FHWA-Indiana Environmental Document

CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM

GENERAL PROJECT INFORMATION

Road No./County:	State Road (SR) 2/LaPorte and St. Joseph Counties
Designation Number(s):	1900177 & 1900017
Project Description/Termini:	Roadway/small structure project located along SR 2 from 0.17 mile east of U.S. Highway (US) 20 to 0.22 mile east of US 20/US 31 (Des. No. 1900177); Small structure project on SR 2 over Niespodziany Ditch, from 6.79 miles west of US 31 to 6.35 miles west of US 31 (Des. No. 1900017).

X	**Categorical Exclusion, Level 2** – Required Signatories: INDOT DE and/or INDOT ESD
	Categorical Exclusion, Level 3 – Required Signatories: INDOT ESD
	Categorical Exclusion, Level 4 – Required Signatories: INDOT ESD and FHWA
	Environmental Assessment (EA) – Required Signatories: INDOT ESD and FHWA
X	**Additional Investigation (AI)** – The proposed action included a design change from the original approved environmental document. Required Signatories must include the appropriate environmental approval authority

Approval

INDOT DE Signature and Date

INDOT ESD Signature and Date

FHWA Signature and Date

Release for Public Involvement

SFM 08/15/2023
INDOT DE Initials and Date

INDOT ESD Initials and Date

Certification of Public Involvement

INDOT Consultant Services Signature and Date

INDOT DE/ESD Reviewer Signature and Date:

Name and Organization of CE/EA Preparer: Carson Hoogewerf & C.J. Cunningham, Lochmueller Group

Note: Refer to the most current INDOT CE Manual, guidance language, and other ESD resources for further guidance regarding any section of this form.

Part I – Public Involvement

Every Federal action requires some level of public involvement, providing for early and continuous opportunities throughout the project development process. **The level of public involvement should be commensurate with the proposed action.**

	Yes	No
Does the project have a historic bridge processed under the Historic Bridges PA*?		X
If No, then:		
Opportunity for a Public Hearing Required?	X	

**A public hearing is required for all historic bridges processed under the Historic Bridges Programmatic Agreement between INDOT, FHWA, SHPO, and the ACHP.*

Discuss what public involvement activities (legal notices, letters to affected property owners and residents (i.e. notice of entry), meetings, special purpose meetings, newspaper articles, etc.) have occurred for this project.

Notice of entry letters for were mailed to potentially affected property owners near the project area on September 28, 2022 (Des. No. 1900177) and September 8, 2020 (Des. No. 1900017) 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 Notice of Entry letters are included in Appendix G, G1 to G2.

The project will meet the minimum requirements described in the current *Indiana Department of Transportation (INDOT) Project Development Public Involvement Procedures Manual* which requires the project sponsor to offer the public an opportunity to submit comments and/or request a public hearing. 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.

Public Controversy on Environmental Grounds

Discuss public controversy concerning community and/or natural resource impacts, including what is being done during the project to minimize impacts.

At this time, there is no substantial public controversy concerning impacts to the community or to natural resources.

Part II - General Project Identification, Description, and Design Information

Sponsor of the Project: INDOT LaPorte District INDOT District: LaPorte

Local Name of the Facility: SR 2; Larrison Boulevard (Blvd.)

Funding Source (*mark all that apply*): Federal [X] State [X] Local [X] Other* [ ]

*If other is selected, please identify the funding source:

PURPOSE AND NEED:

The need should describe the specific transportation problem or deficiency that the project will address. The purpose should describe the goal or objective of the project. The solution to the traffic problem should NOT be discussed in this section.

Need: The primary need for the project is due to the deteriorated condition of the SR 2 pavement. According to the Abbreviated Engineer's Report, dated November 1, 2019 (Appendix I, I6 to I29), the pavement is showing signs of distress including 47% functional cracking and 3% structural cracking, bleeding, rutting depths up to 0.18 inches, and longitudinal joint cracking/potholing. A secondary project need involves the poor condition of the many drainage culverts within the project area. Several culverts in the

project area have been rated in "fair" condition or worse and exhibit rusting, damaged end sections, are completely buried, and/or are filled with sediment.

Other supplemental project needs involve safety and access concerns at the following locations along the project corridor:

- **SR 2 at Larrison Blvd.** – Crash data from 2014 to 2022 reveals that sixteen injury causing accidents and three fatal accidents have occurred in that timeframe at this intersection. Interactions with semi-trucks pulling off Larrison Blvd. onto SR 2, and not yet up to full speed, have caused some of the most severe crashes. Truck traffic from Larrison Blvd. is common due to the presence of a growing industrial development along the road, north of SR 2.

CRASH DATA - SR 2 at Larrison Blvd.										
CRASH SEVERITY	2014	2015	2016	2017	2018	2019	2020	2021	2022	**TOTALS**
No Injury	1	1	0	4	2	4	7	3	0	**22**
Non-Incipacitating Injury	1	0	0	2	0	0	0	0	1	**4**
Incipacitating Injury	1	2	1	4	2	0	2	0	0	**12**
Fatal	0	0	1	0	1	0	1	0	0	**3**
TOTALS	**3**	**3**	**2**	**10**	**5**	**4**	**10**	**3**	**1**	**41**

Crash information acquired from Indiana State Police.

- **Quince Road east to Peppermint Road.** This area is exhibiting safety issues and access control issues. The safety issues are primarily a result of the high traffic speed coupled with intense access pressure from the high density of commercial driveways. The 85th percentile speeds and 10- mile per hour (mph) pace recorded during recent traffic counts, summarized in the table below, indicates traffic is exceeding safe and reasonable speeds given the driveway density throughout this section of road. The 85th percentile speed is the speed at or below which 85 percent of the drivers travel on a road segment. Motorists traveling above the 85th percentile speed are considered to be exceeding the safe and reasonable speed for road and traffic conditions. The 10-mph pace is the range of speed at which the majority of cars are traveling on a particular stretch of road. 85th percentile speeds ranging between 56 to 59 mph and 10-mph paces ranging up to 50-60 mph are incongruent with the frequency of driveways and intersecting roads occurring along this roadway segment. Moreover, the existing depressed grass median is inconsistent with the urban nature of the project indicative of its location within the local Metropolitan Planning Area's (MPO's) urban boundary.

SPEED DATA Between Quince Road and US 31			
Location	**Traffic Count Date**	**10-mph Pace**	**85th Percentile Speed**
SR 2 -East of Quince Road	8/4/15	50 - 60	59
	8/3/2015	50 - 60	59
	9/5/2012	45 - 55	56
	9/4/2012	45 - 55	56
SR 2 -West of Pine Road	9/30/2014	45 - 55	57
	9/29/2014	45 - 55	57
	9/17/2014	50 - 60	57
	9/16/2014	50 - 60	57
	8/30/2011	45 - 55	56
	8/29/2011	45 - 55	56
SR 2 -Between Pine Road and US 31 Interchange	8/16/2016	50 - 60	59
	8/15/2016	45 - 55	57
	11/19/2013	45 - 55	57
	11/18/2013	45 - 55	57

Purpose: The purpose of the project is to improve the serviceability of the roadway by addressing the cracking and potholing within the project limits. The purpose is also to address drainage structure deficiencies by achieving a "good" rating for all structures within the project area. The project also seeks to improve safety concerns at critical intersections throughout the project corridor by reducing the frequency of injury causing accidents by half, to decrease travel speeds, and to improve access along the corridor in a manner that is consistent with its surrounding land use.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: LaPorte/St. Joseph Municipality: N/A

Limits of Proposed Work: SR 2 from 0.17 mile east of US 20 to 0.22 mile east of US 20/US 31, and along Larrison Blvd. from SR 2 to 0.14 mile north of SR 2

Total Work Length: 12.91 Mile(s) Total Work Area: 157 Acre(s)

	Yes[1]	No
Is an Interstate Access Document (IAD)[1] required?		X
If yes, when did the FHWA provide a Determination of Engineering and Operational Acceptability?	Date:	

[1]*If an IAD is required; a copy of the approved CE/EA document must be submitted to the FHWA with a request for final approval of the IAD.*

Describe location of project including township, range, city, county, roads, etc. Existing conditions should include current conditions, current deficiencies, roadway description, surrounding features, etc. Preferred alternative should include the scope of work, anticipated impacts, and how the project will meet the Purpose and Need. Logical termini and independent utility also need discussed.

INDOT LaPorte District, with funding from the Federal Highway Administration (FHWA), intends to proceed with two projects along SR 2 (Des. No. 1900177 & Des. No. 1900017). Des. No. 1900177 is a roadway/small structure project along SR 2 in LaPorte and St. Joseph Counties. Des. No. 1900017 is a small structure project located along SR 2 at the Niespodziany Ditch crossing, partially within the footprint of Des. No. 1900177. Both projects are included within the same construction contract (Contract R-42444). In addition, a roadway/turn lane expansion, referred to as the Larrison Blvd. expansion, will occur along Larrison Blvd. and SR 2. This portion of the project will be funded entirely by St. Joseph County in support of a forthcoming economic development project but will occur within right-of-way (ROW) donated to INDOT.

This document evaluates Des. No. 1900177 and the Larrison Blvd. expansion as an Additional Information (AI) for Des. No. 1900017, for which a Categorical Exclusion (CE) – Level 1 was approved by INDOT LaPorte District on March 15, 2022 (herein referred to as "approved CE-1"). The need for an AI document encompassing the various improvements is due to interdependency between the Larrison Blvd. expansion and Des. No. 1900017, as well as from changes in design and revisions to impacts proposed under Des. No. 1900017 caused by the introduction of the Larrison Blvd. expansion. See the paragraph below. Due to these design and impact changes to Des. No. 1900017 and its interdependency with the Larrison Blvd. expansion, the projects' environmental impacts are being evaluated together within this AI document (herein referred to as "this CE document"). All impacts to environmental resources under Des. No. 1900177, Des. No. 1900017, and the Larrison Blvd. expansion will be documented in this CE document. The approved CE-1 form for Des. No. 1900017 has been incorporated into the appendix of this document for reference (Appendix I, I53 to I68).

Des. No. 1900017 is located partially within the Des. No. 1900177 project, approximately 0.25 mile west of Larrison Blvd. Proposed westbound acceleration lanes along SR 2 from Larrison Blvd. extend atop and west of Niespodziany Ditch, necessitating the northward lengthening of the culvert proposed for replacement by way of Des. No. 1900017. As a result, the acceleration lane improvements of the Larrison Blvd. expansion are dependent upon the completion of the lengthened culvert now proposed by Des. No. 1900017. Because the two projects can no longer demonstrate independent utility, the impacts associated to the SR 2 over Niespodziany Ditch small structure project (Des. No. 1900017), are being evaluated in this CE document along with those to be incurred by Des. No. 1900177 and the Larrison Blvd. Expansion.

Location

The Des. No. 1900177 project is located along SR 2, from 0.17 mile east of US 20 to 0.22 mile east of US 20/US 31, and along Larrison Blvd. from SR 2 to 0.14 mile north of SR 2. Specifically, the project is located in Sections 7, 8, 9, 10, 11, and 12, Township 37 North, Range 1 West; Section 12, Township 37 North, Range 2 West; Sections 7, 8, 9, 10, 11, and 12, Township 37 North, Range 1 East; and Section 7, Township 37 North, Range 2 East. The project is located within the New Carlisle, Lydick, and South Bend West United States Geological Survey (USGS) Quadrangles. The project is located within Wills Township, LaPorte County, Indiana, and within Olive, Warren, and Portage Townships, St. Joseph County, Indiana (Appendix B, B2 to B5).

The Des. No. 1900017 project is located in St. Joseph County, Indiana along SR 2 west of South Bend, Indiana, from 6.79 miles west of US 31 to 6.35 miles west of US 31. Specifically, the project is located in Section 7, Township 37 North, Range 1 East, and

Section 12, Township 37 North, Range 1 West in Olive Township as depicted on the New Carlisle and Lydick 1:24,000 USGS Quadrangles (Appendix B, B3).

Existing Conditions
SR 2 is an east-west route functionally classified as principal arterial. The typical cross section of SR 2 consists of four travel lanes, two eastbound and two westbound. The travel lanes are 12 feet wide each and separated by a combination of mowed grass median, raised concrete median, painted median level with the roadway, and center left turn lanes. Right turn lanes are present along SR 2 onto N Cougar Rd. (WB), Timothy Rd. (EB), and Larrison Blvd. (WB), and are approximately 12 feet in width. Inside shoulders are paved and vary from absent to 4 feet in width. Outside shoulders are paved and vary from approximately 1 to 10 feet in width. The posted speed limit at the project location ranges from 50 to 60 miles per hour (mph). Guardrail is present along SR 2 in portions of the project area. The drainage system within the project area consists of roadside ditches and multiple culverts and pipes running parallel to and underneath SR 2, which ultimately convey drainage to several streams throughout the project area. See Appendix I, I1 to I4 for a tabulated list of structures to be affected by the project. According to the Abbreviated Engineer's Report dated November 1, 2019 (Appendix I, I6 to I29), the existing facility exhibits deterioration of the roadway surface throughout the project area including 47% functional cracking and 3% structural cracking, rutting of depths up to 0.18 inches, and longitudinal joint cracking and potholing. According to the St. Joseph County Drainage Board, the drainage network along the corridor exhibits issues including undersized pipes, pipes raised above the channel bottom, and built-up sediment (Appendix C, C17). Safety concerns exist along SR 2 particularly at Larrison Blvd. and from Quince Rd. to Peppermint Rd. Safety concerns from Quince Rd. to Peppermint Rd. are primarily a result of high traffic speed coupled with intense access pressure from the high density of commercial driveways. Moreover, the existing depressed grass median is inconsistent with the urban location. See Appendix B, pages B30 to B33 for aerial maps of the Quince Rd. to Peppermint Rd. action area.

Larrison Blvd. is a north-south route functionally classified as major collector and located approximately 6.54 miles west of US 31. The typical cross section of Larrison Blvd. consists of two 12-foot lanes, one in each direction, with 10-foot paved outside shoulders. Larrison Blvd. widens at its transition with westbound SR 2 and gains a right turn lane. Larrison Blvd. is known as Strawberry Rd. south of SR 2. The posted speed limit on Larrison Blvd./Strawberry Rd. is 40 mph. The intersection of Larrison Blvd. at SR 2 is two-way stop-controlled, with stop-control along Larrison Blvd. and free flow along SR 2. The existing facility exhibits safety concerns, particularly for trucks entering SR 2 from Larrison Blvd. See Appendix B, B20 to B21 for aerial maps of the Larrison Blvd. action area.

Regarding Des. No. 1900017, the existing structure carrying SR 2 over Niespodziany Ditch, CV 002-071-74.20, National Bridge Inventory No. 93004143, is a 120-foot-long reinforced concrete box (RCB) culvert with a 16-foot span and 5.6-foot rise. There is approximately 196 feet of guardrail along the south side and 353 feet along the north side of SR 2. The existing structure exhibits deterioration, including wide cracks along several areas of the substructure, leading to spalling and exposed concrete reinforcement bars. An existing 15-inch driveway culvert (Structure No. 10 in plans) southwest of CV 002-071-74.20 carries drainage east toward Niespodziany Ditch. An existing 15-inch culvert carries drainage from the median to the barrel of CV 002-071-74.20. Drainage ditches are present in all four quadrants. See Appendix B, B20 to B21 for aerial maps of the Des. No. 1900017 project area.

The surrounding landscape consists of maintained roadside vegetation, unmaintained roadside vegetation, wooded areas, riparian areas, streams, wetlands, residential areas, commercial areas, and agriculture.

Preferred Alternative:
Des. No. 1900177
The proposed project involves asphalt milling and hot mix asphalt (HMA) overlay four inches deep along SR 2 and at road and driveway approaches throughout the project area. A paving exception is proposed at Niespodziany Ditch and at Geyer Ditch, between Rush Rd. and Rice Rd. The typical section of SR 2 will be altered from Quince Rd. to Peppermint Rd., including paving overtop the open grassed median, creating a two-way center left turn lane (TWLTL), and lowering the speed limit along this area of SR 2 from 50 mph to 45 mph. The TWLTL will extend approximately 1.19 miles. The roadway cross section will include two 12-foot travel lanes in each direction, paved outside shoulders 4 to 10 feet wide, and a TWLTL 12 to 14 feet wide. The existing inside shoulder will be eliminated. In addition, the existing outside shoulder will be removed, and curb and gutter will be installed with curb turnouts and riprap. Riprap will also be placed at the outlet of some pipes. The total acreage of riprap placed equals approximately 0.056 acre. A total of approximately 10,717 linear feet of guardrail will be replaced throughout the project. Pavement markings will be applied throughout the project area. Approximately 123 drainage structures will be modified throughout the project, the largest of which is 30 inches in diameter. Work on structures will consist of full structure replacement, inlet replacement, headwall construction, structure lining, and outright removal. All structure linings will be cured-in-place-pipe (CIPP) style linings. Pipe diameters will decrease one to two inches as a result of lining. Structures within the project area run east-west along SR 2 and north-south underneath SR 2. See Appendix I, I1 to I4 for a summary table of structures. See Appendix B, B48 to B231 for the Des. No. 1900177 preliminary construction plans.

Larrison Blvd. Expansion
The Larrison Blvd. expansion involves construction of two turn/acceleration lanes designed to accommodate Larrison Blvd. southbound truck turning movement onto eastbound and westbound SR 2. A 12- to 18-foot-wide westbound acceleration lane will extend from Larrison Blvd. approximately 0.47 mile along the north side of SR 2. A 12-foot-wide eastbound acceleration lane will be added within the existing median of SR 2 at Larrison Blvd. and extend approximately 0.38 mile east. Construction of the westbound acceleration lane will result in an increase in total width of the SR 2 roadway from approximately 94 feet to 106 feet at the westbound acceleration lane location. Seven additional pipes will be modified as a result of the Larrison Blvd. expansion. See Appendix I, I1 to I4 for a summary table of structures. See Appendix B, B232 to B259 for the Larrison Blvd. expansion preliminary construction plans. This portion of the project will be funded entirely by St. Joseph County and constructed by their chosen contractor.

Des. No. 1900017
The current preferred alternative for Des. No. 1900017 has been modified from the preferred alternative described in the approved CE-1 (Appendix I, I53 to I68). The updated preferred alternative is largely the same except that the length of CV 002-071-74.20 has been extended from 128-foot to 142-foot to accommodate the preferred revision to the SR 2 roadway cross section atop the structure that now includes the Larrison Blvd westbound truck accelerations lanes. The structure lengthening has resulted in minor revisions including updated riprap acreages and updated ROW acreages.

The proposed project (Des. No. 1900017) involves the replacement of CV 002-071-74.20. The replacement structure will be a 142-foot RCB with a 14-foot span, 8-foot rise, and 12-inch sump. Headwalls and wingwalls will be installed at both ends of the structure. A total of 0.092 acre of riprap will be placed at the outlet and inlet of the structure. Replacement of the roadway above the structure will involve two 12-foot travel lanes in each direction, the 12-foot westbound acceleration lane, 10-foot paved outside shoulders on each side, and a 26-foot median including 4-foot inside shoulders on each side. The clear roadway width of SR 2 will measure 51 feet on the westbound (north) side and 39 feet on the eastbound (south) side. A total of 549 feet of guardrail will be removed, including 196 feet along the south side of SR 2 and 353 feet along the north side of SR 2. A total of 275 feet of guardrail will be installed to meet current standards – 219 feet along the north side and 56 feet along the south side. A 15-inch diameter, 65-foot long culvert beneath a field access drive southwest of CV 002-071-74.20 will be replaced. The replacement structure (Structure No. 10 in plans) will be a corrugated metal pipe (CMP) of the same dimensions as existing. A center median inlet east of CV 002-071-74.20, which drains southwest to Niespodziany Ditch via a 15-inch diameter, 64-foot long culvert, will also be replaced. The replacement structure (Structure No. 11 in plans) will be a CMP of the same dimensions as existing, and will outlet through the newly constructed wingwall at the outlet (south end) of CV 002-071-74.20. See Appendix B, B260 to B270 for the Des. No. 1900017 preliminary construction plans.

The Des. No. 1900017 project area will require a total of 0.16 acre of new permanent ROW from the south side of SR 2. That ROW acreage is currently in the process of being acquired. This ROW acreage has been updated from the prior approved CE-1, which reported that a total of 0.03 acre of permanent ROW and 0.003 acre of temporary ROW would be acquired from both sides of SR 2. The remaining 0.14 acre of new permanent ROW needed for Des. 1900017 north of SR 2 is being captured within a ROW donation to occur among St. Joseph County and INDOT in association with the Larrison Blvd. expansion. This ROW donation will total approximately 3.5 acres and is located west of Larrison Blvd. and north of SR 2. Apart from the 0.16 acre being acquired south of SR 2 for Des. No. 1900017, all additional ROW north of SR 2 is associated with the Larrison Blvd. expansion, which is being constructed with local funds. INDOT and St. Joseph County are entering into an agreement permitting St. Joseph County's chosen contractor to work within the INDOT's ROW. See the *Right of Way* section for greater detail. Impacts to wetlands, streams, and terrestrial habitat will result from both Des. Nos. and from the Larrison Blvd. expansion. Tree clearing will be required for both Des. Nos. and the Larrison Blvd. expansion. All reasonable steps will be taken to avoid, minimize, and mitigate project impacts.

The Maintenance of Traffic (MOT) will involve lane closures and will take place in four phases. Three detours will be established at various points throughout construction. The MOT will cover work under both Des. Nos. and the Larrison Blvd. expansion. See the *Maintenance of Traffic (MOT) During Construction* section for more information.

Logical Termini/Independent Utility:
The total length of the Des. No. 1900177 project is approximately 12.91 miles, including approximately 12.77 miles along SR 2 and 0.14 mile along Larrison Blvd. The Des. No. 1900177 project extends from 0.17 mile east of US 20 to 0.22 mile east of US 20/US 31, and along Larrison Blvd. from SR 2 to 0.14 mile north of SR 2. The Des. No. 1900017 project extends from 6.79 miles west of US 31 to 6.35 miles west of US 31. The termini of the project provide the logical beginning and end point necessary to complete the project. The two Des. Nos., plus the Larrison Blvd. expansion, although dependent upon one-another, are collectively independent of any other action and able to be constructed without relying on the completion of any other project.

OTHER ALTERNATIVES CONSIDERED:

Provide a header for each alternative. Describe all discarded alternatives, including the No Build Alternative. Explain why each discarded alternative was not selected. Make sure to state how each alternative meets or does not meet the Purpose and Need and why.

Des. No. 1900177

Additional turn lane elimination at CR N 600 E: This alternative would introduce to the preferred alternative an additional scope element involving elimination of all left turning movements at the intersection of SR 2 and CR N 600 E. This alternative was considered due to its likelihood to decrease the frequency of injury-causing accidents that have occurred at the intersection. While this alternative is likely to increase safety at the subject intersection, INDOT determined that additional consideration of the intersection's performance, crash data, and project alternatives was necessary in order to scope and program the appropriate safety improvements. Therefore, this alternative was eliminated from further consideration as part of Des. 1900177.

No build alternative: This alternative would involve no improvements to the existing roadway and pipe structures. While this alternative would remove any immediate costs and environmental impacts, it would result in continued deterioration of SR 2 and the pipe structures conveying stormwater along and beneath it. Under this alternative, the existing facility would remain unsafe, and would continue to degrade and likely increase the cost of repair later without accomplishing the purpose and need of the project. Therefore, this alternative was eliminated from further consideration.

Larrison Blvd. Expansion

Signalized intersection: This alternative would involve conversion of the existing two-way stop-controlled intersection into a signalized intersection. Due to the rural location of the projects and the traffic speeds along the existing corridor, it was determined that a signalized intersection would likely result in an increase in vehicular collisions, thus failing to meet the purpose and need of the project. Therefore, this alternative was eliminated from further consideration.

J-turn intersection: This alternative would involve reconfiguration of the intersection to support J-turn left/U-turn movements at the existing intersection. It was determined that the narrowness of the existing median would complicate the design and construction of a J-turn, requiring a loon to support U-turn movement for trucks. In addition, based on existing traffic volumes and truck turning movements, the J-turn did not appear to provide an improved level of service for the intersection. Therefore, this alternative was eliminated from further consideration as it would not meet the purpose and need of the project.

No build alternative: This alternative would involve no improvements to the existing facility. While this alternative would remove any immediate costs and environmental impacts, the existing facility would remain unsafe, becoming worse as traffic volumes increase. Therefore, this alternative was eliminated from further consideration as it would not meet the purpose and need of the project.

Des. No. 1900017

Replacement Alternative 2: This alternative would involve replacing CV 002- 071-74.20 with a 14-foot span, 7-foot rise three-sided concrete structure. This alternative would have met the project's purpose and need. However, when compared to the preferred alternative, Replacement Alternative 2 would have been more difficult to install and would have required lanes along SR 2 to remain closed for a longer duration. Therefore, this alternative was removed from further consideration.

Replacement Alternative 3: This alternative would involve replacing CV 002- 071-74.20 with a 16-foot span, 7-foot rise arch box concrete structure. This alternative would have met the project's purpose and need. However, when compared to the preferred alternative, Replacement Alternative 3 would have been more difficult to install and would have required lanes along SR 2 to remain closed for a longer duration. Therefore, this alternative was removed from further consideration.

No Build Alternative: This alternative would involve no improvements to CV 002-071-74.20. This alternative would result in continued deterioration of the structure, which could allow development of unsafe travel conditions and likely increase costs of repair at a later date. While this alternative eliminates immediate costs and any environmental impacts, it would not meet the purpose and need of the project. Therefore, this alternative was discarded from further consideration.

The No Build Alternative is not feasible, prudent or practicable because (*Mark all that apply*)

It would not correct existing capacity deficiencies;	
It would not correct existing safety hazards;	X
It would not correct the existing roadway geometric deficiencies;	X
It would not correct existing deteriorated conditions and maintenance problems; or	X
It would result in serious impacts to the motoring public and general welfare of the economy.	
Other (Describe):	

ROADWAY CHARACTER:

If the proposed action includes multiple roadways, complete and duplicate for each roadway.

Name of Roadway	SR 2				
Functional Classification:	Principal Arterial				
Current ADT:	22,244	VPD (2024)	Design Year ADT:	23,192	VPD (2044)
Design Hour Volume (DHV):	2,145	Truck Percentage (%)	12.41		
Designed Speed (mph):	60, 45	Legal Speed (mph):	60, 45		

SR 2 at Larrison and Niespodziany Ditch (West of Larrison Blvd.)

	Existing		Proposed	
Number of Lanes:	4 to 5		5 to 6	
Type of Lanes:	Through travel, EB left turn		Through travel, EB left turn, EB acceleration	
Pavement Width:	76	ft.	88	ft.
Shoulder Width:	28	ft.	28	ft.
Median Width:	18	ft.	18	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

Setting:		Urban		Suburban	X	Rural
Topography:	X	Level		Rolling		Hilly

SR 2 East of Larrison Blvd.

	Existing		Proposed	
Number of Lanes:	5		6	
Type of Lanes:	Through travel, WB right turn		Through travel, WB right turn, EB acceleration	
Pavement Width:	90	ft.	81	ft.
Shoulder Width:	28	ft.	21 to 22	ft.
Median Width:	18	ft.	1 to 12.3	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

Setting:		Urban		Suburban	X	Rural
Topography:	X	Level		Rolling		Hilly

SR 2 from Quince Road to Peppermint Road (east end of project)

	Existing		Proposed	
Number of Lanes:	4		5	
Type of Lanes:	Through travel		Through travel, TWLTL	
Pavement Width:	76	ft.	68 to 82	ft.
Shoulder Width:	28	ft.	8 to 20	ft.
Median Width:	18	ft.	12 to 14	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

Setting:		Urban	X	Suburban		Rural
Topography:	X	Level		Rolling		Hilly

County LaPorte & St. Joseph Route SR 2 Des. No. 1900177 & 1900017

Name of Roadway	Larrison Boulevard				
Functional Classification:	Major Collector				
Current ADT:	1,601	VPD (2024)	Design Year ADT:	5,280	VPD (2044)
Design Hour Volume (DHV):	376	Truck Percentage (%)	44.78		
Designed Speed (mph):	40	Legal Speed (mph):	40		

Number of Lanes:	2		3	
Type of Lanes:	Through travel		Through travel, right (WB) turn	
Pavement Width:	44	ft.	44 to 62	ft.
Shoulder Width:	20	ft.	20	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

Setting:		Urban		Suburban	X	Rural
Topography:	X	Level		Rolling		Hilly

BRIDGES AND/OR SMALL STRUCTURE(S):

If the proposed action includes multiple structures, complete and duplicate for each bridge and/or small structure. Include both existing and proposed bridge(s) and/or small structure(s) in this section.

See Appendix I, I1 to I4 for complete list of structures under Des. No. 1900177.
See below for structures affected by Des. No. 1900017.

Structure/NBI Number(s): CV 002-071-74.20 / 93004143 Sufficiency Rating: N/A
(Rating, Source of Information)

	Existing		Proposed	
Bridge/Structure Type:	RCB Culvert		RCB Culvert	
Number of Spans:	1		1	
Weight Restrictions:	N/A	ton	N/A	ton
Height Restrictions:	N/A	ft.	N/A	ft.
Curb to Curb Width:	38 each	ft.	39 EB, 51 WB	ft.
Outside to Outside Width:	N/A	ft.	N/A	ft.
Shoulder Width:	14 each	ft.	14 each	ft.

Structure/NBI Number(s): Structure 10 (Des 1900017) Sufficiency Rating: N/A
(Rating, Source of Information)

	Existing		Proposed	
Bridge/Structure Type:	CMP		CMP	
Number of Spans:	1		1	
Weight Restrictions:	N/A	ton	N/A	ton
Height Restrictions:	N/A	ft.	N/A	ft.
Curb to Curb Width:	38 each	ft.	39 EB, 51 WB	ft.
Outside to Outside Width:	N/A	ft.	N/A	ft.
Shoulder Width:	14 each	ft.	14 each	ft.

County LaPorte & St. Joseph Route SR 2 Des. No. 1900177 & 1900017

Structure/NBI Number(s): Structure 11 (Des No. 1900017) Sufficiency Rating: N/A
(Rating, Source of Information)

	Existing		Proposed	
Bridge/Structure Type:	CMP		CMP	
Number of Spans:	1		1	
Weight Restrictions:	N/A	ton	N/A	ton
Height Restrictions:	N/A	ft.	N/A	ft.
Curb to Curb Width:	38 each	ft.	39 EB, 51 WB	ft.
Outside to Outside Width:	N/A	ft.	N/A	ft.
Shoulder Width:	14 each	ft.	14 each	ft.

Describe impacts and work involving bridge(s), culvert(s), pipe(s), and small structure(s). Provide details for small structure(s): structure number, type, size (length and dia.), location and impacts to water. Use a table if the number of small structures becomes large. If the table exceeds a complete page, put it in the appendix and summarize the information below with a citation to the table.

For Des. No. 1900177, 123 drainage structures will be modified throughout the project, the largest of which is 30 inches in diameter. Work on structures consists of full structure replacement, inlet replacement, headwall construction, lining, and outright removal. All structure linings will be CIPP style linings. Riprap will be placed at the outlet of some structures. Structures within the project area run east-west along SR 2 and north-south underneath SR 2. Seven additional structures will be modified under the Larrison Blvd. expansion. See Appendix I, I1 to I4 for a summary table of structures.

For Des. No. 1900017, three structures in total will be replaced. The proposed project involves the replacement of CV 002-071-74.20. The replacement structure will be a 142-foot RCB with a 14-foot span, 8-foot rise, and 12-inch sump. Headwalls and wingwalls will be installed at both ends of the structure. A total of 0.092 acre of riprap will be placed at the outlet and inlet of the structure. A 15-inch diameter, 65-foot long culvert beneath a field access drive southwest of CV 002-071-74.20 will be replaced by a new structure (Structure No. 10 on the construction plans), which will be a CMP of the same dimensions as existing. A center median inlet east of CV 002-071-74.20, which drains southwest to Niespodziany Ditch via a 15-inch diameter, 64-foot long culvert, will also be replaced. The new structure (Structure No. 11 on the construction plans) will be a CMP of the same dimensions as the existing and will outlet through the newly constructed wingwall at the outlet (south end) of CV 002-071-74.20.

Impacts to jurisdictional waters and wetlands will occur as a result of the proposed structure work. The total anticipated permanent stream impact is 426.2 linear feet (0.0846 acre), which includes 292 linear feet of previously encapsulated stream and 134.2 linear feet of new permanent impacts. See the *Streams* section for more detail. Permanent impacts to wetlands due to the placement of riprap and construction of curb turnouts total 0.0255 acre. See the *Wetlands* section for more detail.

All existing and proposed pipes have no weight or height restrictions. Curb to curb, outside to outside, and shoulder width will be altered at SR 2 around Niespodizany Ditch, west of Larrison Blvd., east of Larrison Blvd., and from Quince Rd. to Peppermint Rd. See the project description and *Roadway Character* section for details on proposed roadway dimensions.

No other structures will be impacted within the project area.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

	Yes	No
Is a temporary bridge proposed?		X
Is a temporary roadway proposed?	X	
Will the project involve the use of a detour or require a ramp closure? (describe below)	X	
Provisions will be made for access by local traffic and so posted.	X	
Provisions will be made for through-traffic dependent businesses.	X	
Provisions will be made to accommodate any local special events or festivals.	X	
Will the proposed MOT substantially change the environmental consequences of the action?		X
Is there substantial controversy associated with the proposed method for MOT?		X
Will the project require a sidewalk, curb ramp, and/or bicycle lane closure? (describe below)		X
Provisions will be made for access by pedestrians and/or bicyclist and so posted (describe below).		

Discuss closures, detours, and/or facilities (if any) that will be provided for maintenance of traffic. Any known impacts from these temporary measures should be quantified to the extent possible, particularly with respect to properties such as Section 4(f) resources and wetlands. Discuss any pedestrian/bicycle closures. Any local concerns about access and traffic flow should be detailed as well.

The MOT plan will generally involve lane closures of one side of SR 2 at a time and will occur in four phases (three phases and a pre-phase). Temporary median crossovers will be constructed during each phase to divert traffic onto the open portions of SR 2. The median crossovers will require installation of temporary travel lanes within the existing center median. See the *MOT Phase and Crossover Detail* table below. Three detours will be implemented at various times during project construction for restricted left turn movements onto CR N 600 E, CR N 700 E/Cougar Rd., and County Line Rd.

- Detour 1 will occur during Phase 1A and 1B and will allow access to CR N 600 E. The detour route will involve northbound US 20 to the north (0.6 mile, 1 minute of travel time) and southbound US 20 and CR E 400 N to the south (2.1 miles, 4 minutes of travel time). Detour 1 will be in place approximately 3 months.
- Detour 2 will occur during Phase 1B only and will allow access to CR N 700 E. The detour route will involve northbound US 20 to the north (1.9 miles, 2 minutes of travel time) and southbound US 20 and CR E 400 N to the south (3.5 miles, 5 minutes of travel time). Detour 2 will be in place approximately 1.5 months.
- Detour 3 will occur during Phase 2A and 2B and will allow access to County Line Rd. and New Carlisle. The detour route will involve northbound US 20 (4.1 miles, 5 minutes of travel time). Detour 3 will be in place approximately 3 months.

Both Des. Nos. including the Larrison Blvd. expansion will be covered under the MOT plan. Des. No. 1900017 will be involved with Pre-Phase 2, Phase 2A, and Phase 2B. One lane of traffic at minimum will be maintained in each direction during all MOT phases. Speed limits will be reduced throughout the construction areas. Access to residences and businesses will be maintained at all times. The MOT is expected to begin in conjunction with the commencement of construction in April of 2024 and progress for approximately 8 months. The MOT will be implemented per the *Indiana Design Manual* guidelines. See plan sheets in Appendix B, B57 to B161 (Des. No. 1900177), B237 to B248 (Larrison Blvd. expansion), and B263 to B265 (Des. No. 1900017).

MOT Phase and Crossover Detail

Phase	MOT / Crossover Detail
Pre-Phase 1	• Restrict traffic to inside shoulders and lanes. Intersections will remain opened as detailed in the plans. • Perform work on SR 2 outside lanes and shoulders as detailed in the plans.
Pre-Phase 2	• Restrict traffic to outside shoulders and lanes. Intersections will remain opened as detailed in the plans. • Construct Crossover 1, Crossover 2, and Crossover 3. Perform work on SR 2 inside lanes and shoulders as detailed in the plans.
1A	• Traffic will use Crossover 1 and Crossover 2 and be restricted to the WB side of SR 2. Left turn lanes will be added at intersections as detailed in the plans. • Detour in place to access CR N 600 E • Perform work on SR 2 EB as detailed in the plans.
1B	• Traffic will use Crossover 1 and Crossover 2 and be restricted to the EB side of SR 2. Left turn lanes will be added at intersections as detailed in the plans. • Detour in place to access CR 700/N Cougar Rd. • Perform work on SR 2 WB as detailed in the plans.
1C	• Restrict traffic to outside shoulders and lanes. Exit ramp at interchange and intersections will remain opened as detailed in the plans. • Left turn movements restricted from SR 2 to CR 600 S. SB and NB through movements restricted on CR 600 S. • Remove Crossover 1 as detailed in the plans.
1D	• Restrict traffic to inside shoulders and lanes. Exit ramp at interchange and intersections will remain opened as detailed in the plans. • Left turn movements restricted from SR 2 to CR 600 S. SB and NB through movements restricted on CR 600 S. • Perform work as detailed in the plans.
1E	• Restrict WB traffic to inside lane and outside shoulder. Exit ramp at interchange and intersections will remain opened as detailed in the plans. • Left turn movements restricted from SR 2 to CR 600 S. SB and NB through movements restricted on CR 600 S. • Perform work as detailed in the plans.
2A	• Traffic will use Crossover 2 and Crossover 3 and be restricted to the WB side of SR 2. Left turn lanes will be added at intersections as detailed in the plans.

	• Detour in place to access New Carlisle/County Line Rd. • Perform work on SR 2 EB as detailed in the plans.
2B	• Traffic will use Crossover 2 and Crossover 3 and be restricted to the EB side of SR 2. Left turn lanes will be added at intersections as detailed in the plans. • Detour in place to access New Carlisle/County Line Rd. • Perform work on SR 2 WB as detailed in the plans.
2C	• Restrict traffic to outside shoulders and lanes. Intersections will remain open as detailed in the plans. • Remove Crossover 2 as detailed in the plans.
2D	• Restrict traffic to inside shoulders and lanes. Intersections will remain open as detailed in the plans. • Perform work as detailed in the plans.
3A	• Restrict traffic to outside shoulders and lanes. Intersections will remain open as detailed in the plans. • Remove Crossover 3 and perform work as detailed in the plans.
3B	• Restrict traffic to inside shoulders and lanes. Intersections will remain open as detailed in the plans. • Perform work as detailed in the plans.

The 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.

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: $ 71,000 (2024) Right-of-Way: $ 0 Construction: $ 130,000 (2023); $15,851,831 (2024)

Anticipated Start Date of Construction: Spring of 2024

RIGHT OF WAY:

	Amount (acres)	
Land Use Impacts	Permanent	Temporary
Residential	0.0	0.0
Commercial	0.0	0.0
Agricultural	3.42	0.0
Forest	0.0	0.0
Wetlands	0.03	0.0
Other: Niespodziany Ditch	0.03	0.0
Other: Riparian Area	0.18	0.0
TOTAL	3.66	0.0

Describe both Permanent and Temporary right-of-way and describe their current use. Typical and Maximum right-of-way widths (existing and proposed) should also be discussed. Any advance acquisition, reacquisition or easements, either known or suspected, and their impacts on the environmental analysis should be discussed.

Existing ROW along SR 2 within the Des. No. 1900177 project area extends approximately 70 to 145 feet north and 70 to 120 feet south of the median center. The existing ROW along SR 2 within the Des. No. 1900017 project area extends approximately 65 feet north of the median center and approximately 70 to 120 feet south of the median center. Existing ROW consists of roadway, maintained vegetation, unmaintained vegetation, forest, wetlands, streams, residential areas, commercial areas, and agricultural areas.

Des. No. 1900177
This project will occur within existing ROW. No permanent or temporary ROW will be required for this project.

Larrison Blvd. Expansion
The Larrison Blvd. expansion will require approximately 3.5 acres of new permanent ROW. This ROW will be donated to INDOT for the purposes of the Larrison Blvd. expansion. This donation will also encompass the portion of the new permanent ROW located north of SR 2 that is necessary for the Des. No. 1900017 project. New permanent ROW consists of agricultural land, wetlands, riparian areas, and Niespodziany Ditch. No temporary ROW will be required.

Des. No. 1900017
As reported in the approved CE-1, Des. No. 1900017 previously required approximately 0.30 acre of new permanent right-of-way (ROW). The project also required 0.03 acre of temporary ROW necessary for construction activity. Those numbers were incorrectly reported as 0.03 acre of new permanent ROW and 0.003 acre of temporary ROW within the body of the approved CE-1 form, but correctly illustrated within the attached plans and exhibits, and properly accounted for the impacts incurred within the areas of proposed ROW acquisition. Upon approval of Des. No. 1900017's CE-1, ROW acquisition has commenced south of SR 2, where approximately 0.16 acre of new permanent ROW is being acquired to accommodate the replaced structure's new headwall and associated riprap at the outlet. New permanent ROW consists of agricultural land, riparian areas, and Niespodziany Ditch. The remaining ROW needs north of SR 2 have increased relative to what was illustrated and accounted for in the approved CE-1 (0.14 acre of new permanent ROW and 0.03 acre of temporary ROW, both located north of SR 2). This increase is due to the lengthening of CV 002-071-74.20 necessitated by the westbound truck acceleration lane associated with the Larrison Blvd. expansion. However, the new ROW requirements for Des. No. 1900017 north of SR 2 have not been formally specified, because all ROW north of SR 2 is being captured within the 3.5-acre new permanent ROW donation to occur among St. Joseph County and INDOT in association with the Larrison Blvd. expansion.

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

Part III – Identification and Evaluation of Impacts of the Proposed Action

SECTION A - EARLY COORDINATION:

List the date(s) coordination was sent and all resource agencies that were contacted as a part of the development of this Environmental Study. Also, include the date of their response or indicate that no response was received.

Early coordination letters were sent on February 23, June 16, and July 7, 2023 (Appendix C, C1 to C5). Early coordination letters discussed Des. No. 1900177, the Larrison Blvd. expansion, and the updated scope for Des. No. 1900017. The initial early coordination letters for Des. No. 1900017 were sent on September 1, 2021. Responses to these letters were omitted unless otherwise indicated.

Agency	Date Sent	Date Response Received	Appendix C
FHWA - Indiana Division	February 23, 2023	No Response Received	N/A
US Dept. of Agriculture (USDA) Natural Resources Conservation Service	February 23, 2023	March 2, 2023	C15 to C16
Chicago Regional Office, US Department of Housing and Urban Development	February 23, 2023	No Response Received	N/A
US Army Corps of Engineers (USACE), Detroit District	February 23, 2023	No Response Received	N/A
US Environmental Protection Agency (USEPA), Sole Source Aquifer Coordinator	June 16, 2023	No Response Received	N/A
US National Park Service	February 23, 2023	No Response Received	N/A
INDOT LaPorte District Office, Environmental Services	February 23, 2023	No Response Received	N/A
INDOT LaPorte District Office, Project Manager	February 23, 2023	No Response Received	N/A
INDOT Office of Aviation	February 23, 2023	February 27, 2023	C8
INDOT Utilities and Railroad	February 23, 2023	No Response Received	N/A

Indiana Dept. of Natural Resources (IDNR), Division of Fish and Wildlife (DFW)	February 23, 2023	March 24, 2023 (September 30, 2021)	C19 to C24
IDNR Division of Outdoor Recreation	February 23, 2023	No Response Received	N/A
IDNR, Division of State Parks, Community Grants and Trails	February 23, 2023	February 28, 2023	C10
IDNR, Division of State Parks, Trails Coordinator	February 23, 2023	March 13, 2023	C18
Michiana Area Council of Governments (MACOG)	February 23, 2023	No Response Received	N/A
Northwestern Indiana Regional Planning Commission (NIRPC)	February 23, 2023	No Response Received	N/A
INDOT Environmental Services	February 23, 2023	No Response Received	N/A
Indiana Geological and Water Survey (IGWS)	July 7, 2023	July 7, 2023	C67 to C68
LaPorte County Highway Department	February 23, 2023	No Response Received	N/A
LaPorte County Drainage Board	February 23, 2023	February 23, 2023	C6 toC7
LaPorte County Board of Commissioners	February 23, 2023	No Response Received	N/A
LaPorte County Council	February 23, 2023	No Response Received	N/A
LaPorte County, Wills Township Trustee	February 23, 2023	No Response Received	N/A
LaPorte County E911	February 23, 2023	No Response Received	N/A
LaPorte County Surveyor's Office	February 23, 2023	No Response Received	N/A
LaPorte County Emergency Management Agency	February 23, 2023	No Response Received	N/A
LaPorte County Emergency Medical Services (EMS)	February 23, 2023	No Response Received	N/A
LaPorte County Sheriff Department	February 23, 2023	No Response Received	N/A
Kankakee Twp. Volunteer Fire Department	February 23, 2023	No Response Received	N/A
LaPorte County MS4 Coordinator	February 23, 2023	No Response Received	N/A
LaPorte County Floodplain Administrator	February 23, 2023	No Response Received	N/A
Paradise Ridge LLC	February 23, 2023	February 28, 2023	C11 to C14
Mini Mountains Camp Ground	February 23, 2023	No Response Received	N/A
St. Joseph County Highway Department	February 23, 2023	No Response Received	N/A
St. Joseph County Surveyor	February 23, 2023	No Response Received	N/A
St. Joseph County Drainage Board	February 23, 2023	March 7, 2023	C17
St. Joseph County Board of Commissioners	February 23, 2023	No Response Received	N/A
St. Joseph County Council	February 23, 2023	No Response Received	N/A
St. Joseph County Township Trustees	February 23, 2023	No Response Received	N/A
St Joseph County MS4 Coordinator	February 23, 2023	No Response Received	N/A
St. Joseph County 911	February 23, 2023	No Response Received	N/A
St. Joseph County Emergency Management Agency	February 23, 2023	No Response Received	N/A
St. Joseph County Parks and Recreation	February 23, 2023	No Response Received	N/A
St. Joseph County Sheriff Department	February 23, 2023	No Response Received	N/A
South Bend Community School Corporation	February 23, 2023	No Response Received	N/A
New Prairie United School Corporation	February 23, 2023	No Response Received	N/A
New Carlisle Emergency Medical Services Department	February 23, 2023	No Response Received	N/A
New Carlisle, Olive-Hudson Fire Department	February 23, 2023	No Response Received	N/A
Floodplain Administrator, St. Joseph County	February 23, 2023	February 28, 2023	C9
VAP Properties LLC	February 23, 2023	No Response Received	N/A
Navistar Proving Grounds	February 23, 2023	No Response Received	N/A
Olive Chapel Church	February 23, 2023	No Response Received	N/A

On February 23, 2023, LaPorte County Drainage Board replied indicating that three section corners were located along SR 2 within the project area which would need to be recovered by the County (Appendix C, C7). The information was passed onto the project design team. LaPorte County will be accommodated such that they will be able to retrieve three section corners. This is a firm project commitment.

On February 28, 2023, Paradise Ridge LLC, identified as Rolling Timbers Parks and Campground in the Red Flag Investigation (RFI), replied indicating that flooding and erosion was occurring on their property and requested a meeting with an engineer to discuss the problem. The message was forwarded to the INDOT Asset and Scoping team and it was determined that the problem was not caused by any INDOT assets in the area and that the problems expressed could not be solved with supplemental improvements to the preferred alternative (Appendix C, C11 to C14).

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

SECTION B – ECOLOGICAL RESOURCES:

	Presence	Impacts	
		Yes	No
Streams, Rivers, Watercourses & Other Jurisdictional Features	x	x	
Federal Wild and Scenic Rivers			
State Natural, Scenic or Recreational Rivers			
Nationwide Rivers Inventory (NRI) listed			
Outstanding Rivers List for Indiana			
Navigable Waterways			

Total stream(s) in project area: 2,547.0 Linear feet Total impacted stream(s): 426.2* Linear feet

**Number above represents total linear feet of affected stream, of which 292 LF are currently encapsulated by existing structures being replaced or repaired. 134.2 LF of new stream impacts will result from the project.*

Stream Name	Classification	Total Size in Project Area (linear feet)	Impacted linear feet (LF)	Comments (i.e. location, flow direction, likely Water of the US, appendix reference)
Unnamed Tributary (UNT) 1 to Roda Ditch	Ephemeral	159	0.0	41.672872, -86.568644, Flow SW, Likely WOTUS, Appendix F, F7
UNT 2 to Roda Ditch	Intermittent	32*	104.7 total LF impacted 92.0 LF within existing structure 12.7 LF of new impacts	41.672513, -86.570582, Flow SW, Likely WOTUS, Appendix F, F7
UNT 1 to Niespodziany Ditch	Ephemeral	183	85.0 total LF impacted 80.0 LF within existing structure 5.0 LF of new impacts	41.672326, -86.542601, Flow S, Likely WOTUS, Appendix F, F7
UNT 2 to Niespodziany Ditch	Ephemeral	212	0.0	41.672308, -86.542066, Flow SW, Likely WOTUS, Appendix F, F7
UNT 3 to Niespodziany Ditch	Ephemeral	151	0.0	41.672332, -86.512374, Flow S, Likely WOTUS, Appendix F, F7
UNT 4 to Niespodziany Ditch	Intermittent	157	12.5 total LF impacted 0.0 LF within existing structure 12.5 LF of new impacts	41.671922, -86.481867, Flow S, Likely WOTUS, Appendix F, F7
Niespodziany Ditch	Perennial	244	224.0 total LF impacted 120.0 LF within existing structure 104.0 LF of new impacts	41.671729, -86.466991, Flow SE, Likely WOTUS, Appendix F, F7
UNT 1 to Geyer Ditch	Intermittent	141	0.0	41.672155, -86.443026, Flow S, Likely WOTUS, Appendix F, F7
UNT 2 to Geyer Ditch	Intermittent	522	0.0	41.671714, -86.419096, Flow SE, Likely WOTUS, Appendix F, F7
Geyer Ditch	Perennial	172	0.0	41.671669, -86.404015, Flow S, Likely WOTUS, Appendix F, F7
Chain-O-Lakes Ditch	Perennial	574	0.0	41.672093, -86.404015, Flow SE, S, SE, Likely WOTUS, Appendix F, F7

*See UNT 2 to Roda Ditch paragraph below

Describe all streams, rivers, watercourses and other jurisdictional features adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if the streams or rivers are listed on any federal or state lists for Indiana. Include if features are likely subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on the desktop review, the aerial map of the project area (Appendix B, B6 to B35), and the RFI report (Appendix E, E1 to E39) there are 50 (updated from 49, see Appendix E, E36 to E39) streams, rivers, watercourses or other jurisdictional features within the 0.5-mile search radius. There are 12 streams, rivers, watercourses, or other jurisdictional features within or adjacent to the project area. That number was updated to 11 by the site visits on May 23-25, 2022, April 24, 2023, and June 20, 2023 by Lochmueller Group.

There are no Federal, Wild and Scenic Rivers; State Natural, Scenic, and Recreational Rivers; Outstanding Rivers for Indiana; navigable waterways; or National Rivers Inventory waterways present in the project area.

Nine impaired stream segments are located within or adjacent to the project area.

- One segment of Geyer Ditch and seven UNTs to Geyer Ditch are located within the project area west of Rice Road. Geyer Ditch and the seven UNTs to Geyer Ditch are listed as impaired for *E. coli* and polychlorinated biphenyls (PCBs) in fish tissue. Concerning *E. coli*, workers who are working in or near water with *E. coli* should take care to wear appropriate personal protective equipment (PPE), observe proper hygiene procedures, including regular hand washing, and limit personal exposure. Concerning PCBs in fish tissue, exposure to PCBs in fish tissue is considered low, assuming workers are not eating biota surrounding or associated with the water body. Workers will be informed. If there will be sediment and/or soils disturbed by construction, additional investigation may be necessary. Coordination with INDOT ESD Site Assessment and Management (SAM) will occur.
- One segment of Niespodziany Ditch is located within the project area west of Strawberry Road. Niespodziany Ditch is listed as impaired for *E. coli* and Impaired Biotic Communities (IBC). Concerning *E. coli*, workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. Concerning IBC, Best Management Practices (BMPs) will be used to avoid further degradation to the stream. This is a firm project commitment.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT Ecology and Waterway Permitting Office (EWPO) on July 11, 2023. Please refer to Appendix F, pages F1 to F88 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that 11 streams were present within the investigation area. The streams include UNTs 1 and 2 to Roda Ditch, UNTs 1-4 to Niespodziany Ditch, Niespodziany Ditch, UNTs 1 and 2 to Geyer Ditch, Geyer Ditch, and Chain-O-Lakes Ditch. All listed streams form a downstream connection with Kankakee River, a traditional navigable waterway (TNW) throughout the state. Thus, these streams would likely be subject to USACE jurisdiction under Section 404 of the Clean Water Act. The USACE makes all final determinations regarding jurisdiction.

UNT 1 to Roda Ditch is an ephemeral stream located east of CR N 600 E and west of UNT 2 to Roda Ditch. This stream begins at the outlet of an unnamed culvert and flows southwest out of the project area. No permanent or temporary impacts to UNT 1 to Roda Ditch are expected.

UNT 2 to Roda Ditch is an intermittent stream located east of CR N 600 E and east of UNT 1 to Roda Ditch. This stream begins at the outlet of CLV-37347/37351 south of SR 2 and exits the project area to the south. Approximately 104.7 linear feet of permanent impacts to UNT 2 to Roda Ditch are anticipated due to installation of a CIPP liner (92 linear feet) and placement of riprap (12.7 linear feet, 0.006 acre). The placement of riprap is considered a new permanent impact to the stream. Temporary impacts to UNT 2 to Roda Ditch total approximately 4 linear feet (0.0002 acre) due to dewatering activities within the stream. This stream exhibited bed and bank only at the outlet of CLV-37347/37351, and its length within the pipe structure was not reported in the *Waters of the U.S. Determination / Wetland Delineation Report*. Thus, the reported total length of the stream (32 linear feet) appears as less than the total impacted length.

UNT 1 to Niespodziany Ditch is an ephemeral stream located east of CR N 800 E and west of UNT 2 to Niespodziany Ditch. This stream begins outside the project area to the north, flows south underneath SR 2 via CLV-37865 and an unnamed culvert, and exits the project area to the south. Approximately 85 linear feet of permanent impacts to UNT 1 to Niespodziany Ditch are anticipated due to replacement of the existing culvert (80 linear feet) and placement of riprap (5.0 linear feet, 0.009 acre). The placement of riprap is considered a new permanent impact to the stream. Temporary impacts to UNT 1 to Niespodziany Ditch total approximately 4 linear feet (0.0004 acre) due to dewatering activities within the stream.

UNT 2 to Niespodziany Ditch is an ephemeral stream located east of CR N 800 E and east of UNT 1 to Niespodziany Ditch. This

stream begins outside the project area to the north, flows southwest underneath SR 2 via an unnamed culvert, and exits the project area to the south. No permanent or temporary impacts to UNT 2 to Niespodziany Ditch are expected.

UNT 3 to Niespodziany Ditch is an ephemeral stream located west of Timothy Rd. This stream begins outside the project area to the north, flows south underneath SR 2 via CLV-46622, and exits the project area to the south. No permanent or temporary impacts to UNT 3 to Niespodziany Ditch are expected.

UNT 4 to Niespodziany Ditch is an intermittent stream located west of Huckleberry Rd. This stream begins outside the project area to the north, flows south underneath SR 2 via an unnamed culvert, and exits the project area to the south. Approximately 12.5 linear feet (0.0006 acre) of permanent impacts to UNT 4 to Niespodziany Ditch are anticipated due to placement of riprap at the outlet of CLV-94805. Temporary impacts to UNT 4 to Niespodziany Ditch total approximately 4 linear feet (0.0002 acre) due to dewatering activities within the stream.

Niespodziany Ditch is a perennial stream located west of Larrison Blvd. This stream begins outside the project area to the north, flows southeast underneath SR 2 via CV 002-071-74.20, and exits the investigation area to the south. Approximately 224 linear feet of permanent impacts to Niespodziany Ditch are anticipated due to structure replacement, lengthening of the structure, and placement of riprap. The lengthening of the structure and placement of riprap (104 linear feet, 0.065 acre) are considered new permanent impacts to the stream. Replacement of the existing culvert (120 linear feet) is not considered new impacts. Temporary impacts to Niespodziany Ditch total approximately 6 linear feet (0.001 acre) due to dewatering activities within the stream.

UNT 1 to Geyer Ditch is an intermittent stream located east of Snowberry Rd. and west of Tulip Rd. This stream begins outside the project area to the north, flows south underneath SR 2 via an unnamed culvert, and exits the project area to the south. No permanent or temporary impacts to UNT 1 to Geyer Ditch are expected.

UNT 2 to Geyer Ditch is an intermittent stream located at Sage Rd. This stream begins outside the project area to the north, flows southeast underneath SR 2 via an unnamed culvert, flows east underneath Sage Rd. via CLV-40853 then turns southeast and exits the project area. No permanent or temporary impacts to UNT 2 to Geyer Ditch are expected.

Geyer Ditch is a perennial stream located west of Rice Rd. This stream begins outside the project area to the north, joins Chain-O-Lakes Ditch and flows south underneath SR 2 via an unnamed culvert, and exits the project area to the south. No permanent or temporary impacts to Geyer Ditch are expected.

Chain-O-Lakes Ditch is a perennial stream located west of Rice Rd. and east of Geyer Ditch. This stream begins north of the project area, flows southwest into the project area, turns west, and ends at its confluence with Geyer Ditch north of SR 2. No permanent or temporary impacts to Chain-O-Lakes Ditch are expected.

The total anticipated permanent stream impact is 426.2 linear feet (0.0806 acre), which includes 292.0 linear feet of previously encapsulated stream and 134.2 linear feet of new permanent impacts. Streams permanently impacted include UNT 2 to Roda Ditch, UNT 1 to Niespodziany Ditch, UNT 4 to Niespodziany Ditch, and Niespodziany Ditch. New permanent impacts are a result of riprap placement at UNT 2 to Roda Ditch, UNT 1 to Niespodziany Ditch, UNT 4 to Niespodziany Ditch, and Niespodziany Ditch, as well as from the extension of the Niespodziany Ditch culvert. The total anticipated temporary stream impact is 18 linear feet (0.0018 acre) to UNT 2 to Roda Ditch, UNT 1 to Niespodziany Ditch, UNT 4 to Niespodziany Ditch, and Niespodziany Ditch. Temporary stream impacts are a result of dewatering activities. An Indiana Department of Environmental Management (IDEM) 401 Nationwide Water Quality Certification (WQC) and a USACE Section 404 Nationwide Permit (NWP) will likely be required. In addition, due to work occurring within county regulated drains including Rogers Clark Lateral Ditch (UNT 4 to Niespodziany Ditch) and Niespodziany Ditch, a St. Joseph County Regulated Drain permit will likely be required.

Because total permanent impacts to streams will total greater than 300 linear feet, mitigation for both new permanent stream impacts (134.2 linear feet) and wetland impacts (0.0255 acre) will likely be required and will be determined during permitting.

The proposed action includes all practicable measures to minimize and avoid impacts to streams. Alternatives for complete avoidance are not practicable because modification of structures carrying streams is necessary to achieve proper road drainage and to fulfill the purpose and need of the project. All stream features (and wetland features) that are located within the project area and will not be impacted, will be marked as "Do Not Disturb" in the project plans. This is a firm project commitment.

The LaPorte County Drainage Board responded on February 23, 2023, noting that no regulated drains are present within their jurisdiction of the project area, and no Drainage Board permits were necessary (Appendix C, C6).

The St. Joseph County Drainage Board responded on March 7, 2023, noting that the project would impact 5 county regulated drains:

Rogers Clark Lateral Ditch (UNT 4 to Niespodziany Ditch), Niespodziany Ditch, Borkowski Ditch (Roadside Ditch (RSD) 9), Slot Ditch (UNT 1 to Geyer Ditch), Ginter Lateral Ditch (UNT 2 to Geyer Ditch), and Grapevine Creek (Geyer Ditch) (Appendix C, C17). Specific recommendations for the project were issued by the St. Joseph County Drainage Board, including suggested methodology and requirements for structure and channel work, hydraulic requirements for structures, and coordination with agencies. See Appendix C, C17 for the specific recommendations. These recommendations are firm project commitments.

IDNR DFW responded on March 24, 2023 with no specific stream recommendations regarding Des. No. 1900177 or the additional culvert extension associated with Des. No. 1900017 (Appendix C, C19 to C20). As noted, all other comments in the previous early coordination response for Des. No. 1900017, dated September 30, 2021, remain valid. (Appendix C, C21 to C24). Those recommendations included maintaining or improving fish and wildlife passage at existing or proposed stream crossing locations, recommendations for culvert types and sizes to facilitate wildlife passage, establishing vegetation along banks for erosion control, and recommendations for placing riprap that does not preclude wildlife passage.

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

Open Water Feature(s)	**Presence**	**Impacts**	
		Yes	**No**
Reservoirs			
Lakes	X		X
Farm Ponds			
Retention/Detention Basin			
Storm Water Management Facilities			
Other:			

Describe all open water feature(s) identified adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if features are likely subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on the desktop review, the aerial map of the project area (Appendix B, B6 to B35), and the RFI report (Appendix E, E1 to E35) there are 32 open water features within the 0.5-mile search radius. There is one open water feature adjacent to the project area. The feature is a pond located along the north side of SR 2 between CR N 600 E and CR N 700 E. That number was confirmed by the site visits on May 23-25, 2022, April 24, 2023, and June 20, 2023 by Lochmueller Group.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT EWPO on July 11, 2023. Please refer to Appendix F, pages F1 to F88 for the Waters of the U.S. Determination / Wetland Delineation Report. It was determined that the pond was outside the project area and the limits of construction by the field investigation and aerial imagery. Therefore, no impacts are expected. The USACE makes all final determinations regarding jurisdiction.

	Presence	**Impacts**	
		Yes	**No**
Wetlands	X	X	

Total wetland area: 1.846 Acre(s) Total wetland area impacted: 0.0255 Acre(s)

(If a determination has not been made for non-isolated/isolated wetlands, fill in the total wetland area impacted above.)

Wetland No.	Classification	Total Size (Acres)	Impacted Acres	Comments (i.e. location, likely Water of the US, appendix reference)
Wetland A	Emergent	0.003	0.0003	41.672801, -86.559993; Not Likely WOTUS; Appendix F, F9
Wetland B	Emergent	0.002	0.0002	41.672267, -86.533645; Not Likely WOTUS; Appendix F, F9
Wetland C	Emergent	0.46	0.0	41.671584, -86.480862; Likely WOTUS; Appendix F, F9
Wetland D	Emergent	0.02	0.02	41.672117, -86.467602; Likely WOTUS; Appendix F, F9
Wetland E	Emergent	0.04	0.0	41.671731, -86.468095; Likely WOTUS; Appendix F, F9

Wetland No.	Classification	Total Size (Acres)	Impacted Acres	Comments (i.e. location, likely Water of the US, appendix reference)
Wetland F	Emergent	0.09	0.0	41.671799, -86.455778; Likely WOTUS; Appendix F, F9
Wetland G	Emergent	0.05	0.0	41.671764, -86.439374; Not Likely WOTUS; Appendix F, F9
Wetland H	Emergent	0.01	0.0	41.671759, -86.433601; Not Likely WOTUS; Appendix F, F9
Wetland I	Emergent	0.3	0.002	41.671757, -86.430986; Not Likely WOTUS; Appendix F, F10
Wetland J	Emergent	0.03	0.0	41.672111, -86.419862; Likely WOTUS; Appendix F, F10
Wetland K	Emergent	0.04	0.0	41.672122, -86.419602; Likely WOTUS; Appendix F, F10
Wetland L	Emergent	0.46	0.001	41.672106, -86.409108; Likely WOTUS; Appendix F, F10
Wetland M	Emergent	0.08	0.002	41.671727, -86.409004; Likely WOTUS; Appendix F, F10
Wetland N	Emergent	0.08	0.0	41.6718000, -86.450460; Likely WOTUS; Appendix F, F10
Wetland O	Emergent	0.15	0.0	41.671803, -86.447531; Likely WOTUS; Appendix F, F10
Wetland P	Emergent	0.01	0.0	41.672043, -86.342046; Not Likely WOTUS; Appendix F, F10
Wetland Q	Emergent	0.02	0.0	41.672228, -86.462682; Not Likely WOTUS; Appendix F, F10
Wetland R	Emergent	0.001	0.0	41.672233, -86.4622625, Not Likely WOTUS; Appendix F, F10

Wetlands (*Mark all that apply*)	**Documentation**	**ESD Approval Dates**
Wetland Determination	X	July 11, 2023
Wetland Delineation	X	July 11, 2023
USACE Isolated Waters Determination		

Improvements that will not result in any wetland impacts are not practicable because such avoidance would result in (Mark all that apply and explain):

Substantial adverse impacts to adjacent homes, business or other improved properties;	
Substantially increased project costs;	
Unique engineering, traffic, maintenance, or safety problems;	
Substantial adverse social, economic, or environmental impacts, or	
The project not meeting the identified needs.	X

Describe all wetlands identified adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if features are likely subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on the desktop review, the aerial map of the project area (Appendix B, B6 to B35), and the RFI report (Appendix E, E1 to E39) there are 136 (updated from 131, see Appendix E, E36 to E39) wetlands within the 0.5-mile search radius. There are 12 wetlands within or adjacent to the project area. That number was updated to 18 by the site visits on May 23-25, 2022, April 24, 2023, and June 20, 2023 by Lochmueller Group.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT EWPO on July 11, 2023. Please refer to Appendix F, pages F1 to F88 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that 18 wetlands, Wetlands A-R, are present within the project area. Due to the large number and similar nature of the wetlands within the project area, descriptions of each individual wetland were omitted from the text of this CE document. Please See Appendix F, pages F9 to F10 for a summary of wetlands located in the project area. Many of the wetland features are fed by agriculture drains and underdrains below SR 2 and have formed within excavated concave drainage areas along SR 2. These features periodically extend up embankments at seeping underdrain locations and occasionally extend outside the investigation area. Wetlands located along the roadside were generally emergent wetlands dominated by narrow-leaf cat-tail (*Typha angustifolia*), reed canary grass (*Phalaris arundinacea*), and various graminoid species. Many wetlands were bordered by fence rows allowing for sparse overhanging shrub

vegetation.

According to the IDEM under stipulations provided in IC 13-18-22, Wetlands A, B, G, H, I, P, Q, and R would be considered exempt isolated wetlands based on their classification as Class I wetlands and being located within a roadside ditch (https://www.in.gov/idem/wetlands/information-about/state-regulated-wetlands-program/understanding-state-regulated-wetland-exemptions/). INDOT acknowledges that Wetlands A, B, G, H, I, P, Q, and R would not likely meet the definition of a Waters of the U.S. under the Clean Water Act. However, INDOT may request that the USACE take jurisdiction of Wetlands A, B, G, H, I, P, Q, and R. Wetlands A, B, G, H, I, P, Q, and R have therefore been included on the Preliminary Jurisdictional Determination form. All other wetlands drain to one of four jurisdictional streams, therefore; are given a preliminary "Waters of the U.S." determination based on the best judgement of Lochmueller Group. These streams include Niespodziany Ditch, UNT 4 to Niespodziany Ditch, Geyer Ditch, and UNT 2 to Geyer Ditch. All streams within the investigation area eventually drain to the Kankakee River, a TNW. The total area of mapped wetlands is 1.846 acres, of which 1.670 acres are located within the investigation area. The USACE makes all final determinations regarding jurisdiction.

Permanent impacts to Wetland A (0.0003 acre), Wetland B (0.0002 acre), Wetland D (0.02), Wetland I (0.002 acre), Wetland L (0.001), and Wetland M (0.002 acre) are anticipated due to placement of riprap at the outlet of various structures and construction of curb turnouts. No temporary impacts to wetlands are anticipated.

Permanent impacts to wetlands total 0.0255 acre. Temporary impacts to wetlands are not expected. Due to impacts totaling less than 0.1 acre, an IDEM Section 401 Nationwide WQC and a USACE Section 404 NWP will likely be required.

Though impacts to wetlands total less than 0.1 acre (0.0255 acre), mitigation for wetland impacts will likely be required because total permanent stream impacts exceed 300 linear feet. Mitigation will be determined during permitting.

The proposed action includes all practicable measures to minimize and avoid impacts to wetlands. Alternatives for complete avoidance are not practicable because construction of turnouts and riprap into wetlands are necessary to achieve proper road drainage and to fulfill the purpose and need of the project. All delineated wetlands will be identified on the Final Tracings plans and labeled as "Do Not Disturb" unless otherwise authorized through an approved permit. This is a firm project commitment.

IDNR DFW responded on March 24, 2023 with no specific wetland recommendations regarding Des. No. 1900177 or the additional culvert extension associated with Des. No. 1900017 (Appendix C, C19 to C20). As noted, all other comments in the previous early coordination response for Des. No. 1900017, dated September 30, 2021, remain valid. Those included recommendations to contact and coordinate with the IDEM 401 program and the USACE 404 program, and that impacts to wetland habitat should be mitigated at the appropriate ratio according to the 1991 INDOT/IDNR/U.S. Fish and Wildlife Service (USFWS) Memorandum of Understanding (Appendix C, C21 to C24).

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

	Presence	Impacts	
		YES	NO
Terrestrial Habitat	X	X	

Total terrestrial habitat in project area: 33.0 Acre(s) Total tree clearing: 0.62 Acre(s)

Describe types of terrestrial habitat (i.e. forested, grassland, farmland, lawn, etc) adjacent or within the project area. Include whether or not impacts will occur to habitat identified. Include total terrestrial habitat impacted and total tree clearing that will occur. Discuss measure to avoid, minimize, and mitigate if impacts will occur.

Based on a desktop review, site visits on May 23-25, 2022, April 24, 2023, and June 20, 2023 by Lochmueller Group, the aerial map of the project area (Appendix B, B6 to B35), there are terrestrial habitats within the project area consisting of maintained roadside vegetation, unmaintained roadside vegetation, wooded areas, wetlands, riparian areas, and agriculture. Dominant species generally include but are not limited to: tall fescue (*Schedonorus arundinaceus*), red fescue (*Festuca rubra*), Kentucky bluegrass (*Poa pratensis*), reed canary grass (*Phalaris arundinacea*), common reed (*Phragmites australis*), creeping thistle (*Cirsium arvense*), narrow-leaf cattail (*Typha angustifolia*), sugar maple (*Acer saccharum*), silver maple (*Acer sacchainum*), box elder (*Acer negundo*), northern red oak (*Quercus rubra*), hackberry (*Celtis occidentalis*), black cherry (*Prunus serotina*), and white mulberry (*Morus alba*).

Impacts to terrestrial habitat will occur due to alteration/expansion of the roadway cross section, work on culverts and pipes,

installations of curbs and curb turnouts, and installation of riprap. In total, 33.0 acres of terrestrial habitat are located within the project construction limits, all of which are assumed to be impacted. Included in that total is approximately 0.62 acre of tree removal (0.55 acre for Des. No. 1900177 and the Larrison Blvd. expansion, and 0.07 acre for Des. No. 1900017). Impacts to terrestrial habitat will be avoided and minimized where possible while accomplishing the purpose and need of the project. Mitigation for terrestrial habitat impacts is not anticipated.

IDNR DFW responded on March 24, 2023 with no specific recommendations regarding terrestrial habitat impacts for Des. No. 1900177 or the additional culvert extension associated with Des. No. 1900017 (Appendix C, C19 to C20). As noted, all other comments in the previous early coordination response for Des. No. 1900017, dated September 30, 2021, remain valid. Those included recommendations to revegetate disturbed areas and control erosion (Appendix C, C21 to C24).

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

Protected Species

Federally Listed Bats	**Yes**	**No**
Information for Planning and Consultation (IPaC) determination key completed	X	
Section 7 informal consultation completed (IPaC cannot be completed)		X
Section 7 formal consultation Biological Assessment (BA) required		X

Determination Received for Listed Bats from USFWS: NE [ ] NLAA [X] LAA [ ]

Other Species not included in IPaC	**Yes**	**No**
Additional federal species found in project area (based on IPaC species list)	X	
State species (not bird) found in project area (based upon consultation with IDNR)	X	

Migratory Birds	**Yes**	**No**
Known usage or presence of birds (i.e. nests)	X	
State bird species based upon coordination with IDNR	X	

Discuss IDNR coordination and species identified. Describe USFWS Section 7 consultation and determination received for Indiana bat and northern long-eared bat impacts. Discuss if other federally listed species were identified. If so, include consultation that has occurred and the determination that was received. Discuss if migratory birds have been observed and any impacts.

Based on a desktop review and the RFI report (Appendix E, E1 to E35), completed by Lochmueller Group on October 14, 2022, the IDNR LaPorte County and St. Joseph County Endangered, Threatened and Rare (ETR) Species List has been checked. According to the IDNR-DFW early coordination response letter dated March 24, 2023 (Appendix C, C19 to C24), the Natural Heritage Program's Database has been checked. Two communities, four plant species, and three bird species of concern have been documented within 0.5 mile of the project area:

A) COMMUNITIES:
1. Bendix Woods Nature Preserve
2. Grand Prairie Mesic Upland Forest

B) PLANTS:
1. Robert (*Geranium robertianum*), State Threatened
2. Nuttall pondweed *(Potamogeton epihydrus*), State Endangered
3. Sword Bogmat (*Wolffiella gladiate*), State Endangered
4. Warty Panic-grass (*Panicum verrucosum*), State Threatened

C) BIRDS:
1. Henslow's Sparrow (*Centronyx henslowii*), State Endangered
2. Osprey (*Pandion haliaetus*), State Special Concern
3. Upland Sandpiper (*Bartramia longicauda*), State Endangered

No critical habitats are present within the project area. The IDNR Division of Nature Preserves does not anticipate any impacts to the Nature preserve or plant species as a result of this project. IDNR DFW determined that suitable habitat for the sparrow and

sandpiper does not occur in or near the project area so no significant impacts to these species are anticipated. The documented Osprey nest is more than 900 ft from the proposed project, which is greater than the 660 feet needed to minimize disturbance to the eagle nest. No negative effects are expected to the Osprey.

According to the IDNR DFW early coordination response for Des. No. 1900017 dated September 30, 2021, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity (Appendix C, C21 to C24). The INDOT USFWS Database 0.5-mile bat review for Des. No. 1900177 occurred on September 14, 2021 and did not indicate the presence of endangered bat species within 0.5 mile of the project. The INDOT USFWS Database 0.5-mile bat review for Des. No. 1900017 occurred on June 18, 2021 and did not indicate the presence of endangered bat species within 0.5 mile of the project.

Indiana Bat and Northern Long-Eared Bat
Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, C25 to C43). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). Other species were generated in the IPaC species list along with the Indiana bat and NLEB. Refer to paragraph below*.

The project qualifies for the *Rangewide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat (NLEB)*, dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. Structure inspections occurred on April 24, 2023 and no signs of bats using any structure was found (Appendix C, C60 to C66). USFWS Bridge/Structure Assessment are only valid for two years. If construction will begin after April 24, 2025, structure inspections by a qualified individual, must be performed. Structure inspections 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 the inspection, the INDOT District Environmental Manager must be contacted immediately. This firm commitment is included in the *Environmental Commitments* section of this document. An effect determination key was completed on July 7, 2023, and based on the responses provided, the project was found to "May Effect – Not Likely to Adversely Affect (MA-NLAA)" the Indiana bat and/or the NLEB (Appendix C, C44 to C59). INDOT reviewed and verified the effect finding on July 7, 2023, 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) listed for the project include General AMM 1, Lighting AMM 1, and Tree Removal AMMs 1 to 4, which include measures pertaining to bat habitat awareness, use of temporary lighting, and tree clearing considerations and restrictions. AMMs and/or commitments are included as firm commitments in the *Environmental Commitments* section of this document (include sentence if applicable).

*The official species list generated from IPaC indicated four other species present within the project area, including the copperbelly water snake (*Nerodia erythrogaster neglacta,* threatened). IPaC generated three additional species that are not considered as part of this project, including the tricolored bat (*Perimyotis subflavus*, proposed endangered), whooping crane (*Grus americana,* experimental population, non-essential) and monarch butterfly (*Danaus plexippus,* candidate). The tricolored bat is listed as proposed endangered and was preemptively evaluated assuming the species will be listed as endangered before this project is completed. The whooping crane is listed as endangered wherever found, except where listed as an experimental population according to the Environmental Conservation Online System. The whooping crane is listed as an experimental population in this location. Therefore, the species was not considered as part of this project. The monarch butterfly is identified as a candidate species, which is not yet listed or proposed for listing. The project qualifies for the most current INDOT/USFWS agreement. No further coordination is needed with USFWS.

Migratory Birds
Structure 002-071-74.20 (41.67195, -86.46720) has shown evidence of use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA) during the April 24, 2023 inspection. Avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the Recurring Special Provision (RSP) 107-C-273 "Migratory Bird Protection." This firm commitment is included in the *Environmental Commitments* of this document.

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	Yes	No
Project located within the Indiana Karst Region		X
Karst features identified within or adjacent to the project area		X
Oil/gas or exploration/abandoned wells identified in the project area		X

Date Karst Evaluation reviewed by INDOT EWPO (if applicable): N/A

Discuss if project is located in the Indiana Karst Region and if any karst features have been identified in the project area (from RFI). Discuss response received from IGWS coordination. Discuss if any mines, oil/gas, or exploration/abandoned wells were identified and if impacts will occur. Include discussion of karst study/report was completed and results. (Karst investigation must comply with the current Protection of Karst Features during Planning and Construction guidance and coordinated and reviewed by INDOT EWPO)

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 topographic map of the project area (Appendix B, B2 to B5) and the RFI report (Appendix E, E1 to E35), there are no karst features identified within or adjacent to the project area. In the early coordination response dated July 7, 2023, the IGWS did not indicate that karst features exist in the project area (Appendix C, C67 to C68). IGWS noted the area featured high liquefaction potential, moderate bedrock resource potential, and high sand and gravel resource potential. Response from IGWS has been communicated with the designer on July 7, 2023. No impacts are expected.

SECTION C – OTHER RESOURCES

Drinking Water Resources	Presence	Impacts Yes	Impacts No
Wellhead Protection Area(s)			
Source Water Protection Area(s)			
Water Well(s)	X		X
Urbanized Area Boundary	X		X
Public Water System(s)			

	Yes	No
Is the project located in the St. Joseph Sole Source Aquifer (SSA):	X	
If Yes, is the FHWA/EPA SSA MOU Applicable?		X
If Yes, is a Groundwater Assessment Required?		X

Check the appropriate boxes and discuss each topic below. Provide details about impacts and summarize resource-specific coordination responses and any mitigation commitments. Reference responses in the Appendix.

Sole Source Aquifer

The Environmental Protection Agency's Sole Source Aquifer (SSA) website (https://www.epa.gov/dwssa) was accessed on June 10, 2023 by Lochmueller Group. The project is located in St. Joseph County, which is located within the area of the St. Joseph SSA, the only legally designated SSA in the state of Indiana. The FHWA/EPA/INDOT SSA Memorandum of Understanding (MOU) exemption is applicable to this project. The SSA will not be affected because the project is classified as a CE, excavation depth will not exceed 10 feet below ground surface in the SSA area, and will not involve the use of chemicals listed in the National Primary Drinking Water Regulations (40 C.F.R. Part 141). Therefore, no impact is expected.

Wellhead Protection Area and Source Water

The IDEM's Wellhead Proximity Determinator website (http://www.in.gov/idem/cleanwater/pages/wellhead/) was accessed on June 10, 2023 by Lochmueller Group. This project is not located within a Wellhead Protection Area or Source Water Area. No impacts are expected.

Water Wells

The Indiana Department of Natural Resources Water Well Record Database website (https://www.in.gov/dnr/water/3595.htm) was

accessed on June 10, 2023 by Lochmueller Group. Several wells are located within and adjacent to the project area. The features will not be affected because excavation outside the roadway and in the vicinity of any well is minimal. Therefore, no impacts are expected. Should it be determined during the right-of-way 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 Multiple Separate Storm Sewer System (MS4) boundary map (https://www.in.gov/idem/cleanwater/ms4s-boundaries-map-for-indiana/) by Lochmueller Group on February 23, 2023, this project is located in an Urban Area Boundary (UAB). Early coordination letters were sent on February 23, 2023, to the LaPorte County and St. Joseph County MS4 Coordinators. The MS4 coordinators did not respond within the 30-day time frame. The project will comply with all legally required stormwater requirements and BMPs.

Public Water System
Based on a desktop review, site visits on May 23-25, 2022, April 24, 2023 and June 20, 2023 by Lochmueller Group, the aerial map of the project area (Appendix B, B6 to B35), and the project plans (Appendix B, B48 to B270), no public water systems were identified. Therefore, no impacts are expected.

	Presence	Impacts	
Floodplains		**Yes**	**No**
Project located within a regulated floodplain	X	X	
Longitudinal encroachment		X	
Transverse encroachment		X	
Homes located in floodplain within 1000' up/downstream from project			X

If applicable, indicate the Floodplain Level?

Level 1 [ ] Level 2 [ ] Level 3 [X] Level 4 [ ] Level 5 [ ]

Use the IDNR Floodway Information Portal to help determine potential impacts. Include floodplain map in appendix. Discuss impacts according to the classification system. If encroachment on a flood plain will occur, coordinate with the Local Flood Plain Administrator during design to insure consistency with the local flood plain planning.

Based on a desktop review of The Indiana Department of Natural Resources Indiana Floodway Information Portal website (https://indnr.maps.arcgis.com/apps/webappviewer/index.html?id=05026dabc2e8461983e196d56a213c1e) by Lochmueller Group on June 10, 2023, and the RFI report (Appendix E, E1 to E35), this project is located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, F89 to F92). An early coordination letter was sent on February 23, 2023, to the local Floodplain Administrators. The St. Joseph County Floodplain Administrator responded on February 28, 2023, indicating that a floodway permit from IDNR is required at the Niespodziany Ditch intersection (Appendix C, C9). The LaPorte County Floodplain Administrator did not respond within the 30-day timeframe. The project's location within a floodway was confirmed by the IDNR Floodplain Analysis & Regulatory Assessment (FARA) (Appendix F, F89 to F92).

Because the project is located in a rural area and has un upstream drainage area of less than 50 square miles (6.14 sq. mi.), the small structure replacement over Niespodziany Ditch (Des. No. 1900017) is eligible for the rural bridge exemption A formal permit determination for Des. 1900017 was issued by INDOT's EWPO on March 30, 2022, confirming the project's eligibility for the rural bridge exemption.

This project qualifies as a Category 3 per the current INDOT CE Manual, which states that the modifications to drainage structures included in this project will result in an insubstantial change in their capacity to carry flood water. This change could cause a minimal increase in flood heights and flood limits. These minimal increases will not result in any substantial adverse impacts on the natural and beneficial floodplain values; they will not result in substantial change in flood risks or damage; and they do not have substantial potential for interruption or termination of emergency service or emergency routes; therefore, it has been determined that this encroachment is not substantial.

	Presence	Impacts Yes	Impacts No
Farmland			
Agricultural Lands	X	X	
Prime Farmland (per NRCS)	X	X	

Total Points (from Section VII of CPA-106/AD-1006*) **124**

**If 160 or greater, see CE Manual for guidance.*

Discuss existing farmland resources in the project area, impacts that will occur to farmland, and mitigation and minimization measures considered.

Based on a desktop review, site visits on May 23 to 25, 2022, April 24, 2023 and June 20, 2023 by Lochmueller Group, and the aerial map of the project area (Appendix B, B6 to B35), the project will convert 3.42 acres of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on February 23, 2023, to Natural Resources Conservation Service (NRCS). Coordination with NRCS resulted in a score of 124 on the AD 1006 Form (Appendix C, C15 to C16). The farmland acreage amount is different than what is listed on the NRCS form (3.5 acres) because that acreage was an estimate that included Niespodziany Ditch and the surrounding unfarmed riparian areas. NRCS's threshold score for significant impacts to farmland that result in the consideration of alternatives is 160. Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland.

SECTION D – CULTURAL RESOURCES

	Category(ies) and Type(s)	INDOT Approval Date(s)	N/A
Minor Projects PA	B-1, B-4, B-9	July 29, 2023	

Full 106 Effect Finding

No Historic Properties Affected ☐ No Adverse Effect ☐ Adverse Effect ☐

Eligible and/or Listed Resources Present

NRHP Building/Site/District(s) ☐ Archaeology ☐ NRHP Bridge(s) ☐

Documentation Prepared (mark all that apply)		ESD Approval Date(s)	SHPO Approval Date(s)
APE, Eligibility and Effect Determination			
800.11 Documentation			
Historic Properties Report or Short Report			
Archaeological Records Check and Assessment			
Archaeological Phase Ia Survey Report	X	August 2, 2023	N/A
Archaeological Phase Ic Survey Report			
Other:			

		MOA Signature Dates (List all signatories)
Memorandum of Agreement (MOA)		

If the project falls under the MPPA, describe the category(ies) that the project falls under and any approval dates. If the project requires full Section 106, use the headings provided. The completion of the Section 106 process requires that a Legal Notice be published in local newspapers. Please indicate the publication date, name of the paper(s) and the comment period deadline. Include any further Section 106 work which must be completed at a later date, such as mitigation from a MOA or avoidance commitments.

On July 29, 2023 INDOT Cultural Resource Office (CRO) determined that Des. Nos. 1900177 and 1900017 and the Larrison Blvd. expansion fall within the guidelines of Category B, Types B-1, B-4, and B-9 under the Minor Projects Programmatic Agreement (MPPA) (Appendix D, D1 to D13). Applicable MPPA Categories include the following:

B-1 Replacement, repair, or installation of curbs, curb ramps, or sidewalks, including when such projects are associated with roadway work such as surface replacement, reconstruction, rehabilitation, or resurfacing projects, including overlays, shoulder treatments, pavement repair, seal coating, pavement grinding, and pavement marking,
B-4 Installation of new safety appurtenances, including but not limited to, guardrails, barriers, glare screens, and crash attenuators, under the following conditions
B-9 Installation, replacement, repair, lining, or extension of culverts and other drainage structures

A Phase Ia archeological survey was required because portions of the project will take place within undisturbed soils. The initial fieldwork occurred on January 17-19, 2023 and the initial investigation report was completed on February 27, 2023. Supplemental fieldwork was completed on July 6, 2023 and the investigation report was updated on August 2, 2023. Combined, the investigation examined 14.65 acres through a combination of pedestrian survey in agricultural fields, shovel probing, and visual inspection of previously disturbed right-of-way and the areas involved in the Larrison Blvd. expansion. No new or previously recorded archaeological resources were found to be present within the surveyed area, and no additional investigation is recommended. Pages from the Phase Ia Archaeological Short Report containing the project description and the recommendations are included in Appendix D, D14 to D16.

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

SECTION E – SECTION 4(f) RESOURCES/ SECTION 6(f) RESOURCES

	Presence	Use	
Parks and Other Recreational Land		**Yes**	**No**
Publicly owned park	**X**		**X**
Publicly owned recreation area	**X**		**X**
Other (school, state/national forest, bikeway, etc.)			
Wildlife and Waterfowl Refuges			
National Wildlife Refuge			
National Natural Landmark			
State Wildlife Area			
State Nature Preserve			
Historic Properties			
Site eligible and/or listed on the NRHP	**X**		**X**

	Evaluations Prepared
Programmatic Section 4(f)	
"De minimis" Impact	
Individual Section 4(f)	
Any exception included in 23 CFR 774.13	

Discuss Programmatic Section 4(f) and "de minimis" Section 4(f) impacts in the discussion below. Individual Section 4(f) documentation must be included in the appendix and summarized below. Discuss proposed alternatives that satisfy the requirements of Section 4(f). FHWA has identified various exceptions to the requirement for Section 4(f) approval. Refer to 23 CFR § 774.13 - Exceptions.

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, the aerial map of the project area (Appendix B, B6 to B35), and the RFI report (Appendix E, E1 to E35), there are 19 potential 4(f) resources located within the 0.5-mile search radius. According to additional research and by the site visits

on May 23 to 25, 2022, April 24, 2023, and June 20, 2023 by Lochmueller Group, there are three eligible 4(f) resources located within and adjacent to the project area.

The first resource is Buffalo Run Snowmobile Trail, which runs parallel to the south end of the project area and crosses the project area at Rice Rd. The trail is a 68-mile snowmobile trail within St. Joseph County that is maintained by the Michiana Trail Riders Coalition, a 41C3 non-profit organization, and is funded through the Indiana DNR. The trail is located on leased easements across private property. The trail is accessible to the public from December 1 to March 31. Work for the project will take place at Rice Rd, where the trail crosses SR 2. Work at Rice Rd. will consist of pavement resurfacing and small structure replacement. Construction in the vicinity of the trail will occur while the trail is not in operation. The trail does not have infrastructure within the pavement or median areas that could be affected by the proposed work. Project construction will occur within INDOT-owned ROW, and no work will occur on property where trail easements are located. Therefore, 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, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired. Therefore, no 4(f) use is expected.

The second resource is Bendix Woods County Park. The 195-acre park is situated immediately south of SR 2, east of Timothy Road. This is a recreational resource operated by the St. Joseph County Parks Department and is open to the public and is therefore an eligible Section 4(f) resource. All work adjacent to Bendix Woods County Park will occur within the existing SR 2 ROW and access to the park will be uninterrupted during construction. Therefore, 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, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired. Therefore, no 4(f) use is expected.

The third resource is the Studebaker Clubhouse and Tree Sign Historic District, which is an NRHP-eligible resource located within Bendix Woods County Park. The property is located immediately south of SR 2, east of Timothy Road. Due to its NRHP-eligible status, this property is an eligible Section 4(f) resource. All work adjacent to Studebaker Clubhouse and Tree Sign Historic District will occur within the existing SR 2 ROW and access to the site will be uninterrupted during construction. Therefore, 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, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired. Therefore, no 4(f) use is expected.

Section 6(f) Involvement	**Presence**	**Use**	
		Yes	**No**
Section 6(f) Property	X		X

Discuss Section 6(f) resources present or not present. Discuss if any conversion would occur as a result of this project. If conversion will occur, discuss the conversion approval.

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 11 properties in LaPorte County and 34 properties in St. Joseph County (Appendix I, I5). Bendix Woods County Park and Nature Preserve is located along the south side SR 2, east of Timothy Road. The project will take place within existing ROW. Therefore, there will be no impacts to 6(f) resources.

IDNR Division of State Parks, Community Grants and trails responded to early coordination on February 28, 2023, and indicated that the project would not negatively impact outdoor recreation at any LWCF site (Appendix C, C10). IDNR Division of State Parks, Trails Coordinator responded to early coordination on March 13, 2023 and indicated that the project will not impact a LWCF site (Appendix C, C18).

SECTION F – Air Quality

STIP/TIP and Conformity Status of the Project	Yes	No
Is the project in the most current STIP/TIP?	X	
Is the project located in an MPO Area?	X	
Is the project in an air quality non-attainment or maintenance area?	X	
If Yes, then:		
Is the project in the most current MPO TIP?	X	
Is the project exempt from conformity?	X	
If No, then:		
Is the project in the Transportation Plan (TP)?		
Is a hot spot analysis required (CO/PM)?		

Location in STIP: Pages 456 & 457 of 601

Name of MPO (if applicable): MACOG; NIRPC

Location in TIP (if applicable): Page 4 of 5 of MACOG St. Joseph County Projects; NIRPC Amendment #22-10

Level of MSAT Analysis required?

Level 1a [ ] Level 1b [X] Level 2 [ ] Level 3 [ ] Level 4 [ ] Level 5 [ ]

Describe if the project is listed in the STIP and if it is in a TIP. Describe the attainment status of the county(ies) where the project is located. Indicate whether the project is exempt from a conformity determination. If the project is not exempt, include information about the TP and TIP. Describe if a hot spot analysis is required and the MSAT Level.

STIP/TIP

The Fiscal Year (FY) 2022-2026 Statewide Transportation Improvement Program (STIP) is listed based on the lead DES number in the contract. The lead DES number for this contract is Des. No. 1900177. The FY 2022-2026 STIP includes Des. No. 1900177 and Des. No. 1900017 by reference with the contract number 42444 (Appendix H, H1 to H2). This project is included in the FY 2022-2026 Michiana Area Council of Governments (MACOG) Transportation Improvement Plan (TIP) (Appendix H, H3). The project was added to the FY 2022-2026 Northwestern Indiana Regional Planning Commission (NIRPC) TIP by way of Amendment #22-10, which was approved on July 20, 2023 (Appendix H, H8).

Attainment Status

This project is located in LaPorte and St. Joseph Counties. According to the EPA Greenbook (https://www3.epa.gov/airquality/greenbook/anayo_ak.html) LaPorte and St. Joseph Counties are currently maintenance areas for Ozone under the 1997 Ozone 8-hour 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 project has been identified as being exempt from air quality analysis in accordance with 40 CFR Part 93.126 and this project is not a project of air quality concern (40 CFR Part 93.123). Therefore, the project will have no significant impact on air quality.

MSAT

The purpose of this project is to improve the condition of the SR 2 roadway and pipes, to improve safety throughout the corridor, and to address insufficient roadway geometry. The project will construct an asphalt overlay and repair, replace, or line pipes, will add truck acceleration lanes at Larrison Blvd., and will convert the depressed grass median from Quince Road to Peppermint Road into a two-way left turn lane. This project has been determined to generate minimal air quality impacts for Clean Air Act criteria pollutants and has not been linked with any special mobile source air toxic (MSAT) concerns. As such, this project will not result in changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause a meaningful increase in MSAT impacts of the project from that of the no-build alternative.

Moreover, EPA regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends with EPA's MOVES2014 model forecasts a combined reduction of over 90 percent in the total annual emissions rate for the priority MSAT from 2010 to 2050 while vehicle-miles of travel are projected to increase by over 45 percent. This will both reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from this project.

SECTION G - NOISE

Noise	Yes	No
Is a noise analysis required in accordance with FHWA regulations and INDOT's traffic noise policy?		X

Date Noise Analysis was approved/technically sufficient by INDOT ESD: N/A

Describe if the project is a Type I or Type III project. If it is a Type I project, describe the studies completed to date and if noise impacts were identified. If noise impacts were identified, describe if abatement is feasible and reasonable and include a statement of likelihood.

This project is a Type III project. In accordance with 23 CFR 772 and the current *Indiana Department of Transportation Traffic Noise Analysis Procedure*, this action does not require a formal noise analysis.

SECTION H – COMMUNITY IMPACTS

Regional, Community & Neighborhood Factors	Yes	No
Will the proposed action comply with the local/regional development patterns for the area?	X	
Will the proposed action result in substantial impacts to community cohesion?		X
Will the proposed action result in substantial impacts to local tax base or property values?		X
Will construction activities impact community events (festivals, fairs, etc.)?	X	
Does the community have an approved transition plan?	X	
If No, are steps being made to advance the community's transition plan?		
Does the project comply with the transition plan? (explain in the discussion below)	X	

Discuss how the project complies with the area's local/regional development patterns; whether the project will impact community cohesion; and impact community events. Discuss how the project conforms with the ADA Transition Plan.

The project complies with local and regional development patterns and will have a negligible impact on community cohesion and community events.

According to the Indiana Festivals website (https://indianafestivals.org/), accessed on June 29, 2023 by Lochmueller Group, there may be festivals in the vicinity of the project including Sugar Camp Days occurring annually in March at Bendix Woods, Leeper Park Art Fair in South Bend occurring annually in June, St. Joseph County 4-H Fair in South Bend occurring annually in June, Notre Dame Shakespeare Festival occurring annually in July, New Carlisle Hometown Days Festival occurring annually in July, Art Beat Festival in South Bend occurring annually in August, and Michiana Renaissance Festival in South Bend occurring annually in August. Of these events, Sugar Camp Days occurs within the project area. However, the timing of construction will not overlap with the festival. The proposed MOT plan will feature lane closures which are unlikely to significantly impact festival traffic. A detour to New Carlisle via US 20 will provide uninterrupted travel to New Carlisle for the Hometown Days Festival.

The project complies with St. Joseph County's 2012 Americans with Disabilities Act (ADA) Transition Plan and LaPorte County's 2013 ADA Transition Plan. The project will not infringe on people with disabilities' ability to participate or enjoy community programs, services, or activities. No sidewalks or buildings warranting ADA compliance are present within the project area or planned as part of the project.

Public Facilities and Services

Discuss what public facilities and services are present in the project area and impacts (such as MOT) that will occur to them. Include how the impacts have been minimized and what coordination has occurred. Some examples of public facilities and services include health facilities, educational facilities, public and private utilities, emergency services, religious institutions, airports, transportation or public pedestrian and bicycle facilities.

Based on a desktop review, the aerial map of the project area (Appendix B, B6 to B35), and the RFI report (Appendix E, E1 to E35), there is one public airport located within 3.8 miles of the project. The following resources are located within 0.5 miles of the project

area:

- Two (updated from one) religious facilities.
- Two cemeteries
- Five recreational facilities
- Seven pipelines
- Thirteen trails
- One managed land

The following resources are adjacent to the project area:

- One religious facility, Olive Chapel
- Two cemeteries, Hungarian Sacred Heart Cemetery and St. Joseph's Cemetery
- Two recreational facilities, Rolling Timbers Park and Camp Ground and Mini Mountain Camp
- Two pipeline segments, owned by Northern Indiana Public Service Co. and Marathon Pipe Line Co
- Seven trail segments, SR 2 Greenway (potential), LaPorte/South Bend Corridor (potential), Buffalo Run Snowmobile Trail, and Bendix Woods County Park Trails

The number of these various resources was confirmed by the site visits on May 23-25, 2022, April 24, 2023, and June 20, 2023 by Lochmueller Group and by the project plans (Appendix B, B48 to B270). No direct or indirect effects to any public facility are anticipated as a result of this project. Work in these areas is generally confined to the roadway or just off pavement. A cemetery development plan was not developed because work will not occur within or acquire any cemetery property. Therefore, no impacts are expected. Access to all properties will be maintained during construction.

Early coordination letters were sent on February 23, 2023 to INDOT Utilities and Railroad Division, IDNR Division of Outdoor Recreation, MACOG, NIRPC, Mini Mountain Camp, and Olive Chapel Church. No response was received from these entities.

INDOT Aviation responded on February 27, 2023 indicating that no tall structure permit is required if all equipment being used is under 140 feet in height (Appendix C, C8). No equipment will exceed 140 feet in height, therefore no impact is expected.

Paradise Ridge LLC, identified in the RFI as Rolling Timbers Park and Campground, responded on February 28, 2023, noting that flooding and erosion was occurring on the property and requested a meeting with an engineer to discuss the problem. The message was forwarded to the INDOT Asset and Scoping team and determined that the problem was not caused by any INDOT assets in the area and that the problems expressed could not be solved under the present project (Appendix C, C11 to C14).

IDNR Division of State Parks responded on February 28, 2023 and on March 13, 2023 that the project as submitted would not negatively impact outdoor recreation at a LCWF site (Appendix C, C10 and C18).

IDNR Division of Nature Preserves responded on March 24, 2023 via the IDNR DFW response letter that the Division of Nature Preserves did not anticipate any impacts to the Nature Preserve (Bendix Woods) (Appendix C, C19).

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

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.

Environmental Justice (EJ) (Presidential EO 12898)	**Yes**	**No**
During the development of the project were EJ issues identified?		X
Does the project require an EJ analysis?	X	
If YES, then:		
Are any EJ populations located within the project area?		X
Will the project result in adversely high and disproportionate impacts to EJ populations?		X

Indicate if EJ issues were identified during project development. If an EJ analysis was not required, discuss why. If an EJ analysis was required, describe how the EJ population was identified. Include if the project has a disproportionately high or adverse effect on EJ populations and explain your reasoning. If yes, describe actions to avoid, minimize and mitigate these effects.

Under FHWA Order 6640.23A, FHWA and the project sponsor, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. Per the current INDOT Categorical Exclusion Manual, an Environmental Justice (EJ) Analysis is required for any

project that has two or more relocations or 0.5 acre of additional permanent right-of-way. The project will require 3.66 acre of new permanent ROW and no relocations. Therefore, an EJ Analysis is required.

Potential EJ impacts are detected by locating minority populations and low-income populations in and near the project area, calculating their percentage in the area relative to a reference population to determine if, in fact, populations of EJ concern do exist, and determining whether there will be disproportionate adverse impacts to them. The reference population may be a county, city, or town and is called the community of comparison (COC). For this project the COC is LaPorte and St. Joseph Counties, Indiana. The community that overlaps the project limits is called the affected community (AC). For this project there are five ACs. The ACs are Census Tracts 418 and 419 of LaPorte County, and Census Tracts 108, 109.01, and 111 of St. Joseph County. An AC has a population of concern for EJ if the population is more than 50% minority or low-income or if the low-income or minority population is 125% of the COC. Data from the American Community Survey five-year estimates (2017-2021) was obtained from the U.S. Census Bureau's webpage (https://data.census.gov/cedsci/) on August 1, 2023, by Lochmueller Group. The data collected for minority and low-income populations within the ACs are summarized in the below table.

Table: Minority and Low-Income Data (U.S. Census Bureau 2017-2021)

	COC	AC 1	AC 2	AC 3	AC 4	AC 5
	LaPorte & St. Joseph Counties	Census Tract 418, LaPorte County, Indiana	Census Tract 419, LaPorte County, Indiana	Census Tract 108, St. Joseph County, Indiana	Census Tract 109.01, St. Joseph County, Indiana	Census Tract 111, St. Joseph County, Indiana
LOW-INCOME POPULATION						
Total Population for Whom Poverty Status is Determined	364,025	5,693	5,073	4,075	4,495	3,766
Total Population Below Poverty Level	52,454	602	114	458	421	665
Percent Low-Income	14.4%	10.6%	2.2%	11.2%	9.4%	17.7%
125 Percent of COC	18.0%					
AC Percent Low-Income Greater Than 125 Percent of COC?		NO	NO	NO	NO	**NO**
AC Percent Low-Income Greater Than 50 Percent?		NO	NO	NO	NO	NO
Population of EJ Concern?		NO	NO	NO	NO	**NO**
MINORITY POPULATION						
Total Population	384,233	5,693	5,073	4,236	4,551	3,766
Minority Population	102,962	387	691	197	844	936
Percent Minority	26.8%	6.8%	13.6%	4.7%	18.5%	24.9%
125 Percent of COC	33.5%					
AC Percent Minority Greater Than 125 Percent of COC?		NO	NO	NO	NO	NO
AC Percent Minority Greater Than 50 Percent?		NO	NO	NO	NO	NO
Population of EJ Concern?		NO	NO	NO	NO	NO

AC 1, Census Tract 418, has a percent low-income of 10.6%, which is below 50% and is below the 125% COC threshold of 18.7%. Therefore, the AC does not contain low-income populations of EJ concern.

AC 2, Census Tract 419, has a percent low-income of 2.2%, which is below 50% and is below the 125% COC threshold of 18.0%. Therefore, the AC does not contain low-income populations of EJ concern.

AC 3, Census Tract 108, has a percent low-income of 11.2%, which is below 50% and is below the 125% COC threshold of 18.0%. Therefore, the AC does not contain low-income populations of EJ concern.

AC 4, Census Tract 109.01, has a percent low-income of 9.4%, which is below 50% and is below the 125% COC threshold of 18.0%. Therefore, the AC does not contain low-income populations of EJ concern.

AC 5, Census Tract 111, has a percent low-income of 17.7%, which is below 50% and is above the 125% COC threshold of 18.0%. Therefore, the AC does not contain low-income populations of EJ concern.

AC 1, Census Tract 418, has a percent minority of 6.8%, which is below 50% and is below the 125% COC threshold of 33.5%. Therefore, the AC does not contain minority populations of EJ concern.

AC 2, Census Tract 419, has a percent minority of 13.6%, which is below 50% and is below the 125% COC threshold of 33.5%. Therefore, the AC does not contain minority populations of EJ concern.

AC 3, Census Tract 108, has a percent minority of 4.7%, which is below 50% and is below the 125% COC threshold of 33.5%. Therefore, the AC does not contain minority populations of EJ concern.

AC 4, Census Tract 109.01, has a percent minority of 18.5%, which is below 50% and is below the 125% COC threshold of 33.5%. Therefore, the AC does not contain minority populations of EJ concern.

AC 5, Census Tract 111, has a percent minority of 24.9%, which is below 50% and is below the 125% COC threshold of 33.5%. Therefore, the AC does not contain minority populations of EJ concern.

Conclusion

The census data sheets, map, and calculations can be found in Appendix I, I44 to I52. Overall, the negative impacts to property owners within the project area will be minimal. The impact of this project would primarily involve short-term construction impacts and the loss of a strip of ROW along the property frontages. No ROW will be acquired from residential areas, and no relocations are anticipated. The ROW to be acquired will not substantially diminish the remaining properties' existing use. The MOT for this project will involve a full closure with detours to adequately address rerouted traffic. Access will be maintained for property owners during construction of the project. The project will benefit any EJ community in this area by improving the condition of the roadway, and by improving safety in the area in which ROW acquisition will occur. It is expected that the project will not have a disproportionately high and adverse environmental or health impact to low-income or minority populations of EJ concern when compared to non-EJ populations. No further environmental justice analysis is warranted.

Relocation of People, Businesses or Farms	**Yes**	**No**
Will the proposed action result in the relocation of people, businesses or farms?		X
Is a BIS or CSRS required?		X

Number of relocations: Residences: 0 Businesses: 0 Farms: 0 Other: 0

Discuss any relocations that will occur due to the project. If a BIS or CSRS is required, discuss the results in the discussion below.

No relocations of people, businesses, or farms will take place as a result of this project.

SECTION I – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Hazardous Materials & Regulated Substances (Mark all that apply)	**Documentation**
Red Flag Investigation (RFI)	X
Phase I Environmental Site Assessment (Phase I ESA)	
Phase II Environmental Site Assessment (Phase II ESA)	
Design/Specifications for Remediation required?	

Date RFI concurrence by INDOT SAM (if applicable): October 14, 2022

Include a summary of the potential hazardous material concerns found during review. Discuss in depth sites found within, directly adjacent to, or ones that could impact the project area. Refer to current INDOT SAM guidance. If additional documentation (special provisions, pay quantities, etc.) will be needed, include in discussion. Include applicable commitments.

Based on a review of geographic information systems (GIS) and available public records, the RFI was completed on October 12,

2022 by Lochmueller Group and INDOT SAM provided their concurrence on October 14, 2022 (Appendix E, E1 to E35). INDOT SAM was contacted on June 21, 2023 notifying them of changes to the project scope resulting in a greater number of resources encountered within the 0.5 mile project buffer. INDOT SAM provided their concurrence on July 5, 2023 indicating that no additional impacts or recommendations in the approved RFI are warranted (Appendix E, E36 to E39). The following hazardous material resources are located within 0.5 miles of the project area:

- One state cleanup site
- *Four Underground Storage Tank (UST) sites
- Two solid waste landfills
- *Seven Leaking Underground Storage Tank (LUST) sites
- Three institutional controls
- Seven National Pollution Discharge Elimination System (NPDES) facilities
- Two NPDES pipe locations

**Updated amount to reflect additional sites encountered upon extending the eastern project terminus in June, 2023.*

One State Cleanup site is located adjacent to the project area. The site, Macallister Machinery Company, 25734 SR 2, Agency Interest Identification (AI ID) 36894, is located to the southeast of the intersection of SR 2 and Peach Road. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater may be necessary. In addition, analysis for Resource Conservation and Recovery Act (RCRA) metals would be necessary before disposal of petroleum contaminated soil. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination.

One LUST site is located adjacent to the project area. The site, Bosch Automotive Proving Ground/Navistar, 32104 SR 2, New Carlisle, AI ID 30982, is located adjacent to the south of the project area. It is recommended that this site receive follow-up before Ready for Contracts (RFC) to determine if it is still a concern. If excavation occurs in this area, 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.

One Institutional Control/LUST site is located adjacent to the project area. Country Cupboard #7, 26395 W SR 2, AID 33629, is located east of Quince Road, north of the project area. 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.

Two NPDES facilities are located adjacent to the project area. VAP Properties Commercial Warehouse & Retail Sales Building, 25901 SR 2, South Bend, Permit #INRA03489, is located adjacent to the north of the project area 0.13 mile east of Riviera Blvd. This permit is effective until May 30, 2024. An early coordination letter was sent to VAP properties on February 23, 2023. No response was received. Navistar Proving Grounds, 32104 SR 2, Permit #INRA02068, is part of the facility located to the south of the project area and to the west of Huckleberry Road. This permit is effective until September 4, 2023. An early coordination letter was sent to Navistar Proving Grounds on February 23, 2023. No response was received. No impact is expected.

Part IV – Permits and Commitments

PERMITS CHECKLIST

Permits (mark all that apply)	**Likely Required**
Army Corps of Engineers (404/Section10 Permit)	
Nationwide Permit (NWP)	X
Regional General Permit (RGP)	
Individual Permit (IP)	
Other	
IN Department of Environmental Management (401/Rule 5)	
Nationwide Permit (NWP)	X
Regional General Permit (RGP)	
Individual Permit (IP)	
Isolated Wetlands	
Rule 5/Construction Stormwater General	X
Other	
IN Department of Natural Resources	
Construction in a Floodway	
Navigable Waterway Permit	
Other	
Mitigation Required	
US Coast Guard Section 9 Bridge Permit	
Others (Please discuss in the discussion below)	X

List the permits likely required for the project and summarize why the permits are needed, including permits designated as "Other."

Due to 0.0255 acre of permanent impacts to wetlands and 121.7 linear feet of new permanent impacts to streams, an IDEM Section 401 Nationwide Permit with pre-construction notification and a USACE Section 404 Nationwide Permit will likely be required.

Due to work occurring within county regulated drains including Rogers Clark Lateral Ditch (UNT 4 to Niespodziany Ditch) and Niespodziany Ditch, a St. Joseph County Regulated Drain permit will likely be required.

Due to ground disturbance in excess of one acre, a Construction Stormwater General Permit will likely be required.

Although the project takes place in the floodway of Niespodziany Ditch, the project is eligible for a Construction in a Floodway (CIF) permit rural bridge exemption due to the project's location within a rural area and the upstream drainage area of less than 50 square miles (6.14 sq. mi.).

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 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

List all commitments and include the name of agency/organization requesting/requiring the commitment(s). Listed commitments should be numbered.

Firm:

1. If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT District)
2. It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access. (INDOT ESD)
3. 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 EWPO)
4. LaPorte County Drainage Board will be accommodated such that they will be able to retrieve three section corners that were located along SR 2 within the project area, and will be notified when the road is closed to allow them to work safely. (LaPorte County)
5. One segment of Geyer Ditch and seven UNTs to Geyer Ditch are located within the project area west of Rice Road. Geyer Ditch and the seven UNTs to Geyer Ditch are listed as impaired for *E. coli* and polychlorinated biphenyls (PCBs) in fish tissue. Concerning *E. coli*, workers who are working in or near water with *E. coli* should take care to wear appropriate personal protective equipment (PPE), observe proper hygiene procedures, including regular hand washing, and limit personal exposure. Concerning PCBs in fish tissue, exposure to PCBs in fish tissue is considered low, assuming workers are not eating biota surrounding or associated with the water body. Workers will be informed. If there will be sediment and/or soils disturbed by construction, additional investigation may be necessary. Coordination with INDOT ESD SAM will occur. (INDOT SAM)
6. One segment of Niespodziany Ditch is located within the project area west of Strawberry Road. Niespodziany Ditch is listed as impaired for *E. coli* and Impaired Biotic Communities (IBC). Concerning E. coli, workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. Concerning IBC, Best Management Practices (BMPs) will be used to avoid further degradation to the stream. (INDOT SAM)
7. All stream features that are located within the project area and will not be impacted, will be marked as "Do Not Disturb" in the Final Tracings plans. (INDOT ESD)
8. Do not raise the invert or shrink the diameter of any existing pipes and/or structures. (St. Joseph County Drainage Board)
9. Run hydraulic requirements on each pipe scheduled to be replaced. (St. Joseph County Drainage Board)
10. All roadside ditches north and south running along the road need to be cleaned and dredged to at least the originally designed channel invert, though several may need to be deepened. (St. Joseph County Drainage Board)
11. Long term sediment build-up, larger and more frequent rain events, and all the private drainage work upstream needs to be considered and accounted for. (St. Joseph County Drainage Board)
12. The Ginter Lateral Drain at Sage Road needs to be lowered. (St. Joseph County Drainage Board)
13. Do not use riprap for the channel bottom of any structures designed or replaced. (St. Joseph County Drainage Board)
14. Please work with the St. Joseph County Redevelopment Commission prior to any structure design over the Niespodziany Ditch. There are currently plans in the works to reroute the upstream portion of that ditch which may affect the sizing, depth and alignment of the new structure. (St. Joseph County Drainage Board)
15. All delineated wetlands will be identified on the Final Tracings plans and labeled as “Do Not Disturb” unless otherwise authorized through an approved permit. (INDOT ESD)
16. If construction will begin after April 24, 2025, inspections of the structures by a qualified individual, must be performed. Inspection of the structures 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 these inspections, the INDOT District Environmental Manager must be contacted immediately. (USFWS)
17. Structure 002-071-74.20 (41.67195, -86.46720) has shown evidence of use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA) during the April 24, 2023 inspection. Avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the Recurring Special Provision (RSP) 107-C-273 "Migratory Bird Protection.” (USFWS)
18. The Indiana Department of Natural Resources Water Well Record Database website (https://www.in.gov/dnr/water/3595.htm) was accessed on June 10, 2023 by Lochmueller Group. Several wells are located within and adjacent to the project area. Should it be determined during the right-of-way phase that these wells will be affected, a cost to cure will be included in the appraisal to restore the wells. (INDOT ESD)

19. General AMM 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs. (USFWS)
20. Lighting AMM 1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)
21. Tree Removal AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal. (USFWS)
22. Tree Removal AMM 2: Apply time of year restrictions for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/ rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed. (USFWS)
23. Tree Removal AMM 3: Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits). (USFWS)
24. Tree Removal AMM 4: Do not remove documented Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or documented foraging habitat any time of year. (USFWS)
25. If any object will exceed 140 ft in height, coordination with INDOT Aviation will occur. (INDOT Office of Aviation)
26. One State Cleanup site is located adjacent to the project area. The site, Macallister Machinery Company, 25734 SR 2, AID 36894, is located to the southeast of the intersection of SR 2 and Peach Road. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater may be necessary. In addition, analysis for RCRA metals would be necessary before disposal of petroleum contaminated soil. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination. (INDOT SAM)
27. One LUST site is located adjacent to the project area. The site, Bosch Automotive Proving Ground/Navistar, 32104 SR 2, New Carlisle, AI ID 30982, is located adjacent to the south of the project area. It is recommended that this site receive follow-up before RFC to determine if it is still a concern. If excavation occurs in this area, 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)
28. One Institutional Control/LUST site is located adjacent to the project area. Country Cupboard #7, 26395 W SR 2, AID 33629, is located east of Quince Road, north of the project area. 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)
29. VAP Properties Commercial Warehouse & Retail Sales Building, 25901 SR 2, South Bend, Permit #INRA03489, is located adjacent to the north of the project area 0.13 mile east of Riviera Blvd. This permit is effective until May 30, 2024. Coordination with VAP Properties will occur. (INDOT SAM)
30. Navistar Proving Grounds, 32104 SR 2, Permit #INRA02068, is part of the facility located to the south of the project area and to the west of Huckleberry Road. This permit is effective until September 4, 2023. Coordination with Navistar Proving Grounds will occur. (INDOT SAM)

For Further Consideration:

1. 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. (IDNR DFW)
2. The new, replacement, or rehabbed structure should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. (IDNR DFW)
3. 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 nonwetland 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 inches dbh or greater (5:1 mitigation based on the number of large trees). (IDNR DFW)
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. (IDNR DFW)
5. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure. (IDNR DFW)
6. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds. (IDNR DFW)

7. Use minimum average 6-inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR DFW)
8. Do not clear trees or understory vegetation outside the construction zone boundaries. (USFWS)
9. Restrict below low-water work in streams to placement of culverts, piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap. (USFWS)
10. Restrict channel work and vegetation clearing to the minimum necessary for installation of the stream crossing structure. (USFWS)
11. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat. (USFWS)
12. Implement temporary erosion and sediment control methods within areas of disturbed soil. All disturbed soil areas upon project completion will be vegetated following INDOT's standard specification. (USFWS)
13. Avoid all work within the inundated part of the stream channel during the fish spawning season (April 1 through June 30); except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment shall be operated below OHWM during this time unless the machine is within the caissons or on the cofferdams. (USFWS)
14. Evaluate wildlife crossings under bridge/culverts projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels and diversion fencing. (USFWS)

Appendix A: INDOT Supporting Documentation
Threshold Chart....A1

Appendix B: Graphics
General Location Map....B1
USGS Quad Map....B2-B5
Aerial Map (2016)....B6-B35
Photo Location Map....B36
Site Photographs....B37-B47
Des. No. 1900177 Plans....B48-B231
Larrison Boulevard Expansion Plans....B232-259
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Appendix C: Early Coordination
Sample Early Coordination Letter (February 23, 2023)....C1-C5
LaPorte County Drainage Board
Response Letter (February 23, 2023)....C6
Response Letter (February 23, 2023)....C7
INDOT Aviation
Response Letter (February 27, 2023)....C8
St. Joseph County Floodplain Administrator
Response Letter (February 28, 2023)....C9
IDNR Division of State Parks, Community Grants and Trails
Response Letter (February 28, 2023)....C10
Paradise Ridge, LLC
Response Letter and Correspondence (February 28 to March 2, 2023)....C11-C14
USDA National Resource Conservation Service
Response Letter (March 2, 2023)....C15
AD-1006 Form....C16
St. Joseph County Drainage Board
Response Letter (March 7, 2023)....C17
IDNR Division of State Parks, Trails Coordinator
Response Letter (March 13, 2023)....C18
IDNR Division of Fish and Wildlife
1900177 & Revised 1900017 Response Letter (March 24, 2023)....C19-C20
Original 1900017 Response Letter (September 30, 2021)....C21-C24
US Fish and Wildlife Service
Official Species List (July 7, 2023)....C25-C43
Concurrence Verification Letter (July 7, 2023)....C44-C59
Bridge/Structure Bat Assessment Forms (April 24, 2023)....C60-C66
Indiana Geological and Water Survey
Response Letter (July 7, 2023)....C67-C68

Appendix D: Section 106 of the National Historic Preservation Act (NHPA)
Minor Projects PA Project Assessment Form (Approved July 29, 2023)....D1-D13
Pages from Archaeological Short Report (Approved August 2, 2023)....D14-D16

Appendix E: Red Flag Investigation and Hazardous Materials
Red Flag Investigation (Approved October 14, 2022)....E1-E35
INDOT SAM Correspondence (July 5, 2023)....E36-E39

Appendix F: Water Resources
Waters of the US Report (Approved July 11, 2023)....F1-F18
USDA SSURGO Soils Map....F19-F29

NWI Map F30-F38
StreamStats Watershed Map F39
Best Available Flood Hazard Layer & NHD Line Map F40-F55
Water Resources Maps F56-F83
Preliminary Jurisdictional Determination Form F84-F88
IDNR Floodplain Analysis & Regulatory Assessment (FARA) Reports F89-F92

Appendix G: Public Involvement
Des. No. 1900177 Sample Notice of Entry Letter (September 28, 2022) G1
Des. No. 1900017 Sample Notice of Entry Letter (September 8, 2020) G2

Appendix H: Air Quality
INDOT FY 2022-2026 STIP H1-H2
MACOG FY 2022-2026 TIP H3
STIP Plan Letter H4-H5
STIP Approval Letter H6-H7
NIRPC FY 2022-2026 TIP Amendment 22-10 ..... H8

Appendix I: Other Information
Des. No. 1900177 Structure Summary Table I1-I4
Land and Water Conservation Fund Grants: LaPorte & St. Joseph County I5
Abbreviated Engineer's Report, Des. No. 1900177 (November 1, 2019) I6-I29
Culvert Inspection Report (March 22, 2022) I30-I43
Environmental Justice Analysis I44-I52
Des. No. 1900017, Approved CE-1 text (March 15, 2022) I53-I68

Categorical Exclusion

Appendix A

INDOT Supporting Documentation

Categorical Exclusion Level Thresholds

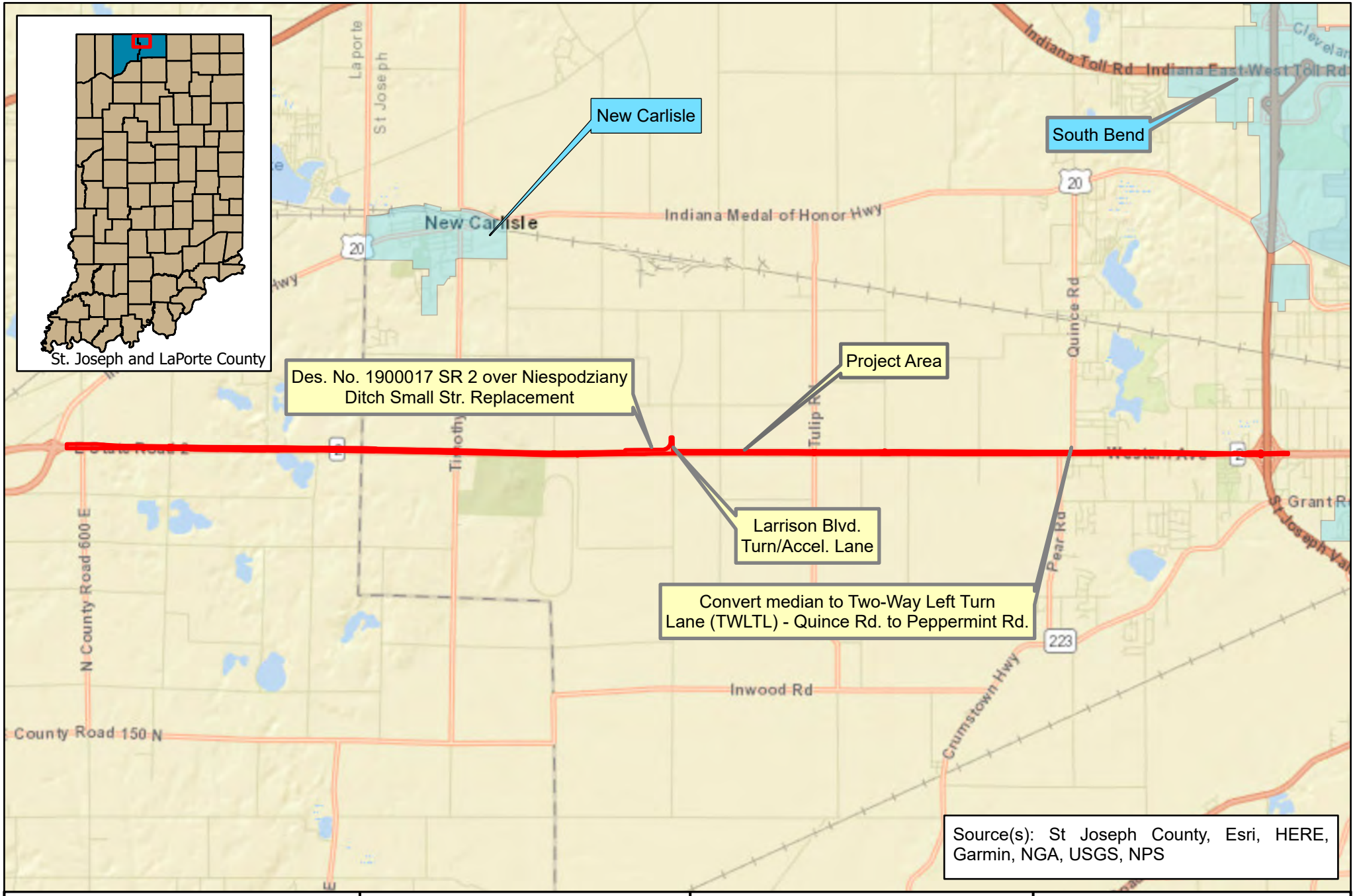
	PCE	Level 1	Level 2	Level 3	Level 4[1]
Section 106	Falls within guidelines of Minor Projects PA	"No Historic Properties Affected"	"No Adverse Effect"	-	"Adverse Effect" Or Historic Bridge involvement[2]
Stream Impacts[3]	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	USACE Individual 404 Permit[4]
Wetland Impacts[3]	No adverse impacts to wetlands	< 0.1 acre	-	< 1.0 acre	≥ 1.0 acre
Right-of-way[5]	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
Relocations[6]	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 • **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.

Categorical Exclusion

Appendix B

Graphics



LOCHMUELLER GROUP
112 West Jefferson Blvd., Suite 500
South Bend, IN 46601
Phone: (574) 334-5460

Location Map

Des. No. 1900177

0 1 2 Miles

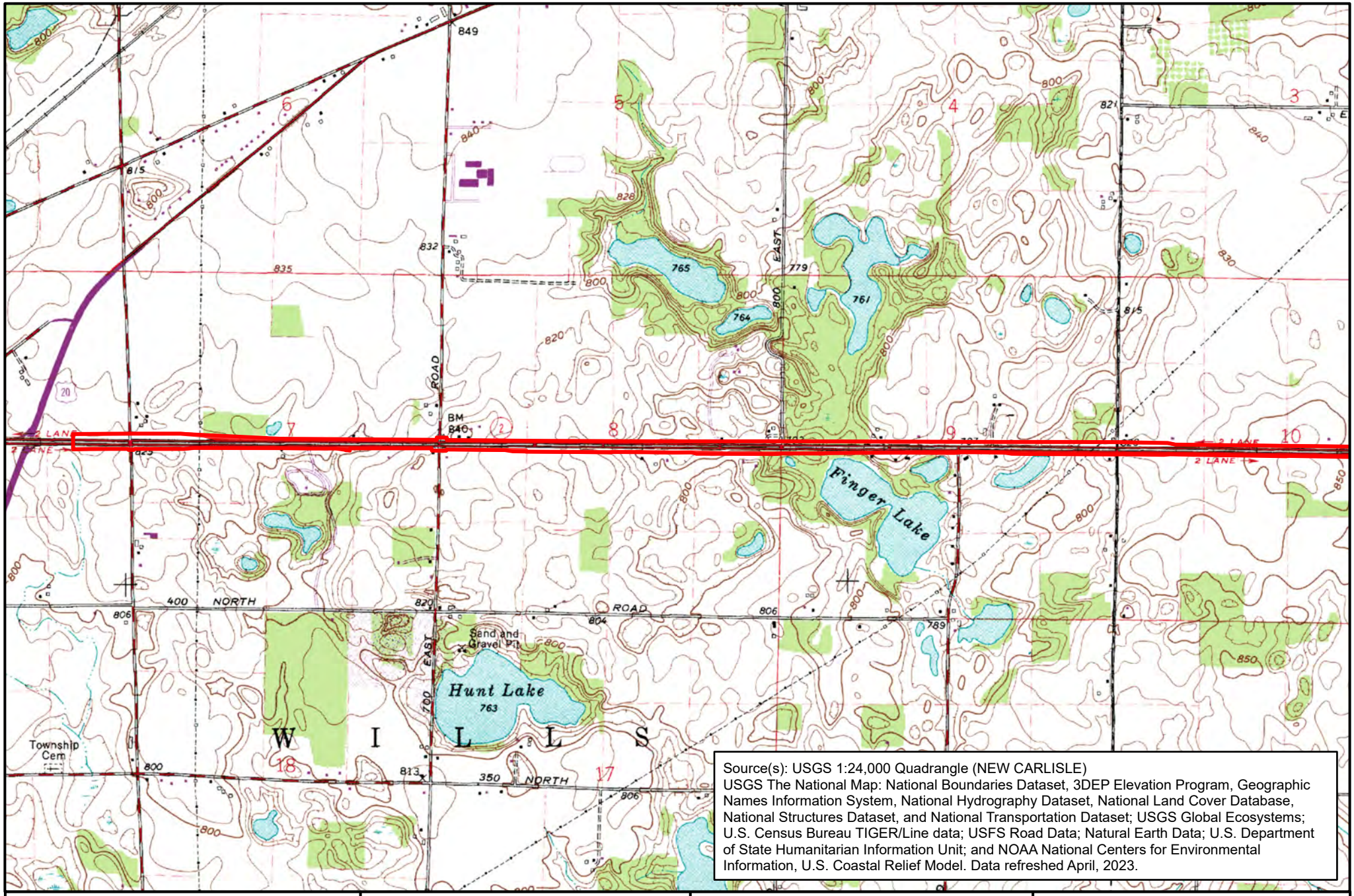
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County: St. Joseph and LaPorte
Township: Wills, Olive, Warren, Portage
State: Indiana

SR 2 from US 20 to US 20/31
HMA Overlay Project
Created: 7/8/2023, CHoogewerf

Legend

- Project Area
- Incorporated Areas



Source(s): USGS 1:24,000 Quadrangle (NEW CARLISLE)
USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information, U.S. Coastal Relief Model. Data refreshed April, 2023.

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USGS Topographic Map (1:24,000)

Des. No. 1900177

County: St. Joseph and LaPorte
Township: Wills, Olive, Warren, Portage
State: Indiana

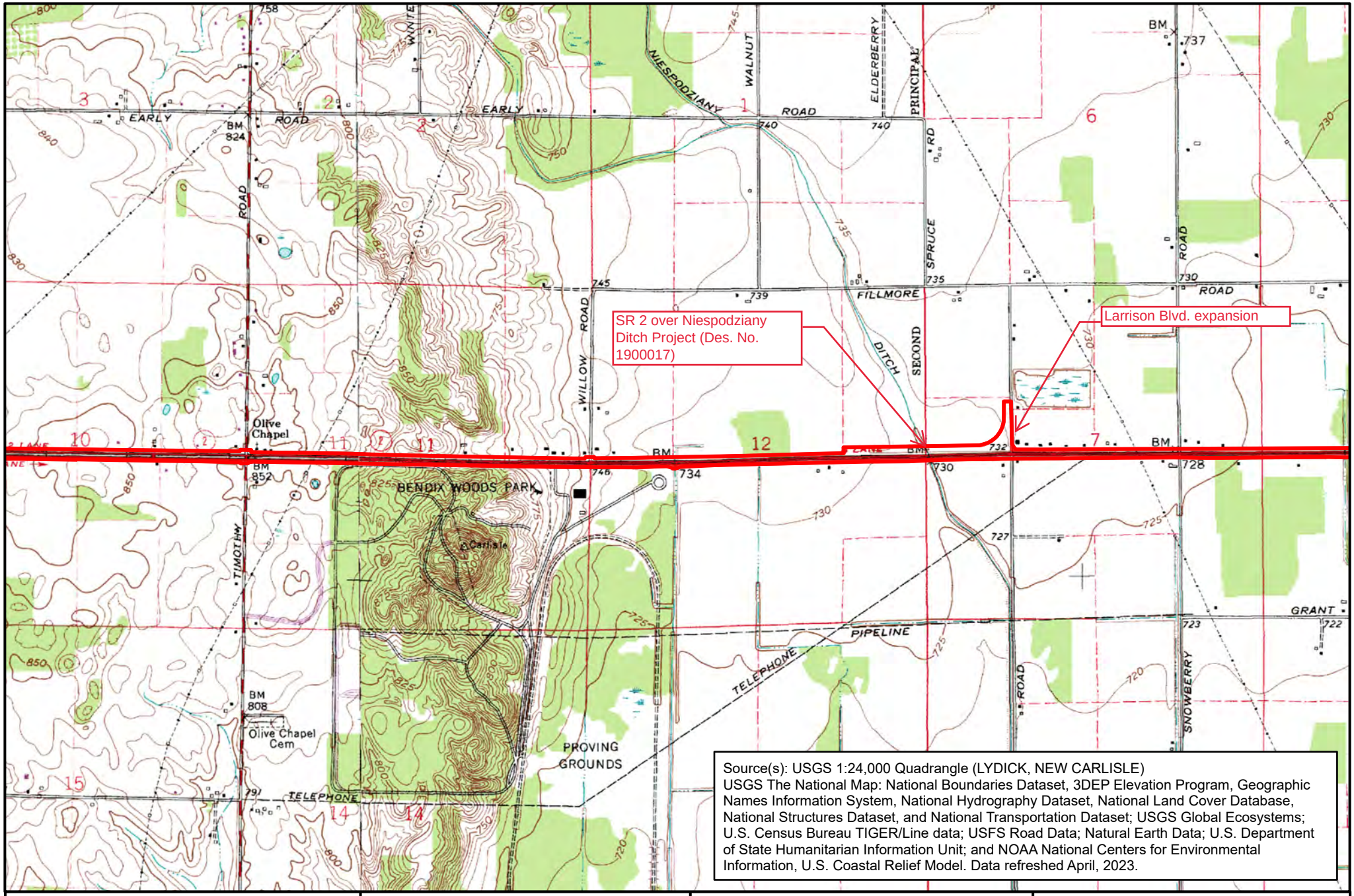
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SR 2 from US 20 to US 20/31
HMA Overlay Project
Created: 6/30/2023, CHoogewerf

Legend

Project Area



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USGS Topographic Map (1:24,000)

Des. No. 1900177

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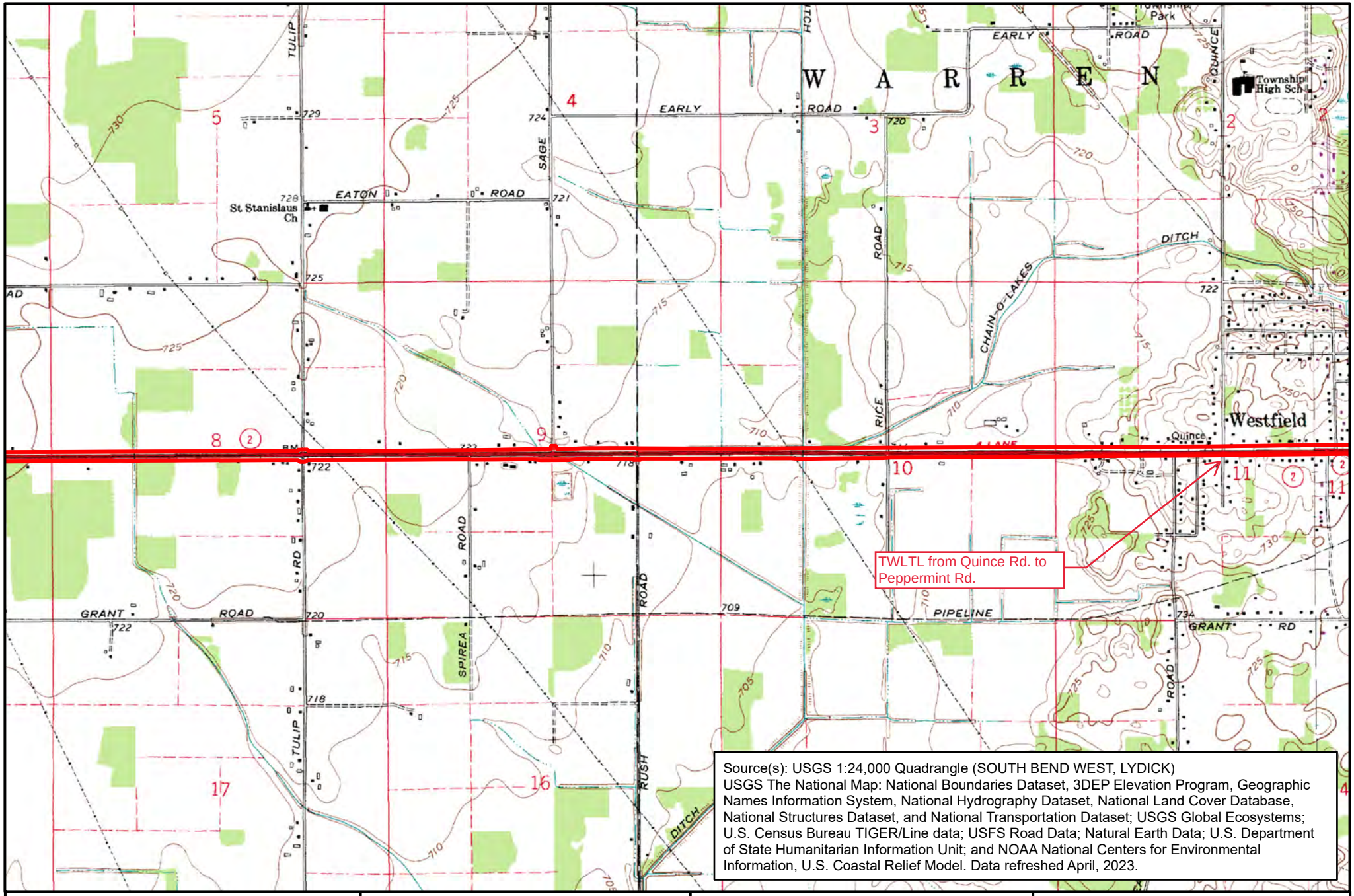
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County: St. Joseph and LaPorte
Township: Wills, Olive, Warren, Portage
State: Indiana

SR 2 from US 20 to US 20/31
HMA Overlay Project
Created: 6/30/2023, CHoogewerf

Legend

Project Area



Source(s): USGS 1:24,000 Quadrangle (SOUTH BEND WEST, LYDICK)
USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information, U.S. Coastal Relief Model. Data refreshed April, 2023.

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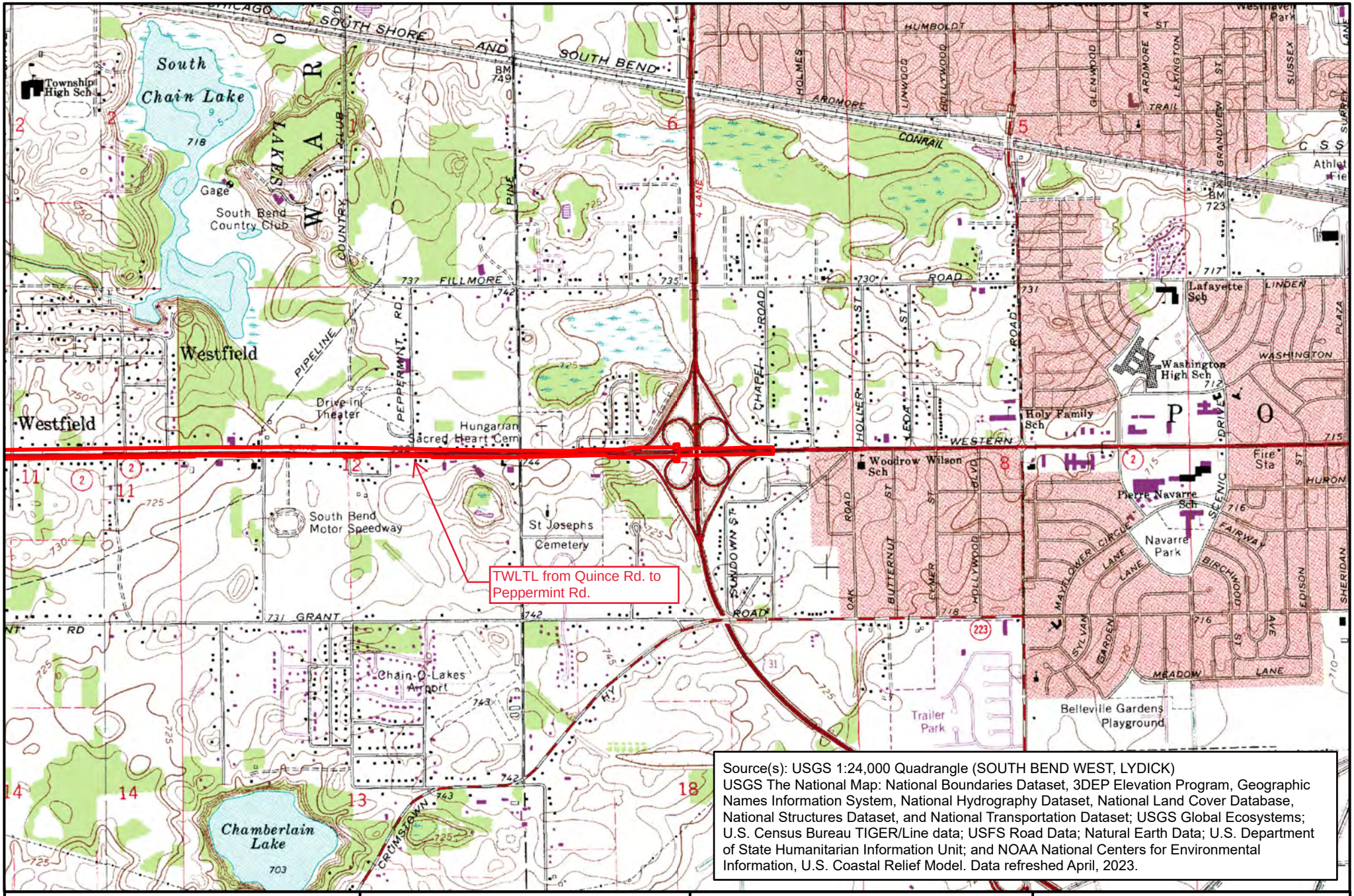
USGS Topographic Map (1:24,000)
Des. No. 1900177

County: St. Joseph and LaPorte
Township: Wills, Olive, Warren, Portage
State: Indiana

0 0.25 0.5 Miles
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SR 2 from US 20 to US 20/31
HMA Overlay Project
Created: 6/30/2023, CHoogewerf

Legend
Project Area



Source(s): USGS 1:24,000 Quadrangle (SOUTH BEND WEST, LYDICK)
USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information, U.S. Coastal Relief Model. Data refreshed April, 2023.

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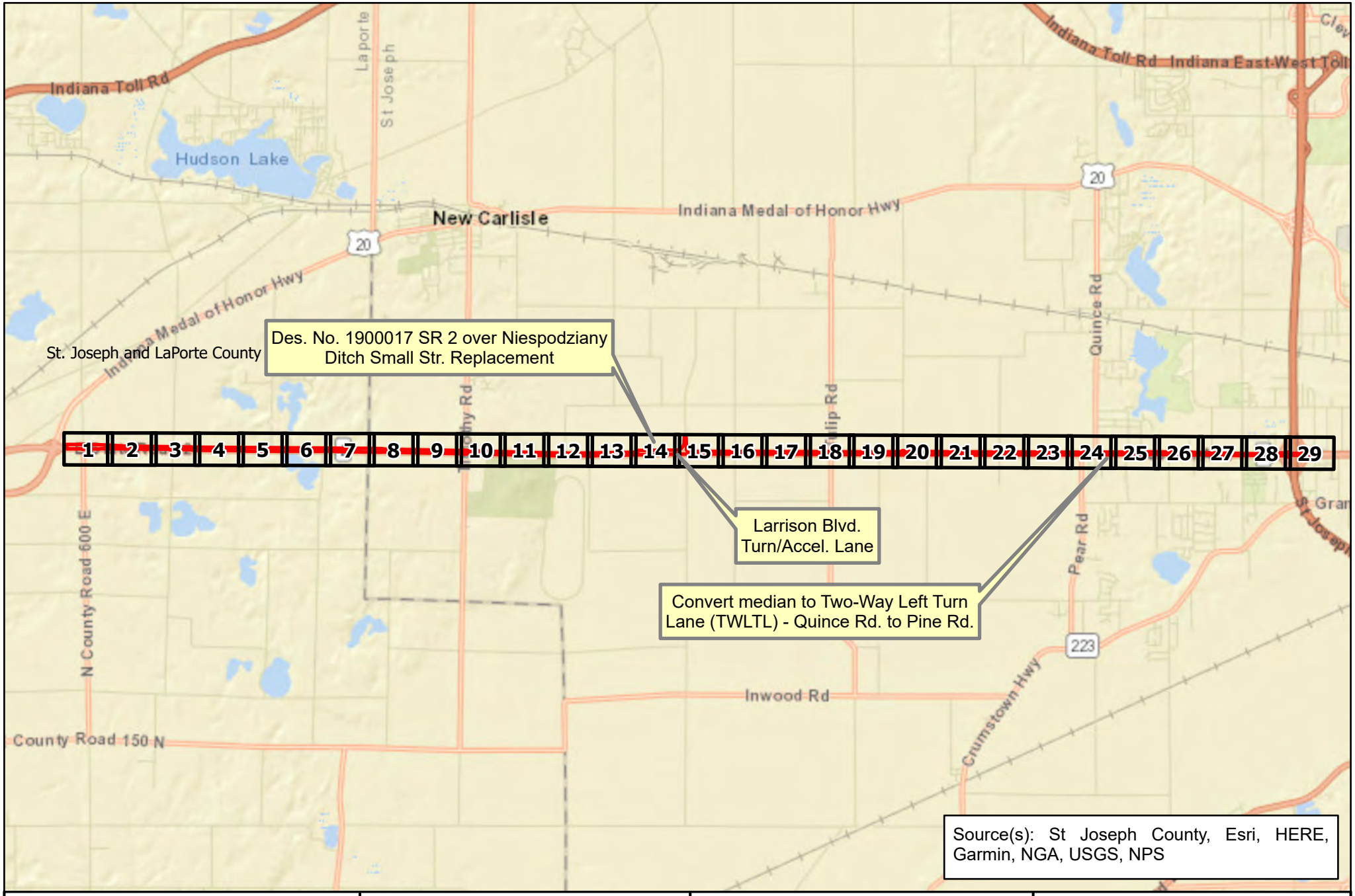
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SR 2 from US 20 to US 20/31
HMA Overlay Project
Created: 6/30/2023, CHoogewerf

Legend
Project Area



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Aerial Map Index

Des. No. 1900177

0 1 2 Miles

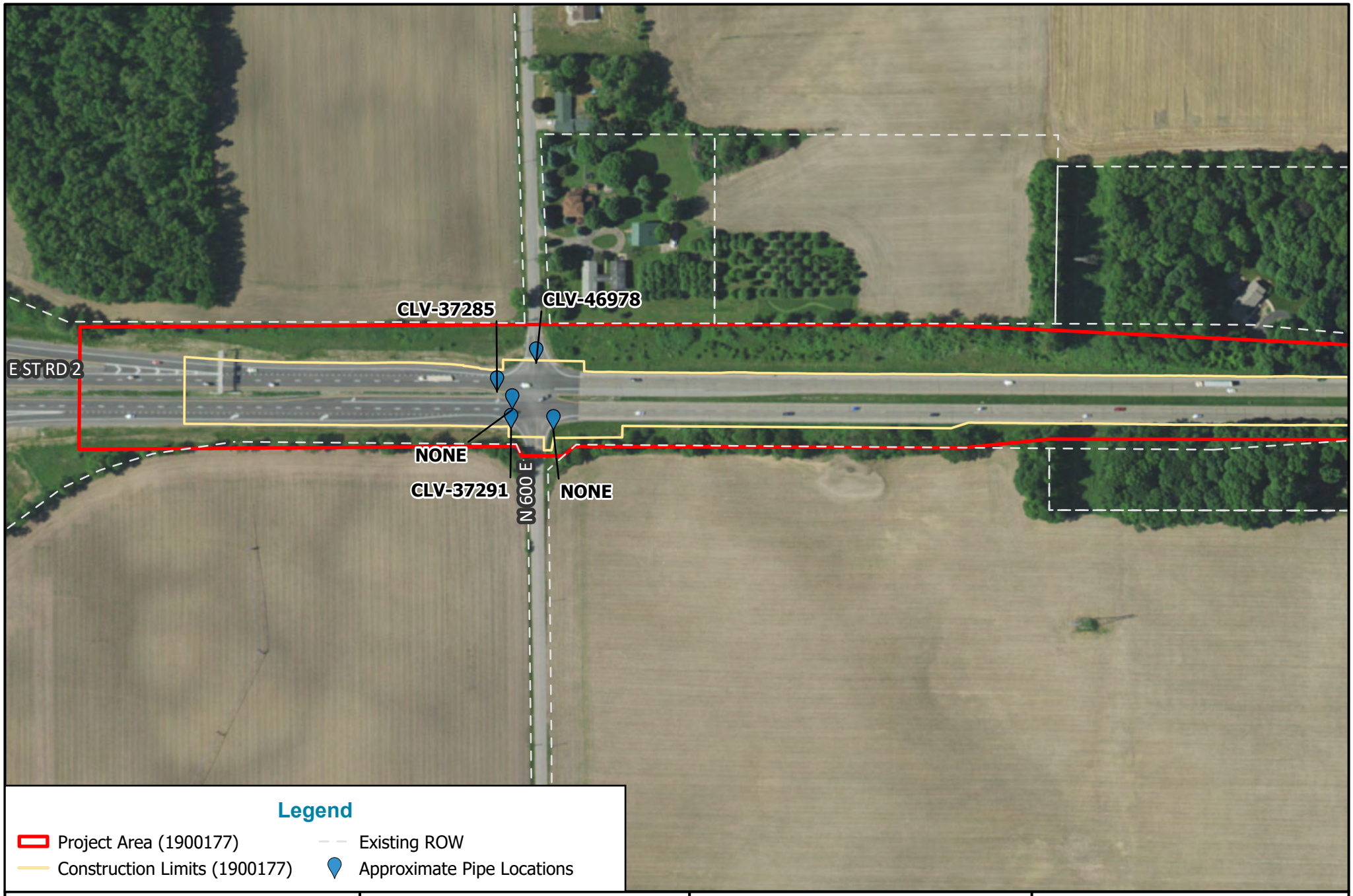
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County: St. Joseph and LaPorte
Township: Wills, Olive, Warren, Portage
State: Indiana

SR 2 from US 20 to US 20/31
HMA Overlay Project
Created: 7/8/2023, CHoogewerf

Legend

- Aerial Map Page
- Project Area (1900177)



Legend

- Project Area (1900177)
- Construction Limits (1900177)
- Existing ROW
- Approximate Pipe Locations

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Aerial Map (2020)
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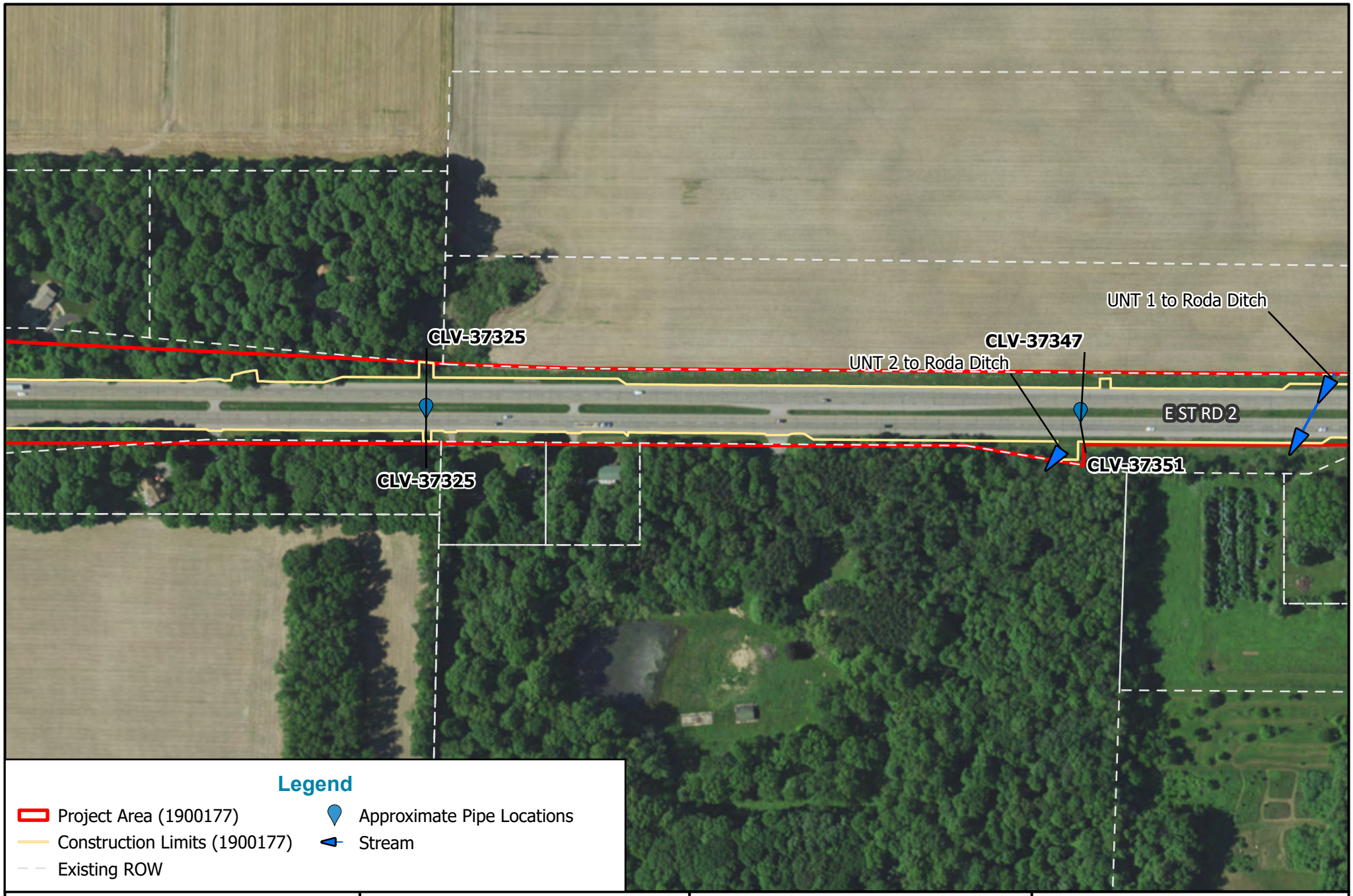
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N

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Township: Wills, Olive, Warren, Portage
State: Indiana

SR 2 from US 20 to US 20/31
HMA Overlay Project
Created: 7/5/2023, CHoogewerf

Aerial Source: 2020 Indiana NAIP



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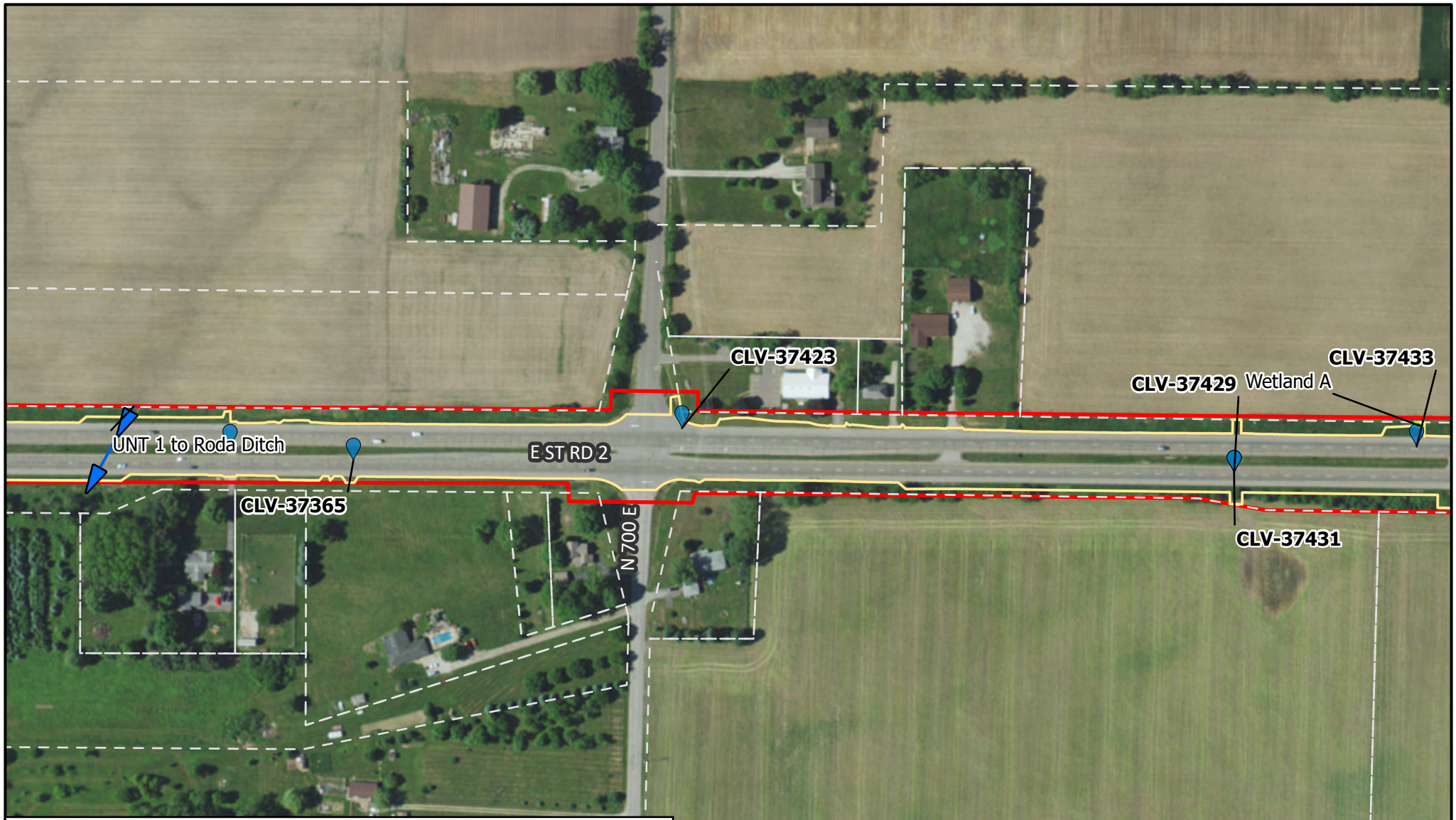
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HMA Overlay Project
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Aerial Source: 2020 Indiana NAIP



Legend

- Project Area (1900177)
- Construction Limits (1900177)
- Existing ROW
- Approximate Pipe Locations
- Stream
- Wetland

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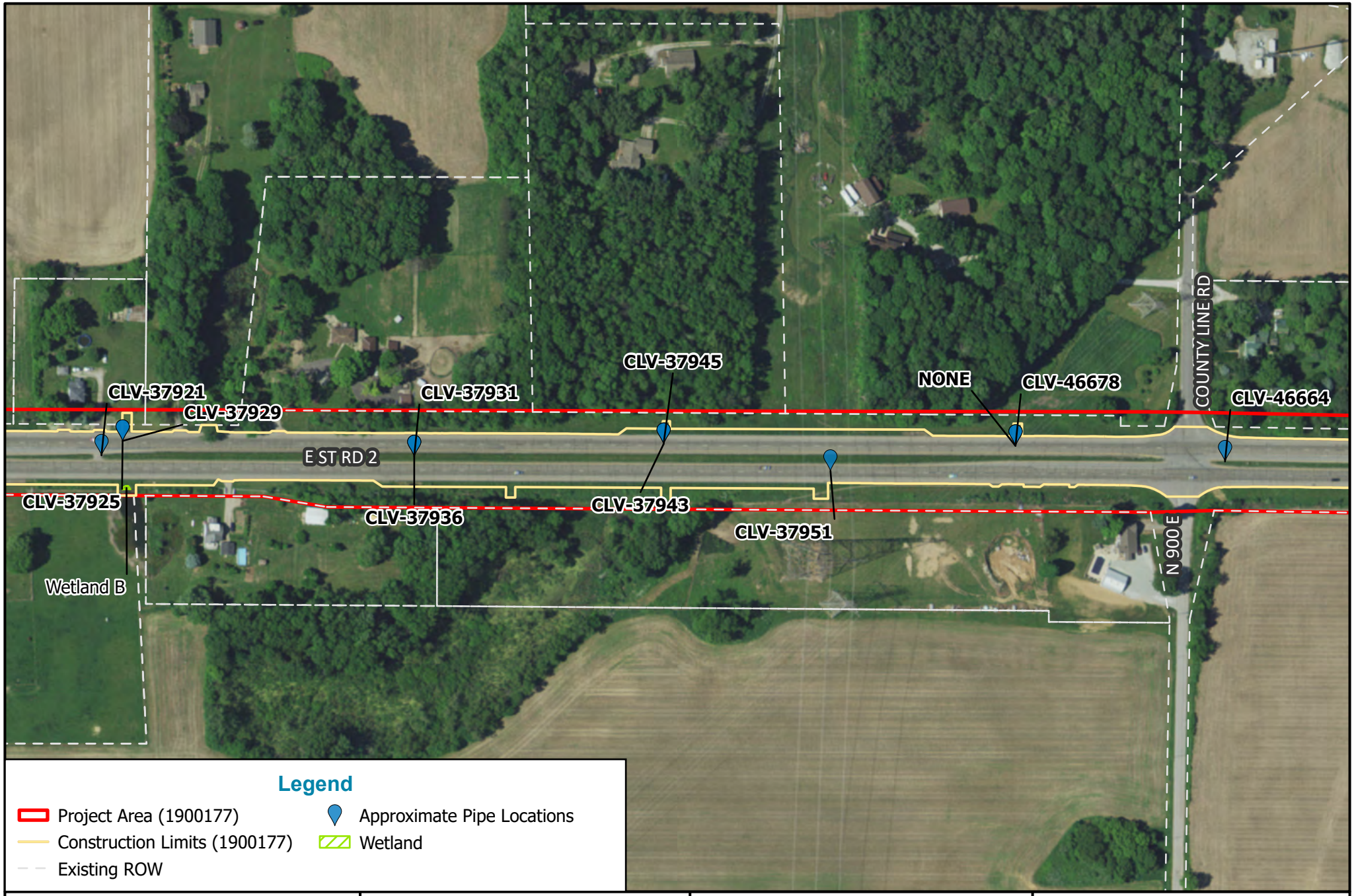
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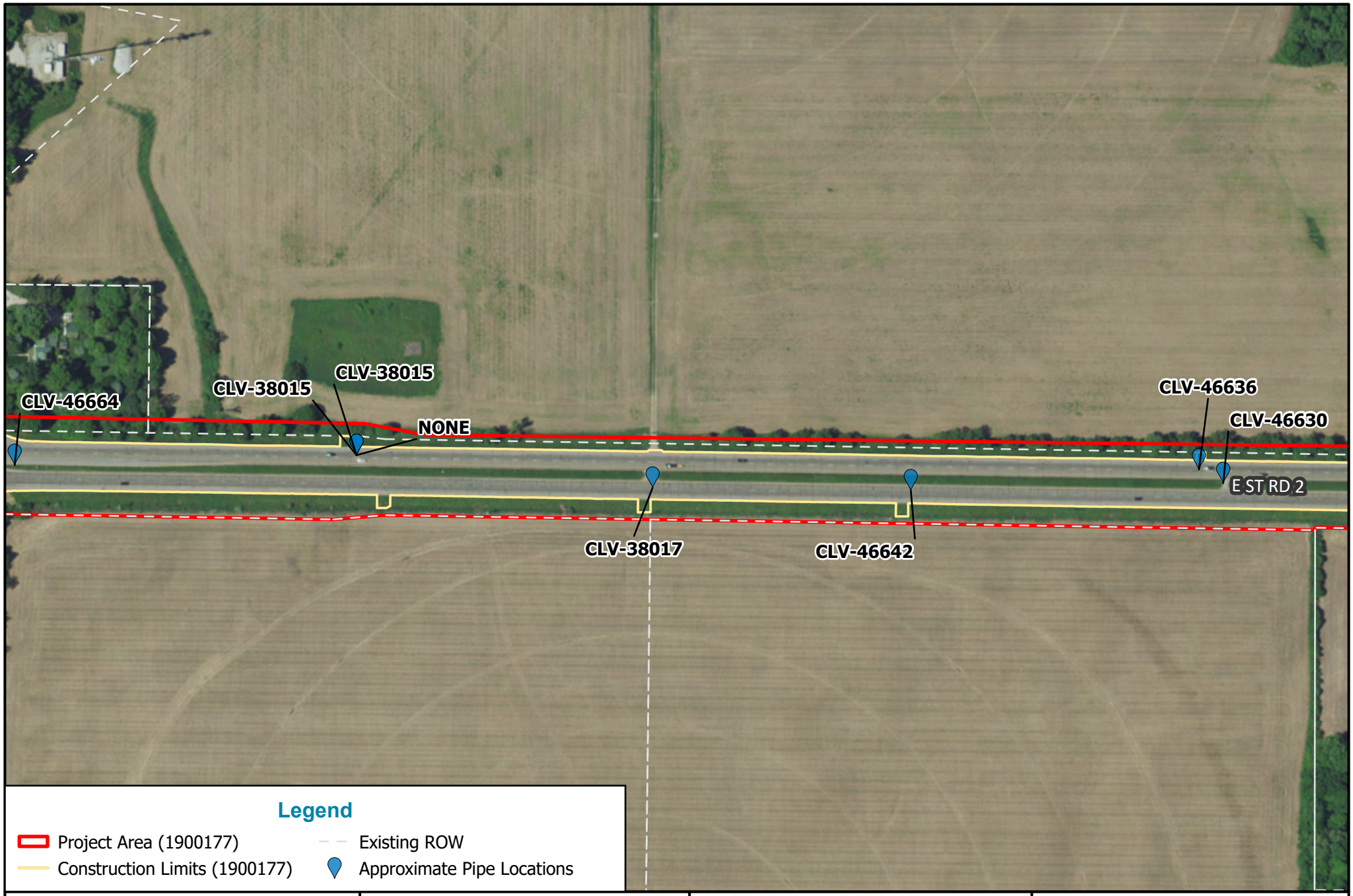
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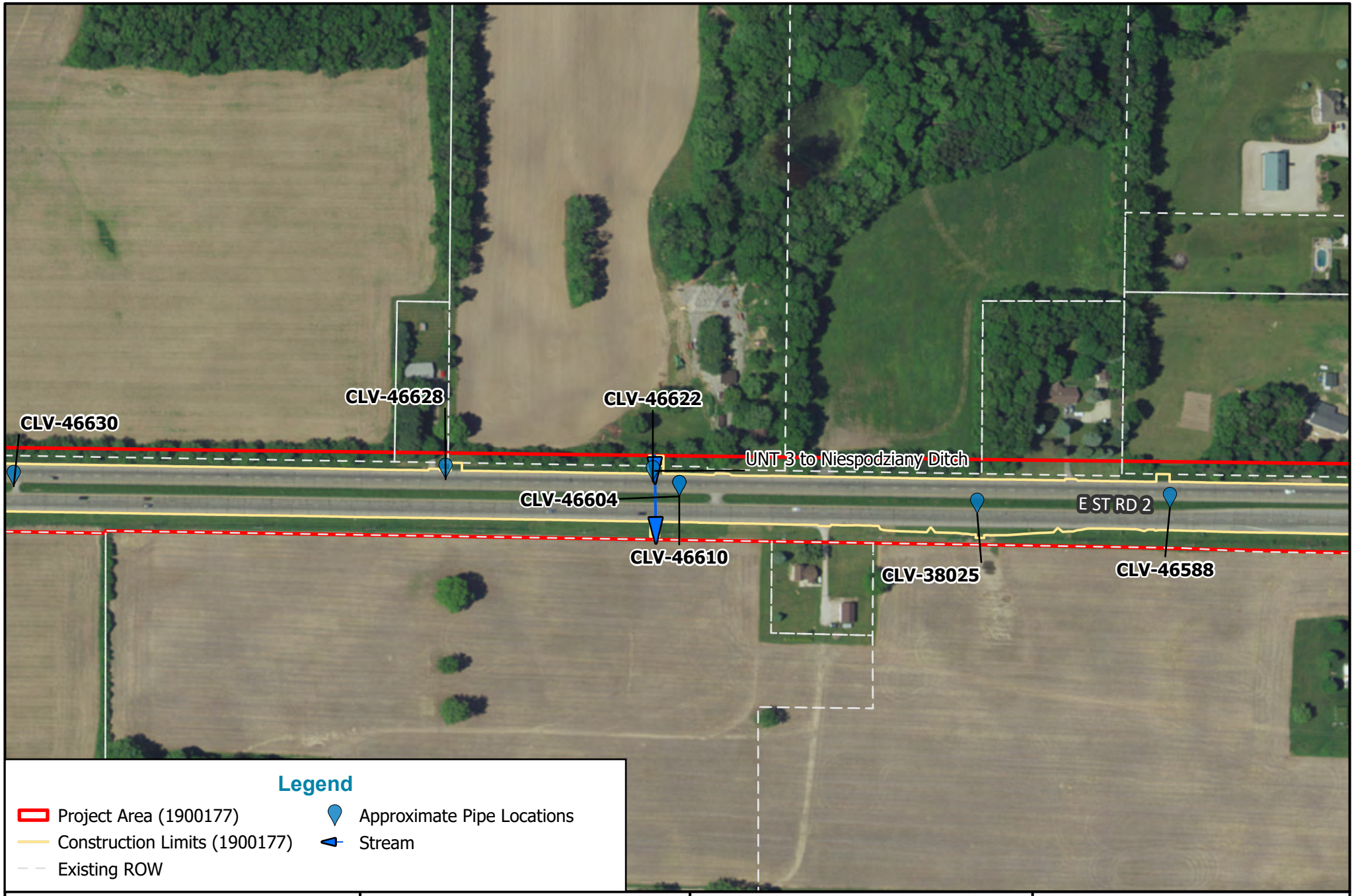
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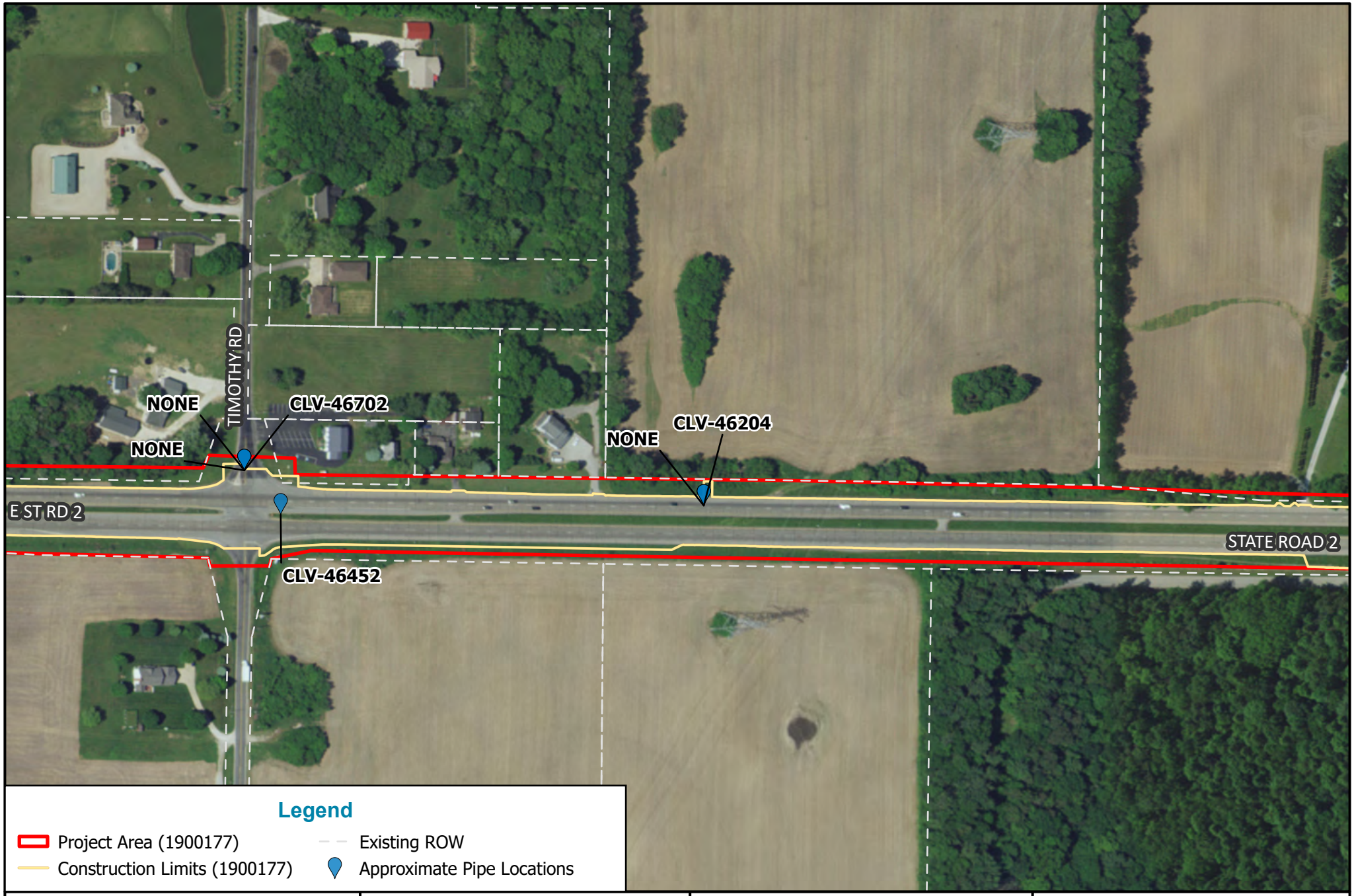
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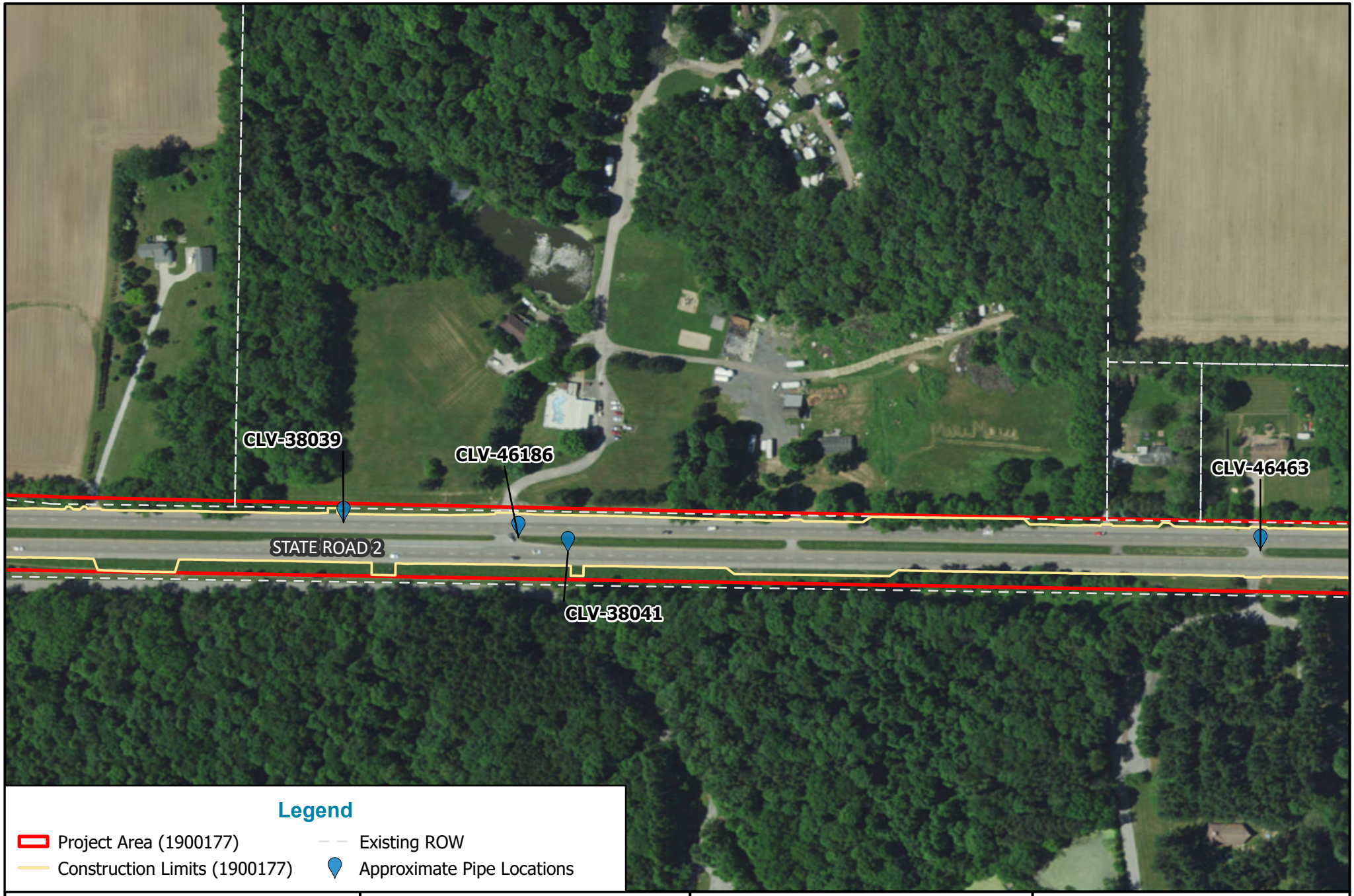
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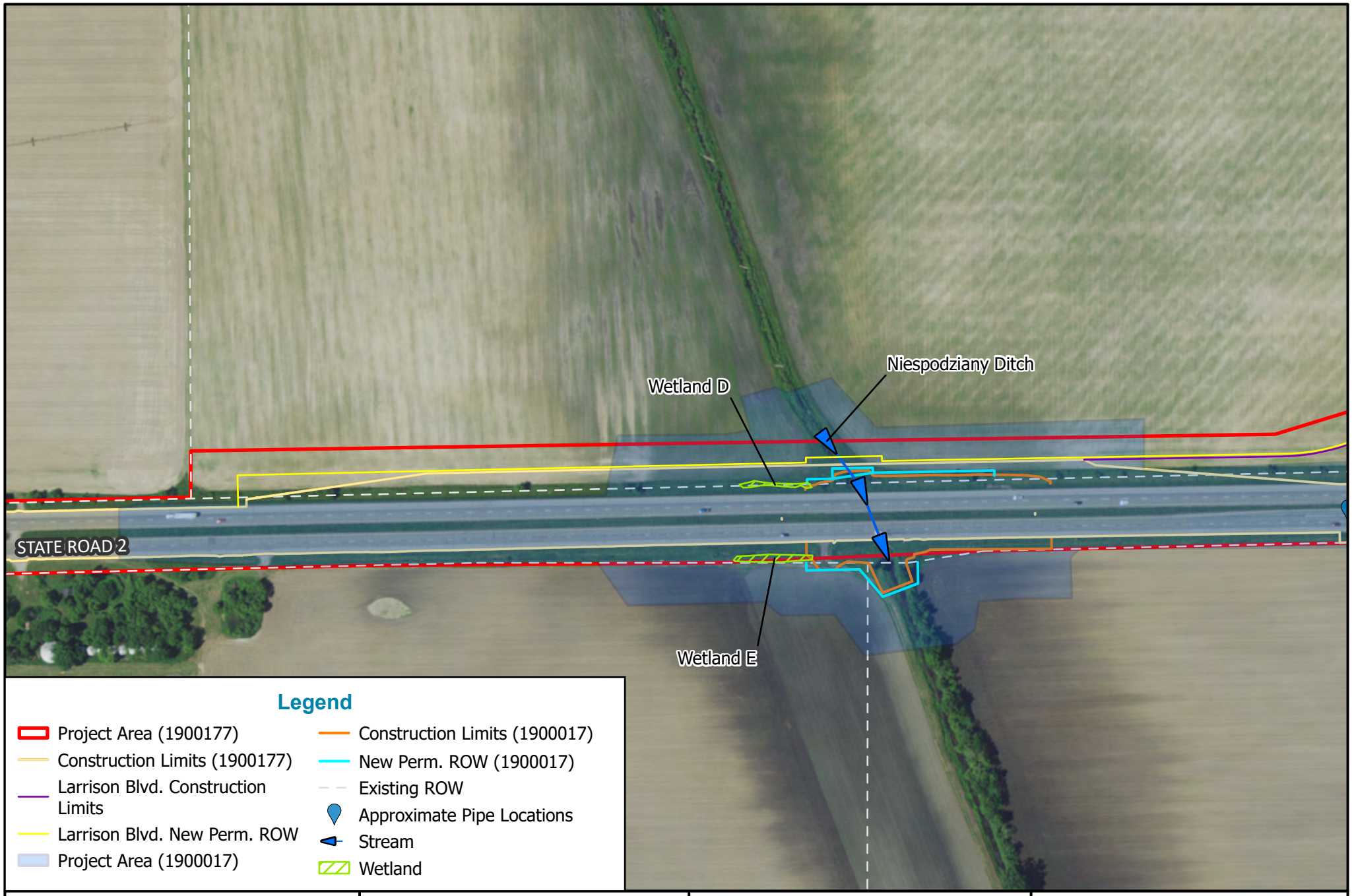
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SR 2 from US 20 to US 20/31
HMA Overlay Project
Created: 7/5/2023, CHoogewerf

Aerial Source: 2020 Indiana NAIP



Legend

- Project Area (1900177)
- Construction Limits (1900177)
- Larrison Blvd. Construction Limits
- Larrison Blvd. New Perm. ROW
- Project Area (1900017)
- Construction Limits (1900017)
- New Perm. ROW (1900017)
- Existing ROW
- Approximate Pipe Locations
- Stream
- Wetland

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Aerial Map (2020)
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Legend

- Project Area (1900177)
- Construction Limits (1900177)
- Larrison Blvd. Construction Limits
- Larrison Blvd. New Perm. ROW
- Project Area (1900017)
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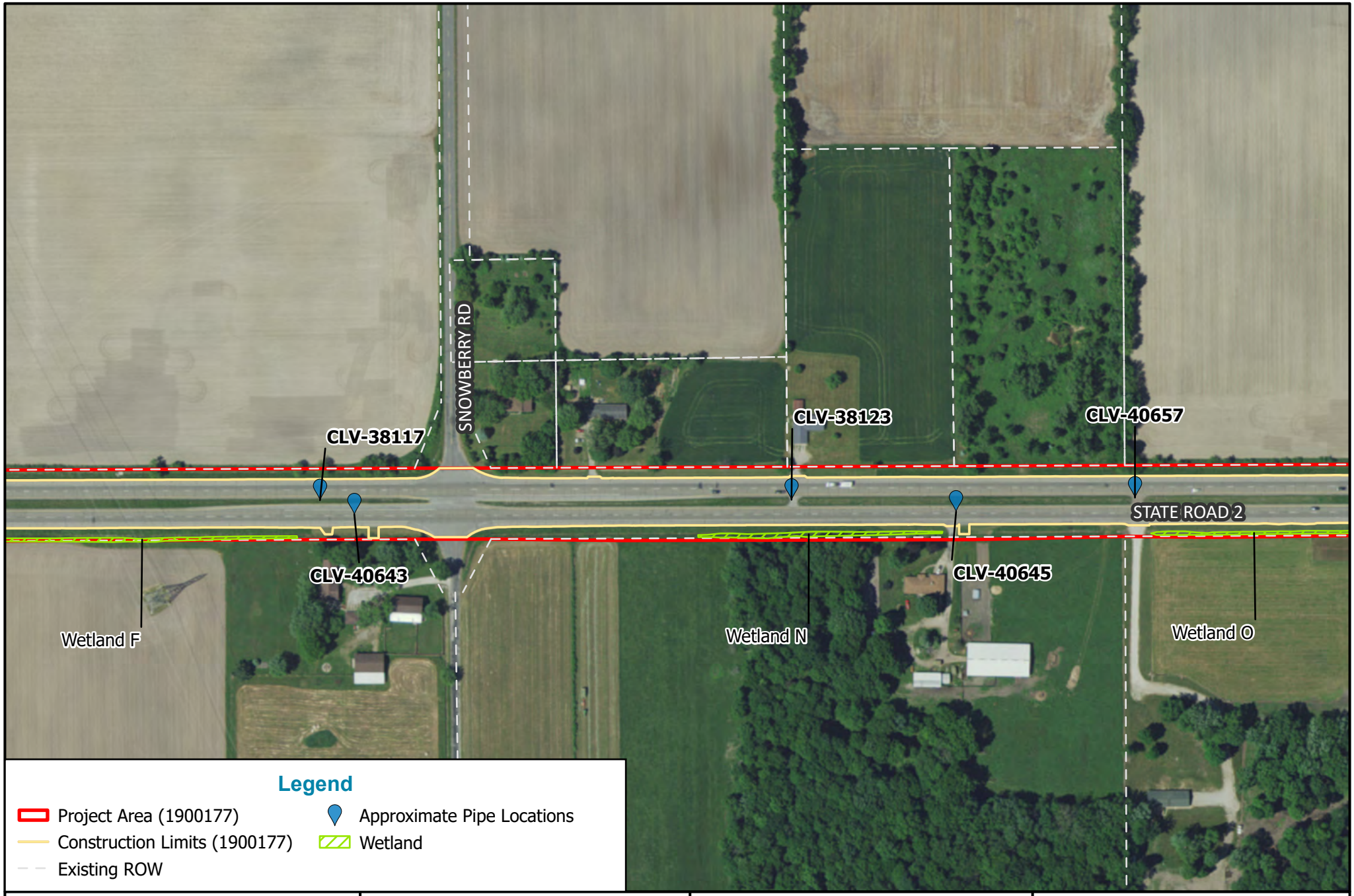
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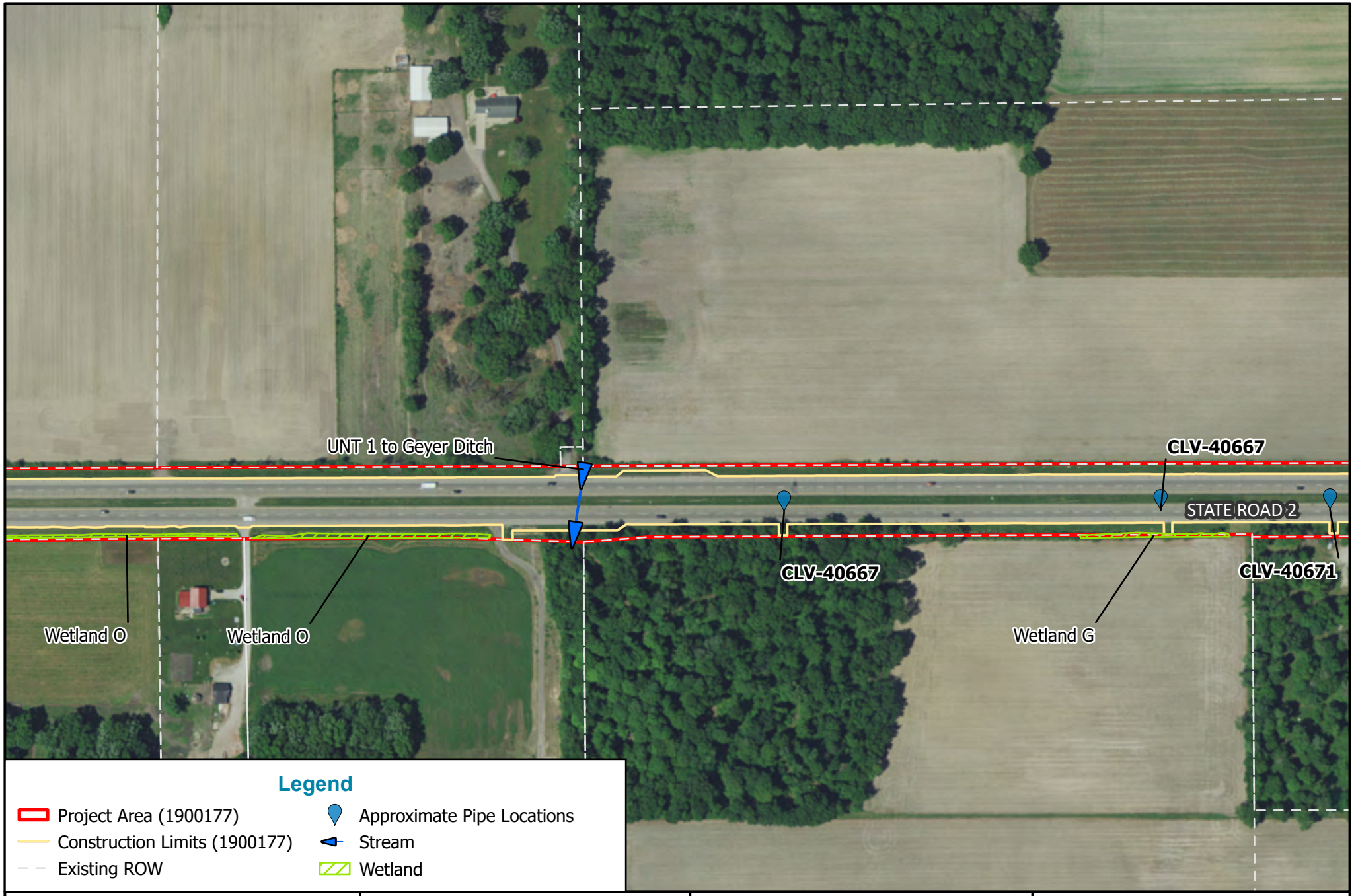
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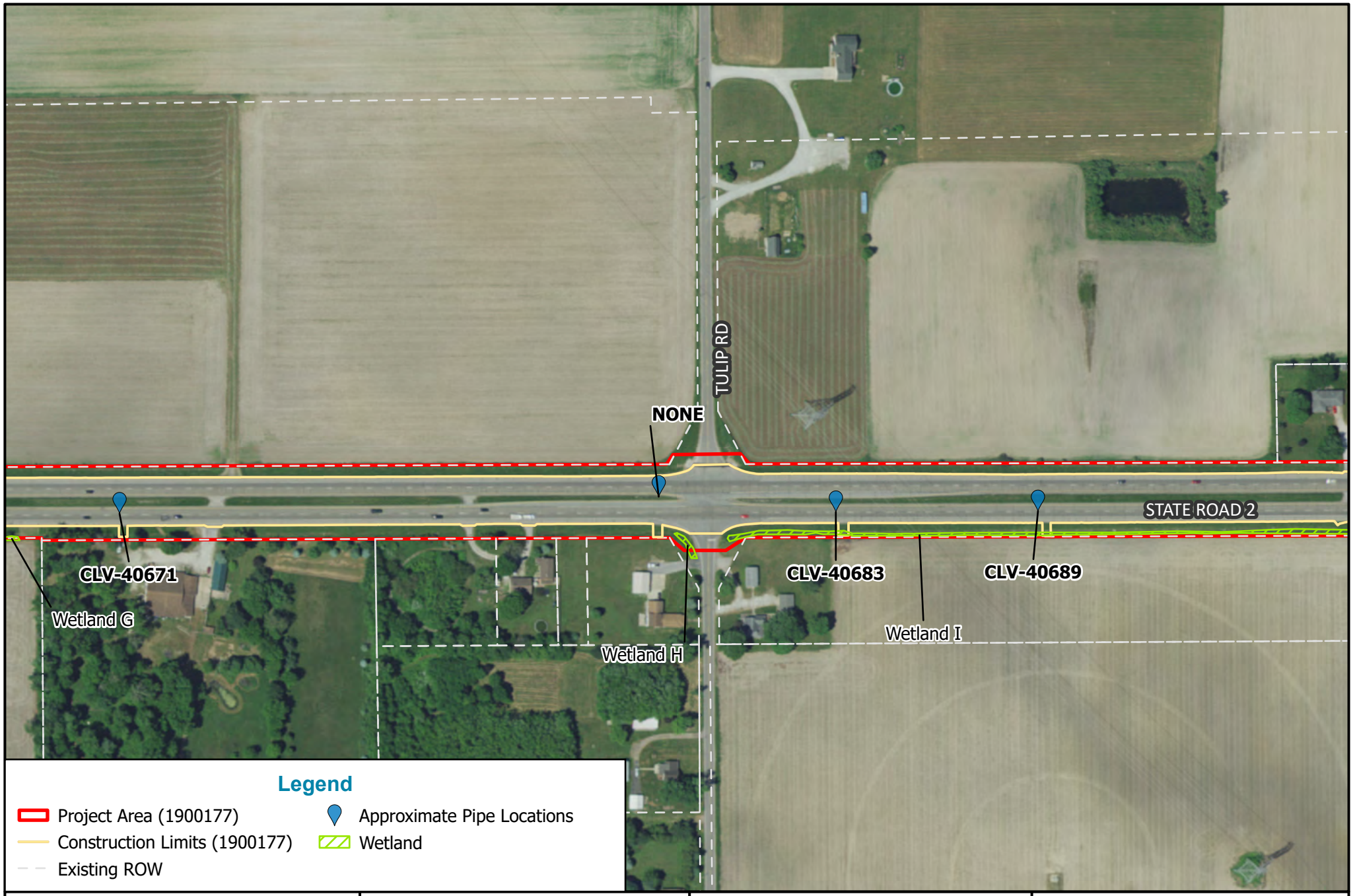
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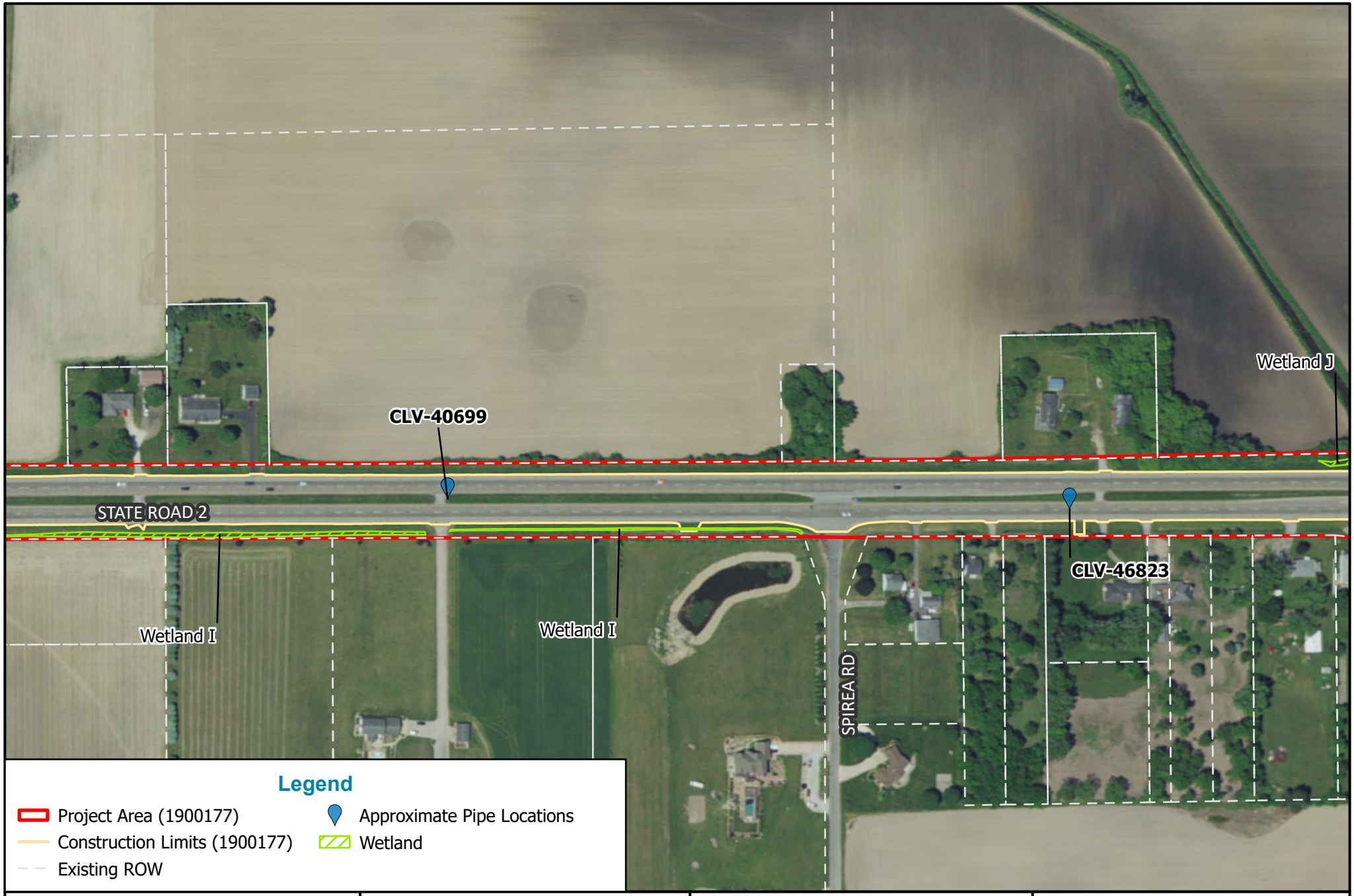
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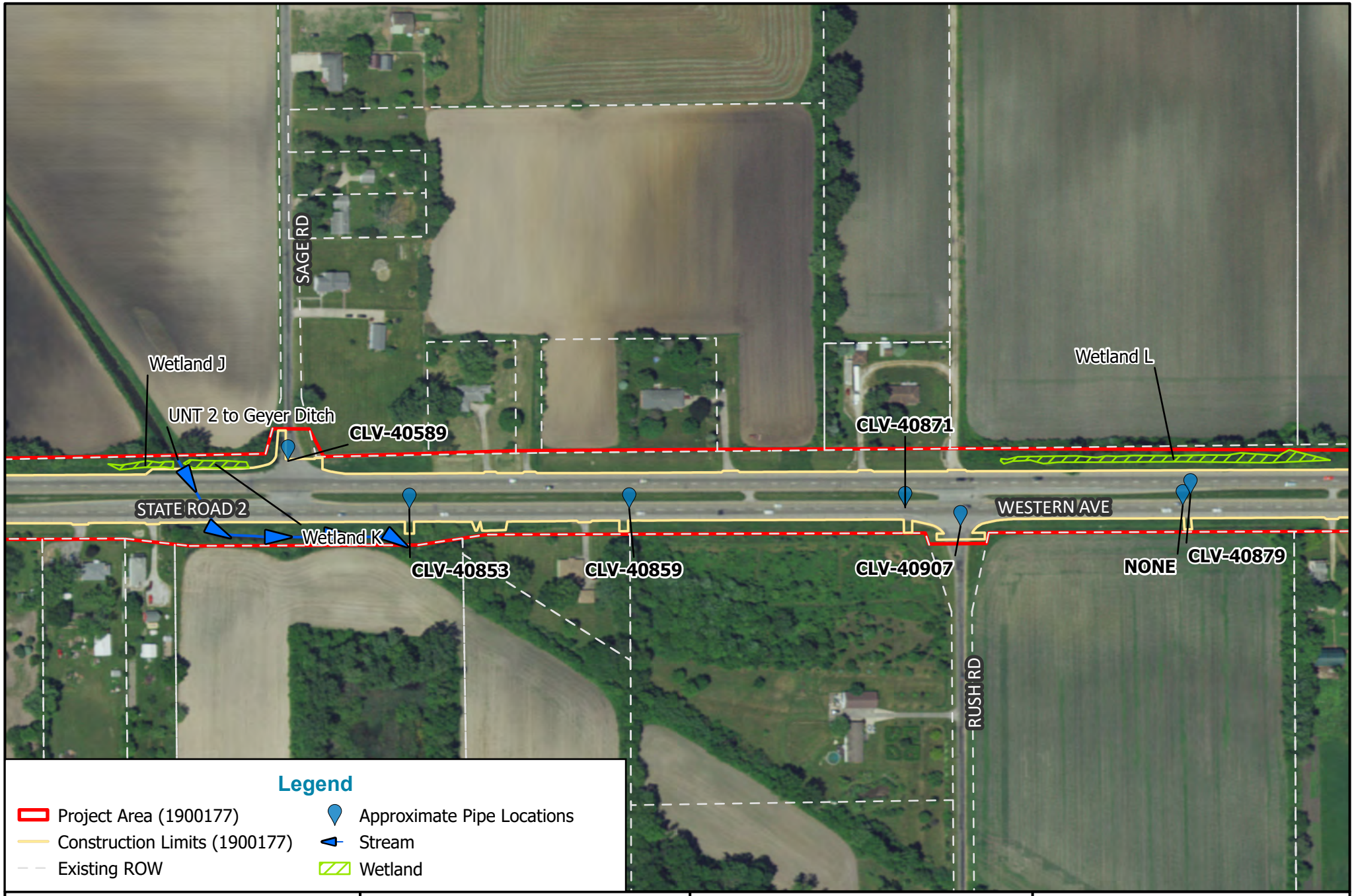
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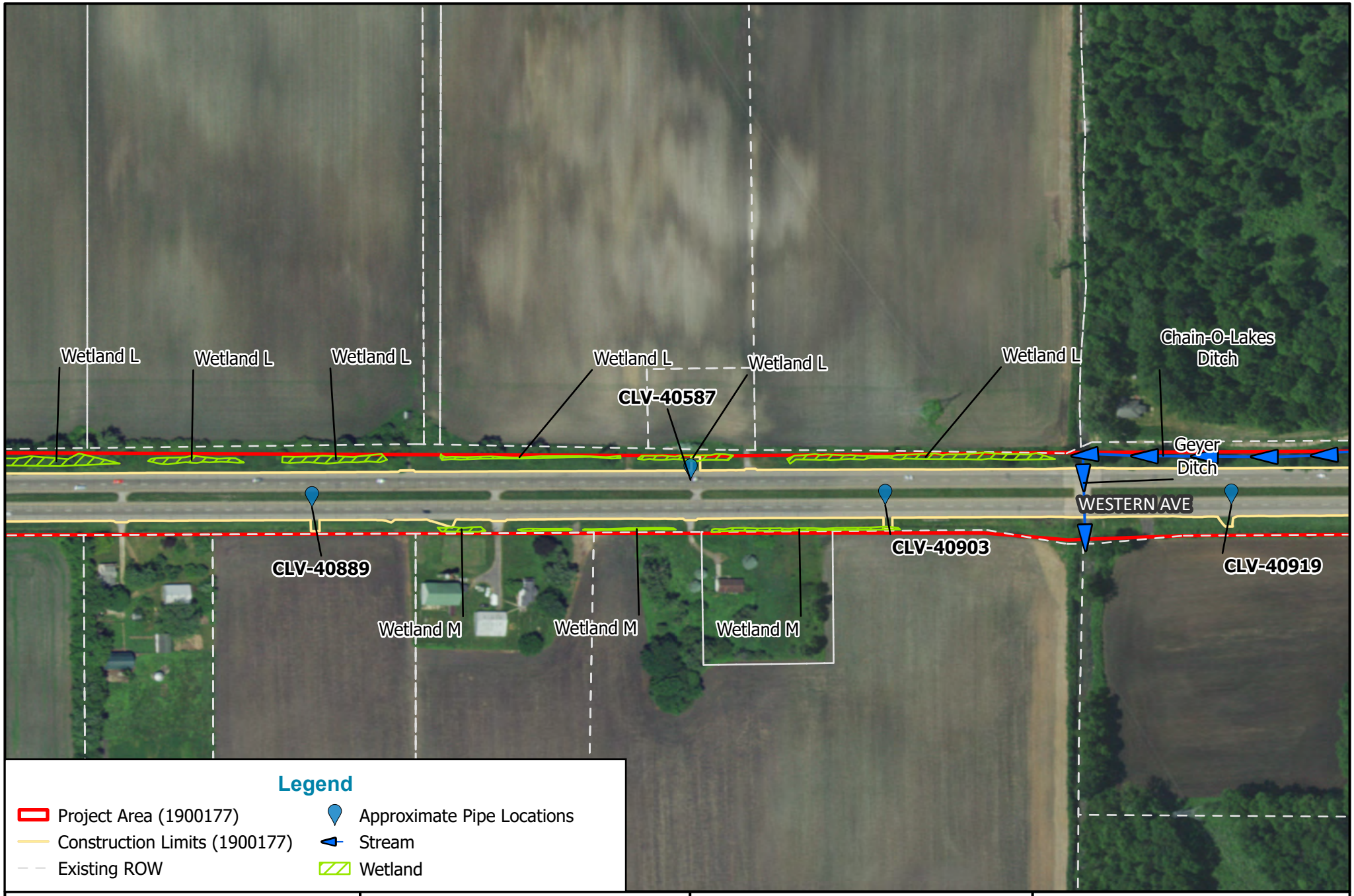
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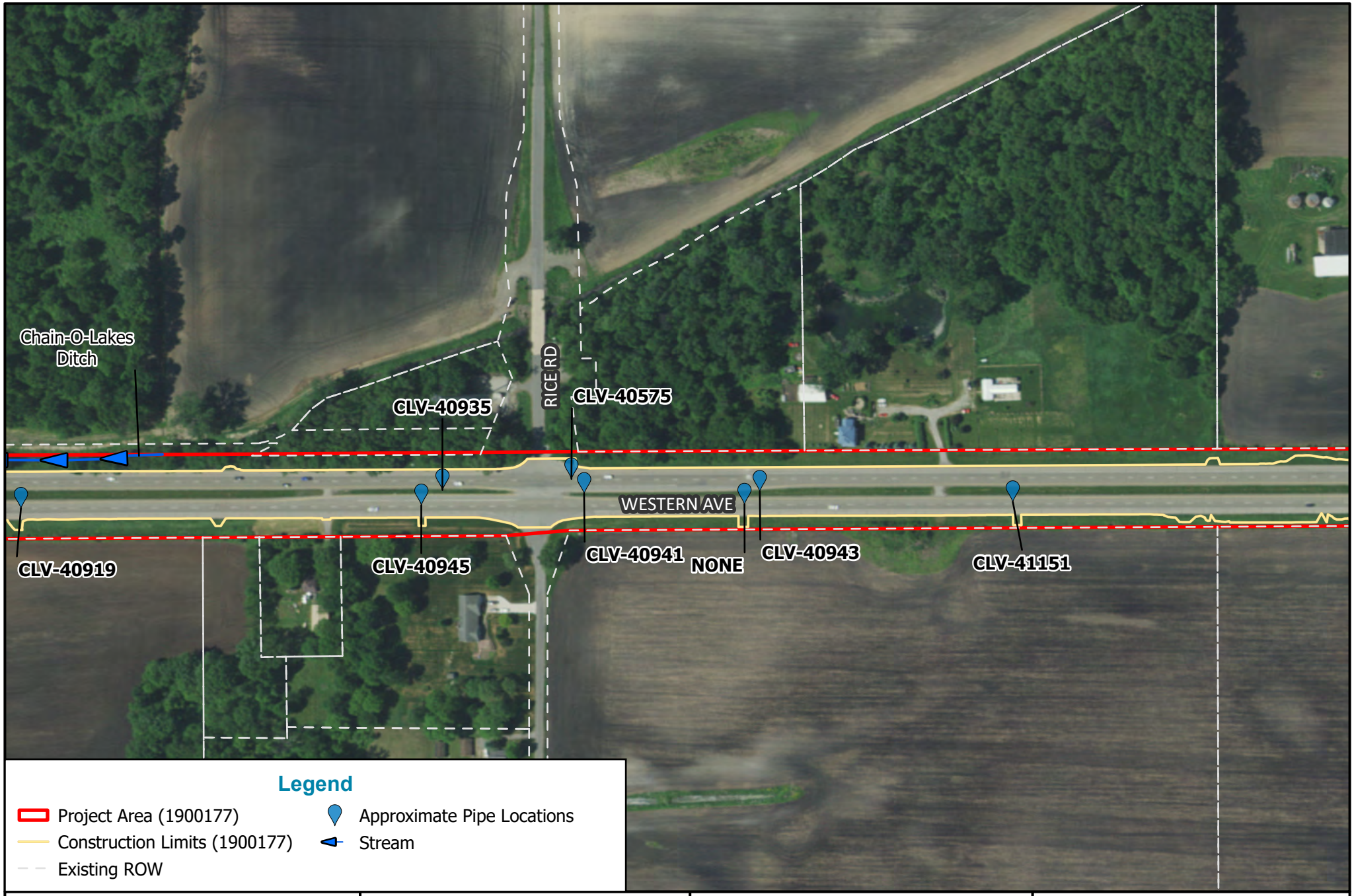
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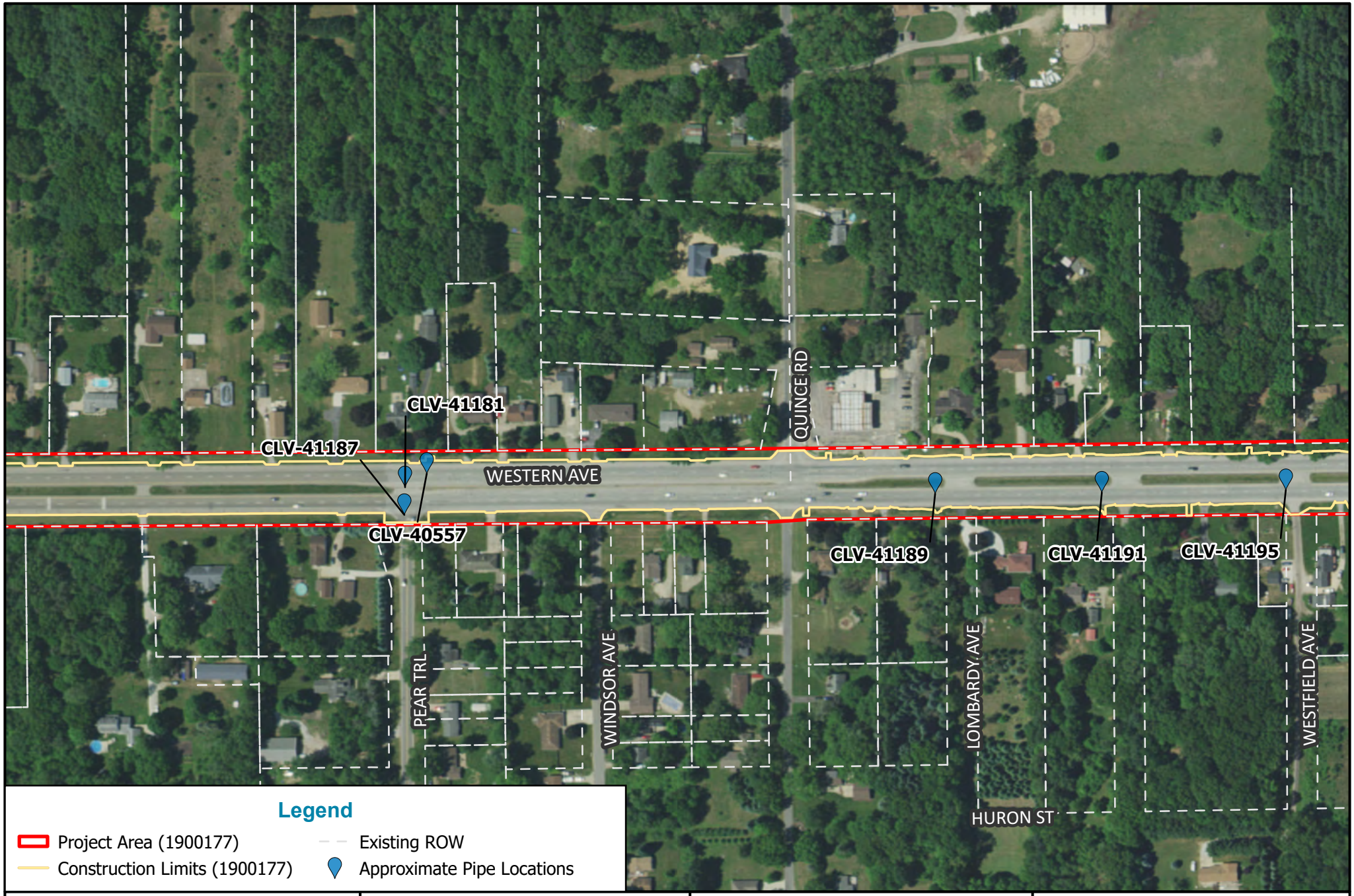
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HMA Overlay Project
Created: 7/5/2023, CHoogewerf

Aerial Source: 2020 Indiana NAIP



Legend

- Project Area (1900177)
- Construction Limits (1900177)
- Existing ROW
- Approximate Pipe Locations

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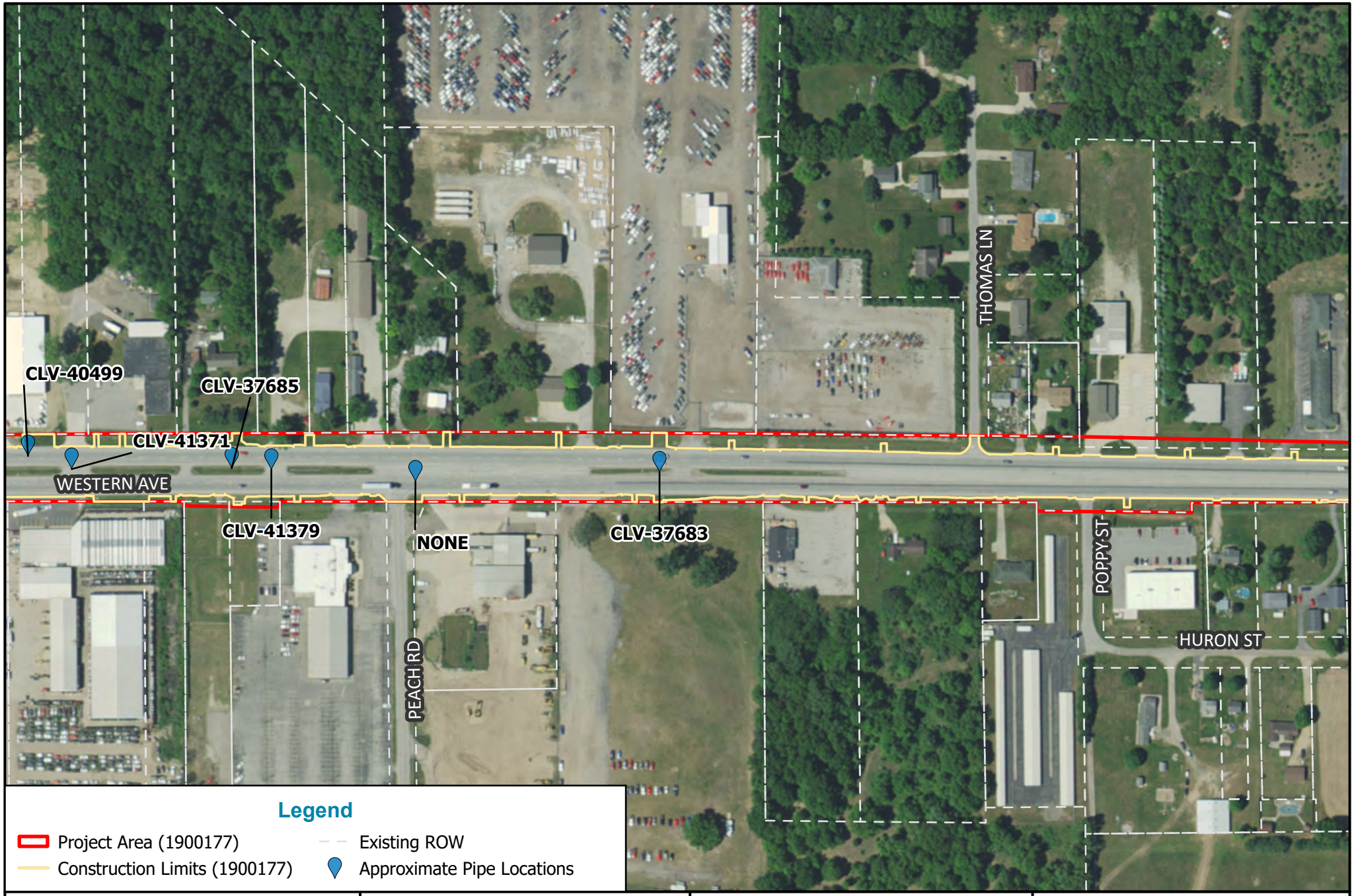
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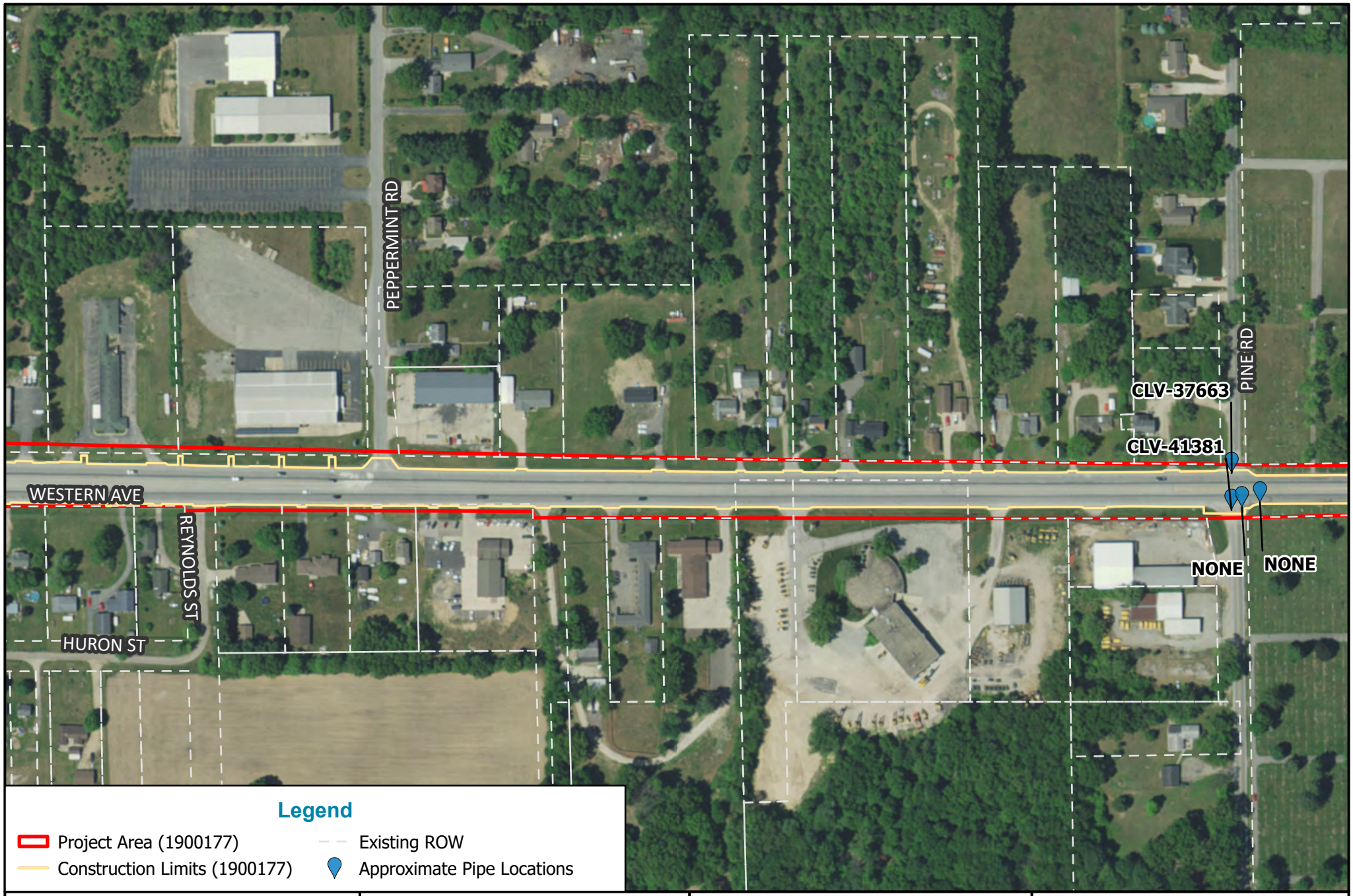
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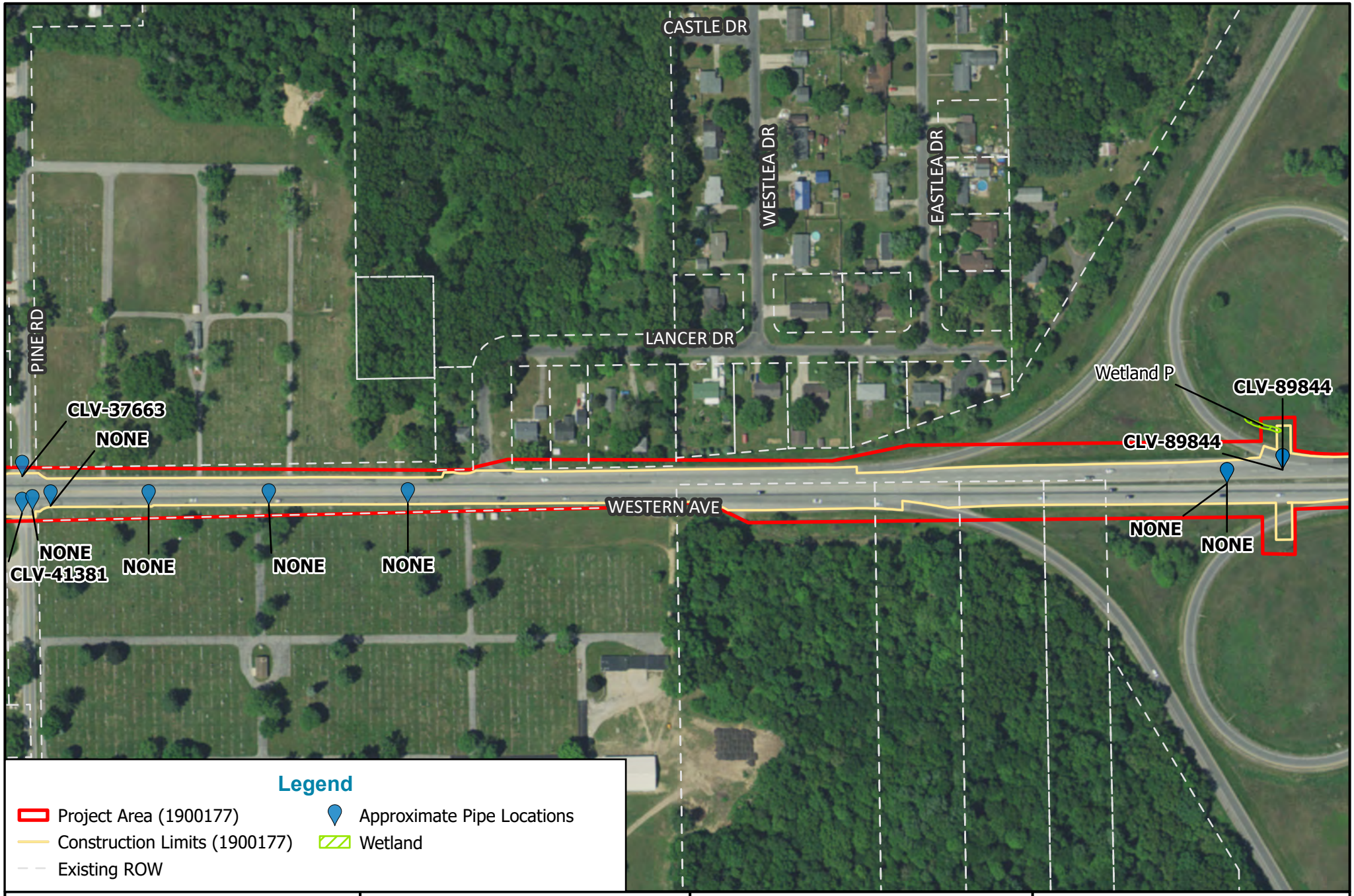
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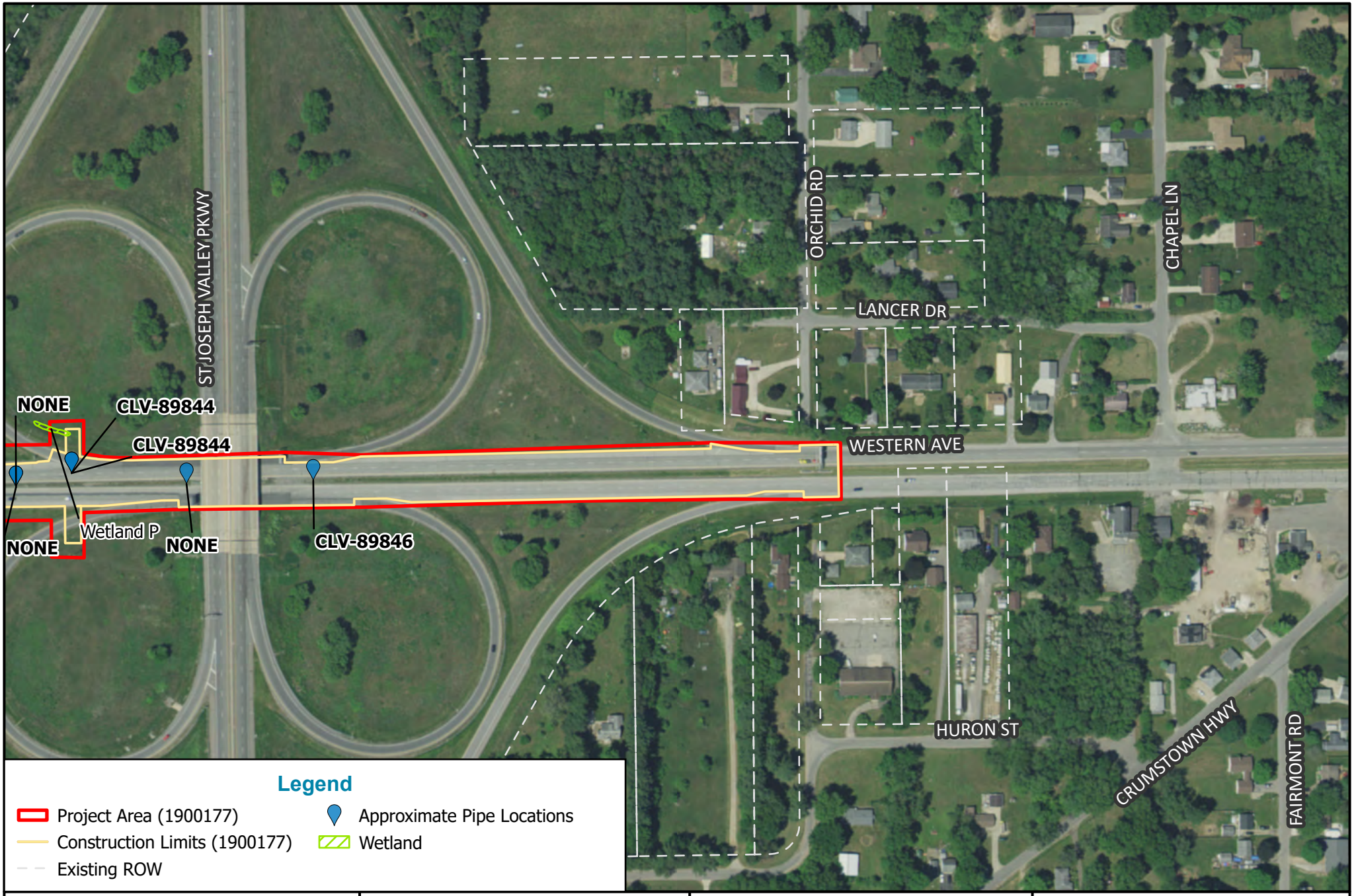
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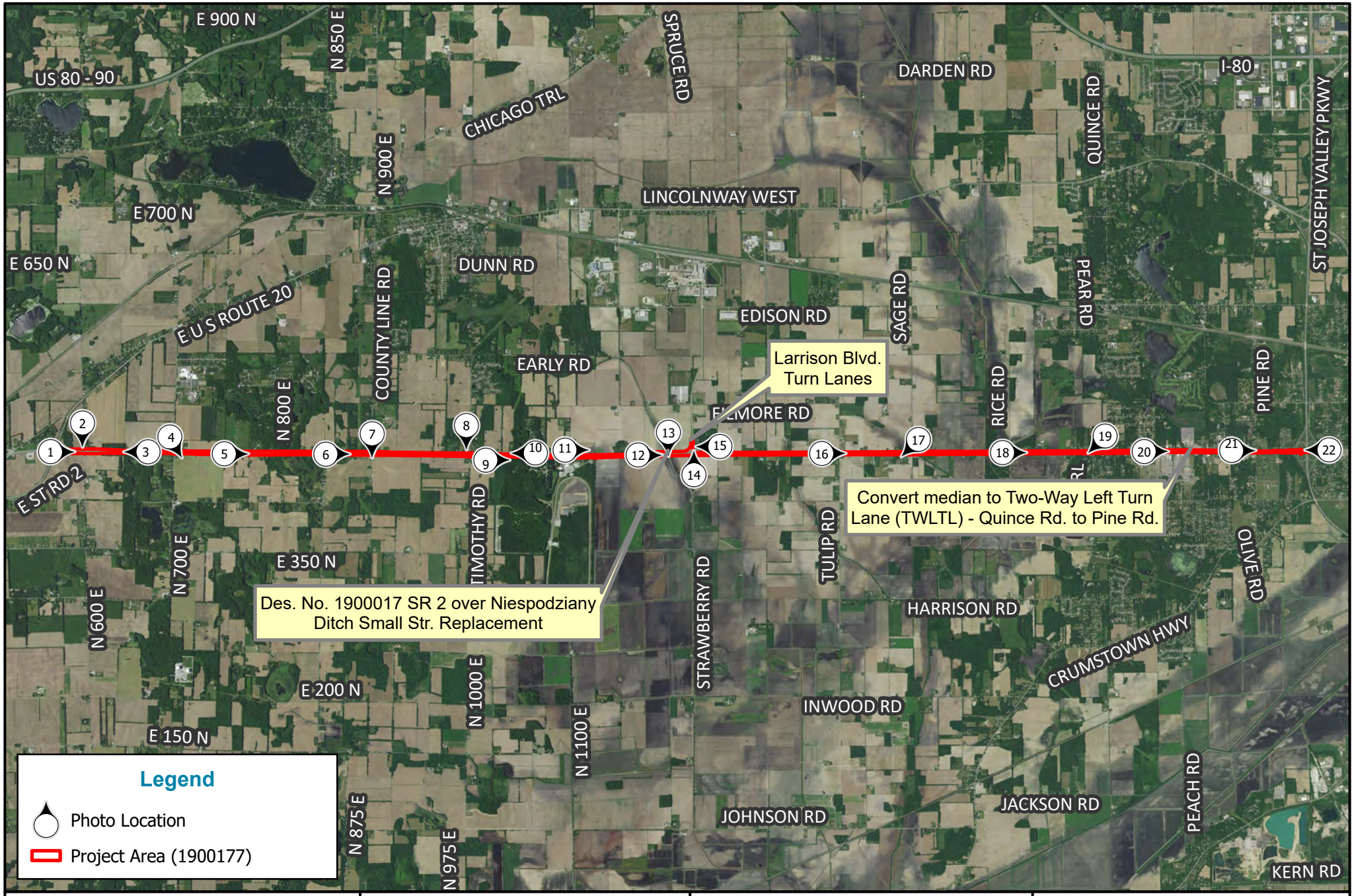
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Photo Location Map

Des. No. 1900177

0 0.75 1.5 Miles

N

County: St. Joseph and LaPorte
Township: Wills, Olive, Warren, Portage
State: Indiana

SR 2 from US 20 to US 20/31
HMA Overlay Project
Created: 7/25/2023, CHoogewerf

Aerial Source: 2020 Indiana NAIP



1. Looking east within median of SR 2 near western project terminus



2. Looking south at CR N 600 E and SR 2 intersection



3. Looking west within SR 2 median



4. Looking southeast at Cougar Road and SR 2 intersection



5. Looking east along south side of SR 2



6. Looking east along south side of SR 2



7. Looking south at County Line Road (CR N 900 E) and SR 2 intersection



8. Looking south at Timothy Road and SR 2 intersection



9. Looking east along south side of SR 2



10. Looking west within median of SR 2



11. Looking east along south side of SR 2



12. Looking east within median of SR 2



13. Looking south (downstream) at culvert conveying Niespodziany Ditch (Des. No. 1900017)



14. Looking north at Larrison Boulevard and SR 2 intersection



15. Looking east across Larrison Boulevard toward proposed turn lane area



16. Looking east within SR 2 median crossover



17. Looking southwest at Sage Road and SR 2 intersection



18. Looking east within SR 2 median



19. Looking southwest at Quince Road and SR 2 intersection



20. Looking east within SR 2 median



21. Looking east along cemetery on north side of SR 2



22. Looking west along SR 2 median from eastern project terminus

PROJECT	DESIGNATION
1900177	1900177
CONTRACT	BRIDGE FILE
R-42444	N/A

INDIANA DEPARTMENT OF TRANSPORTATION

ROAD PLANS

ROUTE: SR 2 FROM: RP 68+18 TO: RP 81+20

PROJECT NO. 1900177 P.E.

1900177 CONST.

KIN PROJECT INFORMATION	
DESIGNATION	PROJECT DESCRIPTION
1900177	SR 2 MILL AND RESURFACE
1900017	SR 2 OVER NIESPODZIANY DITCH

ADDITIONAL RIGHT-OF-WAY NOT REQUIRED FOR THIS PROJECT

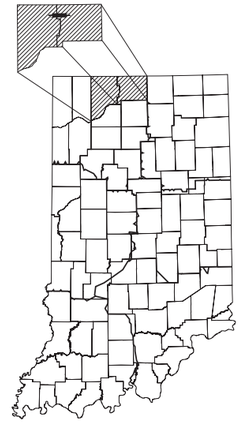
STAGE 3 SUBMISSION
6/23/2023

Project Description:
Preventative Maintenance on SR 2 from US 20 to US 20/US 31
located in Sections 7, 8, 9, 10, 11, 12, 7, 8, 9, 10, 11, 12, and 7, T37N, R1W, R2W, R3W, R1E, and R2E
Wills, Olive, Warren and Portage Townships, LaPorte and St. Joseph County, Indiana

Vicinity Map
LaPorte County and St. Joseph County

Scale: 1" = 7,000'

TRAFFIC DATA		TRAFFIC DATA	
STA. 49+00 TO STA. 602+00		STA. 602+00 TO STA. 730+00	
A.A.D.T. (2024)	22,244 V.P.D.	A.A.D.T. (2024)	22,244 V.P.D.
A.A.D.T. (2044)	23,192 V.P.D.	A.A.D.T. (2044)	23,192 V.P.D.
D.H.V (2044)	9.25 %	D.H.V (2044)	9.25 %
DIRECTIONAL DISTRIBUTION	50.98 %	DIRECTIONAL DISTRIBUTION	50.98 %
TRUCKS	17.46% A.A.D.T.	TRUCKS	17.46% A.A.D.T.
	12.41% DHV		12.41% DHV
DESIGN DATA		**DESIGN DATA**	
DESIGN SPEED	60 M.P.H.	DESIGN SPEED	45 M.P.H.
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)	PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	PRINCIPAL ARTERIAL	FUNCTIONAL CLASSIFICATION	PRINCIPAL ARTERIAL
RURAL/URBAN	RURAL	RURAL/URBAN	URBAN (SUBURBAN)
TERRAIN	LEVEL	TERRAIN	LEVEL
ACCESS CONTROL	PARTIAL	ACCESS CONTROL	PARTIAL



PROJECT LOCATION SHOWN BY
(LaPorte County and St. Joseph County)

HUC: 07120001010080, 07120001010090, 07120001010070,
07120001010060, 07120001010050, 07120001010010

BOP LATITUDE: 41°40'22" N	BOP LONGITUDE: 86°35'20" W
EOP LATITUDE: 41°40'18" N	EOP LONGITUDE: 86°20'27" W

BRIDGE LENGTH:	N/A	MI.
ROADWAY LENGTH:	12.77	MI.
TOTAL LENGTH:	12.77	MI.
MAX. GRADE:	Existing	%

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2024
TO BE USED WITH THESE PLANS

LOCHMUELLER GROUP
112 W. Jefferson Blvd., Suite 500
South Bend, Indiana 46601
PHONE: 574.334.5460
TOLL FREE: 800.423.7411

PLANS PREPARED BY: Lochmueller Group, Inc. (574) 334-5460 PHONE NUMBER

CERTIFIED BY: _____ DATE

APPROVED FOR LETTING: _____ INDIANA DEPARTMENT OF TRANSPORTATION DATE

BRIDGE FILE	
N/A	
DESIGNATION	
1900177	
SURVEY BOOK	SHEET
ELECTRONIC	1 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:02pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\PRJ-PH\CAD\PlanSet\Sht_RD_ Title.dwg

UTILITIES

COMMUNICATIONS:

AT&T - DISTRIBUTION
RICH SCHULTE
574-532-5241
RS2763@ATT.COM

CABLE:

COMCAST
THOMAS MUNER
THOMAS_MUNER@COMCAST.COM

FIBER OPTICS:

BRIGHT SPEED
MELISSA TEAGUE
765-656-4663
MELISSA.TEAGUE@BRIGHTSPEED.COM

CHOICE LIGHT INC,
BRANDON LIGGETT
574-968-5342
BLIGGETT@CHOICELIGHT.ORG
130 S. MAIN ST., STE 275
SOUTH BEND, IN

RVP FIBER
RYAN MIEDEMA
RJMIEDMA@USSIGNAL.COM

GAS

NIPSCO GAS
JONATHAN ERDAHLE
JONATHANERDAHLE@NISOURCE.COM

ELECTRIC:

AMERICAN ELECTRIC POWER DISTRIBUTION
JOSHUA ADAMS
614-933-2297
JDADAMS@AEP.COM

AMERICAN ELECTRIC POWER TRANSMISSION
JOSHUA ADAMS
614-933-2297
JDADAMS@AEP.COM

NIPSCO ELECTRIC
DEAN GARRETT
219-647-6260
DAGARRETT@NISOURCE.COM

PIPELINE:

BUCKEYE PIPELINE
SHAWN VAILLANCOURT
304-695-9841
SVAILLANCOURT@BUCKEYE.COM

811
Know what's below.
Call before you dig.

GENERAL NOTES

- Locations and stationing are provided for information only. All widths and distances shall be field verified by the contractor. Alignment data will not be provided in electronic format.
- The layout and limits of the proposed permanent pavement markings shall match those of existing pavement markings. The Contractor shall document the layout and limits of the existing pavement markings before performing any pavement patching or asphalt milling operations and provide a copy of the documentation to the Project Engineer.
- HMA pavements shall have joint adhesive applied per standard specification 401.15. A 24" wide liquid asphalt sealant shall be placed centered on all longitudinal joints that have joint adhesive installed as per standard specification 401.15.
- Existing Transverse Markings shall be removed as determined by the Project Engineer and removal shall be included in the cost of the new transverse markings.
- Drainage structures and various manholes are present in the project limits and shall not be disturbed, except as shown in the plans.
- Temporary Inlet Protection required at all curb inlets.
- After the milling operation is complete, crack sealing of cracks greater than or equal to ¼" wide shall be done. Crack fill and seal operations should use PG 64-22 liquid asphalt.
- Install ½" expansion joint filler between sidewalks and all existing retailing walls, flower bed pavers, drainage castings, back of curbs, building foundations and wall, etc. Contractor shall take into consideration the expansion joint filler in all dimensions.

