing Sand Trail. This extra pavement is to provide separation between westbound traffic and the bike lane. The second location is at the US 12 intersection with State Road 212. Pavement will be added to accommodate the eastbound to southbound turning movement. Damaged guardrail along the north side of US 12 at Douglas Avenue will be replaced and extended to satisfy INDOT length of need requirements. Signal modernizations are planned at the US 12 and Liberty Trail and North Karwick Road intersections.

Less than 0.5 acre of new, permanent right-of-way is expected to be acquired for this project. The proposed method of traffic maintenance for the HMA overlay is the use of single lane

closures utilizing flaggers. Full closures with detours will be implemented during seven (7) structure replacements. Pedestrian traffic will be rerouted during curb ramp closures. No new, permanent lighting is planned. Temporary lighting may be necessary.

Based on consultation with INDOT LaPorte District, a March 27, 2023, review of the U.S. Fish and Wildlife Service (USFWS) database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. Tree clearing is not anticipated. No mitigation is anticipated. A Metric Environmental biologist completed an inspection of CV 012-064-37.05 on May 9, 2025. No evidence of use by bats was observed.

The project is planned to begin in winter of 2025 and be completed by winter 2026.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.731323700000004,-86.86112292597261,14z>



DETERMINATION KEY RESULT

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the Indiana bat, northern long-eared bat or tricolored bat, therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 et seq.) is required. However, also based on your answers provided, this project may rely on the concurrence provided in the Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana bat, northern long-eared bat, and tricolored bat, dated December 13, 2024.

QUALIFICATION INTERVIEW

1. Which Federal Agency is the lead federal agency the action?
A) Federal Highway Administration (FHWA)
2. Does the Action Area intersect the species list area of the Northern long-eared bat?
Automatically answered
Yes
3. Does the Action Area intersect the species list area of the Indiana bat?
Automatically answered
Yes
4. Does the Action Area intersect the species list area of the tricolored Bat (TCB)?
Automatically answered
Yes
5. Is the project within 0.5 miles radius of an entrance/opening to any known Indiana bat hibernaculum?
No
6. Is any portion of the action area within a 0.5 mile radius of an entrance/opening to any known NLEB or TCB hibernacula?
Automatically answered
No
7. Does your project's activities include raising the road profile above the tree canopy in documented habitat for the Indiana bat, NLEB, or TCB?
Note: For the definition of documented habitat, refer to Appendix A: <https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat>
No
8. Is your project located within a karst area?
No

9. Will the project include bridge, culvert, or structure removal, replacement, and/or alteration activities?

Note: For definitions of bridge, culvert, and structure, refer to Appendix A: <https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat>.

Yes

10. Do your project's activities involve tree removal/trimming, temporary lighting, new/additional permanent lighting, ground disturbance, percussives that involves noise/vibration above existing background levels, vibrations, or slash pile burning?

Yes

11. Is there suitable summer habitat for the Indiana bat, NLEB, or TCB within the project action area?

Note: See the Service's summer survey guidance for current definitions of suitable habitat [<https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html>].

Yes

12. Have P/A surveys for the Indiana bat, NLEB, or TCB been conducted within the suitable summer habitat located within your project action area? This refers to mist-netting or acoustic surveys, not bridge assessments.

Note: See the Service's survey guidance <https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html>

No

13. Will the project involve the removal or trimming of trees within suitable habitat for the Indiana bat, NLEB, or TCB?

No

14. Does your project include activities involving the temporary or permanent exclusion of Indiana bats, NLEBs, or TCBs from a bridge/culvert or structure?

Note: exclusion is conducted to deny bats' entry or reentry into a bridge/culvert or structure. To be effective and to avoid harming bats, it should be done according to established standards.

No

15. Does your project involve the use of temporary lighting within Indiana bat, NLEB, or TCB suitable habitat?

Note: For the definition of lighting, refer to Appendix A: <https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat>

Yes

16. Will the use of temporary lighting be conducted during the Indiana bat, NLEB, or TCB active season?

Yes

17. Will temporary lighting be directed away from Indiana bat, NLEB, or TCB suitable habitat)?

Yes

18. Will the project substantially increase baseline light conditions via the use of permanent lighting (replacement or new/additional) in suitable habitat.

No

19. Will your project include percussive activities?

Note: Refer to Stressor #2 Noise/Vibration on page 109 of the PBO/PCO.

Yes

20. Are the percussive activities only related to tree removal/trimming or bridge/culvert structural work?

No

21. Will the percussive activities involve noise/vibration above existing background levels?

Note: For example, pile driving, rock drilling, hoe ramming, jackhammering, and blasting are examples of percussive activities that cause noise/vibration above existing background levels

Yes

22. Will percussive activities that involve noise/vibration above existing background levels be conducted during the **bat active season**?

Yes

23. Will the percussive activities that involve noise/vibration above existing background levels be conducted **greater than 100 feet** from the road or rail surface?

No

24. Will the project include **bridge** removal, replacement, and/or alteration activities?

No

25. Does the project include **culvert** removal, replacement, and/or alteration activities?

Yes

26. Does the culvert equal or exceed 23 feet (7.0 meters) in length?

Yes

27. Are the interior dimensions of the culvert less than 3 ft. in diameter/height?

No

28. Has a Culvert Bat Assessment been conducted within the last 24 months to determine if the culvert is being used by the Indiana bat, NLEB, or TCB? If yes, upload assessment.

Note: Refer to the Service's current survey guidance for acceptable assessment practices and validity timeframe of bridge/culvert and structure bat assessments: <https://www.fws.gov/library/collections/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

SUBMITTED DOCUMENTS

- 23-0221-5_Inspection_05092025.pdf <https://ipac.ecosphere.fws.gov/project/XPB7UZDJCFVCVXPGRCLZEAK3PAA/projectDocuments/164658322>

29. Please select one of the following results of the Culvert Bat Assessment:

c) Did not detect any signs of Indiana bats, NLEBs, or TCBs roosting in/under the culvert (bats, guano, etc.)

30. Does the project include **structure** removal, replacement, and/or alteration activities?

No

31. Does the Action Area intersect the species list area of the Indiana bat?

Automatically answered

Yes

32. Does the Action Area intersect the species list area of the tricolored Bat (TCB)?

Automatically answered

Yes

33. Does the Action Area intersect the species list area of the northern long-eared bat (NLEB)?

Automatically answered

Yes

PROJECT QUESTIONNAIRE

1. Have you made a No Effect determinations for all other species included on the FWS IPaC generated species list?

No

2. Have you made a May Affect determination for any other species on the FWS IPaC generated list?

Yes

3. Please enter the date of the culvert assessment.

May 9, 2025

AVOIDANCE AND MINIMIZATION MEASURES (AMMS)

This determination key result includes the commitment to implement the following Avoidance and Minimization Measures (AMMs):

GAMM1

Ensure all operators, employees, and contractors working in areas of Indiana bat, NLEB, or TCB suitable habitat are aware of all Transportation Agency environmental commitments, including all applicable AMMs.

LAMM1

Direct temporary lighting away from suitable habitat during the active season

DETERMINATION KEY DESCRIPTION: FHWA, FRA, FTA PROGRAMMATIC CONSULTATION FOR TRANSPORTATION PROJECTS AFFECTING IBAT, NLEB, OR TCB

This key was last updated in IPaC on July 02, 2025. Keys are subject to periodic revision.

This decision key is intended for projects/activities funded or authorized by the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and/or Federal Transit Administration (FTA), which may require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) and may affect the federally listed endangered Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), and/or federally proposed endangered tricolored bat (*Perimyotis subflavus*).

This decision key should only be used to verify project applicability with the Service's Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana bat, northern long-eared bat, and tricolored bat, dated December 13, 2024. The programmatic consultation limited transportation activities that may affect the covered bat species and addresses situations that are both likely and not likely to adversely affect the covered bat species. This decision key will assist in identifying the effect of a specific project/activity and the applicability of the programmatic consultation. The programmatic consultation is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic consultation, or that may affect ESA-listed species other than the Indiana bat, northern long-eared bat, or tricolored bat, or their designated critical habitat, may require additional ESA Section 7 consultation.

IPAC USER CONTACT INFORMATION

Agency: Indiana Department of Transportation

Name: Julina Adams

Address: 315 E Boyd Blvd

City: LaPorte

State: IN

Zip: 46350

Email: juadams1@indot.in.gov

Phone: 2193257531

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

You have indicated that your project falls under or receives funding through the following special project authorities:

- BIPARTISAN INFRASTRUCTURE LAW (BIL) (OTHER)

FW: [EXTERNAL] NLAA determination for Eastern Massasauga (Des 2000607)

From Linda Zug <lindaz@metricenv.com>

Date Thu 8/14/2025 1:52 PM

To Lisa Harris <lharris@lawson-fisher.com>

 1 attachment (5 MB)

23-0221-5_SIC Letter_EMR.pdf;

Hi Lisa – see below for the clearance information for US 12 project. Let me know if you need anything else.



Linda S. Zug

Senior Project Manager

O 317.400.1633

M 412.639.6949

6958 Hillsdale Court

Indianapolis, IN 46250

[www.metricenv.com]http://metricenv.com

Certified DBE/MBE/SBE Company

Indiana | Kentucky | Ohio | West Virginia | Pennsylvania

From: Jason Damm <jasond@metricenv.com>

Sent: Thursday, August 14, 2025 12:03 PM

To: Linda Zug <lindaz@metricenv.com>

Subject: FW: [EXTERNAL] NLAA determination for Eastern Massasauga (Des 2000607)

Linda,

The below is in the project IPaC folder. All USFWS coordination for this should be complete 😊

Jason P. Damm MS, CWB, CSP, ASHM

Senior Project Manager

Health & Safety Coordinator

Metric Environmental, LLC

Certified DBE/MBE/SBE Company

Phone: 317.400.1633
Mobile: 317.605.2392
Email: jasond@metricenv.com

From: Adams, Julina <JuAdams1@indot.IN.gov>
Sent: Thursday, August 14, 2025 7:47 AM
To: Jason Damm <jasond@metricenv.com>
Subject: FW: [EXTERNAL] NLAA determination for Eastern Massasauga (Des 2000607)

Hey Jason,
Here is Robin's response to your coordination letter. If you need anything else just holler.

Julina Adams
Environmental Manager
Indiana Department of Transportation
LaPorte District
Cell: 219-336-4215
Email: juadams1@indot.in.gov
[Find us on social media!](#)



From: McWilliams, Robin <robin_mcwilliams@fws.gov>
Sent: Monday, August 11, 2025 1:50 PM
To: Adams, Julina <JuAdams1@indot.IN.gov>
Subject: Re: [EXTERNAL] NLAA determination for Eastern Massasauga (Des 2000607)

EXTERNAL EMAIL: This email was sent from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Dear All,

This responds to your recent letter requesting our concurrence on a "not likely to adversely affect" determination for the eastern massasauga rattlesnake (*Sistrurus catenatusis*; EMR) on the aforementioned project. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act (ESA) of 1973, as amended, and the U. S. Fish and Wildlife Service's Mitigation Policy.

The proposed project is also within the range of the federally endangered Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*; NLEB), piping plover (*Charadrius melodus*), and Mitchell's satyr butterfly (*Neonympha mitchellii mitchellii*), and the federally threatened rufa red knot (*Calidris canutus rufa*) and Pitcher's thistle (*Cirsium pitcheri*). The project is also within the range of the proposed tricolored bat (*Perimyotis subflavus*) and the monarch butterfly, a Candidate for listing. The Indiana bat and NLEB are covered using the Federal Highway Administration, Federal Rail Administration, and Federal Transit Administration's Indiana bat, northern long-eared bat, and tricolored bat Rangewide Programmatic Consultation process. A No Effect determination was reached regarding the piping plover, rufa red knot, Mitchell's satyr butterfly, and Pitcher's thistle. The Indiana Department of Transportation (INDOT) has indicated the project will not jeopardize the tricolored bat or the monarch butterfly. No critical habitats were identified.

The preferred alternative is to rehabilitate the roadway with a Hot Mix Asphalt (HMA) overlay and realign the intersection of US 12 and East Beverly Drive. Other improvements such as pipe replacements, storm sewer replacement, reconstruction of curb ramps, addition of signage, addition of rumble strips, clearing of debris at pipe inlets, addition of a bike lane, pavement widening, guardrail replacement, etc. are proposed. INDOT has committed, to the extent practicable to avoid digging and excavating or fill wetlands during the EMS hibernations period (November 1 through April 1) and to limit construction staging and parking to the construction limits.

The Service has reviewed the information you provided, including applicable avoidance and minimization measures. Although the project is within the range of the EMS, we do not show any records in the vicinity of your project and suitable habitat is limited due to the project location along the disturbed roadside. Therefore, we concur your project is not likely to adversely affect the EMR.

Wetland and stream impacts may require permits from the US Army Corps of Engineers, the Indiana Department of Environmental Management's Water Quality Certification program, and the Indiana Department of Natural Resources. Wetland impacts should be avoided, and any unavoidable impacts should be compensated for in accordance with the Corps of Engineer's mitigation guidelines.

We appreciate the opportunity to comment at this early stage of project planning. If project plans change such that fish and wildlife habitat may be affected, please re-coordinate with our office as soon as possible. If you have any questions about our recommendations, please call (812) 902-1752.

Sincerely,

Robin

Robin McWilliams Munson
Fish and Wildlife Biologist/Transportation Liaison
U.S. Fish and Wildlife Service
Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403
Robin_McWilliams@fws.gov
***NEW* 812-902-1752**

Mon-Thurs 8:30-4:30p

From: Adams, Julina <JuAdams1@indot.IN.gov>
Sent: Monday, August 11, 2025 7:21 AM
To: McWilliams, Robin <robin_mckilliams@fws.gov>
Subject: [EXTERNAL] NLAA determination for Eastern Massasauga (Des 2000607)

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Good morning Robin,

I have attached a consultation letter for a NLAA determination from Metric Environmental regarding the eastern massasauga rattlesnake for review at your earliest convenience. This letter is regarding INDOT project Des # 2000607.

Your input is greatly appreciated.

Best,

Julina Adams

Environmental Manager

Indiana Department of Transportation

LaPorte District

Cell: 219-336-4215

Email: juadams1@indot.in.gov

Find us on social media!



June 6, 2023

Lisa Harris
525 West Washington Avenue
South Bend, Indiana 46601

Dear Ms. Harris:

The proposed U.S. 12 HMA Overlay project in LaPorte County, Indiana (Des. No. 2000607), as referred to in your letter received June 5, 2023, will not cause a conversion of prime farmland.

If you need additional information, please contact John Allen at 317-295-5859 or john.allen@usda.gov.

Sincerely,

JOHN ALLEN Digitally signed by JOHN ALLEN
Date: 2023.06.06 14:00:53 -04'00'

JOHN ALLEN
State Soil Scientist

Encloser

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I <i>(To be completed by Federal Agency)</i>								Date Of Land Evaluation Request					
Name of Project								Federal Agency Involved					
Proposed Land Use								County and State					
PART II <i>(To be completed by NRCS)</i>								Date Request Received By NRCS			Person Completing Form:		
Does the site contain Prime, Unique, Statewide or Local Important Farmland? <i>(If no, the FPPA does not apply - do not complete additional parts of this form)</i>						YES <input type="checkbox"/>		NO <input type="checkbox"/>		Acres Irrigated		Average Farm Size	
Major Crop(s)				Farmable Land In Govt. Jurisdiction Acres: %				Amount of Farmland As Defined in FPPA Acres: %					
Name of Land Evaluation System Used				Name of State or Local Site Assessment System				Date Land Evaluation Returned by NRCS					
PART III <i>(To be completed by Federal Agency)</i>								Alternative Site Rating					
								Site A	Site B	Site C	Site D		
A. Total Acres To Be Converted Directly													
B. Total Acres To Be Converted Indirectly													
C. Total Acres In Site													
PART IV <i>(To be completed by NRCS)</i> Land Evaluation Information													
A. Total Acres Prime And Unique Farmland													
B. Total Acres Statewide Important or Local Important Farmland													
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted													
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value													
PART V <i>(To be completed by NRCS)</i> Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)													
PART VI <i>(To be completed by Federal Agency)</i> Site Assessment Criteria <i>(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)</i>							Maximum Points	Site A	Site B	Site C	Site D		
1. Area In Non-urban Use							(15)						
2. Perimeter In Non-urban Use							(10)						
3. Percent Of Site Being Farmed							(20)						
4. Protection Provided By State and Local Government							(20)						
5. Distance From Urban Built-up Area							(15)						
6. Distance To Urban Support Services							(15)						
7. Size Of Present Farm Unit Compared To Average							(10)						
8. Creation Of Non-farmable Farmland							(10)						
9. Availability Of Farm Support Services							(5)						
10. On-Farm Investments							(20)						
11. Effects Of Conversion On Farm Support Services							(10)						
12. Compatibility With Existing Agricultural Use							(10)						
TOTAL SITE ASSESSMENT POINTS							160						
PART VII <i>(To be completed by Federal Agency)</i>													
Relative Value Of Farmland <i>(From Part V)</i>							100						
Total Site Assessment <i>(From Part VI above or local site assessment)</i>							160						
TOTAL POINTS <i>(Total of above 2 lines)</i>							260						
Site Selected:				Date Of Selection				Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>					
Reason For Selection:													
Name of Federal agency representative completing this form:										Date:			

(See Instructions on reverse side)

Form AD-1006 (03-02)

From: [Ms. Reggie Korthals](#)
To: [Lisa Harris](#)
Subject: Early Coordination Letter, Des.NO.:2000607
Date: Monday, February 20, 2023 2:17:25 PM

Lisa,

Please Remove Rick Brown and the LaPorte County Soil and Water Conservation District from the list and add me as the LaPorte County MS4 Coordinator. I will have an address shortly. I will coordinate with County Commissioner Haney on the response.

LaPorte County is no longer part of an MS4 co-permit . Each entity in the county has its own permit. If you need to include municipalities within the Roadway Project on U.S. 12, I also represent the Town of Long Beach and Town of Pottawattomi Park. Your will need to remove Jeff Wright as the City of Michigan City Engineer and contact the city for the new engineer.

Thank you,

Reggie Korthals



Ms. Reggie Korthals, MPA, MS4CECI

*Executive Director, Indiana MS4 Partnership
Adjunct Professor, Indiana University SPEA*

Environmental Resources Project Manager

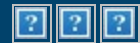
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
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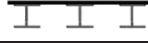



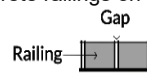
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
Bridge/Structure Bat Assessment Form

Date & Time of Assessment 5/12/22	DOT Project Number 2000607	Route/Facility Carried US 12	County Laporte
Federal Structure ID Asset ID 136503	Structure Coordinates 41.75122022, -86.81355815 (latitude and longitude)	Structure Height (approximate) 15"	Structure Length 25'
Structure Type (check one)		Structure Material (check all that apply)	
Bridge Construction Style		Deck Material	Beam Material
<input type="radio"/> Cast-in-place 	<input type="radio"/> Pre-stressed Girder 	<input type="checkbox"/> Metal	<input type="checkbox"/> None
<input type="radio"/> Flat Slab/Box 	<input type="radio"/> Steel I-beam 	<input type="checkbox"/> Concrete	<input type="checkbox"/> Concrete
<input type="radio"/> Truss 	<input type="radio"/> Covered 	<input type="checkbox"/> Timber	<input type="checkbox"/> Steel
<input type="radio"/> Parallel Box Beam 	<input type="radio"/> Other: _____	<input type="checkbox"/> Open grid	<input type="checkbox"/> Timber
		<input type="checkbox"/> Other: _____	<input type="checkbox"/> Other: _____
Culvert Type		Culvert Material	Creosote Evidence
<input type="radio"/> Box	<input type="radio"/> Other Structure _____	<input type="checkbox"/> Metal	<input type="radio"/> Yes <input checked="" type="radio"/> No
<input checked="" type="radio"/> Pipe/Round		<input checked="" type="checkbox"/> Concrete	<input type="radio"/> Unknown
<input type="radio"/> Other: _____		<input type="checkbox"/> Plastic	Notes:
		<input type="checkbox"/> Stone/Masonry	
		<input type="checkbox"/> Other: _____	
Crossings Traversed (check all that apply)		Surrounding Habitat (check all that apply)	
<input checked="" type="checkbox"/> Bare ground	<input type="checkbox"/> Open vegetation	<input type="checkbox"/> Agricultural	<input checked="" type="checkbox"/> Grassland
<input type="checkbox"/> Rip-rap	<input type="checkbox"/> Closed vegetation	<input type="checkbox"/> Commercial	<input type="checkbox"/> Ranching
<input type="checkbox"/> Flowing water	<input type="checkbox"/> Railroad	<input checked="" type="checkbox"/> Residential-urban	<input type="checkbox"/> Riparian/wetland
<input type="checkbox"/> Standing water	<input type="checkbox"/> Road/trail - Type: _____	<input type="checkbox"/> Residential-rural	<input type="checkbox"/> Mixed use
<input type="checkbox"/> Seasonal water	<input type="checkbox"/> Other: _____	<input type="checkbox"/> Woodland/forested	<input type="checkbox"/> Other: _____
Areas Assessed (check all that apply)			
Check all areas that apply. If an area is not present in the structure, check the "not present" box.			
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.			
Area (check if assessed)	Assessment Notes	Evidence of Bats (include photos if present)	
<input type="checkbox"/> All crevices and cracks: Bridges/culverts: rough surfaces or imperfections in concrete Other structures: soffits, rafters, attic areas	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
<input checked="" type="checkbox"/> Concrete surfaces (open roosting on concrete)		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input checked="" type="checkbox"/> Spaces between concrete end walls and the bridge deck	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Crack between concrete railings on top of the bridge deck 	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Vertical surfaces on concrete I-beams	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Spaces between walls, ceiling joists	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Weep holes, scupper drains, and inlets/pipes	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> All guiderails	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> All expansion joints	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
Name: Zachary Root (Metric Environmental)		Signature: <i>Zachary Root</i>	








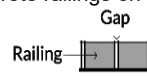
Bridge/Structure Bat Assessment Form

Date & Time of Assessment 5/12/22	DOT Project Number 2000607	Route/Facility Carried US 12	County Laporte
Federal Structure ID Asset ID 136504	Structure Coordinates 41.75112777, (latitude and longitude) -86.81370165	Structure Height (approximate) 15"	Structure Length 25'
Structure Type (check one)		Structure Material (check all that apply)	
Bridge Construction Style		Deck Material	Beam Material
<input type="radio"/> Cast-in-place 	<input type="radio"/> Pre-stressed Girder 	<input type="checkbox"/> Metal	<input type="checkbox"/> None
<input type="radio"/> Flat Slab/Box 	<input type="radio"/> Steel I-beam 	<input type="checkbox"/> Concrete	<input type="checkbox"/> Concrete
<input type="radio"/> Truss 	<input type="radio"/> Covered 	<input type="checkbox"/> Timber	<input type="checkbox"/> Steel
<input type="radio"/> Parallel Box Beam 	<input type="radio"/> Other: _____	<input type="checkbox"/> Open grid	<input type="checkbox"/> Timber
		<input type="checkbox"/> Other: _____	<input type="checkbox"/> Other: _____
Culvert Type		Culvert Material	Creosote Evidence
<input type="radio"/> Box	<input type="radio"/> Other Structure _____	<input checked="" type="checkbox"/> Metal	<input type="radio"/> Yes <input checked="" type="radio"/> No
<input checked="" type="radio"/> Pipe/Round		<input type="checkbox"/> Concrete	<input type="radio"/> Unknown
<input type="radio"/> Other: _____		<input type="checkbox"/> Plastic	Notes:
		<input type="checkbox"/> Stone/Masonry	
		<input type="checkbox"/> Other: _____	
Crossings Traversed (check all that apply)		Surrounding Habitat (check all that apply)	
<input checked="" type="checkbox"/> Bare ground	<input type="checkbox"/> Open vegetation	<input type="checkbox"/> Agricultural	<input checked="" type="checkbox"/> Grassland
<input type="checkbox"/> Rip-rap	<input type="checkbox"/> Closed vegetation	<input type="checkbox"/> Commercial	<input type="checkbox"/> Ranching
<input type="checkbox"/> Flowing water	<input type="checkbox"/> Railroad	<input checked="" type="checkbox"/> Residential-urban	<input type="checkbox"/> Riparian/wetland
<input type="checkbox"/> Standing water	<input type="checkbox"/> Road/trail - Type: _____	<input type="checkbox"/> Residential-rural	<input type="checkbox"/> Mixed use
<input type="checkbox"/> Seasonal water	<input type="checkbox"/> Other: _____	<input type="checkbox"/> Woodland/forested	<input type="checkbox"/> Other: _____
Areas Assessed (check all that apply)			
Check all areas that apply. If an area is not present in the structure, check the "not present" box.			
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.			
Area (check if assessed)	Assessment Notes	Evidence of Bats (include photos if present)	
<input type="checkbox"/> All crevices and cracks: Bridges/culverts: rough surfaces or imperfections in concrete Other structures: soffits, rafters, attic areas	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____ <input type="checkbox"/> Odor <input type="checkbox"/> <input type="checkbox"/> Guano <input type="checkbox"/> <input type="checkbox"/> Photos <input type="checkbox"/> <input type="checkbox"/> Staining <input type="checkbox"/>
<input checked="" type="checkbox"/> Concrete surfaces (open roosting on concrete)	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____ <input type="checkbox"/> Odor <input type="checkbox"/> <input type="checkbox"/> Guano <input type="checkbox"/> <input type="checkbox"/> Photos <input type="checkbox"/> <input type="checkbox"/> Staining <input type="checkbox"/>
<input checked="" type="checkbox"/> Spaces between concrete end walls and the bridge deck	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____ <input type="checkbox"/> Odor <input type="checkbox"/> <input type="checkbox"/> Guano <input type="checkbox"/> <input type="checkbox"/> Photos <input type="checkbox"/> <input type="checkbox"/> Staining <input type="checkbox"/>
<input type="checkbox"/> Crack between concrete railings on top of the bridge deck 	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____ <input type="checkbox"/> Odor <input type="checkbox"/> <input type="checkbox"/> Guano <input type="checkbox"/> <input type="checkbox"/> Photos <input type="checkbox"/> <input type="checkbox"/> Staining <input type="checkbox"/>
<input type="checkbox"/> Vertical surfaces on concrete I-beams	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____ <input type="checkbox"/> Odor <input type="checkbox"/> <input type="checkbox"/> Guano <input type="checkbox"/> <input type="checkbox"/> Photos <input type="checkbox"/> <input type="checkbox"/> Staining <input type="checkbox"/>
<input type="checkbox"/> Spaces between walls, ceiling joists	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____ <input type="checkbox"/> Odor <input type="checkbox"/> <input type="checkbox"/> Guano <input type="checkbox"/> <input type="checkbox"/> Photos <input type="checkbox"/> <input type="checkbox"/> Staining <input type="checkbox"/>
<input type="checkbox"/> Weep holes, scupper drains, and inlets/pipes	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____ <input type="checkbox"/> Odor <input type="checkbox"/> <input type="checkbox"/> Guano <input type="checkbox"/> <input type="checkbox"/> Photos <input type="checkbox"/> <input type="checkbox"/> Staining <input type="checkbox"/>
<input type="checkbox"/> All guiderails	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____ <input type="checkbox"/> Odor <input type="checkbox"/> <input type="checkbox"/> Guano <input type="checkbox"/> <input type="checkbox"/> Photos <input type="checkbox"/> <input type="checkbox"/> Staining <input type="checkbox"/>
<input type="checkbox"/> All expansion joints	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____ <input type="checkbox"/> Odor <input type="checkbox"/> <input type="checkbox"/> Guano <input type="checkbox"/> <input type="checkbox"/> Photos <input type="checkbox"/> <input type="checkbox"/> Staining <input type="checkbox"/>
Name: Zachary Root (Metric Environmental)		Signature: <i>Zachary Root</i>	




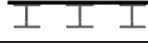



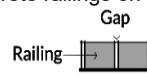
Bridge/Structure Bat Assessment Form

Date & Time of Assessment 5/12/22	DOT Project Number 2000607	Route/Facility Carried US 12	County Laporte
Federal Structure ID Asset ID 136505	Structure Coordinates 41.75276945, -86.81065449 (latitude and longitude)	Structure Height (approximate) 25"	Structure Length 70'
Structure Type (check one)		Structure Material (check all that apply)	
Bridge Construction Style		Deck Material	Beam Material
<input type="radio"/> Cast-in-place 	<input type="radio"/> Pre-stressed Girder 	<input type="checkbox"/> Metal	<input type="checkbox"/> None
<input type="radio"/> Flat Slab/Box 	<input type="radio"/> Steel I-beam 	<input type="checkbox"/> Concrete	<input type="checkbox"/> Concrete
<input type="radio"/> Truss 	<input type="radio"/> Covered 	<input type="checkbox"/> Timber	<input type="checkbox"/> Steel
<input type="radio"/> Parallel Box Beam 	<input type="radio"/> Other:	<input type="checkbox"/> Open grid	<input type="checkbox"/> Timber
		<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
Culvert Type		Culvert Material	Creosote Evidence
<input type="radio"/> Box	<input type="radio"/> Other Structure	<input type="checkbox"/> Metal	<input type="radio"/> Yes <input checked="" type="radio"/> No
<input checked="" type="radio"/> Pipe/Round		<input type="checkbox"/> Concrete	<input type="radio"/> Unknown
<input type="radio"/> Other:		<input checked="" type="checkbox"/> Plastic	Notes:
		<input type="checkbox"/> Stone/Masonry	
		<input type="checkbox"/> Other:	
Crossings Traversed (check all that apply)		Surrounding Habitat (check all that apply)	
<input checked="" type="checkbox"/> Bare ground	<input type="checkbox"/> Open vegetation	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Grassland
<input type="checkbox"/> Rip-rap	<input type="checkbox"/> Closed vegetation	<input checked="" type="checkbox"/> Commercial	<input type="checkbox"/> Ranching
<input type="checkbox"/> Flowing water	<input type="checkbox"/> Railroad	<input type="checkbox"/> Residential-urban	<input type="checkbox"/> Riparian/wetland
<input type="checkbox"/> Standing water	<input type="checkbox"/> Road/trail - Type:	<input type="checkbox"/> Residential-rural	<input type="checkbox"/> Mixed use
<input type="checkbox"/> Seasonal water	<input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Woodland/forested	<input type="checkbox"/> Other:
Areas Assessed (check all that apply)			
Check all areas that apply. If an area is not present in the structure, check the "not present" box.			
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.			
Area (check if assessed)	Assessment Notes	Evidence of Bats (include photos if present)	
<input type="checkbox"/> All crevices and cracks: Bridges/culverts: rough surfaces or imperfections in concrete Other structures: soffits, rafters, attic areas	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
<input checked="" type="checkbox"/> Concrete surfaces (open roosting on concrete)		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input checked="" type="checkbox"/> Spaces between concrete end walls and the bridge deck	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Crack between concrete railings on top of the bridge deck 	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Vertical surfaces on concrete I-beams	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Spaces between walls, ceiling joists	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Weep holes, scupper drains, and inlets/pipes	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> All guiderails	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> All expansion joints	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
Name: Zachary Root (Metric Environmental)		Signature: <i>Zachary Root</i>	




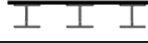



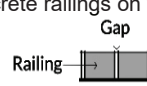
Bridge/Structure Bat Assessment Form

Date & Time of Assessment 5/12/22	DOT Project Number 2000607	Route/Facility Carried US 12	County Laporte
Federal Structure ID Asset ID 136509	Structure Coordinates 41.75996485, (latitude and longitude) -86.80104682	Structure Height (approximate) 18"	Structure Length 70'
Structure Type (check one)		Structure Material (check all that apply)	
Bridge Construction Style		Deck Material	Beam Material
<input type="radio"/> Cast-in-place 	<input type="radio"/> Pre-stressed Girder 	<input type="checkbox"/> Metal	<input type="checkbox"/> None
<input type="radio"/> Flat Slab/Box 	<input type="radio"/> Steel I-beam 	<input type="checkbox"/> Concrete	<input type="checkbox"/> Concrete
<input type="radio"/> Truss 	<input type="radio"/> Covered 	<input type="checkbox"/> Timber	<input type="checkbox"/> Steel
<input type="radio"/> Parallel Box Beam 	<input type="radio"/> Other: _____	<input type="checkbox"/> Open grid	<input type="checkbox"/> Timber
		<input type="checkbox"/> Other: _____	<input type="checkbox"/> Other: _____
Culvert Type		Culvert Material	Creosote Evidence
<input type="radio"/> Box	<input type="radio"/> Other Structure _____	<input type="checkbox"/> Metal	<input type="radio"/> Yes <input checked="" type="radio"/> No
<input checked="" type="radio"/> Pipe/Round		<input checked="" type="checkbox"/> Concrete	<input type="radio"/> Unknown
<input type="radio"/> Other: _____		<input type="checkbox"/> Plastic	Notes:
		<input type="checkbox"/> Stone/Masonry	
		<input type="checkbox"/> Other: _____	
Crossings Traversed (check all that apply)		Surrounding Habitat (check all that apply)	
<input checked="" type="checkbox"/> Bare ground	<input type="checkbox"/> Open vegetation	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Grassland
<input type="checkbox"/> Rip-rap	<input type="checkbox"/> Closed vegetation	<input type="checkbox"/> Commercial	<input type="checkbox"/> Ranching
<input type="checkbox"/> Flowing water	<input type="checkbox"/> Railroad	<input type="checkbox"/> Residential-urban	<input type="checkbox"/> Riparian/wetland
<input type="checkbox"/> Standing water	<input type="checkbox"/> Road/trail - Type: _____	<input type="checkbox"/> Residential-rural	<input type="checkbox"/> Mixed use
<input type="checkbox"/> Seasonal water	<input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Woodland/forested	<input type="checkbox"/> Other: _____
Areas Assessed (check all that apply)			
Check all areas that apply. If an area is not present in the structure, check the "not present" box.			
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.			
Area (check if assessed)	Assessment Notes	Evidence of Bats (include photos if present)	
<input type="checkbox"/> All crevices and cracks: Bridges/culverts: rough surfaces or imperfections in concrete Other structures: soffits, rafters, attic areas	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
<input checked="" type="checkbox"/> Concrete surfaces (open roosting on concrete)		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor <input type="checkbox"/> Photos
<input type="checkbox"/> Spaces between concrete end walls and the bridge deck	<input type="checkbox"/> Not present	<input type="checkbox"/> Staining	
<input checked="" type="checkbox"/> Crack between concrete railings on top of the bridge deck 	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
<input type="checkbox"/> Vertical surfaces on concrete I-beams	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Guano	<input type="checkbox"/> Odor <input type="checkbox"/> Photos
<input type="checkbox"/> Spaces between walls, ceiling joists	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Staining	
<input type="checkbox"/> Weep holes, scupper drains, and inlets/pipes	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
<input type="checkbox"/> All guiderails	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Guano	<input type="checkbox"/> Odor <input type="checkbox"/> Photos
<input type="checkbox"/> All expansion joints	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Staining	
		<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor <input type="checkbox"/> Photos
		<input type="checkbox"/> Staining	
Name: Zachary Root (Metric Environmental)		Signature: <i>Zachary Root</i>	








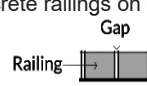
Bridge/Structure Bat Assessment Form

Date & Time of Assessment 5/12/22	DOT Project Number 2000607	Route/Facility Carried US 12	County Laporte
Federal Structure ID Asset ID 136512	Structure Coordinates 41.75430535, (latitude and longitude) -86.80886202	Structure Height (approximate) 15"	Structure Length 68'
Structure Type (check one)		Structure Material (check all that apply)	
Bridge Construction Style		Deck Material	Beam Material
<input type="radio"/> Cast-in-place 	<input type="radio"/> Pre-stressed Girder 	<input type="checkbox"/> Metal	<input type="checkbox"/> None
<input type="radio"/> Flat Slab/Box 	<input type="radio"/> Steel I-beam 	<input type="checkbox"/> Concrete	<input type="checkbox"/> Concrete
<input type="radio"/> Truss 	<input type="radio"/> Covered 	<input type="checkbox"/> Timber	<input type="checkbox"/> Steel
<input type="radio"/> Parallel Box Beam 	<input type="radio"/> Other: _____	<input type="checkbox"/> Open grid	<input type="checkbox"/> Timber
		<input type="checkbox"/> Other: _____	<input type="checkbox"/> Other: _____
Culvert Type		Culvert Material	Creosote Evidence
<input type="radio"/> Box	<input type="radio"/> Other Structure _____	<input type="checkbox"/> Metal	<input type="radio"/> Yes <input checked="" type="radio"/> No
<input checked="" type="radio"/> Pipe/Round		<input checked="" type="checkbox"/> Concrete	<input type="radio"/> Unknown
<input type="radio"/> Other: _____		<input type="checkbox"/> Plastic	Notes:
		<input type="checkbox"/> Stone/Masonry	
		<input type="checkbox"/> Other: _____	
Crossings Traversed (check all that apply)		Surrounding Habitat (check all that apply)	
<input checked="" type="checkbox"/> Bare ground	<input type="checkbox"/> Open vegetation	<input type="checkbox"/> Agricultural	<input checked="" type="checkbox"/> Grassland
<input type="checkbox"/> Rip-rap	<input type="checkbox"/> Closed vegetation	<input type="checkbox"/> Commercial	<input type="checkbox"/> Ranching
<input type="checkbox"/> Flowing water	<input type="checkbox"/> Railroad	<input checked="" type="checkbox"/> Residential-urban	<input type="checkbox"/> Riparian/wetland
<input type="checkbox"/> Standing water	<input type="checkbox"/> Road/trail - Type: _____	<input type="checkbox"/> Residential-rural	<input type="checkbox"/> Mixed use
<input type="checkbox"/> Seasonal water	<input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Woodland/forested	<input type="checkbox"/> Other: _____
Areas Assessed (check all that apply)			
Check all areas that apply. If an area is not present in the structure, check the "not present" box.			
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.			
Area (check if assessed)	Assessment Notes	Evidence of Bats (include photos if present)	
<input type="checkbox"/> All crevices and cracks: Bridges/culverts: rough surfaces or imperfections in concrete Other structures: soffits, rafters, attic areas	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
<input checked="" type="checkbox"/> Concrete surfaces (open roosting on concrete)		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor <input type="checkbox"/> Photos
<input type="checkbox"/> Spaces between concrete end walls and the bridge deck	<input type="checkbox"/> Not present	<input type="checkbox"/> Staining	
<input checked="" type="checkbox"/> Crack between concrete railings on top of the bridge deck 	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
<input type="checkbox"/> Vertical surfaces on concrete I-beams	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Guano	<input type="checkbox"/> Odor <input type="checkbox"/> Photos
<input type="checkbox"/> Spaces between walls, ceiling joists	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Staining	
<input type="checkbox"/> Weep holes, scupper drains, and inlets/pipes	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
<input type="checkbox"/> All guiderails	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Guano	<input type="checkbox"/> Odor <input type="checkbox"/> Photos
<input type="checkbox"/> All expansion joints	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Staining	
		<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor <input type="checkbox"/> Photos
		<input type="checkbox"/> Staining	
Name: Zachary Root (Metric Environmental)		Signature: <i>Zachary Root</i>	

Bridge/Structure Bat Assessment Form

Date & Time of Assessment 5/12/22	DOT Project Number 2000607	Route/Facility Carried US 12	County Laporte
Federal Structure ID Asset ID 136513	Structure Coordinates 41.7470527, -86.82369095 (latitude and longitude)	Structure Height (approximate) 18"	Structure Length 80'
Structure Type (check one)		Structure Material (check all that apply)	
Bridge Construction Style		Deck Material	Beam Material
<input type="radio"/> Cast-in-place 	<input type="radio"/> Pre-stressed Girder 	<input type="checkbox"/> Metal	<input type="checkbox"/> None
<input type="radio"/> Flat Slab/Box 	<input type="radio"/> Steel I-beam 	<input type="checkbox"/> Concrete	<input type="checkbox"/> Concrete
<input type="radio"/> Truss 	<input type="radio"/> Covered 	<input type="checkbox"/> Timber	<input type="checkbox"/> Steel
<input type="radio"/> Parallel Box Beam 	<input type="radio"/> Other: _____	<input type="checkbox"/> Open grid	<input type="checkbox"/> Timber
		<input type="checkbox"/> Other: _____	<input type="checkbox"/> Other: _____
Culvert Type		Culvert Material	Creosote Evidence
<input type="radio"/> Box	<input type="radio"/> Other Structure _____	<input type="checkbox"/> Metal	<input type="radio"/> Yes <input checked="" type="radio"/> No
<input checked="" type="radio"/> Pipe/Round		<input checked="" type="checkbox"/> Concrete	<input type="radio"/> Unknown
<input type="radio"/> Other: _____		<input type="checkbox"/> Plastic	Notes:
		<input type="checkbox"/> Stone/Masonry	
		<input type="checkbox"/> Other: _____	
Crossings Traversed (check all that apply)		Surrounding Habitat (check all that apply)	
<input checked="" type="checkbox"/> Bare ground	<input checked="" type="checkbox"/> Open vegetation	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Grassland
<input type="checkbox"/> Rip-rap	<input type="checkbox"/> Closed vegetation	<input checked="" type="checkbox"/> Commercial	<input type="checkbox"/> Ranching
<input type="checkbox"/> Flowing water	<input type="checkbox"/> Railroad	<input checked="" type="checkbox"/> Residential-urban	<input type="checkbox"/> Riparian/wetland
<input checked="" type="checkbox"/> Standing water	<input type="checkbox"/> Road/trail - Type: _____	<input type="checkbox"/> Residential-rural	<input type="checkbox"/> Mixed use
<input type="checkbox"/> Seasonal water	<input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Woodland/forested	<input type="checkbox"/> Other: _____
Areas Assessed (check all that apply)			
Check all areas that apply. If an area is not present in the structure, check the "not present" box.			
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.			
Area (check if assessed)	Assessment Notes	Evidence of Bats (include photos if present)	
<input type="checkbox"/> All crevices and cracks: Bridges/culverts: rough surfaces or imperfections in concrete Other structures: soffits, rafters, attic areas	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____ <input type="checkbox"/> Odor <input type="checkbox"/> <input type="checkbox"/> Guano <input type="checkbox"/> <input type="checkbox"/> Photos <input type="checkbox"/> <input type="checkbox"/> Staining <input type="checkbox"/>
<input checked="" type="checkbox"/> Concrete surfaces (open roosting on concrete)	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____ <input type="checkbox"/> Odor <input type="checkbox"/> <input type="checkbox"/> Guano <input type="checkbox"/> <input type="checkbox"/> Photos <input type="checkbox"/> <input type="checkbox"/> Staining <input type="checkbox"/>
<input checked="" type="checkbox"/> Spaces between concrete end walls and the bridge deck	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____ <input type="checkbox"/> Odor <input type="checkbox"/> <input type="checkbox"/> Guano <input type="checkbox"/> <input type="checkbox"/> Photos <input type="checkbox"/> <input type="checkbox"/> Staining <input type="checkbox"/>
<input type="checkbox"/> Crack between concrete railings on top of the bridge deck 	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____ <input type="checkbox"/> Odor <input type="checkbox"/> <input type="checkbox"/> Guano <input type="checkbox"/> <input type="checkbox"/> Photos <input type="checkbox"/> <input type="checkbox"/> Staining <input type="checkbox"/>
<input type="checkbox"/> Vertical surfaces on concrete I-beams	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____ <input type="checkbox"/> Odor <input type="checkbox"/> <input type="checkbox"/> Guano <input type="checkbox"/> <input type="checkbox"/> Photos <input type="checkbox"/> <input type="checkbox"/> Staining <input type="checkbox"/>
<input type="checkbox"/> Spaces between walls, ceiling joists	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____ <input type="checkbox"/> Odor <input type="checkbox"/> <input type="checkbox"/> Guano <input type="checkbox"/> <input type="checkbox"/> Photos <input type="checkbox"/> <input type="checkbox"/> Staining <input type="checkbox"/>
<input type="checkbox"/> Weep holes, scupper drains, and inlets/pipes	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____ <input type="checkbox"/> Odor <input type="checkbox"/> <input type="checkbox"/> Guano <input type="checkbox"/> <input type="checkbox"/> Photos <input type="checkbox"/> <input type="checkbox"/> Staining <input type="checkbox"/>
<input type="checkbox"/> All guiderails	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____ <input type="checkbox"/> Odor <input type="checkbox"/> <input type="checkbox"/> Guano <input type="checkbox"/> <input type="checkbox"/> Photos <input type="checkbox"/> <input type="checkbox"/> Staining <input type="checkbox"/>
<input type="checkbox"/> All expansion joints	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____ <input type="checkbox"/> Odor <input type="checkbox"/> <input type="checkbox"/> Guano <input type="checkbox"/> <input type="checkbox"/> Photos <input type="checkbox"/> <input type="checkbox"/> Staining <input type="checkbox"/>
Name: Zachary Root (Metric Environmental)		Signature: <i>Zachary Root</i>	

Bridge/Structure Bat Assessment Form









Date & Time of Assessment 5/12/22	DOT Project Number 2000607	Route/Facility Carried US 12	County Laporte
Federal Structure ID Asset ID 136514	Structure Coordinates <small>(latitude and longitude)</small> -86.82548527 41.74632536	Structure Height (approximate) 30"	Structure Length 78'
Structure Type (check one)		Structure Material (check all that apply)	
Bridge Construction Style		Deck Material	Beam Material
<input type="radio"/> Cast-in-place 	<input type="radio"/> Pre-stressed Girder 	<input type="checkbox"/> Metal	<input type="checkbox"/> None
<input type="radio"/> Flat Slab/Box 	<input type="radio"/> Steel I-beam 	<input type="checkbox"/> Concrete	<input type="checkbox"/> Concrete
<input type="radio"/> Truss 	<input type="radio"/> Covered 	<input type="checkbox"/> Timber	<input type="checkbox"/> Steel
<input type="radio"/> Parallel Box Beam 	<input type="radio"/> Other: _____	<input type="checkbox"/> Open grid	<input type="checkbox"/> Timber
		<input type="checkbox"/> Other: _____	<input type="checkbox"/> Other: _____
Culvert Type	Other Structure	Culvert Material	Creosote Evidence
<input type="radio"/> Box	<input type="radio"/> _____	<input type="checkbox"/> Metal	<input checked="" type="radio"/> Yes <input type="radio"/> No
<input checked="" type="radio"/> Pipe/Round	<input type="radio"/> _____	<input checked="" type="checkbox"/> Concrete	<input type="radio"/> Unknown
<input type="radio"/> Other: _____	<input type="radio"/> _____	<input type="checkbox"/> Plastic	Notes:
		<input type="checkbox"/> Stone/Masonry	
		<input type="checkbox"/> Other: _____	
Crossings Traversed (check all that apply)		Surrounding Habitat (check all that apply)	
<input checked="" type="checkbox"/> Bare ground	<input type="checkbox"/> Open vegetation	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Grassland
<input type="checkbox"/> Rip-rap	<input type="checkbox"/> Closed vegetation	<input type="checkbox"/> Commercial	<input type="checkbox"/> Ranching
<input type="checkbox"/> Flowing water	<input type="checkbox"/> Railroad	<input checked="" type="checkbox"/> Residential-urban	<input type="checkbox"/> Riparian/wetland
<input type="checkbox"/> Standing water	<input type="checkbox"/> Road/trail - Type: _____	<input type="checkbox"/> Residential-rural	<input type="checkbox"/> Mixed use
<input type="checkbox"/> Seasonal water	<input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Woodland/forested	<input type="checkbox"/> Other: _____
Areas Assessed (check all that apply)			
Check all areas that apply. If an area is not present in the structure, check the "not present" box.			
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.			
Area (check if assessed)	Assessment Notes	Evidence of Bats (include photos if present)	
<input type="checkbox"/> All crevices and cracks: Bridges/culverts: rough surfaces or imperfections in concrete Other structures: soffits, rafters, attic areas	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
<input checked="" type="checkbox"/> Concrete surfaces (open roosting on concrete)	<input type="checkbox"/> Not present	<input type="checkbox"/> Guano	<input type="checkbox"/> Odor <input type="checkbox"/> Photos
<input checked="" type="checkbox"/> Spaces between concrete end walls and the bridge deck	<input type="checkbox"/> Not present	<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Crack between concrete railings on top of the bridge deck 	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
<input type="checkbox"/> Vertical surfaces on concrete I-beams	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Guano	<input type="checkbox"/> Odor <input type="checkbox"/> Photos
<input type="checkbox"/> Spaces between walls, ceiling joists	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Weep holes, scupper drains, and inlets/pipes	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
<input type="checkbox"/> All guiderails	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Guano	<input type="checkbox"/> Odor <input type="checkbox"/> Photos
<input type="checkbox"/> All expansion joints	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
		<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor <input type="checkbox"/> Photos
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos

Name: Zachary Root (Metric Environmental)








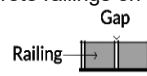
Signature: *Zachary Root*

Date & Time of Assessment 05/12/22	DOT Project Number 2000607	Route/Facility Carried US 12	County Laporte
Federal Structure ID Asset ID 136541	Structure Coordinates 41.73068355, (latitude and longitude) -86.86236036	Structure Height (approximate) 12"	Structure Length 151'
Structure Type (check one)		Structure Material (check all that apply)	
Bridge Construction Style		Deck Material	Beam Material End/Back Wall Material
<input type="radio"/> Cast-in-place	<input type="radio"/> Pre-stressed Girder	<input type="checkbox"/> Metal	<input type="checkbox"/> None <input type="checkbox"/> Concrete
<input type="radio"/> Flat Slab/Box	<input type="radio"/> Steel I-beam	<input type="checkbox"/> Concrete	<input type="checkbox"/> Concrete
<input type="radio"/> Truss	<input type="radio"/> Covered	<input type="checkbox"/> Timber	<input type="checkbox"/> Steel
<input type="radio"/> Parallel Box Beam	<input type="radio"/> Other: _____	<input type="checkbox"/> Open grid	<input type="checkbox"/> Timber
		<input type="checkbox"/> Other: _____	<input type="checkbox"/> Other: _____
Culvert Type		Culvert Material	Creosote Evidence
<input type="radio"/> Box	Other Structure	<input type="checkbox"/> Metal	<input type="radio"/> Yes <input checked="" type="radio"/> No
<input checked="" type="radio"/> Pipe/Round	<input type="radio"/> _____	<input checked="" type="checkbox"/> Concrete	<input type="radio"/> Unknown
<input type="radio"/> Other: _____		<input type="checkbox"/> Plastic	Notes:
		<input type="checkbox"/> Stone/Masonry	
		<input type="checkbox"/> Other: _____	
Crossings Traversed (check all that apply)		Surrounding Habitat (check all that apply)	
<input type="checkbox"/> Bare ground	<input type="checkbox"/> Open vegetation	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Grassland
<input type="checkbox"/> Rip-rap	<input type="checkbox"/> Closed vegetation	<input type="checkbox"/> Commercial	<input type="checkbox"/> Ranching
<input type="checkbox"/> Flowing water	<input type="checkbox"/> Railroad	<input checked="" type="checkbox"/> Residential-urban	<input type="checkbox"/> Riparian/wetland
<input checked="" type="checkbox"/> Standing water	<input type="checkbox"/> Road/trail - Type: _____	<input type="checkbox"/> Residential-rural	<input type="checkbox"/> Mixed use
<input type="checkbox"/> Seasonal water	<input type="checkbox"/> Other: _____	<input type="checkbox"/> Woodland/forested	<input type="checkbox"/> Other: _____
Areas Assessed (check all that apply)			
Check all areas that apply. If an area is not present in the structure, check the "not present" box.			
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.			
Area (check if assessed)	Assessment Notes	Evidence of Bats (include photos if present)	
<input type="checkbox"/> All crevices and cracks: Bridges/culverts: rough surfaces or imperfections in concrete Other structures: soffits, rafters, attic areas	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
<input checked="" type="checkbox"/> Concrete surfaces (open roosting on concrete)		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Spaces between concrete end walls and the bridge deck	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Crack between concrete railings on top of the bridge deck	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Vertical surfaces on concrete I-beams	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Spaces between walls, ceiling joists	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Weep holes, scupper drains, and inlets/pipes	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> All guiderails	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> All expansion joints	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
Name: Zachary Root (Metric Environmental)		Signature: <i>Zachary Root</i>	

Bridge/Structure Bat Assessment Form

Date & Time of Assessment 5/12/22	DOT Project Number 2000607	Route/Facility Carried US 12	County Laporte
Federal Structure ID Asset ID 136542	Structure Coordinates 41.73988931, (latitude and longitude) -86.84030414	Structure Height (approximate) 15"	Structure Length 70'
Structure Type (check one)		Structure Material (check all that apply)	
Bridge Construction Style		Deck Material	Beam Material
<input type="radio"/> Cast-in-place 	<input type="radio"/> Pre-stressed Girder 	<input type="checkbox"/> Metal	<input type="checkbox"/> None
<input type="radio"/> Flat Slab/Box 	<input type="radio"/> Steel I-beam 	<input type="checkbox"/> Concrete	<input type="checkbox"/> Concrete
<input type="radio"/> Truss 	<input type="radio"/> Covered 	<input type="checkbox"/> Timber	<input type="checkbox"/> Steel
<input type="radio"/> Parallel Box Beam 	<input type="radio"/> Other: _____	<input type="checkbox"/> Open grid	<input type="checkbox"/> Timber
		<input type="checkbox"/> Other: _____	<input type="checkbox"/> Other: _____
Culvert Type	Other Structure	Culvert Material	Creosote Evidence
<input type="radio"/> Box	<input type="radio"/> _____	<input type="checkbox"/> Metal	<input type="radio"/> Yes <input checked="" type="radio"/> No
<input checked="" type="radio"/> Pipe/Round		<input checked="" type="checkbox"/> Concrete	<input type="radio"/> Unknown
<input type="radio"/> Other: _____		<input type="checkbox"/> Plastic	Notes:
		<input type="checkbox"/> Stone/Masonry	
		<input type="checkbox"/> Other: _____	
Crossings Traversed (check all that apply)		Surrounding Habitat (check all that apply)	
<input type="checkbox"/> Bare ground	<input type="checkbox"/> Open vegetation	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Grassland
<input type="checkbox"/> Rip-rap	<input type="checkbox"/> Closed vegetation	<input type="checkbox"/> Commercial	<input type="checkbox"/> Ranching
<input type="checkbox"/> Flowing water	<input type="checkbox"/> Railroad	<input checked="" type="checkbox"/> Residential-urban	<input type="checkbox"/> Riparian/wetland
<input type="checkbox"/> Standing water	<input type="checkbox"/> Road/trail - Type: _____	<input type="checkbox"/> Residential-rural	<input type="checkbox"/> Mixed use
<input type="checkbox"/> Seasonal water	<input type="checkbox"/> Other: _____	<input type="checkbox"/> Woodland/forested	<input type="checkbox"/> Other: _____
Areas Assessed (check all that apply)			
Check all areas that apply. If an area is not present in the structure, check the "not present" box.			
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.			
Area (check if assessed)	Assessment Notes	Evidence of Bats (include photos if present)	
<input type="checkbox"/> All crevices and cracks: Bridges/culverts: rough surfaces or imperfections in concrete Other structures: soffits, rafters, attic areas	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
<input checked="" type="checkbox"/> Concrete surfaces (open roosting on concrete)		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input checked="" type="checkbox"/> Spaces between concrete end walls and the bridge deck	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Crack between concrete railings on top of the bridge deck 	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Vertical surfaces on concrete I-beams	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Spaces between walls, ceiling joists	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Weep holes, scupper drains, and inlets/pipes	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> All guiderails	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> All expansion joints	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # _____ dead # _____	<input type="checkbox"/> Audible <input type="checkbox"/> Species _____
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
Name: Zachary Root (Metric Environmental)		Signature: <i>Zachary Root</i>	

Bridge/Structure Bat Assessment Form

Date & Time of Assessment 05/12/22	DOT Project Number 2000607	Route/Facility Carried US 12	County Laporte
Federal Structure ID Asset ID 136544	Structure Coordinates 41.74507197, -86.82747555 (latitude and longitude)	Structure Height (approximate) 18"	Structure Length 65'
Structure Type (check one)		Structure Material (check all that apply)	
Bridge Construction Style		Deck Material	Beam Material
<input type="radio"/> Cast-in-place 	<input type="radio"/> Pre-stressed Girder 	<input type="checkbox"/> Metal	<input type="checkbox"/> None
<input type="radio"/> Flat Slab/Box 	<input type="radio"/> Steel I-beam 	<input type="checkbox"/> Concrete	<input type="checkbox"/> Concrete
<input type="radio"/> Truss 	<input type="radio"/> Covered 	<input type="checkbox"/> Timber	<input type="checkbox"/> Steel
<input type="radio"/> Parallel Box Beam 	<input type="radio"/> Other: _____	<input type="checkbox"/> Open grid	<input type="checkbox"/> Timber
		<input type="checkbox"/> Other: _____	<input type="checkbox"/> Other: _____
Culvert Type	Other Structure	Culvert Material	Creosote Evidence
<input type="radio"/> Box	<input type="radio"/> _____	<input type="checkbox"/> Metal	<input type="radio"/> Yes <input checked="" type="radio"/> No
<input checked="" type="radio"/> Pipe/Round		<input checked="" type="checkbox"/> Concrete	<input type="radio"/> Unknown
<input type="radio"/> Other: _____		<input type="checkbox"/> Plastic	Notes:
		<input type="checkbox"/> Stone/Masonry	
		<input type="checkbox"/> Other: _____	
Crossings Traversed (check all that apply)		Surrounding Habitat (check all that apply)	
<input checked="" type="checkbox"/> Bare ground	<input type="checkbox"/> Open vegetation	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Grassland
<input type="checkbox"/> Rip-rap	<input type="checkbox"/> Closed vegetation	<input type="checkbox"/> Commercial	<input type="checkbox"/> Ranching
<input type="checkbox"/> Flowing water	<input type="checkbox"/> Railroad	<input checked="" type="checkbox"/> Residential-urban	<input type="checkbox"/> Riparian/wetland
<input checked="" type="checkbox"/> Standing water	<input type="checkbox"/> Road/trail - Type: _____	<input type="checkbox"/> Residential-rural	<input type="checkbox"/> Mixed use
<input type="checkbox"/> Seasonal water	<input type="checkbox"/> Other: _____	<input type="checkbox"/> Woodland/forested	<input type="checkbox"/> Other: _____
Areas Assessed (check all that apply)			
Check all areas that apply. If an area is not present in the structure, check the "not present" box.			
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.			
Area (check if assessed)	Assessment Notes	Evidence of Bats (include photos if present)	
<input type="checkbox"/> All crevices and cracks: Bridges/culverts: rough surfaces or imperfections in concrete Other structures: soffits, rafters, attic areas	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
<input checked="" type="checkbox"/> _____		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input checked="" type="checkbox"/> Concrete surfaces (open roosting on concrete)	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input checked="" type="checkbox"/> Spaces between concrete end walls and the bridge deck	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Crack between concrete railings on top of the bridge deck 	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Vertical surfaces on concrete I-beams	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Spaces between walls, ceiling joists	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Weep holes, scupper drains, and inlets/pipes	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> All guiderails	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> All expansion joints	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live # dead #	<input type="checkbox"/> Audible <input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
Name: Zachary Root (Metric Environmental)		Signature: <i>Zachary Root</i>	

Bridge/Structure Bat Assessment Form

Date & Time of Assessment	9 May 2025	DOT Project Number	2101096	Route/Facility Carried	US 12 over Kintzele Ditch	County	LaPorte & Porter																		
Federal Structure ID	CV 012-064-37.05	Structure Coordinates (latitude and longitude)	41.70466, -86.93149	Structure Height (approximate)		Structure Length	134.0 feet																		
Structure Type (check one)				Structure Material (check all that apply)																					
Bridge Construction Style				<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Deck Material</td> <td style="width: 33%;">Beam Material</td> <td style="width: 33%;">End/Back Wall Material</td> </tr> <tr> <td><input type="checkbox"/> Metal</td> <td><input type="checkbox"/> None</td> <td><input type="checkbox"/> Concrete</td> </tr> <tr> <td><input type="checkbox"/> Concrete</td> <td><input type="checkbox"/> Concrete</td> <td><input type="checkbox"/> Timber</td> </tr> <tr> <td><input type="checkbox"/> Timber</td> <td><input type="checkbox"/> Steel</td> <td><input type="checkbox"/> Stone/Masonry</td> </tr> <tr> <td><input type="checkbox"/> Open grid</td> <td><input type="checkbox"/> Timber</td> <td><input type="checkbox"/> Other:</td> </tr> <tr> <td><input type="checkbox"/> Other:</td> <td><input type="checkbox"/> Other:</td> <td></td> </tr> </table>				Deck Material	Beam Material	End/Back Wall Material	<input type="checkbox"/> Metal	<input type="checkbox"/> None	<input type="checkbox"/> Concrete	<input type="checkbox"/> Concrete	<input type="checkbox"/> Concrete	<input type="checkbox"/> Timber	<input type="checkbox"/> Timber	<input type="checkbox"/> Steel	<input type="checkbox"/> Stone/Masonry	<input type="checkbox"/> Open grid	<input type="checkbox"/> Timber	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	
Deck Material	Beam Material	End/Back Wall Material																							
<input type="checkbox"/> Metal	<input type="checkbox"/> None	<input type="checkbox"/> Concrete																							
<input type="checkbox"/> Concrete	<input type="checkbox"/> Concrete	<input type="checkbox"/> Timber																							
<input type="checkbox"/> Timber	<input type="checkbox"/> Steel	<input type="checkbox"/> Stone/Masonry																							
<input type="checkbox"/> Open grid	<input type="checkbox"/> Timber	<input type="checkbox"/> Other:																							
<input type="checkbox"/> Other:	<input type="checkbox"/> Other:																								
<input type="radio"/> Cast-in-place <input type="radio"/> Pre-stressed Girder				<input type="checkbox"/> Metal <input type="checkbox"/> None <input type="checkbox"/> Concrete																					
<input type="radio"/> Flat Slab/Box <input type="radio"/> Steel I-beam				<input type="checkbox"/> Concrete <input type="checkbox"/> Concrete <input type="checkbox"/> Timber																					
<input type="radio"/> Truss <input type="radio"/> Covered				<input type="checkbox"/> Timber <input type="checkbox"/> Steel <input type="checkbox"/> Stone/Masonry																					
<input type="radio"/> Parallel Box Beam <input type="radio"/> Other:				<input type="checkbox"/> Open grid <input type="checkbox"/> Timber <input type="checkbox"/> Other:																					
Culvert Type				Culvert Material																					
<input type="radio"/> Box <input type="radio"/> Pipe/Round <input type="radio"/> Other:				<input type="checkbox"/> Metal <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Plastic <input type="checkbox"/> Stone/Masonry <input type="checkbox"/> Other:																					
Other Structure				Notes:																					
<input checked="" type="radio"/> Concrete culvert running under US 12				<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown																					
Crossings Traversed (check all that apply)				Surrounding Habitat (check all that apply)																					
<input type="checkbox"/> Bare ground <input type="checkbox"/> Rip-rap <input type="checkbox"/> Flowing water <input checked="" type="checkbox"/> Standing water <input type="checkbox"/> Seasonal water				<input type="checkbox"/> Open vegetation <input type="checkbox"/> Closed vegetation <input type="checkbox"/> Railroad <input type="checkbox"/> Road/trail - Type: <input checked="" type="checkbox"/> Other: Submerged																					
<input type="checkbox"/> Agricultural <input type="checkbox"/> Commercial <input type="checkbox"/> Residential-urban <input checked="" type="checkbox"/> Residential-rural <input checked="" type="checkbox"/> Woodland/forested				<input checked="" type="checkbox"/> Grassland <input type="checkbox"/> Ranching <input checked="" type="checkbox"/> Riparian/wetland <input type="checkbox"/> Mixed use <input checked="" type="checkbox"/> Other:																					
Areas Assessed (check all that apply)																									
Check all areas that apply. If an area is not present in the structure, check the "not present" box.																									
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.																									
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<input type="checkbox"/> All crevices and cracks: Bridges/culverts: rough surfaces or imperfections in concrete Other structures: soffits, rafters, attic areas		<input type="checkbox"/> Not present		<input type="checkbox"/> Visual - live # dead # <input type="checkbox"/> Guano <input type="checkbox"/> Staining <input type="checkbox"/> Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Species																					
<input checked="" type="checkbox"/> Concrete surfaces (open roosting on concrete)		<input type="checkbox"/> Not present		<input type="checkbox"/> Visual - live # dead # <input type="checkbox"/> Guano <input type="checkbox"/> Staining <input type="checkbox"/> Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Species																					
<input type="checkbox"/> Spaces between concrete end walls and the bridge deck		<input checked="" type="checkbox"/> Not present		<input type="checkbox"/> Visual - live # dead # <input type="checkbox"/> Guano <input type="checkbox"/> Staining <input type="checkbox"/> Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Species																					
<input type="checkbox"/> Crack between concrete railings on top of the bridge deck <div style="text-align: center;"> Gap Railing </div>		<input type="checkbox"/> Not present		<input type="checkbox"/> Visual - live # dead # <input type="checkbox"/> Guano <input type="checkbox"/> Staining <input type="checkbox"/> Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Species																					
<input type="checkbox"/> Vertical surfaces on concrete I-beams		<input checked="" type="checkbox"/> Not present		<input type="checkbox"/> Visual - live # dead # <input type="checkbox"/> Guano <input type="checkbox"/> Staining <input type="checkbox"/> Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Species																					
<input type="checkbox"/> Spaces between walls, ceiling joists		<input checked="" type="checkbox"/> Not present		<input type="checkbox"/> Visual - live # dead # <input type="checkbox"/> Guano <input type="checkbox"/> Staining <input type="checkbox"/> Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Species																					
<input type="checkbox"/> Weep holes, scupper drains, and inlets/pipes		<input checked="" type="checkbox"/> Not present		<input type="checkbox"/> Visual - live # dead # <input type="checkbox"/> Guano <input type="checkbox"/> Staining <input type="checkbox"/> Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Species																					
<input type="checkbox"/> All guiderails		<input checked="" type="checkbox"/> Not present		<input type="checkbox"/> Visual - live # dead # <input type="checkbox"/> Guano <input type="checkbox"/> Staining <input type="checkbox"/> Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Species																					
<input type="checkbox"/> All expansion joints		<input checked="" type="checkbox"/> Not present		<input type="checkbox"/> Visual - live # dead # <input type="checkbox"/> Guano <input type="checkbox"/> Staining <input type="checkbox"/> Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Species																					
Name: Jason Damm				Signature:																					

202017.22

January 26, 2024

Mayor Angie Nelson-Deutch
City of Michigan City
100 East Michigan Boulevard
Michigan City, Indiana 46360

RE: Section 4(f) Exemption, Singing Sands Trail
Des No. 2000607
U.S. 12 Roadway Project, LaPorte County

CHRISTOPHER J. JETER, PE
DAN G. DELGADO, PE
JARED M. HUSS, PE
KEVIN J. SIEDLECKI, PE
CHRISTOPHER M. VANHULLE, PE
MICHELLE M.G. SLACK, PS
DMITRI G. ADAMS, PE
AMANDA R. BUDREAU, PE
JOSEPH D. DUNBAR, PE
PAULIN HAKIZIMANA, PE, PTOE
MARK H. FOSTER, PE
EASA KHAN, PhD, PE, PMP, PTOE
BLAKE R. WARNER, PE
REBECCA L. DUNBAR, PS, EI
DAVID J. TEGGELAAR, PE
MICHAEL A. WILLIAMS, PE
TREVOR M. CREAGER, PE
JOHN J. LABOUNTY, PE

Dear Mayor Nelson-Deutch,

The Indiana Department of Transportation (INDOT) LaPorte District, with funding from the Federal Highway Administration (FHWA), intends to proceed with the U.S. 12 Roadway project that extends from the Porter/LaPorte County line to the Michigan State line. This project entails a Hot Mix Asphalt (HMA) overlay, addressing Americans with Disabilities Act (ADA) structure compliance, lane and signal modifications, and drainage structure improvements. At the west end of the project area, a portion of the U.S. 12 Roadway project will also include a proposed bike lane extension for the Singing Sands Trail on the north side of U.S. 12 adjacent to the westbound lane, from the Indiana Dunes National Park Mount Baldy approach to where the Trail crosses U.S. 12, just west of the South Shore Railroad crossing.

The existing roadway at the west end of the project area currently has four (4) lanes. The proposed work in this area of roadway will utilize existing pavement in order to create two (2) lanes for cars and one (1) lane for bikes, with a 6-foot buffer between the car and bike lanes. There will be some widening required to maintain the 6-foot buffer as traffic splits around the median island at the trail crossing. The remaining part of the bike lane will be entirely within the limits of the existing pavement. This extension is intended to provide a safe bike lane experience on the north side of U.S. 12 as well as increased designated bike access to Indiana Dunes National Park, Mount Baldy and Michigan City.

The Singing Sands Trail, a publicly owned property, is open to the public. Its major purpose is for recreation, and it is considered a significant recreation resource for Michigan City and those who utilize the Trail. Therefore, the Singing Sands Trail is considered a Section 4(f) resource under the U.S. Department of Transportation Act of 1966. Because of this designation, the Singing Sands Trail is subject to be evaluated through Section 4(f) when FHWA funds will use or impact protected properties. However, the FHWA has identified various exceptions to the requirement for Section 4(f) review.

This letter seeks to meet the Section 4(f) exception, 23 CFR 774.13 (g)(1) and (g)(2), which states that, *Transportation enhancement activities, transportation alternatives projects, and mitigation activities where (g)(1) The use of the Section 4(f) property is solely for the purpose of preserving or enhancing an activity, feature, or attribute that qualifies the property for Section 4(f) protection; and, (g)(2) The official(s) with jurisdiction over the Section 4(f) resource agrees in writing to paragraph (g)(1) of this section.*



Mayor Angie Nelson Deutch
January 26, 2024
Page 2

It is our understanding that the following apply and warrant an exception to review.

- This portion of the Singing Sands Trail is owned and under the jurisdiction of the City of Michigan City and is publicly available for recreational use.
- Roadway resurfacing activities and extension of the Singing Sands bike lane will enhance but will not negatively impact the 4(f) resource.
- The project will not use this resource by taking permanent right-of-way and will not indirectly use the resource in such a way that the protected activities, features, and attributes that qualify the resource for protection under Section 4(f) are substantially impaired.
- The Singing Sands Trail will be unaffected by the remainder of the U.S. 12 construction activities.

The Singing Sands Trail will be impacted for a limited amount of time (approximately 30 days) within the larger construction window of April 2025 to November 2025. There will be no right-of-way acquired for this Trail.

In order for this project to be considered exempt from Section 4(f) review, we are requesting that you, as the official with jurisdiction over Singing Sands Trail in Michigan City, Indiana, concur in writing that the proposed use of the Section 4(f) property is solely for the purpose of preserving or enhancing the activities, features, or attributes that qualify the property for Section 4(f) protection. If you concur that the project will meet the above conditions, please sign below. Your signature will be considered documented agreement.

Angie Nelson-Deutch
Mayor, City of Michigan City
Official with Jurisdiction

Jan. 26, 2024

Date

From: [Michels, Stewart](#)
To: [Catherine Holland](#)
Cc: [Mason, Scott](#)
Subject: RE: Early Coordination Letter Des. 2000607, 2101096, 250075 Roadway Project Along US 12 Porter and LaPorte Counties
Date: Tuesday, June 17, 2025 10:55:50 AM
Attachments: [image001.png](#)

Catherine,

Thank you for providing a copy of the early coordination letter for Des Nos. 2000607, 2101096 and 2500075 to the LaPorte District Environmental Services. I did not see the National Park Service listed as a recipient. If you have not already done so, please consider sending an ECL packet to the National Park Service/ Indiana Dunes National Park as the project is adjacent to their lands. We have previously coordinated with the project team regarding the need for public involvement. I'm sure you are aware, but just in case, please recall that the Interim Policy cannot be used. Otherwise, we do not have any comment at this time. Thank you, again, for contacting us.

Regards,

Stew

Stewart Michels

Environmental Manager Supervisor

Indiana Department of Transportation

LaPorte District

Cell: (219) 402-7315

Email: SMichels@indot.in.gov

[Find us on social media!](#)



From: Catherine Holland <catherineh@metricenv.com>

Sent: Thursday, May 22, 2025 3:33 PM

To: Tait, Erica (FHWA) <erica.tait@dot.gov>; Story, Paige (FHWA) <Paige.Story@dot.gov>; DNR Environmental Review <environmentalreview@dnr.IN.gov>; erik.r.sandstedt@hud.gov; Michels, Stewart <SMichels@indot.IN.gov>; Lamb, Patrick A <PLamb@indot.IN.gov>; chicagorequests@usace.army.mil; McWilliams, Robin <robin_mcowilliams@fws.gov>; jhaney@laporteco.in.gov; ahendricks@laporteco.in.gov; astevens@laporteco.in.gov; twarner@nirpc.org; cbradsky@nirpc.org; jim.polarek@porterco.org; kathy.merle@porterco.org; kbreizke@porterco.org; mcsd@emichigancity.com; Orsburn, Jenny R <JeOrsburn@dnr.IN.gov>

Cc: Linda Zug <lindaz@metricenv.com>; Dan Delgado <ddelgado@lawson-fisher.com>; Mason, Scott <SMason@indot.IN.gov>; Lisa Harris <lharris@lawson-fisher.com>

Subject: Early Coordination Letter Des. 2000607, 2101096, 250075 Roadway Project Along US 12 Porter and LaPorte Counties

EXTERNAL EMAIL: This email was sent from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Good morning,

Metric Environmental has been contracted by Lawson-Fisher Associates to prepare the Categorical Exclusion Environmental Document for the above referenced project along US 12 from 1.93 miles west of US 421 to the Michigan state line in Porter and LaPorte Counties. We respectfully request your review of the attached early coordination packet for your respective county and response within the 30-day limit.

Thank you,



Catherine Holland

Assistant Project Manager

○ 317.400.1633 ext. 195

M 317.348.2537

6958 Hillsdale Court

Indianapolis, IN 46250

www.metricenv.com

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APPENDIX D SECTION 106 OF THE NHPA

Minor Projects PA Project Submittal and Assessment Form

SECTION 1

The submittal of this form is only required for projects where Category B applies. Projects qualifying under Category A do not require submittal of this form. SECTION 2 (for Conditions of Category B-1 for curb/sidewalk) or SECTION 3 (for Conditions of Category B-9 for drainage structures) may be required as determined by INDOT-Cultural Resources Office (INDOT-CRO) review. INDOT-CRO will notify applicants if the Minor Projects PA does not apply.

Part I: Project Information-Completed by Applicant (Consultant/PM/Project Sponsor/INDOT District Staff) *

**A qualified professional historian (QP) is not required to complete Part I. INDOT-CRO staff will be responsible for completion of Part II.*

Original Submission Date:

Amended Submission Date*:

Consult with INDOT-CRO to determine whether an amendment is required. For revisions/updates to original form, please detail in applicable sections below. Please use **red font to distinguish the revisions/updates.*

Submitted By (Provide Name and Firm/Organization): Lisa Harris, MSES-MPA, Lawson-Fisher Associates

Project Designation Number: 2000607 (Lead Des No.), 2101096, 2500075

Route Number: United States (U.S.) 12 and Beverly Drive

Feature crossed (if applicable): Unnamed Tributary (UNT) to Kintzele Ditch

City/Township: Michigan City/Springfield, Michigan, Pine Townships

County: LaPorte, Porter

Project Description: The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) propose to proceed with the U.S. 12 HMA Overlay, Preventive Maintenance Project (Des No. 2000607 Lead, Des No. 2101096, Des No. 2000575). This project is located on U.S. 12, beginning south of the intersection of U.S. 12 and the east end of Beverly Drive at the Porter-LaPorte County Line. It continues east along U.S. 12 to the Michigan State Line in Laporte County.

The proposed project is anticipated to repair the existing roadway with a Hot Mix Asphalt (HMA) overlay, Preventive Maintenance, and to realign the intersection of U.S. 12 and East Beverly Drive (Des No. 2101096). The following improvements are planned throughout the project area.

- Eight (8) small drainage pipe structures will be replaced in-kind with an estimated excavation depth ranging from 5.5-feet to 10-feet.
- One culvert structure, CV 012-064-37.05, will be replaced with a six-foot-wide, four-foot-high, 76-foot-long reinforced concrete box (RCB) culvert, with the estimated excavation depth between 5-feet to 10-feet.
- One (1) inlet and 20 feet of storm sewer will be replaced in-kind.
- 23 castings will be replaced, and 18 castings will be adjusted to grade.
- Five (5) obstructed inlets and one (1) drywell will be cleared of debris.
- Curb ramps will be reconstructed to meet ADA standards at 17 intersections. Estimated excavation depth is between 0.5-foot to 3.5-feet.
- Traffic signal modernization at two (2) intersections (Des No. 2500075): on U.S. 12 at Liberty Trail and North Karwick Road, with estimated excavation of 12-foot deep by 1-foot diameter standard.
- Edgeline rumble stripes will be installed where the shoulder is two feet or greater in width.
- Damaged guardrail along north side of U.S. 12 at Douglas Avenue will be replaced and extended to satisfy INDOT length of need requirements. Estimated excavation depth is 3 feet by 7.25-inches.
- INDOT maintained ground mounted sheet signs 15 years and older will be replaced with an estimated excavation depth of 4-feet by 3-inches.

Minor Projects PA Project Submittal and Assessment Form

- Extension of a bike lane on the north side of U.S. 12 from Singing Sands Trail to the entrance of Mount Baldy National Park. Estimated excavation depth of 1-foot 4-inches.
- Additional signage will be added to improve railroad crossings and comply with railroad standards.

The project plan also involves Right Sizing Lane re-configuration along U.S. 12 except through the downtown area (Wabash Street to Spring Street/East Michigan Boulevard). The bike lane will be delineated on the north side of U.S. 12 from the entrance of Mount Baldy National Park to the intersection of U.S. 12 with the Singing Sands Trail. Full depth pavement widening is anticipated at two (2) locations: on the north side of U.S. 12 immediately to the west of the Singing Sand Trail providing separation between westbound traffic and the bike lane; and, at the US 12 intersection with State Road 212 to accommodate the eastbound to southbound turning movement. Signal modernizations are planned at the two intersections of Liberty Trail and North Karwick Road with U.S. 12.

The Beverly Drive intersection improvement will involve removing the existing portions of road currently connecting Beverly Drive with County Line Road and U.S. 12, constructing a new single point intersection with U.S. 12, correcting the superelevation of that section of roadway, revising the horizontal curve, and full-depth pavement replacement and mill and HMA overlay for that section on U.S. 12. Excavation in this location is estimated to be approximately 3 feet in depth.

An INDOT BIAS report dated June 22, 2022, stated that the culvert (CV 012-064-37.05) is comprised of two structures, was rated 3 out of 9, and is under water.

Plan Set Reference Pages Table

Feature	Plan Set Pages
ROW Plats	10-14
Beverly Drive Intersection Sheets	34-38
Small Structure Locations	39-54
Kintzele Ditch Structure	57
ADA Sheets	62-78
Retaining Wall Callout	70
Traffic Light Modernization	104-105

If the project includes any curb, curb ramp, or sidewalk work, please specify the location(s) of such work: Curb ramps at 17 locations will be reconstructed to meet ADA compliance requirements. See *the ADA Structure Table* below for more information.

ADA Structure Table				
Intersections (Map Locations)	Curb Ramp Quadrants	ADA Pushbutton Assemblies	Median Ramps	Depth of Excavation (feet below ground surface (ft-bgs))
Singing Sands/Calumet Trail West of Railroad	Median		Yes	0.5 ft-bgs
Logan Street	SW/SE			0.5 ft-bgs
Greely Avenue	SW/SE			0.5 ft-bgs

Minor Projects PA Project Submittal and Assessment Form

Douglas Avenue	SW/SE			0.5 ft-bgs
Lincoln Avenue	All four corners			0.5 ft-bgs
McClelland Avenue	All four corners			0.5 ft-bgs
Custer Avenue	SW/SE			0.5 ft-bgs
West 6 th Street	SW/SE			0.5 ft-bgs
Wabash Street	SW/SE/NE			0.5 ft-bgs
Washington Street	NW/NE/SE	8		3.5 ft-bgs
Franklin Street	Median/South		Yes	0.5 ft-bgs
Pine Street	All four corners	8		3.5 ft-bgs
Spring Street	All four corners	7		3.5 ft-bgs
2 nd Street West	NW/NE			0.5 ft-bgs
2 nd Street East	NW/NE			0.5 ft-bgs
Blue Chip Drive	NW/SW/SE /Median		Yes	0.5 ft-bgs
Cook Street	SW/SE			0.5 ft-bgs

For bridge or small structure projects, please list feature crossed, structure number, NBI number, and structure type: The small structure at Beverly Drive is the only structure that crosses a water feature. The existing culvert structure (CV 012-046-37.05) consists of two, four-sided reinforced concrete box culverts (RCB) structures that are 4-feet wide, 2.5-feet tall, and separated by a median conveying an unnamed tributary (UNT) to Kintzele Ditch. It is located under U.S. 12 and County Road near Beverly Drive at the west end of the project area. The structure will be replaced with a single 6-foot wide, 4-foot tall, 76-foot long precast RCB. See *Drainage Structure Replacements Table* below for more structure details.

Drainage Structure Replacements Table				
Location	INDOT Structure Number	Type of Structure	Treatment	Depth of Excavation (feet below ground surface (ft-bgs))
East of Freyer Road	136542/ 136515	Concrete Pipe	Replace In Kind, 2 Headwalls	5 ft-bgs
West of S.R. 212	136544/ 136545	Concrete Pipe	Replace In Kind, 2 Ends	5 ft-bgs
East of S.R. 212/U.S. 12 Merge	136497/ 136514	Concrete Pipe	Replace In Kind, 1 Headwall, 1 End	5-10 ft-bgs
S.R. 212 Merge With U.S. 12	136513	Concrete Pipe	Replace In Kind, 1 Headwall, 1 End	5 ft-bgs

Minor Projects PA Project Submittal and Assessment Form

Shady Oak Mobile Home Park	136503/ 136504	Metal Pipe	Replace In Kind, 2 Ends	5 ft-bgs
West 1000 North	136506/ 136505	Plastic Pipe	Replace In Kind, 2 Ends	5-10 ft-bgs
East of West 1000 North	136512	Concrete Pipe	Replace In Kind, 1 Headwall, 1 End	5-10 ft-bgs
West of Michigan State Line	136508/136509	Concrete Pipe	Replace In Kind, 1 Headwall, 1 End	5 ft-bgs
Beverly Drive Intersection	012-046-37.05/ 012-046-37.05 ADJ	RCB	Replace with 1 RCB	5-10 ft-bgs

For bridge projects, is the bridge included in INDOT's Historic Bridge Inventory (<https://www.in.gov/indot/2531.htm>)?

☐ Yes ☐ No

If yes, did the inventory determine the bridge eligible for or listed in the National Register of Historic Places? Please provide page # of entry in Historic Bridge Inventory.

☐ Yes ☐ No

Inventory Page # _____

Will there be right-of-way acquisition as part of this project?

☒ Yes ☐ No

If yes was checked above, please check all that apply:

☒ Permanent ☒ Temporary ☐ Reacquisition

If applicable, identify right-of-way acquisition locations in text below and in attached mapping. Please specify how much (both temporary and permanent) and indicate what activities are included in the proposed right-of-way: The project requires approximately 0.607 temporary acre and 0.239 permanent acres of ROW. See ROW Location, Parcel, and Activities Table below for location details.

ROW Location, Parcel, and Activities Table				
Parcel Number (See ROW Plan Sheets)	Location	Temporary Acres	Permanent Acres	Activities w/Plan Structure Numbers
1	Lincoln Avenue NW	0.002		ADA
2	Lincoln Avenue NE	0.003		ADA
3	McClelland Avenue SE	0.002		ADA
4	Wabash Street SE	0.001		ADA
5	Washington Street NW	0.001		ADA
6	Washington Street SE	0.002		ADA

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7	Pine Street NW		0.004	ADA
9	Blue Chip Drive	0.052		ADA
14	Liberty Trail SW		0.018	ROW Acquisition
15.1	Washington Park Boulevard NW		0.012	RR Traffic Signal Modernization
15.2	Washington Park Boulevard NE		0.051	RR Traffic Signal Modernization
16	Liberty Trail SE		0.154	Traffic Signal Modernization
Total Acres		0.067	0.239	

Is there any potential for additional temporary right-of-way to be needed later for purposes such as access, staging, etc.?

☐ Yes ☒ No

Archaeology (check one):

- ☒ **All proposed activities are presumed to occur in previously disturbed soils. ***
**INDOT-CRO will notify you if the project area includes undisturbed soils and requires an archaeological reconnaissance.*
- ☐ **Project takes place in undisturbed soils, and the archaeology report is included with the submission. ***
**If an archaeology report is required, the Minor Projects PA Form will not be finalized until the report is reviewed and approved by INDOT-CRO. For INDOT-sponsored projects, INDOT-CRO may be able to complete the archaeological investigation. If you would like to request that INDOT-CRO complete an archaeological investigation, please contact the INDOT-CRO Archaeology Team Lead. See CRM Pt. 1 Ch. 3 for current contact information.*

Please specify all applicable categories and condition(s) (INDOT will highlight applicable conditions in yellow):

B-6. Other minor actions if deemed appropriate for coverage under this MPPA, by consultation and mutual agreement between INDOT, FHWA, and the SHPO. The Tribes shall be provided information on all projects proposed to be cleared under this category for review prior to an agreement being signed between the agencies.

Check ☐ if SECTION 2: Minor Projects PA Category B-1, Condition B-ii Submission is included.

Check ☐ if SECTION 3: Minor Projects PA Category B-9, Condition B-i-c-2 or B-ii-b-3 Submission is included.

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Part II: Completed by INDOT-CRO

Information reviewed (please check all that apply):

General project location map ☒ USGS map ☒ Aerial photographs ☒ Soil survey data ☒

General project area photos ☒ Archaeology Reports ☒ Historic Property Reports ☒

Indiana Historic Buildings, Bridges, and Cemeteries Map/Interim Report ☒

Bridge inspection information/iTAMS ☒ Historic Bridge Inventory Database ☐

SHAARD ☒ SHAARD GIS ☒ Streetview Imagery ☒ County GIS Data/Property Cards ☒

Other (please specify): INDOT Section 106 documentation for Des. No. 1500324 (2016)

Copenhaver, Megan and Virginia Knapczyk

2025 Phase Ia Archaeological Reconnaissance Survey for the Proposed US 12 Small Structure (CV 012-064-37.05, NBI 93004683) Replacement Project Over an Unnamed Tributary to Kintzele Ditch, 1.93 Miles West of US 421, Pine Township, Porter County and Michigan Township, LaPorte County, Indiana (INDOT Des. Nos. 2000607 and 2101096). Report on file, Indiana Department of Transportation, Cultural Resources Office, Indianapolis, IN.

Are there any commitments associated with this project? If yes, please explain and include in the Additional Comments Section below. Yes ☒ No ☐

Does the project result in a de minimis impact to a Section 4(f) protected historic resource? If yes, please explain in the Additional Comments Section below. Yes ☒ No ☐

Additional Comments:

Above-ground Resources

An INDOT Cultural Resources Office historian who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 performed a desktop review, checking the Indiana Register of Historic Sites and Structures (State Register) and National Register of Historic Places (National Register) lists for La Porte County. No listed resources are located immediately adjacent to the project area, a distance that serves as an adequate potential area of effects given the project setting and scope.

The Indiana Historic Sites and Structures Inventory (IHSSI) and National Register information for LaPorte County are available in the Indiana State Historic Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM). The *La Porte County Interim Report* (1989; Springfield and Michigan Township, Michigan City Scattered Sites,) was also consulted. All sites were reviewed through the IHBBCM, which contains the most recently updated SHAARD information. The following IHSSI properties, rated higher than "Contributing," are immediately adjacent to the project area:

- IHSSI# 091-406-21155, Pullman Yard, 20th Century Industrial, c. 1900, rated "Notable"
- IHSSI# 091-406-21041, Industrial Building, 20th Century Functional, c. 1915, rated "Notable"
- IHSSI# 091-406-21042, La Porte County Superior Courthouse, Neoclassical, 1909, rated "Outstanding"

According to the IHSSI rating system, generally properties rated "Contributing" do not possess the level of historical or architectural significance necessary to be considered individually National Register-eligible, although they would contribute to a historic district. If they retain material integrity, properties rated "Notable" might possess the

Minor Projects PA Project Submittal and Assessment Form

necessary level of significance after further research. Properties rated “outstanding” usually possess the necessary level of significance to be considered National Register eligible if they retain material integrity.

The Des. No. 2000607 project area was evaluated--and a QP site-visit conducted-- as part of the INDOT-CRO Section 106 evaluation for Des. No. 1500324. In 2022, the project area was reviewed by an INDOT CRO historian through aerial photography, online street-view imagery, the La Porte County GIS websites, the consultant provided photographs, and the Section 106 documentation from the above noted project.

The project area is located in a small-town setting; the building stock ranges, primarily, from the late nineteenth to mid-twentieth century residential and commercial structures. Of the three (3) above noted resource rated higher than “Contributing”, two (2) resources (IHSSI# 091-406-21041 and IHSSI# 091-406-21042) are adjacent to B category work. The third (IHSSI# 091-406-21155, Pullman Yard) is adjacent to A category work only.

During the review of the project area, the CRO historian noted that, what appeared to be, a coal loading structure for trains was located along the railroad tracks on the northeast side of US 12 and Liberty Trail/Washington Park Blvd. Without further research, it cannot be determined if the resource is National Register-eligible, so it is considered eligible for the purposes of this determination. While the structure is on the same parcel work will occur, any potential historic boundaries would likely not extend to work within the project area. In addition, the structure is approximately 270 feet east of the road. Due to this distance, the structure would not be impacted, nor would any potential significance be diminished. No other resources, with the exception of the IHSSI documented resources noted above, appear to possess the significance or integrity necessary to be considered National Register-eligible.

US 12 (Michigan Blvd.) and Washington St.

This intersection contains two (2) IHSSI documented resources with a “Notable” or “Outstanding” rating. The northwest corner is adjacent to an Industrial Building (IHSSI# 091-406-21041, 229 W. Michigan Blvd.) with a “Notable” rating. The southeast corner is adjacent to the La Porte County Superior Courthouse (IHSSI# 091-406-21042, 300 W. Washington St.) with an “Outstanding” rating. This site was evaluated through the 2016 fieldwork for Des. No. 1500324 by QP historians, with no unusual features noted. However, utilizing Google street-view imagery from 2019, one (1) unusual feature was noted at this location. A concrete retaining wall was noted adjacent to the La Porte County Courthouse on the southeast corner. (See Figure 1)

Commitment

According to Category B-1, Condition B-ii-b-1, a firm commitment must be made to avoid the concrete retaining wall. A note will be added to the plans to reflect this commitment. Also, it will be added to INDOT’s project commitment database and included in the environmental documentation for this project. If it is later determined that any feature will be disturbed, INDOT Cultural Resources Office must be consulted prior to proceeding. If damage is discovered or occurs during construction, work should be stopped and INDOT-CRO notified. Notification must be sent to Clint Kelly, INDOT-CRO, via both phone (317- 447-8707) and email (ckelly1@indot.in.gov).

Section 4(f) de minimis information

Approximately 0.001 acre of temporary ROW is anticipated to be acquired from the northwest corner of US 12 and Washington St. which is adjacent to a “Notable” rated (IHSSI# 091-406-21041, 229 W. Michigan Blvd.) Industrial Building. Approximately 0.003 acre of temporary ROW is anticipated to be acquired from the southeast corner of US 12 and Washington St. which is adjacent to the “Outstanding” rated (IHSSI# 091-406-21042, 300 W. Washington St.) La Porte County Courthouse. This ROW is needed to allow for reconstruction of the sidewalk. **INDOT and FHWA, therefore, considers taking this minimal amount of temporary ROW from the property as a *de minimis* 4(f) use of the historic property.**

The most recent inspection report (D. Graham; 05/16/2024) from the INDOT Total Assets Management System (iTAMS) was referenced to review the culvert. The subject structure (CV 012-046-37.05) carries SR 12 over UNT to Kintzele Ditch and is a 133.6-foot-long concrete 4-sided box culvert with a 4-foot-wide by 2.5-foot-tall opening.

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The date of construction is 1934. The structure was examined via online street-view photography and iTAMS images. Examination of these images show the subject structure does not exhibit non-modern wood, stone, or brick structures or parts therein. In addition, the structure lacks a context that would suggest that it might have engineering or historical significance.

Based on the available information, as summarized above, no above-ground concerns exist.

Archaeological Resources

An INDOT-CRO archaeologist who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 reviewed the Phase Ia archaeological reconnaissance submitted by Metric Environmental on behalf of Lawson-Fisher Associates (Copenhaver and Knapczyk 2025).

A 4.9-acre survey area was examined through a combination of systematic shovel probing (n=17) and visual inspection of disturbed areas. The area encompassing the intersection of US 12 and Beverly Drive has been previously disturbed from the construction of the roadways, existing culvert with associated drainage, roadside ditching, intersection median, and buried utilities. Shovel test probes were placed on the east and west sides of US 12 in thick vegetation/wooded areas in 15 m intervals when possible. Eleven shovel probes were found to be disturbed, and the rest were negative. No archaeological sites were documented as a result of the survey and no further investigation is recommended (Copenhaver and Knapczyk 2025).

Therefore, there are no archaeological concerns as long as the project scope and footprint do not change.

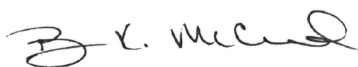
Accidental Discovery: If any archaeological artifacts or human remains are uncovered during construction, demolition, or earth moving activities, construction within 100 feet of the discovery will be stopped, and INDOT-CRO and the Indiana Department of Natural Resources-Division of Historic Preservation and Archaeology (IDNR-DHPA) will be notified immediately.

