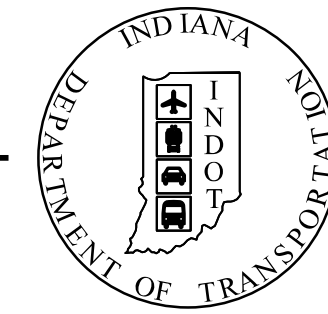


PROJECT	DESIGNATION
1900171	1900171
CONTRACT	
T-42708	

# INDIANA DEPARTMENT OF TRANSPORTATION



## ROAD PLANS

ROUTE: S.R. 13 FROM: RP 4+29 TO: RP 4+45

PROJECT NO. 1900171 P.E.

1900171 R/W

1900171 CONST.

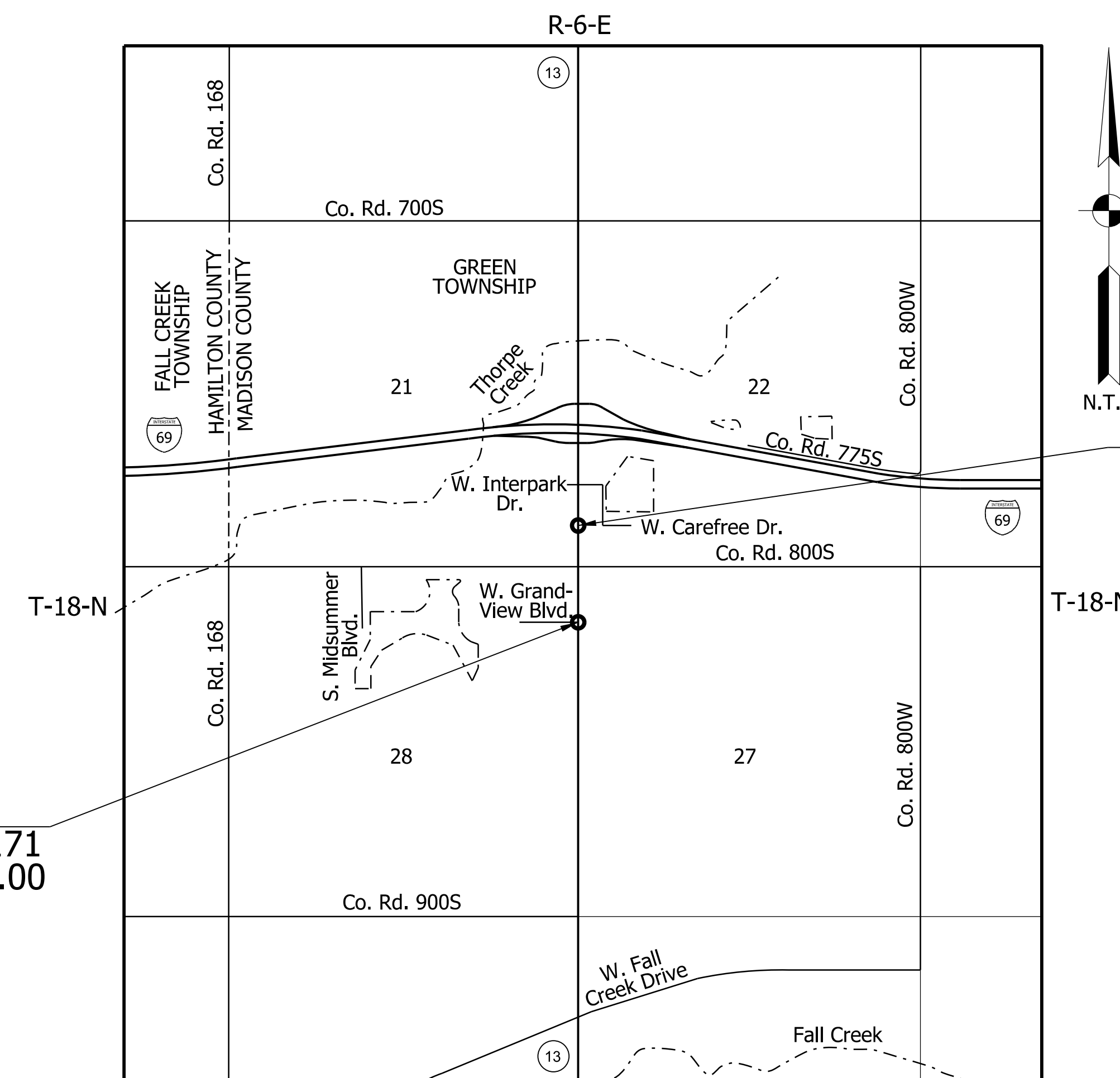
### PROJECT DESCRIPTION

TRAFFIC SIGNAL AND INTERSECTION IMPROVEMENTS AT S.R. 13 AND CO. RD. 800S LOCATED APPROXIMATELY 0.42 MILES SOUTH OF THE I-69 AND S.R. 13 INTERCHANGE IN SECTIONS 21, 22, 27 & 28, T-18-N, R-6-E, GREEN TOWNSHIP, MADISON COUNTY, INDIANA.

TRAFFIC DATA C.R. 800		
A.A.D.T.	(2022)	1,627 VPD
A.A.D.T.	(2042)	2,227 VPD
D.H.V	(2042)	499 VPH
DIRECTIONAL DISTRIBUTION		60%
TRUCKS		5% of AADT
DESIGN DATA C.R. 800		
DESIGN SPEED		45 MPH
PROJECT DESIGN CRITERIA		3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION		MINOR COLLECTOR
RURAL/URBAN		URBAN
TERRAIN		LEVEL
ACCESS CONTROL		NONE

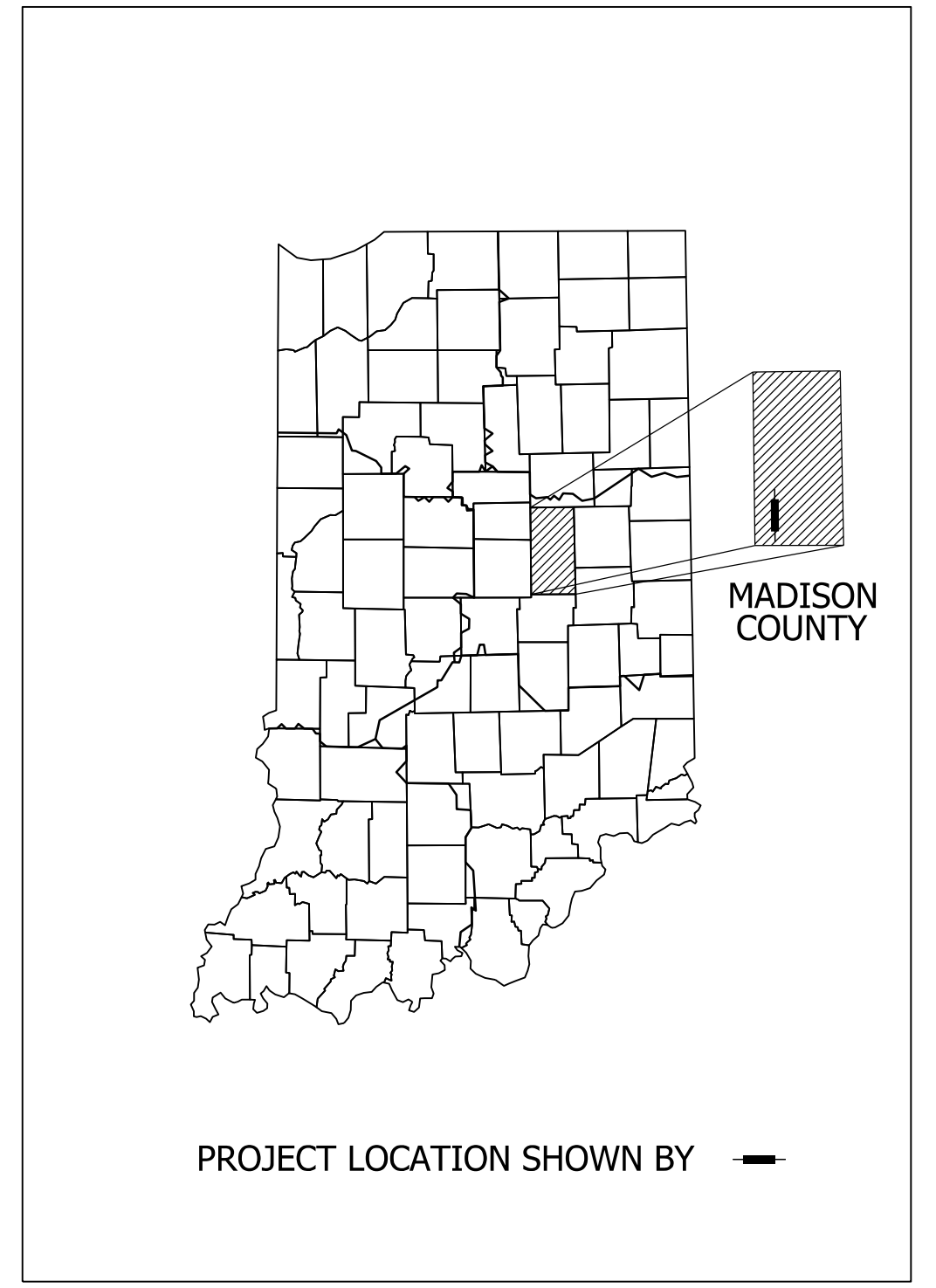
TRAFFIC DATA S.R. 13		
A.A.D.T.	(2022)	10,858 VPD
A.A.D.T.	(2042)	16,380 VPD
D.H.V	(2042)	1,666 VPH
DIRECTIONAL DISTRIBUTION		58%
TRUCKS		12% of AADT
DESIGN DATA S.R. 13		
DESIGN SPEED		55 MPH
PROJECT DESIGN CRITERIA		3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION		MINOR ARTERIAL
RURAL/URBAN		URBAN
TERRAIN		LEVEL
ACCESS CONTROL		NONE

PFC PLANS  
DECEMBER 18, 2020



BEGIN PROJECT  
PROJECT NO. 1900171  
P.O.T. STA. 112+26.00  
LINE "PR-A"

END PROJECT  
PROJECT NO. 1900171  
P.O.T. STA. 120+70.00  
LINE "PR-A"



LATITUDE: 39°59'15.99"N LONGITUDE: 85°50'35.49"W

HYDROLOGIC UNIT CODE: 0512020100130

GROSS LENGTH:	0.16 MI.
NET LENGTH:	0.16 MI.
MAX. GRADE:	1.08%

R-6-E  
LOCATION MAP  
GREEN TOWNSHIP  
MADISON COUNTY

INDIANA DEPARTMENT OF TRANSPORTATION  
STANDARD SPECIFICATIONS DATED 2020  
TO BE USED WITH THESE PLANS

**HNTB**  
HNTB CORPORATION  
THE HNTB COMPANIES  
INFRASTRUCTURE SOLUTIONS  
111 MONUMENT CIRCLE  
SUITE 1200  
INDIANAPOLIS, IN 46204

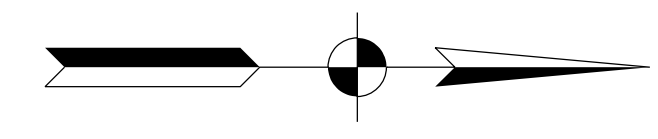
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NOT FOR CONSTRUCTION

PLANS PREPARED BY:	HNTB INDIANA, INC.	(317) 636-4682 PHONE NUMBER
CERTIFIED BY:		DATE
APPROVED FOR LETTING:	INDIANA DEPARTMENT OF TRANSPORTATION	DATE

DESIGNATION	
1900171	
SURVEY BOOK	SHEETS
ELECTRONIC	1 of 40
CONTRACT	PROJECT
T-42708	1900171



100+00 105+00 110+00 115+00 120+00 125+00 130+00



CHURCH OF THE BRETHEN AT SUMMERLAKE  
AN ADDITION IN GREEN TOWNSHIP,  
MADISON COUNTY INDIANA

BEGIN PROJECT  
PROJECT NO. 1900171  
P.O.T. STA. 112+26.00  
LINE "PR-A"

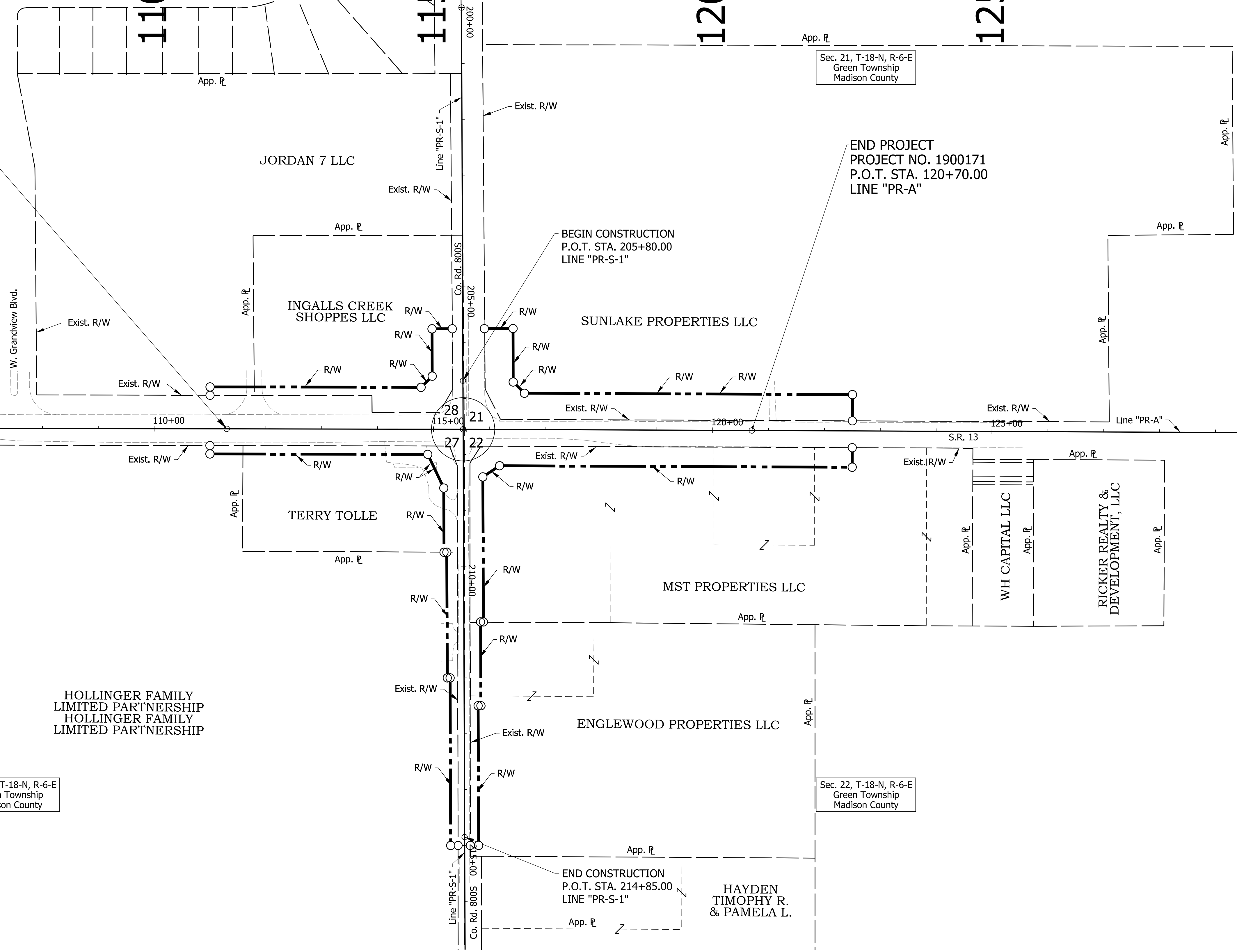
SUMMERLAKE AT SUMMERBROOK  
PHASE 1, SECTION 1

D B MANN DEVELOPMENT INC

END PROJECT  
PROJECT NO. 1900171  
P.O.T. STA. 120+70.00  
LINE "PR-A"

BEGIN CONSTRUCTION  
P.O.T. STA. 205+80.00  
LINE "PR-S-1"