INDEX

SHEET NO.	DRAWINGS INDEX
1	TITLE SHEET
2	INDEX AND GENERAL NOTES
3 - 9	TYPICAL SECTIONS
10 - 113	MAINTENANCE OF TRAFFIC
114 - 169	PLAN & PROFILE
170 - 171	SPOT ELEVATIONS
172	CONSTRUCTION DETAILS
173 - 183	STRUCTURE DETAILS
184 - 211	PAVEMENT MARKINGS
212 - 242	EROSION CONTROL DETAILS
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246 - 252	APPROACH TABLES
253 - 259	MISCELLANEOUS TABLES
260 - 321	CROSS SECTIONS

Removed to reduce file size

PROJECT CONTROL POINTS

POINT NO.	NORTHING	EASTING	STATION	OFFSET	ELEVATION	DESCRIPTION
1395	399927.629	709506.550	50+43.92	73.60' Lt.	825.98	Set ¾" Rebar Ref. Cap Flush
1396	399855.588	712911.187	84+49.27	54.57' Lt.	814.82	Set ¾" Rebar Ref. Cap Flush
1397	399782.828	717227.645	127+66.20	57+49' Lt.	831.02	Set ¾" Rebar Ref. Cap Flush
1398	399751.572	719766.312	153+05.54	53+08' Lt.	799.83	Set ¾" Rebar Ref. Cap Flush
1399	399895.966	725572.851	211+11.94	68.72' Lt.	818.04	Set ¾" Rebar Ref. Cap Flush
1400	399595.848	731042.353	265+81.76	96.21' Lt.	851.25	Set Scribed X on Conc. Billboard Base
1401	399316.982	736345.279	318+89.14	59.52' Rt.	746.32	Set ¾" Rebar Ref. Cap Flush
1402	399387.123	741748.043	372+91.03	47.49'Rt.	730.71	Fnd. SJC Rebar Cap Flush
1403	399526.582	743174.440	387+18.37	80.45' Lt.	730.48	Set ¾" Rebar Ref. Cap Flush
1404	399324.652	750933.555	464+77.59	95.78' Rt.	722.98	Set Mag Ref Washer
1405	399335.076	756250.900	517+94.85	65.34' Rt.	717.17	Set Mag Ref Washer Recessed
1406	399334.734	758960.070	545+04.01	55.48' Rt.	712.31	Set ¾" Rebar Ref. Cap Flush

REVISIONS

SHEET NO.	DATE	REVISED

Date: Jun 25, 2023, 11:03pm User Name: Sara Munsie
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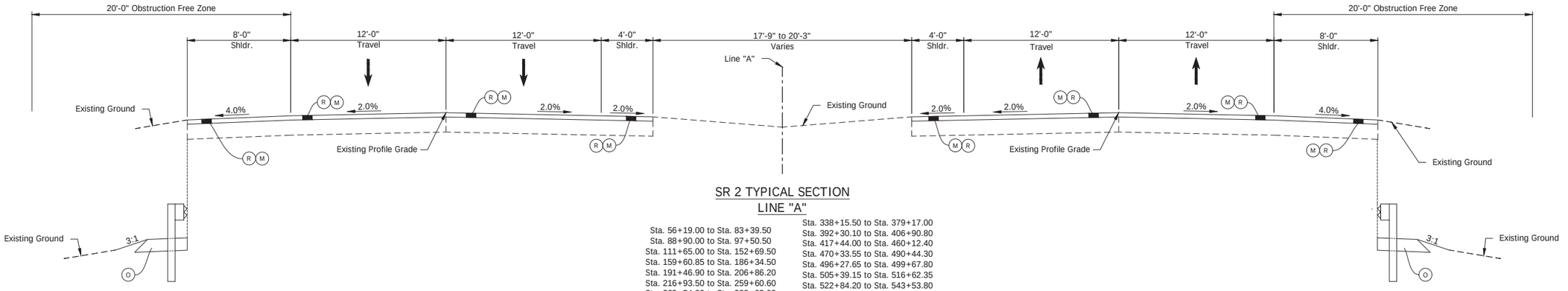
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

INDEX AND GENERAL NOTES

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	2 of 321
CONTRACT	PROJECT
R-42444	1900177

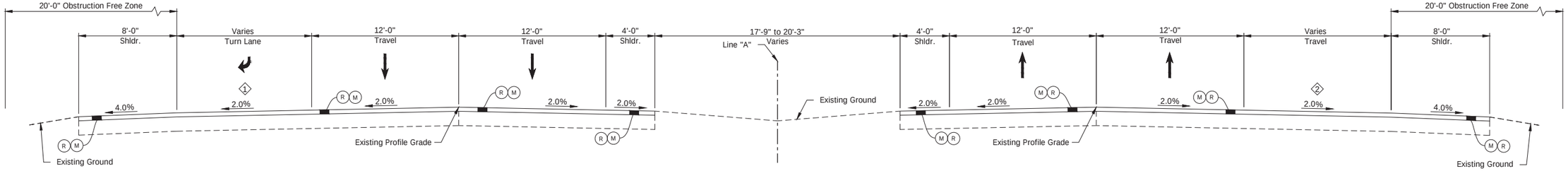


SR 2 TYPICAL SECTION
LINE "A"

Sta. 75+97.71 to Sta. 81+41.46
Sta. 94+66.15 to Sta. 97+16.15
Sta. 135+14.23 to Sta. 138+51.73
Sta. 146+04.25 to Sta. 148+48.00
Sta. 159+60.85 to Sta. 163+53.86
Sta. 200+86.98 to Sta. 206+74.48
Sta. 301+15.13 to Sta. 304+15.13
Sta. 332+00.00 to Sta. 332+17.50
Sta. 439+43.53 to Sta. 441+06.03

Sta. 56+19.00 to Sta. 83+39.50
Sta. 88+90.00 to Sta. 97+50.50
Sta. 111+65.00 to Sta. 152+69.50
Sta. 159+60.85 to Sta. 186+34.50
Sta. 191+46.90 to Sta. 206+86.20
Sta. 216+93.50 to Sta. 259+60.60
Sta. 269+54.00 to Sta. 288+93.00
Sta. 295+07.00 to Sta. 313+20.20
Sta. 319+88.50 to Sta. 332+17.50
Sta. 338+15.50 to Sta. 379+17.00
Sta. 392+30.10 to Sta. 406+90.80
Sta. 417+44.00 to Sta. 460+12.40
Sta. 470+33.55 to Sta. 490+44.30
Sta. 496+27.65 to Sta. 499+67.80
Sta. 505+39.15 to Sta. 516+62.35
Sta. 522+84.20 to Sta. 543+53.80
Sta. 544+29.75 to Sta. 552+11.00
Sta. 562+28.60 to Sta. 601+92.00
Sta. 708+08.40 to Sta. 717+91.00

Sta. 56+19.37 to Sta. 64+13.12
Sta. 88+90.00 to Sta. 90+27.00
Sta. 92+11.86 to Sta. 95+30.61
Sta. 110+71.90 to Sta. 119+45.00
Sta. 119+92.00 to Sta. 124+23.25
Sta. 163+92.82 to Sta. 172+30.32
Sta. 178+92.61 to Sta. 185+73.86
Sta. 191+46.90 to Sta. 192+74.00
Sta. 196+06.45 to Sta. 204+75.20
Sta. 269+54.00 to Sta. 273+35.99
Sta. 298+45.76 to Sta. 301+52.01
Sta. 332+17.50 to Sta. 329+72.89
Sta. 437+25.00 to Sta. 439+32.25



SR 2 TYPICAL SECTION
LINE "A"

Sta. 49+00.00 to Sta. 56+19.00

1
Turn Lane Width Varies
11'-0" Sta. 49+00.00 to Sta. 54+10.00
11'-0" Sta. 54+10.00 to 0'-0" Sta. 54+95.00
0'-0" Sta. 54+95.00 to Sta. 56+19.00

2
Travel Lane Width Varies
12'-0" Sta. 49+00.00 to Sta. 55+50.00
12'-0" Sta. 55+50 to 0'-0" Sta. 56+19.00

LEGEND:

- (M) Milling, Asphalt, 4 in. minimum
- (O) Compacted Aggregate, No. 53
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

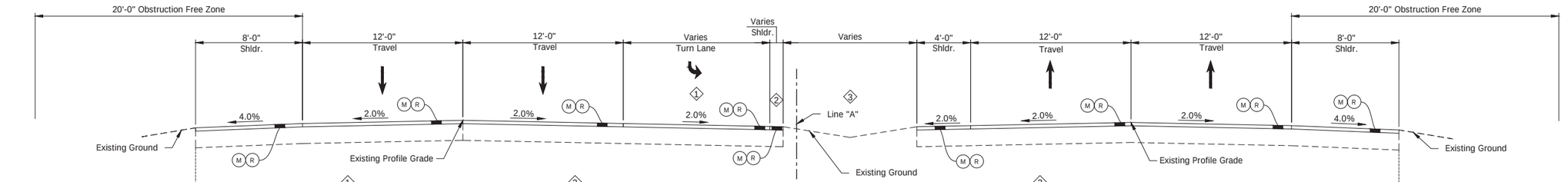
DESIGNED: SFM DRAWN: SFM
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	3 of 321
CONTRACT	PROJECT
R-42444	1900177

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Sta. 332+17.50 to Sta. 335+25.00

Sta. 85+27.00 to Sta. 88+90.00
Sta. 188+49.00 to Sta. 191+49.90
Sta. 265+73.49 to Sta. 269+54.00
Sta. 1332+54.14 to Sta. 332+17.50

Turn Width Varies

0' Sta. 83+39.50 to 11'-0" Sta. 84+43.60
11'-0" Sta. 84+43.60 to Sta. 87+61.60
11'-0" Sta. 87+61.60 to 0' Sta. 88+90.00
0' Sta. 186+34.50 to 11'-0" Sta. 187+13.80
11'-0" Sta. 187+13.80 to Sta. 190+19.70
11'-0" Sta. 190+19.70 to 0' Sta. 191+46.90
11'-0" Sta. 211+97.00 to Sta. 215+10.40
11'-0" Sta. 215+10.40 to 0' Sta. 216+93.50
11'-0" Sta. 264+97.00 to Sta. 268+39.00
11'-0" Sta. 268+39.00 to 0' Sta. 269+54.00
0' Sta. 313+20.20 to 11'-0" Sta. 313+80.50
11'-0" Sta. 313+80.50 to Sta. 314+92.50
0' Sta. 332+17.5 to 11'-0" Sta. 333+44.55
11'-0" Sta. 333+44.55 to Sta. 336+33.40
11'-0" Sta. 336+33.40 to 0' Sta. 338+15.50
11'-0" Sta. 412+24.00 to Sta. 415+79.50
11'-0" Sta. 415+79.50 to 0' Sta. 417+44.00
11'-0" Sta. 465+03.60 to Sta. 468+66.50
11'-0" Sta. 468+66.50 to 0' Sta. 470+33.55
0' Sta. 490+44.30 to 11'-0" Sta. 490+94.73
11'-0" Sta. 490+94.73 to Sta. 494+54.40
11'-0" Sta. 494+54.40 to 0' Sta. 496+27.65
0' Sta. 516+62.35 to 11'-0" Sta. 517+27.15
11'-0" Sta. 517+27.15 to Sta. 520+81.50
11'-0" Sta. 520+81.50 to 0' Sta. 522+84.20
11'-0" Sta. 557+04.60 to Sta. 560+30.15
11'-0" Sta. 560+30.15 to 0' Sta. 562+28.60

Shoulder Width Varies

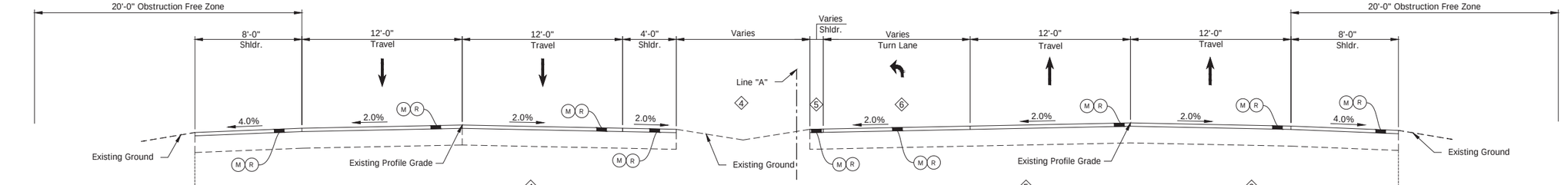
4'-0" Sta. 83+39.50 to 1'-0" Sta. 84+43.60
1'-0" Sta. 84+43.60 to Sta. 87+61.60
1'-0" Sta. 87+61.60 to 4'-0" Sta. 88+90.00
4'-0" Sta. 186+34.50 to 1'-0" Sta. 187+13.80
1'-0" Sta. 187+13.80 to Sta. 190+19.70
1'-0" Sta. 190+19.70 to 4'-0" Sta. 191+46.90
1'-0" Sta. 211+97.00 to Sta. 215+10.40
1'-0" Sta. 215+10.40 to 4'-0" Sta. 216+93.50
1'-0" Sta. 264+97.00 to Sta. 268+39.00
1'-0" Sta. 268+39.00 to 4'-0" Sta. 269+54.00
4'-0" Sta. 313+20.20 to 1'-0" Sta. 313+80.50
1'-0" Sta. 313+80.50 to Sta. 314+92.50
4'-0" Sta. 332+17.50 to 1'-0" Sta. 333+44.55
1'-0" Sta. 333+44.55 to Sta. 336+33.40
1'-0" Sta. 336+33.40 to 4'-0" Sta. 338+15.50
1'-0" Sta. 412+24.00 to Sta. 415+79.50
1'-0" Sta. 415+79.50 to 4'-0" Sta. 417+44.00
1'-0" Sta. 465+03.60 to Sta. 468+66.50
1'-0" Sta. 468+66.50 to 4'-0" Sta. 470+33.55
4'-0" Sta. 490+44.30 to 1'-0" Sta. 490+94.73
1'-0" Sta. 490+94.73 to Sta. 494+54.40
1'-0" Sta. 494+54.40 to 4'-0" Sta. 496+27.65
4'-0" Sta. 516+62.35 to 1'-0" Sta. 517+27.15
1'-0" Sta. 517+27.15 to Sta. 520+81.50
1'-0" Sta. 520+81.50 to 4'-0" Sta. 522+84.20
1'-0" Sta. 557+04.60 to Sta. 560+30.15
1'-0" Sta. 560+30.15 to 4'-0" Sta. 562+28.60

SR 2 TYPICAL SECTION LINE "A"

Sta. 83+39.50 to Sta. 88+90.00
Sta. 186+34.50 to Sta. 191+46.90
Sta. 211+97.00 to Sta. 216+93.50
Sta. 264+97.00 to Sta. 269+54.00
Sta. 313+20.20 to Sta. 314+92.50
Sta. 332+17.50 to Sta. 338+15.50
Sta. 412+24.00 to Sta. 417+44.00
Sta. 465+03.60 to Sta. 470+33.55
Sta. 490+44.30 to Sta. 496+27.65
Sta. 516+62.35 to Sta. 522+84.20
Sta. 557+04.60 to Sta. 562+28.60

Median Width Varies

20'-11" Sta. 83+39.50 to 12'-5" Sta. 84+43.60
12'-5" Sta. 84+43.60 to Sta. 87+61.60
12'-5" Sta. 87+61.60 to 20'-5" Sta. 88+90.00
19'-5" Sta. 186+34.50 to 11'-6" Sta. 187+13.80
11'-6" Sta. 187+13.80 to Sta. 190+19.70
11'-6" Sta. 190+19.70 to 20'-0" Sta. 191+46.90
9'-1" Sta. 211+97.00 to 11'-8" Sta. 212+33.58
11'-8" Sta. 212+33.58 to 20'-4" Sta. 216+93.50
10'-9" Sta. 264+97.00 to 13'-2" Sta. 265+41.00
13'-2" Sta. 265+41.00 to 20'-6" Sta. 269+54.00
17'-11" Sta. 313+20.20 to 0'-0" Sta. 313+20.20
0'-0" Sta. 313+20.20 to 7'-0" Sta. 314+92.50
20'-8" Sta. 332+17.50 to 13'-5" Sta. 333+44.55
13'-5" Sta. 333+44.55 to Sta. 336+33.40
13'-5" Sta. 336+33.40 to 19'-5" Sta. 338+15.50
6'-8" Sta. 412+24.00 to 12'-8" Sta. 412+65.40
12'-8" Sta. 412+65.40 to 19'-11" Sta. 417+44.00
8'-10" Sta. 465+03.60 to 12'-8" Sta. 465+57.65
12'-8" Sta. 465+57.65 to Sta. 470+33.55
20'-2" Sta. 490+44.30 to 12'-7" Sta. 490+94.73
12'-7" Sta. 490+94.73 to Sta. 494+54.40
12'-7" Sta. 494+54.40 to 19'-0" Sta. 496+27.65
19'-6" Sta. 516+62.35 to 11'-0" Sta. 517+27.15
11'-0" Sta. 517+27.15 to Sta. 520+81.50
11'-0" Sta. 520+81.50 to 19'-0" Sta. 522+84.20
6'-8" Sta. 557+04.60 to 12'-0" Sta. 557+50.00
12'-0" Sta. 557+50.00 to 19'-4" Sta. 562+28.60



Sta. 159+22.61 to Sta. 159+60.85
Sta. 501+73.29 to Sta. 503+73.29

Median Width Varies

18'-3" Sta. 97+50.50 to 6'-4" Sta. 98+45.62
6'-4" Sta. 98+45.62 to 5'-7" Sta. 104+10.50
20'-3" Sta. 153+69.50 to 12'-4" Sta. 155+63.80
12'-4" Sta. 155+63.80 to 0'-0" Sta. 158+27.65
0'-0" Sta. 158+27.65 to 20'-8" Sta. 159+60.85
20'-1" Sta. 206+86.20 to 12'-7" Sta. 208+50.90
12'-7" Sta. 208+50.90 to 0'-0" Sta. 211+97.00
20'-9" Sta. 288+93.00 to 13'-4" Sta. 290+61.90
13'-4" Sta. 290+61.90 to 0'-0" Sta. 294+20.15
0'-0" Sta. 294+20.15 to 20'-11" Sta. 295+07.00
10'-11" Sta. 316+68.60 to 0'-0" Sta. 318+74.10
0'-0" Sta. 318+74.10 to 19'-1" Sta. 319+88.50
16'-2" Sta. 379+17.00 to 12'-7" Sta. 380+94.15
12'-7" Sta. 380+94.15 to 0'-0" Sta. 385+90.00
20'-10" Sta. 406+90.80 to 13'-1" Sta. 408+52.90
13'-1" Sta. 408+52.90 to 0'-0" Sta. 412+24.00
19'-3" Sta. 460+12.40 to 12'-8" Sta. 461+62.20
12'-8" Sta. 461+62.20 to 0'-0" Sta. 465+03.60
18'-1" Sta. 499+67.80 to 12'-11" Sta. 501+23.25
12'-11" Sta. 501+23.25 to 0'-0" Sta. 504+11.25
0'-0" Sta. 504+11.25 to 20'-4" Sta. 505+39.15
17'-1" Sta. 552+11.00 to 12'-4" Sta. 553+39.55
12'-4" Sta. 553+39.55 to 0'-0" @Sta. 557+04.60

SR 2 TYPICAL SECTION LINE "A"

Sta. 97+50.50 to Sta. 104+77.80
Sta. 153+69.50 to Sta. 159+60.85
Sta. 206+86.20 to Sta. 211+97.00
Sta. 288+93.00 to Sta. 295+07.00
Sta. 316+68.60 to Sta. 319+88.50
Sta. 379+17.00 to Sta. 385+90.00
Sta. 406+90.80 to Sta. 412+24.00
Sta. 460+12.40 to Sta. 465+03.60
Sta. 499+67.80 to Sta. 505+39.15
Sta. 552+11.00 to Sta. 557+04.60

Shoulder Width Varies

4'-0" Sta. 97+50.50 to Sta. 104+10.50
4'-0" Sta. 153+69.50 to 1'-0" Sta. 155+63.80
1'-0" Sta. 155+63.80 to Sta. 158+27.65
1'-0" Sta. 158+27.65 to 4'-0" Sta. 159+60.85
4'-0" Sta. 206+86.20 to 1'-0" Sta. 208+50.90
1'-0" Sta. 208+50.90 to Sta. 211+97.00
4'-0" Sta. 288+93.00 to 1'-0" Sta. 290+61.90
1'-0" Sta. 290+61.90 to Sta. 294+20.15
1'-0" Sta. 294+20.15 to 4'-0" Sta. 295+07.00
1'-0" Sta. 316+68.60 to Sta. 318+74.10
1'-0" Sta. 318+74.10 to 4'-0" Sta. 319+88.50
4'-0" Sta. 379+17.00 to 1'-0" Sta. 380+94.15
1'-0" Sta. 380+94.15 to Sta. 385+90.00
4'-0" Sta. 406+90.80 to 1'-0" Sta. 408+52.90
1'-0" Sta. 408+52.90 to Sta. 412+24.00
4'-0" Sta. 460+12.40 to 1'-0" Sta. 461+62.20
1'-0" Sta. 461+62.20 to Sta. 465+03.60
4'-0" Sta. 499+67.80 to 1'-0" Sta. 501+23.25
1'-0" Sta. 501+23.25 to Sta. 504+11.25
1'-0" Sta. 504+11.25 to 4'-0" Sta. 505+39.15
4'-0" Sta. 552+11.00 to 1'-0" Sta. 553+39.55
1'-0" Sta. 553+39.55 to Sta. 557+04.60

Turn Width Varies

0'-0" Sta. 97+50.50 to 12'-0" Sta. 98+45.62
12'-0" Sta. 98+45.62 to Sta. 104+10.50
0'-0" Sta. 153+69.50 to 11'-0" Sta. 155+63.80
11'-0" Sta. 155+63.80 to Sta. 158+27.65
11'-0" Sta. 158+27.65 to 0'-0" Sta. 159+60.85
0'-0" Sta. 206+86.20 to 11'-0" Sta. 208+50.90
11'-0" Sta. 208+50.90 to Sta. 211+97.00
0'-0" Sta. 288+93.00 to 11'-0" Sta. 290+61.90
11'-0" Sta. 290+61.90 to Sta. 294+20.15
11'-0" Sta. 294+20.15 to 0'-0" Sta. 295+07.00
11'-0" Sta. 316+68.60 to Sta. 318+74.10
11'-0" Sta. 318+74.10 to 0'-0" Sta. 319+88.50
0'-0" Sta. 379+17.00 to 11'-0" Sta. 380+94.15
11'-0" Sta. 380+94.15 to Sta. 385+90.00
0'-0" Sta. 406+90.80 to 11'-0" Sta. 408+52.90
11'-0" Sta. 408+52.90 to Sta. 412+24.00
0'-0" Sta. 460+12.40 to 11'-0" Sta. 461+62.20
11'-0" Sta. 461+62.20 to Sta. 465+03.60
0'-0" Sta. 499+67.80 to 11'-0" Sta. 501+23.25
11'-0" Sta. 501+23.25 to Sta. 504+11.25
11'-0" Sta. 504+11.25 to 0'-0" Sta. 505+39.15
1'-0" Sta. 552+11.00 to 11'-0" Sta. 553+39.55
11'-0" Sta. 553+39.55 to Sta. 557+04.60

Sta. 155+93.27 to Sta. 159+60.85

LEGEND:

- (M) Milling, Asphalt, 4 in. minimum
- (O) Compacted Aggregate, No. 53
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM
CHECKED: WBF CHECKED: WBF

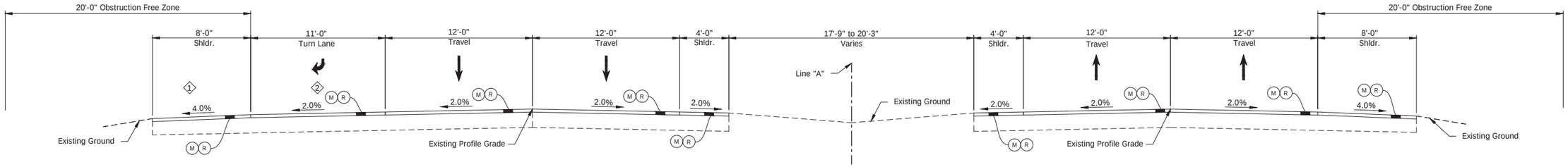
INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177

SURVEY BOOK	SHEET
ELECTRONIC	4 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:03pm User Name: Sara Munsie
File: K:\production\Files\2020\1120-3001\PRJ-04\CAD\PlanSet\SHL_RD_Typical.dwg - (Typical Sections (2))

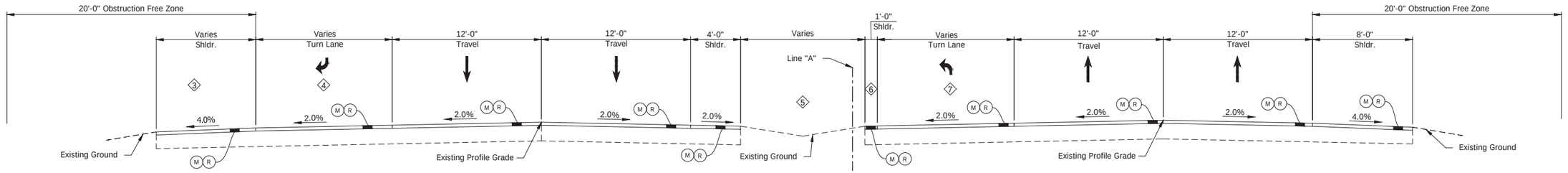


◇1 Shoulder Width Varies
1'-0" Sta. 104+77.80 to Sta. 106+21.50
5'-0" Sta. 110+69.00 to 10'-0" Sta. 111+65.00
10'-0" Sta. 390+84.50 to Sta. 392+30.10

◇2 Turn Lane Width Varies
11'-0" Sta. 104+77.80 to Sta. 106+21.50
6'-0" Sta. 110+69.00 to 0'-0" Sta. 111+65.00
6'-0" Sta. 390+84.50 to 0'-0" Sta. 392+30.10

SR 2 TYPICAL SECTION LINE "A"

Sta. 104+77.80 to Sta. 106+21.50
Sta. 110+71.90 to Sta. 111+65.00
Sta. 390+84.50 to Sta. 392+30.10



◇3 Shoulder Width Varies
1'-0" Sta. 106+21.50 to Sta. 110+17.20
1'-0" Sta. 110+17.20 to 5'-0" Sta. 110+71.90

◇4 Turn Lane Width Varies
11'-0" Sta. 106+21.50 to Sta. 110+17.20
11'-0" Sta. 110+17.20 to 6'-0" Sta. 110+35.55

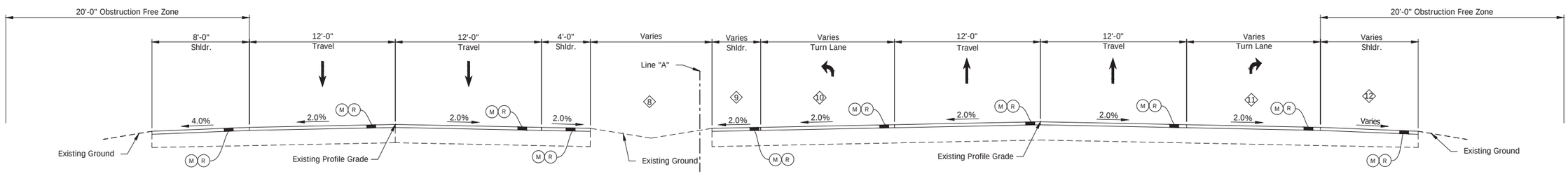
◇5 Median Width Varies
19'-7" Sta. 106+21.50 to 6'-7" Sta. 107+34.85
6'-7" Sta. 107+34.85 to 6'-4" Sta. 110+35.55

SR 2 TYPICAL SECTION LINE "A"

Sta. 106+21.50 to Sta. 111+65.00

◇6 Shoulder Width Varies
4'-0" Sta. 106+21.50 to 4'-0" Sta. 110+35.55

◇7 Turn Lane Width Varies
0'-0" Sta. 106+21.50 to 12'-0" Sta. 107+34.85
12'-0" Sta. 107+34.85 to 12'-0" Sta. 110+35.55



◇8 Median Width Varies
20'-8" Sta. 259+68.04 to 13'-7" Sta. 260+96.05
13'-7" Sta. 260+96.05 to 0'-0" Sta. 264+56.75

◇9 Shoulder Width Varies
4'-0" Sta. 259+68.04 to 1'-0" Sta. 260+96.05
1'-0" Sta. 260+96.05 to Sta. 264+56.75

SR 2 TYPICAL SECTION LINE "A"

Sta. 259+68.04 to Sta. 264+56.75

◇10 Turn Lane Width Varies
0'-0" Sta. 259+68.04 to 11'-0" Sta. 260+96.05
11'-0" Sta. 260+96.05 to Sta. 264+56.75

◇11 Turn Lane Width Varies
0'-0" Sta. 259+68.04 to 11'-0" Sta. 261+40.00
11'-0" Sta. 261+40.00 to Sta. 264+56.75

◇12 Shoulder Width Varies
8'-0" Sta. 259+68.04 to 1'-0" Sta. 261+09.64
1'-0" Sta. 261+09.64 to Sta. 264+56.75

LEGEND:

(M) Milling, Asphalt, 4 in. minimum

(R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

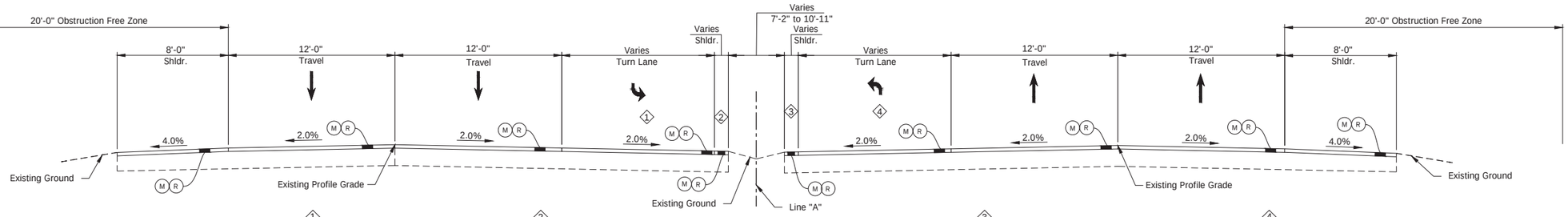
CHECKED: WBF CHECKED: WBF

INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	5 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:03pm User Name: Sara.Munsie
File: X:\production\Files\2020\120-30011\PRJ-DH(CA)\PlanSet\Sht_RD_Typical.dwg - (Typical Sections (3))



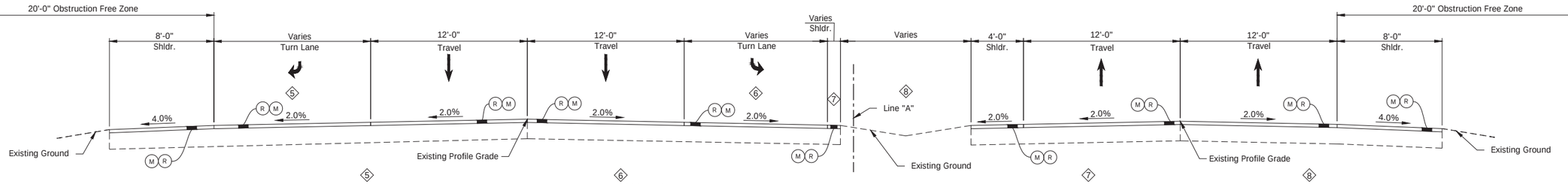
① Turn Lane Width Varies
11'-0" Sta. 314+92.50 to Sta. 315+57.67
11'-0" Sta. 315+57.67 to 0'-0" Sta. 316+68.60

② Shoulder Width Varies
1'-0" Sta. 314+92.50 to Sta. 315+57.67
1'-0" Sta. 315+57.67 to 4'-0" Sta. 346+68.60

SR 2 TYPICAL SECTION
LINE "A"
Sta. 314+92.50 to Sta. 316+68.60

③ Shoulder Width Varies
0'-0" Sta. 314+92.50 to 11'-0" Sta. 315+82.56
11'-0" Sta. 315+82.56 to Sta. 316+68.60

④ Turn Lane Width Varies
8'-0" Sta. 314+92.50 to 1'-0" Sta. 315+82.56
1'-0" Sta. 3115+82.56 to Sta. 316+68.60



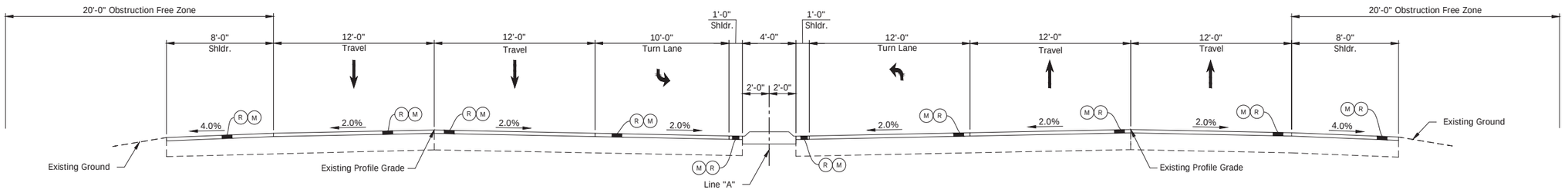
⑤ Turn Lane Width Varies
12'-0" Sta. 385+90.00 to Sta. 390+38.75
12'-0" Sta. 390+38.75 to 6'-0" Sta. 390+84.50

⑥ Turn Lane Width Varies
12'-0" Sta. 385+90.00 to Sta. 389+20.05
12'-0" Sta. 389+20.05 to 0' Sta. 390+84.50

SR 2 TYPICAL SECTION
LINE "A"
Sta. 385+90.00 to Sta. 390+84.50

⑦ Shoulder Width Varies
1'-0" Sta. 385+90.00 to Sta. 389+20.05
1'-0" Sta. 389+20.05 to 4'-0" Sta. 390+84.50

⑧ Median Width Varies
7'-2" Sta. 385+90.00 to 13'-4" Sta. 389+20.05
13'-4" Sta. 389+20.05 to 20'-8" Sta. 390+84.50



SR 2 TYPICAL SECTION
LINE "A"
Sta. 602+50.50 to Sta. 609+45.38

LEGEND:

(M) Milling, Asphalt, 4 in. minimum

(R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on
275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

Date: Jun 23, 2023, 1:03pm User Name: Sara.Munsie
File: X:\production\Files\2020\120-3001\PRJ-041\CAD\PlanSet\Sht_6D_TypicalDwg - (Typical Sections (4))

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

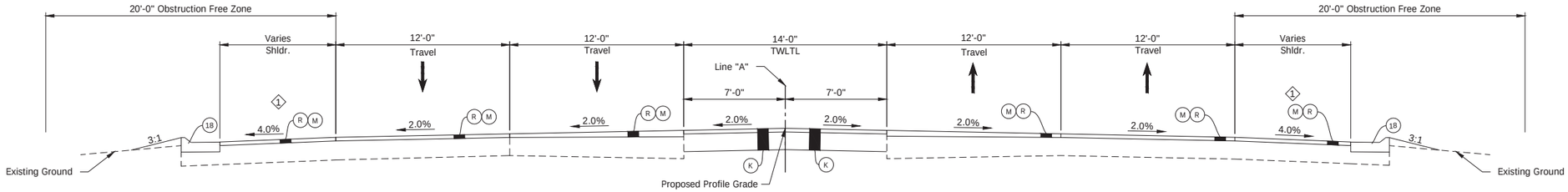
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
LINE "A"

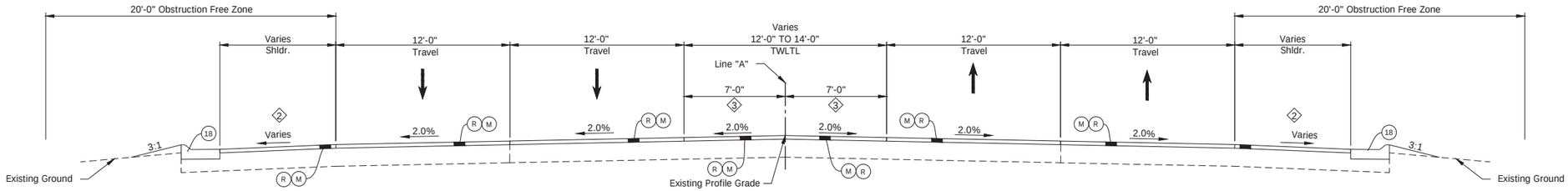
HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177

SURVEY BOOK	SHEET
ELECTRONIC	6 of 321
CONTRACT	PROJECT
R-42444	1900177



SR 2 TYPICAL SECTION
LINE "A"
Sta. 610+24.77 to Sta. 658+58.00

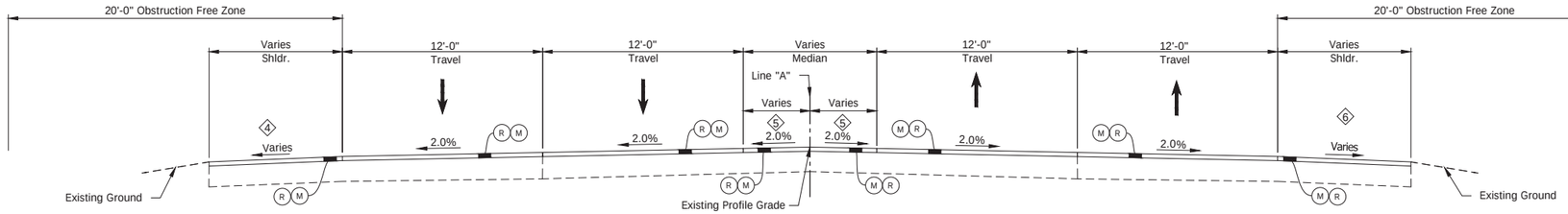
1
Shoulder Width Varies
10'-0" Sta. 609+45.30 to Sta. 638+00.00
10'-0" Sta. 638+00.00 to 6'-0" Sta. 658+58.00



SR 2 TYPICAL SECTION
LINE "A"
Sta. 658+58.00 to Sta. 672+90.50

2
Shoulder Width Varies
6'-0" Sta. 658+58.00 to 4'-0" Sta. 670+00.00
4'-0" Sta. 670+00.00 to Sta. 672+90.50

3
TWLTL Width Varies
7'-0" Sta. 658+58.00 to Sta. 670+00.00
7'-0" Sta. 670+00.00 to 6'-0" Sta. 672+90.50



SR 2 TYPICAL SECTION
LINE "A"
Sta. 672+90.50 to Sta. 688+89.60
Sta. 695+94.90 to Sta. 703+84.40

4
Shoulder Width Varies
2'-0" Sta. 672+90.50 to 8'-0" Sta. 688+89.60
2'-0" Sta. 695+94.90 to Sta. 698+85.40
2'-0" Sta. 698+85.40 to 10'-0" Sta. 699+85.40
10'-0" Sta. 699+85.40 to Sta. 703+84.40

5
TWLTL Width Varies
6'-0" Sta. 672+90.50 to 2'-0" Sta. 678+50.60
2'-0" Sta. 678+50.60 to Sta. 688+89.60
2'-0" Sta. 695+94.90 to Sta. 703+84.40

6
Shoulder Width Varies
6'-0" Sta. 672+90.50 to 8'-0" Sta. 688+89.60
2'-0" Sta. 695+94.90 to Sta. 703+84.40

LEGEND:

(K) HMA Full Depth:
165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on
[illegible] lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm,
880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on
Subgrade Treatment, Type IBX
275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

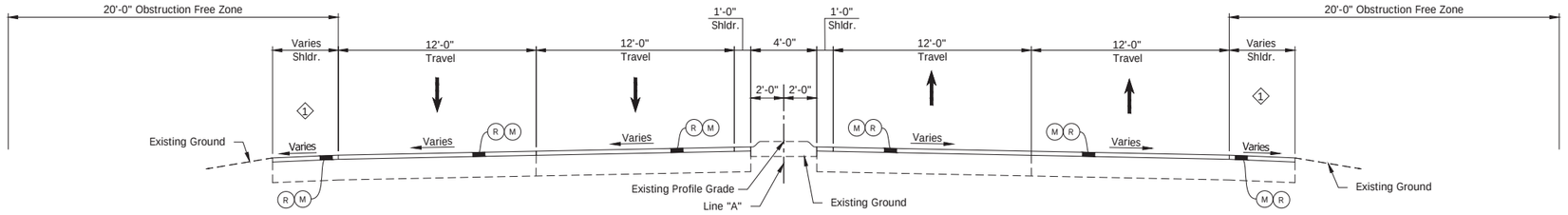
(M) 330 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on
275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

(R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on
Subgrade Treatment, Type IBX

(18) Combined Concrete Curb and Gutter, Type B

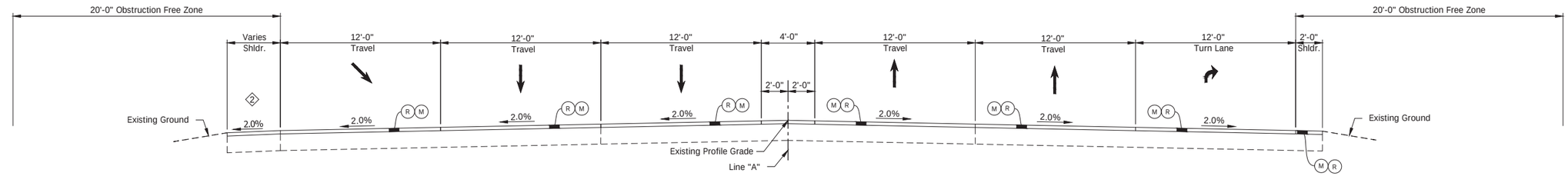
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1/4" = 1'-0" / BRIDGE FILE: N/A / VERTICAL SCALE: N/A / DESIGNATION: 1900177
DESIGNED: SFM	DRAWN: SFM	TYPICAL SECTIONS LINE "A"	SURVEY BOOK: ELECTRONIC / SHEET: 7 of 321 / CONTRACT: R-42444 / PROJECT: 1900177
CHECKED: WBF	CHECKED: WBF		

Date: Jun 23, 2023, 1:03pm User Name: Sara.Nunsie
File: X:\production\Files\2020\1220-30010\PRJ-04\CAD\PlanSet\Sht_RD_Typical.dwg - (Typical Sections (5))



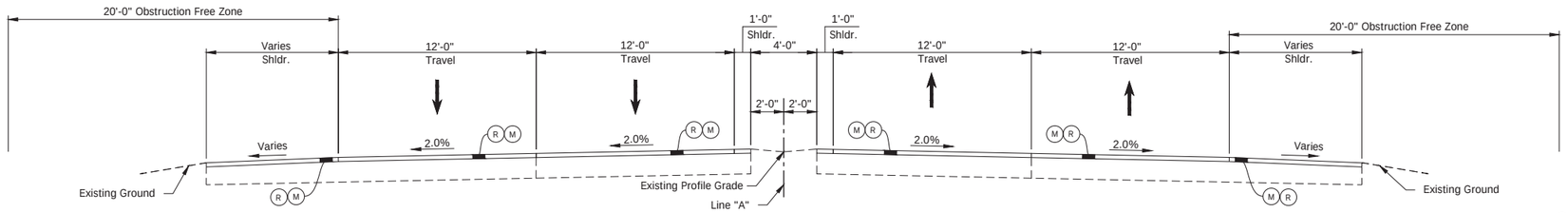
1
Shoulder Width Varies
9'-0" Sta. 688+89.60 to Sta. 689+56.60
9'-0" Sta. 689+56.60 to 2'-0" Sta. 690+58.70
2'-0" Sta. 690+58.70 to Sta. 695+94.90

SR 2 TYPICAL SECTION
LINE "A"
Sta. 688+89.60 to Sta. 695+94.90



2
Shoulder Width Varies
2'-0" Sta. 703+84.40 to Sta. 705+80.25
2'-0" Sta. 705+80.25 to 4'-0" Sta. 708+08.40

SR 2 TYPICAL SECTION
LINE "A"
Sta. 703+84.40 to Sta. 708+08.40

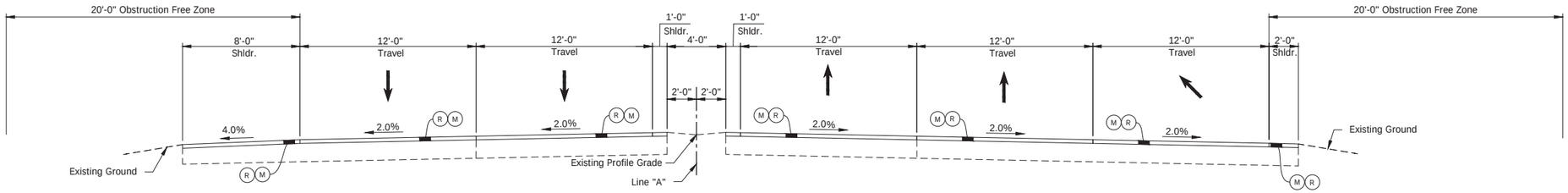


SR 2 TYPICAL SECTION
LINE "A"
Sta. 708+08.40 to Sta. 715+90.50

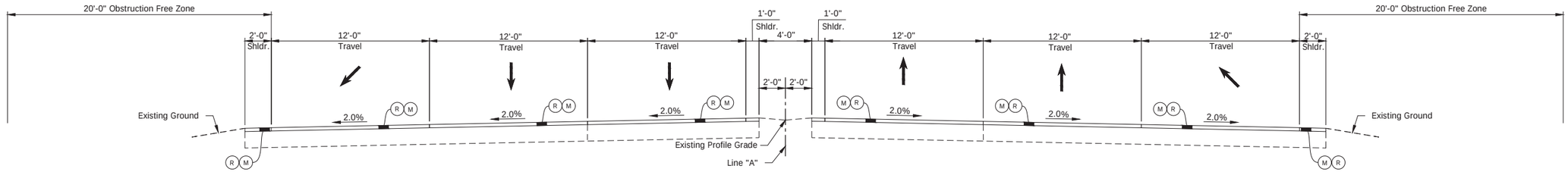
LEGEND:
- (M) Milling, Asphalt, 4 in. minimum
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1/4" = 1'-0" / BRIDGE FILE: N/A
DESIGNED: SFM / DRAWN: SFM	TYPICAL SECTIONS LINE "A"	VERTICAL SCALE: N/A / DESIGNATION: 1900177
CHECKED: WBF / CHECKED: WBF		SURVEY BOOK: ELECTRONIC / SHEET: 8 of 321
		CONTRACT: R-42444 / PROJECT: 1900177

Date: Jun 23, 2023, 1:03pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\PRJ-DH(CAD)\PlanSet\Sht_RD_Typical.dwg - (Typical Sections (6))



SR 2 TYPICAL SECTION
LINE "A"
Sta. 715+90.50 to Sta. 717+00.00



SR 2 TYPICAL SECTION
LINE "A"
Sta. 717+00.00 to Sta. 730+00.00

LEGEND:

(M) Milling, Asphalt, 4 in. minimum

(R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on
275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

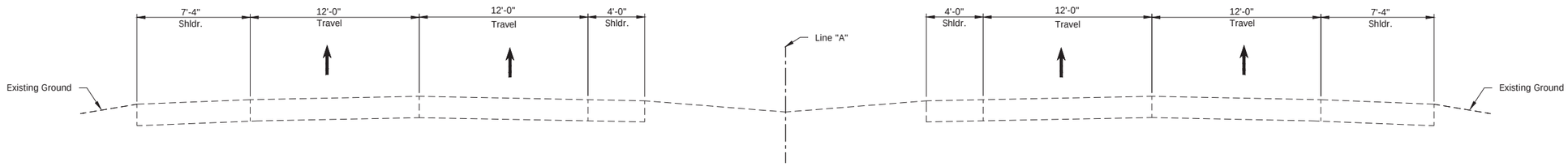
INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177

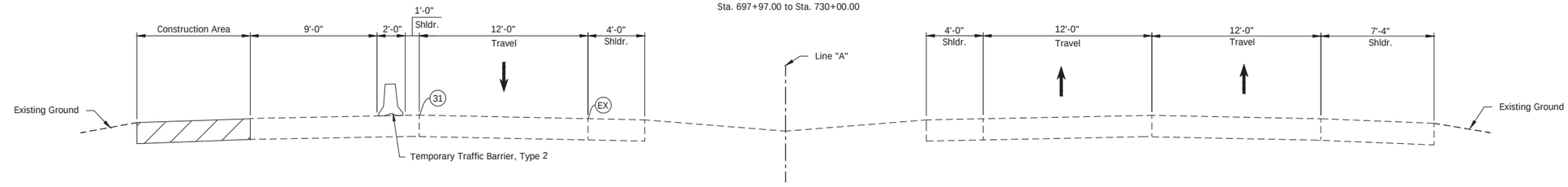
SURVEY BOOK	SHEET
ELECTRONIC	9 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:03pm User Name: Sara Munsie
File: \\loch.loc1root\Production\Files\2020\1220-20011\PRJ-04\CAD\PlanSet\Sht_RD_Typical.dwg - (Typical Sections (7))



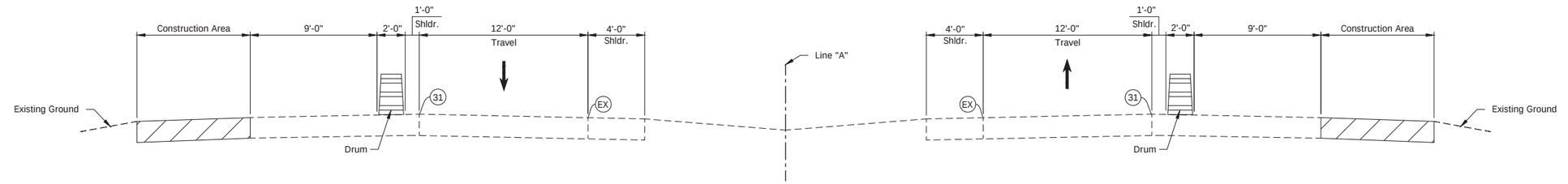
MAINTENANCE OF TRAFFIC TYPICAL - PREPHASE 1

Sta. 39+11.00 to Sta. 40+40.00
Sta. 77+75.00 to Sta. 204+42.00
Sta. 281+50.00 to Sta. 369+72.00
Sta. 401+24.00 to Sta. 448+34.00
Sta. 697+97.00 to Sta. 730+00.00



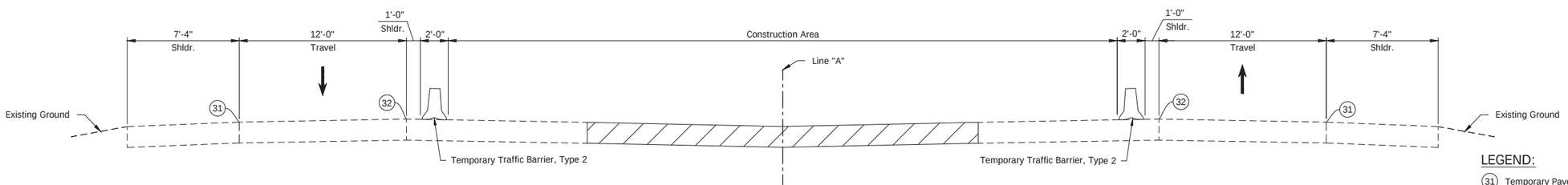
MAINTENANCE OF TRAFFIC TYPICAL - PREPHASE 1

Sta. 44+40.00 to Sta. 77+75.00
Sta. 204+42.00 to Sta. 281+50.00
Sta. 369+72.00 to Sta. 401+24.00



MAINTENANCE OF TRAFFIC TYPICAL - PREPHASE 1

Sta. 448+34.00 to Sta. 697+97.00



MAINTENANCE OF TRAFFIC TYPICAL - PREPHASE 2

LEGEND:

(31) Temporary Pavement Marking, Solid, White, 4 in., Removable

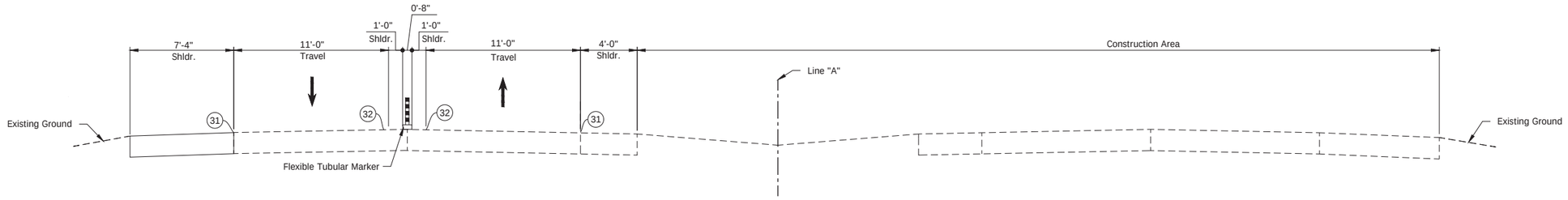
(32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable

(EX) Existing Pavement Marking

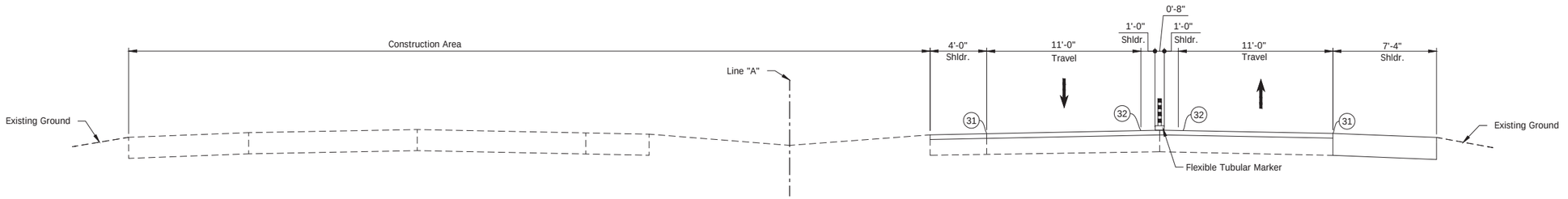
Construction Area

Date: Jun 23, 2023, 1:04pm User Name: Sara.Munsie
File: X:\production\Files\2020\120-3001\PRJ-04\CAD\PlanSet\Sht_RD_MOT Typicals.dwg - (MOT Typ 00)

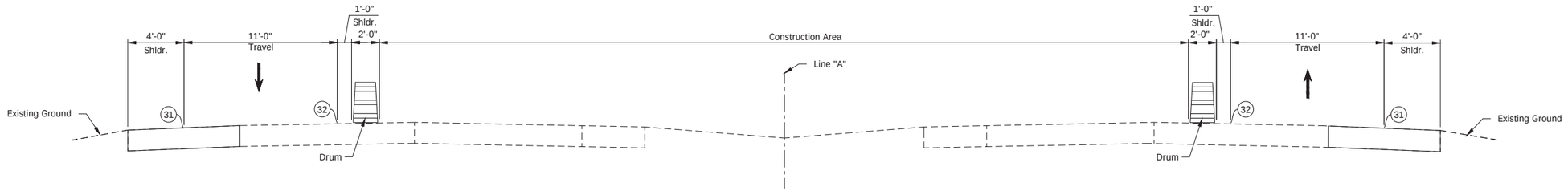
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1/4" = 1'-0" / BRIDGE FILE: N/A
			VERTICAL SCALE: N/A / DESIGNATION: 1900177
DESIGNED: JAG	DRAWN: JAG	MAINTENANCE OF TRAFFIC PLAN TYPICAL SECTIONS	SURVEY BOOK / SHEET: ELECTRONIC 10 of 321
CHECKED: WBF	CHECKED: WBF		CONTRACT: R-42444 / PROJECT: 1900177



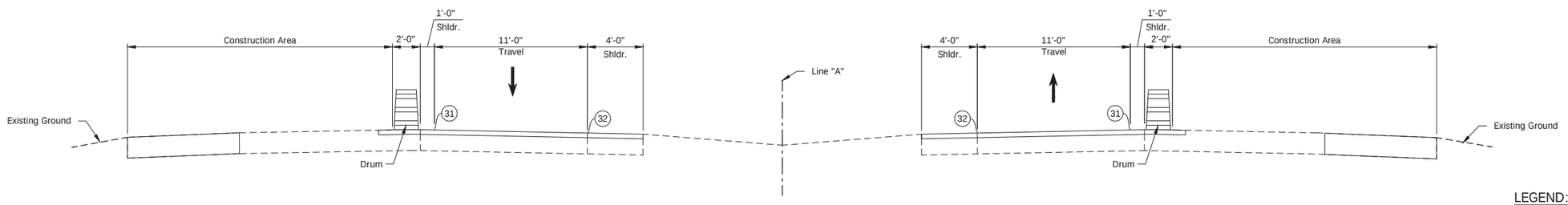
MAINTENANCE OF TRAFFIC TYPICAL - PHASE 1A AND PHASE 2A



MAINTENANCE OF TRAFFIC TYPICAL - PHASE 1B AND 2B



MAINTENANCE OF TRAFFIC TYPICAL - PHASE 1C AND PHASE 2C



MAINTENANCE OF TRAFFIC TYPICAL - PHASE 1D AND PHASE 2D

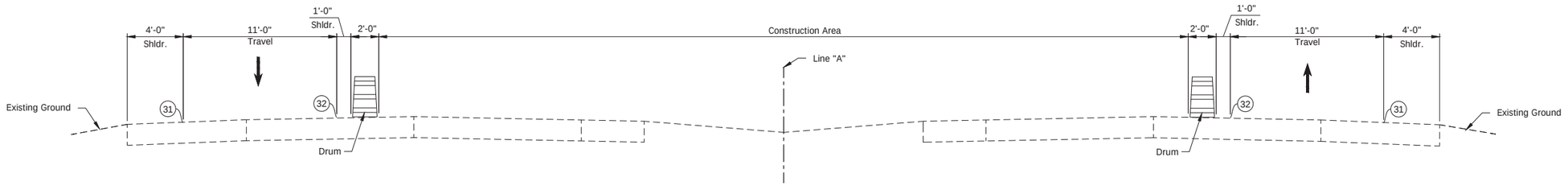
LEGEND:

(31) Temporary Pavement Marking, Solid, White, 4 in., Removable

(32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable

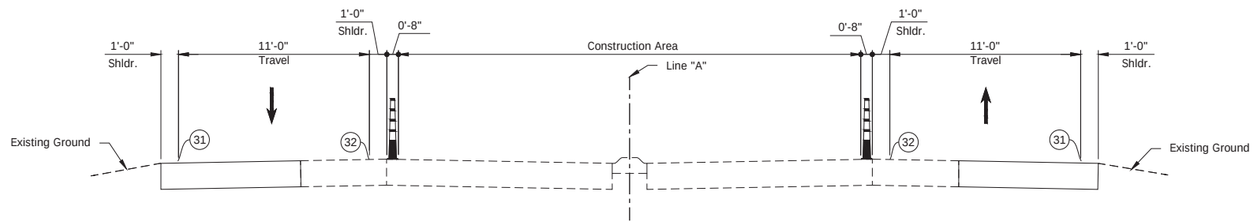
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1/4" = 1'-0"	BRIDGE FILE: N/A
		VERTICAL SCALE: N/A	DESIGNATION: 1900177
DESIGNED: JAG / DRAWN: JAG	MAINTENANCE OF TRAFFIC TYPICAL SECTIONS	SURVEY BOOK	SHEET: ELECTRONIC 11 of 321
CHECKED: WBF / CHECKED: WBF		CONTRACT: R-42444	PROJECT: 1900177

Date: Jun 23, 2023, 1:04pm User Name: Sara.Munsee
File: X:\production\Files\2020\120-3001\PRJ-04\CAD\PlanSet\Sht_RD_MOT Typicals.dwg - (MOT Typ 01)



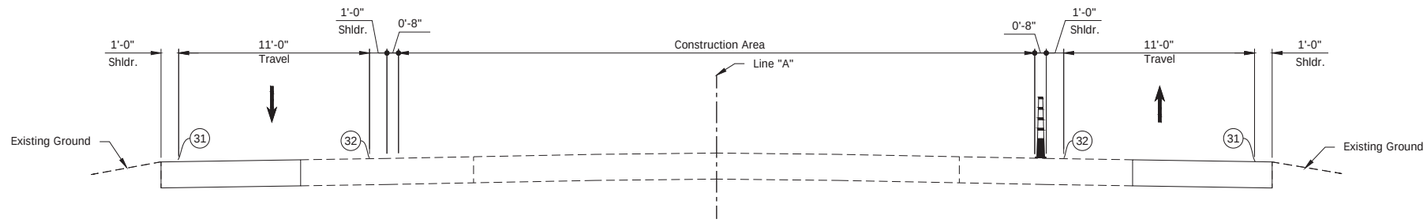
MAINTENANCE OF TRAFFIC TYPICAL - PHASE 3A

Sta. 475+00.00 to Sta. 602+50.50



MAINTENANCE OF TRAFFIC TYPICAL - PHASE 3A

Sta. 602+50.50 to Sta. 609+45.56
Sta. 688+89.60 to Sta. 695+94.90



MAINTENANCE OF TRAFFIC TYPICAL - PHASE 3A

Sta. 609+45.56 to Sta. 688+89.60
Sta. 695+94.90 to Sta. 733+00.00

LEGEND:

(31) Temporary Pavement Marking, Solid, White, 4 in., Removable

(32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: JAG

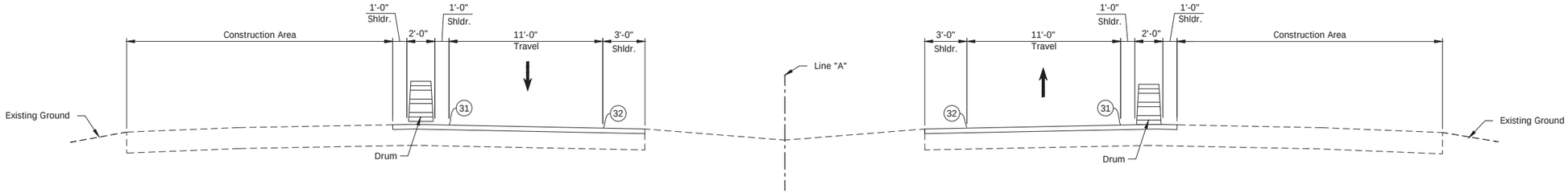
CHECKED: WBF CHECKED: WBF

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC TYPICAL SECTIONS

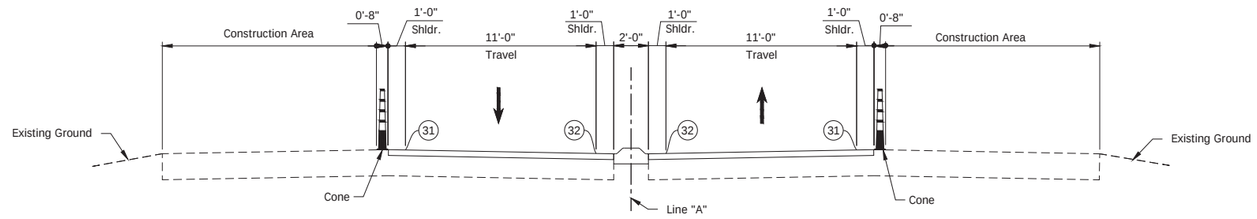
HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	12 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:04pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\PRJ-DH\CAD\PlanSet\Sht_RD_MOT Typicals.dwg - (MOT Typ 02)



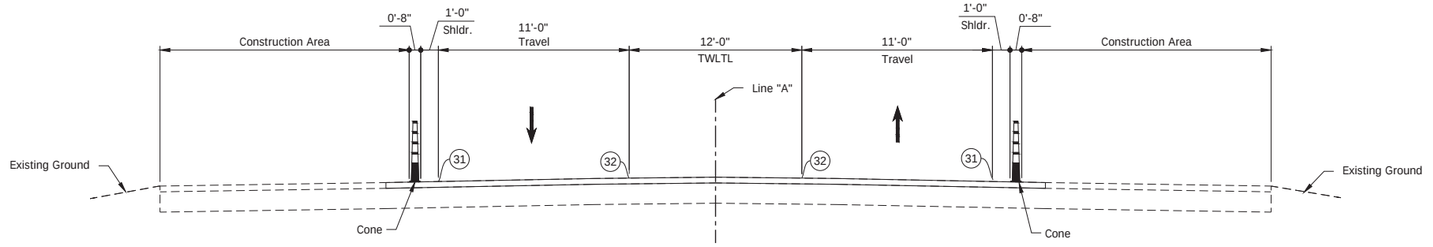
MAINTENANCE OF TRAFFIC TYPICAL - PHASE 3B

Sta. 475+00.00 to Sta. 602+50.50



MAINTENANCE OF TRAFFIC TYPICAL - PHASE 3B

Sta. 602+50.50 to Sta. 609+45.56
Sta. 688+89.60 to Sta. 695+94.90



MAINTENANCE OF TRAFFIC TYPICAL - PHASE 3A

Sta. 609+45.56 to Sta. 688+89.60
Sta. 695+94.90 to Sta. 733+00.00

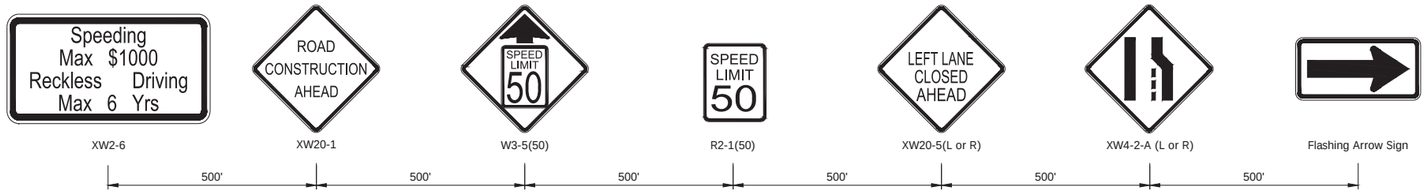
LEGEND:

(31) Temporary Pavement Marking, Solid, White, 4 in., Removable

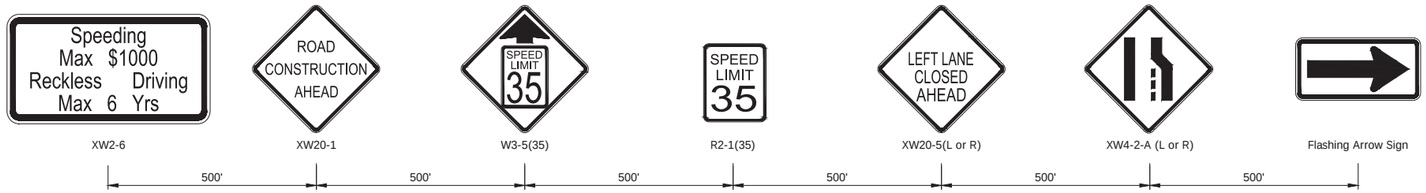
(32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable

Date: Jun 23, 2023, 1:04pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\PRJ-04\CAD\PlanSet\SNI_RD_MOT Typicals.dwg - (MOT Typ 03)

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1/4" = 1'-0"	BRIDGE FILE: N/A
		VERTICAL SCALE: N/A	DESIGNATION: 1900177
DESIGNED: JAG / DRAWN: JAG	MAINTENANCE OF TRAFFIC TYPICAL SECTIONS	SURVEY BOOK: ELECTRONIC	SHEET: 13 of 321
CHECKED: WBF / CHECKED: WBF		CONTRACT: R-42444	PROJECT: 1900177



SR 2 LANE CLOSURE ADVANCE SIGN DETAIL 1
OUTSIDE AND INSIDE SHOULDER
Not to Scale



SR 2 LANE CLOSURE ADVANCE SIGN DETAIL 2
OUTSIDE AND INSIDE SHOULDER
Not to Scale

SEQUENCE OF OPERATIONS
SR 2

FROM SR 2 AND US 20 INTERCHANGE TO SR 2 AND US 31 INTERCHANGE

PRE-PHASE
1. Place construction signs, temporary markings, channelizing devices, and temporary traffic barriers as shown in the plans.
2. Perform work to as detailed in the plans and construction zones detailed in plans and described below in Pre-phases 1 and 2.

PRE-PHASE 1
- a. Place construction signs, temporary markings, channelizing devices, and temporary traffic barriers as detailed in the plans.
- b. Restrict traffic to inside shoulders and lanes. Intersections will remain opened as detailed in the plans.
- c. Perform work on SR 2 outside lanes and shoulders as detailed in the plans.

PRE-PHASE 2
- a. Place construction signs, temporary markings, channelizing devices, and temporary traffic barriers as detailed in the plans.
- b. Restrict traffic to outside shoulders and lanes. Intersections will remain opened as detailed in the plans.
- c. Construct Crossover 1, Crossover 2, and Crossover3. Perform work on SR 2 inside lanes and shoulders as detailed in the plans.

PHASE 1
1. Place construction signs, temporary markings, channelizing devices, and temporary traffic barriers as shown in the plans.
2. Perform work to as detailed in the plans and construction zones detailed in plans and described below in Phases A, B, C, D, and E.

PHASE 1A
- a. Place construction signs, temporary markings, channelizing devices, and temporary traffic barriers as detailed in the plans.
- b. Traffic will use Crossover 1 and Crossover 2 and be restricted to the WB side of SR 2. Left turn lanes will be added at intersections as detailed in the plans.
- c. Perform work on SR 2 EB as detailed in the plans.

PHASE 1B
- a. Place construction signs, temporary markings, channelizing devices, and temporary traffic barriers as detailed in the plans.
- b. Traffic will use a Crossover 1 and Crossover 2 and be restricted to the EB side of SR 2. Left turn lanes will be added at intersections as detailed in the plans.
- c. Perform work on SR 2 WB as detailed in the plans.

PHASE 1C
- a. Place construction signs, temporary markings, channelizing devices, and temporary traffic barriers as detailed in the plans.
- b. Restrict traffic to outside shoulders and lanes. Exit ramp at interchange and intersections will remain opened as detailed in the plans.
- c. Left turn movements restricted from SR 2 to CR 600 S. SB and NB through movements restricted on CR 600 S.
- d. Remove Crossover 1 as detailed in the plans.

PHASE 1D
- a. Place construction signs, temporary markings, channelizing devices, and temporary traffic barriers as detailed in the plans.
- b. Restrict traffic to inside shoulders and lanes. Exit ramp at interchange and intersections will remain opened as detailed in the plans.
- c. Left turn movements restricted from SR 2 to CR 600 S. SB and NB through movements restricted on CR 600 S.
- d. Perform work as detailed in the plans.

PHASE 1E
- a. Place construction signs, temporary markings, channelizing devices, and temporary traffic barriers as detailed in the plans.
- b. Restrict WB traffic to inside lane and outside shoulder. Exit ramp at interchange and intersections will remain opened as detailed in the plans.
- c. Left turn movements restricted from SR 2 to CR 600 S. SB and NB through movements restricted on CR 600 S.
- d. Perform work as detailed in the plans.

PHASE 2
1. Place construction signs, temporary markings, channelizing devices, and temporary traffic barriers as shown in the plans.
2. Perform work to as detailed in the plans and construction zones detailed in plans and described below in Phases A, B, C, and D.

PHASE 2A
- a. Place construction signs, temporary markings, channelizing devices, and temporary traffic barriers as detailed in the plans.
- b. Traffic will use Crossover 2 and Crossover 3 and be restricted to the WB side of SR 2. Left turn lanes will be added at intersections as detailed in the plans.
- c. Perform work on SR 2 EB as detailed in the plans.

PHASE 2B
- a. Place construction signs, temporary markings, channelizing devices, and temporary traffic barriers as detailed in the plans.
- b. Traffic will use a Crossover 2 and Crossover 3 and be restricted to the EB side of SR 2. Left turn lanes will be added at intersections as detailed in the plans.
- c. Perform work on SR 2 WB as detailed in the plans.

PHASE 2C
- a. Place construction signs, temporary markings, channelizing devices, and temporary traffic barriers as detailed in the plans.
- b. Restrict traffic to outside shoulders and lanes. Intersections will remain opened as detailed in the plans.
- c. Remove Crossover 2 as detailed in the plans.

PHASE 2D
- a. Place construction signs, temporary markings, channelizing devices, and temporary traffic barriers as detailed in the plans.
- b. Restrict traffic to inside shoulders and lanes. Intersections will remain opened as detailed in the plans.
- c. Perform work as detailed in the plans.

PHASE 3
1. Place construction signs, temporary markings, channelizing devices, and temporary traffic barriers as shown in the plans.
2. Perform work to as detailed in the plans and construction zones detailed in plans and described below in Phases A and B.

PHASE 3A
- a. Place construction signs, temporary markings, channelizing devices, and temporary traffic barriers as detailed in the plans.
- b. Restrict traffic to outside shoulders and lanes. Intersections will remain opened as detailed in the plans.
- c. Remove Crossover 3 and perform work as detailed in the plans.

PHASE 3B
- a. Place construction signs, temporary markings, channelizing devices, and temporary traffic barriers as detailed in the plans.
- b. Restrict traffic to inside shoulders and lanes. Intersections will remain opened as detailed in the plans.
- c. Perform work as detailed in the plans.

GENERAL NOTES
1. Access to residences and businesses shall be maintained at all times.
2. Construction zone speed limit signs should be added approximately every two miles for the duration of the project and the current speed limit signs should be bagged.

Date: Jun 23, 2023, 1:04pm User Name: Sara.Munsie
File: X:\production\Files\2020\120\3001\PRJ-04\CAD\PlanSet\SNL_RD_NOT Typicals.dwg - (NOT Advanced Sign Details)

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

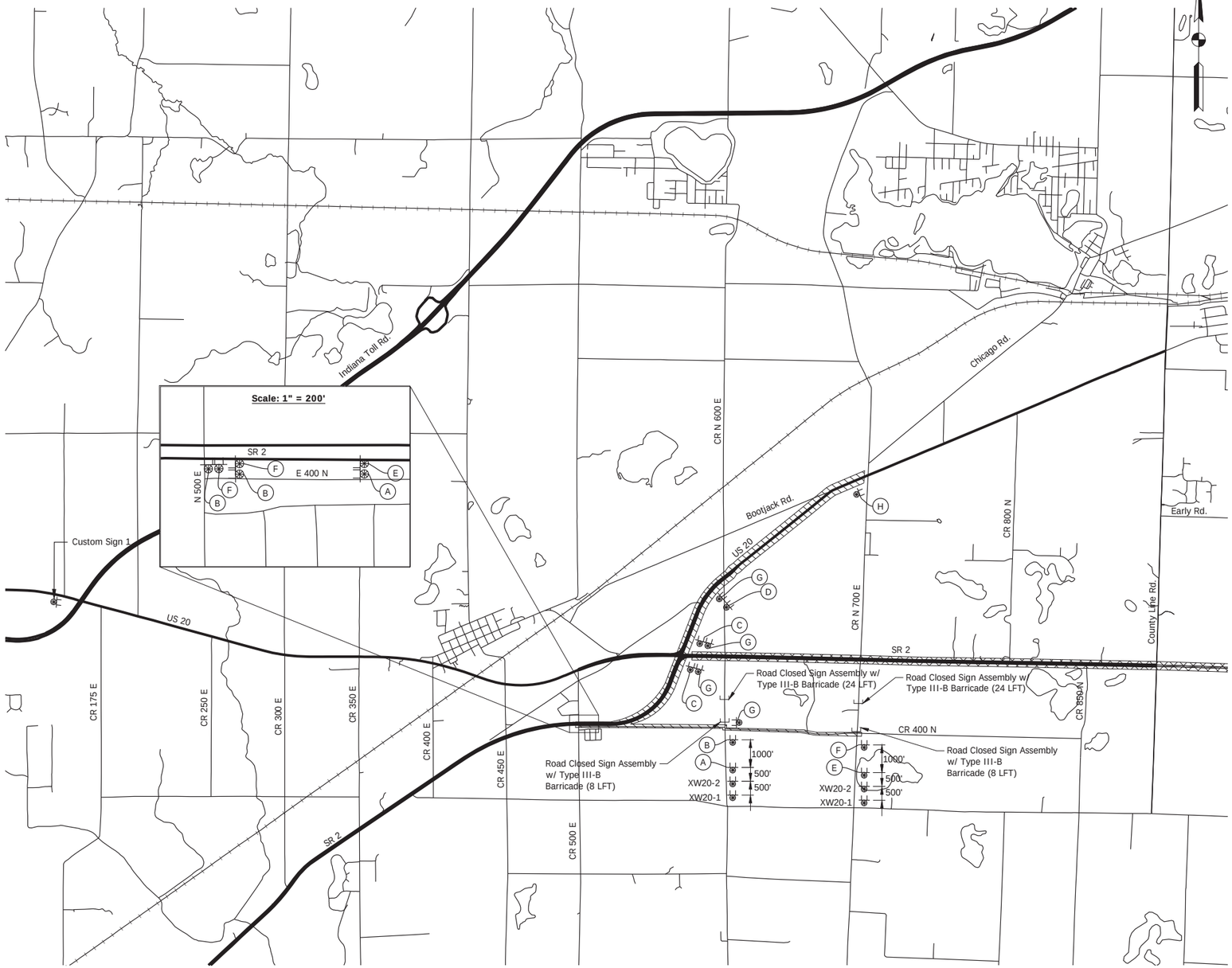
DESIGNED: JAG | DRAWN: BJS

CHECKED: WBF | CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
ADVANCED SIGN DETAILS

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	14 of 321
CONTRACT	PROJECT
R-42444	1900177



CONSTRUCTION SIGN SCHEDULE				
SIGN NO.	DESCRIPTION	SIZE (IN)	TYPE	QUANTITY
XW20-1	"ROAD CONSTRUCTION AHEAD" Sign	48 x 48	A	2
XW20-2	"DETOUR AHEAD" Sign	48 x 48	A	2
			TOTAL TYPE "A" SIGNS	4

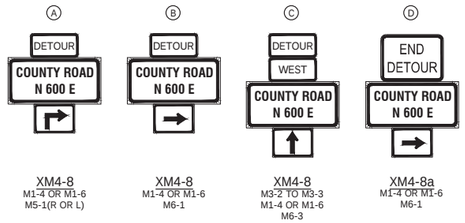
Detour Route Marker Assemblies	18	Req'd.
Road Closure Sign Assemblies	4	Req'd.
Type III-A Barricades	0	LFT
Type III-B Barricades	64	LFT

(1) Included with road closure sign assembly.

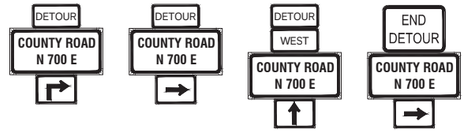
LEGEND:



XW20-1 XW20-2 R11-3A



XM4-8 M1-4 OR M1-6 M5-1(R OR L) | XM4-8 M1-4 OR M1-6 M6-1 | XM4-8 M3-2 TO M3-3 M1-4 OR M1-6 M6-3 | XM4-8a M1-4 OR M1-6 M6-1



XM4-8 M1-4 OR M1-6 M5-1(R OR L) | XM4-8 M1-4 OR M1-6 M6-1 | XM4-8 M3-2 TO M3-3 M1-4 OR M1-6 M6-3 | XM4-8a M1-4 OR M1-6 M6-1

LEGEND

Construction Zone
Detour Route

GENERAL NOTES:

1. All maintenance of traffic devices, signs and pavement markings shall conform to the latest edition of the Indiana MUTCD.
2. See INDOT Std. Drwg. 801-TCDT-01 for sign spacing requirements and additional notes.
3. See INDOT Std. Drwg. 801-TCLG-01 for standard notes.
4. Type B construction warning lights shall be used with all signs located on barricades. Type A construction warning lights shall be used on all other construction signs.

Date: Jul 26, 2023, 2:00pm User Name: Sara Munsie
File: K:\production\Files\2020\120-3001\PRJ-04\CAD\PlanSet\SNL_RD_HOT Detour 600 and 700.dwg - (N 600 E and N 700 E Detour)

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JRM DRAWN: JRM

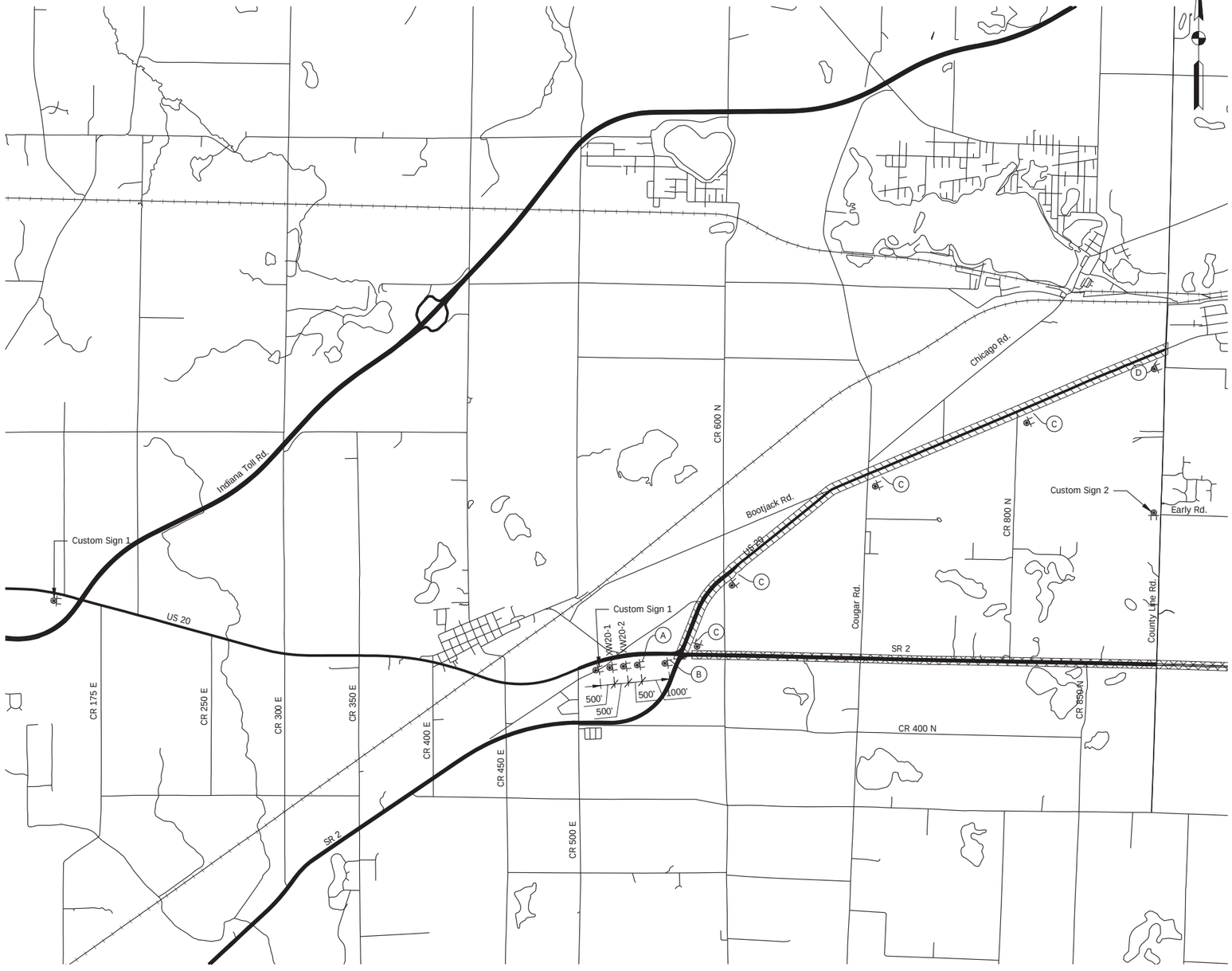
CHECKED: WBF CHECKED: WBF

INDIANA DEPARTMENT OF TRANSPORTATION

Detour
N 600 E and N 700 E

HORIZONTAL SCALE	BRIDGE FILE
1" = 2000'	N/A
VERTICAL SCALE	DESIGNATION
----	1900177

SURVEY BOOK	SHEET
ELECTRONIC	---- of 321
CONTRACT	PROJECT
R-42444	1900177



CONSTRUCTION SIGN SCHEDULE

SIGN NO.	DESCRIPTION	SIZE (IN)	TYPE	QUANTITY
CUSTOM SIGN 1	"DETOUR TO NEW CARLISLE" Sign	N x N	C	1
CUSTOM SIGN 2	"LEFT TURN RESTRICTED AT STATE ROAD 2" Sign	N x N	C	1
			TOTAL TYPE "C" SIGNS	2
XW20-1	"ROAD CONSTRUCTION AHEAD" Sign	48 x 48	A	1
XW20-2	"DETOUR AHEAD" Sign	48 x 48	A	1
			TOTAL TYPE "A" SIGNS	6

Detour Route Marker Assemblies	7	Req'd.
Road Closure Sign Assemblies	0	Req'd.
Type III-A Barricades	0	LFT
Type III-B Barricades	0	LFT

(1) Included with road closure sign assembly.

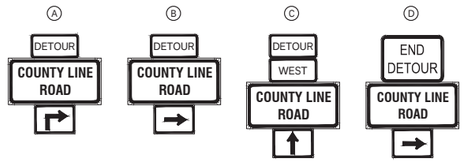
LEGEND:



XW20-1 XW20-2 CUSTOM SIGN 1



CUSTOM SIGN 2



XM4-8 M1-4 OR M1-6 M5-1(R OR L) | XM4-8 M1-4 OR M1-6 M6-1 | XM4-8 M3-2 TO M3-3 M1-4 OR M1-6 M6-3 | XM4-8a M1-4 OR M1-6 M6-1

LEGEND

Construction Zone
Detour Route

GENERAL NOTES:

1. All maintenance of traffic devices, signs and pavement markings shall conform to the latest edition of the Indiana MUTCD.
2. See INDOT Std. Drwg. 801-TCDT-01 for sign spacing requirements and additional notes.
3. See INDOT Std. Drwg. 801-TCLG-01 for standard notes.
4. Type B construction warning lights shall be used with all signs located on barricades. Type A construction warning lights shall be used on all other construction signs.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: JAG

CHECKED: WBF CHECKED: WBF

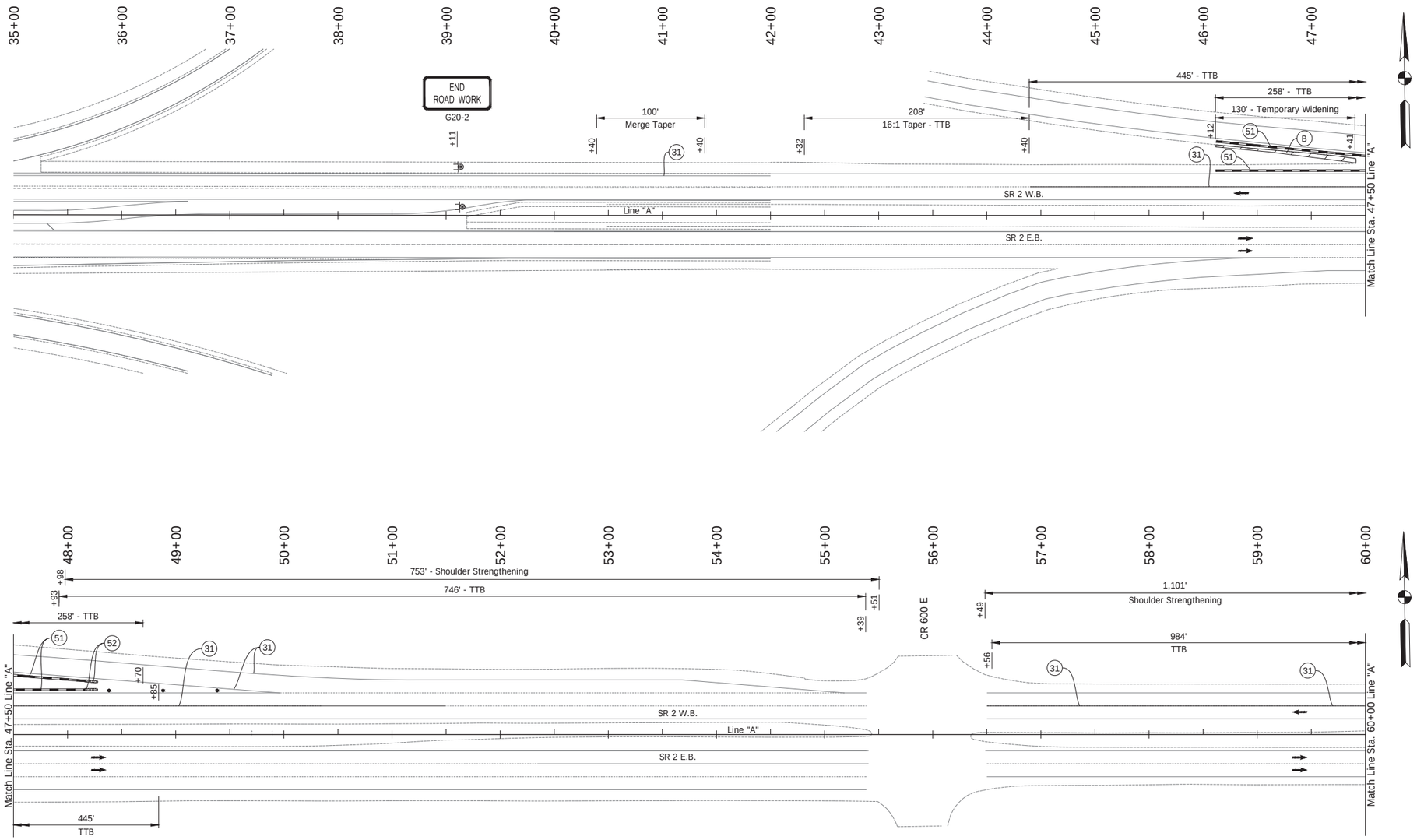
INDIANA DEPARTMENT OF TRANSPORTATION

DETOUR COUNTY LINE ROAD

HORIZONTAL SCALE	BRIDGE FILE
1" = 1000'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177

SURVEY BOOK	SHEET
ELECTRONIC	15 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jul 26, 2023, 2:00pm User Name: Sara Munsie
File: X:\production\Files\2020\1120-3001\PRJ-04\CAD\PlanSet\Sht_RD_MOT Detour.dwg - (County Line Detour)

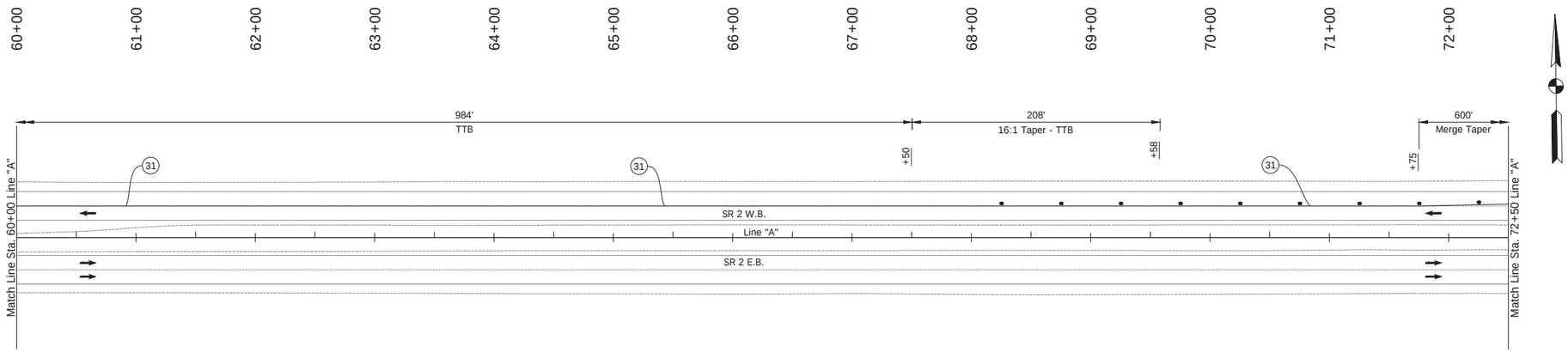


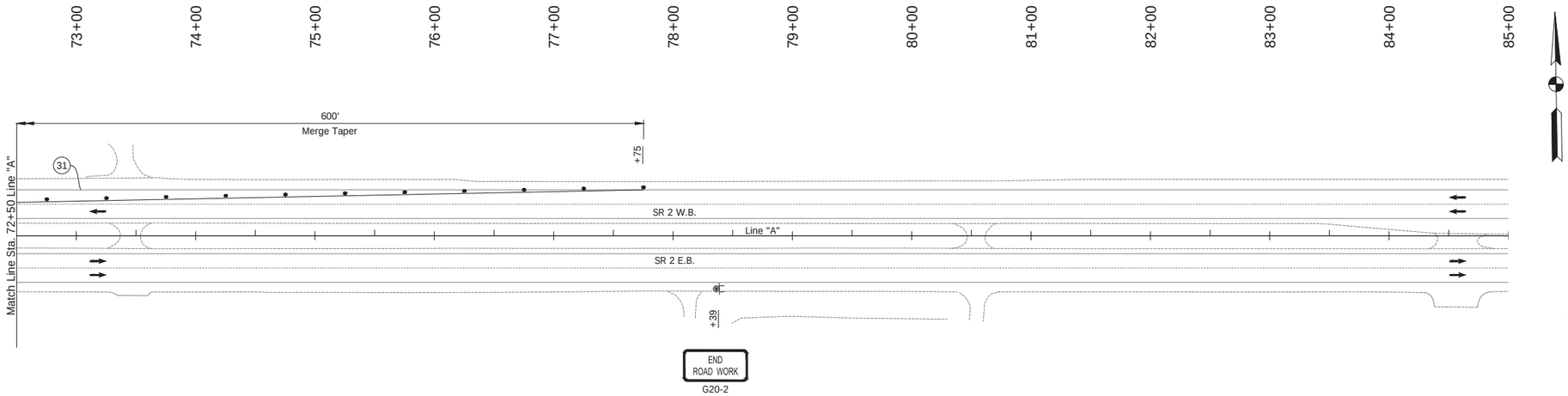
NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50' / BRIDGE FILE: N/A VERTICAL SCALE: N/A / DESIGNATION: 1900177
DESIGNED: JAG	DRAWN: BJS	MAINTENANCE OF TRAFFIC PRE-PHASE 1	SURVEY BOOK: ELECTRONIC / SHEET: 16 of 321
CHECKED: WBF	CHECKED: WBF		CONTRACT: R-42444 / PROJECT: 1900177

Date: Jun 23, 2023, 1:05pm User Name: Sara Munsie
File: X:\production\Files\2020\120-30017\PR3-DH(CHD)\PlanSet\SHt_RD_MOT Plans Pre-PH1.dwg - (MOT Pre-Phase 1 (1))





LEGEND:

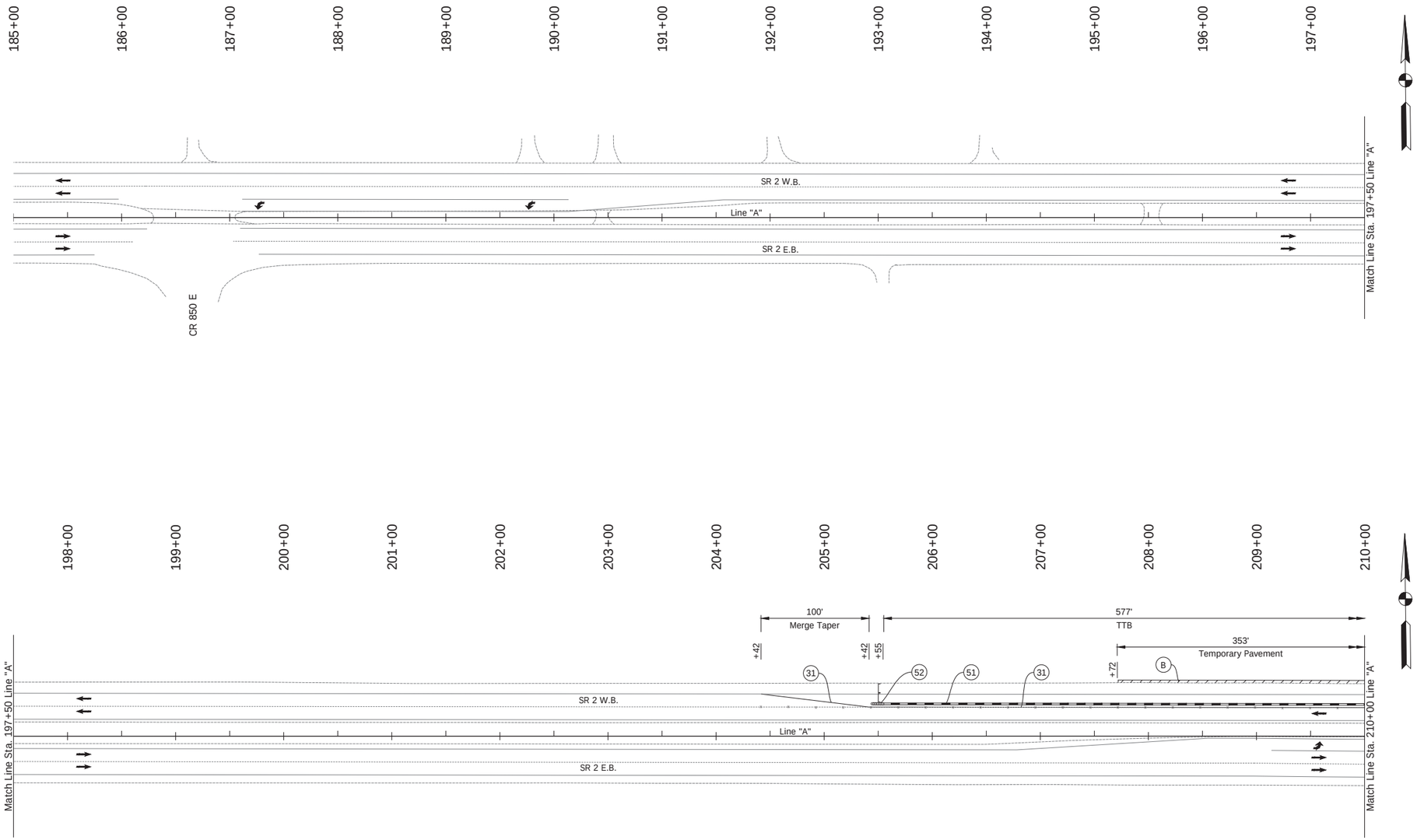
- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- Barrels
- Traffic Flow or
- Construction Sign
- Line, Remove
- Construction Area

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50' / BRIDGE FILE: N/A
DESIGNED: JAG	DRAWN: BJS	MAINTENANCE OF TRAFFIC PRE-PHASE 1	VERTICAL SCALE: N/A / DESIGNATION: 1900177
CHECKED: WBF	CHECKED: WBF		SURVEY BOOK: ELECTRONIC / SHEET: 17 of 321
			CONTRACT: R-42444 / PROJECT: 1900177

Date: Jun 23, 2023, 1:05pm User Name: Sara Munsie
File: X:\production\Files\2020\120-39011\PR2-DH\CAD\PlanSet\SHt_RD_MOT Plans Pre-PH1.dwg - (MOT Pre-Phase 1 (2))



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (51) Temporary Traffic Barrier, Type 2
- (52) Energy Absorbing Terminal, CZ, TL-3
- (B) HMA for Temporary Pavement
- Barrels
- Traffic Flow
- Construction Sign
- Line, Remove
- Construction Area
- Barricade, Type III-B

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

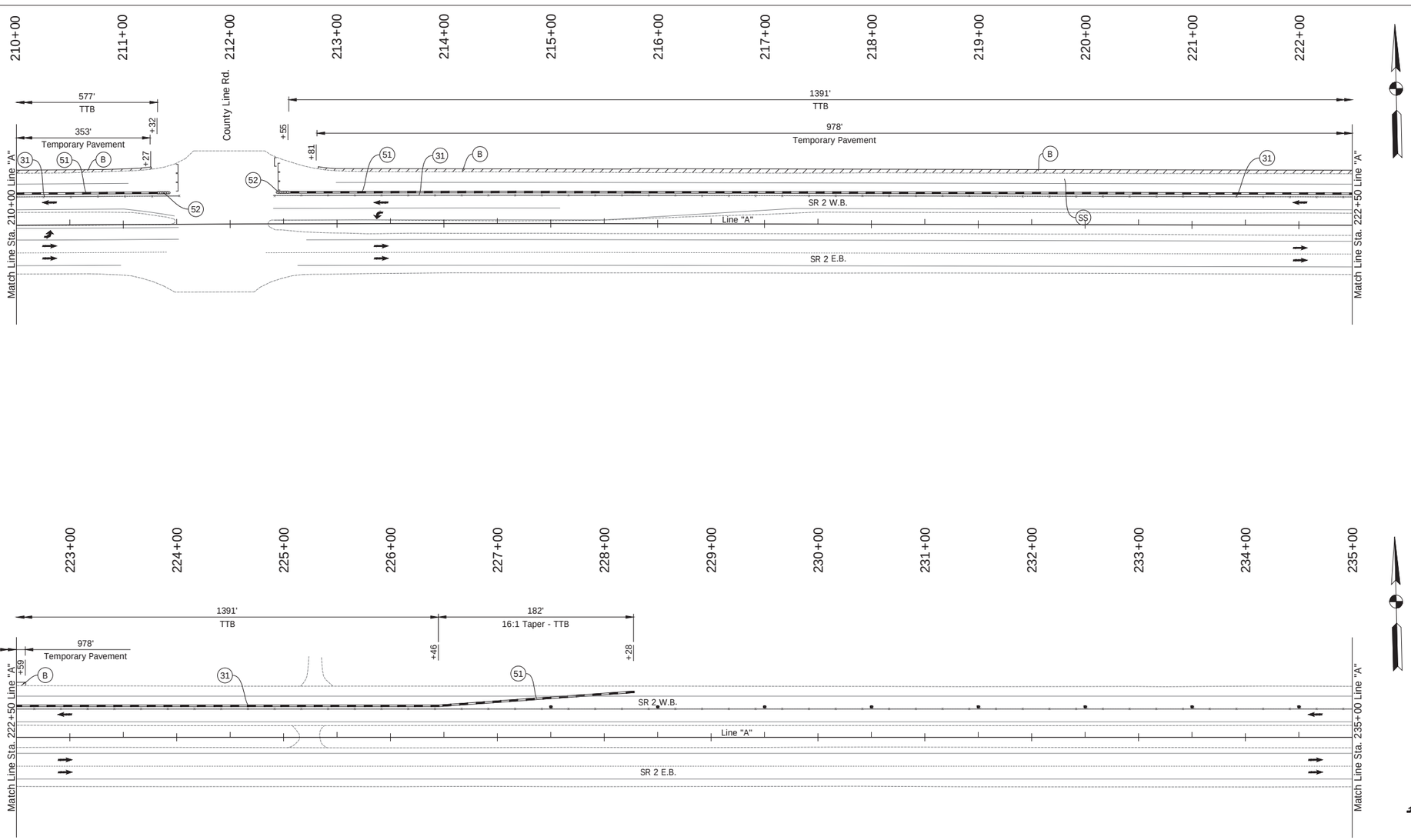
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PRE-PHASE 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	18 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:05pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\PR2-01\CAD\PlanSet\Sht_RD_MOT Plans Pre-PH1.dwg - (MOT Pre-Phase 1 (7))



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (51) Temporary Traffic Barrier, Type 2
- (52) Energy Absorbing Terminal, CZ, TL-3
- (B) HMA for Temporary Pavement
- Barrels
- Traffic Flow
- Construction Sign
- Line, Remove
- Construction Area
- Barricade, Type III-B

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

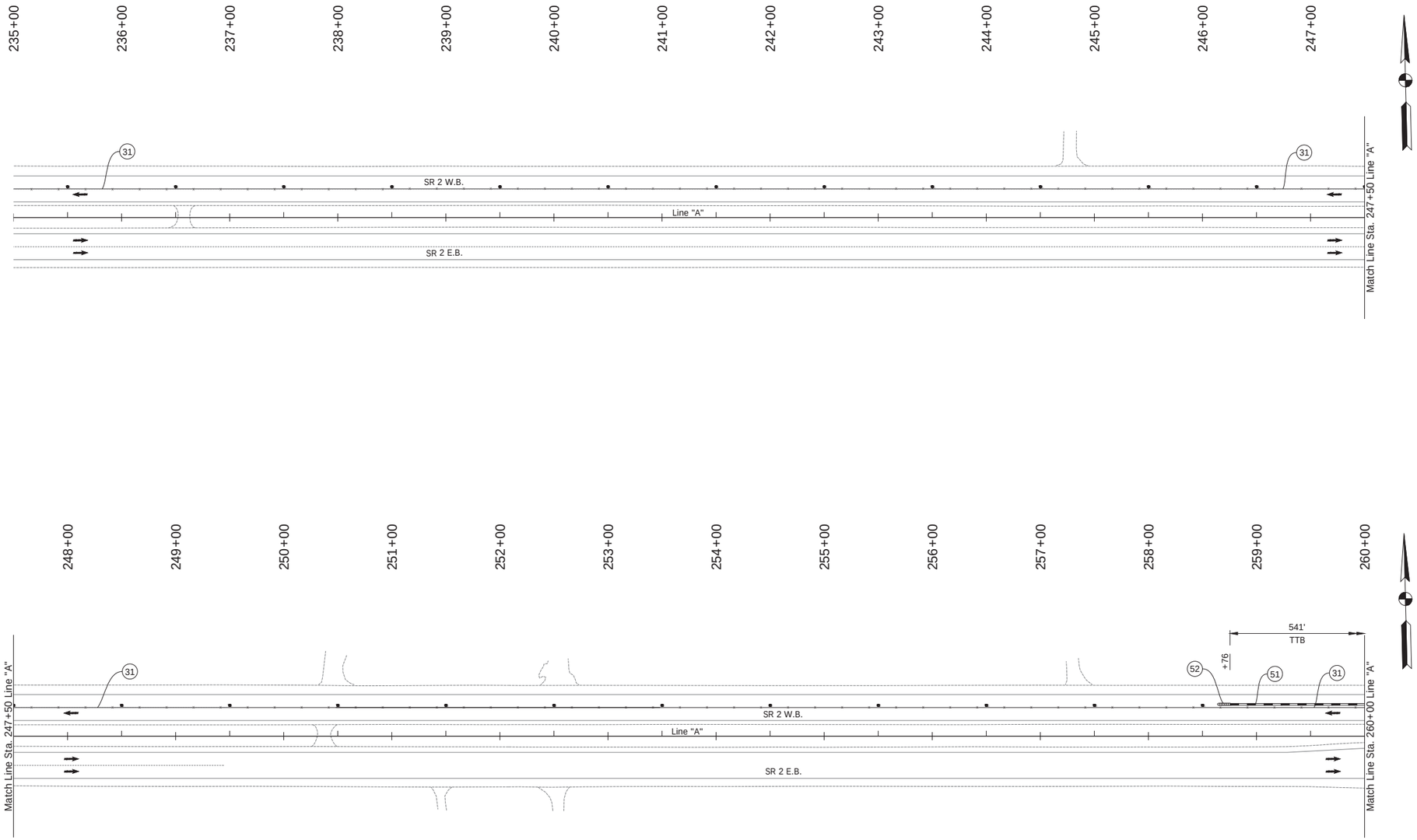
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PRE-PHASE 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	19 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:05pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PRJ-01\CAD\PlanSet\SH_RD_MOT Plans Pre-PH1.dwg - (MOT Pre-Phase 1 (8))



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (51) Temporary Traffic Barrier, Type 2
- (52) Energy Absorbing Terminal, CZ, TL-3
- Barrels
- Traffic Flow
- Line, Remove
- Construction Area

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

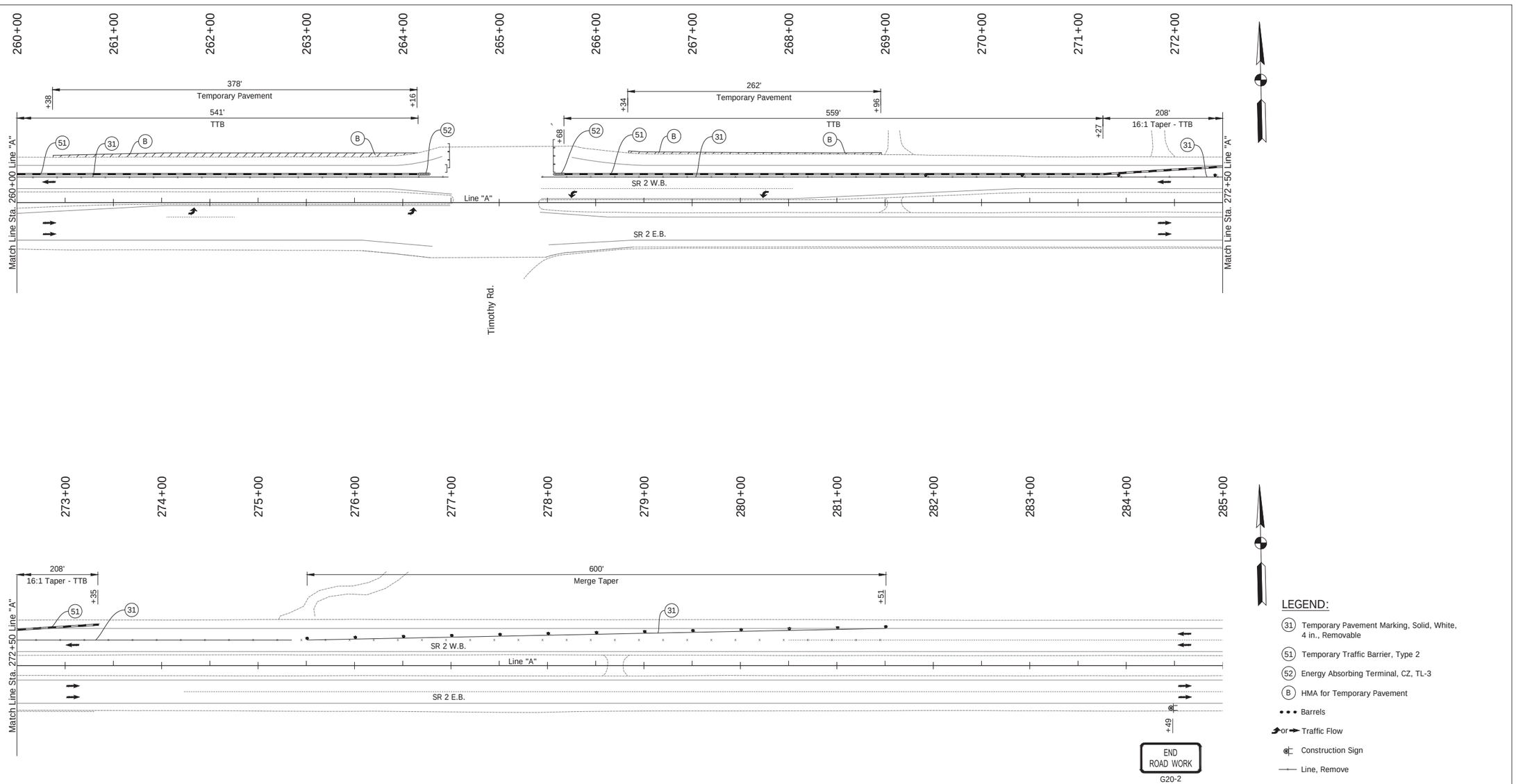
CHECKED: WBF CHECKED: WBF

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC PRE-PHASE 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	20 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:05pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-01\CAD\PlanSet\SIH_RD_MOT Plans Pre-PH1.dwg - (MOT Pre-Phase 1 (9))



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (51) Temporary Traffic Barrier, Type 2
- (52) Energy Absorbing Terminal, CZ, TL-3
- (B) HMA for Temporary Pavement
- Barrels
- Traffic Flow
- Construction Sign
- Line, Remove
- Construction Area

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

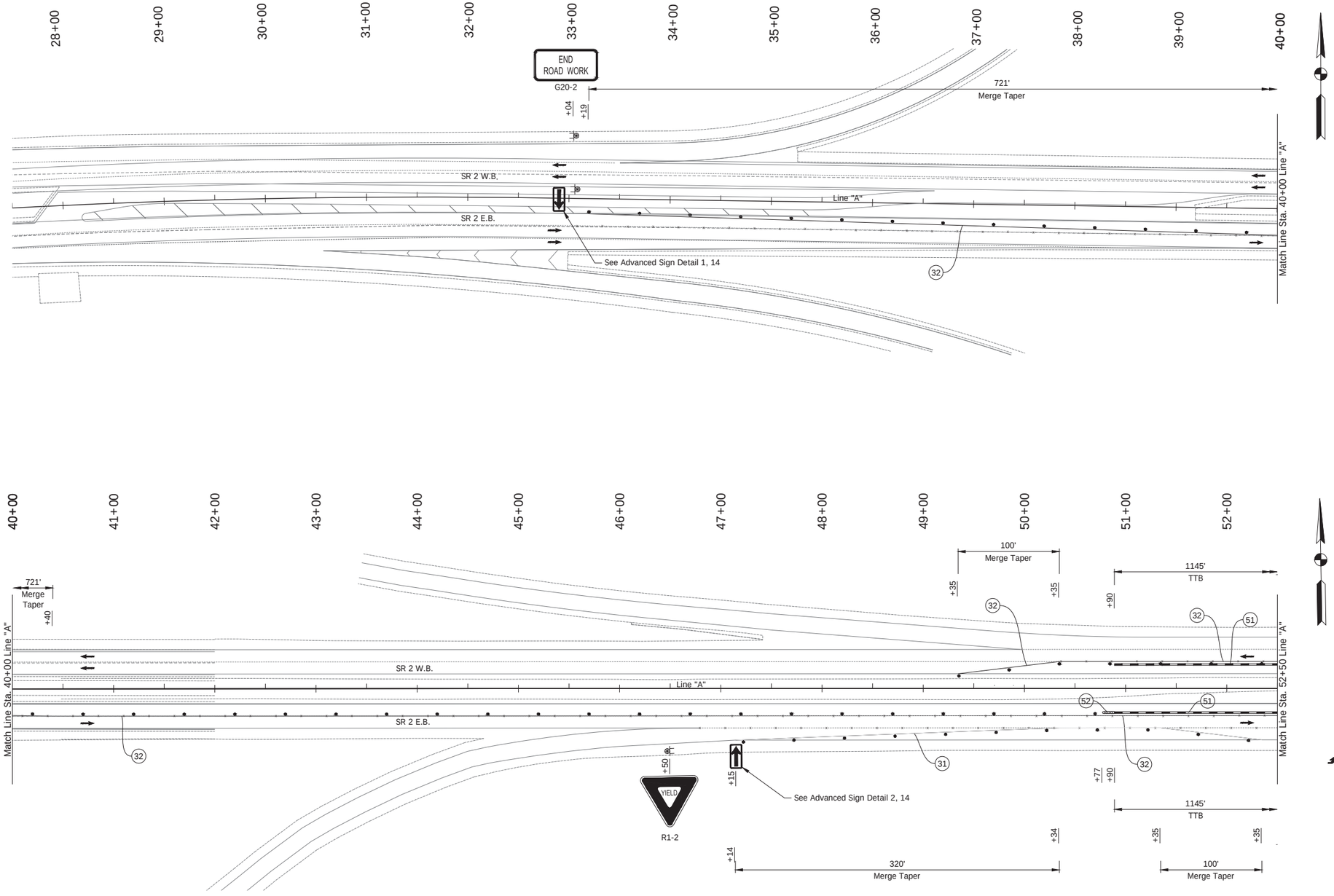
DESIGNED: JAG DRAWN: BJS
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PRE-PHASE 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	21 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:05pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\PR2-DI\CAD\PlanSet\SH_RD_MOT Plans Pre-PH1.dwg - (MOT Pre-Phase 1 (10))



NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

Date: Jun 23, 2023, 1:06pm User Name: Sara.Munsie
File: X:\production\Files\2020\120-3001\PRJ-DH\CAD\PlanSet\Sht_RD_MOT Plans Pre-PH2.dwg - (MOT Pre-Phase 2 (01a))

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

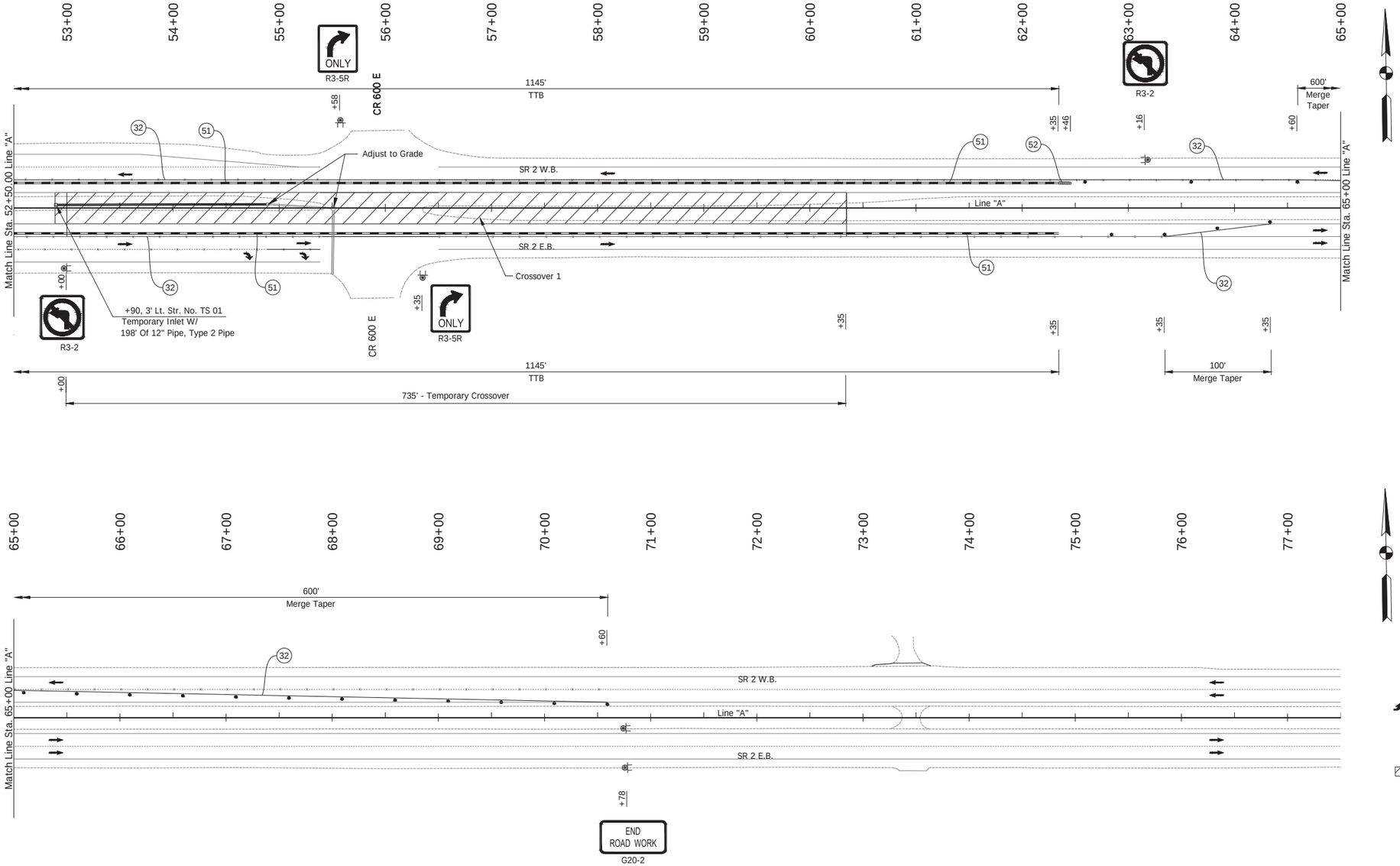
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PRE-PHASE 2

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177

SURVEY BOOK	SHEET
ELECTRONIC	22 of 321
CONTRACT	PROJECT
R-42444	1900177



LEGEND:

- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- (51) Temporary Traffic Barrier, Type 2
- Barrels
- Traffic Flow
- Construction Sign
- Line, Remove
- Construction Area

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: JAG | DRAWN: BJS

CHECKED: WBF | CHECKED: WBF

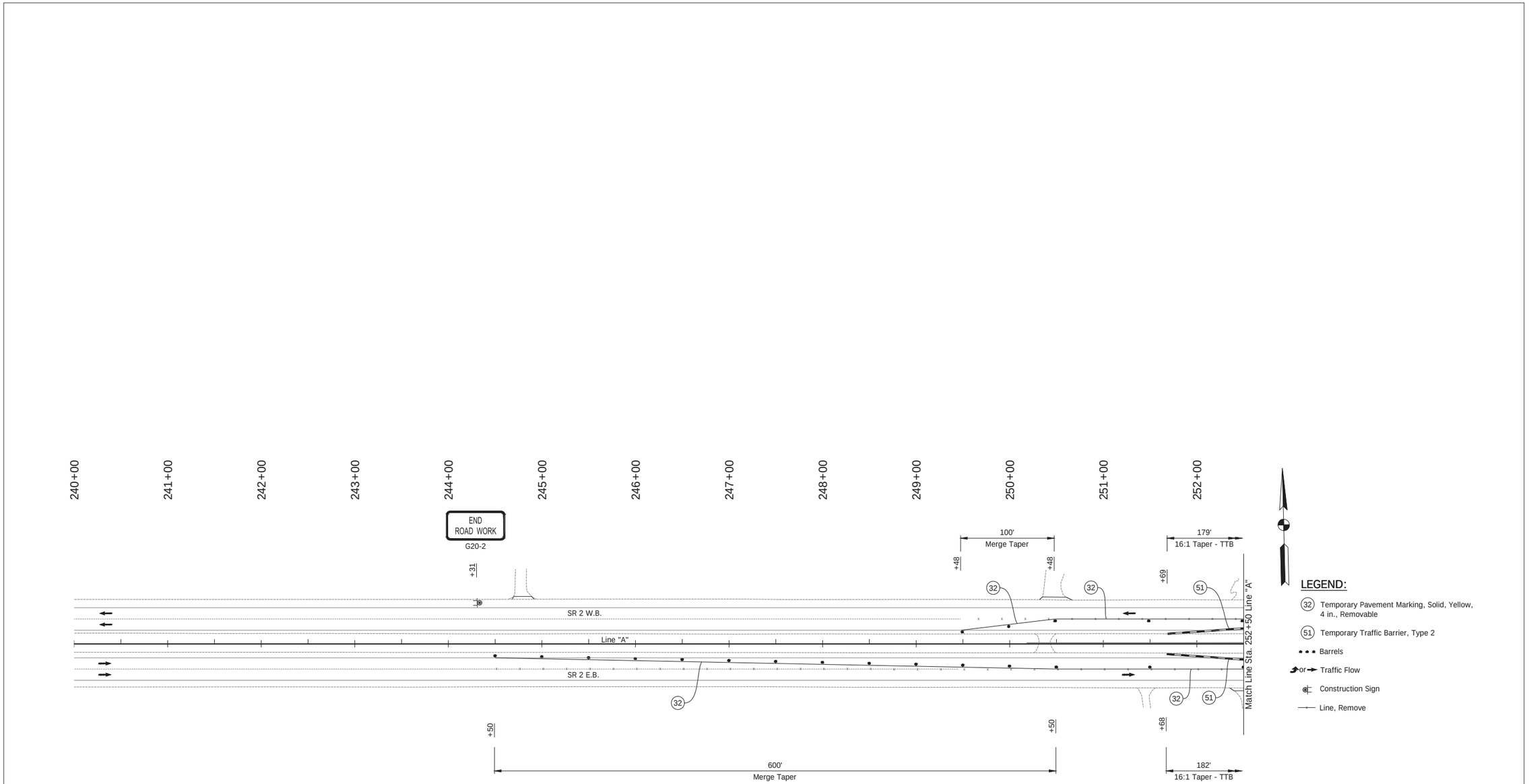
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PRE-PHASE 2

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177

SURVEY BOOK	SHEET		
ELECTRONIC	23	of	321
CONTRACT	PROJECT		
R-42444	1900177		

Date: Jun 23, 2023, 1:06pm User Name: Sara.Munsie
File: X:\production\Files\2020\1120-3001\PRJ-041\CAD\PlanSet\Sht_RD_MOT Plans Pre-PH2.dwg - (MOT Pre-Phase 2 (01b))

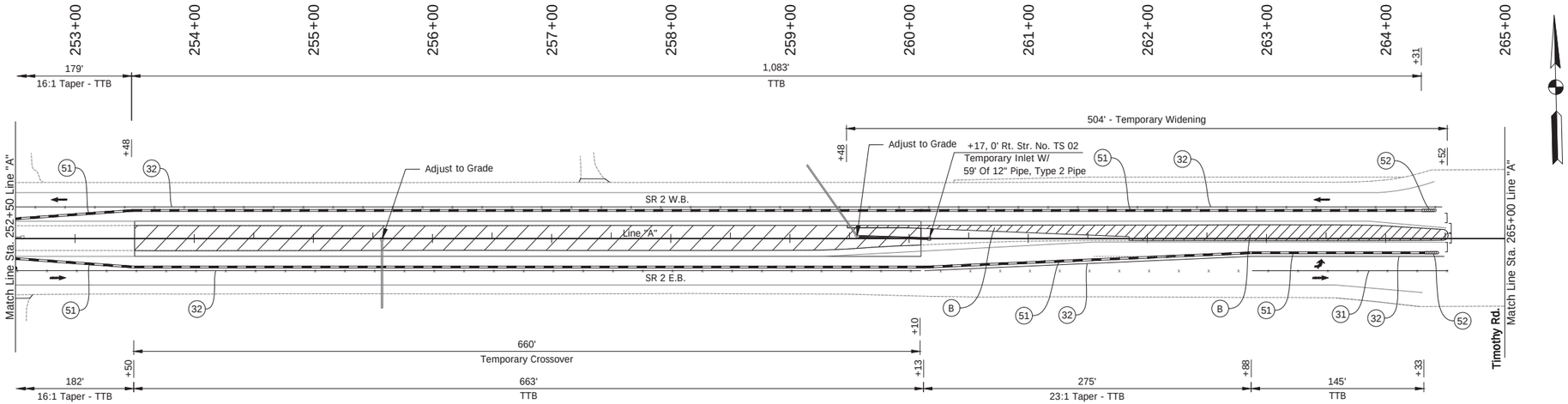


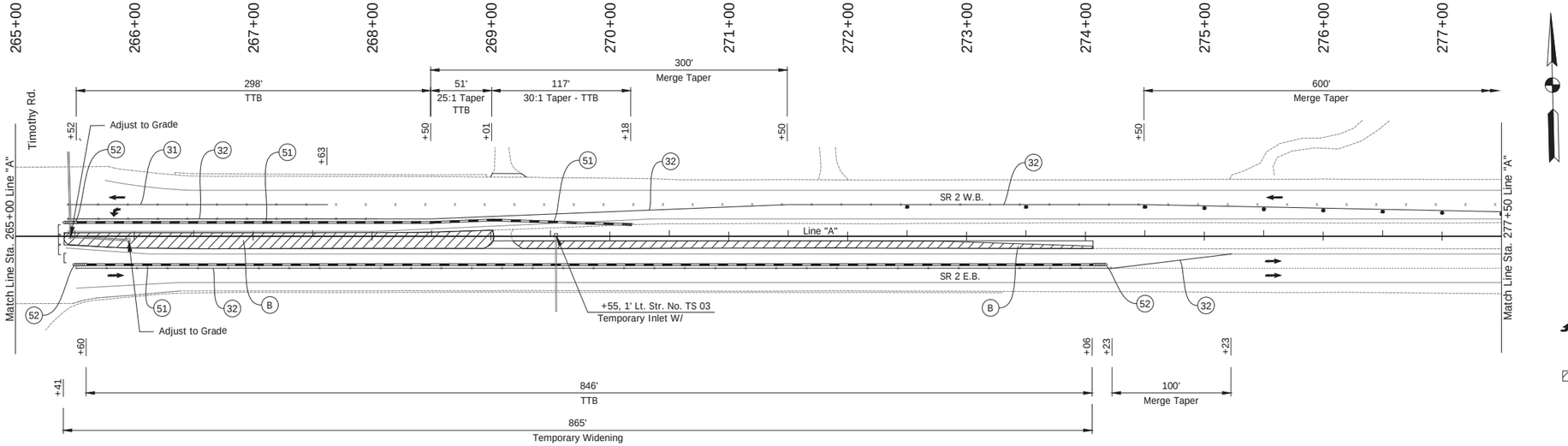
NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

Date: Jun 23, 2023, 1:06pm User Name: Sara Munse
File: X:\production\Files\2020\120\3001\PRJ-04\CAD\PlanSet\SNL_RD_MOT Plans Pre-PH2.dwg - (MOT Pre-Phase 2 (01d))

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 50'	BRIDGE FILE N/A
		VERTICAL SCALE N/A	DESIGNATION 1900177
DESIGNED: JAG DRAWN: BJS	MAINTENANCE OF TRAFFIC PRE-PHASE 2	SURVEY BOOK	SHEET
CHECKED: WBF CHECKED: WBF		ELECTRONIC	24 of 321
		CONTRACT R-42444	PROJECT 1900177





LEGEND:

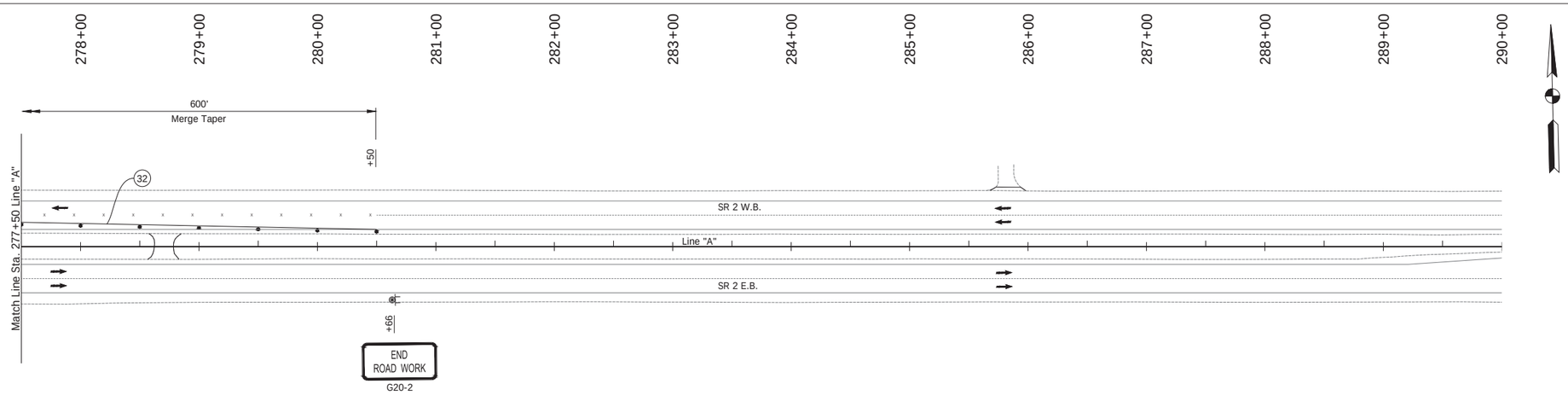
- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- (51) Temporary Traffic Barrier, Type 2
- (52) Energy Absorbing Terminal, CZ, TL-3
- (B) HMA for Temporary Pavement
- Barrels
- Traffic Flow or
- Line, Remove
- Construction Area
- Barricade, Type III-B

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50' / BRIDGE FILE: N/A
DESIGNED: JAG DRAWN: BJS CHECKED: WBF CHECKED: WBF	MAINTENANCE OF TRAFFIC PRE-PHASE 2	VERTICAL SCALE: N/A / DESIGNATION: 1900177
		SURVEY BOOK: ELECTRONIC / SHEET: 25 of 321
		CONTRACT: R-42444 / PROJECT: 1900177

Date: Jun 23, 2023, 1:06pm User Name: Sara Munse
File: X:\production\Files\2020\120\3001\PRJ-04\CAD\PlanSet\SNI_RD_MOT Plans Pre-PH2.dwg - (MOT Pre-Phase 2 (01o))



LEGEND:

- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Barrels
- or Traffic Flow
- Construction Sign
- Line, Remove

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

Date: Jun 23, 2023, 1:06pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\PRJ-04\CAD\PlanSet\SNL_RD_MOT Plans Pre-PH2.dwg - (MOT Pre-Phase 2 (01))

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

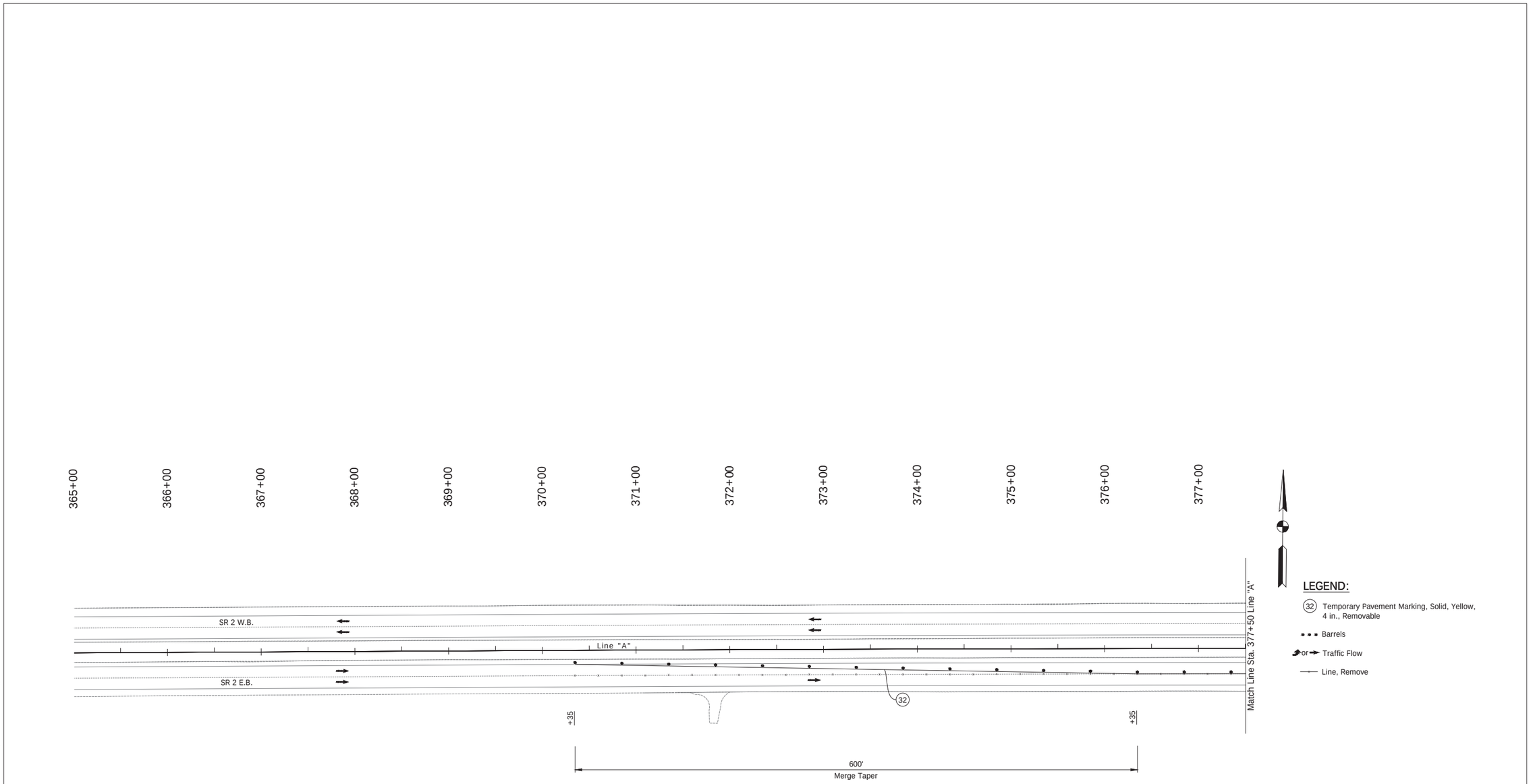
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PRE-PHASE 2

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177

SURVEY BOOK	SHEET		
ELECTRONIC	26	of	321
CONTRACT	PROJECT		
R-42444	1900177		



NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

Date: Jun 23, 2023, 1:06pm User Name: Sara.Munsie
File: X:\production\Files\2020\120-3001\PRJ-DH\CAD\PlanSet\SHt_RD_MOT Plans Pre-PH2.dwg - (NOT Pre-Phase 2 (4))

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

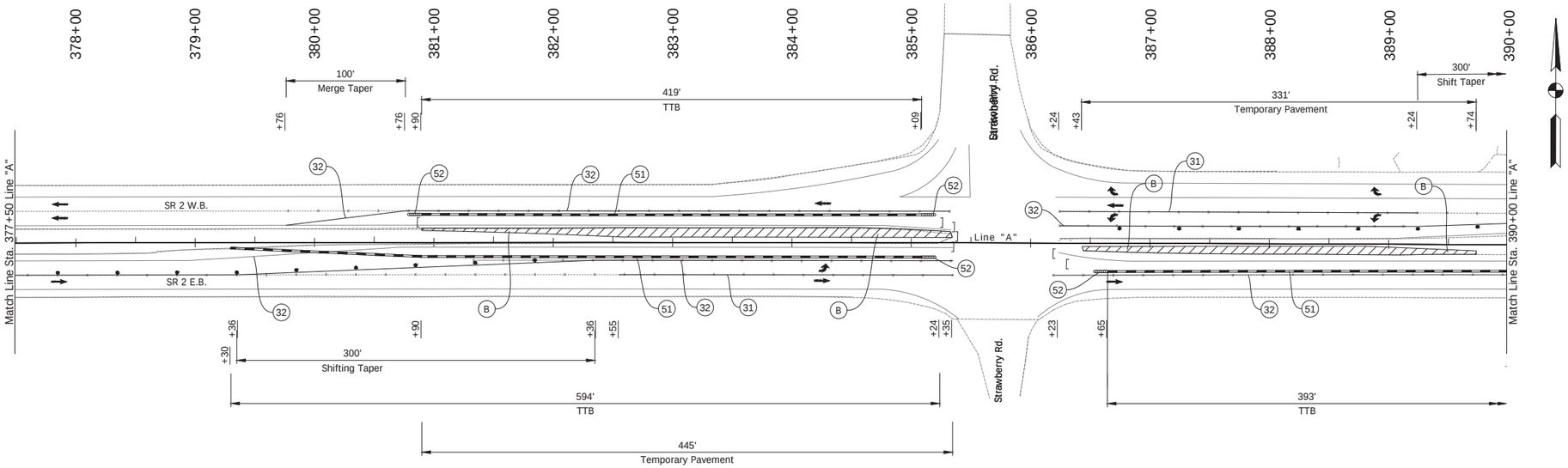
DESIGNED: JAG DRAWN: BJS

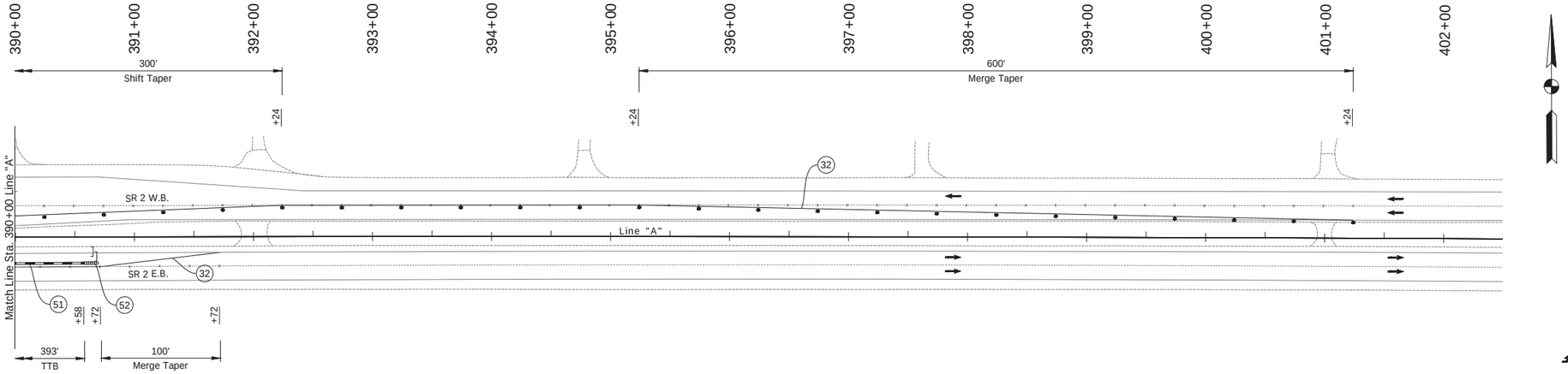
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PRE-PHASE 2

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	27 of 321
CONTRACT	PROJECT
R-42444	1900177





LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- (51) Temporary Traffic Barrier, Type 2
- (52) Energy Absorbing Terminal, CZ, TL-3
- (B) HMA for Temporary Pavement
- Barrels
- Traffic Flow
- Line, Remove
-] Barricade, Type III-B

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

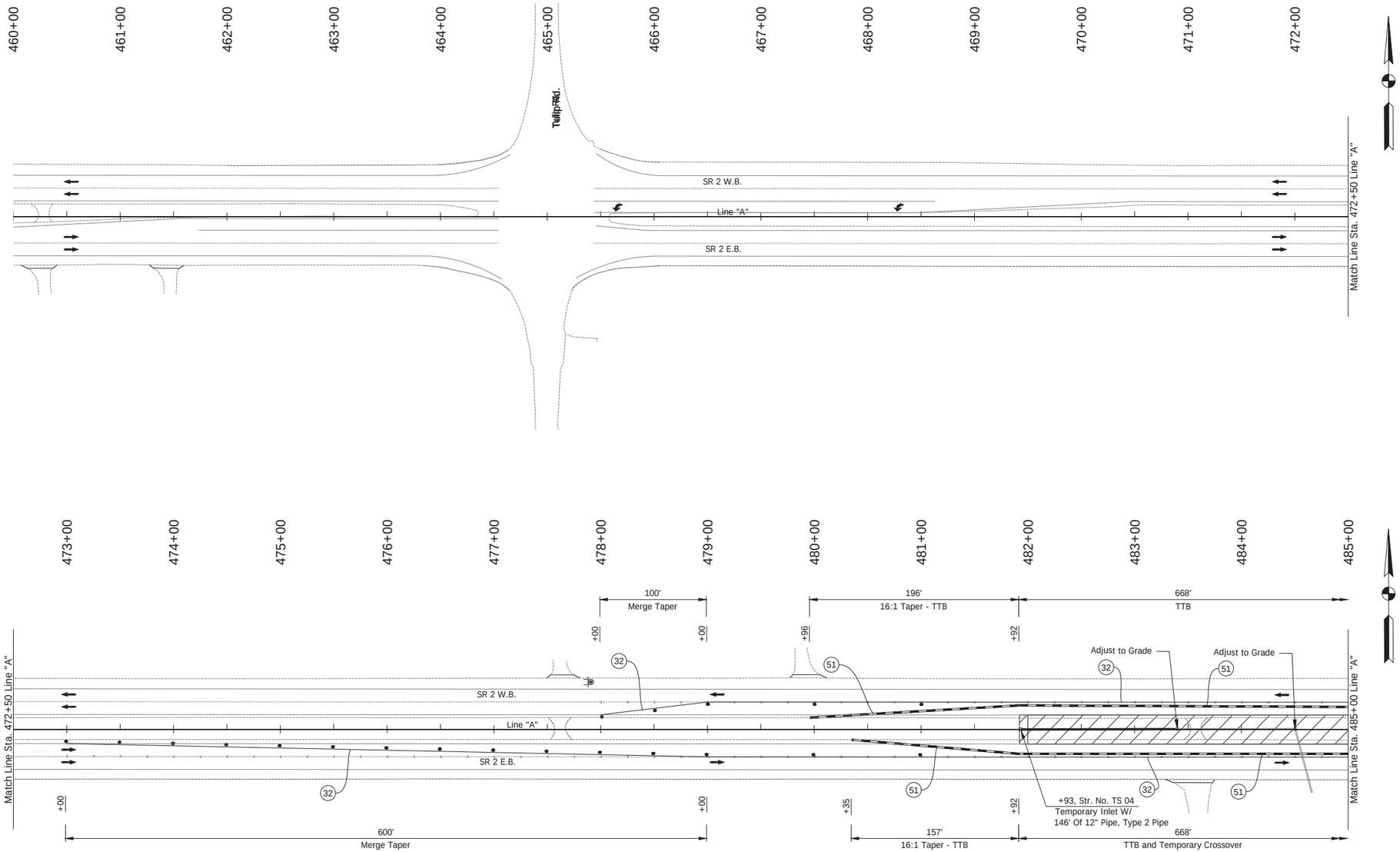
CHECKED: WBF CHECKED: WBF

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC PRE-PHASE 2

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	28 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:06pm User Name: Sara Munsie
File: X:\production\Files\2020\1120-3001\PR2-04\CAD\PlanSet\Sht_RD_MOT Plans Pre-PH2.dwg - (MOT Pre-Phase 2 (5))



LEGEND:

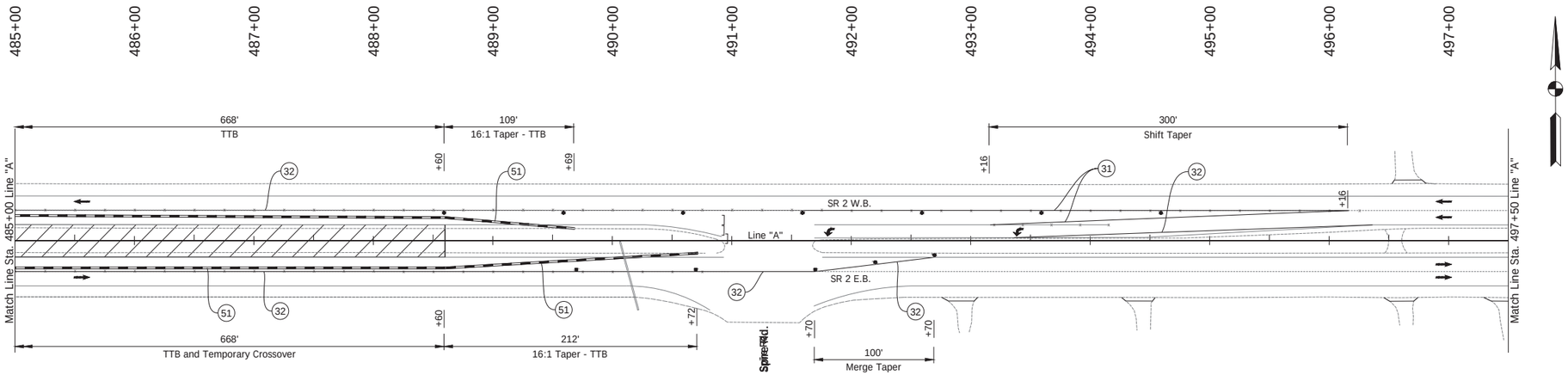
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- (51) Temporary Traffic Barrier, Type 2
- Barrels
- Traffic Flow
- Construction Sign
- Line, Remove
- Construction Area

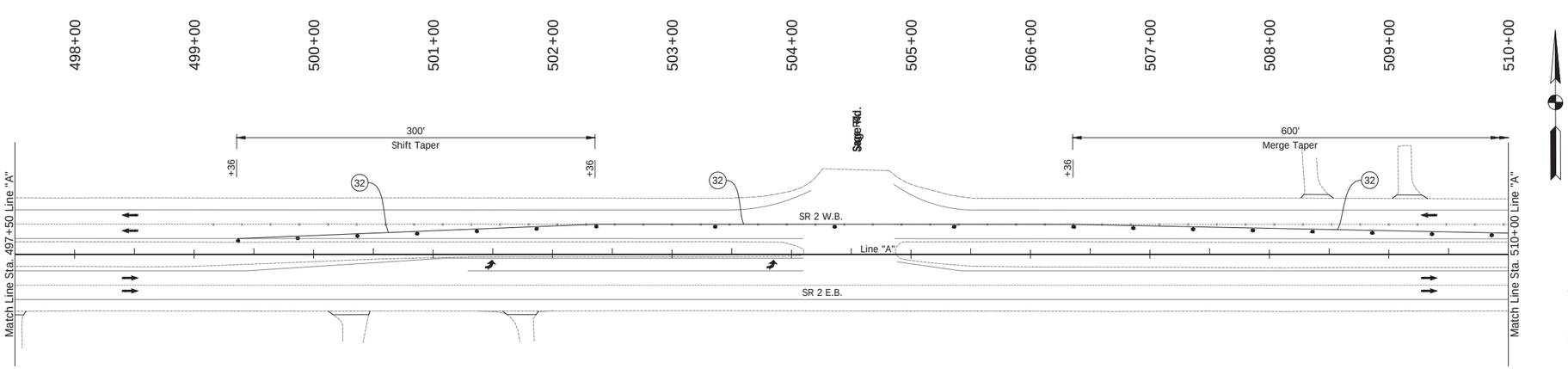
NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50' / BRIDGE FILE: N/A / VERTICAL SCALE: N/A / DESIGNATION: 1900177
DESIGNED: JAG DRAWN: BJS / CHECKED: WBF CHECKED: WBF	MAINTENANCE OF TRAFFIC PRE-PHASE 2	SURVEY BOOK: ELECTRONIC / SHEET: 29 of 321 / CONTRACT: R-42444 / PROJECT: 1900177

Date: Jun 23, 2023, 1:06pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\PR2-01\CAD\PlanSet\Sht_RD_MOT Plans Pre-PH2.dwg - (MOT Pre-Phase 2 (8))





LEGEND:

- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- (51) Temporary Traffic Barrier, Type 2
- Barrels
- Traffic Flow
- Line, Remove
- Construction Area
- Barricade, Type III-B

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG | DRAWN: BJS

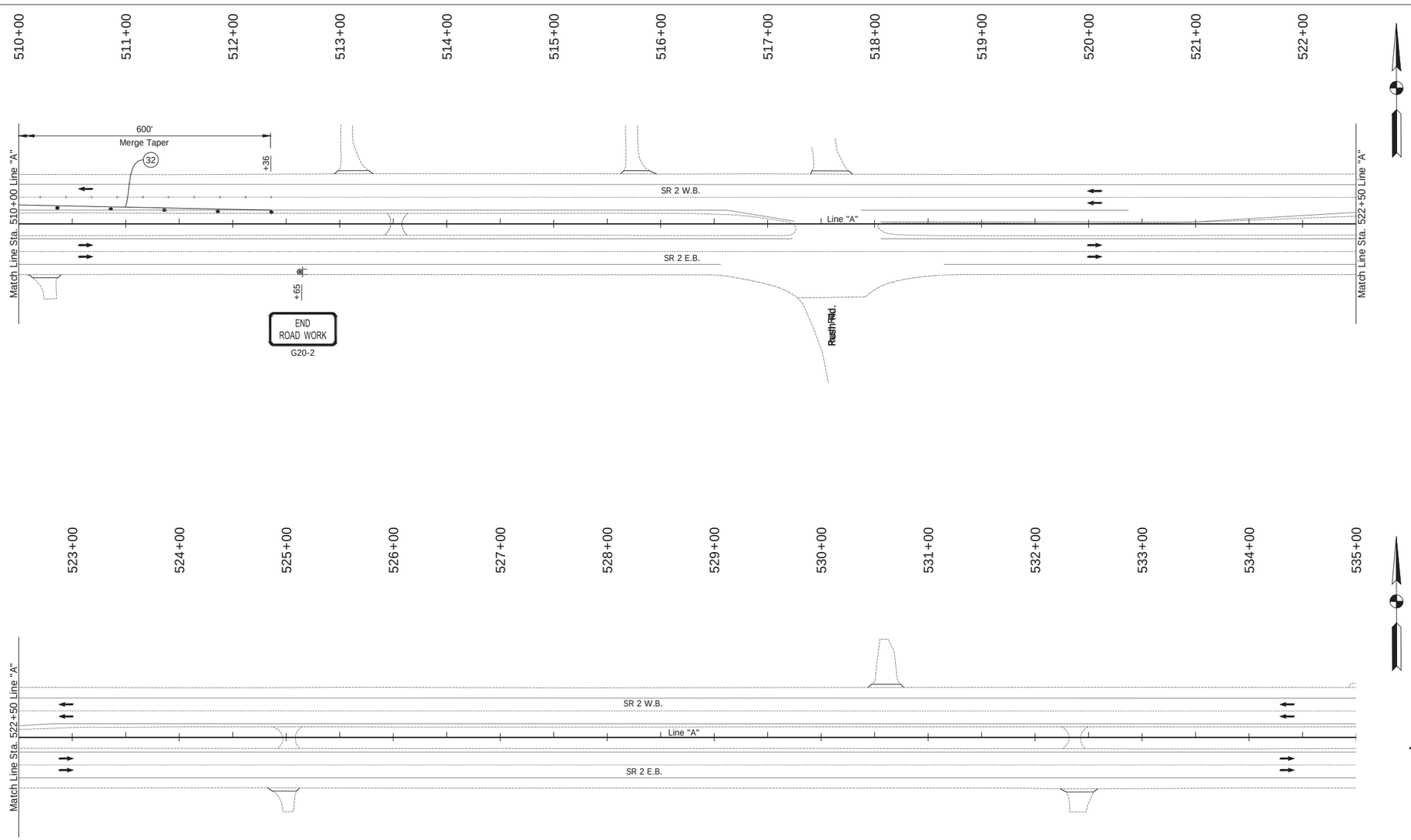
CHECKED: WBF | CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PRE-PHASE 2

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	30 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:07pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-01\CAD\PlanSet\SH_RD_MOT Plans Pre-PH2.dwg - (MOT Pre-Phase 2 (9))



LEGEND:

- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Barrels
- or Traffic Flow
- Construction Sign
- Line, Remove

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

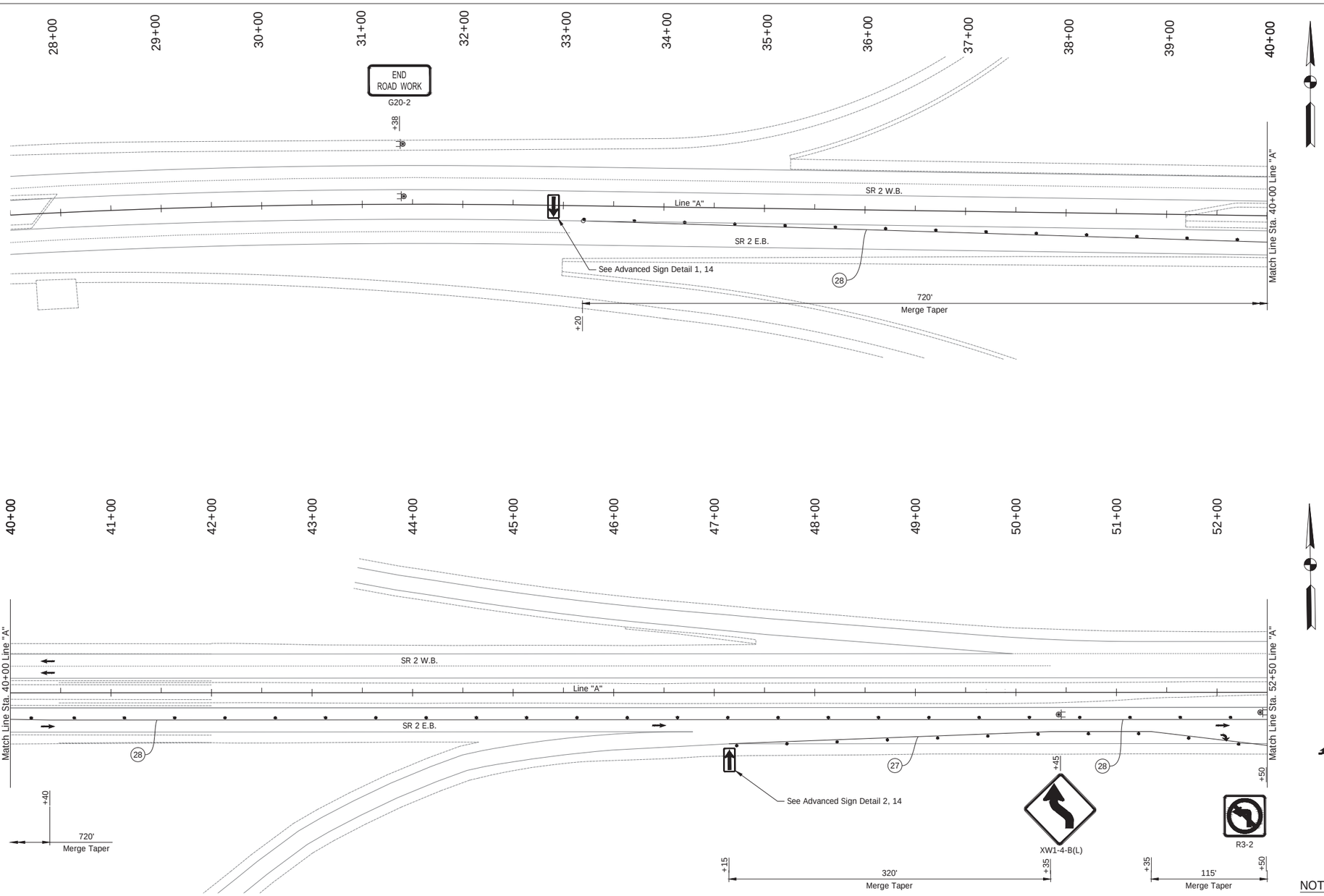
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PRE-PHASE 2

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	31 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:07pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\PR2-I-94\CAD\PlanSet\Sht_RD_MOT Plans Pre-PH2.dwg - (MOT Pre-Phase 2 (10))



LEGEND:

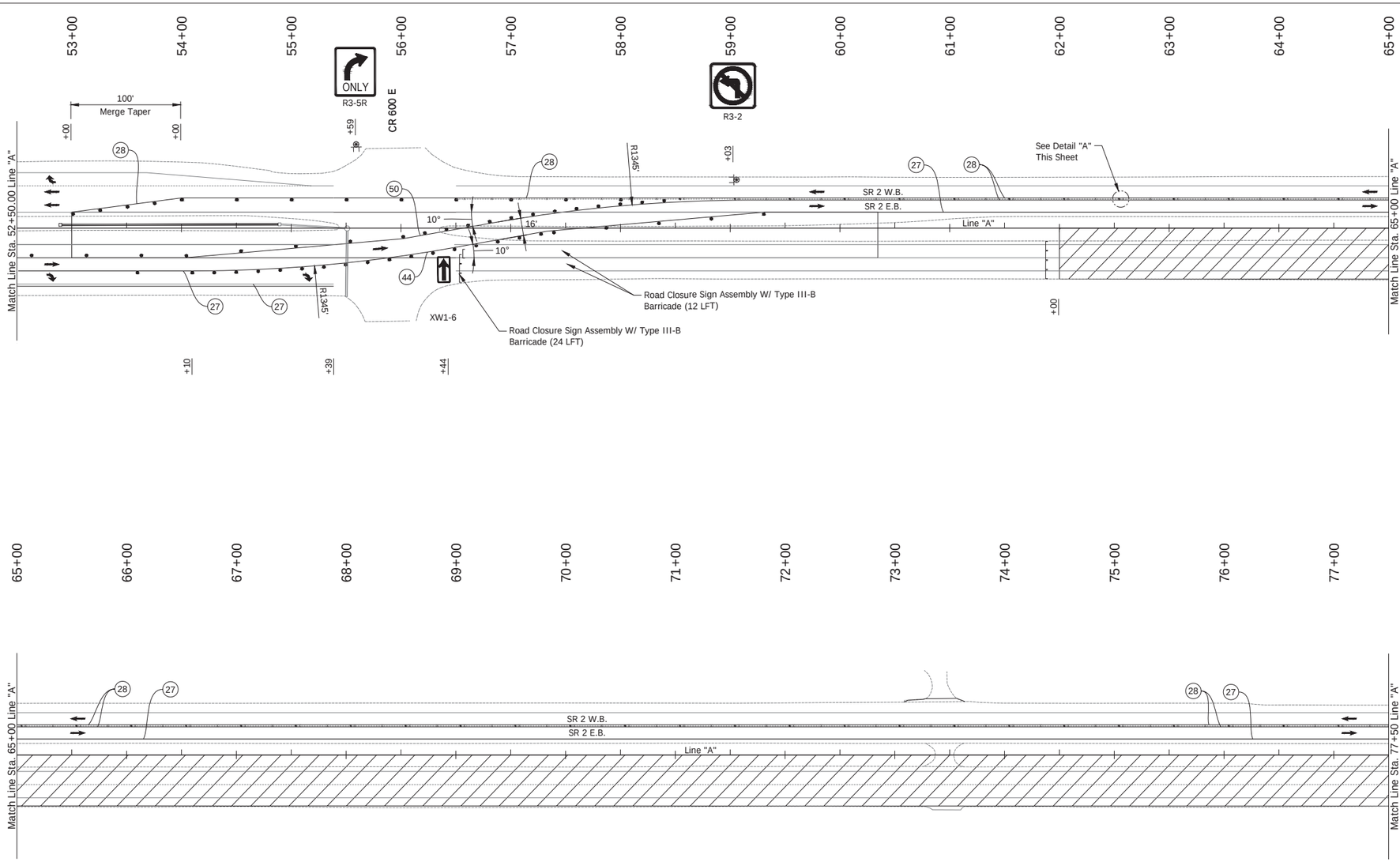
- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- (34) Temporary Transverse Pavement Marking, Removable, 24 in.
- Barrels
- Traffic Flow
- Construction Sign
- Line, Remove

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50' / BRIDGE FILE: N/A VERTICAL SCALE: N/A / DESIGNATION: 1900177
DESIGNED: JAG	DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 1A	SURVEY BOOK: ELECTRONIC / SHEET: 32 of 321
CHECKED: WBF	CHECKED: WBF		CONTRACT: R-42444 / PROJECT: 1900177

Date: Jun 23, 2023, 1:07pm User Name: Sara Munsie
File: X:\production\Files\2020\120-2001\PR3-DH(CHD)\PlanSet\SHt_RD_MOT Plans PH1a.dwg - (MOT Phase 1a (01))



DETAIL "A"
Not to Scale

LEGEND:

- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- (44) Temporary Pavement Marking, Solid, White, 8 in.
- (50) Temporary Pavement Marking, Solid, Yellow, 8 in.
- Barrels
- or Traffic Flow
- Construction Sign
- Line, Remove
- Construction Area
- Barricade, Type III-B
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: JAG | DRAWN: BJS

CHECKED: WBF | CHECKED: WBF

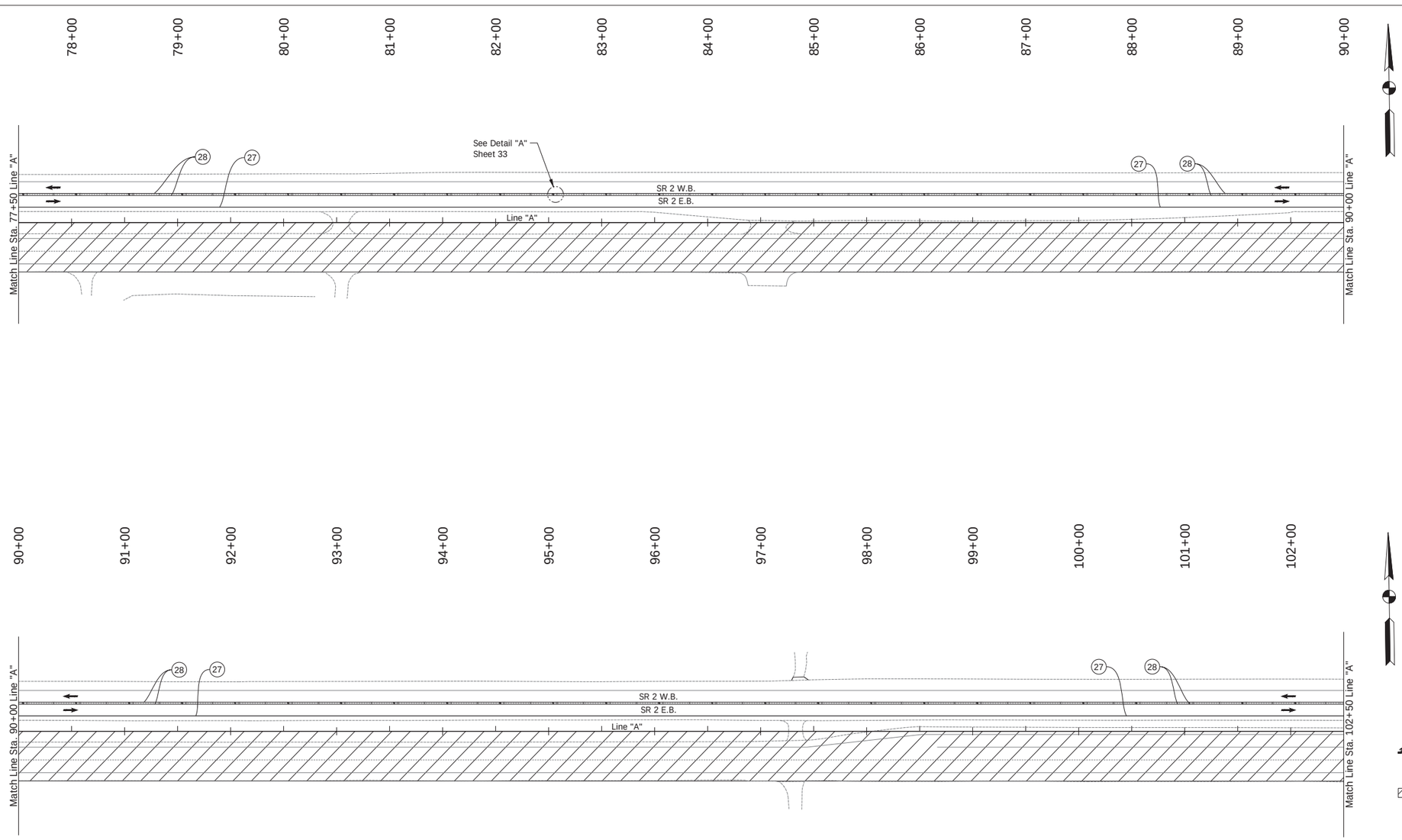
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 1A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177

SURVEY BOOK	SHEET
ELECTRONIC	33 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:07pm User Name: Sara Munsie
File: X:\production\Files\2020\1220-3001\PRJ-04\CAD\PlanSet\Sht_RD_MOT Plans PH1a.dwg - (MOT Phase 1a (02))



LEGEND:

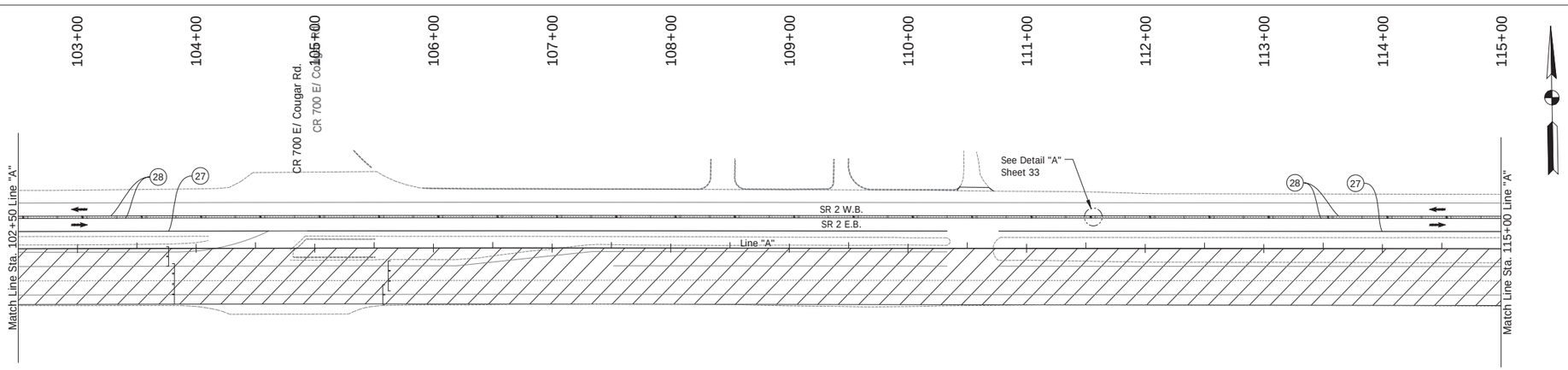
- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- or Traffic Flow
- Line, Remove
- Construction Area
- Tubular Marker

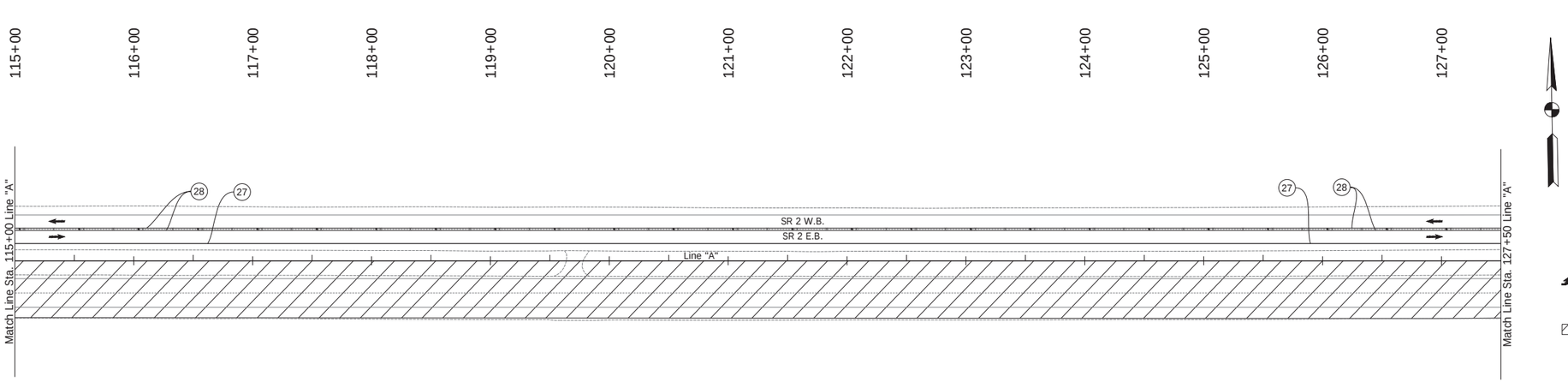
NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50'	BRIDGE FILE: N/A
		VERTICAL SCALE: N/A	DESIGNATION: 1900177
DESIGNED: JAG / DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 1A	SURVEY BOOK: ELECTRONIC	SHEET: 34 of 321
CHECKED: WBF / CHECKED: WBF		CONTRACT: R-42444	PROJECT: 1900177

Date: Jun 23, 2023, 1:08pm User Name: Sara Munsie
File: X:\production\Files\2020\120-30911\RU-04\CAD\PlanSet\Sht_RD_MOT Plans PH1a.dwg - (MOT Phase 1a (03))





LEGEND:

- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- Traffic Flow
- Line, Remove
- Construction Area
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG | DRAWN: BJS

CHECKED: WBF | CHECKED: WBF

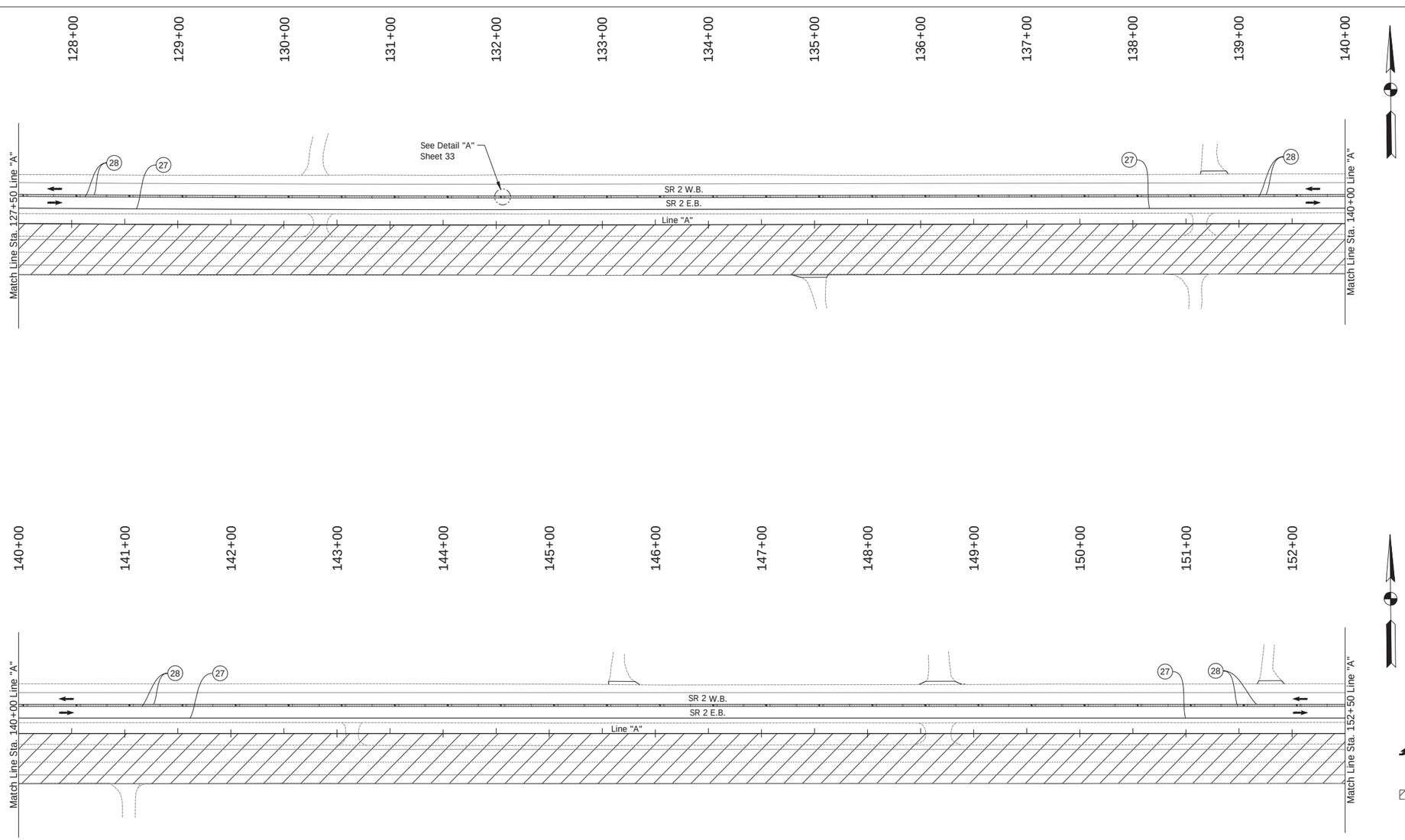
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 1A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177

SURVEY BOOK	SHEET
ELECTRONIC	35 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:08pm User Name: Sara Munsie
File: X:\production\Files\2020\120-30911\RO-04\CAD\PlanSet\Sht_RD_MOT Plans PH1a.dwg - (MOT Phase 1a (04))



LEGEND:

- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- Traffic Flow
- Line, Remove
- Construction Area
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: JAG | DRAWN: BJS

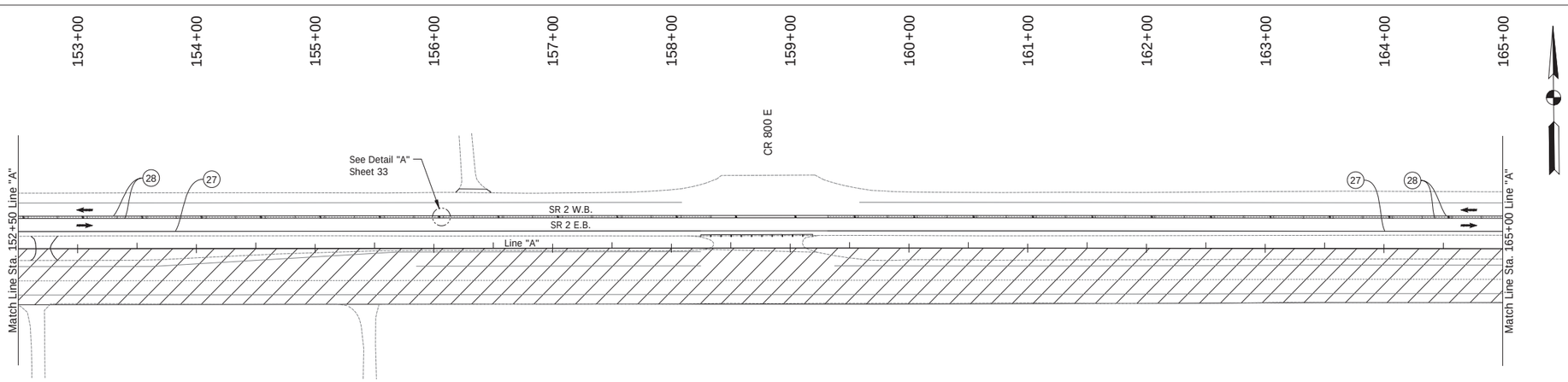
CHECKED: WBF | CHECKED: WBF

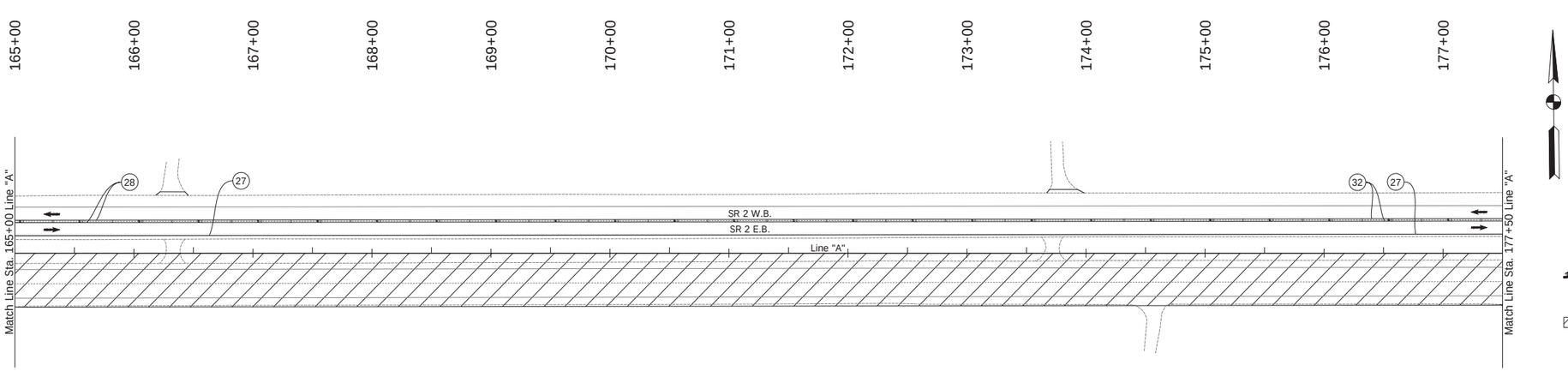
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 1A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	36 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:08pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR1-0H\CAD\PlanSet\Sht_RD_MOT Plans PH1a.dwg - (MOT Phase 1a (05))





LEGEND:

- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- Traffic Flow or
- Line, Remove
- Construction Area
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG | DRAWN: BJS

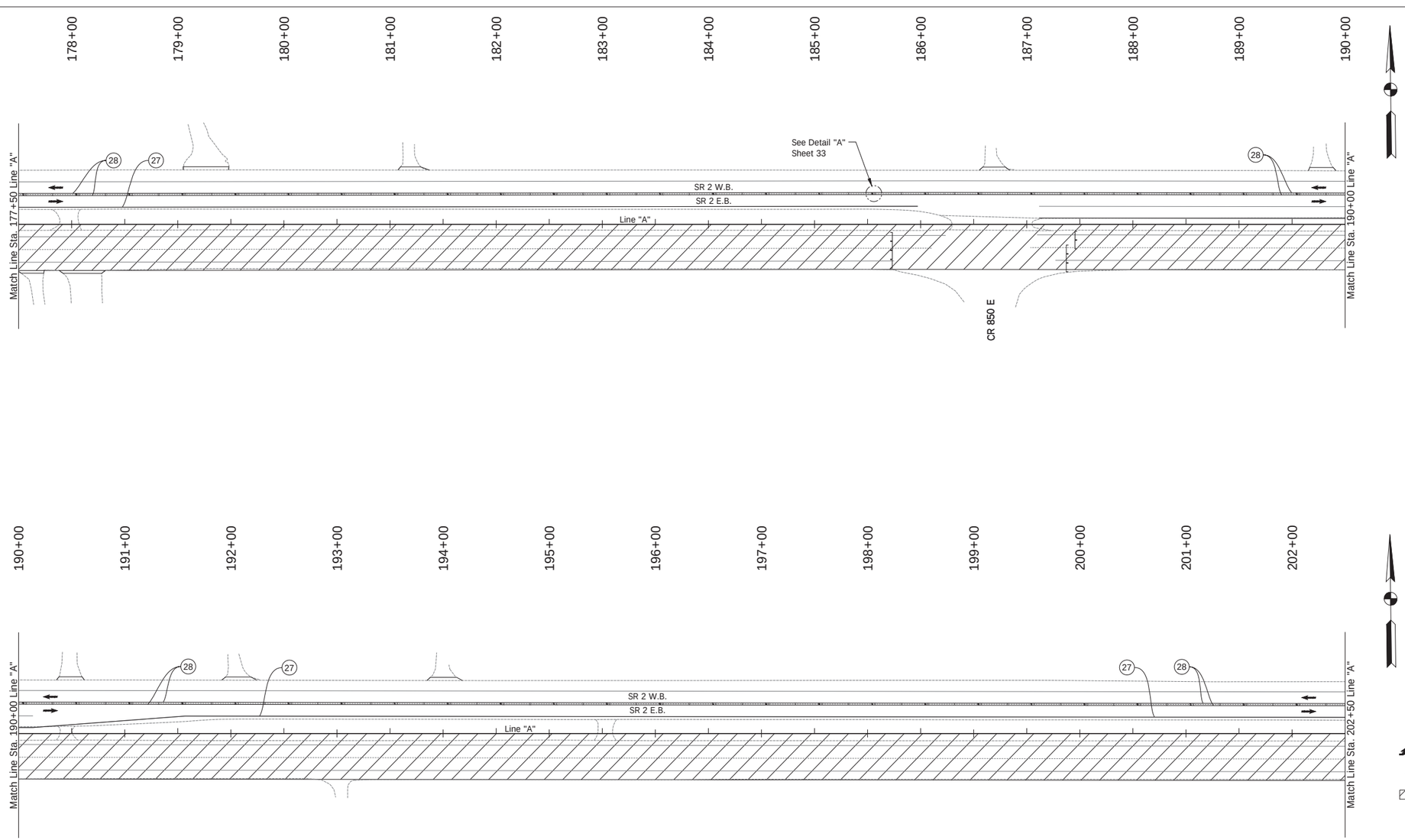
CHECKED: WBF | CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 1A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	37 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:08pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\PR2-DI\CAD\PlanSet\Sht_RD_MOT Plans PH1a.dwg - (MOT Phase 1a (06))



LEGEND:

- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- Traffic Flow or
- Line, Remove
- Construction Area
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

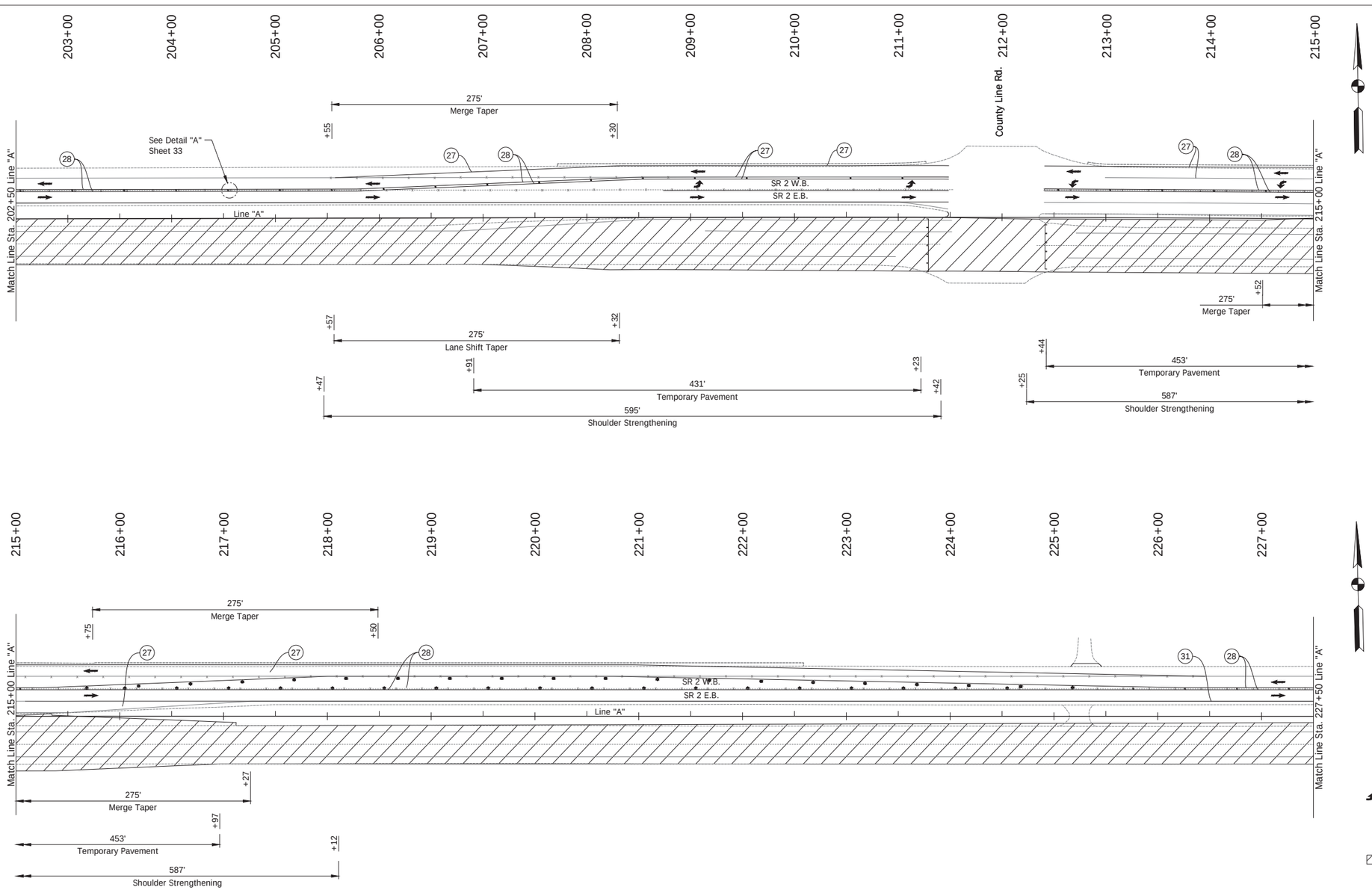
DESIGNED: JAG
DRAWN: BJS
CHECKED: WBF
CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 1A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	38 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:08pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR1-0H\CAD\PlanSet\Sht_RD_MOT Plans PH1a.dwg - (MOT Phase 1a (07))



LEGEND:

- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- (51) Temporary Traffic Barrier, Type 2
- (52) Energy Absorbing Terminal, CZ, TL-3
- Barrels
- Traffic Flow or
- Construction Sign
- Line, Remove
- Construction Area
- Barricade, Type III-B
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

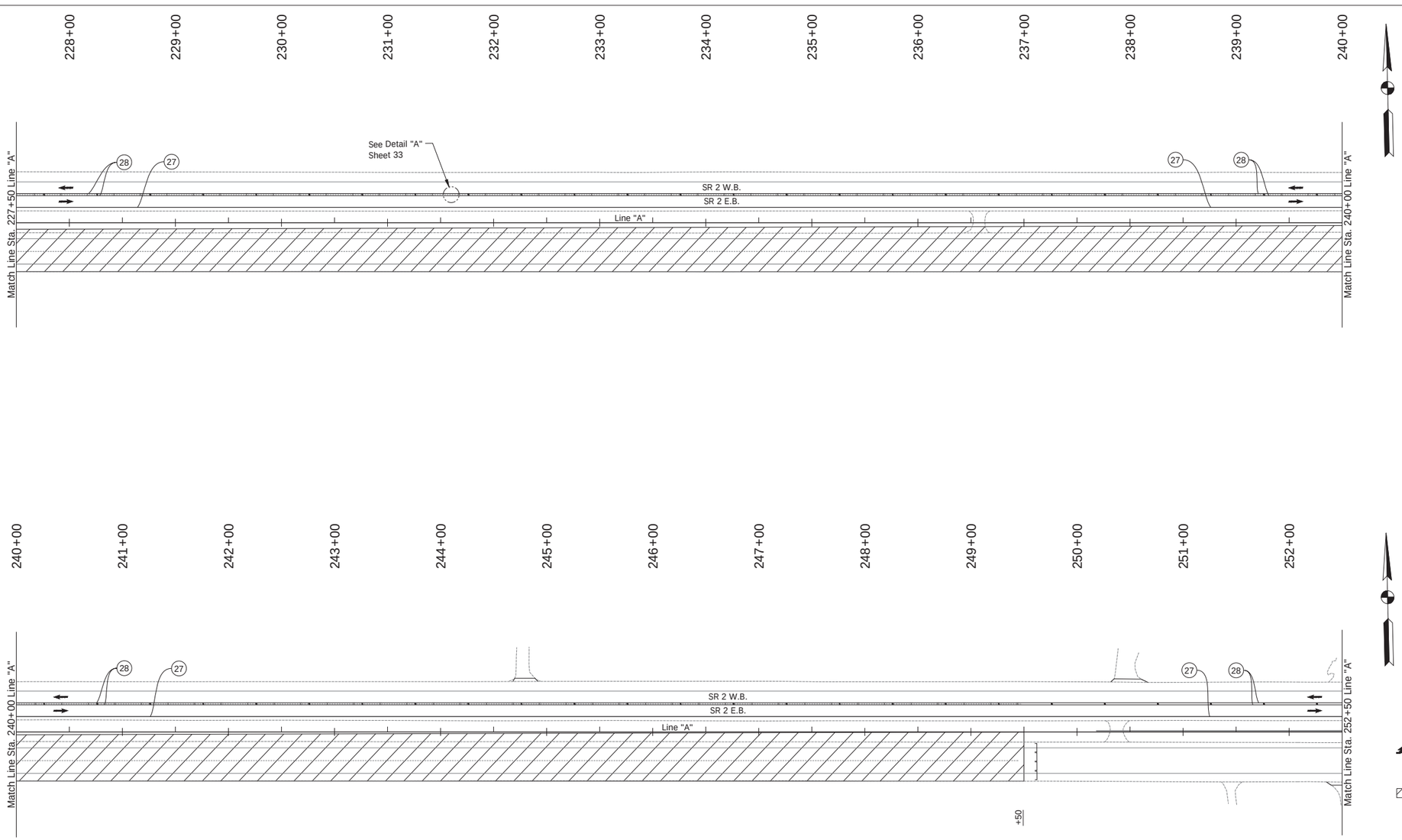
CHECKED: WBF CHECKED: WBF

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC PHASE 1A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	39 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:08pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR1-01\CAD\PlanSet\Sht_RD_MOT Plans PH1a.dwg - (MOT Phase 1a (08))



LEGEND:

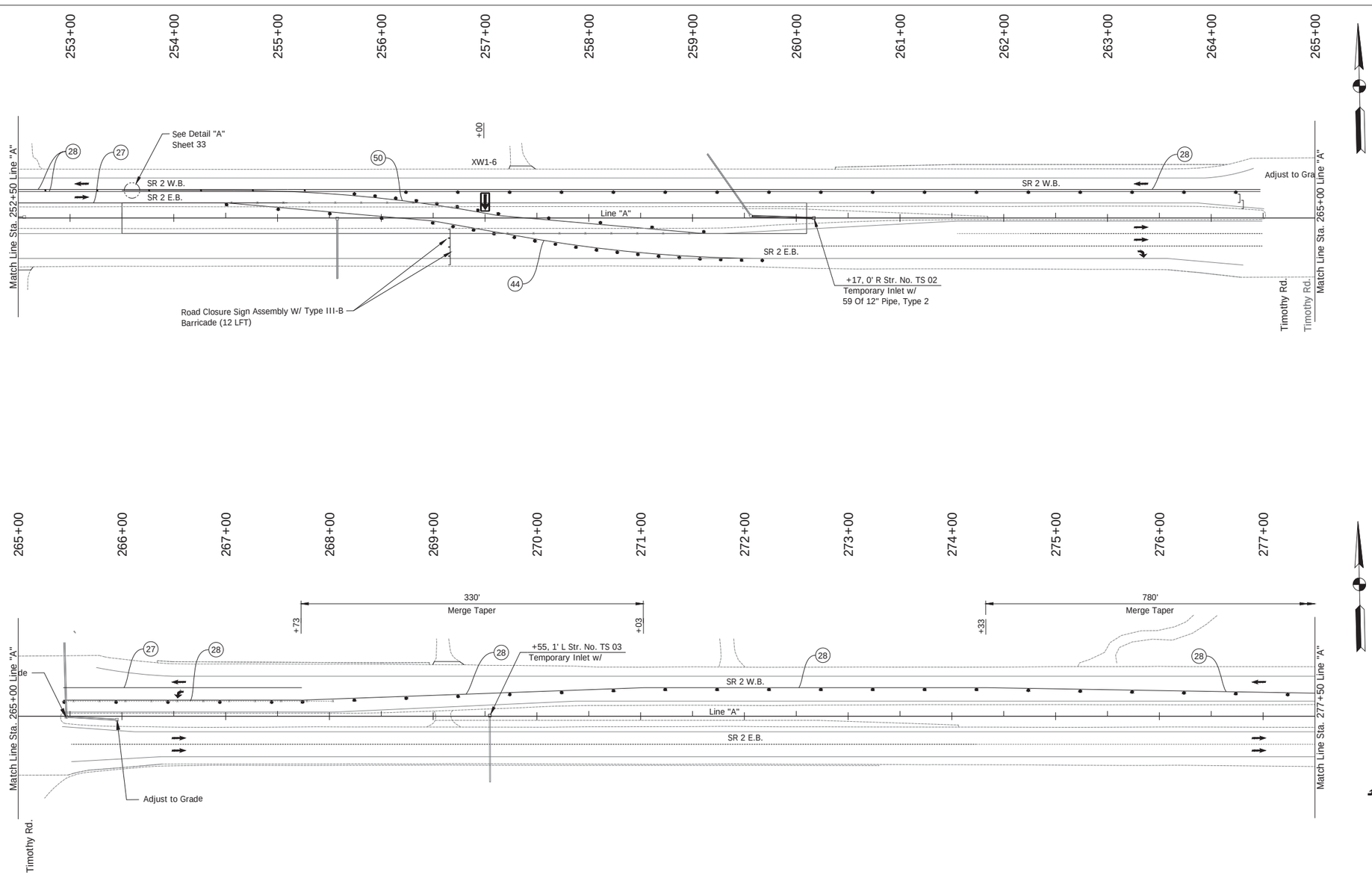
- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- Traffic Flow
- Line, Remove
- Construction Area
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 50'	BRIDGE FILE N/A
		VERTICAL SCALE N/A	DESIGNATION 1900177
DESIGNED: JAG DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 1A	SURVEY BOOK ELECTRONIC	SHEET 40 of 321
CHECKED: WBF CHECKED: WBF		CONTRACT R-42444	PROJECT 1900177

Date: Jun 23, 2023, 1:08pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\PR2-DH\CAD\PlanSet\Sht_RD_MOT Plans PH1a.dwg - (MOT Phase 1a (09))



LEGEND:

- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- (44) Temporary Pavement Marking, Solid, White, 8 in.
- (50) Temporary Pavement Marking, Solid, Yellow, 8 in.
- Barrels
- Traffic Flow
- Construction Sign
- Line, Remove
- Barricade, Type III-B
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

CHECKED: WBF CHECKED: WBF

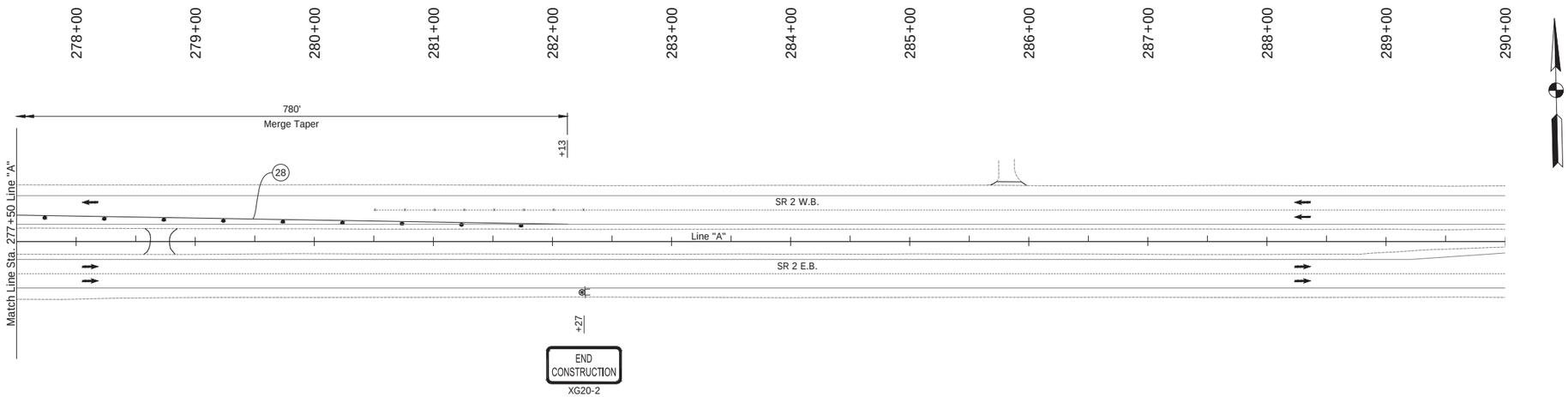
INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC PHASE 1A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177

SURVEY BOOK	SHEET
ELECTRONIC	41 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:08pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR1-0H\CAD\PlanSet\SH_RD_MOT Plans PH1a.dwg - (MOT Phase 1a (1))



LEGEND:

- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- • • • Barrels
- or Traffic Flow
- Construction Sign
- Line, Remove

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: JAG | DRAWN: BJS

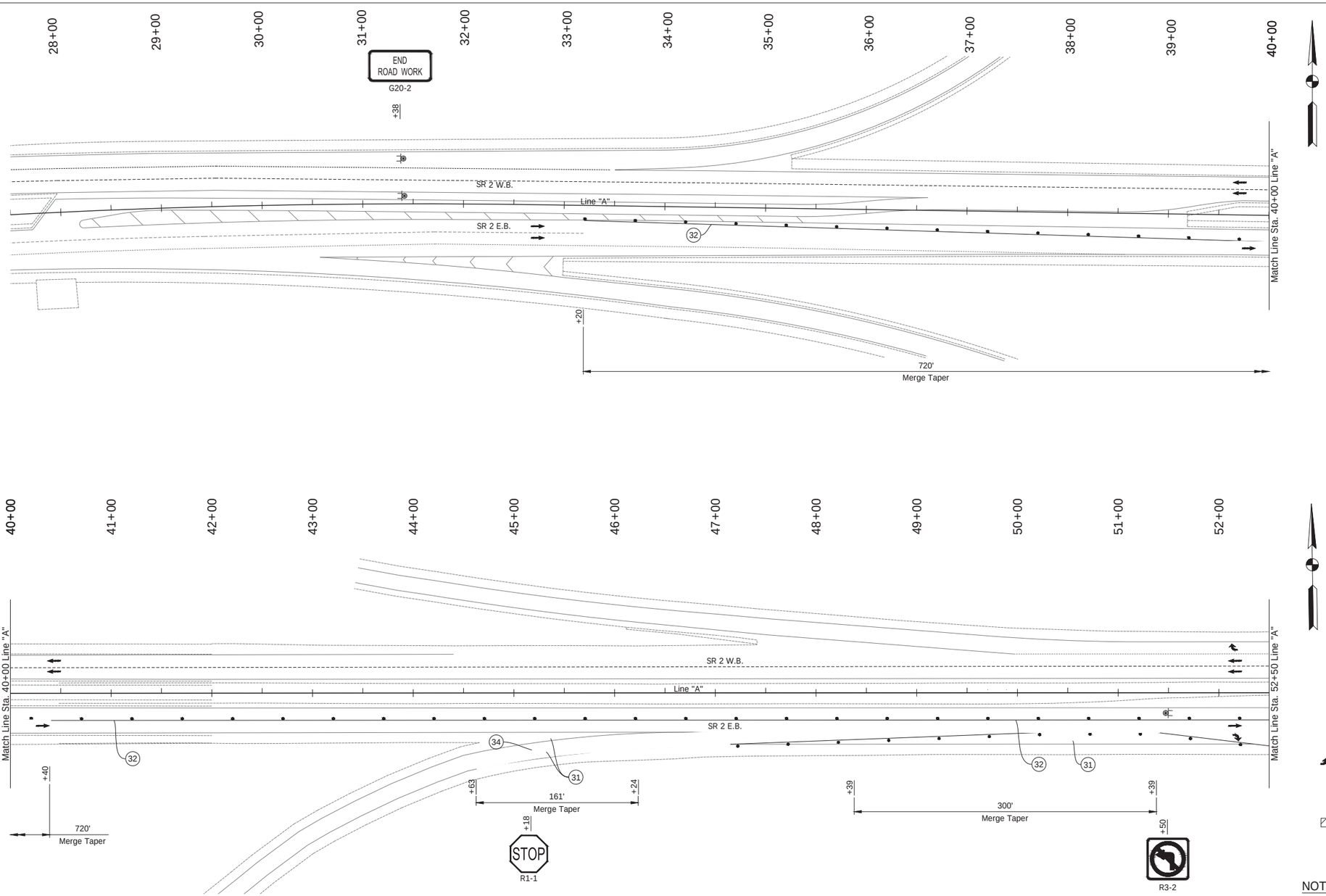
CHECKED: WBF | CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 1A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	42 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:08pm User Name: Sara Munsie
File: X:\production\Files\2020\120-30011\RO-04\CAD\PlanSet\SHt_RD_MOT Plans PH1a.dwg - (MOT Phase 1a (11))



LEGEND:

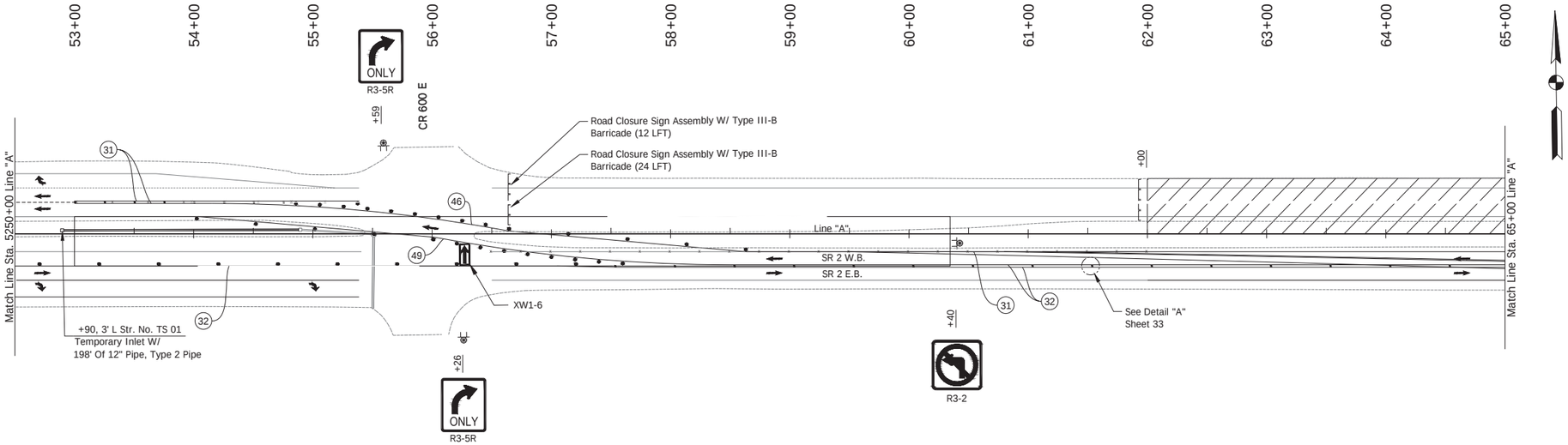
- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- (34) Temporary Transverse Pavement Marking, Removable, 24 in.
- Barrels
- or Traffic Flow
- Construction Sign
- Line, Remove
- Construction Area
- Barricade, Type III-B
- Tubular Marker

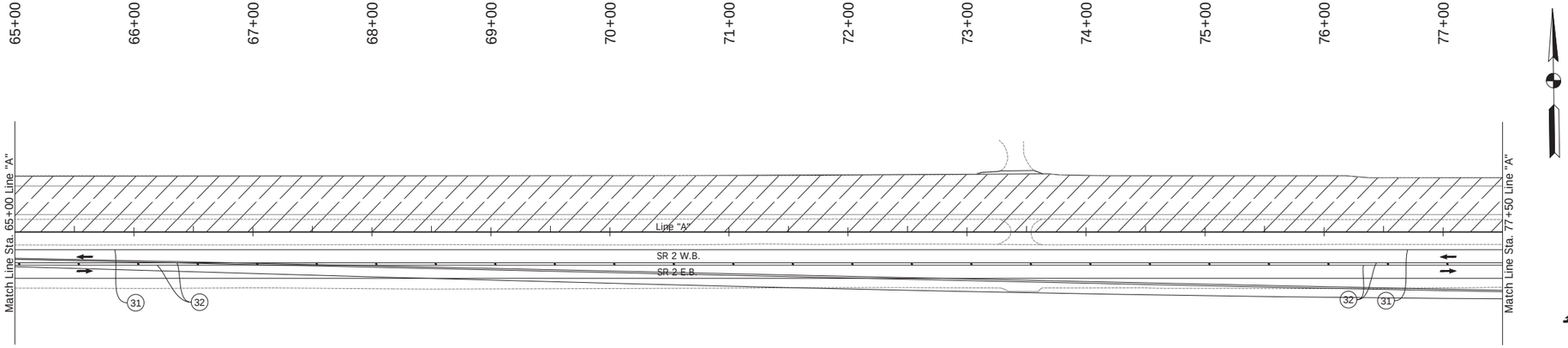
NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50' / BRIDGE FILE: N/A VERTICAL SCALE: N/A / DESIGNATION: 1900177
DESIGNED: JAG	DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 1B	SURVEY BOOK: ELECTRONIC / SHEET: 43 of 321
CHECKED: WBF	CHECKED: WBF		CONTRACT: R-42444 / PROJECT: 1900177

Date: Jun 23, 2023, 1:09pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3901\PR3-DH(CHD)\PlanSet\SHt_RD_MOT Plans PH1b.dwg - (MOT Phase 1b (01))





LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- (46) Temporary Pavement Marking, Solid, White, 8 in., Removable
- (49) Temporary Pavement Marking, Solid, Yellow, 8 in., Removable
- Barrels
- or Traffic Flow
- Construction Sign
- Line, Remove
- Construction Area
- Barricade, Type III-B
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG | DRAWN: BJS

CHECKED: WBF | CHECKED: WBF

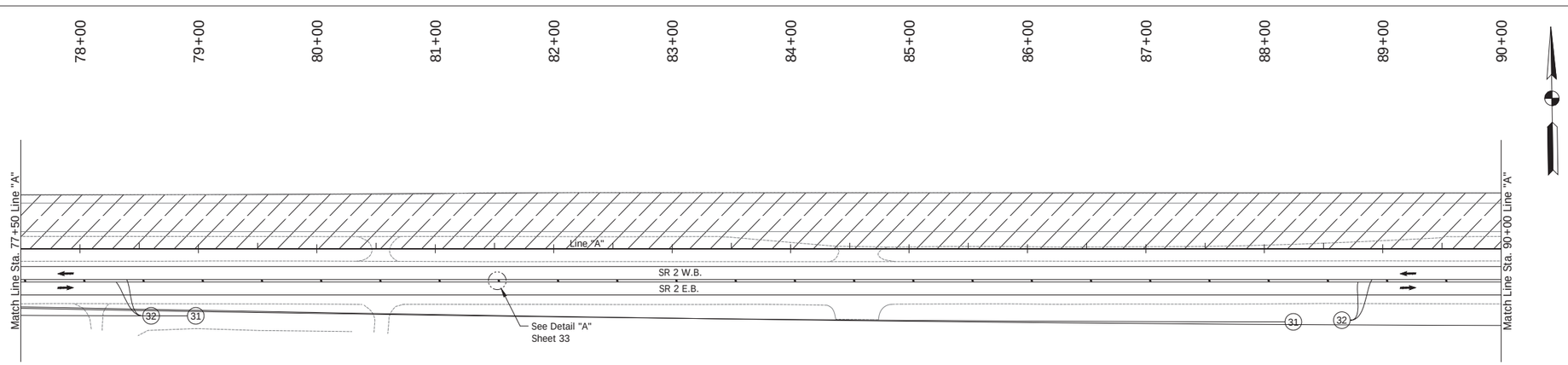
INDIANA
DEPARTMENT OF TRANSPORTATION

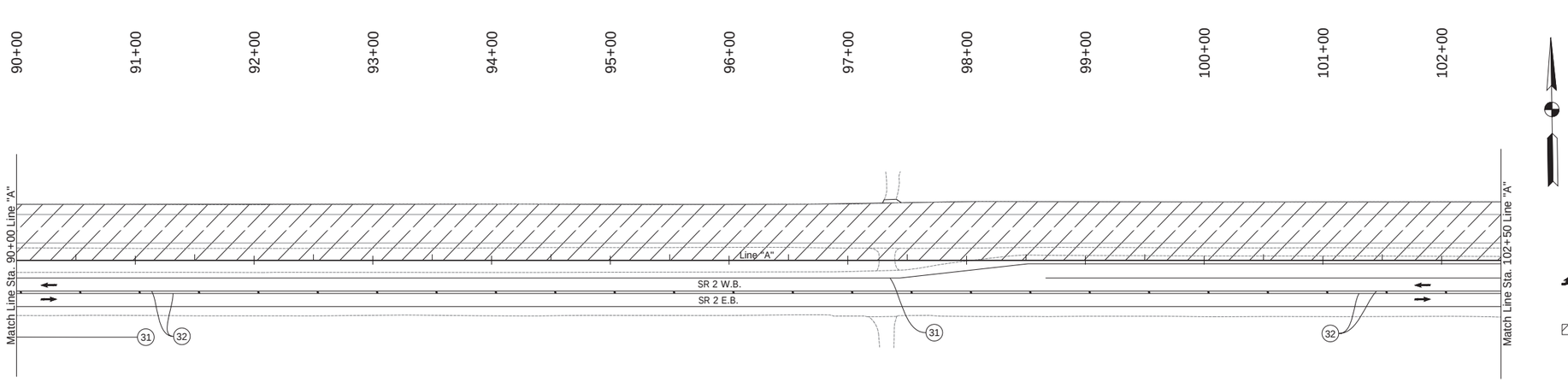
MAINTENANCE OF TRAFFIC
PHASE 1B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177

SURVEY BOOK	SHEET
ELECTRONIC	44 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:09pm User Name: Sara Munsie
File: X:\production\Files\2020\120-20011\PR\1-DH(CHD)\PlanSet\SHt_RD_MOT Plans PH1b.dwg - (MOT Phase 1b (02))





LEGEND:

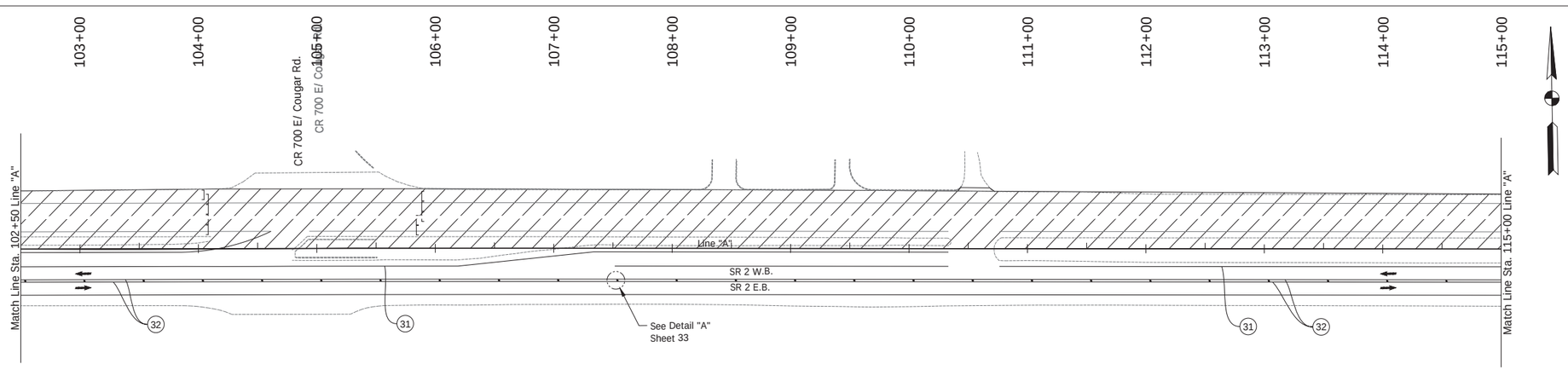
- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Traffic Flow
- Line, Remove
- Construction Area
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50'	BRIDGE FILE: N/A
		VERTICAL SCALE: N/A	DESIGNATION: 1900177
DESIGNED: JAG / DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 1B	SURVEY BOOK: ELECTRONIC	SHEET: 45 of 321
CHECKED: WBF / CHECKED: WBF		CONTRACT: R-42444	PROJECT: 1900177

Date: Jun 23, 2023, 1:09pm User Name: Sara Munsie
File: X:\production\Files\2020\120-30911\RU-04\CAD\PlanSet\Sht_RD_MOT Plans PH1b.dwg - (MOT Phase 1b (03))



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Traffic Flow
- Line, Remove
- Construction Area
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

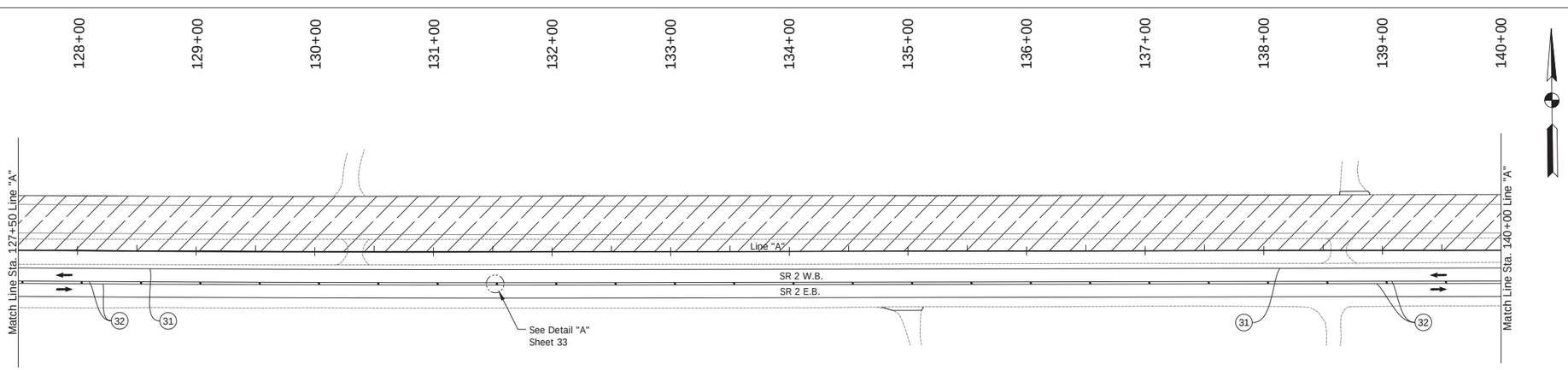
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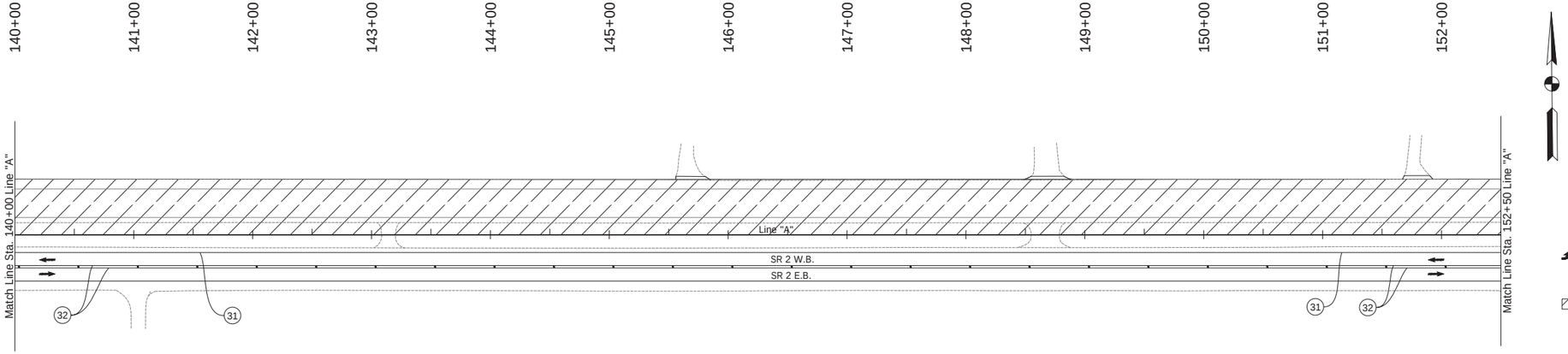
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 1B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	46 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:09pm User Name: Sara Munsie
File: X:\production\Files\2020\120-30911\RU-04\C4D\PlanSet\Sht_RD_MOT Plans PH1b.dwg - (MOT Phase 1b (04))





LEGEND:

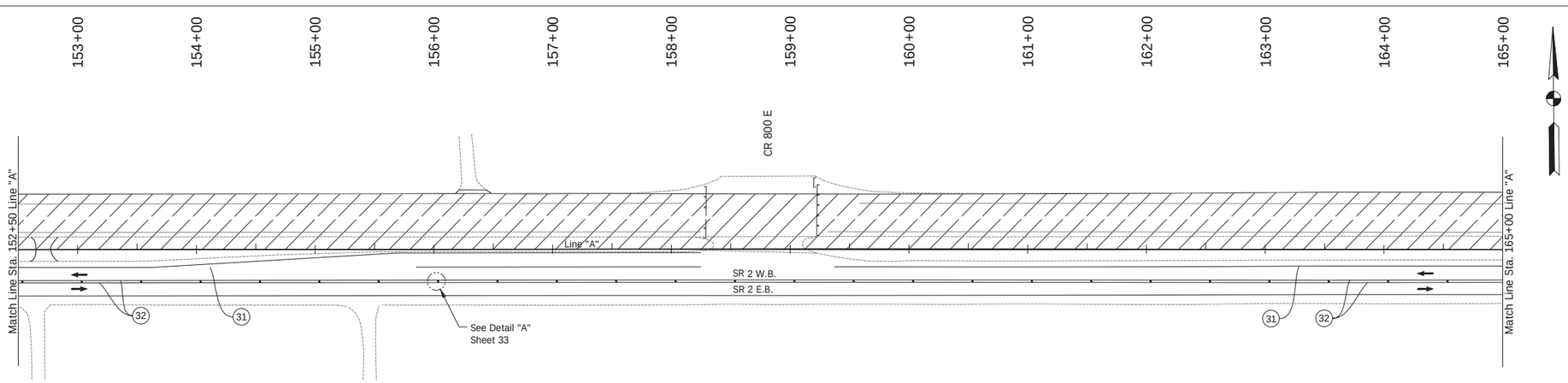
- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Traffic Flow
- Line, Remove
- Construction Area
- Tubular Marker

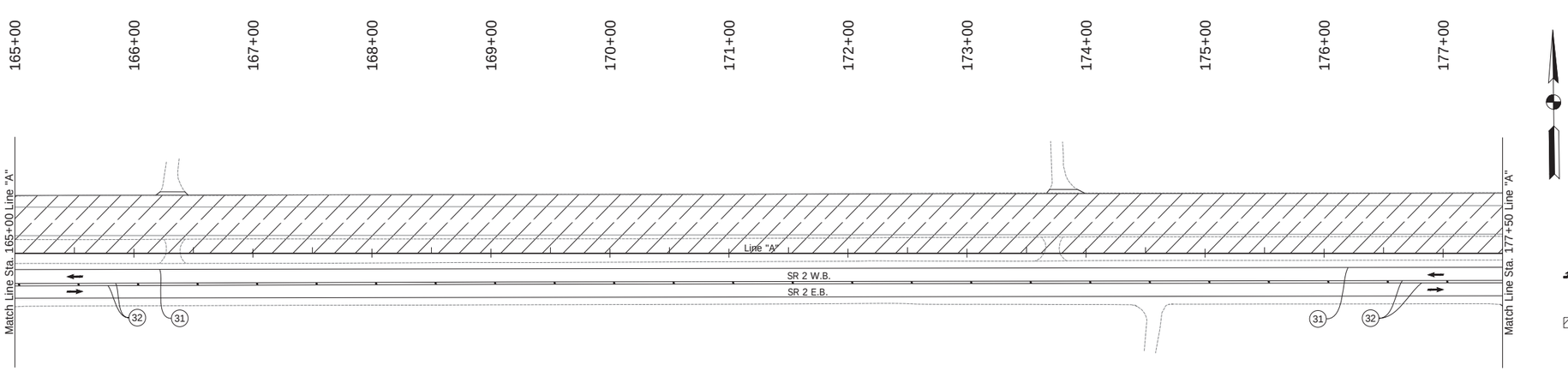
NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50'	BRIDGE FILE: N/A
		VERTICAL SCALE: N/A	DESIGNATION: 1900177
DESIGNED: JAG / DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 1B	SURVEY BOOK: ELECTRONIC	SHEET: 47 of 321
CHECKED: WBF / CHECKED: WBF		CONTRACT: R-42444	PROJECT: 1900177

Date: Jun 23, 2023, 1:09pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR1-01\CAD\PlanSet\Sht_RD_MOT Plans PH1b.dwg - (MOT Phase 1b (05))





LEGEND:

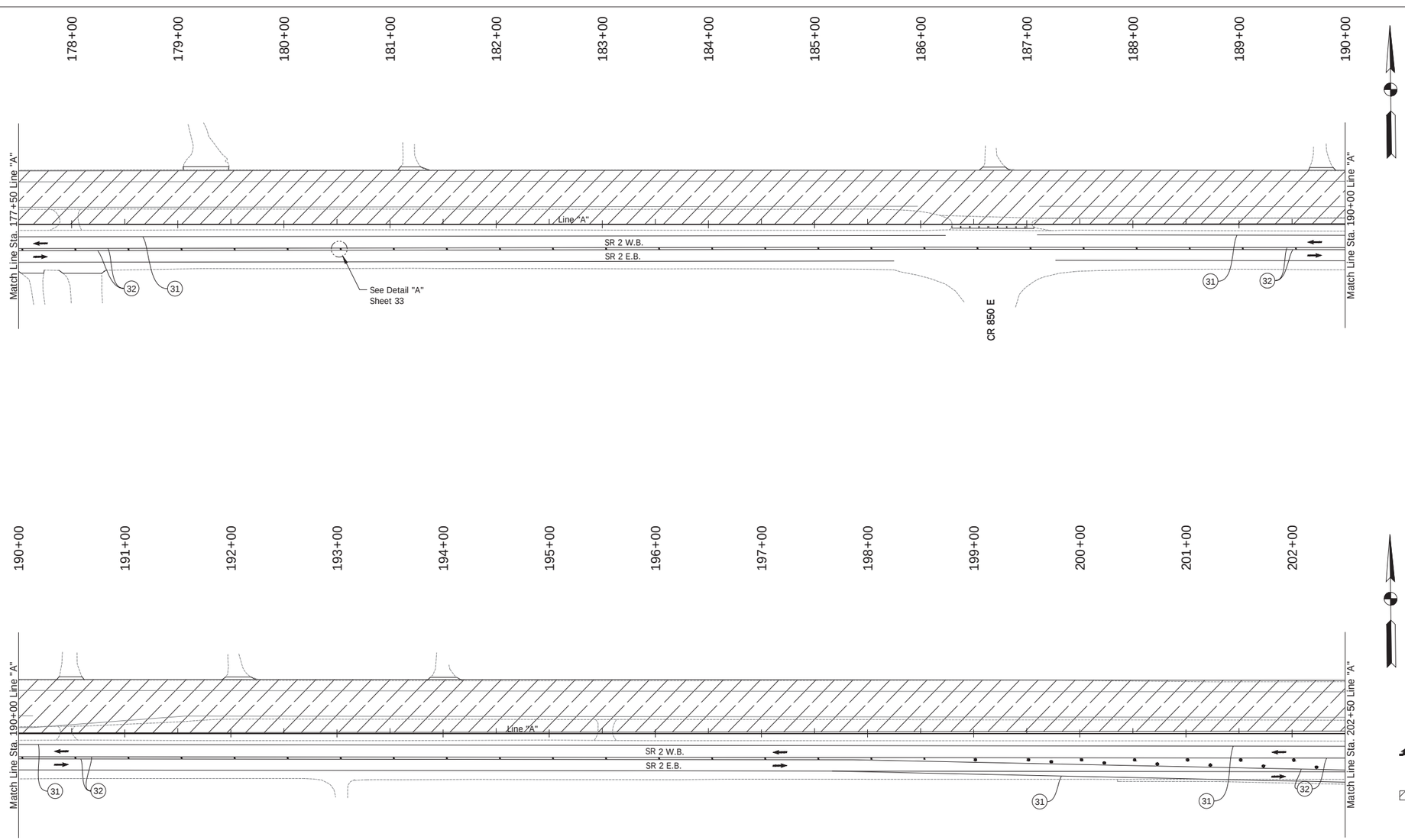
- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- or Traffic Flow
- Line, Remove
- Construction Area
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50' / BRIDGE FILE: N/A
DESIGNED: JAG	DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 1B	VERTICAL SCALE: N/A / DESIGNATION: 1900177
CHECKED: WBF	CHECKED: WBF		SURVEY BOOK: ELECTRONIC / SHEET: 48 of 321
			CONTRACT: R-42444 / PROJECT: 1900177

Date: Jun 23, 2023, 1:09pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\PR2-DH\CAD\PlanSet\Sht_RD_MOT Plans PH1b.dwg - (MOT Phase 1b (06))



LEGEND:

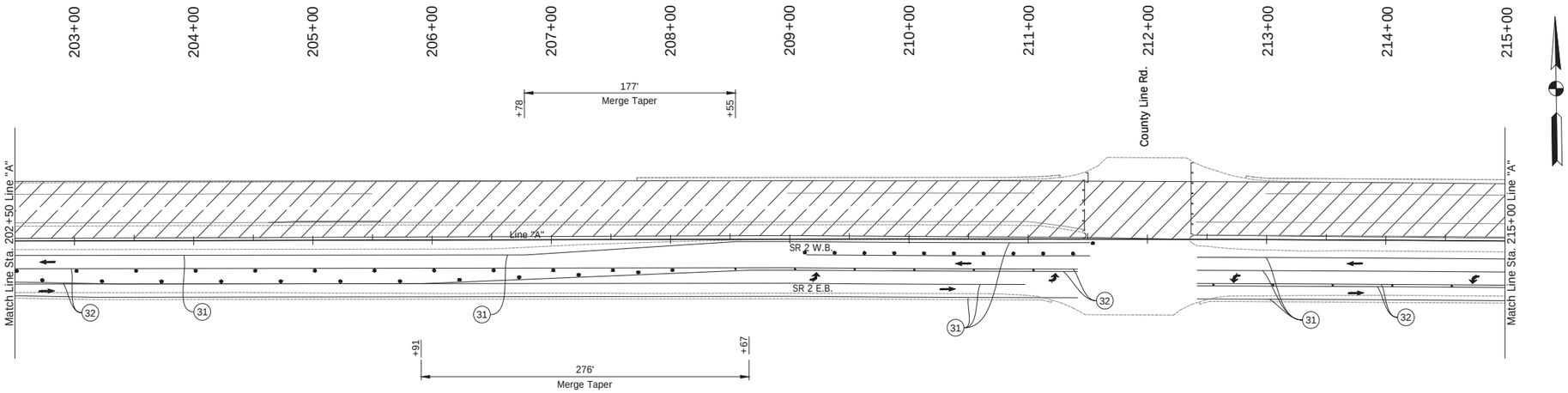
- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Traffic Flow
- Line, Remove
- Construction Area
- Tubular Marker

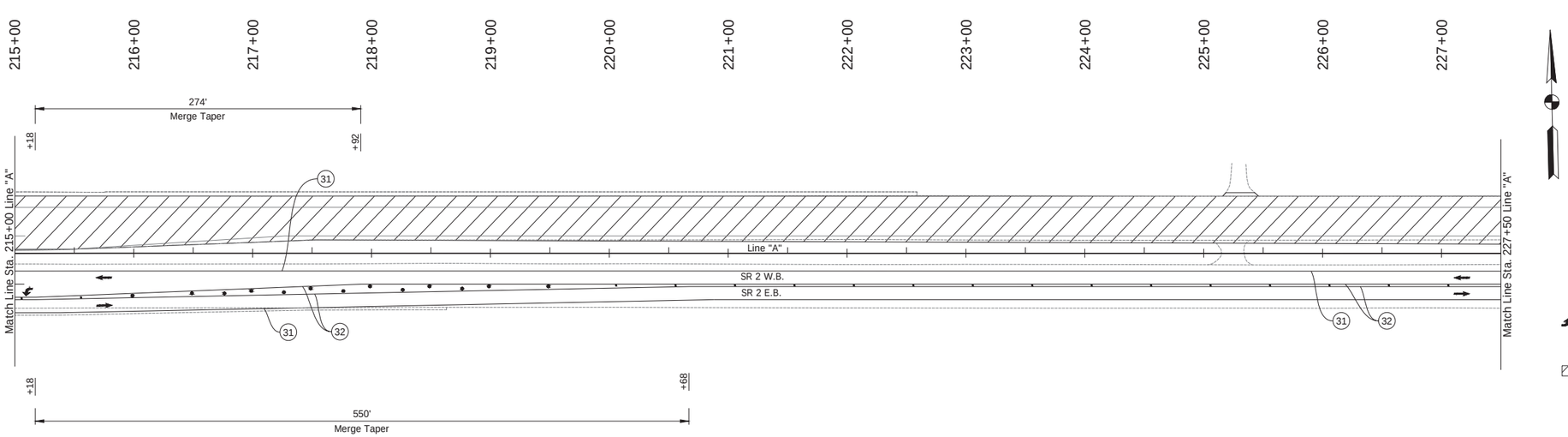
NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50' / BRIDGE FILE: N/A
DESIGNED: JAG	DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 1B	VERTICAL SCALE: N/A / DESIGNATION: 1900177
CHECKED: WBF	CHECKED: WBF		SURVEY BOOK: ELECTRONIC / SHEET: 49 of 321
			CONTRACT: R-42444 / PROJECT: 1900177

Date: Jun 23, 2023, 1:10pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-DH\CAD\PlanSet\SH_RD_MOT Plans PH1b.dwg - (MOT Phase 1b (07))





LEGEND:

- (31) **Temporary Pavement Marking, Solid, White, 4 in., Removable**
- (32) **Temporary Pavement Marking, Solid, Yellow, 4 in., Removable**
- (51) Temporary Traffic Barrier, Type 2
- (52) Energy Absorbing Terminal, CZ, TL-3
- or Traffic Flow
- Line, Remove
- Construction Area
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: JAG | DRAWN: BJS

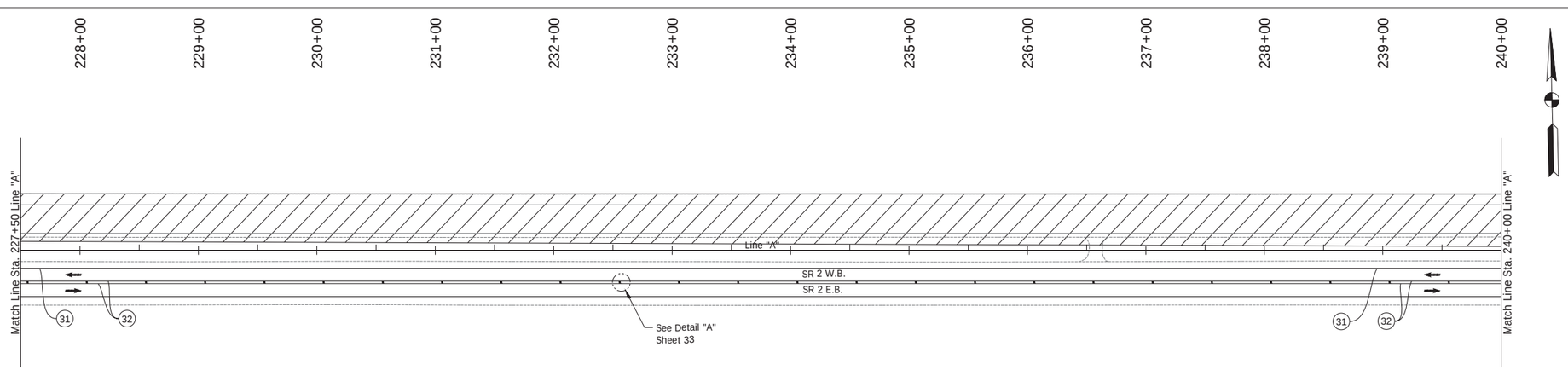
CHECKED: WBF | CHECKED: WBF

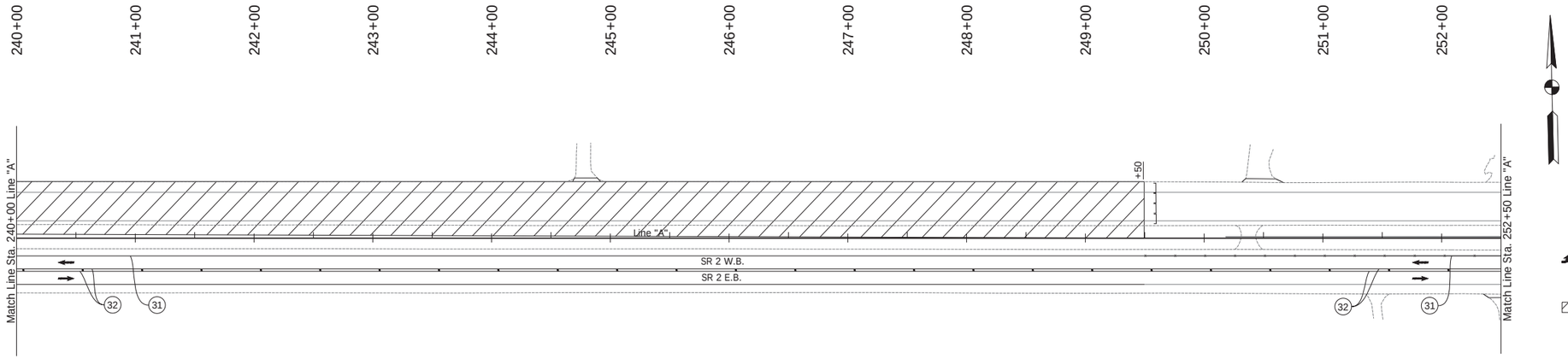
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 1B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	50 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:10pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR1-01\CAD\PlanSet\SH_RD_MOT Plans PH1b.dwg - (MOT Phase 1b (08))





LEGEND:

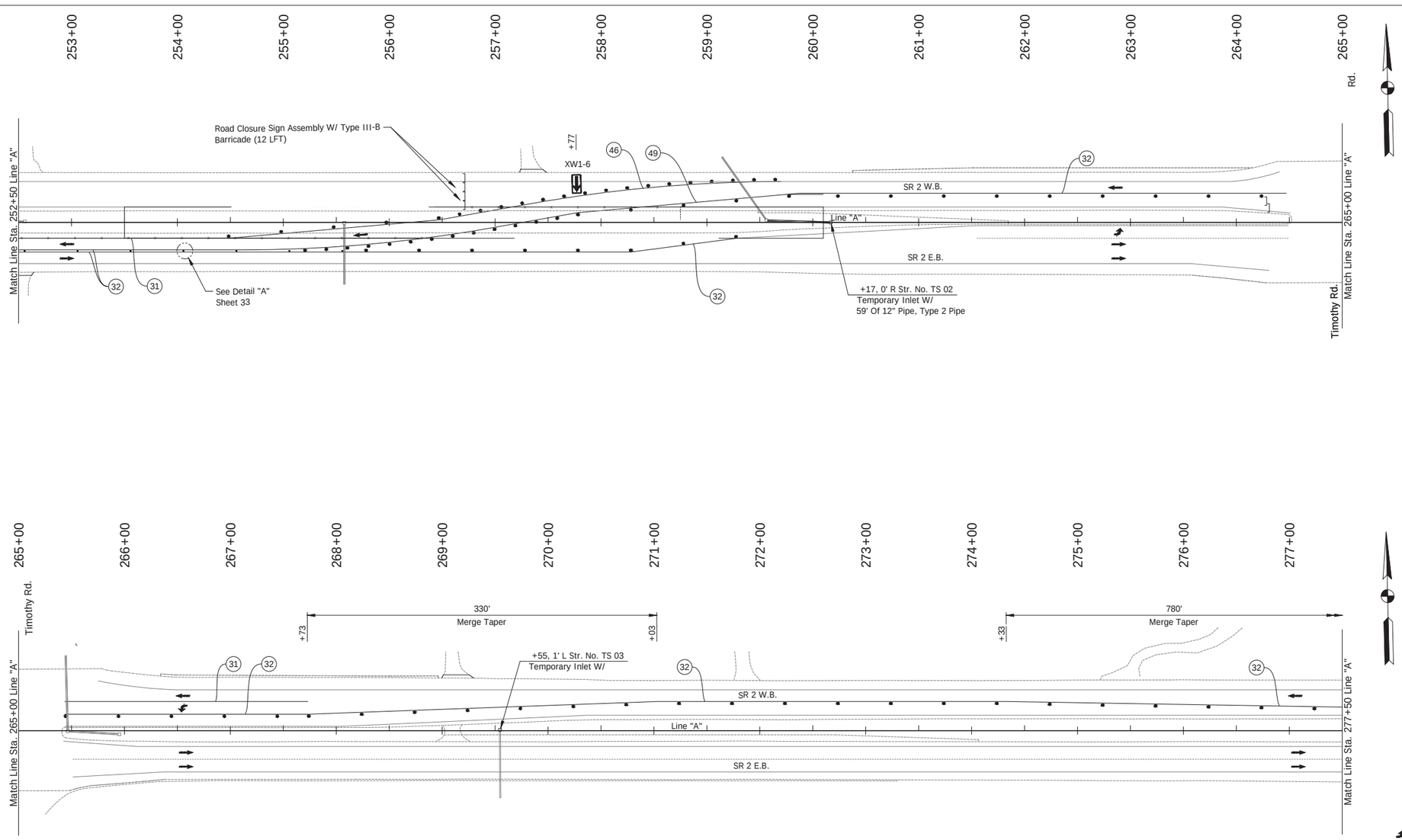
- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Traffic Flow
- Line, Remove
- Construction Area
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50'	BRIDGE FILE: N/A
		VERTICAL SCALE: N/A	DESIGNATION: 1900177
DESIGNED: JAG / DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 1B	SURVEY BOOK: ELECTRONIC	SHEET: 51 of 321
CHECKED: WBF / CHECKED: WBF		CONTRACT: R-42444	PROJECT: 1900177

Date: Jun 23, 2023, 1:10pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-DI\CAD\PlanSet\Sht_RD_MOT Plans PH1b.dwg - (MOT Phase 1b (09))



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- (46) Temporary Pavement Marking, Solid, White, 8 in., Removable
- (49) Temporary Pavement Marking, Solid, Yellow, 8 in., Removable
- Barrels
- Traffic Flow or
- Construction Sign
- Line, Remove
- Barricade, Type III-B
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG | DRAWN: BJS

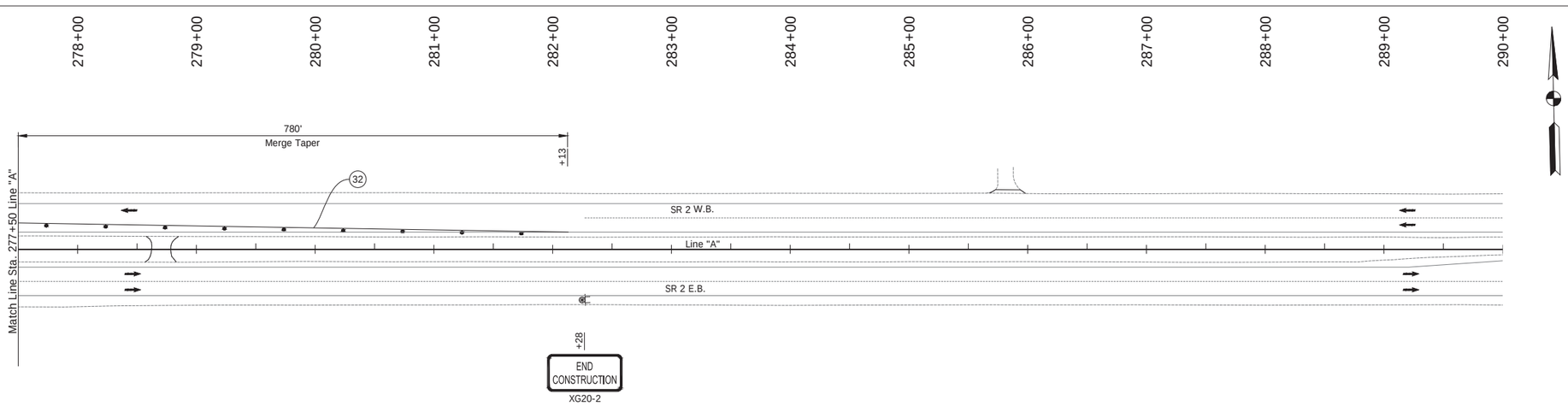
CHECKED: WBF | CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 1B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	52 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:10pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PRJ-01\CAD\PlanSet\Sht_RD_MOT Plans PH1b.dwng - (MOT Phase 1b (10))



LEGEND:

- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- • • • Barrels
- or → Traffic Flow
- Construction Sign

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: JAG | DRAWN: BJS

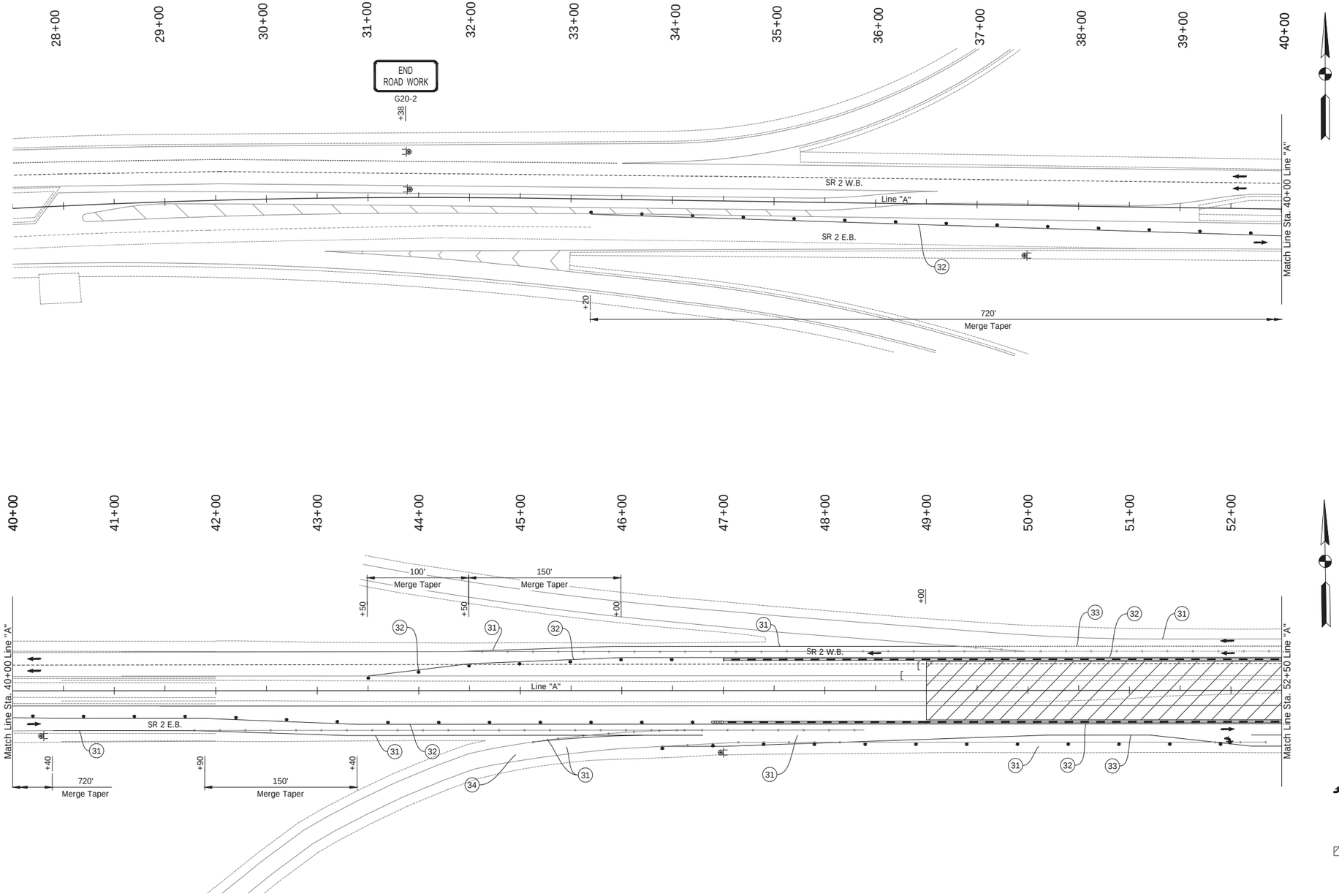
CHECKED: WBF | CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 1B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	53 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:10pm User Name: Sara Munsie
File: X:\production\Files\2020\120-30011\RO-04\CAD\PlanSet\SHt_RD_MOT Plans PH1b.dwg - (MOT Phase 1b (11))



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- (33) Temporary Pavement Marking, Broken, White, 4 in., Removable
- (34) Temporary Transverse Pavement Marking, Removable, 24 in.
- Barrels
- Traffic Flow
- Construction Sign
- Line, Remove
- Construction Area

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG | DRAWN: BJS

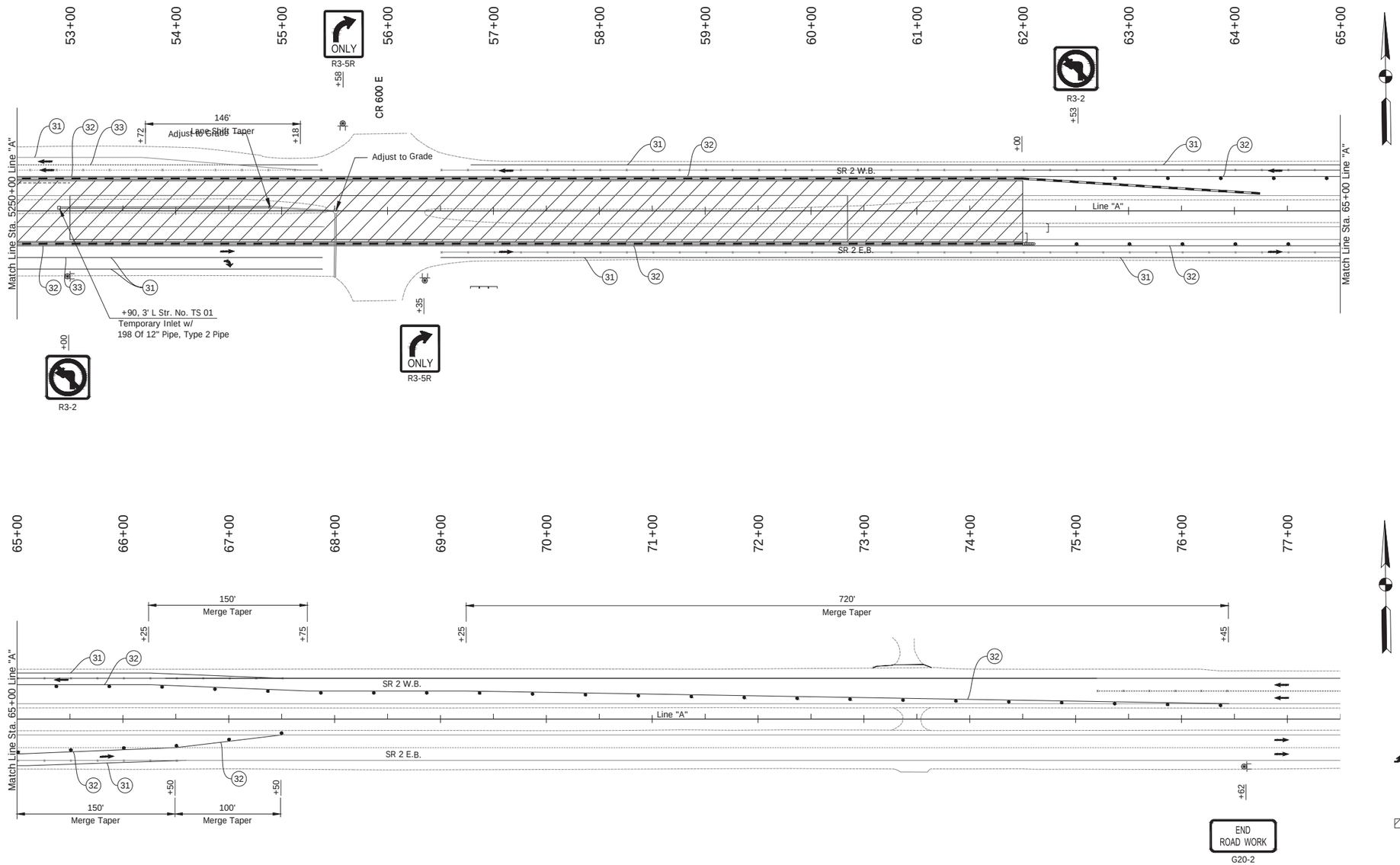
CHECKED: WBF | CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 1C

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	54 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:09pm User Name: Sara Munsie
File: X:\production\Files\2020\120-2001\PRJ-DHCAD\PlanSet\SHt_RD_MOT Plans PH1c.dwg - (MOT Phase 1c (01))



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Barrels
- Traffic Flow
- Construction Sign
- Line, Remove
- Construction Area
-] Barricade, Type III-B

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG | DRAWN: BJS

CHECKED: WBF | CHECKED: WBF

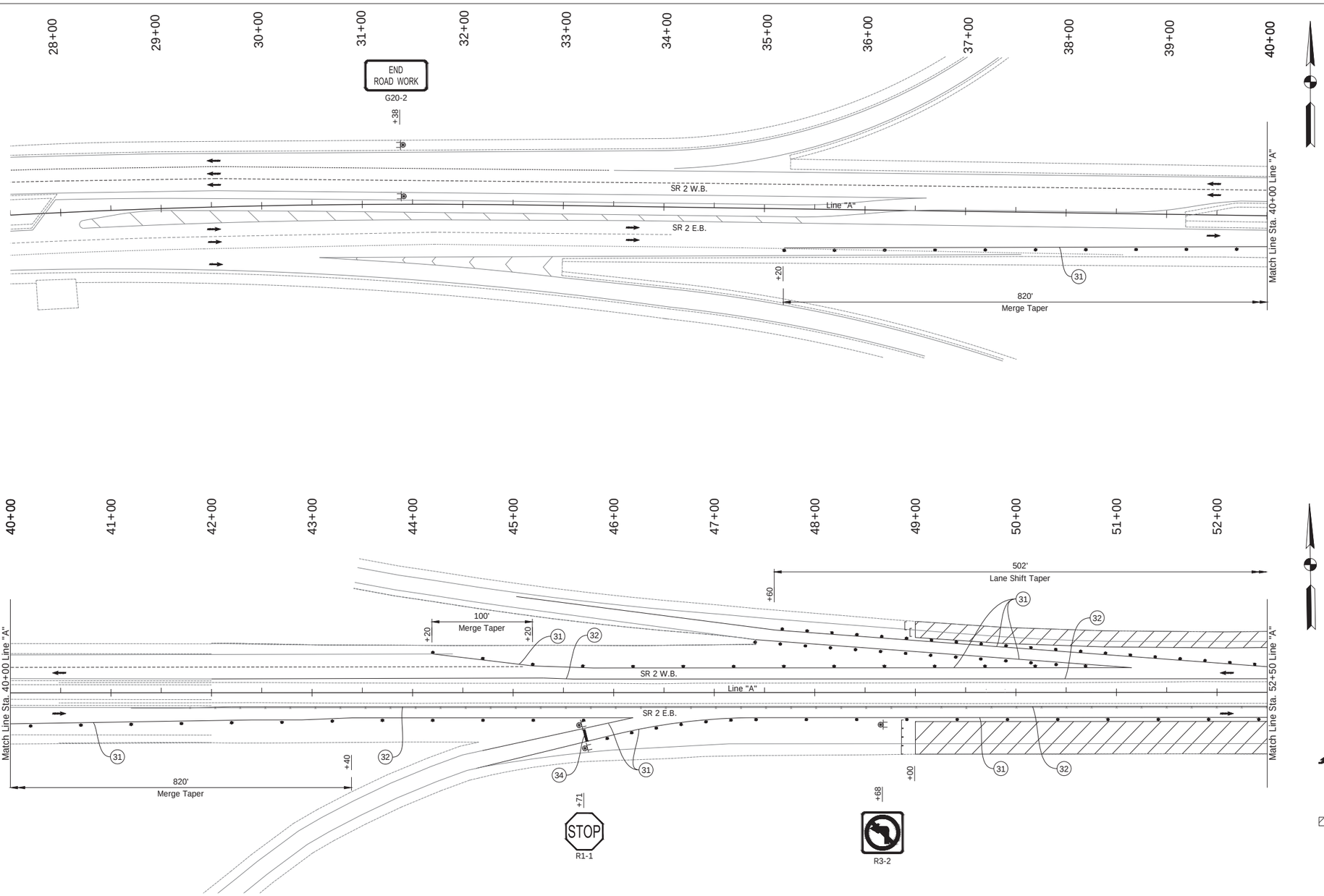
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 1C

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177

SURVEY BOOK	SHEET
ELECTRONIC	55 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:03pm User Name: Sara Munsie
File: X:\production\Files\2020\120-20011\PR3-DH\CAD\PlanSet\SHt_RD_MOT Plans PH1c.dwg - (MOT Phase 1c (02))



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- (34) Temporary Transverse Pavement Marking, Removable, 24 in.
- Barrels
- Traffic Flow
- Construction Sign
- Line, Remove
- Construction Area

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG | DRAWN: BJS

CHECKED: WBF | CHECKED: WBF

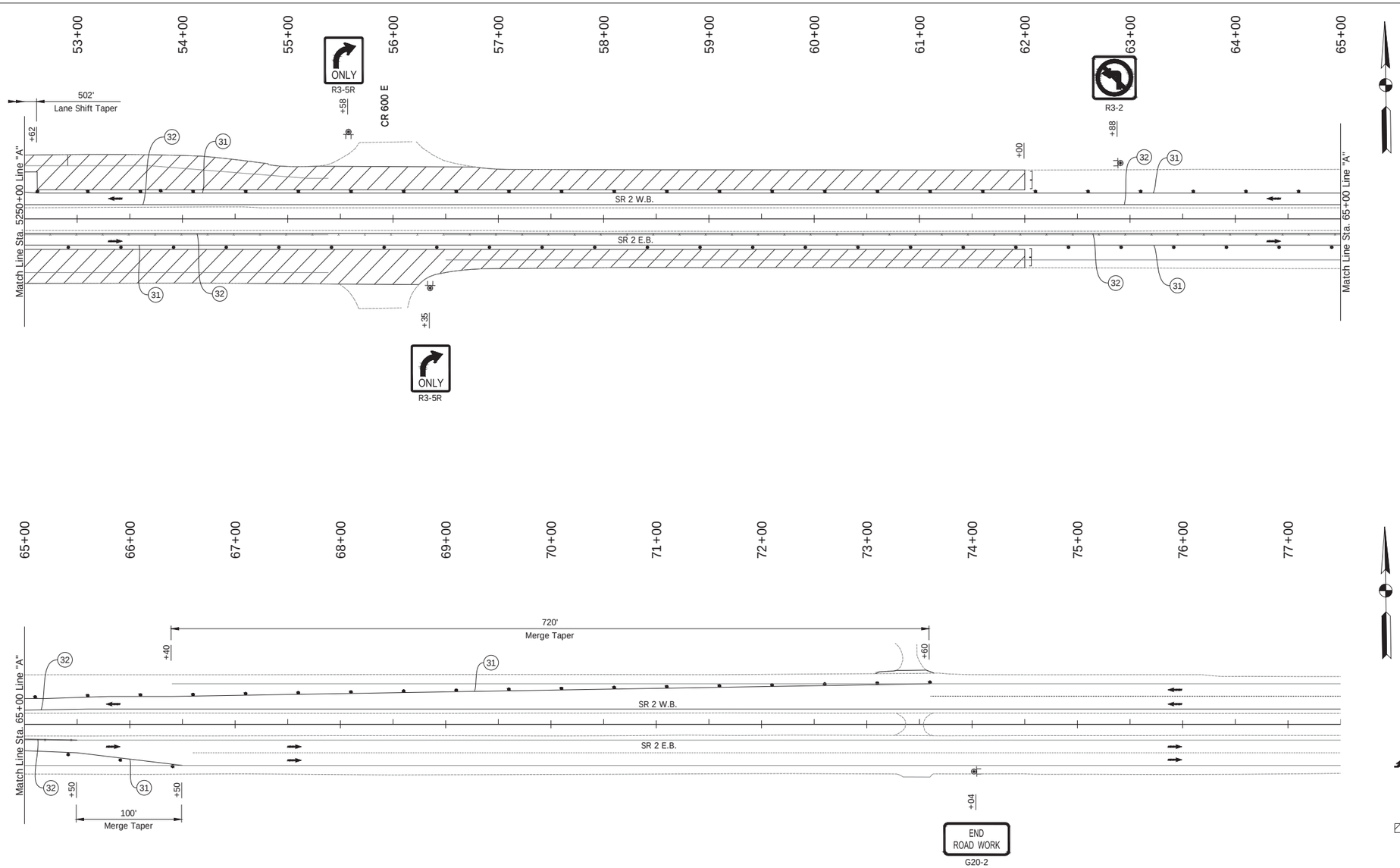
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 1D

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177

SURVEY BOOK	SHEET
ELECTRONIC	56 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:11pm User Name: Sara Munsie
File: X:\production\Files\2020\120-2001\PKJ-DH\CAD\PlanSet\SHt_RD_MOT Plans PH1d.dwg - (MOT Phase 1d (01))

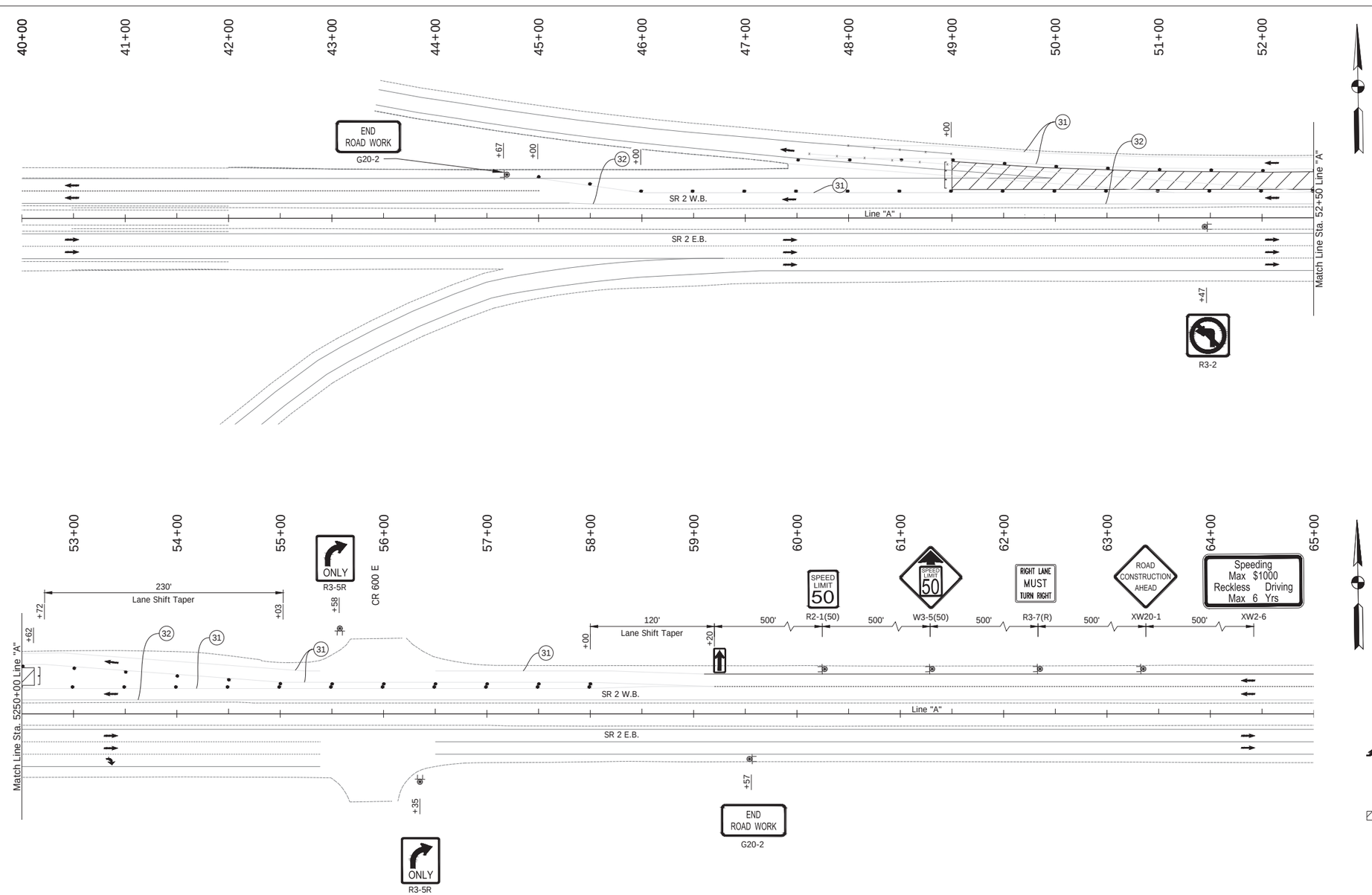


NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50' / BRIDGE FILE: N/A VERTICAL SCALE: N/A / DESIGNATION: 1900177
DESIGNED: JAG	DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 1D	SURVEY BOOK: ELECTRONIC / SHEET: 57 of 321
CHECKED: WBF	CHECKED: WBF		CONTRACT: R-42444 / PROJECT: 1900177

Date: Jun 23, 2023, 1:11pm User Name: Sara Munsie
File: X:\production\Files\2020\120-2001\PR3-DH\CAD\PlanSet\SHt_RD_MOT Plans PH1d.dwg - (MOT Phase 1d (02))



LEGEND:

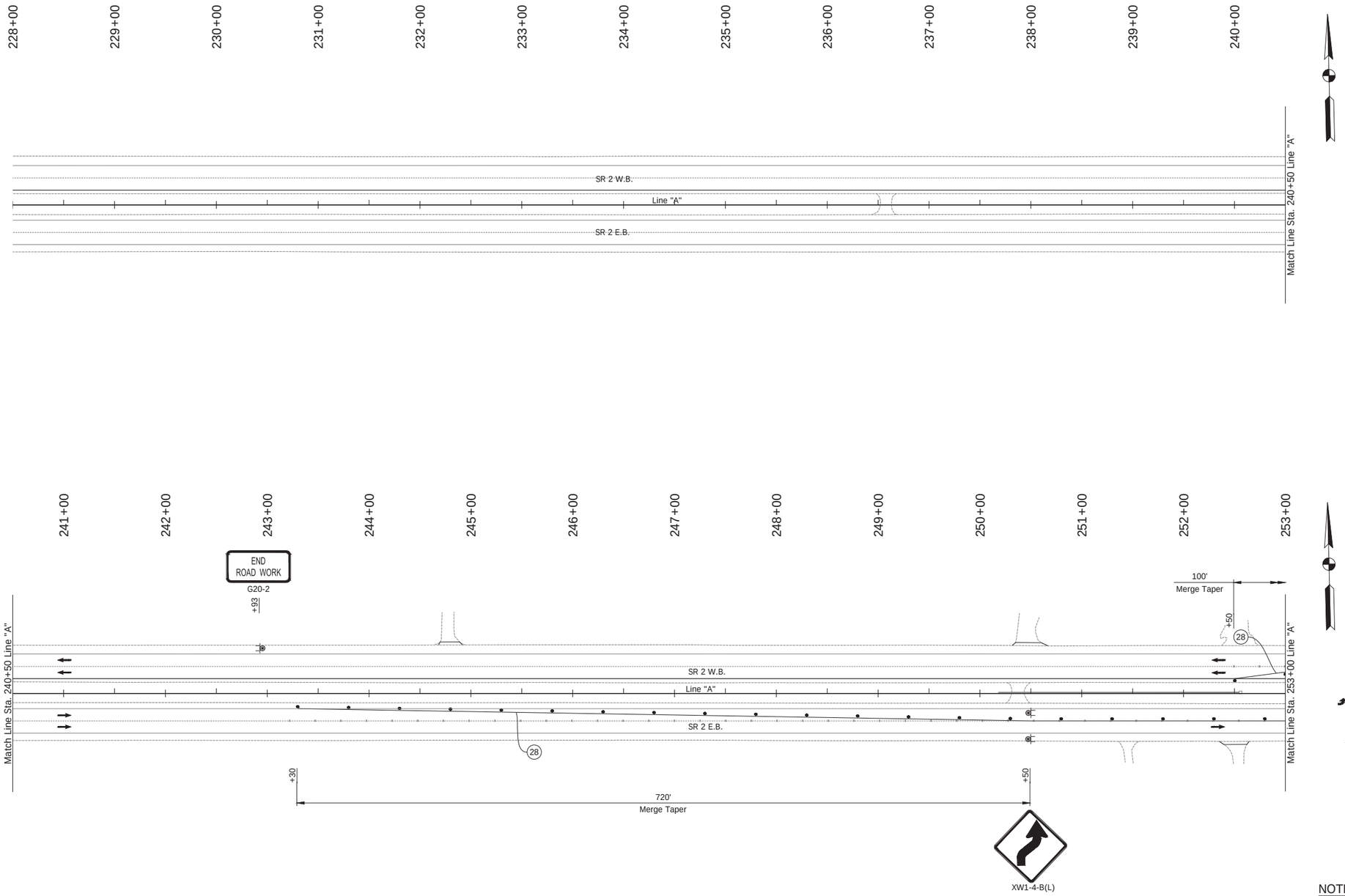
- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Barrels
- Traffic Flow
- Construction Sign
- Line, Remove
- Construction Area
- Barricade, Type III-B

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50' / BRIDGE FILE: N/A
		VERTICAL SCALE: N/A / DESIGNATION: 1900177
DESIGNED: JAG / DRAWN: BJS / CHECKED: WBF / CHECKED: WBF	MAINTENANCE OF TRAFFIC PHASE 1E	SURVEY BOOK: ELECTRONIC / SHEET: 58 of 321
		CONTRACT: R-42444 / PROJECT: 1900177

Date: Jun 23, 2023, 1:12pm User Name: Sara Munsie
File: X:\production\Files\2020\120-30011\PR\1-DH\CAD\PlanSet\SHt_RD_MOT Plans PH1e.dwg - (MOT Phase 1e (01))



NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

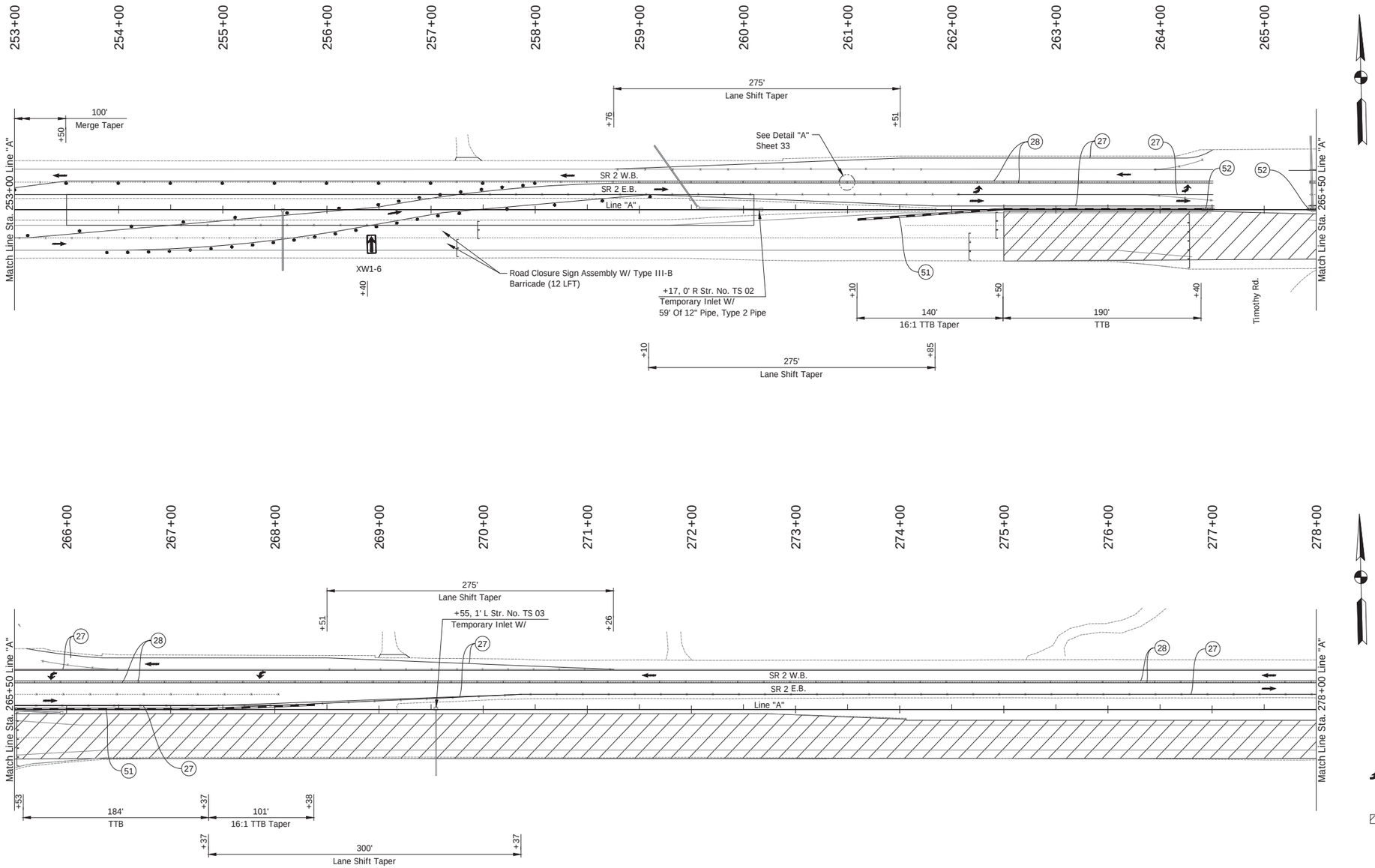
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	59 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:12pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-01\CAD\PlanSet\Sht_RD_MOT Plans PH2a.dwg - (MOT Phase 2a (01))



LEGEND:

- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- (44) Temporary Pavement Marking, Solid, White, 8 in.
- (50) Temporary Pavement Marking, Solid, Yellow, 8 in.
- (51) Temporary Traffic Barrier, Type 2
- (52) Energy Absorbing Terminal, CZ, TL-3
- Barrels
- Traffic Flow
- Line, Remove
- Construction Area
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: JAG | DRAWN: BJS

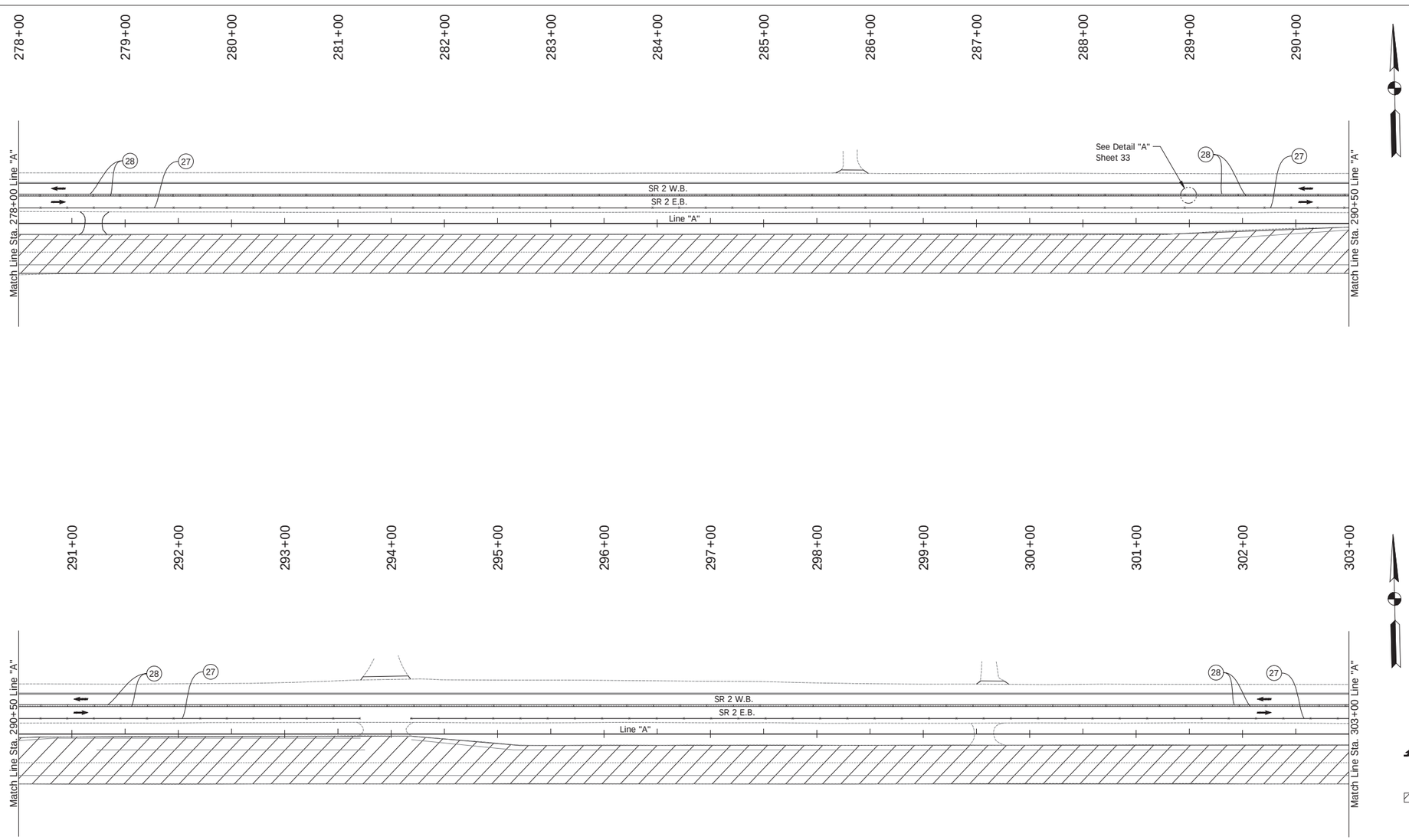
CHECKED: WBF | CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	60 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:12pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-01\CAD\PlanSet\SH_RD_MOT Plans PH2a.dwg - (MOT Phase 2a (02))



LEGEND:

- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- Traffic Flow or
- Line, Remove
- Construction Area
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

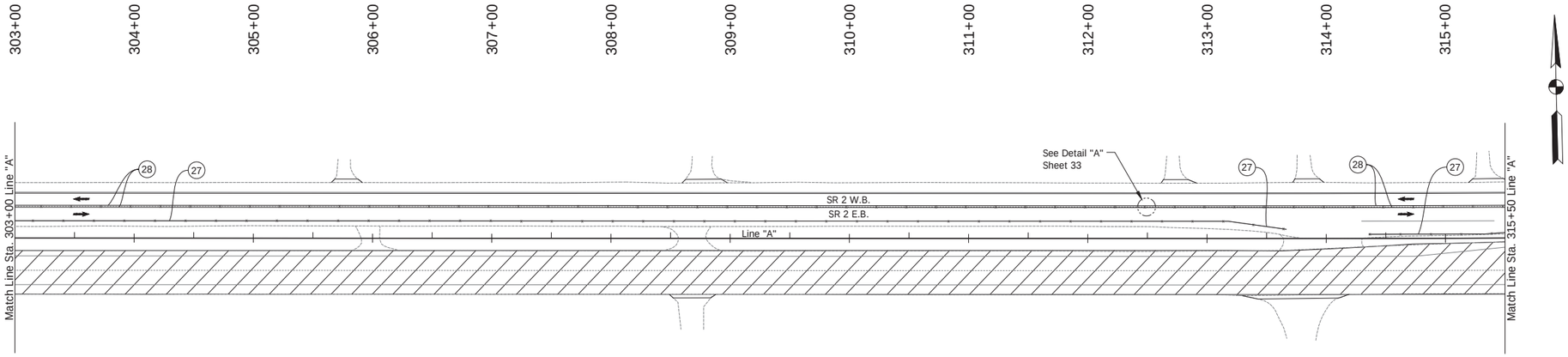
DESIGNED: JAG DRAWN: BJS
CHECKED: WBF CHECKED: WBF

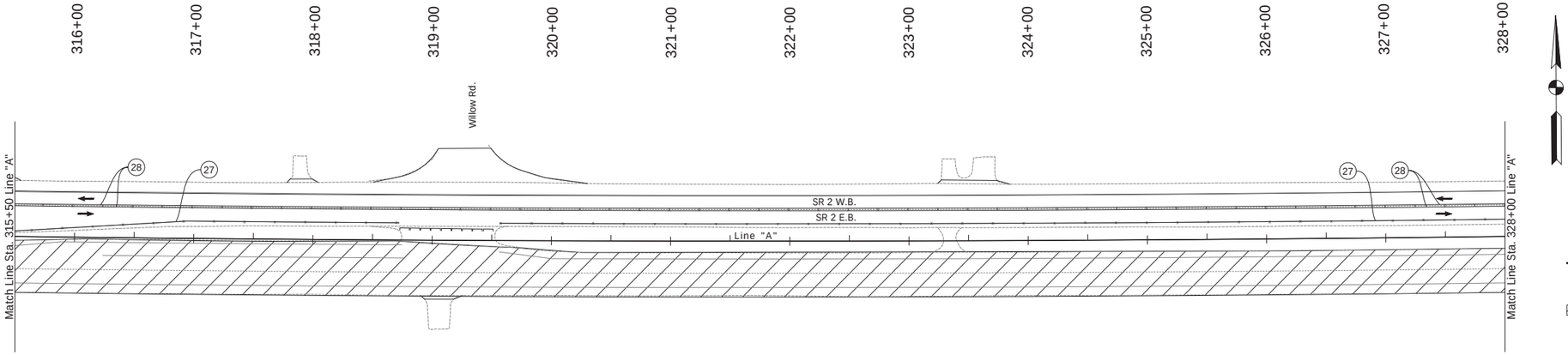
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	61 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:13pm User Name: Sara Munsie
File: X:\production\Files\2020\1200-3001\PR2-0H\CAD\PlanSet\Sht_RD_MOT Plans PH2a.dwg - (MOT Phase 2a (03))





LEGEND:

- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- Traffic Flow or
- Line, Remove
- Construction Area
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG | DRAWN: BJS

CHECKED: WBF | CHECKED: WBF

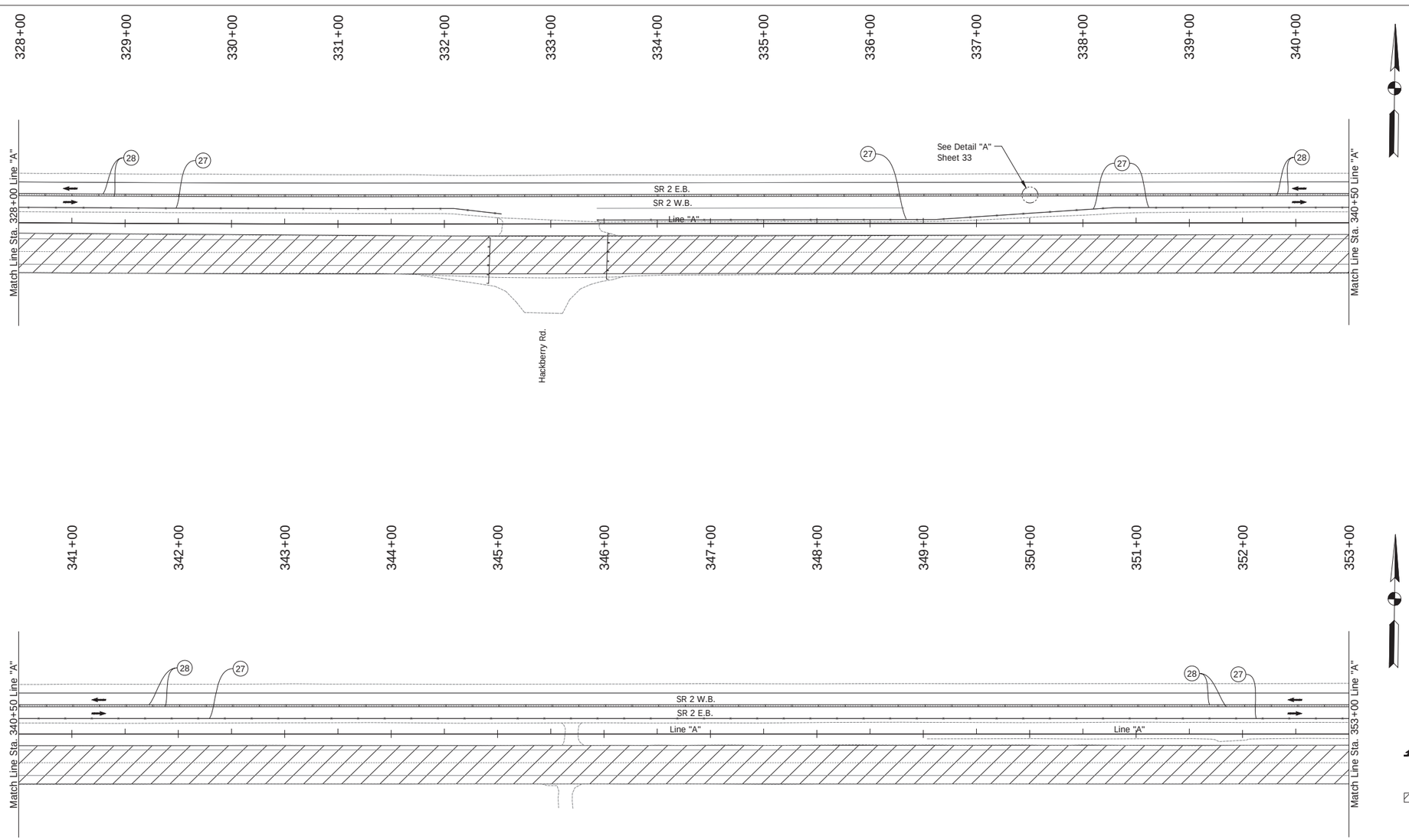
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177

SURVEY BOOK	SHEET
ELECTRONIC	62 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:13pm User Name: Sara Munsie
File: X:\production\Files\2020\1201-3001\PRJ-0\4\CAD\PlanSet\Sht_RD_MOT Plans PH2a.dwg - (MOT Phase 2a (0\1))



LEGEND:

- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- or Traffic Flow
- Line, Remove
- Construction Area
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

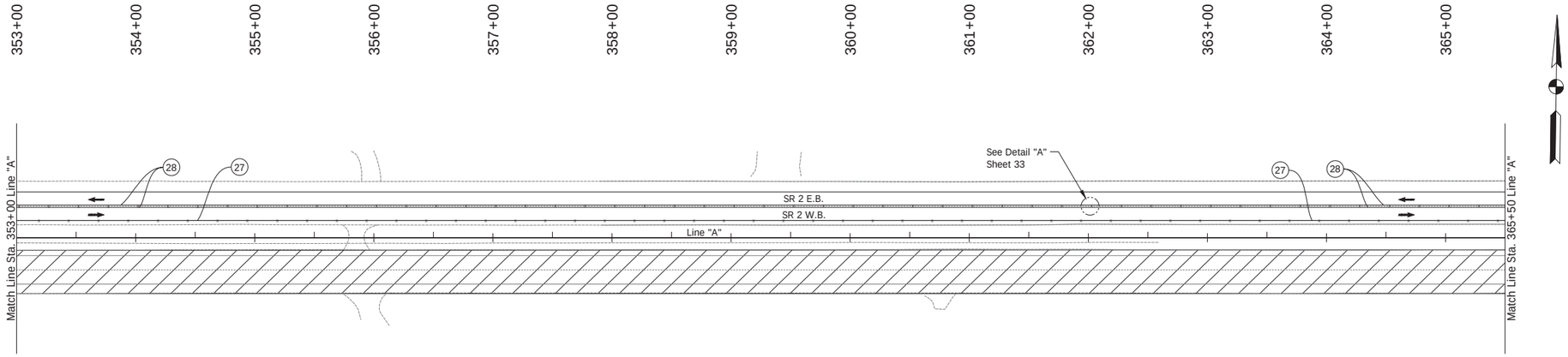
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	63 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:13pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-01\CAD\PlanSet\SH_RD_MOT Plans PH2a.dwg - (MOT Phase 2a (01))



LEGEND:

- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- Barrels
- or Traffic Flow
- Line, Remove
- Construction Area
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

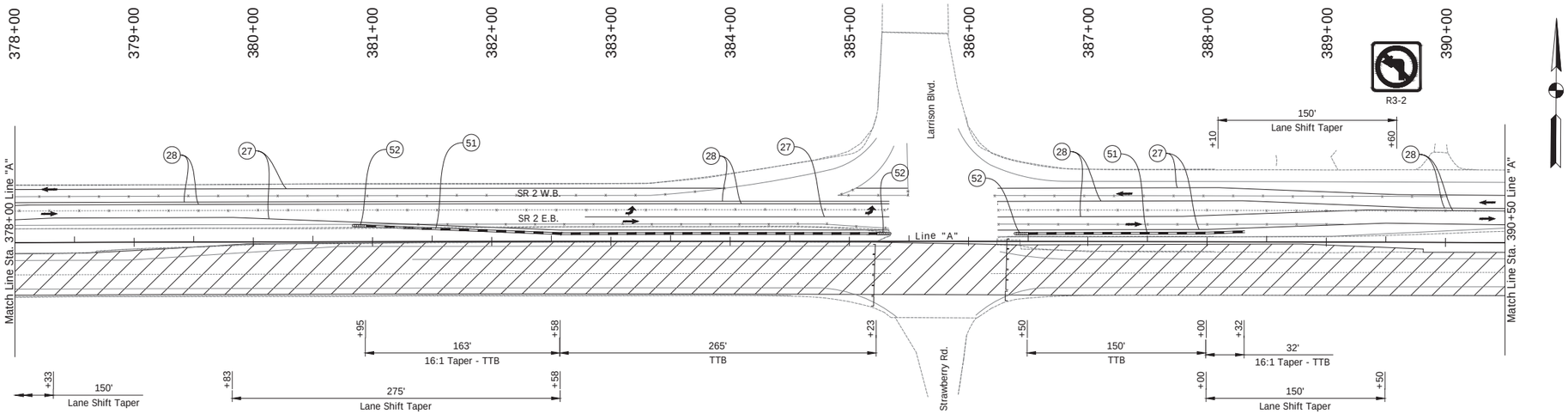
CHECKED: WBF CHECKED: WBF

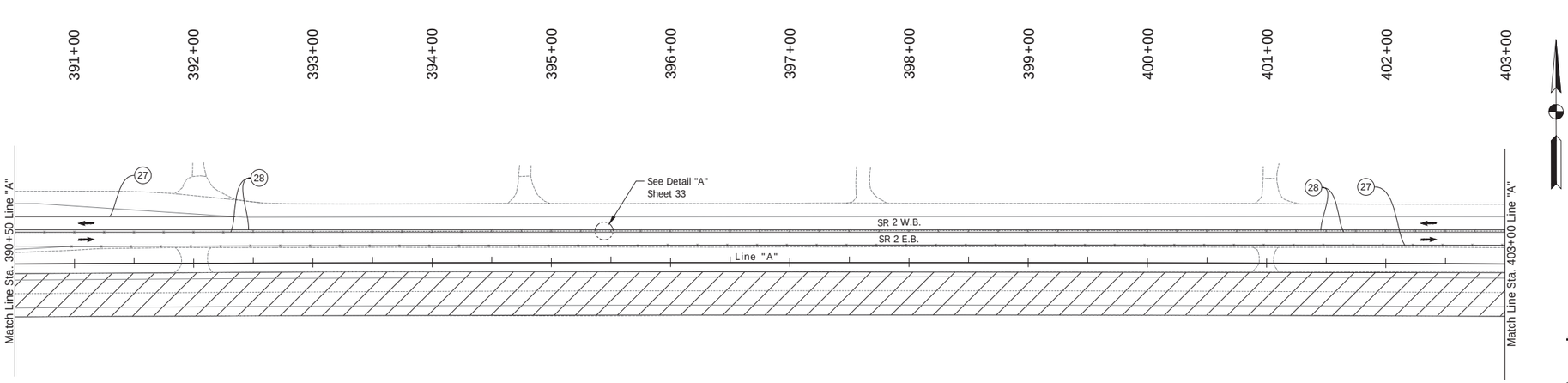
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	64 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:13pm User Name: Sara Munsie
File: X:\production\Files\2020\1200-3001\PR2-04\CAD\PlanSet\Sht_RD_MOT Plans PH2a.dwg - (MOT Phase 2a (06))





LEGEND:

- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- (51) Temporary Traffic Barrier, Type 2
- (52) Energy Absorbing Terminal, CZ, TL-3
- Traffic Flow or Traffic Flow
- Line, Remove
- Construction Area
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

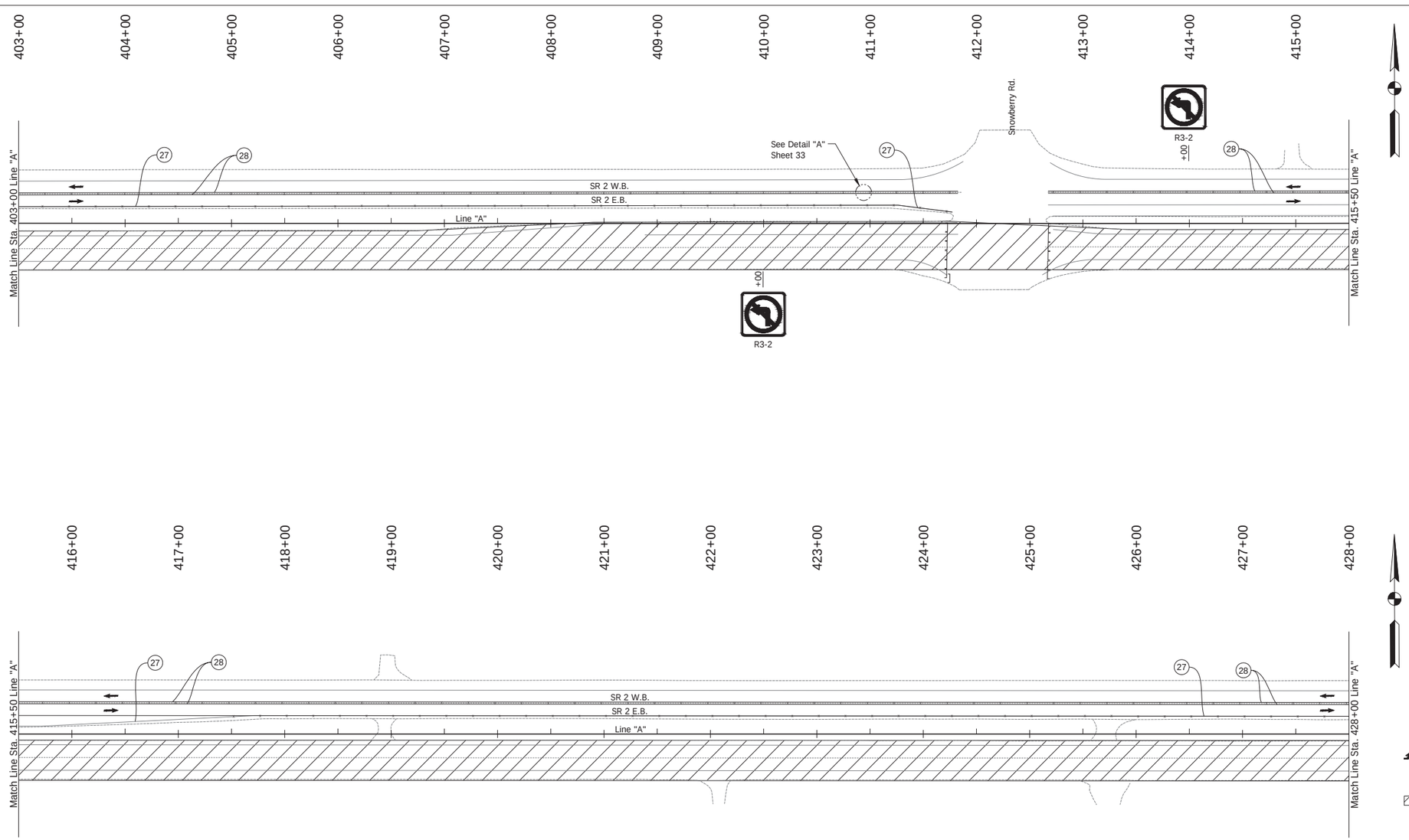
DESIGNED: JAG | DRAWN: BJS | CHECKED: WBF | CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	65 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:13pm User Name: Sara Munsie
File: X:\production\Files\2020\1200-3001\PR2-04\CAD\PlanSet\Sht_RD_MOT Plans PH2a.dwg - (MOT Phase 2a (07))



LEGEND:

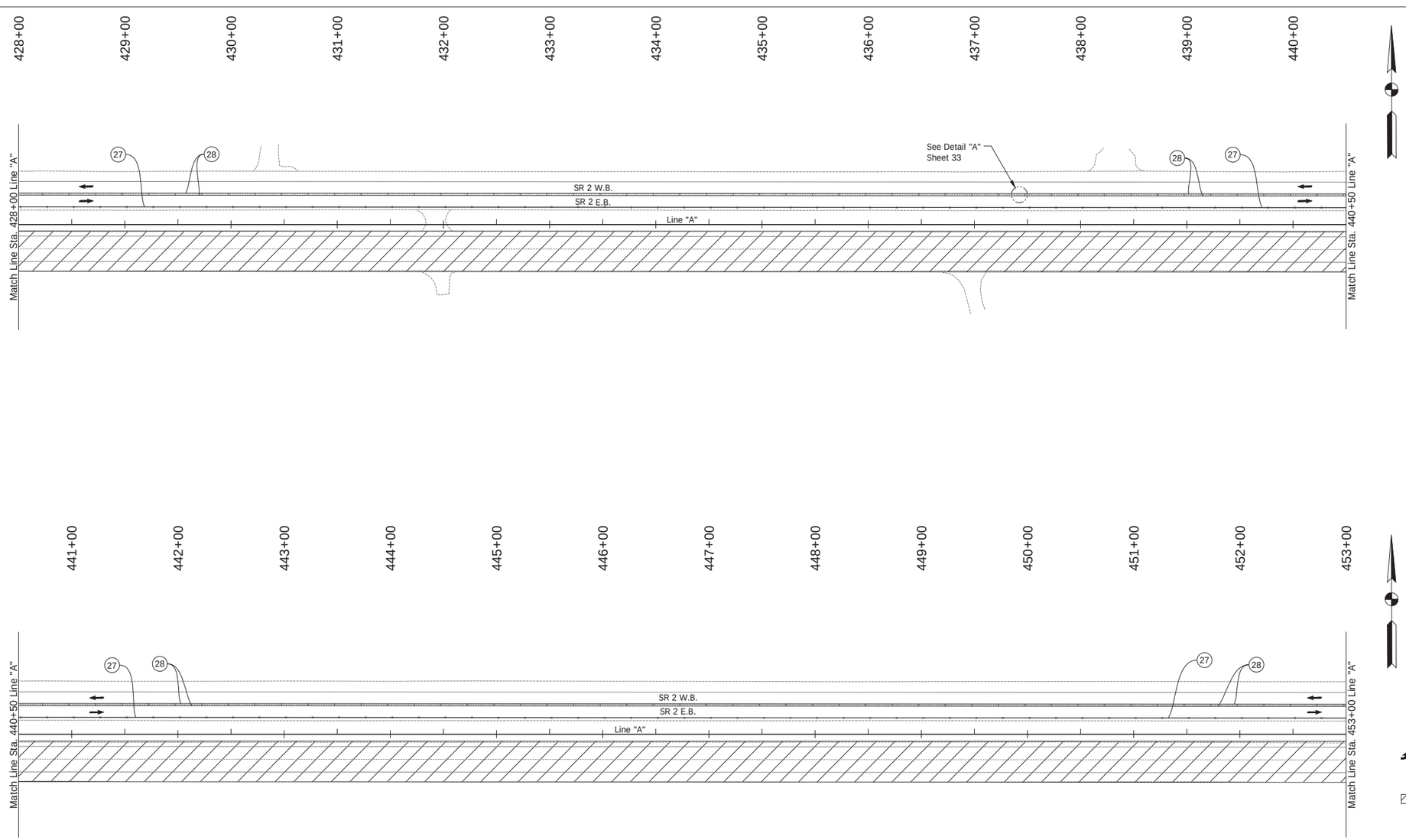
- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- Traffic Flow
- Line, Remove
- Construction Area
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50' / BRIDGE FILE: N/A
DESIGNED: JAG	DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 2A	VERTICAL SCALE: N/A / DESIGNATION: 1900177
CHECKED: WBF	CHECKED: WBF		SURVEY BOOK: ELECTRONIC / SHEET: 66 of 321
			CONTRACT: R-42444 / PROJECT: 1900177

Date: Jun 23, 2023, 1:13pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\PR2-01\CAD\PlanSet\Sht_RD_MOT Plans PH2a.dwg - (MOT Phase 2a (08))



LEGEND:

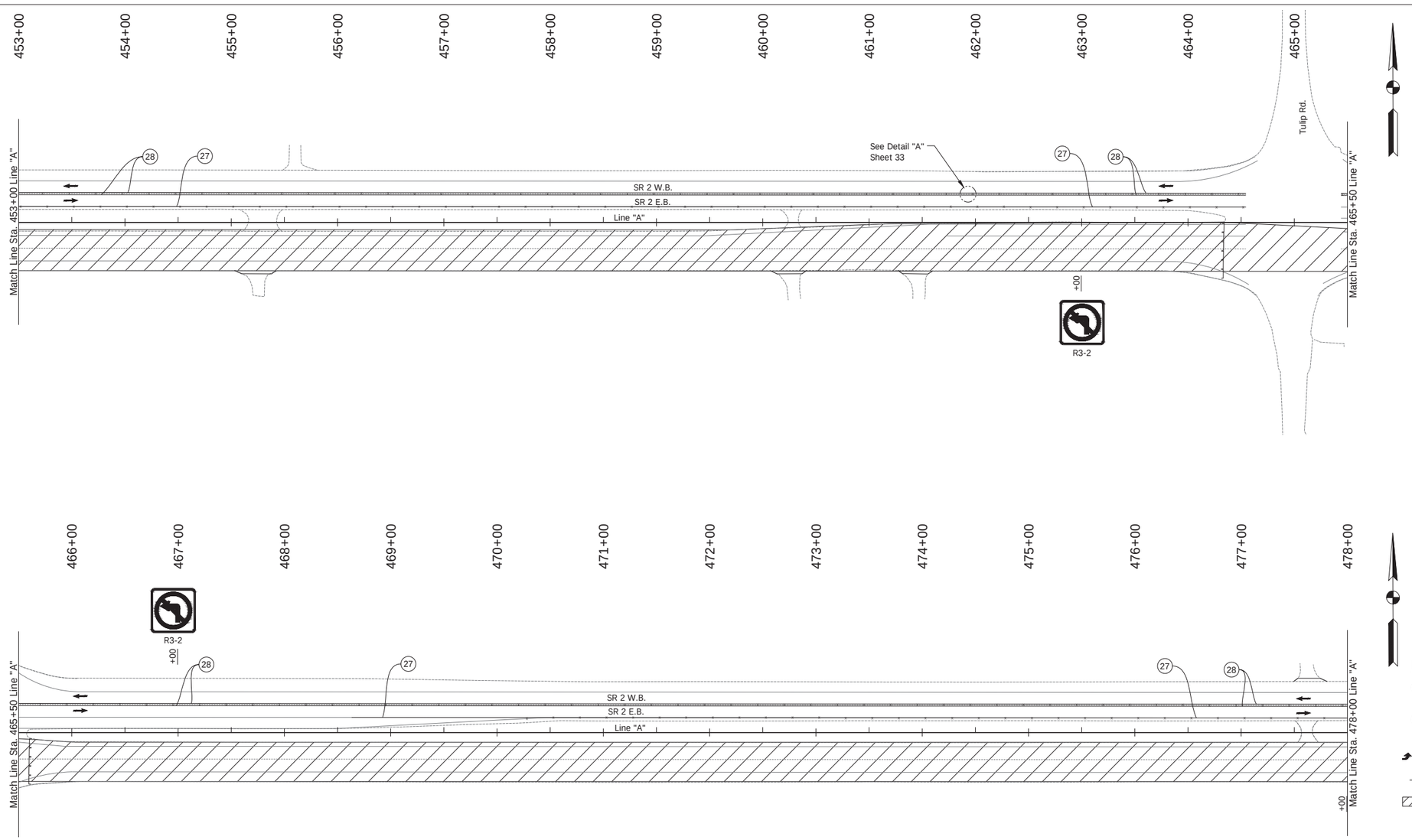
- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- Traffic Flow
- Line, Remove
- Construction Area
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50'	BRIDGE FILE: N/A
		VERTICAL SCALE: N/A	DESIGNATION: 1900177
DESIGNED: JAG DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 2A	SURVEY BOOK: ELECTRONIC	SHEET: 67 of 321
CHECKED: WBF CHECKED: WBF		CONTRACT: R-42444	PROJECT: 1900177

Date: Jun 23, 2023, 1:13pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-01\CAD\PlanSet\Sht_RD_MOT Plans PH2a.dwg - (MOT Phase 2a (09))



LEGEND:

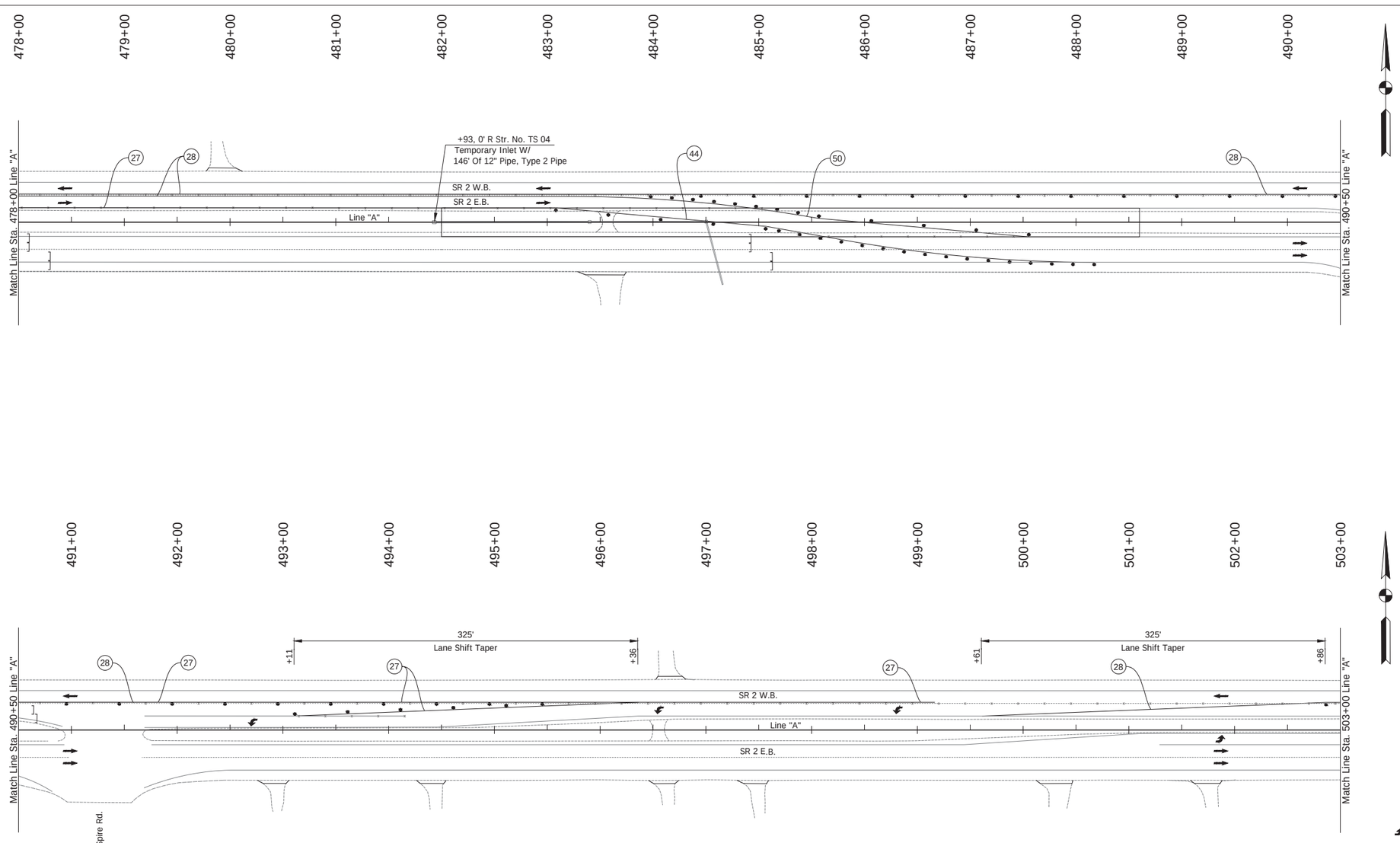
- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- Traffic Flow
- Line, Remove
- Construction Area
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50' / BRIDGE FILE: N/A; VERTICAL SCALE: N/A / DESIGNATION: 1900177
DESIGNED: JAG	DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 2A	SURVEY BOOK: ELECTRONIC / SHEET: 68 of 321
CHECKED: WBF	CHECKED: WBF		CONTRACT: R-42444 / PROJECT: 1900177

Date: Jun 23, 2023, 1:14pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-01\CAD\PlanSet\Sht_RD_MOT Plans PH2a.dwg - (MOT Phase 2a (10))



LEGEND:

- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- (44) Temporary Pavement Marking, Solid, White, 8 in.
- (50) Temporary Pavement Marking, Solid, Yellow, 8 in.
- Barrels
- Traffic Flow
- Line, Remove
- Construction Area
- Barricade, Type III-B
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

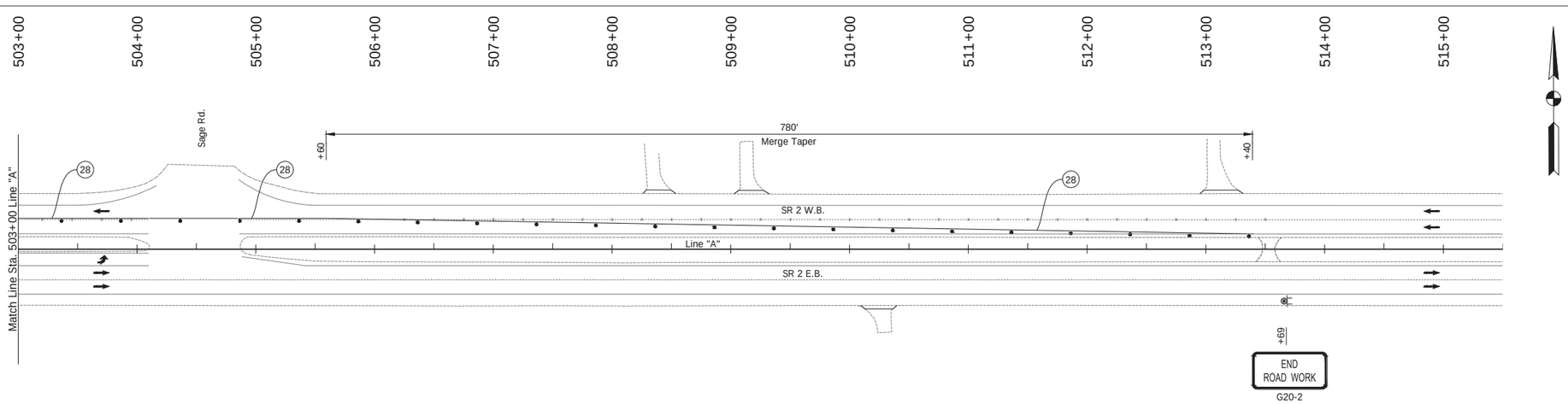
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	69 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:14pm User Name: Sara Munsie
File: X:\production\Files\2020\1200-3001\PR2-0H\CAD\PlanSet\Sht_RD_MOT Plans PH2a.dwg - (MOT Phase 2a (11))



LEGEND:

- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- Barrels
- Traffic Flow
- Construction Sign
- Line, Remove
- Construction Area

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: JAG | DRAWN: BJS

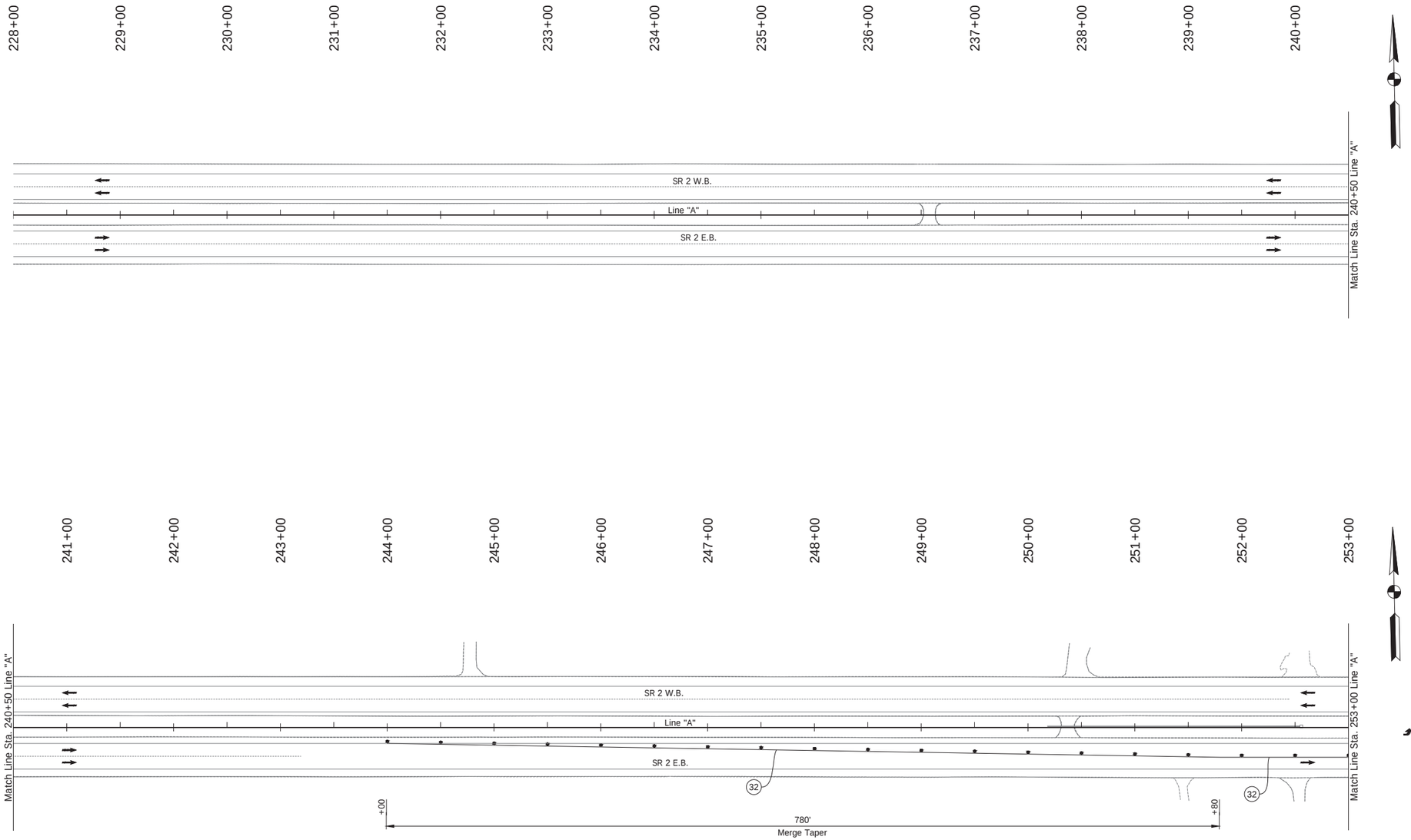
CHECKED: WBF | CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	70 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:14pm User Name: Sara Munsie
File: X:\production\Files\2020\1200-39311\RO-04\CAD\PlanSet\SHt_RD_MOT Plans PH2a.dwg - (MOT Phase 2a (12))



LEGEND:

(32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable

Barrels

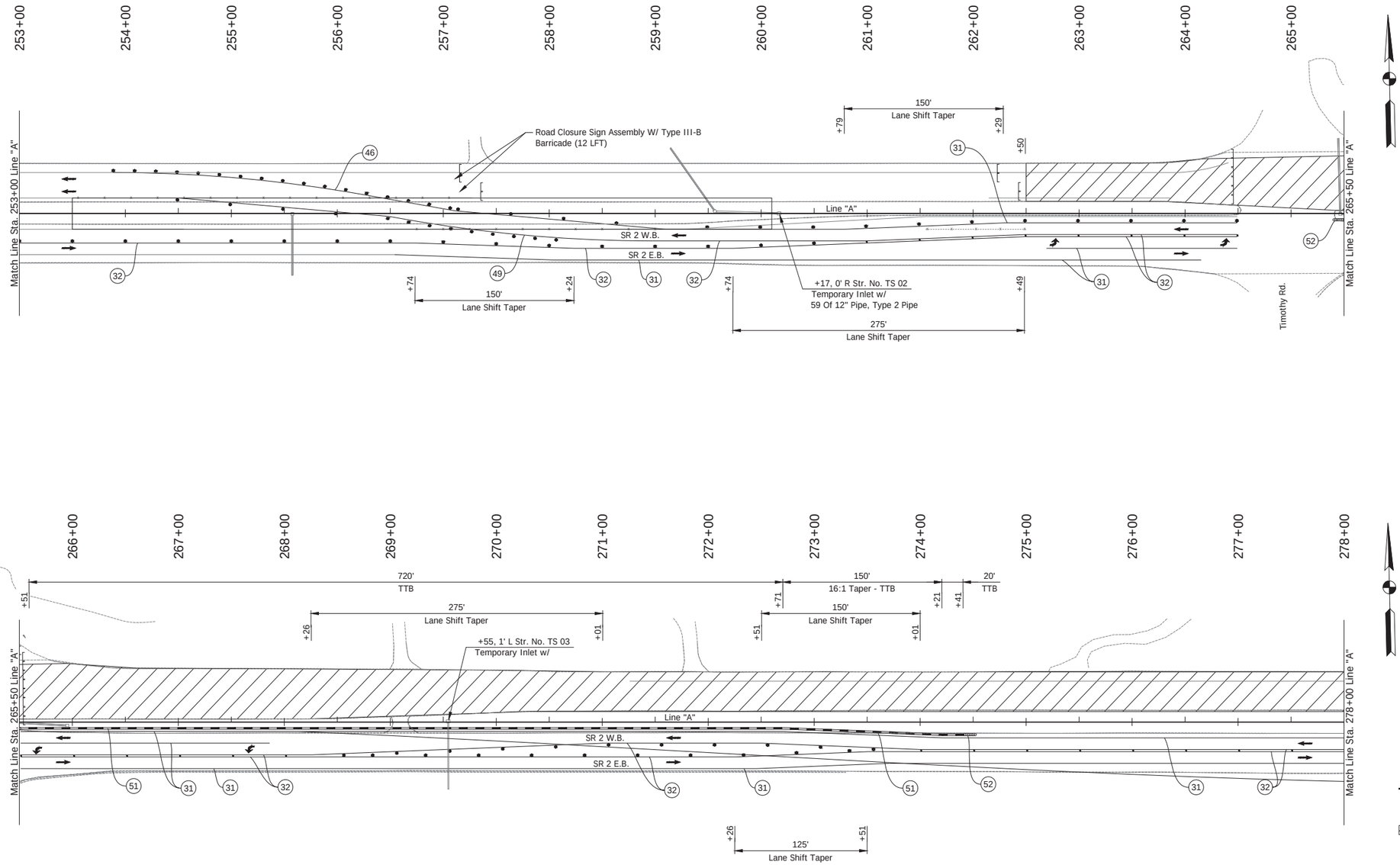
Traffic Flow

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50' / BRIDGE FILE: N/A
DESIGNED: JAG	DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 2B	VERTICAL SCALE: N/A / DESIGNATION: 1900177
CHECKED: WBF	CHECKED: WBF		SURVEY BOOK: ELECTRONIC / SHEET: 71 of 321
			CONTRACT: R-42444 / PROJECT: 1900177

Date: Jun 23, 2023, 1:14pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-DH\CAD\PlanSet\Sht_RD_MOT Plans PH2b.dwg - (MOT Phase 2p (01))



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- (46) Temporary Pavement Marking, Solid, White, 8 in., Removable
- (49) Temporary Pavement Marking, Solid, Yellow, 8 in., Removable
- (51) Temporary Traffic Barrier, Type 2
- (52) Energy Absorbing Terminal, CZ, TL-3
- Barrels
- Traffic Flow
- Line, Remove
- Construction Area
- Tubular Marker
- Barricade, Type III-B

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

CHECKED: WBF CHECKED: WBF

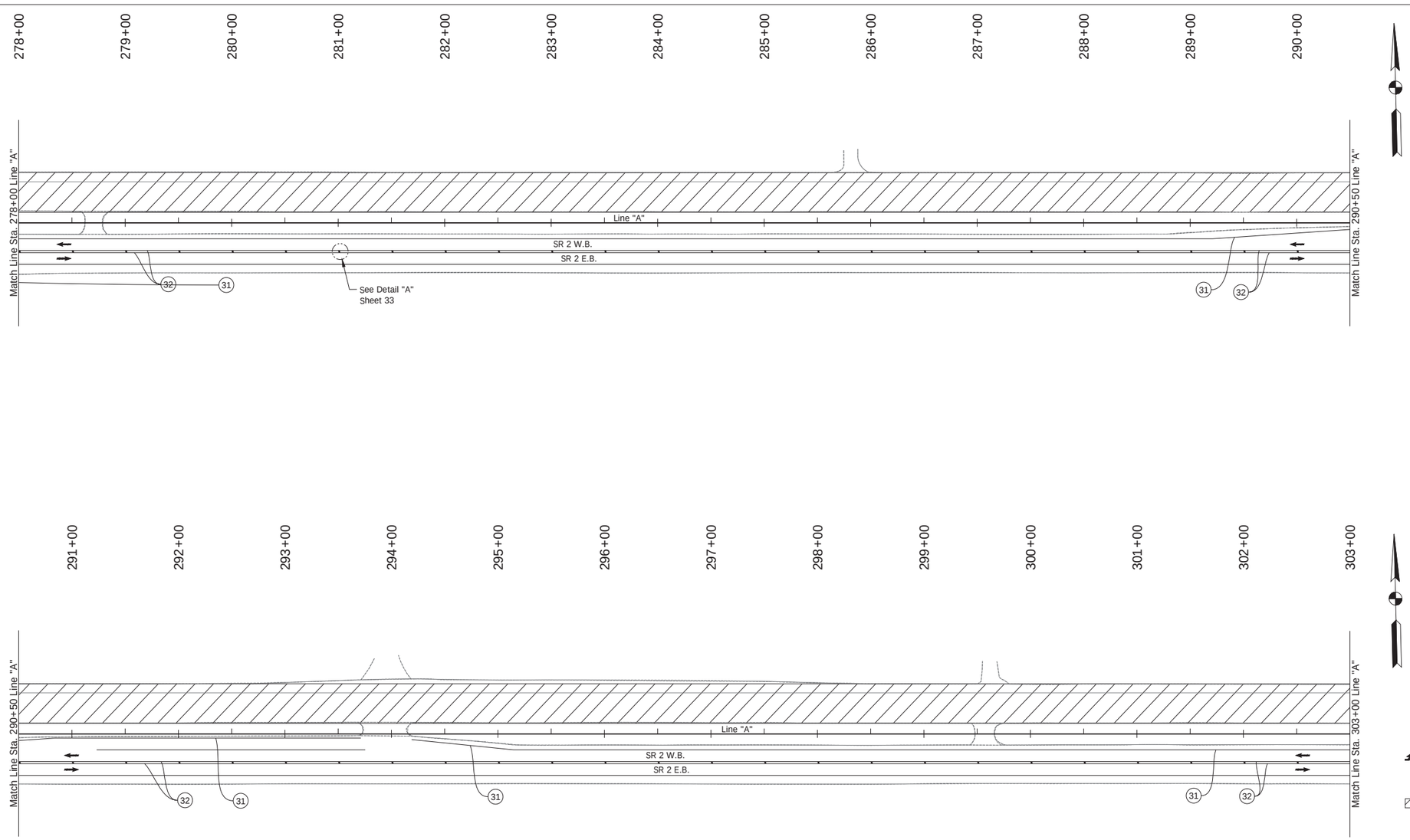
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177

SURVEY BOOK	SHEET
ELECTRONIC	72 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:15pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-01\CAD\PlanSet\SH_RD_MOT Plans PH2b.dwg - (MOT Phase 2b (02))



NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

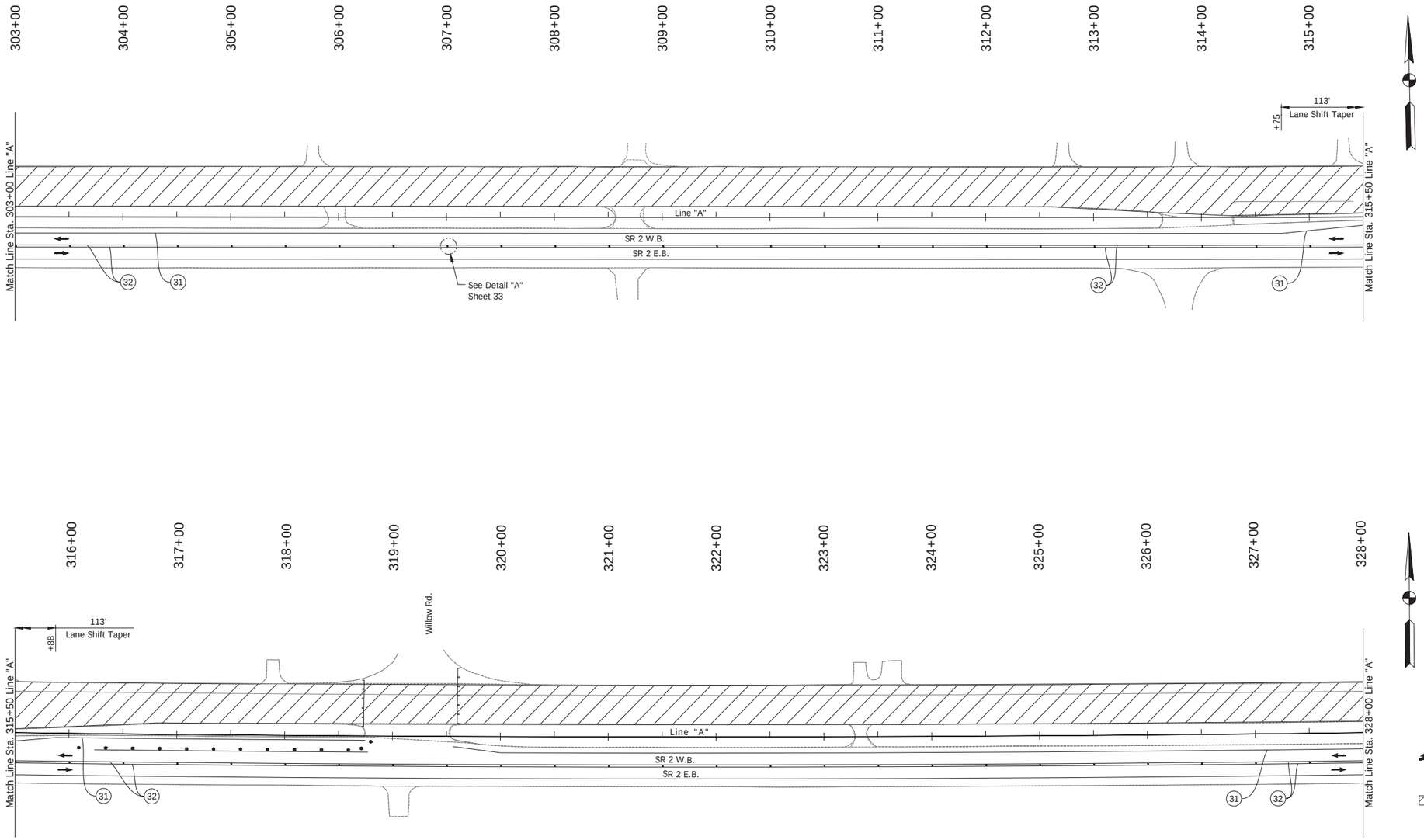
CHECKED: WBF CHECKED: WBF

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC PHASE 2B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	73 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:15pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-01\CAD\PlanSet\Sht_RD_MOT Plans Ph2b.dwg - (MOT Phase 2p (03))



LEGEND:

(31) Temporary Pavement Marking, Solid, White, 4 in., Removable

(32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable

Traffic Flow

Line, Remove

Construction Area

Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

CHECKED: WBF CHECKED: WBF

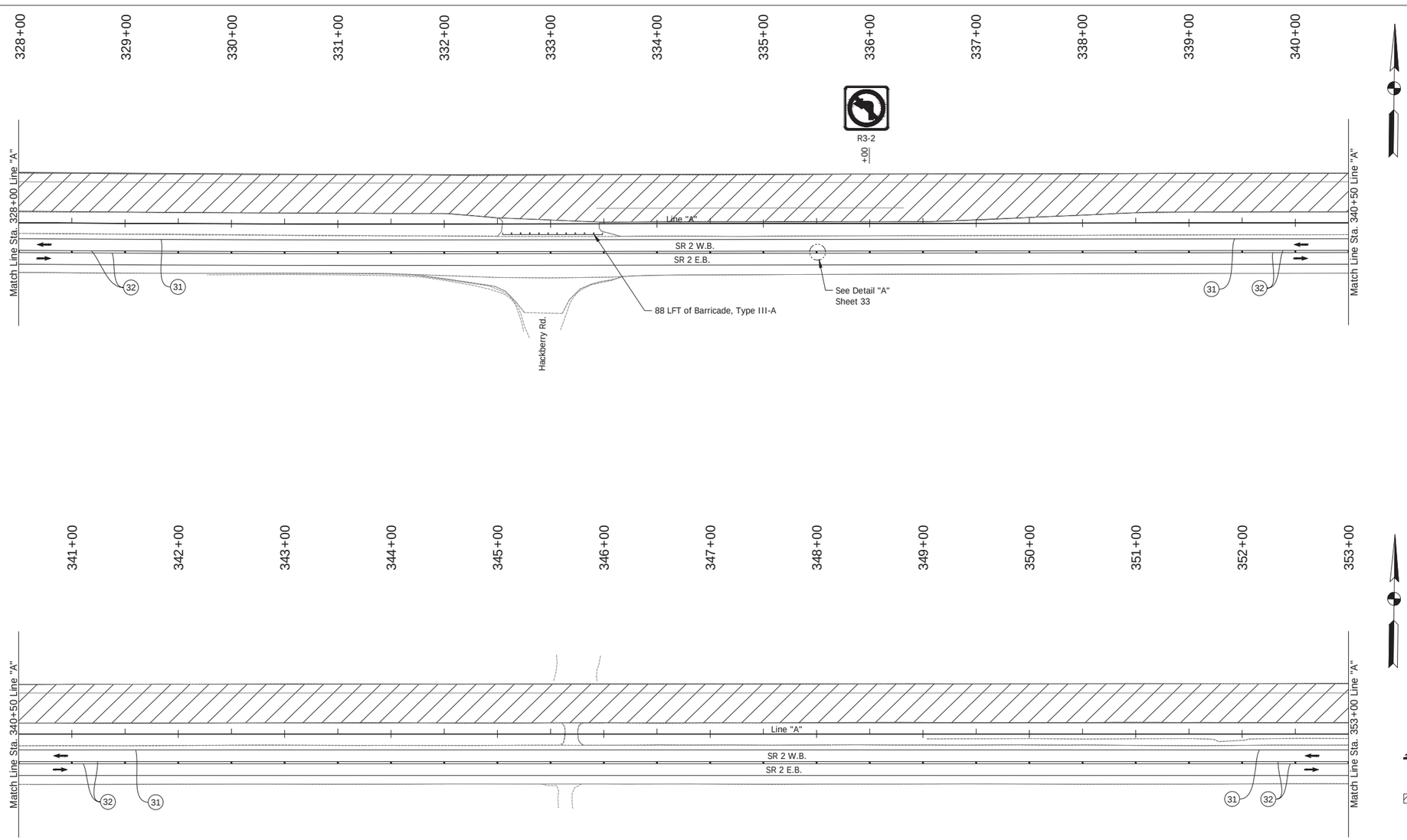
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177

SURVEY BOOK	SHEET
ELECTRONIC	74 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:15pm User Name: Sara Munsie
File: X:\production\Files\2020\1201-3001\PRJ-0\4\CAD\PlanSet\Sht_RD_MOT Plans PH2b.dwg - (MOT Phase 2b (04))



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Traffic Flow
- Line, Remove
- Construction Area
- Tubular Marker
- Barricade, Type III

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

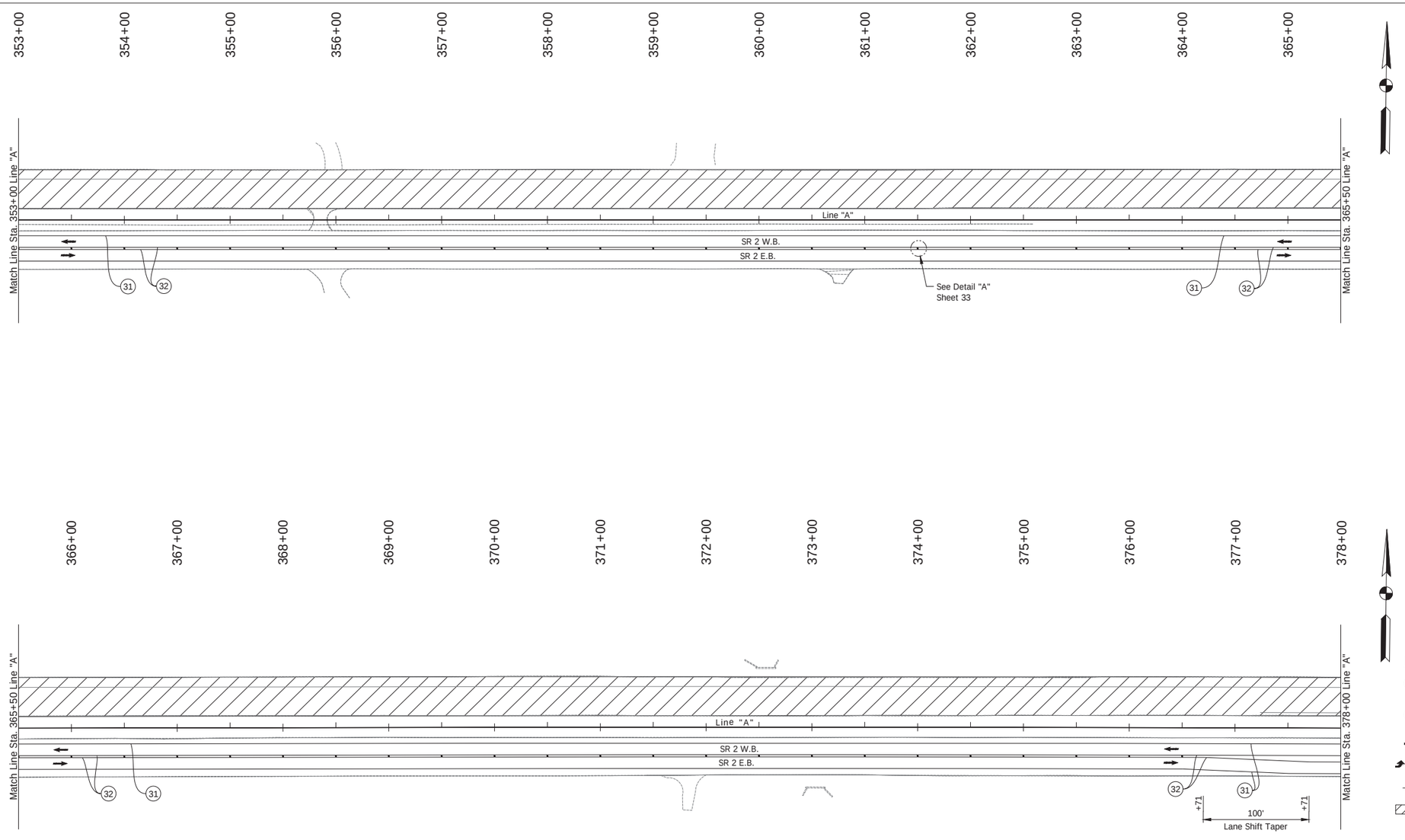
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	75 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:15pm User Name: Sara Munsie
File: X:\production\Files\2020\1200-3001\PR2-0H\CAD\PlanSet\Sht_RD_MOT Plans Ph2b.dwg - (MOT Phase 2p (05))



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Barrels
- Traffic Flow or
- Line, Remove
- Construction Area
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

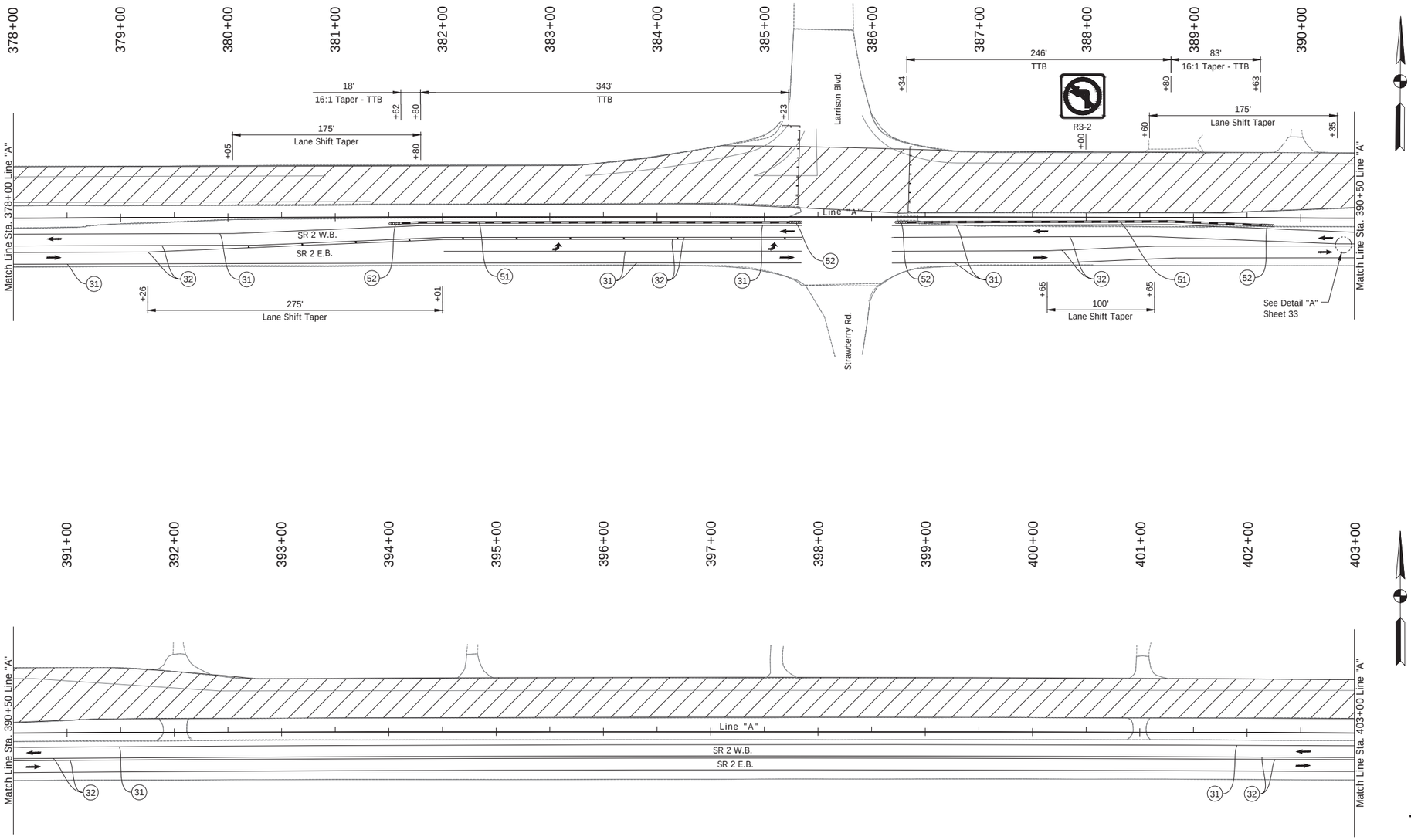
DESIGNED: JAG | DRAWN: BJS | CHECKED: WBF | CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	76 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:15pm User Name: Sara Munsie
File: X:\production\Files\2020\1200\3001\PR2-04\CAD\PlanSet\Sht_RD_MOT Plans PH2b.dwg - (MOT Phase 2b (06))



LEGEND:

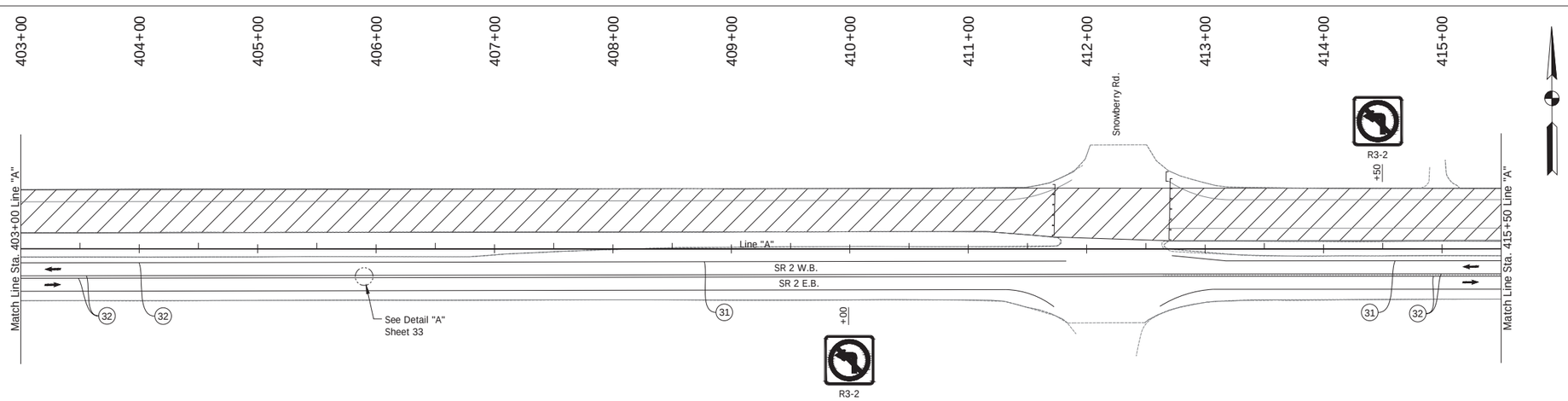
- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- (51) Temporary Traffic Barrier, Type 2
- (52) Energy Absorbing Terminal, CZ, TL-3
- Barrels
- Traffic Flow
- Line, Remove
- Construction Area
- Tubular Marker

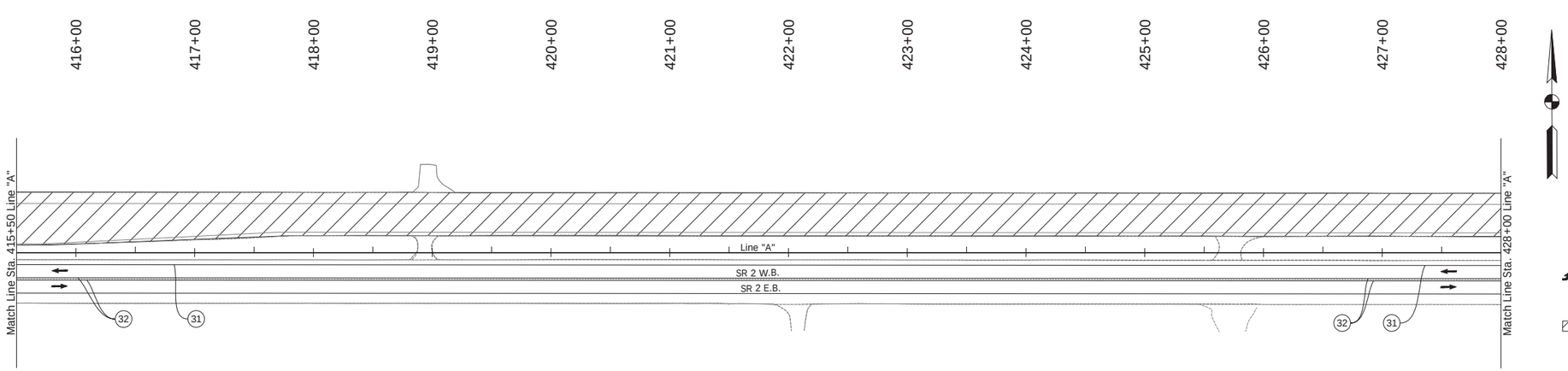
NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50'	BRIDGE FILE: N/A
		VERTICAL SCALE: N/A	DESIGNATION: 1900177
DESIGNED: JAG / DRAWN: BJS / CHECKED: WBF / CHECKED: WBF	MAINTENANCE OF TRAFFIC PHASE 2B	SURVEY BOOK: ELECTRONIC	SHEET: 77 of 321
		CONTRACT: R-42444	PROJECT: 1900177

Date: Jun 23, 2023, 1:15pm User Name: Sara Munsie
File: X:\production\Files\2020\1120\3001\PR2-04\CAD\PlanSet\Sht_RD_MOT Plans PH2b.dwg - (MOT Phase 2b (07))





LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Traffic Flow
- Line, Remove
- Construction Area
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

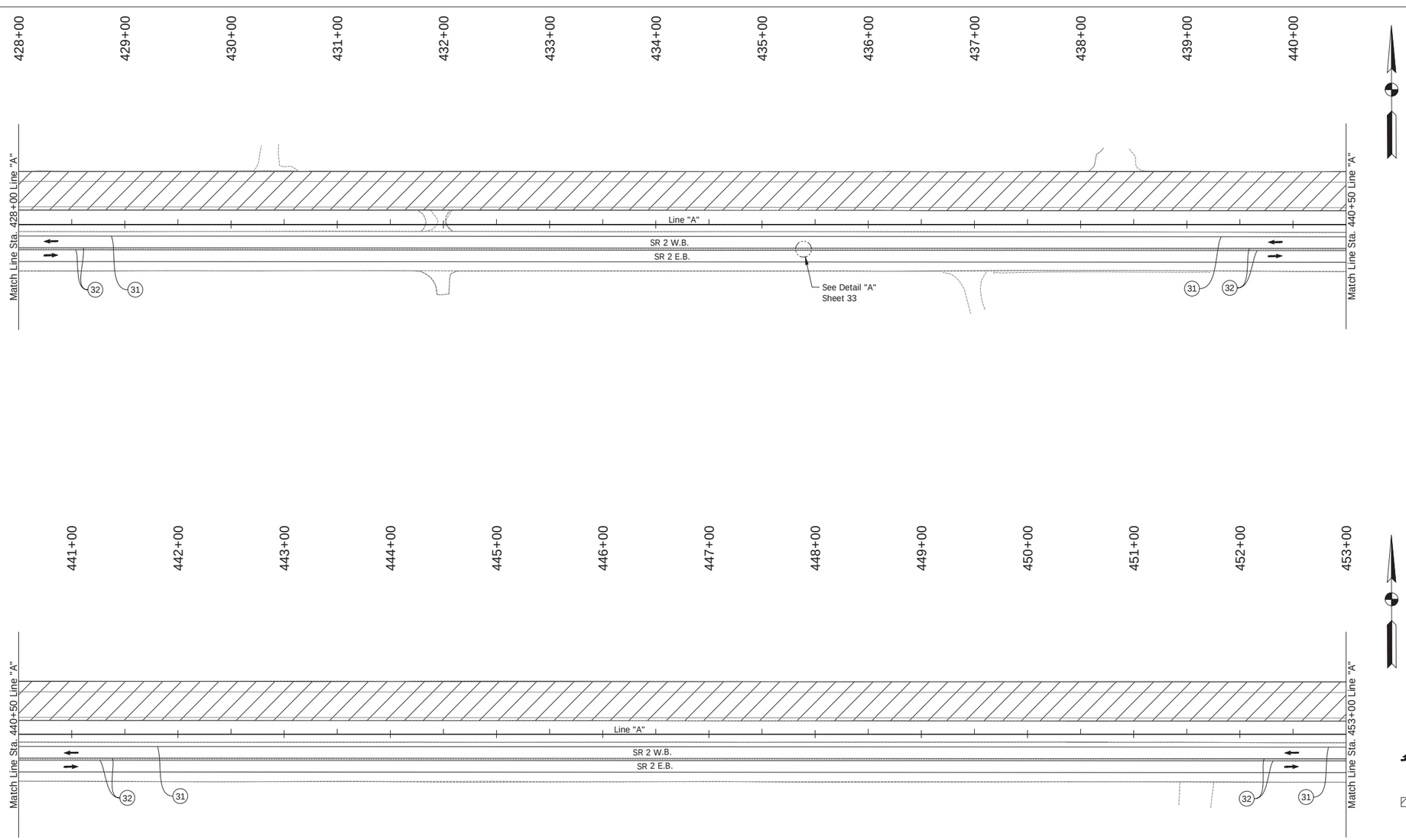
CHECKED: WBF CHECKED: WBF

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC PHASE 2B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	78 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:15pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-01\CAD\PlanSet\SH_RD_MOT Plans PH2b.dwg - (MOT Phase 2b (08))



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Traffic Flow
- Line, Remove
- Construction Area
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

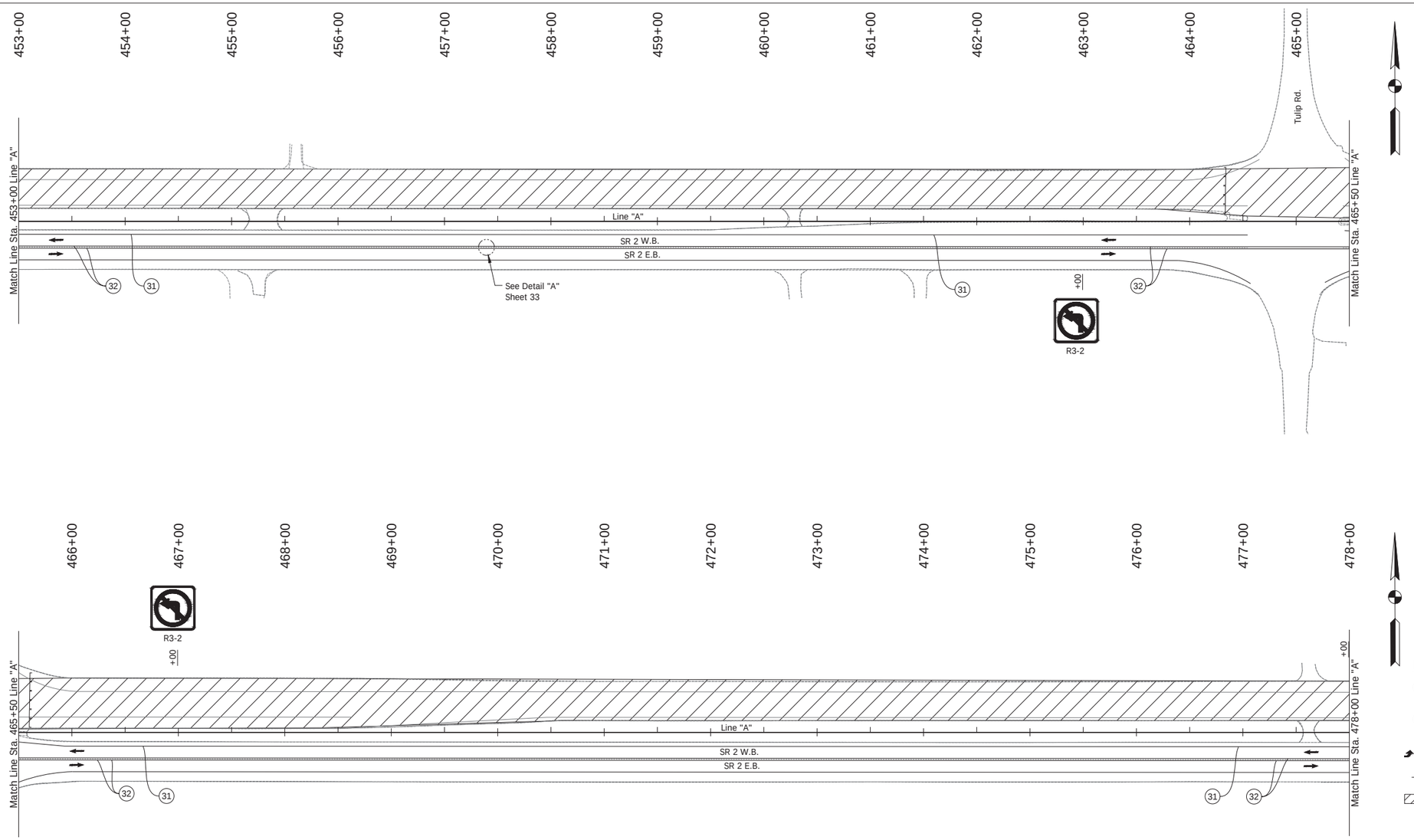
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	79 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:15pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-01\CAD\PlanSet\Sht_RD_MOT Plans Ph2b.dwg - (MOT Phase 2p (09))



NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

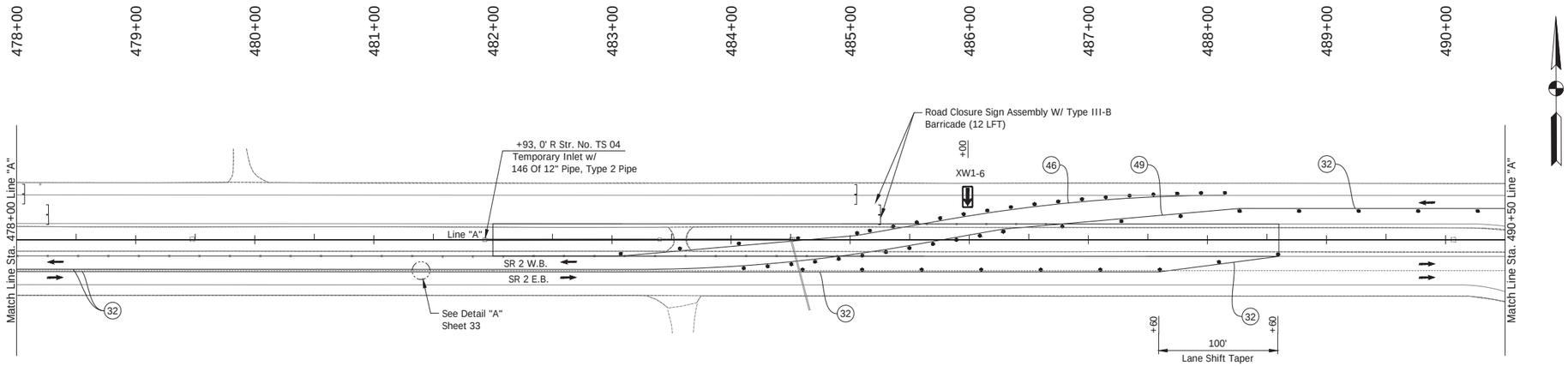
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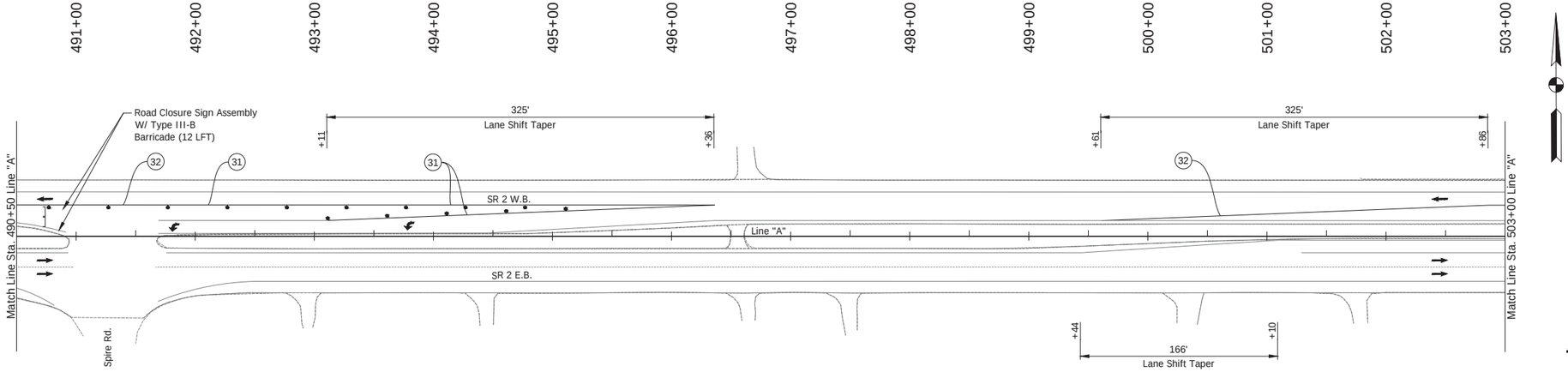
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	80 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:16pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-01\CAD\PlanSet\Sht_RD_MOT Plans Ph2b.dwg - (MOT Phase 2b (1))





LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- (46) Temporary Pavement Marking, Solid, White, 8 in., Removable
- (49) Temporary Pavement Marking, Solid, Yellow, 8 in., Removable
- Barrels
- Traffic Flow
- Construction Sign
- Line, Remove
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

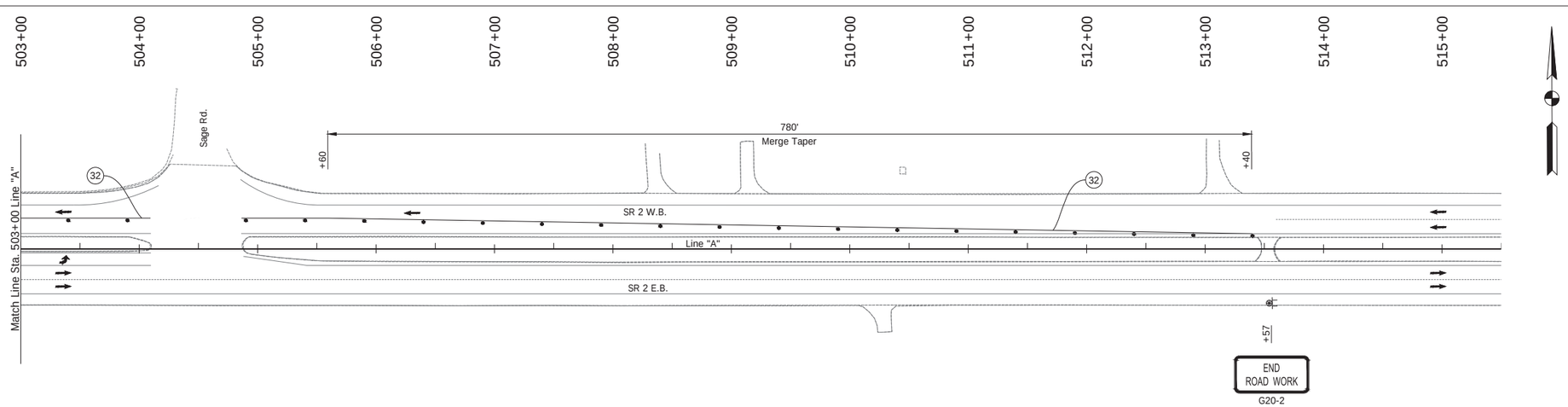
DESIGNED: JAG DRAWN: BJS
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	81 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:16pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-01\CAD\PlanSet\SH_RD_MOT Plans Ph2b.dwg - (MOT Phase 2b (11))



LEGEND:

- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- • • • Barrels
- or Traffic Flow
- Construction Sign

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG | DRAWN: BJS

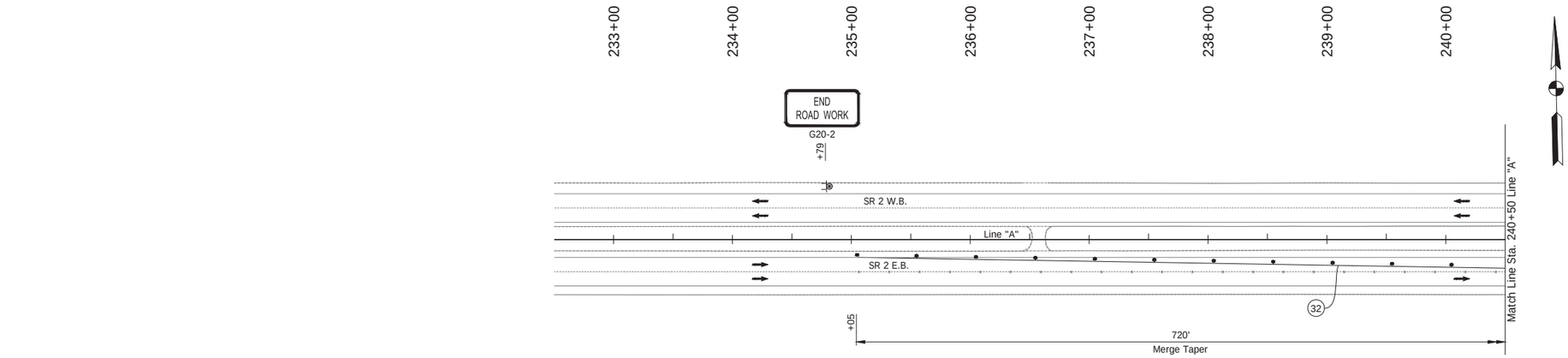
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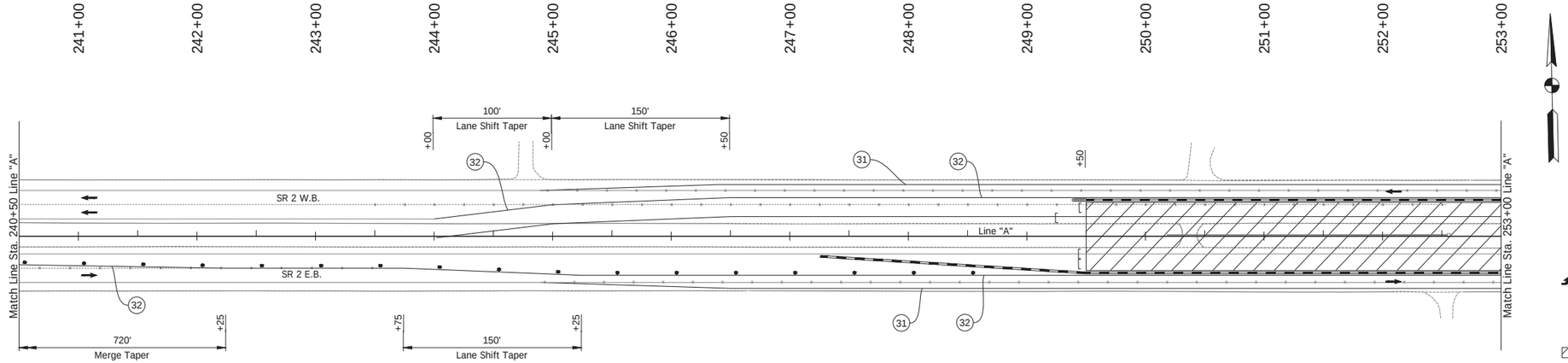
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	82 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:16pm User Name: Sara Munsie
File: X:\production\Files\2020\1200-39911\RD-04\CAD\PlanSet\SHt_RD_MOT Plans PH2b.dwg - (MOT Phase 2b (12))





LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Barrels
- Traffic Flow or
- Construction Sign
- Line, Remove
- Construction Area
- Barricade, Type III-B
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: JAG | DRAWN: BJS

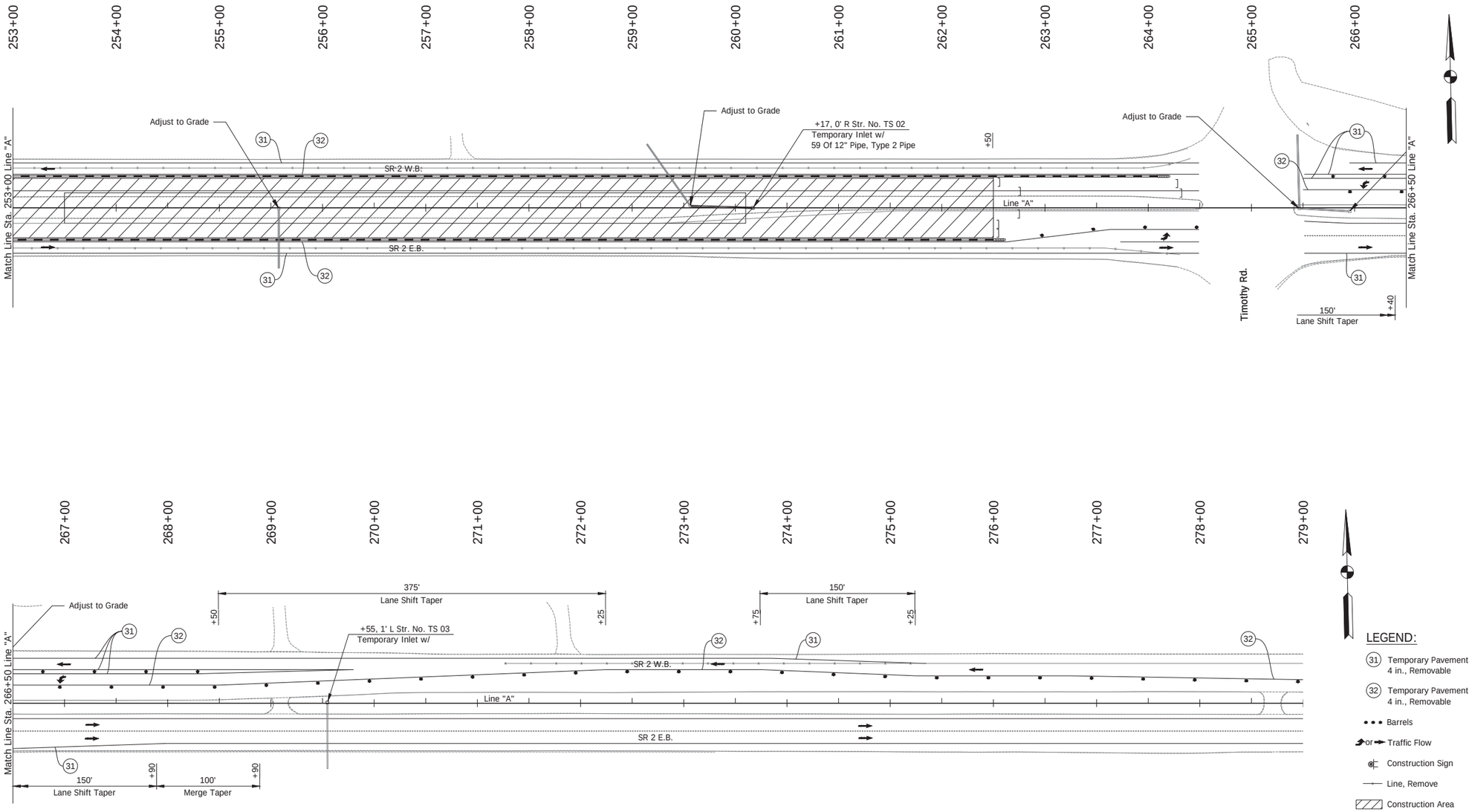
CHECKED: WBF | CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2C

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	83 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:16pm User Name: Sara Munsie
File: X:\production\Files\2020\1220-3001\PR2-01\CAD\PlanSet\Sht_RD_MOT Plans PH2c.dwg - (MOT Phase 2c (01))



LEGEND:

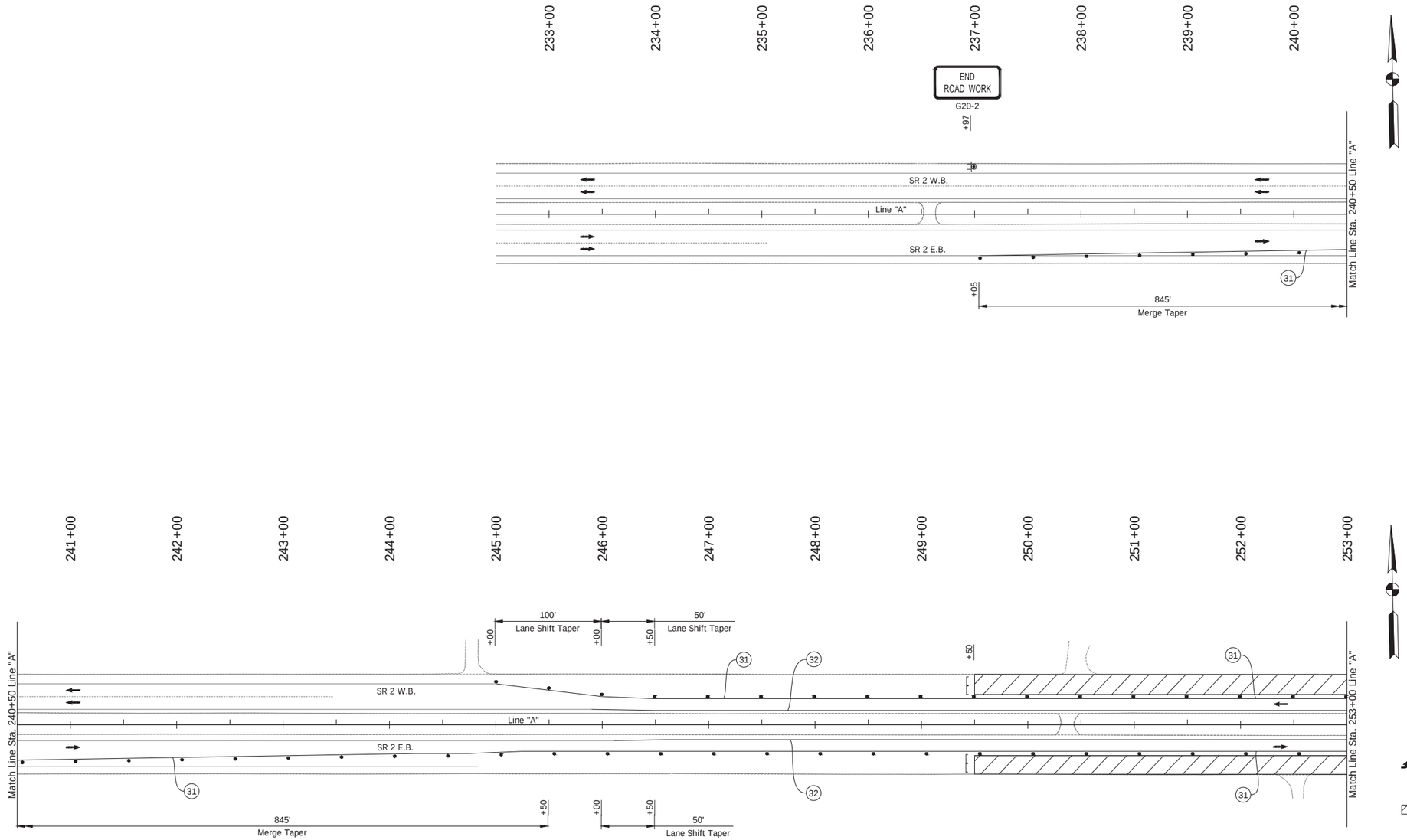
- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Barrels
- Traffic Flow
- Construction Sign
- Line, Remove
- Construction Area
-] Barricade, Type III-B

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections
3. Tubular Marker = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50' / BRIDGE FILE: N/A / VERTICAL SCALE: N/A / DESIGNATION: 1900177
DESIGNED: JAG	DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 2C	SURVEY BOOK / SHEET
CHECKED: WBF	CHECKED: WBF		ELECTRONIC: 84 of 321 / CONTRACT: R-42444 / PROJECT: 1900177

Date: Jun 23, 2023, 1:16pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR1-01\CAD\PlanSet\SH_RD_MOT Plans PH2c.dwg - (MOT Phase 2c (02))



LEGEND:

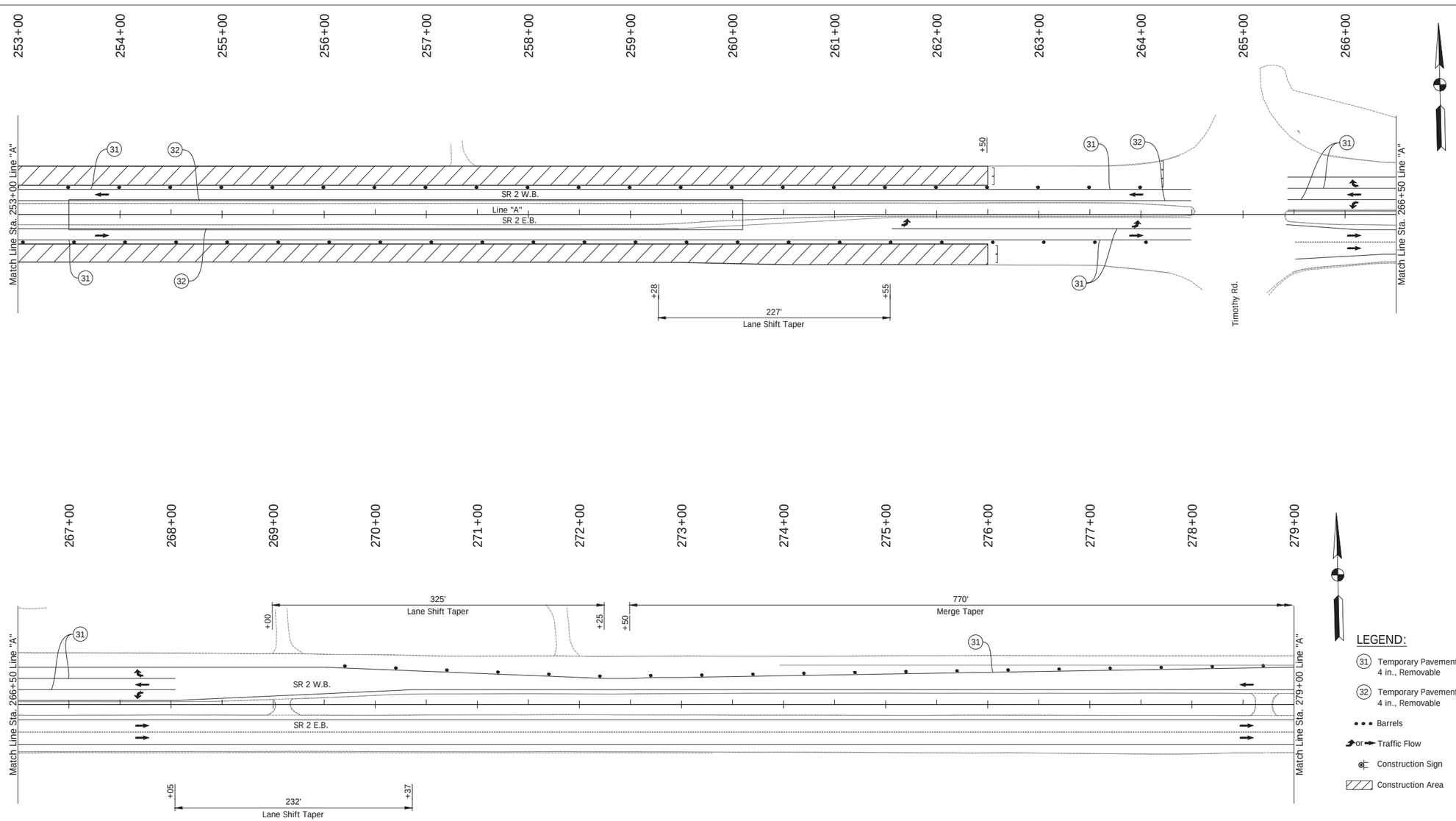
- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Barrels
- Traffic Flow
- Construction Sign
- Construction Area

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50' / BRIDGE FILE: N/A; VERTICAL SCALE: N/A / DESIGNATION: 1900177
DESIGNED: JAG DRAWN: BJS CHECKED: WBF CHECKED: WBF	MAINTENANCE OF TRAFFIC PHASE 2D	SURVEY BOOK: ELECTRONIC / SHEET: 85 of 321 / CONTRACT: R-42444 / PROJECT: 1900177

Date: Jun 23, 2023, 1:17pm User Name: Sara Munsie
File: X:\production\Files\2020\1220-3001\PR2-DH\CAD\PlanSet\SH_RD_MOT Plans PH2d.dwg - (MOT Phase 2d (01))



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Barrels
- Traffic Flow or
- Construction Sign
- Construction Area

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

CHECKED: WBF CHECKED: WBF

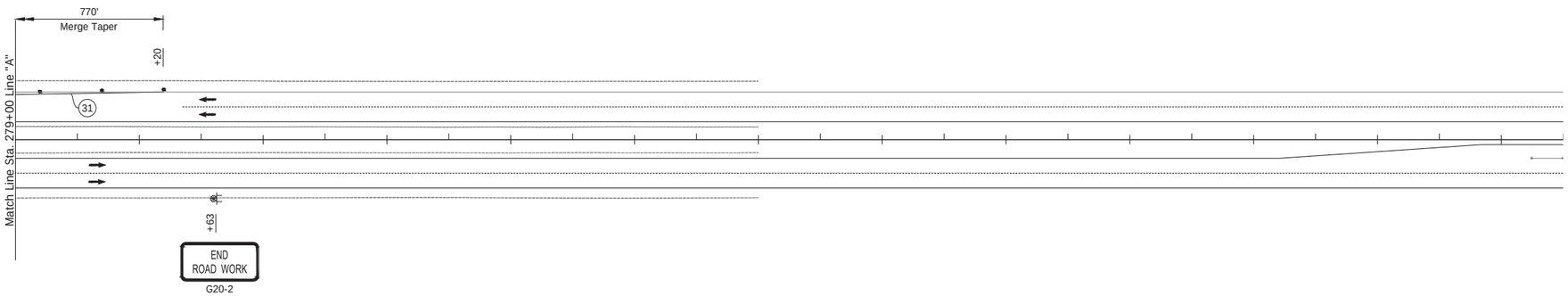
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2D

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	86 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:17pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-DH\CAD\PlanSet\SH_RD_MOT Plans PH2d.dwg - (MOT Phase 2d (02))

279+00 280+00 281+00 282+00 283+00 284+00 285+00 286+00 287+00 288+00 289+00 290+00 291+00



LEGEND:

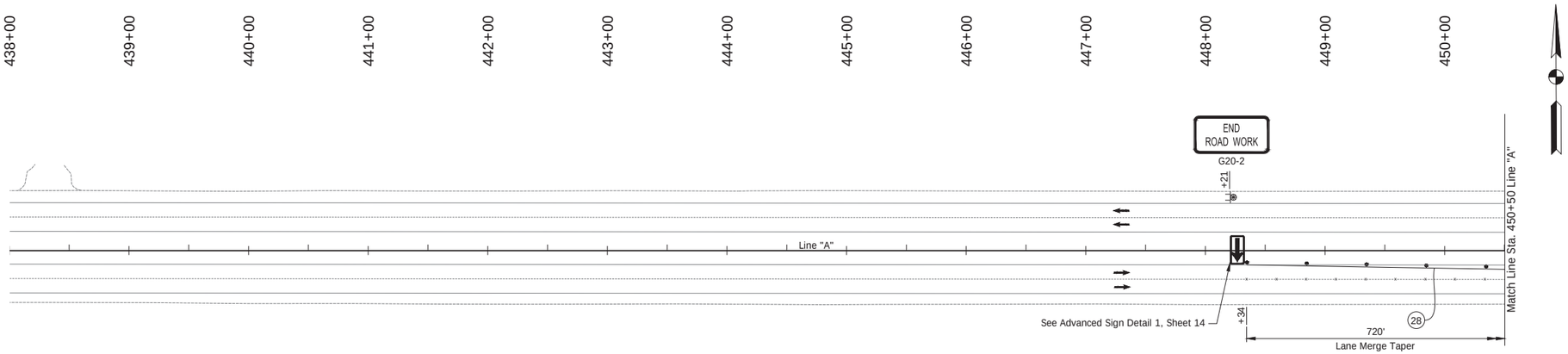
- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Barrels
- or Traffic Flow
- Construction Sign
- Construction Area

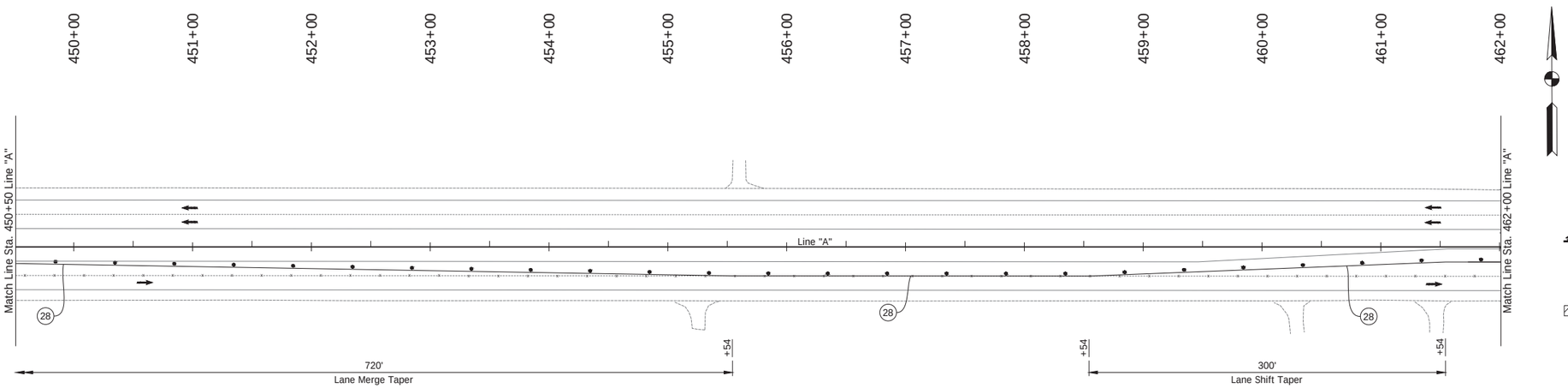
NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
			1" = 50'	N/A
			VERTICAL SCALE	DESIGNATION
			----	1900177
DESIGNED: SFM	DRAWN: RHK	MAINTENANCE OF TRAFFIC PHASE 2D	SURVEY BOOK	SHEET
			ELECTRONIC	87 of 321
CHECKED: WBF	CHECKED: WBF		CONTRACT	PROJECT
			R-42444	1900177

Date: Jun 23, 2023, 1:17pm User Name: Sara Munsie
File: X:\production\Files\2020\1200-39311\RO-04\CAD\PlanSet\SHt_RD_MOT Plans PH2d.dwg - (MOT Phase 2d (03))





LEGEND:

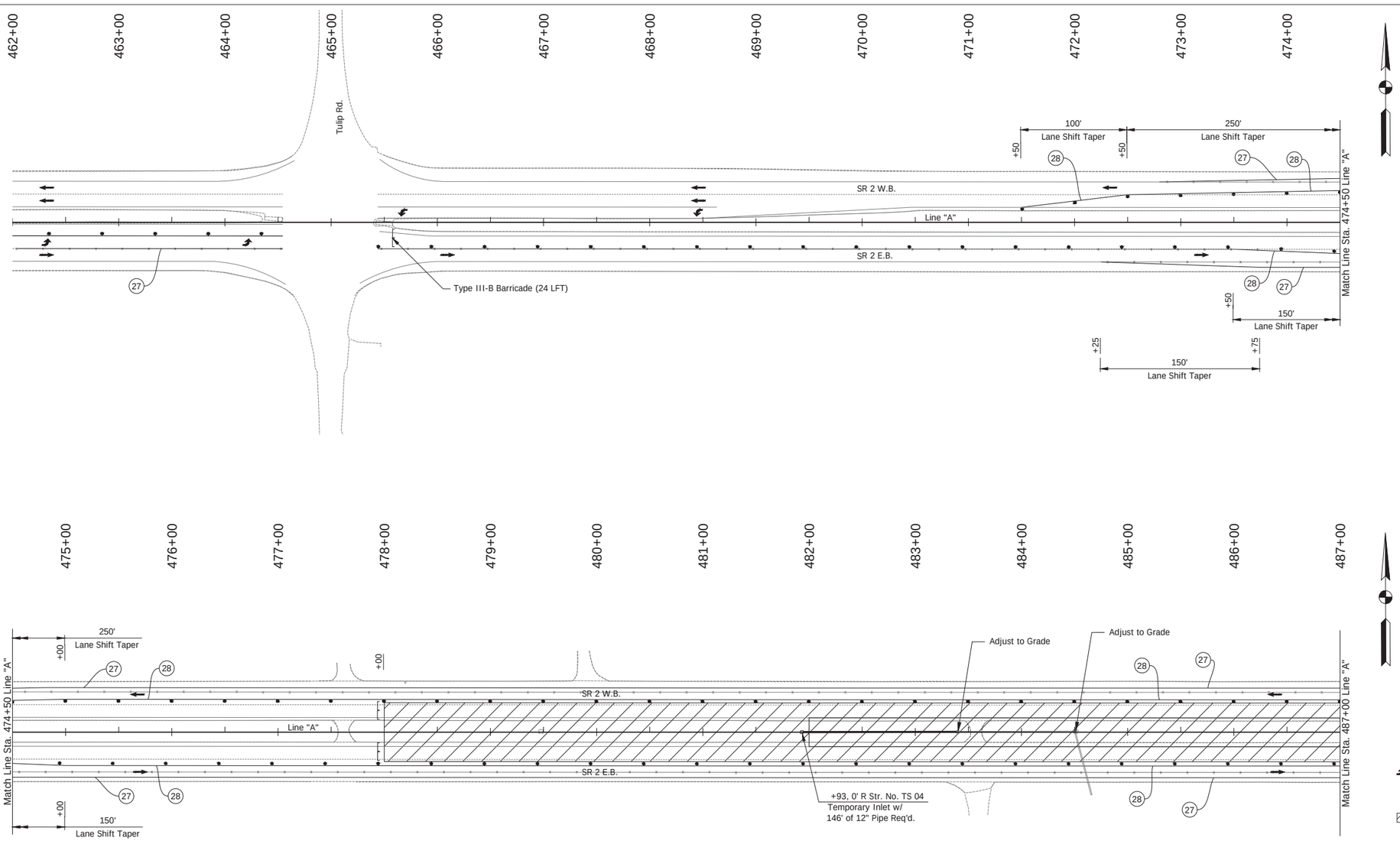
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- Barrels
- Traffic Flow
- Construction Sign
- Line, Remove
- Construction Area
- Barricade, Type III-B
- Tubular Marker

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50' / BRIDGE FILE: N/A
DESIGNED: JAG	DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 3A	VERTICAL SCALE: N/A / DESIGNATION: 1900177
CHECKED: WBF	CHECKED: WBF		SURVEY BOOK: ELECTRONIC / SHEET: 88 of 321 / CONTRACT: R-42444 / PROJECT: 1900177

Date: Jun 23, 2023, 1:18pm User Name: Sara Munsie
File: X:\production\Files\2020\1220-3001\PRJ-04\CAD\PlanSet\Sht_RD_MOT Plans PH3a.dwg - (MOT Phase 3a (0))



LEGEND:

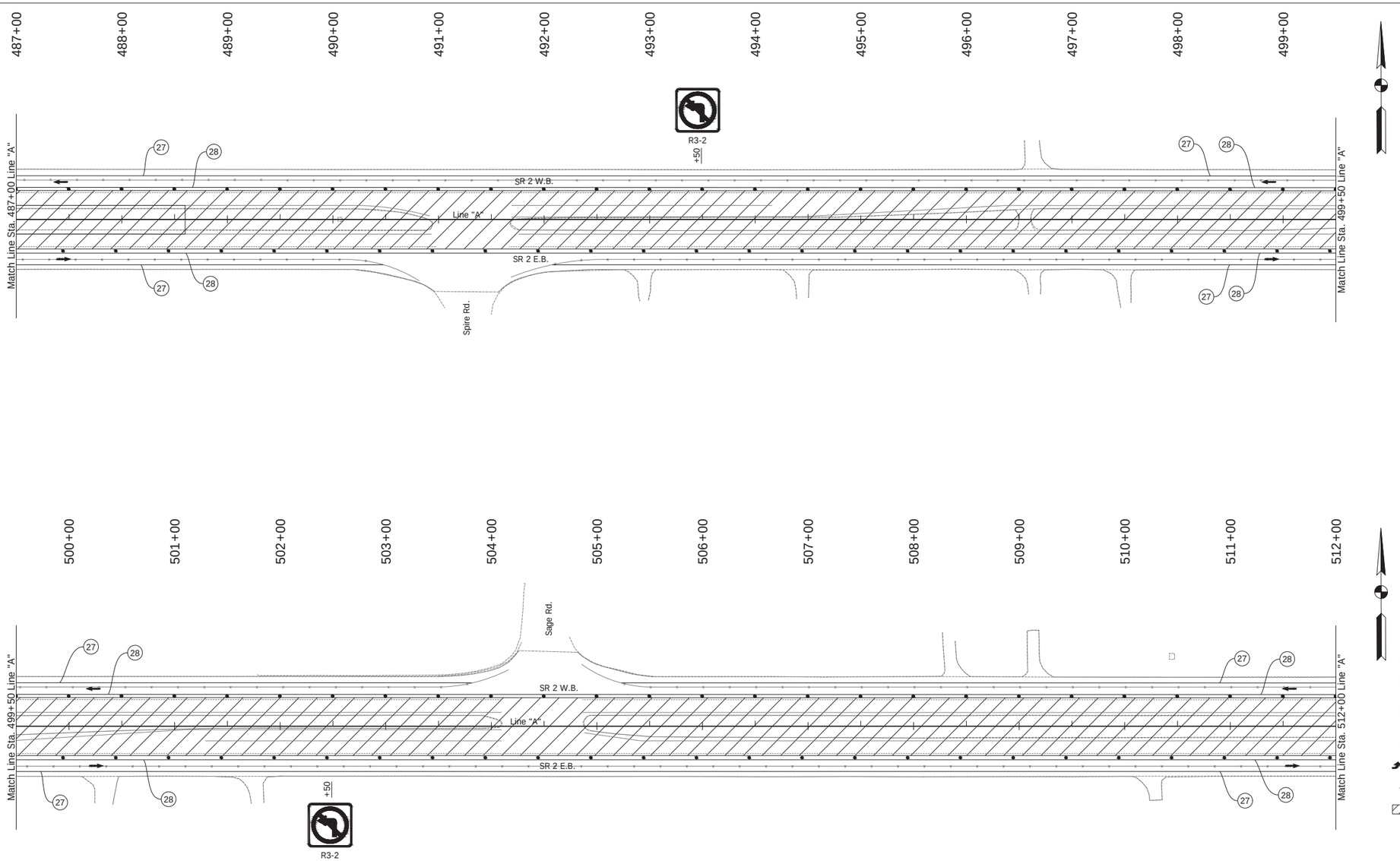
- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- Barrels
- or Traffic Flow
- Line, Remove
- Construction Area
-] Barricade, Type III-B

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50'	BRIDGE FILE: N/A
		VERTICAL SCALE: N/A	DESIGNATION: 1900177
DESIGNED: JAG / DRAWN: BJS / CHECKED: WBF / CHECKED: WBF	MAINTENANCE OF TRAFFIC PHASE 3A	SURVEY BOOK: ELECTRONIC	SHEET: 89 of 321
		CONTRACT: R-42444	PROJECT: 1900177

Date: Jun 23, 2023, 1:18pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-I-I\CAD\PlanSet\SH_RD_MOT Plans PH3a.dwg - (MOT Phase 3a (1))



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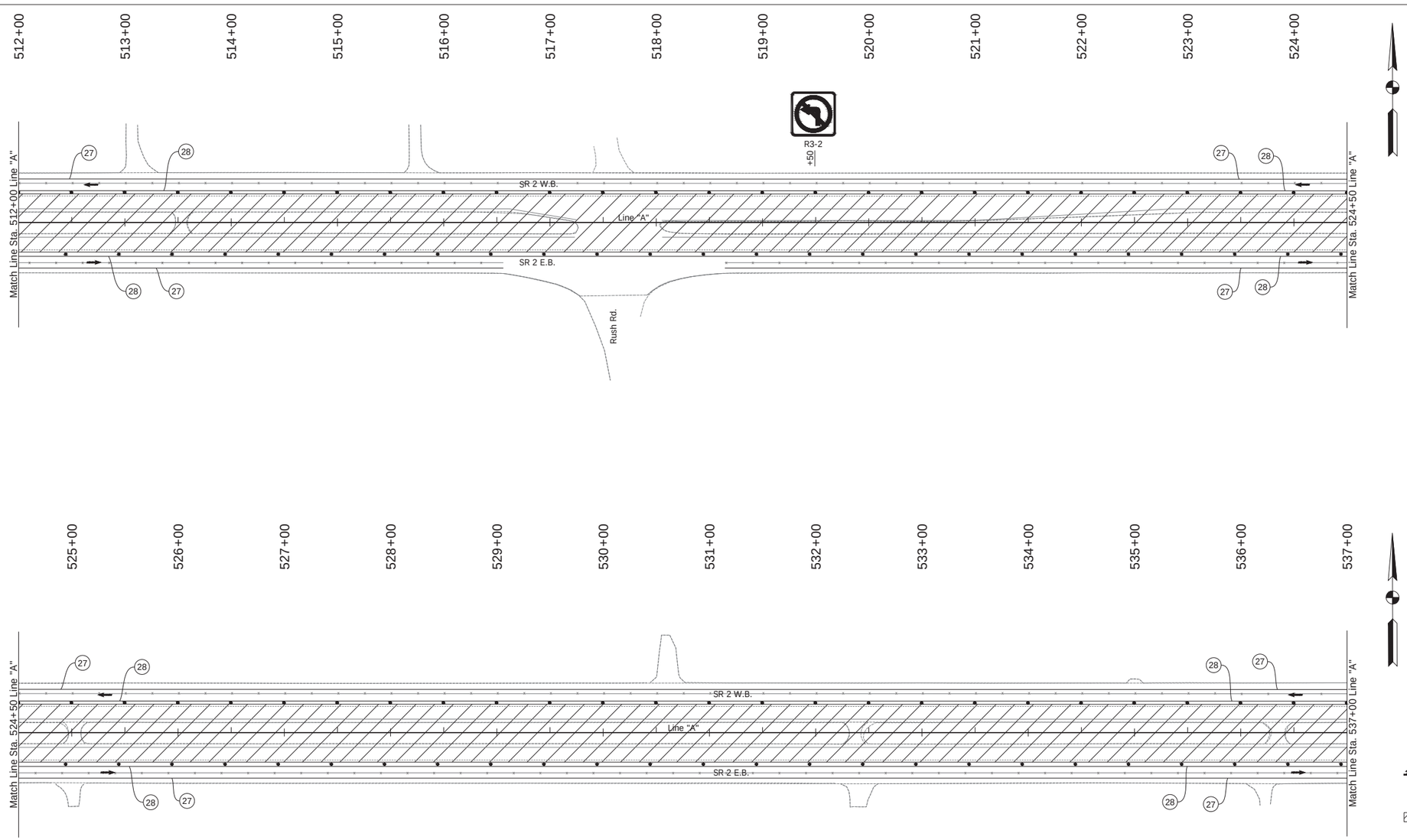
- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- Barrels
- or Traffic Flow
- Line, Remove
- Construction Area

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50' / BRIDGE FILE: N/A / VERTICAL SCALE: N/A / DESIGNATION: 1900177
DESIGNED: JAG	DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 3A	SURVEY BOOK / SHEET: ELECTRONIC 90 of 321
CHECKED: WBF	CHECKED: WBF		CONTRACT: R-42444 / PROJECT: 1900177

Date: Jun 23, 2023, 1:18pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-01\CAD\PlanSet\SH_RD_MOT Plans PH3a.dwg - (MOT Phase 3a (2))



LEGEND:

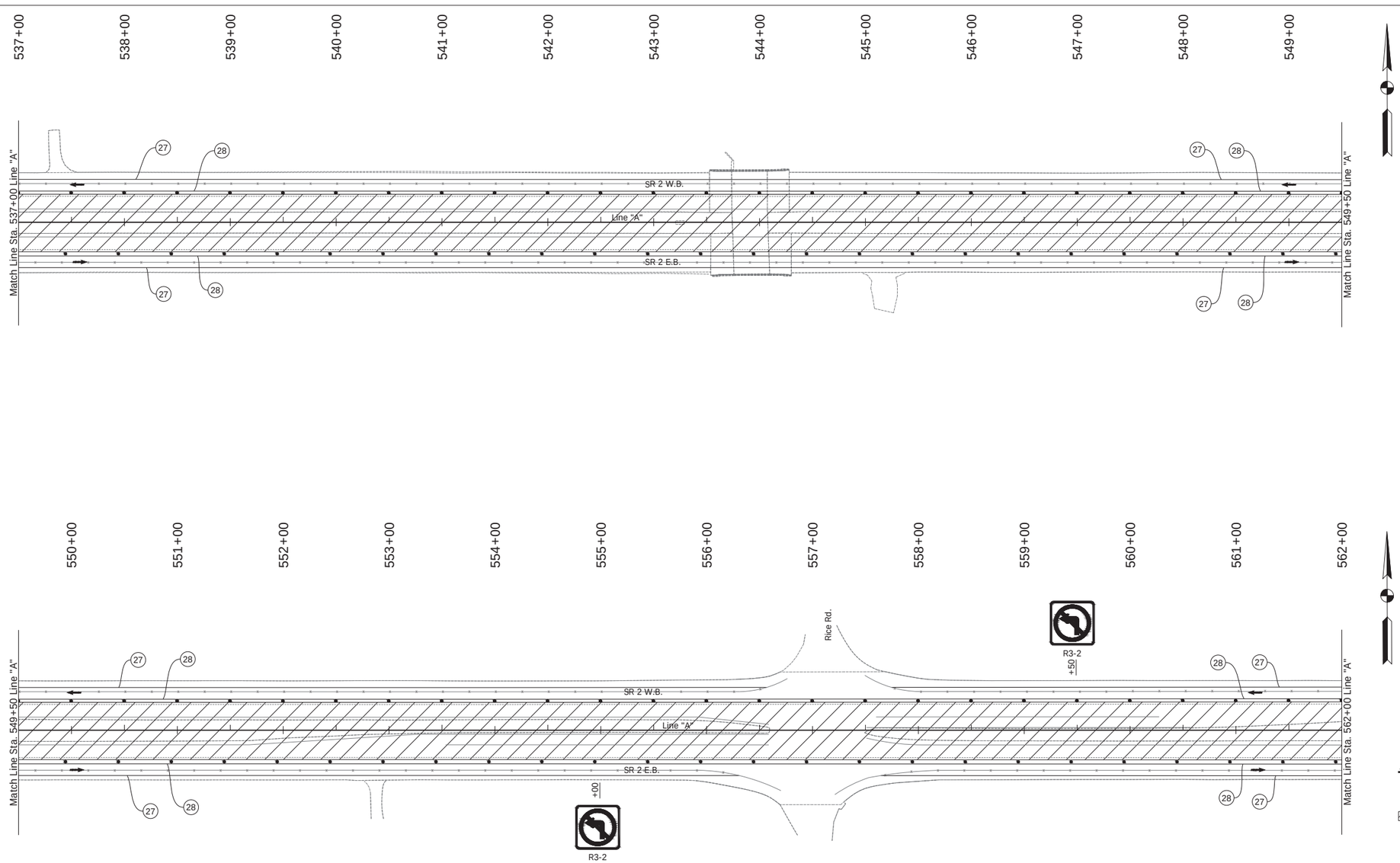
- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- Barrels
- Traffic Flow
- Line, Remove
- Construction Area

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50'	BRIDGE FILE: N/A
		VERTICAL SCALE: N/A	DESIGNATION: 1900177
DESIGNED: JAG / DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 3A	SURVEY BOOK: ELECTRONIC	SHEET: 91 of 321
CHECKED: WBF / CHECKED: WBF		CONTRACT: R-42444	PROJECT: 1900177

Date: Jun 23, 2023, 1:18pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-I-I\CAD\PlanSet\Sht_RD_MOT Plans PH3a.dwg - (MOT Phase 3a (3))



LEGEND:

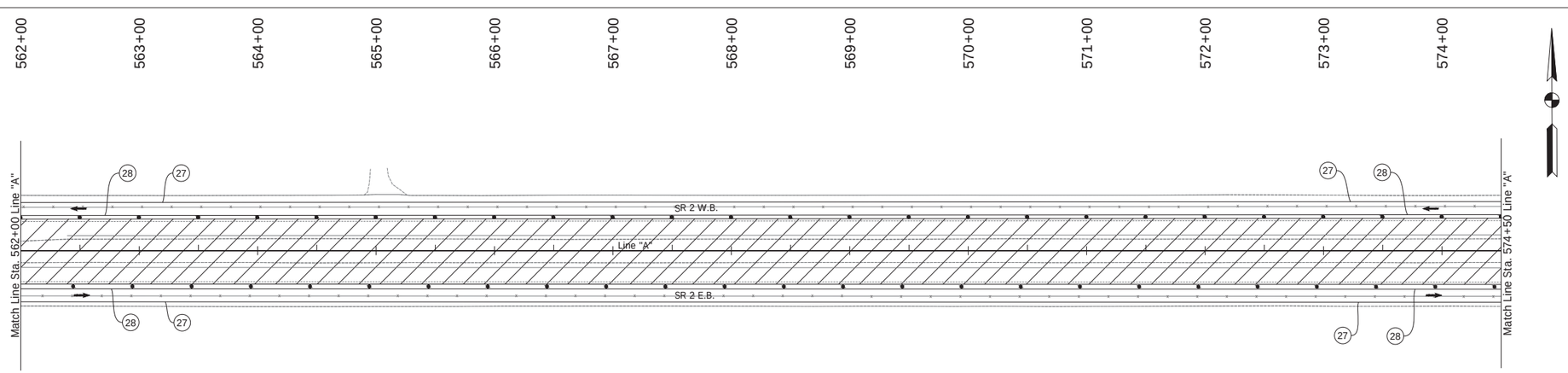
- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- • • • Barrels
- or Traffic Flow
- Line, Remove
- Construction Area

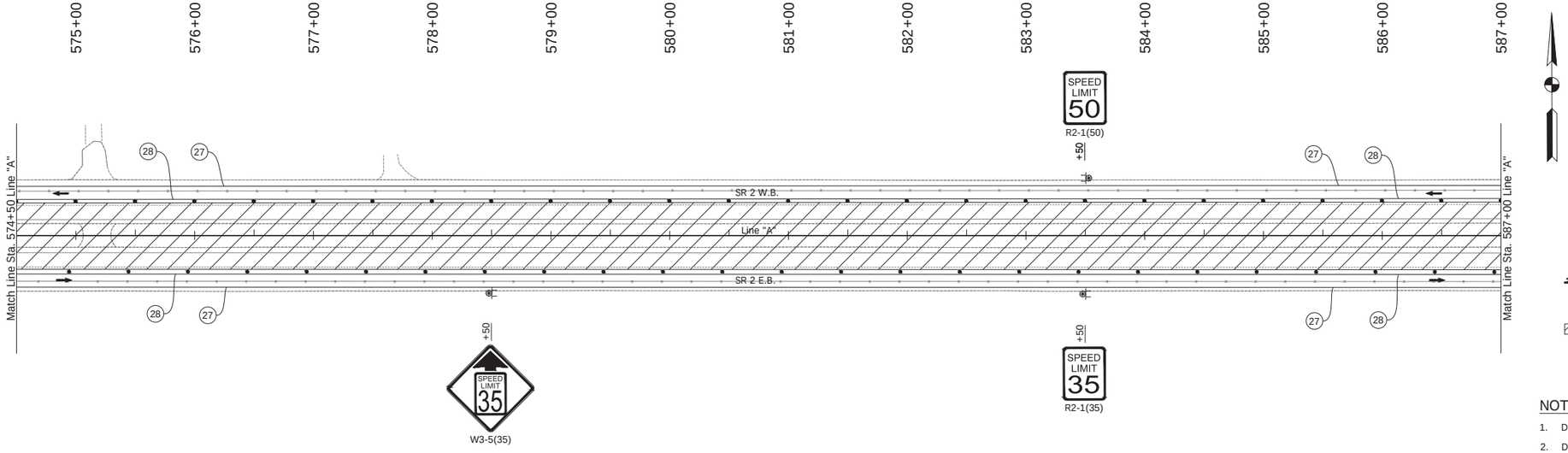
NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50'	BRIDGE FILE: N/A
		VERTICAL SCALE: N/A	DESIGNATION: 1900177
DESIGNED: JAG DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 3A	SURVEY BOOK: ELECTRONIC	SHEET: 92 of 321
CHECKED: WBF CHECKED: WBF		CONTRACT: R-42444	PROJECT: 1900177

Date: Jun 23, 2023, 1:18pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR1-04\CAD\PlanSet\SH_RD_MOT Plans PH3a.dwg - (MOT Phase 3a (4))





LEGEND:

- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- Barrels
- or Traffic Flow
- Line, Remove
- Construction Area

NOTES:

1. Design speed = 35 mph
2. Drum spacing = 25' on taper sections and 50' on tangent sections
3. Cone spacing = 25' on taper sections and 50' on tangent sections

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG | DRAWN: BJS

CHECKED: WBF | CHECKED: WBF

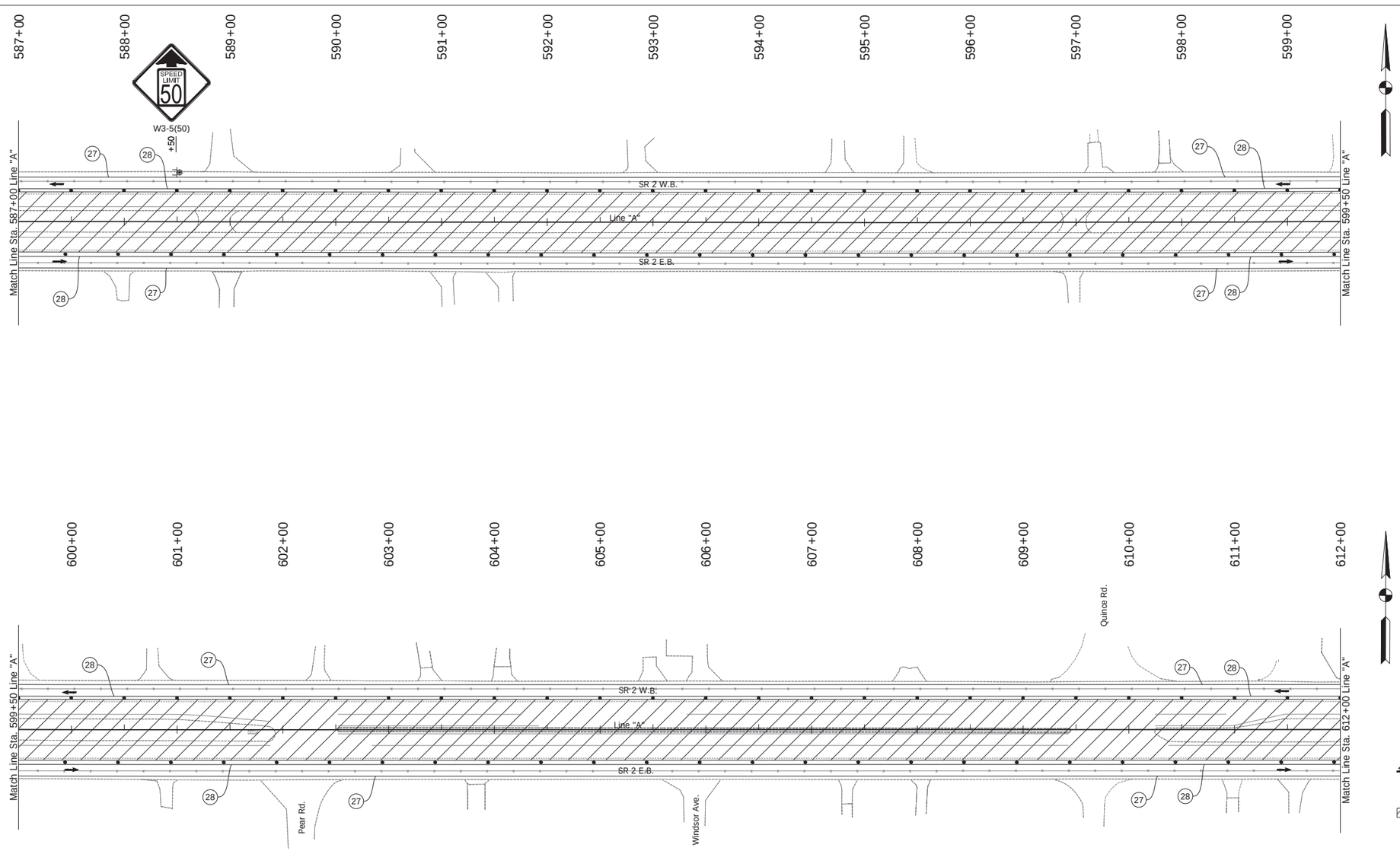
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177

SURVEY BOOK	SHEET
ELECTRONIC	93 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:18pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-04\CAD\PlanSet\Sht_RD_M07 Plans PH3a.dwg - (M07 Phase 3a (3))



LEGEND:

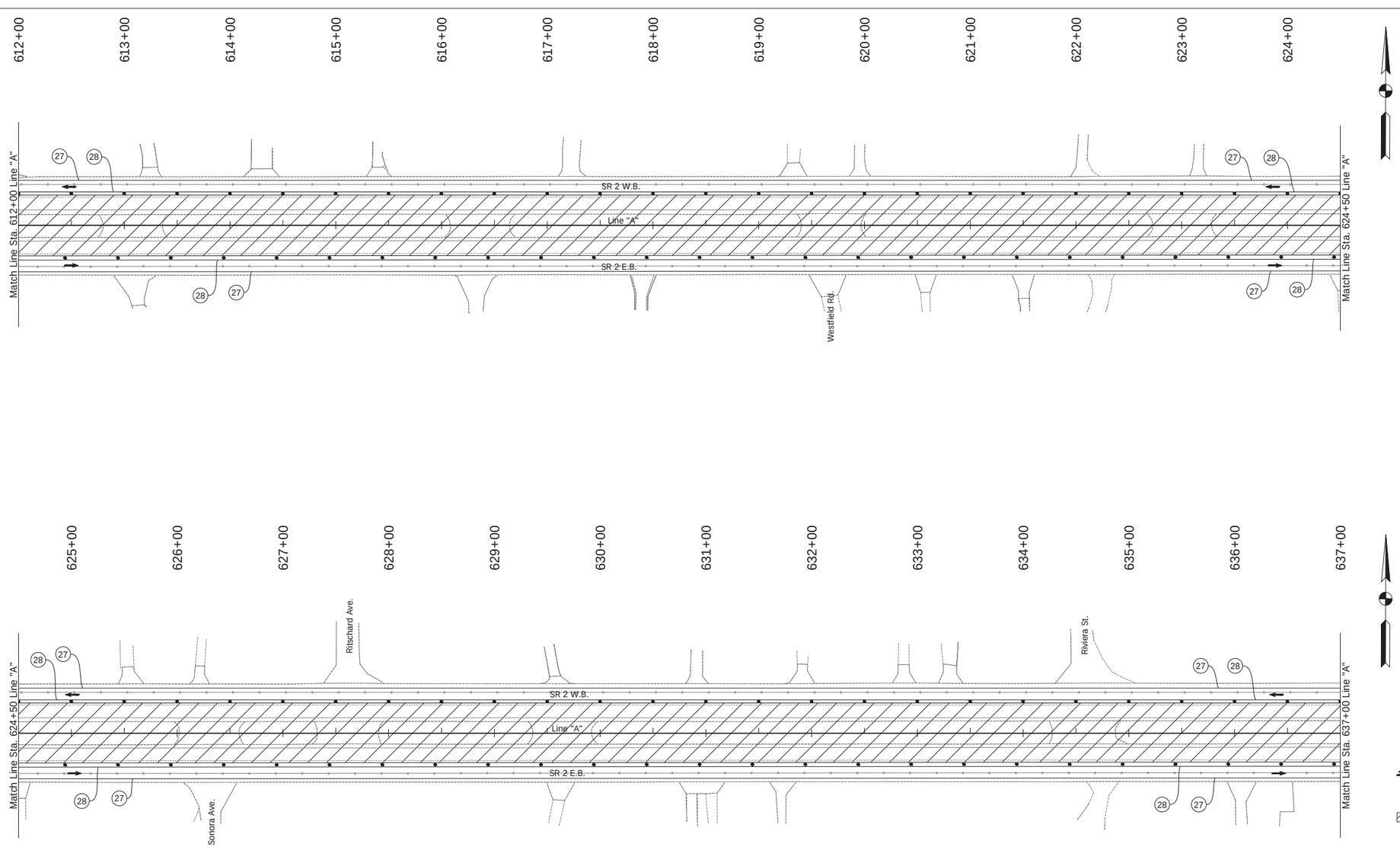
- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- Barrels
- Traffic Flow or
- Line, Remove
- Construction Area

NOTES:

1. Design speed = 35 mph
2. Drum spacing = 25' on taper sections and 50' on tangent sections
3. Cone spacing = 25' on taper sections and 50' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50' / BRIDGE FILE: N/A
DESIGNED: JAG	DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 3A	VERTICAL SCALE: N/A / DESIGNATION: 1900177
CHECKED: WBF	CHECKED: WBF		SURVEY BOOK: ELECTRONIC / SHEET: 94 of 321
			CONTRACT: R-42444 / PROJECT: 1900177

Date: Jun 23, 2023, 1:18pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR1-01\CAD\PlanSet\SH_RD_MOT Plans PH3a.dwg - (MOT Phase 3a (i))



LEGEND:

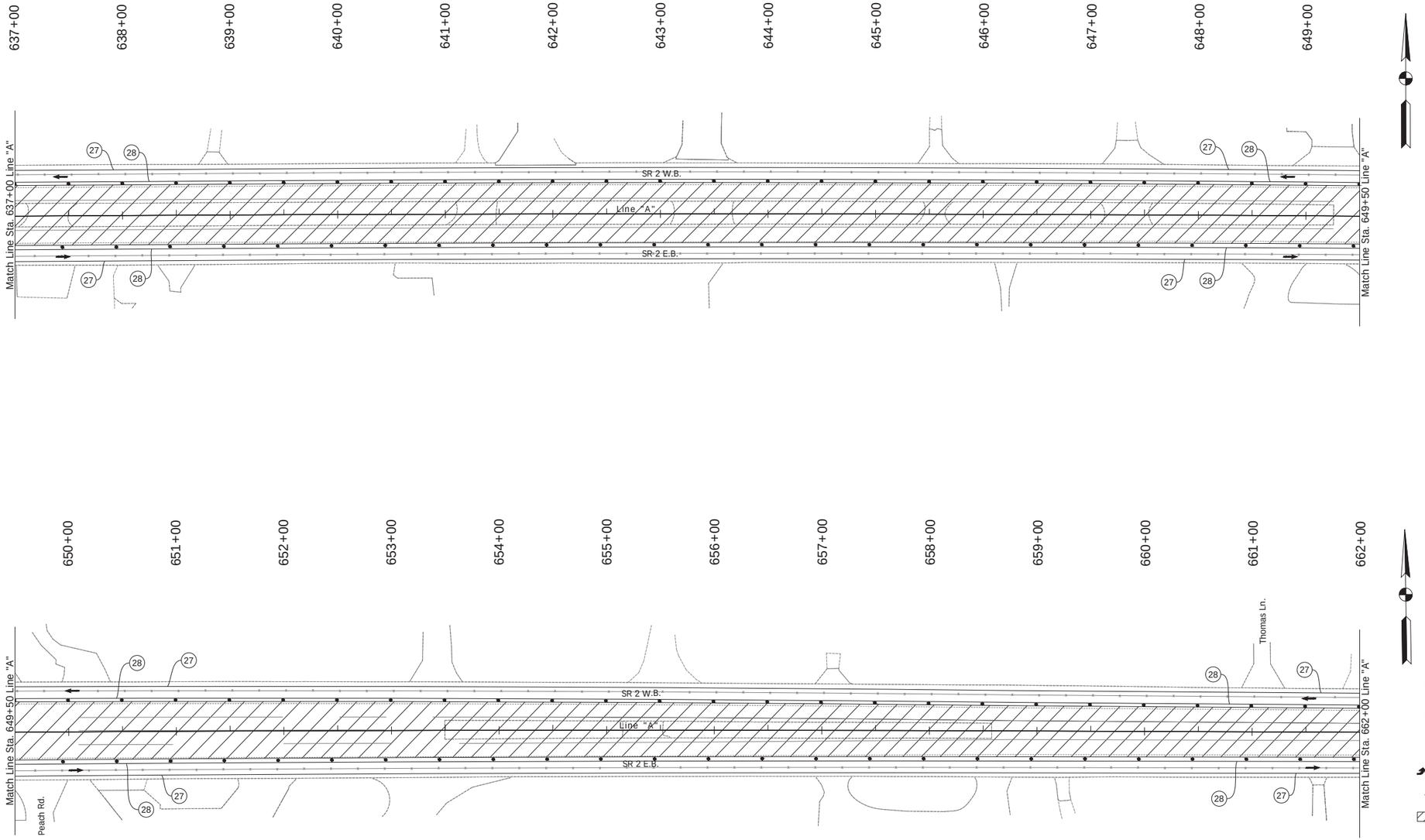
- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- • • • Barrels
- ← or → Traffic Flow
- —— Line, Remove
- ▨ Construction Area

NOTES:

1. Design speed = 35 mph
2. Drum spacing = 25' on taper sections and 50' on tangent sections
3. Cone spacing = 25' on taper sections and 50' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50' / BRIDGE FILE: N/A
DESIGNED: JAG	DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 3A	VERTICAL SCALE: N/A / DESIGNATION: 1900177
CHECKED: WBF	CHECKED: WBF		SURVEY BOOK: ELECTRONIC / SHEET: 95 of 321
			CONTRACT: R-42444 / PROJECT: 1900177

Date: Jun 23, 2023, 1:19pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-01\CAD\PlanSet\Sht_RD_MOT Plans PH3a.dwg - (MOT Phase 3a (7))



LEGEND:

- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- Barrels
- Traffic Flow
- Line, Remove
- Construction Area

NOTES:

1. Design speed = 35 mph
2. Drum spacing = 25' on taper sections and 50' on tangent sections
3. Cone spacing = 25' on taper sections and 50' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

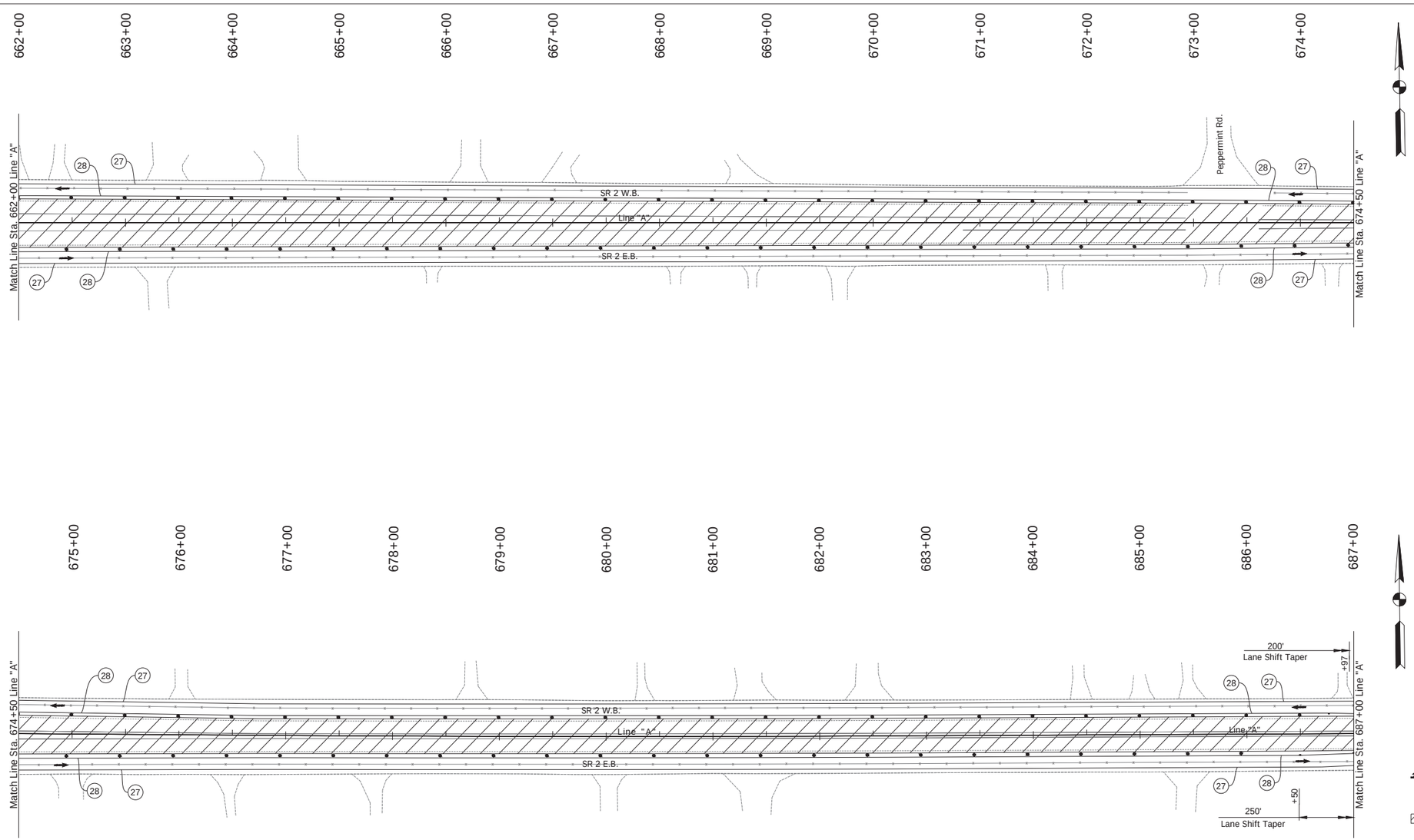
DESIGNED: JAG | DRAWN: BJS | CHECKED: WBF | CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	96 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:19pm User Name: Sara Munsie
File: X:\production\Files\2020\1220.3001\PR2-04\CAD\PlanSet\Sht_RD_ MOT Plans PH3a.dwg - (MOT Phase 3a (8))



LEGEND:

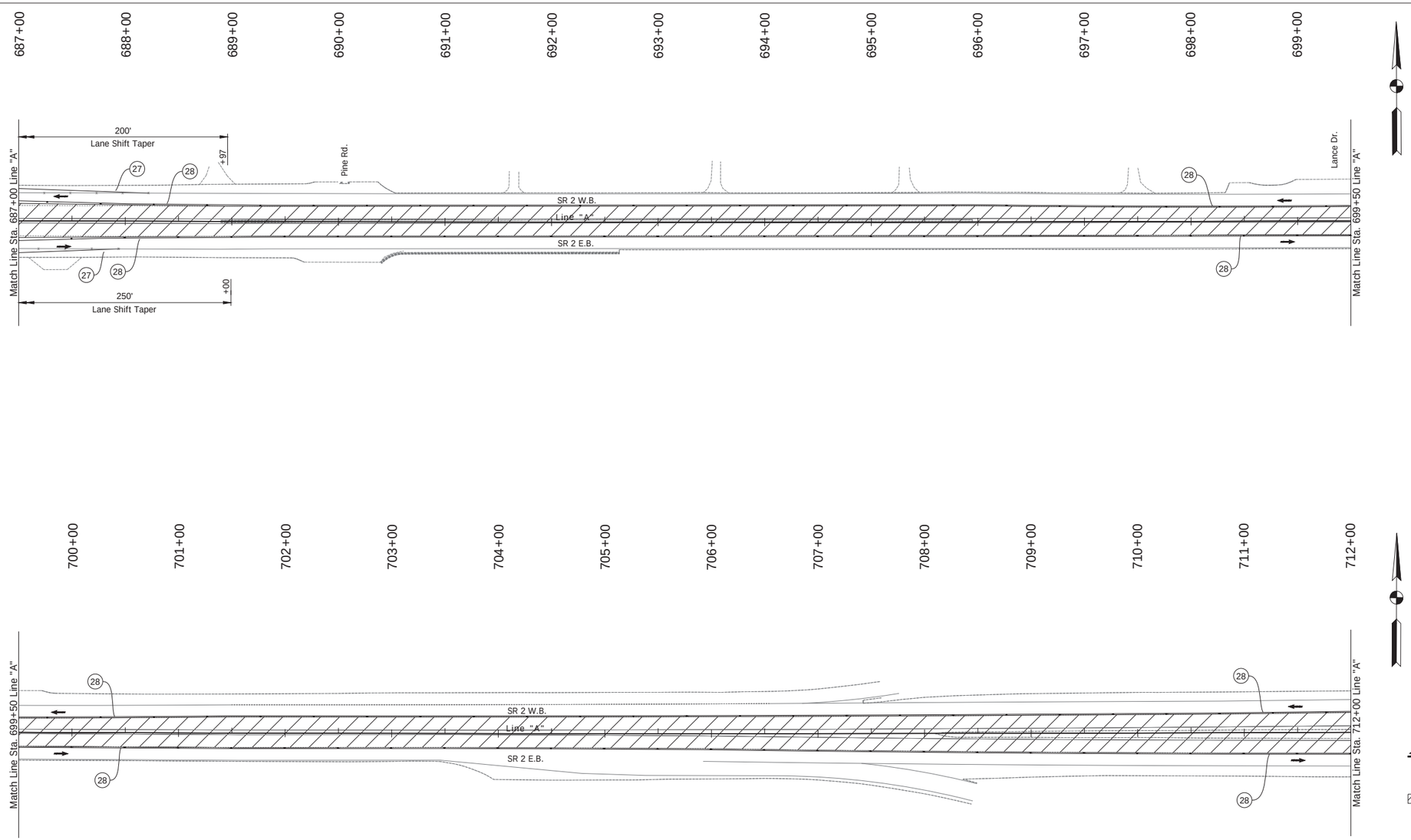
- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- Barrels
- Traffic Flow
- Line, Remove
- Construction Area

NOTES:

1. Design speed = 35 mph
2. Drum spacing = 25' on taper sections and 50' on tangent sections
3. Cone spacing = 25' on taper sections and 50' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
		1" = 50'	N/A
		VERTICAL SCALE	DESIGNATION
		N/A	1900177
DESIGNED: JAG DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 3A	SURVEY BOOK	SHEET
		ELECTRONIC	97 of 321
CHECKED: WBF CHECKED: WBF		CONTRACT	PROJECT
		R-42444	1900177

Date: Jun 23, 2023, 1:19pm User Name: Sara Munsie
File: X:\production\Files\2020\1120.3001\PR2-04\CAD\PlanSet\Sht_RD_MOT Plans PH3a.dwg - (MOT Phase 3a (9))



LEGEND:

- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- Traffic Flow
- Line, Remove
- Construction Area

NOTES:

1. Design speed = 35 mph
2. Drum spacing = 25' on taper sections and 50' on tangent sections
3. Cone spacing = 25' on taper sections and 50' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

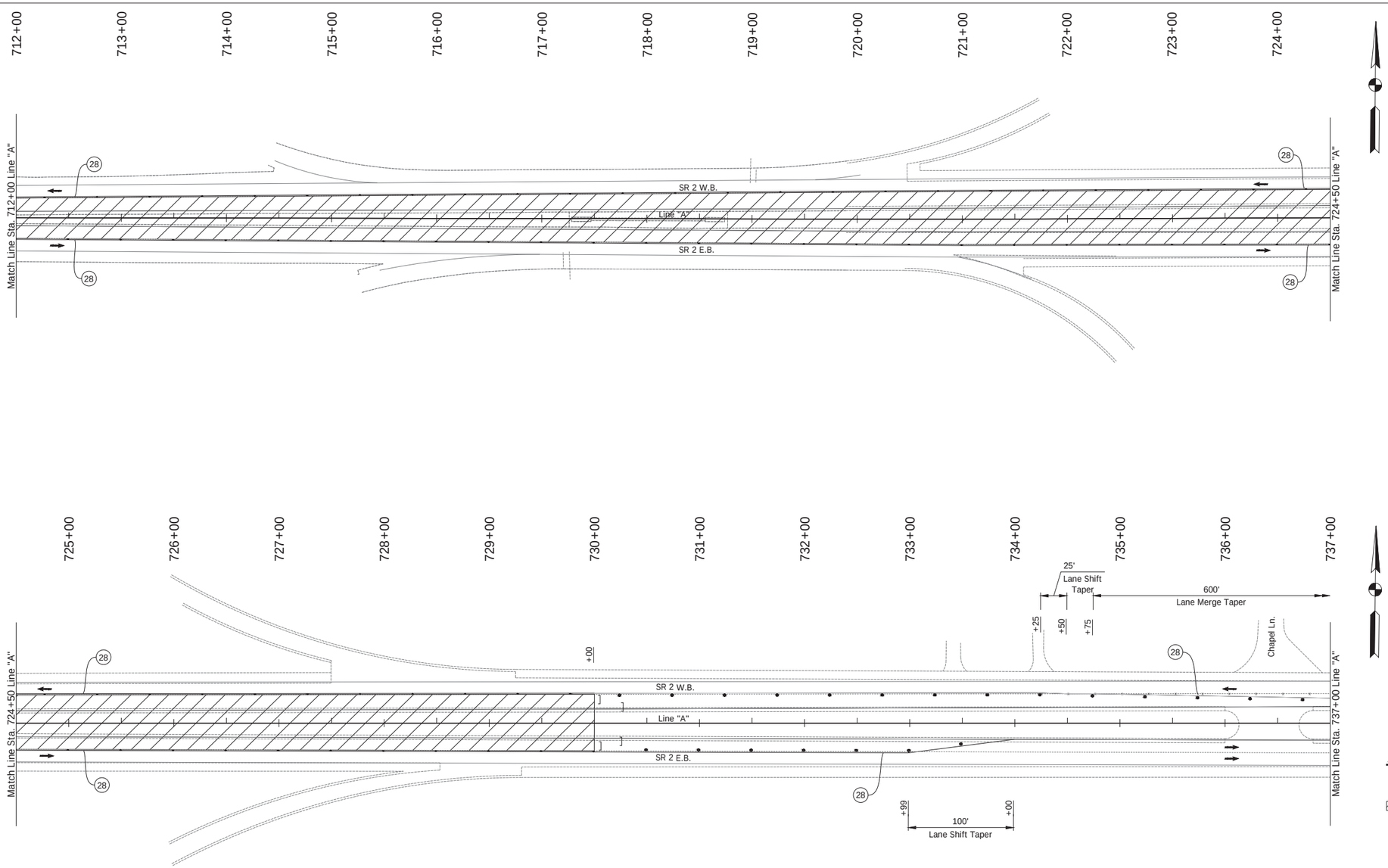
DESIGNED: JAG | DRAWN: BJS | CHECKED: WBF | CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	98 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:19pm User Name: Sara Munsie
File: X:\production\Files\2020\1200\3001\PR2-04\CAD\PlanSet\Sht_RD_MOT Plans PH3a.dwg - (MOT Phase 3a (10))



LEGEND:

- (27) Temporary Pavement Marking, Solid, White, 4 in.
- (28) Temporary Pavement Marking, Solid, Yellow, 4 in.
- Barrels
- or Traffic Flow
- Line, Remove
- Construction Area

NOTES:

1. Design speed = 35 mph
2. Drum spacing = 25' on taper sections and 50' on tangent sections
3. Cone spacing = 25' on taper sections and 50' on tangent sections

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

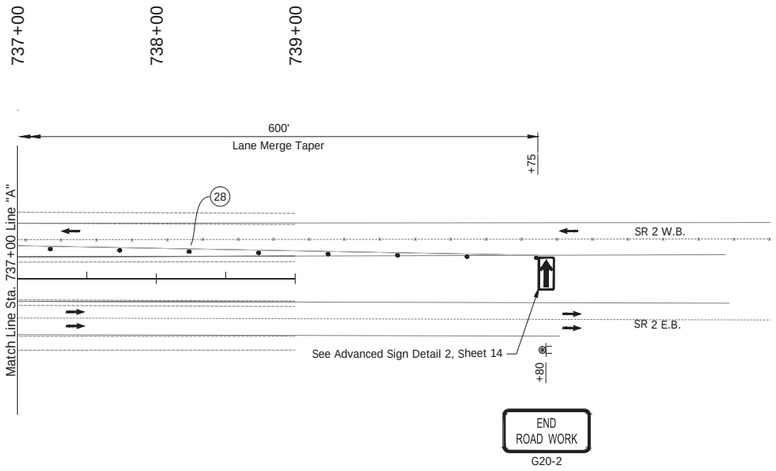
DESIGNED: JAG DRAWN: BJS
CHECKED: WBF CHECKED: WBF

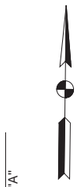
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	99 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:19pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-01\CAD\PlanSet\Sht_RD_MOT Plans PH3a.dwg - (MOT Phase 3a (11))





Match Line Sta. 737+00 Line "A"

LEGEND:

(27) Temporary Pavement Marking, Solid, White, 4 in.

(28) Temporary Pavement Marking, Solid, Yellow, 4 in.

• • • Barrels

Traffic Flow

Line, Remove

Construction Area

NOTES:

1. Design speed = 35 mph
2. Drum spacing = 25' on taper sections and 50' on tangent sections
3. Cone spacing = 25' on taper sections and 50' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: RHK

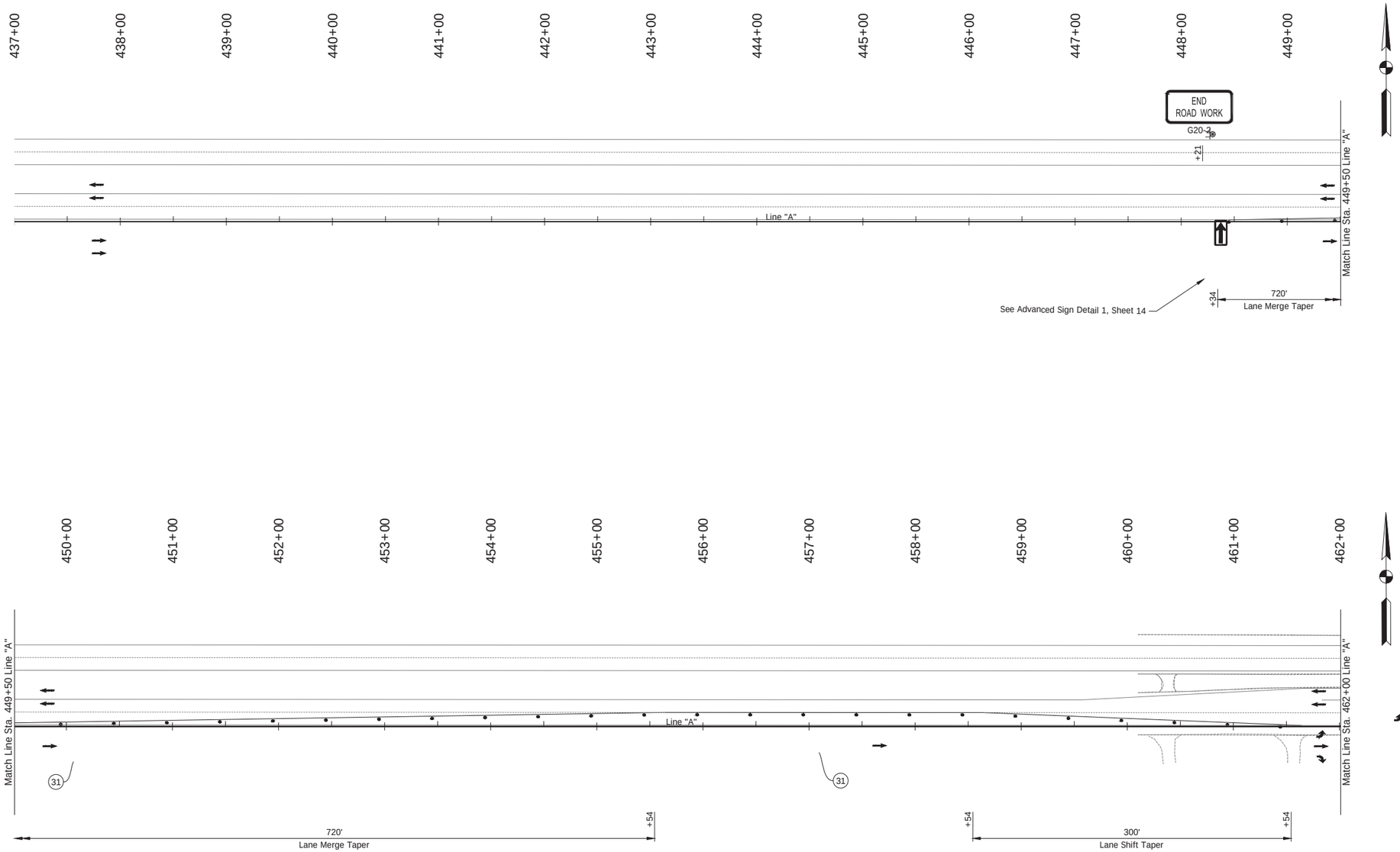
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	100 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:19pm User Name: Sara Munsie
File: X:\production\Files\2020\1200-39311\RO-04\CAD\PlanSet\SHt_RD_MOT Plans PH3a.dwg - (MOT Phase 3a (12))

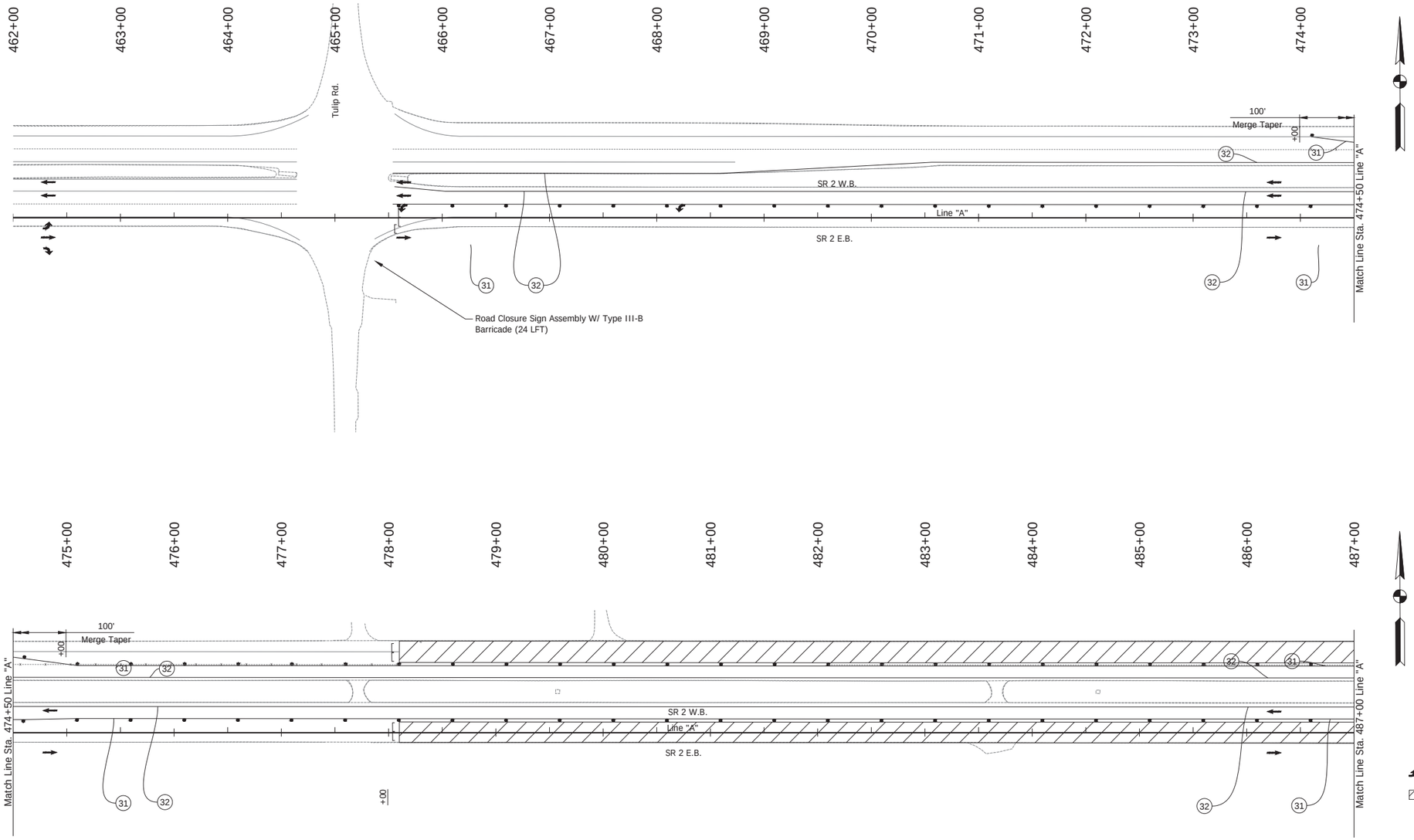


NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

Date: Jun 23, 2023, 1:20pm User Name: Sara.Munsie
File: X:\production\Files\2020\1220-3001\PRJ-041CAD\PlanSet\Sht_RD_MOT Plans PH3b.dwg - (MOT Phase 3b (00))

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 50'	BRIDGE FILE N/A
		VERTICAL SCALE N/A	DESIGNATION 1900177
DESIGNED: JAG DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 3B	SURVEY BOOK ELECTRONIC	SHEET 101 of 321
CHECKED: WBF CHECKED: WBF		CONTRACT R-42444	PROJECT 1900177

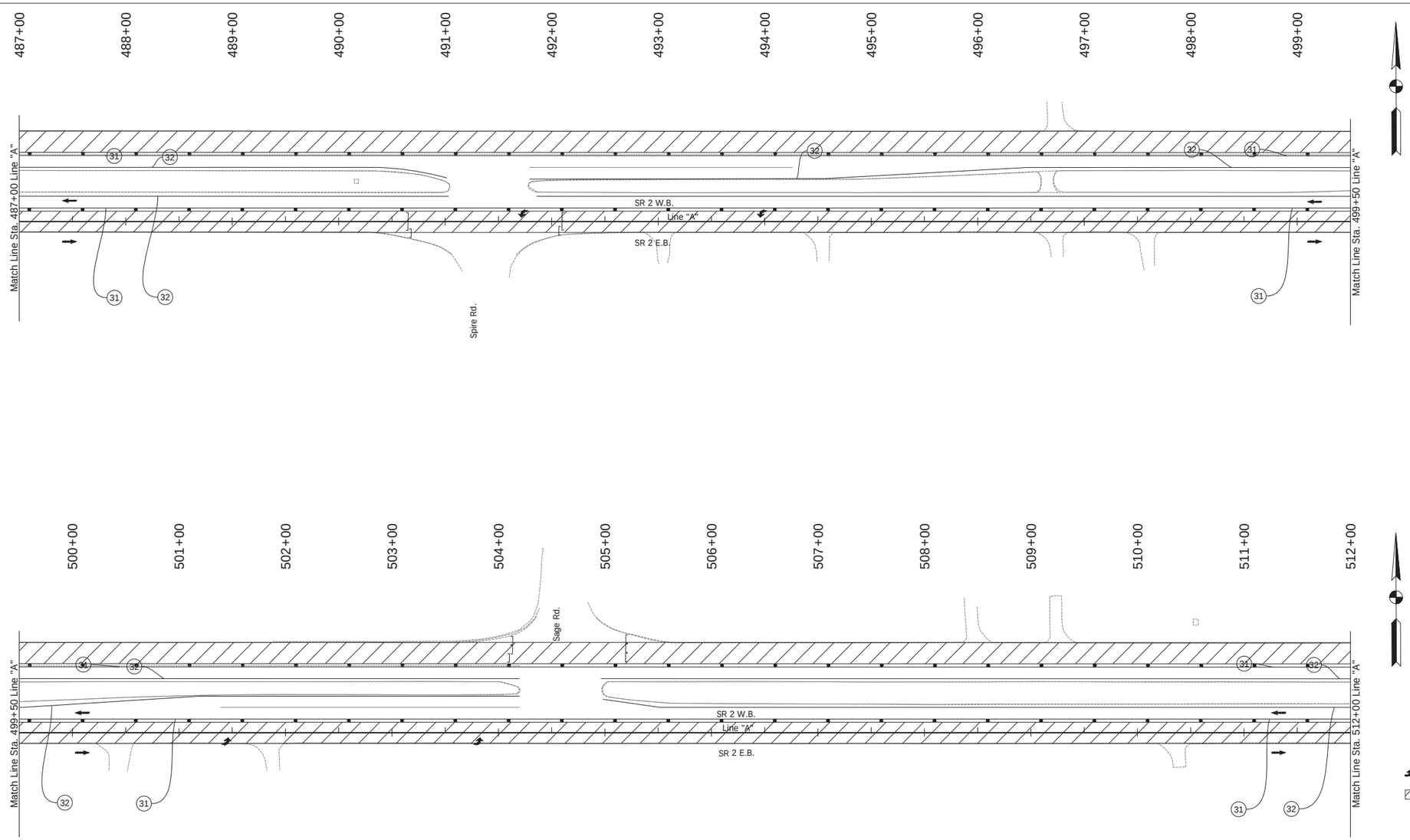


NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

Date: Jun 23, 2023, 1:26pm User Name: Sara Munse
File: X:\production\Files\2020\120\3001\PRJ-04\CAD\PlanSet\SNL_6D_NOT Plans PH3b.dwg - (NOT Phase 3b (01))

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 50'	BRIDGE FILE N/A
		VERTICAL SCALE N/A	DESIGNATION 1900177
DESIGNED: JAG DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 3B	SURVEY BOOK	SHEET
		ELECTRONIC	102 of 321
CHECKED: WBF CHECKED: WBF		CONTRACT R-42444	PROJECT 1900177



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Barrels
- Traffic Flow
- Construction Area
- Line, Remove

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

Date: Jun 23, 2023, 1:26pm User Name: Sara Munse
File: X:\production\Files\2020\120\3001\PRJ-04\CAD\PlanSet\SNI_6D_MOT Plans PH3b.dwg - (NOT Phase 3b (02))

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

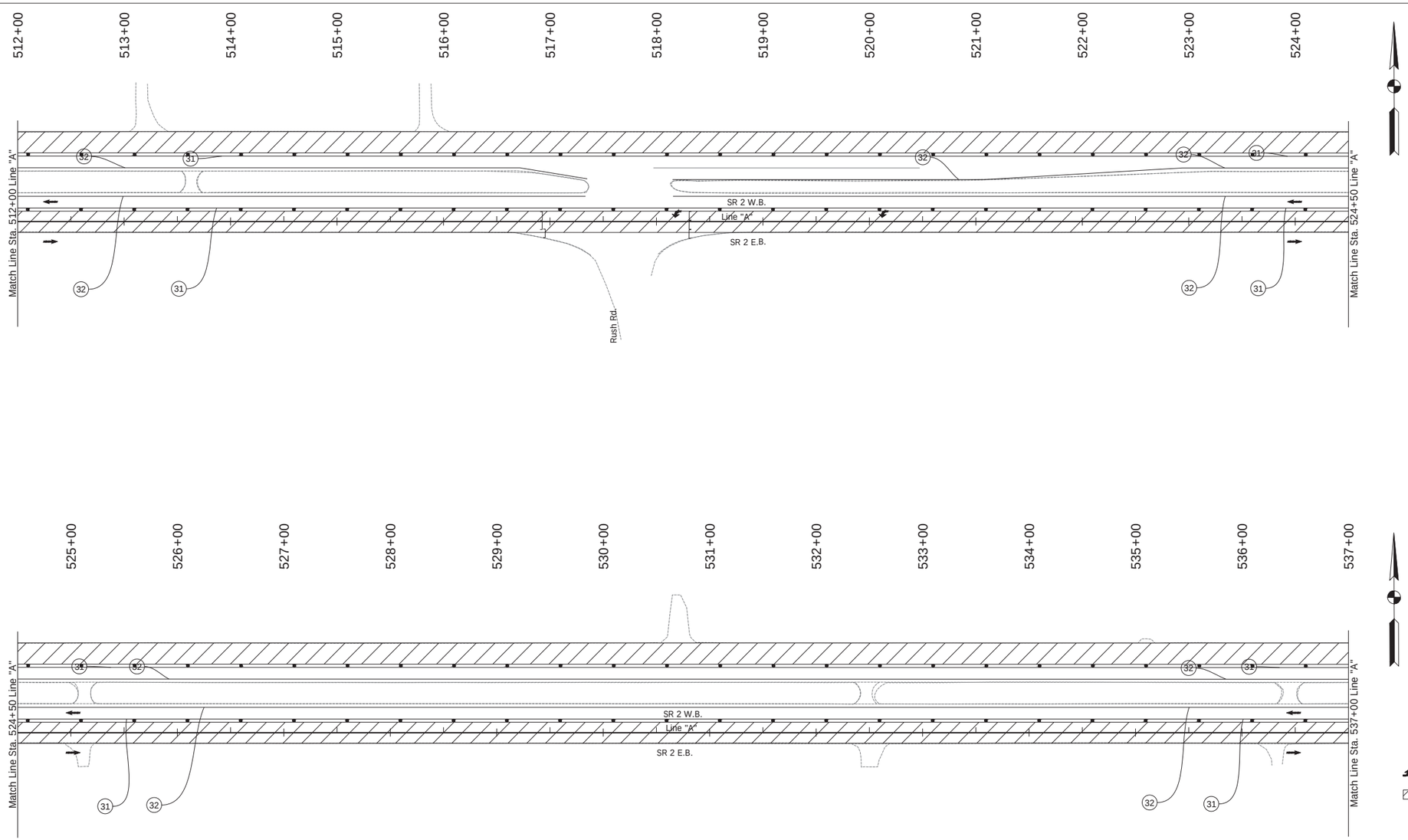
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177

SURVEY BOOK	SHEET		
ELECTRONIC	103	of	321
CONTRACT	PROJECT		
R-42444	1900177		



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Barrels
- Traffic Flow
- Construction Area
- Line, Remove

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

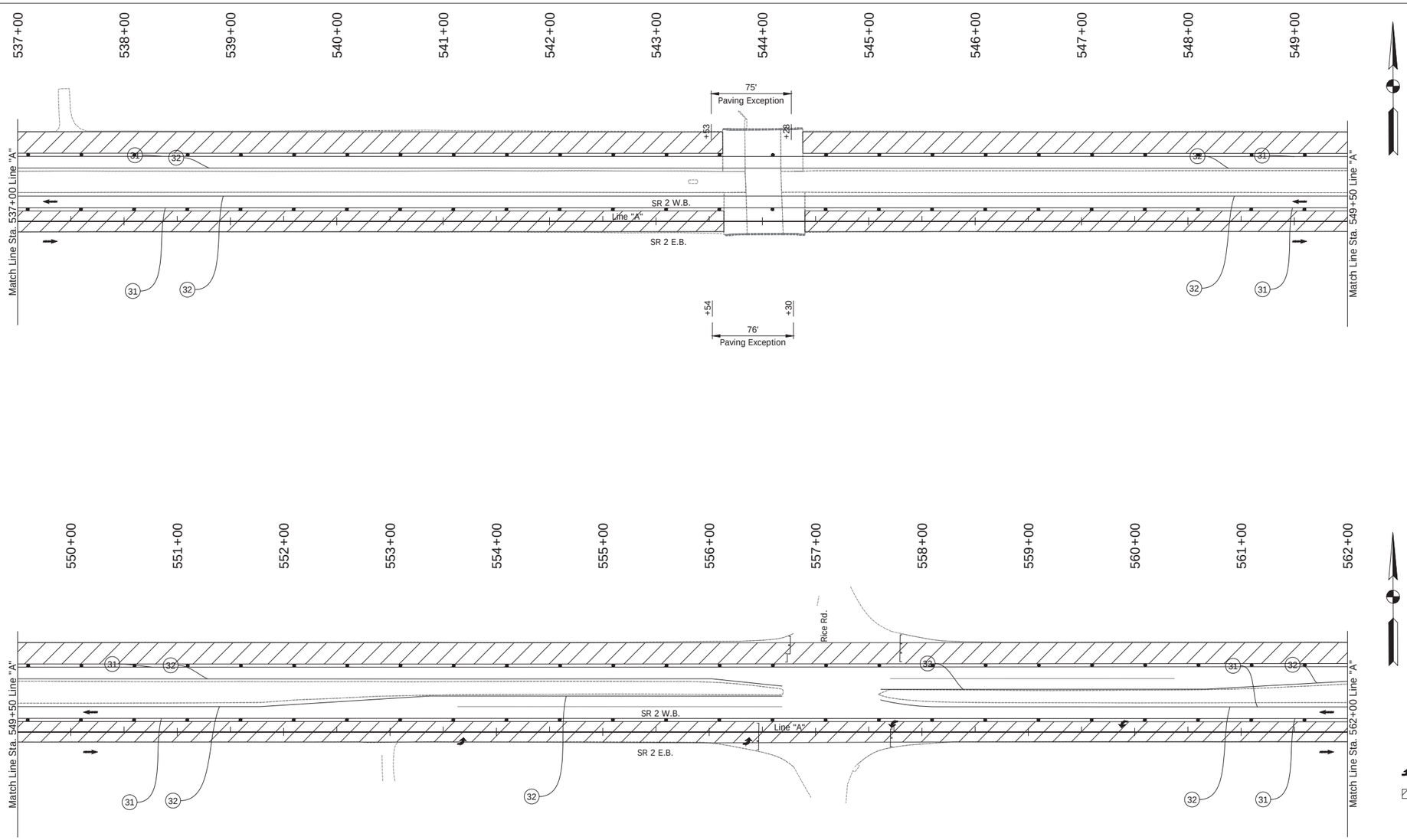
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	104 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:28pm User Name: Sara Munse
File: X:\production\Files\2020\120\3001\PRJ-04\CAD\PlanSet\SNL_6D_MOT Plans PH3b.dwg - (NOT Phase 3b (03))



LEGEND:

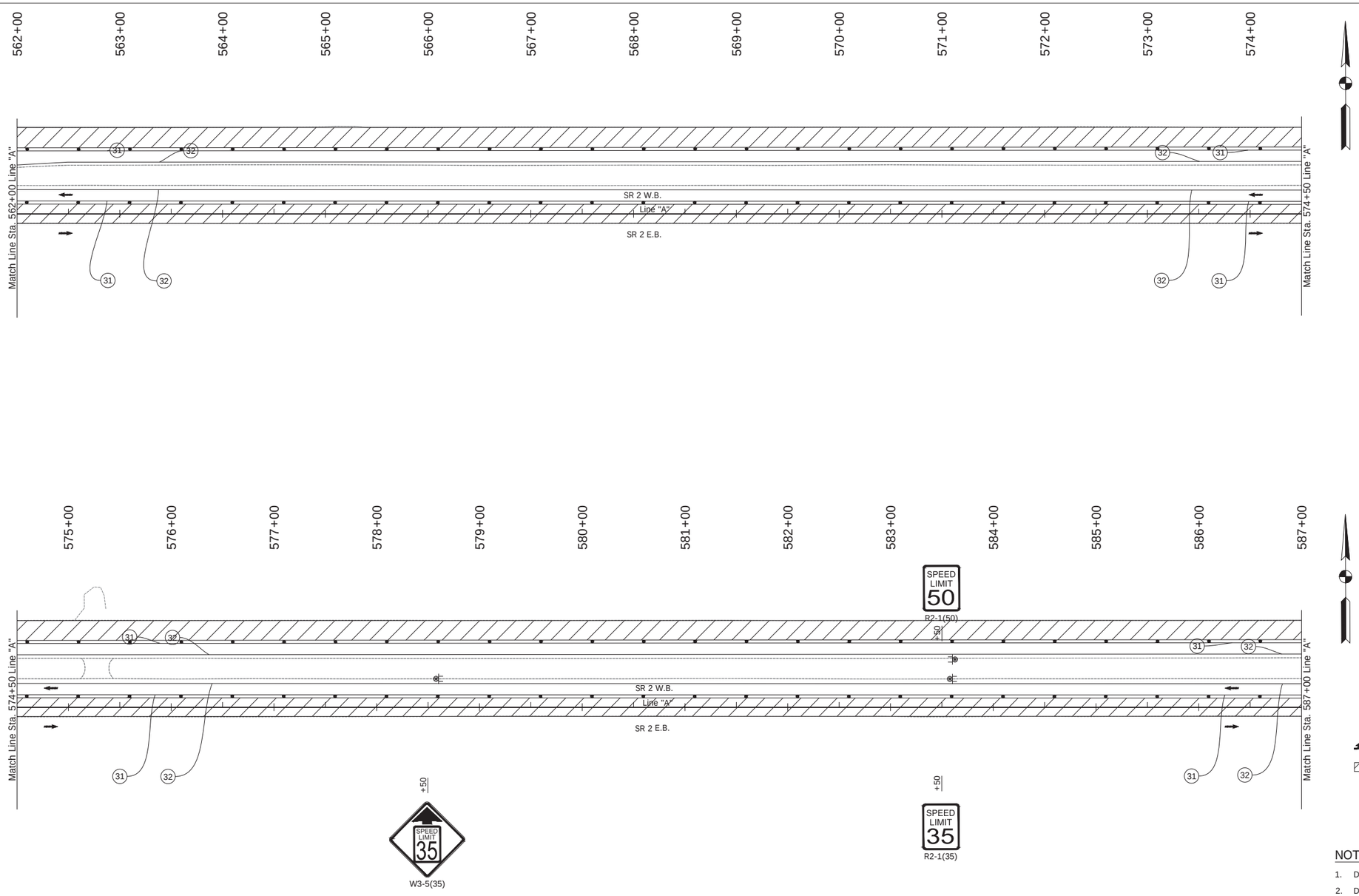
- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Barrels
- Traffic Flow or
- Construction Area
- Line, Remove

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 50'	BRIDGE FILE N/A
		VERTICAL SCALE N/A	DESIGNATION 1900177
DESIGNED: JAG DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 3B	SURVEY BOOK	SHEET
		ELECTRONIC	105 of 321
CHECKED: WBF CHECKED: WBF		CONTRACT R-42444	PROJECT 1900177

Date: Jun 23, 2023, 1:26pm User Name: Sara Munse
File: X:\production\Files\2020\120\3001\PRJ-04\CAD\PlanSet\SNL_6D_MOT Plans PH3b.dwg - (NOT Phase 3b (34))



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Barrels
- Traffic Flow or
- Construction Area
- Line, Remove

NOTES:

1. Design speed = 35 mph
2. Drum spacing = 25' on taper sections and 50' on tangent sections
3. Cone spacing = 25' on taper sections and 50' on tangent sections

NOTES:

1. Design speed = 50 mph
2. Drum spacing = 50' on taper sections and 100' on tangent sections

Date: Jun 23, 2023, 1:28pm User Name: Sara Munse
File: X:\production\Files\2020\120\3001\PRJ-04\CAD\PlanSet\SNL_6D_NOT Plans PH3b.dwg - (NOT Phase 3b (05))

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

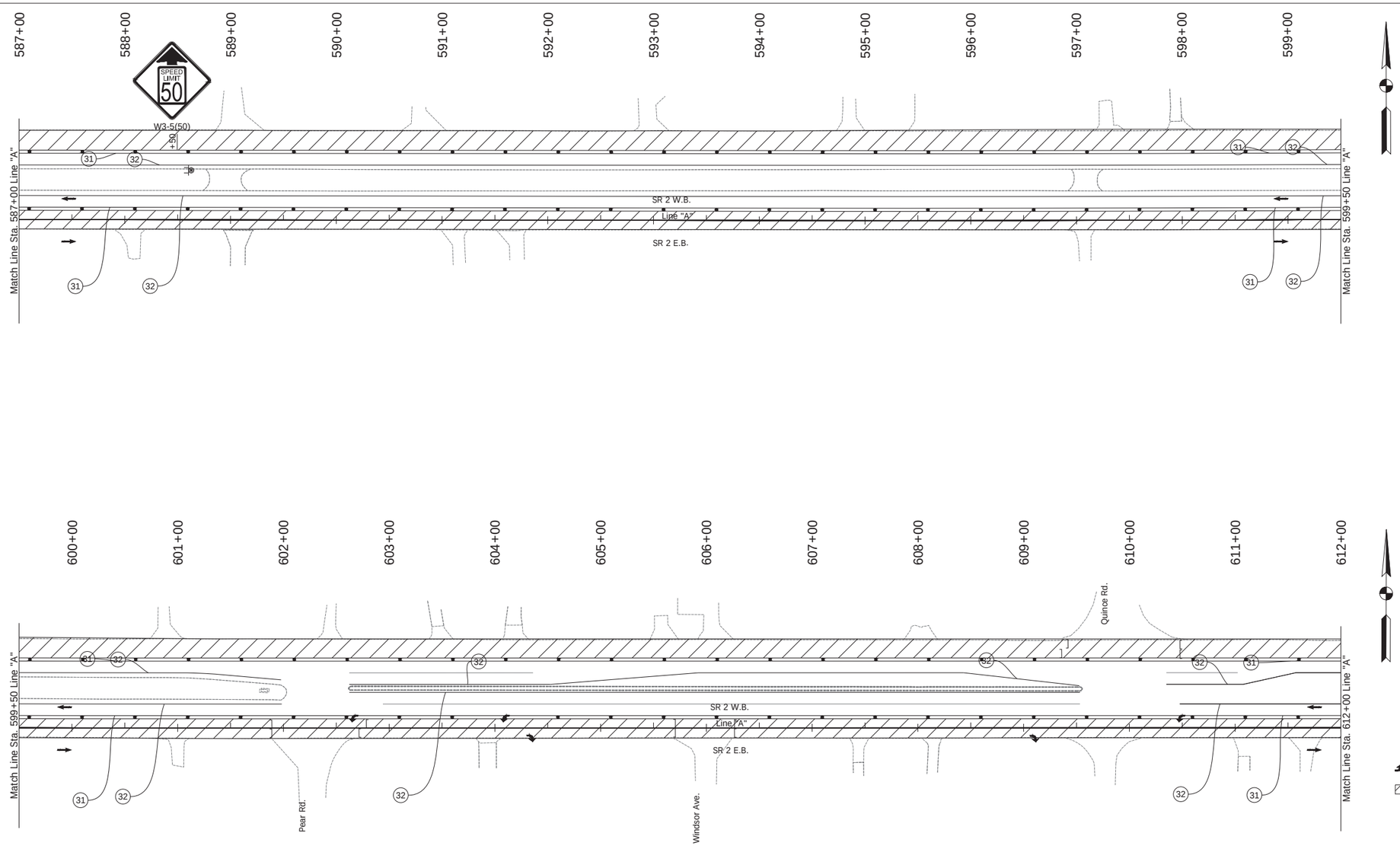
DESIGNED: JAG DRAWN: BJS
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177

SURVEY BOOK	SHEET		
ELECTRONIC	106	of	321
CONTRACT	PROJECT		
R-42444	1900177		



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Barrels
- Traffic Flow
- Construction Area
- Line, Remove

NOTES:

1. Design speed = 35 mph
2. Drum spacing = 25' on taper sections and 50' on tangent sections
3. Cone spacing = 25' on taper sections and 50' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

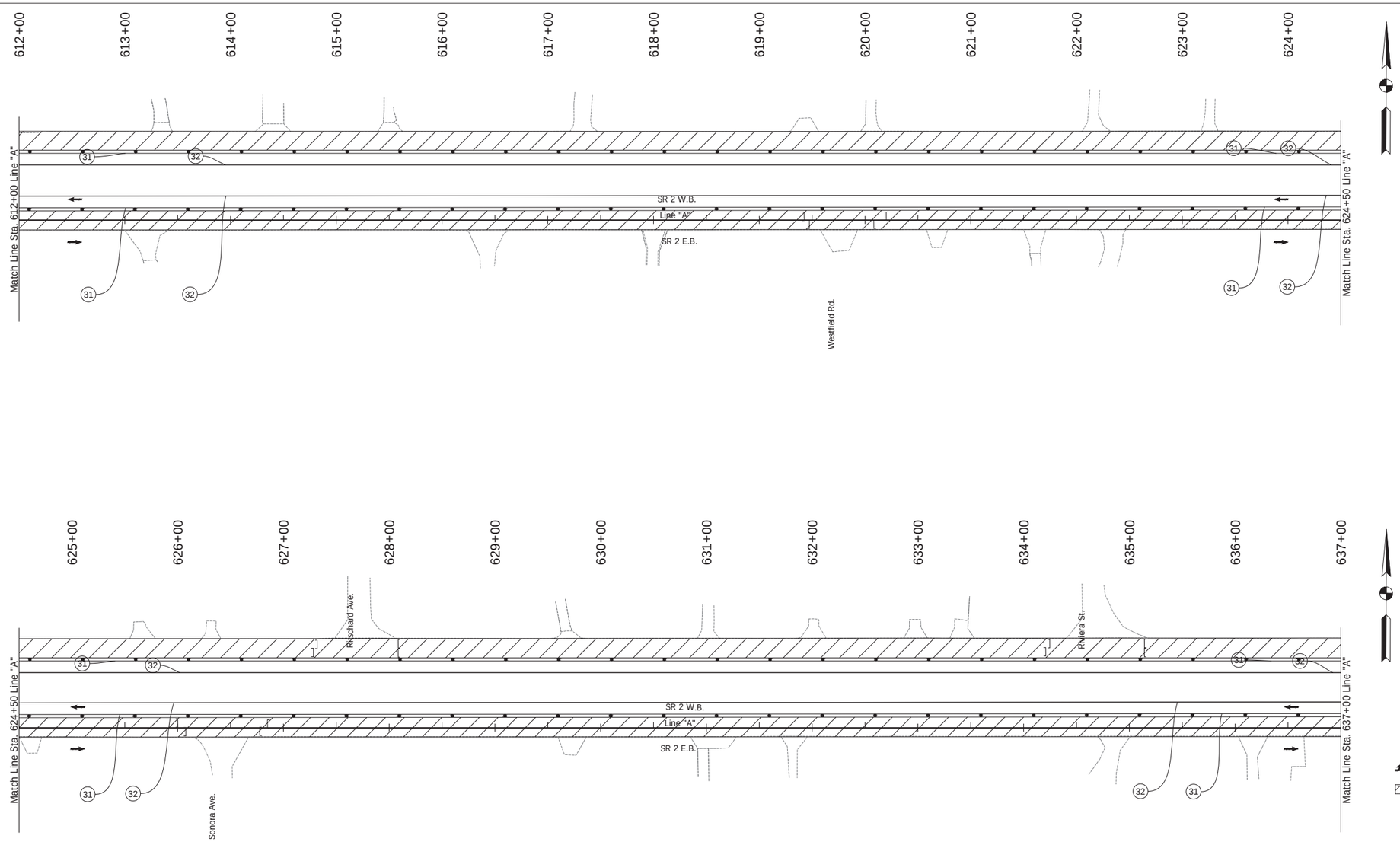
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INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC PHASE 3B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	107 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:28pm User Name: Sara Munse
File: X:\production\Files\2020\120\3001\PRJ-04\CAD\PlanSet\SNI_6D_NOT Plans PH3b.dwg - (NOT Phase 3b (6b))



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Barrels
- or Traffic Flow
- Construction Area
- Line, Remove

NOTES:

1. Design speed = 35 mph
2. Drum spacing = 25' on taper sections and 50' on tangent sections
3. Cone spacing = 25' on taper sections and 50' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

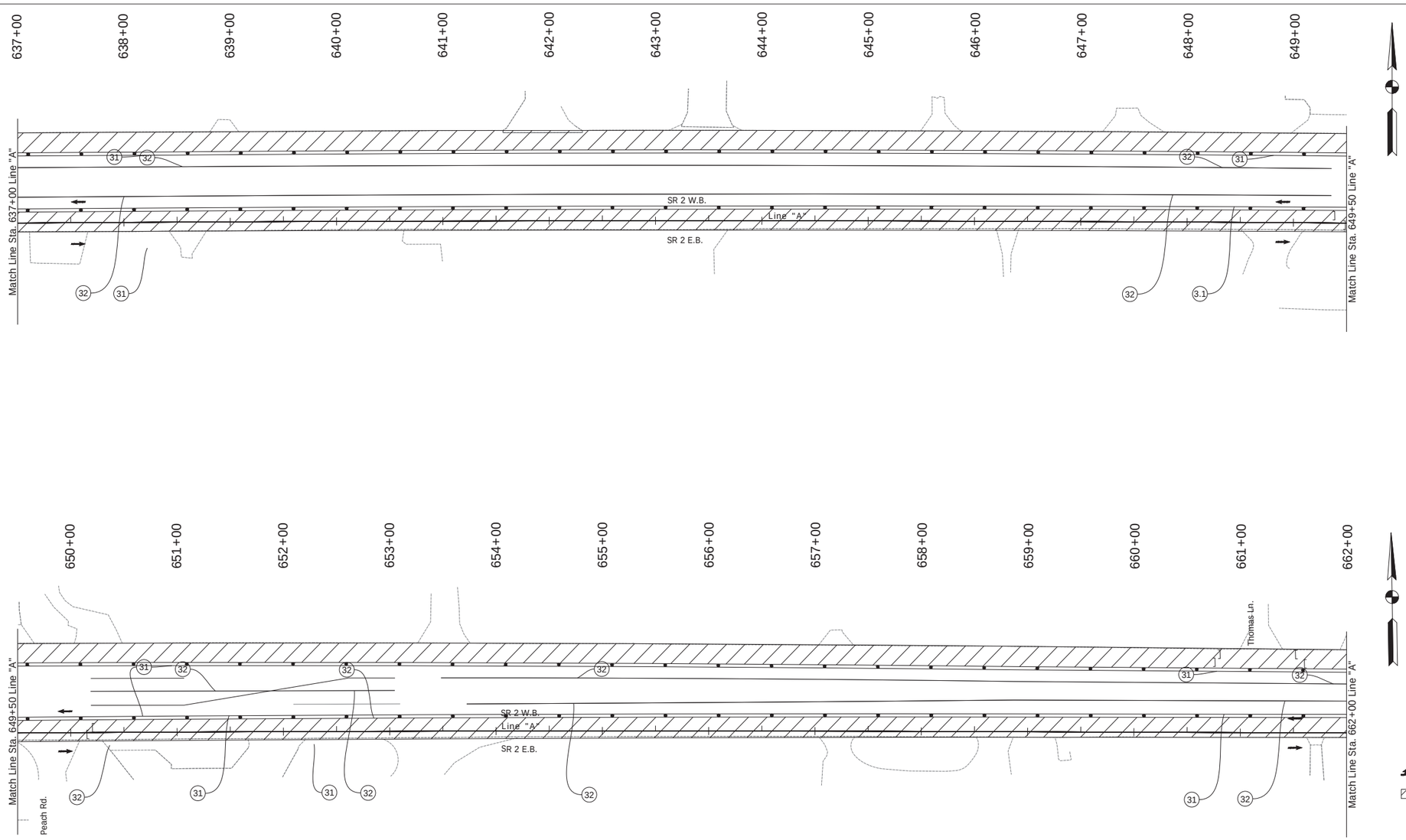
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	108 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:21pm User Name: Sara Munse
File: X:\production\Files\2020\120\3001\PRJ-04\CAD\PlanSet\SNL_6D_MOT Plans PH3b.dwg - (NOT Phase 3b (07))



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Barrels
- Traffic Flow or
- Construction Area
- Line, Remove

NOTES:

1. Design speed = 35 mph
2. Drum spacing = 25' on taper sections and 50' on tangent sections
3. Cone spacing = 25' on taper sections and 50' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG | DRAWN: BJS

CHECKED: WBF | CHECKED: WBF

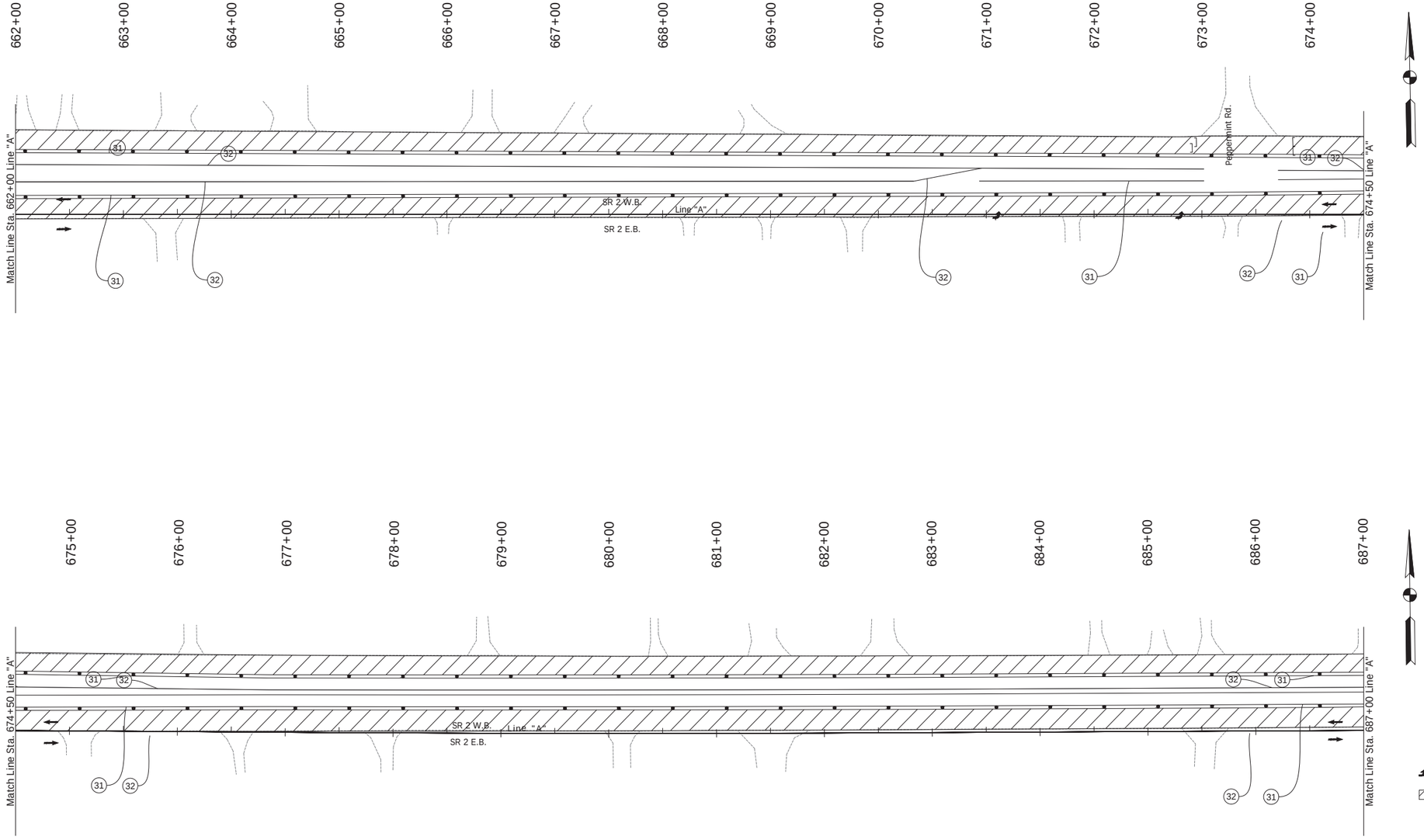
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177

SURVEY BOOK	SHEET
ELECTRONIC	109 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:21pm User Name: Sara.Munsie
File: X:\production\Files\2020\1220-30011\PKJ-0H\CAD\PlanSet\Sht_RD_MOT Plans PH2b.dwg - (MOT Phase 3b (08))



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Barrels
- Traffic Flow
- Construction Area
- Line, Remove

NOTES:

1. Design speed = 35 mph
2. Drum spacing = 25' on taper sections and 50' on tangent sections
3. Cone spacing = 25' on taper sections and 50' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

CHECKED: WBF CHECKED: WBF

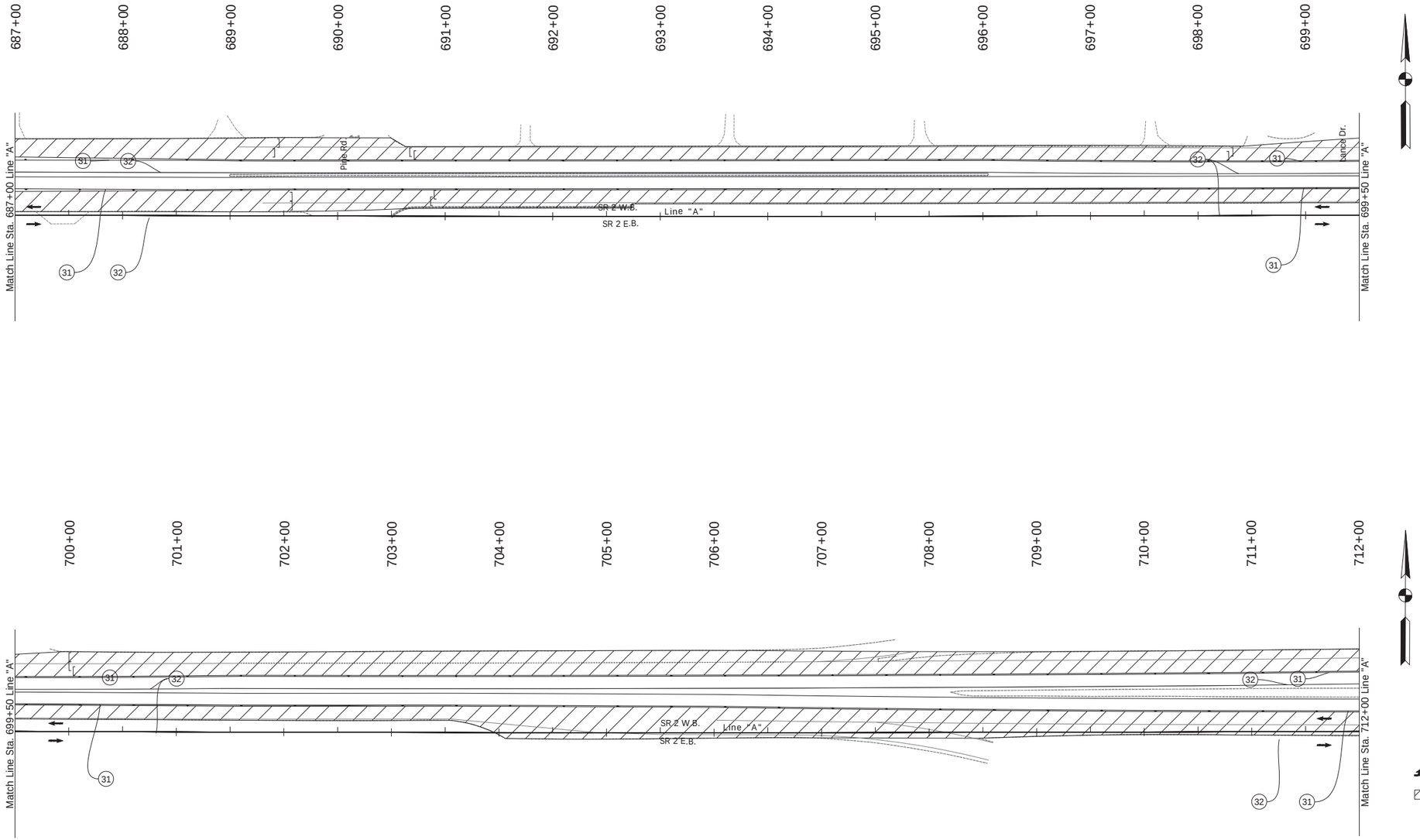
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177

SURVEY BOOK	SHEET		
ELECTRONIC	110	of	321
CONTRACT	PROJECT		
R-42444	1900177		

Date: Jun 23, 2023, 1:21pm User Name: Sara.Munsie
File: X:\production\Files\2020\1200-3001\PRJ-041\CAD\PlanSet\Sht_RD_MOT Plans PH3b.dwg - (MOT Phase 3b (09))



NOTE: The ramps for US-31 will remain open at all times.

LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Barrels
- Traffic Flow or
- Construction Area
- Line, Remove

NOTES:

1. Design speed = 35 mph
2. Drum spacing = 25' on taper sections and 50' on tangent sections
3. Cone spacing = 25' on taper sections and 50' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

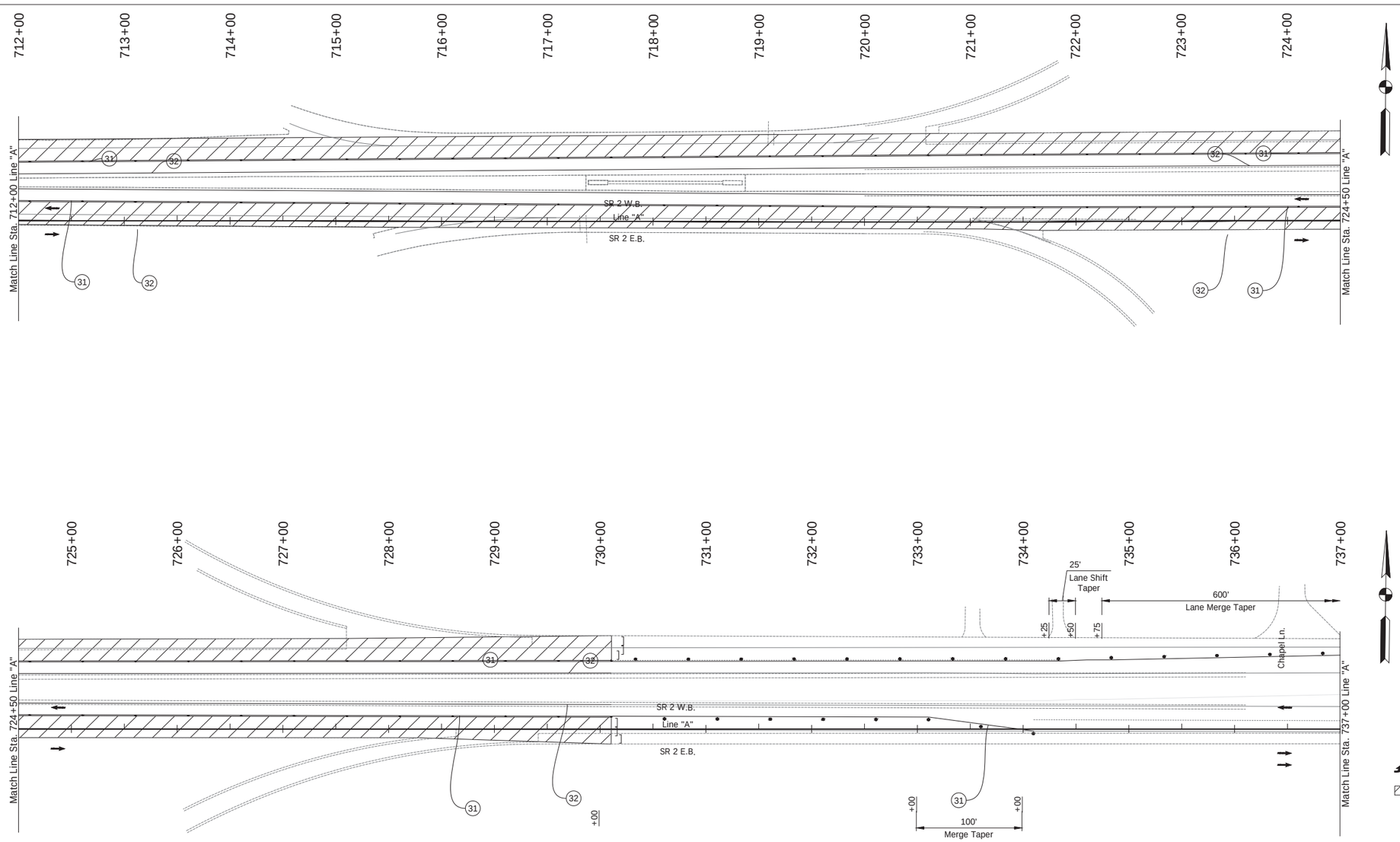
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	111 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:21pm User Name: Sara Munsie
File: X:\production\Files\2020\1200-3001\PR2-04\CAD\PlanSet\Sht_RD_MOT Plans PH3b.dwg - (MOT Phase 3b (10))



LEGEND:

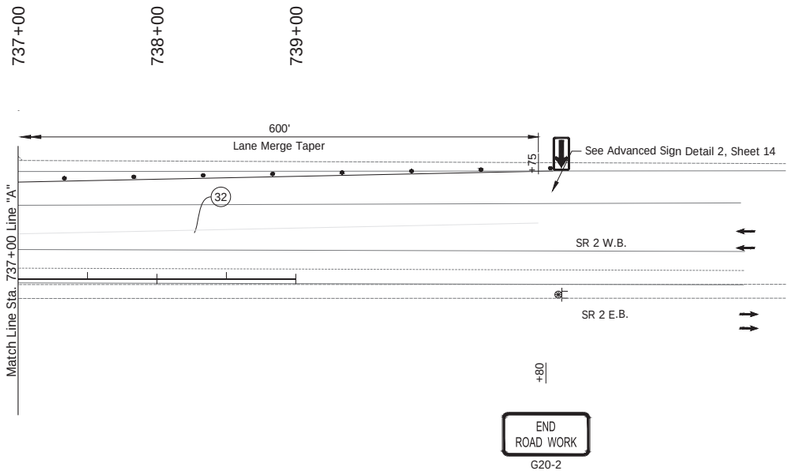
- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- Barrels
- or Traffic Flow
- Construction Area
- Line, Remove

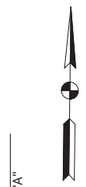
NOTES:

1. Design speed = 35 mph
2. Drum spacing = 25' on taper sections and 50' on tangent sections
3. Cone spacing = 25' on taper sections and 50' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50' / BRIDGE FILE: N/A
DESIGNED: JAG	DRAWN: BJS	MAINTENANCE OF TRAFFIC PHASE 3B	VERTICAL SCALE: N/A / DESIGNATION: 1900177
CHECKED: WBF	CHECKED: WBF		SURVEY BOOK: ELECTRONIC / SHEET: 112 of 321
			CONTRACT: R-42444 / PROJECT: 1900177

Date: Jun 23, 2023, 1:21pm User Name: Sara Munsie
File: X:\production\Files\2020\1201-3001\PR2-01\CAD\PlanSet\SH_RD_MOT Plans PH3b.dwg - (MOT Phase 3b (11))





LEGEND:

(31) Temporary Pavement Marking, Solid, White, 4 in., Removable

(32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable

Barrels

or Traffic Flow

Construction Area

Line, Remove

NOTES:

1. Design speed = 35 mph
2. Drum spacing = 25' on taper sections and 50' on tangent sections
3. Cone spacing = 25' on taper sections and 50' on tangent sections

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: JAG DRAWN: RHK

CHECKED: WBF CHECKED: WBF

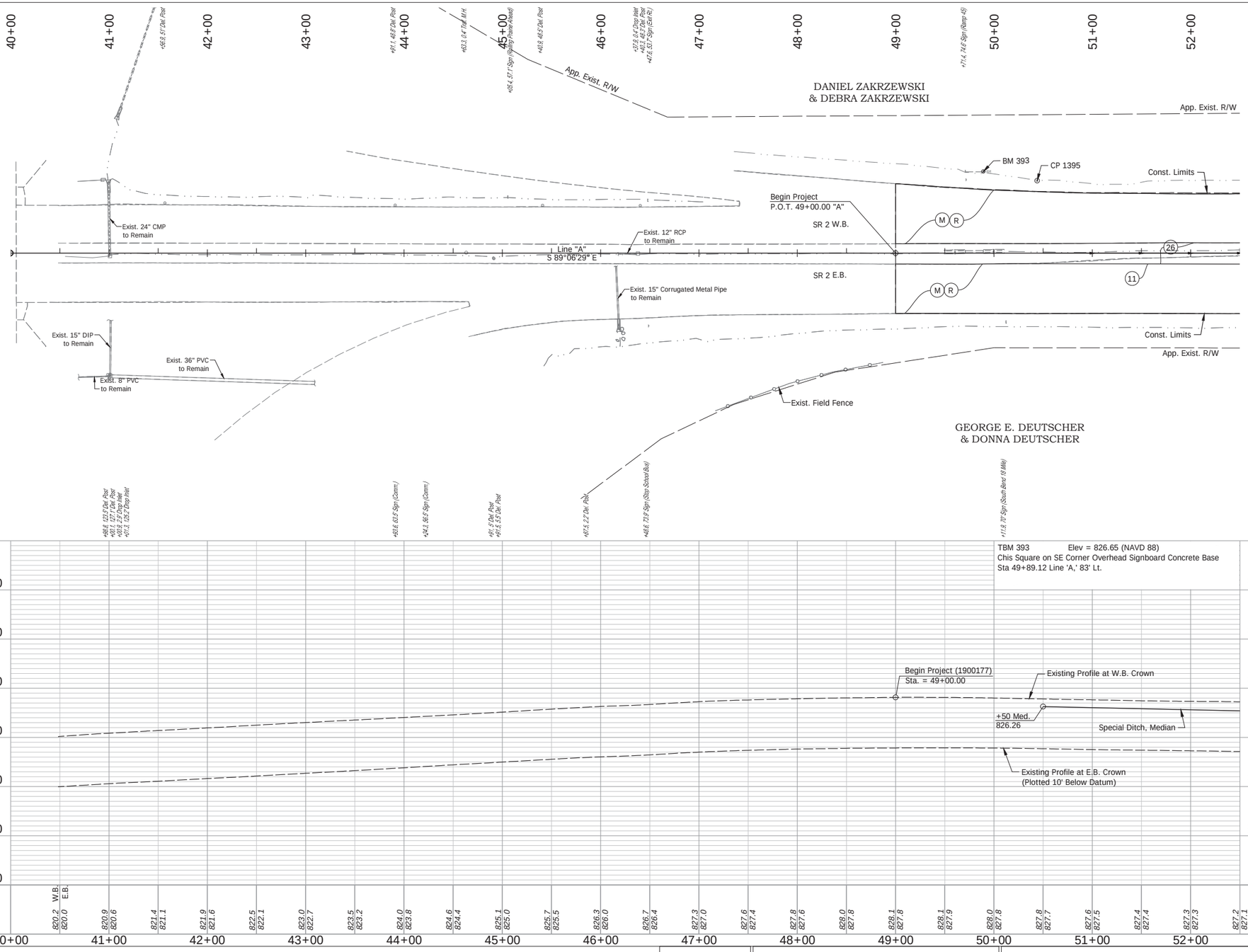
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177

SURVEY BOOK	SHEET
ELECTRONIC	113 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 1:21pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\PRJ-04\CAD\PlanSet\SNL_6D_MOT Plans PH3b.dwg - (NOT Phase 3b (12))



NOTE:
For project control see Sheet 2.

LEGEND:

- (M) Milling, Asphalt, 4 in. minimum
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (11) Sawcut
- (26) Sodding, Nursery

Date: Jun 28, 2023, 4:16pm User Name: Sara Munske
File: X:\production\Files\2020\120-3001\PRJ-DHC\CAD\Plans\Sht\SNL_RD_PlanProfile_01.dwg - (Plan & Profile (1))

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

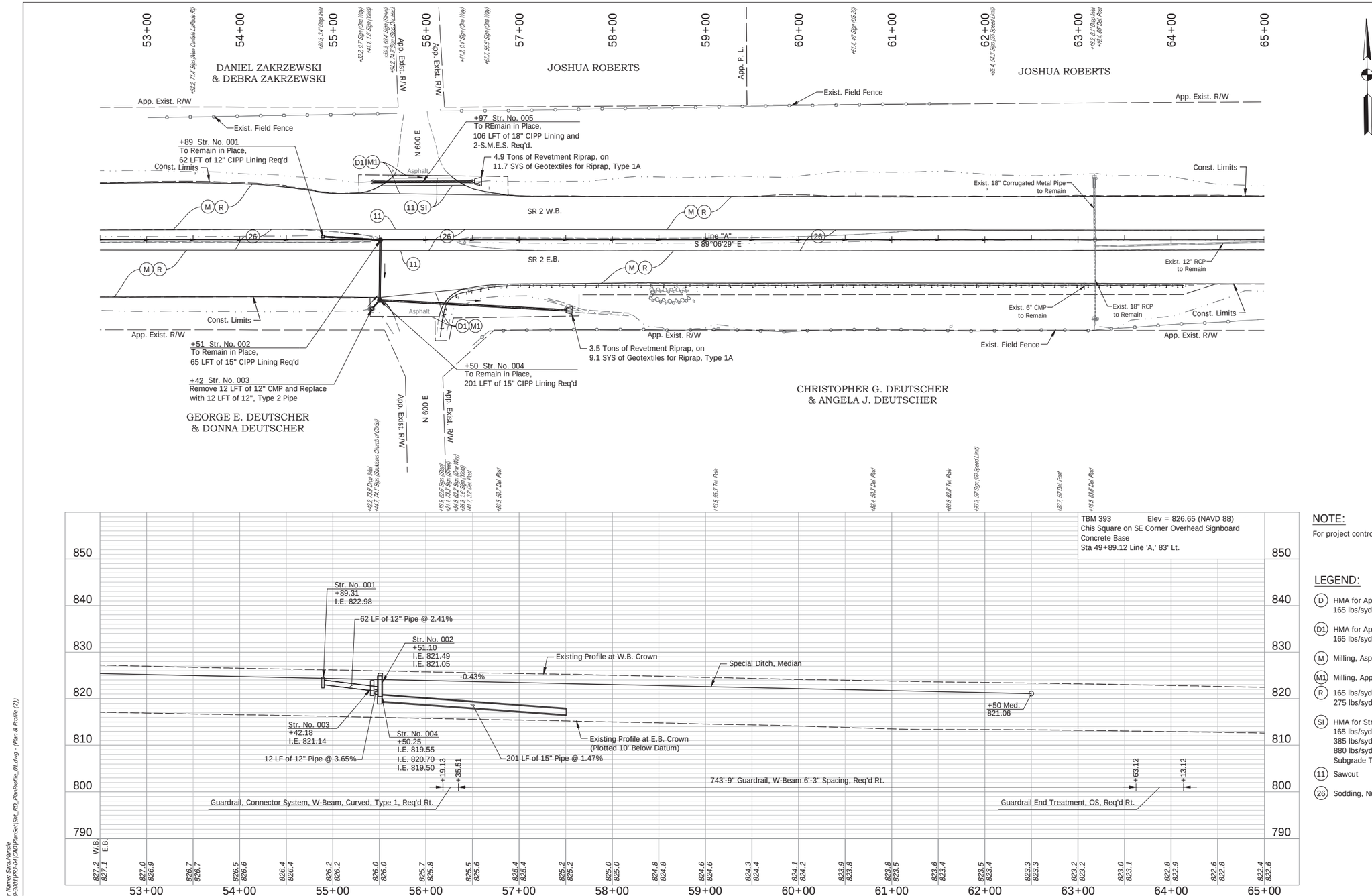
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 40+00 TO STA. 52+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	114 of 321
CONTRACT	PROJECT
R-42444	1900177



NOTE:

For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (D1) HMA for Approaches, Type C, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut
- (26) Sodding, Nursery

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM
CHECKED: WBF CHECKED: WBF

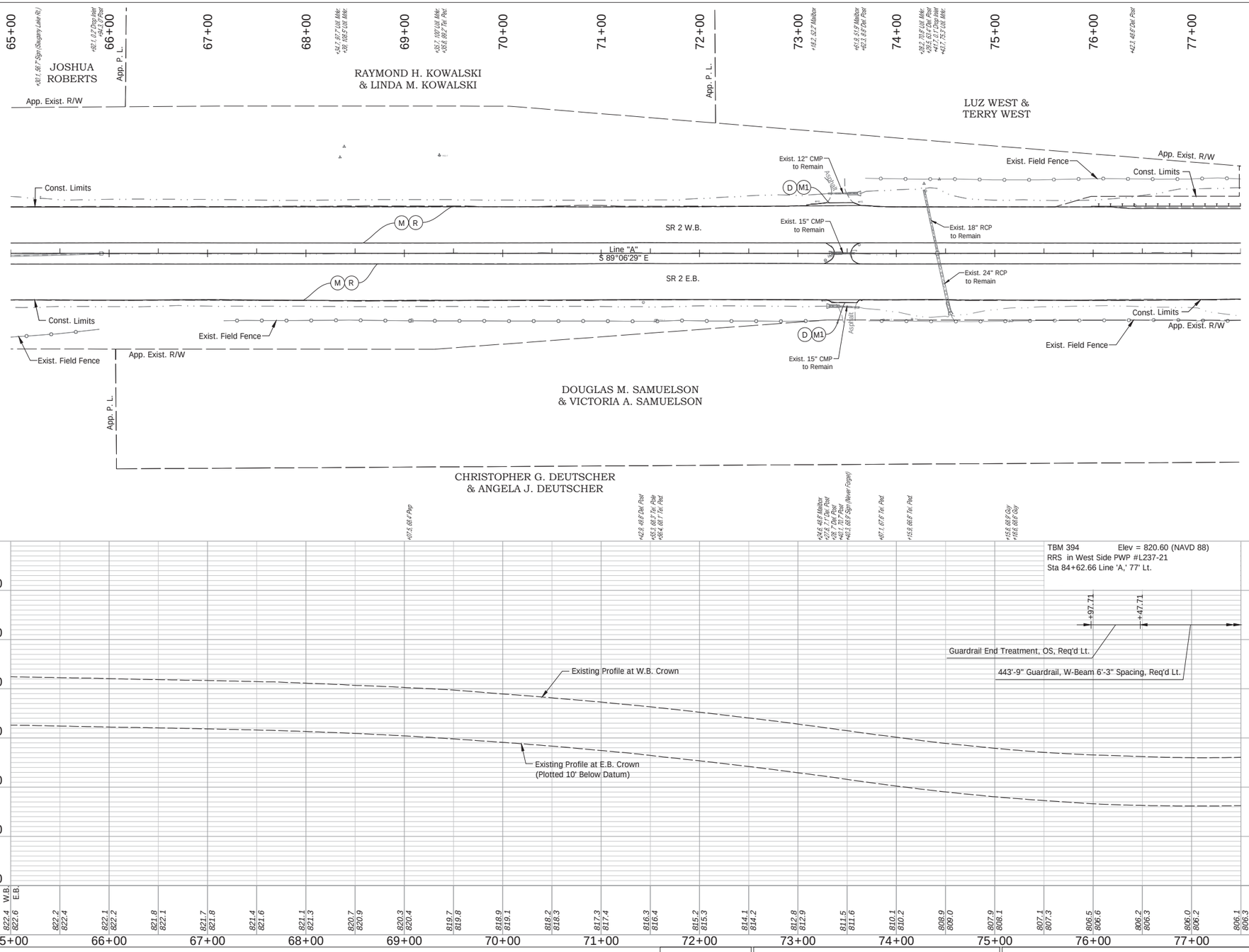
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 52+50 TO STA. 65+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	115 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 1:16pm User Name: Sara Nunsie
File: X:\production\Files\2020\120-3001\P&D-DHCAD\PlanSet\Sht_RD_PlanProfile_01.dwg (Plan & Profile (2))



NOTE:

For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

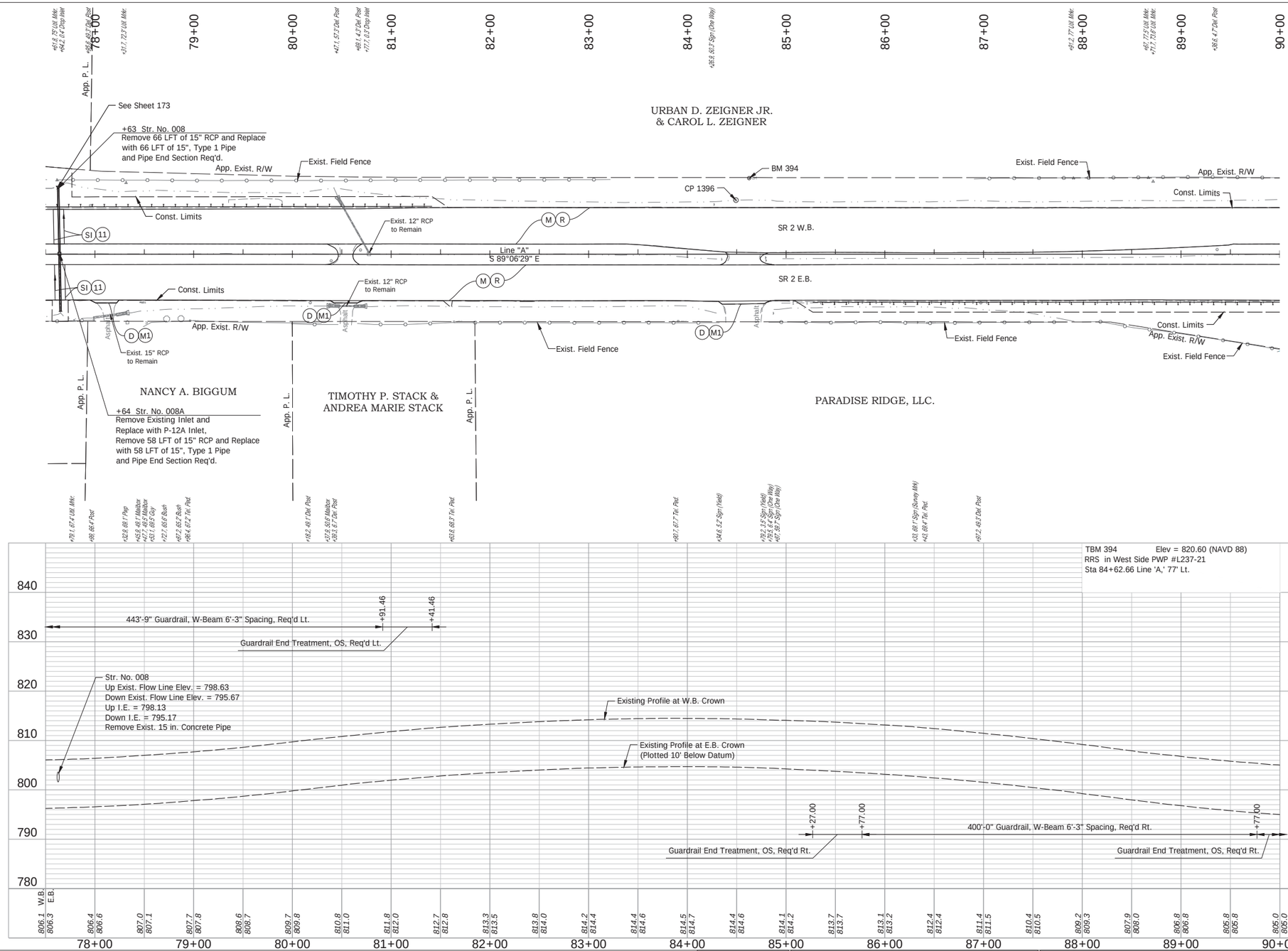
INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 65+00 TO STA. 77+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	116 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:17pm User Name: Sara.Nunsie
File: X:\production\Files\2020\1200\3001\PRJ-DHI\CAD\PlanSet\Sht_RD_PlanProfile_01.dwg - (Plan & Profile (3))



NOTE:

For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

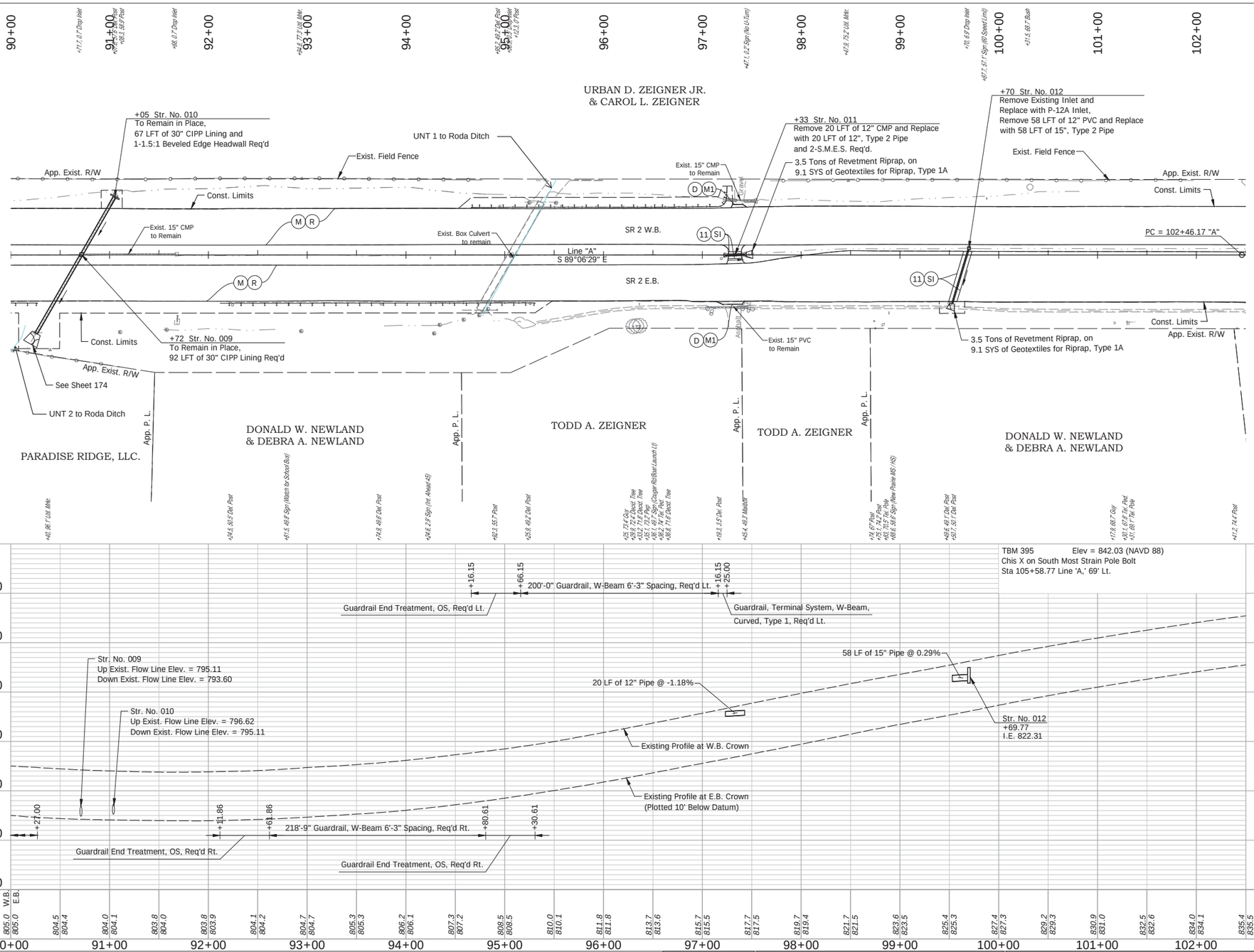
INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 77+50 TO STA. 90+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	117 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:18pm User Name: Sara.Nunsie
File: X:\production\Files\2020\1220-3001\PRJ-DHD\CAD\PlanSet\Sht_RD_PlanProfile_01.dwg - (Plan & Profile (4))



NOTE:

For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

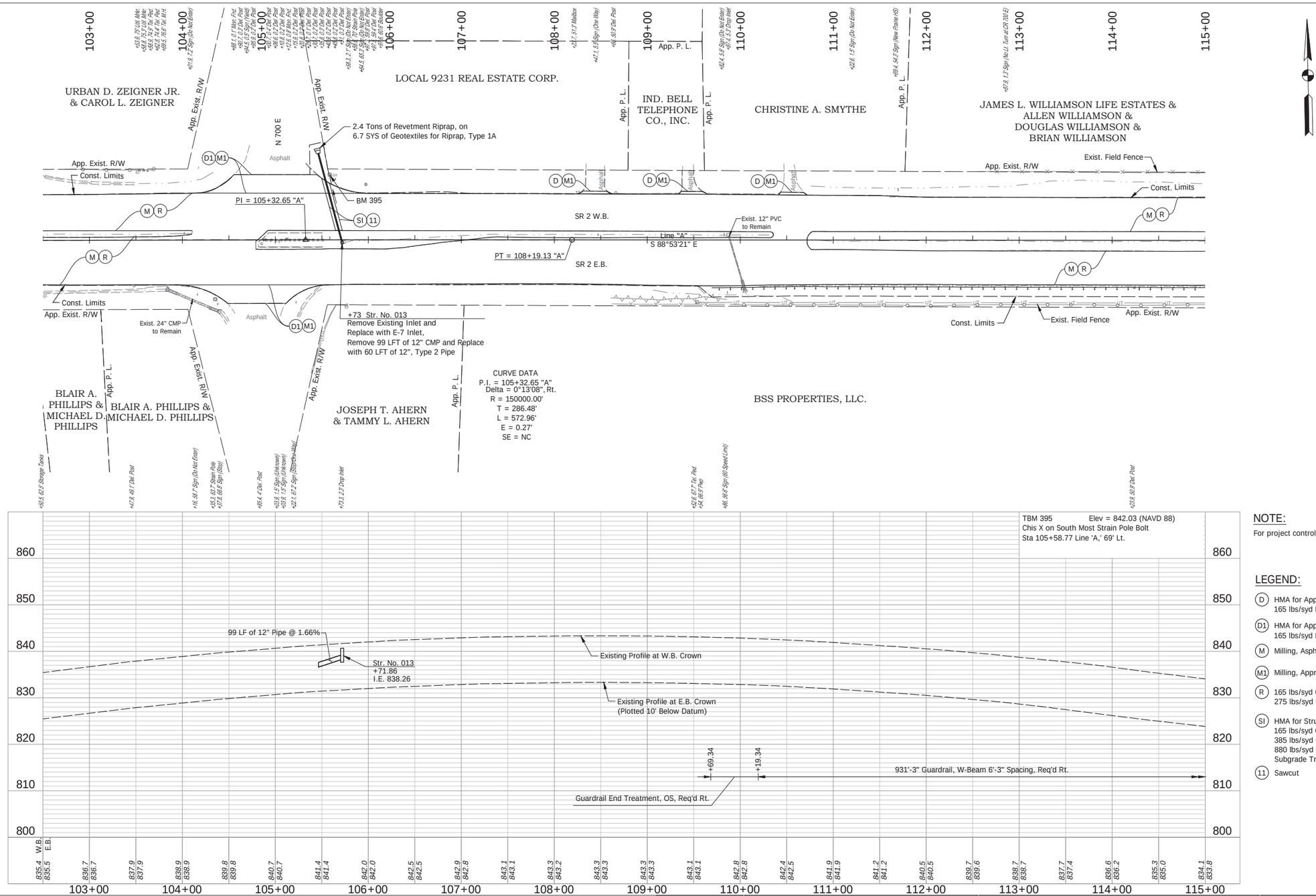
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 90+00 TO STA. 102+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	118 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:18pm User Name: Sara Munske
File: X:\production\Files\2020\120-3001\PRJ-DHC(AD)PlanSet\SNL_RD_PlanProfile_01.dwg - (Plan & Profile (5))



TBM 395 Elev = 842.03 (NAVD 88)
Chis X on South Most Strain Pole Bolt
Sta 105+58.77 Line 'A,' 69' Lt.

NOTE:

For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (D1) HMA for Approaches, Type C, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

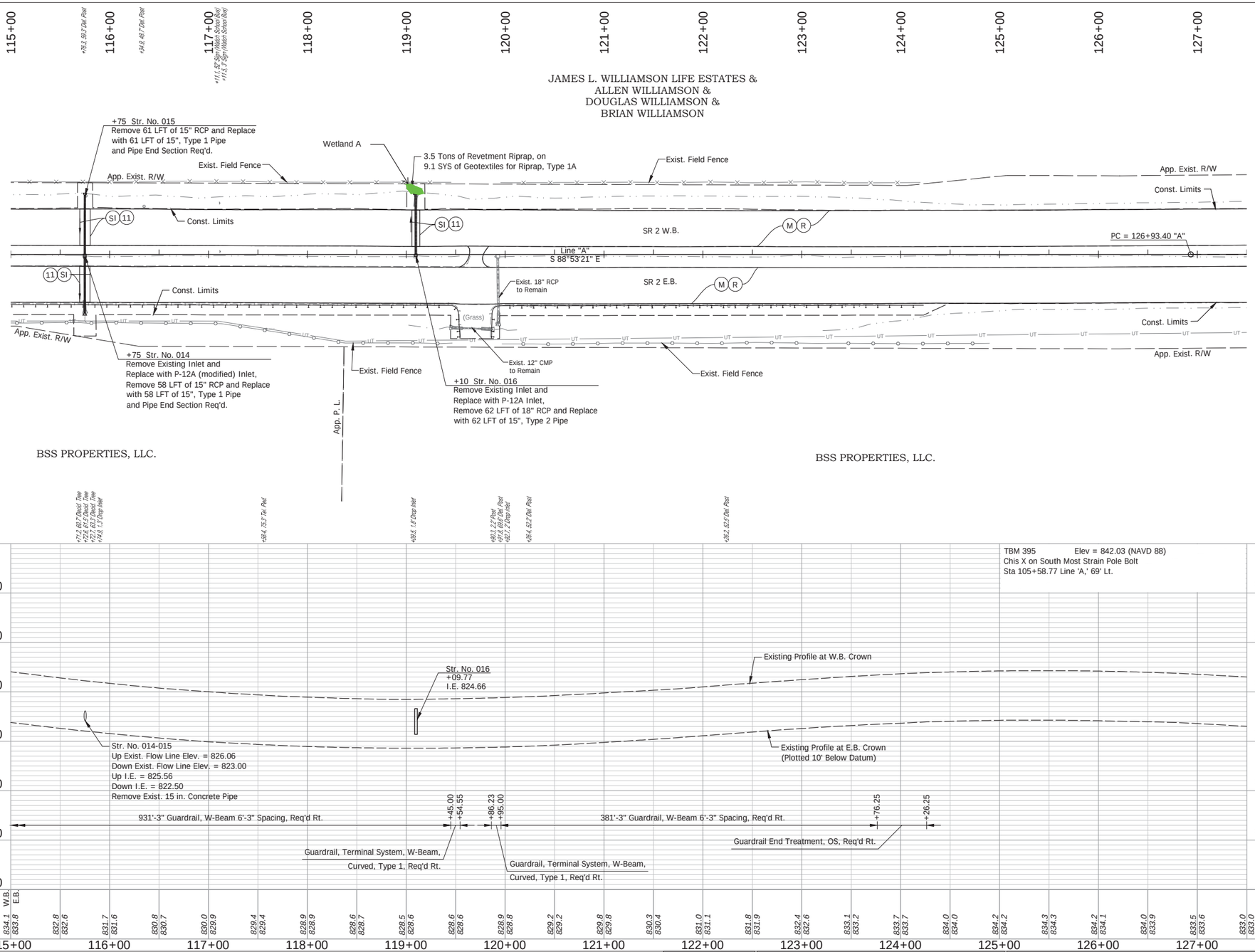
CHECKED: WBF CHECKED: WBF

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 102+50 TO STA. 115+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177
SURVEY BOOK	SHEET
ELECTRONIC	119 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:19pm User Name: Sara Munske
File: K:\production\Files\2020\120-3001\PRJ-DH(CAD)\Plan\Set\SNL_RD_PlanProfile_01.dwg - (Plan & Profile (6))



NOTE:

For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

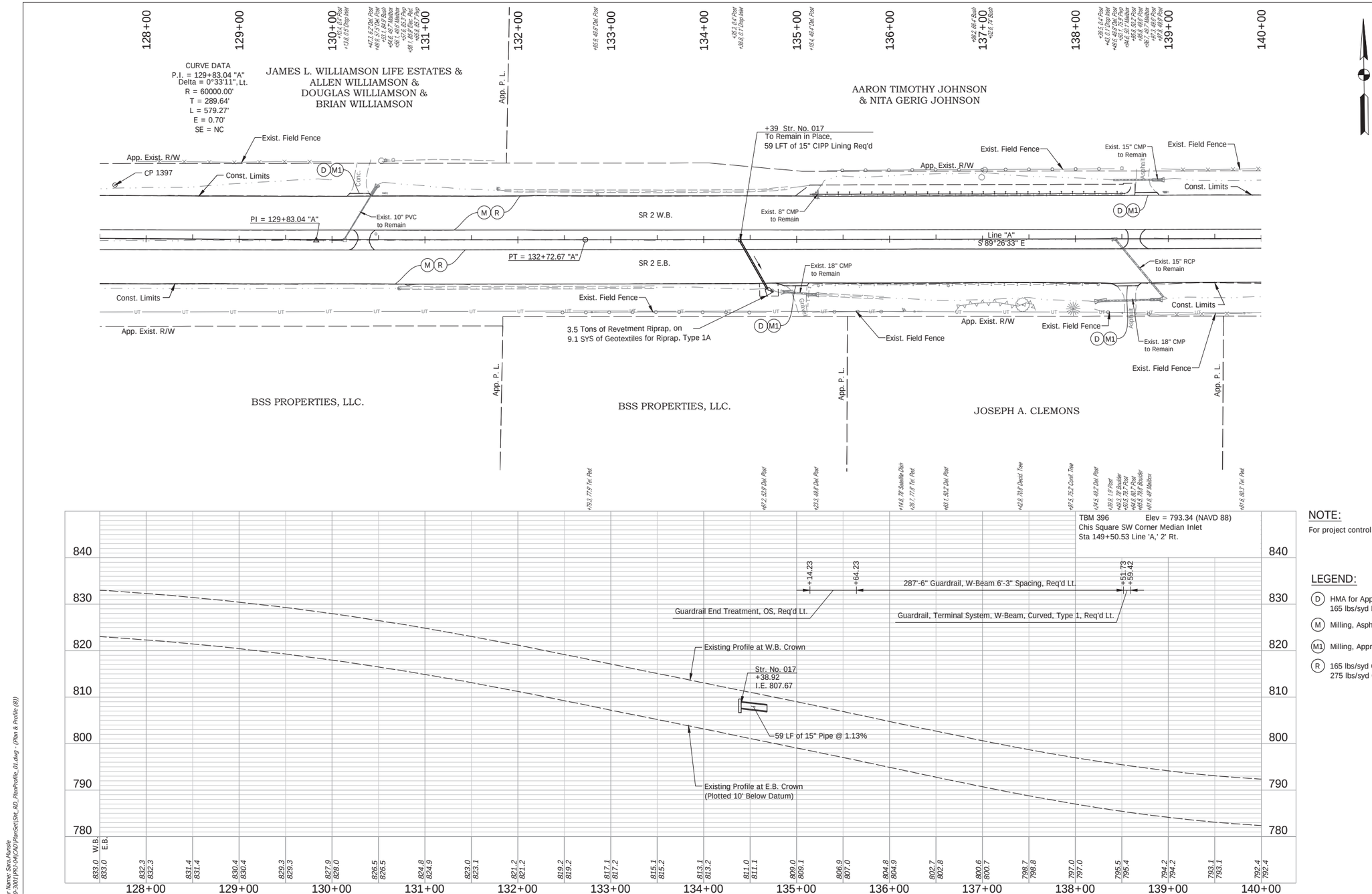
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 115+00 TO STA. 127+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	120 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 1:19pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\P&P-DH\CAD\PlanSet\Sht_RD_PlanProfile_01.dwg (Plan & Profile (7))



NOTE:

For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

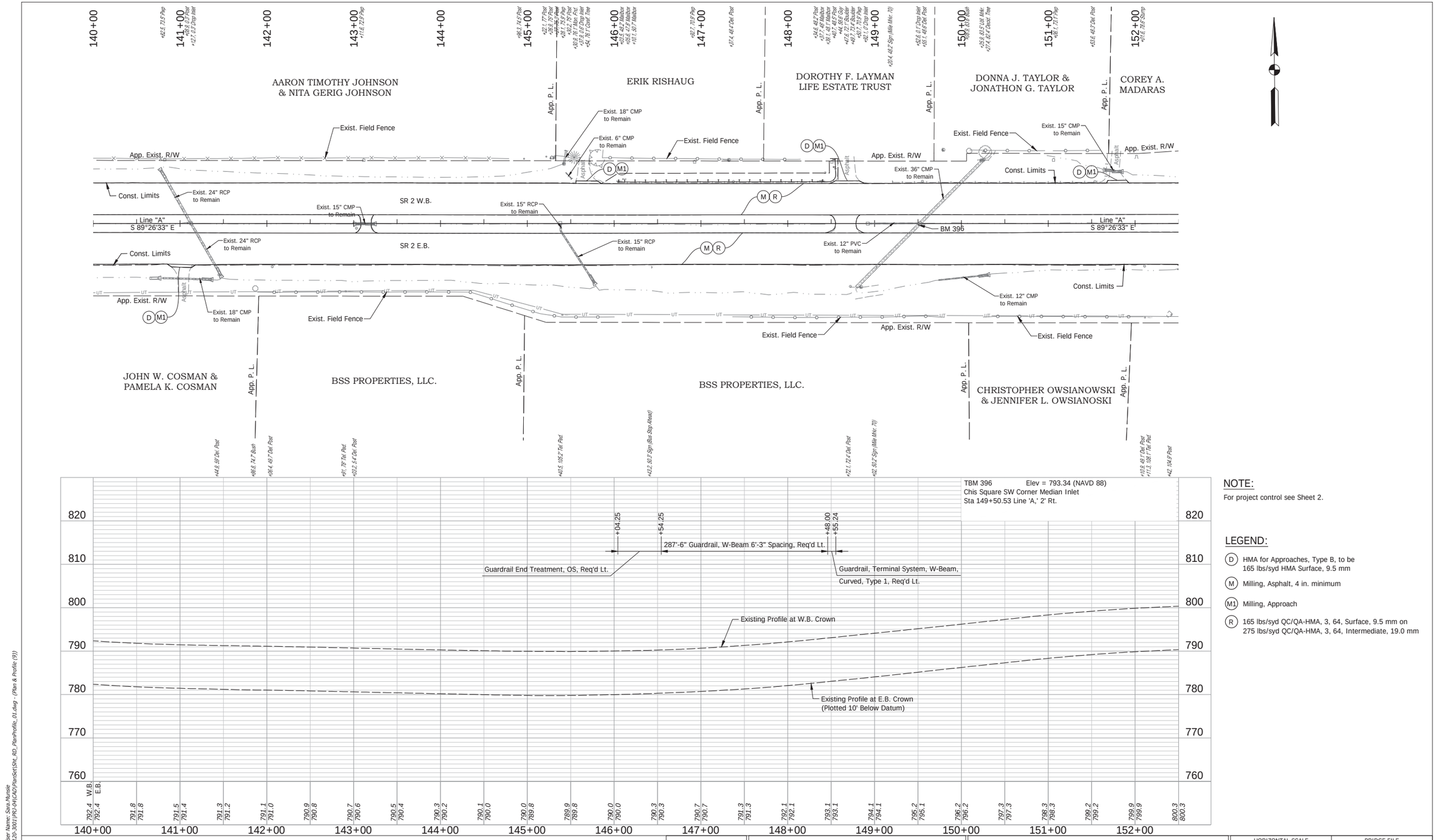
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 127+50 TO STA. 140+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	121 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:20pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\P&D-DHCAD\PlanSet\Sht_RD_PlanProfile_01.dwg (Plan & Profile (8))



NOTE:

For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

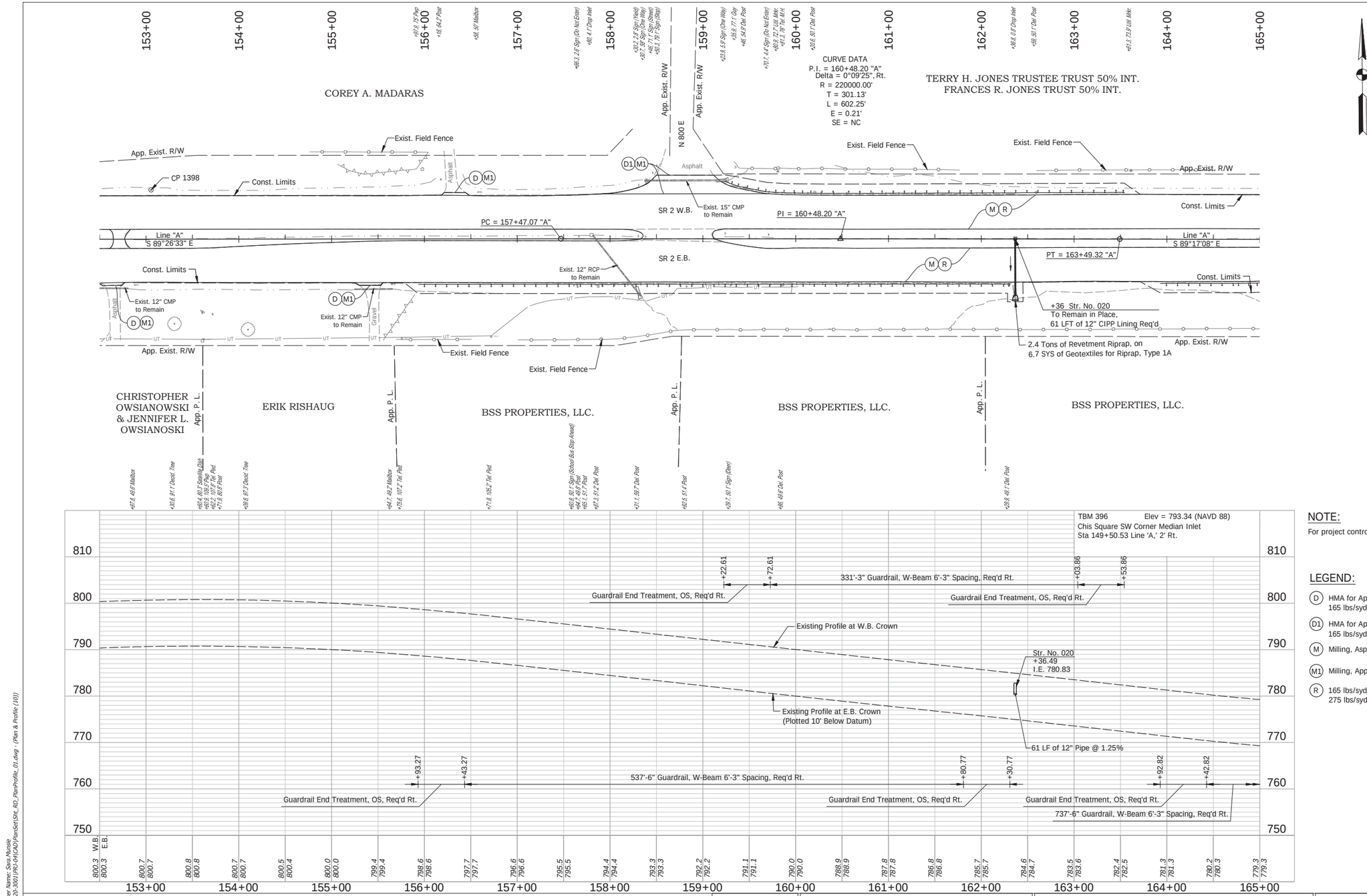
INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 140+00 TO STA. 152+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	122 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:20pm User Name: Sara.Nunsie
File: X:\production\Files\2020\1200\1901\HQ-DH\CAD\PlanSet\Sht_6D_PlanProfile_01.dwg - (Plan & Profile (9))



NOTE:

For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (D1) HMA for Approaches, Type C, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

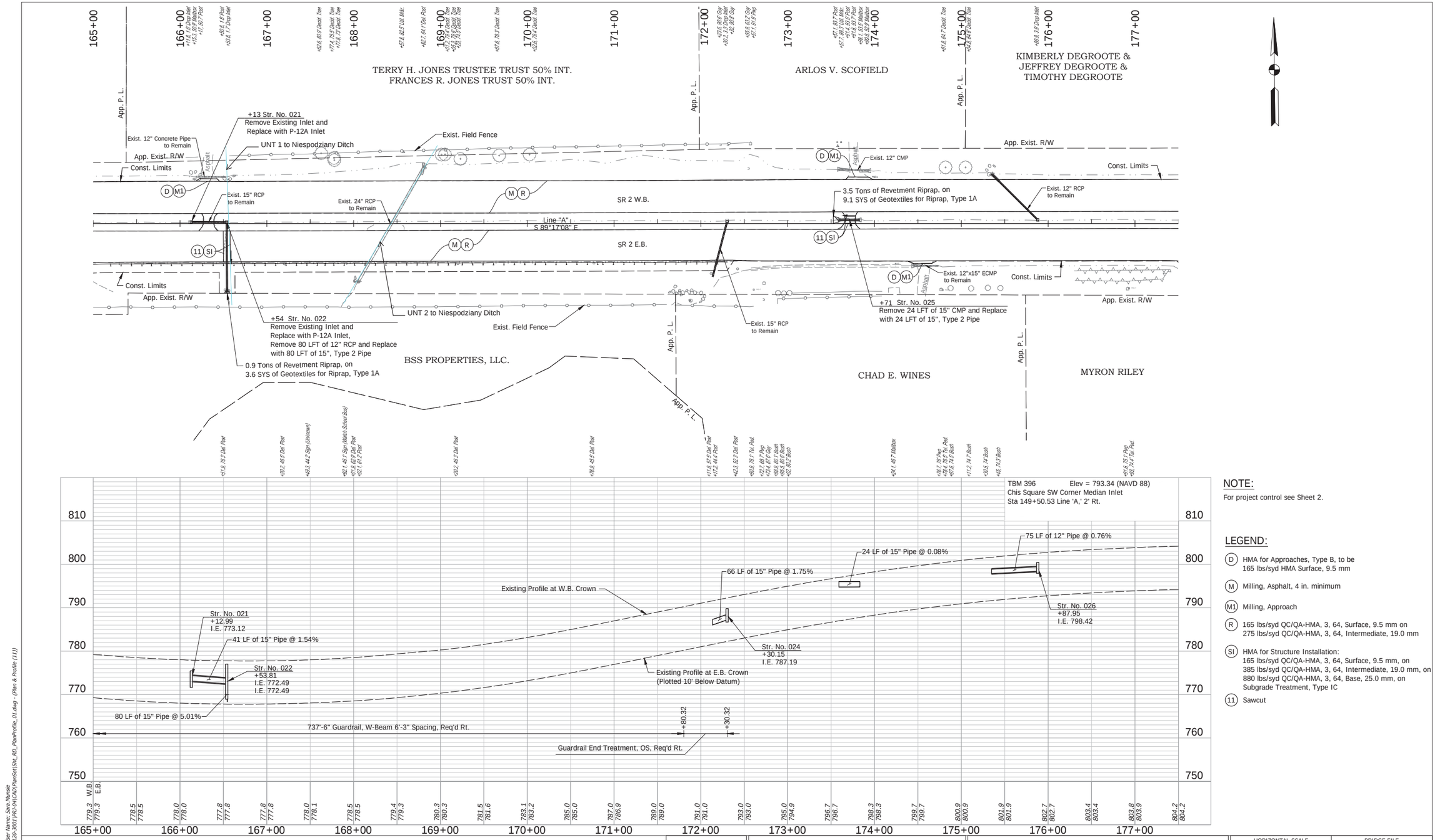
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 152+50 TO STA. 165+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	123 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:21pm User Name: Sara.Nunsie
File: X:\production\Files\2020\1200\1901\HQ-DHCAD\PlanSet\Sht_6D_PlanProfile_01.dwg - (Plan & Profile (10))



NOTE:

For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

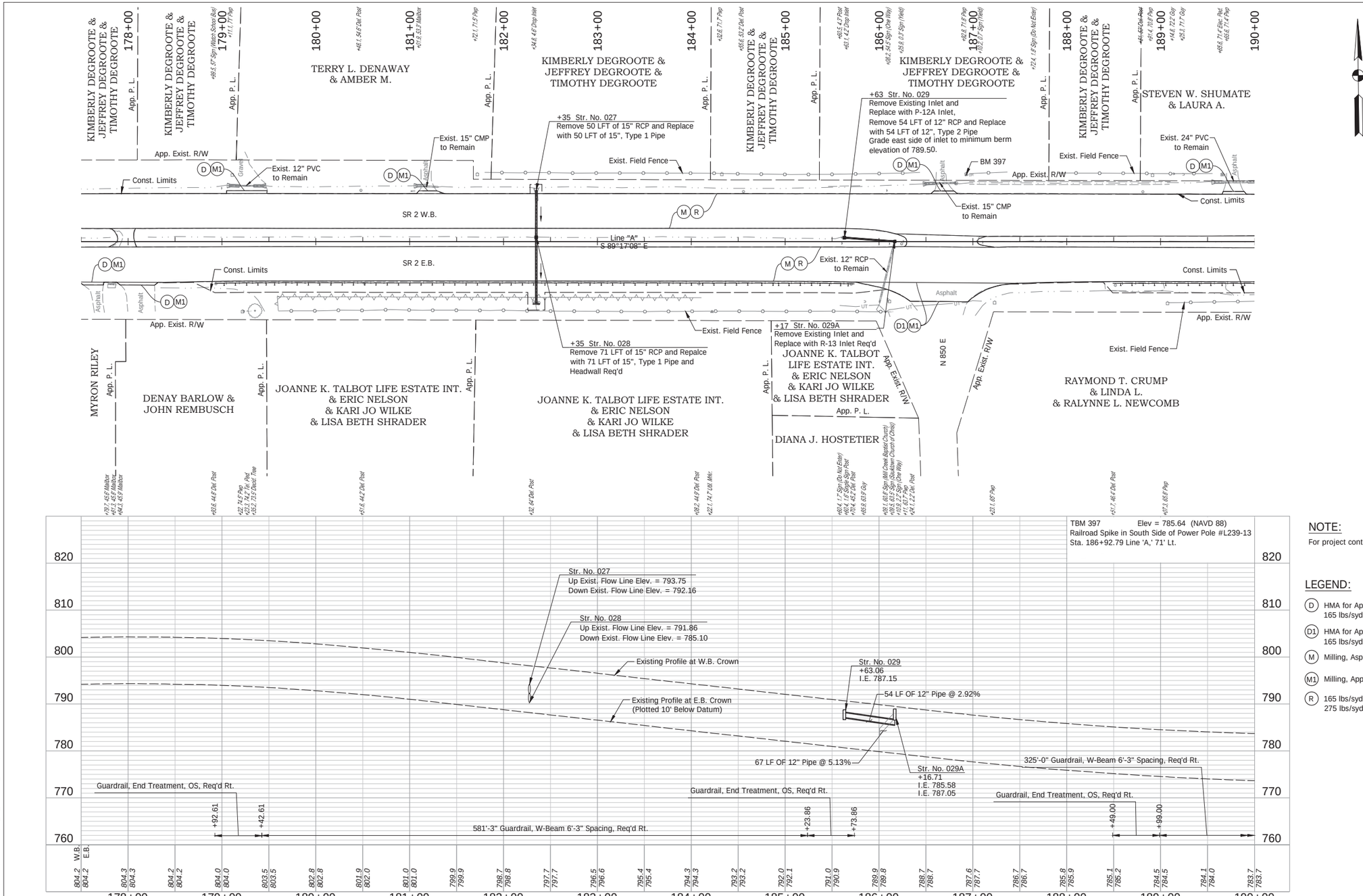
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 165+00 TO STA. 177+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	124 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:22pm User Name: Sara.Nunsie
File: X:\production\Files\2020\1900177\PRJ-04\CAD\PlanSet\Sht_6D_PlanProfile_01.dwg - (Plan & Profile (11))



TBM 397 Elev = 785.64 (NAVD 88)
Railroad Spike in South Side of Power Pole #L239-13
Sta. 186+92.79 Line 'A,' 71' Lt.

NOTE:

For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (D1) HMA for Approaches, Type C, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM
CHECKED: WBF CHECKED: WBF

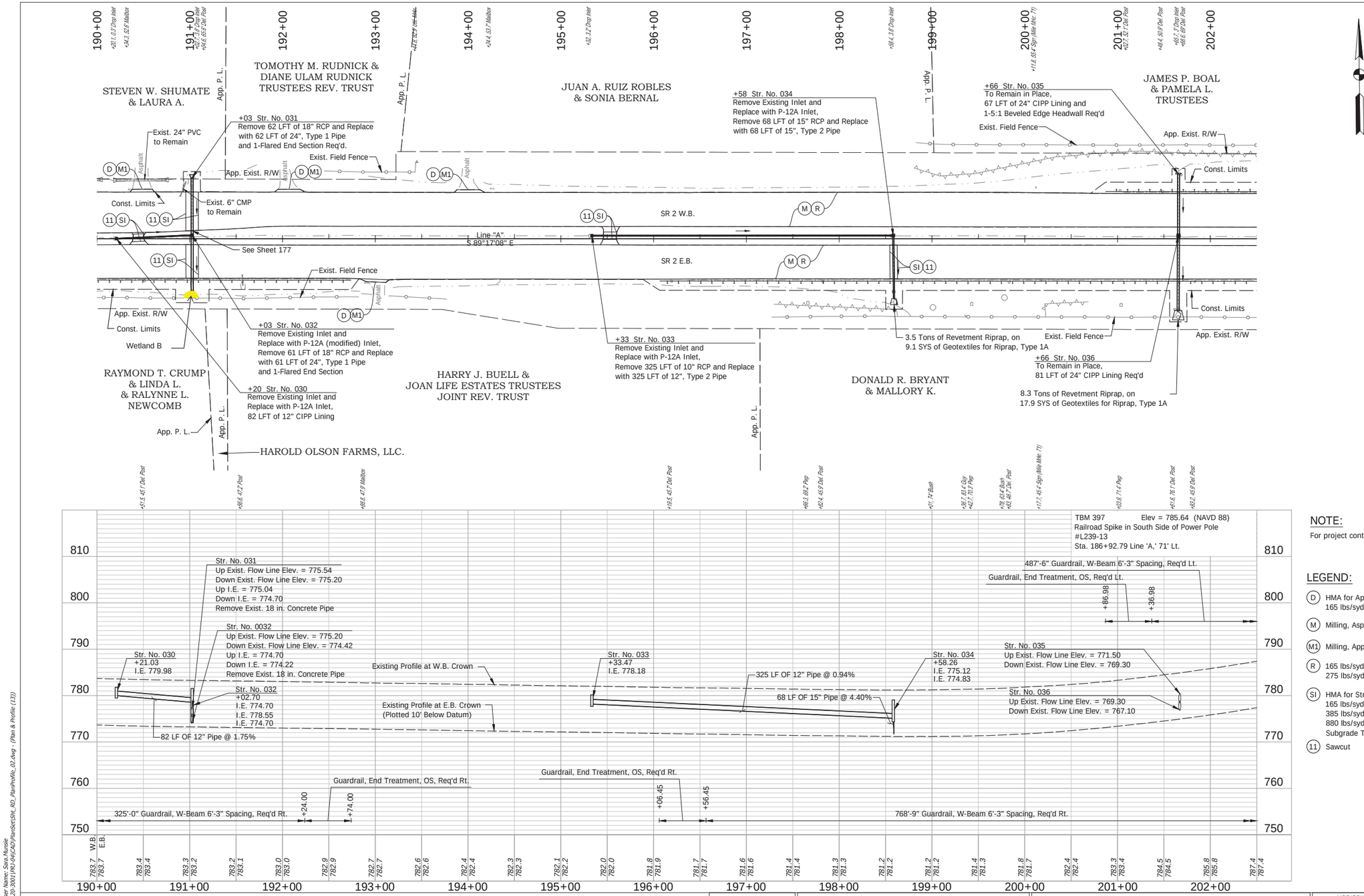
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 177+50 TO STA. 190+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	125 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:23pm User Name: Sara.Nunsie
File: X:\production\Files\2020\1203001\PRJ-04\CAD\PlanSet\Sht_RD_PlanProfile_02.dwg - (Plan & Profile (12))



NOTE:

For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 190+00 TO STA. 202+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	126 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:24pm User Name: Sara.Nunsie
File: X:\production\Files\2020\1200-3001\PRJ-0HCAD\PlanSet\Sht_6D_PlanProfile_02.dwg - (Plan & Profile (13))

JAMES P. BOAL & PAMELA L. TRUSTEES

RODNEY E. MAYFIELD & JOAN L. & KEVIN R. CENCELEWSKI

LARRY B. KAUFFMAN

DONALD R. BRYANT & MALLORY K.

CERES FARMS, LLC.

App. P. L.

Exist. Field Fence

App. Exist. R/W

Const. Limits

+07 Str. No. 037
Remove Existing Inlet and Replace with P-12A Inlet, Remove 75 LFT of 15" RCP and Replace with 75 LFT of 15", Type 2 Pipe

2.4 Tons of Revetment Riprap, on 6.7 SYS of Geotextiles for Riprap, Type 1A

CURVE DATA
P.I. = 212+37.29 "A"
Delta = 0°38'54", Rt.
R = 60000.00'
T = 339.49'
L = 678.97'
E = 0.96'
SE = NC

BM 398

County Line Rd

Asphalt

SR 2 W.B.

SR 2 E.B.

Line "A"
S 89°17'08" E

PC = 208+97.80 "A"

PI = 212+37.29 "A"

CP 1399

Exist. 15" PVC to Remain

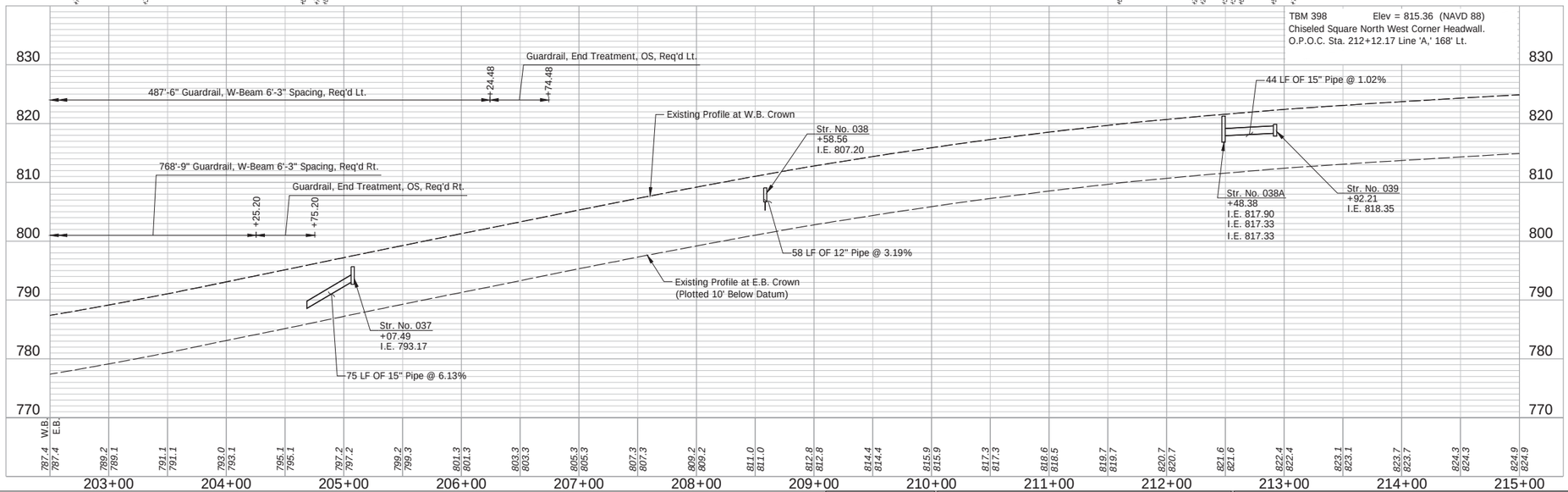
+48 Str. No. 38A
R-13 (Modified) Inlet Req'd

+59 Str. No. 038
To Remain in Place, 58 LFT of 12" CIPP Lining Req'd

3.5 Tons of Revetment Riprap, on 9.1 SYS of Geotextiles for Riprap, Type 1A

+92 Str. No. 039
Remove Existing Inlet and Replace with P-12A Inlet, Remove 44 LFT of 12" CMP and Replace with 44 LFT of 15", Type 2 Pipe

D1 M1 M R SI 11



NOTE:

For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (D1) HMA for Approaches, Type C, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

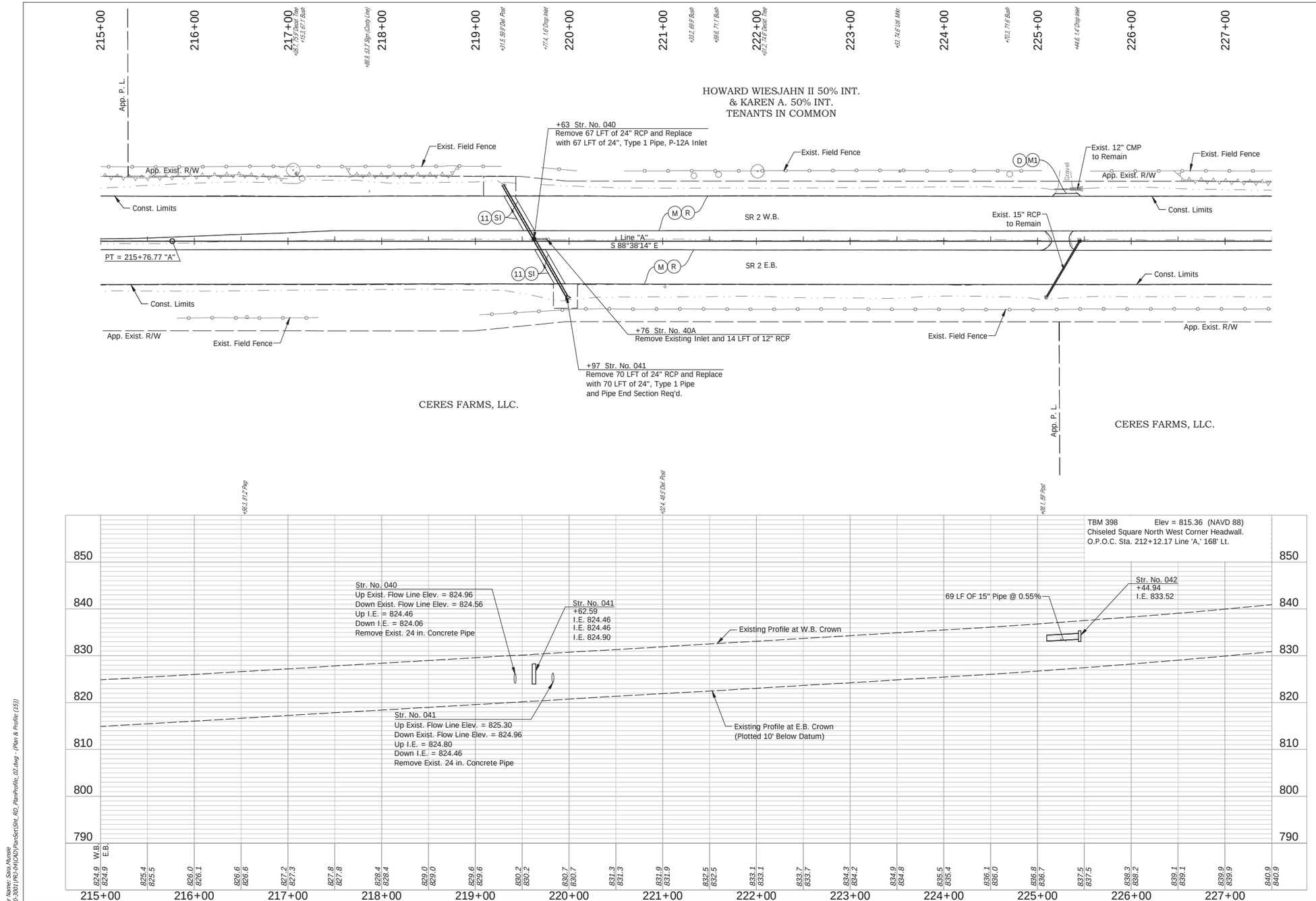
INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 202+50 TO STA. 215+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	127 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:25pm User Name: Sara.Nunsie
File: X:\production\Files\2020\1900\PRJ-04\CAD\PlanSet\Sht_6D_PlanProfile_02.dwg - (Plan & Profile (1st))



NOTE:

For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

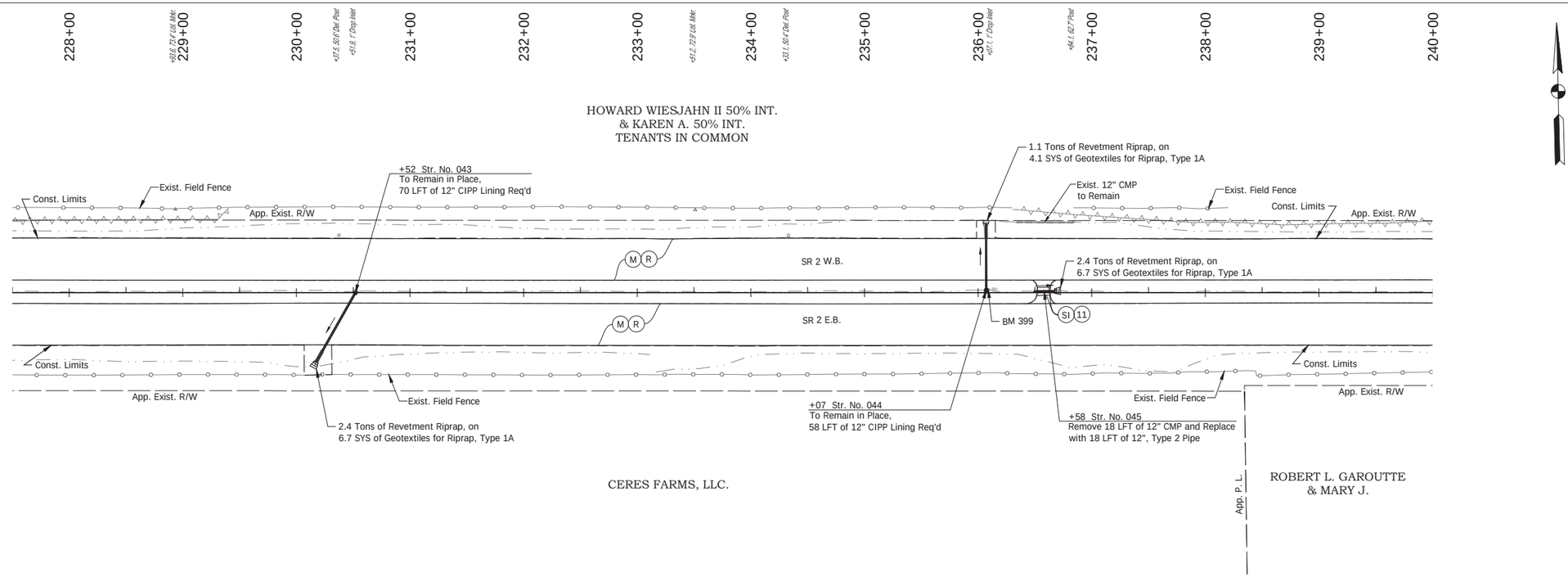
INDIANA
DEPARTMENT OF TRANSPORTATION

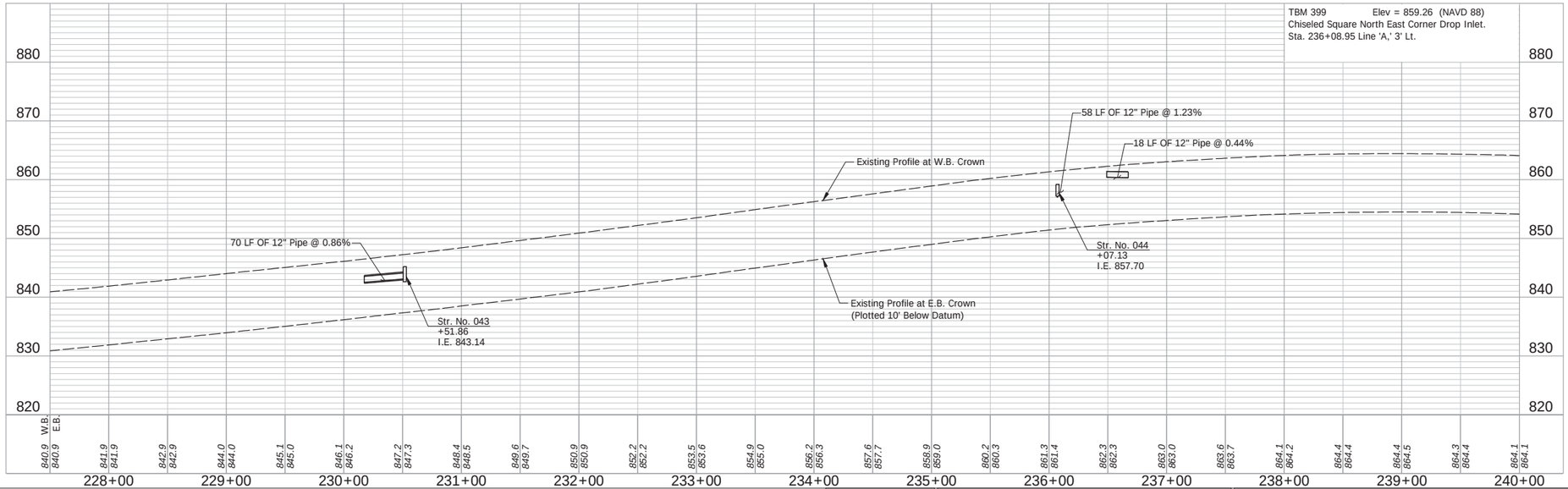
PLAN AND PROFILE - LINE "A"
STA. 215+00 TO STA. 227+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	128 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:25pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\P&U-DH\CAD\PlanSet\Sht_RD_PlanProfile_02.dwg - (Plan & Profile (15))





NOTE:

For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

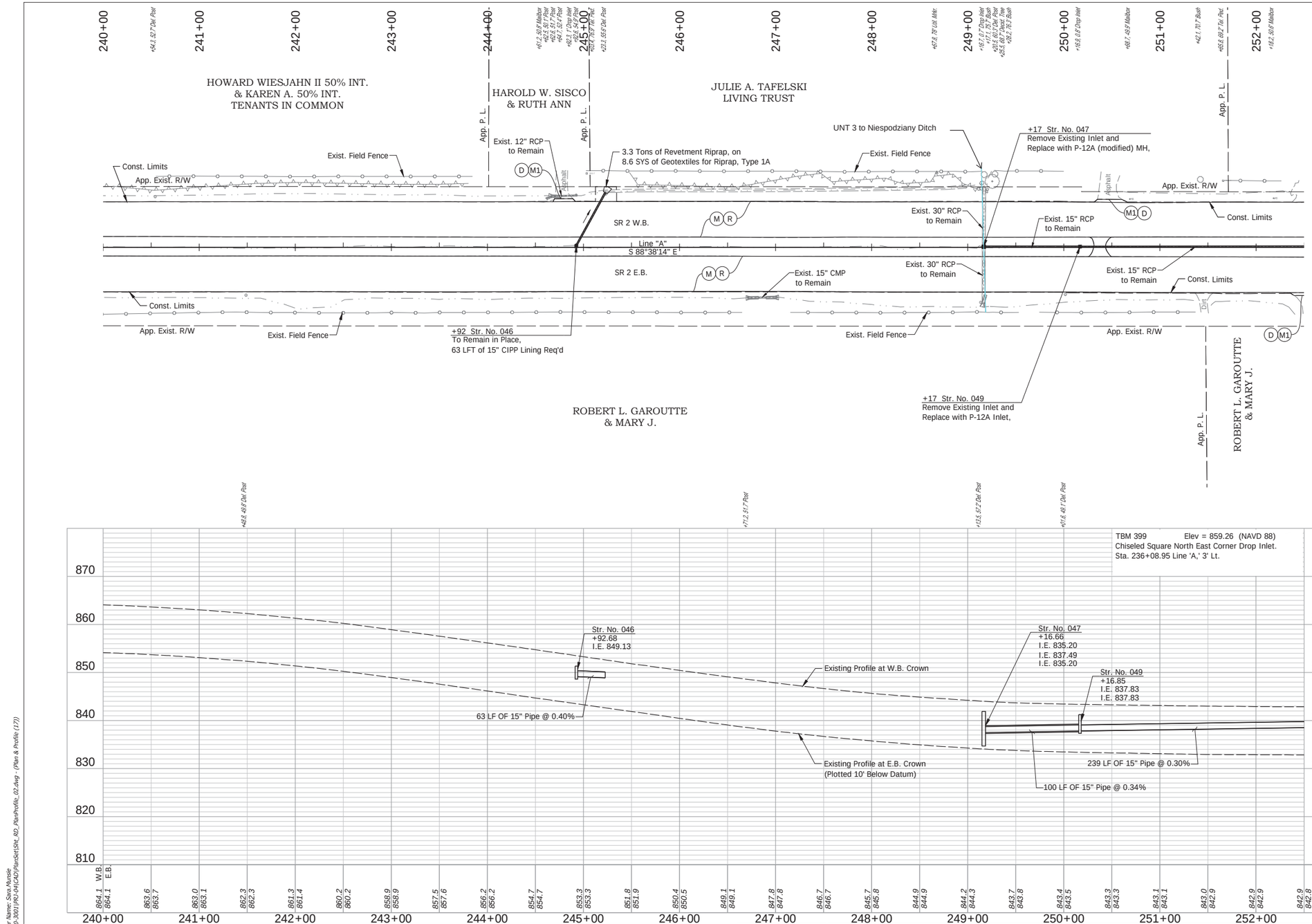
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 227+50 TO STA. 240+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	129 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:26pm User Name: Sara Munsie
File: X:\production\Files\2020\120\300\[HQ-04\CAD\PlanSet\SNI_6D_PlanProfile_02.dwg - (Plan & Profile (16))



NOTE:

For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (P) HMA Patching, Full Depth: Pavement Design still to be Determined
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (11) Sawcut

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM
CHECKED: WBF CHECKED: WBF

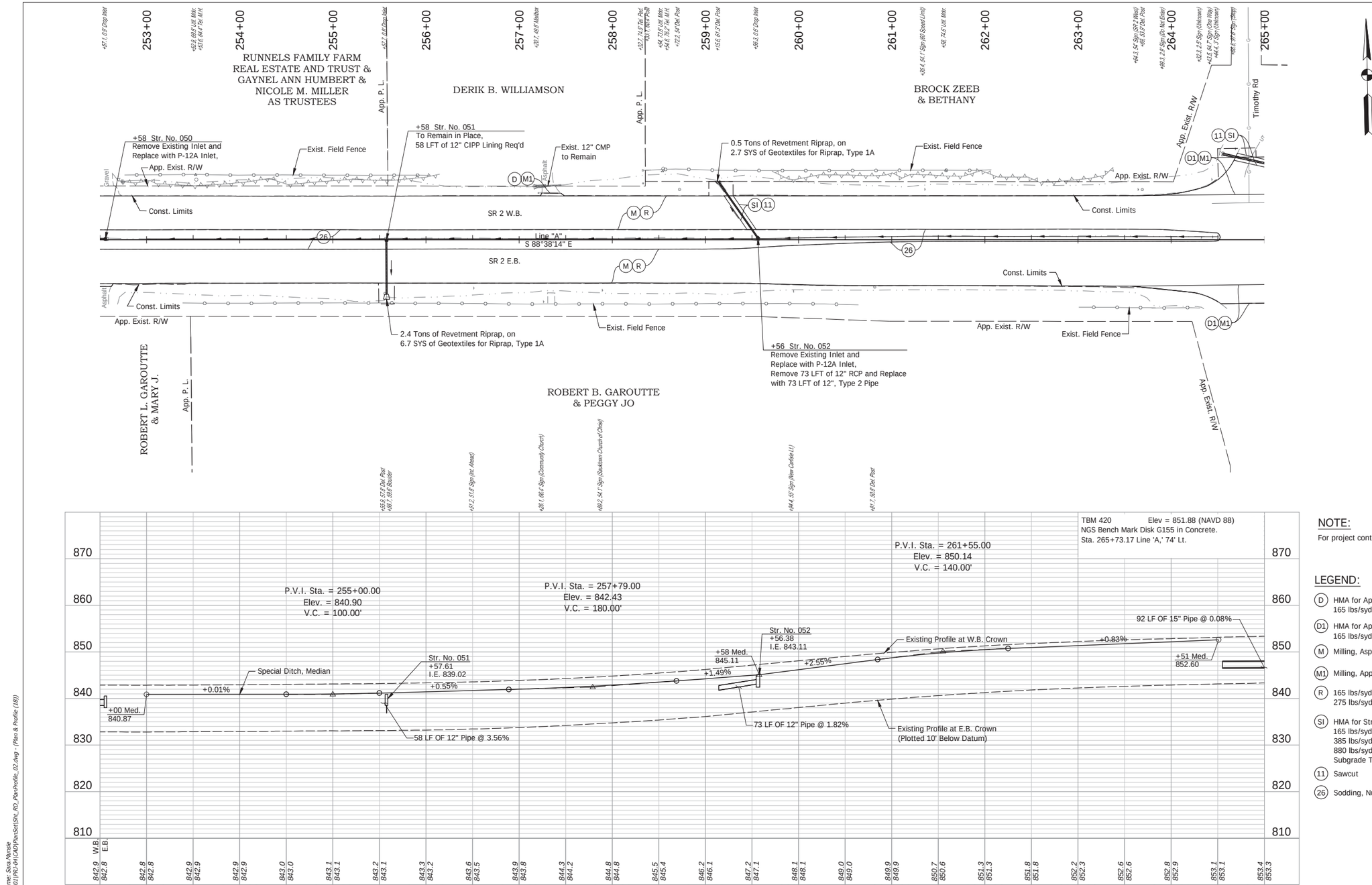
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 240+00 TO STA. 252+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	130 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 1:27pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\P&D-DH\CAD\PlanSet\Sht_RD_PlanProfile_02.dwg (Plan & Profile (1))



NOTE:

For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (D1) HMA for Approaches, Type C, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut
- (26) Sodding, Nursery

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM
CHECKED: WBF CHECKED: WBF

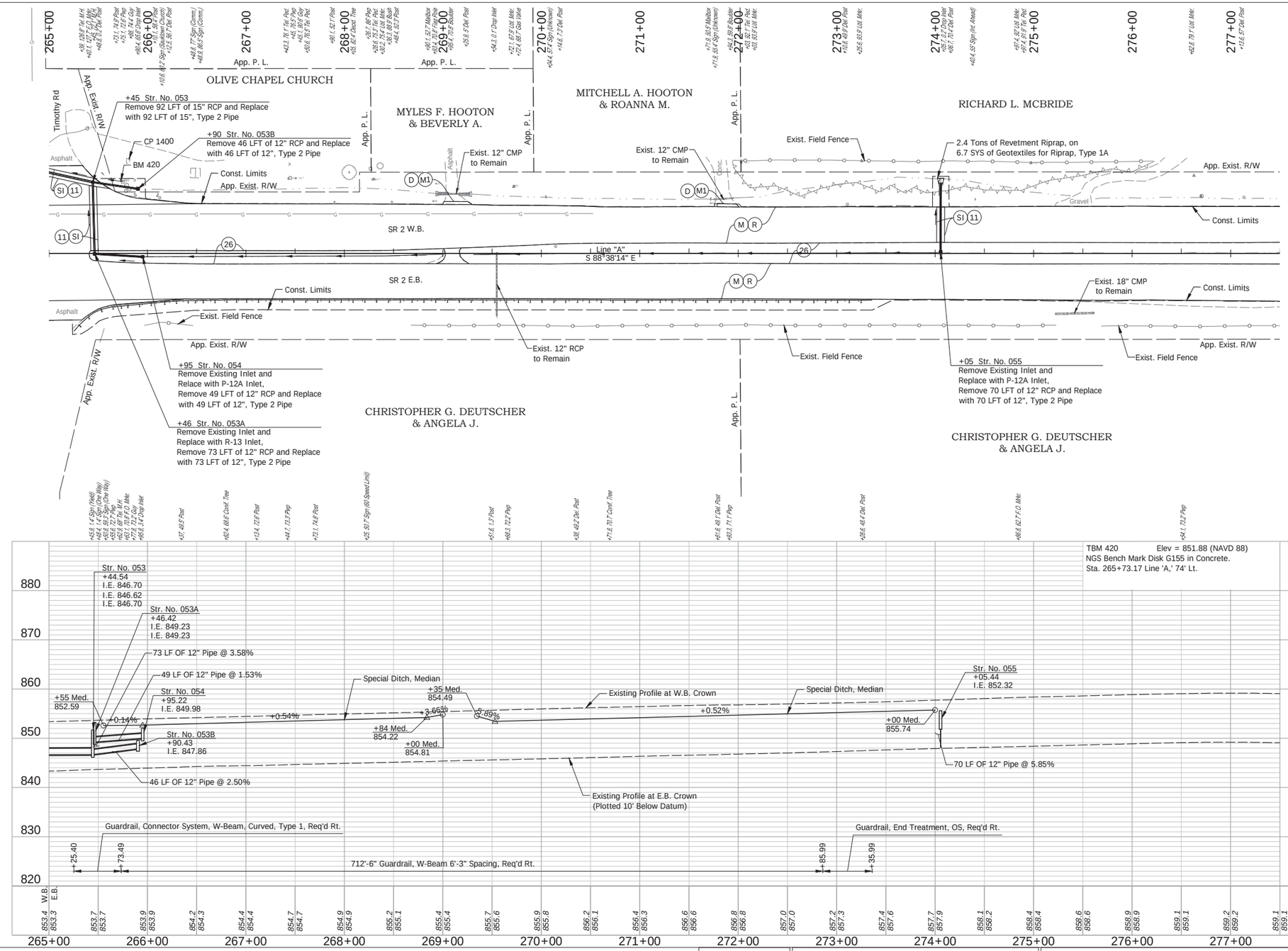
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 252+50 TO STA. 265+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	131 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 1:27pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\P&U-DI\CAD\PlanSet\Sht_RD_PlanProfile_02.dwg (Plan & Profile (1))



NOTE:

For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut
- (26) Sodding, Nursery

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

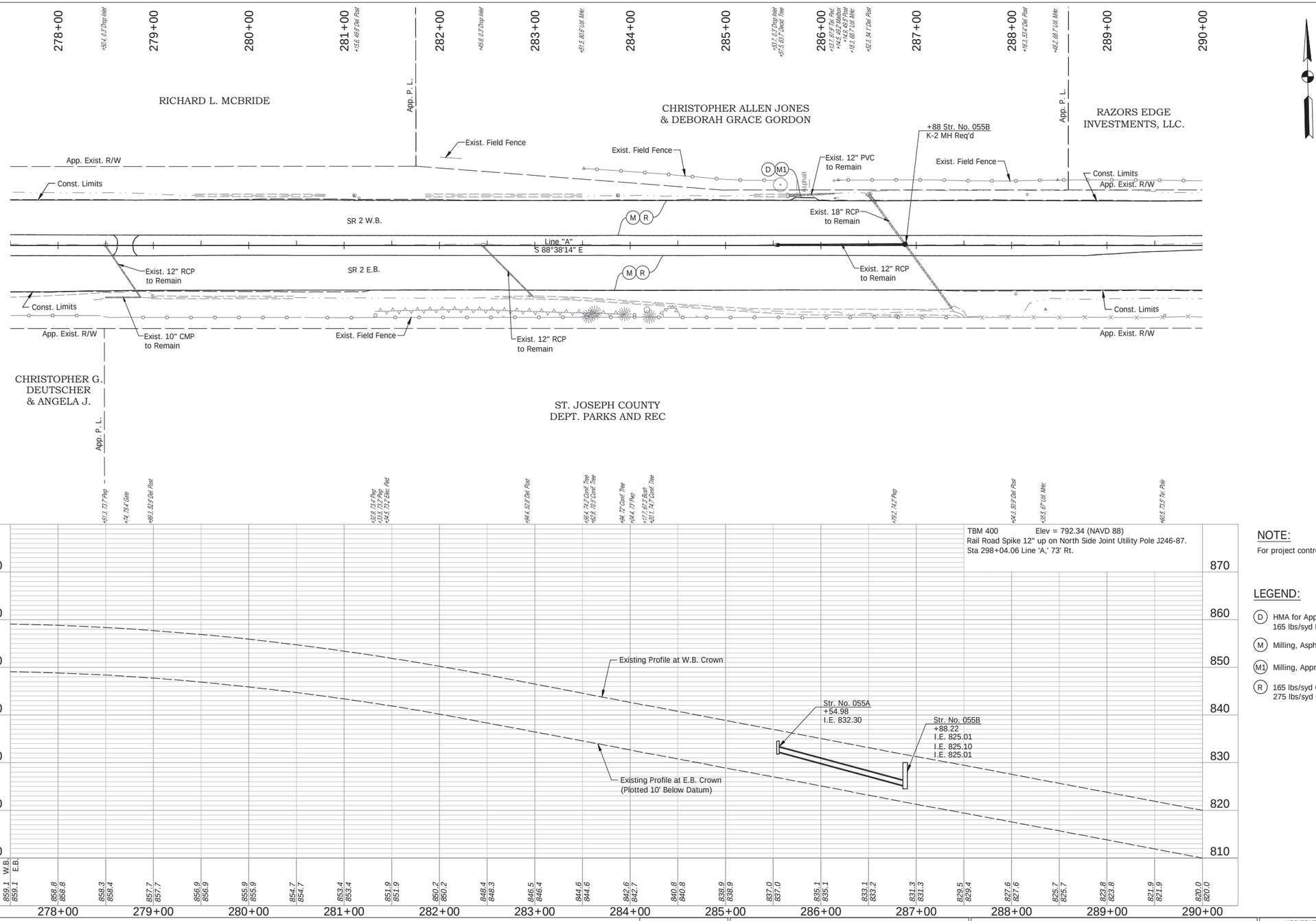
INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 265+00 TO STA. 277+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	132 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:28pm User Name: Sara.Nunsie
File: X:\production\Files\2020\1200\3001\PRJ-04\CAD\PlanSet\Sht_6D_PlanProfile_02.dwg - (Plan & Profile (19))



NOTE:

For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

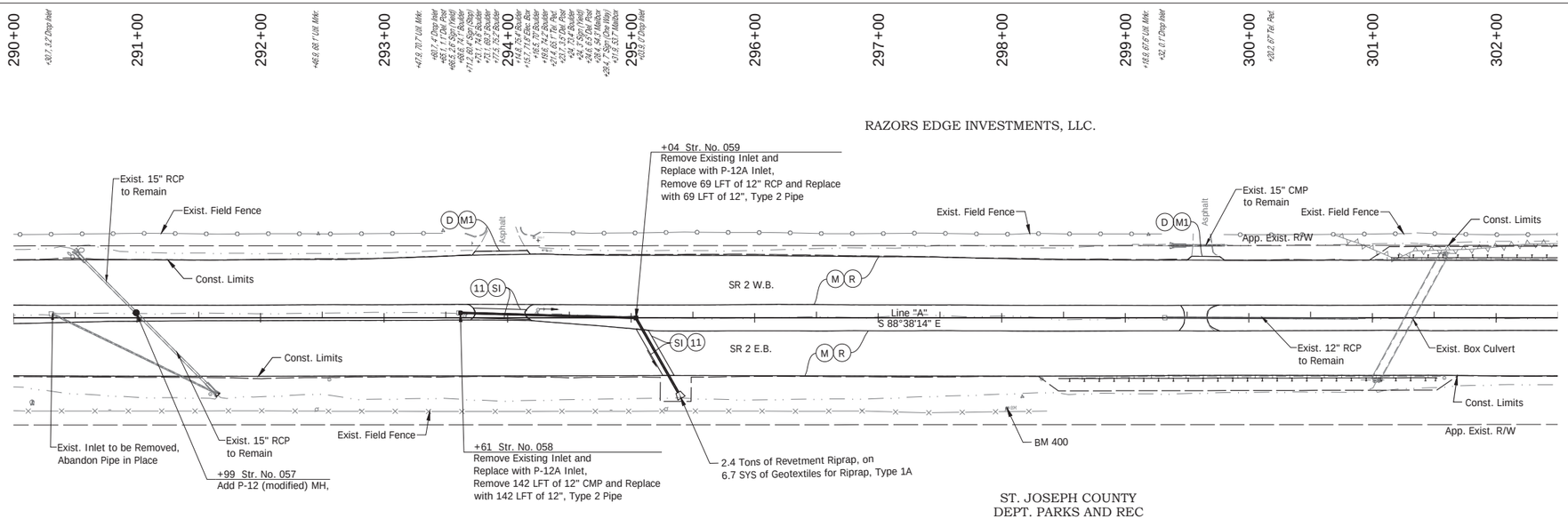
INDIANA
DEPARTMENT OF TRANSPORTATION

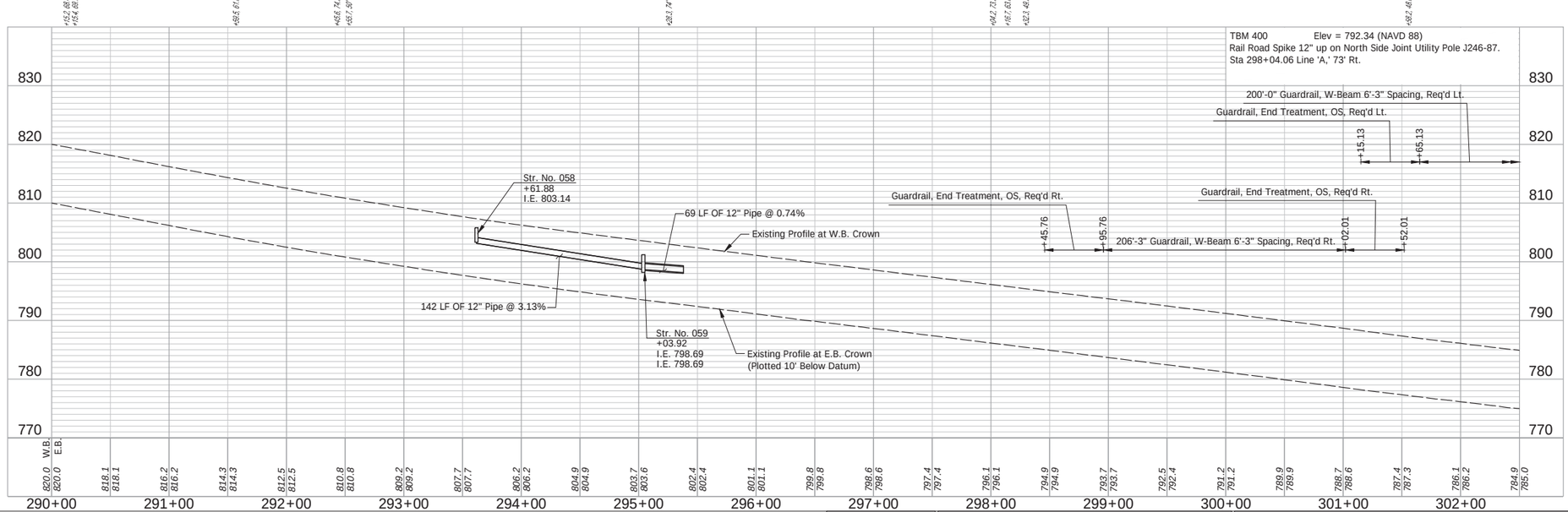
PLAN AND PROFILE - LINE "A"
STA. 277+50 TO STA. 290+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	133 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:28pm User Name: Sara.Munsie
File: X:\production\Files\2020\1220-3001\PRJ-DHLCAD\PlanSet\Sht_RD_PlanProfile_02.dwg - (Plan & Profile (20))





NOTE:

For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 290+00 TO STA. 302+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	134 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:29pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\P&U-DH\CAD\PlanSet\Sht_RD_PlanProfile_02.dwg (Plan & Profile (21))

RAZORS EDGE INVESTMENTS, LLC.

RANDY JAMES

JAMES M. SAYLOR & WENDY R.

FRANK E. SZILAGYI & TERRI R.

ANDREW T. PIETRZAK

LUIS CRUZ & KRISTI HW.

NAVISTAR, INC.

ST. JOSEPH COUNTY DEPT. PARKS AND REC

App. P. L.

Const. Limits

App. Exist. R/W

Exist. 15" CMP to Remain

Exist. 12" RCP to Remain

Exist. Field Fence

Exist. 18" CMP to Remain

Exist. 12" CMP to Remain

Asphalt

Gravel

SR 2 W.B.

SR 2 E.B.

Line "A"
S 88°38'14" E

PC = 313+17.96 "A"

+52 Str. No. 060
Remove Existing Inlet and Replace with P-12A Inlet, Remove 150 LFT of 10" CMP and Replace with 150 LFT of 12", Type 2 Pipe

Exist. 12" RCP to Remain

Exist. 18" CMP to Remain

Exist. Field Fence

TBM 400 Elev = 792.34 (NAVD 88)
Rail Road Spike 12" up on North Side Joint Utility Pole J246-87.
Sta 298+04.06 Line 'A,' 73' Rt.

200'-0" Guardrail, W-Beam 6'-3" Spacing, Req'd Lt.

Guardrail, End Treatment, OS, Req'd Lt.

+65.13

+15.13

Existing Profile at W.B. Crown

Existing Profile at E.B. Crown (Plotted 10' Below Datum)

Str. No. 060
+52.79
I.E. 766.25

150 LF OF 12" Pipe @ 2.63%

W.B. 794.9 795.0
E.B. 793.7 793.7 792.5 792.5 791.3 791.3 790.0 790.0 788.8 788.8 787.5 787.5 786.3 786.3 785.0 785.0 783.8 783.8 782.5 782.6 781.3 781.3 780.1 780.2 778.8 778.8 777.5 777.5 776.3 776.3 775.0 775.0 773.8 773.8 772.5 772.6 771.3 771.3 770.1 770.1 768.9 769.0 767.7 767.8 766.6 766.6 765.4 765.5 764.3 764.3 763.2 763.2 762.2 762.2 761.1 761.2 760.1 760.2 759.1 759.1 758.1 758.1 757.1 757.0 756.0 756.0

303+00 304+00 305+00 306+00 307+00 308+00 309+00 310+00 311+00 312+00 313+00 314+00 315+00

790 780 770 760 750 740 730

NOTE:

For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

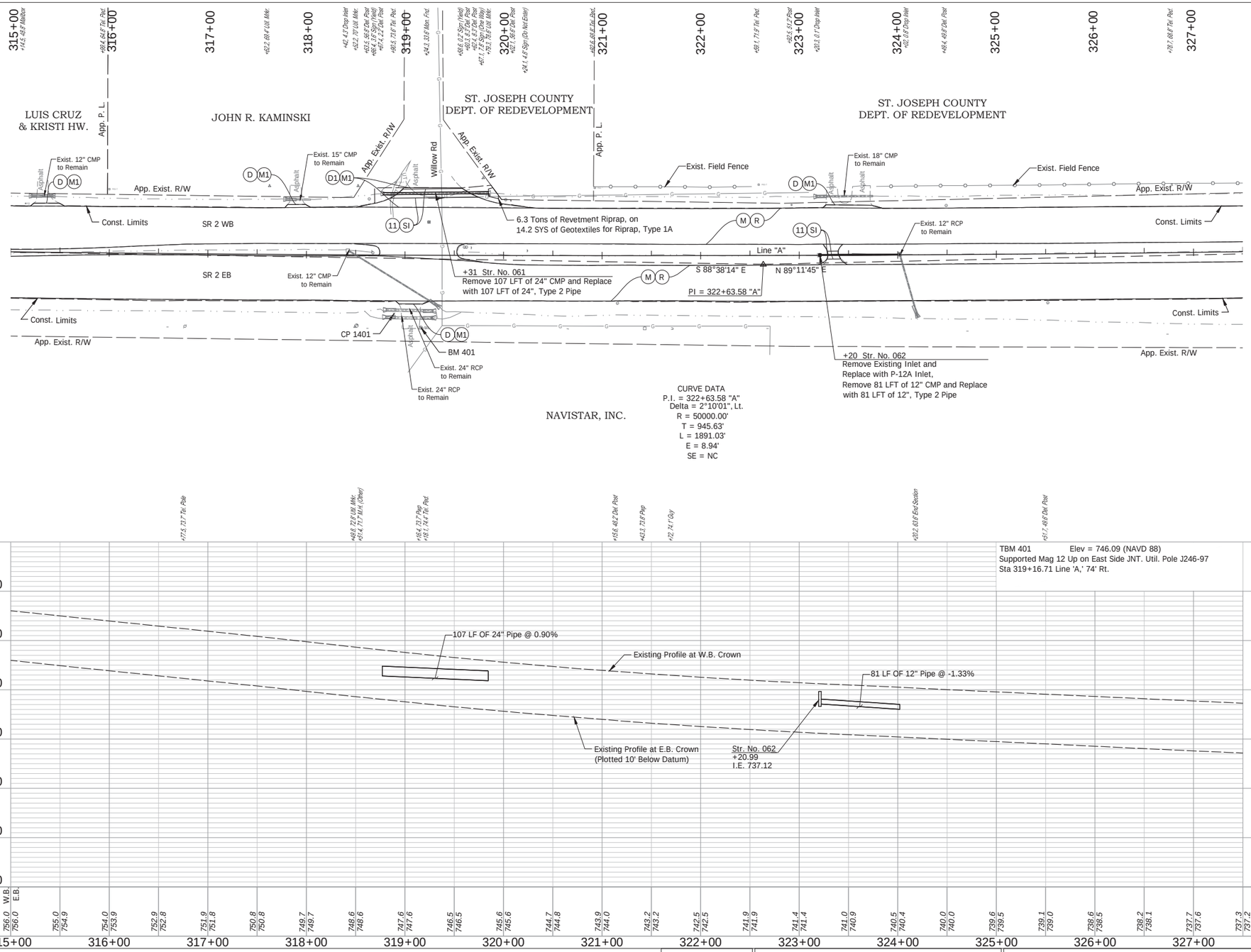
INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 302+50 TO STA. 315+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	135 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:30pm User Name: Sara.Munsie
File: X:\production\Files\2020\1200\1901\HQ-04\CAD\PlanSet\Sht_6D_PlanProfile_02.dwg - (Plan & Profile (22))



TBM 401 Elev = 746.09 (NAVD 88)
Supported Mag 12 Up on East Side JNT. Util. Pole J246-97
Sta 319+16.71 Line 'A,' 74' Rt.

NOTE:
For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (D1) HMA for Approaches, Type C, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM
CHECKED: WBF CHECKED: WBF

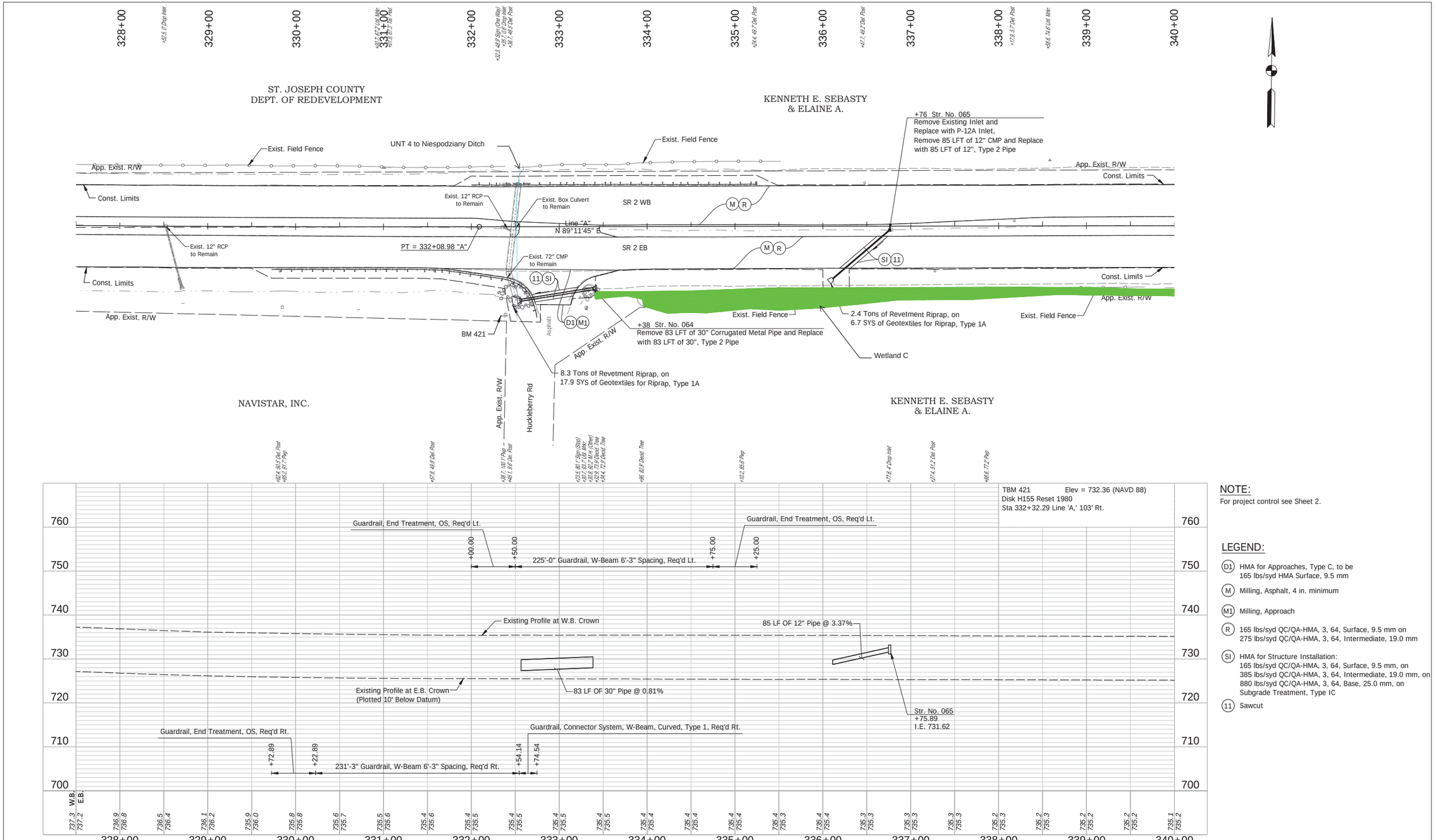
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 315+00 TO STA. 327+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	136 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:31pm User Name: Sara.Munsie
File: X:\production\Files\2020\1200\1901\04\CAD\PlanSet\Sht_6D_PlanProfile_03.dwg - (Plan & Profile (23))



NOTE:
For project control see Sheet 2.

LEGEND:

- (D1) HMA for Approaches, Type C, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM
CHECKED: WBF CHECKED: WBF

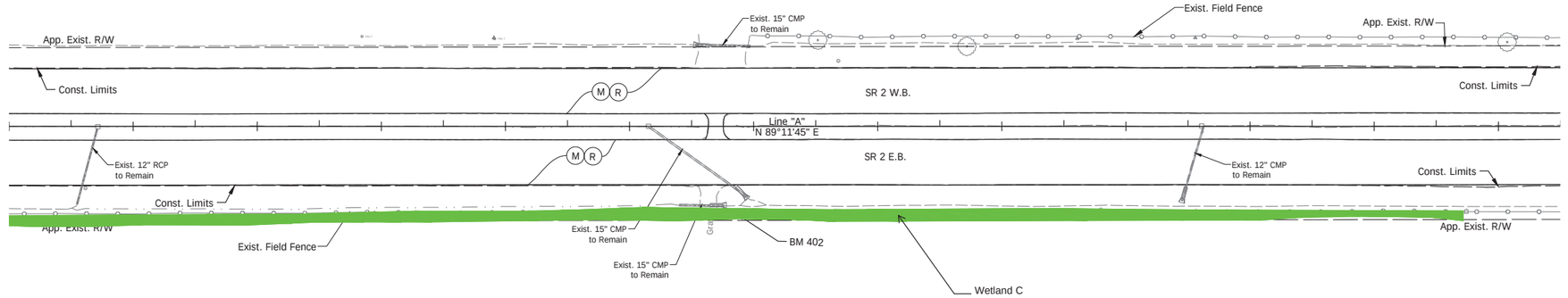
INDIANA
DEPARTMENT OF TRANSPORTATION

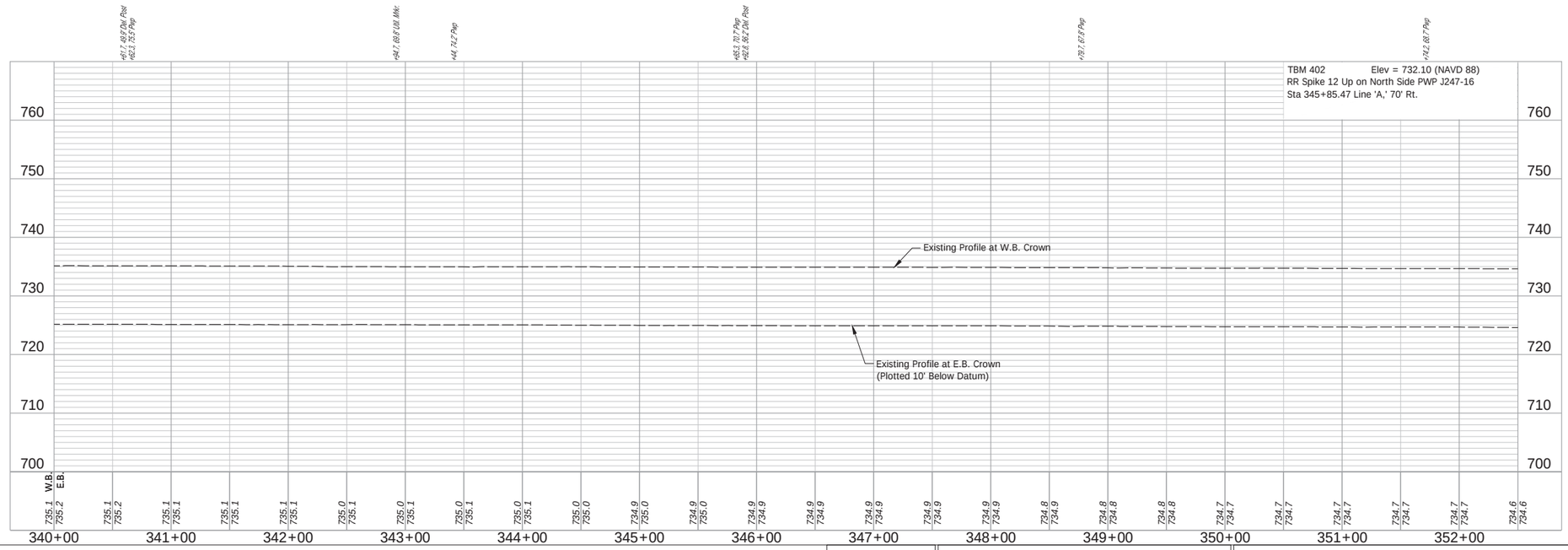
PLAN AND PROFILE - LINE "A"
STA. 327+50 TO STA. 340+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	137 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:32pm User Name: Sara Nunsie
File: X:\production\Files\2020\1200\1901240\PlanSet\Sht_6D_PlanProfile_03.dwg - (Plan & Profile (24))





NOTE:
For project control see Sheet 2.

LEGEND:

(M) Milling, Asphalt, 4 in. minimum

(R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on
275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

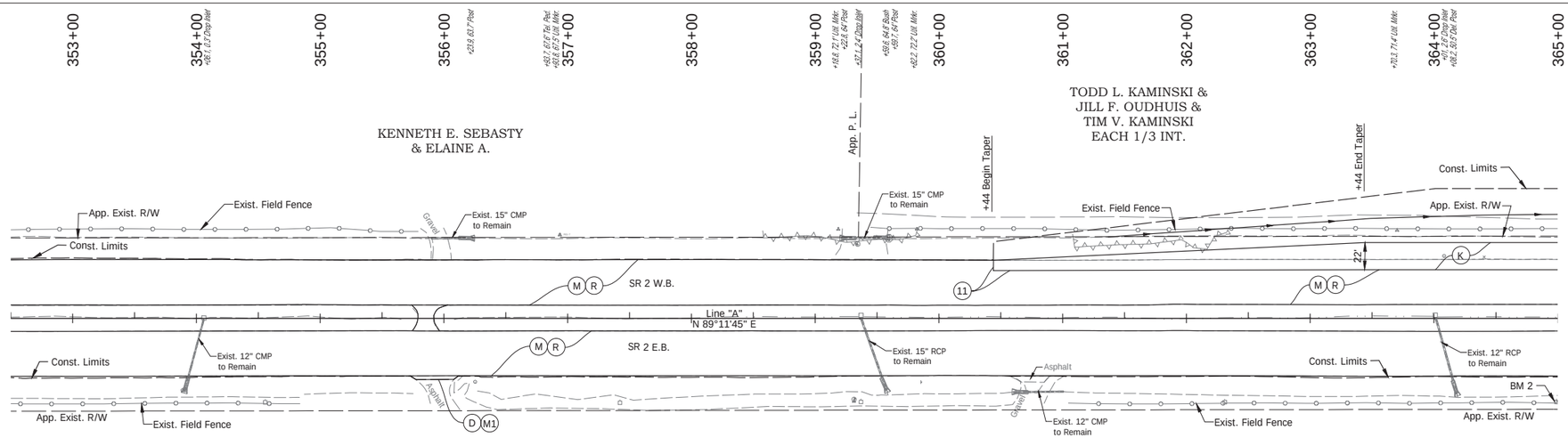
INDIANA
DEPARTMENT OF TRANSPORTATION

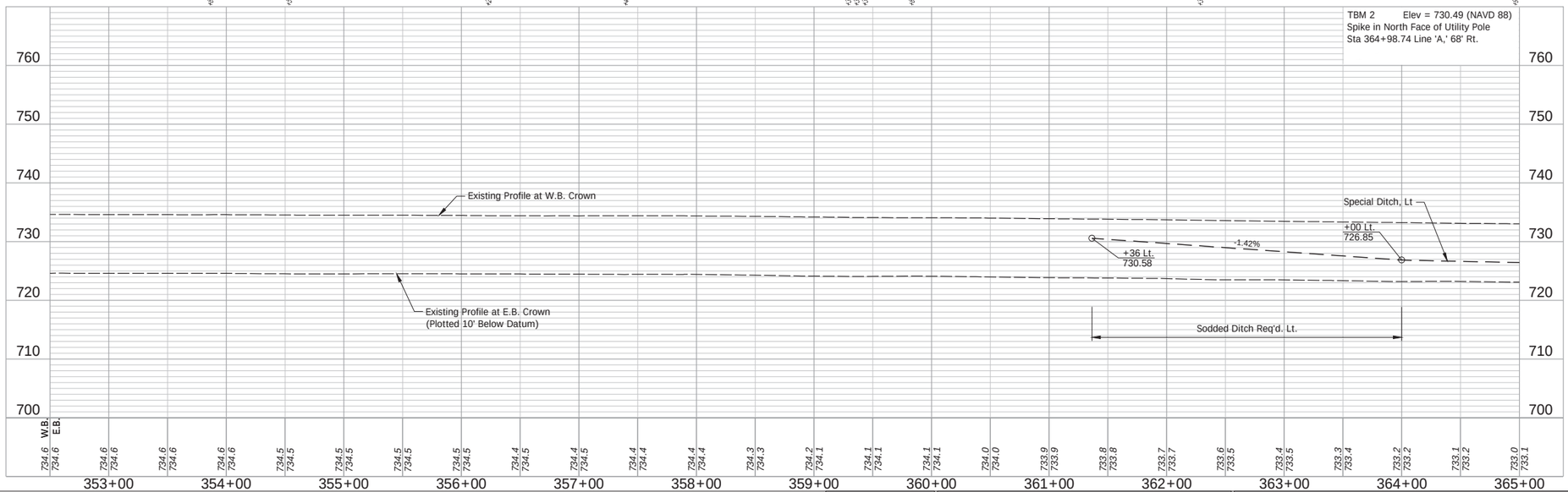
PLAN AND PROFILE - LINE "A"
STA. 340+00 TO STA. 352+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	138 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:32pm User Name: Sara.Munsie
File: X:\production\Files\2020\1200\1901\HQ-04\CAD\PlanSet\Sht_6D_PlanProfile_03.dwg - (Plan & Profile (25))





TBM 2 Elev = 730.49 (NAVD 88)
Spike in North Face of Utility Pole
Sta 364+98.74 Line 'A,' 68' Rt.

NOTE:
For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (K) HMA Pavement, Full Depth: Pavement Design still to be Determined
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (11) Sawcut

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM
CHECKED: WBF CHECKED: WBF

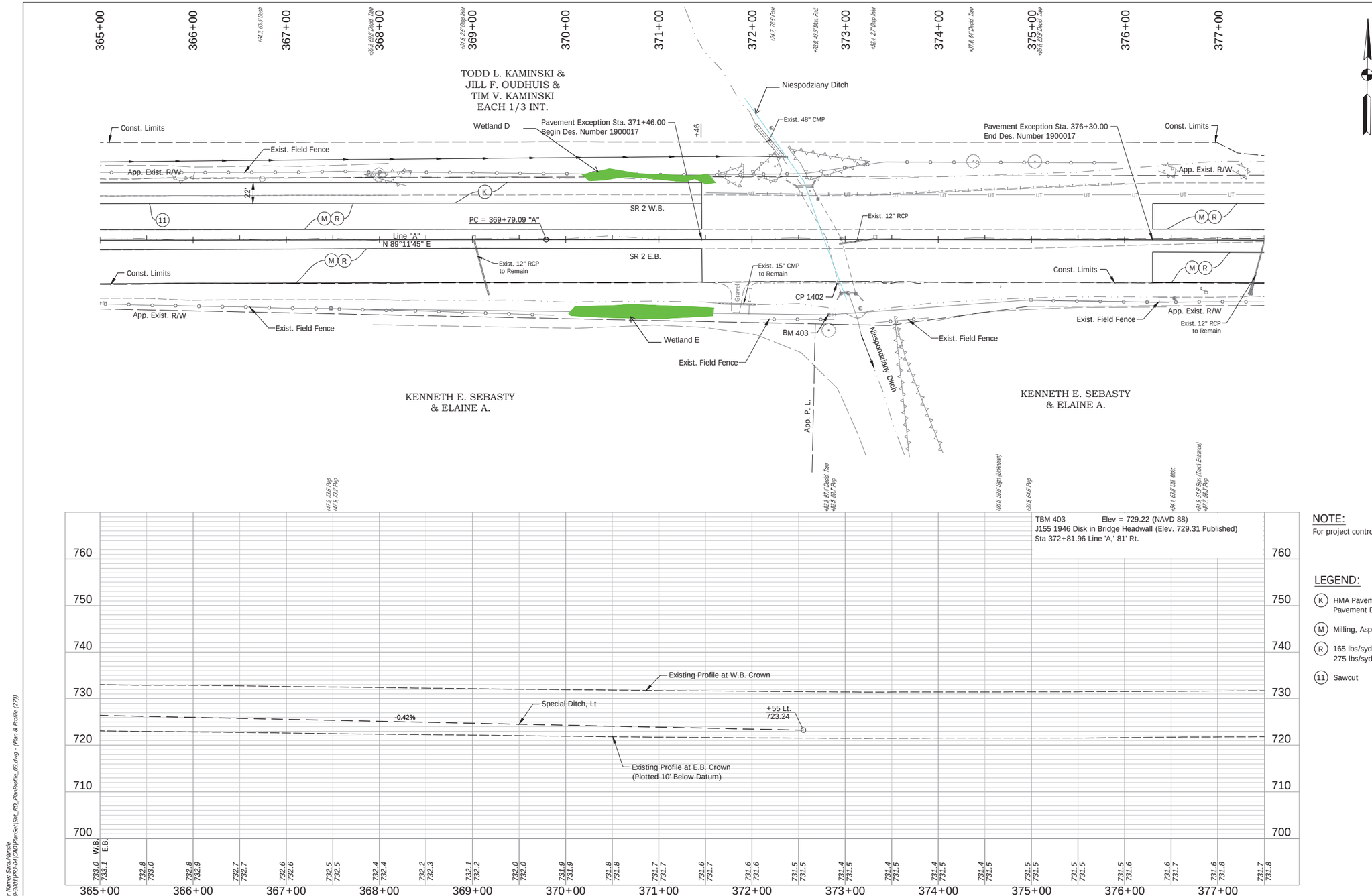
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 352+50 TO STA. 365+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	139 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:33pm User Name: Sara.Munsie
File: X:\production\Files\2020\1200\PRJ-041CAD\PlanSet\Sht_6D_PlanProfile_03.dwg - (Plan & Profile (26))



NOTE:
For project control see Sheet 2.

LEGEND:

- (K) HMA Pavement, Full Depth: Pavement Design still to be Determined
- (M) Milling, Asphalt, 4 in. minimum
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (11) Sawcut

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

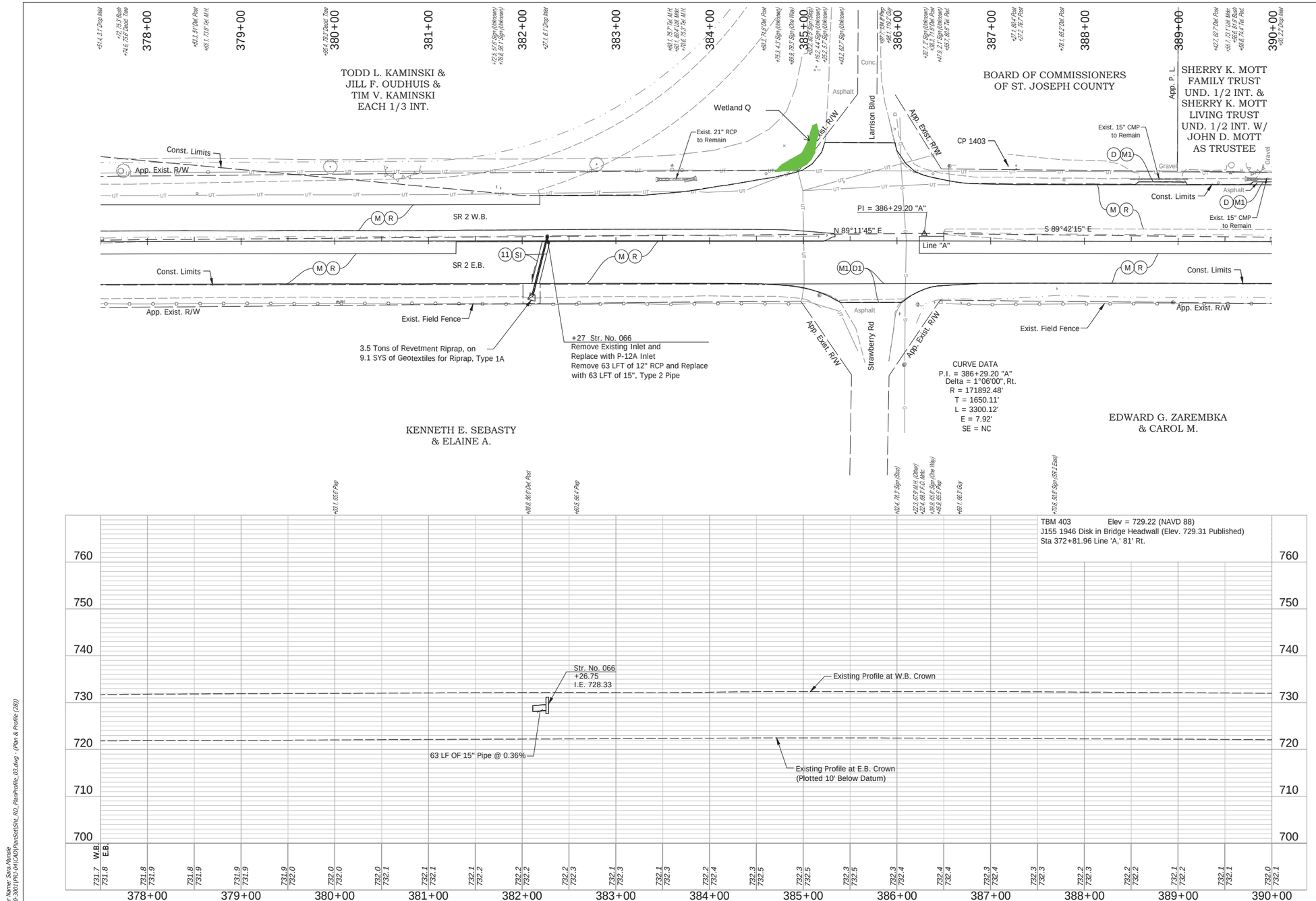
DESIGNED: SFM DRAWN: SFM
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 365+00 TO STA. 377+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177
SURVEY BOOK	SHEET
ELECTRONIC	140 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 1:33pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\P&U-DI\CAD\PlanSet\SR2_RD_PlanProfile_03.dwg (Plan & Profile (2))



NOTE:
For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (D1) HMA for Approaches, Type C, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

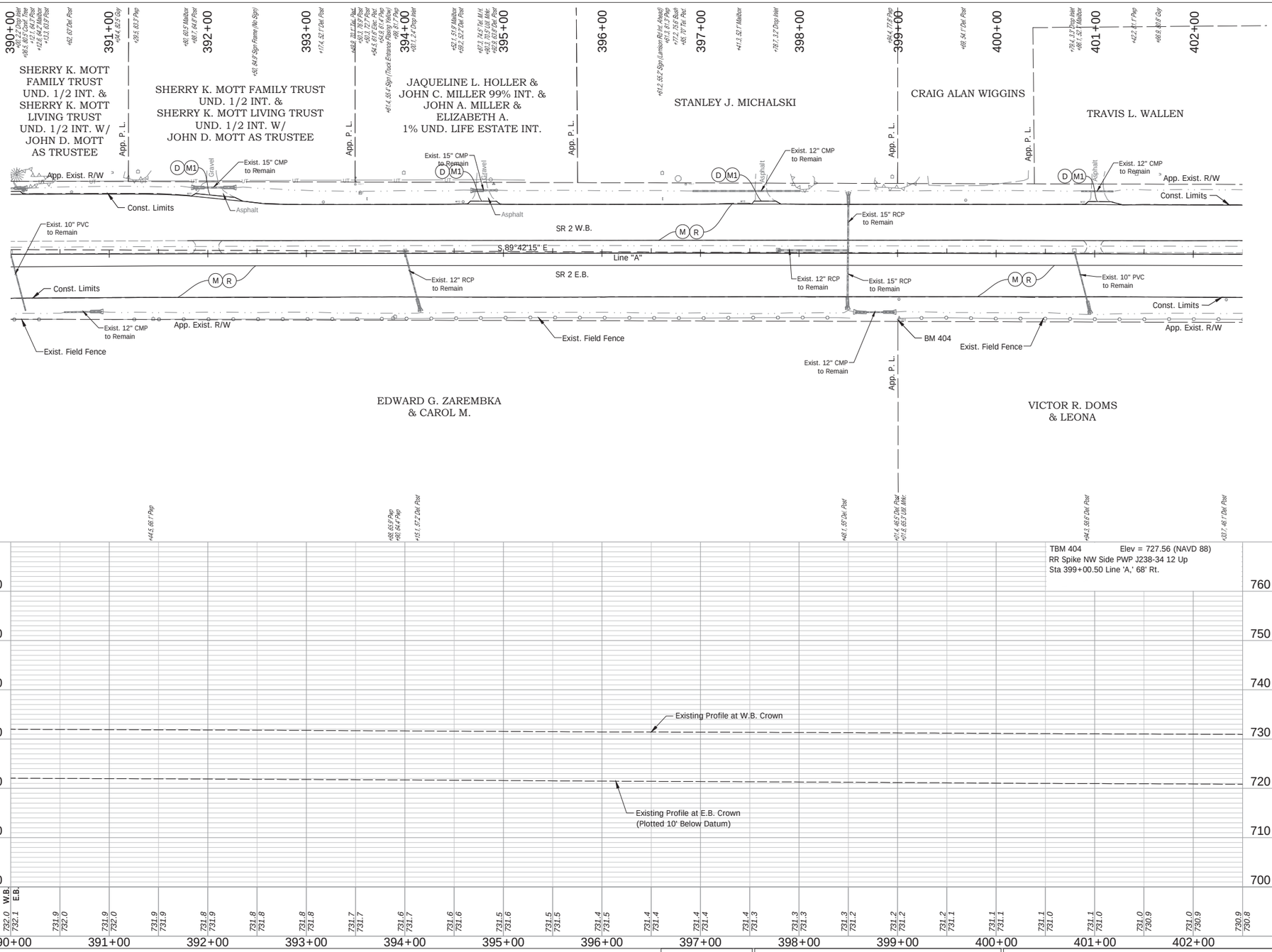
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 377+50 TO STA. 390+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	141 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:34pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\P&D-DH\CAD\PlanSet\SNL_RD_PlanProfile_03.dwg - (Plan & Profile (2))



TBM 404 Elev = 727.56 (NAVD 88)
RR Spike NW Side PWP J238-34 12 Up
Sta 399+00.50 Line 'A,' 68' Rt.

NOTE:
For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM
CHECKED: WBF CHECKED: WBF

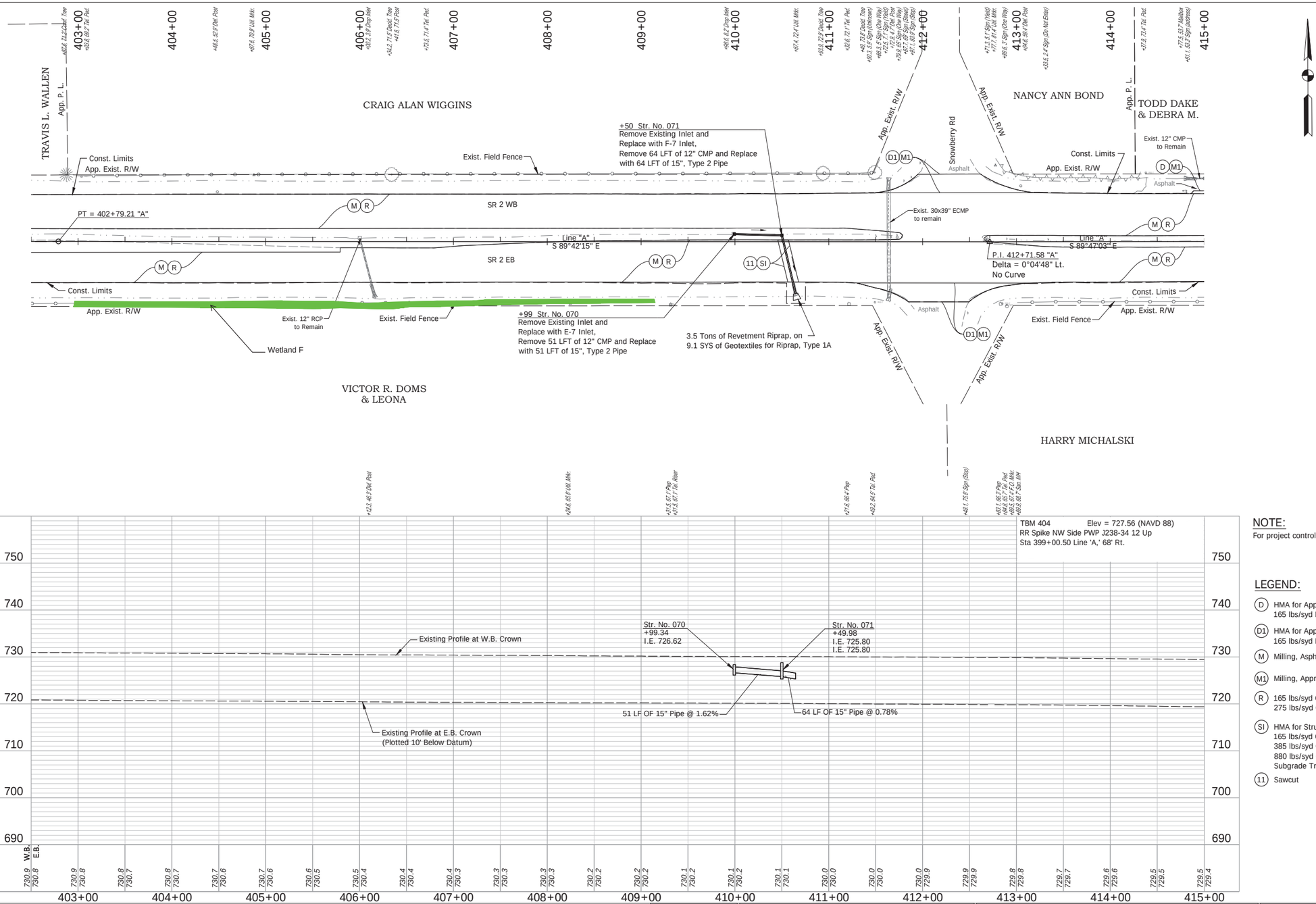
INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 390+00 TO STA. 402+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	142 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:35pm User Name: Sara.Munsie
File: X:\production\Files\2020\1220.3001\PRJ-DHQ\CAD\PlanSet\Sht_6D_PlanProfile_03.dwg - (Plan & Profile (29))



NOTE:
For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (D1) HMA for Approaches, Type C, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM
CHECKED: WBF CHECKED: WBF

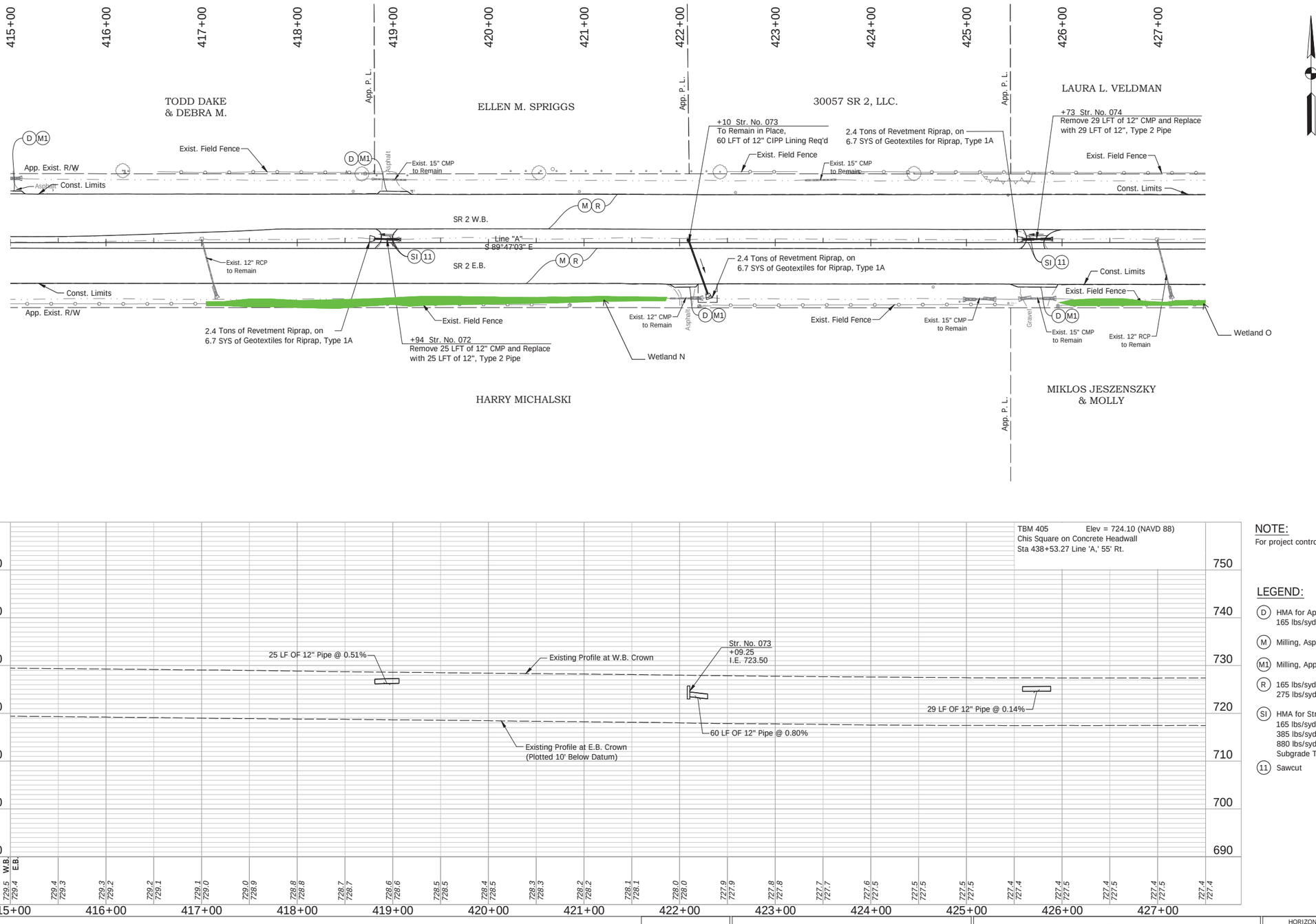
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 402+50 TO STA. 415+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	143 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 26, 2023, 4:35pm User Name: Sara.Nunsie
File: X:\production\Files\2020\1220-3001\PRJ-DH\CAD\PlanSetSht_RD_PlanProfile_03.dwg - (Plan & Profile (3))



NOTE:
For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

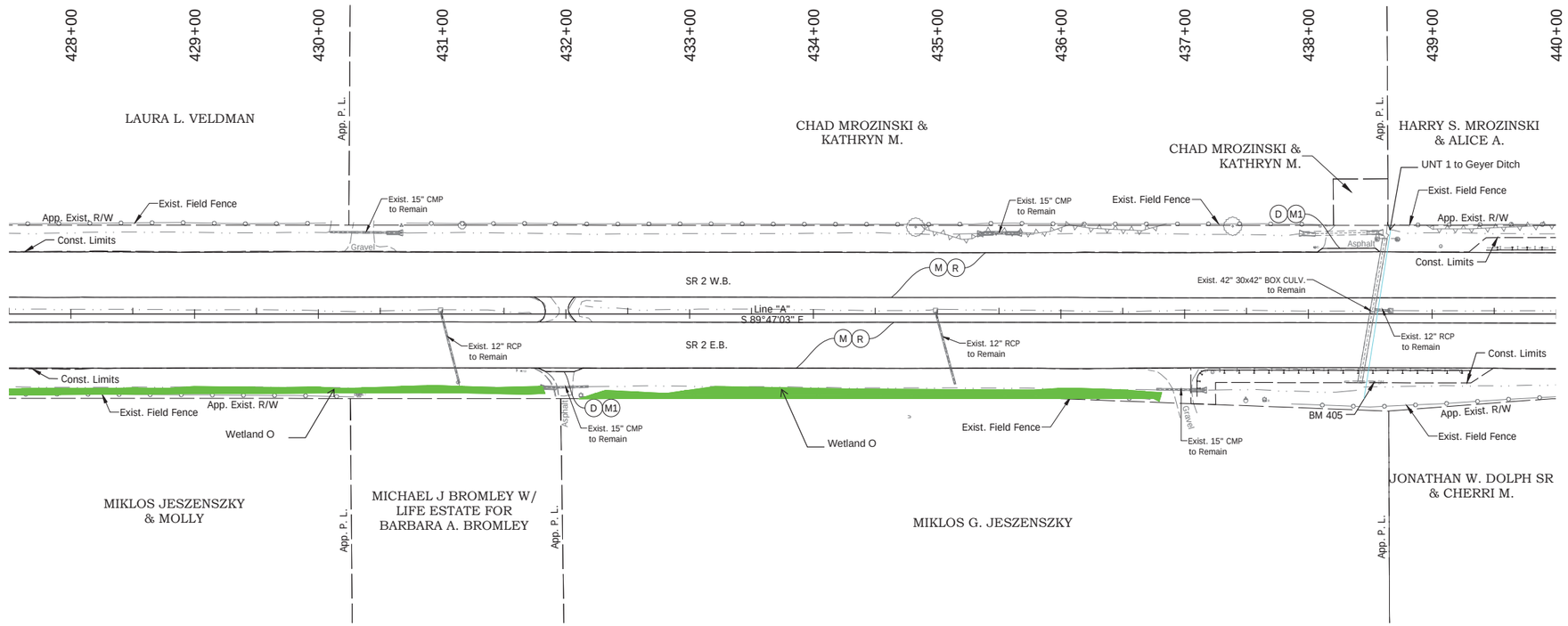
INDIANA
DEPARTMENT OF TRANSPORTATION

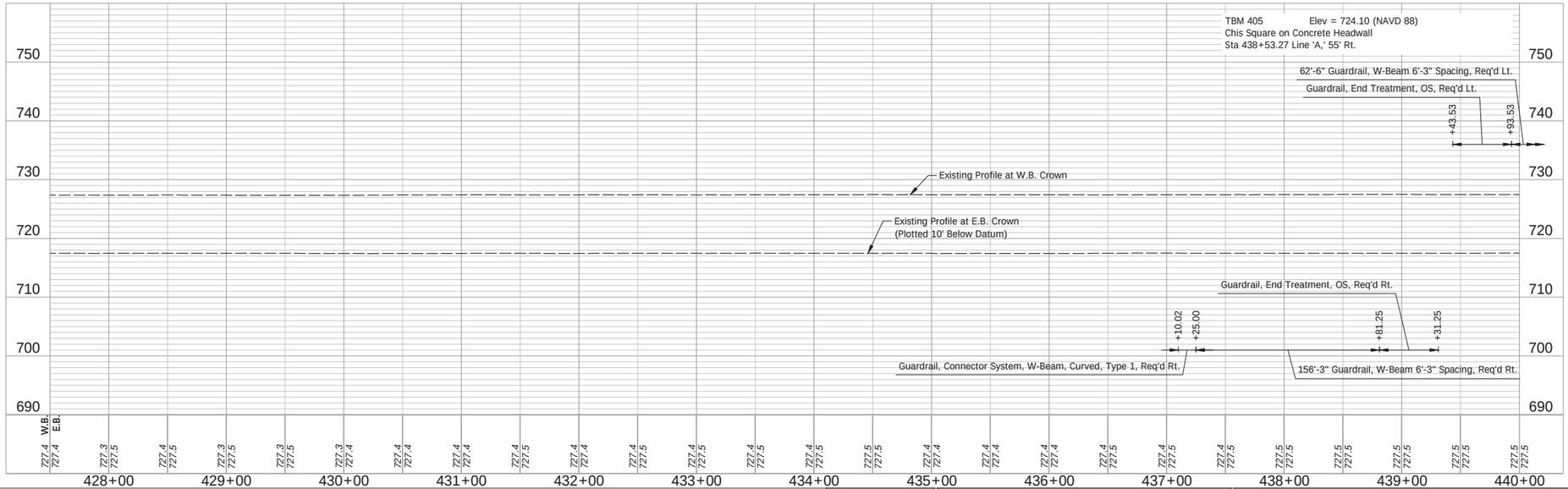
PLAN AND PROFILE - LINE "A"
STA. 415+00 TO STA. 427+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	144 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:36pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\PKI-04\CAD\PlanSet\SNI_6D_PlanProfile_03.dwg - (Plan & Profile (11))





NOTE:
For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM
CHECKED: WBF CHECKED: WBF

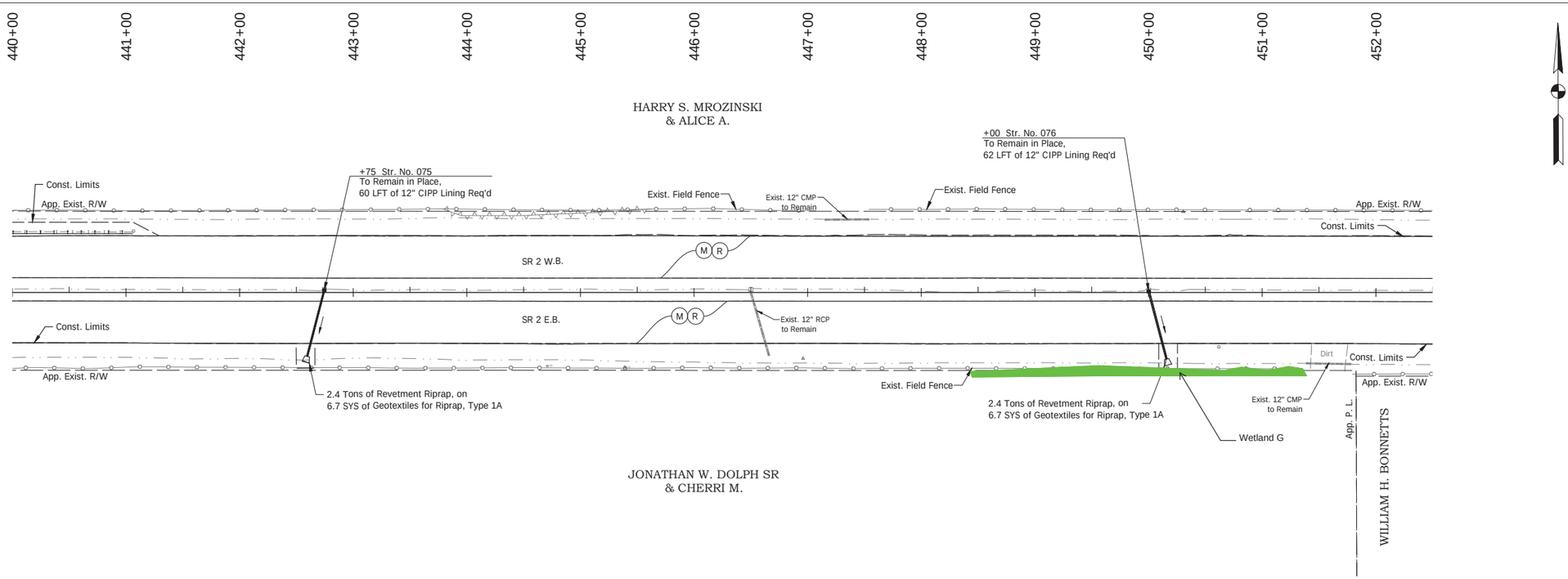
INDIANA
DEPARTMENT OF TRANSPORTATION

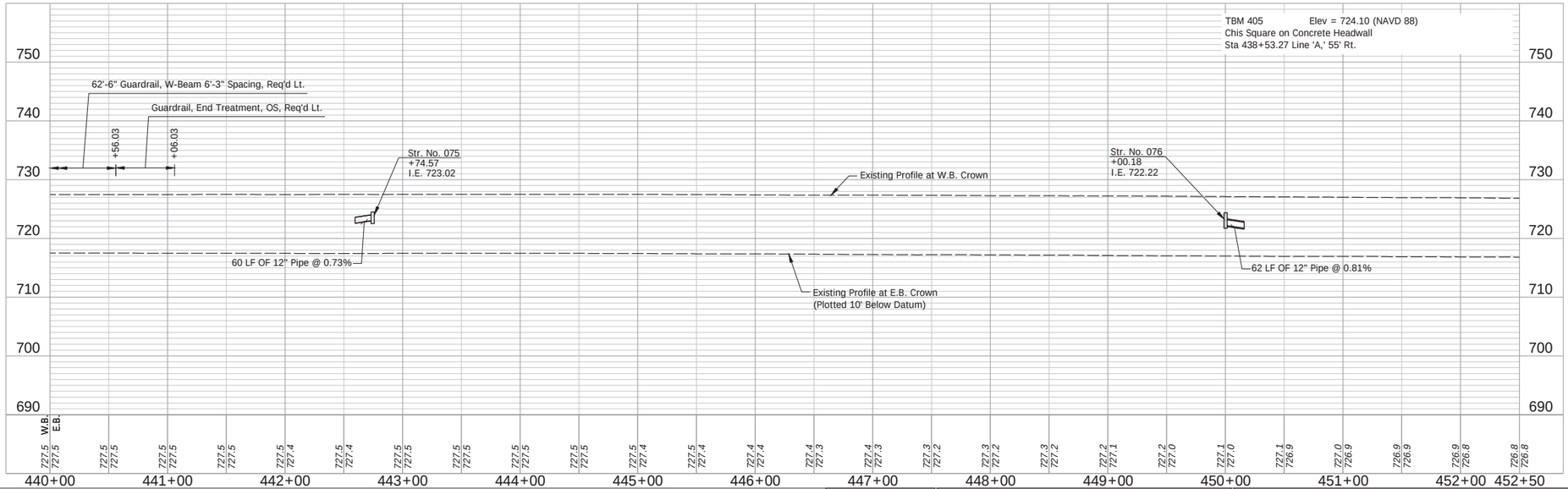
PLAN AND PROFILE - LINE "A"
STA. 427+50 TO STA. 440+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	145 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:36pm User Name: Sara Munsie
File: X:\production\Files\2020\120\300\PRJ-04\CAD\PlanSet\Sht_6D_PlanProfile_03.dwg - (Plan & Profile (2))





NOTE:
For project control see Sheet 2.

LEGEND:

- (M) Milling, Asphalt, 4 in. minimum
- (P) HMA Patching, Full Depth: Pavement Design still to be Determined
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

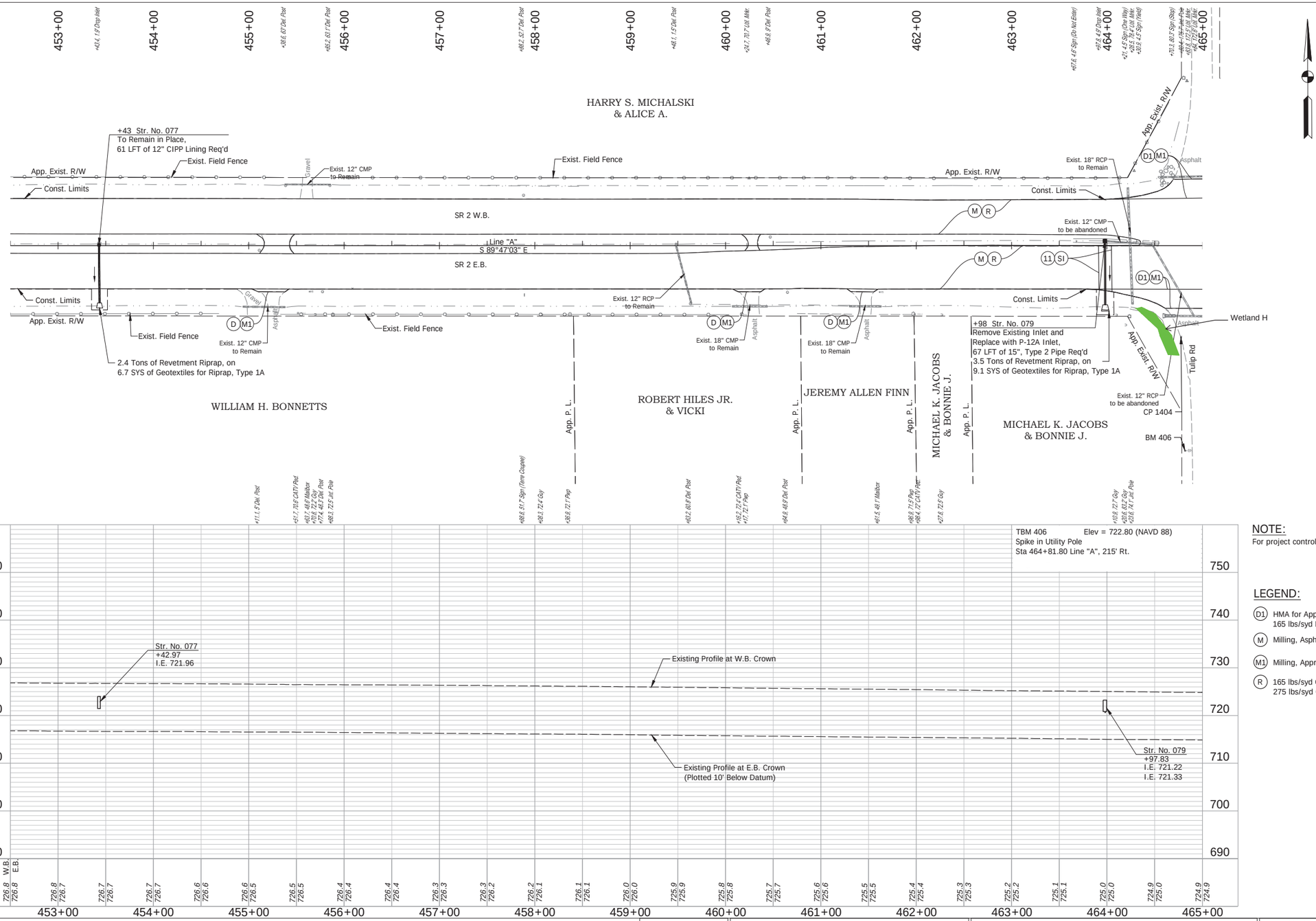
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 440+00 TO STA. 452+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	146 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:36pm User Name: Sara Munsie
File: X:\production\Files\2020\120\300\[HQ-DHCAD]\PlanSet\Sht_6D_PlanProfile_03.dwg - (Plan & Profile (33))



NOTE:
For project control see Sheet 2.

LEGEND:

- (D1) HMA for Approaches, Type C, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

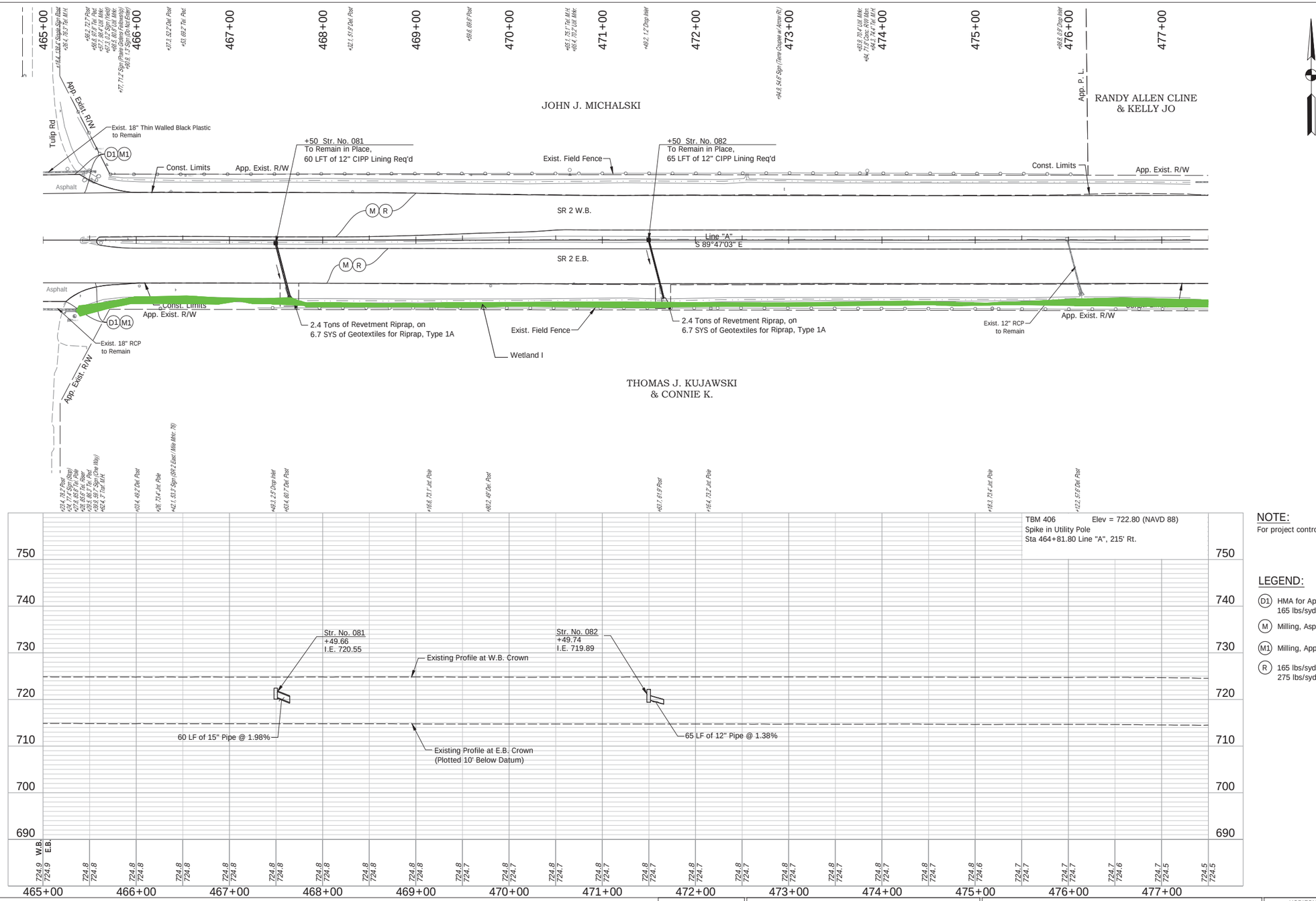
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 452+50 TO STA. 465+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	147 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:38pm User Name: Sara.Munsie
File: X:\production\Files\2020\1200-3001\PRJ-041CAD\PlanSet\Sht_RD_PlanProfile_04.dwg - (Plan & Profile (34))



NOTE:
For project control see Sheet 2.

LEGEND:

- (D1) HMA for Approaches, Type C, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

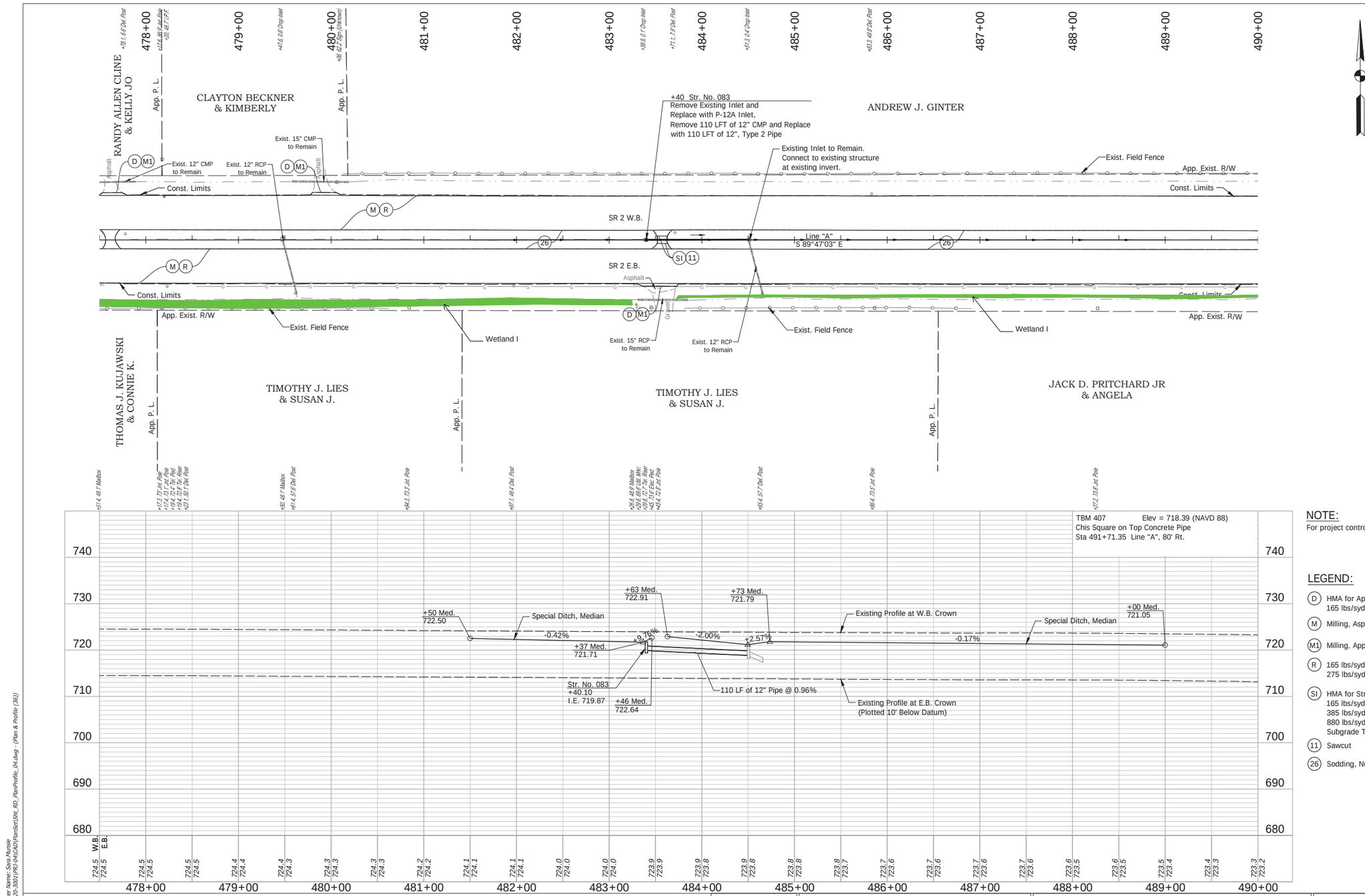
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 465+00 TO STA. 477+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	148 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:39pm User Name: Sara.Nunsie
File: X:\production\Files\2020\1200\3001\HQ-04\CAD\PlanSet\Sht_6D_PlanProfile_04.dwg - (Plan & Profile (35))



NOTE:
For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut
- (26) Sodding, Nursery

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

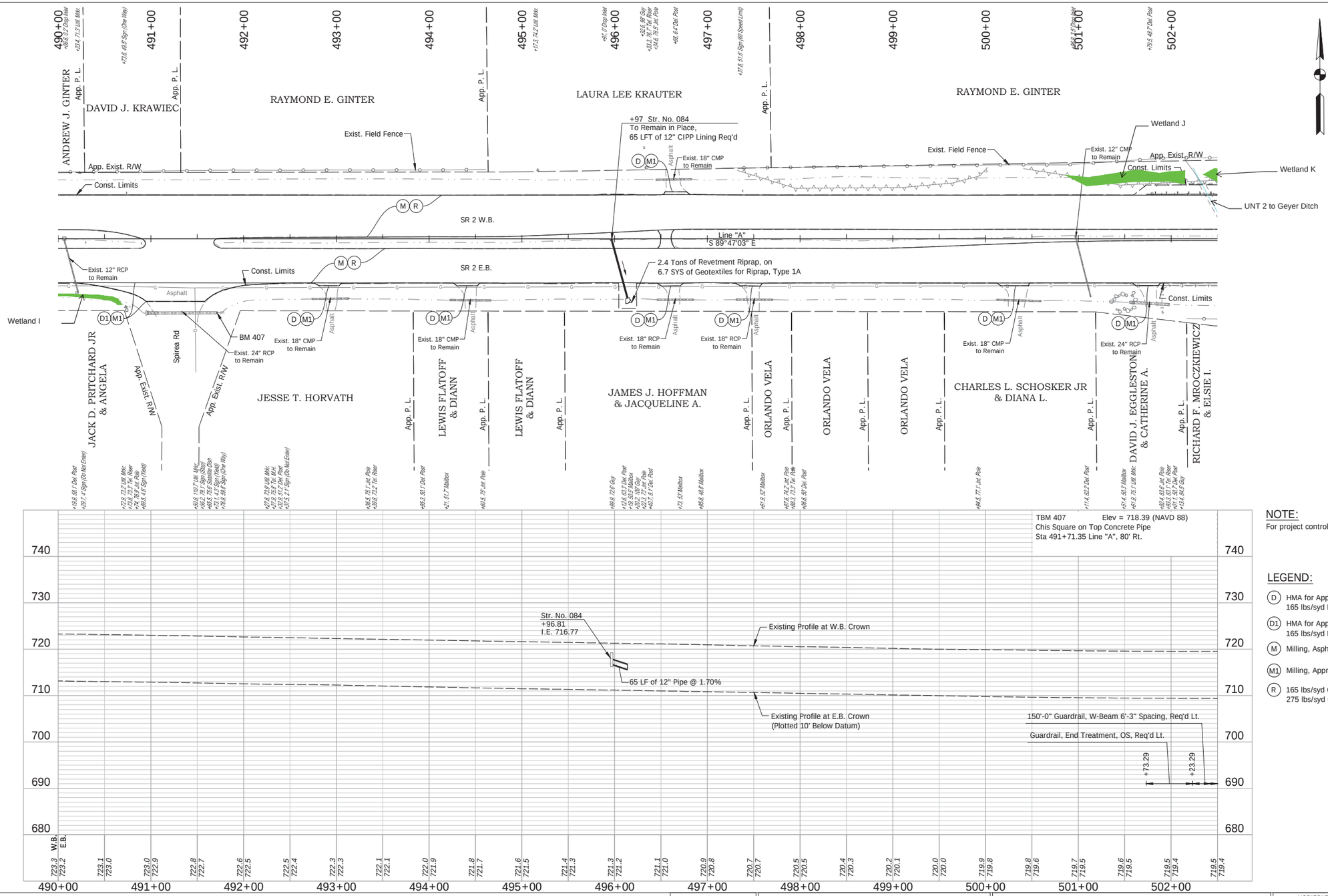
INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 477+50 TO STA. 490+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	149 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:39pm User Name: Sara.Munsie
File: X:\production\Files\2020\1200-3001\PRJ-041CAD\PlanSet\Sht_RD_PlanProfile_04.dwg - (Plan & Profile (36))



NOTE:
For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (D1) HMA for Approaches, Type C, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

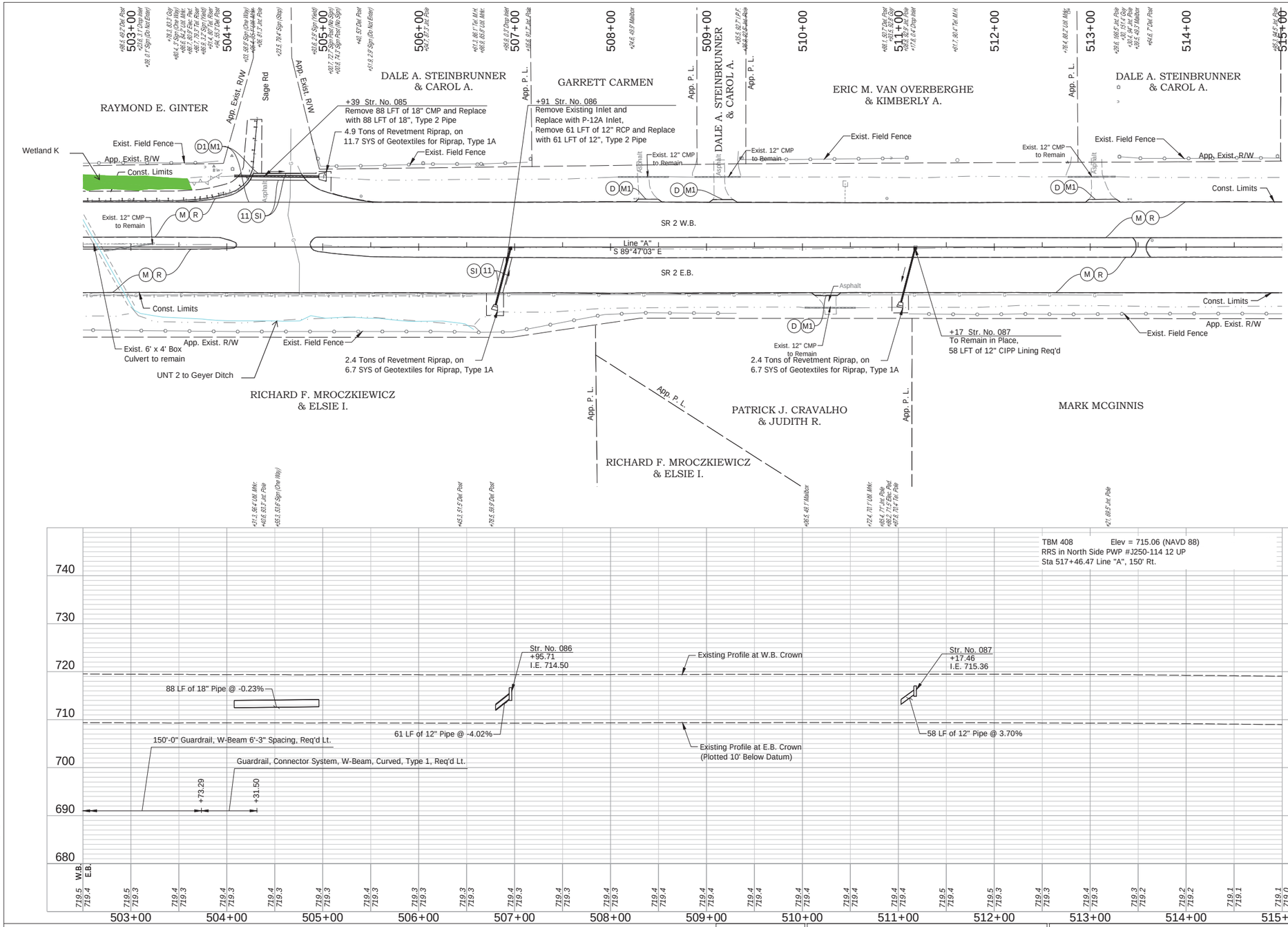
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 490+00 TO STA. 502+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	150 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:40pm User Name: Sara Munsie
File: X:\production\Files\2020\1200-3001\HQ-04\CAD\PlanSet\Sht_6D_PlanProfile_04.dwg - (Plan & Profile (37))



NOTE:
For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (D1) HMA for Approaches, Type C, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

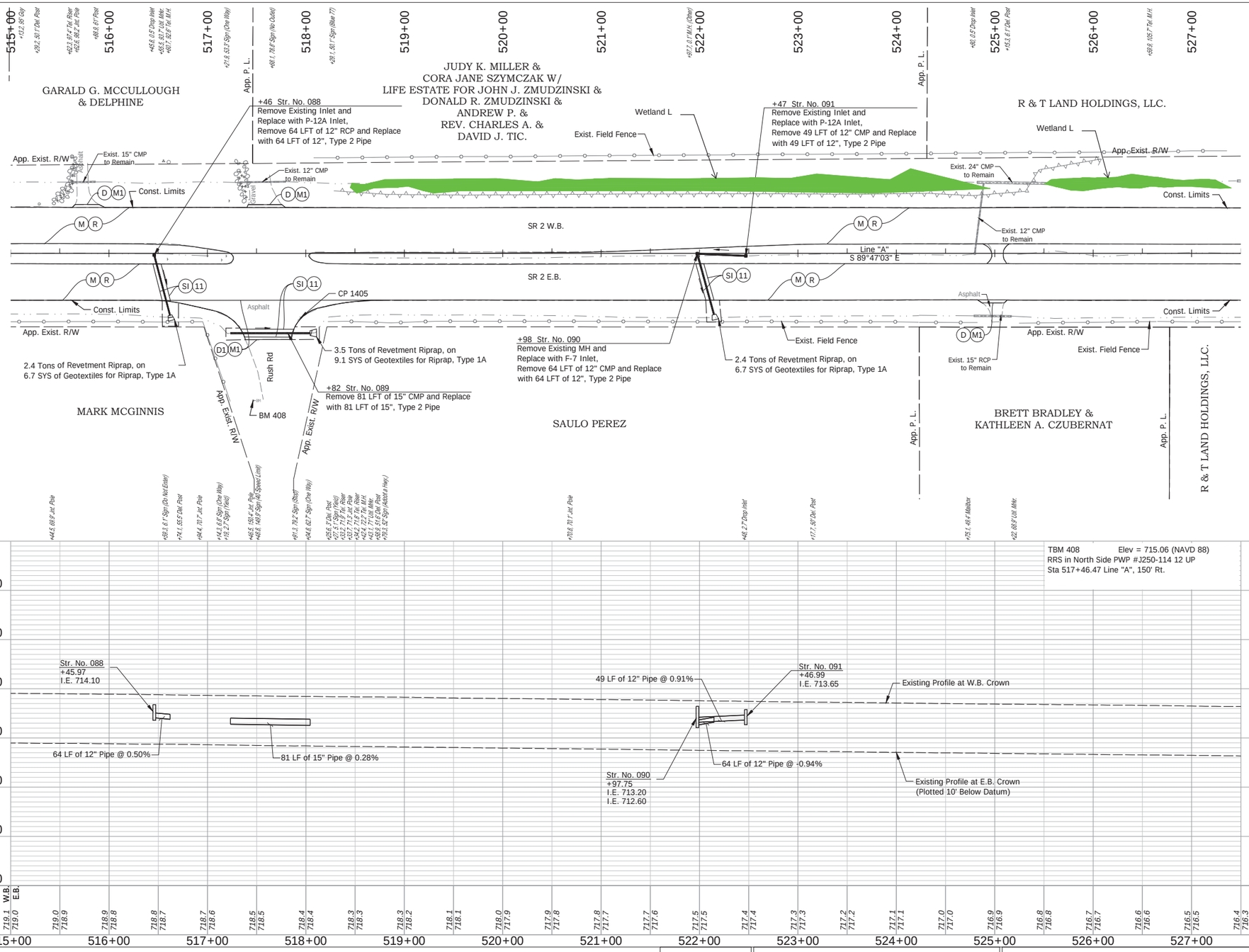
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 502+50 TO STA. 515+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	151 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:40pm User Name: Sara.Munsie
File: X:\production\Files\2020\1200\1900177\HQ-DH\CAD\PlanSet\Sht_6D_PlanProfile_04.dwg - (Plan & Profile (3B))



NOTE:
For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (D1) HMA for Approaches, Type C, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

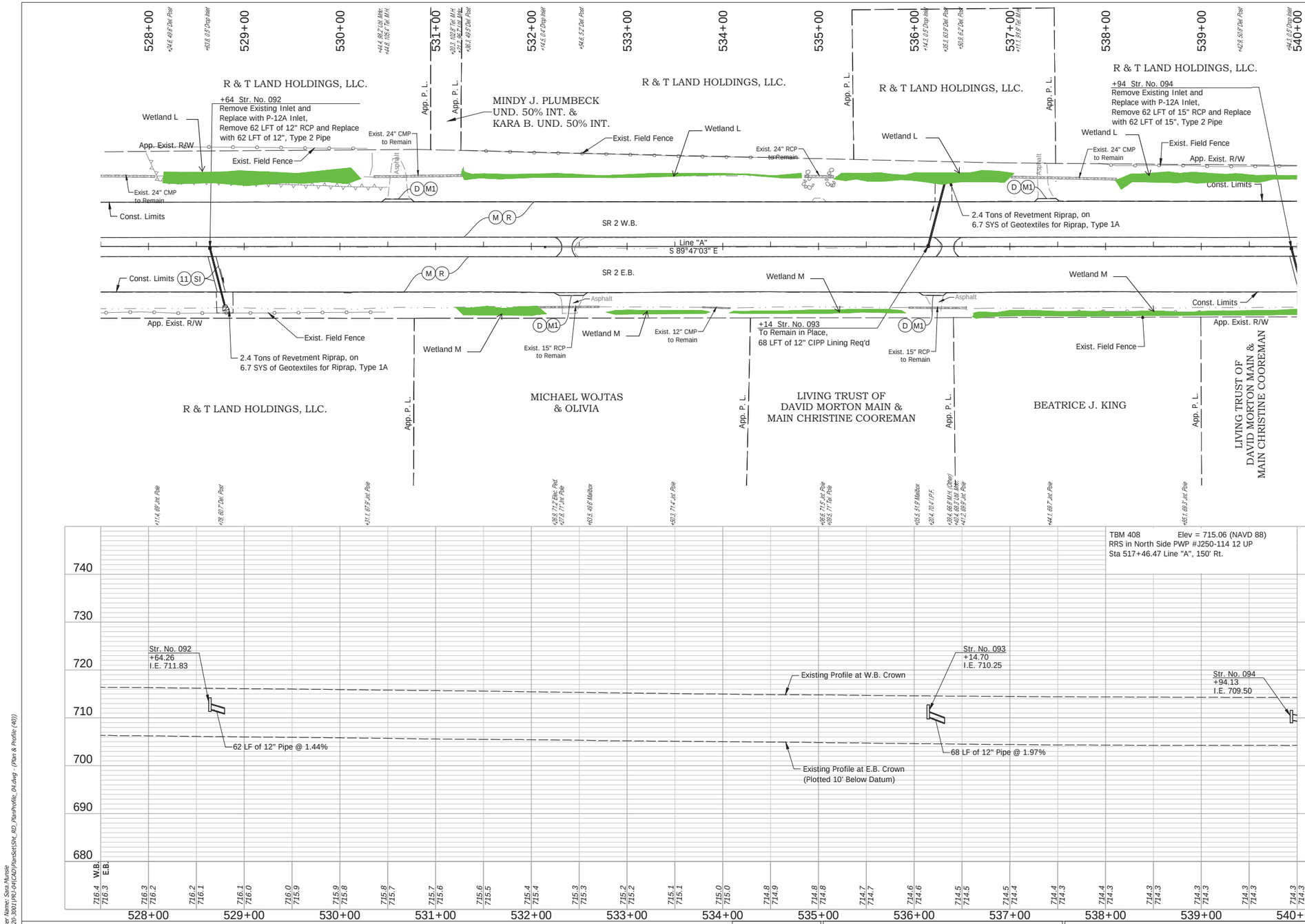
INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 515+00 TO STA. 527+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	152 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:41pm User Name: Sara.Nunsie
File: X:\production\Files\2020\1200\1901\HQ-04\CAD\PlanSet\Sht_6D_PlanProfile_04.dwg - (Plan & Profile (39))



NOTE:
For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

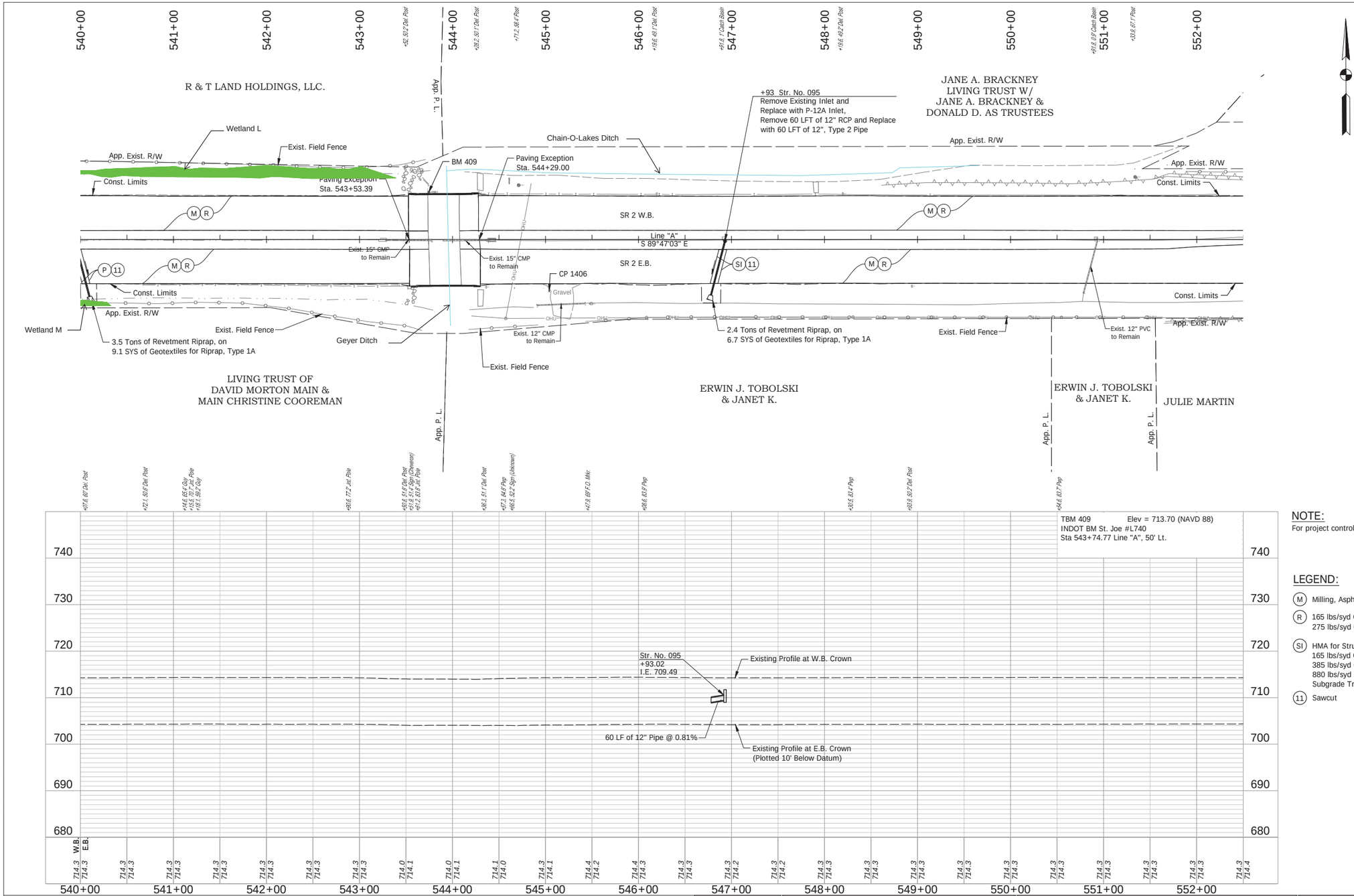
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 527+50 TO STA. 540+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	153 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:41pm User Name: Sara.Munsie
File: X:\production\Files\2020\1203001\RD-04\CAD\PlanSet\Sht_RD_PlanProfile_04.dwg - (Plan & Profile (40))



NOTE:
For project control see Sheet 2.

LEGEND:

- (M) Milling, Asphalt, 4 in. minimum
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM
CHECKED: WBF CHECKED: WBF

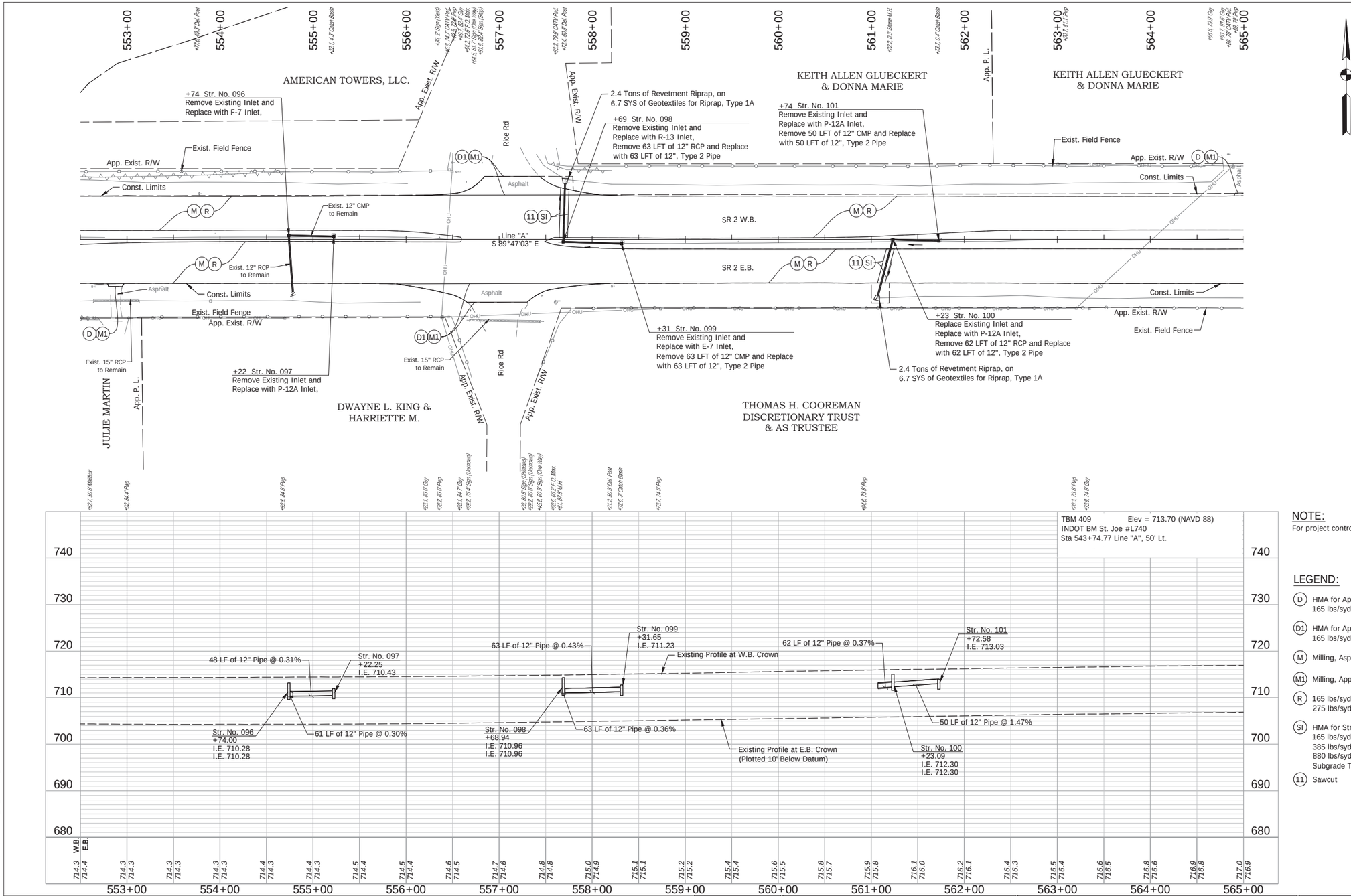
INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 540+00 TO STA. 552+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	154 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 1:42pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\P&D-DHCAD\PlanSet\Sht_RD_PlanProfile_04.dwg (Plan & Profile (41))



NOTE:
For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (D1) HMA for Approaches, Type C, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

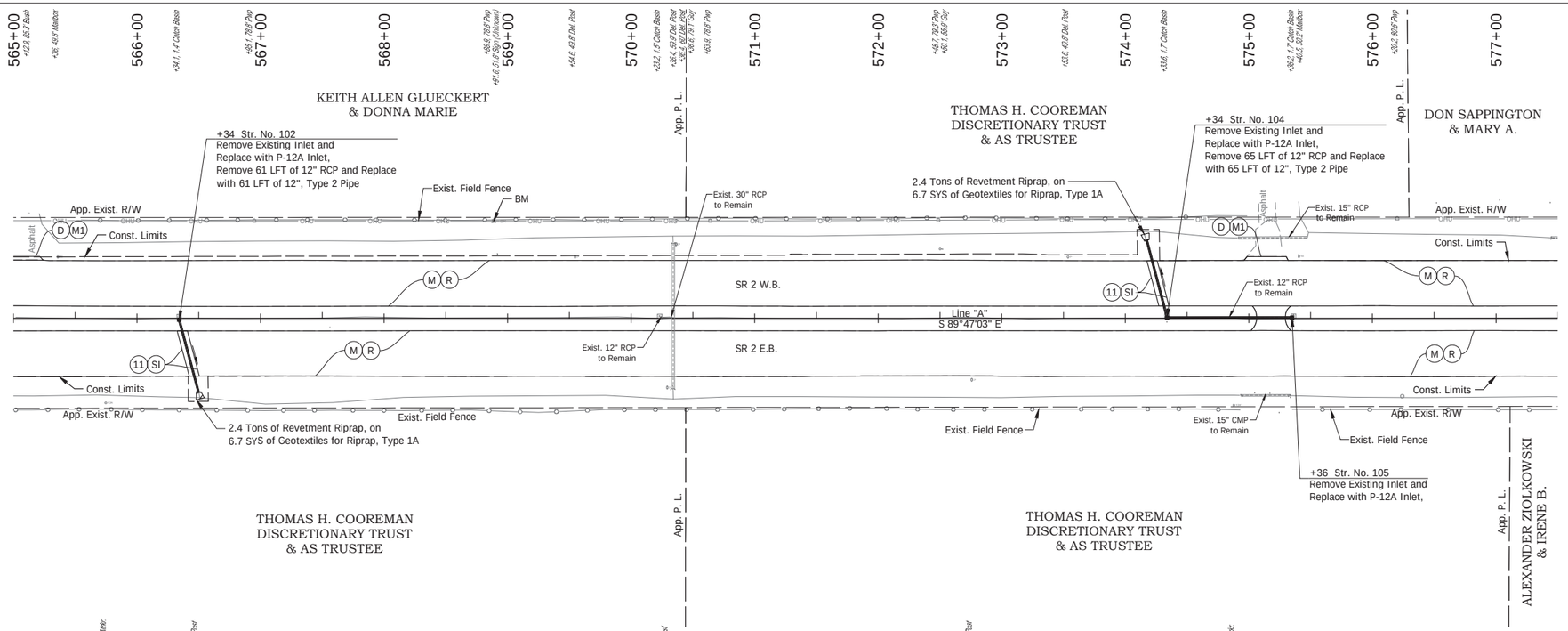
INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 552+50 TO STA. 565+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	155 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:42pm User Name: Sara.Munsie
File: X:\production\Files\2020\1900177\PRJ-04\CAD\PlanSet\Sht_RD_PlanProfile_04.dwg - (Plan & Profile (42))



NOTE:
For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

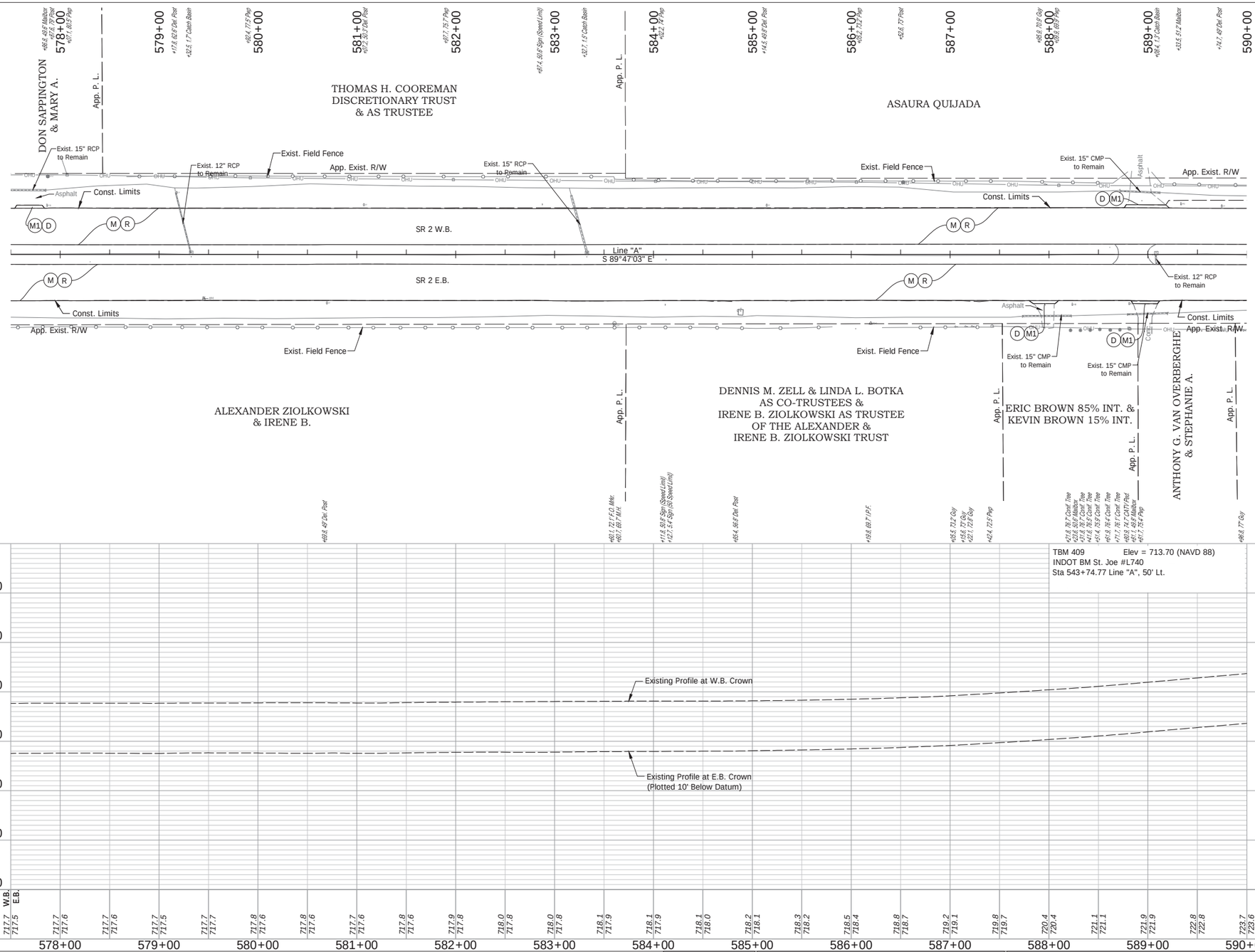
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 565+00 TO STA. 577+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	156 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 1:13pm User Name: Sara.Nunsie
File: X:\production\Files\2020\1200\1901\HQ-04\CAD\PlanSet\Sht_6D_PlanProfile_04.dwg - (Plan & Profile (43))



NOTE:
For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM
CHECKED: WBF CHECKED: WBF

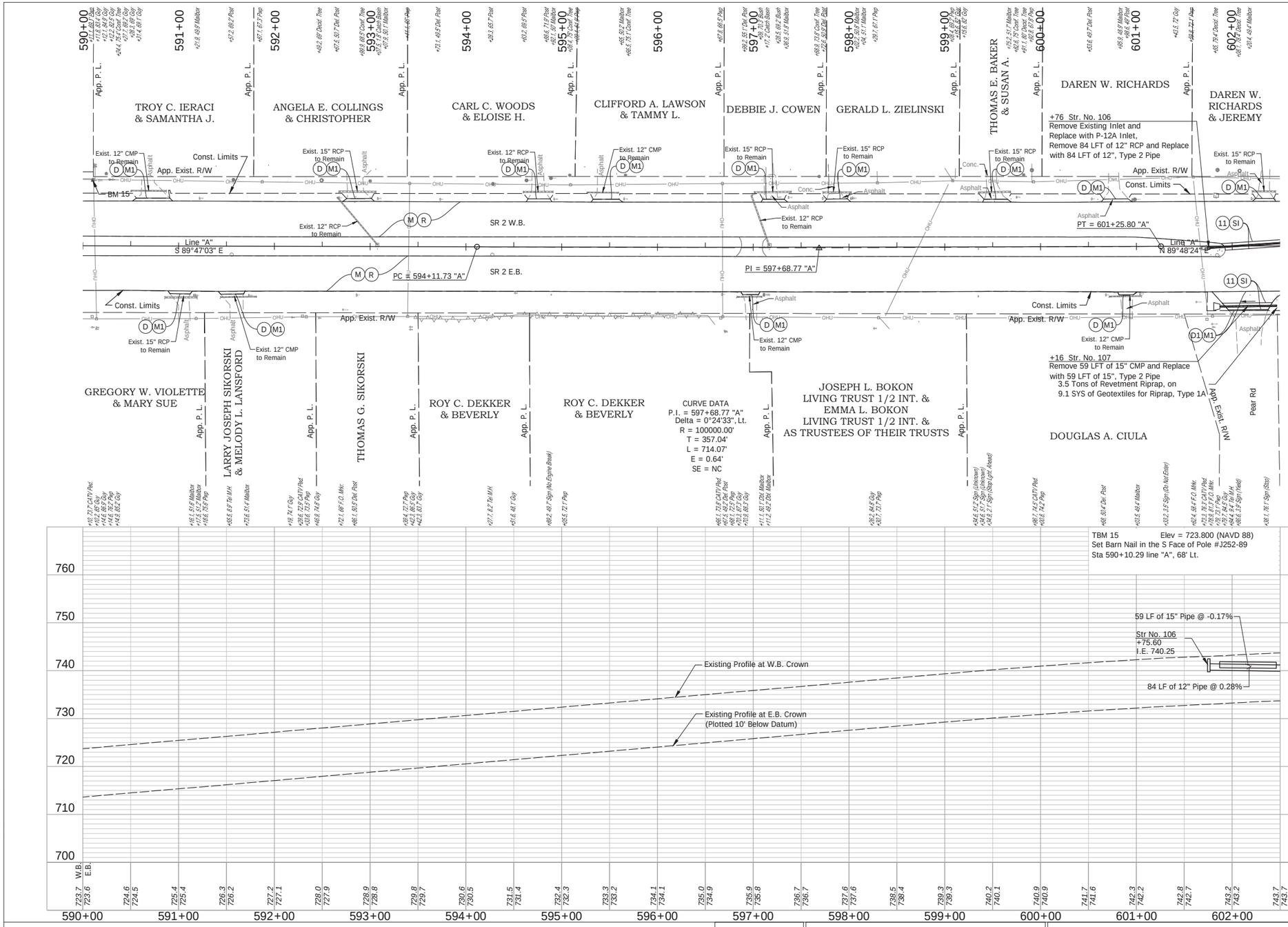
INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 577+50 TO STA. 590+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	157 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 1:44pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\P&U-DI\CAD\PlanSet\SR2_RD_PlanProfile_04.dwg (Plan & Profile (1of))



NOTE:
For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (D1) HMA for Approaches, Type C, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

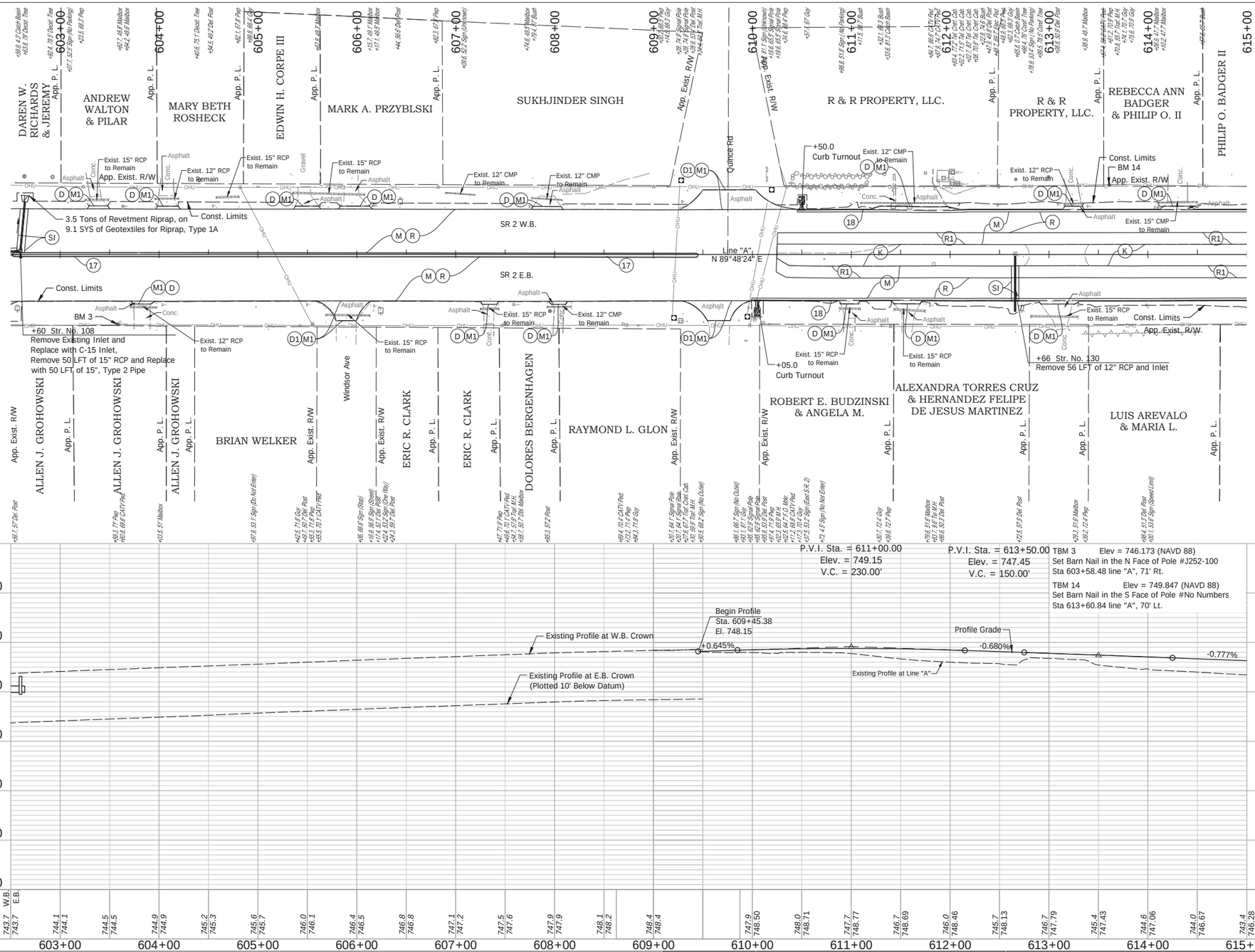
INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 590+00 TO STA. 602+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	158 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:46pm User Name: Sara Nunsie
File: X:\production\Files\2020\1900177\DJ-01\CAD\PlanSet\Sht_RD_PlanProfile_05.dwg - (Plan & Profile (45))



TBM 3 Elev = 746.173 (NAVD 88)
Set Barn Nail in the N Face of Pole #J252-100
Sta 603+58.48 line "A", 71' Rt.

TBM 14 Elev = 749.847 (NAVD 88)
Set Barn Nail in the S Face of Pole #No Numbers
Sta 613+60.84 line "A", 70' Lt.

NOTE:
For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (D1) HMA for Approaches, Type C, to be 165 lbs/syd HMA Surface, 9.5 mm
- (K) HMA Pavement, Full Depth: Pavement Design still to be Determined
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (R1) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on Variable Depth QC/QA-HMA, 3, 64, Intermediate, 19.0 mm (2.5 in. minimum)
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut
- (17) Concrete Center Curb, Type B
- (18) Combined Concrete Curb and Gutter, Type B

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

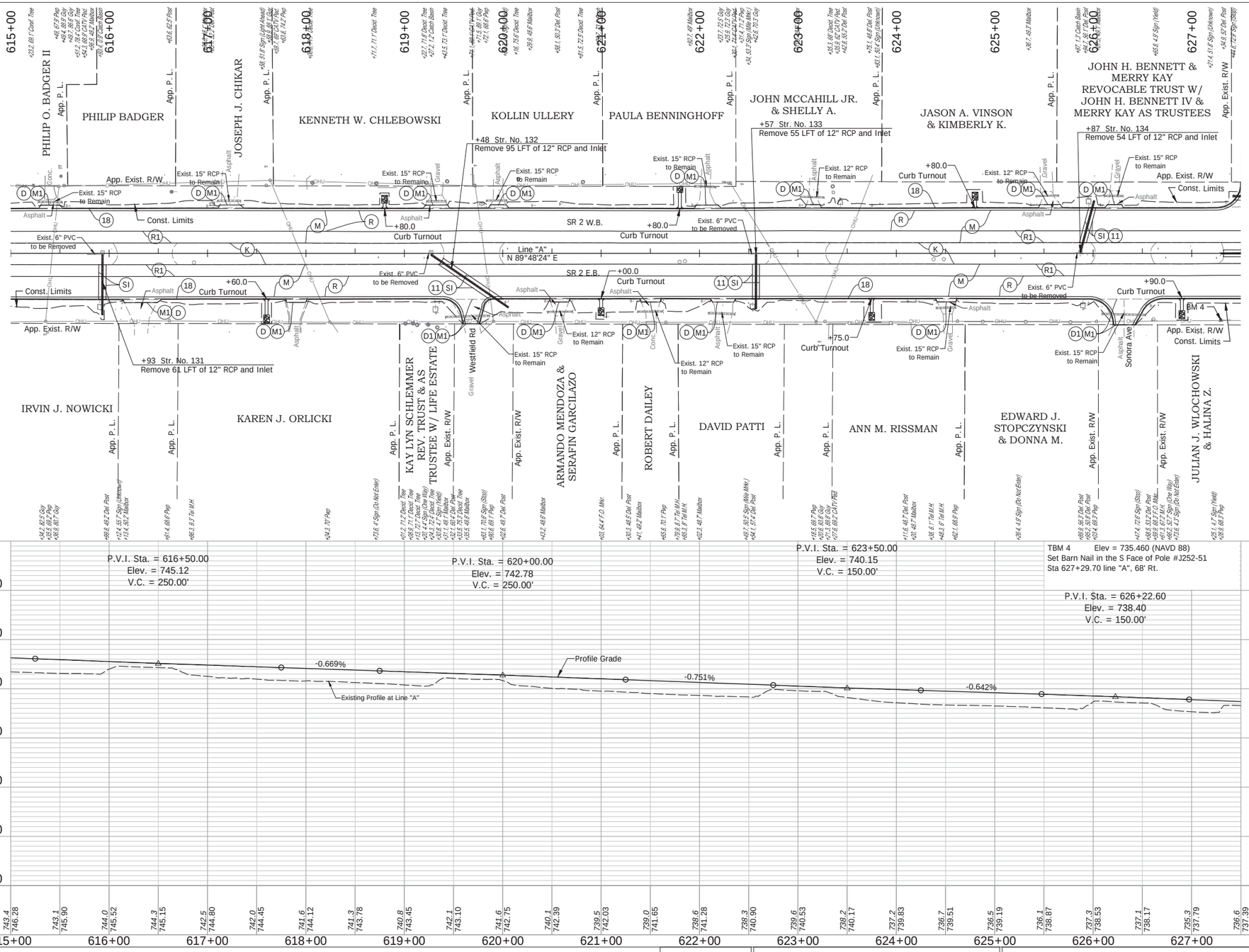
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 602+50 TO STA. 615+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	159 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:46pm User Name: Sara.Munsie
File: X:\production\Files\2020\1200\1900177\04\CAD\PlanSet\Sht_RD_PlanProfile_05.dwg - (Plan & Profile (46))



TBM 4 Elev = 735.460 (NAVD 88)
Set Barn Nail in the S Face of Pole #J252-51
Sta 627+29.70 line "A", 68' Rt.

NOTE:
For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (D1) HMA for Approaches, Type C, to be 165 lbs/syd HMA Surface, 9.5 mm
- (K) HMA Pavement, Full Depth: Pavement Design still to be Determined
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (R1) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on Variable Depth QC/QA-HMA, 3, 64, Intermediate, 19.0 mm (2.5 in. minimum)
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut
- (18) Combined Concrete Curb and Gutter, Type B

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

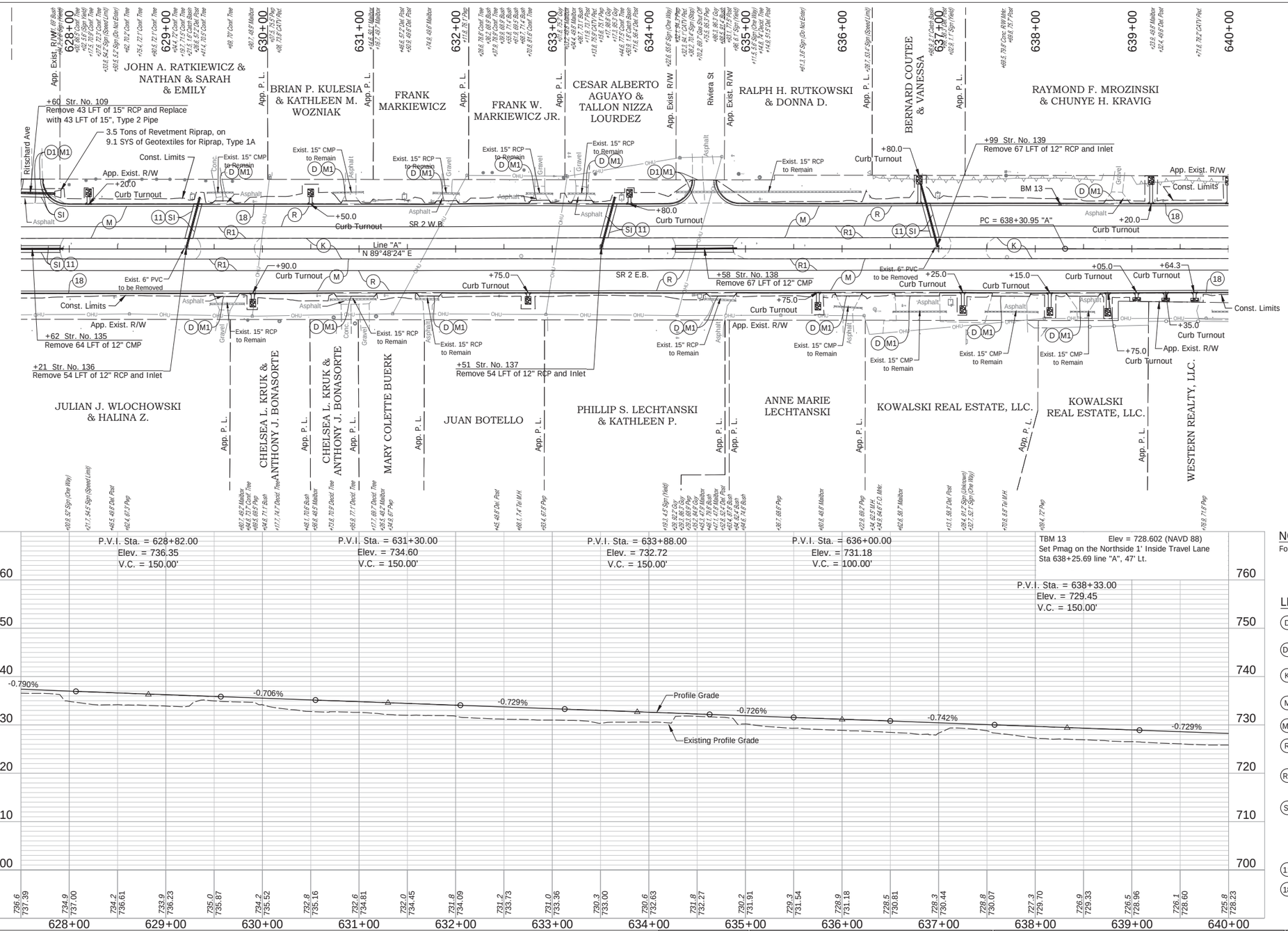
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 615+00 TO STA. 627+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	160 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:47pm User Name: Sara.Munsie
File: X:\production\Files\2020\1200\1901\HQ-04\CAD\PlanSet\Sht_RD_PlanProfile_05.dwg - (Plan & Profile (4f))



TBM 13 Elev = 728.602 (NAVD 88)
Set Pmag on the Northside 1' Inside Travel Lane
Sta 638+25.69 line "A", 47' Lt.

NOTE:
For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (D1) HMA for Approaches, Type C, to be 165 lbs/syd HMA Surface, 9.5 mm
- (K) HMA Pavement, Full Depth: Pavement Design still to be Determined
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (R1) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on Variable Depth QC/QA-HMA, 3, 64, Intermediate, 19.0 mm (2.5 in. minimum)
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut
- (18) Combined Concrete Curb and Gutter, Type B

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

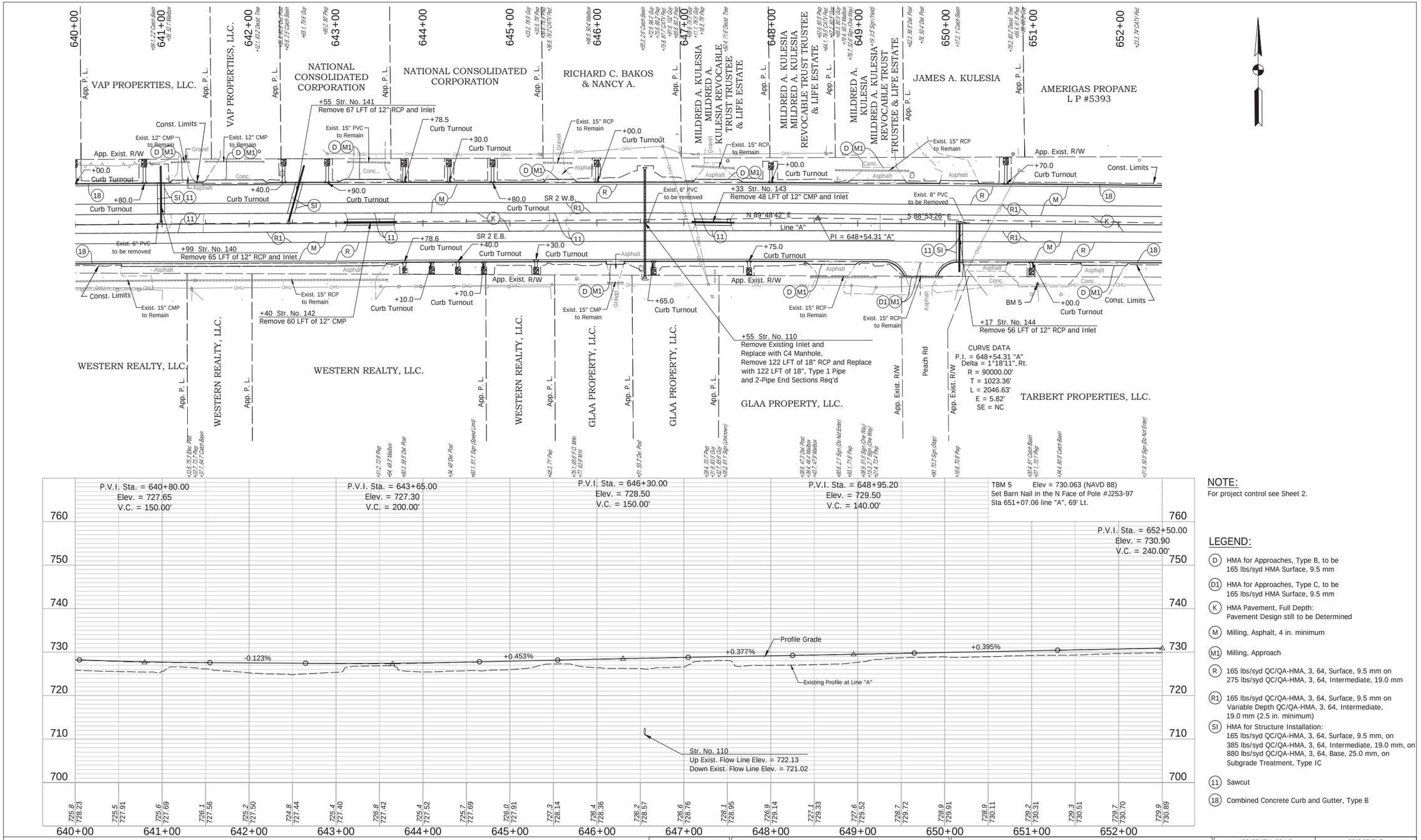
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 627+50 TO STA. 640+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	161 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:48pm User Name: Sara.Munsie
File: X:\production\Files\2020\1200-3001\PRJ-041CAD\PlanSet\Sht_RD_PlanProfile_05.dwg - (Plan & Profile (48))



TBM 5 Elev = 730.063 (NAVD 88)
Set Barn Nail in the N Face of Pole #J253-97
Sta 651+07.06 line "A", 69' Lt.

NOTE:
For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (D1) HMA for Approaches, Type C, to be 165 lbs/syd HMA Surface, 9.5 mm
- (K) HMA Pavement, Full Depth: Pavement Design still to be Determined
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (R1) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on Variable Depth QC/QA-HMA, 3, 64, Intermediate, 19.0 mm (2.5 in. minimum)
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut
- (18) Combined Concrete Curb and Gutter, Type B

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM
CHECKED: WBF CHECKED: WBF

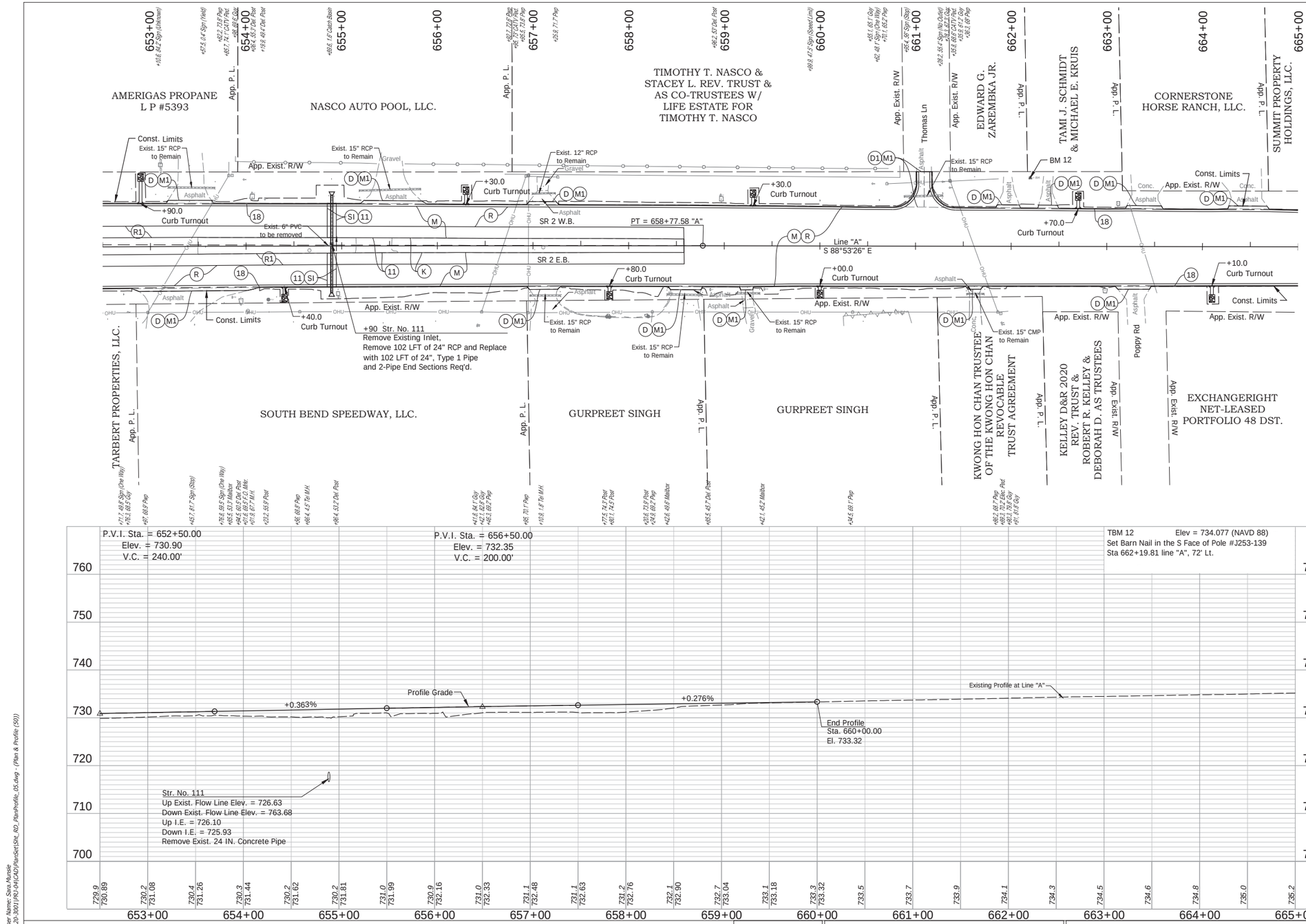
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 640+00 TO STA. 652+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	162 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:49pm User Name: Sara Munsie
File: X:\production\Files\2020\1200.3001\PRJ-04\CAD\PlanSet\Sht_RD_PlanProfile_05.dwg - (Plan & Profile (49))



NOTE:

For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (D1) HMA for Approaches, Type C, to be 165 lbs/syd HMA Surface, 9.5 mm
- (K) HMA Pavement, Full Depth: Pavement Design still to be Determined
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (R1) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on Variable Depth QC/QA-HMA, 3, 64, Intermediate, 19.0 mm (2.5 in. minimum)
- (SI) HMA for Structure Installation: 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on 385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on Subgrade Treatment, Type IC
- (11) Sawcut
- (18) Combined Concrete Curb and Gutter, Type B

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM
CHECKED: WBF CHECKED: WBF

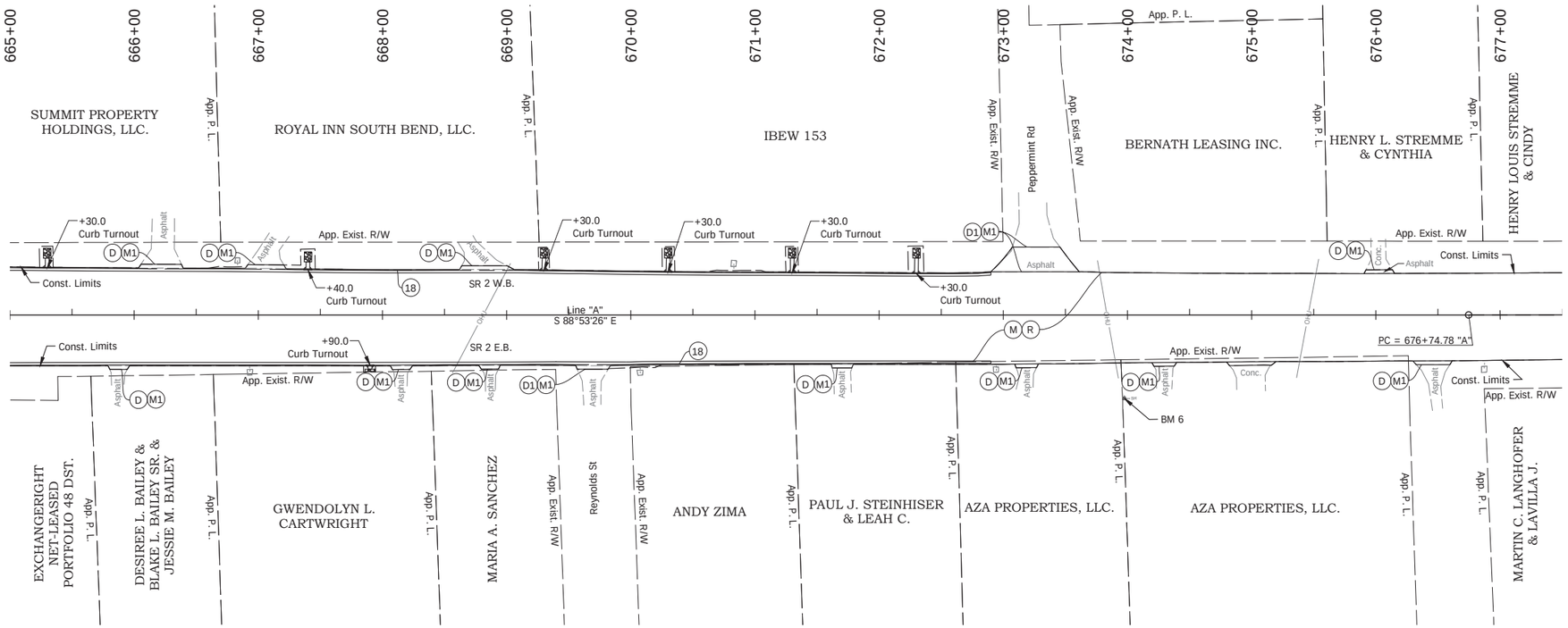
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 652+50 TO STA. 665+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	163 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:49pm User Name: Sara.Munsie
File: X:\production\Files\2020\1200-3001\PRJ-04\CAD\PlanSet\Sht_RD_PlanProfile_05.dwg - (Plan & Profile (SD))



NOTE:
For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (D1) HMA for Approaches, Type C, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (18) Combined Concrete Curb and Gutter, Type B

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

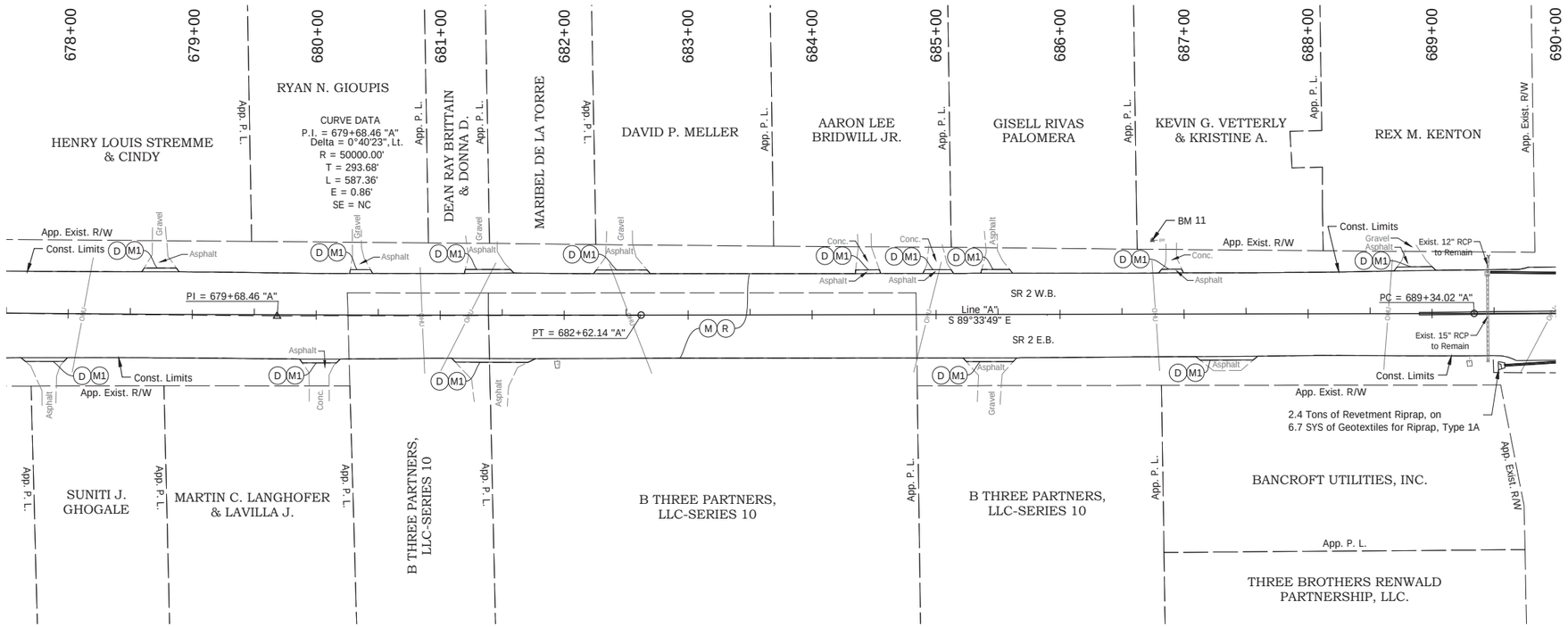
INDIANA
DEPARTMENT OF TRANSPORTATION

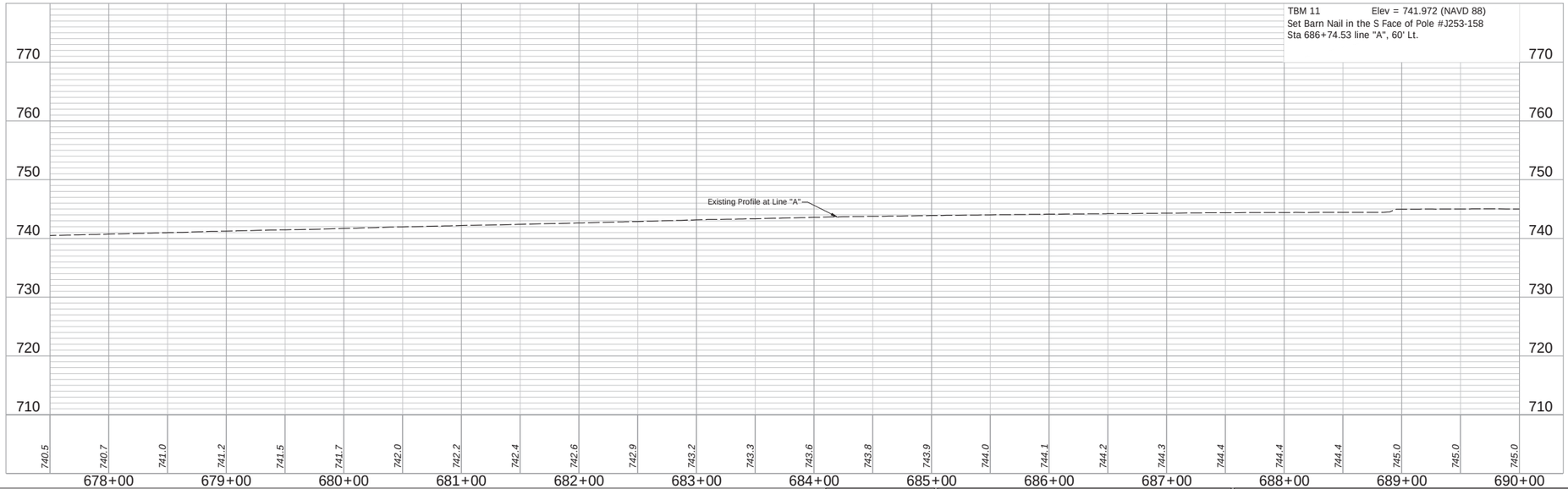
PLAN AND PROFILE - LINE "A"
STA. 665+00 TO STA. 677+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	164 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:52pm User Name: Sara Munsie
File: X:\production\Files\2020\120\300\1[H]-04[CAD]\PlanSet\Sht_6D_PlanProfile_05.dwg - (Plan & Profile (51))





NOTE:
For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

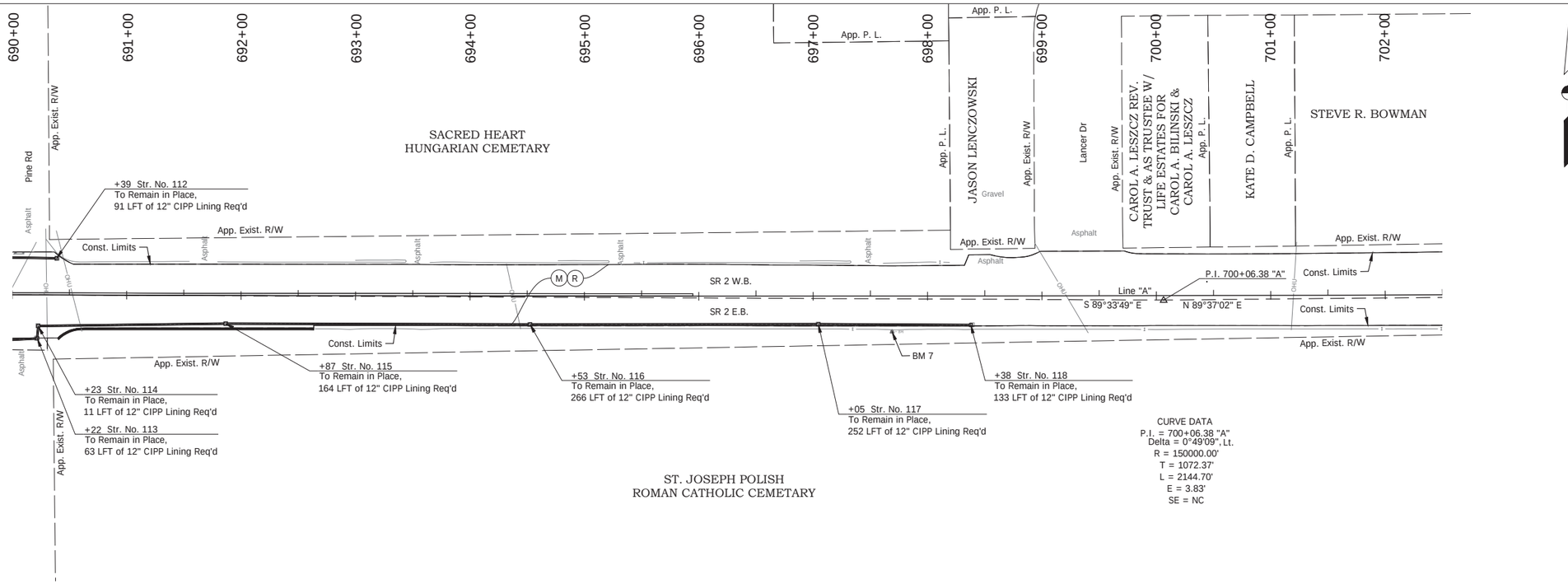
INDIANA DEPARTMENT OF TRANSPORTATION

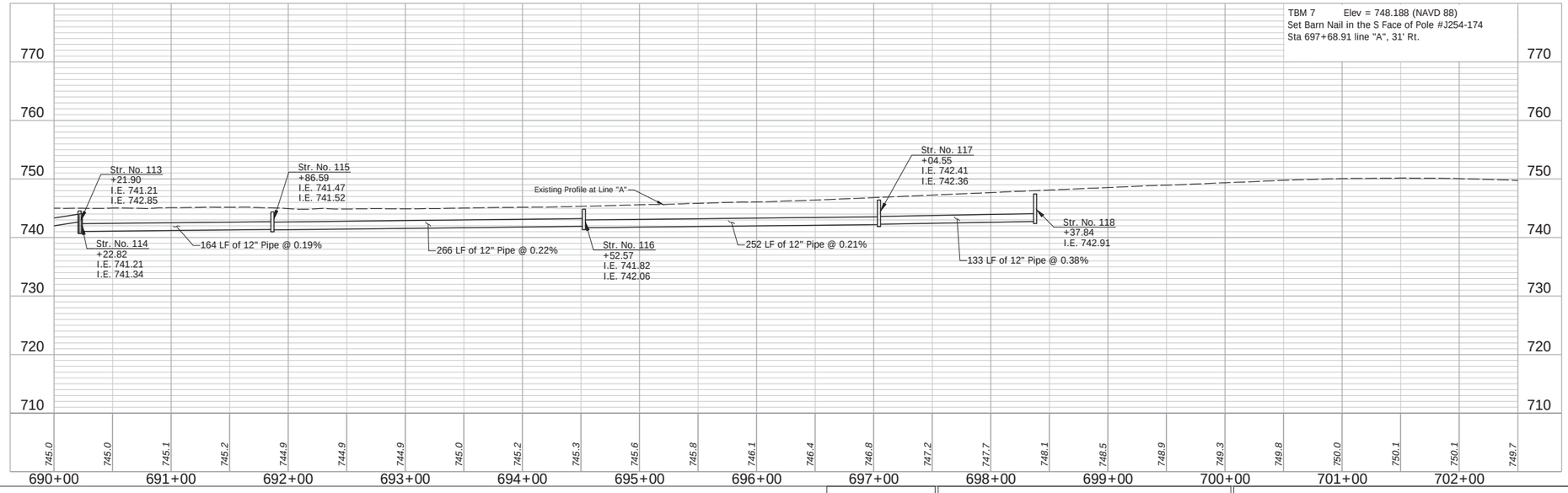
PLAN AND PROFILE - LINE "A"
STA. 677+50 TO STA. 690+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	165 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:50pm User Name: Sara Munsie
File: X:\production\Files\2020\120\300\1[HU-04\CAD\PlanSet\SNI_6D_PlanProfile_05.dwg - (Plan & Profile (32))





NOTE:
For project control see Sheet 2.