INDOT-CRO staff reviewer(s): Clint Kelly and KayLee Blum

SHPO:

Beth K. McCord

Printed Name



Signature

8/15/25

Date

FHWA:

Erica Tait

Printed Name

Erica Y. Tait

Signature

Digitally signed by Erica

Y. Tait

Date: 2025.09.11

08:04:57 -04'00'

9/11/25

Date

INDOT:

Matthew S. Coon

Printed Name



Signature

8/6/2025

Date



Figure 1: Concrete retaining wall, Southeast corner of US 12 and Washington Street
(**Source:** 2019 Google Street-view)

****Be sure to attach this form to the National Environmental Policy Act documentation for this project. Also, the NEPA documentation shall reference and include the description of the specific stipulation in the PA that qualifies the project as exempt from further Section 106 review.*



APPENDIX E RED FLAG INVESTIGATION



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758-ES
Indianapolis, Indiana 46204

PHONE: (855) 463-6848
(855) INDOT4U

Eric Holcomb, Governor
Michael Smith, Commissioner

Date: June 12, 2023

To: Site Assessment & Management (SAM)
Environmental Policy Office - Environmental Services Division (ESD)
Indiana Department of Transportation (INDOT)
100 N Senate Avenue, Room N758-ES
Indianapolis, IN 46204

From: Lisa Harris, MSES/MPA
Lawson-Fisher Associates P.C.
525 West Washington Avenue
South Bend, Indiana 46601
lharris@lawson-fisher.com

Re: LIMITED RED FLAG INVESTIGATION
DES No. 2000607, State Project
Roadway Project with ADA Curb Ramps and Signals, Small Drainage Structure Repairs/Replacements, and Signal Modernization
United States (U.S.) 12 at the Porter-LaPorte County Line East to the Michigan State Line
LaPorte County, Indiana

PROJECT DESCRIPTION

Brief Description of Project:

The Indiana Department of Transportation (INDOT) has identified the need to address the deteriorated condition of the pavement along U.S. 12, install and update select ADA-compliant ramps and pedestrian crossings, repair and replace deficient drainage structures, repair and install guardrails, signal modernizations, and replace aging ground mounted sheet signs. This is a CE-1 project with limited excavation activities and anticipated acquisition of temporary and permanent right-of-way (ROW), therefore, a request to complete a Limited RFI was submitted to the LaPorte District on January 4, 2022, and approval was received on January 11, 2022. The project spans approximately 7.95 miles from the Porter/LaPorte County line East to the Michigan State line. INDOT proposes a 1.5 inch mill and overlay with full and partial depth patching. In addition to the HMA overlay activities, 70 ADA curb ramps and pushbutton assemblies will be replaced at 17 intersections in order to meet ADA-compliant standards. Excavation activities will also include 8 pipes/culverts to be replaced in-kind, and the pavement will be widened for 300 feet on the north side of US 12 at the Singing Sands Trail Crossing for a new bike lane, and at the right turn from US 12 to SR 212. There will be 23 casting replacements, and 10 inlet and 8 manhole castings adjusted to grade. One inlet will be replaced, and 8 other structures will be replaced in-kind. Obstructed inlets and pipes will be cleaned as necessary. Sections of the roadway will involve Right Sizing Lane re-configuration. Damaged guardrail will be replaced and extended along the Singing Sands Trail. Signal modernizations will be constructed at the intersections with Liberty Trail and North Karwick Road. Snowplowable raised pavement markers will be replaced. There is one railroad paving exception at the Chicago Southshore & South Bend railroad crossing on the west end of the project area, and another paving exception at the bridge crossing Trail Creek.

ADA curb ramps and pushbutton assemblies are proposed to be replaced at the locations provided in the ADA Structure Table below.

ADA Structure Table				
Intersections	Curb Ramp Quadrants	ADA Pushbutton Assemblies	Median Ramps	Depth of Excavation (feet below ground surface (ft-bgs))
Singing Sands/Calumet Trail West of RR	Median		1	0.5 ft-bgs
Logan Street	SW/SE			0.5 ft-bgs
Greely Avenue	SW/SE			0.5 ft-bgs
Douglas Avenue	SW/SE			0.5 ft-bgs
Lincoln Avenue	All four corners			0.5 ft-bgs
McClelland Avenue	All four corners			0.5 ft-bgs
Custer Avenue	SW/SE			0.5 ft-bgs
West 6 th Street	SW/SE			0.5 ft-bgs
Wabash Street	SW/SE/NE			0.5 ft-bgs
Washington Street	NW/NE/SE	8		3.5 ft-bgs
Franklin Street	Median/South		2	0.5 ft-bgs
Pine Street	All four corners	8		3.5 ft-bgs
Spring Street	All four corners	7		3.5 ft-bgs
2 nd Street West	NW/NE			0.5 ft-bgs
2 nd Street East	NW/NE			0.5 ft-bgs
Blue Chip Drive	NW/SW/SE			0.5 ft-bgs
Cook Street	SW/SE			0.5 ft-bgs

Small pipe structures to be replaced are listed in the Small Structure Table below.

Small Structure Table				
Location	INDOT Structure Number	Type of Structure	Treatment	Depth of Excavation (feet below ground surface (ft-bgs))
900-ft. East of Freyer Rd	136542/136515	Concrete Pipe	Replace In Kind	5 ft-bgs
680-ft. East of Davis St	136544/136545	Concrete Pipe	Replace In Kind	5 ft-bgs
650-ft. West of SR 212 Merge With US 12	136497/136514	Concrete Pipe	Replace In Kind	5 ft-bgs
At the SR 212 Merge With US 12	136513	Concrete Pipe	Replace In Kind	5 ft-bgs
At East Drive into Shady Oak (Dune Creek) Mobile Home Park	136503/136504	Metal Pipe	Replace In Kind	5 ft-bgs
Under 1000 N at US 12	136506/136505	Metal Pipe	Replace In Kind	5 ft-bgs

700-ft. West of Shady Oak Ln	136512	Concrete Pipe	Replace In Kind	5 ft-bgs
200-ft. West of Michigan State Line	136508/136509	Concrete Pipe	Replace In Kind	5-10 ft-bgs

Bridge Work Included in Project: Yes ☐ No ☒ Structure #(s) _____

If this is a bridge project, is the bridge Historical? Yes ☐ No ☐ , Select ☐ Non-Select ☐

(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations Section of the report).

Culvert Work Included in Project: Yes ☒ No ☐ Structure #(s) See Small Structure Table for INDOT structure numbers

Proposed right of way: Temporary ☒ # Acres .033, Permanent ☒ # Acres .071, Not Applicable ☐

Type and proposed depth of excavation: ADA Curb Ramps 6-in. Standard, ADA Median Ramps – 6-in. Standard, ADA Pushbutton Signals 3.5-ft. Deep x 1-ft. Diameter Standard, Traffic Signals 12-ft. Deep x 4-ft. Diameter Standard, Guardrails 3-ft. 7 ¼-in. Standard, Deficient Drainage Structures 5 ½-ft., Bike Lane 1-ft. 4-in.

Maintenance of traffic (MOT): HMA and small structure replacements are anticipated to have lane closures with both travel directions maintained, and traffic signal modernization intersections will likely be converted to four way stop, but both are still under development. Pedestrian MOT will involve a mix of detours, temporary accessible surfaces and ramps that are still under development.

Work in waterway: Yes ☐ No ☒ Below ordinary high-water mark: Yes ☐ No ☐

State Project: ☒ LPA: ☐

Any other factors influencing recommendations: Not Applicable

WATER RESOURCES

Direct coordination with INDOT ESD Ecology and Waterway Permitting will occur on all water resources except for the IDEM 303d Listed Streams and Lakes (Impaired).

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

Hazardous Material Concerns			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Superfund	2	Manufactured Gas Plant Sites	N/A
RCRA Generator/ TSD	6	Open Dump Waste Sites	N/A
RCRA Corrective Action Sites	N/A	Restricted Waste Sites	N/A
State Cleanup Sites	6	Waste Transfer Stations	1
Septage Waste Sites	N/A	Tire Waste Sites	N/A
Underground Storage Tank (UST) Sites	22	Confined Feeding Operations (CFO)	N/A
Voluntary Remediation Program	3	Brownfields	17
Construction Demolition Waste	N/A	Institutional Controls	20
Solid Waste Landfill	2	NPDES Facilities	31
Infectious/Medical Waste Sites	N/A	NPDES Pipe Locations	18
Leaking Underground Storage (LUST) Sites	22	Notice of Contamination Sites	N/A

Unless otherwise noted, site specific details presented in this section were obtained from documents reviewed on the Indiana Department of Environmental Management (IDEM) Virtual File Cabinet (VFC).

Explanation: This Limited RFI is being generated due to the proposed excavation activities at the below intersections:

ADA Structure Locations

Singing Sands/Calumet Trail West of RR: There do not appear to be any Hazardous Material Concern sites mapped or located at this location. No impact is expected.

Logan Street: Brownfield: Double Track Parcel 12, 515 South Sheridan Avenue, AI ID No. 127838, is located 0.08 mile east of the project area. An Environmental Restrictive Covenant (ERC) was placed on the site on March 9, 2022 restricting the use or excavation of groundwater for any use. The site is also an Institutional Control Site. No impact is expected.

Greely Avenue: There do not appear to be any Hazardous Material Concern sites mapped or located at this location. No impact is expected.

Douglas Avenue: There do not appear to be any Hazardous Material Concern sites mapped or located at this location. No impact is expected.

Lincoln Avenue: There do not appear to be any Hazardous Material Concern sites mapped or located at this location. No impact is expected.

McClelland Avenue: There do not appear to be any Hazardous Material Concern sites mapped or located at this location. No impact is expected.

Custer Avenue: There do not appear to be any Hazardous Material Concern sites mapped or located at this location. No impact is expected.

West 6th Street: There do not appear to be any Hazardous Material Concern sites mapped or located at this location. No impact is expected.

Wabash Street:

Leaking Underground Storage Tank (LUST): Gold Eagle Motor Inc., 303 W Michigan Boulevard (Blvd), AI ID No. 31882, is northwest of the project area. Five (5) USTs were removed on December 24, 1991. Nine (9) soil samples were taken after the USTs were removed, and results from the samples indicate that Total Petroleum Hydrocarbons were below quantitation limit except for the sample taken from a waste oil tank at 230 parts per million (ppm) TPH. Soil was over-excavated, and a confirmatory sample was non-detect for TPH. No impact is expected.

Washington Street:

State Cleanup Site and Institutional Controls: Moran Industries, 209 West Michigan Blvd, AI ID No. 23199, is northwest of the project area. IDEM issued a No Further Action Confirmation on August 1, 2012. Low levels of soil and groundwater contamination from petroleum COCs in addition to arsenic, lead, and possibly mercury remain on the site. An Environmental Restrictive Covenant (ERC) was recorded on the property on July 9, 2012. The ERC specifically prohibits the use of groundwater, use of the Real Estate for residential purposes, and requires restoration of disturbed soil from excavation and construction. Petroleum COCs in addition to arsenic, lead, and possibly mercury are present at the site. A Phase II Environmental Site Assessment is recommended to occur before RFC. Prior to any investigation activities, a scope of work plan will be prepared and submitted to INDOT SAM for review and approval. Coordination will occur with Institutional Controls section (institutionalcontrols@idem.IN.gov) before RFC.

Washington Street:

Underground Storage Tank (UST) Site: Jaymar Ruby Incorporated, 229 W Michigan Blvd, AI ID No. 32036, is adjacent to the northwest of the project area. According to the IDEM Notification for Underground Storage Tanks report signed September 25, 1992, the property was purchased in 1970 from an oil and refining company. A condition of sale was to not use or permit the use of four (4) underground tanks on the property for any purpose. In 1990 the tanks were sealed. A small amount of waste oil and fuel oil was found at that time. No other investigation has ever been conducted on this property. In addition to petroleum contamination, it is likely that RCRA Metals would be in the soil/groundwater. If excavation occurs in this area, it is possible that petroleum contamination may be encountered. Before proper removal and disposal of soil and/or groundwater, analysis for RCRA Metals will be necessary. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination.

Franklin Street:

Brownfields: Former News Dispatch, 121 W Michigan Blvd, AI ID No. 31607, is located adjacent to the northwest of the project area. An IDEM Site Status Letter dated July 24, 2018, clarifies IDEM's position that current site conditions do not warrant a response action at this time and IDEM does not plan to take a response action at the site at this time. Contamination was detected in the right-of-way (ROW) of Franklin St; however, the contamination is at approximately 12' to 16' below ground surface. No impact is expected.

Pine Street: State Cleanup Site/Institutional Controls: Although the icon for Moran Industries, 229 West Michigan Boulevard, AI ID No. 23199, is adjacent to the east of the intersection, the facility is actually located 0.15 mile west of the intersection. No impact is expected.

Spring Street: There do not appear to be any Hazardous Material Concern sites mapped or located at this location. No impact is expected.

2nd Street West: Institutional Control, State Cleanup, and Brownfield Site: Blank Trail Creek, LLC, also known as Park Land Partnership, 600 E. 2nd Street, AI ID No. 35395, is located 0.06 mile northwest of the intersection. The site received a No Further Action Approval by IDEM on August 3, 2010. Contamination remains on site above IDEM RISC RDCLs, and groundwater contamination is thought to be coming from an off-site source to the northeast. An ERC was placed on the property by IDEM on December 11, 2009. The ERC restricts land use and groundwater extraction on the site. Groundwater flow is to the southwest. No impact is expected.

2nd Street East: There do not appear to be any Hazardous Material Concern sites mapped or located at this location. No impact is expected.

Blue Chip Drive: There do not appear to be any Hazardous Material Concern sites mapped or located at this location. No impact is expected.

Cook Street: Brownfields: Former Josam Foundry, 1302 US Highway 12, AI ID No. 38531, is mapped 0.02 mile east of the intersection, however, the facility is actually located 0.22 mile east of the intersection. No impact is expected.

Small Structure Locations

East of Freyer Road: There do not appear to be any Hazardous Material Concern sites mapped or located at this location. No impact is expected.

West of SR 212: There do not appear to be any Hazardous Material Concern sites mapped or located at this location. No impact is expected.

East of US 12 Stop Sign at SR 212: There do not appear to be any Hazardous Material Concern sites mapped or located at this location. No impact is expected.

East of SR 212 Merge with US 12:

NPDES Facility: Freyer Rd Circuit 12-268 Rebuild, US Hwy 12 & SR 212, Permit No. INRA02889, is located adjacent to the southeast of the project area. The permit will expire January 28, 2024. Coordination will occur with the Northern Indiana Public Service Company.

Shady Oak Mobile Home Park:

NPDES Facility: Shady Oak Mobile Home Park WWTP, 9801 US 12, Permit No. IN0035793, is adjacent to the southeast of the project area. The permit terminated on September 23, 2016. No impact is expected.

West 1000 North: NPDES Facility: Peepers Facility Improvement, 9935 E US 12, Permit No. INRA02190, is located 0.06 mile southwest of the project area. The permit expires August 26, 2023. Coordination with the facility will occur.

East of W 1000 N: There do not appear to be any Hazardous Material Concern sites mapped or located at this location. No impact is expected.

200' West of Michigan State Line: There do not appear to be any Hazardous Material Concern sites mapped or located at this location. No impact is expected.

Signal Modernizations

Liberty Trail:

State Cleanup and NPDES Facility: Criterion (Shell) Catalyst and Technologies LP, 1800 East US Route 12, AI ID No. 12093, is mapped 0.05 mile west of the intersection but is actually located 0.27 mile northeast of the intersection. No impact is expected.

LUST: Nationwide Magazine & Book Dist., Inc., located at 2123 E US Highway 12, AI ID No. 13090, is mapped 0.05 mile north of the intersection but is actually located 0.52 mile northeast of the intersection. No impact is expected.

LUST: Michigan City Parks and Recreation, 2011 East US 12, AI ID No. 34736, is mapped 0.08 mile west of the intersection, but is actually located 0.19 mile northeast of the intersection. No impact is expected.

North Karwick Road:

LUST: Springville Petroleum, formerly Long Beach Service, 2909 East HWY 12, AI ID No. 33590, is adjacent to the southwest of the project area and is the site of an operating gas station. IDEM issued a No Further Action (NFA) Approval Determination Pursuant to Remediation Closure Guide dated February 21, 2020. An ERC was recorded on December 12, 2019, that places restrictions on groundwater and land uses. Low levels of soil and groundwater petroleum contamination remain on the site. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater may be necessary. Coordination will be conducted with the IDEM Institutional Controls section (institutionalcontrols@idem.IN.gov) before RFC. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination. No impact is expected.

Institutional Controls: Springville Petroleum, 2909 E Hwy 12, AI ID No. 33590, is adjacent to the southwest of the project area. See LUST section above for additional information.

Solid Waste Landfill: Cotton Brothers Landfill, 850 N Karwick Rd, AI ID No. 37628, is located 0.06 mile southeast of the project area. According to the most recent inspection on April 7, 1992, the facility is an inactive landfill and was closed in 1987. The site was never permitted or certified as a landfill by the state of Indiana. Samples taken were used to indicate

the location of the refuse piles, and contaminants, mainly VOCs, SVOCs, and Metals were found. While groundwater is thought to be to the northwest, the first water bearing unit noted in the report was at 18'. No further documentation was found in the VFC. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The LaPorte County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities is provided at https://www.in.gov/dnr/nature-preserves/files/np_laporte.pdf. A preliminary review of the Indiana Natural Heritage Database by INDOT ESD did indicate the presence of ETR species within the 0.5 mile search radius. Due to the nature of project activities, this project may fall under the guidelines set forth under USFWS Interim Policy for the Review of Highway Transportation Projects in Indiana dated May 29, 2013. However, if a Waters of the US Report (WOTUS) is prepared for the project, coordination will need to occur with IDNR at a minimum. Results of the WOTUS report may indicate the need to coordinate with USFWS.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. Additional investigation will be needed to confirm the presence or absence of bats in the culverts, and the range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects."

RECOMMENDATIONS SECTION

Include recommendations from each section. If there are no recommendations, please indicate N/A:

WATER RESOURCES:

Direct coordination with INDOT ESD Ecology and Waterway Permitting will occur on all water resources except for the IDEM 303d Listed Streams and Lakes (Impaired).

HAZARDOUS MATERIAL CONCERNS:

Wabash Street:

State Cleanup Site and Institutional Controls: Moran Industries, 209 West Michigan Blvd, AI ID No. 23199, is adjacent to the northwest of the project area. IDEM issued a No Further Action Confirmation on August 1, 2012. Low levels of soil and groundwater contamination from petroleum COCs in addition to arsenic, lead, and possibly mercury remain on the site. An Environmental Restrictive Covenant (ERC) was recorded on the property on July 9, 2012. The ERC specifically prohibits the use of groundwater, use of the Real Estate for residential purposes, and requires restoration of disturbed soil from excavation and construction. A Phase II Environmental Site Assessment is recommended to occur before RFC. Prior to any investigation activities, a scope of work plan will be prepared and submitted to INDOT SAM for review and approval. Coordination will occur with Institutional Controls section (institutionalcontrols@idem.IN.gov) before RFC.

Washington Street:

UST Site: Jaymar Ruby Incorporated, 229 W Michigan Boulevard, AI ID No. 32036, is adjacent to the northwest of the project area. According to the Notification for Underground Storage Tanks report signed September 25, 1992, the property was purchased in 1970 from an oil and refining company. A condition of sale was to not use or permit the use of four (4) underground tanks on the property for any purpose. In 1990 the tanks were sealed. A small amount of waste oil and fuel oil was found at that time. No further information is available in the IDEM VFC. No other investigation has ever been conducted on this property. A Phase II Environmental Site Assessment (ESA) is recommended to occur before RFC. Prior to any investigation activities, a scope of work plan (SOW) will be prepared and submitted to INDOT SAM for review and approval.

East of SR 212 Merge with US 12:

NPDES Facility: Freyer Rd Circuit 12-268 Rebuild, US Hwy 12 & SR 212, Permit No. INRA02889, is located adjacent to the southeast of the project area. The permit will expire January 28, 2024. Coordination will occur with the Northern Indiana Public Service Company.

West 1000 North:

NPDES Facility: Peepers Facility Improvement, 9935 E US 12, Permit No. INRA02190, is located 0.06 mile southwest of the project area. The permit expires August 26, 2023. Coordination with the facility will occur.

North Karwick Road:

LUST/Institutional Controls Site: Springville Petroleum, formerly Long Beach Service, 2909 E Hwy 12, AI ID No. 33590, is adjacent to the southwest of the project area. IDEM issued an NFA Approval Determination Pursuant to RCG dated February 21, 2020. An ERC was recorded on December 12, 2019, that places restrictions on groundwater and land uses. Low levels of soil and groundwater petroleum contamination remain on the site. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater may be necessary. Coordination will be conducted with the IDEM Institutional Controls section (institutionalcontrols@idem.IN.gov) before RFC. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination.

ECOLOGICAL INFORMATION:

Due to the nature of project activities, this project may fall under the guidelines set forth under USFWS Interim Policy for the Review of Highway Transportation Projects in Indiana dated May 29, 2013. However, if a Waters of the US Report (WOTUS) is prepared for the project, coordination will need to occur with IDNR at a minimum. Results of the WOTUS report may indicate the need to coordinate with USFWS.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. Additional investigation will be needed to confirm the presence or absence of bats in the culverts, and the range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects."

INDOT ESD concurrence: Peter Washburn (Signature)
Digitally signed by Peter Washburn
Date: 2023.06.13 16:00:54 -04'00'

Prepared by:

Lisa Harris, MSES/MPA
Environmental Document Specialist
Lawson-Fisher Associates P.C.

Graphics:

A map for each report section with a 0.5 mile search radius buffer around all project area(s) showing all items identified as possible items of concern is attached. If there is not a section map included, please change the YES to N/A:

SITE LOCATION: YES

HAZARDOUS MATERIAL CONCERNS: YES

Red Flag Investigation - Site Location
US 12 From Porter/LaPorte County Line to Michigan State Line
Des No. 2000607

Roadway Project with ADA Curb Ramps and Signals, Small Drainage Structure
Repairs/Replacements, and Signal Modernization
LaPorte County, Indiana
Sheet 1 of 5

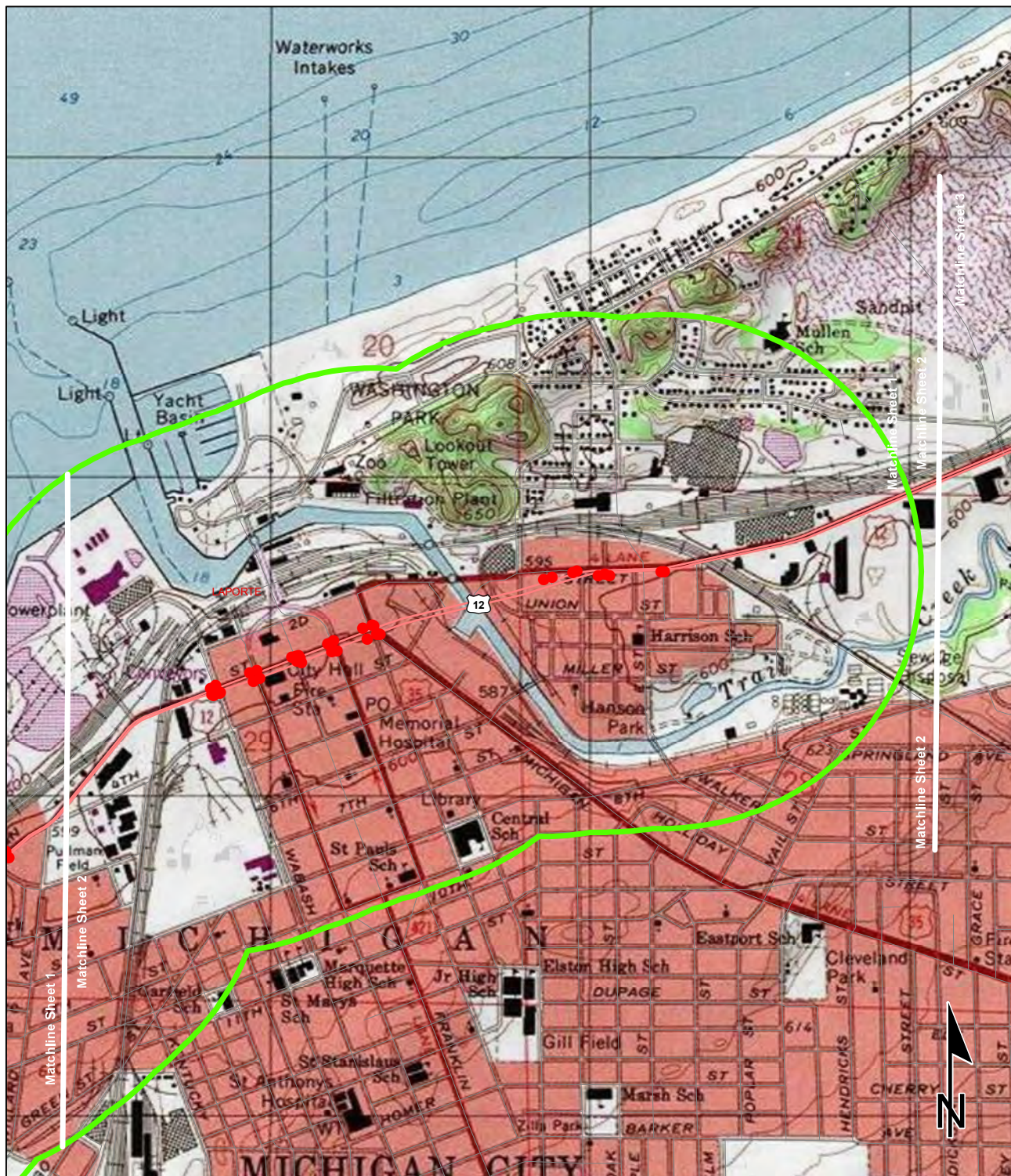


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Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83
This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

MICHIGAN CITY WEST, MICHIGAN
CITY EAST AND NEW BUFFALO
WEST QUADRANGLES
INDIANA
7.5 MINUTE SERIES

Red Flag Investigation - Site Location
US 12 From Porter/LaPorte County Line to Michigan State Line
Des No. 2000607

Roadway Project with ADA Curb Ramps and Signals, Small Drainage Structure
Repairs/Replacements, and Signal Modernization
LaPorte County, Indiana
Sheet 2 of 5

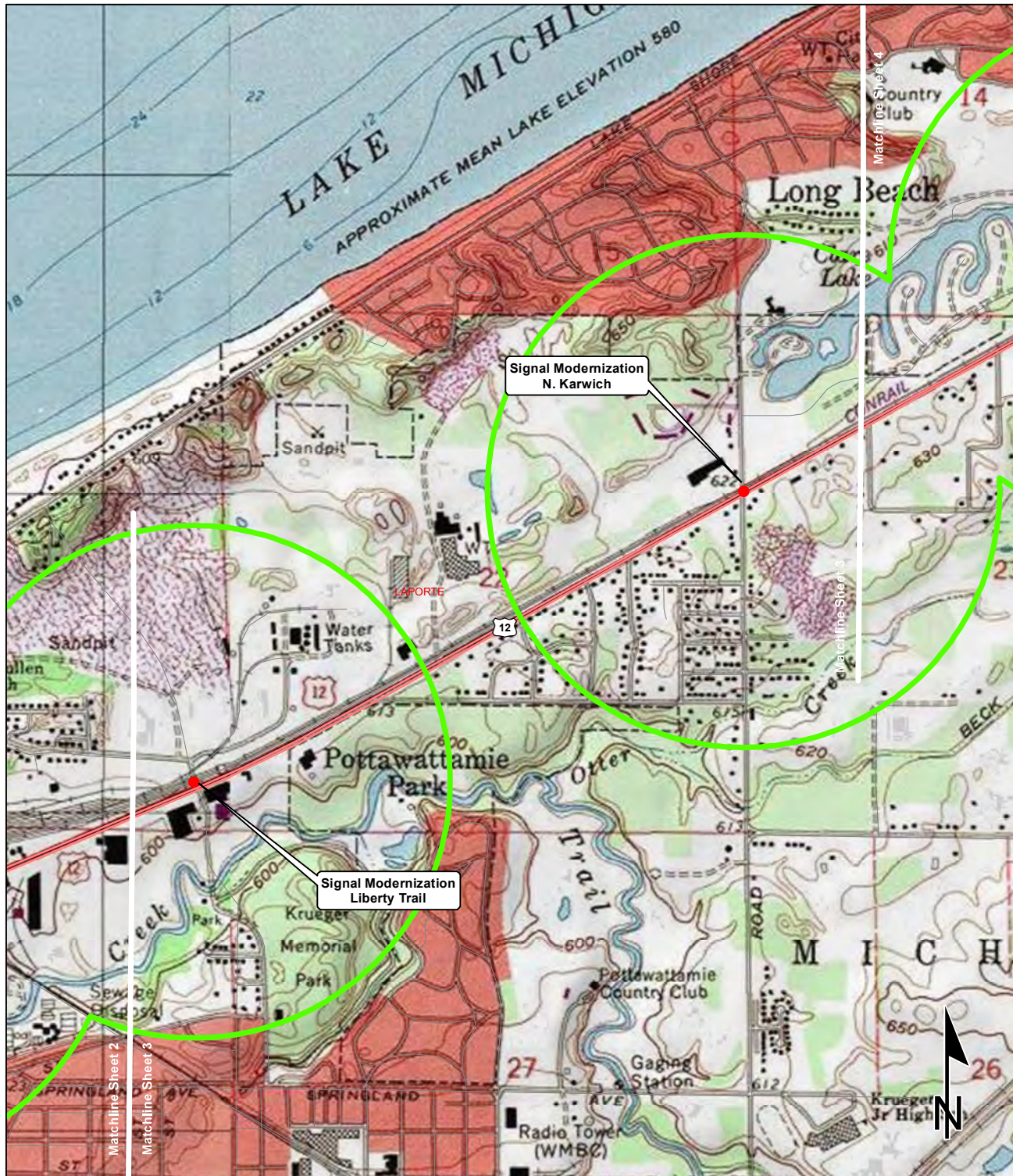


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MICHIGAN CITY WEST, MICHIGAN
CITY EAST AND NEW BUFFALO
WEST QUADRANGLES
INDIANA
7.5 MINUTE SERIES

Red Flag Investigation - Site Location
US 12 From Porter/LaPorte County Line to Michigan State Line
Des No. 2000607

Roadway Project with ADA Curb Ramps and Signals, Small Drainage Structure
Repairs/Replacements, and Signal Modernization
LaPorte County, Indiana
Sheet 3 of 5

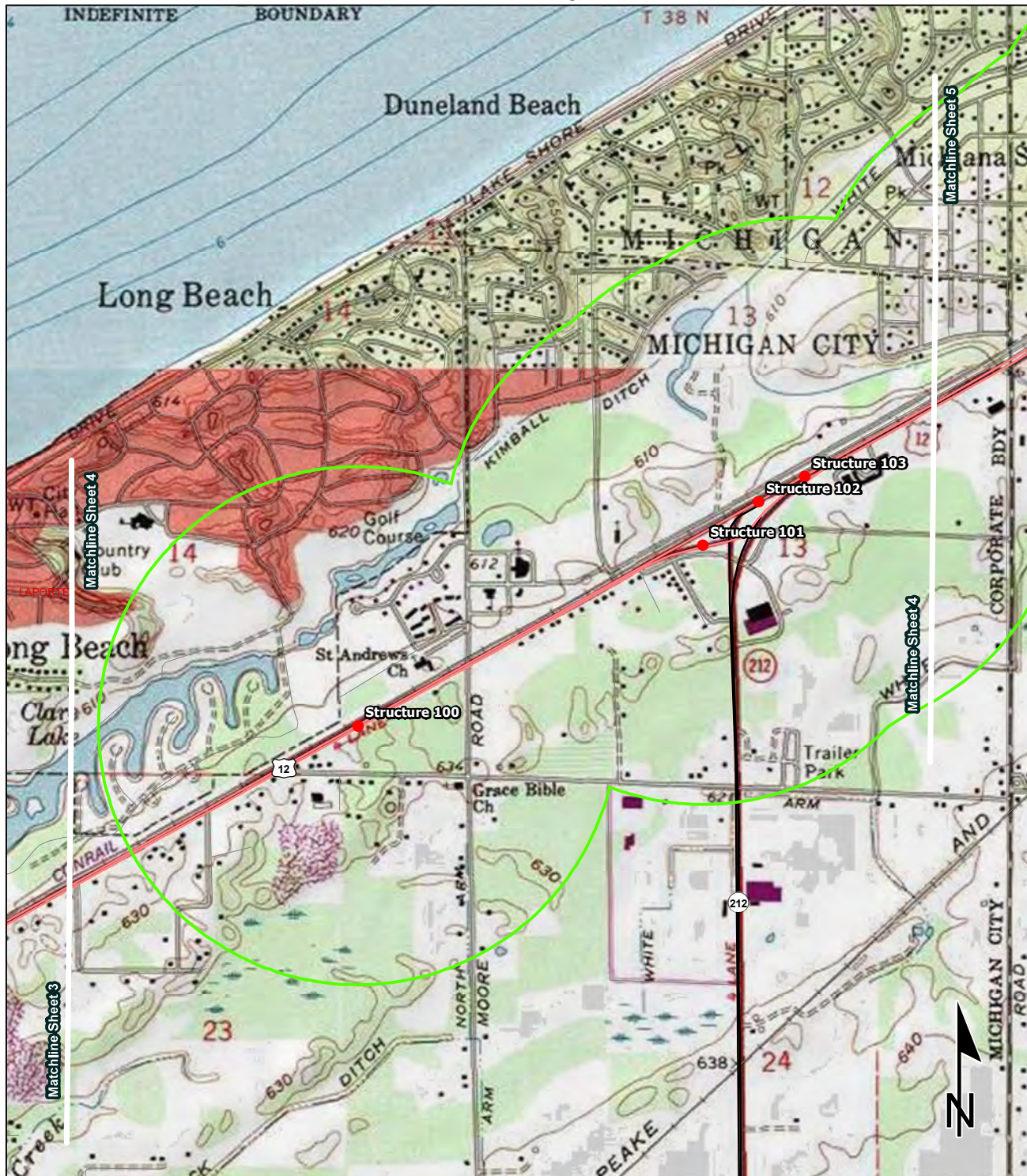


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MICHIGAN CITY WEST, MICHIGAN
CITY EAST AND NEW BUFFALO
WEST QUADRANGLES
INDIANA
7.5 MINUTE SERIES

Red Flag Investigation - Site Location
US 12 From Porter/LaPorte County Line to Michigan State Line
Des No. 2000607

Roadway Project with ADA Curb Ramps and Signals, Small Drainage Structure
Repairs/Replacements, and Signal Modernization
LaPorte County, Indiana
Sheet 4 of 5

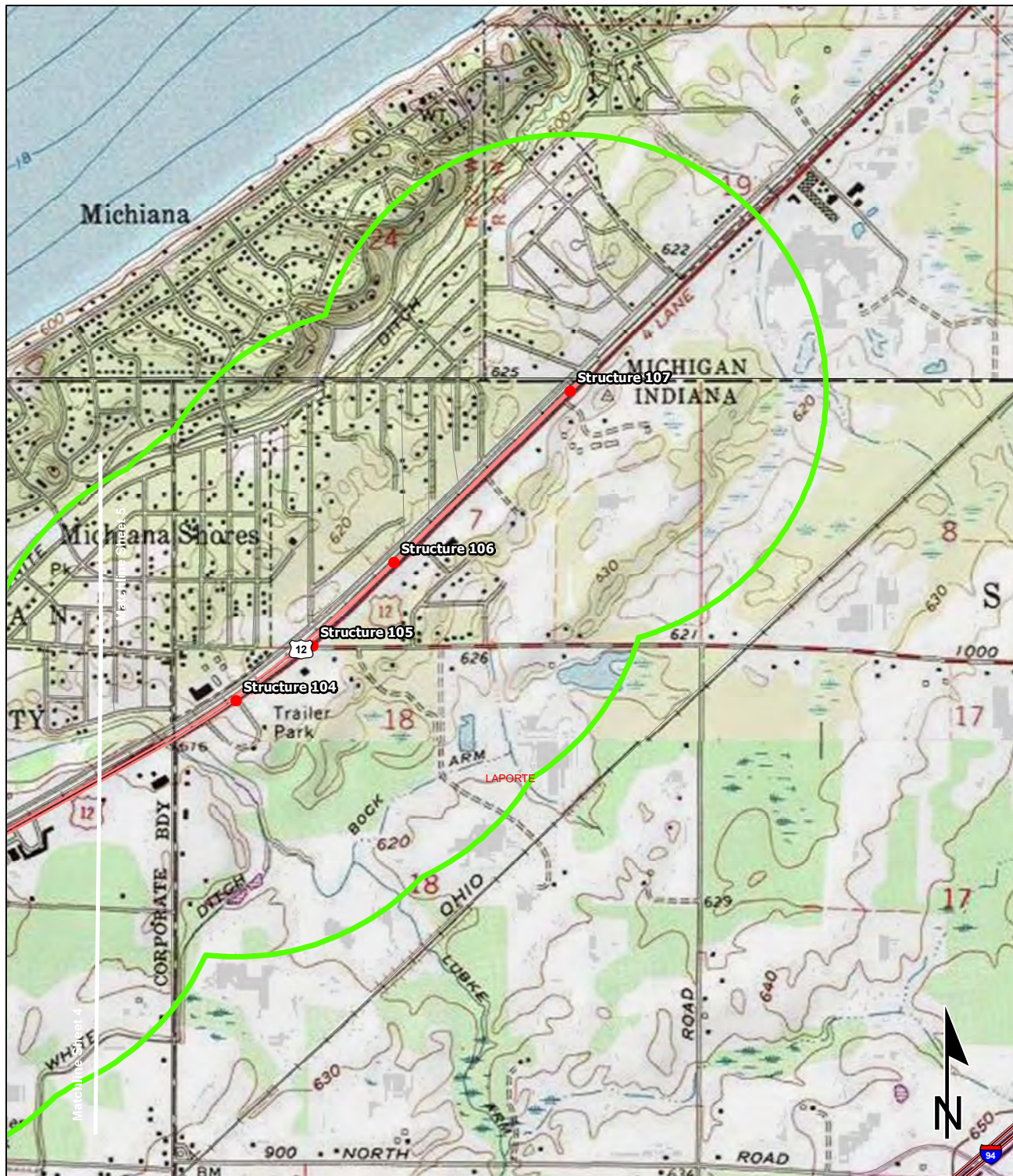


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MICHIGAN CITY WEST, MICHIGAN CITY EAST AND NEW BUFFALO WEST QUADRANGLES INDIANA 7.5 MINUTE SERIES

Red Flag Investigation - Site Location
US 12 From Porter/LaPorte County Line to Michigan State Line
Des No. 2000607

Roadway Project with ADA Curb Ramps and Signals, Small Drainage Structure
Repairs/Replacements, and Signal Modernization
LaPorte County, Indiana
Sheet 5 of 5



Sources: 0.25 0.125 0 0.25 Miles
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Map Projection: UTM Zone 16 N **Map Datum:** NAD83
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MICHIGAN CITY WEST, MICHIGAN
CITY EAST AND NEW BUFFALO
WEST QUADRANGLES
INDIANA
7.5 MINUTE SERIES

Red Flag Investigation - Hazardous Material Concerns
US 12 From Porter/LaPorte County Line to Michigan State Line
Des No. 2000607

Roadway Project with ADA Curb Ramps and Signals, Small Drainage Structure
Repairs/Replacements, and Signal Modernization
LaPorte County, Indiana
Sheet 1 of 5



	Brownfield		RCRA Generator/TSD		Institutional Controls
	RCRA Corrective Action Sites		Restricted Waste Site		County Boundary
	Confined Feeding Operation		Septage Waste Site		Project Area
	Notice_Of_Contamination		Solid Waste Landfill		Half Mile Radius
	Construction/Demolition Site		State Cleanup Site		Toll
	Infectious/Medical Waste Site		Superfund		Interstate
	Leaking Underground Storage Tank		Tire Waste Site		State Route
	Manufactured Gas Plant		Underground Storage Tank		US Route
	NPDES Facilities		Voluntary Remediation Program		Local Road
	NPDES Pipe Locations		Waste Transfer Station		
	Open Dump Waste Site				

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Miles

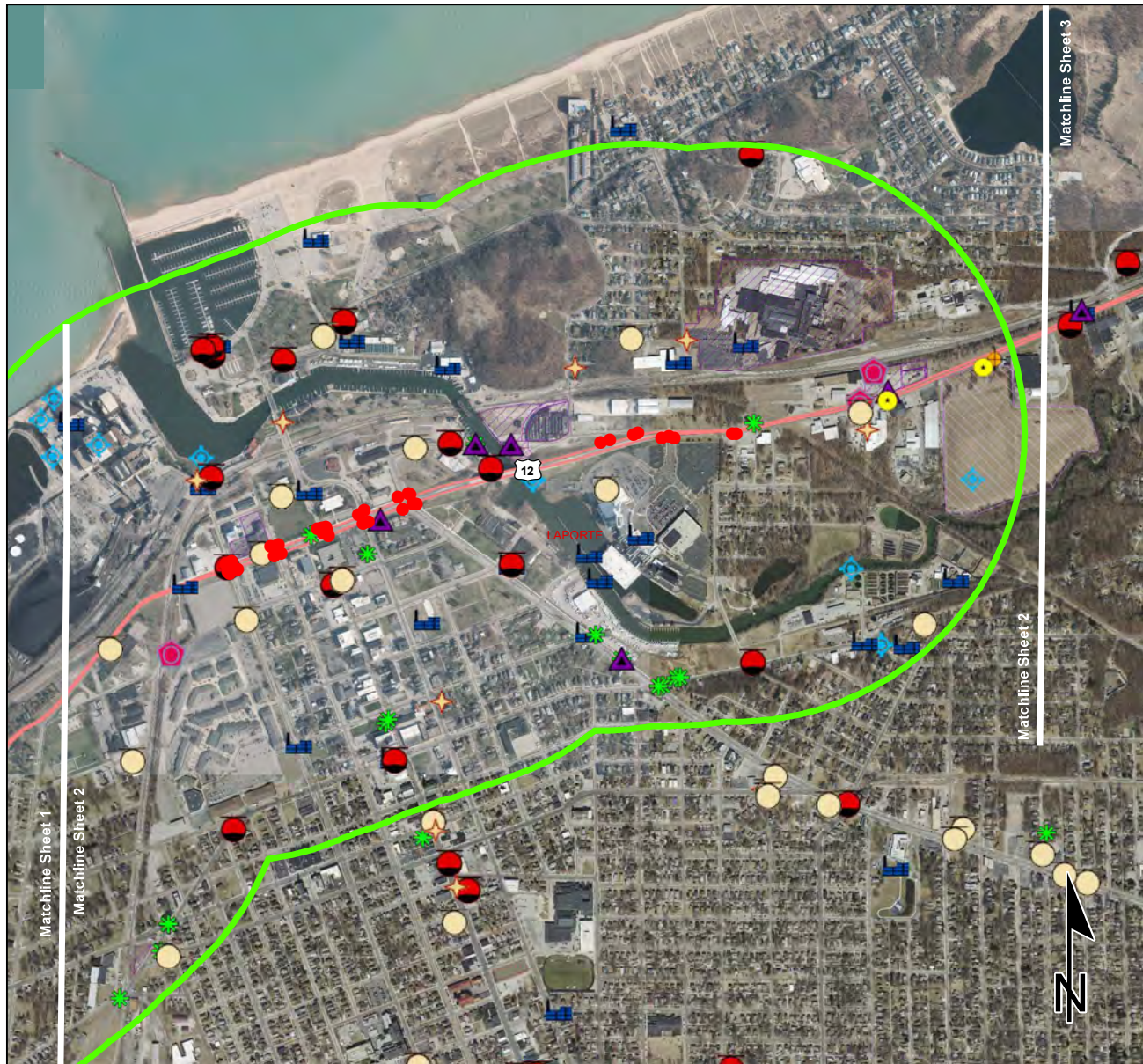
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E-14

Sources:
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Map Projection: UTM Zone 16 N **Map Datum:** NAD83

Red Flag Investigation - Hazardous Material Concerns
US 12 From Porter/LaPorte County Line to Michigan State Line
Des No. 2000607

Roadway Project with ADA Curb Ramps and Signals, Small Drainage Structure
Repairs/Replacements, and Signal Modernization
LaPorte County, Indiana
Sheet 2 of 5



	Brownfield		RCRA Generator/TSD		Institutional Controls
	RCRA Corrective Action Sites		Restricted Waste Site		County Boundary
	Confined Feeding Operation		Septage Waste Site		Project Area
	Notice_Of_Contamination		Solid Waste Landfill		Half Mile Radius
	Construction/Demolition Site		State Cleanup Site		Toll
	Infectious/Medical Waste Site		Superfund		Interstate
	Leaking Underground Storage Tank		Tire Waste Site		State Route
	Manufactured Gas Plant		Underground Storage Tank		US Route
	NPDES Facilities		Voluntary Remediation Program		Local Road
	NPDES Pipe Locations		Waste Transfer Station		
	Open Dump Waste Site				

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Miles

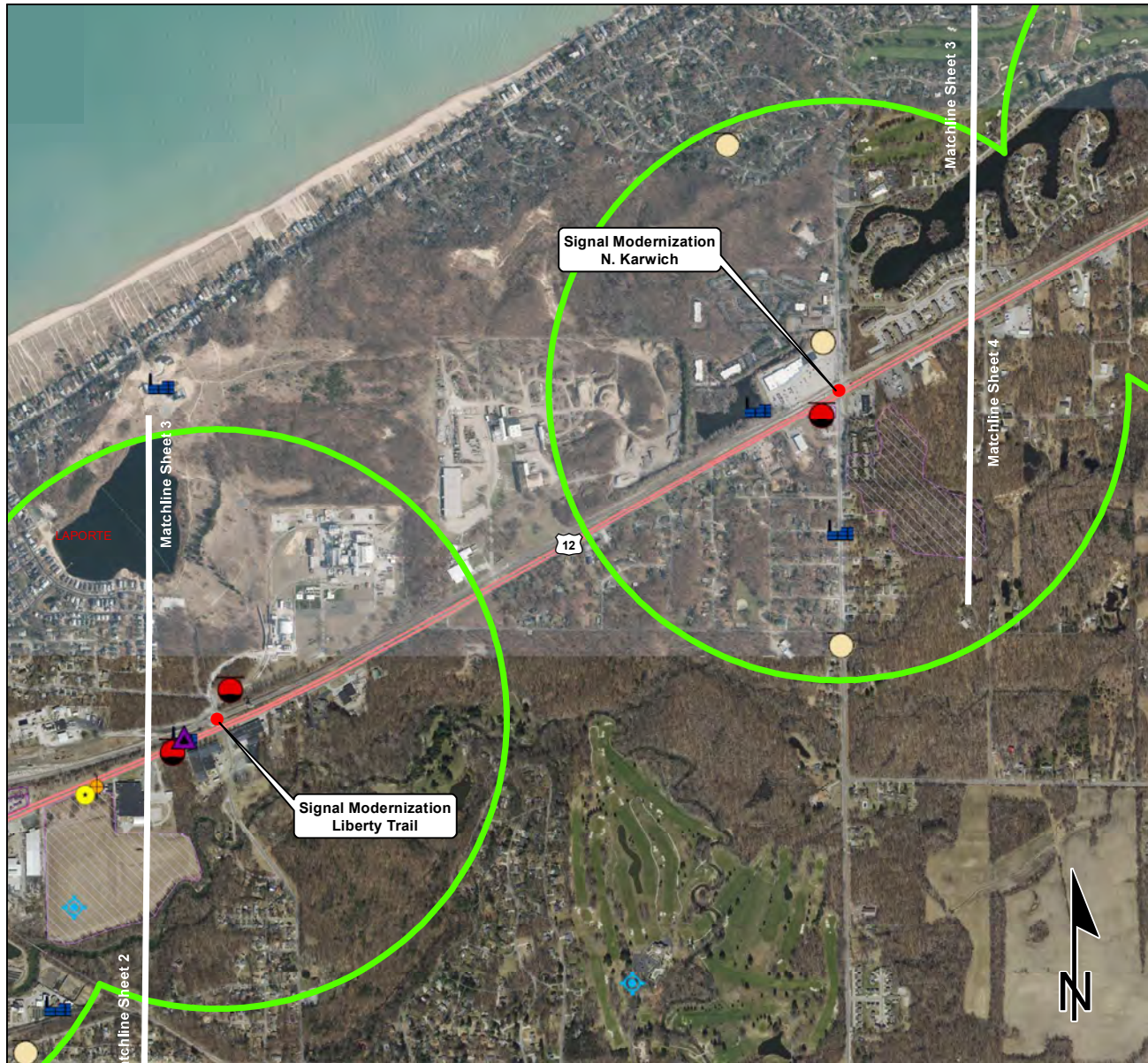
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E-15

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Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

Red Flag Investigation - Hazardous Material Concerns
US 12 From Porter/LaPorte County Line to Michigan State Line
Des No. 2000607

Roadway Project with ADA Curb Ramps and Signals, Small Drainage Structure
Repairs/Replacements, and Signal Modernization
LaPorte County, Indiana
Sheet 3 of 5



	Brownfield		RCRA Generator/TSD		Institutional Controls
	RCRA Corrective Action Sites		Restricted Waste Site		County Boundary
	Confined Feeding Operation Notice_of_Contamination		Septage Waste Site		Project Area
	Construction/Demolition Site		Solid Waste Landfill		Half Mile Radius
	Infectious/Medical Waste Site		State Cleanup Site		Toll
	Leaking Underground Storage Tank		Superfund		Interstate
	Manufactured Gas Plant		Tire Waste Site		State Route
	NPDES Facilities		Underground Storage Tank		US Route
	NPDES Pipe Locations		Voluntary Remediation Program		Local Road
	Open Dump Waste Site		Waste Transfer Station		

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Miles

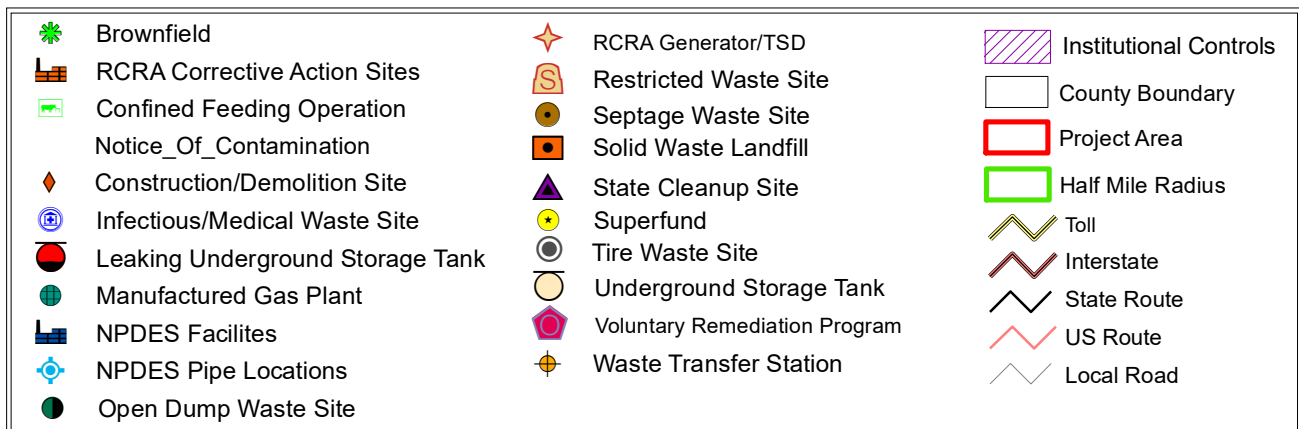
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E-16

Sources:
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Red Flag Investigation - Hazardous Material Concerns
US 12 From Porter/LaPorte County Line to Michigan State Line
Des No. 2000607

Roadway Project with ADA Curb Ramps and Signals, Small Drainage Structure
Repairs/Replacements, and Signal Modernization
LaPorte County, Indiana
Sheet 4 of 5



0.25 0.125 0 0.25
Miles

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E-17

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Red Flag Investigation - Hazardous Material Concerns
US 12 From Porter/LaPorte County Line to Michigan State Line
Des No. 2000607

Roadway Project with ADA Curb Ramps and Signals, Small Drainage Structure
Repairs/Replacements, and Signal Modernization
LaPorte County, Indiana
Sheet 5 of 5



	Brownfield		RCRA Generator/TSD		Institutional Controls
	RCRA Corrective Action Sites		Restricted Waste Site		County Boundary
	Confined Feeding Operation		Septage Waste Site		Project Area
	Notice Of Contamination		Solid Waste Landfill		Half Mile Radius
	Construction/Demolition Site		State Cleanup Site		Toll
	Infectious/Medical Waste Site		Superfund		Interstate
	Leaking Underground Storage Tank		Tire Waste Site		State Route
	Manufactured Gas Plant		Underground Storage Tank		US Route
	NPDES Facilities		Voluntary Remediation Program		Local Road
	NPDES Pipe Locations		Waste Transfer Station		
	Open Dump Waste Site				

0.25 0.125 0 0.25
Miles

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E-18

Sources:
Non Orthophotography
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Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N Map Datum: NAD83



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758-ES
Indianapolis, Indiana 46204

PHONE: (855) 463-6848
(855) INDOT4U

Mike Braun, Governor
Lyndsay Quist, Commissioner

Date: June 18, 2025

To: Site Assessment & Management (SAM)
Environmental Policy Office - Environmental Services Division (ESD)
Indiana Department of Transportation (INDOT)
100 N Senate Avenue, Room N758-ES
Indianapolis, IN 46204

From: Catherine Holland
Metric Environmental, LLC
6958 Hillsdale Court
Indianapolis, IN 46250
catherineh@metricenv.com

Re: ADDENDUM LIMITED RED FLAG INVESTIGATION
DES # 2000607, 2101096, and 2500075, State Project
Roadway Rehabilitation
United States (US) 12, from 1.93 Miles West of US 421 to the Michigan State Line
LaPorte and Porter County, Indiana

PROJECT DETAILS

The preferred alternative is to rehabilitate the existing roadway with a Hot Mix Asphalt (HMA) overlay, replace CV 012-046-44.40) with a six-foot-wide, four-foot-high, 76-foot-long reinforced concrete box culverts. The project will involve Right Sizing Lane re-configuration except through the downtown area (Wabash Street to Spring Street/East Michigan Boulevard). A bike lane will be delineated on the north side of US 12 from the entrance of Mount Baldy National Park to the intersection of US 12 with the Singing Sands Trail. Full depth pavement widening is anticipated at two locations. The first location is on the north side of US 12 immediately to the west of the Singing Sand Trail. This extra pavement is to provide separation between westbound traffic and the bike lane. The second location is at the US 12 intersection with SR 212. Pavement will be added to accommodate the eastbound to southbound turning movement. Signal modernizations are planned at the US 12 and Liberty Trail and North Karwick Road intersections.

Project-wide, the following improvements are planned:

- One (1) inlet and 20 feet of storm sewer will be replaced in-kind;
- Edge-line rumble stripes will be used where the shoulder is 2 feet or greater in width;
- Additional signage will be added to improve the railroad crossings and comply with railroad standards.

Bridge Work Included in Project: Yes ☐ No ☒ Structure #(s)

If this is a bridge project, is the bridge Historical? Yes ☐ No ☐ , Select ☐ Non-Select ☐

(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations Section of the report)

Culvert Work Included in Project: Yes ☒ No ☐ Structure #(s) CV 012-046-44.40, CV 012-046-37.05, and CV 012-046-37.05 ADJ

Proposed right of way: Temporary ☒ # Acres <0.5 Permanent ☒ # Acres <0.5, Not Applicable ☐

Type and proposed depth of excavation: Excavation will include up to 6 feet below grade at the structures for removal of the existing culverts and installation of the replacements.

Maintenance of traffic (MOT): The proposed method of traffic maintenance for the HMA overlay is the use of single lane closures and the use of flaggers. Full closures with detours will be implemented during seven (7) structure replacements. Pedestrian traffic will be rerouted during curb ramp closure and re-construction.

Work in waterway: Yes ☒ No ☐ Below ordinary high water mark: Yes ☒ No ☐

Anticipated NEPA document level: CE-1

Any other factors influencing recommendations: N/A

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

Hazardous Material Concerns Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Superfund	2	Manufactured Gas Plant Sites	N/A
RCRA Generator/ TSD	7	Open Dump Waste Sites	N/A
RCRA Corrective Action Sites	N/A	Restricted Waste Sites	N/A
State Cleanup Sites	6	Waste Transfer Stations	1
Septage Waste Sites	N/A	Tire Waste Sites	N/A
Underground Storage Tank (UST) Sites	22	Landfill Boundaries	2
Voluntary Remediation Program	3	Confined Feeding Operations (CFO)	N/A
Construction Demolition Waste	N/A	Brownfields	18
Solid Waste Landfill	N/A	Notice of Contamination Sites	N/A
Infectious/Medical Waste Sites	N/A	Institutional Controls	22
Leaking Underground Storage (LUST) Sites	22	NPDES Facilities	41
		NPDES Pipe Locations	17

* Unless otherwise noted, site specific details presented in this section were obtained from documents reviewed on the Indiana Department of Environmental Management (IDEM) Virtual File Cabinet (VFC).

Explanation:

Underground Storage Tank (UST) Sites: Twenty-two (22) UST sites are located within the 0.5 mile search radius.

- Bill & Genes Service Incorporated (Formerly Knoll Brothers Retail), 1515 US 12, AI ID 33575, is located adjacent to the central portion of the project area (Map: Hazardous Material Concerns 2). This site is also a Leaking Underground Storage Tank (LUST) active facility that is currently undergoing quarterly groundwater monitoring. The site was operated as a gasoline service station and repair facility from the mid-1950's to 2011. Five (5) UST operated on the site from 1986-2010. The UST's, one (1) 10,000-gallon diesel fuel UST, two (2) 6,000-gallon gasoline UST, one (1) 1,000-gallon kerosene UST, and one (1) 500-gallon used oil UST were removed as part of the decommissioning activities completed in July 2022. Please see LUST section for more details.

Leaking Underground Storage Tank (LUST) Sites: Twenty-two (22) LUST sites are located within the 0.5 mile search radius.

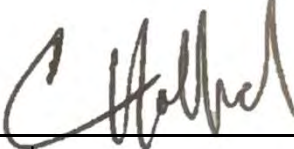
- Gold Eagle Motor Incorporated, 303 West Michigan Boulevard, AI ID 31882, is located adjacent to the southern central portion of the project area (Map: Hazardous Material Concerns 2). The property owner submitted an Intent to Close letter to IDEM for the three (3) 6,000-gallon, one (1) 1,000-gallon, and one (1) 550-gallon LUST on December 9, 1991. Soil samples were taken on December 23, 1991 and analyzed for TPH. All soil samples were non-detect with the exception of one of the side walls next to the waste oil tank. Additional sample results for disposal were taken on February 24, 1992; however, no details of disposal were submitted. If excavation occurs in this area, it is possible that petroleum and heavy metal contamination may be encountered. Proper handling, removal, and disposal of soil and/or groundwater may be necessary. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination.
- Michigan City Fire Department, 117 West 4th Street, AI ID 39429, is located 0.08 mile south of the southern central portion of the project area (Map: Hazardous Material Concerns 2). Three (3) USTs, one (1) 500-gallon gasoline tank, one (1) 500-gallon diesel tank, and one (1) 1,000-gallon used oil UST were removed from the site on February 12, 1996. According to the May 20, 1996, Underground Storage Tank Closure and Subsurface Investigation Report, contamination still exists within the area of the UST. If excavation occurs in this area, it is possible that petroleum contamination may be encountered. Proper handling, removal, and disposal of soil and/or groundwater may be necessary. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination.
- Next Door Food Store #103, 10201 US 12, AI ID 32955, is located adjacent to the northern portion of the project area (Map: Hazardous Material Concerns 5). IDEM issued a NFA Approval Determination Pursuant to RCG on March 25, 2024. Low levels of soil and groundwater contamination remain on the site. An ERC was placed on the property on April 16, 2021. The ERC specifically prohibits the use or extraction of groundwater for any purpose except environmental investigation and/or remediation. If soil is disturbed during excavation activities it shall be restored in such a manner that the remaining contaminant concentrations do not present a threat to human health or the environment. Prior to the change in use or construction of new structures, the owner shall confirm that there is no unacceptable risk due to vapor migration. If excavation occurs in this area, it is possible that petroleum contamination may be encountered. Proper handling, removal, and disposal of soil and/or groundwater may be necessary. Coordination will be conducted with the IDEM Institutional Controls section (institutionalcontrols@idem.IN.gov) before RFC. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination.
- Bill & Genes Service Incorporated (Formerly Knoll Brothers Retail), 1515 US 12, AI ID 33575, is located adjacent to the central portion of the project area (Map: Hazardous Material Concerns 2). A release was reported to IDEM on August 4, 2022. An initial site characterization was completed after samples indicated petroleum hydrocarbon impacts to soil and groundwater that exceeded the IDEM Risk-based Closure Guide (R2). Soil and groundwater samples detected volatile organic compounds (VOCs) in the soil and groundwater that exceeded the R2 limits. Additionally, free product was encountered in the groundwater. Delineation and monitoring continues at the site. Coordination will be conducted with the IDEM project manager Morgan Willis, (MIWillis@idem.IN.gov) before RFC.


Brownfields: Eighteen (18) brownfields are located within the 0.5 mile search radius.

- Spidey Sense Property, US 12 and F Street, AI ID 133000, is located adjacent to the central portion of the project area (Map: Hazardous Material Concerns 2). Two (2) large aboveground tanks containing petroleum remain on site. A petroleum spill reportedly occurred; however, there is no data on the VFC about this spill. If excavation occurs in this area, it is possible that petroleum contamination may be encountered. Proper handling, removal, and disposal of soil and/or groundwater may be necessary. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination.

NPDES Facilities: Forty-one (41) NPDES Facilities are located within the 0.5 mile search radius.

- LaPorte County Courthouse, 300 Washington Street, Permit Number INRA06028, is located adjacent to the south-central portion of the project area (Map: Hazardous Material Concerns 2). The permit status is effective, with an expiration date of August 19, 2025. Coordination with the LaPorte County Courthouse will occur.
- Kankakee Storage Facility, 4901 US 12, Permit Number INRA0661, is located adjacent to the northern portion of the project area (Map: Hazardous Material Concerns 4). The permit is effective, with an expiration of October 26, 2025. Coordination with Kankakee Storage Facility will occur.

Prepared by:  (Signature)
 Catherine Holland
 Assistant Project Manager
 Metric Environmental, LLC

QA/QC Completed by:  (Signature)
 Jason Damm
 Senior Project Manager
 Metric Environmental, LLC

INDOT ESD concurrence: **Tracy Barnes**  Digitally signed by
 Tracy Barnes
 Date: 2025.06.18
 15:56:02 -04'00' (Signature)

Graphics:

A map for each report section with a 0.5 mile search radius buffer around all project area(s) showing all items identified as possible items of concern is attached. If there is not a section map included, please change the YES to N/A:

SITE LOCATION: YES

HAZARDOUS MATERIAL CONCERNS: YES

Addendum Limited Red Flag Investigation - Site Location
United States (US) 12, from 1.93 Miles West of US 421 to the Michigan State Line
Des. No. 2000607, 2101096, and 2500075, Roadway Rehabilitation
LaPorte and Porter Counties, Indiana



Sources: 1 0.5 0 1 Miles
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83
This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

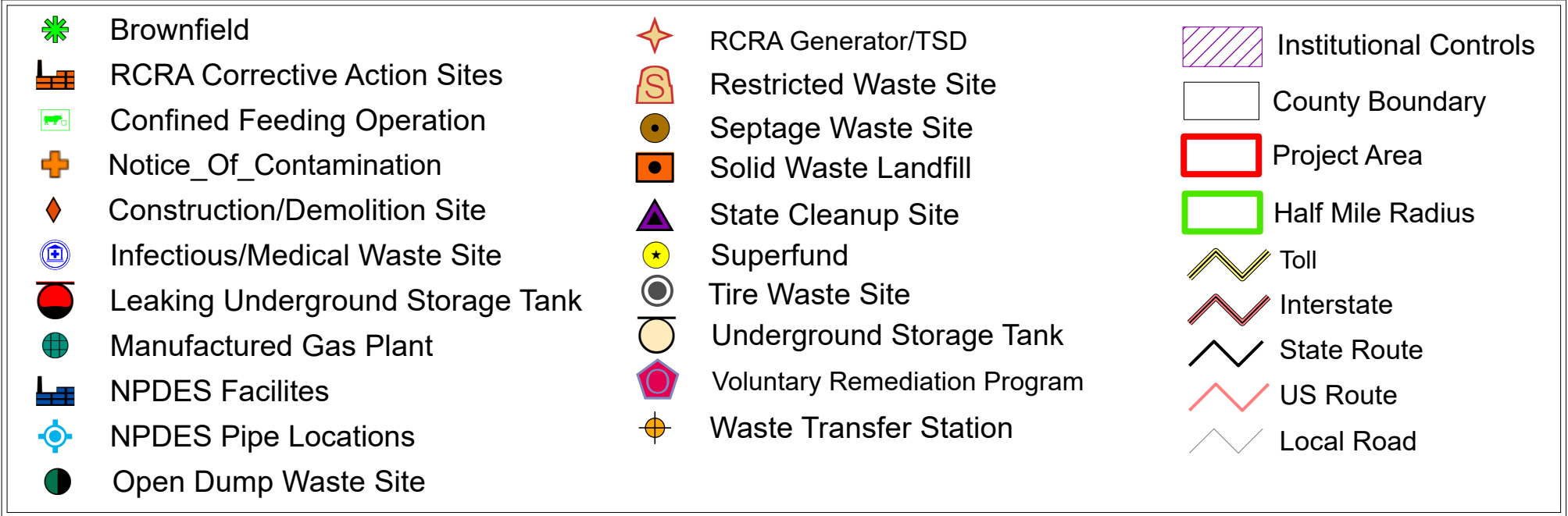
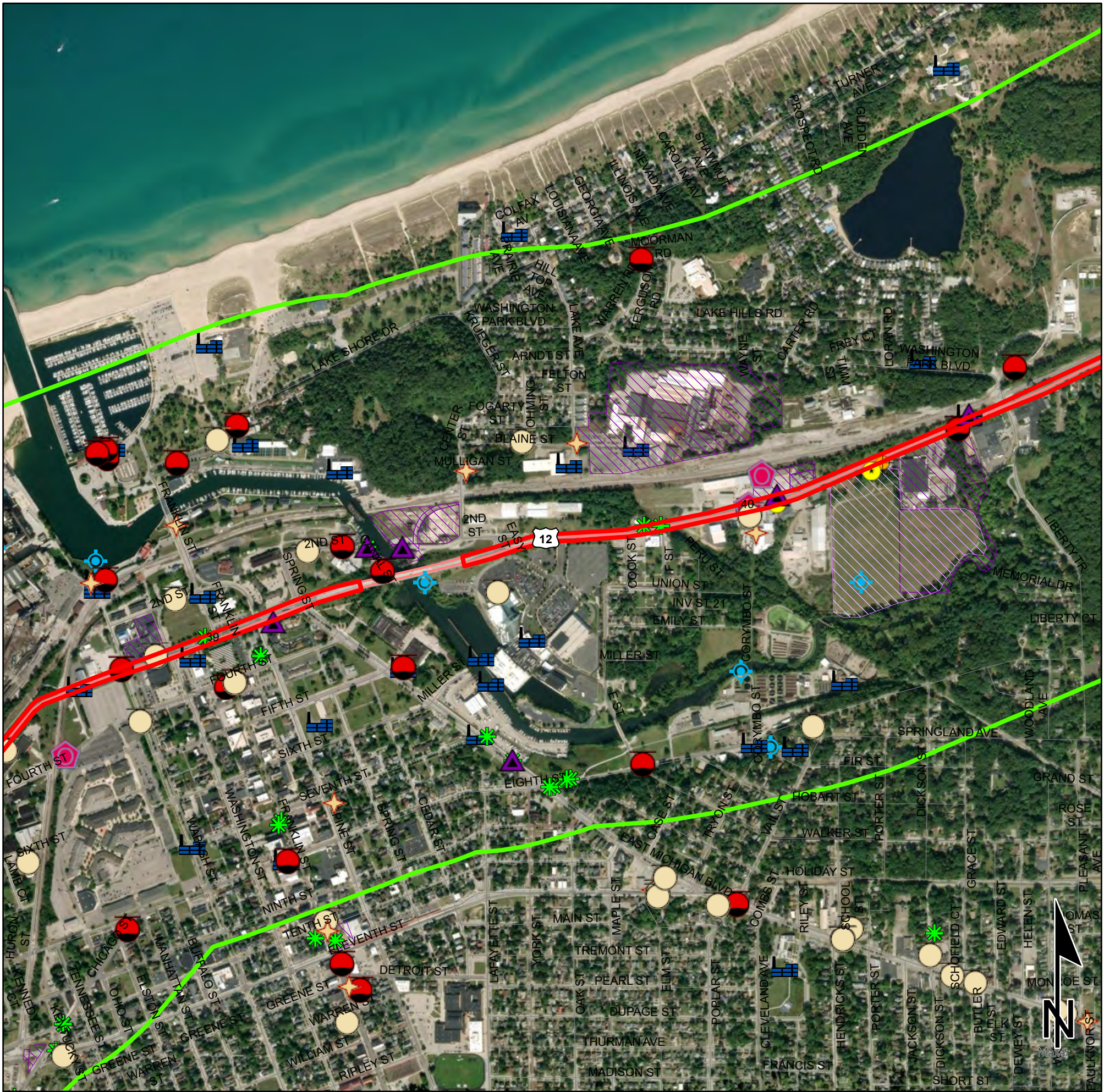
MICHIGAN CITY WEST, MICHIGAN CITY EAST, AND NEW BUFFALO WEST
QUADRANGLES
INDIANA
7.5 MINUTE SERIES (TOPOGRAPHIC)

Addendum Limited Red Flag Investigation - Hazardous Material Concerns 1
United States (US) 12, from 1.93 Miles West of US 421 to the Michigan State Line
Des. No. 2000607, 2101096, and 2500075, Roadway Rehabilitation
LaPorte and Porter Counties, Indiana

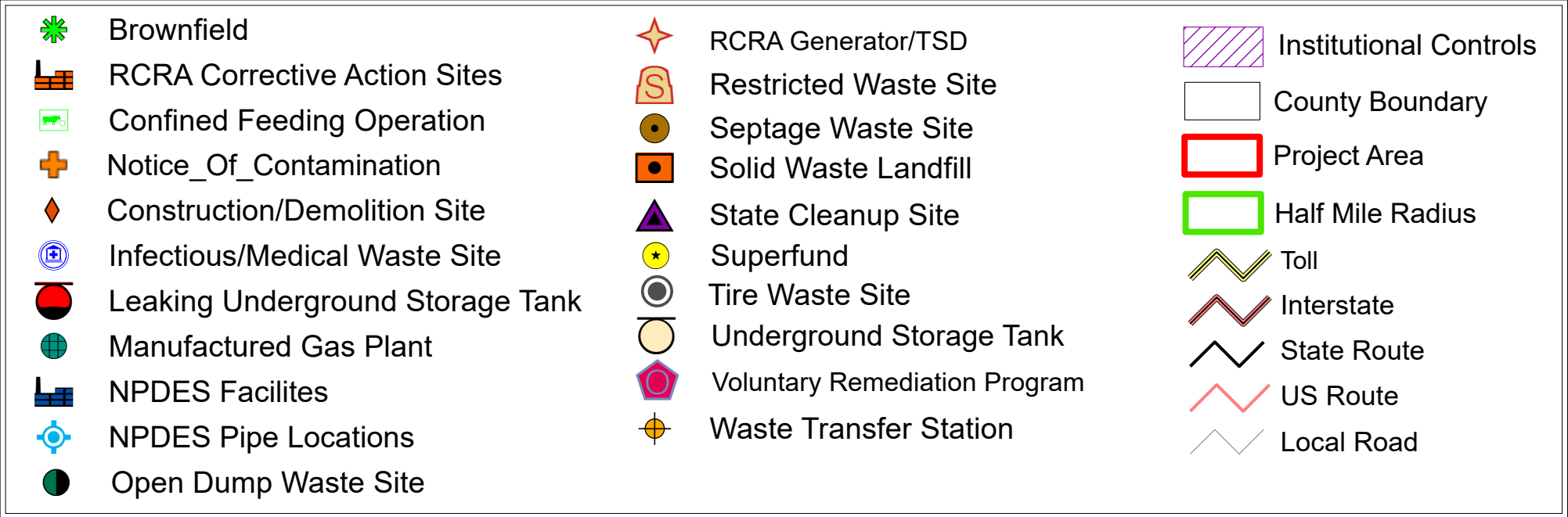
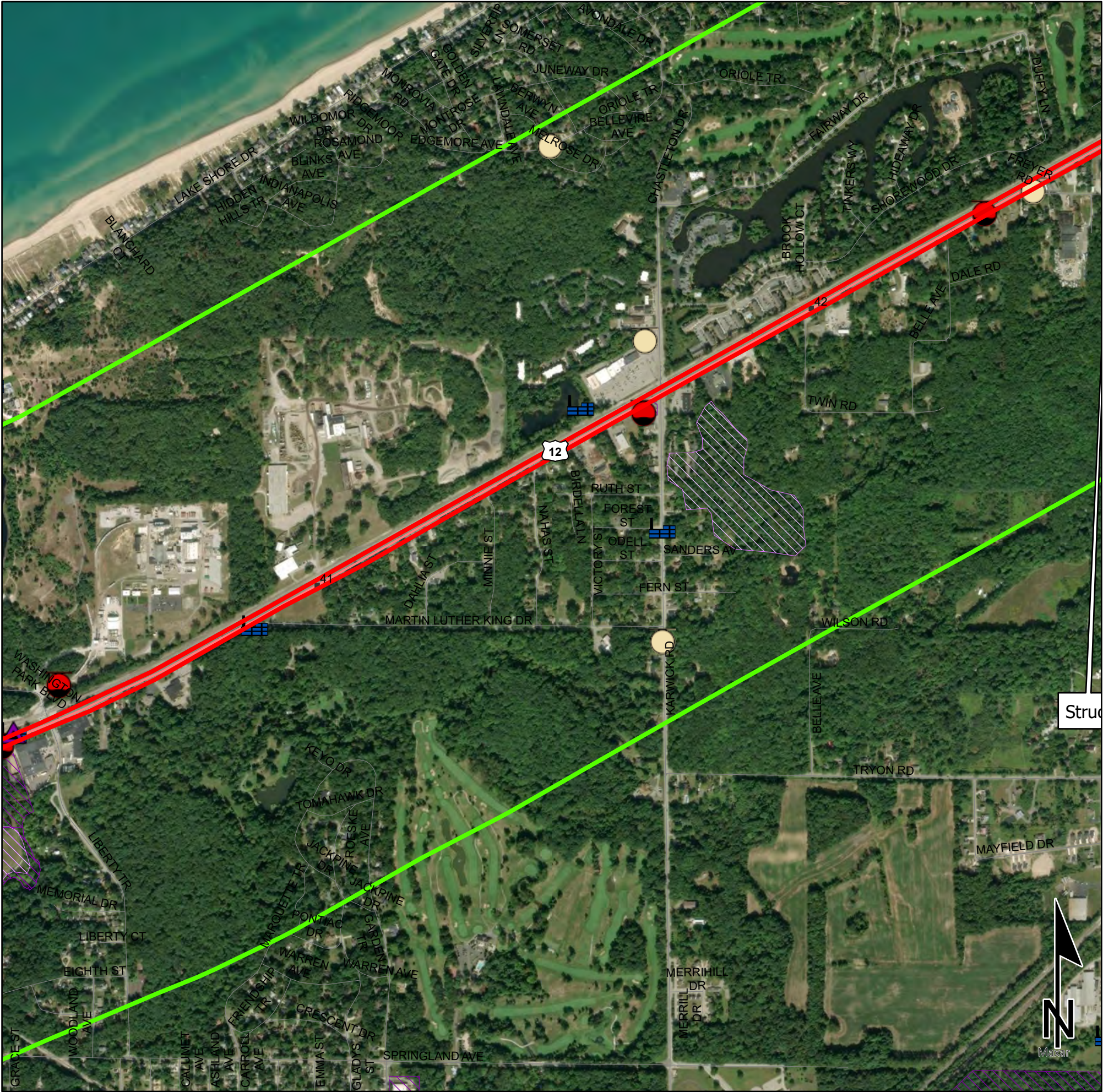


	Brownfield		RCRA Generator/TSD		Institutional Controls
	RCRA Corrective Action Sites		Restricted Waste Site		County Boundary
	Confined Feeding Operation		Septage Waste Site		Project Area
	Notice_Of_Contamination		Solid Waste Landfill		Half Mile Radius
	Construction/Demolition Site		State Cleanup Site		Toll
	Infectious/Medical Waste Site		Superfund		Interstate
	Leaking Underground Storage Tank		Tire Waste Site		State Route
	Manufactured Gas Plant		Underground Storage Tank		US Route
	NPDES Facilites		Voluntary Remediation Program		Local Road
	NPDES Pipe Locations		Waste Transfer Station		
	Open Dump Waste Site				

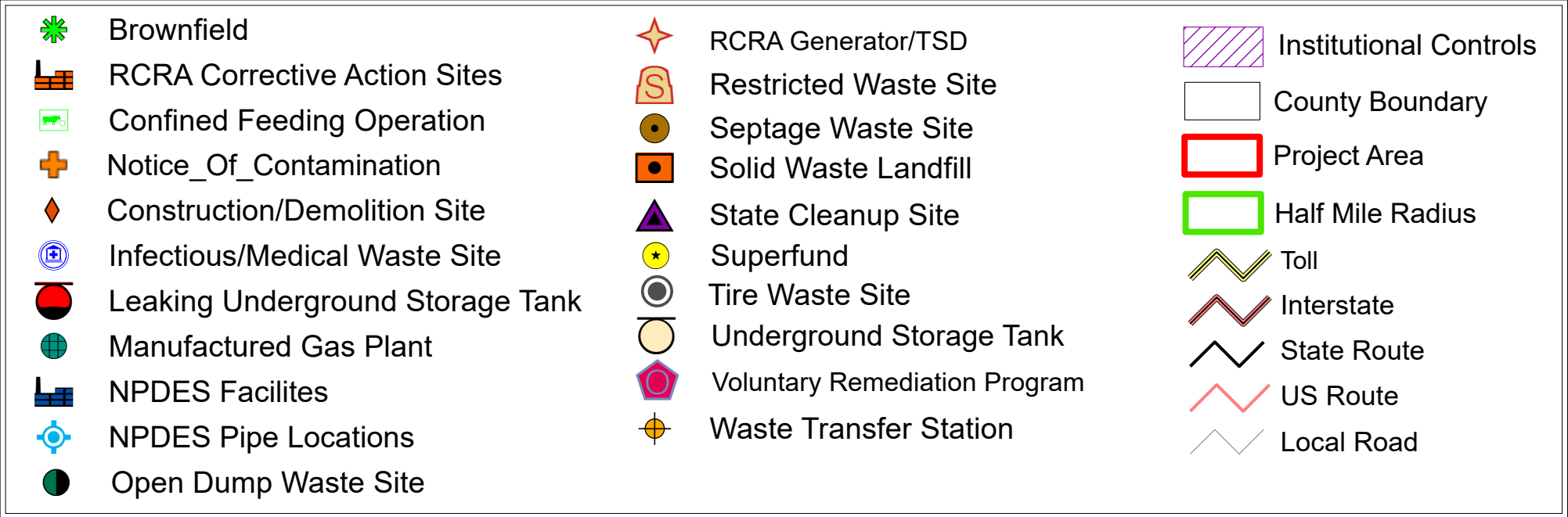
Addendum Limited Red Flag Investigation - Hazardous Material Concerns 2
United States (US) 12, from 1.93 Miles West of US 421 to the Michigan State Line
Des. No. 2000607, 2101096, and 2500075, Roadway Rehabilitation
LaPorte and Porter Counties, Indiana



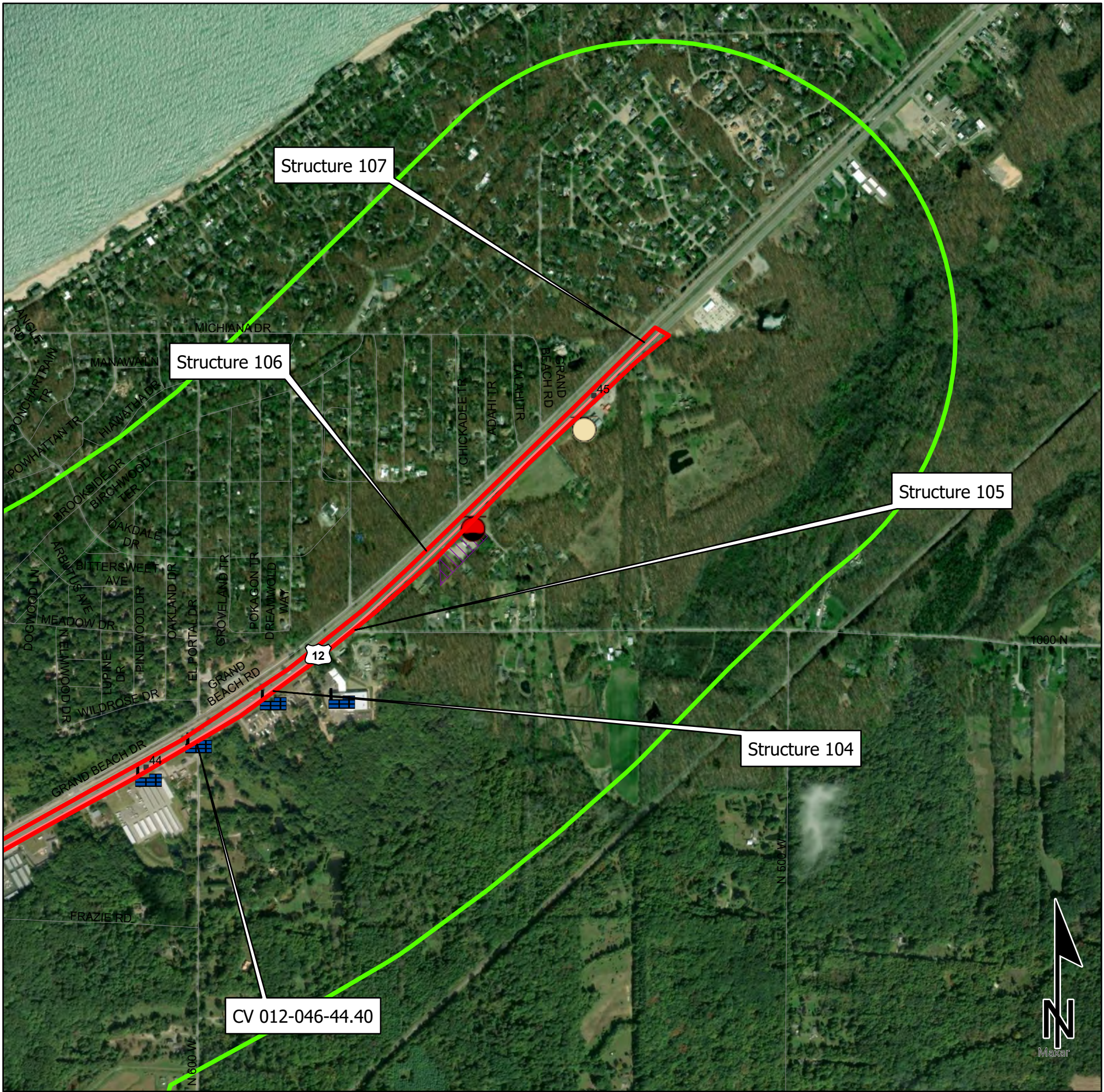
Addendum Limited Red Flag Investigation - Hazardous Material Concerns 3
United States (US) 12, from 1.93 Miles West of US 421 to the Michigan State Line
Des. No. 2000607, 2101096, and 2500075, Roadway Rehabilitation
LaPorte and Porter Counties, Indiana



Addendum Limited Red Flag Investigation - Hazardous Material Concerns 4
United States (US) 12, from 1.93 Miles West of US 421 to the Michigan State Line
Des. No. 2000607, 2101096, and 2500075, Roadway Rehabilitation
LaPorte and Porter Counties, Indiana



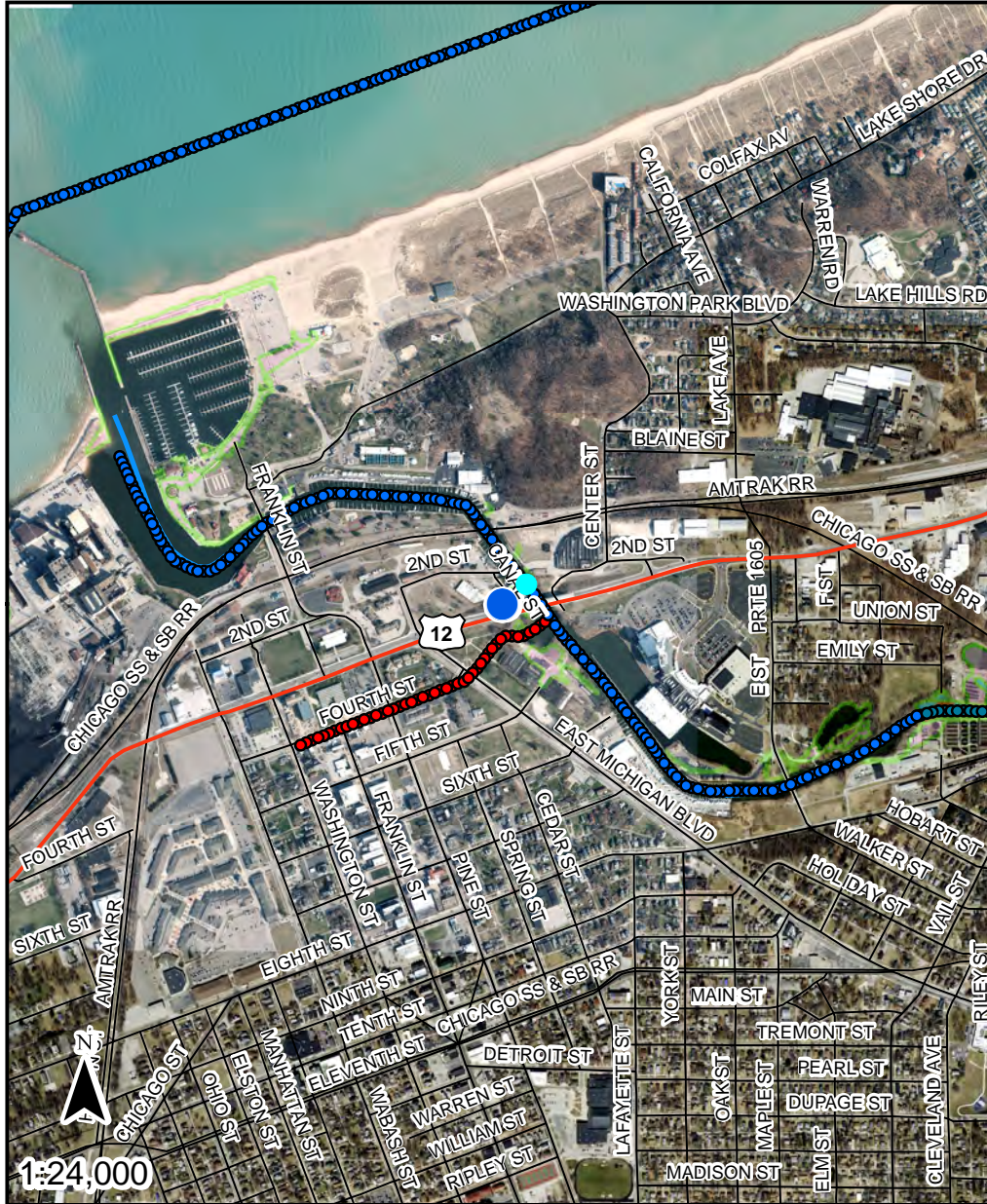
Addendum Limited Red Flag Investigation - Hazardous Material Concerns 5
United States (US) 12, from 1.93 Miles West of US 421 to the Michigan State Line
Des. No. 2000607, 2101096, and 2500075, Roadway Rehabilitation
LaPorte and Porter Counties, Indiana



	Brownfield		RCRA Generator/TSD		Institutional Controls
	RCRA Corrective Action Sites		Restricted Waste Site		County Boundary
	Confined Feeding Operation		Septage Waste Site		Project Area
	Notice_Of_Contamination		Solid Waste Landfill		Half Mile Radius
	Construction/Demolition Site		State Cleanup Site		Toll
	Infectious/Medical Waste Site		Superfund		Interstate
	Leaking Underground Storage Tank		Tire Waste Site		State Route
	Manufactured Gas Plant		Underground Storage Tank		US Route
	NPDES Facilites		Voluntary Remediation Program		Local Road
	NPDES Pipe Locations		Waste Transfer Station		
	Open Dump Waste Site				



APPENDIX F WATER RESOURCES



- Point of Interest
- Base Flood Elevation Point
- <all other values>

Flood Elevation Points

- STUDIED STREAM
- JURISDICTIONAL UNSTUDIED STREAM

Rivers and Streams at least 1 square mile

Drainage Area (sq. miles)

- 1 - 10
- 10 - 100
- <all other values>
- FEMA Zone AE Floodway; FEMA Administrative Floodway
- FEMA Zone AE
- Additional Floodplain Area; DNR .2 Percent Flood Hazard
- FEMA Floodplain - Ponding (Depth)

Point of Interest Coordinates (WGS84)

Long: **-86.8976433349**

Lat: **41.7210300596**

The information provided below is based on the point of interest shown in the map above.

County: **Laporte**

Approximate Ground Elevation: **589.6 feet (NAVD88)**

Stream Name:
Trail Creek

Base Flood Elevation: **584.7 feet (NAVD88)**

Drainage Area: **Not available**

Best Available Flood Hazard Zone: **Not Mapped**

National Flood Hazard Zone: **Not Mapped**

Is a Flood Control Act permit from the DNR needed for this location? **See following pages**

Is a local floodplain permit needed for this location? **Contact your local Floodplain Administrator-**

Floodplain Administrator: **Skyler York, Assistant Planner**

Community Jurisdiction: **City Of Michigan City, City proper**

Phone: **(219) 873-1419**

Email: **syork@emichigancity.com**



- Point of Interest
- Base Flood Elevation Point
- <all other values>

Flood Elevation Points

- STUDIED STREAM

Rivers and Streams at least 1 square mile

Drainage Area (sq. miles)

— 1 - 10

— 10 - 100

<all other values>

 FEMA Zone AE Floodway; FEMA Administrative Floodway

 FEMA Zone AE

 Additional Floodplain Area; DNR .2 Percent Flood Hazard

Point of Interest Coordinates
(WGS84)

Long: **-86.8732674194**

Lat: **41.7263391035**

The information provided below is based on the point of interest shown in the map above.

County: **Laporte**

Approximate Ground Elevation: **611.3 feet (NAVD88)**

Stream Name:
Trail Creek

Base Flood Elevation: **590.1 feet (NAVD88)**

Drainage Area: **Not available**

Best Available Flood Hazard Zone: **Not Mapped**

National Flood Hazard Zone: **Not Mapped**

Is a Flood Control Act permit from the DNR needed for this location? **See following pages**

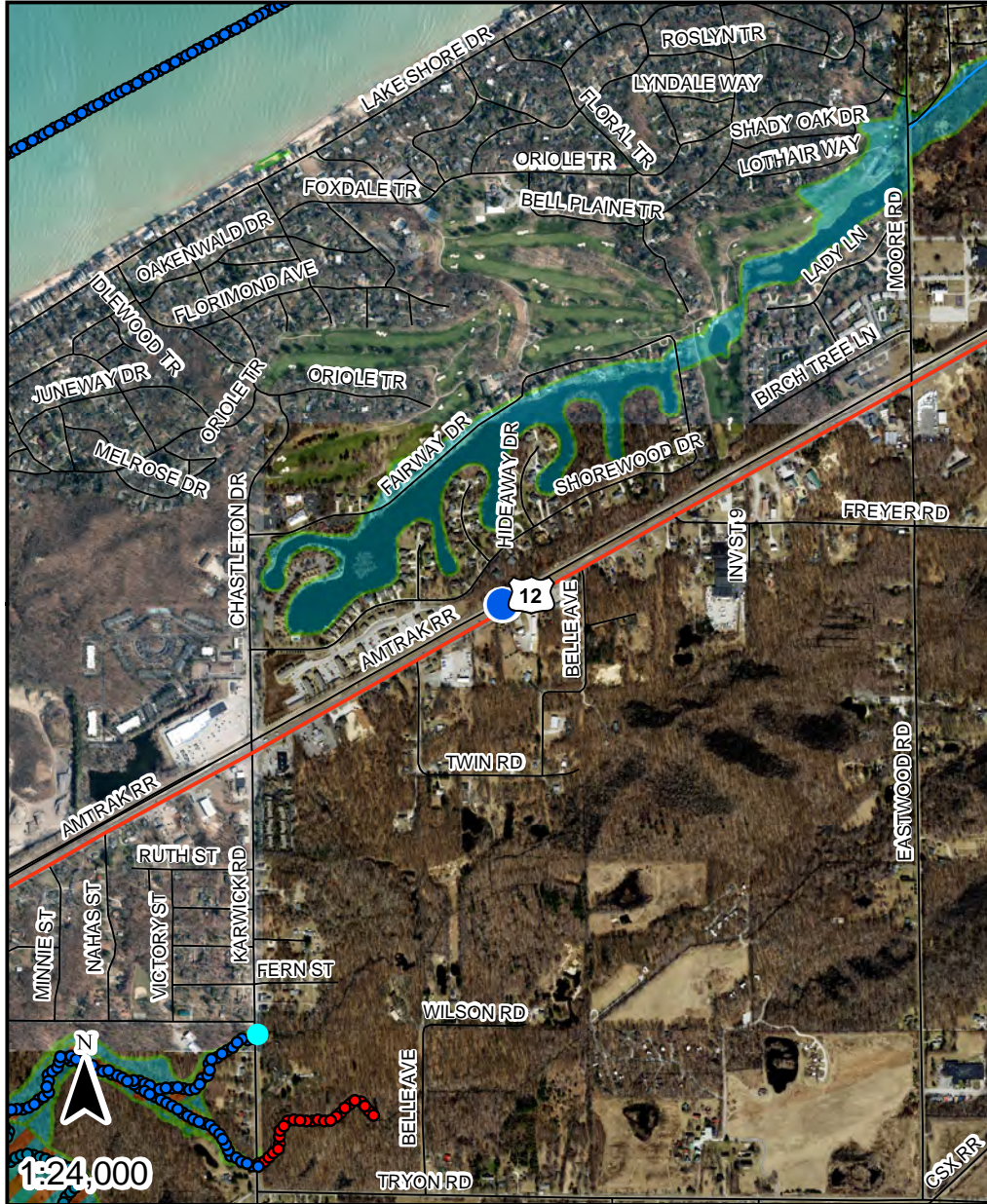
Is a local floodplain permit needed for this location? **Contact your local Floodplain Administrator-**

Floodplain Administrator: **Skyler York, Assistant Planner**

Community Jurisdiction: **City Of Michigan City, City proper**

Phone: **(219) 873-1419**

Email: **syork@emichigancity.com**



- Point of Interest
- Base Flood Elevation Point
- <all other values>

Flood Elevation Points

- STUDIED STREAM
- JURISDICTIONAL UNSTUDIED STREAM

Rivers and Streams at least 1 square mile

Drainage Area (sq. miles)

- 1 - 10
- 10 - 100
- <all other values>

- ▨ FEMA Zone AE Floodway; FEMA Administrative Floodway
- ▨ FEMA Zone A
- ▨ FEMA Zone AE
- ▨ Additional Floodplain Area; DNR .2 Percent Flood Hazard
- ▨ FEMA Floodplain - Sheet Flow (Depth)

Point of Interest Coordinates
(WGS84)

Long: **-86.8482692314**

Lat: **41.7368598037**

The information provided below is based on the point of interest shown in the map above.