END CONSTRUCTION  
P.O.T. STA. 214+85.00  
LINE "PR-S-1"



cebutler  
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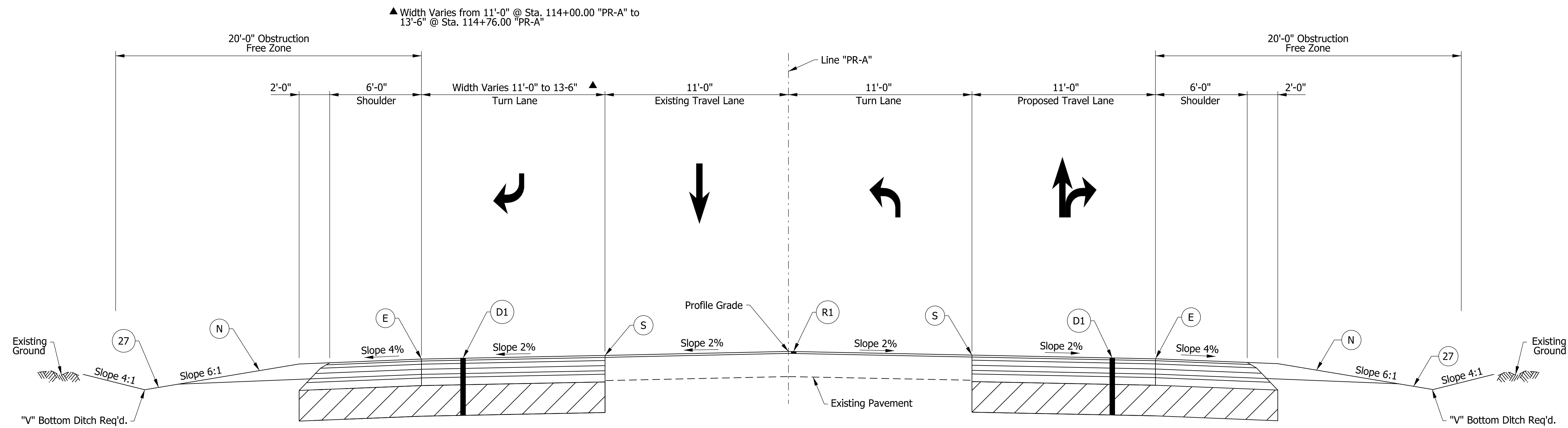
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NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: HDW	DRAWN: CPH	
CHECKED: DLG	CHECKED: DLG	

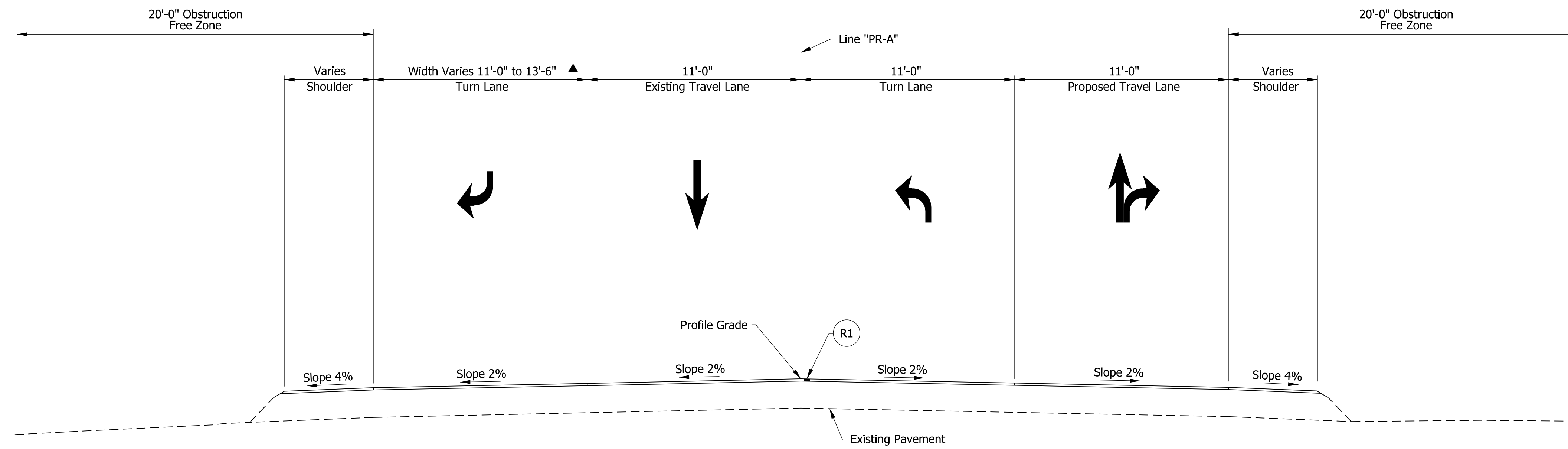
INDIANA  
DEPARTMENT OF TRANSPORTATION

PLAT NO. 1

HORIZONTAL SCALE	BRIDGE FILE	
1"=100'	N/A	
VERTICAL SCALE	DESIGNATION	
N/A	1900171	
SURVEY BOOK	SHEETS	PLT-01
ELECTRONIC	3 of	40
CONTRACT	PROJECT	
T-42708	1900171	



TYPICAL SECTION S.R. 13  
 STA. 112+26.00 LT. "PR-A" TO STA. 114+76.00 LT. "PR-A"  
 STA. 113+00.00 RT. "PR-A" TO STA. 114+74.00 RT. "PR-A"



TYPICAL SECTION S.R. 13  
 STA. 114+76.00 LT. "PR-A" TO STA. 116+51.00 LT. "PR-A"  
 STA. 114+75.00 RT. "PR-A" TO STA. 116+27.57 RT. "PR-A"

- Legend**
- (D1) 165#/Syd. QC/QA-HMA, 4, 70, Surface, 9.5 mm on 275#/Syd. QC/QA-HMA, 4, 70, Intermediate, 19.0 mm on 880#/Syd. QC/QA-HMA, 4, 64, Base, 25.0 mm on 300#/Syd. QC/QA-HMA, 4, 76, Intermediate OG, 19.0 mm on 6 in. of Compacted Aggregate No. 53 on Subgrade Treatment Type IC
  - (E) Milled HMA Corrugations, Conventional
  - (N) Compacted Aggregate, No. 53
  - (P) HMA Patching Full Depth, Type D
  - (R1) 165#/Syd. QC/QA-HMA, 2, 64, Surface, 9.5 mm on Milling, Asphalt, 11# 2 In.
  - (S) Saw Cut (No Direct Pay)
  - (27) Seed Mixture, R

Note to Reviewer: Safety edge detail to be provided in a future submittal.

Note to Reviewer: Pavement assumed to be asphalt. Final pavement design to be determined in a future submittal.

rstriegel  
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 file: \\indw001\289\projects\74073\indot\gr\on\call\010 sr.13 signal\05\cadd\cadd\74073-rd-s-is01.dgn

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 NOT FOR CONSTRUCTION

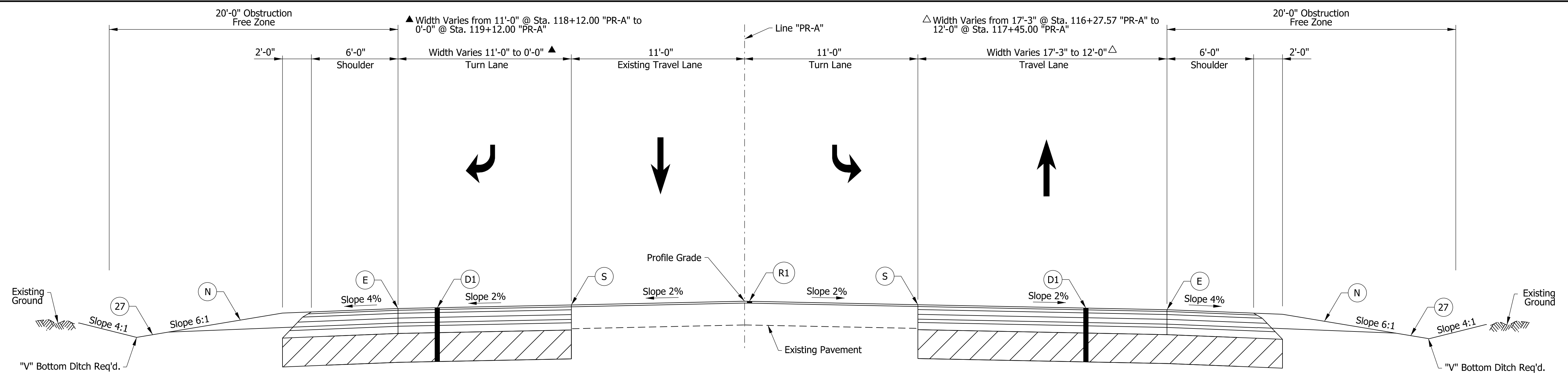
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DESIGNED: _____ HDW _____	DRAWN: _____ CPH _____	
CHECKED: _____ DLG _____	CHECKED: _____ DLG _____	

**INDIANA**  
**DEPARTMENT OF TRANSPORTATION**

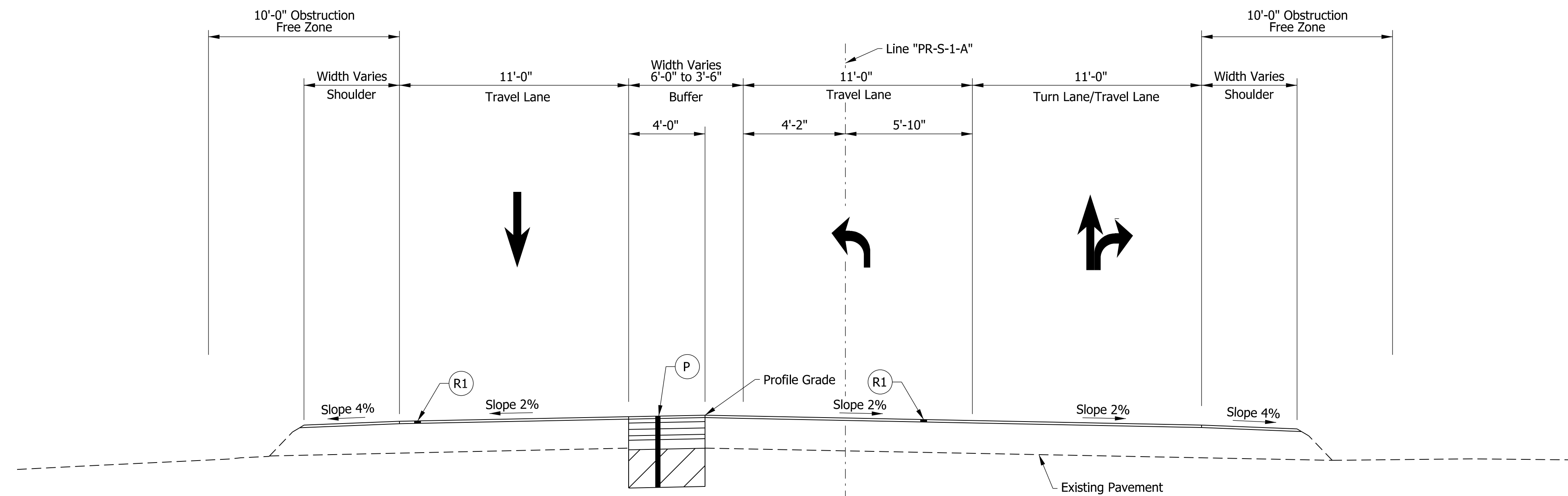
**ROADWAY TYPICAL SECTIONS**

HORIZONTAL SCALE	BRIDGE FILE
1/4"=1'-0"	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900171
SURVEY BOOK	SHEETS
ELECTRONIC	4 of 40
CONTRACT	PROJECT
T-42708	1900171





**TYPICAL SECTION S.R. 13**  
 STA. 116+51.00 LT. "PR-A" TO STA. 119+12.00 LT. "PR-A"  
 STA. 116+27.57 RT. "PR-A" TO STA. 120+70.00 RT. "PR-A"



**TYPICAL SECTION CO. RD. 8005**  
 STA. 205+80.00 "PR-S-1-A" TO STA. 207+31.12 "PR-S-1-A"

- Legend**
- (D1) 165#/Syd. QC/QA-HMA, 4, 70, Surface, 9.5 mm on 275#/Syd. QC/QA-HMA, 4, 70, Intermediate, 19.0 mm on 880#/Syd. QC/QA-HMA, 4, 64, Base, 25.0 mm on 300#/Syd. QC/QA-HMA, 4, 76, Intermediate OG, 19.0 mm on 6 in. of Compacted Aggregate No. 53 on Subgrade Treatment Type IC
  - (E) Milled HMA Corrugations, Conventional
  - (N) Compacted Aggregate, No. 53
  - (P) HMA Patching Full Depth, Type D
  - (R1) 165#/Syd. QC/QA-HMA, 2, 64, Surface, 9.5 mm on Milling, Asphalt, 11# 2 In.
  - (S) Saw Cut (No Direct Pay)
  - (27) Seed Mixture, R

Note to Reviewer: Safety edge detail to be provided in a future submittal.

Note to Reviewer: Pavement assumed to be asphalt. Final pavement design to be determined in a future submittal.

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**DRAFT**  
 NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: _____ HDW _____	DRAWN: _____ CPH _____	
CHECKED: _____ DLG _____	CHECKED: _____ DLG _____	

INDIANA  
 DEPARTMENT OF TRANSPORTATION

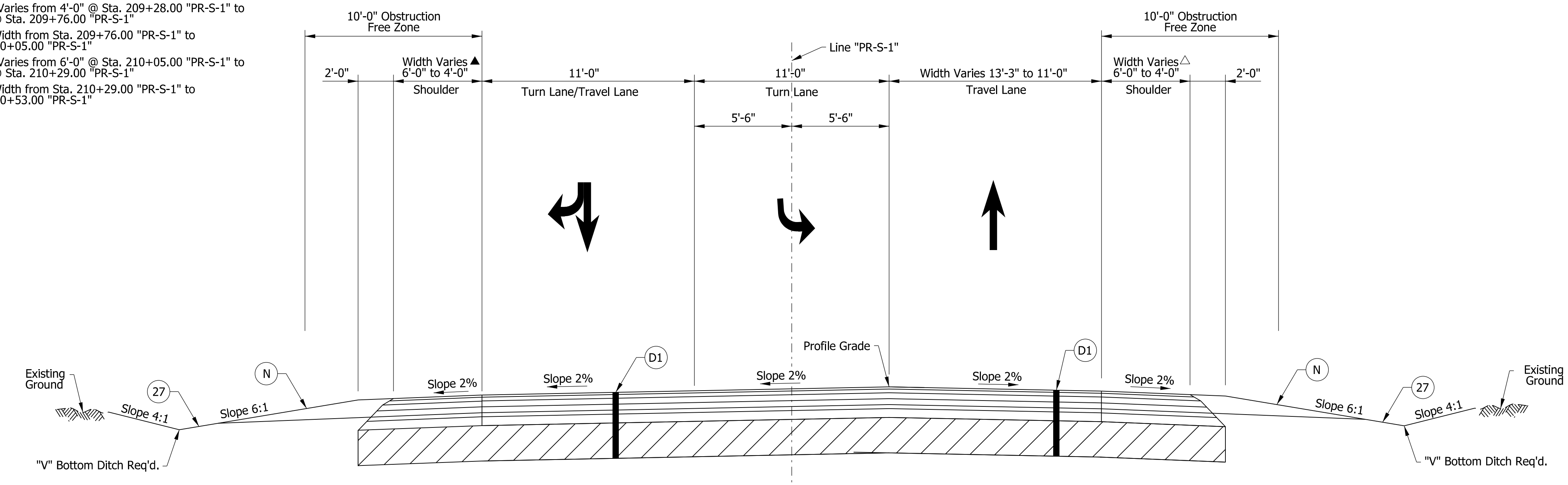
ROADWAY TYPICAL SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
1/4"=1'-0"	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900171
SURVEY BOOK	SHEETS
ELECTRONIC	5 of 40
CONTRACT	PROJECT
T-42708	1900171

▲ Width Varies from 6'-0" @ Sta. 208+44.11 "PR-S-1" to 4'-0" @ Sta. 209+24.00 "PR-S-1"  
 4'-0" Width from Sta. 209+24.00 "PR-S-1" to Sta. 209+28.00 "PR-S-1"  
 Width Varies from 4'-0" @ Sta. 209+28.00 "PR-S-1" to 6'-0" @ Sta. 209+76.00 "PR-S-1"  
 6'-0" Width from Sta. 209+76.00 "PR-S-1" to Sta. 210+05.00 "PR-S-1"  
 Width Varies from 4'-0" @ Sta. 210+05.00 "PR-S-1" to 4'-0" @ Sta. 210+29.00 "PR-S-1"  
 4'-0" Width from Sta. 210+29.00 "PR-S-1" to Sta. 210+53.00 "PR-S-1"

▽ Width Varies from 13'-3" @ Sta. 208+33.00 "PR-S-1" to 11'-0" @ Sta. 209+15.00 "PR-S-1-A"  
 11'-0" Width from Sta. 209+15.00 "PR-S-1" to Sta. 210+53.00 "PR-S-1"

△ Width Varies from 6'-0" @ Sta. 208+67.00 "PR-S-1" to 4'-0" @ Sta. 208+97.00 "PR-S-1"  
 4'-0" Width from Sta. 208+97.00 "PR-S-1" to Sta. 210+53.00 "PR-S-1"



TYPICAL SECTION CO. RD. 8005  
 STA. 208+44.11 LT. "PR-S-1" TO STA. 210+53.00 LT. "PR-S-1"  
 STA. 208+33.00 RT. "PR-S-1" TO STA. 210+53.00 RT. "PR-S-1"

