

Indiana Department of Transportation

County Miami

Route State Route 16

Des. No. 1600294

**FHWA-Indiana Environmental Document
CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM
GENERAL PROJECT INFORMATION**

Road No./County:	State Road 16 Miami County
Designation Number:	1600294
Project Description/Termini:	Pavement Replacement and drainage improvements On SR 16 from 2.90 miles east of US 31 to 3.71 miles east of US 31

After completing this form, I conclude that this project qualifies for the following type of Categorical Exclusion (FHWA must review/approve if Level 4 CE):

X	Categorical Exclusion, Level 2 – The proposed action meets the criteria for Categorical Exclusion Manual Level 2 - table 1, CE Level Thresholds. Required Signatories: ESM (Environmental Scoping Manager)
	Categorical Exclusion, Level 3 – The proposed action meets the criteria for Categorical Exclusion Manual Level 3 - table 1, CE Level Thresholds. Required Signatories: ESM, ES (Environmental Services Division)
	Categorical Exclusion, Level 4 – The proposed action meets the criteria for Categorical Exclusion Manual Level 4 - table 1, CE Level Thresholds. Required Signatories: ESM, ES, FHWA
	Environmental Assessment (EA) – EAs require a separate FONSI. Additional research and documentation is necessary to determine the effects on the environment. Required Signatories: ES, FHWA

Note: For documents prepared by or for Environmental Services Division, it is not necessary for the ESM of the district in which the project is located to release for public involvement or sign for approval.

Approval

_____	_____	_____	_____
ESM Signature	Date	ES Signature	Date
_____		_____	
FHWA Signature		Date	

Release for Public Involvement

<u>KMN</u>	<u>6/9/2020</u>	_____	_____
ESM Initials	Date	ES Initials	Date

Certification of Public Involvement

_____	_____
Office of Public Involvement	Date

Note: Do not approve until after Section 106 public involvement and all other environmental requirements have been satisfied.

INDOT ES/District Env.
Reviewer Signature: Ashley Taylor - INDOT Fort Wayne District Date: 2/14/20; 5/5/20

Name and Organization of CE/EA Preparer: Richard Fitch, AICP & Mathew Aldridge; Burgess & Niple, Inc.

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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.**

Does the project have a historic bridge processed under the Historic Bridges PA*?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
If No, then: Opportunity for a Public Hearing Required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**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.

Remarks: Notice of Entry letters were mailed to potentially affected property owners near the project area on 2/22/2017 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 and mailing list are included in Appendix G, pages G-2 to G-8.

Stakeholder Meeting

One Stakeholder Meeting was held for the project. Eleven (11) people representing INDOT, the Town of Denver, and Burgess & Niple attended the meeting held on July 26, 2018 at the Denver Community Building in Denver, IN. The meeting began at 2:00 pm to discuss project scope, project schedule, parking/Americans with Disabilities Act (ADA), right-of-way, maintenance of traffic, utilities, and the next steps. (Appendix G, pages G-9 to G-10).

Section 106

To meet the public involvement requirements of Section 106, a legal notice of FHWA's finding of No Adverse Effect was published in the *Peru Tribune* on 2/25/2020 offering the public an opportunity to submit comment pursuant to 36 CFR 800.2(d), 800.3(e), and 800.6(a)(4). The public comment period closed 30 days later on 3/26/2020. The text of the public notice and the affidavit of publication appear in Appendix D, pages D-84 to D-85. No comments were received by INDOT or Weintraut and Associates during the comment period.

Project Does Meet

The project will meet the minimum requirements described in the current *Indiana Department of Transportation (INDOT) Public Involvement Manual* which requires the project sponsor to offer the public an opportunity to submit comment 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

Will the project involve substantial controversy concerning community and/or natural resource impacts? Yes No

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

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

Sponsor of the Project: INDOT INDOT District: Fort Wayne
Local Name of the Facility: SR 16

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

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

PURPOSE AND NEED:

Describe the transportation problem that the project will address. The solution to the traffic problem should NOT be discussed in this section. (Refer to the CE Manual, Section IV.B.2. Purpose and Need)

Need

The primary need for the project is to address the deteriorated condition and end of the functional life of the existing pavement on SR 16. There are numerous transverse cracks that appear in the pavement surface. The existing sidewalk is severely deteriorated, and the curb ramps are either nonexistent or not Americans with Disabilities Act (ADA) compliant. The existing curb has minimal drainage capacity due to previous overlays and the existing storm sewer appears to be inadequate to collect and convey the design year storm. There are several areas within the project that currently experience ponding of storm water.

Purpose

The purpose of the project is to address a long-term solution for the deteriorated condition of the SR 16 pavement, drainage and sidewalks.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Miami Municipality: Denver

Limits of Proposed Work: 2.90 miles east of US 31 to 3.71 miles east of US 31

Total Work Length: 0.81 Mile(s) Total Work Area: 8.188 Acre(s)

Is an Interchange Modification Study / Interchange Justification Study (IMS/IJS) required?
If yes, when did the FHWA grant a conditional approval for this project?

Yes ¹	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
Date: _____	

¹If an IMS or IJS is required; a copy of the approved CE/EA document must be submitted to the FHWA with a request for final approval of the IMS/IJS.

In the remarks box below, describe existing conditions, provide in detail the scope of work for the project, including the preferred alternative. Include a discussion of logical termini. Discuss any major issues for the project and how the project will improve safety or roadway deficiencies if these are issues.

This is page 3 of 26 Project name: State Road 16 Pavement Replacement Date: May 29, 2020

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Location

The project is located in the Town of Denver, Jefferson Township, Miami County, Indiana. The project begins 2.90 miles east of US 31 and ends 3.71 miles east of US 31 for a project length of 0.81 mile. The project mapping is located in Appendix B, pages B-2 to B-7.

Existing Conditions

The existing roadway consists of two 12' travel lanes with sections that contain variable width paved shoulders, no shoulders, or shoulders with curb. A parking lane and curb are adjacent to the travel lane between 1st Street and Charles Street on the north side of SR 16 and 1st Street and Yorick Street on the south side of SR 16. There is no on-street designated handicap parking within the project limits. The Nickel Plate Trail, a bicycle/pedestrian trail, is located just east of S. 2nd Street and crosses SR 16. The existing pavement and curb throughout the project limits are severely deteriorated and at the end of their functional life. The sidewalks vary in width from 4-6 feet with some sections missing within the residential area. The existing sidewalks are cracked and uneven. The curb ramps either don't exist at corners or do not meet ADA standards. The Weesau Creek bridge is not within the project limits.

The existing drainage consists of open roadside ditches on both the west and east ends of the project. The remainder of the project has sections with no drainage (ditches or stormwater structures) to areas with curbs and storm sewers with catch basins.

Preferred Alternative – Pavement Replacement

The preferred alternative consists of full depth pavement reconstruction with underdrains as well as removing and replacing the curb and gutter, storm drainage, sidewalks and curb ramps. All sidewalks and curb ramps shall be ADA compliant. The table below lists the location of ADA curb ramps that will be constructed as part of the project.

ADA Compliant Curb Ramp Locations at Intersections with SR 16				
Street Name	Northwest Quadrant	Northeast Quadrant	Southeast Quadrant	Southwest Quadrant
Second Street	N/A	N/A	Yes	Yes
Nickel Plate Trail	Yes	Yes	Yes	Yes
First Street	Yes	Yes	Yes	Yes
Payson Road	Yes	Yes	Yes	Yes
Emmons Street	Yes	Yes	Yes	Yes
Chandler Street	Yes	Yes	Yes	Yes
Yorick Street	Yes	Yes	Yes	Yes
Louis Street	Yes	Yes	N/A	N/A
Charles Street	Yes	Yes	N/A	N/A

Several short sections of sidewalk will be constructed to fill missing links in the sidewalk through town. These sections of new sidewalk include:

- North and south sides of SR 16 from the Nickel Plate Trail to First Street;
- North side of SR 16 from Emmons Street 200' to the east;
- North side of SR 16 from North Charles Street to the Fire Station driveway;
- South side of SR 16 from Yorick Street a distance of 700' east to the last residential drive in the town.

The designer shall determine the number and location of handicap parking spots based on ADA requirements and commercial businesses. Nickel Plate Trail crosses SR 16 on the west end of the project. Safety improvements for bicyclists and pedestrians crossing SR 16 will be included in this alternative. The designer shall consider ditch flow line elevations when designing the underdrain trench. Every effort should be made to achieve two feet of free board between the outlets and the ditch flow line. Ditches will be regraded and shaped to reestablish positive drainage. From the west limits of the project to North Street (abandoned road west of Miami County Garage property), the ditches on the north and south side will require regrading and installing culverts under the drive approaches to drain storm water to Weesau Creek.

Any existing storm sewer that can't be salvaged will be removed as part of this project. All new storm sewer and culverts will be installed and designed per INDOT standards. Existing outlet locations shall be maintained if it is determined that the existing storm sewer has sufficient capacity for the design stormwater flow. If there is not sufficient capacity, then stormwater from Yorick Street to the west shall be conveyed west to the existing ditch just west of North Street. The stormwater will flow in an open ditch to Weesau Creek. This will require regrading the existing ditches and adding culverts under the existing approaches and field entrances. Storm sewer east of Yorick Street shall be conveyed east and outlet to the ditch south of SR 16.

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The reconstruction of SR 16 will require temporary use of the Nickel Plate Trail. To mitigate for the temporary use of the trail land, the trail approaches to the intersection will be realigned to be closer to 90° for better trail user’s sight distance along SR 16. Increased signage and road markings will be added to warn traffic on SR 16 of the trail crossing. More detailed description is in the Section 4(f) section of this CE.

The Section 106 Historic Properties Report identified three properties that are eligible for listing on the National Register of Historic Places. The State Historic Preservation Office (SHPO) agreed with the findings. Features of the three structures have been identified on the plans as “Do Not Disturb” during the reconstruction of the roadway, curbs, storm sewer system, and the sidewalks. More detailed information concerning historic properties and approvals are discussed in the Cultural Resources section of this CE.

The maintenance of traffic (MOT) during construction is to close SR 16 to allow for full width construction. Access to residences and businesses will be provided at all times. The signed detour route will follow US 31, US 24 and SR 19. The Nickel Plate Trail will require closure at the crossing of SR 16. Washington Street and 1st Street will be used for the trail detour. Bike access across SR 16 will be maintained at all times either at the existing trail or the 1st Street crossing at SR 16. Detailed information is included in the MOT section below and in the detailed plans (Appendix B, pages B-28 and B-31).

Permanent and Temporary right-of-way (ROW) will be acquired for the project. A total of 1.672 acres of permanent ROW and 0.591 acre of temporary ROW to address grading and driveway tie-ins. An Advanced Acquisition CE-1 was approved for the purchase of the required ROW. The Advanced Acquisition CE-1 was approved on 3/13/2019. This approval only allowed for the purchase of the ROW with no changes to the land use until the project is approved by this CE-2.

This alternative meets the purpose and need of the project by installing new pavement to extend the roadway pavement life, replace sidewalks in poor condition, install ADA compliant curb ramps, install new curbs and gutters, and reshape open ditches to improve stormwater movement.

The project will begin at the east approach to the Weesau Creek bridge and extends east to 700 feet east of the fire station drive. This represents the area of SR 16 with the deteriorated pavement. INDOT has a separate project for the minor structural overlay of SR 16 (DES #1601004) pavement that will tie into the east and west terminus of this project. DES #1601004 is covered by a separate CE. Neither project requires the other project to be constructed. The construction of one project does not limit the alternatives considered for the other project. Each project has independent utility by not depending on the other project to proceed.

OTHER ALTERNATIVES CONSIDERED:

Describe all discarded alternatives, including the Do-Nothing Alternative and an explanation of why each discarded alternative was not selected.

Alternative 2 – Mill and Resurface

This alternative would be the same as Alternative 1 except for the different pavement treatment. This alternative pavement treatment consists of milling the existing surface and placing a 2-inch overlay of HMA on top of the existing pavement. Based on preliminary pavement assessment, the existing pavement has reached the end of its functional life. The mill and overlay will provide a short-term enhancement of the surface, but will not delay the further breakdown of the subbase with the ultimate result being replacement of the entire pavement. In addition to pavement condition, the existing curbs would need to be replaced and raised to obtain the proper drainage capacity and curb height, which would require additional storm sewer inlets behind the curb to prevent ponding water. As identified in preferred alternative, the sidewalks and curb ramps would be reconstructed to meet ADA requirements. This will result in additional right-of-way acquisition. For these reasons, this alternative is not recommended.

Alternative 3 – No Build

The no build option doesn’t meet the purpose and need for the project. The need for the project to address the deteriorating pavement will not be met because the pavement will remain unimproved and will continue to deteriorate. The existing pavement has reached a point of deterioration where greater amounts of water can now penetrate the surface into the pavement structure, which will likely result in an accelerated rate of deterioration in the future if no action is taken.

The Do Nothing Alternative is not feasible, prudent or practicable because (Mark all that apply):

It would not correct existing capacity deficiencies;

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

ROADWAY CHARACTER: SR 16

Functional Classification: Rural Major Collector, Urban Major Collector
 Current ADT: 570-1,960 VPD (2020) Design Year ADT: 570-2,700 VPD (2040)
 Design Hour Volume (DHV): 50-270 Truck Percentage (%) 3-9%
 Designed Speed (mph): 30-55 Legal Speed (mph): 30-55

Existing **Proposed**

Number of Lanes:	2		2	
Type of Lanes:	Through		Through	
Pavement Width:	12	ft.	12	ft.
Shoulder Width:	0-6	ft.	2-6	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	3-5	ft.	5-6	ft.

Setting: Urban Suburban Rural
 Topography: Level Rolling Hilly

If the proposed action has multiple roadways, this section should be filled out for each roadway.

DESIGN CRITERIA FOR BRIDGES: N/A

Structure/NBI Number(s): _____ Sufficiency Rating: _____
(Rating, Source of Information)

Existing **Proposed**

Bridge Type:				
Number of Spans:				
Weight Restrictions:		ton		ton
Height Restrictions:		ft.		ft.
Curb to Curb Width:		ft.		ft.
Outside to Outside Width:		ft.		ft.
Shoulder Width:		ft.		ft.
Length of Channel Work:				ft.

Describe bridges and structures; provide specific location information for small structures.

Remarks: **No presence**
 No bridges or culvert structures are located within the project area. Part of the storm drainage system will utilize the existing open ditches to convey stormwater. Where the open ditches cross under drives or alleys, drainage pipes will be installed.
 These drainage pipes on the west end of the project:

- Under driveway 45' of 24" pipe

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- Under driveway 60' of 24" pipe
- Drainage pipes on the east end of the project:
- Under platted alley 43' of 18" pipe
 - Under fire station drive 59' of 18" pipe
 - Under farm field access drive 43' of 18" pipe.
- All of the remaining stormwater pipes are replacements for the existing storm sewer system.

Will the structure be rehabilitated or replaced as part of the project? Yes No N/A
If the proposed action has multiple bridges or small structures, this section should be filled out for each structure.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

	Yes	No
Is a temporary bridge proposed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is a temporary roadway proposed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the project involve the use of a detour or require a ramp closure? (describe in remarks)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made for access by local traffic and so posted.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made for through-traffic dependent businesses.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made to accommodate any local special events or festivals.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the proposed MOT substantially change the environmental consequences of the action?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there substantial controversy associated with the proposed method for MOT?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks: The MOT for the project will require the closure of SR 16 to through traffic. Access for residences and businesses will be provided at all times. The signed detour route will use US 31, US 24, and SR 19. The signed detour route will be approximately 17 miles and will add approximately 11.1 miles between US 31 and SR 19 than the same route using SR 16. The Section 4(f) Official with Jurisdiction (OWJ) requested that the Nickel Plate Trail remain open during the construction of SR 16 (Appendix C, pages C-41 to C-49). To accomplish this, a temporary connection will be made between the trail and Washington Street and the detour will use Washington Street and 1st Street. Either the 1st Street intersection with SR 16 or the existing trail crossing at SR 16 will remain open during construction to allow use of the trail. The existing sidewalks will be closed during the reconstruction of the sidewalks. Pedestrians will use the cross streets and alleys/roads that run parallel to SR 16. No sidewalk detour will be posted. The MOT plans are located in Appendix B, pages B-28 and B-31.

The closure will pose a temporary inconvenience to traveling motorists (including school buses and emergency services); however, no significant delays are anticipated, and all inconveniences will cease upon project completion. Delays may occur during construction but will cease with project completion. The town has not identified any local special events or festivals that MOT need to take into account.

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: \$ 320,000.00 (2017) Right-of-Way: \$ 100,000.00 (2020) Construction: \$ 9,256,890.00 (2021)
 Anticipated Start Date of Construction: Spring 2022
 Date project incorporated into STIP 7/02/2019 and 7/25/2019
Amendment 20-01
 Is the project in an MPO Area? Yes No

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If yes,

Name of MPO _____

Location of Project in TIP _____

Date of incorporation by reference into the STIP _____

RIGHT OF WAY:

Land Use Impacts	Amount (acres)	
	Permanent	Temporary
Residential	0.560	0.359
Commercial	0.757	0.232
Agricultural	0.355	0
Forest	0	0
Wetlands	0	0
Other:	0	0
Other:	0	0
TOTAL	1.672	0.591

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 or reacquisition, either known or suspected, and there impacts on the environmental analysis should be discussed.

Remarks: **Right-of-way (ROW) required**
 There is no existing right-of-way in the following locations: north side of SR 16 from North Street to Nickel Plate Trail, south side of SR 16 from North Street to approximately 133 feet west of 2nd Street and from Yorick Street to the end of the project on the south side of SR 16. New permanent right-of-way will be required for these areas. Throughout most of the project, the ROW is 60' wide. Additional right-of-way is anticipated at several intersections. These intersections include: 1st Street, Payson Street, Emmons Street and Yorick Street. Additional permanent right-of-way is also anticipated between Yorick Street and Chandler Street on the north side of SR 16. The total anticipated area of new permanent right-of-way is approximately 1.672 acres. All sidewalk, curbs, drainage structures, ditches, and roadway pavement shall be built in permanent ROW. Temporary right-of-way is anticipated for minor lawn grading, service walk tie-ins, and driveway tie-ins with an approximately 0.591 acre required. Permanent and temporary ROW will be purchased from 35 parcels. The ROW was included in an Advanced Acquisition CE-1 approved on 3/13/2019. The approved Advanced Acquisition CE-1 allowed for the acquisition of the ROW but no changes can be made to the ROW until this CE-2 is approved. Based on refining the ROW during detailed design since the Advance Acquisition CE-1 was approved, the permanent ROW has increased 0.026 acre (1.672 acres instead of 1.646 acres as approved in the CE-1). The temporary ROW is unchanged.

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.

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

SECTION A – ECOLOGICAL RESOURCES

	<u>Presence</u>	<u>Impacts</u>	
		<u>Yes</u>	<u>No</u>
Streams, Rivers, Watercourses & Jurisdictional Ditches	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
Federal Wild and Scenic Rivers			
State Natural, Scenic or Recreational Rivers			
Nationwide Rivers Inventory (NRI) listed			
Outstanding Rivers List for Indiana			
Navigable Waterways			

Remarks: **Presence, no impact**
 A desktop review, a site visit on 10/16/2018 by B&N, the aerial map of the project area (Appendix B, pages B-4 to B-7) and the water resources map in the Red Flag Investigation (RFI) report (Appendix E, page E-9) were reviewed. The RFI identified the following water resources within the 0.5 mile radius of the project area: one (1) NWI line – Weesau Creek; four (4) river and stream segments listed as Impaired (IDEM 303d) – Eel River; two (2) Rivers and Streams – Weesau Creek and Eel River. No other waters of the US were identified within the project area. None of the listed water resources will be impacted by the project. None of the rivers or streams within the 0.5 mile radius of the project area are listed as: Federal Wild and Scenic Rivers; State Natural, Scenic, or Recreational Rivers; Outstanding Rivers of Indiana; navigable waterways or listed on the National Rivers Inventory based on a review of federal and state databases on 10/10/2018.

Waters Report
 A *Waters of the US Determination/Wetland Delineation Report* (WOTUS) was prepared by B&N to determine if any of the ditches to be modified within the project limits are WOTUS. The WOTUS Report dated 05/01/2019 (Appendix F, pages F-2 to F-21), didn't identify any WOTUS within the project area. INDOT-ESD-Ecology and Waterway Permitting Office (EWPO) reviewed the report and concurred with the findings on 5/16/2019 (Appendix F, pages F-22 to F-23). Therefore, no impacts are expected.

Early Coordination
 Early coordination letters were sent on 2/06/2018 (Appendix C, pages C-2 to C4). The Indiana Department of Natural Resources, Division of Fish and Wildlife (IDNR DFW) responded on 2/07/2018 (Appendix C, page C-13). IDNR made no recommendation for consideration dealing with Rivers, Streams, Watercourses, and Jurisdictional ditches.

The Indiana Department of Environmental Management (IDEM) standard response letter and recommendations was generated on 02/07/2018 (Appendix C, pages C-5 to C-12).

1. Obtain necessary permits to work in WOTUS. (Section 404, 401, and isolated wetlands).

All applicable IDNR and IDEM recommendations are included in the Environmental Commitments section of this CE document.

	<u>Presence</u>	<u>Impacts</u>	
		<u>Yes</u>	<u>No</u>
Other Surface Waters			
Reservoirs			
Lakes	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
Farm Ponds			
Detention Basins			
Storm Water Management Facilities	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Other: _____			

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Remarks:

Presence, no impact
 Based on a desktop review, a site visit on 10/16/2018 by B&N, the aerial map of the project area (Appendix B, pages B-4 to B-7), and the water resources map in the RFI report (Appendix E, page E-9), there are three lakes located within the 0.5 mile search radius. The closest lake is 0.07 miles south of the project area. No impact will occur. There are no reservoirs, farm ponds, or detention basins within the 0.5 mile search radius, therefore, no impacts are expected.

Stormwater management facilities consisting of catch basins, curb and gutters, and manholes will be reconstructed in areas to improve drainage within the Town of Denver. Outside of town, roadside ditches will be utilized for stormwater management. The ditch on the north side of SR 16 from the fire station driveway east to the culvert under SR 16 at the east end of the project will be reconstructed to improve drainage flow. A storm sewer culvert will be constructed under the driveways at the west end of the project and a riprap pad will be constructed at the end of the pipe. These features will be constructed outside of Weesau Creek.

Waters Report
 A *Waters of the US Determination/Wetland Delineation Report* (WOTUS) was prepared by B&N to determine if any of the ditches to be modified within the project limits are WOTUS. The WOTUS Report dated 05/01/2019 (Appendix F, pages F-2 to F-21), didn't identify any WOTUS within the project area. INDOT-ESD-EWPO reviewed the report and concurred with the findings on 5/16/2019 (Appendix F, pages F-22 to F-23). Therefore, no impacts are expected.

Early Coordination
 Early coordination letters were sent on 2/06/2018 (Appendix C, pages C-2 to C-4). IDNR DFW responded on 2/07/2018 (Appendix C, page C-13). IDNR DFW recommendations for consideration only as it relates to Streams:
 1 Control erosion and sediment to prevent sediment from entering the stream or leaving the construction site.

IDEM standard response letter and recommendations was generated on 2/07/2018 and didn't provide any specific recommendations (Appendix C, pages C-5 to C-12).

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

	<u>Presence</u>	<u>Impacts</u>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Wetlands		Yes	No	
Total wetland area: _____ acre(s)				Total wetland area impacted: _____ 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

	<u>Documentation</u>	<u>ES Approval Dates</u>
Wetlands (Mark all that apply)		
Wetland Determination	<input checked="" type="checkbox"/>	<input type="text" value="5/16/2019"/>
Wetland Delineation	<input type="checkbox"/>	<input type="text"/>
USACE Isolated Waters Determination	<input type="checkbox"/>	<input type="text"/>
Mitigation Plan	<input type="checkbox"/>	<input type="text"/>

Improvements that will not result in any wetland impacts are not practicable because such avoidance

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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.

Measures to avoid, minimize, and mitigate wetland impacts need to be discussed in the remarks box.

Remarks: **Presence, no impact**
 Based on a review of the National Wetlands Inventory (NWI) online mapper (<https://www.fws.gov/wetlands/data/Mapper.html>), a site visit on 10/16/2018 by B&N, the USGS topographic map (Appendix B, page B-3) and the RFI report (Appendix E, pages E-2 to E12), six wetlands located within the 0.5 mile search radius.

The RFI Water Resources map (Appendix E, page E-9), identified no wetlands within the project area and six wetlands within the 0.5 mile radius of the project area. The closest wetland to the project limits is located along Weesau Creek, 0.01 miles south of the project limits. No wetlands were identified in the roadside ditches based on the field investigation on 10/16/2018. The IDNR, Division of Fish and Wildlife (Appendix C, page C-13) did not identify any wetlands within the project area during early coordination. Therefore, no impacts are expected.

Waters Report
 A Waters of the U.S. Determination / Wetland Delineation Report dated 5/01/2019 (Appendix F pages F-2 to F-21) stated that no wetlands will be impacted by the project. The findings were concurred by INDOT-ESD-EWPO in an email dated 5/16/2019 (Appendix F, pages F-22 to F-23). It was determined that no wetlands will be impacted by the project.

Early Coordination
 Early coordination letters were sent on 2/06/2018 (Appendix C, pages C-2 to C-4). IDNR-DFW responded on 2/07/2018 (Appendix C, page C-13). IDEM standard response letter and recommendations was generated on 2/07/2018 (Appendix C, pages C-5 to C-12). IDNR and IDEM did not have any comments related to wetlands.

	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
Terrestrial Habitat Unique or High-Quality Habitat	X	X	

Use the remarks box to identify each type of habitat and the acres impacted (i.e. forested, grassland, farmland, lawn, etc).

Remarks: **Presence, with impacts**
 Based on a desktop review, a site visit on 10/16/2018 by B&N, the aerial map of the project area (Appendix B, pages B-4 to B-7), and the site photos (Appendix B, Pages B-8 to B-22), there are open fields, wooded areas, agricultural fields, and residential maintained lawns within the project area. Most of the project construction will be in previously disturbed areas.

One area where trees will be cut is at the western end near Weesau Creek where a culvert will be installed under the driveway with the discharge end and riprap located in a small wooded area. The trees in the area include hickory, maple, and poplar. The portion of the wooded area to be impacted is less than 100 square feet and may include cutting up to 3 trees. The cutting of the trees will not impact the riparian corridor along Weesau Creek. In addition, approximately 35 trees will be removed during the project within the construction limits through the town. Field adjustments to the construction limits will be made to try to avoid cutting trees. Any tree removed in town will be individual trees not part of a wooded area. The area marked "WOODS" near Weesau Creek is shown on the plan sheet (Appendix B, page B-32). The individual trees are shown on the plan sheets (Appendix B, pages B-32 to B-40). Tree Avoidance and Mitigation Measures (AMM) were accepted as part of the coordination with USFWS. The AMMs are further discussed in the Threatened and Endangered Species Section of this CE.

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Early Coordination

Early coordination letters were sent to on 2/06/2018 (Appendix C, pages C-2 to C-4). IDNR-DFW responded on 2/07/2018 stating the Natural Heritage Program's data was checked and to date no unique or high-quality habitats were identified in the project area. (Appendix C, page C-13). IDNR-DWF recommendations are for consideration only:

- 1 Revegetate all bare and disturbed areas as soon as possible upon completion;
- 2 Minimize and contain within the project limits all tree and brush clearing.
- 3 Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting from April 1 through September 30.
- 4 Replace trees that are cut.

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

If there are high incidences of animal movements observed in the project area, or if bridges and other areas appear to be the sole corridor for animal movement, consideration of utilizing wildlife crossings should be taken.

Karst

Is the proposed project located within or adjacent to the potential Karst Area of Indiana?
Are karst features located within or adjacent to the footprint of the proposed project?

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

If yes, will the project impact any of these karst features?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Use the remarks box to identify any karst features within the project area. (Karst investigation must comply with the Karst MOU, dated October 13, 1993)

Remarks:

Outside karst area

Based on a desktop review, the project is located outside the designated karst region of Indiana as outlined in the October 13, 1993 Memorandum of Understanding (MOU). According to the topo map of the project area (Appendix B, page B-3), the RFI report (Appendix E, pages E-2 to E-12), there are no karst features identified within or adjacent to the project area. In the early coordination response dated 2/7/2018 from the Indiana Geological Survey (IGS), they did not indicate that karst features exist in the project area. The response also indicated that the project area has moderate liquefaction potential, a 1% Annual Chance Flood Hazard as well as a high potential for Bedrock, Sand and Gravel Resources. (Appendix C, pages C-14 to C-16). Response from IGS has been communicated with the designer on 1/30/2020. No impacts are expected.

Threatened or Endangered Species

Within the known range of any federal species
Any critical habitat identified within project area
Federal species found in project area (based upon informal consultation)
State species found in project area (based upon consultation with IDNR)

Presence

Impacts

Yes No

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Is Section 7 formal consultation required for this action?

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks:

Based on a desktop review and the RFI report (Appendix E, pages E-2 to E-12), completed by B&N on 6/06/2017, the IDNR Miami County Endangered, Threatened and Rare (ETR) Species List has been checked and is included in (Appendix E, page E-12). The highlighted species on the list reflect the federal and state identified endangered, threatened, and rare (ETR) species located within the county. According to the IDNR-DFW early coordination response letter dated 3/07/2018 (Appendix C, page C-13), the Natural Heritage Program's (NHP) data was checked and to date no plant or animal species listed as state or federal threatened, endangered, or rare have been reported to occur in the project vicinity. No critical habitats were identified by the NHP.

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Bats, Programmatic Informal Consultation – Not Likely to Adversely Affect

Project information was submitted through the USFWS’s Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, pages C-34 to C-40). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). One species was included in the USFWS Threatened and Endangered Species list. The Rabbitsfoot (*Quadrula cylindrica cylindrica*), a mussel species, is listed but no habitat for the mussel is within the project limits. The project qualifies for Programmatic Coordination based on *USFWS Interim Policy for the Review of Highway Transportation Projects in Indiana* dated 5/29/2013. No additional coordination with USFWS is required.

The project qualifies for the *Range-wide 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. An effect determination key was completed on 11/29/2018, and based on the responses provided, the project was found to may affect, but not likely to adversely affect (NLAA) the Indiana bat and/or the NLEB (Appendix C, pages C-19 to C-33). INDOT reviewed and verified the effect finding on November 29, 2018 and requested USFWS’s review of the finding (Appendix C, pages C-19 to C-20). No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with the finding. The Avoidance and Mitigation Measures (AMMs) are included as firm commitments in the *Environmental Commitments* section 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.

SECTION B – OTHER RESOURCES

Drinking Water Resources

- Wellhead Protection Area
- Public Water System(s)
- Residential Well(s)
- Source Water Protection Area(s)
- Sole Source Aquifer (SSA)

Presence

X

Impacts

Yes	No
	X

If a SSA is present, answer the following:

- Is the Project in the St. Joseph Aquifer System?
- Is the FHWA/EPA SSA MOU Applicable?
- Initial Groundwater Assessment Required?

Yes	No

Detailed Groundwater Assessment Required?

--

Remarks:

Outside of Sole Source Aquifer (SSA)
 The project is located in Miami County, which is not located within the area of the St. Joseph Sole Source Aquifer, the only legally designated sole source aquifer in the State of Indiana. Therefore, the FHWA/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 Indiana Department of Environmental Management’s Wellhead Proximity Determinator website (<https://www.in.gov/idem/cleanwater/pages/wellhead/>) was accessed on 11/15/2018 by B&N. The required project location data was provided, and it was determined that this project is not located within a Wellhead Protection Area or

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Source Water Area. No impacts are expected.

Wells present, no impacts

The Indiana Department of Natural Resources Water Well Record Database website (<https://www.in.gov/dnr/water/3595.htm>) was accessed on 10/31/2019 by B&N. The Town of Denver is served by individual residential and commercial wells. No wells have been identified within the existing ROW and no wells are located within the ROW to be acquired. Based on the map, the wells are in the rear of the houses that front SR 16. The closest well is located on the southside of SR 16 between North Street and S. 2nd Street. This well will not be impacted. Therefore, no impacts are expected. Should it be determined during the right-of-way phase that any wells are affected, a cost to cure will likely be included in the appraisal to restore the wells.

Not in an Urban Area Boundary Location

Based on a desktop review of the INDOT MS4 website (<https://entapps.indot.in.gov/MS4/>) by B&N on 10/31/2019, and the RFI report; this project is not located in an Urban Area Boundary. No impacts are expected.

Not in a Public Water System Location

Based on a desktop review, a site visit on 10/16/2018 by B&N, the aerial map of the project area (Appendix B, pages B-4 to B-7), this project is not located where there will be public water system impacts. Therefore, no impacts are expected.

	<u>Presence</u>	<u>Impacts</u>	
		<u>Yes</u>	<u>No</u>
Flood Plains			
Longitudinal Encroachment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transverse Encroachment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Project located within a regulated floodplain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Homes located in floodplain within 1000' up/downstream from project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discuss impacts according to classification system described in the "Procedural Manual for Preparing Environmental Studies".

Remarks: **In floodplain**

The Indiana Department of Natural Resources Indiana Floodway Information Portal website (<http://dnrmaps.dnr.in.gov/appsphp/fdms/>) was accessed on 10/31/2019 by B&N, and the RFI report; this project is located in a regulatory floodplain as determined from approved IDNR floodplain map (Appendix E, page E-9). There is no floodplain administrator for this project, but an early coordination letter was sent on 2/06/2018, to the Town of Denver and the Miami County Commissioners. The Town of Denver and the Miami County Commissioners did not respond within the 30-day time frame. During meetings with the Town of Denver, no floodplain coordination was requested. This project qualifies as a Category 1 per the current INDOT CE Manual, which states:

Category 1 – Although this project involves work within the horizontal limits of the 100-year floodplain, no work is being performed below the 100-year flood elevation and as a result this project does not encroach upon the base floodplain.

The IDNR construction in a floodway (CIF) permit may be required based on roadwork at the bridge approach over Weesau Creek if it will be within the creek's floodplain. The permit determination (PD) package has not been submitted. Once the PD has been submitted, the need for the CIF permit will be determined.

	<u>Presence</u>	<u>Impacts</u>	
		<u>Yes</u>	<u>No</u>
Farmland			
Agricultural Lands	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Prime Farmland (per NRCS)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Total Points (from Section VII of CPA-106/AD-1006* 129
 *If 160 or greater, see CE Manual for guidance.

See CE Manual for guidance to determine which NRCS form is appropriate for your project.

Remarks: **Presence, score under 160**

Based on a desktop review, a site visit on 10/06/2018 by B&N, the aerial map of the project area (Appendix B, pages B-4

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to B-7), the project will convert a maximum of 0.6 acre of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent Natural Resources Conservation Services (NRCS) on 2/07/2017 but no responses was received. The ECL was resent to NRCS on 11/1/2019. The second ECL was reviewed by NRCS and resulted in a score of 129 on the NRCS-CPA-106 (Appendix C, page C-17 to C-18). NRCS's threshold score for significant impacts to farmland that result in the consideration of alternatives is 160. The 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 C – CULTURAL RESOURCES

	Category	Type	INDOT Approval Dates	N/A
Minor Projects PA Clearance				X

**Eligible and/or Listed
Resource Present**

Results of Research

Archaeology	
NRHP Buildings/Site(s)	X
NRHP District(s)	
NRHP Bridge(s)	

Project Effect

No Historic Properties Affected No Adverse Effect Adverse Effect

**Documentation
Prepared**

Documentation (mark all that apply)

	ES/FHWA Approval Date(s)	SHPO Approval Date(s)
Historic Properties Short Report		
Historic Property Report	X	12/4/2018, AI 11/12/2019
Archaeological Records Check/ Review	X	8/01/2019
Archaeological Phase Ia Survey Report	X	8/01/2019
Archaeological Phase Ic Survey Report		
Archaeological Phase II Investigation Report		
Archaeological Phase III Data Recovery		
APE, Eligibility and Effect Determination	X	11/12/2019
800.11 Documentation	X	12/12/2019
		3/18/2020

MOA Signature Dates (List all signatories)

Memorandum of Agreement (MOA)

Describe all efforts to document cultural resources, including a detailed summary of the Section 106 process, using the categories outlined in the remarks box. The completion of the Section 106 process requires that a Legal Notice be published in local newspapers. Please indicate the publication date, name of paper(s) and the comment period deadline. Likewise include any further Section 106 work which must be completed at a later date, such as mitigation or deep trenching.

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Remarks:

Area of Potential Effect (APE)

The APE is “the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of the undertaking and may be different for different kinds of effects caused by the undertaking” [36 CRF 800.16(d)]. The APE was developed by Qualified Professionals working for Weintraut and Associates (W&A) meeting the Secretary of the Interior’s Professional Qualifications Standards and the Indiana Department of Natural Resources, Division of Historic Preservation & Archaeology (IDNR, DHPA) Standards. The APE for this project includes all areas where ground disturbance may occur or where visual or auditory impacts might be expected (Appendix D, Page D-16). The APE was expanded in May of 2019 to include a gravel connect between the Nickel Plate Trail and Washington Street that will be used as part of the Trail detour while SR 16 is being reconstructed at the existing Trail crossing. The APE was approved by INDOT-ESD-CRO on 12/4/2018 (Appendix D, pages D-51 to D-54) and by SHPO on 12/28/2018 (Appendix D, pages D-57 to D-58). The expanded APE was part of the INDOT-ESD-CRO approval on 11/12/2019 (Appendix D, pages D-67 to D-71) and SHPO approval on 8/27/2019 (Appendix D, pages D-63 to D-64).

Coordination with Consulting Parties

Section 106 of the National Historic Preservation Act (NHPA) requires Federal agencies or their representatives, to take into account the effects of their undertakings on historic properties. In accordance with 36 CFR 800.2(c) and the INDOT Cultural Resources Manual, the consulting parties were invited to participate in efforts to identify historic properties potentially affected by this project, assess the project’s effects, and seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. The agencies and organizations listed below were invited to be Consulting Parties for the project on December 4, 2018 (see table below). Replies were received from the State Historic Preservation Office (SHPO), the Forest County Potawatomi Community, and the Miami Tribe of Oklahoma to be consulting parties. (Appendix D, pages D-56 to D-66).

Invited Consulting Party	Reply Received
Miami County Historian	No
Miami County Historical Society & Museum	No
Miami County Board of Commissioners	No
Miami County Planning Department	No
Miami County Highway Department	No
Indiana Landmarks-Northeast Field Office	No
RMK Properties (Hardware Property Owner)	No
Mr. & Mrs. Robins (Beecher’s Garage Property Owners)	No
Mr. & Mrs. Wright (246 E. Harrison Property) Owners	No
SHPO	Yes
TRIBAL LIST-(Coordination by INDOT)	
Eastern Shawnee Tribe of Oklahoma	No
Forest County Potawatomi Community	Yes
Miami Tribe of Oklahoma	Yes
Peoria Tribe of Indians of Oklahoma	No
Pokagon Band of Potawatomi Indians	No

IDNR Department of Historic Preservation and Archaeology is an automatic consulting party. FHWA is the lead federal agency for the undertaking with INDOT-ESD-Cultural Resources Office (CRO) acting on behalf of FHWA.

Archaeology

W&A prepared an Archaeological Short Report (ASR) and Phase 1a Reconnaissance dated 7/26/2019 and a second early coordination letter distributed by INDOT-ESD-CRO on 8/1/2019 which included literature review and field investigation to identify archaeological significance of the properties within the APE. The ASR found no archaeological resources in the project area and recommended that the project be allowed to proceed (Appendix D, pages D-42 to D-45). The SHPO responded to the ASR on 8/27/2019 and agreed with the conclusions that “no further archaeological investigations appear necessary within the proposed project area.” (Appendix D, pages D-63 to D-64).

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Historic Properties

W&A prepared a Historic Property Report dated October 15, 2018, which included literature review, field investigation to identify historic significance of the properties within the APE. Fifty-one properties were greater than fifty years of age within the APE. A total of 31 properties were identified as Contributing or higher (using the IHSSI criteria). A Historic marker is located in the southwest corner of Harrison Street and Emmons Street. No historic districts were identified within the APE. Three properties were identified as eligible for listing on the National Register of Historic Places (NRHP) under Criterion C for architecture, the house at 246 East Harrison Street (Craftsman-style bungalow), Denver Hardware Building (90 West Harrison Street) and Beecher's Garage (76 West Harrison Street). SHPO approved the HPR on 12/28/2018 and concurred that the three properties are eligible for listing on the NRHP (Appendix D, pages D-57 to D-58). An Additional Information (AI) letter was prepared and distributed to SHPO and the Consulting Parties on 11/13/2019 concerning the expanded APE for the temporary Nickel Plate Trail connection at Washington Street. No additional historic properties were identified within the expanded APE. A summary of the HPR is in Appendix D, Pages D-46 to D-47. SHPO responded to the Effects Letter on 12/12/2019 and concurred that the three properties are eligible for listing on the NRHP (Appendix D, Pages D-74 to D-76).

Documentation and Findings

The 800.11(e) document was prepared by W&A and approved by INDOT-CRO on 2/14/2020 (Appendix D, Pages D-4 to D-40). On 2/20/2020 the 800.11(e) document was made available to SHPO and the consulting parties. Based on the ASR and HPR, three (3) properties were identified as eligible for listing on the NRHP. No archaeological resources were identified within the project area.

House (246 East Harrison Street)- The project will replace the sidewalk adjacent to the house. All changes will remain south of the historic property boundary of this resource and its contributing concrete retaining wall adjacent to the sidewalk. These improvements will be up to the edge of the property's historic boundary but will not diminish the characteristics that make the property eligible for the NRHP. Plans will be marked "Do Not Disturb" to avoid the property and its concrete retaining wall. The house will be affected by the undertaking, but the effects of the undertaking will not be adverse.

Denver Hardware Building (90 West Harrison Street)- The project will reconstruct the existing sidewalk, curbs, gutters, and storm drains, and install ADA compliant curb ramp at the corner as part of the sidewalk replacement. All changes will remain at the edge of the historic property boundary of this resource but will not diminish the characteristics that make the property eligible for the NRHP. Plans will be marked "Do Not Disturb" to avoid any damage to the building structure. The Denver Hardware Building will be affected by the undertaking, but the effects of the undertaking will not be adverse.

Beecher Garage (76 West Harrison Street)- The project will reconstruct the sidewalk, curbs, gutters, and storm drains, adjacent to the structure as part of the sidewalk replacement. All changes will remain at the edge of the historic property boundary that includes the building and the canopy but will not diminish the characteristics that make the property eligible for the NRHP. Plans will be marked "Do Not Disturb" to avoid the building, its front gable roof canopy, and the canopy supports. The curb cuts will remain at the canopy. The Beecher Garage Building will be affected by the undertaking, but the effects of the undertaking will not be adverse.

No other properties were identified as eligible for or listed on the NRHP.

Public Involvement

To meet the public involvement requirements of Section 106, a legal notice of FHWA's finding of No Adverse Effect was published in the *Peru Tribune* on 2/25/2020 offering the public an opportunity to submit comment pursuant to 36 CFR 800.2(d), 800.3(e), and 800.6(a)(4). The public comment period closed 30 days later on 3/26/2020. The text of the public notice and the affidavit of publication appear in Appendix D, pages D-84 to D-85. No comments were received by INDOT or Weintraut and Associates during the comment period.

This completes the Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

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

Section 4(f) Involvement (mark all that apply)

Parks & Other Recreational Land

- Publicly owned park
- Publicly owned recreation area
- Other (school, state/national forest, bikeway, etc.)

Presence

Use

Yes	No

Evaluations Prepared

- Programmatic Section 4(f)*
- “De minimis” Impact*
- Individual Section 4(f)

FHWA

Approval date

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Wildlife & Waterfowl Refuges

- National Wildlife Refuge
- National Natural Landmark
- State Wildlife Area
- State Nature Preserve

Presence

Use

Yes	No

Evaluations Prepared

- Programmatic Section 4(f)*
- “De minimis” Impact*
- Individual Section 4(f)

FHWA

Approval date

--

Historic Properties

- Sites eligible and/or listed on the NRHP

Presence

X

Use

Yes	No
	X

Evaluations Prepared

- Programmatic Section 4(f)*
- “De minimis” Impact*
- Individual Section 4(f)

FHWA

Approval date

--

**FHWA approval of the environmental document also serves as approval of any Section 4f Programmatic and/or De minimis evaluation(s) discussed below.*

Discuss Programmatic Section 4(f) and “de minimis” Section 4(f) impacts in the remarks box below. Individual Section 4(f) documentation must be separate Draft and Final documents. For further discussions on Programmatic, “de minimis” and Individual Section 4(f) evaluations please refer to the “Procedural Manual for the Preparation of Environmental Studies”. Discuss proposed alternatives that satisfy the requirements of Section 4(f).

Remarks:

Presence, No Impact, No use

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. Lands subject to this law are considered Section 4(f) resources.

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Based on a desktop review, a site visit on 10/16/2018 by B&N, the aerial map of the project area (Appendix B, pages B-4 to B-7), the RFI report (Appendix E, pages E-2 to E-12), and the Historic Properties Report (Appendix D, pages D-46 to D-47) there are three (3) 4(f) resources located within the 0.5 mile search radius. The three are historic properties located within or adjacent to the project area.

