


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

Road No./County:	State Road 258 (SR 258) and N County Road 100 E /Jackson County
Designation Number(s):	1298633
Project Description/Termini:	The proposed project includes improvements to the roadway profile to provide the required stopping sight distance. The proposed project limits are from approximately 0.55 mile west of N CR 100 E to approximately 500 feet east of N CR 100 E, for a total length of construction along SR 258 of approximately 3,200 feet. Roadway improvements, from approximately 500 feet south and approximately 300 feet north of the SR 258 intersection, are also required on N CR 100 E to accommodate the vertical profile change on SR 258.

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

Approval

INDOT DE Signature and Date	 9/28/2022 INDOT ESD Signature and Date
FHWA Signature and Date	

Release for Public Involvement

INDOT DE Initials and Date	INDOT ESD Initials and Date
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Certification of Public Involvement

INDOT Consultant Services Signature and Date

INDOT DE/ESD Reviewer Signature and Date:

	09/28/2022
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Name and Organization of CE/EA Preparer: Laura Sakach, Crawford, Murphy & Tilly, Inc.

Indiana Department of Transportation

County Jackson

Route SR 258

Des. No. 1298633

Introduction

This document provides supplemental information to the Categorical Exclusion Level 2 (CE-2) document, approved on December 8, 2016 for the State Road (SR) 258 Sight Distance Improvement project located in Jackson County, Indiana (Appendix G, page G-1). This document contains a history of the environmental document, an outline of the proposed modifications, and discussions of impacts occurring as a result of the proposed modifications.

Purpose and Need

The Indiana Department of Transportation (INDOT) has identified the need to address safety for vehicular traffic along SR 258. Within the project limits, the vertical alignment consists of two crest vertical curves (hills) separated by a sag vertical curve (valley). The eastern hill (the larger of the two) does not meet current design standards and thus does not provide adequate stopping sight distance. There also are four driveway approaches located near the crest of the eastern hill. In addition to insufficient stopping sight distance for the identification of vehicles turning into the driveways, there is inadequate sight distance for vehicles turning from the driveways onto SR 258. This is in contrast to the surrounding SR 258 corridor which is generally a more level terrain with adequate sight distance. The purpose of this project is to provide acceptable stopping sight distances that allow for safe and efficient movement of traffic. The original purpose and need remains valid.

Current Conditions

SR 258 in the project area is classified as a Rural Major Collector with a posted speed limit of 55 miles per hour (mph). The existing typical section consists of two 10.5-foot travel lanes with no shoulders.

Original Project Description

The following project description was included in the original approved CE-2 (Appendix G, pages G-1 to G-113). The existing profile of SR 258 will be modified to improve the stopping sight distance at this location. To avoid relocations of existing property owners, the project's horizontal alignment will be shifted approximately 75 feet to the north. By shifting the alignment to the north, the need for significant grade changes on the existing alignment and construction of retaining walls will be eliminated.

The project design will be based on a design speed of 55 mph using a functional classification of Rural Major Collector. While the design speed is 55 mph, the vertical stopping sight distance is only being corrected to the requirements of a 45-mph design speed. The existing lane widths are approximately 10.5 feet. Proposed travel lanes will be 12 feet wide, with one lane in each direction. There are currently no existing shoulders along this section of SR 258. It is not practical to widen the shoulders for this section of SR 258 to the desired width of 8 (paved) feet. A design exception to provide a 1-foot aggregate shoulder, in-lieu of the minimum 8-foot paved shoulder requirement, is anticipated. Total length of construction along SR 258 will be approximately 2,100 feet.

Current Project Scope

After additional consultation with INDOT's roadway design group, it was determined that the horizontal curves associated with the northern alignment shift in the original design, along with the vertical profile providing stopping sight distance for a 45 mph design speed, would not reduce the anticipated number of fatal and incapacitating injury crashes beyond that of other lower cost alternatives contained in the engineer's report. Therefore, an additional alternative was developed to meet the project's purpose and need. The new preferred alternative utilized geometric design criteria to improve the existing conditions that contribute to the probability of crashes in the project area. The new preferred alternative will meet the purpose and need for the project by providing acceptable stopping sight distances that allow for safe and efficient movement of traffic along SR 258 at the project location. The current proposed project includes improvements to the roadway profile to provide the required stopping sight distance for the 55-mph posted speed limit, while maintaining the existing horizontal alignment.

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The original and revised project areas are shown on the aerial map (Appendix A, page A-3). The proposed project limits are from approximately 0.55 miles west of N CR 100 E to approximately 500 feet east of N CR 100 E, for a total length of construction along SR 258 of approximately 3,200 feet. The revised project area extends an additional 600 feet west along SR 258 and 490 feet east along SR 258 from the original project limits. The revised project area also extends along N CR 100 E from approximately 500 feet south and approximately 300 feet north of the SR 258 intersection, to accommodate the vertical profile change on SR 258.

The project design has been changed from shifting the SR 258 alignment to the north, to maintaining the existing horizontal alignment. The new improvements include lowering the existing roadway crest by approximately 5 feet and raising the existing roadway sag vertical curves on either side of the crest by approximately 15 feet. To limit impacts to various residential properties, the addition of retaining walls will be required along the south side of SR 258 in two locations near the crest vertical curve.

The project design will be based on a design speed of 55 mph using a functional classification of Rural Major Collector. Proposed travel lanes will be 12 feet wide, with one lane in each direction, and 2-foot paved shoulders will be provided.

The following drainage structure improvements will also be required to accommodate the roadway profile changes:

- The existing 18 feet by 6 feet box culvert (CV 258-036-4.73) located at unnamed tributary (UNT) 3 to White Creek will be lengthened with new headwalls/wingwalls constructed to accommodate the increased elevation of SR 258.
- 7 existing culverts in the project limits will be removed and replaced "in kind". Two of these culvert replacements will result in impacts to streams, including UNT 1 to White Creek and UNT 2 to White Creek.
- An existing 12-inch driveway pipe under the residential drives on the south side of SR 258 at the top of the hill will be removed, but no new structure will be placed at this location, as the roadside ditches will be graded to carry water away from these driveways.

The approved CE identified a need for 5 acres of new permanent right of way (ROW) and 0.20 acre of temporary ROW for the project. The proposed design change will require 4.3 acres of permanent ROW, (0.7 acre less than the original CE), and 1.9 acres of temporary ROW, (1.7 acres more than the original CE). The revised ROW is shown on the attached Stage 2 plans (Appendix A, page A-11). Both the original CE and the current project identified that no relocations of people, businesses, or farms will take place as result of this project.

The Maintenance of Traffic (MOT) for the project will require closure of SR 258 and N CR 100 E and detouring through-traffic using SR 135, US 50, and SR 11 for SR 258 traffic and E CR 600 N, N Base Road and E CR 800 N for N CR 100 E traffic. The additional travel length due to this detour is approximately 10.5 miles for through trips on SR 258 and approximately 3.9 miles for a through trip on N CR 100 E. The detour is expected to be in place approximately 9 months for SR 258 and approximately 3 months for N CR 100 E. Residences and businesses along the detoured road will access to their property maintained. Other detours will be available for local traffic in the project vicinity using local and county roads. Please refer to Appendix A for MOT details within the Stage 2 plans (page A-17).

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

Re-Coordination

Because the project scope was changed, early coordination letters (ECL) were resent to relevant parties on November 5, 2021. A sample ECL and recipient list is attached (Appendix B, pages B-1 to B-6).

Correspondence from INDOT Environmental Services Division (ESD) on September 13, 2021 indicated that a new opportunity for public hearing or an information meeting should be held because the scope of the project is changing. INDOT ESD also indicated that a new Red Flag Investigation (RFI) was required due to the age of the RFI in the 2016 approved CE. (Appendix B, pages B-7 to B-10). A public information meeting will be held prior to the Ready for Contracts (RFC) date.

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The U.S. Fish and Wildlife Service (USFWS) responded to the ECL on November 10, 2021. The USFWS indicated that the project is within the range of the Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) and should follow the new Indiana bat/northern long-eared bat programmatic consultation process. Standard recommendations were also provided. (Appendix B, pages B-21 to B-23). USFWS's response included additional recommendations as well as the removal of some recommendations from the response provided for the approved CE. Based on the USFWS's response, the new programmatic consultation process was followed, and results of that coordination is discussed in a later section in this document under Environmental Impacts: Protected Species.

The Indiana Department of Natural Resources - Division of Fish and Wildlife (IDNR-DFW) responded on November 5, 2021 with recommendations to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources (Appendix B, pages B-24 to B-26). IDNR-DFW's response included additional recommendations as well as the removal of some recommendations from the response provided for the approved CE.

In the approved CE, Natural Resources Conservation Service (NRCS) had indicated that the project would not cause a conversion of prime farmland. NRCS responded to the new ECL on December 10, 2021 indicating the project will cause a conversion of prime farmland. Coordination with NRCS resulted in a score of 105 on the NRCS-CPA-106/AD 1006 Form (Appendix B, pages B-27-B-29). NRCS indicated that 0.58 acre of prime and unique farmland were located within the revised project area. NRCS's threshold score for significant impacts to farmland that result in the consideration of alternatives is 160. Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland. The NRCS correspondence requires no changes to the conclusions in the approved CE.

Parts of western Jackson County are within a karst area, but the project is located in eastern Jackson County. In the new RFI (Appendix F, pages F-1 to F-8) and in the early coordination response November 5, 2021, the Indiana Geological and Water Survey (IGWS) did not identify any karst features in the modified project area (Appendix B, pages B-11 to B-13). IGWS noted a high liquefaction potential, 1% annual chance flood hazard, a moderate potential for bedrock resources, low potential for sand and gravel resources, and no active or abandoned mineral resources extraction sites are documented in the area. Response from IGWS has been communicated with the designer on November 5, 2021. No impacts are expected. The IGWS response requires no changes to the conclusions of the approved CE.

Early coordination occurred via Indiana Department of Environmental Management's (IDEM) online service on November 5, 2021. IDEM's response did not change from the response provided for the approved CE (Appendix B, pages B-14 to B-20).

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

Environmental Impacts

Waters of the United States:

In the approved CE, no areas meeting the definition of jurisdictional streams, wetlands, or other water features were identified within or adjacent to the project area. A site visit was completed on September 28, 2021 by CMT within the revised project area.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT Ecology and Waterway Permitting Office on February 9, 2022 (Appendix C, pages C-73 to C-74). Please refer to Appendix C, pages C-1 to C-72 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that four potentially jurisdictional streams and three potentially jurisdictional wetlands were identified within the revised construction limits. The U.S. Army Corps of Engineers (USACE) makes all final determinations regarding jurisdiction.

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

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- Unnamed tributary (UNT) 1 to White Creek is located within the construction limits. UNT 1 to White Creek flows generally east through an existing open channel for 515 linear feet within the project area before passing through an existing culvert as an encapsulated stream under N CR 100 E for 36 linear feet and continuing to flow southeast through an open channel for 156 feet before exiting the project area (Appendix C, pages C-6 and C-24). Approximately 674 linear feet (0.06 acre) of UNT 1 to White Creek will be permanently impacted, with 48 linear feet of net stream loss, due to grading, placement of riprap for erosion control, a culvert extension, and stream relocation to accommodate the grade changes. Approximately 659 linear feet of UNT 1 to White Creek will be relocated to a new 685-foot segment, located approximately 67 feet south of the existing channel at N CR 100 E and approximately 13-50 feet south of the existing channel along SR 258. Within the relocated segment of the stream, the existing 40-foot culvert underneath N CR 100 E will be extended 74 feet to a new 114-foot culvert, resulting in 74 linear feet of new encapsulation. The stream relocation and new encapsulation will result in a net loss of 48 linear feet of open channel.
- UNT 2 to White Creek is located within the construction limits. UNT 2 to White Creek flows generally east through an existing open channel for 70 linear feet within the project area before passing through an existing culvert as an encapsulated stream under N CR 100 E for 32 linear feet and continuing to flow east through an open channel for 80 feet before exiting the project area (Appendix C, pages C-7 and C-24). A total of approximately 103 linear feet (0.01 acre) of UNT 2 to White Creek will be permanently impacted, with 39 linear feet of net stream loss, due to grading, placement of riprap for erosion control, a culvert extension, and stream relocation to accommodate the grade changes. Approximately 103 linear feet of UNT 2 to White Creek will be relocated to a new 100-foot segment, located approximately 10 feet south of the existing channel at N CR 100 E. Within the relocated segment of the stream, the existing 28-foot culvert underneath N CR 100 E will be extended 36 feet to a new 64-foot culvert, resulting in 36 linear feet of new encapsulation. The stream relocation and new encapsulation will result in a net loss of 39 linear feet of open channel.
- UNT 3 to White Creek is located within the construction limits. UNT 3 to White Creek flows generally south through an open channel for 111 linear feet within the project area before passing through existing culvert CV-258-036-4.73 as an encapsulated stream under SR 258 for 29 linear feet and continuing to flow south through an open channel for 40 feet before exiting the project area (Appendix C, pages C-6 to C-7 and C-25). Approximately 60 linear feet (0.01 acre) will be permanently impacted due to grading, placement of riprap for erosion control, and a 25-foot-long culvert extension, to accommodate the increased elevation of SR 258.
- UNT 4 to White Creek is located within the construction limits. UNT 4 to White Creek flows generally north through an open channel for 93 linear feet within the project area (Appendix C, pages C-8 and C-25). Approximately 71 linear feet (0.003 acre) will be impacted due to grading to accommodate the grade changes.
- Wetland A is located within the construction limits. Wetland A is a 0.005-acre, palustrine emergent persistent (PEM1) wetland located in a roadside ditch along the north side of SR 258 and east of N CR 100 E. This wetland drained generally west through a roadside ditch to an existing culvert under SR 258 to UNT 1 to White Creek, which is a tributary to the East Fork White River, a Section 10 Traditional Navigable Water (TNW) (Appendix C, pages C-10 and C-24). Based on the connection to a downstream TNW, this wetland is likely federally jurisdictional. Based on hydrology and vegetation modifications from the construction of SR 258, low species diversity, and mown grass buffer, Wetland A is a poor-quality wetland. Approximately 0.005 acre of Wetland A will be permanently impacted due to grading to accommodate the roadway profile improvements.
- Wetland B is located within the construction limits. Wetland B is a 0.017-acre, palustrine emergent persistent (PEM1) wetland located within a roadside ditch along the north side of SR 258 and west of UNT 3 to White Creek. This wetland drained generally east through a roadside ditch to UNT 3 to White Creek, which is a tributary to the East Fork White River, a Section 10 TNW (Appendix C, pages C-10 and C-25). Based on the connection to a downstream TNW, this wetland is likely federally jurisdictional. Based on hydrology and vegetation modifications from the construction of SR 258, the dominance of invasive species, low species diversity, and mown grass buffer, Wetland B is a poor-quality wetland. Approximately 0.017 acre of Wetland B will be permanently impacted due to grading to accommodate the roadway profile improvements.

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- Wetland D is located within the construction limits. Wetland D is a 0.059-acre, palustrine emergent persistent (PEM1) wetland located in a depression in the northwest quadrant of the N CR 100 E and SR 258 intersection. This wetland drained generally southeast to a roadside ditch to an existing culvert under N CR 100 E to RSD2 to an existing culvert under SR 258 to UNT 1 to White Creek, which is a tributary to the East Fork White River, a Section 10 TNW (Appendix C, pages C-11 and C-26). Based on the connection to a downstream TNW, this wetland is likely federally jurisdictional. Based on hydrology modifications from the construction of SR 258 and N CR 100 E, low species diversity, and mown grass buffer, Wetland D is a poor-quality wetland. Approximately 0.04 acre of Wetland D will be permanently impacted due to grading to accommodate the roadway profile improvements.

The project will result in 908 linear feet (0.075 ac) of cumulative impacts to streams and 0.062 acre of impacts to jurisdictional wetlands due to riprap placement for erosion control, roadway and drainage grading, culvert extensions, and two stream relocations. No isolated wetlands are anticipated to be impacted by the project. At this time, all impacts are expected to be permanent. Temporary impacts due to dewatering methods are not yet known but are expected to be located completely within the footprint of permanent impacts.

Worst-case impacts were determined based on an estimate of the construction limits required for construction of the project. Efforts were made to avoid and minimize impacts to the greatest extent possible. Avoidance alternatives are not practicable because they would not allow the project to address the existing safety concerns, and therefore would not fulfill the project's purpose and need.

Mitigation will be required to compensate for permanent impacts to 908 linear feet of jurisdictional stream as indicated in the permit determination on April 13, 2022 (Appendix C, pages C-75 to C-83). A 404 Regional General Permit (RGP) and 401 Individual Permit (IP) are anticipated to be required. Further discussion of permits is included in the Permits section below.

Terrestrial Habitat:

The approved CE documented that approximately 4.0 acres of existing forest land would be impacted for the project. The revised project is expected to require 4.4 acres of tree removal, an increase of 0.4 acre of tree clearing from the original CE. Through consultation with USFWS, no more than 9.2 acres of trees may be removed for the project. 8 acres may be removed within 100 feet of the roadway and 1.2 acres may be removed 100-300 feet from the roadway (Appendix D, pages D-37 to D-40).

The revised project includes mowed grass/lawn, early successional habitat, forested areas, and emergent wetland habitat within the construction limits. The area is forested and residential land uses. Mowed grass/lawn, early successional habitat, forested areas, and emergent wetland are the only vegetative community types in the project area and the only ground covers expected to be directly impacted. Approximately 3.3 acre of mowed grass/lawn containing common turf grasses, including fowl blue grass (*Poa palustris*) and narrowleaf plantain (*Plantago lanceolata*), will be directly impacted for the project improvements. Approximately 0.14 acre of early successional habitat dominated by white snakeroot (*Ageratina altissima*), white oldfield American-aster (*Symphotrichum pilosum*), and Spanish-needles (*Bidens bipinnata*), will be directly impacted for the project improvements. Approximately 4.4 acres of forested areas dominated by white oak (*Quercus alba*), Eastern white pine (*Pinus strobus*), red maple (*Acer rubrum*), slippery elm (*Ulmus rubra*), green ash (*Fraxinus pennsylvanica*), and sweet-gum (*Liquidambar styraciflua*) will be directly impacted for the project improvements, an increase of approximately 0.4 acre from the original CE. Approximately 0.062 acre of emergent wetland dominated by blunt spike-rush (*Eleocharis obtusa*), reed canary grass (*Phalaris arundinacea*), rough banyard grass (*Echinochloa muricata*), rice cut grass (*Leersia oryzoides*), lamp rush (*Juncus effusus*), shallow sedge (*Carex lurida*), soft-stem club-rush (*Schoenoplectus tabernaemontani*), old-man-in-the-spring (*Senecio vulgaris*), and black bent (*Agrostis gigantea*), will be directly impacted for the project improvements. A total of 7.9 acres of terrestrial habitat will be directly impacted for the roadway profile improvements, an increase of 3.9 acres from the original scope. Efforts were made to avoid and minimize terrestrial habitat impacts to the greatest extent possible. Avoidance alternatives are not practicable because they would not allow the project to address the existing safety concerns, and therefore would not fulfill the project's purpose and need. Mitigation is required for this project and discussed in the Protected Species section below.

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Protected Species:

The approved CE documented that the project area was within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened Northern long-eared bat (NLEB) (*Myotis septentrionalis*). Up to 4.0 acres of tree removal was identified in the approved CE.

According to the IDNR-DFW early coordination response letter dated December 3, 2021 (Appendix B, pages B-24 to B-26), the Natural Heritage Program's Database has been checked and no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity. In addition, IDNR-DFW responded with recommendations to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources. All applicable recommendations are included in the Environmental Commitments section of this CE document. An INDOT 0.5-mile bat review occurred on September 27, 2021, which did not indicate the presence of the Indiana bat or northern long-eared bat in or within 0.5 mile of the project area (Appendix D, pages D-41).

Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an updated official species list was generated (Appendix D, pages D-1 to D-13). The project was also documented within range of the candidate species monarch butterfly (*Danaus plexippus*). No critical habitat or guidance has been designated for this species. No monarch butterflies, caterpillars, or chrysalises or milkweed, the species' exclusive host plant, were observed within the revised project area during the site visit on September 28, 2021 by CMT. The project is not expected to be a concern to the monarch butterfly. The project was still documented within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). No additional species were generated in the IPaC species list.

During initial consultation through the USFWS's IPaC portal, no more than 9.2 acres of trees were estimated for removal (8 acres within 100 feet of the roadway and 1.2 acres within 100-300 feet from the roadway) (Appendix D, pages D-5 to D-6). The project qualified and completed Limited Formal Programmatic Consultation for the Indiana bat and northern long-eared bat (NLEB) due to tree clearing 100-300 ft from the existing roadway. Culvert inspections occurred on September 27, 2021 and no evidence of presence and/or use by bats was observed (Appendix D, pages D-14 to D-21). An effect determination key was completed on December 7, 2021 and based on the responses provided, the project was found to "Likely to Adversely Affect" the Indiana bat and/or the NLEB (Appendix D, pages D-22 to D-36). Proposed impacts have been minimized and avoidance alternatives are not practicable because they would not allow the project to address the roadway profile concerns, and therefore would not fulfill the project's purpose and need.

INDOT verified the effect finding and submitted to USFWS on January 22, 2022. On January 24, 2022, USFWS issued a verification letter with the "Likely to Adversely Affect" finding (Appendix D, pages D-37 to D-40). Avoidance and Minimization Measures (AMMs) (General 1, Lighting 1, Tree Removal 1, and 3) are included as firm commitments in the Environmental Commitments section of this document. All tree clearing activities will occur outside of the Indiana bat and/or NLEB active season from April 1 through September 30, which has also been included as a firm commitment in the Environmental Commitments section of this document (Appendix B, page B-26 and Appendix D, page D-25).

Additionally, a "Reinitiation Notice" is required if: more than 1.2 acres of suitable habitat between 100-300 feet from the edge of pavement is to be cleared; the project takes more than five Indiana bats results from work on the structure; new information about listed species is encountered; the project is modified in a manner that causes an effect to the listed species; or a new species or critical habitat is listed that the project may affect. These requirements, and the AMMs from the Project Submittal Form, are included as firm commitments for this project.

INDOT shall satisfy the compensatory mitigation requirements of the formal consultation with USFWS through one of the conservation options outlined on page 41 of the May 20, 2016 Programmatic Biological Opinion for Transportation Projects in the Range of the Indiana bat and NLEB. The amount to be paid to the Range-wide In-lieu Fee Program, to be administered by The Conservation Fund, shall be \$16,837.20. This amount was determined by the Habitat Block Method. The area of suitable habitat to be cleared, multiplied by the mitigation ratio for inactive season tree clearing for Jackson County, and the compensatory price per acre; 1.2 acre X 1.5 X \$9,354.

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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.

Cultural Resources:

The approved CE documented, based on a Phase 1a field reconnaissance, no archaeological resources in the project area. The approved CE also documented that no historic properties or structures within the Area or Potential Effect (APE) are listed in or eligible for the National Register of Historic Places (NRHP) or the Indiana State Register of Historic Sites and Structures. The CE documented a finding of "No Historic Properties Affected" on January 8, 2016 (Appendix G, page G-74).

Because the project design changed and the APE was modified, historians conducted an updated survey in 2021 and prepared a Memorandum to update the identification and evaluation of historic properties (Appendix E, pages E-12 to E-76). As a result of these efforts, no above-ground resources as listed in, or eligible for listing in, the NRHP were identified.

Archaeologists completed an Archaeological Records Check in February 2022. The archaeologists identified one site, 12J54, within the project area. Previously identified site 12J54 (Sims et al, 2015) was recommended as not eligible for listing in the NRHP, and no further work was recommended for that site. In February 2022, archaeologists conducted a Phase 1a field investigation within the expanded APE and prepared an archaeological short report (ASR) addendum (Goldbach and Kidwell, 2022). No additional archaeological sites were identified within the APE. The ASR addendum recommended no further work within the expanded project area.

INDOT, acting on FHWA's behalf, has determined a modified finding of "No Historic Properties Affected" is appropriate for the expanded APE (Appendix E, page E-7).

The Historic Property Short Report (HPSR) concluded that no historic properties or structures within the APE are listed in or eligible for the NR or the Indiana State Register of Historic Sites and Structures. On May 24, 2022, INDOT CRO signed an addendum to the Section 106 findings, determinations and documentation and requested comment from consulting parties; the addendum is attached (Appendix E, pages E-5 to E-11). On June 24, 2022, Indiana SHPO concurred with INDOT's finding; a copy of the concurrence letter is attached (Appendix E, pages E-77 to E-78). SHPO recommended no additional requirements on the project in this concurrence document.

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

Section 4(f) and 6(f)

Section 4(f) of the U.S. Department of Transportation Act of 1966 prohibits the use of certain public and historic lands for federally funded transportation facilities unless there is no feasible and prudent alternative. The law applies to significant publicly owned parks, recreation areas, wildlife / waterfowl refuges, and NRHP eligible or listed historic properties regardless of ownership. Lands subject to this law are considered Section 4(f) resources.

Based on the addendum to the original Section 106 findings, including FHWA's Section 4(f) Compliance Requirements (for historic properties) (Appendix E, page E-5), no Section 4(f) evaluation is required. Additionally, based on a desktop review and field reconnaissance by CMT on September 28, 2021, there are no wildlife/waterfowl refuges, parks or other recreational lands located within or near the current project area. Therefore, the project will not result in the use of a Section 4(f) resource.

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 LWCF County Property List for Indiana (Last Updated March 2022) revealed a total of six properties in Jackson County. None of these properties are located within or adjacent to the current project area. Therefore, there will be no impacts to 6(f) resources.

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Red Flag Investigation and Hazardous Materials

A new RFI was completed by CMT on October 5, 2021 for the revised project area. INDOT Site Assessment & Management (SAM) provided their concurrence on March 14, 2022 (Appendix F, pages F-1 to F-8). No sites with hazardous material concerns (hazmat sites) or sites involved with regulated substances were identified in or within 0.5 mile of the project area. Further investigation for hazardous material concerns or regulated substances is not required at this time.

Permits

A Rule 5 Construction Stormwater General Permit (CSGP) was the only likely required permit applicable to the project's original scope. The permit determination on April 13, 2022 (Appendix C, pages C-75 to C-83) identified the following permits that will be required for the current project:

CSGP

404 RGP

401 Water Quality Certification (WQC), IP

A total of 908 linear feet of impacts to UNT 1 to White Creek, UNT 2 to White Creek, UNT 3 to White Creek, and UNT 4 to White Creek, and a total of 0.062 acre of federally jurisdictional wetland impacts will occur as a result of the project. A 404 RGP and 401 IP will be required for these impacts. Mitigation will likely be required and will be determined during permitting.

A CSGP will be required since 10.5 acres of land is to be disturbed. The Jackson County MS4 is a Certified Construction Program and will have jurisdiction over the CSGP review. It will be the responsibility of the designer to submit plans to the MS4 to process any necessary permits. Once any necessary permits are obtained, they will be submitted to the INDOT Contracts Division prior to the construction of the project. The conditions of the permit will be requirements of the project.

IDNR stated that formal approval pursuant to the Flood Control Act (IC 14-28-1) will be required for any proposal to construct, excavate, or fill in or on the floodway of the unnamed tributary to White Creek, unless it qualifies for a bridge exemption (Appendix B, page B-24). Based on a review of the Bridge Exemption Criteria (Appendix B, page B-27), a permit is not required for the project because it is a construction project on a state highway in a rural area where the bridge crosses a stream having an upstream drainage area of less than 50 square miles. The bridge crossing at White Creek has an upstream drainage area of 1.95 square miles; therefore, the project meets all of the exemption criteria.

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

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

Commitments

Unless noted otherwise below, the environmental commitments in the approved CE still apply to the project, except that some new commitments have been identified as noted below. Some commitments required updated language where the AMMs associated with the Programmatic Biological Opinion (BO) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat determination contain updated language.

The following For Further Consideration Commitments from IDNR-DFW and USFWS in 2016 from the approved CE were not included in the November 2021 response letters from IDNR-DFW and USFWS.

10. Plant native hardwood trees along the top of the bank and right-of-way to replace the vegetation destroyed during construction. (IDNR-DFW).

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11. Post "Do Not Mow or Spray" signs along the right-of-way. (IDNR-DFW).
15. Re-vegetate all disturbed soil areas immediately upon completion, using native trees and shrubs in the riparian zone wherever feasible. (USFWS).
16. Post DO NOT DISTURB signs at the construction zone boundaries and do not clear trees or understory vegetation outside the boundaries. (USFWS).

New Firm Commitments:

1. Restrict below low-water work in streams to placement of culverts, piers, pilings, and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap. (USFWS)
2. Culverts should span the active stream channel, should be either embedded or a 3-sided or open-arch culvert, and be installed where practicable on an essentially flat slope. When an open-bottom culvert or arch is used in a stream, which has a good natural bottom substrate, such as gravel, cobbles and boulders, the existing substrate should be left undisturbed beneath the culvert to provide natural habitat for the aquatic community. (USFWS)
3. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat. (USFWS)
4. Avoid all work within the inundated part of the stream channel (in perennial streams and larger intermittent streams) during the fish spawning season (April 1 through June 30), except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment shall be operated below Ordinary High-Water. (USFWS)
5. Evaluate wildlife crossings under bridge/culverts projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels and diversion fencing. (USFWS)
6. A "Reinitiation Notice" is required if: more than 1.2 acres of suitable habitat between 100-300 feet from the edge of pavement is to be cleared; the project takes more than five Indiana bats results from work on the structure; new information about listed species is encountered; the project is modified in a manner that causes an effect to the listed species; or a new species or critical habitat is listed that the project may affect. (USFWS)
7. INDOT shall satisfy the compensatory mitigation requirements of the formal consultation with USFWS through one of the conservation options outlined on page 41 of the May 20, 2016 Programmatic Biological Opinion for Transportation Projects in the Range of the Indiana bat and NLEB. The amount to be paid to the Range-wide In-lieu Fee Program, to be administered by The Conservation Fund, shall be \$16,837.20. (USFWS)
8. 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)
9. Lighting AMM 1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)
10. Tree Removal AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal. (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. USFWS Structure Assessment shall take place no earlier than two years prior to the start of construction. If construction will begin after September 27, 2023, an inspection of the structures by a qualified individual,

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must be performed. Inspection of the structures should check for presence of bats and/or presence of birds. The results of the inspection must indicate no bats or birds. If bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately. (INDOT ESD)

13. All tree clearing activities will occur outside of the Indiana bat and/or NLEB active season from April 1 through September 30 (USFWS, IDNR-DFW).
14. The Contractor shall not handle dead or injured bats, regardless of species, and any other federally listed species that are found at the project site in order to preserve biological material in the best possible condition and to protect personnel from exposure to diseases, such as rabies. Project personnel shall ensure that any evidence about determining the cause of death or injury is not unnecessarily disturbed. Reporting the discovery of dead or injured listed species shall be required in all cases to enable the Service to determine whether the level of incidental take exempted by the biological opinion, BO, is exceeded, and to ensure that the terms and conditions are appropriate and effective. Parties finding a dead, injured, or sick specimen of any bat, regardless of species, or other endangered or threatened species, shall promptly notify the USFWS Indiana Field Office at (812) 334-4261. (USFWS)
15. A public information meeting will be held prior to RFC. (INDOT)

New For Further Consideration Commitments:

16. If box or pipe culverts are used, the bottoms should be buried a minimum of 6" (or 20% of the culvert height/pipe diameter, whichever is greater up to a maximum of 2') below the stream bed elevation to allow a natural streambed to form within or under the crossing structure. Crossings should: span the entire channel width (a minimum of 1.2 times the OHWM width); maintain the natural stream substrate within the structure; and have stream depth, channel width, and water velocities during low-flow conditions that are approximate to those in the natural stream channel. (IDNR-DFW)
17. There are a number of techniques and materials for incorporating wildlife passage into the design of a crossing structure. The following links are good resources to consider in the design of stream crossing structures to maintain fish and wildlife passage: <http://www.fs.fed.us/wildlifecrossings/library/>, https://roadeology.ucdavis.edu/files/content/projects/DOT-FHWA_Wildlife_Crossing_Structures_Handbook.pdf, https://www.fs.fed.us/biology/nsaec/fishxing/aop_pdfs.html, <https://www.fhwa.dot.gov/engineering/hydraulics/pubs/11008/hif11008.pdf>. (IDNR-DFW)
18. Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, 1 inch to 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10" dbh or greater (5:1 mitigation based on the number of large trees) or by using the 1:1 replacement ratio based on area depending on the type of habitat impacted (individual canopy tree removal in an urban streetscape or park-like environment versus removal of habitat supporting a tree canopy, woody understory, and herbaceous layer). Impacts under 0.10 acre in an urban area may still involve the replacement of large diameter trees but typically do not require any additional mitigation or additional plantings beyond seeding and stabilizing disturbed areas. There are exceptions for high quality habitat sites however. (IDNR-DFW)
19. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure. (IDNR -DFW)
20. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds. (IDNR -DFW)
21. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR -DFW)

Indiana Department of Transportation

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Route SR 258

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Summary

The purpose of this document is to document the change in project scope and reconfiguration of ROW limits for this project. Unless specifically discussed in this document, the impacts as identified in the CE approved on December 8, 2016 remain unchanged.