County: **Laporte**

Approximate Ground Elevation: **621.3 feet (NAVD88)**

Stream Name:
Otter Creek

Base Flood Elevation: **605.9 feet (NAVD88)**

Drainage Area: **Not available**

Best Available Flood Hazard Zone: **Not Mapped**

National Flood Hazard Zone: **Not Mapped**

Is a Flood Control Act permit from the DNR needed for this location? **See following pages**

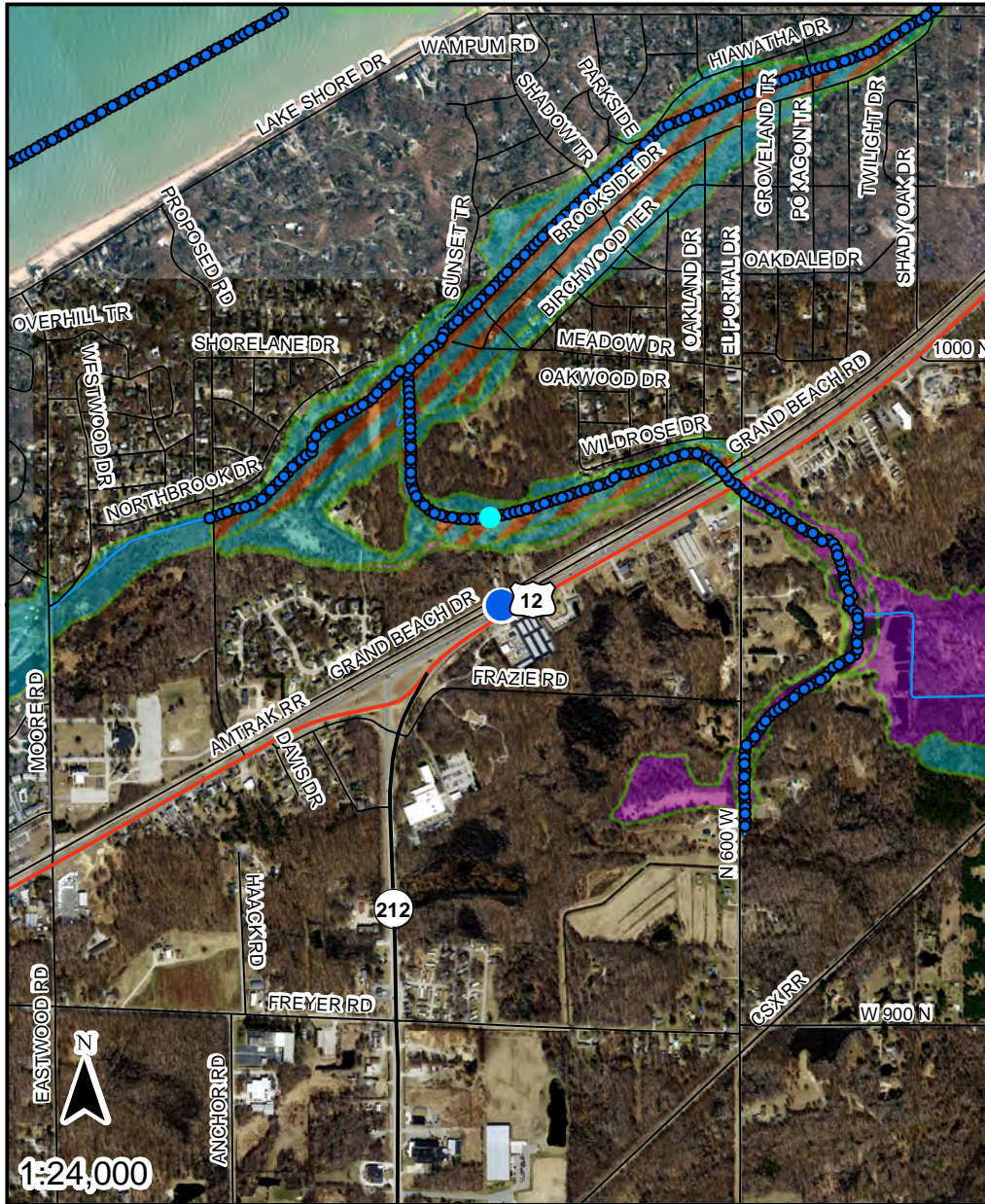
Is a local floodplain permit needed for this location? **Contact your local Floodplain Administrator-**

Floodplain Administrator: **Skyler York, Assistant Planner**

Community Jurisdiction: **City Of Michigan City, City proper**

Phone: **(219) 873-1419**

Email: **syork@emichigancity.com**



- Point of Interest
- Base Flood Elevation Point

Flood Elevation Points

- STUDIED STREAM

Rivers and Streams at least 1 square mile

Drainage Area (sq. miles)

1 - 10

<all other values>

- ▨ FEMA Zone AE Floodway; FEMA Administrative Floodway
- ▨ DNR Approximate Floodway
- ▨ FEMA Zone A
- ▨ FEMA Zone AE
- ▨ DNR Approximate Fringe
- ▨ Additional Floodplain Area; DNR .2 Percent Flood Hazard

Point of Interest Coordinates
(WGS84)

Long: **-86.8231422973**

Lat: **41.7473547668**

The information provided below is based on the point of interest shown in the map above.

County: **Laporte**

Approximate Ground Elevation: **622.1 feet (NAVD88)**

Stream Name:
White Ditch

Base Flood Elevation: **611.0 feet (NAVD88)**

Drainage Area: **Not available**

Best Available Flood Hazard Zone: **Not Mapped**

National Flood Hazard Zone: **Not Mapped**

Is a Flood Control Act permit from the DNR needed for this location? **See following pages**

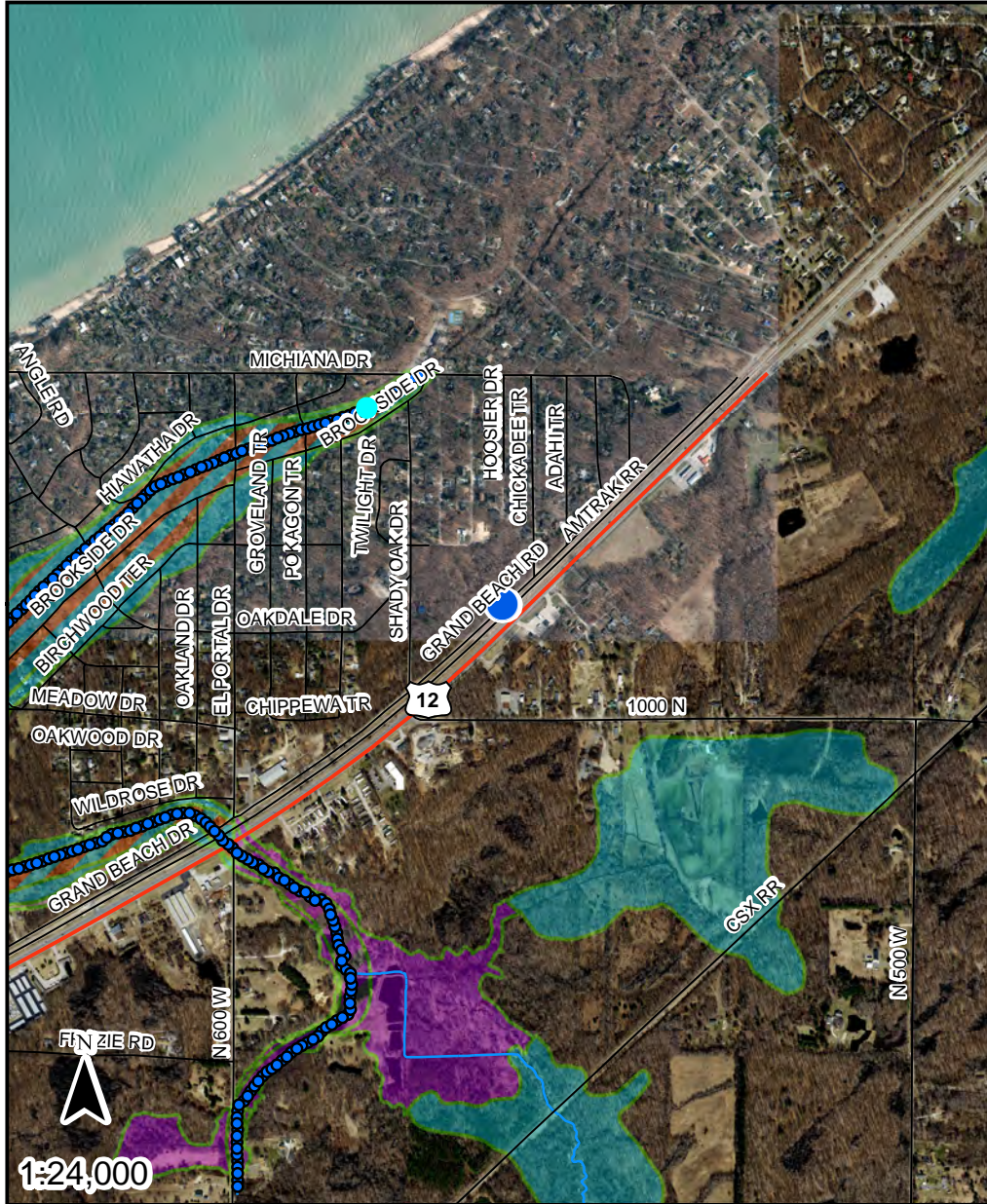
Is a local floodplain permit needed for this location? **Contact your local Floodplain Administrator-**

Floodplain Administrator: **Skyler York, Assistant Planner**

Community Jurisdiction: **City Of Michigan City, City proper**

Phone: **(219) 873-1419**

Email: **syork@emichigancity.com**



- Point of Interest
- Base Flood Elevation Point

Flood Elevation Points

- STUDIED STREAM

Rivers and Streams at least 1 square mile

Drainage Area (sq. miles)

- 1 - 10
- ▨ FEMA Zone AE Floodway; FEMA Administrative Floodway
- ▨ DNR Approximate Floodway
- ▨ FEMA Zone A
- ▨ FEMA Zone AE
- ▨ DNR Approximate Fringe
- ▨ Additional Floodplain Area; DNR .2 Percent Flood Hazard

Point of Interest Coordinates
(WGS84)

Long: **-86.8082506729**

Lat: **41.7552308662**

The information provided below is based on the point of interest shown in the map above.

County: **Laporte**

Stream Name:
White Ditch

Approximate Ground Elevation: **619.9 feet (NAVD88)**

Base Flood Elevation: **606.3 feet (NAVD88)**

Drainage Area: **Not available**

Best Available Flood Hazard Zone: **Not Mapped**

National Flood Hazard Zone: **Not Mapped**

Is a Flood Control Act permit from the DNR needed for this location? **See following pages**

Is a local floodplain permit needed for this location? **Contact your local Floodplain Administrator-**

Floodplain Administrator: **Michael Polan, Building Commissioner**

Community Jurisdiction: **Laporte County, County proper**

Phone: **(219) 326-6808**

Email: **mpolan@laporteco.in.gov**



- Point of Interest
- Base Flood Elevation Point

Flood Elevation Points

- STUDIED STREAM

Rivers and Streams at least 1 square mile

Drainage Area (sq. miles)

— 1 - 10

<all other values>

- ▨ FEMA Zone AE Floodway; FEMA Administrative Floodway
- ▨ DNR Approximate Floodway
- ▨ FEMA Zone A
- ▨ FEMA Zone AE
- ▨ DNR Approximate Fringe
- ▨ FEMA Floodplain - Ponding (Depth)

Point of Interest Coordinates
(WGS84)

Long: **-86.9255383087**

Lat: **41.7066141537**

The information provided below is based on the point of interest shown in the map above.

County: **Laporte**

Approximate Ground Elevation: **606.0 feet (NAVD88)**

Stream Name:
Lake Michigan

Base Flood Elevation: **588.0 feet (NAVD88)**

Drainage Area: **Not available**

Best Available Flood Hazard Zone: **Not Mapped**

National Flood Hazard Zone: **Not Mapped**

Is a Flood Control Act permit from the DNR needed for this location? **See following pages**

Is a local floodplain permit needed for this location? **Contact your local Floodplain Administrator-**

Floodplain Administrator: **Skyler York, Assistant Planner**

Community Jurisdiction: **City Of Michigan City, City proper**

Phone: **(219) 873-1419**

Email: **syork@emichigancity.com**



Approved 9.27.2022

**NOTE: Wetlands
in this report are
referred to as
A1 to F1**

**WATERS OF THE U.S. DETERMINATION REPORT
U.S. 12 HMA Overlay
Preventative Maintenance & Small Culvert Replacement
Michigan & Springfield Townships, LaPorte County, Indiana
Des. No. 2000607
Prepared by: April Pape, Metric Environmental, LLC
September 23, 2022**

Date of Waters Field Investigation: May 12, 2022

Location:

12-Digit HUC Watershed: 040400010105 (Trail Creek – Frontal Lake Michigan), 040400010102 (Trail Creek – Frontal Lake Michigan), and 040400010601 (Calumet River – Frontal Lake Michigan) (**Exhibit 1**)

Sections 7 & 18, Township 38 North, Range 3 West; Sections 13, 14, 22, 23, & 31, Township 38 North, Range 3 West

New Buffalo West, Michigan City East, & Michigan City West, IN 7.5 minute USGS Topographic Quadrangles (**Exhibit 2**)

Michigan & Springfield Township, LaPorte County, Indiana

Table 1: Investigated Area Latitude/Longitude

Investigated Area (IA) #	Latitude	Longitude
IA 1	41.70628	-86.92661
IA 2	41.73057	-86.86265
IA 3	41.73734	-86.84672
IA 4	41.73999	-86.84029
IA 5	41.74425	-86.82985
IA 6	41.74498	-86.82744
IA 7	41.74517	-86.82628
IA 8	41.74612	-86.82521
IA 9	41.74692	-86.82362
IA 10	41.75116	-86.81363
IA 11	41.75271	-86.81078
IA 12	41.75428	-86.80872
IA 13	41.75886	-86.80238
IA 14	41.75987	-86.80098

Project Description:

The proposed project (Des. 2000607) includes HMA overlay, preventative maintenance activities, and replacement of several small culverts along U.S. 12 in Michigan and Springfield Townships, LaPorte County, Indiana. HMA overlay and preventative maintenance activities will be confined to the existing pavement. The Investigated Area (IA) was developed based on the proposed improvements including the replacement of the small structures. The project corridor is divided into 14 sections surrounding the small structures.

FEMA Flood Insurance Rate Map (FIRM) and Indiana Department of Natural Resources (IDNR) Floodway:

No mapped floodplains are located within the project corridor. The nearest floodplain was located approximately 0.32 miles southwest of IA 1. The FIRM map for this area is provided as **Exhibit 3**. According to the *IDNR Floodway Information Portal*, no Indiana DNR (IDNR) Floodway was present within the project corridor.

National Wetlands Inventory (NWI) Information:

No mapped NWI polygons are located within the project corridor. The nearest mapped NWI polygon is located approximately 130 feet (ft.) southwest of IA 1. The NWI map is provided as **Exhibit 3**.

Karst Feature Information:

No mapped karst features were found within 0.5 mi. of the project corridor during the desktop review.

USGS National Hydrography Dataset (NHD) Information:

Seventeen mapped NHD flowlines are located within the project corridor, listed by occurrence from west to east within the IA in **Table 2** below. The NHD map is provided in **Exhibit 3**.

Table 2: NHD Summary Table

Corresponding Feature	NHD Flowline Classification	Photo Nos.	IA #	USGS Blue-line
None	Stream/River (46000)	1-3	IA 1	No
CV 1, SD 1	Canal/Ditch (33600)	10-11, 15-16	IA 2	No
None	Canal/Ditch (33600)	15	IA 2	No
None	Stream/River (46000)	14	IA 2	No
CV 3, SD 2	Connector (33400)	17-18, 20-21	IA 3	No
SD 2	Stream/River (46000)	19-21	IA 3	No
CV 4	Stream/River (46000)	24-28	IA 4	No
CV 4	Connector (33400)	24-28	IA 4	No
None	Connector (33400)	41	IA 6	No
None	Canal/Ditch (33600)	73, 78, 93	IA 8	No
None	Connector (33400)	73, 78, 93	IA 8	No
Wetland E	Canal/Ditch (33600)	85-93	IA 8	No
Wetland F	Canal/Ditch (33600)	97-105	IA 9	No
RSD 3, RSD 4, CV 11	Canal/Ditch (33600)	106-111	IA 10	No
RSD 5, CV 12, RSD 6	Canal/Ditch (33600)	112-119	IA 11	No
RSD 7	Canal/Ditch (33600)	120-123	IA 12	No

Soils:

According to the Natural Resources Conservation Service (NRCS) Soil Survey Geographic (SSURGO) Database for LaPorte County, Indiana, the project corridor contained seven mapped soil units, listed in **Table 3** below. The NRCS soil survey map is provided as **Exhibit 3**.

Table 3: NRCS Soil Summary Table

Soil Unit Symbol	Soil Unit Name	Hydric Rating (%)
BtA	Brems fine sand, 0 to 3 percent slopes	Nonhydric (0)
Muua	Morocco loamy sand, lake plain, 0 to 2 percent slopes	Predominantly Nonhydric (6)
Nf	Newton loamy fine sand	Hydric (100)
OaC	Oakville fine sand, 4 to 12 percent slopes	Predominantly Nonhydric (10)
OaE	Oakville fine sand, 12 to 25 percent slopes	Nonhydric (0)
Sa	Saugatuck-Pipestone complex	Partially Hydric (70)
Uv	Urban land-Morocco complex	Predominantly Nonhydric (6)

Attached Documents:

Maps of the project corridor (**Exhibits 1-4**)

Photo Location Map (**Exhibit 5**)

Site Photographs

Wetland Determination Data Forms

Preliminary Jurisdictional Determination Form

Field Reconnaissance:

The wetland determination field visit was conducted on May 12, 2022 by Zachary Root of Metric Environmental, LLC. The project corridor consists of the area that has the potential to be impacted, based on the provided design scenario. This area was evaluated for the presence of wetlands and Waters of the United States. This investigation was conducted in accordance with the *1987 U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual* and the *January 2012 Northcentral and Northeast Regional Supplement (Version 2.0) Manual*.

A Location Map showing the investigated area locations is provided as **Exhibit 1**. The proposed project is located in the northern portion of LaPorte County, Indiana, on U.S. 12. The IA extended along U.S. 12 for approximately 150 ft. and approximately 70 ft. from U.S. 12 centerline at each culvert location. An aerial map of sampling points and water features is provided as **Exhibit 4**. A photo location map is provided as **Exhibit 5** and site photographs are attached.

Streams:

No streams were identified within the project corridor during field reconnaissance.

Wetlands:

The site was investigated for evidence of hydrophytic vegetation, hydric soil, and wetland hydrology to determine if the project impacts wetlands and other Waters of U.S. The sampling point locations were chosen in possible wetland areas within the project corridor. The upland areas located within the project corridor consisted of roadside right-of-way (ROW). Upland areas where sampling points were not taken were investigated and determined to be upland due to upward sloping topography and a dominance of upland vegetation. Dominant upland species observed within these upland areas included tall false rye grass (*Schedonorus arundinaceus*, FACU) and red fescue (*Festuca rubra*, FACU). IA 1, IA 2, IA 3, IA 4, IA 5, IA 10, IA 11, IA 12, IA 13, and IA 14 were found to contain only upland areas. IA 6, IA 7, IA 8, and IA 9 contained wetlands. Fourteen sampling points were taken and are identified in **Table 4** below. The sampling points, recorded on the USACE Wetland Determination Data Forms and shown on **Exhibit 4**, provided the following information:

Table 4: Sampling Plot Data Summary Table

Plot #	Photo #s	Lat/Long	Hydrophytic Vegetation	Hydric Soils	Wetland Hydrology	Within Wetland
A1	52-54	41.744924 -86.82737	Yes	Yes	Yes	Yes, Wetland A
A2	55-57	41.744916 -86.827439	No	Yes	No	No
B1	44-46	41.745132 -86.827469	Yes	Yes	Yes	Yes, Wetland B
B2	47-49	41.745143 -86.827496	No	Yes	No	No
C1	64-66	41.745051 -86.826267	Yes	Yes	Yes	Yes, Wetland C
C2	67-69	41.745087 -86.826294	No	No	No	No
D1	79-81	41.746069 -86.825243	Yes	Yes	Yes	Yes, Wetland D
D2	82-84	41.746041 -86.825303	No	No	No	No
E1	86-88	41.745894 -86.825009	Yes	Yes	Yes	Yes, Wetland E
E2	89-91	41.745878 -86.824986	No	No	No	No
F1	99-101	41.746854 -86.823470	Yes	Yes	Yes	Yes, Wetland F
F2	102-104	41.746849 -86.823429	No	No	No	No

Six wetlands were observed within the project corridor. Descriptions of the wetlands and corresponding sampling points are provided in **Table 5** below.

Table 5: Wetland Summary Table

Wetland Name	IA #	Photo #s	Lat/Long	Cowardin Class	Total Area	Quality	Likely Water of the U.S.?
					ac.		
Wetland A	IA 6	50-57	41.744925 -86.82733	PEM1A	0.004	Poor	Yes
Wetland B	IA 6	39-49	41.745151 -86.827425	PEM1A	0.015	Poor	Yes
Wetland C	IA 7	61--66, 69	41.745036 -86.826244	PEM1A	0.012	Poor	Yes
Wetland D	IA 8	77-81, 83	41.746099 -86.825231	PEM1A	0.018	Poor	Yes
Wetland E	IA 8	85-88, 90-93	41.745934 -86.824967	PEM1A	0.025	Poor	Yes
Wetland F	IA 9	97-101, 103, 105	41.746784 -86.823553	PEM1A	0.024	Poor	Yes

Wetland A (0.004 ac.) – PEM1A

Wetland A was classified as a Palustrine, Emergent, Persistent, Temporarily Flooded (PEM1A) wetland. This wetland is located in a ditch between U.S. 12 and an exit ramp in IA 6. Approximately 0.004 ac. of Wetland A was contained within IA 6 and the wetland continued east beyond the limits of the IA. The boundaries of Wetland A were delineated by lack of wetland vegetation and increased elevation. Wetland A receives drainage from a roadside ditch outside the IA and likely receives runoff on a consistent basis during rain events. The wetland was not associated with an NWI polygon and was formed within the Nf mapped soil unit, which is listed as 100 percent hydric. The wetland likely receives run-off from the adjacent paved sources. The wetland exhibited poor plant species diversity and the dominant species is reed canary grass (*Phalaris arundinacea*, FACW), an invasive species. These factors contribute to the conclusion that Wetland A can support a limited amount of wildlife or aquatic habitat and therefore should be considered to be of poor quality. Based on topography, it can be deduced that water drains north from Wetland A into White Ditch, which flows into Lake Michigan, a Section 10 TNW. Because Wetland A contributes flow to a TNW, it should be considered a jurisdictional Water of the U.S.

Sampling Point A1 (A1) – Wetland A

A1 was located at the toe of a slope south of U.S. 12 in IA 6. The dominant vegetation at this sampling point was reed canary grass (*Phalaris arundinacea*, FACW). This passed the hydrophytic vegetation indicators of rapid test for hydrophytic vegetation, dominance test, and prevalence index. The soil in the test pit met the hydric soil indicator of redox dark surface (F6). No primary indicators of wetland hydrology were observed. Secondary indicators of wetland hydrology observed included geomorphic position (D2) and FAC-neutral test (D5). This satisfied the criteria for wetland hydrology. Since all three required wetland criteria were met, this area qualified as a wetland.

Sampling Point A2 (A2) – Wetland A Upland

A2 was located at the toe of a slope west of Wetland A. The dominant vegetation at this sampling point was tall false rye grass (*Schedonorus arundinaceus*, FACU). This did not meet any of the hydrophytic vegetation indicators. The soil in the test pit met the hydric soil indicator of redox dark surface (F6). No primary indicators of wetland hydrology were observed. One secondary indicator of wetland hydrology, geomorphic position (D2), was observed. This did not satisfy the criteria for wetland hydrology. Since only one of the three required wetland criteria were met, this area did not qualify as a wetland.

Wetland B (0.015 ac.) – PEM1A

Wetland B was classified as a PEM1A wetland. This wetland is located in the median of U.S. 12 in IA 6. Approximately 0.015 ac. of Wetland B was contained within the IA and the wetland continued north beyond the IA. The boundaries of Wetland B were delineated by lack of wetland vegetation and increased elevation. The wetland was not associated with an NWI polygon and was formed within the Nf mapped soil unit, which is listed as 100 percent hydric. The wetland is located adjacent to U.S. 12 and likely receives run-off from the adjacent paved roads. The wetland exhibited poor plant species diversity and the dominant vegetation is reed canary grass (*Phalaris arundinacea*, FACW), an invasive species. These factors contribute to the conclusion that Wetland B can support a limited amount of wildlife or aquatic habitat and therefore should be considered poor quality. Based on topography, it can be deduced that water drains north from Wetland B into White Ditch, which flows into Lake Michigan, a Section 10 TNW. Because Wetland B contributes flow to a TNW, it should be considered a jurisdictional Water of the U.S.

Sampling Point B1 (B1) – Wetland B

B1 was located at the toe of a slope in the median of U.S. 12. The dominant vegetation at this sampling point was reed canary grass (*Phalaris arundinacea*, FACW). This passed the hydrophytic vegetation indicators of rapid test for hydrophytic vegetation, dominance test, and prevalence index. The soils in the test pit met the hydric soil indicator of redox

dark surface (F6). Indicators of wetland hydrology observed included oxidized rhizospheres on living roots (C3), geomorphic position (D2), and FAC-neutral test (D5). Since all three required wetland criteria were met, this area qualified as a wetland.

Sampling Point B2 (B2) – Wetland B upland

B2 was located on a hillslope west of Wetland B. The dominant vegetation at this sampling point was eastern red cedar (*Juniperus virginiana*, FACU) in the sapling/shrub stratum and sticky-willy (*Galium aparine*, FACU) and nodding onion (*Allium cernuum*, FACU) in the herb stratum. This did not meet any of the hydrophytic vegetation indicators. The soils in the test pit met the hydric soil indicator of redox dark surface (F6). No indicators of wetland hydrology were observed. Since only one of the three required wetland criteria were met, this area did not qualify as a wetland.

Wetland C (0.012 ac.) – PEM1A

Wetland C was classified as a PEM1A wetland. This wetland is located in a median in IA 7. Approximately 0.012 ac. of Wetland C was contained within the IA and the wetland continued south beyond the IA. The boundaries of Wetland C were delineated by lack of wetland vegetation and increased elevation. The wetland was not associated with an NWI polygon and was formed within the Nf mapped soil unit, which is listed as 100 percent hydric. Due to its location, Wetland C likely receives drainage on a consistent basis during rain events. The wetland is located adjacent to U.S. 12 and likely receives run-off from the adjacent paved roads. The wetland exhibited poor plant species diversity and the dominant vegetation is reed canary grass (*Phalaris arundinacea*, FACW), an invasive species. These factors contribute to the conclusion that Wetland C can support a limited amount of wildlife or aquatic habitat and therefore should be considered to be of poor quality. Based on topography, it can be deduced that water drains south from Wetland C into a culvert that outlet into White Ditch, which flows into Lake Michigan, a Section 10 TNW. Because Wetland C contributes flow to a TNW, it should be considered a jurisdictional Water of the U.S.

Sampling Point C1 (C1) – Wetland C

C1 was located at the toe of a slope in IA 7. The dominant vegetation at this sampling point was reed canary grass (*Phalaris arundinacea*, FACW). This passed the hydrophytic vegetation indicators of rapid test for hydrophytic vegetation, dominance test, and prevalence index. The soils in the test pit met the hydric soil indicator of redox dark surface (F6). Indicators of wetland hydrology observed included oxidized rhizospheres on living roots (C3), geomorphic position (D2), and FAC-neutral test (D5). Since all three required wetland criteria were met, this area qualified as a wetland.

Sampling Point C2 (C2) – Wetland C upland

C2 was located on a hillslope north of Wetland C. The dominant vegetation at this sampling point was Kentucky blue grass (*Poa pratensis*, FACU) and tall false rye grass (*Schedonorus arundinaceus*, FACU). This did not meet any of the hydrophytic vegetation indicators. The soil in the test pit did not meet any hydric soil indicators. No indicators of wetland hydrology were observed. Since none of the three required wetland criteria were met, this area did not qualify as a wetland.

Wetland D (0.018 ac.) – PEM1A

Wetland D was classified as a PEM1A wetland. This wetland is located within the median of U.S. 12 in IA 8. The boundaries of Wetland D were delineated by lack of wetland vegetation and increased elevation. The wetland was not associated with an NWI polygon and was formed within the Nf mapped soil unit, which is listed as 100 percent hydric. Due to its location, Wetland D likely receives drainage on a consistent basis during rain events. The wetland is located adjacent to U.S. 12 and likely receives run-off from the adjacent paved roads. The wetland exhibited poor plant species diversity and the dominant vegetation are reed canary grass (*Phalaris arundinacea*, FACW) and cattails (*Typha x glauca*, OBL), two invasive species. These factors contribute to the conclusion that Wetland D can support a limited amount of wildlife or aquatic habitat and therefore should be considered to be of poor quality. Based on topography, it can be deduced that water drains north from Wetland D into White Ditch, which flows into Lake Michigan, a Section 10 TNW. Because Wetland D contributes flow to a TNW, it should be considered a jurisdictional Water of the U.S.

Sampling Point D1 (D1) – Wetland D

D1 was located within the median of U.S. 12 in IA 8. The dominant vegetation at this sampling point was reed canary grass (*Phalaris arundinacea*, FACW) and hybrid cattail (*Typha x glauca*, OBL). This passed the hydrophytic vegetation indicators of rapid test for hydrophytic vegetation, dominance test, and prevalence index. The soils in the test pit met the hydric soil indicator of redox dark surface (F6). Indicators of wetland hydrology observed included surface water (A1), high water table (A2), saturation (A3), oxidized rhizospheres on living roots (C3), geomorphic position (D2), and FAC-neutral test (D5). Since all three required wetland criteria were met, this area qualified as a wetland.

Sampling Point D2 (D2) – Wetland D upland

D2 was located at the top of a slope southwest of Wetland D. The dominant vegetation at this sampling point were red fescue (*Festuca rubra*, FACU) and dandelion (*Taraxacum officinale*, FACU). This did not meet any of the hydrophytic vegetation indicators. The soil in the test pit did not meet any hydric soil indicators. No indicators of wetland hydrology

were observed. Since none of the three required wetland criteria were met, this area did not qualify as a wetland.

Wetland E (0.025 ac.) – PEM1A

Wetland E was classified as a PEM1A wetland. This wetland is located in a ditch south of U.S. 12 in IA 8. Approximately 0.025 ac. of Wetland E was contained within the IA and the wetland continued northeast and southwest beyond the IA. The boundaries of Wetland E were delineated by lack of wetland vegetation and increased elevation. The wetland was not associated with an NWI polygon and was formed within the Nf mapped soil unit, which is listed as 100 percent hydric. Due to its location within a ditch, Wetland E likely receives drainage on a consistent basis during rain events. The wetland is located adjacent to U.S. 12 and likely receives run-off from the adjacent paved roads. The wetland exhibited poor plant species diversity and the dominant vegetation is reed canary grass (*Phalaris arundinacea*, FACW), an invasive species. These factors contribute to the conclusion that Wetland E can support a limited amount of wildlife or aquatic habitat and therefore should be considered poor quality. Based on topography, it can be deduced that water drains north from Wetland E into White Ditch, which flows into Lake Michigan, a Section 10 TNW. Because Wetland E contributes flow to a TNW, it should be considered a jurisdictional Water of the U.S.

Sampling Point E1 (E1) – Wetland E

E1 was located in a ditch south of U.S. 12 in IA 8. The dominant vegetation at this sampling point was reed canary grass (*Phalaris arundinacea*, FACW). This passed the hydrophytic vegetation indicators of rapid test for hydrophytic vegetation, dominance test, and prevalence index. The soils in the test pit met the hydric soil indicator of redox dark surface (F6). Indicators of wetland hydrology observed included surface water (A1), high water table (A2), saturation (A3), oxidized rhizospheres on living roots (C3), geomorphic position (D2), and FAC-neutral test (D5). Since all three required wetland criteria were met, this area qualified as a wetland.

Sampling Point E2 (E2) – Wetland E upland

E2 was located on a hillslope southeast of Wetland E. The dominant vegetation at this sampling point was tall false rye grass (*Schedonorus arundinaceus*, FACU), nodding onion (*Allium cernuum*, FACU), reed canary grass (*Phalaris arundinacea*, FACW), and Canada thistle (*Cirsium arvense*, FACU). This did not meet any of the hydrophytic vegetation indicators. The soil in the test pit did not meet any hydric soil indicators. No indicators of wetland hydrology were observed. Since none of the three required wetland criteria were met, this area did not qualify as a wetland.

Wetland F (0.024 ac.) – PEM1A

Wetland F was classified as a PEM1A wetland. This wetland is located in a ditch south of U.S. 12 in IA 9. Approximately 0.024 ac. of Wetland F was contained within the IA and the wetland continued southeast and southwest beyond the IA. The boundaries of Wetland F were delineated by lack of wetland vegetation and increased elevation. The wetland was not associated with an NWI polygon and was formed within the Nf mapped soil unit, which is listed as 100 percent hydric and the BtA mapped soil unit, which is listed as nonhydric. Due to its location within a ditch Wetland F likely receives drainage on a consistent basis during rain events. The wetland is located adjacent to U.S. 12 and a boat storage facility and likely receives run-off from the adjacent paved roads. The wetland exhibited poor plant species diversity. These factors contribute to the conclusion that Wetland F can support a limited amount of wildlife or aquatic habitat and therefore should be considered to be of poor quality. Based on topography, it can be deduced that water drains north from Wetland F into White Ditch, which flows into Lake Michigan, a Section 10 TNW. Because Wetland F contributes flow to a TNW, it should be considered a jurisdictional Water of the U.S.

Sampling Point F1 (F1) – Wetland F

F1 was located in a ditch south of U.S. 12 in IA 9. The dominant vegetation at this sampling point was hybrid cattail (*Typha x glauca*, OBL), lamp rush (*Juncus effuses*, OBL) and lesser poverty rush (*Juncus tenuis*, FAC). This passed the hydrophytic vegetation indicators of dominance test and prevalence index. The soils in the test pit met the hydric soil indicator of redox dark surface (F6). Indicators of wetland hydrology observed included surface water (A1), high water table (A2), saturation (A3), geomorphic position (D2), and FAC-neutral test (D5). Since all three required wetland criteria were met, this area qualified as a wetland.

Sampling Point F2 (F2) – Wetland F upland

F2 was located at the top of a slope northeast of Wetland F. The dominant vegetation at this sampling point was red fescue (*Festuca rubra*, FACU). This did not meet any of the hydrophytic vegetation indicators. The soil in the test pit did not meet any hydric soil indicators. No indicators of wetland hydrology were observed. Since none of the three required wetland criteria were met, this area did not qualify as a wetland.

Open Water:

No open water areas were observed in the project corridor.

Roadside Ditches:

Seven roadside ditches were identified within the project corridor during field reconnaissance (**Table 8**). These features were vegetated drainage swales. No OHWM or bed/bank characteristics were observed in these features, so they are likely non-jurisdictional.

Table 6: Roadside Ditch Summary Table

Name	Photo #s	Length (LFT)	IA #
RSD 1	14-16	49	IA 2
RSD 2	58-59	51	IA 6
RSD 3	106-108	92	IA 10
RSD 4	109-111	43	IA 10
RSD 5	112-115	139	IA 11
RSD 6	116-118	133	IA 11
RSD 7	120-123	131	IA 12

Culverts and Drains:

Eighteen culverts and three storm drains were identified within the project corridor as shown in **Table 9**. The culverts were made of either concrete, corrugated metal pipe (CMP), or high density polyethylene (HDPE). These culverts did not carry jurisdictional waters due to a lack of an OHWM and bed and bank characteristics. The south end of Culvert (CV) 15 was not located during field reconnaissance, and is likely buried. Locations of these culverts are shown on **Exhibit 4**, **Exhibit 5**, and attached photosheet.

Table 7: Culverts and Drains Summary Table

Culvert and Drain Number	Type	Purpose
CV 2, CV 3, CV 4, CV 5, CV 6, CV 7, CV 8, CV 10, CV 14, CV 15, CV 16	Concrete	Stormwater Drainage
CV 1, CV 9, CV 11, CV 12, CV 13, CV 18	CMP	Stormwater Drainage
CV 17	HDPE Culvert	Stormwater Drainage

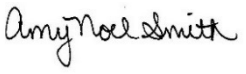
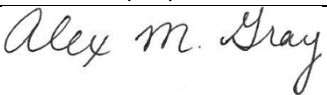

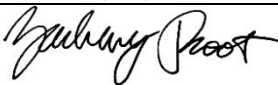

Conclusion:

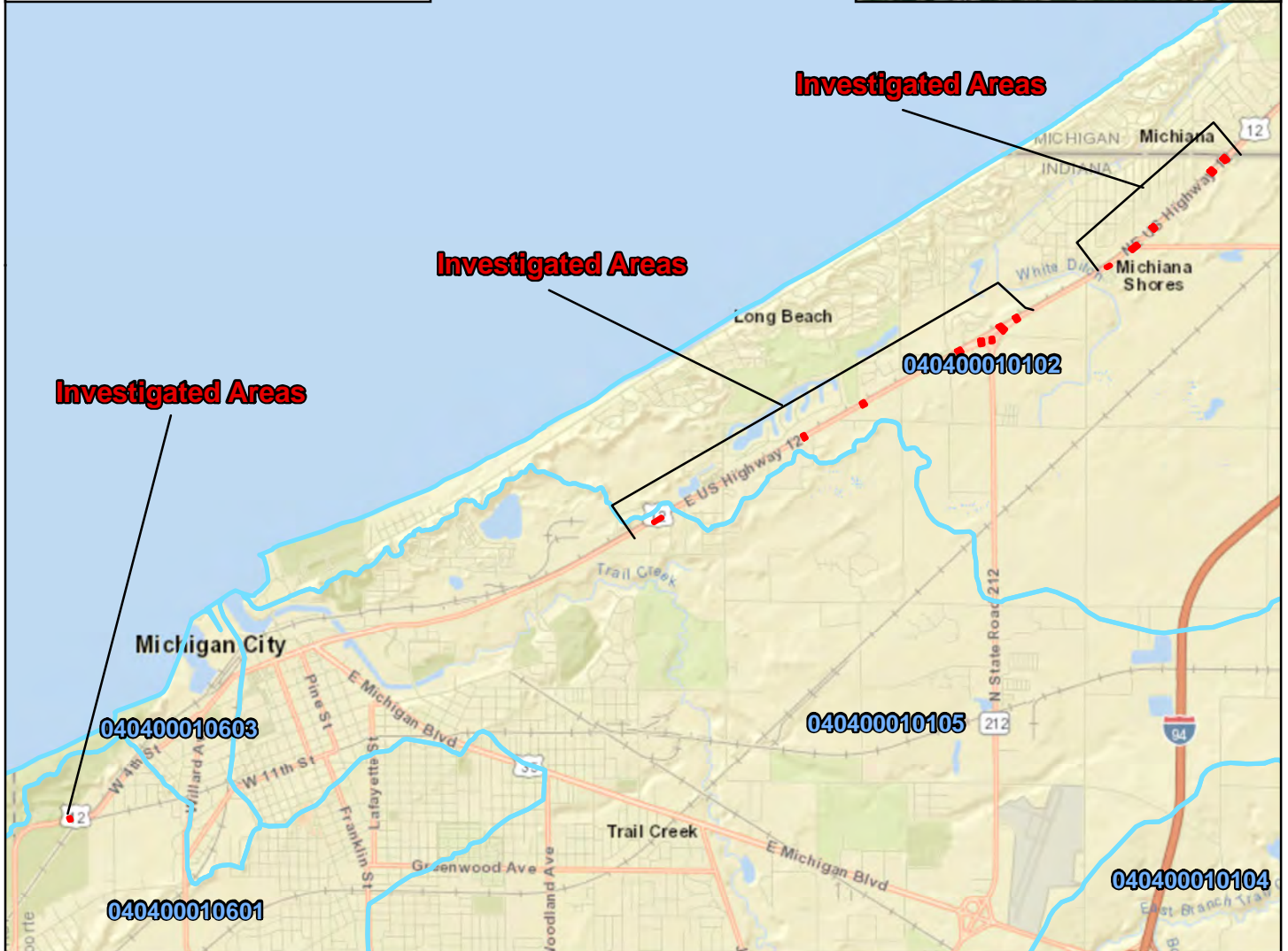
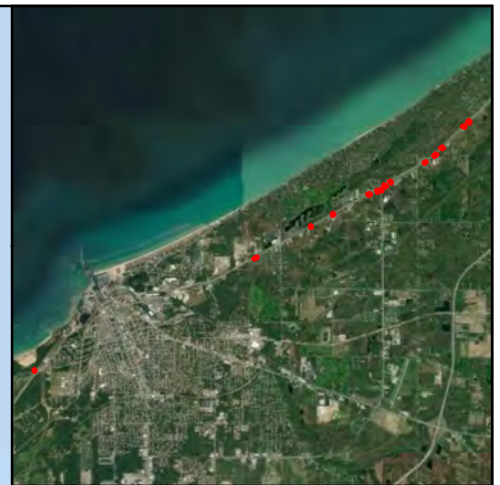
Six emergent wetlands, totaling 0.098 ac., identified within the IA during the field reconnaissance. These waterways are likely Waters of the U.S. Every effort should be taken to avoid and minimize impacts to the wetlands. If impacts are necessary, then mitigation may be required. The INDOT Environmental Services Division should be contacted immediately if impacts will occur. The final determination of jurisdictional waters is ultimately made by the U.S. Army Corps of Engineers. This report is our best judgment based on the guidelines set forth by the Corps.

Acknowledgements:

This waters determination has been prepared based on the best available information, interpreted in light of the investigator's training, experience and professional judgement in conformance with the 1987 *Corps of Engineers Wetlands Delineation Manual*, the appropriate regional supplement, the USACE *Jurisdictional Determination Form Instructional Guidebook*, and other appropriate agency guidelines. See **Table 10** for a list of the associated Metric investigators.

Table 8: Acknowledgement Summary Table

Metric Environmental Staff	Position	Contributing Effort	Signature/Date
Amy Noel Smith	Senior Project Manager	QAQC	 9/23/22
Alex Gray	Project Scientist 1	QAQC	 9/23/22
Aileen Driscoll	Staff Scientist 2	QAQC	 9/23/22
Zachary Root	Project Scientist 1	Field Data Collection	 9/23/22
April Pape	Staff Scientist 1	Report Preparation	 9/23/22



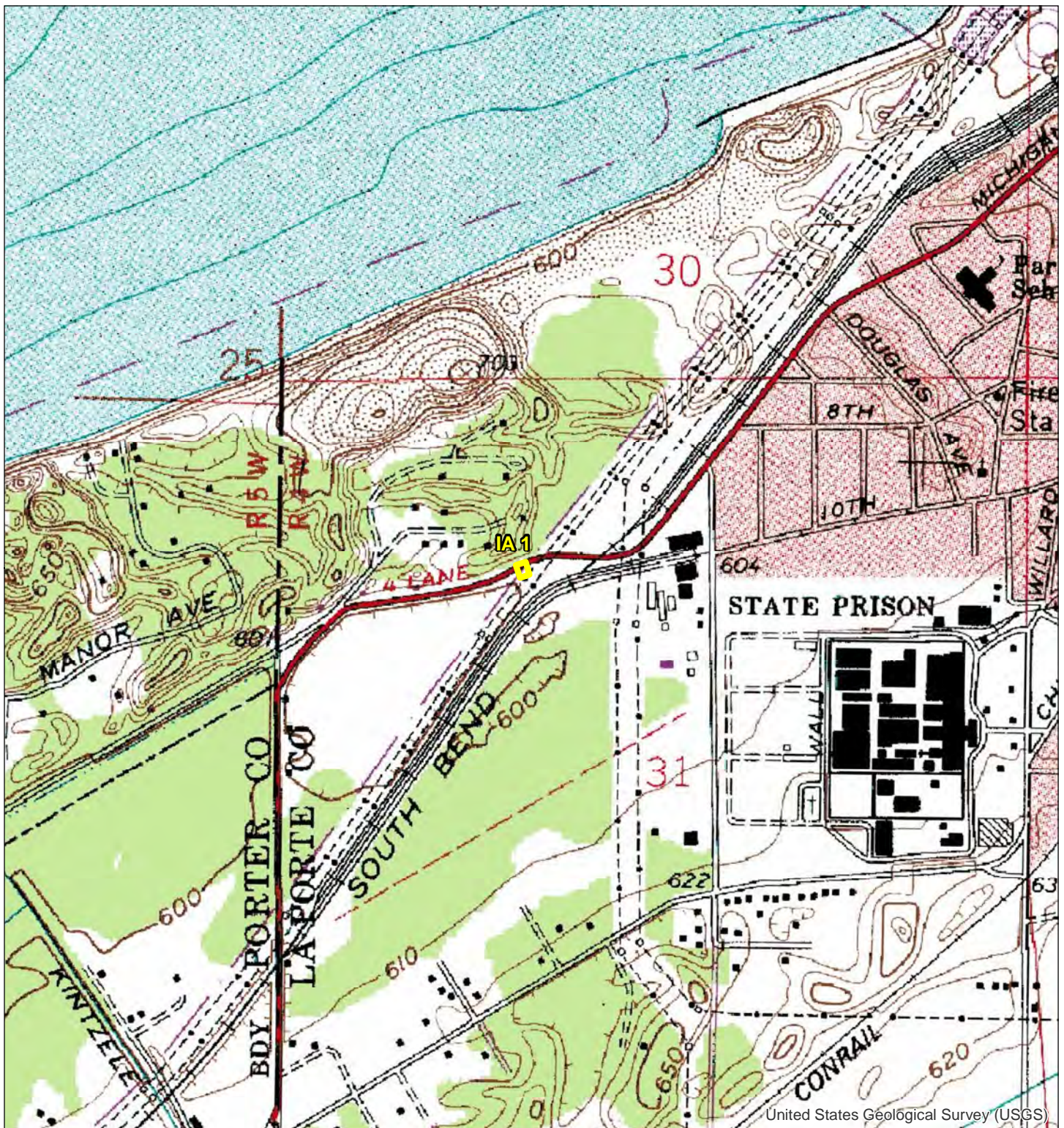
Investigated Area (IA) 12-Digit HUC Watershed

Exhibit 1 - Location Map
 U.S. 12 HMA Overlay
 Preventative Maintenance &
 Small Culvert Replacement
 Michigan & Springfield Townships, Laporte County, IN
 Des. No. 2000607
 Metric Project No. 20-0010-12
 Map Date: 5/17/22
 Map Author: Zachary Root

All locations approximate
 2018 Basemap
 Latitude: 41.70628 Longitude: -86.92661



Exh. 1




 Investigated Area (IA)

Exhibit 2A - USGS Topographic Map - Small Scale
 New Buffalo West, Michigan City East, & Michigan City West, IN
 7.5 minute Quadrangles
 U.S. 12 HMA Overlay
 Preventative Maintenance & Small Culvert Replacement
 Michigan & Springfield Townships, LaPorte County, IN
 Des. No. 2000607
 Metric Project No. 20-0010-12
 Map Date: 5/23/2022
 Map Author: April Pape

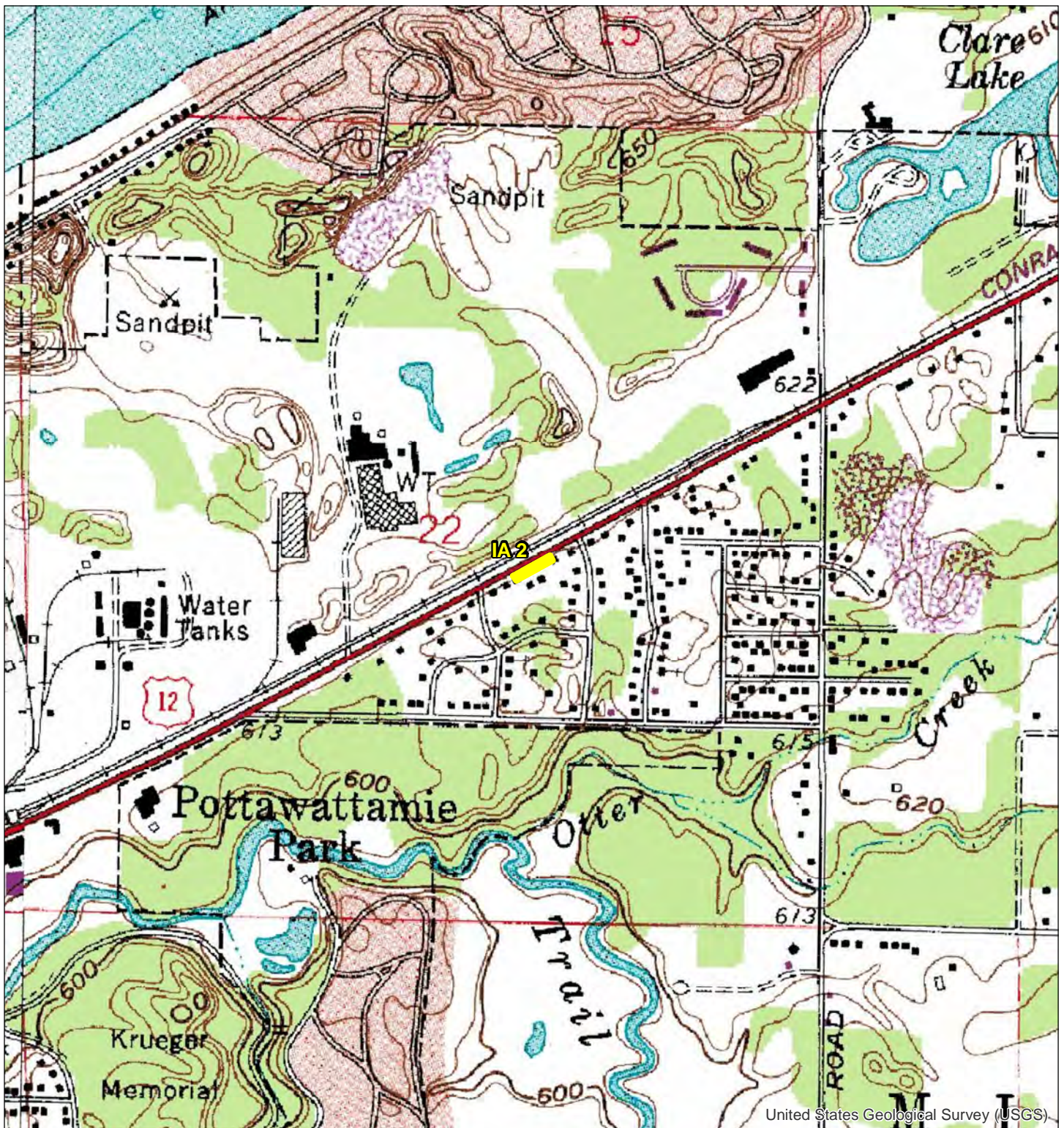
All locations approximate
 Source: Indiana Spatial Data Portal (1996)



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 Feet



Exh. 2A
 Page 1 of 6




United States Geological Survey (USGS)

 Investigated Area (IA)

Exhibit 2A - USGS Topographic Map - Small Scale
 New Buffalo West, Michigan City East, & Michigan City West, IN
 7.5 minute Quadrangles
 U.S. 12 HMA Overlay
 Preventative Maintenance & Small Culvert Replacement
 Michigan & Springfield Townships, LaPorte County, IN
 Des. No. 2000607
 Metric Project No. 20-0010-12
 Map Date: 5/23/2022
 Map Author: April Page

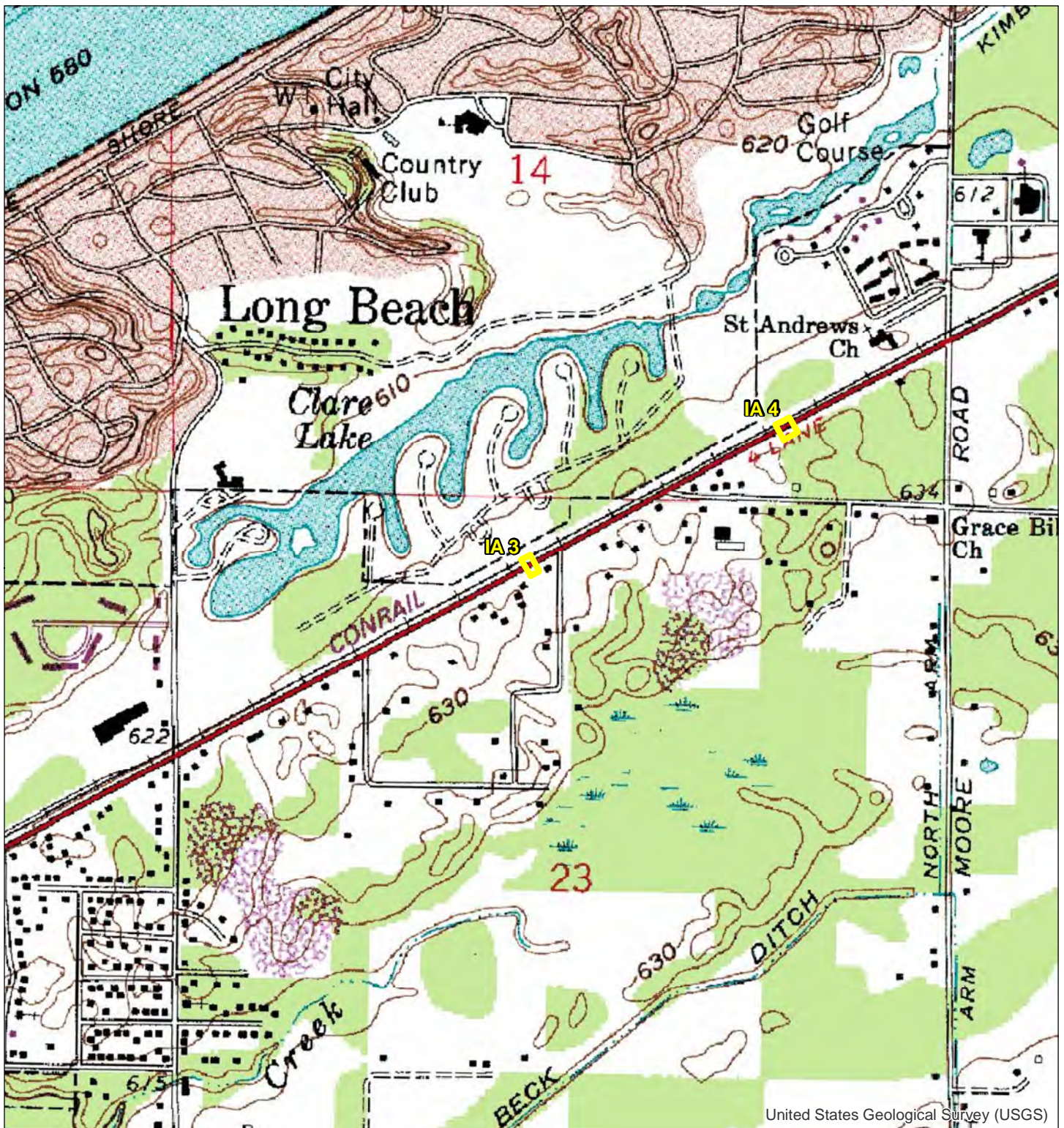
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Exh. 2A
 Page 2 of 6




 Investigated Area (IA)

Exhibit 2A - USGS Topographic Map - Small Scale
 New Buffalo West, Michigan City East, & Michigan City West, IN
 7.5 minute Quadrangles
 U.S. 12 HMA Overlay
 Preventative Maintenance & Small Culvert Replacement
 Michigan & Springfield Townships, LaPorte County, IN
 Des. No. 2000607
 Metric Project No. 20-0010-12
 Map Date: 5/23/2022
 Map Author: April Page

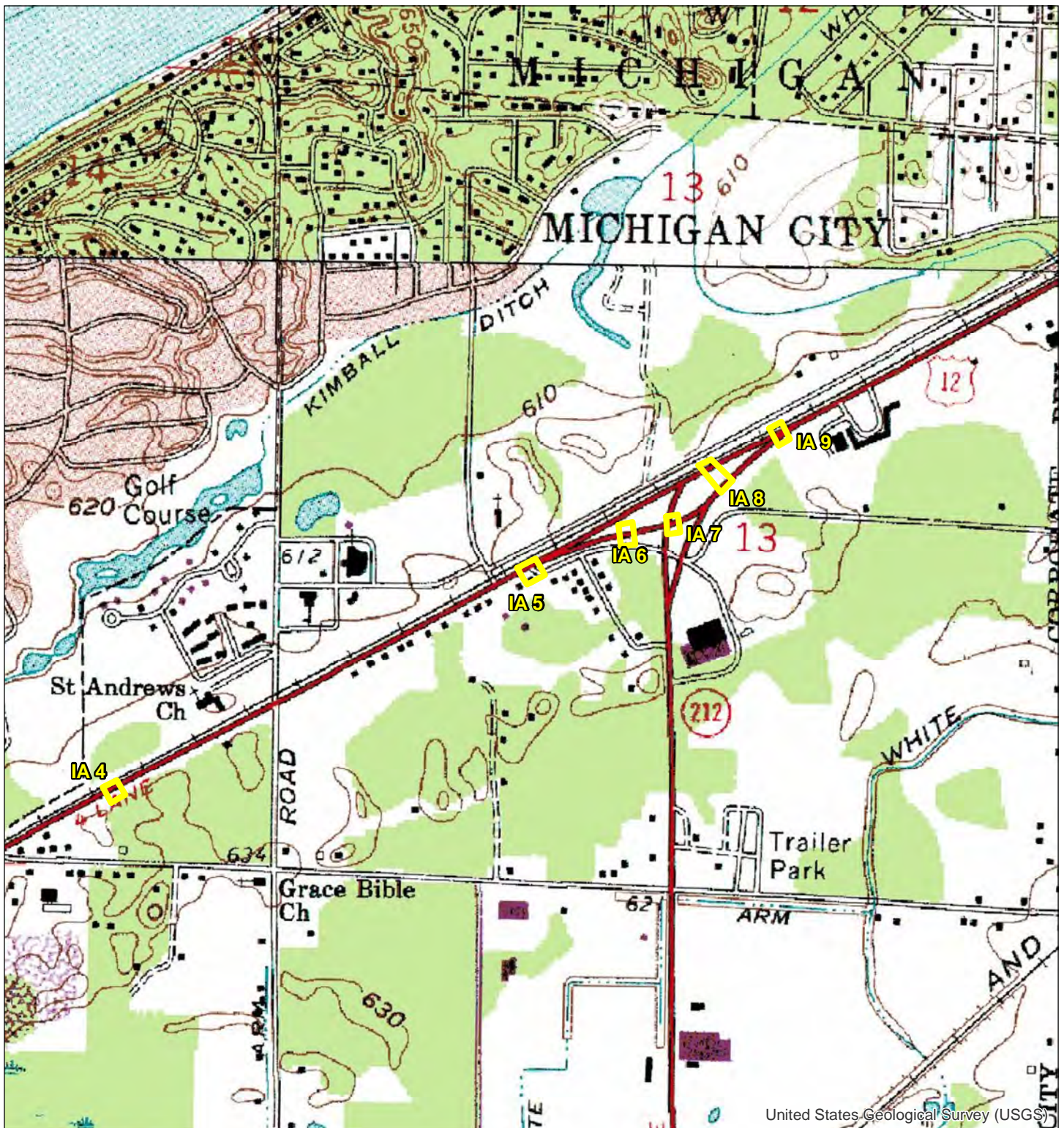
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Exh. 2A
 Page 3 of 6



United States Geological Survey (USGS)


 Investigated Area (IA)

Exhibit 2A - USGS Topographic Map - Small Scale
 New Buffalo West, Michigan City East, & Michigan City West, IN
 7.5 minute Quadrangles
 U.S. 12 HMA Overlay
 Preventative Maintenance & Small Culvert Replacement
 Michigan & Springfield Townships, LaPorte County, IN
 Des. No. 2000607
 Metric Project No. 20-0010-12
 Map Date: 5/23/2022
 Map Author: April Page

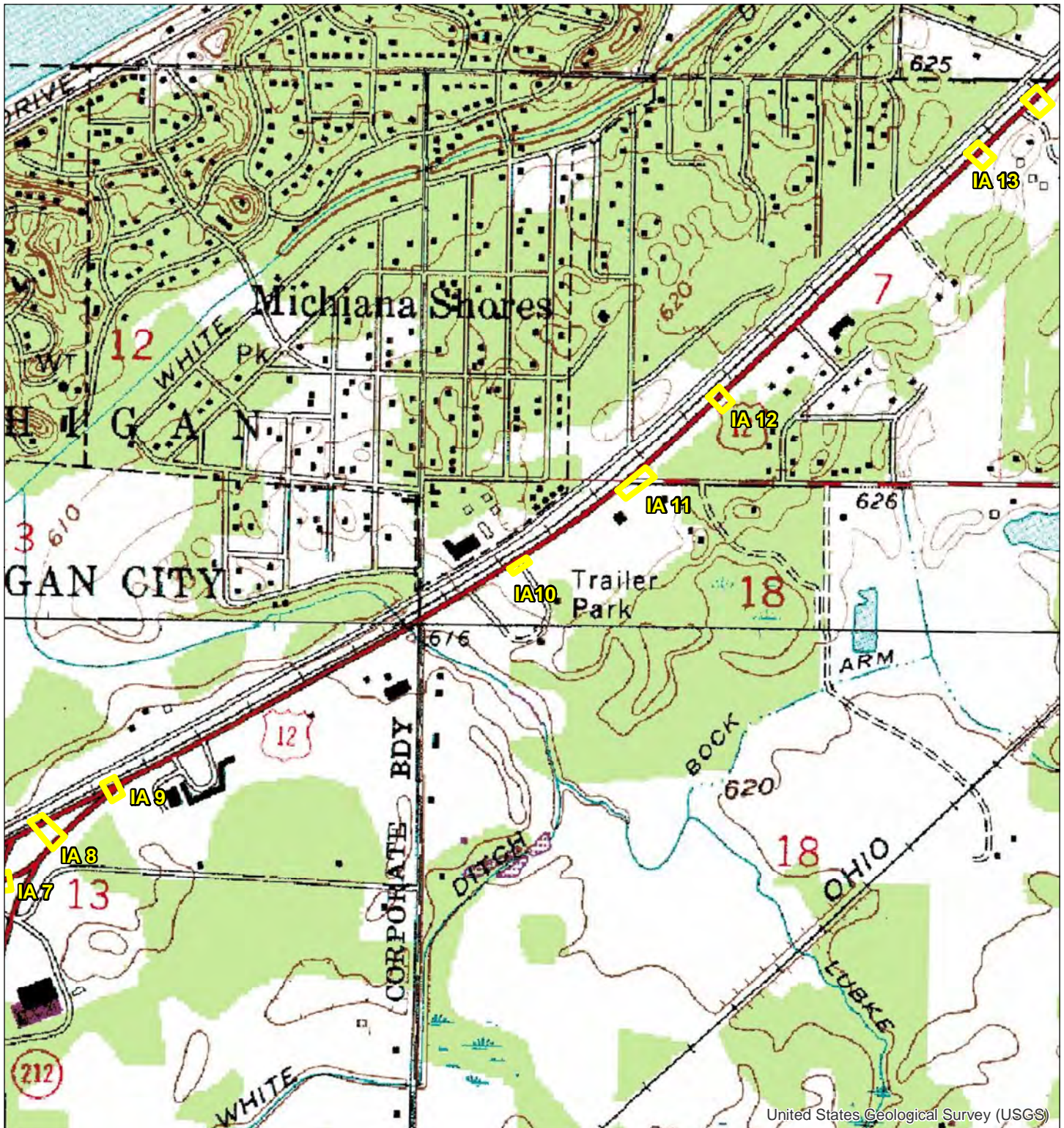
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Exh. 2A
 Page 4 of 6




 Investigated Area (IA)

Exhibit 2A - USGS Topographic Map - Small Scale
 New Buffalo West, Michigan City East, & Michigan City West, IN
 7.5 minute Quadrangles
 U.S. 12 HMA Overlay
 Preventative Maintenance & Small Culvert Replacement
 Michigan & Springfield Townships, LaPorte County, IN
 Des. No. 2000607
 Metric Project No. 20-0010-12
 Map Date: 5/23/2022
 Map Author: April Page

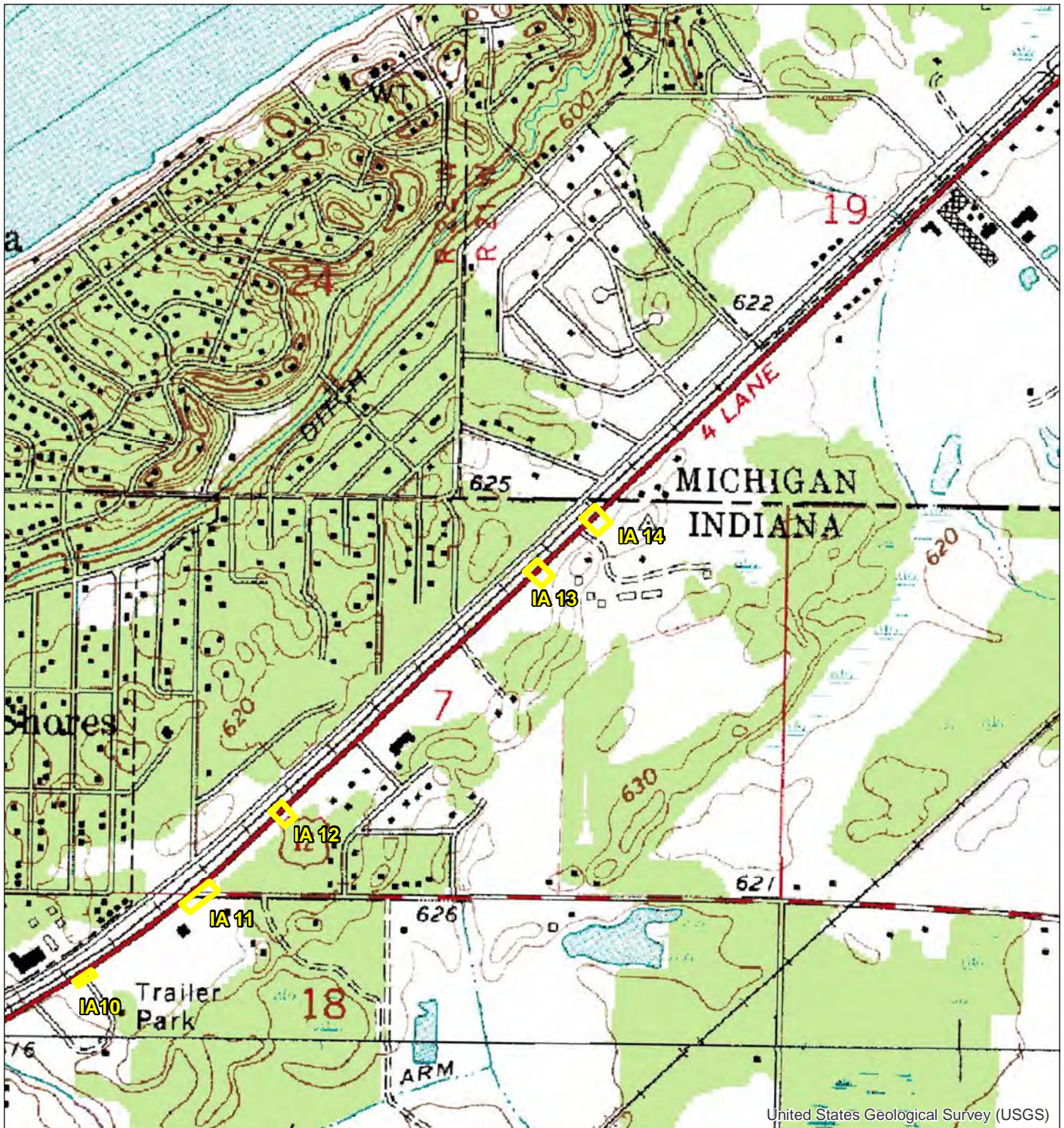
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Exh. 2A
 Page 5 of 6




 Investigated Area (IA)

Exhibit 2A - USGS Topographic Map - Small Scale
 New Buffalo West, Michigan City East, & Michigan City West, IN
 7.5 minute Quadrangles
 U.S. 12 HMA Overlay
 Preventative Maintenance & Small Culvert Replacement
 Michigan & Springfield Townships, LaPorte County, IN
 Des. No. 2000607
 Metric Project No. 20-0010-12
 Map Date: 5/23/2022
 Map Author: April Page

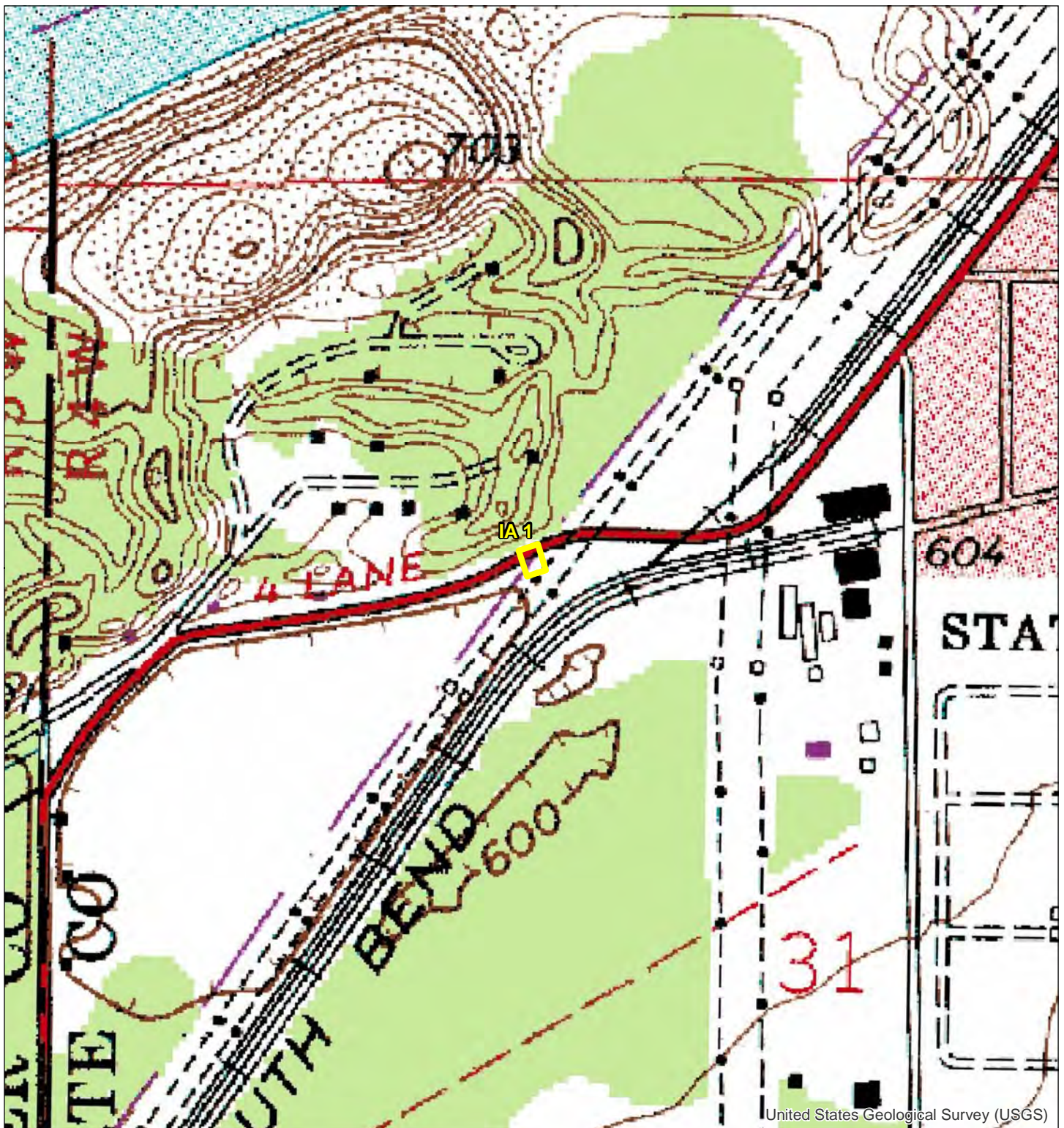
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Exh. 2A
 Page 6 of 6





 Investigated Area (IA)

Exhibit 2B - USGS Topographic Map - Large Scale
 New Buffalo West, Michigan City East, & Michigan City West, IN
 7.5 minute Quadrangles
 U.S. 12 HMA Overlay
 Preventative Maintenance & Small Culvert Replacement
 Michigan & Springfield Townships, LaPorte County, IN
 Des. No. 2000607
 Metric Project No. 20-0010-12
 Map Date: 5/23/2022
 Map Author: April Pape

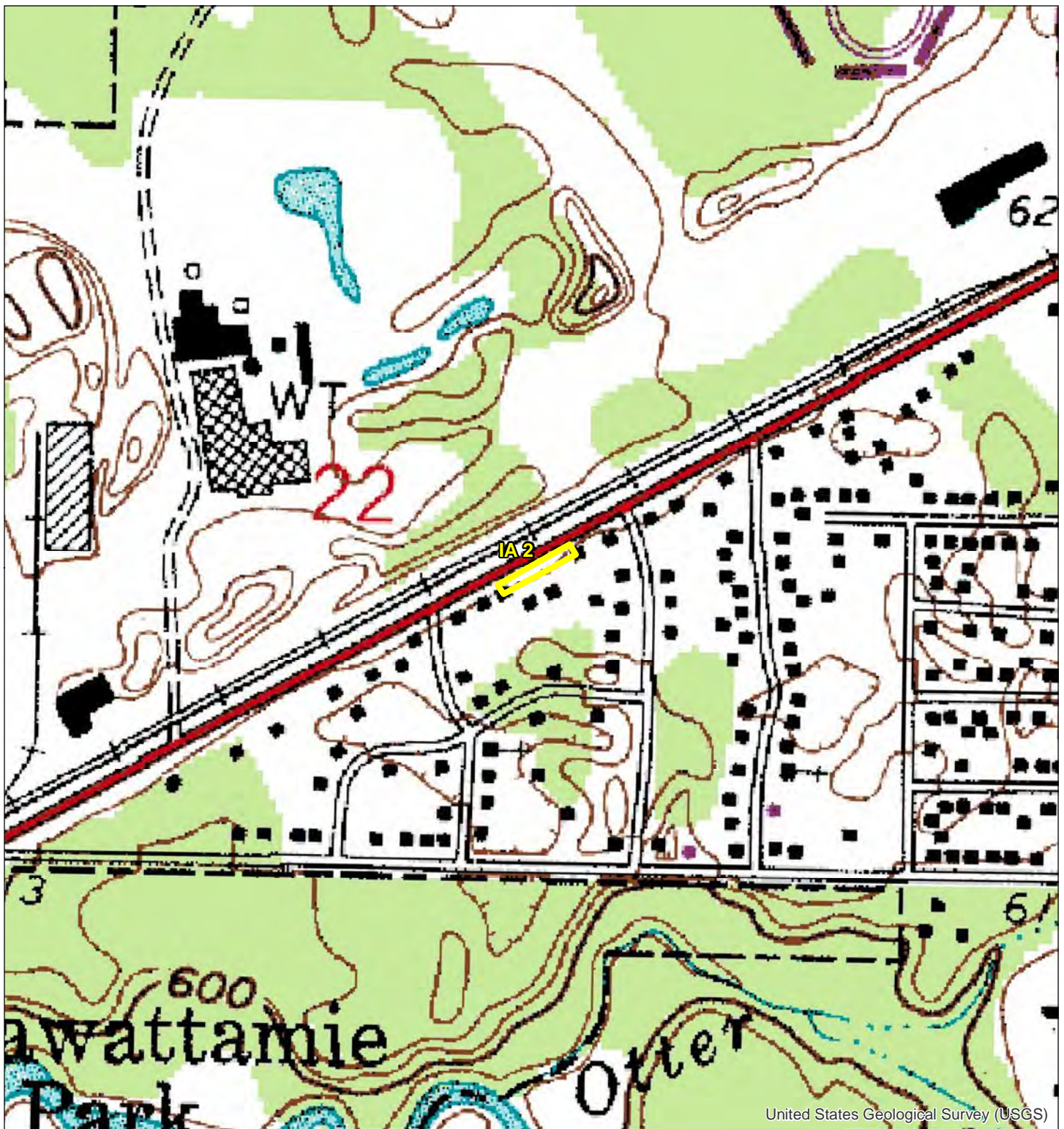
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Exh. 2B
 Page 1 of 7




 Investigated Area (IA)

Exhibit 2B - USGS Topographic Map - Large Scale
 New Buffalo West, Michigan City East, & Michigan City West, IN
 7.5 minute Quadrangles
 U.S. 12 HMA Overlay
 Preventative Maintenance & Small Culvert Replacement
 Michigan & Springfield Townships, LaPorte County, IN
 Des. No. 2000607
 Metric Project No. 20-0010-12
 Map Date: 5/23/2022
 Map Author: April Pape

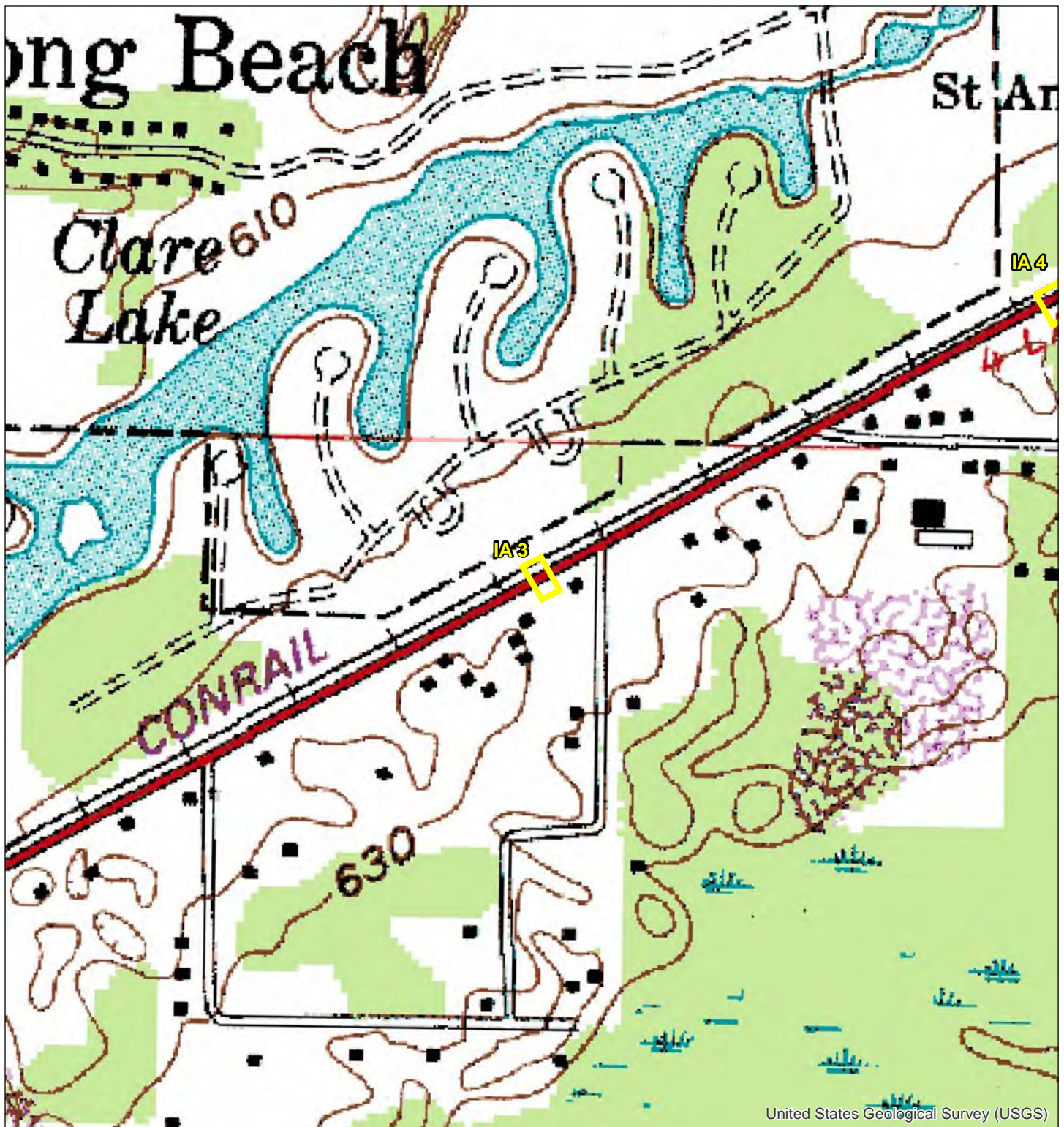
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Exh. 2B
 Page 2 of 7



United States Geological Survey (USGS)



 Investigated Area (IA)

Exhibit 2B - USGS Topographic Map - Large Scale
 New Buffalo West, Michigan City East, & Michigan City West, IN
 7.5 minute Quadrangles
 U.S. 12 HMA Overlay
 Preventative Maintenance & Small Culvert Replacement
 Michigan & Springfield Townships, LaPorte County, IN
 Des. No. 2000607
 Metric Project No. 20-0010-12
 Map Date: 5/23/2022
 Map Author: April Pape

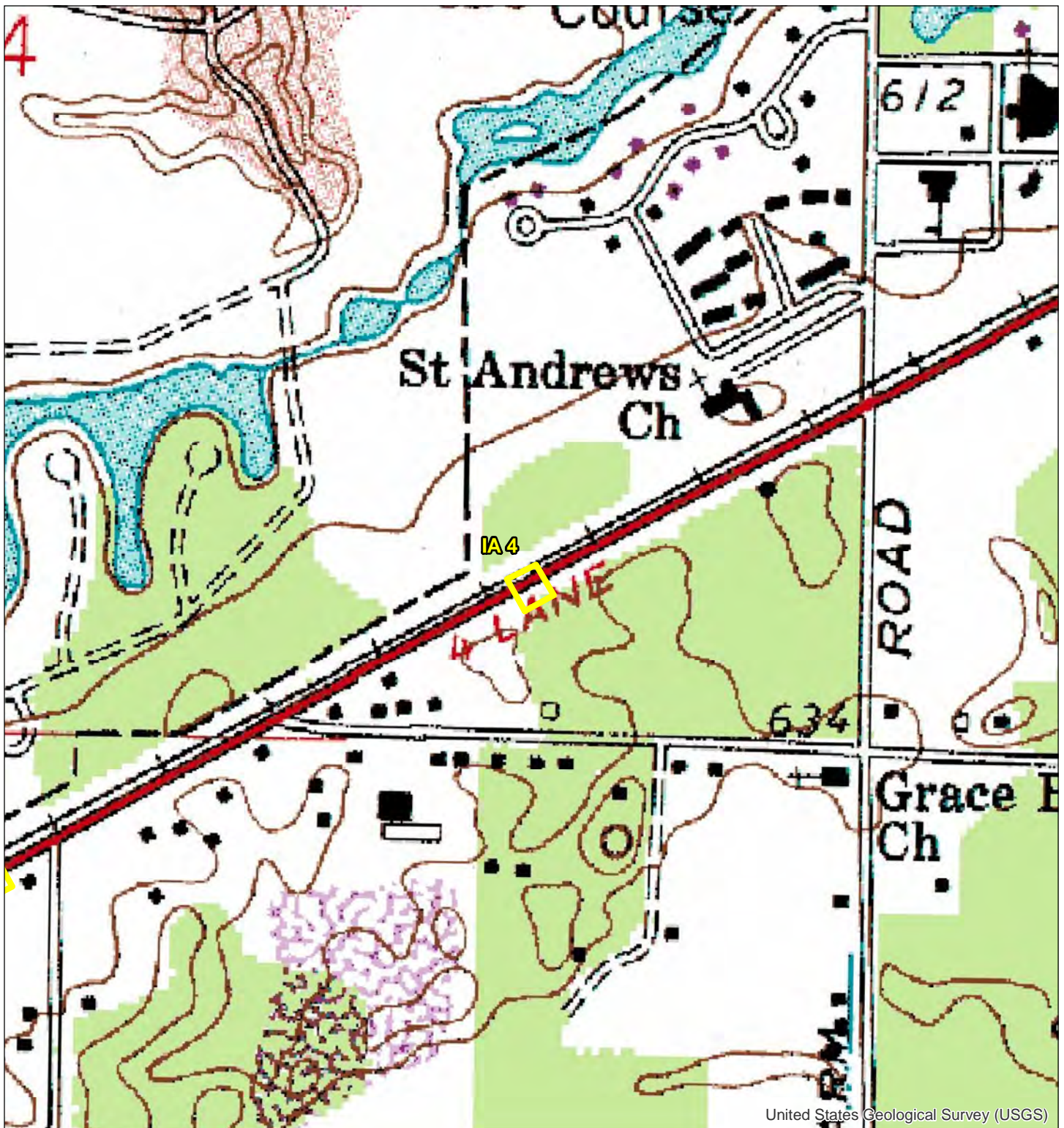
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Exh. 2B
 Page 3 of 7



United States Geological Survey (USGS)



 Investigated Area (IA)

Exhibit 2B - USGS Topographic Map - Large Scale
 New Buffalo West, Michigan City East, & Michigan City West, IN
 7.5 minute Quadrangles
 U.S. 12 HMA Overlay
 Preventative Maintenance & Small Culvert Replacement
 Michigan & Springfield Townships, LaPorte County, IN
 Des. No. 2000607
 Metric Project No. 20-0010-12
 Map Date: 5/23/2022
 Map Author: April Pape

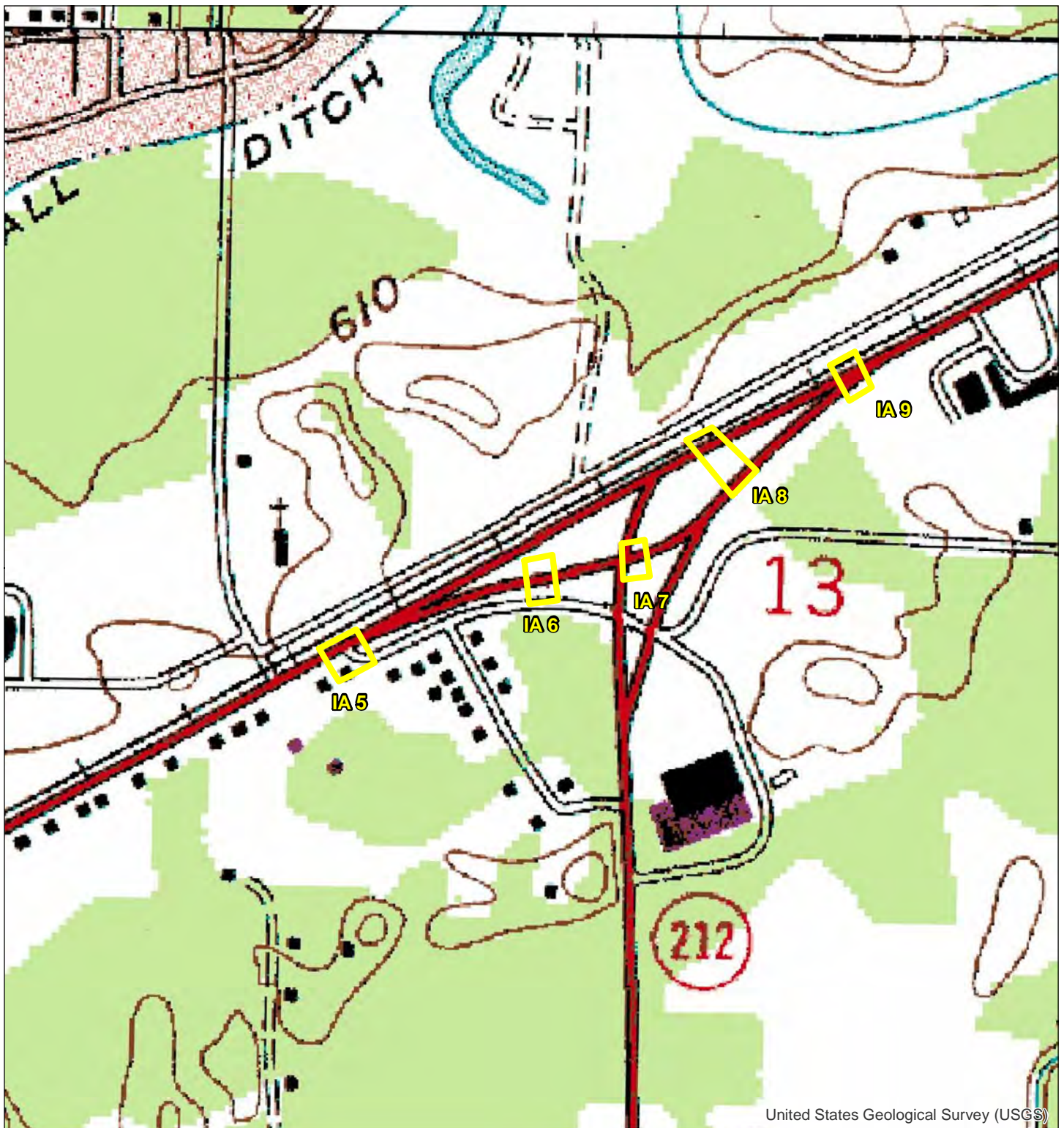
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Exh. 2B
 Page 4 of 7





 Investigated Area (IA)

Exhibit 2B - USGS Topographic Map - Large Scale
 New Buffalo West, Michigan City East, & Michigan City West, IN
 7.5 minute Quadrangles
 U.S. 12 HMA Overlay
 Preventative Maintenance & Small Culvert Replacement
 Michigan & Springfield Townships, LaPorte County, IN
 Des. No. 2000607
 Metric Project No. 20-0010-12
 Map Date: 5/23/2022
 Map Author: April Pape

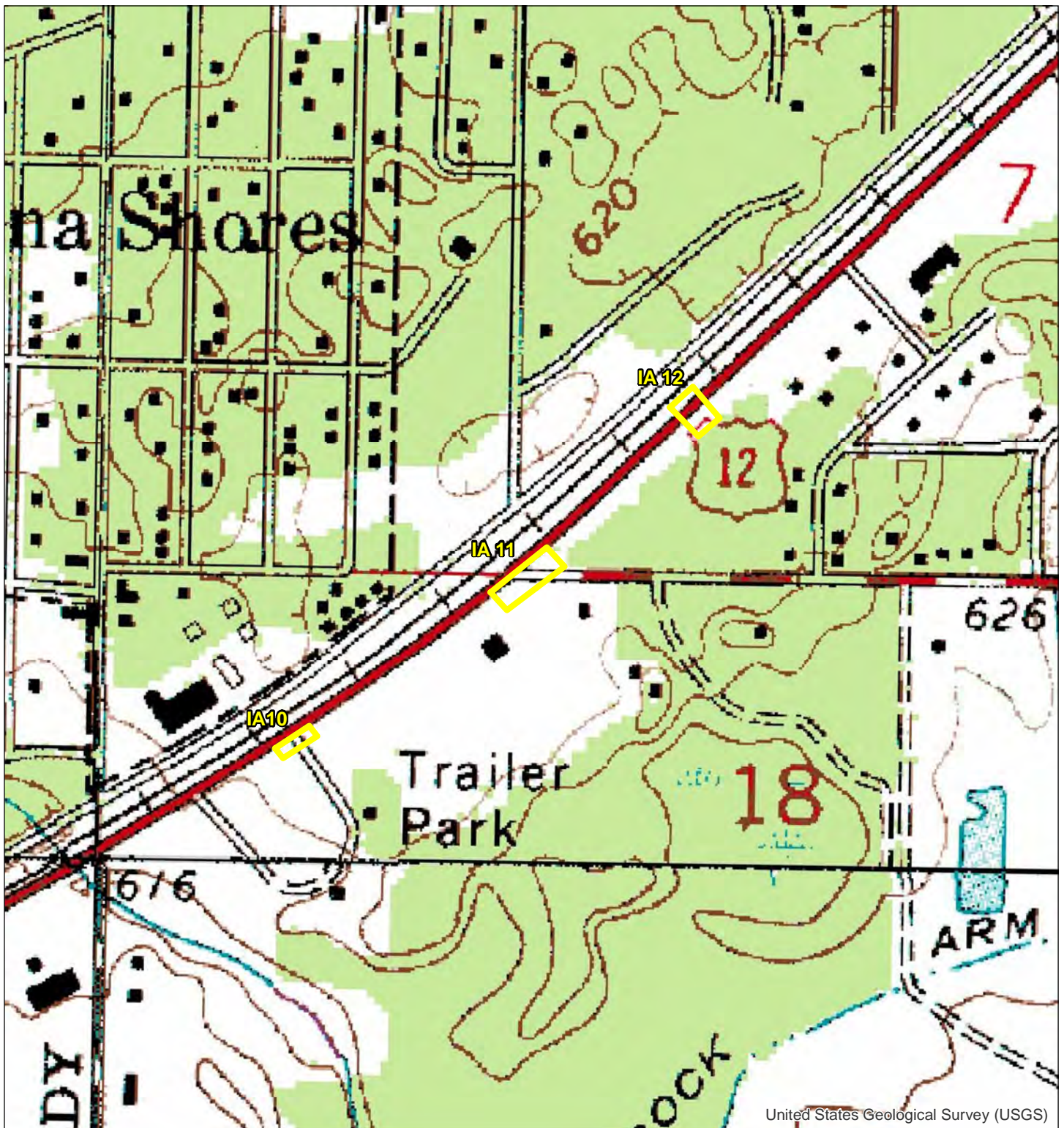
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Exh. 2B
 Page 5 of 7




United States Geological Survey (USGS)

 Investigated Area (IA)

Exhibit 2B - USGS Topographic Map - Large Scale
 New Buffalo West, Michigan City East, & Michigan City West, IN
 7.5 minute Quadrangles
 U.S. 12 HMA Overlay
 Preventative Maintenance & Small Culvert Replacement
 Michigan & Springfield Townships, LaPorte County, IN
 Des. No. 2000607
 Metric Project No. 20-0010-12
 Map Date: 5/23/2022
 Map Author: April Page