The RFI identified one (1) recreational property within the project area as the Nickel Plate Trail. The trail crosses SR 16 on the west end of Denver. The original communication with owner identified the Trail as a 4(f) resource. A further review of this property determined that the owner of the trail is the Friends of the Nickel Plate Trail, Inc. While the Trail is open for public use, the trail is not owned by a public entity. Due to the private ownership, the trail is not a 4(f) resource that requires protection under Section 4(f) of the Transportation Act. This determination was made in error.

Three (3) properties were identified as eligible for listing on the NRHP within the project area. These properties have been determined to be Section 4(f) historic properties. The project will not convert property from the house at 246 East Harrison Street, Denver Hardware Building, or Beecher Garage Building to a transportation use; therefore, no Section 4(f) evaluation is required. The FHWA's Section 4(f) Compliance Requirements (for historic properties) was approved by INDOT on 2/20/2020 (Appendix D, Page D-4 to D-5).

Approval of this CE constitutes approval of these determinations.

Section 6(f) Involvement

Presence

Use

Yes

No

Section 6(f) Property

Discuss proposed alternatives that satisfy the requirements of Section 6(f). Discuss any Section 6(f) involvement.

Remarks:

No presence, no impact

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 Land and Water Conservation Fund (LWCF) State list from the INDOT ESD website revealed a total of five properties in Miami County (Appendix I, page I-2). None of the properties are located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources as a result of this project.

SECTION E – Air Quality

Air Quality

Conformity Status of the Project

Is the project in an air quality non-attainment or maintenance area?

If YES, then:

Is the project in the most current MPO TIP?

Is the project exempt from conformity?

If the project is NOT exempt from conformity, then:

Is the project in the Transportation Plan (TP)?

Is a hot spot analysis required (CO/PM)?

Level of MSAT Analysis required?

Level 1a Level 1b Level 2 Level 3 Level 4 Level 5

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Remarks:

STIP/TIP

Standalone Project
 This project is included in the Fiscal Year (FY) 2020-2024 Statewide Transportation Improvement Program (STIP) dated 7/02/2019 (Appendix H, page H-2) and the STIP Amendment 20-01 dated 7/25/2019 (Appendix H, page H-3).

Attainment Status

Attainment area
 This project is located in Miami County, which is currently in attainment for all criteria pollutants according to the US EPA Greenbook. Therefore, the conformity procedures of 40 CFR Part 93 do not apply.

MSAT

MSAT Level 1a Analysis
 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.

SECTION F - NOISE

Noise **Yes** **No**

Is a noise analysis required in accordance with FHWA regulations and INDOT's traffic noise policy?

	No	Yes/ Date
ES Review of Noise Analysis	X	

Remarks:

Type III Project
 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 G – COMMUNITY IMPACTS

Regional, Community & Neighborhood Factors

Will the proposed action comply with the local/regional development patterns for the area?	Yes	No
Will the proposed action result in substantial impacts to community cohesion?	X	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 remarks box)	X	

Remarks:

During construction a detour will be used that will temporary impact travel through the town. This impact will be temporary. Access to residents and businesses will be maintained. A detour will be used to allow the Nickel Plate Trail to remain open during construction. Closure of the sidewalks during construction will require pedestrians to use the sidewalks on the adjacent parallel streets to walk through town.

The Town of Denver attended the Stakeholder Meeting on July 26, 2018 at the Denver Community Building and they

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raised no concerns about road closure impacting any community events (Appendix G, pages G-9 to G-10).

Miami County has a Transition Plan and the project will include ADA compliant curb ramps at intersections as recommended in the plan.

Indirect and Cumulative Impacts

Will the proposed action result in substantial indirect or cumulative impacts? Yes No

Remarks: Indirect impacts are effects which are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate. Cumulative impacts affect the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such actions.

As the proposed project involves pavement replacement, upgrading curbs, parking conditions, sidewalks, and curb ramps into ADA compliance, and addressing storm sewer capacity issues, it will not result in substantial indirect or cumulative impacts to the community.

Public Facilities & Services

Will the proposed action result in substantial impacts on health and educational facilities, public and private utilities, emergency services, religious institutions, airports, public transportation or pedestrian and bicycle facilities? *Discuss how the maintenance of traffic will affect public facilities and services.* Yes No

Remarks:

Presence, no impact
Based on a desktop review, a site visit on 10/16/2018 by B&N, the aerial map of the project area (Appendix B, pages B-4 to B-7), and the RFI report (Appendix E, pages E-2 to E-12), there is one fire station and one Town Hall located within the 0.5 mile of the project. The Fire Station and the Town Hall are within or adjacent to the project area. Access to both facilities will be maintained during construction. The Town offices and the Fire Department will receive notice of the road closure. The Nickel Plate Trail will require a detour during construction but will remain open during construction. It has been determined that a 4(f) use will not occur. Therefore, no impacts are expected.

Early Coordination
Early coordination letters were sent to the Town of Denver Council, Miami County Commissioners, Miami County Council, and the Miami County Highway Department on 2/06/2018. The Agencies did not respond to the early coordination letter. The Town of Denver representatives attended the Stakeholders Meeting held on 7/26/2018 in the Denver Community Building. Discussion at the meeting included parking, sidewalks and ADA compliance; ROW; maintenance of traffic; and utility coordination. No recommendations were offered during the meeting (Appendix G, pages G-9 to G-10).

The Nickel Plate Trail was communicated with during early coordination (Appendix C, pages C-41 to C-49). At the time, the trail was mistakenly coordinated as a 4(f) resource. Since ownership of the trail is by a private entity, the trail is not a 4(f) resource as was originally discussed with the Trail owner. This determination of a 4(f) resource was made in error. In a good faith effort, the measures to minimize harm as negotiated during the early coordination will be included. The measures to minimize harm include:

- Access to the Nickel Plate Trail shall be maintained at all times during construction activities by use of a detour on public streets or temporary trail adjacent to the existing trail maintained by the contractor.
- The closure of the trail at SR 16 and the use of a detour or a temporary trail will be for less than 6 months.
- Temporary construction fencing shall be installed along proposed construction limits prior to the start of construction activities to protect the existing trail property and the public.
- Appropriate signage shall be installed to alert users of the Nickel Plate Trail of construction activities, access restrictions or closures, and temporary detour route.
- The staging and/or storage of construction equipment or materials shall not take place outside proposed construction limits that are within the defined boundaries of the trail property.
- The contractor shall be required to closely coordinate the construction schedule with INDOT and the Nickel

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Plate Trail Inc. prior to the start of construction activities.

- The project will also realign the intersection of the trail at SR 16 to nearly a perpendicular crossing instead of the diagonal intersection to improve site distance for trail users. Improved signage and road marking will be installed.

The proposed project will involve relocation of several public utilities. These include: CenturyLink, Duke Energy, NIPSCO Gas, and Denver Sanitary. These relocations will not be significant and will not result in any prolonged disruption of service. There will be no substantial impacts on any other public facilities or services.

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)

During the development of the project were EJ issues identified?

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Does the project require an EJ analysis?

If YES, then:

Are any EJ populations located within the project area?

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Will the project result in adversely high or disproportionate impacts to EJ populations?

Remarks:

EJ Analysis, EJ Populations

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 1.672 acres of permanent and 0.591 acre of temporary ROW. There are no relocations. Therefore, an EJ Analysis is required.

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concern exists and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city or town and is called the community of comparison (COC). In this project, the COC is Miami County. The community that overlaps the project area is called the affected community (AC). In this project, the AC is Block Group 181039520004. 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 was obtained from the US Census Bureau Website <https://factfinder.census.gov/> on 11/15/2018 by B&N. The data is from the US Census Data as of July 1, 2017, collected for minority and low-income populations within the AC are summarized in the below table (Appendix I, page I-5 to I-9).

Table: Minority and Low-Income Data (US Census, 2017)		
	COC -Miami County	AC-1 - Block Group 181039520004
Percent Minority	8.5%	5%
125% of COC	10.6%	AC < 125% COC
EJ Population of Concern		No
Percent Low-Income	15.7%	33%
125% of COC	19.6%	AC > 125% COC
EJ Population of Concern		Yes

AC-1, Block Group 181039520004 has a percent minority of 5% which is below 50% and is below the 125% COC threshold. Therefore, AC-1 is not a minority population of EJ concern.

AC-1, Block Group 181039520004 has a percent low-income of 33% which is below 50% and is above the 125% COC threshold. Therefore, AC-1 is a low-income population of EJ concern. Although this Block Group is higher than the COC, it is still below the 50% overall.

The project will require 1.672 acres of permanent ROW, all of which are strips of land adjacent to the existing roadway.

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No residential or business relocations will occur due to the ROW acquisition. The project will improve the community by improving roadway conditions, sidewalks, curb ramps, and parking that are ADA compliant, and stormwater ponding issues throughout the town. The EJ Analysis was reviewed and approved by INDOT-ESD (Appendix I, page I-3 to I-4). The low-income population will not experience a disproportionately high and adverse impact from the project.

Relocation of People, Businesses or Farms

Will the proposed action result in the relocation of people, businesses or farms?
 Is a Business Information Survey (BIS) required?
 Is a Conceptual Stage Relocation Study (CSRS) required?
 Has utility relocation coordination been initiated for this project?

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

If a BIS or CSRS is required, discuss the results in the remarks box.

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

Century Link, Miami-Cass REMC, Duke Energy, NIPSCO, and the Town of Denver all have utilities within the right-of-way of this project. Coordination with these utility providers will continue through the design process. No extended disruptions are expected.

SECTION H – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Hazardous Materials & Regulated Substances (Mark all that apply)

Red Flag Investigation
 Phase I Environmental Site Assessment (Phase I ESA)
 Phase II Environmental Site Assessment (Phase II ESA)
 Design/Specifications for Remediation required?

Documentation

<input checked="" type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

	No	Yes/ Date
ES Review of Investigations	<input type="checkbox"/>	Yes / June 12, 2017

Include a summary of findings for each investigation.

Remarks: **Presence, no impact**
 Based on a review of GIS and available public records, the RFI completed on 6/06/2017 by B&N (Appendix E, page E-2 to E-12) and approved by INDOT-ESD-Site Assessment and Management (SAM). The RFI identified two (2) leaking underground storage sites (LUST) and two (2) underground storage tank (UST) sites within 0.5 mile of the project area. The two (2) LUST sites and one (1) UST site are located within the project area. The LUST sites (Miami County Garage and Beecher Garage) have received No Further Action (NFA) letters from the Indiana Department of Environmental Management (IDEM). The address of the one UST site within the project limits was the corner of SR 16 and Yorick Street. The properties at the corner of SR 16 and Yorick Street indicates that three of the properties are single family homes and the northwest corner is a former church building. A field visit 10/16/2018 by B&N could not find any signs of former use of USTs at the four properties or of a former gas station at this intersection. No impact is expected.

The RFI information was rechecked on 5/27/2020 and no changes were identified in the RFI. INDOT-ESD-SAM determined that the RFI dated 6/06/2017 is still valid (Appendix E, pages E-13 to E-14)

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SECTION I – PERMITS CHECKLIST

Permits (mark all that apply) Likely Required

Army Corps of Engineers (404/Section10 Permit)

Individual Permit (IP)	
Nationwide Permit (NWP)	
Regional General Permit (RGP)	
Pre-Construction Notification (PCN)	
Other	
Wetland Mitigation required	
Stream Mitigation required	

IDEM

Section 401 WQC	
Isolated Wetlands determination	
Rule 5	X
Other	
Wetland Mitigation required	
Stream Mitigation required	

IDNR

Construction in a Floodway	X
Navigable Waterway Permit	
Lake Preservation Permit	
Other	
Mitigation Required	

US Coast Guard Section 9 Bridge Permit

Others (Please discuss in the remarks box below)

Remarks:

Permits

An IDEM Rule 5 permit will be required based on the amount of ground disturbance that will occur. The IDNR construction in a floodway (CIF) permit may be required based on roadwork at the bridge approach over Weesau Creek if it will be within the creek’s floodplain. The permit determination (PD) package has not been submitted. Once the PD has been submitted, the need for the CIF permit will be determined.

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

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

SECTION J- ENVIRONMENTAL COMMITMENTS

The following information should be provided below: List all commitments, name of agency/organization requesting the commitment(s), and indicating which are firm and which are for further consideration. The commitments should be numbered.

Remarks:

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)
2. Any work in a wetland area within INDOT's right of way or in borrow/waste areas is prohibited unless

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- specifically allowed in the US Army Corps of Engineers or IDEM permit. (INDOT)
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)
 4. House (246 East Harrison Street)- The plans will be marked "Do Not Disturb" to avoid the property and its concrete retaining wall. (SHPO)
 5. Denver Hardware Building (90 West Harrison Street)- The plans will be marked "Do Not Disturb" to avoid any damage to the building structure. (SHPO)
 6. Beecher Garage (76 West Harrison Street)- The plans will be marked "Do Not Disturb" to avoid the building, its front gable roof canopy, and the canopy supports. The curb cuts will remain at the canopy. (SHPO)
 7. 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)
 8. Lighting AMM 1- Direct temporary lighting away from suitable habitat during the active season. (USFWS)
 9. Tree Removal AMM 1- Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal. (USFWS)
 10. Tree Removal AMM 2- Apply time of year restrictions (April 1 through September 30) 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)
 11. 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)
 12. Tree Removal AMM 4- Do not remove documented Indiana bat or NLEB roost that are still suitable for roosting, or trees within 0.25 miles of roosts, or **documented** foraging habitat any time of year. (USFWS)
 13. Access to the Nickel Plate Trail shall be maintained at all times during construction activities by use of a detour on public streets or temporary trail adjacent to the existing trail maintained by the contractor. (Nickel Plate Trail, Inc.)
 14. The closure of the trail at SR 16 and the use of a detour or a temporary trail will be for less than 6 months. (Nickel Plate Trail, Inc.)
 15. Temporary construction fencing shall be installed along proposed construction limits prior to the start of construction activities to protect the existing trail and the public. (Nickel Plate Trail, Inc.)
 16. Appropriate signage shall be installed to alert users of the Nickel Plate Trail of construction activities, access restrictions or closures, and temporary detour route. (Nickel Plate Trail, Inc.)
 17. The staging and/or storage of construction equipment or materials shall not take place outside proposed construction limits that are within the defined boundaries of the trail property. (Nickel Plate Trail, Inc.)
 18. The contractor shall be required to closely coordinate the construction schedule with INDOT and the Nickel Plate Trail Inc. prior to the start of construction activities. (Nickel Plate Trail, Inc.)

For Further Consideration

1. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 3 inches diameter-at-breast height (dbh), living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30. (IDNR) (USFWS)
2. Plant five trees, at least 2 inches dbh, for each tree which is removed that is ten inches or greater dbh. (IDNR)

This is page 25 of 26 Project name: State Road 16 Pavement Replacement Date: May 29, 2020

Indiana Department of Transportation

County Miami

Route State Route 16

Des. No. 1600294

SECTION K- EARLY COORDINATION

Please list the date coordination was sent and all 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. INDOT and FHWA are automatically considered early coordination participants and should only be listed if a response is received.

Remarks:

Indiana Department of Environmental Management – Sent: 2/6/2018
Response – 2/7/2018

Indiana Department of Natural Resources – Sent: 2/6/2018
Response – 3/7/2018

Indiana Geological Survey – Sent: 2/6/2018
Response – 2/7/2018

Natural Resources Conservation Service – Sent: 2/6/2018 Resent 11/12/2019
Response – 11/20/2019

National Park Service (Midwest Regional Office) – Sent: 2/6/2018
Response – N/A

U.S. Department of Housing and Urban Development – Sent: 2/6/2018
Response – N/A

U.S. Fish & Wildlife Service – Sent: 2/6/2018
Response – N/A

Miami County Commissioners – Sent: 2/6/2018
Response – N/A

Miami County Council – Sent: 2/6/2018
Response – N/A

Miami County Highway Department – Sent: 2/6/2018
Response – N/A

Denver Town Council – Sent: 2/6/2018
Response – N/A

Jefferson Township Trustee – Sent: 2/6/2018
Response – N/A

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Appendix A
INDOT Supporting Documentation

Categorical Exclusion Level Thresholds

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

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

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

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

⁴AMMs = Avoidance and Mitigation Measures.

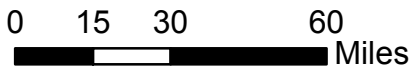
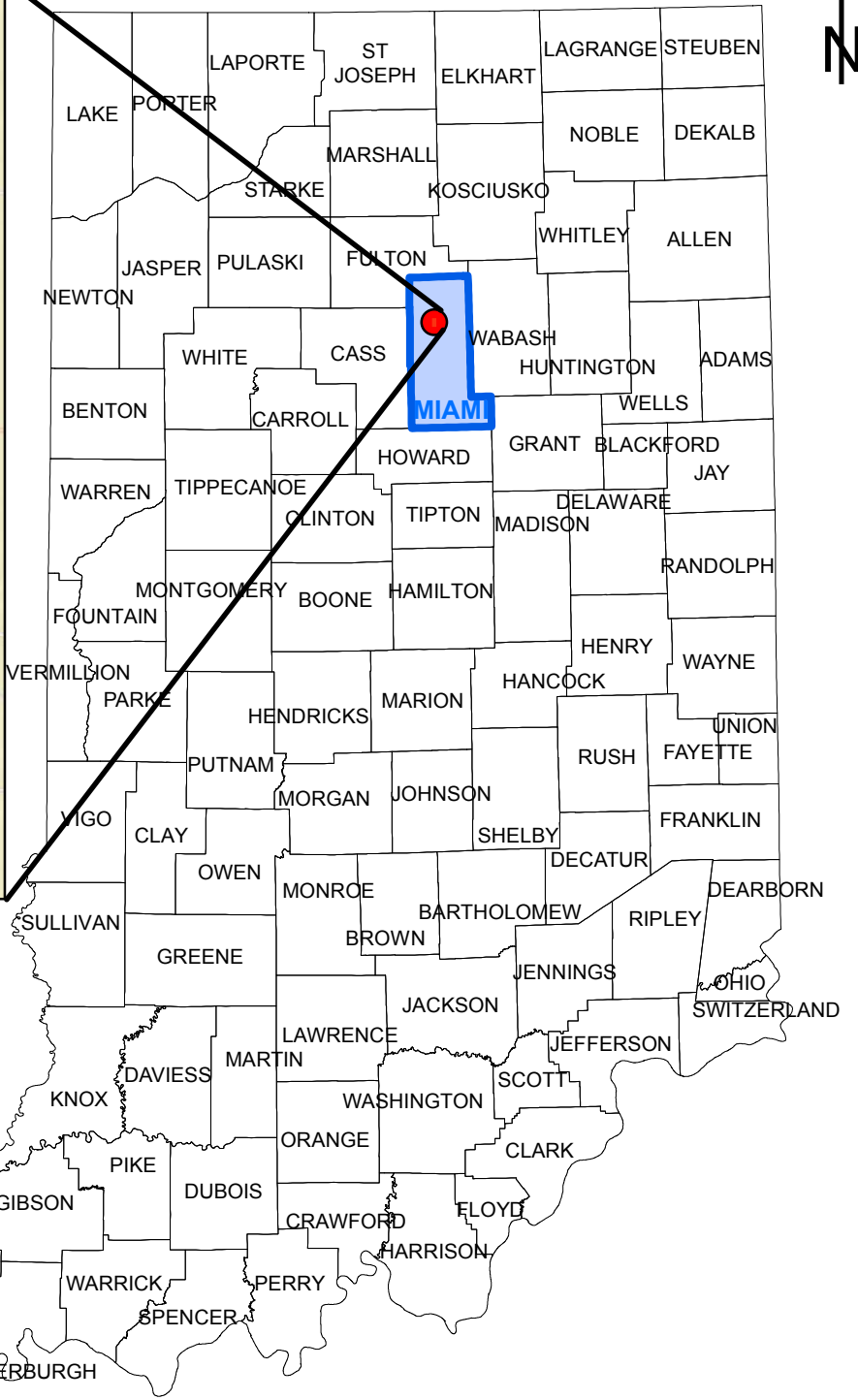
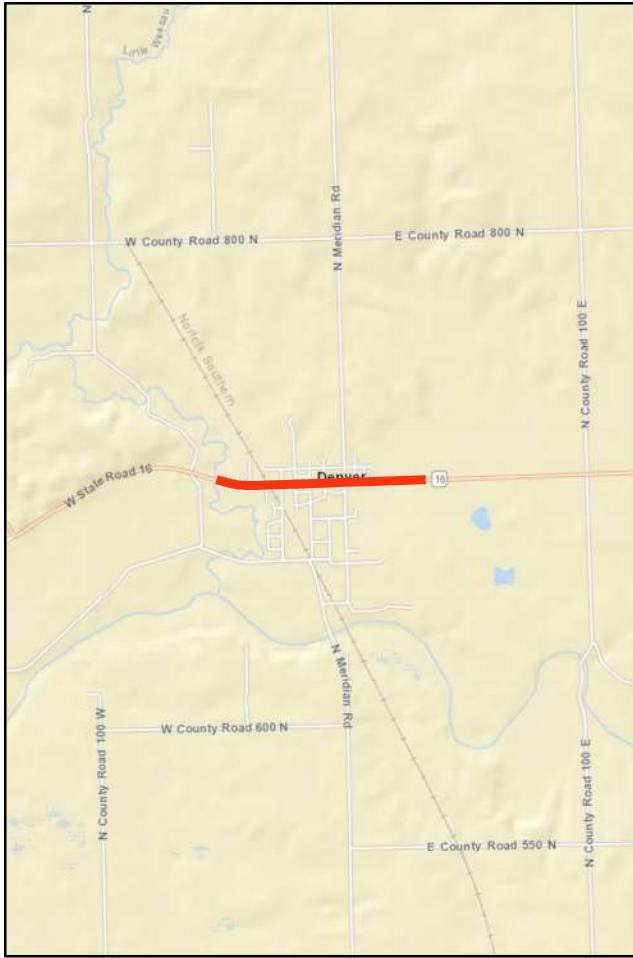
⁵AMMs determined by the IPAC decision key to be needed that are listed in the USFWS *User's Guide for the Range-wide Programmatic Consultation for Indiana bat and Northern long-eared bat* as "required for all projects".

⁶Potential for causing a disproportionately high and adverse impact.

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

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

Appendix B
Graphics



Attachment 1

Indiana Dept. of Transportation (INDOT)
S.R. 16 Pavement Replacement
DES NO. 1600294
Denver, Miami County

Sources:

Non Orthophotography

Data - Obtained from the State of Indiana Geographical Information Office Library

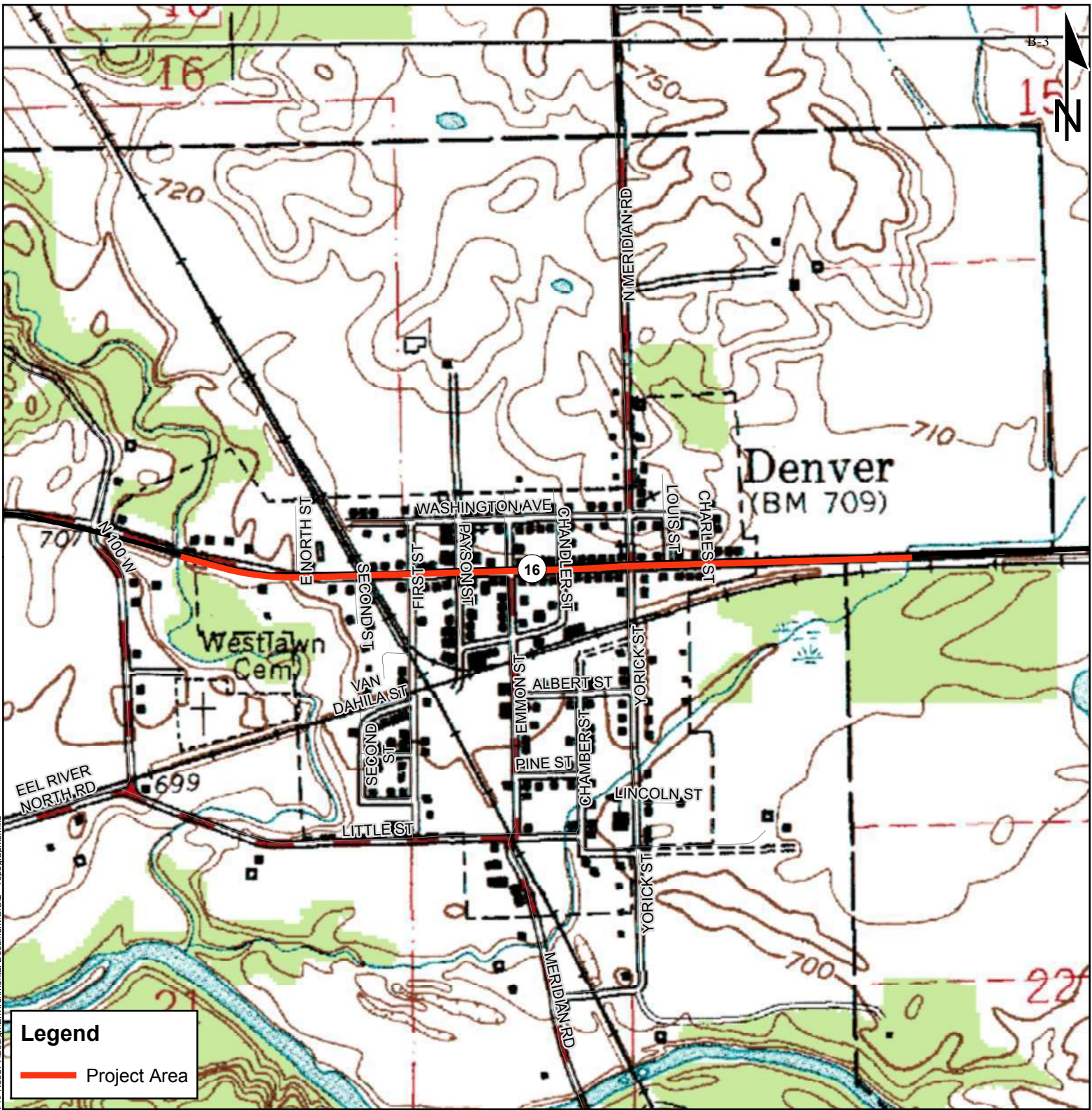
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Map Projection: UTM Zone 16 N **Map Datum:** NAD83

Prepared By: Burgess & Niple

Project Location Map

10/22/2018



0 345 690 1,380
 Feet

Attachment 2

Indiana Dept. of Transportation (INDOT)
 S.R. 16 Pavement Replacement
 DES NO. 1600294
 Denver, Miami County

Sources:

Non Orthophotography

Data - Obtained from the State of Indiana Geographical Information Office Library

Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

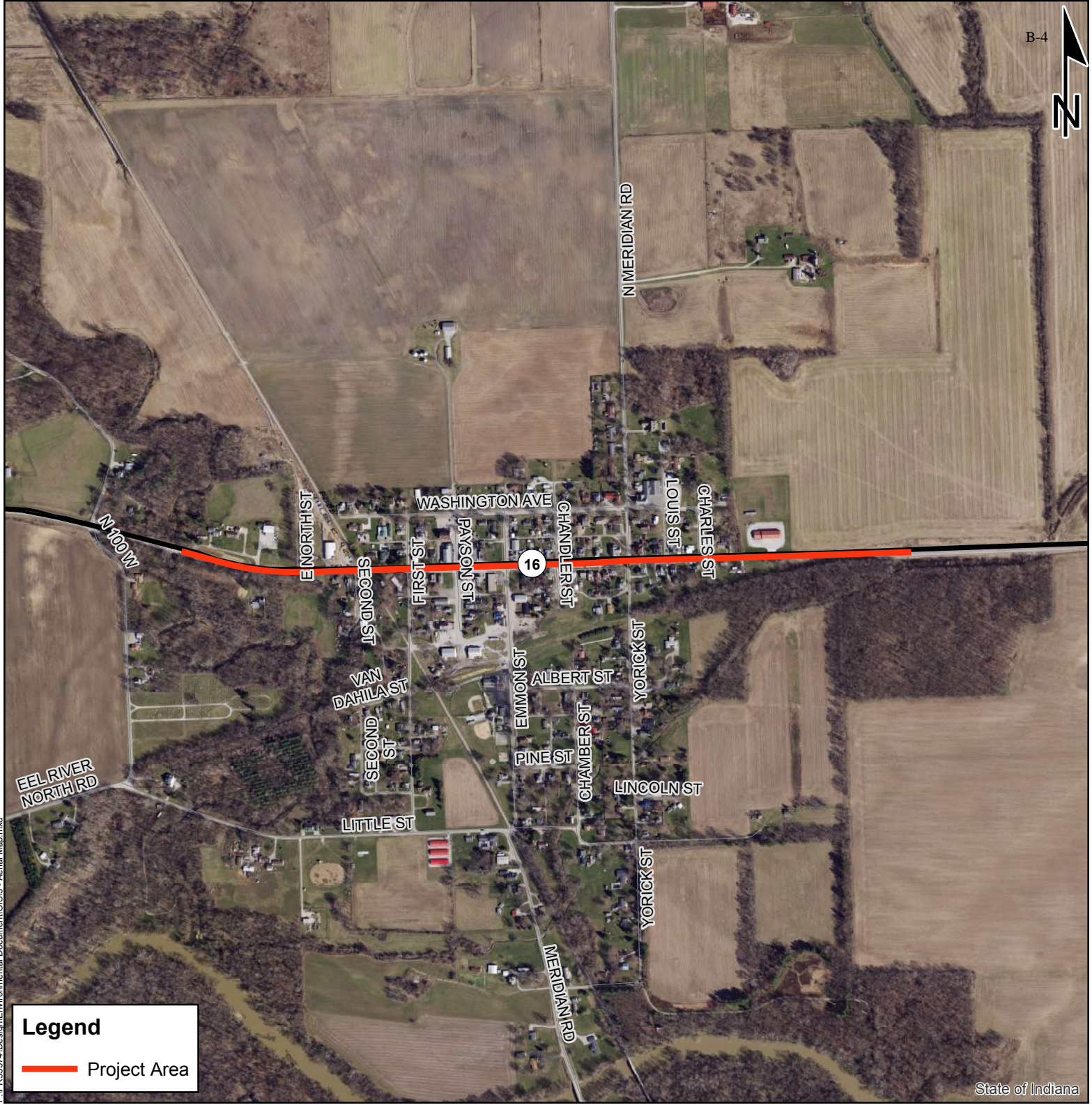
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

Prepared By: Burgess & Niple

USGS Topographic Map

10/22/2018

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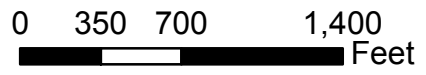


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Legend

 Project Area

State of Indiana



Attachment 3

Indiana Dept. of Transportation (INDOT)
S.R. 16 Pavement Replacement
DES NO. 1600294
Denver, Miami County

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
Prepared By: Burgess & Niple

Aerial Map

10/22/2018



BEGIN PROJECT
STA. 117+00.70 "A"

CURVE DATA
 PI = 122+09.33 "A"
 Delta = 17°04'38" LT
 D = 3°20'48"
 R = 1712.00'
 T = 257.04'
 L = 510.27'
 E = 19.19'

115+00

POT STA 115+00.00

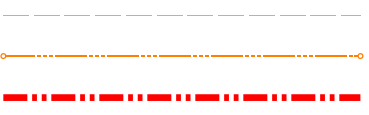
120+00

PC STA 119+52.29

125+00

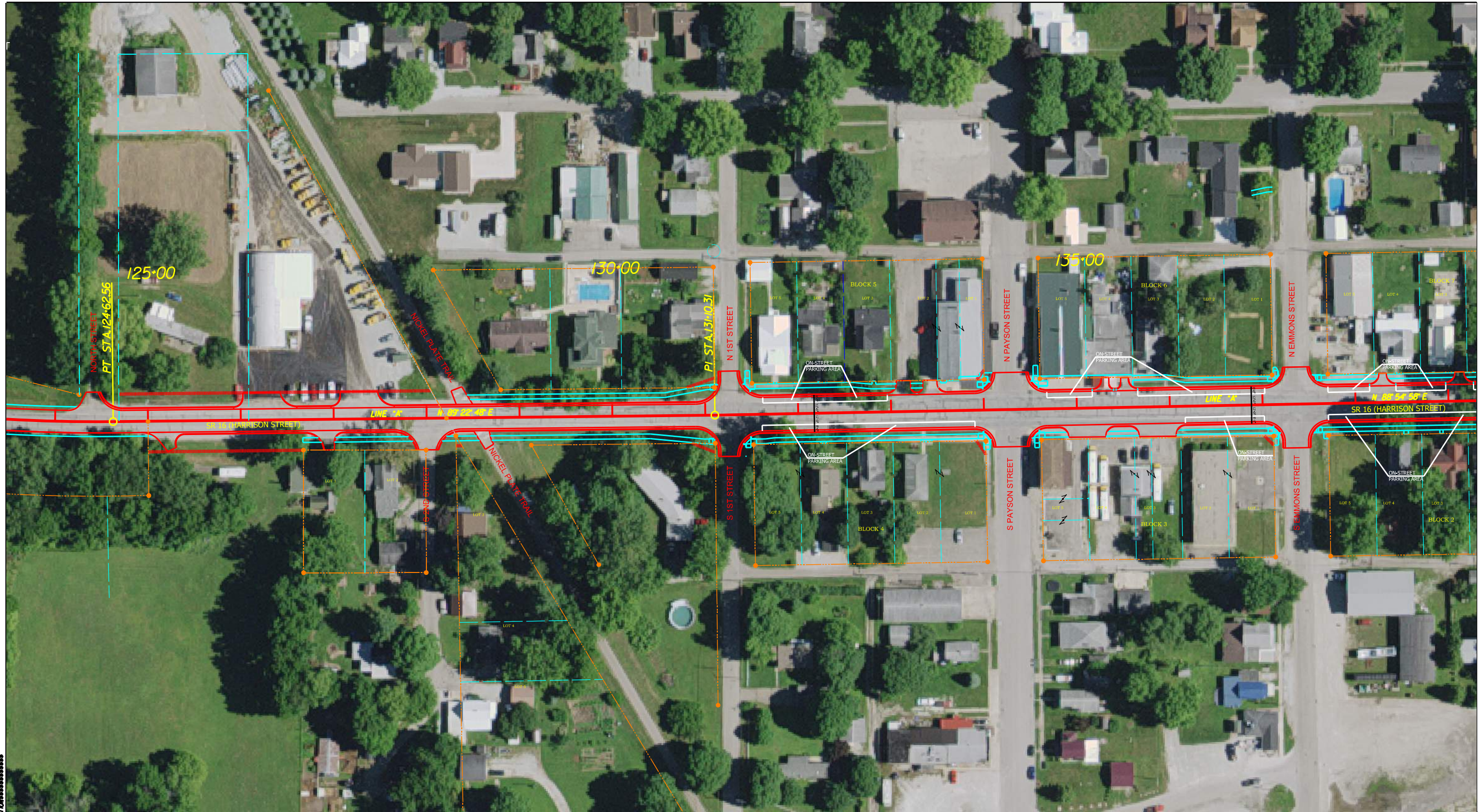
NORTH STREET
PT STA 124+62.56

DATE: 08/20/2018 10:58:11 AM

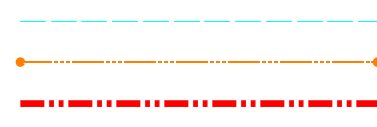


APPR. EXISTING PROPERTY LINE
 APPR. EXISTING R/W
 PROPOSED R/W

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE	BRIDGE FILE
					1"=100'	
DESIGNED: MJS	DRAWN: MJS		CONCEPTUAL DRAWING		VERTICAL SCALE	DESIGNATION
CHECKED: JMM	CHECKED: JMM				1005600, 1600438, 1401678	
				SURVEY BOOK	DWG. NO.	SHEET NO.
					F1	F1 of F3
				CONTRACT	PROJECT	



PROJECT NO. 2024030001
 SHEET NO. B-6
 DATE 05/20/24
 DRAWN BY MJS
 CHECKED BY JMM
 DESIGNED BY MJS
 DATE 05/20/24



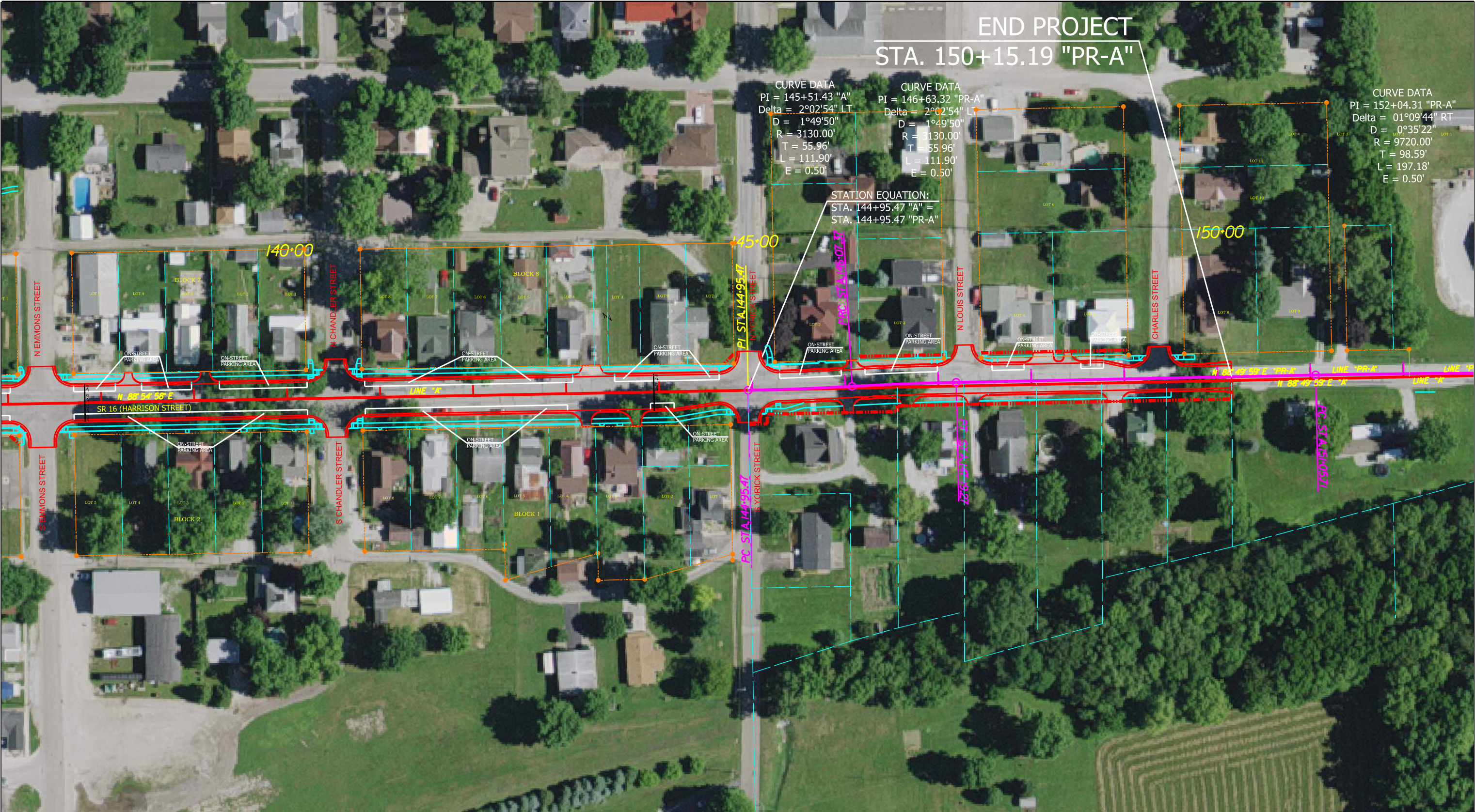
--- APPR. EXISTING PROPERTY LINE
 --- APPR. EXISTING R/W
 --- PROPOSED R/W

RECOMMENDED FOR APPROVAL	
DESIGN ENGINEER	DATE
DESIGNED: MJS	DRAWN: MJS
CHECKED: JMM	CHECKED: JMM

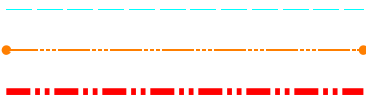
INDIANA
DEPARTMENT OF TRANSPORTATION

CONCEPTUAL DRAWING

HORIZONTAL SCALE	BRIDGE FILE	
VERTICAL SCALE	DESIGNATION	
SURVEY BOOK	DWG. NO.	SHEET NO.
CONTRACT	F2	F2 of F3
	PROJECT	



DATE PLOT 11/15/2017 10:00 AM



APPR. EXISTING PROPERTY LINE
 APPR. EXISTING R/W
 PROPOSED R/W

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE _____
 DESIGNED: MJS DRAWN: MJS
 CHECKED: JMM CHECKED: JMM

INDIANA DEPARTMENT OF TRANSPORTATION

CONCEPTUAL DRAWING

HORIZONTAL SCALE	BRIDGE FILE	
VERTICAL SCALE	DESIGNATION	
SURVEY BOOK	DWG. NO. F3	SHEET NO. F3 of F3
CONTRACT	PROJECT	



Approximately 200' west of North Street looking west at an open ditch.



At North Street looking northwest at deteriorated curb and cracked pavement.



Silt and weeds on roadway at North Street looking east.



Nickel Plate Trail crossing SR 28 just east of 2nd Street looking south.



Deteriorated sidewalk at 1st Street looking north.



Sub-standard storm sewer at 1st Street looking east.



Overlay of pavement leaving little curb height for drainage at Payson Street looking east.



At Payson Street looking west. Curb appears to be used as a step.



Ponding water at mid-block between Payson Street and Emmons Street looking west.



Ponding water on the northwest corner of Emmons Street and SR 28 looking northeast.



Ponding water on the southwest corner of Emmons Street and SR 28.



Ponding water at mid-block of Emmons Street and Chandler Street looking east.



Drainage structure at the southeast corner of Chandler Street and SR 16 looking southwest.



Drainage structure at northeast corner of Chandler Street and SR 16 looking north.



Looking east along SR 16 at Chandler Street.



Drainage and safety concern along the north side of SR 16 at Chandler Street.



Drainage and safety concerns along the south side of SR 16 near Chandler Street.



Safety and drainage issues along the south side of SR 16 at Chandler Street.



Drainage structure looking southeast at Yorick Street.



Looking west at Yorick Street.



Looking west at Louis Street.



Looking east at Charles Street.



Looking west from the Fire Station driveway toward the start of the proposed ditch at the east end of the project.



Looking east from the Fire Station driveway. Proposed ditch will follow the pole line approximately 800 feet east to a culvert under SR 16.



Looking at the north end of a 12" corrugated metal pipe (CMP) under SR 16 that collects farm field drainage. Culvert is approximately 300' east of the Fire Station driveway.



Looking west from the 12" CMP back to the Fire Station drive along the proposed ditch line.



Looking east along the proposed ditch line approximately 500' east of the Fire Station driveway.



Looking east at the farm drive culvert approximately 725' east of the Fire Station driveway. Culvert will be replaced.



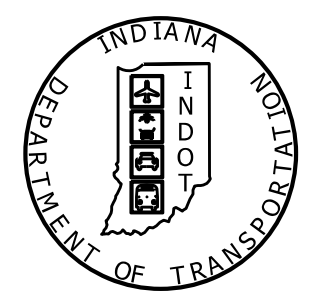
Looking east from the farm drive toward the north end of the culvert under SR 16 where the ditch will tie into the culvert.



Looking west from the old culvert under SR 16 before the stream was relocated through a box culvert east of the culvert. Ditch will end at the culvert, approximately 800' east of the Fire Station driveway.

