

INDIANA DEPARTMENT OF TRANSPORTATION



ROAD PLANS FOR SLIDE REPAIR

ROUTE: SR 237 AT: RP 30+-1
 PROJECT NO. 1900291 & 2001057 P.E.
 1900291 R/W
 1900291 CONST.

Slide Repair SR 237
 Located 0.42 Miles South of I-64
 Section 25, T-3-S, R-1-W, Union Township, Crawford County, Indiana

PROJECT	DESIGNATION
1900291	1900291
CONTRACT	
R-42199	

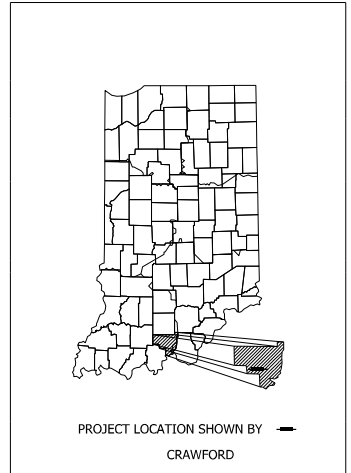
STRUCTURE INFORMATION				
STRUCTURE	TYPE	SKEW	UNDER	STATION
CLV-237-013-5.75	Pipe Replacement	Skew: 17°54'23" Lt.	SR 237	1515+33.48 Line "PR-A"

KIN PROJECT INFORMATION	
1900200	Slide Correction along SR 66 (Lead)
1900287	Slide Correction along SR 145
1900291	Slide Correction along SR 237
1900294	Slide Correction along SR 237
1900295	Slide Correction along SR 37
2001057	Culvert Replacement on SR 237

Stage 3
 Plan Set
 July 21, 2023

TRAFFIC DATA	
A.A.D.T. (2030)	896 V.P.D.
A.A.D.T. (2044)	883 V.P.D.
D.H.V (2044)	78 V.P.H.
DIRECTIONAL DISTRIBUTION	47/53 %
TRUCKS	2.11 % A.A.D.T. 2.82 % D.H.V.

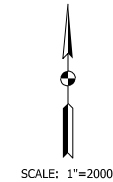
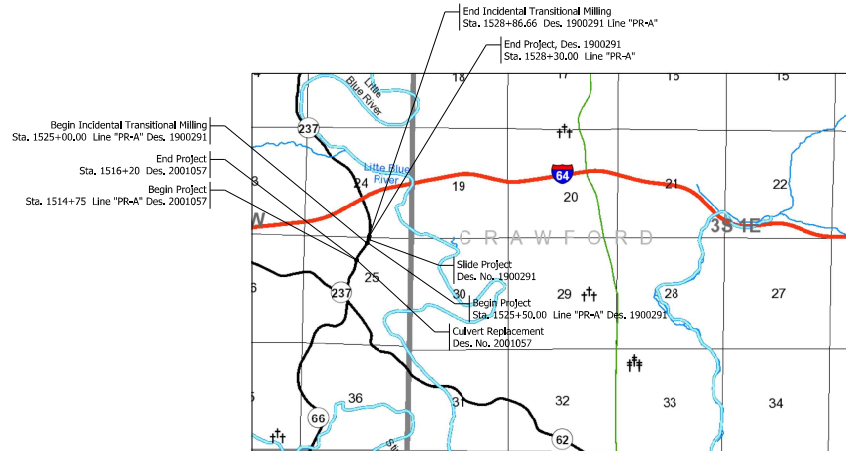
DESIGN DATA	
DESIGN SPEED	45 M.P.H.
PROJECT DESIGN CRITERIA	3R (Non-Freeway)
FUNCTIONAL CLASSIFICATION	Major Collector
RURAL/URBAN	Rural
TERRAIN	Rolling
ACCESS CONTROL	None



LATITUDE: 38°14'7.85"N LONGITUDE: 86°28'2.24"W

GROSS LENGTH: 0.073 MI.
 NET LENGTH: 0.053 MI.
 MAX. GRADE: 5.15% %

HUC: 051401041105



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

wsp
 WSP USA Inc.
 115 W. Washington Street
 Suite 12705
 Indianapolis, IN 46204
 TEL: 317-972-1706

PLANS PREPARED BY: WSP USA Inc. 317-972-1706
 PHONE NUMBER
 CERTIFIED BY: _____ DATE
 APPROVED FOR LETTING: _____ DATE
 INDIANA DEPARTMENT OF TRANSPORTATION

BRIDGE FILE	
DESIGNATION	
1900291 & 2001057	
SURVEY BOOK	SHEETS
	1 of 23
CONTRACT	PROJECT
R-42199	1900291

REVISIONS

SHEET NO.	DATE	REVISED

GENERAL NOTES

INDEX

SHEET NO.	DRAWINGS INDEX
1	TITLE
2	INDEX AND GENERAL NOTES
3	SR 237 LINE "PR-A" TYPICAL SECTIONS
4	LOCATION CONTROL ROUTE SURVEY
5	SR 237 PLAT NO. 1
6	GEOMETRIC DETAILS
7	SR 237 DETOUR SHEET
8	SR 237 LINE "PR-A" PLAN SHEET
9	SR 237 LINE "PR-A" PROFILE AND SUPERELEVATION DIAGRAM
10	MODIFIED CLASS V DETAILS
11	STRUCTURE DETAILS STR. P104
12	SR 237 DES. 2001057 SUMMARY OF QUANTITIES
13-20	CROSS SECTIONS
21-22	CROSS SECTIONS AT CULVERT

UTILITIES

ELECTRIC: Dubois Rural Electric, Inc. - Overhead Electric 1400 Energy Drive Jasper, IN 47546 TELEPHONE: Frontier Overhead Telephone 844-325-0305	WATER: Patoka Lake Regional Water & Sewer District (Dubois) JOSH DIXON (812) 678-6325 josh@plrws.net 2647 N STATE RD 545 DUBOIS, IN 47527 SHAWN KLUESNER (812) 678-6350 shawn@plrws.net 2647 N. STATE RD 545 DUBOIS, IN 47527
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Per Indiana State Law IC-6-1-26-16, It is against the law to excavate without notifying in the underground location service two (2) full working days before commencing work.

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

Note: The contractor shall field verify existing utility locations prior to commencing work.

INDIANA
DEPARTMENT OF TRANSPORTATION

SR 237
INDEX AND GENERAL NOTES

HORIZONTAL SCALE BRIDGE FILE

N/A

VERTICAL SCALE DESIGNATION

N/A 1900291 & 2001057

SURVEY BOOK SHEETS

2 of 23

CONTRACT PROJECT

R42199 1900291 & 2001057

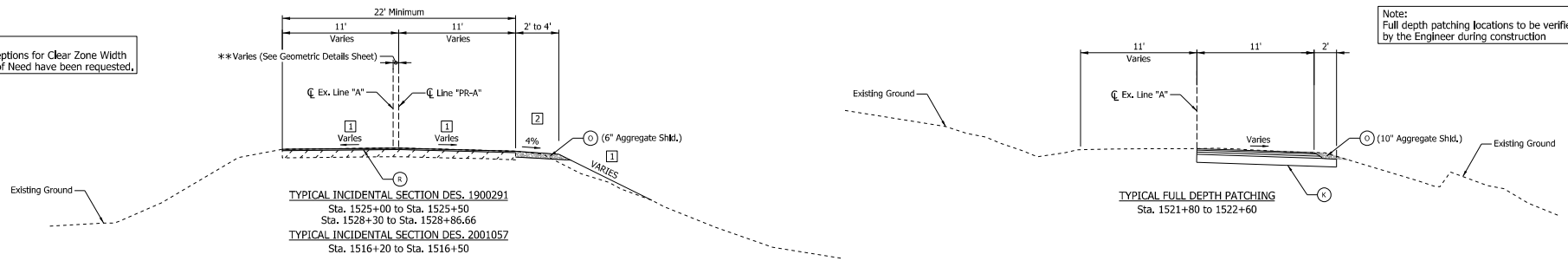
RECOMMENDED FOR APPROVAL _____
DESIGN ENGINEER DATE

DESIGNED: AB DRAWN: PIV

CHECKED: AJD CHECKED: AB

Note to reviewer:
Level Two Design Exceptions for Clear Zone Width and Guardrail Length of Need have been requested.

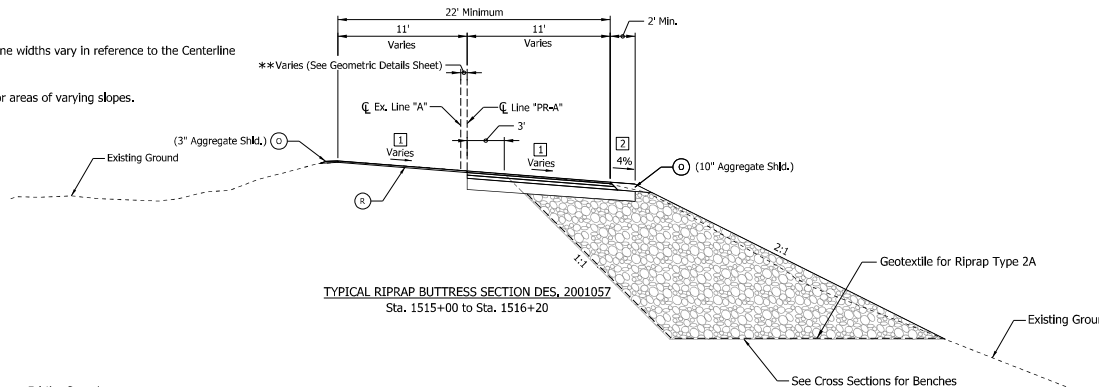
Note:
Full depth patching locations to be verified by the Engineer during construction



* Obstruction Free Zone

** Due to variations of the Line "A" Centerline, the lane widths vary in reference to the Centerline but stay consistent relative to the crown point.