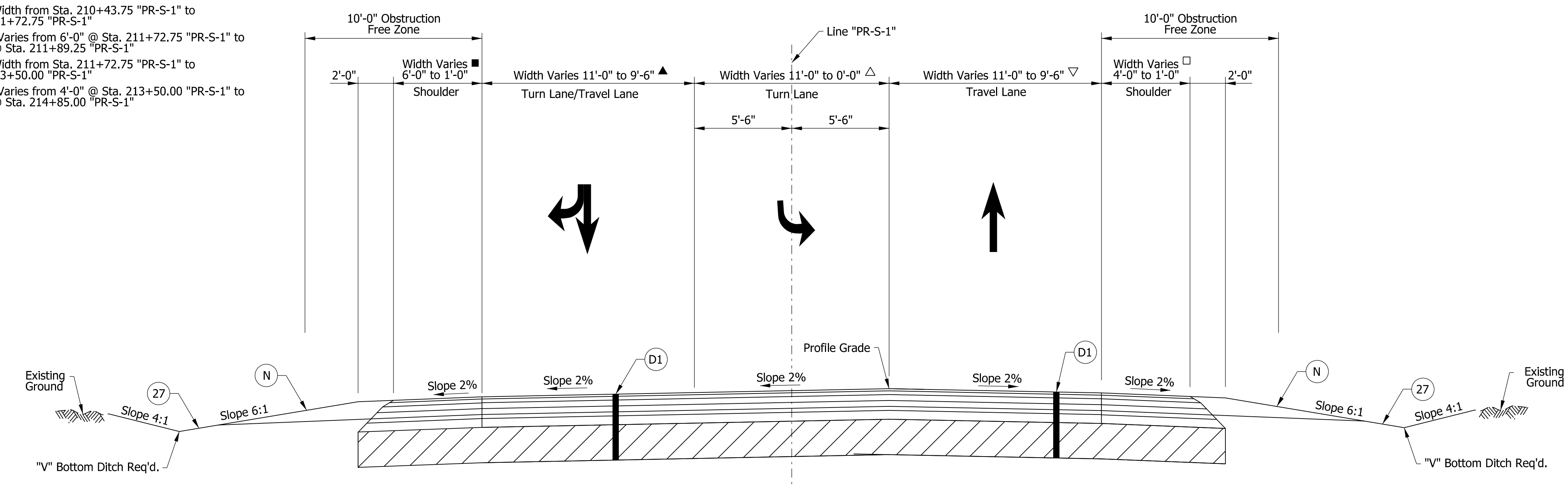
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 6'-0" Width from Sta. 210+43.75 "PR-S-1" to Sta. 211+72.75 "PR-S-1"  
 Width Varies from 6'-0" @ Sta. 211+72.75 "PR-S-1" to 4'-0" @ Sta. 211+89.25 "PR-S-1"  
 4'-0" Width from Sta. 211+89.25 "PR-S-1" to Sta. 213+50.00 "PR-S-1"  
 Width Varies from 4'-0" @ Sta. 213+50.00 "PR-S-1" to 1'-0" @ Sta. 214+85.00 "PR-S-1"

▲ Width Varies from 11'-0" @ Sta. 210+53.00 "PR-S-1" to 9'-6" @ Sta. 213+03.00 "PR-S-1"  
 9'-6" Width from Sta. 213+03.00 "PR-S-1" to Sta. 214+85.00 "PR-S-1"

△ Width Varies from 11'-0" @ Sta. 210+53.00 "PR-S-1" to 0'-0" @ Sta. 213+03.00 "PR-S-1"  
 0'-0" Width from Sta. 213+03.00 "PR-S-1" to Sta. 214+85.00 "PR-S-1"

▽ Width Varies from 11'-0" @ Sta. 210+53.00 "PR-S-1" to 9'-6" @ Sta. 213+03.00 "PR-S-1"  
 9'-6" Width from Sta. 213+03.00 "PR-S-1" to Sta. 214+85.00 "PR-S-1"

□ 4'-0" Width from Sta. 210+53.00 "PR-S-1" to Sta. 213+50.00 "PR-S-1"  
 Width Varies from 4'-0" @ Sta. 213+50.00 "PR-S-1" to 1'-0" @ Sta. 214+85.00 "PR-S-1"



TYPICAL SECTION CO. RD. 8005  
 STA. 210+53.00 "PR-S-1" TO STA. 214+85.00 "PR-S-1"

- Legend**
- (D1) 165#/Syd. QC/QA-HMA, 4, 70, Surface, 9.5 mm on 275#/Syd. QC/QA-HMA, 4, 70, Intermediate, 19.0 mm on 880#/Syd. QC/QA-HMA, 4, 64, Base, 25.0 mm on 300#/Syd. QC/QA-HMA, 4, 76, Intermediate OG, 19.0 mm on 6 in. of Compacted Aggregate No. 53 on Subgrade Treatment Type IC
  - (E) Milled HMA Corrugations, Conventional
  - (N) Compacted Aggregate, No. 53
  - (P) HMA Patching Full Depth, Type D
  - (R1) 165#/Syd. QC/QA-HMA, 2, 64, Surface, 9.5 mm on Milling, Asphalt, 11# 2 In.
  - (S) Saw Cut (No Direct Pay)
  - (27) Seed Mixture, R

Note to Reviewer: Safety edge detail to be provided in a future submittal.

Note to Reviewer: Pavement assumed to be asphalt. Final pavement design to be determined in a future submittal.

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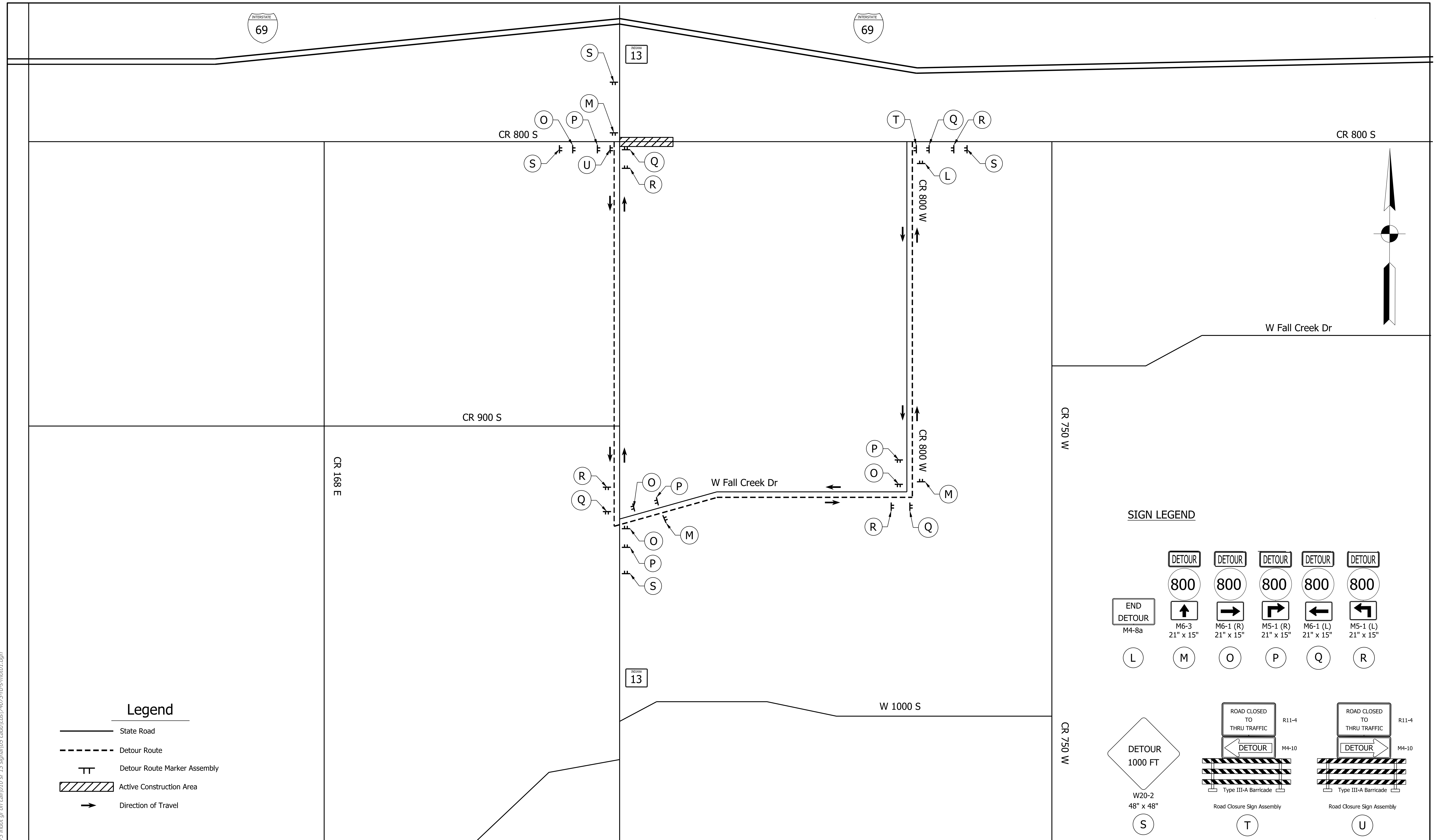
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 NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: _____ HDW _____	DRAWN: _____ CPH _____	
CHECKED: _____ DLG _____	CHECKED: _____ DLG _____	

**INDIANA**  
 DEPARTMENT OF TRANSPORTATION

**ROADWAY TYPICAL SECTIONS**

HORIZONTAL SCALE	BRIDGE FILE
1/4"=1'-0"	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900171
SURVEY BOOK	SHEETS
ELECTRONIC	6 of 40
CONTRACT	PROJECT
T-42708	1900171



**Legend**

- State Road
- - - Detour Route
- TT Detour Route Marker Assembly
- ▨ Active Construction Area
- Direction of Travel

**SIGN LEGEND**

M4-8a	M6-3 21" x 15"	M6-1 (R) 21" x 15"	M5-1 (R) 21" x 15"	M6-1 (L) 21" x 15"	M5-1 (L) 21" x 15"
L	M	O	P	Q	R

W20-2 48" x 48"	R11-4	R11-4
S	T	U

dkaskie  
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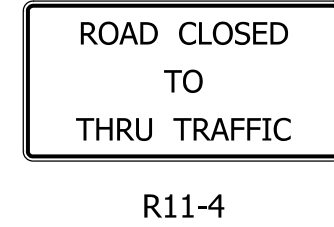
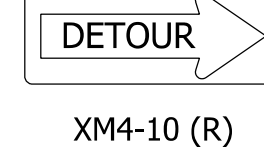
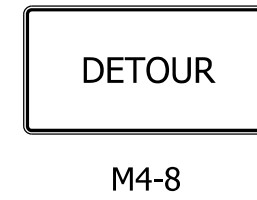
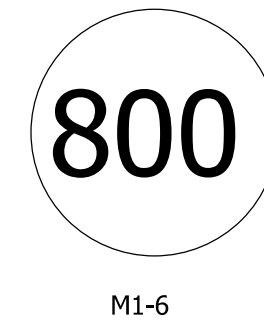
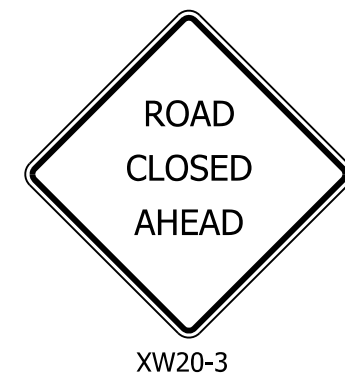
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RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: _____ DCK _____	DRAWN: _____ CPH _____	
CHECKED: _____ DLG _____	CHECKED: _____ DLG _____	

INDIANA  
DEPARTMENT OF TRANSPORTATION

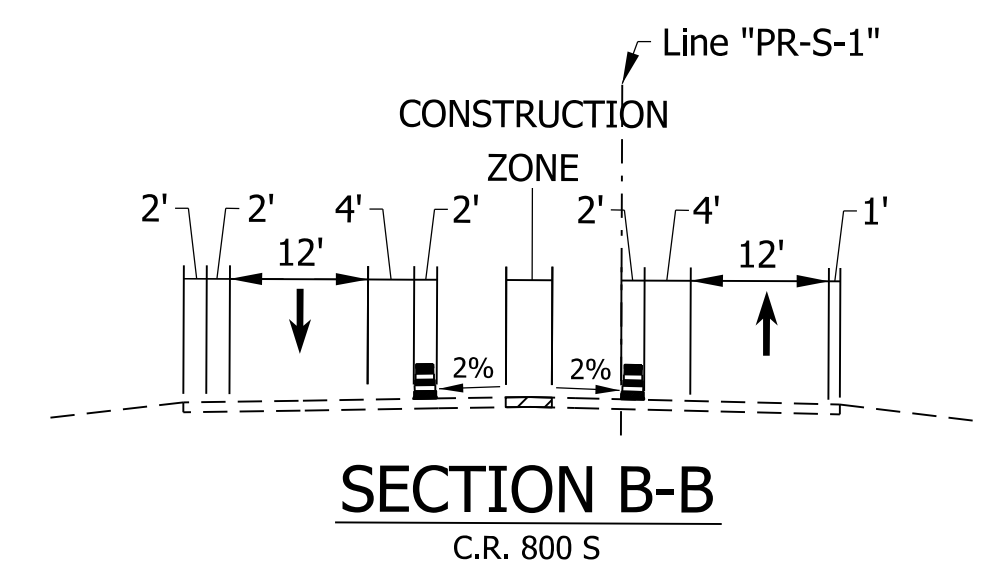
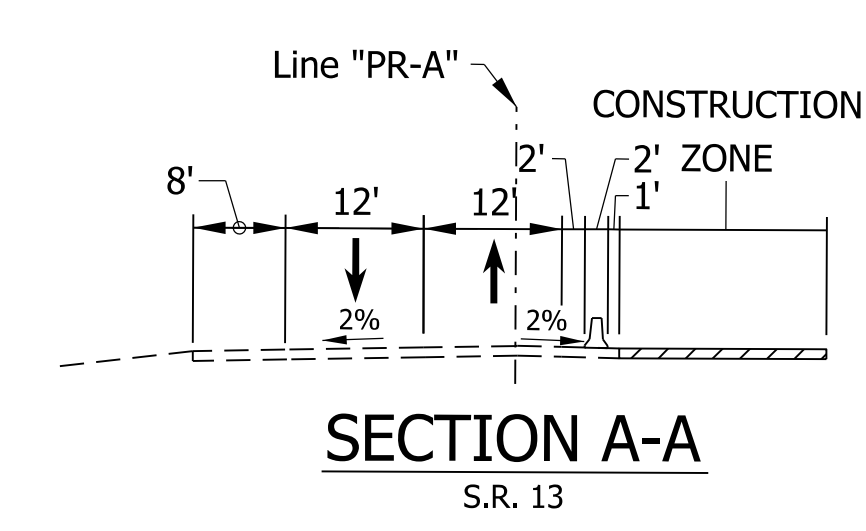
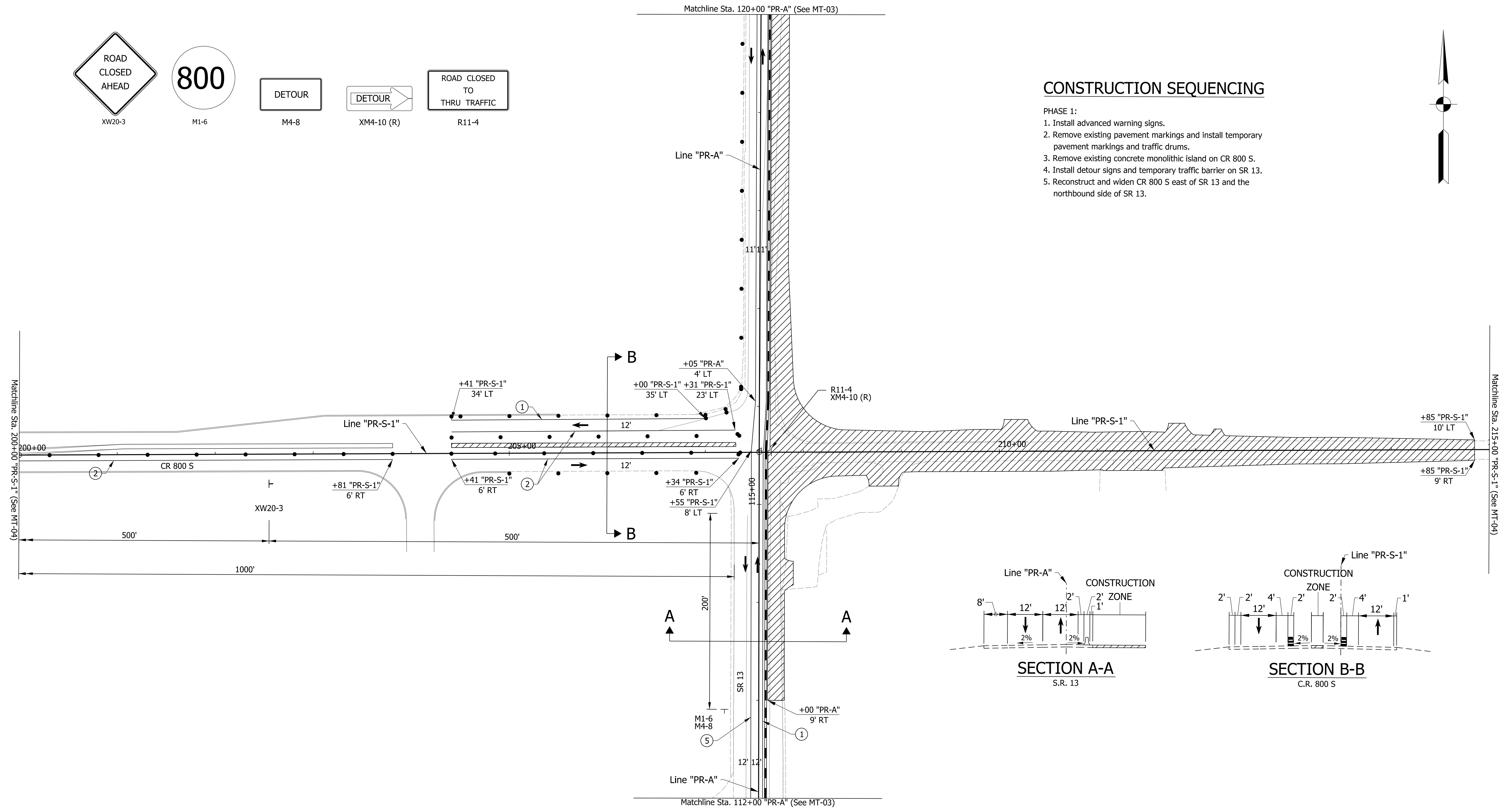
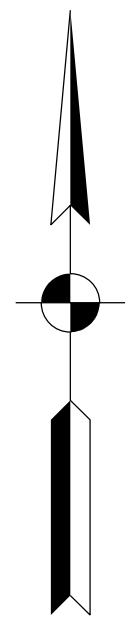
MAINTENANCE OF TRAFFIC  
DETOUR

HORIZONTAL SCALE 1"=800'	BRIDGE FILE N/A
VERTICAL SCALE N/A	DESIGNATION 1900171
SURVEY BOOK ELECTRONIC	SHEETS 7 of 40
CONTRACT T-42708	PROJECT 190071



### CONSTRUCTION SEQUENCING

- PHASE 1:
1. Install advanced warning signs.
  2. Remove existing pavement markings and install temporary pavement markings and traffic drums.
  3. Remove existing concrete monolithic island on CR 800 S.
  4. Install detour signs and temporary traffic barrier on SR 13.
  5. Reconstruct and widen CR 800 S east of SR 13 and the northbound side of SR 13.