PROJECT	DESIGNATION
1600294	1600294
CONTRACT	BRIDGE FILE
R-39890	N/A

INDIANA
DEPARTMENT OF
TRANSPORTATION

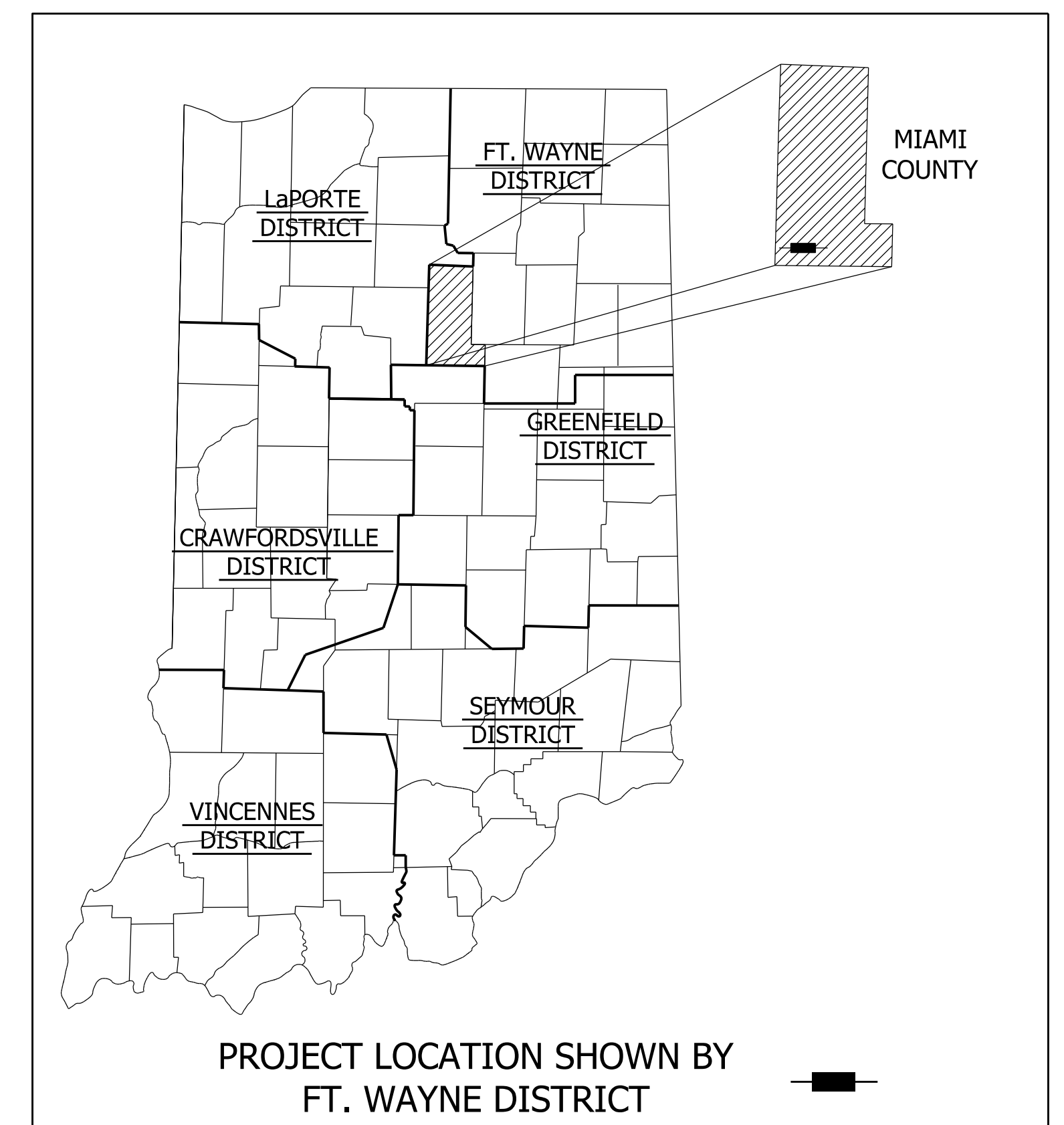


ROAD PLANS

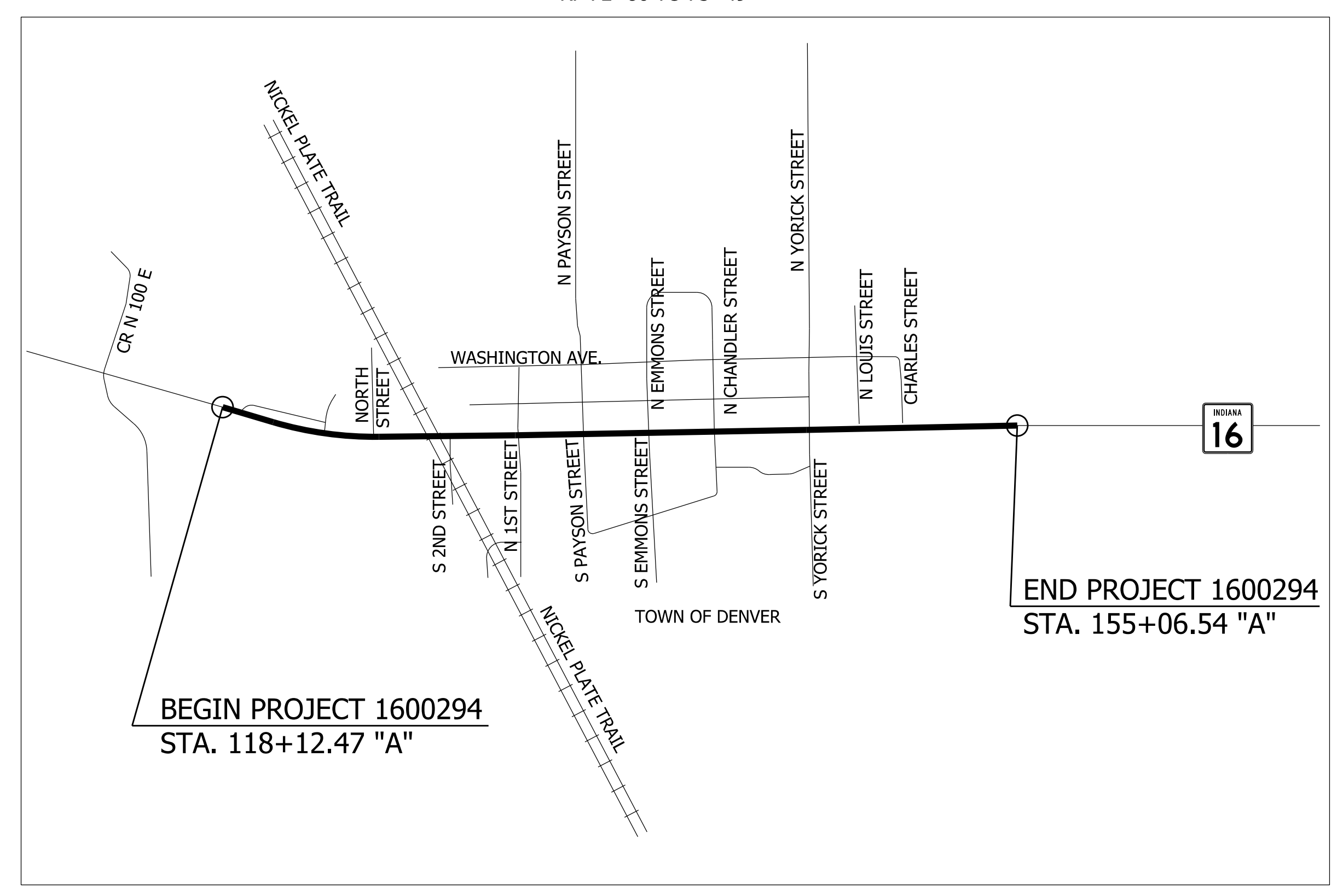
STATE ROAD 16
PROJECT NO. 1600294 P.E.
PROJECT NO. 1600294 CONST.

ROADWAY REHABILITATION BEGINNING AT 2.90 MILES EAST OF U.S. 31 EXTENDING EAST TO 3.53 MILES EAST OF U.S.31. SECTIONS 21, 16, (WEESAN SECTION), 15, 22 T-28-N, R-4-E, (T-99, R99) IN JEFFERSON TOWNSHIP OF MIAMI COUNTY, INDIANA

RP 72+86 TO 73+49



Latitude 40°51' 57" N Longitude 86°04'58" W



LOCATION MAP
SCALE: 1" = 500'

STATE ROAD 16	
TRAFFIC DATA: SEGMENT 1 - CR 100W to 1st STREET	
A.A.D.T. (2020 PROJECTED)	840 VPD
A.A.D.T. (2040 PROJECTED)	940 VPD
D.H.V. (2040 PROJECTED)	9.0%
DIRECTIONAL DISTRIBUTION	46.66% POSITIVE
TRUCKS	6% A.A.D.T., 8% DHV
TRAFFIC DATA: SEGMENT 2 - 1st STREET to YORICK STREET	
A.A.D.T. (2020 PROJECTED)	1,960 VPD
A.A.D.T. (2040 PROJECTED)	2,700 VPD
D.H.V. (2040 PROJECTED)	10.0%
DIRECTIONAL DISTRIBUTION	38.82% POSITIVE
TRUCKS	3% A.A.D.T., 1% DHV
TRAFFIC DATA: SEGMENT 3 - YORICK STREET to CR 100E	
A.A.D.T. (2020 PROJECTED)	570 VPD
A.A.D.T. (2040 PROJECTED)	570 VPD
D.H.V. (2040 PROJECTED)	9.0%
DIRECTIONAL DISTRIBUTION	41.36% POSITIVE
TRUCKS	9% A.A.D.T., 6% DHV
DESIGN DATA - 1) BEGIN PROJECT to NORTH STREET	
DESIGN SPEED	55 MPH
PROJECT DESIGN CRITERIA	4R (RURAL COLLECTOR)
FUNCTION CLASSIFICATION	RURAL MAJOR COLLECTOR
RURAL/URBAN	RURAL
TERRAIN	LEVEL
ACCESS CONTROL	NONE
DESIGN DATA - 2) NORTH STREET to END OF PROJECT	
DESIGN SPEED	30 MPH
PROJECT DESIGN CRITERIA	* 4R (URBAN COLLECTOR, SUBURBAN)
FUNCTION CLASSIFICATION	URBAN MAJOR COLLECTOR
RURAL/URBAN	URBAN
TERRAIN	LEVEL
ACCESS CONTROL	NONE

* URBAN DESIGN CRITERIA USED FOR THIS SECTION DUE TO RELATIVELY BUILT-UP RURAL AREA AS STATED IN THE IDM CHAPTER 53-1.0(5) AND THE LOW POSTED SPEED LIMIT.

GROSS LENGTH:	0.70 MI.
NET LENGTH:	0.70 MI.
MAXIMUM GRADE:	1.88 %

HYDROLOGIC UNIT CODES
05120104060030

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2018
TO BE USED WITH THESE PLANS

BURGESS & NIPLE
Engineers ■ Architects ■ Planners

251 N. ILLINOIS ST.
CAPITOL CENTER SUITE 920
INDIANAPOLIS, IN 46221
PHONE (317) 237-2760
FAX (317) 237-2755

JANUARY 30, 2020
CE DOCUMENT SUBMITTAL

PLANS PREPARED BY:	BURGESS & NIPLE, INC.	(317) 237-2760
		PHONE NUMBER
PREPARED BY:		DATE
FOR LETTING APPROVED:	INDIANA DEPARTMENT OF TRANSPORTATION	DATE

BRIDGE FILE	
N/A	
DESIGNATION	
1600294	
DWG. NO.	SHEET NO.
TI-01	1 of 137
CONTRACT	PROJECT
R-39890	1600294

1/30/2020 P:\PR95374\CDST\01.dgn

UTILITIES

CENTURYLINK - Telephone/Communications
 Bruce Emerick
 213 W. Laporte Street
 Plymouth, IN 46563
 574-926-1247
 joseph.megyesi@sprint.com

CENTURYLINK - Telephone
 Bill Sanner
 1401 W. Center Street
 Warsaw, IN 46580
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 william.t.sanner@centurylink.com

CENTURYLINK COMMUNICATIONS, LLC
 Kirk Thoeke
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 Maryland Heights, MO 63021
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DUKE ENERGY - Electric
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NIPSCO - Gas
 Faming (Michael) Sun
 801 E. 86th Avenue
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 260-439-1221
 fsun@nisource.com

DENVER SANITARY - Sewer (Murphy Environmental Services)
 Bruce Murphy
 7329 N. Meridian Road
 Denver, IN 46926
 765-985-2765
 dnrvwplnt@yahoo.com

GENERAL NOTES

- ** ALL EARTH SHOULDERS AND CUT AND FILL SLOPES SHALL BE PLAIN OR MULCH SEEDED EXCEPT WHERE OTHERWISE SPECIFIED.
- ** THE PLANS SHOW SOME OF THE UTILITIES LOCATED WITHIN THE LIMITS OF THE CONTRACT ACCORDING TO INFORMATION OBTAINED FROM THE VARIOUS UTILITY COMPANIES. THE ACCURACY OF THE PLANS IN THIS RESPECT IS NOT GUARANTEED BY BURGESS & NIPLE, INC.
- ** THE FINAL CROSS SECTIONS OF THE GRADING CONTRACT WILL BE THE ORIGINAL CROSS SECTIONS OF THE PAVING CONTRACT, HOWEVER, PARTIAL OR COMPLETE CROSS SECTIONS SHALL BE TAKEN IF NECESSARY TO DETERMINE THE ACTUAL EXCAVATION QUANTITIES.

** REPRESENTS GENERAL NOTES REQUIRED.

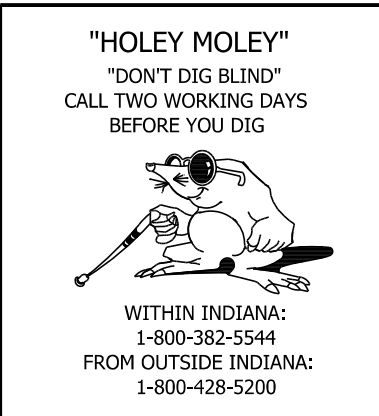
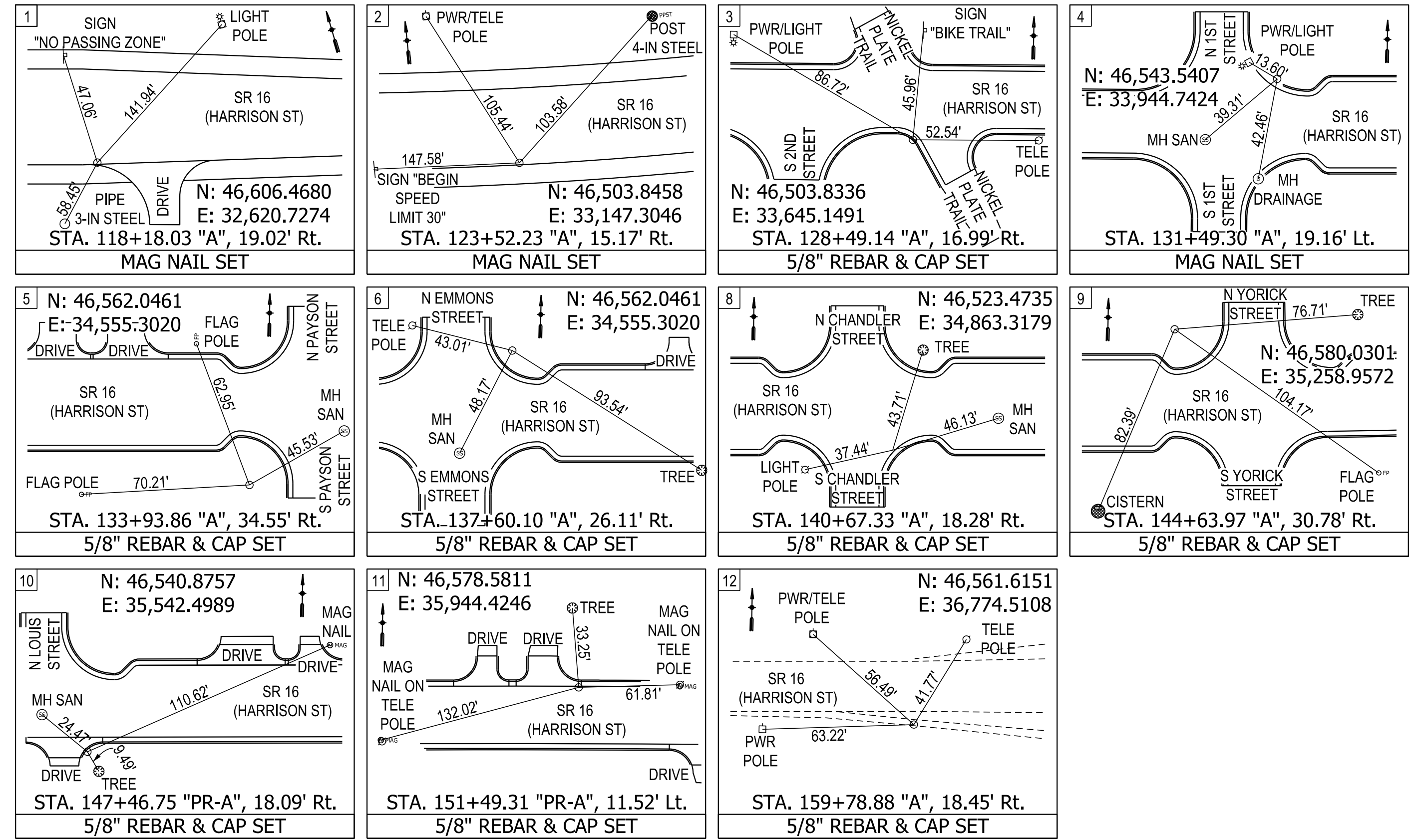
REVISIONS

NO.	DATE	DESCRIPTION

DRAWING INDEX

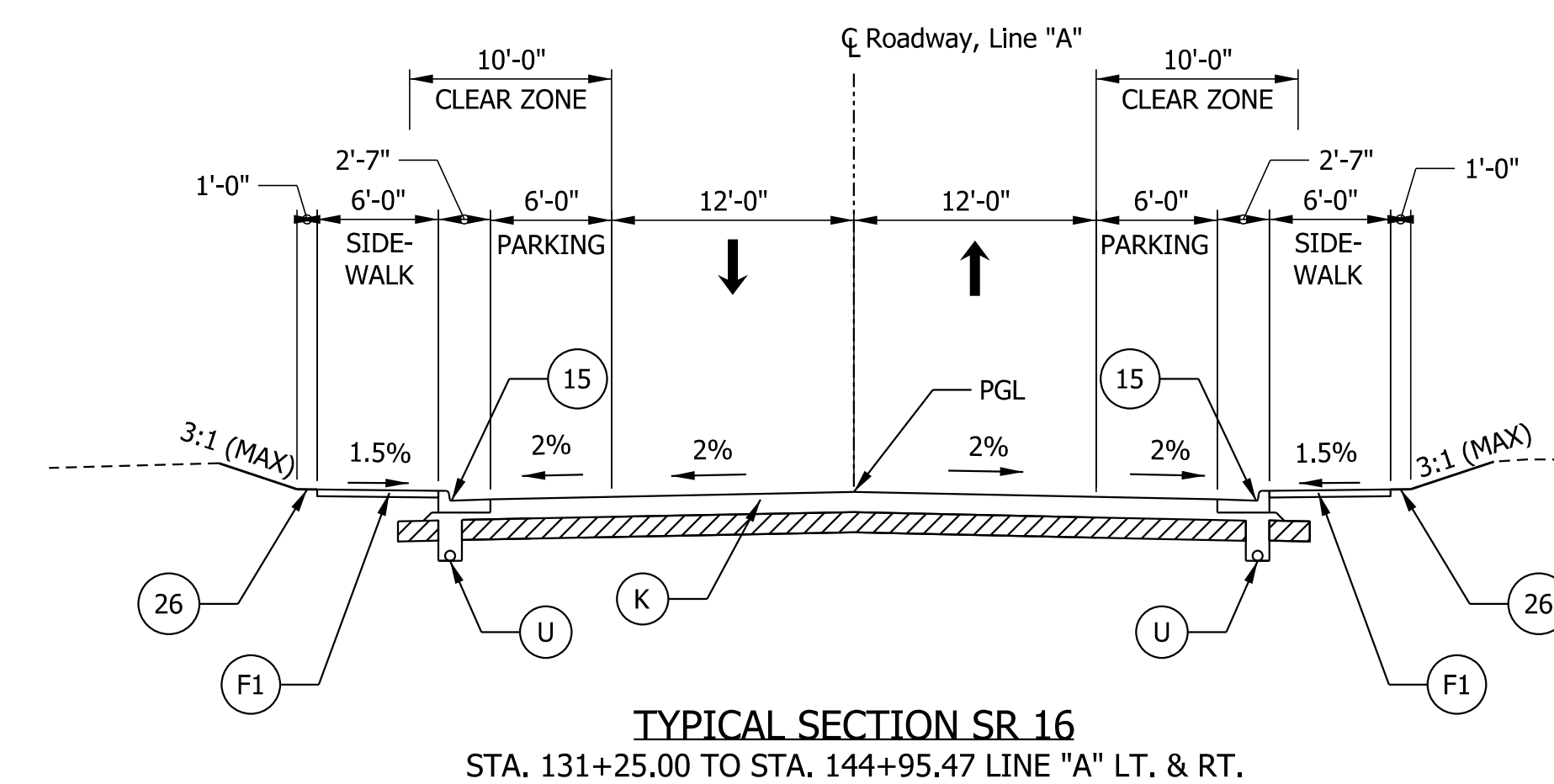
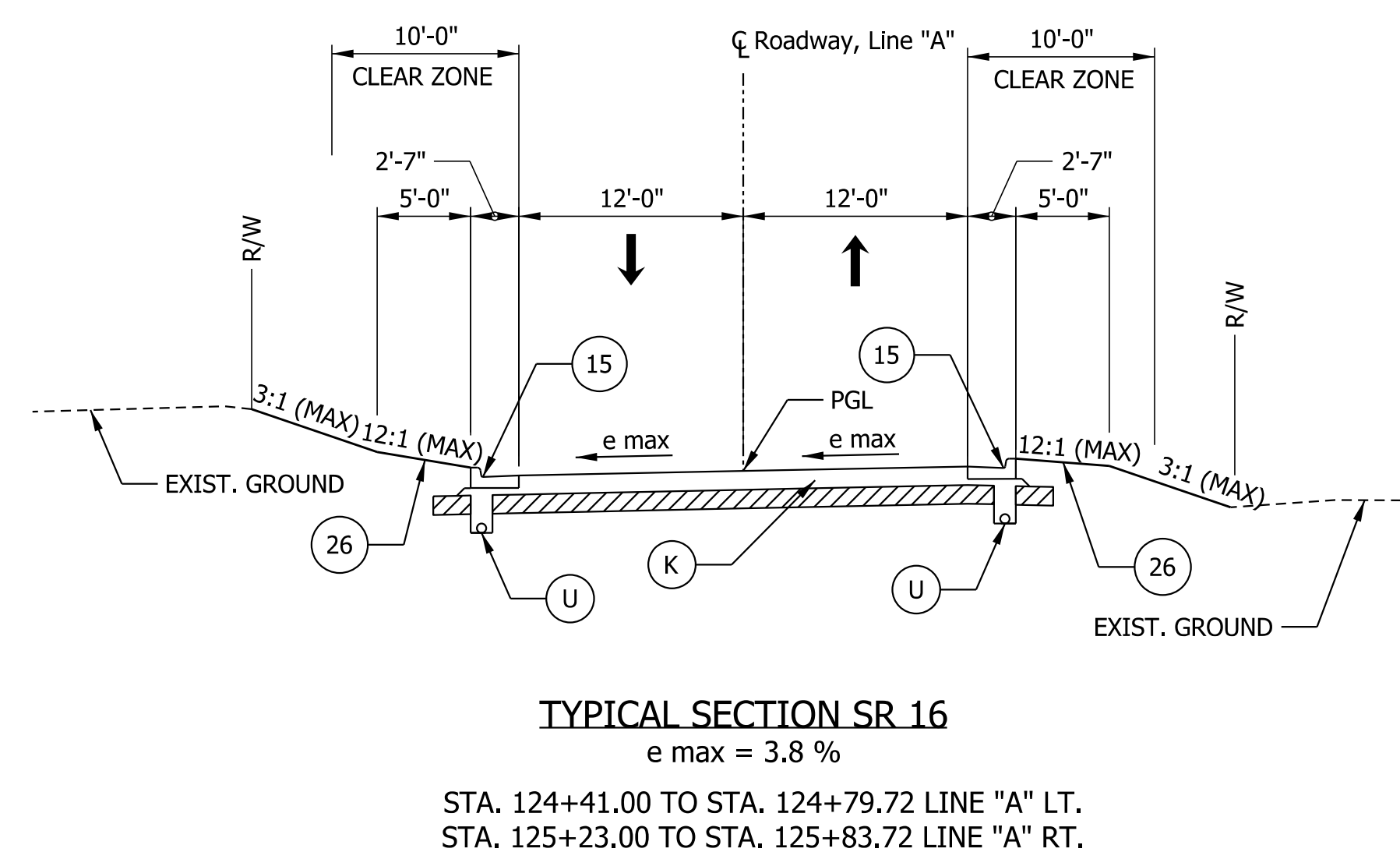
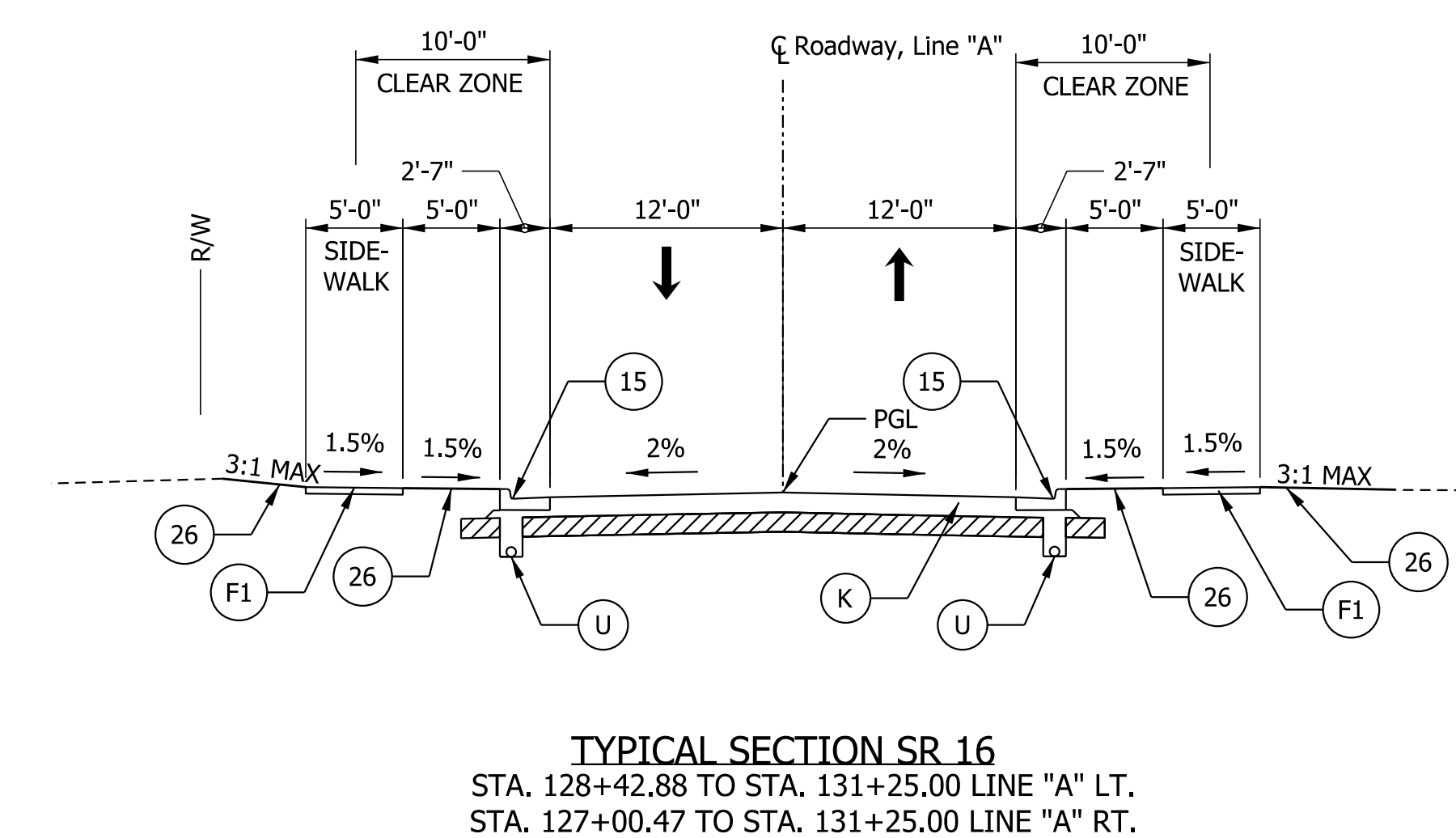
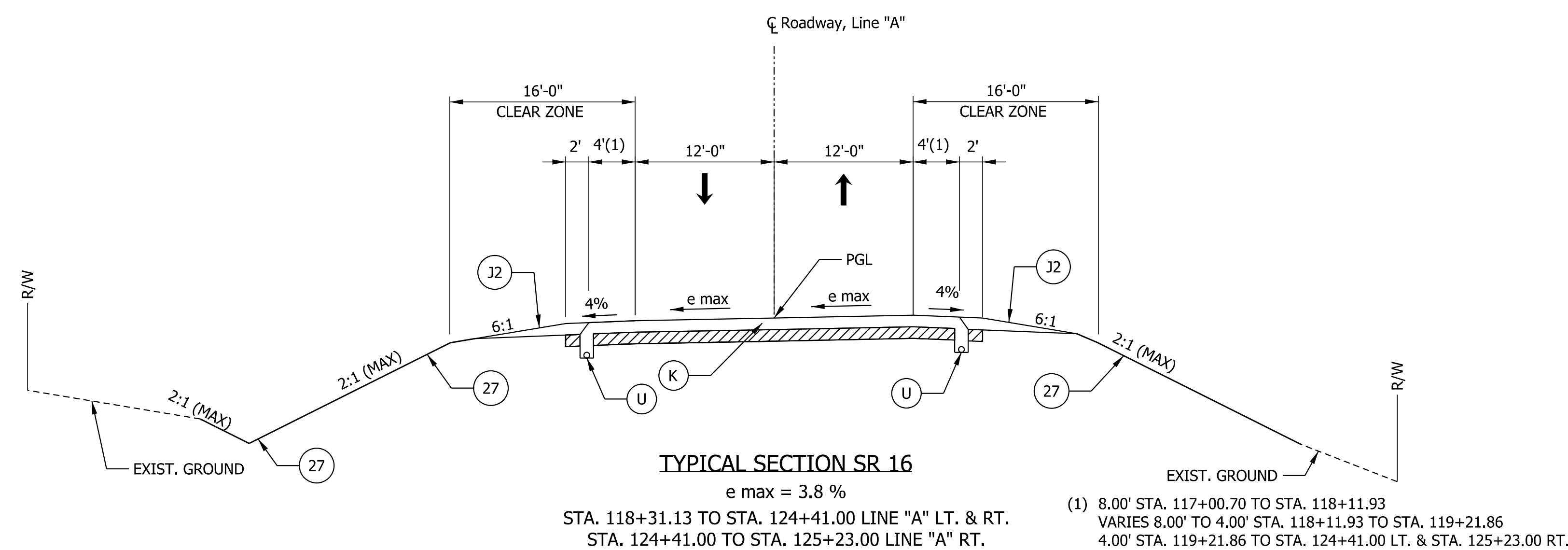
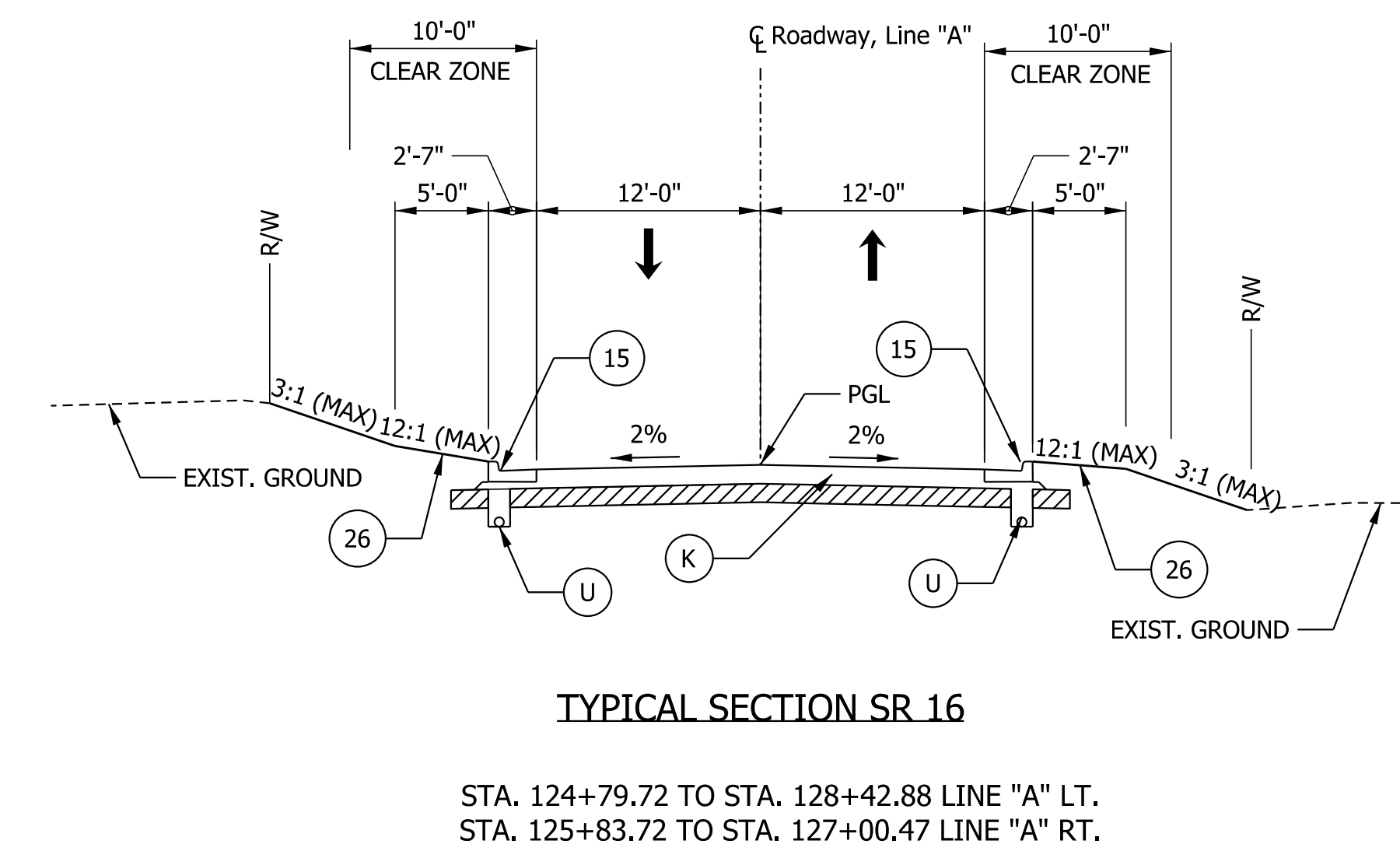
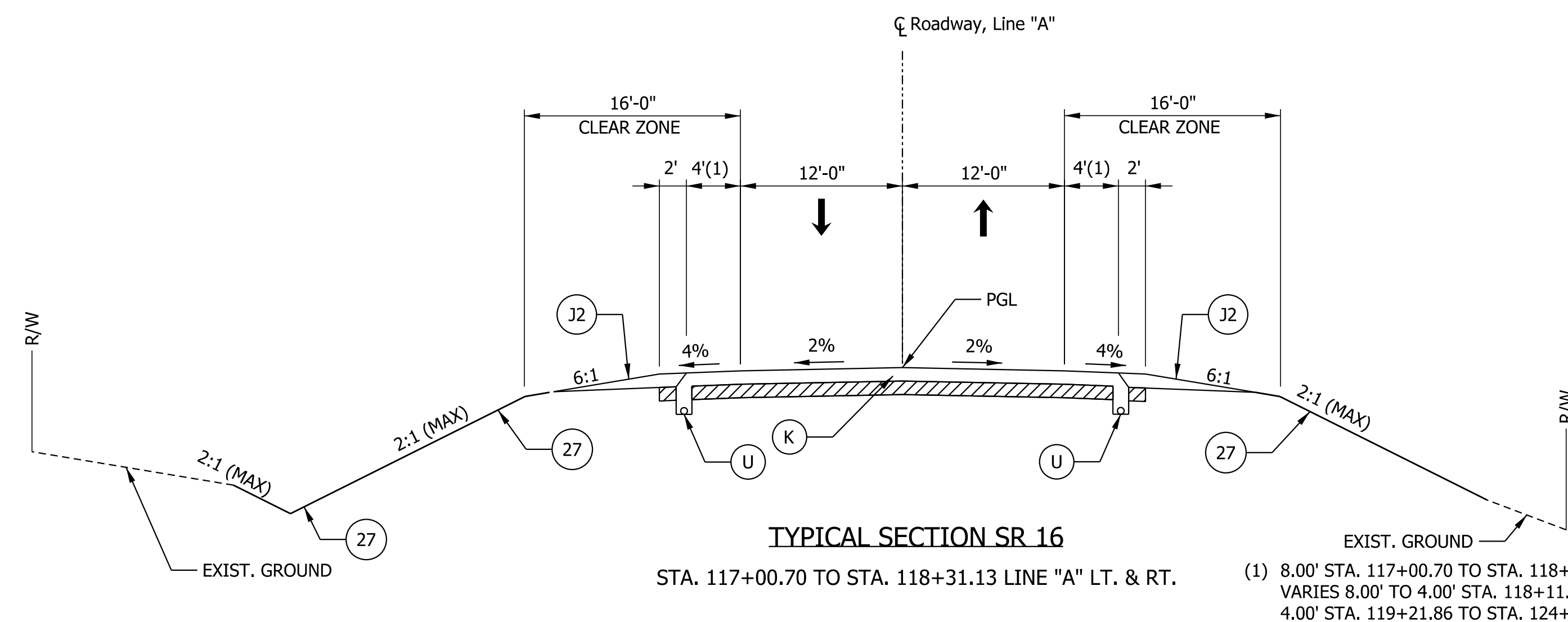
SHEET NO.	DRAWING NO.	SHEET DESIGNATION
1	TI-01	TITLE SHEET
2	IX-01	INDEX AND GENERAL NOTES
3-5	TS-01 - TS-03	TYPICAL SECTIONS
6-7	PN-01 - PN-02	PLAT NO. 1
8	DT-01	DETOUR ROUTE
9-17	PP-01 - PP-09	PLAN SHEETS & PROFILE SHEETS
18	SE-01	SUPERELEVATION DIAGRAMS
19-32	AD-01 - AD14	APPROACH DETAIL SHEETS
33-34	AT-01 - AT-02	APPROACH TABLE SHEETS
35-37	SD-01 - SD-03	STRUCTURE DATA TABLE
38-136	XS-01 - XS-99	CROSS SECTIONS

CONTROL POINTS



RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE _____	INDIANA		HORIZONTAL SCALE N/A	BRIDGE FILE N/A		
			DEPARTMENT OF TRANSPORTATION		VERTICAL SCALE N/A	DESIGNATION 1600294
	DESIGNED: JM DRAWN: BJD		INDEX & GENERAL NOTES		SURVEY BOOK	DWG. NO. SHEET NO. IX-01 2 of 137
CHECKED: MAK		CHECKED: JM	CONTRACT R-39890	PROJECT 1600294		

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LEGEND

- | | | |
|--|---|--|
| (K) 165 #/SY QC/QA-HMA, 3, 70, SURFACE, 9.5 mm ON | (F1) CONCRETE SIDEWALK | (15) COMBINED CONCRETE CURB & GUTTER, TYPE B |
| 275 #/SY QC/QA-HMA, 3, 70, INTERMEDIATE, 19.0 mm ON | (J2) VAR. DEPTH, COMPACTED AGGREGATE FOR SHOULDER, NO. 53 | (26) SODDING (NURSERY) |
| 330 #/SY QC/QA-HMA, 3, 64, BASE, 19.0 mm ON | (U) 6" UNDERDRAIN | (27) SEED MIXTURE, U |
| 250 #/SY QC/QA-HMA, 5, 76, INTERMEDIATE OG, 19.0 mm ON | | |
| 330 #/SY QC/QA-HMA, 3, 64, BASE, 19.0 mm ON | | |
| SUBGRADE TREATMENT, TYPE IB | | |
| (R) 165 #/SY QC/QA-HMA, 3, 70, SURFACE, 9.5 mm ON | (Z) SUBGRADE TREATMENT | |
| 1.5" SURFACE MILLING, HMA (MIN.) | | |

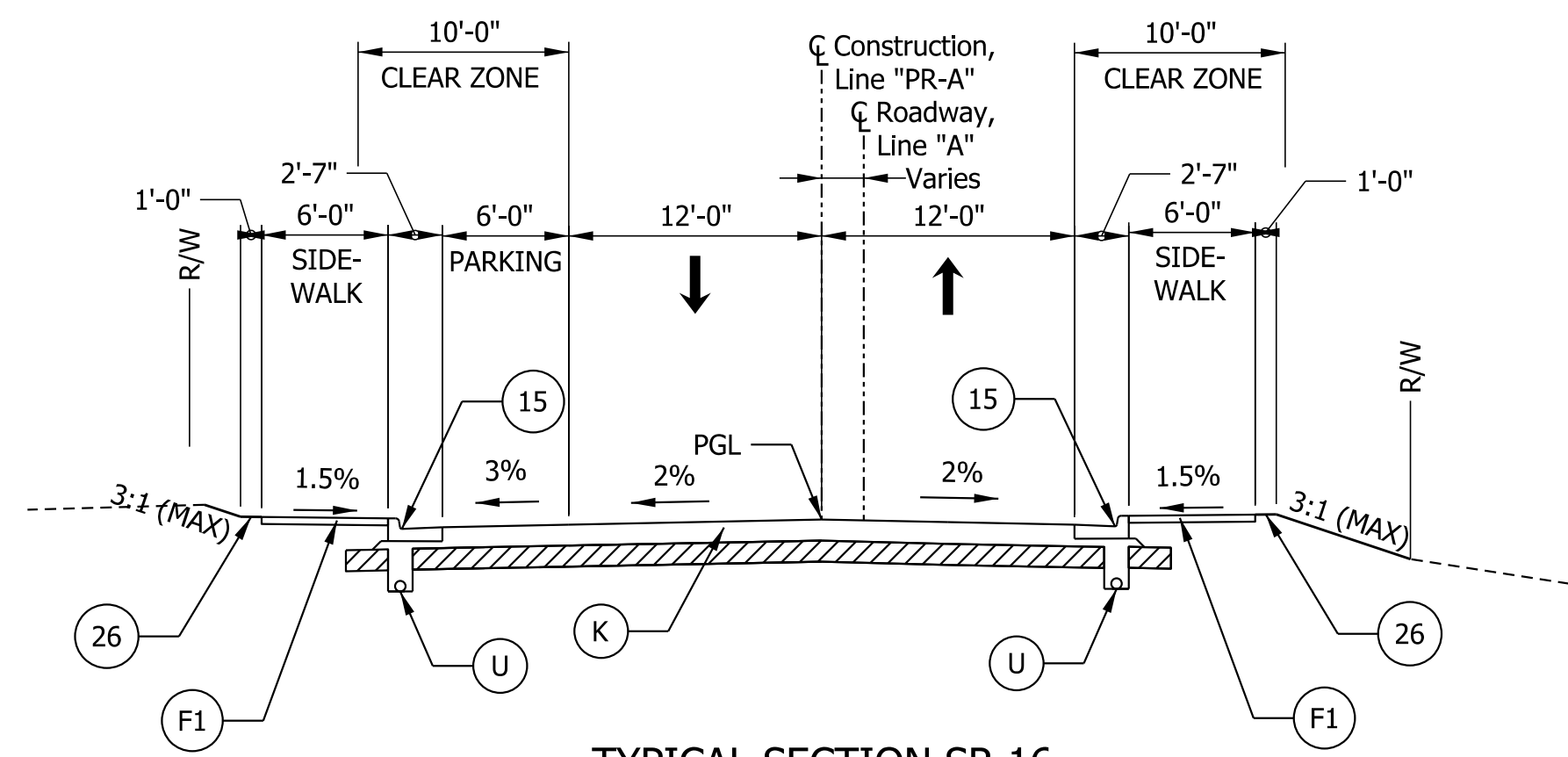
RECOMMENDED FOR APPROVAL _____	
DESIGNED: MJS	DRAWN: MJS
CHECKED: JRA	CHECKED: JRA

INDIANA
DEPARTMENT OF TRANSPORTATION

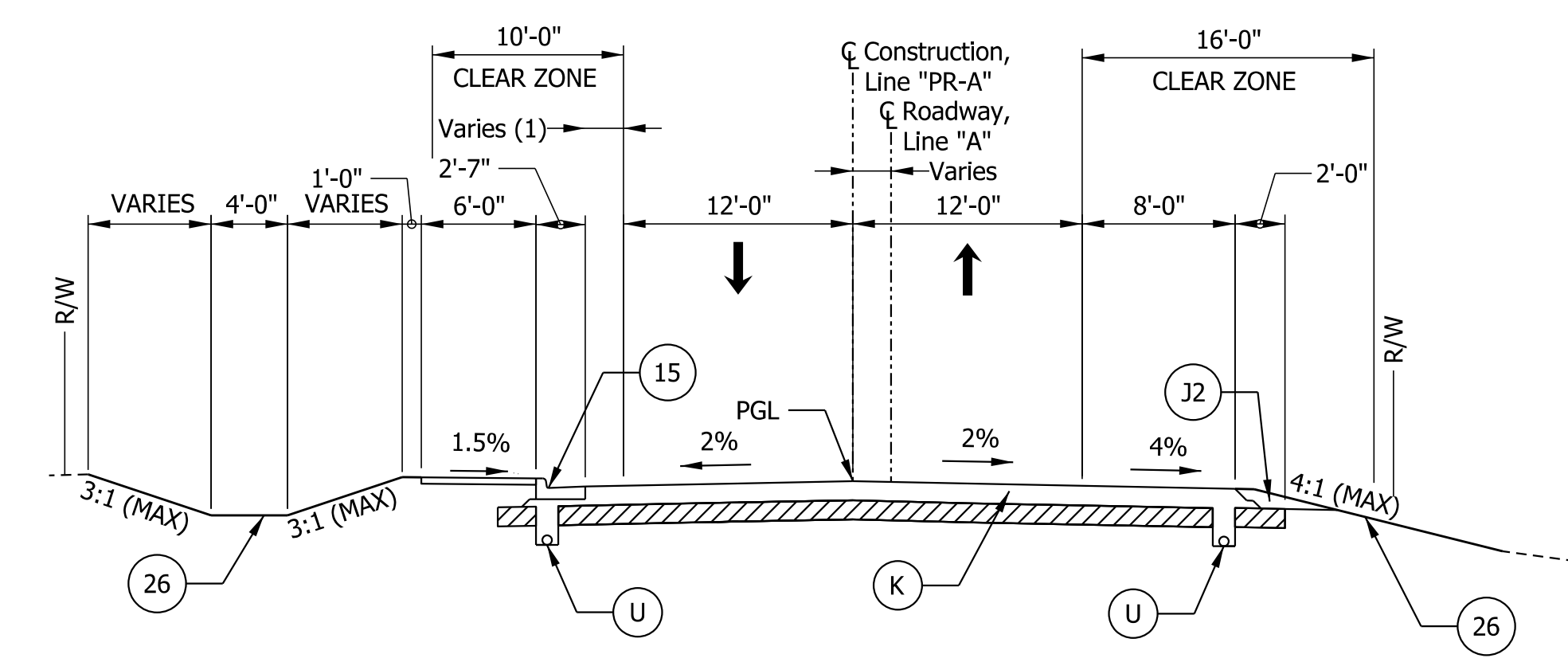
TYPICAL SECTIONS

HORIZONTAL SCALE	BRIDGE FILE	
1/8" = 1'-0"	N/A	
VERTICAL SCALE	DESIGNATION	
	1600294	
SURVEY BOOK	DWG. NO.	SHEET NO.
	TS-01	3 of 137
CONTRACT	PROJECT	
R-39890	1600294	