[1] See Cross Sections and Superelevation Diagram for areas of varying slopes.



[2] AGGREGATE SHOULDER WIDTHS

Station Line "PR-A"	Width
1525+00 to 1525+50 Rt.	2' to 6'
1525+50 to 1528+30 Rt.	4' to 4'
1528+30 to 1528+60 Rt.	5' to 2'
1514+10 to 1515+10 Rt.	4' to 2'

[3] MILLING TRANSITION

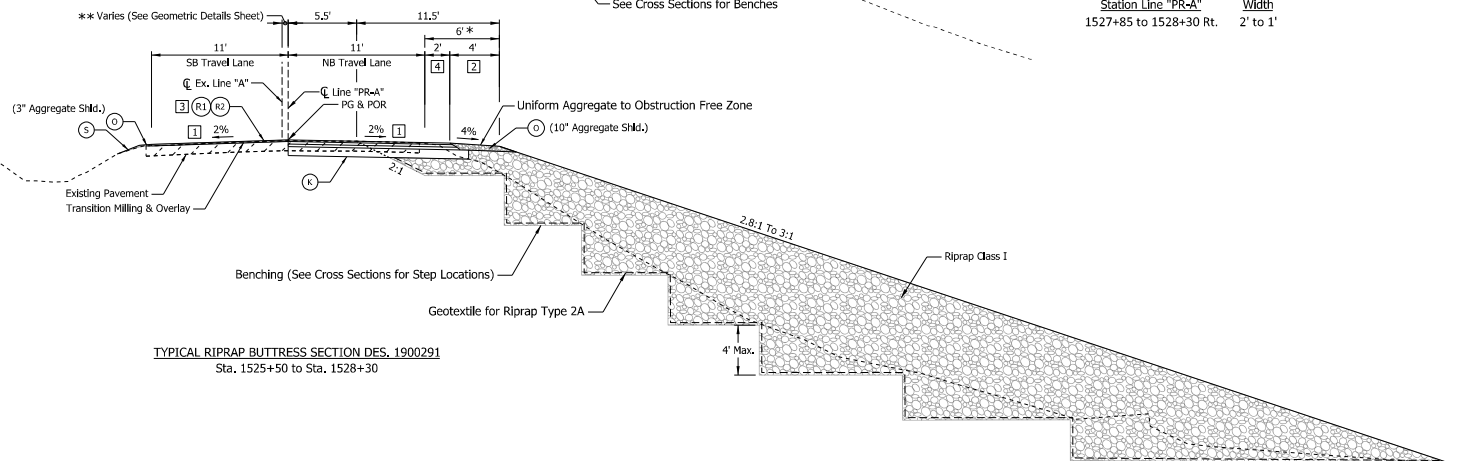
Station Line "PR-A"	Type
1525+50.00 to 1525+90.00	0"-1.5"
1527+80.00 to 1528+30.00	0"-1.5"
1525+90.00 to 1527+80.00	1.5"-2.5"

[4] PAVED SHOULDER WIDTHS

Station Line "PR-A"	Width
1527+85 to 1528+30 Rt.	2' to 1'

LEGEND

- (R) Incidental Transition Milling
Milling, Transition
1.5" of HMA Surface
165 lb/yd² QC/QA-HMA, 3, 64, Surface, 9.5 mm
- (R1) HMA Resurface - Profile Grade Change 0"-1.5"
Milling, Transition (up to 1.5") then
165 lb/yd² QC/QA-HMA, 3, 64, Surface, 9.5 mm on existing pavement
- (R2) HMA Resurface - Profile Grade Change 1.5"-4"
Milling, Transition (up to 2.5") then
165 lb/yd² QC/QA-HMA, 3, 64, Surface, 9.5 mm on
275 lb/yd² QC/QA-HMA, 2, 64, Intermediate, 19.0 mm on existing pavement
- (K) Full Depth Pavement & Shoulders
165 lb/yd² QC/QA-HMA, 3, 64, Surface, 9.5 mm
275 lb/yd² QC/QA-HMA, 3, 64, Intermediate, 19.0 mm
660 lb/yd² QC/QA-HMA, 3, 64, Base, 25.0 mm
Subgrade Treatment, Type IC
- (O) Compacted Aggregate, No. 53
- (S) Mulched Seeding, R



RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: AB	DRAWN: PFV	
CHECKED: AJD	CHECKED: AB	

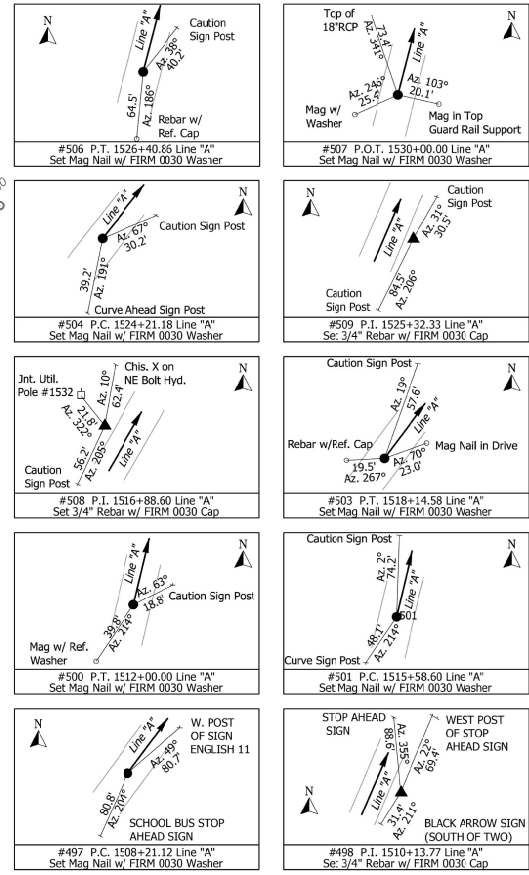
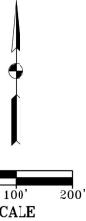
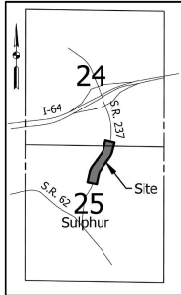
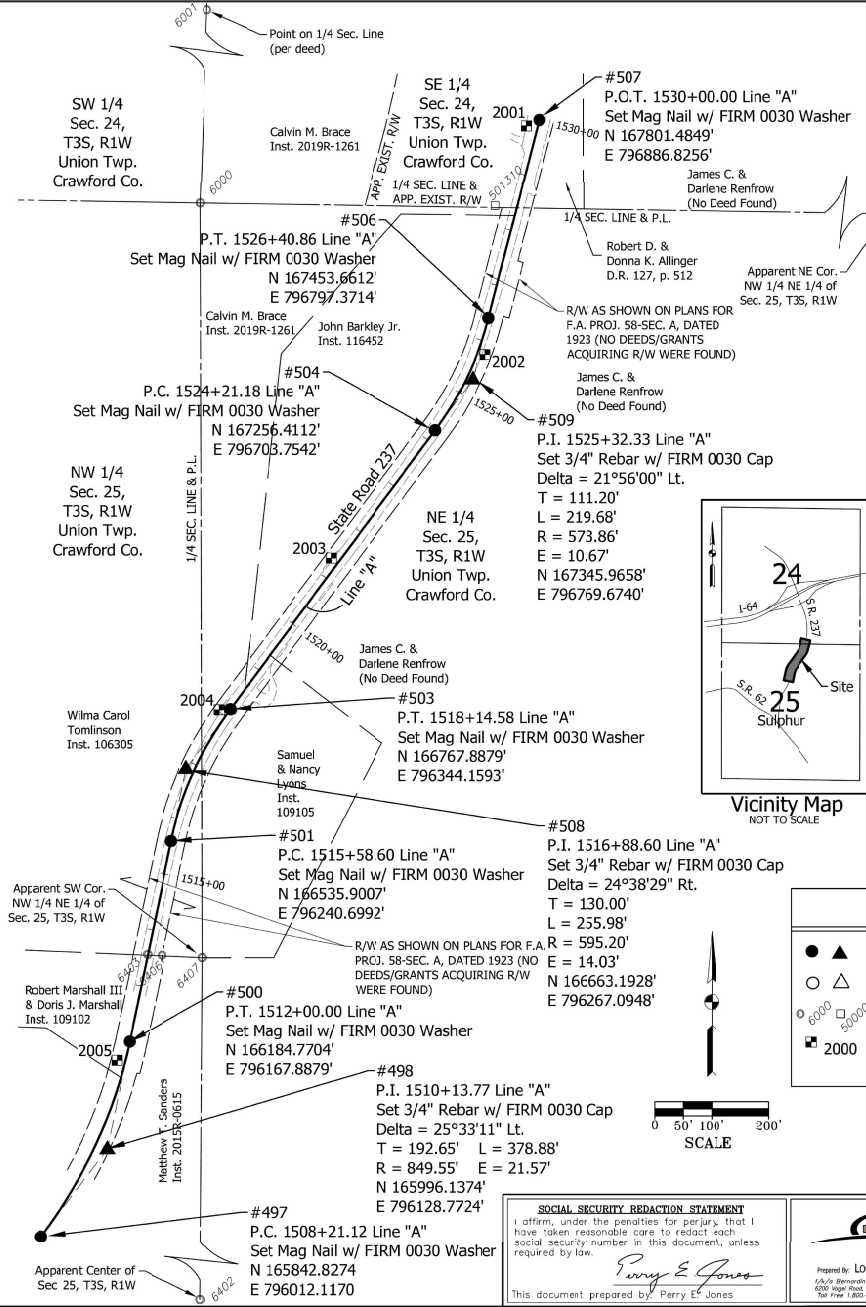
INDIANA
DEPARTMENT OF TRANSPORTATION

SR 237
LINE "PR-A"
TYPICAL SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	
VERTICAL SCALE	DESIGNATION
1" = 10'	1900291
SURVEY BOOK	SHEETS
	3 of 23
CONTRACT	PROJECT
R42199	1900291

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SURVEYOR'S REPORT

ROUTE SURVEY for slide correction on State Road 237, 0.35 miles south of the I-64 interchange (Des. 1900291), and for small structure replacement project on State Road 237, 0.57 miles south of the I-64 interchange (Des. 2001057).