LEGEND:

- (D) HMA for Approaches, Type B, to be 165 lbs/syd HMA Surface, 9.5 mm
- (M) Milling, Asphalt, 4 in. minimum
- (M1) Milling, Approach
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

CHECKED: WBF CHECKED: WBF

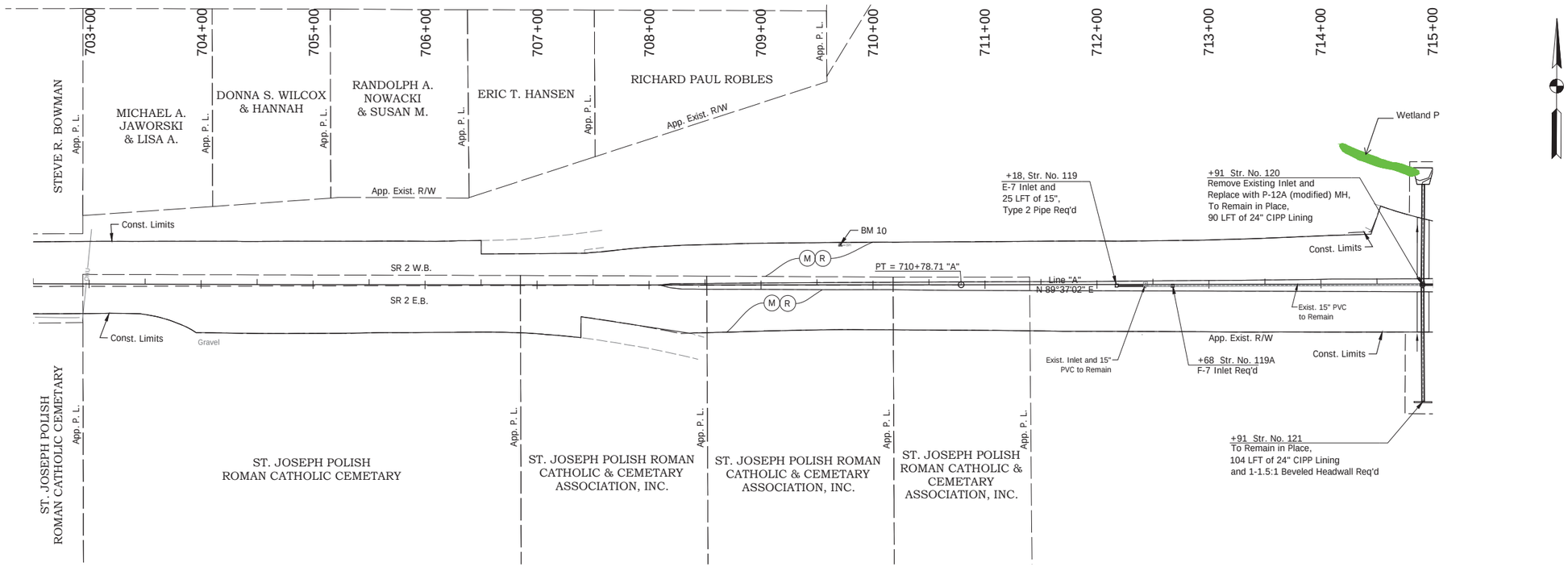
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 690+00 TO STA. 702+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	166 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 28, 2023, 4:51pm User Name: Sara Munsie
File: X:\production\Files\2020\120\300\1\PKJ-04\CAD\PlanSet\SNI_6D_PlanProfile_05.dwg - (Plan & Profile (33))



NOTE:
For project control see Sheet 2.

LEGEND:

(M) Milling, Asphalt, 4 in. minimum

(R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on
275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

Date: Jun 28, 2023, 4:52pm User Name: Sara Munsie
File: X:\production\Files\2020\12\p-3001\[HQ-DH\CAD\PlanSet\SNI_6D_PlanProfile_05.dwg - (Plan & Profile (54))

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

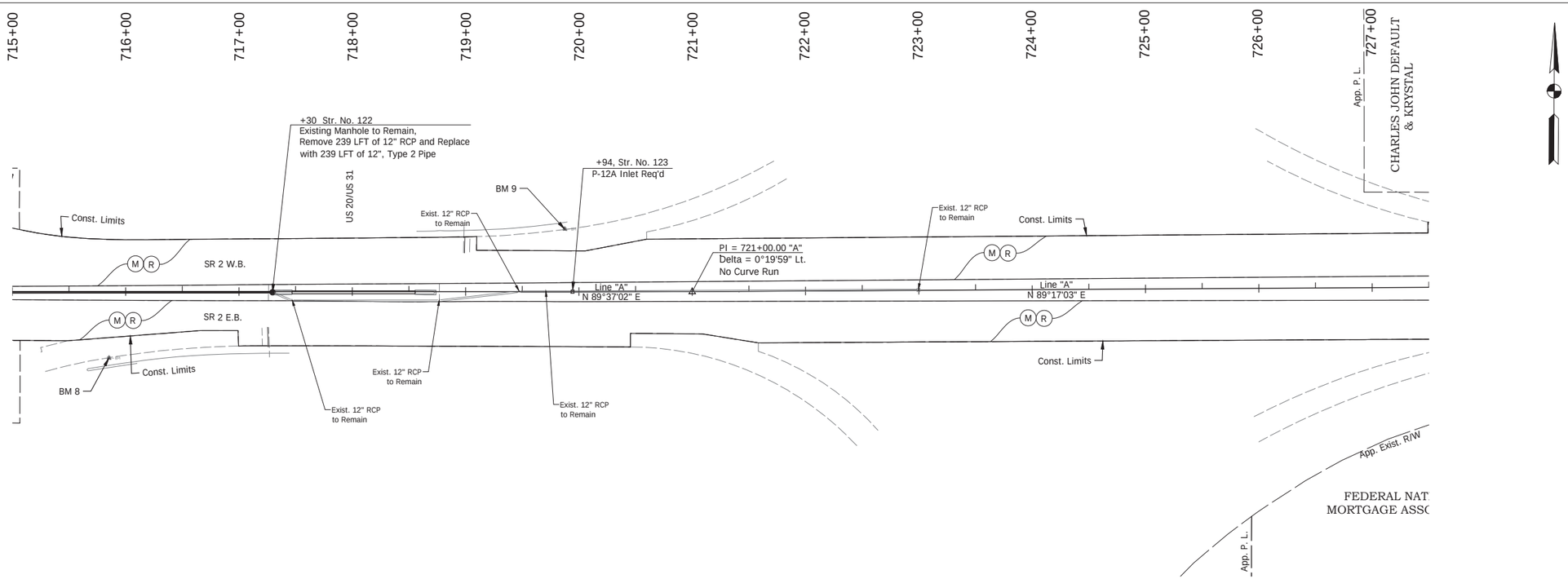
DESIGNED: SFM DRAWN: SFM
CHECKED: WBF CHECKED: WBF

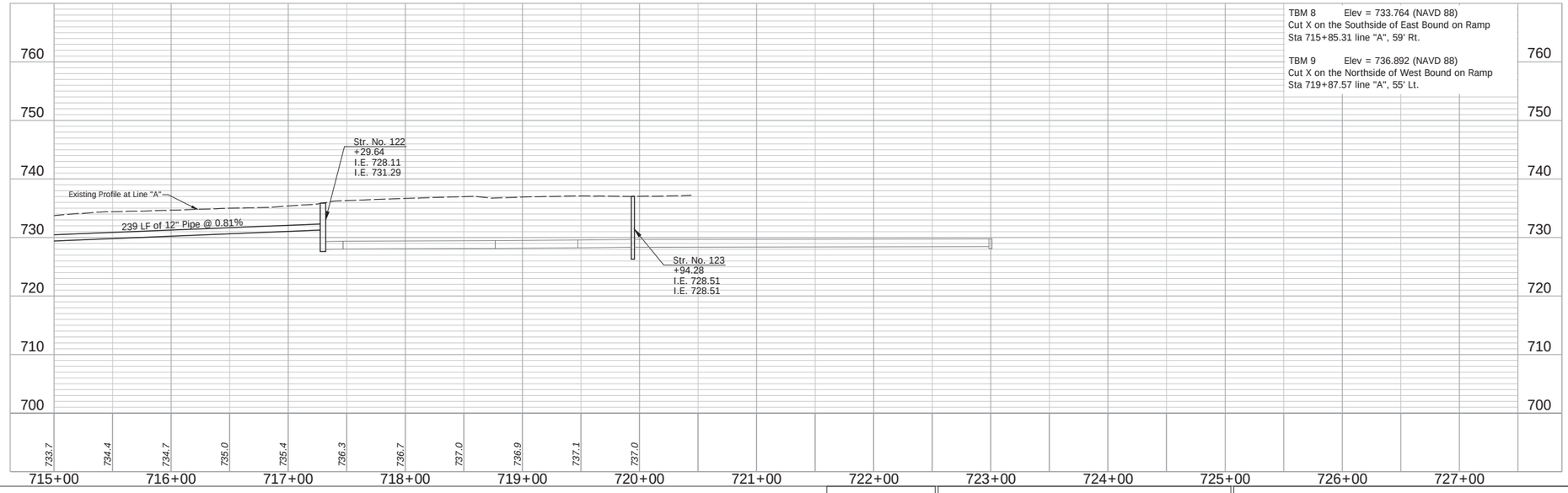
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 702+50 TO STA. 715+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	167 of 321
CONTRACT	PROJECT
R-42444	1900177





TBM 8 Elev = 733.764 (NAVD 88)
Cut X on the Southside of East Bound on Ramp
Sta 715+85.31 line "A", 59' Rt.

TBM 9 Elev = 736.892 (NAVD 88)
Cut X on the Northside of West Bound on Ramp
Sta 719+87.57 line "A", 55' Lt.

NOTE:
For project control see Sheet 2.

LEGEND:

(M) Milling, Asphalt, 4 in. minimum

(R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on
275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

Date: Jun 28, 2023, 4:52pm User Name: Sara Munsie
File: X:\production\Files\2020\120\300\[R42-04\CAD\PlanSet\SN_6D_PlanProfile_05.dwg - (Plan & Profile (55))

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

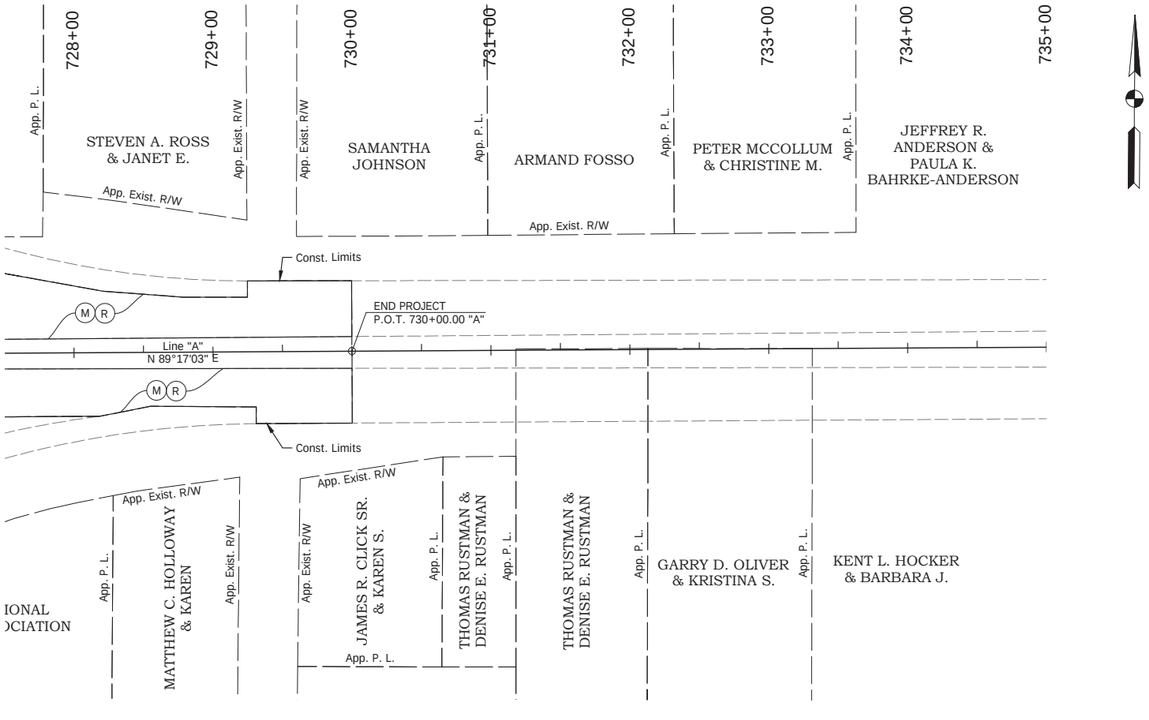
DESIGNED: SFM DRAWN: SFM
CHECKED: WBF CHECKED: WBF

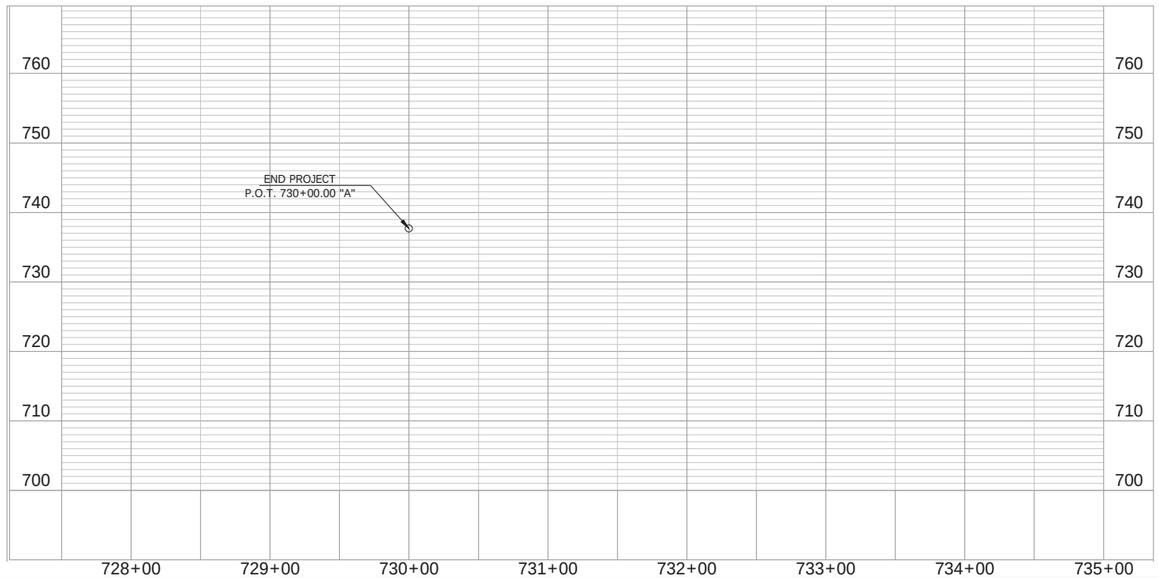
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 715+00 TO STA. 727+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1900177

SURVEY BOOK	SHEET
ELECTRONIC	168 of 321
CONTRACT	PROJECT
R-42444	1900177





NOTE:
For project control see Sheet 2.

LEGEND:

(M) Milling, Asphalt, 4 in. minimum

(R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on
275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

Date: Jun 28, 2023, 4:53pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\PRJ-DHLCAD\PlanSet\SNL_6D_PlanProfile_05.dwg - (Plan & Profile (56))

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: BJS

CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "A"
STA. 727+50 TO STA. 735+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	N/A
VERTICAL SCALE	DESIGNATION
	1900177

SURVEY BOOK	SHEET
ELECTRONIC	169 of 321
CONTRACT	PROJECT
R-42444	1900177

Quince Rd

5.93' | 20' | 20' | 7.16'

ME=747.77 | ME=747.92 | ME=748.30 | ME=747.95 | ME=747.81

2.5% | 1.9% | 1.8% | 2.0%

0.3% | 0.4%

747.83 | 747.88 | 747.95

747.87 | 747.90 | 747.93 | 748.10 | 748.29 | 748.12 | 747.98 | 747.96

0.7% | 1.4% | 0.9% | 0.1% | 0.9% | 1.1% | 0.4% | 0.6%

0.3% | 0.3% | 0.9% | 1.0% | 0.9% | 0.9% | 0.1%

9.1'

748.21 | 748.27 | 748.31 | 748.34 | 748.24 | 748.15 | 748.06

3.7% | 3.7% | 2.2% | 0.6% | 1.3% | 1.8% | 1.1%

0.3% | 0.2% | 0.2% | 1.0% | 0.5% | 0.5%

12'

748.45 | 748.51 | 748.55 | 748.58 | 748.48 | 748.39 | 748.30

2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0%

0.3% | 0.2% | 0.2% | 0.5% | 0.5% | 0.5%

12'

748.21 | 748.27 | 748.31 | 748.45 | 748.60 | 748.51 | 748.54

2.0% | 2.0% | 2.0% | 1.1% | 1.0% | 1.0% | 2.0%

0.3% | 0.2% | 0.7% | 0.8% | 0.5% | 0.2%

SR 2 W.B.

10.75'

748.00 | 748.06 | 748.16 | 748.30 | 748.48 | 748.63 | 748.66

1.9% | 1.9% | 1.3% | 1.3% | 1.0% | 1.0% | 1.0%

12'

0.3% | 0.5% | 0.7% | 0.9% | 0.8% | 0.2%

Line "A"
N 89°48'24" E

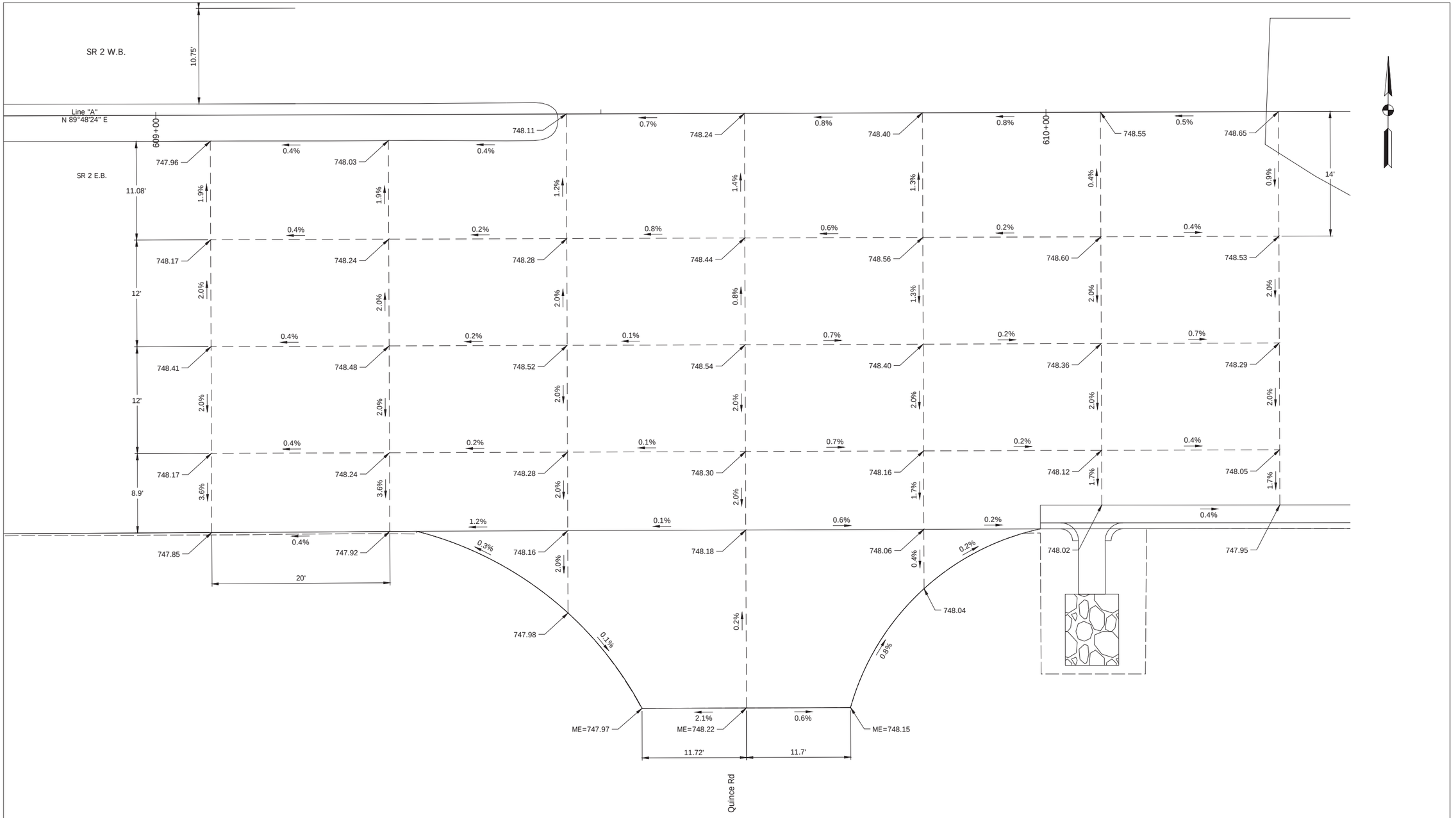
609+00

610+00

SR 2 E.B.

Date: Jun 23, 2023, 3:06pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\PRJ-04\CAD\PlanSet\Sht_RD_Intersection Detail.dwg

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 5' / VERTICAL SCALE: N/A / BRIDGE FILE: N/A / DESIGNATION: 1900177
DESIGNED: SFM	DRAWN: SFM	INTERSECTION SPOT ELEVATIONS QUINCE RD	SURVEY BOOK: ELECTRONIC / SHEET: 170 of 321
CHECKED: WBF	CHECKED: WBF		CONTRACT: R-42444 / PROJECT: 1900177



ME Match Existing

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: SFM

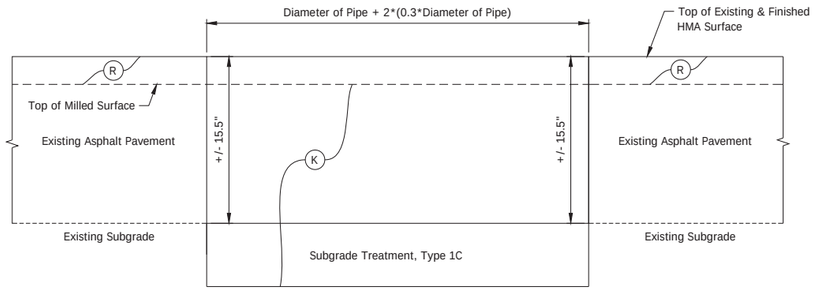
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

INTERSECTION SPOT ELEVATIONS
QUINCE RD

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	171 of 321
CONTRACT	PROJECT
R-42444	1900177

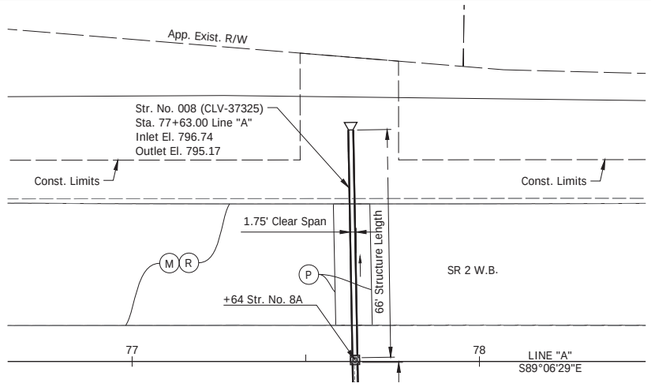
Date: Jun 23, 2023, 3:06pm User Name: Sara Munsie
File: X:\[production]\Files\2020\120-3001\PRJ-DH\CAD\PlanSet\Sht_RD_ Intersection Detail.dwg



HMA PATCHING, FULL DEPTH SECTION

Date: Jun 23, 2023, 3:06pm User Name: Sara Munsie
File: X:\production\Files\2020\120\3001\PRJ-04\CAD\PlanSet\SNI_RD_Details.dwg - (Sheet 1)

		RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 5'	BRIDGE FILE: N/A
				VERTICAL SCALE: N/A	DESIGNATION: 1900177
		DESIGNED: MMT / DRAWN: MMT	CONSTRUCTION DETAILS	SURVEY BOOK: ELECTRONIC	SHEET: 172 of 321
		CHECKED: BSS / CHECKED: BSS		CONTRACT: R-42444	PROJECT: 1900177



PLAN VIEW

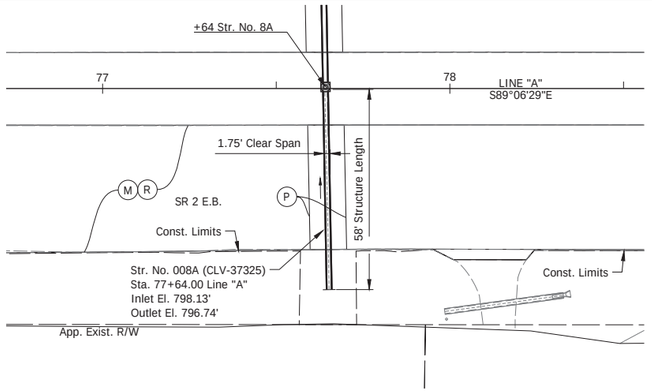
Scale: 1" = 20'

EXISTING STRUCTURE INFORMATION

66 LFT of 15" Reinforced Concrete Pipe
Invert Elevation: 797.10
Outlet Elevation: 795.67

HYDRAULIC DATA

Waterway Opening Required	sq ft
Waterway Opening Provided	sq ft
Drainage Area =	sq mi
Design Discharge, Q100	cfs
Velocity, Q25	ft/s
Q100 Elev.	ft
Backwater at Q100	ft
Existing Waterway Opening	sq ft
Existing Backwater	ft
Low Structure Elev.	ft
Existing Low Structure Elev.	ft

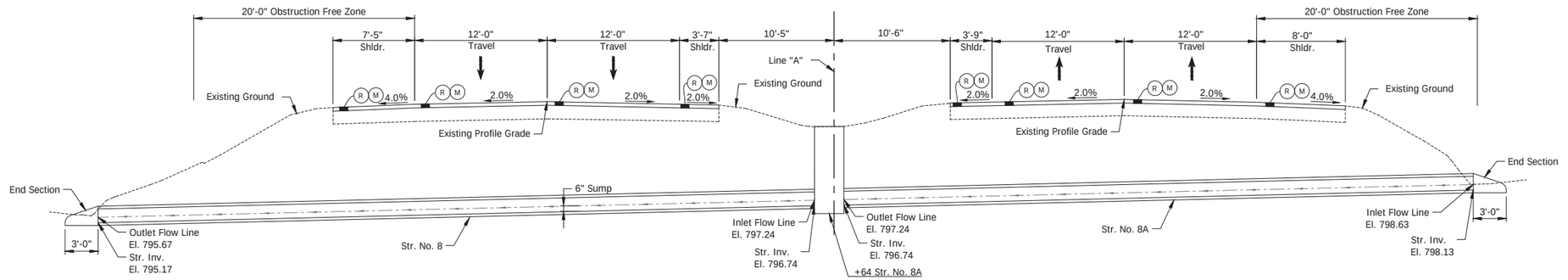


PLAN VIEW

Scale: 1" = 20'

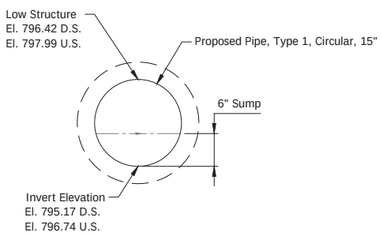
EXISTING STRUCTURE INFORMATION

58 LFT of 15" Reinforced Concrete Pipe
Invert Elevation: 798.63
Outlet Elevation: 797.20



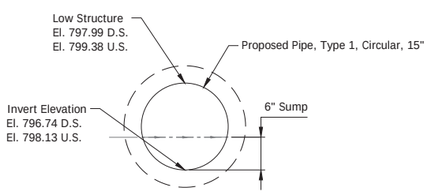
TYPICAL SECTION

Scale: 3/16" = 1'-0"



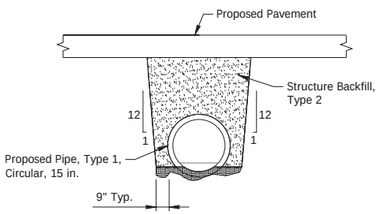
STR. NO. 8 OUTLET SECTION

Scale: 1" = 1'-0"



STR. NO. 8A OUTLET SECTION

Scale: 1" = 1'-0"



BACKFILL DETAIL

Scale: 1/4" = 1'-0"

LEGEND:

(M) Milling, Asphalt, 4 in. minimum

(P) HMA Patching, Full Depth:
Pavement Design still to be Determined

(R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on
275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: MMT DRAWN: MMT

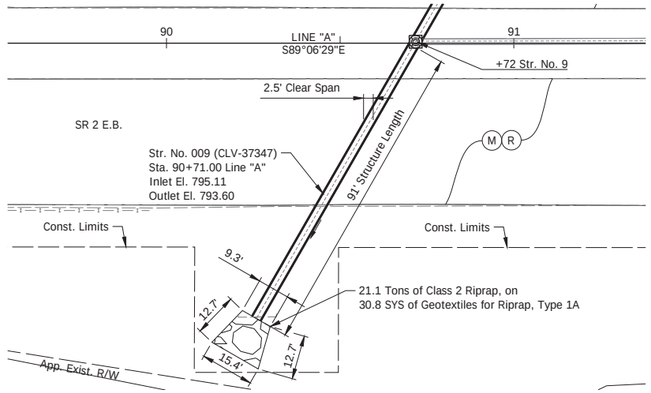
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

STRUCTURE DETAILS
STR. NO. 8 & 8A

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	173 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 3:15pm User Name: Sara Munsie
File: X:\production\Files\2020\120-2001\PRJ-DH(CHD)PlanSet\SHt_RD_Structure Detail_01.dwg - (Str. 8 & 8A)



PLAN VIEW

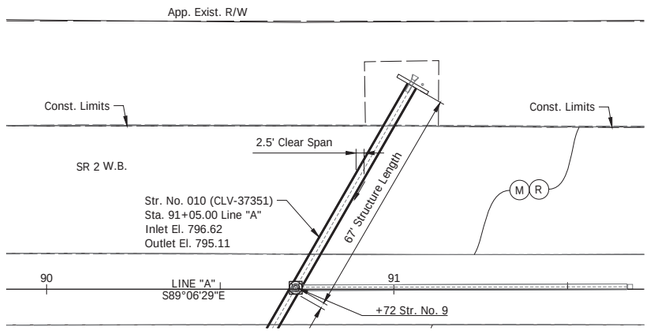
Scale: 1" = 20'

EXISTING STRUCTURE INFORMATION

91 LFT of 30" Reinforced Concrete Pipe
Invert Elevation: 795.11
Outlet Elevation: 793.60

HYDRAULIC DATA

Waterway Opening Required	sq ft
Waterway Opening Provided	sq ft
Drainage Area =	0.11 sq mi
Design Discharge, Q100	74.99 cfs
Velocity, Q25	14.14 ft/s
Q100 Elev.	804.04 ft
Backwater at Q100	4.92 ft
Existing Waterway Opening	sq ft
Existing Backwater	4.93 ft
Low Structure Elev.	N/A ft
Existing Low Structure Elev.	796.10 ft

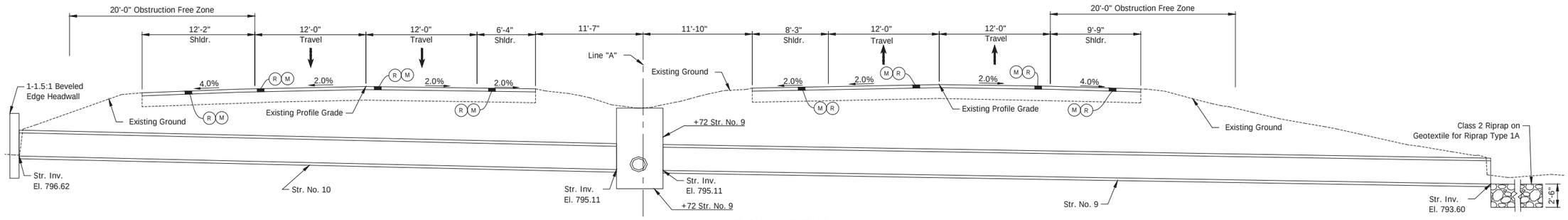


PLAN VIEW

Scale: 1" = 20'

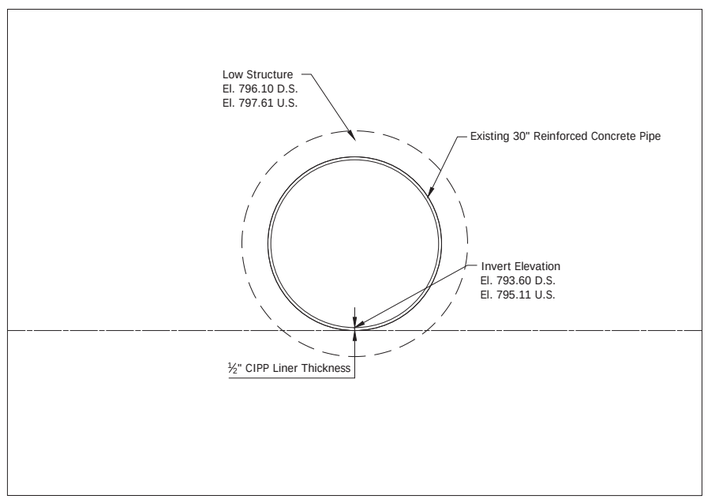
EXISTING STRUCTURE INFORMATION

67 LFT of 30" Reinforced Concrete Pipe
Invert Elevation: 796.62
Outlet Elevation: 795.11



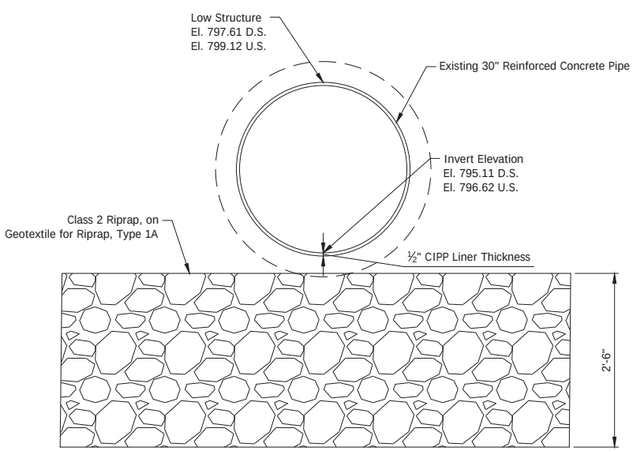
TYPICAL SECTION

Scale: 3/16" = 1'-0"



STR. NO. 10 OUTLET SECTION

Scale: 1" = 1'-0"



STR. NO. 9 OUTLET SECTION

Scale: 1" = 1'-0"

LEGEND:

- (M) Milling, Asphalt, 4 in. minimum
- (P) HMA Patching, Full Depth: Pavement Design still to be Determined
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: MMT DRAWN: MMT

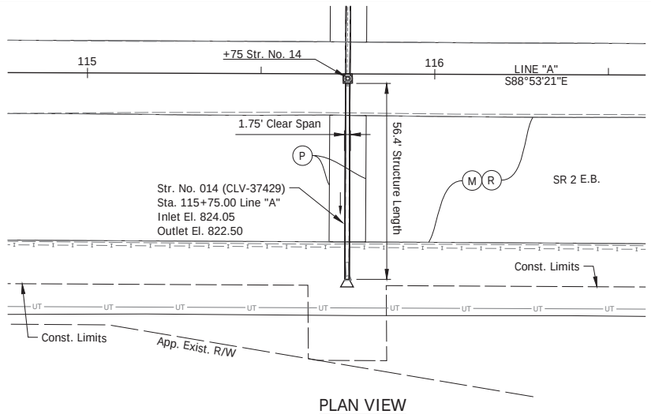
CHECKED: WBF CHECKED: WBF

INDIANA DEPARTMENT OF TRANSPORTATION

STRUCTURE DETAILS
STR. NO. 9 & 10

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	174 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 3:17pm User Name: Sara Munsie
File: X:\production\Files\2020\1\20-3001\PR2-01\CAD\PlanSet\Sht_RD_Structure Detail_01.dwg - (Str. 9 & 10)



PLAN VIEW

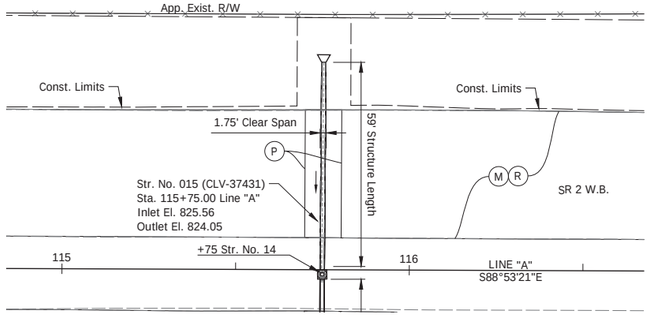
Scale: 1" = 20'

EXISTING STRUCTURE INFORMATION

56 LFT of 12" Reinforced Concrete Pipe
Invert Elevation: 824.55
Outlet Elevation: 823.00

HYDRAULIC DATA

Waterway Opening Required	sq ft
Waterway Opening Provided	sq ft
Drainage Area =	0.01 sq mi
Design Discharge, Q100	17.15 cfs
Velocity, Q25	6.81 ft/s
Q100 Elev.	827.82 ft
Backwater at Q100	1.03 ft
Existing Waterway Opening	sq ft
Existing Backwater	1.49 ft
Low Structure Elev.	824.25 ft
Existing Low Structure Elev.	828.28 ft

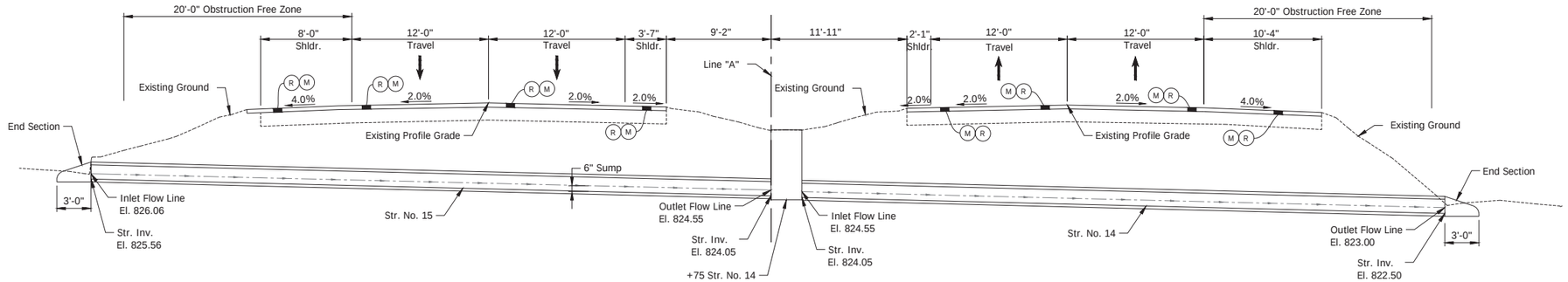


PLAN VIEW

Scale: 1" = 20'

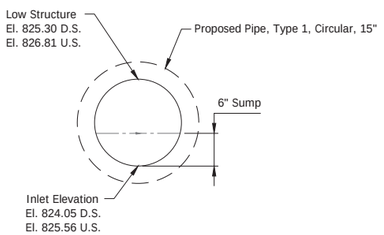
EXISTING STRUCTURE INFORMATION

59 LFT of 15" Reinforced Concrete Pipe
Invert Elevation: 826.06
Outlet Elevation: 824.55



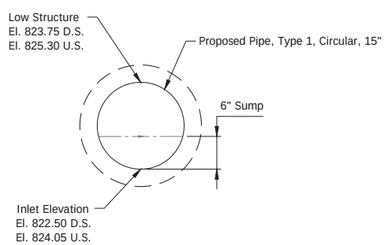
TYPICAL SECTION

Scale: 3/16" = 1'-0"



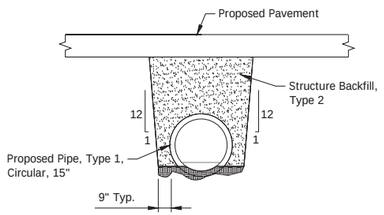
STR. NO 15 OUTLET SECTION

Scale: 1" = 1'-0"



STR. NO. 14 OUTLET SECTION

Scale: 1" = 1'-0"



BACKFILL DETAIL

Scale: 1/4" = 1'-0"

LEGEND:

(M) Milling, Asphalt, 4 in. minimum

(P) HMA Patching, Full Depth:
Pavement Design still to be Determined

(R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on
275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

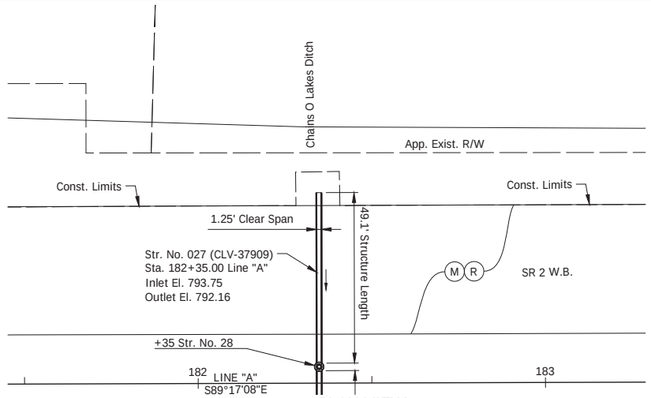
DESIGNED: MMT
DRAWN: MMT
CHECKED: WBF
CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

STRUCTURE DETAILS
STR. NO. 14 & 15

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	175 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 3:19pm User Name: Sara Munsie
File: X:\production\Files\2020\120-2001\PRJ-DH(CHD)PlanSet\SHt_RD_Structure Detail_01.dwg - (Str. 14 & 15)



PLAN VIEW

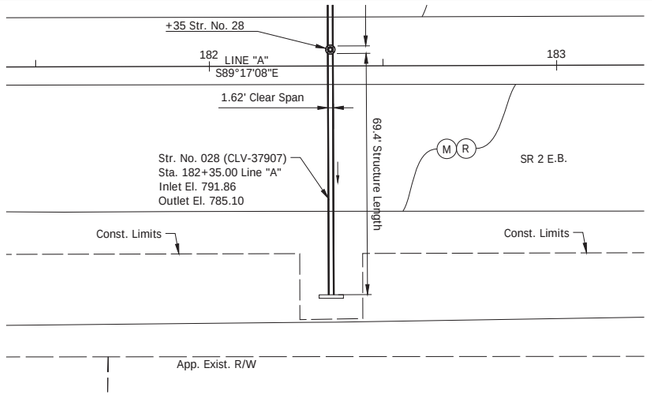
Scale: 1" = 20'

EXISTING STRUCTURE INFORMATION

49 LFT of 15" Reinforced Concrete Pipe
Invert Elevation: 793.75
Outlet Elevation: 792.16

HYDRAULIC DATA

Waterway Opening Required	sq ft
Waterway Opening Provided	sq ft
Drainage Area =	0.02 sq mi
Design Discharge, Q100	24.55 cfs
Velocity, Q25	14.85 ft/s
Q100 Elev.	796.30 ft
Backwater at Q100	1.51 ft
Existing Waterway Opening	sq ft
Existing Backwater	1.52 ft
Low Structure Elev.	N/A ft
Existing Low Structure Elev.	786.35 ft

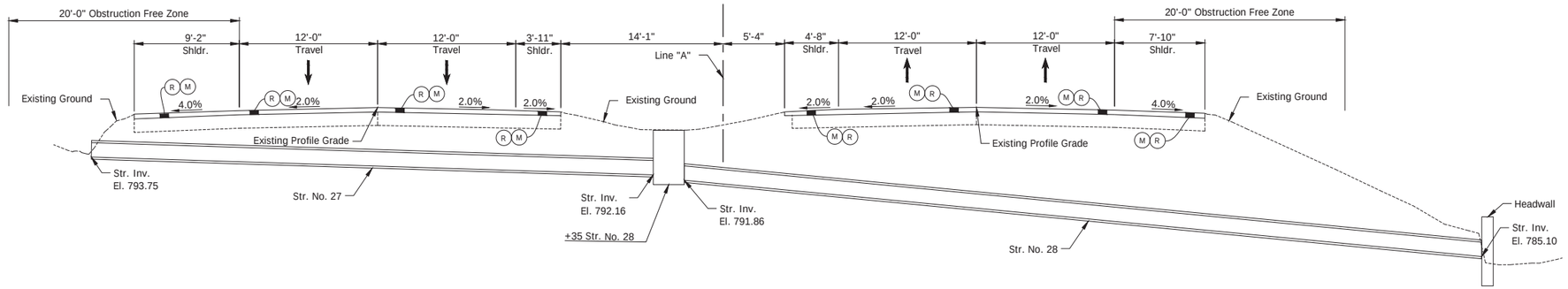


PLAN VIEW

Scale: 1" = 20'

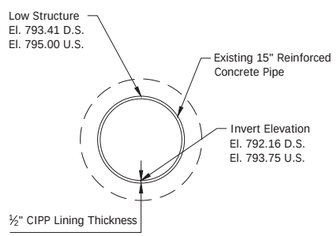
EXISTING STRUCTURE INFORMATION

69 LFT of 15" Reinforced Concrete Pipe
Invert Elevation: 791.86'
Outlet Elevation: 785.10'



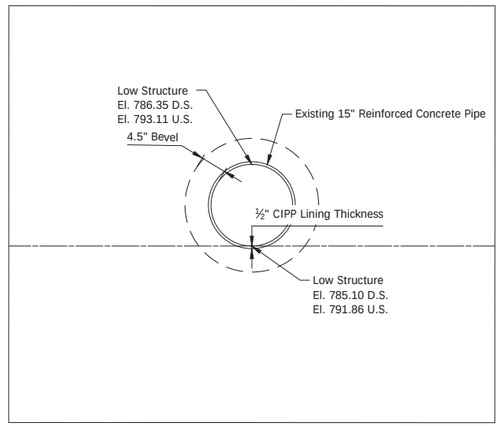
TYPICAL SECTION

Scale: 3/16" = 1'-0"



STR. NO. 27 OUTLET SECTION

Scale: 1" = 1'-0"



STR. NO. 28 OUTLET SECTION

Scale: 1" = 1'-0"

LEGEND:

(M) Milling, Asphalt, 4 in. minimum

(R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: MMT DRAWN: MMT

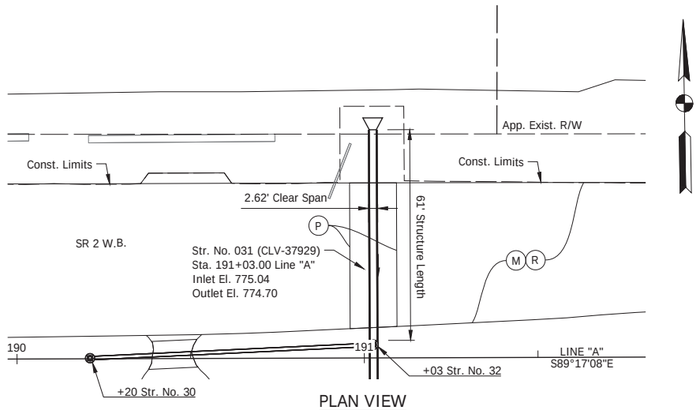
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

STRUCTURE DETAILS
STR. NO. 27 & 28

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	176 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 3:21pm User Name: Sara Munsie
File: X:\production\Files\2020\120-3001\PR2-DH\CAD\PlanSet\SHt_RD_Structure Detail_01.dwg - (Str. 27 & 28)



PLAN VIEW

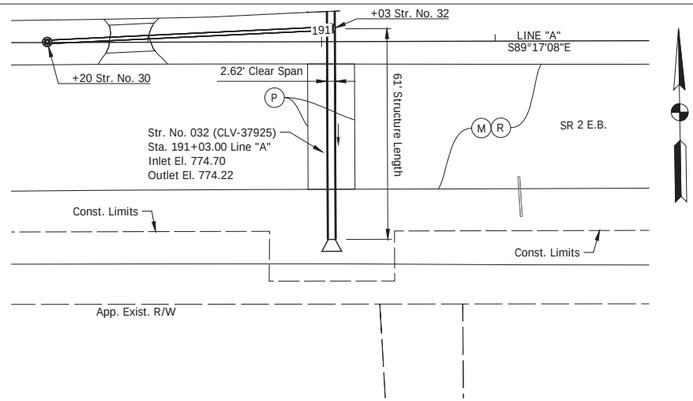
Scale: 1" = 20'

EXISTING STRUCTURE INFORMATION

61 LFT of 18" Reinforced Concrete Pipe
Invert Elevation: 775.54
Outlet Elevation: 775.20

HYDRAULIC DATA

Waterway Opening Required	sq ft
Waterway Opening Provided	sq ft
Drainage Area =	0.08 sq mi
Design Discharge, Q100	72.05 cfs
Velocity, Q25	7.5 ft/s
Q100 Elev.	779.15/779.76 ft
Backwater at Q100	2.11/0.00 ft
Existing Waterway Opening	sq ft
Existing Backwater	4.57/1.69 ft
Low Structure Elev.	779.22 ft
Existing Low Structure Elev.	776.22 ft

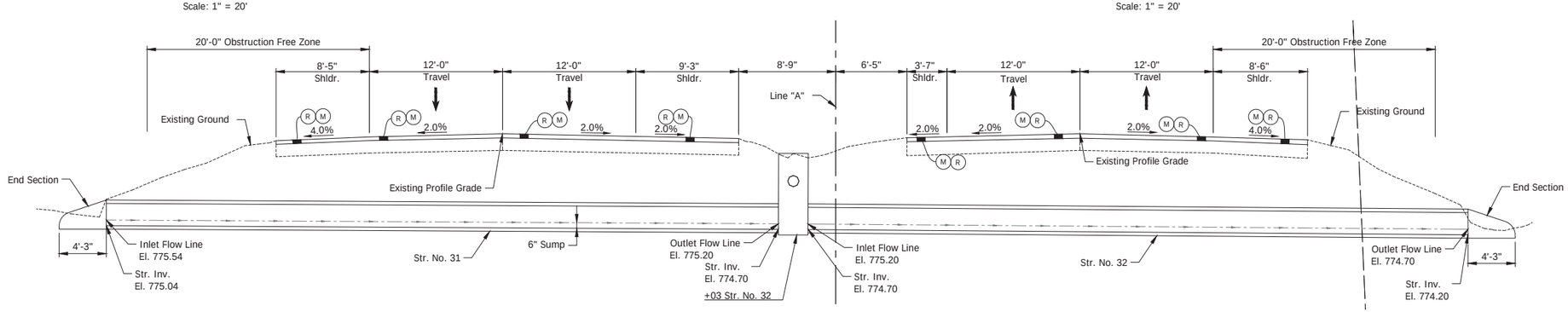


PLAN VIEW

Scale: 1" = 20'

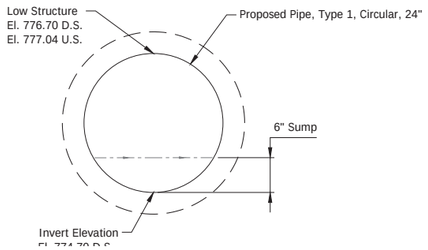
EXISTING STRUCTURE INFORMATION

61 LFT of 18" Reinforced Concrete Pipe
Invert Elevation: 775.20
Outlet Elevation: 774.42



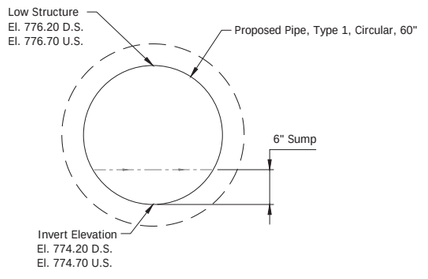
TYPICAL SECTION

Scale: 3/16" = 1'-0"



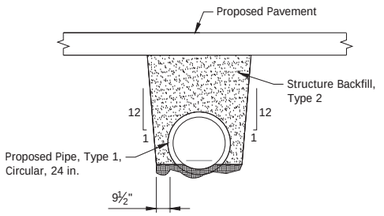
STR. NO. 31 OUTLET SECTION

Scale: 1" = 1'-0"



STR. NO. 32 OUTLET SECTION

Scale: 1" = 1'-0"



BACKFILL DETAIL

Scale: 1/4" = 1'-0"

LEGEND:

(M) Milling, Asphalt, 4 in. minimum

(P) HMA Patching, Full Depth:
Pavement Design still to be Determined

(R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on
275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: MMT DRAWN: MMT

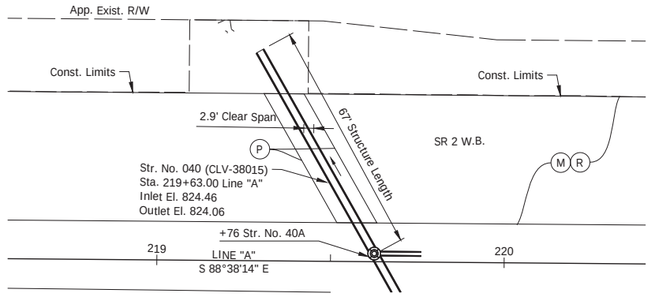
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

STRUCTURE DETAILS
STR. NO. 31 & 32

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	177 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 3:23pm User Name: Sara Munsie
File: X:\production\Files\2020\120-39017\PR\1-DH\CAD\PlanSet\SHt_RD_Structure Detail_01.dwg - (Str. 31 & 32)



PLAN VIEW

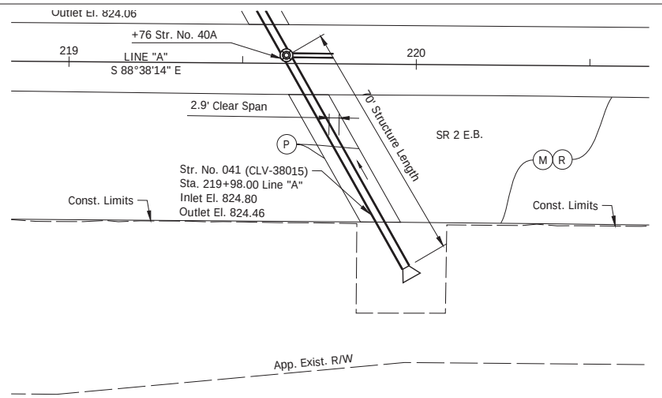
Scale: 1" = 20'

EXISTING STRUCTURE INFORMATION

67 LFT of 24" Reinforced Concrete Pipe
Invert Elevation: 824.96
Outlet Elevation: 824.56

HYDRAULIC DATA

Waterway Opening Required	sq ft
Waterway Opening Provided	sq ft
Drainage Area =	0.15 sq mi
Design Discharge, Q100	121.73 cfs
Velocity, Q25	8.45 ft/s
Q100 Elev.	829.35 ft
Backwater at Q100	N/A ft
Existing Waterway Opening	sq ft
Existing Backwater	2.21 ft
Low Structure Elev.	827.06 ft
Existing Low Structure Elev.	826.56 ft

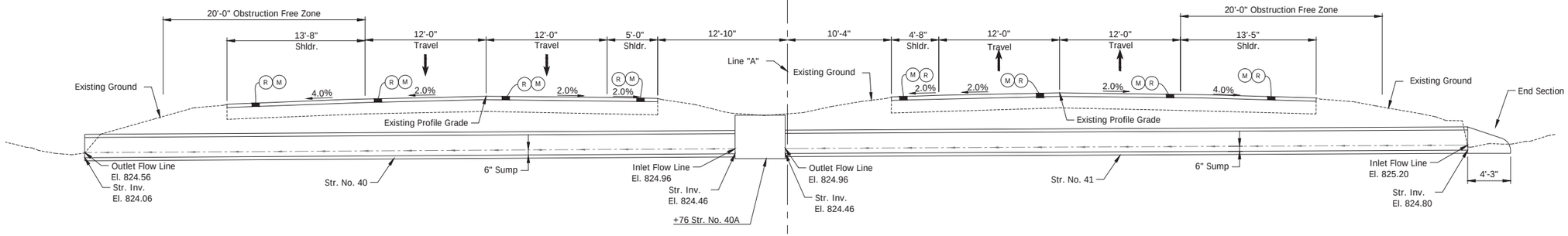


PLAN VIEW

Scale: 1" = 20'

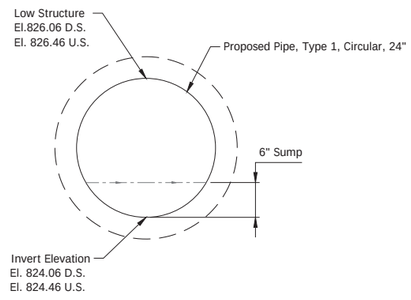
EXISTING STRUCTURE INFORMATION

70 LFT of 24" Reinforced Concrete Pipe
Invert Elevation: 825.30
Outlet Elevation: 824.96



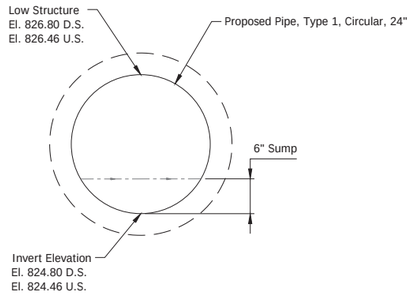
TYPICAL SECTION

Scale: 3/16" = 1'-0"



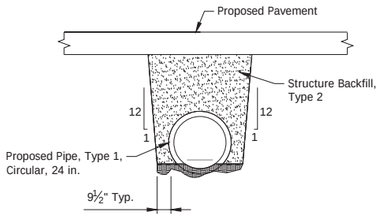
STR. NO. 40 OUTLET SECTION

Scale: 1" = 1'-0"



STR. NO. 41 OUTLET SECTION

Scale: 1" = 1'-0"



BACKFILL DETAIL

Scale: 1/4" = 1'-0"

LEGEND:

- (M) Milling, Asphalt, 4 in. minimum
- (P) HMA Patching, Full Depth: Pavement Design still to be Determined
- (R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: MMT DRAWN: MMT

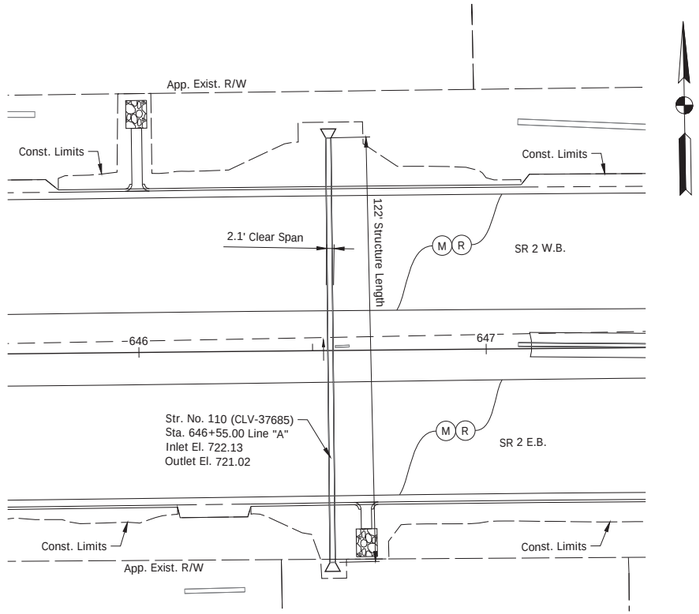
CHECKED: WBF CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

STRUCTURE DETAILS
STR. NO. 40 & 41

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	178 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 3:31pm User Name: Sara Munsie
File: X:\production\Files\2020\120-39011\PR\1-DH\CAD\PlanSet\SHt_RD_Structure Detail_02.dwg - (Str. 40 & 41)



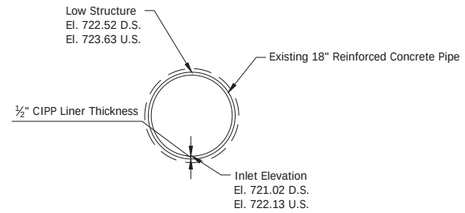
PLAN VIEW
Scale: 1" = 20'

EXISTING STRUCTURE INFORMATION

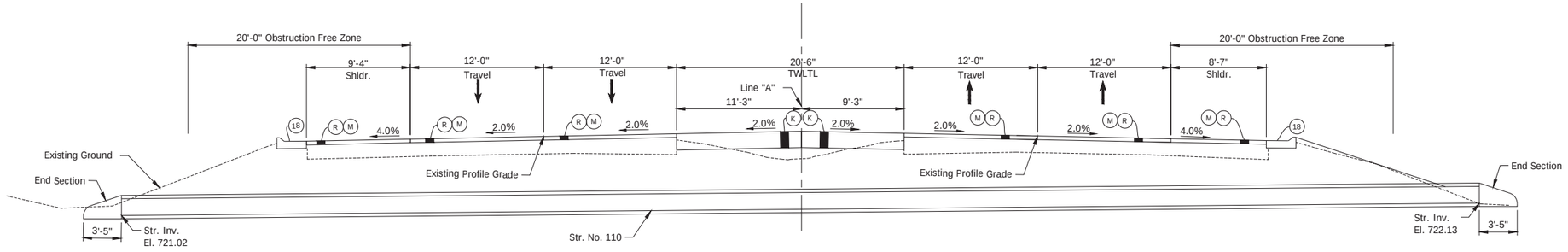
122 LFT of 18" Reinforced Concrete Pipe
Invert Elevation: 722.13
Outlet Elevation: 721.02

HYDRAULIC DATA

Waterway Opening Required	sq ft
Waterway Opening Provided	sq ft
Drainage Area =	0.08 sq mi
Design Discharge, Q100	115.37 cfs
Velocity, Q25	7.62 ft/s
Q100 Elev.	727.13 ft
Backwater at Q100	2.28 ft
Existing Waterway Opening	sq ft
Existing Backwater	2.28 ft
Low Structure Elev.	N/A ft
Existing Low Structure Elev.	722.52 ft



STR. NO. 110 OUTLET SECTION
Scale: 1" = 1'-0"



TYPICAL SECTION
Scale: 3/16" = 1'-0"

LEGEND:

(M) Milling, Asphalt, 4 in. minimum

(P) HMA Patching, Full Depth:
Pavement Design still to be Determined

(R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on
275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

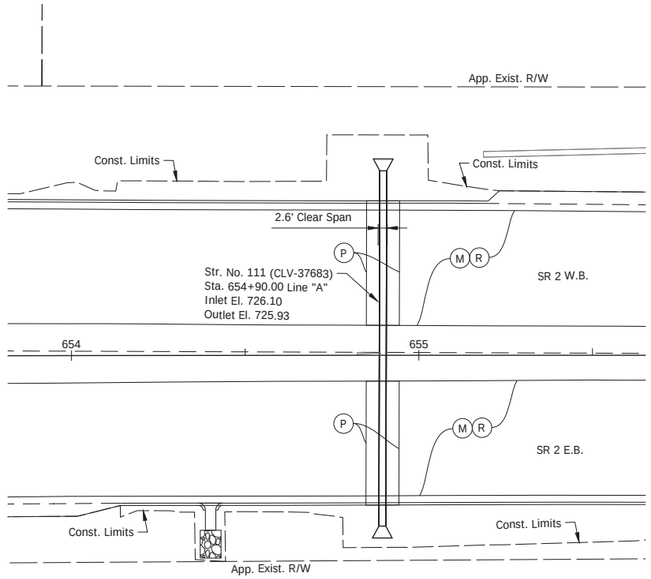
DESIGNED: MMT | DRAWN: MMT
CHECKED: WBF | CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

STRUCTURE DETAILS
STR. NO. 110

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	179 of 321
CONTRACT	PROJECT
R-42444	1900177

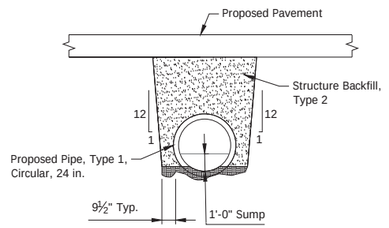
Date: Jun 23, 2023, 3:33pm User Name: Sara Munsie
File: X:\production\Files\2020\120-30911\RO-04\CAD\PlanSet\SHt_RD_Structure Detail_02.dwg - (Str. 110)



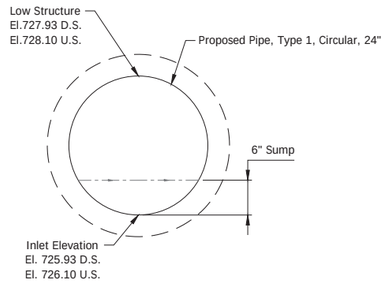
PLAN VIEW
Scale: 1" = 20'

EXISTING STRUCTURE INFORMATION

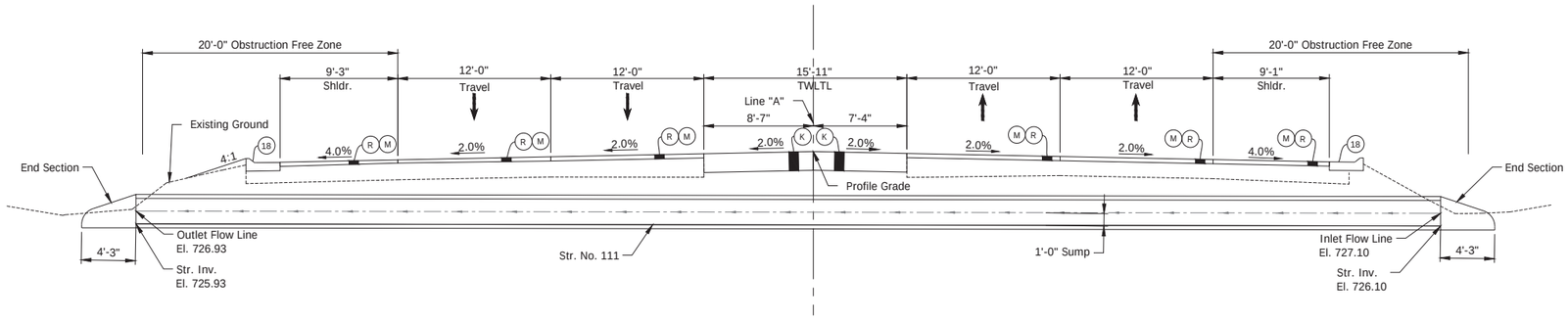
102 LFT of 24" Reinforced Concrete Pipe
Invert Elevation: 726.63
Outlet Elevation: 723.68



BACKFILL DETAIL
Scale: 1/4" = 1'-0"



STR. NO. 111 OUTLET SECTION
Scale: 1" = 1'-0"



TYPICAL SECTION
Scale: 3/16" = 1'-0"

HYDRAULIC DATA

Waterway Opening Required	sq ft
Waterway Opening Provided	sq ft
Drainage Area =	0.02 sq mi
Design Discharge, Q100	24.55 cfs
Velocity, Q25	14.85 ft/s
Q100 Elev.	796.30 ft
Backwater at Q100	1.51 ft
Existing Waterway Opening	sq ft
Existing Backwater	1.52 ft
Low Structure Elev.	N/A ft
Existing Low Structure Elev.	786.35 ft

LEGEND:

(K) HMA Full Depth:
165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm, on
385 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm, on
660 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm, on
Subgrade Treatment, Type IBC

(M) Milling Asphalt, 3.0 in. minimum

(R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on
275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

(18) Combined Concrete Curb and Gutter, Type B

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

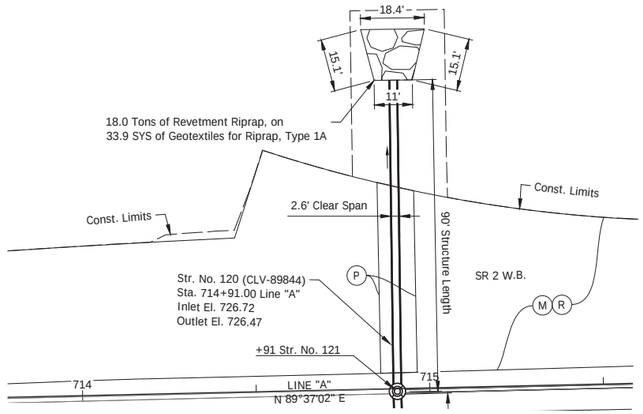
DESIGNED: MMT | DRAWN: MMT
CHECKED: WBF | CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

STRUCTURE DETAILS
STR. NO. 111

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	180 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 3:35pm User Name: Sara Munsie
File: X:\production\Files\2020\120-30911\RD-04\CAD\PlanSet\Sht_RD_Structure Detail_02.dwg - (Str. 111)



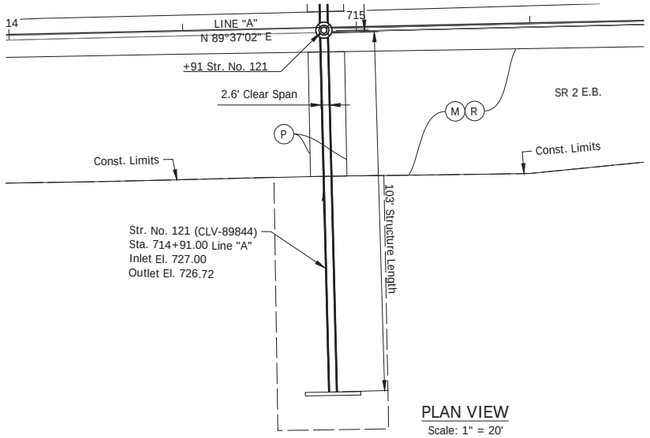
PLAN VIEW
Scale: 1" = 20'

EXISTING STRUCTURE INFORMATION

89 LFT of 24" Reinforced Concrete Pipe
Invert Elevation: 726.76
Outlet Elevation: 727.22

HYDRAULIC DATA

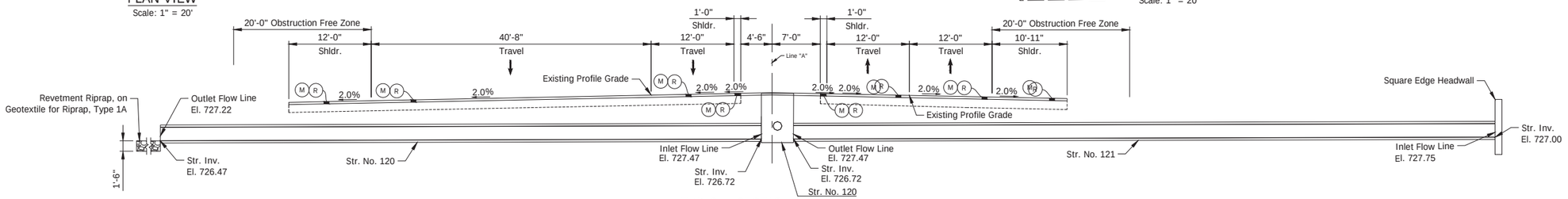
Waterway Opening Required	sq ft
Waterway Opening Provided	sq ft
Drainage Area =	0.03 sq mi
Design Discharge, Q100	34.33 cfs
Velocity, Q25	6.92 ft/s
Q100 Elev.	733.74/733.80 ft
Backwater at Q100	N/A ft
Existing Waterway Opening	sq ft
Existing Backwater	4.47/0.00 ft
Low Structure Elev.	729.72 ft
Existing Low Structure Elev.	729.22 ft



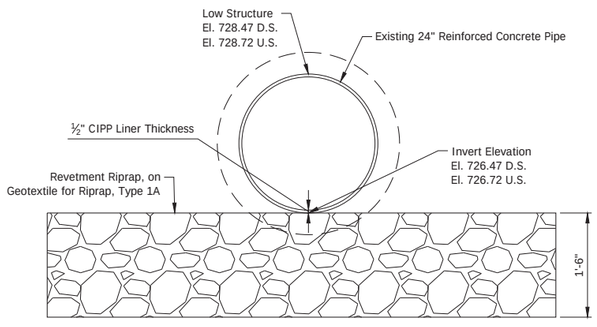
PLAN VIEW
Scale: 1" = 20'

EXISTING STRUCTURE INFORMATION

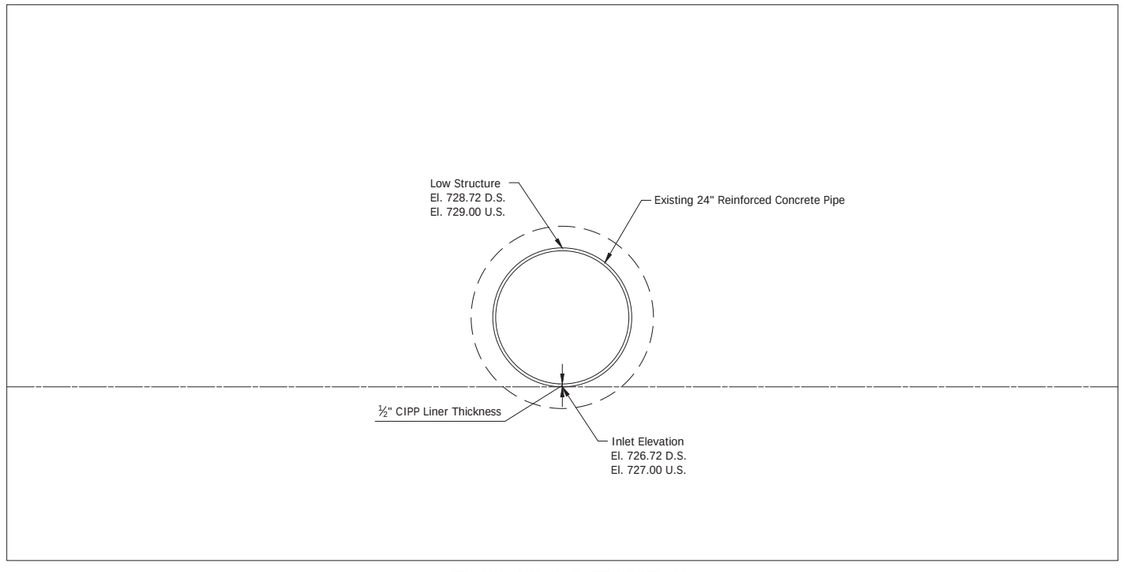
103 LFT of 24" Reinforced Concrete Pipe
Invert Elevation: 727.75
Outlet Elevation: 726.76



TYPICAL SECTION
Scale: 1/8" = 1'-0"



STR. NO 120 OUTLET SECTION
Scale: 1" = 1'-0"



STR. NO. 121 OUTLET SECTION
Scale: 1" = 1'-0"

LEGEND:

(M) Milling, Asphalt, 4 in. minimum

(P) HMA Patching, Full Depth:
Pavement Design still to be Determined

(R) 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on
275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

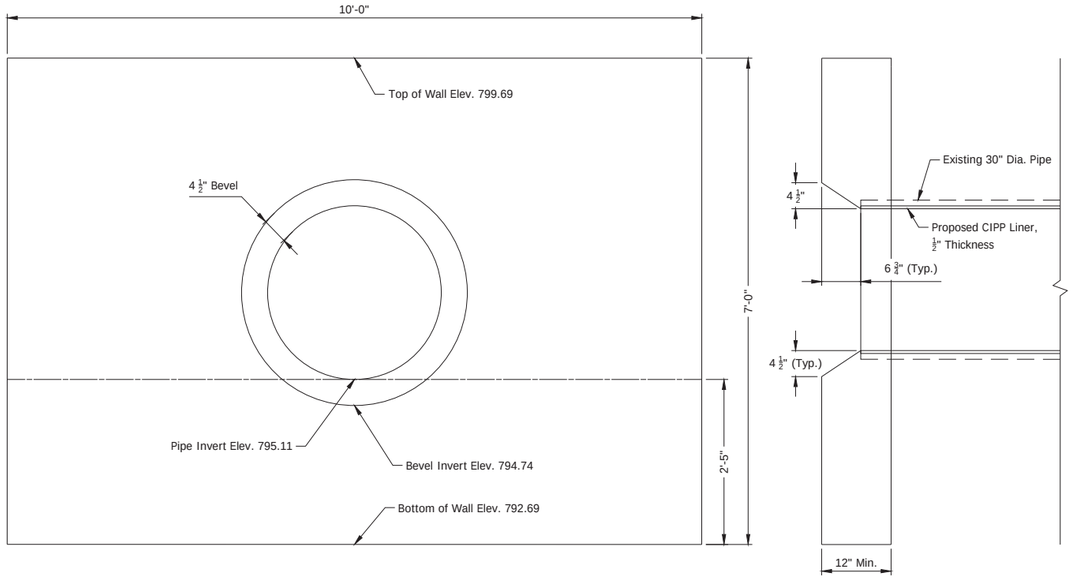
DESIGNED: MMT | DRAWN: MMT | CHECKED: WBF | CHECKED: WBF

INDIANA
DEPARTMENT OF TRANSPORTATION

STRUCTURE DETAILS
STR. NO. 120 & 121

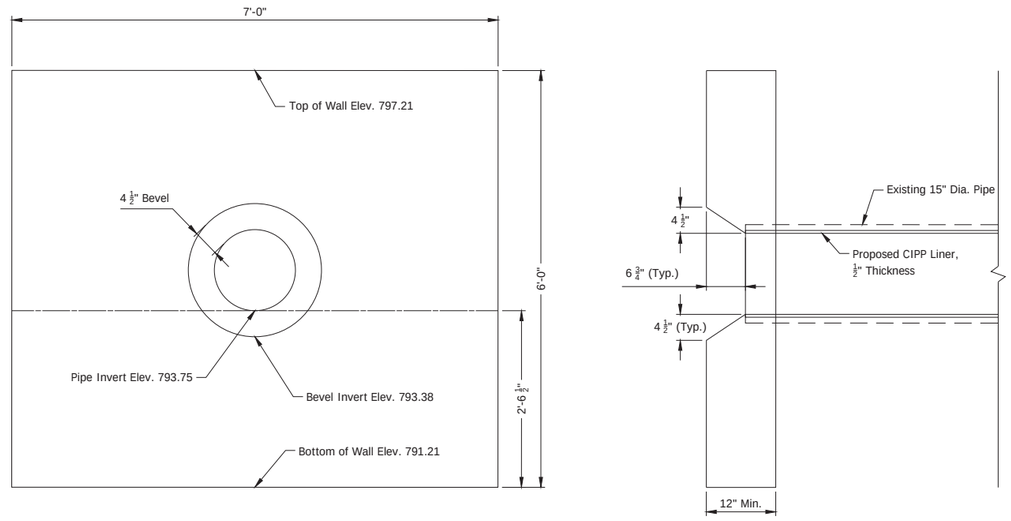
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177
SURVEY BOOK	SHEET
ELECTRONIC	181 of 321
CONTRACT	PROJECT
R-42444	1900177

Date: Jun 23, 2023, 3:37pm User Name: Sara Munsie
File: X:\production\Files\2020\120-30911\RD-DH\C4D\PlanSet\SHt_RD_Structure Detail_02.dwg - (Str. 120 & 121)



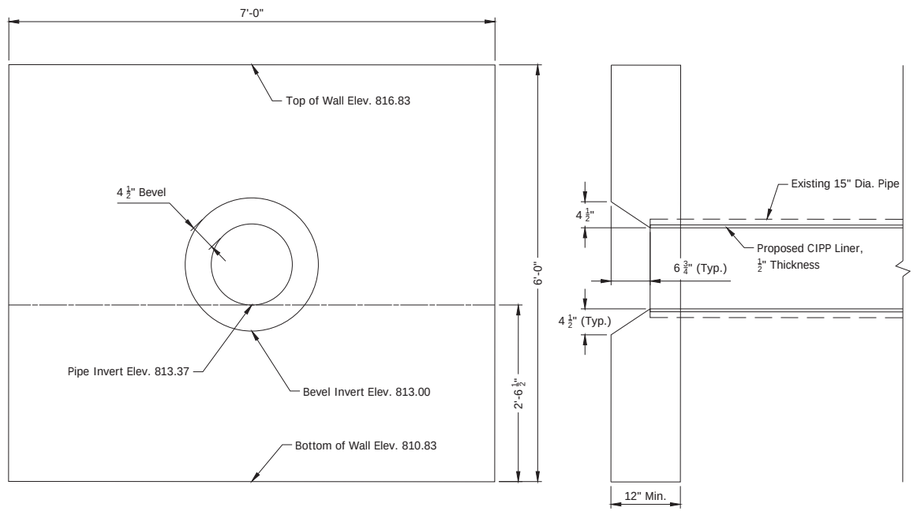
STR. NO. 9 HEADWALL DETAIL

Scale: 1" = 1'-0"



STR. NO. 27 HEADWALL DETAIL

Scale: 1" = 1'-0"



STR. NO. 56 HEADWALL DETAIL

Scale: 1" = 1'-0"

Date: Jun 23, 2023, 3:44pm User Name: Sara Munsie
File: \\ech.lcl\root\Production\Files\2020\120-2001\PRJ-DH\CAD\PlanSet\SHt_RD_Structure Detail_01.dwg - (Headwall Details)

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JRM DRAWN: JRM

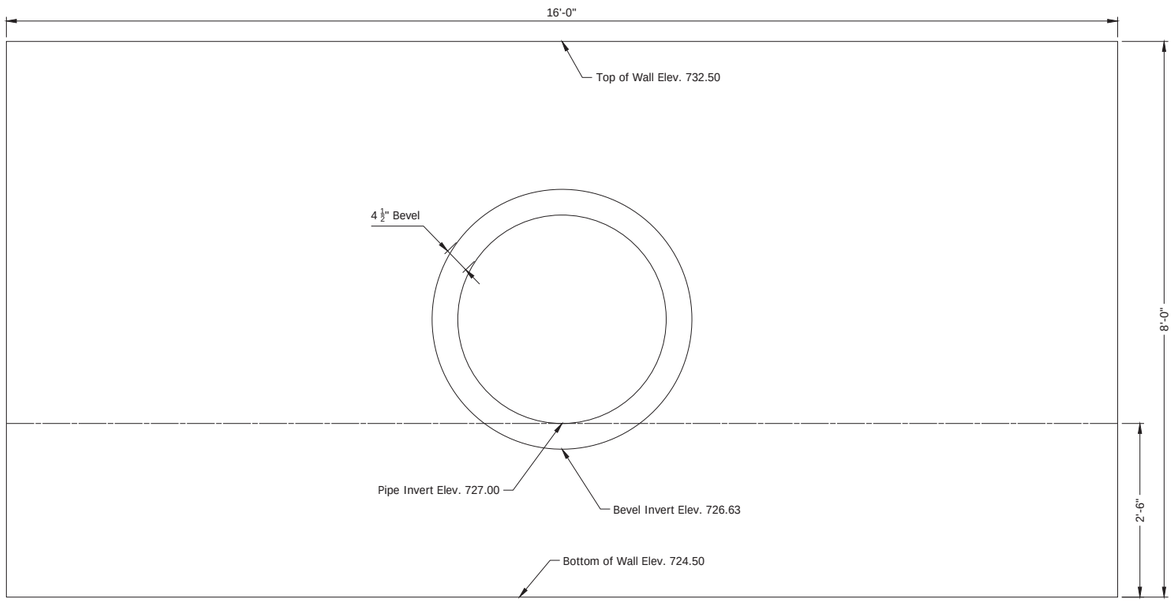
CHECKED: WBF CHECKED: WBF

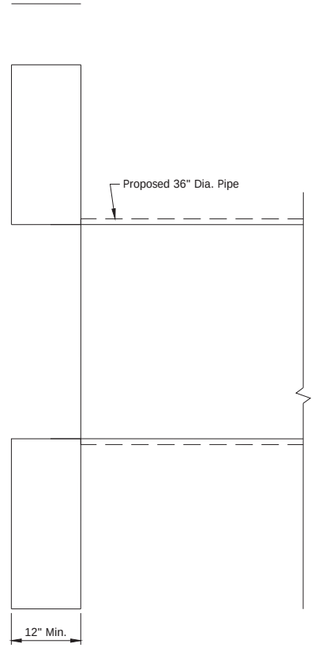
INDIANA
DEPARTMENT OF TRANSPORTATION

HEADWALL DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900177

SURVEY BOOK	SHEET
ELECTRONIC	182 of 321
CONTRACT	PROJECT
R-42444	1900177





STR. NO. 121 HEADWALL DETAIL

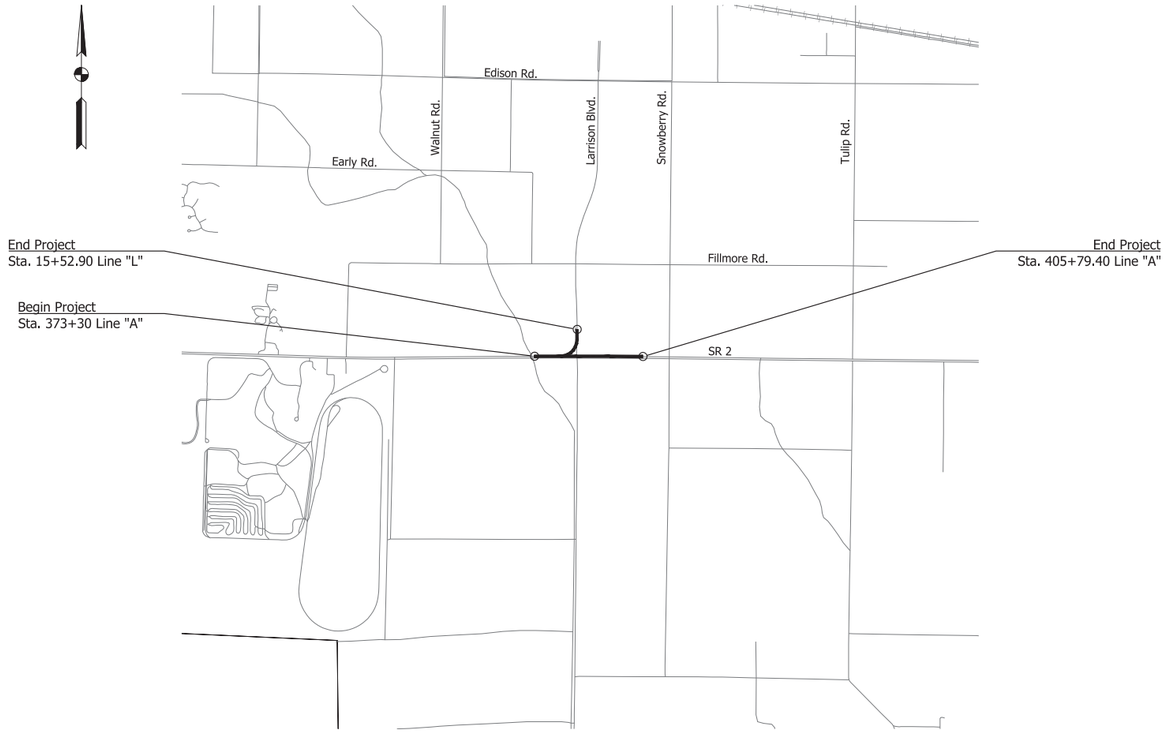
Scale: 1" = 1'-0"

Date: Jun 23, 2023, 3:51pm User Name: Sara Munsie
File: X:\production\Files\2020\120-30911\RO-04\CAD\PlanSet\SHt_RD_Structure Detail_01.dwg - (Headwall Details (2))

		RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: AS NOTED	BRIDGE FILE: N/A
				VERTICAL SCALE: N/A	DESIGNATION: 1900177
		DESIGNED: MMT / DRAWN: MMT	HEADWALL DETAILS	SURVEY BOOK: ELECTRONIC	SHEET: 183 of 321
		CHECKED: WBF / CHECKED: WBF		CONTRACT: R-42444	PROJECT: 1900177

ST. JOSEPH COUNTY

DEPARTMENT OF INFRASTRUCTURE, PLANNING, & GROWTH
DIVISION OF PUBLIC WORKS



SR 2 & LARRISON BOULEVARD INTERSECTION IMPROVEMENT

St. Joseph County Project Number: --

Intersection Improvement, Added Travel Lanes on State Road 2 at Larrison Boulevard, located in Section 7, T-37-N, R-1-E, Olive Township, St. Joseph County, Indiana

APPROVED BY:

ST. JOSEPH COUNTY, INDIANA
BOARD OF COMMISSIONERS

DISTRICT 1 COMMISSIONER	DISTRICT 2 COMMISSIONER	DISTRICT 3 COMMISSIONER
CARL H. BAXMEYER, PRESIDENT — DATE	DEREK D. DIETER, VICE PRESIDENT — DATE	DEBORAH A. FLEMING, DMD, MEMBER — DATE

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

ST. JOSEPH COUNTY
ESTABLISHED 1830

APPROVED BY ST. JOSEPH COUNTY ENGINEER
FOR CONSTRUCTION WITH ORDINANCE,
NO RESPONSIBILITY IS ACCEPTED FOR DESIGN

SKY K. MEDORS, P.E., ST. JOSEPH COUNTY ENGINEER — DATE

INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED 2022
AND ST. JOSEPH COUNTY, INDIANA SPECIFICATIONS, LATEST EDITION
TO BE USED WITH THESE PLANS

LOCHMUELLER GROUP
112 West Jefferson Blvd, Suite 500
South Bend, Indiana 46601
574.334.5460

RYAN J. CLARK, P.E. — DATE

RYAN J. CLARK
REGISTERED
No. 10200093
STATE OF INDIANA
PROFESSIONAL ENGINEER
Lochmueller Group

Date: Jun 08, 2023, 10:57am User Name: Sara.Munsee
File: X:\Production\Files\2021\22-3078\PRO-01\CAD\PlanSet\Sht_RD_Title.dwg

UTILITIES

COMMUNICATIONS:

AT&T - DISTRIBUTION
MATT SMITH
219-662-4418
MS2827@ATT.COM

BRIGHTSPEED
MAX DOWNEY
980-379-1443
MAXWELL.K.DOWNEY@BRIGHTSPEED.COM

CHOICE LIGHT INC,
BRANDON LIGGETT
574-968-5342
BLIGGETT@CHOICELIGHT.ORG

ELECTRIC:

AMERICAN ELECTRIC POWER
SCOTT DEFORD
574-320-4674
SEDEFORF@AEP.COM

GAS:

NIPSCO
JONATHAN ERDAHL
574-800-6132
JONATHANERDAHL@NISOURCE.COM

811

GENERAL NOTES

INDEX

SHEET NO.	DRAWINGS INDEX
1	TITLE SHEET
2	INDEX SHEET
3 - 5	TYPICAL SECTIONS
6 - 14	MAINTENANCE OF TRAFFIC
18 - 28	PLAN AND PROFILE
29 - 53	CROSS SECTIONS

REVISIONS

SHEET NO.	DATE	REVISED

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM | DRAWN: DJG
CHECKED: BSS | CHECKED: RJC

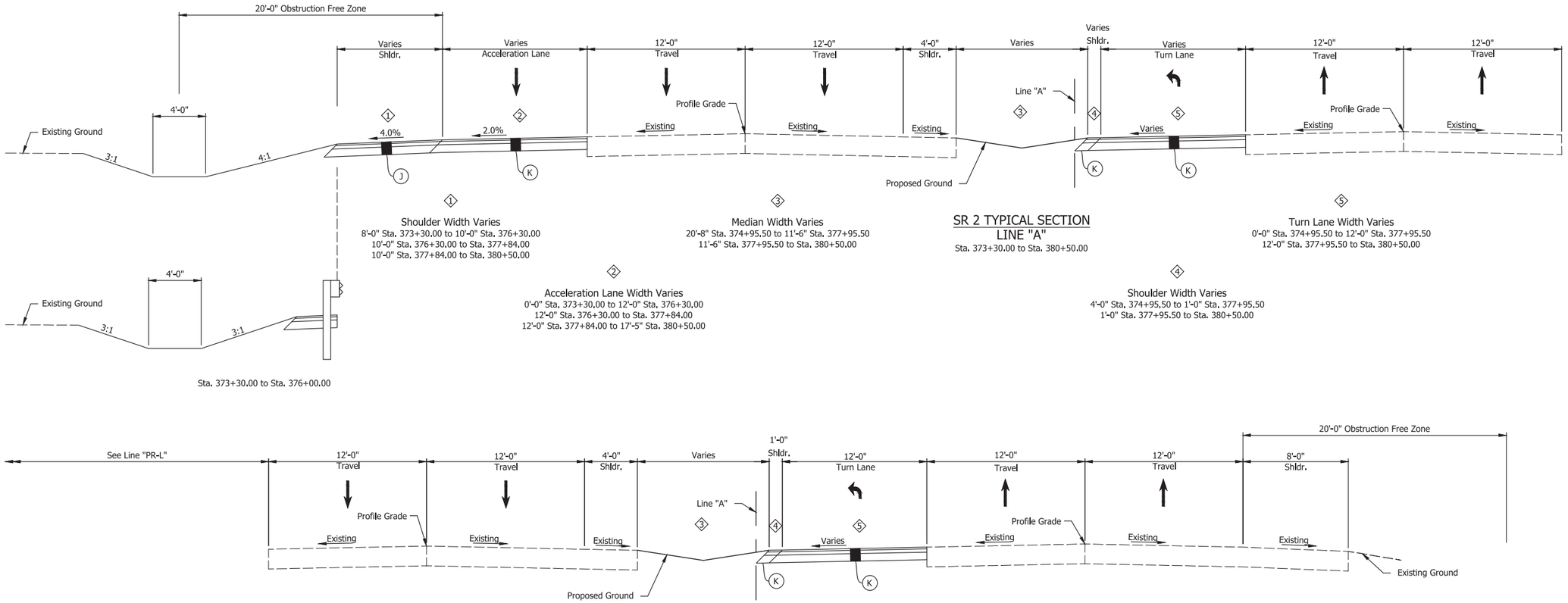
ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

INDEX

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	

SURVEY BOOK	SHEET
ELECTRONIC	2 of 53
CONTRACT	PROJECT

Date: Jun 08, 2023, 10:58am User Name: Sara Mursie
File: X:\Production\Files\2022\122-30781\PR2-01\CAD\PlanSet\SPlt_RD_Index.dwg - (Index Sheet)



SR 2 TYPICAL SECTION
LINE "A"
Sta. 373+30.00 to Sta. 376+50.00

SR 2 TYPICAL SECTION
LINE "A"
Sta. 380+50.00 to Sta. 381+29.30

SR 2 TYPICAL SECTION
LINE "A"
Sta. 386+50.00 to Sta. 405+79.40

LEGEND:

(J) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on
330 lbs/sys HMA Intermediate, Type C on
770 lbs/sys HMA Base, Type C on
Subgrade Treatment, Type IC

(K) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on
330 lbs/sys QC/QA HMA Intermediate, 4, 76, 19.0mm on
770 lbs/sys QC/QA HMA Base, 4, 64, 19.0mm on
Subgrade Treatment, Type IC

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

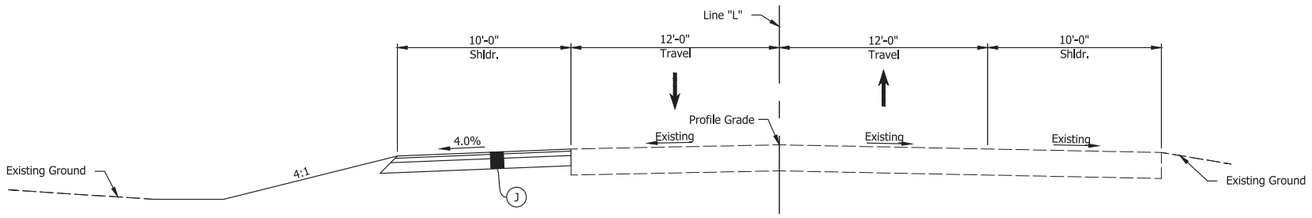
DESIGNED: SFM | DRAWN: DJG | CHECKED: BSS | CHECKED: RJC

ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

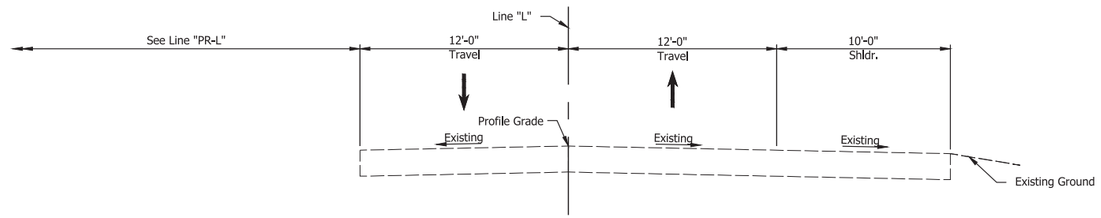
TYPICAL SECTIONS
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	N/A
VERTICAL SCALE	DESIGNATION
N/A	
SURVEY BOOK	SHEET
ELECTRONIC	3 of 53
CONTRACT	PROJECT

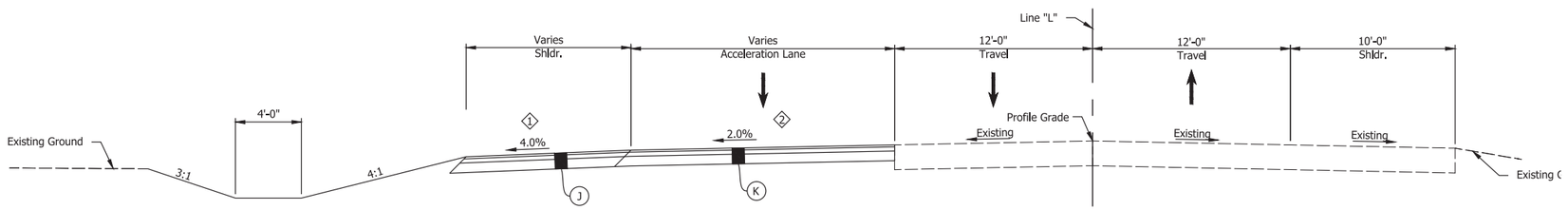
Date: Jun 08, 2023, 10:58am User Name: Sara Munsie
File: X:\Production\Files\2021\22-3078\PD-01\CAD\PlanSet\SHT_RD_Typical.dwg - (Typical Sections (1))



LARRISON BLVD. TYPICAL SECTION
LINE "L"
Sta. 8+48.40 to Sta. 11+54.40



LARRISON BLVD. TYPICAL SECTION
LINE "L"
Sta. 11+54.40 to Sta. 13+38.77



1 Shoulder Width Varies
10'-0" Sta. 13+38.77 to 9'-5"Sta. 15+52.90

2 Acceleration/Turn Lane Width Varies
16'-6" Sta. 13+38.77 to 0'-0" Sta. 15+52.90

LARRISON BLVD. TYPICAL SECTION
LINE "L"
Sta. 13+38.77 to Sta. 15+52.90

LEGEND:

(J) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on
330 lbs/sys HMA Intermediate, Type C on
770 lbs/sys HMA Base, Type C on
Subgrade Treatment, Type IC

(K) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on
330 lbs/sys QC/QA HMA Intermediate, 4, 76, 19.0mm on
770 lbs/sys QC/QA HMA Base, 4, 64, 19.0mm on
Subgrade Treatment, Type IC

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: DJG

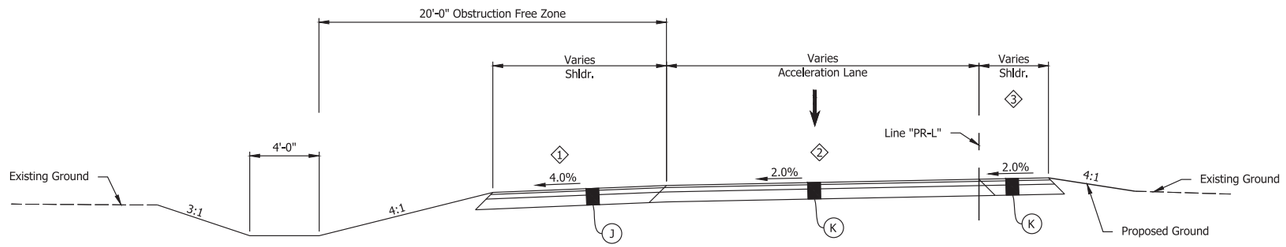
CHECKED: BSS CHECKED: RJC

ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

TYPICAL SECTIONS
LINE "L"

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	N/A
VERTICAL SCALE	DESIGNATION
N/A	
SURVEY BOOK	SHEET
ELECTRONIC	4 of 53
CONTRACT	PROJECT

Date: Jun 08, 2023, 10:58am User Name: Sara Munsie
File: X:\Production\Files\2022\122-3078\PKG-01\CAD\PlanSet\SPL_RD_Typical.dwg - (Typical Sections (2))



ACCELERATION LANE TYPICAL SECTION
LINE "PR-L"
Sta. 10+00.00 to Sta. 17+99.60

① Outside Shoulder Width Varies
10'-0" Sta. 10+00.00 to Sta. 17+64.22
10'-0" Sta. 17+64.22 to 9'-6" Sta. 17+99.60

② Acceleration/Turn Lane Width Varies
17'-6" Sta. 10+00.00 to 18'-0" Sta. 10+33.95
18'-0" Sta. 10+33.95 to Sta. 17+64.22
18'-0" Sta. 17+64.22 to 16'-7" Sta. 17+99.60

③ Shldr. Width Varies
0'-0" Sta. 10+00.00 to Sta. 11+28.65
0'-0" Sta. 11+28.65 to 10'-0" Sta. 11+67.98
4'-0" Sta. 11+67.98 to Sta. 16+17.07
10'-0" Sta. 16+17.07 to 0'-0" Sta. 17+64.30

LEGEND:

(J) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on
330 lbs/sys HMA Intermediate, Type C on
770 lbs/sys HMA Base, Type C on
Subgrade Treatment, Type IC

(K) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on
330 lbs/sys QC/QA HMA Intermediate, 4, 76, 19.0mm on
770 lbs/sys QC/QA HMA Base, 4, 64, 19.0mm on
Subgrade Treatment, Type IC

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: DJG

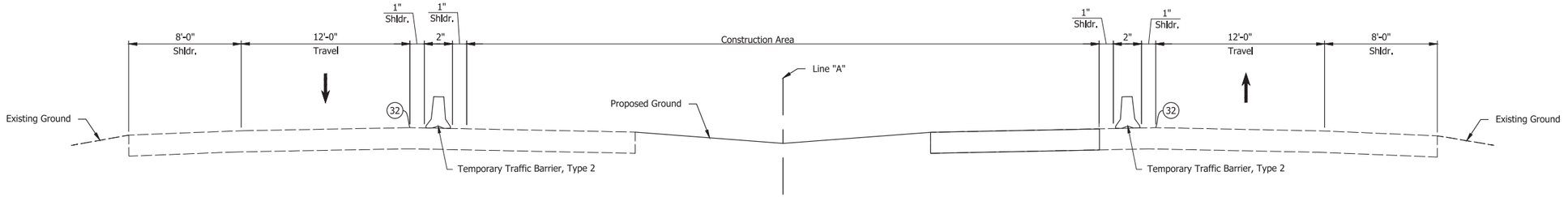
CHECKED: BSS CHECKED: RJC

ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

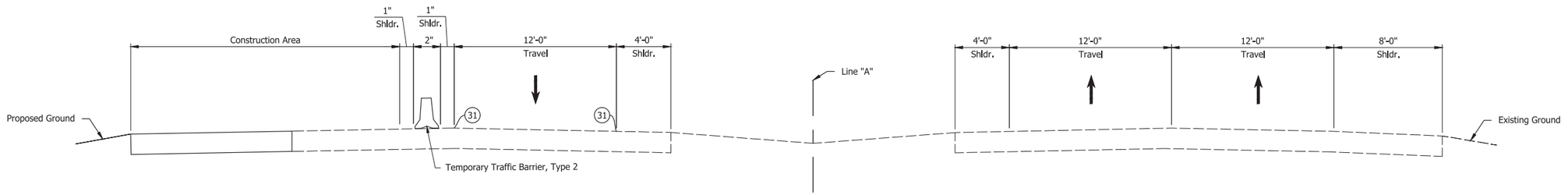
TYPICAL SECTIONS
LINE "PR-L"

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	N/A
VERTICAL SCALE	DESIGNATION
N/A	
SURVEY BOOK	SHEET
ELECTRONIC	5 of 53
CONTRACT	PROJECT

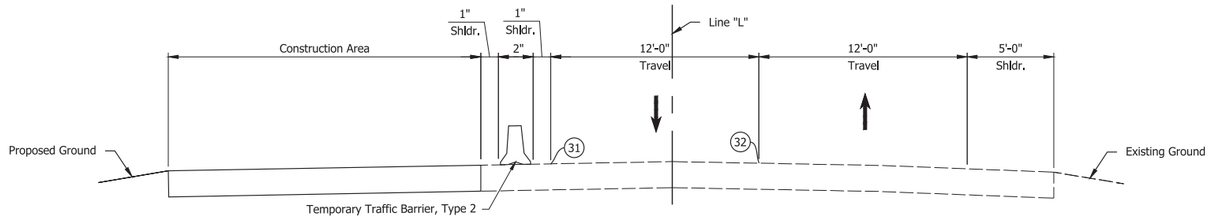
Date: Jun 08, 2023, 10:58am User Name: Sara.Munsie
File: X:\Production\Files\2022\122-3078\PKJ-01\CAD\PlanSet\SNL_RD_Typical.dwg - (Typical Sections (3))



MAINTENANCE OF TRAFFIC TYPICAL - PHASE 1



MAINTENANCE OF TRAFFIC TYPICAL - PHASE 2A & 2B



MAINTENANCE OF TRAFFIC TYPICAL - PHASE 2A & 2B

LEGEND:

(31) Temporary Pavement Marking, Solid, White, 4 in., Removable

(32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

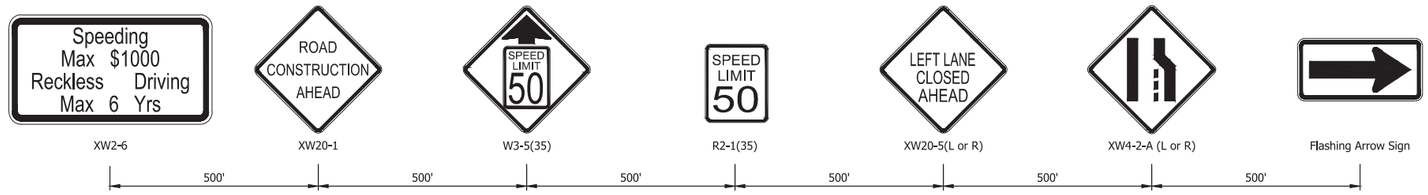
CHECKED: BSS CHECKED: RJC

ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

MAINTENANCE OF TRAFFIC
TYPICALS

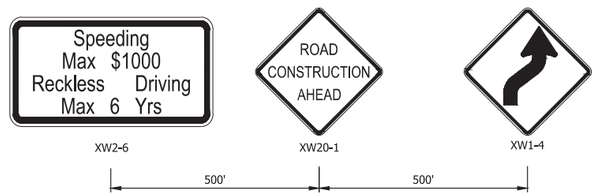
HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'	N/A
VERTICAL SCALE	DESIGNATION
1/4" = 1'	
SURVEY BOOK	SHEET
ELECTRONIC	6 of 53
CONTRACT	PROJECT

Date: Jun 08, 2023, 10:58am User Name: Sara.Munsie
File: X:\Production\Files\2022\122-3078\PH2-01\CAD\PlanSet\SNL_RD_MOT Typical.dwg - (MOT Typical)



XW2-6 | XW20-1 | W3-5(35) | R2-1(35) | XW20-5(L or R) | XW4-2-A (L or R) | Flashing Arrow Sign

SR 2 ADVANCE SIGN DETAIL
OUTSIDE SHOULDER
N.T.S.



XW2-6 | XW20-1 | XW1-4

LARRISON BLVD. ADVANCE SIGN DETAIL
OUTSIDE SHOULDER
N.T.S.

SEQUENCE OF OPERATIONS
SR 2 & LARRISON RD

PHASE 1 & 2
1. Place construction signs, temporary markings, channelizing devices, and temporary traffic barriers as shown in the plans.
2. Perform work to as detailed in the plans and construction zones detailed in plans and described below in phases 1, 2a, and 2b.

PHASE 1
- a. Place construction signs, temporary markings, channelizing devices, and temporary traffic barriers as detailed in the plans.
- b. Restrict traffic to outside shoulders and lanes. Intersections will remain opened as detailed in the plans.
- c. Perform work on SR 2 inside shoulders and median as detailed in the plans.

PHASE 2a
- a. Place construction signs, temporary markings, channelizing devices, and temporary traffic barriers as detailed in the plans.
- b. Restrict traffic to inside shoulders and lanes. Intersections will remain opened as detailed in the plans.
- c. Perform work on SR 2 and Larrison Rd outside shoulders as detailed in the plans. Construct new acceleration lane.

PHASE 2b
- a. Place construction signs, temporary markings, channelizing devices, and temporary traffic barriers as detailed in the plans.
- b. Restrict traffic to inside shoulders and lanes. Intersections will remain opened as detailed in the plans.
- c. Remove existing right turn lane on Larrison Rd as detailed in the plans.

Date: Jun 08, 2023, 10:58am User Name: Sara.Munsie
File: X:\Production\Files\2022\122-3078\PM1-01\CAD\PlanSet\SNL_RD_MOT Typical.dwg - (MOT Advanced Sign Detail)

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

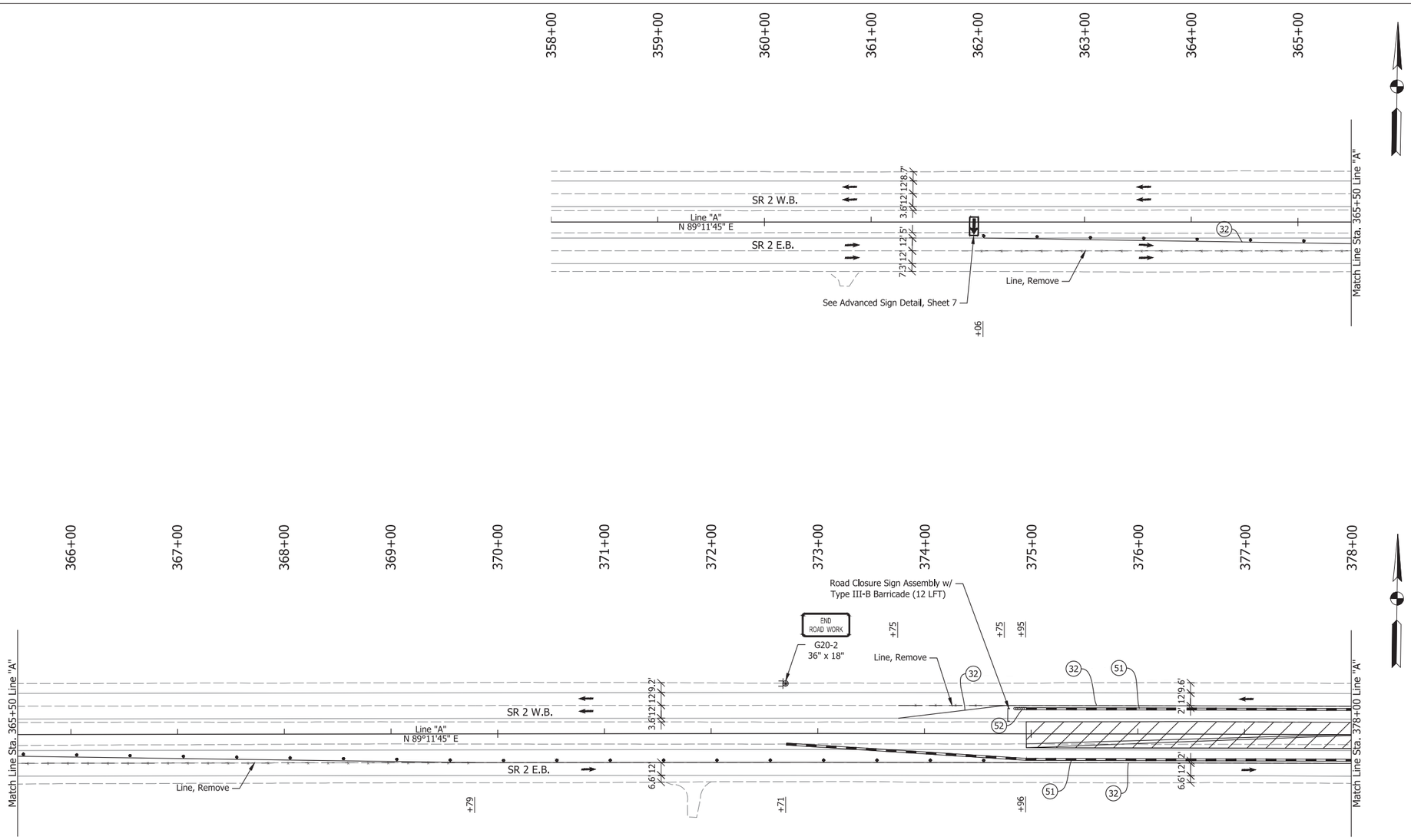
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG | DRAWN: BJS | CHECKED: BSS | CHECKED: RJC

ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

MAINTENANCE OF TRAFFIC
ADVANCED SIGN DETAILS

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	
SURVEY BOOK	SHEET
ELECTRONIC	7 of 53
CONTRACT	PROJECT



PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

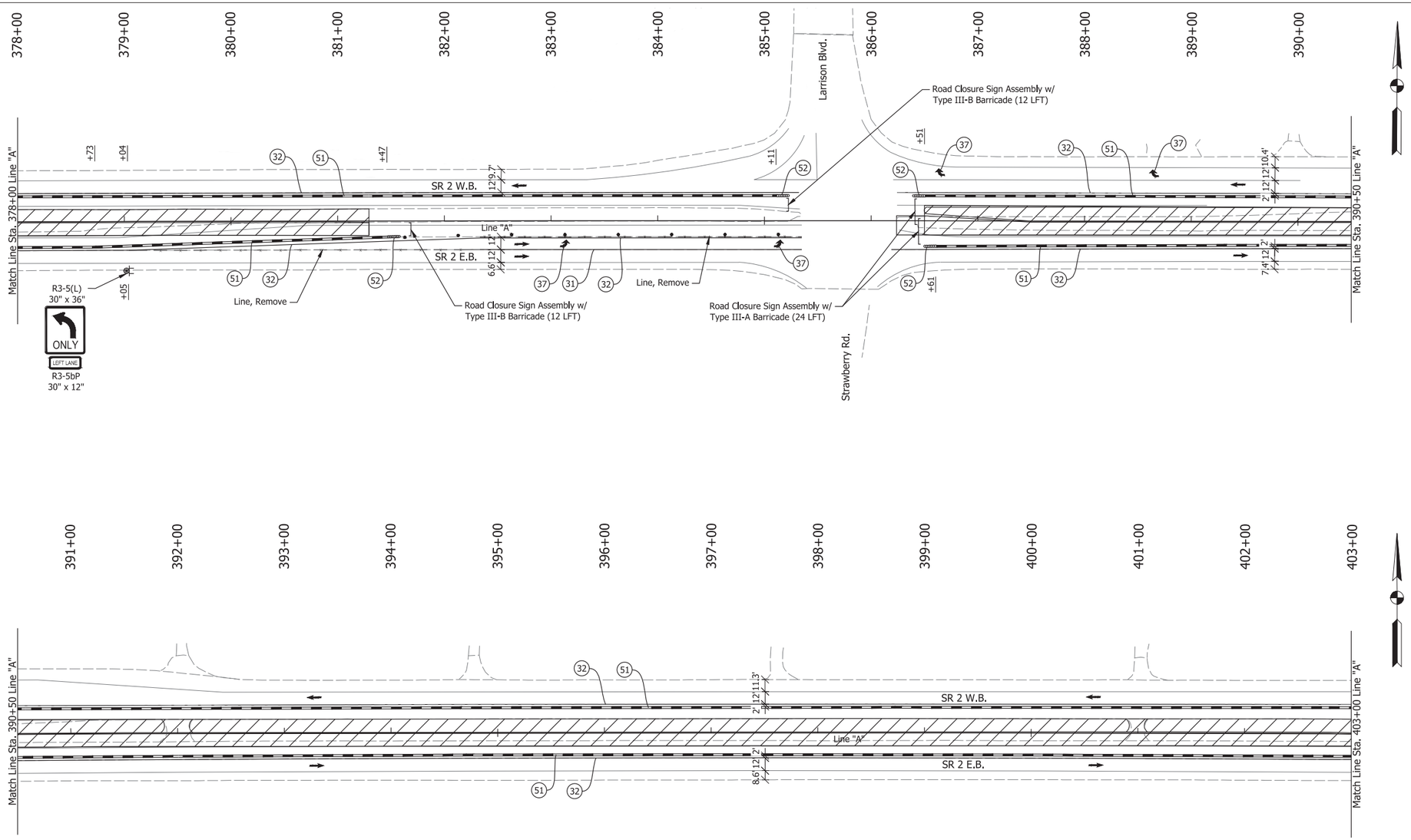
CHECKED: BSS CHECKED: RJC

ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

MAINTENANCE OF TRAFFIC PLAN
PHASE 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
SURVEY BOOK	SHEET
ELECTRONIC	8 of 53
CONTRACT	PROJECT

Date: Jun 08, 2023, 10:59am User Name: Sara.Nunsie
File: X:\Production\Files\2022\122-30781\PRJ-01\CAD\PlanSet\Sht_RD_MOT_Ph1.dwg - (MOT Phase 1 (01))



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- (37) Temporary Pavement Message Marking, Lane Indication Arrow
- (51) Temporary Traffic Barrier, Type 2, Anchored
- (52) Energy Absorbing Terminal, CZ, TL-2
- Barrels
- Traffic Flow
- Construction Sign
- Flashing Arrow Board
- Line, Remove
- Construction Area

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

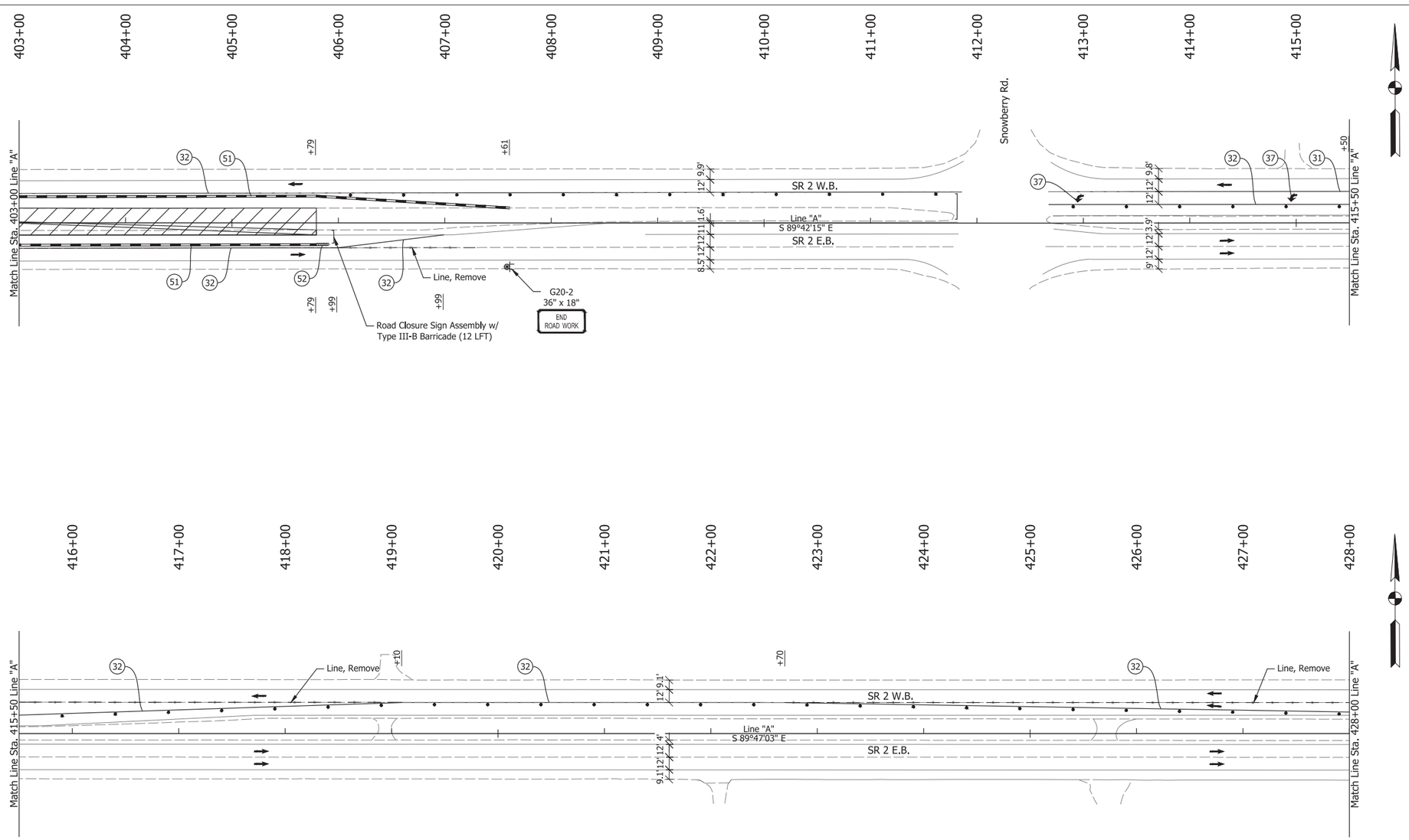
DESIGNED: JAG DRAWN: BJS
CHECKED: BSS CHECKED: RJC

ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

MAINTENANCE OF TRAFFIC PLAN
PHASE 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
SURVEY BOOK	SHEET
ELECTRONIC	9 of 53
CONTRACT	PROJECT

Date: Jun 08, 2023, 10:59am User Name: Sara.Nunsie
File: X:\Production\Files\2022\122-30781\PRJ-01\CAD\PlanSet\Sht_RD_MOT_Ph1.dwg - (MOT Phase 1 (02))



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- (37) Temporary Pavement Message Marking, Lane Indication Arrow
- (51) Temporary Traffic Barrier, Type 2, Anchored
- (52) Energy Absorbing Terminal, CZ, TL-2
- Barrels
- Traffic Flow
- Construction Sign
- Flashing Arrow Board
- Line, Remove
- Construction Area

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

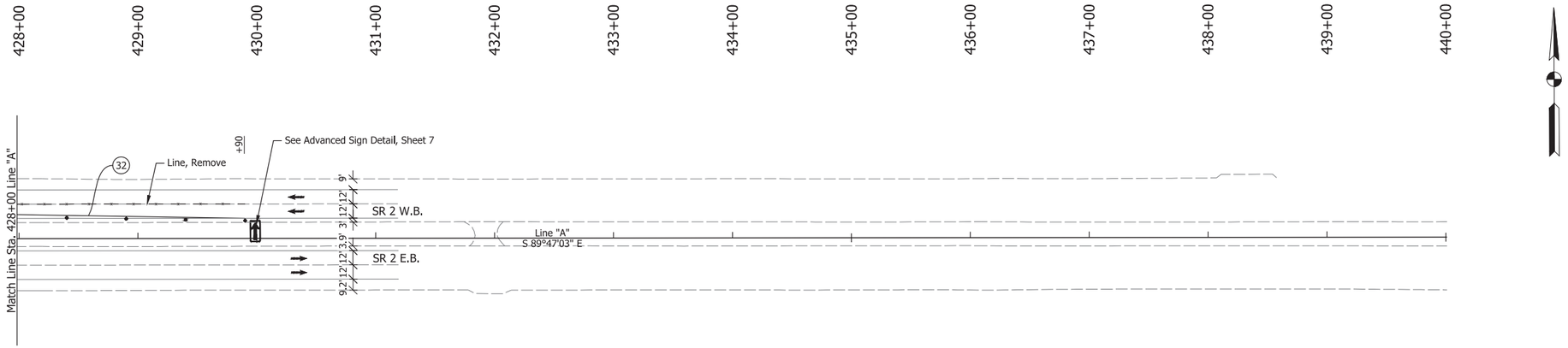
DESIGNED: JAG DRAWN: BJS
CHECKED: BSS CHECKED: RJC

ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

MAINTENANCE OF TRAFFIC PLAN
PHASE 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
SURVEY BOOK	SHEET
ELECTRONIC	10 of 53
CONTRACT	PROJECT

Date: Jun 08, 2023, 10:59am User Name: Sara.Nunsie
File: X:\Production\Files\2022\122-3878\PRJ-01\CAD\PlanSet\SNL_RD_MOT_Ph1.dwg - (MOT Phase 1 (03))



LEGEND:

- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- • • • Barrels
- → Traffic Flow
- Construction Sign
- Flashing Arrow Board
- → → Line, Remove

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG | DRAWN: BJS

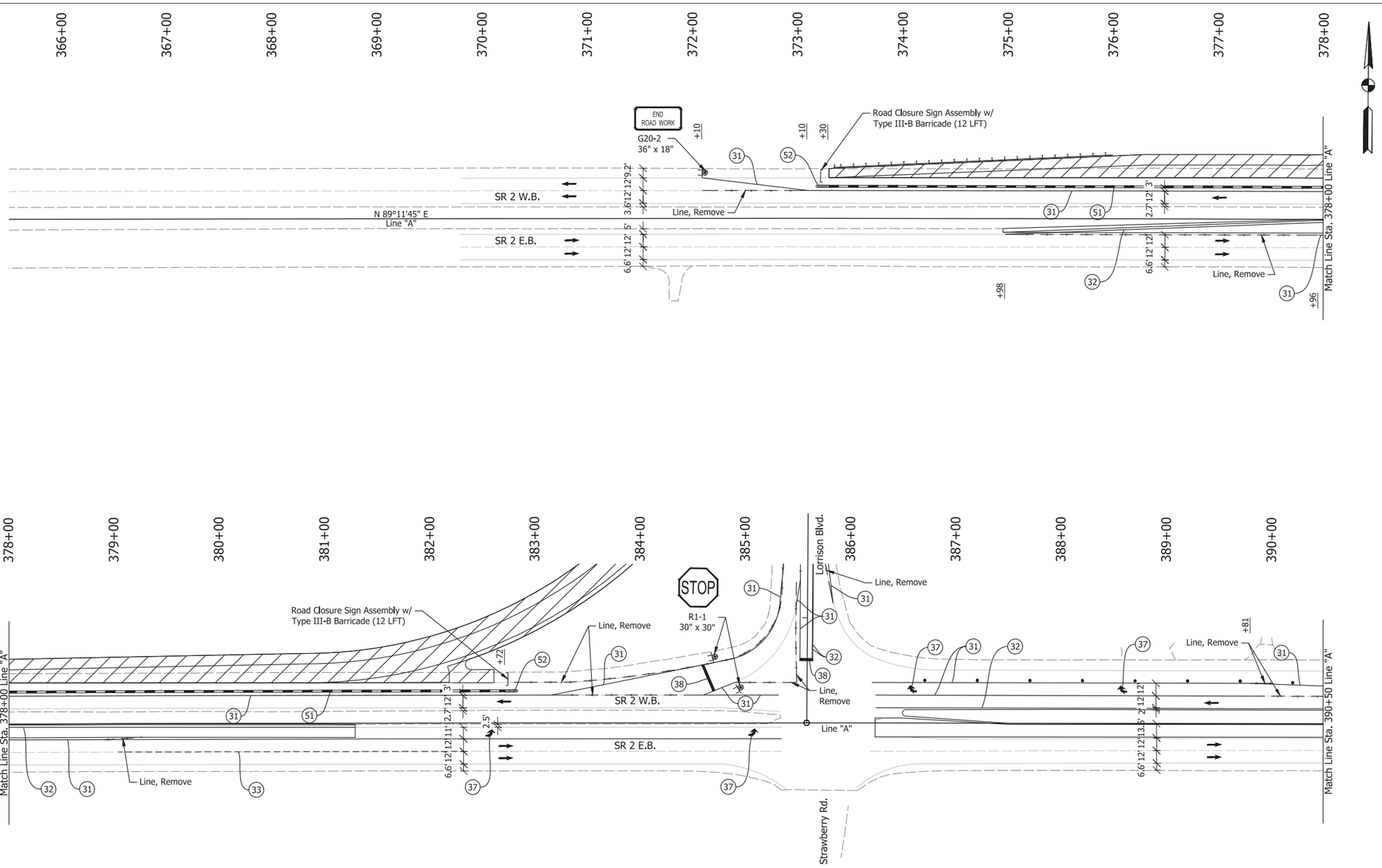
CHECKED: BSS | CHECKED: RJC

ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

MAINTENANCE OF TRAFFIC PLAN
PHASE 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
SURVEY BOOK	SHEET
ELECTRONIC	11 of 53
CONTRACT	PROJECT

Date: Jun 08, 2023, 10:59am User Name: Sara.Nunsie
File: X:\Production\Files\2022\122-3878\PID-01\CAD\PlanSet\SNL_6D_MOT_Ph1.dwg - (MOT Phase 1 (+))



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- (33) Temporary Pavement Marking, Broken, White, 4 in., Removable
- (37) Temporary Pavement Message Marking, Lane Indication Arrow
- (38) Temporary Pavement Marking, Solid, White, 24 in., Removable
- (51) Temporary Traffic Barrier, Type 2, Anchored
- (52) Energy Absorbing Terminal, CZ, TL-2
- Barrels
- Traffic Flow
- Construction Sign
- Line, Remove
- Construction Area

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

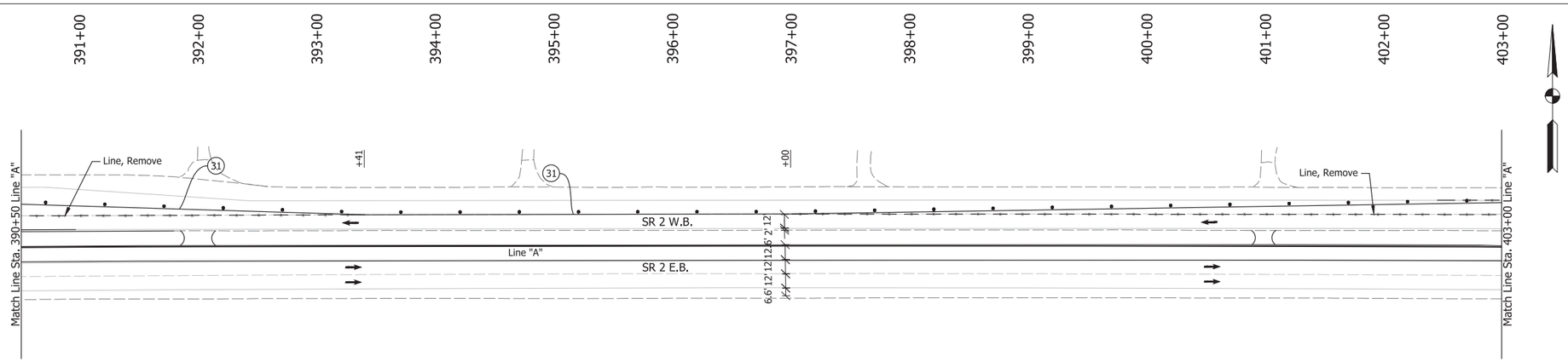
CHECKED: BSS CHECKED: RJC

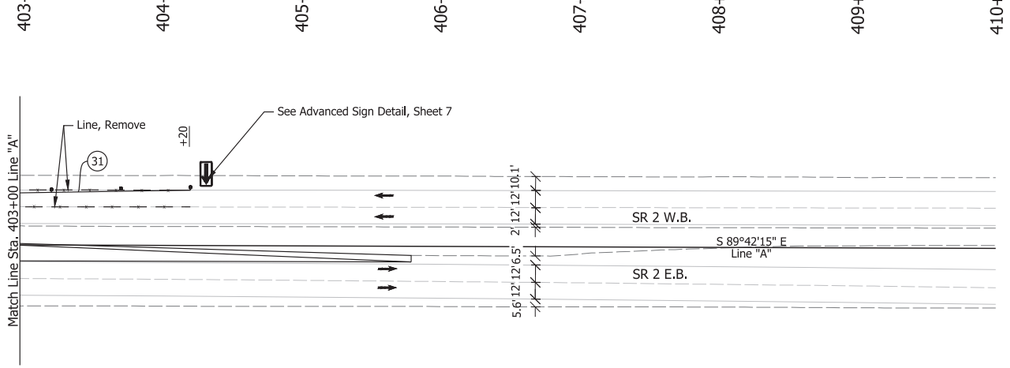
ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

MAINTENANCE OF TRAFFIC PLAN
PHASE 2A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
SURVEY BOOK	SHEET
ELECTRONIC	12 of 53
CONTRACT	PROJECT

Date: Jun 08, 2023, 10:59am User Name: Sara.Nunsie
File: X:\Production\Files\2021\22-387\PO-01\CAD\PlanSet\SNL_RD_MOT_Ph2a.dwg - (MOT Phase 2a (01))





LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- Barrels
- Traffic Flow
- Construction Sign
- Flashing Arrow Board
- Line, Remove
- Construction Area

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

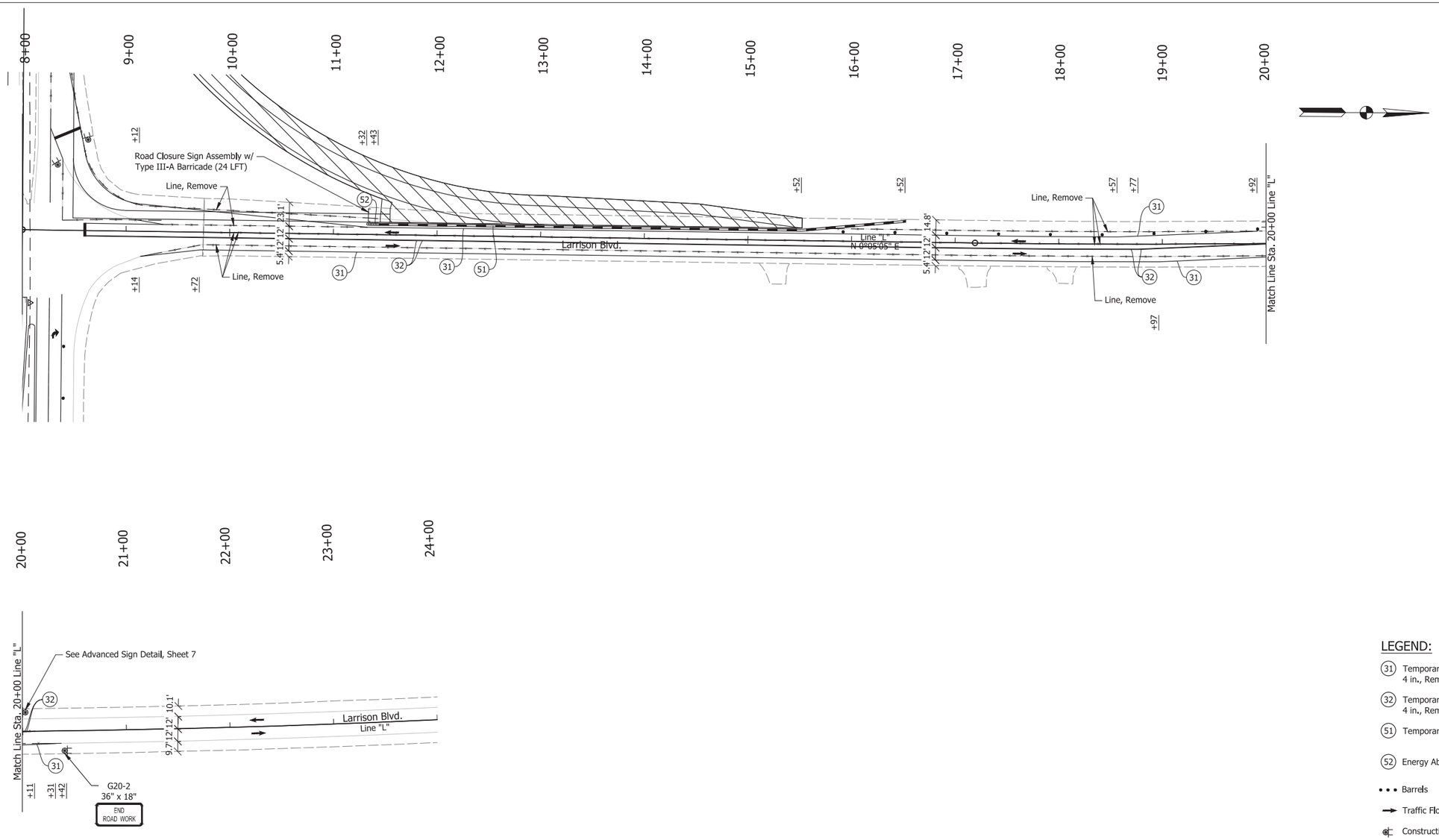
CHECKED: BSS CHECKED: RJC

ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

MAINTENANCE OF TRAFFIC PLAN
PHASE 2A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
SURVEY BOOK	SHEET
ELECTRONIC	13 of 53
CONTRACT	PROJECT

Date: Jun 08, 2023, 10:59am User Name: Sara.Munsie
File: X:\Production\Files\2022\122-3078\PIO-01\CAD\PlanSet\SHt_RD_MOT_PH2a.dwg - (MOT Phase 2a (02))



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (32) Temporary Pavement Marking, Solid, Yellow, 4 in., Removable
- (51) Temporary Traffic Barrier, Type 2, Anchored
- (52) Energy Absorbing Terminal, CZ, TL-2
- Barrels
- Traffic Flow
- Construction Sign
- Line, Remove
- Construction Area

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

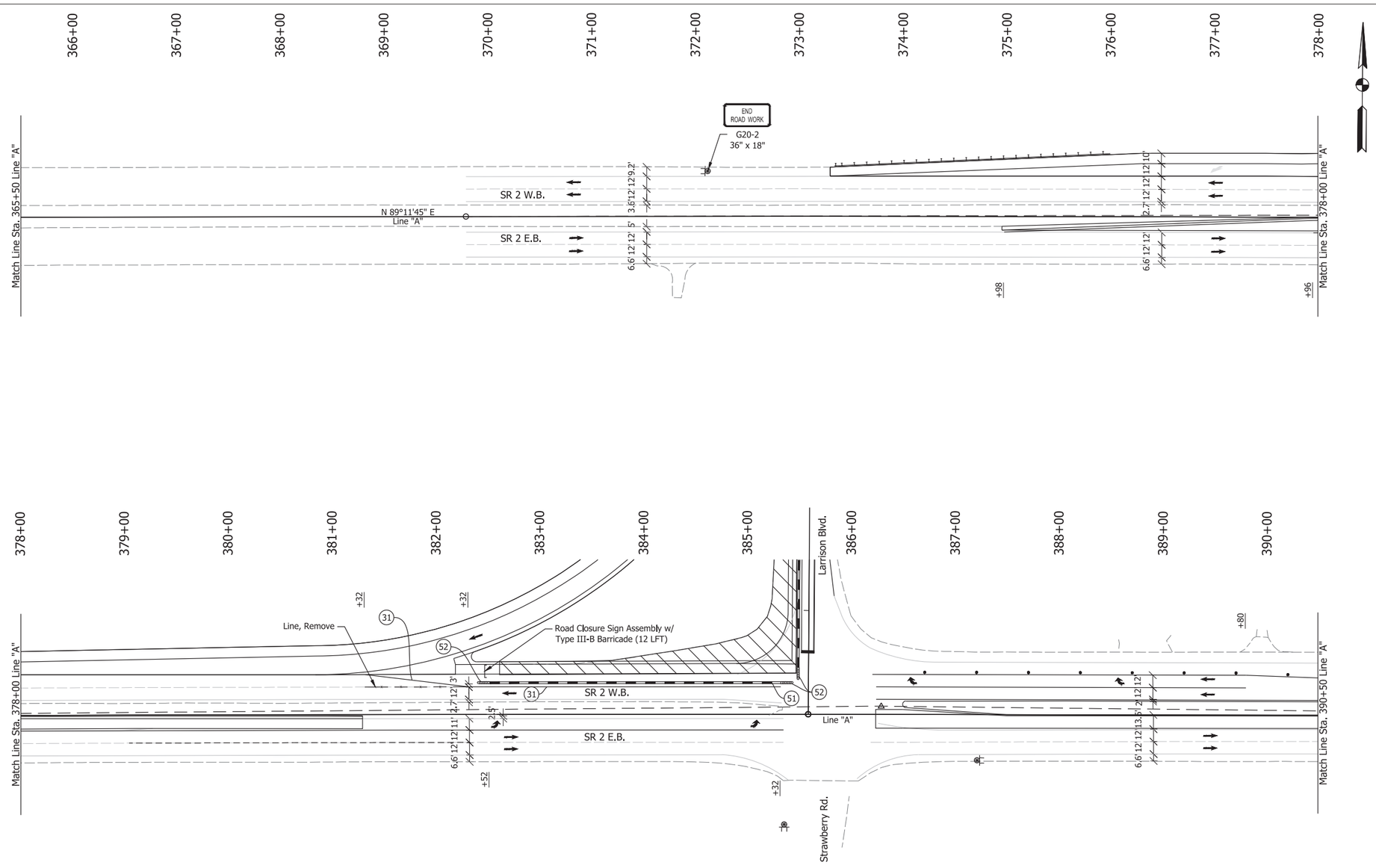
CHECKED: BSS CHECKED: RJC

ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

MAINTENANCE OF TRAFFIC PLAN
PHASE 2A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
SURVEY BOOK	SHEET
ELECTRONIC	14 of 53
CONTRACT	PROJECT

Date: Jun 08, 2023, 11:00am User Name: Sara.Nunsie
File: X:\Production\Files\2022\122-3078\PRJ-01\CAD\PlanSet\SN_ 6D_ MOT_ Ph2a_ 02.dwg - (MOT Phase 2a_ 02 (01))



PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

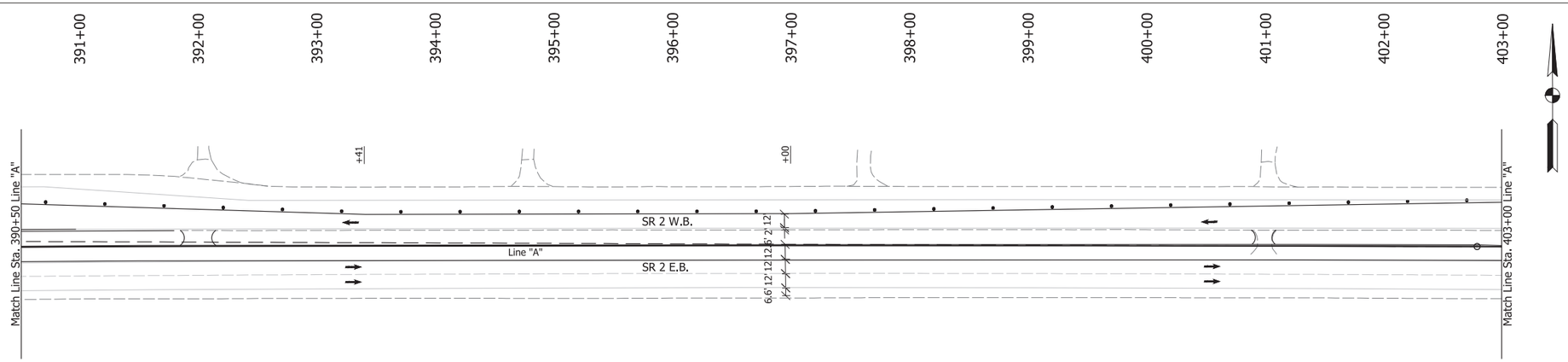
CHECKED: BSS CHECKED: RJC

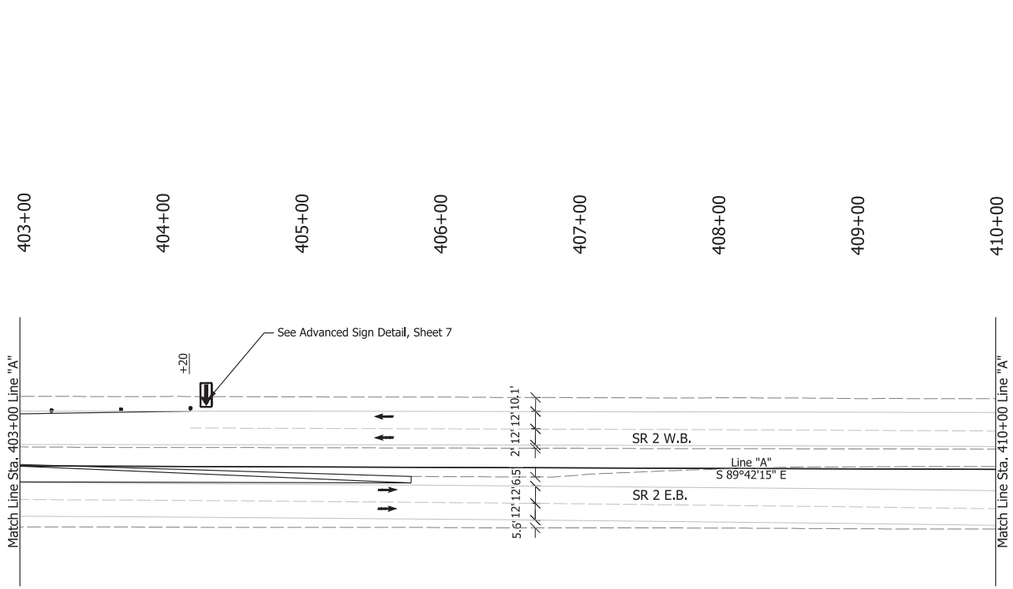
ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

MAINTENANCE OF TRAFFIC PLAN
PHASE 2B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
SURVEY BOOK	SHEET
ELECTRONIC	15 of 53
CONTRACT	PROJECT

Date: Jun 08, 2023, 11:00am User Name: Sara.Nunsie
File: X:\Production\Files\2022\122-3878\PID-01\CAD\PlanSet\SNL_RD_MOT_Ph2b.dwg - (MOT Phase 2b (01))





LEGEND:

- Barrels
- Traffic Flow
- Construction Sign
- Flashing Arrow Board

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

CHECKED: BSS CHECKED: RJC

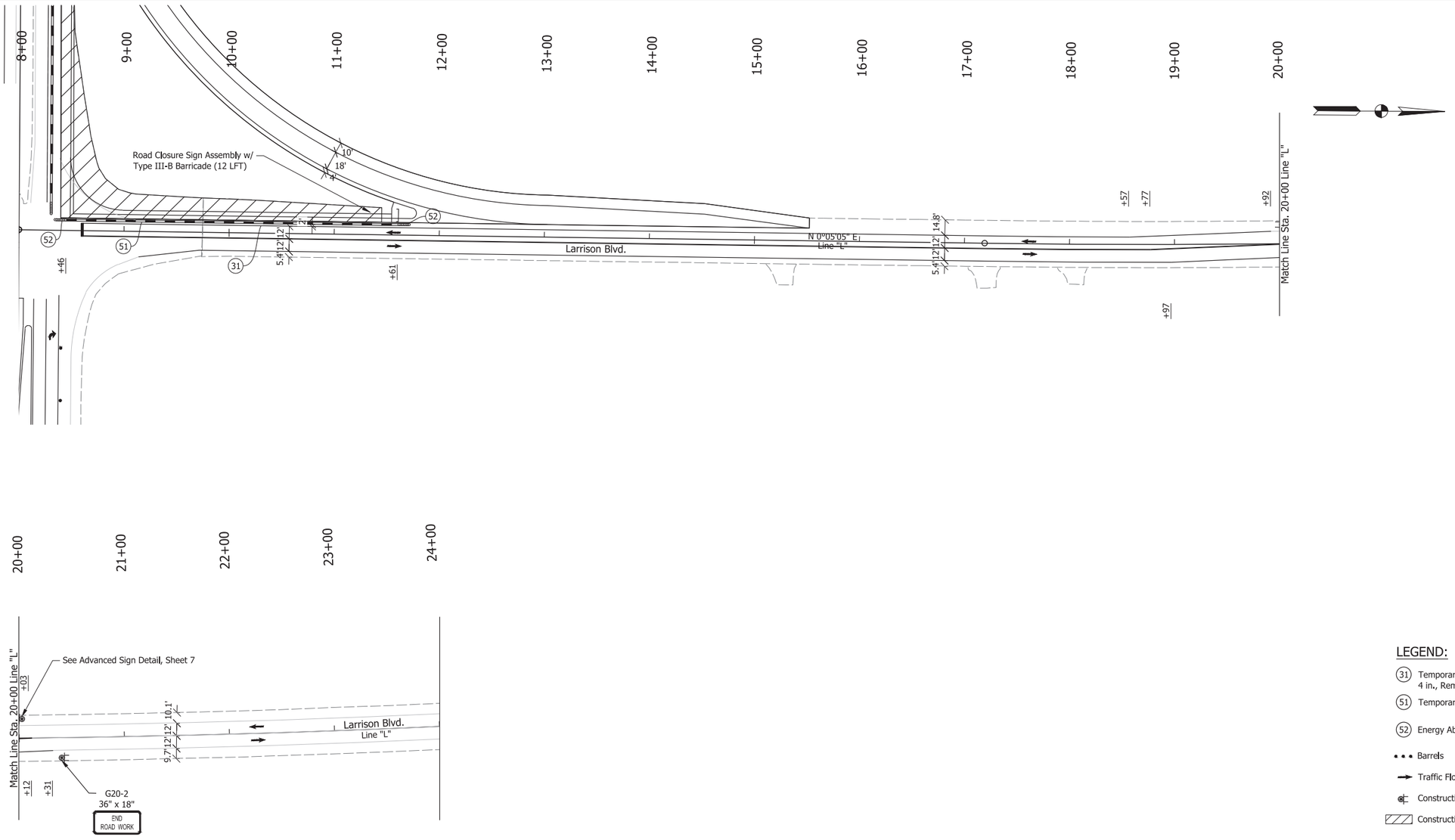
ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

MAINTENANCE OF TRAFFIC PLAN
PHASE 2B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION

SURVEY BOOK	SHEET
ELECTRONIC	16 of 53
CONTRACT	PROJECT

Date: Jun 08, 2023, 11:00am User Name: Sara Munsie
File: X:\Production\Files\2022\122-3078\PIO-01\CAD\PlanSet\SHL_RD_MOT_PH2b.dwg - (MOT Phase 2b (02))



LEGEND:

- (31) Temporary Pavement Marking, Solid, White, 4 in., Removable
- (51) Temporary Traffic Barrier, Type 2, Anchored
- (52) Energy Absorbing Terminal, CZ, TL-2
- Barrels
- Traffic Flow
- Construction Sign
- Construction Area

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JAG DRAWN: BJS

CHECKED: BSS CHECKED: RJC

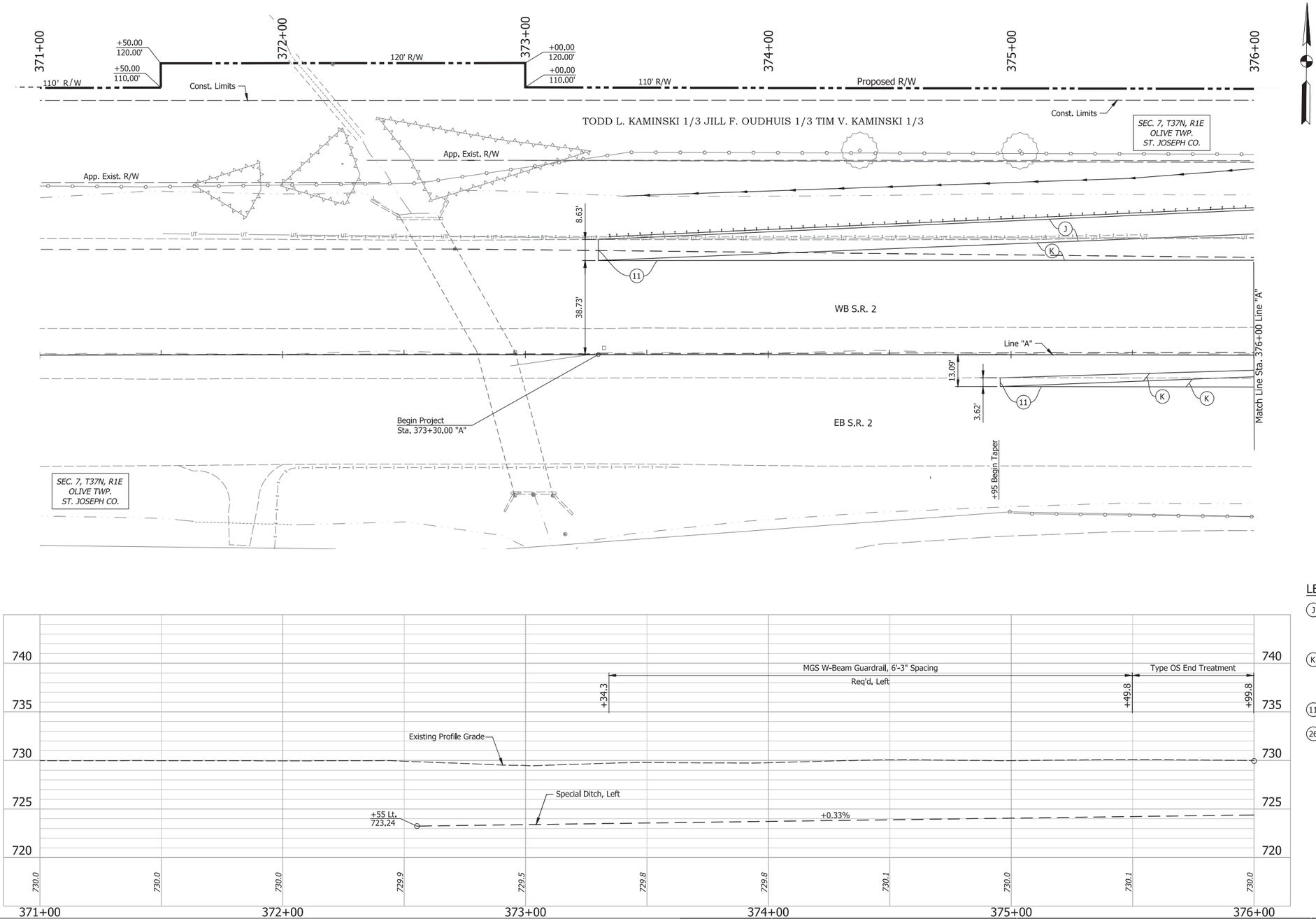
ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

MAINTENANCE OF TRAFFIC PLAN
PHASE 2B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION

SURVEY BOOK	SHEET		
ELECTRONIC	17	of	53
CONTRACT	PROJECT		

Date: Jun 08, 2023, 11:01am User Name: Sara.Nunsie
File: X:\Production\Files\2022\122-3078\PRJ-01\CAD\PlanSet\SN_IID_MOT_Ph2b_02.dwg - (MOT Phase 2b, 02 (01))



LEGEND:

- (J) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on 330 lbs/sys HMA Intermediate, Type C on 770 lbs/sys HMA Base, Type C on Subgrade Treatment, Type IC
- (K) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on 330 lbs/sys QC/QA HMA Intermediate, 4, 76, 19.0mm on 770 lbs/sys QC/QA HMA Base, 4, 64, 19.0mm on Subgrade Treatment, Type IC
- (11) Sawcut
- (26) Sodding, Nursery

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: DJG

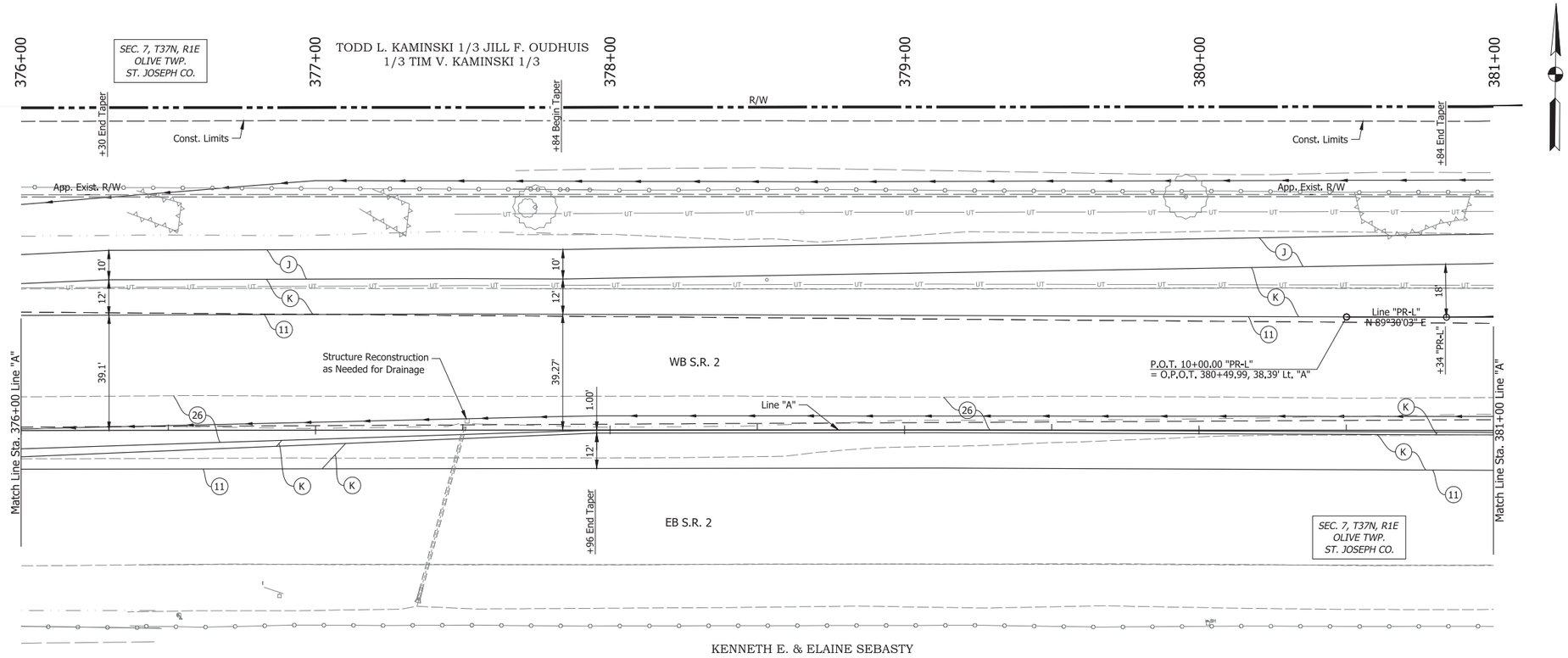
CHECKED: BSS CHECKED: RJC

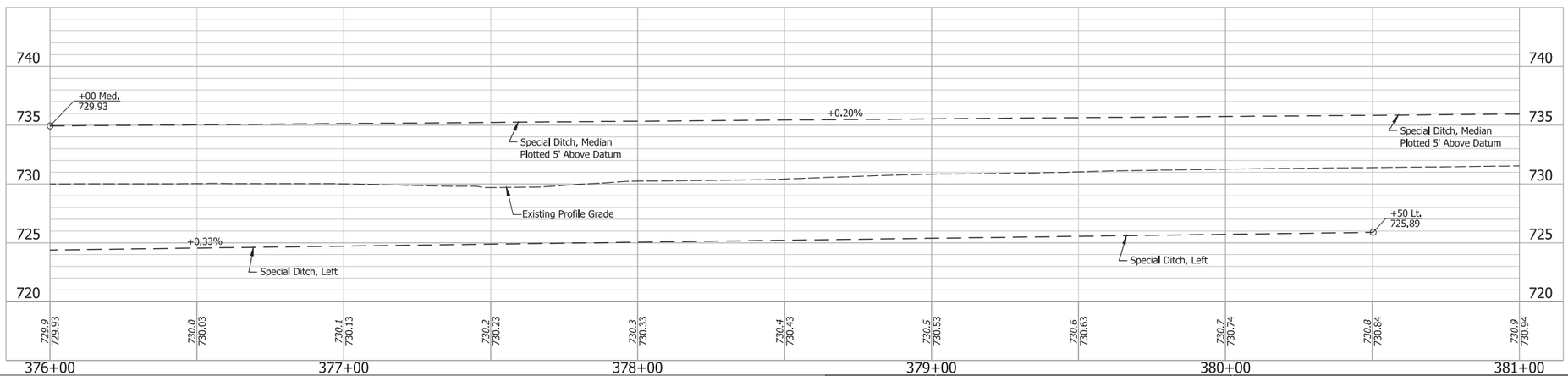
ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

PLAN & PROFILE - LINE "A"
STA. 371+00 TO STA. 376+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
1" = 5'	
SURVEY BOOK	SHEET
ELECTRONIC	18 of 53
CONTRACT	PROJECT

Date: Jun 08, 2023, 11:02am User Name: Sara Munsie
File: X:\Production\Files\2021\122-3078\PRJ-01\CAD\PlanSet\Sht_RD_PlanProfile_Line A.dwg - (Line A Sheet (01))





LEGEND:

- (J) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on 330 lbs/sys HMA Intermediate, Type C on 770 lbs/sys HMA Base, Type C on Subgrade Treatment, Type IC
- (K) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on 330 lbs/sys QC/QA HMA Intermediate, 4, 76, 19.0mm on 770 lbs/sys QC/QA HMA Base, 4, 64, 19.0mm on Subgrade Treatment, Type IC
- (11) Sawcut
- (26) Sodding, Nursery

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: DJG

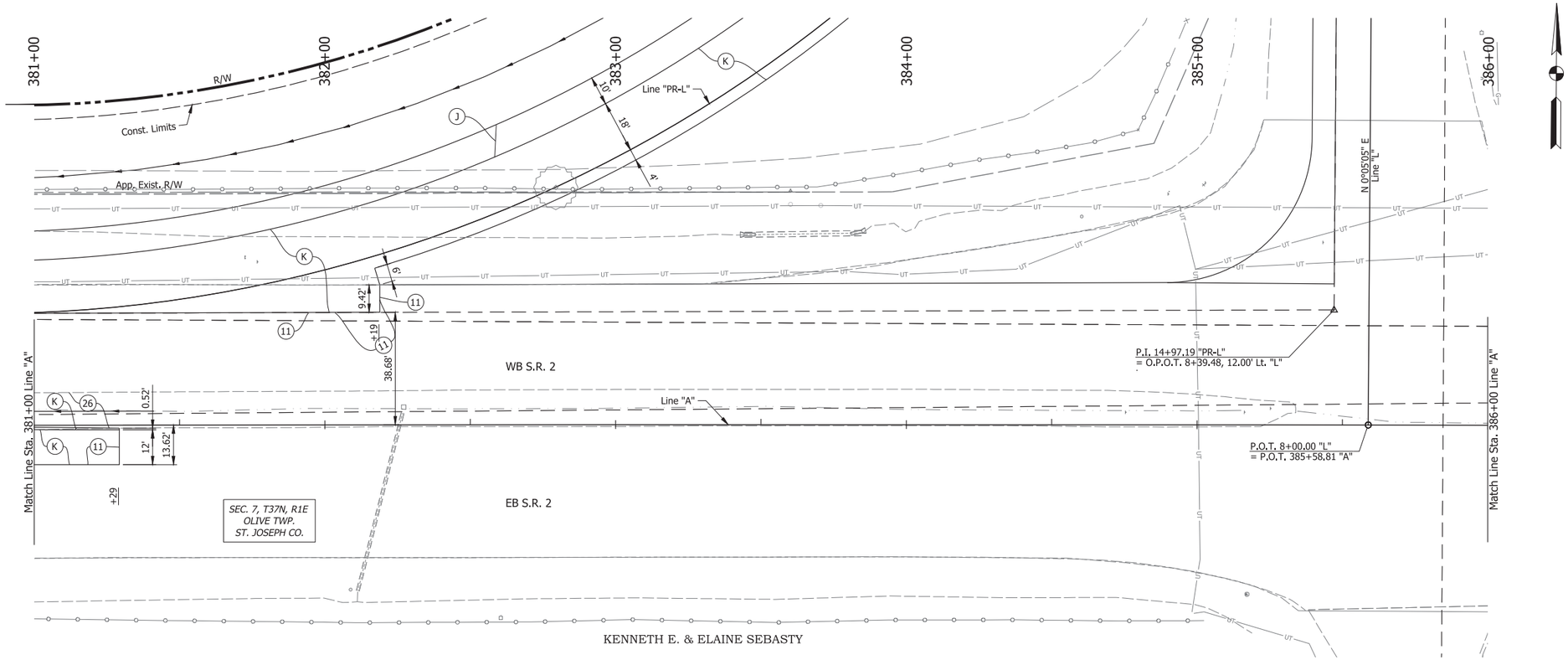
CHECKED: BSS CHECKED: RJC

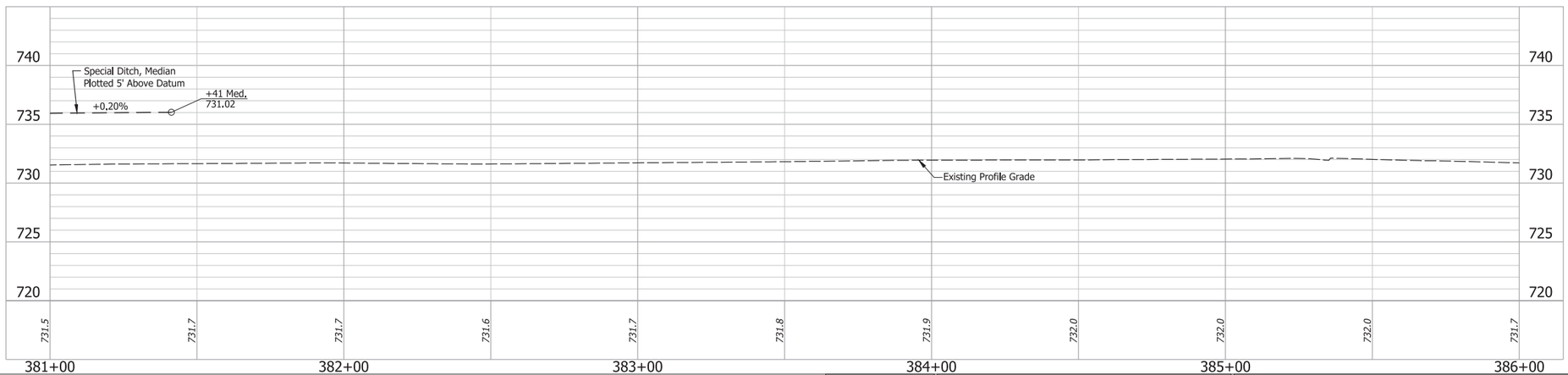
ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

PLAN & PROFILE - LINE "A"
STA. 376+00 TO STA. 381+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
1" = 5'	
SURVEY BOOK	SHEET
ELECTRONIC	19 of 53
CONTRACT	PROJECT

Date: Jun 08, 2023, 11:02am User Name: Sara Munsie
File: X:\Production\Files\20221122-3078\PRJ-01\CAD\PlanSet\Sht_RD_PlanProfile_Line A.dwg - (Line A Sheet (02))





LEGEND:

(J) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on
330 lbs/sys HMA Intermediate, Type C on
770 lbs/sys HMA Base, Type C on
Subgrade Treatment, Type IC

(K) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on
330 lbs/sys QC/QA HMA Intermediate, 4, 76, 19.0mm on
770 lbs/sys QC/QA HMA Base, 4, 64, 19.0mm on
Subgrade Treatment, Type IC

(11) Sawcut

(26) Sodding, Nursery

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM | DRAWN: DJG

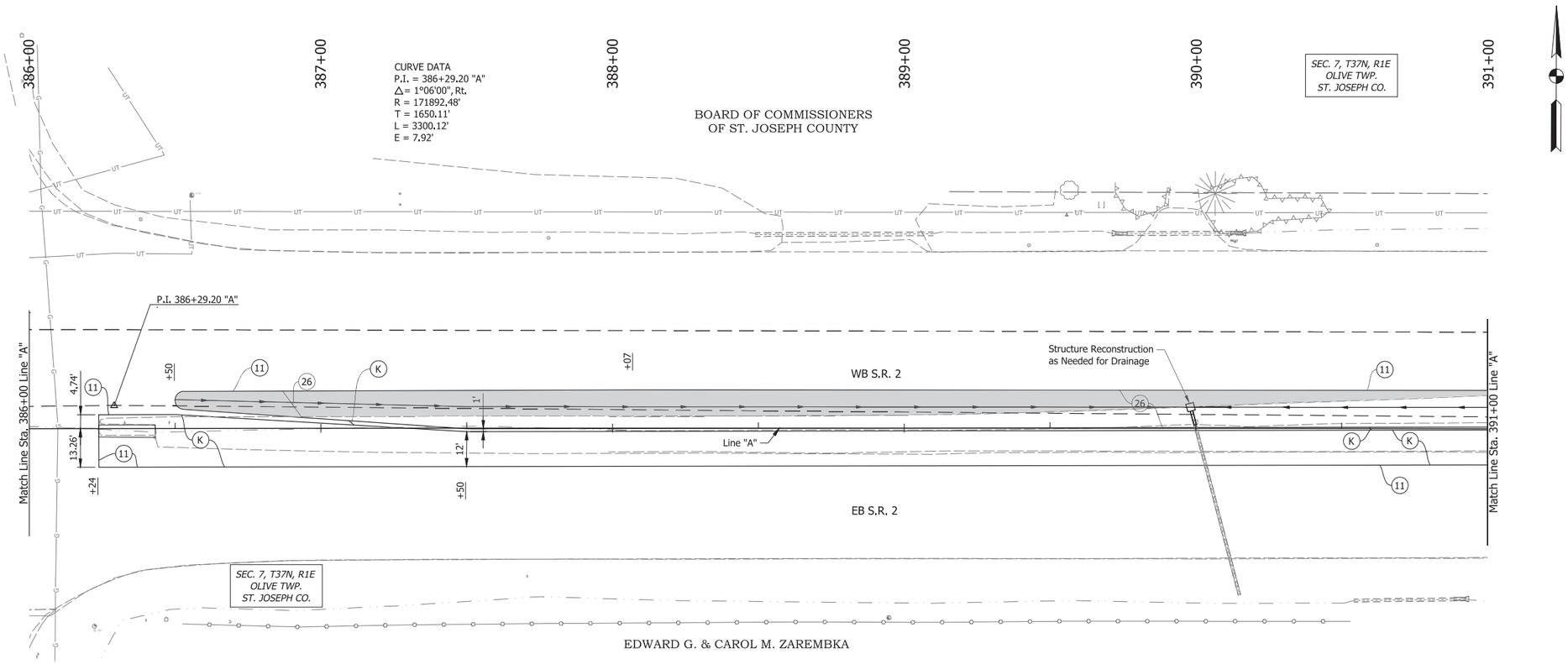
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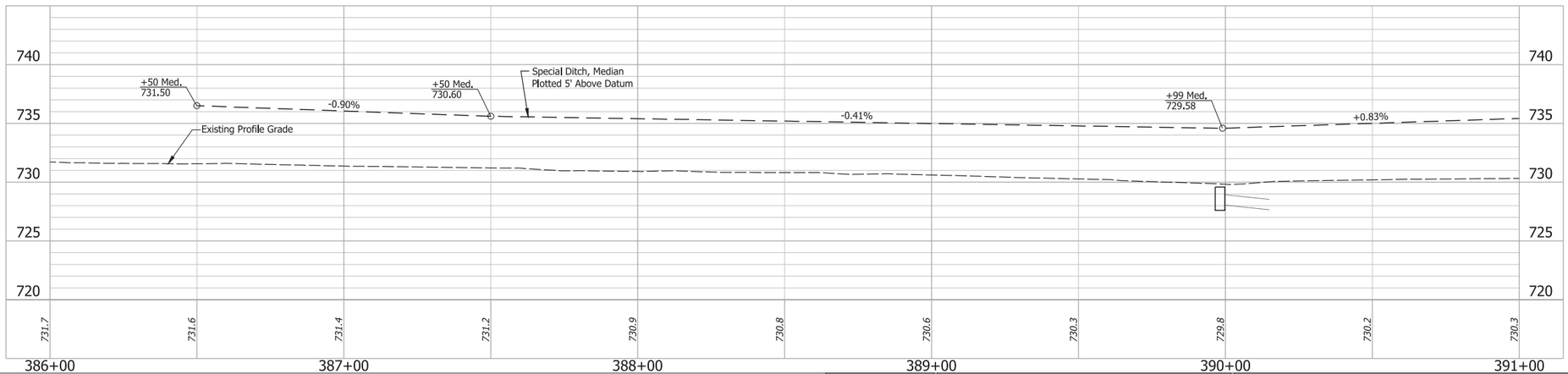
ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

PLAN & PROFILE - LINE "A"
STA. 381+00 TO STA. 386+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
1" = 5'	
SURVEY BOOK	SHEET
ELECTRONIC	20 of 53
CONTRACT	PROJECT

Date: Jun 08, 2023, 11:02am User Name: Sara Munsie
File: X:\Production\Files\2022\122-3078\PRJ-01\CAD\PlanSet\Sht_RD_PlanProfile_Line A.dwg - (Line A Sheet (03))





LEGEND:

(J) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on
330 lbs/sys HMA Intermediate, Type C on
770 lbs/sys HMA Base, Type C on
Subgrade Treatment, Type IC

(K) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on
330 lbs/sys QC/QA HMA Intermediate, 4, 76, 19.0mm on
770 lbs/sys QC/QA HMA Base, 4, 64, 19.0mm on
Subgrade Treatment, Type IC

(11) Sawcut

(26) Sodding, Nursery

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: DJG
CHECKED: BSS CHECKED: RJC

ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

PLAN & PROFILE - LINE "A"
STA. 386+00 TO STA. 391+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
1" = 5'	
SURVEY BOOK	SHEET
ELECTRONIC	21 of 53
CONTRACT	PROJECT

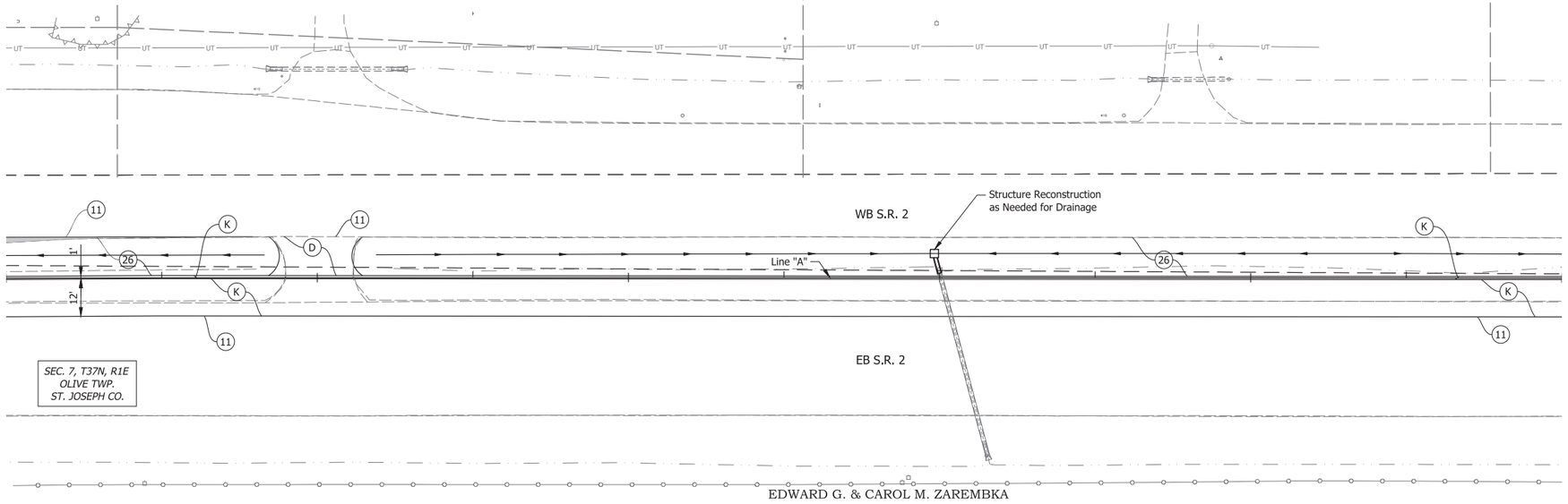
Date: Jun 08, 2023, 11:03am User Name: Sara.Munsie
File: K:\Production\Files\2022\122-3079\PRO-01\CAD\PlanSet\SNL_RD_PlanProfile_Line A.dwg - (Line A Sheet (04))

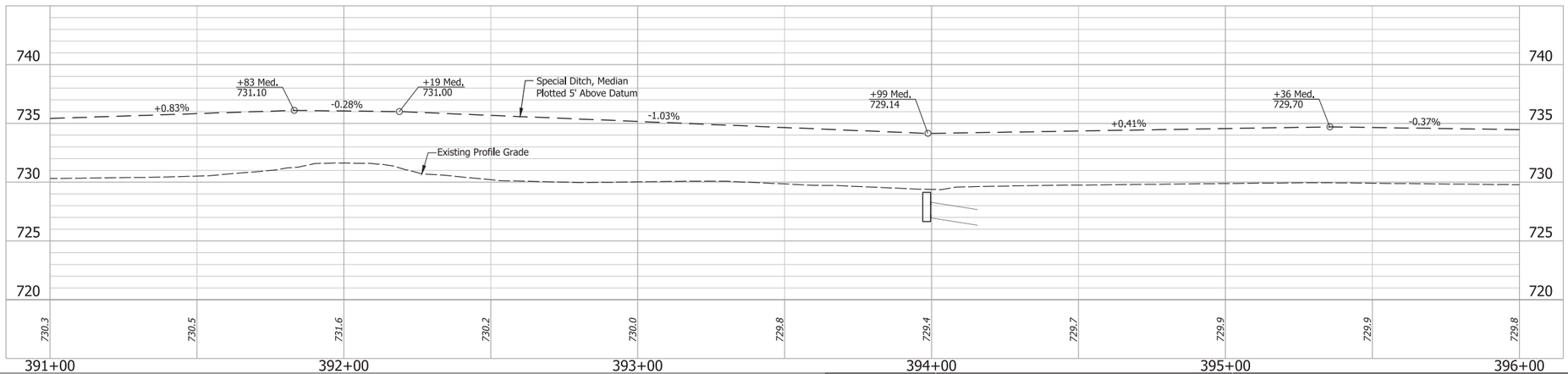
391+00 392+00 393+00 394+00 395+00 396+00

SHERRY K. MOTT
AND JOHN D.

JACQUELINE L. HOLLER
AND JOHN C. MILLER

SEC. 7, T37N, R1E
OLIVE TWP.
ST. JOSEPH CO.





LEGEND:

(D) HMA for Approaches, Type B
165 lbs/sys HMA Surface Type B on
385 lbs/sys HMA Intermediate Type B on
Subgrade Treatment Type II

(J) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on
330 lbs/sys HMA Intermediate, Type C on
770 lbs/sys HMA Base, Type C on
Subgrade Treatment, Type IC

(K) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on
330 lbs/sys QC/QA HMA Intermediate, 4, 76, 19.0mm on
770 lbs/sys QC/QA HMA Base, 4, 64, 19.0mm on
Subgrade Treatment, Type IC

(11) Sawcut

(26) Sodding, Nursery

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

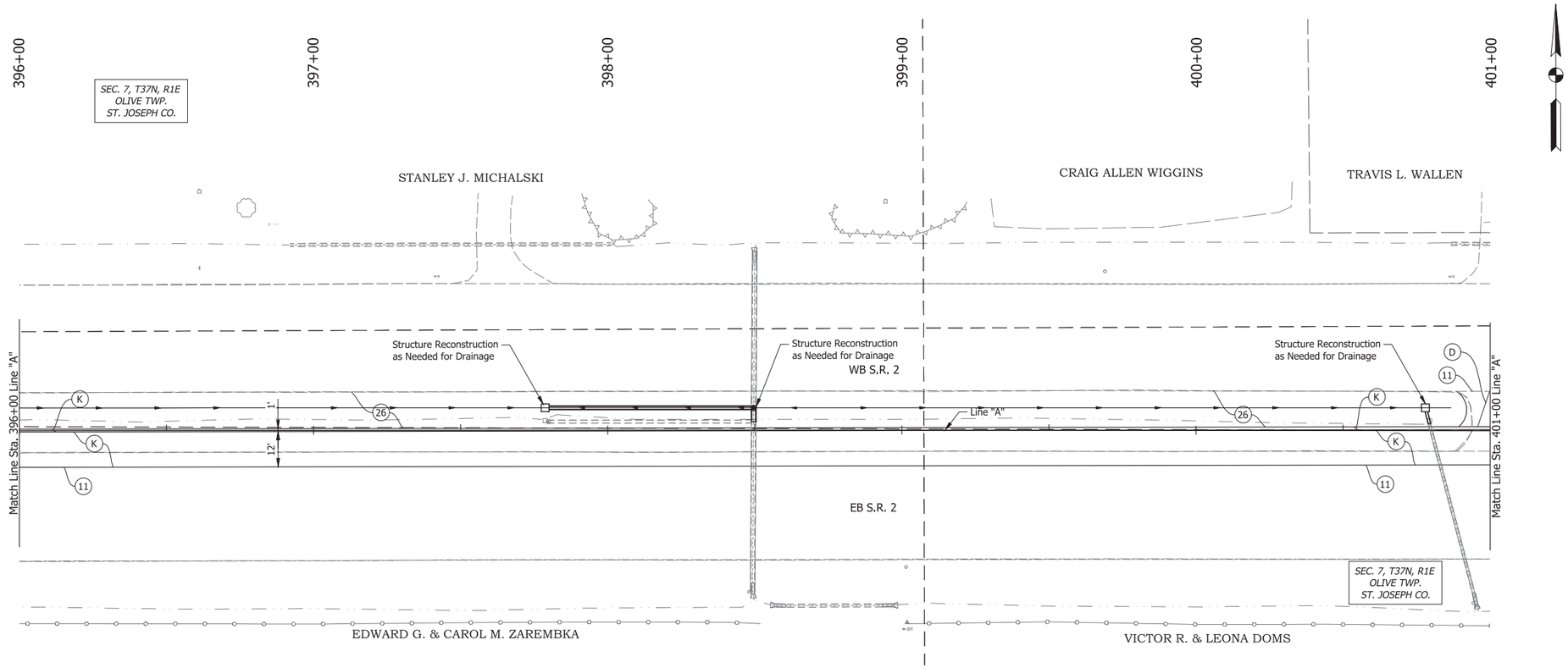
DESIGNED: SFM DRAWN: DJG
CHECKED: BSS CHECKED: RJC

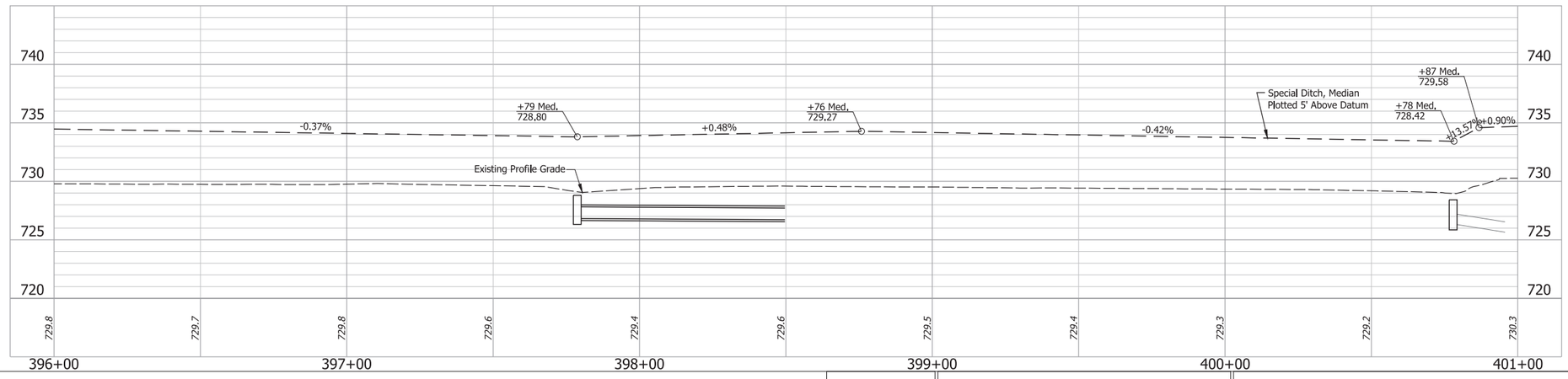
ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

PLAN & PROFILE - LINE "A"
STA. 391+00 TO STA. 396+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
1" = 5'	
SURVEY BOOK	SHEET
ELECTRONIC	22 of 53
CONTRACT	PROJECT

Date: Jun 08, 2023, 11:03am User Name: Sara Munsie
File: K:\Production\Files\2021\22-3078\PRO-01\CAD\PlanSet\SHL_RD_PlanProfile_Line A.dwg - (Line A Sheet (05))





LEGEND:

- (D) HMA for Approaches, Type B
  165 lbs/sys HMA Surface Type B on
  385 lbs/sys HMA Intermediate Type B on
  Subgrade Treatment Type II
- (J) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on
  330 lbs/sys HMA Intermediate, Type C on
  770 lbs/sys HMA Base, Type C on
  Subgrade Treatment, Type IC
- (K) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on
  330 lbs/sys QC/QA HMA Intermediate, 4, 76, 19.0mm on
  770 lbs/sys QC/QA HMA Base, 4, 64, 19.0mm on
  Subgrade Treatment, Type IC
- (11) Sawcut
- (26) Sodding, Nursery

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: DJG

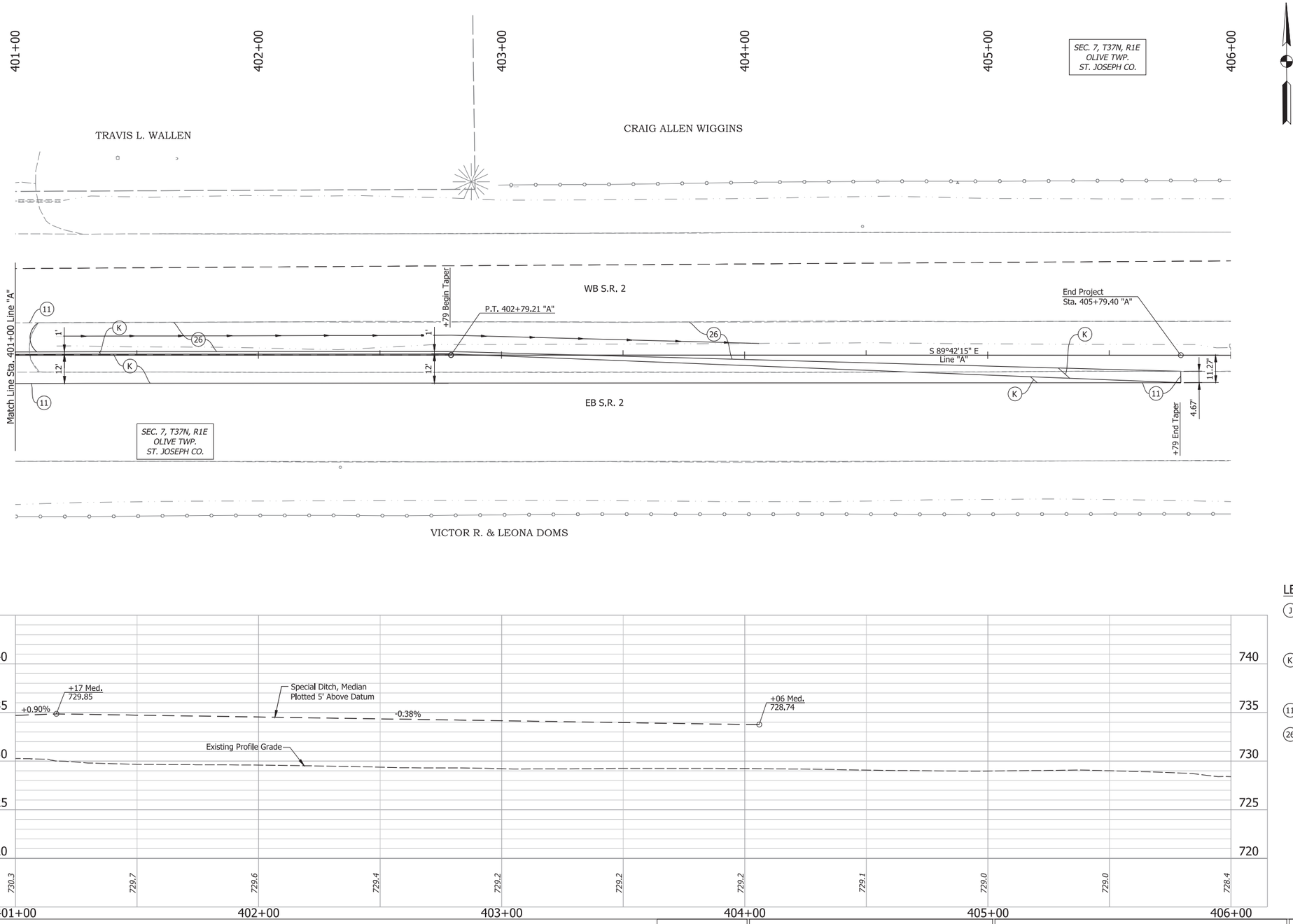
CHECKED: BSS CHECKED: RJC

ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

PLAN & PROFILE - LINE "A"
STA. 396+00 TO STA. 401+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
1" = 5'	
SURVEY BOOK	SHEET
ELECTRONIC	23 of 53
CONTRACT	PROJECT

Date: Jun 08, 2023, 11:04am User Name: Sara Munse
File: X:\Production\Files\2022\122-3079\PRO-01\CAD\PlanSet\SPut_RD_PlanProfile_Line A.dwg - (Line A Sheet (06))



LEGEND:

- (J) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on 330 lbs/sys HMA Intermediate, Type C on 770 lbs/sys HMA Base, Type C on Subgrade Treatment, Type IC
- (K) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on 330 lbs/sys QC/QA HMA Intermediate, 4, 76, 19.0mm on 770 lbs/sys QC/QA HMA Base, 4, 64, 19.0mm on Subgrade Treatment, Type IC
- (11) Sawcut
- (26) Sodding, Nursery

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: DJG

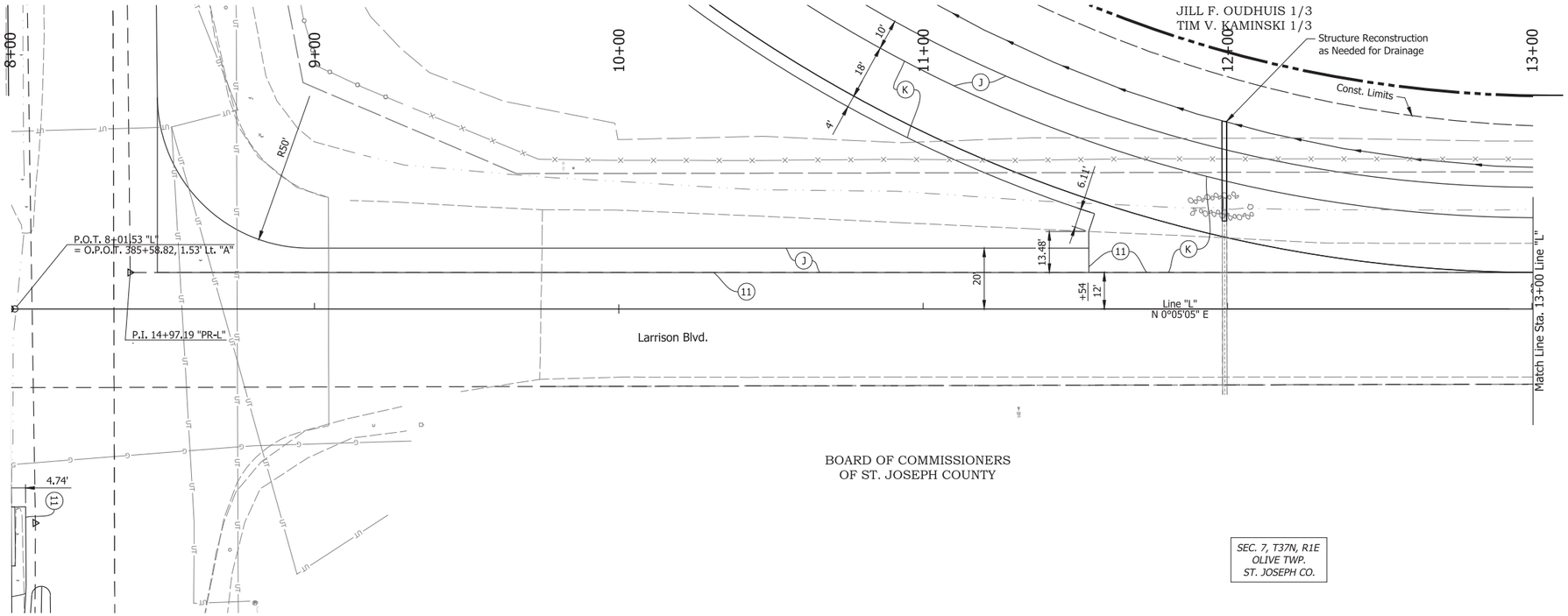
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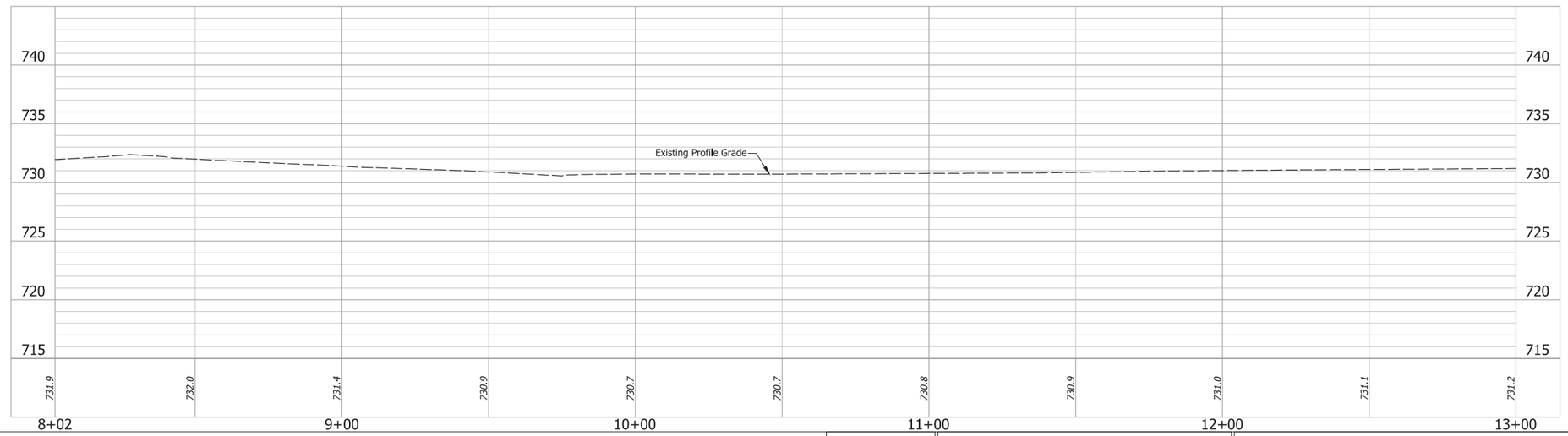
ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

PLAN & PROFILE - LINE "A"
STA. 401+00 TO STA. 406+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
1" = 5'	
SURVEY BOOK	SHEET
ELECTRONIC	24 of 53
CONTRACT	PROJECT

Date: Jun 08, 2023, 11:04am User Name: Sara.Munsee
File: X:\Production\Files\2022\122-3078\PKJ-01\CAD\PlanSet\SNL_RD_PlanProfile_Line A.dwg - (Line A Sheet (07))





LEGEND:

- (J) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on 330 lbs/sys HMA Intermediate, Type C on 770 lbs/sys HMA Base, Type C on Subgrade Treatment, Type IC
- (K) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on 330 lbs/sys QC/QA HMA Intermediate, 4, 76, 19.0mm on 770 lbs/sys QC/QA HMA Base, 4, 64, 19.0mm on Subgrade Treatment, Type IC
- (M) Milling, Asphalt, 2 in.
- (R) 220 lbs/sys Qc/QA-HMA, 3, 70, Surface, 9.5 mm
- (11) Sawcut

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: DJG

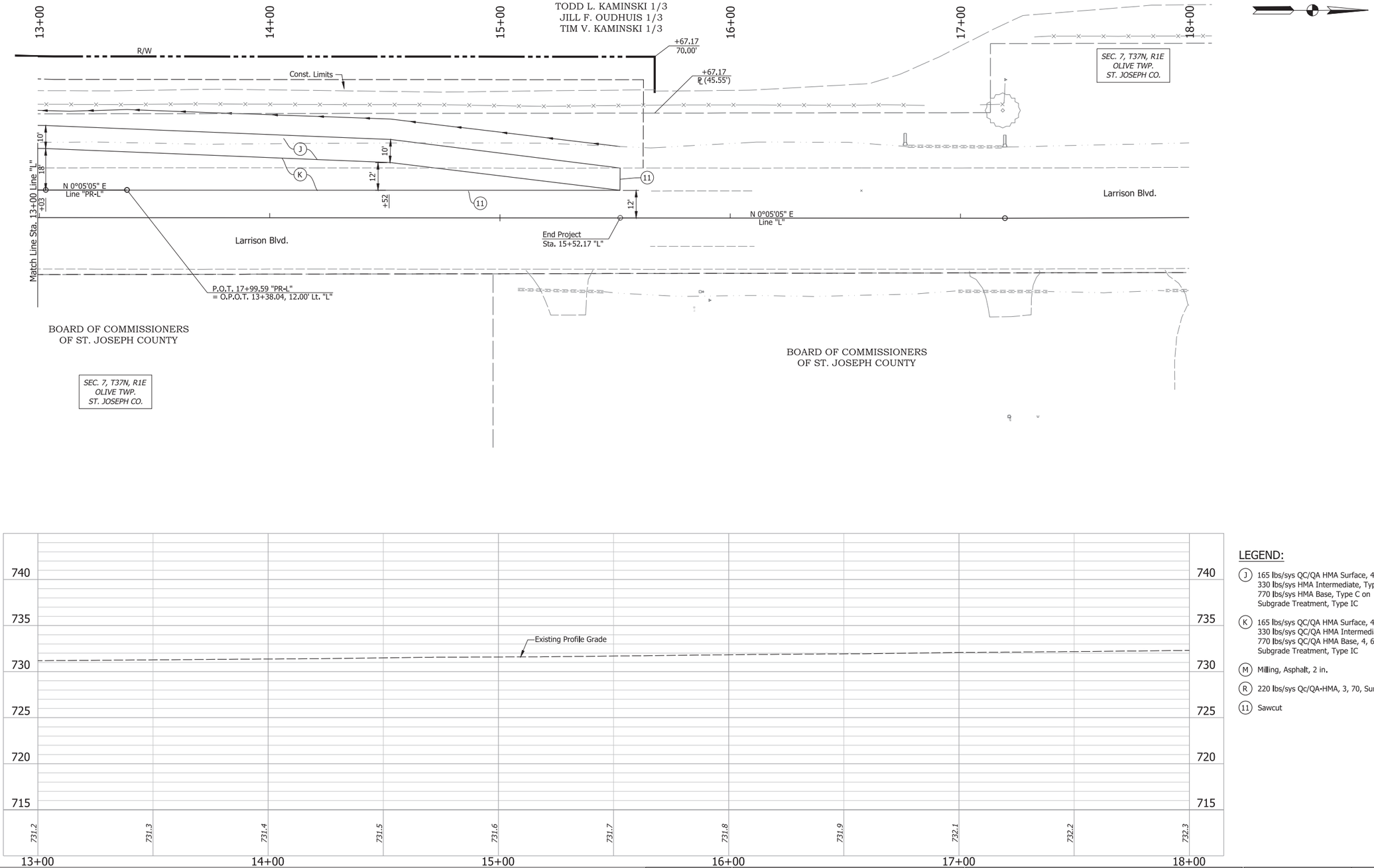
CHECKED: BSS CHECKED: RJC

ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

PLAN & PROFILE - LINE "L"
STA. 8+02 TO STA. 13+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
1" = 5'	
SURVEY BOOK	SHEET
ELECTRONIC	25 of 53
CONTRACT	PROJECT

Date: Jun 08, 2023, 11:04am User Name: Sara.Munsie
File: X:\Production\Files\2022\122-3078\PKJ-01\CAD\PlanSet\SNL_RD_PlanProfile_Line A.dwg - (Line L Sheet (01))



LEGEND:

- (J) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on 330 lbs/sys HMA Intermediate, Type C on 770 lbs/sys HMA Base, Type C on Subgrade Treatment, Type IC
- (K) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on 330 lbs/sys QC/QA HMA Intermediate, 4, 76, 19.0mm on 770 lbs/sys QC/QA HMA Base, 4, 64, 19.0mm on Subgrade Treatment, Type IC
- (M) Milling, Asphalt, 2 in.
- (R) 220 lbs/sys Qc/QA-HMA, 3, 70, Surface, 9.5 mm
- (11) Sawcut

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: DJG

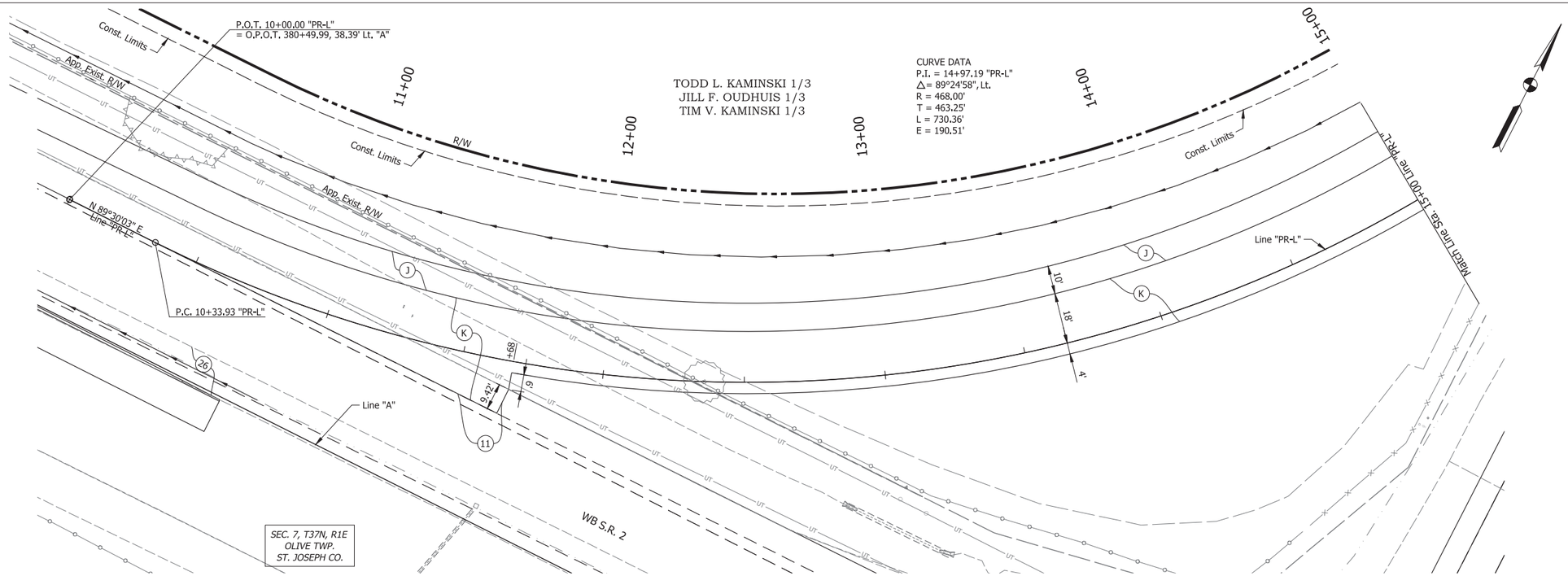
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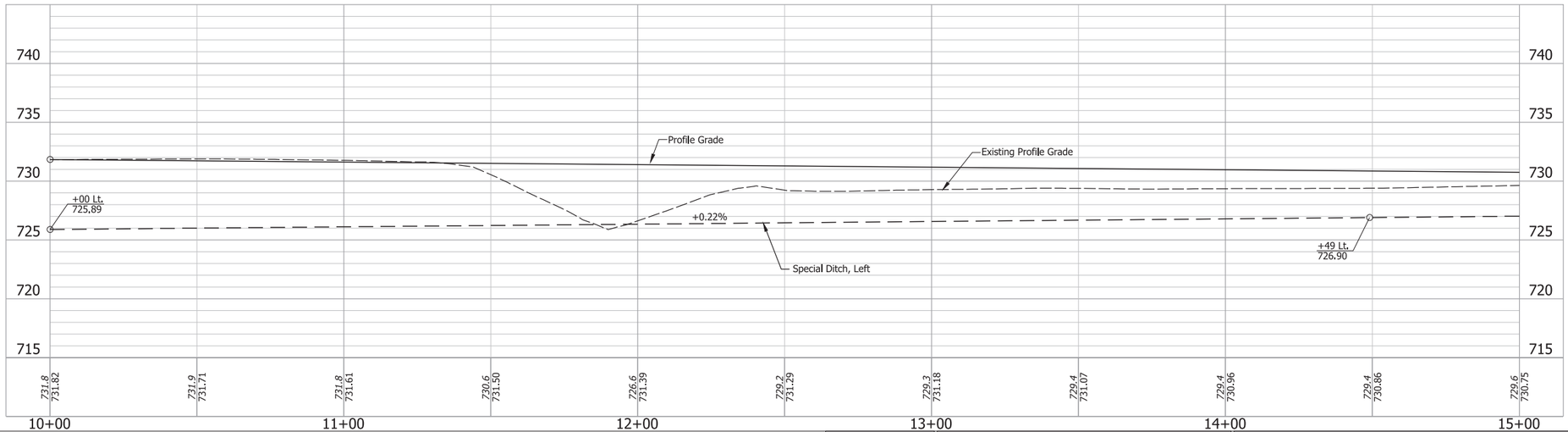
ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

PLAN & PROFILE - LINE "L"
STA. 13+00 TO STA. 18+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
1" = 5'	
SURVEY BOOK	SHEET
ELECTRONIC	26 of 53
CONTRACT	PROJECT

Date: Jun 08, 2023, 11:05am User Name: Sara.Munsie
File: X:\Production\Files\2022\122-3078\PKJ-01\CAD\PlanSet\SNL_RD_PlanProfile_Line A.dwg - (Line L Sheet (02))





LEGEND:

(J) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on
330 lbs/sys HMA Intermediate, Type C on
770 lbs/sys HMA Base, Type C on
Subgrade Treatment, Type IC

(K) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on
330 lbs/sys QC/QA HMA Intermediate, 4, 76, 19.0mm on
770 lbs/sys QC/QA HMA Base, 4, 64, 19.0mm on
Subgrade Treatment, Type IC

(11) Sawcut

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: DJG

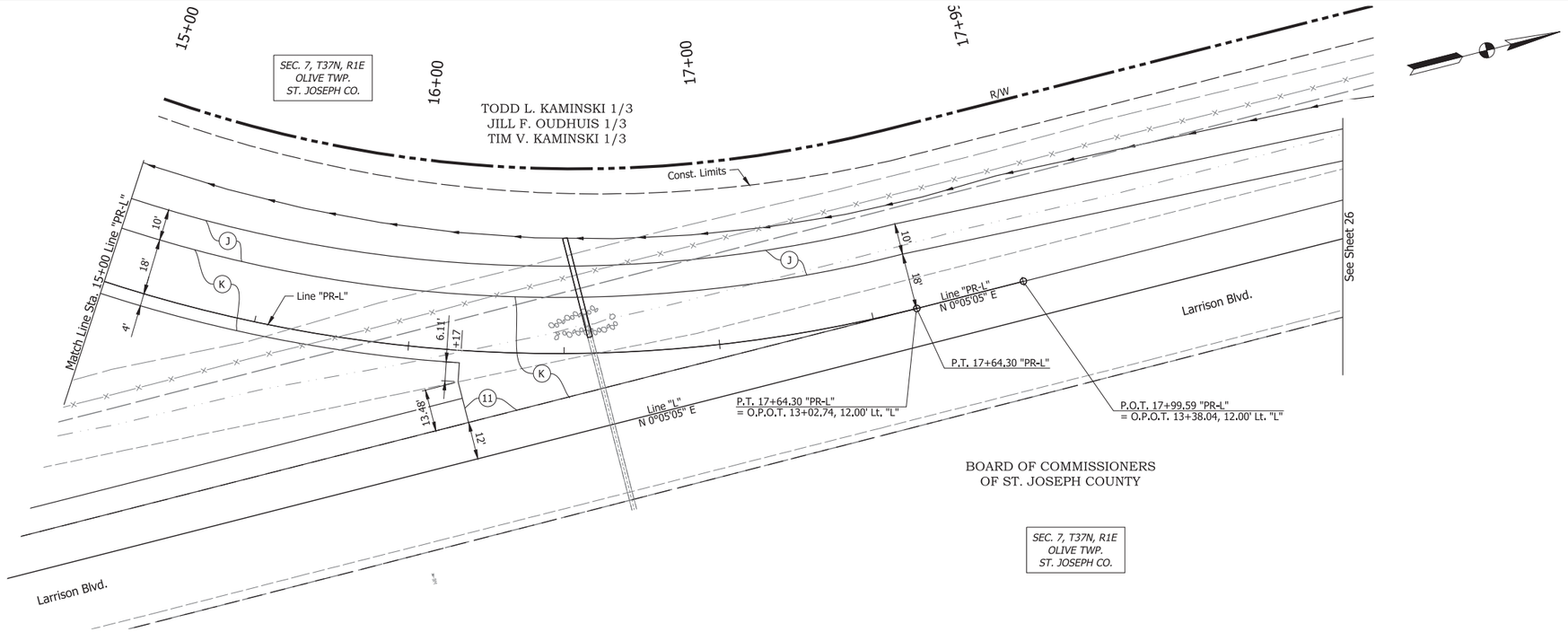
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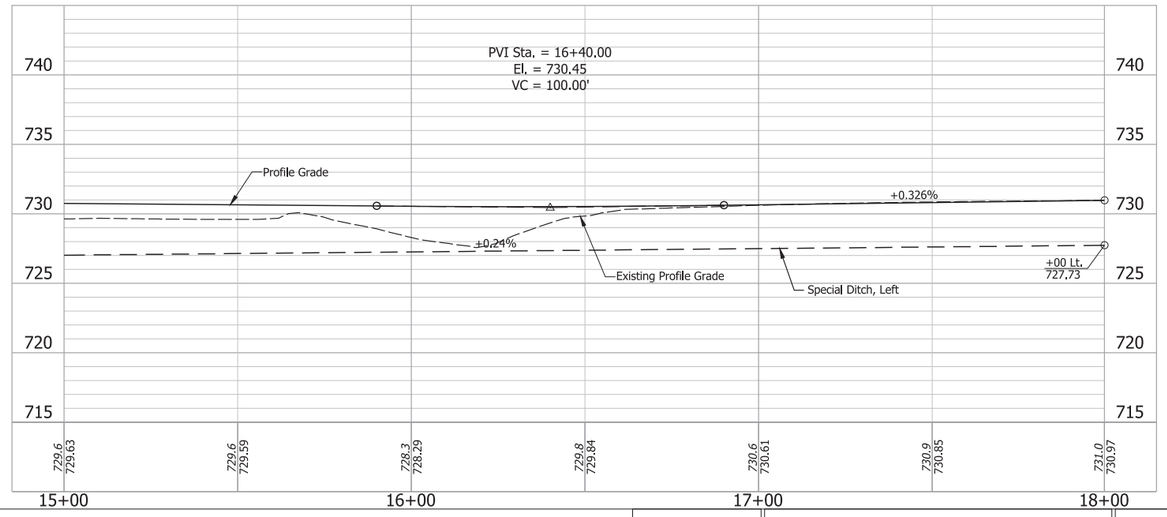
ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

PLAN & PROFILE - LINE "PR-L"
STA. 10+00 TO STA. 15+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
1" = 5'	
SURVEY BOOK	SHEET
ELECTRONIC	27 of 53
CONTRACT	PROJECT

Date: Jun 08, 2023, 11:05am User Name: Sara.Munsie
File: X:\Production\Files\2022\122-3078\PKJ-01\CAD\PlanSet\SNL_RD_PlanProfile_Line A.dwg - (Line PR-L Sheet (01))





LEGEND:

(J) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on
330 lbs/sys HMA Intermediate, Type C on
770 lbs/sys HMA Base, Type C on
Subgrade Treatment, Type IC

(K) 165 lbs/sys QC/QA HMA Surface, 4, 76, 9.5mm on
330 lbs/sys QC/QA HMA Intermediate, 4, 76, 19.0mm on
770 lbs/sys QC/QA HMA Base, 4, 64, 19.0mm on
Subgrade Treatment, Type IC

(11) Sawcut

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SFM DRAWN: DJG

CHECKED: BSS CHECKED: RJC

ST. JOSEPH COUNTY
DEPARTMENT OF ENGINEERING

PLAN & PROFILE - LINE "PR-L"
STA. 15+00 TO STA. 18+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
1" = 5'	
SURVEY BOOK	SHEET
ELECTRONIC	28 of 53
CONTRACT	PROJECT

Date: Jun 08, 2023, 11:06am User Name: Sara.Munsie
File: X:\Production\Files\2022\122-3078\PH2-01\CAD\PlanSet\SNL_RD_PlanProfile_Line A.dwg - (Line PR-L Sheet (02))

PROJECT	DESIGNATION
1900017	1900017
CONTRACT	BRIDGE FILE
R-42444	CV 002-071-74.20

STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
CV 002-071-74.20	PRECAST REINFORCED CONCRETE BOX CULVERT	14'-0" SPAN X 8'-0" RISE X 142'-0" LONG 25° SKEW LT.	NIESPODZIANY DITCH	372+78.00 "PR"

KIN PROJECT INFORMATION					
Des. No.	PROJECT DESCRIPTION				
	Work Type	Route	Location	Feature Crossed	County
1900177 (LEAD)	HMA Overlay	SR 2	US 20 to US20/US31 Int.	N/A	LaPorte, St. Joseph
1900017	Small Structure Replacement	SR 2	6.5 miles west of US 31	Niespodziany Ditch	St. Joseph

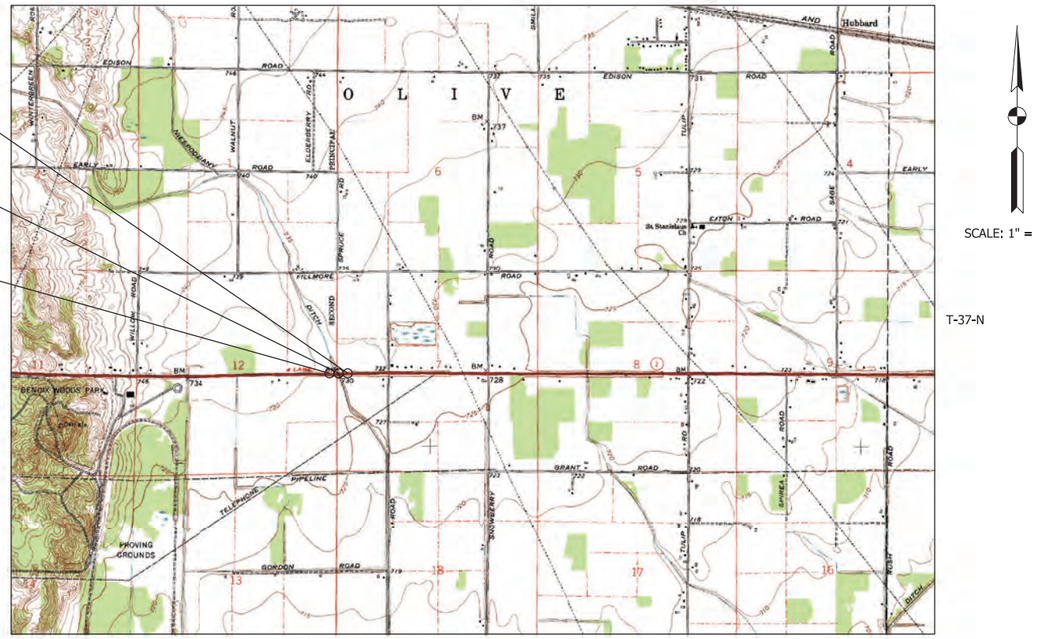
INDIANA DEPARTMENT OF TRANSPORTATION

ROAD PLANS

ROUTE: S.R. 2 AT: RP 74+20

PROJECT NO. 1900017 P.E.
1900017 R/W
1900017 CONST.

Small Structure Replacement on S.R. 2 over Niespodziany Ditch
Located 6.5 Miles West of US 31 in
Section 7 & 12, T-37-N, R-1-E and R-1-W, Olive Township, St. Joseph County, Indiana



SCALE: 1" = 2,000'

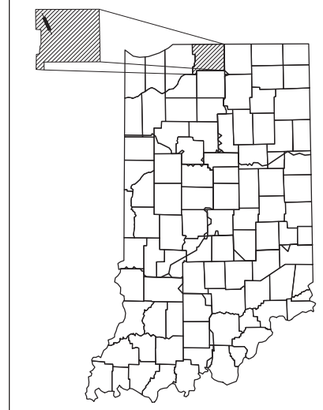
ST JOSEPH COUNTY

TRAFFIC DATA

A.A.D.T.	2018	21,959 V.P.D.
A.A.D.T.	2039	24,495 V.P.D.
D.H.V	2039	2,266 V.P.H.
DIRECTIONAL DISTRIBUTION		50.89 %
TRUCKS		17.46 % A.A.D.T.
		12.41 % D.H.V.

DESIGN DATA

DESIGN SPEED	60 M.P.H.
PROJECT DESIGN CRITERIA	3R (Non-Freeway)
FUNCTIONAL CLASSIFICATION	Prindpal Arterial
RURAL/URBAN	Rural
TERRAIN	Level
ACCESS CONTROL	None



PROJECT LOCATION SHOWN BY
ST. JOSEPH COUNTY

LATITUDE: 41°10'19" LONGITUDE: 86°28'02"

ROADWAY LENGTH: 0.018 MI.
TOTAL LENGTH: 0.018 MI.
MAX. GRADE: -0.090 %

HUC: 07120001010070

PLANS PREPARED BY:

SJCA

9102 North Meridian St. Suite 200
Indianapolis, IN 46260
(317) 566-0629
Fax: (317) 566-0633
Website: www.sjcainc.com

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2024
TO BE USED WITH THESE PLANS

PLANS PREPARED BY: SJCA, Inc. (317) 566-0629 PHONE NUMBER

CERTIFIED BY: _____ DATE

APPROVED FOR LETTING: _____ INDIANA DEPARTMENT OF TRANSPORTATION DATE

BRIDGE FILE
CV 002-071-74.20
DESIGNATION
1900017

SURVEY BOOK	SHEETS
ELECTRONIC	1 of 16
CONTRACT	PROJECT
R-42444	1900017

Model: Title Sheet
6/16/2023 3:38:30 PM
User: JLight

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UTILITIES

AEP Distribution dba Indiana Michigan Power
Antonio Macias
amacias@aep.com
Office: 574-236-1658
2929 Lathrop Street
South Bend, Indiana 46628

AEP Fiber
Frank Murphy
fmurphy@aep.com
Office: 614-883-7841
850 Tech Center Drive
Gahanna, OH 43230

AEP Transmission
Joshua Adams
TI_publicprojects@aep.com
Office: 614-933-2297
8600 Smiths Mill Road
New Albany, OH 43054

AT & T Distribution
Richard Shulte
rs2763@att.com
Office: 219-972-5687
107 Marriner Drive
Michigan City, IN 46350

Lumen (National)
Kendall Zetina
Kendall.zetina@lumen.com
Office: 919-547-0547
100 S. Cincinnati, Avenue, Suite 1200
Tulsa, OK 74103

Lumen (Local)
Melissa Teague
melissa.teague@lumen.com
Office: 765-656-4663
52 Farm View Drive, Suite 201
New Glouceester, ME

NIPSCO Electric
Dean Garrett
dagarrett@nisource.com
Office: 219-647-6260
801 E. 86th Avenue
Merrillville, IN 46410

NIPSCO Gas
Dean Garrett
dagarrett@nisource.com
Office: 219-647-6260
801 E. 86th Avenue
Merrillville, IN 46410

811 Know what's below. Call before you dig.

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

INDEX

SHEET NO.	SUBJECT
1	TITLE
2	INDEX
3	TYPICAL SECTIONS
4 - 6	MAINTENANCE OF TRAFFIC
7	CONSTRUCTION DETAILS
8	EROSION CONTROL
9	PLAN AND PROFILE
10	GENERAL PLAN
11	MISCELLANEOUS TABLES
12-16	CROSS SECTIONS

REVISIONS

SHEET NO.	DATE	REVISED

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KCH DRAWN: KCH/BDH

CHECKED: MDP CHECKED: MDP

INDIANA
DEPARTMENT OF TRANSPORTATION

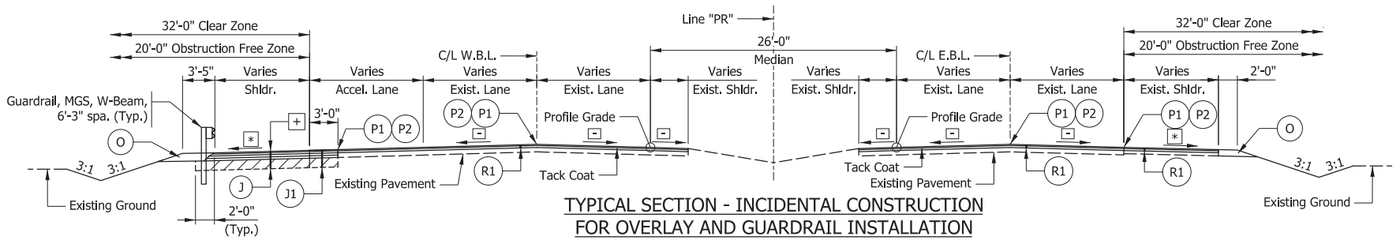
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HORIZONTAL SCALE	BRIDGE FILE
N/A	CV 002-071-74.20
VERTICAL SCALE	DESIGNATION
N/A	1900017

SURVEY BOOK	SHEETS
ELECTRONIC	2 of 16
CONTRACT	PROJECT
R-42444	1900017

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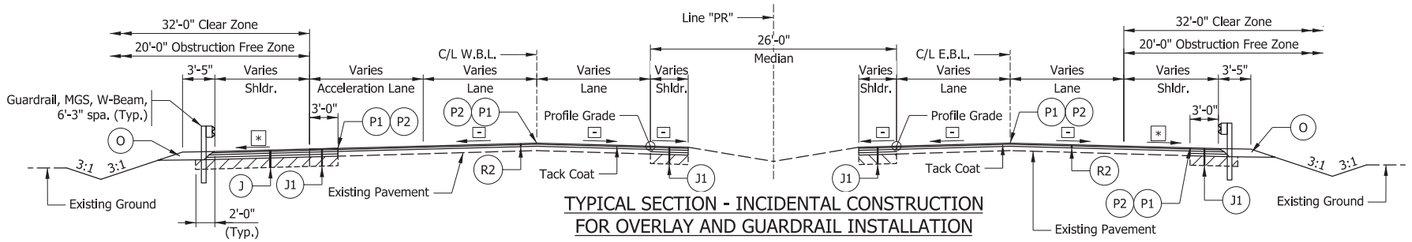
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TYPICAL SECTION - INCIDENTAL CONSTRUCTION FOR OVERLAY AND GUARDRAIL INSTALLATION

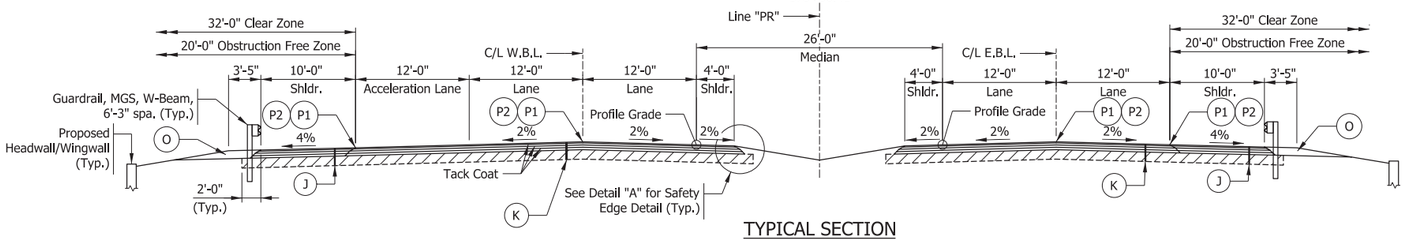
Note: Guardrail Lt. is from Sta. 372+81.10 "PR" to 374+99.79 "PR"

Scale: ⅛" = 1'-0"
Sta. 371+46.00 "PR" to Sta. 371+90.00 "PR"
Sta. 373+90.00 "PR" to Sta. 376+30.00 "PR"



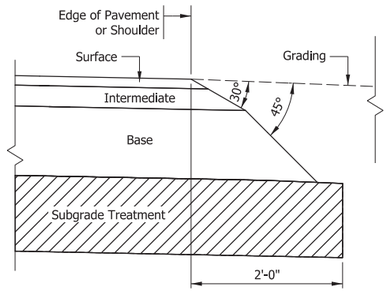
TYPICAL SECTION - INCIDENTAL CONSTRUCTION FOR OVERLAY AND GUARDRAIL INSTALLATION

Scale: ⅛" = 1'-0"
Sta. 371+90.00 "PR" to Sta. 372+40.00 "PR"
Sta. 373+40.00 "PR" to Sta. 373+90.00 "PR"
375+30.41



TYPICAL SECTION

Scale: ⅛" = 1'-0"
Sta. 372+40.00 "PR" to Sta. 373+40.00 "PR"



SAFETY EDGE DETAIL

Not to Scale

LEGEND

- Limits of Subgrade Treatment
- (+) Widening with HMA, Type D from Sta. 373+40.00 "PR" to Sta. 376+30.00 "PR"
- (-) Cross Slope varies from existing to 2%
- (*) Cross Slope varies from existing to 4%
- (J) Full-depth HMA Shoulder consisting of:
  165 #/syd QC/QA-HMA, 4, 76, Surface, 9.5 mm on
  275 #/syd QC/QA-HMA, 4, 76, Intermediate, 19.0 mm on
  1100 #/syd QC/QA-HMA, 4, 64, Base, 25.0 mm on
  Subgrade Treatment Type IC on
  Geotextile for Pavement, Type 2B
- (J1) Widening with HMA, Type D, consisting of:
  165 #/syd HMA Surface, Type D on
  275 #/syd HMA Intermediate, Type D on
  1100 #/syd HMA Base, Type D on
  Subgrade Treatement Type IC
- (K) Full-depth HMA Pavement consisting of:
  165 #/syd QC/QA-HMA, 4, 76, Surface, 9.5 mm on
  275 #/syd QC/QA-HMA, 4, 76, Intermediate, 19.0 mm on
  1100 #/syd QC/QA-HMA, 4, 64, Base, 25.0 mm on
  Subgrade Treatment Type IC on
  Geotextile for Pavement, Type 2B
- (O) Compacted Aggregate Base No. 53 (Variable depth, 10" max.)
- (P1) Joint Adhesive required for surface and intermediate layers at longitudinal joints.
- (P2) Liquid Asphalt Sealant required on surface layer over longitudinal joint (24" width)
- (R1) Asphalt Resurfacing consisting of:
  165#/syd QC/QA-HMA, 3, 70, Surface, 9.5 mm on
  275#/syd QC/QA-HMA, 3, 70, Intermediate, 19.0 mm on
  Milling, Asphalt, 4"
- (R2) HMA Milling Transition consisting of:
  165#/syd QC/QA-HMA, 3, 70, Surface, 9.5 mm on
  275#/syd QC/QA-HMA, 3, 70, Intermediate, 19.0 mm on
  Transition Milling

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KCH DRAWN: KCH
CHECKED: MDP CHECKED: MDP

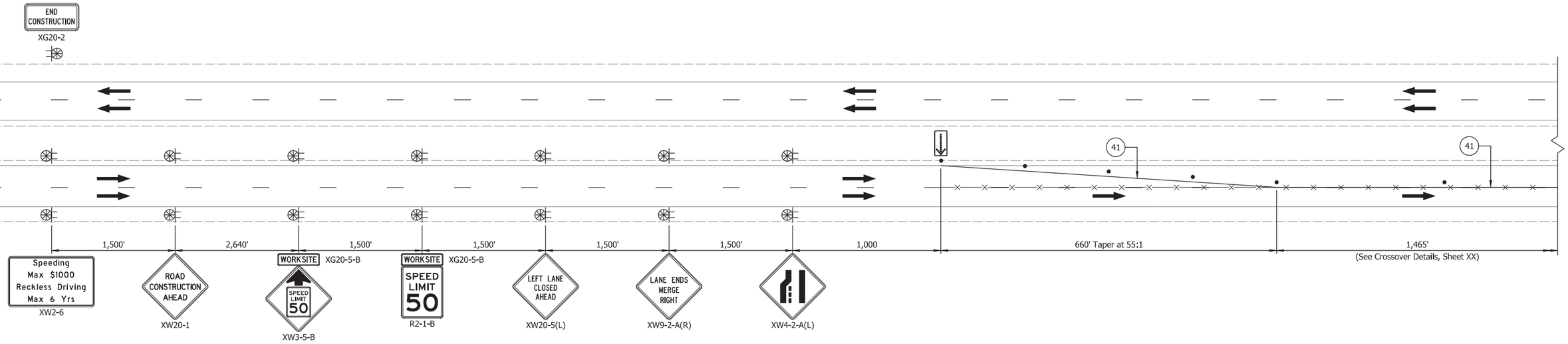
INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	CV 002-071-74.20
VERTICAL SCALE	DESIGNATION
AS NOTED	1900017
SURVEY BOOK	SHEETS
ELECTRONIC	3 of 16
CONTRACT	PROJECT
R-42444	1900017

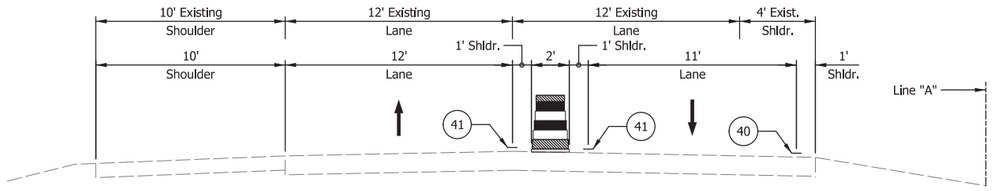
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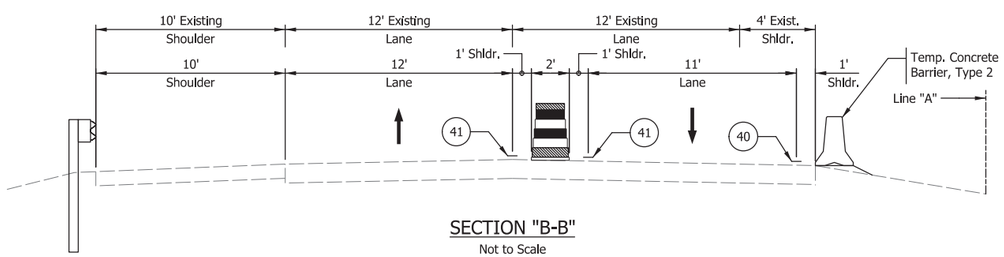
ADVANCE SIGNING AND LANE CLOSURE DETAIL

Not to scale



SECTION "A-A"

Not to Scale



SECTION "B-B"

Not to Scale

ESTIMATED QUANTITIES

ITEM	UNIT	PHASE I	PHASE II	TOTAL
CONSTRUCTION SIGN, A	EACH	35	35	**33**
CONSTRUCTION SIGN, B	EACH	5	6	**6**
TEMPORARY CONCRETE BARRIER, TYPE 2	LFT	570	570	**570**
FLASHING ARROW SIGN	DAYS	90	90	**180**
LINE, REMOVE	LFT	4830	2422	**7252**
TEMPORARY PAVEMENT MARKING, REMOVABLE, 4IN	LFT	9211	9767	**18978**
BARRICADE, III-A	LFT	48	48	**48**
BARRICADE, III-B	LFT	72	84	**84**

LEGEND

- Line, Remove
- Construction Drums
- Construction Sign w/ Warning Light
- Traffic Flow
- Flashing Arrow Sign
- A — Barricade, III-A (12 Lft each)
- B — Barricade, III-B (12 Lft each)
- 40 — Temporary Pavement Marking, 4", Removable (White)
- 41 — Temporary Pavement Marking, 4", Removable (Yellow)

NOTES

1. Construction Zone Design Speed = 50 MPH
2. Construction Clear Zone = 16'
3. See Sheets 5-6 for Phase I and Phase II details, Crossover Details, and location of Sections "A-A" and "B-B".
4. Contractor Shall Follow INDOT Std. Spec. 801.15 (b).
5. All Construction Signs Shall Meet Current MUTCD Standards.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: KCH | DRAWN: KCH/BDH

CHECKED: AMG | CHECKED: AMG

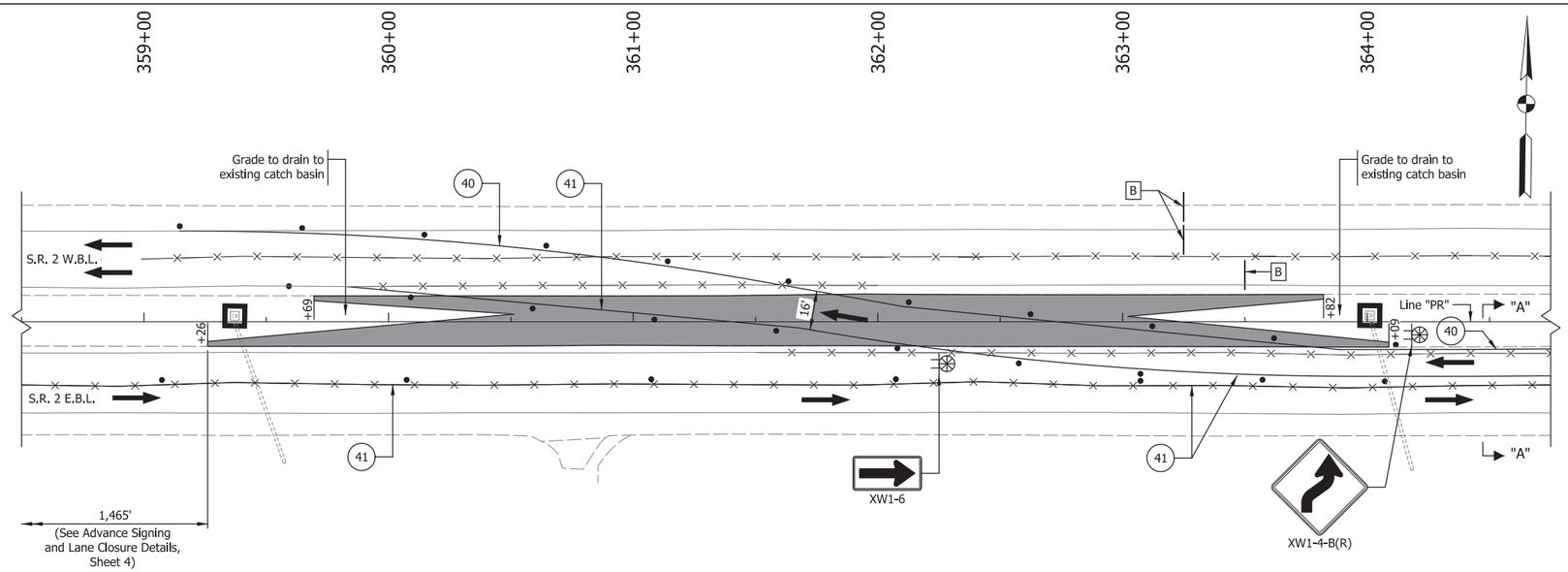
INDIANA DEPARTMENT OF TRANSPORTATION

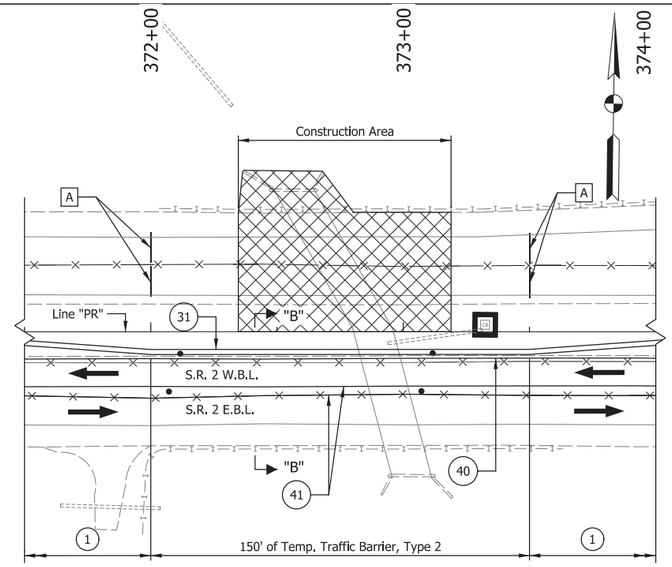
MAINTENANCE OF TRAFFIC

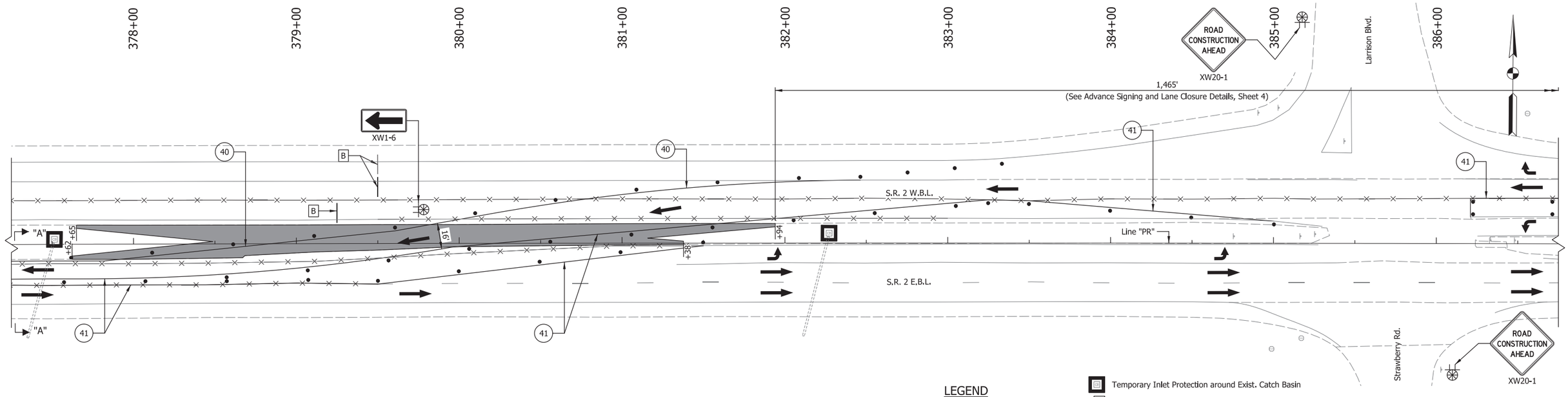
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AS NOTED	CV 002-071-74.20
VERTICAL SCALE	DESIGNATION
AS NOTED	1900017
SURVEY BOOK	SHEETS
ELECTRONIC	4 of 16
CONTRACT	PROJECT
R-42444	1900017

Model-Sht_Adv-Signing
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LEGEND

- Area of Temporary Crossover, B
- Construction Area
- Line, Remove Construction Drums
- Construction Sign w/ Warning Light
- Traffic Flow
- Flashing Arrow Sign
- Temporary Inlet Protection around Exist. Catch Basin
- A — Barricade, III-A (12 Lft each)
- B — Barricade, III-B (12 Lft each)
- 1 — 210' of Temp. Traffic barrier, Type 2 (Taper at 14:1)
- 31 — Temp. Traffic barrier, Type 2
- 40 — Temporary Pavement Marking, 4", Removable (White)
- 41 — Temporary Pavement Marking, 4", Removable (Yellow)

NOTES

1. Construction Zone Design Speed = 50 MPH
2. Construction Clear Zone = 16'
3. See Sheet 4 for Advance Signing and Lane Closure Details and Sections "A-A" and "B-B".