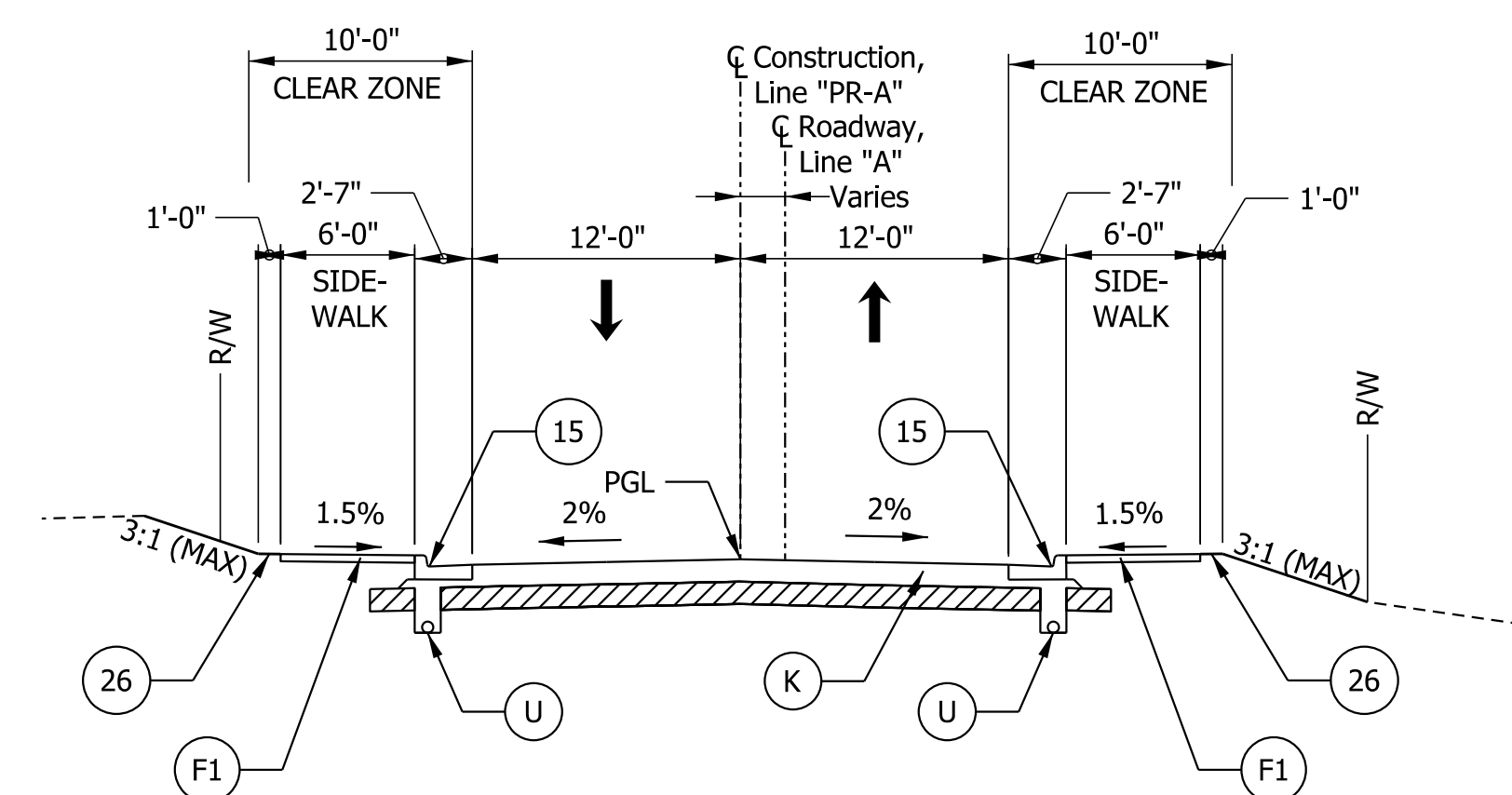
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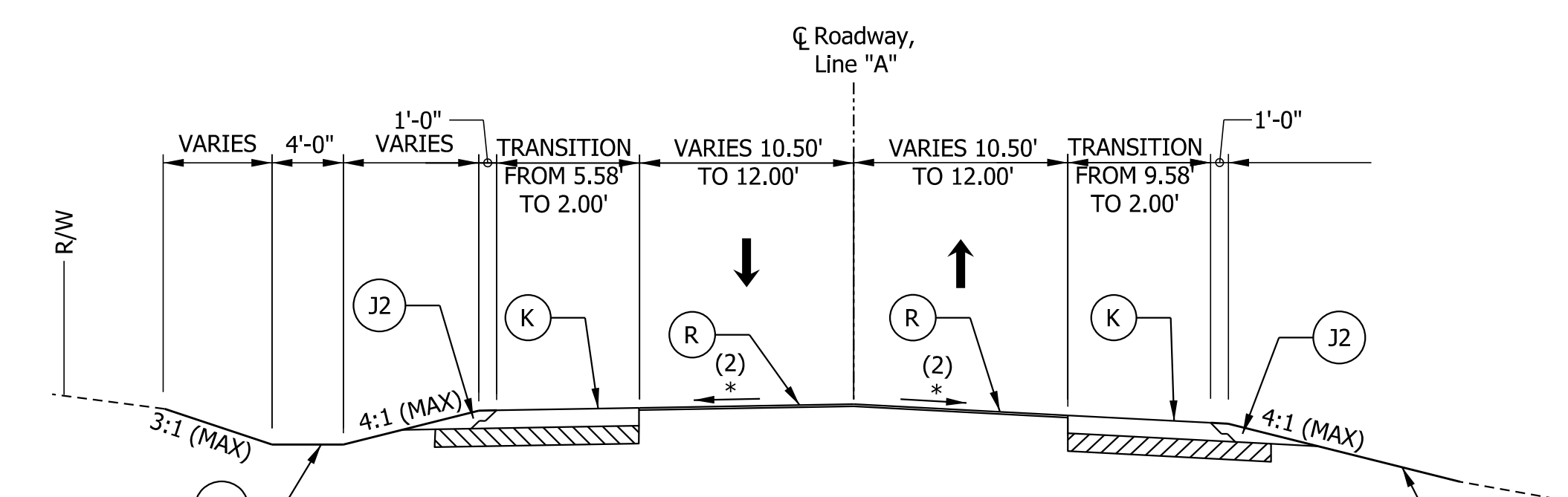
TYPICAL SECTION SR 16
STA. 144+95.47 TO STA. 149+38.00 LINE "PR-A" LT. & RT.



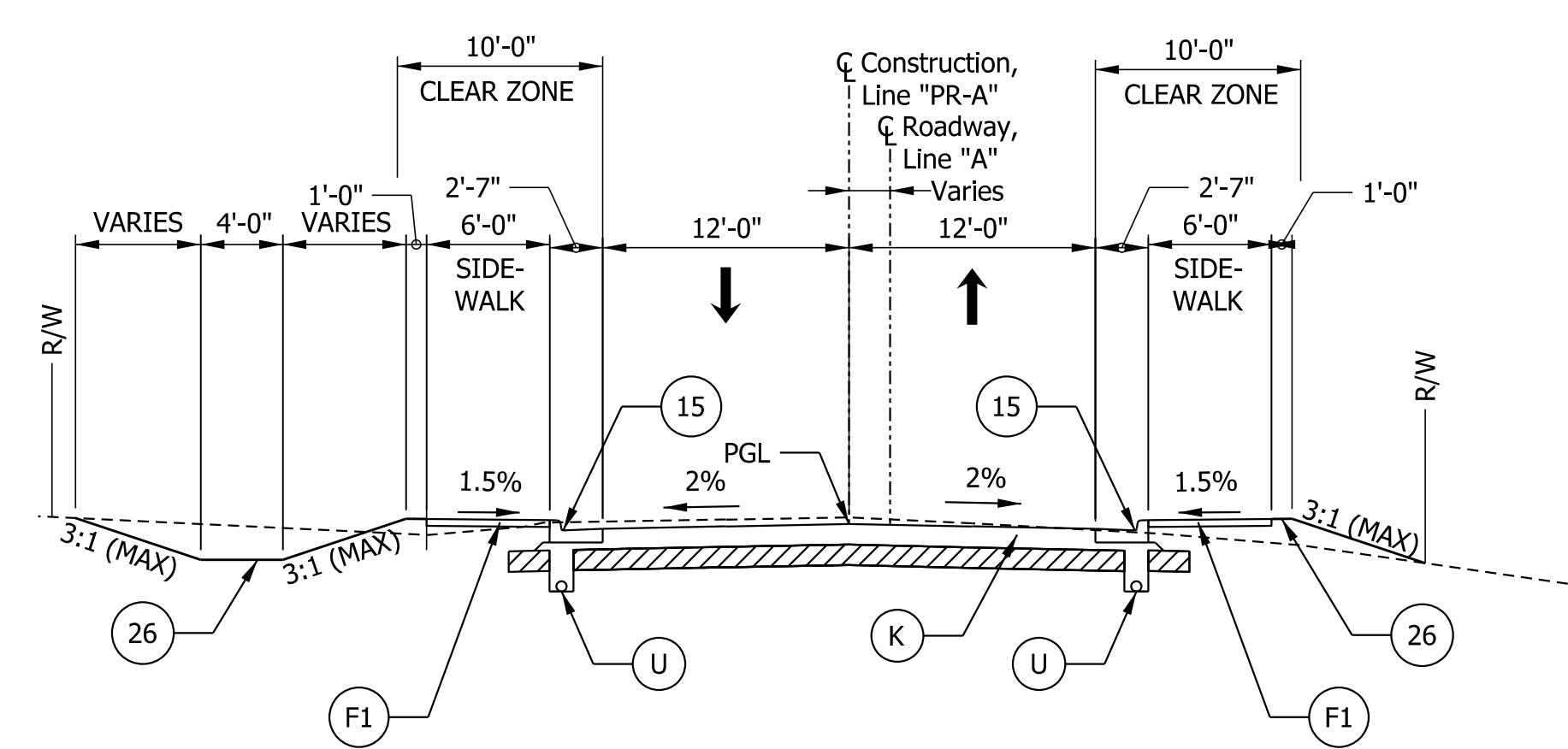
TYPICAL SECTION SR 16
STA. 151+96.67 TO STA. 155+06.54 LINE "PR-A" LT. & RT.
(1) 0.00' STA. 151+96.67 TO STA. 154+74.58
VARIES 0.00' TO 4.00' STA. 154+74.58 TO STA. 155+06.54



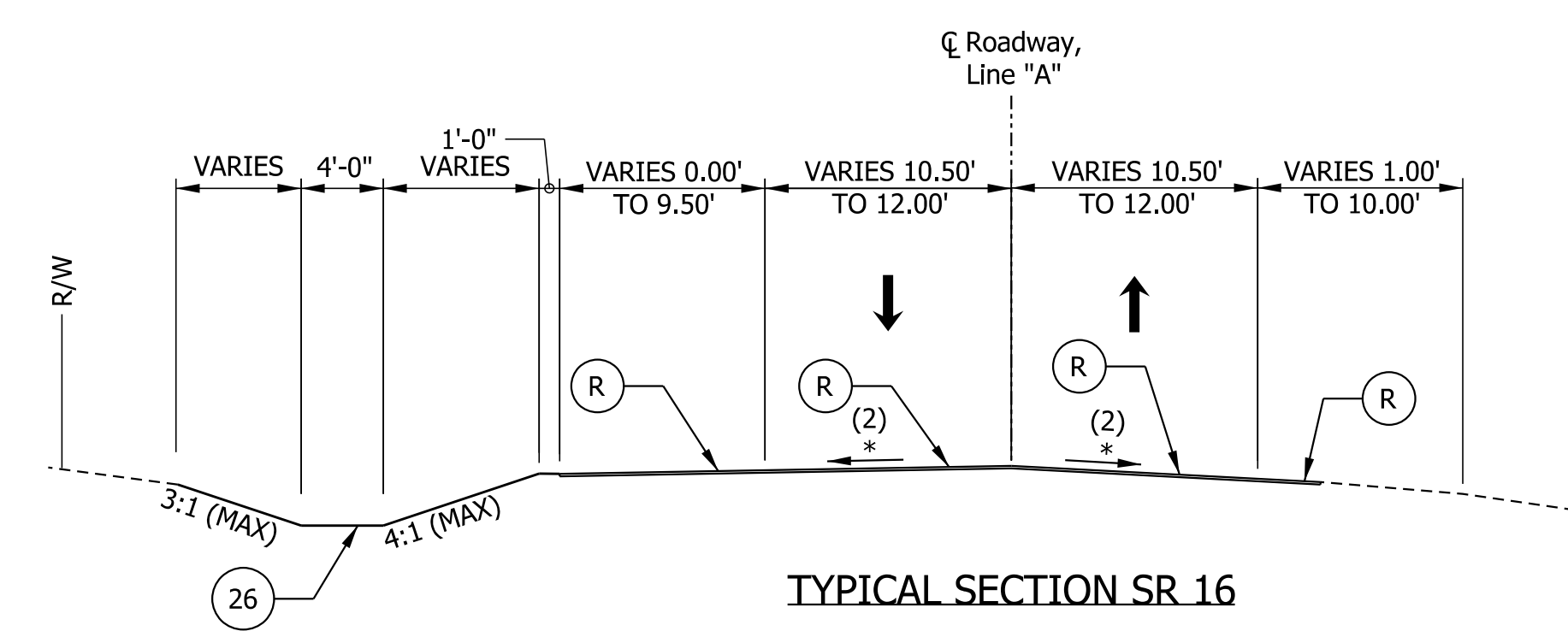
TYPICAL SECTION SR 16
STA. 149+38.00 TO STA. 150+70.00 LINE "PR-A" LT. & RT.



TYPICAL SECTION SR 16
STA. 155+06.54 TO STA. 156+00 LINE "A" LT. & RT.
(2) MATCH EXISTING CROSS SLOPE



TYPICAL SECTION SR 16
STA. 150+70.00 TO STA. 151+96.67 LINE "PR-A" LT. & RT.



TYPICAL SECTION SR 16
STA. 156+00.00 TO STA. 163+00 LINE "A" LT. & RT.
(2) MATCH EXISTING CROSS SLOPE

LEGEND

- | | | |
|--|---|--|
| (K) 165 #/SY QC/QA-HMA, 3, 70, SURFACE, 9.5 mm ON | (F1) CONCRETE SIDEWALK | (15) COMBINED CONCRETE CURB & GUTTER, TYPE B |
| 275 #/SY QC/QA-HMA, 3, 70, INTERMEDIATE, 19.0 mm ON | (J2) VAR. DEPTH, COMPACTED AGGREGATE FOR SHOULDER, NO. 53 | (26) SODDING (NURSERY) |
| 330 #/SY QC/QA-HMA, 3, 64, BASE, 19.0 mm ON | (U) 6" UNDERDRAIN | (27) SEED MIXTURE, U |
| 250 #/SY QC/QA-HMA, 5, 76, INTERMEDIATE OG, 19.0 mm ON | (Z) SUBGRADE TREATMENT | |
| 330 #/SY QC/QA-HMA, 3, 64, BASE, 19.0 mm ON | | |
| SUBGRADE TREATMENT, TYPE IB | | |
| (R) 165 #/SY QC/QA-HMA, 3, 70, SURFACE, 9.5 mm ON | | |
| 1.5" SURFACE MILLING, HMA (MIN.) | | |

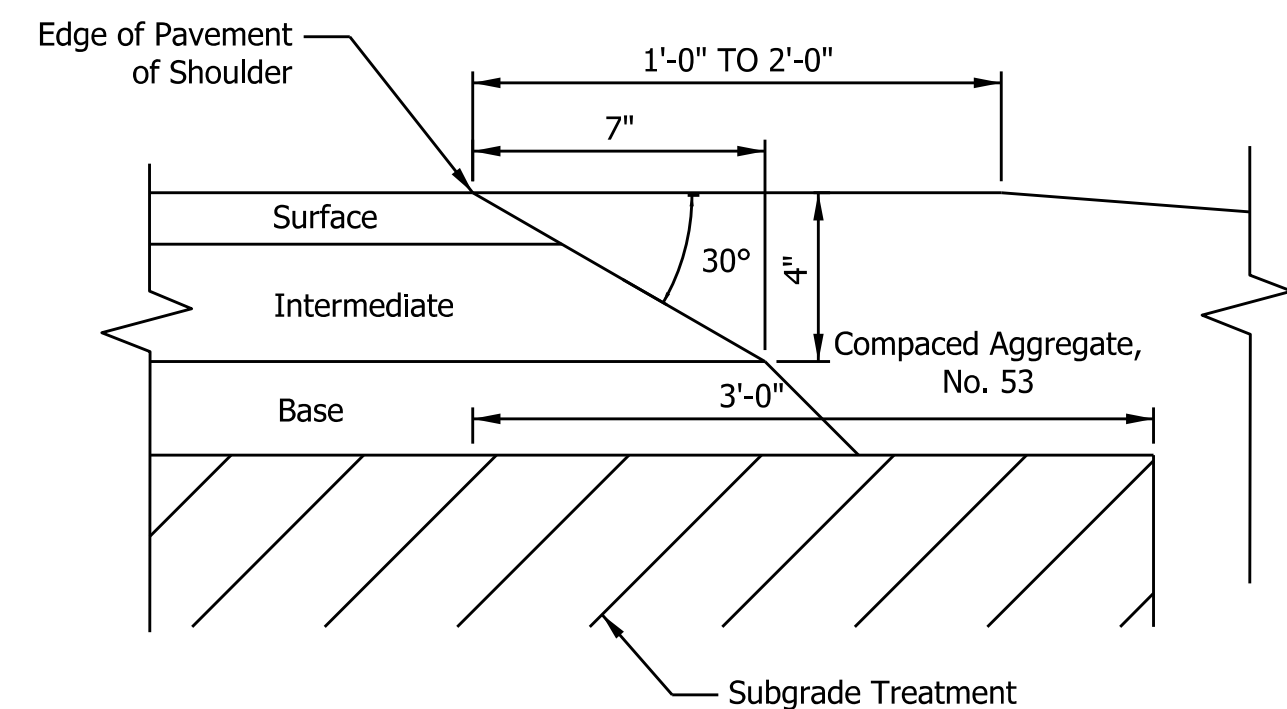
RECOMMENDED FOR APPROVAL _____	
DESIGNED: MJS	DRAWN: MJS
CHECKED: JRA	CHECKED: JRA

INDIANA
DEPARTMENT OF TRANSPORTATION

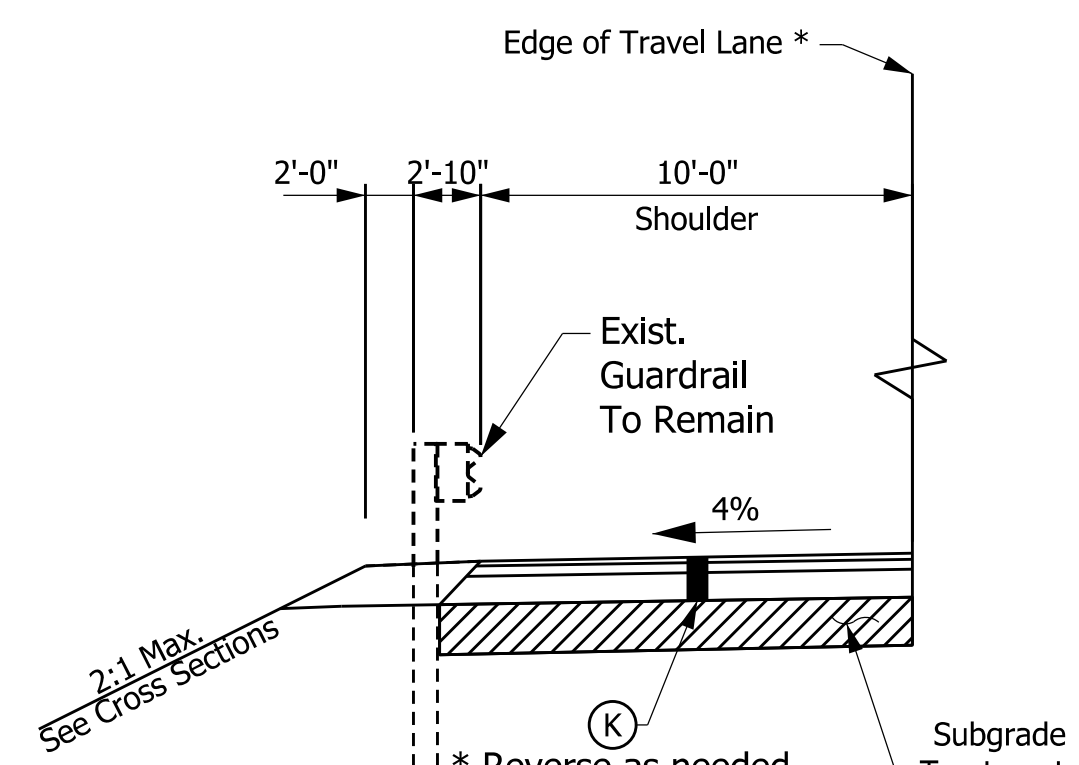
TYPICAL SECTIONS

HORIZONTAL SCALE 1/8" = 1'-0"	BRIDGE FILE N/A
VERTICAL SCALE	DESIGNATION 1600294
SURVEY BOOK	DWG. NO. TS-02
	SHEET NO. 4 of 137
CONTRACT R-39890	PROJECT 1600294

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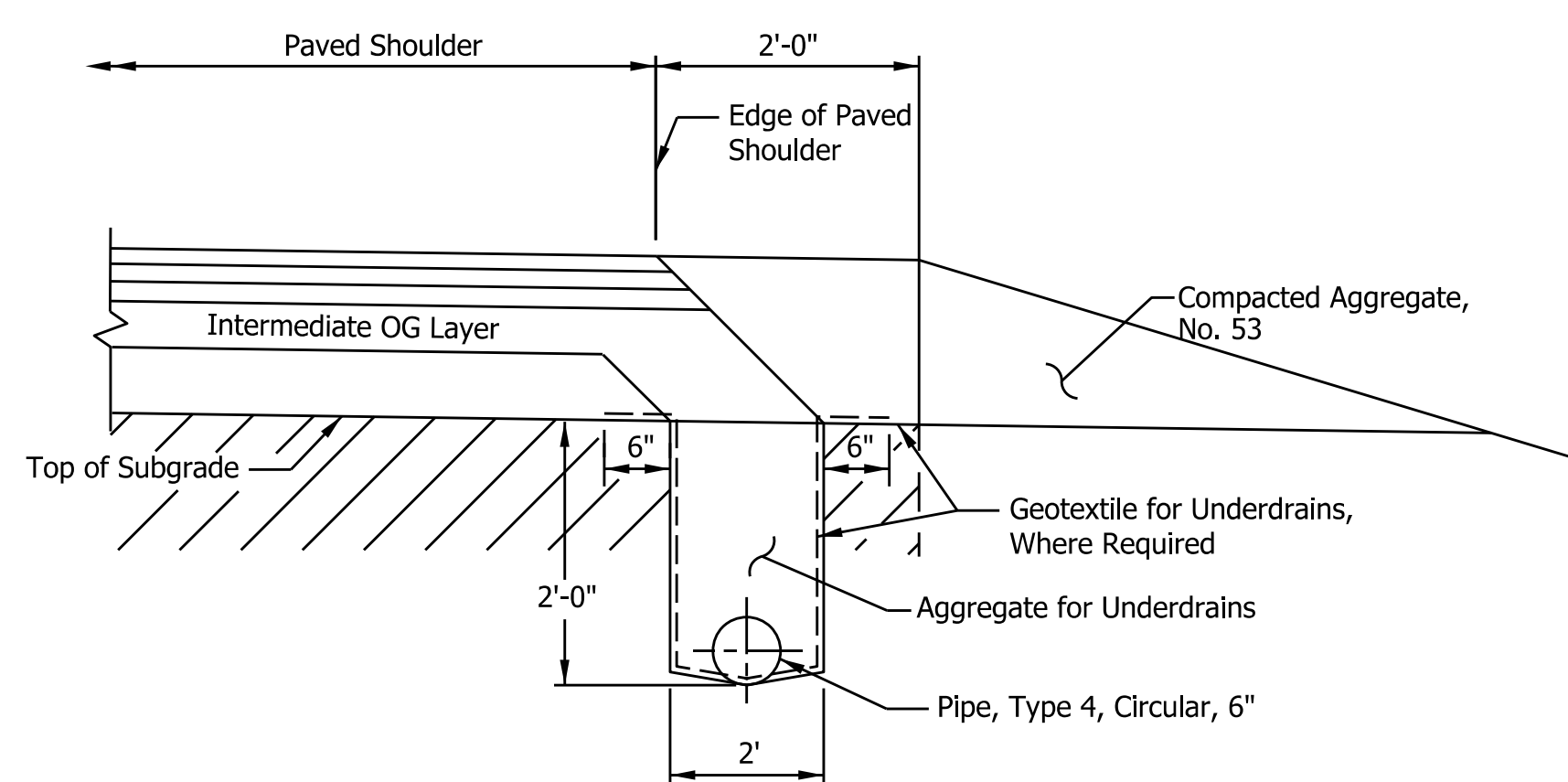
SAFETY EDGE ON HMA PAVEMENT



GUARDRAIL DETAIL

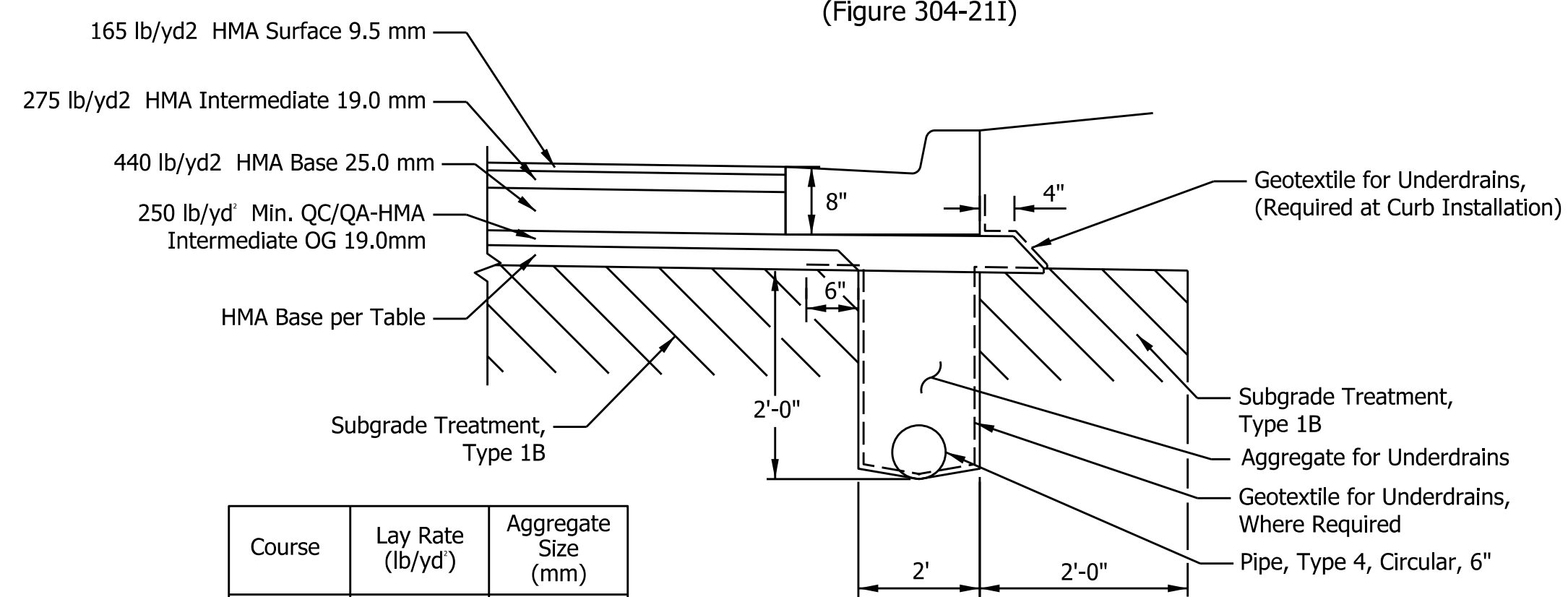
NOT TO SCALE

Sta. 117+00.70 to Sta. 118+13.19 RT.
Sta. 117+00.70 to Sta. 117+53.41 LT.



UNDERDRAIN FOR HMA PAVEMENT WITH FULL-DEPTH HMA SHOULDER

(Figure 304-211)



CONCRETE CURB AND GUTTER SECTION FOR HMA PAVEMENT WITH UNDERDRAIN

(Figure 304-21K)

Course	Lay Rate (lb/yd)	Aggregate Size (mm)
Base	330	19.0
	385	19.0
	440	25.0
	495	25.0

LEGEND

- (K) 165 #/SY QC/QA-HMA, 3, 70, SURFACE, 9.5 mm ON
- 275 #/SY QC/QA-HMA, 3, 70, INTERMEDIATE, 19.0 mm ON
- 330 #/SY QC/QA-HMA, 3, 64, BASE, 19.0 mm ON
- 250 #/SY QC/QA-HMA, 5, 76, INTERMEDIATE OG, 19.0 mm ON
- 330 #/SY QC/QA-HMA, 3, 64, BASE, 19.0 mm ON
- SUBGRADE TREATMENT, TYPE 1B
- (R) 165 #/SY QC/QA-HMA, 3, 70, SURFACE, 9.5 mm ON
- 1.5" SURFACE MILLING, HMA (MIN.)
- (F1) CONCRETE SIDEWALK
- (J2) VAR. DEPTH, COMPACTED AGGREGATE FOR SHOULDER, NO. 53
- (U) 6" UNDERDRAIN
- [Hatched Box] SUBGRADE TREATMENT
- (15) COMBINED CONCRETE CURB & GUTTER, TYPE B
- (26) SODDING (NURSERY)
- (27) SEED MIXTURE, U

RECOMMENDED FOR APPROVAL _____
DESIGN ENGINEER DATE

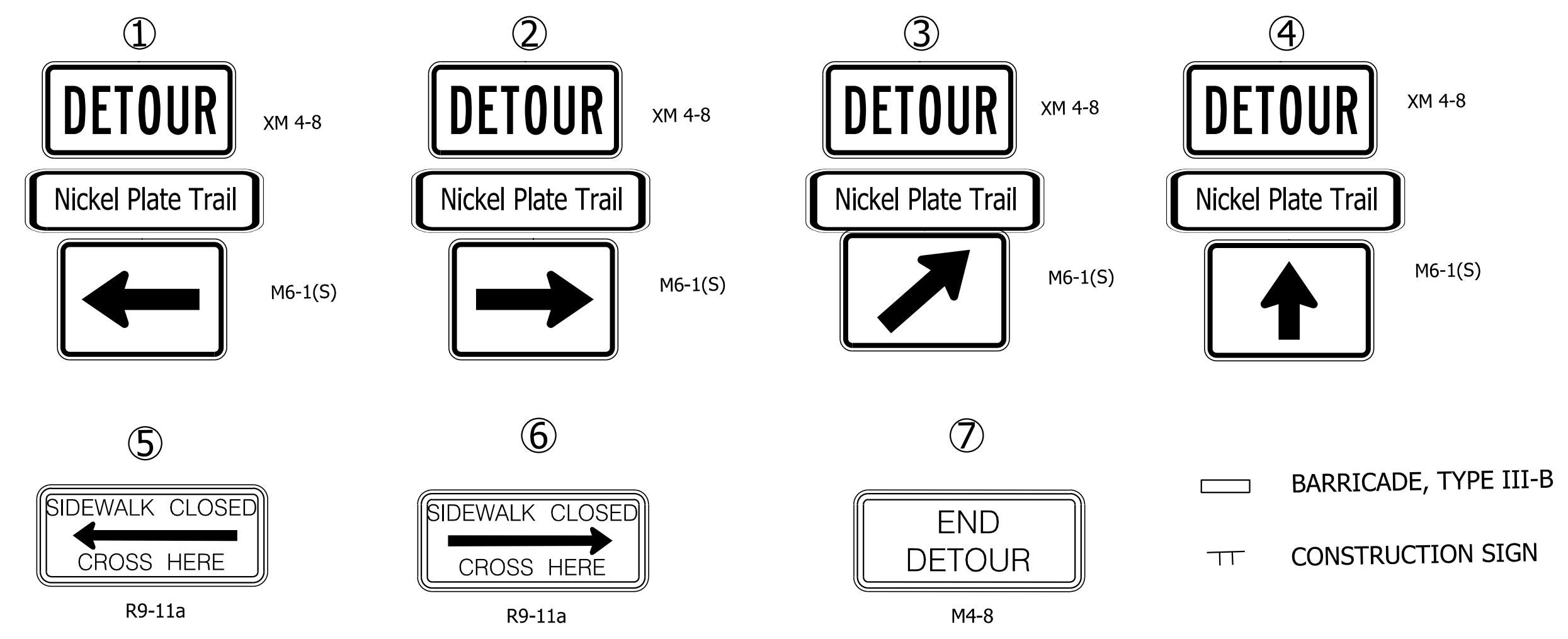
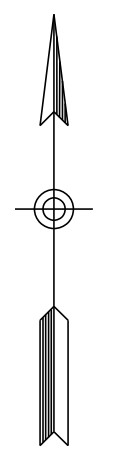
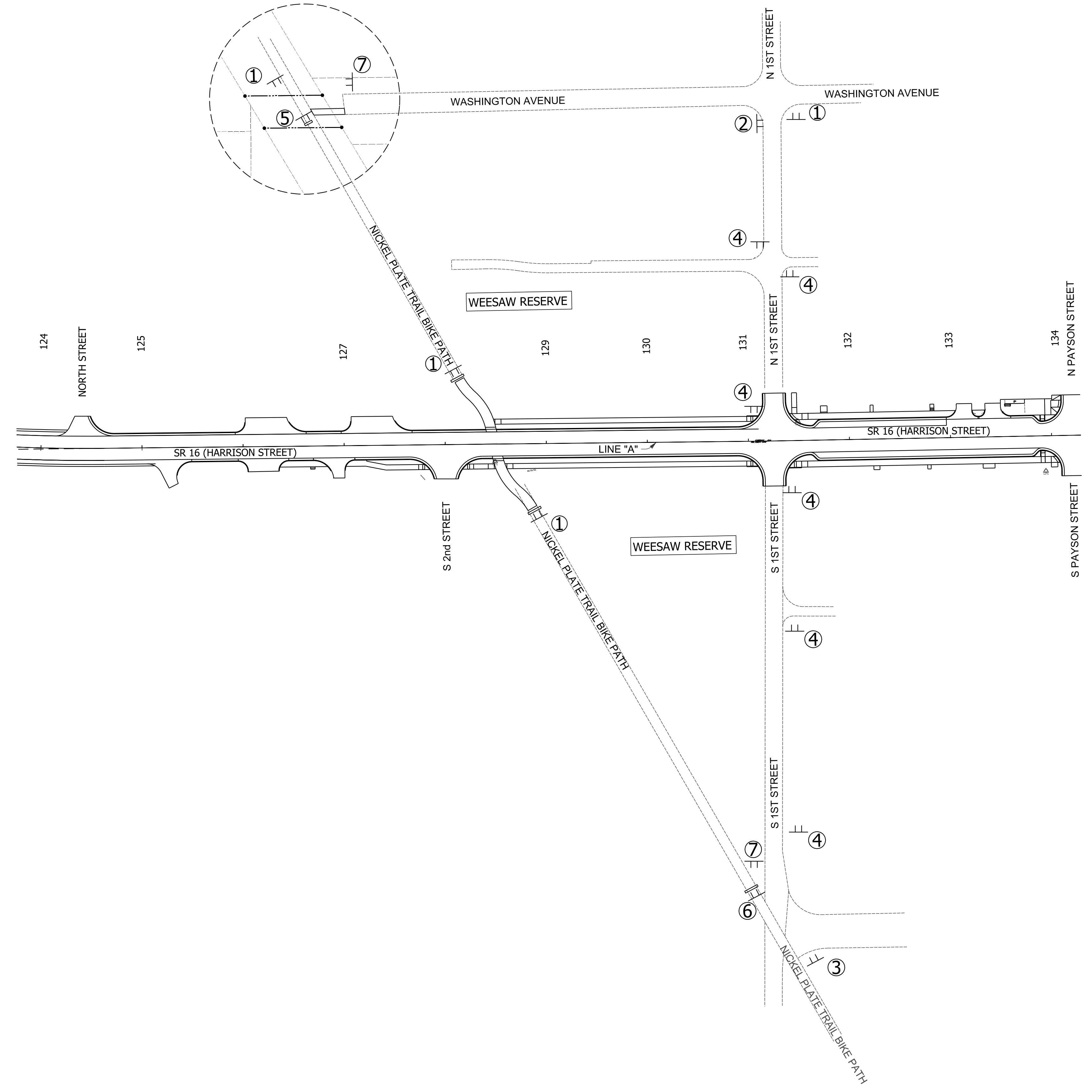
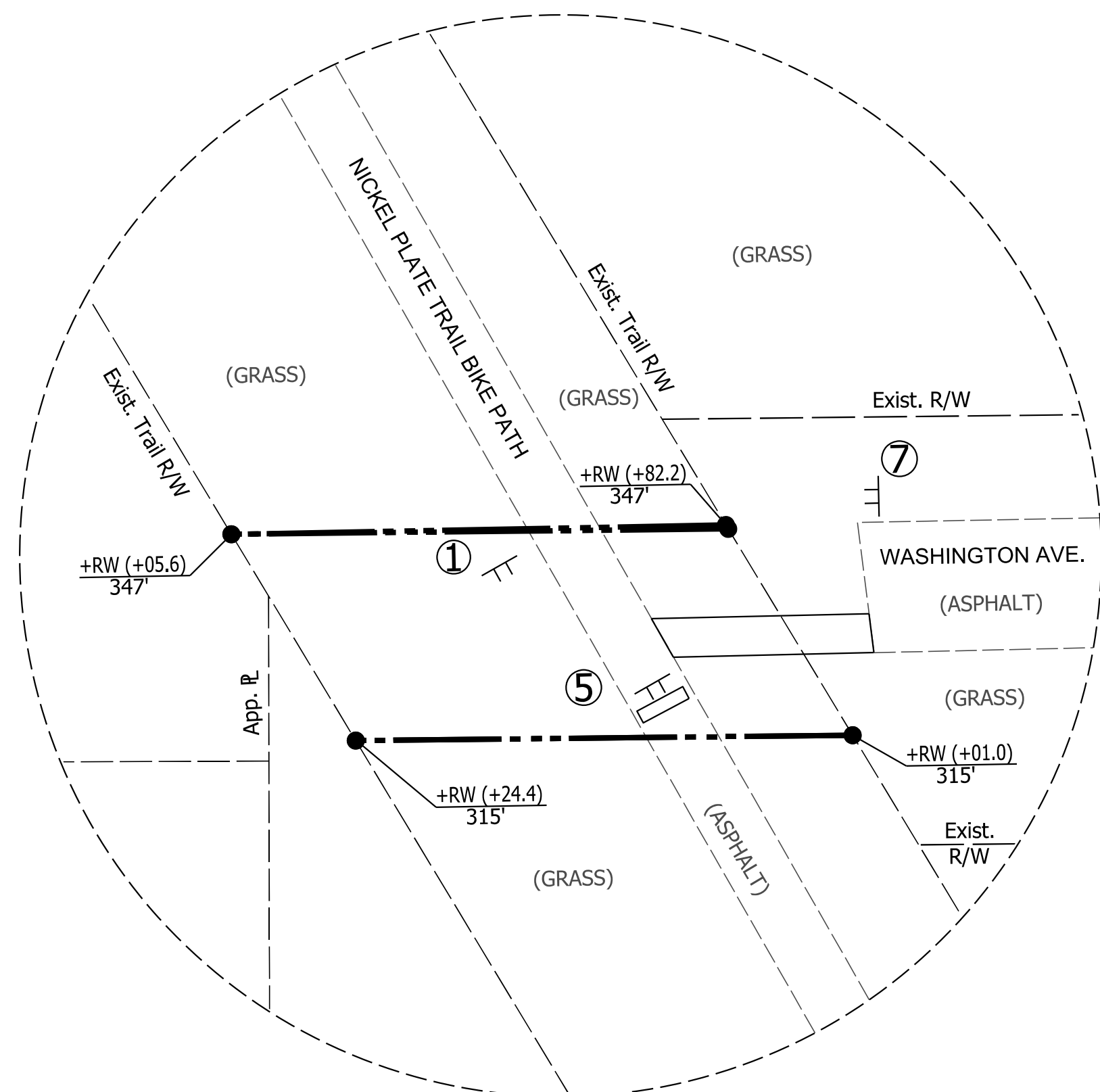
DESIGNED: MJS DRAWN: MJS

CHECKED: JRA CHECKED: JRA

INDIANA DEPARTMENT OF TRANSPORTATION

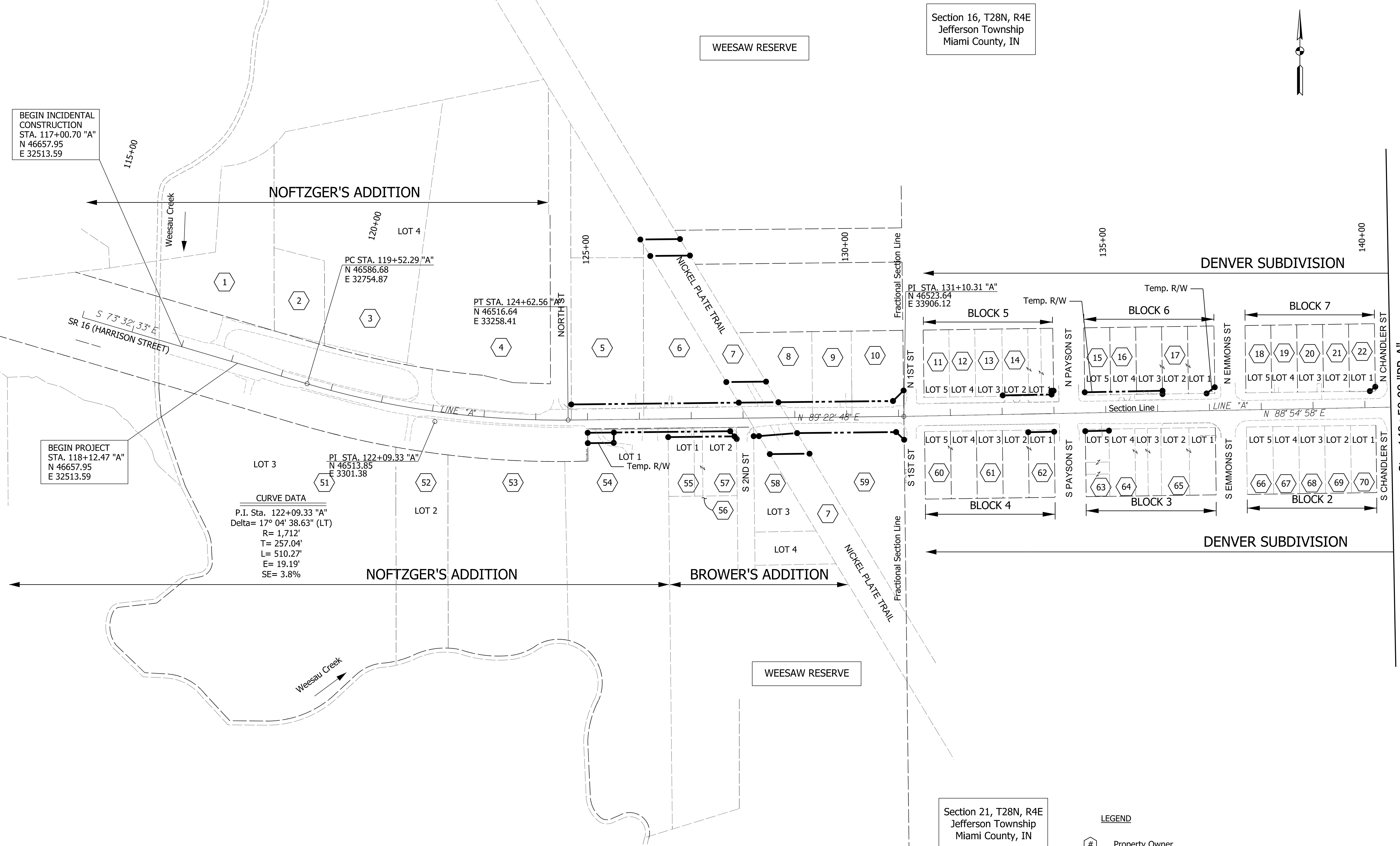
TYPICAL SECTIONS

HORIZONTAL SCALE 1/8" = 1'-0"	BRIDGE FILE N/A	
VERTICAL SCALE	DESIGNATION 1600294	
SURVEY BOOK	DWG. NO. TS-03	SHEET NO. 5 of 137
CONTRACT R-39890	PROJECT 1600294	



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RECOMMENDED FOR APPROVAL _____		INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE		BRIDGE FILE	
DESIGN ENGINEER _____ DATE _____				1" = 60'		N/A	
DESIGNED: MJS	DRAWN: MJS	PEDESTRIAN DETOUR ROUTE (NICKEL PLATE TRAIL)		VERTICAL SCALE		DESIGNATION	
CHECKED: JMM	CHECKED: JMM			N/A		1600294	
				SURVEY BOOK		DWG. NO.	
		N/A		MT-01		6 of 137	
		CONTRACT		PROJECT			
		R-39890		1600294			



BEGIN INCIDENTAL CONSTRUCTION
 STA. 117+00.70 "A"
 N 46657.95
 E 32513.59

BEGIN PROJECT
 STA. 118+12.47 "A"
 N 46657.95
 E 32513.59

CURVE DATA
 P.I. Sta. 122+09.33 "A"
 Delta= 17° 04' 38.63" (LT)
 R= 1,712'
 T= 257.04'
 L= 510.27'
 E= 19.19'
 SE= 3.8%

Section 16, T28N, R4E
 Jefferson Township
 Miami County, IN

Section 21, T28N, R4E
 Jefferson Township
 Miami County, IN

LEGEND
 # Property Owner
 Parcel Number

ALL R/W DESCRIBED FROM LINE "A" EXCEPT AS SHOWN.