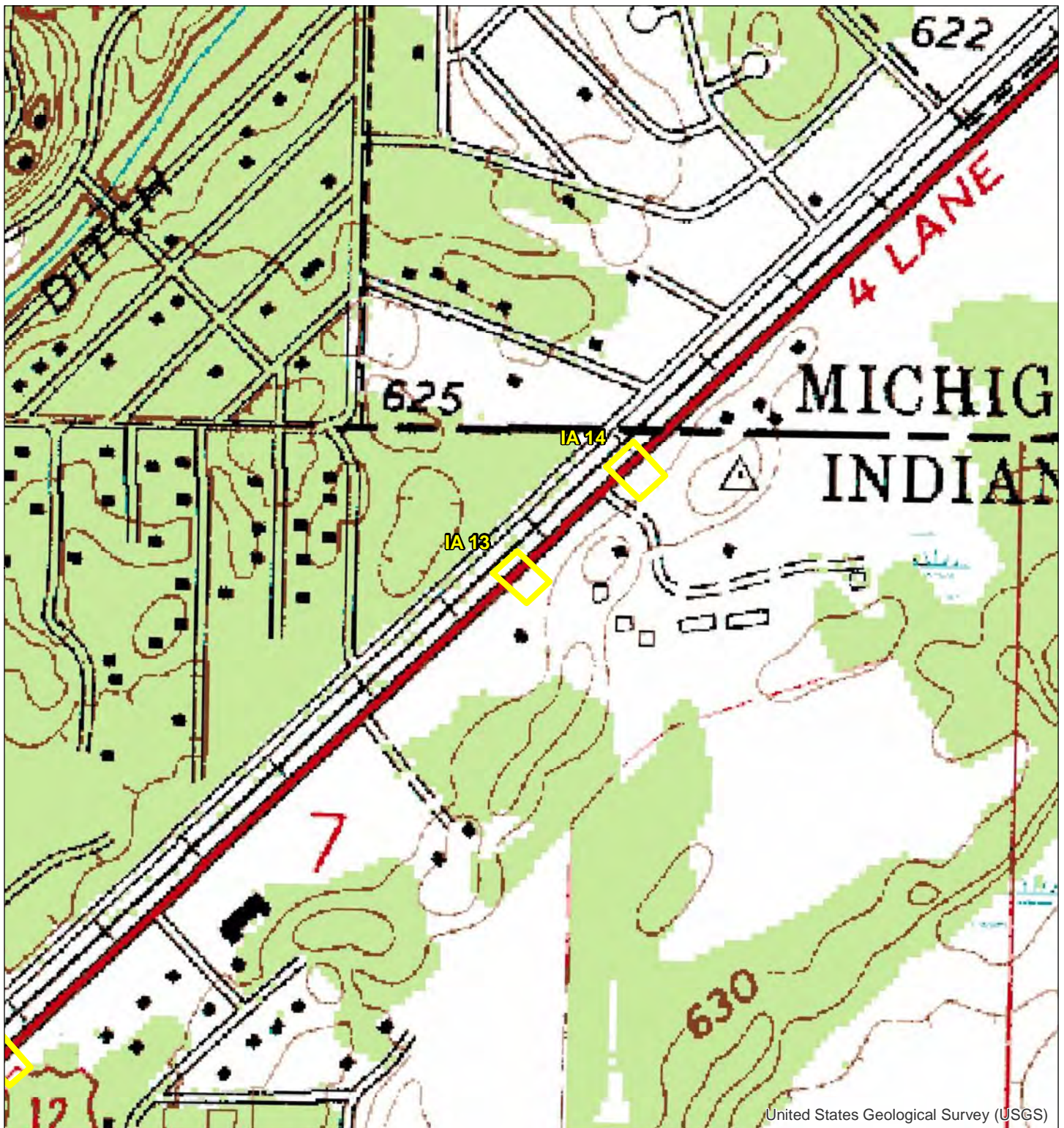
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Exh. 2B
 Page 6 of 7



United States Geological Survey (USGS)



 Investigated Area (IA)

Exhibit 2B - USGS Topographic Map - Large Scale
New Buffalo West, Michigan City East, & Michigan City West, IN
7.5 minute Quadrangles
U.S. 12 HMA Overlay
Preventative Maintenance & Small Culvert Replacement
Michigan & Springfield Townships, LaPorte County, IN
Des. No. 2000607
Metric Project No. 20-0010-12
Map Date: 5/23/2022
Map Author: April Pape

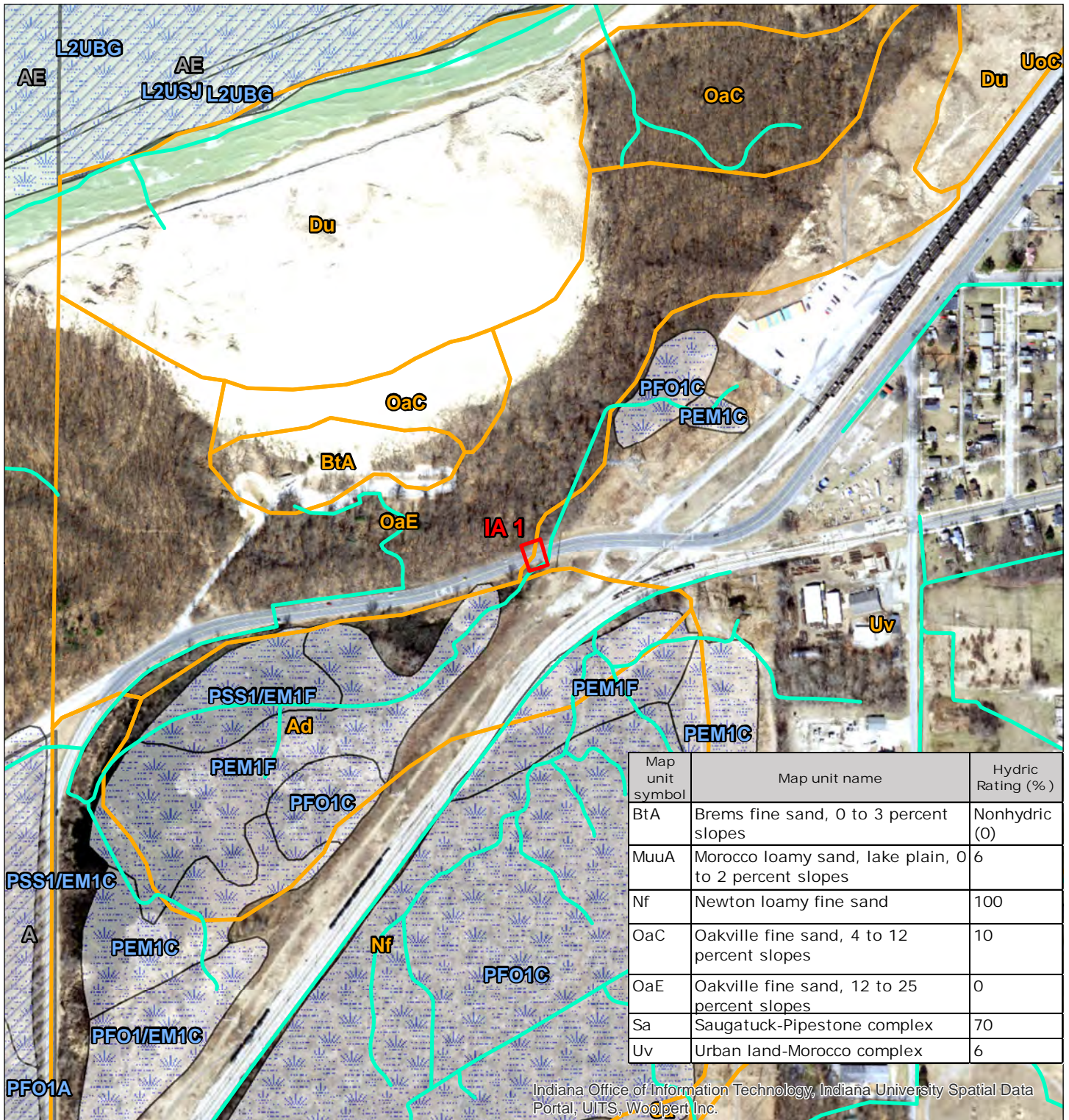
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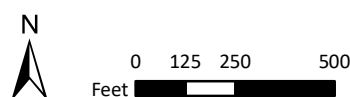
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Page 7 of 7



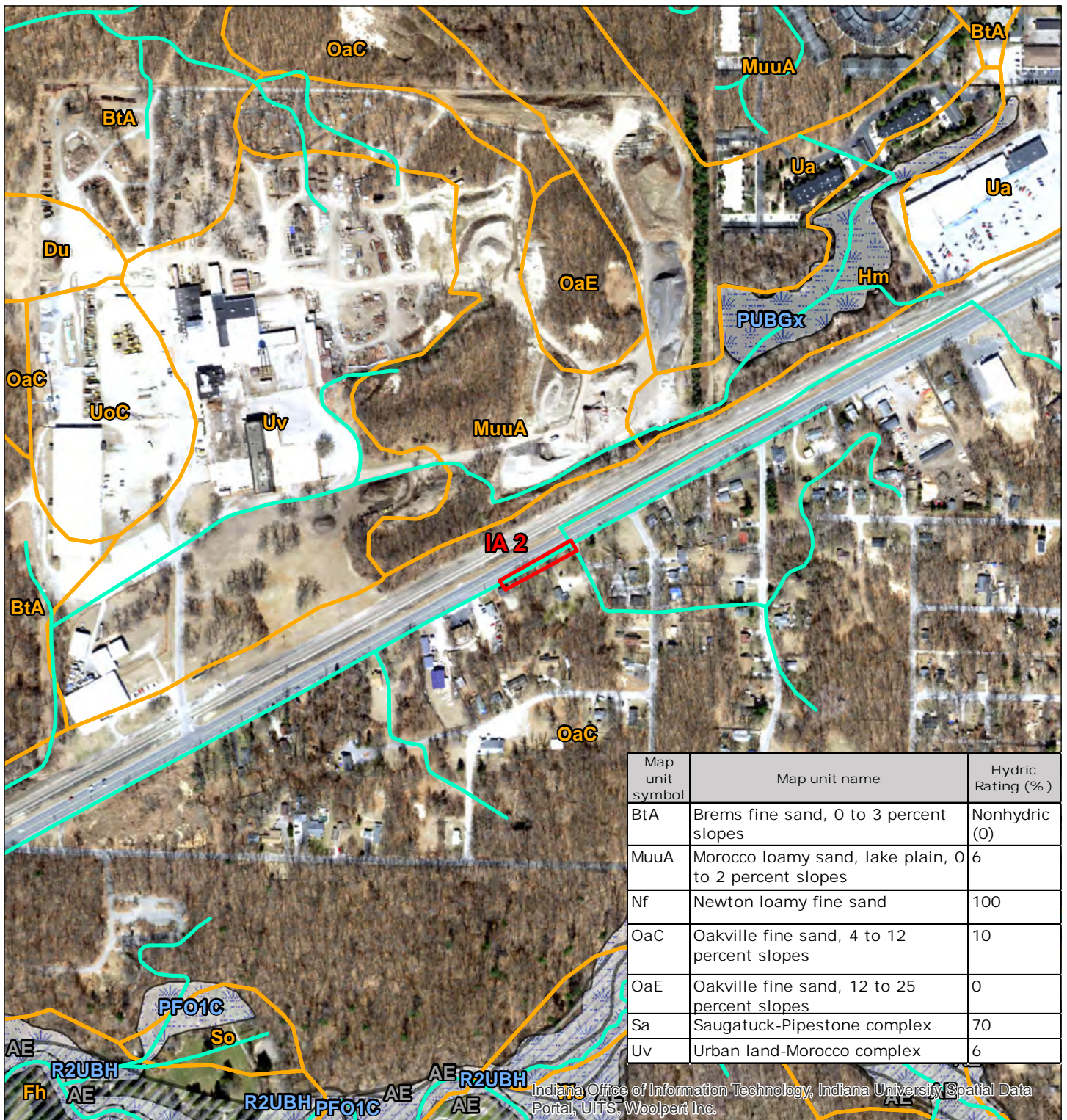
 Investigated Area (IA)
 NRCS Soil Survey
 NHD Flowline
 Floodplain - Zone A/AE - 1% Annual Chance
 NWI Wetlands

Exhibit 3 - Floodway, NWI, FIRM, NHD, Soil Map
 U.S. 12 HMA Overlay
 Preventative Maintenance & Small Culvert Replacement
 Michigan & Springfield Townships, LaPorte County, IN
 Des. No. 2000607
 Metric Project No. 20-0010-12
 Map Date: 5/23/2022
 Map Author: April Pape

All locations approximate
 Source: Indiana Spatial Data Portal (2018)



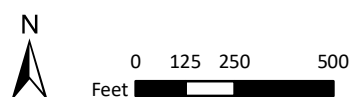
Exh. 3
 Page 1 of 7



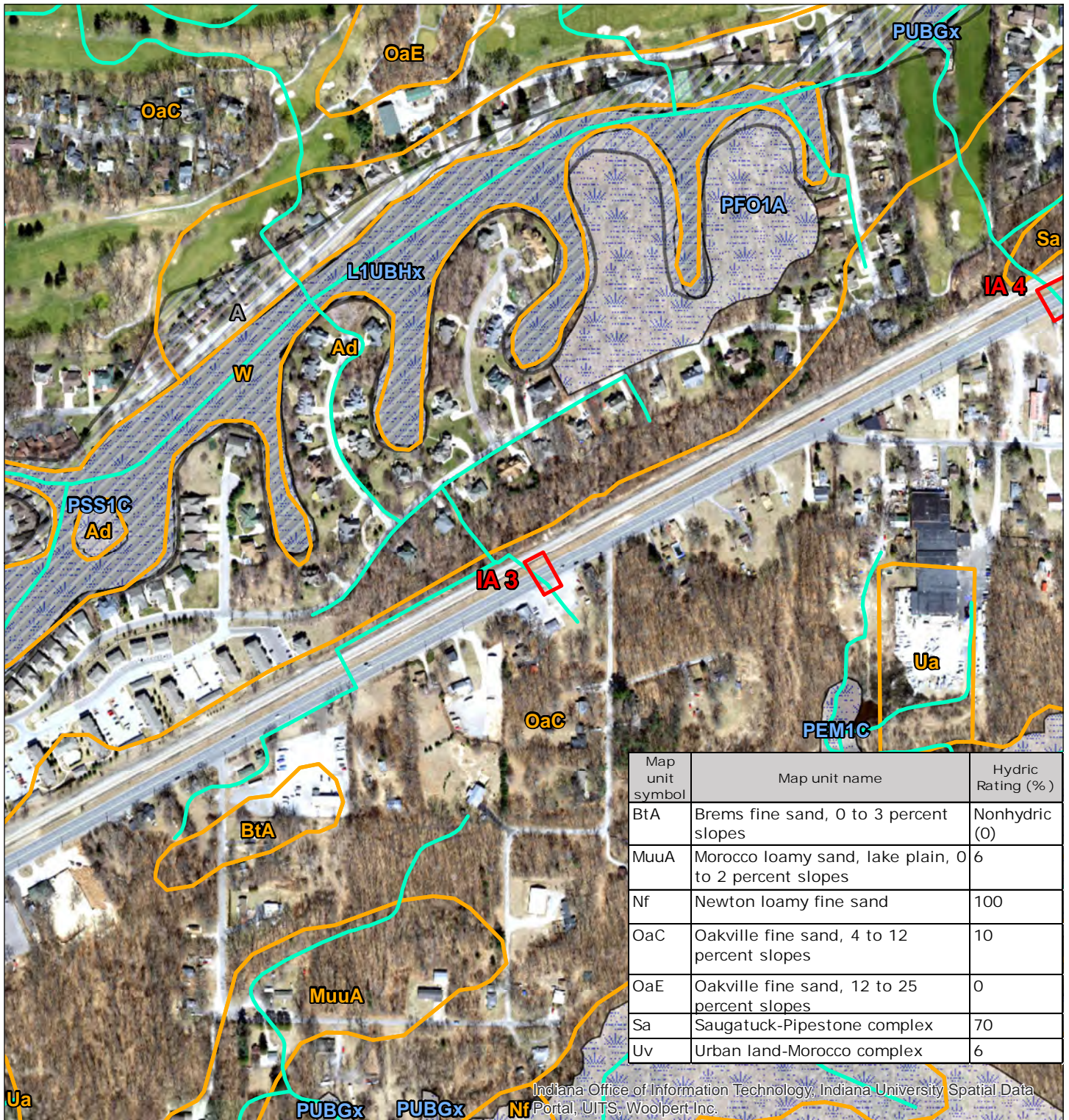
 Investigated Area (IA) NRCS Soil Survey NHD Flowline
 Floodplain - Zone A/AE - 1% Annual Chance NWI Wetlands

Exhibit 3 - Floodway, NWI, FIRM, NHD, Soil Map
 U.S. 12 HMA Overlay
 Preventative Maintenance & Small Culvert Replacement
 Michigan & Springfield Townships, LaPorte County, IN
 Des. No. 2000607
 Metric Project No. 20-0010-12
 Map Date: 5/23/2022
 Map Author: April Pape

All locations approximate
 Source: Indiana Spatial Data Portal (2018)



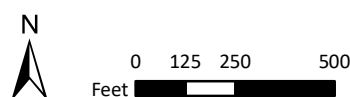
Exh. 3
 Page 2 of 7



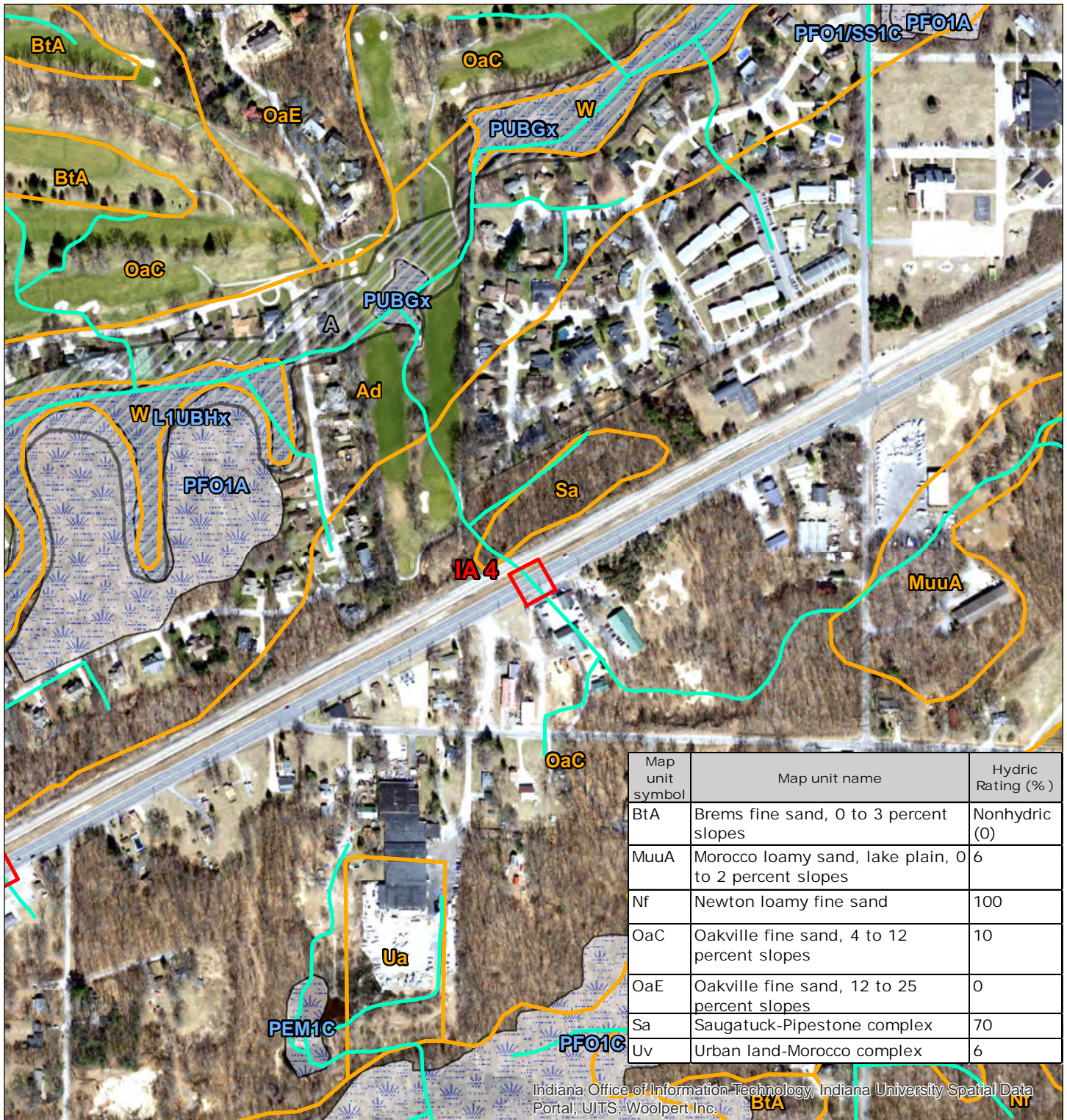
 Investigated Area (IA)
 NRCS Soil Survey
 NWI Wetlands
— NHD Flowline
 Floodplain - Zone A/AE - 1% Annual Chance

Exhibit 3 - Floodway, NWI, FIRM, NHD, Soil Map
 U.S. 12 HMA Overlay
 Preventative Maintenance & Small Culvert Replacement
 Michigan & Springfield Townships, LaPorte County, IN
 Des. No. 2000607
 Metric Project No. 20-0010-12
 Map Date: 5/23/2022
 Map Author: April Pape

All locations approximate
 Source: Indiana Spatial Data Portal (2018)



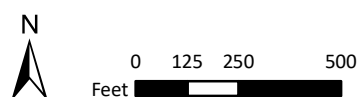
Exh. 3
 Page 3 of 7



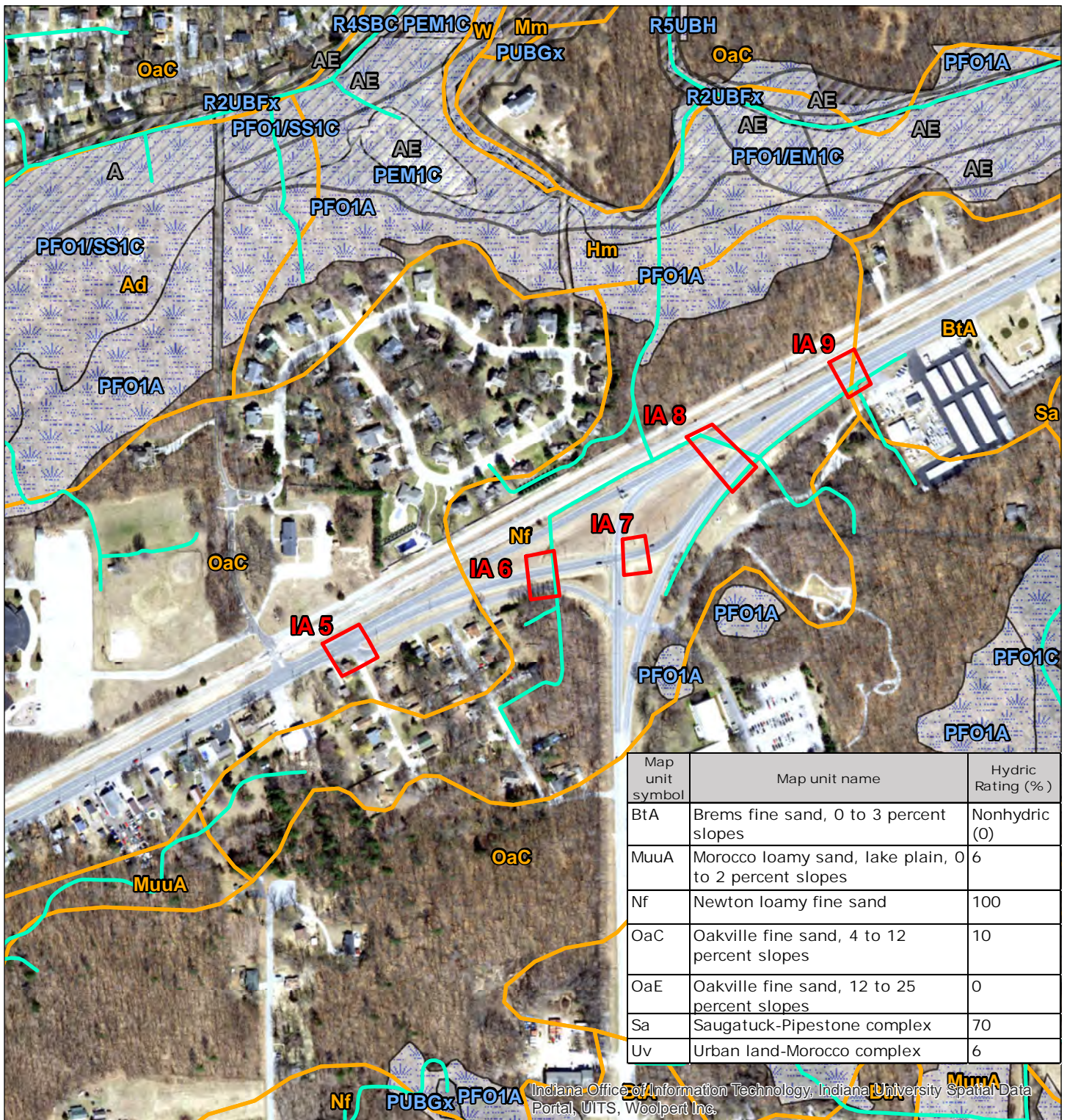
 Investigated Area (IA)
 NRCS Soil Survey
 NWI Wetlands
 NHD Flowline
 Floodplain - Zone A/AE - 1% Annual Chance

Exhibit 3 - Floodway, NWI, FIRM, NHD, Soil Map
 U.S. 12 HMA Overlay
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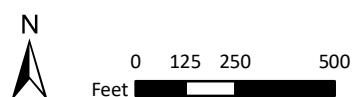
Exh. 3
 Page 4 of 7



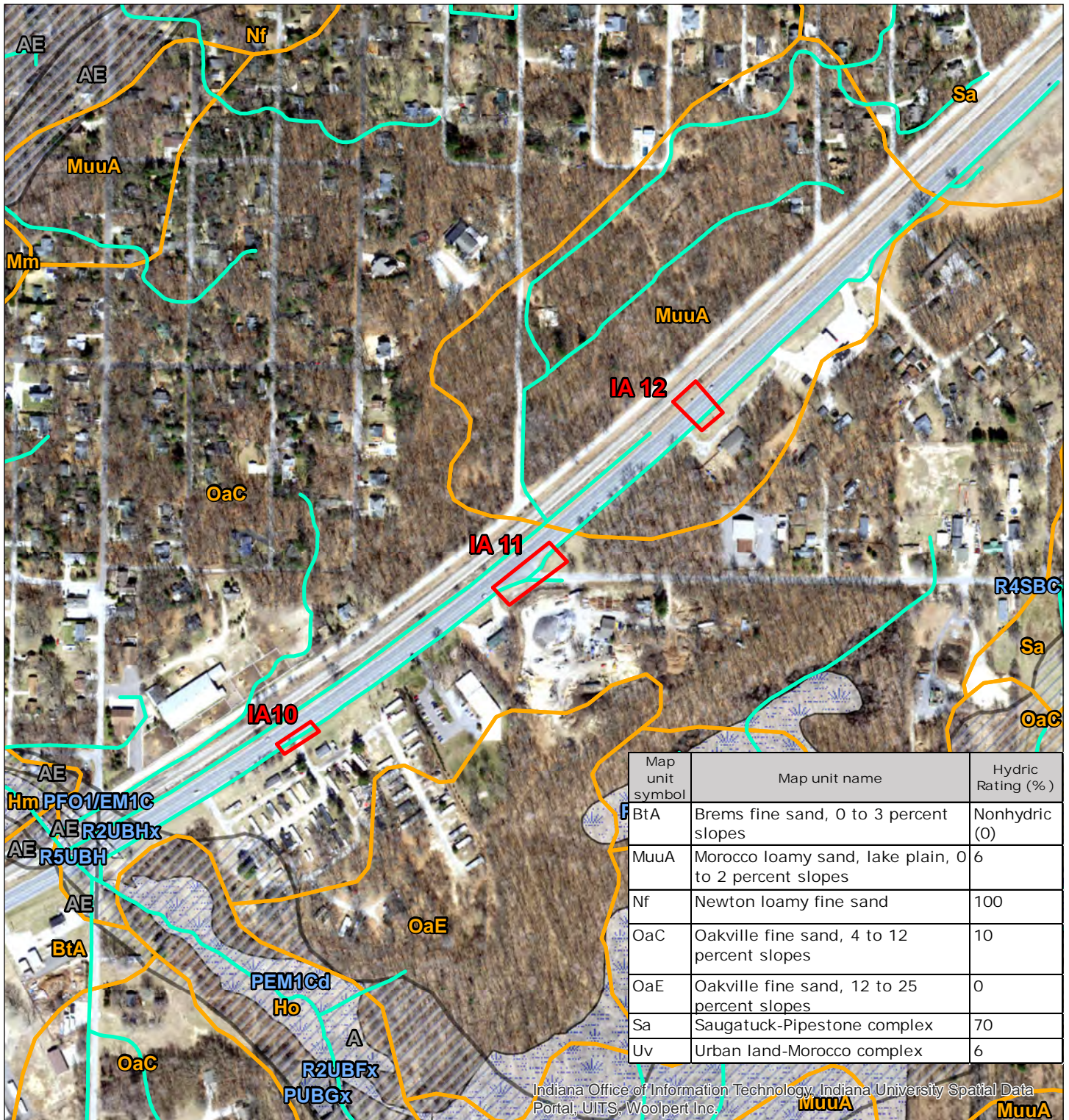
 Investigated Area (IA)
 NRCS Soil Survey
 NWI Wetlands
 NHD Flowline
 Floodplain - Zone A/AE - 1% Annual Chance

Exhibit 3 - Floodway, NWI, FIRM, NHD, Soil Map
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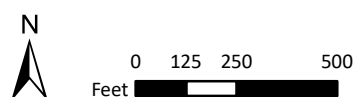
Exh. 3
 Page 5 of 7



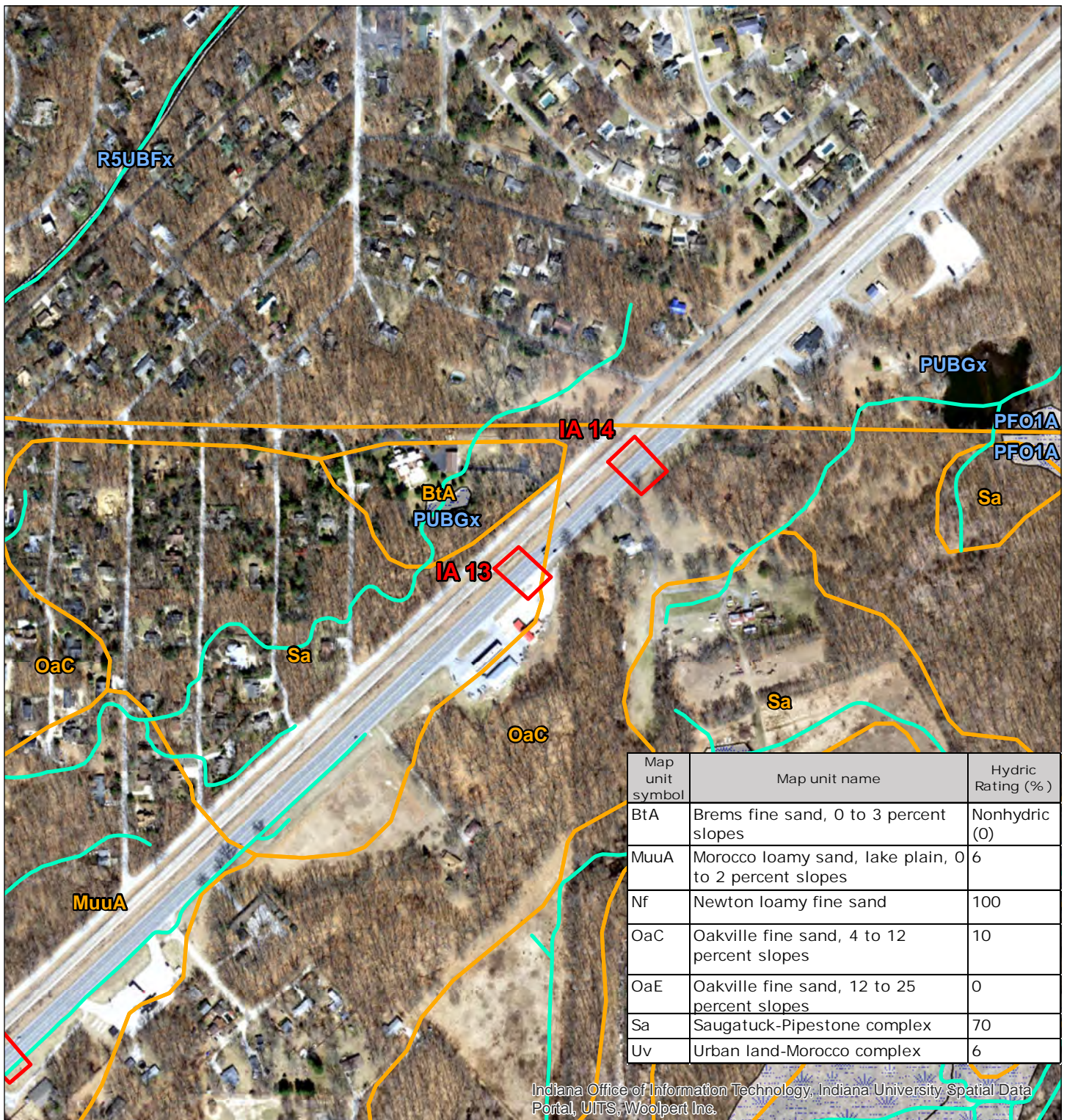
 Investigated Area (IA)
 NRCS Soil Survey
 NWI Wetlands
— NHD Flowline
 Floodplain - Zone A/AE - 1% Annual Chance

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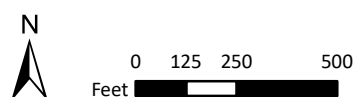
Exh. 3
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 Investigated Area (IA)
 NRCS Soil Survey
 NHD Flowline
 Floodplain - Zone A/AE - 1% Annual Chance
 NWI Wetlands

Exhibit 3 - Floodway, NWI, FIRM, NHD, Soil Map
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Exh. 3
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- | | | | |
|---|---|--|--|
| Investigated Area (IA) | ● Sampling_Point | — Roadside_Ditch | — NHD Flowline |
| — Wetland Continues Beyond IA | — Culvert | — Stream | |
| ● Culvert (CV) Opening/Storm Drain (SD) | — Line | Wetland | |

Exhibit 4 - Waters Delineation Map
 U.S. 12 HMA Overlay
 Preventative Maintenance &
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All locations approximate
 Source: Indiana Spatial Data Portal (2018)



0 15 30 60
 Feet



Exh. 4 p. 1 of 14



- | | | | |
|--|---|--|--|
| Investigated Area (IA) | ● Sampling_Point | --- Roadside_Ditch | --- NHD Flowline |
| --- Wetland Continues Beyond IA | --- Culvert | --- Stream | |
| ● Culvert (CV) Opening/Storm Drain (SD) | --- Line | Wetland | |

Exhibit 4 - Waters Delineation Map
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 Small Culvert Replacement
 Michigan & Springfield Townships, Laporte County, IN
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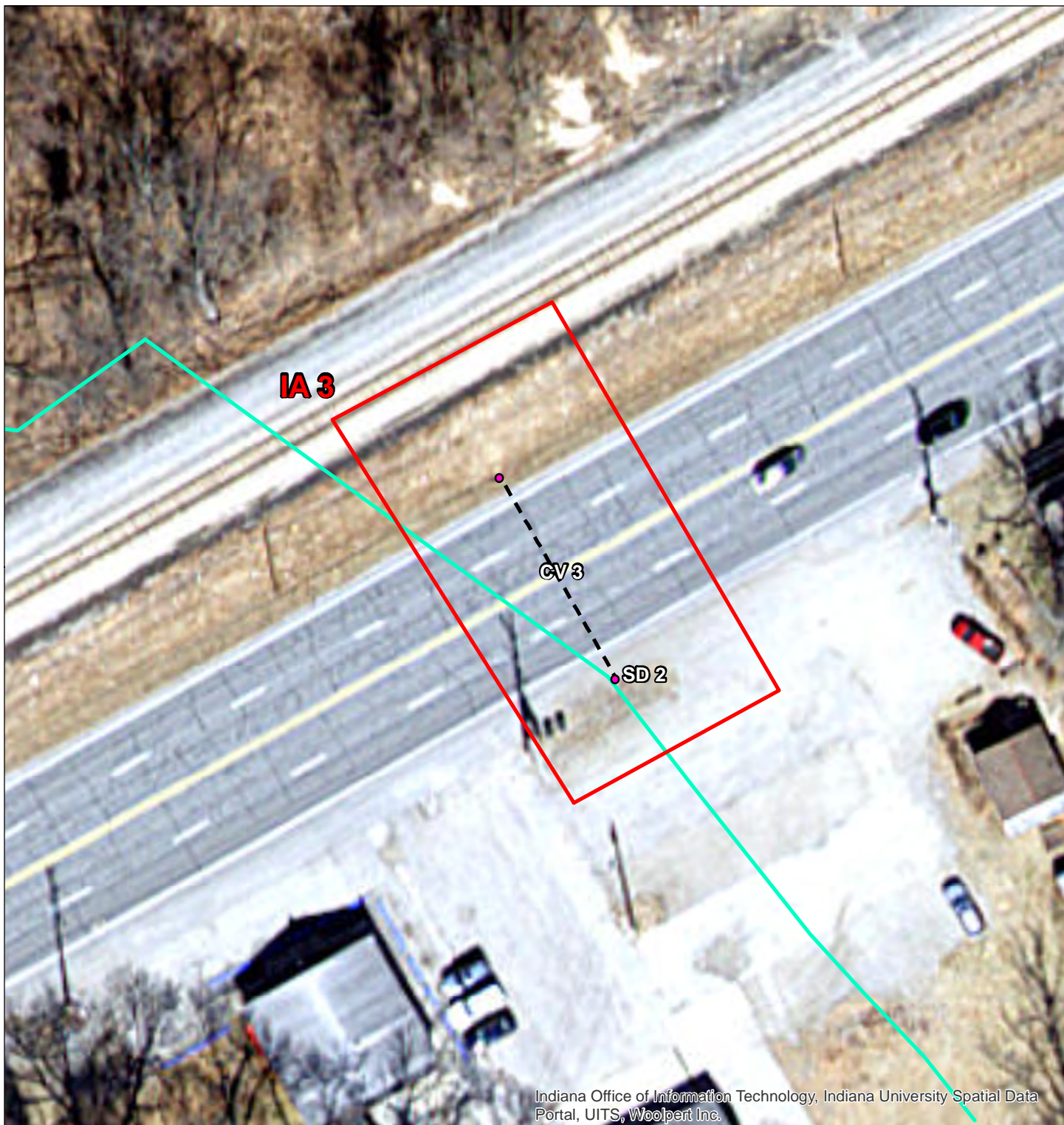
All locations approximate
 Source: Indiana Spatial Data Portal (2018)



0 20 40 80
 Feet



Exh. 4 p. 2 of 14



- | | | | |
|--|---|---|--|
| Investigated Area (IA) | ● Sampling_Point | --- Roadside_Ditch | --- NHD Flowline |
| --- Wetland Continues Beyond IA | --- Culvert | --- Stream | |
| ● Culvert (CV) Opening/Storm Drain (SD) | --- Line | Wetland | |

Exhibit 4 - Waters Delineation Map
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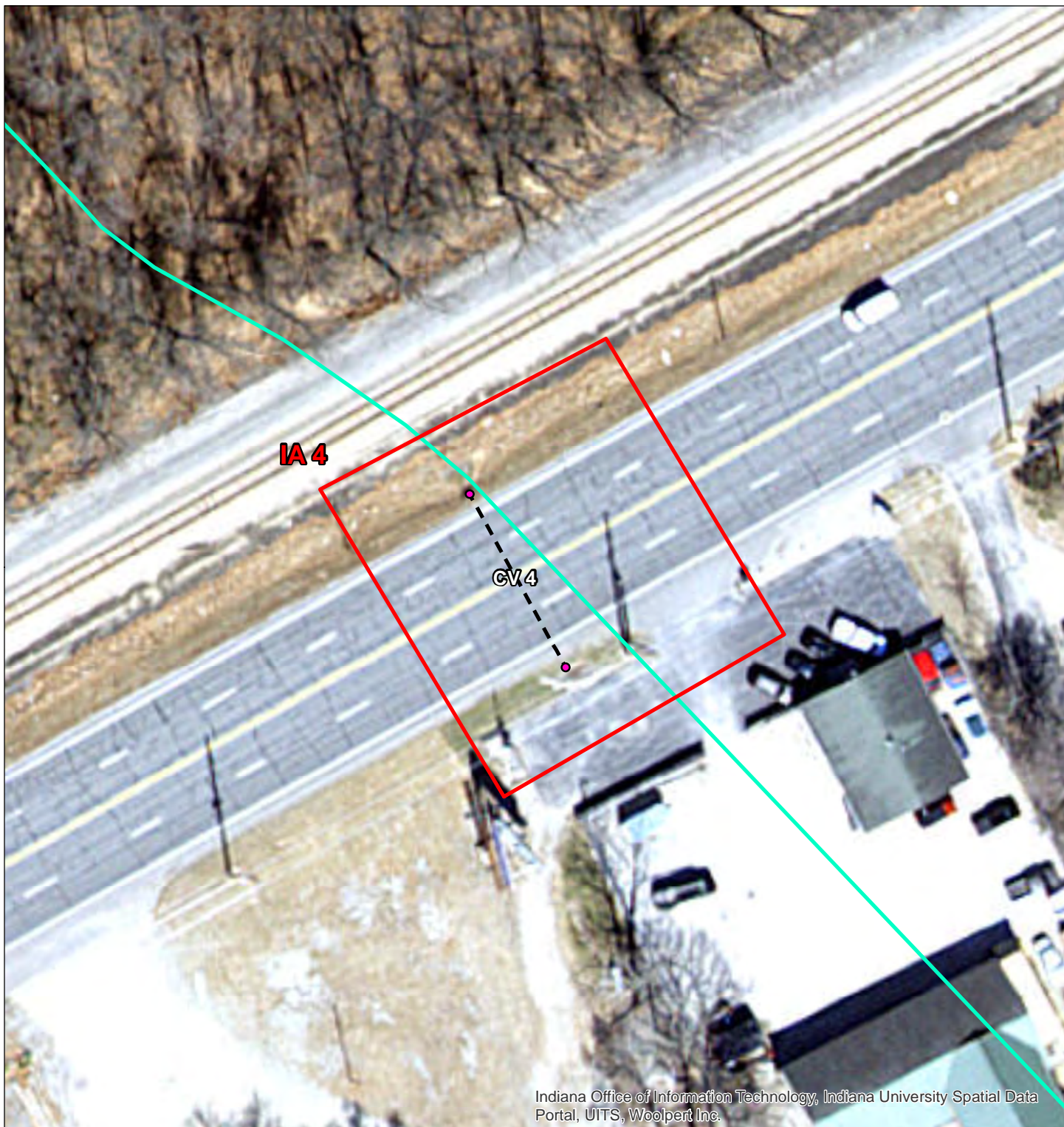
All locations approximate
 Source: Indiana Spatial Data Portal (2018)



0 15 30 60
 Feet



Exh. 4 p. 3 of 14



- | | | | |
|---------------------------------------|----------------|----------------|--------------|
| Investigated Area (IA) | Sampling_Point | Roadside_Ditch | NHD Flowline |
| Wetland Continues Beyond IA | Culvert | Stream | |
| Culvert (CV) Opening/Storm Drain (SD) | Line | Wetland | |

Exhibit 4 - Waters Delineation Map
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0 15 30 60
 Feet



Exh. 4 p. 4 of 14



- | | | | |
|---------------------------------------|----------------|----------------|--------------|
| Investigated Area (IA) | Sampling_Point | Roadside_Ditch | NHD Flowline |
| Wetland Continues Beyond IA | Culvert | Stream | |
| Culvert (CV) Opening/Storm Drain (SD) | Line | Wetland | |

Exhibit 4 - Waters Delineation Map
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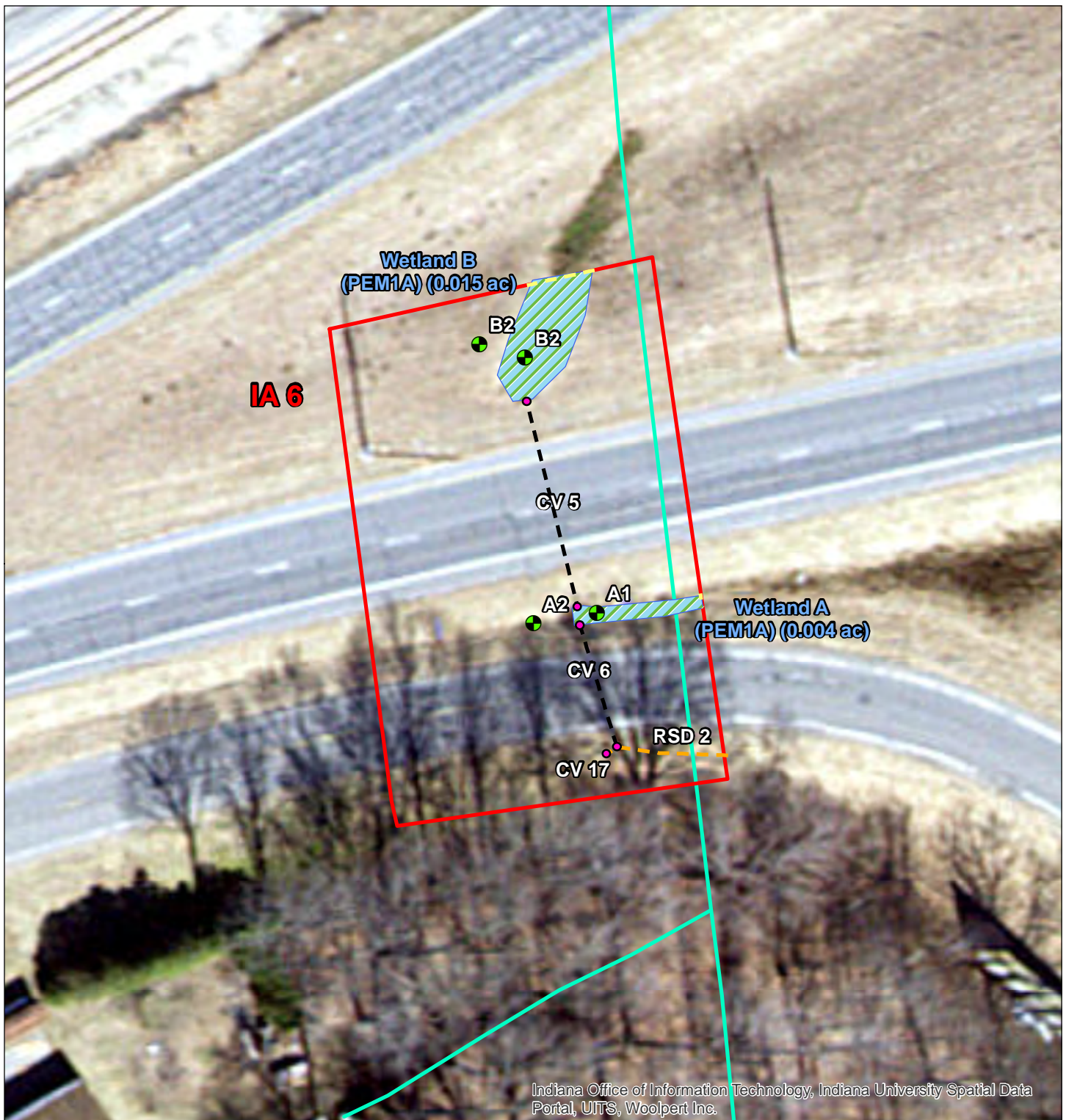
All locations approximate
 Source: Indiana Spatial Data Portal (2018)



0 20 40 80
 Feet



Exh. 4 p. 5 of 14



- | | | | |
|--|---|--|--|
| Investigated Area (IA) | ● Sampling_Point | --- Roadside_Ditch | — NHD Flowline |
| --- Wetland Continues Beyond IA | --- Culvert | — Stream | |
| ● Culvert (CV) Opening/Storm Drain (SD) | — Line | Wetland | |

Exhibit 4 - Waters Delineation Map
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All locations approximate
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0 15 30 60
 Feet



Exh. 4 p. 6 of 14



- | | | | |
|--|---|---|--|
| Investigated Area (IA) | ● Sampling_Point | — Roadside_Ditch | — NHD Flowline |
| — Wetland Continues Beyond IA | — Culvert | — Stream | |
| ● Culvert (CV) Opening/Storm Drain (SD) | — Line | Wetland | |

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0 15 30 60
 Feet



Exh. 4 p. 7 of 14



- | | | | |
|--|---|---|--|
| Investigated Area (IA) | ● Sampling_Point | — Roadside_Ditch | — NHD Flowline |
| - - - Wetland Continues Beyond IA | - - - Culvert | — Stream | |
| ● Culvert (CV) Opening/Storm Drain (SD) | — Line | Wetland | |

Exhibit 4 - Waters Delineation Map
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0 20 40 80
 Feet



Exh. 4 p. 8 of 14



- | | | | |
|---|---|--|--|
| Investigated Area (IA) | ● Sampling_Point | — Roadside_Ditch | — NHD Flowline |
| — Wetland Continues Beyond IA | - - Culvert | — Stream | |
| ● Culvert (CV) Opening/Storm Drain (SD) | — Line | Wetland | |

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0 15 30 60
 Feet



Exh. 4 p. 9 of 14



- | | | | |
|---|---|--|--|
| Investigated Area (IA) | ● Sampling_Point | — Roadside_Ditch | — NHD Flowline |
| — Wetland Continues Beyond IA | - - Culvert | — Stream | |
| ● Culvert (CV) Opening/Storm Drain (SD) | — Line | Wetland | |

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All locations approximate
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0 10 20 40
 Feet



Exh. 4 p. 10 of 14



- | | | | |
|--|---|--|--|
| Investigated Area (IA) | ● Sampling_Point | --- Roadside_Ditch | --- NHD Flowline |
| --- Wetland Continues Beyond IA | --- Culvert | --- Stream | |
| ● Culvert (CV) Opening/Storm Drain (SD) | --- Line | Wetland | |

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All locations approximate
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0 15 30 60
 Feet



Exh. 4 p. 11 of 14



- | | | | |
|---------------------------------------|----------------|----------------|--------------|
| Investigated Area (IA) | Sampling_Point | Roadside_Ditch | NHD Flowline |
| Wetland Continues Beyond IA | Culvert | Stream | |
| Culvert (CV) Opening/Storm Drain (SD) | Line | Wetland | |

Exhibit 4 - Waters Delineation Map
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0 12.5 25 50
 Feet



Exh. 4 p. 13 of 14



- | | | | |
|--|---|--|--|
| Investigated Area (IA) | ● Sampling_Point | — Roadside_Ditch | — NHD Flowline |
| — Wetland Continues Beyond IA | - - Culvert | — Stream | |
| ● Culvert (CV) Opening/Storm Drain (SD) | — Line | Wetland | |

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0 15 30 60
 Feet



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Indiana Office of Information Technology, Indiana University Spatial Data Portal, UITS, Woolpert Inc.

- Wetland Continues Beyond AI

 Culvert (CV)

 Investigated Area (IA)
- Culvert (CV)/Drain (D)

 Roadside Ditch (RSD)
- Sampling Point (SP)

 Wetland (Laporte)

Exhibit 5 - Photo Location Map
 U.S. 12 HMA Overlay
 Preventative Maintenance &
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0 12.5 25 50
 Feet



Exh. 5
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- Wetland Continues Beyond AI

--- Culvert (CV)

 Investigated Area (IA)
- Culvert (CV)/Drain (D)

--- Roadside Ditch (RSD)
- Sampling Point (SP)

 Wetland (Laporte)

Exhibit 5 - Photo Location Map
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0 12.5 25 50
 Feet



Exh. 5
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- Wetland Continues Beyond AI

--- Culvert (CV)

 Investigated Area (IA)
- Culvert (CV)/Drain (D)

--- Roadside Ditch (RSD)
- Sampling Point (SP)

 Wetland (Laporte)

Exhibit 5 - Photo Location Map
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0 12.5 25 50
 Feet



Exh. 5
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- Wetland Continues Beyond AI

- - Culvert (CV)

 Investigated Area (IA)
- Culvert (CV)/Drain (D)

- - Roadside Ditch (RSD)
- Sampling Point (SP)

 Wetland (Laporte)

Exhibit 5 - Photo Location Map
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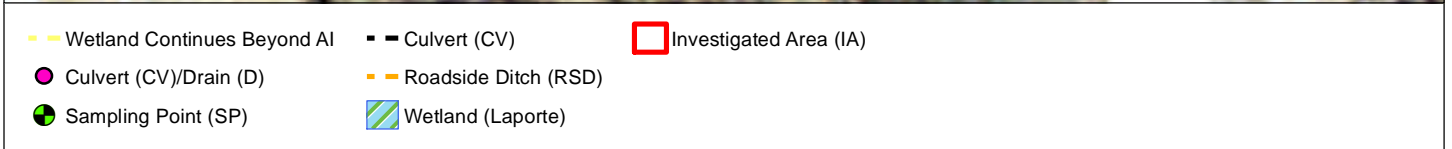
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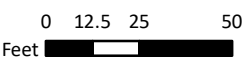



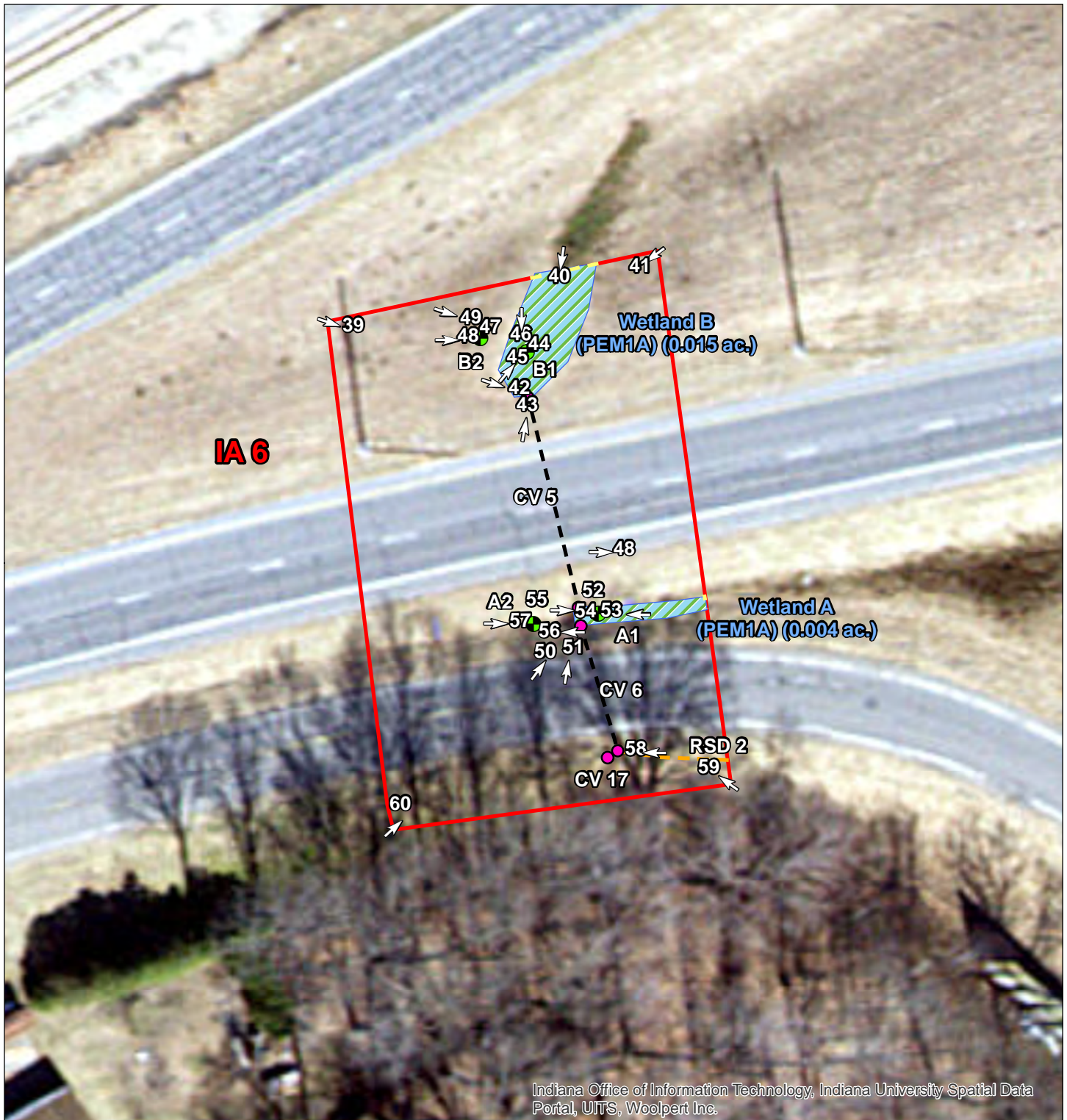
0 12.5 25 50
 Feet



Exh. 5
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<p>Exhibit 5 - Photo Location Map U.S. 12 HMA Overlay Preventative Maintenance & Small Culvert Replacement Michigan & Springfield Townships, Laporte County, IN Des. No. 2000607 Metric Project No. 20-0010-12 Map Date: 5/17/22 Map Author: April Pape</p>	<p>All locations approximate Source: Indiana Spatial Data Portal (2018)</p> <div style="text-align: center;">   </div>	<div style="text-align: center;">  <p>Exh. 5 Page 5 of 14</p> </div>
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Indiana Office of Information Technology, Indiana University Spatial Data Portal, UITS, Woolpert Inc.

- Wetland Continues Beyond AI

- - - Culvert (CV)

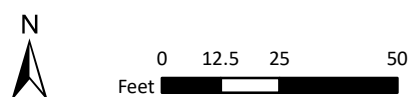
 Investigated Area (IA)
- Culvert (CV)/Drain (D)

- - - Roadside Ditch (RSD)
- Sampling Point (SP)

 Wetland (Laporte)

Exhibit 5 - Photo Location Map
 U.S. 12 HMA Overlay
 Preventative Maintenance &
 Small Culvert Replacement
 Michigan & Springfield Townships, Laporte County, IN
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- Wetland Continues Beyond AI

 Culvert (CV)

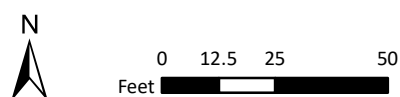
 Investigated Area (IA)
- Culvert (CV)/Drain (D)

 Roadside Ditch (RSD)
- Sampling Point (SP)

 Wetland (Laporte)

Exhibit 5 - Photo Location Map
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- Wetland Continues Beyond AI

--- Culvert (CV)

 Investigated Area (IA)
- Culvert (CV)/Drain (D)

--- Roadside Ditch (RSD)
- Sampling Point (SP)

 Wetland (Laporte)

Exhibit 5 - Photo Location Map
 U.S. 12 HMA Overlay
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0 12.5 25 50
 Feet



Exh. 5
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- Wetland Continues Beyond AI

--- Culvert (CV)

 Investigated Area (IA)
- Culvert (CV)/Drain (D)

--- Roadside Ditch (RSD)
- Sampling Point (SP)

 Wetland (Laporte)

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0 12.5 25 50
 Feet



Exh. 5
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- Wetland Continues Beyond AI

 Culvert (CV)

 Investigated Area (IA)
- Culvert (CV)/Drain (D)

--- Roadside Ditch (RSD)
- Sampling Point (SP)

 Wetland (Laporte)

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0 12.5 25 50
 Feet



Exh. 5
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- Wetland Continues Beyond AI

--- Culvert (CV)

 Investigated Area (IA)
- Culvert (CV)/Drain (D)

--- Roadside Ditch (RSD)
- Sampling Point (SP)

 Wetland (Laporte)

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0 12.5 25 50
 Feet



Exh. 5
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- Wetland Continues Beyond AI
 --- Culvert (CV)
 Investigated Area (IA)
- Culvert (CV)/Drain (D)
 --- Roadside Ditch (RSD)
- Sampling Point (SP)
 Wetland (Laporte)

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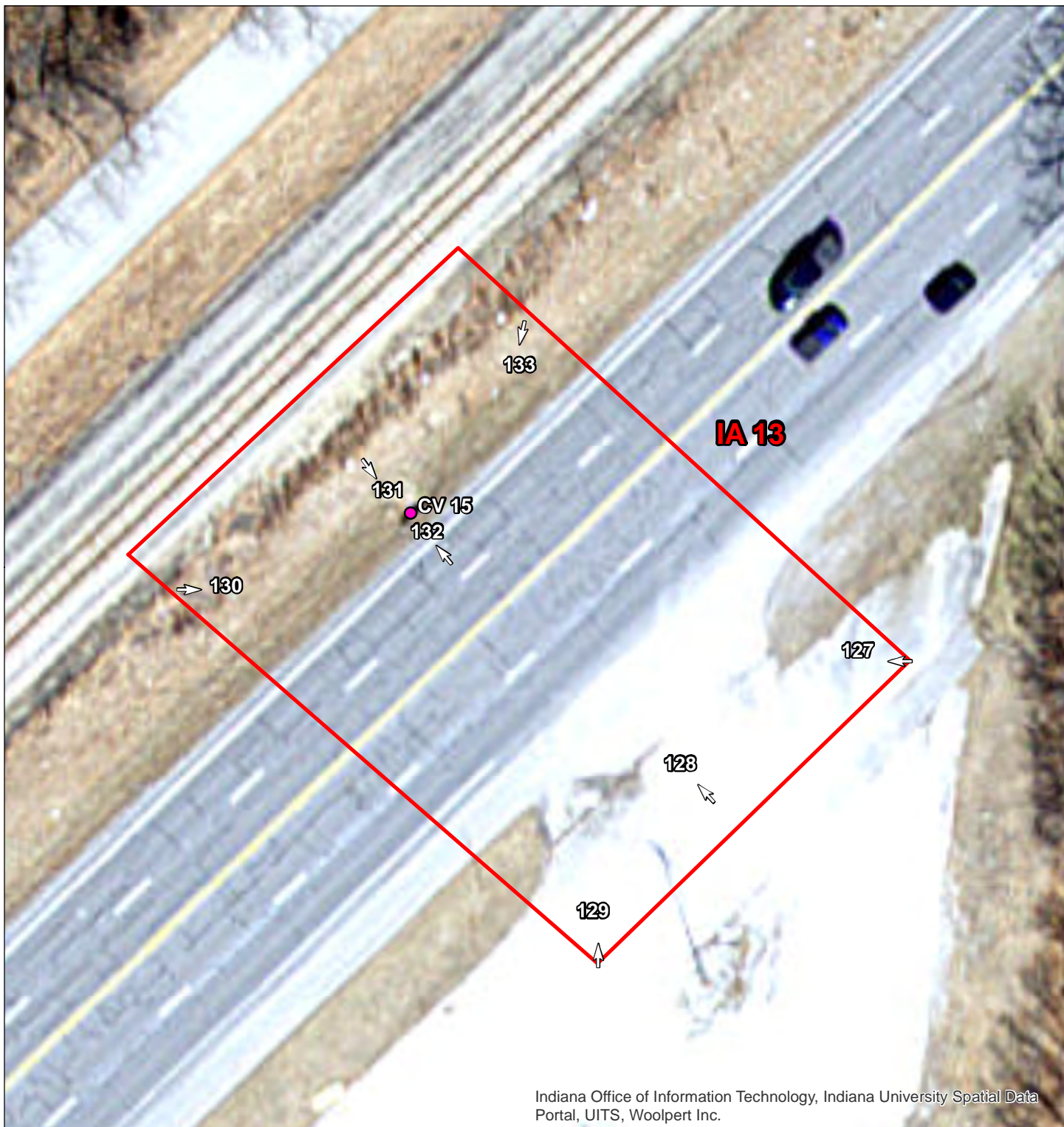
All locations approximate
 Source: Indiana Spatial Data Portal (2018)



0 12.5 25 50
 Feet



Exh. 5
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Indiana Office of Information Technology, Indiana University Spatial Data Portal, UITS, Woolpert Inc.

- | | | |
|-------------------------------|------------------------|------------------------|
| — Wetland Continues Beyond AI | — Culvert (CV) | Investigated Area (IA) |
| ● Culvert (CV)/Drain (D) | — Roadside Ditch (RSD) | |
| ● Sampling Point (SP) | Wetland (Laporte) | |

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 Small Culvert Replacement
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0 12.5 25 50
 Feet



Exh. 5
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- Wetland Continues Beyond AI

--- Culvert (CV)

 Investigated Area (IA)
- Culvert (CV)/Drain (D)

--- Roadside Ditch (RSD)
- Sampling Point (SP)

 Wetland (Laporte)

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0 12.5 25 50
 Feet



Exh. 5
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1. View of upland area from the limits Investigated Area (IA) south of U.S. 12, looking northwest. NHD Flowline (Stream/River, 46000) not observed. (IA 1)



2. View of upland area south of U.S. 12, looking northwest. NHD Flowline (Stream/River, 46000) not observed. (IA 1)



3. View of upland area south of U.S. 12, looking southeast. NHD Flowline (Stream/River, 46000) not observed. (IA 1)



4. View of upland area from the limits of the IA south of U.S. 12, looking northeast. (IA 1)

SITE PHOTOGRAPHS—5/12/2022

U.S. 12 HMA Overlay
Preventative Maintenance & Small Culvert Replacement
Michigan & Springfield Townships, LaPorte County, Indiana
Des. No. 2000607





5. View of upland area from limits of the IA north of U.S. 12, looking northeast. (IA 1)



6. View of upland area north of U.S. 12 from the IA, looking southeast. (IA 1)



7. View of upland area north of U.S. 12, looking northwest. (IA 1)



8. View of upland area from west side of IA south of U.S. 12, looking east. (IA 2)

SITE PHOTOGRAPHS—5/12/2022

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9. View of upland area south of U.S. 12 from west side of IA, looking northeast. (IA 2)



10. View of Storm Drain (SD) 1 in southwest portion of IA. (IA 2)



11. View of Culvert (CV) 1 - inlet located in SD 1. (IA 2)



12. View of upland area, looking southwest. (IA 2)

SITE PHOTOGRAPHS—5/12/2022

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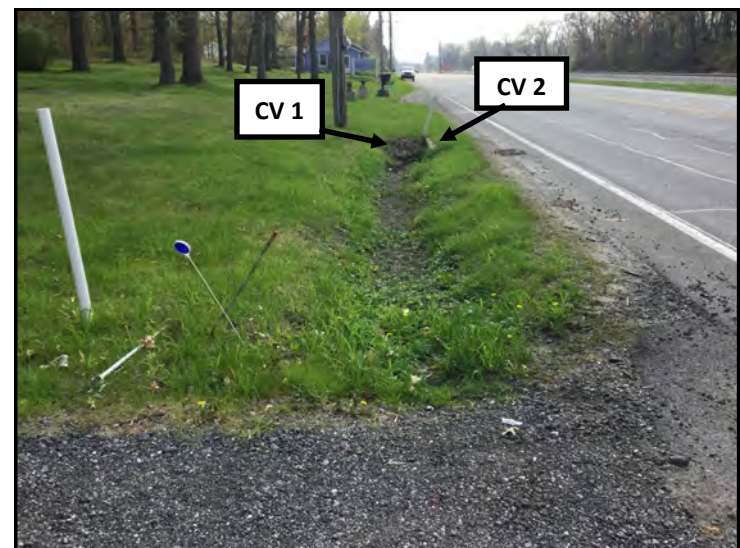
13. View of upland area, looking northeast. (IA 2)



14. View of CV 2 - inlet and roadside ditch (RSD) 1, looking northeast. NHD Flowline (Stream/River, 46000) not observed. (IA 2)



15. View of CV 1 - outlet, CV 2, and RSD 1, looking northwest. (IA 2)



16. View of CV 1 - outlet, CV 2 - inlet, and RSD 1 from the IA, looking southwest. (IA 2)

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17. View of SD 2 and CV 3 - inlet south of U.S. 12, looking north-east. (IA 3)



18. View of SD 2 and CV 3 - inlet from the limits of the IA south of U.S. 12, looking northwest. (IA 3)



19. View of SD 2 south of U.S. 12. (IA 3)



20. View of CV 3 - outlet, south of U.S. 12 looking northwest. (IA 3)

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21. View of CV 3 - outlet north of U.S. 12, looking southwest. (IA 3)



22. View of upland area from IA north of U.S. 12, looking northeast. (IA 3)



23. View of upland area from IA north of U.S. 12, looking southwest. (IA 3)



24. View of CV 4 - outlet from the limits of the IA south of U.S. 12, looking northeast. (IA 4)

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25. View of CV 4 - outlet south of U.S. 12, looking northeast. (IA 4)



26. View of CV 4 - outlet south of U.S. 12, looking southeast. (IA 4)



27. View of CV 4 - inlet north of U.S. 12, looking northwest. (IA 4)



28. View of CV 4 - inlet north of U.S. 12, looking southeast. (IA 4)

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29. View of upland area from the limits of the IA north of U.S. 12, looking southeast. (IA 4)



30. View of upland area from limits of the IA north of U.S. 12, looking southwest. (IA 4)



31. View of upland area from limits of the IA south of U.S. 12, looking northwest. (IA 5)



32. View of upland area from limits of the IA south of U.S. 12, looking northeast. (IA 5)

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33. View of SD 3 south of U.S. 12. (IA 5)



34. View inside of SD 3. (IA 5)



35. View of manhole cover. (IA 5)



36. View of upland area south of U.S. 12, looking northeast. (IA 5)

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37. View of upland area from limits of the IA north of U.S. 12, looking northeast. (IA 5)



38. View of upland area from limits of the IA north of U.S. 12, looking southwest. (IA 5)



39. View of Wetland A from the limits of the IA north of U.S. 12, looking southeast. (IA 6)



40. View of Wetland B from the limits of the IA north of U.S. 12, looking southwest. (IA 6)

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41. View of Wetland B from the limits of the IA north of U.S. 12, looking southwest. NHD Flowline (Connector, 33400) not observed. (IA 6)



42. View of CV 5 - outlet and Wetland B north of U.S. 12, looking southeast. (IA 6)



43. View of CV 5 - outlet and Wetland B north of U.S. 12, looking northeast. (IA 6)



44. View of B1, soil profile. (IA 6)

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45. View of B1 and Wetland B, looking northeast. (IA 6)



46. View of B1 and Wetland B, looking south. (IA 6)



47. View of B2, soil profile. (IA 6)



48. View of B2 and Wetland B, looking east. (IA 6)

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49. View of B2, Wetland B, and CV 5 - outlet north of U.S. 12, looking southeast. (IA 6)



50. View of Wetland A and CV 5 - inlet, looking northeast. (IA 6)



51. View of CV 5 - inlet, CV 5 - outlet, and Wetland A, looking southeast. (IA 6)



52. View of A1, soil profile. (IA 6)

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53. View of A1 and Wetland A, looking west. (IA 6)



54. View of A1 and Wetland A, looking east. (IA 6)



55. View of A2, soil profile. (IA 6)



56. View of A2, looking west. (IA 6)

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57. View of A2 and Wetland A, looking east. (IA 6)



58. View of CV 6 - inlet, CV 17 outlet, and RSD 2, looking west. (IA 6)



59. View of RSD 2 from the limits of the IA south of U.S. 12, looking northwest. (IA 6)



60. View of upland area from the limits of the IA south of U.S. 12, looking northeast. (IA 6)

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61. View of CV 7 - outlet and Wetland C from the limits of the IA south of U.S. 12, looking northeast. (IA 7)



62. View of CV 7 - outlet and Wetland C from the limits of the IA south of U.S. 12, looking northwest. (IA 7)



63. View of CV 7 - outlet and Wetland C south of U.S. 12, looking south. (IA 7)



64. View of C1, soil profile. (IA 7)

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65. View of C1, Wetland C, and CV 7 - outlet, looking north. (IA 7)



66. View of C1 and Wetland C, looking south. (IA 7)



67. View of C2, soil profile. (IA 7)



68. View of C2 and CV 7 - outlet, looking northeast. (IA 7)

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69. View of C2 and Wetland C, looking south. (IA 7)



70. View of CV 7 - buried from the limits of the IA north of U.S. 12, looking southeast. (IA 7)



71. View of CV 7 - buried from the limits of the IA north of U.S. 12, looking south. (IA 7)



72. View of upland area from the limits of the IA north of U.S. 12, looking southwest. (IA 7)

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73. View of upland area from the limits of the IA north of U.S. 12, looking southwest. NHD flowlines (Canal/Ditch, 33600 & Connector, 33400) not observed. (IA 8)



74. View of CV 8 - inlet north of U.S. 12, looking southeast. (IA 8)



75. View from CV 8 - inlet north of U.S. 12, looking northwest. (IA 8)



76. View of upland area from the limits of the IA north of U.S. 12, looking southeast. (IA 8)

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77. View of CV 8 - outlet and CV 9 - buried in median of US. 12, looking southeast. (IA 8)



78. View of Wetland D in median of U.S. 12, looking southwest. NHD flowlines (Canal/Ditch, 33600 & Connector, 33400) not observed. (IA 8)



79. View of D1, soil profile. (IA 8)



80. View of D1 and Wetland D, looking northeast. (IA 8)

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81. View of D1, Wetland D and CV 8 -outlet, looking northwest. (IA 8)



82. View of D2, soil profile. (IA 8)



83. View of D2, looking northeast. (IA 8)



84. View of D2, looking southwest. (IA 8)

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85. View of CV 9 - outlet and Wetland E south of U.S. 12, looking southeast. (IA 8)



86. View of E1, soil profile. (IA 8)



87. View of E1 and Wetland E, looking northeast. (IA 8)



88. View of E1 and Wetland E, looking southwest. (IA 8)

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89. View of E2, soil profile. (IA 8)



90. View of E2 and Wetland E, looking southwest. (IA 8)



91. View of E2, Wetland E, and CV 9 - outlet, looking north. (IA 8)



92. View of Wetland E from the limits of the IA south of U.S. 12, looking northeast. (IA 8)

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93. View of Wetland E from the limits of the IA south of U.S. 12, looking southwest. Two NHD flowlines (Canal/Ditch, 33600 & Connector, 33400) not observed. (IA 8)



94. View of upland area from the limits of the IA north of U.S. 12, looking west. (IA 9)



95. View of CV 10 - inlet north of U.S. 12, looking south. (IA 9)



96. View of upland area from the limits of the IA north of U.S. 12, looking northeast. (IA 9)

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97. View of CV 10 - outlet and Wetland F south of U.S. 12, looking southeast. (IA 9)



98. View of CV 10 - outlet and Wetland F south of U.S. 12, looking southwest. (IA 9)



99. View of F1, soil profile. (IA 9)



100. View of F1 and Wetland F, looking southwest. (IA 9)

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101. View of CV 18, F1 ,and Wetland F, looking northeast. (IA 9)



102. View of F2, soil profile. (IA 9)



103. View of F2 and Wetland F, looking southwest. (IA 9)



104. View of F2, looking southeast. (IA 9)

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105. View of Wetland F south of U.S. 12, looking southeast. (IA 9)



106. View of RSD 3 from the limits of the IA south of U.S. 12, looking northeast. (IA 10)



107. View of RSD 3 and CV 11 - inlet, looking east. (IA 10)



108. View of CV 11 - inlet and RSD 3, looking southwest. (IA 10)

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109. View of CV 11 - outlet and RSD 4, looking northeast. (IA 10)



110. View of CV 11 - outlet and RSD 4, looking southwest. (IA 10)



111. View of RSD 4 from the IA, looking southwest. (IA 10)



112. View of CV 13 - inlet and RSD 5, looking southwest. (IA 11)

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113. View of RSD 5, looking southwest. (IA 11)



114. View of CV 12 - outlet and RSD 5, looking east. (IA 11)



115. View of RSD 5 and CV 12 - outlet, looking west. (IA 11)



116. View of RSD 6 and CV 12 - inlet, looking northeast. (IA 11)

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117. View of RSD 6 and CV 12 - inlet, looking southwest. (IA 11)



118. View of RSD 6 from the northeastern limits of the IA, looking southwest. (IA 11)



119. View of upland area from the northeastern limits of the IA, looking southwest. (IA 11)



120. View of RSD 7 from the southwestern limits of the IA south of U.S. 12, looking northeast. (IA 12)

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121. View of CV 14 - outlet and RSD 7 south of U.S. 12, looking northwest. (IA 12)



122. View of RSD 7 from the southeastern limits of the IA south of U.S. 12, looking west. (IA 12)



123. View of RSD 7 from the limits of the IA south of U.S. 12, looking southwest. (IA 12)



124. View of CV 14 - inlet from the northeastern limits of the IA north of U.S. 12, looking southwest. (IA 12)

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125. View of CV 14 - inlet north of U.S. 12, looking southeast. (IA 12)



126. View of CV 14 - inlet from northwestern limits of the IA north of U.S. 12, looking southeast. (IA 12)



127. View of upland area from the limits of the IA south of U.S. 12 looking west. (IA 13)



128. View of CV 15 - buried (opening was not observed) south of U.S. 12, looking northwest. (IA 13)

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129. View of upland area from the limits of the IA south of U.S. 12, looking north. (IA 13)



130. View of CV 15 - outlet from the limits of the IA north of U.S. 12, looking east. (IA 13)



131. View of CV 15 - outlet north of U.S. 12, looking southeast. (IA 13)



132. View of CV 15 - outlet north of U.S. 12, looking northwest. (IA 13)

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133. View of CV 15 - outlet from the limits of the IA north of U.S. 12, looking west. (IA 13)



134. View of CV 16 - inlet from the limits of the IA south of U.S. 12, looking west. (IA 14)



135. View of CV 16 - inlet south of U.S. 12, looking northwest. (IA 14)



136. View of CV 16 - inlet south of U.S. 12, looking southeast. (IA 14)

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137. View of CV 16 - inlet from the limits of the IA south of U.S. 12, looking north. (IA 14)



138. View of CV 16 - outlet north of U.S. 12, looking east. (IA 14)



139. View of CV 16 - outlet north of U.S. 12, looking southeast. (IA 14)



140. View of CV 16 - outlet north of U.S. 12, looking south. (IA 14)

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141. View of CV 16 - inlet from the limits of the IA north of U.S. 12, looking southwest. (IA 14)

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WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site: US 12 HMA Overlay (Des. 2000607) City/County: Michigan City/LaPorte Sampling Date: 5/12/2022

Applicant/Owner: INDOT State: IN Sampling Point: A1

Investigator(s): Zachary Root Section, Township, Range: S 13, T 38 N, R 4 W

Landform (hillslope, terrace, etc.): Toe of Slope Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): LRR L Lat: 41.744924 Long: -86.82737 Datum: NAD83

Soil Map Unit Name: Newton loamy fine sand (Nf) - Hydric (100%) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	Is the Sampled Area within a Wetland?	Yes X No
Hydric Soil Present?	Yes X	No		
Wetland Hydrology Present?	Yes X	No		

Remarks:
Wetland A (PEM1A) Sampling Point

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	X Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographix Relief (D4)
Sparsely Vegetated Concave Surface (B8)		X FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes X No
Surface Water Present? Yes No X Depth (inches):	
Water Table Present? Yes No X Depth (inches):	
Saturation Present? Yes No X Depth (inches): (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Located at toe of slope with concave local relief (D2).

VEGETATION -- Use scientific names of plants.

Sampling Point: A1

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: 30' radius)																		
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>		20% of total cover: <u>0%</u>																
Sapling/Shrub Stratum (Plot size: 15' radius)																		
1. <i>Phalaris arundinacea</i>	70%	Yes	FACW	Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 60%;">Total % Cover of:</th> <th style="width: 40%;">Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species <u>70%</u></td> <td>x2 = <u>1.4</u></td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species <u>15%</u></td> <td>x4 = <u>0.6</u></td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: <u>85%</u> (A)</td> <td><u>2</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.35</u>	Total % Cover of:	Multiply by:	OBL species _____	x1 = _____	FACW species <u>70%</u>	x2 = <u>1.4</u>	FAC species _____	x3 = _____	FACU species <u>15%</u>	x4 = <u>0.6</u>	UPL species _____	x5 = _____	Column Totals: <u>85%</u> (A)	<u>2</u> (B)
Total % Cover of:	Multiply by:																	
OBL species _____	x1 = _____																	
FACW species <u>70%</u>	x2 = <u>1.4</u>																	
FAC species _____	x3 = _____																	
FACU species <u>15%</u>	x4 = <u>0.6</u>																	
UPL species _____	x5 = _____																	
Column Totals: <u>85%</u> (A)	<u>2</u> (B)																	
2. <i>Poa pratensis</i>	15%	No	FACU															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>43%</u>		20% of total cover: <u>17%</u>																
Herb Stratum (Plot size: 5' radius)																		
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1-Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2-Dominance Test is >50% <input checked="" type="checkbox"/> 3-Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4-Morphological Adaptations ¹ (Provide supporting data in Remarks or on a 5 X Problematic Hydrophytic Vegetation ¹ (Explain)) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
50% of total cover: <u>0%</u>		20% of total cover: <u>0%</u>																
Woody Vine Stratum (Plot size: 30' radius)																		
1. _____	_____	_____	_____	Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/shrub - Woody plants less than 3 in DBH and greater than or equal to 3.28 (1M) tall Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall Woody vines - All woody vines greater than 3.28 ft in height														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
50% of total cover: <u>0%</u>		20% of total cover: <u>0%</u>																

Remarks: (Include photo numbers here or on a separate sheet.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 2/1	100					SiL	
7-20	10YR 3/2	70	10YR 2/1	25	C	M	SiL	Faint Redox Concentrations
			5YR 3/4	5	C	M	SL	Prominent Redox Concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Dark Surface (S7) (LRR R MLRA 149B)		<input type="checkbox"/> Other (Explain in Remarks)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site:

US 12 HMA Overlay (Des. 2000607)

City/County:

Michigan City/LaPorte

Sampling Date:

5/11/2022

Applicant/Owner:

INDOT

State:

IN

Sampling Point:

A2

Investigator(s):

Zachary Root

Section, Township, Range:

S 13, T 38 N, R 4 W

Landform (hillslope, terrace, etc.):

Toe of Slope

Local relief (concave, convex, none):

Concave

Slope (%):

0

Subregion (LRR or MLRA):

LRR L

Lat:

41.744916

Long:

-86.827439

Datum:

NAD83

Soil Map Unit Name:

Newton loamy fine sand (Nf) - Hydric (100%)

NWI classification:

None

Are climatic / hydrologic conditions on the site typical for this time of year?

Yes

X

No

(If no, explain in Remarks.)

Are Vegetation

No

, Soil

No

, or Hydrology

No

significantly disturbed?

Are "Normal Circumstances" present?

Yes

X

No

Are Vegetation

No

, Soil

No

, or Hydrology

No

naturally problematic?

(If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X	Is the Sampled Area within a Wetland?	Yes		No	X
Hydric Soil Present?	Yes	X	No						
Wetland Hydrology Present?	Yes		No	X					

Remarks:

Wetland A Upland Sampling Point

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographix Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

<div>Field Observations:</div> <div>Surface Water Present?</div> <div>Yes</div> <div></div> <div>No</div> <div>X</div> <div>Depth (inches):</div> <div></div> <div>Water Table Present?</div> <div>Yes</div> <div></div> <div>No</div> <div>X</div> <div>Depth (inches):</div> <div></div> <div>Saturation Present?</div> <div>Yes</div> <div></div> <div>No</div> <div>X</div> <div>Depth (inches):</div> <div></div> <div>(includes capillary fringe)</div>	<div>Wetland Hydrology Present?</div> <div>Yes</div> <div></div> <div>No</div> <div>X</div>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Located at toe of slope with concave local relief (D2).

VEGETATION -- Use scientific names of plants.

Sampling Point: A2

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: 30' radius)																		
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	0% = Total Cover		20% of total cover: <u>0%</u>															
Sapling/Shrub Stratum (Plot size: 15' radius)																		
1. _____	_____	_____	_____	Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">Total % Cover of:</td> <td style="width: 60%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species <u>10%</u></td> <td>x2 = <u>0.2</u></td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species <u>50%</u></td> <td>x4 = <u>2</u></td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: <u>60%</u> (A)</td> <td><u>2.2</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.67</u>	Total % Cover of:	Multiply by:	OBL species _____	x1 = _____	FACW species <u>10%</u>	x2 = <u>0.2</u>	FAC species _____	x3 = _____	FACU species <u>50%</u>	x4 = <u>2</u>	UPL species _____	x5 = _____	Column Totals: <u>60%</u> (A)	<u>2.2</u> (B)
Total % Cover of:	Multiply by:																	
OBL species _____	x1 = _____																	
FACW species <u>10%</u>	x2 = <u>0.2</u>																	
FAC species _____	x3 = _____																	
FACU species <u>50%</u>	x4 = <u>2</u>																	
UPL species _____	x5 = _____																	
Column Totals: <u>60%</u> (A)	<u>2.2</u> (B)																	
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	0% = Total Cover		20% of total cover: <u>0%</u>															
Herb Stratum (Plot size: 5' radius)																		
1. <u>Schedonorus arundinaceus</u>	40%	Yes	FACU	Hydrophytic Vegetation Indicators: _____ 1-Rapid Test for Hydrophytic Vegetation _____ 2-Dominance Test is >50% _____ 3-Prevalence Index is ≤3.0 ¹ _____ 4-Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Poa pratensis</u>	10%	No	FACU															
3. <u>Phalaris arundinacea</u>	10%	No	FACW															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
50% of total cover: <u>30%</u>	60% = Total Cover		20% of total cover: <u>12%</u>															
Woody Vine Stratum (Plot size: 30' radius)																		
1. _____	_____	_____	_____	Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/shrub - Woody plants less than 3 in DBH and greater than or equal to 3.28 (1M) tall Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall Woody vines - All woody vines greater than 3.28 ft in height														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	0% = Total Cover		20% of total cover: <u>0%</u>															
Hydrophytic Vegetation Present?				Yes _____ No <u>X</u>														

Remarks: (Include photo numbers here or on a separate sheet.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features			Texture	Remarks	
	Color (moist)	%	Color (moist)	%	Type ¹			
0-20	10YR 2/1	80	10YR 3/2	15	C	M	SiL	Faint Redox Concentrations
			5YR 3/4	5	C	M	SiL	Prominent Redox Concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Dark Surface (S7) (LRR R MLRA 149B)		<input type="checkbox"/> Other (Explain in Remarks)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site: US 12 HMA Overlay (Des. 2000607) City/County: Michigan City/LaPorte Sampling Date: 5/11/2022

Applicant/Owner: INDOT State: IN Sampling Point: B1

Investigator(s): Zachary Root Section, Township, Range: S 13, T 38 N, R 4 W

Landform (hillslope, terrace, etc.): Toe of Slope Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): LRR L Lat: 41.745132 Long: -86.827469 Datum: NAD83

Soil Map Unit Name: Newton loamy fine sand (Nf) - Hydric (100%) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	Is the Sampled Area within a Wetland?	Yes X No
Hydric Soil Present?	Yes X	No		
Wetland Hydrology Present?	Yes X	No		

Remarks:
Wetland B (PEM1A) Sampling Point

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	X Oxidized Rhizospheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	X Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographix Relief (D4)
Sparsely Vegetated Concave Surface (B8)		X FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes X No
Surface Water Present? Yes No X Depth (inches):	
Water Table Present? Yes No X Depth (inches):	
Saturation Present? Yes No X Depth (inches): (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Located at toe of slope with concave local relief (D2).

VEGETATION -- Use scientific names of plants.

Sampling Point: B1

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: 30' radius)																		
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	0% = Total Cover		20% of total cover: <u>0%</u>															
Sapling/Shrub Stratum (Plot size: 15' radius)																		
1. _____	_____	_____	_____	Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species <u>90%</u></td> <td>x2 = <u>1.8</u></td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: <u>90%</u> (A)</td> <td><u>1.8</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.00</u>	Total % Cover of:	Multiply by:	OBL species _____	x1 = _____	FACW species <u>90%</u>	x2 = <u>1.8</u>	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: <u>90%</u> (A)	<u>1.8</u> (B)
Total % Cover of:	Multiply by:																	
OBL species _____	x1 = _____																	
FACW species <u>90%</u>	x2 = <u>1.8</u>																	
FAC species _____	x3 = _____																	
FACU species _____	x4 = _____																	
UPL species _____	x5 = _____																	
Column Totals: <u>90%</u> (A)	<u>1.8</u> (B)																	
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	0% = Total Cover		20% of total cover: <u>0%</u>															
Herb Stratum (Plot size: 5' radius)																		
1. <i>Phalaris arundinacea</i>	<u>90%</u>	<u>Yes</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1-Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2-Dominance Test is >50% <input checked="" type="checkbox"/> 3-Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4-Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
50% of total cover: <u>45%</u>	90% = Total Cover		20% of total cover: <u>18%</u>															
Woody Vine Stratum (Plot size: 30' radius)																		
1. _____	_____	_____	_____	Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/shrub - Woody plants less than 3 in DBH and greater than or equal to 3.28 (1M) tall Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall Woody vines - All woody vines greater than 3.28 ft in height														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	0% = Total Cover		20% of total cover: <u>0%</u>															
Hydrophytic Vegetation Present?				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: B1

[illegible]

WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site:

US 12 HMA Overlay (Des. 2000607)

City/County:

Michigan City/LaPorte

Sampling Date:

5/11/2022

Applicant/Owner:

INDOT

State:

IN

Sampling Point:

B2

Investigator(s):

Zachary Root

Section, Township, Range:

S 13, T 38 N, R 4 W

Landform (hillslope, terrace, etc.):

Hillslope

Local relief (concave, convex, none):

Concave

Slope (%):

1

Subregion (LRR or MLRA):

LRR L

Lat:

41.745143

Long:

-86.827496

Datum:

NAD83

Soil Map Unit Name:

Newton loamy fine sand (Nf) - Hydric (100%)

NWI classification:

None

Are climatic / hydrologic conditions on the site typical for this time of year?

Yes

X

No

(If no, explain in Remarks.)

Are Vegetation

No

, Soil

No

, or Hydrology

No

significantly disturbed?

Are "Normal Circumstances" present?

Yes

X

No

Are Vegetation

No

, Soil

No

, or Hydrology

No

naturally problematic?

(If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X	Is the Sampled Area within a Wetland?	Yes		No	X
Hydric Soil Present?	Yes	X	No			Yes		No	X
Wetland Hydrology Present?	Yes		No	X					

Remarks:

Wetland B Upland Sampling Point

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographix Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

<div>Field Observations:</div> <div>Surface Water Present?</div> <div>Yes</div> <div></div> <div>No</div> <div>X</div> <div>Depth (inches):</div> <div></div> <div>Water Table Present?</div> <div>Yes</div> <div></div> <div>No</div> <div>X</div> <div>Depth (inches):</div> <div></div> <div>Saturation Present?</div> <div>Yes</div> <div></div> <div>No</div> <div>X</div> <div>Depth (inches):</div> <div></div> <div>(includes capillary fringe)</div>	<div>Wetland Hydrology Present?</div> <div>Yes</div> <div></div> <div>No</div> <div>X</div>
---	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION -- Use scientific names of plants.

Sampling Point: B2

	Absolute % Cover	Dominant Species?	Indicator Status																									
Tree Stratum (Plot size: 30' radius)																												
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)																								
2. _____	_____	_____	_____																									
3. _____	_____	_____	_____																									
4. _____	_____	_____	_____																									
5. _____	_____	_____	_____																									
6. _____	_____	_____	_____																									
7. _____	_____	_____	_____																									
50% of total cover: <u>0%</u>	0% = Total Cover		20% of total cover: <u>0%</u>																									
Sapling/Shrub Stratum (Plot size: 15' radius)																												
1. <i>Juniperus virginiana</i>	5%	Yes	FACU	Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%; text-align: right;">Total % Cover of:</td> <td style="width: 20%;"></td> <td style="width: 40%; text-align: right;">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td>5%</td> <td>x1 = 0.05</td> </tr> <tr> <td>FACW species</td> <td></td> <td>x2 =</td> </tr> <tr> <td>FAC species</td> <td></td> <td>x3 =</td> </tr> <tr> <td>FACU species</td> <td>40%</td> <td>x4 = 1.6</td> </tr> <tr> <td>UPL species</td> <td></td> <td>x5 =</td> </tr> <tr> <td>Column Totals:</td> <td>45% (A)</td> <td>1.65 (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A = <u>3.67</u></td> </tr> </table>	Total % Cover of:		Multiply by:	OBL species	5%	x1 = 0.05	FACW species		x2 =	FAC species		x3 =	FACU species	40%	x4 = 1.6	UPL species		x5 =	Column Totals:	45% (A)	1.65 (B)	Prevalence Index = B/A = <u>3.67</u>		
Total % Cover of:		Multiply by:																										
OBL species	5%	x1 = 0.05																										
FACW species		x2 =																										
FAC species		x3 =																										
FACU species	40%	x4 = 1.6																										
UPL species		x5 =																										
Column Totals:	45% (A)	1.65 (B)																										
Prevalence Index = B/A = <u>3.67</u>																												
2. _____	_____	_____	_____																									
3. _____	_____	_____	_____																									
4. _____	_____	_____	_____																									
5. _____	_____	_____	_____																									
6. _____	_____	_____	_____																									
7. _____	_____	_____	_____																									
50% of total cover: <u>3%</u>	5% = Total Cover		20% of total cover: <u>1%</u>																									
Herb Stratum (Plot size: 5' radius)																												
1. <i>Galium aparine</i>	20%	Yes	FACU	Hydrophytic Vegetation Indicators: _____ 1-Rapid Test for Hydrophytic Vegetation _____ 2-Dominance Test is >50% _____ 3-Prevalence Index is ≤3.0 ¹ _____ 4-Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																								
2. <i>Allium cernuum</i>	15%	Yes	FACU																									
3. <i>Alisma gramineum</i>	5%	No	OBL																									
4. _____	_____	_____	_____																									
5. _____	_____	_____	_____																									
6. _____	_____	_____	_____																									
7. _____	_____	_____	_____																									
8. _____	_____	_____	_____																									
9. _____	_____	_____	_____																									
10. _____	_____	_____	_____																									
11. _____	_____	_____	_____																									
12. _____	_____	_____	_____																									
50% of total cover: <u>20%</u>	40% = Total Cover		20% of total cover: <u>8%</u>																									
Woody Vine Stratum (Plot size: 30' radius)																												
1. _____	_____	_____	_____	Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/shrub - Woody plants less than 3 in DBH and greater than or equal to 3.28 (1M) tall Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall Woody vines - All woody vines greater than 3.28 ft in height																								
2. _____	_____	_____	_____																									
3. _____	_____	_____	_____																									
4. _____	_____	_____	_____																									
50% of total cover: <u>0%</u>	0% = Total Cover		20% of total cover: <u>0%</u>																									
Hydrophytic Vegetation Present?				Yes _____ No <u>X</u>																								

Remarks: (Include photo numbers here or on a separate sheet.) Bare ground present

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10YR 2/1	90	5YR 3/3	10	C	M	SiL	Prominent Redox Concentrations
10-20	10YR 5/6	90	10YR 2/1	5	C	M	SL	Prominent Redox Concentrations
			5YR 3/3	5	C	M	SL	Prominent Redox Concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Dark Surface (S7) (LRR R MLRA 149B)		<input type="checkbox"/> Other (Explain in Remarks)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site:

US 12 HMA Overlay (Des. 2000607)

City/County:

Michigan City/LaPorte

Sampling Date:

5/11/2022

Applicant/Owner:

INDOT

State:

IN

Sampling Point:

C1

Investigator(s):

Zachary Root

Section, Township, Range:

S 13, T 38 N, R 4 W

Landform (hillslope, terrace, etc.):

Toe of Slope

Local relief (concave, convex, none):

Concave

Slope (%):

0

Subregion (LRR or MLRA):

LRR L

Lat:

41.745051

Long:

-86.826267

Datum:

NAD83

Soil Map Unit Name:

Newton loamy fine sand (Nf) - Hydric (100%)

NWI classification:

None

Are climatic / hydrologic conditions on the site typical for this time of year?