Indiana Department of Transportation

County Jackson

Route SR 258

Des. No. 1298633

Appendices

Appendix A: Graphics

- A-1 Project Location Map
- A-2 USGS Topographic Map
- A-3 Aerial Map
- A-4 Photo Orientation Map
- A-5 Photographs
- A-11 Revised Stage 2 Plans

Appendix B: Re-Coordination

- B-1 Sample ECL with Recipient List
- B-7 INDOT Environmental Services Division (ESD) Email Correspondence
- B-11 Indiana Geological and Water Survey (IGWS) ECL Response
- B-14 Indiana Department of Environmental Management (IDEM) ECL Response
- B-21 U.S. Fish and Wildlife Service (USFWS) ECL Response
- B-24 Indiana Department of Natural Resources (IDNR) - Division of Fish and Wildlife (DFW) ECL Response
- B-27 IDNR Bridge Exemption Criteria
- B-28 Natural Resource Conservation Service (NRCS) Documentation

Appendix C: Water Resources

- C-1 Waters of the US Report (applicable pages)
- C-73 INDOT Ecology and Waterway Permitting Office Approval Email
- C-75 Permit Determination

Appendix D: IPaC Documentation

- D-1 USFWS IPaC Official Species List
- D-14 Bat Structure Assessment Forms
- D-22 USFWS Consistency Letter for the Indiana Bat and Northern Long-eared Bat
- D-37 USFWS Concurrence and Mitigation Requirements Letter
- D-41 INDOT Bat Review Email

Appendix E: Section 106 of the NHPA

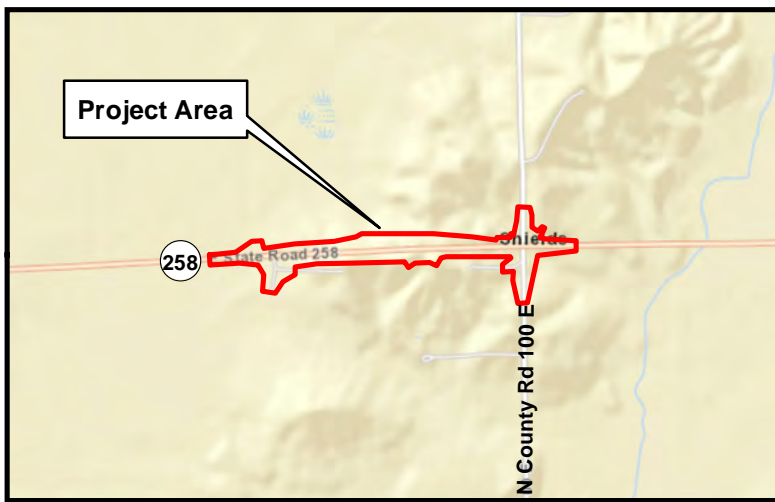
- E-1 Section 106 Addendum
- E-5 Signed Finding
- E-77 SHPO Concurrence

Appendix F: Red Flag Investigation

- F-1 INDOT Red Flag Investigation

Appendix G: Categorical Exclusion

- G-1 Approved Categorical Exclusion 2



SR 258 Sight Distance Correction (Des No. 1298633)
Location Map - Jackson County, Indiana

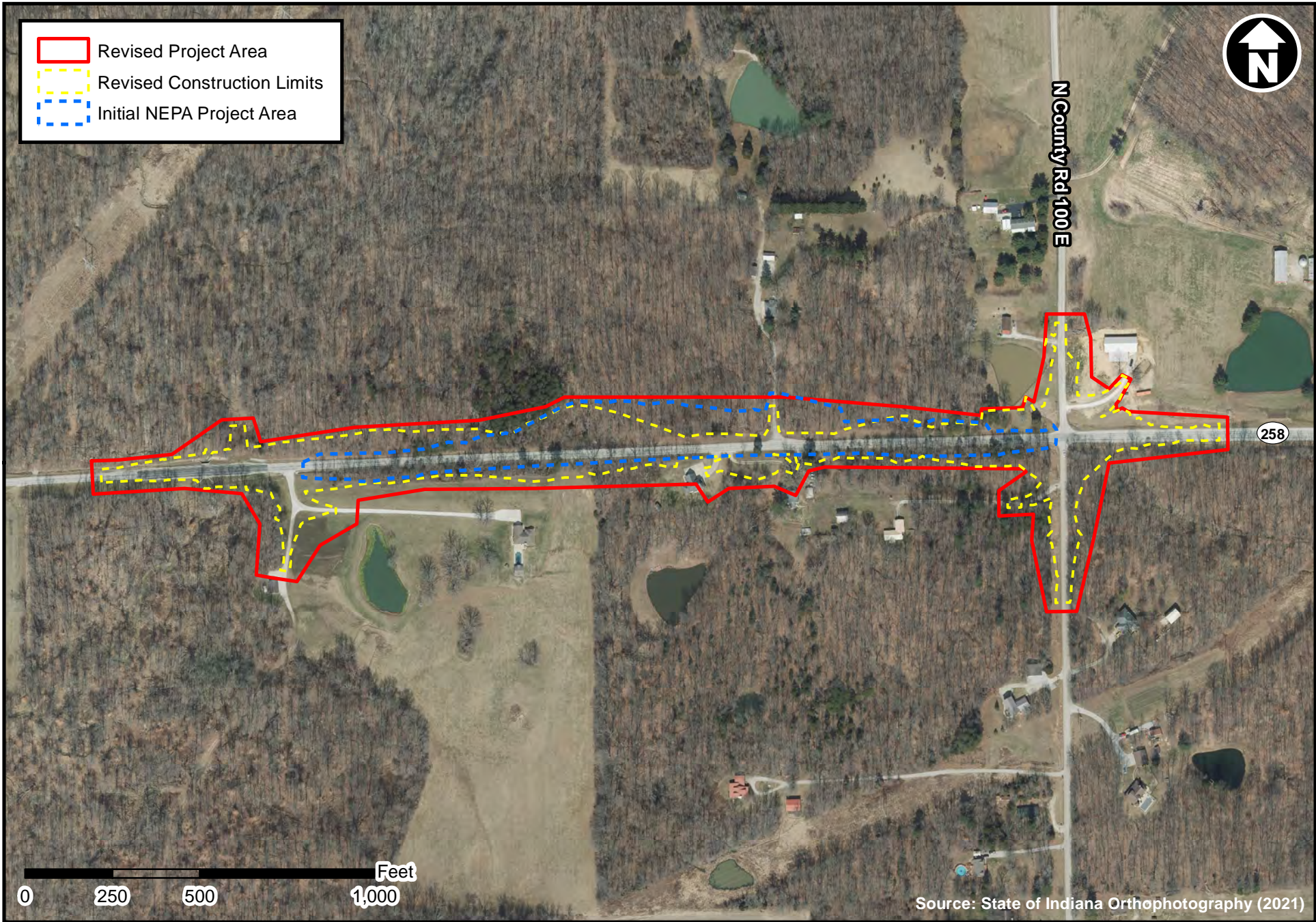


Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community



SR 258 Sight Distance Correction (Des No. 1295633) - Jackson Co., IN
 USGS Topographic Map - Brownstown, IN Quadrangle



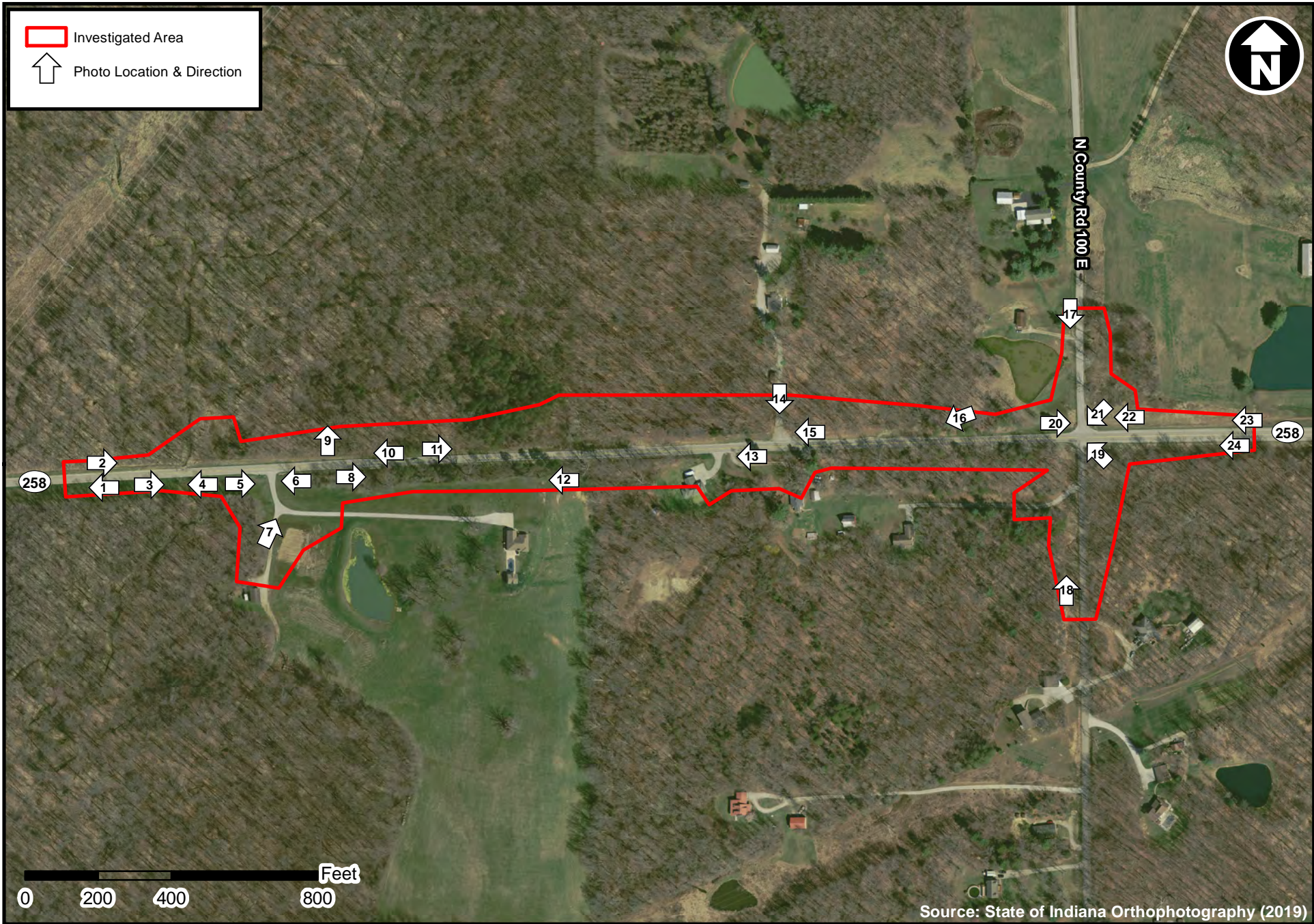


SR 258 Sight Distance Correction (Des No. 1298633) - Jackson Co., IN

Aerial Map

Author: Marion Wells; 4/22/2022

A-3



SR 258 Sight Distance Correction (Des No. 1298633) - Jackson Co., IN

Overall Photo Key

Author: Marion Wells; 11/04/2021

A-4



1. View of mowed right-of-way (ROW) along the south side of SR 258, looking west. 9/28/2021



3. View of mowed ROW and new box culvert along the south side of SR 258, looking east. 9/28/2021



2. View of ROW along the north side of SR 258, looking east. 9/28/2021



4. View of new box culvert at unnamed tributary to White Creek on the south side of SR 258, looking west. 9/28/2021



5. View of mowed ROW, roadside ditch, and driveway entrance along the south side of SR 258, looking east. 9/28/2021



7. View along driveway on the south side of SR 258, looking northeast towards SR 258. 9/28/2021



6. View of mowed ROW, roadside ditch, and driveway entrance along the south side of SR 258, looking west. 9/28/2021



8. View of mowed ROW and upland forested area along the south side of SR 258, looking east. 9/28/2021



9. View of upland forested area on the north side of SR 258, looking north. 9/28/2021



11. View of mowed ROW and upland forested area along the north side of SR 258, looking east. 9/28/2021



10. View of mowed ROW and upland forested area along the north side of SR 258, looking west. 9/28/2021



12. View of mowed lawn and upland forested area on the south side of SR 258, looking west. 9/28/2021



13. View of mowed ROW and driveway entrances along the south side of SR 258, looking west. 9/28/2021



15. View of mowed ROW and driveway entrance on north side of SR 258, looking west. 9/28/2021



14. View along driveway on north side of SR 258, looking south, towards SR 258. 9/28/2021



16. View of upland forested area along the north side of SR 258, looking southwest. 9/28/2021



17. View of mowed ROW and pond along the west side of N CR 100 E., looking south towards SR 258. 9/28/2021



19. View of intersection of SR 258 and N CR 100 E., looking northwest. 9/28/2021



18. View of mown ROW, prairie, and upland forested area along the west side of N CR 100 E., looking north towards intersection with SR 258. 9/28/2021



20. View of mowed ROW on north side of SR 258, looking east, across N CR 100 E. 9/28/2021



21. View of intersection of SR 258 and N CR 100 E., looking southwest, across SR 258. 9/28/2021



23. View of mowed ROW along the north side of SR 258, looking west. 9/28/2021



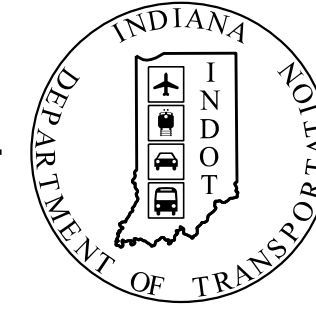
22. View of mowed ROW and drainage inlet on the north side of SR 258, looking west across N CR 100 E. 9/28/2021



24. View of mowed ROW along the south side of SR 258, looking west. 9/28/2021

PROJECT	DESIGNATION
1298633	1298633
CONTRACT	
R-41258	

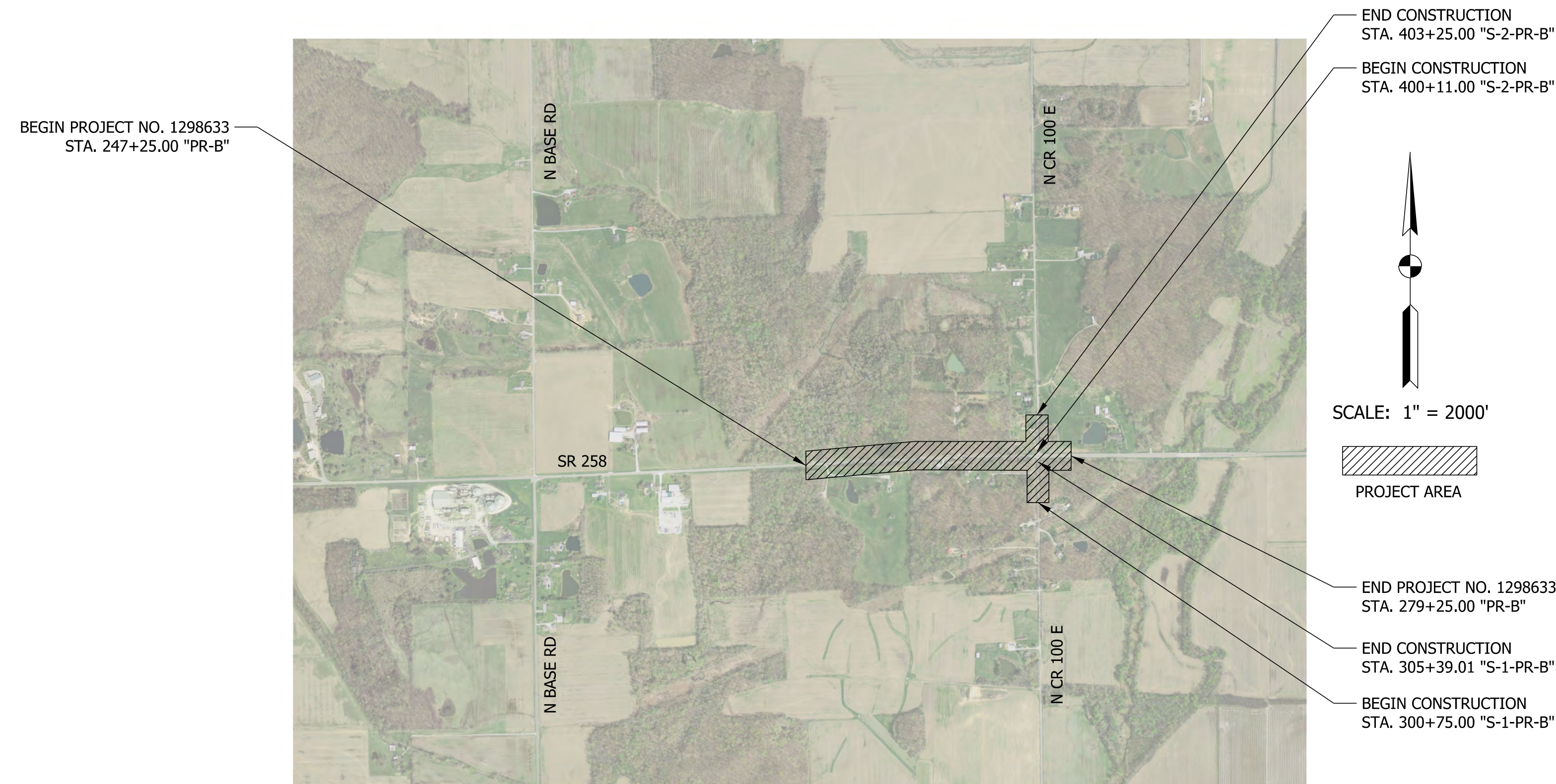
INDIANA DEPARTMENT OF TRANSPORTATION



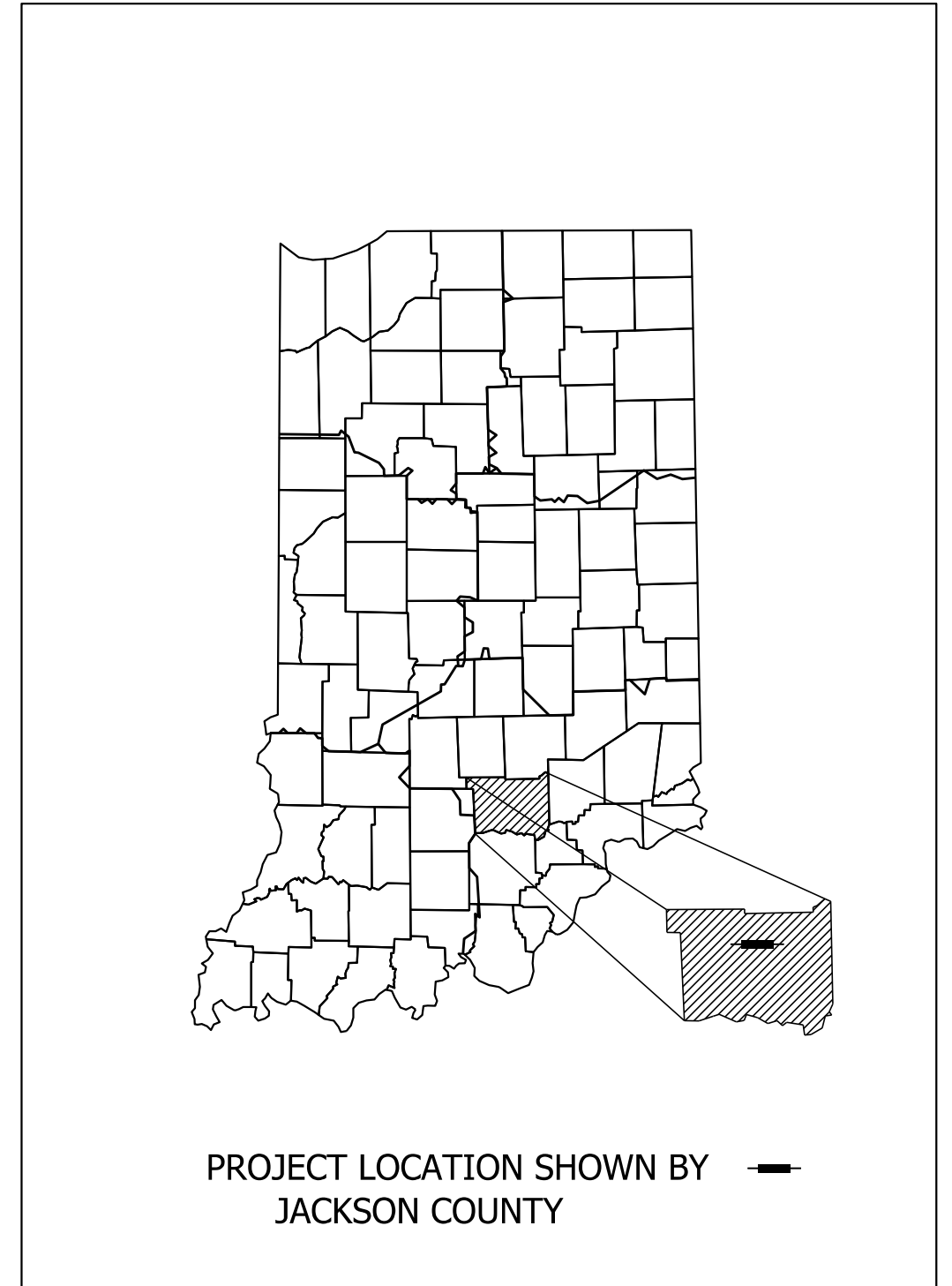
ROAD PLANS

ROUTE: SR 258 FROM: RP 4+0.48 TO: RP 5+0.22
 PROJECT NO. 1298633 P.E.
 1298633 R/W
 1298633 CONST.

Sight Distance Improvement on SR 258
 From Approx. 0.55 miles west of N CR 100 E to Approx. 500 feet east of N CR 100 E
 In Sections 1 and 12, T6N, R4E and Sections 6 and 7, T6N, R5E, Hamilton Township, Jackson County, Indiana



TRAFFIC DATA		SR 258
A.A.D.T. (2024)		2,235 V.P.D.
A.A.D.T. (2044)		2,730 V.P.D.
D.H.V (2044)		273 V.P.H.
DIRECTIONAL DISTRIBUTION		50 %
TRUCKS		14 % A.A.D.T. 14 % D.H.V.
DESIGN DATA		SR 258
DESIGN SPEED		55 M.P.H.
PROJECT DESIGN CRITERIA		3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION		STATE COLLECTOR
RURAL/URBAN		RURAL
TERRAIN		ROLLING
ACCESS CONTROL		NONE



LATITUDE: 38°58'45" LONGITUDE: 86°01'30"

GROSS LENGTH:	0.9940 MI.
NET LENGTH:	0.9940 MI.
MAX. GRADE:	7.52% %

STAGE 2 PLANS
3/7/2022

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

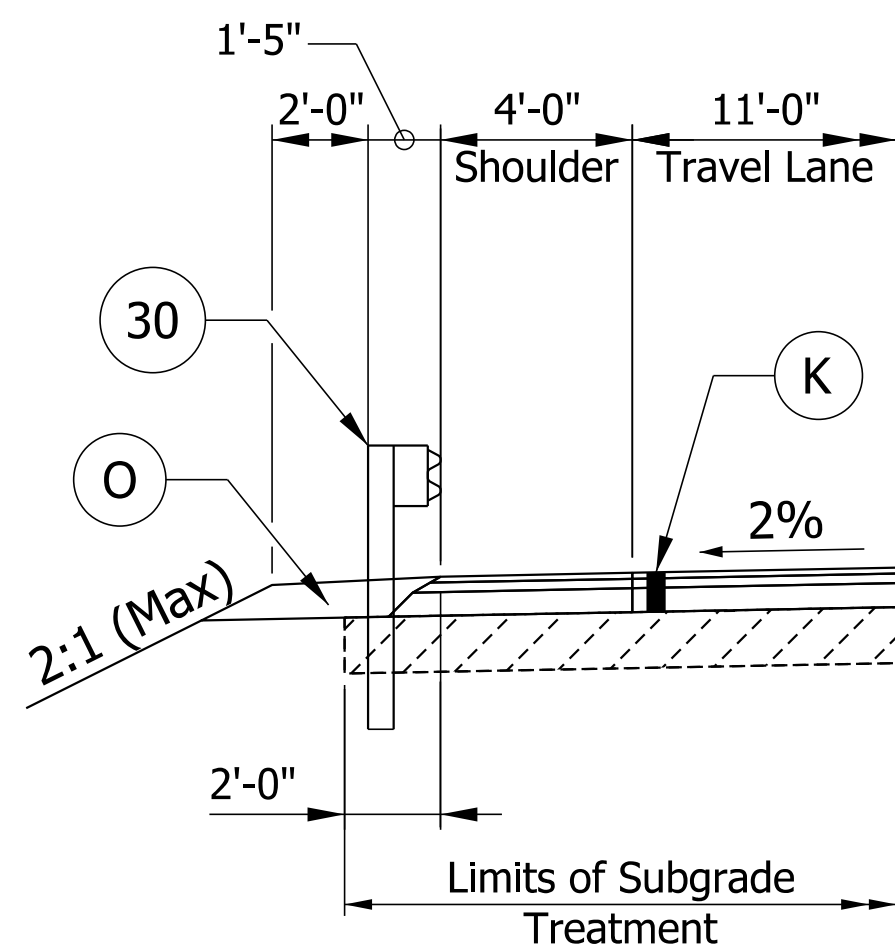
Plot: \$PLOT_DATES

CMT Engineers and Consultants
 Copyright CMT, Inc.
 8790 PURDUE ROAD
 INDIANAPOLIS, IN 46268-6128
 PHONE: (317) 298-4500

NOT FOR CONSTRUCTION

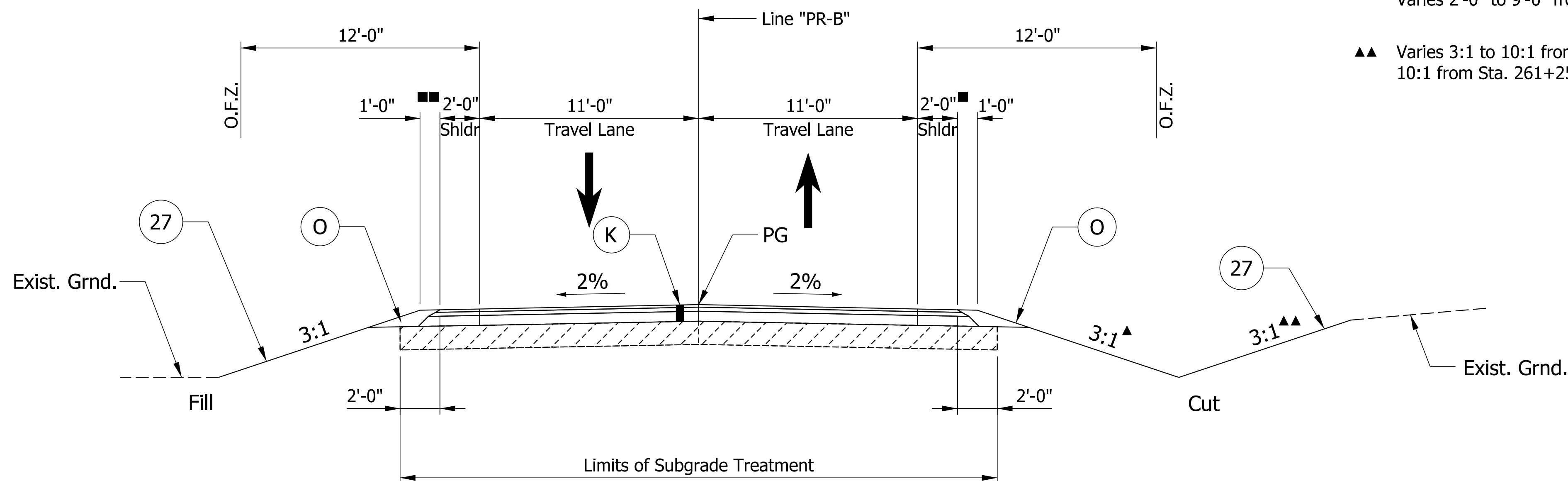
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 CERTIFIED BY: _____ 4/7/2022 DATE
 APPROVED FOR LETTING: _____ INDIANA DEPARTMENT OF TRANSPORTATION DATE

BRIDGE FILE	
N/A	
DESIGNATION	
1298633	
SHEETS	
SURVEY BOOK	1 of 33
Electronic	
CONTRACT	PROJECT
R-41258	1298633



AUXILIARY GUARDRAIL SECTION

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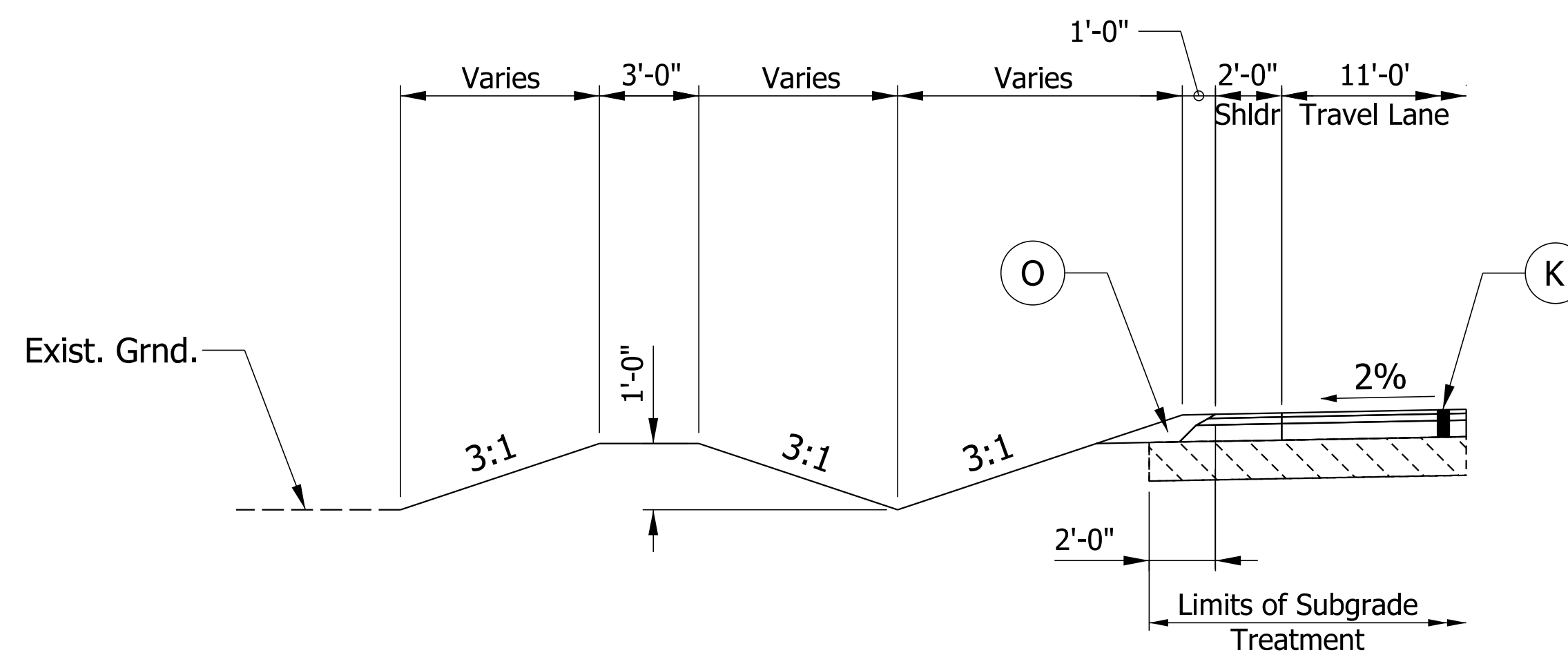
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 9'-0" from Sta. 252+17.53 Rt. "PR-B" to Sta. 252+50.26 Rt. "PR-B"
- 9'-0" from Sta. 266+65.44 Lt. "PR-B" to Sta. 266+97.12 Lt. "PR-B"
 Varies 2'-0" to 9'-0" from Sta. 266+97.12 Lt. "PR-B" to 267+46.76 Lt. "PR-B"
- ▲ Varies 3:1 to 10:1 from Sta. 260+75.00 Rt. "PR-B" to 261+25.00 Rt. "PR-B"
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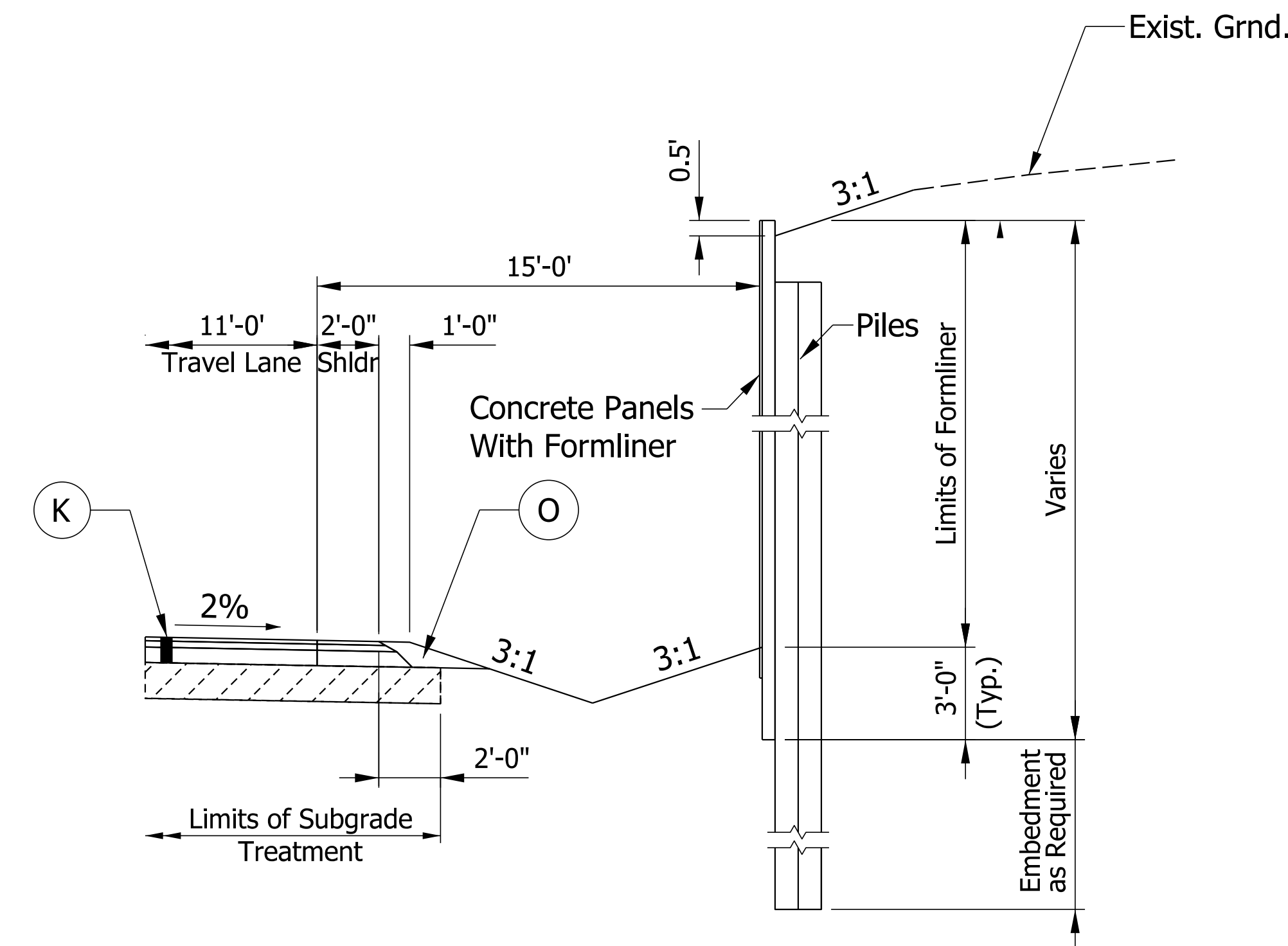
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 Subgrade Treatment, Type IBC
- (O) 10 in. Compacted Aggregate, No. 53
- (O1) 3 in. Compacted Aggregate, No. 53
- (19) Concrete Gutter
- (26) Sodding
- (27) Seed Mixture, "R"
- (30) Guardrail, MGS W-Beam