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KCH DRAWN: KCH

CHECKED: MDP CHECKED: MDP

INDIANA
DEPARTMENT OF TRANSPORTATION

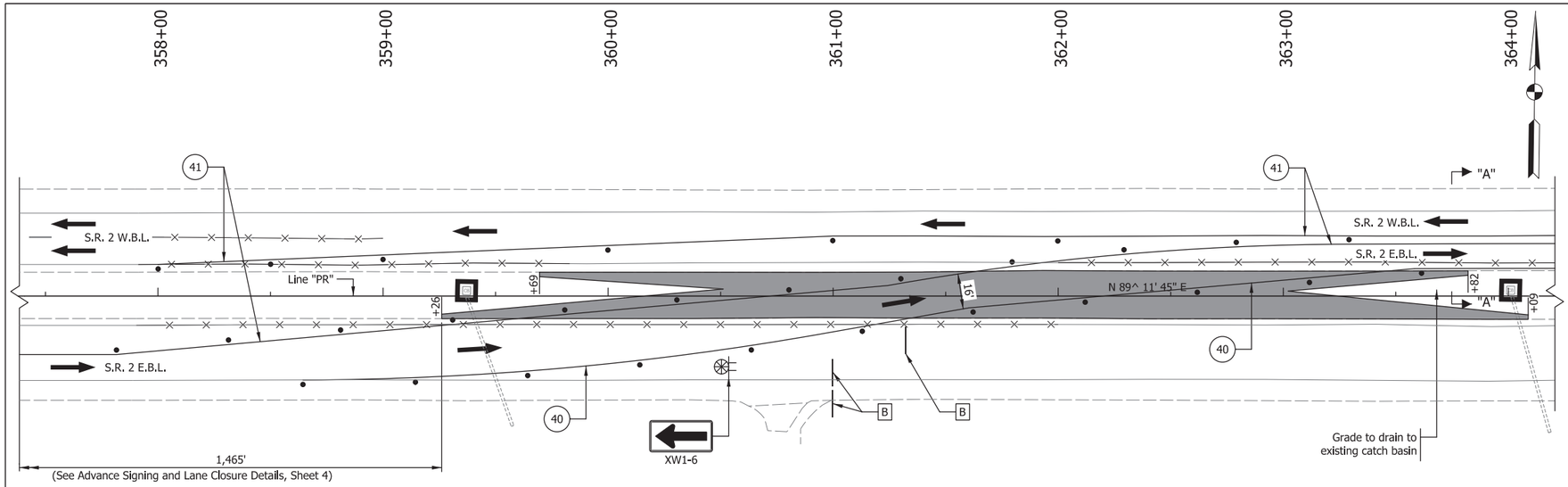
MAINTENANCE OF TRAFFIC
PHASE I
CROSSOVER DETAILS

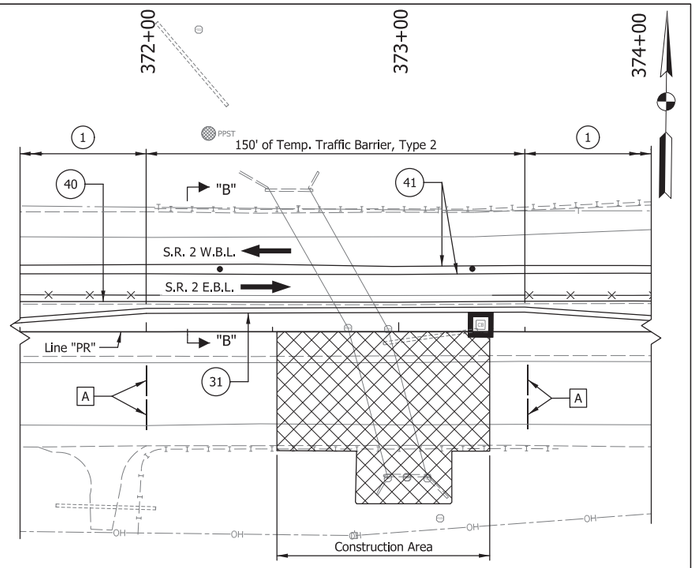
HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	CV 002-071-74.20
VERTICAL SCALE	DESIGNATION
N/A	1900017

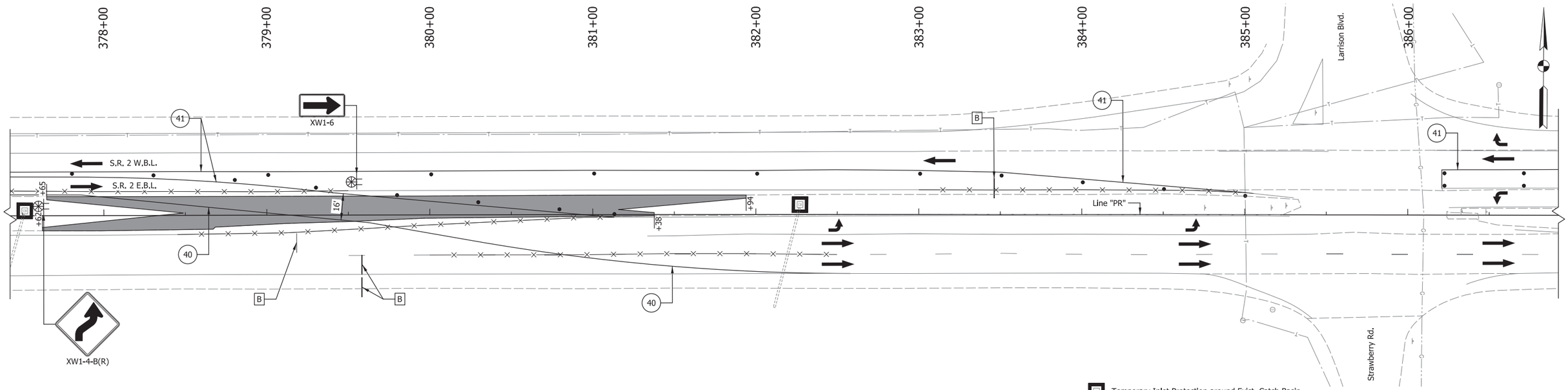
SURVEY BOOK	SHEETS
ELECTRONIC	5 of 16
CONTRACT	PROJECT
R-42444	1900017

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User: JLight

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LEGEND

- Area of Temporary Crossover, B
- Construction Area
- Line, Remove
- Construction Drums
- Construction Sign w/ Warning Light
- Traffic Flow
- Flashing Arrow Sign
- Temporary Inlet Protection around Exist. Catch Basin
- A — Barricade, III-A (12 Lft each)
- B — Barricade, III-B (12 Lft each)
- 1 — 210' of Temp. Traffic barrier, Type 2 (Taper at 14:1)
- 31 — Temp. Traffic barrier, Type 2
- 40 — Temporary Pavement Marking, 4", Removable (White)
- 41 — Temporary Pavement Marking, 4", Removable (Yellow)

NOTES

1. Construction Zone Design Speed = 50 MPH
2. Construction Clear Zone = 16'
3. See Sheet 4 for Advance Signing and Lane Closure Details and Sections "A-A" and "B-B".

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KCH DRAWN: KCH

CHECKED: MDP CHECKED: MDP

INDIANA
DEPARTMENT OF TRANSPORTATION

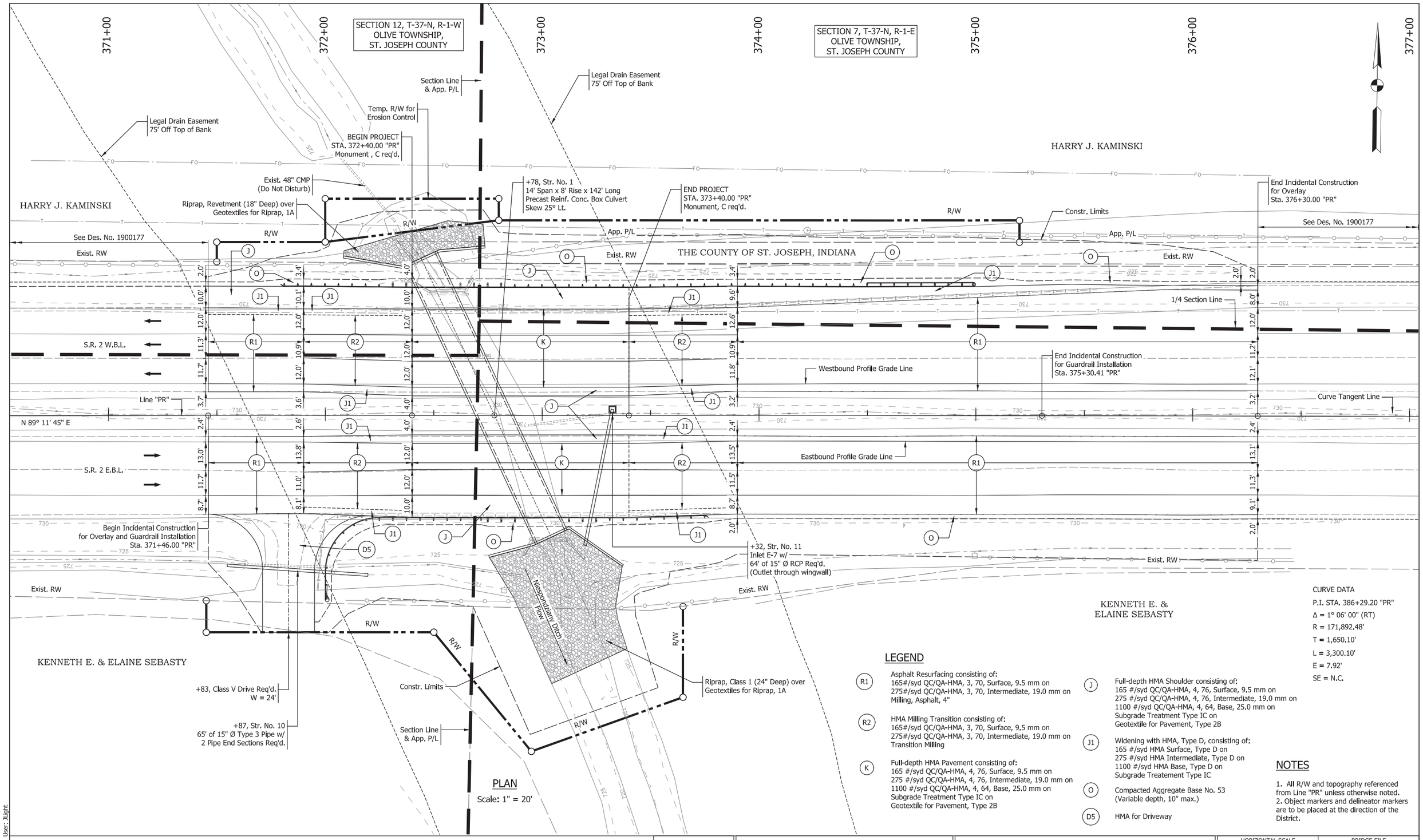
MAINTENANCE OF TRAFFIC
PHASE II
CROSSOVER DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	CV 002-071-74.20
VERTICAL SCALE	DESIGNATION
N/A	1900017

SURVEY BOOK	SHEETS
ELECTRONIC	6 of 16
CONTRACT	PROJECT
R-42444	1900017

Model: Sht_Ph 2-1
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CURVE DATA

P.I. STA. 386+29.20 "PR"
Δ = 1° 06' 00" (RT)
R = 171,892.48'
T = 1,650.10'
L = 3,300.10'
E = 7.92'
SE = N.C.

LEGEND

- (R1) Asphalt Resurfacing consisting of: 165#/syd QC/QA-HMA, 3, 70, Surface, 9.5 mm on 275#/syd QC/QA-HMA, 3, 70, Intermediate, 19.0 mm on Milling, Asphalt, 4"
- (R2) HMA Milling Transition consisting of: 165#/syd QC/QA-HMA, 3, 70, Surface, 9.5 mm on 275#/syd QC/QA-HMA, 3, 70, Intermediate, 19.0 mm on Transition Milling
- (K) Full-depth HMA Pavement consisting of: 165 #/syd QC/QA-HMA, 4, 76, Surface, 9.5 mm on 275 #/syd QC/QA-HMA, 4, 76, Intermediate, 19.0 mm on 1100 #/syd QC/QA-HMA, 4, 64, Base, 25.0 mm on Subgrade Treatment Type IC on Geotextile for Pavement, Type 2B
- (J) Full-depth HMA Shoulder consisting of: 165 #/syd QC/QA-HMA, 4, 76, Surface, 9.5 mm on 275 #/syd QC/QA-HMA, 4, 76, Intermediate, 19.0 mm on 1100 #/syd QC/QA-HMA, 4, 64, Base, 25.0 mm on Subgrade Treatment Type IC on Geotextile for Pavement, Type 2B
- (J1) Widening with HMA, Type D, consisting of: 165 #/syd HMA Surface, Type D on 275 #/syd HMA Intermediate, Type D on 1100 #/syd HMA Base, Type D on Subgrade Treatement Type IC
- (O) Compacted Aggregate Base No. 53 (Variable depth, 10" max.)
- (D5) HMA for Driveway

NOTES

1. All R/W and topography referenced from Line "PR" unless otherwise noted.
2. Object markers and delineator markers are to be placed at the direction of the District.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: ASI DRAWN: ASI

CHECKED: - CHECKED: -

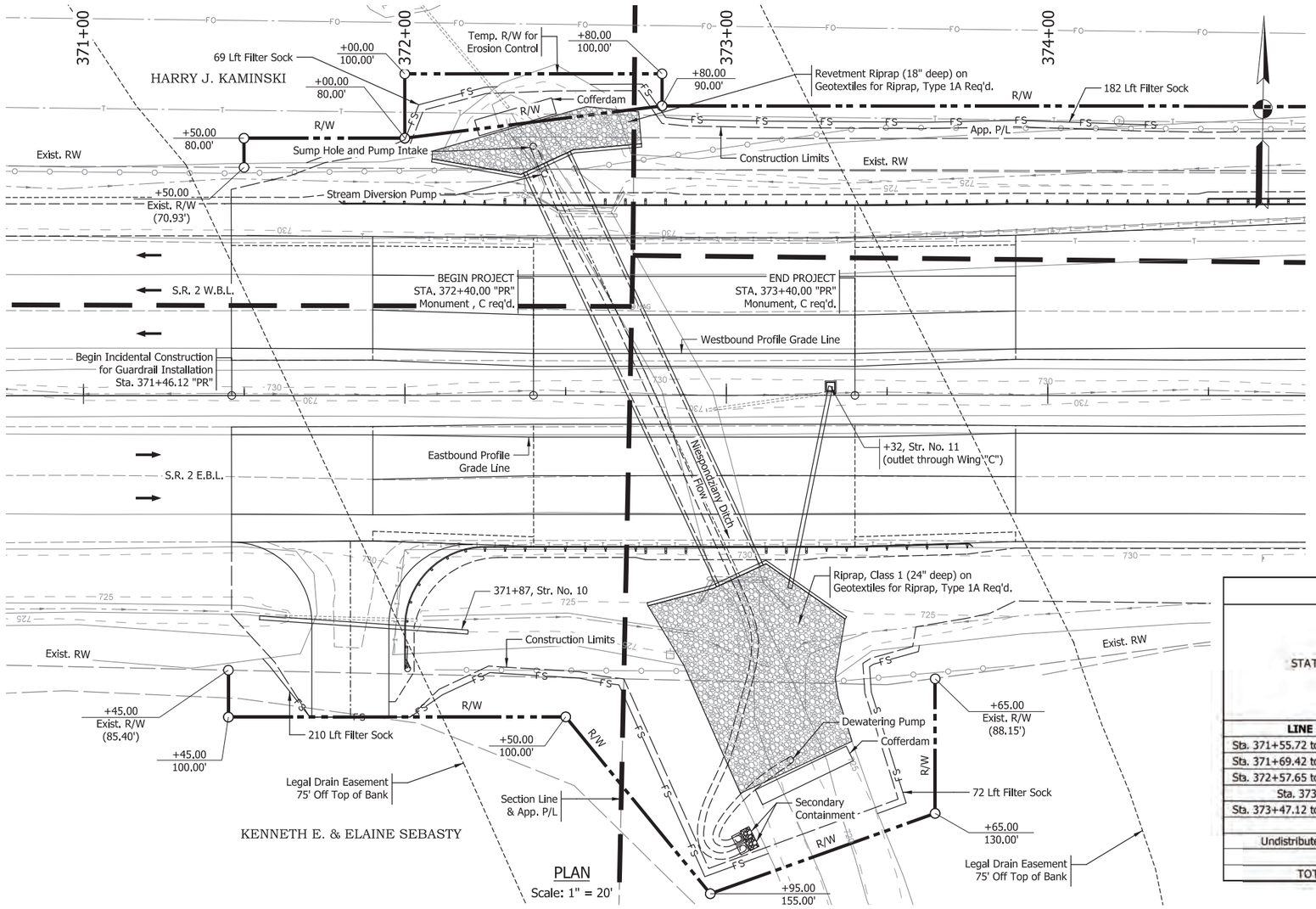
INDIANA
DEPARTMENT OF TRANSPORTATION

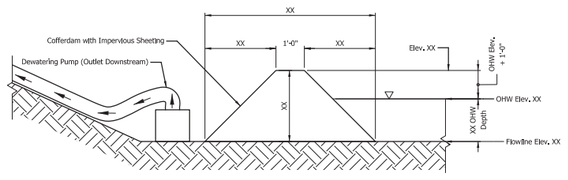
CONSTRUCTION DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	CV 002-071-74.20
VERTICAL SCALE	DESIGNATION
N/A	1900017
SURVEY BOOK	SHEETS
ELECTRONIC	7 of 16
CONTRACT	PROJECT
R-42444	1900017

Model: Constr. Details
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DEWATERING/WORK AREA

Not to Scale

TEMPORARY EROSION CONTROL TABLE

STATION	LOCATION			FILTER SOCK	SEDIMENT REMOVE	SEDIMENT BASIN	MOBILIZATION/ DEMOBILIZATION	NO. 2 STONE	SLOPE DRAIN	RIPRAP SPLASHPAD	TEMPORARY CHECK DAM, TRAVERSABLE	TEMPORARY CHECK DAM, REVETMENT RIPRAP	TEMPORARY INLET PROTECTION	FISH POOL	REMARKS
	LEFT	MEDIAN	RIGHT	LFT	CYS	EACH	EACH	TON	LFT	CYS	LFT	CYS	EACH	EACH	
LINE "PR"															
Sta. 371+55.72 to Sta. 373+13.10			X	210	10.5										
Sta. 371+69.42 to Sta. 372+28.72	X			69	3.5										
Sta. 372+57.65 to Sta. 374+34.06	X			182	9.1										
Sta. 373+32.43		X			1.0								1		
Sta. 373+47.12 to Sta. 373+60.08			X	72	3.6										
Undistributed Quantity							2	100							
TOTAL				533	28		2	100					1		

NOTES

1. Any areas in addition to those called out, left undisturbed for a period exceeding 7 days shall be required to have temporary seeding.

2. All disturbed areas shall be permanently seeded in accordance with INDOT Standard Specifications as soon as possible upon completion of work in that area.

3. Upon Completion of ditch grading, permanent erosion control measures specified in the plans shall be implemented.

4. Erosion Control Blankets will be used on all slopes steeper than 3:1.

5. Pump Around operation shall remain in place until all work in the channel is complete including channel stabilization.

6. Separate Operations are shown for construction of each half of the channel scour protection. Construction shall be performed on one half at a time to limit the restriction of the existing channel. After completing the construction of one half, the pump around operation shall be removed and then setup for the other half of the construction.

7. See General Plan sheet for limits of permanent riprap scour protection.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: MAH/JBL DRAWN: MAH/JBL

CHECKED: XX CHECKED: XX

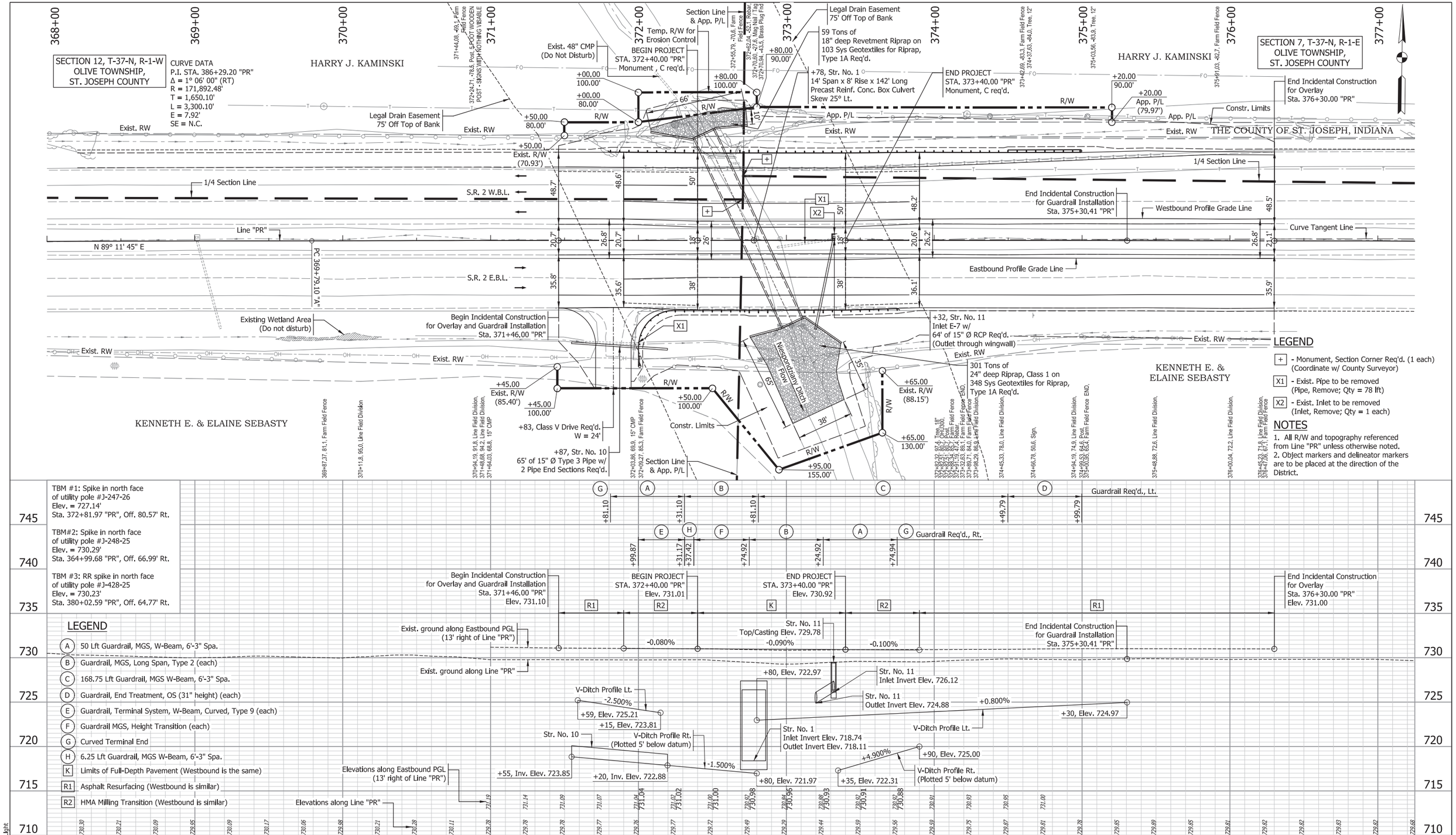
INDIANA
DEPARTMENT OF TRANSPORTATION

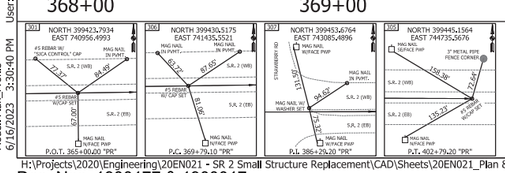
EROSION CONTROL

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	CV 002-071-74.20
VERTICAL SCALE	DESIGNATION
AS NOTED	1900017
SURVEY BOOK	SHEETS
ELECTRONIC	8 of 16
CONTRACT	PROJECT
R-42444	1900017

Model: Erosion Control Sheet
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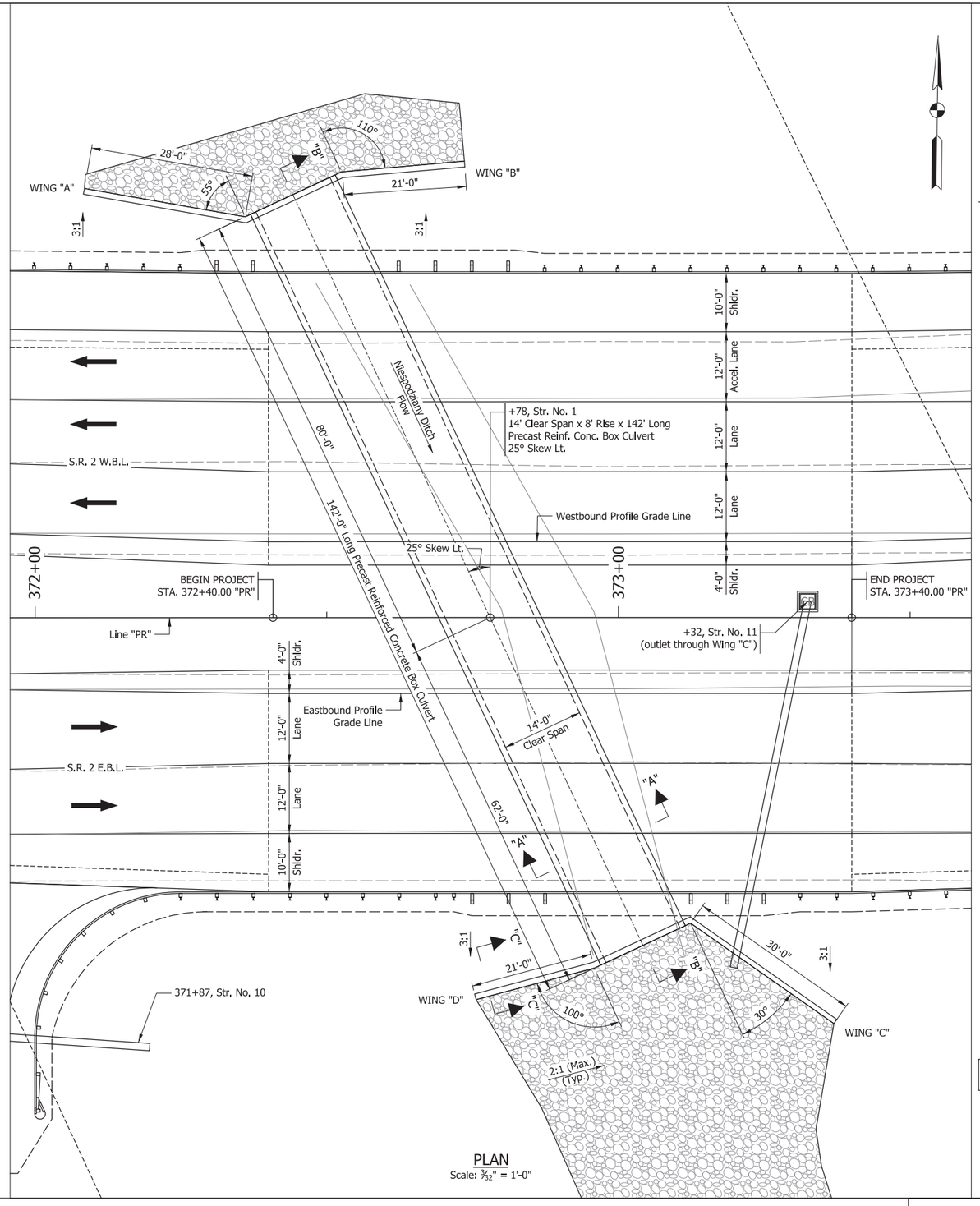




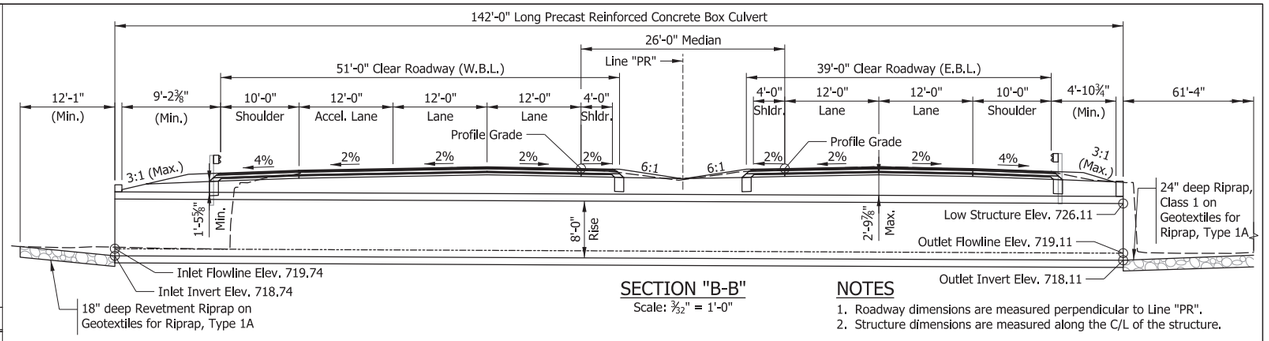
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 30' / VERTICAL SCALE: 1" = 5' / BRIDGE FILE: CV 002-071-74.20 / DESIGNATION: 1900017
DESIGNED: MDP	DRAWN: KCH	PLAN AND PROFILE LINE "PR" - S.R. 2	SURVEY BOOK / ELECTRONIC: 9 of 16 / CONTRACT: R-42444 / PROJECT: 1900017
CHECKED: AMG	CHECKED: AMG		

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User: JLight

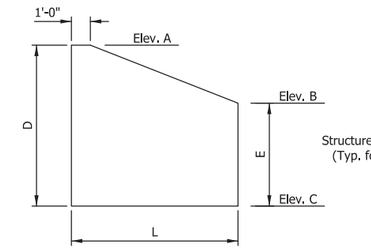
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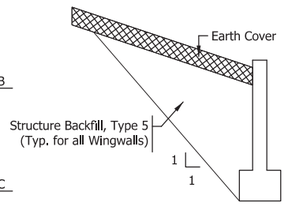
PLAN
Scale: 3/32" = 1'-0"



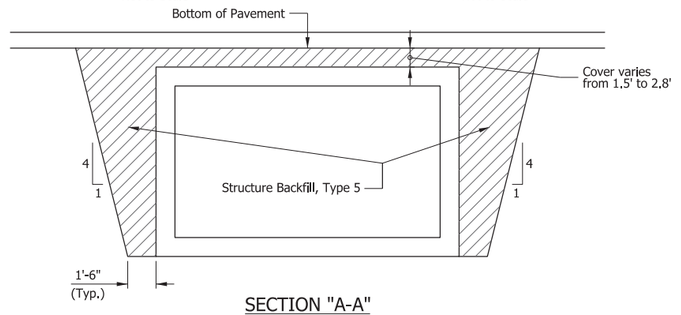
SECTION "B-B"
Scale: 3/32" = 1'-0"



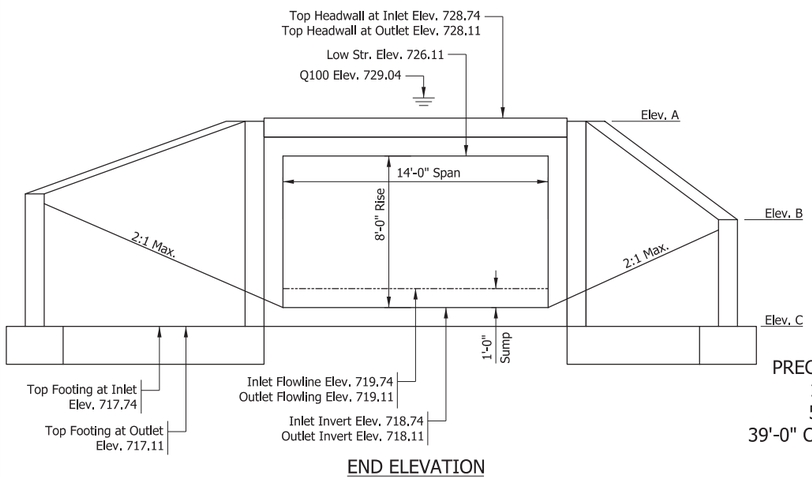
WINGWALL ELEVATION
Not to Scale



SECTION "C-C"
Not to Scale



SECTION "A-A"
Not to Scale



END ELEVATION
Scale: ¼" = 1'-0"

NOTES
1. Roadway dimensions are measured perpendicular to Line "PR".
2. Structure dimensions are measured along the C/L of the structure.

	WINGWALL				
	A	B	C	D	
Elev. A	728.49	728.49	727.86	727.86	
Elev. B	727.32	726.24	723.94	726.19	
Elev. C	717.74	717.74	717.11	717.11	
D	10.75	10.75	10.75	10.75	
E	9.58	8.50	6.83	9.08	
L	28.00	21.00	30.00	21.00	TOTAL
Area (Sft.)	286	204	266	210	966

UTILITIES
See Title Sheet for Information

EXISTING STRUCTURE
Existing Structure is a simple span concrete slab structure with a span length of 13'-9" at a left skew with 16'-0" Clear Roadway width. Existing structure to be removed.

DESIGN DATA
LOADING

Design for HL-93 in accordance with 2018 AASHTO LRFD specification, and all subsequent interims.

Dead load increased 35 PSF for future wearing surface.

SUMMARY OF QUANTITIES
Structure Backfill, Type 5 = 661 CYS

GENERAL NOTES
All dimensions are in feet (ft.) except as noted.

Standard DWG. E714-BCSP-01 shall be followed for stream bed scour protection and sumping detail.

Contractor shall verify the existing flowline elevation to set the appropriate sump depth.

Reinforcement in structure shall be Epoxy Coated.

Waterproofing shall be constructed in concurance with INDOT Std. Spec. 714.

HYDRAULIC DATA

Drainage Area	6.28 acres
Q100 Discharge	718 cfs
Q100 Outlet Depth	5.75 ft
Design Roadway Serviceability Elev.	729.22 ft
Q100 Headwater Elev.	729.04 ft
Backwater	2.19 ft
Outlet Velocity @ Q50	8.89 ft/sec
Natural Channel Velocity	4.55 ft/sec
Flowline Elevation @ Outlet	719.11 ft
Minimum Low Structure Elevation	726.11 ft
Skew	25°

PRECAST REINFORCED CONCRETE BOX CULVERT
14'-0" SPAN X 8'-0" RISE X 142'-0" LONG
51'-0" CLEAR ROADWAY WIDTH (W.B.L.)
39'-0" CLEAR ROADWAY WIDTH (E.B.L.); 25° SKEW LT.
S.R. 2 OVER NIESPODZIANY DITCH
ST. JOSEPH COUNTY

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: KCH DRAWN: KCH

CHECKED: MDP CHECKED: MDP

INDIANA
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	CV 002-071-74.20
VERTICAL SCALE	DESIGNATION
AS NOTED	1900017
SURVEY BOOK	SHEETS
ELECTRONIC	10 of 16
CONTRACT	PROJECT
R-42444	1900017

Model: General Plan
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User: JLight

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PAVEMENT QUANTITIES AND APPROACH TABLE

LOCATION	DESCRIPTION (APPROACH TYPE OR CLASS)	WIDTH	LENGTH	RADII	DISTANCE BEYOND R/W LINE	SURFACE BEYOND R/W LINE			GRADE				EXCAVATION		CLEAR ZONE AT DRIVE	HMA MATERIALS					WIDENING WITH HMA, TYPE D	JOINT ADHESIVE, SURFACE	JOINT ADHESIVE, INTERMEDIATE	LIQUID ASPHALT SEALANT	ASPHALT FOR TACK COAT	SUBGRADE TREATMENT, TYPE IC	COMPACTED AGGREGATE NO. 53		REMARKS
						COMPACTED AGGREGATE BASE	HMA	CONCRETE								QC/QA-HMA, 4, 76, SURFACE 9.5 mm	QC/QA-HMA, 4, 76, INTERMEDIATE, 19.0 mm	QC/QA-HMA, 4, 64, BASE, 25.0 mm	QC/QA-HMA, 3, 70, SURFACE 9.5 mm	QC/QA-HMA, 3, 70, INTERMEDIATE, 19.0 mm							DEPTH (IN.)		
									1	2	3	4	CUT	FILL		165	275	1100	165	275							12		
		FT	FT	FT	FT	SYS	SYS	SYS	%	%	%	%	CYS	CYS	FT	TON	TON	TON	TON	TON	TON	LFT	LFT	LFT	SYS	SYS	TON	TON	
371+90 to 373+90	Mainline												489	135		110	157	652	260	433	111	2420	2420	2420	9930	1695	189		
371+83, Rt.	Class V Drive	24	65	25, 25					9.31				11	94													36		
TOTALS													**500**	**229**		**110**	**157**	**652**	**260**	**433**	**111**	**2420**	**2420**	**2420**	**9930**	**1695**	**225**		

STRUCTURE DATA

STRUCTURE NUMBER	LOCATION					SIZE	DESCRIPTION		LENGTH	VIDEO INSPECTION LENGTH	SKEW	PIPE, REMOVE	FLOW LINE			SERVICE LIFE	SITE DESIGNATION	pH	BACKFILL METHOD	STRUCTURE BACKFILL, TYPE 1	STRUCTURE BACKFILL, TYPE 5	FLOWABLE BACKFILL	TYPE	SCOUR PROTECTION					PIPE END SECTION, DIA. 15"	GRATED BOX END SECTION			CULVERT ASSET ID	CONNECT TO STR.	REMARKS
	STATION	LEFT	RIGHT	CROSS	OFFSET		PIPE TYPE	MANHOLE, INLET, CATCH BASIN, OR SPECIALTY STRUCTURE					COVER	UP STREAM	DOWN STREAM									GEOTEXTILE FOR RIPRAP, TYPE 1A	RIPRAP, REVETMENT	RIPRAP, CLASS 1	SUMP DEPTH	GEOTEXTILE	RIPRAP			TYPE	SLOPE	EA.			
					FT	IN.			LFT	LFT		LFT	LFT	ELEV.	ELEV.	YRS				CYS	CYS	CYS		SYS	TON	TON	IN.	SYS.	TYPE	TONS	EACH					
10	371+87		X		71	15	3	DRIVE CULVERT	65			40		723.85	722.88	75		7		32											2					
1	372+78			X		168 x 96	1	BOX CULVERT	142		25	38	1.5	719.74	719.11	75		7			702			489	73	301	12								CV 002-071-74.20		
11	373+32			X		15	1	INLET E7	64					726.12	724.88	75		7		26																Outlet through wingwall Pipe to be RCP
	TOTALS											**78**								**58**	**702**			**489**	**73**	**301**					**2**					

GUARDRAIL TABLE

LOCATION					W-BEAM GUARDRAIL					GUARDRAIL FLARE RATE	CURVED W-BEAM GUARDRAIL SYSTEM								GUARDRAIL REMOVE	GUARDRAIL RESET	IMPACT ATTENUATOR TYPE ___	IMPACT ATTENUATOR TYPE ___	REMARKS
FROM STATION	TO STATION	LEFT	MEDIAN LEFT	MEDIAN RIGHT	RIGHT	GUARDRAIL MGS W-BEAM, 6 FT. 3 IN. SPACING	GUARDRAIL, W-BEAM, 3 FT. 1.5 IN. SPACING					GUARDRAIL, MGS, LONG SPAN, TYPE 2	GUARDRAIL MGS, HEIGHT TRANSITION	GUARDRAIL END TREATMENT TYPE OS	TERMINAL SYSTEM		CURVED TERMINAL END	CONNECTOR SYSTEM						
						LFT	LFT	LFT	LFT	LFT		EACH	EACH	EACH	TYPE	EACH	EACH	TYPE	EACH	LFT	LFT	EACH	EACH	
LINE "PR-A"																								
371+81.1	372+31.1	X				50											1			353				
371+99.9	372+31.2				X											9	1			196				
372+31.2	372+37.4				X	6.25																		
372+31.1	372+81.1	X										1												
372+37.4	372+74.9				X								1											
372+74.9	373+24.9				X							1												
372+81.1	374+49.8	X				168.8																		
373+24.9	373+74.9				X	50											1							
374+49.8	374+99.8	X												1										
TOTALS						**275**						**2**	**1**	**1**		**1**	**2**			**549**				

MONUMENT AND R/W MARKER TABLE

STATION	OFFSET	MONUMENT					R/W MARKER
		A	B	C	D	SECTION CORNER	
371+45.00	85.40 Rt.						1
371+45.00	100.00 Rt						1
371+50.00	70.93 Lt.						1
371+50.00	80.00 Lt.						1
372+00.00	80.00 Lt.						1
372+40.00	0			1			
372+50.00	100.00 Rt.						1
372+70.60	27.60 Lt.					1	
372+70.94	43.50 Lt.					1	
372+80.00	90.00 Lt.						1
372+95.00	155.00 Rt.						1
373+40.00	0			1			
373+65.00	88.15 Rt.						1
373+65.00	130.00 Rt.						1
375+20.00	79.97 Lt.						1
375+20.00	90.00 Lt.						1
TOTALS		0	0	2	0	2	12

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KCH DRAWN: KCH/BDH

CHECKED: AMG CHECKED: AMG

INDIANA DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS TABLES

HORIZONTAL SCALE	BRIDGE FILE
N/A	CV 002-071-74.20
VERTICAL SCALE	DESIGNATION
N/A	1900017
SURVEY BOOK	SHEETS
ELECTRONIC	11 of 16
CONTRACT	PROJECT
R-42444	1900017

Model: Summary
6/16/2023 3:30:43 PM User: JLight

H:\Projects\2020\Engineering\20EN021 - SR 2 Small Structure Replacement\CAD\Sheets\20EN021_Summary.dgn

Categorical Exclusion

Appendix C

Early Coordination

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

Sample Early Coordination Letter

February 23, 2023

Re: Early Coordination Letter
Des. Nos. 1900177 and 1900017
SR 2 Roadway Maintenance Project, from US 20 to US 20/31 Junction, State Project
LaPorte & St. Joseph Counties, Indiana

To whom it may concern:

The Indiana Department of Transportation (INDOT) LaPorte District, with funding from the Federal Highway Administration (FHWA), intends to proceed with the following roadway and small structure projects along State Road (SR) 2 in LaPorte and St. Joseph Counties, Indiana (Des. Nos. 1900177 and 1900017).

This letter is part of the early coordination phase of the environmental review process. At this time, we are requesting comments from your area of expertise regarding any possible environmental effects (social and natural) associated with this project. **Please use the above Des. Nos. and project descriptions in your reply.** Your comments will be incorporated into the formal environmental study. Your cooperation in this endeavor is appreciated.

Project Location and Existing Conditions

The proposed roadway project (Des. No. 1900177) is located along SR 2 from US 20 (LaPorte County) to US 20/US 31 (St. Joseph County). Specifically, the project is located in Sections 7, 8, 9, 10, 11, 12, Township 37 North, Range 1 West; Section 12, Township 37 North, Range 2 West; Sections 7, 8, 9, 10, 11, 12, Township 37 North, Range 1 East; and Section 7, Township 37 North, Range 2 East. The project is located within the New Carlisle, Lydick, and South Bend West United States Geological Survey (USGS) Quadrangles. The project is located in Willis Township in LaPorte County, and Olive, Warren, and Portage Townships in St. Joseph County, Indiana.

SR 2 is functionally classified as principal arterial. The typical cross section of SR 2 consists of four travel lanes, two eastbound and two westbound. The travels lanes are 12 feet wide and separated by a combination of mowed grass median, raised concrete median, painted median level with the roadway, and center left turn lanes. Inside shoulders are paved and vary from absent to 4 feet in width. Outside shoulders are paved and vary from approximately 1 to 10 feet in width. The posted speed limit at the project location ranges from 50 to 60 miles per hour. Guardrail is present along SR 2 in portions of the project area. The drainage system within the project area consists of roadside ditches and multiple culverts and pipes running parallel to and underneath SR 2, which ultimately convey drainage to several streams throughout the project area.

The need for the project stems from the deteriorated condition of the existing pavement within the project limits. According to the Abbreviated Engineer's Report dated November 1, 2019, this

includes 47% functional cracking, 3% structural cracking, potholing, and rutting of depths up to 0.18 inches. In addition, the condition of several small structures throughout the project area have been identified as fair to poor condition. The purpose of the project is to improve the condition of the pavement and to improve drainage along SR 2.

Additional Project

The current project, Des. No. 1900177, will take place within the footprint of a separate small structure project located along SR 2 at Niespodziany Ditch (Des. No. 1900017). The environmental review and documentation process for Des. No. 1900017 has been completed and approved. The addition of a turn lane/acceleration lane at Larrison Boulevard for the current project is dependent upon extension of the small structure associated with Des. No. 1900017. Because work activities on the current project require aspects of Des. No. 1900017 to be completed, the work under Des. No. 1900017 is now becoming a part of the overall project and construction contract for Des. No. 1900177. As a result, a joint environmental document is being prepared to evaluate the impacts of both Des. Nos.

Proposed Project

Asphalt milling and hot mix asphalt (HMA) overlay of approximately four (4) inches will occur along SR 2 and at road and driveway approaches throughout the project area. The typical section of SR 2 will be altered from Quince Road to Pine Road, including enclosing the open grassed median and creating a two-way left turn lane (TWLTL). The existing outside shoulder will be removed, and curb and gutter will be installed along with curb turnouts. The speed limit will be lowered from Quince Road east to Pine Road. Median pavement at the intersection of SR 2 and CR 600 will be removed, and left turning movement at this intersection will be eliminated. A right turn lane/acceleration lane will be added at the northwest quadrant of the SR 2 and Larrison Boulevard intersection. Guardrail will be evaluated throughout the project area and will be upgraded as necessary. Pavement markings will be applied throughout the project area. Approximately 124 drainage structures are expected to be repaired or replaced throughout the project area within existing right-of-way, varying in size and orientation. The length of the project is approximately 13.06 miles.

The maintenance of traffic (MOT) plan will generally involve lane closures of one side of SR 2 at a time and will occur in four phases. Temporary median crossovers will be constructed during each phase to divert traffic onto the open half of SR 2. The median crossovers will require installation of temporary travel lanes within the existing center median. One lane of traffic will be maintained in each direction during all MOT phases. The MOT will be implemented per the *Indiana Design Manual* guidelines. Construction is anticipated to begin in 2024.

Right-of-Way (ROW)

No new permanent ROW or temporary ROW is anticipated to be required for this majority of the SR 2 HMA replacement and pipe replacement project (Des No. 1900177). Some additional permanent ROW will be necessary to accommodate both the westbound acceleration lane west of Larrison Road and the replaced small structure at Niespodziany Ditch (Des. No. 1900017).

Some tree and brush clearing may occur to accommodate the proposed improvements, but the area or quantity of the clearing is not known at this time.

Environmental Resources
A Red Flag Investigation (RFI) was performed for a 0.5-mile radius around the project area. Several "Red Flags" were identified within the 0.5-mile search radius including various infrastructure and water resources and hazardous material concerns; however, not all will be impacted by the proposed project. This project is located outside the St. Joseph Sole Source Aquifer. "Red flag" items will be monitored throughout project development.

Section 106 of the National Historic Preservation Act (NHPA)
Coordination will occur with INDOT Cultural Resources Office (CRO) to evaluate the project area for archaeological and historic resources and for Section 106 compliance. This project is expected to be eligible for evaluation under the Minor Projects Programmatic Agreement (MPPA) between INDOT, FHWA, State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation.

Range-wide Informal Programmatic Consultation
St. Joseph County is within the range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally endangered northern long-eared bat (*Myotis septentrionalis*). The U.S. Fish and Wildlife Service (USFWS) Range-wide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat (NLEB) will be completed for this project.

Early Coordination
This letter is part of the early coordination review process. You are asked to review this information and provide any comments you may have relative to anticipated impacts of the project on areas in which you have jurisdiction or special expertise. We will incorporate your comments into a study of the project's environmental impacts. To facilitate the development of this project, you are asked to reply within **30 calendar days** of receipt 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 project, please feel free to contact me at (574) 334-5491 or at CHoogewerf@lochgroup.com. Additionally, should you want to contact the sponsor of this project, INDOT LaPorte District, please contact the Project Manager Nicole Cleek at (219) 325-7403 or at NCleek@indot.in.gov.

Thank you in advance for your input.

Sincerely,



Carson Hoogewerf
Environmental Specialist
Lochmueller Group, Inc.

Attachments:

- General Location Map
- USGS Topographic Map
- Aerial Map (2020)
- Red Flag Investigation Maps*
- Photo Location Map and Project Photographs

**Omitted from hard copy attachments due to page quantity. Please request via email if necessary.*

Distribution List: *(electronic submission unless otherwise noted)*

- FHWA - Indiana Division
- USDA Natural Resources Conservation Service
- Chicago Regional Office, US Department of Housing and Urban Development
- Department of the Army, Corps of Engineers Detroit District
- National Park Service, Midwest Regional Office
- INDOT LaPorte District Office - Environmental Section Manager
- INDOT Environmental Services
- INDOT Project Manager
- INDOT Office of Aviation
- INDOT Utilities and Railroad Division
- Indiana Department of Natural Resources (IDNR) Division of Fish and Wildlife
- IDNR Division of Outdoor Recreation
- Michiana Area Council of Governments (MACOG)
- Northwestern Indiana Regional Planning Commission (NIRPC)
- Indiana Geological and Water Survey
- Highway Department - St. Joseph & LaPorte Counties
- Surveyor – St. Joseph & LaPorte Counties
- Drainage Board – St. Joseph *(hard copy submission)* and LaPorte Counties
- County Council – St. Joseph and LaPorte Counties
- Board of Commissioners – St. Joseph and LaPorte Counties
- Township Trustees – Olive, Warren, Portage (St. Joseph County), and Wills (LaPorte County) Townships
- MS4 Coordinator – St. Joseph *(hard copy submission)* and LaPorte Counties
- 911 Center – St. Joseph and LaPorte *(hard copy submission)* Counties

- Emergency Management Agency – St. Joseph and LaPorte Counties
- Emergency Medical Services – St. Joseph and LaPorte Counties
- Floodplain Administrator – St. Joseph and Laporte Counties
- Sheriff Department – St. Joseph and LaPorte *(hard copy submission)* Counties
- Parks and Recreation Department – St. Joseph County
- New Prairie United School Corporation
- South Bend Community School Corporation
- New Carlisle Emergency Medical Services Department *(hard copy submission)*
- New Carlisle, Olive-Hudson Fire Department *(hard copy submission)*
- St. Joseph County Fire Department *(hard copy submission)*
- Kankakee Township Volunteer Fire Department
- New Carlisle Police Department
- Rolling Timbers Park and Campground *(hard copy submission)*
- Mini Mountains Camp Ground (DB & M Outdoor Enterprises)
- Olive Chapel Church *(hard copy submission)*
- VAP Properties LLC
- Navistar Proving Grounds

Carson Hoogewerf

From: Keil, Christine <ckeil@laporteco.in.gov>
Sent: Thursday, February 23, 2023 11:32 AM
To: Carson Hoogewerf
Cc: C.J. Cunningham; SMichels@indot.in.gov; ncleek@indot.in.gov; Bill Farthing; Hendricks, Anthony
Subject: RE: Des. No. 1900177 - SR 2 Roadway Project - Early Coordination Letter
Attachments: 20230223_SR 2 HMA ECL_Des No 1900177.pdf

EXTERNAL

Carson:

We are in receipt of your documents. There are no regulated drains within this project area, so you will not need permits from the Drainage Board. Thank you very much.

Christine

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.


Please consider the environment before printing this email

From: Carson Hoogewerf <CHoogewerf@lochgroup.com>
Sent: Thursday, February 23, 2023 9:12 AM
Cc: C.J. Cunningham <CCunningham@lochgroup.com>; SMichels@indot.in.gov; ncleek@indot.in.gov; Bill Farthing <Bill.Farthing@lochgroup.com>
Subject: Des. No. 1900177 - SR 2 Roadway Project - Early Coordination Letter

Good morning,

Please find attached the early coordination information packet for this state roadway project taking place along SR 2 in LaPorte and St. Joseph Counties, Indiana (Des. No. 1900177). Please review the information and get back to me with any questions or comments you may have about the project.

Thank you,

Carson Hoogewerf

From: Keil, Christine <ckeil@laporteco.in.gov>
Sent: Thursday, February 23, 2023 12:48 PM
To: Carson Hoogewerf
Cc: C.J. Cunningham; SMichels@indot.in.gov; ncleek@indot.in.gov; Bill Farthing; Hendricks, Anthony; Harrold, Tim
Subject: RE: Des. No. 1900177 - SR 2 Roadway Project - Early Coordination Letter SECTION CORNERS

EXTERNAL

Carson:

We have three section corners in that stretch of Hwy 2 that we would like to locate and recover when the road is closed and we are able to work there safely. Could you please let us know when that will happen so we can be on the site?

Thank you very much.

Christine

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.

Please consider the environment before printing this email

From: Carson Hoogewerf <CHoogewerf@lochgroup.com>
Sent: Thursday, February 23, 2023 9:12 AM
Cc: C.J. Cunningham <CCunningham@lochgroup.com>; SMichels@indot.in.gov; ncleek@indot.in.gov; Bill Farthing <Bill.Farthing@lochgroup.com>
Subject: Des. No. 1900177 - SR 2 Roadway Project - Early Coordination Letter

Good morning,

Please find attached the early coordination information packet for this state roadway project taking place along SR 2 in LaPorte and St. Joseph Counties, Indiana (Des. No. 1900177). Please review the information and get back to me with any questions or comments you may have about the project.

Thank you,

Carson Hoogewerf

From: Lewandowski, Tyler <TLewandowski@indot.IN.gov>
Sent: Monday, February 27, 2023 9:45 AM
To: Carson Hoogewerf
Subject: RE: Des. No. 1900177 - SR 2 Roadway Project - Early Coordination Letter

EXTERNAL

Good morning,

After review, no tall structure permit is required for the project if all equipment being used is under 140 feet in height. Please let our office know if you have any further questions.

Thank you,

Tyler Lewandowski
Project Manager
INDOT Office of Aviation
(317) 495-4875
tlewandowski@indot.in.gov
www.aviation.indot.in.gov



From: Carson Hoogewerf <CHoogewerf@lochgroup.com>
Sent: Thursday, February 23, 2023 10:12 AM
Cc: C.J. Cunningham <CCunningham@lochgroup.com>; Michels, Stewart <SMichels@indot.IN.gov>; Cleek, Nicole <NCleek@indot.IN.gov>; Bill.Farthing <Bill.Farthing@lochgroup.com>
Subject: Des. No. 1900177 - SR 2 Roadway Project - Early Coordination Letter

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Good morning,

Please find attached the early coordination information packet for this state roadway project taking place along SR 2 in LaPorte and St. Joseph Counties, Indiana (Des. No. 1900177). Please review the information and get back to me with any questions or comments you may have about the project.

Thank you,

LOCHMUELLER GROUP
SINCE 1980 | Reinvent Your Future

Carson Hoogewerf
Environmental Specialist I

Carson Hoogewerf

From: Randy James <rjames@southbendin.gov>
Sent: Tuesday, February 28, 2023 2:55 PM
To: Carson Hoogewerf
Subject: RE: Des. No. 1900177 - SR 2 Roadway Project - Early Coordination Letter
Attachments: infip_report Neispodziany Ditch.pdf

EXTERNAL

Carson,

A floodway permit from InDNR is required at the Niespodziany Ditch intersection.

Regards,

Randy L. James C.B.O.
Building Commissioner
Flood Plain Administrator
St Joseph County / City of South Bend
125 S. Lafayette Blvd Suite 100
574-235-9554
rjames@southbendin.gov

From: Carson Hoogewerf <CHoogewerf@lochgroup.com>
Sent: Thursday, February 23, 2023 10:12 AM
Cc: C.J. Cunningham <CCunningham@lochgroup.com>; SMichels@indot.in.gov; ncleek@indot.in.gov; Bill Farthing <Bill.Farthing@lochgroup.com>
Subject: Des. No. 1900177 - SR 2 Roadway Project - Early Coordination Letter

Good morning,

Please find attached the early coordination information packet for this state roadway project taking place along SR 2 in LaPorte and St. Joseph Counties, Indiana (Des. No. 1900177). Please review the information and get back to me with any questions or comments you may have about the project.

Thank you,

Carson Hoogewerf

From: Simmons, Nathaniel R <NSimmons@dnr.IN.gov>
Sent: Tuesday, February 28, 2023 10:05 AM
To: Carson Hoogewerf
Subject: RE: Des. No. 1900177 - SR 2 Roadway Project - Early Coordination Letter

Follow Up Flag: Follow up
Flag Status: Flagged

EXTERNAL

Good morning,

The project as submitted would not negatively impact outdoor recreation at any Land and Water Conservation Fund (LWCF) site.

Should the scope or location of the project change as to alter the nearby Land and Water Conservation Fund (LWCF) site, Bendix Woods County Park (1800034), in any way that negatively impacts outdoor recreation, Indiana DNR's Division of State Parks must be contacted at nsimmons@dnr.in.gov or 317-232-1295.

Thanks,

Nathaniel Simmons
Grants Manager
Indiana Department of Natural Resources
Division of State Parks
Community Grants & Trails
(317) 232-1295
402 W. Washington St. W298
Indianapolis, IN 46204
nsimmons@dnr.IN.gov
www.dnr.IN.gov

From: Carson Hoogewerf <CHoogewerf@lochgroup.com>
Sent: Thursday, February 23, 2023 10:12 AM
Cc: C.J. Cunningham <CCunningham@lochgroup.com>; Michels, Stewart <SMichels@indot.IN.gov>; Cleek, Nicole <NCleek@indot.IN.gov>; Bill.Farthing <Bill.Farthing@lochgroup.com>
Subject: Des. No. 1900177 - SR 2 Roadway Project - Early Coordination Letter

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Good morning,

Carson Hoogewerf

From: Cleek, Nicole <NCleek@indot.IN.gov>
Sent: Thursday, March 2, 2023 8:55 AM
To: Hauersperger, Steven; Bill Farthing
Cc: Carson Hoogewerf
Subject: RE: :Des. Nos. 1900177 and 1900017 SR 2 Roadway Maintenance Project LaPorte County
Attachments: RE: :Des. Nos. 1900177 and 1900017 SR 2 Roadway Maintenance Project LaPorte County

EXTERNAL

Ben and Steve,

Thank you for letting me know your availability!

I am awaiting some advice from our communications department currently, as I have forwarded Irwin's message onto our Asset and Scoping team for their feedback. We have not had any complaints about this area since as far back as our records go and the way the topographic area sits, it is the natural flow for water. Please see attached emails if you'd like to look at maps directly and see their direct feedback. Because of this, it is being predetermined by them that unfortunately there is nothing we can do since this is not something INDOT did with any hydraulics that changed the flow of water with our current assets lying in the area.

I will let you know if our communications department determines if the best route is still to hold a meeting out there with him, or if they recommend providing an explanation of their findings via other communication.

Thank you,

Nicole Cleek
Project Manager
315 East Boyd Boulevard
LaPorte, IN 46350
Office: (219) 325-7403
Cell: (219) 402-7877
Email: NCleek@indot.in.gov





From: Hauersperger, Steven <SHauersperger@indot.IN.gov>
Sent: Thursday, March 2, 2023 7:04 AM
To: Bill.Farthing <Bill.Farthing@lochgroup.com>; Cleek, Nicole <NCleek@indot.IN.gov>
Cc: Carson Hoogewerf <CHoogewerf@lochgroup.com>
Subject: RE: :Des. Nos. 1900177 and 1900017 SR 2 Roadway Maintenance Project LaPorte County

Nicole

With respect to the times that Bill is giving you I am available on the 7th After 10 am or the 8th after 12 pm.

Sincerely,
Steven Hauersperger, PE
LaPorte District Construction - Area Engineer
INDOT – LaPorte District
315 East Boyd Blvd.
LaPorte, IN 46350-6734
Cell: (219) 363-2269
Email: shauersperger@indot.in.gov

From: Bill Farthing <Bill.Farthing@lochgroup.com>
Sent: Tuesday, February 28, 2023 7:24 PM
To: Cleek, Nicole <NCleek@indot.IN.gov>
Cc: Hauersperger, Steven <SHauersperger@indot.IN.gov>; Carson Hoogewerf <CHoogewerf@lochgroup.com>
Subject: RE: :Des. Nos. 1900177 and 1900017 SR 2 Roadway Maintenance Project LaPorte County

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Hi Nicole – this week would be a bit difficult for me. Next week I can be available on Tuesday March 7th and Wednesday March 8th as needed. The following week I will be at Purdue Road School for the entire event, so not that available then. I can also be available March 21, 22, 23, 29, and 30. Hope this helps.

LOCHMUELLER GROUP
SINCE 1980 | Reinvent Your Future

Web: http://lochgroup.com

Bill Farthing, PE
Senior Project Manager
Lochmueller Group
7223 Engle Road, Suite 105, Fort Wayne, IN 46804
Email: Bill.Farthing@lochgroup.com
Direct: 260.494.1936
Mobile: 714.204.8683

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From: Cleek, Nicole <NCleek@indot.IN.gov>
Sent: Tuesday, February 28, 2023 4:13 PM
To: Bill Farthing <Bill.Farthing@lochgroup.com>; Hauersperger, Steven <SHauersperger@indot.IN.gov>
Cc: Carson Hoogewerf <CHoogewerf@lochgroup.com>
Subject: FW: :Des. Nos. 1900177 and 1900017 SR 2 Roadway Maintenance Project LaPorte County

EXTERNAL

Hello Bill and Steve!

I just wanted to keep you in the loop on the below customer concerns.

Irwin did reach out to me about a separate project, R-43860 Des 2100937, that is a maintenance project to an already existing culvert that is there. In conclusion, since there is no hydraulic work being done, he was contacted by the designer and was told work approved within the scope for that project would not be effecting the hydraulics drastically, but he would be invited to the pre-con for that project.

Since scope does have hydraulic work within it, I would like to set up a time for us to meet with Irwin to discuss his concerns and see if there is a way to help. What would each of your availabilities be?

Thank you,

Nicole Cleek
Project Manager
315 East Boyd Boulevard
LaPorte, IN 46350
Office: (219) 325-7403
Cell: (219) 402-7877
Email: NCleek@indot.in.gov





From: Irwin Berg <irwin@humes-berg.com>
Sent: Tuesday, February 28, 2023 12:07 PM
To: CHoogewerf@lochgroup.com; Cleek, Nicole <NCleek@indot.IN.gov>
Cc: Mike Berg <mike@humes-berg.com>; sjhynek@comcast.net
Subject: Re: :Des. Nos. 1900177 and 1900017 SR 2 Roadway Maintenance Project LaPorte County

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Dear Carson and Nicole,

Fist I would like to say that you have the owner of the property listed wrong in error on a recent envelope.

You have listed the property on the recent Envelope as:

Rolling Timbers Park and Campground
(D&M Outdoor Enterprises)
6502 East State Road 2
Rolling Prairie, IN 46371

It should be listed as:

Paradise Ridge LLC
6502 East State Road 2 & Corporate Office 4801 Railroad Ave. East Chicago, IN 46312
Rolling Prairie, IN 46371

We purchased this property back 2018. When I was first notified of this project above I had sent a letter to Nicole on August 22, 2022
and a copy to RW Winebrinner @ lochgroup. about our concerns.

The current culvert and drainage as installed by the Indiana Department of Transportation is flooding out property and causing erosion
of our land running for several thousand feet causing our soil to erode and changing the contour of our land.

We would like to request that you send and engineer to meet with us at our property to see firsthand what the problem is now and what you propose
will make it worse.

You may contact the following:
Stanley Hynek Supervisor of this property 219-716-7152 Mr. Hynek has full authority to act on our behalf regarding Paradise Ridge Property.
Irwin Berg Managing Partner 219-397-1980

Both the above individuals are available to meet at the property with advance notice or on the phone at any time. We look forward to meeting
with your representative to show you directly our concerns.

Thank you,

Irwin Berg
Managing Partner
Paradise Ridge LLC

Best Regards,

Irwin Berg
*The information contained in this transmission is privileged and confidential information intended only for use of the individual or entity named above. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this transmission in error, do not read it. Please immediately reply to the sender that you have received this communication in error. Then delete it. Although this e-mail and any attachments are believed to be free of any virus or other defect that might affect any computer system into which is received and opened, it is virus free and no responsibility is accepted by Irwin Berg for damage arising in any way from its use. Thank You.

United States Department of Agriculture

Farm Production and Conservation

Natural Resources Conservation Service

Indiana State Office
6013 Lakeside Boulevard
Indianapolis, Indiana 46278
317-295-5800

March 2, 2023

Carson Hoogewerf
112 W Jefferson Blvd, Suite 500
South Bend, Indiana 46601

Dear Mr. Hoogewerf:

The proposed state roadway project taking place along SR 2 in LaPorte and St. Joseph Counties, Indiana (Des. No. 1900177), as referred to in your letter received February 23, 2023, will cause a conversion of prime farmland.

The attached packet of information is for your use competing Parts VI and VII of the AD-1006. After completion, the federal funding agency needs to forward one copy to NRCS for our records.

If you need additional information, please contact John Allen at 317-295-5859 or john.allen@usda.gov.

Sincerely,

JOHN ALLEN
State Soil Scientist

Enclosures

USDA is an equal opportunity provider, employer, and lender.

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*		Date Of Land Evaluation Request February 23, 2023	
Name of Project DES1900177_SR2 Roadway Project		Federal Agency Involved FHWA	
Proposed Land Use Transportation		County and State St Joseph & LaPorte Counties, Indiana	
PART II *(To be completed by NRCS)*		Date Request Received By NRCS 3/1/23	Person Completing Form: JRA
Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ☑ NO ☐	Acres Irrigated	Average Farm Size 238 ac
Major Crop(s) Corn	Farmable Land In Govt. Jurisdiction Acres: 225524 % 76	Amount of Farmland As Defined in FPPA Acres: 190811 % 65	
Name of Land Evaluation System Used LESA	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS 3/2/23	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	3.5			
B. Total Acres To Be Converted Indirectly	0.0			
C. Total Acres In Site	232			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	3.50			
B. Total Acres Statewide Important or Local Important Farmland	0.00			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.002			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	44			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	84			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	12			
2. Perimeter In Non-urban Use	(10)	7			
3. Percent Of Site Being Farmed	(20)	0			
4. Protection Provided By State and Local Government	(20)	0			
5. Distance From Urban Built-up Area	(15)	0			
6. Distance To Urban Support Services	(15)	0			
7. Size Of Present Farm Unit Compared To Average	(10)	6			
8. Creation Of Non-farmable Farmland	(10)	0			
9. Availability Of Farm Support Services	(5)	5			
10. On-Farm Investments	(20)	10			
11. Effects Of Conversion On Farm Support Services	(10)	0			
12. Compatibility With Existing Agricultural Use	(10)	0			
TOTAL SITE ASSESSMENT POINTS	160	40	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	84	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	40	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	124	0	0	0

Site Selected: Site A	Date Of Selection 07/07/2023	Was A Local Site Assessment Used? YES ☐ NO ☑

Reason For Selection:

Site A was selected due to minimal footprint and impacts while meeting the purpose and need of the project.

Name of Federal agency representative completing this form: Lochmueller Group on behalf of FHWA	Date: 07/07/2023

(See Instructions on reverse side) **Form AD-1006 (03-02)**

Carson Hoogewerf

From: John T. Law <JLAW@sjcindiana.com>
Sent: Tuesday, March 7, 2023 12:37 PM
To: Carson Hoogewerf; ncleek@indot.in.gov
Cc: Bill Schalliol; Sky K. Medors; Robert Kruszynski
Subject: Des. Nos 1900177 and 1900017

EXTERNAL

I received and reviewed the early coordination letter for the SR 2 and small structure project, specific to St. Joseph County.

This project will impact 5 county regulated drains: the **Rogers Clark lateral** running along the west side of Huckleberry Rd, the **Nespodziany** just west of Larrison Blvd, the **Borkowski Ditch** at Snowberry Rd., the **Slot ditch** which crosses under SR 2, 2,600' east, the **Ginter Lateral** at Sage Rd., and then the **Grapevine (Geyer) ditch** just west of Rice Rd. Each one of these is unique but I will say that this entire corridor through St. Joseph County is mostly hydric soil that depends on good drainage to be manageable.

At minimum, do not raise the invert or shrink the diameter of any existing pipes and/or structures. I would recommend running hydraulic requirements on each pipe scheduled to be replaced, I think you will find several are undersized and need lowered. All roadside ditches north and south running along the road throughout the project corridor need be cleaned and dredged to at least the originally designed channel invert, but I think several areas may need to be deepened since the original road drainage was designed. Long term sediment build-up, larger and more frequent rain events, and all the private drainage work upstream needs to be considered and accounted for.

The Ginter lateral at Sage Road is a structure that needs lowered. We have had many complaints that the invert is much too high, requiring extensive ditch dredging on the upper (north) portion of this ditch, just before it goes under SR 2. The low-lying soil north of this structure is consistently wet or flooded which makes much of the field unusable. The downstream (south) portion of that ditch already has a lower invert, so lowering the structure should not cause any issues downstream but the ditch inside the sate right-of way, south of the structure should still be cleaned. I'm sure the landowner, John Ginter will be very vigilant to see that done as well.

Do not use riprap for the channel bottom of any structures designed or replaced. The stone will immediately silt in and catch debris moving down the ditch, raising the intended invert higher than designed or intended. Maintenance of the riprap under the road will be impossible. If you would like a field tour of exactly what problems the stone across the ditch bottom under these structures will cause, please let me know and I would be happy to show you several projects throughout this county and the impacts caused by the riprap. Please considered flat concrete bottom of any structure, either poured in place or pre-manufactured. A natural ditch bottom would be even better, if possible.

Please work with the St. Joseph County Redevelopment Commission prior to any structure design over the Nespodziany Ditch. There are currently plans in the works to reroute the upstream portion of that ditch which may affect the sizing, depth and alignment of the new structure.

That's all I can produce off the cuff, please let me know if you have further questions.

John T. Law
Construction Supervisor

Carson Hoogewerf

From: Hurst, Allen A <AHurst@dnr.IN.gov>
Sent: Monday, March 13, 2023 11:06 AM
To: Carson Hoogewerf
Cc: Gummere, Erica; C.J. Cunningham; Michels, Stewart; Cleek, Nicole; Bill Farthing
Subject: RE: Des. No. 1900177 - SR 2 Roadway Project - Early Coordination Letter

EXTERNAL

Des no: 1900177
Description: SR 2 Roadway Project

The project as submitted will not impact a LWCF site.

Please note, should the location or scope of the project change as to alter the nearby Land and Water Conservation Fund (LWCF) site, Bendix Woods Nature Preserve (1800034), in any way that negatively impacts outdoor recreation, the DNR, Division of State Parks must be contacted at 317-232-3246 or egummere@dnr.in.gov

Allen Hurst
Trails Coordinator
Indiana Department of Natural Resources
Division of State Parks
317-232-4070
ahurst@dnr.in.gov
www.dnr.IN.gov

Please let us know about the quality of our service by taking this brief customer survey.

From: Carson Hoogewerf <CHoogewerf@lochgroup.com>
Sent: Thursday, February 23, 2023 10:12 AM
Cc: C.J. Cunningham <CCunningham@lochgroup.com>; Michels, Stewart <SMichels@indot.IN.gov>; Cleek, Nicole <NCleek@indot.IN.gov>; Bill.Farthing <Bill.Farthing@lochgroup.com>
Subject: Des. No. 1900177 - SR 2 Roadway Project - Early Coordination Letter

**** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ****

Good morning,

Please find attached the early coordination information packet for this state roadway project taking place along SR 2 in LaPorte and St. Joseph Counties, Indiana (Des. No. 1900177). Please review the information and get back to me with any questions or comments you may have about the project.

Thank you,

THIS IS NOT A PERMIT

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

DNR#: ER-24025-1

Request Received: February 23, 2023

Requestor:
Carson Hoogewerf
Lochmueller Group
112 West Jefferson Boulevard, Suite 500
South Bend, IN 46601

Project:
SR 2 road maintenance
1) Des #1900177: HMA overlay, road widening, and other maintenance, from US 20 to US 20/US 31 Junction
2) Des #1900017: small structure (CV 002-071-74.20) replacement over Niespodziany Ditch, about 6.5 miles west of US 31 Junction (new extension of the structure)

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.

Regulatory Assessment:
This proposal will require the formal approval of our agency for construction in a floodway, pursuant to the Flood Control Act (IC 14-28-1), 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 species below have been documented within 1/2 mile of the project area. The Division of Nature Preserves does not anticipate any impacts to the Nature Preserve or plant species as a result of this project.

A) COMMUNITIES:
1. Bendix Woods Nature Preserve
2. Grand Prairie Mesic Upland Forest

B) PLANTS:
1. Robert (*Geranium robertianum*), State Threatened
2. Nuttall pondweed (*Potamogeton epihydrus*), State Endangered
3. Sword Bogmat (*Wolffiella gladiate*), State Endangered
4. Warty Panic-grass (*Panicum verrucosum*), State Threatened

C) BIRDS:

1. Henslow's Sparrow (*Centronyx henslowii*), State Endangered
2. Osprey (*Pandion haliaetus*), State Special Concern
3. Upland Sandpiper (*Bartramia longicauda*), State Endangered

Fish and Wildlife Comments:
Suitable habitat for the sparrow and sandpiper does not occur in or near the project area so no significant impacts to these species are anticipated. The documented Osprey nest is more than 900 ft from the proposed project, which is greater than the 660 feet needed to minimize disturbance to the eagle nest. No negative effects are expected to the Osprey.

All other comments in our previous letter (attached) remain valid.

Contact Staff:
Our agency appreciates this opportunity to be of service. Please contact me at mbuffington@dnr.in.gov or (317) 233-4666 if we can be of further assistance.

Matt Buffington

Date: March 24, 2023

Matt Buffington
Environmental Unit Supervisor
Division of Fish and Wildlife

THIS IS NOT A PERMIT

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

DNR #: ER-24025 **Request Received:** September 1, 2021

Requestor: Lochmueller Group
CJ Cunningham
112 West Jefferson Boulevard, Suite 500
South Bend, IN 46601

Project: SR 2 small structure (CV 002-071-74.20) replacement over Niespodziany Ditch, about 6.5 miles west of US 31 Junction; Des #1900017

County/Site info: St. Joseph

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 will require the formal approval of our agency for construction in a floodway pursuant to the Flood Control Act (IC 14-28-1), unless it qualifies for a bridge exemption (see enclosure). Please include a copy of this letter with the permit application if the project does not meet the bridge exemption criteria.

Natural Heritage Database: The Natural Heritage Program's data have been checked.
To date, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity.

Fish & 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:

1) Stream Crossings:
Maintaining or improving fish and wildlife passage at existing or proposed stream crossing locations is a priority for the Division of Fish & Wildlife (DFW) to reduce wildlife mortality along roadways. The DFW has outlined different requirements for different types of crossing structure impacts. For brand new crossings in areas that currently do not have a crossing, the new structure must accommodate white-tailed deer passage where appropriate. Minimum structure dimensions for white-tailed deer passage are 20 feet of width clearance (overall size of the structure span) and 8 feet of height clearance measured from the OHWM to the low chord elevation and where deer passage is provided. For crossing replacements, the new structure must include wildlife passage appropriate for the type of replacement structure being proposed. If the replacement structure is sized to accommodate white-tailed deer passage then it should be included in the design of the new structure. If white-tailed deer passage is not possible with the existing structure, deer passage still needs to be considered in the design and at minimum the bank lines must be restored within structures to allow for smaller wildlife passage above the ordinary high water mark. All wildlife passage designs must include a smooth level pathway 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 stream crossing repairs or modifications, and any bank stabilization under or around the structure, must not create conditions that are less favorable for wildlife passage when compared to existing conditions. Upgrading wildlife passage for rehabilitated/modified structures is

Attachments: A - Bridge Exemption Criteria

encouraged whenever possible to improve wildlife/vehicle safety.

There are a number of 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: http://www.fs.fed.us/wildlifecrossings/library/, https://roadecology.ucdavis.edu/files/content/projects/DOT-FHWA_Wildlife_Crossing_Structures_Handbook.pdf, https://www.fs.fed.us/biology/nsaec/fishxing/aop_pdfs.html, https://www.fhwa.dot.gov/engineering/hydraulics/pubs/11008/hif11008.pdf.

When designing a new or replacement structure, bridges are recommended over culverts, and three-sided culverts are recommended over box or pipe culverts. Multiple culverts or culverts with multiple openings are not recommended. 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 must be 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 to maintain aquatic organism passage. Stream depth, channel width and water velocities in the crossing structure during low-flow conditions must approximate those in the natural stream channel.

2) 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 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.

3) 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.

Attachments: A - Bridge Exemption Criteria

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.

4) 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.
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

Attachments: A - Bridge Exemption Criteria

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 **Date:** September 30, 2021

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

Attachments: A - Bridge Exemption Criteria

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: July 06, 2023
Project Code: 2023-0098464
Project Name: Des. Nos. 1900177 & 1900017 - SR 2 Roadway/Pipe Project - LaPorte & St. Joseph Counties

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 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/or 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 Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

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 feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. 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. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act 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.

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at - http://www.fws.gov/midwest/endangered/section7/

s7process/index.html. This website contains step-by-step instructions which will help you determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process. For all **wind energy projects** and **projects that include installing towers that use guy wires or are over 200 feet in height**, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of

Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to 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.**

Attachment(s):

- Official Species List
- 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

PROJECT SUMMARY

Project Code: 2023-0098464

Project Name: Des. Nos. 1900177 & 1900017 - SR 2 Roadway/Pipe Project - LaPorte & St. Joseph Counties

Project Type: Road/Hwy - Maintenance/Modification

Project Description: The Indiana Department of Transportation (INDOT) LaPorte District, with funding from the Federal Highway Administration (FHWA), intends to proceed with a roadway/small structure project along SR 2 and Larrison Blvd. in LaPorte and St. Joseph Counties, Indiana (Des. No. 1900177), and a roadway/small structure project at Niespodziany Ditch along SR 2 in St. Joseph County (Des. No. 1900017).

The proposed roadway/small structure projects are located along SR 2 from US 20 (LaPorte County) to US 20/US 31 (St. Joseph County). The project is located in Willis Township in LaPorte County, and Olive, Warren, and Portage Townships in St. Joseph County, Indiana. The length of the project is approximately 12.77 miles along SR 2. Construction is anticipated to begin in spring of 2024.

The Des. No. 1900177 project will involve milling and asphalt overlay along SR 2 and at road and driveway approaches throughout the project area. The typical section of SR 2 will be altered from Quince Road to Pine Road, including enclosing the open grassed median and creating a two-way left turn lane. The existing outside shoulder will be removed, and curb and gutter will be installed along with curb turnouts. Median pavement at the intersection of SR 2 and CR 600 will be removed, and left turning movement at this intersection will be eliminated. Guardrail will be replaced as necessary. 123 drainage structures are expected to be repaired, removed, or replaced throughout the project area, varying in size and orientation. Maximum structure diameter is 30". In addition, a WB truck acceleration lane will be added north of SR 2, on and west of Larrison. An EB acceleration lane will be added within the SR 2 median, east of Larrison. Seven additional pipes will be modified in association with the acceleration lanes.

The Des. No. 1900017 project will replace the small structure carrying SR 2 over Niespodziany Ditch (CV 002-071-74.20) with a 142-foot RCB with a 14-foot span, 8-foot rise, and 12-inch sump. The project will also replace a median drain and a driveway culvert near the subject structure.

The maintenance of traffic plan will cover both projects and will generally involve lane closures of one side of SR 2 at a time and will occur in four phases. Temporary median crossovers will be constructed during each phase to divert traffic onto the open half of SR 2.

No new permanent right-of-way is anticipated to be required for Des. No. 1900177. New permanent ROW will be necessary to accommodate both the westbound acceleration lane west of Larrison Road and the replaced small structure at Niespodziany Ditch (Des. No. 1900017). This ROW is being donated by St. Joseph County.

Suitable summer bat habitat is present within and adjacent to portions of the project area. Surrounding landscape consists of maintained and unmaintained vegetation, forest, wetlands, streams, residential areas, commercial areas, and agricultural areas. Dominant tree species throughout the project area include Acer saccharum, Acer sacchainum, Acer negundo, Quercus rubra, Celtis occidentalis, Prunus serotina, and Morus alba. Tree clearing totaling approximately 0.62 acre (0.55 acre for Des. No. 1900177 and 0.07 acre for Des. No. 1900017) is expected to occur on both sides of SR 2. All tree clearing will occur within 100 feet of a roadway and will take place during the inactive season. The project will not add any additional permanent lighting. Temporary lighting may be used if night work is required.

The INDOT USFWS Database 0.5-mile bat review for Des. No. 1900177 occurred on September 14, 2021 and did not indicate the presence of endangered bat species within 0.5 mile of the project. The INDOT USFWS Database 0.5-mile bat review for Des. No. 1900017 occurred on June 18, 2021 and did not indicate the presence of endangered bat species within 0.5 mile of the project. Lochmueller Group completed a field investigation on 4/24/23 and found no evidence of bats in any structure.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.67281105,-86.57167951633748,14z



Counties: LaPorte and St. Joseph counties, Indiana

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], 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 *Myotis sodalis* 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 *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane *Grus americana* Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non-Essential

REPTILES

NAME	STATUS
Copperbelly Water Snake *Nerodia erythrogaster neglecta*	Threatened

Population: Indiana north of 40 degrees north latitude, Michigan, Ohio
No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/7253

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus*	Candidate

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/9743

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.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

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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)

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Golden-plover *Pluvialis dominica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Bald Eagle *Haliaeetus leucocephalus* 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.	Breeds Oct 15 to Aug 31

NAME	BREEDING SEASON
Black-billed Cuckoo *Coccyzus erythropthalmus* 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 *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Canada Warbler *Cardellina canadensis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Cerulean Warbler *Dendroica cerulea* 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 21 to Jul 20
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will *Antrostomus vociferus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Golden-winged Warbler *Vermivora chrysoptera* 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
Henslow's Sparrow *Ammodramus henslowii* 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 *Tringa flavipes* 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
Prothonotary Warbler *Protonotaria citrea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Rusty Blackbird *Euphagus carolinus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere

NAME	BREEDING SEASON
Short-billed Dowitcher *Limnodromus griseus* 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 *Bartramia longicauda* 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
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	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 and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

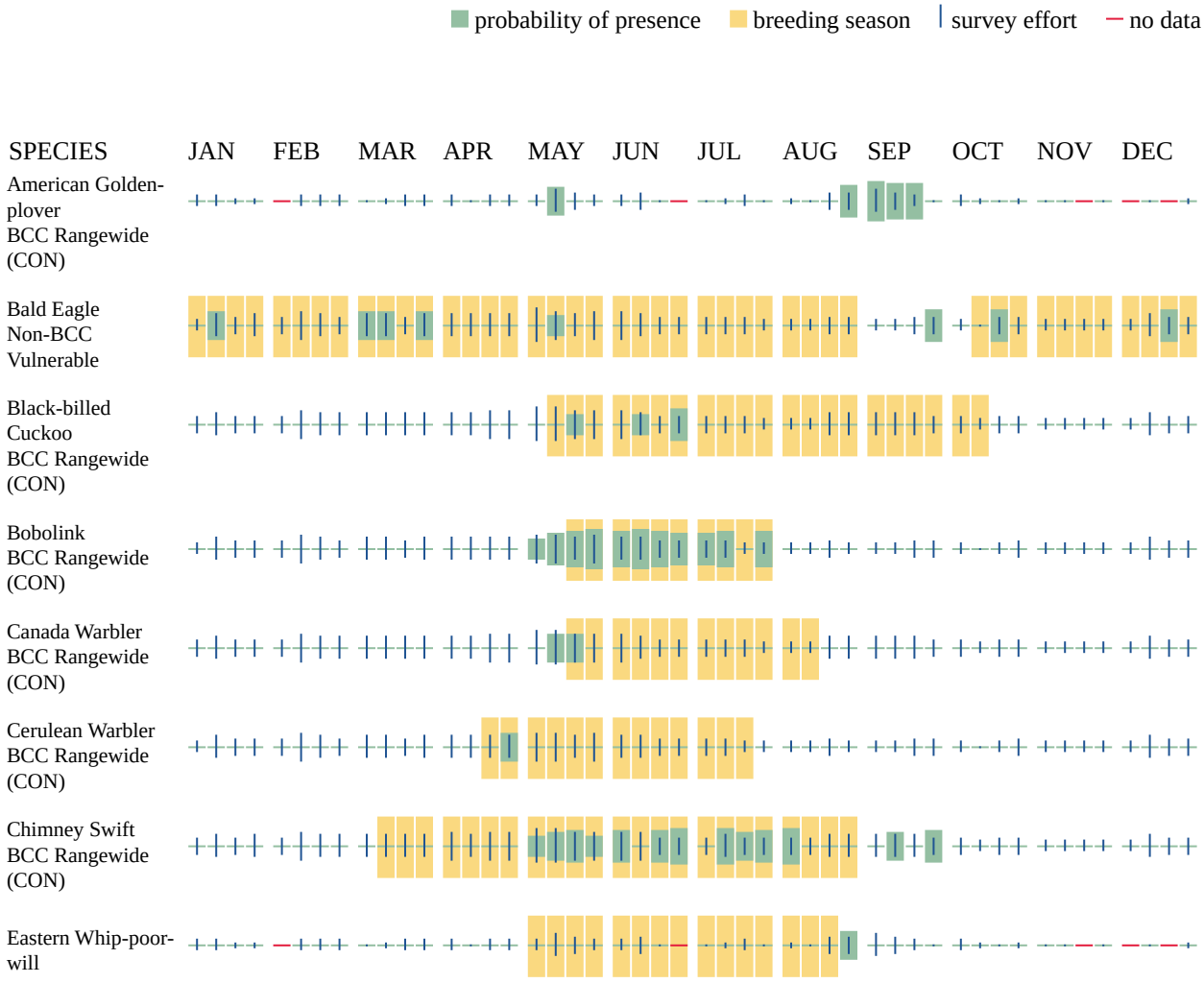
1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly

important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?
The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?
The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects
For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of

certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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 FORESTED/SHRUB WETLAND

- PFO1A
- PSS1/EM1F

RIVERINE

- R2UBFx

IPAC USER CONTACT INFORMATION

Agency: Lochmueller Group, Inc.
Name: Carson Hoogewerf
Address: 112 W Jefferson Blvd
Address Line 2: #500
City: South Bend
State: IN
Zip: 46601
Email choogewerf@lochgroup.com
Phone: 5743345491

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

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: July 06, 2023
Project code: 2023-0098464
Project Name: Des. Nos. 1900177 & 1900017 - SR 2 Roadway/Pipe Project - LaPorte & St. Joseph Counties

Subject: Consistency letter for the 'Des. Nos. 1900177 & 1900017 - SR 2 Roadway/Pipe Project - LaPorte & St. Joseph Counties' project under the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (NLEB).

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request dated July 06, 2023 to verify that the **Des. Nos. 1900177 & 1900017 - SR 2 Roadway/Pipe Project - LaPorte & St. Joseph Counties** (Proposed Action) may rely on the concurrence provided in the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action is within the scope and adheres to the criteria of the PBO, including the adoption of applicable avoidance and minimization measures, and may affect, but is not likely to adversely affect (NLAA) the endangered Indiana bat (*Myotis sodalis*) and/or the endangered northern long-eared bat (*Myotis septentrionalis*). Consultation with the Service pursuant to section 7(a)(2) of the ESA (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) is required.

This "may affect - not likely to adversely affect" determination becomes effective when the lead Federal action agency or designated non-federal representative requests the Service rely on the PBO to satisfy the agency's consultation requirements for this project.

Please provide this consistency letter to the lead Federal action agency or its designated non-federal representative with a request for review, and as the agency deems appropriate, submit for concurrence verification through the IPaC system. The lead Federal action agency or designated

non-federal representative should log into IPaC using their agency email account and click "Search by record locator". They will need to enter the record locator **314-128333984**.

For Proposed Actions that include bridge/culvert or structure removal, replacement, and/or maintenance activities: If your initial bridge/culvert or structure assessment documented signs of bat use or occupancy, or an assessment failed to detect Indiana bats and/or NLEBs, yet are later detected prior to, or during construction, please submit the Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form (User Guide Appendix E) to this Service Office within 2 working days of any potential take. In these instances, potential incidental take of Indiana bats and/or NLEBs is covered under the Incidental Take Statement in the 2018 FHWA, FRA, FTA PBO (provided that the take is reported to the Service).

If the Proposed Action is modified, or new information reveals that it may affect the Indiana bat and/or northern long-eared bat in a manner or to an extent not considered in the PBO, 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 assessments failed to detect Indiana bats and/or NLEB use or occupancy, yet bats are later detected prior to, or during construction, please submit the Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form (User Guide Appendix E) to this Service Office within 2 working days of the incident. In these instances, potential incidental take of Indiana bats and/or NLEBs may be exempted provided that the take is reported to the Service. If the Proposed Action 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 Office is required. If the proposed action 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 accordingly.

The following species may occur in your project area and **are not** covered by this determination:

- Copperbelly Water Snake *Nerodia erythrogaster neglecta* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered
- Whooping Crane *Grus americana* Experimental Population, Non-Essential

PROJECT DESCRIPTION

The following project name and description was collected in IPaC as part of the endangered species review process.

NAME

Des. Nos. 1900177 & 1900017 - SR 2 Roadway/Pipe Project - LaPorte & St. Joseph Counties

DESCRIPTION

The Indiana Department of Transportation (INDOT) LaPorte District, with funding from the Federal Highway Administration (FHWA), intends to proceed with a roadway/small structure project along SR 2 and Larrison Blvd. in LaPorte and St. Joseph Counties, Indiana (Des. No. 1900177), and a roadway/small structure project at Niespodziany Ditch along SR 2 in St. Joseph County (Des. No. 1900017).

The proposed roadway/small structure projects are located along SR 2 from US 20 (LaPorte County) to US 20/US 31 (St. Joseph County). The project is located in Willis Township in LaPorte County, and Olive, Warren, and Portage Townships in St. Joseph County, Indiana. The length of the project is approximately 12.77 miles along SR 2. Construction is anticipated to begin in spring of 2024.

The Des. No. 1900177 project will involve milling and asphalt overlay along SR 2 and at road and driveway approaches throughout the project area. The typical section of SR 2 will be altered from Quince Road to Pine Road, including enclosing the open grassed median and creating a two-way left turn lane. The existing outside shoulder will be removed, and curb and gutter will be installed along with curb turnouts. Median pavement at the intersection of SR 2 and CR 600 will be removed, and left turning movement at this intersection will be eliminated. Guardrail will be replaced as necessary. 123 drainage structures are expected to be repaired, removed, or replaced throughout the project area, varying in size and orientation. Maximum structure diameter is 30". In addition, a WB truck acceleration lane will be added north of SR 2, on and west of Larrison. An EB acceleration lane will be added within the SR 2 median, east of Larrison. Seven additional pipes will be modified in association with the acceleration lanes.

The Des. No. 1900017 project will replace the small structure carrying SR 2 over Niespodziany Ditch (CV 002-071-74.20) with a 142-foot RCB with a 14-foot span, 8-foot rise, and 12-inch sump. The project will also replace a median drain and a driveway culvert near the subject structure.

The maintenance of traffic plan will cover both projects and will generally involve lane closures of one side of SR 2 at a time and will occur in four phases. Temporary median crossovers will be constructed during each phase to divert traffic onto the open half of SR 2.

No new permanent right-of-way is anticipated to be required for Des. No. 1900177. New

permanent ROW will be necessary to accommodate both the westbound acceleration lane west of Larrison Road and the replaced small structure at Niespodziany Ditch (Des. No. 1900017). This ROW is being donated by St. Joseph County.

Suitable summer bat habitat is present within and adjacent to portions of the project area. Surrounding landscape consists of maintained and unmaintained vegetation, forest, wetlands, streams, residential areas, commercial areas, and agricultural areas. Dominant tree species throughout the project area include Acer saccharum, Acer sacchainum, Acer negundo, Quercus rubra, Celtis occidentalis, Prunus serotina, and Morus alba. Tree clearing totaling approximately 0.62 acre (0.55 acre for Des. No. 1900177 and 0.07 acre for Des. No. 1900017) is expected to occur on both sides of SR 2. All tree clearing will occur within 100 feet of a roadway and will take place during the inactive season. The project will not add any additional permanent lighting. Temporary lighting may be used if night work is required.

The INDOT USFWS Database 0.5-mile bat review for Des. No. 1900177 occurred on September 14, 2021 and did not indicate the presence of endangered bat species within 0.5 mile of the project. The INDOT USFWS Database 0.5-mile bat review for Des. No. 1900017 occurred on June 18, 2021 and did not indicate the presence of endangered bat species within 0.5 mile of the project. Lochmueller Group completed a field investigation on 4/24/23 and found no evidence of bats in any structure.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.67281105,-86.57167951633748,14z



DETERMINATION KEY RESULT

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the endangered Indiana bat and/or the endangered northern long-eared 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 amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

QUALIFICATION INTERVIEW

1. Is the project within the range of the Indiana bat[1]?

   [1] See Indiana bat species profile

   Automatically answered
   Yes

2. Is the project within the range of the northern long-eared bat[1]?

   [1] See northern long-eared bat species profile

   Automatically answered
   Yes

3. Which Federal Agency is the lead for the action?

   A) Federal Highway Administration (FHWA)

4. Are *all* project activities limited to non-construction[1] activities only? (examples of non-construction activities include: bridge/abandoned structure assessments, surveys, planning and technical studies, property inspections, and property sales)

   [1] Construction refers to activities involving ground disturbance, percussive noise, and/or lighting.

   No

5. Does the project include *any* activities that are **greater than** 300 feet from existing road/rail surfaces[1]?

   [1] Road surface is defined as the actively used [e.g. motorized vehicles] driving surface and shoulders [may be pavement, gravel, etc.] and rail surface is defined as the edge of the actively used rail ballast.

   No

6. Does the project include *any* activities **within** 0.5 miles of a known Indiana bat and/or NLEB hibernaculum[1]?

   [1] For the purpose of this consultation, a hibernaculum is a site, most often a cave or mine, where bats hibernate during the winter (see suitable habitat), but could also include bridges and structures if bats are found to be hibernating there during the winter.

   No

7. Is the project located **within** a karst area?

   No

8. Is there *any* suitable[1] summer habitat for Indiana Bat or NLEB **within** the project action area[2]? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

   [1] See the Service's summer survey guidance for our current definitions of suitable habitat.

   [2] The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR Section 402.02). Further clarification is provided by the User's Guide for the Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat.

   Yes

9. Will the project remove *any* suitable summer habitat[1] and/or remove/trim any existing trees **within** suitable summer habitat?

   [1] See the Service's summer survey guidance for our current definitions of suitable habitat.

   Yes

10. Will the project clear more than 20 acres of suitable habitat per 5-mile section of road/rail?

    No

11. Have presence/probable absence (P/A) summer surveys[1][2] been conducted[3][4] **within** the suitable habitat located within your project action area?

    [1] See the Service's summer survey guidance for our current definitions of suitable habitat.

    [2] Presence/probable absence summer surveys conducted within the fall swarming/spring emergence home range of a documented Indiana bat hibernaculum (contact local Service Field Office for appropriate distance from hibernacula) that result in a negative finding requires additional consultation with the local Service Field Office to determine if clearing of forested habitat is appropriate and/or if seasonal clearing restrictions are needed to avoid and minimize potential adverse effects on fall swarming and spring emerging Indiana bats.

    [3] For projects within the range of either the Indiana bat or NLEB in which suitable habitat is present, and no bat surveys have been conducted, the transportation agency will assume presence of the appropriate species. This assumption of presence should be based upon the presence of suitable habitat and the capability of bats to occupy it because of their mobility.

    [4] Negative presence/probable absence survey results obtained using the summer survey guidance are valid for a minimum of two years from the completion of the survey unless new information (e.g., other nearby surveys) suggest otherwise.

    No

12. Does the project include activities **within documented Indiana bat habitat**[1][2]?

    [1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

    [2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

    No

13. Will the removal or trimming of habitat or trees occur **within** suitable but **undocumented Indiana bat** roosting/foraging habitat or travel corridors?

    Yes

14. What time of year will the removal or trimming of habitat or trees **within** suitable but **undocumented Indiana bat** roosting/foraging habitat or travel corridors occur[1]?

    [1] Coordinate with the local Service Field Office for appropriate dates.

    B) During the inactive season

15. Does the project include activities **within documented NLEB habitat**[1][2]?

    [1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

    [2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

    No

16. Will the removal or trimming of habitat or trees occur **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors?

    Yes

17. What time of year will the removal or trimming of habitat or trees **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors occur?

    B) During the inactive season

18. Will *any* tree trimming or removal occur **within** 100 feet of existing road/rail surfaces?

    Yes

19. Will *any* tree trimming or removal occur **between** 100-300 feet of existing road/rail surfaces?

    No

20. Are *all* trees that are being removed clearly demarcated?

    Yes

21. Will the removal of habitat or the removal/trimming of trees include installing new or replacing existing **permanent** lighting?

    No

22. Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?

    No

23. Does the project include slash pile burning?

    No

24. Does the project include *any* bridge removal, replacement, and/or maintenance activities (e.g., any bridge repair, retrofit, maintenance, and/or rehabilitation work)?

    Yes

25. Is there *any* suitable habitat[1] for Indiana bat or NLEB **within** 1,000 feet of the bridge? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

    [1] See the Service's current summer survey guidance for our current definitions of suitable habitat.

    Yes

26. Has a bridge assessment[1] been conducted **within** the last 24 months[2] to determine if the bridge is being used by bats?

    [1] See User Guide Appendix D for bridge/structure assessment guidance

    [2] Assessments must be completed no more than 2 years prior to conducting any work below the deck surface on all bridges that meet the physical characteristics described in the Programmatic Consultation, regardless of whether assessments have been conducted in the past. Due to the transitory nature of bat use, a negative result in one year does not guarantee that bats will not use that bridge/structure in subsequent years.

    Yes

    SUBMITTED DOCUMENTS

    - *Signed_Des 1900017_ Bat Structure Inspection Form_Driveway Pipe_20230424.pdf https://ipac.ecosphere.fws.gov/project/YAOYLCUJKZB5FKADEA3ROGGTHU/projectDocuments/128329298*
    - *Signed_Des 1900017_ Bat Structure Inspection Form_Median pipe_20230424.pdf https://ipac.ecosphere.fws.gov/project/YAOYLCUJKZB5FKADEA3ROGGTHU/projectDocuments/128329299*
    - *Bridge Culvert Bat Assessment Form_Apr 2020_SR 2 over Niespodziany_1900017.pdf https://ipac.ecosphere.fws.gov/project/YAOYLCUJKZB5FKADEA3ROGGTHU/projectDocuments/128327704*
    - *Bridge Culvert Bat Assessment Form_SR 2 HMA_1900177.pdf https://ipac.ecosphere.fws.gov/project/YAOYLCUJKZB5FKADEA3ROGGTHU/projectDocuments/128710586*

27. Did the bridge assessment detect *any* signs of Indiana bats and/or NLEBs roosting in/under the bridge (bats, guano, etc.)[1]?

    [1] If bridge assessment detects signs of *any* species of bats, coordination with the local FWS office is needed to identify potential threatened or endangered bat species. Additional studies may be undertaken to try to identify which bat species may be utilizing the bridge prior to allowing *any* work to proceed.

    Note: There is a small chance bridge assessments for bat occupancy do not detect bats. Should a small number of bats be observed roosting on a bridge just prior to or during construction, such that take is likely to occur or does occur in the form of harassment, injury or death, the PBO requires the action agency to report the take. Report all unanticipated take within 2 working days of the incident to the USFWS. Construction activities may continue without delay provided the take is reported to the USFWS and is limited to 5 bats per project.

    No

28. Will the bridge removal, replacement, and/or maintenance activities include installing new or replacing existing **permanent** lighting?

    No

29. Does the project include the removal, replacement, and/or maintenance of *any* structure other than a bridge? (e.g., rest areas, offices, sheds, outbuildings, barns, parking garages, etc.)

    No

30. Will the project involve the use of **temporary** lighting *during* the active season?

    Yes

31. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **temporary** lighting will be used?

    Yes

32. Will the project install new or replace existing **permanent** lighting?

    No

33. Does the project include percussives or other activities (**not including tree removal/ trimming or bridge/structure work**) that will increase noise levels above existing traffic/ background levels?

    Yes

34. Will the activities that use percussives (**not including tree removal/trimming or bridge/ structure work**) and/or increase noise levels above existing traffic/background levels be conducted *during* the active season[1]?

    [1] Coordinate with the local Service Field Office for appropriate dates.

    Yes

35. Will *any* activities that use percussives (**not including tree removal/trimming or bridge/ structure work**) and/or increase noise levels above existing traffic/background levels be conducted *during* the inactive season[1]?

    [1] Coordinate with the local Service Field Office for appropriate dates.

    Yes

36. Are *all* project activities that are **not associated with** habitat removal, tree removal/ trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives, limited to actions that DO NOT cause any additional stressors to the bat species?

    Examples: lining roadways, unlighted signage , rail road crossing signals, signal lighting, and minor road repair such as asphalt fill of potholes, etc.

    Yes

37. Will the project raise the road profile **above the tree canopy**?

    No

38. Are the project activities that use percussives (not including tree removal/trimming or bridge/structure work) consistent with a Not Likely to Adversely Affect determination in this key?

    Automatically answered
    Yes, because the activities are within 300 feet of the existing road/rail surface, greater than 0.5 miles from a hibernacula, and conducted during the active season within undocumented habitat.

39. Are the project activities that use percussives (not including tree removal/trimming or bridge/structure work) and/or increase noise levels above existing traffic/background levels consistent with a No Effect determination in this key?

    Automatically answered
    Yes, because the activities are within 300 feet of the existing road/rail surface, greater than 0.5 miles from a hibernacula, and conducted during the inactive season

40. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

    Automatically answered
    Yes, because the tree removal/trimming that occurs outside of the Indiana bat's active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost.

41. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

    Automatically answered
    Yes, because the tree removal/trimming that occurs outside of the NLEB's active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost.

42. Is the bridge removal, replacement, or maintenance activities portion of this project consistent with a No Effect determination in this key?

    Automatically answered
    Yes, because the bridge has been assessed using the criteria documented in the BA and no signs of bats were detected

43. **General AMM 1**
    Will the project ensure *all* operators, employees, and contractors working in areas of known or presumed bat habitat are aware of *all* FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable Avoidance and Minimization Measures?

    Yes

44. **Tree Removal AMM 1**
    Can *all* phases/aspects of the project (e.g., temporary work areas, alignments) be modified, to the extent practicable, to avoid tree removal[1] in excess of what is required to implement the project safely?

    Note: Tree Removal AMM 1 is a minimization measure, the full implementation of which may not always be practicable. Projects may still be NLAA as long as Tree Removal AMMs 2, 3, and 4 are implemented and LAA as long as Tree Removal AMMs 3, 5, 6, and 7 are implemented.

    [1] The word “trees” as used in the AMMs refers to trees that are suitable habitat for each species within their range. See the USFWS’ current summer survey guidance for our latest definitions of suitable habitat.

    Yes

45. **Tree Removal AMM 3**
    Can tree removal be limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits)?

    Yes

46. **Tree Removal AMM 4**
    Can the project avoid cutting down/removal of *all* (1) **documented**[1] Indiana bat or NLEB roosts[2] (that are still suitable for roosting), (2) trees **within** 0.25 miles of roosts, and (3) documented foraging habitat any time of year?

    [1] The word documented means habitat where bats have actually been captured and/or tracked.

    [2] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

    Yes

47. **Lighting AMM 1**
    Will *all* **temporary** lighting be directed away from suitable habitat during the active season?

    Yes

PROJECT QUESTIONNAIRE

1. Have you made a No Effect determination for *all* other species indicated on the FWS IPaC generated species list?

   Yes

2. Have you made a May Affect determination for *any* other species on the FWS IPaC generated species list?

   No

3. How many acres[1] of trees are proposed for removal between 0-100 feet of the existing road/rail surface?

   [1] If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   0.62

4. Please describe the proposed bridge work:

   123 small structures will be either replaced, repaired, or removed for the Des. No. 1900177 Project. 7 additional structures will be modified in association with the Larrison Blvd. portion of Des. No. 1900177. Those structures are detailed in the attachment to the 1900177 bat inspection form. For the Des. No. 1900017 project, the small structure carrying SR 2 over Niespodziany Ditch, CV 002-071-74.20, will be replaced with a 142-foot RCB with a 14-foot span, 8-foot rise, and 12-inch sump. In addition, a driveway culvert beneath a field access drive southwest of CV 002-071-74.20 will be replaced by a new structure which will be a 65-foot long, 15-inch diameter corrugated metal pipe (CMP). A center median inlet east of CV 002-071-74.20, which drains southwestward to Niespodziany Ditch, will also be replaced. The new structure will be a 64-foot long, 15-inch diameter CMP that will outlet through the newly constructed wingwall at the inlet (south end) of CV 002-071-74.20.

5. Please state the timing of all proposed bridge work:
   Spring through winter of 2024
6. Please enter the date of the bridge assessment:
   April 24, 2023

AVOIDANCE AND MINIMIZATION MEASURES (AMMS)

This determination key result includes the committment to implement the following Avoidance and Minimization Measures (AMMs):

TREE REMOVAL AMM 2

Apply time of year restrictions for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/rail surface and **outside of documented** roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed.

TREE REMOVAL AMM 3

Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).

TREE REMOVAL AMM 4

Do not remove **documented** Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or
documented foraging habitat any time of year.

GENERAL AMM 1

Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs.

TREE REMOVAL AMM 1

Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal.

LIGHTING AMM 1

Direct temporary lighting away from suitable habitat during the active season.

DETERMINATION KEY DESCRIPTION: FHWA, FRA, FTA PROGRAMMATIC CONSULTATION FOR TRANSPORTATION PROJECTS AFFECTING NLEB OR INDIANA BAT

This key was last updated in IPaC on June 14, 2023. 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) for the endangered **Indiana bat** (*Myotis sodalis*) and the endangered **northern long-eared bat** (NLEB) (*Myotis septentrionalis*).

This decision key should only be used to verify project applicability with the Service's amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects. The programmatic biological opinion covers limited transportation activities that may affect either bat species, and addresses situations that are both likely and not likely to adversely affect either bat species. This decision key will assist in identifying the effect of a specific project/activity and applicability of the programmatic consultation. The programmatic biological opinion is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic biological opinion, or that may affect ESA-listed species other than the Indiana bat or NLEB, or any designated critical habitat, may require additional ESA Section 7 consultation.

IPAC USER CONTACT INFORMATION

Agency: Lochmueller Group, Inc.
Name: Carson Hoogewerf
Address: 112 W Jefferson Blvd
Address Line 2: #500
City: South Bend
State: IN
Zip: 46601
Email choogewerf@lochgroup.com
Phone: 5743345491

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

Bridge/Structure Bat Assessment Form

Date & Time of Assessment	DOT Project Number	Route/Facility Carried	County
4/24/23 10:30 AM	Des. No. 1900177	SR 2	LaPorte/St. Joseph
Federal Structure ID	**Structure Coordinates (latitude and longitude)**	**Structure Height (approximate)**	**Structure Length**
See Attachment	See Attachment	See Attachment	See Attachment

Structure Type (check one)

Bridge Construction Style

○ Cast-in-place		○ Pre-stressed Girder	
○ Flat Slab/Box		○ Steel I-beam	
○ Truss		○ Covered	
○ Parallel Box Beam		○ Other:	

Culvert Type

○ Box	
◉ Pipe/Round	
○ Other:	

Other Structure

○

Structure Material (check all that apply)

Deck Material	*Beam Material*	*End/Back Wall Material*
☐ Metal	☐ None	☐ Concrete
☐ Concrete	☐ Concrete	☐ Timber
☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Open grid	☐ Timber	☐ Other:
☐ Other:	☐ Other:	

Creosote Evidence

○ Yes ◉ No ○ Unknown

Culvert Material

☒ Metal
☒ Concrete
☒ Plastic
☐ Stone/Masonry
☐ Other:

Notes:

Crossings Traversed (check all that apply)

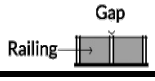
☒ Bare ground	☒ Open vegetation
☒ Rip-rap	☒ Closed vegetation
☒ Flowing water	☐ Railroad
☒ Standing water	☐ Road/trail - Type:
☒ Seasonal water	☐ Other:

Surrounding Habitat (check all that apply)

☒ Agricultural	☐ Grassland
☒ Commercial	☐ Ranching
☒ Residential-urban	☒ Riparian/wetland
☒ Residential-rural	☒ Mixed use
☒ Woodland/forested	☐ 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)
☒ All crevices and cracks: **Bridges/culverts:** rough surfaces or imperfections in concrete **Other structures:** soffits, rafters, attic areas	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ Concrete surfaces (open roosting on concrete)	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Spaces between concrete end walls and the bridge deck	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Crack between concrete railings on top of the bridge deck 	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Vertical surfaces on concrete I-beams	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Spaces between walls, ceiling joists	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ Weep holes, scupper drains, and inlets/pipes	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ All guiderails	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ All expansion joints	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species

Name: Carson Hoogewerf

Signature: Carson Hoogewerf

Des. No.	Str. No	Asset No.	Latitude	Longitude	Left	Center	Right	Size (in)	Length	Pipe Type	Description	Removal (ft)	Remarks	Date of Inspection	Evidence of Bats	Evidence of Birds	Waterbody
1900177	1	CLV-37285	41.672872	-86.583378		X		12	62	2	Existing Inlet		62 LFT of 12" CIPP Lining	24-Apr-23	No	No	RSD 1
1900177	2	NONE	41.672775	-86.583269			X	15	65	2	Existing Manhole		65 LFT of 15" CIPP Lining	24-Apr-23	No	No	RSD 1
1900177	3	CLV-37291	41.672669	-86.583278			X	12	12	2	Existing Inlet	12	Replace with 121 LFT of 12" Type 2 Pipe	24-Apr-23	No	No	RSD 1
1900177	4	NONE	41.672661	-86.582972			X	15	201	2	Existing Manhole		201 LFT of 15" CIPP Lining, Riprap at outlet	24-Apr-23	No	No	RSD 1
1900177	5	CLV-46978	41.673028	-86.583094	X			18	106	2			106 LFT of 18" CIPP Lining, Riprap at outlet	24-Apr-23	No	No	None
1900177	8	CLV-37325	41.672711	-86.575158	X			15	66	1		66	Replace with 66 LFT of 15", Type 1 Pipe	24-Apr-23	No	No	RSD 2
1900177	8A	CLV-37325	41.672711	-86.575158			X	15	58	1	Type P-12A Inlet	58	Replace with 58 LFT of 15", Type 1 Pipe	24-Apr-23	No	No	None
1900177	9	CLV-37347	41.672672	-86.570433			X	30	92	2	Existing Inlet		92 LFT of 30" CIPP Lining	24-Apr-23	No	No	UNT 2 to Roda Ditch
1900177	10	CLV-37351	41.672672	-86.570433	X			30	67	2			67 LFT of 30" CIPP Lining, add 1-1.5:1 Beveled Edge Headwall	24-Apr-23	No	No	None
1900177	11	CLV-37369	41.672725	-86.567958		X		12	20	2		20	Replace with 20 LFT of 12", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	RSD 2
1900177	12	CLV-37365	41.672653	-86.567131			X	15	61	2	Type P-12A Inlet	61	Replace with 58 LFT of 15", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	13	CLV-37423	41.672808	-86.564925	X			12	99	2	Type E7 Inlet	99	Replace with 60 LFT of 12", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	14	CLV-37429	41.672569	-86.561222			X	15	58	1	Type P-12A (Modified) Inlet	58	Replace with 58 LFT of 15", Type 1 Pipe	24-Apr-23	No	No	Wetland A
1900177	15	CLV-37431	41.672569	-86.561222	X			15	61	1		61	Replace with 61 LFT of 15", Type 1 Pipe	24-Apr-23	No	No	RSD 4
1900177	16	CLV-37433	41.672697	-86.559997	X			15	62	2	Type P-12A Inlet	62	Remove 62 LFT of 18" RCP and Replace with 62 LFT of 15", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	17	CLV-37441	41.672503	-86.554353			X	15	59	2	Existing Inlet		59 LFT of 15" CIPP Lining, Riprap at outlet	24-Apr-23	No	No	UNT 1 to Niespodziany
1900177	20	CLV-37859	41.672453	-86.544169			X	12	61	2	Existing Inlet		61 LFT of 12" CIPP Lining, Riprap at outlet	24-Apr-23	No	No	RSD 5
1900177	21	NONE	41.672517	-86.542725		X					Type P-12A Inlet		Replace Inlet	24-Apr-23	No	No	None
1900177	22	CLV-37865	41.672517	-86.542725			X	15	81	2	Type P-12A Inlet	81	Remove 80 LFT of 12" RCP and Replace with 80 LFT of 15", Type 2 Pipe, riprap at outlet	24-Apr-23	No	No	None
1900177	25	CLV-94742	41.672503	-86.540025		X		15	24	2		24	Replace with 24 LFT of 15", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	27	CLV-37909	41.67255	-86.536869	X			15	50	2	Type P-12A Inlet	50	Replace with 50 LFT of 15", Type 1 Pipe	24-Apr-23	No	No	None
1900177	28	CLV-37907	41.67255	-86.536869			X	15	71	2		71	Repalce with 71 LFT of 15", Type 1 Pipe, add Headwall	24-Apr-23	No	No	Wetland B
1900177	29	CLV-37913	41.672469	-86.535579		X		12	54	2	Type P-12A Inlet	54	Replace with 54 LFT of 12", Type 2 Pipe	24-Apr-23	No	No	Wetland B
1900177	29A	NONE	41.672469	-86.535579							Type R-13 Inlet		Replace Inlet	24-Apr-23	No	No	None
1900177	30	CLV-37921	41.672447	-86.533839		X		12	82	2	Type P-12A Inlet		82 LFT of 12" CIPP Lining	24-Apr-23	No	No	None
1900177	31	CLV-37929	41.672525	-86.533686	X			24	62	1		62	Remove 62 LFT of 18" RCP and Replace with 62 LFT of 24", Type 1 Pipe	24-Apr-23	No	No	RSD 6
1900177	32	CLV-37925	41.672525	-86.533686			X	24	61	1	Type P-12A (Modified) Inlet	61	Remove 61 LFT of 18" RCP and Replace with 61 LFT of 24", Type 1 Pipe	24-Apr-23	No	No	None
1900177	33	CLV-37931	41.672433	-86.531583		X		12	325	2	Type P-12A Inlet	325	Remove 325 LFT of 10" RCP and Replace with 325 LFT of 12", Type 2 Pipe	24-Apr-23	No	No	None
1900177	34	CLV-37936	41.672433	-86.531583			X	15	68	2	Type P-12A Inlet	68	Replace with 68 LFT of 15", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	35	CLV-37945	41.672492	-86.529783	X			24	67	2	Existing Inlet		67 LFT of 24" CIPP Lining, add 1-5:1 Beveled Edge Headwall	24-Apr-23	No	No	None
1900177	36	CLV-37943	41.672492	-86.529783			X	24	81	2			81 LFT of 24" CIPP Lining, Riprap at outlet	24-Apr-23	No	No	None
1900177	37	CLV-37951	41.672342	-86.528581			X	15	75	2	Type P-12A Inlet	75	Replace with 75 LFT of 15", Type 2 Pipe, riprap at outlet	24-Apr-23	No	No	None
1900177	38	CLV-46678	41.672472	-86.527244	X			12	58	2	Existing Inlet		58 LFT of 12" CIPP Lining	24-Apr-23	No	No	None
1900177	38A	NONE	41.672472	-86.527244							Type R-13 (modified) Inlet		Replace Inlet	24-Apr-23	No	No	None
1900177	39	CLV-46664	41.672381	-86.525733		X		15	44	2	Type P-12A Inlet	44	Remove 44 LFT of 12" CMP and Replace with 44 LFT of 15", Type 2 Pipe	24-Apr-23	No	No	RSD 7
1900177	40	CLV-38015	41.672425	-86.523264	X			24	67	1	Type P-12A Inlet	67	Replace with 67 LFT of 24", Type 1 Pipe, P-12A Inlet	24-Apr-23	No	No	UNT 3 to Niespodziany
1900177	40A	NONE	41.672425	-86.523264		X						14	Remove Pipe	24-Apr-23	No	No	UNT 3 to Niespodziany
1900177	41	CLV-38015	41.672425	-86.523264			X	24	70	1	Type P-12A Inlet	70	Replace with 70 LFT of 24", Type 1 Pipe	24-Apr-23	No	No	None
1900177	42	CLV-38017	41.672239	-86.521128							Type P-12A Inlet		Replace Inlet	24-Apr-23	No	No	None
1900177	43	CLV-46642	41.672217	-86.519264			X	12	70	2	Existing Inlet		70 LFT of 12" CIPP Lining, riprap at outlet	24-Apr-23	No	No	None
1900177	44	CLV-46636	41.672322	-86.517183	X			12	58	2	Existing Inlet		58 LFT of 12" CIPP Lining, Riprap at outlet	24-Apr-23	No	No	None
1900177	45	CLV-46630	41.672247	-86.517008		X		12	18	2		18	Replace with 18 LFT of 12", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	46	CLV-46628	41.672272	-86.513892	X			15	63	2	Existing Inlet		63 LFT of 15" CIPP Lining, Riprap at outlet	24-Apr-23	No	No	None
1900177	47	CLV-46622	41.672253	-86.512397							Type P-12A (Modified) Inlet		Replace Inlet	24-Apr-23	No	No	None
1900177	49	CLV-46610	41.672172	-86.512206							Type P-12A Inlet		Replace Inlet	24-Apr-23	No	No	None
1900177	50	CLV-46604	41.672172	-86.512206							Type P-12A Inlet		Replace Inlet	24-Apr-23	No	No	None
1900177	51	CLV-38025	41.672067	-86.510058			X	12	58	2	Existing Inlet		58 LFT of 12" CIPP Lining, riprap at outlet	24-Apr-23	No	No	None
1900177	52	CLV-46588	41.672092	-86.508667	X			12	73	2	Type P-12A Inlet	73	Replace with 73 LFT of 12", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	53	CLV-46702	41.672308	-86.506611	X			15	92	2	Existing Manhole	92	Replace with 92 LFT of 15", Type 2 Pipe	24-Apr-23	No	No	None
1900177	53A	NONE	41.672308	-86.506611	X			12	73	2	Type R-13 Inlet	73	Replace with 73 LFT of 12", Type 2 Pipe	24-Apr-23	No	No	None
1900177	53B	NONE	41.672308	-86.506611	X			12	46	2	Existing Inlet	46	Replace with 46 LFT of 12", Type 2 Pipe	24-Apr-23	No	No	UNT 4 to Niespodziany
1900177	54	CLV-46452	41.672067	-86.50635		X		12	49	2	Type P-12A Inlet	49	Replace with 49 LFT of 12", Type 2 Pipe	24-Apr-23	No	No	Wetland C
1900177	55	CLV-46204	41.672103	-86.503297	X			12	70	2	Type P-12A Inlet	70	Replace with 70 LFT of 12", Type 2 Pipe	24-Apr-23	No	No	None
1900177	55B	NONE	41.672103	-86.503297		X					Type K-2 Manhole		K-2 MH	24-Apr-23	No	No	None

1900177	57	CLV-38039	41.672003	-86.497164							Type P-12 (modified) Manhole		Add P-12 (modified) MH	24-Apr-23	No	No	RSD 9
1900177	58	CLV-46186	41.671917	-86.495903		X		12	142	2	Type P-12A Inlet	142	Replace with 142 LFT of 12", Type 2 Pipe	24-Apr-23	No	No	RSD 9
1900177	59	CLV-38041	41.671833	-86.495547			X	12	69	2	Type P-12A Inlet	69	Replace with 69 LFT of 12", Type 2 Pipe, riprap at outlet	24-Apr-23	No	No	None
1900177	60	CLV-46463	41.671822	-86.49055		X		12	151	2	Type P-12A Inlet	151	Remove 150 LFT of 10" CMP and Replace with 150 LFT of 12", Type 2 Pipe	24-Apr-23	No	No	None
1900177	61	CLV-40611	41.671947	-86.486744	X			24	107	2		107	Replace with 107 LFT of 24", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	62	CLV-95041	41.671767	-86.485178		X		12	81	2	Type P-12A Inlet	81	Replace with 81 LFT of 12", Type 2 Pipe	24-Apr-23	No	No	None
1900177	64	CLV-94805	41.671575	-86.481736			X	24	83	2		83	Replace with 83 LFT of 24", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	Wetland G
1900177	65	CLV-94987	41.671725	-86.480419			X	12	85	2	Type P-12A Inlet	85	Replace with 85 LFT of 12", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	66	CLV-38103	41.671914	-86.463706			X	15	63	2	Type P-12A Inlet	63	Remove 63 LFT of 12" RCP and Replace with 63 LFT of 15", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	70	CLV-38117	41.672017	-86.453669		X		15	51	2	Type F-7 Inlet	51	Remove 51 LFT of 12" CMP and Replace with 51 LFT of 15", Type 2 Pipe	24-Apr-23	No	No	None
1900177	71	CLV-40643	41.671939	-86.453422			X	15	64	2	Type F-7 Inlet	64	Remove 64 LFT of 12" CMP and Replace with 64 LFT of 15", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	72	CLV-38123	41.672003	-86.450267		X		12	25	2		25	Replace with 25 LFT of 12", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	Wetland I
1900177	73	CLV-40645	41.671933	-86.449081			X	12	60	2	Existing Inlet		60 LFT of 12" CIPP Lining Req'd, Riprap at outlet	24-Apr-23	No	No	Wetland I
1900177	74	CLV-40657	41.672003	-86.447789		X		12	29	2		29	Replace with 29 LFT of 12", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	75	CLV-40667	41.671914	-86.441589			X	12	60	2	Existing Inlet		60 LFT of 12" CIPP Lining, Riprap at outlet	24-Apr-23	No	No	None
1900177	76	CLV-40667	41.671908	-86.438872			X	12	62	2	Existing Inlet		62 LFT of 12" CIPP Lining Req'd, Riprap at outlet	24-Apr-23	No	No	Wetland K
1900177	77	CLV-40671	41.671906	-86.43765			X	12	61	2	Existing Inlet		61 LFT of 12" CIPP Lining, Riprap at outlet	24-Apr-23	No	No	UNT 2 to Geyer Ditch
1900177	79	NONE	41.671978	-86.433756			X	15	67	2	Type P-12A Inlet	67	Replace with 67 LFT of 15", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	81	CLV-40683	41.671889	-86.432478			X	12	60	2	Existing Inlet		60 LFT of 12" CIPP Lining, Riprap at outlet	24-Apr-23	No	No	None
1900177	82	CLV-40689	41.671886	-86.431019			X	12	65	2	Existing Inlet		65 LFT of 12" CIPP Lining, Riprap at outlet	24-Apr-23	No	No	None
1900177	83	CLV-40699	41.671947	-86.42655		X		12	110	2	Type P-12A Inlet	110	Replace with 110 LFT of 12", Type 2 Pipe	24-Apr-23	No	No	None
1900177	84	CLV-46823	41.671869	-86.422064			X	12	65	2	Existing Inlet		65 LFT of 12" CIPP Lining, Riprap at outlet	24-Apr-23	No	No	None
1900177	85	CLV-40589	41.672133	-86.418967	X			18	88	2		88	Replace with 88 LFT of 18", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	86	CLV-40853	41.671867	-86.418094			X	12	61	2	Type P-12A Inlet	61	Replace with 61 LFT of 12", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	Wetland L
1900177	87	CLV-40859	41.671861	-86.416508			X	12	58	2	Existing Inlet		58 LFT of 12" CIPP Lining, Riprap at outlet	24-Apr-23	No	No	Wetland M
1900177	88	CLV-40871	41.671858	-86.414517			X	12	64	2	Type P-12A Inlet	64	Replace with 64 LFT of 12", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	89	CLV-40907	41.671753	-86.414119			X	15	81	2		81	Replace with 81 LFT of 15", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	90	NONE	41.671858	-86.412514			X	12	64	2	Type F-7 Inlet	64	Replace with 64 LFT of 12", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	91	CLV-40879	41.671917	-86.412458		X		12	49	2	Type P-12A Inlet	49	Replace with 49 LFT of 12", Type 2 Pipe, riprap at outlet	24-Apr-23	No	No	None
1900177	92	CLV-40889	41.671853	-86.410064			X	12	62	2	Type P-12A Inlet	62	Replace with 62 LFT of 12", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	93	CLV-40587	41.671989	-86.407331	X			12	68	2	Existing Inlet		68 LFT of 12" CIPP Lining Req'd, Riprap at outlet	24-Apr-23	No	No	None
1900177	94	CLV-40903	41.671844	-86.405928	X			15	62	2	Type P-12A Inlet	62	Replace with 62 LFT of 15", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	95	CLV-40919	41.671833	-86.403431			X	12	60	2	Type P-12A Inlet	60	Replace with 60 LFT of 12", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	96	CLV-40945	41.671836	-86.400542							Type F-7 Inlet		Replace Inlet	24-Apr-23	No	No	None
1900177	97	CLV-40935	41.671917	-86.400389							Type P-12A Inlet		Replace Inlet	24-Apr-23	No	No	None
1900177	98	CLV-40575	41.671972	-86.399458	X			12	63	2	Existing Inlet	63	Replace with 63 LFT of 12", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	99	CLV-40941	41.671892	-86.399367		X		12	63	2	Type E-7 Inlet	63	Replace with 63 LFT of 12", Type 2 Pipe	24-Apr-23	No	No	None
1900177	100	NONE	41.671828	-86.398211			X	12	62	2	Type P-12A Inlet	62	Replace with 62 LFT of 12", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	101	CLV-40943	41.671897	-86.3981		X		12	50	2	Type P-12A Inlet	50	Replace with 50 LFT of 12", Type 2 Pipe	24-Apr-23	No	No	None
1900177	102	CLV-41151	41.671831	-86.396275			X	12	61	2	Type P-12A Inlet	61	Replace with 61 LFT of 12", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	104	CLV-41159	41.671964	-86.393394	X			12	65	2	Type P-12A Inlet	65	Replace with 65 LFT of 12", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	105	CLV-41161	41.671964	-86.393394							Type P-12A Inlet		Replace Inlet	24-Apr-23	No	No	None
1900177	106	CLV-41181	41.671878	-86.383194		X		12	84	2	Type P-12A Inlet	84	Replace with 84 LFT of 12", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	107	CLV-41187	41.671728	-86.3832			X	15	59	2		59	Replace with 59 LFT of 15", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	108	CLV-40557	41.67195	-86.383036	X			15	50	2	Type P-12A Inlet	50	Replace with 50 LFT of 15", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	109	CLV-40519	41.672069	-86.373892	X			15	43	2		43	Replace with 43 LFT of 15", Type 2 Pipe, Riprap at outlet	24-Apr-23	No	No	None
1900177	130	CLV-41189	41.671822	-86.379369			X					56	Remove Pipe and Inlet	24-Apr-23	No	No	None
1900177	131	CLV-41191	41.671822	-86.378167			X					61	Remove Pipe and Inlet	24-Apr-23	No	No	None
1900177	132	CLV-41195	41.671828	-86.376839			X					95	Remove Pipe and Inlet	24-Apr-23	No	No	None
1900177	133	CLV-41197	41.671833	-86.375739			X					55	Remove Pipe and Inlet	24-Apr-23	No	No	None
1900177	134	CLV-41199	41.671983	-86.374517	X							54	Remove Pipe and Inlet	24-Apr-23	No	No	None
1900177	135	CLV-41331	41.671911	-86.373906		X						64	Remove Pipe	24-Apr-23	No	No	None
1900177	136	CLV-41339	41.671986	-86.373289	X							54	Remove Pipe and Inlet	24-Apr-23	No	No	None

1900177	137	CLV-40517	41.671992	-86.371719	X							54	Remove Pipe and Inlet	24-Apr-23	No	No	None
1900177	138	CLV-41345	41.671919	-86.371356		X						67	Remove Pipe	24-Apr-23	No	No	None
1900177	139	CLV-41349	41.672003	-86.370494	X							67	Remove Pipe and Inlet	24-Apr-23	No	No	None
1900177	140	CLV-40503	41.672003	-86.369003	X							65	Remove Pipe and Inlet	24-Apr-23	No	No	None
1900177	141	CLV-40499	41.672003	-86.368447	X							67	Remove Pipe and Inlet	24-Apr-23	No	No	None
1900177	142	CLV-41371	41.671931	-86.368133		X						60	Remove Pipe	24-Apr-23	No	No	None
1900177	110	CLV-37685	41.671928	-86.366978	X		X	18	122	1	C4 Manhole	60	Replace with 122 LFT of 18", Type 1 Pipe, Replace inlet with manhole	24-Apr-23	No	No	None
1900177	143	CLV-41379	41.671919	-86.366692		X						48	Replace Inlet	24-Apr-23	No	No	None
1900177	144	NONE	41.67185	-86.365653			X					56	Remove Pipe and Inlet	24-Apr-23	No	No	None
1900177	111	CLV-37683	41.671889	-86.363892	X		X	24	102	1		102	Replace with 102 LFT of 24", Type 1 Pipe	24-Apr-23	No	No	Wetland P
1900177	112	CLV-37663	41.671833	-86.351025	X			12	91	2	Existing Inlet		91 LFT of 12" CIPP Lining	24-Apr-23	No	No	Wetland P
1900177	113	CLV-41381	41.671633	-86.351028			X	12	63	2	Existing Inlet		63 LFT of 12" CIPP Lining	24-Apr-23	No	No	None
1900177	114	NONE	41.671647	-86.350953			X	12	11	2	Existing Inlet		11 LFT of 12" CIPP Lining	24-Apr-23	No	No	None
1900177	115	NONE	41.671672	-86.350822			X	12	164	2	Existing Inlet		164 LFT of 12" CIPP Lining	24-Apr-23	No	No	None
1900177	116	NONE	41.671669	-86.350114			X	12	266	2	Existing Inlet		266 LFT of 12" CIPP Lining	24-Apr-23	No	No	None
1900177	117	NONE	41.671669	-86.349247			X	12	252	2	Existing Inlet		252 LFT of 12" CIPP Lining	24-Apr-23	No	No	None
1900177	118	NONE	41.671669	-86.348244			X	12	133	2	Existing Inlet		133 LFT of 12" CIPP Lining	24-Apr-23	No	No	None
1900177	119	NONE	41.671744	-86.342333		X		15	25	2	Type E-7 Inlet	25	Replace with 25 LFT of 15", Type 2 Pipe	24-Apr-23	No	No	None
1900177	119A	NONE	41.671744	-86.342333		X					Type F-7 Inlet		Replace Inlet	24-Apr-23	No	No	None
1900177	120	CLV-89844	41.671817	-86.341931	X						Type P-12A (modified) Manhole		90 LFT of 24" CIPP Lining	24-Apr-23	No	No	None
1900177	121	CLV-89844	41.671817	-86.341931			X	24	104	1		104	104 LFT of 24" CIPP Lining and 1-1.5:1 Beveled Headwall	24-Apr-23	No	No	None
1900177	122	NONE	41.671753	-86.341103		X		12	239	2	Existing Manhole	239	Replace with 239 LFT of 12", Type 2 Pipe	24-Apr-23	No	No	None
1900177	123	CLV-89846	41.671767	-86.340189		X					Type P-12A Inlet		Replace Inlet	24-Apr-23	No	No	None
Larrison (1900177)	N/A	NONE	41.6730766	-86.4624604			X	18	57		RCP	57	Replacement/Lengthen	24-Apr-23	No	No	None
Larrison (1900177)	N/A	NONE	41.6719695	-86.4654134		X		12	60		RCP		Rehab, adj. rim elevation	24-Apr-23	No	No	None
Larrison (1900177)	N/A	NONE	41.6719939	-86.4608434		X		10	60		PVC	60	Replacement	24-Apr-23	No	No	None
Larrison (1900177)	N/A	NONE	41.6719977	-86.4593792		X		12	61		RCP	61	Replacement	24-Apr-23	No	No	None
Larrison (1900177)	N/A	NONE	41.6720006	-86.4579934		X		12	70		RCP	70	Replacement	24-Apr-23	No	No	None
Larrison (1900177)	N/A	NONE	41.6719996	-86.457734		X		unk	unk		RCP		Connect ex. pipe to new storm sewer	24-Apr-23	No	No	None
Larrison (1900177)	N/A	NONE	41.6719998	-86.456893		X		10	61		PVC	61	Replacement	24-Apr-23	No	No	None

Bridge/Structure Bat Assessment Form

Date & Time of Assessment	DOT Project Number	Route/Facility Carried	County
April 24 2023, 1:00 PM	1900017	SR 2	St. Joseph
Federal Structure ID	**Structure Coordinates** (latitude and longitude)	**Structure Height** (approximate)	**Structure Length**
N/A	41.671768, -86.467485	15 inches	40 feet

Structure Type (check one)

Bridge Construction Style

- ○ Cast-in-place
- ○ Flat Slab/Box
- ○ Truss (Side View)
- ○ Parallel Box Beam
- ○ Pre-stressed Girder
- ○ Steel I-beam
- ○ Covered
- ○ Other:

Culvert Type

- ○ Box
- ◉ Pipe/Round
- ○ Other:

Other Structure

- ○

Structure Material (check all that apply)

Deck Material	*Beam Material*	*End/Back Wall Material*
☐ Metal	☐ None	☐ Concrete
☐ Concrete	☐ Concrete	☐ Timber
☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Open grid	☐ Timber	☐ Other:
☐ Other:	☐ Other:	

Creosote Evidence

- ○ Yes ○ No
- ○ Unknown

Culvert Material

- ☒ Metal
- ☐ Concrete
- ☐ Plastic
- ☐ Stone/Masonry
- ☐ Other:

Notes:

Crossings Traversed (check all that apply)

☐ Bare ground	☒ Open vegetation
☐ Rip-rap	☐ Closed vegetation
☐ Flowing water	☐ Railroad
☐ Standing water	☒ Road/trail - Type: Driveway
☒ Seasonal water	☐ Other:

Surrounding Habitat (check all that apply)

☒ Agricultural	☐ Grassland
☐ Commercial	☐ Ranching
☐ Residential-urban	☐ Riparian/wetland
☐ Residential-rural	☐ Mixed use
☐ Woodland/forested	☐ 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)
☐ All crevices and cracks: **Bridges/culverts:** rough surfaces or imperfections in concrete **Other structures:** soffits, rafters, attic areas	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Concrete surfaces (open roosting on concrete)	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Spaces between concrete end walls and the bridge deck	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Crack between concrete railings on top of the bridge deck (Gap / Railing)	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Vertical surfaces on concrete I-beams	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Spaces between walls, ceiling joists	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ Weep holes, scupper drains, and inlets/pipes	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ All guiderails	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ All expansion joints	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species

Name: Carson Hoogewerf

Signature: Carson Hoogewerf

Bridge/Structure Bat Assessment Form

Date & Time of Assessment	DOT Project Number	Route/Facility Carried	County
April 24, 2023, 1:00 PM	1900017	SR 2	St. Joseph
Federal Structure ID	**Structure Coordinates** (latitude and longitude)	**Structure Height** (approximate)	**Structure Length**
N/A	41.671972, -86.466714	15 inches	45 feet

Structure Type (check one)

Bridge Construction Style

- ○ Cast-in-place
- ○ Flat Slab/Box
- ○ Truss (Side View)
- ○ Parallel Box Beam
- ○ Pre-stressed Girder
- ○ Steel I-beam
- ○ Covered
- ○ Other:

Culvert Type

- ◉ Box
- ◉ Pipe/Round
- ○ Other:

Other Structure

- ○

Structure Material (check all that apply)

Deck Material	*Beam Material*	*End/Back Wall Material*
☐ Metal	☐ None	☒ Concrete
☐ Concrete	☐ Concrete	☐ Timber
☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Open grid	☐ Timber	☐ Other:
☐ Other:	☐ Other:	

Creosote Evidence

- ○ Yes ◉ No
- ○ Unknown

Culvert Material

- ☒ Metal
- ☐ Concrete
- ☐ Plastic
- ☐ Stone/Masonry
- ☐ Other:

Notes:

inlet in median, outlets into CV 002-071-74.20

Crossings Traversed (check all that apply)

☐ Bare ground	☒ Open vegetation
☐ Rip-rap	☐ Closed vegetation
☐ Flowing water	☐ Railroad
☐ Standing water	☒ Road/trail - Type: SR 2
☒ Seasonal water	☐ Other:

Surrounding Habitat (check all that apply)

☒ Agricultural	☐ Grassland
☐ Commercial	☐ Ranching
☐ Residential-urban	☐ Riparian/wetland
☐ Residential-rural	☒ Mixed use
☐ Woodland/forested	☐ 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)
☐ All crevices and cracks: **Bridges/culverts:** rough surfaces or imperfections in concrete **Other structures:** soffits, rafters, attic areas	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Concrete surfaces (open roosting on concrete)	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Spaces between concrete end walls and the bridge deck	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Crack between concrete railings on top of the bridge deck (Gap / Railing)	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Vertical surfaces on concrete I-beams	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Spaces between walls, ceiling joists	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ Weep holes, scupper drains, and inlets/pipes	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ All guiderails	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ All expansion joints	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species

Name: Carson Hoogewerf

Signature: Carson Hoogewerf

Bridge/Structure Bat Assessment Form

Date & Time of Assessment	DOT Project Number	Route/Facility Carried	County
4/24/2023 10:00 AM	Des. No. 1900017 (1900177)	SR 2/Niespodziany Ditch	St. Joseph
Federal Structure ID	**Structure Coordinates (latitude and longitude)**	**Structure Height (approximate)**	**Structure Length**
CV 002-071-74.20	41.6720, -86.4672	6 ft	120 feet

Structure Type (check one)

Bridge Construction Style

○ Cast-in-place		○ Pre-stressed Girder	
○ Flat Slab/Box		○ Steel I-beam	
○ Truss		○ Covered	
○ Parallel Box Beam		○ Other:	

Culvert Type

- ⊙ Box
- ○ Pipe/Round
- ○ Other:

Other Structure

- ○

Structure Material (check all that apply)

Deck Material	*Beam Material*	*End/Back Wall Material*
☐ Metal	☐ None	☐ Concrete
☐ Concrete	☐ Concrete	☐ Timber
☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Open grid	☐ Timber	☐ Other:
☐ Other:	☐ Other:	

Creosote Evidence

- ○ Yes ⊙ No
- ○ Unknown

Culvert Material

- ☐ Metal
- ☒ Concrete
- ☐ Plastic
- ☐ Stone/Masonry
- ☐ Other:

Notes:

Crossings Traversed (check all that apply)

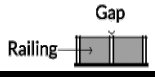
☐ Bare ground	☒ Open vegetation
☐ Rip-rap	☐ Closed vegetation
☐ Flowing water	☐ Railroad
☐ Standing water	☐ Road/trail - Type:
☒ Seasonal water	☐ Other:

Surrounding Habitat (check all that apply)

☒ Agricultural	☐ Grassland
☐ Commercial	☐ Ranching
☐ Residential-urban	☐ Riparian/wetland
☐ Residential-rural	☐ Mixed use
☐ Woodland/forested	☐ 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)
☒ All crevices and cracks: **Bridges/culverts:** rough surfaces or imperfections in concrete **Other structures:** soffits, rafters, attic areas	☐ Not present; No bat evidence, though bird nests were present.	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ Concrete surfaces (open roosting on concrete)	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Spaces between concrete end walls and the bridge deck	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Crack between concrete railings on top of the bridge deck 	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Vertical surfaces on concrete I-beams	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ Spaces between walls, ceiling joists	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ Weep holes, scupper drains, and inlets/pipes	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ All guiderails	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ All expansion joints	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species

Name: Carson Hoogewerf

Signature: Carson Hoogewerf

INDIANA
GEOLOGICAL SURVEY

Organization and Project Information

Project ID:
Des. ID: 1900177 & 1900017
Project Title: SR 2 HMA/Pipes
Name of Organization: Lochmueller Group, Inc.
Requested by: Carson Hoogewerf

Environmental Assessment Report

1. Geological Hazards:
   - High liquefaction potential
2. Mineral Resources:
   - Bedrock Resource: Moderate Potential
   - Sand and Gravel Resource: High Potential
3. Active or abandoned mineral resources extraction sites:
   - None documented in the area

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

DISCLAIMER:

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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: July 07, 2023

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Map Failed to generate due to website malfunction



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Categorical Exclusion

Appendix D

Section 106 of the National Historic Preservation Act (NHPA)

SECTION 1

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 applicant if the Minor Projects PA does not apply.

Part 1: 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-Cultural Resources Office (INDOT-CRO) staff will be responsible for completion of Part II.*

Original Submission Date: July 24, 2023 **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): Hannah Blad, Lochmueller Group

Project Designation Number: 1900017 & 1900177

Route Number: State Road (SR) 2

Feature crossed (if applicable): Niespodziany Ditch

City/Township: City of South Bend

Wills Township, LaPorte County and within Olive, Warren, and Portage Townships, St. Joseph County

County: St. Joseph & LaPorte County

Project Description:*

**Provide a full project description—include the same level of specificity and detail as expected in the NEPA document—in order to ensure a timely review by INDOT-CRO staff. For bridge and culvert projects, include specific details on the rehab or replacement including potential changes to width, height and materials. Be sure to include the specific elements listed below as applicable.*

The primary need for the project is due to the deteriorated condition of the SR 2 pavement. According to the Abbreviated Engineer's Report (Appendix I, I6 to I29), the pavement is showing signs distress including 47% functional cracking and 3% structural cracking, bleeding, rutting depths up to 0.18 inches, and longitudinal joint cracking/potholing. A secondary project need involves the poor condition of the many drainage culverts within the project area. 118 culverts in the project area have been rated in "fair" condition or worse and exhibit rusting, damaged end sections, are completely buried, and/or are filled with sediment.

Other supplemental project needs involve safety and access concerns at the following locations along the project corridor:

- **SR 2 at Larrison Blvd.** – Crash data from 2014 to 2022 reveals that sixteen injury causing accidents and three fatal accidents have occurred in that timeframe at this intersection. Interactions with semi-trucks pulling off Larrison Blvd. onto SR 2, and not yet up to full speed,

have caused some of the most severe crashes. Truck traffic from Larrison Blvd. is common due to the presence of a growing industrial development along the road, north of SR 2.

CRASH DATA - SR 2 at Larrison Blvd.										
CRASH SEVERITY	2014	2015	2016	2017	2018	2019	2020	2021	2022	**TOTALS**
No Injury	1	1	0	4	2	4	7	3	0	**22**
Non-Incipacitating Injury	1	0	0	2	0	0	0	0	1	**4**
Incipacitating Injury	1	2	1	4	2	0	2	0	0	**12**
Fatal	0	0	1	0	1	0	1	0	0	**3**
TOTALS	**3**	**3**	**2**	**10**	**5**	**4**	**10**	**3**	**1**	**41**

Crash information acquired from Indiana State Police.

- **Quince Road east to US 31.** This area is exhibiting safety issues and access control issues. The safety issues are primarily a result of the high traffic speed coupled with intense access pressure from the high density of commercial driveways. Moreover, the existing depressed grass median is inconsistent with the urban nature of the project indicative of its location within the local Metropolitan Planning Area's (MPO's) urban boundary.

The purpose of the project is to improve the serviceability of the roadway by addressing the cracking and potholing within the project limits. The purpose is also to address drainage structure deficiencies by achieving a "good" rating for all structures within the project area. The project also seeks to improve safety concerns at critical intersections throughout the project corridor by reducing the frequency of injury causing accidents by half and to improve access along the corridor in a manner that is consistent with its surrounding land use.

INDOT LaPorte District, with funding from the Federal Highway Administration (FHWA), intends to proceed with a roadway/small structure project along SR 2 in LaPorte and St. Joseph Counties, Indiana (Des. No. 1900177). Another project with a separate Des. No. occurring along SR 2, the SR 2 over Niespodziany Ditch small structure project (Des. No. 1900017), is included within the same construction contract as Des. No. 1900177 (Contract R-42444).

In addition, a roadway/turn lane expansion, referred to as the Larrison Blvd. expansion, will occur along Larrison Blvd. and SR 2. This portion of the project will be funded and constructed by St. Joseph County in support of a forthcoming economic development project.

The SR 2 over Niespodziany Ditch small structure replacement project (Des. No. 1900017), is located partially within the Des. No. 1900177 project, approximately 0.25 mile west of Larrison Blvd. The CE-1 environmental document for Des. No. 1900017 was approved on March 16, 2022. On October 20, 2021 preceding the approval of the CE-1, INDOT Cultural Resource Office (CRO) determined that Des. No. 1900017 falls within the guidelines of Categories A-6, A-9, and B-9 under the Minor Projects Programmatic Agreement (MPPA), (Appendix D, D1-D3).

Proposed improvements to Larrison Blvd. associated to Des. No. 1900177 have necessitated the northward lengthening of the culvert at Niespodziany Ditch. Because the two Des. Nos. no longer demonstrate independent utility, the impacts associated to the SR 2 over Niespodziany Ditch small structure project (Des. No. 1900017), are being evaluated in the CE document along with Des. No. 1900177. This MPPA-B determination request intends to evaluate both Des. Nos.

Des. No. 1900177

The proposed project (Des. No. 1900177) involves asphalt milling and hot mix asphalt (HMA) overlay four inches deep along SR 2 and at road and driveway approaches throughout the project area. A paving

exception is proposed at Niespodziany Ditch and at Geyer Ditch, between Rush Rd. and Rice Rd. The typical section of SR 2 will be altered from Quince Rd. to Peppermint Rd., including paving overtop the open grassed median and creating a two-way center left turn lane (TWLTL) with a lower speed limit. The TWLTL will extend approximately 1.19 miles, and the cross section will include two 12-foot travel lanes in each direction, paved outside shoulders 4 to 10 feet wide, and a TWLTL 12 to 14 feet wide. The existing inside shoulder will be eliminated. In addition, the existing outside shoulder will be removed, and curb and gutter will be installed with curb turnouts and riprap. Riprap will also be placed at the outlet of some pipes. The total acreage of riprap placed equals approximately 0.056 acre. A total of approximately 10,717 linear feet of guardrail will be replaced throughout the project. Pavement markings will be applied throughout the project area. Approximately 123 drainage structures will be modified throughout the project, the largest of which is 30 inches in diameter. Work on structures will consist of full structure replacement, inlet replacement, headwall construction, structure lining, and outright removal. All structure linings will be cured-in-place-pipe (CIPP) style linings. Pipe diameter will decrease one to two inches as a result of lining. Structures within the investigation area are located throughout the project and run east-west along SR 2 and north-south underneath SR 2.

The Larrison Blvd. expansion related to Des. No. 1900177 involves construction of two turn/acceleration lanes designed to accommodate Larrison Blvd. southbound truck turning movement onto eastbound and westbound SR 2. A 12- to 18-foot-wide westbound acceleration lane will extend from Larrison Blvd. approximately 0.47 mile along the north side of SR 2. A 12-foot-wide eastbound acceleration lane will be added within the existing median of SR 2 at Larrison Blvd. and extend approximately 0.38 mile east. Construction of the westbound acceleration lane will result in an increase in total width of the SR 2 roadway from approximately 94 feet to 106 feet at the westbound acceleration lane location. Seven additional pipes will be modified as a result of the Larrison Blvd. expansion.

The total length of the project is approximately 12.77 miles along SR 2 and approximately 0.14 mile along Larrison Blvd.

Des. No. 1900017
The current preferred alternative for Des. No. 1900017 has been modified from the preferred alternative described in the approved CE-1. The updated preferred alternative is largely the same except that its length has been extended northward from 128-foot to 142-foot to accommodate the preferred revision to the SR 2 roadway cross section atop the structure. The structure lengthening has resulted in minor revisions including updated riprap acreages, and some additional new permanent right-of-way (ROW) north of SR 2.

The proposed project (Des. No. 1900017) involves the replacement of CV 002-071-74.20. The replacement structure will be a 142-foot RCB with a 14-foot span, 8-foot rise, and 12-inch sump. Headwalls and wingwalls will be installed at both ends of the structure. A total of 0.092 acre of riprap will be placed at the outlet and inlet of the structure. Replacement of the roadway above the structure will involve two 12-foot travel lanes in each direction, the 12-foot westbound acceleration lane, 10-foot paved outside shoulders on each side, and a 26-foot median including 4-foot inside shoulders on each side. The clear roadway width of SR 2 will measure 51 feet on the westbound (north) side and 39 feet on the eastbound (south) side. A total of 549 feet of guardrail will be removed, including 196 feet along the south side of SR 2 and 353 feet along the north side of SR 2. A total of 275 feet of guardrail will be installed to meet current standards – 219 feet along the north side and 56 feet along the south side. A 15-inch diameter, 65-foot long culvert beneath a field access drive southwest of CV 002-071-74.20 will be replaced by a new structure, which will be a corrugated metal pipe (CMP) of the same dimensions as

existing. A center median inlet east of CV 002-071-74.20, which drains southwest to Niespodziany Ditch via a 15-inch diameter, 64-foot long culvert, will also be replaced. The new structure, will be a CMP of the same dimensions as existing, and will outlet through the newly constructed wingwall at the outlet (south end) of CV 002-071-74.20.

The southern end of the Des. No. 1900017 project area will occur within 0.16 acre of new permanent ROW currently being acquired, as accounted for within its prior approved CE-1. The remaining new permanent ROW needed for Des. 1900017 north of SR 2 is being captured within a ROW donation to occur among St. Joseph County and INDOT in association with the Larrison Blvd. expansion. The Larrison Blvd. expansion and the associated northward lengthening of the SR 2 small structure atop Niespodziany Ditch will occur within existing ROW and within approximately 3.5 acres of additional donated ROW, all of which is within the investigated project area

The Maintenance of Traffic (MOT) will involve lane closures and will take place in four phases. A detour to the nearby town of New Carlisle will also be established. The MOT will cover work under both Des. Nos.

If the project includes any curb, curb ramp, or sidewalk work, please specify the location(s) of such work:
N/A

For bridge or small structure projects, please list feature crossed, structure number, NBI number, and structure type:
See attachments for list of small structures and maps showing their locations.

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:
Des. No. 1900177 – No additional right-of-way (ROW).

Des. No. 1900017 – Previous MPPA determination form contained 0.03 acre of permanent and 0.003 acre of temporary ROW. These numbers were incorrectly reported as the project requires 0.3 acre of

permanent and 0.03 acre of temporary ROW. Though they were incorrectly reported the map illustrations were correct on the MPPA form. Upon approval of Des. No. 1900017's CE-1/MPPA, ROW acquisition has commenced south of SR 2, where approximately 0.16 acre of new permanent ROW is being acquired to accommodate the replaced structure's new headwall and associated riprap at the outlet. The remaining ROW needs north of SR 2 have increased relative to what was illustrated and accounted for in the approved CE-1 due to the lengthening of the structure necessitated by the Larrison Blvd. expansion and its westbound truck acceleration lane. However, all ROW north of SR 2 is being captured within a ROW donation to occur among St. Joseph County and INDOT in association with the Larrison Blvd. expansion.

Larrison Blvd. Expansion - The Larrison Blvd. expansion and the associated northward lengthening of the SR 2 small structure atop Niespodziany Ditch will occur within existing ROW and within approximately 3.5 acres of donated ROW, all of which is contained within the investigated project area. The activities within the proposed ROW include construction of the proposed southbound to westbound truck acceleration lane and the corresponding lengthening of the small structure atop Niespodziany Ditch. .

Is there *<u>any</u>* 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 project area incudes undisturbed soils and requires an archaeological reconnaissance.*

☒ **Project takes place in undisturbed soils and the archaeology report is included in submission or will be forthcoming***
** 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) (highlight applicable conditions in yellow)*:
**Include full category text, including any conditions. INDOT-CRO will finalize categories upon their review.*

B-1. Replacement, repair, or installation of curbs, curb ramps, or sidewalks, including when such projects are associated with roadway work such as surface replacement, reconstruction, rehabilitation, or resurfacing projects, including overlays, shoulder treatments, pavement repair, seal coating, pavement grinding, and pavement marking, under the following conditions *[BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied]:*

<u>Condition A (Archaeological Resources)</u>
One of the two conditions listed below must be satisfied *(EITHER Condition i or Condition ii must be satisfied):*

i. Work occurs in previously disturbed soils; *OR*

ii. Work occurs in undisturbed soils and an archaeological investigation conducted by the applicant and reviewed by INDOT Cultural Resources Office determines that no National Register-listed or potentially National Register-eligible archaeological resources are present within the project area. If the archaeological investigation locates National Register-listed or potentially National Register-eligible archaeological resources, then full Section 106 review will be required. Copies of any archaeological reports prepared for the project will be provided to the Division of Historic Preservation and Archaeology (DHPA) and any archaeological site form information will be entered directly into the State Historic Architectural and Archaeological Database (SHAARD) by the applicant. The archaeological reports will also be available for viewing (by Tribes only) on INSCOPE.

Condition B (Above-Ground Resources)

One of the two conditions listed below must be satisfied *(EITHER Condition i or Condition ii must be satisfied):*

i. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *OR*

ii. Work occurs adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource under one of the two additional conditions listed below *(EITHER Condition a OR Condition b must be met and field work and documentation must be completed as described below):*

   a. No unusual features, including but not limited to historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and historic brick or stone retaining walls are present in the project area adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *OR*

   b. Unusual features, including but not limited to historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and historic brick or stone retaining walls are present in the project area adjacent to or within a National Register-listed or National Register-eligible individual above-ground resource or district and ANY ONE of the conditions (1, 2, or 3) listed below must be fulfilled:

      1. Unusual features described above will not be impacted by the project. Firm commitments regarding the avoidance of these features must be listed in the MPPA determination form and the NEPA document and must be entered into the INDOT Project Commitments Database. These projects will also be flagged for quality assurance reviews by INDOT Cultural Resources Office during/after project construction.
      2. Unusual features described above have been determined not to contribute to the significance of the historic resource by INDOT Cultural Resources Office in consultation with the SHPO based on an analysis and justification prepared by their staff or review of such information from other qualified professional historians.
      3. Impacts to unusual features described above have been determined by INDOT Cultural Resources Office to be so minimal that they do not diminish any of the characteristics that contribute to the significance of the historic resource, based on an analysis and justification prepared by their staff or review of such information from other qualified professional historians.

B-4. Installation of new safety appurtenances, including but not limited to, guardrails, barriers, glare screens, and crash attenuators, under the following conditions *[BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied]:*

Condition A (Archaeological Resources)

One of the two conditions listed below must be met *(EITHER Condition i or Condition ii must be satisfied):*

i. Work occurs in previously disturbed soils; *OR*

ii. Work occurs in undisturbed soils and an archaeological investigation conducted by the applicant and reviewed by INDOT Cultural Resources Office determines that no National Register-listed or potentially National Register-eligible archaeological resources are present within the project area. If the archaeological investigation locates National Register-listed or potentially National Register-eligible archaeological resources, then full Section 106 review will be required. Copies of any archaeological reports prepared for the project will be provided to the DHPA and any archaeological site form information will be entered directly into the SHAARD by the applicant. The archaeological reports will also be available for viewing (by Tribes only) on INSCOPE.

Condition B (Above-Ground Resources)

Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource.

B-9. Installation, replacement, repair, lining, or extension of culverts and other drainage structures under the conditions listed below *[BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied]:*

Condition A (Archaeological Resources)

One of the two conditions listed below must be met *(EITHER Condition i or Condition ii must be satisfied):*

i. Work occurs in previously disturbed soils; *OR*

ii. Work occurs in undisturbed soils and an archaeological investigation conducted by the applicant and reviewed by INDOT Cultural Resources Office determines that no National Register-listed or potentially National Register-eligible archaeological resources are present within the project area. If the archaeological investigation locates National Register-listed or potentially National Register-eligible archaeological resources, then full Section 106 review will be required. Copies of any archaeological reports prepared for the project will be provided to the DHPA and any archaeological site form information will be entered directly into the SHAARD by the applicant. The archaeological reports will also be available for viewing (by Tribes only) on INSCOPE.

Condition B (Above-Ground Resources)

One of the conditions below must be met *(EITHER Condition i or Condition ii must be satisfied):*

i. Work does not involve installation of a new culvert and other drainage structure, and there are no impacts to unusual features, including but not limited to historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and retaining walls, under one of the following conditions *(Condition a, Condition b, or Condition c must be satisfied):*

a. The structure exhibits no wood, stone, or brick structures or parts therein; *OR*

b. The structure exhibits only modern wood, stone, or brick structures or parts therein; *OR*

c. The structure exhibits non-modern wood, stone, or brick structures or parts therein and the following conditions are met *(BOTH Condition 1 AND Condition 2 must be met):*

1. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *AND*

2. The structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. Under this condition, a qualified professional (meeting the Secretary of Interior's Professional Qualification standards [48 Federal Register (FR) 44716]) must prepare an analysis and justification that the structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. This documentation must be reviewed and approved by INDOT Cultural Resources Office.

ii. Work involves the installation of a new culvert and other drainage structures *AND/OR* there may be impacts to unusual features, including historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and retaining walls, under the following conditions *(BOTH Condition a and Condition b must be satisfied):*

a. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *AND*

b. The subject structure exhibits one of the characteristics described below *(Condition 1, Condition 2 or Condition 3 must be satisfied).*

1. The structure exhibits no wood, stone, or brick structures or parts therein; *OR*

2. The structure exhibits only modern wood, stone, or brick structures or parts therein; *OR*

3. The structure exhibits non-modern wood, stone, or brick structures or parts therein but lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. Under this condition, a qualified professional (meeting the Secretary of Interior's Professional Qualification standards [48 Federal Register (FR) 44716]) must prepare an analysis and justification that the structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. This documentation must be reviewed and approved by INDOT Cultural Resources Office.

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

Part II: Completed by INDOT-CRO

Amendments will be shown in red font.

Information reviewed (please check all that apply):

General project location map ☐ USGS map ☐ Aerial photograph ☒ Soil survey data ☐

General project area photos ☐ Archaeology Reports ☒ Historic Property Reports ☐

Indiana Historic Buildings, Bridges, and Cemeteries Map/Interim Report ☒

Bridge inspection information/BIAS ☐ Historic Bridge Inventory Database ☒

SHAARD ☒ SHAARD GIS ☒ Streetview Imagery ☒ County GIS Data/Property Cards ☒

Other (please specify): Multiple Property Documentation Form (MPDF) "Residential Planning and Development in Indiana, 1940-1973," (Higgins, 2018); INDOT Bridge and Drainage Assets Viewer database;

Rusche, Michael and Ashley Lawhorn
2023 A Phase Ia Archaeological Reconnaissance for the Proposed HMA Overlay and Small Structure Replacement Project on SR 2 from US 20 to US 20/31 in LaPorte and St. Joseph Counties, Indiana (INDOT Des. Nos. 1900177 and 1900017). Cultural Resource Analysts, Evansville. Document on file at INDOT CRO.

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

Des. No. 1900177:

An INDOT-CRO historian who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 first 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 St. Joseph and LaPorte counties. No listed resources in either county are present near the project area.

The *St. Joseph County Interim Report* and the *LaPorte County Interim Report* of the Indiana Historic Sites and Structures Inventory (IHSSI) were also consulted. The National Register & IHSSI information is available in the Indiana State Historic Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM). The SHAARD information was checked against the respective interim report hard copy maps.

The following IHSSI-surveyed St. Joseph County resources with ratings above 'contributing' were recorded adjacent to the project route: **1) #141-598-11018** (St. Joseph's Cemetery; NA Pine Street/SE corner at Western Avenue/SR2; rated 'notable'); **2) #141-598-58042** (House; 25967 SR 2; rated 'outstanding'); **3) #141-372-58002** (Varslager House; 26368 SR 2; rated 'notable'); **4) #141-372-62031** (Studebaker Clubhouse and Tree Sign; rated 'outstanding'); **5) #141-372-62032** (Studebaker Proving Grounds; 32104 SR 2; rated 'outstanding'). No other

IHSSI-surveyed St. Joseph County resources with ratings higher than 'contributing' were recorded adjacent to the project route.

The following IHSSI-surveyed LaPorte County resource with a rating higher than 'contributing' was recorded adjacent to the project route**: 1) #091-450-45005** (Reynolds House; NA CR 600E/NE corner at SR 2 and SR 20 and on CR 600E and SR 2; rated 'notable'). No other IHSSI-surveyed LaPorte County resources with ratings higher than 'contributing' were recorded adjacent to the project route.

According to the IHSSI rating system, properties rated "contributing" generally 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 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. Historic districts identified in the IHSSI are usually considered eligible for the National Register.

An INDOT-CRO historian performed a desktop review of the project area. The project is routed along a busy state highway that passes through commercial, residential and rural/agricultural areas. Due to the scope of work being limited to the current roadbed, road/driveway approaches and grassy median, only those properties that immediately border the project area have any potential for impacts.

This project falls under Condition B-i of Category B-1 of the MPPA due to the scope of work being limited to the existing roadbed, curb/gutter, road/driveway approaches and grassy median outside of and not adjacent to a National Register listed or eligible bridge, property, or historic district. Land use along the project route includes a mixture of residential, commercial, religious, recreational and agricultural uses.

Examination of the project route using available streetview imagery and aerial photography indicates that the majority of properties adjacent to the project area date from the early-to-mid-twentieth century and are or will be 50 years of age by the project's proposed 2024 letting. Of these, most appear to be common type of their respective time periods and look to have undergone some degree of physical alteration over time. Most of the properties feature generous setbacks from the roadway that include mature vegetation and trees that serve to limit views toward the project area.

None of the early twentieth century properties along the route would merit IHSSI ratings higher than 'contributing' in 2023 due to a collective lack of material integrity (physical alterations including modern additions, use of replacement materials, etc.) and historical significance (common types). For the purposes of this determination, none of the mid-20th century properties observed along the project route appear to meet the MPDF *"Residential Planning and Development in Indiana, 1940-1973"* requirements to be individually eligible to the National Register.

With regard to the 123 drainage structures proposed for 'modification' under Des. No. 1900177, it is noted in the project description information that *"…the largest… is 30 inches in diameter..."* Due to their collective small diameters (less than four (4) feet), none of the drainage structures are included in BIAS data. Structure photos provided by the consultant were either taken during site-visits or were extracted from the INDOT Bridge and Drainage Assets Viewer database. The provided photos do not suggest the presence within the drainage structures of wood, stone, or brick structures or parts therein. Additionally, no evidence suggests that the drainage structures possess historical or engineering significance.

If the consultant did not provide photos to INDOT CRO of any of the referenced 123 drainage structures, it is INDOT CRO's understanding that the consultant confirms that non-photographed drainage structures exhibit no wood, stone, or brick structures or parts therein and that, in addition, no evidence suggests that non-photographed drainage structures possess historical or engineering significance.

Based on the available information, as summarized above, no above-ground concerns exist as long as the project scope for Des. No. 1900177/Des. No. 1900017 does not change.

Des. No. 1900017:

2021 Project Description:

The proposed project involves the replacement of culvert (CV) 002-071-74.20. The existing structure is a 120.0-foot length reinforced concrete box culvert (RCB) with a 16.0-foot span and 5.58-foot rise carrying State Road (SR) 2 over Niespodziany Ditch. There is approximately 196 feet of guardrail south and 353 feet north of SR 2. The replacement structure is expected to be a 128.0-foot in length RCB with a 14.0-foot span and 8.0-foot rise with 12-inch sump. Headwalls and wingwalls will be installed at both ends of the structure. Riprap will be placed at the outlet and inlet of the structure. Replacement of the roadway above the structure is expected approximately 200 feet in length and is expected to match the existing cross-section. Approximately 549 feet of guardrail will be removed, and 269 feet of guardrail will be installed in order to meet current standards. Existing drainage from the median inlet will be rerouted and new storm drainage will be installed. The total length of the project for the culvert replacement is approximately 372 feet (0.018 mile).

The maintenance of traffic (MOT) plan will involve two phases and will require a construction of two temporary median crossovers – on east of the small structure and one to the west. Phase I will utilize the crossovers to shift the eastbound traffic north of the median, where there two one-way lanes will be maintained. Phase II will shift westbound traffic south of the median. The MOT will be implemented per the Indiana Design Manual guidelines. The total length of incidental construction, including the temporary crossovers necessary for MOT, is about 2,278 feet (0.431 mi) along SR 2. The project will let in fiscal year 2024, with construction anticipated to begin in spring, 2024.
New permanent right-of-way (ROW) acquisition will be necessary on both sides of SR 2 to accommodate the new wingwalls and erosion control measures. The total amount of new permanent ROW is approximately 0.03 acre. Approximately 0.003 acre of temporary ROW will be necessary on the north side of SR 2 to accommodate construction activity. Some tree and brush clearing may occur to accommodate the proposed improvements.

2021 INDOT CRO Above-Ground Assessment

An INDOT-Cultural Resources Office (CRO) historian, who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61, performed a desktop review of the surrounding area. Based on a review of online street-view imagery and aerial photography, the area immediately adjacent to the subject structure consists of agricultural fields. No above-ground resources are present and no unusual features are present that may be impacted by the project.

According to BIAS records, the subject structure (CV 002-071-74.20) is a 120.0-foot length reinforced concrete box culvert (RCB) with a 16.0-foot span and 5.58-foot rise; the construction date of the culvert is unknown. Based on an examination of BIAS reports and photos provided by Lochmueller Group, the structure exhibits no wood, stone, or brick structures or parts therein. In addition, there is no evidence to suggest that it possesses historical or engineering significance.

Based on the available information, as summarized above, no above-ground concerns exist as long as the project scope does not change.

2023 Project Scope Information (changes from 2021 MPPA in red bold font):

The current preferred alternative for Des. No. 1900017 has been modified from the preferred

alternative described in the approved 2022 CE-1. The updated preferred alternative is largely the same except that its length has been extended northward from 128-foot to 142-foot to accommodate the preferred revision to the SR 2 roadway cross section atop the structure. The structure lengthening has resulted in minor revisions including updated riprap acreages, and some additional new permanent right-of-way (ROW) north of SR 2.

The proposed project (Des. No. 1900017) involves the replacement of CV 002-071-74.20. ***The replacement structure will be a 142-foot RCB with a 14-foot span, 8-foot rise, and 12-inch sump****. Headwalls and wingwalls will be installed at both ends of the structure.* ***A total of 0.092 acre of riprap will be placed at the outlet and inlet of the structure****. Replacement of the roadway above the structure will involve* ***two 12-foot travel lanes in each direction, the 12-foot westbound acceleration lane, 10-foot paved outside shoulders on each side, and a 26-foot median including 4-foot inside shoulders on each side. The clear roadway width of SR 2 will measure 51 feet on the westbound (north) side and 39 feet on the eastbound (south) side.*** *A total of 549 feet of guardrail will be removed,* ***including 196 feet along the south side of SR 2 and 353 feet along the north side of SR 2. A total of 275 feet of guardrail will be installed to meet current standards*** *– 219 feet along the north side and 56 feet along the south side.* ***A 15-inch diameter, 65-foot long culvert beneath a field access drive southwest of CV 002-071-74.20 will be replaced by a new structure, which will be a corrugated metal pipe (CMP) of the same dimensions as existing. A center median inlet east of CV 002-071-74.20, which drains southwest to Niespodziany Ditch via a 15-inch diameter, 64-foot long culvert, will also be replaced****. The new structure, will be a CMP of the same dimensions as existing, and will outlet through the newly constructed wingwall at the outlet (south end) of CV 002-071-74.20.***

The southern end of the Des. No. 1900017 project area will occur within 0.16 acre of new permanent ROW currently being acquired, as accounted for within its prior approved CE-1. The remaining new permanent ROW needed for Des. 1900017 north of SR 2 is being captured within a ROW donation to occur among St. Joseph County and INDOT in association with the Larrison Blvd. expansion. The Larrison Blvd. expansion and the associated northward lengthening of the SR 2 small structure atop Niespodziany Ditch will occur within existing ROW and within approximately 3.5 acres of additional donated ROW, all of which is within the investigated project area.

2023 CRO Above-Ground Assessment

An INDOT-Cultural Resources Office (CRO) historian, who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61, performed a desktop review of the surrounding area. Based on a review of online street-view imagery and aerial photography, the area immediately adjacent to the subject structure consists of agricultural fields. No above-ground resources are present and no unusual features are present that may be impacted by the project.

According to BIAS database records, the subject structure (CV 002-071-74.20) is a 120.0-foot length reinforced concrete box culvert (RCB) with a 16.0-foot span and 5.58-foot rise; the construction date of the culvert is unknown. Based on an examination of BIAS reports and photos provided by Lochmueller Group, the structure exhibits no wood, stone, or brick structures or parts therein. In addition, there is no evidence to suggest that it possesses historical or engineering significance.

Structure numbers were not provided for either of the small diameter (less than four feet in width) structures identified for replacement (***"… 15-inch diameter, 65-foot long culvert beneath a field access drive southwest of CV 002-071-74.20…"*** or ***"…A center median inlet east of CV 002-071-74.20, which drains southwest to Niespodziany Ditch via a 15-inch diameter, 64-foot long culvert, will also be replaced****. The*

new structure, will be a CMP of the same dimensions as existing, and will outlet through the newly constructed wingwall at the outlet (south end) of CV 002-071-74.20…"). The consultant did not provide interior photos of either structure; therefore, it is INDOT CRO's understanding that the consultant confirms that neither drainage structure exhibits wood, stone, or brick structures or parts therein and that, in addition, no evidence suggests that either possesses historical or engineering significance.

Based on the available information, as summarized above, no above-ground concerns exist as long as the project scope for Des. No. 1900177/Des. No. 1900017 does not change.

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 field reconnaissance survey report completed for the project by Cultural Resource Analysts (Rusche and Lawhorn 2023). No archaeological sites were previously recorded within or adjacent to the project area.

A 177-acre survey area was investigated via a combination of systematic shovel probing (n=21) and visual inspection of obviously disturbed areas. No archaeological resources were documented and no additional investigation is recommended (Rusche and Lawhorn 2023). Therefore, there are no archaeological concerns provided that 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): Susan Branigin and Matt Coon

INDOT Approval Date: 7/29/2023

Amendment Approval Date (if applicable):

****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.*

INDIANA ARCHAEOLOGICAL SHORT REPORT

State Form 54566 (R3 / 3-22)

Internal pages and attachments removed

INDIANA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF HISTORIC PRESERVATION AND ARCHAEOLOGY
402 West Washington Street, Room W274
Indianapolis, Indiana 46204-2739
Telephone Number: (317) 232-1646
Fax Number: (317) 232-0693
E-mail: dhpa@dnr.IN.gov

Where applicable, the use of this form is recommended but not required by the Division of Historic Preservation and Archaeology (DHPA).

Name(s) of author(s)	Date *(month, day, year)*
Michael Rusche, MS, and Ashley Lawhorn, MA	August 2, 2023

Title of project
A Phase Ia Archaeological Reconnaissance for the Proposed HMA Overlay and Small Structure Replacement Project on SR 2 from US 20 to US 20/31 in LaPorte and St. Joseph Counties, Indiana (INDOT Des. Nos. 1900177 and 1900017)

This document is being used to report on the results of:
☐ Records check only ☒ Records check and Phase 1a archaeological reconnaissance
☐ An addendum to a previous archaeological report. *For an addendum, provide the following information.*

Name(s) of author(s) of previous report
N/A

Title of previous report
N/A

Date of previous report *(month, day, year)*	DHPA number
N/A	N/A

PROJECT OVERVIEW

Description of project

The Indiana Department of Transportation (INDOT) is proposing a hot mix asphalt (HMA) overlay and small structure replacements along State Road (SR) 2 and Larison Boulevard in LaPorte and St. Joseph Counties, Indiana (Figures 1 and 2). There are two Designation Numbers associated with the project: 1900177 and 1900017 (Figure 3).

The primary need for the project is due to the deteriorated condition of the SR 2 pavement. A secondary project need involves the poor condition of the many drainage culverts within the project area. A total of 118 culverts in the project area have been rated in “fair” condition or worse, and exhibit rusting, damaged end sections, are completely buried, and/or are filled with sediment. Overall, the purpose of the project is to improve the serviceability of the roadway by addressing the cracking and potholing within the project limits. The purpose is also to address drainage structure deficiencies by achieving a “good” rating for all structures within the project area. The project also seeks to improve safety concerns at critical intersections throughout the project corridor by reducing the frequency of injury causing accidents by half and to improve access along the corridor in a manner that is consistent with its surrounding land use.

The first proposed project is associated with Des. No. 1900177. The project involves asphalt milling and HMA overlay 10 cm deep along SR 2 and at road and driveway approaches throughout the project area. A paving exception is proposed at Niespodziany Ditch and at Geyer Ditch, between Rush Road and Rice Road The typical section of SR 2 will be altered from Quince Road to Peppermint Road, including paving overtop the open grassed median and creating a two-way center left turn lane (TWCLTL) with a lower speed limit. The TWCLTL will extend approximately 1.9 km, and the cross section will include two 3.7 m travel lanes in each direction, paved outside shoulders 1.2 to 3 m wide, and a TWCLTL 3.6 to 4.3 m wide. The existing inside shoulder will be eliminated. In addition, the existing outside shoulder will be removed, and curb and gutter will be installed with curb turnouts and riprap. Riprap will also be placed at the outlet of some pipes. A total of approximately 3.3 km of guardrail will be replaced throughout the project. Pavement markings will be applied throughout the project area. A total of 118 drainage structures will be modified throughout the project, the largest of which is 76 cm in diameter. Work on structures will consist of full structure replacement, inlet replacement, headwall construction, structure lining, and outright removal. All structure linings will be cured-in-place-pipe (CIPP) style linings. Structures within the investigation area are located throughout the project and run east-west along SR 2 and north-south underneath SR 2.

The Larrison Boulevard expansion related to Des. No. 1900177 involves construction of two turn/acceleration lanes designed to accommodate Larrison Boulevard southbound truck-turning movement onto eastbound and westbound SR 2. A 3.7 to 5.5 m wide westbound acceleration lane will extend from Larrison Boulevard. approximately 756 m along the north side of SR 2. A 3.7 m wide eastbound acceleration lane will be added within the existing median of SR 2 at Larrison Boulevard. and extend approximately 611 m east. Construction of the westbound acceleration lane will result in an increase in total width of the SR 2 roadway from approximately 29 to 32 m at the westbound acceleration lane location. Seven additional pipes will be modified as a result of the Larrison Boulevard expansion. No additional right-of-way (ROW) will be needed for Des. No. 1900177.

The total length of the project associated with Des. No. 1900177 is approximately 20.6 km along SR 2 and approximately 225 m along Larrison Boulevard. A total of 73 small structure locations were investigated for Des. No. 1900177.

The second Des. No. 1900017 involves the replacement of culvert #002-071-74.20. The replacement structure will be a 43.3 m reinforced concrete box (RCB) with a 4.3 m span, 2.4 m rise, and 30.5 m sump. Headwalls and wingwalls will be installed at both ends of the structure. A total of 0.03 ha of riprap will be placed at the outlet and inlet of the structure. Replacement of the roadway above the structure will involve two 3.7 m travel lanes in each direction, the 3.7 m westbound acceleration lane, 3 m paved outside shoulders on each side, and a 7.9 m median including 1.2 m inside shoulders on each side. The clear roadway width of SR 2 will measure 15 m on the westbound (north) side and 11.9 m on the eastbound (south) side. A total of 167.3 m of guardrail will be removed, including 59.7 m along the south side of SR 2 and 107.6 m along the north side of SR 2. A total of 83.8 m of guardrail will be installed to meet current standards—66.8 m along the north side and 17.1 m along the south side. A 38.1 cm diameter, 19.8 m long culvert beneath a field access drive southwest of CV 002-071-74.20 will be replaced by a new structure, which will be a corrugated metal pipe (CMP) of the same dimensions as existing. A center median inlet east of CV 002-071-74.20, which drains southwest to Niespodziany Ditch via a 15-inch diameter, 64 ft long culvert, will also be replaced. The new structure will be a CMP of the same dimensions as existing, and will outlet through the newly constructed wingwall at the outlet (south end) of CV 002-071-74.20. The ROW needs for Des. No. 1900017 include 0.12 ha (0.30 acres) of new ROW and 0.3 acres of temporary ROW, as well as 1.4 ha (3.5 acres) of ROW for the Larrison Boulevard expansion.

INDOT designation number(s)	Project number	DHPA number	DHPA plan number
1900177 1900017	CRA Project No. I220599; CRA Publication Series No. 22-642	N/A	N/A

Prepared for: *(Company / Institution / Agency)*
Lochmueller Group

Name of contact
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Name of principal investigator
Lisa Kelley

Name of company / institution
Cultural Resource Analysts, Inc.

Address *(number and street, city, state, and ZIP code)*
201 NW 4th Street, Suite 204, Evansville, IN, 47708

Telephone number	E-mail address
(812)253-3009	ljkelley@crai-ky.com

Signature of principal investigator *(Required)* Lisa Kelley

Date *(month, day, year)*
August 2, 2023

PROJECT LOCATION

County	USGS 7.5' series topographic quadrangle	Civil township
LaPorte and St. Joseph	Lydick, New Carlisle, and South Bend West	Wills, Olive, Portage, Warren

Legal Location

Grid alignment

1/4	1/4	1/4	1/4	Section	Township	Range

Comments
See Table 1.

Property ownership *(Check all that apply)*
☒ Private ☐ Local Government ☒ State Government ☐ Federal Government ☐ Other

Name of owner
Private property owners within the survey area outside of the existing INDOT right-of-way (ROW) are located on the St. Joseph County Indiana Geographic Inforrmation Systems (GIS) map (Michigan Area Council of Governments [MACOG 2023]); INDOT ROW

Explain results of fieldwork.

The majority of the survey area is within the existing paved roadway or ROW and was visually inspected to be determined to be extensively disturbed. The agricultural field to the west of Larrison Boulevard was investigated primarily through pedestrian survey, with additional shovel testing being conducted to supplement the surface survey. Representative soil profiles for this area are detailed in Table 4.

Additionally, the existing ROW associated with the small structure replacements were investigated. Three shovel tests were carried out on the south side of SR 2 at the intersection of CR N 600 E. All three shovel tests in this location were mapped as the Tracy soil series, though the profiles were inconsistent with the mapped soil series (see Table 4).

No other shovel tests were placed within the ROW due to the steep slope, drainages, buried utilities, culverts, and rip rap (see Figures 5–9).

RECOMMENDATIONS

Records check *(Check all that apply)*

- ☐ No archaeological investigation is recommended before the project is allowed to proceed because the records check has determined that the project area does not have the potential to contain archaeological resources.
- ☐ A Phase 1a archaeological reconnaissance is recommended.
- ☒ Based upon the records check results, a Phase 1a archaeological reconnaissance was recommended and has been conducted.
- ☐ A cemetery development plan may be required under Indiana Code 14-21-1-26.5 because project ground disturbance will be within 100 feet of a cemetery.

Phase 1a archaeological reconnaissance *(Check all that apply)*

- ☒ It is recommended that the project be allowed to proceed as planned because the Phase 1a archaeological reconnaissance has located no archaeological sites within the project area and/or previously recorded sites that were investigated warrant no additional investigation.
- ☐ It is recommended that Phase 1c archaeological subsurface reconnaissance be conducted before the project is allowed to proceed. The Phase 1a archaeological reconnaissance has determined that the project area includes landforms which have the potential to contain buried archaeological deposits.

Other recommendations / commitments

The survey did not locate any associated archaeological materials, any newly or previously recorded archaeological sites, or the potential for buried archaeological deposits. Based on this evidence, archaeological clearance is recommended.

Pursuant to IC-14-21-1, if any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days. In that event, please call (317) 232-1646.

REQUIRED ATTACHMENTS

- ☒ Figure showing project location within Indiana
- ☒ USGS topographic map showing the project area *(1:24,000 scale)*
- ☒ Aerial photograph showing the project area, land use and survey methods
- ☒ Photographs of the project area, including, if applicable, photographs documenting disturbances
- ☐ Project plans *(if available)*

Other attachments

Figures 1–9; Tables 1-4; References Cited

References cited *(See short report instructions for required references to be consulted)*

See attachments

Comments

N/A

CURATION

Location of project documentation

Survey notes and photographs will be retained at the office of CRA in Evansville, Indiana.

Categorical Exclusion

Appendix E

Red Flag Investigation & Hazardous Materials

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: October 12, 2022

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: Carson Hoogewerf
Lochmueller Group, Inc.
500 W Jefferson Ave., #500
South Bend, Indiana
CHoogewerf@lochgroup.com

Re: RED FLAG INVESTIGATION
DES 1900177, State Project
Hot Mix Asphalt (HMA) Overlay with Small Structure/Pipe Replacement
SR 2 from US 20 to US 20/US 31
LaPorte and St. Joseph Counties, Indiana

PROJECT DESCRIPTION

Brief Description of Project: The proposed project involves preventative maintenance along SR 2 from US 20 (LaPorte County) to US 20/US 31 (St. Joseph County). Asphalt milling and hot mix asphalt (HMA) overlay of approximately four (4) inches will occur along SR 2 and at road and driveway approaches throughout the project area. The typical section of SR 2 will be altered from Quince Road to Pine Road, including enclosing the open grassed median and creating a two-way center turn lane with a lower speed limit from Quince Road east to US 31. In addition to the median changes, the inside shoulder of SR 2 will be removed, and the inside lanes will be connected with an inverted pavement section. The existing outside shoulder will be removed, and curb and gutter will be installed. Median pavement at the intersection of SR 2 and CR 600 will be removed, and left turning movement at this intersection will be eliminated. Guardrail will be removed and replaced throughout the project area. Pavement markings will be applied throughout the project area. Approximately seventy-nine (79) small structures will be replaced throughout the project area within existing right-of-way, the largest of which is 30 inches in diameter. Structures to be replaced are located throughout the project area and run east-west along SR 2 and north-south underneath SR 2. Due to their size (30-inch diameter or less) none of the affected structures are documented in the Indiana Bridge Inspection Application System (BIAS). The location of the structure along SR 2 has been identified on the attached maps. The length of the project is approximately 13.06 miles. New permanent right of way is not anticipated to be required for this project.

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) _____Not in BIAS_____

Proposed right of way: Temporary ☐ # Acres _____ Permanent ☐ # Acres _____, Not Applicable ☒

Type and proposed depth of excavation: Maximum depth of excavation will be approximately 5 feet below ground surface (bgs) and located at the pipe replacement areas throughout the project. Maximum excavation depth for curb and gutter activities is 1 foot bgs. Excavation in the grass median will occur at a maximum depth of approximately 2 feet bgs. No signal modification is anticipated.

Maintenance of traffic (MOT): Traffic will likely be maintained through phased construction, utilizing lane closures. Median crossovers may be utilized, the locations of which are still undetermined.

Work in waterway: Yes ☒ No ☐ Below ordinary high water mark: Yes ☒ No ☐

State Project: ☒ LPA: ☐

Any other factors influencing recommendations: N/A

INFRASTRUCTURE TABLE AND SUMMARY

Infrastructure
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:

Religious Facilities	**1**	Recreational Facilities	**5**
Airports[1]	**1**	Pipelines	**7**
Cemeteries	**2**	Railroads	**N/A**
Hospitals	**N/A**	Trails	**13**
Schools	**N/A**	Managed Lands	**1**

[1]In order to complete the required airport review, a review of public-use airports within 3.8 miles (20,000 feet) is required.

Explanation:
Airports: One (1) public airport, South Bend International, is located 2.26 miles northeast of the project area. Coordination with INDOT Aviation will occur.

Religious Facilities: One (1) religious facility, is located within the 0.5 mile search radius. The facility, Olive Chapel, is incorrectly mapped as 0.21 mile south of the project area, but is actually located adjacent to the north end of the project area, east of the intersection with Timothy Road. Coordination with Olive Chapel will occur.

Cemeteries: Two (2) cemeteries, both marked with two (2) symbols each, are located within the 0.5 mile search radius. Hungarian Sacred Heart Cemetery is located adjacent to the project area to the north, and St. Joseph's Cemetery is located adjacent to the project area to the south. A Cemetery Development Plan may be required since this project is within 100 feet of the cemetery. Coordination with INDOT Cultural Resources will occur.

Recreational Facilities: Five (5) recreational facilities are located within the 0.5 mile search radius. Two (2) facilities are located adjacent to the project area. Rolling Timbers Park and Camp Ground is located near the western end of the project area on the south side of the project area. This facility does not appear to be in operation. Coordination with the owners will occur. Mini Mountain Camp is located 0.55 mile east of Timothy Road, north of the project area. Coordination with DB and M Outdoor Enterprises will occur.

Pipelines: Seven (7) pipeline segments are located within the 0.5 mile search radius. Two pipeline segments cross the project area. A natural gas line, owned by Northern Indiana Public Service Co. (NIPSCO), crosses the project area at Tulip Road. A refined products line, owned by Marathon Pipe Line Co., crosses the project area west of Thomas Lane. Coordination with INDOT Utilities and Railroads will occur.

Trails: Thirteen (13) trail segments are located within the 0.5 mile search radius. Seven (7) trail segments, including two (2) potential trail segments and five (5) existing trail segments, cross or are adjacent to the project area:

- The SR 2 Greenway, a potential trail, runs parallel to the southern side of the eastern and central portion of the project area. The trail crosses the project area at CR N 900 E and becomes the LaPorte/South Bend Corridor. Coordination with St. Joseph County Parks and Recreation Department will occur.
- The LaPorte/South Bend Corridor, a potential trail, runs parallel to the north of the project area at the western end of the project area. Coordination with Northwestern Indiana Regional Planning Commission will occur.
- Buffalo Run Snowmobile Trail runs parallel to the south of the project area and crosses the project area at Rice Road. Coordination with Indiana Department of Natural Resources (DNR) Division of Outdoor Recreation will occur.
- Bendix Woods County Park Trails, located south of the project area and 0.25 mile east of Timothy Road, contains nine (9) trail segments in total, four (4) of which are adjacent to or near the project area. Coordination with St. Joseph County Parks and Recreation Department will occur.

Managed Lands: One (1) managed land is located within the 0.5 mile search radius. The managed land, Bendix Woods Nature Preserve, is located 0.25 mile south of the project area. No impact is expected.

WATER RESOURCES TABLE AND SUMMARY

Water Resources Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
NWI - Points	**6**	Canal Routes - Historic	**N/A**
Karst Springs	**N/A**	NWI - Wetlands	**131**
Canal Structures – Historic	**N/A**	Lakes	**32**
NPS NRI Listed	**N/A**	Floodplain - DFIRM	**2**
NWI-Lines	**4**	Cave Entrance Density	**N/A**
IDEM 303d Listed Streams and Lakes (Impaired)	**19**	Sinkhole Areas	**N/A**
Rivers and Streams	**49**	Sinking-Stream Basins	**N/A**

If unmapped water features are identified that might impact the project area, direct coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Explanation:
NWI-Points: Six (6) NWI Points are located within the 0.5 mile search radius. The nearest NWI point is located 0.02 mile south of the project area, adjacent to Timothy Road. A Waters of the US Report is recommended based on mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

NWI-Lines: Four (4) NWI Line segments are located within the 0.5 mile search radius. The nearest NWI Line segment is located 0.42 mile north of the project area, west of CR N 800 E. No impact is expected.

IDEM 303d Listed Streams and Lakes (Impaired): Nineteen (19) Impaired stream segments are located within the 0.5 mile search radius. Nine (9) impaired stream segments are located within or adjacent to the project area:

- One (1) segment of Geyer Ditch and seven (7) UNTs to Geyer Ditch are located within the project area west of Rice Road. Geyer Ditch and the seven (7) UNTs are listed as impaired for *E. coli* and polychlorinated biphenyls (PCBs) in fish tissue. Concerning *E. coli*, workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. Concerning PCBs in fish tissue, exposure to PCBs in fish tissue is considered low, assuming workers are not eating biota surrounding or associated with the water body. Workers will be informed. If there will be sediment and/or soils disturbed by construction, additional investigation may be necessary. Coordination with INDOT ESD SAM will occur.
- One (1) segment of Niespodziany Ditch is located within the project area west of Strawberry Road. Niespodziany Ditch is listed as impaired for *E. coli* and Impaired Biotic Communities (IBC). Concerning *E. coli*, workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. Concerning IBC, Best Management Practices (BMPs) will be used to avoid further degradation to the stream.

Rivers and Streams: Forty-nine (49) rivers and stream segments are located within the 0.5 mile search radius. Twelve (12) rivers and stream segments are located within or adjacent to the project area. A Waters of the U.S. Report is recommended based on mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

NWI-Wetlands: One hundred thirty-one (131) NWI wetlands are located within the 0.5 mile search radius. Twelve (12) NWI wetlands are located within or adjacent to the project area. A Waters of the U.S. Report is recommended based on mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Lakes: Thirty-two (32) lakes are located within the 0.5 mile search radius. One (1) lake is located adjacent to the project area. A Waters of the U.S. Report is recommended based on mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Floodplain-DFIRM: Two (2) floodplain polygons are located within the 0.5 mile search radius. The project area is located within one (1) of the floodplain polygons in the eastern part of the project area. Coordination with INDOT ESD Ecology and Waterway Permitting will occur.

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

Mining/Mineral Exploration Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Petroleum Wells	**1**	Mineral Resources	**N/A**
Mines – Surface	**N/A**	Mines – Underground	**N/A**

Explanation:
Petroleum Wells: One (1) petroleum well is located within the 0.5 mile search radius. The well is located 0.41 mile south of the project area. No impact is expected.

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	**N/A**	Manufactured Gas Plant Sites	**N/A**
RCRA Generator/ TSD	**N/A**	Open Dump Waste Sites	**N/A**
RCRA Corrective Action Sites	**N/A**	Restricted Waste Sites	**N/A**
State Cleanup Sites	**1**	Waste Transfer Stations	**N/A**
Septage Waste Sites	**N/A**	Tire Waste Sites	**N/A**
Underground Storage Tank (UST) Sites	**2**	Confined Feeding Operations (CFO)	**N/A**
Voluntary Remediation Program	**N/A**	Brownfields	**N/A**
Construction Demolition Waste	**N/A**	Institutional Controls	**3**
Solid Waste Landfill	**2**	NPDES Facilities	**7**
Infectious/Medical Waste Sites	**N/A**	NPDES Pipe Locations	**2**
Leaking Underground Storage (LUST) Sites	**5**	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:
State Cleanup: One (1) State Cleanup site is located within the 0.5 mile search radius. The site, Macallister Machinery Company, 25734 SR 2, AID 36894, is located adjacent to the project area, southeast of SR 2 and Peach Road. A release of waste oil diverted to a septic system, which was located south of the building, was reported at the facility on January 15, 2002 and was referred to the State Cleanup Program. Three (3) soil samples were collected during installation of a new septic system in July of 2002. TPH results using Method 418.1 were either non-detect or just above detection limits. According to the Monitoring Well Installation Report, dated September 12, 2002, groundwater monitoring wells were installed and quarterly monitoring occurred and did not encounter oil and grease contamination. Groundwater is from 12-13 feet below ground surface (bgs) and groundwater direction appears to be to the southeast. No further documentation is present in the VFC regarding State Cleanup. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater may be necessary. In addition, analysis for RCRA metals would be necessary before disposal of petroleum contaminated soil. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination.

Underground Storage Tank (UST) Sites: Two (2) UST sites are located within the 0.5 mile search radius. Both UST sites are located within or adjacent to the project area.

- St. Joseph Cemetery, 24980 SR 2, AID 31325, is located east of Pine Road, south of the project area. According to the UST closure report dated October 6, 1997, a 1,000 gallon fuel oil UST, a 300 gallon fuel oil UST, and a 500 gallon gasoline UST were removed on October 6, 1997. Seventeen (17) soil samples were collected for analysis of TPH, gasoline and diesel range, and all results were less than detection limits. No impact is expected.
- Industrial Construction Equipment Company, 25166 W SR 2, AID 32834, is located west of Pine Road, adjacent to the south of the project area. According to UST Removal documentation dated June 10, 1991, seven (7) USTs were present at the site and all seven were removed from the site. The tanks included three (3) 500-gallon tanks containing new lube oil, one (1) 1000 gallon tank containing used oil, one (1) 6,000 gallon tank containing Diesel,

and two (2) 6,000 gallon tanks containing gasoline. Confirmatory soil samples were less than 10 ppm Petroleum Hydrocarbons. No impact is expected.

Solid Waste Landfills: Two (2) solid waste landfills are located within the 0.5 mile search radius. The nearest landfill, Lon Newton Dump, 56400 Strawberry Road, AID 33411, is located 0.13 mile north of the project area along Strawberry Road. It appears that dumping of solid waste (construction/demolition waste) has occurred at the site, along with possible dumping of PCBs, lead, asbestos, benzene, toluene, ethylbenzene, and xylenes. There was an ERC placed on this property, dated December 5, 2013, that restricts property and groundwater use and excavation of soils. The ERC also states that the waste has been covered by soil. The site is approximately 0.12 mile north of three pipe replacements. The replacement of pipes will occur at depths of less than five (5) feet. No impact is expected

Leaking Underground Storage Tank (LUST) Sites: Five (5) LUST sites are located within the 0.5 mile search radius. Five (5) LUST sites are located adjacent to the project area.

- Bosch Automotive Proving Ground/Navistar, 32104 SR 2, New Carlisle, AI ID 30982, is located adjacent to the south of the project area. Soil contamination was discovered on August 16, 2022, during the removal of four (4) 10,000 gallon USTs containing gas, diesel (2 USTs), and JP8 jet fuel. The location of the USTs on the facility is uncertain, but one area located 0.16 mile south of the project area appears to be a fueling station. Because this incident is so recent, no additional information was available at this time. It is recommended that this site receive follow-up before RFC to determine if it is still a concern. If excavation occurs in this area, 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.
- Bendix Woods County Park, 32132 SR 2, AID 31485, is located east of Timothy Road, south of the project area. According to the LUST Site Investigation Report dated July 25, 1994, a release of diesel fuel of unknown quantity was reported to IDEM on March 21, 1994. One 2,000 gallon fuel tank and contaminated soils were removed. Confirmatory sampling indicated that TPH results were less than 100 ppm, which is the closure level that was in place at the time. No impact is expected.
- John Nowak Service Station, 30729 SR 2, AID 33269, is improperly mapped within the project area. However, it is actually located at the northeast corner of SR 2 and Larrison Blvd./Strawberry Rd. (adjacent to the project area). This site is a former truck stop/gas station from which four (4) USTs containing gasoline and diesel were removed in 1989. According to the No Further Action Determination Pursuant to 1994 UST Branch Guidance letter issued by IDEM on January 25, 2007, subsurface soil results indicate that TPH levels were below detection limits of 10 ppm. Out of eight groundwater samples, only one sample result exceeded the benzene closure level of 5 ppb at 24 ppb. Depth to groundwater ranges from 12 to 15 feet bgs. No impact is expected.
- Mid States Auto Auction, 25784 Western Ave., AID 35298, is located west of Peach Road, south of the project area. According to the IDEM letter dated September 22, 2000, an undocumented UST at the site was removed at some point prior to 1993. Petroleum hydrocarbon contamination was observed in the soil around the former UST site. According to the No Further Action letter dated June 5, 2002, gasoline contaminants were below maximum contaminant levels (MCLs) and no further action was required. Because it appears that contamination has been addressed, no impact is expected.
- Country Cupboard #7, 26395 W SR 2, AID 33629, is located east of Quince Road, north of the project area. According the IDEM letter dated October 26, 2012, an NFA Determination Approval Pursuant to IDEM RISC Guidance was issued regarding the release of petroleum on the property. Soil contaminant concentrations were below Industrial Default Closure Levels (IDCLs) and groundwater concentrations for BTEX w/MTBE were below IDCLs. An ERC was recorded for the property on June 27, 2012. See *Institutional Control* section below. Areas with contaminants of concern remain on site adjacent to the project area. 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.

Institutional Controls: Three (3) institutional controls are located within the 0.5 mile search radius. The nearest institutional control, Country Cupboard No. 7, 26395 SR 2, AID 33629, is located adjacent to the project area, east of Quince Road. For additional information, please refer to the LUST Section above.

NPDES Facilities: Seven (7) NPDES facilities are located within the 0.5 mile search radius. Seven (7) NPDES facilities are located within or adjacent to the project area.

- Country Cupboard 7, 26395 SR 2, AID 33629, Permit No. ING080224, is located adjacent to the project area, east of Quince Road. According to the IDEM letter dated March 15, 2013, a groundwater remediation system was decommissioned and removed on December 12, 2012, an NFA was required, and the NPDES permit (issued October 15, 2009) was revoked. No impact is expected.
- South Bend (Western Poppy) Dollar General, 25440 Huron St., AID (Legacy) 118885, Permit No. INR10P291, is located adjacent to the project area, east of Poppy Road. According to the IDEM Notice of Sufficiency, dated July 21, 2017, a NPDES general permit was issued and expired on July 17, 2022. No impact is expected.
- Highland Dollar General, 3325 45th Street, Highland IN, AID (Legacy) 120351, Permit No. INRA00927, is incorrectly located near the project area at the same location as South Bend (Western Poppy) Dollar General, and is actually located outside the half mile buffer. See above. No impact is expected regarding the Highland Dollar General.
- VAP Properties Commercial Warehouse & Retail Sales Building, 25901 SR 2, South Bend, Permit #INRA03489, is located adjacent to the north of the project area 0.13 mile east of Riviera Blvd. This permit is effective until May 30, 2024. Coordination with VAP Properties will occur.
- Navistar Proving Grounds, 32104 SR 2, Permit #INRA02068, is part of the facility located to the south of the project area and to the west of Huckleberry Road. This permit is effective until September 4, 2023. Coordination with Navistar Proving Grounds will occur.
- Navistar New Carlisle Proving Grounds, 32104 SR 2, Permit # IN0059862, is part of the facility to the south of the project area and to the west of Huckleberry Road. This permit was for vehicle wash water and stormwater. The 3-31-21 report stated that there was no discharge and that the permit was terminated. No impact is expected.
- US 20 & SR 2 Interchange Improvements, located at US HWY 20 & SR 2, AID (Legacy) 122282, Permit No. INRA02322, is located adjacent to the west end of the project area. According the IDEM nSITE website, a construction stormwater permit was issued September 27, 2018, and was terminated on September 21, 2021. No impact is expected.

NPDES Pipe Locations: Two (2) NPDES Pipe Locations are located within the 0.5 mile search radius. Both Pipe Locations, Navistar New Carlisle Proving Grounds, are part of the facility to the south of the project area and to the west of Huckleberry Road. These pipes are associated with the permit for vehicle wash water and stormwater that was listed in a 3-31-21 report as terminated. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The St. Joseph County and LaPorte County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities are provided at (https://www.in.gov/dnr/nature-preserves/files/np_stjoseph.pdf; 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. Coordination with USFWS and IDNR will occur.

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. 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:

INFRASTRUCTURE:

Airports: One (1) public airport, South Bend International, is located 2.26 miles northeast of the project area. Coordination with INDOT Aviation will occur.

Religious Facilities: One (1) religious facility located adjacent to the project area. Coordination with Olive Chapel will occur.

Cemeteries: Two (2) cemeteries are located adjacent to the project area. Hungarian Sacred Heart Cemetery is located adjacent to the north side of the project area and St. Joseph's Cemetery is located adjacent to the project area to the south. A Cemetery Development Plan may be required since this project is within 100 feet of the cemetery. Coordination with INDOT Cultural Resources will occur.

Recreational Facilities: Two (2) facilities are located adjacent to the project area. Rolling Timbers Park and Camp Ground is located near the western end of the project area on the south side of the project area. This facility does not appear to be in operation. Coordination with the owners will occur. Mini Mountain Camp is located 0.55 mile east of Timothy Road, north of the project area. Coordination with DB and M Outdoor Enterprises will occur.

Pipelines: Two (2) pipeline segments cross the project area. A natural gas line, owned by Northern Indiana Public Service Co. (NIPSCO), crosses the project area at Tulip Road. A refined products line, owned by Marathon Pipe Line Co., crosses the project area west of Thomas Lane. Coordination with INDOT Utilities and Railroads will occur.

Trails:

- The SR 2 Greenway, a potential trail, runs parallel to the southern side of the eastern and central portion of the project area. The trail crosses the project area at CR N 900 E and becomes the LaPorte/South Bend Corridor. Coordination with St. Joseph County Parks and Recreation Department will occur.
- The LaPorte/South Bend Corridor, a potential trail, runs parallel to the north of the project area at the western end of the project area. Coordination with Northwestern Indiana Regional Planning Commission will occur.
- Buffalo Run Snowmobile Trail runs parallel to the south of the project area and crosses the project area at Rice Road. Coordination with Indiana Department of Natural Resources (DNR) Division of Outdoor Recreation will occur.
- Bendix Woods County Park Trails, located south of the project area and 0.25 mile east of Timothy Road, contains nine (9) trail segments in total, four (4) of which are adjacent to or near the project area. Coordination with St. Joseph County Parks and Recreation Department will occur.

WATER RESOURCES:

A Waters of the US Report is recommended based on mapped features and coordination with INDOT ES Ecology and Waterway Permitting will occur for the following features:

- One (1) NWI point is located 0.02 mile south of the project area
- Twelve (12) river and stream segments are located within or adjacent to the project area.
- Twelve (12) NWI wetlands are located within or adjacent to the project area.
- One (1) lake is located adjacent to the project area.
- The project area is located within a floodplain in the eastern part of the project area (coordination only)

Nine (9) impaired stream segments are located within or adjacent to the project area:

- One (1) segment of Geyer Ditch and seven (7) UNTs to Geyer Ditch are located within the project area west of Rice Road. Geyer Ditch and seven (7) UNTs to Geyer Ditch are listed as impaired for *E. coli* and PCBs in fish tissue. Concerning *E. coli*, workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. Concerning PCBs in fish tissue, exposure to PCBs in fish tissue is considered low, assuming workers are not eating biota surrounding or associated with the water body. Workers will be informed. If there will be sediment and/or soils disturbed by construction, additional investigation may be necessary. Coordination with INDOT ESD SAM will occur.
- One (1) segment of Niespodziany Ditch is located within the project area west of Strawberry Road. Niespodziany Ditch is listed as impaired for *E. coli* and Impaired Biotic Communities (IBC). Concerning *E. coli*, workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. Concerning IBC, Best Management Practices (BMPs) will be used to avoid further degradation to the stream.

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS:

State Cleanup: One (1) State Cleanup site is located adjacent to the project area. The site, Macallister Machinery Company, 25734 SR 2, AID 36894, is located to the southeast of the intersection of SR 2 and Peach Road. A release of waste oil diverted to a septic system, which was located south of the building, was reported at the facility on January 15, 2002, and was referred to the State Cleanup Program. Three (3) soil samples were collected during installation of a new septic system in July of 2002. TPH results using Method 418.1 were either non-detect or just above detection limits. According to the Monitoring Well Installation Report dated September 12, 2002, groundwater monitoring wells were installed and quarterly monitoring occurred and did not encounter oil and grease contamination. Groundwater is from 12-13 feet bgs and groundwater direction appears to be to the southeast. No further documentation is present in the VFC regarding State Cleanup. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater may be necessary. In addition, analysis for RCRA metals would be necessary before disposal of petroleum contaminated soil. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination.

Leaking Underground Storage Tank (LUST) Sites: Bosch Automotive Proving Ground/Navistar, 32104 SR 2, New Carlisle, AI ID 30982, is located adjacent to the south of the project area. Soil contamination was discovered on August 16, 2022, during the removal of four (4) 10,000 gallon USTs containing gas, diesel (2 USTs), and JP8 jet fuel. The location of the USTs on the facility is uncertain, but one area located 0.16 mile south of the project area appears to be a fueling station. Because this incident is so recent, no additional information was available at this time. It is recommended that this site receive follow-up before RFC to determine if it is still a concern. If excavation occurs in this area, 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.

LUST/Institutional Controls: Country Cupboard #7, 26395 W SR 2, AID 33629, is located east of Quince Road, north of the project area According the IDEM letter dated October 26, 2012, a NFA Determination Approval Pursuant to IDEM RISC Guidance was issued regarding the release of petroleum on the property. Soil contaminant concentrations were below Industrial Default Closure Levels (IDCLs) and groundwater concentrations for BTEX w/MTBE were below IDCLs. Areas with contaminants of concern remain on site adjacent to the project area. 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.

NPDES Facilities: Two (2) NPDES Facilities are located adjacent to the property:

- VAP Properties Commercial Warehouse & Retail Sales Building, 25901 SR 2, South Bend, Permit #INRA03489, is located adjacent to the north of the project area 0.13 mile east of Riviera Blvd. This permit is effective until May 30, 2024. Coordination with VAP Properties will occur.
- Navistar Proving Grounds, 32104 SR 2, Permit #INRA02068, is part of the facility located to the south of the project area and to the west of Huckleberry Road. This permit is effective until September 4, 2023. Coordination with Navistar Proving Grounds will occur.

ECOLOGICAL INFORMATION: Coordination with USFWS and IDNR will occur. 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: Nicole Fohey-Breting Digitally signed by Nicole Fohey-Breting Date: 2022.10.14 08:49:13 -04'00' (Signature)

Prepared by:

Carson J. Hoogewerf
Environmental Specialist
Lochmueller Group

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

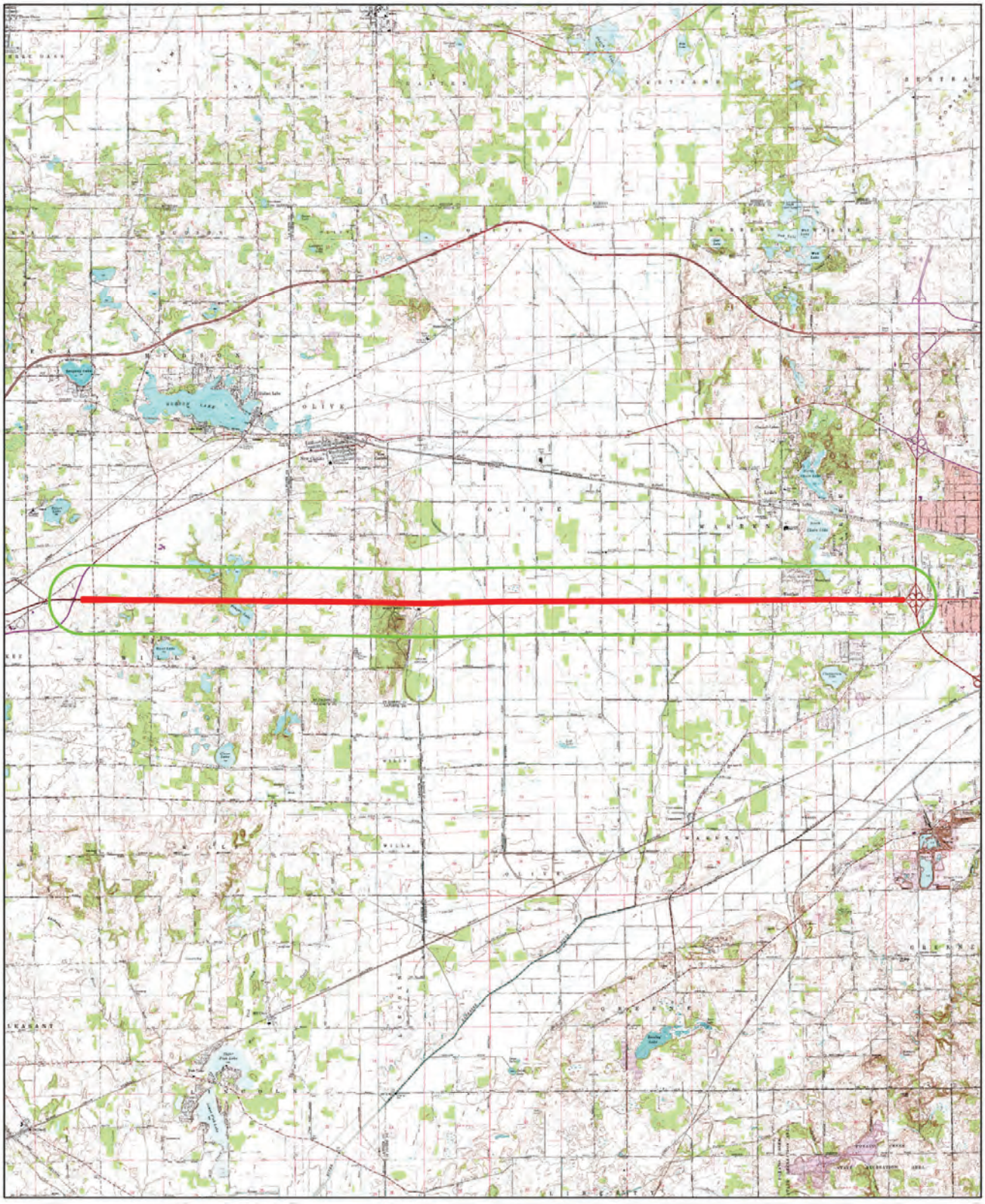
INFRASTRUCTURE: YES

WATER RESOURCES: YES

MINING/MINERAL EXPLORATION: YES

HAZARDOUS MATERIAL CONCERNS: YES

Red Flag Investigation - Site Location
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



0 0.75 1.5 3 Miles

Sources:
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.

NEW CARLISLE, LYDICK, SOUTH BEND WEST QUADRANGLES
INDIANA
7.5 MINUTE SERIES
(TOPOGRAPHIC)

Red Flag Investigation - Infrastructure (1 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



0.3 0.15 0 0.3 Miles

Sources:
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.

- Religious Facility
- Airport
- Cemeteries
- Hospital
- School
- Recreation Facility
- Pipeline
- Railroad
- Trails
- Managed Lands
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Infrastructure (2 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



0.3 0.15 0 0.3 Miles

Sources:
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

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- Religious Facility
- Airport
- Cemeteries
- Hospital
- School
- Recreation Facility
- Pipeline
- Railroad
- Trails
- Managed Lands
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Infrastructure (3 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



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Red Flag Investigation - Infrastructure (4 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



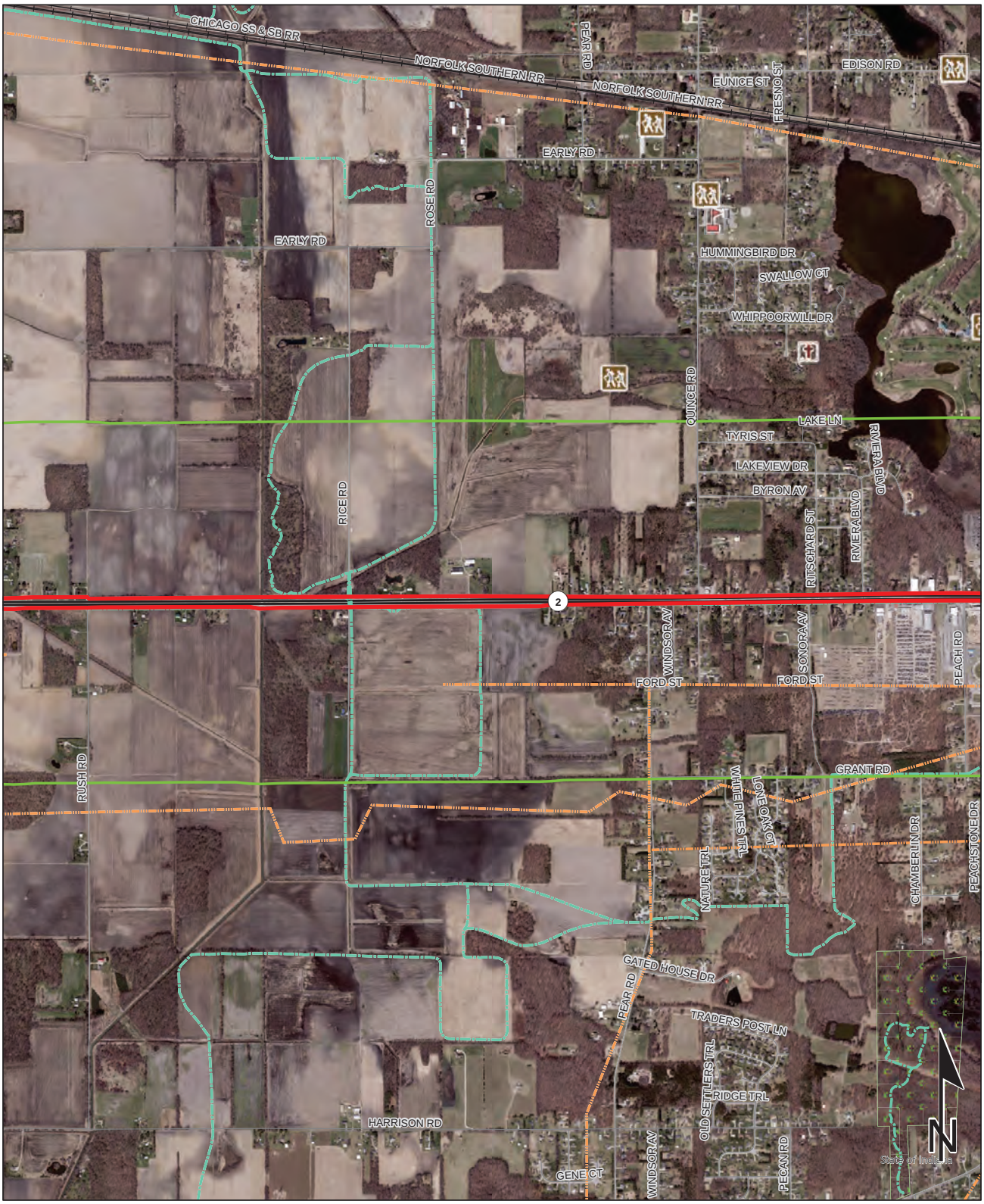
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- US Route
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Red Flag Investigation - Infrastructure (5 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



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- Project Area
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- Toll
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- US Route
- Local Road

Red Flag Investigation - Infrastructure (6 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



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- Pipeline
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- Managed Lands
- County Boundary
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- State Route
- US Route
- Local Road

Red Flag Investigation - Water Resources (1 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



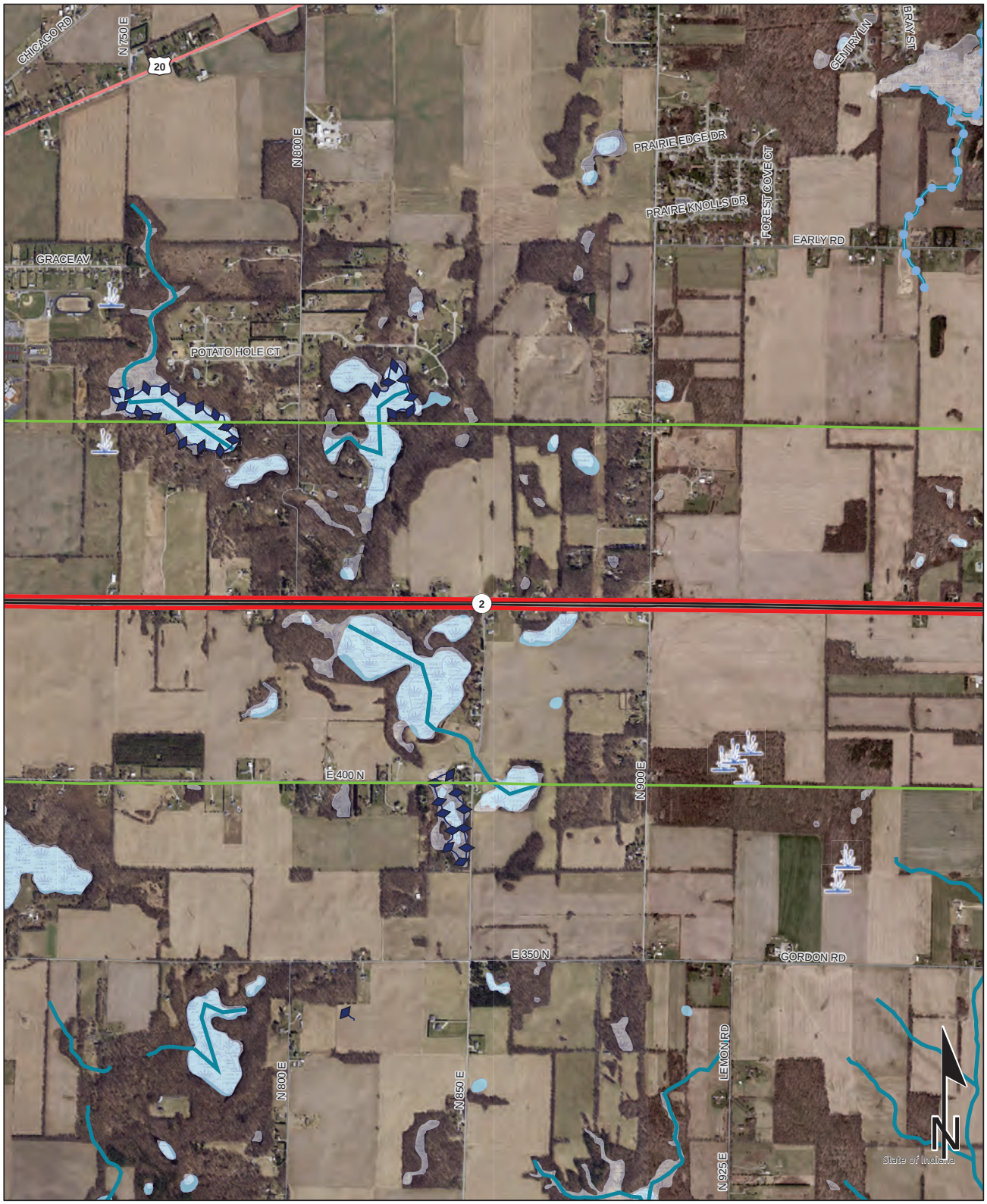
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- NWI - Point
- Karst Spring
- NWI- Line
- Impaired_Stream_Lake
- NPS NRI listed
- River
- Canal Structure - Historic
- Canal Route - Historic
- Wetlands
- Lake
- Floodplain - DFIRM
- Cave Entrance Density
- Sinkhole Area
- Sinking-Stream Basin
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Water Resources (2 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



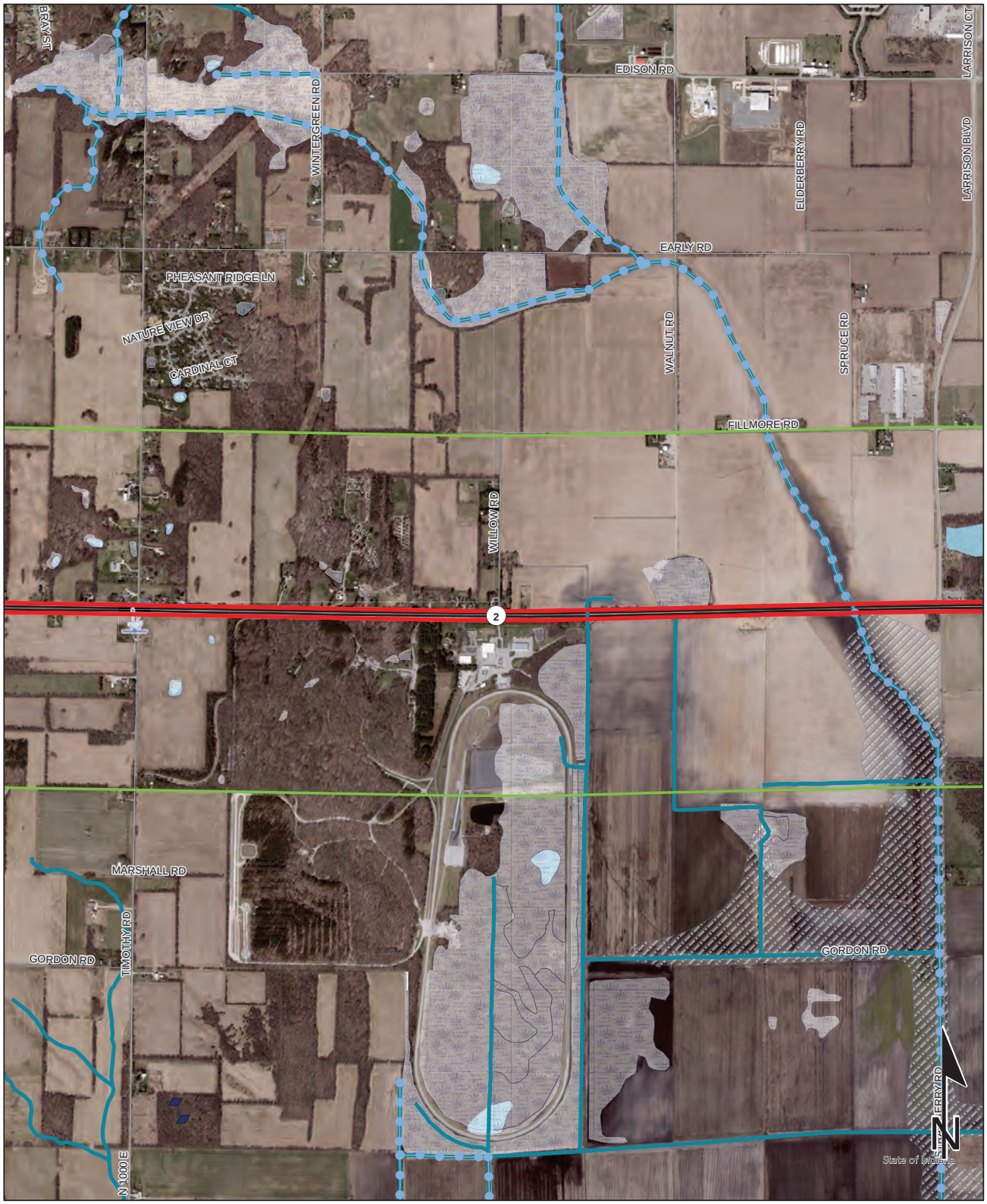
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Red Flag Investigation - Water Resources (3 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



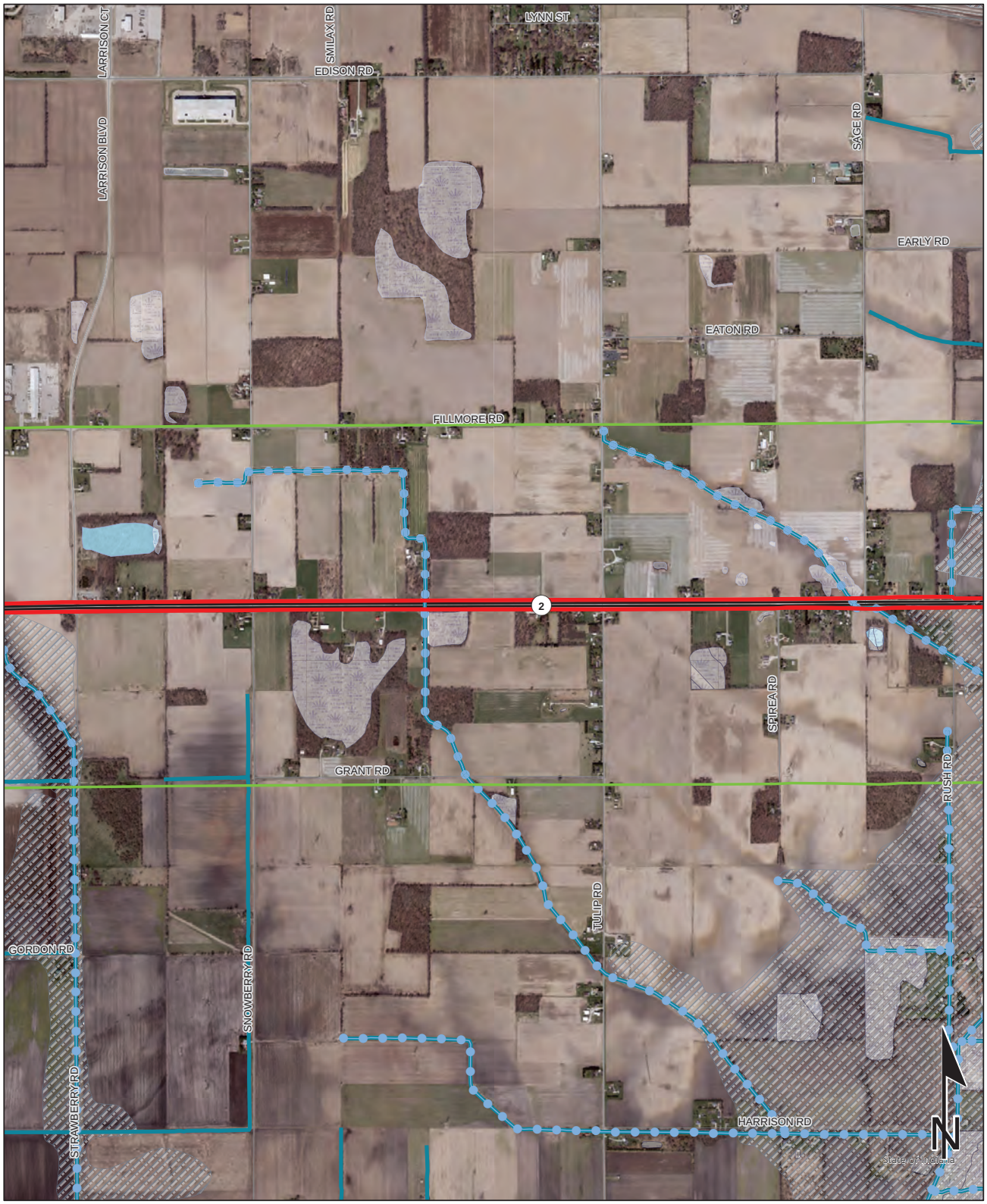
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- Project Area
- Half Mile Radius
- Toll
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- State Route
- US Route
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Red Flag Investigation - Water Resources (4 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



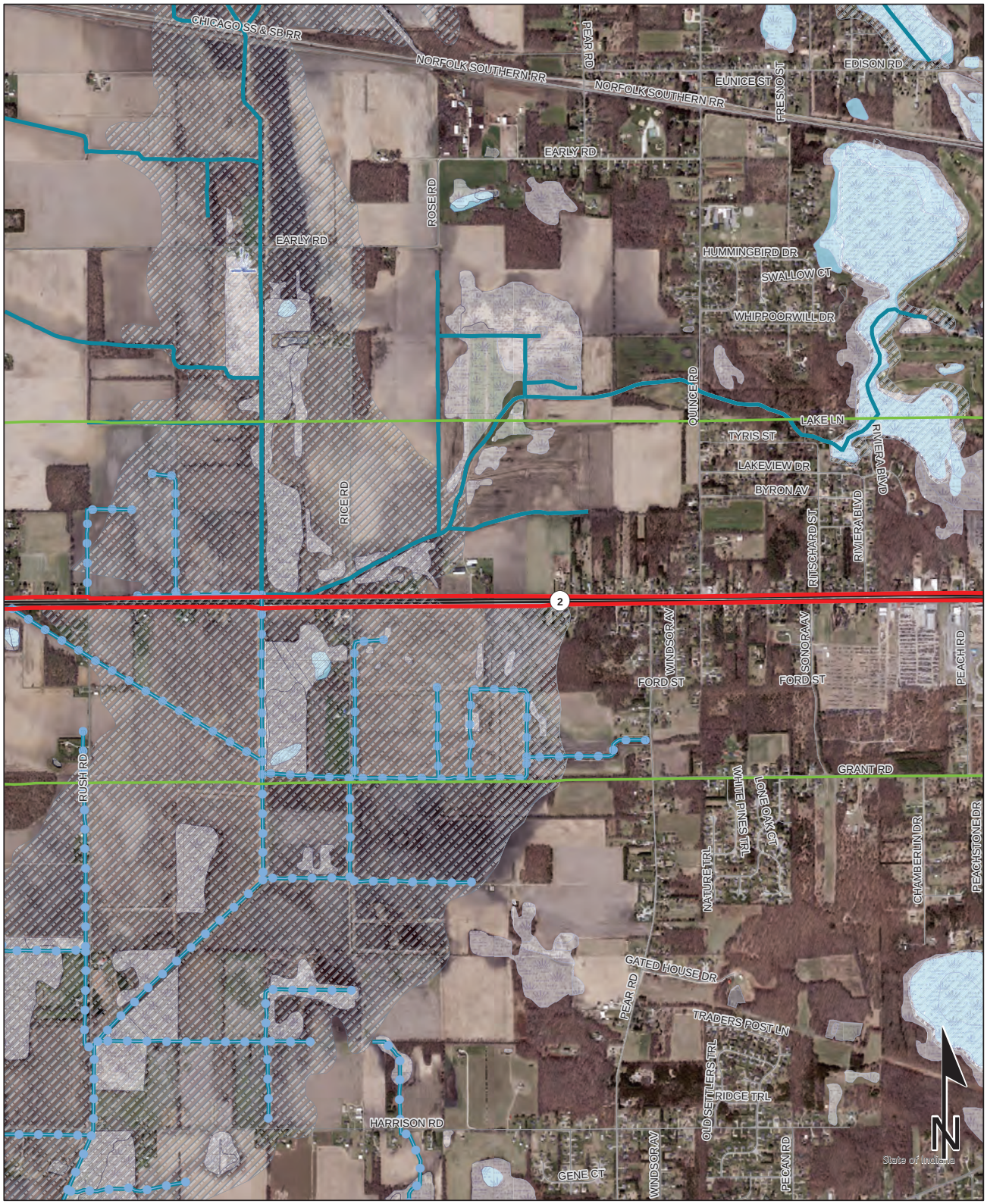
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- Project Area
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- US Route
- Local Road

Red Flag Investigation - Water Resources (5 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



0.3 0.15 0 0.3 Miles

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- Sinkhole Area
- Sinking-Stream Basin
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Water Resources (6 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



0.3 0.15 0 0.3 Miles

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- Project Area
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- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Mining and Mineral Exploration (1 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



0.3 0.15 0 0.3 Miles

Sources:

Non Orthophotography

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Map Projection: UTM Zone 16 N **Map Datum:** NAD83

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- Oil and Gas Wells
- Mineral Resources
- Mine - Surface
- Mine - Underground
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Mining and Mineral Exploration (2 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



0.3 0.15 0 0.3 Miles

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- Mineral Resources
- Mine - Surface
- Mine - Underground
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Mining and Mineral Exploration (3 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



0.3 0.15 0 0.3 Miles

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- Mineral Resources
- Mine - Surface
- Mine - Underground
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Mining and Mineral Exploration (4 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



0.3 0.15 0 0.3 Miles

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- Oil and Gas Wells
- Mineral Resources
- Mine - Surface
- Mine - Underground
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Mining and Mineral Exploration (5 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



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- Mineral Resources
- Mine - Surface
- Mine - Underground
- County Boundary
- Project Area
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- Interstate
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- US Route
- Local Road

Red Flag Investigation - Mining and Mineral Exploration (6 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



0.3 0.15 0 0.3 Miles

Sources:

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Data - Obtained from the State of Indiana Geographical Information Office Library

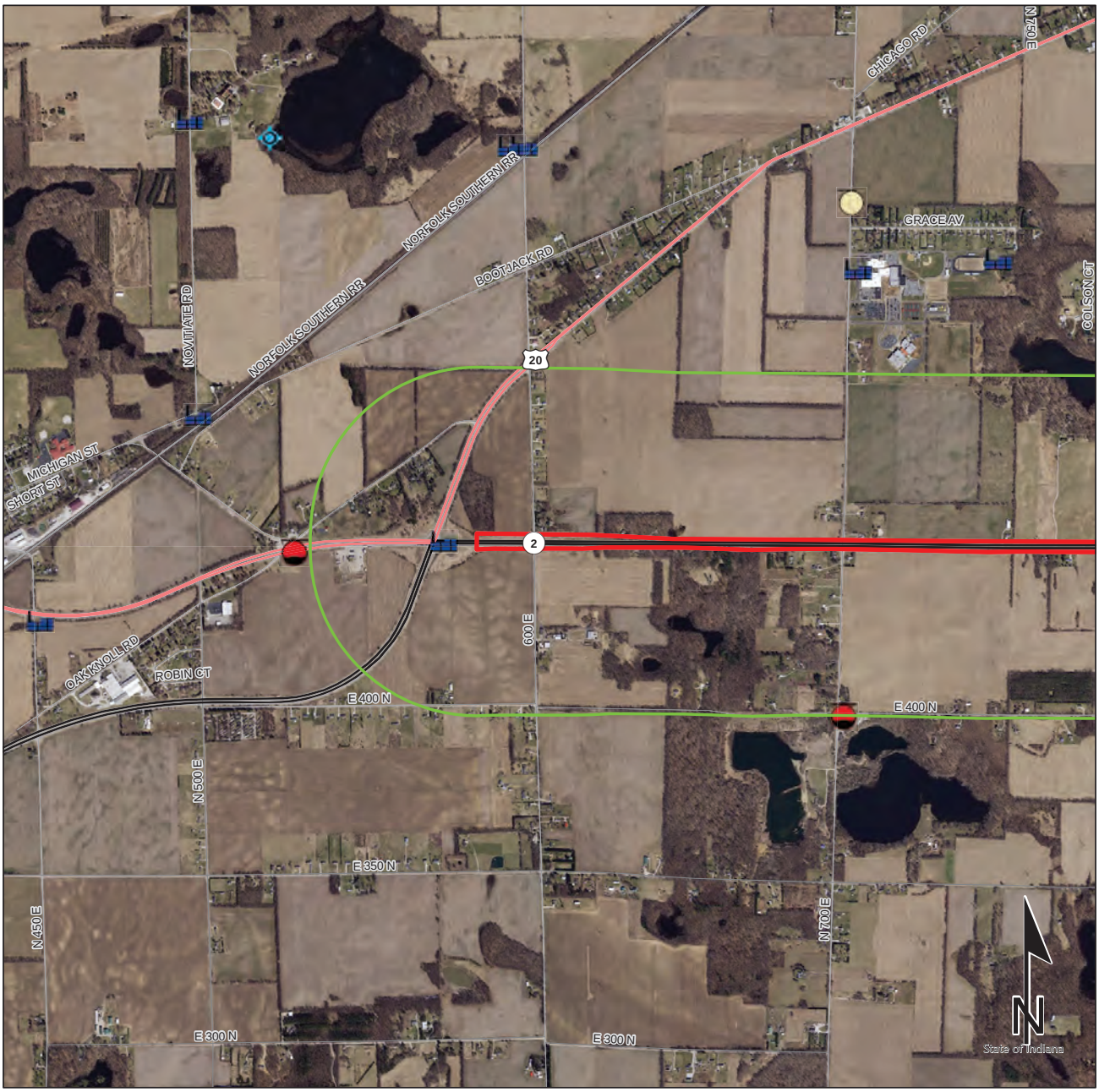
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Red Flag Investigation - Hazardous Material Concerns (1 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



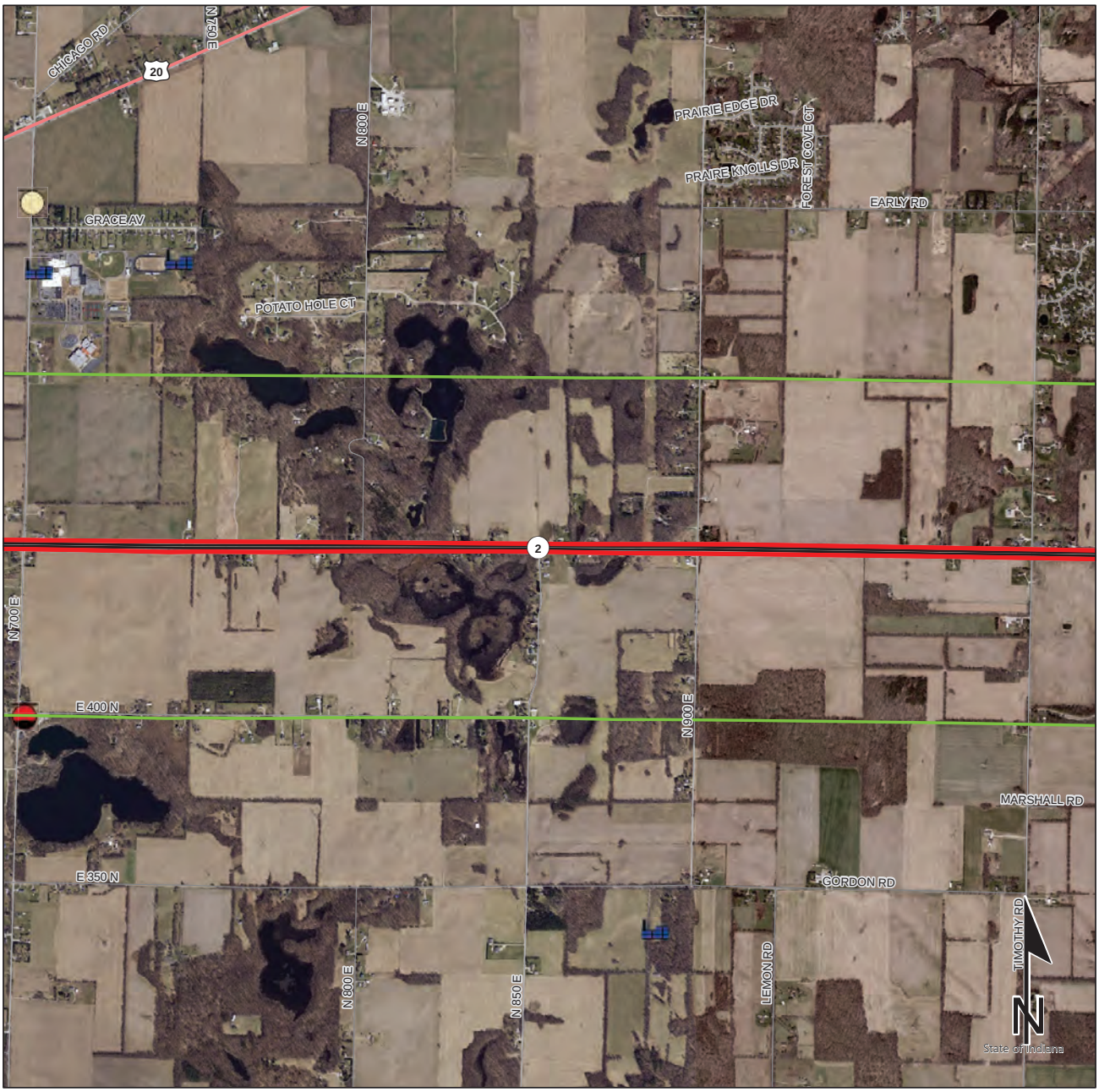
- Brownfield
- RCRA Corrective Action Sites
- Confined Feeding Operation
- Notice_Of_Contamination
- Construction/Demolition Site
- Infectious/Medical Waste Site
- Leaking Underground Storage Tank
- Manufactured Gas Plant
- NPDES Facilites
- NPDES Pipe Locations
- Open Dump Waste Site
- RCRA Generator/TSD
- Restricted Waste Site
- Septage Waste Site
- Solid Waste Landfill
- State Cleanup Site
- Superfund
- Tire Waste Site
- Underground Storage Tank
- Voluntary Remediation Program
- Waste Transfer Station
- Institutional Controls
- County Boundary
- Project Area
- Half Mile Radius
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- Local Road

0.4 0.2 0 0.4 Miles

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Red Flag Investigation - Hazardous Material Concerns (2 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



- Brownfield
- RCRA Corrective Action Sites
- Confined Feeding Operation
- Notice_Of_Contamination
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- NPDES Facilites
- NPDES Pipe Locations
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- Waste Transfer Station
- Institutional Controls
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- Project Area
- Half Mile Radius
- Toll
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- State Route
- US Route
- Local Road

0.4 0.2 0 0.4 Miles

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Red Flag Investigation - Hazardous Material Concerns (3 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



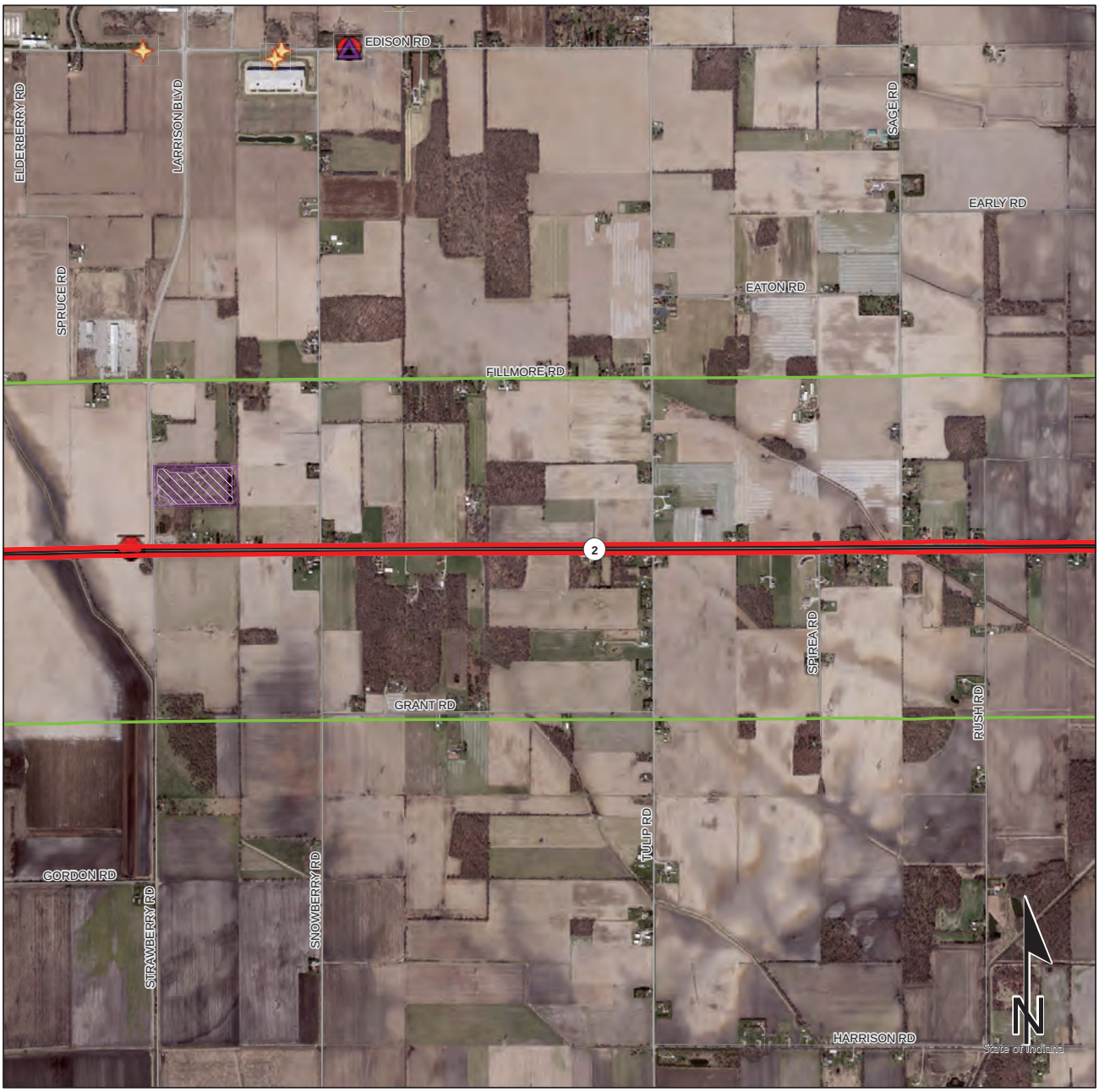
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- Waste Transfer Station
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0.4 0.2 0 0.4 Miles

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Red Flag Investigation - Hazardous Material Concerns (4 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
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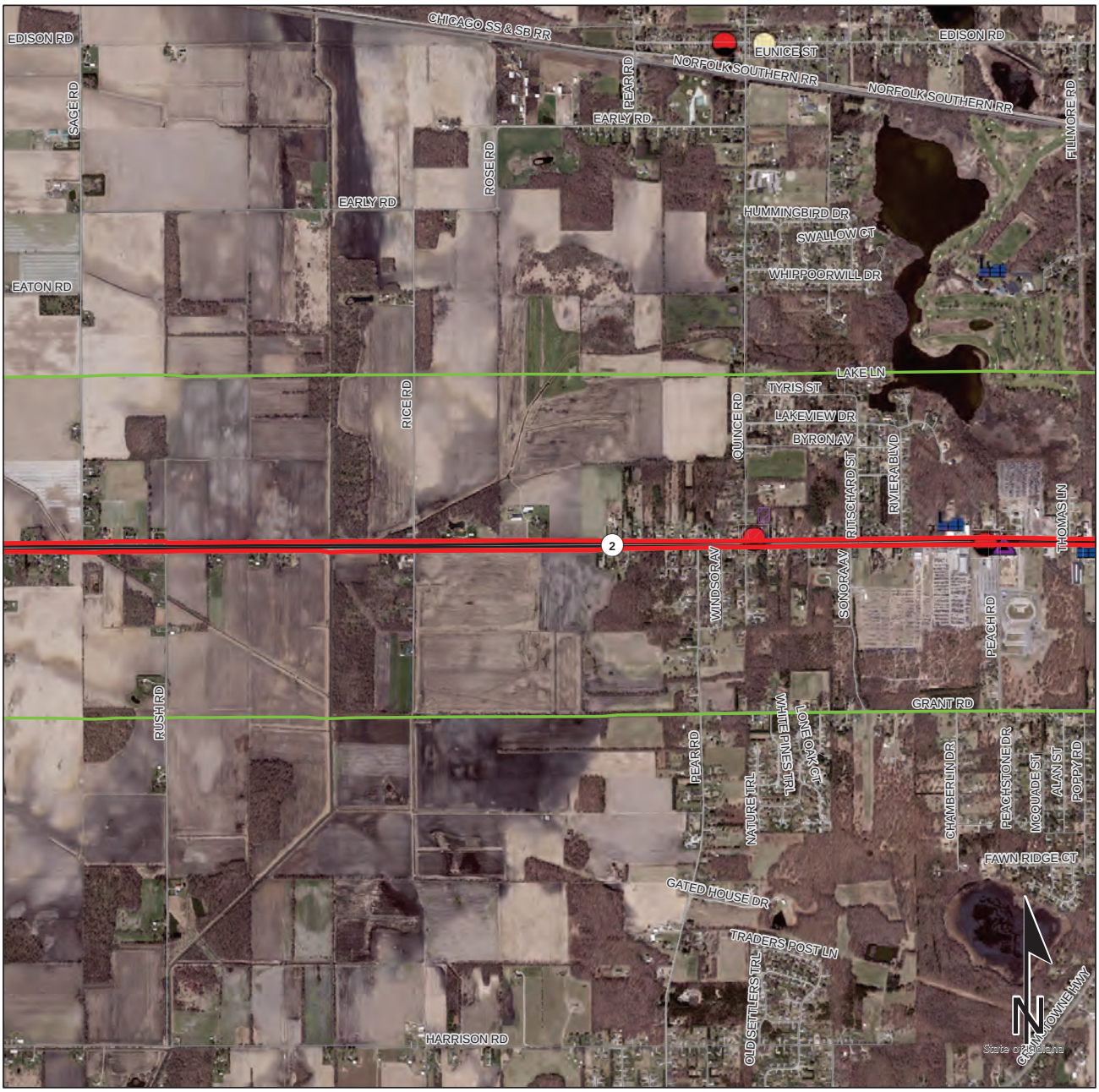
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Red Flag Investigation - Hazardous Material Concerns (5 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



- Brownfield
- RCRA Corrective Action Sites
- Confined Feeding Operation
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Red Flag Investigation - Hazardous Material Concerns (6 of 6)
State Road 2, from US 20 to US 20/US 31
Des. No. 1900177, HMA Overlay with Pipe Replacements
La Porte and St. Joseph Counties, Indiana



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Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

Carson Hoogewerf

From: INDOT esd.sam <esd.sam@indot.IN.gov>
Sent: Wednesday, July 5, 2023 11:24 AM
To: Carson Hoogewerf
Cc: C.J. Cunningham; Washburn, Peter; Cleek, Nicole; Bill Farthing
Subject: RE: Scope Change - Des. No. 1900177 Red Flag Investigation

EXTERNAL

Hello Carson –

Thank you for reaching out regarding the project updates to Des No. 1900177 below since the initial RFI was approved on January 28, 2022. Based on the information provided below, the changed project extents do not appear to add additional impacts or recommendations to the already approved RFI. I think the main item is to ensure that coordination with St. Joseph County Park and Recreational Department is occurring for the two potential trails mapped at the east termini of the project area. This recommendation was included in the original RFI and as long as coordination has continued with the St. Joseph County Parks, or equivalent, then make sure to include that information in the environmental document.