OWNER/CLIENT: Indiana Department of Transportation
 NDOT DES. NOS.: 1900291 and 2001057
 LOCATED in Sections 24 and 25, Township 3 South, Range 1 West, Union Township, Crawford County, Indiana.

The purpose of this survey is to collect data for the design of a slide correction project and a small structure replacement project, and to provide a basis of describing any right-of-way needed for the projects. It is not a property retracement survey.

HORIZONTAL DATUM: Unless noted otherwise, all bearings, distances, areas, and coordinates shown hereon are based on the Indiana Geospatial Coordinate System's (InGCS) "Crawford" zone per NAD 83 (2011) epoch 2010.00 and are reported in U.S. Survey Feet and decimal parts thereof. The "Crawford" zone was developed to minimize the differences between ground measured horizontal distances and the corresponding grid coordinate (map) distances within the county bearing this zone's name.

InGCS "Crawford" Zones Parameters (also available at <http://www.in.gov/indot/InGCS.htm>)
 Geometric Datum: NAD 83(2011) epoch 2010.00
 Projection Type: Transverse Mercator
 Central Meridian: 86°30'00" west longitude
 Central Meridian scale factor: 1.000025
 Latitude of Grid Origin: 38°06'00" north latitude
 False Northing: 36,000,000 m (116,110,000 U.S.Ft)
 False Easting: 240,000,000 m (787,400,000 U.S.Ft)

ALIGNMENT: Line "A" is a re-run of the survey alignment (unrevised) shown on plans for FA Project No. 58 Sec. A, dated 1923, above station 1512+00. The edited version of the alignment data shown on said plans did not conform as well to the existing roadway. Alignment was generally re-established by holding the existing roadway within tangent sections, and holding the curve semi-tangents. The stationing was re-established by holding the plan stationing at F.C. 1515+58.60 and running Line "A" throughout the project without equating or proportioning. The estimated uncertainty of Line "A" relative to the old survey alignment is plus or minus 5 feet longitudinally (stationing) and plus or minus 3 feet laterally (offsets) within the limits of the project. Below station 1512+00, the plan alignment did not fit the existing pavement and this portion of Line "A" should be considered an original alignment.

SECTION LINES AND CORNERS:
 Several recorded surveys by Reginald Timberlake were provided which were used in finding and verifying the section and aliquot corners shown on this survey.

EXISTING RIGHT-OF-WAY:
 Right-of-way along State Road 237 is shown as indicated on road plans for said FA Project No. 58 Sec. A. However, no R/W grants or deeds were found which actually conveyed the right-of-way. Unless grants or deeds are found, the existing R/W may follow the edge of the existing road/way.

At the north end of the project and on the west side of State Road 237, right-of-way was acquired for Project I-64-3(3)86, dated 1967 which is presumed to carry with it good title to the R/W.

LEGEND

- ▲ MONUMENTED BASELINE CONTROL POINTS
- △ CALCULATED BASELINE POINT (NO MONUMENT)
- 6000 PROPERTY / SECTION / EXISTING R/W EVIDENCE
- 2000 RANDOM CONTROL POINT

COORDINATE LISTING: RANDOM CONTROL POINTS

PT.#	NORTHING	EASTING	DESCRIPTION
2001	167791.064	796863.637	SET MAG WITH CONTROL POINT WASHER RECESSED
2002	167389.492	796761.177	FNC. REBAR W/ CAP 6"AG S0451 RGT
2003	167033.061	796521.819	FND. MAG/REF WASHER IN DRIVE APRON
2004	166766.876	796324.709	SET 3/4" REBAR WITH REF CAP FLUSH
2005	166151.656	796145.756	SET MAG WITH CONTROL POINT WASHER RECESSED

COORDINATE LISTING: PROPERTY, SECTION, OR EXISTING R/W EVIDENCE FOUND

PT.#	NORTHING	EASTING	DESCRIPTION
6000	167655.693	796291.882	FNC. 10" X 16" STONE W/ CHIS. X 5"AG
6001	168883.769	796332.960	FNC. REBAR W/ CAP 6"AG S0451 RGT
6400	167634.558	797636.274	FNC. 3" X 12" STONE AT HIGH POINT
6402	165012.498	796286.558	FNC. REBAR WITH ALUMINUM COUNTY SURV. DISK 4" AG
6403	166337.877	796199.103	FNC. MAGNAIL FLUSH
6404	165294.845	795837.767	FNC. MAGNAIL FLUSH
6406	166336.331	796224.578	FNC. REBAR NO CAP 5" AG
6407	166332.274	796295.270	FNC. 3" X 12" STONE W/NOTCH
501310	167651.200	796838.981	CONC. R/W MON

SOCIAL SECURITY REDACTION STATEMENT
 I affirm, under the penalties for perjury, that I have taken reasonable care to redact each social security number in this document, unless required by law.

Perry E. Jones
 This document prepared by Perry E. Jones

LOCHMUELLER GROUP

Prepared By: LOCHMUELLER GROUP, INC.
 2140 Birchmont Lakeshore Dr., Indianapolis, IN 46220
 1820 State Road, Evansville, IN 47715 812-478-0200
 Fax: 812-478-0202

SURVEY STARTED	11/17/2020
SURVEY COMPLETED	9/1/2021
ROUTE PLAT SHEETS	1 of 1
SURVEYOR'S PROJECT NO.	120-0008-03h

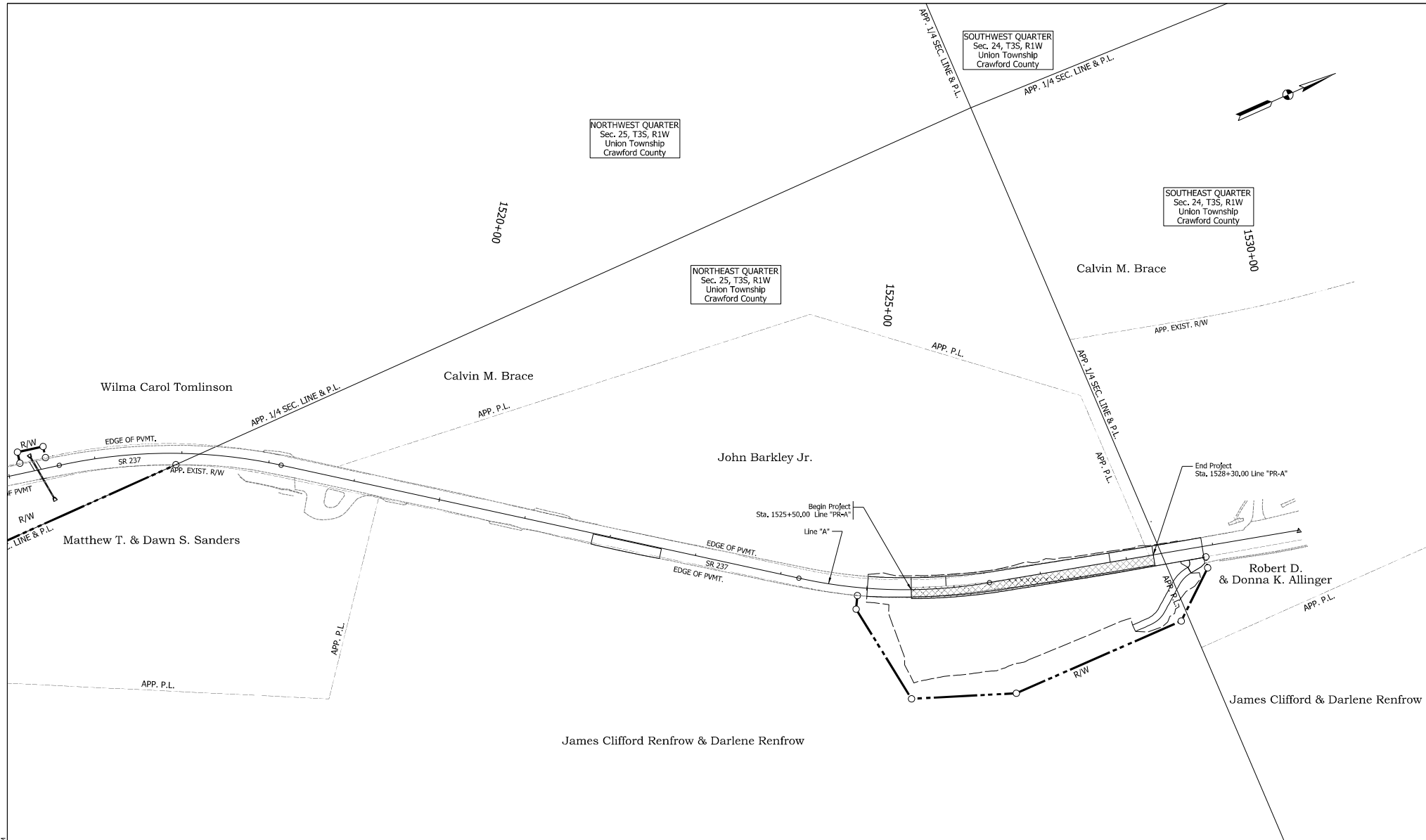
FIELD SURVEYOR STATEMENT
 I declare, to the best of my knowledge and belief, that I am duly licensed as a Professional Surveyor in the State of Indiana, and that I am duly qualified to perform the duties of a Professional Surveyor in the State of Indiana, and that I am duly qualified to perform the duties of a Professional Surveyor in the State of Indiana, and that I am duly qualified to perform the duties of a Professional Surveyor in the State of Indiana.