AUXILIARY BERM SECTION

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AUXILIARY CUT WALL SECTION

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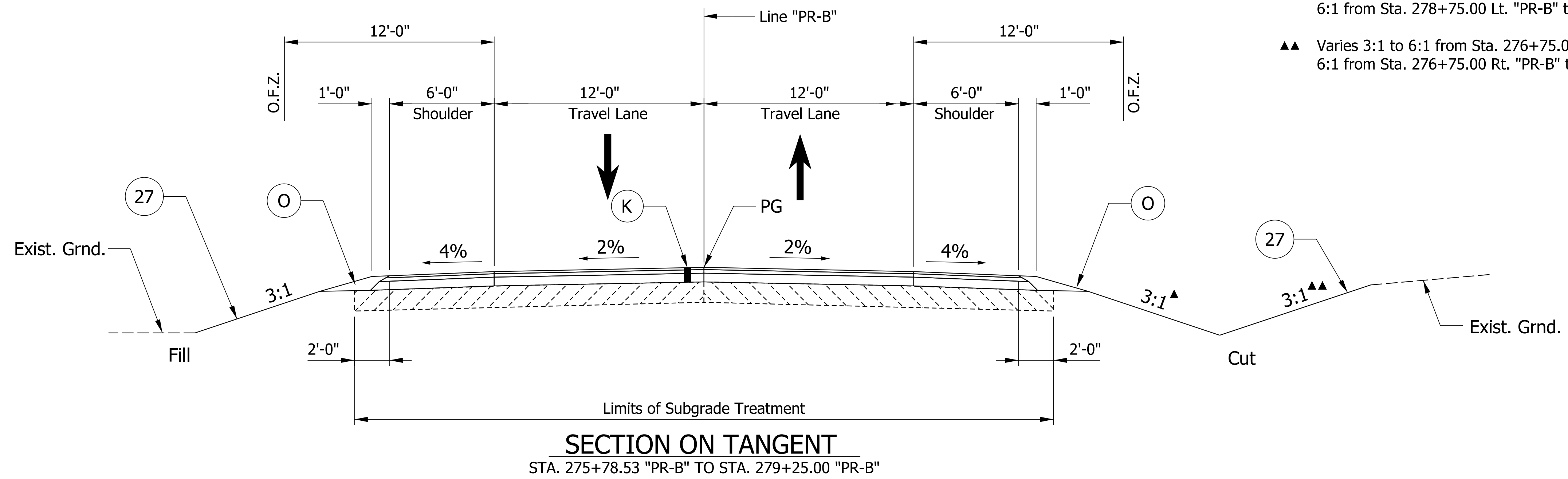
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CHECKED: DJR	4/7/2022	CHECKED: DJR	4/7/2022

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
STATE ROUTE 258
LINE "PR-B"

SCALE	BRIDGE FILE
1/4" = 1'-0"	N/A
	DESIGNATION
	1298633
SURVEY BOOK	SHEETS
Electronic	3 of 33
CONTRACT	PROJECT
R-41258	1298633



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LEGEND

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Subgrade Treatment, Type IBC
- (O) 10 in. Compacted Aggregate, No. 53
- (O1) 3 in. Compacted Aggregate, No. 53
- (19) Concrete Gutter
- (26) Sodding
- (27) Seed Mixture, "R"
- (30) Guardrail, MGS W-Beam

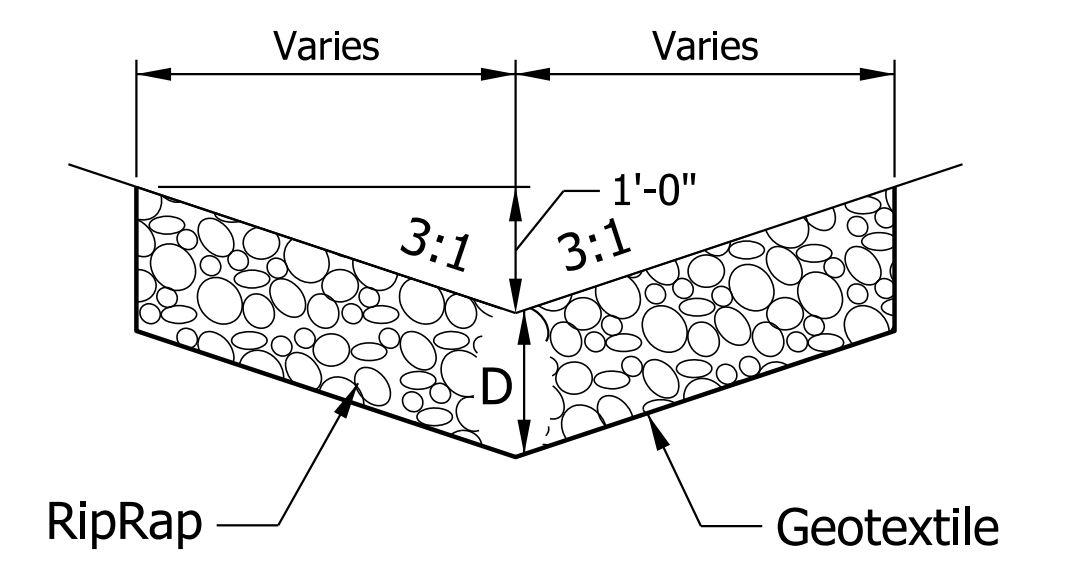
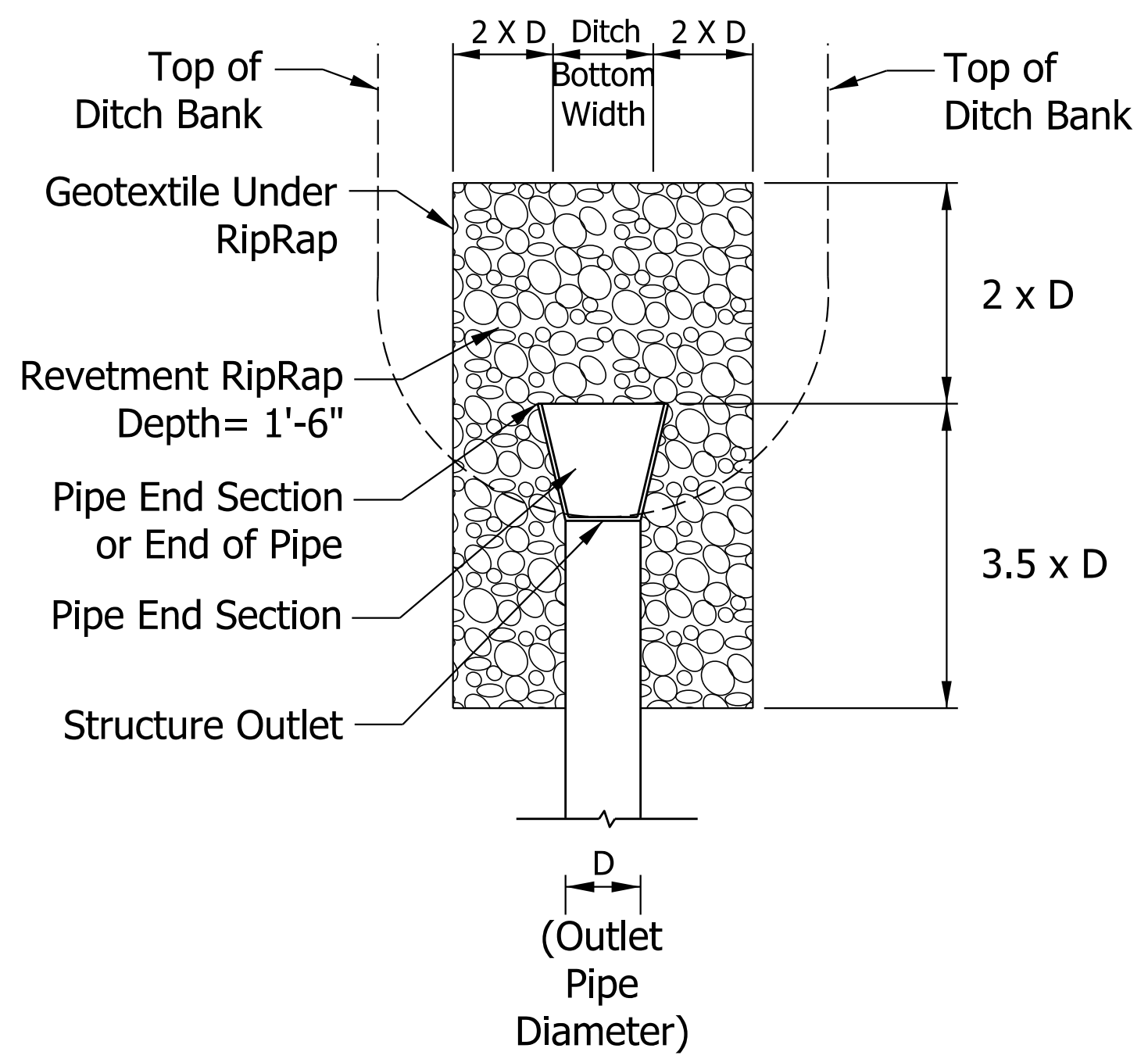
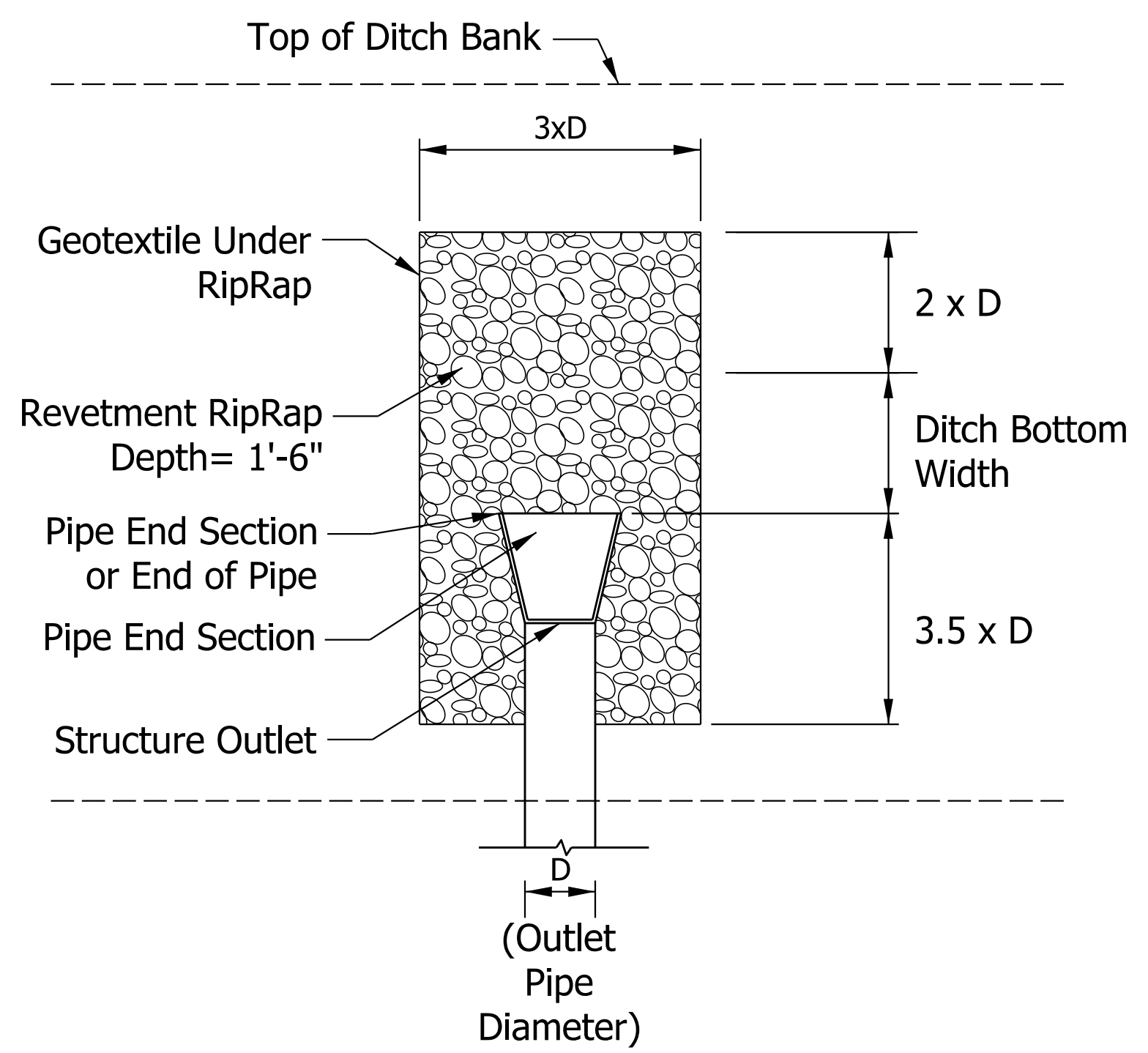
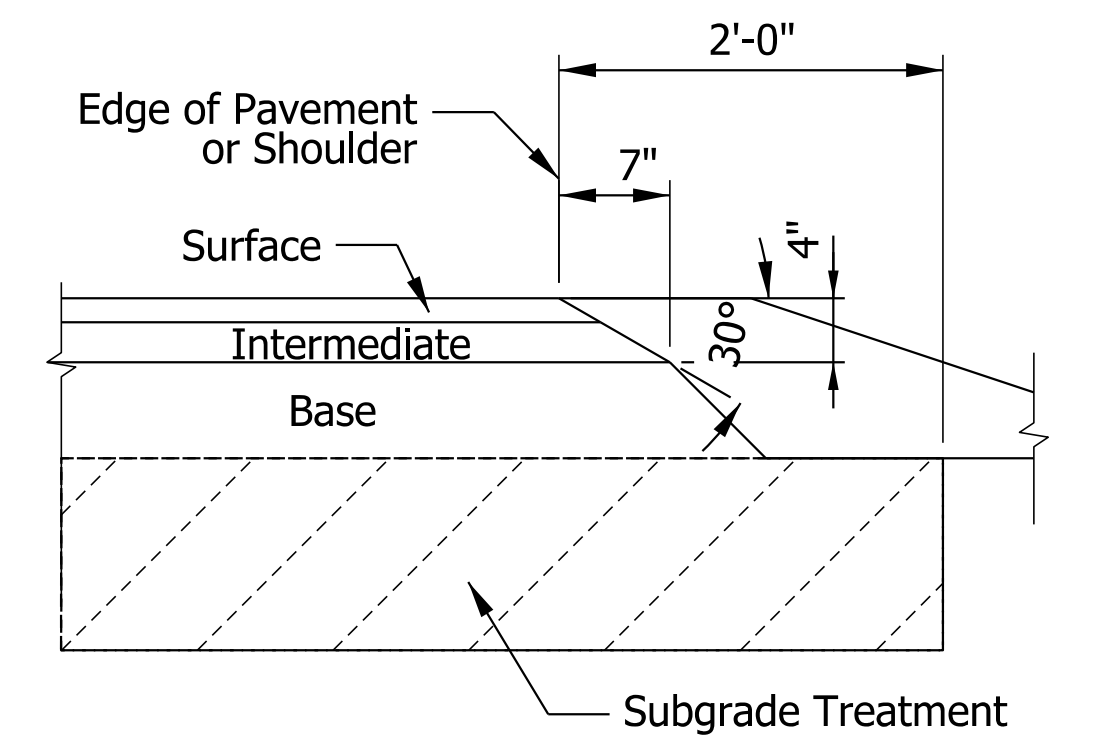
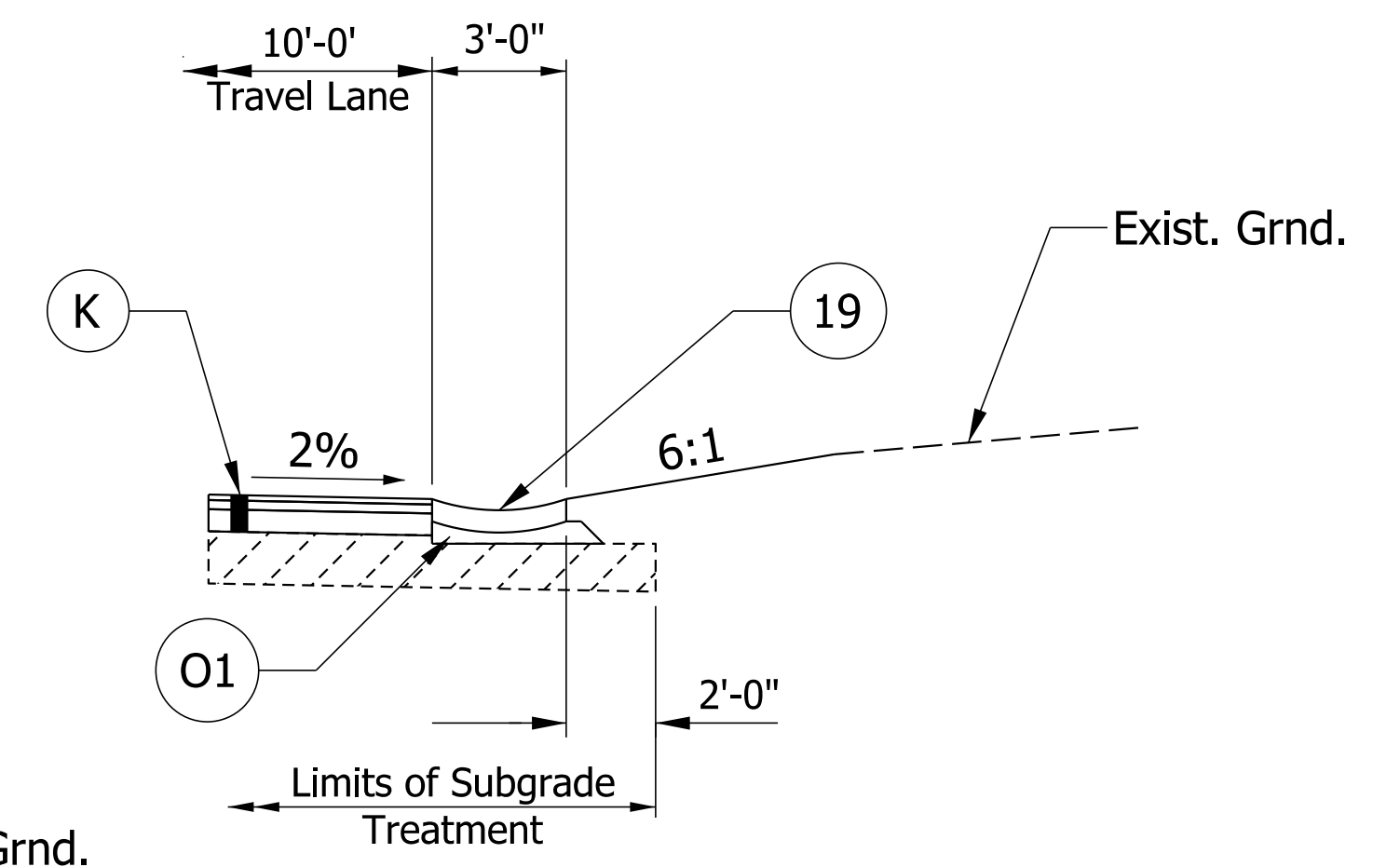
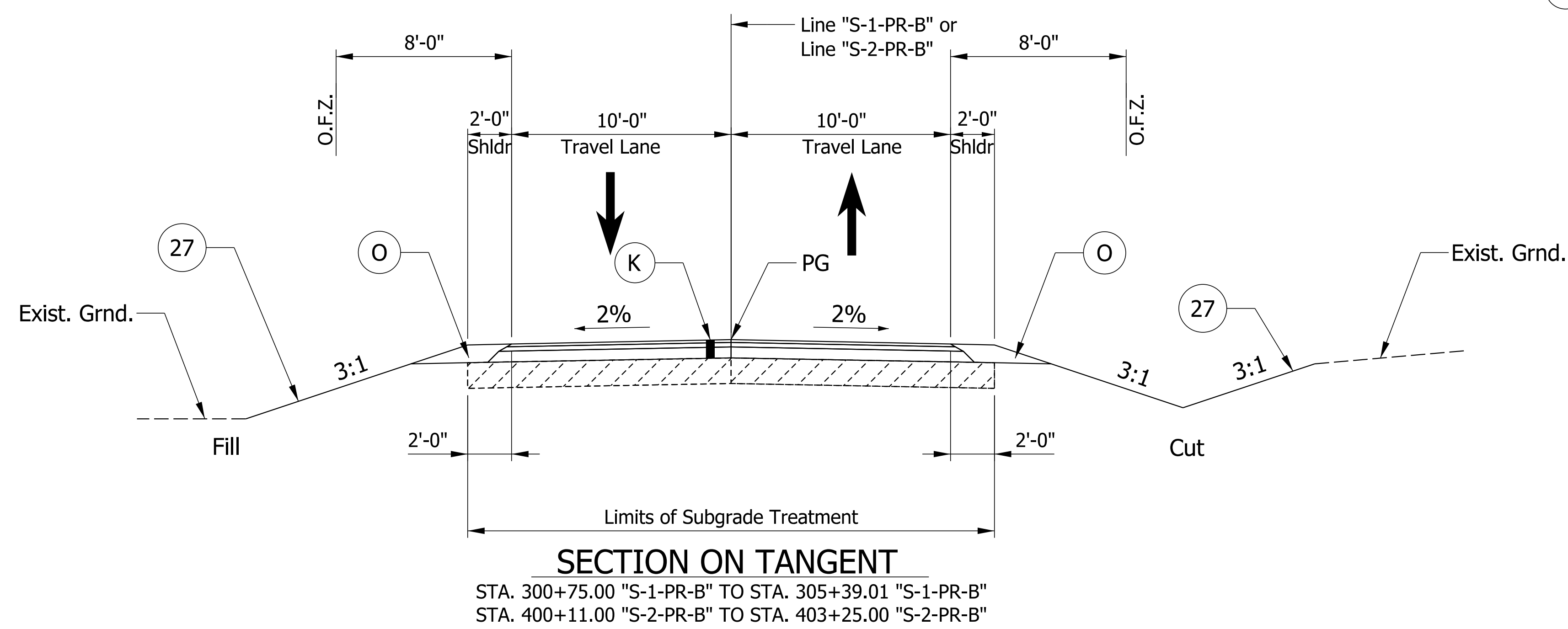
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RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: LKW	4/7/2022	DRAWN: LKW
CHECKED: DJR	4/7/2022	CHECKED: DJR

**INDIANA
DEPARTMENT OF TRANSPORTATION**

**TYPICAL SECTIONS
STATE ROUTE 258
LINE "PR-B"**

SCALE	BRIDGE FILE
1/4" = 1'-0"	N/A
	DESIGNATION
	1298633
SURVEY BOOK	SHEETS
Electronic	4 of 33
CONTRACT	PROJECT
R-41258	1298633



- LEGEND**
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 - (O) 10 in. Compacted Aggregate, No. 53
 - (O1) 3 in. Compacted Aggregate, No. 53
 - (19) Concrete Gutter
 - (26) Sodding
 - (27) Seed Mixture, "R"
 - (30) Guardrail, MGS W-Beam

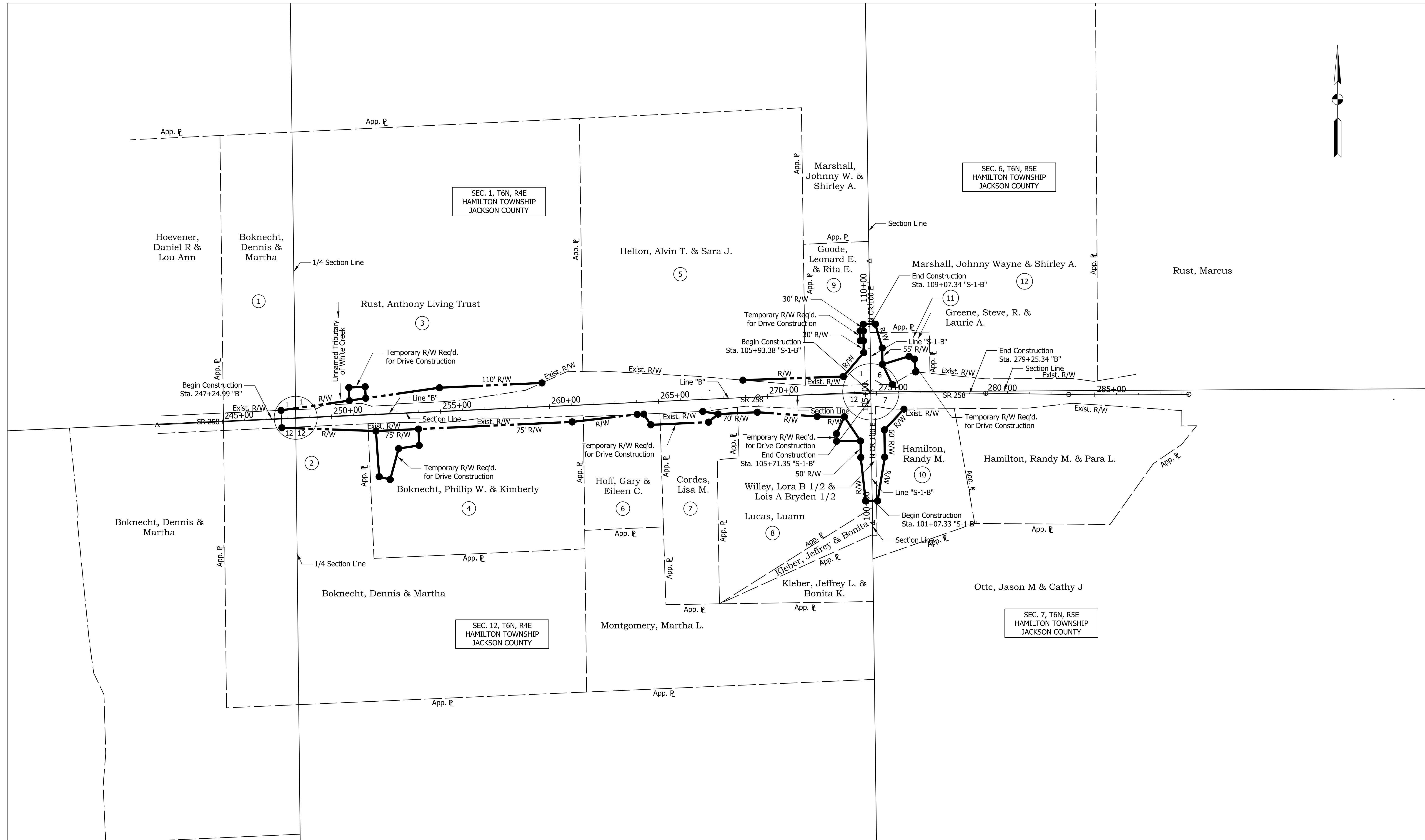
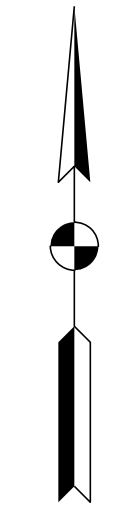
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RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: LKW	4/7/2022	DRAWN: LKW
CHECKED: DJR	4/7/2022	CHECKED: DJR

INDIANA
 DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
 N CR 100 E
 LINE "S-1-PR-B" & LINE "S-2-PR-B"

SCALE	BRIDGE FILE
1/4" = 1'-0"	N/A
	DESIGNATION
	1298633
SURVEY BOOK	SHEETS
Electronic	5 of 33
CONTRACT	PROJECT
R-41258	1298633



NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	4/7/2022	DATE
DESIGNED: LKW	4/7/2022	DRAWN: LKW	4/7/2022
CHECKED: DJR	4/7/2022	CHECKED: DJR	4/7/2022