**DRAFT**  
NOT FOR CONSTRUCTION

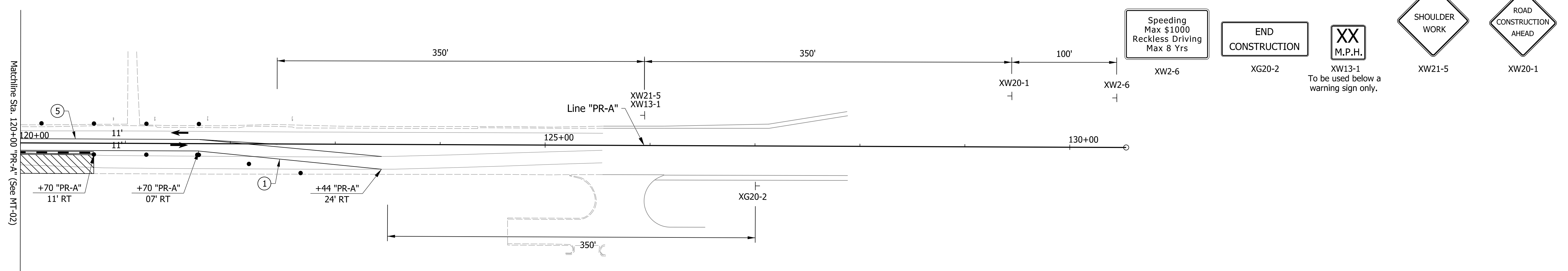
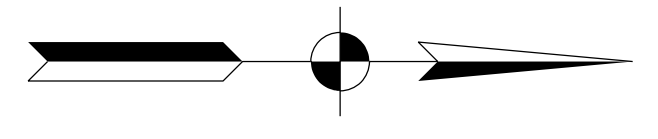
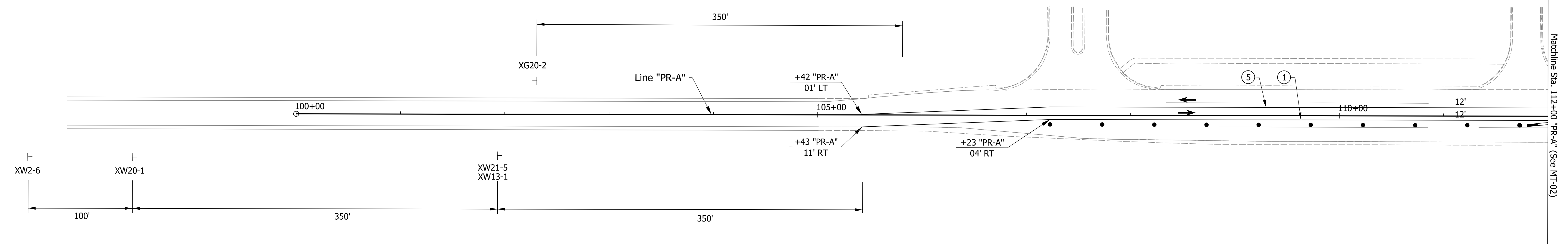
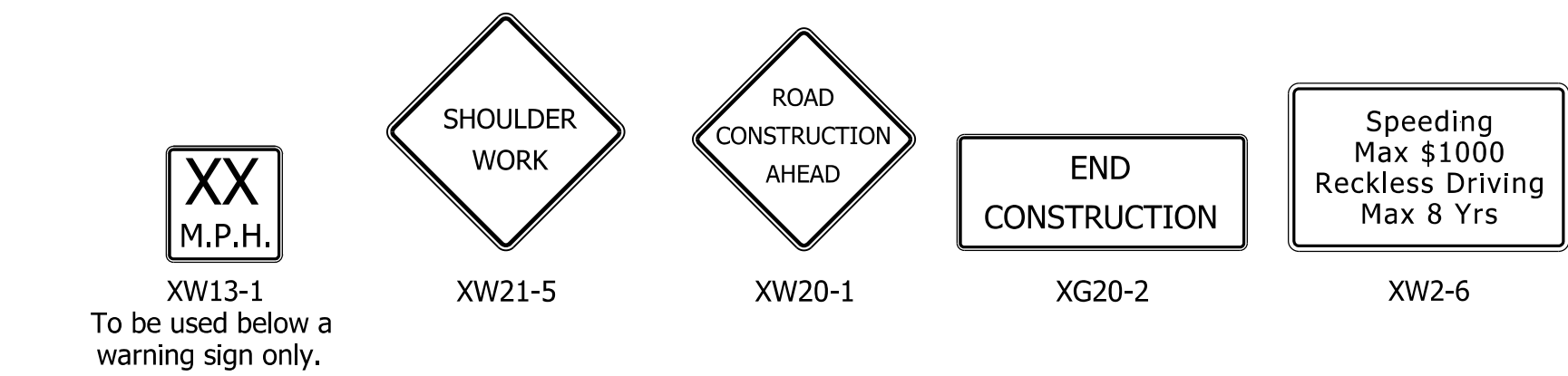
LEGEND		MOT GENERAL NOTES	
	Available Construction Area		Type III Barricade
	Temporary Pavement		Sign
	Direction of Traffic		Channelizer
	Temporary Traffic Barrier		Flagger
	Temporary Pavement Markings, 4 In., Solid, White		Temporary Pavement Markings, 4 In., Broken, White
	Temporary Pavement Markings, 4 In., Solid, Yellow		Temporary Pavement Markings, 4 In., Dotted, White
	Temporary Pavement Markings, 4 In., Solid, Double, Yellow		Temporary Pavement Markings, 24 In., Solid, Stop Line

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: _____	DCK	DRAWN: _____
CHECKED: _____	DLG	CHECKED: _____
	DLG	

INDIANA DEPARTMENT OF TRANSPORTATION	
MAINTENANCE OF TRAFFIC PHASE 1	

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900171
SURVEY BOOK	SHEETS
ELECTRONIC	8 of 40
CONTRACT	PROJECT
T-42708	190071

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**LEGEND**

- Available Construction Area
- Temporary Pavement
- Direction of Traffic
- Temporary Traffic Barrier
- Type A Warning Light
- Type III Barricade
- Sign
- Channelizer
- Flagger

**MOT GENERAL NOTES**

1. Remove existing markings in conflict with proposed markings.
2. Cover existing signs in conflict with proposed signs.

- ③ Temporary Pavement Markings, 4 In., Broken, White
- ④ Temporary Pavement Markings, 4 In., Dotted, White
- ⑤ Temporary Pavement Markings, 4 In., Solid, Double, Yellow
- ⑥ Temporary Pavement Markings, 24 In., Solid, Stop Line
- ① Temporary Pavement Markings, 4 In., Solid, White
- ② Temporary Pavement Markings, 4 In., Solid, Yellow

**DRAFT**  
NOT FOR CONSTRUCTION

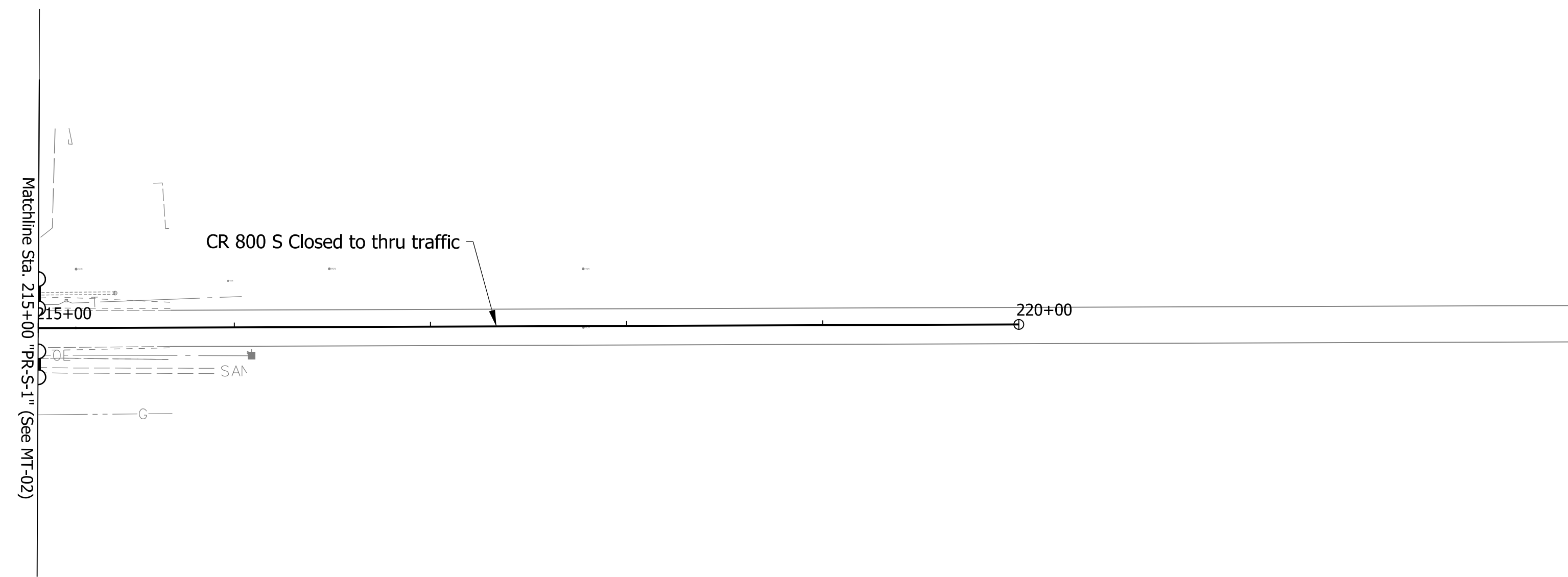
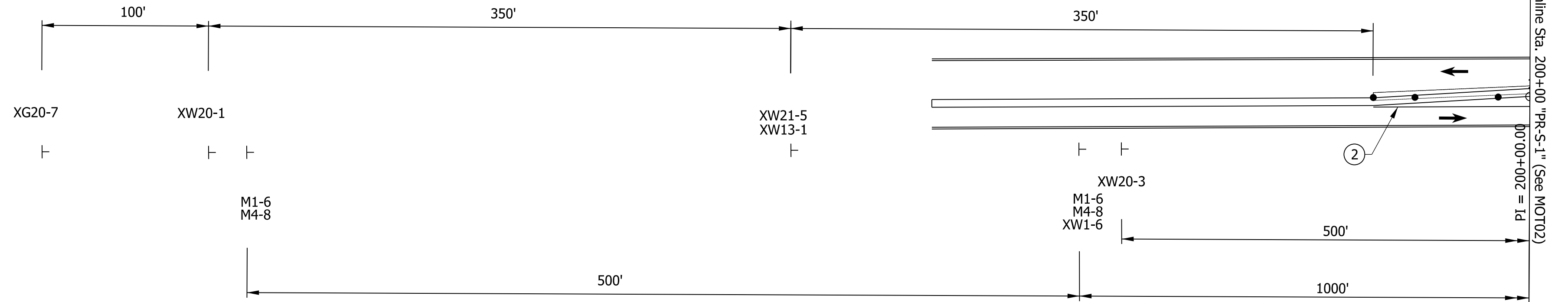
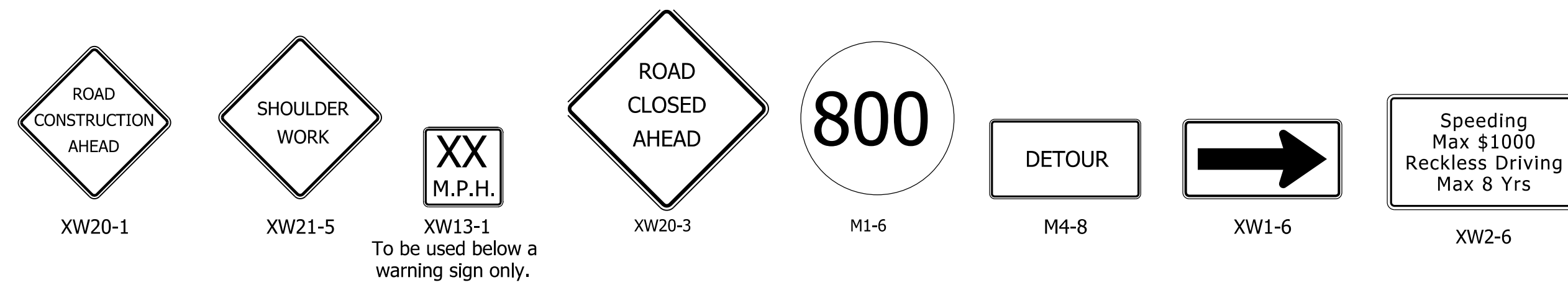
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DESIGNED: _____ DCK _____	DRAWN: _____ CPH _____	
CHECKED: _____ DLG _____	CHECKED: _____ DLG _____	

**INDIANA DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC PHASE 1**

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900171
SURVEY BOOK	SHEETS
ELECTRONIC	MT-03
CONTRACT	PROJECT
T-42708	190071

draskie 12/17/2020 4:27:48 pm  
 model: Sheet2  
 file: I:\ndv00128\projects\74073\indot\_gf\_on\_call\010 sr\_13 signal\05\_cad\01\05\_74073-rs-mo01.dgn



**LEGEND**

- Available Construction Area
- Temporary Pavement
- Direction of Traffic
- Temporary Traffic Barrier
- Type A Warning Light
- Type III Barricade
- Sign
- Channelizer
- Flagger

**MOT GENERAL NOTES**

1. Remove existing markings in conflict with proposed markings.
2. Cover existing signs in conflict with proposed signs.

- ① Temporary Pavement Markings, 4 In., Solid, White
- ② Temporary Pavement Markings, 4 In., Solid, Yellow
- ③ Temporary Pavement Markings, 4 In., Broken, White
- ④ Temporary Pavement Markings, 4 In., Dotted, White
- ⑤ Temporary Pavement Markings, 4 In., Solid, Double, Yellow
- ⑥ Temporary Pavement Markings, 24 In., Solid, Stop Line

**DRAFT**  
NOT FOR CONSTRUCTION

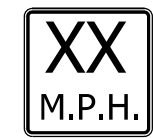
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: _____ DCK _____	DRAWN: _____ CPH _____	
CHECKED: _____ DLG _____	CHECKED: _____ DLG _____	

**INDIANA DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC PHASE 1**

HORIZONTAL SCALE	BRIDGE FILE	
1"=50'	N/A	
VERTICAL SCALE	DESIGNATION	
N/A	1900171	
SURVEY BOOK	SHEETS	MT-04
ELECTRONIC	10 of 40	
CONTRACT	PROJECT	
T-42708	190071	

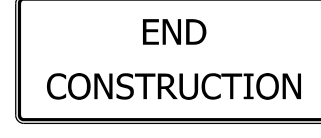
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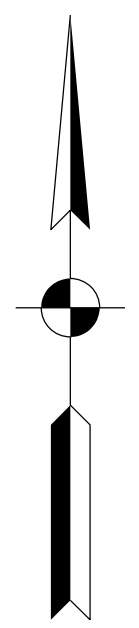
XW13-1  
To be used below a warning sign only.