Since no additional impacts or recommendations are warranted based on the provided scope of work change, an RFI Addendum is not warranted at this time. If the project scope or extent should change, please reach back out to INDOT SAM for guidance.

Thank you!
Nicole

Nicole Fohey-Breting
Environmental Policy Office (EPO) Manager
Indiana Department of Transportation
100 North Senate Ave., N758 — Environmental Services Division (ESD)
Indianapolis, IN 46204
Cell: 317-416-7084
Email: nfoheybreting@indot.in.gov

From: Carson Hoogewerf <CHoogewerf@lochgroup.com>
Sent: Wednesday, June 21, 2023 4:20 PM
To: INDOT esd.sam <esd.sam@indot.IN.gov>
Cc: C.J. Cunningham <CCunningham@lochgroup.com>; Foheybreting, Nicole K <NFoheyBreting@indot.IN.gov>
Subject: Scope Change - Des. No. 1900177 Red Flag Investigation

**** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ****

Dear INDOT SAM,

Since the approval of this RFI by Nicole on 10/14/22, some elements of the project scope have changed beyond what was encompassed in the approved RFI. I am writing to describe those scope changes, summarize the additional resources encountered, and to establish what changes to the approved RFI are needed. See details below.

Scope Changes

- Project Details/Footprint
    - The project footprint along SR 2 has extended eastward approximately 0.43 miles. The project area has been extended to encompass this area.
    - The project area boundary has been extended approximately 5-20 feet north and south of SR 2 in various areas.
    - Truck acceleration lanes are being added along SR 2 at its intersection with Larrison Blvd.
    - The truck acceleration lanes are prompting the lengthening of the small structure carrying SR 2 over Niespodziany Ditch, 0.25 miles west of Larrison Blvd. The small structure is programmed for replacement under Des. 1900017, whose RFI was approved by Nicole on 1/28/2022. Due to the interdependency among the two Des. Nos., a joint environmental document will be prepared, in which we intend to refer to both project's approved RFIs.
- Small Structures
    - The number of small pipe structures included in the project has increased from 79 to 124.
    - Work on the small pipe structures has been expanded from solely replacement to including replacement, pipe lining, and removal.

Updated project area and half mile buffer shapefiles have been attached. Additional resources were found within the updated half mile buffer, however, none were determined to impact the project.

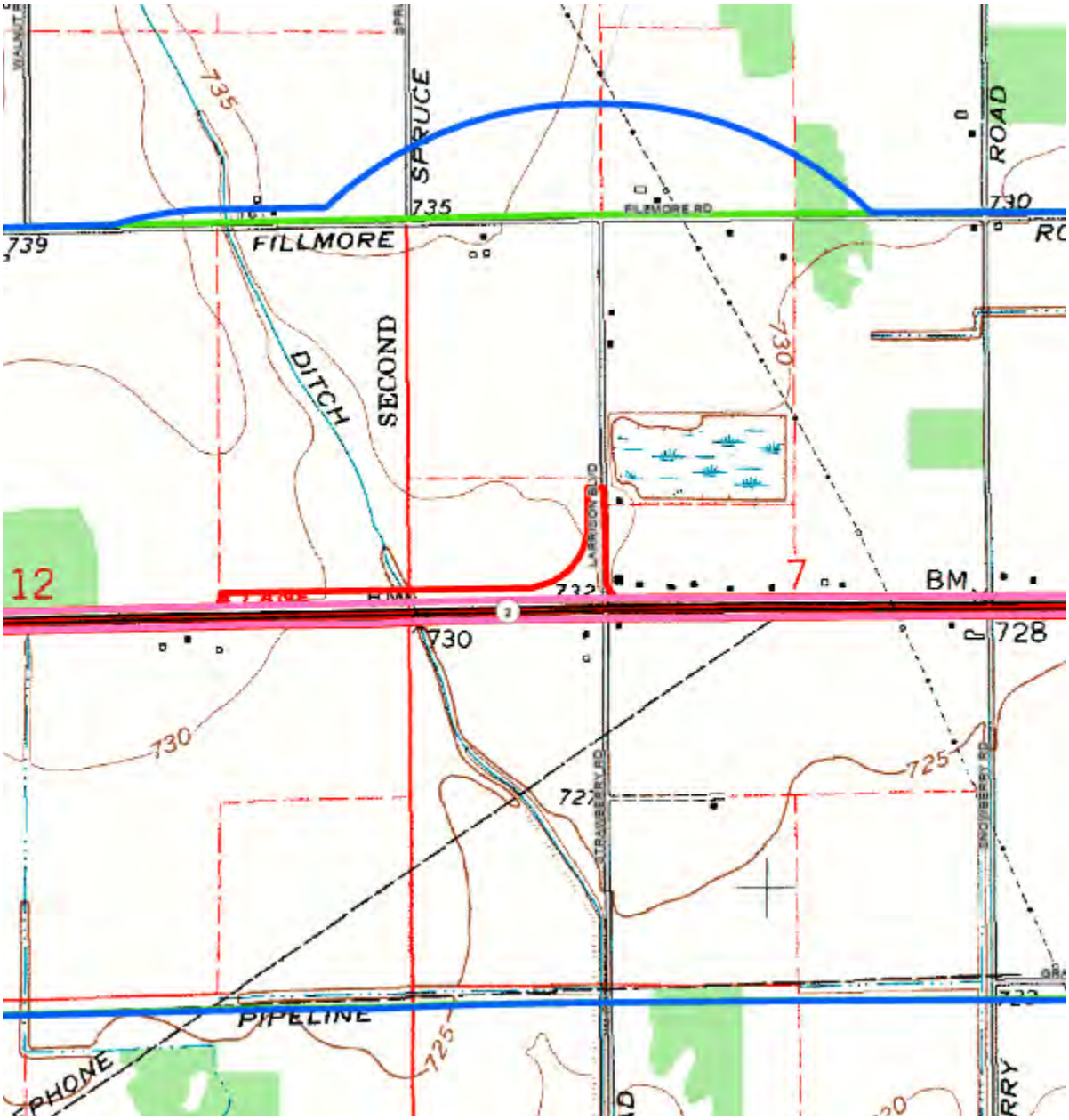
Additional Resources

- Infrastructure
    - School
        - One school, Wilson Primary Center, is located 0.24 mile southeast of the east end of the project area.
    - Recreational facility
        - One recreational facility, Wilson Elementary School, is located 0.24 mile southeast of the east end of the project area.
    - Religious facility
        - Monson Chapel is located 0.09 mile east of the east end of the project area
        - New Creation Spiritual Ministry (UNMAPPED) is located 0.03 mile south of the east end of the project area.
- Hazardous Materials
    - UST
        - One UST site, Pehlke Service Station, AID 34470, is located 0.13 mile east of the project area. According to the UST Notification Form dated 10/5/1987 and the UST Closure Form dated 7/1/1991, the facility held two 990 gallon USTs containing gasoline that were removed.
    - LUST
        - One LUST Site, LaPorte County Highway Dept Rolling Prairie, AID 31779, is located 0.5 mile south of the project area at CR N 700 E. A petroleum release occurred in 1997. The site was remediated, monitored, and an ERC is in the process of being prepared. No impacted is expected.
- Water Resources
    - Wetlands
        - Rivers and Streams increased from 49 to 50.
        - Wetlands increased from 131 to 136
- Mining and Mineral Resources

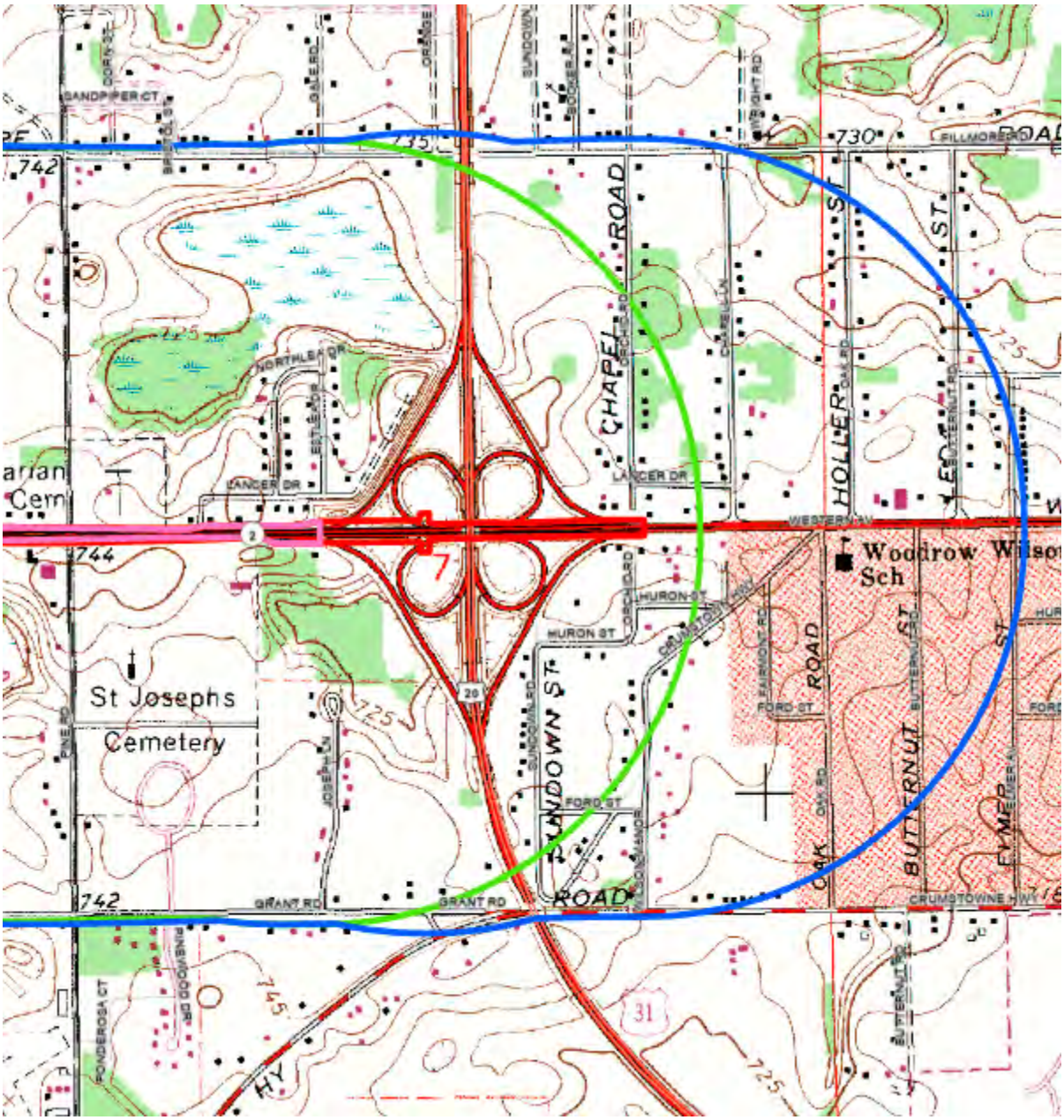
- N/A

Please advise on whether an addendum or other modification is necessary for the approved RFI, and we will incorporate those changes into the document and the CE.

Below are images of the two major expansion areas on the project. Original project area is pink, new is red. Original buffer is green, new is blue.



Extended project area/buffer at Larrison Blvd



Extended project area/buffer along SR 2 at east end

Thank you for your consideration on this matter, and if there is any additional information I can provide, please let me know.

Best,

LOCHMUELLER GROUP

Web: http://lochgroup.com

Carson Hoogewerf
Environmental Specialist I

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Categorical Exclusion

Appendix F

Water Resources

Joshua Long
7/11/2023

Waters of the U.S. Determination
SR 2 HMA Overlay with
Small Structure/Pipe Replacement Project
LaPorte and St. Joseph Counties, Indiana
Des. Nos. 1900177 & 1900017

Date(s) of Field Reconnaissance:
June 27, 2021, May 23 – 25, 2022, April 24, 2023, and June 20, 2023

Report Completion Date:
June 29, 2023

Location
The project is located along SR 2, from US 20 to US 20/US 31.

- (Sections 7, 8, 9, 10, 11, 12, Township 37 North, Range 1 West), (Section 12, Township 37 North, Range 2 West), (Sections 7, 8, 9, 10, 11, 12, Township 37 North, Range 1 East), and (Section 7, Township 37 North, Range 2 East)
- New Carlisle, Lydick, and South Bend West United States Geological Survey (USGS) Quadrangles
- Wills Township, LaPorte County, Indiana
- Olive, Warren, and Portage Townships, St. Joseph County, Indiana
- Latitude: 41.672181, Longitude: -86.466102

Project Description
Des. No. 1900177
The proposed project involves asphalt milling and hot mix asphalt (HMA) overlay of approximately four (4) inches along SR 2 and at road and driveway approaches throughout the project area. The typical section of SR 2 will be altered from Quince Road to Pine Road, including enclosing the open grassed median and creating a two-way center left turn lane with a lower speed limit from Quince Road east to Pine Road. In addition to the median changes, the inside shoulder of SR 2 will be removed, and the inside lanes will be connected with an inverted pavement section. The existing outside shoulder will be removed, and curb and gutter will be installed with curb turnouts. Median pavement at the intersection of SR 2 and CR 600 will be removed and left turning movement at this intersection will be eliminated. Guardrail will be evaluated throughout the project area and will be upgraded as necessary. Pavement markings will be applied throughout the project area. Approximately one hundred thirty (130) drainage structures will be repaired, removed, or replaced throughout the project, the largest of which is 30 inches in diameter. Structures within the investigation area are located throughout the project and run east-west along SR 2 and north-south underneath SR 2. In addition, an area north of SR 2 along Larrison Boulevard is being proposed for development of a turn lane. The total length of the project is approximately 12.65 miles along SR 2 and 0.14 mile along Larrison Boulevard.

Des. No. 1900017

Regarding Des. No. 1900017, the existing structure carrying SR 2 over Niespodziany Ditch, CV 002-071-74.20, National Bridge Inventory No. 93004143, is a 120-foot-long reinforced concrete box (RCB) culvert with a 16-foot span and 5.6-foot rise.

The proposed project involves the replacement of CV 002-071-74.20. The replacement structure will be a 142-foot RCB with a 14-foot span, 8-foot rise, and 12-inch sump. Headwalls and wingwalls will be installed at both ends of the structure. A total of 0.082 acre of riprap will be placed at the outlet and inlet of the structure. Replacement of the roadway above the structure will involve two 12-foot travel lanes in each direction, the 12-foot westbound acceleration lane, 10-foot paved outside shoulders on each side, and a 26-foot median including 4-foot inside shoulders on each side. The clear roadway width of SR 2 will measure 51 feet on the westbound (north) side and 39 feet on the eastbound (south) side. A total of 549 feet of guardrail will be removed, including 196 feet along the south side of SR 2 and 353 feet along the north side of SR 2. A total of 275 feet of guardrail will be installed to meet current standards – 219 feet along the north side and 56 feet along the south side. A 15-inch diameter, 65-foot long culvert beneath a field access drive southwest of CV 002-071-74.20 will be replaced with a corrugated metal pipe (CMP) of the same dimensions as existing. A center median inlet east of CV 002-071-74.20, which drains southwest to Niespodziany Ditch via a 15-inch diameter, 64-foot long culvert, will also be replaced with a CMP of the same dimensions as existing and will outlet through the newly constructed wingwall at the outlet (south end) of CV 002-071-74.20.

11 streams and 18 wetlands were identified within the investigation area. Surrounding landscape is both urban and rural and consists of agricultural land, forested parcels, residential areas, and commercial/industrial areas.

Soils

According to the 2020 Soil Survey Geographic (SSURGO) Database for LaPorte and St. Joseph Counties, Indiana, the investigation area contains soil areas with hydric soils (Pages C1 to C11).

Soil Summary Table

Soil Unit Name	Symbol	NRCS Flooding Frequency	NRCS Drainage Class	NRCS Hydric Soil Category	SSURGO Hydric Rating
Adrian muck, drained, 0 to 1 percent slopes	AbhAN	None	Very poorly drained	Hydric (100%)	100
Antung muck, drained, 0 to 1 percent slopes	ApuAN	None	Very poorly drained	Hydric (100%)	100
Auten loam, 0 to 1 percent slopes	AxvA	None	Somewhat poorly drained	Predominantly nonhydric (1-32%)	10
Chelsea fine sand, 6 to 12 percent slopes	ChC	None	Excessively drained	Nonhydric (0%)	0

Soil Unit Name	Symbol	NRCS Flooding Frequency	NRCS Drainage Class	NRCS Hydric Soil Category	SSURGO Hydric Rating
Coloma sand, 2 to 5 percent slopes	CnbB	None	Somewhat excessively drained	Nonhydric (0%)	0
Coupee silt loam, 0 to 1 percent slopes	CrrA	None	Well drained	Nonhydric (0%)	0
Edwards muck, drained, 0 to 1 percent slopes	EchAN	None	Very poorly drained	Hydric (100%)	100
Elston loam, 0 to 2 percent slopes	EsA	None	Well drained	Nonhydric (0%)	0
Elston loam, 2 to 6 percent slopes	EsB	None	Well drained	Nonhydric (0%)	0
Gilford sandy loam, 0 to 2 percent slopes, gravelly subsoil	GczA	None	Poorly drained	Predominantly hydric (66-99%)	95
Homer loam	Hk	None	Somewhat poorly drained	Predominantly nonhydric (1-32%)	10
Hillsdale sandy loam, 0 to 1 percent slopes	HkkA	None	Well drained	Nonhydric (0%)	0
Hillsdale sandy loam 1 to 5 percent slopes	HkkA	None	Well drained	Nonhydric (0%)	0
Hillsdale-Tracy sandy loams, 5 to 10 percent slopes, eroded	HkpC2	None	Well drained	Nonhydric (0%)	0
Hillsdale-Tracy sandy loams, 10 to 18 percent slopes, eroded	HkpD2	None	Well drained	Nonhydric (0%)	0
Maumee mucky loamy fine sand, 0 to 1 percent slopes	MhbA	None	Very poorly drained	Hydric (100%)	100
Quinn loam, 0 to 1 percent slopes	QuiA	None	Poorly drained	Predominantly hydric (66-99%)	85
Rensselaer mucky loam, 0 to 1 percent slopes	RenA	None	Poorly drained	Hydric (100%)	100
Rensselaer loam, 0 to 1 percent slopes	ReyA	None	Poorly drained	Predominantly hydric (66-99%)	95
Riddles loam, 6 to 12 percent slopes, eroded	RlC2	None	Well drained	Nonhydric (0%)	0

Soil Unit Name	Symbol	NRCS Flooding Frequency	NRCS Drainage Class	NRCS Hydric Soil Category	SSURGO Hydric Rating
Tracy sandy loam, 2 to 6 percent slopes	TcB	None	Well drained	Nonhydric (0%)	0
Tracy sandy loam, 6 to 12 percent slopes, eroded	TcC2	None	Well drained	Nonhydric (0%)	0
Tracy sandy loam, 12 to 18 percent slopes, eroded	TcD2	None	Well drained	Nonhydric (0%)	0
Tracy sandy loam, 1 to 5 percent slopes	TmpB	None	Well drained	Nonhydric (0%)	0
Tracy sandy loam, 5 to 10 percent slopes, eroded	TmpC2	None	Well drained	Nonhydric (0%)	0
Troxel silt loam, 0 to 1 percent slopes	TnwA	None	Well drained	Nonhydric (0%)	0
Troxel silt loam	Tr	None	Well drained	Nonhydric (0%)	0
Urban land-Coloma complex, 2 to 5 percent slopes	UfhB	None	Somewhat excessively drained	Nonhydric (0)%	0
Urban land-Coloma complex, 5 to 10 percent slopes	UfhC	None	Somewhat excessively drained	Nonhydric (0%)	0
Wallkill silt loam	Wa	None	Very poorly drained	Hydric (100%)	100
Washtenaw silt loam	Wh	None	Poorly drained	Hydric (100%)	100
Wunabuna silt loam, drained, 0 to 1 percent slopes	WrxAN	None	Very poorly drained	Hydric (100%)	100

National Wetlands Inventory Information

Two National Wetlands Inventory (NWI) features were identified within the investigation area (Pages D1 to D9). However, one large riverine network of (R2UBFx) crossed the project area four times; therefore, it was reported as four different entries in the table below. Wetland type is based on *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979).

NWI Summary Table

Wetland Type	Description	Location: Lat/Long
PFO1A	Palustrine, forested, broad-leaved deciduous, temporarily flooded	41.671996 -86.476263
R2UBFx	Riverine, lower perennial, unconsolidated bottom, semiperminantly flooded, excavated	41.672013 -86.467162
R2UBFx	Riverine, lower perennial, unconsolidated bottom, semiperminantly flooded, excavated	41.672018 -86.419626
R2UBFx	Riverine, lower perennial, unconsolidated bottom, semiperminantly flooded, excavated	41.671906 -86.404515
R2UBFx	Riverine, lower perennial, unconsolidated bottom, semiperminantly flooded, excavated	41.672080 -86.403906

12-digit HUC

The SR 2 Project investigation area is within the following 12-digit HUC watersheds (Pages B1 to B13):

- 071200010207 (Clear Lake Basin)
- 071200010209 (County Line Ditch-Kankakee River)
- 071200010204 (Laskowski Ditch-Kankakee River)
- 071200010203 (Geyer Ditch)
- 071200010202 (Chain-Lakes Ditch-Geyer Ditch)
- 071200010205 (Dixon West Place Ditch)

The USGS StreamStats webpage (https://streamstats.usgs.gov/ss/) generated thirteen watersheds within the investigation area (Page E1):

- Watershed 1 - 0.39 square mile
- Watershed 2 - 0.09 square mile
- Watershed 3 - 0.83 square mile (UNT 2 to Roda Ditch)
- Watershed 4 - 0.08 square mile
- Watershed 5 - 1.16 square miles
- Watershed 6 - 2.95 square miles (UNT 1 to Niespodziany Ditch, UNT 2 to Niespodziany Ditch, and UNT 3 to Niespodziany Ditch)
- Watershed 7 - 0.70 square mile (UNT 4 to Niespodziany Ditch)
- Watershed 8 - 0.23 square mile
- Watershed 9 - 6.14 square miles (Niespodziany Ditch)
- Watershed 10 - 1.85 square miles (UNT 1 to Geyer Ditch)
- Watershed 11 - 0.10 square mile
- Watershed 12 - 1.93 square miles (UNT 2 to Geyer Ditch)
- Watershed 13 - 55.54 square miles (Geyer Ditch and Chain-O-Lakes Ditch)

The Indiana Floodplain Information Portal (https://indnr.maps.arcgis.com/apps/webappviewer/index.html?id=05026dabc2e8461983e196d56a213c1e) Best Available Flood Zones data indicate that the investigation area is not within a mapped floodway. However, the investigation area is within the Indiana Department of Natural Resources (IDNR) Approximate Floodway and IDNR Approximate Fringe (Pages F1-F16).

Attached Documents

- Appendix A (A1) Location Map
- Appendix B (B1-B5) USGS Quad Map (1:24,000) Removed to avoid duplication. See Appendix B.
- Appendix B (B6-B13) USGS Quad Map (1:12,000)
- Appendix C (C1-C11) USDA SSURGO Soils Map
- Appendix D (D1-D9) USFWS NWI Map
- Appendix E (E1) StreamStats Watershed Map
- Appendix F (F1-F16) Best Available Flood Hazard & NHD Line Map
- Appendix G (G1-G28) Water Resources Map Index and Map
- Appendix H (H1-H138) Photo Location Map Index, Map, and Project Photos Removed for brevity. See Appendix B.
- Appendix I (I1-I52) Wetland Data Sheets Removed for brevity.
- Appendix J (J1-J5) Preliminary Jurisdictional Determination

Field Reconnaissance

The area was investigated for water resources on four separate dates. Initial investigations occurred on May 23, 24, and 25, 2022. Follow up investigations occurred on April 24, 2023, and June 20, 2023. The Waters of the U.S. (WOTUS) investigation area limits were established based on the scope of work expected for the SR 2 Project. A total of 11 streams, 11 roadside ditches (RSDs), and 18 wetlands were identified during the field reconnaissance. Weather during the investigation was sunny and warm. Preceding field investigations, the last precipitation event in the area was 0.21 inch on May 21, 2022, 0.07 inch on April 24, 2023, and 0.79 inch on June 13, 2023 according to NOAA online weather data (https://www.weather.gov/wrh/Climate?wfo=iwx).

Water resource boundaries were mapped using an EOS Arrow and Trimble R1 receiver (sub-meter accuracy) and ArcCollector as the GIS data collection platform. Wetland determinations were conducted in accordance with the Corps of Engineers Wetland Delineation Manual (U.S. Army Corps of Engineers 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region Version 2.0 (U.S. Army Corps of Engineers 2010). Wetland Data sheets from the U.S. Army Corps of Engineers Headquarters website (https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/reg_supp/) were used to make wetland determinations. For those features that displayed bed and bank, the ordinary high water mark (OHWM) width and depth were measured at the maximum dimension observed beyond the influence of bridge and culvert structures.

Stream Feature(s)

According to the USGS New Carlisle, Lydick, and South Bend West 1:24,000 topographic quadrangles, forty-four solid blue-line features and one dashed blue-line features are present within the investigation area (Pages B1 to B13). The May 2022, April 2023, and June 2023 field investigation concluded that all stream features with the exception of UNT 1 to Roda Ditch were represented by solid blue-line features. Three solid blue-line features were perennial and identified as Niespodziany Ditch, Geyer Ditch, and Chain-O-Lakes Ditch. Four solid blue-line features were intermittent and identified as UNT 4 to Niespodziany Ditch, UNT 1 to Geyer Ditch, and UNT 2 to Geyer Ditch and UNT 2 to Roda Ditch. Four solid blue-line features identified as UNT 1 to Niespodziany Ditch, UNT 2 to Niespodziany Ditch, UNT 3 to Niespodziany Ditch, and UNT 1 to Roda Ditch were verified as ephemeral. The NHD GIS dataset includes 43 classified flowline features within the investigation area (Pages F1 to F16). Due to the large number

of stream features delineated within the investigation area, the stream characteristics are summarized in the table below. For the purposes of this report, all stream features were assumed jurisdictional due to connectivity to Kankakee River, a Traditionally Navigable Waterway (TNW). The Kankakee River is navigable from the Indiana-Illinois State Line for 86.3 river miles to the Indiana-Michigan State Line (This river is also navigable downstream in Illinois). The total length of streams within the investigation area is 2,547 linear feet.

Stream Summary Table

Water Feature Name	Photos	Lat/Long (OHWM)	OHWM Width (ft) Depth (ft)	Stream Length (ft)	USGS Blue-line? Type?	Class	Connection	Riffles? Pools?	Quality	Substrate	Drainage Area (sq. mi.)	Likely Waters of U.S.?
UNT 1 to Roda Ditch	23-25	41.672872 -86.568644	7.5 0.4	159	No	Ephemeral	Kankakee River	No Yes	Poor	Silt (100%)	0.83	Yes
UNT 2 to Roda Ditch	442-443	41.672513 -86.570582	2.5 0.8	32	Yes Perennial	Intermittent	Kankakee River	Yes Yes	Poor	Silt (80%) Sand (20%)	0.1 (est.)	Yes
UNT 1 to Niespodziany Ditch	66a-68	41.672326 -86.542601	4.5 0.2	183	Yes Perennial	Ephemeral	Kankakee River	No Yes	Average	Silt (60%) Sand (40%)	2.95	Yes
UNT 2 to Niespodziany Ditch	69-72	41.672308 -86.542066	5.0 0.4	212	Yes Perennial	Ephemeral	Kankakee River	No No	Average	Sand (90%) Gravel (10%)	2.95	Yes
UNT 3 to Niespodziany Ditch	107-110	41.672332 -86.512374	3.0 0.3	151	Yes Perennial	Ephemeral	Kankakee River	No No	Average	Silt 80%) Sand (20%)	2.95	Yes
UNT 4 to Niespodziany Ditch	139-142	41.671922 -86.481867	2.2 0.3	157	Yes Perennial	Intermittent	Kankakee River	No No	Poor	Silt (100%)	0.70	Yes
Niespodziany Ditch	154-158, 457-459	41.671729 -86.466991	9.5 1.4	244	Yes Perennial	Perennial	Kankakee River	Yes Yes	Poor	Sand (90%) Silt (10%)	6.14	Yes
UNT 1 to Geyer Ditch	196-198	41.672155 -86.443026	4.8 0.5	141	Yes Perennial	Intermittent	Kankakee River	No No	Average	Sand (70%) Silt (30%)	1.85	Yes
UNT 2 to Geyer Ditch	236-239	41.671714 -86.419096	9.9 1.0	522	Yes Perennial	Intermittent	Kankakee River	Yes Yes	Average	Silt (90%) Sand (10%)	1.93	Yes
Geyer Ditch	293 - 298, 300-301	41.671669 -86.404015	26.6 2.6	172	Yes Perennial	Perennial	Kankakee River	Yes Yes	Average	Silt (40%) Sand (40%) Gravel (20%)	55.50	Yes
Chain-O-Lakes Ditch	295, 297, 303-304, 306	41.672093 -86.404015	17.0 2.6	574	Yes Perennial	Perennial	Kankakee River	Yes Yes	Average	Silt (40%) Sand (40%) Gravel (20%)	55.50	Yes

Wetlands

The May 2022, April 2023, and June 2023 field investigation identified 18 wetland features, Wetlands A through R, within the investigation area of the SR 2 Project. Many of these features are fed by agriculture drains and underdrains below SR 2 and have formed within excavated concave drainage areas along SR 2. These features periodically extend up embankments at seeping underdrain locations and occasionally outside the investigation area. Due to the narrow width of the investigation area, all linear wetlands along SR 2 were delineated and mapped to include the entirety of the feature. Depending on the strength of hydrologic connection, similarity of vegetative community, and distance between these areas, some wetland areas separated by a culvert were combined into one feature (i.e. Wetland I, L, M, and O). According to the Indiana Department of Environmental Management (IDEM) under stipulations provided in IC 13-18-22, Wetlands A, B, G, H, I, P, Q, and R would be considered exempt isolated wetlands based on their classification as Class I wetlands and being located within a roadside ditch (https://www.in.gov/idem/wetlands/information-about/state-regulated-wetlands-program/understanding-state-regulated-wetland-exemptions/). INDOT acknowledges that Wetlands A, B, G, H, I, P, Q, and R would not likely meet the definition of a Waters of the U.S. under the Clean Water Act. However, INDOT may request that the USACE take jurisdiction of Wetlands A, B, G, H, I, P, Q, and R. Wetlands A, B, G, H, I, P, Q, and R have therefore been included on the Preliminary Jurisdictional Determination form. All other wetlands drain to one of four jurisdictional streams, therefore; are given a preliminary "Waters of the U.S." determination based on the best judgement of Lochmueller Group. These streams include Niespodziany Ditch, UNT 4 to Niespodziany Ditch, Geyer Ditch, and UNT 2 to Geyer Ditch. All streams within the investigation area eventually drain to Kankakee River, a TNW. The total area of mapped wetlands is 1.85 acres, of which 1.67 acres are located within the investigation area.

Wetlands located along the roadside were generally emergent wetlands dominated by narrow-leaf cat-tail (*Typha angustifolia*, OBL), reed canary grass (*Phalaris arundinacea*, FACW), and various graminoid species. Many wetlands were bordered by fence rows allowing for sparse overhanging shrub vegetation.

Due to the number of wetlands delineated within the investigation area, data points and confirmed wetlands are summarized in the tables below. The Data Point Summary Table contains information on collected data points. The Wetland Summary Table depicts characteristic data that can be found on the wetland determination forms (Pages J1 to J5).

Data Point Summary Table

Data Point	Vegetation	Soils	Hydrology	Wetland
1	Yes	Yes	No	No
2	No	No	No	No
3	Yes	Yes	Yes	Yes
4	No	No	No	No
5	Yes	Yes	Yes	Yes
6	No	No	No	No
7	No	Yes	No	No
8	Yes	Yes	Yes	Yes
9	No	No	No	No
10	Yes	Yes	Yes	Yes
11	No	No	No	No
12	Yes	Yes	Yes	Yes
13	No	No	No	No

Data Point	Vegetation	Soils	Hydrology	Wetland
14	Yes	Yes	Yes	Yes
15	No	No	No	No
16	Yes	Yes	Yes	Yes
17	No	No	No	No
18	Yes	Yes	Yes	Yes
19	No	No	No	No
20	Yes	Yes	Yes	Yes
21	No	No	No	No
22	Yes	Yes	Yes	Yes
23	Yes	No	No	No
24	Yes	Yes	Yes	Yes
25	Yes	No	Yes	No
26	Yes	Yes	Yes	Yes
27	Yes	No	No	No
28	Yes	Yes	Yes	Yes
29	No	No	No	No
30	Yes	Yes	Yes	Yes
31	No	Yes	No	No
32	No	Yes	No	No
33	Yes	Yes	Yes	Yes
34	No	No	No	No
35	Yes	Yes	Yes	Yes
36	No	No	No	No
37	Yes	Yes	Yes	Yes
38	Yes	Yes	No	No
39	Yes	Yes	Yes	Yes
40	No	No	No	No

Wetland Summary Table

Wetland Name	Data Point	Photos	Lat/Long	Total Area (acres)	Quality	Dominant Vegetation	Hydric Soil Indicators	Hydrology Indicators	Position	Class	Likely Water of the U.S.?
Wetland A	3	38-40	41.672801 -86.559993	0.003	Poor	*Typha angustifolia*	S5	A3, C9, D2, D5	Roadside ditch	I isolated exempt	No*
Wetland B	5	83, 84, 86	41.672267 -86.533645	0.002	Poor	*Typha angustifolia*	F3, F8	A3, B7, D2, D5	Roadside ditch	I isolated exempt	No*
Wetland C	33	143, 144, 145a	41.671584 -86.480862	0.46	Poor	*Typha latifolia*	A11, S5	A3, B10, D5	Roadside ditch	I	Yes
Wetland D	10	151-153	41.672117 -86.467602	0.02	Poor	*Carex lacustris*	F1	D2, D5	Roadside ditch	I	Yes
Wetland E	8	159, 160	41.671731 -86.468095	0.04	Poor	*Typha angustifolia*	A11, F3	B10, D5	Roadside ditch	I	Yes
Wetland F	12	175-178	41.671799 -86.455778	0.09	Poor	*Typha angustifolia*	F3	A1, A2, A3, D5	Roadside ditch	I	Yes
Wetland G	14	202-204	41.671764 -86.439374	0.05	Poor	*Carex tribuloides, Echinochloa crus-galli*	A11, F3	B10, D5	Roadside ditch	I isolated exempt	No*
Wetland H	16	215, 216	41.671759 -86.433601	0.01	Poor	*Eleocharis obtusa, Typha latifolia*	A11, S5, S11	A1, A2, A3, B10, D5	Roadside ditch	I isolated exempt	No*

Wetland Name	Data Point	Photos	Lat/Long	Total Area (acres)	Quality	Dominant Vegetation	Hydric Soil Indicators	Hydrology Indicators	Position	Class	Likely Water of the U.S.?
Wetland I	18	217-219, 219a, 219b, 224a, 224-226	41.671757 -86.430986	0.3	Poor	*Typha angustifolia, Echinochloa crus-galli*	A11, F3	A1, A2, B10, D5	Roadside ditch	I isolated exempt	No*
Wetland J	20	240-242	41.672111 -86.419862	0.03	Poor	*Phalaris arundinacea*	A11, A12	C3, D2, D5	Roadside ditch	I	Yes
Wetland K	22	243-245	41.672122 -86.419602	0.04	Poor	*Phalaris arundinacea, Acer negundo*	A11	C3, D2, D5	Roadside ditch	I	Yes
Wetland L	24	256-261, 263, 264, 266-274, 281-284, 287-292	41.672106 -86.409108	0.46	Poor	*Phalaris arundinacea*	A11, S5	A3, D2, D5	Roadside ditch	I	Yes
Wetland M	26	275, 275a, 275b, 276-280, 285-286	41.671727 -86.409004	0.08	Poor	*Phalaris arundinacea*	A12	B10, D5	Roadside ditch	I	Yes
Wetland N	28	187, 187a	41.6718000 -86.450460	0.08	Poor	*Carex hyalinolepis*	S5, S11	A1, A3, B10, D5	Roadside ditch	I	Yes
Wetland O	30	190, 190a, 191, 194-194a	41.671803 -86.447531	0.15	Poor	*Panicum dichotomiflorum*	A11, F3	B10, D5	Roadside ditch	I	Yes
Wetland P	35	423-425	41.672043 -86.342046	0.01	Poor	*Typha angustifolia*	A11	A3, D5	Roadside ditch	I Isolated exempt	No*
Wetland Q	37	427-431	41.672228 -86.462682	0.02	Poor	*Typha angustifolia, Persicaria pennsylvanica, Schoenoplectus tabernaemontani, Rumex crispus*	A11, S5	B10, D5	Roadside ditch	I Isolated exempt	No*
Wetland R	39	448-450	41.672233 -86.4622625	0.001	Poor	*Poa trivialis, Rumex crispus, Schedonorous arundinaceus*	A11	B4, D5	Roadside ditch	I Isolated exempt	No*

*INDOT acknowledges that the wetland would likely not meet the definition of a Waters of the U.S., however, INDOT is requesting that the USACE take jurisdiction of the wetland.

Roadside Ditch Features

The May 2022, April 2023, and June 2023 field review identified eleven RSD features within the investigation area. RSDs were located within roadside depressions excavated for drainage. RSDs lacked a defined bed and bank and sufficient wetland indicators, therefore the RSD features identified would not be considered Waters of the U.S. Some RSD features contained sparse wetland vegetation such as narrow-leaf cat-tail (*Typha angustifolia*) but would not be considered wetlands due to being constructed to convey roadside drainage as well as lack of sufficient soil development. The total length of RSD features within the investigation area was 4,272 linear feet.

Roadside Ditch Summary Table

Name	Photos	Length (feet)	Coordinates
RSD 1	10	200	41.672649 -86.582617
RSD 2	26-27, 30, 32-34	896	41.672538 -86.567188
RSD 3	31	124	41.672855 -86.565863
RSD 4	45-46, 49	703	41.672413 -86.555106
RSD 5	73-74	458	41.672334 -86.539530
RSD 6	88-89	670	41.672236 -86.527615
RSD 7	105	412	41.672326 -86.513253
RSD 8	125-126	300	41.671778 -86.499616
RSD 9	182	243	41.671815 -86.453378
RSD 10	416	181	41.671554 -86.345329
RSD 11	417	85	41.671872 -86.345373

Open Water

The May 2022 and April 2023 field investigation did not identify open water features within the investigation area.

Structures

Approximately 130 structures are proposed to be repaired, removed, or replaced throughout the project within the SR 2 investigation limits. The table provides general information regarding the proposed structure and their potential influence to water resources. A few structures share the same asset number identification due to adjoining pipes and approximate location.

Structure Summary Table

Asset No. ID	Size (in)	Resource	Coordinates
CLV-37285	12	RSD 1	41.672872 -86.583378
None	15	RSD 1	41.672775 -86.583269
CLV-37291	12	RSD 1	41.672669 -86.583278
None	15	RSD 1	41.672661

Asset No. ID	Size (in)	Resource	Coordinates
			-86.582972
CLV-46978	18	None	41.673028 -86.583094
CLV-37325	15	None	41.672711 -86.575158
CLV-37325	15	None	41.672711 -86.575158
CLV-37347	30	UNT 2 to Roda Ditch	41.672672 -86.570433
CLV-37351	30	UNT 2 to Roda Ditch	41.672672 -86.570433
CLV-37369	12	None	41.672725 -86.567958
CLV-37365	15	RSD 2	41.672653 -86.567131
CLV-37423	12	None	41.672808 -86.564925
CLV-37429	15	None	41.672569 -86.561222
CLV-37431	15	None	41.672569 -86.561222
CLV-37433	15	Wetland A	41.672697 -86.559997
CLV-37441	15	RSD 4	41.672503 -86.554353
CLV-37859	12	None	41.672453 -86.544169
None	-	UNT 1 to Niespodziany Ditch	41.672517 -86.542725
CLV-37865	15	UNT 1 to Niespodziany Ditch	41.672517 -86.542725
CLV-94742	15	None	41.672503 -86.540025
CLV-37909	15	None	41.67255 -86.536869
CLV-37907	15	None	41.67255 -86.536869
CLV-37913	12	None	41.672469 -86.535579
None	-	None	41.672469 -86.535579
CLV-37921	12	None	41.672447

Asset No. ID	Size (in)	Resource	Coordinates
			-86.533839
CLV-37929	24	Wetland B	41.672525 -86.533686
CLV-37925	24	Wetland B	41.672525 -86.533686
CLV-37931	12	None	41.672433 -86.531583
CLV-37936	15	None	41.672433 -86.531583
CLV-37945	24	None	41.672492 -86.529783
CLV-37943	24	None	41.672492 -86.529783
CLV-37951	15	RSD 6	41.672342 -86.528581
CLV-46678	12	None	41.672472 -86.527244
None		None	41.672472 -86.527244
CLV-46664	15	None	41.672381 -86.525733
CLV-38015	24	None	41.672425 -86.523264
None	-	None	41.672425 -86.523264
CLV-38015	24	None	41.672425 -86.523264
CLV-38017	-	None	41.672239 -86.521128
CLV-46642	12	None	41.672217 -86.519264
CLV-46636	12	None	41.672322 -86.517183
CLV-46630	12	None	41.672247 -86.517008
CLV-46628	15	RSD 7	41.672272 -86.513892
CLV-46622	-	UNT 3 to Niespodziany Ditch	41.672253 -86.512397
CLV-46610	-	UNT 3 to Niespodziany Ditch	41.672172 -86.512206

Asset No. ID	Size (in)	Resource	Coordinates
CLV-46604	-	UNT 3 to Niespodziany Ditch	41.672172 -86.512206
CLV-38025	12	None	41.672067 -86.510058
CLV-46588	12	None	41.672092 -86.508667
CLV-46702	15	None	41.672308 -86.506611
None	12	None	41.672308 -86.506611
None	12	None	41.672308 -86.506611
CLV-46452	12	None	41.672067 -86.50635
CLV-46204	12	None	41.672103 -86.503297
NONE	-	None	41.672103 -86.503297
CLV-38039	-	None	41.672003 -86.497164
CLV-46186	12	None	41.671917 -86.495903
CLV-38041	12	None	41.671833 -86.495547
CLV-46463	12	None	41.671822 -86.49055
CLV-40611	24	None	41.671947 -86.486744
CLV-95041	12	None	41.671767 -86.485178
CLV-94805	24	UNT 4 to Niespodziany Ditch and Wetland C	41.671575 -86.481736
CLV-94987	12	Wetland C	41.671725 -86.480419
CLV-38103	15	None	41.671914 -86.463706
CLV-38117	15	None	41.672017 -86.453669
CLV-40643	15	RSD 9	41.671939 -86.453422
CLV-38123	12	None	41.672003

Asset No. ID	Size (in)	Resource	Coordinates
			-86.450267
CLV-40645	12	None	41.671933 -86.449081
CLV-40657	12	None	41.672003 -86.447789
CLV-40667	12	None	41.671914 -86.441589
CLV-40667	12	Wetland G	41.671908 -86.438872
CLV-40671	12	None	41.671906 -86.43765
None	15	None	41.671978 -86.433756
CLV-40683	12	Wetland I	41.671889 -86.432478
CLV-40689	12	Wetland I	41.671886 -86.431019
CLV-40699	12	None	41.671947 -86.42655
CLV-46823	12	None	41.671869 -86.422064
CLV-40589	18	Wetland K	41.672133 -86.418967
CLV-40853	12	UNT 2 to Geyer Ditch	41.671867 -86.418094
CLV-40859	12	None	41.671861 -86.416508
CLV-40871	12	None	41.671858 -86.414517
CLV-40907	15	None	41.671753 -86.414119
None	12	None	41.671858 -86.412514
CLV-40879	12	None	41.671917 -86.412458
CLV-40889	12	None	41.671853 -86.410064
CLV-40587	12	Wetland L	41.671989 -86.407331
CLV-40903	15	Wetland M	41.671844 -86.405928
CLV-40919	12	None	41.671833 -86.403431

Asset No. ID	Size (in)	Resource	Coordinates
CLV-40945	-	None	41.671836 -86.400542
CLV-40935	-	None	41.671917 -86.400389
CLV-40575	12	None	41.671972 -86.399458
CLV-40941	12	None	41.671892 -86.399367
None	12	None	41.671828 -86.398211
CLV-40943	12	None	41.671897 -86.398100
CLV-41151	12	None	41.671831 -86.396275
CLV-41159	12	None	41.671964 -86.393394
CLV-41161	-	None	41.671964 -86.393394
CLV-41181	12	None	41.671878 -86.383194
CLV-41187	15	None	41.671728 -86.383200
CLV-40557	15	None	41.67195 -86.383036
CLV-40519	15	None	41.672069 -86.373892
CLV-41189	-	None	41.671822 -86.379369
CLV-41191	-	None	41.671822 -86.378167
CLV-41195	-	None	41.671828 -86.376839
CLV-41197	-	None	41.671833 -86.375739
CLV-41199	-	None	41.671983 -86.374517
CLV-41331	-	None	41.671911 -86.373906
CLV-41339	-	None	41.671986 -86.373289
CLV-40517	-	None	41.671992 -86.371719
CLV-41345	-	None	41.671919

Asset No. ID	Size (in)	Resource	Coordinates
			-86.371356
CLV-41349	-	None	41.672003 -86.370494
CLV-40503	-	None	41.672003 -86.369003
CLV-40499	-	None	41.672003 -86.368447
CLV-41371	-	None	41.671931 -86.368133
CLV-37685	18	None	41.671928 -86.366978
CLV-41379	-	None	41.671919 -86.366692
None	-	None	41.67185 -86.365653
CLV-37683	24	None	41.671889 -86.363892
CLV-37663	12	None	41.671833 -86.351025
CLV-41381	12	None	41.671633 -86.351028
None	12	None	41.671647 -86.350953
None	12	None	41.671672 -86.350822
None	12	None	41.671669 -86.350114
None	12	None	41.671669 -86.349247
None	12	None	41.671669 -86.348244
None	15	None	41.671744 -86.342333
None	-	None	41.671744 -86.342333
CLV-89844	-	Wetland P	41.671817 -86.341931
CLV-89844	24	Wetland P	41.671817 -86.341931
None	12	None	41.671753 -86.341103
CLV-89846	-	None	41.671767 -86.340189

Conclusions

The May 2022, April 2023, and June 2023 field review for the SR 2 Project identified ten streams and eighteen wetlands within the investigation area. All stream features and ten of eighteen wetlands would likely be subject to USACE jurisdiction under Section 404 of the Clean Water Act due to their connection to Kankakee River, a TNW. Wetlands A, B, G, H, I, P, Q, and R would be considered exempt isolated wetlands due to their lack of connection to a TNW, class I classification, and location within a roadside ditch.

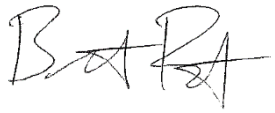
Every effort should be taken to avoid and minimize impacts to wetland features. If impacts are necessary, then mitigation may be required. The INDOT Environmental Services Division should be contacted immediately if impacts will occur. The final determination of jurisdictional waters is ultimately made by the U.S. Army Corps of Engineers. This report is our best judgment based on the guidelines set forth by the Corps.

All structures within the investigated area were examined on April 24, 2023, for the presence of bat species. The investigation area did not document direct or indirect signs of bat species within any structure within the investigated area. Presence of bird species was conducted on May 23, 24, and 25, 2022 and April 24, 2023. Birds were observed nesting on structures or in areas that will be impacted.

Acknowledgement

This waters determination has been prepared based on the best available information, interpreted in light of the investigators' 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.

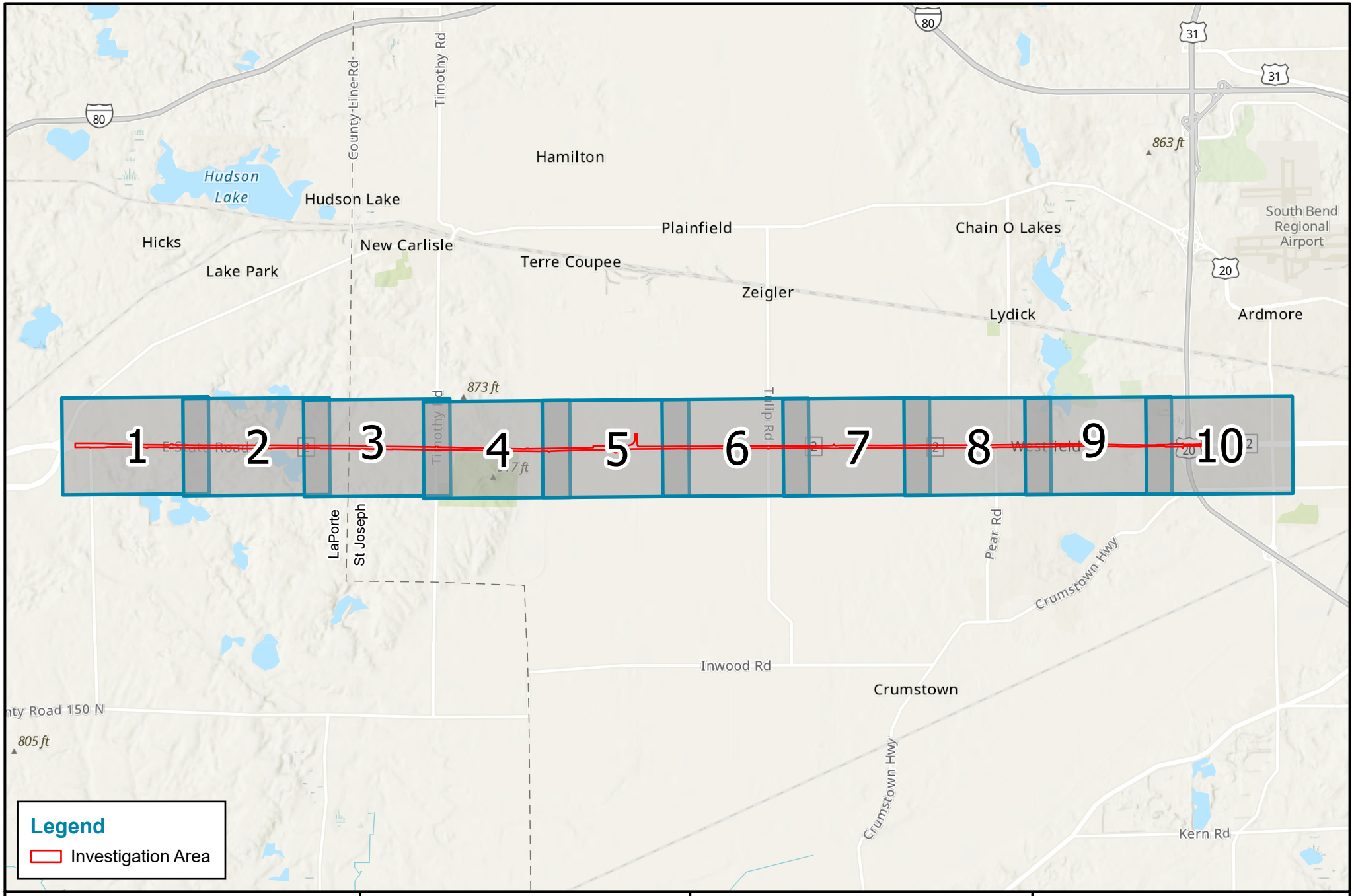
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Lochmueller Group, Inc.

Preparers

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Grace Brewington	Environmental Specialist	Field Data Collection
Ashley Taylor	Environmental Specialist	Field Data Collection
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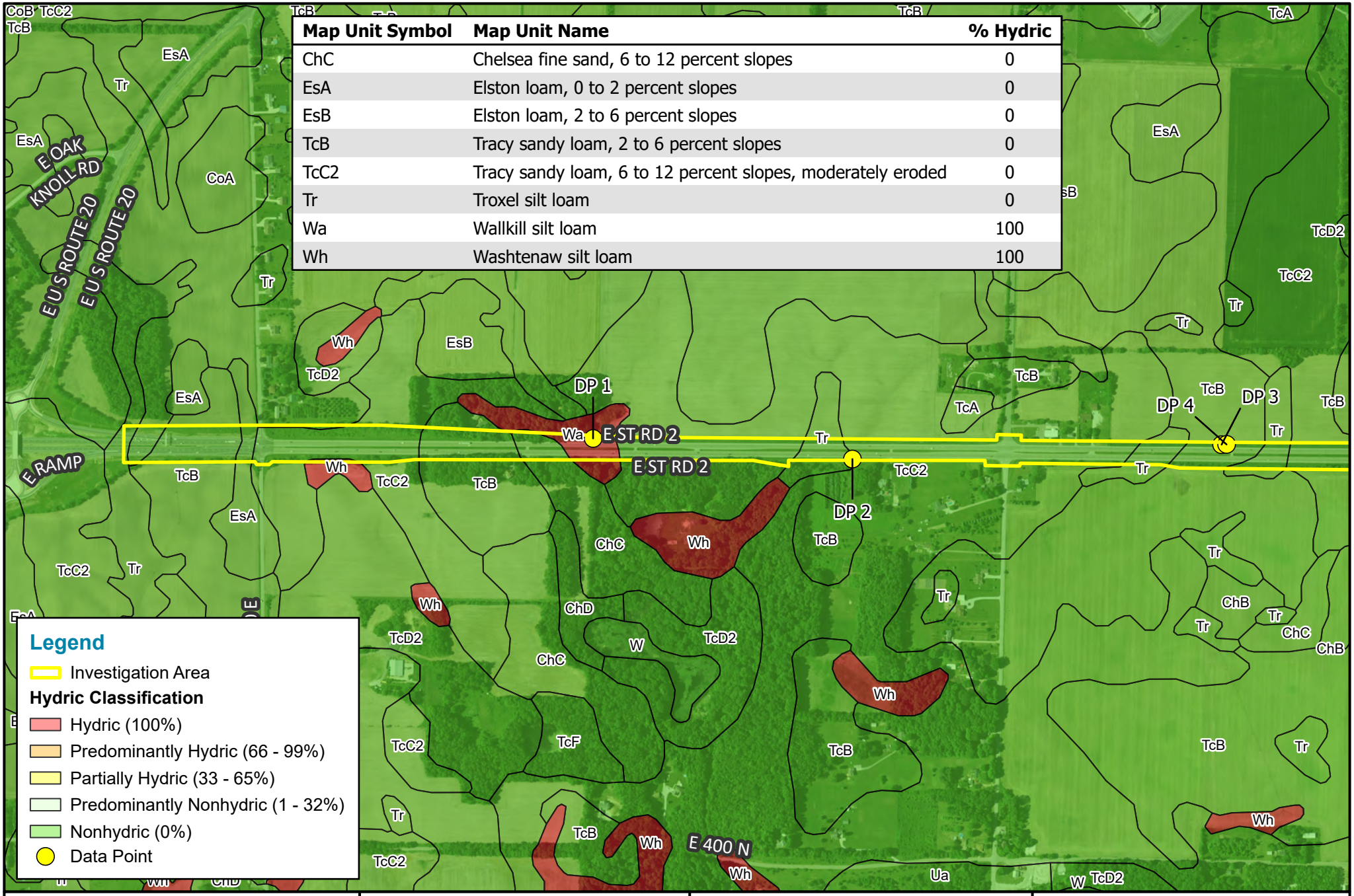
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County: St. Joseph and LaPorte
Township: Wills, Olive, Warren, Portage
State: Indiana

SR 2 from US 20 to US 20/31
HMA Overlay Project
Created: 7/7/2023, RWeaver

Map Source(s): Esri, NASA, NGA, USGS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA



Map Unit Symbol	Map Unit Name	% Hydric
ChC	Chelsea fine sand, 6 to 12 percent slopes	0
EsA	Elston loam, 0 to 2 percent slopes	0
EsB	Elston loam, 2 to 6 percent slopes	0
TcB	Tracy sandy loam, 2 to 6 percent slopes	0
TcC2	Tracy sandy loam, 6 to 12 percent slopes, moderately eroded	0
Tr	Troxel silt loam	0
Wa	Wallkill silt loam	100
Wh	Washtenaw silt loam	100

Legend

- Investigation Area

Hydric Classification

- Hydric (100%)
- Predominantly Hydric (66 - 99%)
- Partially Hydric (33 - 65%)
- Predominantly Nonhydric (1 - 32%)
- Nonhydric (0%)
- Data Point

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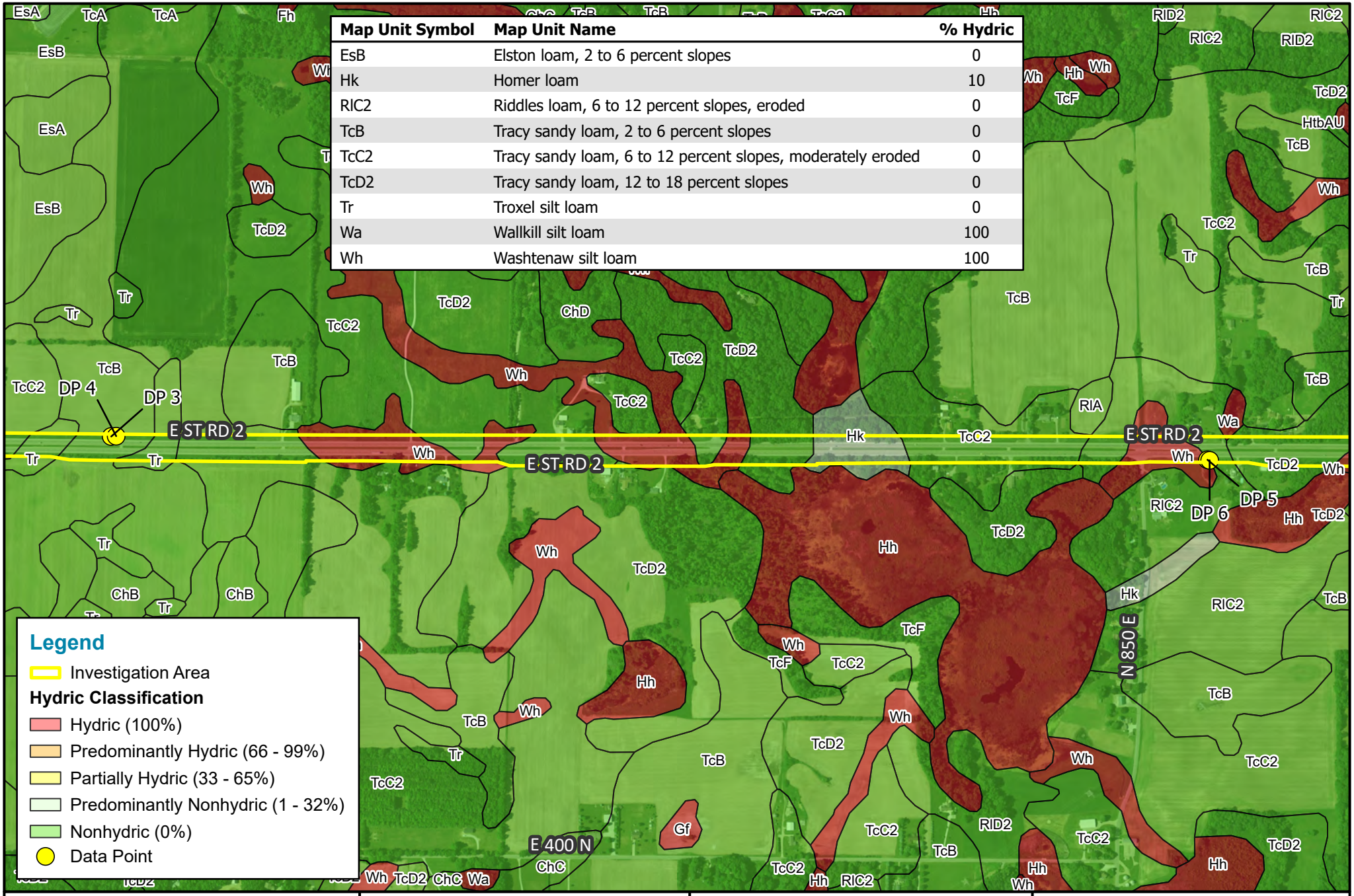
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Soil Source: Soil Survey Geographic (SSURGO) database 09/2022 for St. Joseph and LaPorte County, Indiana
Map Source(s):

Map Page 1 of 10



Map Unit Symbol	Map Unit Name	% Hydric
EsB	Elston loam, 2 to 6 percent slopes	0
Hk	Homer loam	10
RlC2	Riddles loam, 6 to 12 percent slopes, eroded	0
TcB	Tracy sandy loam, 2 to 6 percent slopes	0
TcC2	Tracy sandy loam, 6 to 12 percent slopes, moderately eroded	0
TcD2	Tracy sandy loam, 12 to 18 percent slopes	0
Tr	Troxel silt loam	0
Wa	Wallkill silt loam	100
Wh	Washtenaw silt loam	100

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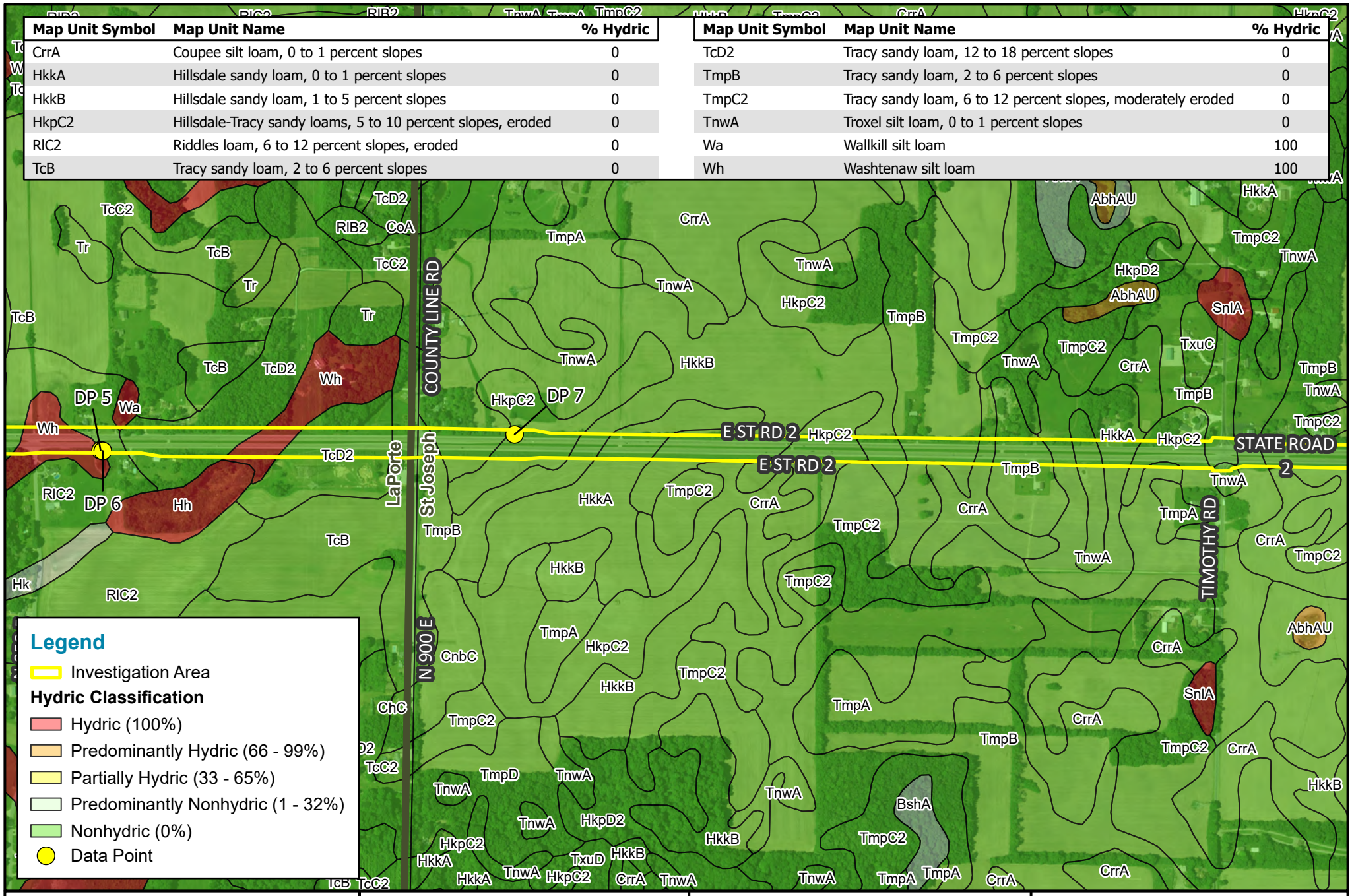
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Soil Source: Soil Survey Geographic (SSURGO) database 09/2022 for St. Joseph and LaPorte County, Indiana
Map Source(s):

Map Page 2 of 10

Map Unit Symbol	Map Unit Name	% Hydric
CrrA	Coupee silt loam, 0 to 1 percent slopes	0
HkkA	Hillsdale sandy loam, 0 to 1 percent slopes	0
HkkB	Hillsdale sandy loam, 1 to 5 percent slopes	0
HkpC2	Hillsdale-Tracy sandy loams, 5 to 10 percent slopes, eroded	0
RlC2	Riddles loam, 6 to 12 percent slopes, eroded	0
TcB	Tracy sandy loam, 2 to 6 percent slopes	0
TcD2	Tracy sandy loam, 12 to 18 percent slopes	0
TmpB	Tracy sandy loam, 2 to 6 percent slopes	0
TmpC2	Tracy sandy loam, 6 to 12 percent slopes, moderately eroded	0
TnwA	Troxel silt loam, 0 to 1 percent slopes	0
Wa	Wallkill silt loam	100
Wh	Washtenaw silt loam	100



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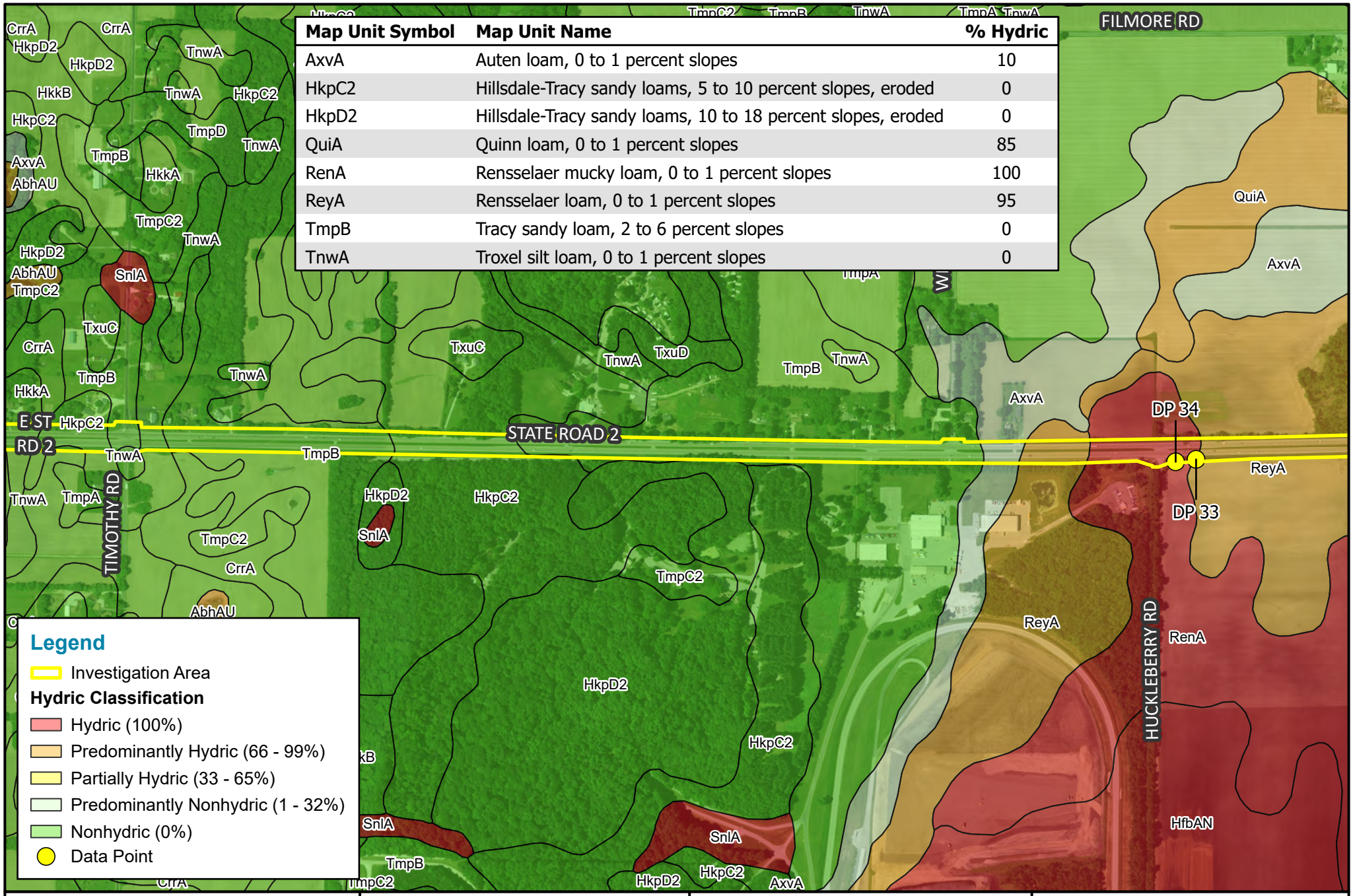
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09/2022 for St. Joseph and LaPorte County, Indiana
Map Source(s):

Map Page 3 of 10



Map Unit Symbol	Map Unit Name	% Hydric
AxvA	Auten loam, 0 to 1 percent slopes	10
HkpC2	Hillsdale-Tracy sandy loams, 5 to 10 percent slopes, eroded	0
HkpD2	Hillsdale-Tracy sandy loams, 10 to 18 percent slopes, eroded	0
QuiA	Quinn loam, 0 to 1 percent slopes	85
RenA	Rensselaer mucky loam, 0 to 1 percent slopes	100
ReyA	Rensselaer loam, 0 to 1 percent slopes	95
TmpB	Tracy sandy loam, 2 to 6 percent slopes	0
TnwA	Troxel silt loam, 0 to 1 percent slopes	0

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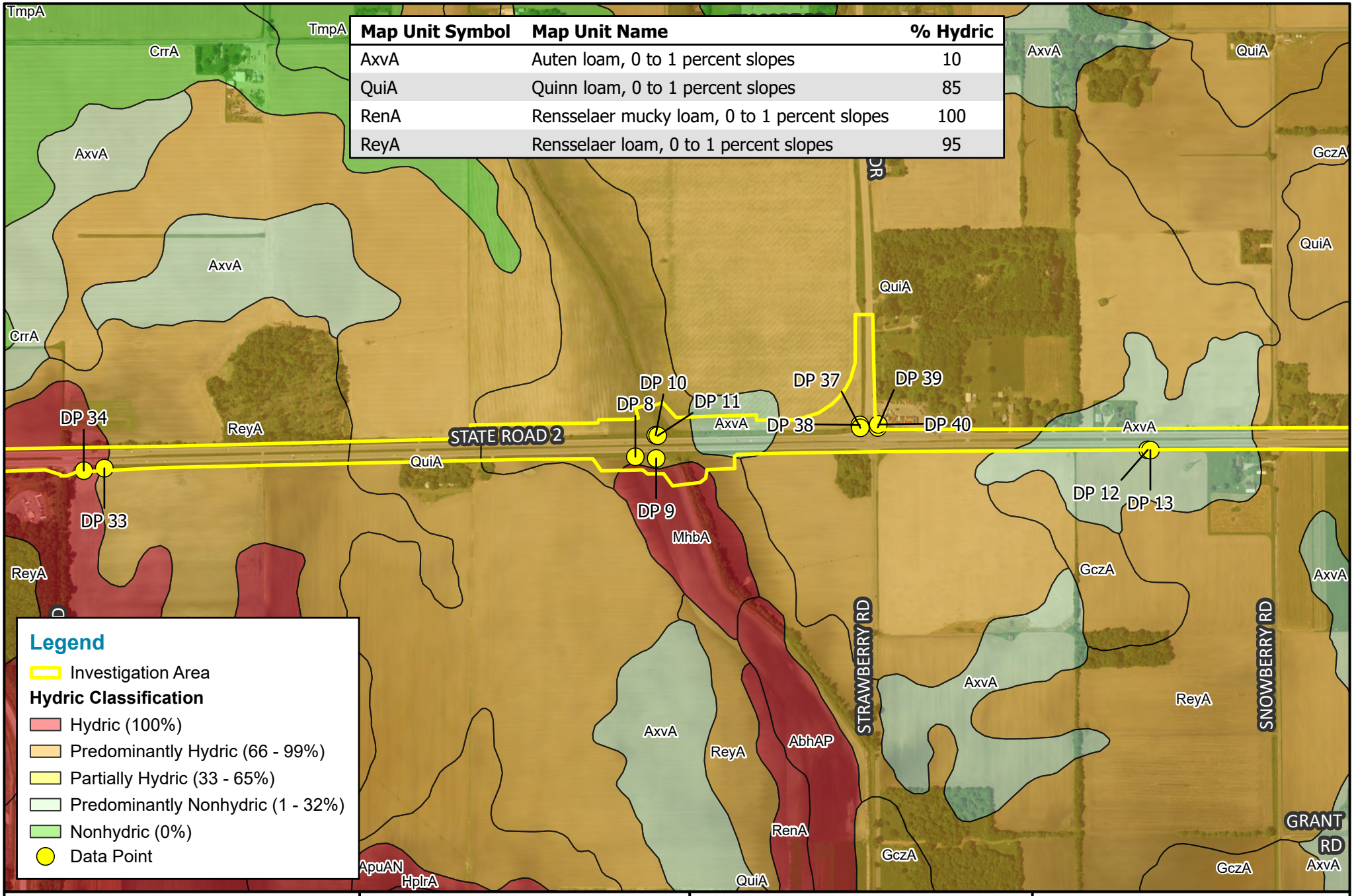
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Township: Wills, Olive, Warren, Portage
State: Indiana

SR 2 from US 20 to US 20/31
HMA Overlay Project
Created: 6/29/2023, RWeaver

Aerial Source: 2020 Indiana NAIP
Soil Source: Soil Survey Geographic (SSURGO) database 09/2022 for St. Joseph and LaPorte County, Indiana
Map Source(s):

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Map Unit Symbol	Map Unit Name	% Hydric
AxvA	Auten loam, 0 to 1 percent slopes	10
QuiA	Quinn loam, 0 to 1 percent slopes	85
RenA	Rensselaer mucky loam, 0 to 1 percent slopes	100
ReyA	Rensselaer loam, 0 to 1 percent slopes	95

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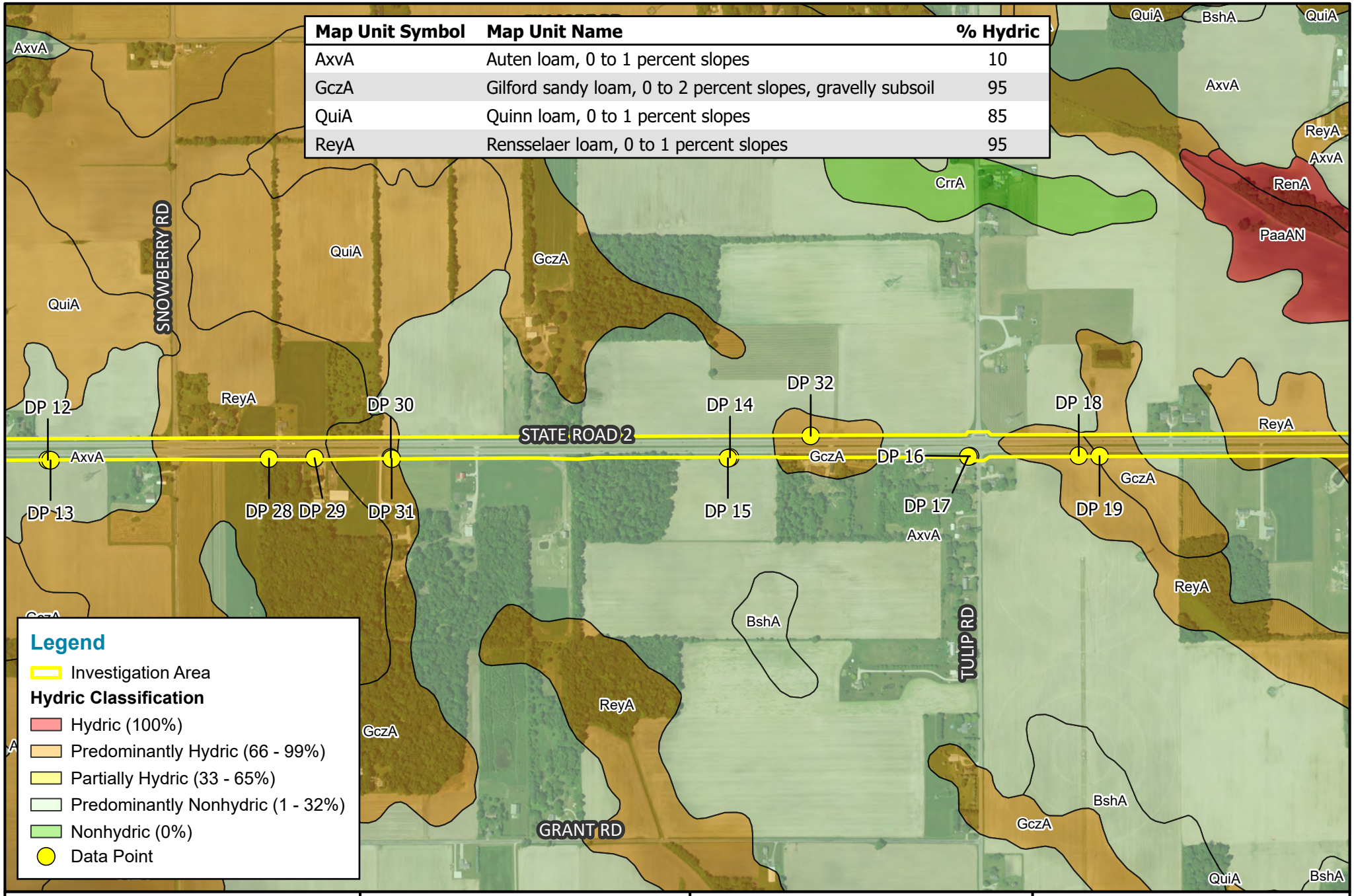
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County: St. Joseph and LaPorte
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SR 2 from US 20 to US 20/31
HMA Overlay Project
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09/2022 for St. Joseph and LaPorte County, Indiana
Map Source(s):



Map Unit Symbol	Map Unit Name	% Hydric
AxvA	Auten loam, 0 to 1 percent slopes	10
GczA	Gilford sandy loam, 0 to 2 percent slopes, gravelly subsoil	95
QuiA	Quinn loam, 0 to 1 percent slopes	85
ReyA	Rensselaer loam, 0 to 1 percent slopes	95

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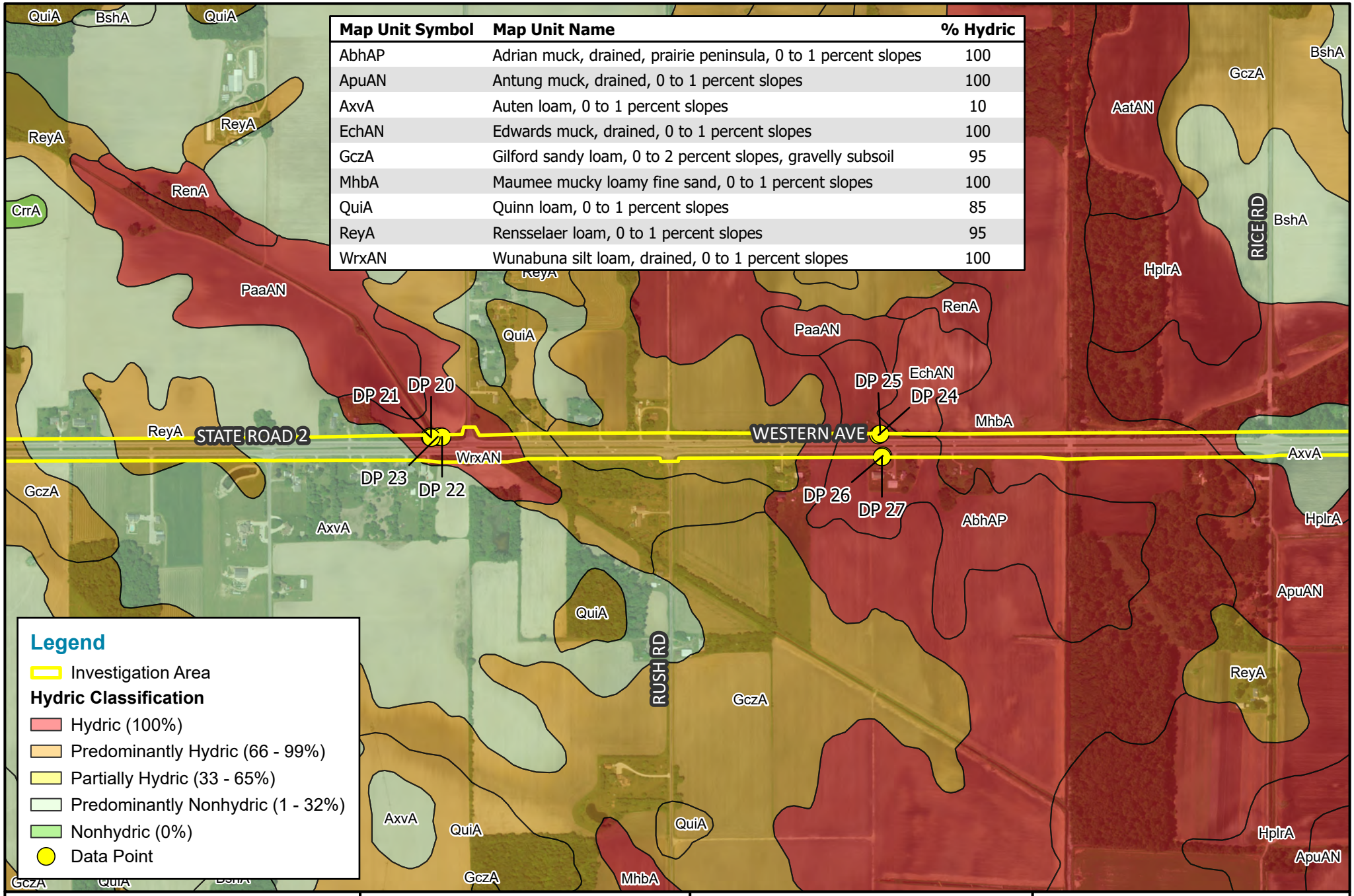
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Map Source(s):

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Map Unit Symbol	Map Unit Name	% Hydric
AbhAP	Adrian muck, drained, prairie peninsula, 0 to 1 percent slopes	100
ApuAN	Antung muck, drained, 0 to 1 percent slopes	100
AxvA	Auten loam, 0 to 1 percent slopes	10
EchAN	Edwards muck, drained, 0 to 1 percent slopes	100
GczA	Gilford sandy loam, 0 to 2 percent slopes, gravelly subsoil	95
MhbA	Maumee mucky loamy fine sand, 0 to 1 percent slopes	100
QuiA	Quinn loam, 0 to 1 percent slopes	85
ReyA	Rensselaer loam, 0 to 1 percent slopes	95
WrxAN	Wunabuna silt loam, drained, 0 to 1 percent slopes	100

Legend

- Investigation Area

Hydric Classification

- Hydric (100%)
- Predominantly Hydric (66 - 99%)
- Partially Hydric (33 - 65%)
- Predominantly Nonhydric (1 - 32%)
- Nonhydric (0%)
- Data Point

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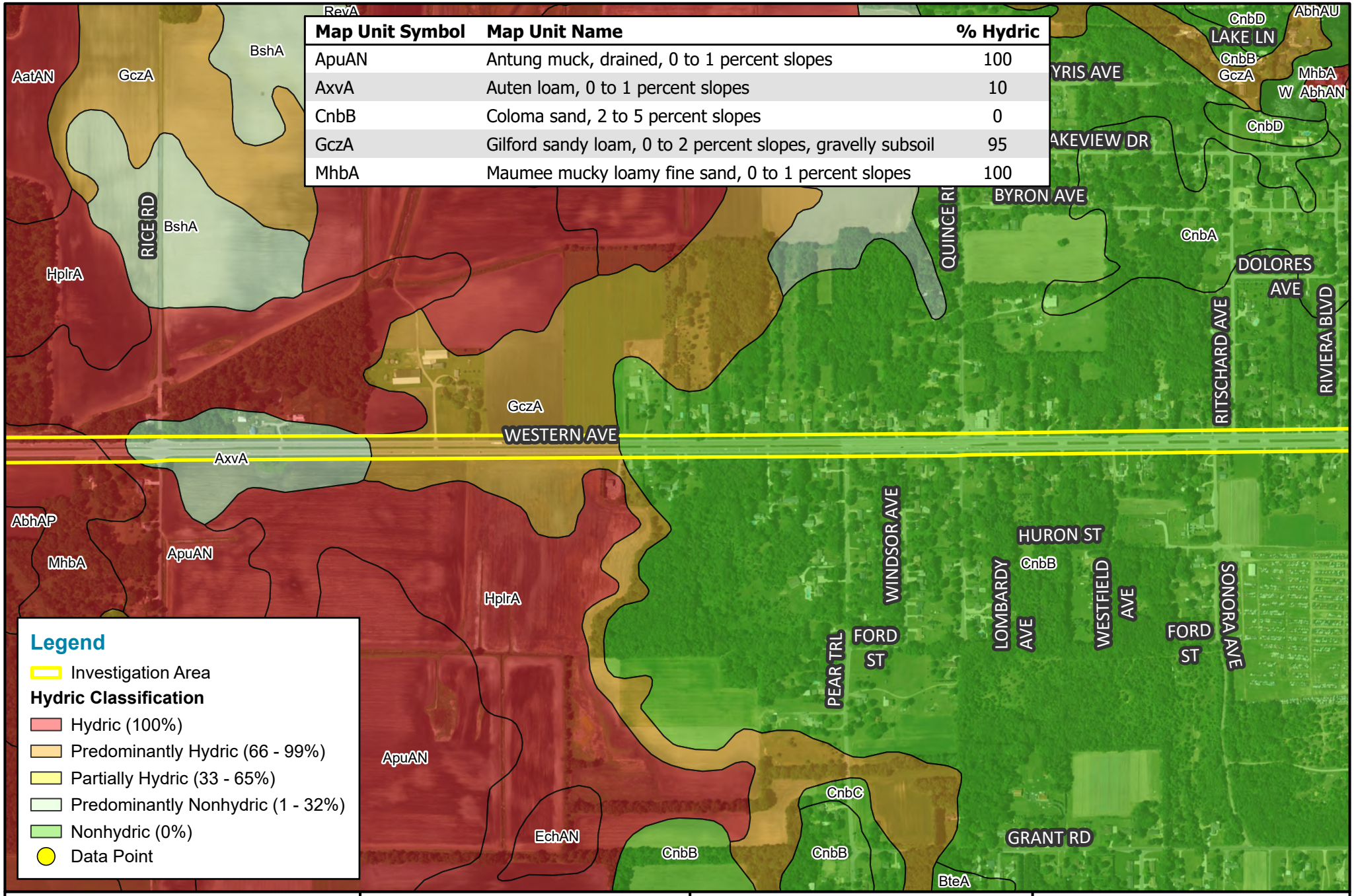
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Map Unit Symbol	Map Unit Name	% Hydric
ApuAN	Antung muck, drained, 0 to 1 percent slopes	100
AxvA	Auten loam, 0 to 1 percent slopes	10
CnbB	Coloma sand, 2 to 5 percent slopes	0
GczA	Gilford sandy loam, 0 to 2 percent slopes, gravelly subsoil	95
MhbA	Maumee mucky loamy fine sand, 0 to 1 percent slopes	100

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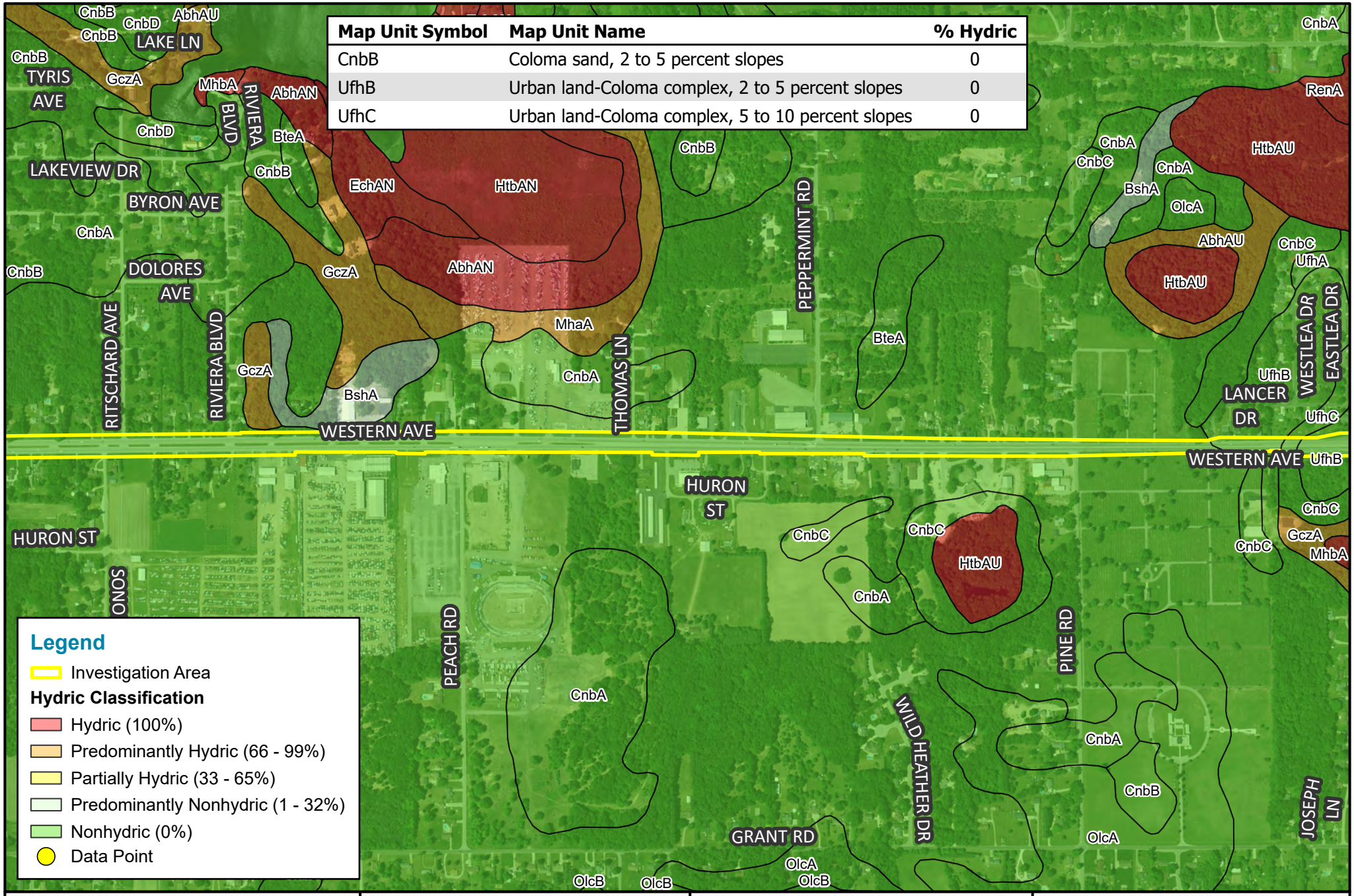
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Map Unit Symbol	Map Unit Name	% Hydric
CnbB	Coloma sand, 2 to 5 percent slopes	0
UfhB	Urban land-Coloma complex, 2 to 5 percent slopes	0
UfhC	Urban land-Coloma complex, 5 to 10 percent slopes	0

Legend

- Investigation Area

Hydric Classification

- Hydric (100%)
- Predominantly Hydric (66 - 99%)
- Partially Hydric (33 - 65%)
- Predominantly Nonhydric (1 - 32%)
- Nonhydric (0%)
- Data Point

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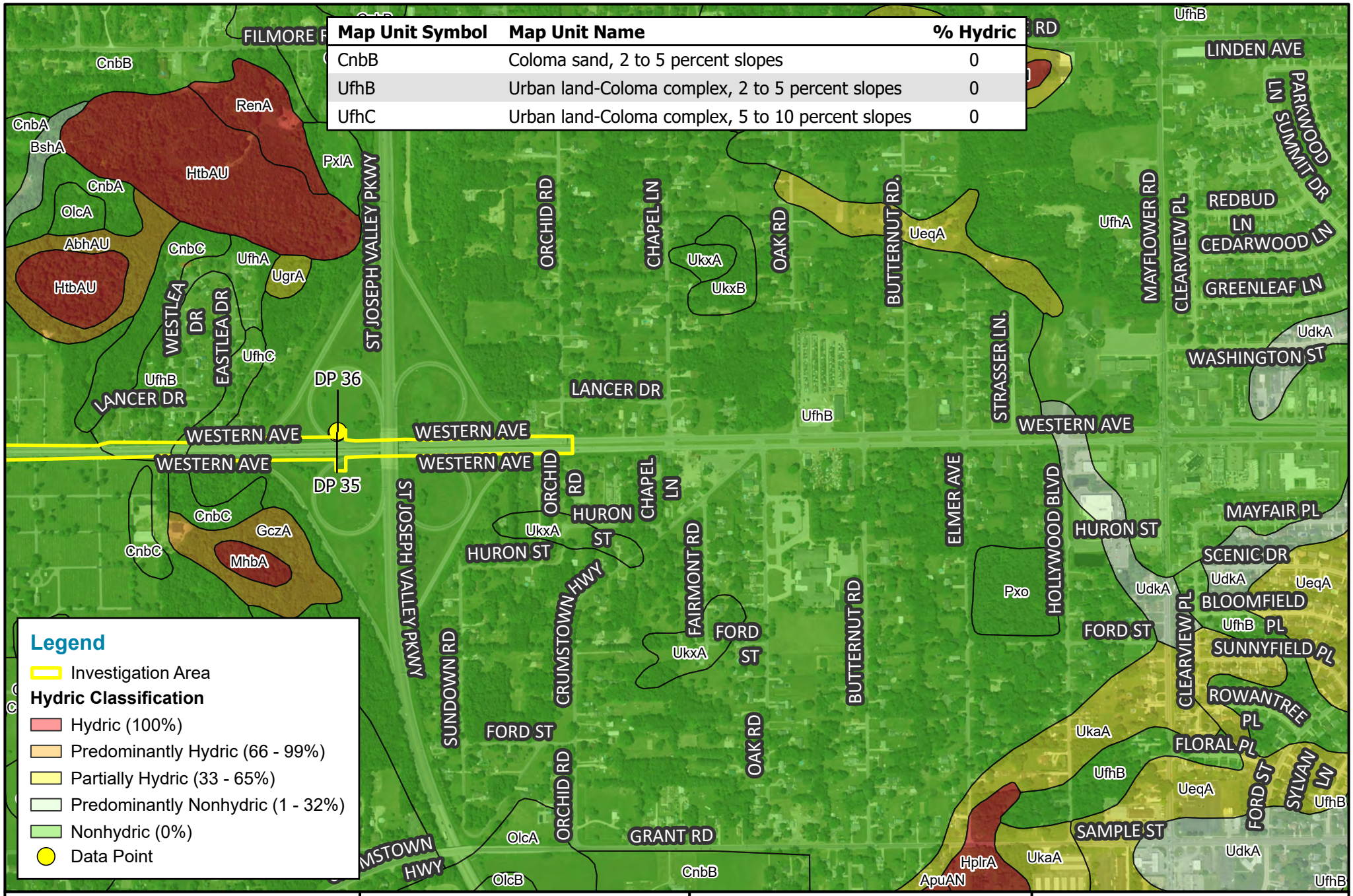
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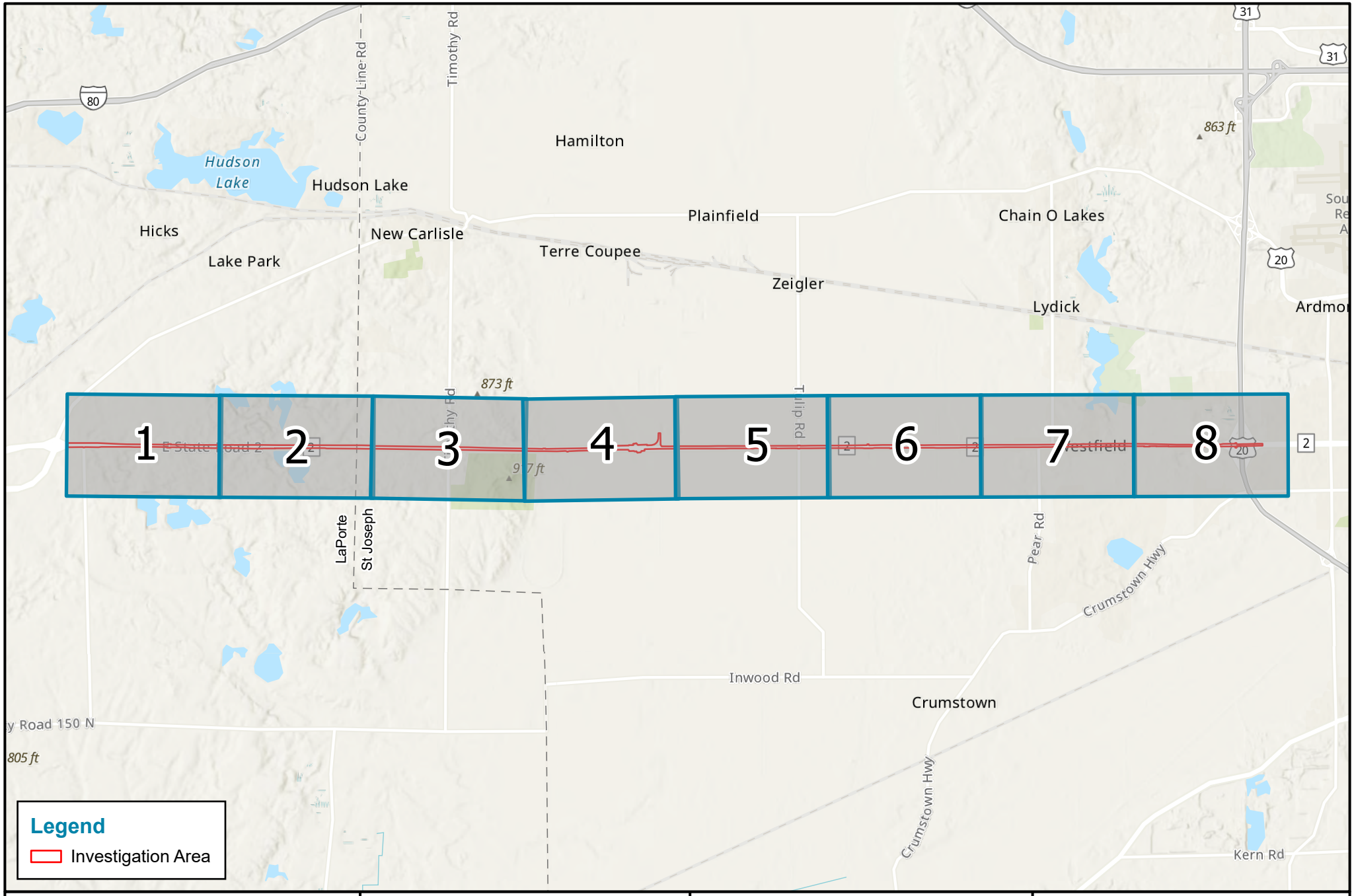
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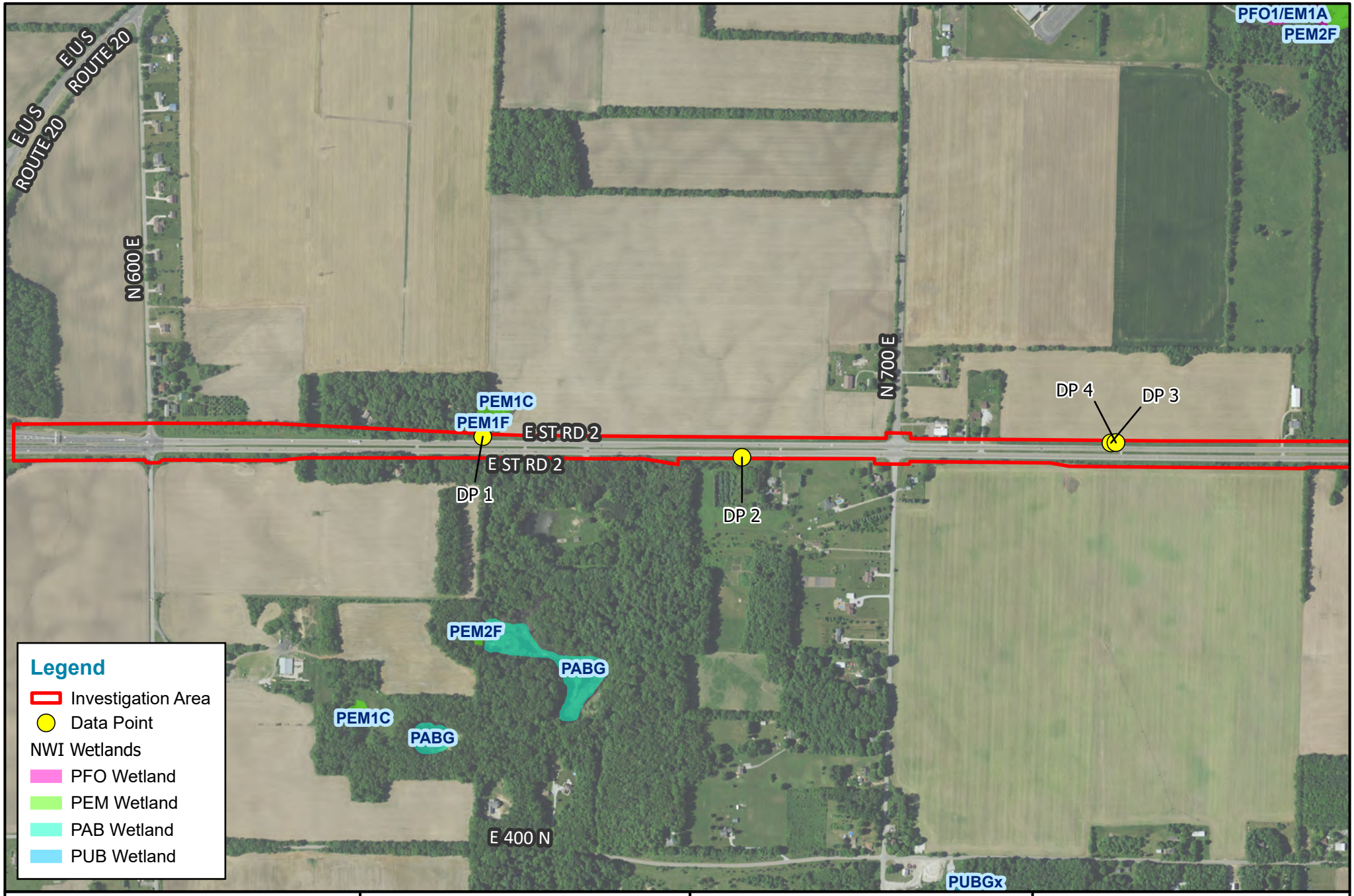
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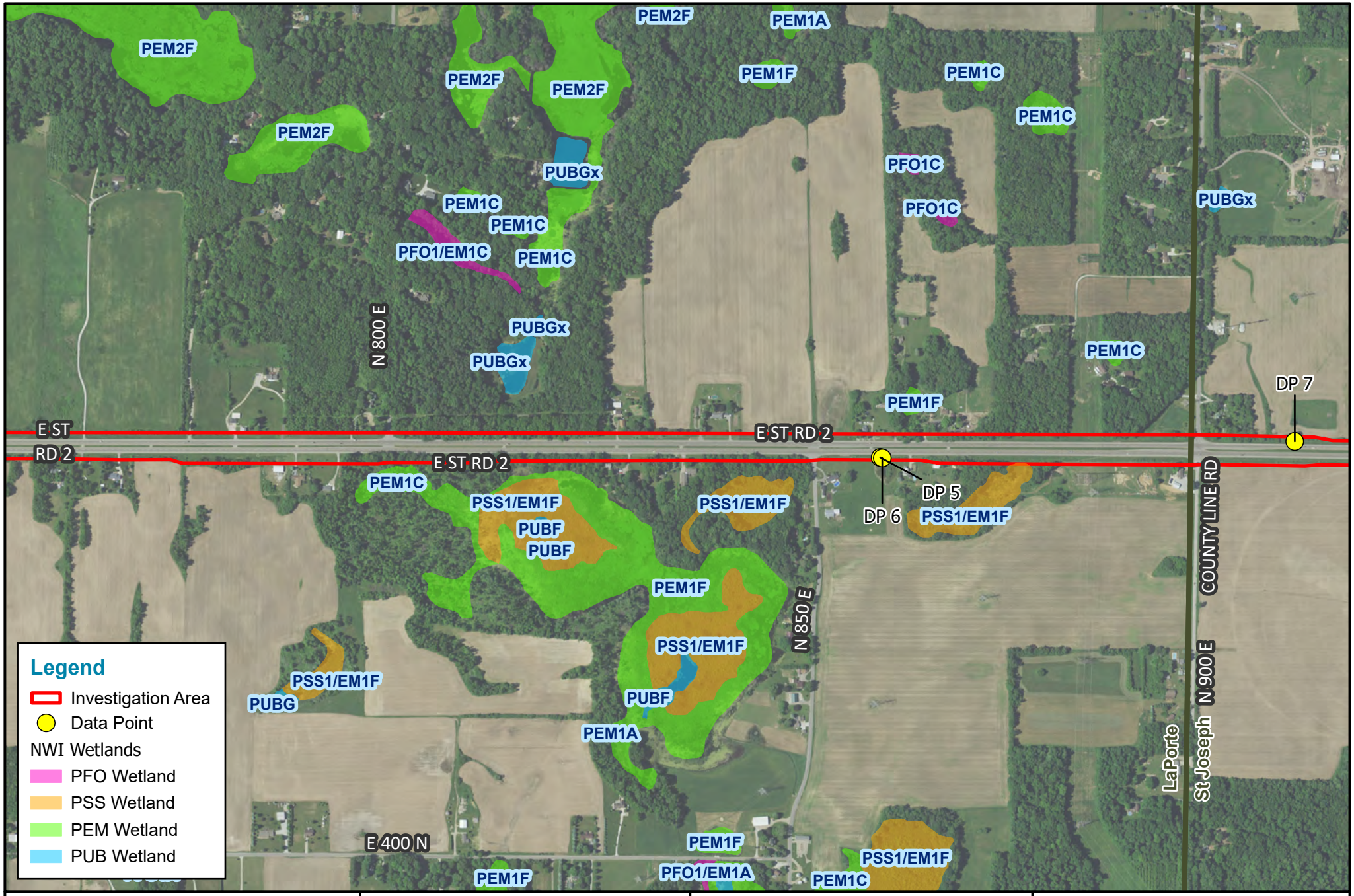
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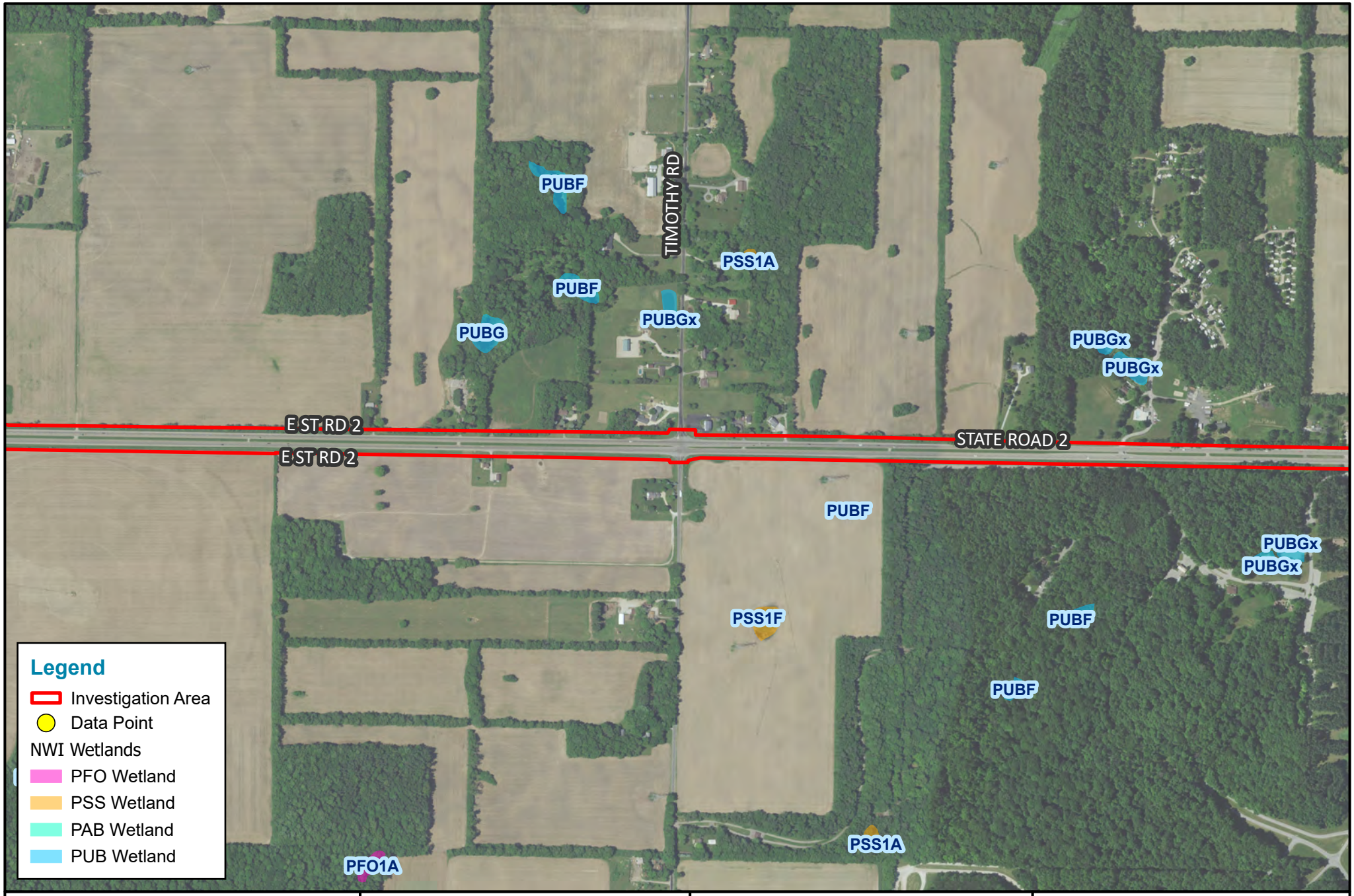
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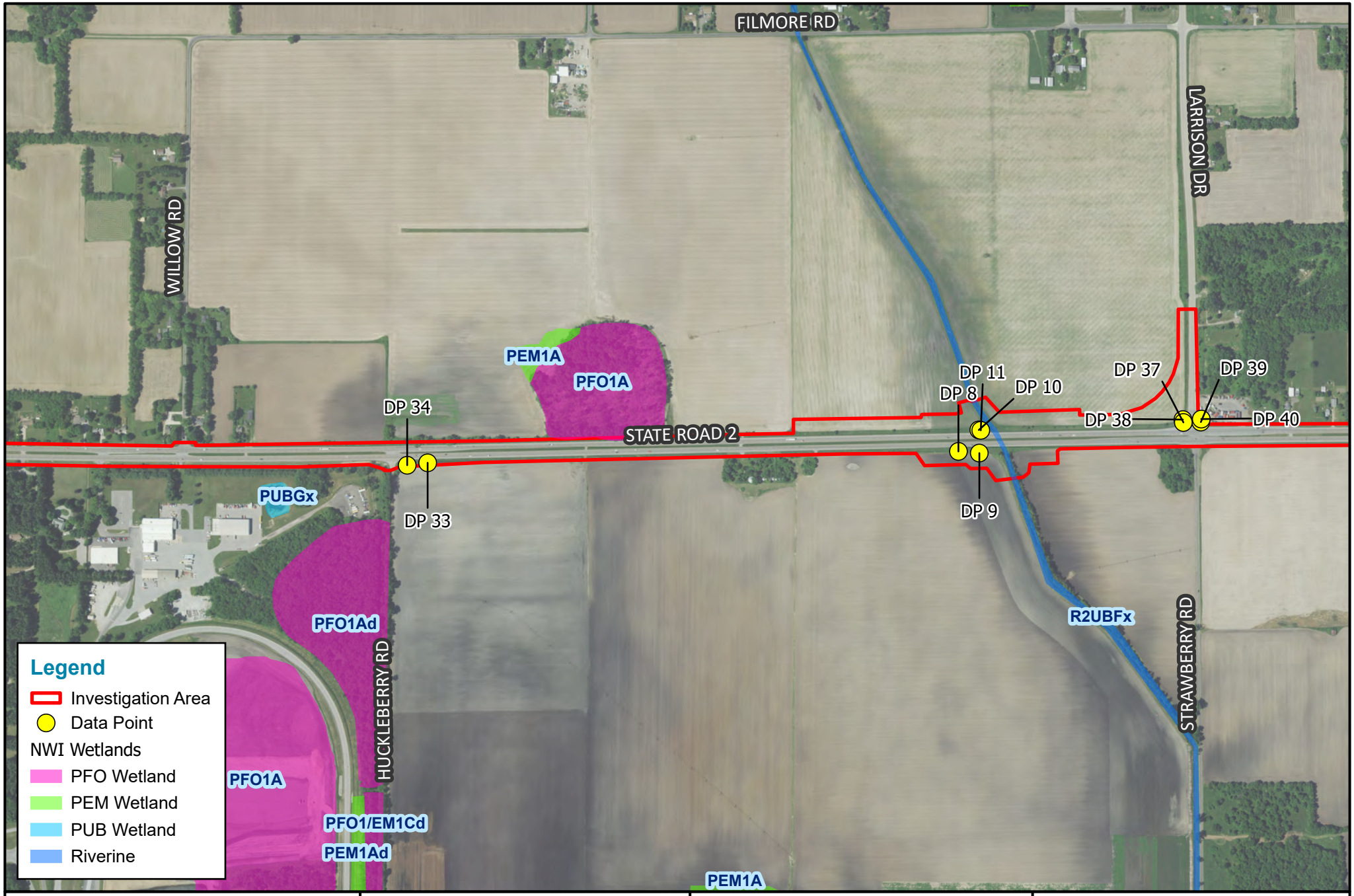
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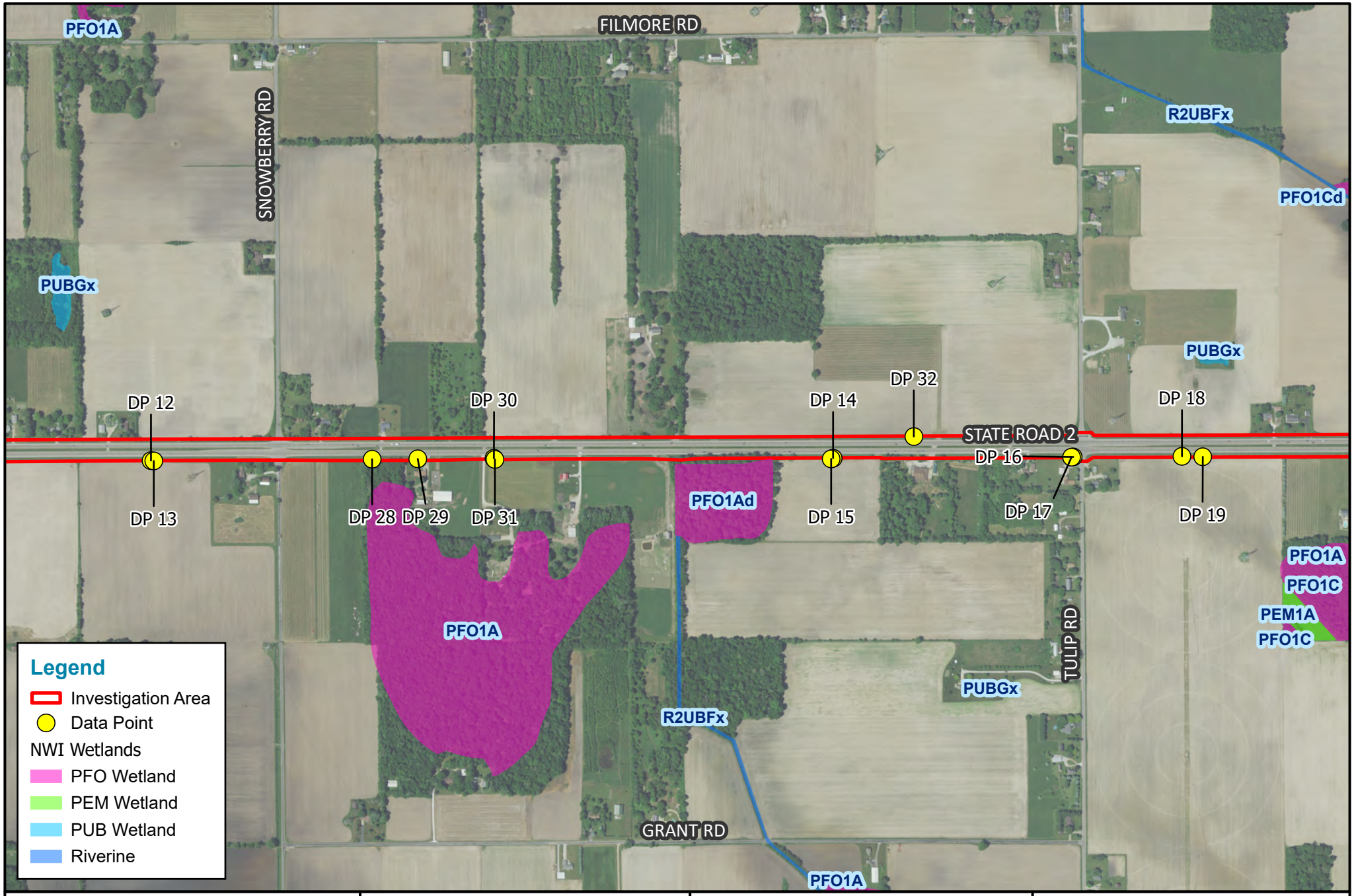
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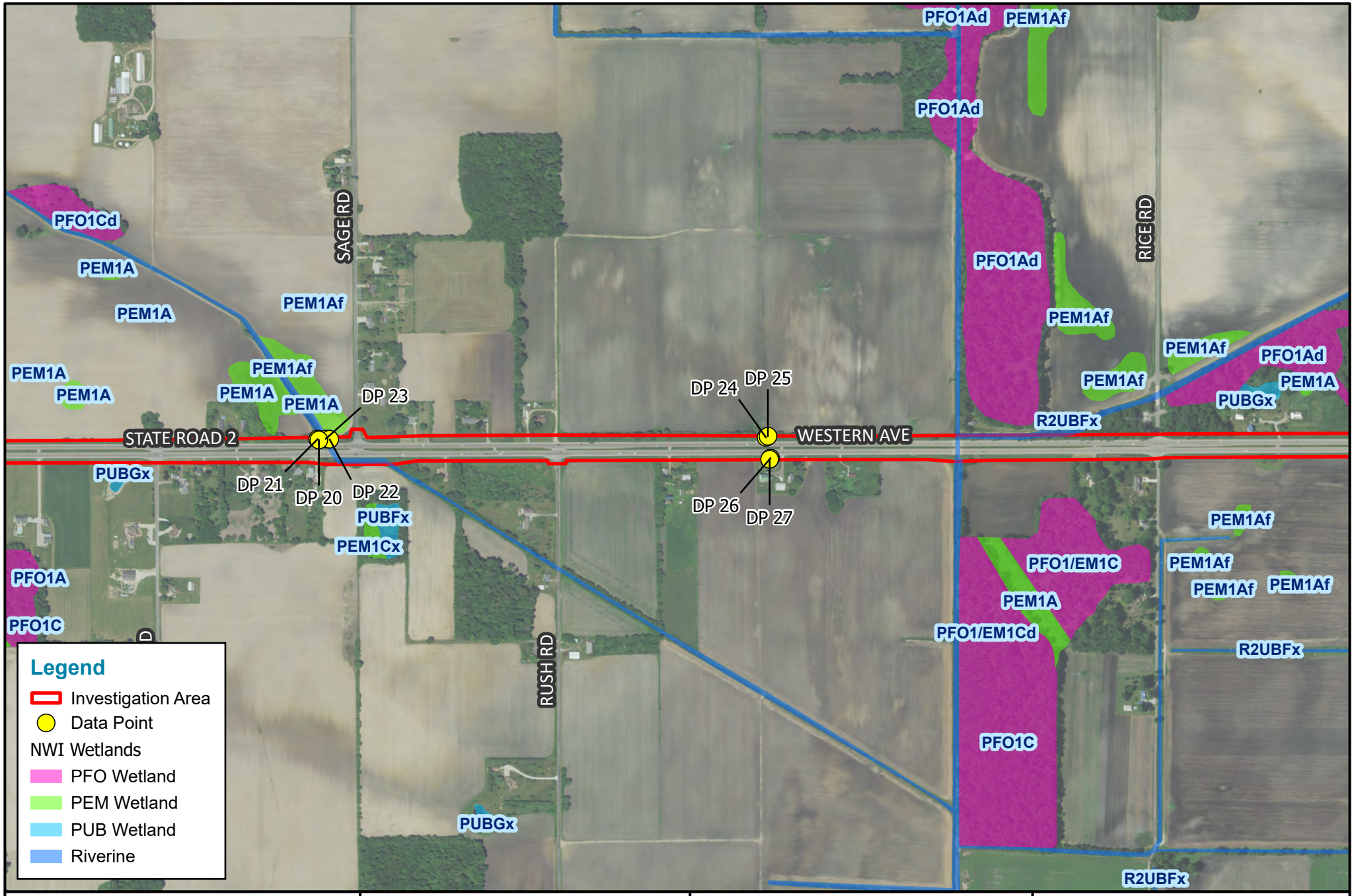
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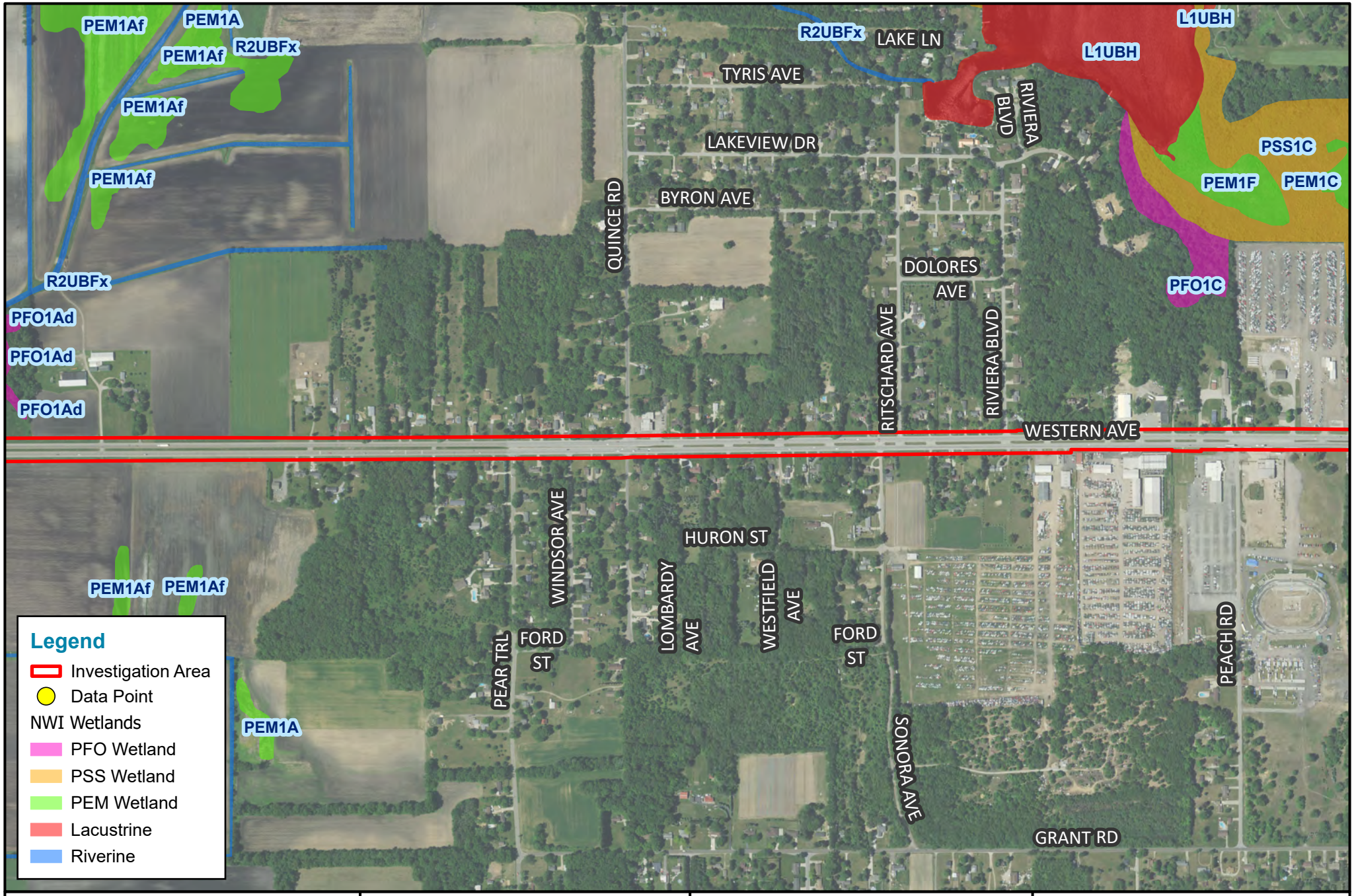
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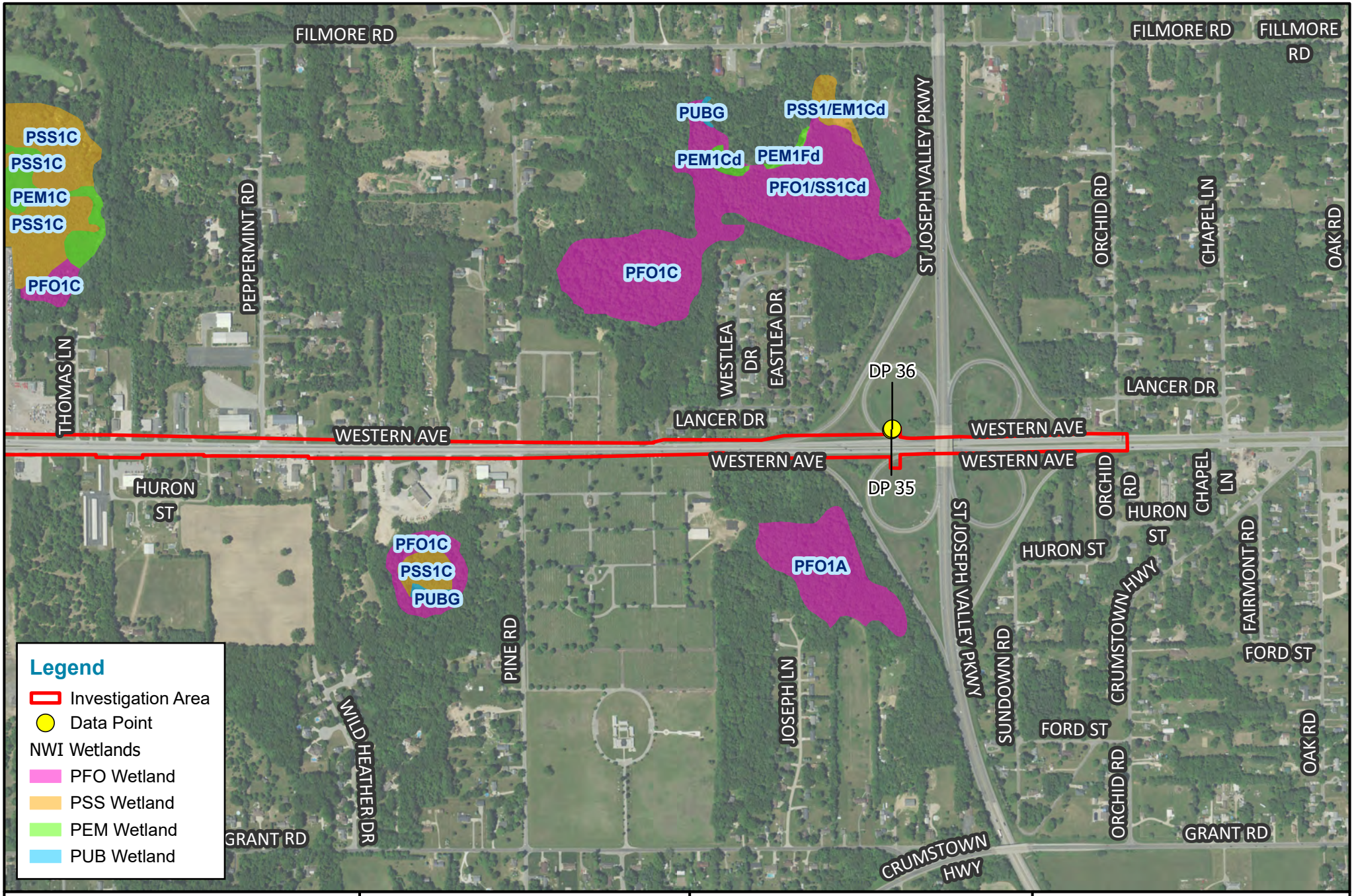
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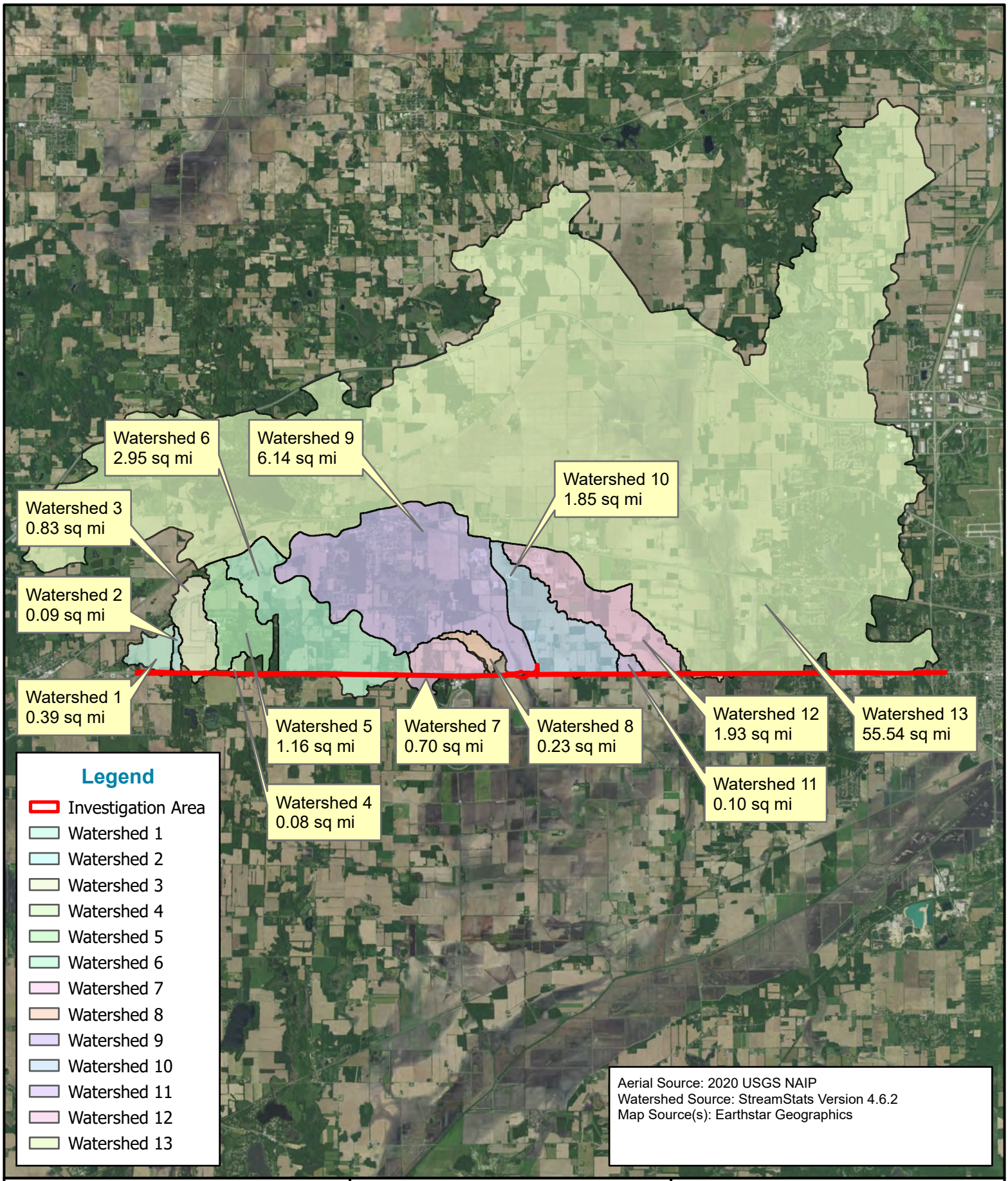
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StreamStats Watershed Map

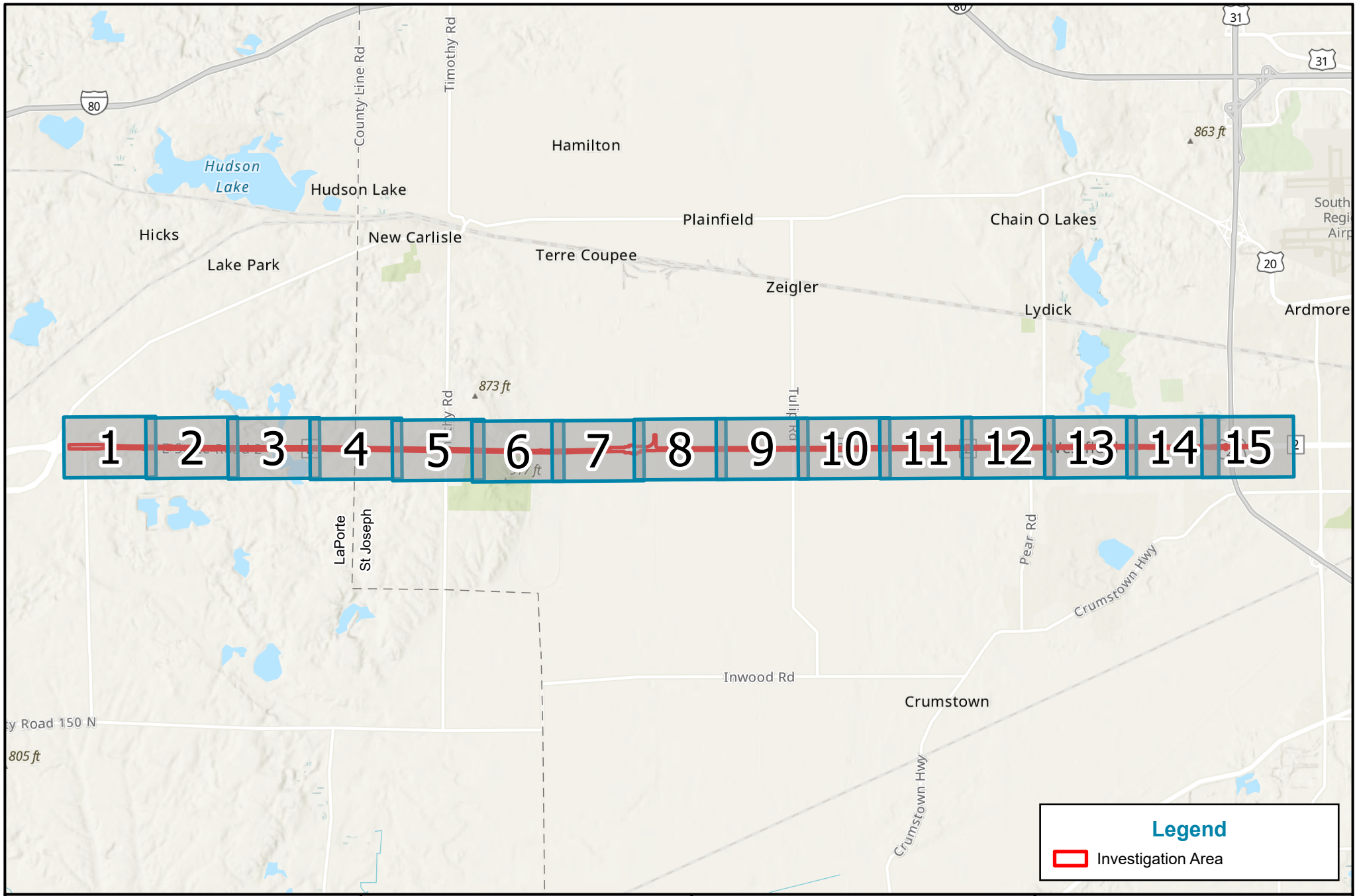
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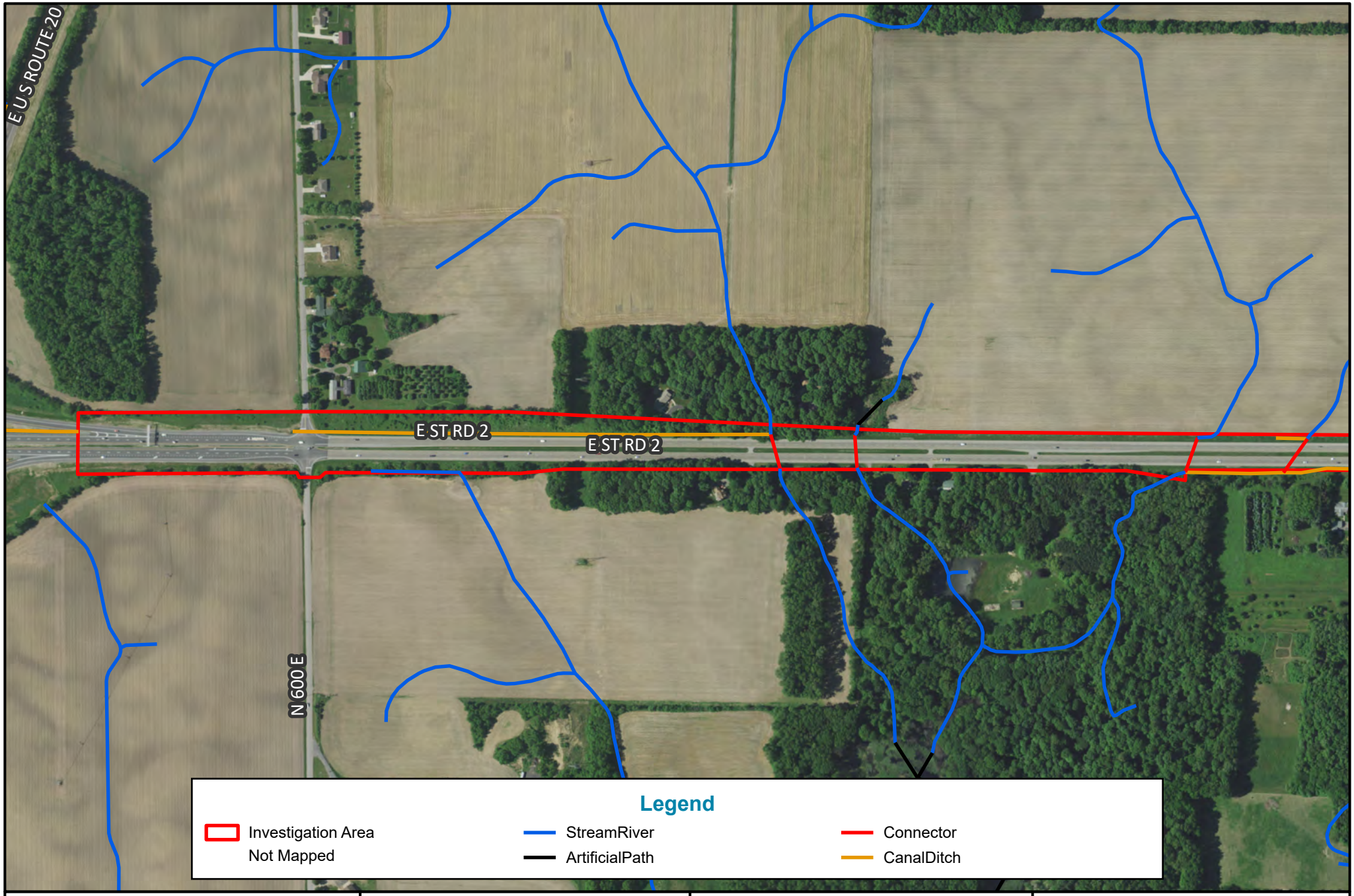
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0 300 600 Feet

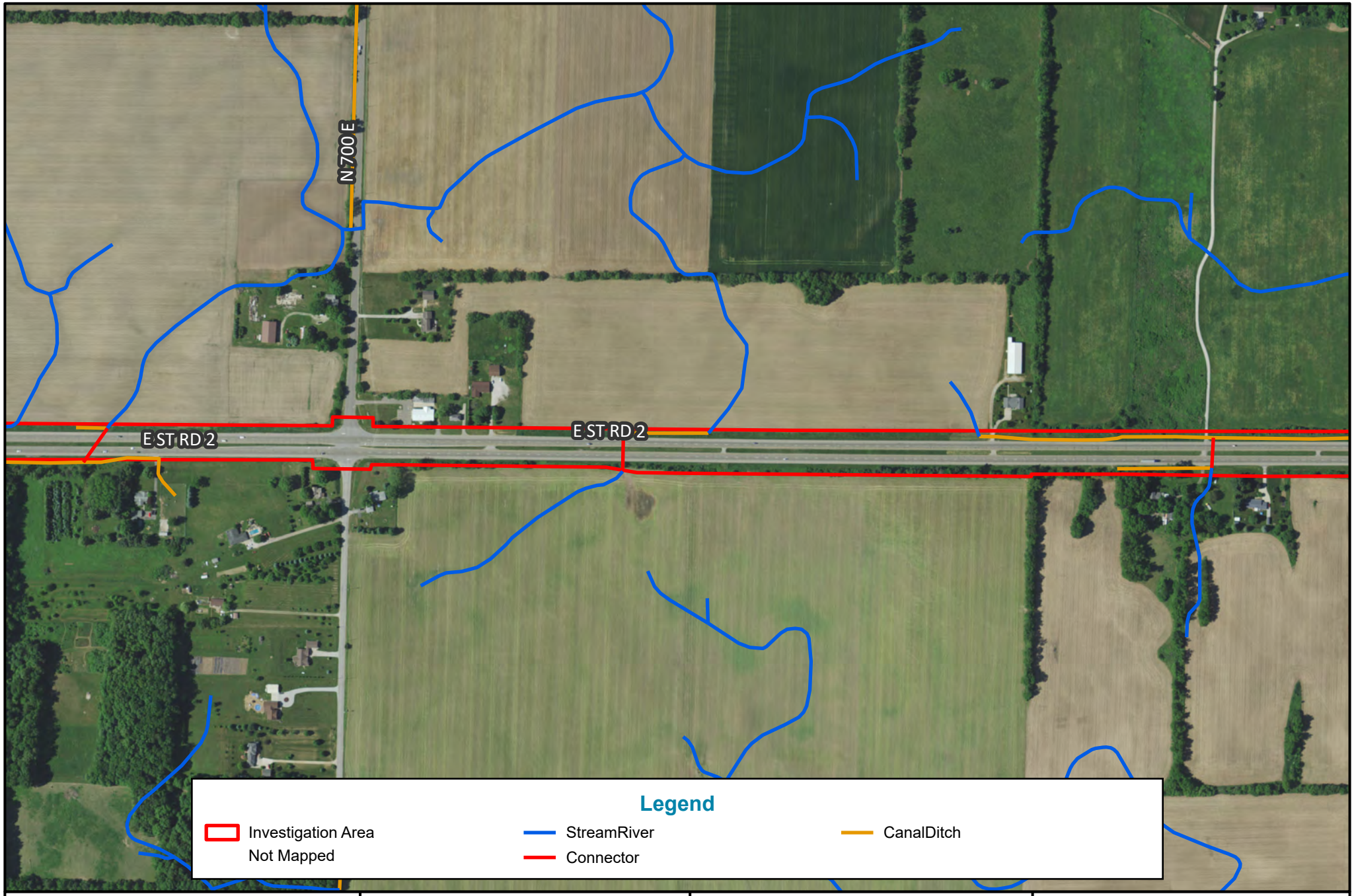
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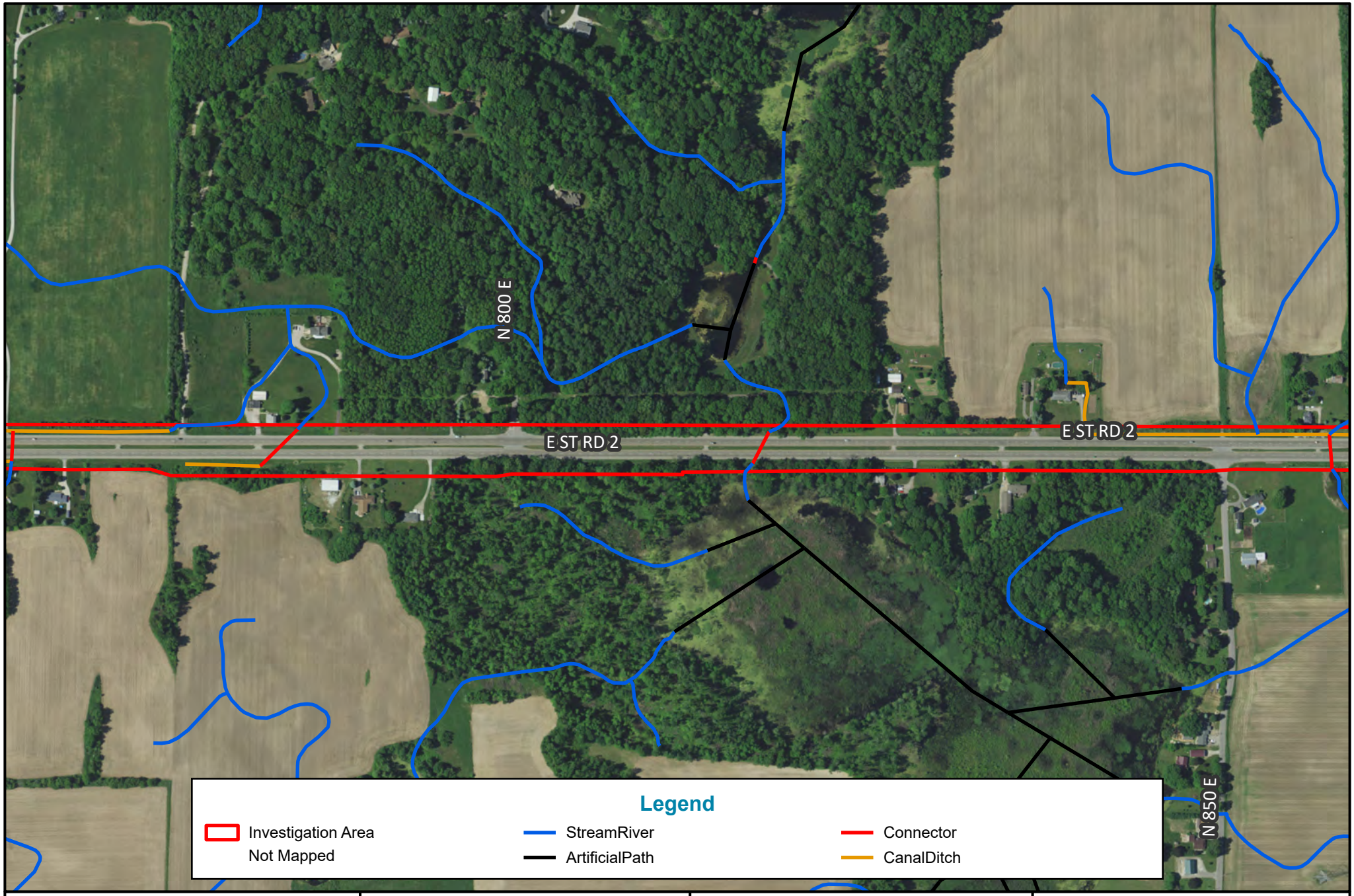
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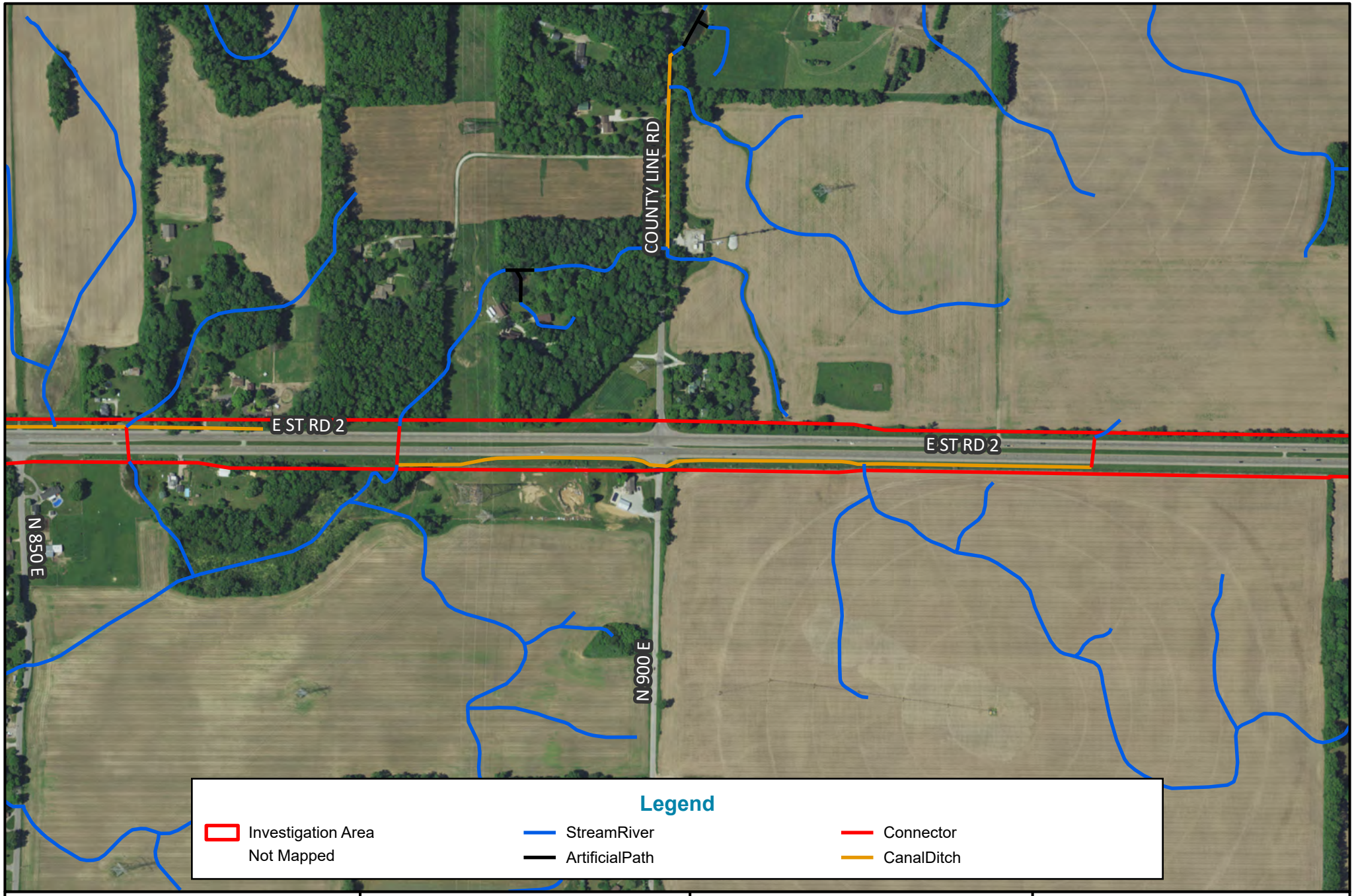
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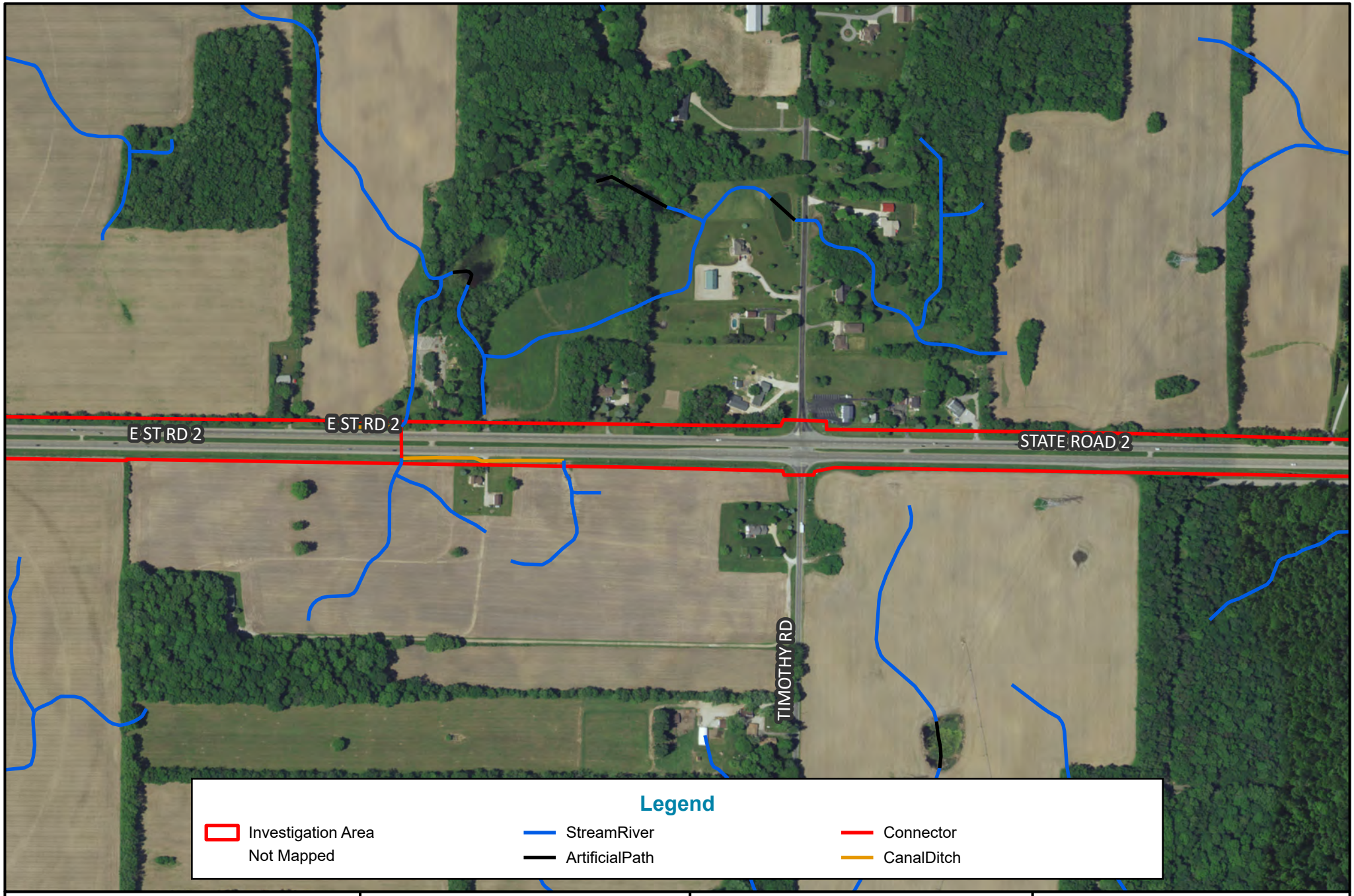
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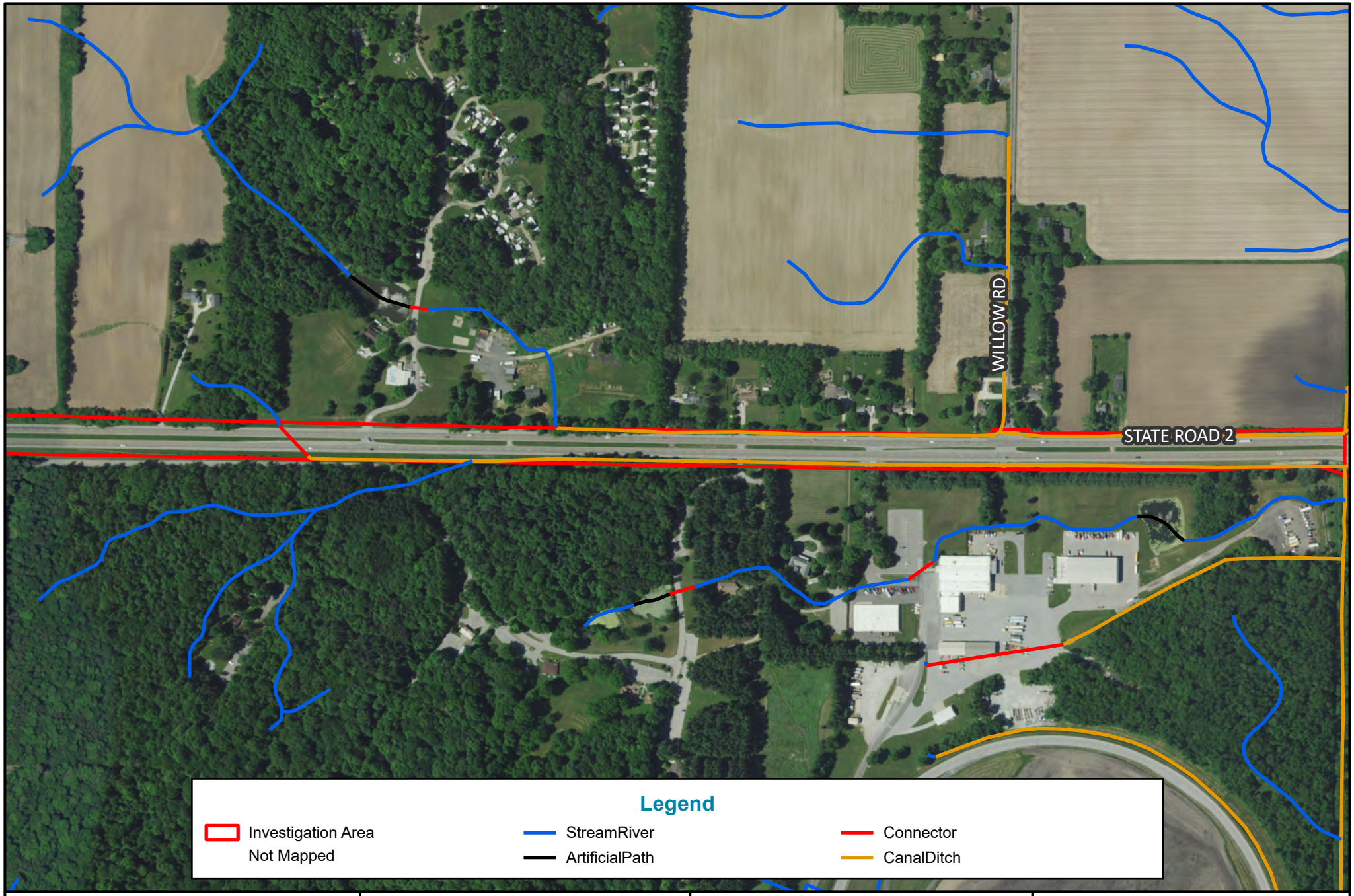
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County: St. Joseph and LaPorte
Township: Wills, Olive, Warren, Portage
State: Indiana

SR 2 from US 20 to US 20/31
HMA Overlay Project
Created: 6/28/2023, RWeaver

Aerial Source: 2020 Indiana NAIP
Map Source(s): Indiana Department of Natural Resources, Division of Water



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BA Flood Hazard & NHD Line Map

Des. No. 1900177
Waters of the U.S. Report

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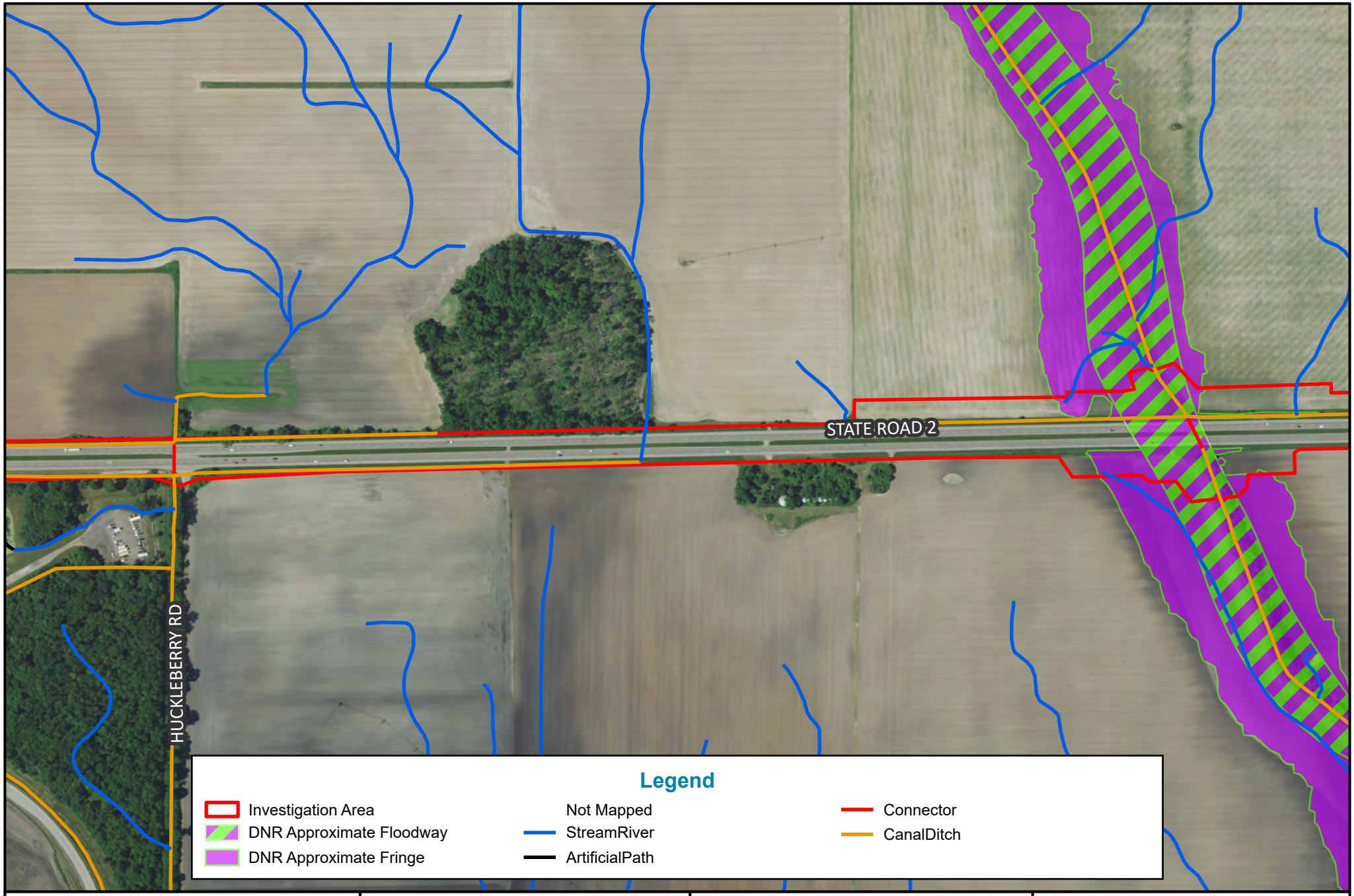
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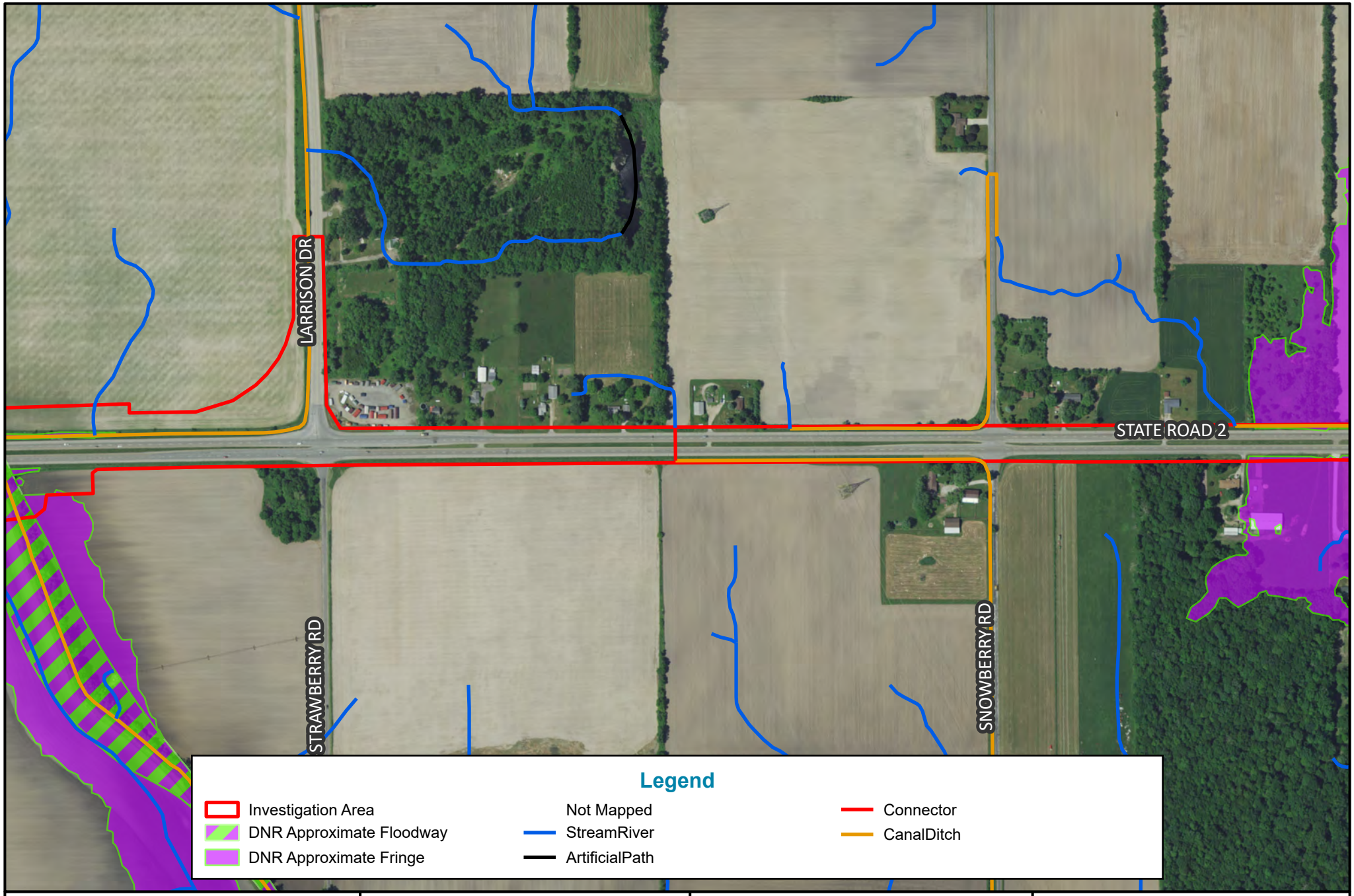
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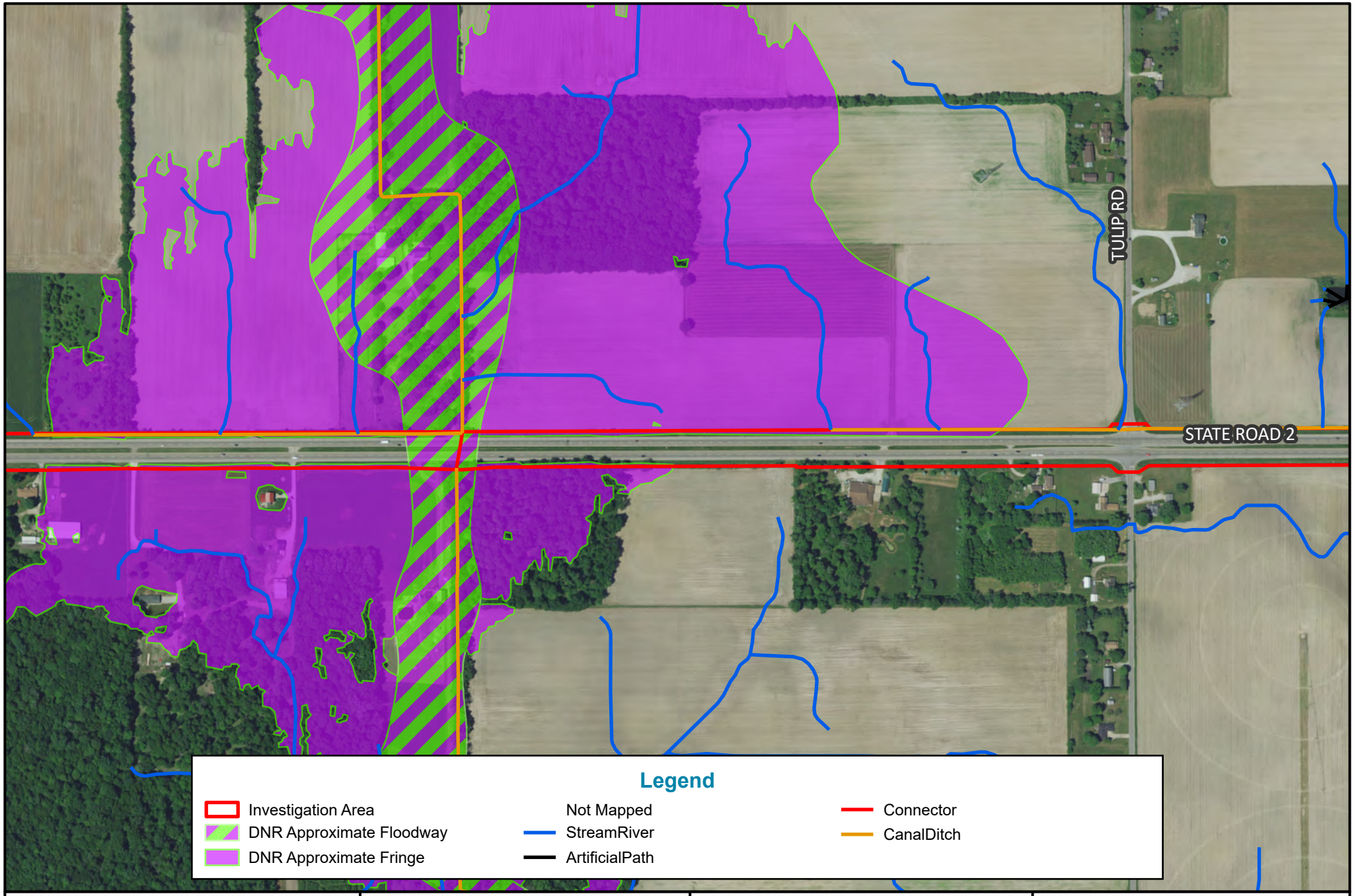
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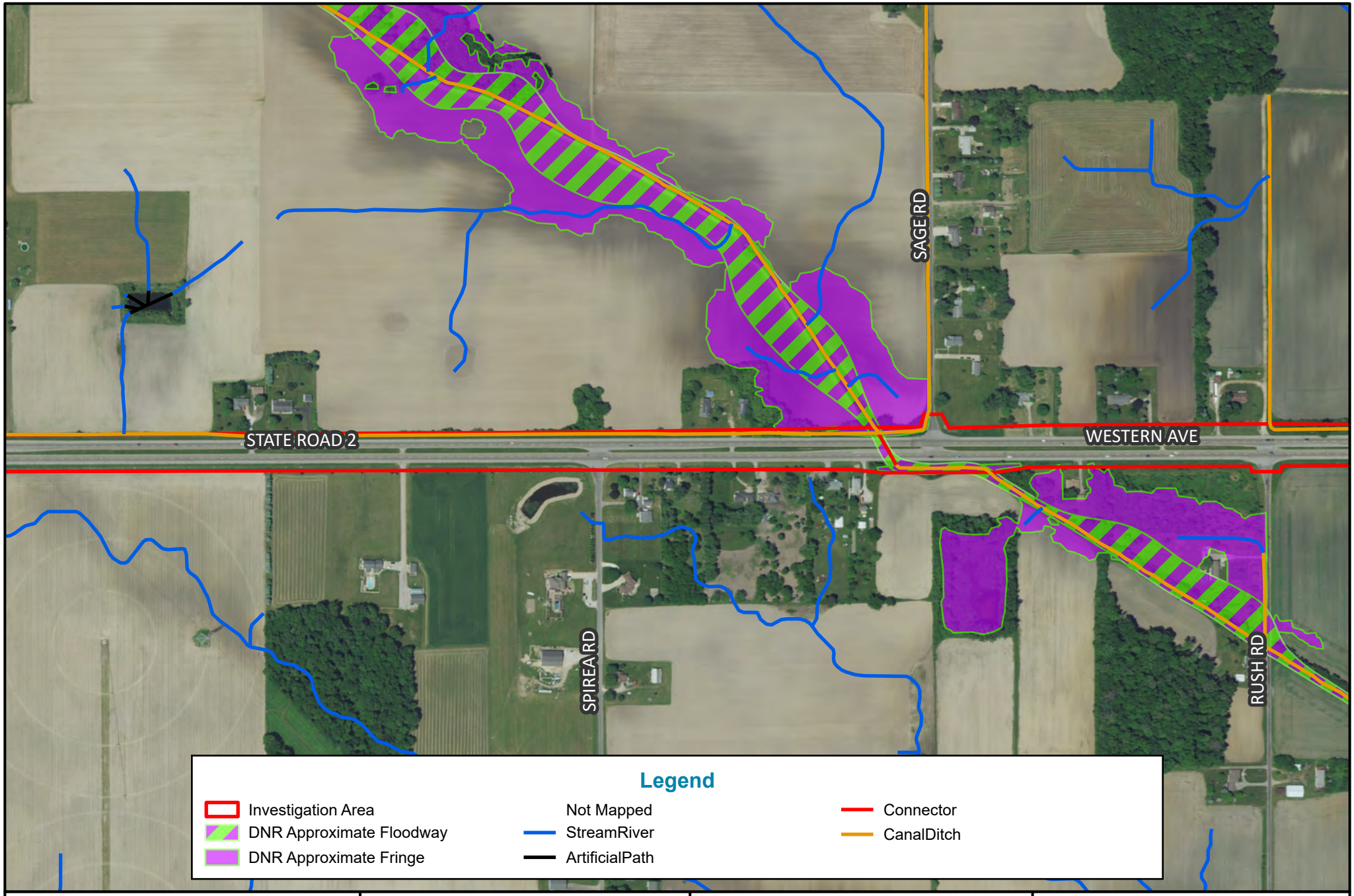
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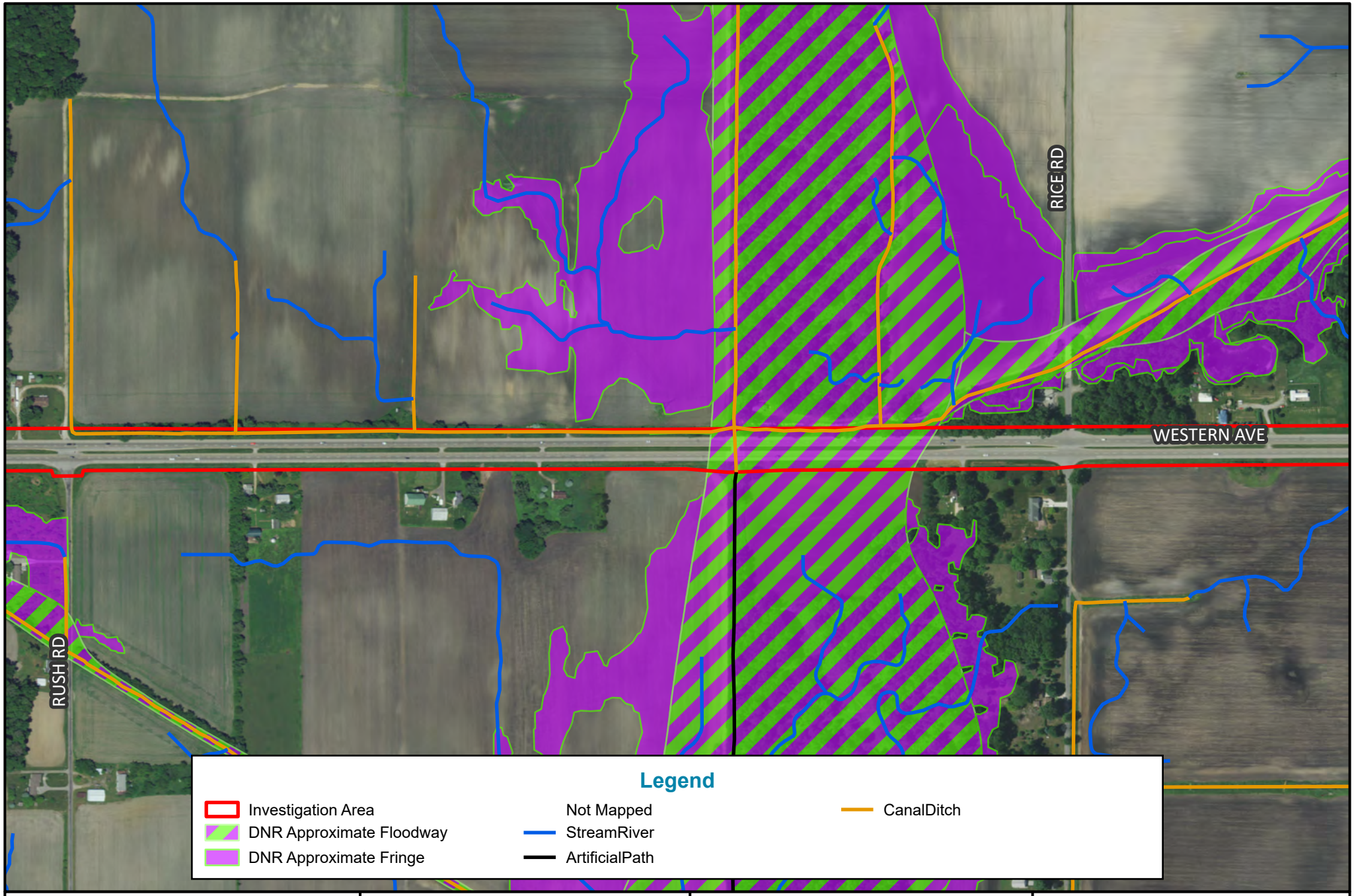
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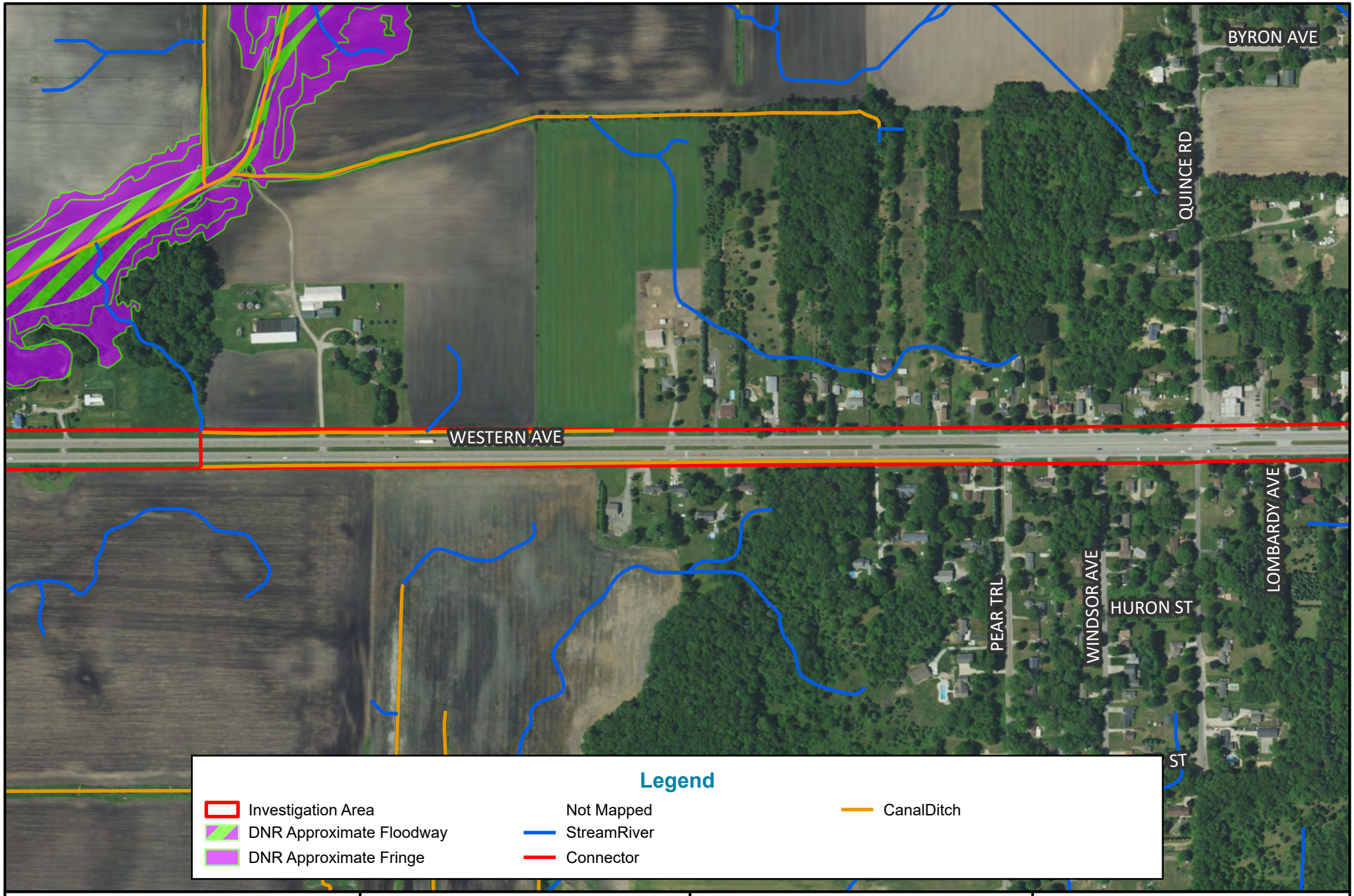
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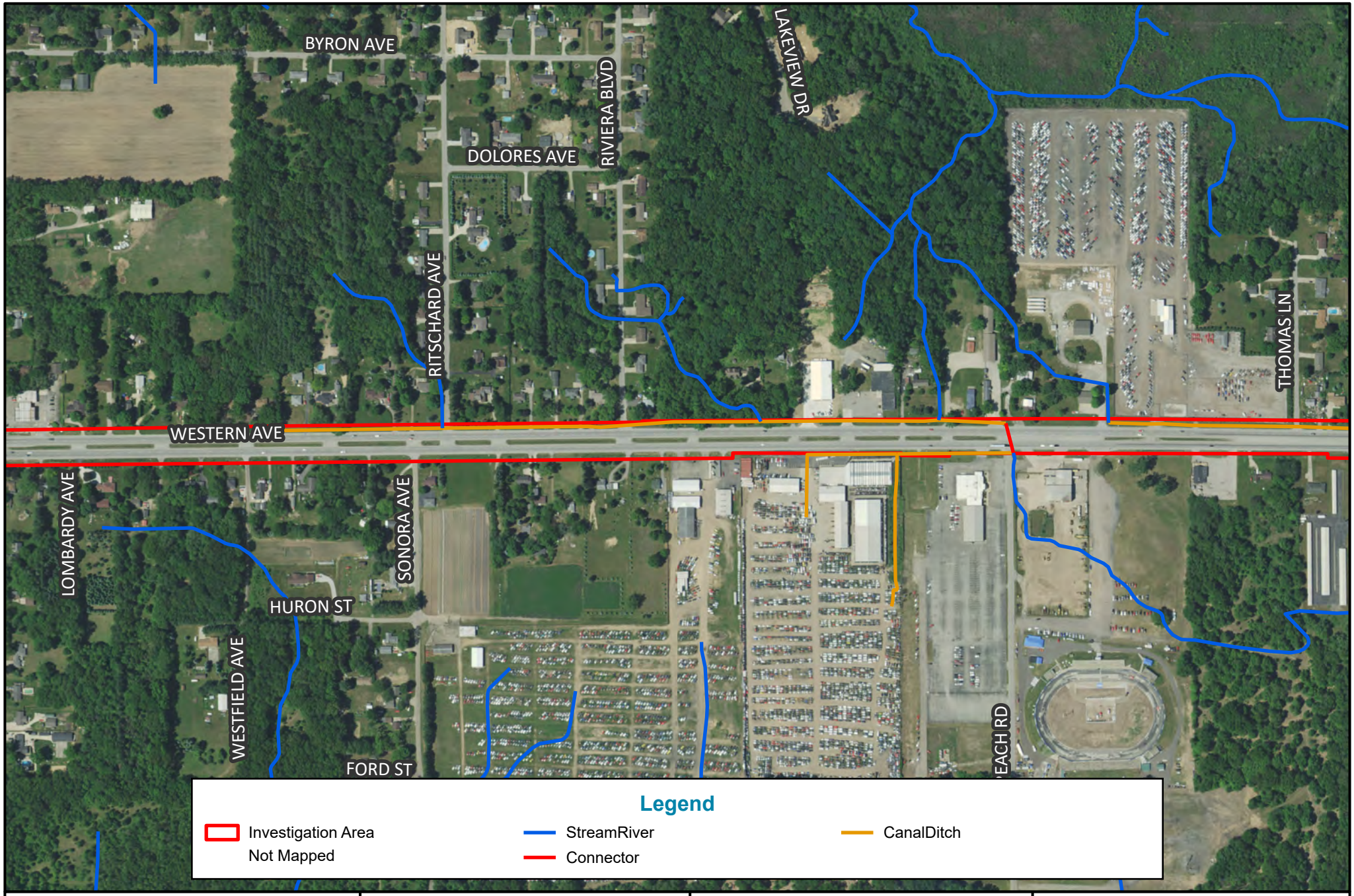
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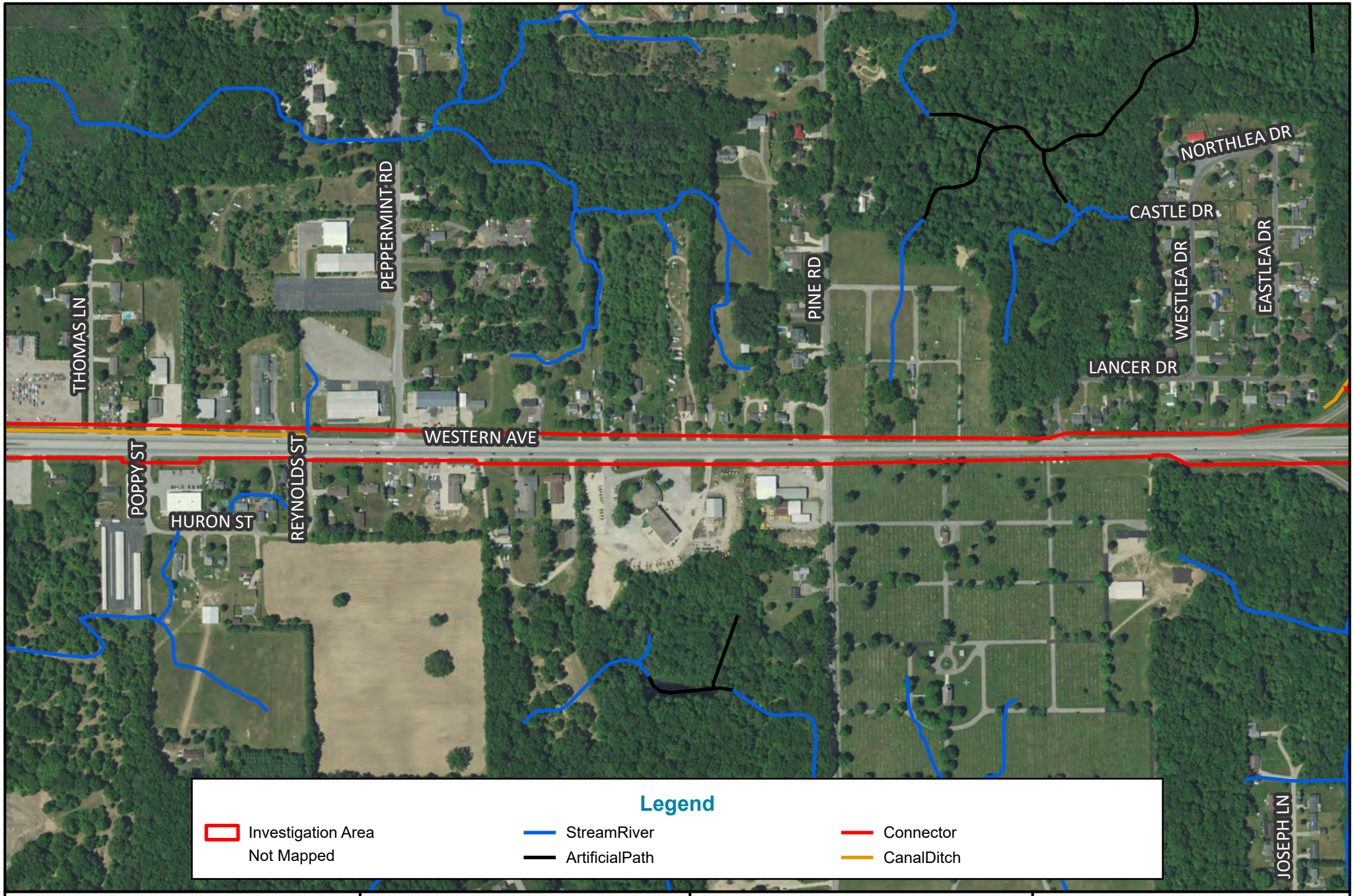
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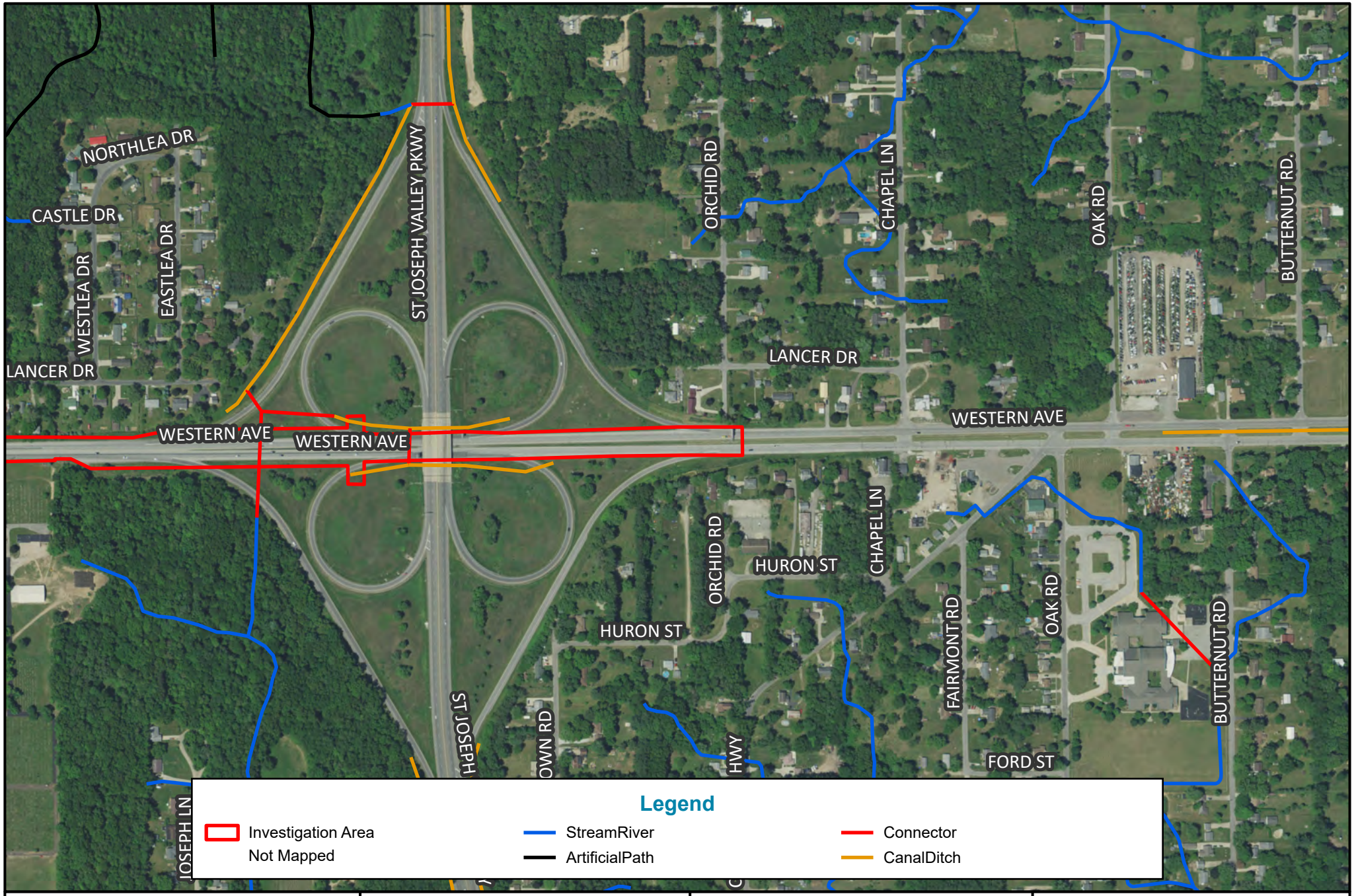
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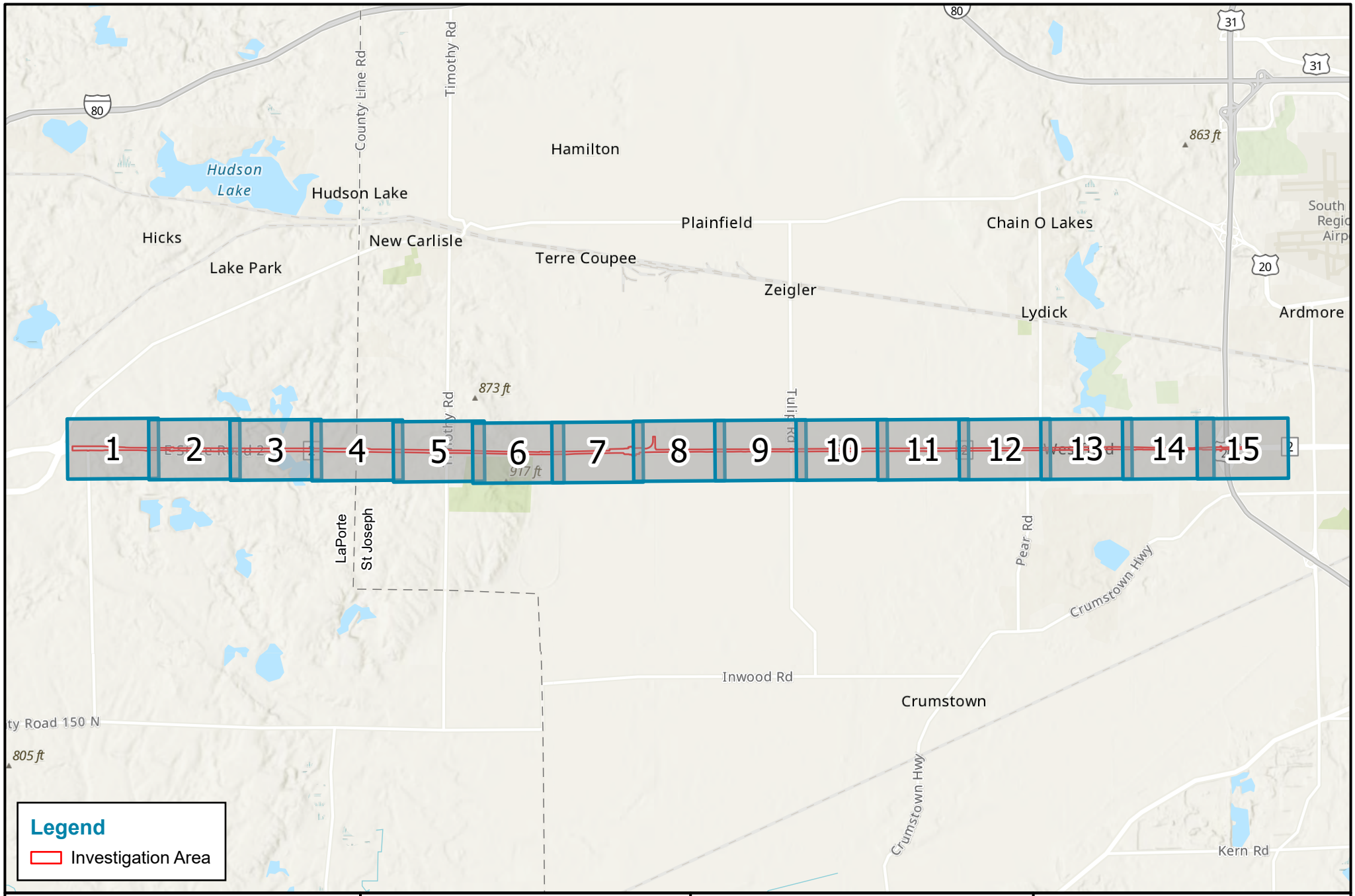
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0 5,000 10,000 Feet