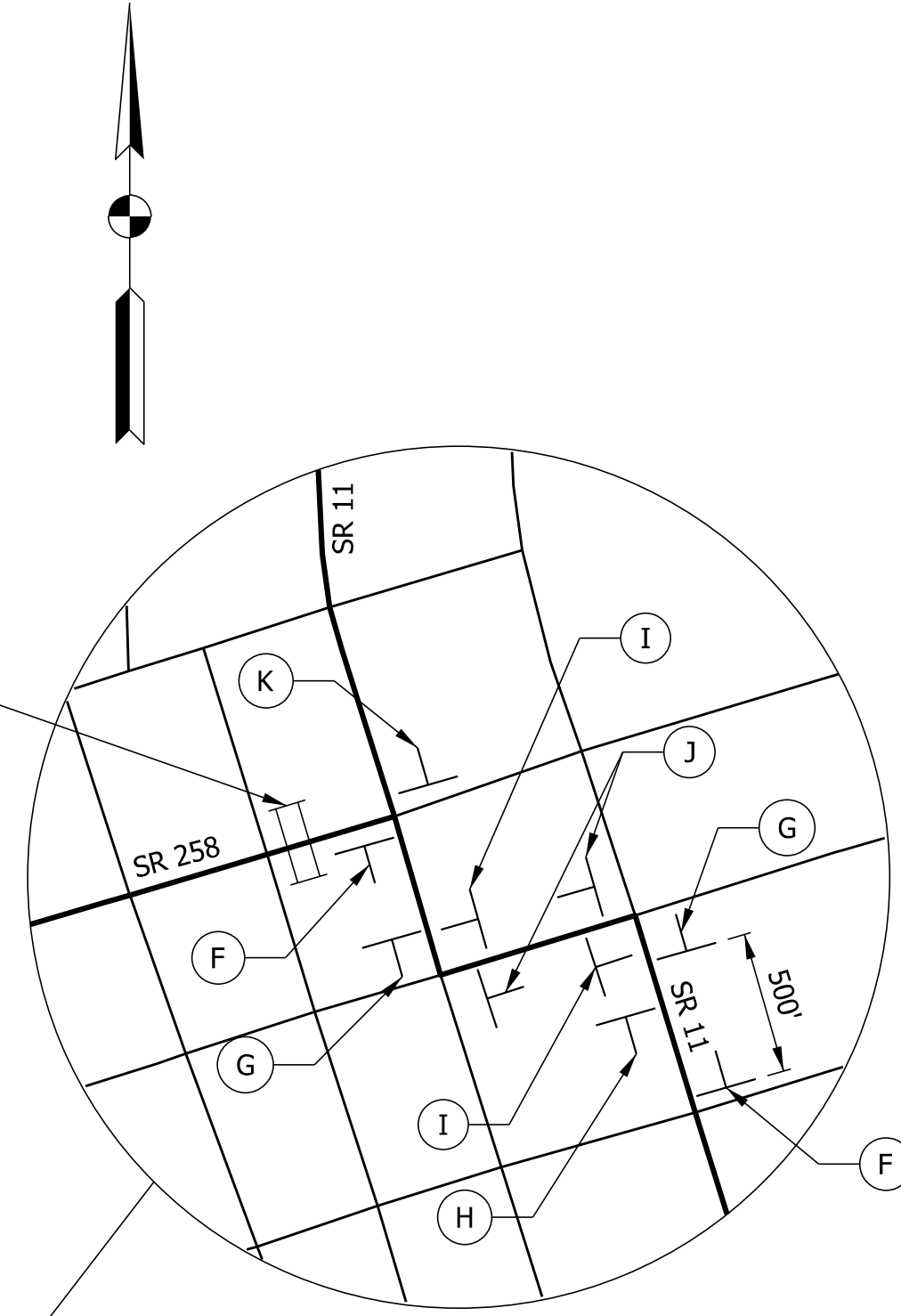
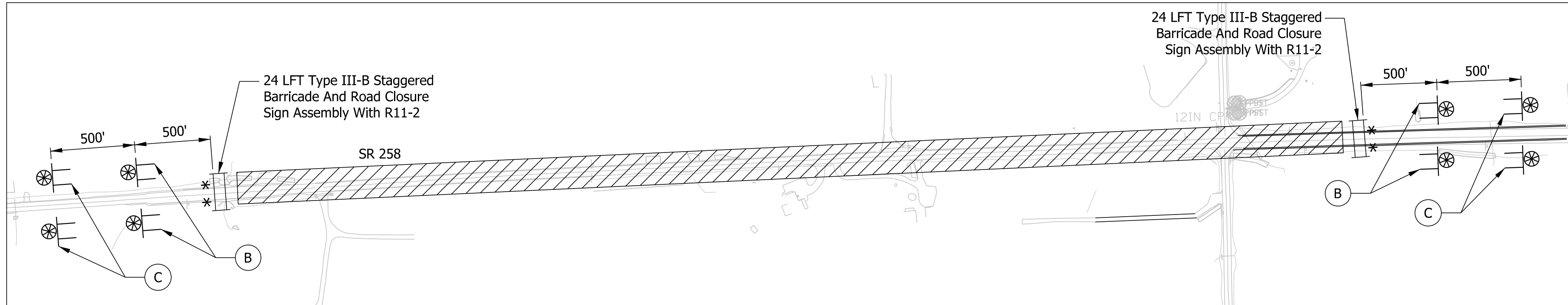
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAT NO. 1

SCALE	BRIDGE FILE
1" = 200'	N/A
	DESIGNATION
	1298633
SURVEY BOOK	SHEETS
Electronic	6 of 33
CONTRACT	PROJECT
R-41258	1298633

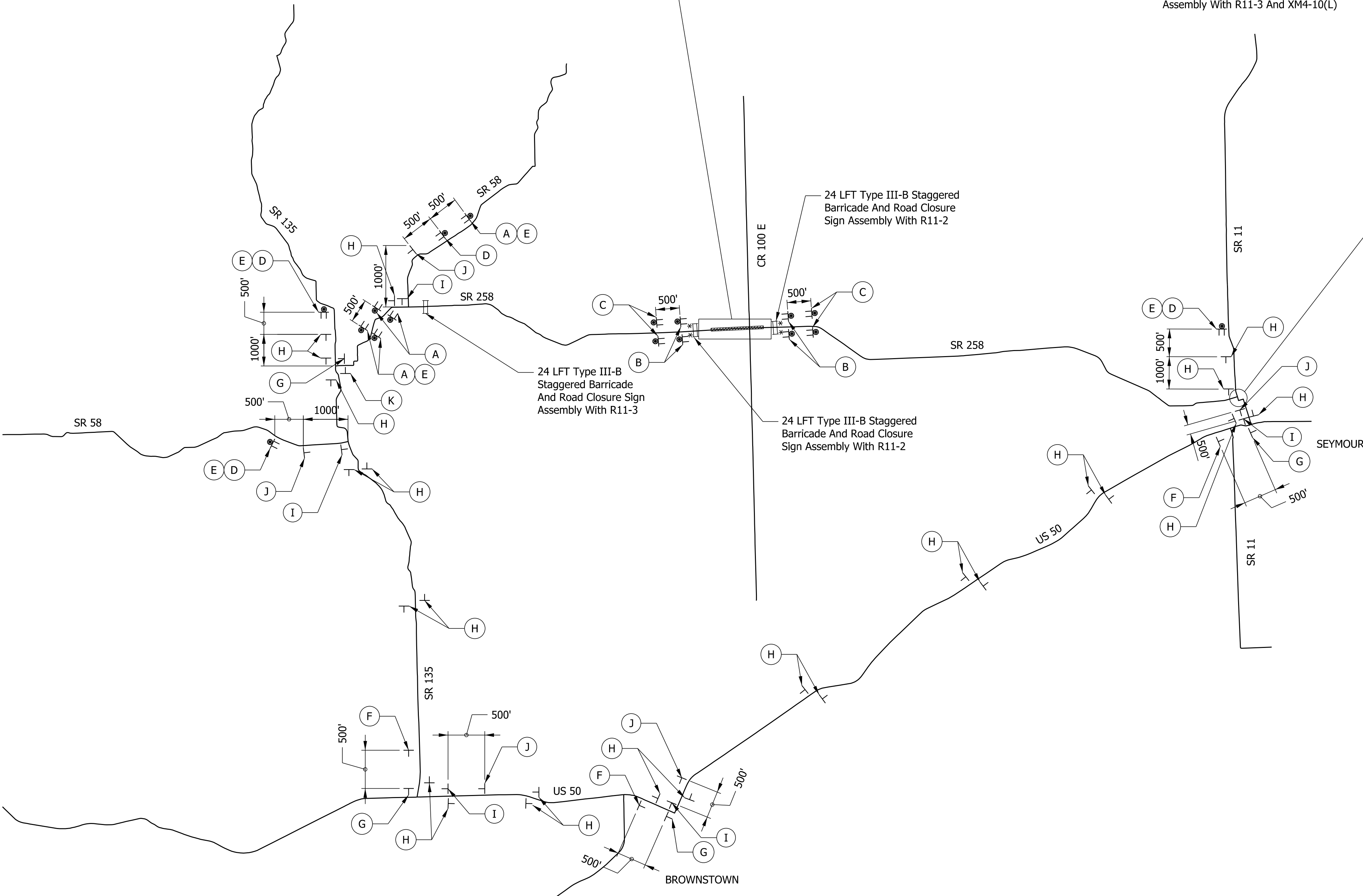
NOTES

1. All signs, barricades, and pavement markings shall conform to the Indiana Manual on Uniform Traffic Control Devices for Streets and Highways, 2011 and any current supplements thereto.
2. Contractor shall maintain access to all commercial and private properties during construction.



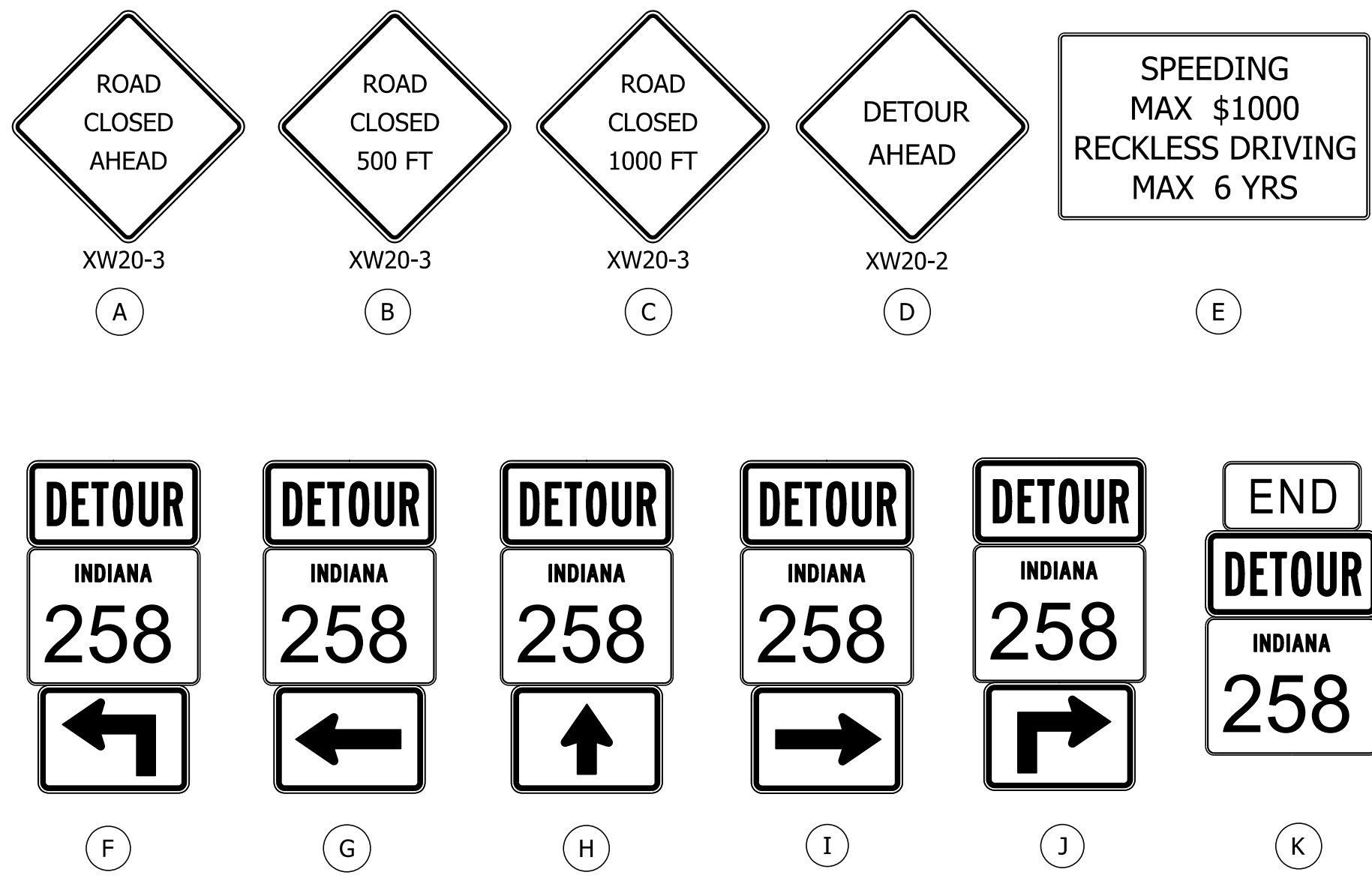
DETAIL B
Scale: NTS

24 LFT Type III-B Staggered Barricade And Road Closure Sign Assembly With R11-3 And XM4-10(L)



LEGEND

	Construction Sign		Type "A" Construction Warning Light		Type III-B Barricade
	Construction Area		Type "B" Construction Warning Light		Detour Route Marker Assembly



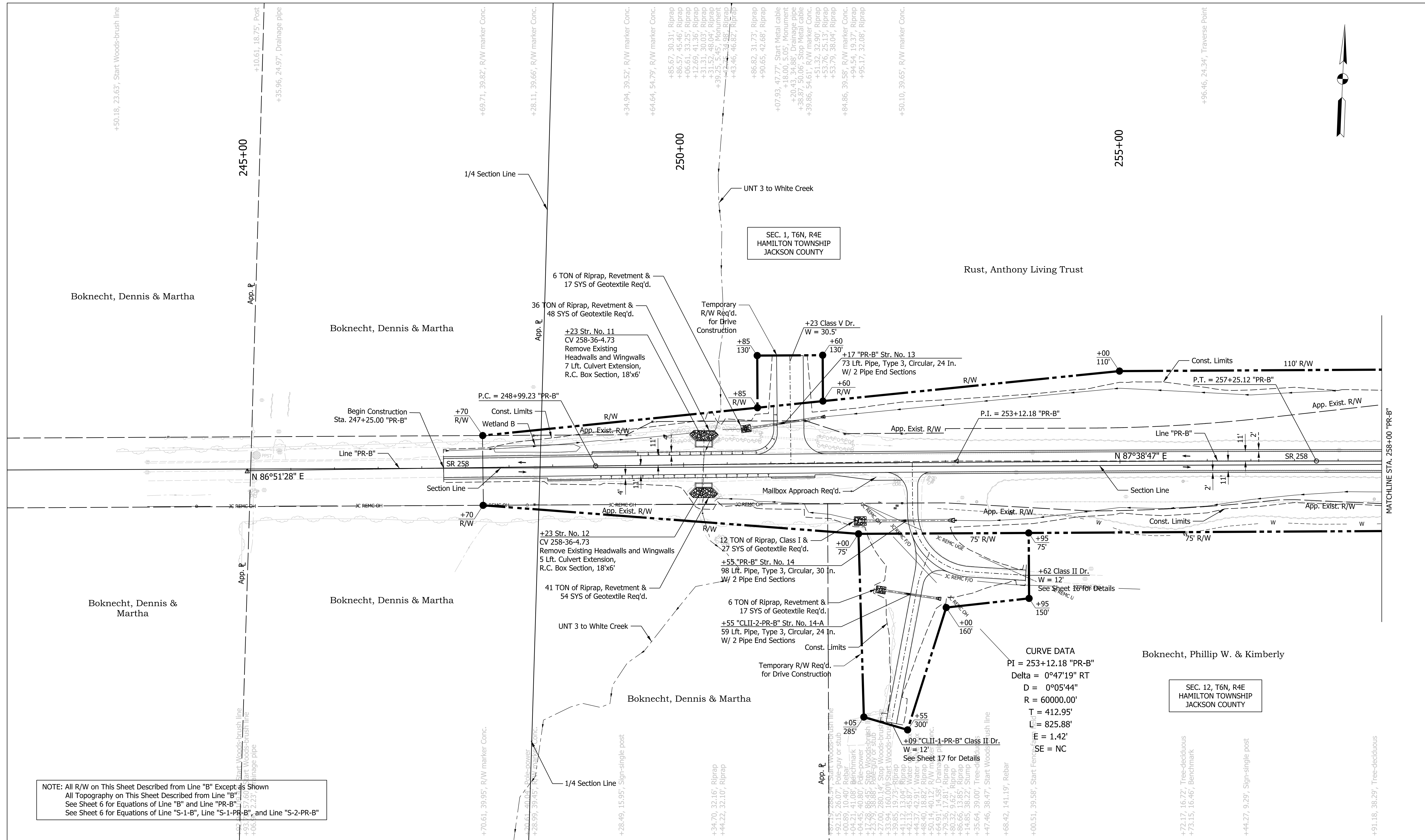
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	4/7/2022	DATE
DESIGNED: LKW	4/7/2022	DRAWN: LKW	4/7/2022
CHECKED: DJR	4/7/2022	CHECKED: DJR	4/7/2022

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC DETOUR ROUTE

SCALE	BRIDGE FILE
N.T.S.	N/A
	DESIGNATION
	1298633
SURVEY BOOK	SHEETS
Electronic	8 of 33
CONTRACT	PROJECT
R-41258	1298633



NOTE: All R/W on This Sheet Described from Line "B" Except as Shown
 All Topography on This Sheet Described from Line "B"
 See Sheet 6 for Equations of Line "B" and Line "PR-B"
 See Sheet 6 for Equations of Line "S-1-B", Line "S-1-PR-B", and Line "S-2-PR-B"

CURVE DATA
 PI = 253+12.18 "PR-B"
 Delta = 0°47'19" RT
 D = 0°05'44"
 R = 60000.00'
 T = 412.95'
 L = 825.88'
 E = 1.42'
 SE = NC

SEC. 12, T6N, R4E
 HAMILTON TOWNSHIP
 JACKSON COUNTY

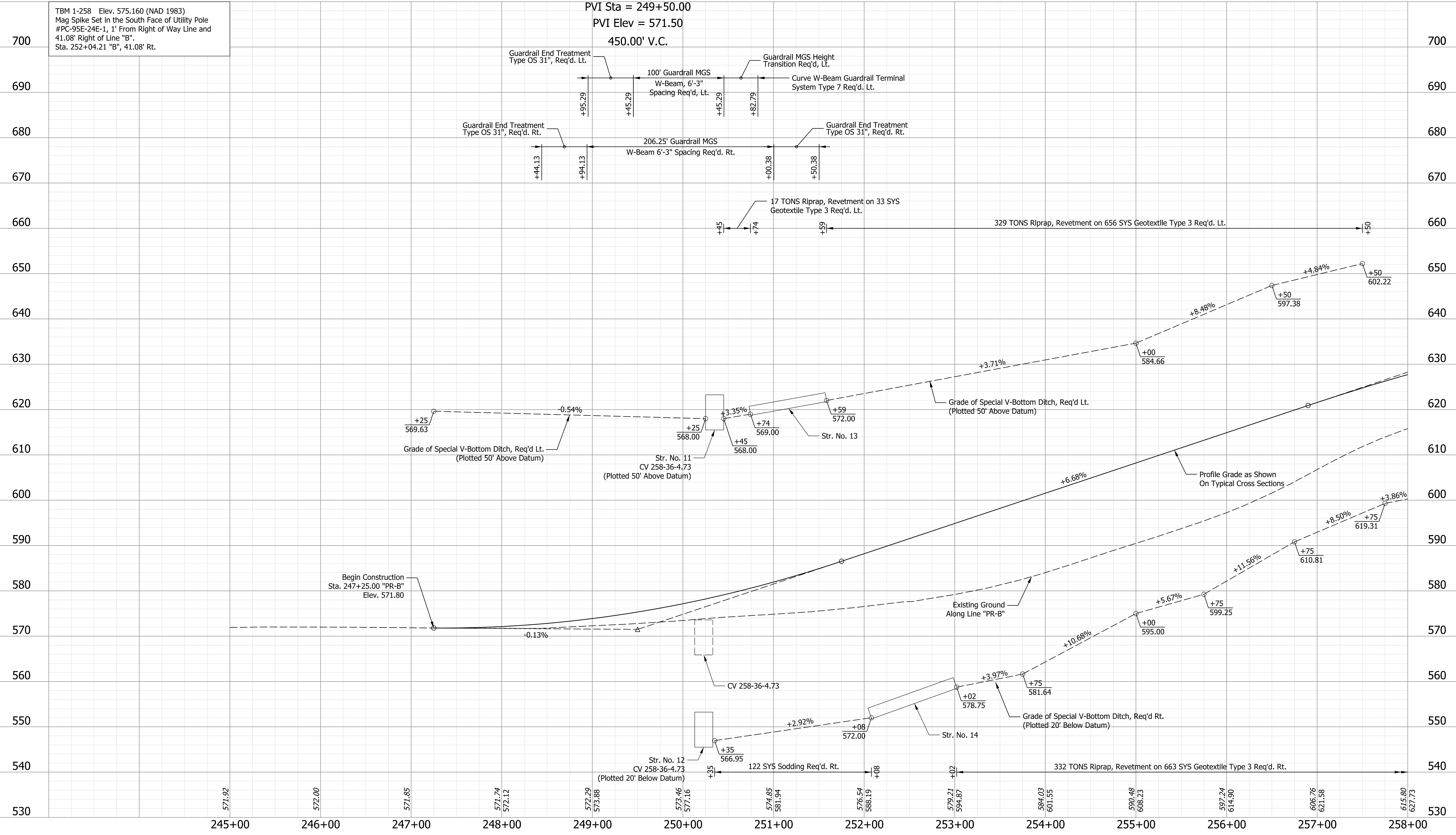
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	4/7/2022	DATE
DESIGNED: LKW	4/7/2022	DRAWN: LKW	4/7/2022
CHECKED: DJR	4/7/2022	CHECKED: DJR	4/7/2022

INDIANA
 DEPARTMENT OF TRANSPORTATION
 SR 258 PLAN
 LINE "PR-B"
 STA. 245+00.00 TO STA. 258+00.00

SCALE	BRIDGE FILE
1" = 50'	N/A
	DESIGNATION
	1298633
SURVEY BOOK	SHEETS
Electronic	9 of 33
CONTRACT	PROJECT
R-41258	1298633

TBM 1-258 Elev. 575.160 (NAD 1983)
 Mag Spike Set in the South Face of Utility Pole
 #PC-95E-24E-1, 1' From Right of Way Line and
 41.08' Right of Line "B".
 Sta. 252+04.21 "B", 41.08' Rt.



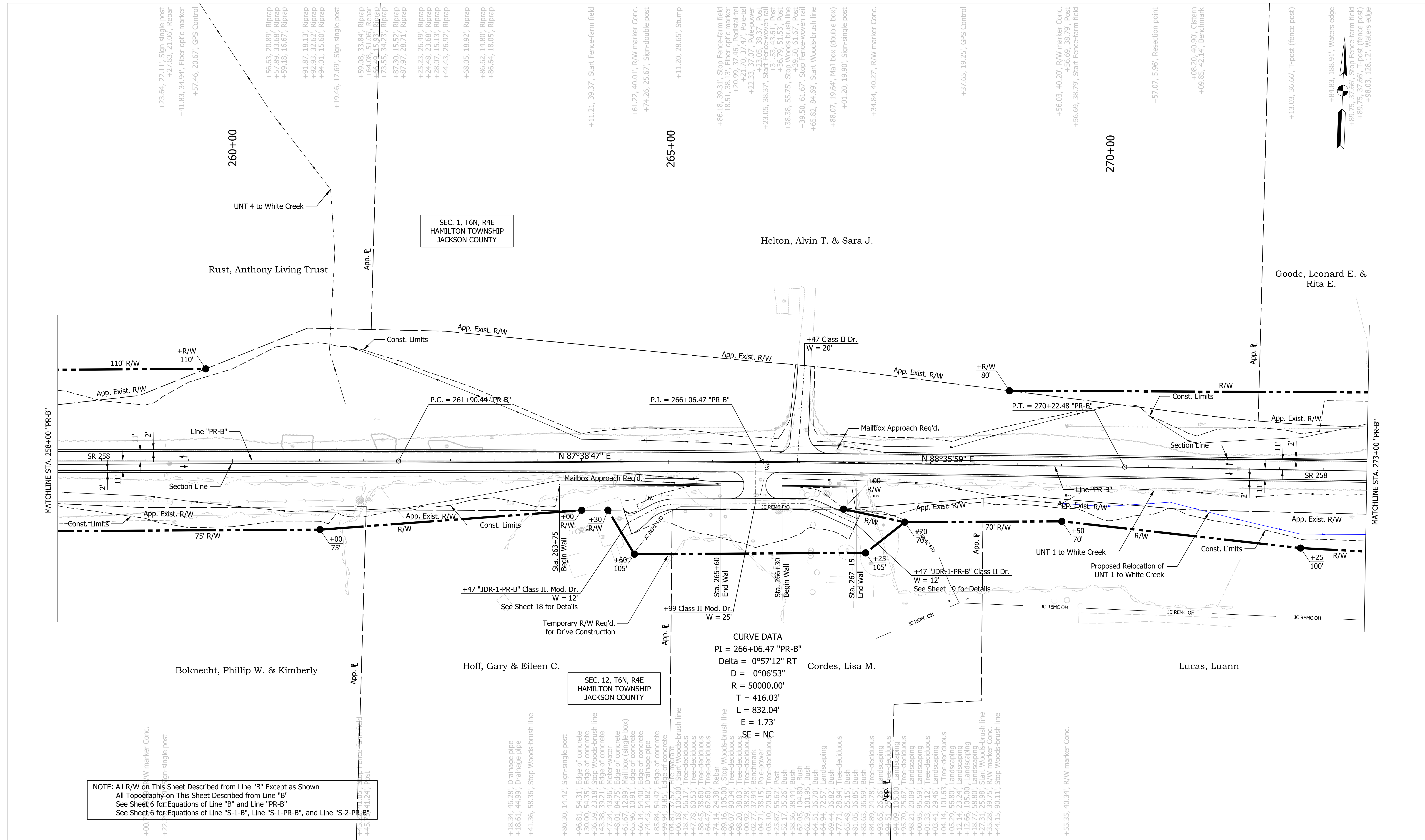
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	4/7/2022	DATE
DESIGNED: LKW	4/7/2022	DRAWN: LKW	4/7/2022
CHECKED: DJR	4/7/2022	CHECKED: DJR	4/7/2022

INDIANA
 DEPARTMENT OF TRANSPORTATION

SR 258 PROFILE
 LINE "PR-B"
 STA. 245+00.00 TO STA. 258+00.00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1298633
SURVEY BOOK	SHEETS
Electronic	10 of 33
CONTRACT	PROJECT
R-41258	1298633



NOTE: All R/W on This Sheet Described from Line "B" Except as Shown
 All Topography on This Sheet Described from Line "B"
 See Sheet 6 for Equations of Line "B" and Line "PR-B"
 See Sheet 6 for Equations of Line "S-1-B", Line "S-1-PR-B", and Line "S-2-PR-B"

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	4/7/2022	DATE
DESIGNED: LKW	4/7/2022	DRAWN: LKW	4/7/2022
CHECKED: DJR	4/7/2022	CHECKED: DJR	4/7/2022

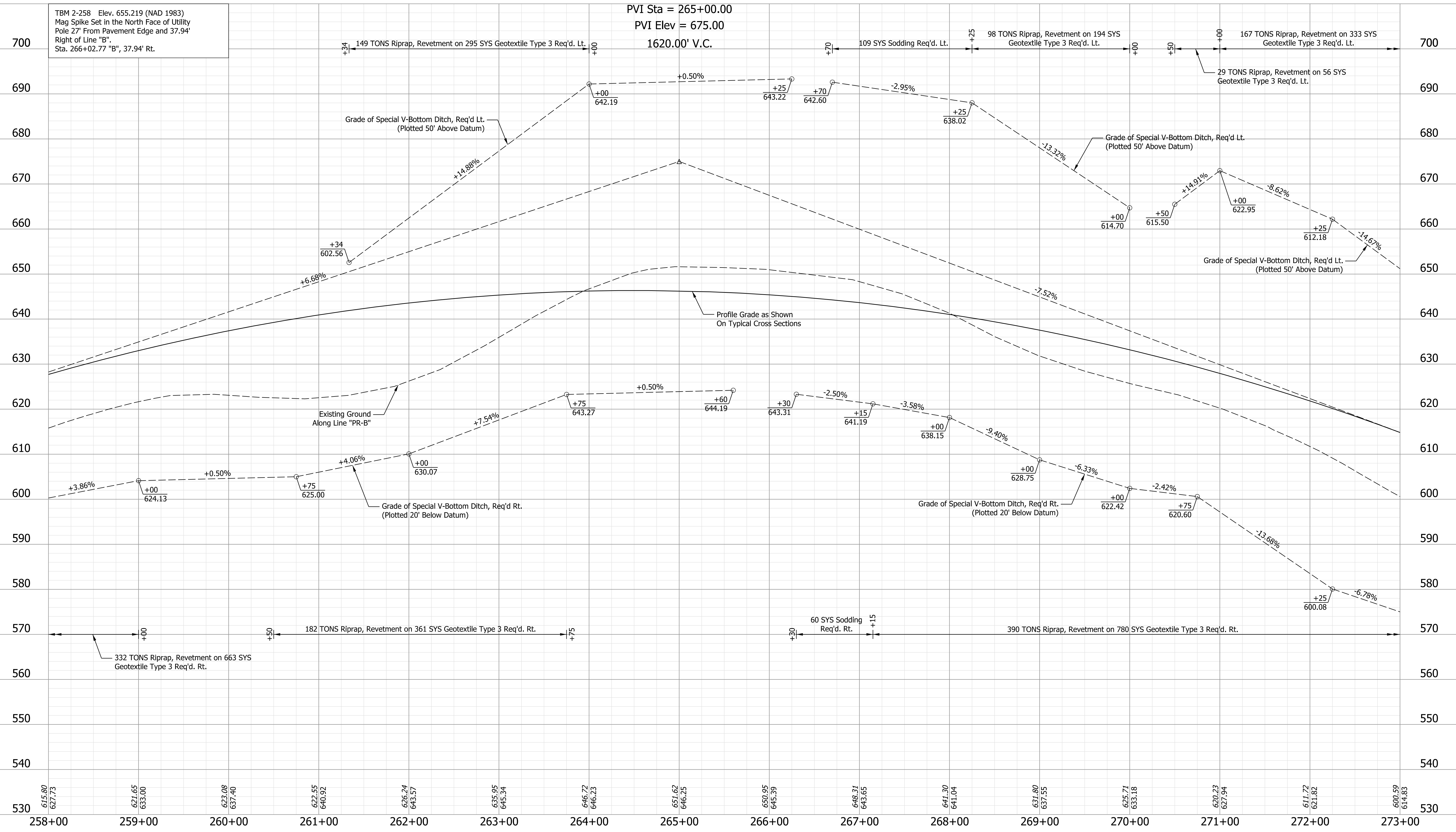
INDIANA
 DEPARTMENT OF TRANSPORTATION

SR 258 PLAN
 LINE "PR-B"
 STA. 258+00.00 TO STA. 273+00.00

SCALE	BRIDGE FILE
1" = 50'	N/A
	DESIGNATION
	1298633
SURVEY BOOK	SHEETS
Electronic	11 of 33
CONTRACT	PROJECT
R-41258	1298633

TBM 2-258 Elev. 655.219 (NAD 1983)
Mag Spike Set in the North Face of Utility Pole 27' From Pavement Edge and 37.94' Right of Line "B". Sta. 266+02.77 "B", 37.94' Rt.

PVI Sta = 265+00.00
PVI Elev = 675.00
1620.00' V.C.