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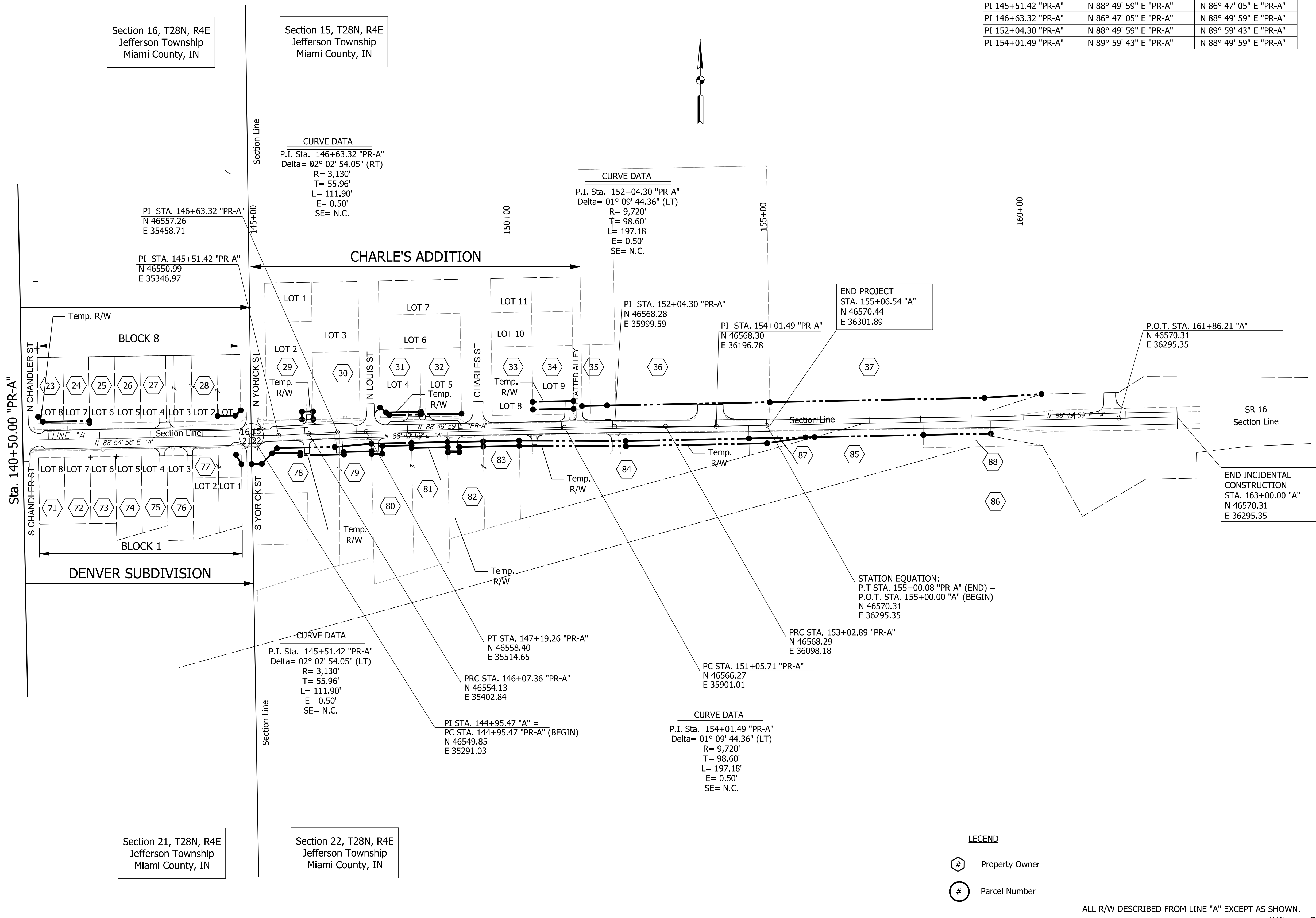
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE	BRIDGE FILE	
			1" = 100'		
DESIGNED: MJS DRAWN: KSC	PLAT NO. 1 LINE "A"		VERTICAL SCALE	DESIGNATION	
CHECKED: JMM CHECKED: JMM			1600294		
			SURVEY BOOK	DWG. NO.	SHEET NO.
			R-39890	PN1-01	7 of 137
			CONTRACT	PROJECT	
				R-39890	1600294

BEARING TABLE

CURVE	BACK	AHEAD
PI 145+51.42 "PR-A"	N 88° 49' 59" E "PR-A"	N 86° 47' 05" E "PR-A"
PI 146+63.32 "PR-A"	N 86° 47' 05" E "PR-A"	N 88° 49' 59" E "PR-A"
PI 152+04.30 "PR-A"	N 88° 49' 59" E "PR-A"	N 89° 59' 43" E "PR-A"
PI 154+01.49 "PR-A"	N 89° 59' 43" E "PR-A"	N 88° 49' 59" E "PR-A"

PLAT NO. 1 PROPERTY OWNER TABLE

Section	Index No.	Owner
*	1	Mavrick, Michael A & Gerri
*	2	Mavrick, Michael A & Gerri
*	3	Raider, Fred A & Mary A
*	4	Raider, Fred A & Mary A
*	5	Fox, Thomas
*	6	Miami County
*	7	Nickel Plate Trail, Inc.
*	8	Hunt, Herbert Walter & Carolyn Sue
*	9	Hostetler, Kevin E & Hayley L
*	10	Kendall, Jason J & Heather M Kendall
16	11	Cole, Wayne
16	12	Imhoof, Max A & Diane H
16	13	Joseph, Johnny R
16	14	Sixbey, Maurice D
16	15	RMK Properties, LLC.
16	16	Robins, Jeffery Scott & Kimberly Sue
16	17	Trigg, Christopher J
16	18	Whiteside, James M & Donna L
16	19	Fuller, Stewart
16	20	Fuller, Durward L & Carrie L
16	21	Galbraith, Bret A
16	22	Hart, Phyllis A
16	23	Musselman, Donald G & Jean A
16	24	Wray, Terry E
16	25	Truex, Noble C
16	26	Truex, Noble C
16	27	Slusser, Wayne & Minnie L
16	28	Trustees Methodist Church Denver
15	29	Ashcraft, Wayne & Gladys V Trustees
15	30	Wright, Michael R & Rebecca S
15	31	Wood, Emerson L Et al
15	32	Cole, Wayne
15	33	Gray, Larry H & Rebecca S
15	34	Robins, Jeff & Rhonda
15	35	Robins, Jeff & Rhonda
15	36	Town Of Denver
15	37	Ceres Farms, Llc
	51	Rodriguez, Rhonda L
*	52	Rodriguez, Rhonda L
*	53	Rodriguez, Rhonda L
*	54	Voorhees, Randall L & Tamara
*	55	Voorhees, Randall L & Tamara
*	56	Brinker, David R
*	57	Voorhees, Tamara Dawn
*	58	Sailors, David Jr & Gollither, Melissa JTWRs
*	59	Burkhardt, Steven E & Judy A
21	60	Vance, Aaron S
21	61	Maple, Michelle L.
21	62	Town Of Denver
21	63	Pattison, Chadd A
21	64	Robins, Richard & Barbara Jane
21	65	United Telephone Co Of Indiana
21	66	Mull, James A & Shirley A Family
21	67	Bapp, Carl And Jane
21	68	Shoemaker, Brent E
21	69	Stone, Shirley & James
21	70	Fox, Thomas R
21	71	See, David W And Sall C
21	72	Maple, Richard A & Bonnie J
21	73	127 East Harrison Street Land Trust
21	74	Fox, Thomas R.
21	75	Juliot, Jeremy B & Lisa M
21	76	Harden, Fredrick Duane & Romona Dawn
21	77	Fox, Thomas R & Judith A Houlihan
22	78	Holland, David L & Amy C
22	79	Engle, Robert V & Christy L
22	80	Malott, Anthony W. & Angela S.
22	81	Malott, Anthony W. & Angela S.
22	82	Cole, Wayne
22	83	Cole, Wayne
22	84	Mosley, Tammy A
22	85	State Of Indiana, Department of Natural Resources
22	86	Yoder, William F
22	87	Unknown
22	88	Unknown



Section 16, T28N, R4E
Jefferson Township
Miami County, IN

Section 15, T28N, R4E
Jefferson Township
Miami County, IN

Section 21, T28N, R4E
Jefferson Township
Miami County, IN

Section 22, T28N, R4E
Jefferson Township
Miami County, IN

LEGEND

⬡ Property Owner

⊙ Parcel Number

ALL R/W DESCRIBED FROM LINE "A" EXCEPT AS SHOWN.
* Weesaw Reserve

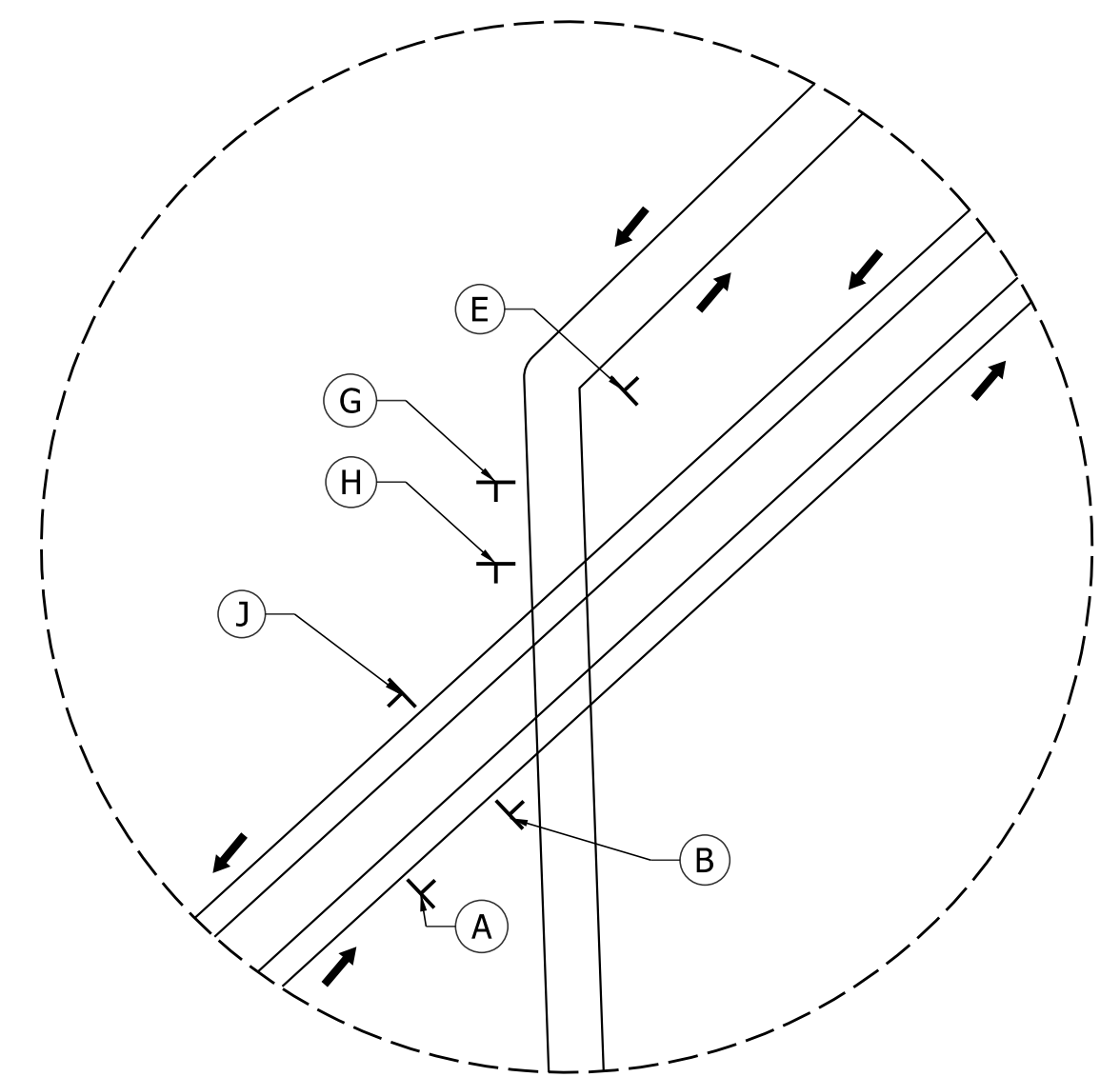
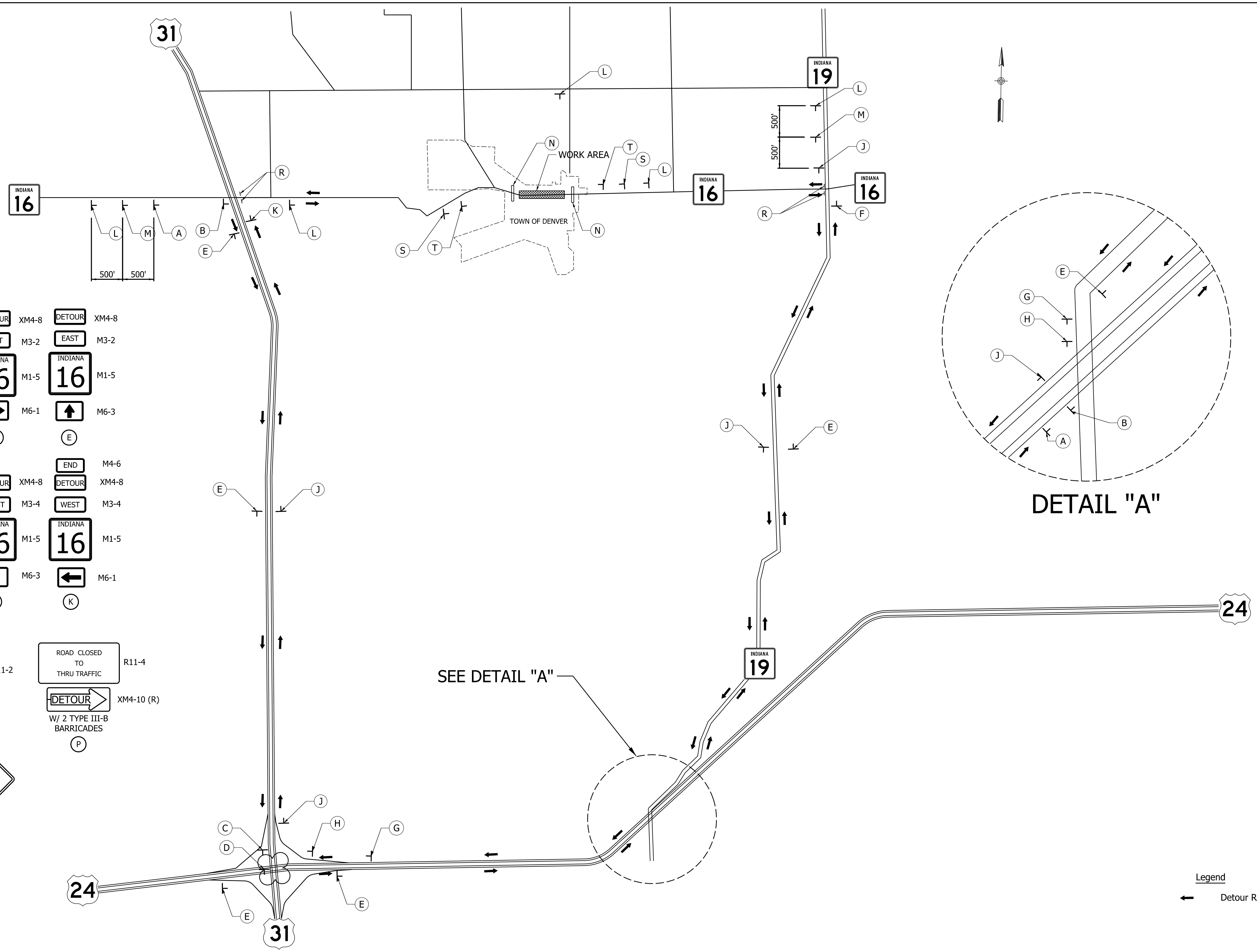
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: MJS	DRAWN: KSC	
CHECKED: JMM	CHECKED: JMM	

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAT NO. 1
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE	
1" = 100'		
VERTICAL SCALE	DESIGNATION	
	1600294	
SURVEY BOOK	DWG. NO.	SHEET NO.
	PN1-02	8 of 137
CONTRACT	PROJECT	
R-39890	1600294	

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Legend

- DETOUR XM4-8
- EAST M3-2
- INDIANA 16 M1-5
- M5-1 (R)
- (A)
- END M4-6
- DETOUR XM4-8
- EAST M3-2
- INDIANA 16 M1-5
- M6-1
- (F)
- DETOUR XM4-8
- EAST M3-2
- INDIANA 16 M1-5
- M5-1 (L)
- (G)
- DETOUR XM4-8
- WEST M3-4
- INDIANA 16 M1-5
- M5-1 (L)
- (H)
- DETOUR XM4-8
- WEST M3-4
- INDIANA 16 M1-5
- M6-1
- (I)
- DETOUR XM4-8
- WEST M3-4
- INDIANA 16 M1-5
- M6-3
- (J)
- DETOUR XM4-8
- WEST M3-4
- INDIANA 16 M1-5
- M6-1
- (K)

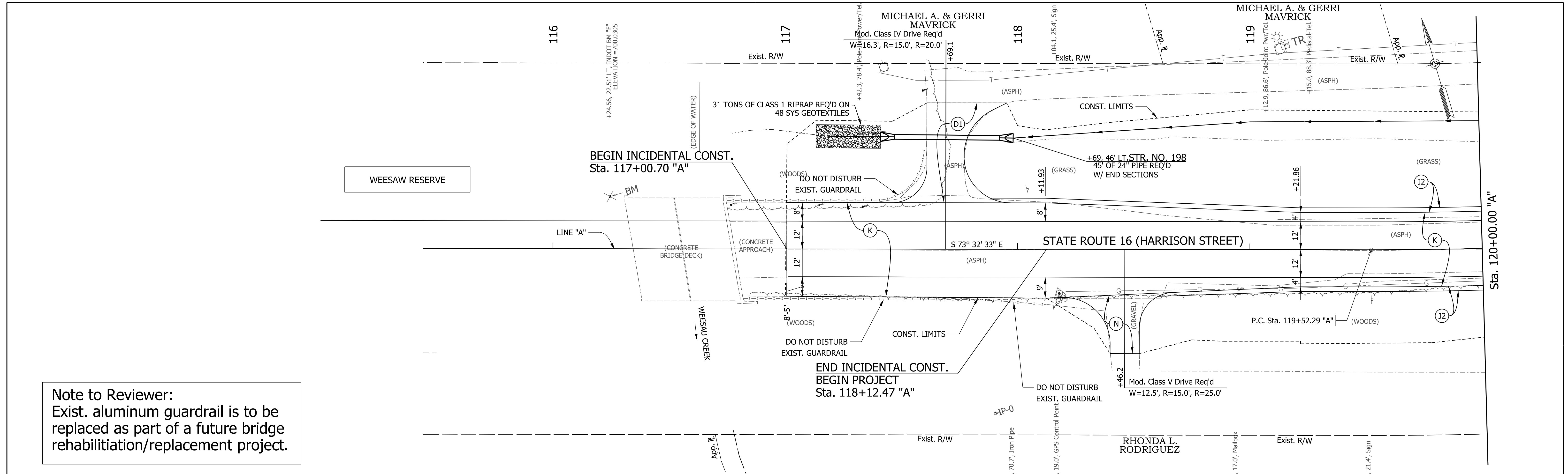
- ROAD CLOSED AHEAD XW20-3 (L)
- DETOUR AHEAD W20-2 (M)
- ROAD CLOSED W/ 2 TYPE III-B BARRICADES R11-2 (N)
- ROAD CLOSED TO THRU TRAFFIC R11-4 (P)
- DETOUR W/ 2 TYPE III-B BARRICADES XM4-10 (R)
- ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY R11-3 (R)
- ROAD CLOSED 1000 FT XW20-3 (S)
- ROAD CLOSED 500 FT XW20-3 (T)

Legend
 Detour Route

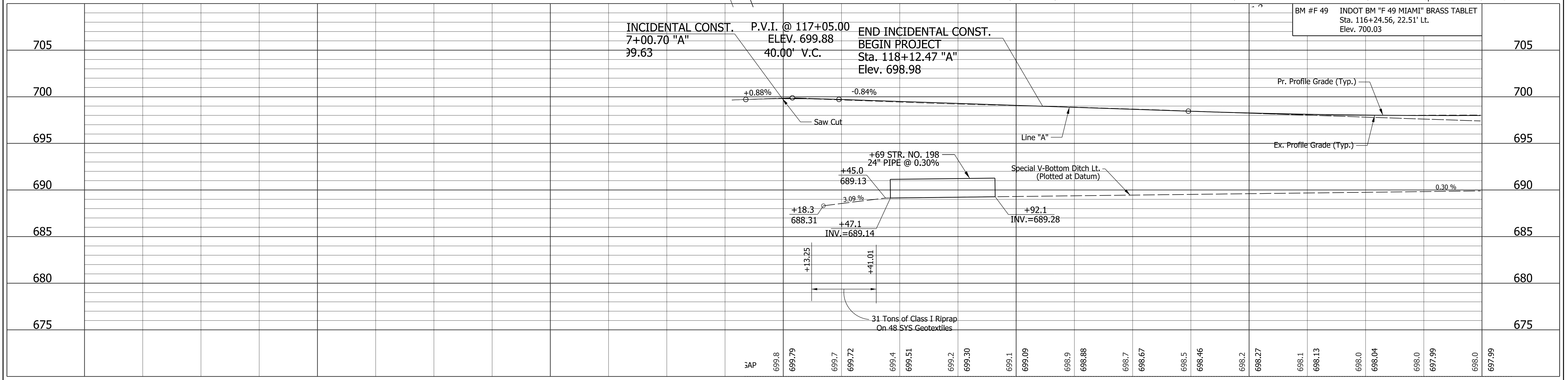
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SEE DETAIL "A"

	RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION DETOUR ROUTE	HORIZONTAL SCALE N.T.S. BRIDGE FILE
	DESIGNED: MJS DRAWN: MJS CHECKED: JRA CHECKED: JRA		VERTICAL SCALE N.T.S. DESIGNATION 1600294
			SURVEY BOOK DWG. NO. SHEET NO. DT-01 9 of 137
			CONTRACT PROJECT R-39890 1600294



Note to Reviewer:
Exist. aluminum guardrail is to be replaced as part of a future bridge rehabilitation/replacement project.



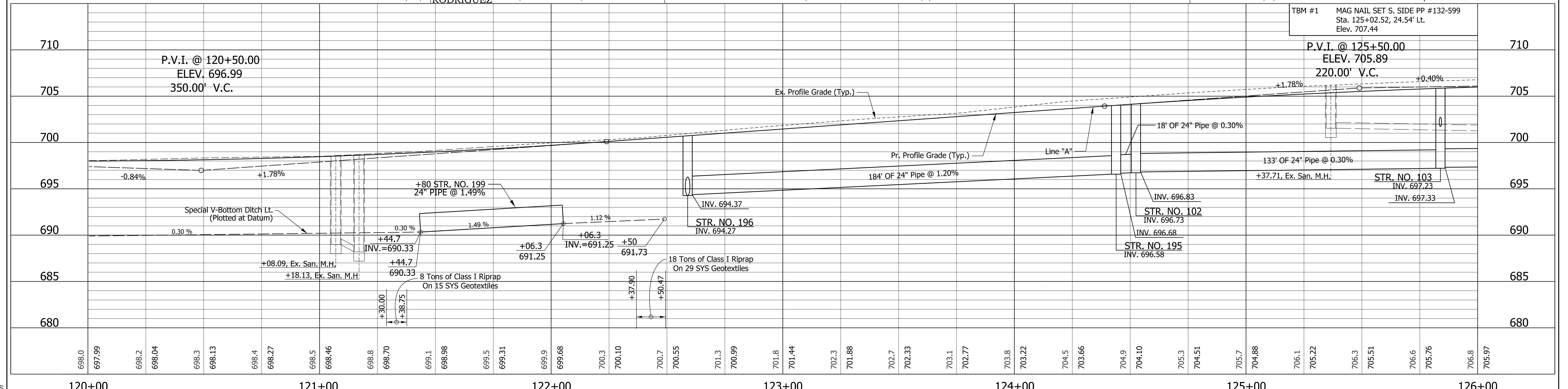
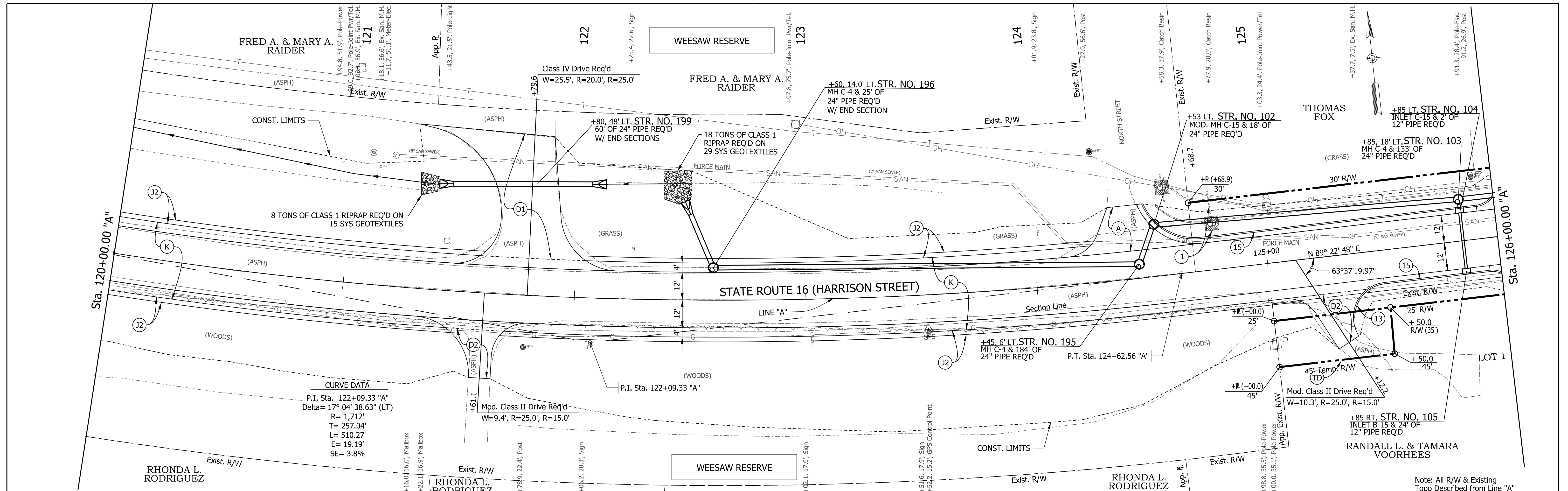
Note: All R/W & Existing Topo Described from Line "A"

LEGEND	
(K) FULL DEPTH HMA	(D1) HMA FOR APPROACHES: 165 #/SY HMA SURFACE TYPE B ON 275 #/SY HMA INTERMEDIATE TYPE B ON 880 #/SY HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II
(A) FULL DEPTH HMA FOR APPROACHES	(C1) 6" PCCP FOR APPROACH ON SUBGRADE TREATMENT TYPE II
(J2) VAR. DEPTH, COMPACTED AGGREGATE FOR SHOULDER, NO. 53	(C2) 9" PCCP FOR APPROACH ON SUBGRADE TREATMENT, TYPE II
(R) HMA FOR RESURFACING 165 #/SY QC/QA-HMA, 3, 70, SURFACE, 9.5 mm ON 1.5" SURFACE MILLING, HMA (MIN.)	(N) FOR APPROACHES: 5 IN. COMPACTED AGGREGATE FOR SURFACE, NO. 53
	(F1) CONCRETE SIDEWALK
	(F2) HMA FOR SIDEWALK:
	(1) REMOVE
	(10) SAW CUT
	(13) CONCRETE CURB
	(15) COMBINED CONCRETE CURB AND GUTTER
	(16) CONCRETE GUTTER
	(26) SODDING (NURSERY)
	(TG) TEMP. RIGHT-OF-WAY FOR GRADING
	(TD) TEMP. RIGHT-OF-WAY FOR DRIVEWAY

117+00	118+00	119+00	120+00
INDIANA DEPARTMENT OF TRANSPORTATION			
PLAN & PROFILE STA. 117+00.70 "A" TO STA. 120+00 "A"			
RECOMMENDED FOR APPROVAL		DESIGN ENGINEER _____ DATE _____	
DESIGNED: MJS	DRAWN: KSC		
CHECKED: JMM	CHECKED: JMM		
SURVEY BOOK		DWG. NO.	SHEET NO.
CONTRACT R-39890		PP-01	10 of 137
		PROJECT 1600294	

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STREET APPROACH REQ'D, LT.
STA. 124+39.9 LINE "A" W=13.0', R=15.0', R=25.0'



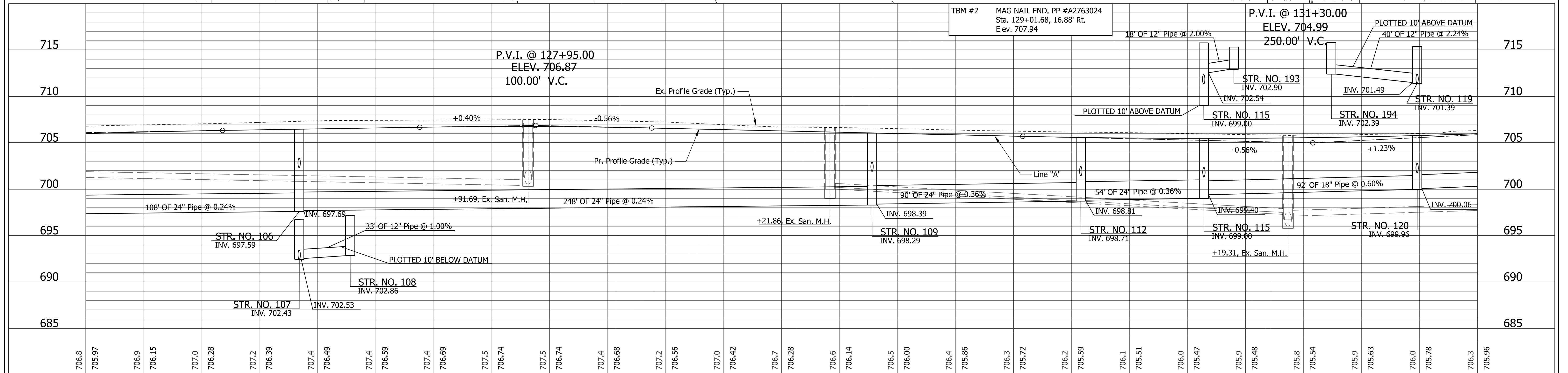
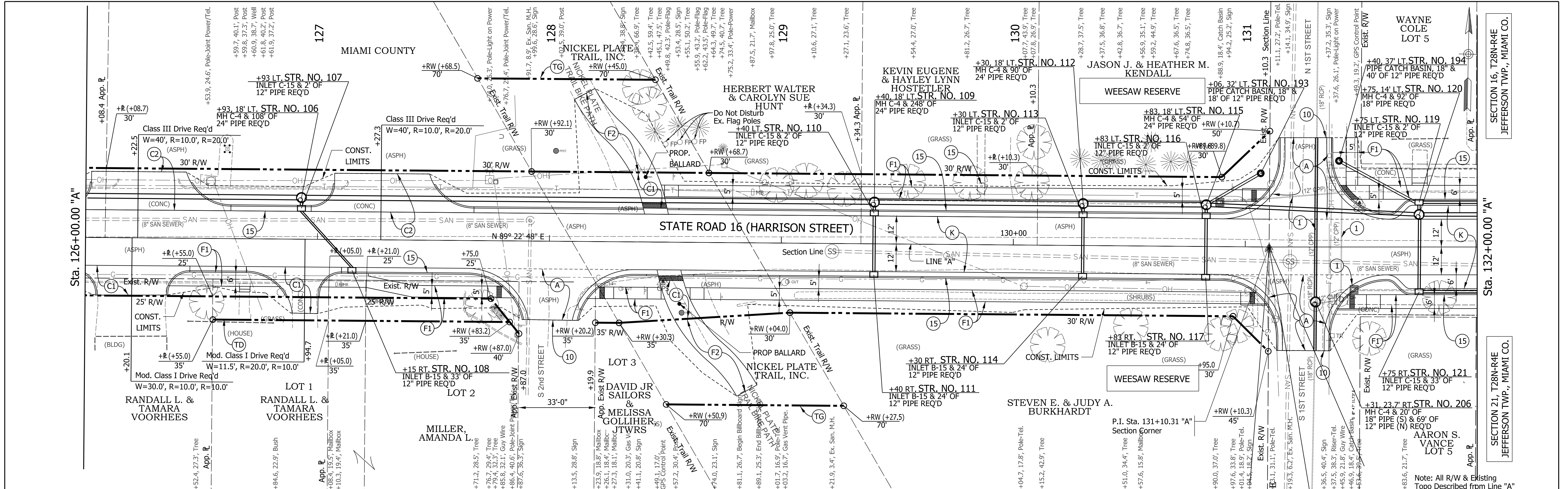
LEGEND (K) FULL DEPTH HMA (A) FULL DEPTH HMA FOR APPROACHES (J2) VAR. DEPTH, COMPACTED AGGREGATE FOR SHOULDER, NO. 53 (R) HMA FOR RESURFACING 165 #/SY QC/QA-HMA, 3, 70, SURFACE, 9.5 mm ON 1.5" SURFACE MILLING, HMA (MIN.)	(D1) HMA FOR APPROACHES: 165 #/SY HMA SURFACE TYPE B ON 275 #/SY HMA INTERMEDIATE TYPE B ON 880 #/SY HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II (D2) HMA FOR APPROACHES: 165 #/SY HMA SURFACE TYPE B ON 385 #/SY HMA INTERMEDIATE TYPE B ON SUBGRADE TREATMENT TYPE II	(C1) 6" PCCP FOR APPROACH ON SUBGRADE TREATMENT TYPE II (C2) 9" PCCP FOR APPROACH ON SUBGRADE TREATMENT, TYPE II (N) FOR APPROACHES: 5 IN. COMPACTED AGGREGATE FOR SURFACE, NO. 53	(F1) CONCRETE SIDEWALK (F2) HMA FOR SIDEWALK: (1) REMOVE (10) SAW CUT (13) CONCRETE CURB	(15) COMBINED CONCRETE CURB AND GUTTER (16) CONCRETE GUTTER (26) SODDING (NURSERY) (TG) TEMP. RIGHT-OF-WAY FOR GRADING (TD) TEMP. RIGHT-OF-WAY FOR DRIVEWAY	RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____	HORIZONTAL SCALE 1" = 20' VERTICAL SCALE 1" = 5' BRIDGE FILE N/A DESIGNATION 1600294
					DESIGNED: MJS CHECKED: JMM	

User: sm/ltm
 1/30/2020
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STREET APPROACH REQ'D, RT.
STA. 128+00.3 LINE "A" W=19.0', R=25.0', R=25.0'

STREET APPROACH REQ'D, LT.
STA. 131+26.2 LINE "A" W=18.0', R=25.0', R=25.0'

STREET APPROACH REQ'D, RT.
STA. 131+25.0 LINE "A" W=18.0', R=25.0', R=25.0'

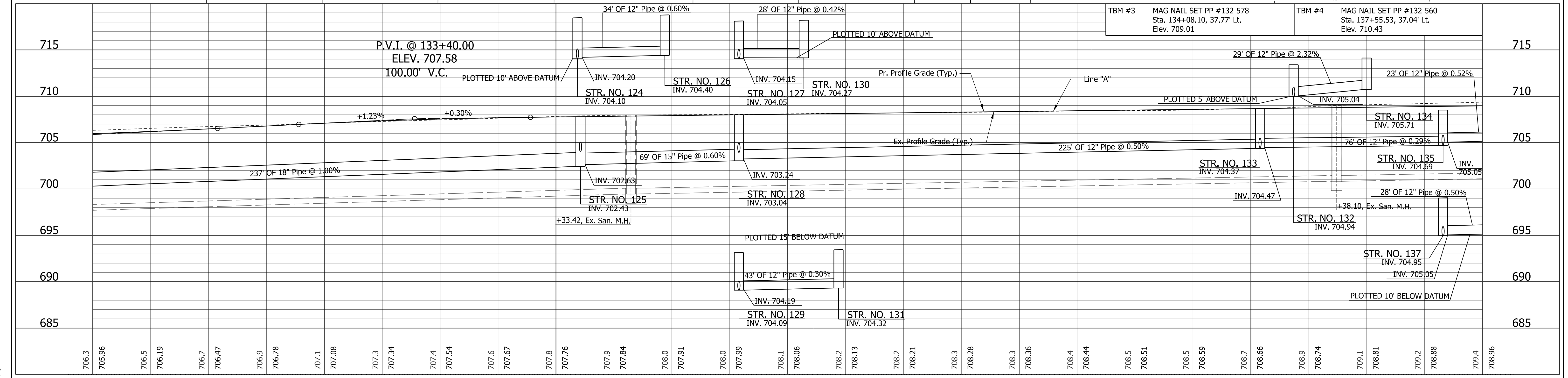
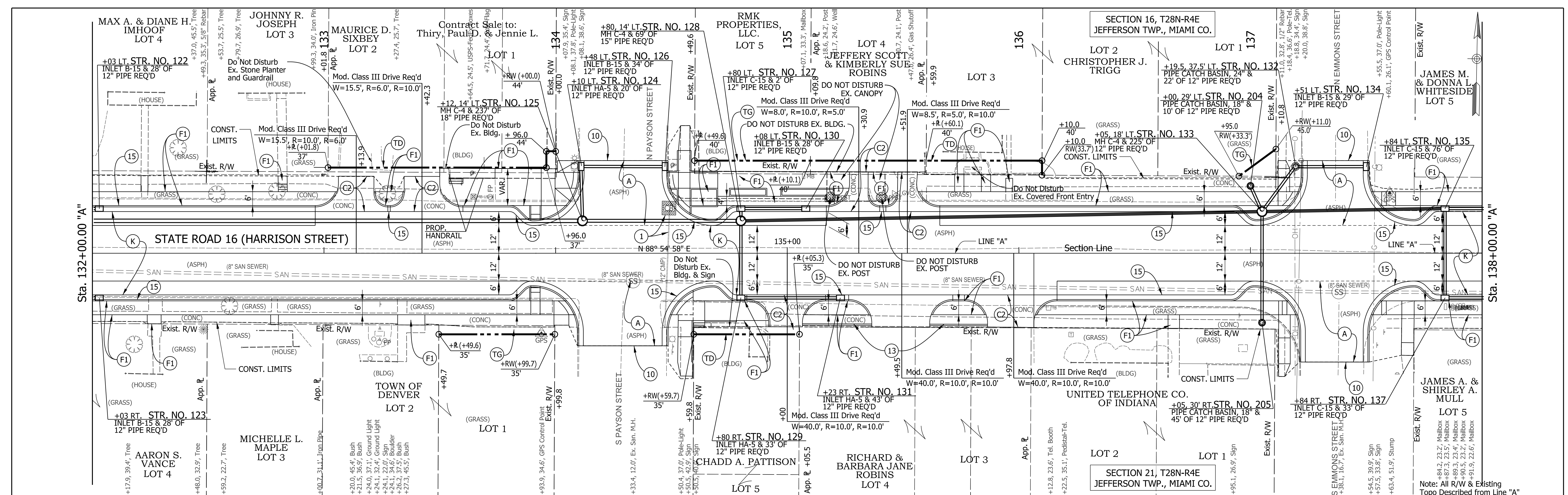


<p>LEGEND</p> <p>(K) FULL DEPTH HMA</p> <p>(A) FULL DEPTH HMA FOR APPROACHES</p> <p>(J2) VAR. DEPTH, COMPACTED AGGREGATE FOR SHOULDER, NO. 53</p> <p>(R) HMA FOR RESURFACING 165 #/SY QC/QA-HMA, 3, 70, SURFACE, 9.5 mm ON 1.5" SURFACE MILLING, HMA (MIN.)</p> <p>(D1) HMA FOR APPROACHES: 165 #/SY HMA SURFACE TYPE B ON 275 #/SY HMA INTERMEDIATE TYPE B ON 880 #/SY HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II</p> <p>(D2) HMA FOR APPROACHES: 165 #/SY HMA SURFACE TYPE B ON 385 #/SY HMA INTERMEDIATE TYPE B ON SUBGRADE TREATMENT TYPE II</p> <p>(C1) 6" PCCP FOR APPROACH ON SUBGRADE TREATMENT TYPE II</p> <p>(C2) 9" PCCP FOR APPROACH ON SUBGRADE TREATMENT, TYPE II</p> <p>(N) FOR APPROACHES: 5 IN. COMPACTED AGGREGATE FOR SURFACE, NO. 53</p> <p>(F1) CONCRETE SIDEWALK</p> <p>(F2) HMA FOR SIDEWALK:</p> <p>(1) REMOVE</p> <p>(10) SAW CUT</p> <p>(13) CONCRETE CURB</p> <p>(15) COMBINED CONCRETE CURB AND GUTTER</p> <p>(16) CONCRETE GUTTER</p> <p>(26) SODDING (NURSERY)</p> <p>(TG) TEMP. RIGHT-OF-WAY FOR GRADING</p> <p>(TD) TEMP. RIGHT-OF-WAY FOR DRIVEWAY</p>	<p>RECOMMENDED FOR APPROVAL</p> <p>DESIGNED: MJS</p> <p>CHECKED: JMM</p> <p>DRAWN: KSC</p> <p>CHECKED: JMM</p> <p>DATE</p>	<p>INDIANA DEPARTMENT OF TRANSPORTATION</p> <p>PLAN & PROFILE</p> <p>STA. 126+00 "A" TO STA. 132+00 "A"</p>	<p>HORIZONTAL SCALE 1" = 20'</p> <p>VERTICAL SCALE 1" = 5'</p> <p>SURVEY BOOK</p> <p>CONTRACT R-39890</p> <p>BRIDGE FILE N/A</p> <p>DESIGNATION 1600294</p> <p>DWG. NO. PP-03</p> <p>SHEET NO. 12 of 137</p> <p>PROJECT 1600294</p>
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STREET APPROACH REQ'D, LT. STA. 134+29.2 LINE "A" W=34.0', R=20.0', R=20.0'
 STREET APPROACH REQ'D, RT. STA. 134+29.0 LINE "A" W=34.0', R=20.0', R=20.0'