XW21-5

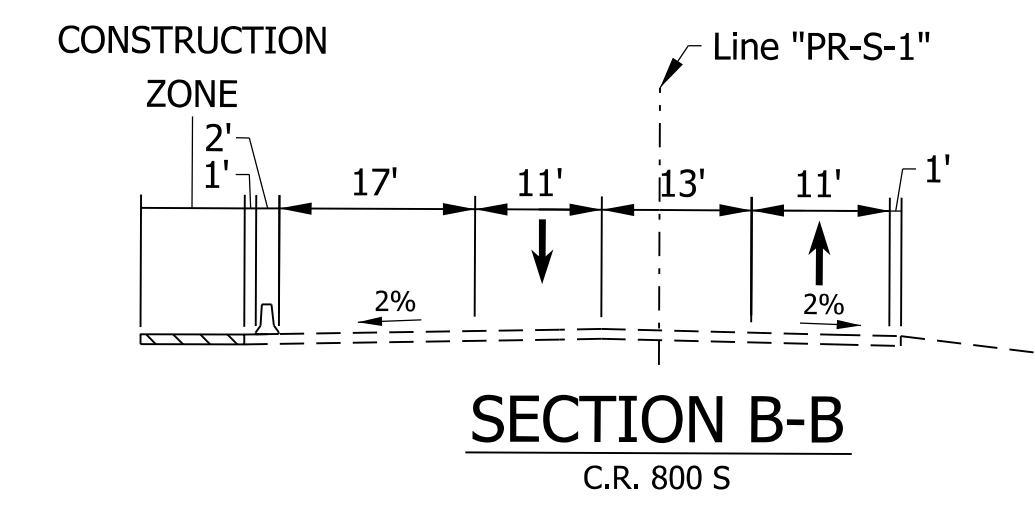
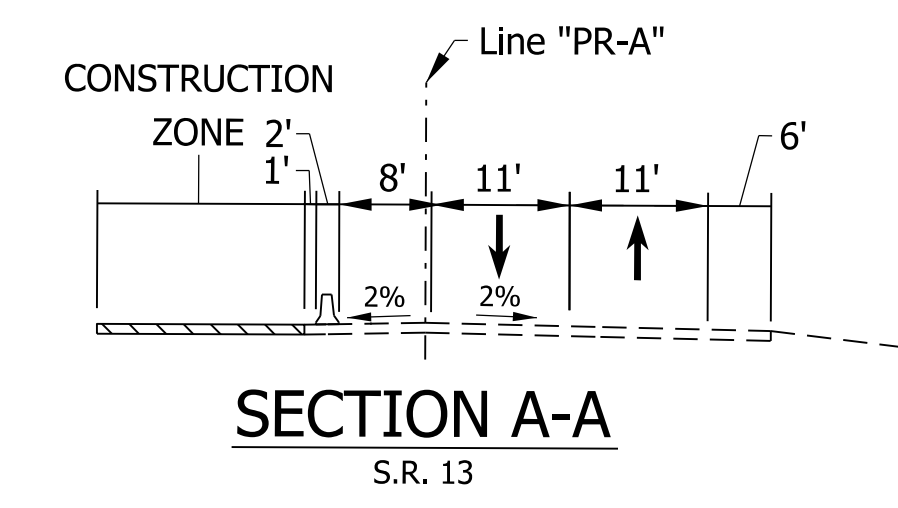
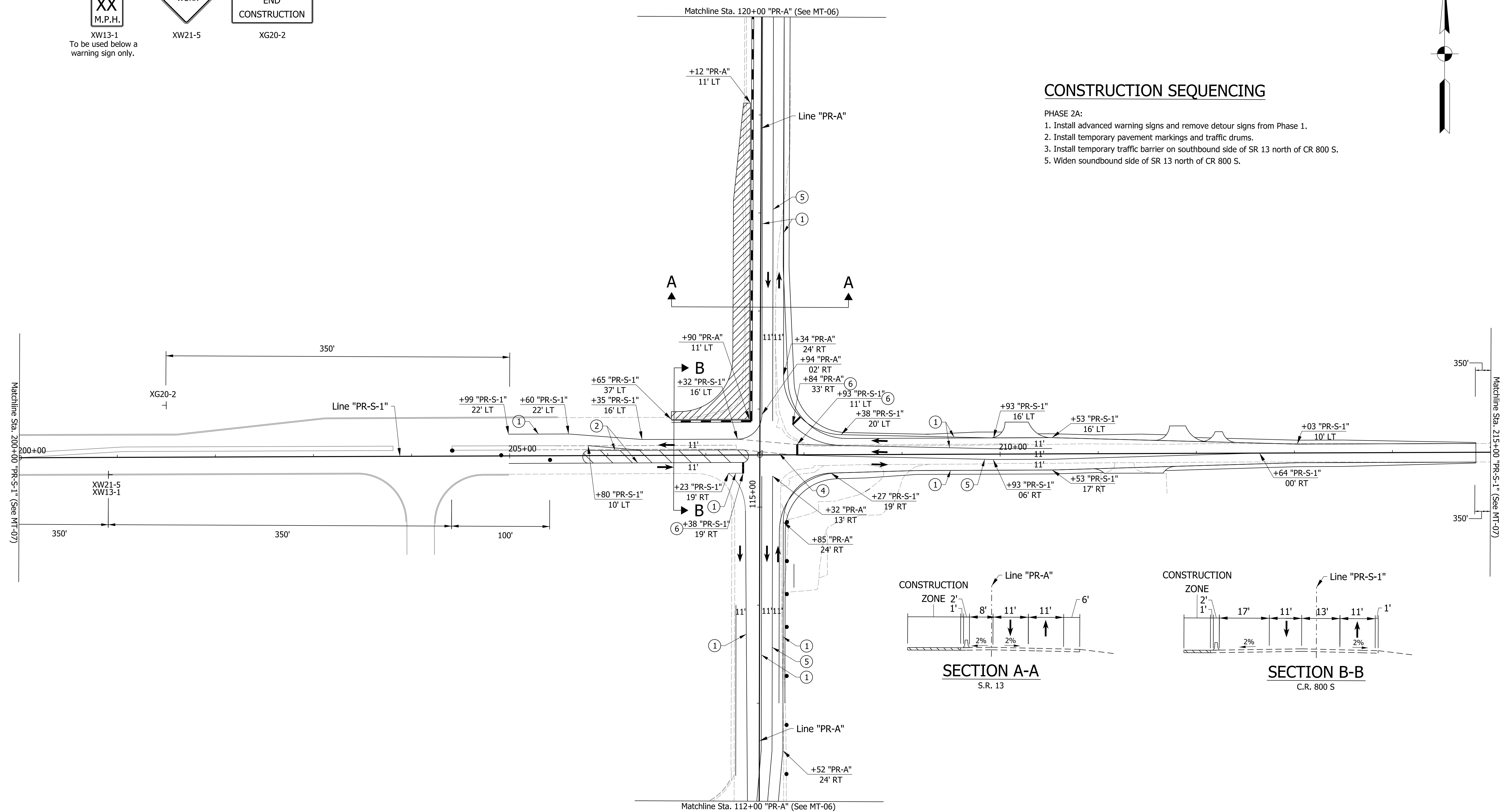


XG20-2



### CONSTRUCTION SEQUENCING

- PHASE 2A:
1. Install advanced warning signs and remove detour signs from Phase 1.
  2. Install temporary pavement markings and traffic drums.
  3. Install temporary traffic barrier on southbound side of SR 13 north of CR 800 S.
  5. Widen soundbound side of SR 13 north of CR 800 S.



**DRAFT**  
NOT FOR CONSTRUCTION

LEGEND		MOT GENERAL NOTES	
	Available Construction Area	③	Temporary Pavement Markings, 4 In., Broken, White
	Temporary Pavement	④	Temporary Pavement Markings, 4 In., Dotted, White
	Direction of Traffic	⑤	Temporary Pavement Markings, 4 In., Solid, Double, Yellow
	Temporary Traffic Barrier	⑥	Temporary Pavement Markings, 24 In., Solid, Stop Line
	Type A Warning Light	①	Temporary Pavement Markings, 4 In., Solid, White
	Type III Barricade	②	Temporary Pavement Markings, 4 In., Solid, Yellow
	Sign		
	Channelizer		
	Flagger		

1. Remove existing markings in conflict with proposed markings.  
2. Cover existing signs in conflict with proposed signs.

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: _____ DCK _____	DRAWN: _____ CPH _____	
CHECKED: _____ DLG _____	CHECKED: _____ DLG _____	

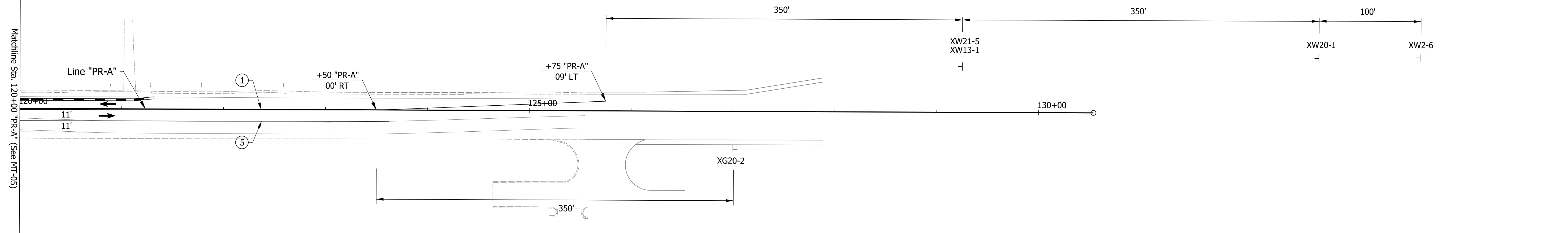
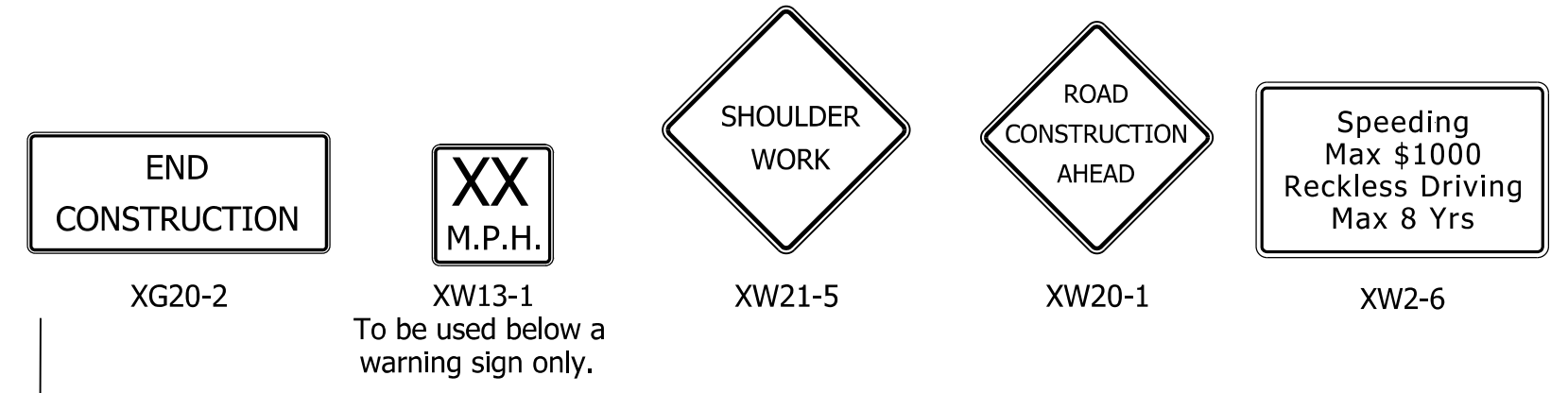
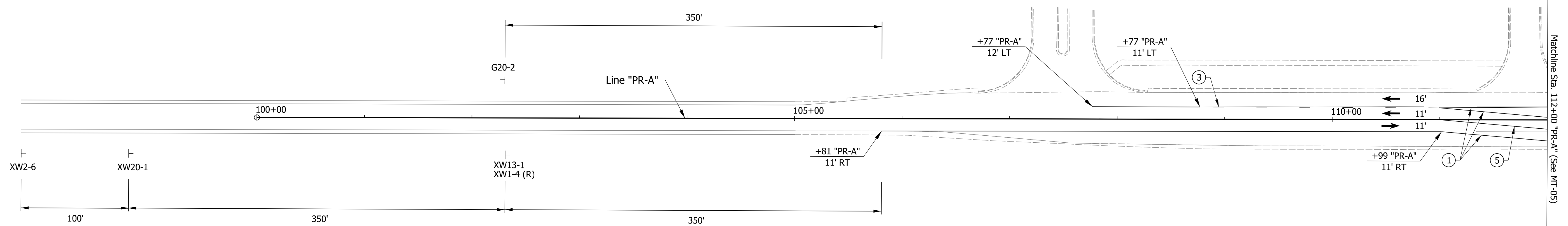
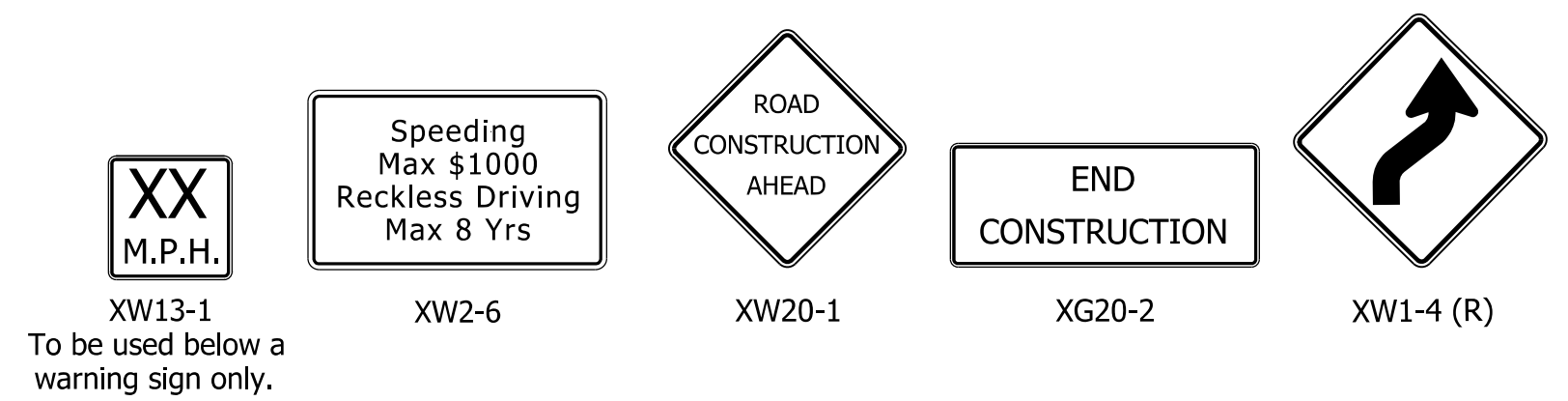
INDIANA  
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC  
PHASE 2A

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900171
SURVEY BOOK	SHEETS
ELECTRONIC	11 of 40
CONTRACT	PROJECT
T-42708	190071

draskie  
 12/17/2020 4:27:51 pm  
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 model: Sheets  
 file: I:\ind00128\projects\74073\indot\gf on call\010 sr 13 signal\05 cad\01\cas\74073-ds-m001.dgn

**LEGEND**

	Available Construction Area		Type A Warning Light
	Temporary Pavement		Type III Barricade
	Direction of Traffic		Sign
	Temporary Traffic Barrier		Channelizer
			Flagger

- MOT GENERAL NOTES**
- Remove existing markings in conflict with proposed markings.
  - Cover existing signs in conflict with proposed signs.
- |   |   |   |   |
|---|---|---|---|
| ① | Temporary Pavement Markings, 4 In., Solid, White  | ③ | Temporary Pavement Markings, 4 In., Broken, White         |
| ② | Temporary Pavement Markings, 4 In., Solid, Yellow | ④ | Temporary Pavement Markings, 4 In., Dotted, White         |
|   |   | ⑤ | Temporary Pavement Markings, 4 In., Solid, Double, Yellow |
|   |   | ⑥ | Temporary Pavement Markings, 24 In., Solid, Stop Line     |