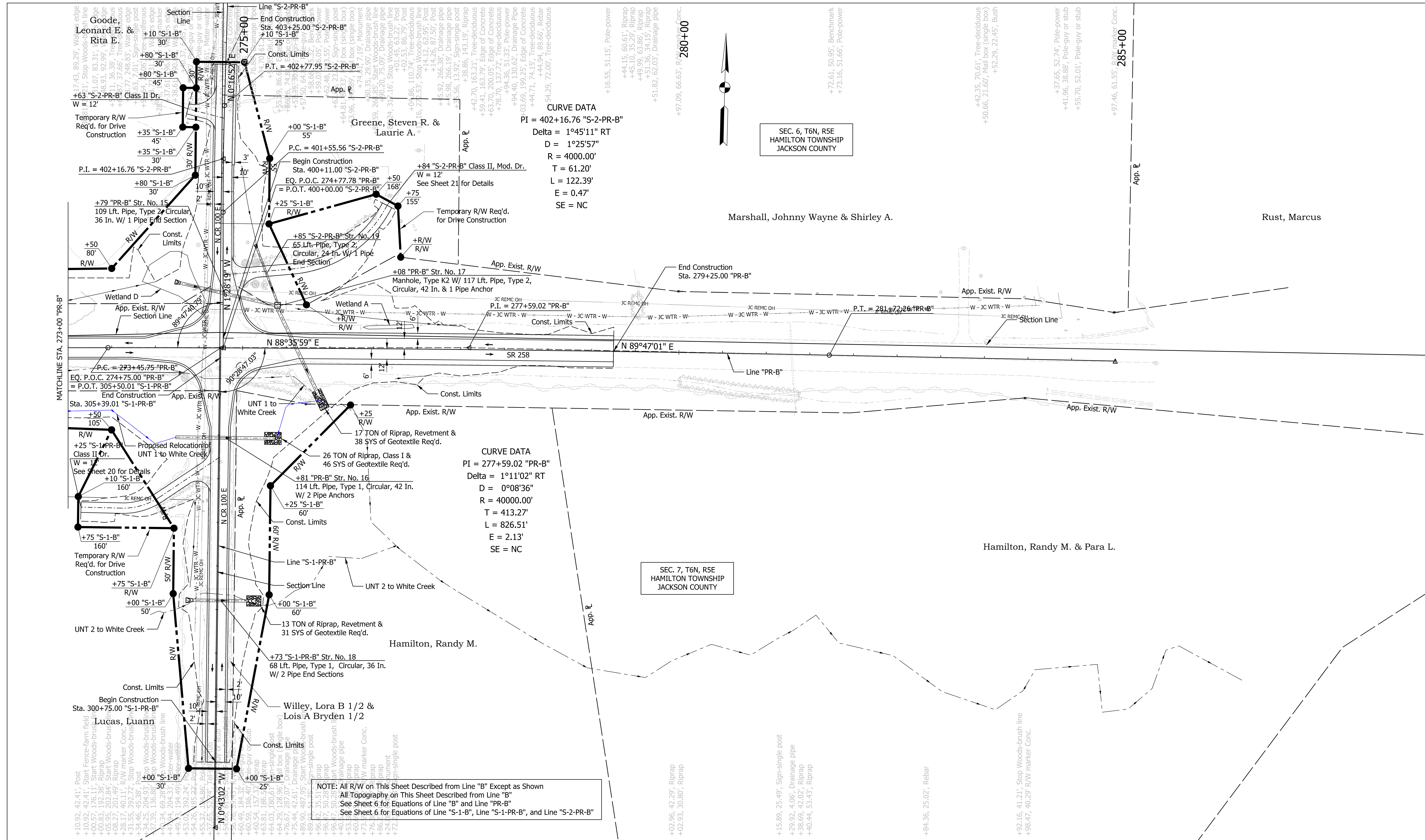


NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	4/7/2022	DATE
DESIGNED: LKW	4/7/2022	DRAWN: LKW	4/7/2022
CHECKED: DJR	4/7/2022	CHECKED: DJR	4/7/2022

INDIANA
DEPARTMENT OF TRANSPORTATION
SR 258 PROFILE
LINE "PR-B"
STA. 258+00.00 TO STA. 273+00.00

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1298633
SURVEY BOOK	SHEETS
Electronic	12 of 33
CONTRACT	PROJECT
R-41258	1298633



CURVE DATA
 PI = 402+16.76 "S-2-PR-B"
 Delta = 1°45'11" RT
 D = 1°25'57"
 R = 4000.00'
 T = 61.20'
 L = 122.39'
 E = 0.47'
 SE = NC

CURVE DATA
 PI = 277+59.02 "PR-B"
 Delta = 1°11'02" RT
 D = 0°08'36"
 R = 40000.00'
 T = 413.27'
 L = 826.51'
 E = 2.13'
 SE = NC

SEC. 6, T6N, R5E
 HAMILTON TOWNSHIP
 JACKSON COUNTY

SEC. 7, T6N, R5E
 HAMILTON TOWNSHIP
 JACKSON COUNTY

NOTE: All R/W on This Sheet Described from Line "B" Except as Shown
 All Topography on This Sheet Described from Line "B"
 See Sheet 6 for Equations of Line "B" and Line "PR-B"
 See Sheet 6 for Equations of Line "S-1-B", Line "S-1-PR-B", and Line "S-2-PR-B"

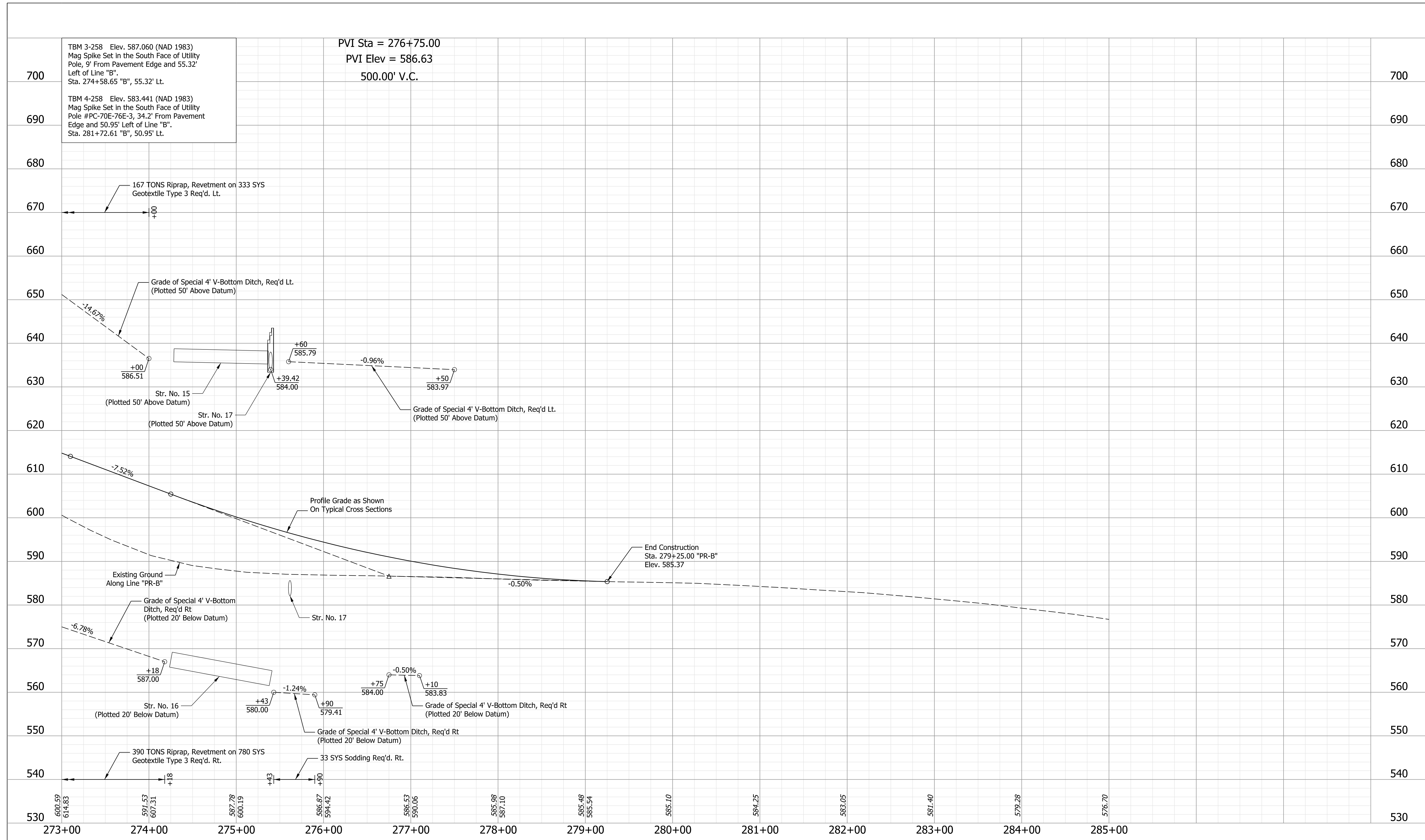
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	4/7/2022	DATE
DESIGNED: LKW	4/7/2022	DRAWN: LKW	4/7/2022
CHECKED: DJR	4/7/2022	CHECKED: DJR	4/7/2022

INDIANA
 DEPARTMENT OF TRANSPORTATION

SR 258 PLAN
 LINE "PR-B"
 STA. 273+00.00 TO STA. 285+00.00

SCALE	BRIDGE FILE
1" = 50'	N/A
	DESIGNATION
	1298633
SURVEY BOOK	SHEETS
Electronic	13 of 33
CONTRACT	PROJECT
R-41258	1298633



TBM 3-258 Elev. 587.060 (NAD 1983)
Mag Spike Set in the South Face of Utility Pole, 9' From Pavement Edge and 55.32' Left of Line "B".
Sta. 274+58.65 "B", 55.32' Lt.

TBM 4-258 Elev. 583.441 (NAD 1983)
Mag Spike Set in the South Face of Utility Pole #PC-70E-76E-3, 34.2' From Pavement Edge and 50.95' Left of Line "B".
Sta. 281+72.61 "B", 50.95' Lt.

PVI Sta = 276+75.00
PVI Elev = 586.63
500.00' V.C.

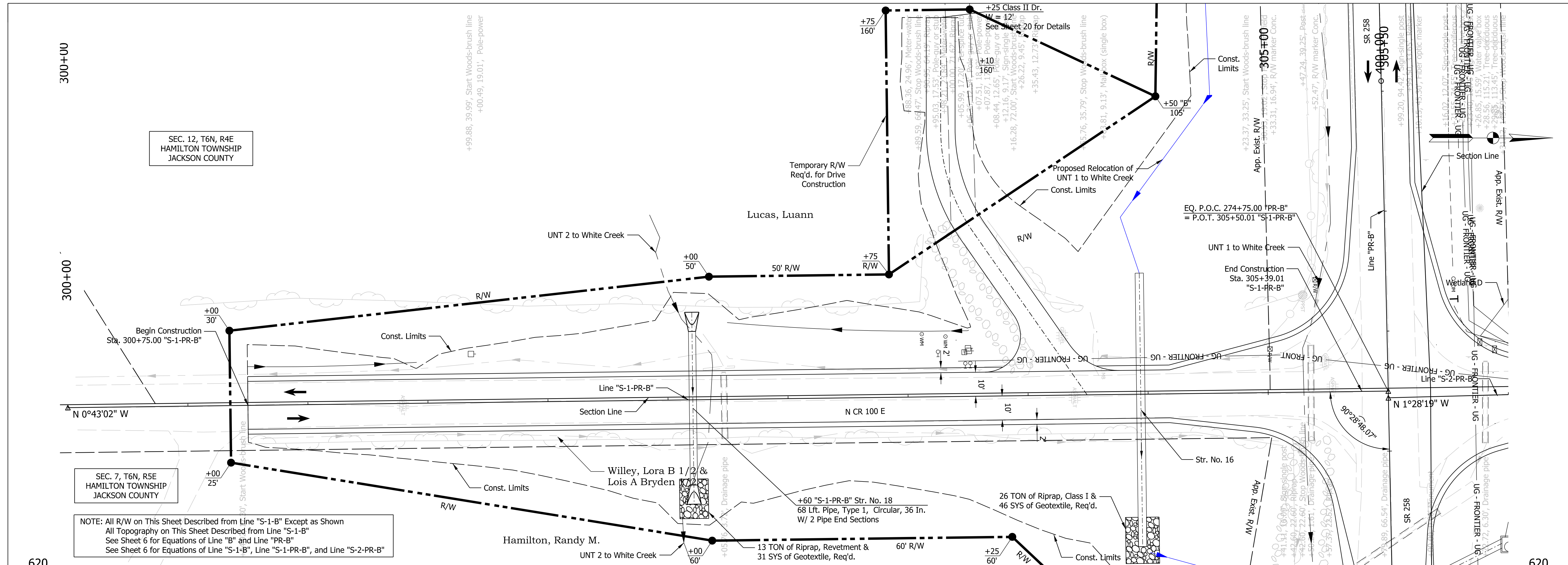
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	4/7/2022	DATE
DESIGNED: LKW	4/7/2022	DRAWN: LKW	4/7/2022
CHECKED: DJR	4/7/2022	CHECKED: DJR	4/7/2022

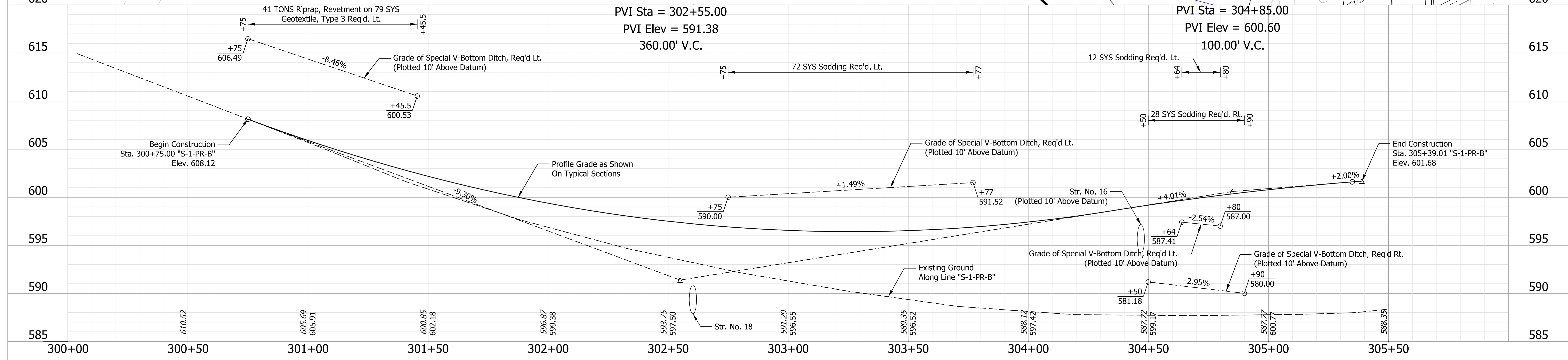
INDIANA
DEPARTMENT OF TRANSPORTATION

SR 258 PROFILE
LINE "PR-B"
STA. 273+00.00 TO STA. 285+00.00

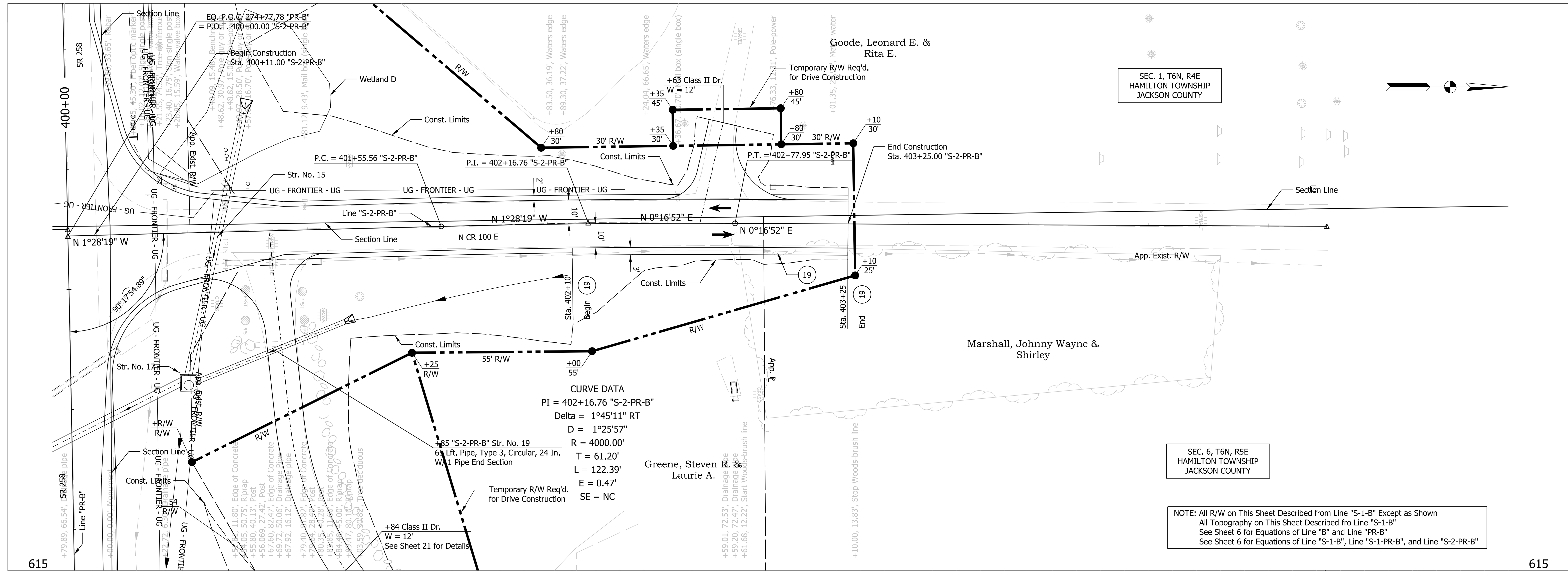
HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1298633
SURVEY BOOK	SHEETS
Electronic	14 of 33
CONTRACT	PROJECT
R-41258	1298633



NOTE: All R/W on This Sheet Described from Line "S-1-B" Except as Shown
 All Topography on This Sheet Described from Line "S-1-B"
 See Sheet 6 for Equations of Line "B" and Line "PR-B"
 See Sheet 6 for Equations of Line "S-1-B", Line "S-1-PR-B", and Line "S-2-PR-B"



NOT FOR CONSTRUCTION	RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	4/7/2022	DATE
	DESIGNED: LKW	4/7/2022	DRAWN: LKW	4/7/2022
	CHECKED: DJR	4/7/2022	CHECKED: DJR	4/7/2022
INDIANA DEPARTMENT OF TRANSPORTATION				
N CR 100 E PLAN & PROFILE				
LINE "S-1-PR-B"				
STA. 300+00.00 TO STA. 305+50.01				
HORIZONTAL SCALE 1" = 20'		BRIDGE FILE N/A		
VERTICAL SCALE 1" = 5'		DESIGNATION 1298633		
SURVEY BOOK Electronic		SHEETS 15 of 33		
CONTRACT R-41258		PROJECT 1298633		

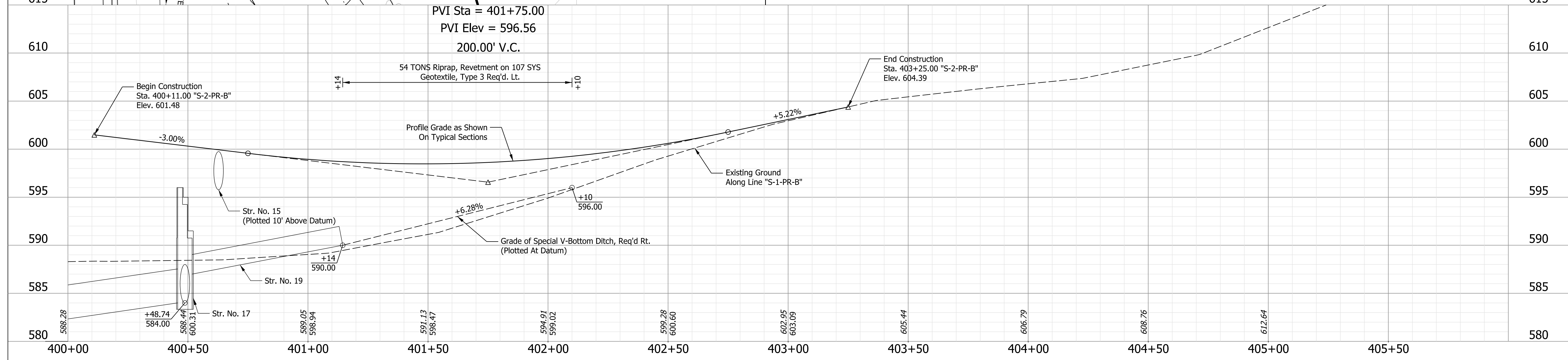


CURVE DATA
 PI = 402+16.76 "S-2-PR-B"
 Delta = 1°45'11" RT
 D = 1°25'57"
 R = 4000.00'
 T = 61.20'
 L = 122.39'
 E = 0.47'
 SE = NC

SEC. 1, T6N, R4E
 HAMILTON TOWNSHIP
 JACKSON COUNTY

SEC. 6, T6N, R5E
 HAMILTON TOWNSHIP
 JACKSON COUNTY

NOTE: All R/W on This Sheet Described from Line "S-1-B" Except as Shown
 All Topography on This Sheet Described from Line "S-1-B"
 See Sheet 6 for Equations of Line "B" and Line "PR-B"
 See Sheet 6 for Equations of Line "S-1-B", Line "S-1-PR-B", and Line "S-2-PR-B"



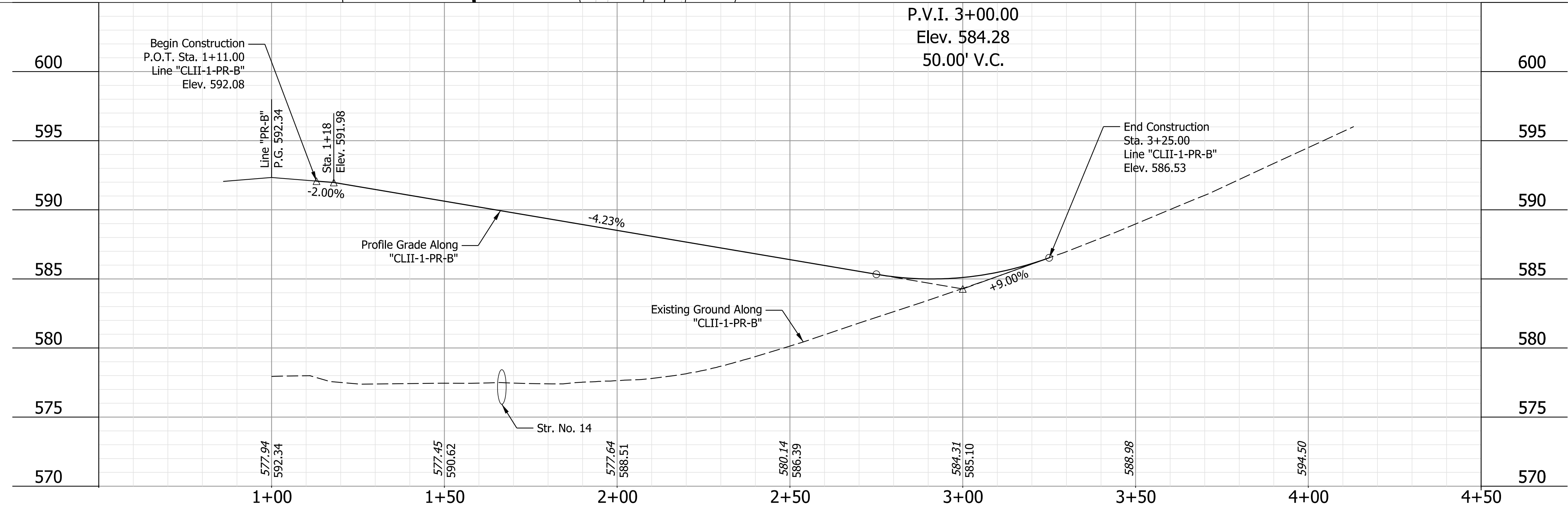
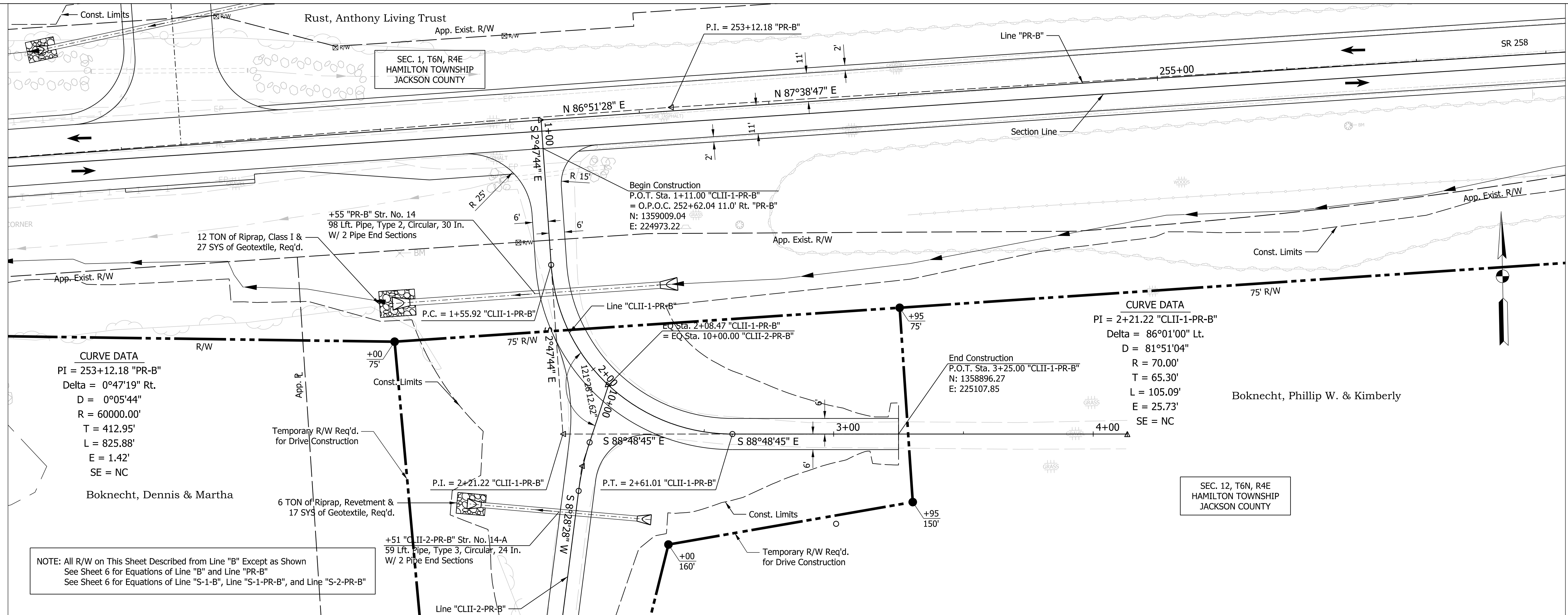
LEGEND
 (19) Concrete Gutter

NOT FOR CONSTRUCTION

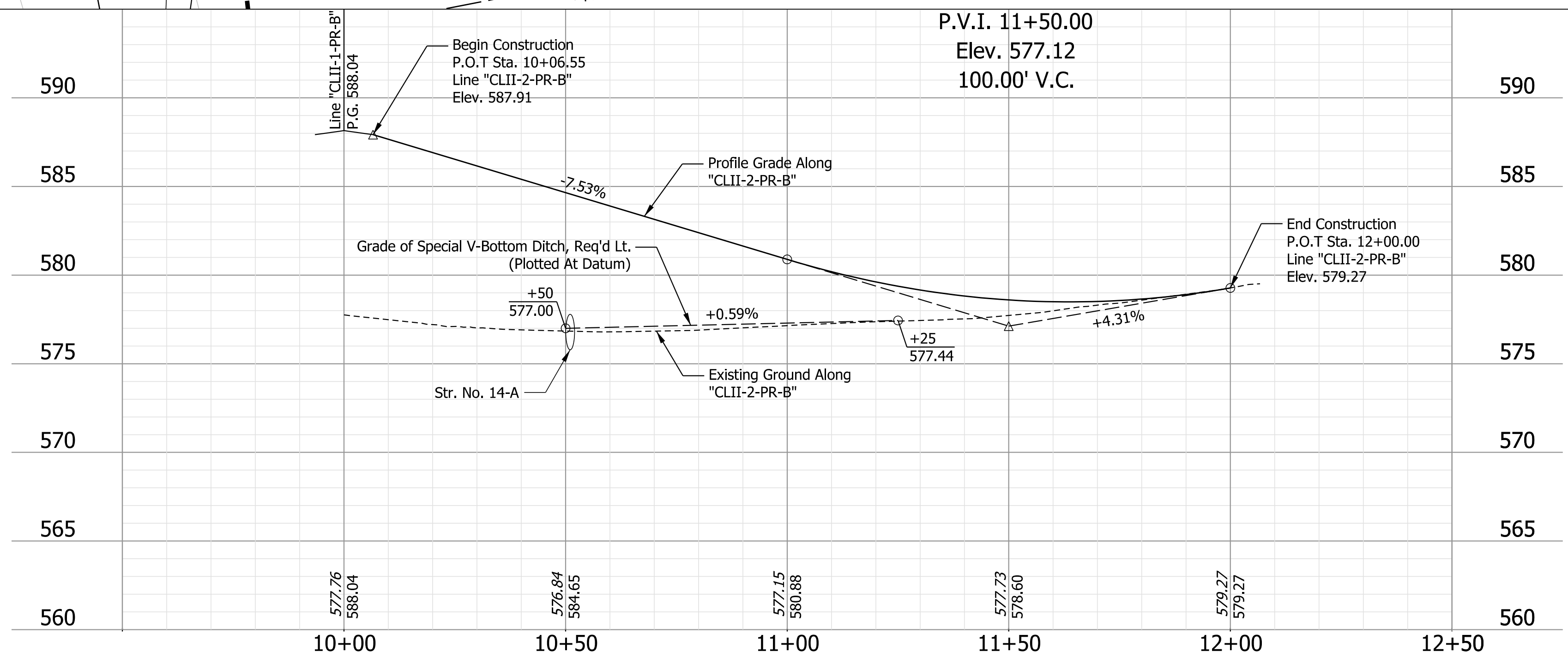
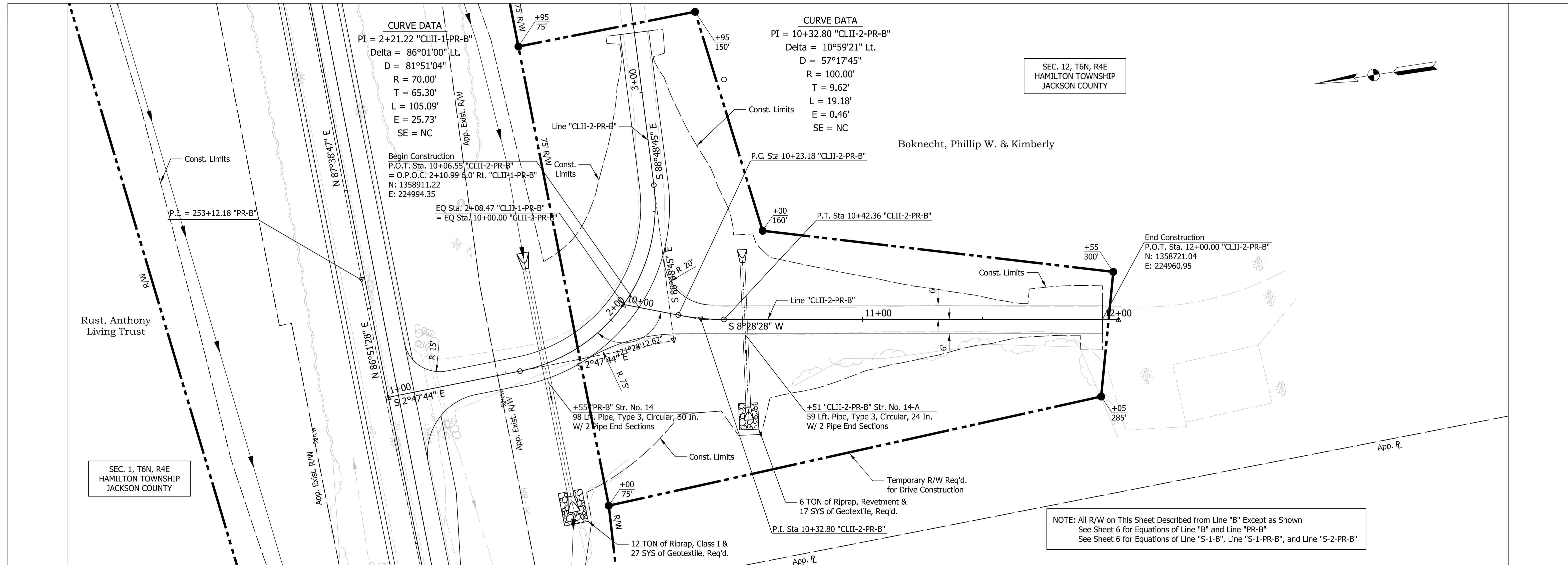
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	4/7/2022	DATE
DESIGNED: LKW	4/7/2022	DRAWN: LKW	4/7/2022
CHECKED: DJR	4/7/2022	CHECKED: DJR	4/7/2022

INDIANA
 DEPARTMENT OF TRANSPORTATION
 N CR 100 E PLAN & PROFILE
 LINE "S-2-PR-B"
 STA. 400+00.00 TO STA. 405+24.42

HORIZONTAL SCALE 1" = 20'	BRIDGE FILE N/A
VERTICAL SCALE 1" = 5'	DESIGNATION 1298633
SURVEY BOOK Electronic	SHEETS 16 of 33
CONTRACT R-41258	PROJECT 1298633



NOT FOR CONSTRUCTION	RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER	4/7/2022	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
	DESIGNED: LKW 4/7/2022	DRAWN: LKW	4/7/2022		1" = 20'	N/A
	CHECKED: DJR 4/7/2022	CHECKED: DJR	4/7/2022	VERTICAL SCALE	DESIGNATION	
	DRIVE DETAILS "CLII-1-PR-B"				1" = 5'	1298633
				SURVEY BOOK	SHEETS	
				Electronic	17 of 33	
				CONTRACT	PROJECT	
				R-41258	1298633	



NOTE: All R/W on This Sheet Described from Line "B" Except as Shown
 See Sheet 6 for Equations of Line "B" and Line "PR-B"
 See Sheet 6 for Equations of Line "S-1-B", Line "S-1-PR-B", and Line "S-2-PR-B"