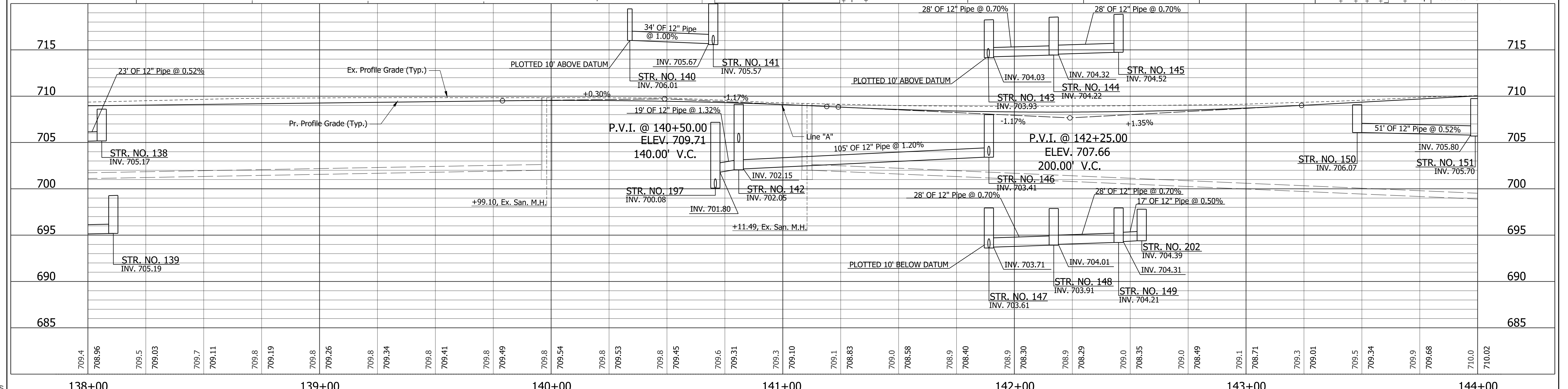
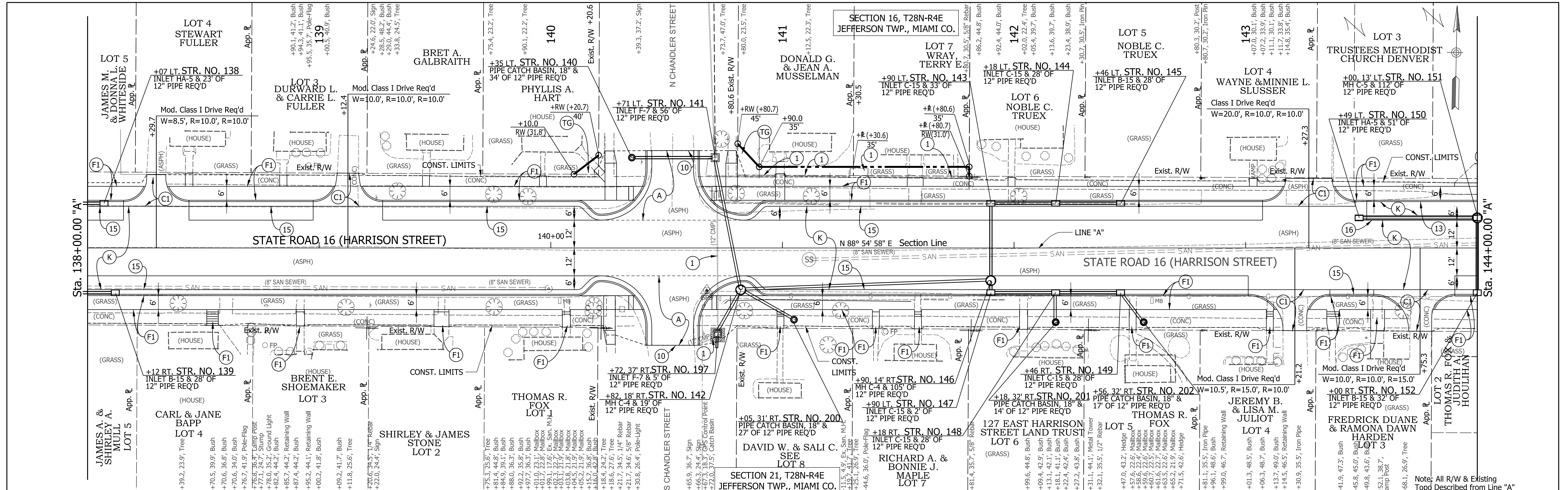
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 STREET APPROACH REQ'D, RT. STA. 137+36.2 LINE "A" W=25.0', R=20.0', R=20.0'



<p>LEGEND</p> <p>(K) FULL DEPTH HMA FOR APPROACHES</p> <p>(A) FULL DEPTH HMA FOR APPROACHES</p> <p>(J2) VAR. DEPTH, COMPACTED AGGREGATE FOR SHOULDER, NO. 53</p> <p>(R) HMA FOR RESURFACING 165 #/SY QC/QA-HMA, 3, 70, SURFACE, 9.5 mm ON 1.5" SURFACE MILLING, HMA (MIN.)</p> <p>(D1) HMA FOR APPROACHES: 165 #/SY HMA SURFACE TYPE B ON 275 #/SY HMA INTERMEDIATE TYPE B ON 880 #/SY HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II</p> <p>(D2) HMA FOR APPROACHES: 165 #/SY HMA SURFACE TYPE B ON 385 #/SY HMA INTERMEDIATE TYPE B ON SUBGRADE TREATMENT TYPE II</p> <p>(C1) 6" PCPP FOR APPROACH ON SUBGRADE TREATMENT TYPE II</p> <p>(C2) 9" PCPP FOR APPROACH ON SUBGRADE TREATMENT, TYPE II</p> <p>(N) FOR APPROACHES: 5 IN. COMPACTED AGGREGATE FOR SURFACE, NO. 53</p> <p>(F1) CONCRETE SIDEWALK</p> <p>(F2) HMA FOR SIDEWALK:</p> <p>(1) REMOVE</p> <p>(10) SAW CUT</p> <p>(13) CONCRETE CURB</p> <p>(15) COMBINED CONCRETE CURB AND GUTTER</p> <p>(16) CONCRETE GUTTER</p> <p>(26) SODDING (NURSERY)</p> <p>(TG) TEMP. RIGHT-OF-WAY FOR GRADING</p> <p>(TD) TEMP. RIGHT-OF-WAY FOR DRIVEWAY</p>	<p>RECOMMENDED FOR APPROVAL _____</p> <p>DESIGNED: MJS DRAWN: KSC</p> <p>CHECKED: JMM CHECKED: JMM</p>	<p>INDIANA</p> <p>DEPARTMENT OF TRANSPORTATION</p> <p>PLAN & PROFILE</p> <p>STA. 132+00 "A" TO STA. 138+00 "A"</p>	<table border="1"> <tr> <td>HORIZONTAL SCALE</td> <td>BRIDGE FILE</td> </tr> <tr> <td>1" = 20'</td> <td>N/A</td> </tr> <tr> <td>VERTICAL SCALE</td> <td>DESIGNATION</td> </tr> <tr> <td>1" = 5'</td> <td>1600294</td> </tr> <tr> <td>SURVEY BOOK</td> <td>DWG. NO.</td> <td>SHEET NO.</td> </tr> <tr> <td></td> <td>PP-04</td> <td>13 of 137</td> </tr> <tr> <td>CONTRACT</td> <td>R-39890</td> <td>PROJECT</td> </tr> <tr> <td></td> <td></td> <td>1600294</td> </tr> </table>	HORIZONTAL SCALE	BRIDGE FILE	1" = 20'	N/A	VERTICAL SCALE	DESIGNATION	1" = 5'	1600294	SURVEY BOOK	DWG. NO.	SHEET NO.		PP-04	13 of 137	CONTRACT	R-39890	PROJECT			1600294
HORIZONTAL SCALE	BRIDGE FILE																						
1" = 20'	N/A																						
VERTICAL SCALE	DESIGNATION																						
1" = 5'	1600294																						
SURVEY BOOK	DWG. NO.	SHEET NO.																					
	PP-04	13 of 137																					
CONTRACT	R-39890	PROJECT																					
		1600294																					

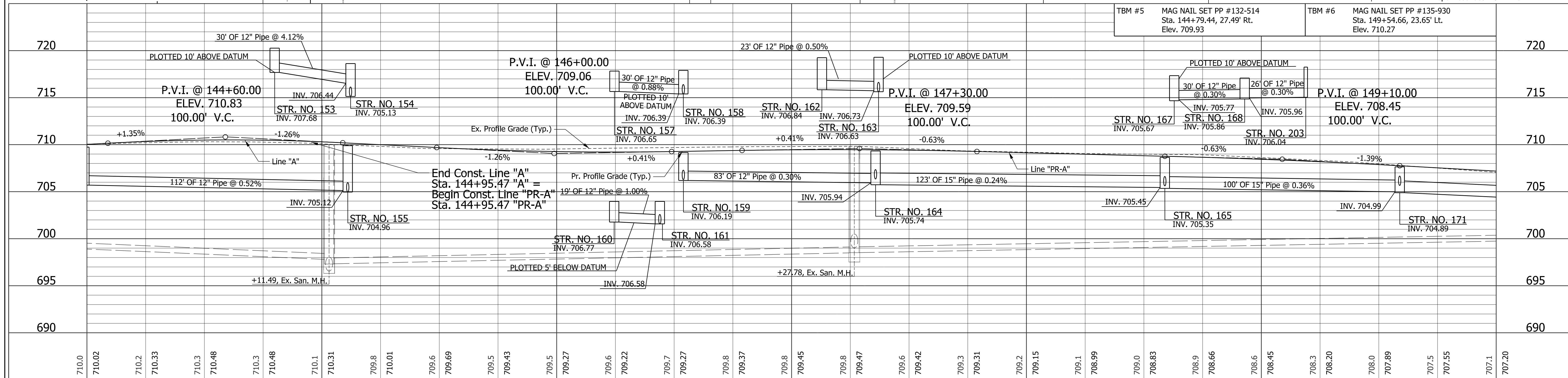
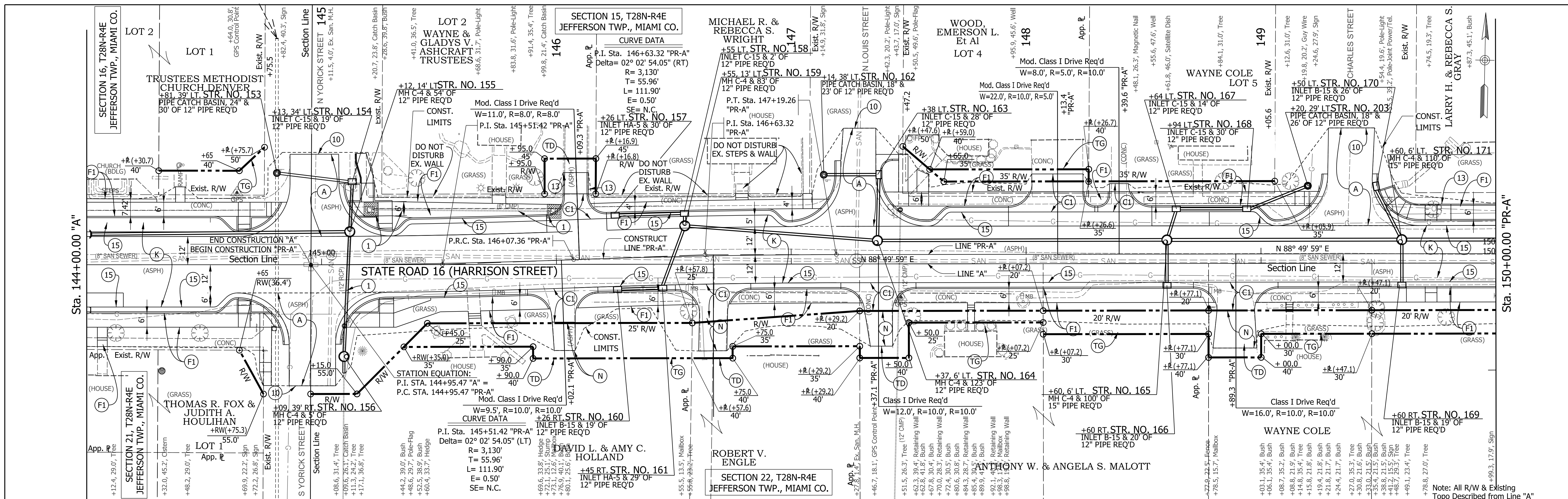
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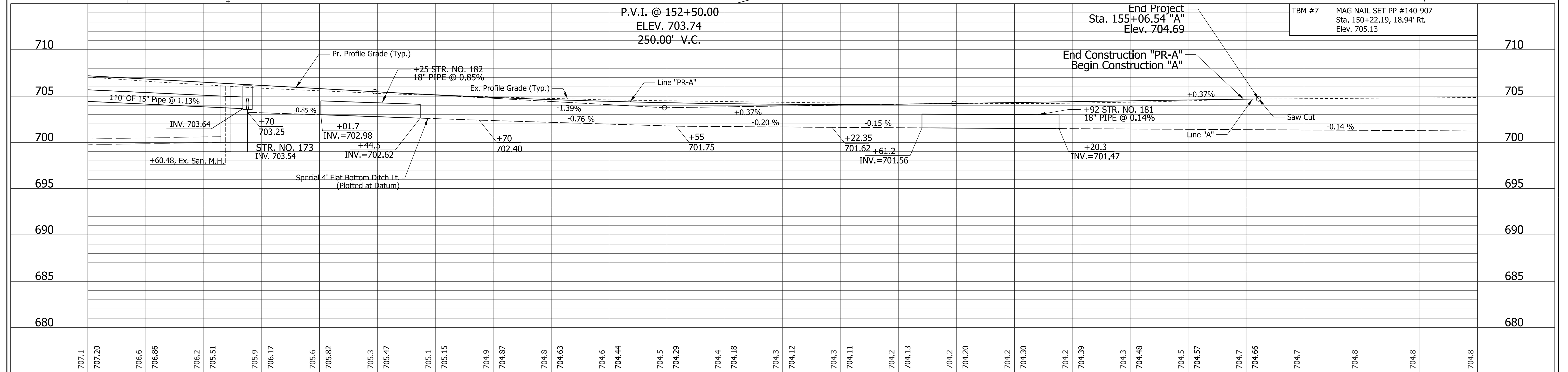
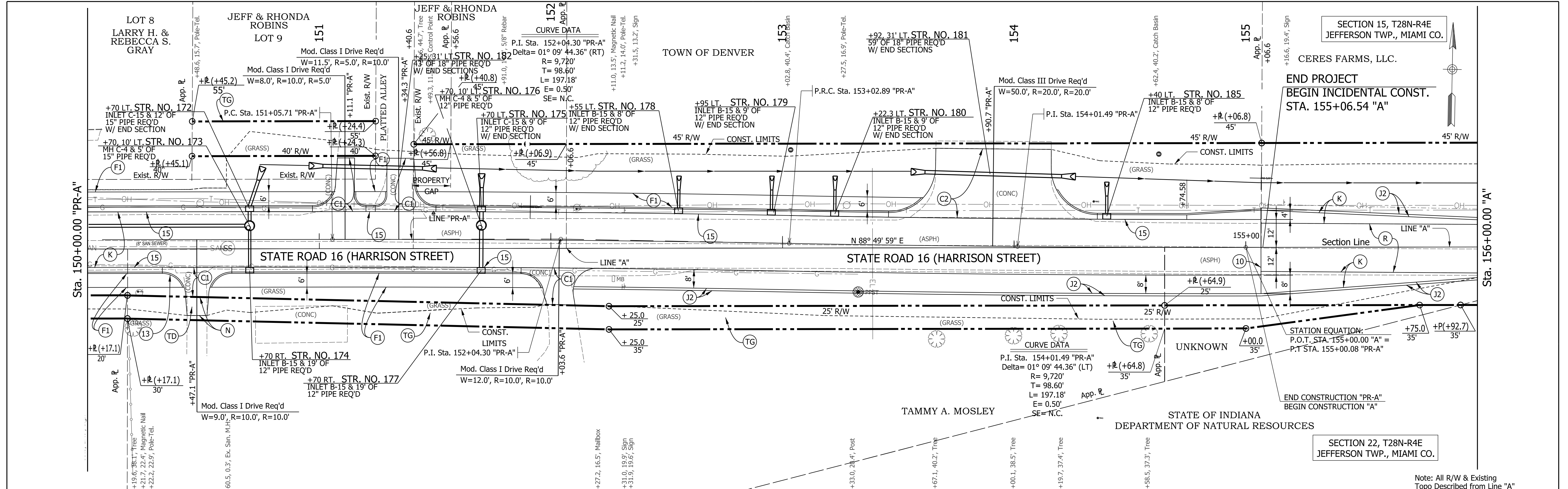
<p>LEGEND</p> <p>(K) FULL DEPTH HMA</p> <p>(A) FULL DEPTH HMA FOR APPROACHES</p> <p>(J2) VAR. DEPTH, COMPACTED AGGREGATE FOR SHOULDER, NO. 53</p> <p>(R) HMA FOR RESURFACING 165 #/SY QC/QA-HMA, 3, 70, SURFACE, 9.5 mm ON 1.5" SURFACE MILLING, HMA (MIN.)</p> <p>(D1) HMA FOR APPROACHES: 165 #/SY HMA SURFACE TYPE B ON 275 #/SY HMA INTERMEDIATE TYPE B ON 880 #/SY HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II</p> <p>(D2) HMA FOR APPROACHES: 165 #/SY HMA SURFACE TYPE B ON 385 #/SY HMA INTERMEDIATE TYPE B ON SUBGRADE TREATMENT TYPE II</p> <p>(C1) 6" PCPP FOR APPROACH ON SUBGRADE TREATMENT TYPE II</p> <p>(C2) 9" PCPP FOR APPROACH ON SUBGRADE TREATMENT, TYPE II</p> <p>(N) FOR APPROACHES: 5 IN. COMPACTED AGGREGATE FOR SURFACE, NO. 53</p> <p>(F1) CONCRETE SIDEWALK</p> <p>(F2) HMA FOR SIDEWALK:</p> <p>(1) REMOVE</p> <p>(10) SAW CUT</p> <p>(13) CONCRETE CURB</p> <p>(15) COMBINED CONCRETE CURB AND GUTTER</p> <p>(16) CONCRETE GUTTER</p> <p>(26) SODDING (NURSERY)</p> <p>(TG) TEMP. RIGHT-OF-WAY FOR GRADING</p> <p>(TD) TEMP. RIGHT-OF-WAY FOR DRIVEWAY</p>	<p>RECOMMENDED FOR APPROVAL</p> <p>DESIGNED: MJS</p> <p>CHECKED: JMM</p> <p>DESIGN ENGINEER</p> <p>DRAWN: KSC</p> <p>CHECKED: JMM</p>	<p>INDIANA DEPARTMENT OF TRANSPORTATION</p> <p>PLAN & PROFILE</p> <p>STA. 138+00 "A" TO STA. 144+00 "A"</p>	<p>HORIZONTAL SCALE 1" = 20'</p> <p>VERTICAL SCALE 1" = 5'</p> <p>SURVEY BOOK</p> <p>CONTRACT R-39890</p> <p>BRIDGE FILE N/A</p> <p>DESIGNATION 1600294</p> <p>DWG. NO. PP-05</p> <p>SHEET NO. 14 of 137</p> <p>PROJECT 1600294</p>
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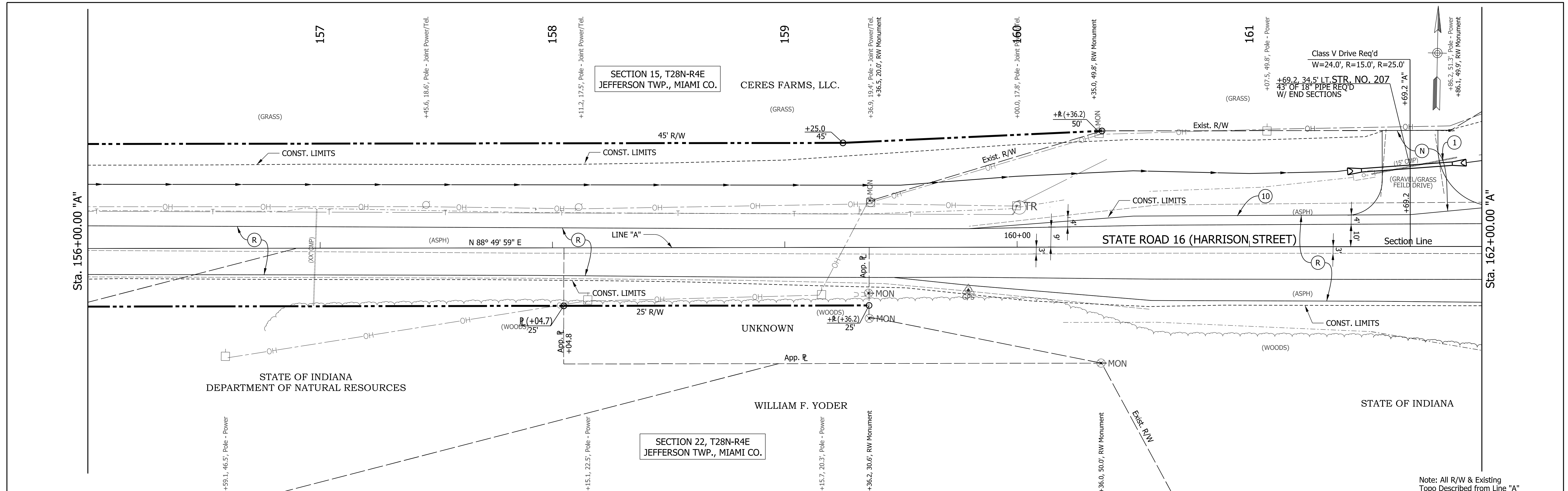
<p>LEGEND</p> <p>(K) FULL DEPTH HMA FOR APPROACHES</p> <p>(A) FULL DEPTH HMA FOR APPROACHES</p> <p>(J2) VAR. DEPTH, COMPACTED AGGREGATE FOR SHOULDER, NO. 53</p> <p>(R) HMA FOR RESURFACING 165 #/SY QC/QA-HMA, 3, 70, SURFACE, 9.5 mm ON 1.5" SURFACE MILLING, HMA (MIN.)</p> <p>(D1) HMA FOR APPROACHES: 165 #/SY HMA SURFACE TYPE B ON 275 #/SY HMA INTERMEDIATE TYPE B ON 880 #/SY HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II</p> <p>(D2) HMA FOR APPROACHES: 165 #/SY HMA SURFACE TYPE B ON 385 #/SY HMA INTERMEDIATE TYPE B ON SUBGRADE TREATMENT TYPE II</p> <p>(C1) 6" PCPP FOR APPROACH ON SUBGRADE TREATMENT TYPE II</p> <p>(C2) 9" PCPP FOR APPROACH ON SUBGRADE TREATMENT, TYPE II</p> <p>(N) FOR APPROACHES: 5 IN. COMPACTED AGGREGATE FOR SURFACE, NO. 53</p> <p>(F1) CONCRETE SIDEWALK</p> <p>(F2) HMA FOR SIDEWALK:</p> <p>(1) REMOVE</p> <p>(10) SAW CUT</p> <p>(13) CONCRETE CURB</p> <p>(15) COMBINED CONCRETE CURB AND GUTTER</p> <p>(16) CONCRETE GUTTER</p> <p>(26) SODDING (NURSERY)</p> <p>(TG) TEMP. RIGHT-OF-WAY FOR GRADING</p> <p>(TD) TEMP. RIGHT-OF-WAY FOR DRIVEWAY</p>	<p>RECOMMENDED FOR APPROVAL</p> <p>DESIGNED: MJS</p> <p>CHECKED: JMM</p> <p>DATE</p> <p>DRAWN: KSC</p> <p>CHECKED: JMM</p>	<p>INDIANA DEPARTMENT OF TRANSPORTATION</p> <p>PLAN & PROFILE</p> <p>STA. 144+00 "A" TO STA. 150+00 "PR-A"</p>	<p>HORIZONTAL SCALE 1" = 20'</p> <p>VERTICAL SCALE 1" = 5'</p> <p>SURVEY BOOK</p> <p>CONTRACT R-39890</p> <p>BRIDGE FILE N/A</p> <p>DESIGNATION 1600294</p> <p>DWG. NO. PP-06</p> <p>SHEET NO. 15 of 137</p> <p>PROJECT 1600294</p>
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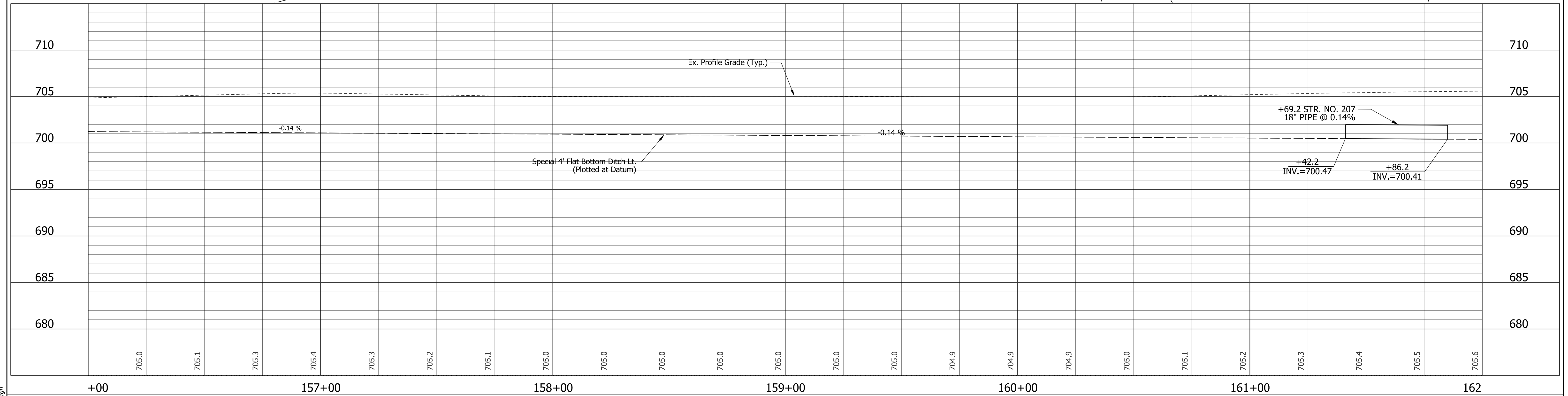


<p>LEGEND</p> <p>(K) FULL DEPTH HMA FOR APPROACHES</p> <p>(A) FULL DEPTH HMA FOR APPROACHES</p> <p>(J2) VAR. DEPTH, COMPACTED AGGREGATE FOR SHOULDER, NO. 53</p> <p>(R) HMA FOR RESURFACING 165 #/SY QC/QA-HMA, 3, 70, SURFACE, 9.5 mm ON 1.5" SURFACE MILLING, HMA (MIN.)</p> <p>(D1) HMA FOR APPROACHES: 165 #/SY HMA SURFACE TYPE B ON 275 #/SY HMA INTERMEDIATE TYPE B ON 880 #/SY HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II</p> <p>(D2) HMA FOR APPROACHES: 165 #/SY HMA SURFACE TYPE B ON 385 #/SY HMA INTERMEDIATE TYPE B ON SUBGRADE TREATMENT TYPE II</p> <p>(C1) 6" PCPP FOR APPROACH ON SUBGRADE TREATMENT TYPE II</p> <p>(C2) 9" PCPP FOR APPROACH ON SUBGRADE TREATMENT, TYPE II</p> <p>(N) FOR APPROACHES: 5 IN. COMPACTED AGGREGATE FOR SURFACE, NO. 53</p> <p>(F1) CONCRETE SIDEWALK</p> <p>(F2) HMA FOR SIDEWALK:</p> <p>(1) REMOVE</p> <p>(10) SAW CUT</p> <p>(13) CONCRETE CURB</p> <p>(15) COMBINED CONCRETE CURB AND GUTTER</p> <p>(16) CONCRETE GUTTER</p> <p>(26) SODDING (NURSERY)</p> <p>(TG) TEMP. RIGHT-OF-WAY FOR GRADING</p> <p>(TD) TEMP. RIGHT-OF-WAY FOR DRIVEWAY</p>	<p>RECOMMENDED FOR APPROVAL _____</p> <p>DESIGN ENGINEER _____ DATE _____</p> <p>DESIGNED: MJS DRAWN: KSC</p> <p>CHECKED: JMM CHECKED: JMM</p>	<p style="text-align: center;">INDIANA DEPARTMENT OF TRANSPORTATION</p> <p style="text-align: center;">PLAN & PROFILE STA. 150+00 "PR-A" TO STA. 155+06.54 "A"</p>	<table border="1"> <tr> <td>HORIZONTAL SCALE 1" = 20'</td> <td>BRIDGE FILE N/A</td> </tr> <tr> <td>VERTICAL SCALE 1" = 5'</td> <td>DESIGNATION 1600294</td> </tr> <tr> <td>SURVEY BOOK</td> <td>DWG. NO. PP-07</td> </tr> <tr> <td></td> <td>SHEET NO. 16 of 137</td> </tr> <tr> <td>CONTRACT R-39890</td> <td>PROJECT 1600294</td> </tr> </table>	HORIZONTAL SCALE 1" = 20'	BRIDGE FILE N/A	VERTICAL SCALE 1" = 5'	DESIGNATION 1600294	SURVEY BOOK	DWG. NO. PP-07		SHEET NO. 16 of 137	CONTRACT R-39890	PROJECT 1600294
HORIZONTAL SCALE 1" = 20'	BRIDGE FILE N/A												
VERTICAL SCALE 1" = 5'	DESIGNATION 1600294												
SURVEY BOOK	DWG. NO. PP-07												
	SHEET NO. 16 of 137												
CONTRACT R-39890	PROJECT 1600294												

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Note: All R/W & Existing Topo Described from Line "A"



LEGEND	157+00	158+00	159+00	160+00	161+00	162
(K) FULL DEPTH HMA						
(A) FULL DEPTH HMA FOR APPROACHES						
(J2) VAR. DEPTH, COMPACTED AGGREGATE FOR SHOULDER, NO. 53						
(R) HMA FOR RESURFACING 165 #/SY QC/QA-HMA, 3, 70, SURFACE, 9.5 mm ON 1.5" SURFACE MILLING, HMA (MIN.)						
(D1) HMA FOR APPROACHES: 165 #/SY HMA SURFACE TYPE B ON 275 #/SY HMA INTERMEDIATE TYPE B ON 880 #/SY HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II						
(D2) HMA FOR APPROACHES: 165 #/SY HMA SURFACE TYPE B ON 385 #/SY HMA INTERMEDIATE TYPE B ON SUBGRADE TREATMENT TYPE II						
(C1) 6" PCP FOR APPROACH ON SUBGRADE TREATMENT TYPE II						
(C2) 9" PCP FOR APPROACH ON SUBGRADE TREATMENT, TYPE II						
(N) FOR APPROACHES: 5 IN. COMPACTED AGGREGATE FOR SURFACE, NO. 53						
(F1) CONCRETE SIDEWALK						
(F2) HMA FOR SIDEWALK:						
(1) REMOVE						
(10) SAW CUT						
(13) CONCRETE CURB						
(15) COMBINED CONCRETE CURB AND GUTTER						
(16) CONCRETE GUTTER						
(26) SODDING (NURSERY)						
(TG) TEMP. RIGHT-OF-WAY FOR GRADING						
(TD) TEMP. RIGHT-OF-WAY FOR DRIVEWAY						

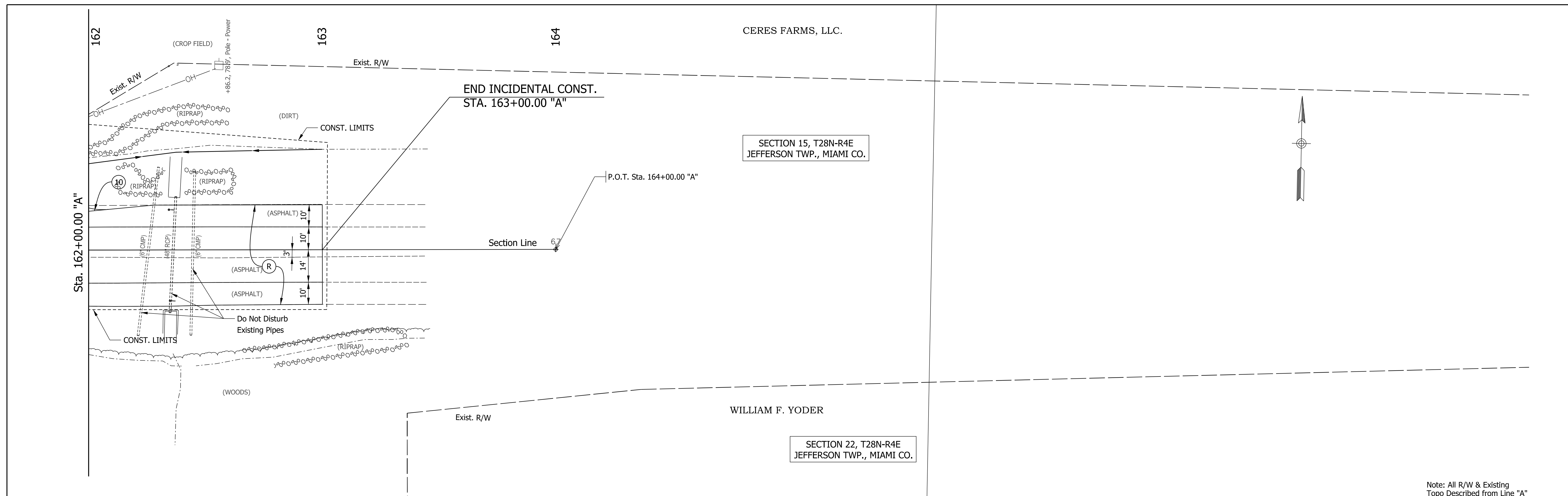
RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		DATE
DESIGNED: MJS	DRAWN: KSC			
CHECKED: JMM	CHECKED: JMM			

INDIANA
DEPARTMENT OF TRANSPORTATION

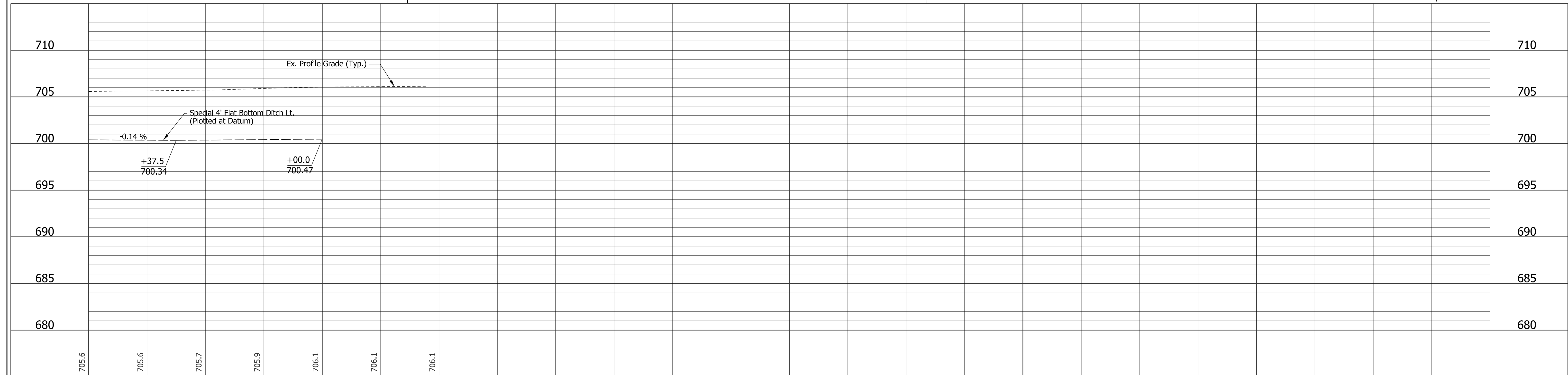
PLAN & PROFILE
STA. 156+00 "A" TO STA. 162+00.00 "A"

HORIZONTAL SCALE 1" = 20'	BRIDGE FILE N/A	
VERTICAL SCALE 1" = 5'	DESIGNATION 1600294	
SURVEY BOOK	DWG. NO. PP-08	SHEET NO. 17 of 137
CONTRACT R-39890	PROJECT 1600294	

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Note: All R/W & Existing Topo Described from Line "A"



LEGEND (K) FULL DEPTH HMA (A) FULL DEPTH HMA FOR APPROACHES (J2) VAR. DEPTH, COMPACTED AGGREGATE FOR SHOULDER, NO. 53 (R) HMA FOR RESURFACING 165 #/SY QC/QA-HMA, 3, 70, SURFACE, 9.5 mm ON 1.5" SURFACE MILLING, HMA (MIN.)		(D1) HMA FOR APPROACHES: 165 #/SY HMA SURFACE TYPE B ON 275 #/SY HMA INTERMEDIATE TYPE B ON 880 #/SY HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II (D2) HMA FOR APPROACHES: 165 #/SY HMA SURFACE TYPE B ON 385 #/SY HMA INTERMEDIATE TYPE B ON SUBGRADE TREATMENT TYPE II		(C1) 6" PCCP FOR APPROACH ON SUBGRADE TREATMENT TYPE II (C2) 9" PCCP FOR APPROACH ON SUBGRADE TREATMENT, TYPE II (N) FOR APPROACHES: 5 IN. COMPACTED AGGREGATE FOR SURFACE, NO. 53		(F1) CONCRETE SIDEWALK (F2) HMA FOR SIDEWALK: (1) REMOVE (10) SAW CUT (13) CONCRETE CURB		(15) COMBINED CONCRETE CURB AND GUTTER (16) CONCRETE GUTTER (26) SODDING (NURSERY) (TG) TEMP. RIGHT-OF-WAY FOR GRADING (TD) TEMP. RIGHT-OF-WAY FOR DRIVEWAY	
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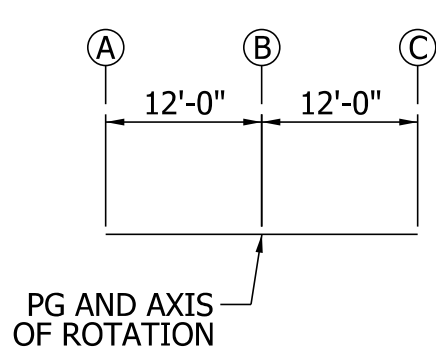
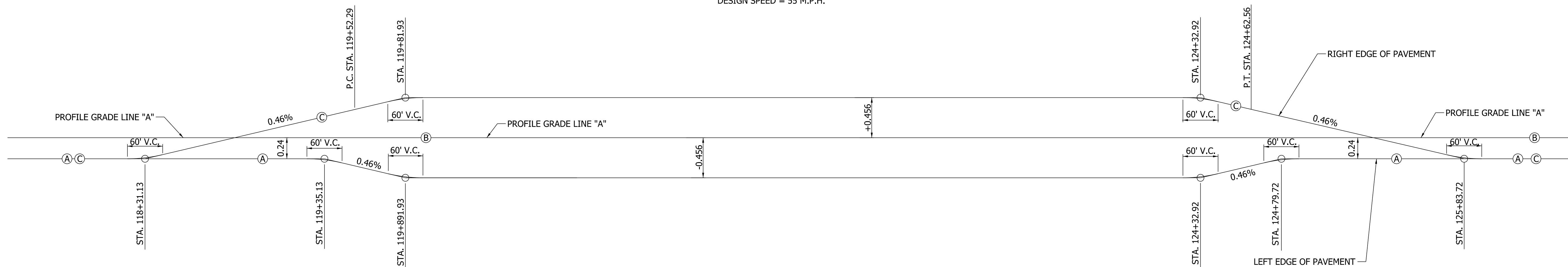
DESIGNED: MJS	DRAWN: KSC
CHECKED: JMM	CHECKED: JMM

INDIANA DEPARTMENT OF TRANSPORTATION	
PLAN & PROFILE STA. 162+00 "A" TO STA. 164+00.00 "A"	

HORIZONTAL SCALE 1" = 20'	BRIDGE FILE N/A
VERTICAL SCALE 1" = 5'	DESIGNATION 1600294
SURVEY BOOK	DWG. NO. SHEET NO. PP-09 18 of 137
CONTRACT R-39890	PROJECT 1600294

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CURVE DATA
 P.I. STA. 122+09.33 "A"
 RADIUS = 1712.00'
 S.E. RATE = 3.8%
 DESIGN SPEED = 55 M.P.H.

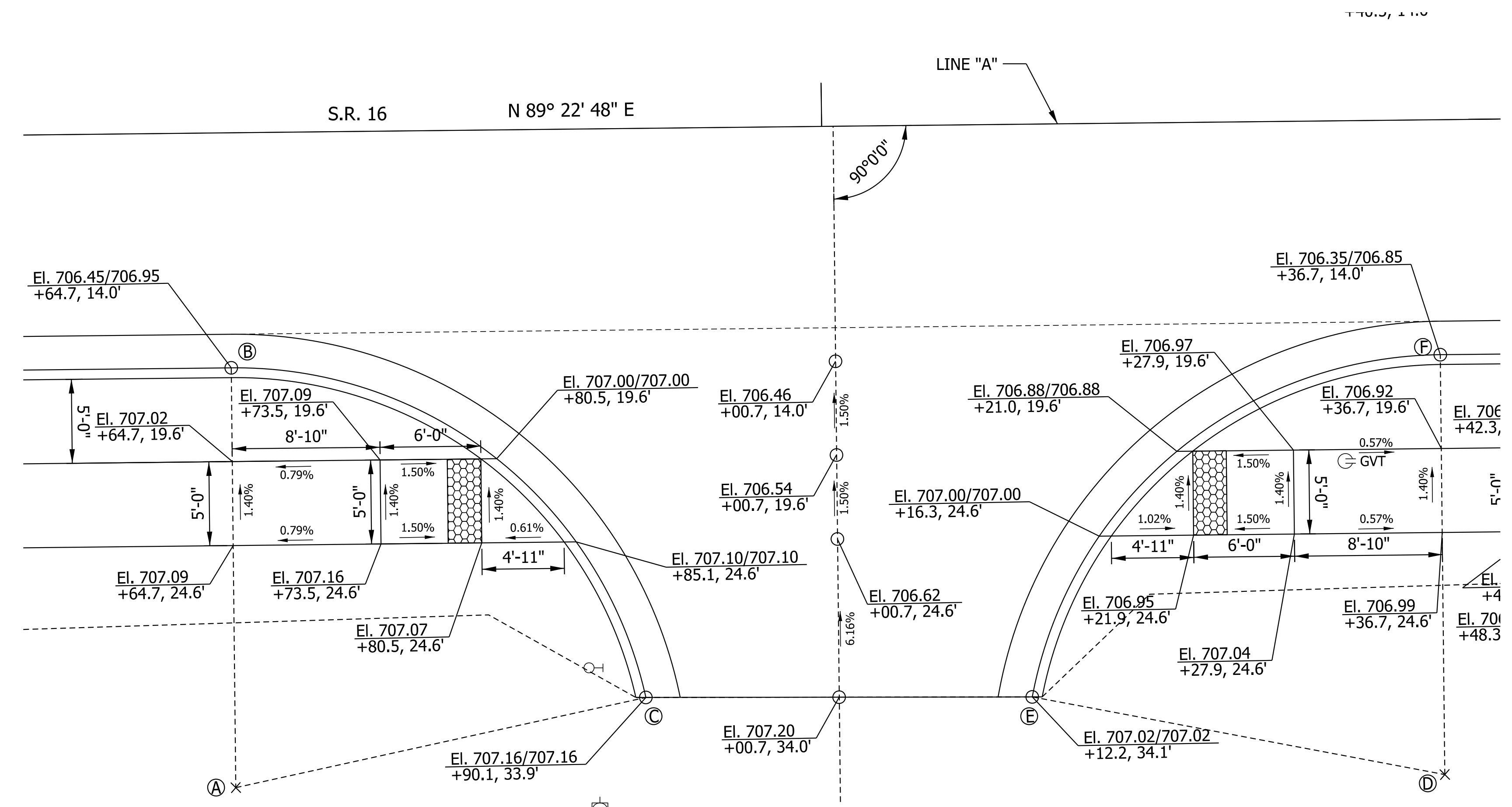


TYPICAL SECTION
 SCALE: N.T.S.

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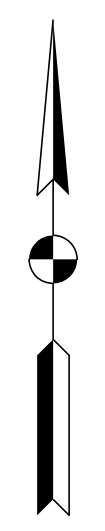
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER _____	DATE _____	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE	BRIDGE FILE
	DESIGNED: MJS	DRAWN: MJS			1"=30'	DESIGNATION
CHECKED: JRA	CHECKED: JRA		SUPERELEVATION DIAGRAM		N.T.S.	1600294
					SURVEY BOOK	DWG. NO.
			CONTRACT	SE-01	19 of 137	
			R-39890	PROJECT	1600294	

128



A	127+64.70	39.00	25' R
B	127+64.70	14.00	
C	127+89.18	33.89	
D	128+36.70	39.00	25' R
E	128+12.18	34.11	
F	128+36.70	14.00	

S 2nd STREET
STA. 128+00.3 "A" RT.