RECOMMENDED FOR APPROVAL: 8/31/2021
Perry E. Jones

Prepared for the
INDIANA DEPARTMENT OF TRANSPORTATION

LOCATION CONTROL ROUTE SURVEY
 S.R. 237 between the Town of Sulphur and Interstate 64

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	
COUNTY	RESIGNATION
CRAWFORD	1900291 & 2001057
SURVEY BOOK	PLAN SHEETS
DIGITAL	4 of 22
CONTRACT	PROJECT
	1900291 & 2001057



DATE: 7/21/2023 8:36 PM

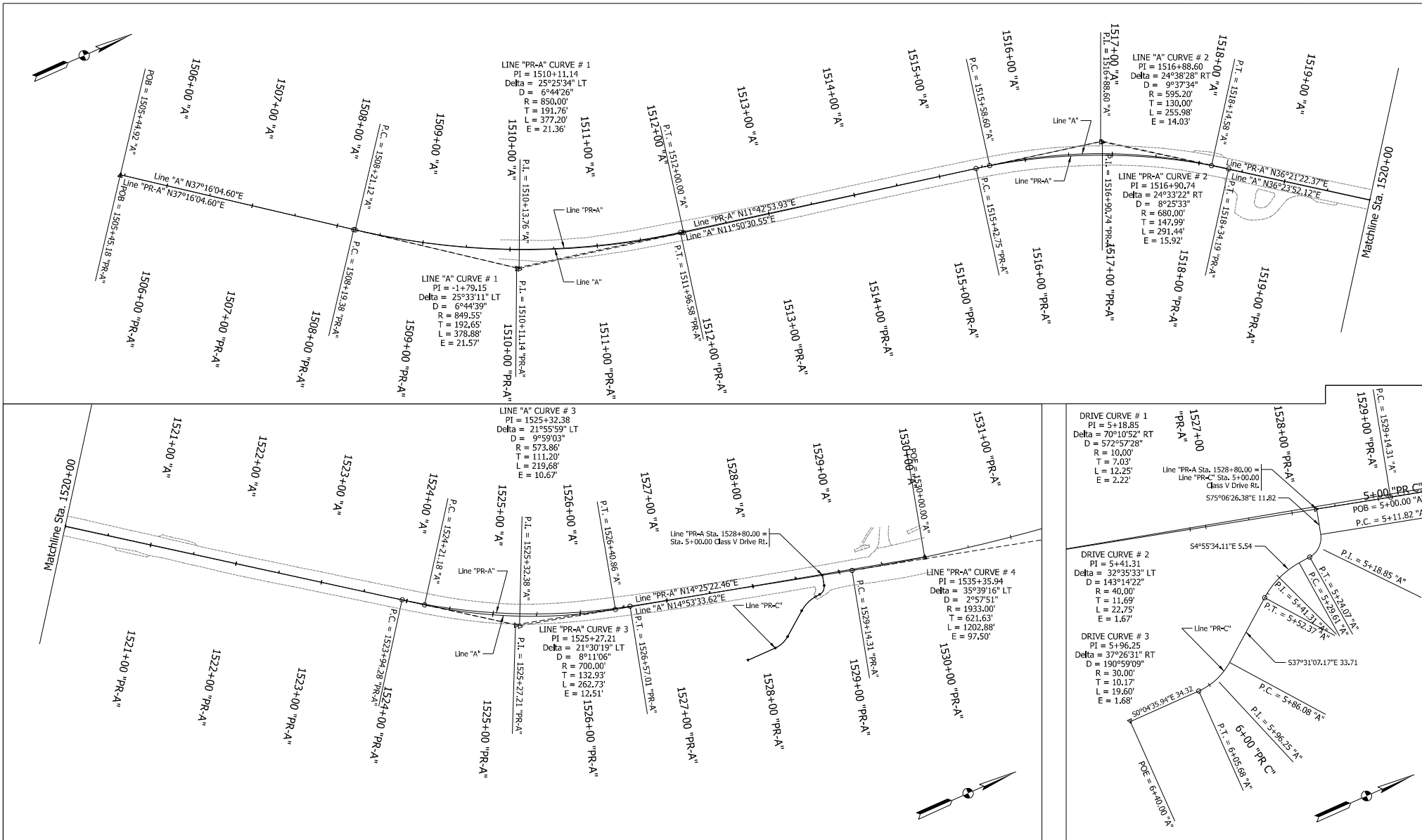
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RECOMMENDED FOR APPROVAL		DESIGN ENGINEER	DATE
DESIGNED: AB	DRAWN: PFV		
CHECKED: AJD	CHECKED: AB		

INDIANA
DEPARTMENT OF TRANSPORTATION

SR 237
PLAT NO. 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
N/A	1900291 & 2001057
SURVEY BOOK	SHEETS
	5 of 23
CONTRACT	PROJECT
R42199	1900291 & 2001057



RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: AB	DRAWN: PFV	
CHECKED: AJD	CHECKED: AB	

INDIANA DEPARTMENT OF TRANSPORTATION

GEOMETRIC DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
N/A	1900291 & 2001057
SURVEY BOOK	SHEETS
	6 of 23
CONTRACT	PROJECT
R42199	1900291 & 2001057



W20-2
M (Type A Sign)



R11-2

24 Ft Type III-A Barricades w/
Road Closure Sign Assembly w/ R11-2
N (Type A Sign)

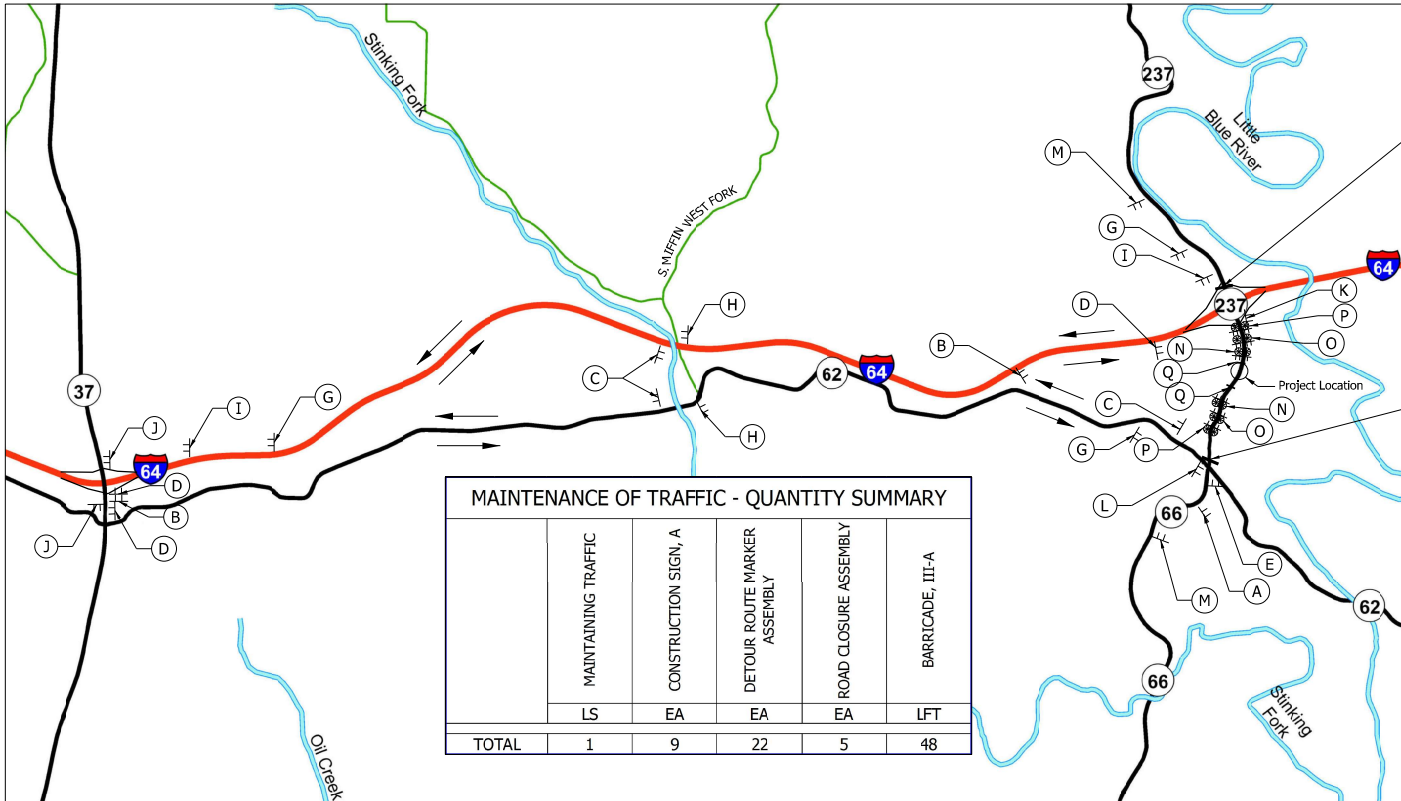


W20-3
O (Type A Sign)



W20-3
P (Type A Sign)

Type III-A Barricades with Type B Lights (24 LFT)
Q



12 Ft Type III-B Barricades w/
Road Closure Sign Assembly w/
R11-3a and M4-10(R)



(Type A Sign)



(Type A Sign)

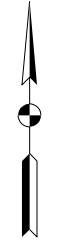
12 Ft Type III-B Barricades w/
Road Closure Sign Assembly w/
R11-3a and M4-10(R)



(Type A Sign)

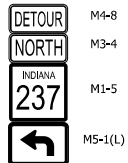


(Type A Sign)

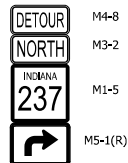


1" = 2000'