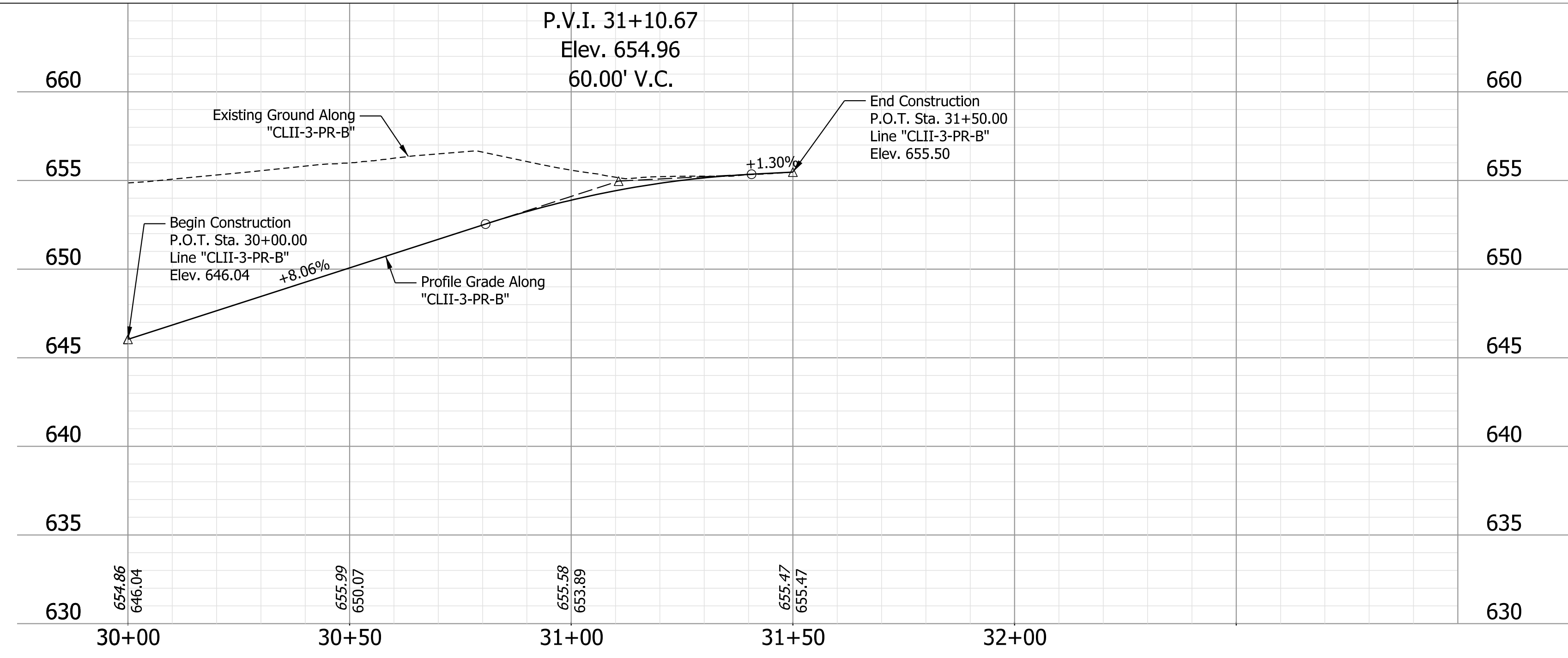
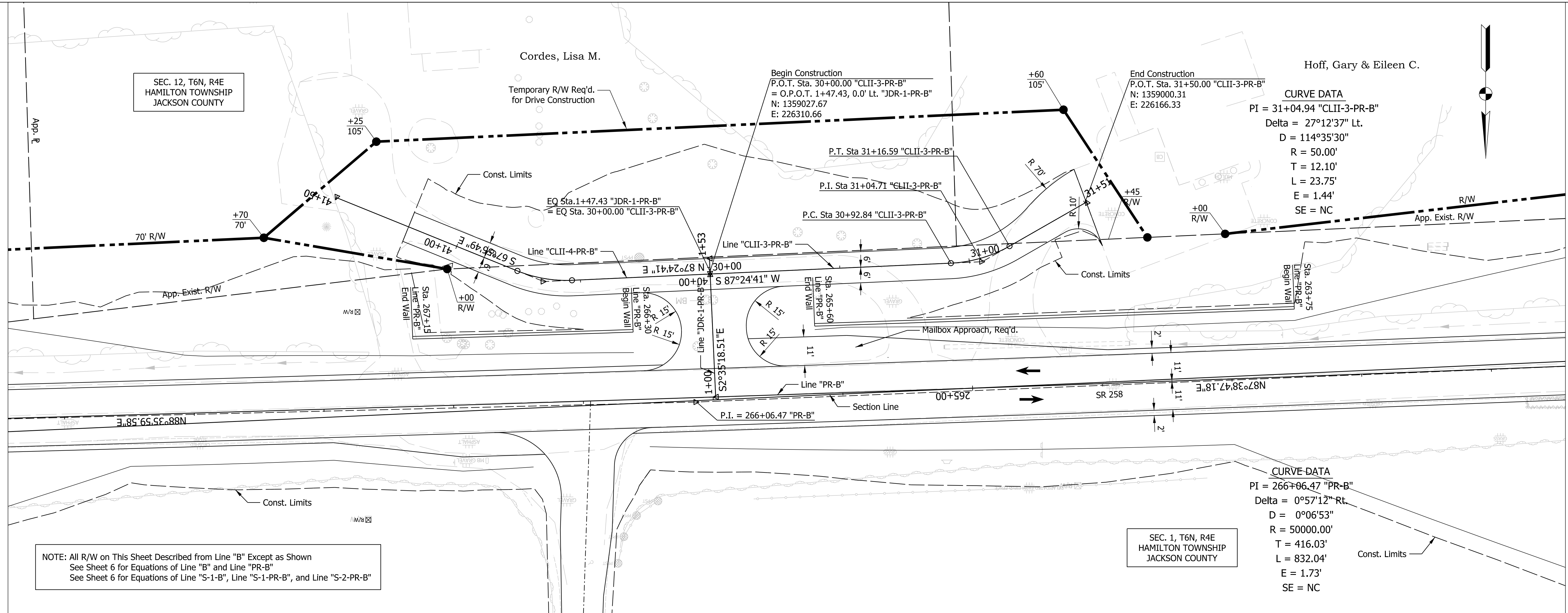
**NOT FOR
 CONSTRUCTION**

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	4/7/2022	DATE
DESIGNED: LKW	4/7/2022	DRAWN: LKW	4/7/2022
CHECKED: DJR	4/7/2022	CHECKED: DJR	4/7/2022

**INDIANA
 DEPARTMENT OF TRANSPORTATION**

**DRIVE DETAILS
 "CLII-2-PR-B"**

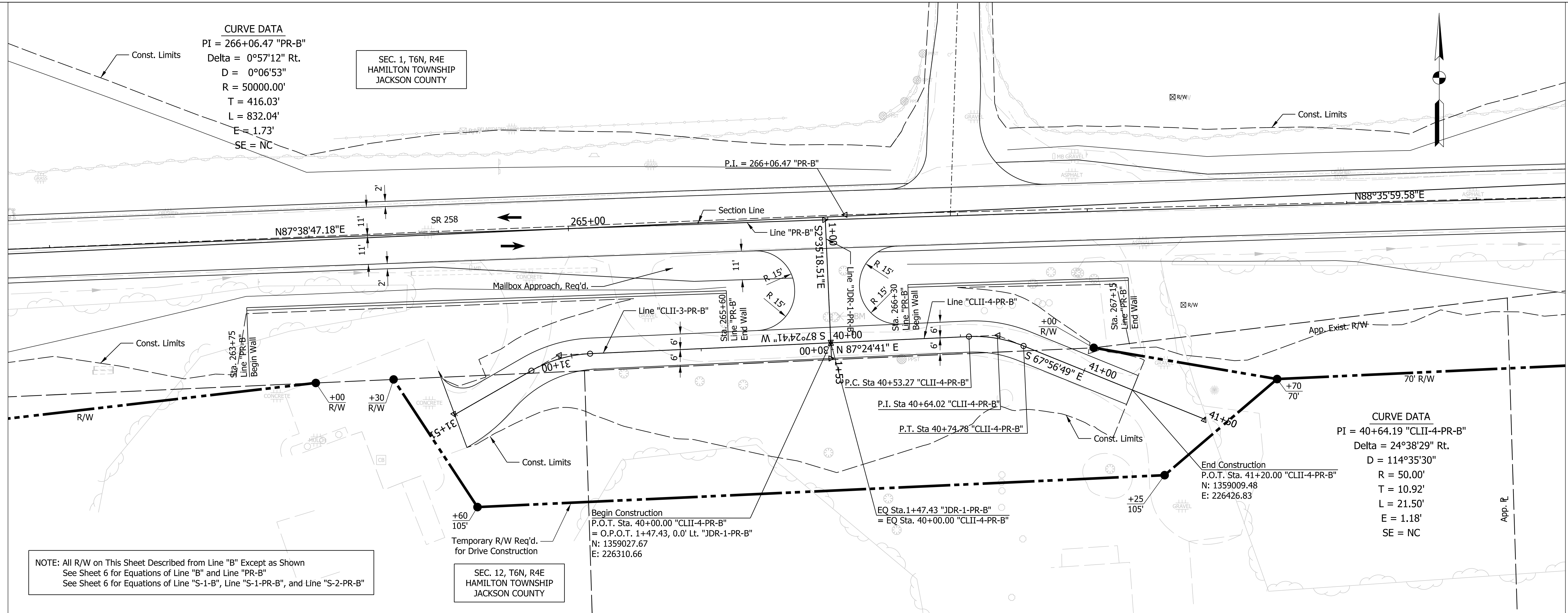
HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
1" = 5'	1298633
SURVEY BOOK	SHEETS
Electronic	18 of 33
CONTRACT	PROJECT
R-41258	1298633



NOT FOR CONSTRUCTION	RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER	4/7/2022	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
	DESIGNED: LKW 4/7/2022	DRAWN: LKW	4/7/2022		1" = 20'	N/A
	CHECKED: DJR 4/7/2022	CHECKED: DJR	4/7/2022		VERTICAL SCALE	DESIGNATION
					1" = 5'	1298633
	DRIVE DETAILS "CLII-3-PR-B"			SURVEY BOOK	SHEETS	
				Electronic	19 of 33	
				CONTRACT	PROJECT	
				R-41258	1298633	

CURVE DATA
 PI = 266+06.47 "PR-B"
 Delta = 0°57'12" Rt.
 D = 0°06'53"
 R = 50000.00'
 T = 416.03'
 L = 832.04'
 E = 1.73'
 SE = NC

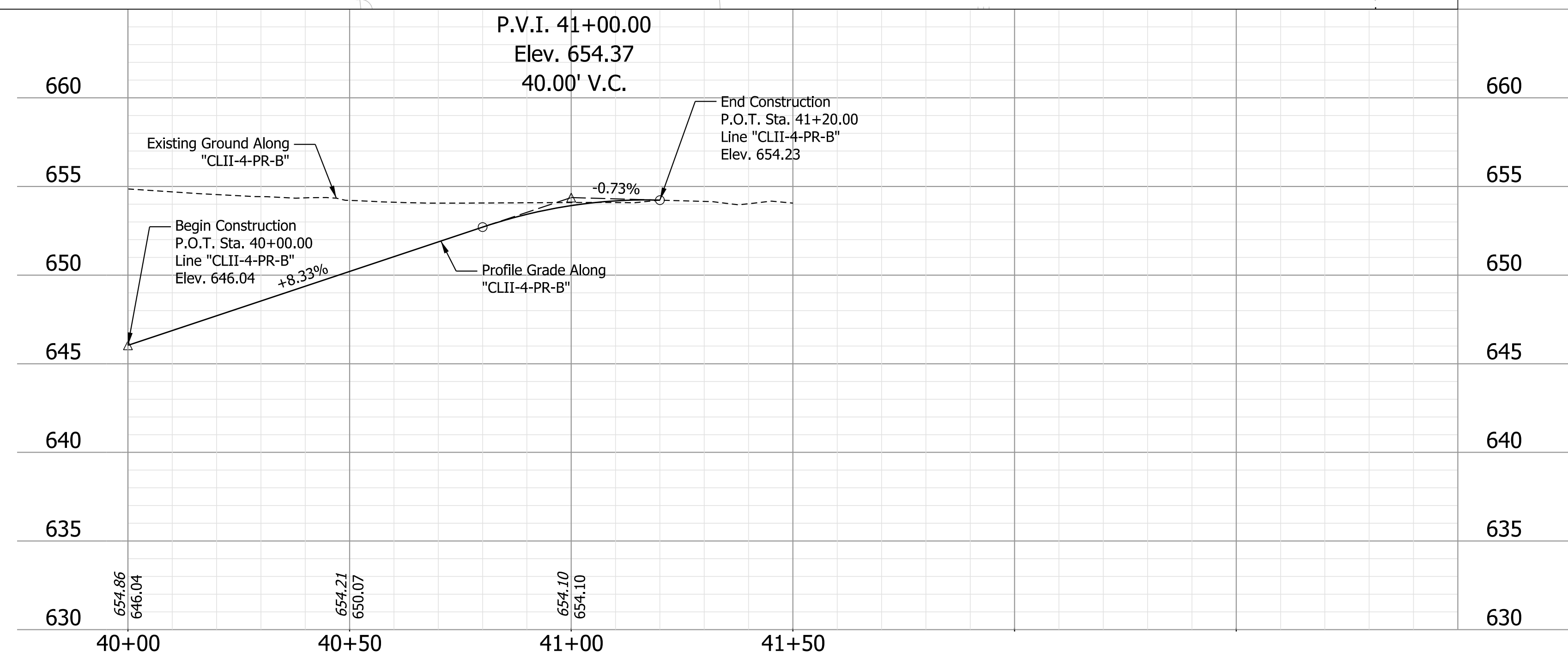
SEC. 1, T6N, R4E
 HAMILTON TOWNSHIP
 JACKSON COUNTY



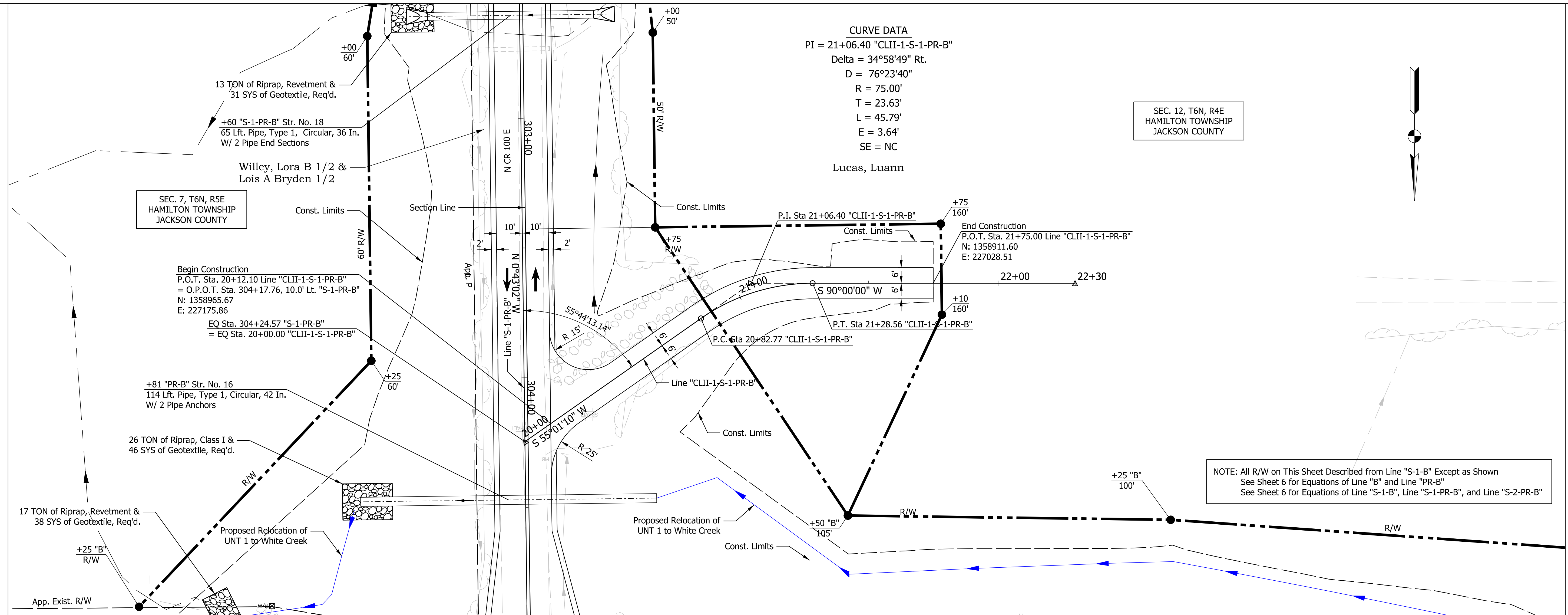
CURVE DATA
 PI = 40+64.19 "CLII-4-PR-B"
 Delta = 24°38'29" Rt.
 D = 114°35'30"
 R = 50.00'
 T = 10.92'
 L = 21.50'
 E = 1.18'
 SE = NC

NOTE: All R/W on This Sheet Described from Line "B" Except as Shown
 See Sheet 6 for Equations of Line "B" and Line "PR-B"
 See Sheet 6 for Equations of Line "S-1-B", Line "S-1-PR-B", and Line "S-2-PR-B"

SEC. 12, T6N, R4E
 HAMILTON TOWNSHIP
 JACKSON COUNTY



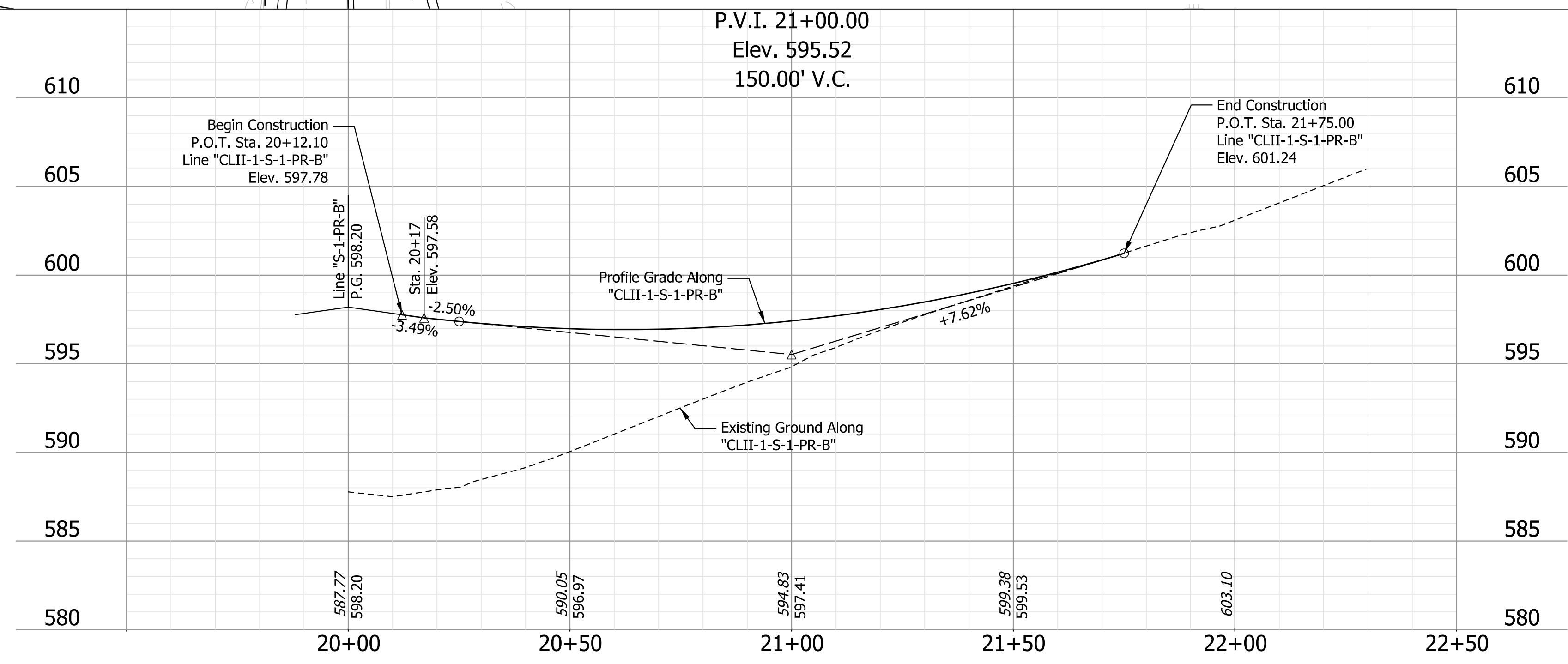
NOT FOR CONSTRUCTION	RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER	4/7/2022	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
	DESIGNED: LKW 4/7/2022	DRAWN: LKW	4/7/2022		1" = 20'	N/A
	CHECKED: DJR 4/7/2022	CHECKED: DJR	4/7/2022		VERTICAL SCALE	DESIGNATION
					1" = 5'	1298633
				DRIVE DETAILS "CLII-4-PR-B"	SURVEY BOOK	SHEETS
					Electronic	20 of 33
					CONTRACT	PROJECT
					R-41258	1298633



CURVE DATA
 PI = 21+06.40 "CLII-1-S-1-PR-B"
 Delta = 34°58'49" Rt.
 D = 76°23'40"
 R = 75.00'
 T = 23.63'
 L = 45.79'
 E = 3.64'
 SE = NC
 Lucas, Luann

SEC. 12, T6N, R4E
 HAMILTON TOWNSHIP
 JACKSON COUNTY

NOTE: All R/W on This Sheet Described from Line "S-1-B" Except as Shown
 See Sheet 6 for Equations of Line "B" and Line "PR-B"
 See Sheet 6 for Equations of Line "S-1-B", Line "S-1-PR-B", and Line "S-2-PR-B"

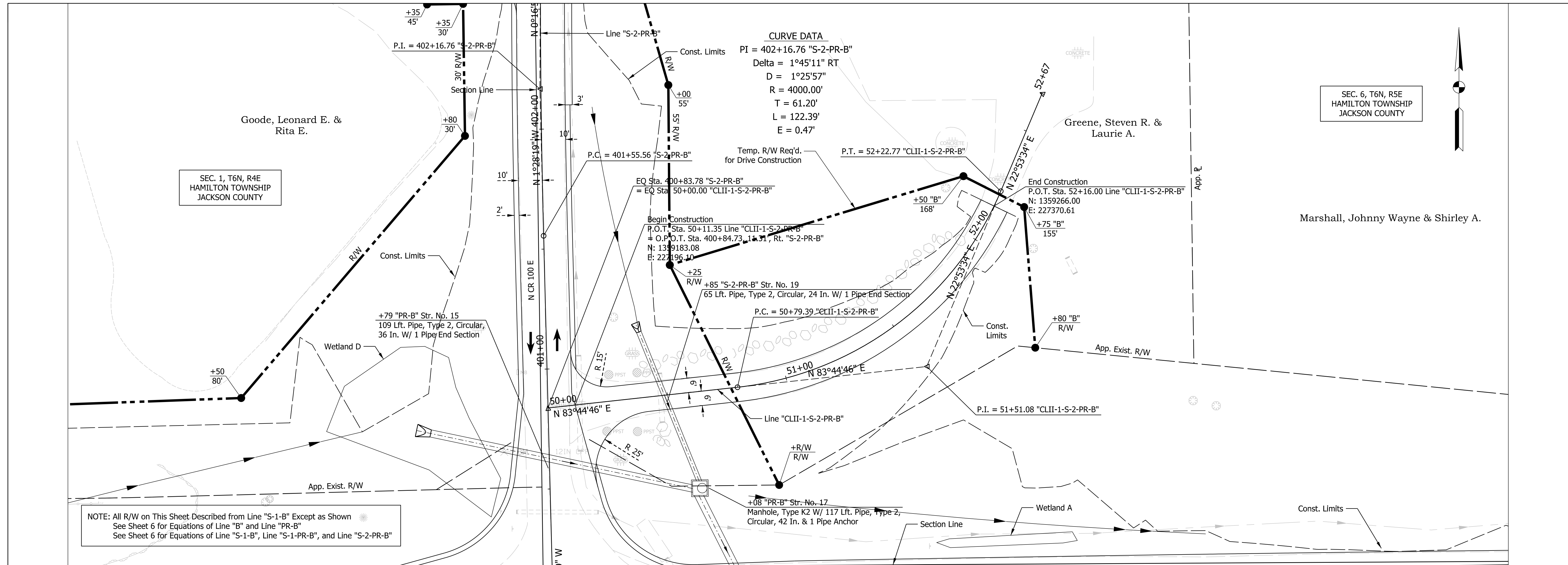


NOT FOR
 CONSTRUCTION

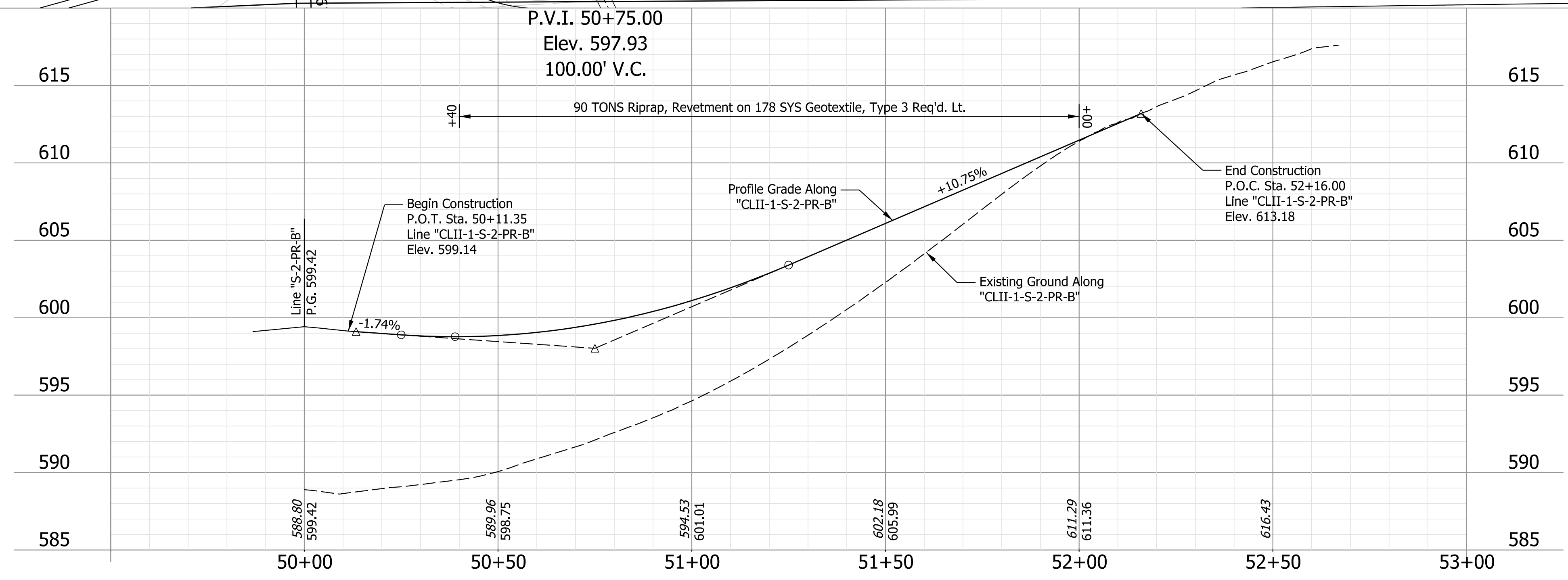
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	4/7/2022	DATE
DESIGNED: LKW	4/7/2022	DRAWN: LKW	4/7/2022
CHECKED: DJR	4/7/2022	CHECKED: DJR	4/7/2022

INDIANA
 DEPARTMENT OF TRANSPORTATION
 DRIVE DETAILS
 "CLII-1-S-1-PR-B"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
1" = 5'	1298633
SURVEY BOOK	SHEETS
Electronic	21 of 33
CONTRACT	PROJECT
R-41258	1298633



NOTE: All R/W on This Sheet Described from Line "S-1-B" Except as Shown
 See Sheet 6 for Equations of Line "B" and Line "PR-B"
 See Sheet 6 for Equations of Line "S-1-B", Line "S-1-PR-B", and Line "S-2-PR-B"



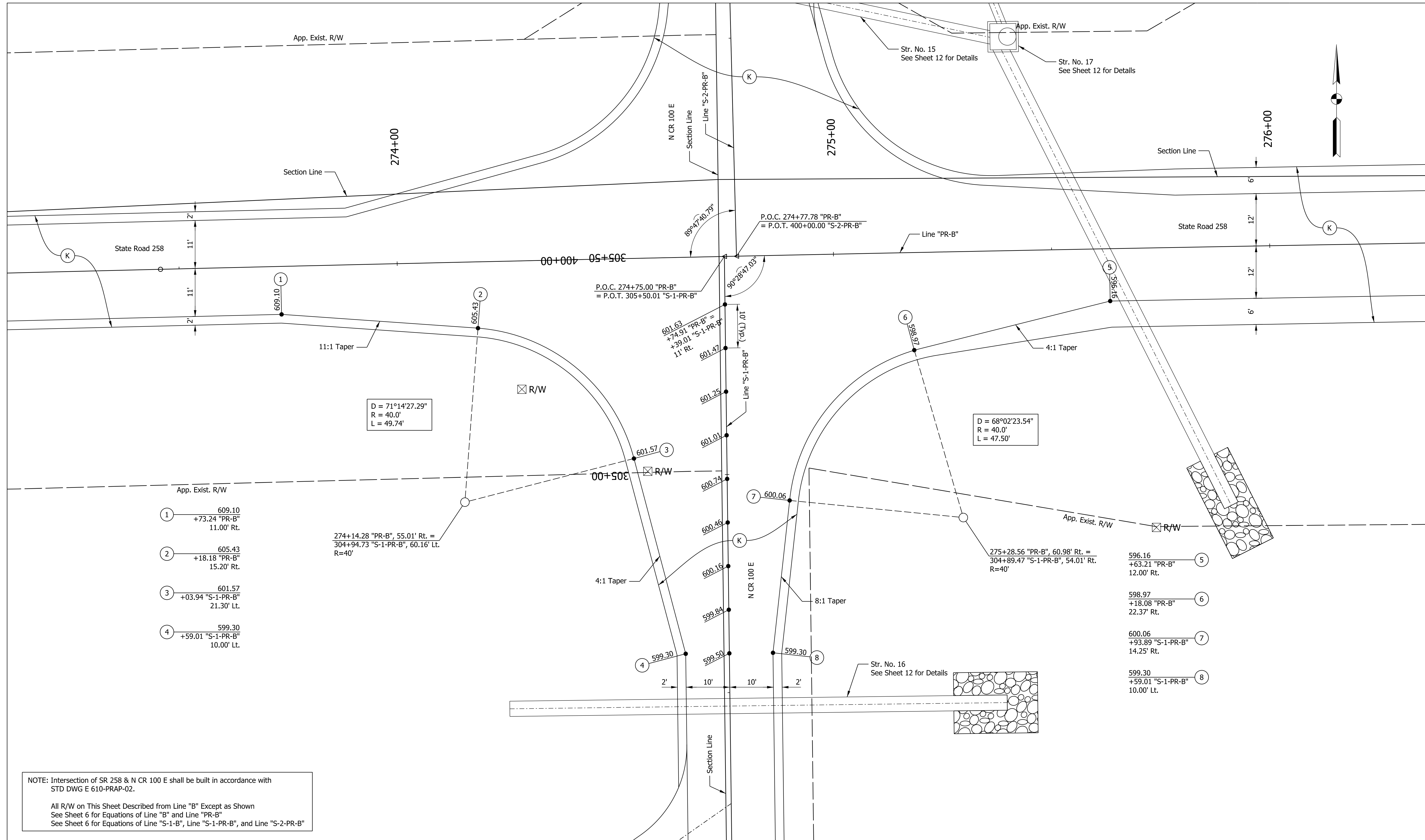
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	4/7/2022	DATE
DESIGNED: LKW	4/7/2022	DRAWN: LKW	4/7/2022
CHECKED: DJR	4/7/2022	CHECKED: DJR	4/7/2022

INDIANA
 DEPARTMENT OF TRANSPORTATION

DRIVE DETAILS
 "CLII-1-S-2-PR-B"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
1" = 5'	1298633
SURVEY BOOK	SHEETS
Electronic	22 of 33
CONTRACT	PROJECT
R-41258	1298633



NOTE: Intersection of SR 258 & N CR 100 E shall be built in accordance with STD DWG E 610-PRAP-02.