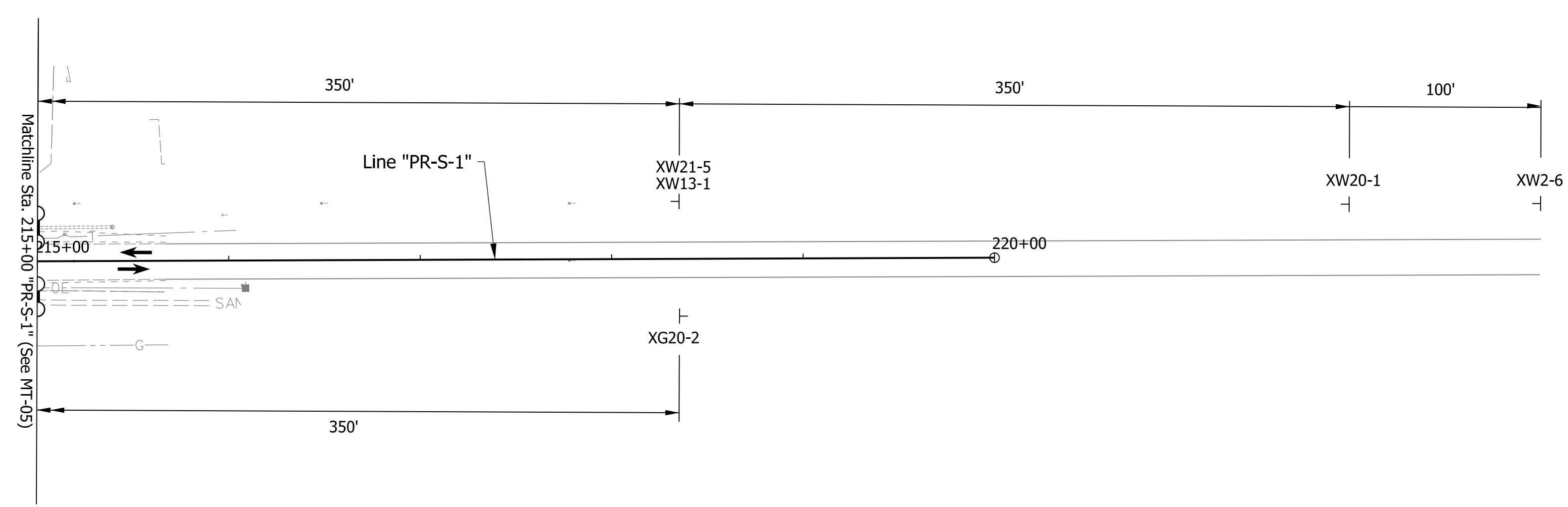
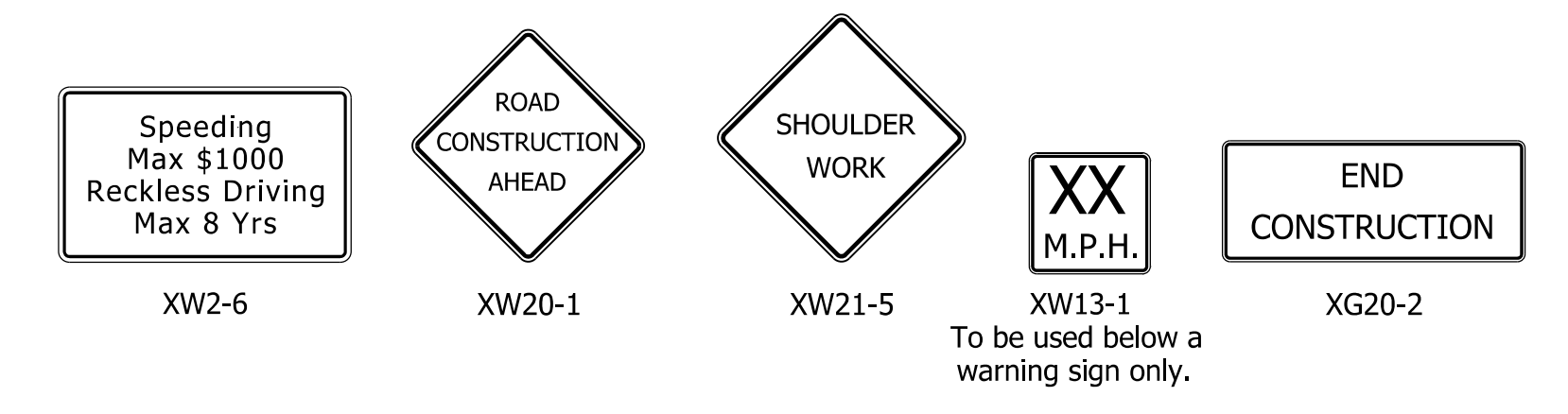
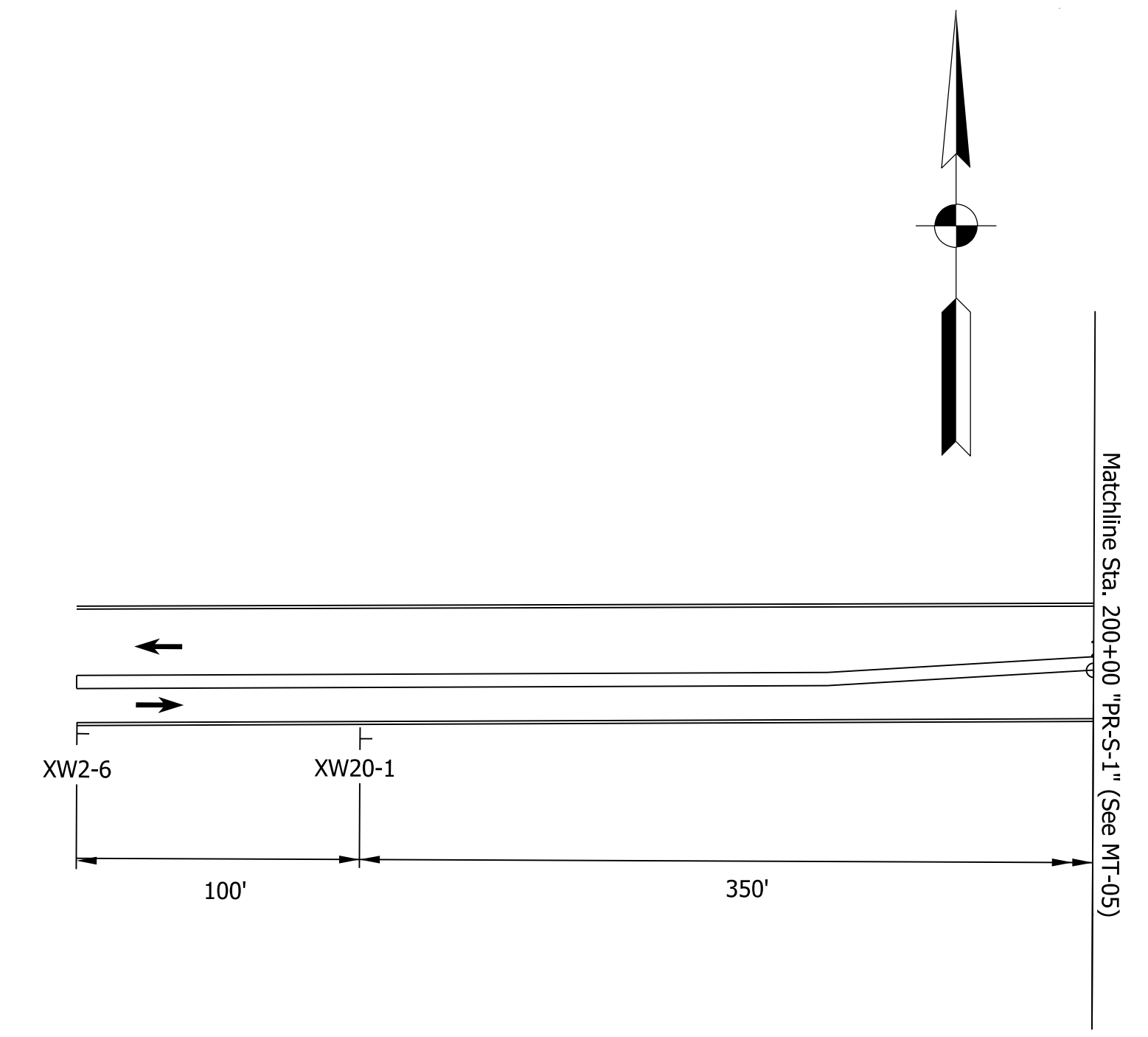
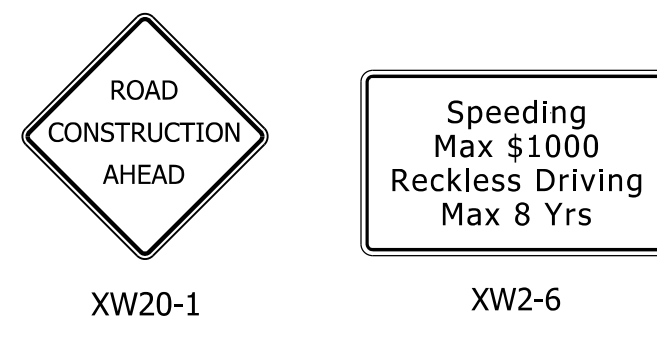
**DRAFT**  
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: _____ DCK _____	DRAWN: _____ CPH _____	
CHECKED: _____ DLG _____	CHECKED: _____ DLG _____	

INDIANA  
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC  
PHASE 2A

HORIZONTAL SCALE 1"=50'	BRIDGE FILE N/A
VERTICAL SCALE N/A	DESIGNATION 1900171
SURVEY BOOK ELECTRONIC	SHEETS 12 of 40
CONTRACT T-42708	PROJECT 190071



**LEGEND**

	Available Construction Area		Type A Warning Light
	Temporary Pavement		Type III Barricade
	Direction of Traffic		Sign
	Temporary Traffic Barrier		Channelizer
			Flagger

- MOT GENERAL NOTES**
1. Remove existing markings in conflict with proposed markings.
  2. Cover existing signs in conflict with proposed signs.
  3. Temporary Pavement Markings, 4 In., Broken, White
  4. Temporary Pavement Markings, 4 In., Dotted, White
  5. Temporary Pavement Markings, 4 In., Solid, Double, Yellow
  6. Temporary Pavement Markings, 24 In., Solid, Stop Line
  1. Temporary Pavement Markings, 4 In., Solid, White
  2. Temporary Pavement Markings, 4 In., Solid, Yellow

**DRAFT**  
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: _____ DCK _____	DRAWN: _____ CPH _____	
CHECKED: _____ DLG _____	CHECKED: _____ DLG _____	

**INDIANA DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC PHASE 2A**

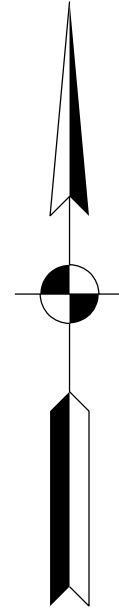
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VERTICAL SCALE	DESIGNATION	
N/A	1900171	
SURVEY BOOK	SHEETS	MT-07
ELECTRONIC	13	of 40
CONTRACT	PROJECT	
T-42708	190071	

draskie 12/17/2020 4:27:53 pm  
 model: Sheets  
 file: I:\ndv00128\projects\74073 indot.gi on call\010 sr\_13 signal\05 cad\cads\74073-ds-mo01.dgn

**XX**  
M.P.H.  
XW13-1  
To be used below a  
warning sign only.

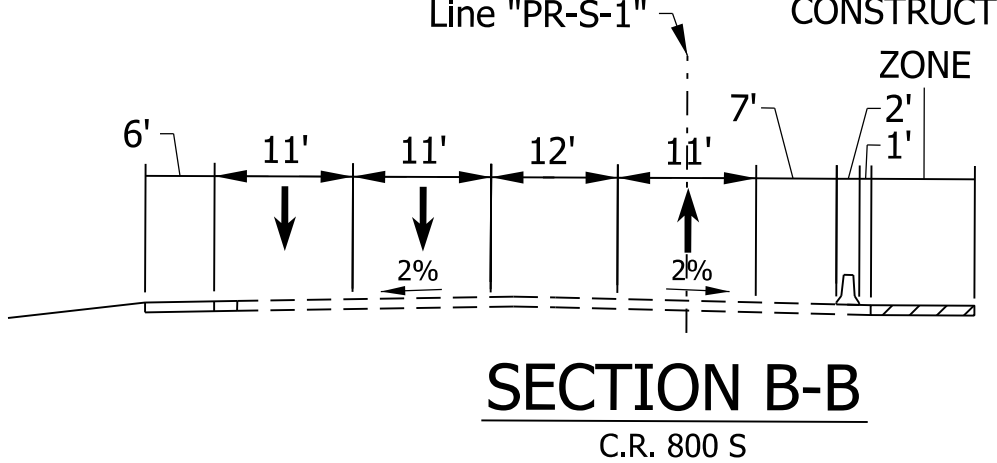
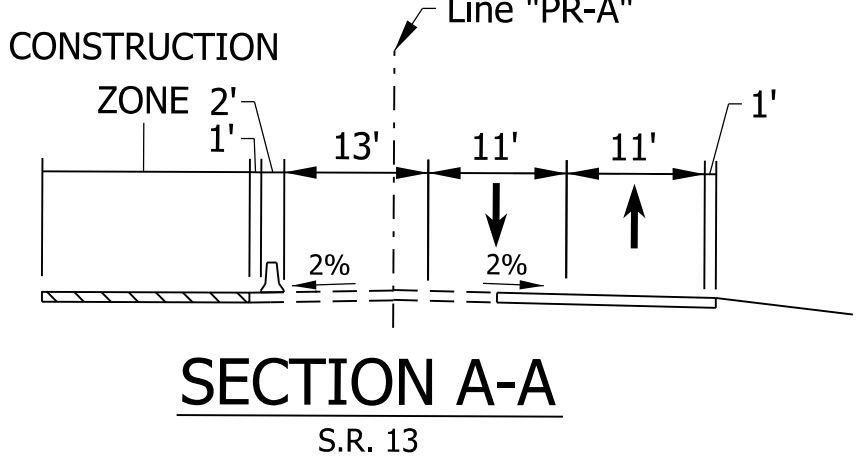
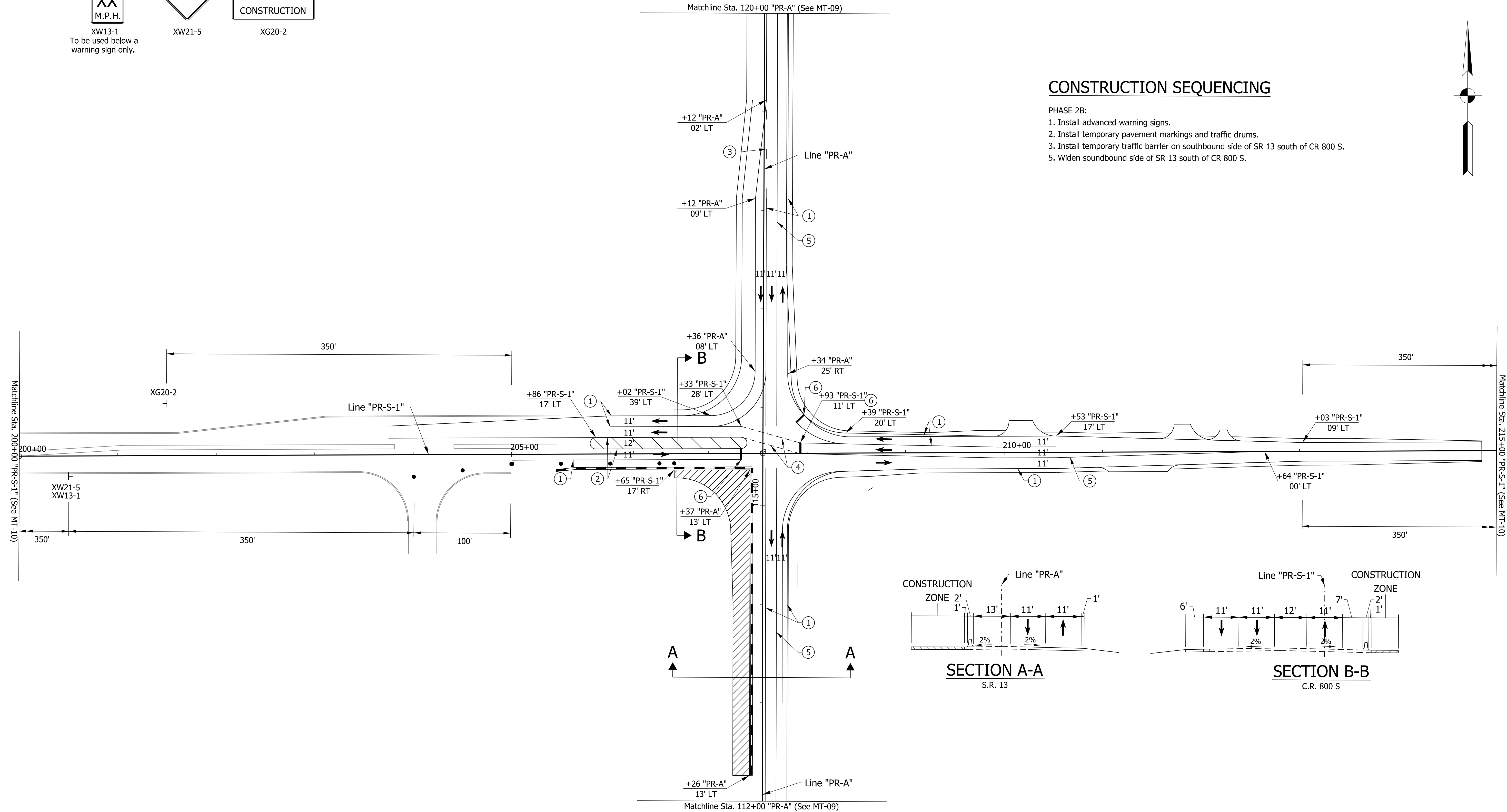
**SHOULDER  
WORK**  
XW21-5

**END  
CONSTRUCTION**  
XG20-2



**CONSTRUCTION SEQUENCING**

- PHASE 2B:
1. Install advanced warning signs.
  2. Install temporary pavement markings and traffic drums.
  3. Install temporary traffic barrier on southbound side of SR 13 south of CR 800 S.
  5. Widen soundbound side of SR 13 south of CR 800 S.