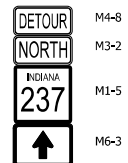
MAINTENANCE OF TRAFFIC - QUANTITY SUMMARY					
	MAINTAINING TRAFFIC	CONSTRUCTION SIGN, A	DETOUR ROUTE MARKER ASSEMBLY	ROAD CLOSURE ASSEMBLY	BARRICADE, III-A
	LS	EA	EA	EA	LFT
TOTAL	1	9	22	5	48



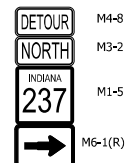
A
(Type B Signs)



B
(Type B Signs)



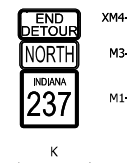
C
(Type B Signs)



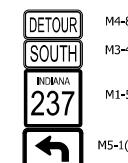
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(Type B Signs)



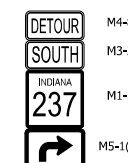
E
(Type B Signs)



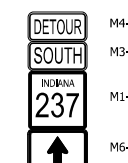
K
(Type B Signs)



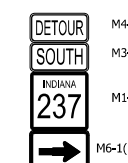
F
(Type B Signs)



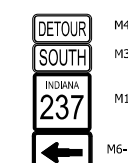
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(Type B Signs)



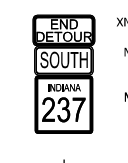
H
(Type B Signs)



I
(Type B Signs)



J
(Type B Signs)



L
(Type B Signs)

See INDOT Standard Drawings E 801-TCDD-01 and E 801-TCDD-04 for additional information and sign spacing.
All signage shall be in accordance with the Indiana Manual on Uniform Traffic Control Devices.

DATE: 7/22/2023 8:35 PM

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: AB	DRAWN: JFY	
CHECKED: AJD	CHECKED: AB	

INDIANA
DEPARTMENT OF TRANSPORTATION

SR 237
DETOUR SHEET

HORIZONTAL SCALE	BRIDGE FILE
1" = 2000'	
VERTICAL SCALE	DESIGNATION
N/A	1900291 & 2001057
SURVEY BOOK	SHEETS
	7 of 23
CONTRACT	PROJECT
R-42199	1900291 & 2001057

BENCHMARK INFORMATION:

BM #3 BM #3
CHISELED SQUARE ON ROCK
OUTCROP
Sta. 1512+01.13 Line "PR-A", 23.94'
LT.

John Barkley Jr.

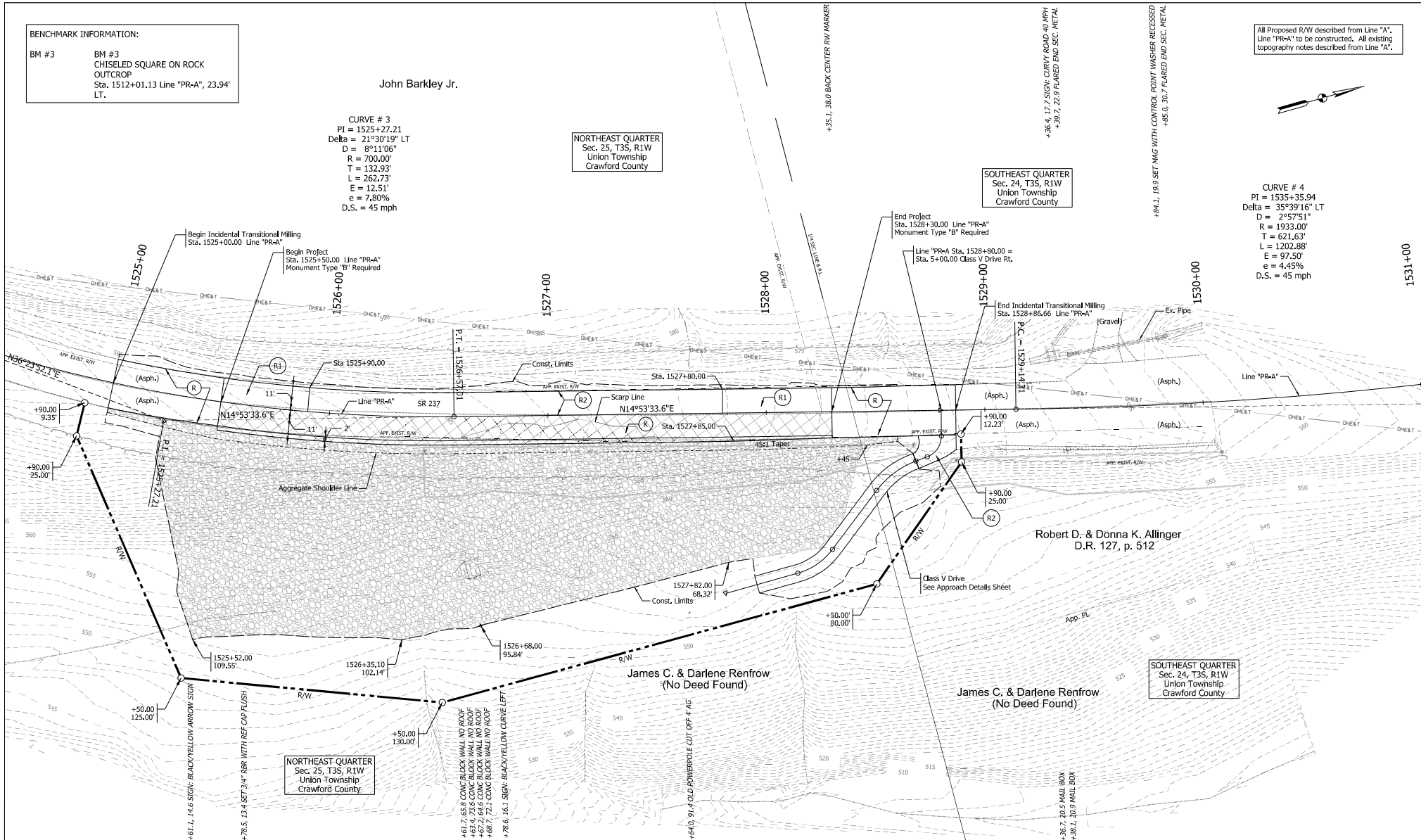
CURVE # 3
PI = 1525+27.21
Delta = 21°30'19" LT
D = 8°11'06"
R = 700.00'
T = 132.93'
L = 262.73'
E = 12.51'
e = 7.80%
D.S. = 45 mph

NORTHEAST QUARTER
Sec. 25, T35, R1W
Union Township
Crawford County

SOUTHEAST QUARTER
Sec. 24, T35, R1W
Union Township
Crawford County

All Proposed R/W described from Line "A".
Line "PR-A" to be constructed. All existing
topography notes described from Line "A".

CURVE # 4
PI = 1535+35.94
Delta = 35°39'16" LT
D = 2°57'51"
R = 1933.00'
T = 621.63'
L = 1202.88'
E = 97.50'
e = 4.45%
D.S. = 45 mph



Legend

- (R) Incidental Transition Milling, then 165 lb/yd² CC/QA-HMA, 3, 64, Surface, 9.5 mm
- (R1) Transition Milling 0"-1.5", then 165 lb/yd² CC/QA-HMA, 3, 64, Surface, 9.5 mm
- (R2) Transition Milling 1.5"-4", then 165 lb/yd² CC/QA-HMA, 3, 64, Surface, 9.5 mm
- (R3) 275 lb/yd² CC/QA-HMA, 3, 64, Intermediate, 19.0 mm
- (K) Full Depth Pavement & Shoulders 650 lb/yd² CC/QA-HMA, 3, 64, Base, 25.0 mm Subgrade Treatment, Type IC

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: AB	DRAWN: PFV	
CHECKED: AJD	CHECKED: AB	

INDIANA
DEPARTMENT OF TRANSPORTATION

SR 237
LINE "PR-A"
PLAN SHEET

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	
VERTICAL SCALE	DESIGNATION
N/A	1900291
SURVEY BOOK	SHEETS
	8 of 23
CONTRACT	PROJECT
R-42199	1900291