All R/W on This Sheet Described from Line "B" Except as Shown
 See Sheet 6 for Equations of Line "B" and Line "PR-B"
 See Sheet 6 for Equations of Line "S-1-B", Line "S-1-PR-B", and Line "S-2-PR-B"

LEGEND

(K)	165# /SYS QC/QA HMA, 3, 64, Surface, 9.5mm on
	275# /SYS QC/QA HMA, 2, 64, Intermediate, 19mm on
	660# /SYS QC/QA HMA, 2, 64, Base, 19.0mm on
	Subgrade Treatment, Type IBC

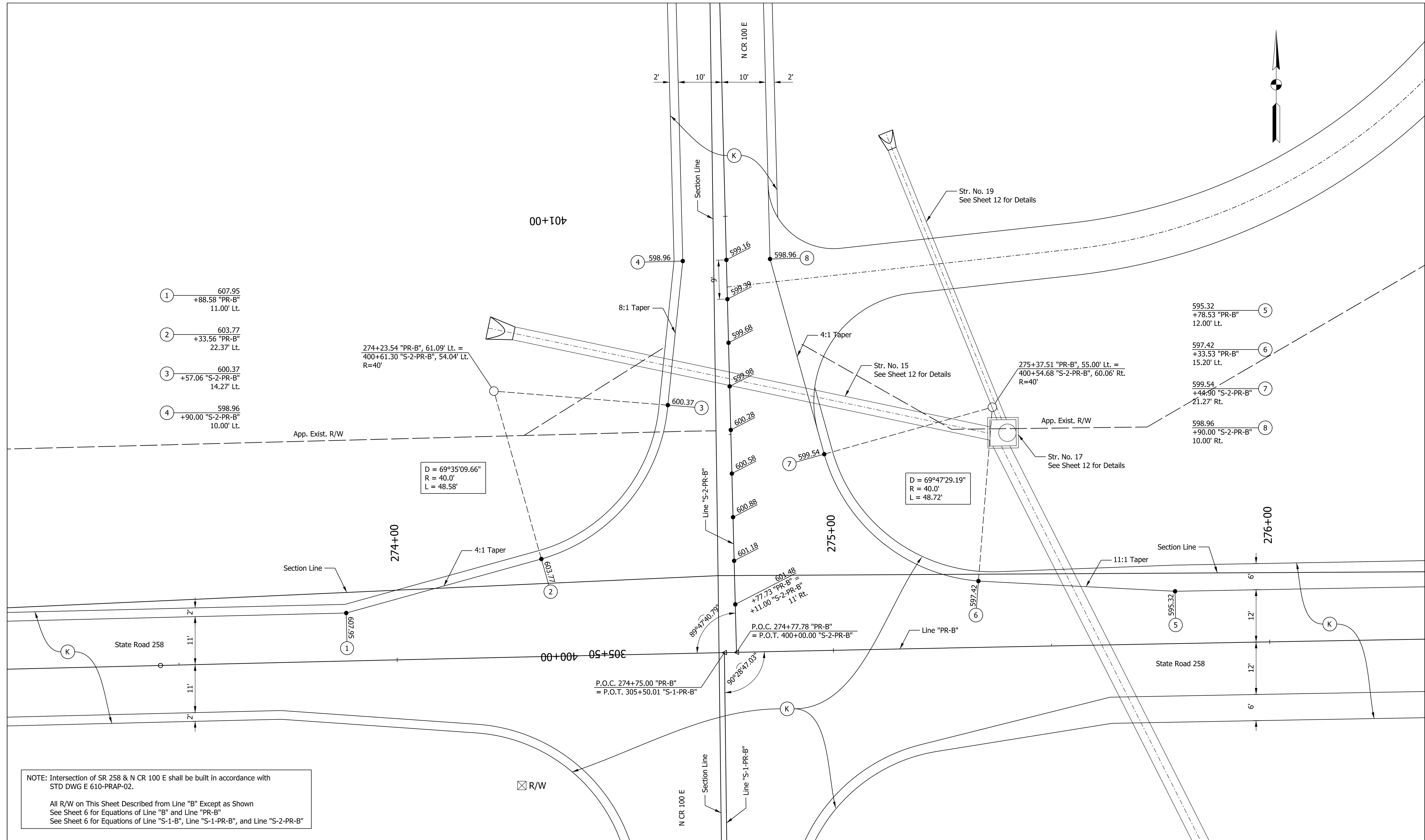
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	4/7/2022	DATE
DESIGNED: LKW	4/7/2022	DRAWN: LKW 4/7/2022
CHECKED: DJR	4/7/2022	CHECKED: DJR 4/7/2022

INDIANA DEPARTMENT OF TRANSPORTATION

**INTERSECTION DETAILS
N CR 100 E**

SCALE 1" = 10'	BRIDGE FILE N/A
	DESIGNATION 1298633
SURVEY BOOK Electronic	SHEETS 23 of 33
CONTRACT R-41258	PROJECT 1298633



NOTE: Intersection of SR 258 & N CR 100 E shall be built in accordance with STD DWG E 610-PRAP-02.

All R/W on This Sheet Described from Line "B" Except as Shown
 See Sheet 6 for Equations of Line "B" and Line "PR-B"
 See Sheet 6 for Equations of Line "S-1-B", Line "S-1-PR-B", and Line "S-2-PR-B"

LEGEND

(K)	165# /SYS QC/QA HMA, 3, 64, Surface, 9.5mm on
	275# /SYS QC/QA HMA, 2, 64, Intermediate, 19mm on
	660# /SYS QC/QA HMA, 2, 64, Base, 19.0mm on
	Subgrade Treatment, Type IBC

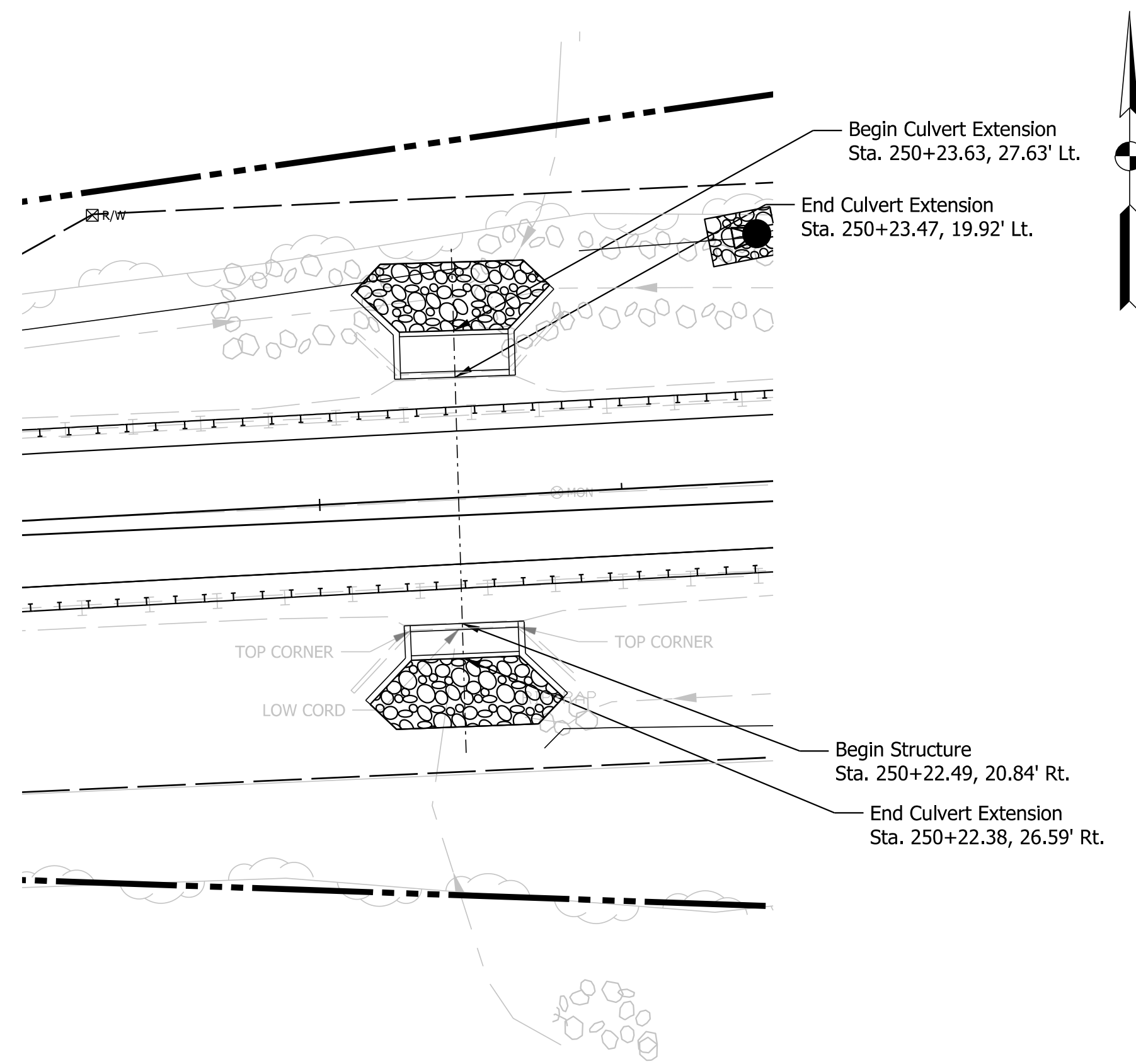
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	4/7/2022	DATE
DESIGNED: LKW	4/7/2022	DRAWN: LKW	4/7/2022
CHECKED: DJR	4/7/2022	CHECKED: DJR	4/7/2022

INDIANA
DEPARTMENT OF TRANSPORTATION

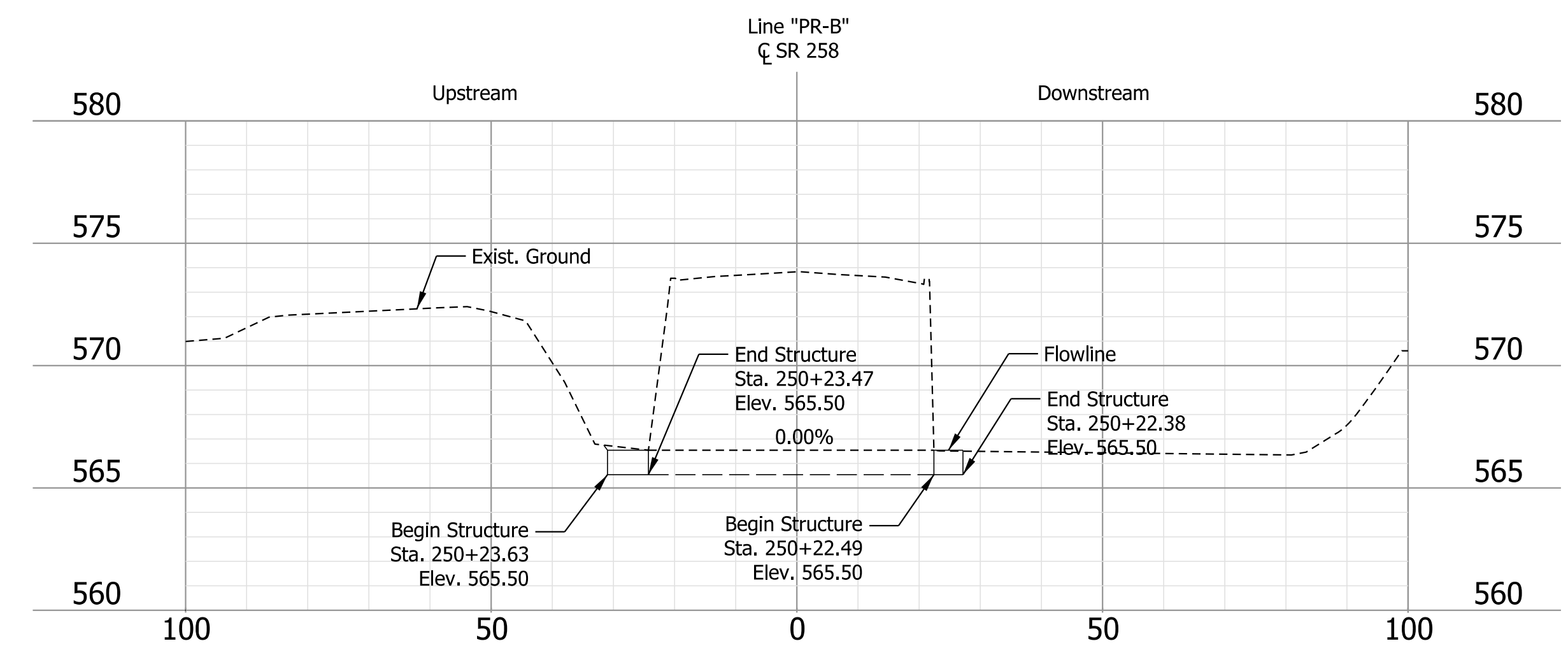
INTERSECTION DETAILS
N CR 100 E

SCALE	BRIDGE FILE
1" = 10'	N/A
	DESIGNATION
	1298633
SURVEY BOOK	SHEETS
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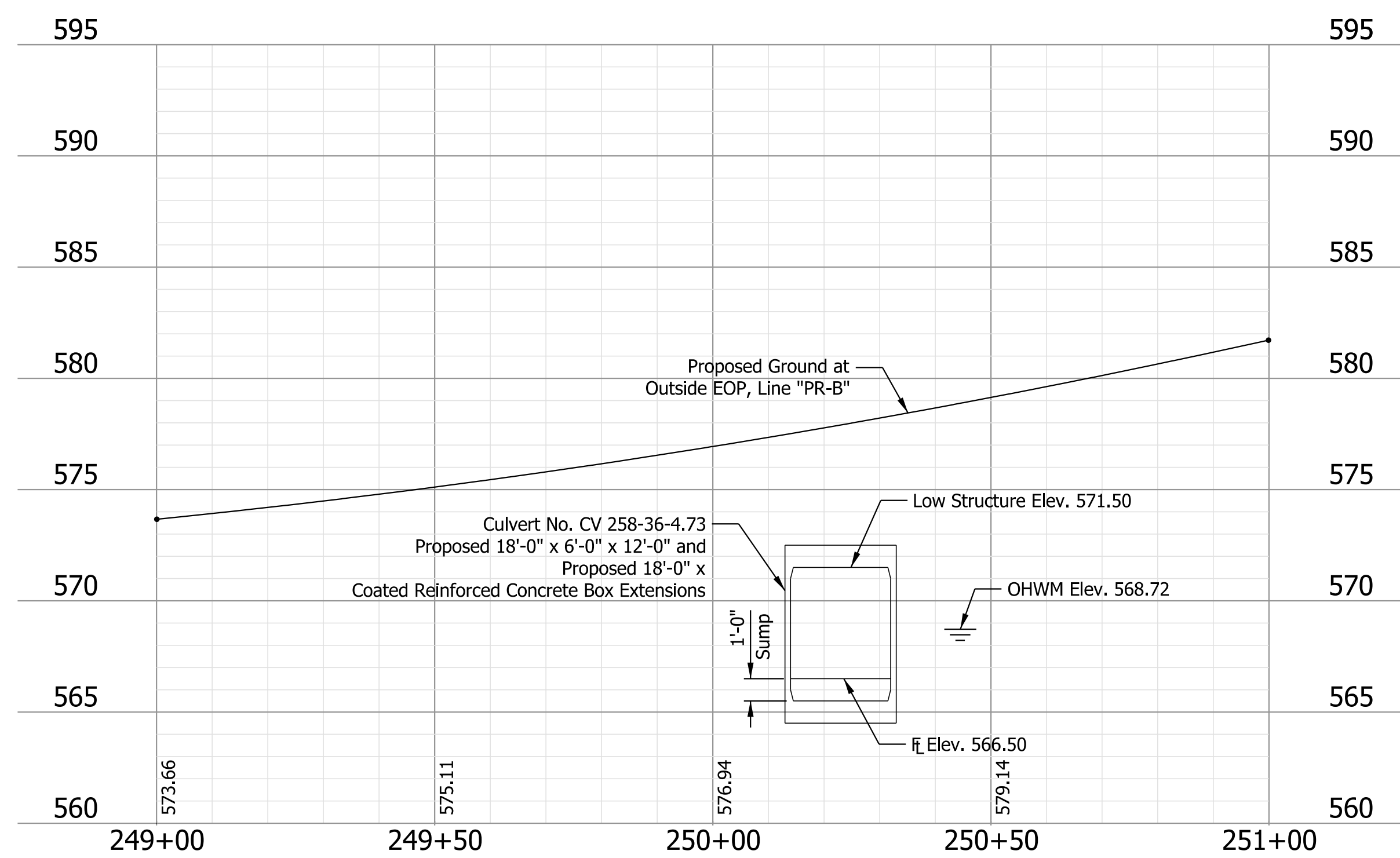


EXISTING STRUCTURE

The existing structure, CV 258-36-4.73, is a coated, reinforced concrete box 18' x 6' at approximately 42' in length. The existing wingwalls will be removed for the culvert extension at each end.



STREAM PROFILE



DOWNSTREAM CROSS SECTION

- Notes:
 1. All R/W is described on Roadway Plans.
 2. For alignment references, benchmarks, and topo references, see Roadway Plans.

HYDRAULIC DATA

Drainage Area	= 1.95 Sq. Mi.
Q100	= 1,250 cfs.
Q25	= 838 cfs.
EL at Q25	= 571.98 Ft.
EL at Q100	= 572.48 Ft.
Waterway Opening Required (Below Q100)	= 99 Sq. Ft.
Waterway Opening Provided (Below Q100)	= 99 Sq. Ft.
Backwater @ Q100	= 0.19 Ft.
Velocity @ Q25	= 4.24 Ft./Sec.

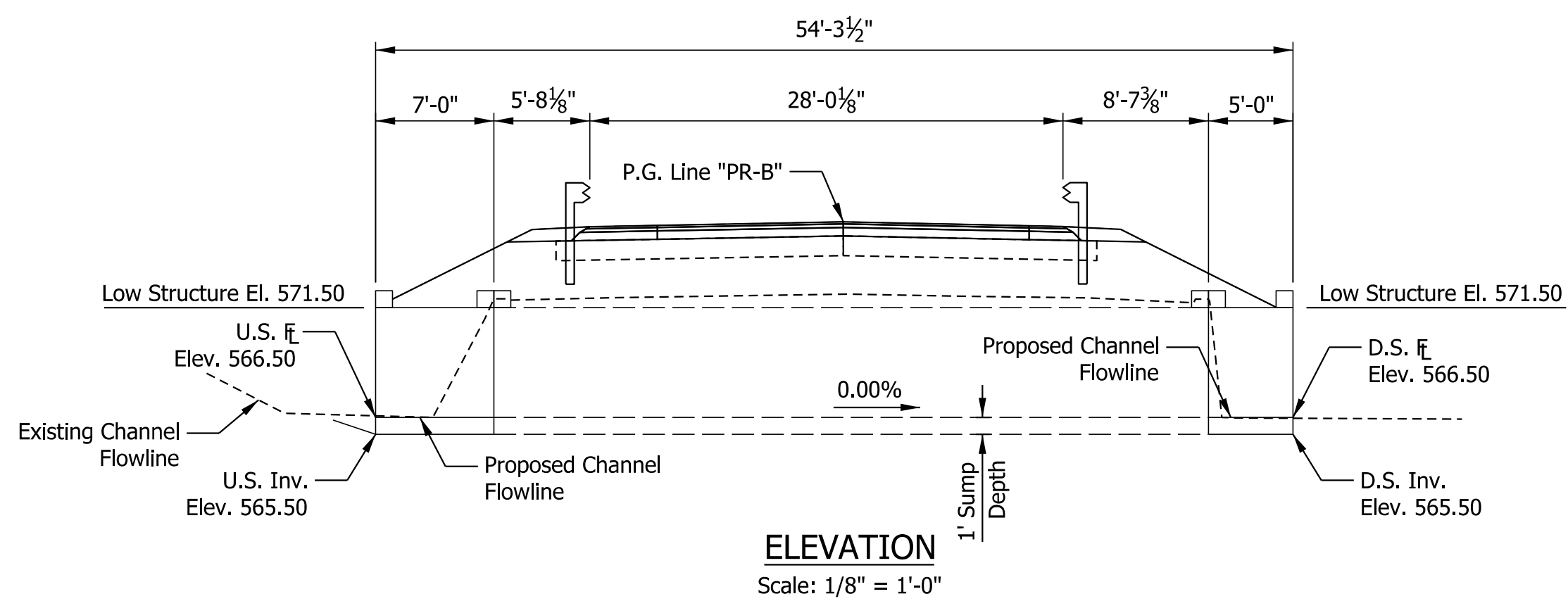
SR 258 OVER UNNAMED TRIBUTARY OF WHITE CREEK
 STRUCTURE, COATED REINFORCED CONCRETE BOX EXTENSION
 SPAN: 18 FT, RISE: 6 FT, SKEW 1° 17' Lt.
 STA 250+22.99 "PR-B"
 JACKSON COUNTY

NOT FOR CONSTRUCTION

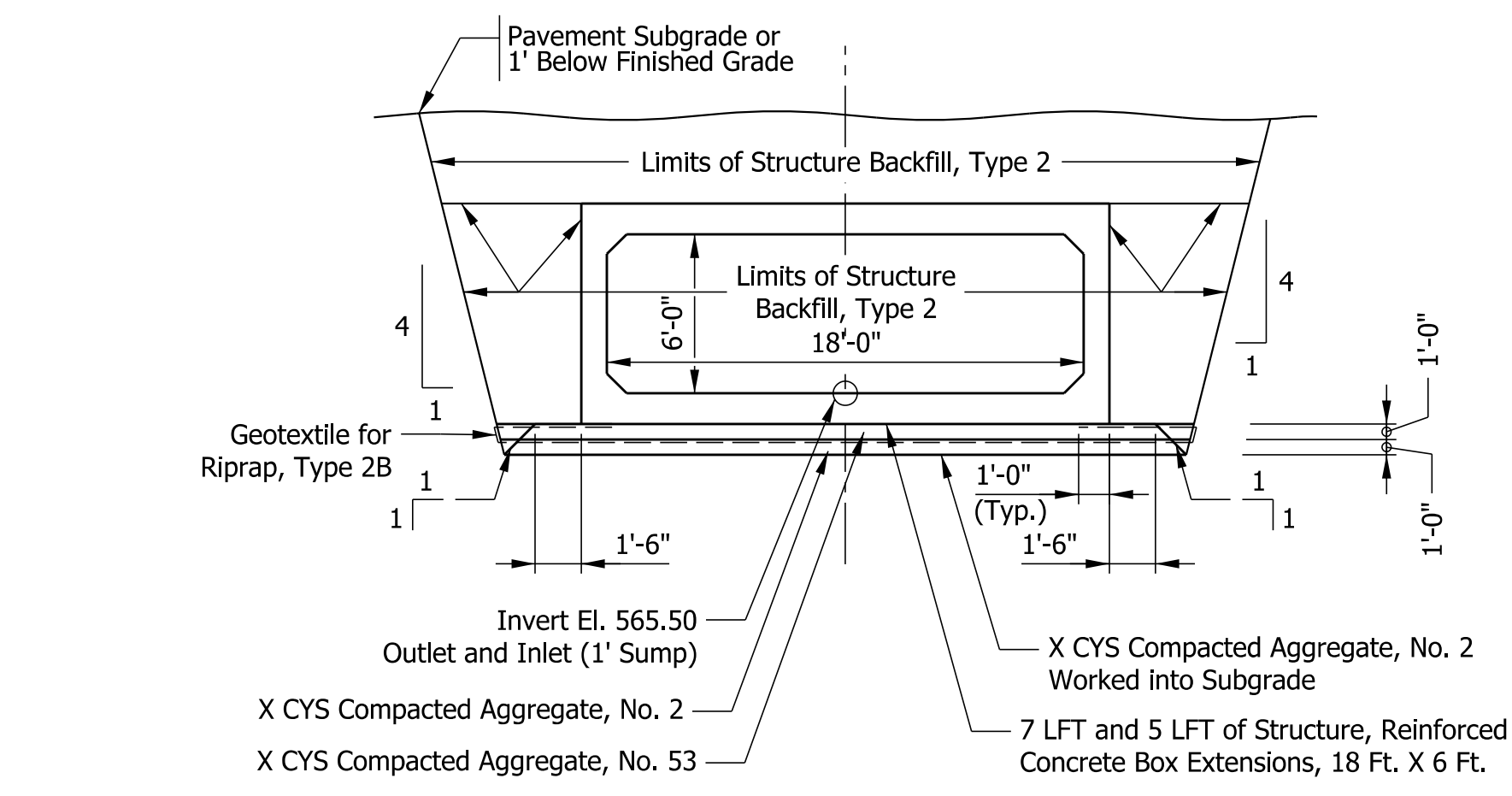
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: LKW	4/7/2022	4/7/2022
CHECKED: DJR	4/7/2022	4/7/2022

INDIANA
 DEPARTMENT OF TRANSPORTATION
 LAYOUT DETAILS
 STRUCTURES 11 & 12

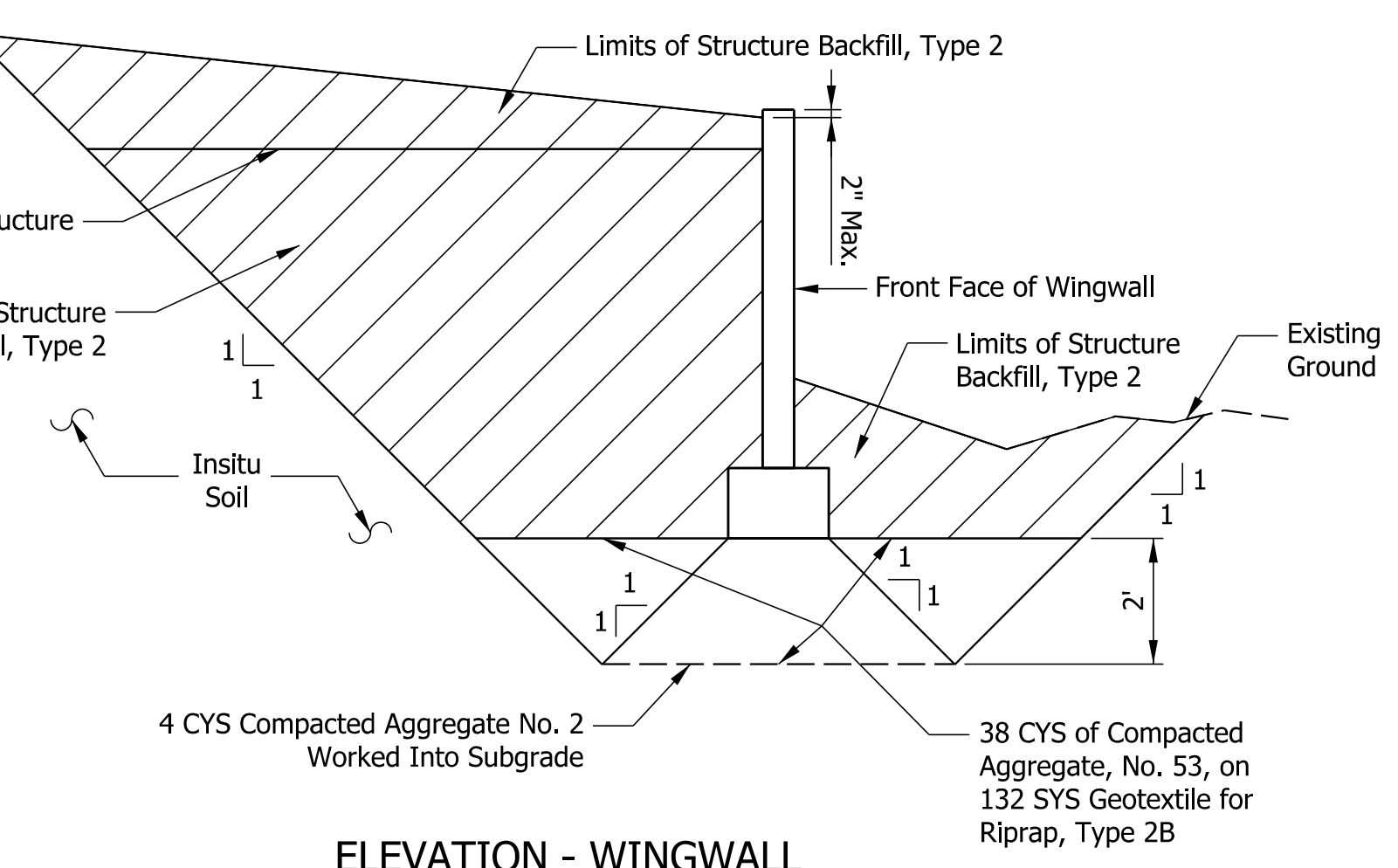
HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
1" = 5'	1298633
SURVEY BOOK	SHEETS
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ELEVATION
Scale: 1/8" = 1'-0"



ELEVATION - COATED REINFORCED CONCRETE BOX EXTENSIONS BACKFILL / EMBANKMENT REQUIREMENTS
Not to Scale



ELEVATION - WINGWALL BACKFILL / EMBANKMENT REQUIREMENTS
Not to Scale

DESIGN DATA

Allowable Design Stresses:
 Precast Culvert
 Precast Concrete $f_c = 5,000$ psi
 Reinforcing Steel (Grade 60) $f_y = 60,000$ psi

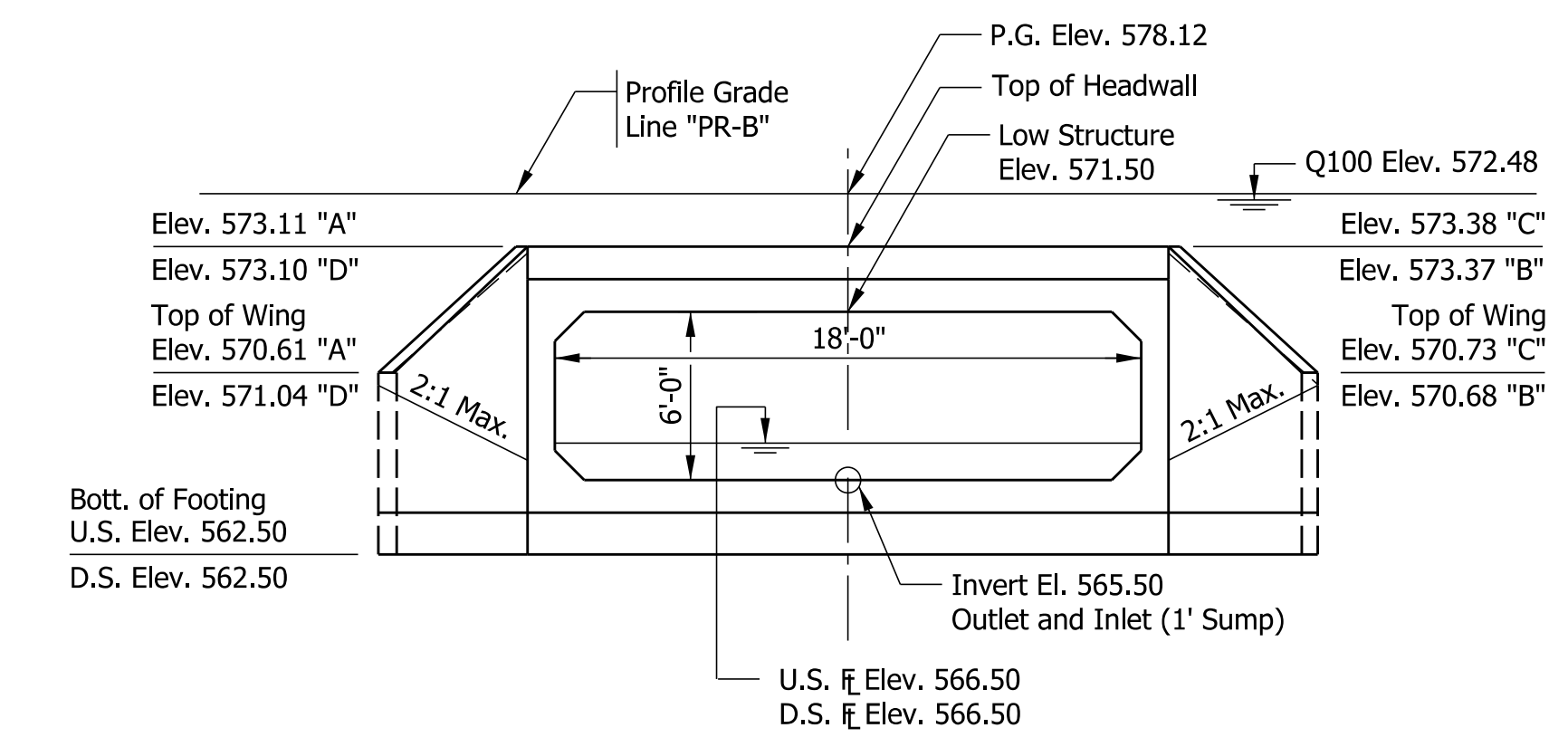
Cast-In-Place Concrete
 Reinforcing Steel (Grade 60) $f_y = 60,000$ psi
 Class 'A' Concrete $f_c = 3,500$ psi
 Class 'B' Concrete $f_c = 3,000$ psi
 Class 'C' Concrete $f_c = 4,000$ psi

Live Load:
 Designed for HL-93 Loading In Accordance with the AASHTO LRFD Bridge Specifications 6th Edition, 2012 and Its Subsequent Interims.