LEGEND:

	DETECTABLE WARNING SURFACE		EXISTING ELECTRIC MANHOLE		EXISTING GAS VALVE		EXISTING TELEPHONE POLE
	EXISTING FIRE HYDRANT		EXISTING UTILITY POLE		EXISTING GUY WIRE		PROPOSED PLANTERS
	EXISTING WATER VALVE		EXISTING ELECTRIC METER		EXISTING LIGHT POLE		

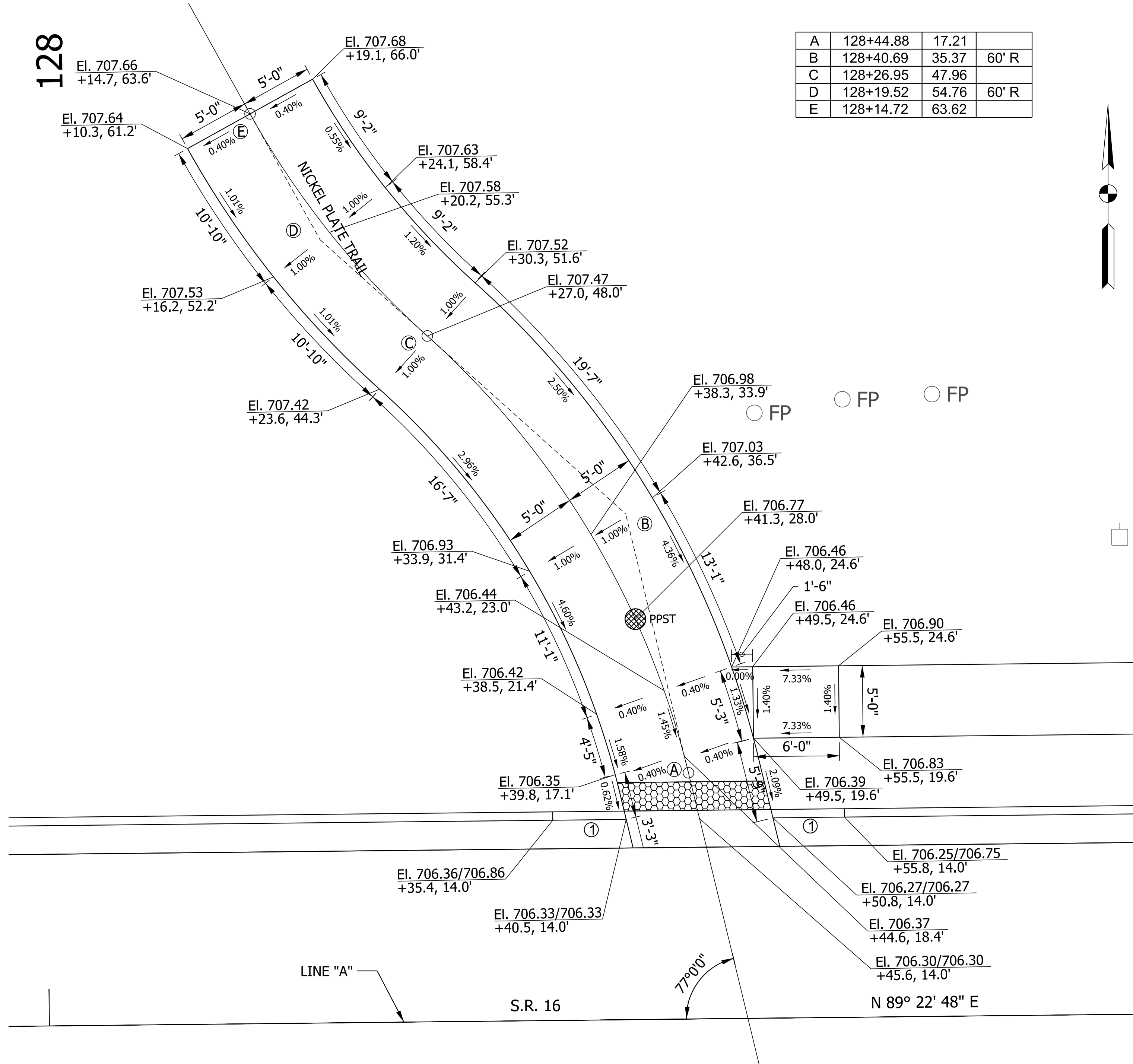
RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		DATE	
DESIGNED: MJS	DRAWN: MJS				
CHECKED: JMM	CHECKED: JMM				

INDIANA	
DEPARTMENT OF TRANSPORTATION	
STREET APPROACH DETAILS	

HORIZONTAL SCALE	BRIDGE FILE	
1" = 10'		
VERTICAL SCALE	DESIGNATION	
N/A	1600294	
SURVEY BOOK	DWG. NO.	SHEET NO.
	AD-01	20 of 137
CONTRACT	PROJECT	
R-39890	1600294	

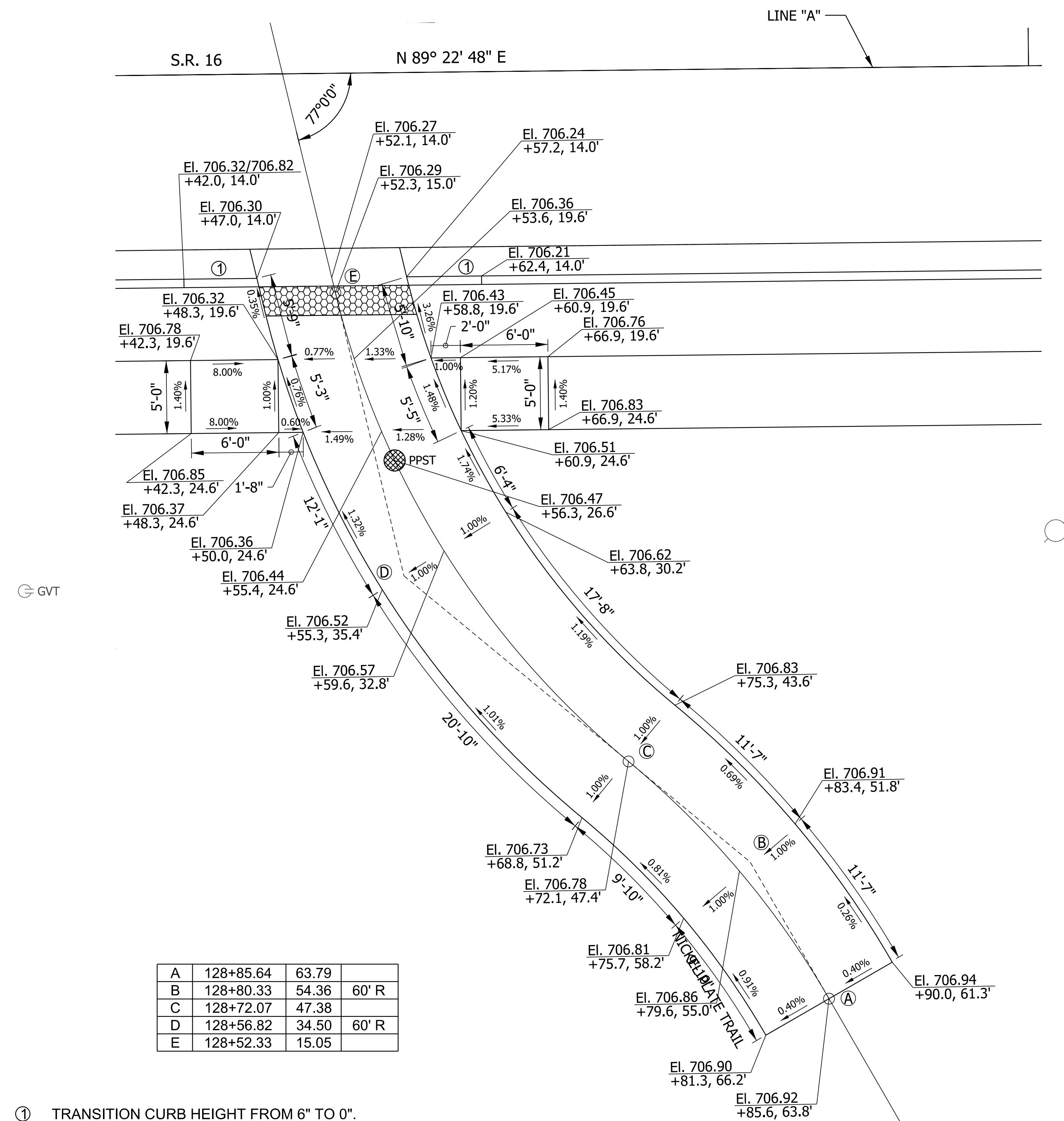
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128



① TRANSITION CURB HEIGHT FROM 6" TO 0".
 NICKEL PLATE TRAIL
 STA. 128+48.85 "A" LT.

129



① TRANSITION CURB HEIGHT FROM 6" TO 0".

NICKEL PLATE TRAIL
 STA. 128+48.85 "A" RT.

LEGEND:

	DETECTABLE WARNING SURFACE		EXISTING ELECTRIC MANHOLE		EXISTING GAS VALVE		EXISTING TELEPHONE POLE
	EXISTING FIRE HYDRANT		EXISTING UTILITY POLE		EXISTING GUY WIRE		PROPOSED PLANTERS
	EXISTING WATER VALVE		EXISTING ELECTRIC METER		EXISTING LIGHT POLE		

RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		DATE	
DESIGNED: MJS	DRAWN: MJS				
CHECKED: JMM	CHECKED: JMM				

INDIANA DEPARTMENT OF TRANSPORTATION		
STREET APPROACH DETAILS		

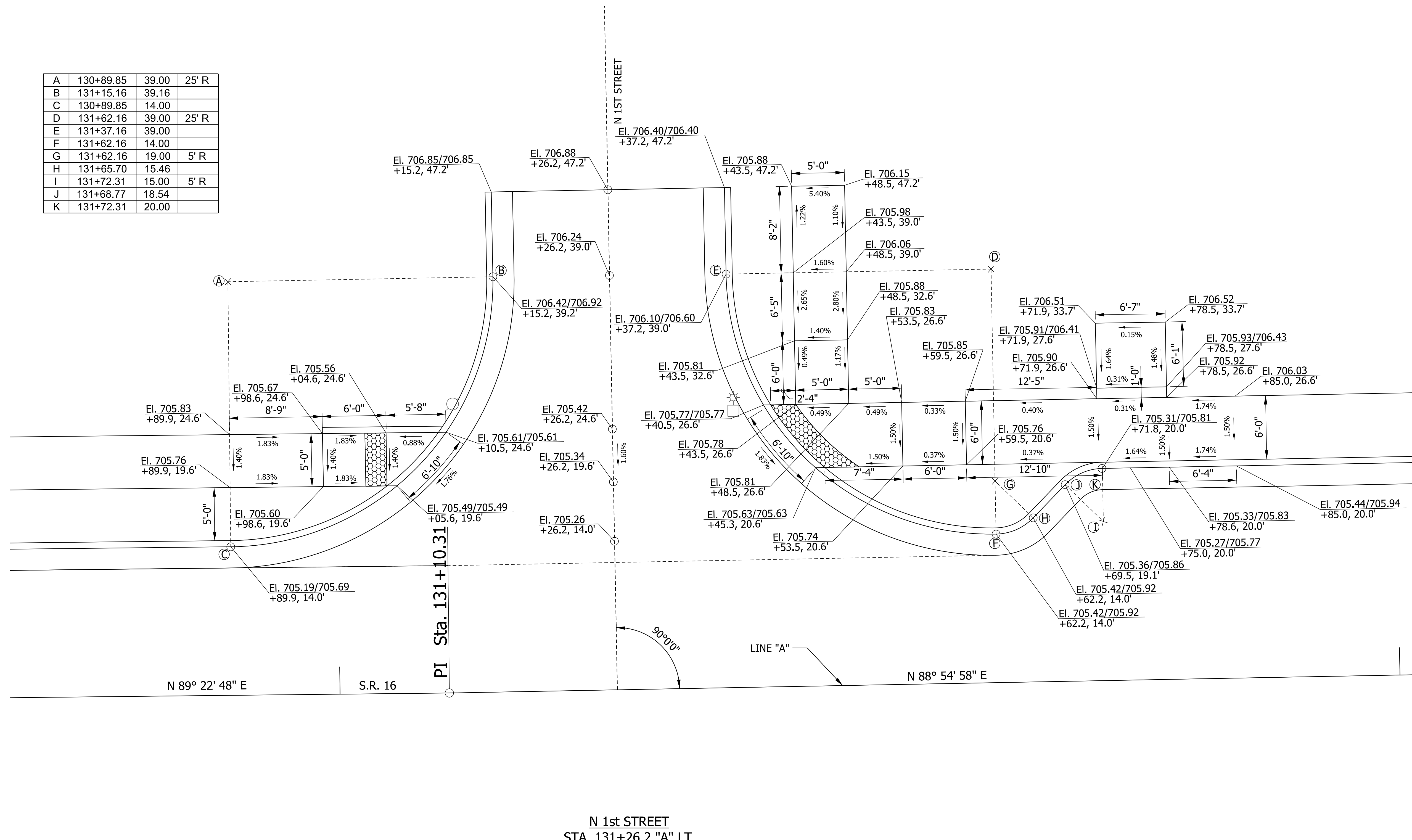
HORIZONTAL SCALE 1" = 5'	BRIDGE FILE	
VERTICAL SCALE N/A	DESIGNATION 1600294	
SURVEY BOOK	DWG. NO. AD-02	SHEET NO. 21 of 137
CONTRACT R-39890	PROJECT 1600294	

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131

132

A	130+89.85	39.00	25' R
B	131+15.16	39.16	
C	130+89.85	14.00	
D	131+62.16	39.00	25' R
E	131+37.16	39.00	
F	131+62.16	14.00	
G	131+62.16	19.00	5' R
H	131+65.70	15.46	
I	131+72.31	15.00	5' R
J	131+68.77	18.54	
K	131+72.31	20.00	



N 1st STREET
STA. 131+26.2 "A" LT.

LEGEND:

- DETECTABLE WARNING SURFACE
- EXISTING ELECTRIC MANHOLE
- GVT
- EXISTING GAS VALVE
- EXISTING TELEPHONE POLE
- EXISTING FIRE HYDRANT
- EXISTING UTILITY POLE
- EXISTING GUY WIRE
- EXISTING LIGHT POLE
- EXISTING WATER VALVE
- EXISTING ELECTRIC METER

RECOMMENDED FOR APPROVAL _____
DESIGN ENGINEER DATE

DESIGNED: MJS DRAWN: MJS

CHECKED: JMM CHECKED: JMM

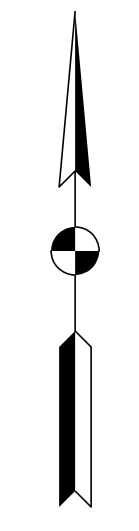
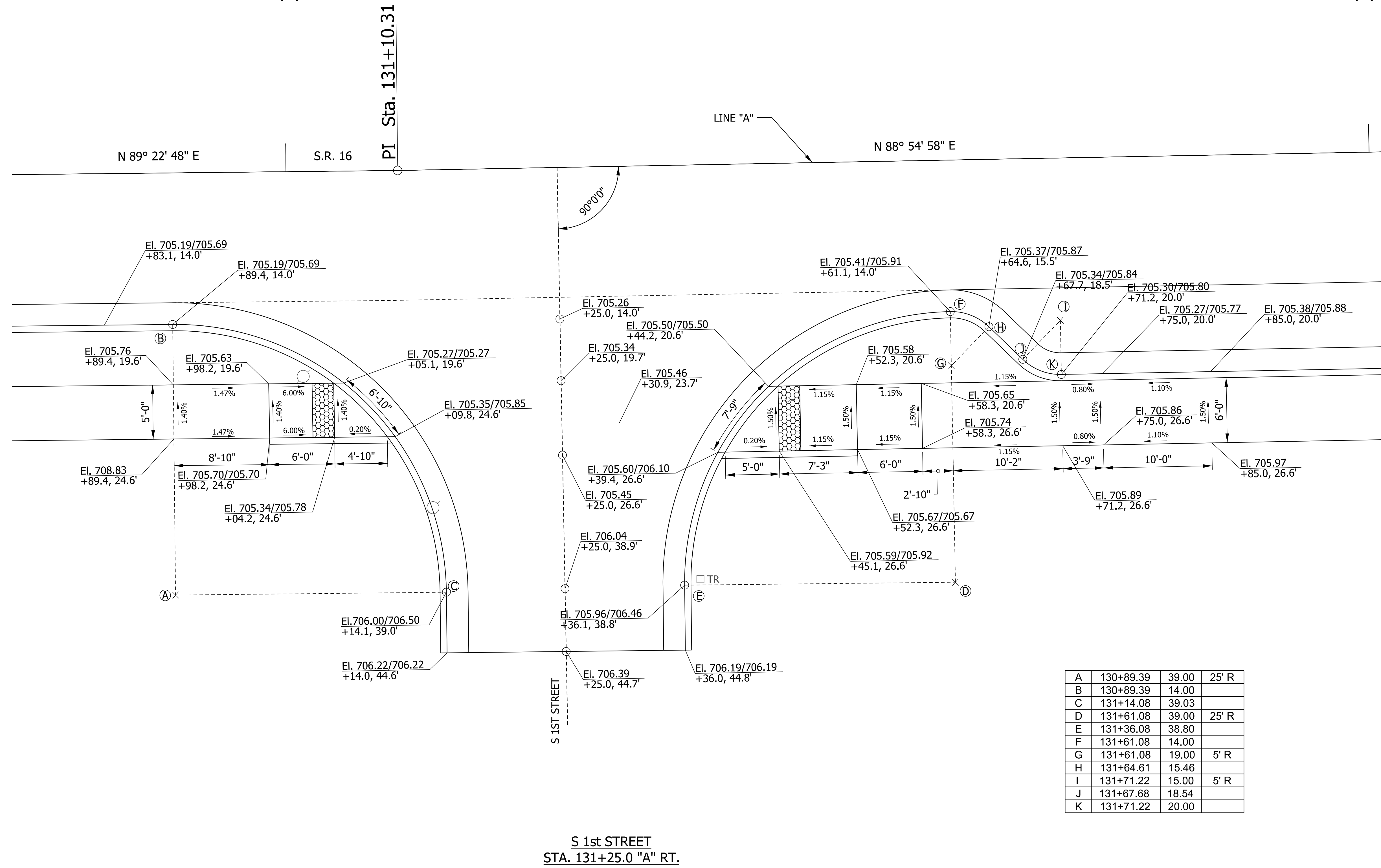
INDIANA
DEPARTMENT OF TRANSPORTATION

STREET APPROACH DETAILS

HORIZONTAL SCALE	BRIDGE FILE	
1" = 5'		
VERTICAL SCALE	DESIGNATION	
N/A	1600294	
SURVEY BOOK	DWG. NO.	SHEET NO.
	AD-03	22 of 137
CONTRACT	PROJECT	
R-39890	1600294	

131

132



LEGEND:

- DETECTABLE WARNING SURFACE
- EXISTING ELECTRIC MANHOLE
- GVT
- EXISTING GAS VALVE
- EXISTING TELEPHONE POLE
- EXISTING FIRE HYDRANT
- EXISTING UTILITY POLE
- EXISTING GUY WIRE
- PROPOSED PLANTERS
- EXISTING WATER VALVE
- EXISTING ELECTRIC METER
- EXISTING LIGHT POLE

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____

DESIGNED: MJS DRAWN: MJS

CHECKED: JMM CHECKED: JMM

INDIANA
DEPARTMENT OF TRANSPORTATION

STREET APPROACH DETAILS

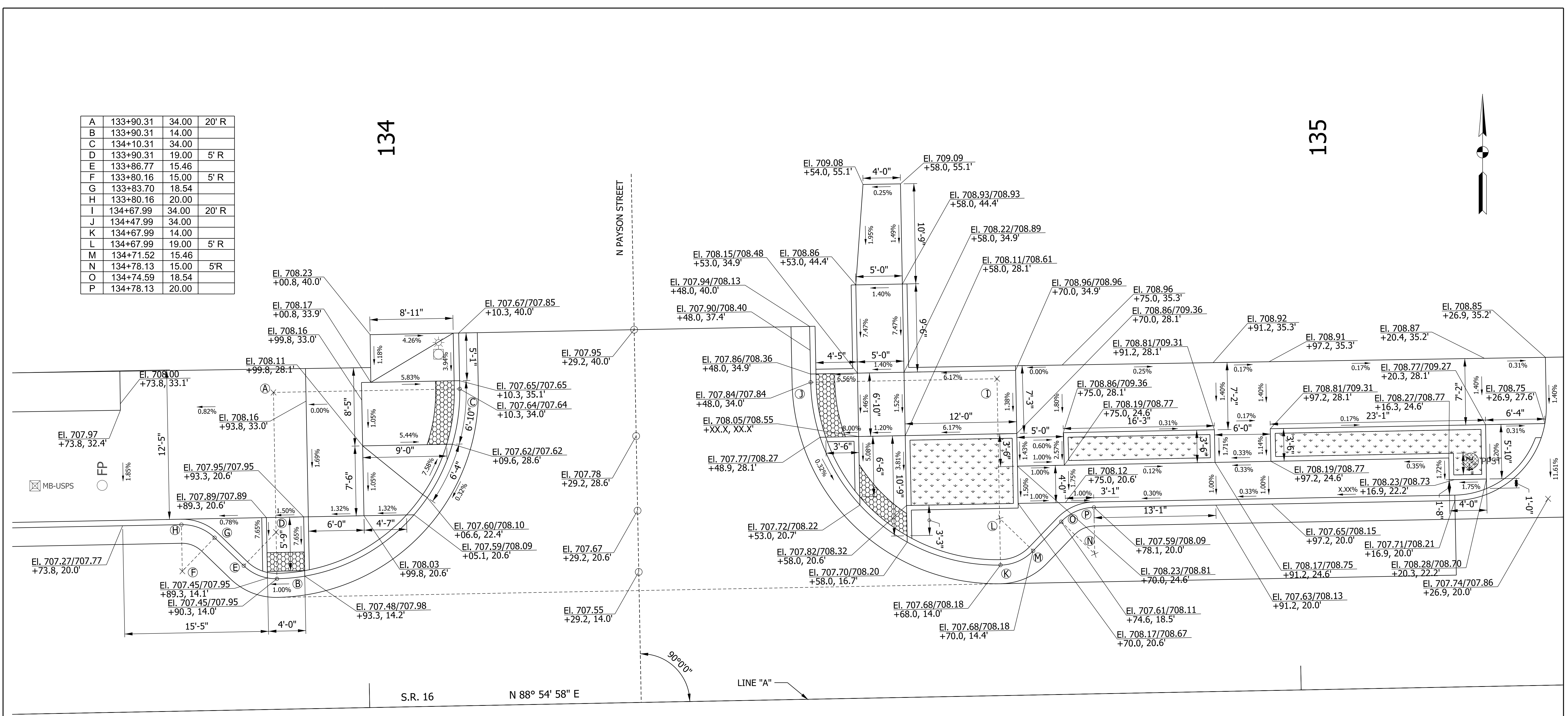
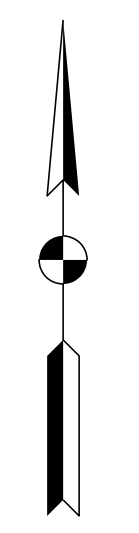
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1" = 10'			
VERTICAL SCALE		DESIGNATION	
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	AD-04	23 of 137	
CONTRACT	PROJECT		
R-39890	1600294		

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A	133+90.31	34.00	20' R
B	133+90.31	14.00	
C	134+10.31	34.00	
D	133+90.31	19.00	5' R
E	133+86.77	15.46	
F	133+80.16	15.00	5' R
G	133+83.70	18.54	
H	133+80.16	20.00	
I	134+67.99	34.00	20' R
J	134+47.99	34.00	
K	134+67.99	14.00	
L	134+67.99	19.00	5' R
M	134+71.52	15.46	
N	134+78.13	15.00	5' R
O	134+74.59	18.54	
P	134+78.13	20.00	

134

135



N PAYSON STREET
 STA. 134+29.2 "A" LT.

LEGEND:

	DETECTABLE WARNING SURFACE		EXISTING ELECTRIC MANHOLE		EXISTING GAS VALVE		EXISTING TELEPHONE POLE
	EXISTING FIRE HYDRANT		EXISTING UTILITY POLE		EXISTING GUY WIRE		PROPOSED PLANTERS
	EXISTING WATER VALVE		EXISTING ELECTRIC METER		EXISTING LIGHT POLE		

RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		DATE	
DESIGNED:	MJS	DRAWN:	MJS		
CHECKED:	JMM	CHECKED:	JMM		

INDIANA
 DEPARTMENT OF TRANSPORTATION

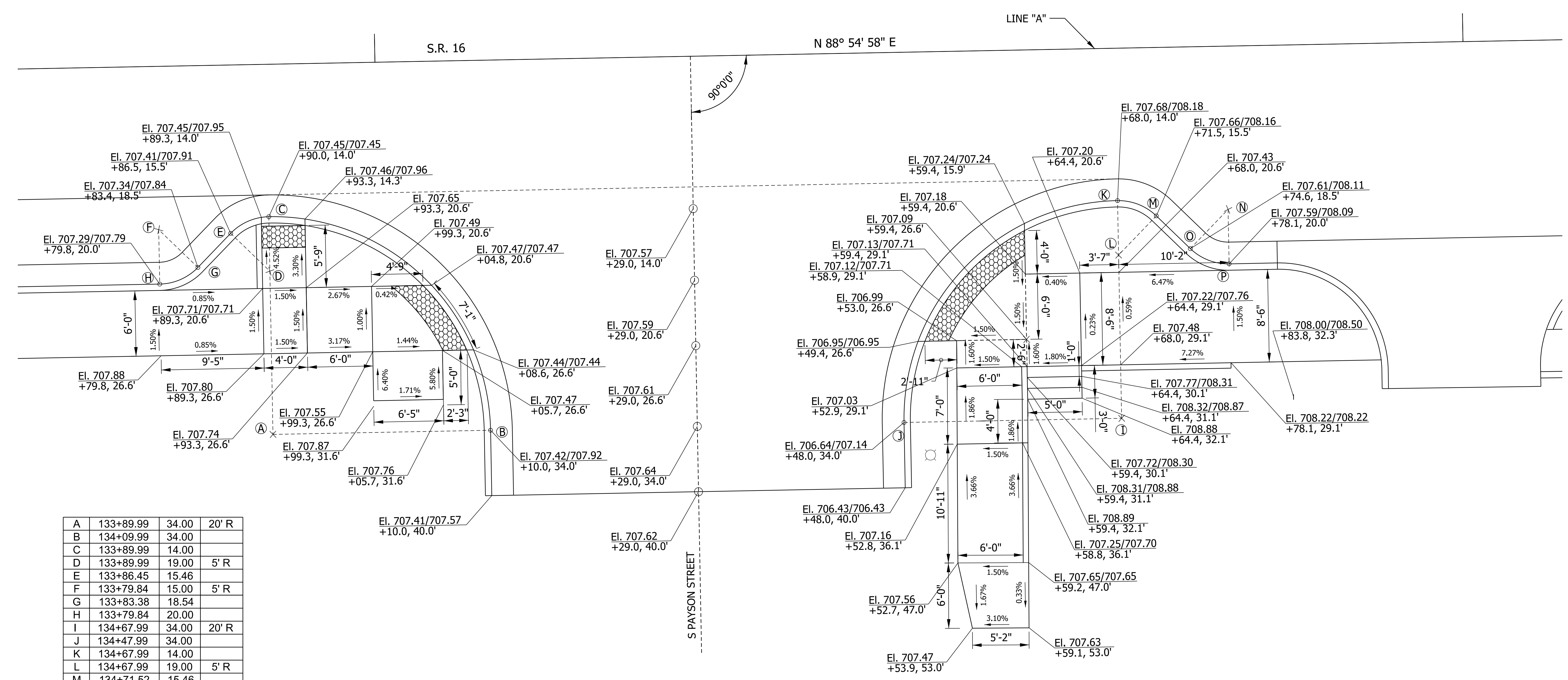
STREET APPROACH DETAILS

HORIZONTAL SCALE	BRIDGE FILE	
1" = 5'		
VERTICAL SCALE	DESIGNATION	
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SURVEY BOOK	DWG. NO.	SHEET NO.
	AD-05	24 of 137
CONTRACT	PROJECT	
R-39890	1600294	

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134

135



A	133+89.99	34.00	20' R
B	134+09.99	34.00	
C	133+89.99	14.00	
D	133+89.99	19.00	5' R
E	133+86.45	15.46	
F	133+79.84	15.00	5' R
G	133+83.38	18.54	
H	133+79.84	20.00	
I	134+67.99	34.00	20' R
J	134+47.99	34.00	
K	134+67.99	14.00	
L	134+67.99	19.00	5' R
M	134+71.52	15.46	
N	134+78.13	15.00	5' R
O	134+74.59	18.54	
P	134+78.13	20.00	

S PAYSON STREET
 STA. 134+29.0 "A" RT.

LEGEND:

	DETECTABLE WARNING SURFACE		EXISTING ELECTRIC MANHOLE		EXISTING GAS VALVE		EXISTING TELEPHONE POLE
	EXISTING FIRE HYDRANT		EXISTING UTILITY POLE		EXISTING GUY WIRE		PROPOSED PLANTERS
	EXISTING WATER VALVE		EXISTING ELECTRIC METER		EXISTING LIGHT POLE		

RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		DATE	
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CHECKED: JMM	CHECKED: JMM				

INDIANA DEPARTMENT OF TRANSPORTATION		
STREET APPROACH DETAILS		

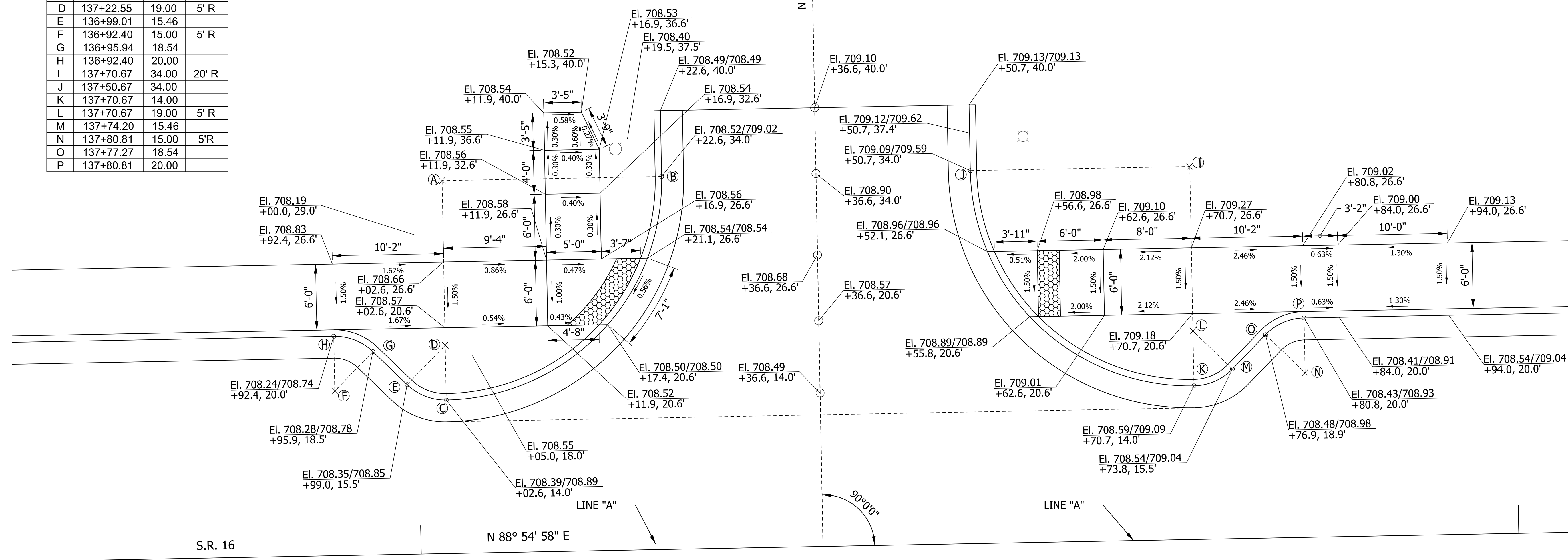
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1" = 10'		
VERTICAL SCALE	DESIGNATION	
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	AD-06	25 of 137
CONTRACT	PROJECT	
R-39890	1600294	

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137

138

A	137+02.55	34.00	20' R
B	137+22.55	34.00	
C	137+22.55	14.00	
D	137+22.55	19.00	5' R
E	136+99.01	15.46	
F	136+92.40	15.00	5' R
G	136+95.94	18.54	
H	136+92.40	20.00	
I	137+70.67	34.00	20' R
J	137+50.67	34.00	
K	137+70.67	14.00	
L	137+70.67	19.00	5' R
M	137+74.20	15.46	
N	137+80.81	15.00	5' R
O	137+77.27	18.54	
P	137+80.81	20.00	



N EMMONS STREET
 STA. 137+36.61 "A" LT.

LEGEND:

- | | | | | | | | |
|--|----------------------------|--|---------------------------|--|---------------------|--|-------------------------|
| | DETECTABLE WARNING SURFACE | | EXISTING ELECTRIC MANHOLE | | EXISTING GAS VALVE | | EXISTING TELEPHONE POLE |
| | EXISTING FIRE HYDRANT | | EXISTING UTILITY POLE | | EXISTING GUY WIRE | | PROPOSED PLANTERS |
| | EXISTING WATER VALVE | | EXISTING ELECTRIC METER | | EXISTING LIGHT POLE | | |

RECOMMENDED FOR APPROVAL _____
 DESIGN ENGINEER DATE

DESIGNED: MJS DRAWN: MJS

CHECKED: JMM CHECKED: JMM

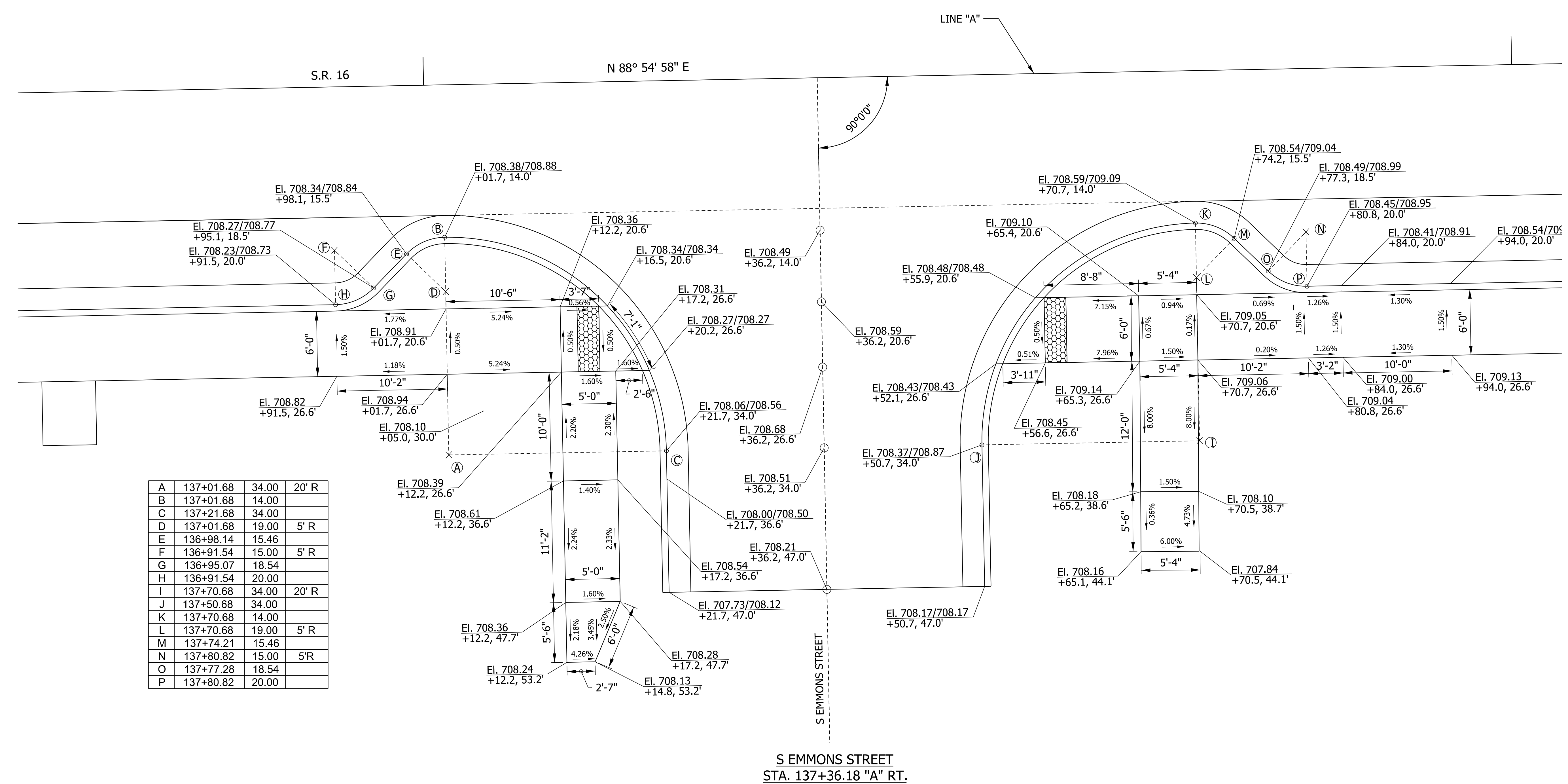
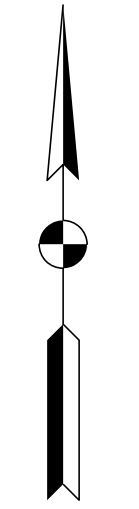
INDIANA
 DEPARTMENT OF TRANSPORTATION

STREET APPROACH DETAILS

HORIZONTAL SCALE 1" = 10'	BRIDGE FILE
VERTICAL SCALE N/A	DESIGNATION 1600294
SURVEY BOOK	DWG. NO. AD-07
	SHEET NO. 26 of 137
CONTRACT R-39890	PROJECT 1600294

137

138



A	137+01.68	34.00	20' R
B	137+01.68	14.00	
C	137+21.68	34.00	
D	137+01.68	19.00	5' R
E	136+98.14	15.46	
F	136+91.54	15.00	5' R
G	136+95.07	18.54	
H	136+91.54	20.00	
I	137+70.68	34.00	20' R
J	137+50.68	34.00	
K	137+70.68	14.00	
L	137+70.68	19.00	5' R
M	137+74.21	15.46	
N	137+80.82	15.00	5' R
O	137+77.28	18.54	
P	137+80.82	20.00	

S EMMONS STREET
 STA. 137+36.18 "A" RT.

LEGEND:

	DETECTABLE WARNING SURFACE		EXISTING ELECTRIC MANHOLE		EXISTING GAS VALVE		EXISTING TELEPHONE POLE
	EXISTING FIRE HYDRANT		EXISTING UTILITY POLE		EXISTING GUY WIRE		PROPOSED PLANTERS
	EXISTING WATER VALVE		EXISTING ELECTRIC METER		EXISTING LIGHT POLE		

RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		DATE	
DESIGNED: MJS	DRAWN: MJS				
CHECKED: JMM	CHECKED: JMM				

INDIANA		
DEPARTMENT OF TRANSPORTATION		
STREET APPROACH DETAILS		

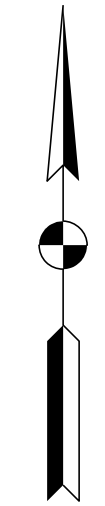
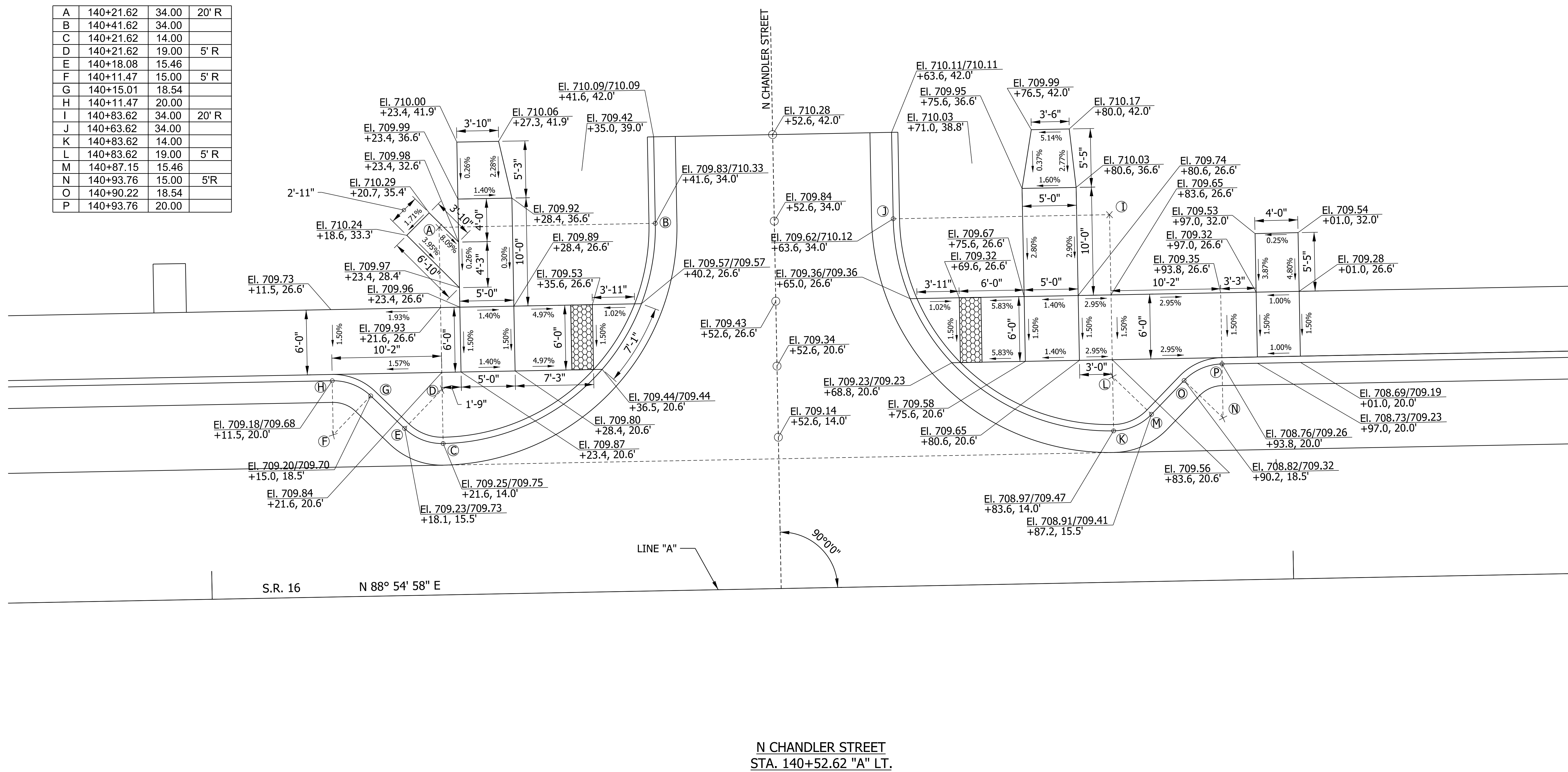
HORIZONTAL SCALE	BRIDGE FILE	
1" = 5'		
VERTICAL SCALE	DESIGNATION	
N/A	1600294	
SURVEY BOOK	DWG. NO.	SHEET NO.
	AD-08	27 of 137
CONTRACT	PROJECT	
R-39890	1600294	

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140

141

A	140+21.62	34.00	20' R
B	140+41.62	34.00	
C	140+21.62	14.00	
D	140+21.62	19.00	5' R
E	140+18.08	15.46	
F	140+11.47	15.00	5' R
G	140+15.01	18.54	
H	140+11.47	20.00	
I	140+83.62	34.00	20' R
J	140+63.62	34.00	
K	140+83.62	14.00	
L	140+83.62	19.00	5' R
M	140+87.15	15.46	
N	140+93.76	15.00	5' R
O	140+90.22	18.54	
P	140+93.76	20.00	



N CHANDLER STREET
STA. 140+52.62 "A" LT.