Yes

X

No

(If no, explain in Remarks.)

Are Vegetation

No

, Soil

No

, or Hydrology

No

significantly disturbed?

Are "Normal Circumstances" present?

Yes

X

No

Are Vegetation

No

, Soil

No

, or Hydrology

No

naturally problematic?

(If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?

Yes

X

No

Hydric Soil Present?

Yes

X

No

Wetland Hydrology Present?

Yes

X

No

Is the Sampled Area within a Wetland?

Yes

X

No

Remarks:

Wetland C (PEM1A) Sampling Point

HYDROLOGY

Wetland Hydrology Indicators:

Secondary Indicators (minimum of two required)

Primary Indicators (minimum of one is required: check all that apply)

Surface Soil Cracks (B6)

Surface Water (A1)

High Water Table (A2)

Saturation (A3)

Water Marks (B1)

Sediment Deposits (B2)

Drift Deposits (B3)

Algal Mat or Crust (B4)

Iron Deposits (B5)

Inundation Visible on Aerial Imagery (B7)

Sparsely Vegetated Concave Surface (B8)

Water-Stained Leaves (B9)

Aquatic Fauna (B13)

Marl Deposits (B15)

Hydrogen Sulfide Odor (C1)

XOxidized Rhizospheres on Living Roots (C3)

Presence of Reduced Iron (C4)

Recent Iron Reduction in Tilled Soils (C6)

Thin Muck Surface (C7)

Other (Explain in Remarks)

Drainage Patterns (B10)

Moss Trim Lines (B16)

Dry-Season Water Table (C2)

Crayfish Burrows (C8)

Saturation Visible on Aerial Imagery (C9)

Stunted or Stressed Plants (D1)

XGeomorphic Position (D2)

Shallow Aquitard (D3)

Microtopographix Relief (D4)

XFAC-Neutral Test (D5)

Field Observations:

Surface Water Present?

Yes

No

X

Depth (inches):

Water Table Present?

Yes

No

X

Depth (inches):

Saturation Present?

Yes

No

X

Depth (inches):

(includes capillary fringe)

Wetland Hydrology Present?

Yes

X

No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Located at toe of slope with concave local relief (D2).

VEGETATION -- Use scientific names of plants.

Sampling Point: C1

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: 30' radius)																		
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	0% = Total Cover		20% of total cover: <u>0%</u>															
Sapling/Shrub Stratum (Plot size: 15' radius)																		
1. _____	_____	_____	_____	Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species <u>60%</u></td> <td>x2 = <u>1.2</u></td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species <u>10%</u></td> <td>x4 = <u>0.4</u></td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: <u>70%</u> (A)</td> <td><u>1.6</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.29</u>	Total % Cover of:	Multiply by:	OBL species _____	x1 = _____	FACW species <u>60%</u>	x2 = <u>1.2</u>	FAC species _____	x3 = _____	FACU species <u>10%</u>	x4 = <u>0.4</u>	UPL species _____	x5 = _____	Column Totals: <u>70%</u> (A)	<u>1.6</u> (B)
Total % Cover of:	Multiply by:																	
OBL species _____	x1 = _____																	
FACW species <u>60%</u>	x2 = <u>1.2</u>																	
FAC species _____	x3 = _____																	
FACU species <u>10%</u>	x4 = <u>0.4</u>																	
UPL species _____	x5 = _____																	
Column Totals: <u>70%</u> (A)	<u>1.6</u> (B)																	
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	0% = Total Cover		20% of total cover: <u>0%</u>															
Herb Stratum (Plot size: 5' radius)																		
1. <u>Phalaris arundinacea</u>	50%	Yes	FACW	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1-Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2-Dominance Test is >50% <input checked="" type="checkbox"/> 3-Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4-Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Poa pratensis</u>	10%	No	FACU															
3. <u>Dichanthelium clandestinum</u>	10%	No	FACW															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
50% of total cover: <u>35%</u>	70% = Total Cover		20% of total cover: <u>14%</u>															
Woody Vine Stratum (Plot size: 30' radius)																		
1. _____	_____	_____	_____	Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/shrub - Woody plants less than 3 in DBH and greater than or equal to 3.28 (1M) tall Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall Woody vines - All woody vines greater than 3.28 ft in height														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	0% = Total Cover		20% of total cover: <u>0%</u>															
Hydrophytic Vegetation Present?				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: C1

[illegible]

WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site:

US 12 HMA Overlay (Des. 2000607)

City/County:

Michigan City/LaPorte

Sampling Date:

5/11/2022

Applicant/Owner:

INDOT

State:

IN

Sampling Point:

C2

Investigator(s):

Zachary Root

Section, Township, Range:

S 13, T 38 N, R 4 W

Landform (hillslope, terrace, etc.):

Hillslope

Local relief (concave, convex, none):

Convex

Slope (%):

1

Subregion (LRR or MLRA):

LRR L

Lat:

41.745087

Long:

-86.826294

Datum:

NAD83

Soil Map Unit Name:

Newton loamy fine sand (Nf) - Hydric (100%)

NWI classification:

None

Are climatic / hydrologic conditions on the site typical for this time of year?

Yes

X

No

(If no, explain in Remarks.)

Are Vegetation

No

, Soil

No

, or Hydrology

No

significantly disturbed?

Are "Normal Circumstances" present?

Yes

X

No

Are Vegetation

No

, Soil

No

, or Hydrology

No

naturally problematic?

(If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X	Is the Sampled Area within a Wetland?	Yes		No	X
Hydric Soil Present?	Yes		No	X					
Wetland Hydrology Present?	Yes		No	X					

Remarks:

Wetland C Upland Sampling Point

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographix Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

<div>Field Observations:</div> <div>Surface Water Present?</div> <div>Yes</div> <div></div> <div>No</div> <div>X</div> <div>Depth (inches):</div> <div></div> <div>Water Table Present?</div> <div>Yes</div> <div></div> <div>No</div> <div>X</div> <div>Depth (inches):</div> <div></div> <div>Saturation Present?</div> <div>Yes</div> <div></div> <div>No</div> <div>X</div> <div>Depth (inches):</div> <div></div> <div>(includes capillary fringe)</div>	<div>Wetland Hydrology Present?</div> <div>Yes</div> <div></div> <div>No</div> <div>X</div>
---	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION -- Use scientific names of plants.

Sampling Point: C2

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: 30' radius)																		
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	0% = Total Cover		20% of total cover: <u>0%</u>															
Sapling/Shrub Stratum (Plot size: 15' radius)																		
1. _____	_____	_____	_____	Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species <u>45%</u></td> <td>x4 = <u>1.8</u></td> </tr> <tr> <td>UPL species <u>35%</u></td> <td>x5 = <u>1.75</u></td> </tr> <tr> <td>Column Totals: <u>80%</u> (A)</td> <td><u>3.55</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.44</u>	Total % Cover of:	Multiply by:	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species <u>45%</u>	x4 = <u>1.8</u>	UPL species <u>35%</u>	x5 = <u>1.75</u>	Column Totals: <u>80%</u> (A)	<u>3.55</u> (B)
Total % Cover of:	Multiply by:																	
OBL species _____	x1 = _____																	
FACW species _____	x2 = _____																	
FAC species _____	x3 = _____																	
FACU species <u>45%</u>	x4 = <u>1.8</u>																	
UPL species <u>35%</u>	x5 = <u>1.75</u>																	
Column Totals: <u>80%</u> (A)	<u>3.55</u> (B)																	
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	0% = Total Cover		20% of total cover: <u>0%</u>															
Herb Stratum (Plot size: 5' radius)																		
1. <u>Poa pratensis</u>	<u>45%</u>	<u>Yes</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <u> </u> 1-Rapid Test for Hydrophytic Vegetation <u> </u> 2-Dominance Test is >50% <u> </u> 3-Prevalence Index is ≤3.0 ¹ <u> </u> 4-Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Schedonorus arundinaceus</u>	<u>35%</u>	<u>Yes</u>	<u>UPL</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
50% of total cover: <u>40%</u>	80% = Total Cover		20% of total cover: <u>16%</u>															
Woody Vine Stratum (Plot size: 30' radius)																		
1. _____	_____	_____	_____	Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/shrub - Woody plants less than 3 in DBH and greater than or equal to 3.28 (1M) tall Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall Woody vines - All woody vines greater than 3.28 ft in height														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	0% = Total Cover		20% of total cover: <u>0%</u>															
Hydrophytic Vegetation Present?				Yes <u> </u> No <u>X</u>														

Remarks: (Include photo numbers here or on a separate sheet.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features			Texture	Remarks	
	Color (moist)	%	Color (moist)	%	Type ¹			
0-7	10YR 2/1	100				SiL		
7-15	10YR 4/1	100				SL		
15-20	10YR 2/1	100				SiL		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Dark Surface (S7) (LRR R MLRA 149B)		<input type="checkbox"/> Other (Explain in Remarks)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site: US 12 HMA Overlay (Des. 2000607) City/County: Michigan City/LaPorte Sampling Date: 5/11/2022
 Applicant/Owner: INDOT State: IN Sampling Point: D1
 Investigator(s): Zachary Root Section, Township, Range: S 13, T 38 N, R 4 W
 Landform (hillslope, terrace, etc.): Toe of Slope Local relief (concave, convex, none): Concave Slope (%): 0
 Subregion (LRR or MLRA): LRR L Lat: 41.746069 Long: -86.825243 Datum: NAD83
 Soil Map Unit Name: Newton loamy fine sand (Nf) - Hydric (100%) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u> X</u>	No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			

Remarks:
 Wetland D (PEM1A) Sampling Point

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		
<u>X</u> Surface Water (A1)	<u> </u> Water-Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)
<u>X</u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Drainage Patterns (B10)
<u>X</u> Saturation (A3)	<u> </u> Marl Deposits (B15)	<u> </u> Moss Trim Lines (B16)
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	<u> </u> Crayfish Burrows (C8)
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soils (C6)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Other (Explain in Remarks)	<u> </u> Shallow Aquitard (D3)
<u> </u> Sparsely Vegetated Concave Surface (B8)		<u> </u> Microtopographix Relief (D4)
		<u>X</u> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes <u>X</u>	No <u> </u>	Depth (inches): <u>2</u>
Water Table Present?	Yes <u>X</u>	No <u> </u>	Depth (inches): <u>0</u>
Saturation Present?	Yes <u>X</u>	No <u> </u>	Depth (inches): <u>0</u>

(includes capillary fringe)

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Located at toe of slope with concave local relief (D2).

VEGETATION -- Use scientific names of plants.

Sampling Point: D1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																
Sapling/Shrub Stratum (Plot size: 15' radius)				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>30%</u></td> <td>x1 = <u>0.3</u></td> </tr> <tr> <td>FACW species <u>40%</u></td> <td>x2 = <u>0.8</u></td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: <u>70%</u> (A)</td> <td><u>1.1</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>1.57</u>	Total % Cover of:	Multiply by:	OBL species <u>30%</u>	x1 = <u>0.3</u>	FACW species <u>40%</u>	x2 = <u>0.8</u>	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: <u>70%</u> (A)	<u>1.1</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>30%</u>	x1 = <u>0.3</u>																	
FACW species <u>40%</u>	x2 = <u>0.8</u>																	
FAC species _____	x3 = _____																	
FACU species _____	x4 = _____																	
UPL species _____	x5 = _____																	
Column Totals: <u>70%</u> (A)	<u>1.1</u> (B)																	
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																
Herb Stratum (Plot size: 5' radius)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1-Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2-Dominance Test is >50% <input checked="" type="checkbox"/> 3-Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4-Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <i>Phalaris arundinacea</i>	<u>40%</u>	<u>Yes</u>	<u>FACW</u>															
2. <i>Typha X glauca</i>	<u>30%</u>	<u>Yes</u>	<u>OBL</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
50% of total cover: <u>35%</u>	<u>70%</u> = Total Cover	20% of total cover: <u>14%</u>																
Woody Vine Stratum (Plot size: 30' radius)				Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/shrub - Woody plants less than 3 in DBH and greater than or equal to 3.28 (1M) tall Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall Woody vines - All woody vines greater than 3.28 ft in height														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: D1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 3/1	95	10YR 3/2	5	C	PL, M	SiL	Faint Redox Concentrations
6-20	10YR 3/2	75	10YR 3/1	20	C	PL, M	SiL	Faint Redox Concentrations
			5YR 3/4	5	C	M	SiL	Prominent Redox Concentration
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators:			Indicators for Problematic Hydric Soils ³ :					
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)			<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/>			<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)			<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)			<input type="checkbox"/> Dark Surface (S7) (LRR K, L)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)		
<input type="checkbox"/> Thick Dark Surface (A12)			<input checked="" type="checkbox"/> X Redox Dark Surface (F6)			<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)			<input type="checkbox"/> Depleted Dark Surface (F7)			<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
<input type="checkbox"/> Sandy Redox (S5)						<input type="checkbox"/> Red Parent Material (F21)		
<input type="checkbox"/> Stripped Matrix (S6)						<input type="checkbox"/> Very Shallow Dark Surface (TF12)		
<input type="checkbox"/> Dark Surface (S7) (LRR R MLRA 149B)						<input type="checkbox"/> Other (Explain in Remarks)		
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic								
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____			Hydric Soil Present?			Yes	X	No _____
Remarks: 								

WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site: US 12 HMA Overlay (Des. 2000607) City/County: Michigan City/LaPorte Sampling Date: 5/11/2022
 Applicant/Owner: INDOT State: IN Sampling Point: D2
 Investigator(s): Zachary Root Section, Township, Range: S 13, T 38 N, R 4 W
 Landform (hillslope, terrace, etc.): Top of Slope Local relief (concave, convex, none): None Slope (%): 0
 Subregion (LRR or MLRA): LRR L Lat: 41.746041 Long: -86.825303 Datum: NAD83
 Soil Map Unit Name: Newton loamy fine sand (Nf) - Hydric (100%) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>		
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>		

Remarks:
 Wetland D Upland Sampling Point

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply) <u> </u> Surface Water (A1) <u> </u> Water-Stained Leaves (B9) <u> </u> High Water Table (A2) <u> </u> Aquatic Fauna (B13) <u> </u> Saturation (A3) <u> </u> Marl Deposits (B15) <u> </u> Water Marks (B1) <u> </u> Hydrogen Sulfide Odor (C1) <u> </u> Sediment Deposits (B2) <u> </u> Oxidized Rhizospheres on Living Roots (C3) <u> </u> Drift Deposits (B3) <u> </u> Presence of Reduced Iron (C4) <u> </u> Algal Mat or Crust (B4) <u> </u> Recent Iron Reduction in Tilled Soils (C6) <u> </u> Iron Deposits (B5) <u> </u> Thin Muck Surface (C7) <u> </u> Inundation Visible on Aerial Imagery (B7) <u> </u> Other (Explain in Remarks) <u> </u> Sparsely Vegetated Concave Surface (B8)	<u> </u> Surface Soil Cracks (B6) <u> </u> Drainage Patterns (B10) <u> </u> Moss Trim Lines (B16) <u> </u> Dry-Season Water Table (C2) <u> </u> Crayfish Burrows (C8) <u> </u> Saturation Visible on Aerial Imagery (C9) <u> </u> Stunted or Stressed Plants (D1) <u> </u> Geomorphic Position (D2) <u> </u> Shallow Aquitard (D3) <u> </u> Microtopographic Relief (D4) <u> </u> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u> </u> No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION -- Use scientific names of plants.

Sampling Point: D2

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																
Sapling/Shrub Stratum (Plot size: 15' radius)				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species <u>55%</u></td> <td>x4 = <u>2.2</u></td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: <u>55%</u> (A)</td> <td><u>2.2</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.00</u>	Total % Cover of:	Multiply by:	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species <u>55%</u>	x4 = <u>2.2</u>	UPL species _____	x5 = _____	Column Totals: <u>55%</u> (A)	<u>2.2</u> (B)
Total % Cover of:	Multiply by:																	
OBL species _____	x1 = _____																	
FACW species _____	x2 = _____																	
FAC species _____	x3 = _____																	
FACU species <u>55%</u>	x4 = <u>2.2</u>																	
UPL species _____	x5 = _____																	
Column Totals: <u>55%</u> (A)	<u>2.2</u> (B)																	
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																
Herb Stratum (Plot size: 5' radius)				Hydrophytic Vegetation Indicators: _____ 1-Rapid Test for Hydrophytic Vegetation _____ 2-Dominance Test is >50% _____ 3-Prevalence Index is ≤3.0 ¹ _____ 4-Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <i>Festuca rubra</i>	35%	Yes	FACU															
2. <i>Taraxacum officinale</i>	15%	Yes	FACU															
3. <i>Galium aparine</i>	5%	No	FACU															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
50% of total cover: <u>28%</u>	<u>55%</u> = Total Cover	20% of total cover: <u>11%</u>																
Woody Vine Stratum (Plot size: 30' radius)				Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/shrub - Woody plants less than 3 in DBH and greater than or equal to 3.28 (1M) tall Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall Woody vines - All woody vines greater than 3.28 ft in height														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: D2

[illegible]

Project/Site:	US 12 HMA Overlay (Des. 2000607)		City/County:	Michigan City/LaPorte		Sampling Date:	5/11/2022				
Applicant/Owner:	INDOT			State:	IN		Sampling Point:	E1			
Investigator(s):	Zachary Root			Section, Township, Range: S 13, T 38 N, R 4 W							
Landform (hillslope, terrace, etc.):	Toe of Slope		Local relief (concave, convex, none):		Concave		Slope (%):		0		
Subregion (LRR or MLRA):	LRR L		Lat:	41.745894		Long:	-86.825009		Datum:	NAD83	
Soil Map Unit Name:	Newton loamy fine sand (Nf) - Hydric (100%)					NW1 classification:		None			

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u> X </u> No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No _____		
Wetland Hydrology Present?	Yes <u>X</u>	No _____		

HYDROLOGY

Secondary Indicators (minimum of two required)

Primary Indicators (minimum of one is required: check all that apply)			Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> X	Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> X	High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" type="checkbox"/> X	Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/>	Sediment Deposits (B2)	<input checked="" type="checkbox"/> X Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> X Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographix Relief (D4)
<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)		<input checked="" type="checkbox"/> X FAC-Neutral Test (D5)

Surface Water Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>0.5</u>
Water Table Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>0</u>
Saturation Present?	Yes	<u>X</u>	No	_____	Depth (inches):	<u>0</u>
(includes capillary fringe)						

Wetland Hydrology Present? Yes X No

Remarks: Located at toe of slope with concave local relief (D2).

VEGETATION -- Use scientific names of plants.

Sampling Point: E1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	<u>20%</u> of total cover: <u>0%</u>																
Sapling/Shrub Stratum (Plot size: 15' radius)				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species <u>35%</u></td> <td>x2 = <u>0.7</u></td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species <u>5%</u></td> <td>x4 = <u>0.2</u></td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: <u>40%</u> (A)</td> <td><u>0.9</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.25</u>	Total % Cover of:	Multiply by:	OBL species _____	x1 = _____	FACW species <u>35%</u>	x2 = <u>0.7</u>	FAC species _____	x3 = _____	FACU species <u>5%</u>	x4 = <u>0.2</u>	UPL species _____	x5 = _____	Column Totals: <u>40%</u> (A)	<u>0.9</u> (B)
Total % Cover of:	Multiply by:																	
OBL species _____	x1 = _____																	
FACW species <u>35%</u>	x2 = <u>0.7</u>																	
FAC species _____	x3 = _____																	
FACU species <u>5%</u>	x4 = <u>0.2</u>																	
UPL species _____	x5 = _____																	
Column Totals: <u>40%</u> (A)	<u>0.9</u> (B)																	
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	<u>20%</u> of total cover: <u>0%</u>																
Herb Stratum (Plot size: 5' radius)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1-Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2-Dominance Test is >50% <input checked="" type="checkbox"/> 3-Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4-Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <i>Phalaris arundinacea</i>	35%	Yes	FACW															
2. <i>Cirsium arvense</i>	5%	No	FACU															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
50% of total cover: <u>20%</u>	<u>40%</u> = Total Cover	<u>20%</u> of total cover: <u>8%</u>																
Woody Vine Stratum (Plot size: 30' radius)				Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/shrub - Woody plants less than 3 in DBH and greater than or equal to 3.28 (1M) tall Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall Woody vines - All woody vines greater than 3.28 ft in height														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	<u>20%</u> of total cover: <u>0%</u>																

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: E1

[illegible]

WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site: US 12 HMA Overlay (Des. 2000607) City/County: Michigan City/LaPorte Sampling Date: 5/11/2022
 Applicant/Owner: INDOT State: IN Sampling Point: E2
 Investigator(s): Zachary Root Section, Township, Range: S 13, T 38 N, R 4 W
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 1
 Subregion (LRR or MLRA): LRR L Lat: 41.745878 Long: -86.824986 Datum: NAD83
 Soil Map Unit Name: Newton loamy fine sand (Nf) - Hydric (100%) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>		
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>		

Remarks:
 Wetland E Upland Sampling Point

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply) <u> </u> Surface Water (A1) <u> </u> Water-Stained Leaves (B9) <u> </u> High Water Table (A2) <u> </u> Aquatic Fauna (B13) <u> </u> Saturation (A3) <u> </u> Marl Deposits (B15) <u> </u> Water Marks (B1) <u> </u> Hydrogen Sulfide Odor (C1) <u> </u> Sediment Deposits (B2) <u> </u> Oxidized Rhizospheres on Living Roots (C3) <u> </u> Drift Deposits (B3) <u> </u> Presence of Reduced Iron (C4) <u> </u> Algal Mat or Crust (B4) <u> </u> Recent Iron Reduction in Tilled Soils (C6) <u> </u> Iron Deposits (B5) <u> </u> Thin Muck Surface (C7) <u> </u> Inundation Visible on Aerial Imagery (B7) <u> </u> Other (Explain in Remarks) <u> </u> Sparsely Vegetated Concave Surface (B8)	<u> </u> Surface Soil Cracks (B6) <u> </u> Drainage Patterns (B10) <u> </u> Moss Trim Lines (B16) <u> </u> Dry-Season Water Table (C2) <u> </u> Crayfish Burrows (C8) <u> </u> Saturation Visible on Aerial Imagery (C9) <u> </u> Stunted or Stressed Plants (D1) <u> </u> Geomorphic Position (D2) <u> </u> Shallow Aquitard (D3) <u> </u> Microtopographic Relief (D4) <u> </u> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u> </u> No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION -- Use scientific names of plants.

Sampling Point: E2

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: 30' radius)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
50% of total cover: 0%		0% = Total Cover		
20% of total cover: 0%				
Sapling/Shrub Stratum (Plot size: 15' radius)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
50% of total cover: 0%		0% = Total Cover		
20% of total cover: 0%				
Herb Stratum (Plot size: 5' radius)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
50% of total cover: 33%		65% = Total Cover		
20% of total cover: 13%				
Woody Vine Stratum (Plot size: 30' radius)				
1.				
2.				
3.				
4.				
50% of total cover: 0%		0% = Total Cover		
20% of total cover: 0%				
Dominance Test worksheet:				
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)				
Total Number of Dominant Species Across All Strata: 4 (B)				
Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B)				
Prevalence Index worksheet:				
Total % Cover of:		Multiply by:		
OBL species		x1 =		
FACW species	10%	x2 =	0.2	
FAC species		x3 =		
FACU species	55%	x4 =	2.2	
UPL species		x5 =		
Column Totals:	65% (A)		2.4 (B)	
Prevalence Index = B/A = 3.69				
Hydrophytic Vegetation Indicators:				
1-Rapid Test for Hydrophytic Vegetation				
2-Dominance Test is >50%				
3-Prevalence Index is ≤3.0 ¹				
4-Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)				
Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Definitions of Vegetation Strata:				
Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height				
Sapling/shrub - Woody plants less than 3 in DBH and greater than or equal to 3.28 (1M) tall				
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall				
Woody vines - All woody vines greater than 3.28 ft in height				
Hydrophytic Vegetation Present? Yes _____ No <u>X</u> _____				

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: E2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features					
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-11	10YR 2/1	100					SiL	
11-16	10YR 3/6	100					SiL	
16-20	10YR 2/1	100					SiL	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.								
Hydric Soil Indicators:								
			Indicators for Problematic Hydric Soils³:					
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)				
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/>	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)				
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)				
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)				
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)				
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)			<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
<input type="checkbox"/> Sandy Redox (S5)				<input type="checkbox"/> Red Parent Material (F21)				
<input type="checkbox"/> Stripped Matrix (S6)				<input type="checkbox"/> Very Shallow Dark Surface (TF12)				
<input type="checkbox"/> Dark Surface (S7) (LRR R MLRA 149B)				<input type="checkbox"/> Other (Explain in Remarks)				
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic								
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____								
Hydric Soil Present? Yes _____ No _____ X _____								
Remarks: 								

WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site: US 12 HMA Overlay (Des. 2000607) City/County: Michigan City/LaPorte Sampling Date: 5/11/2022
 Applicant/Owner: INDOT State: IN Sampling Point: F1
 Investigator(s): Zachary Root Section, Township, Range: S 13, T 38 N, R 4 W
 Landform (hillslope, terrace, etc.): Toe of Slope Local relief (concave, convex, none): Concave Slope (%): 0
 Subregion (LRR or MLRA): LRR L Lat: 41.746854 Long: -86.82347 Datum: NAD83
 Soil Map Unit Name: Newton loamy fine sand (Nf) - Hydric (100%) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u> X</u> No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>		
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>		

Remarks:
 WetlandF (PEM1A) Sampling Point

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographix Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>2</u> Water Table Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION -- Use scientific names of plants.

Sampling Point: F1

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: 30' radius)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																		
Sapling/Shrub Stratum (Plot size: 15' radius)				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>45%</u></td> <td>x1 = <u>0.45</u></td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species <u>15%</u></td> <td>x3 = <u>0.45</u></td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: <u>60%</u> (A)</td> <td><u>0.9</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>1.50</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>45%</u>	x1 = <u>0.45</u>	FACW species _____	x2 = _____	FAC species <u>15%</u>	x3 = <u>0.45</u>	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: <u>60%</u> (A)	<u>0.9</u> (B)	Prevalence Index = B/A = <u>1.50</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>45%</u>	x1 = <u>0.45</u>																			
FACW species _____	x2 = _____																			
FAC species <u>15%</u>	x3 = <u>0.45</u>																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: <u>60%</u> (A)	<u>0.9</u> (B)																			
Prevalence Index = B/A = <u>1.50</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																		
Herb Stratum (Plot size: 5' radius)				Hydrophytic Vegetation Indicators: <u> </u> 1-Rapid Test for Hydrophytic Vegetation <u> X </u> 2-Dominance Test is >50% <u> X </u> 3-Prevalence Index is ≤3.0 ¹ <u> </u> 4-Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <i>Typha X glauca</i>	<u>30%</u>	<u>Yes</u>	<u>OBL</u>																	
2. <i>Juncus effusus</i>	<u>15%</u>	<u>Yes</u>	<u>OBL</u>																	
3. <i>Juncus tenuis</i>	<u>15%</u>	<u>Yes</u>	<u>FAC</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
50% of total cover: <u>30%</u>	<u>60%</u> = Total Cover	20% of total cover: <u>12%</u>																		
Woody Vine Stratum (Plot size: 30' radius)				Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/shrub - Woody plants less than 3 in DBH and greater than or equal to 3.28 (1M) tall Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall Woody vines - All woody vines greater than 3.28 ft in height Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																		

Remarks: (Include photo numbers here or on a separate sheet.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 2/1	100					SiL	
3-9	10YR 3/1	70	10YR 3/3	30	C	M	SiL	Distinct Redox Concentrations
9-13	10YR 3/1	70	7.5YR 2.5/3	30	C	M	SiL	Distinct Redox Concentrations
13-20	10YR 2/1	100					SiL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) (LRR R MLRA 149B)

☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
☐ Loamy Mucky Mineral (F1) (LRR K, L)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☒ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Polyvalue Below Surface (S8) (LRR K, L)
☐ Thin Dark Surface (S9) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site: US 12 HMA Overlay (Des. 2000607) City/County: Michigan City/LaPorte Sampling Date: 5/11/2022
 Applicant/Owner: INDOT State: IN Sampling Point: F2
 Investigator(s): Zachary Root Section, Township, Range: S 13, T 38 N, R 4 W
 Landform (hillslope, terrace, etc.): Top of Slope Local relief (concave, convex, none): None Slope (%): 0
 Subregion (LRR or MLRA): LRR L Lat: 41.746849 Long: -86.823429 Datum: NAD83
 Soil Map Unit Name: Newton loamy fine sand (Nf) - Hydric (100%) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>		
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>		

Remarks:
 Wetland F Upland Sampling Point

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply) <u> </u> Surface Water (A1) <u> </u> Water-Stained Leaves (B9) <u> </u> High Water Table (A2) <u> </u> Aquatic Fauna (B13) <u> </u> Saturation (A3) <u> </u> Marl Deposits (B15) <u> </u> Water Marks (B1) <u> </u> Hydrogen Sulfide Odor (C1) <u> </u> Sediment Deposits (B2) <u> </u> Oxidized Rhizospheres on Living Roots (C3) <u> </u> Drift Deposits (B3) <u> </u> Presence of Reduced Iron (C4) <u> </u> Algal Mat or Crust (B4) <u> </u> Recent Iron Reduction in Tilled Soils (C6) <u> </u> Iron Deposits (B5) <u> </u> Thin Muck Surface (C7) <u> </u> Inundation Visible on Aerial Imagery (B7) <u> </u> Other (Explain in Remarks) <u> </u> Sparsely Vegetated Concave Surface (B8)	<u> </u> Surface Soil Cracks (B6) <u> </u> Drainage Patterns (B10) <u> </u> Moss Trim Lines (B16) <u> </u> Dry-Season Water Table (C2) <u> </u> Crayfish Burrows (C8) <u> </u> Saturation Visible on Aerial Imagery (C9) <u> </u> Stunted or Stressed Plants (D1) <u> </u> Geomorphic Position (D2) <u> </u> Shallow Aquitard (D3) <u> </u> Microtopographic Relief (D4) <u> </u> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u> </u> No <u>X</u>
--	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION -- Use scientific names of plants.

Sampling Point: F2

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: 30' radius)																		
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																
Sapling/Shrub Stratum (Plot size: 15' radius)																		
1. _____	_____	_____	_____	Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species <u>50%</u></td> <td>x4 = <u>2</u></td> </tr> <tr> <td>UPL species <u>10%</u></td> <td>x5 = <u>0.5</u></td> </tr> <tr> <td>Column Totals: <u>60%</u> (A)</td> <td><u>2.5</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.17</u>	Total % Cover of:	Multiply by:	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species <u>50%</u>	x4 = <u>2</u>	UPL species <u>10%</u>	x5 = <u>0.5</u>	Column Totals: <u>60%</u> (A)	<u>2.5</u> (B)
Total % Cover of:	Multiply by:																	
OBL species _____	x1 = _____																	
FACW species _____	x2 = _____																	
FAC species _____	x3 = _____																	
FACU species <u>50%</u>	x4 = <u>2</u>																	
UPL species <u>10%</u>	x5 = <u>0.5</u>																	
Column Totals: <u>60%</u> (A)	<u>2.5</u> (B)																	
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																
Herb Stratum (Plot size: 5' radius)																		
1. <i>Festuca rubra</i>	50%	Yes	FACU	Hydrophytic Vegetation Indicators: _____ 1-Rapid Test for Hydrophytic Vegetation _____ 2-Dominance Test is >50% _____ 3-Prevalence Index is ≤3.0 ¹ _____ 4-Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <i>Lamium purpureum</i>	10%	No	UPL															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
50% of total cover: <u>30%</u>	<u>60%</u> = Total Cover	20% of total cover: <u>12%</u>																
Woody Vine Stratum (Plot size: 30' radius)																		
1. _____	_____	_____	_____	Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/shrub - Woody plants less than 3 in DBH and greater than or equal to 3.28 (1M) tall Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall Woody vines - All woody vines greater than 3.28 ft in height														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: F2

[illegible]

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: September 23, 2022

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:

April Pape
Metric Environmental, LLC
6958 Hillsdale Court
Indianapolis, IN 46250
317-608-2762
aprilp@metricenv.com

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The proposed project (Des. 2000607) includes HMA overlay, preventative maintenance activities, and replacement of several small culverts along U.S. 12 in Michigan and Springfield Townships, LaPorte County, Indiana. HMA overlay and preventative maintenance activities will be confined to the existing pavement. The IA was developed based on the proposed improvements including the replacement of the small structures. The investigated area (IA) is divided into 14 sections surrounding the small structures.

(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: IN County/parish/borough: LaPorte County City: Michigan City
Center coordinates of site (lat/long in degree decimal format):
Lat.: 41.70628°
Long: -86.92661°
Universal Transverse Mercator: 16 T 50615.86 E 4617168.27 N
Name of Nearest Waterbody: Kimball Ditch

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:

☐ Field Determination. Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH “MAY BE” SUBJECT TO REGULATORY JURISDICTION.

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource “may be” subject (i.e., Section 404 or Section 10/404)
Wetland A	41.744825	-86.827329	0.004 acres	Wetland	Section 404
Wetland B	41.745151	-86.827425	0.015 acres	Wetland	Section 404
Wetland C	41.745036	-86.826244	0.012 acres	Wetland	Section 404
Wetland D	41.746099	-86.825231	0.018 acres	Wetland	Section 404
Wetland E	41.745934	-86.824967	0.025 acres	Wetland	Section 404
Wetland F	41.746784	-86.823553	0.024 acres	Wetland	Section 404

- 1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
- 2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there "*may be*" waters of the U.S. and/or that there "*may be*" navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

- ☒ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
Map: Dated 5/17/2022, 5/23/2022
- ☒ Data sheets prepared/submitted by or on behalf of the PJD requestor.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report. Rationale: _____
- ☐ Data sheets prepared by the Corps: _____
- ☐ Corps navigable waters' study: _____
- ☐ U.S. Geological Survey Hydrologic Atlas: _____
☐ USGS NHD data.
☒ USGS 8- and 12-digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name: New Buffalo West & Michigan City West,
IN 7.5 min, 1996
- ☒ Natural Resources Conservation Service Soil Survey. Citation: SSURGO LaPorte County
- ☒ National wetlands inventory map(s). Cite name: http://www.fws.gov/wetlands/
- ☐ State/local wetland inventory map(s): _____
- ☒ FEMA/FIRM maps: Effective 2018
- ☐ 100-year Floodplain Elevation is: _____.(National Geodetic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): Indiana Aerial Photograph, 2018
- or ☒ Other (Name & Date): Site Photographs, 5/12/2022
- ☐ Previous determination(s). File no. and date of response letter: _____
- ☐ Other information (please specify): _____

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Signature and date of
Regulatory staff member
completing PJD

April Pape 9/23/2022

Signature and date of
person requesting PJD
(REQUIRED, unless obtaining
the signature is impracticable)¹

¹ Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

Joshua Long
2.9.2023

WATERS OF THE U.S. DETERMINATION REPORT
U.S. 12, 1.93 Miles West of U.S. 421
Small Structure Replacement
Porter and Laporte County, Indiana
Des. No. 2101096
Prepared By: Elijah Weber, Metric Environmental, LLC
February 1, 2023

NOTE:
Wetlands in this
report are
referred to as
A2 to D2

Date of Waters Field Investigation: October 6th 2022

Location:

12-Digit HUC Watershed: 040400010601, (Kintzele Ditch) (**Exhibit 1**)
Section 36, Township 38 North, Range 5 West; and Section 31, Township 38 North, Range 4 West
Michigan City West, IN 7.5 minute USGS Topographic Quadrangles (**Exhibit 2**)
Pine Township, Porter County, Indiana
Michigan Township, LaPorte County, Indiana
Latitude: 41.70466 Longitude: -86.93149

Project Description:

The proposed project (Des. 2101096) includes the removal and replacement of the existing small structure (CV 012-064-37.05) which carries U.S. 12 over UNT to Kintzele Ditch in Porter County and LaPorte County, Indiana. The existing structure is a 134 ft. long by 60 inch by 60-inch reinforced concrete box. The investigated area (IA) was developed based on the proposed improvements, including removing the existing structure and replacing it with a similar-sized concrete culvert. Riprap will likely be placed around the inlet and/or outlet of the structure for scour protection.

National Wetlands Inventory (NWI) Information:

Three mapped NWI polygons are located within the IA, listed in **Table 1** below. The NWI map is provided as **Exhibit 3**.

Des. No. 2101096
U.S. 12, 1.93 Miles West of U.S. 421
Small Structure Replacement
Porter and Laporte Counties, Indiana
Metric Project No. 22-0037-3



Table 1: NWI Summary Table

Symbol	Wetland Type	Location Within IA	Corresponding Feature
PSS1/EM1C	Palustrine, Scrub-Shrub, Broad-leaved Deciduous, Emergent, Persistent, Seasonally Flooded	Western	Wetland B
PSS1/EM1F	Palustrine, Scrub-Shrub, Broad-leaved Deciduous, Emergent, Persistent, Semipermanently Flooded	Northeastern	Wetland C
PEM1F	Palustrine, Emergent, Persistent, Semi Permanently Flooded	Northeastern	Wetland C

Soils:

According to the Natural Resources Conservation Service (NRCS) Soil Survey Geographic (SSURGO) Database for LaPorte and Porter County, Indiana, the IA contained 4 mapped soil units, listed in **Table 2** below. The NRCS soil survey map is provided as **Exhibit 3**.

Table 2: NRCS Soil Summary Table

Soil Unit Symbol	Soil Unit Name	Hydric Soil Category	SSURGO Hydric Rating
AbhAO	Adrian muck, drained, lake moderated warm, 0 to 1 percent slopes	Hydric	100% Hydric
Nf	Newton loamy fine sand	Hydric	100% Hydric
OaE	Oakville fine sand, 12 to 25 percent slopes	Non-Hydric	0% Hydric
OaE (Porter County)	Oakville fine sand, 18 to 40 percent slopes	Predominantly Non-Hydric	10% Hydric

FEMA Flood Insurance Rate Map (FIRM) and Indiana Department of Natural Resources (IDNR) Floodway:

One mapped floodplain is located within the IA. This floodplain was identified as Zone A, an area subject to inundation by the 1 percent annual chance of flood. This floodplain was associated with UNT to Kintzele Ditch and Wetland B. The FIRM map for this area is provided as **Exhibit 4**. According to the *IDNR Floodway Information Portal* on October 21, 2022, no Indiana DNR (IDNR) Floodway was present within the IA.

Karst Feature Information:

No mapped karst features were found within 0.5 mi. of the IA during the desktop review.

USGS National Hydrography Dataset (NHD) Information:

Four mapped NHD flowlines are located within the IA, listed by occurrence from west to east within the IA in **Table 3** below. The NHD map is provided in **Exhibit 4**.

Table 3: NHD Summary Table

Corresponding Feature	NHD Flowline Classification	Photo Nos.	USGS Blue-line
CV 1, CV 2, CV 3, Wetland B	Canal/Ditch (Code 33600)	6-8, 13-15, 17-19	Yes
Wetland C and D	Canal/Ditch (Code 33600)	27-28, 35, 42-43, 45, 47-48	No
Wetland C	Stream/River (Code 46000)	25	No
None	Stream/River (Code 46000)	45	No

Attached Documents:

Maps of the investigated area (**Exhibits 1-5**)

Photo Location Map (**Exhibit 5**)

Site Photographs

Wetland Determination Data Form(s)

Preliminary Jurisdictional Determination Form

Field Reconnaissance:

The wetland determination field visit was conducted on October 6, 2022, by Zachary Root, Lara Jones, and Elijah Weber of Metric Environmental, LLC. The IA consists of the area that has the potential to be impacted, based on the provided design scenario. This area was evaluated for the presence of wetlands and Waters of the United States. This investigation was conducted in accordance with the *1987 U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual* and the *January 2012 Northcentral and Northeast Regional Supplement (Version 2.0) Manual*.

A Location Map showing the investigated area location is provided as **Exhibit 1**. The proposed project is located in LaPorte and Porter County, Indiana, on U.S. 12 approximately 1.93 mi. west of U.S. 421. The IA extended along U.S. 12 for approximately 2,197 ft. and approximately 87 ft. from U.S. 12 centerline. An aerial map of sampling points and water features is provided as **Exhibit 5**. A photo location map is provided as **Exhibit 5** and site photographs are attached.

Des. No. 2101096

U.S. 12, 1.93 Miles West of U.S. 421

Small Structure Replacement

Porter and Laporte Counties, Indiana

Metric Project No. 22-0037-3



Streams:

No Streams were identified within the IA during the field reconnaissance.

Wetlands:

The site was investigated for evidence of hydrophytic vegetation, hydric soil, and wetland hydrology to determine if the project impacts wetlands and other Waters of U.S. The sampling point locations were chosen in possible wetland areas within the IA. The upland areas located within the IA consisted of surrounding wetland, right-of-way and deciduous forest. Upland areas where sampling points were not taken, were investigated and determined to be upland due to upward sloping topography or the presence of dominant upland vegetation. Dominant upland species observed within these upland areas included northern red oak (*Quercus rubra*, FACU), American hazelnut (*Corylus americana*, FACU) and red fescue (*Festuca rubra*, FACU). Eight sampling points were taken and are identified as A1, A2, B1, B2, C1, C2, D1 and D2. The sampling points, recorded on the USACE Wetland Determination Data Forms and shown on **Exhibit 5**, provided the following information (**Table 4**):

Table 4: Sampling Plot Data Summary Table

Plot #	Photo #s	Lat/Long	Hydrophytic Vegetation	Hydric Soils	Wetland Hydrology	Within Wetland
A1	12-14	41.704432 -86.932525	Yes	Yes	Yes	Yes, Wetland A
A2	16-18	41.70446 -86.932473	No	Yes	No	No
B1	29-31	41.704426 -86.932753	Yes	Yes	Yes	Yes, Wetland B
B2	32-34	41.704451 -86.932733	No	No	No	No
C1	36-38	41.704849 -86.931821	Yes	Yes	Yes	Yes, Wetland C
C2	39-41	41.704882 -86.931823	No	Yes	No	No
D1	46-48	41.705777 -86.929715	Yes	Yes	Yes	Yes, Wetland D
D2	49-51	41.705803 -86.929777	No	No	No	No

Four wetlands were observed within the IA. Descriptions of the wetlands are provided in **Table 5** below.

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Small Structure Replacement
Porter and Laporte Counties, Indiana
Metric Project No. 22-0037-3



Table 5: Wetland Summary Table

Wetland Name	Photo #s	Lat/Long	Cowardin Class	Total Area	Quality	Likely Water of the U.S.?
				ac.		
Wetland A	12-15	41.704419 -86.932519	PEM1A	0.003	Poor	Yes
Wetland B	10, 19-21, 29-31	41.703412 -86.932883	PEM1A	0.733	Excellent	Yes
Wetland C	24-28, 35- 38, 42-43	41.704632 -86.931116	PEM1A	2.252	Average	Yes
Wetland D	46-48	41.705798 -86.929578	PEM1A	0.029	Poor	Yes

Wetland A (0.003 ac.) – PEM1A

Wetland A was classified as a Palustrine, Emergent, Persistent, Temporarily Flooded (PEM1A) wetland. This wetland is located in a concave toe of slope in the median between U.S. 12 and Beverly Drive. The boundaries of Wetland A were delineated by lack of wetland vegetation and increased elevation. Due to its location within the toe of slope, Wetland A likely receives drainage on a consistent basis during rain events. The wetland was not associated with an NWI polygon and was formed within the Nf mapped soil unit, which is listed as 100 percent hydric. The wetland is located adjacent to U.S. 12 and likely receives run-off from the adjacent areas. The wetland exhibited poor plant species diversity. These factors contribute to the conclusion that Wetland A can support a limited amount of wildlife or aquatic habitat and therefore should be considered to be of poor quality. Based on topography, it can be deduced that water drains west via CV 2 into Wetland B, a jurisdictional Water of the U.S. Therefore, Wetland A should be considered a jurisdictional Water of the U.S.

Sampling Point A1 (A1) – Wetland A

A1 was located on a toe of slope, in the median between U.S. 12 and Beverly Drive. The dominant vegetation at this sampling point was lamp rush (*Juncus effusus*, OBL) and round head club rush (*Scirpoides holoschoenus*, OBL) in the herb stratum. This passed the hydrophytic vegetation indicators of rapid test for hydrophytic vegetation, dominance test, and prevalence index. The soil in the test pit met the hydric soil indicator of redox dark surface (F6). Indicators of wetland hydrology observed included oxidized rhizospheres on living roots (C3), geomorphic position (D2), and FAC-neutral test (D5). Since all three required wetland criteria were met, this area qualified as a wetland.

Sampling Point A2 (A2) – Wetland A Upland

A2 was located on the top of slope northeast of Wetland A. The dominant vegetation at this sampling point was Japanese bristle grass (*Setaria faberi*, FACU) and red fescue (*Festuca rubra*, FACU) in the herb stratum. This did not meet any of the hydrophytic vegetation indicators. The soil in the test pit met the hydric soil indicator for redox dark surface (F6). No indicators of wetland hydrology were observed. Since only one of the three required wetland criteria was met, this area did not qualify as a wetland.

Wetland B (0.733 ac.) – PEM1A

Wetland B was classified as a PEM1A wetland. This wetland is located within a depression west of U.S. 12 within National Park Service property. Approximately 0.733 ac. of Wetland B was contained within the IA and the wetland continued west beyond the IA. The boundaries of Wetland B were delineated by lack of wetland vegetation and increased elevation. Due to its location at the toe of a slope, Wetland B likely receives drainage on a consistent basis during rain events. The wetland was associated with a PSS1/EM1C NWI polygon and was formed within the Nf mapped soil unit, which is listed as 100 percent hydric. The wetland is located adjacent to U.S. 12 and likely receives run-off from the adjacent areas. The wetland exhibited good plant species diversity and extended over a large area beyond the IA. These factors contribute to the conclusion that the wetland can support a large amount of wildlife or aquatic habitat and therefore should be considered to be of excellent quality. Based on topography and Wetland B directly abutting UNT to Kintzele Ditch, it can be deduced that water drains north from Wetland B into Kintzele Ditch which contributes flow to Lake Michigan, a traditionally navigable waterway (TNW). Therefore, Wetland B should be considered a jurisdictional Water of the U.S.

Sampling Point B1 (B1) – Wetland B

B1 was located west of U.S. 12 within National Park Service property. The dominant vegetation at this sampling point was reed canary grass (*Phalaris arundinacea*, FACW) and arrow-leaf tearthumb (*Persicaria sagittata*, OBL) in the herb stratum. This passed the hydrophytic vegetation indicators of rapid test for hydrophytic vegetation, dominance test and prevalence index. The soil in the test pit met the hydric soil indicator of sandy mucky mineral (S1) and sandy redox (S5). Indicators of wetland hydrology observed included saturation (A3), oxidized rhizospheres on living roots (C3), Geomorphic position (D2), and FAC-neutral test (D5). Since all three required wetland criteria were met, this area qualified as a wetland.

Sampling Point B2 (B2) – Wetland B upland

B2 was located at the top of a slope northeast of Wetland B. The dominant vegetation at this sampling point was red fescue (*Festuca rubra*, FACU) in the herb stratum. This did not meet any of the hydrophytic vegetation indicators. The soil in the test pit did not meet

any hydric soil indicators. No indicators of wetland hydrology were observed. Since none of the three required wetland criteria were met, this area did not qualify as a wetland.

Wetland C (2.252 ac.) – PEM1A

Wetland C was classified as a PEM1A. This wetland is located within a depression east of U.S. 12. Approximately 2.252 ac. of Wetland C was contained within the IA and the wetland continued east beyond the IA. The boundaries of Wetland C were delineated by lack of wetland vegetation and increased elevation. The wetland was associated with a PSS1/EM1f NWI polygon and was formed within the Nf mapped soil unit, which is listed as 100 percent hydric. Due to its location within a depression, Wetland C likely receives flood waters and drainage on a consistent basis during rain events. The wetland is located adjacent to U.S. 12 and likely receives run-off from the adjacent areas. The wetland exhibited moderate plant species diversity and contained a dominant invasive species of common reed (*Phragmites australis*, FACW). These factors contribute to the conclusion that the wetland can support an average amount of wildlife or aquatic habitat, and therefore should be considered to be of average quality. Based on topography, it can be deduced that water drains west via CV 2 into Wetland B, a jurisdictional Water of the U.S. Therefore, Wetland C should be considered a jurisdictional Water of the U.S.

Sampling Point C1 (C1) – Wetland C

C1 was located at the toe of a concave slope east of U.S. 12. The dominant vegetation at this sampling point was common reed (*Phragmites australis*, FACW) and hybrid cat-tail (*Typha X glauca*, OBL) in the herb stratum. This passed the hydrophytic vegetation indicators of rapid test for hydrophytic vegetation, dominance test and prevalence index. The soils in the test pit met the hydric soil indicator of sandy mucky mineral (S1). Indicators of wetland hydrology observed included saturation (A3), hydrogen sulfide odor (C1), oxidized rhizospheres on living roots (C3), geomorphic position (D2), and FAC-neutral test (D5). Since all three required wetland criteria were met, this area qualified as a wetland.

Sampling Point C2 (C2) – Wetland C upland

C2 was located at the top of a hillslope northwest of Wetland C. The dominant vegetation at this sampling point was Kentucky blue grass (*Poa pratensis*, FAC) and Japanese bristle grass (*Setaria faberi*, FACU) in the herb stratum. This did not meet any of the hydrophytic vegetation indicators. The soil in the test pit met the hydric soil indicator of sandy redox (S5). No indicators of wetland hydrology were observed. Since only one of the three required wetland criteria was met, this area did not qualify as a wetland.

Wetland D (0.029 ac.) – PEM1A

Wetland D was classified as a PEM1A. This wetland is located in a concave depression north of U.S. 12. The boundaries of Wetland D were delineated by lack of wetland vegetation and increased elevation. Due to its location within the depression, Wetland D likely receives drainage on a consistent basis during rain events. The wetland was not associated with an NWI polygon and was formed within the OaE mapped soil unit, which is listed as 0 percent hydric. The wetland is located adjacent to U.S. 12 and likely receives run-off from the adjacent areas. The wetland exhibited poor plant species diversity and contained a dominant invasive species of reed canary grass (*Phalaris arundinacea*, FACW). These factors contribute to the conclusion that Wetland D can support a limited amount of wildlife or aquatic habitat and therefore should be considered to be of poor quality. Based on connection to an NHD line, it can be deduced that water drains south from Wetland D into Wetland C a jurisdictional Water of the U.S. Therefore, Wetland D should be considered a jurisdictional Water of the U.S.

Sampling Point D1 (D1) – Wetland D

D1 was located on a toe of slope north of U.S. 12. The dominant vegetation at this sampling point was reed canary grass (*Phalaris arundinacea*, FACW) in the herb stratum. This passed the hydrophytic vegetation indicators of rapid test for hydrophytic vegetation, dominance test, and prevalence index. The soil in the test pit met the hydric soil indicator of sandy redox (S5). Indicators of wetland hydrology observed included oxidized rhizospheres on living roots (C3), geomorphic position (D2), and FAC neutral test (D5). Since all three required wetland criteria were met, this area qualified as a wetland.

Sampling Point D2 (D2) – Wetland D Upland

D2 was located on a hillslope northwest of Wetland D. The dominant vegetation at this sampling point was northern red oak (*Quercus rubra*, FACU) in the tree stratum, American hazelnut (*Corylus americana*, FACU) in sapling/shrub stratum, common red raspberry (*Rubus idaeus*, FACU) and Asian bittersweet (*Celastrus orbiculatus*, UPL) in the herb stratum. This did not meet any of the hydrophytic vegetation indicators. The soil in the test pit did not meet any hydric soil indicators. No indicators of wetland hydrology were observed. Since none of the three required wetland criteria were met, this area did not qualify as a wetland.

Roadside Ditches:

No roadside ditches were identified within the IA during the field investigation

Culverts and Drains:

Three culverts were identified within the IA as shown in **Table 6**. The culverts were made of concrete. These culverts served to aid in roadside drainage and stormwater conveyance. The locations of these culverts are shown on **Exhibit 5** and attached photosheet.

Table 6: Culvert Summary Table

Culvert and Drain Number	Type	Purpose
CV1	Concrete	Equalizes roadside drainage under U.S. 12
CV2 (CV 012-064-37.05)	Concrete	Equalizes roadside drainage under U.S. 12
CV3	Concrete	Equalizes roadside drainage under U.S. 12




Conclusion:

Four PEM1A wetlands, totaling 3.017 ac., were identified within the IA during the field reconnaissance. These waterways are likely Waters of the U.S. Every effort should be taken to avoid and minimize impacts to the waterway and wetlands. If impacts are necessary, then mitigation may be required. The INDOT Environmental Services Division should be contacted immediately if impacts will occur. The final determination of jurisdictional waters is ultimately made by the U.S. Army Corps of Engineers. This report is our best judgment based on the guidelines set forth by the Corps.

Acknowledgements:

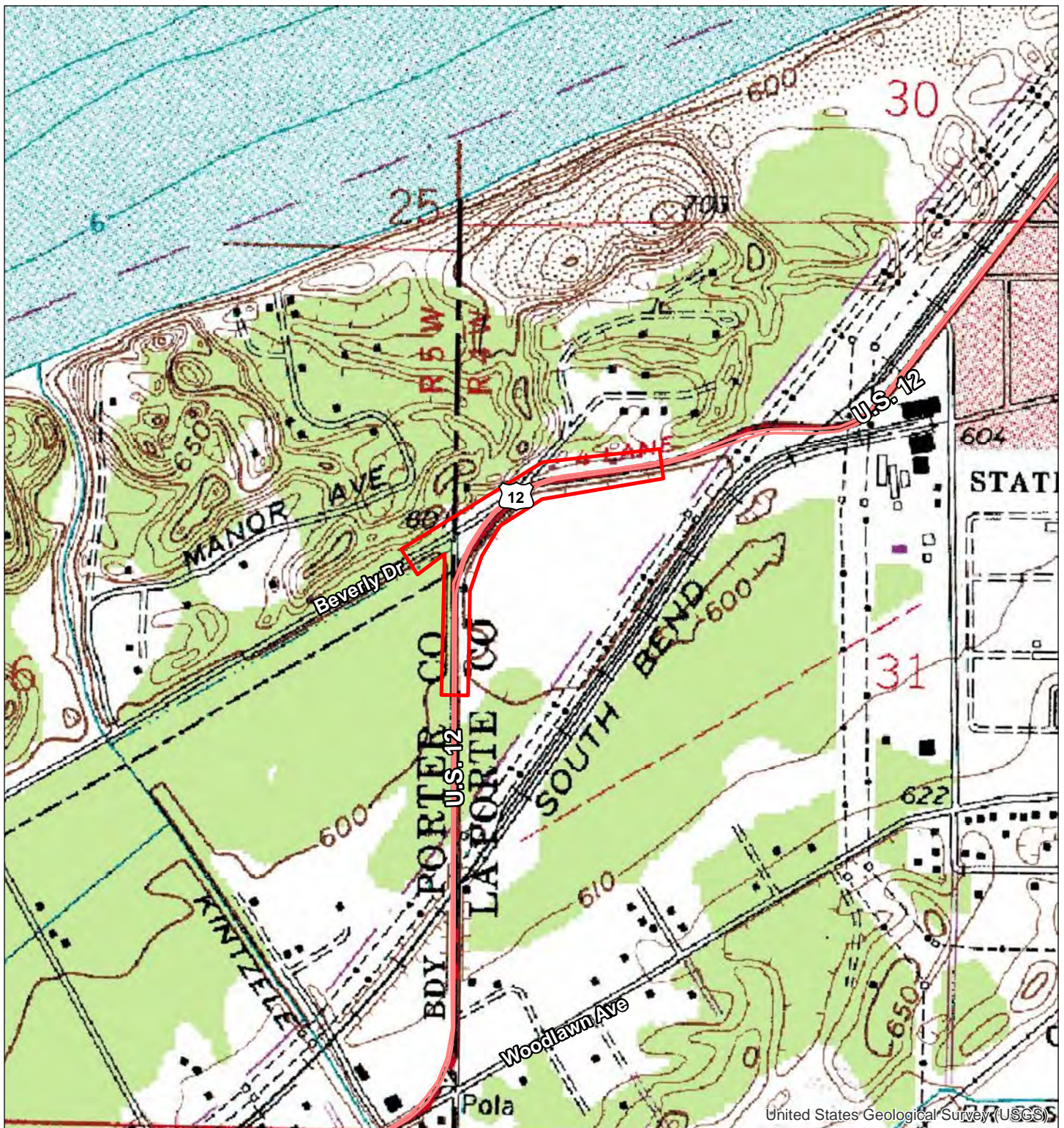
This waters determination has been prepared based on the best available information, interpreted in light of the investigator's training, experience and professional judgement in conformance with the 1987 *Corps of Engineers Wetlands Delineation Manual*, the appropriate regional supplement, the USACE *Jurisdictional Determination Form Instructional Guidebook*, and other appropriate agency guidelines. See **Table 7** for a list of the associated Metric investigators.

Table 7: Acknowledgement Summary Table

Metric Environmental Staff	Position	Contributing Effort	Signature/Date
Juliana Clayton	Project Scientist 1	QAQC	 2/1/23
Zachary Root	Project Scientist 1	Field Data Collection, QAQC	 2/1/23
Elijah Weber	Staff Scientist 1	Field Data Collection, Report Preparation	 2/1/23

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Investigated Area (IA)

Exhibit 2A - USGS Topographic Map - Small Scale
Michigan City West, IN 7.5 minute Quadrangle
U.S. 12, 1.93 Miles West of U.S. 421
Small Structure Replacement
Pine & Michigan Township, Porter & LaPorte County, IN
Des. No. 2101096
Metric Project No. 22-0037-3
Map Date: 11/22/22
Map Author: Elijah Weber

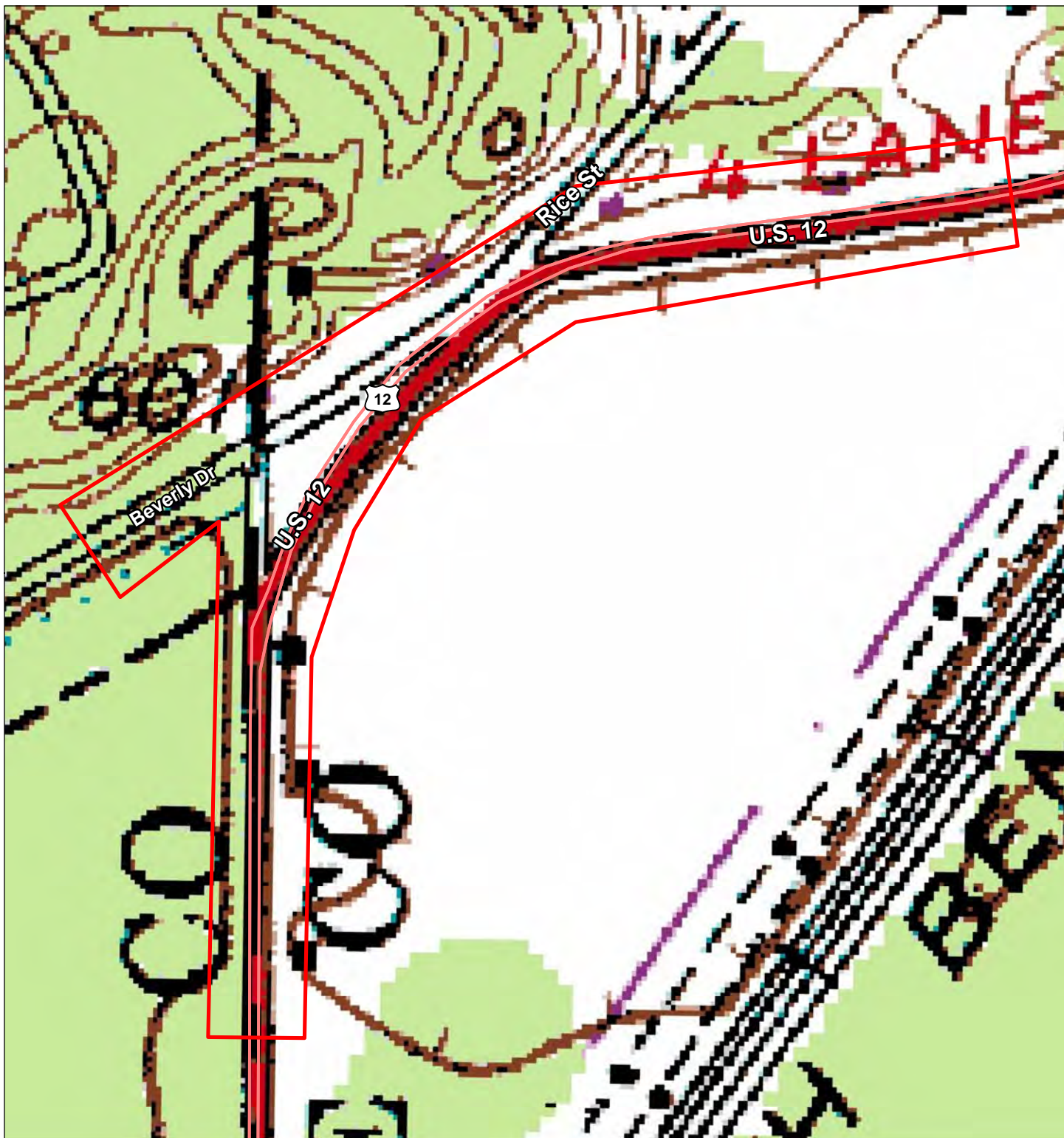
All locations approximate
Source: Indiana Spatial Data Portal (1983)



0 330 660 1,320
Feet



Exh. 2A





 Investigated Area (IA)

Exhibit 2B - USGS Topographic Map - Large Scale
Michigan City West, IN 7.5 minute Quadrangle
U.S. 12, 1.93 Miles West of U.S. 421
Small Structure Replacement
Pine & Michigan Township, Porter & LaPorte County, IN
Des. No. 2101096
Metric Project No. 22-0037-3
Map Date: 11/22/22
Map Author: Elijah Weber

All locations approximate
Source: Indiana Spatial Data Portal (1983)



0 90 180 360
Feet 

A horizontal scale bar with markings at 0, 90, 180, and 360 feet.



Exh. 2B



Symbol	Map Unit Name	Hydric Rating
AbhAO	Adrian muck, drained, lake moderated warm, 0 to 1 percent slopes	Hydric (100%)
Nf	Newton loamy fine sand	Hydric (100%)
OaE	Oakville fine sand, 12 to 25 percent slopes	Nonhydric (10%)

- LaPorte Soil Survey
 Investigated Area (IA)
- Porter Soil Survey
 NWI Wetlands

Exhibit 3 - NWI, and NRCS Soil Survey Map
 U.S. 12, 1.93 Miles West of U.S. 421
 Small Structure Replacement
 Pine & Michigan Township, Porter & LaPorte County, IN
 Des. No. 2101096
 Metric Project No. 22-0037-3
 Map Date: 11/22/22
 Map Author: Elijah Weber

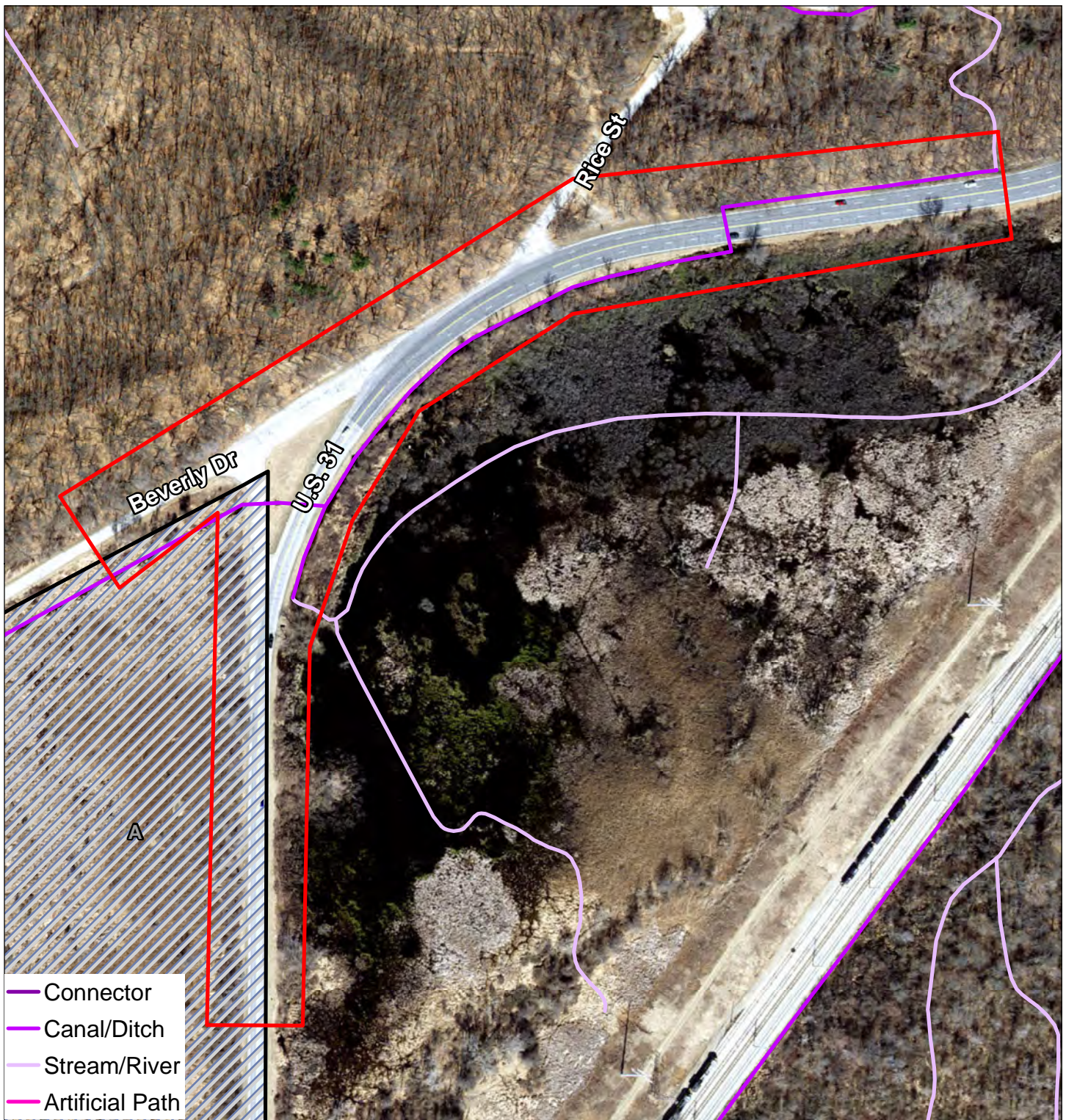
All locations approximate
 Source: Indiana Spatial Data Portal (2018)



0 100 200 400
 Feet



Exh. 3



FIRM



DNR Floodway LaPorte



DNR Approximate Floodway Porter



Investigated Area (IA)

Exhibit 4 - IDNR Floodway, FIRM, and NHD Map
 U.S. 12, 1.93 Miles West of U.S. 421
 Small Structure Replacement
 Pine & Michigan Township, Porter & LaPorte County, IN
 Des. No. 2101096
 Metric Project No. 22-0037-3
 Map Date: 11/22/22
 Map Author: Elijah Webe

All locations approximate

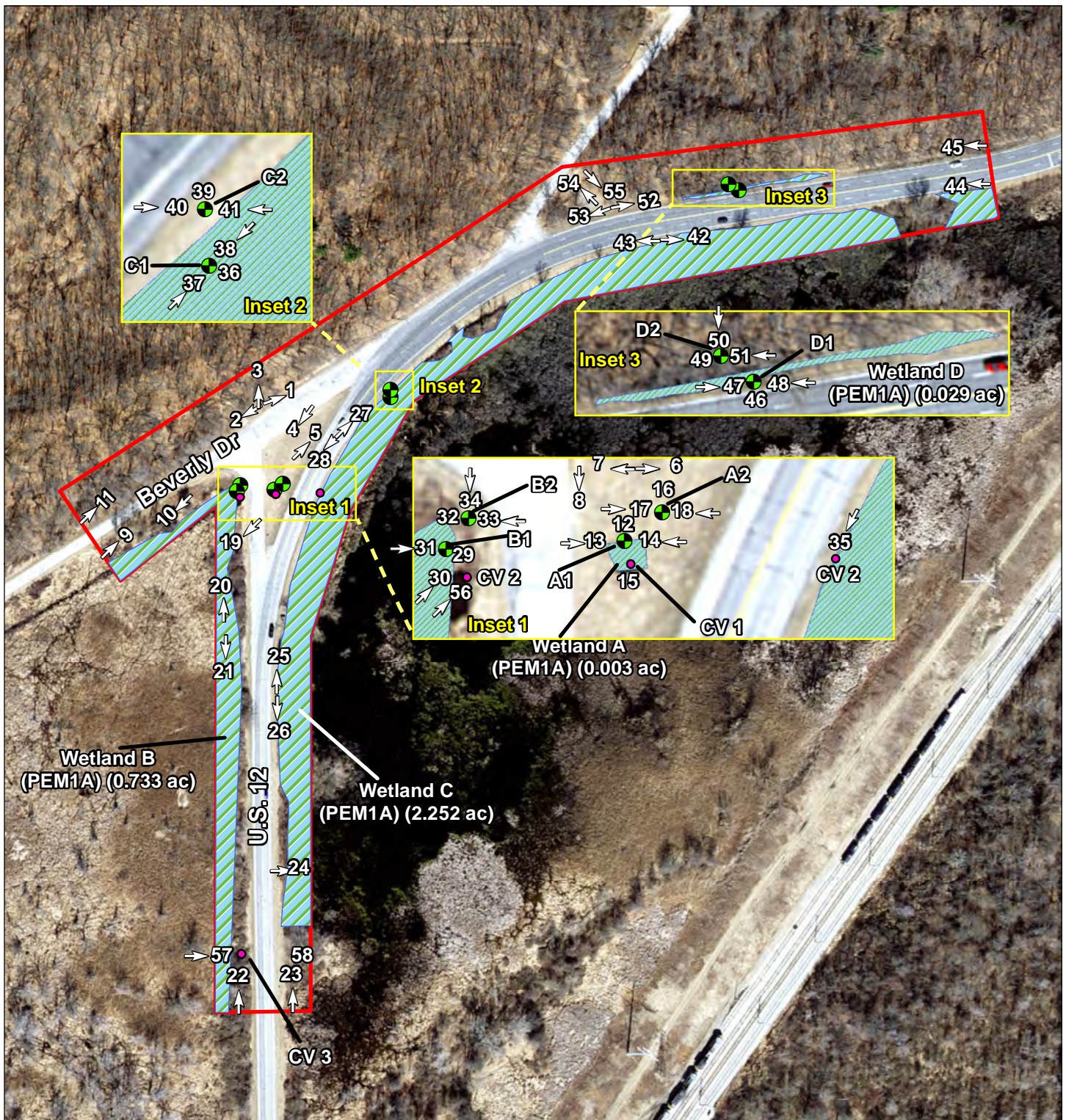
Source: Indiana Spatial Data Portal (2018)



0 95 190 380
 Feet



Exh. 4



- Culverts
- Wetland
- Investigated Area (IA)
- Sampling Point (SP)
- Roadside Ditch

Exhibit 5 - Waters Delineation Map
 U.S. 12, 1.93 Miles West of U.S. 421
 Small Structure Replacement
 Pine & Michigan Township, Porter & LaPorte County, IN
 Des. No. 2101096
 Metric Project No. 22-0037-3
 Map Date: 11/22/22
 Map Author: Elijah Webe

All locations approximate
 Source: Indiana Spatial Data Portal (2018)



0 95 190 380
 Feet



Exh. 5



1. View of ROW looking northeast.



2. View of ROW looking southwest.



3. View looking north toward IA limits.



4. View looking southwest.

SITE PHOTOGRAPHS—10/6/2022

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5. View looking northeast from median.



6. View looking east from median. (NHD Flowline unobserved)



7. View looking west from median. (NHD Flowline unobserved)



8. View looking south from median. (NHD Flowline unobserved)

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9. View looking east from southwestern edge of IA.



10. View looking southwest into Wetland B.



11. View looking east from southwestern edge of IA.



12. View of A1, Wetland A Upland Sampling Point.

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13. View of Wetland A and A1 looking east. (NHD Flowline unobserved)



14. View of Wetland A and A1 looking west. (NHD Flowline unobserved)



15. View of CV1 and Wetland A. (NHD Flowline unobserved)



16. View of A2, Wetland A Upland Sampling Point.

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17. View of A2 looking east. (NHD Flowline unobserved)



18. View of A2 looking west. (NHD Flowline unobserved)



19. View Wetland B looking southwest.



20. View of Wetland B from western limits looking north.

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21. View of Wetland B from western limits looking south.



22. View looking north from southern limits of IA.



23. View looking north from southern limits of IA.



24. View of Wetland C looking east.

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25. View of Wetland C looking north.



26. View of Wetland C looking south.



27. View of Wetland C looking northeast. (NHD Flowline unobserved)



28. View of Wetland C looking southwest. (NHD Flowline unobserved)

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29. View of B1, Wetland B Sampling Point.



30. View of B1 looking northeast.



31. View of B1 looking east.



32. View of B2, Wetland B Upland Sampling Point.

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33. View of B2 looking west.



34. View of B2 looking south.



35. View of CV 2 (CV 012-064-37.05) inlet and Wetland C looking southwest.



36. View of C1, Wetland C Sampling Point.

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37. View of Wetland C and C1 looking northeast.



38. View of Wetland C and C1 looking southwest.



39. View of C2, Wetland C Upland Sampling Point.



40. View of C2 looking east.

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U.S. 12, 1.93 Miles West of U.S. 421
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41. View of C2 looking west.



42. View of Wetland C looking east.



43. View of Wetland C looking west. (NHD Flowline unobserved)



44. View from eastern edge of limits looking west.

SITE PHOTOGRAPHS—10/6/2022

U.S. 12, 1.93 Miles West of U.S. 421
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45. View from eastern edge of limits looking west. (NHD Flowline unobserved)



46. View of D1, Wetland D Sampling Point.



47. View of Wetland D and D1 looking east. (NHD Flowline unobserved)



48. View of Wetland D and D1 looking west. (NHD Flowline unobserved)

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U.S. 12, 1.93 Miles West of U.S. 421
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49. View of D2, Wetland D Upland Sampling Point.



50. View of D2 looking south.



51. View of D2 looking west.



52. View of ROW looking northeast.

SITE PHOTOGRAPHS—10/6/2022

U.S. 12, 1.93 Miles West of U.S. 421
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53. View of ROW looking southwest.



54. View of upland area looking northwest.



55. View of upland area looking southeast.



56. View of CV 2 (CV 012-064-37.05) outlet and Wetland B looking northeast.

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U.S. 12, 1.93 Miles West of U.S. 421
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57. View of CV 3 outlet looking east.



58. View of CV 3 - inlet, buried. (Unobserved)

SITE PHOTOGRAPHS—10/6/2022

U.S. 12, 1.93 Miles West of U.S. 421
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Porter & LaPorte County, Indiana
Des. No. 2101096

WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site: Des. No. 2101096 City/County: LaPorte County Sampling Date: 10/6/2022
 Applicant/Owner: INDOT State: IN Sampling Point: A1
 Investigator(s): Zachary Root, Lara Jones, Elijah Weber Section, Township, Range: S 31, T 38 N, R 4 W
 Landform (hillslope, terrace, etc.): Toe of Slope Local relief (concave, convex, none): Concave Slope (%): 0
 Subregion (LRR or MLRA): LLR L Lat: 41.704432 Long: -86.932525 Datum: NAD 83
 Soil Map Unit Name: Nf (Newton loamy fine sand) 100% hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u> X</u> No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>		
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>		

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u> </u> Surface Water (A1)	<u> </u> Water-Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Marl Deposits (B15)	<u> </u> Moss Trim Lines (B16)
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Sediment Deposits (B2)	<u> X</u> Oxidized Rhizospheres on Living Roots (C3)	<u> </u> Crayfish Burrows (C8)
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soils (C6)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)	<u> X</u> Geomorphic Position (D2)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Other (Explain in Remarks)	<u> </u> Shallow Aquitard (D3)
<u> </u> Sparsely Vegetated Concave Surface (B8)		<u> </u> Microtopographix Relief (D4)
		<u> X</u> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes <u> </u>	No <u> X</u>	Depth (inches): <u> </u>	Wetland Hydrology Present? Yes <u> X</u> No <u> </u>
Water Table Present?	Yes <u> </u>	No <u> X</u>	Depth (inches): <u> </u>	
Saturation Present?	Yes <u> </u>	No <u> X</u>	Depth (inches): <u> </u>	
(includes capillary fringe)				

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Gemorphic position passed due to location at the toe of a concave slope.

VEGETATION -- Use scientific names of plants.

Sampling Point: A1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species Concave _____ 2 (A) Total Number of Dominant Species Across All Strata: _____ 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100% (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: _____ 0%	0% = Total Cover	20% of total cover: _____ 0%																
Sapling/Shrub Stratum (Plot size: 15' radius)				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 60%;">Total % Cover of:</th> <th style="width: 40%;">Multiply by:</th> </tr> <tr> <td>OBL species _____ 25%</td> <td>x1 = _____ 0.25</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ 25% (A)</td> <td>_____ 0.25 (B)</td> </tr> </table> Prevalence Index = B/A = _____ 1.00	Total % Cover of:	Multiply by:	OBL species _____ 25%	x1 = _____ 0.25	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ 25% (A)	_____ 0.25 (B)
Total % Cover of:	Multiply by:																	
OBL species _____ 25%	x1 = _____ 0.25																	
FACW species _____	x2 = _____																	
FAC species _____	x3 = _____																	
FACU species _____	x4 = _____																	
UPL species _____	x5 = _____																	
Column Totals: _____ 25% (A)	_____ 0.25 (B)																	
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
50% of total cover: _____ 0%	0% = Total Cover	20% of total cover: _____ 0%																
Herb Stratum (Plot size: 5' radius)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1-Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2-Dominance Test is >50% <input checked="" type="checkbox"/> 3-Prevalence Index is ≤3.0 ¹ _____ 4-Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <i>Juncus effusus</i>	20%	Yes	OBL															
2. <i>Scirpoides holoschoenus</i>	5%	Yes	OBL															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
50% of total cover: _____ 13%	25% = Total Cover	20% of total cover: _____ 5%																
Woody Vine Stratum (Plot size: 30' radius)				Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/shrub - Woody plants less than 3 in DBH and greater than or equal to 3.28 (1M) tall Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall Woody vines - All woody vines greater than 3.28 ft in height Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
50% of total cover: _____ 0%	0% = Total Cover	20% of total cover: _____ 0%																

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: A1

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Dark Surface (S7) (LRR R MLRA 149B)		<input type="checkbox"/> Other (Explain in Remarks)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
 Type: _____
 Depth (inches): _____

Remarks:

WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site: Des. No. 2101096 City/County: LaPorte County Sampling Date: 10/6/2022
 Applicant/Owner: INDOT State: IN Sampling Point: A2
 Investigator(s): Zachary Root, Lara Jones, Elijah Weber Section, Township, Range: S 31, T 38 N, R 4 W
 Landform (hillslope, terrace, etc.): Top of Slope Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR or MLRA): LLR L Lat: 41.70446 Long: -86.932473 Datum: NAD 83
 Soil Map Unit Name: Nf (Newton loamy fine sand) 100% hydric NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>		
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>		

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		
<u> </u> Surface Water (A1)	<u> </u> Water-Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Marl Deposits (B15)	<u> </u> Moss Trim Lines (B16)
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Sediment Deposits (B2)	<u> </u> Oxidized Rhizospheres on Living Roots (C3)	<u> </u> Crayfish Burrows (C8)
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soils (C6)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)	<u> </u> Geomorphic Position (D2)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Other (Explain in Remarks)	<u> </u> Shallow Aquitard (D3)
<u> </u> Sparsely Vegetated Concave Surface (B8)		<u> </u> Microtopographic Relief (D4)
		<u> </u> FAC-Neutral Test (D5)

Field Observations:				Wetland Hydrology Present? Yes <u> </u> No <u>X</u>
Surface Water Present?	Yes <u> </u>	No <u>X</u>	Depth (inches): <u> </u>	
Water Table Present?	Yes <u> </u>	No <u>X</u>	Depth (inches): <u> </u>	
Saturation Present?	Yes <u> </u>	No <u>X</u>	Depth (inches): <u> </u>	

(includes capillary fringe)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION -- Use scientific names of plants.

Sampling Point: A2

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																
Sapling/Shrub Stratum (Plot size: 15' radius)				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species <u>70%</u></td> <td>x4 = <u>2.8</u></td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: <u>70%</u> (A)</td> <td><u>2.8</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.00</u>	Total % Cover of:	Multiply by:	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species <u>70%</u>	x4 = <u>2.8</u>	UPL species _____	x5 = _____	Column Totals: <u>70%</u> (A)	<u>2.8</u> (B)
Total % Cover of:	Multiply by:																	
OBL species _____	x1 = _____																	
FACW species _____	x2 = _____																	
FAC species _____	x3 = _____																	
FACU species <u>70%</u>	x4 = <u>2.8</u>																	
UPL species _____	x5 = _____																	
Column Totals: <u>70%</u> (A)	<u>2.8</u> (B)																	
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																
Herb Stratum (Plot size: 5' radius)				Hydrophytic Vegetation Indicators: _____ 1-Rapid Test for Hydrophytic Vegetation _____ 2-Dominance Test is >50% _____ 3-Prevalence Index is ≤3.0 ¹ _____ 4-Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <i>Setaria faberi</i>	40%	Yes	FACU															
2. <i>Festuca rubra</i>	30%	Yes	FACU															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
50% of total cover: <u>35%</u>	<u>70%</u> = Total Cover	20% of total cover: <u>14%</u>																
Woody Vine Stratum (Plot size: 30' radius)				Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/shrub - Woody plants less than 3 in DBH and greater than or equal to 3.28 (1M) tall Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall Woody vines - All woody vines greater than 3.28 ft in height														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: A2

[illegible]

WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site: Des. No. 2101096 City/County: Porter County Sampling Date: 10/6/2022
 Applicant/Owner: INDOT State: IN Sampling Point: B1
 Investigator(s): Zachary Root, Lara Jones, Elijah Weber Section, Township, Range: S 36, T 38 N, R 5 W
 Landform (hillslope, terrace, etc.): Toe of slope Local relief (concave, convex, none): Concave Slope (%): 0
 Subregion (LRR or MLRA): LRR L Lat: 41.704426 Long: -86.932753 Datum: NAD 83
 Soil Map Unit Name: Nf (Newton loamy fine sand) 100% hydric NWI classification: PSS1/EM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>		
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>		

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		
<u> </u> Surface Water (A1)	<u> </u> Water-Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Drainage Patterns (B10)
<u>X</u> Saturation (A3)	<u> </u> Marl Deposits (B15)	<u> </u> Moss Trim Lines (B16)
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	<u> </u> Crayfish Burrows (C8)
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soils (C6)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)	<u>X</u> Geomorphic Position (D2)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Other (Explain in Remarks)	<u> </u> Shallow Aquitard (D3)
<u> </u> Sparsely Vegetated Concave Surface (B8)		<u> </u> Microtopographic Relief (D4)
		<u>X</u> FAC-Neutral Test (D5)

Field Observations:			Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
Surface Water Present?	Yes <u> </u> No <u>X</u>	Depth (inches): <u> </u>	
Water Table Present?	Yes <u> </u> No <u>X</u>	Depth (inches): <u> </u>	
Saturation Present?	Yes <u>X</u> No <u> </u>	Depth (inches): <u>0</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Geomorphic position passed due to location at the toe of a concave slope.

VEGETATION -- Use scientific names of plants.

Sampling Point: B1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>		20% of total cover: <u>0%</u>																
Sapling/Shrub Stratum (Plot size: 15' radius)				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>50%</u></td> <td>x1 = <u>0.5</u></td> </tr> <tr> <td>FACW species <u>40%</u></td> <td>x2 = <u>0.8</u></td> </tr> <tr> <td>FAC species <u>5%</u></td> <td>x3 = <u>0.15</u></td> </tr> <tr> <td>FACU species <u>5%</u></td> <td>x4 = <u>0.2</u></td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: <u>100%</u> (A)</td> <td><u>1.65</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>1.65</u>	Total % Cover of:	Multiply by:	OBL species <u>50%</u>	x1 = <u>0.5</u>	FACW species <u>40%</u>	x2 = <u>0.8</u>	FAC species <u>5%</u>	x3 = <u>0.15</u>	FACU species <u>5%</u>	x4 = <u>0.2</u>	UPL species _____	x5 = _____	Column Totals: <u>100%</u> (A)	<u>1.65</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>50%</u>	x1 = <u>0.5</u>																	
FACW species <u>40%</u>	x2 = <u>0.8</u>																	
FAC species <u>5%</u>	x3 = <u>0.15</u>																	
FACU species <u>5%</u>	x4 = <u>0.2</u>																	
UPL species _____	x5 = _____																	
Column Totals: <u>100%</u> (A)	<u>1.65</u> (B)																	
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
50% of total cover: <u>0%</u>		20% of total cover: <u>0%</u>																
Herb Stratum (Plot size: 5' radius)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1-Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2-Dominance Test is >50% <input checked="" type="checkbox"/> 3-Prevalence Index is ≤3.0 ¹ _____ 4-Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <i>Phalaris arundinacea</i>	<u>40%</u>	<u>Yes</u>	<u>FACW</u>															
2. <i>Persicaria sagittata</i>	<u>40%</u>	<u>Yes</u>	<u>OBL</u>															
3. <i>Scirpoides holoschoenus</i>	<u>10%</u>	<u>No</u>	<u>OBL</u>															
4. <i>Rubus idaeus</i>	<u>5%</u>	<u>No</u>	<u>FACU</u>															
5. <i>Apocynum cannabinum</i>	<u>5%</u>	<u>No</u>	<u>FAC</u>															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
50% of total cover: <u>50%</u>		20% of total cover: <u>20%</u>																
Woody Vine Stratum (Plot size: 30' radius)				Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/shrub - Woody plants less than 3 in DBH and greater than or equal to 3.28 (1M) tall Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall Woody vines - All woody vines greater than 3.28 ft in height														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
50% of total cover: <u>0%</u>		20% of total cover: <u>0%</u>																
Remarks:				Hydrophytic Vegetation Present? Yes <u>X</u> No _____														

SOIL

Sampling Point: B1

[illegible]

WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site: Des. No. 2101096 City/County: Porter County Sampling Date: 10/6/2022
 Applicant/Owner: INDOT State: IN Sampling Point: B2
 Investigator(s): Zachary Root, Lara Jones, Elijah Weber Section, Township, Range: S 36, T 38 N, R 5 W
 Landform (hillslope, terrace, etc.): Top of Slope Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR or MLRA): LRR L Lat: 41.704451 Long: -86.932733 Datum: NAD 83
 Soil Map Unit Name: Nf (Newton loamy fine sand) 100% hydric NWI classification: PSS1/EM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>		
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>		

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply) <u> </u> Surface Water (A1) <u> </u> Water-Stained Leaves (B9) <u> </u> High Water Table (A2) <u> </u> Aquatic Fauna (B13) <u> </u> Saturation (A3) <u> </u> Marl Deposits (B15) <u> </u> Water Marks (B1) <u> </u> Hydrogen Sulfide Odor (C1) <u> </u> Sediment Deposits (B2) <u> </u> Oxidized Rhizospheres on Living Roots (C3) <u> </u> Drift Deposits (B3) <u> </u> Presence of Reduced Iron (C4) <u> </u> Algal Mat or Crust (B4) <u> </u> Recent Iron Reduction in Tilled Soils (C6) <u> </u> Iron Deposits (B5) <u> </u> Thin Muck Surface (C7) <u> </u> Inundation Visible on Aerial Imagery (B7) <u> </u> Other (Explain in Remarks) <u> </u> Sparsely Vegetated Concave Surface (B8)	<u> </u> Surface Soil Cracks (B6) <u> </u> Drainage Patterns (B10) <u> </u> Moss Trim Lines (B16) <u> </u> Dry-Season Water Table (C2) <u> </u> Crayfish Burrows (C8) <u> </u> Saturation Visible on Aerial Imagery (C9) <u> </u> Stunted or Stressed Plants (D1) <u> </u> Geomorphic Position (D2) <u> </u> Shallow Aquitard (D3) <u> </u> Microtopographix Relief (D4) <u> </u> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u> </u> No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION -- Use scientific names of plants.

Sampling Point: B2

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																
Sapling/Shrub Stratum (Plot size: 15' radius)				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species <u>55%</u></td> <td>x4 = <u>2.2</u></td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: <u>55%</u> (A)</td> <td><u>2.2</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.00</u>	Total % Cover of:	Multiply by:	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species <u>55%</u>	x4 = <u>2.2</u>	UPL species _____	x5 = _____	Column Totals: <u>55%</u> (A)	<u>2.2</u> (B)
Total % Cover of:	Multiply by:																	
OBL species _____	x1 = _____																	
FACW species _____	x2 = _____																	
FAC species _____	x3 = _____																	
FACU species <u>55%</u>	x4 = <u>2.2</u>																	
UPL species _____	x5 = _____																	
Column Totals: <u>55%</u> (A)	<u>2.2</u> (B)																	
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																
Herb Stratum (Plot size: 5' radius)				Hydrophytic Vegetation Indicators: _____ 1-Rapid Test for Hydrophytic Vegetation _____ 2-Dominance Test is >50% _____ 3-Prevalence Index is ≤3.0 ¹ _____ 4-Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <i>Festuca rubra</i>	30%	Yes	FACU															
2. <i>Plantago lanceolata</i>	10%	No	FACU															
3. <i>Setaria faberi</i>	10%	No	FACU															
4. <i>Rosa multiflora</i>	5%	No	FACU															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
50% of total cover: <u>28%</u>	<u>55%</u> = Total Cover	20% of total cover: <u>11%</u>																
Woody Vine Stratum (Plot size: 30' radius)				Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/shrub - Woody plants less than 3 in DBH and greater than or equal to 3.28 (1M) tall Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall Woody vines - All woody vines greater than 3.28 ft in height														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																

Remarks:

SOIL

Sampling Point: B2

[illegible]

WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site: Des. No. 2101096 City/County: Laporte County Sampling Date: 10/6/2022
 Applicant/Owner: INDOT State: IN Sampling Point: C1
 Investigator(s): Zachary Root, Lara Jones, Elijah Weber Section, Township, Range: S 31, T 38 N, R 4 W
 Landform (hillslope, terrace, etc.): Toe of Slope Local relief (concave, convex, none): Concave Slope (%): 0
 Subregion (LRR or MLRA): LRR L Lat: 41.704849 Long: -86.931821 Datum: NAD 83
 Soil Map Unit Name: Nf (Newton loamy fine sand) 100% hydric NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>		
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>		

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)		
<u> </u> Surface Water (A1)	<u> </u> Water-Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Drainage Patterns (B10)
<u>X</u> Saturation (A3)	<u> </u> Marl Deposits (B15)	<u> </u> Moss Trim Lines (B16)
<u> </u> Water Marks (B1)	<u>X</u> Hydrogen Sulfide Odor (C1)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Sediment Deposits (B2)	<u>X</u> Oxidized Rhizospheres on Living Roots (C3)	<u> </u> Crayfish Burrows (C8)
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soils (C6)	<u>X</u> Stunted or Stressed Plants (D1)
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)	<u> </u> Geomorphic Position (D2)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Other (Explain in Remarks)	<u> </u> Shallow Aquitard (D3)
<u> </u> Sparsely Vegetated Concave Surface (B8)		<u> </u> Microtopographic Relief (D4)
		<u>X</u> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Geomorphic position passed due to location at the toe of a concave slope.

VEGETATION -- Use scientific names of plants.