605

600

595

590

585

580

575

570

565

560

555

605

600

595

590

585

580

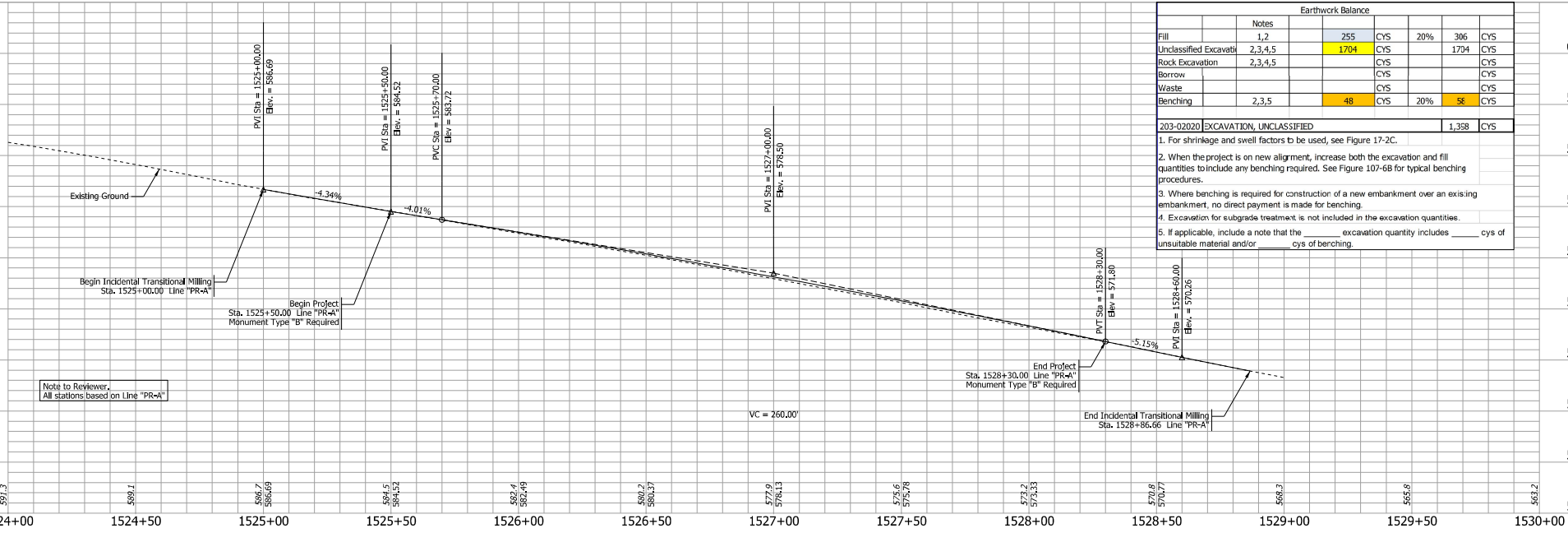
575

570

565

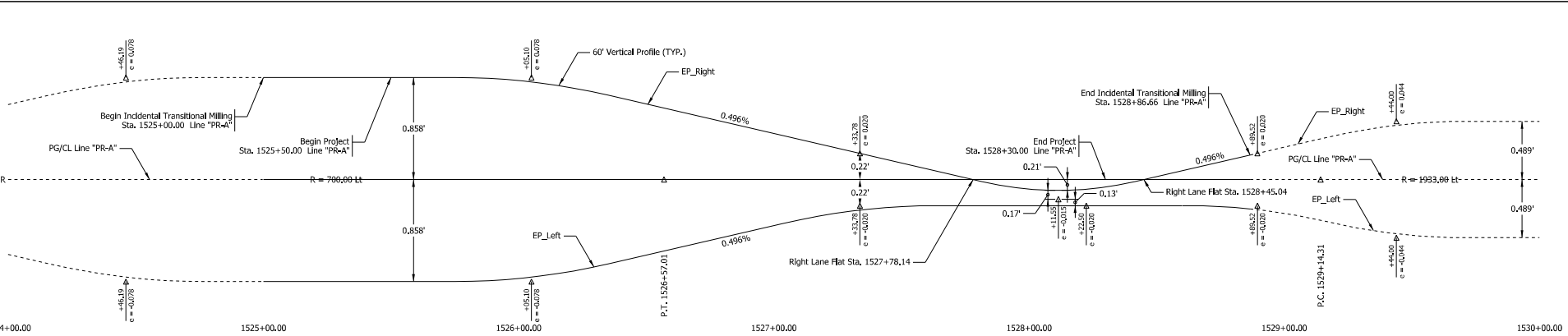
560

555



Earthwork Balance					
Fill	1,2	255	CYS	20%	306
Unclassified Excavati	2,3,4,5	1704	CYS		1704
Rock Excavation	2,3,4,5		CYS		
Borrow			CYS		
Waste			CYS		
Benching	2,3,5	48	CYS	20%	58

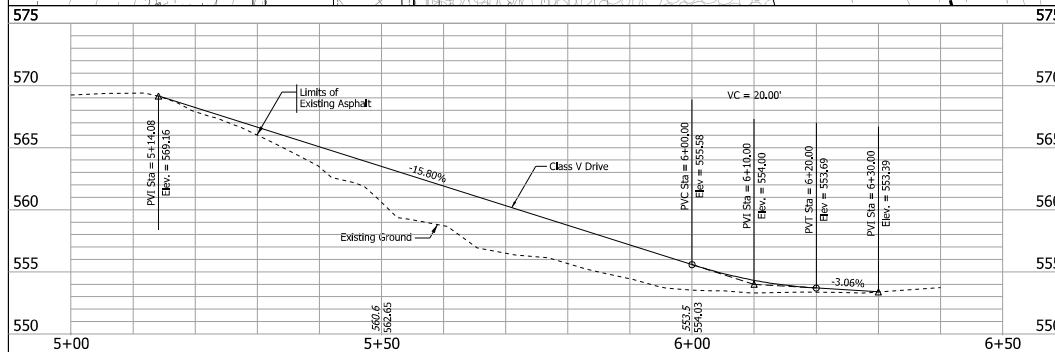
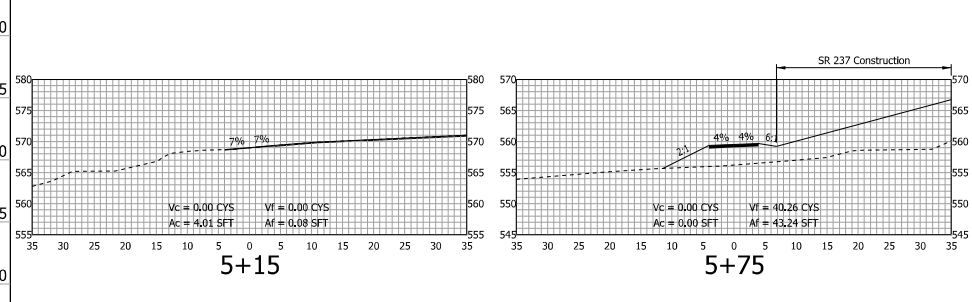
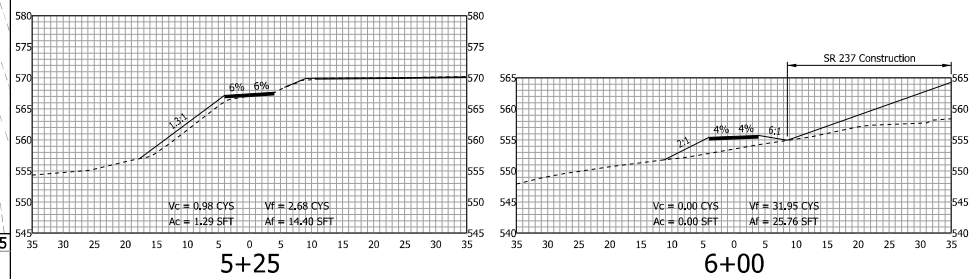
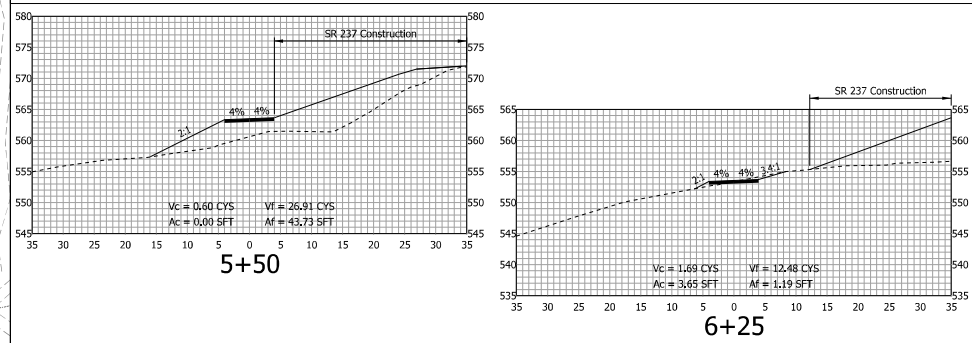
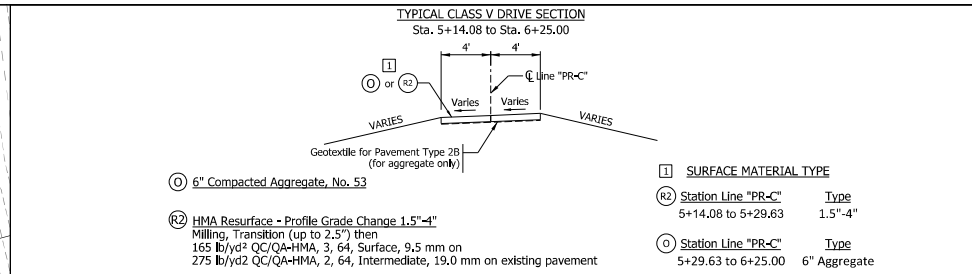
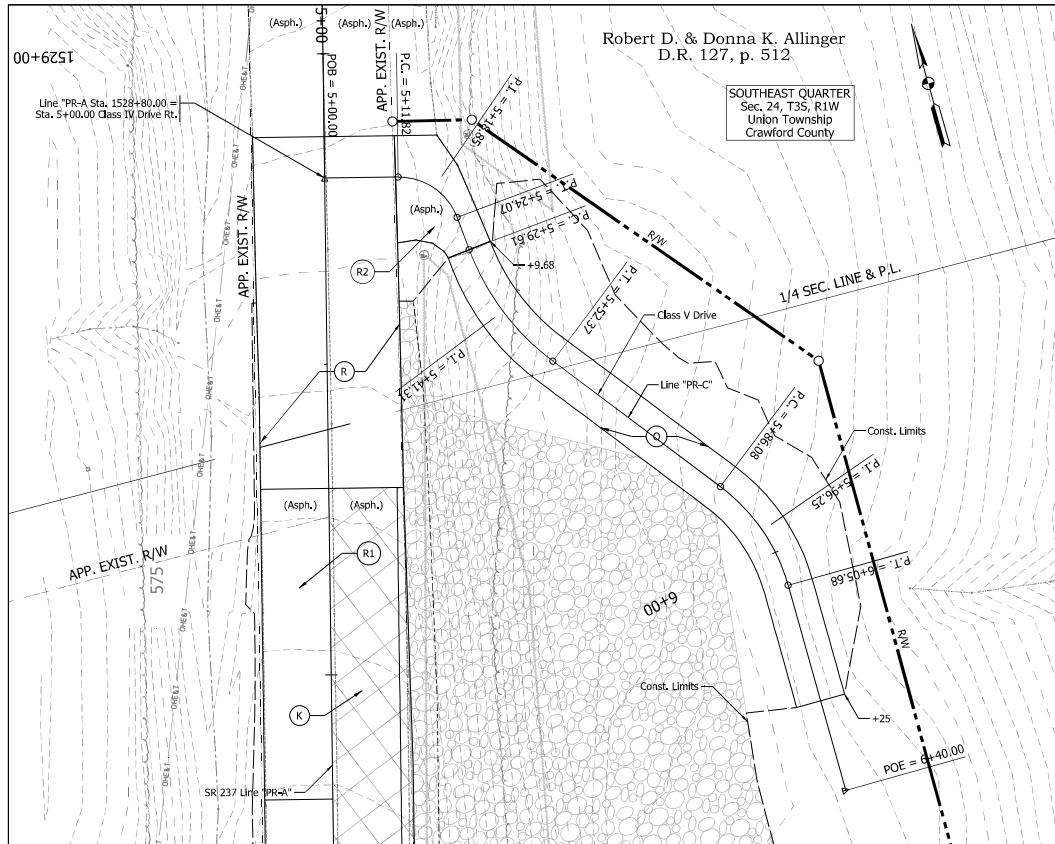
- 203-02020 EXCAVATION, UNCLASSIFIED 1,338 CYS
- For shrinkage and swell factors to be used, see Figure 17-2C.
 - When the project is on new alignment, increase both the excavation and fill quantities to include any benching required. See Figure 107-6B for typical benching procedures.
 - Where benching is required for construction of a new embankment over an existing embankment, no direct payment is made for benching.
 - Excavation for subgrade treatment is not included in the excavation quantities.
 - If applicable, include a note that the _____ excavation quantity includes _____ cys of unsuitable material and/or _____ cys of benching.



RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: AB	DRAWN: PFV	
CHECKED: AJD	CHECKED: AB	

INDIANA
DEPARTMENT OF TRANSPORTATION
SR 237 LINE "PR-A"
PROFILE AND SUPERELEVATION DIAGRAM

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1900291
SURVEY BOOK	SHEETS
	9 of 23
CONTRACT	PROJECT
R=42199	1900291



Legend

- Guardrail
- R1 Transition Milling 0"-1.5"
- R2 Transition Milling 1.5"-4"
- K Full Depth Pavement
- R Incidental Transition Milling
- Riprap, Class I

RECOMMENDED FOR APPROVAL _____

DESIGNED: AB DRAWN: PTV
 CHECKED: AJD CHECKED: AB

INDIANA DEPARTMENT OF TRANSPORTATION

MODIFIED CLASS V DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1900291
SURVEY BOOK	SHEETS
	10 of 23
CONTRACT	PROJECT
R42199	1900291

Robert Marshall III & Doris J. Marshall
Inst. 109102

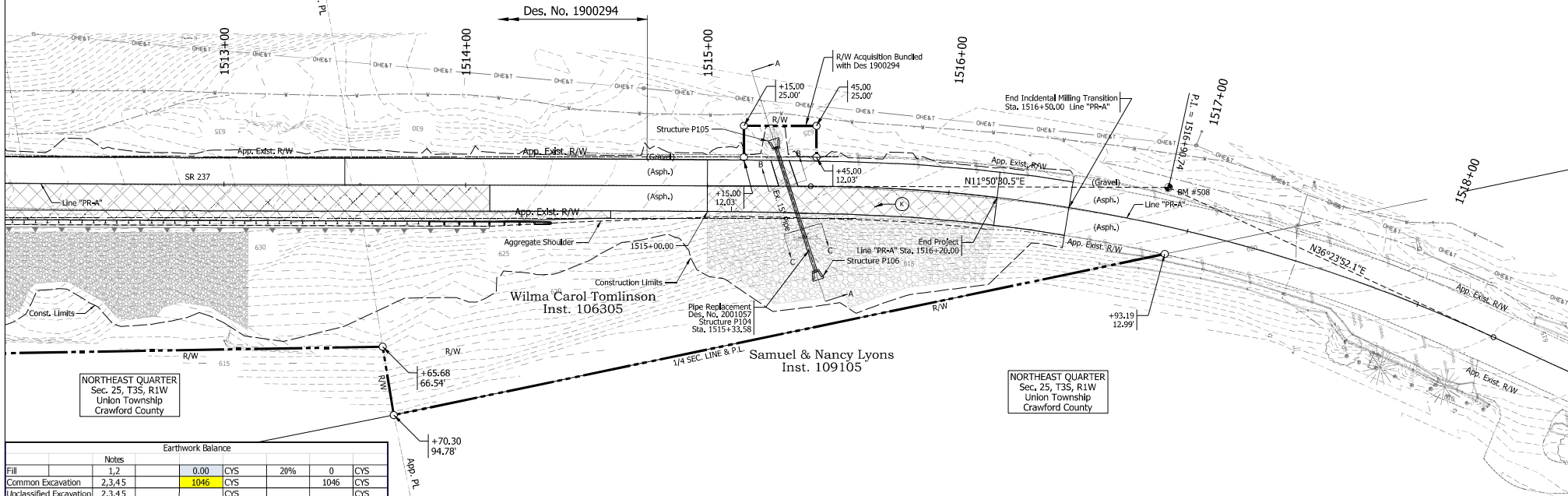
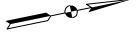
Robert Marshall III & Doris J. Marshall
Inst. 109102

NORTHWEST QUARTER
Sec. 25, T3S, R1W
Union Township
Crawford County

All Proposed R/W described from Line "A"
Line "PR-A" to be constructed. All existing
topography notes described from Line "A"

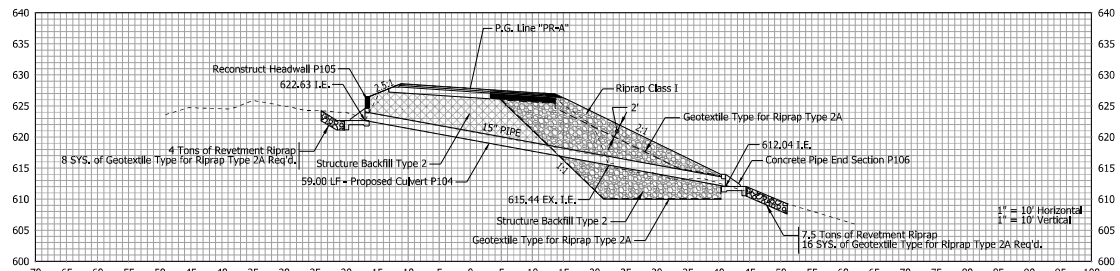
Note to Reviewer: Des 1900294 is a slide
project bundled with 1900291. Design is provided
in separate plan set under Des Number 1900294.

BENCHMARK INFORMATION:
BM #508
P.I. 1516+88.60 Line "A"
Set 3/4" Rebar w/ FIRM 0030 Cap



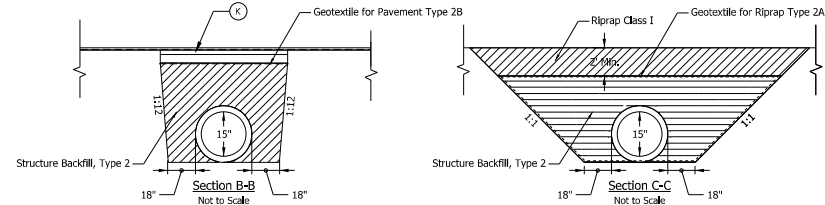
Earthwork Balance					
	Notes				
Fill	1,2	0.00	CYS	20%	0
Common Excavation	2,3,4,5	1046	CYS		1046
Unclassified Excavation	2,3,4,5		CYS		
Rock Excavation	2,3,4,5		CYS		
Borrow			CYS		
Waste			CYS		
Benching	2,3,5	0	CYS		0
203-02000 EXCAVATION					1,046
					CYS

- For shrinkage and swell factors to be used, see Figure 17-2C.
- When the project is on new alignment, increase both the excavation and fill quantities to include any benching required. See Figure 17-6B for typical benching procedures.
- When benching is required for construction of a new embankment over an existing embankment, no direct payment is made for benching.
- Excavation for subgrade treatment is not included in the excavation quantities.
- If applicable, include a note that the _____ excavation quantity includes _____ cys of unsuitable material and/or _____ cys of benching.



1515+33

Section A-A
Sta. 1515+33 @ 17°57' Skew Lt.