**DRAFT**  
NOT FOR CONSTRUCTION

LEGEND		MOT GENERAL NOTES	
	Available Construction Area		Temporary Pavement Markings, 4 In., Broken, White
	Temporary Pavement		Temporary Pavement Markings, 4 In., Dotted, White
	Direction of Traffic		Temporary Pavement Markings, 4 In., Solid, Double, Yellow
	Temporary Traffic Barrier		Temporary Pavement Markings, 24 In., Solid, Stop Line
	Type A Warning Light		Temporary Pavement Markings, 4 In., Solid, White
	Type III Barricade		Temporary Pavement Markings, 4 In., Solid, Yellow
	Sign		Temporary Pavement Markings, 4 In., Broken, White
	Channelizer		Temporary Pavement Markings, 4 In., Dotted, White
	Flagger		Temporary Pavement Markings, 4 In., Solid, Double, Yellow
			Temporary Pavement Markings, 24 In., Solid, Stop Line

1. Remove existing markings in conflict with proposed markings.
2. Cover existing signs in conflict with proposed signs.

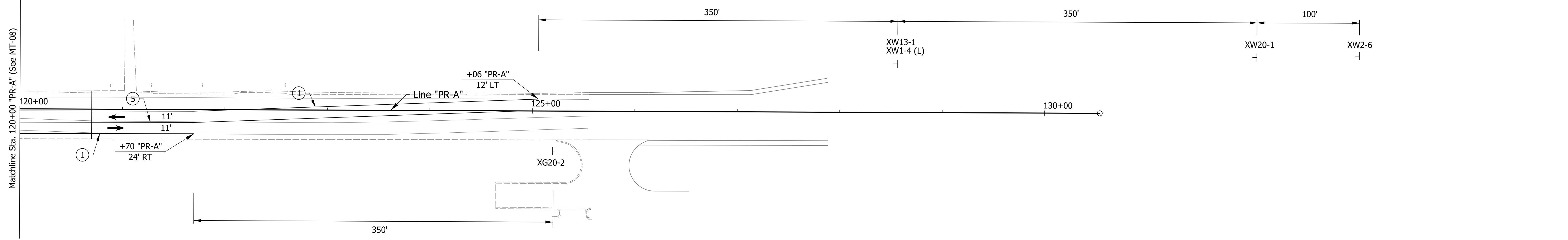
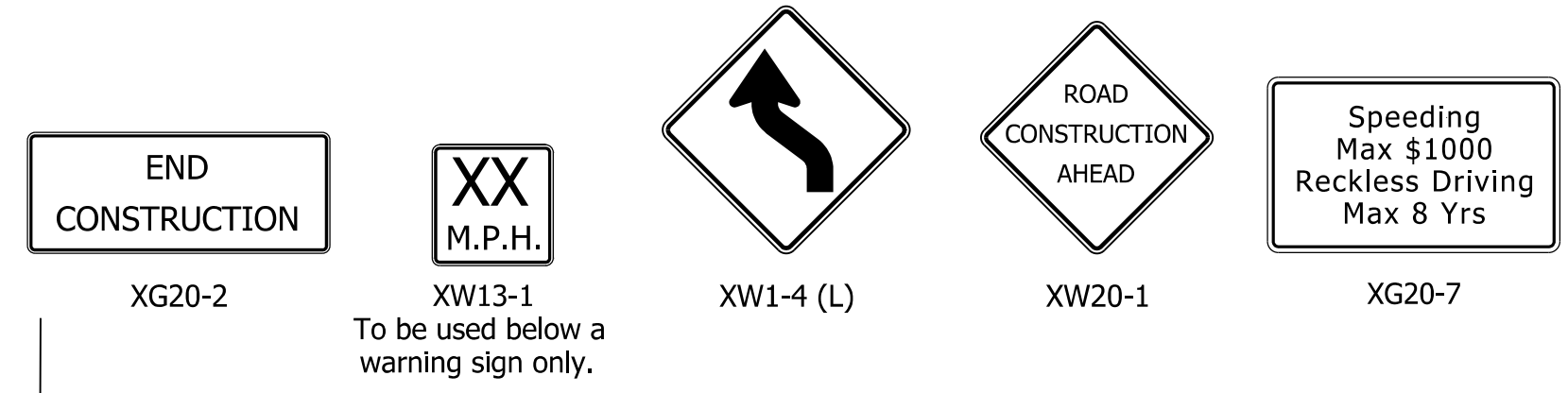
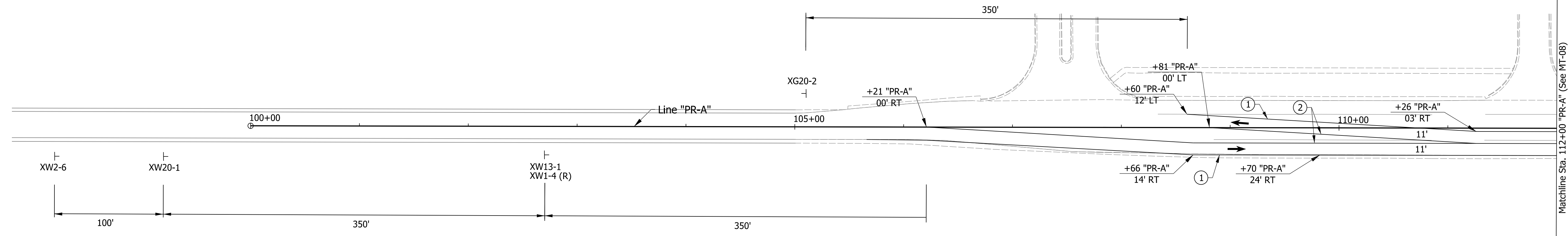
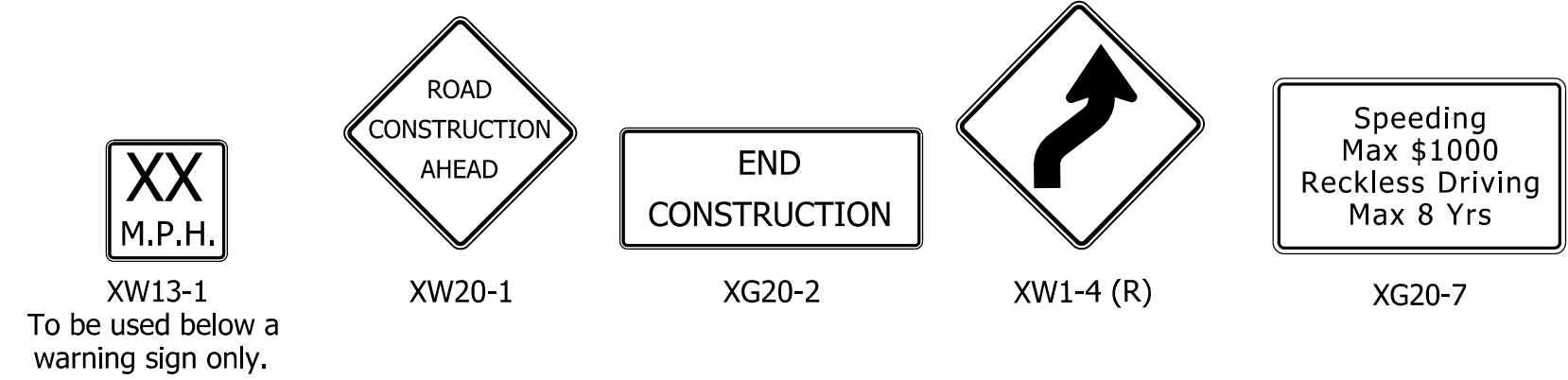
RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: _____ DCK _____	DRAWN: _____ CPH _____	
CHECKED: _____ DLG _____	CHECKED: _____ DLG _____	

INDIANA  
DEPARTMENT OF TRANSPORTATION

**MAINTENANCE OF TRAFFIC  
PHASE 2B**

HORIZONTAL SCALE 1"=50'	BRIDGE FILE N/A
VERTICAL SCALE N/A	DESIGNATION 1900171
SURVEY BOOK ELECTRONIC	SHEETS MT-08 14 of 40
CONTRACT T-42708	PROJECT 190071

draskie 12/17/2020 4:27:54 pm  
 model: Sheet7  
 file: I:\ndw00128\projects\74073 indot.gi on call\010 sr\_13\_signal\05\_cadd\cadd\74073-d-i-s-mo01.dgn



**LEGEND**

	Available Construction Area		Type A Warning Light
	Temporary Pavement		Type III Barricade
	Direction of Traffic		Sign
	Temporary Traffic Barrier		Channelizer
			Flagger

- MOT GENERAL NOTES**
- Remove existing markings in conflict with proposed markings.
  - Cover existing signs in conflict with proposed signs.
- ① Temporary Pavement Markings, 4 In., Solid, White
  - ② Temporary Pavement Markings, 4 In., Solid, Yellow
  - ③ Temporary Pavement Markings, 4 In., Broken, White
  - ④ Temporary Pavement Markings, 4 In., Dotted, White
  - ⑤ Temporary Pavement Markings, 4 In., Solid, Double, Yellow
  - ⑥ Temporary Pavement Markings, 24 In., Solid, Stop Line

**DRAFT**  
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: _____ DCK _____	DRAWN: _____ CPH _____	
CHECKED: _____ DLG _____	CHECKED: _____ DLG _____	

**INDIANA DEPARTMENT OF TRANSPORTATION**

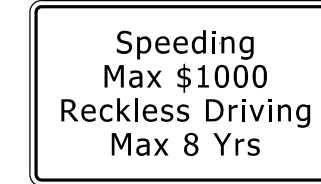
**MAINTENANCE OF TRAFFIC PHASE 2B**

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900171
SURVEY BOOK	SHEETS
ELECTRONIC	15 of 40
CONTRACT	PROJECT
T-42708	190071

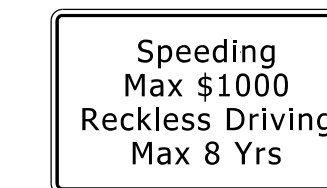
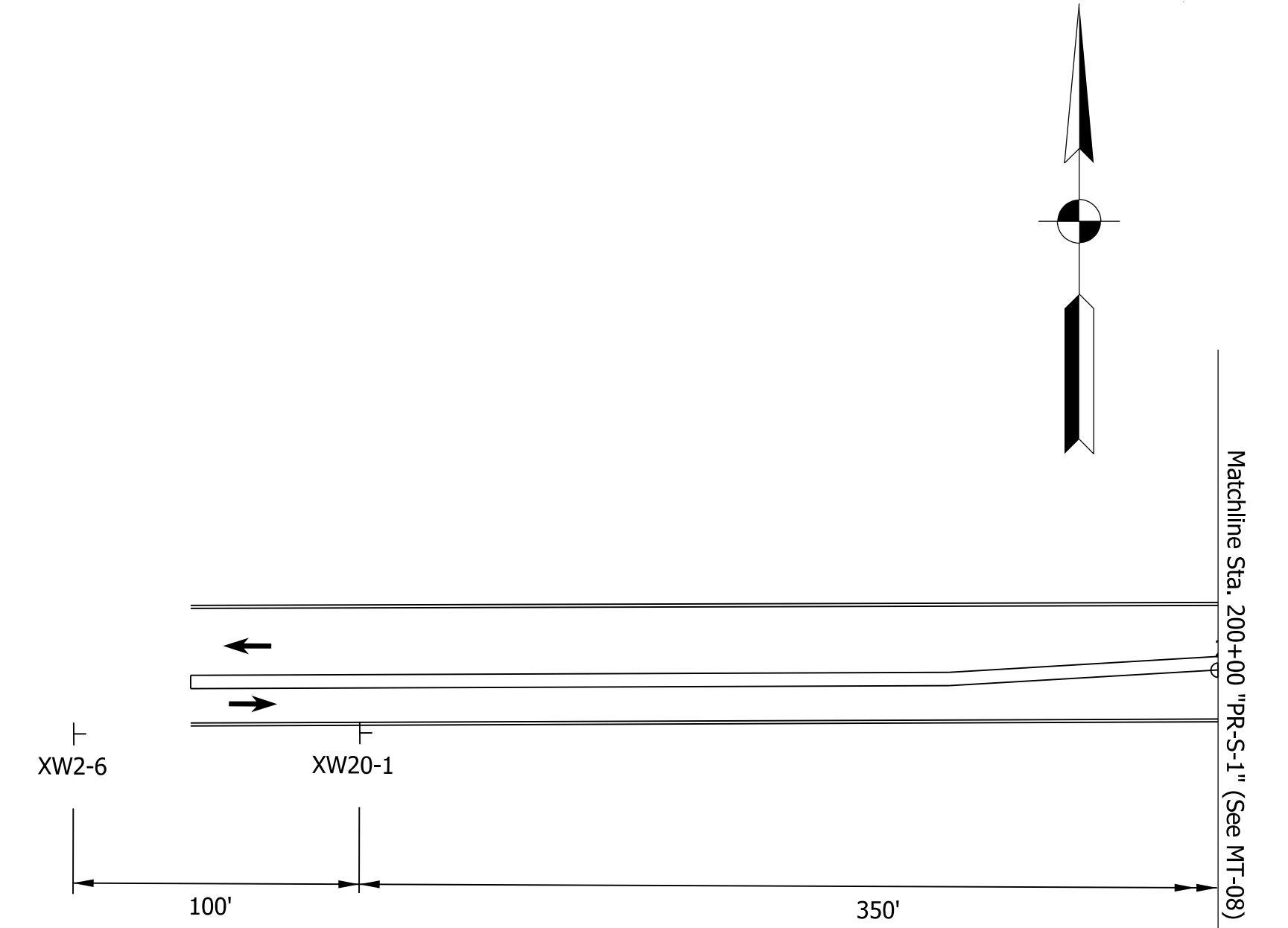
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XW20-1



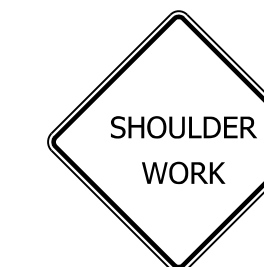
XG20-7



XG20-7



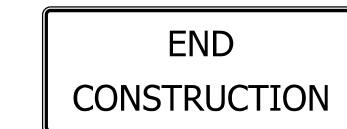
XW20-1



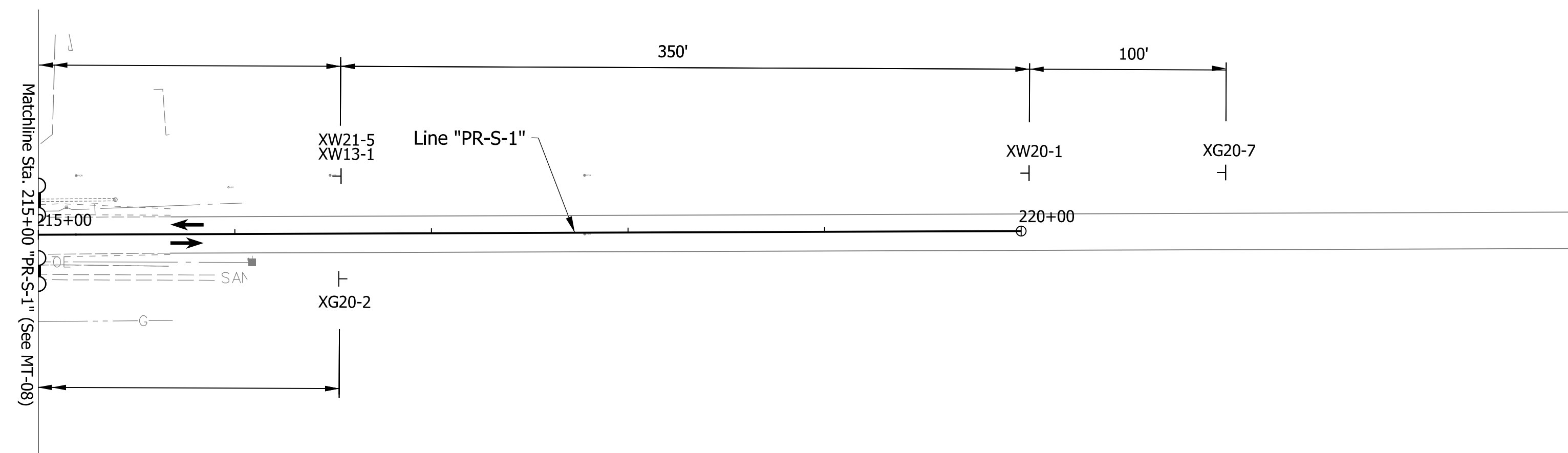
XW21-5



XW13-1  
To be used below a warning sign only.