Sampling Point: C1

	Absolute % Cover	Dominant Species?	Indicator Importance	
Tree Stratum (Plot size: 30' radius)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
50% of total cover: 0%		0% = Total Cover		
20% of total cover: 0%				
Sapling/Shrub Stratum (Plot size: 15' radius)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
50% of total cover: 0%		0% = Total Cover		
20% of total cover: 0%				
Herb Stratum (Plot size: 5' radius)				
1.	40%	Yes	FACW	
2.	40%	Yes	OBL	
3.	10%	No	FACU	
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
50% of total cover: 45%		90% = Total Cover		
20% of total cover: 18%				
Woody Vine Stratum (Plot size: 30' radius)				
1.				
2.				
3.				
4.				
50% of total cover: 0%		0% = Total Cover		
20% of total cover: 0%				
Dominance Test worksheet:				
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)				
Total Number of Dominant Species Across All Strata: 2 (B)				
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)				
Prevalence Index worksheet:				
Total % Cover of:		Multiply by:		
OBL species	40%	x1 =	0.4	
FACW species	40%	x2 =	0.8	
FAC species		x3 =		
FACU species	10%	x4 =	0.4	
UPL species		x5 =		
Column Totals:	90%	(A)	1.6	(B)
Prevalence Index = B/A = 1.78				
Hydrophytic Vegetation Indicators:				
<input checked="" type="checkbox"/> 1-Rapid Test for Hydrophytic Vegetation				
<input checked="" type="checkbox"/> 2-Dominance Test is >50%				
<input checked="" type="checkbox"/> 3-Prevalence Index is ≤3.0 ¹				
<input type="checkbox"/> 4-Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)				
<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Definitions of Vegetation Strata:				
Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height				
Sapling/shrub - Woody plants less than 3 in DBH and greater than or equal to 3.28 (1M) tall				
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall				
Woody vines - All woody vines greater than 3.28 ft in height				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				

Remarks:

SOIL

Sampling Point: C1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-9	10YR 2/1	100				Mucky S	S	
9-20	10YR 2/1	90	10YR 5/2	10	D	S	S	distinct redox depletion

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☒ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) (LRR R MLRA 149B)

☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
☐ Loamy Mucky Mineral (F1) (LRR K, L)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Polyvalue Below Surface (S8) (LRR K, L)
☐ Thin Dark Surface (S9) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site: Des. No. 2101096 City/County: Laporte County Sampling Date: 10/6/2022
 Applicant/Owner: INDOT State: IN Sampling Point: C2
 Investigator(s): Zachary Root, Lara Jones, Elijah Weber Section, Township, Range: S 31, T 38 N, R 4 W
 Landform (hillslope, terrace, etc.): Top of Slope Local relief (concave, convex, none): None Slope (%): 0
 Subregion (LRR or MLRA): LRR L Lat: 41.704882 Long: -86.931823 Datum: NAD 83
 Soil Map Unit Name: Nf (Newton loamy fine sand) 100% hydric NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>		
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>		

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply) <u> </u> Surface Water (A1) <u> </u> High Water Table (A2) <u> </u> Saturation (A3) <u> </u> Water Marks (B1) <u> </u> Sediment Deposits (B2) <u> </u> Drift Deposits (B3) <u> </u> Algal Mat or Crust (B4) <u> </u> Iron Deposits (B5) <u> </u> Inundation Visible on Aerial Imagery (B7) <u> </u> Sparsely Vegetated Concave Surface (B8)	<u> </u> Surface Soil Cracks (B6) <u> </u> Drainage Patterns (B10) <u> </u> Moss Trim Lines (B16) <u> </u> Dry-Season Water Table (C2) <u> </u> Crayfish Burrows (C8) <u> </u> Saturation Visible on Aerial Imagery (C9) <u> </u> Stunted or Stressed Plants (D1) <u> </u> Geomorphic Position (D2) <u> </u> Shallow Aquitard (D3) <u> </u> Microtopographic Relief (D4) <u> </u> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u> </u> No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION -- Use scientific names of plants.

Sampling Point: C2

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																
Sapling/Shrub Stratum (Plot size: 15' radius)				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species <u>100%</u></td> <td>x4 = <u>4</u></td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: <u>100%</u> (A)</td> <td><u>4</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.00</u>	Total % Cover of:	Multiply by:	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species <u>100%</u>	x4 = <u>4</u>	UPL species _____	x5 = _____	Column Totals: <u>100%</u> (A)	<u>4</u> (B)
Total % Cover of:	Multiply by:																	
OBL species _____	x1 = _____																	
FACW species _____	x2 = _____																	
FAC species _____	x3 = _____																	
FACU species <u>100%</u>	x4 = <u>4</u>																	
UPL species _____	x5 = _____																	
Column Totals: <u>100%</u> (A)	<u>4</u> (B)																	
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																
Herb Stratum (Plot size: 5' radius)				Hydrophytic Vegetation Indicators: _____ 1-Rapid Test for Hydrophytic Vegetation _____ 2-Dominance Test is >50% _____ 3-Prevalence Index is ≤3.0 ¹ _____ 4-Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <i>Poa pratensis</i>	70%	Yes	FACU															
2. <i>Setaria faberi</i>	20%	Yes	FACU															
3. <i>Festuca rubra</i>	10%	No	FACU															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
50% of total cover: <u>50%</u>	<u>100%</u> = Total Cover	20% of total cover: <u>20%</u>																
Woody Vine Stratum (Plot size: 30' radius)				Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/shrub - Woody plants less than 3 in DBH and greater than or equal to 3.28 (1M) tall Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall Woody vines - All woody vines greater than 3.28 ft in height														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																
Hydrophytic Vegetation Present? Yes _____ No <u>X</u>																		

Remarks:

SOIL

Sampling Point: C2

[illegible]

WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site: Des. No. 2101096 City/County: LaPorte Sampling Date: 10/6/2022
 Applicant/Owner: INDOT State: IN Sampling Point: D1
 Investigator(s): Zachary Root, Lara Jones, Elijah Weber Section, Township, Range: S 31, T 38 N, R 4 W
 Landform (hillslope, terrace, etc.): Toe of Slope Local relief (concave, convex, none): Concave Slope (%): 0
 Subregion (LRR or MLRA): LRR L Lat: 41.705777 Long: -86.929715 Datum: NAD 83
 Soil Map Unit Name: OaE (Oakville fine sand, 12 to 25 percent slopes) 0% Hydric NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u> No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>		
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>		
Remarks:				

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographix Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
--	--	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Geomorphic position passed due to location at the toe of a concave slope.

VEGETATION -- Use scientific names of plants.

Sampling Point: D1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																
Sapling/Shrub Stratum (Plot size: 15' radius)				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 60%;">Total % Cover of:</td> <td style="width: 40%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species <u>85%</u></td> <td>x2 = <u>1.7</u></td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: <u>85%</u> (A)</td> <td><u>1.7</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.00</u>	Total % Cover of:	Multiply by:	OBL species _____	x1 = _____	FACW species <u>85%</u>	x2 = <u>1.7</u>	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: <u>85%</u> (A)	<u>1.7</u> (B)
Total % Cover of:	Multiply by:																	
OBL species _____	x1 = _____																	
FACW species <u>85%</u>	x2 = <u>1.7</u>																	
FAC species _____	x3 = _____																	
FACU species _____	x4 = _____																	
UPL species _____	x5 = _____																	
Column Totals: <u>85%</u> (A)	<u>1.7</u> (B)																	
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																
Herb Stratum (Plot size: 5' radius)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1-Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2-Dominance Test is >50% <input checked="" type="checkbox"/> 3-Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4-Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <i>Phalaris arundinacea</i>	<u>85%</u>	<u>Yes</u>	<u>FACW</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
50% of total cover: <u>43%</u>	<u>85%</u> = Total Cover	20% of total cover: <u>17%</u>																
Woody Vine Stratum (Plot size: 30' radius)				Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/shrub - Woody plants less than 3 in DBH and greater than or equal to 3.28 (1M) tall Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall Woody vines - All woody vines greater than 3.28 ft in height Hydrophytic Vegetation Present? Yes <u>X</u> No _____														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>																

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: D1

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	2 cm Muck (A10) (LRR K, L, MLRA 149B)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
<input type="checkbox"/>	Stratified Layers (A5)	<input type="checkbox"/>	Dark Surface (S7) (LRR K, L)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Polyvalue Below Surface (S8) (LRR K, L)
<input type="checkbox"/>	Thick Dark Surface (A12)	<input type="checkbox"/>	Thin Dark Surface (S9) (LRR K, L)
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Iron-Manganese Masses (F12) (LRR K, L, R)
<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	Piedmont Floodplain Soils (F19) (MLRA 149B)
<input checked="" type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Red Parent Material (F21)
<input type="checkbox"/>	Dark Surface (S7) (LRR R MLRA 149B)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
		<input type="checkbox"/>	Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
 Type: _____
 Depth (inches): _____

Remarks:	

WETLAND DETERMINATION DATA FORM -- Northcentral and Northeast Region

Project/Site: Des. No. 2101096 City/County: LaPorte Sampling Date: 10/6/2022
 Applicant/Owner: INDOT State: IN Sampling Point: D2
 Investigator(s): Zachary Root, Lara Jones, Elijah Weber Section, Township, Range: S 31, T 38 N, R 4 W
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2
 Subregion (LRR or MLRA): LRR L Lat: 41.705803 Long: -86.929777 Datum: NAD 83
 Soil Map Unit Name: OaE (Oakville fine sand, 12 to 25 percent slopes) 0% Hydric NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>		
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>		

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply) <u> </u> Surface Water (A1) <u> </u> Water-Stained Leaves (B9) <u> </u> High Water Table (A2) <u> </u> Aquatic Fauna (B13) <u> </u> Saturation (A3) <u> </u> Marl Deposits (B15) <u> </u> Water Marks (B1) <u> </u> Hydrogen Sulfide Odor (C1) <u> </u> Sediment Deposits (B2) <u> </u> Oxidized Rhizospheres on Living Roots (C3) <u> </u> Drift Deposits (B3) <u> </u> Presence of Reduced Iron (C4) <u> </u> Algal Mat or Crust (B4) <u> </u> Recent Iron Reduction in Tilled Soils (C6) <u> </u> Iron Deposits (B5) <u> </u> Thin Muck Surface (C7) <u> </u> Inundation Visible on Aerial Imagery (B7) <u> </u> Other (Explain in Remarks) <u> </u> Sparsely Vegetated Concave Surface (B8)	<u> </u> Surface Soil Cracks (B6) <u> </u> Drainage Patterns (B10) <u> </u> Moss Trim Lines (B16) <u> </u> Dry-Season Water Table (C2) <u> </u> Crayfish Burrows (C8) <u> </u> Saturation Visible on Aerial Imagery (C9) <u> </u> Stunted or Stressed Plants (D1) <u> </u> Geomorphic Position (D2) <u> </u> Shallow Aquitard (D3) <u> </u> Microtopographix Relief (D4) <u> </u> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u> </u> No <u>X</u>
--	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION -- Use scientific names of plants.

Sampling Point: D2

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: 30' radius)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)														
1. <i>Quercus rubra</i>	50%	Yes	FACU															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>25%</u>	50% = Total Cover	20% of total cover: <u>10%</u>																
Sapling/Shrub Stratum (Plot size: 15' radius)				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species <u>65%</u></td> <td>x4 = <u>2.6</u></td> </tr> <tr> <td>UPL species <u>5%</u></td> <td>x5 = <u>0.25</u></td> </tr> <tr> <td>Column Totals: <u>70%</u> (A)</td> <td><u>2.85</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.07</u>	Total % Cover of:	Multiply by:	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species <u>65%</u>	x4 = <u>2.6</u>	UPL species <u>5%</u>	x5 = <u>0.25</u>	Column Totals: <u>70%</u> (A)	<u>2.85</u> (B)
Total % Cover of:	Multiply by:																	
OBL species _____	x1 = _____																	
FACW species _____	x2 = _____																	
FAC species _____	x3 = _____																	
FACU species <u>65%</u>	x4 = <u>2.6</u>																	
UPL species <u>5%</u>	x5 = <u>0.25</u>																	
Column Totals: <u>70%</u> (A)	<u>2.85</u> (B)																	
1. <i>Corylus americana</i>	10%	Yes	FACU															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
50% of total cover: <u>5%</u>	10% = Total Cover	20% of total cover: <u>2%</u>																
Herb Stratum (Plot size: 5' radius)				Hydrophytic Vegetation Indicators: _____ 1-Rapid Test for Hydrophytic Vegetation _____ 2-Dominance Test is >50% _____ 3-Prevalence Index is ≤3.0 ¹ _____ 4-Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <i>Rubus idaeus</i>	5%	Yes	FACU															
2. <i>Celastrus orbiculatus</i>	5%	Yes	UPL															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
50% of total cover: <u>5%</u>	10% = Total Cover	20% of total cover: <u>2%</u>																
Woody Vine Stratum (Plot size: 30' radius)				Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height Sapling/shrub - Woody plants less than 3 in DBH and greater than or equal to 3.28 (1M) tall Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall Woody vines - All woody vines greater than 3.28 ft in height														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
50% of total cover: <u>0%</u>	0% = Total Cover	20% of total cover: <u>0%</u>																
				Hydrophytic Vegetation Present?														
				Yes _____ No <u>X</u> _____														

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: D2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10YR 2/1	100					SL	
10-20	10YR 5/1	100					SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) (LRR R MLRA 149B)

☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
☐ Loamy Mucky Mineral (F1) (LRR K, L)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
☐ Coast Prairie Redox (A16) (LRR K, L, R)
☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
☐ Dark Surface (S7) (LRR K, L)
☐ Polyvalue Below Surface (S8) (LRR K, L)
☐ Thin Dark Surface (S9) (LRR K, L)
☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No _____ X

Remarks:

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: February 1, 2023

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:

Alex Gray
Metric Environmental, LLC
6968 Hillsdale Court
Indianapolis, IN 46250
769-203-9314
Alexg@metricenv.com

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The proposed project (Des. 2101096) includes the removal and replacement of the existing small structure (CV 012-064-37.05) which carries U.S. 12 over Kintzele Ditch in Porter and LaPorte County, Indiana. The existing structure is 134 ft. long by 60 inch by 60-inch reinforced concrete box. The investigated area was developed based on the proposed improvements, including removing the existing structure and replacing it with a similar-sized concrete culvert. Riprap will likely be placed around the inlet and/or outlet of the structure for scour protection.

(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: IN County/parish/borough: LaPorte & Porter County City: Michigan City
Center coordinates of site (lat/long in degree decimal format):
Lat.: 41.70604
Long.: -86.92913
Universal Transverse Mercator: 16T 505896 E 4617141 N
Name of nearest waterbody: Kintzele Ditch

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

- ☐ Office (Desk) Determination. Date:
- ☐ Field Determination. Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH “MAY BE” SUBJECT TO REGULATORY JURISDICTION.

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource “may be”
Wetland A	41.704419	-86.932519	0.003 Acres	Wetland	Section 404
Wetland B	41.703412	-86.932883	0.733 Acres	Wetland	Section 404
Wetland C	41.704632	-86.931116	2.252 Acres	Wetland	Section 404
Wetland D	41.705798	-86.929578	0.029 Acres	Wetland	Section 404

- 1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
- 2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there "*may be*" waters of the U.S. and/or that there "*may be*" navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

- ☒ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
Map: _____ Dated 11/22/2022
- ☒ Data sheets prepared/submitted by or on behalf of the PJD requestor.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report. Rationale: _____
- ☐ Data sheets prepared by the Corps: _____
- ☐ Corps navigable waters' study: _____
- ☐ U.S. Geological Survey Hydrologic Atlas: _____
☐ USGS NHD data.
☒ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name: Michigan City West, IN 7.5 min, 1980
- ☒ Natural Resources Conservation Service Soil Survey. Citation: SSURGO LaPorte and Porter County
- ☒ National wetlands inventory map(s). Cite name: http://www.fws.gov/wetlands/
- ☐ State/local wetland inventory map(s): _____
- ☒ FEMA/FIRM maps: ; Effective 2018
- ☐ 100-year Floodplain Elevation is: _____.(National Geodetic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): Indiana Aerial Photograph, 2016
- or ☒ Other (Name & Date): Site Photographs, 10/6/2022
- ☐ Previous determination(s). File no. and date of response letter: _____
- ☐ Other information (please specify): _____

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Signature and date of
Regulatory staff member
completing PJD

Alex M. Gray 2/1/2023
Signature and date of
person requesting PJD
(REQUIRED, unless obtaining
the signature is impracticable)¹

¹ Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.



APPENDIX G PUBLIC INVOLVEMENT

July 16, 2021

202017.22

Mr. David R. Germain
10322 West 300 North
Michigan City, Indiana 46360

**SAMPLE NOTICE OF
ENTRY LETTER**

RE: INDOT Des. No. 2000607
U.S. 12 HMA Overlay & ADA Improvements
Notice of Survey
State Parcel ID No.: 460131205031000022
Property Address: 1720 West 8th Street
Michigan City, Indiana

JON E. RIEMKE, PE
JEFFREY L. MCKEAN, PE
CHRISTOPHER J. JETER, PE
DENNIS A. ZEBELL, PE
DAN G. DELGADO, PE
JARED M. HUSS, PE
AARON W. BLANK, PS, PE
BREAGAN P. EICHER, PE
KEVIN J. SIEDLECKI, PE
CHRISTOPHER M. VANHULLE, PE
MICHELLE M.G. SLACK, PS
DMITRI G. ADAMS, PE
AMANDA R. BUDREAU, PE
JOSEPH D. DUNBAR, PE
ETHAN L. ZARTMAN, PE
PAULIN HAKIZIMANA, PE
MARK H. FOSTER, PE
EASA KHAN, PhD, PE, PMP
BLAKE R. WARNER, PE
TIMOTHY L. THIELKA, PE

Dear Resident:

Lawson-Fisher Associates P.C. has been retained by the Indiana Department of Transportation to perform a survey for a pavement overlay and ADA (Americans with Disabilities Act) sidewalk ramp improvement project located along U.S. 12 from the Porter County line, through Michigan City, to the Michigan State line.

Our information indicates you own or occupy property near the subject project. Our employees will be conducting a survey of the project area in the near future. It may be necessary for them to come onto your property to complete this work. This is allowed by law by Indiana Code IC 8-23-7-26. Personnel will show you their identification, if you are available, before coming onto your property. If you have sold this property or it is occupied by someone else, please let us know the name and address of the new owner or current occupant so we can contact them about the survey.

At this stage, we generally do not know what affect, if any, our project can eventually have on your property. If we determine your property is involved, we will contact you with additional information.

The survey work will include mapping the location of features such as trees, fences, drainage features, pavement, driveways, utilities, and obtaining ground elevations. We will also be required to locate evidence of property and right-of-way limits, which may involve digging for property irons along the front of your property. The survey is needed for the proper planning and design of this pavement overlay project. Please be assured of our sincere desire to cause you as little inconvenience as possible during this survey. If problems do occur, please contact our field crew, or contact me at the phone number or address shown below.

Very truly yours,

LAWSON-FISHER ASSOCIATES P.C.



Aaron W. Blank, PS, PE
Survey Director

AWB/djg
c: Dan G. Delgado, PE
Ethan Zartman, PE

October 12, 2022

United States of America
Indiana Dunes National Lakeshore
P.O. Box 283
Valparaiso, Indiana 46384

Sample
Notice of Survey
Letter

202228.00

CHRISTOPHER J. JETER, PE
DAN G. DELGADO, PE
JARED M. HUSS, PE
AARON W. BLANK, PS, PE
KEVIN J. SIEDLECKI, PE
CHRISTOPHER M. VANHULLE, PE
MICHELLE M.G. SLACK, PS
DMITRI G. ADAMS, PE
AMANDA R. BUDREAU, PE
JOSEPH D. DUNBAR, PE
ETHAN L. ZARTMAN, PE
PAULIN HAKIZIMANA, PE, PTOE
MARK H. FOSTER, PE
EASA KHAN, PhD, PE, PMP, PTOE
BLAKE R. WARNER, PE
REBECCA L. DUNBAR, PS, EI

RE: U.S. 12 Small Structure Replacement
Unnamed Tributary of Kintzele Ditch
1.93 mi. W. of Jct U.S. 421
Des. No. 2101096
La Porte County, Indiana
Notice of Survey
Property Address: Intersection of U.S. 12 and Beverly Drive
Located in Indiana Dunes National Lakeshore
State Parcel ID: 64-01-36-279-002.000-012; 64-01-36-279-001.000-011;
64-01-36-277-001.000-011; and 46-01-30-300-001.000-022

Dear Property Owner:

Lawson-Fisher Associates P.C. has been retained by the Indiana Department of Transportation - LaPorte District to perform a survey for a small structure replacement along the Unnamed Tributary of Kintzele Ditch located 1.93 mi. W. of Jct U.S. 421.

Our information indicates you own or occupy property near the subject project. Our employees will be conducting a survey of the project area in the near future. It may be necessary for them to come onto your property to complete this work. This is allowed by law by Indiana Code IC 8-23-7-26. They will show you their identification, if you are available, before coming onto your property. If you have sold this property or it is occupied by someone else, please let us know the name and address of the new owner or current occupant so we can contact them about the survey.

At this stage, we generally do not know what effect, if any, the project can eventually have on your property. If we determine your property is involved, we will contact you with additional information.

The survey work will include mapping the location of features such as trees, drainage features, pavement, utilities, and obtaining ground elevations. We will also be required to locate evidence of property and right-of-way limits, which may involve digging for property irons along the roadway frontage. The survey is needed for the proper planning and design of this small structure replacement project. Please be assured of our sincere desire to cause you as little inconvenience as possible during this survey. If problems do occur, please contact our field crew or contact me at the phone number or address shown below.

Very truly yours,

LAWSON-FISHER ASSOCIATES P.C.



Aaron W. Blank, PS, PE.
Survey Director

AWB/cas
c: Dan Delgado, PE



PUBLIC INFORMATION MEETING

Contract R-43027

U.S. 12 Pavement Project

La Porte County, Indiana

Thursday, November 21, 2024, 6:00 p.m. (CST)

CITY HALL OF MICHIGAN CITY, 100 E. MICHIGAN BOULEVARD, MICHIGAN CITY, IN 46360



SIGN-IN

Name (please print)	Address	E-Mail
DIANN GONSOREK	108 TIMM CT. MICH. City, IN 46360	DIANN32@COMCAST.NET
Martha Maust	3005 Loma Portal Way, MC IN	hobie mom@gmail
LARRY A BROWN	" " " " " "	hobiedad@yahoo.com
SCOTT MELAND		
TOM SHARP	304 SHORELANE DR., MC, IN	sharptom@att.net
LARRY SILVESTRI	111 W MARNE, BEV SHORES	LARRY.SILVESTRI@GMAIL.COM
SHARON CARNES	" " " "	SCARNESZ@GMAIL.COM
Becky Lipton	3016 Moore Rd, Long Beach	beckylipton@gmail.com
Andrew Kubik	2740 Floral Trl. Long Beach	drewsky51@gmail.com
Dan Przybylinski	215 GARDEN ST. M.C.	dprzybylinski@emichigan-city.com
CHRIS JOHNSON	532 FRANKLIN, MC	cjohnsen@mcwaterdept.com
RON MILLER	1903 WOODLAND AVE. M.C.	WE FM RADIO
Burt Floveday	255 Shoreland Drive	flaveday@comcast.net
TIM WERNER	100 E Michigan Blvd., M.C.	twerner@emichigan-city.com
Brian Coleman	7 Muirfield Drive, MC	brian.coleman124@gmail.com



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9 a.m. FRIDAY PRIOR TO THE WEEK OF PUBLICATION

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Call (219) 878-8711

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Greenwood Cemetery: 4 family companion crypts outside west wall, bottom row right side.
\$9,680. Call (219) 879-6184 and leave a message.

Oak dining room table, with six chairs, round (42 inches), with two leaves (then 65x42).
\$200. Call (219) 262-4698.

PUBLIC NOTICE

NOTICE OF PUBLIC INFORMATION MEETING Proposed Pavement Project on U.S. 12 in Michigan City, IN

The Indiana Department of Transportation (INDOT) will host a public-information meeting from 5-7 p.m. CST Thursday, Nov. 21, 2024, with a formal presentation at 6 p.m. CST, at Michigan City City Hall, 100 E. Michigan Blvd., Michigan City, Indiana 46360. The purpose of the public information meeting is to offer all interested persons an opportunity to receive information on the engineering plans to rehabilitate the pavement, to re-configure travelways, to replace deteriorated drainage structures, and to incorporate ADA-compliant curb ramp improvements along U.S.12 in LaPorte County. The project is located on U.S 12. from the Porter-LaPorte County line to the Michigan State Line.

The primary purpose of the project is to improve the overall pavement condition on U.S. 12, to improve drainage through small structure replacements, to update inadequate pedestrian facilities, to reduce crashes through lane re-configuration and increased shoulder width in specific locations, and to re-configure to a T-intersection at Beverly Drive at the west end of the project.

Federal and local funds are proposed to be used for construction of this project. The project poses minimal impact to the natural, cultural and social environment. A Level 1 Categorical Exclusion environmental document is under development for the project.

Construction is anticipated to begin and be completed in 2026.

In accordance with the Americans With Disabilities Act, if you have a disability and/or Limited English Proficiency (LEP) requiring auxiliary aids, including language interpretation services and document conversion, for which INDOT needs to provide accommodations, please contact Mr. Adam Parkhouse, INDOT director of stakeholder services, 315 E. Boyd Blvd., LaPorte, Indiana 46350, or aparkhouse@indot.in.gov at least 48 hours before the meeting for services such as interpreters, signers, readers, or large print material. In accordance with Title VI of the Civil Rights Act of 1964, persons and/or groups requiring project information be made available in another language are encouraged to contact the INDOT LaPorte District Office. The location of the meeting is ADA accessible.

GARAGE SALES, ESTATE SALES, ETC.

One Day Only Estate Sale: Saturday, Nov. 16, 9 a.m.-1 p.m.
116 Orchard St., Michigan City
Everything must go! As priced or best offer. CASH ONLY.

DR table 48w x 48l to 72", 6 chairs, lighted hutch (like new); white/black/gray sectional: worn, but top quality. Black coffee and sofa tables; 2 brown recliners; 1 coatrack stand; set of 5 Shaw rugs; Pfaltzgraff Yorktowne dishware; large wood desk; vases, candles, baskets, wedding and prom dresses; women's clothes size 2-10; luggage; kitchen appliances, pictures, wall hangings, accent pillows and much much more. CHRISTMAS ITEMS: nutcrackers, nativity sets, collectibles!!!

The Fall Girlfriend Sale, your ultimate woman's resale clothing event, is from 5-8 p.m. Saturday, Nov. 15 (private shopping for participants and friends), and 10 a.m.-2 p.m.

NOTICE OF PUBLIC INFORMATION MEETING

[Save](#)[Share](#)

Details for NOTICE OF PUBLIC INFORMATION MEETING

Updated 10 hrs ago

NOTICE OF PUBLIC INFORMATION MEETING

Proposed Pavement Project on US 12 in Michigan City, IN

The Indiana Department of Transportation (INDOT) will host a public information meeting on Thursday, November 21, 2024 from 5:00pm to 7:00pm CST with a formal presentation at 6:00pm CST, at the City Hall of Michigan City at 100 E. Michigan Boulevard, Michigan City, Indiana 46360. The purpose of the public information meeting is to offer all interested persons an opportunity to receive information on the engineering plans to rehabilitate the pavement, to re-configure travelways, to replace deteriorated drainage structures, and to incorporate ADA-compliant curb ramp improvements along US 12 in LaPorte County. The project is located on US 12 from the Porter-LaPorte County line to the Michigan State Line.

The primary purpose of the project is to improve the overall pavement condition on US 12, to improve drainage through small structure replacements, to update inadequate pedestrian facilities, to reduce crashes through lane re-configuration and increased shoulder width in specific locations, and to re-configure to a T-intersection at Beverly Drive at the west end of the project.

Federal and local funds are proposed to be used for construction of this project. The project poses minimal impact to the natural, cultural and social environment. A Level 1 Categorical Exclusion environmental document is under development for the project.

Construction is anticipated to begin and be completed in 2026.

In accordance with the "Americans With Disabilities Act" if you have a disability and/or Limited English Proficiency (LEP) requiring auxiliary aids including language interpretation services and document conversion for which INDOT needs to provide accommodations, please contact Mr. Adam Parkhouse, INDOT Director of Stakeholder Services, 315 East Boyd Blvd., LaPorte, Indiana 46350 or aparkhouse@indot.in.gov at least 48 hours before the meeting for services such as interpreters, signers, readers, or large print material. In accordance with Title VI of the Civil Rights Act of 1964, persons and/or groups requiring project information be made available in another language are encouraged to contact the INDOT LaPorte District Office. The location of the meeting is ADA accessible.

hspaxlp



**PUBLIC INFORMATION MEETING
U.S. 12 ROADWAY PROJECT
Des. No. 2000607
November 21, 2024, 5:00 p.m. to 7:00 p.m.
City Hall of Michigan City**

Public Comments:

Participants expressed interest in the TWLTL and the resulting impacts on speed limits, grade changes at Moore Road and Liberty Road, intersection configurations, and the traffic data acquisition for roadway project decision making. There was discussion regarding safety concerns and the configuration at Moore Road, the grade at that intersection, the RR crossing signal arms, and the cars in the U.S. 12 westbound right hand travel lane stopped and waiting for a train to pass. There were also questions about intersection signage, traffic lights, and a concern about freight trains changing cars and blocking the intersection at the Liberty Trail and other RR crossings. Participants brought up frustration with bike lanes in the way of right turn lanes, asked if there will be a stop sign at the new Beverly Drive intersection, confusion with traffic lights and lane configuration at the corner of Michigan Boulevard and U.S. 12, questions about pedestrian crossings at the Mt Baldy and Singing Sands Trails, and if INDOT follows proposed or new development and the impact on roads. Also, will the new configuration at S.R. 212 will still allow a right turn going south, how does the project impact seasonal traffic like school and New Buffalo traffic in the summer, and if the information presented will be online or available.

LFA and INDOT Response:

Feedback from the public comments resulted in expanding the TWLTL right sizing to include the project limits east of Michigan City. A right turn lane was added at Moore Road to allow vehicles a space to get out of conflict with mainline traffic. There isn't much that INDOT can do about the railroad blocking the intersections when changing freight cars. The bike lane only extends from Singing Sands to the Mount Baldy entrance and there are no drives in that stretch that could conflict with the bike lane. There will be a stop sign at the new Beverly Drive intersection. The intersection layout at Michigan Blvd and U.S. 12 is the same as the existing condition except for the crosswalk on the south leg that is being realigned to shorten the pedestrian path across the intersection. INDOT does monitor traffic data for recently completed projects. School traffic as well as all local traffic will be able to travel through U.S. 12 with some minor local detours when the small structures are being installed. Traffic to and from New Buffalo will have to use the detour.



APPENDIX H AIR QUALITY

**Federal Transit
Administration**
Region V
200 West Adams St., Suite 320
Chicago, IL 60606-5253



**U.S. Department
of Transportation**

Federal Highway Administration
Indiana Division
575 N. Pennsylvania St., Rm 254
Indianapolis, IN 46204-1576

August 28, 2025

Ms. Lyndsay Quist
Commissioner
Indiana Department of Transportation
100 N Senate Ave. N955
Indianapolis, IN 46204

SUBJECT: Indiana FY2026-2030 STIP Approval and Associated Federal Planning Finding

Dear Ms. Quist:

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have completed our review of the FY2026-2030 Indiana Statewide Transportation Improvement Program (INSTIP), which was submitted by the Indiana Department of Transportation (INDOT) request letter dated June 6, 2025.

Based on our review of the information provided, certifications of the Statewide and Metropolitan transportation planning processes for and within the state of Indiana, and our participation in those transportation planning processes (including planning certification reviews conducted in Transportation Management Areas), FHWA and FTA are jointly approving the FY2026-2030 STIP, including the Metropolitan Planning Organization (MPO) Transportation Improvement Programs (TIPs) incorporated into the STIP by reference, subject to the corrective action identified in the attached Federal Planning Finding (FPF) report. FHWA and FTA consider the projects in the 5th year for informational purposes only, and our approval does not exceed four years per 23 CFR 450.220(c).

FHWA and FTA are required under 23 CFR 450.220(b) to document and issue an FPF in conjunction with the approval of the FY2026-2030 STIP. At a minimum, the FPF verifies that the development of the STIP is consistent with the provisions of both the Statewide and Metropolitan transportation planning requirements. FHWA and FTA find that the Indiana FY2026-2030 STIP substantially meets the transportation planning requirements and are approving the STIP subject to the corrective action outlined in the FPF. This approval is effective August 22, 2025, and is given with the understanding that an eligibility determination of individual projects for funding must be met, and INDOT must ensure the satisfaction of all administrative and statutory requirements, as well as address the corrective actions outlined in the attached report.

If you have questions or need additional information concerning our approval and the FPF, please contact Ms. Erica Tait of the FHWA Indiana Division at (317) 226-7481, or by email at erica.tait@dot.gov, or Mr. Anthony Greep of the FTA Region 5 Office at (312) 353-2866, or by email at anthony.greep@dot.gov.

Sincerely,

**KELLEY
BROOKINS**

Kelley Brookins
Regional Administrator
FTA Region V

Digitally signed by
KELLEY BROOKINS
Date: 2025.08.27
08:09:52 -05'00'

Sincerely,



Christopher J. Hall
Interim Division Administrator
FHWA Indiana Division

Digitally signed by
CHRISTOPHER J HALL
Date: 2025.08.28
10:04:48 -05'00'



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758-Executive Office
Indianapolis, Indiana 46204

PHONE: (855) 463-6848

Mike Braun, Governor
Lyndsay Quist, Commissioner

June 6, 2025

Mr. Christopher J Hall, Interim Division Administrator
FHWA Indiana Division
575 North Pennsylvania St., Room 254
Indianapolis, IN 46204

Ms. Kelley Brookins, Regional Administrator
FTA Region 5
200 West Adams St.
Suite 320
Chicago, IL 60606-5253

Dear Mr. Hall /Ms. Brookins:

The Indiana Department of Transportation is pleased to submit its Draft FY 2026-2029 Statewide Transportation Improvement Program (STIP) for review and comment by your offices.

Included in the final submitted document is a listing of the state's expansion/preservation and local small urban and rural and rural transit projects. The following Metropolitan Planning Organization TIP's will be included in the FY 2024-2028 STIP by reference.

Area Plan Commission of Tippecanoe County (APCTC)	FY 2026-2030
• APCTC TIP FY2026-2030	
Bloomington-Monroe County Metropolitan Planning Organization (BMCMPPO)	FY 2026-2030
• BMCMPPO TIP FY2026-2030	
Columbus Area Metropolitan Planning Organization (CAMPO)	FY 2026-2030
• CAMPO TIP FY2026-2030	
Delaware-Muncie Metropolitan Plan Commission (DMMPC)	FY 2026-2030
• DMMPC TIP FY2026-2030	
Evansville Metropolitan Planning Organization (EMPO)	FY 2026-2030
• EMPO TIP FY2026-2030	
Indianapolis Metropolitan Planning Organization (IMPO)	FY 2026-2029
• IMPO TIP FY2026-2029	
• IMPO Project Listing FY2026-2029	

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Kokomo-Howard County Governmental Coordinating Council (KHCGCC)	FY 2026-2030
• KHCGCC TIP FY2026-2030	
Kentuckiana Regional Planning and Development Agency (KIPDA)	FY 2025-2028
• KIPDA TIP FY2025-2028	
Michiana Area Council of Governments (MACOG)	FY 2026-2030
• MACOG TIP FY2026-2030	
Madison County Council of Governments (MCCOG)	FY 2026-2030
• MCCOG TIP FY2026-2030	
Northeastern Indiana Regional Coordinating Council (NIRCC)	FY 2026-2030
• NIRCC TIP FY2026-2030	
Northwestern Indiana Regional Planning Commission (NIRPC)	FY 2026-2030
• NIRPC TIP FY2026-2030	
Ohio-Kentucky-Indiana Regional Council of Governments (OKI)	FY 2026-2029
• OKI TIP FY2026-2029	
Terre Haute Area Metropolitan Planning Organization (THAMPO) TIP	FY 2026-2030
• THAMPO TIP FY2026-2029	

We greatly appreciate FHWA/FTA support in the development of the STIP 2026-2029 and look forward to working together to achieve our mutual goals. Should you have any questions pertaining to this amendment, please contact April Leckie, STIP Administration at 317-232-5466 or at aleckie@indot.in.gov.

Sincerely,



Lyndsay Quist, Commissioner
Indiana Department of Transportation

cc: (w/enclosure): Angelica Salgado, FTA
Cecilia Crenshaw, FTA
Anthony Greep, FTA
Bill Wheeler, FTA
Kelley Brookins, FTA
Matt Kane, FTA
Susan Weber, FTA
Erica Tait, FHWA
Paige Story, FHWA
Lyndsay Quist, INDOT
Blake Martain, INDOT

Kathy Eaton-McKalip, INDOT
Louis Feagans, INDOT
April Leckie, INDOT
Roy Nunnally, INDOT
Larry Buckel, INDOT
Jay Mitchell, INDOT
Jason Casteel, INDOT
Ryan Pennington, INDOT
Michael McNeil, INDOT

Northwestern MPO

Transportation Improvement Program Fiscal Year Adoption 2024-2028

415 Projects Listed

2000607		(Ver 6) 26-00,26-00				FEDERAL
Title:	District Pavement Project (Non-I)			County: Laporte		District: LaPorte
Work Type:	HMA Overlay, Preventive Maintenance					
Limits:						Total 2026 - 2029: \$9,369,010
Description:	HMA Overlay, Preventive Maintenance, US 12; from Porter/LaPorte Co. Line to MI State Line. The length of this project is 7.90 miles.					
Phase	Fund Source	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
CE	NHPP Non Interstate	\$397,000	\$0	\$0	\$0	\$0
CN	NHPP Non Interstate	\$8,972,010	\$0	\$0	\$0	\$0

2000614		(Ver 5) 26-00,26-00				FEDERAL
Title:	District Pavement Project (Non-I)			County: Porter		District: LaPorte
Work Type:	HMA Overlay, Preventive Maintenance					
Limits:						Total 2026 - 2029: \$1,341,686
Description:	HMA Overlay, Preventive Maintenance, SR 49 0.1 mi. N. of US 12 (NICTD Bridge) to Dunes State Park Entrance. the length of this project is 1.32 miles.					
Phase	Fund Source	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
CN	NHPP Non Interstate	\$1,341,686	\$0	\$0	\$0	\$0

2001884		(Ver 7) 26-00,26-00				FEDERAL
Title:	District Pavement Project (Non-I) in Lake County			County: Lake		District: LaPorte
Work Type:	HMA Overlay, Preventive Maintenance					
Limits:						Total 2026 - 2029: \$9,180,000
Description:	HMA Overlay, Preventive Maintenance, US 12, 3.17 mi. E. of SR 912 (Bridge St) to 0.38 mi. E. of I-65 (Beginning of PCCP). The length is 3.36 miles.					
Phase	Fund Source	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
CE	NHPP Non Interstate	\$180,000	\$0	\$0	\$0	\$0
CN	NHPP Non Interstate	\$7,200,000	\$0	\$0	\$0	\$0
CN	State Match	\$1,800,000	\$0	\$0	\$0	\$0

Northwestern MPO

Transportation Improvement Program Fiscal Year Adoption 2024-2028

415 Projects Listed

1900029 (Ver 5) 26-00,26-00						STATE
Title:	District Small Structure Project				County: Laporte	District: LaPorte
Work Type:	Small Structure Replacement					
Limits:					Total 2026 - 2029:	\$1,657,661
Description:	Small Structure Replacement, US 421 US 421, 1.20mi S of I-94 SB.					
Phase	Fund Source	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
CE	STBG State	\$0	\$41,100	\$0	\$0	\$0
CN	STBG State	\$0	\$1,616,561	\$0	\$0	\$0
2100844 (Ver 3) 26-00,26-00						FEDERAL
Title:	District Small Structure Project				County: Laporte	District: LaPorte
Work Type:	Small Structure Replacement					
Limits:					Total 2026 - 2029:	\$1,998,700
Description:	Small Structure Replacement on US 12, 0.60 E SR 212 over White Ditch					
Phase	Fund Source	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
CN	NHPP Non Interstate	\$1,998,700	\$0	\$0	\$0	\$0
2101078 (Ver 4) 26-00,26-00						FEDERAL
Title:	District Small Structure Project				County: Laporte	District: LaPorte
Work Type:	Small Structure Replacement					
Limits:					Total 2026 - 2029:	\$421,461
Description:	Small Structure Replacement on SR 39, SR39 over UNT, 2.75 mi S SR2					
Phase	Fund Source	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
CN	NHPP Non Interstate	\$421,461	\$0	\$0	\$0	\$0
2101096 (Ver 4) 26-00,26-00						FEDERAL
Title:	District Small Structure Project				County: Porter	District: LaPorte
Work Type:	Small Structure Replacement					
Limits:					Total 2026 - 2029:	\$509,800
Description:	Small Structure Replacement on US 12 over UNT Kintzele Ditch, 1.93 mi W Jct US421					
Phase	Fund Source	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
CE	NHPP Non Interstate	\$50,000	\$0	\$0	\$0	\$0
CN	NHPP Non Interstate	\$459,800	\$0	\$0	\$0	\$0

Northwestern MPO

Transportation Improvement Program Fiscal Year Adoption 2024-2028

415 Projects Listed

2500075		(Ver 2) 26-00,26-00				STATE	
Title:	Traffic Signals Modernization			County: Laporte		District: LaPorte	
Work Type:	Traffic Signals Modernization						
Limits:						Total 2026 - 2029:	\$340,000
Description:	US12 - At the intersections of US12 at Liberty Trail and US12 at Karwick Rd						
Phase	Fund Source	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	
CN	HSIP State	\$340,000	\$0	\$0	\$0	\$0	
2500076		(Ver 2) 26-00,26-00				STATE	
Title:	Traffic Signals Modernization			County: Lake		District: LaPorte	
Work Type:	Traffic Signals Modernization						
Limits:						Total 2026 - 2029:	\$950,000
Description:	Various Locations along SR 312, from 0.95mi E. of US 41 (White Oak Ave) to SR 912 (Cline Ave.)						
Phase	Fund Source	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	
CN	HSIP State	\$0	\$950,000	\$0	\$0	\$0	
Total for INDOT		\$422,556,428	\$308,814,788	\$119,539,504	\$120,448,167	\$30,262,459	



APPENDIX I ADDITIONAL STUDIES

**Land and Water Conservation Fund (LWCF)
County Property List for Indiana
(Last Updated April 2025)**

Project Number	Sub Project Code	County	Property
1800200	1800200	LaPorte	Fox Memorial Park
1800228	1800228	LaPorte	Fox Memorial Park
1800265	1800265	LaPorte	Kesling Park
1800332	1800332	LaPorte	Rumley Park
1800351	1800351	LaPorte	Westville Park (Prairie Meadow Park)
1800373	1800373	LaPorte	Kesling Park
1800402	1800402	LaPorte	Nelson Park
1800405	1800405V	LaPorte	Galena Marsh Nature Preserve
1800453	1800453	LaPorte	Luhr Park
1800547	1800547	LaPorte	Hansen & Gifford Parks/Old Spur Trail
1800608	1800608	LaPorte	Luhr County Park
1800661	1800661	LaPorte	Ambler Flatwoods Conservation Area
1800037	1800037	Porter	Woodland Park
1800050	1800050	Porter	Forest Park Golf Course
1800065	1800065	Porter	Woodland Park
1800080	1800080	Porter	Woodland Park
1800127	1800127	Porter	Indiana Dunes State Park & Dunes Nature Preserve
1800130	1800130	Porter	Bicentennial Park, Northside Park
1800171	1800171E	Porter	Indiana Dunes State Park
1800173	1800173	Porter	Indiana Dunes State Park & Dunes Nature Preserve
1800270	1800270	Porter	Harold Rogers Lakewood Park
1800276	1800276	Porter	Imagination Glen Park
1800284	1800284	Porter	Dogwood Park
1800304	1800304B	Porter	Moraine
1800312	1800312E	Porter	Indiana Dunes State Park
1800327	1800327D	Porter	Indiana Dunes State Park
1800349	1800349	Porter	Thomas Drazer Memorial Park & Pleasant Twp. Pool
1800363	1800363M	Porter	Indiana Dunes State Park
1800378	1800378B	Porter	Indiana Dunes State Park
1800405	1800405Q	Porter	Moraine Nature Preserve
1800407	1800407	Porter	Imagination Glen Park
1800413	1800413L	Porter	Indiana Dunes State Park
1800429	1800429	Porter	Indiana Dunes State Park & Dunes Nature Preserve
1800443	1800443	Porter	Haven Hollow Park
1800452	1800452	Porter	Sunset Hill Farm County Park
1800460	1800460	Porter	Indiana Dunes State Park & Dunes Nature Preserve
1800484	1800484	Porter	Prairie Duneland Trail
1800495	1800495	Porter	Prairie Duneland Trail
1800498	1800498	Porter	Prairie Duneland Trail
1800539	1800539	Porter	Imagination Glen Park
1800591	1800591	Porter	Sunset Hill Farm Park
1800624	1800624	Porter	Imagination Glen Park
1800626	1800626C	Porter	Indiana Dunes State Park

*Park names may have changed. If acquisition of publicly owned land or impacts to publicly owned land is anticipated, coordination with Indiana State Parks, Community Grants & Trails Section, should occur.

ADDENDUM No. 1 TO ABBREVIATED ENGINEER'S REPORT

Project Number: 2000607
 Route / Feature Crossed: US12
 Project Location: From the Porter/LaPorte Co Line to the MI State Line
 Date: 2/25/2021

ADDENDUM JUSTIFICATION:

INDOT has received requests to explore the possibility of changing the configuration of US12 east of Michigan City. The configuration is currently a four-lane roadway, and the project is being adjusted to allow the typical section to change to a three-lane roadway east of Michigan City.

REVISION TO ORIGINAL SCOPE DOCUMENT:

The (Abbreviated) Engineer's Report is being revised as follows:

Does the revision change the project's Purpose & Need statement? ☐ Yes ☒ No

Does the revision change the project's recommended alternative? ☒ Yes ☐ No

Preferred Alternative, Replace as follows:

Rehabilitate existing pavement utilizing a 1 ½ inch mill and resurface with HMA pavement. Provide partial and full depth patching in areas with greater distress to improve structural pavement condition. Existing curb ramps will be evaluated and upgraded to current PROWAG standards as needed.

Designer shall maintain existing lane configurations from POB (Porter/LaPorte Co Line) to the US12 (2nd St) / Blue Chip Dr intersection. East of that intersection, lane configuration shall revise to a three lane (Thru/TWCTL/Thru) configuration. The three lane configuration shall be extended and terminated at the US12/SR212 intersection.

Additional Features

RPMs (Install/Replace)	Yes – Replace as needed
Curb Ramps (Upgrade)	Yes
Centerline Rumble Stripes	Yes – East of SR212
Edgeline Rumble Stripes	No
Rehabilitate Sheet Signs	Yes
Rehabilitate/replace guardrail	No

Does the revision change the project's cost estimate? ☐ Yes ☒ No

Does the revision change the project's environmental impacts? ☒ Yes ☐ No

Remove table below if there are no revisions to the project's environmental impacts due to the proposed addendum.

	Description	Notes
<input type="checkbox"/>	Additional coordination with resource agencies	

<input type="checkbox"/>	Red Flag/HAZMAT revisions	
<input type="checkbox"/>	Section 106/4F/6F/Archaeology	
<input type="checkbox"/>	Waters Report Update	
<input checked="" type="checkbox"/>	Change to public involvement requirements	Operational modification requires public involvement
CE-1	CE type revision	

Does the revision require additional Right-of-Way?

☐ Yes

☒ No

Does the revision change the project's schedule (design or construction)?

☐ Yes

☒ No

Does the revision require additional coordination with utility companies?

☐ Yes

☒ No

ADDENDUM CONCURRENCE

This document was prepared by:



Paul South, PE
District Scoping Manager, LaPorte District

Reviewed by:



Molly Mooney, PE
Pavement Asset Engineer, LaPorte District

Reviewed by:

Alan
Holderread



Digitally signed by Alan
Holderread
Date: 2021.02.26
07:06:04 -06'00'

Alan Holderread, PE
District Traffic Engineer, LaPorte District

Reviewed by:

// omitted //

Paul South, PE
District Scoping Manager, LaPorte District

Approved by:

Steve Benczik, PE
System Asset Manager, LaPorte District



Pavement Scoping Application Report

1/21/2020

ID: 4030 for model run date 5/04/2019

Pavement

Approved

Last Edited Date	10/24/2019	Work Type	HMA Overlay, Preventive Maintenance
Last Updated By	System, DTIMS	Work Category	District Pavement Project (Non-I)
Proposed FY	2024	Score	
Pre-DES			

Pavement Project Details

Pavement Section ID	4030	State Log Date	08/22/2019
Route	US 12	From RP + Offset	37 + 003
Created Date	10/11/2019	To RP + Offset	45+V1 + 000
Location		SL Measure From	38.201
		SL Measure To	46.244

Roadway Information

District	LA PORTE	Pavement Area	
Subdistricts	LA PORTE	Underdrains Present	No
County(s)	46 - LaPorte, 64 - Porter	Curbs Present	No
Project Length	8.05	Known ADA Deficiencies	No
Number of Through Lanes	4	Est # of Lg Culverts (>48" -20')	
Number of Lane Miles	31.18	Est # of Sm Culverts (12-48")	15
Functional Class	3 - Principal Arterial - Other		
On NHS	0 - Not on the NHS		
AADT Year	2018		
AADT	13,061		
AADT Truck	1,169		
Pavement Type			

Project History

Project Type	Contract #	Year	Work Type
Functional			
Structural	RS-32772	2011	HMA Overlay Minor Structural

Maintenance History

Significance	Year	Maintenance Work Type
--------------	------	-----------------------

Condition Data

	Year
Data Year	
Percent Functional Cracking	0
Percent Structural Cracking	0
Rut (in)	0.11
IRI (in/mile)	93
Distress Box Area	

Purpose/Need Of Project



Pavement Scoping Application Report

1/21/2020

ID: 4030 for model run date 5/04/2019

Purpose And Need Within the project limits, US 12 pavement has longitudinal joint damage and transverse cracking.

The primary purpose of this project is to improve the pavement condition to a good condition (IRI<95) and provide extended service life to the pavement structure.

Own It: Alternatives

Preliminary Alternatives That Are Contemplated (Analyzed) With Costs

The recommended treatment is to construct a PM overlay of 1.5 inches of QC/QA HMA.

Consequences If No Action Is Taken (Do Nothing Alternative Is Selected)

The pavement will continue to deteriorate beyond useable life.

Secondary Considerations or Goals With Costs

Will Further Analysis/Assessment Be Required Beyond This Form? No

Additional Features To be Included

RPMs	Yes	Centerline Rumble Stripe	Yes
Curb Ramps	Yes	Edgeline Rumble Stripes	Yes

Estimated Total Project Costs

Phase	Amount	Comments
Right of Way Purchase		
Right of Way Services		
Preliminary Engineering 1	\$1,699,000	
Railroad PE 1	\$500,000	Active railroad crossing within project limits.
Utilities PE	\$57,000	
Utilities CN	\$0	No anticipated relocations.
Construction Total \$11,322.		
Construction	\$11,322,000	
RR Construction		
Maintenance of Traffic		
Environmental Mitigation		
ADA	\$99,600	
Construction Engineering	\$397,000	
Other Considerations		
Total	\$14,074,600	

Maintenance of Traffic

Can this road be closed due to traffic?	Yes	Interstate Congestion Policy Waiver Required	No
Traffic Management Plan Required?	No		
Anticipated MOT Scheme Value	Detour		
3			

Other Considerations

Anticipated Number of Construction Seasons To Complete	1.00
Anticipated Number of Years To Complete Design	
Environmental Document Type	PCE
Environmental Factors	



Pavement Scoping Application Report

1/21/2020

ID: 4030 for model run date 5/04/2019

Additional Anticipated Complications

Tree Clearing	No
Fish	No
Bats	No
Historical	No
Potential Hazardous Coatings	No

Additional Comments

Supporting Documents

Document Type	Document Name	Date
---------------	---------------	------

Report Prepared By and Approved By

Title	Signature	
Submitted By Asset Engineer	Mooney, Molly	10/16/2019
Concur By Scoping Engineer	South, Paul	10/21/2019
Approved By SAM	Benczik, Steve	10/24/2019

Submittal Type	Minor	Submittal Year	2024
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Images

**ADDENDUM No. 3
TO (ABBREVIATED) ENGINEER'S REPORT**

Project Number: 2000607
Route / Feature Crossed: U.S. 12
Project Location: From the Porter/LaPorte Co Line to the MI State Line
Date: 4/11/2023

ADDENDUM JUSTIFICATION:

Five design items are to be incorporated into the project scope. The items are listed below and further clarified and refined in the attached re-purposed Engineering Assessment.

REVISION TO ORIGINAL SCOPE DOCUMENT:

The (Abbreviated) Engineer's Report is being revised as follows:

Does the revision change the project's Purpose & Need statement? ☐ Yes ☒ No

Does the revision change the project's recommended alternative? ☒ Yes ☐ No

Preferred Alternative, Replace as follows:

Right Sizing revision of Addendum #1 as listed below:

- a. Single thru lanes on U.S. 12 with added bike lane from Mt. Baldy park approach to Singing Sands Trail
- b. Three-lane section with TWLTL from Singing Sands Trail to just west of Wabash Street
- c. Three-lane section with TWLTL from Cook Street to Liberty Trail
- d. Single thru lane for eastbound U.S. 12 and single thru lane for northbound to eastbound S.R. 212 within U.S. 12-S.R. 212 intersection with added dedicated turn lanes and hatch pavement markings

Structure Scope Revisions. All enclosed storm sewer CIPP lining has been removed from the scope of the project. All standalone enclosed storm sewer inlet and manhole replacements have been removed from the scope of the project. Castings within the INDOT roadway and right of way that are damaged will be replaced within the project limits. Similarly, all castings within the paving limits will be adjusted to grade as needed. Sediment-filled or buried culverts crossing U.S. 12 that were determined to be non-functioning with no legitimate upstream drainage pattern have been removed from the scope of the project.

Two traffic signal modernizations – Liberty Trail and Karwick Road - to be incorporated.

Ground Mounted sign replacement for signs older than 15 years at time of construction.

Update advanced railroad signing and pavement markings per MUTCD.

Does the revision change the project's cost estimate? ☒ Yes ☐ No

Cost will be reduced by approximately \$325,000.00

Does the revision change the project's environmental impacts? ☐ Yes ☒ No

Does the revision require additional Right-of-Way?

☐ Yes

☒ No

Does the revision change the project's schedule (design or construction)?

☐ Yes

☒ No

Does the revision require additional coordination with utility companies?

☐ Yes

☒ No

ADDENDUM CONCURRENCE

This document was prepared by:



4/11/2023

Dan Delgado, PE
Project Manager, Lawson-Fisher Associates P.C.

Reviewed by:

Molly Mooney, PE
Pavement Asset Engineer, LaPorte District

Reviewed by:

Alan Holderread, PE
District Traffic Engineer, LaPorte District
Alan Holderread, PE

Reviewed by:

Paul South, P.E.
District Scoping Manager, LaPorte District

Approved by:

Steve Benczik, P.E.
System Asset Manager, LaPorte District

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NOT FOR
CONSTRUCTION
I-11

RECOMMENDED FOR APPROVAL _____	
DESIGNED: ELZ _____	DRAWN: BJS _____
CHECKED: DGD _____	CHECKED: ELZ _____
DESIGN ENGINEER _____ DATE _____	

INDIANA
DEPARTMENT OF TRANSPORTATION

EXHIBIT PLAN - LINE "A"
STA. 10+00 TO STA. 25+00

SCALE 1" = 50'	BRIDGE FILE	
	DESIGNATION 2000607	
SURVEY BOOK	SHEETS	
	1	of 17
CONTRACT R-43027	PROJECT 2000607	

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25+00

30+00

35+00

40+00



NOTE:
Singing Sand Trail Project Constructed in 2019
is not reflected on the current aerial imagery.
The crossing was surveyed as a part of this
project.

NOT FOR
CONSTRUCTION
I-12

RECOMMENDED FOR APPROVAL _____		DESIGN ENGINEER _____		DATE _____	
DESIGNED: ELZ		DRAWN: BJS			
CHECKED: DGD		CHECKED: ELZ			

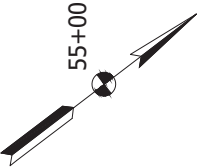
INDIANA DEPARTMENT OF TRANSPORTATION	
EXHIBIT PLAN - LINE "A" STA. 25+00 TO STA. 40+00	

SCALE 1" = 50'		BRIDGE FILE	
		DESIGNATION 2000607	
SURVEY BOOK		SHEETS 2 of 17	
CONTRACT R-43027		PROJECT 2000607	

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NOTE:
Singing Sand Trail Project Constructed in 2019
is not reflected on the current aerial imagery.



NOT FOR
CONSTRUCTION
I-13

RECOMMENDED FOR APPROVAL _____	
DESIGNED: ELZ _____	DRAWN: BJS _____
CHECKED: DGD _____	CHECKED: ELZ _____
DESIGN ENGINEER _____ DATE _____	

INDIANA DEPARTMENT OF TRANSPORTATION	
EXHIBIT PLAN - LINE "A" STA. 40+00 TO STA. 55+00	

SCALE 1" = 50'	BRIDGE FILE	
	DESIGNATION 2000607	
SURVEY BOOK	SHEETS	
	3	of 17
CONTRACT R-43027	PROJECT 2000607	

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Match Line Sta. 55+00 Line "A"

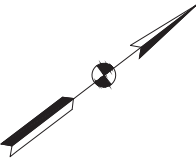


55+00

60+00

65+00

70+00



NOT FOR
CONSTRUCTION
I-14

RECOMMENDED FOR APPROVAL		DESIGN ENGINEER	DATE
DESIGNED: ELZ	DRAWN: BJS		
CHECKED: DGD	CHECKED: ELZ		

INDIANA
DEPARTMENT OF TRANSPORTATION

EXHIBIT PLAN - LINE "A"
STA. 55+00 TO STA. 70+00

SCALE 1" = 50'	BRIDGE FILE	
	DESIGNATION 2000607	
SURVEY BOOK	SHEETS 4 of 17	
CONTRACT R-43027	PROJECT 2000607	

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NOT FOR
CONSTRUCTION
I-15

RECOMMENDED FOR APPROVAL		DESIGN ENGINEER	DATE
DESIGNED: ELZ	DRAWN: BJS		
CHECKED: DGD	CHECKED: ELZ		

INDIANA
DEPARTMENT OF TRANSPORTATION

EXHIBIT PLAN - LINE "A"
STA. 70+00 TO STA. 100+00

SCALE 1" = 50'	BRIDGE FILE	
	DESIGNATION 2000607	
SURVEY BOOK	SHEETS	
	5 of 17	
CONTRACT R-43027	PROJECT 2000607	

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NOT FOR
CONSTRUCTION

I-16

RECOMMENDED FOR APPROVAL		DESIGN ENGINEER	DATE
DESIGNED: ELZ		DRAWN: BJS	
CHECKED: DGD		CHECKED: ELZ	

INDIANA DEPARTMENT OF TRANSPORTATION	
EXHIBIT PLAN - LINE "A" STA. 100+00 TO STA. 130+00	

SCALE 1" = 50'	BRIDGE FILE	
	DESIGNATION 2000607	
SURVEY BOOK	SHEETS	
	6	of 17
CONTRACT R-43027	PROJECT 2000607	

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NOT FOR
CONSTRUCTION
I-17

RECOMMENDED FOR APPROVAL _____	
DESIGNED: ELZ _____	DRAWN: BJS _____
CHECKED: DGD _____	CHECKED: ELZ _____
DATE _____	

INDIANA
DEPARTMENT OF TRANSPORTATION

EXHIBIT PLAN - LINE "A"
STA. 130+00 TO STA. 160+00

SCALE 1" = 50'	BRIDGE FILE	
	DESIGNATION 2000607	
SURVEY BOOK	SHEETS	
	7	of 17
CONTRACT R-43027	PROJECT 2000607	

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NOT FOR
CONSTRUCTION
I-18

RECOMMENDED FOR APPROVAL _____		
DESIGN ENGINEER _____		DATE _____
DESIGNED: ELZ _____	DRAWN: BJS _____	
CHECKED: DGD _____	CHECKED: ELZ _____	

INDIANA
DEPARTMENT OF TRANSPORTATION

EXHIBIT PLAN - LINE "A"
STA. 160+00 TO STA. 190+00

SCALE 1" = 50'	BRIDGE FILE	
	DESIGNATION 2000607	
SURVEY BOOK	SHEETS 8 of 17	
CONTRACT R-43027	PROJECT 2000607	

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NOT FOR
CONSTRUCTION

I-19

RECOMMENDED FOR APPROVAL _____	
DESIGNED: ELZ _____	DRAWN: BJS _____
CHECKED: DGD _____	CHECKED: ELZ _____
DESIGN ENGINEER _____ DATE _____	

INDIANA
DEPARTMENT OF TRANSPORTATION

EXHIBIT PLAN - LINE "A"
STA. 190+00 TO STA. 220+00

SCALE 1" = 50'	BRIDGE FILE	
	DESIGNATION 2000607	
SURVEY BOOK	SHEETS	
	9	of 17
CONTRACT R-43027	PROJECT 2000607	

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NOT FOR
CONSTRUCTION
I-20

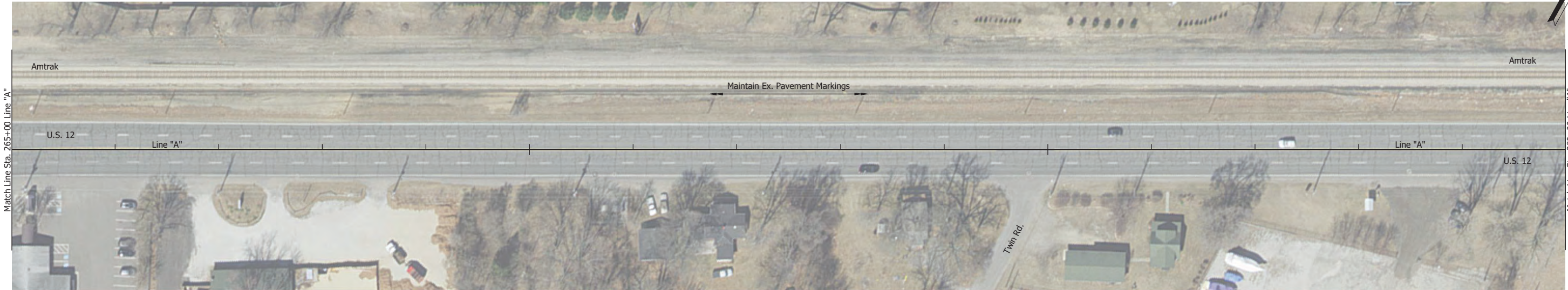
RECOMMENDED FOR APPROVAL _____		DESIGN ENGINEER _____		DATE _____	
DESIGNED: ELZ _____		DRAWN: BJS _____			
CHECKED: DGD _____		CHECKED: ELZ _____			

INDIANA
DEPARTMENT OF TRANSPORTATION

EXHIBIT PLAN - LINE "A"
STA. 220+00 TO STA. 250+00

SCALE 1" = 50'		BRIDGE FILE	
		DESIGNATION 2000607	
SURVEY BOOK		SHEETS	
		10 of 17	
CONTRACT R-43027		PROJECT 2000607	

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NOT FOR
CONSTRUCTION
I-21

RECOMMENDED FOR APPROVAL _____	
DESIGNED: ELZ _____	DRAWN: BJS _____
CHECKED: DGD _____	CHECKED: ELZ _____
DESIGN ENGINEER _____ DATE _____	

INDIANA
DEPARTMENT OF TRANSPORTATION

EXHIBIT PLAN - LINE "A"
STA. 250+00 TO STA. 280+00

SCALE 1" = 50'	BRIDGE FILE	
	DESIGNATION 2000607	
SURVEY BOOK	SHEETS	
	11	of 17
CONTRACT R-43027	PROJECT 2000607	

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NOTE:
Current aerial imagery does not reflect the existing condition at Eastwood Rd. / Moore Rd. of single thru lanes with dedicated left turn lanes.

NOT FOR
CONSTRUCTION
I-22

RECOMMENDED FOR APPROVAL _____	
DESIGNED: ELZ _____	DRAWN: BJS _____
CHECKED: DGD _____	CHECKED: ELZ _____
DATE _____	

INDIANA DEPARTMENT OF TRANSPORTATION	
EXHIBIT PLAN - LINE "A" STA. 280+00 TO STA. 310+00	

SCALE 1" = 50'	BRIDGE FILE	
	DESIGNATION 2000607	
SURVEY BOOK	SHEETS	
	12	of 17
CONTRACT R-43027	PROJECT 2000607	

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NOTE:
Current aerial imagery does not reflect the existing condition at Eastwood Rd. / Moore Rd. of single thru lanes with dedicated left turn lanes.

NOT FOR
CONSTRUCTION
I-23

RECOMMENDED FOR APPROVAL _____		DESIGN ENGINEER _____		DATE _____	
DESIGNED: ELZ _____		DRAWN: BJS _____			
CHECKED: DGD _____		CHECKED: ELZ _____			

INDIANA
DEPARTMENT OF TRANSPORTATION

EXHIBIT PLAN - LINE "A"
STA. 310+00 TO STA. 340+00

SCALE 1" = 50'		BRIDGE FILE	
		DESIGNATION 2000607	
SURVEY BOOK		SHEETS	
		13 of 17	
CONTRACT R-43027		PROJECT 2000607	

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CONSTRUCTION
I-24

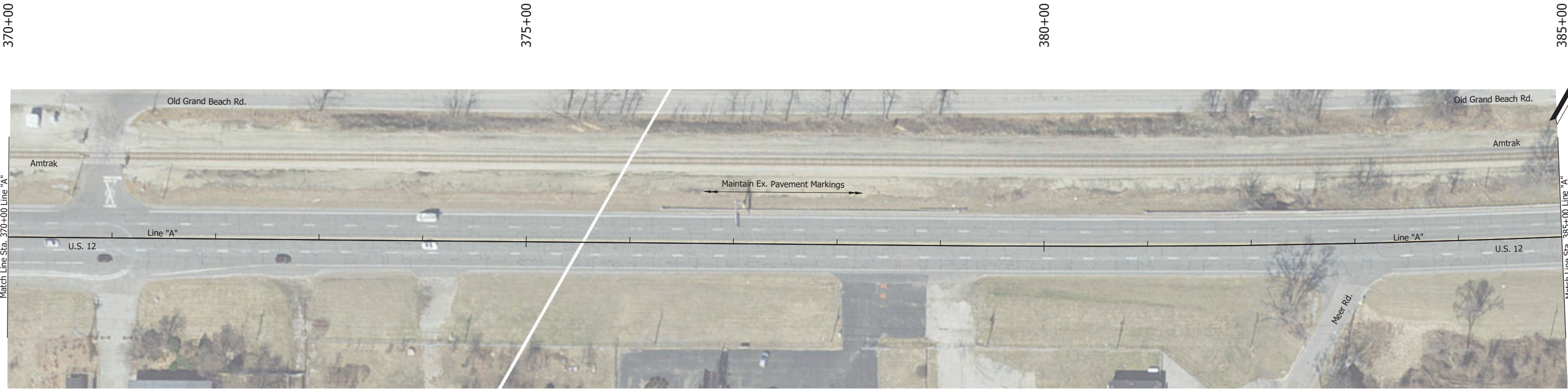
RECOMMENDED FOR APPROVAL		DESIGN ENGINEER	DATE
DESIGNED: ELZ	DRAWN: BJS		
CHECKED: DGD	CHECKED: ELZ		

INDIANA
DEPARTMENT OF TRANSPORTATION

EXHIBIT PLAN - LINE "A"
STA. 340+00 TO STA. 355+00

SCALE 1" = 50'	BRIDGE FILE	
	DESIGNATION 2000607	
SURVEY BOOK	SHEETS	
CONTRACT R-43027	14 of 17	PROJECT 2000607

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CONSTRUCTION
I-25

RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		DATE
DESIGNED: ELZ		DRAWN: BJS		
CHECKED: DGD		CHECKED: ELZ		

INDIANA
DEPARTMENT OF TRANSPORTATION

EXHIBIT PLAN - LINE "A"
STA. 355+00 TO STA. 385+00

SCALE 1" = 50'		BRIDGE FILE	
		DESIGNATION 2000607	
SURVEY BOOK		SHEETS 15 of 17	
CONTRACT R-43027		PROJECT 2000607	

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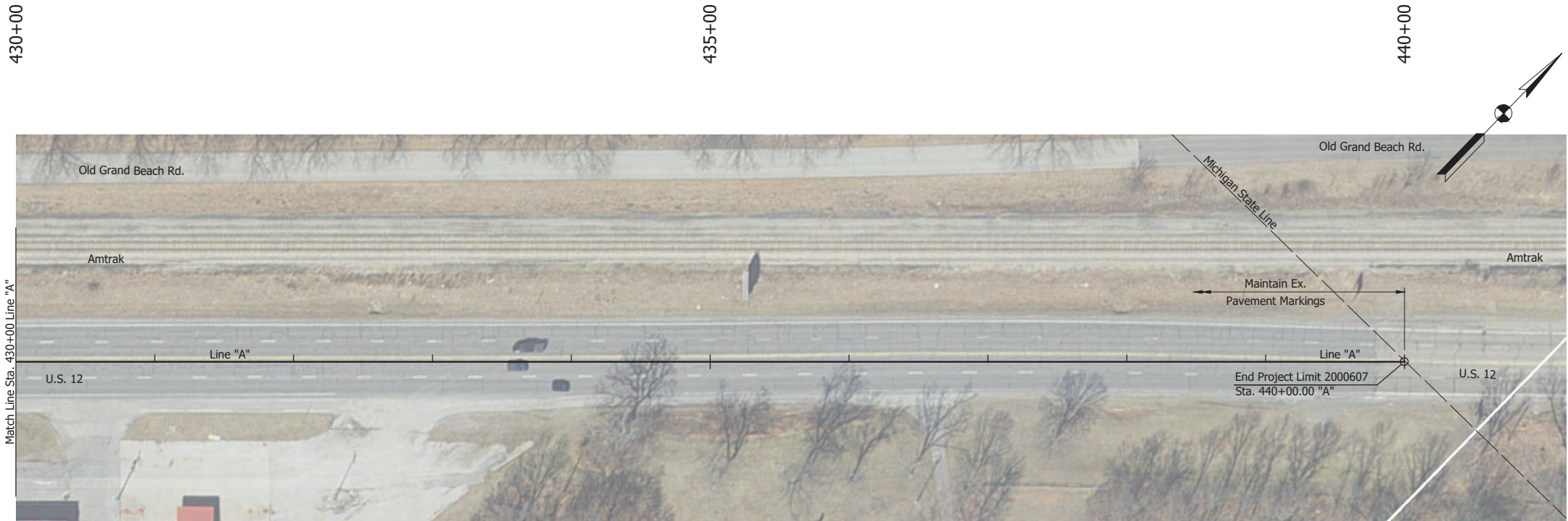
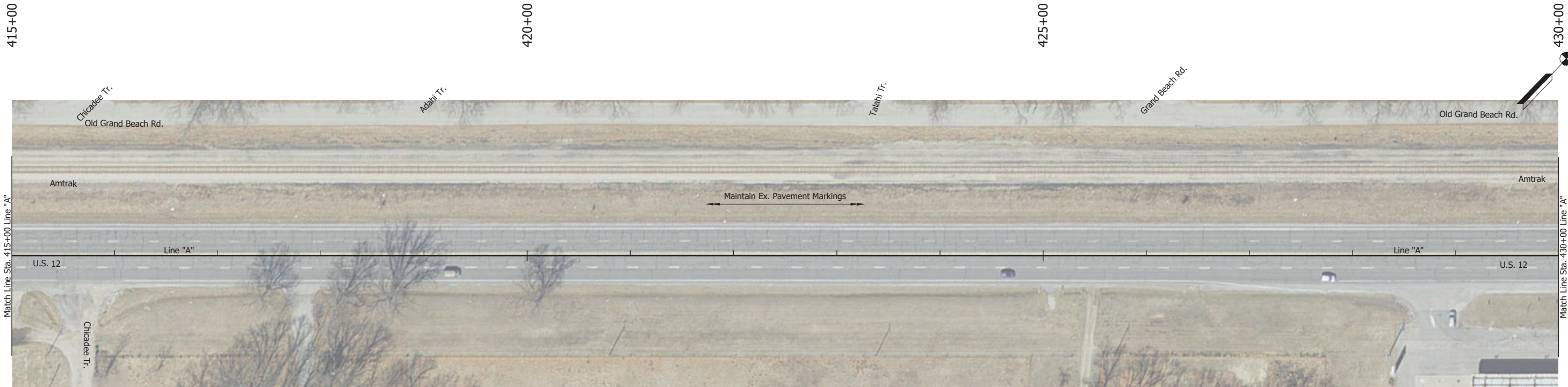
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CONSTRUCTION
I-26

RECOMMENDED FOR APPROVAL _____	
DESIGNED: ELZ _____	DRAWN: BJS _____
CHECKED: DGD _____	CHECKED: ELZ _____

INDIANA DEPARTMENT OF TRANSPORTATION	
EXHIBIT PLAN - LINE "A" STA. 385+00 TO STA. 415+00	

SCALE 1" = 50'	BRIDGE FILE	
	DESIGNATION 2000607	
SURVEY BOOK	SHEETS	
	16	of 17
CONTRACT R-43027	PROJECT 2000607	

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NOT FOR
CONSTRUCTION
I-27

RECOMMENDED FOR APPROVAL _____	
DESIGNED: ELZ _____	DRAWN: BJS _____
CHECKED: DGD _____	CHECKED: ELZ _____
DATE _____	

INDIANA DEPARTMENT OF TRANSPORTATION	
EXHIBIT PLAN - LINE "A" STA. 415+00 TO STA. 440+00	

SCALE 1" = 50'	BRIDGE FILE
	DESIGNATION 2000607
SURVEY BOOK	SHEETS 17 of 17
CONTRACT R-43027	PROJECT 2000607

Indiana Department of Transportation
ENGINEERING ASSESSMENT

Des. No. 2000607

HMA Overlay, Preventive Maintenance

Location: From 0.2 Miles East of Porter/LaPorte County Line to Michigan State Line

County: LaPorte

Project Location:
U.S. 12 From 0.2 Miles East of
Porter/LaPorte County Line to
Michigan State Line



Prepared by:



Lawson-Fisher Associates P.C.
525 West Washington Avenue
South Bend, Indiana 46601

Date: April 10, 2023

A. PURPOSE OF THE REPORT

The purpose of this report is to re-purpose an engineering assessment within an addendum and address scope revisions, including all coordination that has been completed in preparation for this road project. This document outlines the proposal and is intended to serve as a guide for subsequent survey, design, environmental, right-of-way, and other project activities leading to construction. The preferred alternative identified in this document is considered predecisional, pending the outcome of environmental studies.

B. PROJECT LOCATION

The project is located on U.S. 12, west of Michigan City, east of the intersection of U.S. 12 and Beverly Drive at the Porter-LaPorte County Line (RP 37+34) and continues east to the border of Indiana and Michigan (RP 45+16) in LaPorte County. The west limit will be defined in conjunction with the intersection improvement at Beverly Drive and a horizontal curve superelevation correction within Des. No. 2100222. The latitude/longitude for this project is approximately 41°42'21" North and 86°55'47" West at the west limit and 41°45'36" North and 86°48'02" West at the east limit. This project is in the Indiana Department of Transportation's LaPorte District, LaPorte Sub-District. This location is within the Northwestern Indiana Regional Planning Commission (NIRPC). See the Project Location Map in Appendix A for reference.

C. PROJECT NEED AND PURPOSE

The primary need for this project is based on the deteriorated state of the existing asphalt pavement.

The purpose of the project is to increase the strength of the pavement structure and improve the riding surface of the pavement while correcting any cross-slope deficiencies, to improve drainage conditions and structures, to improve safety and reduce crashes, to modernize two traffic signals, to upgrade ground mounted signs, and to construct ADA-compliant curb ramps and pedestrian crossings.

D. EXISTING FACILITY

The existing roadway facility is classified as an Urban – Principal Arterial-Other. The roadway is not part of the U.S. National Highway System (NHS). A portion of the project limits are on the National Truck Network (NTN). U.S. 12 from S.R. 212 to the State Line is on the NTN. The posted speed varies through the 8.05 mile project limits beginning with the westernmost 0.75 miles at 45 mph. The remaining speeds from west to east are the following: 1.02 miles at 35 mph, 0.32 miles at 25 mph, 0.91 miles at 35 mph, 1.12 miles at 45 mph, and 3.93 miles at 55 mph.

Roadway Cross Section

U.S. 12 width varies from 43 ft. to 92 ft. of composite and HMA pavement. The roadway consists of 11 ft. to 12 ft. travel lanes with shoulders that range from 0 ft. to 10 ft. paved, and 2 ft. to 15 ft. usable shoulders. There is curb for 0.9 miles of this section of roadway,

and sidewalks that range from 5 ft. to 16 ft. The typical roadway embankment has 4:1 sideslopes or flatter. The apparent existing right-of-way varies through the project limits. Snowplowable raised pavement markers are present, while milled centerline or shoulder corrugations are not. Guardrails with standard end treatments are present at the bridge over Trail Creek. Guardrail is present along the north side of U.S. 12 from 450 feet west of Sheridan Avenue to Douglas Avenue (0.25 miles) to protect the Singing Sands Trail where it is immediately adjacent to U.S. 12. Damaged guardrail was noted on the north side of U.S. 12 across from Douglas Avenue.

Roadway Information – From West Project Limit to Singing Sands Trail			
Geometric Criteria			
Design Speed	45 mph	Functional Class	Principal Arterial
Design Criteria	Partial 3R	Rural/Urban	Urban
Terrain	Level	Access Control	None
Approach Cross Section			
IDM Fig. Ref	IDM Fig. 56-4A, 4E, 4F, 51-7B, 7G, 7H		
Travel Lane Count	4 (Existing)	Travel Lane Width	11 ft. (Existing)
	2 (w/ Bike Lane)		12 ft. (Proposed)
			Bike Lane Width
Shoulder Width (Usable)	2-3 ft. (Existing)	Shoulder Width (Paved)	0-1 ft. (Existing)
	4-5 ft. (Proposed)		4-6 ft. w/ Bike Buffer (Prop.)
Mainline Pavement	HMA on Conc. (Existing)	Shoulder Pavement	HMA (Existing)
	HMA on Conc. (Proposed)		HMA (Proposed)
Alignment			
Horizontal	Tangent (typically), 1 significant horiz. curve	Vertical	Straight grade (Existing)
			Straight grade (Proposed)

Roadway Information – From Singing Sands Trail to Wabash Street			
Geometric Criteria			
Design Speed	Varies (35-45 mph)	Functional Class	Principal Arterial
Design Criteria	Partial 3R	Rural/Urban	Urban
Terrain	Level	Access Control	None
Approach Cross Section			
IDM Fig. Ref	IDM Fig. 56-4A, 4E, 4F		
Travel Lane Count	4 (Existing)	Travel Lane Width	11 ft. (Existing)
	3 (2 thru w/ turn lanes) (Proposed)		12 ft. (Proposed)
Shoulder Width (Usable)	2-3 ft. (Existing)	Shoulder Width (Paved)	0-1 ft. (Existing)
	4-5 ft. (Proposed)		2-3 ft. (Proposed)
Mainline Pavement	HMA on Conc. (Existing)	Shoulder Pavement	HMA (Existing)
	HMA on Conc. (Proposed)		HMA (Proposed)
Alignment			

<i>Horizontal</i>	Tangent (typically), 3 significant horiz. curves	<i>Vertical</i>	Straight grade (Existing)
			Straight grade (Proposed)

Roadway Information – From Wabash Street Intersection to Blue Chip Drive Intersection			
Geometric Criteria			
Design Speed	35 mph	Functional Class	Principal Arterial
Design Criteria	Partial 3R	Rural/Urban	Urban
Terrain	Level	Access Control	None
Approach Cross Section			
IDM Fig. Ref	IDM Fig. 56-4A, 4E, 4F		
Travel Lane Count	4+Median w/ Lt. Turns (Existing)	Travel Lane Width	12 ft. (Existing)
	4+Median w/ Lt. Turns (Proposed)		12 ft. (Proposed)
Shoulder Width (Usable)	0 ft (Curb and Gutter)	Shoulder Width (Paved)	0 ft (Curb and Gutter)
Mainline Pavement	HMA on Conc. (Existing)	Shoulder Pavement	HMA (Existing)
	HMA on Conc. (Proposed)		HMA (Proposed)
Alignment			
Horizontal	Tangent	Vertical	Straight Grade (Existing)
			Straight Grade (Proposed)

Roadway Information – From Blue Chip Drive Intersection to East Project Limit			
Geometric Criteria			
Design Speed	Varies (35 mph, 45 mph, 55 mph)	Functional Class	Principal Arterial
Design Criteria	Partial 3R	Rural/Urban	Urban
Terrain	Level	Access Control	None
Approach Cross Section			
IDM Fig. Ref	IDM Fig. 56-4A, 4E, 4F		
Travel Lane Count	4 (w/ turn lanes) (Existing)	Travel Lane Width	12 ft. (Existing)
	3 (2 thru w/ turn lanes) or 4 (w/ turn lanes) (Proposed)		12 ft. (Proposed)
Shoulder Width (Usable)	2-15 ft. (Existing)	Shoulder Width (Paved)	2-15 ft. (Existing)
	4-17 ft. (Proposed)		2-15 ft. (Proposed)
Mainline Pavement	HMA on Conc. (Existing)	Shoulder Pavement	HMA (Existing)
	HMA on Conc. (Proposed)		HMA (Proposed)
Alignment			
Horizontal	Tangent	Vertical	Straight grade (Existing)
			Straight grade (Proposed)

Roadway History

This section of U.S. 12 was constructed prior to 1923 by the County in gravel. Subsequent pavement history is listed below.

U.S. 12 Pavement History

Year	Width	Type of Work
1923	18'-20'	Concrete Grading and Paving.
1932	22'	Concrete Widening on the Right Side.
1960	48'	Concrete Widening. Added Center Curb.
1979	24'	Bituminous Structural Overlay Surface and Binder (3 courses)
1994	56'	Resurface from S.R. 212 to Michigan State Line
1996	Varies 35'-90'	Resurface from Porter/LaPorte County Line to S.R. 212
2011	Varies 35'-90'	HMA Overlay, Minor Structural

Pavement Condition

The IRI was 93 inch/mile and the Rut was 0.11 inch as shown on the Project Application Mini Scope approved on 10/24/2019.

Drainage

Drainage is typically facilitated through roadside ditches from the west end of the project to the west side of the Amtrak crossing (1.80 mile), and from Cook Street to the east end of the project (5.42 miles). Drainage is facilitated through an enclosed storm sewer system from the east side of the Amtrak crossing to Cook Street (0.83 miles). Standing water was observed along the edge of U.S. 12 at the following intersections: Lincoln Street, McClelland Avenue, Francisco Street, Pine Street, and Cook Street.

There were multiple areas of freshwater emergent wetland, freshwater forested/shrub wetland, and freshwater ponds discovered on the National Wetland Inventory that are in the vicinity of the project. There is a section of freshwater emergent and forested/shrub wetlands immediately adjacent to U.S. 12 from the west end of the project to 0.10 miles west of the South Shore railroad crossing. U.S 12 crosses over Trail Creek and White Ditch within the limits of the project.

Public Road Approaches, Private Drives and Sidewalk and Curb Ramps

There are 38 public road approaches on U.S. 12 within the project limits. They are the following from west to east: Rice Street, Sheridan Avenue, W. 8th Street, Logan Street, Greeley Avenue, Douglas Avenue, Lincoln Avenue, McClelland Avenue, Custer Avenue, W. 6th Street, Francisco Street, Willard Avenue, W. 4th Street, Wabash Street, Washington Street, Franklin Street, Pine Street, E. Michigan Boulevard, W. 2nd Street, E. 2nd Street, Blue Chip Drive, Cook Street, F Street, Liberty Trail, Martin Luther King Drive, Minnie Street, Nahas Street, N. Karwick Road, Twin Road, Belle Road, Freyer Road, Eastwood

Road, Duneland Beach Drive, Davis Street, S.R. 212, Meer Road, W. 1000 North, and Shady Oak Lane. There are 27 stop sign-controlled T-intersection public road approaches with 18 exclusively accessing residential communities. There is 1 signal-controlled T-intersection public road approach. There are 6 stop sign-controlled 4-way intersection public road approaches and 5 signal-controlled 4-way intersection public road approaches.

There are 136 private approaches on U.S.12 within the project limits. There are 87 improved approaches with 22 having mailboxes. There are 49 unimproved approaches with 28 having mailboxes.

The following intersections have curb ramps within the project scope: Singing Sands Trail Crossing west of the South Shore Railroad, Logan Street, Greeley Avenue, Douglas Avenue, Lincoln Avenue, McClelland Avenue, Custer Avenue, W. 6th Street, Wabash Street, Washington Street, Franklin Street, Pine Street, Spring Street/E. Michigan Boulevard, W. 2nd Street, E. 2nd Street, Blue Chip Drive, and Cook Street. At the Preliminary Field Check it was determined the crosswalks at Lincoln Ave. and McClelland Ave crossing U.S. 12 will be eliminated as part of this project. This was based on the limited sight distance and lack of stop control at these intersections. Curb Ramp and Crosswalk scope reviewed by ADA Technical Advisory Committee (TAC) on 9/29/21. See comments in Appendix K.

The Singing Sands Trail crosses U.S. 12 west of the South Shore Railroad Crossing and at Spring Street. The trail runs along the north side of U.S. 12 between these crossings. The Singing Sands Trail doubles as a multi-use path/sidewalk from the Amtrak Railroad Crossing to Spring Street. Sidewalk is present along U.S. 12 in the following locations within the project limits: the south side of U.S. 12 from McClelland Avenue to Willard Avenue, the south side of U.S. 12 from just east of the Amtrak Railroad Crossing to Cook Street, the north side of U.S. 12 from Spring Street to Cook Street, and the south side of U.S. 12 from Liberty Trail to approximately 330 ft. east of Liberty Trail.

Railroads

There are two railroad crossings located within the project limits. The South Shore Railroad Crossing is located approximately 0.20 miles west of Sheridan Avenue. The Amtrak Railroad Crossing is located approximately 0.12 miles west of Wabash Street. The Amtrak Railroad is north of U.S. 12 and runs parallel to the highway for project limits. The NIPSCO Michigan City Generating Station has rails north of U.S. 12 that connect into the main rail lines.

Land Use

The west end of the project is adjacent to Indiana Dunes National Park Mount Baldy. From the South Shore Railroad crossing to Willard Avenue is primarily residential. Pullman Park is located on the southeast corner of U.S. 12 and Willard Avenue. The middle section from Willard Avenue to Blue Chip Drive. is primarily urban commercial and includes parts of downtown Michigan City. The east end of the project from Blue Chip Drive to the Michigan

State Line is a mix of commercial and residential along U.S. 12 with undeveloped wooded areas throughout.

E. FIELD CHECK

An unofficial site visit was performed by LFA staff on June 15, 2021. An official Site Visit with INDOT and LFA staff was performed on June 25, 2021. INDOT and LFA staff visited each intersection within the project limits to discuss ADA scope for each intersection. See Appendix B for minutes. The Preliminary Field Check was conducted on August 31, 2022. Ground level photographs are in Appendix C.

F. TRAFFIC DATA AND CAPACITY ANALYSIS

Traffic data was furnished by INDOT Traffic Services. The table below summarizes the results of the most heavily traveled segments in each of the three distinctive sections within the project limits. The residential section west of downtown Michigan City (west project limit to Wabash Avenue), downtown Michigan City (Wabash Avenue to Blue Chip Drive), and the residential/commercial section east of downtown Michigan City (Blue Chip Drive to the Michigan State Line). The traffic forecast request output from INDOT is provided in Appendix D.

Project Sections	West Project Limit to Wabash Avenue (1.81 miles)	Wabash Avenue to Blue Chip Drive (0.81 miles)	Blue Chip Drive to Michigan State Line (5.43 miles)
Most Heavily Traveled Segment	Douglas Avenue to Wabash Street	East Michigan Boulevard to Blue Chip Drive	Meer Road to 1000 N
2019 AADT (vpd)	6,531	10,587	7,347
2024 AADT (vpd)	6,626	10,741	7,454
2044 AADT (vpd)	7,004	11,355	7,880
2044 DHV (%)	9.69	8.78	9.65
Commercial Vehicles (% AADT)	5.47	3.66	7.17
Commercial Vehicles (% DHV)	5.21	4.95	7.19
Directional Distribution	49.69	51.87	51.34

G. CRASH DATA AND ANALYSIS

Crash data for this section of U.S. 12 was not provided for this report. LaPorte District Traffic stated crash analysis is not required for this project scope.

H. ALTERNATIVES AND RECOMMENDATIONS

The Preventive Maintenance HMA Overlay project shall be designed in compliance with Indiana Design Manual (IDM), Chapter 56 "Partial 3R Projects", Chapter 49 "Roadside Safety", Chapter 51 "Special Design Elements", Chapter 502 "Traffic Design", and all other

applicable standards. Partial 3R Design Standards are applicable for this project due to the limited project scope.

Alternative 1: Do Nothing

This alternative would allow the existing roadway to remain in place with no improvements, which will result in the corridor not being able to safely accommodate additional commercial traffic volumes. This alternative does not meet the need nor achieves the purpose of the project and will not be considered further.

Alternative 2: HMA Overlay, Preventive Maintenance

This alternative would consist of milling the existing asphalt 1.5 inches in depth and paving 1.5 inches of HMA. The estimated construction cost for this alternative is \$8,109,000.

Details of Preferred Alternative

Full depth and partial depth patching will be required as needed within the project limits. A small amount of pavement widening at specific locations is anticipated. Milling exceptions will be required at the South Shore Railroad crossing, Amtrak Railroad crossing, and the bridge over Trail Creek. Curb ramps at intersections within the project scope will be evaluated for ADA compliance and reconstructed as needed (see Appendix E for curb ramp locations and Appendix F for TAC scope comments). Centerline rumble stripes will be constructed from S.R. 212 to the Michigan State Line. Edgeline rumble stripes will be incorporated for areas that are 2 ft. or greater in width. Snowplowable raised pavement markers will be replaced. INDOT-maintained ground mounted sheet signs 15 years and older will be replaced.

The proposed structure scope involves various construction activities. Castings of eighteen structures will be adjusted to grade. Castings of twenty-six structures will be replaced. Four eighteen-inch culverts and four fifteen-inch culverts will be replaced in kind. One inlet and the connecting stretch of twelve-inch pipe will be replaced. Obstructed inlets, drywells, and pipes will be cleaned. Six headwalls and ten end sections will be constructed as part of this project.

The project will involve Right Sizing Lane re-configuration. The existing 4 lane section from the west project limit to the intersection with the Singing Sands Trail crossing just west of the South Shore Railroad will be converted to a single through lane in each direction with a bike lane on the north side of U.S. 12 adjacent to the westbound lane. The existing 4 lane section from the intersection with Singing Sands Trail to the Amtrak Railroad crossing will be converted to a single through lane in each direction with a Two Way Left Turn Lane (TWLTL). A transition back to 4 lanes will occur between the Amtrak Railroad crossing and Wabash Street. Existing lane configurations will remain from Wabash Street to Blue Chip Drive. From Blue Chip Drive to Liberty Trail, the existing 4 lane section will be converted to single through lanes in each direction with a TWLTL. The proposed 3 lane section will be transitioned back to the existing 4 lane configuration at Liberty Trail. From Liberty Trail to the east project limit, the existing lane configurations will

remain, except for the S.R. 212 intersection where eastbound U.S. 12 will be reduced to one thru lane, which would then return to two lanes beyond the intersection.

Damaged guardrail along the north side of U.S. 12 at Douglas Avenue will be replaced and extended to the east to protect the Singing Sands Trail up to where the trail moves outside the roadway clear zone per IDM Figure 51-7C and 7D. See Appendix G.

Signal modernizations will be constructed at the intersections of Liberty Trail and North Karwick Road.

There will be a paving exception at the bridge that crosses Trail Creek approximately 600 ft. east of Spring Street.

Design standards used for this project shall be as follows:

<i>Design Standard:</i>	Partial 3R Two-Lane Rural (Fig. 56-4A), Bicyclist Operating Space (Fig 51-7B, 7G, 7H, IDM Ch. 51-7.04)
<i>Design Speed:</i>	Posted, 35 mph, 45 mph, 55 mph
<i>Lane Width:</i>	12 ft. (Vehicular Lane), 10 ft. (Bike Lane)
<i>TWLT Width:</i>	14 ft. (Fig. 55-3F, Suburban)
<i>Paved Shoulder Width:</i>	Varies 2 ft.-15 ft.
<i>Usable Shoulder Width:</i>	2 ft min.
<i>Side Slopes:</i>	Varies, 4:1 or flatter (typical)
<i>Obstruction Free Zone:</i>	20 ft (IDM Chap. 55-5.02 #1, Arterial with Shoulders, ≥ 50 mph) 16 ft. (10 ft. + 6 ft. min. paved shoulder) (IDM Chap. 55-5.02 #1, Arterial with Shoulders, ≤ 50 mph, 2 lane roadway) 1.5 ft. (2.5 ft. at traffic signals) (IDM Chap. 55-5.02 #4, Curbed Roadway, ≤ 40 mph)
<i>Clear Zone:</i>	16 ft. (IDM Fig. 49-2A, ≤ 40 mph, >6000 AADT) for 4:1 side slope (typical) 24 ft. (IDM Fig. 49-2A, 45-50 mph, >6000 AADT) for 4:1 side slope (typical) 26 ft. (IDM Fig. 49-2A, 55 mph, >6000 AADT) for 4:1 side slope (typical)

I. MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION

This project is not considered a mobility significant project per consultation with the INDOT District Scoping Manager. The Significant Work Zone Impact Determination Worksheet can be found in Appendix H. The following is the Temporary Traffic Control Plan concept that shall be used for the project:

Construction year AADT (projected 2024) average on U.S. 12 at the west end of the project from the LaPorte/Porter County Line to Wabash Street (1.80 miles total) is 6,600 vpd. The construction year AADT average on U.S. 12 through downtown Michigan City from Wabash Street to Blue Chip Drive (0.80 miles total) is 9,860 vpd. The construction year AADT average on U.S. 12 at the east end of the project from Blue Chip Drive to the Michigan Stage Line (5.45 miles total) is 6,800 vpd. After consultation with INDOT District Traffic, it was determined the roadway would remain open. Vehicular traffic shall be

maintained with a single lane closure utilizing flaggers for construction operations as shown in the INDOT Standard Drawings and the Indiana MUTCD. Minimum one lane in both directions shall be maintained at all times. Six culverts under US 12 may be replaced with phased construction. One travel lane will be maintained in each direction as the culverts are replaced in halves.

Pedestrian traffic will be re-routed during curb ramp closure and re-construction as shown in the INDOT Standard Drawings and the Indiana MUTCD. The pedestrian traffic detours will be detailed in the plans and be ADA compliant.

J. COST ESTIMATE

The project development cost for the preferred alternative is as follows

Construction Cost (CN)	\$ 8,109,000
Right-of-Way (RW)	\$ 114,500
<u>Preliminary Engineering (PE)</u>	<u>\$ 496,310</u>
Total Project Cost	\$ 8,719,810

K. ENVIRONMENTAL ISSUES

The Environmental Document (CE) will be prepared in accordance with the National Environmental Policy Act, National Historic Preservation Act, and other relevant laws. A Waters Report was prepared to confirm the jurisdictional status of any waterways and presence of wetlands for CE level determination. The Waters Report was approved on September 27, 2022. IDEM 401 Water Quality and USACE 404 Nationwide 14 permits are required. Construction-in-Floodway and Rule 5 Permits are not required.

L. SURVEY REQUIREMENTS

Survey was acquired for Signal Modernizations at Liberty Trail and Karwick Road. Survey was acquired at all intersections with ADA ramps within the project scope. Survey was acquired at narrow pavement points within Right Sizing limits. Survey of existing ground mounted INDOT sheet signs was acquired. Survey was acquired for guardrail installation at Douglas Avenue.