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Water Resources Map

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0 375 750 Feet

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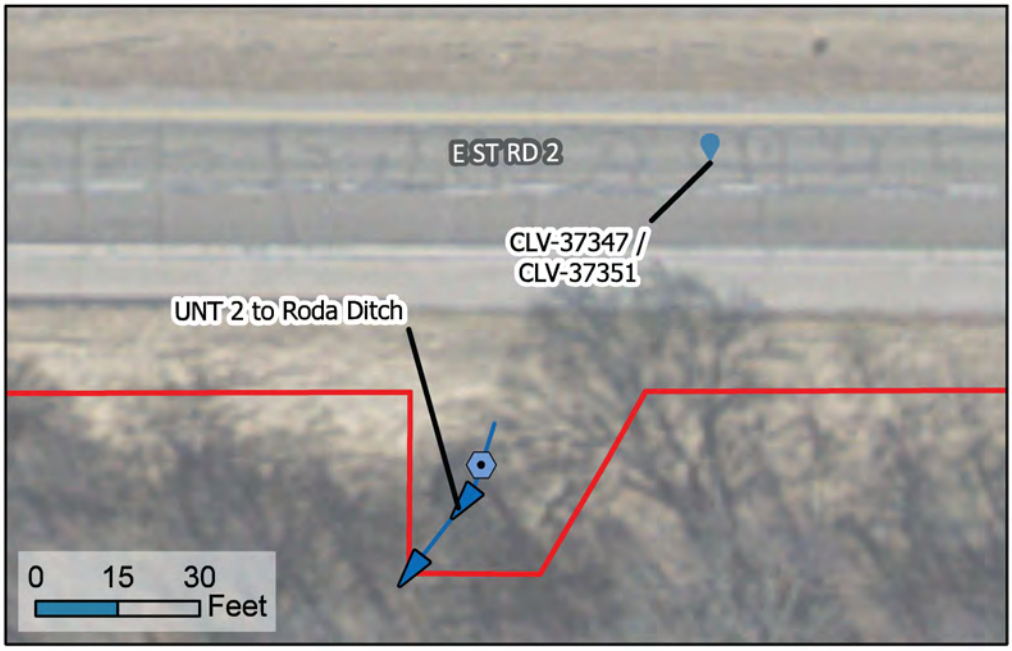
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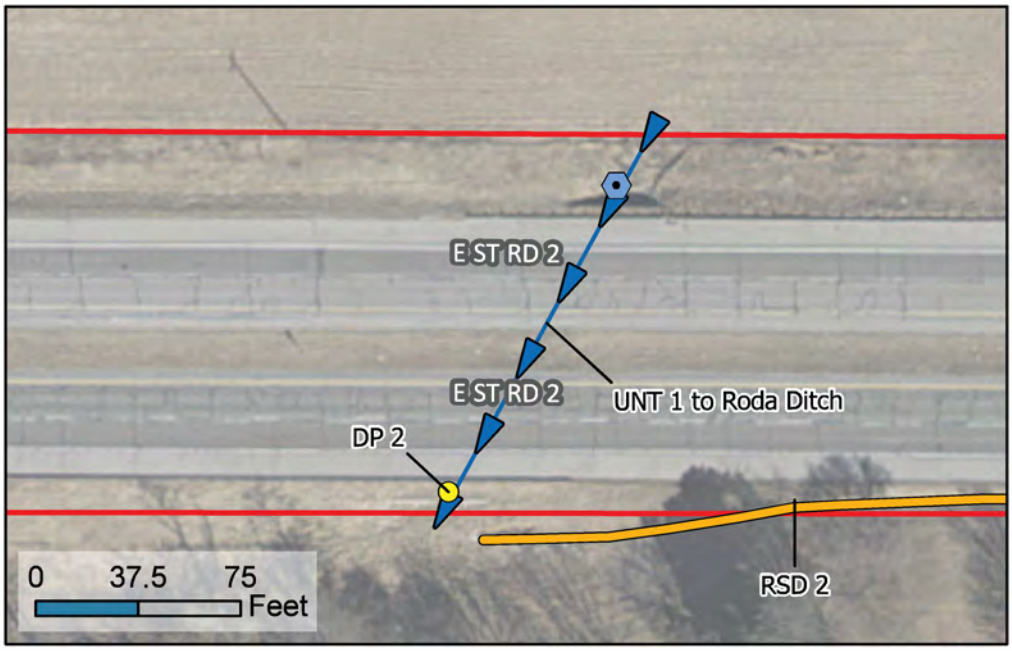
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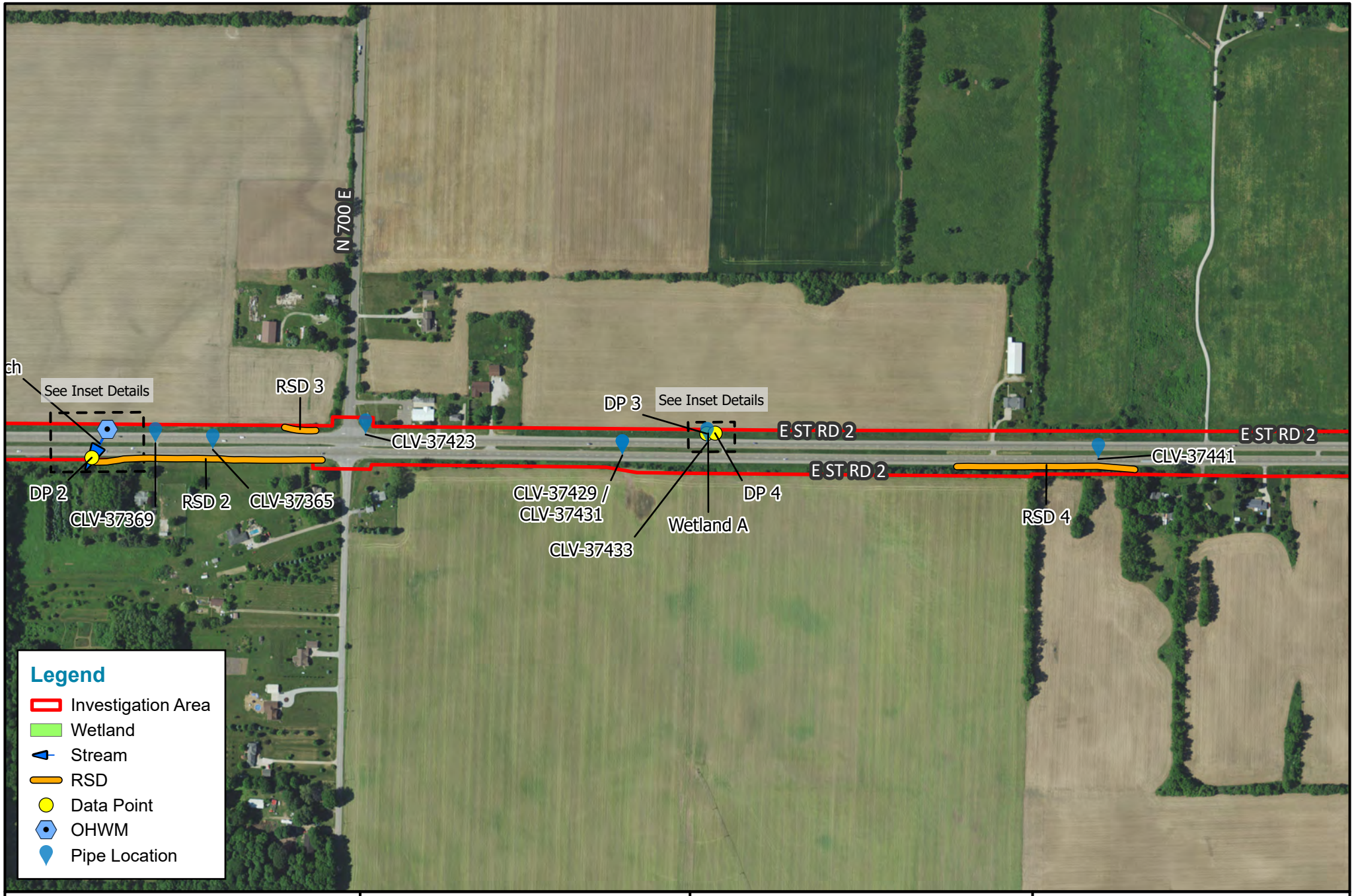
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Inset Detail
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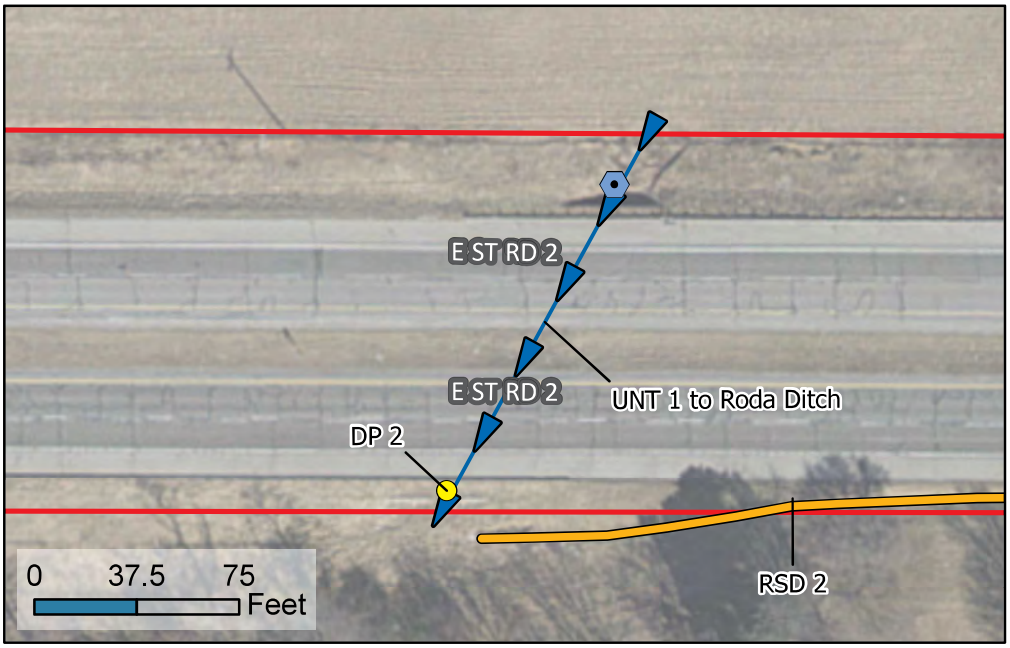
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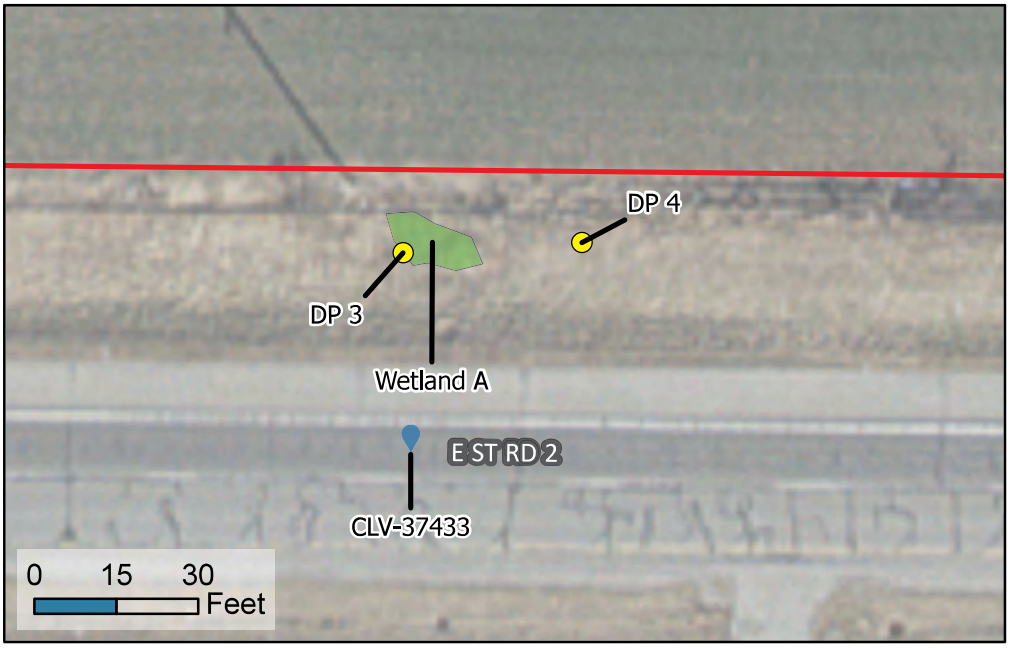
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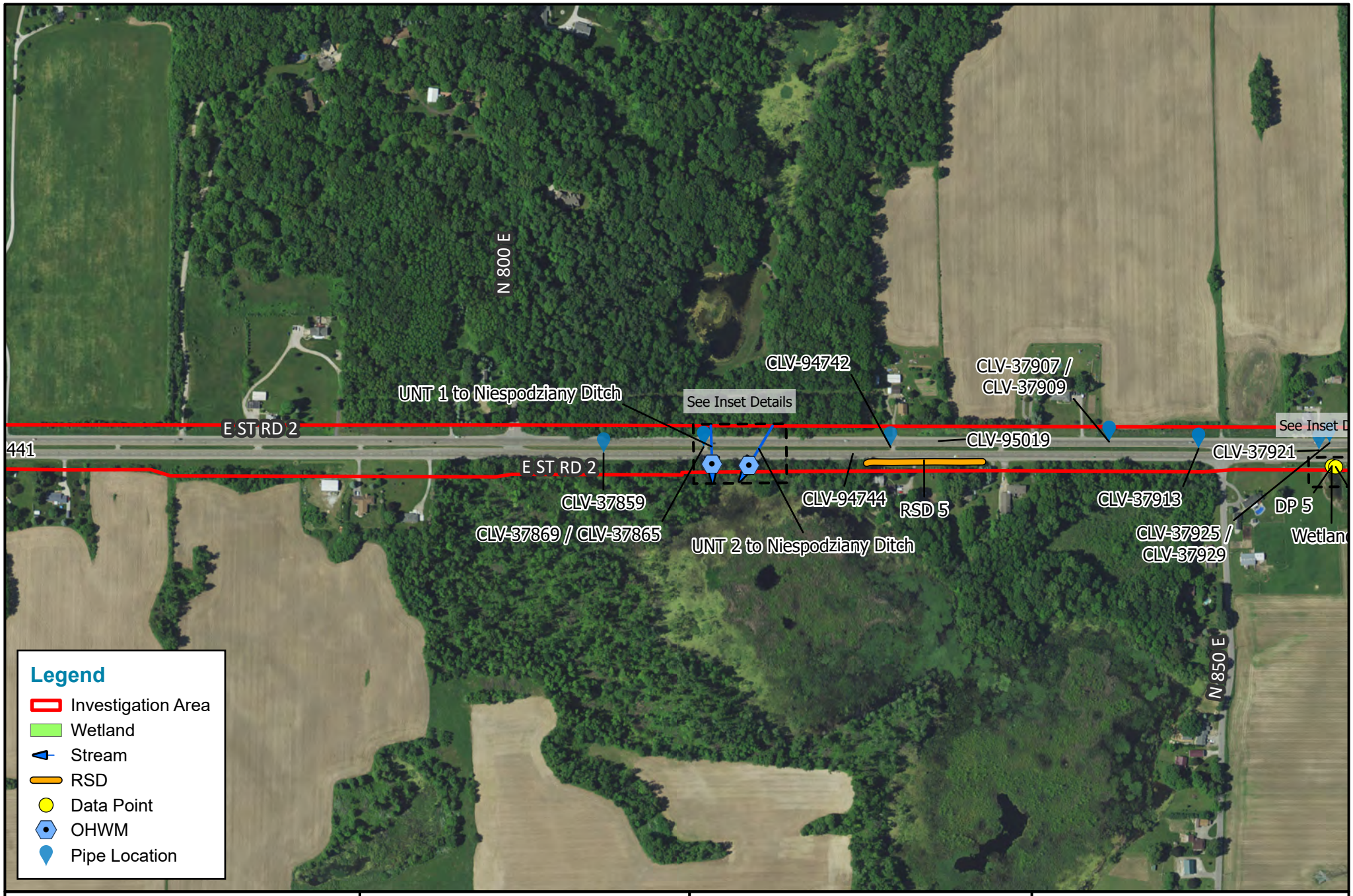
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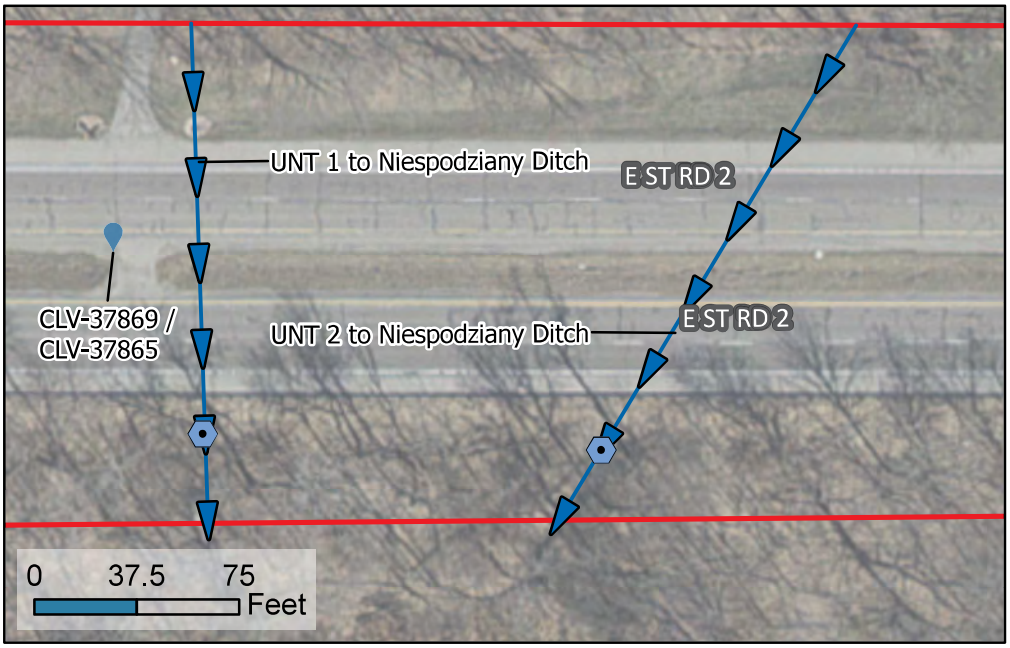
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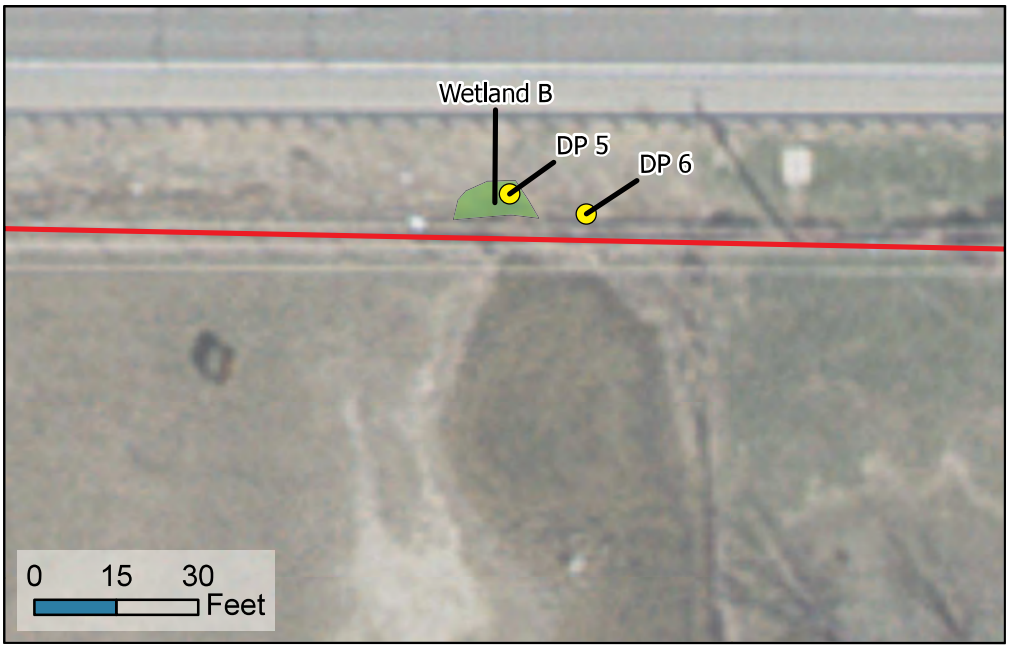
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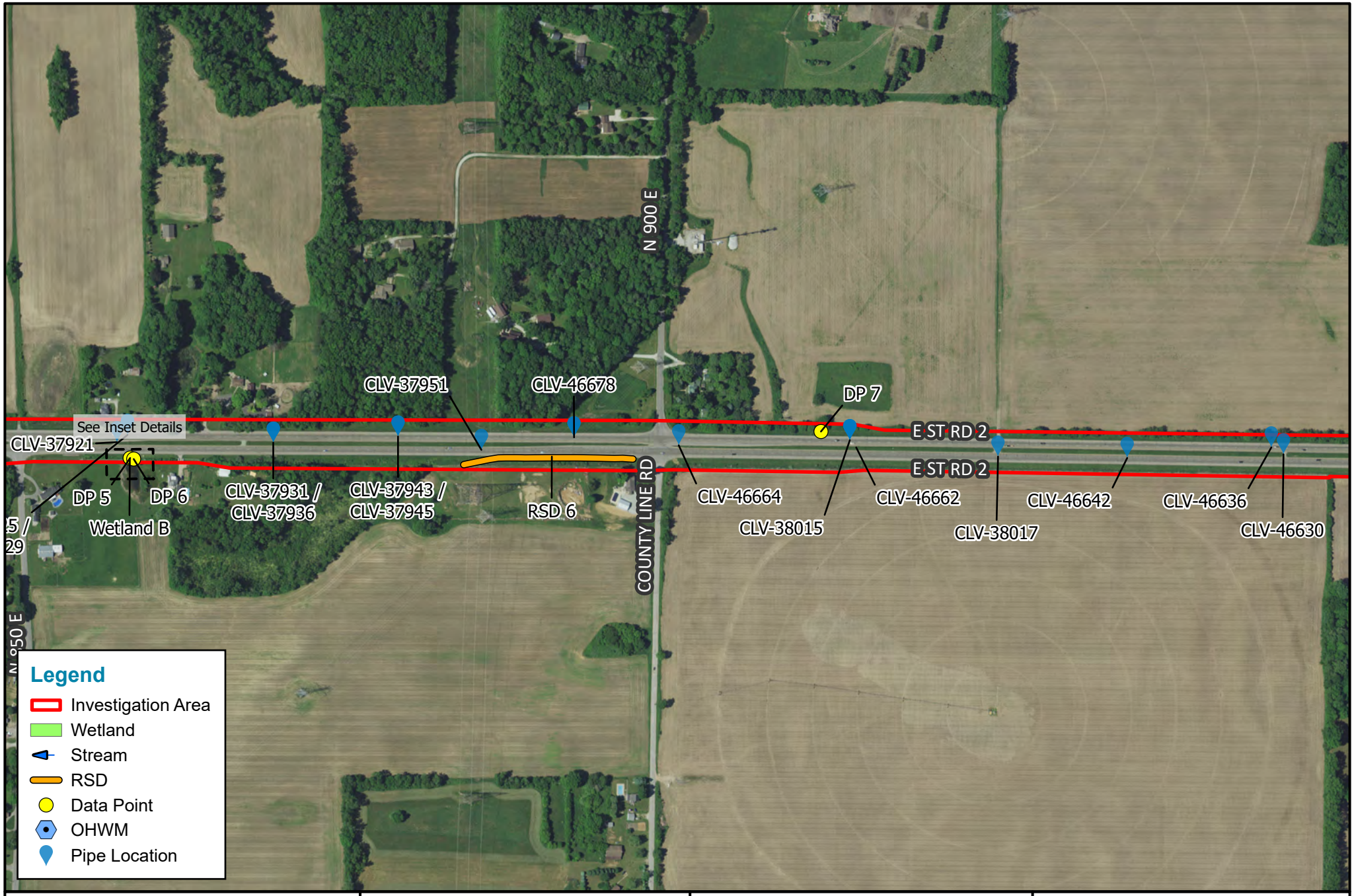
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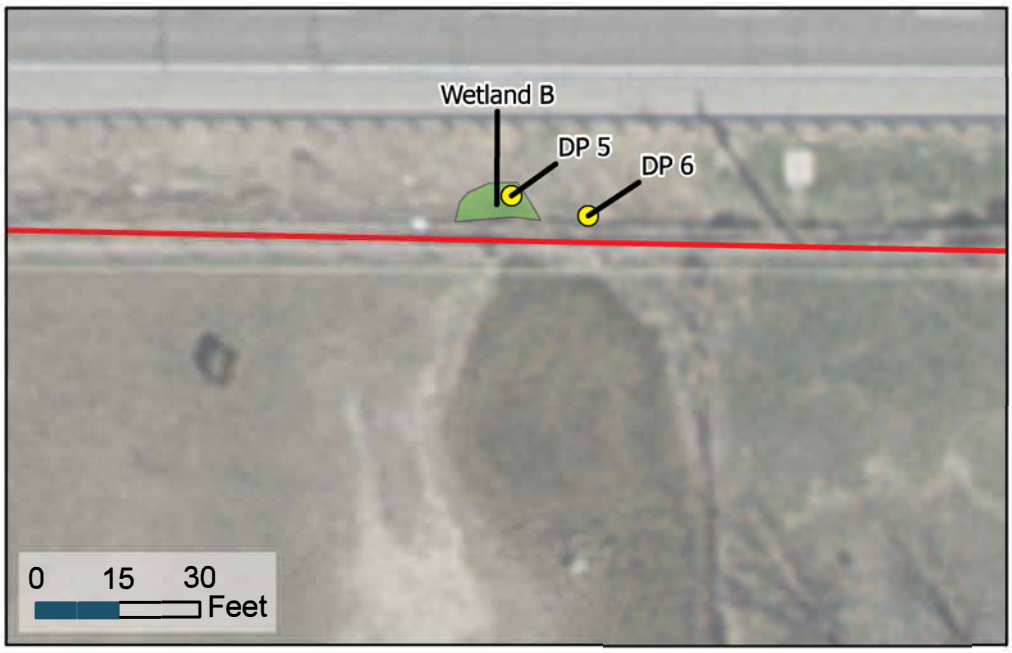
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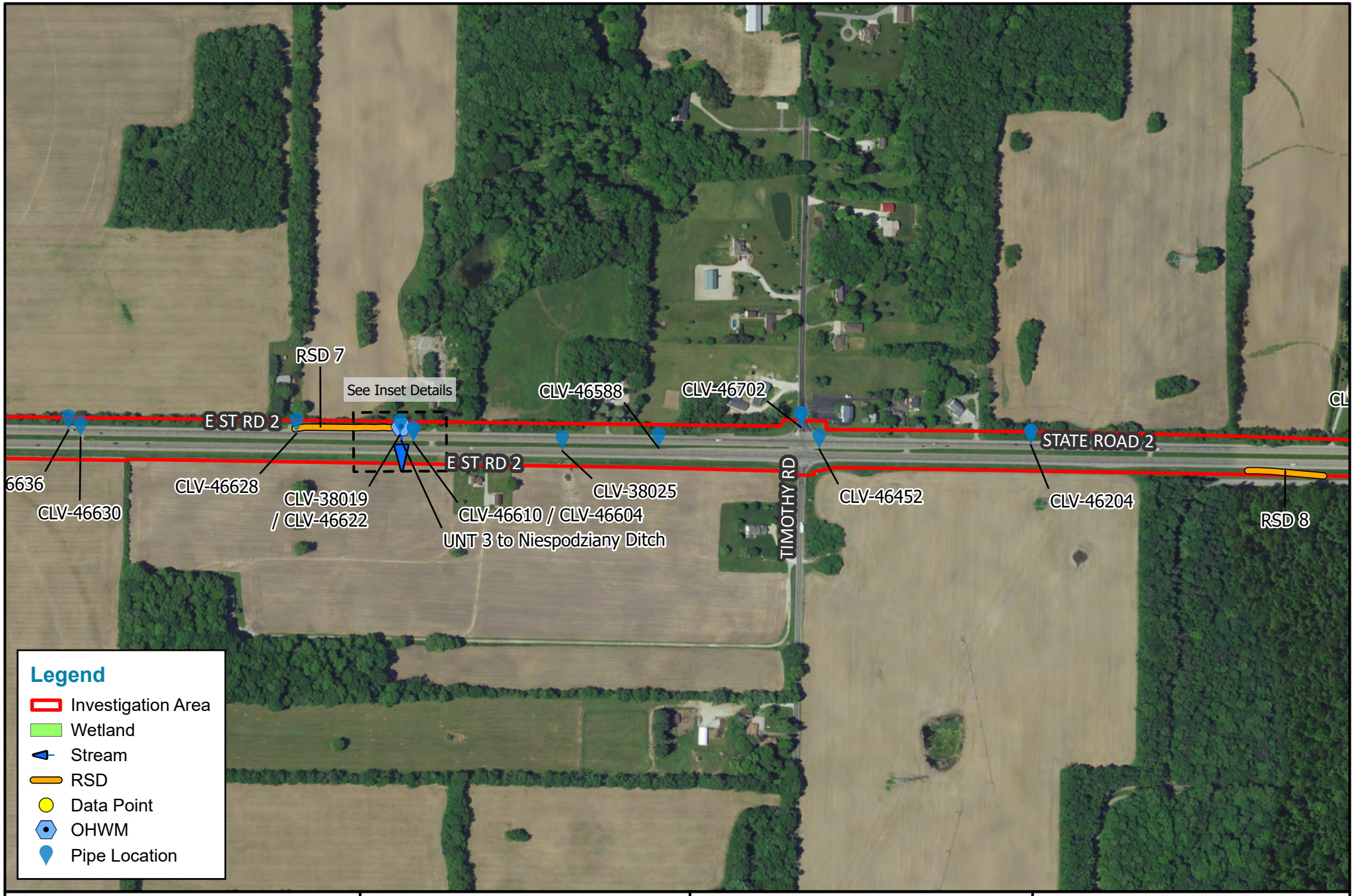
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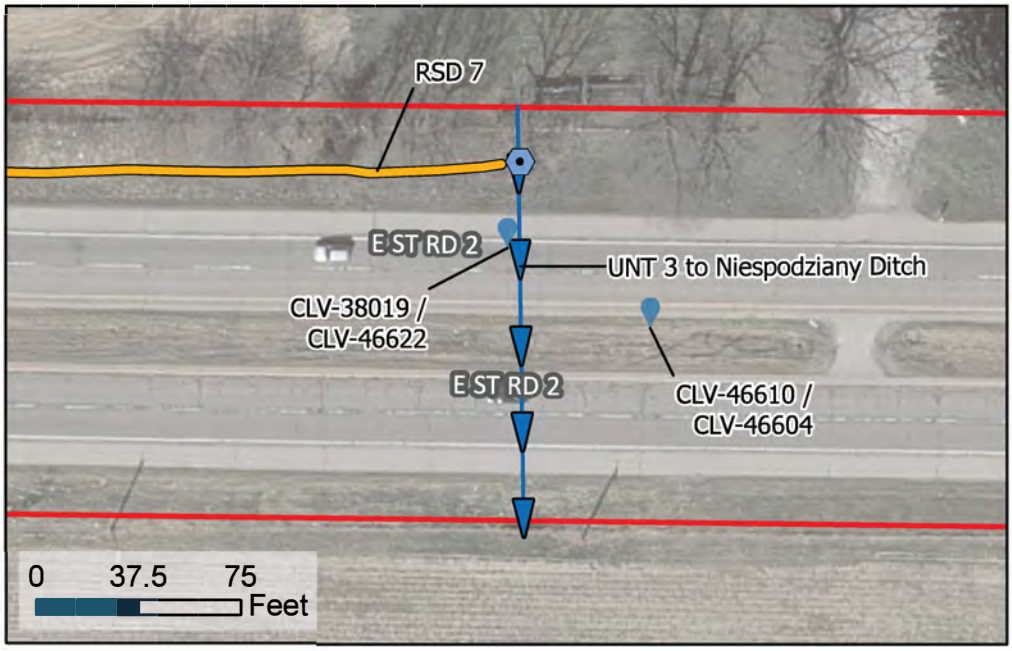
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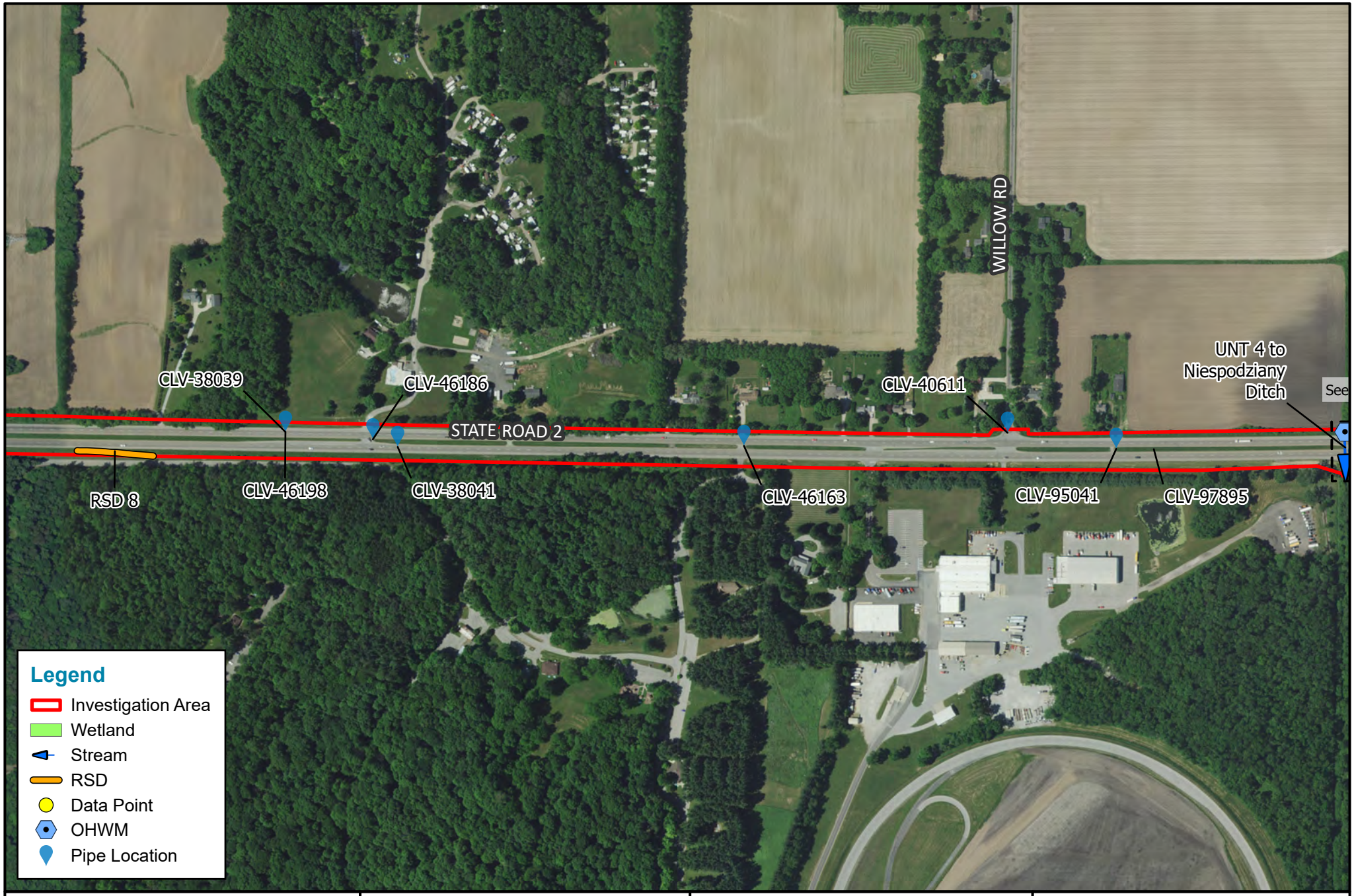
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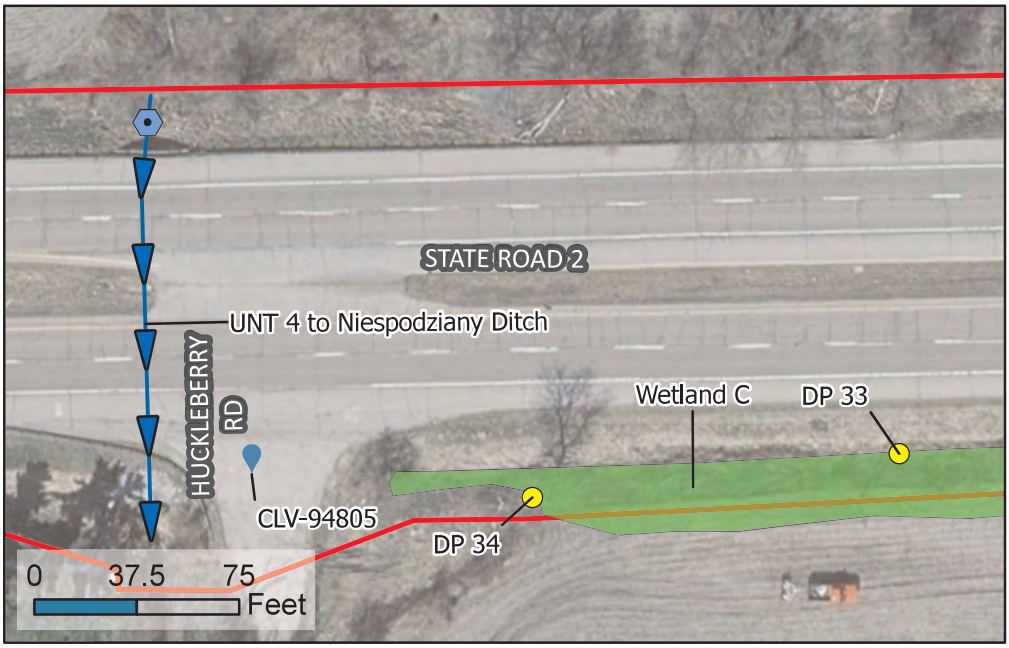
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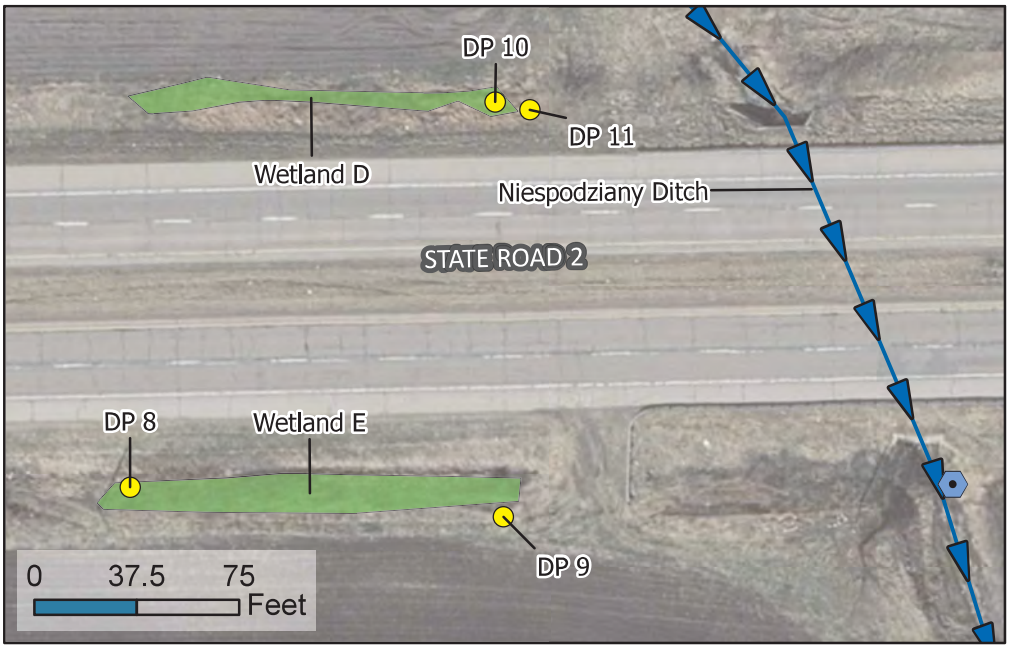
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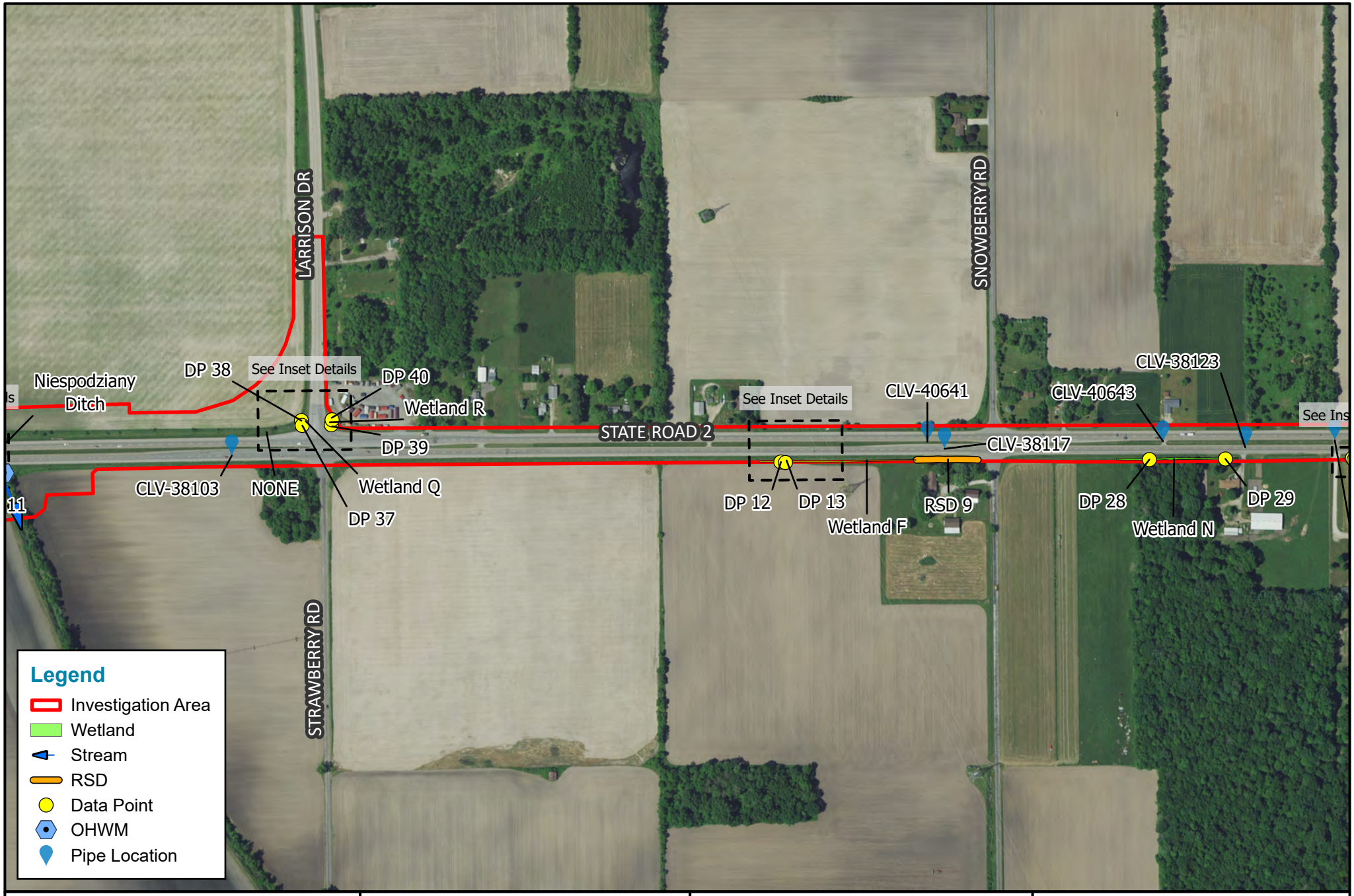
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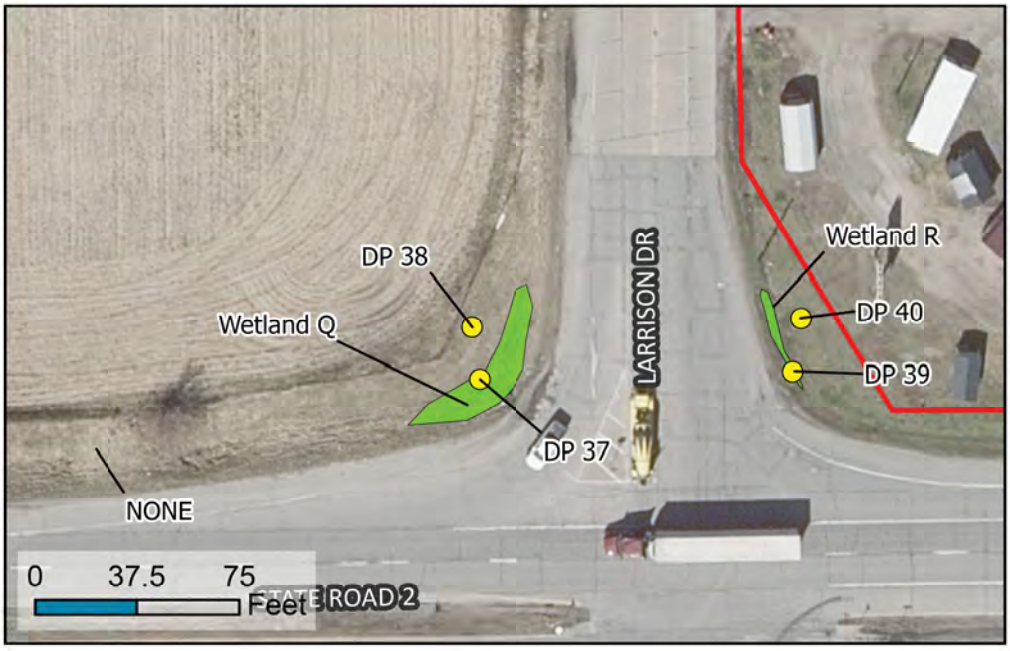
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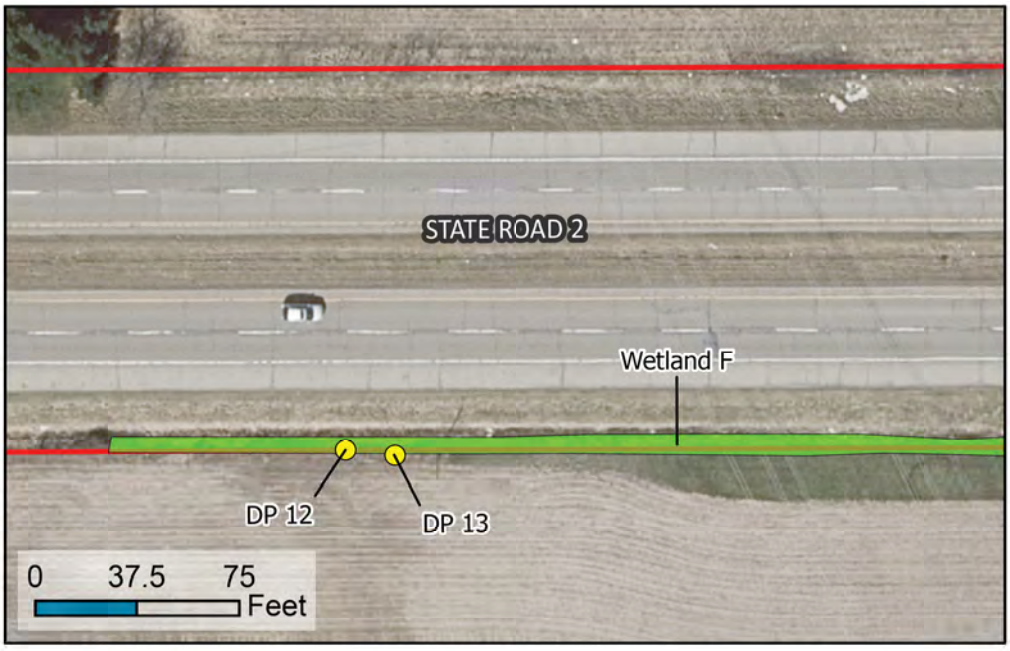
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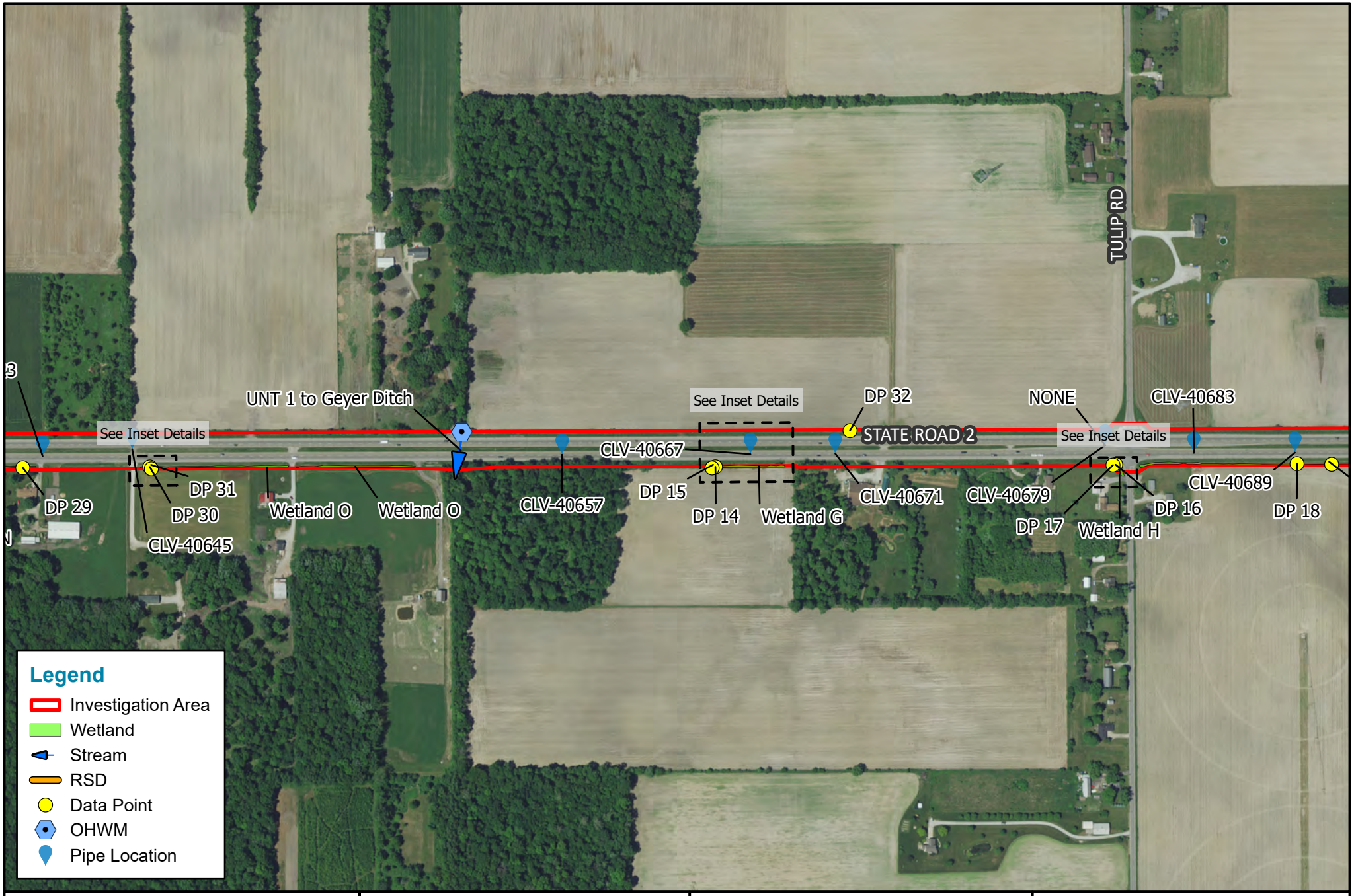
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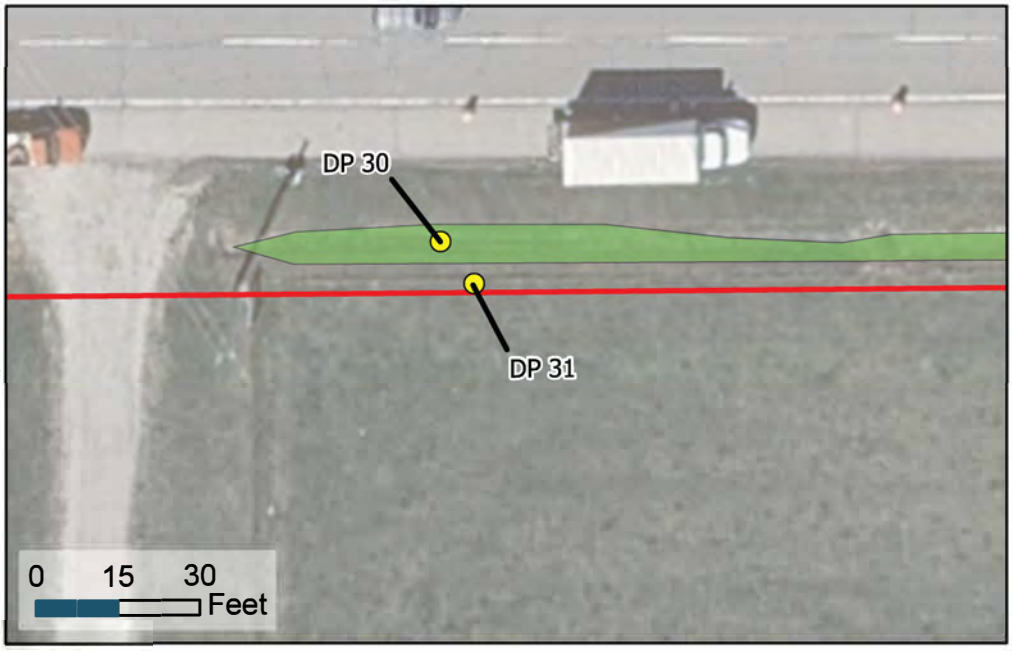
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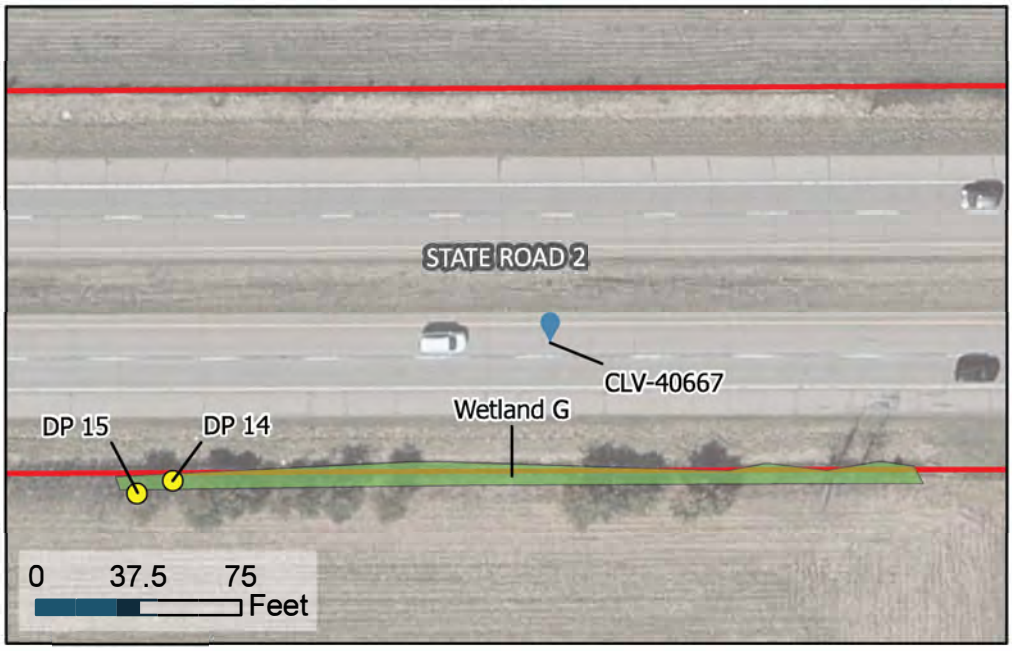
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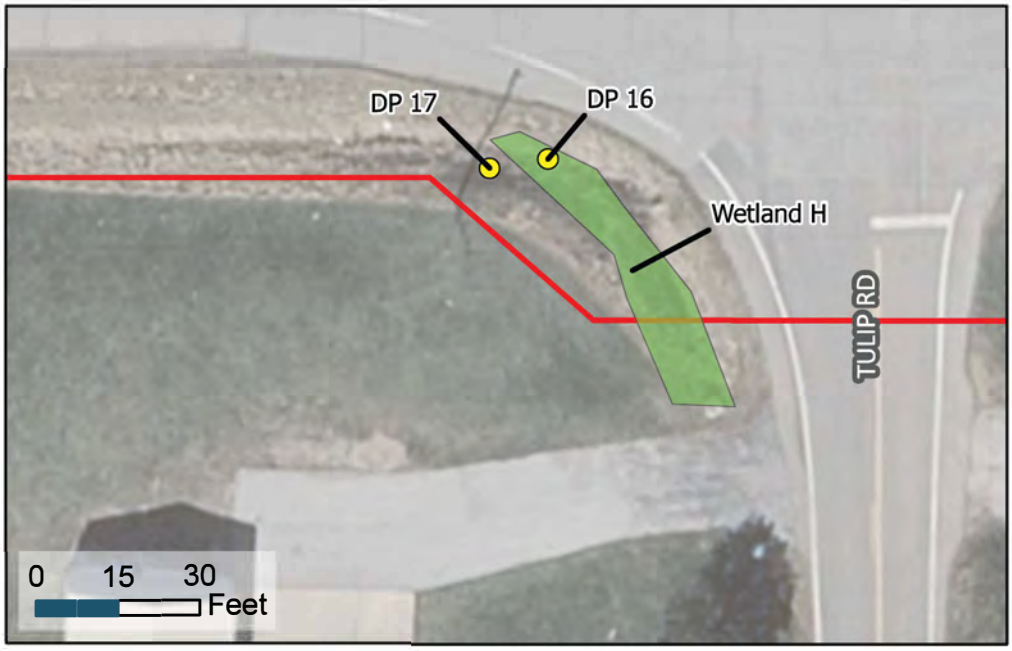
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Water Resources

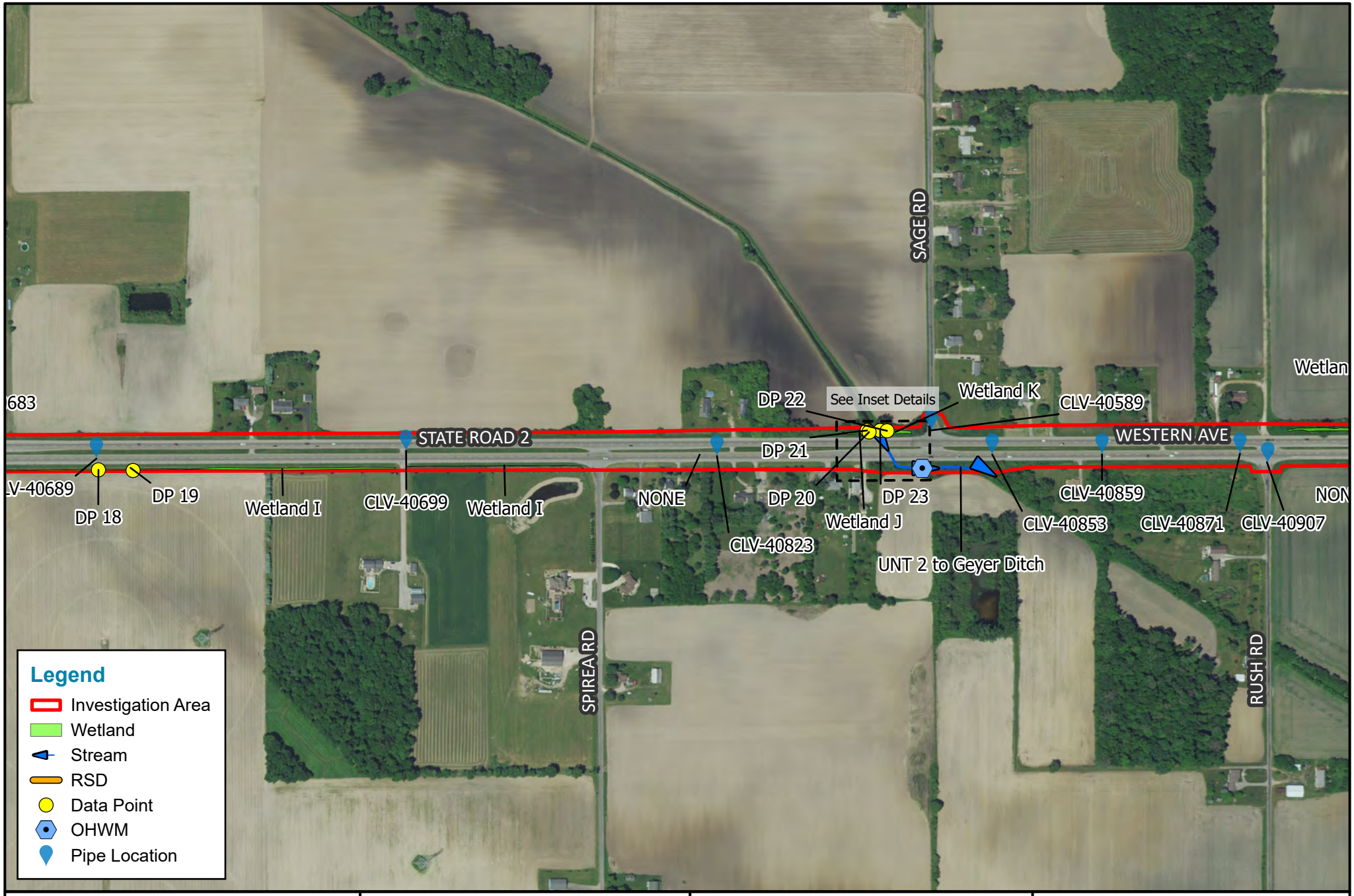


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Water Resources



Inset Detail
Water Resources





LOCHMUELLER GROUP
3502 Woodview Trace, Suite 150
Indianapolis, IN 46268
Phone: (317) 222-3880
Fax: (317) 222-3881

Water Resources Map

Des. No. 1900177
Waters of the U.S. Report

0 375 750 Feet

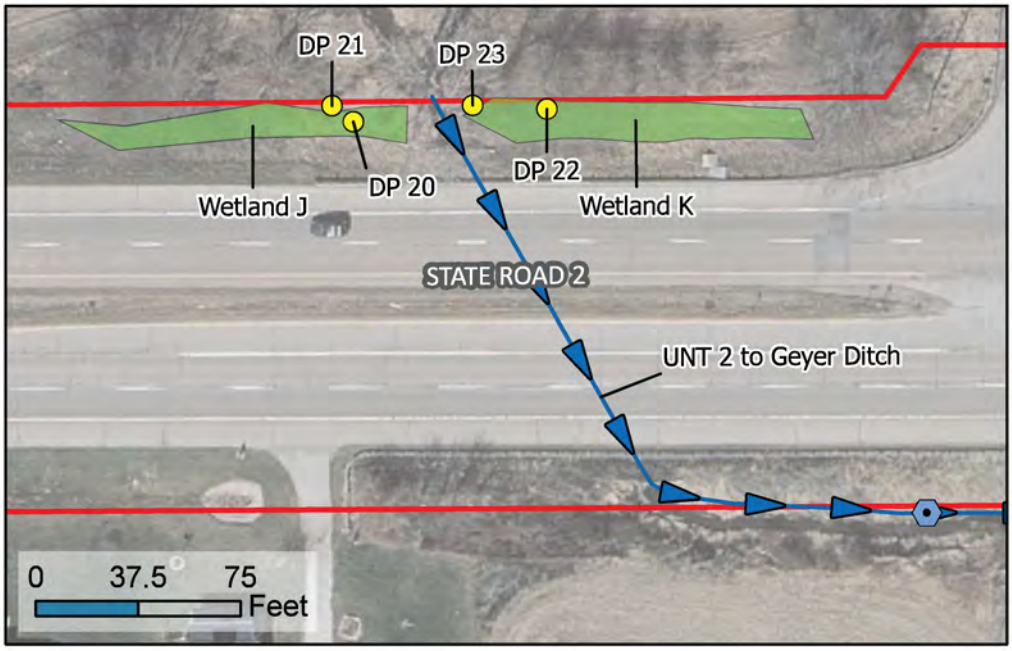
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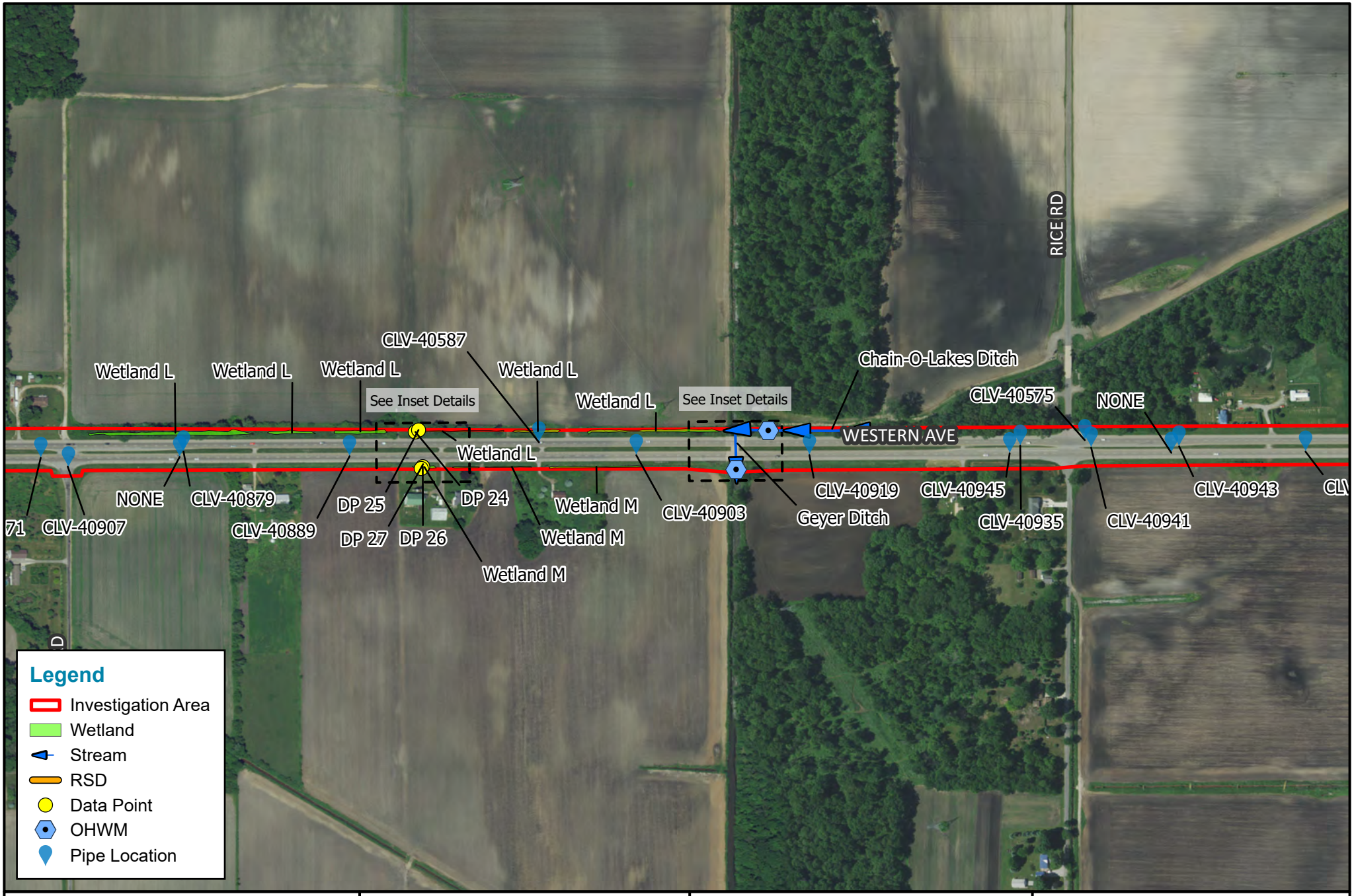
County: St. Joseph and LaPorte
Township: Wills, Olive, Warren, Portage
State: Indiana

SR 2 from US 20 to US 20/31
HMA Overlay Project
Created: 6/28/2023, RWeaver

Aerial Source: 2020 Indiana NAIP

Inset Detail
Water Resources





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Water Resources Map

Des. No. 1900177
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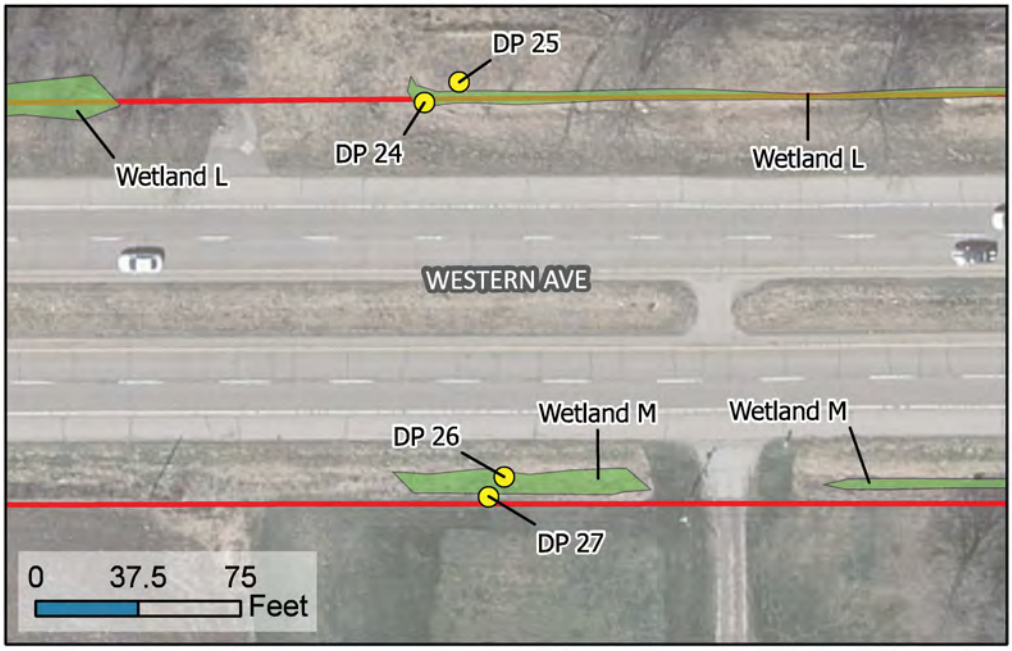
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County: St. Joseph and LaPorte
Township: Wills, Olive, Warren, Portage
State: Indiana

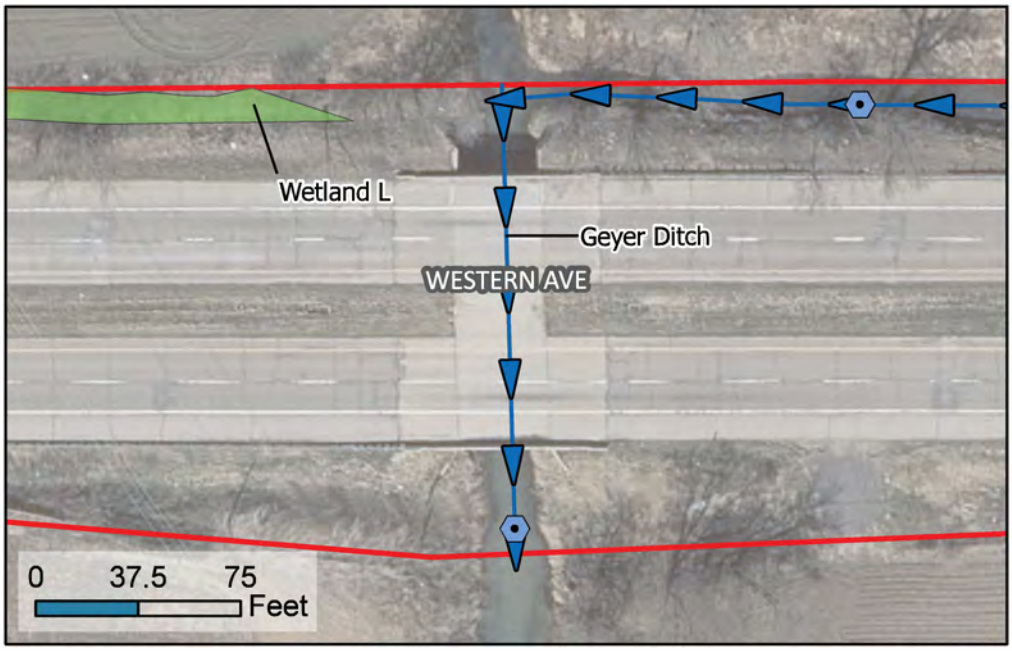
SR 2 from US 20 to US 20/31
HMA Overlay Project
Created: 6/28/2023, RWeaver

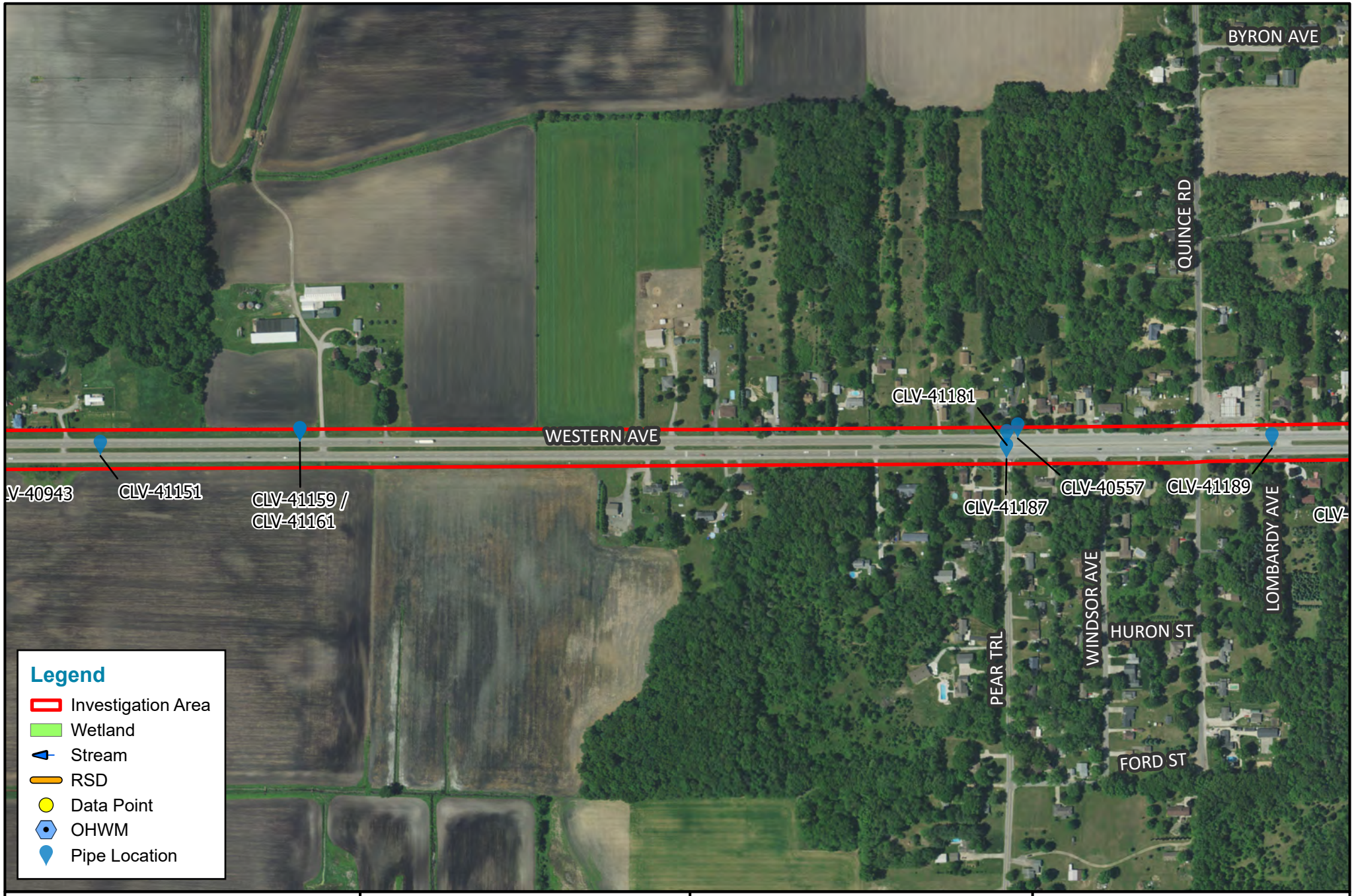
Aerial Source: 2020 Indiana NAIP

Inset Detail
Water Resources



Inset Detail
Water Resources





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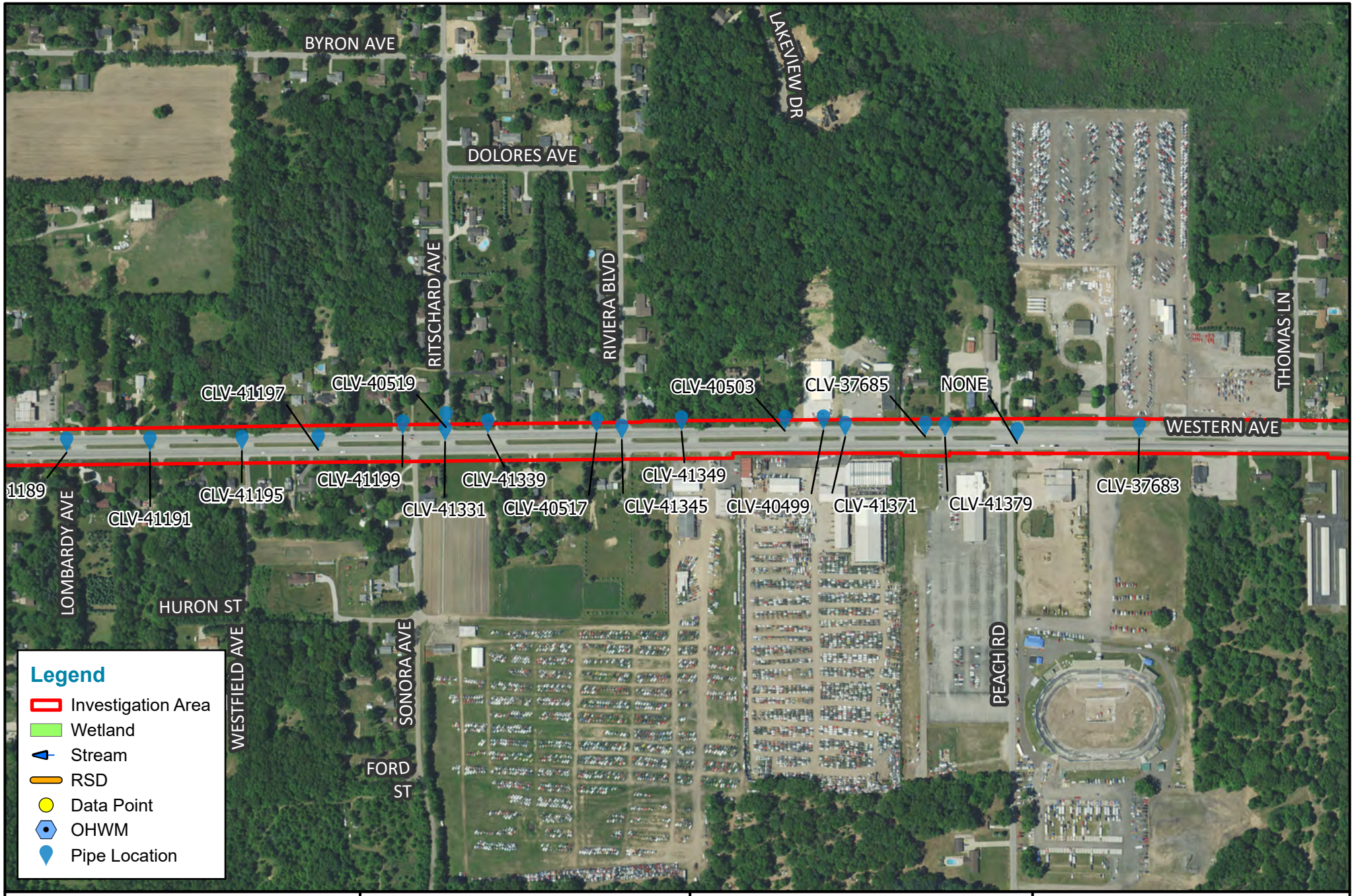
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Created: 6/28/2023, RWeaver

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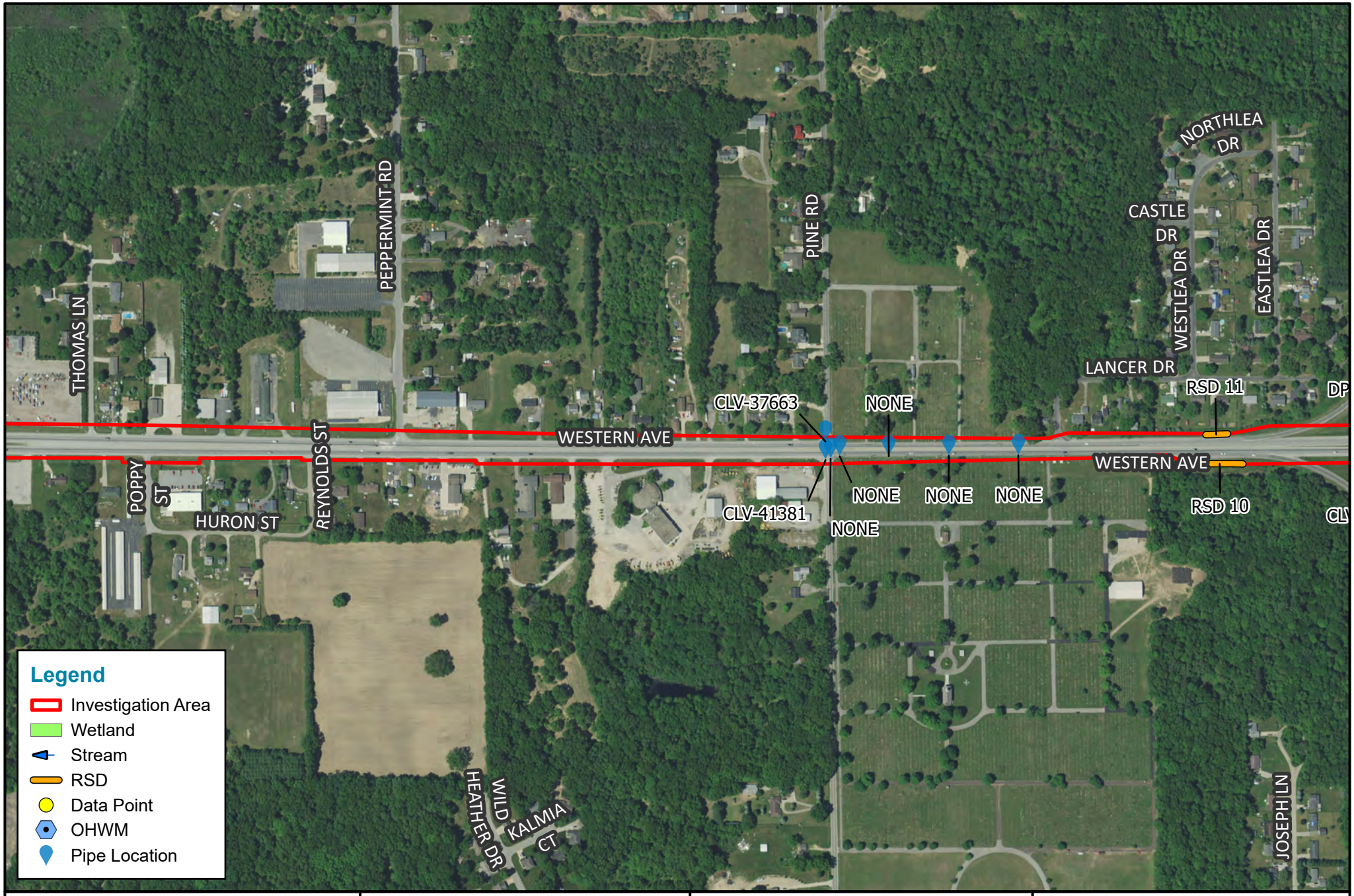
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Township: Wills, Olive, Warren, Portage
State: Indiana

SR 2 from US 20 to US 20/31
HMA Overlay Project
Created: 6/28/2023, RWeaver

Aerial Source: 2020 Indiana NAIP



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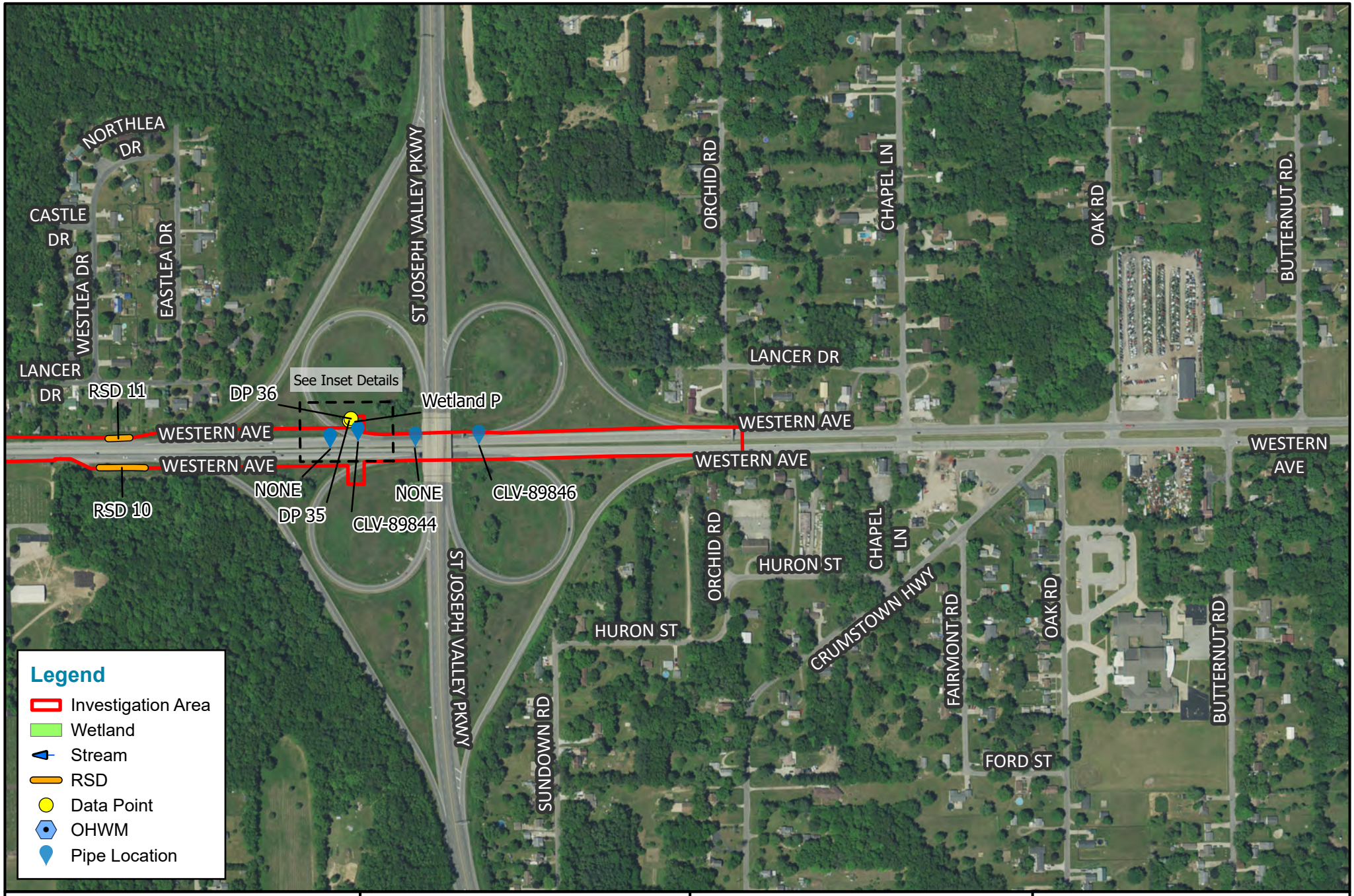
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County: St. Joseph and LaPorte
Township: Wills, Olive, Warren, Portage
State: Indiana

SR 2 from US 20 to US 20/31
HMA Overlay Project
Created: 6/28/2023, RWeaver

Aerial Source: 2020 Indiana NAIP



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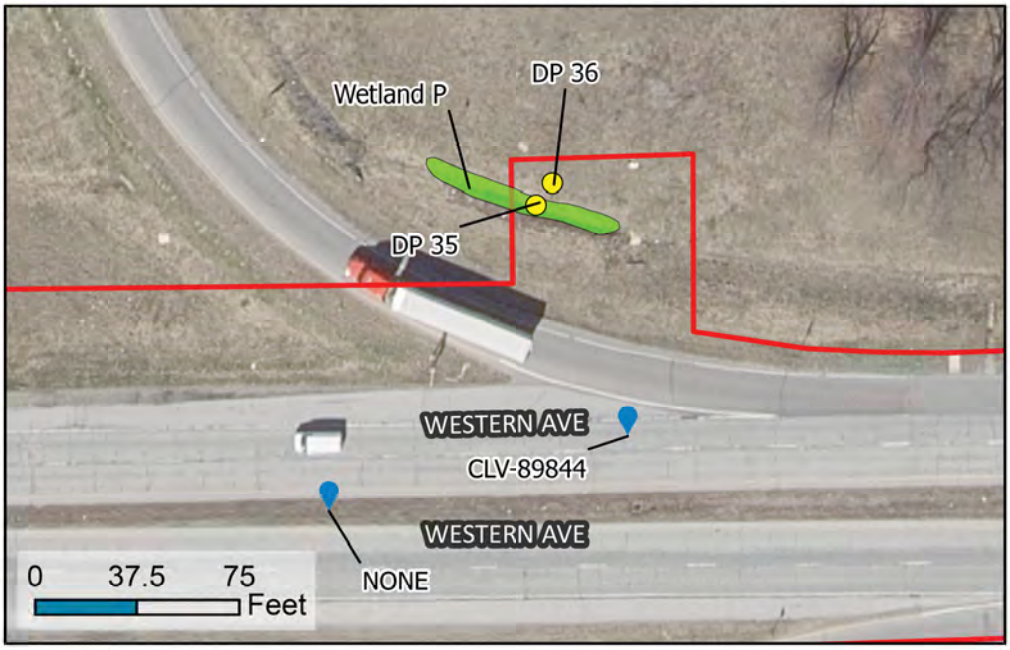
County: St. Joseph and LaPorte
Township: Wills, Olive, Warren, Portage
State: Indiana

SR 2 from US 20 to US 20/31
HMA Overlay Project
Created: 6/29/2023, RWeaver

Aerial Source: 2020 Indiana NAIP

Map Page 15 of 15

Inset Detail
Water Resources



Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: June 29, 2023

B. NAME AND ADDRESS OF PERSON REQUESTING PJD: Brenten Reust, Lochmueller Group, 3502 Woodview Trace #150, Indianapolis, IN 46268

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The project is located along SR 2, from US 20 to US 20/US 31 for approximately 12.94 miles along SR 2 and 0.14 mile along Larrison Road in LaPorte and St. Joseph County, IN. The scope of the project (Des. No. 1900177 involves asphalt milling and hot mix asphalt (HMA) overlay of approximately four (4) inches will occur along SR 2. Other improvements include turn lanes, median changes, removal of inside and outside shoulder, installation of curb and gutter, and guardrail replacement. In addition approximately one hundred thirty (130) small structures will be replaced throughout the project area within existing right-of-way. Surrounding landscape consists of roadside embankments, well drained agriculture fields, wooded corridors, and residential property.

(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: Indiana County/parish/borough: LaPorte/St. Joseph County City: near South Bend, IN

Center coordinates of site (lat/long in degree decimal format):

Lat.: 41.672181 Long.: -86.466102

Universal Transverse Mercator: 16T, 544442E, 4613517N

Name of nearest waterbody: Kankakee River

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)
UNT 1 to Roda Ditch	41.672872	-86.568644	159 linear feet	Non-wetland	Section 404
UNT 2 to Roda Ditch	41.672513	-86.570582	32 linear feet	Non-wetland	Section 404
UNT 1 to Niespodziany Ditch	41.672326	-86.542601	183 linear feet	Non-wetland	Section 404
UNT 2 to Niespodziany Ditch	41.672308	-86.542066	212 linear feet	Non-wetland	Section 404
UNT 3 to Niespodziany Ditch	41.672332	-86.512374	151 linear feet	Non-wetland	Section 404
UNT 4 to Niespodziany Ditch	41.671922	-86.481867	157 linear feet	Non-wetland	Section 404
Niespodziany Ditch	41.671729	-86.466991	244 linear feet	Non-wetland	Section 404
UNT 1 to Geyer Ditch	41.672155	-86.443026	141 linear feet	Non-wetland	Section 404
UNT 2 to Geyer Ditch	41.671714	-86.419096	522 linear feet	Non-wetland	Section 404
Geyer Ditch	41.671669	-86.404015	172 linear feet	Non-wetland	Section 404
Chain-O-Lakes Ditch	41.672093	-86.404015	574 linear feet	Non-wetland	Section 404
Wetland A	41.672801	-86.559993	0.003 acre	Wetland	Section 404
Wetland B	41.672267	86.533645	0.002 acre	Wetland	Section 404
Wetland C	41.671584	-86.480862	0.46 acre	Wetland	Section 404
Wetland D	41.672117	-86.467602	0.02 acre	Wetland	Section 404
Wetland E	41.671731	-86.468095	0.04 acre	Wetland	Section 404
Wetland F	41.671799	-86.455778	0.09 acre	Wetland	Section 404
Wetland G	41.671764	-86.439374	0.05 acre	Wetland	Section 404
Wetland H	41.671759	-86.433601	0.01 acre	Wetland	Section 404
Wetland I	41.671757	-86.430986	0.30 acre	Wetland	Section 404

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 J	41.672111	-86.419862	0.03 acre	Wetland	Section 404
Wetland K	41.672122	-86.419602	0.04 acre	Wetland	Section 404
Wetland L	41.672106	-86.409108	0.46 acre	Wetland	Section 404
Wetland M	41.671727	-86.409004	0.08 acre	Wetland	Section 404
Wetland N	41.671800	-86.450460	0.08 acre	Wetland	Section 404
Wetland O	41.671803	-86.447531	0.15 acre	Wetland	Section 404
Wetland P	41.672043	-86.342046	0.01 acre	Wetland	Section 404
Wetland Q	41.672228	-86.462682	0.02 acre	Wetland	Section 404
Wetland R	41.672233	-86.4622625	0.001 acre	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)

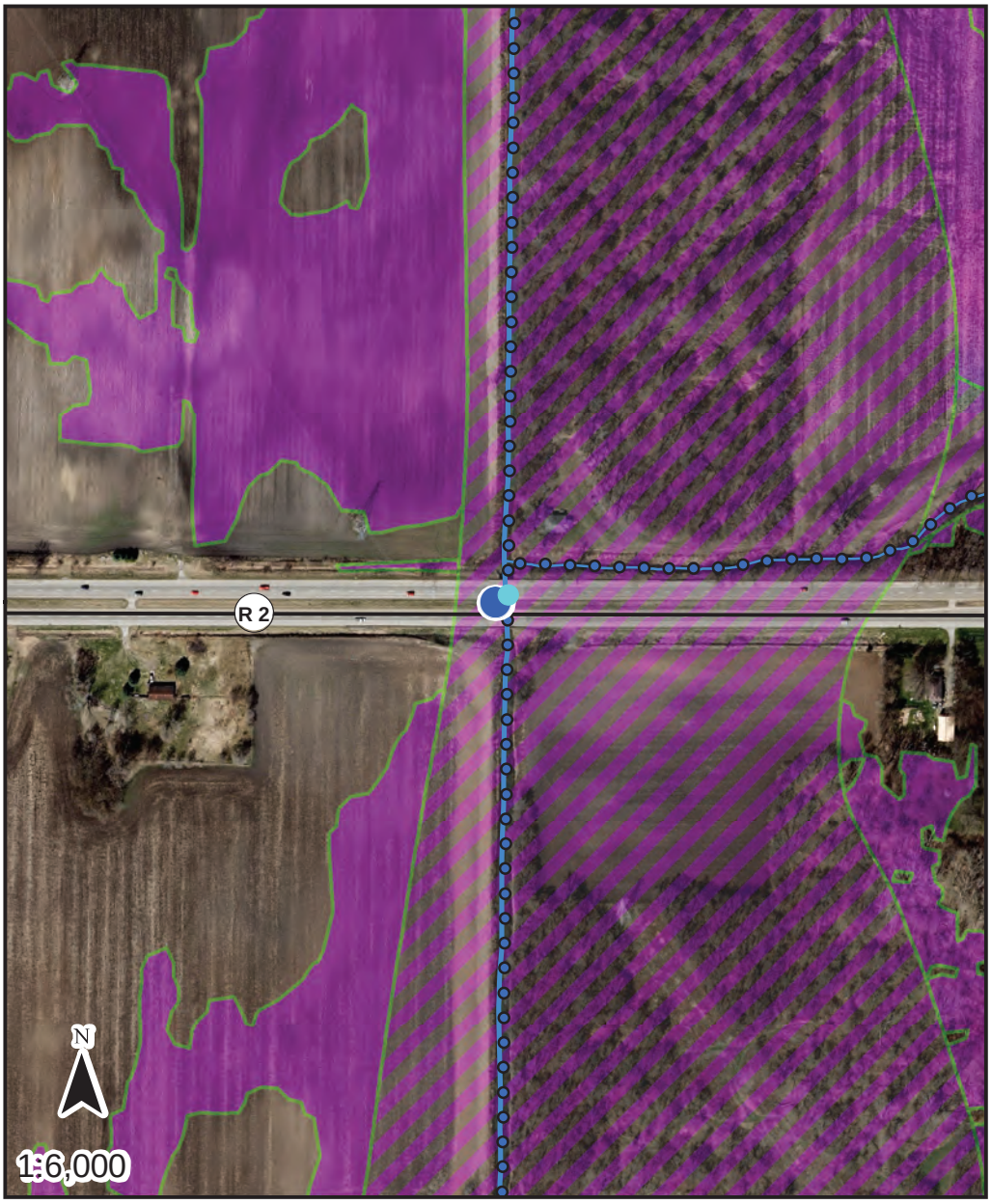
Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

- [x] Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
  Map: Location map, topographic, soils, NWI, floodplain, aerial.
- [x] 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: _____.
  - [x] USGS NHD data.
  - [x] USGS 8 and 12 digit HUC maps.
- [x] U.S. Geological Survey map(s). Cite scale & quad name: New Carlisle, Lydick, South Bend West 1:24,000.
- [x] Natural Resources Conservation Service Soil Survey. Citation: SSURGO.gdb.
- [x] National wetlands inventory map(s). Cite name: IN_geodatabase_wetlands.gdb.
- [ ] State/local wetland inventory map(s): _____.
- [ ] FEMA/FIRM maps: _____.
- [x] 100-year Floodplain Elevation is: BFE 727.1.2 ft.(National Geodetic Vertical Datum of 1929)
- [x] Photographs: [x] Aerial (Name & Date): Indiana NAIP 2020.
  or [x] Other (Name & Date): Ground photos May 23-25, 2022, April 24, 2023, and June 20, 2023.
- [ ] 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.

_____	Brenten Reust Digitally signed by Brenten Reust Date: 2023.06.29 16:09:09 -04'00'
Signature and date of Regulatory staff member completing PJD	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.



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

10 - 100

DNR Approximate Floodway

DNR Approximate Fringe

Point of Interest Coordinates (WGS84)

Long: **-86.4045824169**

Lat: **41.6719111231**

The information provided below is based on the point of interest shown in the map above.

County: **St Joseph**

Stream Name: **Geyer Ditch**

Approximate Ground Elevation: **714.0 feet (NAVD88)**

Base Flood Elevation: **709.2 feet (NAVD88)**

Drainage Area: **Not available**

Best Available Flood Hazard Zone: **DNR Approximate Floodway**

National Flood Hazard Zone: **FEMA Zone A**

Is a Flood Control Act permit from the DNR needed for this location? **yes**

Is a local floodplain permit needed for this location? **yes-**

Floodplain Administrator: **Randy James, Building Commissioner**

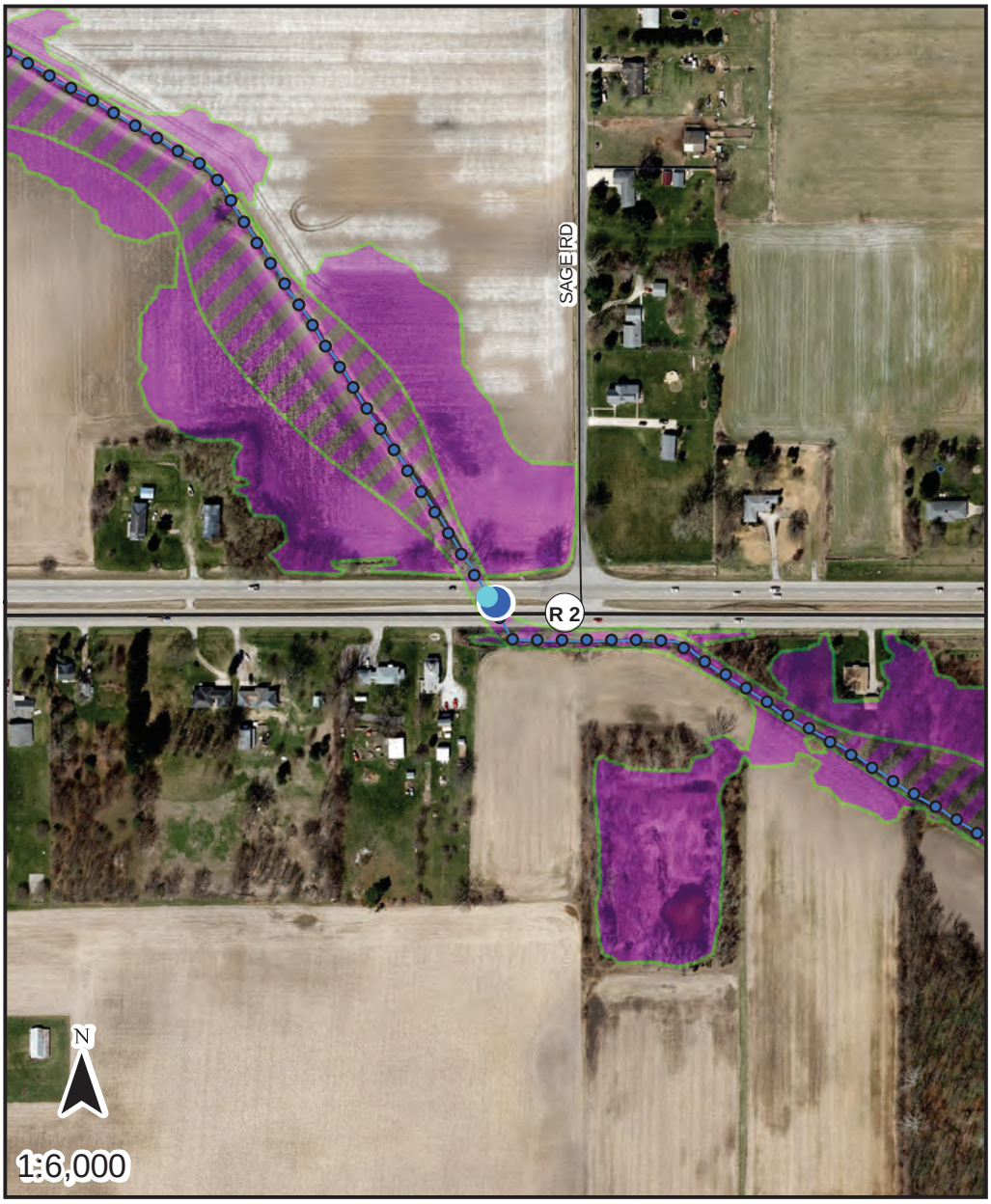
Community Jurisdiction: **St. Joseph County, County proper**

Phone: **(574) 235-9554**

Email: **rjames@southbendin.gov**

US Army Corps of Engineers District: **Detroit**

Date Generated: 1/16/2023



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

DNR Approximate Floodway

DNR Approximate Fringe

Point of Interest Coordinates (WGS84)

Long: **-86.4195777557**

Lat: **41.6719400625**

The information provided below is based on the point of interest shown in the map above.

County: **St Joseph**

Stream Name: **Unnamed Tributary Geyer Ditch**

Approximate Ground Elevation: **718.9 feet (NAVD88)**

Base Flood Elevation: **714.9 feet (NAVD88)**

Drainage Area: **Not available**

Best Available Flood Hazard Zone: **DNR Approximate Floodway**

National Flood Hazard Zone: **Not Mapped**

Is a Flood Control Act permit from the DNR needed for this location? **yes**

Is a local floodplain permit needed for this location? **yes-**

Floodplain Administrator: **Randy James, Building Commissioner**

Community Jurisdiction: **St. Joseph County, County proper**

Phone: **(574) 235-9554**

Email: **rjames@southbendin.gov**

US Army Corps of Engineers District: **Detroit**

Date Generated: 1/16/2023



Point of Interest

Base Flood Elevation Point

Flood Elevation Points

STUDIED STREAM

DNR Approximate Floodway

DNR Approximate Fringe

Point of Interest Coordinates (WGS84)

Long: **-86.4432769137**

Lat: **41.6720015425**

The information provided below is based on the point of interest shown in the map above.

County: **St Joseph**

Stream Name: **Unnamed Tributary Geyer Ditch**

Approximate Ground Elevation: **727.2 feet (NAVD88)**

Base Flood Elevation: **725.0 feet (NAVD88)**

Drainage Area: **Not available**

Best Available Flood Hazard Zone: **DNR Approximate Floodway**

National Flood Hazard Zone: **Not Mapped**

Is a Flood Control Act permit from the DNR needed for this location? **yes**

Is a local floodplain permit needed for this location? **yes-**

Floodplain Administrator: **Randy James, Building Commissioner**

Community Jurisdiction: **St. Joseph County, County proper**

Phone: **(574) 235-9554**

Email: **rjames@southbendin.gov**

US Army Corps of Engineers District: **Detroit**

Date Generated: 1/16/2023



Point of Interest

Base Flood Elevation Point

Flood Elevation Points

STUDIED STREAM

Rivers and Streams at least 1 square mile

Drainage Area (sq. miles)

10 - 100

DNR Approximate Floodway

DNR Approximate Fringe

Point of Interest Coordinates (WGS84)

Long: **-86.4672437256**

Lat: **41.6719654793**

The information provided below is based on the point of interest shown in the map above.

County: **St Joseph**

Stream Name: **Niespodziany Ditch**

Approximate Ground Elevation: **731.1 feet (NAVD88)**

Base Flood Elevation: **727.1 feet (NAVD88)**

Drainage Area: **Not available**

Best Available Flood Hazard Zone: **DNR Approximate Floodway**

National Flood Hazard Zone: **Not Mapped**

Is a Flood Control Act permit from the DNR needed for this location? **yes**

Is a local floodplain permit needed for this location? **yes-**

Floodplain Administrator: **Randy James, Building Commissioner**

Community Jurisdiction: **St. Joseph County, County proper**

Phone: **(574) 235-9554**

Email: **rjames@southbendin.gov**

US Army Corps of Engineers District: **Detroit**

Date Generated: 1/16/2023

Categorical Exclusion

Appendix G

Public Involvement

LOCHMUELLER GROUP
112 W. Jefferson Blvd., Suite 500, South Bend, Indiana 46601

September 28, 2022

Sample Notice of Survey Letter

[redacted]

NOTICE OF SURVEY

RE: S.R. 2 / Larrison Blvd. (Strawberry Rd.) Intersection Improvement in St. Joseph County, Indiana
Loch Group Project No.: 120-3053-00H

Dear Property Owner:

Research of county records indicates that you own or occupy property(s) near this proposed intersection improvement project and potential adjacent utility and roadway improvements on Larrison Boulevard from S.R. 2 to Edison Road and on Fillmore Road to Walnut Road to Larrison Boulevard. Our employees will be doing a survey of the project area(s) in the near future. It may be necessary for them to come onto your property to complete this work. If you are available, our surveyors will show identification before coming onto your property. If you have sold this property, or it is occupied by someone else, please advise us of the name and address of the current owner/occupant so that we may contact them about the survey.

At this stage we do not know what effect, if any, our project may eventually have on your property. If we determine later that your property is involved, we will contact you with additional information.

The survey work will include mapping the location of features such as buildings, trees, fences, and drives, as well as obtaining ground elevations. The survey work may include the identification and mapping of wetlands and streams, and various other environmental features. This work is necessary for the proper planning and design of this proposed intersection improvement project and potential adjacent utility and roadway improvements on Larrison Boulevard from S.R. 2 to Edison Road and on Fillmore Road to Walnut Road to Larrison Boulevard.

Please be assured of our sincere desire to cause you as little inconvenience as possible during this survey. If any problems do occur, please contact our field crew or call me at **(812-479-6200)**, email me at ssuttles@lochgroup.com or write to me at the above address. Thank you in advance for your cooperation.

Sincerely yours,
LOCHMUELLER GROUP, INC.

Sean L. Suttles, P.S.
Chief of Surveying

C:\Users\RGowers\OneDrive - Lochmueller Group\Desktop\projects\letter.doc

Job #20EN021

NOTICE OF SURVEY

September 8, 2020

RE: PROJECT: S.R. 2
Culvert Improvement Project
New Carlisle, Indiana

Sample Notice of Survey Letter

Dear Property Owner:

Our information indicates that you own or occupy property near this proposed Culvert Improvement Project. Our employees will be doing 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 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 someone else occupies it, 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, our project may eventually have on your property. If we determine later your property is involved, we will contact you with additional information.

The survey work will include mapping the location of features such as buildings, trees, fences, and drives, and obtaining ground elevations. This work is necessary for the proper planning and design of the Culvert Improvement Project. Please be assured of our sincere desire to cause you as little inconvenience as possible during the survey. If any problems do occur, please contact our field crew or contact me at the phone number or address shown below.

We do appreciate your input regarding any issues that this project may encounter during the design phase. Included with this notice is a short questionnaire that you can fill out and return to us in the enclosed self-addressed stamped envelope. Thank you, in advance, for your participation in this process.

Sincerely,

SJCA P.C.



Christopher H. Phillips, PLS
ChrisP@SJCAinc.com

Categorical Exclusion

Appendix H

Air Quality

SPONSOR	CONTRACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	DISTRICT	MILES	FEDERAL CATEGORY	Total Cost of Project*	PROGRAM	PHASE	FEDERAL	MATCH	2022	2023	2024	2025	2026
Mishawaka	41190 / 1801241	M 10	ST 1006	Road Reconstruction (3R/4R Standards)	LaPorte	.86	STBG	$14,150,000.00	Local Funds	CN	$0.00	$2,310,000.00				$2,310,000.00	
Location: Twelfth St from Dodge Avenue to Campbell, Phase III																	
Comments:increase CN federal funding by $1,600,000. MACOG Modification M43-22.																	
Mishawaka	41190 / 1801241	M 17	ST 1006	Road Reconstruction (3R/4R Standards)	LaPorte	.86	STBG		Local Funds	CN	$0.00	$2,310,000.00				$2,310,000.00	
									South Bend MPO	CN	$8,960,000.00	$0.00				$8,960,000.00	
Location: Twelfth St from Dodge Avenue to Campbell, Phase III																	
Comments:Increase Federal funding by $1,600,000 MACOG Mod 43-22																	
Mishawaka	42171 / 1900449	M 10	ST 1001	Bridge Widening	LaPorte	.11	STBG	$7,034,308.00	South Bend MPO	CN	$5,042,980.00	$0.00			$5,042,980.00		
									Local Funds	CN	$0.00	$1,989,270.00			$1,989,270.00		
Performance Measure Impacted: Bridge Condition																	
Location: Mishawaka Riverwalk Cedar St Bridge Widening																	
Comments:Increase CN phase by $500,000. MACOG MPO. Modification M44-22																	
Mishawaka	42171 / 1900449	M 17	ST 1001	Bridge Widening	LaPorte	.11	STBG		Local Funds	CN	$0.00	$1,989,270.00			$1,989,270.00		
									South Bend MPO	CN	$5,042,980.00	$0.00			$5,042,980.00		
Performance Measure Impacted: Bridge Condition																	
Location: Mishawaka Riverwalk Cedar St Bridge Widening																	
Comments:Increase Federal funding by $500,000 MACOG mod 44-22																	
St. Joseph County	42200 / 1900448	M 36	ST 1020	Intersection Improvement, Roundabout	LaPorte	0	STBG	$3,005,060.00	Local Funds	CN	$0.00	$434,500.00			$434,500.00		
									South Bend MPO	CN	$1,738,000.00	$0.00			$1,738,000.00		
Performance Measure Impacted: Safety																	
Location: Cleveland at Beech Roundabout																	
Comments:Additional Federal Funding $298,214 to CN in FY24 and changing funding type to CMAQ MACOG MOD page 27																	
Indiana Department of Transportation	42444 / 1900177	M 48	SR 2	HMA Overlay Minor Structural	LaPorte	12	NHPP	$21,175,861.11	Road Construction	CN	$2,160,000.00	$540,000.00			$2,700,000.00		
Performance Measure Impacted: Pavement Condition																	
Location: SR 2 from US 20 to US 20/31																	

*Estimated Costs left to Complete Project column is for costs that may extend beyond the four years of a STIP. This column is not fiscally constrained and is for information purposes.

SPONSOR	CONTRACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	DISTRICT	MILES	FEDERAL CATEGORY	Total Cost of Project*	PROGRAM	PHASE	FEDERAL	MATCH	2022	2023	2024	2025	2026
Comments:Increase CN Federal Funing by $2,700,000 in FY 24. MACOG MPO involved modified TIP under M24-23. includes des 1900017																	
Indiana Department of Transportation	42496 / 1901399	Init.	SR 23	Bridge Deck Overlay	LaPorte	0	STBG	$5,298,068.00	Toll Lease Amendment Proceeds	PE	$306,880.00	$76,720.00	$383,600.00				
									Toll Lease Amendment Proceeds	CN	$4,565,923.20	$1,141,480.80	$5,707,404.00				
									Bridge Construction	CN	$100,760.80	$25,190.20	$125,951.00				
Performance Measure Impacted: Bridge Condition																	
Location: Over SR 933 NB/Lincoln Way, 0.88mi S of US 20X																	
Comments:Include DES 1901374, 1901387, 1901427, 1901432, 1901473, 1901477, 1901478, 2000996, 1901399																	
St. Joseph County	42824 / 1902817	M 10	IR 6480	Bridge Rehabilitation Or Repair	LaPorte	.159	STBG	$5,687,000.00	Local Funds	CN	$0.00	$1,018,000.00			$1,018,000.00		
									South Bend MPO	CN	$500,000.00	$0.00			$500,000.00		
									Local Bridge Program	CN	$3,572,000.00	$0.00			$3,572,000.00		
Performance Measure Impacted: Bridge Condition																	
Location: Bridge is located approx. 0.4 Miles North of the intersection of Fillmore Rd. and Mayflower.																	
Comments:increase CN federal funding by $500,000. (State providing $3,572,000 in Federal Funding) MACOG MPO. Modification M45-22.																	
St. Joseph County	42824 / 1902817	M 17	IR 6480	Bridge Rehabilitation Or Repair	LaPorte	.159	STBG		Local Bridge Program	CN	$3,572,000.00	$0.00			$3,572,000.00		
									Local Funds	CN	$0.00	$1,018,000.00			$1,018,000.00		
									South Bend MPO	CN	$500,000.00	$0.00			$500,000.00		
Performance Measure Impacted: Bridge Condition																	
Location: Bridge is located approx. 0.4 Miles North of the intersection of Fillmore Rd. and Mayflower.																	
Comments:Increase Federal funding by $500,000 (State providing $3,572,000 in Federal funding)																	
Indiana Department of Transportation	42986 / 2000060	M 01	US 20	Bridge Thin Deck Overlay	LaPorte	0	STBG	$1,583,348.00	American Rescue Plan Act	CN	$1,142,446.40	$285,611.60		$1,428,058.00			
Performance Measure Impacted: Bridge Condition																	
Location: US 20 WB over US 20 WB/EB LINCOLN WAY, 01.69 S I-90																	
Comments:CN moved from FY21 to FY23																	
Indiana Department of Transportation	43512 / 2001649	Init.	VA VARI	Interchange Modification	LaPorte	0	NHPP	$5,867,200.00	Toll Lease Amendment Proceeds	CN	$4,016,000.00	$1,004,000.00	$20,000.00	$5,000,000.00			
Performance Measure Impacted: Safety																	
Location: US20, US20/US31, and US31, US31 Bypass at Michigan State Line to US20 Bypass at Fort Wayne District																	
Comments:Include DES 2001649																	

*Estimated Costs left to Complete Project column is for costs that may extend beyond the four years of a STIP. This column is not fiscally constrained and is for information purposes.

Sponsor	DES	Contract	Resolution	Route	Location	Work Type	Fund Type	Phase	Federal	Match	SFY 2022	SFY 2023	SFY 2024	SFY 2025	SFY 2026	Estimated Total Project Cost	Letting Date
INDOT	1900011	B-42441	Res. 40-19	SR 933	SR 933 at St. Joseph River, 1.59 mi N of SR 23	Bridge Replacement, Concrete	ST STBG	CN	$ 5,486,398	$ 1,371,600		$ 15,000	$ 6,842,998			$ 8,402,998	8/9/2023
INDOT	1900063	RS-42455		SR 23	SR 23 from 0.46 mi N of SR 4 (Potato Creek Bridge) to 0.94 mi N of US 20 (Olive St.)	HMA Overlay, Structural	ST STBG	PE	$ 168,000	$ 42,000			$ 210,000			$ 5,788,788	9/13/2023
INDOT	1900063	RS-42455	Res. 40-19	SR 23	SR 23 from 0.46 mi N of SR 4 (Potato Creek Bridge) to 0.94 mi N of US 20 (Olive St.)	HMA Overlay, Structural	ST STBG	CN	$ 3,891,830	$ 973,158		$ 10,000	$ 4,854,788			$ 5,788,788	9/13/2023
INDOT	1900177	R-42444	Res. 40-19	SR 2	SR 2 from US 20 to US 20/31	HMA Overlay Structural	NHPP	PE	$ 57,360	$ 14,340			$ 71,700			$ 16,470,096	7/12/2023
INDOT	1900177	R-42444	Res. 40-19	SR 2	SR 2 from US 20 to US 20/31	HMA Overlay Structural	NHPP	CN	$ 12,785,465	$ 3,196,366		$ 130,000	$ 15,851,831			$ 16,470,096	7/12/2023
INDOT	1901359	RS-42493	Res. 45-19	SR 23	SR 23, 1.58 mi S of SR 331 (Main St/Gumwood) to 1.58 mi S of the MI State Line (Bittersweet Rd)	HMA Overlay, Preventive Maintenance	ST STBG	PE	$ 151,760	$ 37,940	$ 189,700					$ 3,710,380	8/11/2021
INDOT	1901359	RS-42493	Res. 45-19	SR 23	SR 23, 1.58 mi S of SR 331 (Main St/Gumwood) to 1.58 mi S of the MI State Line (Bittersweet Rd)	HMA Overlay, Preventive Maintenance	ST STBG	CN	$ 2,415,984	$ 603,996	$ 3,019,980					$ 3,710,380	8/11/2021
INDOT	2000503		Res. 19-20	SR 23	SR 23, from US 30 to 0.84 mi S. of US 6 (Lawrence St.)	HMA Overlay, Preventive Maintenance	ST STBG	PE	$ 40,000	$ 10,000		$ 50,000				$ 4,436,985	11/16/2022
INDOT	2000503		Res. 19-20	SR 23	SR 23, from US 30 to 0.84 mi S. of US 6 (Lawrence St.)	HMA Overlay, Preventive Maintenance	ST STBG	RW	$ 48,000	$ 12,000	$ 60,000					$ 4,436,985	11/16/2022
INDOT	2000503		Res. 19-20	SR 23	SR 23, from US 30 to 0.84 mi S. of US 6 (Lawrence St.)	HMA Overlay, Preventive Maintenance	ST STBG	CN	$ 3,301,588	$ 825,397	$ 155,000	$ 3,971,985				$ 4,436,985	11/16/2022
INDOT	2000526	R-42983	Res. 19-20	SR 331	SR 331, from N. Jct of US 20 to 0.58 mi. N. of SR 933 (S. of Jefferson Ave)	HMA Overlay, Preventive Maintenance	NHS	PE	$ 40,000	$ 10,000		$ 50,000				$ 4,051,865	9/14/2022
INDOT	2000526	R-42983	Res. 19-20	SR 331	SR 331, from N. Jct of US 20 to 0.58 mi. N. of SR 933 (S. of Jefferson Ave)	HMA Overlay, Preventive Maintenance	NHS	CN	$ 2,961,492	$ 740,373		$ 3,701,865				$ 4,051,865	9/14/2022
INDOT	2001649	R-43512		US 20/31	US20, US20/US31, and US31 bypass at Michigan State line to US 20 bypass at Fort Wayne District	Interchange Modification	NHPP	CN	$ 4,016,000	$ 1,004,000	$ 20,000	$ 5,000,000				$ 5,820,000	4/12/2023
INDOT	2001650			US 20/31	US20, US20/US31, and US31 bypass at Michigan State line to US 20 bypass at Fort Wayne District	Sign Modernization (Series of Units)	NHPP	CN	$ 2,408,000	$ 602,000	$ 10,000	$ 3,000,000				$ 3,410,000	4/12/2023
INDOT	2003096	R-43894	Res 28-21	SR 23	SR 23, 3.5 Miles N of SR 331 (Adams Rd E Jct)	Intersection Improvement w/ New Signals	NHPP	PE	$ 160,000	$ 40,000	$ 200,000					$ 1,427,989	7/9/2025
INDOT	2003096	R-43894	Res 28-21	SR 23	SR 23, 3.5 Miles N of SR 331 (Adams Rd E Jct)	Intersection Improvement w/ New Signals	NHPP	RW	$ 56,000	$ 14,000		$ 70,000				$ 1,427,989	7/9/2025
INDOT	2003096	R-43894	Res 28-21	SR 23	SR 23, 3.5 Miles N of SR 331 (Adams Rd E Jct)	Intersection Improvement w/ New Signals	NHPP	CN	$ 926,391	$ 231,598			$ 40,000		$ 1,117,989	$ 1,427,989	7/9/2025
INDOT	2100558	R-43930	Res. 28-21	SR 933	SR 933, Elkhart Co Line (Ash Rd) to 1.47 Miles E of SR 331 (Bittersweet Rd)	HMA Overlay, Preventative Maintenance	NHPP	PE	$ 200,000	$ 50,000	$ 200,000				$ 50,000	$ 2,405,425	10/8/2025
INDOT	2100558	R-43930	Res. 28-21	SR 933	SR 933, Elkhart Co Line (Ash Rd) to 1.47 Miles E of SR 331 (Bittersweet Rd)	HMA Overlay, Preventative Maintenance	NHPP	CN	$ 1,724,340	$ 431,085			$ 5,000	$ 55,000	$ 2,095,425	$ 2,405,425	10/8/2025
INDOT	2100237	R-43930	Res. 28-21	SR 933	SR 933, 1.47 Miles E of SR 331 (Bittersweet Rd) to SR 331	HMA Overlay, Preventative Maintenance	NHPP	PE	$ 200,000	$ 50,000	$ 250,000					$ 1,431,399	10/8/2025
INDOT	2100237	R-43930	Res. 28-21	SR 933	SR 933, 1.47 Miles E of SR 331 (Bittersweet Rd) to SR 332	HMA Overlay, Preventative Maintenance	NHPP	CN	$ 945,119	$ 236,280		$ 5,000	$ 5,000		$ 1,171,399	$ 1,431,399	10/8/2025
INDOT	2101267		Res 36-21	SR 123	Old SR 123 (Mayflower Rd) from 0.31 Miles South of US 20 to 0.34 Miles North of US 20 (Dogwood Drive)	HMA Overlay, Minor Structural	STBG	PE	$ 160,000	$ 40,000	$ 200,000					$ 1,600,000	9/13/2023
INDOT	2100113		Res 40-21	US 30 & 31	PEL - US 30 (SR 49 to Ohio State Line) & US 31 (Tipton/Hamilton County Line to US 30, excluding between SR 931 junctions in Kokomo)	Other Type Project (Miscellaneous)	ST STBG	PE	$ 3,000,000	$ -	$ 3,000,000					$ 12,000,000	NA
INDOT	2200824		Res 34-22	US 6	US 6 from SR 104 to E Jct of SR 23 (Georgia St)	HMA Overlay, Minor Structural	NHS	PE	$ 320,000	$ 80,000		$ 400,000				$ 2,747,517	10/7/2026

INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758-Executive Office
Indianapolis, Indiana 46204

PHONE: (855) 463-6848

Eric Holcomb, Governor
Michael Smith, Commissioner

April 26, 2022

Mr. Jermaine R. Hannon, 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. Hannon /Ms. Brookins:

The Indiana Department of Transportation is pleased to submit its Draft FY 2022-2026 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 2022-2026 STIP by reference, pending FHWA approval in May 2022.

Area Plan Commission of Tippecanoe County (APCTC)	FY 2022-2026
• *Version 3/10/2022*	
Bloomington-Monroe County Metropolitan Planning Organization (BMCMPO)	FY 2022-2026
• *Version 3/11/2022*	
Columbus Area Metropolitan Planning Organization (CAMPO)	FY 2022-2026
• *Version 3/22/2021*	
Delaware-Muncie Metropolitan Plan Commission (DMMPC)	FY 2022-2025
• *Version 12/15/2021*	
Evansville Metropolitan Planning Organization (EMPO)	FY 2022-2026
• *Version 3/10/2022*	
Kokomo-Howard County Governmental Coordinating Council (KHCGCC)	FY 2022-2026
• *Version 3/10/2022*	
Kentuckiana Regional Planning and Development Agency (KIPDA)	FY 2020-2025
• *Version 3/29/2022*	
Indianapolis Metropolitan Planning Organization (IMPO)	FY 2022-2025
• *Version 8/18/2021*	
Michiana Area Council of Governments (MACOG)	FY 2022-2026
• *Version 3/09/2022*	

Madison County Council of Governments (MCCOG)	FY 2022-2026
• *Version 7/13/2021*	
Northeastern Indiana Regional Coordinating Council (NIRCC)	FY 2022-2026
• *Version 3/28/2022*	
Northwestern Indiana Regional Planning Commission (NIRPC)	FY 2022-2026
• *Version 3/17/2022*	
Ohio-Kentucky-Indiana Regional Council of Governments (OKI)	FY 2020-2023
• *Version 03/10/2022*	
Terre Haute Area Metropolitan Planning Organization (THAMPO)	FY 2020-2024
• *Version 08/26/2021*	

In addition, INDOT has expanded our public involvement process by taking advantage of virtual meeting techniques and allowing accessibility to online documents, materials, virtual meeting registration, recorded virtual meetings, and comment forms. INDOT also leveraged our planning partner contacts (MPOs, RPOs, LTAP), social media, and notifications sent to local libraries, housing authorities, senior aging centers, and local newspapers across the state.

We greatly appreciate FHWA/FTA support in the development of the STIP 2022-2026 and look forward to working together to achieve our mutual goals. Should you have any questions pertaining to this amendment, please contact Michael McNeil, STIP Specialist at 317-232-0223 or at mmcneil@indot.in.gov.

Sincerely,

Michael Smith, Commissioner
Indiana Department of Transportation

cc: (w/enclosure): FTA
Michelle Allen, FHWA
Jeffrey Brooks, INDOT
Kristin Brier, INDOT
Kathy Eaton-McKalip, INDOT
Louis Feagans, INDOT
Roy Nunnally, INDOT
Larry Buckel, INDOT
Jay Mitchell, INDOT
Jason Casteel, INDOT
Michael McNeil, INDOT

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

June 17, 2022

Mr. Michael Smith
Commissioner
Indiana Department of Transportation
100 N Senate Ave. N955
Indianapolis, IN 46204

SUBJECT: Indiana FY2022-2026 STIP Approval and Associated Federal Planning Finding

Dear Mr. Smith:

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have completed our review of the FY2022-2026 Indiana Statewide Transportation Improvement Program (INSTIP), which was submitted by the INDOT request letter dated April 27, 2022.

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 FY2022-2026 STIP, including the Metropolitan Planning Organization (MPO) Transportation Improvement Programs (TIPs) directly incorporated into the STIP, subject to the corrective actions 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 FY2022-2026 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 FY2022-2026 STIP substantially meets the transportation planning requirements and are approving the STIP subject to the corrective actions outlined in the FPF. This approval is effective June 17, 2022, 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. FHWA and FTA will continue to partner with INDOT to ensure the previously developed action plan (attached) is implemented to address the corrective actions. If progress is not made in addressing the corrective actions, future amendments to the FY2022-2026 STIP, or adoption of the FY2024-2028 STIP, may not be approved by USDOT.

If you have questions or need additional information concerning our approval and the FPF, please contact Ms. Michelle Allen of the FHWA Indiana Division at (317) 226-7344, or by email at michelle.allen@dot.gov, or Mr. Jason Ciavarella of the FTA Region 5 Office at (312) 353-1653, or by email at jason.ciavarella@dot.gov.

Sincerely,

KELLEY BROOKINS

Digitally signed by KELLEY BROOKINS
Date: 2022.06.13 10:08:34 -05'00'

Kelley Brookins
Regional Administrator
FTA Region V

Sincerely,

JERMAINE R HANNON

Digitally signed by JERMAINE R HANNON
Date: 2022.06.13 15:57:46 -04'00'

Jermaine R. Hannon
Division Administrator
FHWA Indiana Division

cc: (transmitted by e-mail)
Louis Feagans, INDOT
Roy Nunnally, INDOT
Karen Hicks, INDOT

Transportation Improvement Program Fiscal Year 2022-2026 Amendment #22-10 **6 Projects Listed**

1900177 (Ver 1) 22-10 STATUS **New Project** **FEDERAL**

Title: District Pavement Project (Non-I) **Route:** N/A

Description: HMA Overlay Minor Structural, SR 2 from US 20 to US 20/31, with several different left-turn improvements along the SR2 corridor.

Project Type: HMA Overlay Minor Structural **AQ Exempt:** Exempt **District:** LaPorte

County: Laporte **Limits:**

Narrative: Amend FY24 CN $15,050,096 (80/20 split) along with FY24 CN $3M safety funds.

FED FY	REVENUE SOURCE	PE	RW	CN	CE	TOTAL
2024	HSIP State	$0	$0	$3,000,000	$0	**$3,000,000**
2024	NHPP Non Interstate	$0	$0	$15,050,096	$0	**$15,050,096**
	2022-2026 TOTAL	**$0**	**$0**	**$18,050,096**	**$0**	**$18,050,096**
	ALL YEARS TOTAL	**$0**	**$0**	**$18,050,096**	**$0**	**$18,050,096**

Region: **Northwestern MPO** **Lead Agency:** INDOT

Categorical Exclusion

Appendix I

Other

Des. No. 1900177 Structure Summary Table

Des. No.	Str. No	Asset No.	Latitude	Longitude	Left	Center	Right	Size (in)	Length	Pipe Type	Description	Removal (ft)	Remarks
1900177	1	CLV-37285	41.672872	-86.583378		X		12	62	2	Existing Inlet		62 LFT of 12" CIPP Lining
1900177	2	NONE	41.672775	-86.583269			X	15	65	2	Existing Manhole		65 LFT of 15" CIPP Lining
1900177	3	CLV-37291	41.672669	-86.583278			X	12	12	2	Existing Inlet	12	Replace with 121 LFT of 12" Type 2 Pipe
1900177	4	NONE	41.672661	-86.582972			X	15	201	2	Existing Manhole		201 LFT of 15" CIPP Lining, Riprap at outlet
1900177	5	CLV-46978	41.673028	-86.583094	X			18	106	2			106 LFT of 18" CIPP Lining, Riprap at outlet
1900177	8	CLV-37325	41.672711	-86.575158	X			15	66	1		66	Replace with 66 LFT of 15", Type 1 Pipe
1900177	8A	CLV-37325	41.672711	-86.575158			X	15	58	1	Type P-12A Inlet	58	Replace with 58 LFT of 15", Type 1 Pipe
1900177	9	CLV-37347	41.672672	-86.570433			X	30	92	2	Existing Inlet		92 LFT of 30" CIPP Lining
1900177	10	CLV-37351	41.672672	-86.570433	X			30	67	2			67 LFT of 30" CIPP Lining, add 1-1.5:1 Beveled Edge Headwall
1900177	11	CLV-37369	41.672725	-86.567958		X		12	20	2		20	Replace with 20 LFT of 12", Type 2 Pipe, Riprap at outlet
1900177	12	CLV-37365	41.672653	-86.567131			X	15	61	2	Type P-12A Inlet	61	Replace with 58 LFT of 15", Type 2 Pipe, Riprap at outlet
1900177	13	CLV-37423	41.672808	-86.564925	X			12	99	2	Type E7 Inlet	99	Replace with 60 LFT of 12", Type 2 Pipe, Riprap at outlet
1900177	14	CLV-37429	41.672569	-86.561222			X	15	58	1	Type P-12A (Modified) Inlet	58	Replace with 58 LFT of 15", Type 1 Pipe
1900177	15	CLV-37431	41.672569	-86.561222	X			15	61	1		61	Replace with 61 LFT of 15", Type 1 Pipe
1900177	16	CLV-37433	41.672697	-86.559997	X			15	62	2	Type P-12A Inlet	62	Remove 62 LFT of 18" RCP and Replace with 62 LFT of 15", Type 2 Pipe, Riprap at outlet
1900177	17	CLV-37441	41.672503	-86.554353			X	15	59	2	Existing Inlet		59 LFT of 15" CIPP Lining, Riprap at outlet
1900177	20	CLV-37859	41.672453	-86.544169			X	12	61	2	Existing Inlet		61 LFT of 12" CIPP Lining, Riprap at outlet
1900177	21	NONE	41.672517	-86.542725		X					Type P-12A Inlet		Replace Inlet
1900177	22	CLV-37865	41.672517	-86.542725			X	15	81	2	Type P-12A Inlet	81	Remove 80 LFT of 12" RCP and Replace with 80 LFT of 15", Type 2 Pipe, riprap at outlet
1900177	25	CLV-94742	41.672503	-86.540025		X		15	24	2		24	Replace with 24 LFT of 15", Type 2 Pipe, Riprap at outlet
1900177	27	CLV-37909	41.67255	-86.536869	X			15	50	2	Type P-12A Inlet	50	Replace with 50 LFT of 15", Type 1 Pipe
1900177	28	CLV-37907	41.67255	-86.536869			X	15	71	2		71	Repalce with 71 LFT of 15", Type 1 Pipe, add Headwall
1900177	29	CLV-37913	41.672469	-86.535579		X		12	54	2	Type P-12A Inlet	54	Replace with 54 LFT of 12", Type 2 Pipe
1900177	29A	NONE	41.672469	-86.535579							Type R-13 Inlet		Replace Inlet
1900177	30	CLV-37921	41.672447	-86.533839		X		12	82	2	Type P-12A Inlet		82 LFT of 12" CIPP Lining
1900177	31	CLV-37929	41.672525	-86.533686	X			24	62	1		62	Remove 62 LFT of 18" RCP and Replace with 62 LFT of 24", Type 1 Pipe
1900177	32	CLV-37925	41.672525	-86.533686			X	24	61	1	Type P-12A (Modified) Inlet	61	Remove 61 LFT of 18" RCP and Replace with 61 LFT of 24", Type 1 Pipe
1900177	33	CLV-37931	41.672433	-86.531583		X		12	325	2	Type P-12A Inlet	325	Remove 325 LFT of 10" RCP and Replace with 325 LFT of 12", Type 2 Pipe
1900177	34	CLV-37936	41.672433	-86.531583			X	15	68	2	Type P-12A Inlet	68	Replace with 68 LFT of 15", Type 2 Pipe, Riprap at outlet
1900177	35	CLV-37945	41.672492	-86.529783	X			24	67	2	Existing Inlet		67 LFT of 24" CIPP Lining, add 1-5:1 Beveled Edge Headwall
1900177	36	CLV-37943	41.672492	-86.529783			X	24	81	2			81 LFT of 24" CIPP Lining, Riprap at outlet
1900177	37	CLV-37951	41.672342	-86.528581			X	15	75	2	Type P-12A Inlet	75	Replace with 75 LFT of 15", Type 2 Pipe, riprap at outlet
1900177	38	CLV-46678	41.672472	-86.527244	X			12	58	2	Existing Inlet		58 LFT of 12" CIPP Lining
1900177	38A	NONE	41.672472	-86.527244							Type R-13 (modified) Inlet		Replace Inlet
1900177	39	CLV-46664	41.672381	-86.525733		X		15	44	2	Type P-12A Inlet	44	Remove 44 LFT of 12" CMP and Replace with 44 LFT of 15", Type 2 Pipe
1900177	40	CLV-38015	41.672425	-86.523264	X			24	67	1	Type P-12A Inlet	67	Replace with 67 LFT of 24", Type 1 Pipe, P-12A Inlet
1900177	40A	NONE	41.672425	-86.523264		X						14	Remove Pipe
1900177	41	CLV-38015	41.672425	-86.523264			X	24	70	1	Type P-12A Inlet	70	Replace with 70 LFT of 24", Type 1 Pipe
1900177	42	CLV-38017	41.672239	-86.521128							Type P-12A Inlet		Replace Inlet
1900177	43	CLV-46642	41.672217	-86.519264			X	12	70	2	Existing Inlet		70 LFT of 12" CIPP Lining, riprap at outlet

1900177	44	CLV-46636	41.672322	-86.517183	X			12	58	2	Existing Inlet		58 LFT of 12" CIPP Lining, Riprap at outlet
1900177	45	CLV-46630	41.672247	-86.517008		X		12	18	2		18	Replace with 18 LFT of 12", Type 2 Pipe, Riprap at outlet
1900177	46	CLV-46628	41.672272	-86.513892	X			15	63	2	Existing Inlet		63 LFT of 15" CIPP Lining, Riprap at outlet
1900177	47	CLV-46622	41.672253	-86.512397							Type P-12A (Modified) Inlet		Replace Inlet
1900177	49	CLV-46610	41.672172	-86.512206							Type P-12A Inlet		Replace Inlet
1900177	50	CLV-46604	41.672172	-86.512206							Type P-12A Inlet		Replace Inlet
1900177	51	CLV-38025	41.672067	-86.510058			X	12	58	2	Existing Inlet		58 LFT of 12" CIPP Lining, riprap at outlet
1900177	52	CLV-46588	41.672092	-86.508667	X			12	73	2	Type P-12A Inlet	73	Replace with 73 LFT of 12", Type 2 Pipe, Riprap at outlet
1900177	53	CLV-46702	41.672308	-86.506611	X			15	92	2	Existing Manhole	92	Replace with 92 LFT of 15", Type 2 Pipe
1900177	53A	NONE	41.672308	-86.506611	X			12	73	2	Type R-13 Inlet	73	Replace with 73 LFT of 12", Type 2 Pipe
1900177	53B	NONE	41.672308	-86.506611	X			12	46	2	Existing Inlet	46	Replace with 46 LFT of 12", Type 2 Pipe
1900177	54	CLV-46452	41.672067	-86.50635		X		12	49	2	Type P-12A Inlet	49	Replace with 49 LFT of 12", Type 2 Pipe
1900177	55	CLV-46204	41.672103	-86.503297	X			12	70	2	Type P-12A Inlet	70	Replace with 70 LFT of 12", Type 2 Pipe
1900177	55B	NONE	41.672103	-86.503297		X					Type K-2 Manhole		K-2 MH
1900177	57	CLV-38039	41.672003	-86.497164							Type P-12 (modified) Manhole		Add P-12 (modified) MH
1900177	58	CLV-46186	41.671917	-86.495903		X		12	142	2	Type P-12A Inlet	142	Replace with 142 LFT of 12", Type 2 Pipe
1900177	59	CLV-38041	41.671833	-86.495547			X	12	69	2	Type P-12A Inlet	69	Replace with 69 LFT of 12", Type 2 Pipe, riprap at outlet
1900177	60	CLV-46463	41.671822	-86.49055		X		12	151	2	Type P-12A Inlet	151	Remove 150 LFT of 10" CMP and Replace with 150 LFT of 12", Type 2 Pipe
1900177	61	CLV-40611	41.671947	-86.486744	X			24	107	2		107	Replace with 107 LFT of 24", Type 2 Pipe, Riprap at outlet
1900177	62	CLV-95041	41.671767	-86.485178		X		12	81	2	Type P-12A Inlet	81	Replace with 81 LFT of 12", Type 2 Pipe
1900177	64	CLV-94805	41.671575	-86.481736			X	24	83	2		83	Replace with 83 LFT of 24", Type 2 Pipe, Riprap at outlet
1900177	65	CLV-94987	41.671725	-86.480419			X	12	85	2	Type P-12A Inlet	85	Replace with 85 LFT of 12", Type 2 Pipe, Riprap at outlet
1900177	66	CLV-38103	41.671914	-86.463706			X	15	63	2	Type P-12A Inlet	63	Remove 63 LFT of 12" RCP and Replace with 63 LFT of 15", Type 2 Pipe, Riprap at outlet
1900177	70	CLV-38117	41.672017	-86.453669		X		15	51	2	Type F-7 Inlet	51	Remove 51 LFT of 12" CMP and Replace with 51 LFT of 15", Type 2 Pipe
1900177	71	CLV-40643	41.671939	-86.453422			X	15	64	2	Type F-7 Inlet	64	Remove 64 LFT of 12" CMP and Replace with 64 LFT of 15", Type 2 Pipe, Riprap at outlet
1900177	72	CLV-38123	41.672003	-86.450267		X		12	25	2		25	Replace with 25 LFT of 12", Type 2 Pipe, Riprap at outlet
1900177	73	CLV-40645	41.671933	-86.449081			X	12	60	2	Existing Inlet		60 LFT of 12" CIPP Lining Req'd, Riprap at outlet
1900177	74	CLV-40657	41.672003	-86.447789		X		12	29	2		29	Replace with 29 LFT of 12", Type 2 Pipe, Riprap at outlet
1900177	75	CLV-40667	41.671914	-86.441589			X	12	60	2	Existing Inlet		60 LFT of 12" CIPP Lining, Riprap at outlet
1900177	76	CLV-40667	41.671908	-86.438872			X	12	62	2	Existing Inlet		62 LFT of 12" CIPP Lining Req'd, Riprap at outlet
1900177	77	CLV-40671	41.671906	-86.43765			X	12	61	2	Existing Inlet		61 LFT of 12" CIPP Lining, Riprap at outlet
1900177	79	NONE	41.671978	-86.433756			X	15	67	2	Type P-12A Inlet	67	Replace with 67 LFT of 15", Type 2 Pipe, Riprap at outlet
1900177	81	CLV-40683	41.671889	-86.432478			X	12	60	2	Existing Inlet		60 LFT of 12" CIPP Lining, Riprap at outlet
1900177	82	CLV-40689	41.671886	-86.431019			X	12	65	2	Existing Inlet		65 LFT of 12" CIPP Lining, Riprap at outlet
1900177	83	CLV-40699	41.671947	-86.42655		X		12	110	2	Type P-12A Inlet	110	Replace with 110 LFT of 12", Type 2 Pipe
1900177	84	CLV-46823	41.671869	-86.422064			X	12	65	2	Existing Inlet		65 LFT of 12" CIPP Lining, Riprap at outlet
1900177	85	CLV-40589	41.672133	-86.418967	X			18	88	2		88	Replace with 88 LFT of 18", Type 2 Pipe, Riprap at outlet
1900177	86	CLV-40853	41.671867	-86.418094			X	12	61	2	Type P-12A Inlet	61	Replace with 61 LFT of 12", Type 2 Pipe, Riprap at outlet
1900177	87	CLV-40859	41.671861	-86.416508			X	12	58	2	Existing Inlet		58 LFT of 12" CIPP Lining, Riprap at outlet
1900177	88	CLV-40871	41.671858	-86.414517			X	12	64	2	Type P-12A Inlet	64	Replace with 64 LFT of 12", Type 2 Pipe, Riprap at outlet
1900177	89	CLV-40907	41.671753	-86.414119			X	15	81	2		81	Replace with 81 LFT of 15", Type 2 Pipe, Riprap at outlet
1900177	90	NONE	41.671858	-86.412514			X	12	64	2	Type F-7 Inlet	64	Replace with 64 LFT of 12", Type 2 Pipe, Riprap at outlet

1900177	91	CLV-40879	41.671917	-86.412458		X		12	49	2	Type P-12A Inlet	49	Replace with 49 LFT of 12", Type 2 Pipe, riprap at outlet
1900177	92	CLV-40889	41.671853	-86.410064			X	12	62	2	Type P-12A Inlet	62	Replace with 62 LFT of 12", Type 2 Pipe, Riprap at outlet
1900177	93	CLV-40587	41.671989	-86.407331	X			12	68	2	Existing Inlet		68 LFT of 12" CIPP Lining Req'd, Riprap at outlet
1900177	94	CLV-40903	41.671844	-86.405928	X			15	62	2	Type P-12A Inlet	62	Replace with 62 LFT of 15", Type 2 Pipe, Riprap at outlet
1900177	95	CLV-40919	41.671833	-86.403431			X	12	60	2	Type P-12A Inlet	60	Replace with 60 LFT of 12", Type 2 Pipe, Riprap at outlet
1900177	96	CLV-40945	41.671836	-86.400542							Type F-7 Inlet		Replace Inlet
1900177	97	CLV-40935	41.671917	-86.400389							Type P-12A Inlet		Replace Inlet
1900177	98	CLV-40575	41.671972	-86.399458	X			12	63	2	Existing Inlet	63	Replace with 63 LFT of 12", Type 2 Pipe, Riprap at outlet
1900177	99	CLV-40941	41.671892	-86.399367		X		12	63	2	Type E-7 Inlet	63	Replace with 63 LFT of 12", Type 2 Pipe
1900177	100	NONE	41.671828	-86.398211			X	12	62	2	Type P-12A Inlet	62	Replace with 62 LFT of 12", Type 2 Pipe, Riprap at outlet
1900177	101	CLV-40943	41.671897	-86.3981		X		12	50	2	Type P-12A Inlet	50	Replace with 50 LFT of 12", Type 2 Pipe
1900177	102	CLV-41151	41.671831	-86.396275			X	12	61	2	Type P-12A Inlet	61	Replace with 61 LFT of 12", Type 2 Pipe, Riprap at outlet
1900177	104	CLV-41159	41.671964	-86.393394	X			12	65	2	Type P-12A Inlet	65	Replace with 65 LFT of 12", Type 2 Pipe, Riprap at outlet
1900177	105	CLV-41161	41.671964	-86.393394							Type P-12A Inlet		Replace Inlet
1900177	106	CLV-41181	41.671878	-86.383194		X		12	84	2	Type P-12A Inlet	84	Replace with 84 LFT of 12", Type 2 Pipe, Riprap at outlet
1900177	107	CLV-41187	41.671728	-86.3832			X	15	59	2		59	Replace with 59 LFT of 15", Type 2 Pipe, Riprap at outlet
1900177	108	CLV-40557	41.67195	-86.383036	X			15	50	2	Type P-12A Inlet	50	Replace with 50 LFT of 15", Type 2 Pipe, Riprap at outlet
1900177	109	CLV-40519	41.672069	-86.373892	X			15	43	2		43	Replace with 43 LFT of 15", Type 2 Pipe, Riprap at outlet
1900177	130	CLV-41189	41.671822	-86.379369			X					56	Remove Pipe and Inlet
1900177	131	CLV-41191	41.671822	-86.378167			X					61	Remove Pipe and Inlet
1900177	132	CLV-41195	41.671828	-86.376839			X					95	Remove Pipe and Inlet
1900177	133	CLV-41197	41.671833	-86.375739			X					55	Remove Pipe and Inlet
1900177	134	CLV-41199	41.671983	-86.374517	X							54	Remove Pipe and Inlet
1900177	135	CLV-41331	41.671911	-86.373906		X						64	Remove Pipe
1900177	136	CLV-41339	41.671986	-86.373289	X							54	Remove Pipe and Inlet
1900177	137	CLV-40517	41.671992	-86.371719	X							54	Remove Pipe and Inlet
1900177	138	CLV-41345	41.671919	-86.371356		X						67	Remove Pipe
1900177	139	CLV-41349	41.672003	-86.370494	X							67	Remove Pipe and Inlet
1900177	140	CLV-40503	41.672003	-86.369003	X							65	Remove Pipe and Inlet
1900177	141	CLV-40499	41.672003	-86.368447	X							67	Remove Pipe and Inlet
1900177	142	CLV-41371	41.671931	-86.368133		X						60	Remove Pipe
1900177	110	CLV-37685	41.671928	-86.366978	X		X	18	122	1	C4 Manhole	60	Replace with 122 LFT of 18", Type 1 Pipe, Replace inlet with manhole
1900177	143	CLV-41379	41.671919	-86.366692		X						48	Replace Inlet
1900177	144	NONE	41.67185	-86.365653			X					56	Remove Pipe and Inlet
1900177	111	CLV-37683	41.671889	-86.363892	X		X	24	102	1		102	Replace with 102 LFT of 24", Type 1 Pipe
1900177	112	CLV-37663	41.671833	-86.351025	X			12	91	2	Existing Inlet		91 LFT of 12" CIPP Lining
1900177	113	CLV-41381	41.671633	-86.351028			X	12	63	2	Existing Inlet		63 LFT of 12" CIPP Lining
1900177	114	NONE	41.671647	-86.350953			X	12	11	2	Existing Inlet		11 LFT of 12" CIPP Lining
1900177	115	NONE	41.671672	-86.350822			X	12	164	2	Existing Inlet		164 LFT of 12" CIPP Lining
1900177	116	NONE	41.671669	-86.350114			X	12	266	2	Existing Inlet		266 LFT of 12" CIPP Lining
1900177	117	NONE	41.671669	-86.349247			X	12	252	2	Existing Inlet		252 LFT of 12" CIPP Lining
1900177	118	NONE	41.671669	-86.348244			X	12	133	2	Existing Inlet		133 LFT of 12" CIPP Lining
1900177	119	NONE	41.671744	-86.342333		X		15	25	2	Type E-7 Inlet	25	Replace with 25 LFT of 15", Type 2 Pipe
1900177	119A	NONE	41.671744	-86.342333		X					Type F-7 Inlet		Replace Inlet
1900177	120	CLV-89844	41.671817	-86.341931	X						Type P-12A (modified) Manhole		90 LFT of 24" CIPP Lining
1900177	121	CLV-89844	41.671817	-86.341931			X	24	104	1		104	104 LFT of 24" CIPP Lining and 1-1.5:1 Beveled Headwall
1900177	122	NONE	41.671753	-86.341103		X		12	239	2	Existing Manhole	239	Replace with 239 LFT of 12", Type 2 Pipe
1900177	123	CLV-89846	41.671767	-86.340189		X					Type P-12A Inlet		Replace Inlet
Larrison (1900177)	N/A	NONE	41.6730766	-86.4624604			X	18	57		RCP	57	Replacement/Lengthen

Larrison (1900177)	N/A	NONE	41.6719695	-86.4654134		X		12	60		RCP		Rehab, adj. rim elevation
Larrison (1900177)	N/A	NONE	41.6719939	-86.4608434		X		10	60		PVC	60	Replacement
Larrison (1900177)	N/A	NONE	41.6719977	-86.4593792		X		12	61		RCP	61	Replacement
Larrison (1900177)	N/A	NONE	41.6720006	-86.4579934		X		12	70		RCP	70	Replacement
Larrison (1900177)	N/A	NONE	41.6719996	-86.457734		X		unk	unk		RCP		Connect ex. pipe to new storm sewer
Larrison (1900177)	N/A	NONE	41.6719998	-86.456893		X		10	61		PVC	61	Replacement

Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated March 2022)

ProjectNumber	SubProjectCode	County	Property
1800034	1800034	St. Joseph	Bendix Woods County Park & Nature Preserve
1800046	1800046	St. Joseph	Potato Creek State Park & Swamp Rose Nature Preserve
1800134	1800134	St. Joseph	Martin Luther King Park & Rec Center
1800138	1800138	St. Joseph	Leeper Park
1800142	1800142	St. Joseph	Paul F. Boehm Park
1800151	1800151	St. Joseph	Belleville (Gardens) Park Softball Complex
1800195	1800195	St. Joseph	Pierre Navarre Middle School & Park
1800200	1800200	LaPorte	Fox Memorial Park
1800223	1800223	St. Joseph	Potato Creek State Park & Swamp Rose Nature Preserve
1800228	1800228	LaPorte	Fox Memorial Park
1800235	1800235	St. Joseph	Central Park, Central Park West and Mishawaka Public Access
1800264	1800264	St. Joseph	Henry Frank Park (Northside Park)
1800265	1800265	LaPorte	Kesling Park
1800271	1800271	St. Joseph	Central Park, Central Park West and Mishawaka Public Access
1800274	1800274	St. Joseph	St. Patrick's Farm County Park and Access Site
1800312	1800312L	St. Joseph	Potato Creek State Park
1800313	1800313	St. Joseph	Spicer Lake Nature Preserve
1800314	1800314	St. Joseph	St. Patrick's Farm County Park and Access Site
1800332	1800332	LaPorte	Rumley Park
1800335	1800335	St. Joseph	Mary Gibbard Park & Pool
1800351	1800351	LaPorte	Westville Park (Prairie Meadow Park)
1800352	1800352	St. Joseph	Howard Park Recrea. on Center & Howard Park Trails
1800363	1800363Y	St. Joseph	Potato Creek State Park
1800366	1800366	St. Joseph	East Raceway Park
1800368	1800368	St. Joseph	St. Patrick's Farm County Park and Access Site
1800373	1800373	LaPorte	Kesling Park
1800376	1800376	St. Joseph	Potato Creek State Park & Swamp Rose Nature Preserve
1800397	1800397	St. Joseph	Roseland Town Park
1800400	1800400	St. Joseph	Spicer Lake Nature Preserve
1800402	1800402	LaPorte	Nelson Park
1800405	1800405V	LaPorte	Galena Marsh Nature Preserve
1800413	1800413Q	St. Joseph	Potato Creek State Park
1800422	1800422	St. Joseph	Ferriettie/Baugo Creek County Park
1800439	1800439	St. Joseph	East Bank Trail
1800453	1800453	LaPorte	Luhr Park
1800454	1800454	St. Joseph	Central Park, Central Park West and Mishawaka Public Access
1800475	1800475	St. Joseph	Spicer Lake Nature Preserve
1800481	1800481	St. Joseph	Big Blue Stem LaSalle (Sagwasipi) Trail
1800497	1800497	St. Joseph	Spicer Lake Nature Preserve
1800543	1800543	St. Joseph	Scarbrough Park
1800547	1800547	LaPorte	Hansen & Gifford Parks/Old Spur Trail
1800550	1800550	St. Joseph	Spicer Lake Nature Preserve
1800601	1800601	St. Joseph	North Liberty Town Park
1800608	1800608	LaPorte	Luhr County Park
1800620	1800620	St. Joseph	Pinhook Park

*Park names may have changed. If acquisition of publically owned land or impacts to publically owned land is anticipated, coordination with IDNR, Division of Outdoor Recreation, should occur.

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ABBREVIATED ENGINEER'S REPORT

PROJECT NUMBER: 1900177

ROAD PROJECT:
HMA Overlay, Minor Structural

ROUTE IDENTIFICATION:
SR 2 from US 20 to US 20/US 31 Interchange
LaPorte/St. Joseph County, Indiana

November 1, 2019

Purpose of Report >>

The purpose of this report is to document the engineering assessment phase of project development, 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.

Project Location >>

This project is located on SR 2 in LaPorte and St. Joseph Counties. The GPS Coordinates of the beginning and ending locations of the project are 41°40'22" North, 86°35'20" West and 41°40'18" North, 86°20'27" West, respectively. The project is 13.06 miles in length, from Reference Post 68+18 to Reference Post 81+20.

The project is in the Indiana Department of Transportation's La Porte District, La Porte Sub-District and is part of an area overseen by the Michiana Area Council of Governments, a Metropolitan Planning Organization (MPO).

The project location map and project site photos are included in Appendix "A".

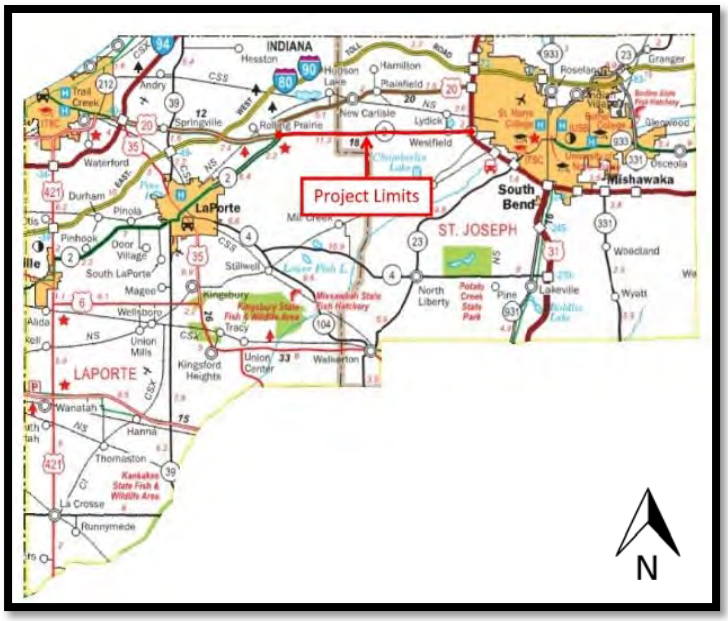


Figure 1 – Project Location Map

Project Purpose and Need >>

The primary purpose of this project is to improve the serviceability of the roadway by addressing the cracking and potholing present within the project limits. The need for this project is due to the existing road showing signs of pavement distress including 47% functional cracking and 3% structural cracking, bleeding, rutting of depths up to 0.18 inches, and longitudinal joint cracking/potholing. With an increase of rates on the Toll Road, this corridor is expected to have increased traffic numbers, including more trucks, which will likely accelerate deterioration if these detects are not corrected.

Existing Facility >>

Roadway

TABLE 1 – Basic Design Elements	
Functional Class	Rural Principal Arterial - Other
Posted Speed	60 mph
Member Road Systems	On National Highway System
	On National Truck Network
	Regional Corridor (statewide mobility corridor map)
	Extra Heavy-Duty Highway Network
Access Control	Limited

The existing roadway lane width is 12-foot through the project limits and contains guardrail in some sections. The roadway corridor contains both paved and usable shoulders of varying sizes throughout the project limits.

TABLE 2 – Roadway Information			
Geometric Criteria			
Design Criteria	3R (Non-Freeway)	Rural/Urban	Rural
Terrain	Level		
Approach Cross Section			
IDM Figure Reference	IDM 55-3A, Multi-Lane		
Travel Lane Count	4	Travel Lane Width	12 ft (existing); maintain existing (proposed)
Shoulder Width (Usable)	2 to 14 ft (existing); maintain existing (proposed)	Shoulder Width (Paved)	1 to 10 ft (existing); maintain existing (proposed)
Mainline Pavement	HMA over Concrete (existing); maintain existing (proposed)	Shoulder Pavement	HMA (existing); maintain existing (proposed)
Alignment			
Horizontal	Tangent (existing); maintain existing (proposed)	Vertical	Sag and Crest Curves (existing); maintain existing (proposed)

Road History

TABLE 3 – Pavement History Within Project Limits		
Year	***Width***	***Type of Work***
1926	18’	Concrete Grading & Paving
1943-1944	2 @ 22’	Concrete Grading & Paving Divided Lane
1954-1956	2 @ 22’	Hot Asphaltic Concrete on Concrete Divided Lane
1974-1982	2 @ 24’	Hot Asphaltic Emulsion Surface and Binder
2005	2 @ 36’	HMA Overlay, Preventative Maintenance
2014	2 @ 36’	Preventative Maintenance – Chip Sealing

Drainage

Existing drainage through the project is primarily through sheet flow away from the road into side ditching or the center grass median. A small structure summary table has been provided in Appendix “B”, detailing suggested action to existing structures within the project limits. The proposed drainage through the project should address any rehabilitations or repairs identified.

Traffic Data >>

An official traffic forecast report was obtained from the Indiana Department of Transportation for the project limits along SR 2. A summary of traffic data follows:

TABLE 4 – Traffic Data Summary Table			
Year	***AADT***	***DHV***	***Commercial Vehicles***
2018	21,959 VPD	9.25%	17.46% AADT 12.41% DHV
2024	22,244 VPD		
2044	23,192 VPD		

A 0.22% traffic growth rate was used for this forecast. The directional distribution is 50.98% positive direction. The official traffic forecast report is provided in Appendix “C” for reference.

Alternatives and Recommendations >>

Alternative A – Do Nothing

This alternative allows the existing roadway to remain in the same condition with no improvements. This will result in continued deterioration of the road, which could allow development of unsafe travel conditions and likely increase costs of repair at a later date. This alternative does not meet the need nor achieves the purpose of the project and will not be considered further.

Alternative B – HMA Overlay, Minor Structural

This alternative meets the need and purpose of the project and is the preferred alternative.

Details of Preferred Alternative

An HMA overlay will be performed along the length of the project limits to improve the serviceability of the roadway. Four inches of existing pavement will be milled to remove the last surface course and chip sealing, and will be replaced by 1.5 inches of HMA Surface followed by 2.5 inches of HMA Intermediate. Additional milling, wedge-and-level, and approach work will be performed to ensure continuity with all adjacent and intersecting roadways. Full-depth HMA patching is expected and shall be applied as-needed based on field inspection.

Pavement design and a geotechnical investigation will be needed for this project.

The condition ratings of existing culverts, inlet structures, and/or guardrail present within the project limits should be reviewed (as outlined in Appendix "B"), and any poorly rated structures should be repaired/replaced in conjunction with this project.

It is expected that a Level 1 Design Exception will be required for shoulder width within the project limits, particularly near the cemeteries between Pine Road and US20/US31.

Maintenance of Traffic During Construction >>

TABLE 5 – Maintenance of Traffic Concept	
Is this a mobility significant project / require a TMP?	No
Can the road be closed to traffic (detour)?	No
Does the project require an IHCP Exception?	No

Traffic shall be maintained through phased construction, utilizing lane closures. A detailed maintenance of traffic plan is required, utilizing the INDOT Standard Drawings and the Indiana MUTCD.

Cost Estimate >>

The construction cost of the preferred alternative is expected to be $14,745,000. This includes milling of the existing asphalt pavement, application of intermediate and surface courses, and various items incidental to construction. A summary table of the project costs is provided below.

TABLE 6 – Project Costs		
Phase	***Amount***	***Comments***
Right of Way Purchase:	$0	N/A
Right of Way Services:	$0	N/A
Preliminary Engineering 1:	$720,000	
Railroad PE 1:	$0	No Crossings Existing Within Project
Utilities PE (UT1):	$120,000	
Utilities CN (UT2):	$0	N/A
Construction Total:	**$14,745,000**	
Construction (CN):	$14,745,000	
Railroad Construction:	$0	
Maintenance of Traffic:	-	Included in CN
Environmental Mitigation:	$0	None required
ADA	$0	N/A
Construction Engineering (CE):	$1,150,000	
Other Considerations:	$0	N/A
TOTAL:	$16,735,000	

Environmental Considerations >>

TABLE 7 – Environmental Impacts		
	Description	***Notes***
☐	Tree Clearing	N/A
☐	Fish	N/A
☐	Bats	N/A
☐	Historical	Potential historic properties listed on or eligible for the National Register of Historic Places and the Indiana Register of Historic Sites and Structures are not known to be located within one mile of the project limits. Cultural resources will be further investigated during preparation of the Environmental Document. Section 106 coordination with the Indiana Department of Natural Resources Division of Historic Preservation and Archeology shall be included in the Environmental Document.
CE-1	CE Type	The District or the District's consultant will prepare an environmental document in accordance with the National Environmental Policy Act, National Historic Preservation Act, and other relevant laws.

TABLE 8 – Permits Required		
	Description	***Notes***
☐	USACE 404	N/A
☐	IDEM 401	N/A
☐	IDNR CIF	N/A
☐	IDNR Navigable Waterway	N/A
☐	IDEM Rule 5	Best management practices for erosion and sediment control will be incorporated into the plans and implemented during construction. A Rule 5 permit from the Indiana Department of Environmental Management (IDEM) will not be required for this project, unless the project results in land disturbances greater than one acre pursuant to 327 IAC 15-5. Best management practices regarding storm water quality management will be implemented regardless of the project requirement of Rule 5 permit.
N/A	Storm Water Quality Manager Level	N/A

No publicly owned parks, recreational areas or historic sites considered as Section 4(f) properties were identified within the project limits. A Section 4(f) analysis will not be necessary as part of the environmental documentation prepared for the project.

Survey Requirements >>

Partial survey is anticipated for this project to capture necessary information about all impacted drainage structures. The designer will utilize existing plans and aerial photography to prepare design plans for this project.

Right of Way Impacts >>

The existing apparent right of way is 75 feet from centerline on both sides of the roadway (Limited Access). This project will not require the purchase of temporary right of way or permanent right of way.

Utility Impacts >>

Based on the existing plans, various utilities appear to exist within the project limits. A list of potential existing utilities believed to be located within the proposed project limits are provided in Appendix "D". Utility coordination will be performed as-needed throughout the project.

Related Projects >>

TABLE 9 – Related Projects

Des #	*Work Type*	*Location*	*Priority Year*
1900017	Small Structure Replacement	SR 2 over Niespodziany Ditch, 6.5 miles west of US 31 junction	2024
1900063	HMA Overlay, Minor Structural	SR23 0.46 miles north of SR4 to 0.94 miles north of US20	2024
1900031	Replace Superstructure	US 6 over Kankakee River, 1.85 miles east of US 35	2024
1900029	Small Structure Replacement	US 421 over West Branch Trail Creek, 1.20 miles south of I-94 SB	2024

Concurrence >>

This document was prepared by:

_____ DATE: _____

Wyatt Huber, E.I.

8415 East 56th Street
Indianapolis, IN 46216
(317) 544-4996

Reviewed by:

_____ DATE: 11/12/2019

Molly Mooney, P.E.
District Pavement Engineer, La Porte District
Recommend: APPROVAL / ~~DISAPPROVAL~~

Reviewed by:

_____ DATE: 11/7/2019

Paul South, P.E.
Scoping Manager, La Porte District
Recommend: APPROVAL /~~ DISAPPROVAL~~

Approved by:

_____ DATE: 11/15/2019

Steve Benczik, P.E.
System Asset Manager, La Porte District

Appendix A

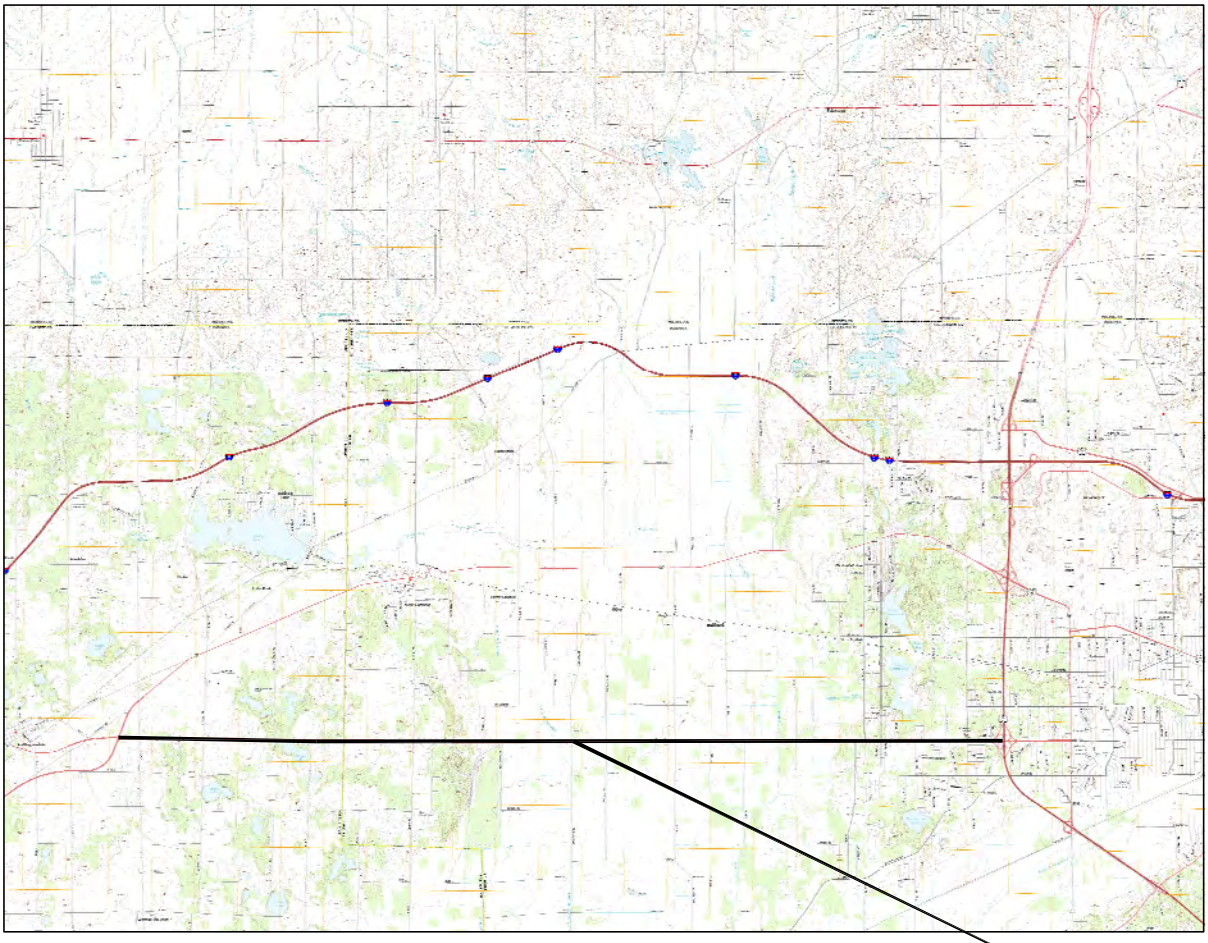
Location Map
Project Site Photos

USI consultants
8415 E. 56th Street
Indianapolis, Indiana 46216
Phone: (317) 544-4996
Fax: (317) 544-4997

LAPORTE COUNTY
1

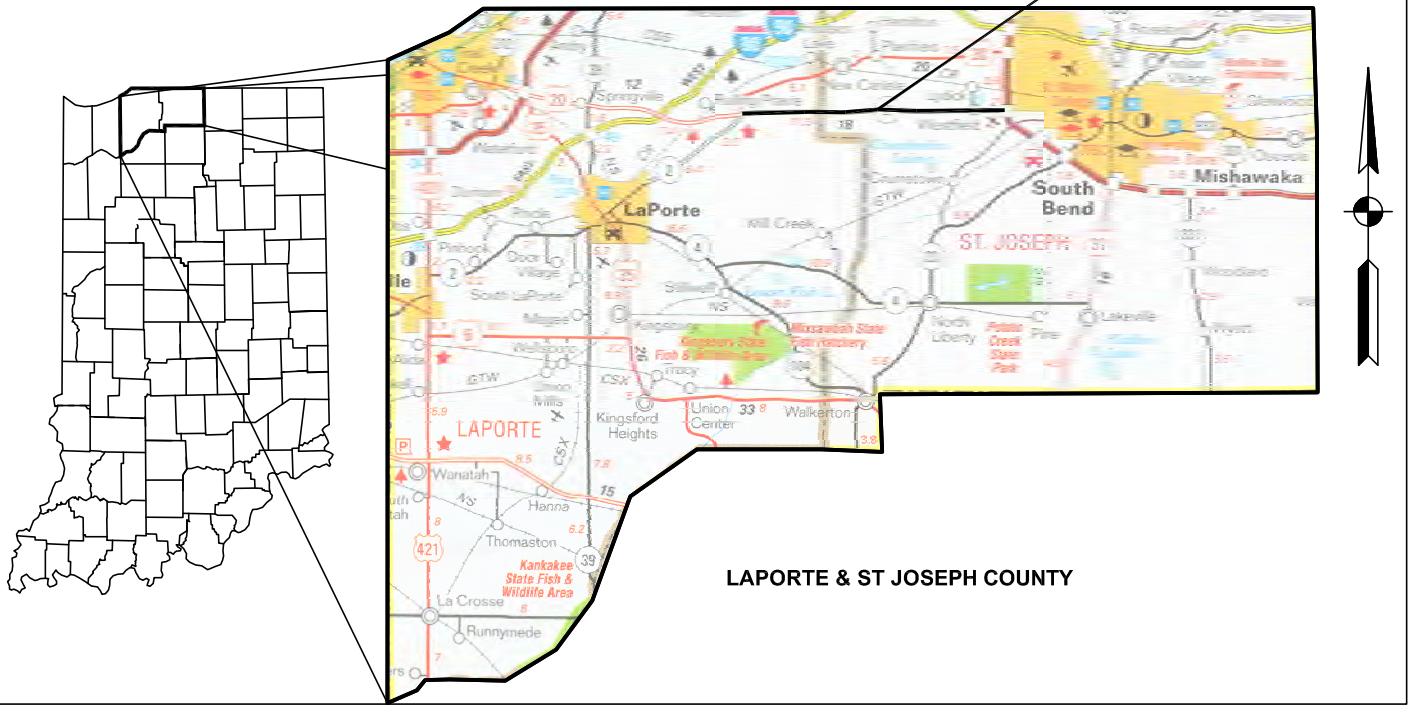
LOCATION MAP
US Highway 421 to SR 39 on US 30

HORIZONTAL SCALE	BRIDGE FILE
1" = 3000'	n/a
VERTICAL SCALE	DESIGNATION
n/a	n/a
SURVEY BOOK	SHEETS
	1 of 1
CONTRACT	PROJECT
	2018-510



Sections 7, 8, 9, 10, 11, 12, 7, 8, 9, 10, 11, 12, & 7, Township 37 N, Range 1 W, R 2 W, R 3 W, R 1 E, and R 2 E, Wills, Olive, Warren, and Portage Townships, LaPorte & st Joseph County Indiana

PROJECT SITE



LAPORTE & ST JOSEPH COUNTY



Photo #1: Edge Cracking, Centerline Cracking, and Transverse Cracking on SR 2



Photo #2: Transverse, Edgeline and Block Cracking on SR 2



Photo #3: Edge, Centerline, and Block Cracking on SR 2



Photo #4: Centerline and Transverse Cracking on SR 2



Photo #5: Block, Centerline, and Edge Cracking on SR 2

Appendix B

Small Structure Summary Table

Small Structure Summary Table						
Small Structure Name	***Reference Post***	***Latitude***	***Longitude***	***Size***	***Condition Rating***	***Suggested Action***
CLV 002-46-68.67	68+67	41.6727	-86.5768	15"	3	Poor Condition, Replace
CLV 002-46-69.08	69+08	41.6725	-86.5671	12"	3	Poor Condition, Replace
CLV 002-46-70.18	70+18	41.6723	-86.5455	12"	3	Poor Condition, Replace
CLV 002-71-72.91	72+91	41.6718	-86.4928	12"	3	Poor Condition, Replace
CLV 002-71-75.98	75+98	41.6721	-86.4336	18"	3	Poor Condition, Replace
CLV 002-46-68.40	68+40	41.6730	-86.5833	18"	5	Fair Condition, Reinspect[#]
CLV 002-46-68.78	68+78	41.6729	-86.5740	12"	5	Fair Condition, Reinspect[#]
CLV 002-46-69.16	69+16	41.6724	-86.5652	24"	5	Fair Condition, Reinspect[#]
CLV 002-46.69.18	69+18	41.6729	-86.5650	12"	5	Fair Condition, Reinspect[#]
CLV 002-46-69.26	69+26	41.6726	-86.5633	12"	5	Fair Condition, Reinspect[#]
CLV 002-46-69.44	69+44	41.6727	-86.5599	12"	5	Fair Condition, Reinspect[#]
CLV 002-46-69.45	69+45	41.6723	-86.5597	18"	5	Fair Condition, Reinspect[#]
CLV 002-46-69.85	69+85	41.6723	-86.5517	24"	5	Fair Condition, Reinspect[#]
CLV 002-46-69.90	69+90	41.6725	-86.5509	15"	5	Fair Condition, Reinspect[#]
CLV 002-46-70.26	70+26	41.6724	-86.5439	12"	5	Fair Condition, Reinspect[#]
CLV 002-46-70.80	70+80	41.6725	-86.5336	24"	5	Fair Condition, Reinspect[#]
CLV 002-71-71.35	71+35	41.6721	-86.5231	24"	5	Fair Condition, Reinspect[#]
CLV 002-71-71.46	71+46	41.6721	-86.5211	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-71.82	71+82	41.6724	-86.5138	15"	5	Fair Condition, Reinspect[#]
CLV 002-71-71.90	71+90	41.6720	-86.5123	30"	5	Fair Condition, Reinspect[#]
CLV 002-71-72.10	72+10	41.6722	-86.5087	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-72.20	72+20	41.6722	-86.5067	15"	5	Fair Condition, Reinspect[#]
CLV 002-71-72.46	72+46	41.6718	-86.5015	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-72.61	72+61	41.6716	-86.4984	18"	5	Fair Condition, Reinspect[#]
CLV 002-71-72.70	72+70	41.6717	-86.4968	18"	5	Fair Condition, Reinspect[#]
CLV 002-71-73.22	73+22	41.6719	-86.4868	24"	5	Fair Condition, Reinspect[#]
CLV 002-71-73.22b	73+22	41.6716	-86.4867	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-73.32	73+32	41.6715	-86.4849	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-73.63	73+63	41.6716	-86.4789	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-73.73	73+73	41.6716	-86.4769	15"	5	Fair Condition, Reinspect[#]
CLV 002-71-73.89	73+89	41.6716	-86.4740	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-73.99	73+99	41.6717	-86.4719	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-74.00	74+00	41.6720	-86.4721	15"	5	Fair Condition, Reinspect[#]
CLV 002-71-74.31	74+31	41.6717	-86.4654	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-74.40	74+40	41.6717	-86.4637	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-74.61	74+61	41.6718	-86.4593	12"	5	Fair Condition, Reinspect[#]
[#]Designer Shall Verify Condition as Design Progresses. Structures are Anticipated to Need Replaced						

Small Structure Summary Table (Cont.)						
Small Structure Name	***Reference Post***	***Latitude***	***Longitude***	***Size***	***Condition Rating***	***Suggested Action***
CLV 002-71-74.68	74+68	41.6717	-86.4577	15"	5	Fair Condition, Reinspect[#]
CLV 002-71-74.74	74+74	41.6718	-86.4568	10"	5	Fair Condition, Reinspect[#]
CLV 002-71-75.02	75+02	41.6718	-86.4509	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-75.06	75+06	41.6719	-86.4501	12" x 15"	5	Fair Condition, Reinspect[#]
CLV 002-71-75.12	75+12	41.6718	-86.4488	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-75.21	75+21	41.6717	-86.4474	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-75.61	75+61	41.6718	-86.4401	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-75.88	75+88	41.6717	-86.4353	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-75.99	75+99	41.6717	-86.4334	18"	5	Fair Condition, Reinspect[#]
CLV 002-71-76.10	76+10	41.6717	-86.4309	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-76.19	76+19	41.6718	-86.4293	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-76.26	76+26	41.6717	-86.4280	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-76.36	76+36	41.6717	-86.4261	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-76.47	76+47	41.6717	-86.4241	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-76.74	76+74	41.6721	-86.4190	15"	5	Fair Condition, Reinspect[#]
CLV 002-71-76.86	76+86	41.6717	-86.4165	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-76.97	76+97	41.6716	-86.4144	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-77.41	77+41	41.6717	-86.4059	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-77.70	77+70	41.6717	-86.4005	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-77.99	77+99	41.6721	-86.3949	30"	5	Fair Condition, Reinspect[#]
CLV 002-71-78.17	78+17	41.6720	-86.3915	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-78.42	78+42	41.6720	-86.3867	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-78.67	78+67	41.6717	-86.3819	15"	5	Fair Condition, Reinspect[#]
CLV 002-71-79.09	79+09	41.6718	-86.3739	-	5	Fair Condition, Reinspect[#]
CLV 002-71-79.40	79+40	41.6720	-86.3683	12"	5	Fair Condition, Reinspect[#]
CLV 002-71-79.48	79+48	41.6720	-86.3669	18"	5	Fair Condition, Reinspect[#]
CLV 002-71-79.67	79+67	41.6720	-86.3639	24"	5	Fair Condition, Reinspect[#]
CLV-002-46-68.42	68+42	41.6730	-86.5804	-	-	Reinspection Needed
CLV 002-46-69.02	69+02	41.6727	-86.5679	-	-	Reinspection Needed
CLV 002-46-70.47	70+47	41.6724	-86.5400	-	-	Reinspection Needed
CLV 002-46-71.07	71+07	41.6722	-86.5286	-	-	Reinspection Needed
CLV 002-71-71.66	71+66	41.6722	-86.5170	-	-	Reinspection Needed
CLV 002-71-72.29	72+29	41.6718	-86.5049	-	-	Reinspection Needed
CLV 002-71-72.54	72+54	41.6718	-86.5000	12"	-	Reinspection Needed
CLV 002-71-73.06	73+06	41.6716	-86.4899	12"	-	Reinspection Needed
CLV 002-71-74.90	74+90	41.6717	-86.4532	12"	-	Reinspection Needed
[#]Designer Shall Verify Condition as Design Progresses. Structures are Anticipated to Need Replaced						

Small Structure Summary Table (Cont.)						
Small Structure Name	***Reference Post***	***Latitude***	***Longitude***	***Size***	***Condition Rating***	***Suggested Action***
CLV 002-71-74.94	74+94	41.6717	-86.4525	12" x 15"	-	Reinspection Needed
CLV 002-71-75.20	75+20	41.6720	-86.4477	12" x 15"	-	Reinspection Needed
CLV 002-71-77.76	77+76	41.6720	-86.3994	-	-	Reinspection Needed
CLV 002-71-78.60	78+60	41.6717	-86.3832	15"	-	Reinspection Needed
CLV 002-71-78.61	78+61	41.6720	-86.3830	12"	-	Reinspection Needed
CLV 002-71-79.23	79+23	41.6719	-86.3714	12"	-	Reinspection Needed
CLV 002-71-79.50	79+50	41.6719	-86.3667	-	-	Reinspection Needed
CLV 002-71-79.56	79+56	41.6717	-86.3656	-	-	Reinspection Needed
CLV 002-46-68.26	68+26	41.6730	-86.5866	18"	7	Good Condition, No Action
CLV 002-46-68.52	68+52	41.6730	-86.5804	18"	7	Good Condition, No Action
CLV 002-46-68.68	68+68	41.6729	-86.5764	18"	7	Good Condition, No Action
CLV 002-46-68.73	68+73	41.6725	-86.5751	15"	7	Good Condition, No Action
CLV 002-46-68.92	68+92	41.6728	-86.5702	30"	7	Good Condition, No Action
CLV 002-46-69.37	69+37	41.6727	-86.5612	15"	7	Good Condition, No Action
CLV 002-46-69.64	69+64	41.6727	-86.5558	10"	7	Good Condition, No Action
CLV 002-46-69.93	69+93	41.6723	-86.5502	15"	7	Good Condition, No Action
CLV 002-46-70.00	70+00	41.6723	-86.5490	36"	7	Good Condition, No Action
CLV 002-46-70.36	70+36	41.6727	-86.5417	24"	7	Good Condition, No Action
CLV 002-46-71.00	71+00	41.6725	-86.5298	24"	7	Good Condition, No Action
CLV 002-46-71.14	71+14	41.6725	-86.5271	12"	7	Good Condition, No Action
CLV 002-71-72.78	72+78	41.6717	-86.4955	12"	7	Good Condition, No Action
CLV 002-71-73.00	73+00	41.6719	-86.4912	12"	7	Good Condition, No Action
CLV 002-71-73.14	73+14	41.6716	-86.4885	12"	7	Good Condition, No Action
CLV 002-71-73.80	73+80	41.6717	-86.4757	12"	7	Good Condition, No Action
CLV 002-71-74.92	74+92	41.6722	-86.4529	25" x 36"	7	Good Condition, No Action
CLV 002-71-76.67	76+67	41.6717	-86.4201	12"	7	Good Condition, No Action
CLV 002-71-77.19	77+19	41.6717	-86.4100	12"	7	Good Condition, No Action
CLV 002-71-77.34	77+34	41.6721	-86.4072	12"	7	Good Condition, No Action
CLV 002-71-77.48	77+48	41.6718	-86.4047	15"	7	Good Condition, No Action
CLV 002-71-77.62	77+62	41.6717	-86.4019	12"	7	Good Condition, No Action
CLV 002-71-77.92	77+92	41.6717	-86.3962	12"	7	Good Condition, No Action
CLV 002-71-78.94	78+94	41.6717	-86.3767	12"	7	Good Condition, No Action
CLV 002-71-79.28	79+28	41.6721	-86.3707	15"	7	Good Condition, No Action
CLV 002-71-79.79	79+79	41.6720	-86.3617	15"	7	Good Condition, No Action
CLV 002-71-80.38	80+38	41.6716	-86.3512	15"	7	Good Condition, No Action

[#]Designer Shall Verify Condition as Design Progresses. Structures are Anticipated to Need Replaced

Appendix C

Official Traffic Forecast Report

INDIANA DEPARTMENT OF TRANSPORTATION

May 6, 2019 2:57 pm

PROJECT TRAFFIC FORECAST REPORT

DES No.: 1900177

SR-2 SR 2 from US 20 to US 20/31

From RP 68+18 to RP 80+81

St.Joseph County

Prepared For

Michael Miltz

On

04/05/2019

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

INDIANA DEPARTMENT OF TRANSPORTATION

May 6, 2019 2:57 pm

PROJECT TRAFFIC FORECAST REPORT

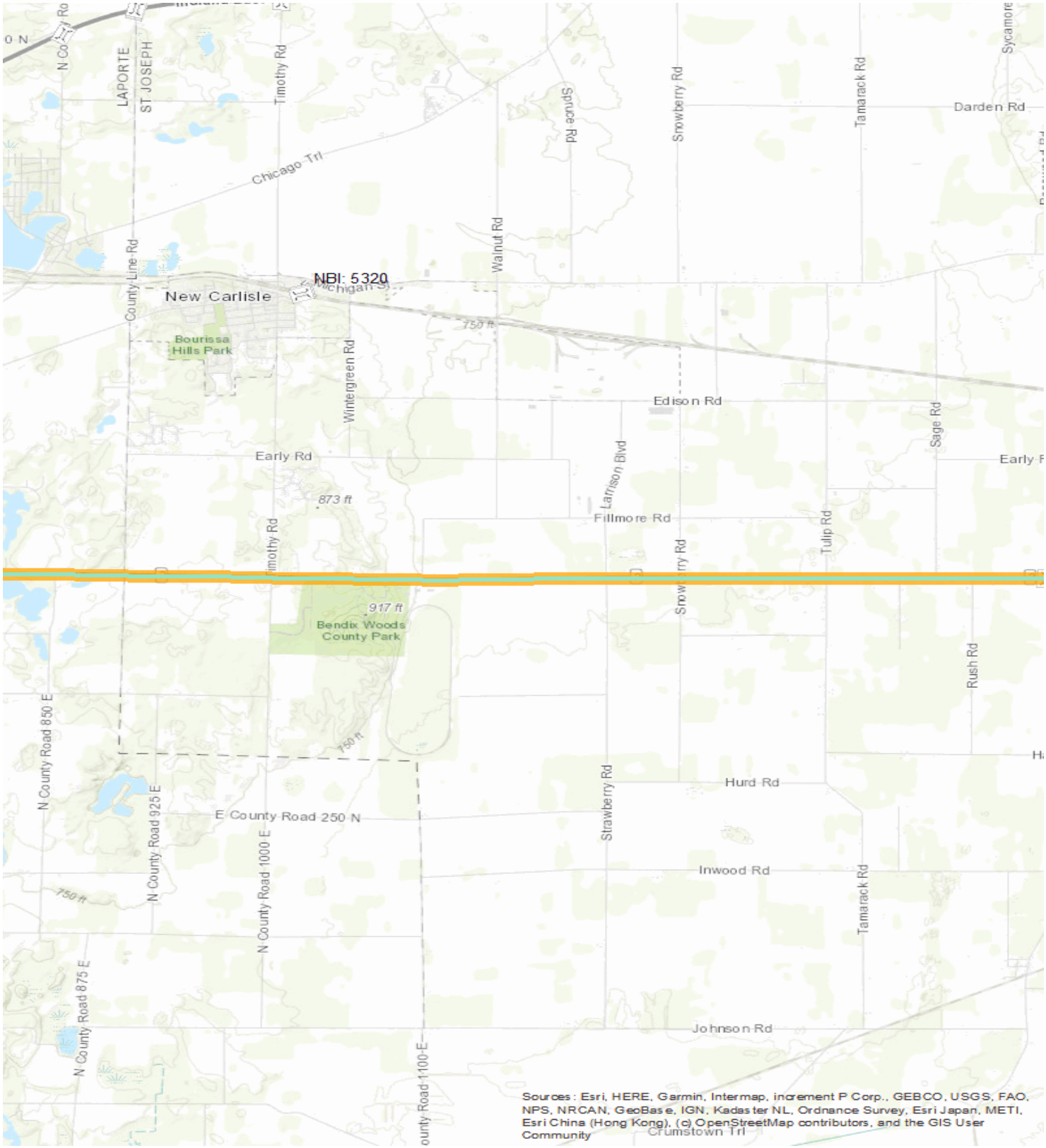
Table of Contents

Project Map
Segment 1 Forecast

INDIANA DEPARTMENT OF TRANSPORTATION

May 6, 2019 2:57 pm

PROJECT TRAFFIC FORECAST REPORT



INDIANA DEPARTMENT OF TRANSPORTATION

May 6, 2019 2:57 pm

PROJECT TRAFFIC FORECAST REPORT

Segment: 1

Segment Name SR-2

Route Name SR-2

From Measure 72.200

To Measure 72.368

Forecast Year	Projected Annual Average Daily Traffic	Negative AADT	Positive AADT
2018	21,959	10,784	11,174
2024	22,244	10,924	11,319
2029	22,481	11,040	11,439
2034	22,718	11,157	11,560
2044	23,192	11,390	11,802

Design Hourly Volume (DHV) in Design Year as percentage of AADT

Year	DHV
2044	9.25%

Peak Hour Forecast

AM Peak Hour 07:15

PM Peak Hour 04:45

Commercial Vehicles (FHWA Scheme F Classes 4 - 13)

17.46% of AADT

12.41% of DHV

Directional Split

50.89% of AADT Travels in Positive Travel Direction

The per year growth user for this forecast is 0.22% 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.

Appendix D

Utility Locate Ticket

Attention: You have just completed your Design ticket, not a valid locate request. The ticket you created is for design purposes only and will not be transmitted to any utilities. If you need to have lines located you must call 811 or 800-382-5544.

```
State: IN Cnty: LAPORTE Twp: WILLS
Cityname:   Inside: N Near: Y
Subdivision:

Address :
Street  : IN RT 2
Location: NO LOCATION GIVEN
:
Grids   : 4140C8631A   4140C8631B   4140C8631C   4140C8632A   4140C8632B
Grids   : 4140C8632C   4140C8632D   4140C8633A   4140C8633B   4140C8633C
Grids   : 4140C8633D   4140C8634A   4140C8634B   4140C8634C   4140C8634D
Grids   : 4140C8635C   4140C8635D

Submitted date: 06/24/2019 Time: 12:02
```

Service Area	Contact	Phone	Address
AMERICAN ELECTRIC POWER	J. Jay Marlow	(260) 408 - 3447	
AT&T - DISTRIBUTION	Matt Spindler	(317) 265 - 3050	240 N. Meridian St., Room 1791 Indianapolis, IN 46204 ms4822@att.com
CENTURYLINK (CTLCL)	Bruce Emerick	(574) 926 - 1247	213 W Laporte St Plymouth, IN 46563 joseph.megyesi@sprint.com
COMCAST NORTH			
FRONTIER			
NEW PRAIRIE UNITED SCHOOL CORPORATION	Mark Norton	(574) 654 - 7273 x 8107	5327 N Cougar Rd New Carlisle, IN 46552 mnorton@npusc.kiz.in.us
NIPSCO GAS (LAPORTE)	Dave Schaafsma		utilitycoordination@nisource.com
NIPSCO GAS (SOUTH BEND)	Dave Schaafsma		utilitycoordination@nisource.com

Attention: You have just completed your Design ticket, not a valid locate request. The ticket you created is for design purposes only and will not be transmitted to any utilities. If you need to have lines located you must call 811 or 800-382-5544.

```
State: IN Cnty: ST JOSEPH Twp: PORTAGE
Cityname:   Inside: N Near: Y
Subdivision:

Address :
Street  : IN RT 2
Location: NO LOCATION GIVEN
:
Grids   : 4140C8618A   4140C8619A   4140C8619B   4140C8619C   4140C8619D
Grids   : 4140C8620A   4140C8620B   4140C8620C   4140C8620D   4140C8621A
Grids   : 4140C8621B   4140C8621C   4140C8621D   4140C8622A   4140C8622B
Grids   : 4140C8622C   4140C8622D   4140C8623A   4140C8623B   4140C8623C
Grids   : 4140C8623D   4140C8624A   4140C8624B   4140C8624C   4140C8624D
Grids   : 4140C8625A   4140C8625B   4140C8625C   4140C8625D   4140C8626A
Grids   : 4140C8626B   4140C8626C   4140C8626D   4140C8627A   4140C8627B
Grids   : 4140C8627C   4140C8627D   4140C8628A   4140C8628B   4140C8628C
Grids   : 4140C8628D   4140C8629A   4140C8629B   4140C8629C   4140C8629D
Grids   : 4140C8630A   4140C8630B   4140C8630C   4140C8630D   4140C8631B
Grids   : 4140C8631C   4140C8631D

Submitted date: 06/24/2019 Time: 12:08
```

Service Area	Contact	Phone	Address
AMERICAN ELECTRIC POWER	J. Jay Marlow	(260) 408 - 3447	
AT&T - DISTRIBUTION	Matt Spindler	(317) 265 - 3050	240 N. Meridian St., Room 1791 Indianapolis, IN 46204 ms4822@att.com
BUCKEYE	Traci McClernon	(610) 904 - 4475	9999 Hamilton Blvd 5 Tek Park Breinigsville, PA 18031 tmcclernon@buckeye.com
CENTURYLINK (CTLCL)	Bruce Emerick	(574) 926 - 1247	213 W Laporte St Plymouth, IN 46563 joseph.megyesi@sprint.com

COMCAST NORTH			
NIPSCO GAS (LAPORTE)	Dave Schaafsma		utilitycoordination@nisource.com
NIPSCO GAS (SOUTH BEND)	Dave Schaafsma		utilitycoordination@nisource.com
RVP FIBER COMPANY, LLC	Ryan Miedema	(616) 223 - 7144	201 Ionia Ave Sw Grand Rapids, MI 49503 rjmiedema@ussignal.com
SOUTH BEND, CITY OF			
ST. JOE VALLEY METRONET			

Culvert Inspection Report

CV 002-071-74.20
SR 2
over



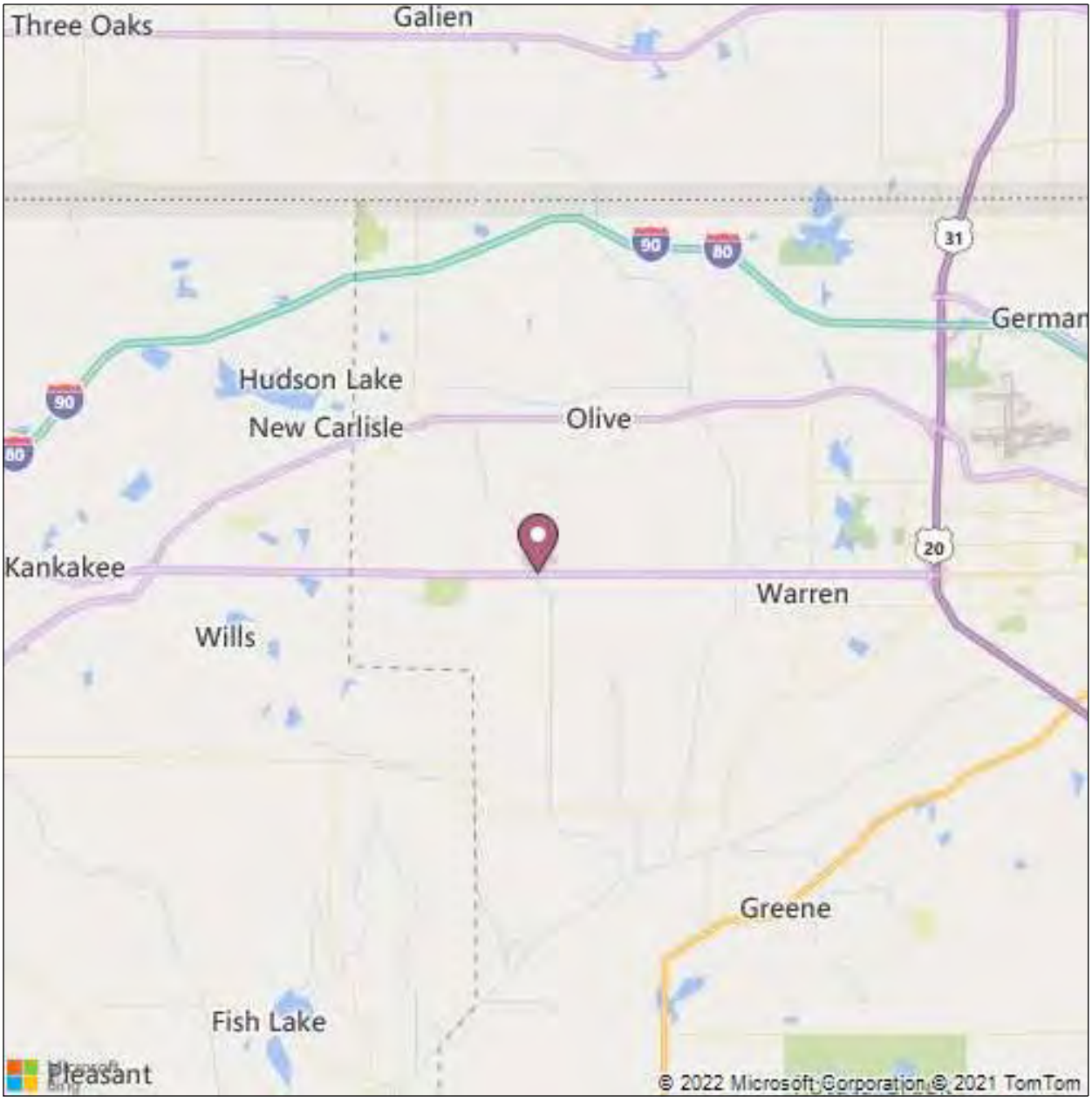
Inspection Date: 03/22/2022

Inspected By: Amy Wines

Inspection Type(s): Culvert

TABLE OF CONTENTS

	PAGE NUMBER
REPORT COVER	3
LOCATION MAP	4
EXECUTIVE SUMMARY	5
CULVERT INSPECTION OUTPUT REPORT	6
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MISCELLANEOUS ASSET DATA	14



Latitude: 41.67195

Longitude: -86.46720

Executive Summary

Routine Inspection
Entry was not possible at the time of this inspection due to high water and mucky channel bed. There are several cracks with exposed rebar throughout the structure. Both head walls and wing walls have spalling and cracking with efflorescence, the south being the worst.

Structure Number: *CV 002-071-74.20* **Inspector:** Wines,Amy

Large Culvert Inspection Report

(8) Asset Code:	*93004143*	(27) Year Built:	*0000*
Asset Name:	*CV 002-071-74.20*	(90) Inspection Date:	*03/22/2022*
OLD Culvert ID:	*2-71-74.20*	(91) Inspection Frequency:	*24*
Team Assignment:	*04*	☐ Additional Treatment Exists	

Identification

(2) Highway Agency District: *04* (3) County Code: *071*

Sub District: *4100* Ramp ID:

(42B) Type of Service (Under): *5* ☐ Adjacent to Roadway

(7) Facility Carried: *SR 2* (6) Features Intersected:

(9) Location: *6.50 W US 31* (9.01) Location Additional Description:

(11) Milepoint: *74.2* (16) Latitude: *41.67195* (17) Longitude: *-86.46720*

Classification:

(104) Highway System of the Inventory Route: *1* (26) Functional Classification of Inventory Route: *02*

Geometric Data

Culvert: Kind of Material: *1. Concrete* Culvert: Type of Structure: *1. Slab* Min Est Fill Cover (ft): *1.00*

Culvert: Max. Horizontal Opening (ft.): *16* Culvert: Max. Vertical Opening (ft.): *5.5* (34) Skew:

Barrel Length (ft.): *120.0* Original Culvert Shape: *Box*

Measurement Remarks:

Structure Additional Description: *Concrete Slabtop STR. CURVES UNDER ROAD*

Openings:

Direction	Opening Latitude	Opening Longitude	Direction	Opening Latitude	Opening Longitude
1.			3.		
2.			4.		

Openings Comments:

☐ **Follow Up Required:**

**If checked, please describe for follow up:

Endangered Species

Bats: seen or heard under structure? * *N*

Birds/swallows/nests seen? Empty nests present? *N*

* If yes, add one photo to the dropdown field

General Condition Ratings

(36A) Bridge Railings:	*N*	(36C) Approach Guardrail:	*N*
(36B) Transitions:	*N*	(36D) Approach Guardrail Ends:	*N*

Culvert:

(62) Culvert - Rating: *5*

(62) Culvert Rating Comments: *The substructure contains multiple wide cracks. The superstructure contains multiple cracks that are spalling and have exposed rebar.*

Deck:

(58) Deck: *N*

(58a) Deck Comments:

Superstructure:

(59) Superstructure: *N*

(59.01) Superstructure Comments:

Substructure:

(60) Substructure: *N*

(60.01) Substructure Comments: *The south head wall and wing walls have severe spalling aond cracking with exposed rebar. The north wing walls have a few minor spalls.*

CV-Headwall/Anchor Rating *5*

CV-Wingwalls Rating *5*

Channel:

(61) Channel and Channel Protection: *7*

(61.01) Channel and Channel Protection Comments: *The channel slopes are vegetated. The north side of the structure the channel has aligned itself to hit the west wingwall and run along the west side of the structure. There is another pipe just north of this stricture for the field access.*

Bank Erosion Rating: *7*

Drift/Sediment Rating *6*

Channel Alignment Rating *7*

☐ **Check this box if culvert has OBSTRUCTED flow**

Describe Obstruction:

Overtopping Frequency: *1*

Overtopping Frequency

Inspector:	Wines,Amy	**Structure Number:**	93004143
Inspection Date:	03/22/2022	**Facility Carried:**	SR 2

Culvert Inspection Report

Comments:

Pictures



PHOTO 1 Condition

Description South profile



PHOTO 2 Condition

Description North profile

Pictures



PHOTO 3 Condition

Description West road alignment



PHOTO 4 Condition

Description Alignment looking north

Pictures



PHOTO 5 Condition

Description East road alignment



PHOTO 6 Condition

Description South head wall deterioration

Pictures



PHOTO 7 Condition

Description Channel looking north



PHOTO 8 Condition

Description Remove dead trees from upstream channel, north side

Pictures



PHOTO 9 Condition

Description South channel alignment



PHOTO 10 Condition

Description North channel alignment

Miscellaneous Asset Data

93004143

Asset Management

Load Rating 2:

Has the dead load or the structural condition of the primary load carrying members changed since the last inspection? No - Load Rating Update Not Required

---

Extended Frequency: Submittal Date:

Inspector:

INDOT Reviewer:

This bridge has been accepted into the Extended Frequency Program. Approval Date:

Joints: ** Indicate location, type, and rating of lowest rated joint.*

No Joints Present

Comments:

Terminal Joints: **Rating of lowest rated terminal joint.* N

Comments:

Concrete Slopewall: **Rating of lowest rated slopewall.* N

Comments:

Bearings: ** Indicate type, and rating of lowest rated bearing.*

N - No Bearing(s)

Comments:

Approach Slabs: ** Indicate if present & condition rating.*

N - No Approach Slabs

Comments:

Paint: ** Indicate if paint present , year painted & condition rating.*

N - No Paint

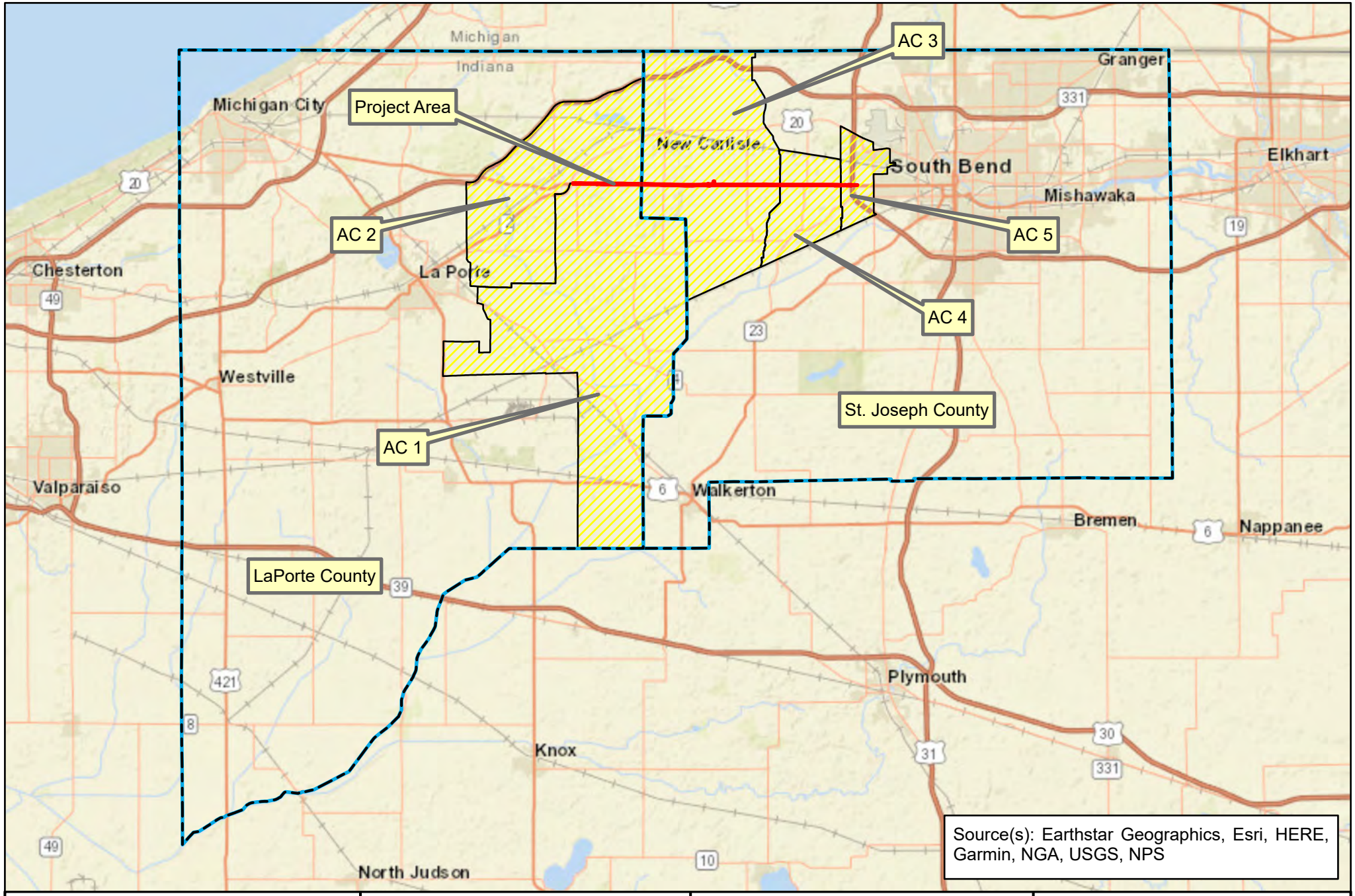
Comments:

Endangered Species: ** If yes, add one photo to the dropdown field*

Bats: seen or heard under structure? *	N
Birds/swallows/nests seen? Empty nests present? *	N

BRIDGE Culvert Geometry:

Barrel Length:	120.0
Height:	5.5
Width:	16.0



LOCHMUELLER GROUP
112 West Jefferson Blvd., Suite 500
South Bend, IN 46601
Phone: (574) 334-5460

Environmental Justice Map

Des. Nos. 1900177 & 1900017

County: St. Joseph and LaPorte
Township: Wills, Olive, Warren, Portage
State: Indiana

0 5 10 Miles

N

SR 2 from US 20 to US 20/31
HMA Overlay Project
Created: 7/31/2023, CHoogewerf

Legend

- Project Area
- County (COC)
- Census Tract (AC)

Environmental Justice Calculations

	Pre-COC	Pre-COC	COC	AC 1	AC 2	AC 3	AC 4	AC 5
	LaPorte County	St. Joseph County	LaPorte & St. Joseph Counties	Census Tract 418, LaPorte County, Indiana	Census Tract 419, LaPorte County, Indiana	Census Tract 108, St. Joseph County, Indiana	Census Tract 109.01, St. Joseph County, Indiana	Census Tract 111, St. Joseph County, Indiana
LOW INCOME								
Total Population for Whom Poverty Status is Determined	104,283	259,742	364025	5,693	5,073	4,075	4,495	3,766
Income in the past 12 months below poverty level:	14,934	37,520	52454	602	114	458	421	665
			0					
Percent Low-Income	**14.3%**	**14.4%**	**14.4%**	**10.6%**	**2.2%**	**11.2%**	**9.4%**	**17.7%**
125% Reference Increment (Applied to COC Only and Compared Against the AC)	**17.9%**	**18.1%**	**18.0%**					
AC Percent Low-Income > 125% of COC?				**NO**	**NO**	**NO**	**NO**	**NO**
AC Percent Low-Income > 50%?				**NO**	**NO**	**NO**	**NO**	**NO**
Elevated Low-Income Population Present?				**NO**	**NO**	**NO**	**NO**	**NO**
MINORITY								
Total Population:	112,184	272,049	384,233	5,693	5,073	4,236	4,551	3,766
Not Hispanic or Latino:	104,317	247,019	351,336	5,490	4,490	4,196	3,847	3,318
White alone	87,434	193,837	281,271	5,306	4,382	4,039	3,707	2,830
Black or African American alone	11,801	33,904	45,705	18	87	1	0	323
American Indian and Alaska Native alone	208	445	653	0	0	0	12	0
Asian alone	656	6,816	7,472	0	0	41	86	12
Native Hawaiian and Other Pacific Islander alone	5	129	134	0	0	0	0	0
Some other race alone	279	1,146	1,425	0	0	82	0	0
Two or more races:	3,934	10,742	14,676	166	21	33	42	153
Hispanic or Latino:	7,867	25,030	32,897	203	583	40	704	448
White alone	3,372	11,054	14,426	203	501	17	582	302
Black or African American alone	243	761	1,004	0	0	0	0	0
American Indian and Alaska Native alone	13	412	425	0	0	0	0	0
Asian alone	20	62	82	0	0	0	0	0
Native Hawaiian and Other Pacific Islander alone	35	0	35	0	0	0	0	0
Some other race alone	2,321	6,020	8,341	0	82	2	0	73
Two or more races:	1,863	6,721	8,584	0	0	21	122	73
Two races including Some other race	1,343	5,929	7,272	0	0	21	35	73
Two races excluding Some other race, and three or more races	520	792	1,312	0	0	0	87	0
			0					
Number Non-White / Minority (Sum B03002004 thru B03002010)	**24,750**	**78,212**	**102,962**	**387**	**691**	**197**	**844**	**936**
Percent Non-White / Minority	**22.1%**	**28.7%**	**26.8%**	**6.8%**	**13.6%**	**4.7%**	**18.5%**	**24.9%**
125% Reference Increment (Applied to COC Only and Compared Against the AC)	**27.6%**	**35.9%**	**33.5%**					
AC Percent Minority > 125% of COC?				**NO**	**NO**	**NO**	**NO**	**NO**
AC Percent Minority > 50%?				**NO**	**NO**	**NO**	**NO**	**NO**
Elevated Minority Population Present?				**NO**	**NO**	**NO**	**NO**	**NO**

HISPANIC OR LATINO ORIGIN BY RACE

United States® Census Bureau

Note: The table shown may have been modified by user selections. Some information may be missing.

DATA NOTES	
TABLE ID:	B03002
SURVEY/PROGRAM:	American Community Survey
VINTAGE:	2021
DATASET:	ACSDT5Y2021
PRODUCT:	ACS 5-Year Estimates Detailed Tables
UNIVERSE:	Total population
FTP URL:	None
API URL:	https://api.census.gov/data/2021/acs/acs5
USER SELECTIONS	
TABLES	B03002
GEOS	LaPorte County, Indiana; St. Joseph County, Indiana; Census Tract 418; LaPorte County; Indiana; Census Tract 419; LaPorte County; Indiana; Census Tract 108; St. Joseph County; Indiana; Census Tract 109.01; St. Joseph County; Indiana; Census Tract 111; St. Joseph County; Indiana
EXCLUDED COLUMNS	LaPorte County, Indiana!!Margin of Error
	St. Joseph County, Indiana!!Margin of Error
	Census Tract 418, LaPorte County, Indiana!!Margin of Error
	Census Tract 419, LaPorte County, Indiana!!Margin of Error
	Census Tract 108, St. Joseph County, Indiana!!Margin of Error
	Census Tract 109.01, St. Joseph County, Indiana!!Margin of Error
	Census Tract 111, St. Joseph County, Indiana!!Margin of Error
APPLIED FILTERS	None
APPLIED SORTS	None
PIVOT & GROUPING	
PIVOT COLUMNS	None
PIVOT MODE	Off
ROW GROUPS	None
VALUE COLUMNS	None
WEB ADDRESS	https://data.census.gov/table?q=B03002:+HISPANIC+OR+LATINO+ORIGIN+BY+RACE&g=050XX00US18091,18141_1400000US18091041800,18091041900,18141010800,18141010901,18141011100&tid=ACSDT5Y2021.B03002
TABLE NOTES	Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.
	Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section. Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.
	Source: U.S. Census Bureau, 2017-2021 American Community Survey 5-Year Estimates

	Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see ACS Technical Documentation). The effect of nonsampling error is not represented in these tables.
	The Hispanic origin and race codes were updated in 2020. For more information on the Hispanic origin and race code changes, please visit the American Community Survey Technical Documentation website.
	The 2017-2021 American Community Survey (ACS) data generally reflect the March 2020 Office of Management and Budget (OMB) delineations of metropolitan and micropolitan statistical areas. In certain instances, the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB delineation lists due to differences in the effective dates of the geographic entities.
	Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.
	Explanation of Symbols:- The estimate could not be computed because there were an insufficient number of sample observations. For a ratio of medians estimate, one or both of the median estimates falls in the lowest interval or highest interval of an open-ended distribution. For a 5-year median estimate, the margin of error associated with a median was larger than the median itself.N The estimate or margin of error cannot be displayed because there were an insufficient number of sample cases in the selected geographic area. (X) The estimate or margin of error is not applicable or not available.median- The median falls in the lowest interval of an open-ended distribution (for example "2,500-")median+ The median falls in the highest interval of an open-ended distribution (for example "250,000+").** The margin of error could not be computed because there were an insufficient number of sample observations.*** The margin of error could not be computed because the median falls in the lowest interval or highest interval of an open-ended distribution.***** A margin of error is not appropriate because the corresponding estimate is controlled to an independent population or housing estimate. Effectively, the corresponding estimate has no sampling error and the margin of error may be treated as zero.
COLUMN NOTES	None

Label	LaPorte County, Indiana	St. Joseph County, Indiana	Census Tract 418, LaPorte County, Indiana	Census Tract 419, LaPorte County, Indiana	Census Tract 108, St. Joseph County, Indiana	Census Tract 109.01, St. Joseph County, Indiana	Census Tract 111, St. Joseph County, Indiana
	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
Total:	112,184	272,049	5,693	5,073	4,236	4,551	3,766
Not Hispanic or Latino:	104,317	247,019	5,490	4,490	4,196	3,847	3,318
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Black or African American alone	11,801	33,904	18	87	1	0	323
American Indian and Alaska Native alone	208	445	0	0	0	12	0
Asian alone	656	6,816	0	0	41	86	12
Native Hawaiian and Other Pacific Islander alone	5	129	0	0	0	0	0
Some other race alone	279	1,146	0	0	82	0	0
Two or more races:	3,934	10,742	166	21	33	42	153
Two races including Some other race	639	823	0	0	0	0	84
Two races excluding Some other race, and three or more races	3,295	9,919	166	21	33	42	69
Hispanic or Latino:	7,867	25,030	203	583	40	704	448
White alone	3,372	11,054	203	501	17	582	302
Black or African American alone	243	761	0	0	0	0	0
American Indian and Alaska Native alone	13	412	0	0	0	0	0
Asian alone	20	62	0	0	0	0	0
Native Hawaiian and Other Pacific Islander alone	35	0	0	0	0	0	0
Some other race alone	2,321	6,020	0	82	2	0	73
Two or more races:	1,863	6,721	0	0	21	122	73
Two races including Some other race	1,343	5,929	0	0	21	35	73
Two races excluding Some other race, and three or more races	520	792	0	0	0	87	0

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

United States® Census Bureau

Note: The table shown may have been modified by user selections. Some information may be missing.

DATA NOTES	
TABLE ID:	B17001
SURVEY/PROGRAM:	American Community Survey
VINTAGE:	2021
DATASET:	ACSDT5Y2021
PRODUCT:	ACS 5-Year Estimates Detailed Tables
UNIVERSE:	Population for whom poverty status is determined
FTP URL:	None
API URL:	https://api.census.gov/data/2021/acs/acs5
USER SELECTIONS	
TABLES	B17001
GEOS	LaPorte County, Indiana; St. Joseph County, Indiana; Census Tract 418; LaPorte County; Indiana; Census Tract 419; LaPorte County; Indiana; Census Tract 108; St. Joseph County; Indiana; Census Tract 109.01; St. Joseph County; Indiana; Census Tract 111; St. Joseph County; Indiana
EXCLUDED COLUMNS	LaPorte County, Indiana!!Margin of Error
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	Census Tract 419, LaPorte County, Indiana!!Margin of Error
	Census Tract 108, St. Joseph County, Indiana!!Margin of Error
	Census Tract 109.01, St. Joseph County, Indiana!!Margin of Error
	Census Tract 111, St. Joseph County, Indiana!!Margin of Error
APPLIED FILTERS	None
APPLIED SORTS	None
PIVOT & GROUPING	
PIVOT COLUMNS	None
PIVOT MODE	Off
ROW GROUPS	None
VALUE COLUMNS	None
WEB ADDRESS	https://data.census.gov/table?q=B17001:+POVERTY+STATUS+IN+THE+PAST+12+MONTHS+BY+SEX+BY+AGE&g=050XX00US18091,18141_1400000US18091041800,18091041900,18141010800,18141010901,18141011100&tid=ACSDT5Y2021.B17001
TABLE NOTES	Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.
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	Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.
	Explanation of Symbols:- The estimate could not be computed because there were an insufficient number of sample observations. For a ratio of medians estimate, one or both of the median estimates falls in the lowest interval or highest interval of an open-ended distribution. For a 5-year median estimate, the margin of error associated with a median was larger than the median itself.N The estimate or margin of error cannot be displayed because there were an insufficient number of sample cases in the selected geographic area. (X) The estimate or margin of error is not applicable or not available.median- The median falls in the lowest interval of an open-ended distribution (for example "2,500-")median+ The median falls in the highest interval of an open-ended distribution (for example "250,000+").** The margin of error could not be computed because there were an insufficient number of sample observations.*** The margin of error could not be computed because the median falls in the lowest interval or highest interval of an open-ended distribution.***** A margin of error is not appropriate because the corresponding estimate is controlled to an independent population or housing estimate. Effectively, the corresponding estimate has no sampling error and the margin of error may be treated as zero.
COLUMN NOTES	None

	LaPorte County, Indiana	St. Joseph County, Indiana	Census Tract 418, LaPorte County, Indiana	Census Tract 419, LaPorte County, Indiana	Census Tract 108, St. Joseph County, Indiana	Census Tract 109.01, St. Joseph County, Indiana	Census Tract 111, St. Joseph County, Indiana
Label	**Estimate**	**Estimate**	**Estimate**	**Estimate**	**Estimate**	**Estimate**	**Estimate**
Total:	104,283	259,742	5,693	5,073	4,075	4,495	3,766
Income in the past 12 months below poverty level:	14,934	37,520	602	114	458	421	665
Male:	6,551	16,809	340	41	188	226	259
Under 5 years	871	2,249	0	0	36	0	13
5 years	121	304	0	0	0	0	0
6 to 11 years	1,102	1,992	38	20	0	56	44
12 to 14 years	454	978	75	0	0	86	1
15 years	203	333	0	0	17	0	42
16 and 17 years	326	457	80	0	20	0	25
18 to 24 years	802	2,146	0	0	17	0	0
25 to 34 years	631	2,410	89	0	9	0	6
35 to 44 years	422	1,290	0	21	11	31	68
45 to 54 years	600	1,498	0	0	10	41	9
55 to 64 years	615	1,608	43	0	33	0	51
65 to 74 years	201	948	15	0	12	0	0
75 years and over	203	596	0	0	23	12	0
Female:	8,383	20,711	262	73	270	195	406
Under 5 years	553	1,802	0	0	11	0	3
5 years	214	415	0	0	12	0	0
6 to 11 years	945	2,006	16	18	13	32	27
12 to 14 years	582	826	54	0	17	0	40
15 years	186	379	0	0	0	0	9
16 and 17 years	321	711	35	0	0	67	9
18 to 24 years	905	2,630	16	0	24	0	9
25 to 34 years	1,195	2,856	43	0	27	0	23
35 to 44 years	1,096	2,233	36	35	27	60	72
45 to 54 years	641	2,099	47	0	49	0	125
55 to 64 years	843	2,329	15	0	35	0	72
65 to 74 years	503	1,241	0	0	10	0	8
75 years and over	399	1,184	0	20	45	36	9
Income in the past 12 months at or above poverty level:	89,349	222,222	5,091	4,959	3,617	4,074	3,101
Male:	44,064	110,619	2,533	2,651	1,791	2,067	1,554
Under 5 years	2,368	6,441	146	307	121	58	18
5 years	615	1,770	29	41	56	0	39
6 to 11 years	3,075	8,289	151	234	165	111	74
12 to 14 years	1,481	4,710	234	88	46	56	5
15 years	578	1,780	14	30	33	0	14
16 and 17 years	881	3,263	0	55	30	31	27
18 to 24 years	3,732	8,332	215	125	118	80	164
25 to 34 years	5,460	15,323	201	270	197	339	140
35 to 44 years	5,083	14,693	288	479	254	119	160
45 to 54 years	5,677	13,937	515	167	267	299	307
55 to 64 years	6,778	14,917	360	344	238	427	268
65 to 74 years	5,403	11,059	204	351	130	441	208
75 years and over	2,933	6,105	176	160	136	106	130
Female:	45,285	111,603	2,558	2,308	1,826	2,007	1,547
Under 5 years	2,528	6,335	284	200	195	129	66
5 years	337	1,408	41	0	22	30	20
6 to 11 years	3,121	7,952	250	156	119	40	54
12 to 14 years	1,344	4,687	109	45	111	77	28

	LaPorte County, Indiana	St. Joseph County, Indiana	Census Tract 418, LaPorte County, Indiana	Census Tract 419, LaPorte County, Indiana	Census Tract 108, St. Joseph County, Indiana	Census Tract 109.01, St. Joseph County, Indiana	Census Tract 111, St. Joseph County, Indiana
Label	**Estimate**	**Estimate**	**Estimate**	**Estimate**	**Estimate**	**Estimate**	**Estimate**
15 years	622	1,665	71	0	32	0	98
16 and 17 years	978	2,552	30	85	59	0	27
18 to 24 years	3,125	7,876	148	174	67	135	50
25 to 34 years	5,067	15,143	148	183	174	262	131
35 to 44 years	5,221	14,137	337	267	246	225	142
45 to 54 years	6,150	14,118	417	438	237	240	258
55 to 64 years	6,910	15,097	374	266	263	398	311
65 to 74 years	5,877	12,197	211	341	168	322	175
75 years and over	4,005	8,436	138	153	133	149	187

FHWA-Indiana Environmental Document

CATEGORICAL EXCLUSION LEVEL 1 FORM

GENERAL PROJECT INFORMATION

Road No./County:	State Road (SR) 2, St. Joseph County, Indiana
Designation Number(s):	1900017
Project Description/Termini:	Small structure project on State Road (SR) 2 over Niespodziany Ditch. The project extends from 6.79 miles west of US 31 to 6.35 miles west of US 31, including all incidental construction activities

[X] **CE Level 1 documentation for exempted projects**

[ ] **Additional Information to CE Level 1**

Approval: Stewart Michels 03/15/2022
INDOT DE/ESD Signature and Date

Release for Public Involvement: _____
INDOT DE/ESD Initials and Date

Certification of Public involvement: _____
INDOT Consultant Services Signature and Date

INDOT DE/ESD Reviewer: Cassie Wahl 3/14/2022
Signature and Date

CE Preparer: C.J. Cunningham, Lochmueller Group, Inc.
Name and Organization

Version: December 2021

GENERAL PROJECT INFORMATION, DESCRIPTION, AND DESIGN INFORMATION	
Purpose and Need:	**Need**: The need for the project stems from the existing structure's (Culvert (CV) 002-071-74.20) deteriorated condition and associated hydraulic issues. According to the Abbreviated Engineer's Report (Appendix I, I2-I10), the existing structure fails to meet roadway serviceability criteria and causes the roadway to overtop during 100-year storm events. Several areas along the substructure have developed wide cracks, leading to spalling and exposed concrete reinforcement bars in some locations. The overall condition of the structure was rated a 5 out of 9 which represents a "fair" condition. Condition ratings range from 0, which represents a failed structure, to 9, which represents a new structure with no deficiencies. **Purpose**: The purpose of the project is to restore structural and hydraulic functionality to the culvert structure by improving its overall condition rating to 7 or greater which would represent a structure in at least "good" condition.
Project Description (Preferred Alternative):	INDOT LaPorte District and the Federal Highway Administration (FHWA) intend to proceed with a small structure project along State Road (SR) 2 over Niespodziany Ditch in St. Joseph County (Des. No. 1900017). **Location:** The project is located in St. Joseph County, Indiana along SR 2 west of South Bend, Indiana, approximately 6.5 miles west of US 31. Specifically, the project is located in Sections 7 and 12, Township 37 North, Ranges 1 East and 1 West in Olive Township as depicted on the New Carlisle and Lydick 1:24,000 U.S. Geological Survey Quadrangles (Appendix B, B2). **Existing Conditions:** SR 2 is an east-west route that is functionally classified as principal arterial. The typical cross section of SR 2 consists of four travel lanes, two eastbound and two westbound. The travels lanes are 12-feet wide and separated by a 18-foot mowed grass median. Both sections feature 4-foot paved shoulders on the inside lane and 10-foot paved shoulders on the outside lane. The posted speed limit at the project location is 60 miles per hour (mph). The existing structure, CV 002-071-74.20 is a 120-foot long reinforced concrete box (RCB) culvert with a 16-foot span and 5.6-foot rise. The existing structure carries SR 2 over Niespodziany Ditch. There is approximately 196 feet of guardrail along the south side and 353 feet along the north side of SR 2. The existing structure exhibits deterioration, including wide cracks along several areas of the substructure, leading to spalling and exposed concrete reinforcement bars. Adjacent land use is rural and consists of farm fields and some riparian wooded areas. **Preferred Alternative:** The preferred alternative involves the replacement of CV 002-071-74.20. The replacement structure will be a 128-foot RCB with a 14-foot span, 8-foot rise, and 12-inch sump. Headwalls and wingwalls will be installed at both ends of

	the structure. A total of 0.07 acres of riprap will be placed at the outlet and inlet of the structure. Replacement of the roadway above the structure will occur for approximately 95 feet along SR 2 and will match the existing cross-section. A total of 549 feet of guardrail will be removed -196 feet along the south side of SR 2 and 353 feet along the north side of SR 2. A total of 275 feet of guardrail will be installed to meet current standards – 219 feet along the north side and 56 feet along the south side. A general plan of the proposed improvement can be found in the preliminary plan set, Appendix B, B-17. A 15-inch diameter, 65-foot long culvert beneath a field access drive southwest of CV 002-071-74.20 will be replaced by a new structure, Structure No. 10, which will be a corrugated metal pipe (CMP) of the same dimensions as existing. A center median inlet east of CV 002-071-74.20, which drains southwest to Niespodziany Ditch via a 15-inch diameter, 64-foot long culvert, will also be replaced. The new structure, Structure No. 11, will be a CMP of the same dimensions as existing, and will outlet through the newly constructed wingwall at the outlet (south end) of CV 002-071-74.20. The replaced structures are illustrated in the construction plans, Appendix B, B17. This project requires approximately 0.03 acre of new permanent right-of-way (ROW). The project also requires 0.003 acre of temporary ROW necessary for construction activity. Some tree clearing along Niespodziany Ditch will be required. No permanent lighting will be installed. Temporary lighting may be necessary if night work is required. All reasonable steps will be taken to avoid, minimize, and mitigate project impacts. The maintenance of traffic (MOT) plan will occur in two phases and involve two temporary median crossovers – one to the west of CV 002-071-74.20 and one to the east. The MOT will be implemented per the *Indiana Design Manual* guidelines. Refer to the *Maintenance of Traffic (MOT) During Construction* section of this document for more information. Illustrations of the MOT plan associated to the proposed improvements can be found in the preliminary plan set, Appendix B, B-14 to B-16. The total length of the project's permanent improvements is approximately 95 feet (0.018 mile) along SR 2. The total length of the project, including incidental construction and temporary median improvements for the MOT, is approximately 2,300 feet (0.44 mile) along SR 2. The preferred alternative meets the purpose and need by improving the overall condition of the structure to a rating of 7 or greater, which is considered "good," as well as increasing flow capacity by increasing the structure's opening. The total project length is approximately 0.44 mile and is located on SR 2 from approximately 6.79 miles west of US 31 to 6.35 miles west of US 31. This length includes temporary impacts associated to the MOT. The project is independent of any other action and able to be constructed without relying on the completion of any other project.

Other Alternatives Considered:	**Replacement Alternative 2.** This alternative would involve replacing CV 002-071-74.20. with a 14-foot span, 7-foot rise three-sided concrete structure. This alternative would have met the project's purpose and need. However, when compared to the preferred alternative, Replacement Alternative 2 would have been more difficult to install and would have required lanes along SR 2 to remain closed for a longer duration. Therefore, this alternative was removed from further consideration. **Replacement Alternative 3.** This alternative would involve replacing CV 002-071-74.20. with a 16-foot span, 7-foot rise arch box concrete structure. This alternative would have met the project's purpose and need. However, when compared to the preferred alternative, Replacement Alternative 3 would have been more difficult to install and would have required lanes along SR 2 to remain closed for a longer duration. Therefore, this alternative was removed from further consideration. **No Build Alternative:** This alternative would involve no improvements to CV 002-071-74.20. This alternative would result in continued deterioration of the structure, which could allow development of unsafe travel conditions and likely increase costs of repair at a later date. While this alternative eliminates immediate costs and any environmental impacts, it would not meet the purpose and need of the project. Therefore, this alternative was discarded from further consideration.
Funding Source(s):	[X] Federal [X] State [ ] Local [ ] Other
Project Sponsor:	Indiana Department of Transportation (INDOT)
Estimated Cost:	$873,435 — **Project Length:** 95 feet (0.018 mile)
Public Involvement:	**No: X** **Yes:**
Notice of Entry letters were mailed to potentially affected property owners near the project area on September 8, 2020 notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. A sample copy of the Notice of Entry letter is included in Appendix G, page G1. The project does not meet any of the conditions set by the current *INDOT Project Development Public Involvement Procedures Manual* that require formal public involvement. Therefore, the project sponsor is not required to offer the public an opportunity to request a public hearing. The project is not anticipated to cause any public controversy. This does not preclude the need for public involvement or public information meeting in the future.	
Right-of-Way:	**No:** **Yes: X**
The existing ROW width west of the structure is 145 feet, and 135 feet east of the structure. Existing ROW consists of two areas of pavement separated by a center median. Along the outside roadway shoulders are maintained and unmaintained herbaceous vegetation and scrub-shrub vegetation. This project requires approximately 0.03 acre of new permanent ROW, which will be acquired from both ends of the structure. The maximum ROW width will become 240 feet in the area of CV 002-071-74.20.	

The additional permanent ROW is necessary to accommodate the new headwall and associated riprap at the outlet on the structure's south end and the inlet on the north end. The project also requires 0.003 acre of temporary ROW necessary for construction activity. The temporary ROW will be acquired immediately adjacent to the proposed permanent ROW north of the structure. Land use within the ROW to be acquired includes agricultural areas and Niespodziany Ditch.

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

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

The MOT plan will occur in two phases and involve temporary median crossovers. The median crossovers will require installation of temporary travel lanes within the existing SR 2 center median east and west of the structure. Phase I will shift the westbound traffic to the south side of the existing median. Phase II will shift eastbound traffic to the north of the existing median. One lane of traffic will be maintained in each direction during both MOT phases. The MOT is illustrated on preliminary plan sheet in Appendix B, B14-B16. The MOT duration is expected to be approximately six months. The MOT will be implemented per the *Indiana Design Manual* guidelines.

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 proposed project will involve the replacement of CV 002-071-74.20, which is a 120-foot long RCB culvert with a 16-foot span and 5.6-foot rise that conveys Niespodziany Ditch beneath SR 2. The replacement structure will be a 128-foot RCB with a 14-foot span, 8-foot rise, and 12-inch sump. Headwalls and wingwalls will be installed at both ends of the structure. Riprap will be placed at the outlet and inlet of the structure.

In addition, A 15-inch diameter, 65-foot long culvert beneath a field access drive southwest of CV 002-071-74.20 will be replaced by a new structure, Structure No. 10, which will be a CMP of the same dimensions as existing. A center median inlet east of CV 002-071-74.20, which drains southwest to Niespodziany Ditch via a 15-inch diameter, 64-foot long culvert, will also be replaced. The new structure, Structure No. 11, will be a CMP of the same dimensions as existing, and will outlet through the newly constructed wingwall at the outlet (south end) of CV 002-071-74.20. The replaced structures are illustrated in the construction plans, Appendix B, B17.

For additional detail please see the *Preferred Alternative* section above.

IDENTIFICATION AND EVALUATION OF IMPACTS

Early Coordination:

Early coordination letters were sent on September 1, 2021 (Appendix C, C1 to C4).

Agency	Date Sent	Date Response Received	Appendix
Federal Highway Administration (FHWA)-Indiana Division	September 1, 2021	No Response Received	N/A
US Department of Agriculture, Natural Resource Conservation Service (NRCS)	September 1, 2021	September 15, 2021	Appendix C, C17
U.S. Department of Housing and Urban Development	September 1, 2021	No Response Received	N/A
National Park Service, Midwest Regional Office	September 1, 2021	No Response Received	N/A
U.S. Army Corps of Engineers (USACE), Detroit District	September 1, 2021	No Response Received	N/A
INDOT LaPorte District, Environmental Section Manager	September 1, 2021	No Response Received	N/A
INDOT LaPorte District, Project Manager	September 1, 2021	No Response Received	N/A
Indiana Department of Natural Resources, Division of Fish and Wildlife (IDNR DFW)	September 1, 2021	September 30, 2021	Appendix C, C19-C22
Indiana Department of Environmental Management (IDEM)	September 1, 2021	September 1, 2021	Appendix C, C5-C11
INDOT, Environmental Services	September 1, 2021	No Response Received	N/A
Indiana Geological and Water Survey (IGWS)	September 1, 2021	September 1, 2021	Appendix C, C12-C13
Michiana Area Council of Governments (MACOG)	September 1, 2021	No Response Received	N/A
St. Joseph County Highway Department	September 1, 2021	No Response Received	N/A
St. Joseph County Surveyor	September 1, 2021	September 14, 2021	Appendix C, C14-C16
St. Joseph County Drainage Board	September 1, 2021	No Response Received	N/A
St. Joseph County Council	September 1, 2021	No Response Received	N/A
St. Joseph County Board of Commissioners	September 1, 2021	No Response Received	N/A
Olive Township Trustee	September 1, 2021	No Response Received	N/A
St. Joseph County MS4 Coordinator	September 1, 2021	No Response Received	N/A
St. Joseph County 911	September 1, 2021	No Response Received	N/A
St. Joseph County Emergency Management Agency	September 1, 2021	No Response Received	N/A
St. Joseph County Sheriff Department	September 1, 2021	No Response Received	N/A

New Prairie United School Corporation	September 1, 2021	No Response Received	N/A
New Carlisle Emergency Medical Services Department	September 1, 2021	No Response Received	N/A
New Carlisle, Olive-Hudson Fire Department	September 1, 2021	No Response Received	N/A
St. Joseph County Fire Department	September 1, 2021	No Response Received	N/A
New Carlisle Police Department	September 1, 2021	No Response Received	N/A
St. Joseph County Floodplain Administrator	September 1, 2021	No Response Received	N/A

An automated letter was generated from the IDEM website on September 1, 2021. The letter recommended to limit impacts to wetland and stream features and to coordinate with appropriate authorities to obtain the proper permits should impacts occur (Appendix C, C5 to C11). All applicable recommendations from all consulting parties, including IDEM, are included in the *Environmental Commitments* section of the CE document.

The St. Joseph County Surveyor responded to the early coordination letter on September 14, 2021 (Appendix C, C14-16) indicating that two section corner marker mag nails are located in the immediate area of CV 002-071-74.20 and requested that they be replaced if the objects to which they are attached are removed as part of the proposed improvements. This is a firm project commitment. This information was communicated to the designer on September 14, 2021. The markers appear on the plans and are to be replaced by the contractor.

Streams, Rivers, and Other Jurisdictional Features Impacted:	**No:**	**Yes: X**

Based on the desktop review, the aerial map of the project area (Appendix B, B3), and the Red Flag Investigation (RFI) report (Appendix E, E1 to E10), there are six streams, rivers, watercourses, or other jurisdictional features within the 0.5 mile search radius. That number was confirmed during the site visit on July 27, 2021 by Lochmueller Group. There is one stream, river, watercourse, or jurisdictional feature present within or adjacent to the project area – Niespodziany Ditch. There are no Federal, Wild and Scenic Rivers; State Natural, Scenic, and Recreational Rivers; Outstanding Rivers for Indiana; navigable waterways or National Rivers Inventory waterways present in the project area.

Niespodziany Ditch is an IDEM 303d Listed Stream and is listed as impaired for *E. Coli* and Impaired Biotic Communities (IBC). Workers who are working in or near water with E. coli should take care to wear appropriate Personal Protective Equipment (PPE), observe proper hygiene procedures, including regular hand washing, and limit personal exposure. Concerning IBC, Best Management Practices (BMPs) will be used to avoid further degradation to the stream. This is included as a firm project commitment in the *Environmental Commitments* section of this document.

A *Waters of the U.S. Determination Report* was approved by INDOT Ecology and Waterway Permitting Office on January 20, 2022. Please refer to Appendix F, Pages F1 to F28, for the *Waters of the U.S. Determination Report*. It was determined that one stream, Niespodziany Ditch, flows from north to south through the project area.

Niespodziany Ditch is a natural feature that has been captured and reconstructed through the investigation area for agricultural purposes. It flows north to south through the project area. The ordinary

high water mark (OHWM) is 12.5 feet wide by 0.4 feet deep. Approximately 203 linear feet (0.06 acre) of permanent impacts to Niespodziany Ditch below the OHWM are anticipated due to replacement of CV 002-071-74.20 and the placement of riprap at the structure ends. Approximately 41 linear feet (0.011 acre) of temporary impacts to this stream below the OHWM are anticipated due to placement of cofferdams to allow for construction activity related to the replacement of CV 002-071-74.20 and riprap placement. The USACE makes all final determinations regarding jurisdiction. Based on the anticipated impacts to Niespodziany Ditch below the OHWM, it is likely that a USACE Section 404 Regional General Permit (RGP) and an IDEM Section 401 Water Quality Certification (WQC) will be required. Because impacts to streams total less than 300 linear feet, no mitigation is anticipated to be required.

IDNR DFW responded on September 30, 2021 with general recommendations to avoid or minimize impacts to fish, wildlife, and botanical resources (Appendix C, C19 to C22). All applicable recommendations are included in the *Environmental Commitments* section of this CE document.

Open Water Feature(s):	**No: X**	**Yes:**

Based on the desktop review, the aerial map of the project area, and the RFI report (Appendix E, E1 to E10), there is one open water feature within the 0.5 mile search radius. There are no open water features within or adjacent to the project area, which was confirmed by the site visit on July 27, 2021 by Lochmueller Group. Therefore, no impacts are expected.

Wetlands:	**No: X**	**Yes:**

Based on the desktop review, the aerial map of the project area, and the RFI report (Appendix E, E1 to E10) there are five wetlands within the 0.5 mile search radius. There are no wetlands within or adjacent to the project area. That number was updated to one by the site visit on July 27, 2021 by Lochmueller Group.
A Waters of the *US Determination Report* was approved by INDOT Ecology and Waterway Permitting Office on January 20, 2022. Please refer to Appendix F, pages F1 to F28, for the *Waters of the US Determination Report*. It was determined that one wetland, Wetland A, is present within the project area.

Wetland A is a 0.004 acre palustrine, emergent wetland situated in the roadside along the south side of SR 2, west of CV 002-071-74.20. Wetland A formed within an area that was constructed for the purpose of transportation drainage leading to Niespodziany Ditch, and is connected to Niespodziany ditch by way of other constructed roadside drainage swales. Based on a qualitative assessment of Wetland A, this wetland is of poor quality due to the level of disturbance through human activity and minimal support of wildlife, aquatic habitat, and hydrologic function. Niespodziany Ditch has a direct connection to the Kankakee River, a traditionally navigable waterway, and wetland A drains into Niespodziany Ditch by way of constructed roadside drainage swales. As a result, Wetland A has a hydrologic connection to the Kankakee River and thus would fall under Clean Water Act jurisdiction. The USACE makes all final determination regarding jurisdiction.

Wetland A is approximately 95 feet west of the nearest construction limits and will therefore be avoided by all construction activity. All delineated wetlands will be identified on the project plans and labeled as “DO NOT DISTURB” (Appendix B, B17). This is a firm project commitment. Due to the lack of impacts to Wetland A, no wetland impacts are expected as a result of this project.

IDNR DFW responded to early coordination on September 30, 2021 with standard recommendations to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources, and recommended coordination with IDEM and USACE due to potential presence of wetland habitat (Appendix C, C19 to

C22). All applicable recommendations are included in the *Environmental Commitments* section of this CE document.

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

Based on a desktop review, a site visit on July 27, 2021 by Lochmueller Group, and the aerial map of the project area (Appendix B, B3), there are terrestrial habitats within the project area consisting of wooded riparian areas and maintained roadway clear zones. The dominant species are giant ragweed (*Ambrosia trifida*), Kentucky bluegrass (*Poa pratensis*), and white mulberry (*Morus alba*). Ground disturbance totaling 0.49 acre will occur throughout the project area. This will occur along and immediately above the banks of Niespodziany Ditch due to installation of the new structure and its associated headwalls and placement of riprap. Ground disturbance totaling 0.22 acre will occur within the SR 2 center medians for the construction of the temporary cross-over lanes required for MOT. Tree clearing totaling approximately 0.07 acre will occur. The dominant species is mulberry (*Morus alba*). Avoidance alternatives are not practicable because they would prevent proper headwalls and the necessary riprap from being installed at the structure ends. Every effort to avoid, minimize, or mitigate impacts to the terrestrial environment will be made. Mitigation is not anticipated.

IDNR DFW responded on September 30, 2021 with recommendations to develop a mitigation plan for unavoidable habitat impacts and to mitigate for tree removal (Appendix C, C19 to C22). All applicable recommendations are included in the *Environmental Commitments* section of this CE document.

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

Based on a desktop review and the RFI report (Appendix E, E1 to E10), approved by INDOT Site Assessment and Management (SAM) on January 28, 2022, the St. Joseph County Endangered, Threatened and Rare (ETR) Species List has been checked. According to the IDNR DFW early coordination response letter dated September 30, 2021 (Appendix C, C19 to C22), the Natural Heritage Program's Database has been checked and no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity. An INDOT 0.5-mile bat review occurred on June 18, 2021. A review of the USFWS database did not indicate the presence of endangered bat species within 0.5 mile of the project area.

Indiana Bat and Northern Long-Eared Bat

Project information was submitted through the US Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, C23 to C28). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). No additional threatened or endangered species were generated in the IPaC species list other than the Indiana Bat and NLEB.

The project qualifies for the Range-wide Programmatic Informal Consultation for the Indiana bat and NLEB, dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. Structure inspections for CV 002-071-74.20 and each of the 15-inch CMPs to be replaced occurred on July 27, 2021 and found no evidence of bats (Appendix C, C43 to C45). An effect determination key was completed on January 14, 2022, and based on the responses provided, the project was found to "may affect, not likely to adversely affect" the Indiana bat and/or the NLEB. INDOT reviewed and verified the effect finding on January 14, 2022 and requested USFWS's review of the finding (Appendix C, C29 to C42). 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) include Lighting AMM 1, which advises that temporary lighting be directed away from bat habitat in the active season; General AMM 1, which directs workers present in bat habitat

areas to be aware of environmental commitments; Tree Removal AMM 1, which directs to modify all phases/aspects of the project to avoid tree removal; Tree Removal AMM 2, which requires time of year restrictions for tree removal and/or limits on number of trees removed; Tree Removal AMM 3, which requires tree removal to be limited to that specified in project plans and ensures that contractors understand clearing limits and tree marking; and Tree Removal AMM 4 which requires documented bat roosts, trees near roosts, or documented foraging habitat not to be removed. AMMs are included as firm commitments in the *Environmental Commitments* section of this document.

Migratory Birds
Structure CV 002-071-74.20 (Latitude: 41.67191°N, Longitude: -86.46716°W) has shown evidence of use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA) during the July 27, 2021 inspection. Avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the "Potential Migratory Bird on Structure" Recurring Special Provision (RSP). This firm commitment is included in the *Environmental Commitments* of this document.

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, the project is located outside the designated karst region of Indiana as outlined in the most current *Protection of Karst Features during Project Development and Construction*. According to the topographic map of the project area (Appendix B, B2) and the RFI report (Appendix E, E1 to E10) there are no karst features identified within or adjacent to the project area. In the early coordination response dated September 1, 2021, the Indiana Geological and Water Survey (IGWS) did not indicate that karst features exist in the project area (Appendix C, C12 to C13). The IGWS environmental assessment showed moderate liquefaction potential, moderate bedrock resource potential, and high sand and gravel resource potential. The response from IGWS was communicated to the designer on January 11, 2022. No impacts are expected.

Drinking Water Resources:	**No: X**	**Yes:**

Sole Source Aquifer
The project is located in St. Joseph County but located outside the area of the St. Joseph Sole Source Aquifer, the only legally designated sole source aquifer in the state of Indiana. Therefore, the FHWA/EPA Sole Source Aquifer Memorandum of Understanding (MOU) is not applicable to this project. Therefore, a detailed groundwater assessment is not needed, and no impacts are expected.

Wellhead Protection Area and Source Water
The IDEM Wellhead Proximity Determinator website (http://www.in.gov/idem/cleanwater/pages/wellhead/) was accessed on September 1, 2021 by Lochmueller Group. This project is not located within a Wellhead Protection Area or Source Water Area.

Water Wells
The IDNR Water Well Record Database website (https://www.in.gov/dnr/water/3595.htm) was accessed on September 1, 2021 by Lochmueller Group. No wells are located near this project. Therefore, no impacts are expected.

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 Lochmueller Group on August 24, 2021, this project is located in an Urban Area Boundary. An early coordination letter was sent on September 1, 2021 to the St. Joseph County MS4 Coordinator. The MS4 coordinator did not respond within the 30-day time frame. In accordance with 327 IAC 15-13 (Rule 13 – Municipal Separate Storm Sewer Systems), a Storm Water Quality Management Plan will be developed as part of this project. As part of its implementation, projects falling within the UAB will be required to consider appropriate post-construction storm water quality best management practices (BMPs). These BMPs should take into consideration the available space, pollutants of concern, and receiving waters.

Public Water System
Based on a desktop review, a site visit on July 27, 2021 by Lochmueller Group, and the aerial map of the project area (Appendix B, B3), no public water systems were identified. Therefore, no impacts are expected.

Floodplains:	**No:**	**Yes: X**

Based on a desktop review of The IDNR Indiana Floodway Information Portal website (http://dnrmaps.dnr.in.gov/appsphp/fdms/) by Lochmueller Group on August 24, 2021, and the RFI report, this project is located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, F9). An early coordination letter was sent on September 1, 2021, to the St. Joseph County Floodplain Administrator. No response was received. This project qualifies as a Category 3 per the current INDOT CE Manual, which states that:
"The modifications to drainage structures included in this project will result in an insubstantial change in their capacity to carry flood water. This change could cause a minimal increase in flood heights and flood limits. These minimal increases will not result in any substantial adverse impacts on the natural and beneficial floodplain values; they will not result in substantial change in flood risks or damage; and they do not have substantial potential for interruption or termination of emergency service or emergency routes; therefore, it has been determined that this encroachment is not substantial."

IDNR DFW responded on September 30, 2021 with a regulatory assessment that the project will require formal approval from IDNR for construction in a floodway, pursuant to the Flood Control Act, unless it qualifies for a bridge exemption (Appendix C, C19 to C22). Because the project is located in a rural area and has un upstream drainage area of less than 50 square miles (6.14 sq. mi.), the project is expected to be eligible for such an exemption (Appendix F, F10). A formal permit determination will be performed in coordination with INDOT's Ecology and Waterway Permits Office (EWPO).

Farmland:	**No:**	**Yes: X**

Based on a desktop review, a site visit on July 27, 2021, the aerial map of the project area (Appendix B, B3), the project will convert 0.03 acres of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on September 1, 2021, to Natural Resources Conservation Service (NRCS). Coordination with NRCS resulted in a score of 159 on the AD 1006 Form (Appendix C, C18). NRCS's threshold score for significant impacts to farmland that result in the consideration of alternatives is 160. Since this project score is less than the threshold, no significant loss of prime, unique, statewide,

or local important farmland will result from this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland.		
Cultural Resources:	**No: X**	**Yes:**
On October 20, 2021 the INDOT Cultural Resource Office (CRO) determined that this project falls within the guidelines of Categories A-6, A-9, and B-9 under the Minor Projects Programmatic Agreement (MPPA), (Appendix D, D1-D3). The project will occur in previously disturbed soils. These MPPA types include the following work: A-6. Repair, replacement, or upgrade of existing safety appurtenances such as guardrails, barriers, glare screens, and crash attenuators in previously disturbed soils. A-9. Installation, repair, or replacement of erosion control measures along roadways, waterways and bridge piers within previously disturbed soils. B-9. Installation, replacement, repair, lining, or extension of culverts and other drainage structures with certain conditions. 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: X**	**Yes:**
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 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, the aerial map of the project area (Appendix B, B3), and the RFI report (Appendix E, E1 to E10) there are no potential 4(f) resources located within the 0.5 mile search radius. According to additional research and by the site visit on July 27, 2021 by Lochmueller Group, there are no Section 4(f) resources within or adjacent to the project area. Therefore, no use is expected. **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 34 properties in St. Joseph County (Appendix I, I1). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources.		
Air Quality:	**No: X**	**Yes:**
STIP/TIP This project is included in the Fiscal Year (FY) 2022-2026 Michiana Area Council of Governments (MACOG) Transportation Improvement Program (TIP). (Appendix H, H2)		

The FY 2020-2024 Statewide Transportation Improvement Program (STIP) is listed based on the lead Des. No. in the contract. The lead Des. No. for this contract is Des. No. 1900177. The FY 2020-2024 STIP includes Des. No. 1900017 by reference with contract number B-42444. (Appendix H, H1)

Attainment Status
This project is located in St. Joseph County, which is currently in attainment for all criteria pollutants according to the EPA Greenbook Nonattainment Status by County webpage (https://www3.epa.gov/airquality/greenbook/anayo_in.html).

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 analysis is not required.

Community Impacts:	**No: X**	**Yes:**

Under FHWA Order 6640.23A, FHWA and the project sponsor, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. This project will have no relocations and will require less than 0.5 acre of additional permanent right-of-way; therefore, an EJ analysis is not required per the current INDOT Categorical Exclusion Manual.

The project complies with local and regional development patterns and will have a negligible impact on community cohesion and community events. The structure replacement will have a positive community impact by elongating the life and addressing deficiencies of the crossing while gaining greater ability to handle growing transportation needs of the community. The necessary ROW acquisition will not substantially diminish the affected properties' existing use.

Public Facilities and Services (e.g. schools, emergency services):	**No: X**	**Yes:**

Based on a desktop review, the aerial map of the project area (Appendix B, B3), and the RFI report (Appendix E, E1 to E10) there are no public facilities within the 0.5 mile search radius. There are no public facilities within or adjacent to the project area, which was confirmed by the site visit on July 27, 2021 by Lochmueller Group. Therefore, no impacts are expected. Access to all properties will be maintained during construction.

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. This is a firm project commitment.

Hazardous Materials and Regulated Substances:	**No:**	**Yes: X**

Based on a review of GIS and available public records, the RFI was approved on January 28, 2022 by INDOT Site Assessment and Management (SAM) (Appendix E, E1 to E10). One solid waste landfill is located within the 0.5 mile search area. One leaking underground storage tank (LUST) site is located within the 0.5 mile search radius. Two institutional controls are located within the 0.5 mile search radius. One solid waste landfill and one LUST site could affect the project area.

A Leaking Underground Storage Tank (LUST) site, Former Nowak Service Station, 30729 SR 2, New Carlisle, Indiana, AID 33269, is located at the northeast corner of SR 2 and Larrison Blvd./Strawberry Rd. (east of the project area). According to the No Further Action Determination Pursuant to 1994 UST Branch Guidance letter issued by IDEM on January 25, 2007, low levels of soil and groundwater petroleum contamination remain on the site near the former UST excavation area. 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 lead will be necessary. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination. This is a firm project commitment.

A landfill site, Lon Newton Dump, 56400 Strawberry Rd., New Carlisle, Indiana, AID 33411, is located 0.09 mile northeast of the project area. It appears that dumping of solid waste (construction/demolition waste) has occurred at the site. Based on the history of violations at the site, it is possible that dumping of other types of waste occurred over the years that may have impacted groundwater in the area. Groundwater is presumed to flow toward Niespodziany Ditch and the project area. Coordination with IDEM Office of Land Quality will occur and, if warranted, a Phase II ESA may be required. Coordination with INDOT SAM will occur following guidance from IDEM Office of Land Quality. This is a firm project commitment.

Permits:	**No:**	**Yes: X**

Based on the anticipated 203 linear feet (0.06 acre) of permanent impacts to Niespodziany Ditch below the OHWM, it is likely that a USACE Section 404 RGP and an IDEM Section 401 WQC permit will be required. The automated letter that was generated from the IDEM website on September 1, 2021, indicates that if a USACE Section 404 permit is required, a Section 401 WQC from the IDEM Office of Water Quality must be obtained.

Although the project takes place in the floodway of Niespodziany Ditch, the project is likely eligible for a Construction in a Floodway (CIF) permit bridge exemption due to the project's location within a rural area and the upstream drainage area of less than 50 square miles (6.14 sq. mi.).

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 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. 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 EWPO)
2. If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT LaPorte District)
3. It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access. (INDOT ESD)
4. USFWS Bridge/Structure Assessment shall take place no earlier than two (2) years prior to the start of construction. If construction will begin after July 27, 2023 an inspection of all affected structures by a qualified individual, must be performed. Inspection of the structures 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 ESD)
5. One (1) IDEM 303d Impaired Stream segment, Niespodziany Ditch, flows through the project area and is listed as impaired for *E. coli* and Impaired Biotic Communities (IBC). Workers who are working in or near water with *E. coli* should take care to wear appropriate personal protective equipment (PPE), observe proper hygiene procedures, including regular hand washing, and limit

personal exposure. Concerning IBC, best management practices (BMPs) will be used to avoid further degradation to the stream. (INDOT SAM)

6. General AMM 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs. (USFWS)
7. Lighting AMM 1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)
8. Tree Removal AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal. (USFWS)
9. Tree Removal AMM 2: Apply time of year restrictions (October 1st through March 31st) for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/ rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed. (USFWS)
10. Tree Removal AMM 3: Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits). (USFWS)
11. Tree Removal AMM 4: Do not remove documented Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or documented foraging habitat any time of year. (USFWS)
12. Structure CV 002-071-74.20 (Latitude: 41.67191°N, Longitude: -86.46716°W) has shown evidence of use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA) during the July 27, 2021 inspection. Avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the Standard Recurring Special Provision 107-C-273 Migratory Bird Protection. (INDOT ESD)
13. Two section corner marker mag nails are located in the immediate area of CV 002-071-74.20. These are to remain or be replaced in the exact same location following the completion of construction. (St. Joseph County Surveyor)
14. All delineated wetlands will be identified on the project plans and labeled as “DO NOT DISTURB.” (INDOT ESD)
15. One LUST site is located near the project site. The site, Former Nowak Service Station, 30729 SR 2, New Carlisle, Indiana, AID 33269, is located at the northeast corner of SR 2 and Larrison Blvd./Strawberry Rd. (adjacent to the project area). According to the No Further Action Determination Pursuant to 1994 UST Branch Guidance letter issued by IDEM on January 25, 2007, low levels of soil and groundwater petroleum contamination remain on the site near the former UST excavation area. 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 lead will be necessary. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination. (INDOT SAM)
16. One landfill is located near the project site. The site, Lon Newton Dump, 56400 Strawberry Rd., New Carlisle, Indiana, AID 33411, is located 0.09 mile northeast of the project area. It appears that dumping of solid waste (construction/demolition waste) has occurred at the site. Based on the history of violations at the site, it is possible that dumping of other types of waste occurred over the years that may have impacted groundwater in the area. Groundwater is presumed to

flow toward Niespodziany Ditch and the project area. Coordination with IDEM Office of Land Quality will occur and, if warranted, a Phase II ESA may be required. Coordination with INDOT SAM will occur following guidance from IDEM Office of Land Quality. (INDOT SAM)

For Consideration:

1. 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. (IDNR DFW)
2. The new, replacement, or rehabbed structure should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. (IDNR DFW)
3. 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 nonwetland 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 inches dbh or greater (5:1 mitigation based on the number of large trees). (IDNR DFW)
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. (IDNR DFW)
5. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure. (IDNR DFW)
6. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds. (IDNR DFW)
7. Use minimum average 6-inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR DFW)