Legend

- Guardrail
- Full Depth Pavement
- Riprap
- Full Depth Pavement & Shoulders: 165 lb/yd³ CC/CA-HMA, 3, 64, Surface, 9.5 mm; 275 lb/yd³ CC/CA-HMA, 2, 64, Intermediate, 19.0 mm; 660 lb/yd³ CC/CA-HMA, 2, 64, Base, 19.0 mm
- Subgrade Treatment, Type IC
- Geotextile for Pavement, Type 2B

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: AB	DRAWN: PFV	
CHECKED: AJD	CHECKED: AB	

INDIANA
DEPARTMENT OF TRANSPORTATION

STRUCTURE DETAILS
STR. NO. P104

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	
VERTICAL SCALE	DESIGNATION
SEE SHEET	2001057
SURVEY BOOK	SHEETS
	11 of 23
CONTRACT	PROJECT
R42199	2001057

PAVEMENT QUANTITIES AND APPROACH TABLE

LOCATION	STATION	DESCRIPTION (APPROACH TYPE OR CLASS)	AVERAGE WIDTH		LENGTH	QC/QA-HMA, 3, 64, SURFACE, 9.5 mm	QC/QA-HMA, 3, 64, INTERMEDIATE, 19.0 mm	QC/QA-HMA, 3, 64, BASE, 25.0 mm	SUBGRADE TREATMENT, TYPE IC	COMPACTED AGGREGATE NO.53	GEOTEXTILE FOR PAVEMENT TYPE 2B	SEAL COAT, 5	CRACKS IN ASPHALT PAVEMENT, FILL	ASPHALT FOR TACK COAT	LIQUID ASPHALT SEALANT	JOINT ADHESIVE SURFACE	JOINT ADHESIVE INTERMEDIATE	MILLING, TRANSITION	MILLING, TRANSITION, UP TO 1.5"	MILLING, TRANSITION, UP TO 2.5"	REMARKS	
			Travel Lane*	Avg. Shoulder*	"L"																	
			(FT)	(FT)	(FT)	(TON)	(TON)	(TON)	(SYS)	(TON)	(SYS)	(SYS)	(TON)	(SYS)	(LFT)	(LFT)	(LFT)	(SYS)	(SYS)	(SYS)		
SR 237 - Line "PR-A"																						
Transition Milling, Incidental	1525+00.00	to	1525+50.00																			
	1528+30.00	to	1528+86.66	Roadway	22.41	50.00	22						0.02	263	107	107		263				
Transition Milling, 0-1.5" Depth	1525+50.00	to	1525+90.00																			
	1527+80.00	to	1528+30.00	Roadway	11.00	40.00	9						0.02	110	90	90			110			
Transition Milling, 1.5"-4" Depth	1525+90.00	to	1527+80.00	Roadway	11.00	190.00	20	32					0.04	464	190	190	190			232		
Full Depth Reconstruction	1525+50.00	to	1527+85.00	Roadway	11.00	2	235.00															
	1527+85.00	to	1528+30.00	Roadway	11.00	1.5	45.00								804	280	280	280				
Full Depth Patching	1521+80.00	to	1522+60.00	Roadway	11.00		80.00	9	46	32	136				196	80	80	46				
Compacted Aggregate No. 53	1525+00.00	to	1528+86.66	Roadway		1.0	386.66														Left	
	1525+00.00	to	1525+50.00			2.0	50.00															Right
	1525+50.00	to	1528+30.00			4.0	280.00				83											Right
	1528+30.00	to	1528+86.66			2.0	56.66						209									Right
	1521+80.00	to	1522+60.00			2.0	80.00															
Line "PR-C" Class V Drive	5+14.08	to	5+29.63	Class V Drive	8.00		15.55	2	3												23	
	5+29.63	to	6+25.00					95.37			61	85		0.003	46	16	16	16				
*Shoulders and Travel lane widths combined in some instances					TOTAL			96	269	165	670	144	85	209	0.08	1883	762	762	531	263	110	255

SUMMARY OF QUANTITIES												
ITEM	CONSTRUCTION ENGINEERING	MOBILIZATION AND DEMOBILIZATION	CLEARING RIGHT OF WAY	EXCAVATION, UNCLASSIFIED	RIGHT-OF-WAY MARKER	MONUMENT, B	RIPRAP, CLASS 1	GEOTEXTILE FOR RIPRAP TYPE 2A	MOBILIZATION AND DEMOBILIZATION FOR SEEDING	FERTILIZER	MULCHED SEEDING R	MULCHING MATERIAL
	LS	LS	LS	CYS	EACH	EACH	TON	SYS	EACH	TON	SYS	TON
TOTAL	1	1	1	1398	7	2	8043	3313	1	0.11	1358	1.12

PAVEMENT MARKINGS SUMMARY TABLE		
LOCATION	LINE, PAINT	
	SOLID WHITE 6 in	SOLID YELLOW 6 in
Sta. 1525+00.00 to Sta. 1528+86.66	773	773
Sta. 1521+80.00 to Sta. 1522+60.00	160	160
TOTALS	933	933

R/W MARKER TABLE	
STATION	OFFSET
1524+90	9.35' RT
1524+90	25.00' RT
1525+50	125.00' RT
1526+50	130.00' RT
1528+50	80.00' RT
1528+90	12.23' RT
1528+90	25.00' RT

MONUMENT TABLE		
STATION	OFFSET	MONUMENT
1525+50	0'	"B"
1528+30	0'	"B"

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____ DESIGNED: AB DRAWN: PFV CHECKED: AJD CHECKED: AB	INDIANA DEPARTMENT OF TRANSPORTATION SR 237 DES, 1900291 SUMMARY OF QUANTITIES	HORIZONTAL SCALE: N/A BRIDGE FILE: 1900291
	VERTICAL SCALE: N/A DESIGNATION: 1900291	SURVEY BOOK: _____ SHEETS: 12 of 23
	CONTRACT: R-42199 PROJECT: 1900291	

STRUCTURE DATA

STRUCTURE NUMBER	LOCATION					DESCRIPTION MANHOLE, INLET, CATCH BASIN, OR SPECIALTY STRUCTURE AND TYPE	LENGTH LFT	WIDTH IN INCHES	SKEW	TOP OF CASTING ELEV.	COVER LFT	FLOW LINE		SERVICE LINE YRS	SITE DESIGNATION	PH	BACKFILL METHOD	STRUCTURE BACKFILL TYPE 1	TYPE	FLOWABLE BACKFILL CYS	TYPE	GEOTEXTILE FOR RIPRAP TYPE 2A	REINFORCEMENT RIPRAP	SCOUR PROTECTION				PIPE REMOVE LFT	CATCH BASIN REMOVE EA.	PIPE END SECTION EA.	GRATED BOX END SECTION			HEADWALL			CONNECT TO STR.	REMARKS			
	STATION	LEFT	RIGHT	CROSS	OFFSET FT							SIZE IN.	PIPE TYPE											UP STREAM ELEV.	DOWN STREAM ELEV.	GROUT CYS	RIPRAP CLASS I TONS				PARTIALLY GROUTED RIPRAP CLASS II TONS	RIPRAP CLASS II TONS	PIPE REMOVE LFT	TYPE	SLOPE	EA.			TYPE	SLOPE	EA.
EX101	Line "PR-A" 1515+33.50			X		15	CMP	EX 15"	39		17°57'	622.63	615.44																												
P104	1515+33.50			X		15	RCP	15" RCP	59	59	17°57'	8.2	622.63	612.04	6.5	1	55						19		12.5														P105, P106		
P105	1515+33.50	X													6.5								36		6	23.5			0°	1			0°	1				P104			
P106	1515+33.50		X												6.5																						P104				
									59								55																								

LOCATION	LINE, PAINT	
	SOLID	SOLID
	WHITE	YELLOW
	6 in	6 in
	LFT	LFT
Sta. 1514+75.00 to 1516+50.00	350	350
TOTALS	350	350

SUMMARY OF QUANTITIES

LOCATION	STATION	DESCRIPTION (APPROACH TYPE OR CLASS)	AVERAGE WIDTH		LENGTH (FT)	QC/QA-HMA, 3, 64, SURFACE, 5.5 mm (TON)	QC/QA-HMA, 3, 64, INTERMEDIATE, 19.0 mm (TON)	QC/QA-HMA, 3, 64, BASE, 25.0 mm (TON)	SUBGRADE TREATMENT, TYPE C (SYS)	COMPACTED AGGREGATE NO.3 (TON)	GEOTEXTILE FOR PAVEMENT TYPE 2B (SYS)	ASPHALT FOR TACK COAT (SYS)	LIQUID ASPHALT SEALANT (LFT)	JOINT ADHESIVE SURFACE (LFT)	JOINT ADHESIVE INTERMEDIATE (LFT)	MILLING, ASPHALT, 1 1/2 IN. (CYS)	MILLING, TRANSITION (EACH)	Remarks
			Travel Lane*	Shoulder + "L"														
			(FT)	(FT)	(FT)	(TON)	(TON)	(TON)	(SYS)	(TON)	(SYS)	(LFT)	(LFT)	(LFT)	(CYS)	(EACH)		
SR 237 - Line "PR-A"																		
Transition Milling, Incidental	1514+75.00 to 1516+20.00	15:5+00.00 to 15:6+50.00	Roadway	0.00	0	25.00	9					104	55	55				104
Transition Milling, 0-1.5" Depth	1515+00.00 to 1515+37.49	15:5+29.56 to 15:6+20.00	Roadway	13.78	0	29.56	11					131	83	83				131
Full Depth Reconstruction	1515+00.00 to 1515+29.49	15:6+20.00 to 15:5+37.57	Roadway	11.00	0	120.00	14	78	55	196	39	332	128	128	128	55	1	
Aggregate Shoulder	1515+00.00 to 1515+00.00	15:6+00.00 to 15:6+00.00	Roadway		1.0	100.00				31								Left Right
*Shoulders and Travel lane widths combined in some instances																		
TOTAL						33	78	55	196	31	39	567	266	266	128	187	105	

ITEM	CONSTRUCTION ENGINEERING	MOBILIZATION AND DEMOBILIZATION	CLEARING RIGHT OF WAY	PIPE, REMOVE	UNCLASSIFIED EXCAVATION	STRUCTURE BACKFILL, TYPE 2	GEOTEXTILE FOR RIPRAP TYPE 2A	RIPRAP, CLASS 1	RIPRAP, REINFORCEMENT	MOBILIZATION AND DEMOBILIZATION FOR SEEDING	FERTILIZER	MULCHED SEEDING R	MULCHING MATERIAL	CONCRETE, A, SUBSTRUCTURE
	LS	LS	LS	EACH	CYS	CYS	SYS	TON	TON	EACH	TON	SYS	TON	CYS
TOTAL	1	1	1	1	1046	55	282	1430	12	1	0.04	481	0.40	1

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
	DESIGNED: AB	DRAWN: PPV		VERTICAL SCALE	DESIGNATION
	CHECKED: AJD	CHECKED: AB		N/A	2001057
			SR 237 DES, 2001057 SUMMARY OF QUANTITIES	SURVEY BOOK	SHEETS
					13 of 23
			CONTRACT	PROJECT	
			R-42199	2001057	