Fifty-Two structures were initially scoped for construction activities involving replacement or CIPP lining and required survey data to confirm elevations, diameters, lengths, and casting condition. Drainage facilities scoped for construction had immediate downstream conditions investigated and documented.

A pavement survey was completed by the Pavement Designer for severely distressed roadway sections where full depth and partial depth patching would be required. The pavement design was approved on October 14, 2022. It includes the necessary length, width, and limits of full and partial depth patching.

M. RIGHT-OF-WAY IMPACT

The existing apparent right-of-way varies throughout the entire corridor. Outside of platted areas, it is clear that the corridor was established by Indiana State Highway plans dating from the 1920's, 1930's and 1950's. INDOT was not able to provide plans covering each area. It can be assumed that, based the age of plans found and the existing improvements located in the field, the existing right-of-way has been in existence and used as such for many years. Where plans were not available, various surveys/plats/old maps confirmed right-of-way widths. The west end of the project from the point of beginning to Wabash Street, has widths ranging from 60' to 100'. The middle portion of the project, from Wabash Street to Spring Street, has a platted width of 100'. From Spring Street to Blue Chip Drive, the varying right-of-way was established from the 1987 project for the bridge over Trail Creek. The east end of the project from Blue Chip Drive to the Indiana/Michigan State Line, has a consistent 80-foot width with a few jogs, widening out to 100' at S.R. 212 and beyond.

The project requires 0.054 acres of permanent right-of-way across 6 parcels and 0.088 acres of temporary right-of-way across 13 parcels. The right-of-way was acquired for ADA ramp construction, culvert construction, and traffic signal modernization.

All public road and drive approaches will be paved to the through R/W line.

N. RAILROAD IMPACT

Railroad coordination for the South Shore Railroad and Amtrak Railroad crossings will be required. As directed by INDOT at the June 25, 2021 Site Visit, the project paving will extend to the headers of each railroad crossing. Railroad advanced signage and pavement markings will be upgraded to current standards. A pave-to-header detail will be included.

O. UTILITY IMPACT

The U.S. 12 project limits contains the following overhead facilities: ACME Communications, AT&T Distribution, Comcast, Zayo, and NIPSCO Electric. The corridor also contains the following underground facilities: AT&T Distribution, Comcast, Michigan City Sanitary District, Michigan City Water, NIPSCO Electric, and NIPSCO Gas.

P. RELATED PROJECTS

Other projects to be constructed in the vicinity of the project are listed below.

Owner	Des. No.	Route	Location	Work	Targeted Construction
Local	1500419	U.S. 12	Multi Use Path from Lake Shore County RD to County Line Road/US 12	Bike/Pedestrian Facilities	2024 (Q1)
Local	1592335	U.S. 12	Marquette Greenway/ Singing Sands Connector Trail East	Bike/Pedestrian Facilities	2024 (Q1)
Local	1802785	U.S. 12	Singing Sands Trail Phase 1-A, crossing Amtrack RR at US 12	Bike/Pedestrian Facilities	2024 (Q3)

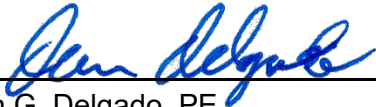
Q. COORDINATION, MEETINGS, CONCURRENCE

A Site Visit was conducted on June 25, 2021. A virtual meeting was conducted on August 9, 2021 with INDOT, Michigan City representatives, and LFA to discuss the project scope and Right Sizing U.S. 12 east and west of the city for more appropriate travel lane configuration (see Appendix C for minutes). LFA corresponded with District ADA representatives multiple times via email as follow up on the site visit to finalize ADA scope. After consultation and discussion, the Technical Advisory Committee was contacted on August 31, 2021 for ADA scope concurrence. LFA corresponded with District Scoping multiple times via email and phone for the structure scope. The INDOT Scoping Manager provided the final version of the Scope Structure Data Table on November 16, 2021. The Preliminary Field Check was conducted on August 31, 2022. A Teams call was conducted on February 10, 2023 concerning a revised structure scope. The revised structure scope was approved on April 10, 2023.

R. APPENDICES

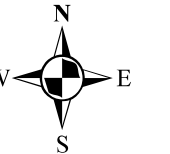
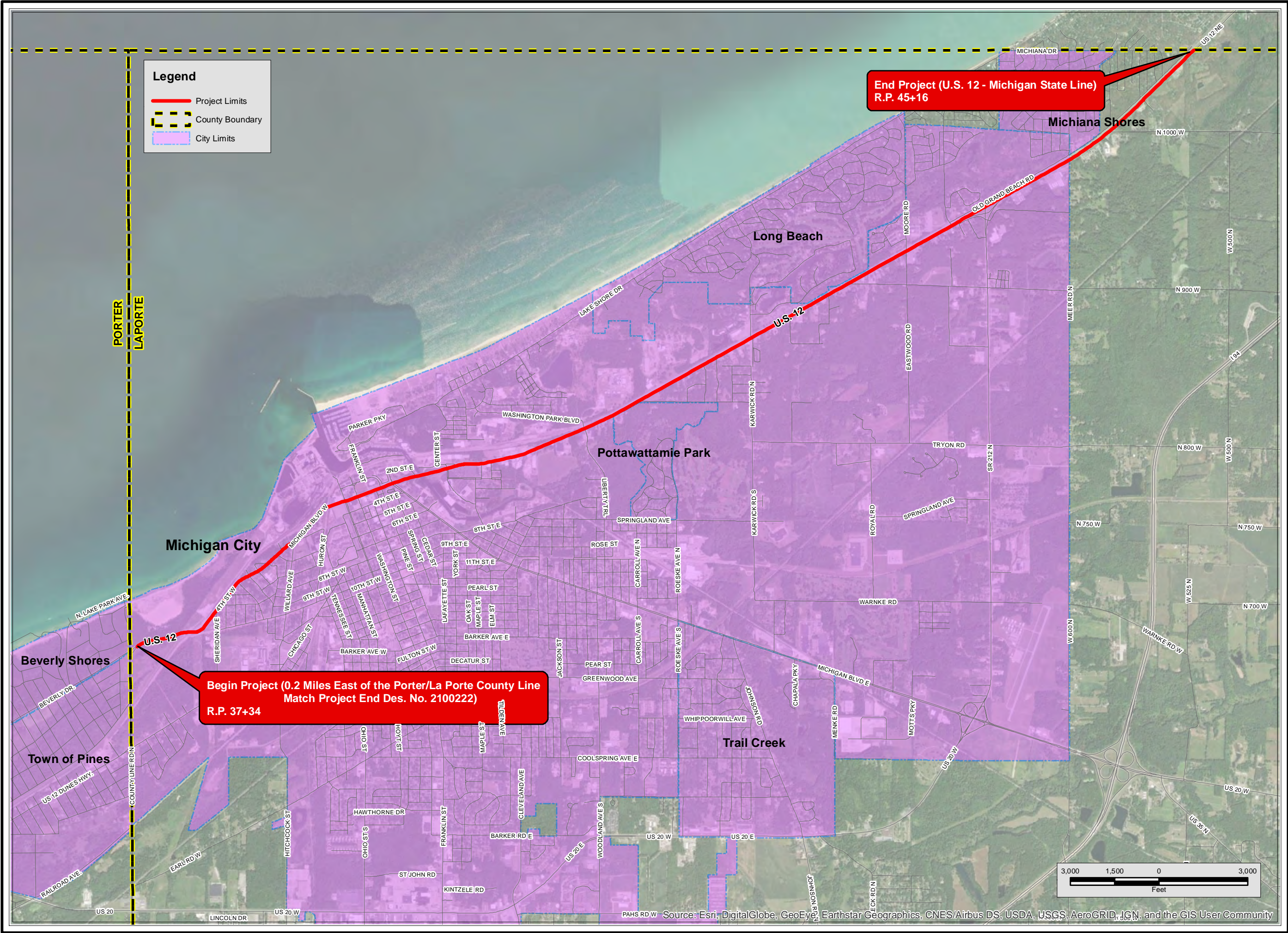
- A. Project Limits Aerial
- B. Site Visit Notes and Teams City Meeting Minutes
- C. Ground Level Photographs
- D. Traffic Forecast Report
- E. Curb Ramp Scope Exhibit
- F. ADA TAC Scope Review Comments
- G. Guardrail Exhibit
- H. Significant Work Zone Impact Determination Worksheet and District Concurrence

This document was prepared by:



Dan G. Delgado, PE
Lawson-Fisher Associates P.C.

Date: April 11, 2023





Lawson-Fisher Associates P.C.

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U.S.12 HMA Overlay, Preventive Maintenance from the Porter/LaPorte County Line to the Michigan State Line Site Visit Meeting Notes

DATE: July 8, 2021
FROM: Dan G. Delgado, PE *DDG*
RE: U.S. 12 HMA Overlay, Preventive Maintenance
Des. No.: 2000607
Contract No.: R-43027

Meeting Date: June 25, 2021
Meeting Time: 8:00 a.m. (Central Time)
Meeting Location: Porter/LaPorte County Line through Michigan City
Purpose of Meeting: Initial Site Visit

ATTENDEES:

Mr. Scott Mason	INDOT LaPorte District Project Manager	(219) 325-7523
Ms. Molly Mooney	INDOT LaPorte District Pavement Asset Manager	(219) 325-7534
Mr. Tim Werner	INDOT LaPorte District ADA Engineer	(219) 325-7589
Mr. Dan Delgado	Lawson-Fisher Associates P.C. Project Manager	(574) 234-3167
Mr. Ethan Zartman	Lawson-Fisher Associates P.C. Project Engineer	(574) 234-3167
Mr. Oscar Martinez	Lawson-Fisher Associates P.C. Design Engineer	(574) 234-3167

DISCUSSION:

The meeting generally followed the attached agenda. Specific items were discussed in more detail as provided below:

1. After introductions (sign-in sheet attached), Lawson-Fisher Associates P.C. (LFA) provided a project overview for an HMA Overlay, Preventive Maintenance Project along U.S. 12 from the Porter/LaPorte County Line to the Michigan State Line. The project has a net length of 8.05 miles.
2. The project will consist of 1.5" HMA Mill and Overlay per scope with Full and Partial Depth Patching per Addendum No.1.
3. The INDOT Pavement Asset Manager will provide the desired exact west end project limit at the county line.



4. LFA and the INDOT Project Manager will coordinate a meeting with Michigan City to discuss Road Right Sizing of U.S. 12 outside the urban city limits.
5. Paving at the S.R. 212 interchange will intersect with another INDOT paving project of S.R. 212. The interchange paving will be included in this project. The INDOT Project Manager will provide LFA the paving limits of the S.R. 212 project. LFA will design to meet at S.R. 212 limits.
6. The South Shore and Amtrack Railroad Crossings are to be paved to the header.
7. LFA spoke of a guardrail and utility pole strike north of U.S. 12 across from the Douglas Avenue intersection. The INDOT Pavement Asset Manager and District ADA Engineer are receptive to the possibility of expanding the guardrail farther along the curve of U.S. 12 between the trail and U.S. 12 for safety purposes. However, INDOT stated acquisition of right-of-way (R/W) for guardrail extension is not in the project scope. LFA will investigate the existing R/W.
8. LFA spoke of a commercial business near the intersection of Douglas Avenue that requested paved shoulder from U.S. 12 to its concrete curb at the R/W. The INDOT Pavement Asset Manager stated this would not be in the project scope unless an apparent safety issue is discovered during design.
9. LFA discussed an understanding of two signal modernizations in the project scope but questioned if the count would be increased. LFA will follow up with INDOT Traffic to confirm signal modernizations at Liberty Trail and Karwick Road. LFA will also inquire if INDOT desires additional signal modernizations at Spring Street and Blue Chip Drive. Each signal modernization would need a different designation number.
10. Any work that needs to be performed outside of INDOT's current R/W for signal modernization or ADA ramps will require additional R/W to be acquired. This will apply even if the proposed ramps are in the same footprint as the existing.
11. LFA discussed the inclusion of existing sign rehabilitation per Addendum No. 1 to the Abbreviated Engineer's Report. LFA was directed to request the sign inventory from INDOT Traffic. LFA will confirm the sign age requirement in the scope and work with INDOT Traffic for sign replacement within the project limits.
12. All public road and drive approaches will be paved to the through R/W line. Details will be developed for drive and public approach paving.
13. LFA will follow up with the INDOT Culvert Asset Engineer for possible replacement of any structures within project limits.
14. A TMP is not required per the scope report for the Maintenance of Traffic (MOT). U.S. 12 will remain open with a flagging operation and single lane closures during construction. If a crossing pipe replacement is required, a road closure may become necessary. Pedestrian MOT will need to be developed.
15. No utility relocations are anticipated in the project limits. LFA is doing the utility coordination to confirm.



16. Even though partial 3R Projects are typically done on 8.5x11 sheets, LFA requested plan sheet size of 11x17 (or full size) to better present Road Right Sizing and Signal plans. LFA will follow up with the INDOT Project Manager to confirm.
17. The schedule has letting in October 2023 and construction set for 2024. The INDOT Project Manager spoke of public involvement per addendum and what level of involvement will be necessary. Public involvement would necessitate plans being available to the public.
18. The level of Environmental Document will be confirmed with Road Right Sizing requirements. LFA will follow up with the INDOT Project Manager to confirm. No permits will be required if there are no structures present in the project.
19. Land Acquisition will likely be needed for any activity outside existing R/W. LFA will research the existing R/W and follow up with INDOT on status.
20. LFA will follow up with District Traffic for snow plowable raised pavement markings, as well as centerline and edge line corrugations.
21. The INDOT Project Manager will follow up with maintenance for any additional concerns within the project limits.
22. LFA will follow up with the Michigan City Engineer and INDOT Project Manager for adjacent projects Singing Sands Trails and S.R. 212 paving job.

The above notes represent the understanding of issues discussed and conclusions reached during the site visit. Please review and advise LFA in writing within 10 days of receipt of these notes of any errors and/or omissions.

DGD/cas

Encls.

c: Attendees w/Encls. ADA Notes



U.S.12 HMA Overlay, ADA Site Visit Notes

DISCUSSION:

Specific items were discussed in more detail as provided below:

1. LFA will survey ramps, push button areas, curb lines, structures in curb lines and crosswalk areas, and pavement markings related to ADA compliance. Intersections were reviewed for survey scope determination.
2. LFA will send ADA review submittal to INDOT LaPorte District for review prior to submitting to TAC.
3. Singing Sands Trail Crossing of U.S. 12 west of the South Shore Railroad is in scope. The INDOT Project Manager to confirm if a Memorandum of Understanding (MOU) exists for maintenance of the trail. LFA will follow up with TAC for median detectable warning surfaces.
4. Sheridan Avenue is not in the scope of the project.
5. 8th Street is currently not in the project scope, but the INDOT ADA Engineer will confirm.
6. Logan Street is in the scope of the project.
7. Greely Avenue is in the scope of the project.
8. Douglas Avenue is in the scope of the project. The guardrail for the trail and area in front of the commercial business will be checked for R/W and safety issues.
9. Lincoln Avenue is in the scope of the project. LFA will investigate drainage issue at this intersection.
10. McClelland Avenue is in the scope of the project. LFA will investigate drainage issue at this intersection.
11. Custer Avenue/Sherman Avenue is currently in the scope of the project. INDOT ADA Engineer will review and confirm.
12. 6th Street is in the scope of the project.
13. Francisco Street is in the scope of the project. LFA will investigate drainage issue at this intersection.
14. Willard Avenue is not in the scope of the project.
15. Wabash Avenue is in the scope of the project. Initial thoughts are to remove south ramp crossings of U.S. 12.
16. Washington Street is in the scope of the project.



17. Franklin Street is in the scope of the project. LFA will follow up with TAC for median detectable warning surfaces.
18. Pine Street is in the scope of the project.
19. Spring Street is in the scope of the project.
20. 2nd Street (West) is in the scope of the project.
21. 2nd Street (East) is in the scope of the project.
22. Blue Chip Drive is in the scope of the project, but LFA will follow up with the INDOT ADA Engineer for specific direction at this intersection.
23. Cook Street is in the scope of the project. LFA to investigate existing drainage issues at this intersection.



INDIANA DEPARTMENT OF TRANSPORTATION
U.S. 12 HMA Overlay, Preventive Maintenance from the Porter/LaPorte
County Line to the Michigan State Line
Des. No. 2000607
Initial Site Visit
Friday, June 25, 2021, at 8:00 A.M. Central Time

Agenda

PROPOSED MEETING SCHEDULE:

1. Sign-In
2. Introductions and Roles
3. Project Limits – Porter/Laporte Co. Line (RP 37+0.03) to MI State Line (RP 45+0.15)
4. Pavement – HMA Mill and Overlay (1.5")
 - a. Full and Partial Depth Patching
5. Proposed Typical Sections
 - a. West End to Wabash Street – Possible transition from 2 lanes to proposed 3 lane Road Diet with TWLTL. (Not included in Addendum no. 1 to the Abb. Eng. Rpt).
 - I. TWLTL width, Shoulder Width
 - II. Other considerations
 - b. Wabash Street to Spring Street – Maintain ex. 4 lanes w/ turn lanes at signalized intersections.
 - c. Spring Street to Blue Chip – Maintain ex. WB 2 lanes, EB 1 thru & 1 Rt turn
 - d. Blue Chip Dr to Cook St – Maintain existing 1 lane in each direction
 - e. Cook St. to SR 212 – Proposed 3 Lane Road Diet with TWLTL. (Addendum 1)
 - I. TWLTL Lane width, Shoulder Width
 - II. Other considerations
 - f. SR 212 to Michigan State Line – Maintain existing 4 lane section
6. Project Scope Review
 - a. ADA Ramps/Crosswalks – Separate ADA Agenda for Locations and Details
 - b. South Shore Railroad Crossing
 - I. Railroad Coordination
 - II. Paving Exception



- c. Douglas Avenue
 - I. Guardrail on North side of U.S. 12 for Singing Sands Trail
 - II. Commercial Business concern
- d. Amtrack Railroad Crossing
 - I. Railroad Coordination
 - II. Paving Exception
 - III. Singing Sands Phase I-A Project (Des 1802785)
- e. Paving Exception for Bridge over Trail Creek
- f. Cook Street
 - I. Road Diet: Begin new 3 lane section with TWLTL.
- g. Liberty Trail
 - I. Proposed Signal Modernization
- h. Martin Luther King Drive
 - I. Singing Sands Phase III Trail
- i. Karwick Road
 - I. Proposed Signal Modernization
- j. Moore Rd / Eastwood Rd
 - I. Recently restriped to one lane each direction and dedicated left turns
- k. SR 212
 - I. End 3 lane section – transition back to existing through interchange.
 - II. Paving Limits

7. Right-of-Way

- a. ADA Ramp Replacement
- b. Traffic Signal Modernization

8. Signage

- a. Existing – Rehabilitate (per Addendum No. 1 to Abb. Eng. Rpt.)
- b. Proposed for new Road Diet typical section.

9. Public Road Approaches

10. Drive Approaches & Mailboxes

11. Culverts/Small Structures



- a. Crossing at White Ditch (Meer Rd / 600 W)
- b. Roadside Ditch and private approach culverts east of SR 212.

12. Maintenance of Traffic

- a. Closure with Detour (per Scoping Report)
- b. Advanced Signage
- c. Pedestrian M.O.T.

13. Utilities

14. Plan Sheet Size

15. Schedule – (Letting October 11, 2023)

- a. Draft EA Submittal – August 29, 2021
- b. Final EA Submittal – October 28, 2021
- c. Stage 1 – April 10, 2022
- d. Preliminary Field Check – August 2022

16. INDOT Departments (LaPorte District)

- a. Engineering Assessment
- b. District Environmental
 - I. CE Document
 - II. Permits
- c. Land Acquisition
- d. District Construction
- e. District Traffic – SRPMs, CL and EL Corrugations
- f. District Maintenance
- g. Adjacent projects before or during Construction
 - I. DES 1802785 – Singing Sands Trl. Ph.1A, Crossing Amtrack RR at US 12 – Q3 2023
 - II. DES 1902691 – Liberty Trl. from Springland Ave to Lake St. – Q3 2023
 - III. DES 1601869 – Singing Sands Trl. Ph. 3 – R-40272 Letting 4/07/21

17. Adjournment



**INDIANA DEPARTMENT OF TRANSPORTATION
U.S. 12 HMA Overlay, Preventive Maintenance from the Porter/LaPorte
County Line to the Michigan State Line**

Des. No. 2000607

Initial Site Visit

Friday, June 25, 2021, at 8:00 A.M. Central Time

ADA Agenda

1. ADA Scope Field Review
 - a. Singing Sands Trail Phase I Crossing of US 12
 - I. ADA Ramps/Crosswalks
 - II. Median ADA
 - III. Flashing Beacons
 - IV. Paving Exception?
 - b. Sheridan Avenue.
 - I. ADA Ramps/Crosswalks
 - c. 8th Street.
 - I. ADA Ramps/Crosswalks
 - d. Logan Street
 - I. ADA Ramps/Crosswalks
 - e. Greely Avenue
 - I. ADA Ramps/Crosswalks
 - f. Douglas Avenue
 - I. ADA Ramps/Crosswalks
 - g. Lincoln Avenue
 - I. ADA Ramps/Crosswalks
 - i. US 12 Crossing
 - II. Access to Singing Sands Trail
 - h. McClelland Avenue
 - I. ADA Ramps/Crosswalks
 - i. US 12 Crossing
 - II. Drainage in SE Corner
 - i. Custer Avenue/Sherman Avenue



- I. ADA Ramps/Crosswalks
- j. 6th Street
 - I. ADA Ramps/Crosswalks
- k. Francisco Street
 - I. ADA Ramps/Crosswalks
 - i. Access to Singing Sands Trail
- l. Willard Avenue
 - I. ADA Ramps/Crosswalks
- m. Wabash Street
 - I. ADA Ramps/Crosswalks
 - i. Singing Sands Trail
 - ii. US 12 Crossing
- n. Washington Street
 - I. ADA Ramps/Crosswalks
 - i. Singing Sands Trail
 - II. Push Buttons
- o. Franklin Street
 - I. ADA Ramps/Crosswalks
 - i. Median ADA
 - ii. Singing Sands Trail
- p. Pine Street
 - I. ADA Ramps/Crosswalks
 - i. Singing Sands Trail
 - II. Push Buttons
 - III. Drainage in SW corner
- q. Spring Street / E Michigan Boulevard
 - I. ADA Ramps/Crosswalks
 - i. Singing Sands Trail
 - II. Push Buttons
- r. 2nd Street (West)
 - I. ADA Ramps/Crosswalks



- s. 2nd Street (East)
 - I. ADA Ramps/Crosswalks
- t. Blue Chip Drive
 - I. ADA Ramps/Crosswalks
 - i. US 12 Crossing
 - ii. Blue Chip Dr Crossing
- u. Cook Street
 - I. ADA Ramps/Crosswalks
 - II. Sidewalk



INDIANA DEPARTMENT OF TRANSPORTATION
U.S. 12 HMA Overlay, Preventive Maintenance from the
Porter/LaPorte County Line to the Michigan State Line
Des. No. 2000607
Initial Site Visit
Friday, June 25, 2021, at 8:00 A.M. Central Time

SIGN-IN

Attended	Name	Organization & Position	E-Mail	Phone
<i>SM</i>	Mr. Scott Mason	INDOT Project Manager	SMason@indot.IN.gov	
	Mr. Keith Norred	INDOT Sub Operations Manager	knorred@indot.IN.gov	
	Mr. Stewart Michels	INDOT Environmental Manager	SMichels@indot.IN.gov	
	Ms. Bridgette Murray	INDOT Environmental Manager	BMurray@indot.IN.gov	
<i>NWM</i>	Ms. Molly Mooney	INDOT Pavement Asset Engineer	mmooney@indot.in.gov	219 325 7534
	Ms. Jesica Watson	INDOT Right of Way	JeWatson@indot.IN.gov	
	My. Michael Yacullo	INDOT Traffic	MYacullo@indot.IN.gov	
	Mr. Steven Travis	INDOT Utilities/Railroad	STravis2@indot.IN.gov	
	Mr. David Barich	INDOT Area Engineer	DBarich@indot.in.gov	
<i>TDW</i>	Mr. Tim Werner	INDOT ADA Engineer	tiwerner@indot.in.gov	
	Mr. Jeff Dettman	INDOT Unit Supervisor	JDettman@indot.in.gov	
<i>DD</i>	Mr. Dan Delgado	LFA – Project Manager	ddelgado@lawson-fisher.com	574-234-3167
<i>EV</i>	Mr. Ethan Zartman	LFA – Project Engineer	ezartman@lawson-fisher.com	574-234-3167
<i>OM</i>	Mr. Oscar Martinez	LFA – Design Engineer	omartinez@lawson-fisher.com	574-234-3167



Lawson-Fisher Associates P.C.

525 West Washington Avenue
South Bend, Indiana 46601
Voice: 574-234-3167
Fax: 574-236-1330

U.S.12 HMA Overlay, Preventive Maintenance from the Porter/LaPorte County Line to the Michigan State Line Teams City Meeting Minutes

DATE: August 12, 2021
FROM: Dan G. Delgado, PE *DDG*
RE: U.S. 12 HMA Overlay, Preventive Maintenance
Des. No.: 2000607
Contract No.: R-43027

Meeting Date: August 9, 2021
Meeting Time: 12:00 p.m. (Central Time)
Meeting Location: Virtual, Microsoft Teams
Purpose of Meeting: Preliminary Coordination with City

ATTENDEES:

Mr. Scott Mason	INDOT LaPorte District Project Manager	(219) 325-7523
Mr. Alan Holderread	INDOT LaPorte District Traffic Engineer	(219) 325-7426
Ms. Molly Mooney	INDOT LaPorte District Pavement Asset Manager	(219) 325-7534
Mr. Steven Travis	INDOT LaPorte District Utilities Engineer	(219) 325-7486
Mr. Jeffrey Wright	Michigan City, City Engineer	(219) 873-1426
Ms. Shannon Eason	Michigan City, Assistant Parks Superintendent	(219) 873-1506
Mr. Skyler York	Michigan City, Planning and Inspection Director	(219) 873-1419
Mr. Dan Delgado	Lawson-Fisher Associates P.C. Project Manager	(574) 234-3167
Mr. Ethan Zartman	Lawson-Fisher Associates P.C. Project Engineer	(574) 234-3167

DISCUSSION:

The meeting generally followed the attached agenda. Specific items were discussed in more detail as provided below:

1. The INDOT Project Manager initiated the meeting and conducted introductions. Lawson-Fisher Associates P.C. (LFA) then provided a project overview for an HMA Overlay, Preventive Maintenance Project along U.S. 12 from the Porter/LaPorte County Line to the Michigan State Line. The project has a net length of 8.05 miles and includes ADA ramp reconstruction within INDOT right-of-way and two traffic signal modernizations at Liberty Trail and Karwick Road.
2. INDOT Traffic then spoke of "Right Sizing" the travelway to more appropriately address traffic needs and increase safety through the corridor. INDOT Traffic spoke



of truck tipping due to high speeds on horizontal curves and crash patterns at particular intersections. There was also discussion of beach and seasonal traffic and high volumes at certain times of the day. INDOT had recently done a lane re-configuration, or "Right Sizing," within these US 12 limits to the east of Michigan City. The results of that Right Sizing were positive and INDOT was looking to address other areas of concern on US 12 through the remaining project limits.

3. The City Assistant Parks Superintendent mentioned three major accidents on US 12 and was interested in further Right Sizing to provide a safer corridor.
4. The City Planning Director spoke of another project on Liberty Trail north of US 12 that would lead to a crossing of the highway. A safer corridor would be desired with coordination for the trail crossing within any Right Sizing. The Director approved of the center turn lane concept and single lanes to the west of the City. The Director also spoke of a significant number of accidents at Wabash Street.
5. LFA spoke of Right Sizing at Wabash Street to reduce to single lanes immediately west of the non-signalized intersection.
6. A traffic signal was discussed at Wabash Street. INDOT stated the current configuration would not warrant a signal but Right Sizing could generate a warrant for signal.
7. The City Engineer spoke of issues with the Blue Chip and SR 212 intersections. The existing concrete medians and existing transitions were less than desirable. It was stated the Right Sizing concept and scope for east of Michigan City would potentially stretch from Cook Street to SR 212.
8. The City Planning Director asked about sidewalk in the project. The City is currently looking to upgrade the sidewalk condition south of US 12 between F Street and the Blue Chip intersection due to recent development. INDOT noted the desire and will review scope for potential coordination.
9. Since the City is open to potential Right Sizing of US 12 east and west of the City, INDOT Traffic will generate a proposal to be taken to City government for review and comment.

The above notes represent the understanding of issues discussed and conclusions reached during the coordination meeting.

DGD/cas
Encls.
c: Attendees



Photo 1:

West project limit of U.S. 12 intersection at Beverley Avenue, looking southwest.

Photo 2:

West project limit of U.S. 12 Singing Sands Crossing looking west.

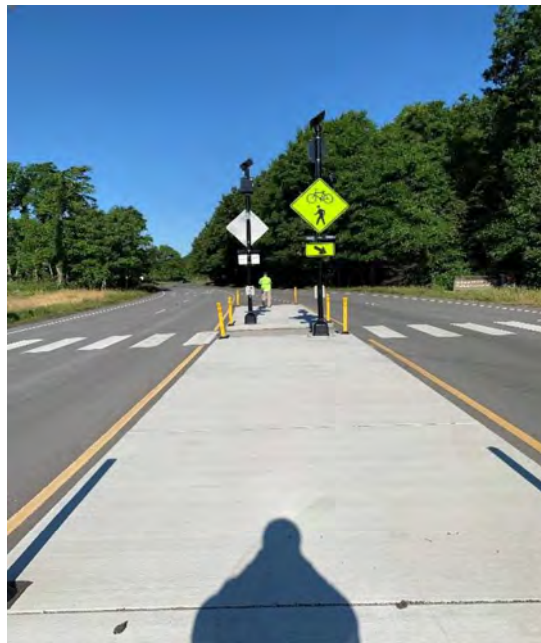


Photo 3:

U.S. 12 and 8th St. intersection, looking northeast.



Photo 4:
U.S. 12 and Logan St. intersection,
looking southwest.

Photo 5:
U.S. 12 and Logan St. intersection,
drainage conditions, looking
northeast.



Photo 6:
U.S. 12 and Greely Ave.
intersection, looking northeast.



Photo 7:

U.S. 12 and Douglas Ave.
intersection, curb ramp conditions,
looking southwest.

Photo 8:

U.S. 12 and Douglas Ave.
intersection, looking southwest.



Photo 9:

U.S. 12 and Lincoln Ave.
intersection, south side curb ramp
conditions, looking southwest.



Photo 10:

U.S. 12 and Lincoln Ave.
intersection, north side curb ramp
conditions, looking southwest.

Photo 11:

U.S. 12 and Lincoln Ave.
intersection, south side drainage
conditions, looking northeast.





Photo 12:

U.S. 12 and McClelland Ave.
intersection, south side curb ramp
conditions, looking southwest.



Photo 13:

U.S. 12 and McClelland Ave.
intersection, northside curb ramp
conditions, looking southwest.



Photo 14:
U.S. 12 and McClelland Ave.
intersection, looking northeast.

Photo 15:
U.S. 12 and McClelland Ave.
intersection, drainage conditions,
looking north.



Photo 16:
U.S. 12 Custer St. and Sherman Ave.
intersection, looking southwest.



Photo 17:
U.S. 12 and 6th St. intersection,
looking northeast.

Photo 18:
U.S. 12 and Francisco St.
intersection, drainage conditions,
looking north.



Photo 19:
U.S. 12 and Willard Ave.
intersection, looking southwest.



Photo 20:

U.S. 12 and Amtrack Railroad Crossing, looking northwest.

Photo 21:

U.S. 12 and Amtrack Railroad Crossing, looking northwest.

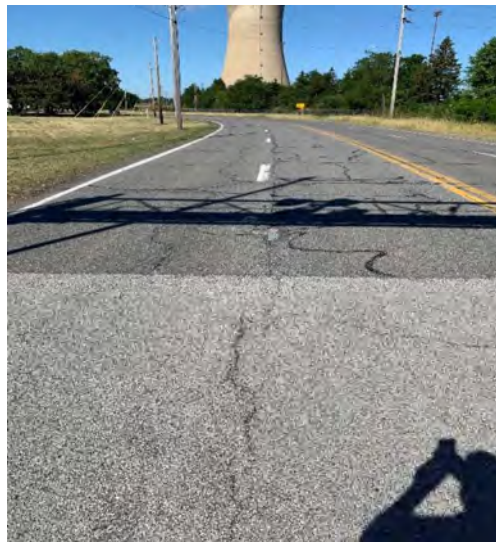


Photo 22:

U.S. 12 and Wabash St. looking northwest.



Photo 23:
U.S. 12 and Washington St. looking northwest.

Photo 24:
U.S. 12 and Franklin St. looking west.



Photo 25:
U.S. 12 and Pine St. looking northeast.



Photo 26:
U.S. 12 and Pine St. drainage conditions,
looking northeast.

Photo 27:
U.S. 12 and Spring St. south side
crossing conditions, looking north.



Photo 28:
U.S. 12 and Spring St. south side
crossing conditions, looking
northeast.



Photo 26:

U.S. 12 and Spring St. north crossing conditions, looking west.

Photo 27:

U.S. 12 and Spring St. looking west.



Photo 28:

U.S. 12 and East 2nd St. intersection, looking west.



Photo 29:

U.S. 12 and west 2nd St. intersection, looking west.

Photo 30:

U.S. 12 and Blue-Chip Dr. intersection, curb ramp conditions, looking southwest.

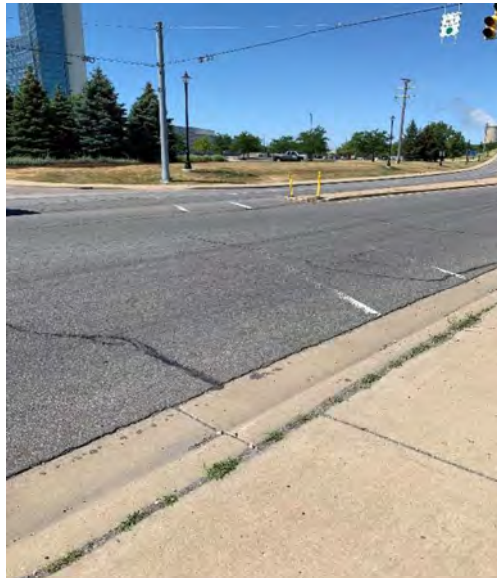


Photo 31:

U.S. 12 and Blue-Chip Dr. intersection, looking east.



Photo 32:

U.S. 12 and Cook St. intersection,
curb ramp conditions, looking east.



Photo 33:

U.S. 12 and Cook St. intersection,
looking west.



Photo 34:

U.S. 12 and Cook St. intersection,
drainage conditions, looking east.



Photo 35:

U.S. 12 east project limits, 0.14 miles east of Freyer Rd. intersection, looking southwest.

Photo 36:

U.S. 12 east project limits, 0.24 miles east of Meer Rd. intersection, looking northeast.



Photo 37:

U.S. 12 east project limits, Indiana/Michigan border, looking southwest.



PROJECT TRAFFIC FORECAST REPORT

DES No.: 2000607

US-12 Porter/LaPorte Co. Line to MI State Line

From RP 37+34 to RP 45+16

LaPorte County

Prepared For

David (Scott) Mason

On

05/28/2021

By

INDOT, Office of Traffic Statistics
Technical Planning Support & Programming Division
Gregory A. Katter, PE, Supervisor
100 N. Senate Ave, N955
Indianapolis, Indiana 46204
INDOTTrafficForecasts@indot.IN.gov



PROJECT TRAFFIC FORECAST REPORT

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Project Map

Segment 1 Forecast

Segment 2 Forecast

Segment 3 Forecast

Segment 4 Forecast

Segment 5 Forecast

Segment 6 Forecast

Segment 7 Forecast

Segment 8 Forecast

Segment 9 Forecast

Segment 10 Forecast

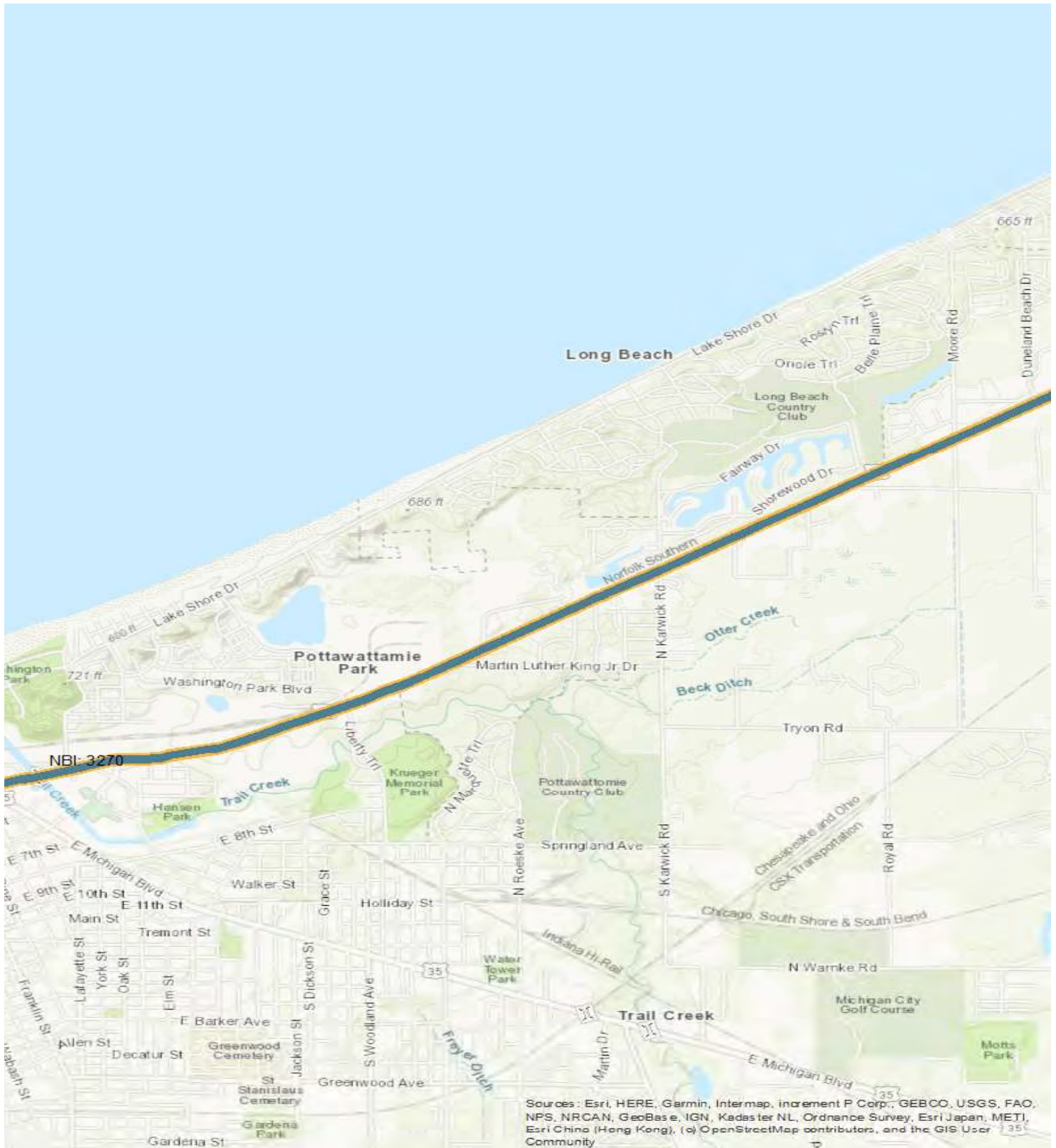
Segment 11 Forecast

Segment 12 Forecast

Segment 13 Forecast



PROJECT TRAFFIC FORECAST REPORT





PROJECT TRAFFIC FORECAST REPORT

Segment: 1

Route Name **US-12**
From Measure **38.520**
To Measure **39.138**

Forecast Year	Projected Annual Average Daily Traffic	Negative AADT	Positive AADT
2019	6,406	3,260	3,146
2024	6,581	3,349	3,232
2029	6,756	3,438	3,318
2034	6,932	3,527	3,404
2044	7,282	3,706	3,576

Design Hourly Volume (DHV) in Design Year as percentage of AADT

Year	DHV
2044	11.27%

Peak Hour Forecast

AM Peak Hour 06:15
PM Peak Hour 04:30

Commercial Vehicles (FHWA Scheme F Classes 4 - 13)

6.20% of AADT
4.57% of DHV

Directional Split

49.11% of AADT Travels in Positive Travel Direction

The per year growth user for this forecast is 0.55% and is applied as a linear growth.

It should be recognized by users of this forecast that the base year AADT has an accuracy of plus or minus 10%. It should also be understood that while this report may include forecasts with up to six apparent significant figures, the accuracy should not be interpreted as being greater than two significant figures. It is the responsibility of designers to exercise professional judgement when using this data to influence decisions.



PROJECT TRAFFIC FORECAST REPORT

Segment: 2

Route Name **US-12**
From Measure **39.140**
To Measure **40.017**

Forecast Year	Projected Annual Average Daily Traffic	Negative AADT	Positive AADT
2019	6,531	3,285	3,245
2024	6,626	3,333	3,292
2029	6,720	3,380	3,339
2034	6,815	3,428	3,386
2044	7,004	3,523	3,480

Design Hourly Volume (DHV) in Design Year as percentage of AADT

Year	DHV
2044	9.69%

Peak Hour Forecast

AM Peak Hour 11:00
PM Peak Hour 03:30

Commercial Vehicles (FHWA Scheme F Classes 4 - 13)

5.47% of AADT
5.21% of DHV

Directional Split

49.69% of AADT Travels in Positive Travel Direction

The per year growth user for this forecast is 0.29% and is applied as a linear growth.

It should be recognized by users of this forecast that the base year AADT has an accuracy of plus or minus 10%. It should also be understood that while this report may include forecasts with up to six apparent significant figures, the accuracy should not be interpreted as being greater than two significant figures. It is the responsibility of designers to exercise professional judgement when using this data to influence decisions.



PROJECT TRAFFIC FORECAST REPORT

Segment: 3

Route Name **US-12**
From Measure **40.020**
To Measure **40.261**

Forecast Year	Projected Annual Average Daily Traffic	Negative AADT	Positive AADT
2019	8,153	4,167	3,986
2024	8,271	4,227	4,044
2029	8,389	4,288	4,102
2034	8,508	4,348	4,159
2044	8,744	4,469	4,275

Design Hourly Volume (DHV) in Design Year as percentage of AADT

Year	DHV
2044	9.52%

Peak Hour Forecast

AM Peak Hour 10:45
PM Peak Hour 03:30

Commercial Vehicles (FHWA Scheme F Classes 4 - 13)

4.97% of AADT
6.06% of DHV

Directional Split

48.89% of AADT Travels in Positive Travel Direction

The per year growth user for this forecast is 0.29% and is applied as a linear growth.

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PROJECT TRAFFIC FORECAST REPORT

Segment: 4

Route Name **US-12**
From Measure **40.260**
To Measure **40.344**

Forecast Year	Projected Annual Average Daily Traffic	Negative AADT	Positive AADT
2019	10,560	5,305	5,255
2024	10,560	5,305	5,255
2029	10,560	5,305	5,255
2034	10,560	5,305	5,255
2044	10,560	5,305	5,255

Design Hourly Volume (DHV) in Design Year as percentage of AADT

Year	DHV
2044	9.00%

Peak Hour Forecast

AM Peak Hour 11:00
PM Peak Hour 03:30

Commercial Vehicles (FHWA Scheme F Classes 4 - 13)

4.15% of AADT
5.68% of DHV

Directional Split

49.76% of AADT Travels in Positive Travel Direction

The per year growth user for this forecast is 0.00% and is applied as a linear growth.

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PROJECT TRAFFIC FORECAST REPORT

Segment: 5

Route Name **US-12**
From Measure **40.340**
To Measure **40.704**

Forecast Year	Projected Annual Average Daily Traffic	Negative AADT	Positive AADT
2019	10,587	5,096	5,491
2024	10,741	5,170	5,571
2029	10,894	5,244	5,650
2034	11,048	5,318	5,730
2044	11,355	5,465	5,889

Design Hourly Volume (DHV) in Design Year as percentage of AADT

Year	DHV
2044	8.78%

Peak Hour Forecast

AM Peak Hour 11:00
PM Peak Hour 03:30

Commercial Vehicles (FHWA Scheme F Classes 4 - 13)

3.66% of AADT
4.95% of DHV

Directional Split

51.87% of AADT Travels in Positive Travel Direction

The per year growth user for this forecast is 0.29% and is applied as a linear growth.

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PROJECT TRAFFIC FORECAST REPORT

Segment: 6

Route Name **US-12**
From Measure **40.700**
To Measure **41.627**

Forecast Year	Projected Annual Average Daily Traffic	Negative AADT	Positive AADT
2019	7,014	3,471	3,542
2024	7,116	3,521	3,593
2029	7,217	3,572	3,645
2034	7,319	3,622	3,696
2044	7,523	3,723	3,799

Design Hourly Volume (DHV) in Design Year as percentage of AADT

Year	DHV
2044	9.54%

Peak Hour Forecast

AM Peak Hour 11:00
PM Peak Hour 03:15

Commercial Vehicles (FHWA Scheme F Classes 4 - 13)

5.19% of AADT
5.98% of DHV

Directional Split

50.50% of AADT Travels in Positive Travel Direction

The per year growth user for this forecast is 0.29% and is applied as a linear growth.

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PROJECT TRAFFIC FORECAST REPORT

Segment: 7

Route Name **US-12**
From Measure **41.630**
To Measure **43.569**

Forecast Year	Projected Annual Average Daily Traffic	Negative AADT	Positive AADT
2019	7,340	3,623	3,717
2024	7,485	3,695	3,790
2029	7,630	3,766	3,864
2034	7,775	3,838	3,937
2044	8,065	3,981	4,084

Design Hourly Volume (DHV) in Design Year as percentage of AADT

Year	DHV
2044	10.42%

Peak Hour Forecast

AM Peak Hour 11:00
PM Peak Hour 02:45

Commercial Vehicles (FHWA Scheme F Classes 4 - 13)

4.41% of AADT
4.31% of DHV

Directional Split

50.64% of AADT Travels in Positive Travel Direction

The per year growth user for this forecast is 0.40% and is applied as a linear growth.

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**PROJECT TRAFFIC FORECAST REPORT****Segment: 8**

Route Name **US-12**
From Measure **43.570**
To Measure **43.980**

Forecast Year	Projected Annual Average Daily Traffic	Negative AADT	Positive AADT
2019	5,967	2,928	3,039
2024	6,054	2,970	3,083
2029	6,140	3,013	3,127
2034	6,227	3,055	3,171
2044	6,400	3,140	3,259

Design Hourly Volume (DHV) in Design Year as percentage of AADT

Year	DHV
2044	9.23%

Peak Hour Forecast

AM Peak Hour

PM Peak Hour 03:00

Commercial Vehicles (FHWA Scheme F Classes 4 - 13)

4.42% of AADT

1.45% of DHV

Directional Split

50.93% of AADT Travels in Positive Travel Direction

The per year growth user for this forecast is 0.29% and is applied as a linear growth.

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PROJECT TRAFFIC FORECAST REPORT

Segment: 9

Route Name **US-12**
From Measure **43.980**
To Measure **44.624**

Forecast Year	Projected Annual Average Daily Traffic	Negative AADT	Positive AADT
2019	5,639	2,731	2,908
2024	5,721	2,771	2,950
2029	5,803	2,810	2,992
2034	5,884	2,850	3,034
2044	6,048	2,929	3,119

Design Hourly Volume (DHV) in Design Year as percentage of AADT

Year	DHV
2044	9.35%

Peak Hour Forecast

AM Peak Hour

PM Peak Hour 03:00

Commercial Vehicles (FHWA Scheme F Classes 4 - 13)

4.50% of AADT

1.90% of DHV

Directional Split

51.57% of AADT Travels in Positive Travel Direction

The per year growth user for this forecast is 0.29% and is applied as a linear growth.

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PROJECT TRAFFIC FORECAST REPORT

Segment: 10

Route Name US-12
From Measure 44.620
To Measure 45.182

Forecast Year	Projected Annual Average Daily Traffic	Negative AADT	Positive AADT
2019	7,344	3,579	3,765
2024	7,344	3,579	3,765
2029	7,344	3,579	3,765
2034	7,344	3,579	3,765
2044	7,344	3,579	3,765

Design Hourly Volume (DHV) in Design Year as percentage of AADT

Year	DHV
2044	9.48%

Peak Hour Forecast

AM Peak Hour 11:00
PM Peak Hour 03:00

Commercial Vehicles (FHWA Scheme F Classes 4 - 13)

7.26% of AADT
8.62% of DHV

Directional Split

51.27% of AADT Travels in Positive Travel Direction

The per year growth user for this forecast is 0.00% and is applied as a linear growth.

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PROJECT TRAFFIC FORECAST REPORT

Segment: 11

Route Name US-12
From Measure 45.180
To Measure 45.513

Forecast Year	Projected Annual Average Daily Traffic	Negative AADT	Positive AADT
2019	7,347	3,576	3,772
2024	7,454	3,628	3,827
2029	7,560	3,680	3,881
2034	7,667	3,732	3,936
2044	7,880	3,835	4,045

Design Hourly Volume (DHV) in Design Year as percentage of AADT

Year	DHV
2044	9.65%

Peak Hour Forecast

AM Peak Hour 11:00
PM Peak Hour 02:45

Commercial Vehicles (FHWA Scheme F Classes 4 - 13)

7.17% of AADT
7.19% of DHV

Directional Split

51.34% of AADT Travels in Positive Travel Direction

The per year growth user for this forecast is 0.29% and is applied as a linear growth.

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PROJECT TRAFFIC FORECAST REPORT

Segment: 12

Route Name **US-12**
From Measure **45.510**
To Measure **46.257**

Forecast Year	Projected Annual Average Daily Traffic	Negative AADT	Positive AADT
2019	6,379	3,096	3,283
2024	6,471	3,141	3,331
2029	6,564	3,186	3,378
2034	6,656	3,231	3,426
2044	6,841	3,320	3,521

Design Hourly Volume (DHV) in Design Year as percentage of AADT

Year	DHV
2044	9.69%

Peak Hour Forecast

AM Peak Hour 11:00
PM Peak Hour 03:15

Commercial Vehicles (FHWA Scheme F Classes 4 - 13)

7.02% of AADT
7.61% of DHV

Directional Split

51.47% of AADT Travels in Positive Travel Direction

The per year growth user for this forecast is 0.29% and is applied as a linear growth.

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PROJECT TRAFFIC FORECAST REPORT

Segment: 13

Route Name **US-12**
From Measure **46.260**
To Measure **46.260**

Forecast Year	Projected Annual Average Daily Traffic	Negative AADT	Positive AADT
2019	6,379	3,096	3,283
2024	6,471	3,141	3,331
2029	6,564	3,186	3,378
2034	6,656	3,231	3,426
2044	6,841	3,320	3,521

Design Hourly Volume (DHV) in Design Year as percentage of AADT

Year	DHV
2044	9.69%

Peak Hour Forecast

AM Peak Hour 11:00
PM Peak Hour 03:15

Commercial Vehicles (FHWA Scheme F Classes 4 - 13)

7.02% of AADT
7.61% of DHV

Directional Split

51.47% of AADT Travels in Positive Travel Direction

The per year growth user for this forecast is 0.29% and is applied as a linear growth.

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ELZ - 9/30/2021 11:19 AM - U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte MI\Cad\Eng Dwg\Eng Assessment Exhibit\201722TR_PL01.dwg (PL02)

25+00



30+00

35+00

40+00



LEGEND

-  Curb Ramp Location
-  Existing U.S. 12 Crosswalk

NOT FOR
CONSTRUCTION
I-86

RECOMMENDED FOR APPROVAL _____	
DESIGN ENGINEER _____	DATE _____
DESIGNED: ELZ _____	DRAWN: BJS _____
CHECKED: DGD _____	CHECKED: ELZ _____

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN - LINE "A"
STA. 25+00 TO STA. 40+00



SCALE 1" = 50'	BRIDGE FILE	
	DESIGNATION 2000607	
SURVEY BOOK	SHEETS	
	1	of 6
CONTRACT R-43027	PROJECT 2000607	

ELZ - 9/30/2021 11:19 AM - U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte MI\Cad\Eng Dwg\Eng Assessment Exhibit\201722TR_PL01.dwg (PL03)



Note:
Singing Sand Trail Project Constructed in 2019
is not reflected on the current aerial imagery.

LEGEND

-  Curb Ramp Location
-  Existing U.S. 12 Crosswalk

NOT FOR
CONSTRUCTION
I-87

RECOMMENDED FOR APPROVAL _____	
DESIGN ENGINEER _____	DATE _____
DESIGNED: ELZ _____	DRAWN: BJS _____
CHECKED: DGD _____	CHECKED: ELZ _____

INDIANA DEPARTMENT OF TRANSPORTATION	
PLAN - LINE "A" STA. 40+00 TO STA. 55+00	

SCALE 1" = 50'	BRIDGE FILE	
	DESIGNATION 2000607	
SURVEY BOOK	SHEETS	
	2	of 6
CONTRACT R-43027	PROJECT 2000607	

ELZ - 9/30/2021 11:19 AM - U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte MI\Cad\Eng Dwg\Eng Assessment Exhibit\201722TR_PL01.dwg (PL04)

55+00

60+00



65+00

70+00



Note:
Singing Sand Trail Project Constructed in 2019
is not reflected on the current aerial imagery.

LEGEND

-  Curb Ramp Location
-  Existing U.S. 12 Crosswalk

NOT FOR
CONSTRUCTION
I-88

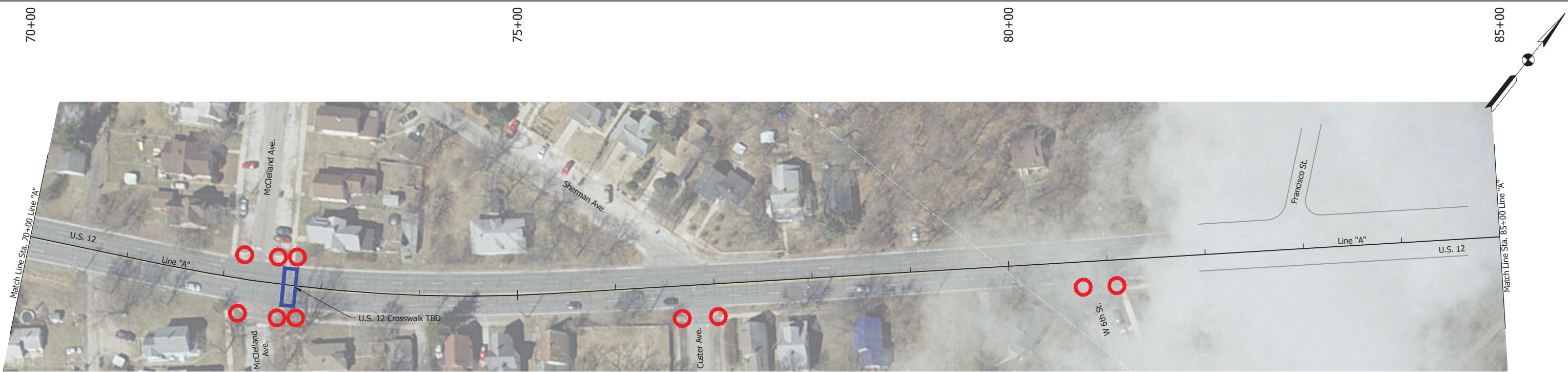
RECOMMENDED FOR APPROVAL		DESIGN ENGINEER	DATE
DESIGNED: ELZ	DRAWN: BJS		
CHECKED: DGD	CHECKED: ELZ		

INDIANA
DEPARTMENT OF TRANSPORTATION



PLAN - LINE "A"
STA. 55+00 TO STA. 70+00

SCALE 1" = 50'	BRIDGE FILE	
	DESIGNATION 2000607	
SURVEY BOOK	SHEETS	
	3	of 6
CONTRACT R-43027	PROJECT 2000607	

ELZ -- 9/30/2021 11:19 AM -- U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte MI\Cad\Eng Dwg\Eng Assessment Exhibit\201722TR_PL01.dwg (PL05)



LEGEND

-  Curb Ramp Location
-  Existing U.S. 12 Crosswalk

NOT FOR
CONSTRUCTION

I-89

RECOMMENDED FOR APPROVAL _____		DESIGN ENGINEER _____		DATE _____	
DESIGNED: ELZ _____		DRAWN: BJS _____			
CHECKED: DGD _____		CHECKED: ELZ _____			

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN - LINE "A"
STA. 70+00 TO STA. 100+00

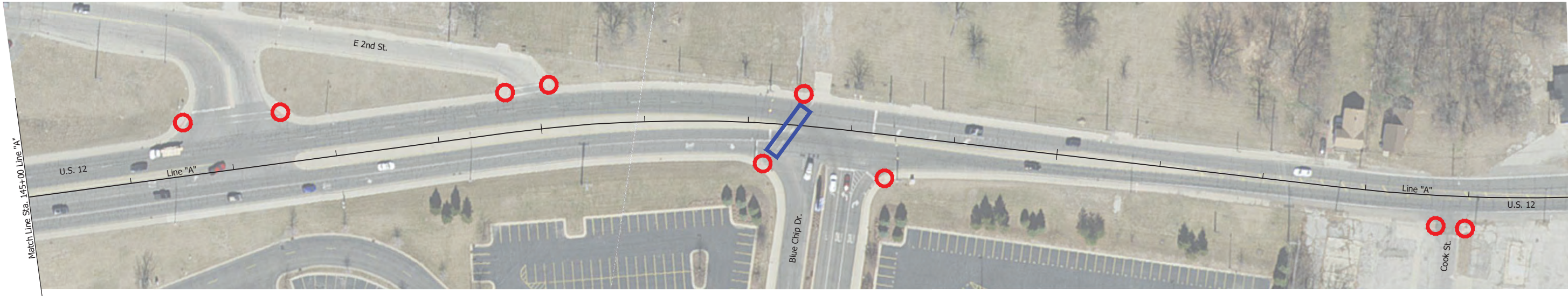
SCALE 1" = 50'		BRIDGE FILE	
		DESIGNATION 2000607	
SURVEY BOOK		SHEETS	
		4	of 6
CONTRACT R-43027		PROJECT 2000607	

ELZ -- 9/30/2021 11:19 AM -- U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte MI\Cod\Eng Dwg\Eng Assessment Exhibit\201722TR_PL01.dwg (PL06)





NOT FOR CONSTRUCTION I-90	RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____		INDIANA DEPARTMENT OF TRANSPORTATION		SCALE 1" = 50'		BRIDGE FILE	
							DESIGNATION 2000607	
	DESIGNED: ELZ		DRAWN: BJS				SHEETS	
	CHECKED: DGD		CHECKED: ELZ				5 of 6	
							PROJECT	
							2000607	
		PLAN - LINE "A" STA. 100+00 TO STA. 130+00		SURVEY BOOK				
				CONTRACT R-43027				

ELZ - 9/30/2021 11:19 AM - U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte MI\Cad\Eng Dwg\Eng Assessment Exhibit\201722TR_PL01.dwg (PL07)



LEGEND

-  Curb Ramp Location
-  Existing U.S. 12 Crosswalk

NOT FOR
CONSTRUCTION
I-91

RECOMMENDED FOR APPROVAL _____		DESIGN ENGINEER _____		DATE _____	
DESIGNED: ELZ _____		DRAWN: BJS _____			
CHECKED: DGD _____		CHECKED: ELZ _____			

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN - LINE "A"
STA. 130+00 TO STA. 160+00

SCALE 1" = 50'		BRIDGE FILE	
		DESIGNATION 2000607	
SURVEY BOOK		SHEETS	
		6 of 6	
CONTRACT R-43027		PROJECT 2000607	

We have pulled together items to run by TAC based on our understanding from the Site Visit. A KMZ file of the locations is attached.

1. Singing Sands Trail Crossing – Should the median have detectable warning surfaces? There are existing push buttons as if the median is a refuge. It is our understanding a refuge would involve detectable warning. Photos attached.
2. Lincoln Avenue – The west approach has ramps leading to a crossing of US 12. Should this be marked as a crosswalk on US 12? There are ramps in the east quadrants but they do not direct for crossing of US 12. Photos attached. (It should be noted we are aware of issues with the SW ramp. The separated ramps should have a raised divide to delineate distinctly separated perpendicular ramps. This email is meant to get clarification on US 12 crossing. All design review is still to be completed.)
3. McClelland Avenue – Similar issues as Lincoln but for the east approach. This one does have existing marked crosswalk (that has mostly been worn away). Are we re-establishing? Photos attached. (Again, there is an obvious design issue to address with the SE ramp for separate perpendicular ramps. All design review is still to be completed.)
4. Francisco Street – A ramp is to be constructed in the NE quadrant of this T-intersection with US 12. There currently isn't a US 12 crossing or receiving ramp south of US 12. It seems there should be one. We plan to add. Is this acceptable? Photos attached.
5. Wabash Street – At this location ramps were re-constructed in the north quadrants as part of a trail project. The constructed ramps did not directly connect to US 12. Yet the existing south quadrant ramps have ramps leading across US 12. Should the south ramps be re-constructed to exclusively cross Wabash and not direct toward US 12? Photos attached. There is a signalized pedestrian push button controlled intersection one block to the east at Washington St.
6. Franklin Street – This is sort of the opposite existing condition of Singing Sands. The median has domes but no push button. Is this meant to be a refuge? The last photo also shows how the median ramps appear to be back-to-back without a flat shelf. (Survey has yet to be done so exactly slopes are not known.) If this meant to be a refuge it would seem we should re-construct with at least a 4' flat spot. Photos attached.
7. Blue Chip Drive – This location has an existing US 12 crossing but the north side is to a drive, not a ramp. There are no existing push buttons. Would this crossing be eliminated? We would expect the SE and SW ramps to have a clear path between. RW review indicates the Blue Chip Drive median island is encroaching on state RW. We would design for the Blue Chip median to be curtailed and a cross walk of Blue Chip Drive be added. Photos attached.

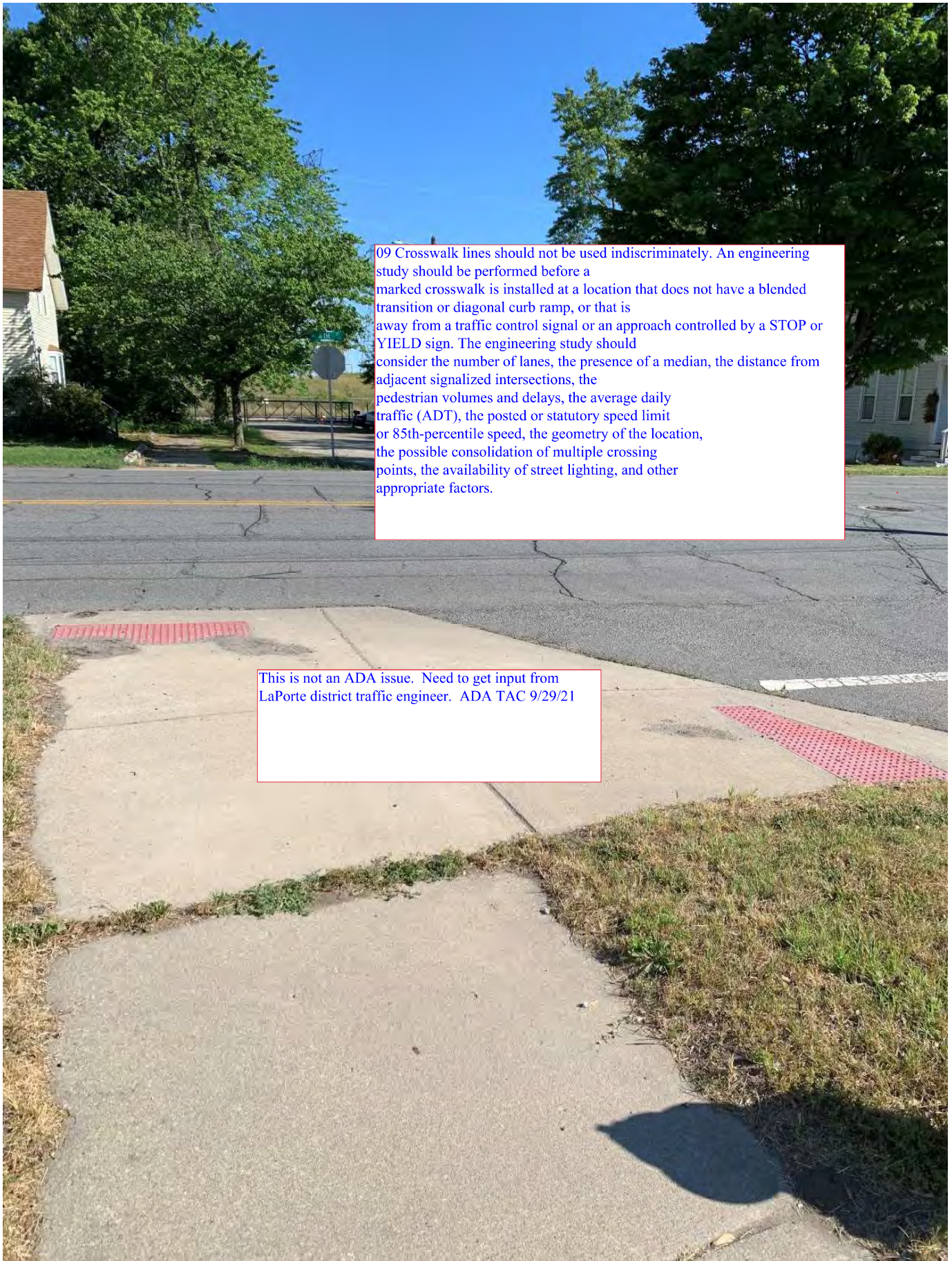
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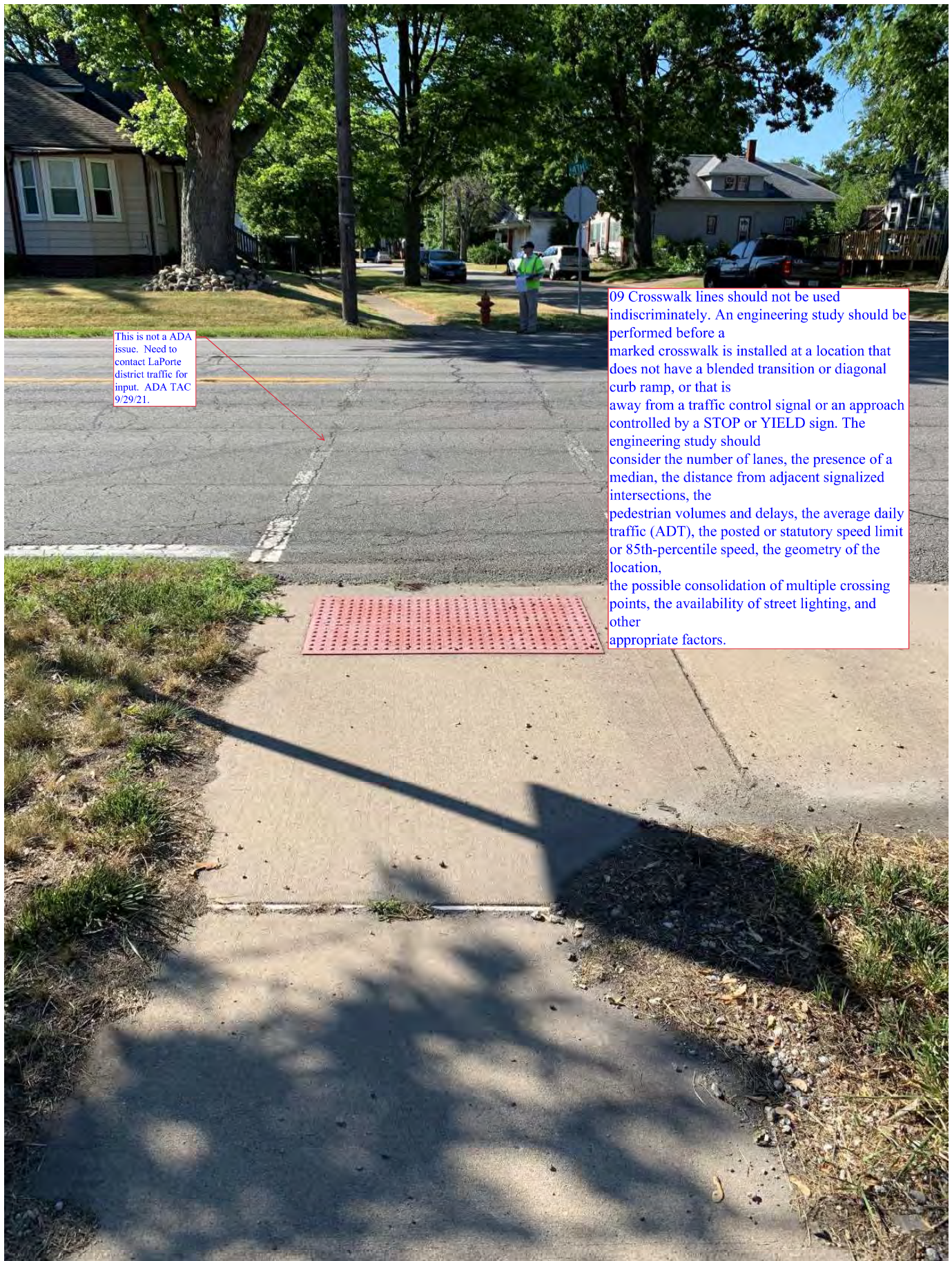
09 Crosswalk lines should not be used indiscriminately. An engineering study should be performed before a marked crosswalk is installed at a location that does not have a blended transition or diagonal curb ramp, or that is away from a traffic control signal or an approach controlled by a STOP or YIELD sign. The engineering study should consider the number of lanes, the presence of a median, the distance from adjacent signalized intersections, the pedestrian volumes and delays, the average daily traffic (ADT), the posted or statutory speed limit or 85th-percentile speed, the geometry of the location, the possible consolidation of multiple crossing points, the availability of street lighting, and other appropriate factors.

This is not an ADA issue. Need to get input from LaPorte district traffic engineer. ADA TAC 9/29/21

We have pulled together items to run by TAC based on our understanding from the Site Visit. A KMZ file of the locations is attached.

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5. Wabash Street – At this location ramps were re-constructed in the north quadrants as part of a trail project. The constructed ramps did not directly connect to US 12. Yet the existing south quadrant ramps have ramps leading across US 12. Should the south ramps be re-constructed to exclusively cross Wabash and not direct toward US 12? Photos attached. There is a signalized pedestrian push button controlled intersection one block to the east at Washington St.
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7. Blue Chip Drive – This location has an existing US 12 crossing but the north side is to a drive, not a ramp. There are no existing push buttons. Would this crossing be eliminated? We would expect the SE and SW ramps to have a clear path between. RW review indicates the Blue Chip Drive median island is encroaching on state RW. We would design for the Blue Chip median to be curtailed and a cross walk of Blue Chip Drive be added. Photos attached.

We have also attached an aerial display that shows all the ADA ramp locations within the project. This display will be included in the Engineering Assessment.



This is not a ADA issue. Need to contact LaPorte district traffic for input. ADA TAC 9/29/21.

09 Crosswalk lines should not be used indiscriminately. An engineering study should be performed before a marked crosswalk is installed at a location that does not have a blended transition or diagonal curb ramp, or that is away from a traffic control signal or an approach controlled by a STOP or YIELD sign. The engineering study should consider the number of lanes, the presence of a median, the distance from adjacent signalized intersections, the pedestrian volumes and delays, the average daily traffic (ADT), the posted or statutory speed limit or 85th-percentile speed, the geometry of the location, the possible consolidation of multiple crossing points, the availability of street lighting, and other appropriate factors.

We have pulled together items to run by TAC based on our understanding from the Site Visit. A KMZ file of the locations is attached.

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We have also attached an aerial display of the proposed ramp locations within the project. This display will be included in the Engineering Assessment.

Do not construct
this curb ramp.
ADA TAC

We have pulled together items to run by TAC based on our understanding from the Site Visit. A KMZ file of the locations is attached.

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We have also attached an aerial display that shows all the ADA ramps.

ADA TAC recommends these ramps not be constructed in the SE and SW quadrants which would permit crossing of US 12.
9/29/21

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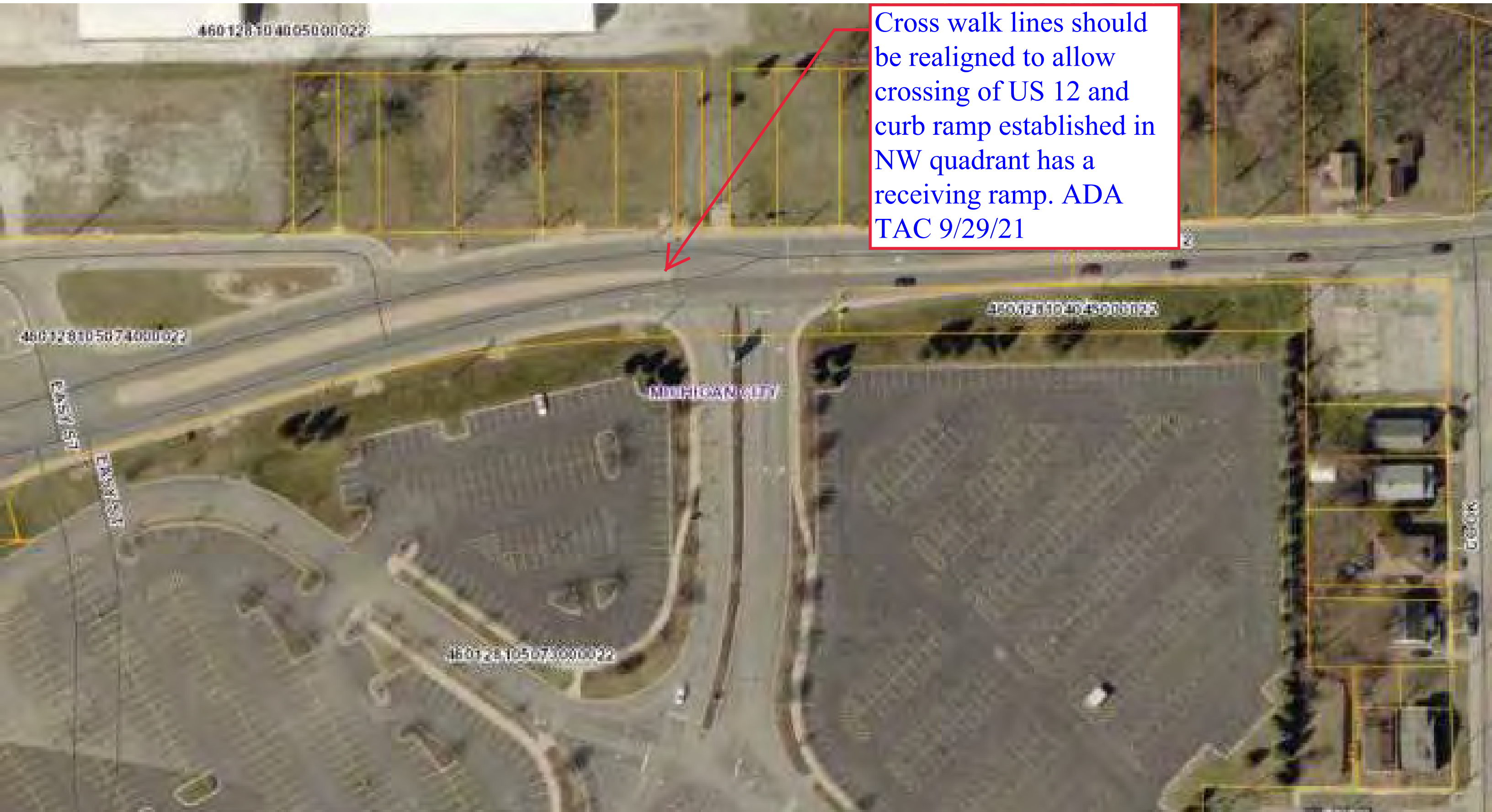
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We have also attached an aerial display that shows all the ADA ramp locations within the project. This display will be included in the Engineering Assessment.



Cross walk lines should be realigned to allow crossing of US 12 and curb ramp established in NW quadrant has a receiving ramp. ADA TAC 9/29/21

From: [Holderread, Alan](#)
To: [Davis, Herbert](#)
Subject: RE: US 12 crossing in Michigan City
Date: Thursday, September 09, 2021 10:18:19 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image005.png](#)

I think it would make sense to have an E-W crosswalk on the southside of the intersection

From: Davis, Herbert <HDAVIS@indot.IN.gov>
Sent: Wednesday, September 08, 2021 4:51 PM
To: Holderread, Alan <AHolderread@indot.IN.gov>
Subject: US 12 crossing in Michigan City

Alan,

Last question on US 12. Do you agree with recommendation in attachment for existing crosswalk markings at intersection US 12 and Blue Chip Drive.

Herbert Davis, P.E.

SR. ADA Review Engineer

100 North Senate Ave., Room N755

Indianapolis, IN 46204

Office: (317)-232-5350

Email: hdavis@indot.in.gov



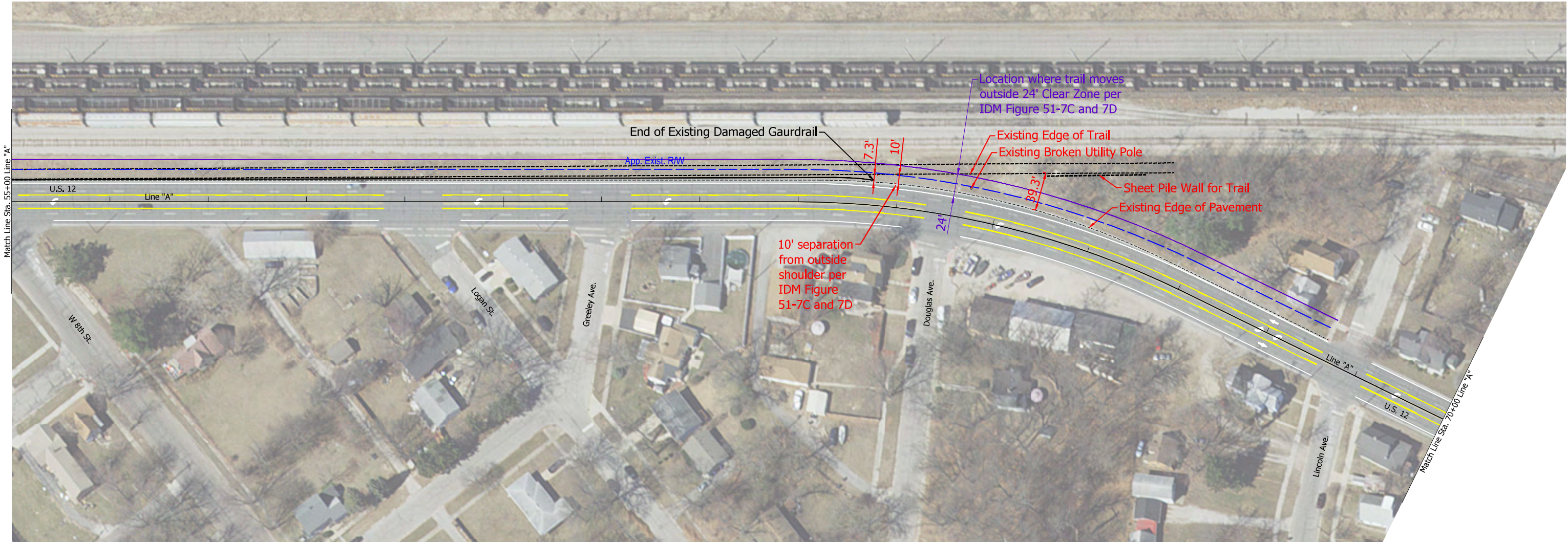
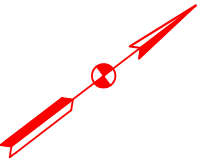
ELZ - 12/3/2021 7:05 AM - U:\2020\202017 INDOT LaPorte\22 HMA US12 Porter LaPorte MI\Cod\Eng Dwg\201722TR_PL01_EXHIBIT GRail at Trail.dwg (PL04)

55+00

60+00

65+00

70+00



NOT FOR
CONSTRUCTION
I-105

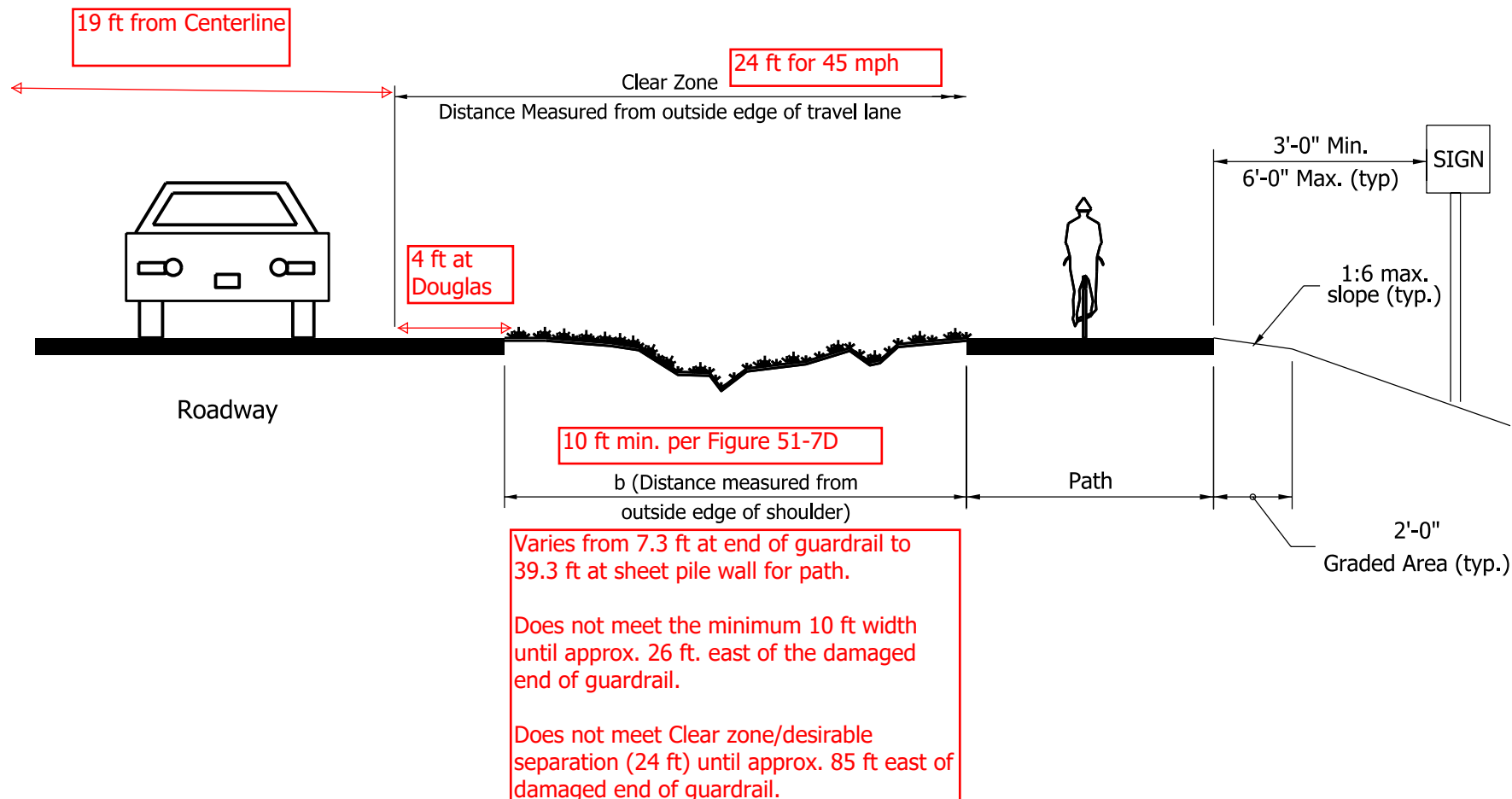
RECOMMENDED FOR APPROVAL		DESIGN ENGINEER	DATE
DESIGNED: ELZ	DRAWN: BJS		
CHECKED: DGD	CHECKED: ELZ		

INDIANA
DEPARTMENT OF TRANSPORTATION

EXHIBIT PLAN - LINE "A"
STA. 55+00 TO STA. 70+00

SCALE 1" = 50'	BRIDGE FILE
	DESIGNATION 2000607
SURVEY BOOK	SHEETS
CONTRACT R-43027	PROJECT 2000607

Exhibit G - Page 1 of 5



SHARED-USE-PATH SEPARATION FROM ROADWAY WITH NO CURB

Figure 51-7C

Roadway Speed Limit (mph)	Separation, b * (ft)
≤ 45	20, desirable 10, minimum
≥ 50	24 to 35

** or roadway clear-zone width, whichever is greater*

**SHARED-USE-PATH SEPARATION WIDTH
FROM ROADWAY WITH NO CURB**

Figure 51-7D

Design Speed (mph)	Design Year AADT, T	Foreslopes		Backslopes		
		6:1 or Flatter	5:1 or 4:1	3:1	4:1 or 5:1	6:1 or Flatter
≤ 40	< 750	7-10	7-10	7-10	7-10	7-10
	$750 \leq T < 1500$	10-12	12-14	10-12	10-12	10-12
	$1500 \leq T \leq 6000$	12-14	14-16	12-14	12-14	12-14
	> 6000	14-16	16-18	14-16	14-16	14-16
45 or 50	< 750	10-12	12-14	8-10	8-10	10-12
	$750 \leq T < 1500$	12-14	16-20	10-12	10-14	14-16
	$1500 \leq T \leq 6000$	16-18	20-26	12-14	14-16	16-18
	> 6000	18-20	24-28	14-16	18-20	20-22
55	< 750	12-14	14-18	8-10	10-12	10-12
	$750 \leq T < 1500$	16-18	20-24	10-12	14-16	16-18
	$1500 \leq T \leq 6000$	20-22	24-30	14-18	16-18	20-22
	> 6000	22-24	26-32*	16-18	20-22	22-24
60	< 750	16-18	20-24	10-12	12-14	14-16
	$750 \leq T < 1500$	20-24	26-32*	12-14	16-18	20-22
	$1500 \leq T \leq 6000$	26-30	32-40*	14-18	18-22	24-26
	> 6000	30-32*	36-44*	20-22	24-26	26-28
65 or 70	< 750	18-20	20-26	10-12	14-16	14-16
	$750 \leq T < 1500$	24-26	28-36*	12-16	18-20	20-22
	$1500 \leq T \leq 6000$	28-32*	34-42*	16-20	22-24	26-28
	> 6000	30-34*	38-46*	22-24	26-30	28-30

Notes:

* Where a site-specific investigation indicates a high probability of continuing crashes, or such occurrences are indicated by crash history, a clear-zone distance greater than that shown in the table may be provided. The clear-zone width may be limited to 30 ft for practicality and to provide a consistent roadway template if previous experience with similar projects or designs has indicated satisfactory performance.

1. For a foreslope of 3:1, recovery is less likely if it is unshielded. Fixed objects should not be present. Recovery of a high-speed vehicle that encroaches beyond the edge of the shoulder may be expected to occur beyond the toe of slope. Determination of the width of the recovery area at the toe of slope should take into consideration right of way availability, environmental concerns, economic factors, safety needs, and crash histories. Also, the distance between the edge of the through travel lane and the beginning of the 3:1 slope should influence the recovery area provided at the toe of slope.

CLEAR-ZONE WIDTH (ft) FOR NEW CONSTRUCTION OR RECONSTRUCTION

Figure 49-2A

RADIUS (ft)	DESIGN SPEED (mph)						
	40	45	50	55	60	65	70
2860	1.1	1.1	1.1	1.2	1.2	1.2	1.3
2290	1.1	1.1	1.2	1.2	1.2	1.3	1.3
1910	1.1	1.2	1.2	1.2	1.3	1.3	1.4
1640	1.1	1.2	1.3	1.3	1.3	1.4	1.5
1430	1.2	1.2	1.3	1.3	1.4	1.4	--
1270	1.2	1.2	1.3	1.3	1.4	1.5	--
1150	1.2	1.2	1.3	1.4	1.5	--	--
950	1.2	1.3	1.4	1.5	1.5	--	--
820	1.3	1.3	1.4	1.5	--	--	--
720	1.3	1.4	1.5	--	--	--	--
640	1.3	1.4	1.5	--	--	--	--
570	1.4	1.5	--	--	--	--	--
380	1.5	--	--	--	--	--	--

Notes:

- Adjustments apply to the outside of a horizontal curve.
- A curve with radius greater than 2860 ft does not require adjustments.
- The applicable clear-zone distance is calculated as follows:

$$CZ_c = (K_{cz})(CZ_t)$$

where: CZ_c = clear zone on curve, ft
 K_{cz} = curve correction factor
 CZ_t = clear zone on tangent section from Figure 49-2A, ft
- For a curve radius not shown in the table, use a straight-line interpolation.
- See Figure 49-2C for the application of CZ_c to the roadside around a curve.

CLEAR-ZONE ADJUSTMENT FACTOR, K_{cz} , FOR HORIZONTAL CURVE

Figure 49-2B

DETERMINATION OF SIGNIFICANT WORK ZONE IMPACTS

Route: US 12 Des: 2000607 Project Development Stage: Eng. Rpt. Date: 8/26/21

Note: this worksheet should be completed during scoping and the results placed in the SPMS project schedule.

1. Determination by Federal Rule (Interstate corridors only)		YES	NO
a. Is the project in a Traffic Management Area (see list below)?		<input type="checkbox"/>	<input type="checkbox"/>
b. Will travel lane(s) be affected, continuously or intermittently, for more than three days?		<input type="checkbox"/>	<input type="checkbox"/>
If answers to both 1a and 1b are yes, then the project is significant If no proceed to item 2, If yes, item 2 may be skipped		Significant <input type="checkbox"/>	
2. Determination by INDOT Policy (All INDOT corridors)			
a. Is project scope major reconstruction or new construction?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Is AADT > 12,000 for 2 lane roads or 30,000 for multilane?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Is the project in an urban or suburban area?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Will mobility along corridor be significantly impacted?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Will capacity of the highway be significantly reduced?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Will alternative routing be needed?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Will communities, local businesses, schools, hospitals be significantly impacted?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Are seasonal impacts significant?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
i. Are grade changes significant?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
If the answers to one or more of 2a thru 2i are yes, then the project may be significant – engineering judgment should be applied. If answers to all questions are no, then project is non-significant.		Significant <input type="checkbox"/> Non-Significant <input checked="" type="checkbox"/>	
3. Comments: Existing condition of US 12 is 4 lanes. Anticipated MOT scheme: Single-lane closures with flaggers for paving operations. Minimum one lane in both directions shall be maintained at all times. The Pavement Scoping Application Report dated 1/21/20 stated a Traffic Management Plan would not be required.			

Indiana Traffic Management Areas:

- Gary (all of Lake, Porter, and LaPorte counties)
- South Bend/Elkhart (all of St Joseph and Elkhart counties)
- Fort Wayne (all of Allen County)
- Indianapolis (all of Marion, Boone, Hamilton, Hancock, Hendricks, Johnson, Madison, and Shelby counties)
- Evansville (all of Vanderburgh and Warrick counties)
- Cincinnati (all of Dearborn County)
- Louisville (all of Clark and Floyd counties)

**ADDENDUM No. 4
TO ABBREVIATED ENGINEER'S REPORT**

Project Number: 2000607
 Route / Feature Crossed: US12
 Project Location: From 0.2mi E of the Porter/LaPorte Co Line to the MI State Line
 Date: 2/15/2024

ADDENDUM JUSTIFICATION:

1. Based on coordinating project limits between adjacent projects in FY24, 25 and 26, INDOT has determined that changing the project's Point of Beginning (POB) would create better alignment of projects in future years.
2. Based on an agreement with the Town of Beverly Shores, the intersection of Beverly Drive and US12 will be revised to a **T-intersection**.

REVISION TO ORIGINAL SCOPE DOCUMENT:

The (Abbreviated) Engineer's Report is being revised as follows:

Project Location, REPLACE as follows:

From the **Porter/LaPorte County Line to the MI State Line**

From RP+Offset: 37+0.003 (Lat 41.703639 Long -86.93264)

From SL Measure: 38.201

Does the revision change the project's Purpose & Need statement?

☐ Yes

☒ No

Does the revision change the project's recommended alternative?

☒ Yes

☐ No

Recommended Alternative, ADD as follows:

INTERSECTING ROADWAYS AND PRIVATE DRIVES:

- Intersecting Roadways:
 - Treat all public road approaches to mainline R/W line
 - Revise intersection of Beverly Drive as shown on attached sketch

Does the revision change the project's cost estimate?

☒ Yes

☐ No

<i>Estimated Total Project Costs</i>	<i>Revised Amount</i>	<i>Original Amount</i>
Right of Way Purchase	\$50,000.00	\$50,000.00
Right of Way Services	\$0.00	\$0.00
Preliminary Engineering	0.00	0.00
Railroad PE	\$500,000.00	\$500,000.00
Railroad CN	0.00	0.00
Utilities PE (UT1)	\$57,000.00	\$57,000.00
Utilities CE (UT2)	0.00	0.00
Construction Total:	\$8,359,000.00	\$8,109,000.00
TOTAL:	\$8,966,000.00	\$8,716,000.00

Does the revision change the project's environmental impacts?

☐ Yes

☒ No

Does the revision require additional Right-of-Way?

☐ Yes

☒ No

Does the revision change the project's schedule (design or construction)?

☐ Yes

☒ No

Does the revision require additional coordination with utility companies?