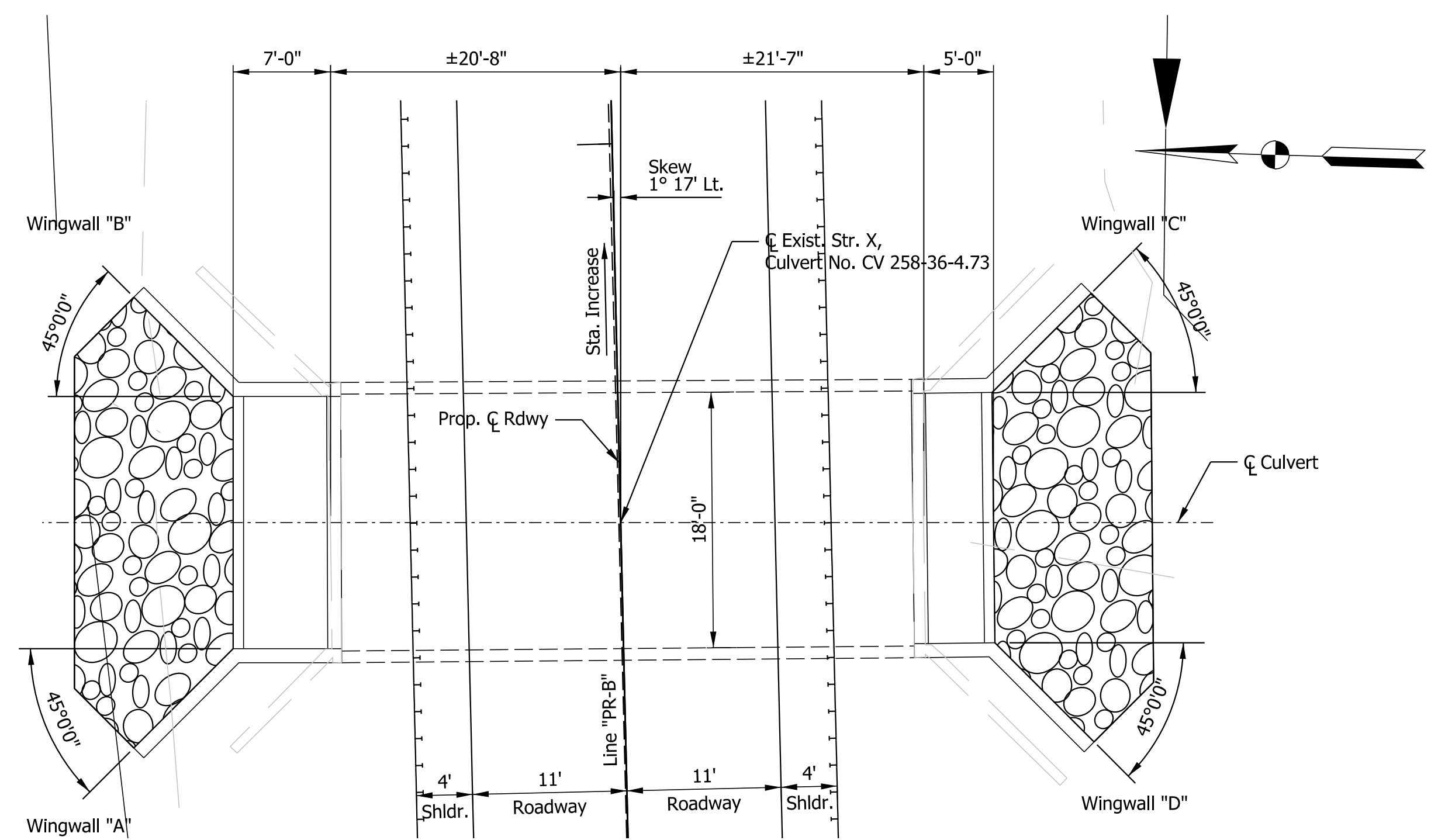
Dead Load:
 Actual Dead Load will Consist of the Culvert, 1-6" Max. of Earth Cover, Plus 35 psf Future Wearing Surface

GENERAL NOTES

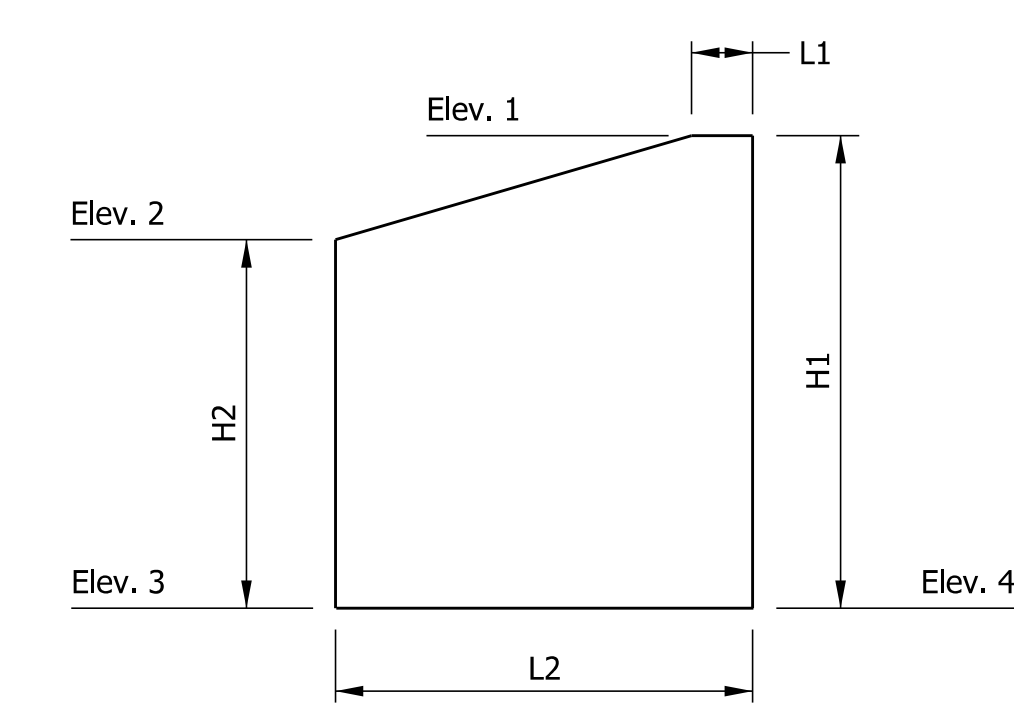
- Existing wingwalls will be removed for the culvert extension at each end.
- Allowable Factored Soil Bearing Resistance for Footing is 1,600 psf.
- For Additional Scour Protection Details, See INDOT Standard Drawing E 714-BCSP-01.
- Contractor Shall Verify the Existing Flow Line Elevation to Set the Appropriate Sump Depth.
- Three-Sided Flat Top Structure will Not be Permitted at this Location.
- Reinforcing Steel Covering Shall be 3" in Footing Except Bottom Steel which Shall be 4" and 2" in Other Parts Unless Noted Otherwise.



WINGWALL ELEVATION
Not to Scale



PLAN
Scale: 1/8" = 1'-0"



WINGWALL ELEVATION
Not to Scale

Elev.	Wingwall			
	A	B	C	D
1	573.11	573.37	573.38	573.10
2	570.61	570.68	570.73	571.04
3	562.50	562.50	562.50	562.50
4	562.50	562.50	562.50	562.50
DIM	A	B	C	D
H1	10.61	10.87	10.88	10.60
H2	8.11	8.18	8.23	8.54
L1	1.00	1.00	1.00	1.00
L2	10.00	13.00	13.00	14.00
Area (sft)	94.85	125.17	125.54	135.01

SR 258 OVER UNNAMED TRIBUTARY OF WHITE CREEK
 STRUCTURE, COATED REINFORCED CONCRETE BOX EXTENSION
 SPAN: 18 FT, RISE: 6 FT, SKEW 1° 17' Lt.
 STA 250+22.99 "PR-B"
 JACKSON COUNTY

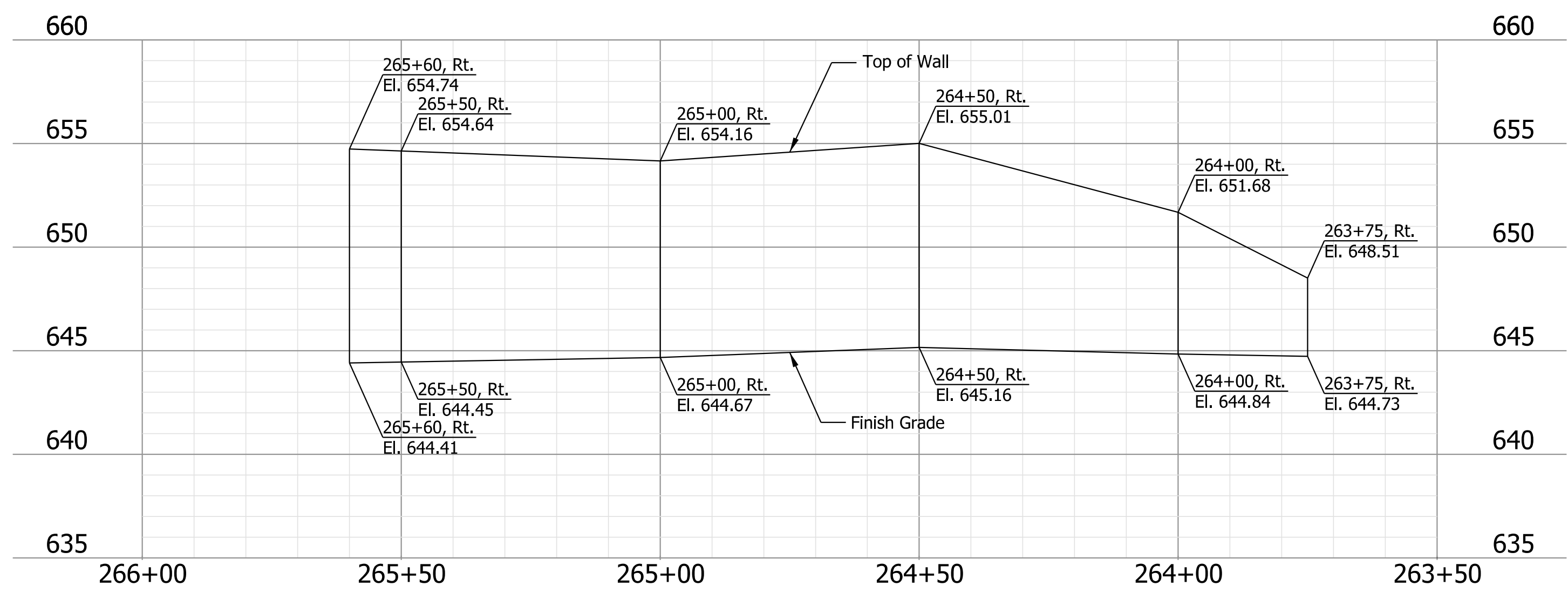
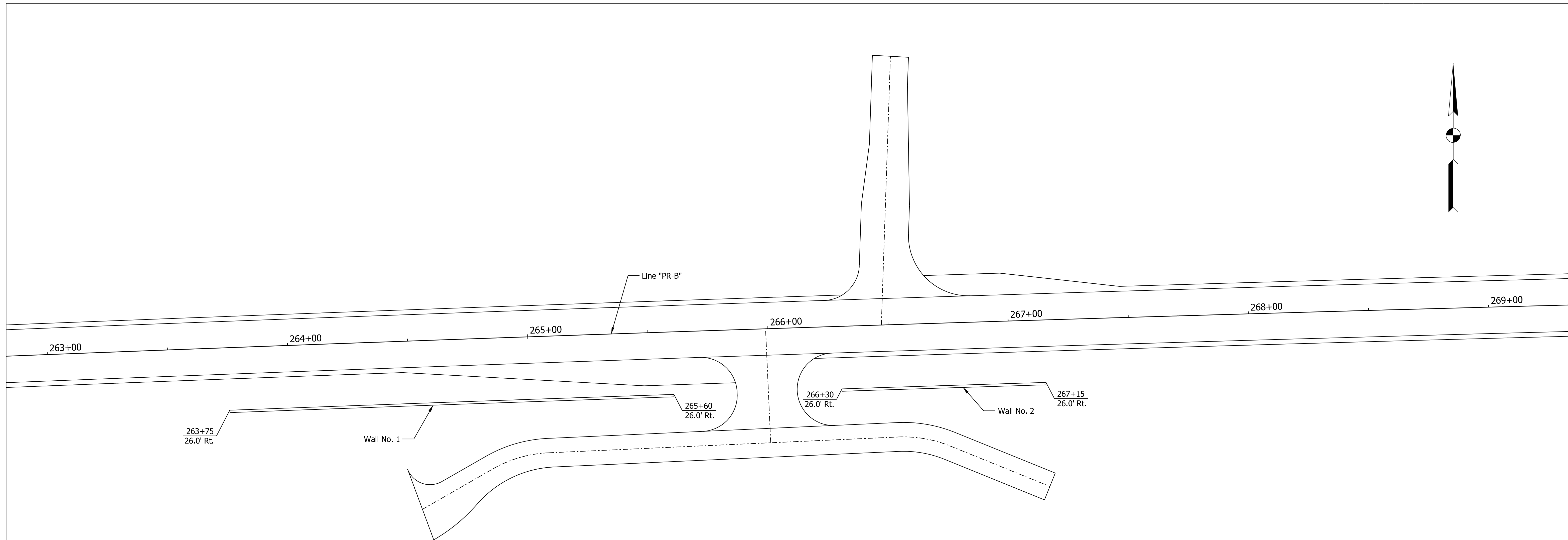
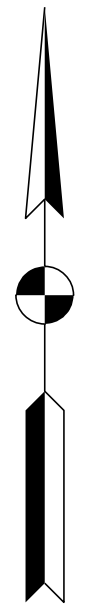
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	4/7/2022	DATE
DESIGNED: LKW	4/7/2022	DRAWN: LKW	4/7/2022
CHECKED: DJR	4/7/2022	CHECKED: DJR	4/7/2022

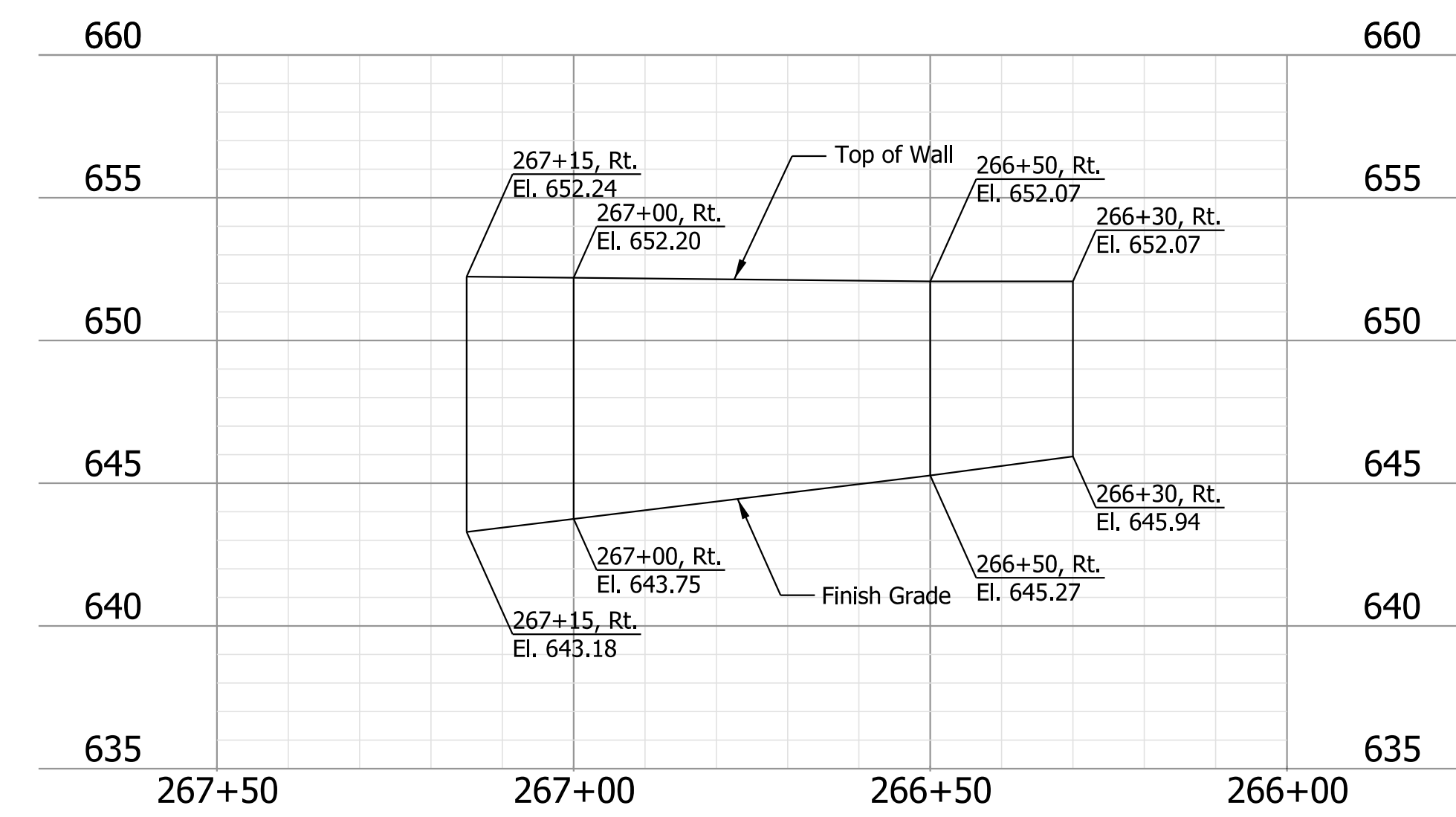
INDIANA
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND DETAILS
 STRUCTURES 11 & 12

SCALE	BRIDGE FILE
AS SHOWN	N/A
	DESIGNATION
	1298633
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Wall No. 1



Wall No. 2

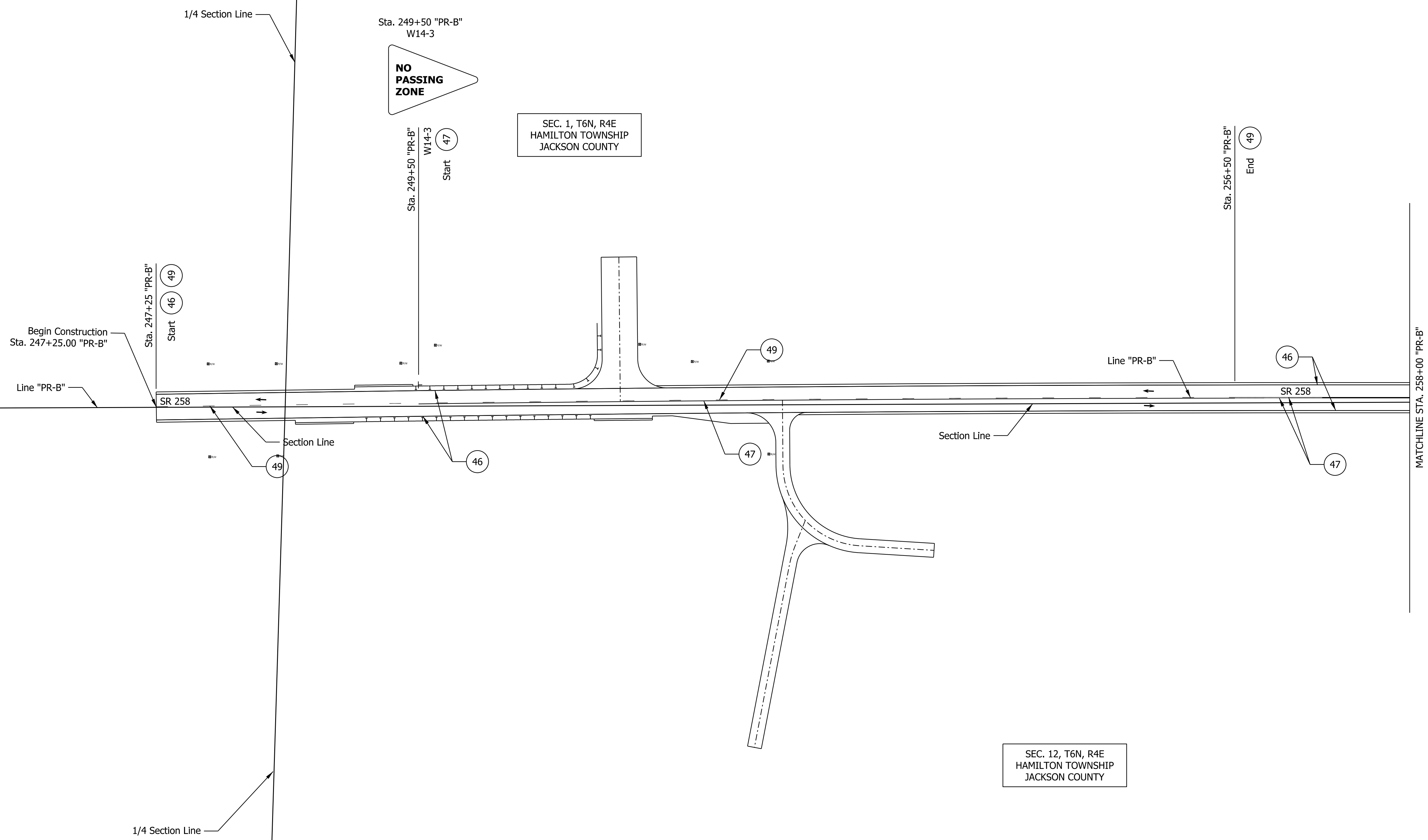
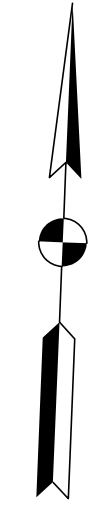
NOT FOR CONSTRUCTION

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CHECKED: DJR	4/7/2022	CHECKED: DJR	4/7/2022

INDIANA
DEPARTMENT OF TRANSPORTATION

WALL DETAILS
LINE "PR-B"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
1" = 5'	1298633
SURVEY BOOK	SHEETS
Electronic	27 of 33
CONTRACT	PROJECT
R-41258	1298633



SEC. 1, T6N, R4E
HAMILTON TOWNSHIP
JACKSON COUNTY

SEC. 12, T6N, R4E
HAMILTON TOWNSHIP
JACKSON COUNTY

LEGEND

39	Transverse Marking, Thermoplastic, Stop Line, White, 24"
46	Line, Thermoplastic, Solid, White, 4"
47	Line, Thermoplastic, Solid, Yellow, 4"

49 Line, Thermoplastic, Broken, Yellow, 4"

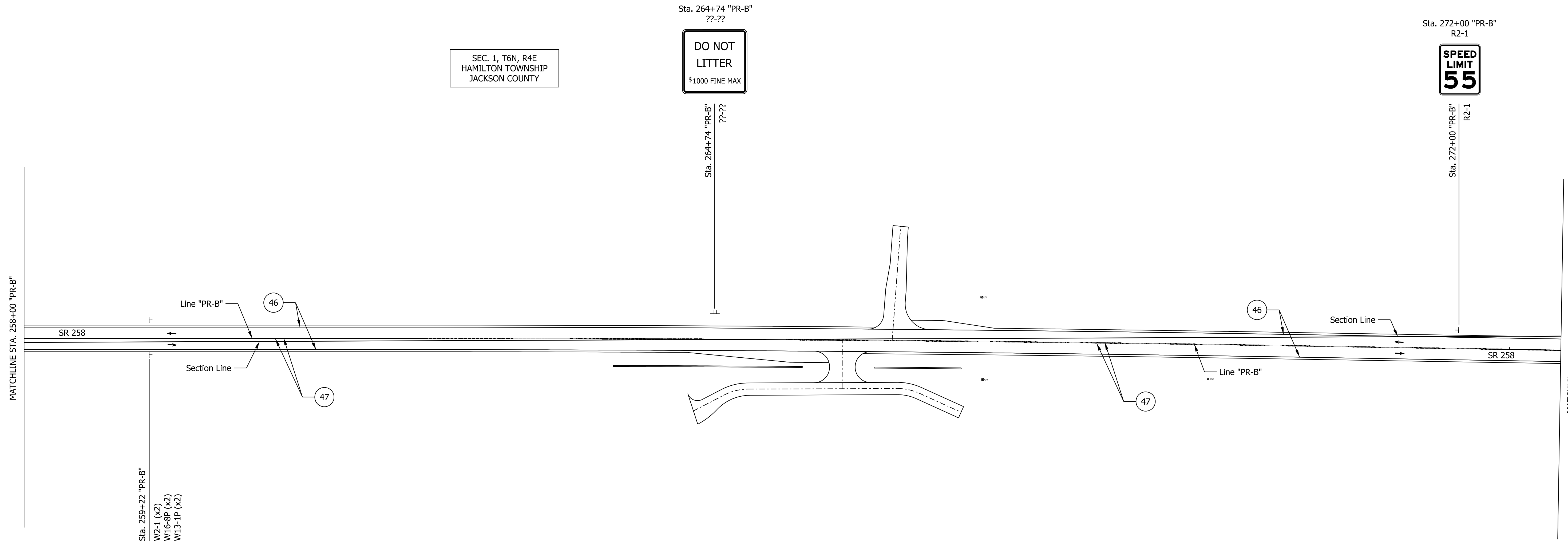
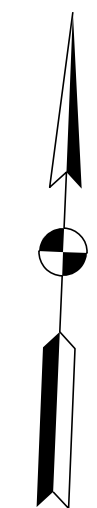
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	4/7/2022	DATE
DESIGNED: LKW	4/7/2022	DRAWN: LKW	4/7/2022
CHECKED: DJR	4/7/2022	CHECKED: DJR	4/7/2022

**INDIANA
DEPARTMENT OF TRANSPORTATION**

**SR 258 PLAN
LINE "PR-B"
STA. 245+00.00 TO STA. 258+00.00**

SCALE	BRIDGE FILE
1" = 50'	N/A
	DESIGNATION
	1298633
SURVEY BOOK	SHEETS
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CONTRACT	PROJECT
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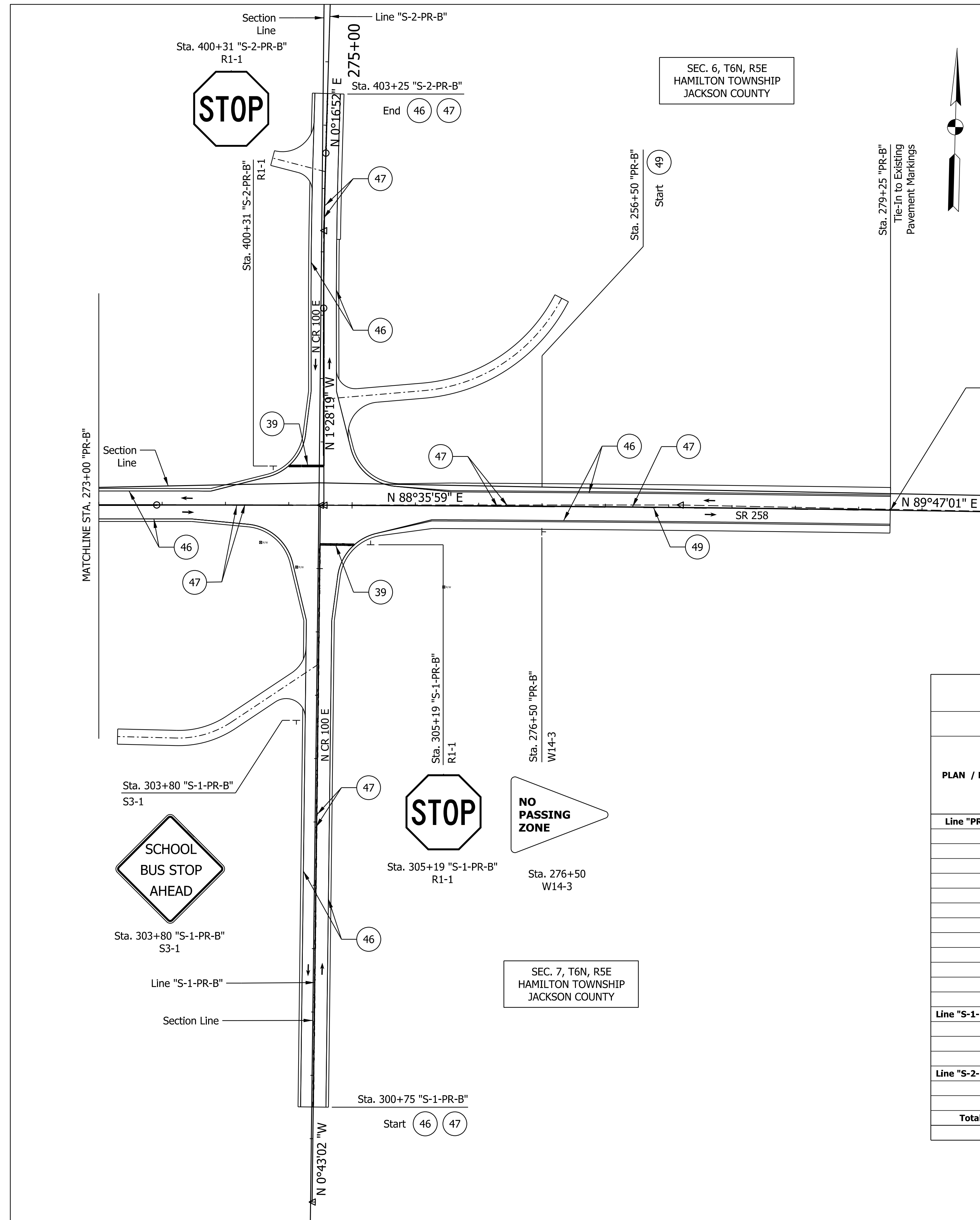
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: LKW	4/7/2022	DRAWN: LKW
CHECKED: DJR	4/7/2022	CHECKED: DJR

INDIANA
DEPARTMENT OF TRANSPORTATION

SR 258 PLAN
LINE "PR-B"
STA. 258+00.00 TO STA. 273+00.00

SCALE	BRIDGE FILE
1" = 50'	N/A
	DESIGNATION
	1298633
SURVEY BOOK	SHEETS
Electronic	29 of 33
CONTRACT	PROJECT
R-41258	1298633



LOCATION	LINE, MULTI-COMPONENT			TRANSVERSE MARKINGS MULTI-COMPONENT STOP LINE	GROOVING FOR PAVEMENT MARKINGS	SNOWPLOWABLE RAISED PAVEMENT MARKERS, REMOVE	SNOWPLOWABLE RAISED PAVEMENT MARKERS
	SOLID WHITE 6 in	SOLID YELLOW 6 in	BROKEN YELLOW 6 in	SOLID WHITE 24 in			
	LFT	LFT	LFT	LFT			
EASTBOUND							
LINE "PR-B"							
Sta. 247+25.00 to Sta. 258+00.00	1,075	850	0			25	24
Sta. 258+00.00 to Sta. 273+00.00	1,500	1,500	0			38	38
Sta. 273+00.00 to Sta. 279+25.00	625	0	69			16	16
WESTBOUND							
LINE "PR-B"							
Sta. 247+25.00 to Sta. 258+00.00	1,075	0	231				
Sta. 258+00.00 to Sta. 273+00.00	1,500	1,500	0				
Sta. 273+00.00 to Sta. 279+25.00	625	625	0				
LINE "S-1-PR-B"							
Sta. 300+75.00 to Sta. 305+39.00	928	928		28			
LINE "S-2-PR-B"							
Sta. 400+11.00 to Sta. 403+25.00	628	628		28			
TOTAL	7,956	6,031	300	56	0	79	78

SHEET SIGN & POST SUMMARY														
PLAN / LINE	SIGN LOCATION (STA.)	OFFSET (FT.)	OFFSET DIRECTION	SIGN CODE	SIGN SIZE (WIDTH IN x HEIGHT IN)	GROUND - MOUNTED SIGN AREA (ft ²)			POST				REMARKS	
						0.080"	0.100"	0.125"	2" x 2" - 12 GA. (TYPE 2)		2 1/4" x 2 1/4" - 12 GA. (TYPE 1)			
									REINFORCED ANCHOR POST LENGTH (FT.)		REINFORCED ANCHOR POST LENGTH (FT.)			
						1	2	TOTAL	1	TOTAL				
Line "PR-B"														
	249+50	16.00	LT.	W14-3	48 x 36			12						
	259+22	16.00	RT.	W2-1	30 x 30	6.3						12.8	12.8	
	259+22	16.00	RT.	W16-8P	30 x 8	1.7								MOUNTED ON SAME POST AS W2-1
	259+22	16.00	RT.	W13-1P	24 x 24	4								MOUNTED ON SAME POST AS W2-1
	259+22	18.00	LT.	W2-1	30 x 30	6.3						12.8	12.8	
	259+22	18.00	LT.	W16-8P	30 x 8	1.7								MOUNTED ON SAME POST AS W2-1
	259+22	18.00	LT.	W13-1P	24 x 24	4								MOUNTED ON SAME POST AS W2-1
	263+85	16.00	RT.	RP 05										REFERENCE POST
	264+74	25.00	LT.	??-??	30 x 30	6.3						10.2	10.2	
	272+00	18.00	LT.	R2-1	24 x 30	5						10.2	10.2	
	276+50	20.00	RT.	W14-3	48 x 36			12		10.7		10.7		
Line "S-1-PR-B"														
	303+80	17.00	LT.	S3-1	36 x 36			9				10.7	10.7	
	305+19	40.00	RT.	R1-1	30 x 30	6.3						10.2	10.2	
Line "S-2-PR-B"														
	400+31	40.00	LT.	R1-1	30 x 30	6.3						10.2	10.2	
Total						48	33	0				22	77	

LEGEND	
39	Transverse Marking, Thermoplastic, Stop Line, White, 24"
46	Line, Thermoplastic, Solid, White, 4"
47	Line, Thermoplastic, Solid, Yellow, 4"
49	Line, Thermoplastic, Broken, Yellow, 4"

NOT FOR CONSTRUCTION	RECOMMENDED FOR APPROVAL _____ 4/7/2022 DESIGN ENGINEER DATE
	DESIGNED: LKW 4/7/2022 DRAWN: LKW 4/7/2022
	CHECKED: DJR 4/7/2022 CHECKED: DJR 4/7/2022

INDIANA DEPARTMENT OF TRANSPORTATION
SR 258 PLAN LINE "PR-B" STA. 273+00.00 TO STA. 285+00.00

SCALE 1" = 50'	BRIDGE FILE N/A
	DESIGNATION 1298633
SURVEY BOOK Electronic	SHEETS 30 of 33
CONTRACT R-41258	PROJECT 1298633