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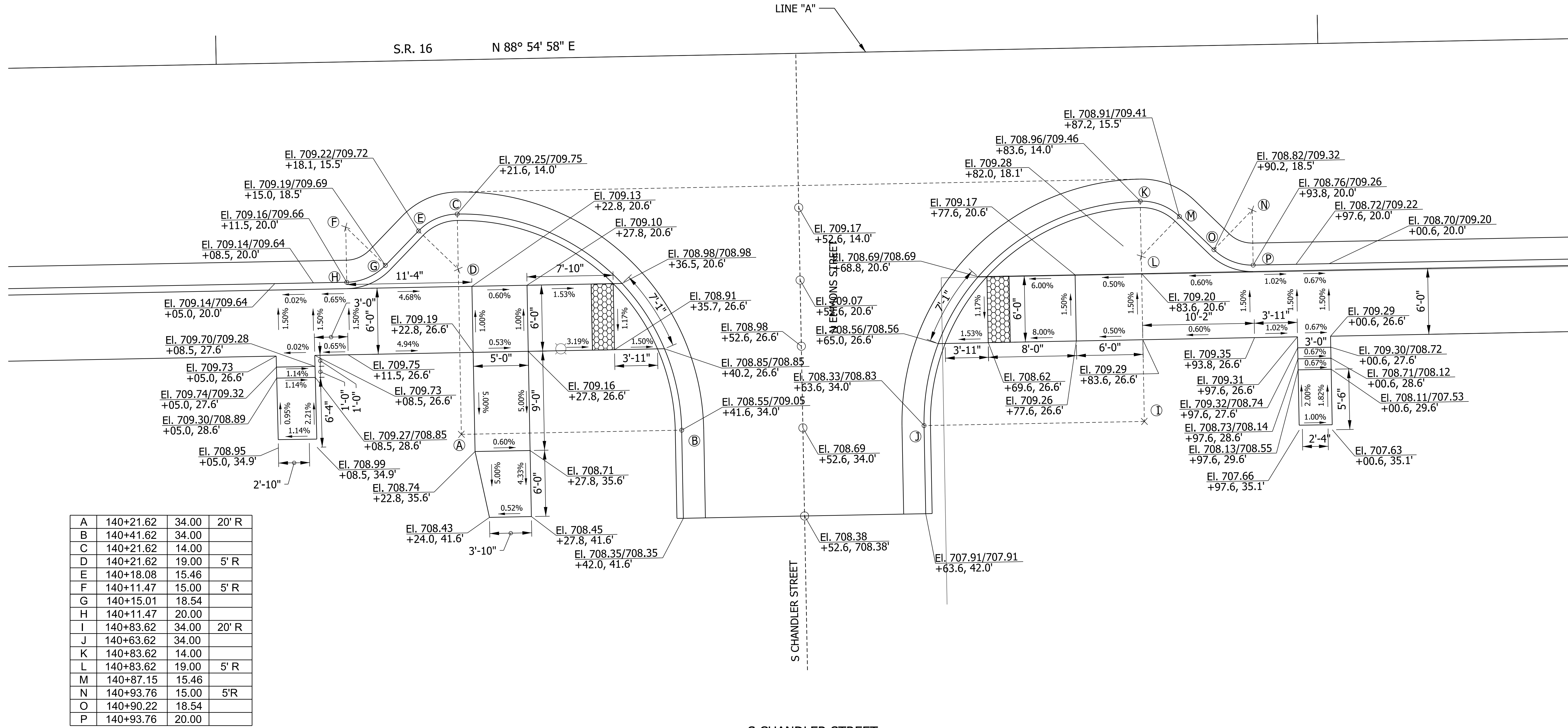
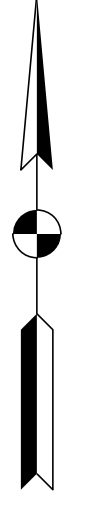
LEGEND:

	DETECTABLE WARNING SURFACE		EXISTING ELECTRIC MANHOLE		EXISTING GAS VALVE		EXISTING TELEPHONE POLE
	EXISTING FIRE HYDRANT		EXISTING UTILITY POLE		EXISTING GUY WIRE		PROPOSED PLANTERS
	EXISTING WATER VALVE		EXISTING ELECTRIC METER		EXISTING LIGHT POLE		

RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		DATE
DESIGNED: MJS	DRAWN: MJS			
CHECKED: JMM	CHECKED: JMM			

INDIANA		
DEPARTMENT OF TRANSPORTATION		
STREET APPROACH DETAILS		

HORIZONTAL SCALE	BRIDGE FILE	
1" = 5'		
VERTICAL SCALE	DESIGNATION	
N/A	1600294	
SURVEY BOOK	DWG. NO.	SHEET NO.
	AD-09	28 of 137
CONTRACT	PROJECT	
R-39890	1600294	



A	140+21.62	34.00	20' R
B	140+41.62	34.00	
C	140+21.62	14.00	
D	140+21.62	19.00	5' R
E	140+18.08	15.46	
F	140+11.47	15.00	5' R
G	140+15.01	18.54	
H	140+11.47	20.00	
I	140+83.62	34.00	20' R
J	140+63.62	34.00	
K	140+83.62	14.00	
L	140+83.62	19.00	5' R
M	140+87.15	15.46	
N	140+93.76	15.00	5' R
O	140+90.22	18.54	
P	140+93.76	20.00	

S CHANDLER STREET
STA. 140+52.62 "A" RT.

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LEGEND:

- | | | | |
|----------------------------|---------------------------|---------------------|-------------------------|
| DETECTABLE WARNING SURFACE | EXISTING ELECTRIC MANHOLE | EXISTING GAS VALVE | EXISTING TELEPHONE POLE |
| EXISTING FIRE HYDRANT | EXISTING UTILITY POLE | EXISTING GUY WIRE | PROPOSED PLANTERS |
| EXISTING WATER VALVE | EXISTING ELECTRIC METER | EXISTING LIGHT POLE | |

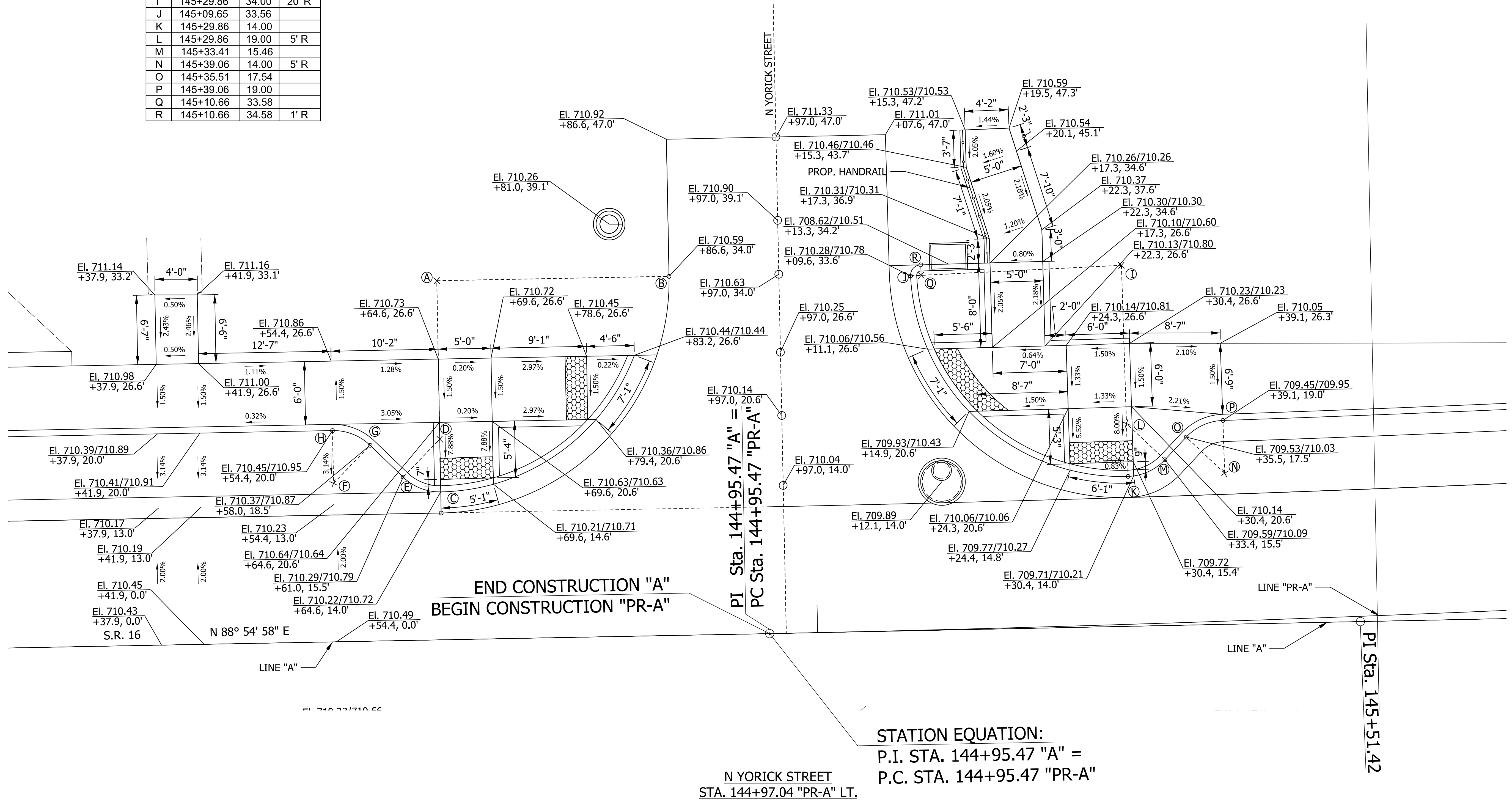
RECOMMENDED FOR APPROVAL _____	
DESIGNED: MJS	DRAWN: MJS
CHECKED: JMM	CHECKED: JMM

INDIANA
DEPARTMENT OF TRANSPORTATION

STREET APPROACH DETAILS

HORIZONTAL SCALE 1" = 5'	BRIDGE FILE
VERTICAL SCALE N/A	DESIGNATION 1600294
SURVEY BOOK	DWG. NO. 29 of 137
CONTRACT R-39890	PROJECT 1600294

A	144+64.57	34.00	22' R
B	144+86.57	34.00	
C	144+64.57	12.00	
D	144+64.57	19.00	5' R
E	144+61.04	15.46	
F	144+54.43	15.00	5' R
G	144+57.97	18.54	
H	144+54.43	20.00	
I	145+29.86	34.00	20' R
J	145+09.65	33.56	
K	145+29.86	14.00	
L	145+29.86	19.00	5' R
M	145+33.41	15.46	
N	145+39.06	14.00	5' R
O	145+35.51	17.54	
P	145+39.06	19.00	
Q	145+10.66	33.58	
R	145+10.66	34.58	1' R



STATION EQUATION:
 P.I. STA. 144+95.47 "A" =
 P.C. STA. 144+95.47 "PR-A"

N YORICK STREET
 STA. 144+97.04 "PR-A" LT.

LEGEND:

	DETECTABLE WARNING SURFACE		EXISTING ELECTRIC MANHOLE		EXISTING GAS VALVE		EXISTING TELEPHONE POLE
	EXISTING FIRE HYDRANT		EXISTING UTILITY POLE		EXISTING GUY WIRE		PROPOSED PLANTERS
	EXISTING WATER VALVE		EXISTING ELECTRIC METER		EXISTING LIGHT POLE		

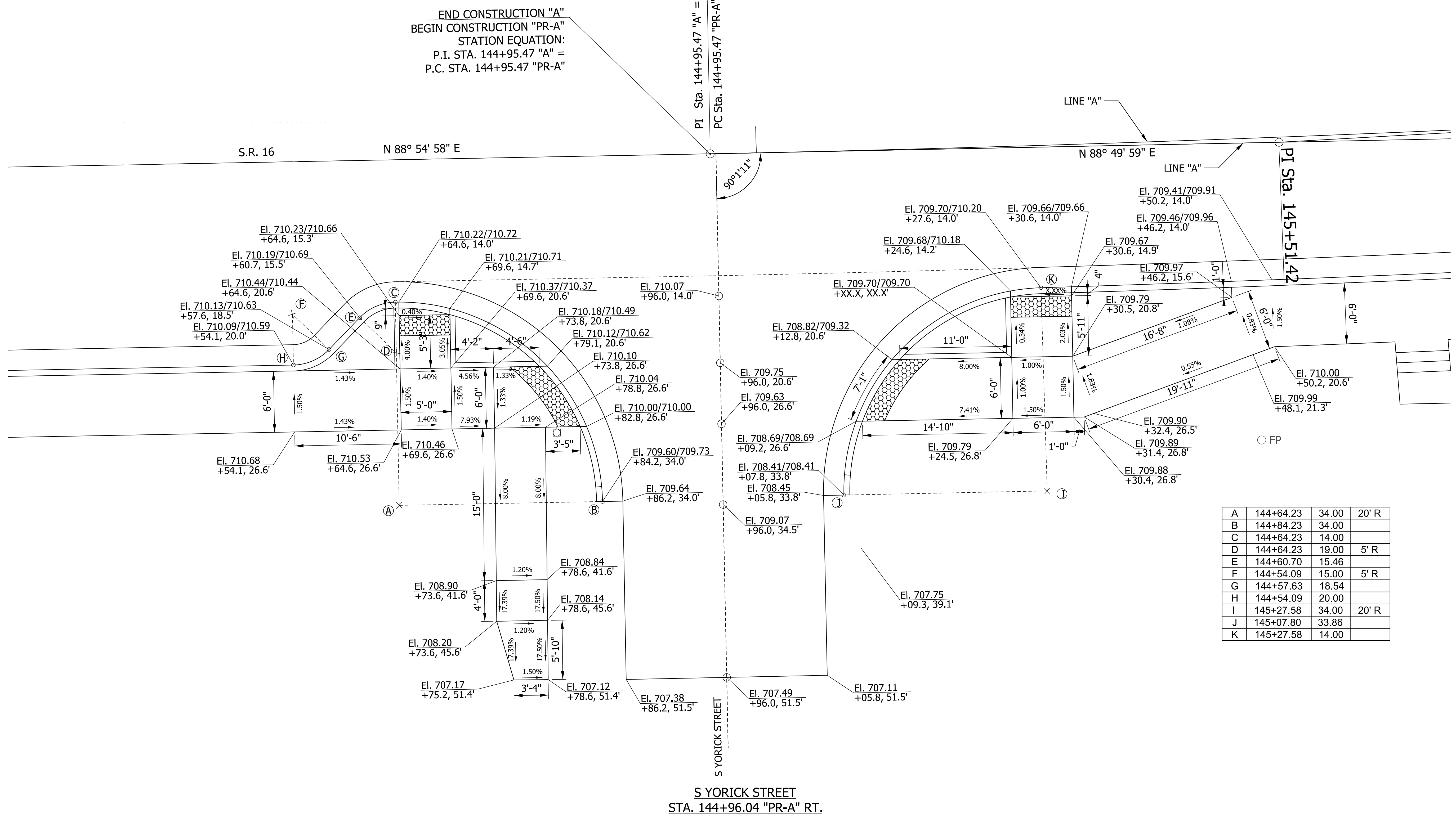
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: MJS	DRAWN: MJS	
CHECKED: JMM	CHECKED: JMM	

INDIANA		
DEPARTMENT OF TRANSPORTATION		
STREET APPROACH DETAILS		

HORIZONTAL SCALE	BRIDGE FILE	
1" = 5'		
VERTICAL SCALE	DESIGNATION	
N/A	1600294	
SURVEY BOOK	DWG. NO.	SHEET NO.
	AD-11	30 of 137
CONTRACT	PROJECT	
R-39890	1600294	

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145



END CONSTRUCTION "A"
 BEGIN CONSTRUCTION "PR-A"
 STATION EQUATION:
 P.I. STA. 144+95.47 "A" =
 P.C. STA. 144+95.47 "PR-A"

A	144+64.23	34.00	20' R
B	144+84.23	34.00	
C	144+64.23	14.00	
D	144+64.23	19.00	5' R
E	144+60.70	15.46	
F	144+54.09	15.00	5' R
G	144+57.63	18.54	
H	144+54.09	20.00	
I	145+27.58	34.00	20' R
J	145+07.80	33.86	
K	145+27.58	14.00	

LEGEND:

	DETECTABLE WARNING SURFACE		EXISTING ELECTRIC MANHOLE		EXISTING GAS VALVE		EXISTING TELEPHONE POLE
	EXISTING FIRE HYDRANT		EXISTING UTILITY POLE		EXISTING GUY WIRE		PROPOSED PLANTERS
	EXISTING WATER VALVE		EXISTING ELECTRIC METER		EXISTING LIGHT POLE		

S YORICK STREET
 STA. 144+96.04 "PR-A" RT.

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: MJS	DRAWN: MJS	
CHECKED: JMM	CHECKED: JMM	

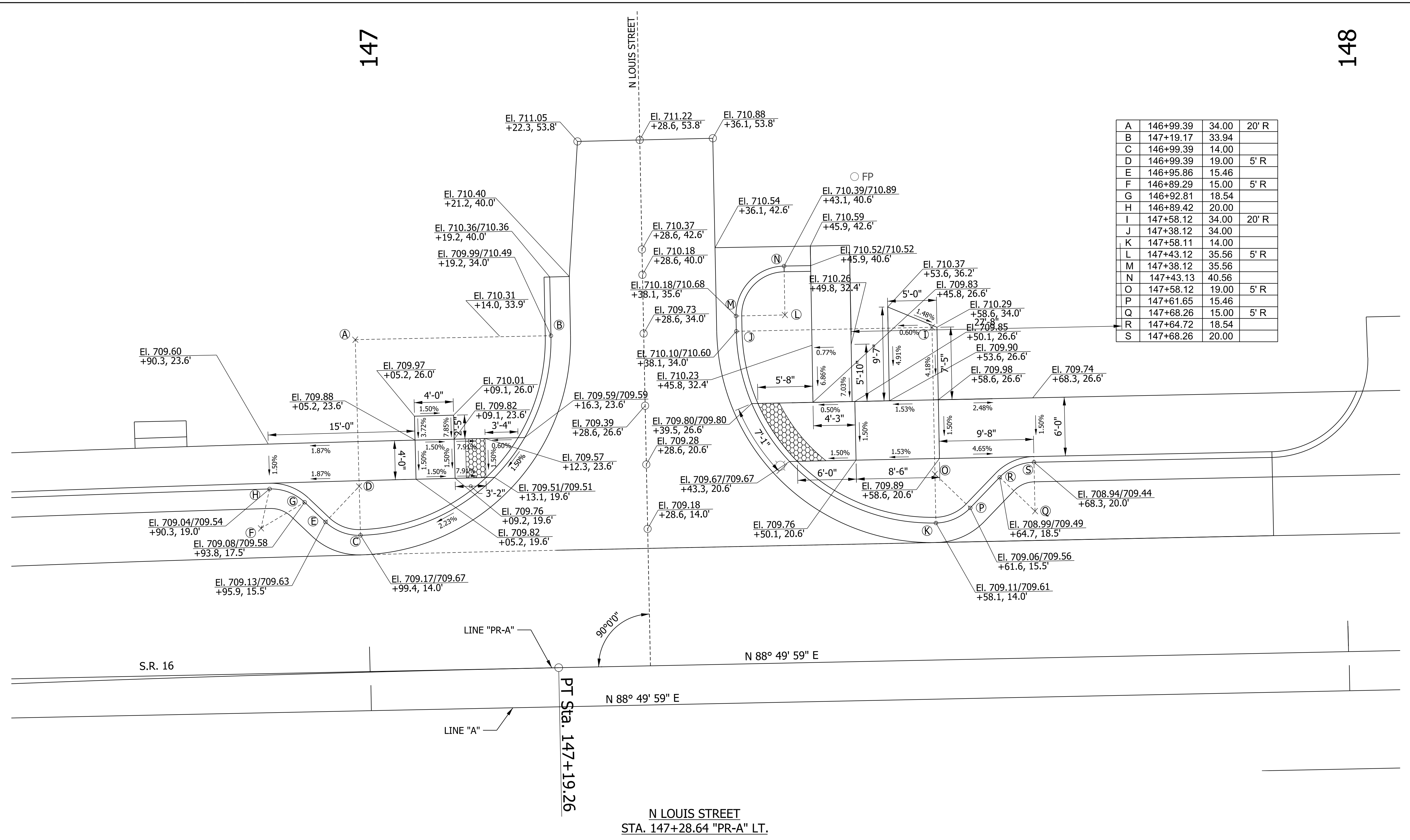
INDIANA
 DEPARTMENT OF TRANSPORTATION
 STREET APPROACH DETAILS

HORIZONTAL SCALE	BRIDGE FILE	
1" = 5'		
VERTICAL SCALE	DESIGNATION	
N/A	1600294	
SURVEY BOOK	DWG. NO.	SHEET NO.
	AD-12	31 of 137
CONTRACT	PROJECT	
R-39890	1600294	

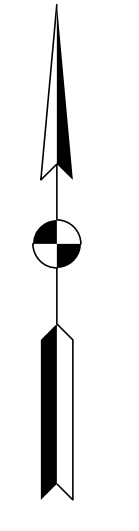
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147

148



A	146+99.39	34.00	20' R
B	147+19.17	33.94	
C	146+99.39	14.00	
D	146+99.39	19.00	5' R
E	146+95.86	15.46	
F	146+89.29	15.00	5' R
G	146+92.81	18.54	
H	146+89.42	20.00	
I	147+58.12	34.00	20' R
J	147+38.12	34.00	
K	147+58.11	14.00	
L	147+43.12	35.56	5' R
M	147+38.12	35.56	
N	147+43.13	40.56	
O	147+58.12	19.00	5' R
P	147+61.65	15.46	
Q	147+68.26	15.00	5' R
R	147+64.72	18.54	
S	147+68.26	20.00	



S.R. 16

LINE "PR-A"

LINE "A"

PT Sta. 147+19.26

N LOUIS STREET
STA. 147+28.64 "PR-A" LT.

N 88° 49' 59" E

N 88° 49' 59" E

N LOUIS STREET

LEGEND:

	DETECTABLE WARNING SURFACE		EXISTING ELECTRIC MANHOLE		EXISTING GAS VALVE		EXISTING TELEPHONE POLE
	EXISTING FIRE HYDRANT		EXISTING UTILITY POLE		EXISTING GUY WIRE		PROPOSED PLANTERS
	EXISTING WATER VALVE		EXISTING ELECTRIC METER		EXISTING LIGHT POLE		

RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		DATE	
DESIGNED: MJS	DRAWN: MJS				
CHECKED: JMM	CHECKED: JMM				

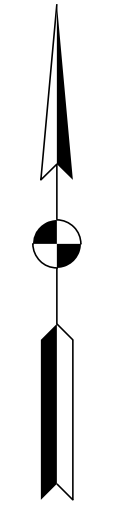
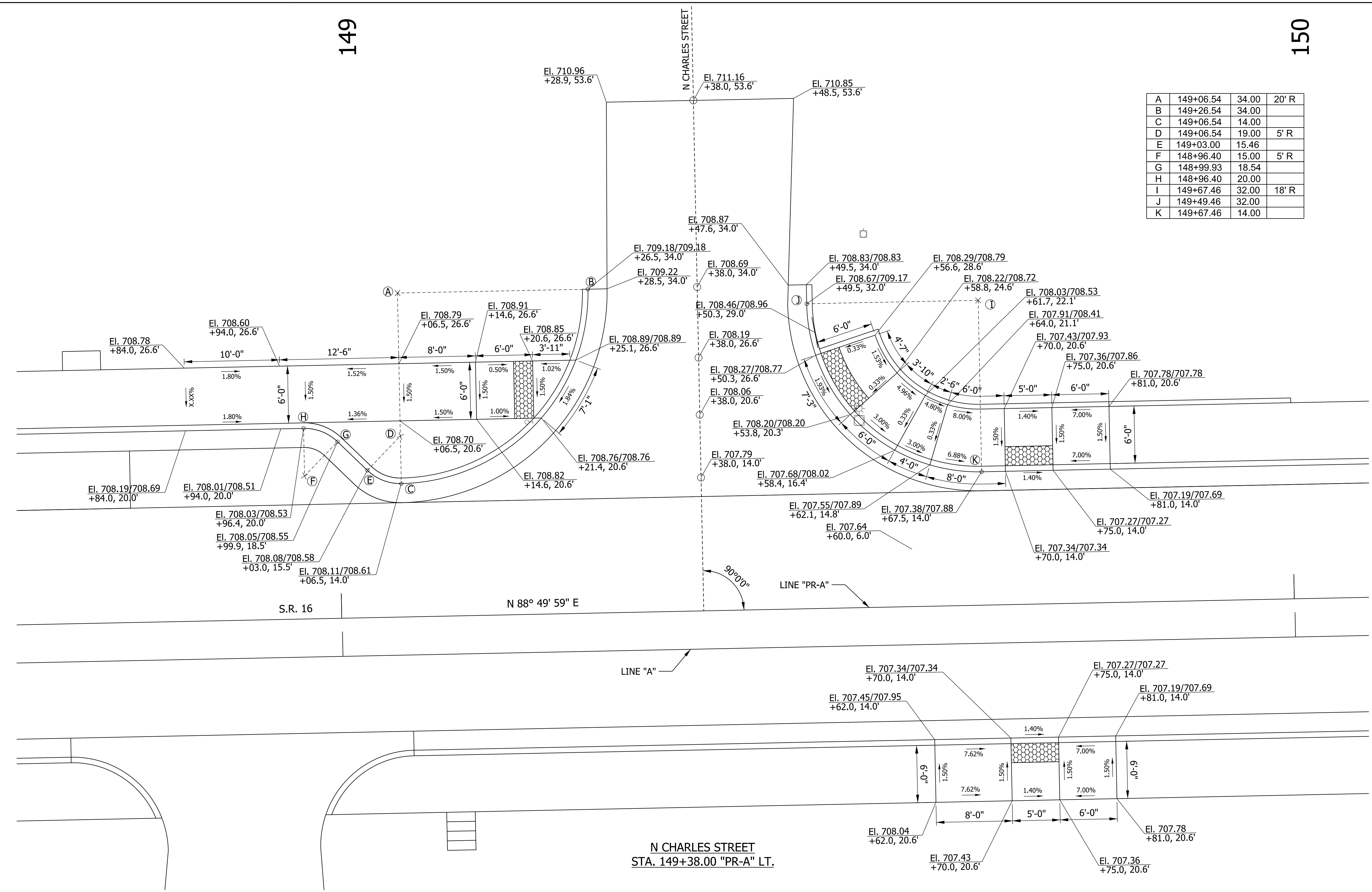
INDIANA		
DEPARTMENT OF TRANSPORTATION		
STREET APPROACH DETAILS		

HORIZONTAL SCALE	BRIDGE FILE	
1" = 5'		
VERTICAL SCALE	DESIGNATION	
N/A	1600294	
SURVEY BOOK	DWG. NO.	SHEET NO.
	AD-13	32 of 137
CONTRACT	PROJECT	
R-39890	1600294	

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149

150



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LEGEND:

	DETECTABLE WARNING SURFACE		EXISTING ELECTRIC MANHOLE		EXISTING GAS VALVE		EXISTING TELEPHONE POLE
	EXISTING FIRE HYDRANT		EXISTING UTILITY POLE		EXISTING GUY WIRE		PROPOSED PLANTERS
	EXISTING WATER VALVE		EXISTING ELECTRIC METER		EXISTING LIGHT POLE		

RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		DATE
DESIGNED: MJS	DRAWN: MJS			
CHECKED: JMM	CHECKED: JMM			

INDIANA
DEPARTMENT OF TRANSPORTATION
STREET APPROACH DETAILS

HORIZONTAL SCALE	BRIDGE FILE	
1" = 5'		
VERTICAL SCALE	DESIGNATION	
N/A	1600294	
SURVEY BOOK	DWG. NO.	SHEET NO.
	AD-14	33 of 137
CONTRACT	PROJECT	
R-39890	1600294	

PAVEMENT QUANTITIES AND APPROACH TABLE

Main table with columns: LOCATION, DESCRIPTION (APPROACH TYPE OR CLASS), WIDTH, LENGTH, RADII, DISTANCE BEYOND R/W LINE, SURFACE BEYOND R/W LINE, GRADE, QC/QA-HMA MATERIALS, HMA FOR APPROACHES, TYPE B, HMA MATERIALS, COMPACTED AGGREGATE, and REMARKS.

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RECOMMENDED FOR APPROVAL DESIGN ENGINEER DATE

DESIGNED: MJS DRAWN: MAK CHECKED: JMM CHECKED: JMM

INDIANA DEPARTMENT OF TRANSPORTATION APPROACH TABLE

Scale and File information table including HORIZONTAL SCALE, BRIDGE FILE, SURVEY BOOK, DWG. NO., SHEET NO., CONTRACT, PROJECT.

PAVEMENT QUANTITIES AND APPROACH TABLE

LOCATION	DESCRIPTION (APPROACH TYPE OR CLASS)	WIDTH	LENGTH	RADIUS	DISTANCE BEYOND R/W LINE	SURFACE BEYOND R/W LINE			GRADE	QC/QA-HMA MATERIALS										HMA FOR APPROACHES, TYPE B			HMA MATERIALS		COMPACTED AGGREGATE No. 53, BASE	COMPACTED AGGREGATE No. 53	COMPACTED AGGREGATE NO. 73	6" PCCP FOR APPROACHES	9" PCCP FOR APPROACHES	MILLING, ASPHALT, 4"	MILLING, ASPHALT, 1.5"	MILLING, PROFILE	TRANSITION MILLING	SUBGRADE TREATMENT, TYPE IB	SUBGRADE TREATMENT, TYPE II	REMARKS								
						COMPACTED AGGREGATE BASE	HMA	CONCRETE		LBS. PER SYD.																																		
						SYS	SYS	SYS		1	2	3	4	165	165	275	275	330	165	250	165	275	880	330													220	165	DEPTH		DEPTH		DEPTH	
										%	%	%	%	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON	TON													TON	TON	TON	TON	TON	TON	TON	TON
MAINLINE																																												
Sta. 143+27.29 LT "A"	Drive	20.0	12.0	10, 10																																								
Sta. 143+75.31 RT "A"	Drive	10.0	18.0	10, 15																																								
Sta. 144+97.00 LT "A"	Public Street Approach	21.0	35.0	20, 20																																N Yorick Street								
Sta. 144+97.00 RT "A"	Public Street Approach	20.0	40.0	20, 20																																S Yorick Street								
Sta. 146+02.11 RT "PR-A"	Drive	9.5	26.5	10, 10																																								
Sta. 146+11.30 LT "PR-A"	Drive	11.0	22.5	8, 8																																								
Sta. 146+66.85 RT "PR-A"	Drive	13.0	28.5	10, 10																																								
Sta. 147+28.6 LT "PR-A"	Public Street Approach	14.0	41.8	20, 20																																N Louis Street								
Sta. 148+13.46 LT "PR-A"	Drive	22.0	16.2	10, 5																																								
Sta. 148+39.63 LT "PR-A"	Drive	8.0	12.0	5, 10																																								
Sta. 148+89.30 RT "PR-A"	Drive	16.0	26.2	10, 10																																								
Sta. 149+38.00 LT "PR-A"	Public Street Approach	19.0	41.6	20, 20																																Charles Street								
Sta. 150+47.14 RT "PR-A"	Drive	9.0	17.0	10, 10																																								
Sta. 151+11.18 LT "PR-A"	Drive	8.0	23.1	10, 5																																								
Sta. 151+34.36 LT "PR-A"	Drive	11.5	23.0	5, 10																																								
Sta. 152+03.65 RT "PR-A"	Drive	12.0	20.0	10, 10																																								
Sta. 153+90.77 LT "PR-A"	Drive	50.0	30.0	20, 20																																								
SHEET 2 SUB TOTALS																																												

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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE N/A	BRIDGE FILE N/A
	DESIGNED: MJS CHECKED: JMM	DRAWN: MAK CHECKED: JMM	APPROACH TABLE	
			SURVEY BOOK R-39890	DWG. NO. SHEET NO. AT-02 35 of 137 PROJECT 1600294

STRUCTURE DATA

STRUCTURE NO.	LOCATION			STRUCTURE TYPE	SIZE IN.	PIPE TYPE	LENGTH FT.	SKEW	FLOW LINE			SERVICE LIFE YR.	SITE DESIGNATION	pH	BACKFILL METHOD	STRUCTURE BACKFILL TYPE 1 CYS	VELOCITY FPS	REVEMENT RIPRAP TONS	CLASS 1 RIPRAP TONS	GEOTEXTILE SYD	PIPE END SECTION EA.	GRATED BOX END SECTION			SAFETY METAL END SECTION			CONNECT TO STR. NO.	REMARKS	
	STATION	LEFT	CROSS RIGHT						COVER FT.	UP STREAM ELEV.	DOWN STREAM ELEV.											TYPE	SLOPE	EA.	TYPE	SLOPE	EA.			
102	124+54			MOD. MH C-15	24	2	18		4.8	696.73	696.68	75	NA	7.0	1	15	4.3											Exist. Pipe		
103	125+85			MHC-4	24	2	133		6.7	697.23	696.83	75	NA	7.0	1	133	4.3												102	
104	125+85			INLET C-15	12	2	2		2.6	701.82	701.72	75	NA	7.0	1	1	11.0												103	
105	125+85			INLET B-15	12	2	24		2.2	702.16	701.92	75	NA	7.0	1	6	4.9												104	
106	126+93			MHC-4	24	2	108		6.9	697.59	697.33	75	NA	7.0	1	130	3.8												103	
107	126+93			INLET C-15	12	2	2		2.6	702.43	702.33	75	NA	7.0	1	1	11.0												106	
108	127+15			INLET B-15	12	2	33		2.2	702.86	702.53	75	NA	7.0	1	8	4.9												107	
109	129+40			MHC-4	24	2	248		5.8	698.29	697.69	75	NA	7.0	1	278	3.8												106	
110	129+40			INLET C-15	12	2	2		2.6	702.02	701.92	75	NA	7.0	1	1	11.0												109	
111	129+40			INLET B-15	12	2	24		2.2	702.36	702.12	75	NA	7.0	1	6	4.9												110	
112	130+30			MHC-4	24	2	90		4.9	698.71	698.39	75	NA	7.0	1	84	4.7												109	
113	130+30			INLET C-15	12	2	2		2.6	701.54	701.44	75	NA	7.0	1	1	11.0												112	
114	130+30			INLET B-15	12	2	24		2.2	701.88	701.64	75	NA	7.0	1	6	4.9												113	
115	130+83			MHC-4	24	2	54		4.5	699.00	698.81	75	NA	7.0	1	44	4.7												112	
116	130+83			INLET C-15	12	2	2		2.6	701.44	701.34	75	NA	7.0	1	1	11.0												115	
117	130+83			INLET B-15	12	2	24		2.2	701.78	701.54	75	NA	7.0	1	6	4.9												116	
119	131+75			INLET C-15	12	2	2		2.8	701.39	701.29	75	NA	7.0	1	1	11.0												120	
120	131+75			MHC-4	18	2	92		3.8	699.96	699.40	75	NA	7.0	1	56	5.0												115	
121	131+75			INLET C-15	12	2	33		2.4	701.94	701.78	75	NA	7.0	1	9	3.5												120	
122	132+03			INLET B-15	12	2	28		2.2	702.18	702.04	75	NA	7.0	1	7	3.5												119	
123	132+03			INLET B-15	12	2	28		2.2	702.18	702.04	75	NA	7.0	1	7	3.5												121	
124	134+10			INLET C-15	12	2	20		2.4	704.10	703.98	75	NA	7.0	1	5	3.8												125	
125	134+12			MHC-4	18	2	237		3.4	702.43	700.06	75	NA	7.0	1	120	6.4												120	
126	134+48			INLET B-15	12	2	34		2.2	704.40	704.20	75	NA	7.0	1	8	3.8												124	
127	134+80			INLET C-15	12	2	2		2.4	704.05	703.95	75	NA	7.0	1	1	11.0												128	
128	134+80			MHC-4	15	2	69		3.3	703.04	702.63	75	NA	7.0	1	29	4.4												125	
129	134+80			INLET C-15	12	2	33		2.3	704.09	703.95	75	NA	7.0	1	9	3.2												128	
130	135+08			INLET B-15	12	2	28		2.2	704.27	704.15	75	NA	7.0	1	7	3.2												127	
131	135+23			INLET B-15	12	2	43		2.2	704.32	704.19	75	NA	7.0	1	10	2.7												129	
132	137+20			PIPE CATCH BASIN, 24 IN.	12	2	22		2.3	704.94	704.81	75	NA	7.0	1	6	3.8												133	
133	137+05			MHC-4	12	2	225		3.0	704.37	703.24	75	NA	7.0	1	78	3.5												128	
134	137+51			INLET B-15	12	2	29		2.2	705.71	705.04	75	NA	7.0	1	7	7.5												132	
135	137+84			INLET C-15	12	2	76		2.4	704.95	704.57	75	NA	7.0	1	21	3.5												133	
137	137+84			INLET C-15	12	2	33		2.4	704.95	704.79	75	NA	7.0	1	9	3.5												135	
138	138+12			INLET B-15	12	2	28		2.2	705.19	705.05	75	NA	7.0	1	7	3.5												135	
139	138+12			INLET B-15	12	2	28		2.2	705.19	705.05	75	NA	7.0	1	7	3.5												137	
140	140+35			PIPE CATCH BASIN, 18 IN.	12	2	34		2.2	706.01	705.67	75	NA	7.0	1	10	4.9												141	

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RECOMMENDED FOR APPROVAL _____		DESIGN ENGINEER _____		DATE _____	
DESIGNED: MJS	DRAWN: MAK				
CHECKED: JMM	CHECKED: JMM				

INDIANA
DEPARTMENT OF TRANSPORTATION

STRUCTURE DATA TABLE

HORIZONTAL SCALE N/A		BRIDGE FILE	
VERTICAL SCALE N/A		DESIGNATION 1600294	
SURVEY BOOK	DWG. NO. AT-02	SHEET NO. 36 of 137	
CONTRACT R-39890	PROJECT 1600294		

STRUCTURE DATA

STRUCTURE NO.	LOCATION			STRUCTURE TYPE	SIZE IN.	PIPE TYPE	LENGTH FT.	SKEW	FLOW LINE			SERVICE LIFE YR.	SITE DESIGNATION	pH	BACKFILL METHOD	STRUCTURE BACKFILL CYS.	VELOCITY FPS.	REVETMENT RIPRAP TONS.	CLASS I RIPRAP TONS.	GEOTEXTILE SYD.	PIPE END SECTION EA.	GRATED BOX END SECTION			SAFETY METAL END SECTION			CONNECT TO STR. NO.	REMARKS	
	STATION	LEFT	CROSS						RIGHT	COVER FT.	UP STREAM ELEV.											DOWN STREAM ELEV.	TYPE	SLOPE	EA.	TYPE	SLOPE			EA.
141	140+71				12	2	56		3.2	705.57	705.01	75	NA	7.0	1	19	4.9											142		
142	140+82				12	2	19		5.9	702.05	701.81	75	NA	7.0	1	11	5.6												197	
143	141+90				12	2	33		2.8	703.93	703.60	75	NA	7.0	1	11	4.9												146	
144	142+18				12	2	28		2.5	704.22	704.03	75	NA	7.0	1	8	4.1												143	
145	142+46				12	2	28		2.2	704.52	704.32	75	NA	7.0	1	7	4.1												144	
146	141+90				12	2	105		3.4	703.41	702.15	75	NA	7.0	1	56	5.4												142	
147	141+90				12	2	2		3.1	703.61	703.51	75	NA	7.0	1	1	11.0												146	
148	142+18				12	2	28		2.8	703.91	703.71	75	NA	7.0	1	9	4.1												147	
149	142+46				12	2	28		2.6	704.21	704.01	75	NA	7.0	1	8	4.1												148	
150	143+95				12	2	2		2.2	706.14	706.04	75	NA	7.0	1	0	11.0												151	
151	143+95				12	2	117		2.8	705.71	705.13	75	NA	7.0	1	41	3.5												155	
152	143+95				12	2	33		2.2	706.14	705.81	75	NA	7.0	1	9	4.9												151	
153	144+85				12	2	26		2.2	707.29	706.35	75	NA	7.0	1	4	9.3												154	
154	145+13				12	2	26		1.2	706.25	706.18	75	NA	7.0	1	5	2.7												155	
155	145+12				12	2	54		3.7	705.03	704.39	75	NA	7.0	1	16	5.3												156	
156	145+09				12	2	5		1.8	704.29	704.20	75	NA	7.0	1	1	6.5											EX2307		
157	146+26				12	2	30		1.0	706.65	706.39	75	NA	7.0	1	3	4.6												158	
158	146+55				12	2	2		1.3	706.39	706.29	75	NA	7.0	1	0	11.0												159	
159	146+55				12	2	83		1.8	706.19	705.94	75	NA	7.0	1	17	2.7												164	
160	146+26				12	2	19		1.0	706.77	706.58	75	NA	7.0	1	2	4.9												161	
161	146+45				12	2	29		1.2	706.58	706.29	75	NA	7.0	1	4	4.9												159	
162	147+14				12	2	23		2.2	706.84	706.73	75	NA	7.0	1	6	3.5												163	
163	147+38				12	2	28		2.5	706.63	706.35	75	NA	7.0	1	6	4.9												164	
164	147+37				15	2	123		2.2	705.74	705.45	75	NA	7.0	1	30	2.8												165	
165	148+60				15	2	100		1.9	705.35	704.99	75	NA	7.0	1	19	3.4												171	
166	148+60				12	2	20		1.6	705.68	705.62	75	NA	7.0	1	4	2.7												165	
167	148+64				12	2	14		1.5	705.67	705.62	75	NA	7.0	1	2	2.7												165	
168	148+94				12	2	30		1.1	705.86	705.77	75	NA	7.0	1	4	2.7												167	
169	149+60				12	2	19		1.0	705.06	705.00	75	NA	7.0	1	2	2.8												171	
170	149+50				12	2	26		2.2	705.76	705.66	75	NA	7.0	1	4	3.1												171	
171	149+60				15	2	110		1.3	704.89	703.64	75	NA	7.0	1	16	6.1												173	
172	150+70				15	2	20		1.2	703.37	703.25	75	NA	7.0	1	1	4.4												OUT	
173	150+70				15	2	7		1.1	703.54	703.47	75	NA	7.0	1	1	5.9												172	
174	150+70				12	2	19		1.0	703.78	703.68	75	NA	7.0	1	2	3.5												173	
175	151+70				12	2	9		1.0	702.43	702.40	75	NA	7.0	1	0	2.7												OUT	
176	151+70				12	2	5		1.2	702.44	702.43	75	NA	7.0	1	1	2.7												175	
177	151+70				12	2	19		1.0	702.47	702.44	75	NA	7.0	1	2	1.9												176	

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RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: MJS	DRAWN: MAK	
CHECKED: JMM	CHECKED: JMM	

INDIANA
DEPARTMENT OF TRANSPORTATION

STRUCTURE DATA TABLE

HORIZONTAL SCALE N/A	BRIDGE FILE	
VERTICAL SCALE N/A	DESIGNATION 1600294	
SURVEY BOOK	DWG. NO. AT-02	SHEET NO. 37 of 137
CONTRACT R-39890	PROJECT 1600294	

STRUCTURE DATA

STRUCTURE NUMBER	LOCATION			STRUCTURE TYPE	SIZE	PIPE TYPE	LENGTH	SKEW	FLOW LINE			SERVICE LIFE	SITE DESIGNATION	PH	BACKFILL METHOD	STRUCTURE BACKFILL	VELOCITY	REVEITEMENT RIPRAP	CLASS I RIPRAP	GEOTEXTILE	PIPE END SECTION	GRATED BOX END SECTION			SAFETY METAL END SECTION			CONNECT TO STR. NO.	REMARKS										
	STATION	LEFT	CROSS						RIGHT	IN.	FT.											FT.	ELEV.	ELEV.	YR.	CYS	FPS			TONS	TONS	SYD	EA.	TYPE	SLOPE	EA.	TYPE	SLOPE	EA.
178	152+55				12	2	8		1.0	701.81	701.78	75	NA	7.0	1	0	3.1													OUT									
179	152+95				12	2	9		1.0	701.68	701.67	75	NA	7.0	1	0	1.6														OUT								
180	153+22				12	2	9		1.0	701.66	701.63	75	NA	7.0	1	0	2.7														OUT								
181	153+90				18	2	59		1.2	701.56	701.47	75	NA	7.0	1	11	2.5														OUT								
182	151+25				18	2	43		1.8	702.98	702.62	75	NA	7.0	1	12	5.9														OUT								
185	154+40				12	2	8		1.4	701.59	701.51	75	NA	7.0	1	0	4.9														OUT								
193	130+96				12	2	18		2.2	702.90	702.54	75	NA	7.0	1	4	6.9														115								
194	131+40				12	2	40		2.2	702.39	701.49	75	NA	7.0	1	11	7.4														119								
195	124+45				24	2	184		5.1	696.58	694.37	75	NA	7.0	1	141	8.5														196								
196	122+60				24	2	25		3.7	694.27	694.17	75	NA	7.0	1	9	4.9														OUT								
197	140+72				12	2	5		5.9	700.08	700.05	75	NA	7.0	1	2	3.8														OUT								
198	117+70				24	2	45		3.9	689.28	689.14	75	NA	7.0	1	32	4.3														OUT								
199	121+80				24	2	62		2.6	691.25	690.33	75	NA	7.0	1	33	9.5														OUT								
200	141+05				12	2	27		2.2	704.19	704.06	75	NA	7.0	1	9	3.5														142								
201	142+18				12	2	14		2.2	704.19	704.09	75	NA	7.0	1	4	4.1														148								
202	142+56				12	2	17		2.2	704.39	704.31	75	NA	7.0	1	0	3.5														149								
203	149+20				12	2	28		2.0	706.04	705.96	75	NA	7.0	1	4	2.7														168								
204	137+00				12	2	10		2.2	704.78	704.68	75	NA	7.0	1	0	4.9														133								
205	137+05				12	2	45		2.2	704.69	704.47	75	NA	7.0	1	0	3.5														133								

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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE N/A	BRIDGE FILE
			VERTICAL SCALE N/A	DESIGNATION 1600294
DESIGNED: MJS	DRAWN: MAK	STRUCTURE DATA TABLE		
CHECKED: JMM	CHECKED: JMM			
		SURVEY BOOK	DWG. NO. AT-02	SHEET NO. 38 of 137
		CONTRACT R-39890	PROJECT 1600294	