☐ Yes

☒ No

ADDENDUM CONCURRENCE

This document was prepared by:

Paul South

Digitally signed by Paul
South
Date: 2024.02.15
13:04:20 -05'00'

Paul South, PE
District Scoping Manager, LaPorte District

Reviewed by:



Digitally signed by Molly
Mooney
Date: 2024.02.15
12:08:13 -06'00'

Molly Mooney, PE
Pavement Asset Engineer, LaPorte District

Reviewed by:

**Alan
Holderread**

Digitally signed by Alan
Holderread
Date: 2024.02.15
13:13:37 -06'00'

Alan Holderread, PE
District Traffic Engineer, LaPorte District

Reviewed by:

// omitted //

Paul South, PE
District Scoping Manager, LaPorte District

Approved by:

**Steve J.
Benczik**

Digitally signed by Steve
J. Benczik
Date: 2024.02.15
14:30:10 -06'00'

Steve Benczik, PE
System Asset Manager, LaPorte District



P:\PROJECTS\2015\15-001\15-001.dwg

FILE:FILES
Model:SPMODEL_NAMES

RECOMMENDED FOR APPROVAL	<i>ENG SIGNATURES</i>		INDIANA DEPARTMENT OF TRANSPORTATION		SCALE	BRIDGE FILE
	DESIGN ENGINEER	SSIC_DTS DATE			\$Scales	\$BRIDGE_FILES
DESIGNED: \$DESIGN\$	\$DES_DTS	DRAWN: \$DRAWN\$	\$DRAWN_DTS			DESIGNATION
CHECKED: \$DESIGNER\$	\$DES_DTS	CHECKED: \$DRAWN\$	\$DRAWN_DTS			DESIGN
DETAIL SHEET						SHEETS
						\$PAGE_NUM\$ of \$TOTAL_PAGES\$
						PROJECT
						\$PROJECT\$

ROW and Parcels Table							
Parcel Number (See ROW Plan Sheets)	Location	Temporary Acres	Reacquired ROW Acres	Permanent Acres (new)	Current Use	Activities w/Plan Structure	Appendix B Page Number
1	Lincoln Avenue NW	0.002			Residential	ADA	22
2	Lincoln Avenue NE	0.003			Residential	ADA	22
3	McClelland Avenue SE	0.002			Residential	ADA	22
4	Wabash Street SE	0.001			Commercial	ADA	23
5	Washington Street NW	0.001			Community Building /Private	ADA	23
6	Washington Street SE	0.002			County	ADA	23
7	Pine Street NW			0.004	Municipality	ADA	24
9	Blue Chip Drive	0.052			Commercial	ADA	24
14	Liberty Trail SW			0.018	Industrial	RR Traffic Signal Modernization	26
15	Washington Park Boulevard NW			0.012	Charitable Organization/ Private	RR Traffic Signal Modernization	26
15A	Washington Park Boulevard NE			0.051	Charitable Organization/ Private	RR Traffic Signal Modernization	26
16	Liberty Trail SE	0.003	0.144	0.154	Industrial	RR Traffic Signal Modernization, Foundation Removal, Construction	26
Total		0.066	0.144	0.239			

Small Structure Maintenance Table					
Location	Lat/Long	Structure Number	Appendix B Page Number	Type of Structure	Treatment
Douglas Avenue	41.71105942 -86.91907709	10	55	Inlet	Adjust Casting to Grade
Lincoln Avenue	41.71172 -86.91782	11	55	Manhole	Adjust Casting to Grade
McClelland Avenue	41.71212283 -86.91658859	12	56	Inlet	Replace Inlet
Sherman Avenue	41.71276166 -86.91577597	14	56	Inlet	Replace Casting
Custer Avenue	41.71280529 -86.91545645	15	56	Inlet	Replace Casting
West Sixth Street	-86.914342 41.713638	16	56	Manhole	Adjust Casting to Grade
West Sixth Street	41.71359394 -86.91422724	17	56	Inlet	Replace Casting
Francisco Street	41.714011 -86.913823	18	56	Manhole	Adjust Casting to Grade
Francisco Street	41.714057 -86.913763	19	56	Manhole	Adjust Casting to Grade
Francisco Street	41.71401337 -86.91399967	20	56	Inlet	Replace Casting
Francisco Street	41.71412079 -86.91376909	21	56	Inlet	Replace Casting
Willard Avenue	41.714744 -86.912368	22	56	Manhole	Adjust Casting to Grade
Willard Avenue	41.714718 -86.91229	23	56	Manhole	Adjust Casting to Grade
West Fourth Street	41.71556461 -86.91125552	24	56	Inlet	Replace Casting
East of Amtrak Railroad	41.71822419 -86.90763613	25	57	Inlet	Replace Casting
Wabash Street	41.71866642 -86.90608313	26	57	Inlet	Replace Casting
Wabash Street	41.71879152 -86.90582288	27	57	Inlet	Replace Casting
West of Franklin Street	41.719257 -86.903521	28	57	Manhole	Adjust Casting to Grade
West of Franklin Street	41.71934401 -86.90305257	29	57	Inlet	Replace Casting
West of Franklin Street	41.7195124 -86.90311468	30	57	Inlet	Replace Casting
West of Pine Street	41.71975799 -86.90161692	31	57	Inlet	Replace Casting
West of Pine Street	41.719934 -86.901732	32	57	Inlet	Replace Casting
Pine Street	41.719943 -86.901662	33	57	Inlet	Adjust Casting to Grade

Small Structure Maintenance Table (Continued)					
Location	Lat/Long	Structure Number	Appendix B Page Number	Type of Structure	Treatment
East of Pine Street	41.72003611 -86.90134878	34	57	Inlet	Replace Casting
East of Pine Street	41.71985795 -86.90127402	35	57	Inlet	Replace Casting
East of East Michigan Boulevard	41.72035231 -86.89944299	36	57	Inlet	Replace Casting
West of East Second Street	41.7213029 -86.89442944	37	58	Inlet	Replace Casting
West of East Second Street	41.72170021 -86.89338899	38	58	Inlet	Replace Casting
Between East Second Streets	41.72188662 -86.89262993	39	58	Inlet	Replace Casting
Between East Second Streets	41.72189475 -86.89259808	40	58	Inlet	Replace Casting
Blue Chip Drive	41.72189265 -86.89145411	41	58	Inlet	Adjust Casting to Grade
Blue Chip Drive	41.722073 -86.89105	42	58	Inlet	Replace Casting
East of Blue Chip Drive	41.72206109 -86.89031325	43	58	Inlet	Adjust Casting to Grade
East of Blue Chip Drive	41.721967 -86.890292	44	58	Inlet	Adjust Casting to Grade
East of F Street	41.72234297 -86.88659621	45	59	Inlet	Adjust Casting to Grade
East of F Street	41.722477 -86.885915	46	59	Inlet	Adjust Casting to Grade
East of F Street	41.72272506 -86.88427183	47	59	Inlet	Adjust Casting to Grade
East of F Street	41.72288972 -86.88395784	48	59	Inlet	Replace Casting & Clean
East of F Street	41.72318778 -86.88321143	49	59	Inlet	Adjust Casting to Grade & Clean
East of F Street	41.72309047 -86.88302846	50	59	Inlet	Adjust Casting to Grade & Clean
Liberty Trail	41.72523 -86.87611	51	60	Concrete Pipe Culvert	Adjust Casting to Grade
West of Minnie Street	41.73068355 -86.86236036	52	61	Manhole	Replace Casting & Clean
Belle Road	41.737611 -86.845998	53	63	Manhole	Adjust Casting to Grade

Small Structure Replacement Table

Appendix B Page Number	Location	INDOT Structure Number	Type of Structure	Structure Deficiencies	Treatment	Depth of Excavation (ft-bgs)
63	East of Freyer Road	CV 136542 CV136515	Concrete Pipe	7-Good, pavement cracking, head wall spalling, end section separated from pipe, full of debris	Replace in Kind, 2 Headwalls	5 ft-bgs
65	West of S.R. 212	CV136544 CV 136545	Concrete Pipe	5-Fair, ends and pipe starting to separate, heavy grass in flow line, debris inside	Replace in Kind, 2 Ends	5 ft-bgs
65	East of S.R. 212/U.S. 12 Merge	CV 136497 CV 136514	Concrete Pipe	5-Fair, vegetation in flow line, end section separating, debris inside, headwall deteriorating	Replace in Kind, 1 Headwall, 1 End	5-10 ft-bgs
66	S.R. 212 Merge with U.S. 12	CV 136513	Concrete Pipe	3-Poor, pavement cracking, head wall spalling, end section & barrel joints separating, pipe falling	Replace in Kind, 1 Headwall, 1 End	5 ft-bgs
67	Shady Oak Mobile Home Park	CV 136503 CV 136504	Metal Pipe	5-Fair, some debris in pipe & flow line, pipe is good/headwall broken, inside rusted & debris	Replace in Kind, 2 Ends	5 ft-bgs
67	West 1000 North	CV 136506 CV 136505	Plastic Pipe	5-Fair, plastic pipe end chewed up, metal pipe rusting, heavy vegetation at ends, debris in pipe	Replace in Kind, 2 Ends	5-10 ft-bgs
67	East of West 1000 North	CV 136512	Concrete Pipe	0-Unknown Rating, under water	Replace in Kind, 1 Headwall, 1 End	5-10 ft-bgs
68	West of Michigan State Line	CV 136508 CV 136509	Concrete Pipe	0-Unknown Rating, full of debris 5-Fair, end section & flow line full of debris, head wall lightly spalling	Replace in Kind, 1 Headwall, 1 End	5 ft-bgs
49	Beverly Drive Intersection	CV 012-046-37.05 CV 012-046-37.05 ADJ	RCB	3-Poor, under water, two separate structures, headwall deterioration, exposed rebar near top of both headwalls	Replace with 1 RCB	5-10 ft-bgs
56	McClelland Avenue Southeast Corner of Intersection	New Structure LFA #12 on Plans	Manhole Inlet and Pipe	Area currently holds water at low point, new drainage inlet connected to existing storm structure needed	Manhole Type A Inlet Pipe	5-10 ft-bgs

Wetland Impacts Table						
Wetland	Location of Impact	Structure	Temporary Impact Activities	Temporary Impacts (ACRE)	Permanent Impact Activities	Permanent Impacts (ACRE)
Wetland A 1	US 12-Frazie Road Upstream	101	Cofferdam, Sump Hole	0.0005	Ditch re-grading, headwall installation, riprap installation	0.0001
Wetland B 1	US 12-Frazie Road Downstream	101	Cofferdam, Sump Hole	0.0005	Ditch Re-grading, seeding	0.0018
Wetland D 1	US 12-SR 212 Upstream	102	Cofferdam, Sump Hole	0.0005	Ditch re-grading, seeding	0.0009
Wetland F 1	US 12-SR 212 Upstream	103	Cofferdam, Sump Hole	0.0005	Ditch re-grading, seeding	0.0009
Wetland A 2	Kintzele Ditch	CV 012-046-37.05 CV 012-046-37.05 ADJ	NA	0.0000	Intersection reconfiguration, ditch regrading, seeding, RCB and headwall installation	0.00304
Wetland B 2	Beverly Drive	NA	Cofferdam, Sump Hole	0.0065	Ditch re-grading, seeding	0.00957
Wetland C 2	Beverly Drive	NA	Cofferdam, Sump Hole	0.0051	NA	0.0000
Wetland D 2	North side of US 12	NA	NA	0.0000	Ditch re-grading, seeding	0.0094
TOTAL:				.0136		0.02571
OVERALL TOTAL:						.03931

ADA Structure Table				
Intersections	Curb Ramp Quadrants	ADA Pushbutton Assemblies	Median Ramps	Depth of Excavation (ft-bgs)
Singing Sands/Calumet Trail West of Railroad	Median		Yes	0.5 ft-bgs
Logan Street	Southwest/ Southeast			0.5 ft-bgs
Greely Avenue	Southwest/ Southeast			0.5 ft-bgs
Douglas Avenue	Southwest/ Southeast			0.5 ft-bgs
Lincoln Avenue	All four corners			0.5 ft-bgs
McClelland Avenue	All four corners			0.5 ft-bgs
Custer Avenue	Southwest/ Southeast			0.5 ft-bgs
West Sixth Street	Southwest/ Southeast			0.5 ft-bgs
Wabash Street	Southwest/ Southeast/ Northeast			0.5 ft-bgs
Washington Street	Northwest/ Northeast/ Southeast	8		3.5 ft-bgs
Franklin Street	Median/ South		Yes	0.5 ft-bgs
Pine Street	All four corners	8		3.5 ft-bgs
Spring Street	All four corners	7		3.5 ft-bgs
Second Street West	Northwest/ Northeast/			0.5 ft-bgs
Secon Street East	Northwest/ Northeast/			0.5 ft-bgs
Blue Chip Drive	Northwest/ Southwest/ Southeast/ Median		Yes	0.5 ft-bgs
Cook Street	Southwest/ Southeast			0.5 ft-bgs

Revised Structure Summary Table
Des. No. 2000607
US 12 Porter/LaPorte Co. Line to MI State Line

INDOT Initial Recommended Scope
LFA Revised Scope

As Of: 11/6/2023

HMA Overlay, Preventative Maintenance

Location	PLANS STR NUMBER	REV PLAN STR NUMBER	ASSET ID	ROUTE	DIRECTION	MP	LONGITUDE	LATITUDE	TREATMENT	STR RATING	STR TYPE	PIPE HEIGHT	PIPE WIDTH	LENGTH	END SECTION TYPE	EST COVER	INSPECTION RELATED COMMENT	INSPECTION COMMENT-OTHER
1	100		136717	US 12	Inc (N/E)	37.43	-86.92657001	41.70623463	NOT FOUND. REMOVED AT PFC	0 - Unknown / Not Found	O - Other	15	15	60	Ex- Headwall (1)	< 5'	Buried	Pipe is completely buried, can't inspect, tell what type or locate other side. Head wall lightly spalling
2	10		136722	US 12	Inc (N/E)	37.78	-86.92128506	41.70887317	Leave In Place	3 - Poor	I - Inlet	12	12	130	Other	< 5'	Full of debris	Pavement cracking heavily, end section crumbling heavily, inlet full of debris
3	11		136725	US 12	Inc (N/E)	37.79	-86.92116645	41.70901558	Leave In Place	5 - Fair - Acceptable condition, increase inspection frequency	I - Inlet	12	12	34	Other	< 5'		End section crumbling, barrel spalling
4			136731	US 12	Inc (N/E)	37.87	-86.92025777	41.70984497	Leave In Place	5 - Fair - Acceptable condition, increase inspection frequency	I - Inlet				Other	< 5'	Full of debris	Flow line full of debris, end section and barrel are starting to spall a little
5	12		136729	US 12	Inc (N/E)	37.87	-86.92021837	41.70991496	Leave In Place	5 - Fair - Acceptable condition, increase inspection frequency	I - Inlet	10	10	25	Other	< 5'		Some debris in flow line, pavement cracking, end section spalling, barrel crumbling around pipe
6			136738	US 12	Inc (N/E)	37.9	-86.91989768	41.71021951	Leave In Place	7 - Good - No repairs needed, list specific items to consider for next	I - Inlet				Other	< 5'		Pavement cracking, inlet is good
7	13		136736	US 12	Inc (N/E)	37.9	-86.919866	41.71031653	Leave In Place	5 - Fair - Acceptable condition, increase inspection frequency	I - Inlet	24	24	13	Other	< 5'		Pavement cracking, barrel crumbling a little around pipe
8	14		136743	US 12	Inc (N/E)	37.96	-86.91915873	41.71094937	Leave In Place	5 - Fair - Acceptable condition, increase inspection frequency	I - Inlet	10	10	36	Other	< 5'		Pavement cracking, barrel spalling around pipe
9	15	10	136740	US 12	Both (All)	37.97	-86.91907709	41.71105942	Adjust Casting	5 - Fair - Acceptable condition, increase inspection frequency	I - Inlet	15	15	36	Other	< 5'		Pavement cracking, end section and barrel spalling
10			136744	US 12	Inc (N/E)	38.05	-86.91774228	41.71161229	Leave In Place	7 - Good - No repairs needed, list specific items to consider for next	I - Inlet				Other	5' - 10'		Inlet is good
	16	11	101453	US 12	Dec (S/W)	38.07	-86.91782	41.71172	Adjust Casting		M - Manhole				Other	< 5'		
11	17	12	136746	US 12	Inc (N/E)	38.12	-86.91658859	41.71212283	Replace Inlet & Pipe	0 - Unknown / Not Found	I - Inlet	18	18	80.2	Other	< 5'	Full of debris	Inlet completely full of debris, can't inspect
		13							Clean Drywell									
12	18	14	136706	US 12	Dec (S/W)	38.18	-86.91577597	41.71276166	Repl Casting	3 - Poor	I - Inlet	12	12	6	Other	< 5'	Full of debris	Pavement cracking, inlet full of debris

Revised Structure Summary Table
Des. No. 2000607
US 12 Porter/LaPorte Co. Line to MI State Line

INDOT Initial Recommended Scope
LFA Revised Scope

As Of: 11/6/2023

HMA Overlay, Preventative Maintenance

Location	PLANS STR NUMBER	REV PLAN STR NUMBER	ASSET ID	ROUTE	DIRECTION	MP	LONGITUDE	LATITUDE	TREATMENT	STR RATING	STR TYPE	PIPE HEIGHT	PIPE WIDTH	LENGTH	END SECTION TYPE	EST COVER	INSPECTION RELATED COMMENT	INSPECTION COMMENT-OTHER
13	19	15	136749	US 12	Inc (N/E)	38.2	-86.91545645	41.71280529	Repl Casting	3 - Poor	I - Inlet	18	18	90	Other	< 5'		Pavement cracking, inlet crumbling heavily
	20	16	102334	US 12	Inc (N/E)	38.27	41.713638	-86.914342	Adjust Casting		M - Manhole				Other	< 5'		
14	21	17	136751	US 12	Inc (N/E)	38.28	-86.91422724	41.71359394	Repl Casting	3 - Poor	I - Inlet	10	10	3	Other	< 5'	Full of debris	Pavement cracking, some debris in flow line, inlet full of debris
	22	18	102498	US 12	Dec (S/W)	38.28	-86.913823	41.714011	Adjust Casting		M - Manhole				Other	< 5'		
	23	19	102499	US 12	Dec (S/W)	38.29	-86.913763	41.714057	Adjust Casting		M - Manhole				Other	< 5'		
15	24		136754	US 12	Inc (N/E)	38.32	-86.91376104	41.71391539	Leave In Place	5 - Fair - Acceptable condition, increase inspection frequency	I - Inlet	6	6	51	Other	< 5'		End section and barrel crumbling around pipe
16	25	20	136702	US 12	Dec (S/W)	38.31	-86.91399967	41.71401337	Repl Casting	0 - Unknown / Not Found	I - Inlet	12	12	7.5	Other	< 5'	Full of debris	Pavement cracking heavily, inlet completely full of debris, can't inspect
17	26	21	136705	US 12	Dec (S/W)	38.33	-86.91376909	41.71412079	Repl Casting	3 - Poor	I - Inlet	12	12	8	Other	< 5'	Full of debris	Pavement cracking, end section crumbling, inlet completely full of debris
	27	22	501303	US 12	Dec (S/W)	38.42	-86.912368	41.714744	Adjust Casting		M - Manhole				Other	< 5'		
	28	23	501302	US 12	Dec (S/W)	38.42	-86.91229	41.714718	Adjust Casting		M - Manhole				Other	< 5'		
18	29	24	136757	US 12	Inc (N/E)	38.49	-86.91125552	41.71556461	Repl Casting	3 - Poor	I - Inlet	10	10	312	Other	5' - 10'	Broken Grate	Pavement cracking,end section and barrel are made of old brick and are crumbling, inlet is starting to fail and is full of debris, grate broken
19	30	25	136698	US 12	Dec (S/W)	38.76	-86.90763613	41.71822419	Repl Casting	3 - Poor	I - Inlet	6" PVC inside 10" VCP	6" PVC inside 10" VCP	444	Other	5' - 10'		Pavement cracking, inlet made of old brick and is crumbling heavily . According to GIS data this structure is a 8" clay pipe. Could be difficult for CIPP.

Revised Structure Summary Table
Des. No. 2000607
US 12 Porter/LaPorte Co. Line to MI State Line

INDOT Initial Recommended Scope
LFA Revised Scope

As Of: 11/6/2023

HMA Overlay, Preventative Maintenance

Location	PLANS STR NUMBER	REV PLAN STR NUMBER	ASSET ID	ROUTE	DIRECTION	MP	LONGITUDE	LATITUDE	TREATMENT	STR RATING	STR TYPE	PIPE HEIGHT	PIPE WIDTH	LENGTH	END SECTION TYPE	EST COVER	INSPECTION RELATED COMMENT	INSPECTION COMMENT-OTHER
20			136759	US 12	Inc (N/E)	38.85	-86.90605313	41.7185238	Leave In Place	7 - Good - No repairs needed, list specific items to consider for next	I - Inlet				Other	<= 5'		Inlet is good-
21	31	26	136693	US 12	Dec (S/W)	38.85	-86.90608313	41.7186642	Repl Casting	3 - Poor	I - Inlet	12	12	56	Other	< 5'		Pavement cracking and sinking, inlet is failing, inlet is caving in on itself
22	32		136691	US 12	Dec (S/W)	38.86	-86.90595011	41.71879856	Leave In Place	7 - Good - No repairs needed, list specific items to consider for next	I - Inlet				Other	<= 5'		Pavement cracking, inlet is good-
23	33	27	136692	US 12	Dec (S/W)	38.86	-86.90582288	41.71879152	Repl Casting	7 - Good - No repairs needed, list specific items to consider for next	I - Inlet				Other	< 5'	Full of debris	Pavement cracking, heavy debris in flow line, inlet is good
	34	28	501307	US 12	Dec (S/W)	38.99	-86.903521	41.719257	Adjust Casting		M - Manhole				Other	< 5'		
24	35	29	136760	US 12	Inc (N/E)	39.01	-86.90305257	41.71934401	Repl Casting	5 - Fair - Acceptable condition, increase inspection frequency	I - Inlet				Other	< 5'		Pavement cracking, some debris in barrel. Inlet is good
25	36	30	136687	US 12	Dec (S/W)	39.02	-86.90311468	41.7195124	Repl Casting	7 - Good - No repairs needed, list specific items to consider for next	I - Inlet				Other	< 5'		Pavement cracking and sinking around inlet, curb crumbling a little, end section crumbling lightly.
26	37	31	136762	US 12	Inc (N/E)	39.1	-86.90161692	41.71975799	Repl Casting	7 - Good - No repairs needed, list specific items to consider for next	I - Inlet				Other	< 5'		Pavement cracking, curb lightly spalling, inlet is good
27			136684	US 12	Dec (S/W)	39.1	-86.90167978	41.72000991	Leave In Place	5 - Fair - Acceptable condition, increase inspection frequency	I - Inlet				Other	<= 5'		Curb spalling and cracking, inlet good but starting to spill on the inside-
	38	32	104093	US 12	Dec (S/W)	39.1	-86.901732	41.719934	Repl Casting		I - Inlet				Other	< 5'		
	39	33	501295	US 12	Dec (S/W)	39.1	-86.901662	41.719943	Adjust Casting		I - Inlet				Other	< 5'		
28	40	35	136765	US 12	Inc (N/E)	39.12	-86.90127402	41.71985795	Repl Casting	5 - Fair - Acceptable condition, increase inspection frequency	I - Inlet				Other	< 5'		Pavement cracking, some debris in bottom, inlet is good
29	41	34	136683	US 12	Dec (S/W)	39.12	-86.90134878	41.72003611	Repl Casting	7 - Good - No repairs needed, list specific items to consider for next	I - Inlet				Other	< 5'	Broken Grate	Pavement cracking, end section lightly crumbling, grate broken
30			136680	US 12	Dec (S/W)	39.2	-86.89988882	41.72048755	Leave In Place	7 - Good - No repairs needed, list specific items to consider for next	I - Inlet				Other	<= 5'		Inlet is good-
31	42	36	136766	US 12	Inc (N/E)	39.22	-86.89944299	41.72035231	Repl Casting	7 - Good - No repairs needed, list specific items to consider for next	I - Inlet				Other	< 5'	Broken Grate	Pavement cracking, grate broken, inlet itself is good , curb spalling
32			136769	US 12	Inc (N/E)	39.26	-86.8987768	41.72052376	Leave In Place	7 - Good - No repairs needed, list specific items to consider for next	I - Inlet				Other	<= 5'		Pavement cracking, curb spalling, some debris in flow line, inlet is good-

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US 12 Porter/LaPorte Co. Line to MI State Line

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HMA Overlay, Preventative Maintenance

Location	PLANS STR NUMBER	REV PLAN STR NUMBER	ASSET ID	ROUTE	DIRECTION	MP	LONGITUDE	LATITUDE	TREATMENT	STR RATING	STR TYPE	PIPE HEIGHT	PIPE WIDTH	LENGTH	END SECTION TYPE	EST COVER	INSPECTION RELATED COMMENT	INSPECTION COMMENT-OTHER
33	43	37	136772	US 12	Inc (N/E)	39.5	-86.89442944	41.7213029	Repl Casting	7 - Good - No repairs needed, list specific items to consider for next	I - Inlet				Other	< 5'	Broken Grate	Curb spalling and cracking, grate broken, some debris in flow line, inlet itself is good
34			136675	US 12	Dec (S/W)	39.5	-86.894483	41.72148978	Leave In Place	7 - Good - No repairs needed, list specific items to consider for next	I - Inlet				Other	<= 5'		Curb spalling, inlet is good
35			136776	US 12	Inc (N/E)	39.54	-86.89359125	41.72149908	Leave In Place	7 - Good - No repairs needed, list specific items to consider for next	I - Inlet				Other	<= 5'		Pavement cracking, curb spalling, inlet is good
36	44	38	136673	US 12	Dec (S/W)	39.56	-86.89338899	41.72170021	Repl Casting	5 - Fair - Acceptable condition, increase inspection frequency	I - Inlet	12	12	39	Other	5' - 10'		2nd St. Pavement cracking, curb spalling, inlet is starting to shift and sink
37			136530	US 12	Inc (N/E)	39.6	-86.89256019	41.72167598	Leave In Place		I - Inlet					<= 5'		Has pipe run under highway and one that runs right no cracks around pipe or walls
38			136531	US 12	Inc (N/E)	39.6	-86.89254058	41.72170532	Leave In Place		I - Inlet					<= 5'		No cracks around pipes or walls some debris inside bottom
39	45	39	136527	US 12	Dec (S/W)	39.6	-86.89262993	41.72188662	Repl Casting	5 - Fair - Acceptable condition, increase inspection frequency	I - Inlet	18	18	20	Other	< 5'		2nd St. Pavement cracking, barrel cracking above pipe
40	46	40	136526	US 12	Dec (S/W)	39.6	-86.89259808	41.72189475	Repl Casting		I - Inlet					< 5'		Pipe end no cracks walls see no cracks debris inside on bottom
41			136524	US 12	Dec (S/W)	39.66	-86.89161781	41.72205388	Leave In Place	7 - Good - No repairs needed, list specific items to consider for next	I - Inlet				Other	<= 5'		Pavement lightly cracking, inlet is good
42	47	41	136528	US 12	Inc (N/E)	39.66	-86.89145411	41.72189265	Adjust Casting	7 - Good - No repairs needed, list specific items to consider for next	I - Inlet				Other	< 5'		Pavement cracking on road and sidewalk, inlet is good
43			136529	US 12	Inc (N/E)	39.68	-86.89111305	41.7218738	Leave In Place	7 - Good - No repairs needed, list specific items to consider for next	I - Inlet				Other	<= 5'		Inlet is good
	48	42	501291	US 12	Dec (S/W)	39.68	-86.89105	41.722073	Repl Casting		I - Inlet				Other	< 5'		
44	49	43	136525	US 12	Dec (S/W)	39.72	-86.89031325	41.72206109	Adjust Casting		I - Inlet					< 5'		Concrete around top all broken up do not see any cracks around pipe or walls
45			136532	US 12	Inc (N/E)	39.73	-86.89028953	41.72194219	Leave In Place	7 - Good - No repairs needed, list specific items to consider for next	I - Inlet				Other	<= 5'		Pavement cracking, curb spalling, inlet is good
46			136522	US 12	Dec (S/W)	39.8	-86.88886888	41.72220513	INLET OUTSIDE R/W REMOVED FROM SCOPE AT PFC	0 - Unknown / Not Found	I - Inlet	10	10	100	Other	<= 5'	Full of debris	Pavement cracking, some debris in flow line, inlet full of debris
47	50		136523	US 12	Dec (S/W)	39.88	-86.88747145	41.72238907	Leave In Place		I - Inlet	21	21	94		<= 5'		Walls starting to cracks around pipes pipe looks to be clays
48	51		136521	US 12	Dec (S/W)	39.9	-86.88709863	41.72243429	Leave In Place	7 - Good - No repairs needed, list specific items to consider for next	I - Inlet	24	24	60	Other	>= 10'		Inlet is good, pavement cracking
49	52	45	136534	US 12	Dec (S/W)	39.93	-86.88659621	41.72234297	Adjust Casting		I - Inlet	12	12	13		< 5'		Clay pipe debris inside at bottom wall not cracks

Revised Structure Summary Table
Des. No. 2000607
US 12 Porter/LaPorte Co. Line to MI State Line

INDOT Initial Recommended Scope
LFA Revised Scope

As Of: 11/6/2023

HMA Overlay, Preventative Maintenance

Location	PLANS STR NUMBER	REV PLAN STR NUMBER	ASSET ID	ROUTE	DIRECTION	MP	LONGITUDE	LATITUDE	TREATMENT	STR RATING	STR TYPE	PIPE HEIGHT	PIPE WIDTH	LENGTH	END SECTION TYPE	EST COVER	INSPECTION RELATED COMMENT	INSPECTION COMMENT-OTHER
50	53	46	136533	US 12	Inc (N/E)	39.97	-86.885915	41.722477	Adjust Casting	5 - Fair - Acceptable condition, increase inspection frequency	I - Inlet	12	12	10	Other	< 5'		End section and barrel lightly spalling, inlet is good
51	54		136520	US 12	Dec (S/W)	39.98	-86.88563028	41.72268638	Leave In Place		I - Inlet	12	12	14		< 5'		Pipe end clay and broken debris in bottom walls starting to cracks
52			136535	US 12	Inc (N/E)	40.01	-86.88495889	41.72262481	Leave In Place	7 - Good - No repairs needed, list specific items to consider for next	I - Inlet				Other	< 5'		End section crumbling, inlet is good
53	55	47	136537	US 12	Dec (S/W)	40.05	-86.88427183	41.72272506	Adjust Casting & Clean		I - Inlet	12	12	12		< 5'		Walls cracking around pipe and top a lot debris inside at bottom
54	56	48	136519	US 12	Dec (S/W)	40.07	-86.88395784	41.72288972	Repl Casting & Clean	3 - Poor	I - Inlet	12	12	90	Other	< 5'	Full of debris	Pavement cracking and heaving, inlet completely full of debris
55	57	49	136518	US 12	Dec (S/W)	40.11	-86.88321143	41.72318778	Adjust Casting & Clean		I - Inlet	12	12	104		< 5'		No cracking around pipe pipe walls starting to cracks pipe verified clay
56	58	50	136538	US 12	Both (All)	40.12	-86.88302846	41.72309047	Adjust Casting & Clean	3 - Poor	I - Inlet	12	12	10	Other	< 5'	Full of debris	Inlet full of debris
57	59		136517	US 12	Dec (S/W)	40.16	-86.882219	41.7223449	Leave In Place	7 - Good - No repairs needed, list specific items to consider for next	I - Inlet	15	15	32	Other	5' - 10'		Pavement cracking, end section spalling, inlet is good
58	60	51	136539	US 12	Inc (N/E)	40.49	-86.87611	41.72523	Adjust Casting	5 - Fair - Acceptable condition, increase inspection frequency	I - Inlet	8	8	25	Other	< 5'		Pavement cracking, inlet made of old brick and is starting to crumble
59	61		136540	US 12	Inc (N/E)	41.26	-86.86286604	41.73049827	Leave In Place		I - Inlet	12	12	151		< 5'		Debris inside at bottom walls do not look cracks no cracks around pipe
	61	52	136541	US 12	Inc (N/E)	41.29	-86.86236036	41.73068355	Repl Casting & Clean	0 - Unknown / Not Found	C - Concrete Pipe Culvert	12	12	151	Ex. Headwall (1)	< 5'	Full of debris	Head wall spalling, pipe completely full of debris and water, can't inspect of locate other side
60	101		136516	US 12	Dec (S/W)	42.22	-86.84680589	41.73742985	Leave In Place	5 - Fair - Acceptable condition, increase inspection frequency	C - Concrete Pipe Culvert	15	15	70	Ex. Headwall (1)	< 5'		End section and barrel joints are all starting to shift heavily, some debris in pipe
	62	53	503524	US 12	Dec (S/W)	42.26	-86.845998	41.737611	Adjust Casting		M - Manhole				Other	< 5'		
61	102	100	136542	US 12	Inc (N/E)	42.6	-86.84030414	41.73988931	Replace In Kind	7 - Good - No repairs needed, list specific items to consider for next	C - Concrete Pipe Culvert	15	15	70	Ex .Headwall (1) Pr. Headwall (1)	< 5'		Pavement cracking, head wall spalling, end section separated fr pipe
			136515	US 12	Dec (S/W)	42.61	-86.84025259	41.74002581		0 - Unknown / Not Found	C - Concrete Pipe Culvert	15	15	70	Ex .Headwall (1) Pr. Headwall (1)	5' - 10'	Full of debris	Pipe full debris cannot inspect
62	63		136543	US 12	Inc (N/E)	43.23	-86.82989767	41.74424086	Leave In Place	5 - Fair - Acceptable condition, increase inspection frequency	I - Inlet Culvert	15	15	200	Other	< 5'		Pavement cracking, end section and barrel spalling a little
63	103	101	136544	US 12	Inc (N/E)	43.38	-86.82747555	41.74507197	Replace In Kind	5 - Fair - Acceptable condition, increase inspection frequency	C - Concrete Pipe Culvert	18	18	65	Ex.Headwall (1) Pr. 18" End Section (1)	< 5'	Full of debris	End section starting to separate a little, heavy grass in flow line
			136545	US 12	Inc (N/E)	43.38	-86.82738855	41.74490802		5 - Fair - Acceptable condition, increase inspection frequency	C - Concrete Pipe Culvert				Ex. Headwall (1) Pr. 18" End Section (1)	5' - 10'		Pipe inside starting to separate debris inside and at end vegetation around pipes

Revised Structure Summary Table
Des. No. 2000607
US 12 Porter/LaPorte Co. Line to MI State Line

INDOT Initial Recommended Scope
LFA Revised Scope

As Of: 11/6/2023

HMA Overlay, Preventative Maintenance

Location	PLANS STR NUMBER	REV PLAN STR NUMBER	ASSET ID	ROUTE	DIRECTION	MP	LONGITUDE	LATITUDE	TREATMENT	STR RATING	STR TYPE	PIPE HEIGHT	PIPE WIDTH	LENGTH	END SECTION TYPE	EST COVER	INSPECTION RELATED COMMENT	INSPECTION COMMENT-OTHER
64	104		136348	US 12	Inc (N/E)	43.44	-86.8263196	41.74511497	Leave In Place	0 - Unknown / Not Found	C - Concrete Pipe				Ex. Headwall (1)	< 5'	Full of debris	Pipe and flow line full of debris
			136351	US 12	Dec (S/W)	43.44	-86.82640635	41.74535402		0 - Unknown / Not Found	C - Concrete Pipe	15	15	98	Ex. Headwall (1)	< 5'	Buried	Pipe completely buried, can't inspect
65	105	102	136497	US 12	Inc (N/E)	3.36	-86.82548527	41.74632536	Replace In Kind	5 - Fair - Acceptable condition, increase inspection frequency	C - Concrete Pipe Culvert	18	18	78	Ex. End Section (1) Pr. 18" End Section (1)	< 5'		Some cat tails in flow line, end section starting to separate a little, some debris in barrel
			136514	US 12	Dec (S/W)	43.54	-86.82548527	41.74632536	Replace In Kind	0 - Unknown / Not Found	C - Concrete Pipe Culvert	18	18	78	Ex. Headwall (1) Pr. Headwall (1)	5' - 10'	Full of debris	Lot debris inside and at end has a wall that has shifting down headwall starting to deteriorate
66	106	103	136513	US 12	Both (All)	43.64	-86.82369095	41.7470527	Replace In Kind	3 - Poor	C - Concrete Pipe	18	18	80	Ex. Headwall (2) Pr. Headwall (1) Pr.18" End Section (1)	< 5'		Pavement cracking, head wall spalling, end section and barrel joints are separating. Pipe is failing
67			136499	US 12	Inc (N/E)	43.93	-86.81896356	41.74876713	Leave In Place		I - Inlet					< 5'		End see no cracks no cracks around pipe walls water in bottom
68			136501	US 12	Inc (N/E)	44.18	-86.8148317	41.75054565	Leave In Place	7 - Good - No repairs needed, list specific items to consider for next	MP - Metal Pipe Culvert				Ex. Headwall (1)	< 5'		Pipe is good
			136502	US 12	Inc (N/E)	44.18	-86.8148317	41.75054565		5 - Fair - Acceptable condition, increase inspection frequency	MP - Metal Pipe	12	12		Ex. Headwall (1)	< 5'	Rusted	Pipe has debris inside and at end pipe rusted inside and at end headwall no cracks
69	107	104	136503	US 12	Inc (N/E)	44.25	-86.81355815	41.75122022	Replace In Kind	5 - Fair - Acceptable condition, increase inspection frequency	MP - Metal Pipe Culvert	15	15	25	Ex. Headwall (1) Pr. 15" End Section (1)	< 5'		Some debris in pipe and flow line. Pipe is good
			136504	US 12	Inc (N/E)	44.25	-86.81370165	41.75112777		5 - Fair - Acceptable condition, increase inspection frequency	MP - Metal Pipe Culvert				Ex. Headwall (1) Pr. 15" End Section (1)	< 5'	Rusted	Headwall broke end and inside rusted and debris
70	108	105	136506	US 12	Inc (N/E)	44.42	-86.81086144	41.75265952	Replace In Kind	5 - Fair - Acceptable condition, increase inspection frequency	PP - Plastic Pipe Culvert	15	15	61	Pr. 15" End Section (1)	5' - 10'		Pipe has a plastic end on that is all chew up but end metal pipe no problems pipe rusting on inside and at end lot vegetation
			136505	US 12	Inc (N/E)	44.43	-86.81065449	41.75276945		5 - Fair - Acceptable condition, increase inspection frequency	PP - Plastic Pipe Culvert				Ex. Plastic End (1) Pr. 15" End Section (1)	< 5'	Full of debris	Ditch and flow line full of debris and heavy vegetation, some debris in pipe
71	109	106	136512	US 12	Dec (S/W)	44.57	-86.80886202	41.75430535	Replace In Kind	0 - Unknown / Not Found	C - Concrete Pipe Culvert	15	15	68	Ex. Headwall (2) Pr. Headwall (1) Pr.15" End Section (1)	5' - 10'	Under water	Under water cannot inspect
72			136507	US 12	Inc (N/E)	44.72	-86.8064928	41.75570135	Leave In Place	5 - Fair - Acceptable condition, increase inspection frequency	C - Concrete Pipe	15	15		Ex. Headwall (1)	< 5'		Pavement cracking, head wall lightly spalling, some light debris in barrel
			136511	US 12	Dec (S/W)	44.72	-86.80674199	41.75588974		7 - Good - No repairs needed, list specific items to consider for next	C - Concrete Pipe				Ex. Headwall (1)	< 5'	Full of debris	Pavement cracking, head wall spalling, end section and flow line full of debris
73	110		136510	US 12	Dec (S/W)	45.02	-86.8024963	41.75893342	Leave In Place	0 - Unknown / Not Found	VC - Vitrified Clay Culvert	15	15	70	Ex. Headwall (1)	5' - 10'	Full of debris	Pipe full debris inside and at end cannot inspect headwall deteriorate
74	111	107	136508	US 12	Inc (N/E)	45.12	-86.80087944	41.75977928	Replace In Kind	0 - Unknown / Not Found	C - Concrete Pipe Culvert	18	18	70	Ex. Headwall (1) Pr. Headwall (1)	< 5'	Full of debris	Flow line could use work pipe full debris cannot inspect
			136509	US 12	Dec (S/W)	45.12	-86.80104682	41.75996485		5 - Fair - Acceptable condition, increase inspection frequency	C - Concrete Pipe Culvert				Ex. Headwall (1) Pr. 18" End Section (1)	< 5'	Full of debris	End section and flow line full of debris, head wall lightly spalling

Culvert Inspection Report



Structure Information

Structure:	CV 012-046-37.05	Facility Carried:	US 12
Structure Number:	93004683	Features Intersected:	EQUALIZER

Inspection Information

Inspection Date:	05/26/2025	Lead Inspector:	Dylan (Cody) Graham
Inspection Type:	Culvert	Additional Inspectors:	Amy Wines

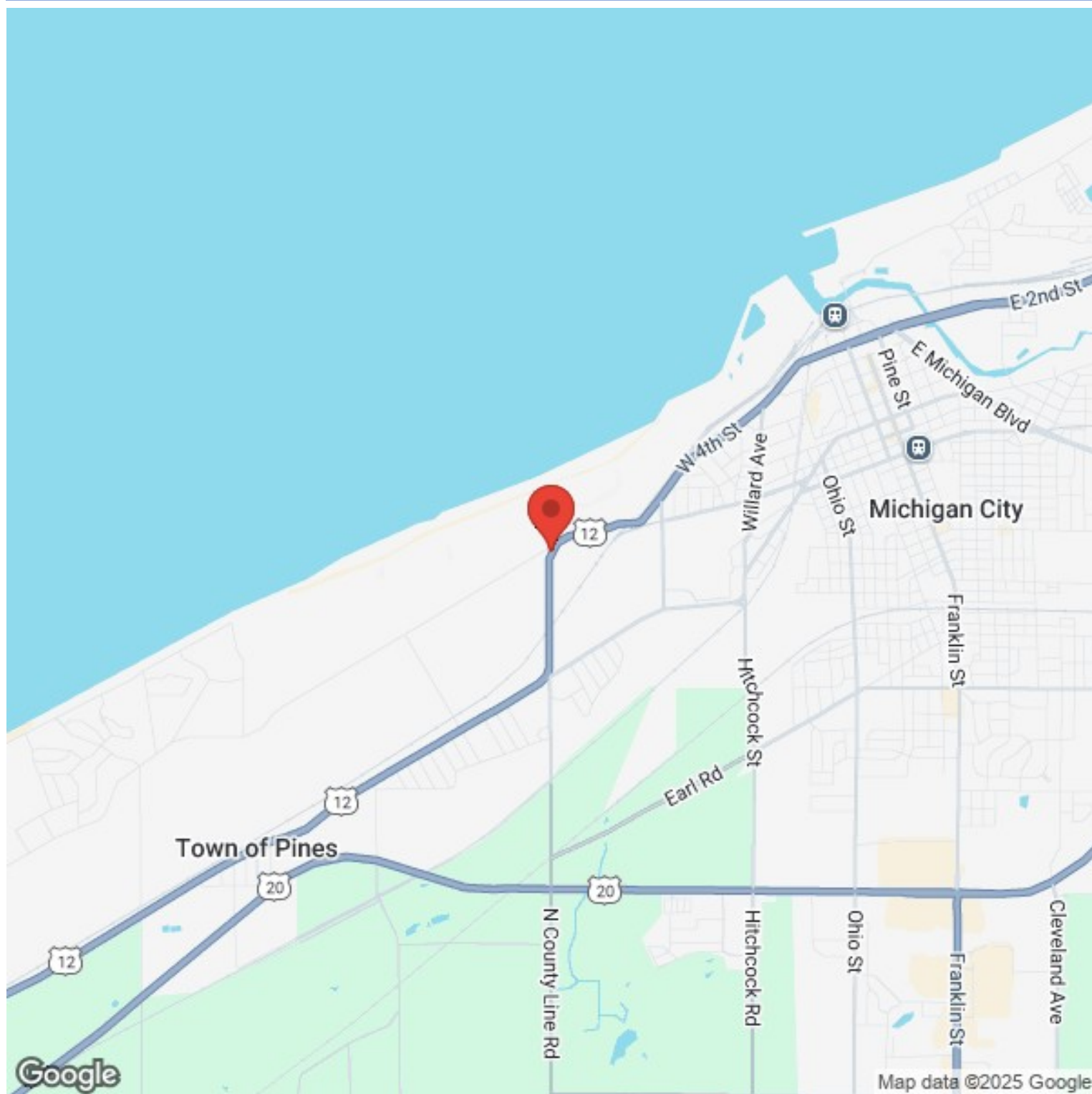
Condition Ratings Summary

Culvert:	3	Substructure:	N
Deck:	N	Channel & Channel Protection:	5
Superstructure:	N		



Structure:	CV 012-046-37.05	Facility Carried:	US 12	Inspector:	Dylan (Cody) Graham
Str. Number:	93004683	Features Intersected:	EQUALIZER	Inspection Date:	05/26/2025

Location Map



Location:	01.93 W JCT 421
County:	Porter

Latitude:	41.70445
Longitude:	-86.93238

Structure:	CV 012-046-37.05	Facility Carried:	US 12	Inspector:	Dylan (Cody) Graham
Str. Number:	93004683	Features Intersected:	EQUALIZER	Inspection Date:	05/26/2025

Inspection Summary

Culvert is in serious condition

- Underwater at time of inspection
- A hydro memo dated 02-15-2021 stated that this is two separate structures, The one under 12 ends in the median and a separate one then continues under the connector road to Beverly Dr
- Headwall has a large spall with exposed rebar

Structure:	CV 012-046-37.05	Facility Carried:	US 12	Inspector:	Dylan (Cody) Graham
Str. Number:	93004683	Features Intersected:	EQUALIZER	Inspection Date:	05/26/2025

Identification

Structure Number:	93004683	Year Built:	1934
Structure:	CV 012-046-37.05	Inspection Date:	05/26/2025
Highway Agency District:	04 - La Porte	Inspection Frequency:	12
Subdistrict:	4100 - Laporte Subdistrict	Add'l Treatment Exist?	False
Type Of Service (Under):	0 - Other	County Code:	064 - Porter
Facility Carried:	US 12	Ramp Id:	
Features Intersected:	EQUALIZER	Offset:	05
Location:	01.93 W JCT 421	Reference Post:	37
		Milepoint:	0
		Latitude:	41.70445
		Longitude:	-86.93238
Add'l Location Description:			

Classification

Maintenance Responsibility:	01 - State Highway Agency	Owner:	01 - State Highway Agency
National Highway System Inventory Route:	0 - Inventory Route is not on the NHS	Functional Classification:	02 - Rural - Principal Arterial - Other

Geometric Data

Kind Of Material:	1	Max Vertical Opening (FT):	2.5
Max Horizontal Opening (FT):	4.0	Original Culvert Shape:	Box
Culvert Barrel Length (FT):	133.64	Skew:	
Minimum Estimated Fill Cover (FT):	2.00		
Measurement Remarks:	As per hydro memo dated 2-15-2021 culvert measurements are 4' span x 2.5' rise combined length of each structure and separation in median is 133.64 ft with a 26 deg. skew over US 12 and 5 deg. skew under conn		
Structural Additional Description:	Median is 2 separate structures, both measure 4' span x 2.5' rise.		

Structure:	CV 012-046-37.05	Facility Carried:	US 12	Inspector:	Dylan (Cody) Graham
Str. Number:	93004683	Features Intersected:	EQUALIZER	Inspection Date:	05/26/2025

Culvert Condition Ratings

Culverts:	3 - Serious Condition
Culvert is under water at day of inspection. This culvert has been separated, the rating remains as a 3 until structure is either flushed out or replaced.	
Deck:	N - Not Applicable
n/a	
Superstructure:	N - Not Applicable
n/a	
Substructure:	N - Not Applicable
Headwall deterioration with exposed rebar near the top of both headwalls. Most of the headwall is submerged in water.	
Channel / Channel Protection:	5 - Bank eroded.. major damage
Channels could not be seen well due to high water at the time of this inspection, therefor the ratings were not changed. Ratings remain a 5 until structure is flushed or replaced.	
Culvert Rails:	N - NA/Safety feature not required
n/a	
Transitions:	N - NA/Safety feature not required
n/a	
Approach Guardrail:	N - NA/Safety feature not required
n/a	
Approach Guardrail Ends:	N - NA/Safety feature not required
n/a	
Is Culvert Obstructed?	False
n/a	
Overtopping Frequency:	4 - Frequent - less than three Years
Has overtopped in a three year cycle in the past	

Headwall / Anchor Rating:	5	Channel Alignment Rating:	5
Wingwall Ratings:	N	Birds Present?:	No
Bank Erosion Ratings:	6	Bats Present?:	No
Drift / Sediment Rating:	5		

Structure:	CV 012-046-37.05	Facility Carried:	US 12	Inspector:	Dylan (Cody) Graham
Str. Number:	93004683	Features Intersected:	EQUALIZER	Inspection Date:	05/26/2025

Structure:	CV 012-046-37.05	Facility Carried:	US 12	Inspector:	Dylan (Cody) Graham
Str. Number:	93004683	Features Intersected:	EQUALIZER	Inspection Date:	05/26/2025



PHOTO #: channel



PHOTO #: chanel west

Structure:	CV 012-046-37.05	Facility Carried:	US 12	Inspector:	Dylan (Cody) Graham
Str. Number:	93004683	Features Intersected:	EQUALIZER	Inspection Date:	05/26/2025



PHOTO #: road alignment



PHOTO #: median

B.ID.01 Bridge Number

B.ID.02 Bridge Name:

Inspector: Dylan (Cody) Graham

Inspection Date: 05/26/2025

Channel Profile

No Channel bed measurement

Structure Information

Structure Number:	CV 012-046-37.05	Facility Carried:	US 12
NBI Number:		Features Intersected:	EQUALIZER
County / District:	Porter	Location:	01.93 W JCT 421

Culvert Inspection Report



Structure Information

Structure:	CV 012-046-37.05 ADJ	Facility Carried:	US 12
Structure Number:	93009395	Features Intersected:	EQUALIZER

Inspection Information

Inspection Date:	05/26/2025	Lead Inspector:	Dylan (Cody) Graham
Inspection Type:	Culvert	Additional Inspectors:	Amy Wines

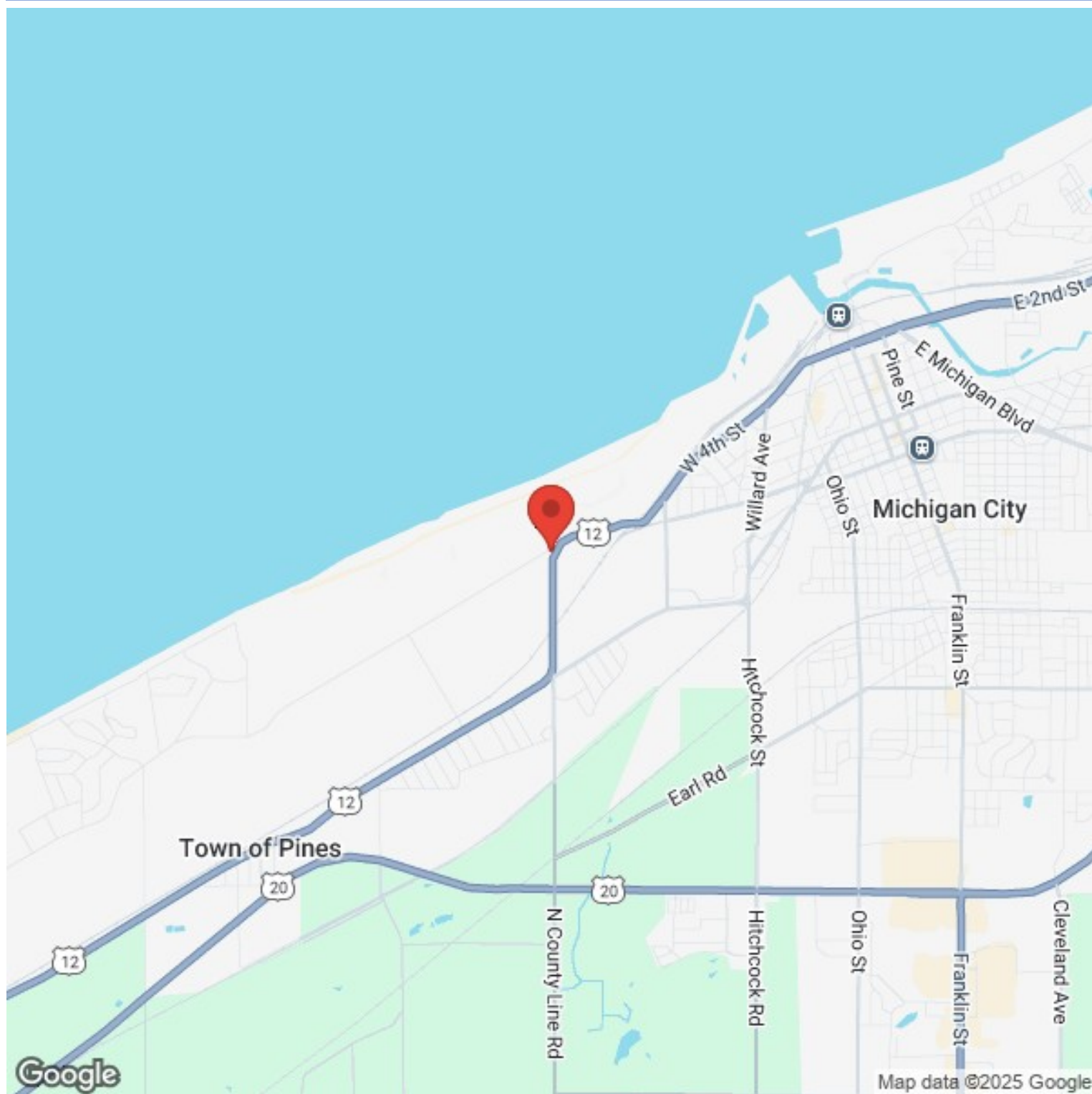
Condition Ratings Summary

Culvert:	3	Substructure:	N
Deck:	N	Channel & Channel Protection:	8
Superstructure:	N		



Structure:	CV 012-046-37.05 ADJ	Facility Carried:	US 12	Inspector:	Dylan (Cody) Graham
Str. Number:	93009395	Features Intersected:	EQUALIZER	Inspection Date:	05/26/2025

Location Map



Location:	01.93 W JCT 421
County:	LaPorte

Latitude:	41.70444
Longitude:	-86.93267

Structure:	CV 012-046-37.05 ADJ	Facility Carried:	US 12	Inspector:	Dylan (Cody) Graham
Str. Number:	93009395	Features Intersected:	EQUALIZER	Inspection Date:	05/26/2025

Inspection Summary

Culvert is in serious condition

- rating a 3 until structure can be properly inspected
- structure has been full of water for last 4 inspections
- several maintenance request has bee submitted to flush culvert, but no action has been taken so far

Note

- **SECOND LG CULVERT IDENTIFIED 04/2022 ADDED TO INVENTORY 04/21/2022 BASED ON the US-12 culvert falls entirely inside LaPorte County, and the structure number should be CV 012-046-37.05. The adjacent Large Culvert should also be considered to be in LaPorte County, based on our Bridge Inspection Manual. SHARI STREET**

Structure:	CV 012-046-37.05 ADJ	Facility Carried:	US 12	Inspector:	Dylan (Cody) Graham
Str. Number:	93009395	Features Intersected:	EQUALIZER	Inspection Date:	05/26/2025

Identification

Structure Number:	93009395	Year Built:	1934
Structure:	CV 012-046-37.05 ADJ	Inspection Date:	05/26/2025
Highway Agency District:	04 - La Porte	Inspection Frequency:	12
Subdistrict:		Add'l Treatment Exist?	
Type Of Service (Under):	0 - Other	County Code:	046 - Laporte
Facility Carried:	US 12	Ramp Id:	
Features Intersected:	EQUALIZER	Offset:	
Location:	01.93 W JCT 421	Reference Post:	
		Milepoint:	0
		Latitude:	41.70444
		Longitude:	-86.93267
Add'l Location Description:			

Classification

Maintenance Responsibility:	01 - State Highway Agency	Owner:	01 - State Highway Agency
National Highway System Inventory Route:	0 - Inventory Route is not on the NHS	Functional Classification:	02 - Rural - Principal Arterial - Other

Geometric Data

Kind Of Material:	2	Max Vertical Opening (FT):	2.5
Max Horizontal Opening (FT):	4.0	Original Culvert Shape:	Box
Culvert Barrel Length (FT):	133.6	Skew:	26
Minimum Estimated Fill Cover (FT):	2.0		
Measurement Remarks:	As per hydro memo dated 2-15-2021 culvert measurements are 4' span x 2.5' rise combined length of each structure and separation in median is 133.64 ft with a 26 deg. skew over US 12 and 5 deg. skew under conn		
Structural Additional Description:	Median is 2 separate structures, both measure 4' span x 2.5' rise. As per 1934 plans		

Structure:	CV 012-046-37.05 ADJ	Facility Carried:	US 12	Inspector:	Dylan (Cody) Graham
Str. Number:	93009395	Features Intersected:	EQUALIZER	Inspection Date:	05/26/2025

Culvert Condition Ratings

Culverts:	3 - Serious Condition
This culvert has not been properly inspected in the past inspections due to culvert full of water and sediment.	
Deck:	N - Not Applicable
Superstructure:	N - Not Applicable
Substructure:	N - Not Applicable
Moderate deterioration on Headwall, wingwalls are under water	
Channel / Channel Protection:	8 - Banks are protected
Channel ,no noticeable defects. Bank Sediment; Water pooling in the median	
Culvert Rails:	N - NA/Safety feature not required
Transitions:	N - NA/Safety feature not required
Approach Guardrail:	N - NA/Safety feature not required
Approach Guardrail Ends:	N - NA/Safety feature not required
Is Culvert Obstructed?	False
n	
Overtopping Frequency:	2 - Slight - 11 to 100 Years
unknown	

Headwall / Anchor Rating:	4	Channel Alignment Rating:	6
Wingwall Ratings:	4	Birds Present?:	No
Bank Erosion Ratings:	6	Bats Present?:	No
Drift / Sediment Rating:	5		

Structure:	CV 012-046-37.05 ADJ	Facility Carried:	US 12	Inspector:	Dylan (Cody) Graham
Str. Number:	93009395	Features Intersected:	EQUALIZER	Inspection Date:	05/26/2025

Structure:	CV 012-046-37.05 ADJ	Facility Carried:	US 12	Inspector:	Dylan (Cody) Graham
Str. Number:	93009395	Features Intersected:	EQUALIZER	Inspection Date:	05/26/2025



PHOTO #: headwall



PHOTO #: channel east

Structure:	CV 012-046-37.05 ADJ	Facility Carried:	US 12	Inspector:	Dylan (Cody) Graham
Str. Number:	93009395	Features Intersected:	EQUALIZER	Inspection Date:	05/26/2025



PHOTO #: alignment

B.ID.01 Bridge Number

B.ID.02 Bridge Name:

Inspector: Dylan (Cody) Graham

Inspection Date: 05/26/2025

Channel Profile

No Channel bed measurement

Structure Information

Structure Number:	CV 012-046-37.05 ADJ	Facility Carried:	US 12
NBI Number:		Features Intersected:	EQUALIZER
County / District:	LaPorte	Location:	01.93 W JCT 421



Bridge Scoping Application Report

NBI: 93004683 for 9/24/2020

5/20/2021

Bridge

Approved

Last Edited Date	1/15/2021	Work Type	Small Structure Replacement
Last Updated By	System, DTIMS	Work Category	District Small Structure Project
Proposed FY	2026	Score	84
Pre-DES		NBI #	93004683

Bridge Project Details

Route	US 12	CL Measure From	Updated By	kmunro@indot.in.gov
State Log Date	09/24/2020	CL Measure To		

Bridge Attributes

District	4	Sub	
County	46 - LaPorte	Route	US 12
Reference Post	37	Offset	8
Latitude	41.705	Longitude	-86.932
Existing Structure	CV 012-064-37.05	Structure Type	
Route Over	US 12	Route Under	
Year Built	0000	Inspection Date	6/09/2020
Year Reconstruct		Load Rating	Tons
Structure Length	110.00 Ft	Deck Wear Surface	6 - Satisfactory Condition
Deck Width		Condition Of Deck	N - Not Applicable
Area	Sq Ft	Condition Of Super Structure	N
Lanes Over		Condition Of Sub Structure	N - Not Applicable
Lanes Under		Scour Critical Evaluation Rating	7
Max Length Span	5.00 Ft	Number Of Main Spans	
Historical Significance			
Functional Class	3 - Principal Arterial - Other		

Past and Committed Projects Completed on this NBI

Des	Status	Contract	Letting	CN \$	Work Type	ADT	ADT Year
2101096	A	43881	07/09/2025	\$418,000.00	Small Structure Replacement	6406	2019

Project Proximity Search using 0.00 mile radius

FY	Awarded	To Let	Call	Prop.	Prov.	CN \$
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Purpose/Need of Project

Full Scope Needed?	No	Historic Bridge Alt Analysis needed?	No
Purpose	<p>The purpose of this project is to extend the life of the culvert and improve the barrel to 7 or higher. The existing culvert is a 134' long, 60" span by 60" rise reinforced concrete box with an overall rating of 3. The inspection made by Andrew Raynor on June 9, 2020 states. The culvert has a large suck hole in the median between the structure. The hole is filled with water. The culvert Engineer was notified of the red maintenance need on March 2, 2020 but, the issue has not been addressed yet. Structure openings could not be fully inspected due to water level at opening.</p>		

Own It: Alternatives

Preliminary Alternatives That Are Contemplated (Analyzed) With Costs

The contemplated alternative for this project is a replace the existing culvert with 6' Span x 4' Rise Reinforced Concrete Box.

Consequences If No Action Is Taken Do Nothing Alternative Is Selected

The culvert will continue to deteriorate and will require increased maintenance and potential emergency replacement.

Secondary Considerations or Goals With Costs

None

Will Further Analysis/Assessment Be Required Beyond This Form? No

Solve It: Project Recommendations And Costs



Bridge Scoping Application Report

NBI: 93004683 for 9/24/2020

5/20/2021

Potential Design Exceptions and Open Road Ideas

Estimated Total Project Costs

Phase	Amount	Comments
Right of Way Purchase	\$ 0	
Right of Way Services	\$ 0	
Preliminary Engineering 1	\$ 50,000	
Railroad PE 1	\$ 0	
Utilities PE	\$ 20,000	
Utilities CN	\$ 0	
Construction Total \$418,000		
Construction	\$ 368,000	
RR Construction	\$ 0	
Maintenance of Traffic	\$ 50,000	
Environmental Mitigation	\$ 0	
ADA	\$ 0	
Sidewalks/ Multi Use Paths		
Construction Engineering	\$ 50,000	
Other Considerations	\$ 0	
Total	\$538,000	

Maintenance of Traffic

Can the road be closed to traffic? Yes Interstate Congestion Policy Waiver Required? No
Traffic Management Plan Required? Yes
Anticipated MOT Scheme Value Detour
Official detour to utilize SR 212, US 20, and SR 520. Coordinate with Michigan City, Porter and LaPorte Counties for a local detour.
The Indiana Dunes National Park should be coordinated with for closure times.

Other Considerations

Anticipated Number of Construction Seasons To Complete 1
Anticipated Number of Years To Complete Design 2
Environmental Document Type PCE
Environmental Factors

Additional Anticipated Complications

Tree Clearing	No
Fish	No
Bats	No
Historical	No
Potential Hazardous Coatings	No

Additional Comments

None



Bridge Scoping Application Report

NBI: 93004683 for 9/24/2020

5/20/2021

Supporting Documents

Document Type	Document Name	Date
SupportingDocuments	Bridge - 93004683 Crash Analysis.pdf	11/18/2020 10:04:4
HydraulicReports	HydroMemo Prelim CV012-064-37.05 12-4-2020 DLZ.pdf	12/15/2020 5:48:4
Photos	CV 012-064-37.05 Photos.pdf	12/1/2020 5:18:24
InspectionReports	CV 012-064-37.05 Inspection Report.pdf	11/18/2020 10:04:2
CostEstimates	CV 012-064-37.05 CostEst_SmallStructure Replacement.pdf	11/18/2020 10:04:0
MiniScopeProjectReport	93004683_Post Deliberation Project Scoping Report.pdf	4/5/2021 9:27:42P
SupportingDocuments	CV 012-064-37.05 Culvert Scoring Sheet (11-10-20).pdf	1/12/2021 11:55:01

Report Prepared By and Approved By

Title	Signature	
Submitted By Asset Engineer	Vergon, Christopher	1/12/2021
Concur By Scoping Engineer	South, Paul	1/13/2021
Approved By SAM	Benczik, Steve	1/15/2021

Submittal Type	Minor	Submittal Year	2026
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Images



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N642-BR
Indianapolis, Indiana 46204

PHONE: (317) 233-2096
FAX: (317) 233-4929

Eric Holcomb, Governor
Joe McGuinness,
Commissioner

February 15, 2021

TO: Steven Vanes
LaPorte Bridge Asset Engineer

FROM: John Marino, P.E.
DLZ (jmarino@dlz.com)

THROUGH: Darrin K Miller, PE
INDOT Engineer



SUBJECT: Hydraulic Review

Des. #: No Des
Asset Name: CV 012-064-37.05
County: LaPorte
Location: 1.93 Miles West of US 421(Pine Street)
Crossing: UNT of Kintzele Ditch
DNR CIF Permit Required (Y/N): No
Legal Drain (Y/N): No regulated drain per call with LaPorte County Surveyors Office on 11/10/20

Site Parameters		
Drainage Area	92.0	acres
Q ₁₀₀ Discharge	66.2	cfs
Q ₅₀ Discharge for velocity	59.6	cfs
Q ₁₀₀ Tailwater Depth	2.04	ft.
US Edge of Travel Lane	599.98	ft.
Design Roadway Serviceability Elevation	598.98	ft.

Culvert Properties				
Parameter	Existing		Proposal 1	
Structure Size & Type	4' Span x 2.5' Rise RC Box		6' Span x 4' Rise RC Box	
Q ₁₀₀ Headwater Elevation	600.57	ft.	598.93	ft.
Q ₅₀ Headwater Elevation	599.98	ft.	598.67	ft.
Meets Roadway Serviceability @ Q ₅₀	No		Yes	
Backwater	2.85	ft.	1.21	ft.
Minimal Low Structure Elevation (DS)	598.19	ft.	598.35	ft.
Assumed Flowline Elevation (DS)	595.68	ft.	595.68	ft.
Sump Depth	0	in.	16	in.



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Joe McGuinness,
Commissioner

Culvert Replacement Proposal

The existing structure has a rural watershed that is mostly swampy area with sand dunes near Lake Michigan. The sand dune acreage was considered non-contributing to the watershed per discussion with INDOT Hydraulic staff. The flow rate was calculated from rational equation, hydraulic analysis was performed with HY8, and the tail water elevation was calculated using a field surveyed cross-section. The cross section was located about 25' downstream of the existing culvert.

Based on existing plans from 1934 there are separate structures under US 12 and the connector road to Beverly Drive. Each existing structure consists of a 4' Span x 2.5' Rise reinforced concrete box structure with headwall. The combined length of each structure and separation in median is 133.64 feet with a 26 degree skew over US 12 and 5 degree skew under the connector road. The area between the structures appears to be mostly filled in with dirt.

For roadway serviceability the existing structure does not pass the requirements for road serviceability for the functional classification (Two-Lane Facility, AADT > 3000) and does have roadway overtopping at the Q100 storm. To provide for roadway serviceability at the Q100 storm the proposed structure was widened versus the existing.

This UNT stream flows into Kintzele Ditch 2,250' downstream of the structure. Due to the distance of the structure to the larger ditch downstream of the site, the 100-year flood elevation at the structure is not affected by the Kintzele Ditch floodplain.

Only 1 structure alternative was provided. The pipe options will not provide the minimum waterway area needed based on the existing structure size, due the limited rise available by the existing roadway elevation. The 3-sided structure options were not provided due to the required span being well below the 12' threshold discussed with INDOT staff. Based on the HY8 modeling data, product availability and IDM standards, the applicable replacement structures for the site is 1 – 6' Span x 4' Rise RC Box with 16" Sump (4" of sump for cover). The structure was modeled with an upstream and downstream flowline of 595.68 feet and will require Revetment Riprap at the inlet and outlet.

Riprap Design Recommendations

Riprap Properties		
Parameter	Proposal 1	
Outlet Velocity @ Q ₅₀	5.14	ft/s
Outlet Riprap Size	Revetment	
Inlet Riprap Needed (Y/N)	Yes	
Natural Channel Velocity @ Q ₅₀	2.80	ft/s
Minimal Inlet Riprap Size if Warranted	Revetment	

Riprap as specified in the Riprap Properties tables on geotextiles should be used at the outlet and/or inlet and placed according to IDM Figure 203-2D. Pursuant to INDOT policy, inlet riprap is specified for box culverts, arch boxes, flat top, and slab top geometries. Per INDOT policy the inlet riprap for these structures is based on the natural tailwater velocity. For the box structure riprap shall be placed in accordance with INDOT standard drawing E 714-BCSP-01

If you have any questions or comments, please contact me at (317) 234-5422.

cc: file

Culvert: CV 012-064-37.05

Exist. Rise 4 ft
Exist. Span 5 ft
Exist. Length 110 ft
Exist. Opening 20 sft

Proposed Size Increase 0.2
New Opening 24 sft
Proposed New Rise 5
5 Proposed Span (Rounded) 5
5 Proposed Length 110

Proposed New Span
Proposed Length

Cover 4 ft
Pavement Width 32 ft

	Description	Unit	Unit Cost	Quantity	Line Item Cost
203-02000	Excavation Common	CYS	\$ 25.00	269	\$6,725.00
203-02070	Borrow	CYS	\$ 30.00	269	\$8,070.00
207-09935	Subgrade Treatment Type Ic	SYS	\$ 25.00	72	\$1,800.00
211-09265	Structure Backfill Type 2	CYS	\$ 50.00	124	\$6,200.00
211-09268	Structure Backfill Type 5	CYS	\$ 125.00	230	\$28,750.00
304-07490	Hma Patching Type B	TON	\$ 975.00	50	\$48,750.00
306-08043	Milling Transition	SYS	\$ 16.00	610	\$9,760.00
401-07322	Qc/Qa-Hma 3 64 Surface 9.5 Mm	TON	\$ 100.00	200	\$20,000.00
	Guardrail	LS	\$ 30,000.00	1	\$30,000.00
615-06490	Right Of Way Marker	EACH	\$ 170.00	8	\$1,360.00
616-02320	Geotextiles	SYS	\$ 5.00	19	\$95.00
616-05689	Riprap Class 2	TON	\$ 68.00	42	\$2,856.00
616-06405	Riprap Revetment	TON	\$ 45.00	60	\$2,700.00
	Seeding	LS	\$ 5,000.00	1	\$5,000.00
628-09402	Field Office B	MOS	\$ 1,750.00	8	\$14,000.00
715	60" Type 1 Pipe	LFT	\$ 300.00	110	\$33,000.00
	HMA Shoulder Widening	LS	\$ 20,000.00	1	\$20,000.00
	MOT Signage	LS	\$ 15,000.00	1	\$15,000.00
Subtotal					\$254,066.00

Mobilization/Demobilization (5%)
Construction Engineering (2%)
Maintaining Traffic (7%)
Storm Water Management (2%)
Clearing R/W (2%)
Contingency (20%)

LS	\$ 14,862.86	1	\$14,862.86
LS	\$ 5,945.14	1	\$5,945.14
LS	\$ 20,808.01	1	\$20,808.01
LS	\$ 5,945.14	1	\$5,945.14
LS	\$ 5,945.14	1	\$5,945.14
LS	\$ 59,451.44	1	\$59,451.44

Total \$367,023.74

Average for Similar Size =

\$ -

Preliminary Crash Analysis Report
 Asset 93004683 -- US 12 over, 01.93 W JCT 421
 10/23/2020

Crash data was reviewed as part of this assessment and a RoadHAT analysis was prepared. A total of 3 recorded crashes took place within the project limits during the three-year crash study period (2017 through 2019). The following tables summarize the number and types of crashes, as well as the RoadHAT results.

Crash History

ICC	-0.16	Number of Crashes	3
ICF	0.24	Number of Fatal and Incapacitating Crashes	0
First Year of Crash Data	2017	Number of Non-Incapacitating Crashes	1
Last Year of Crash Data	2019	Number of Property Damage Only Crashes	2

Crash Patterns: Manner of Collision

Manner of Collision	Number	Percent
Backing Crash	0 (0)	0.00%
Collision With Animal (Including Deer) *	0 (0)	0.00%
Collision With Object in Road	0 (0)	0.00%
Head On (Between Motor Vehicles)	0 (0)	0.00%
Left Turn, Right Turn or Angle	0 (0)	0.00%
Opposite Direction Sideswipe	0 (0)	0.00%
Ran Off Road	1 (0)	33.33%
Rear End	0 (0)	0.00%
Same Direction Sideswipe	1 (0)	33.33%
Other	1 (1)	33.34%
Total	3 (1)	100.00%

*In almost all cases, deer crashes and other animal crashes should be removed from the analysis completely prior to completing the RoadHAT report.

X (Y): X indicates the number of crash type

Y indicates those resulting in injury

The RoadHAT analysis resulted in an Index of Crash Frequency (ICF) of 0.24 and an Index of Crash Cost (ICC) of -016. This analysis indicates the road segment is slightly underperforming but within a normal range. No countermeasures are suggested.

Crash Pattern Analysis

Pavement Condition Percentages

Type	Number	Percent	Standard Value* Comparison:
On Snowy or Icy Pavement	2	66.67%	11.18%
On Wet Pavement	0	0.00%	15.49%
On Dry Pavement	1	33.33%	73.17%
On Other Condition Pavement	0	0.00%	0.16%

*Standard values are based on 2014-2018 data for all state-owned facilities. Standard values are included for comparison purposes only.

Lighting Condition Percentages

Type	Number	Percent	Standard Value* Comparison:
Dark (Lighted or Unlighted)	0	0.00%	32.76%
Dawn/Dusk	1	33.33%	5.49%
Daylight	2	66.67%	61.66%
Other	0	0.00%	0.10%

*Standard values are based on 2014-2018 data for all state-owned facilities. Standard values are included for comparison purposes only.

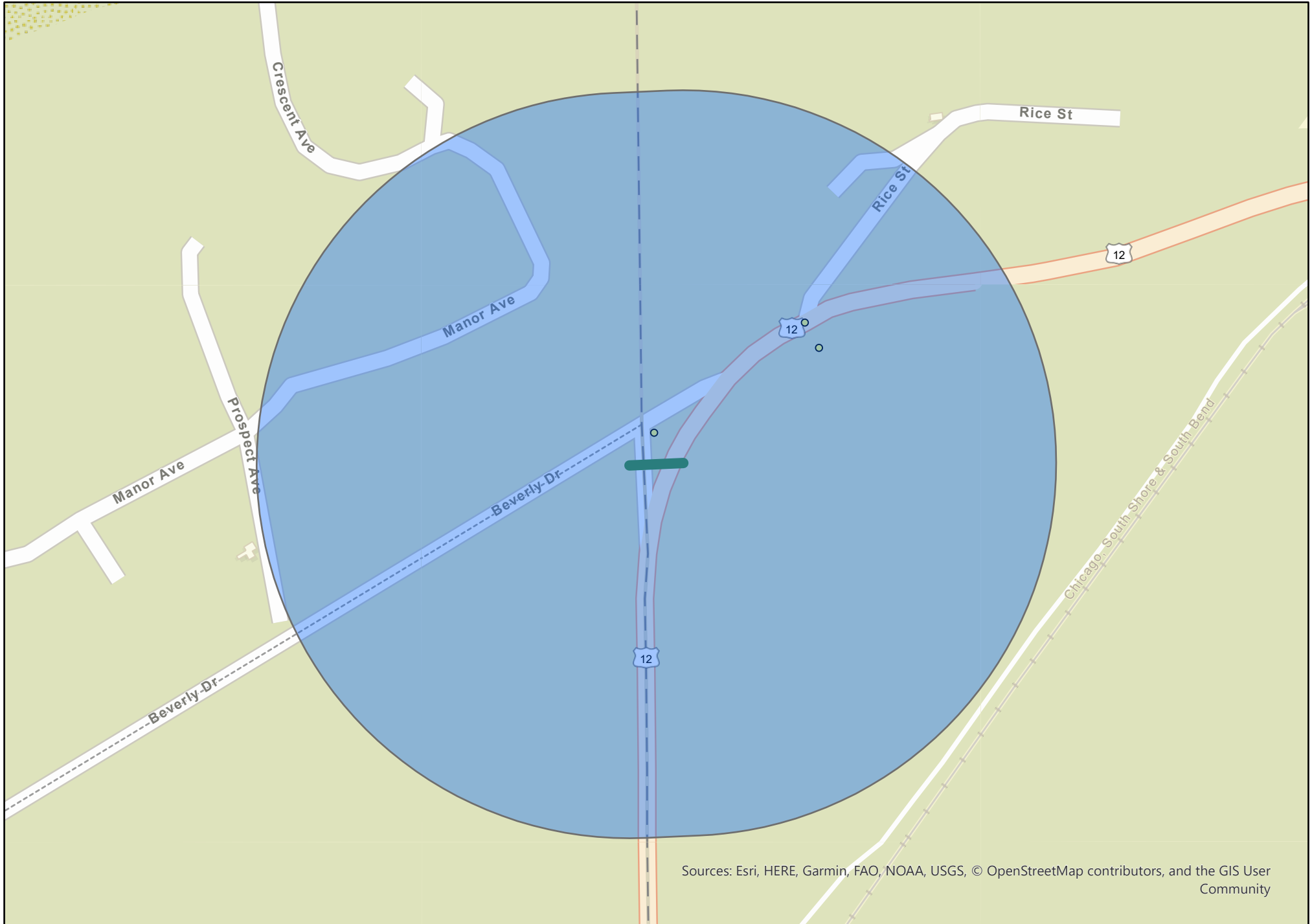
Weather Condition Percentages

Type	Number	Percent	Standard Value* Comparison:
Clear	1	33.33%	62.39%
Cloudy	0	0.00%	18.33%
Fog (Or Smoke or Smog)	0	0.00%	0.68%
Rain	0	0.00%	9.79%
Snow or Sleet	0	0.00%	6.41%
Blowing Material	2	66.67%	2.13%
Severe Cross Winds	0	0.00%	0.26%

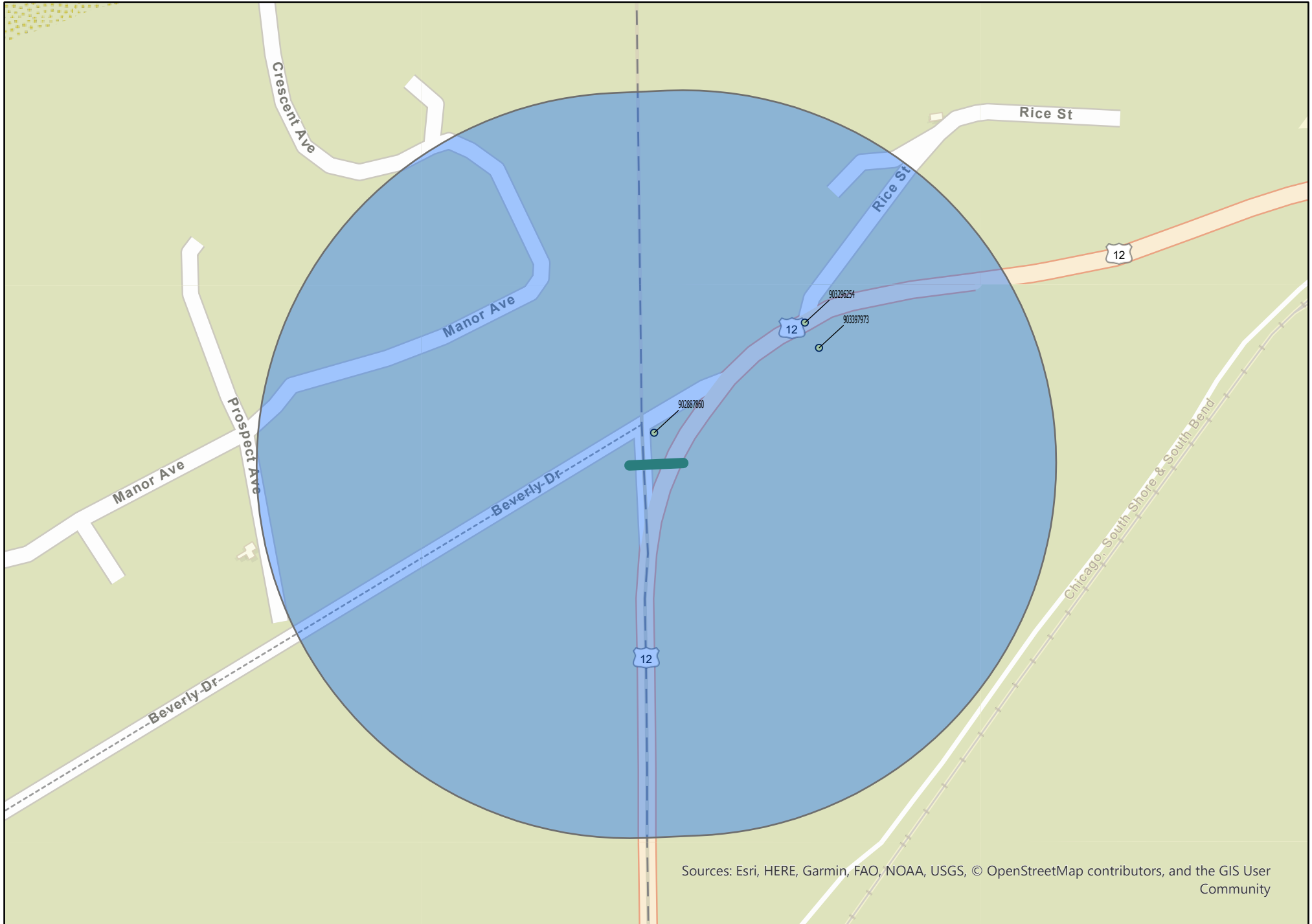
*Standard values are based on 2014-2018 data for all state-owned facilities. Standard values are included for comparison purposes only.

Index of Crash Frequency and Cost - Form F1		Page 1/2
Location	US 12 over, 01.93 W JCT 421	
Asset 93004683		
GIS		
Post		
Analyst	J. Jefferson	
Date	10/22/2020	
INPUT		
Road Facility Type	Rural Two-Lane Segment	
AADT (veh/day)	6406	
Segment Length (mi)	0.38	
Intersection Density (int/mi)	2.63	
First Year with Crash Data (yyyy)	2017	
Last Year with Crash Data (yyyy)	2019	
Number of Crashes (crash/period)		
Fatal and Incapacitating Injury Crashes	0	
Non-Incapacitating and Possible Injury Crashes	1	
Property Damage Only Crashes	2	
Route or Road Type	Rural Two-Lane Segment	
Average Crash Costs (\$)		
Fatal and Incapacitating Injury Crashes	501830	
Non-Incapacitating and Possible Injury Crashes	30860	
Property Damage Only Crashes	4720	
Crash Cost Year (yyyy)	2013	
OUTPUT		
Expected Crash Frequency (crash/year)		
Fatal and Incapacitating Injury Crashes	0.029	
Non-Incapacitating and Possible Injury Crashes	0.15	
Property Damage Only Crashes	0.60	
All Crashes	0.78	
Index of Crash Frequency	0.24	
Index of Crash Cost	-0.16	

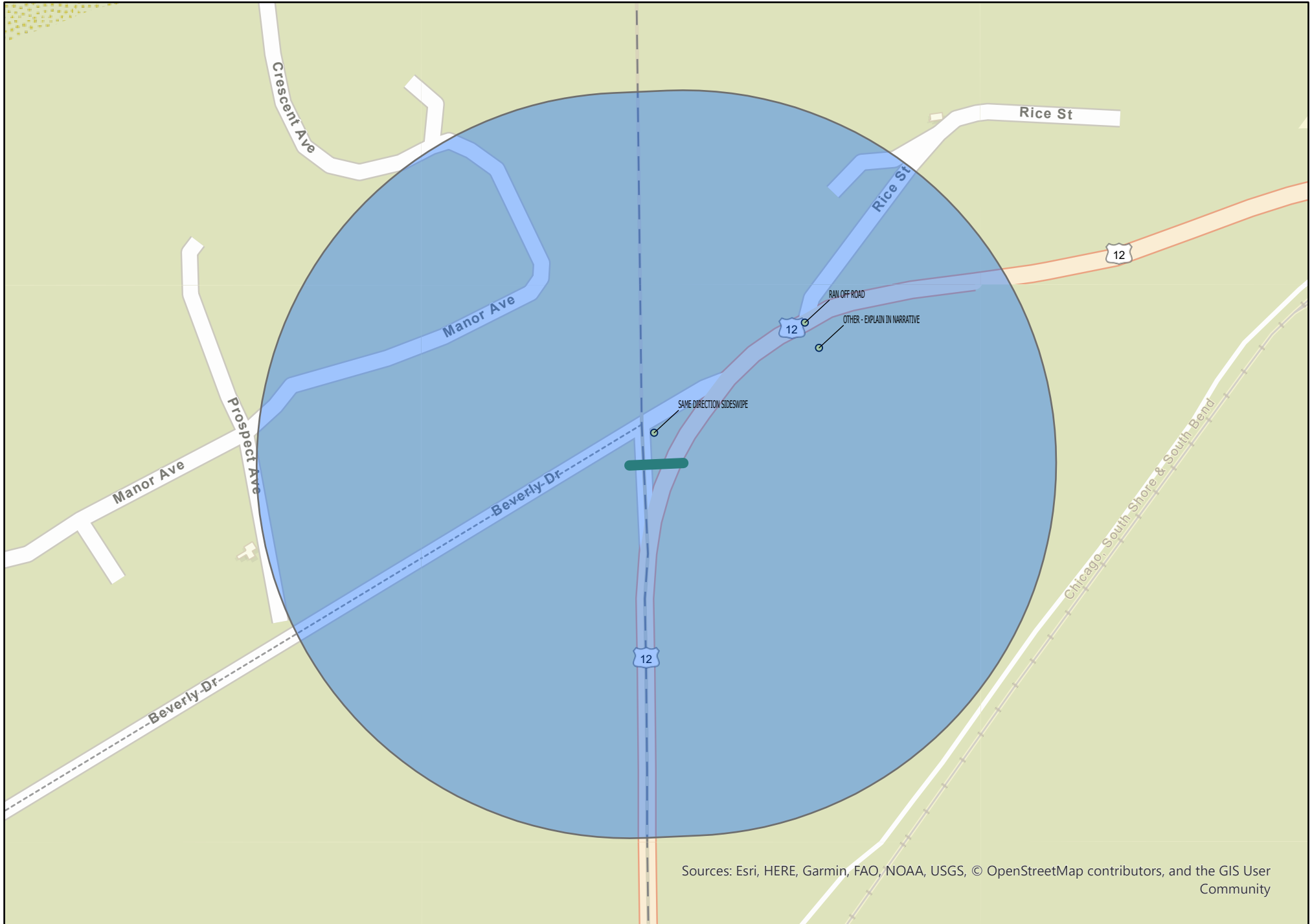
Index of Crash Frequency and Cost - Form F1		Page 2/2
Location	US 12 over, 01.93 W JCT 421	
Asset 93004683		
GIS		
Post		
Analyst	J. Jefferson	
Date	10/22/2020	
Comments: <div style="border: 1px solid black; height: 100px; margin-top: 5px;"></div>		



Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community



Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community



RE: 2000607 Roadway and small structure project on U.S. 12 and Beverly Drive

From Holderread, Alan <AHolderread@indot.IN.gov>

Date Fri 10/10/2025 3:55 PM

To Michels, Stewart <SMichels@indot.IN.gov>; Wahl, Cassie <CWahl@indot.IN.gov>

Cc Lisa Harris <lharris@lawson-fisher.com>; Mason, Scott <smason@indot.in.gov>

Stewart,

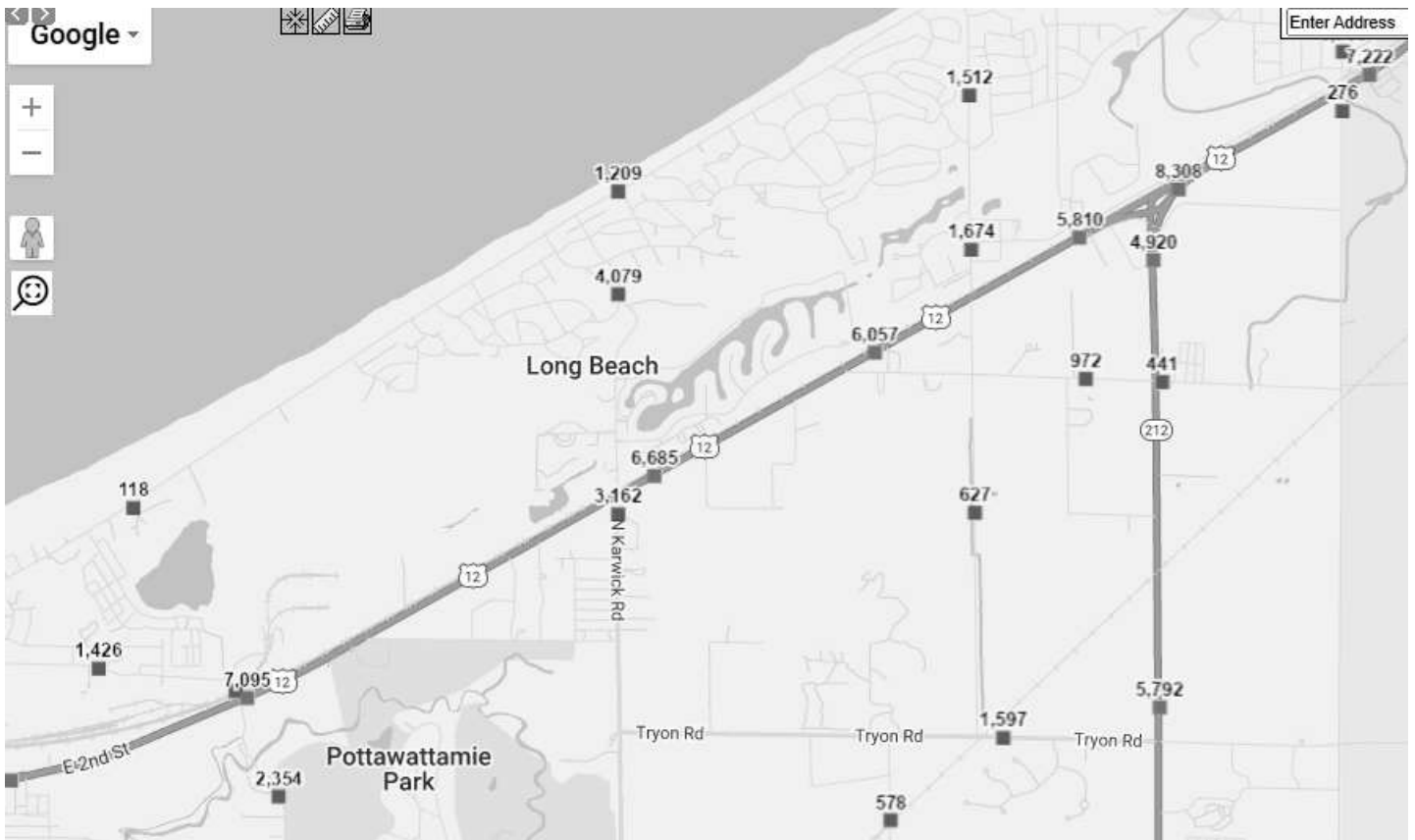
Been meaning to get to this sorry. Let me know if you need more info.

I wouldn't use the term "increased vehicle traffic". While the average annual daily traffic does go up or down a little each year, its stayed relatively steady over many years. This section of US12 was widened to four lanes in 1960 to accommodate traffic heading between Illinois, Indiana, and Michigan. I-94 was constructed later and now serves the aforementioned interstate traffic. "The FHWA advises that roadways with ADT of 20,000 vpd or less may be good candidates for a Road Diet and should be evaluated for feasibility." INDOT examined crash history and volumes along the corridor as well as observations during project field checks. "Four-lane undivided highways have a history of relatively high crash rates...as the inside lane is shared by higher speed through traffic and left-turning vehicles." "One option for addressing this safety concern is a "Road Diet." A Road Diet involves converting an existing four-lane undivided roadway segment to a three-lane segment consisting of two through lanes and a center two-way left-turn lane (TWLTL). The reduction of lanes allows the roadway cross section to be reallocated for other uses such as bike lanes, pedestrian refuge islands, transit stops, or parking."

Throughout the years there have been several motivations for reducing through-lanes in this corridor. In 2008, a through-lane was reduced in each direction to accommodate a left-turn lane and right-turn lane towards the Blue Chip Casino. In 2020, a through-lane was reduced in each direction to accommodate opposing left-turn lanes at Eastwood Rd/Moore Rd as part of a safety project. During early coordination for this project, National Park Service and Michigan City Parks representatives sought shoulder width for a bicycle connection from the Singing Sands Trail to the Mount Baldy parking lot, which the project is providing. Additionally, Michigan City Parks sought vehicle speed reduction on US12 from Lincoln Ave to the eastern most crossing of the Singing Sands/Calumet Trail. This was due to frequent vehicle hits of pedestrian crossing traffic control as well as vehicles running off the road and hitting fencing and guardrail designed to separate the trail from US12. "Road Diets can reduce speed differential. The case study and simulation results of operational analyses... show that 85th percentile and average speed along conversions are likely to decrease by 3 to 5 mph." INDOT hosted a public meeting to discuss the cross-section of US12 and a frequent point of discussion was consistency. Currently the roadway changes from four to two through-lanes several times within the project limits. As mentioned, there are several contributing factors to reduce through-lanes to allocate pavement to other uses and increase safety for vehicles and non-motorized users both. This can be done as the existing roadway has excess capacity with current traffic volumes. The final decision is to reduce the through-lanes and make a consistent cross-section as much as possible.

All quotes from FHWA Road Diet Informational Guide: <https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-06/rdig.pdf>

AADTs shown by the brown squares for US12



From: Michels, Stewart <SMichels@indot.IN.gov>
Sent: Thursday, September 25, 2025 11:46 AM
To: Holderread, Alan <AHolderread@indot.IN.gov>; Wahl, Cassie <CWahl@indot.IN.gov>
Cc: Lisa Harris <lharris@lawson-fisher.com>; Mason, Scott <SMason@indot.IN.gov>
Subject: 2000607 Roadway and small structure project on U.S. 12 and Beverly Drive

Alan,

Sorry for the bother. We are trying to work out the purpose and need for the NEPA document as it relates to the TWLT portion of Des 2000607. Right now all we have is, "Increased vehicle traffic in the area has given rise to safety concerns within the existing roadway; therefore, a two way left turn lane configuration is proposed..." Can you provide anything that our consultant could include in the NEPA doc that supports the need (increased crash frequency, severity, etc.). The April 10, 2023, Engineering Assessment provides some indication of traffic volume and predicted increases, but it didn't have any crash data that we typically like to include to support the need. If you don't have anything that's okay, but I just thought you might have something a bit more substantial that we could use. Thank you for your consideration. Again, sorry for the bother.

Best,
Stew

Stewart Michels
Environmental Manager Supervisor
Indiana Department of Transportation
LaPorte District
Cell: (219) 402-7315
Email: SMichels@indot.in.gov
[Find us on social media!](#)