XG20-2



**LEGEND**

- Available Construction Area
- Temporary Pavement
- Direction of Traffic
- Temporary Traffic Barrier

- Type A Warning Light
- Type III Barricade
- Sign
- Channelizer
- Flagger

**MOT GENERAL NOTES**

1. Remove existing markings in conflict with proposed markings.
2. Cover existing signs in conflict with proposed signs.

- ① Temporary Pavement Markings, 4 In., Solid, White
- ② Temporary Pavement Markings, 4 In., Solid, Yellow
- ③ Temporary Pavement Markings, 4 In., Broken, White
- ④ Temporary Pavement Markings, 4 In., Dotted, White
- ⑤ Temporary Pavement Markings, 4 In., Solid, Double, Yellow
- ⑥ Temporary Pavement Markings, 24 In., Solid, Stop Line

**DRAFT**  
NOT FOR CONSTRUCTION

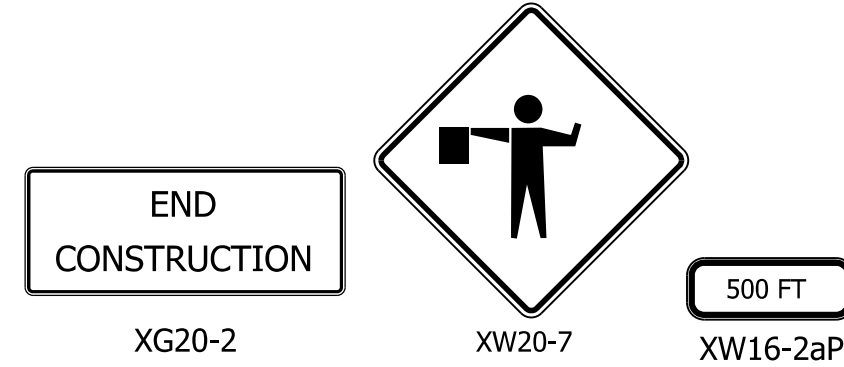
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DESIGNED: _____ DCK _____	DRAWN: _____ CPH _____	
CHECKED: _____ DLG _____	CHECKED: _____ DLG _____	

**INDIANA DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC PHASE 2B**

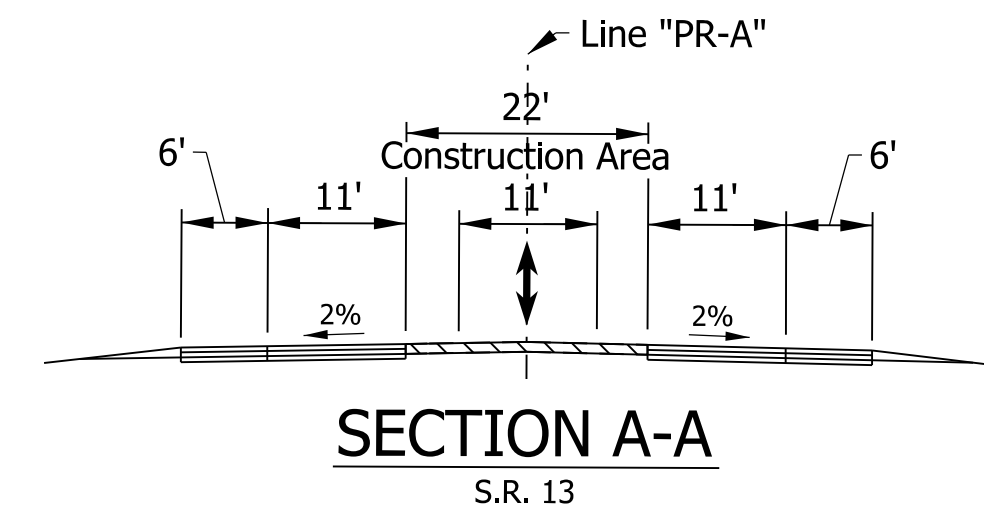
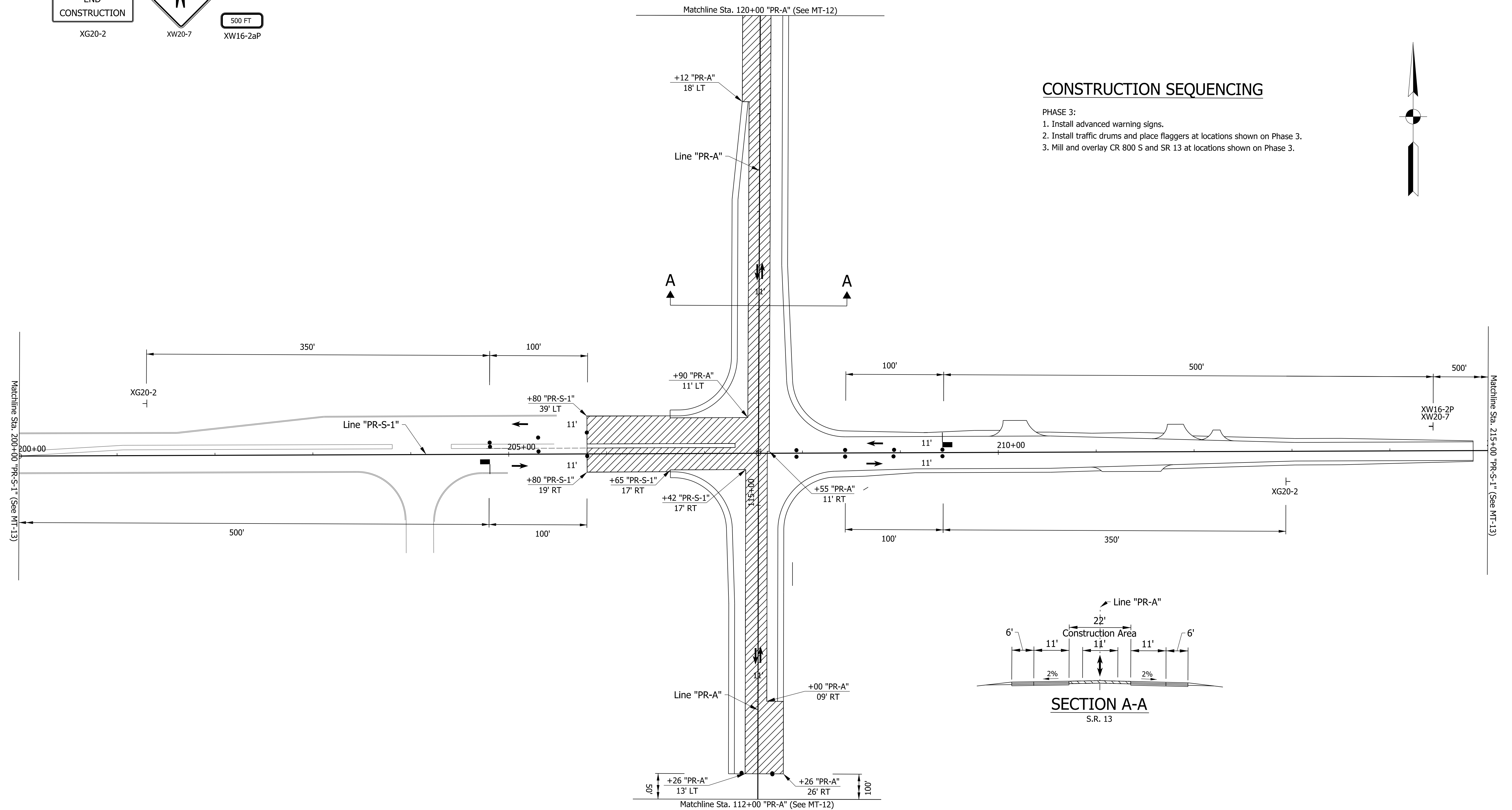
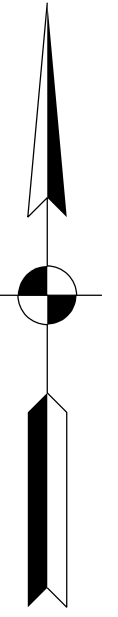
HORIZONTAL SCALE	BRIDGE FILE	
1"=50'	N/A	
VERTICAL SCALE	DESIGNATION	
N/A	1900171	
SURVEY BOOK	SHEETS	MT-10
ELECTRONIC	16	of 40
CONTRACT	PROJECT	
T-42708	190071	

draskie  
 12/17/2020 4:27:56 pm  
 model: Sheets  
 file: I:\ndv00128\projects\74072\indot\_gf\_on\_call\010 sr\_13 signal\05 cad\01\ds-mot01.dgn



### CONSTRUCTION SEQUENCING

- PHASE 3:
1. Install advanced warning signs.
  2. Install traffic drums and place flaggers at locations shown on Phase 3.
  3. Mill and overlay CR 800 S and SR 13 at locations shown on Phase 3.



**NOTES:**

1. Intersection flagger controlled. See IMUTCD Chapter 6E and INDOT Standard Drawings E-801-TCFO for further guidance.
2. Flagger stations shall be located such that approaching road users will have sufficient distance to stop at an intended stopping point.

**LEGEND**

- Available Construction Area
- Temporary Pavement
- Direction of Traffic
- Temporary Traffic Barrier

- Type A Warning Light
- Type III Barricade
- Sign
- Channelizer
- Flagger

**MOT GENERAL NOTES**

1. Remove existing markings in conflict with proposed markings.
2. Cover existing signs in conflict with proposed signs.
- 1 Temporary Pavement Markings, 4 In., Solid, White
- 2 Temporary Pavement Markings, 4 In., Solid, Yellow

- 3 Temporary Pavement Markings, 4 In., Broken, White
- 4 Temporary Pavement Markings, 4 In., Dotted, White
- 5 Temporary Pavement Markings, 4 In., Solid, Double, Yellow
- 6 Temporary Pavement Markings, 24 In., Solid, Stop Line

**DRAFT**  
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL \_\_\_\_\_ DESIGN ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_

DESIGNED: \_\_\_\_\_ DCK \_\_\_\_\_ DRAWN: \_\_\_\_\_ CPH \_\_\_\_\_

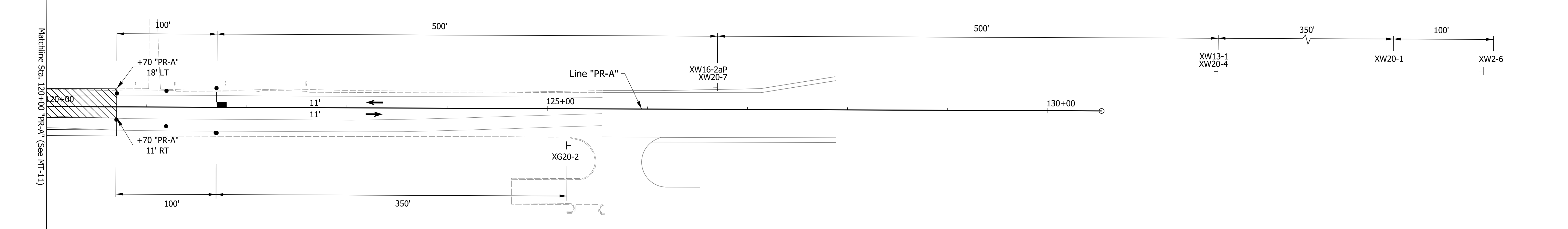
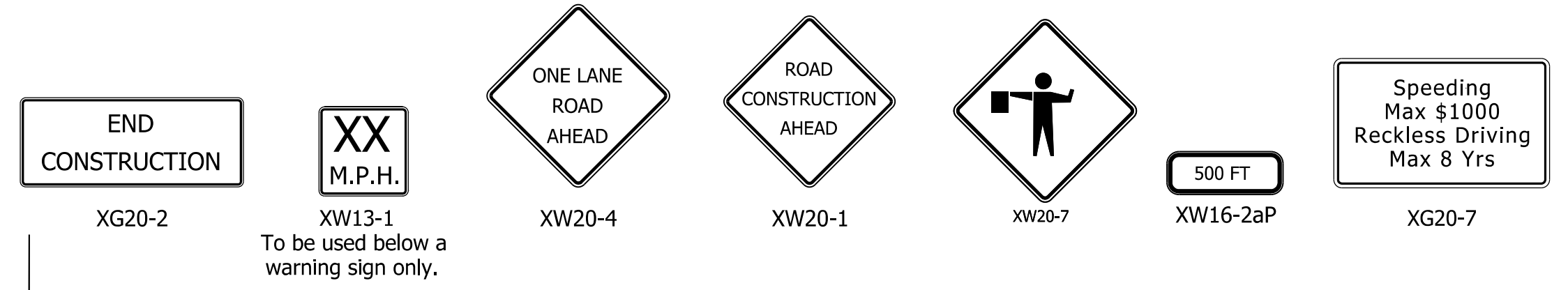
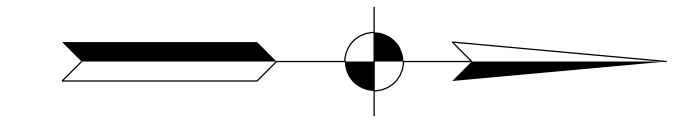
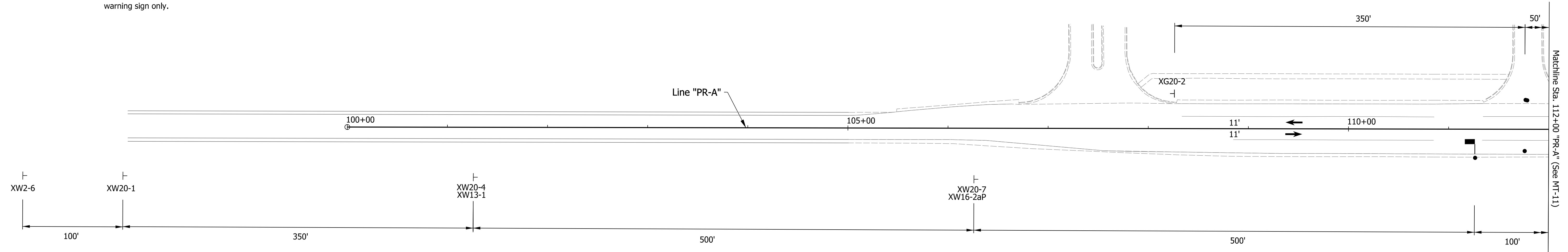
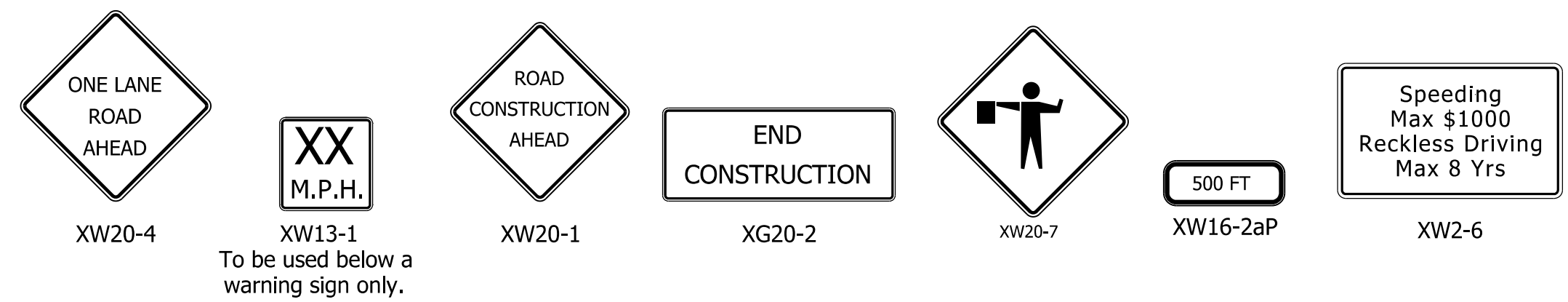
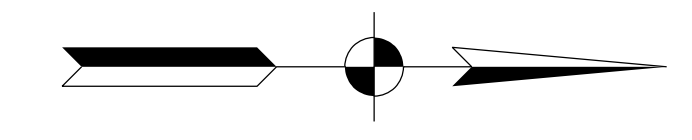
CHECKED: \_\_\_\_\_ DLG \_\_\_\_\_ CHECKED: \_\_\_\_\_ DLG \_\_\_\_\_

**INDIANA  
DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC  
PHASE 3**

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900171
SURVEY BOOK	SHEETS
ELECTRONIC	17 of 40
CONTRACT	PROJECT
T-42708	190071

d:\askie 12/17/2020 4:27:58 pm  
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draskie  
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**LEGEND**

	Available Construction Area		Type A Warning Light
	Temporary Pavement		Type III Barricade
	Direction of Traffic		Sign
	Temporary Traffic Barrier		Channelizer
			Flagger

- MOT GENERAL NOTES**
- Remove existing markings in conflict with proposed markings.
  - Cover existing signs in conflict with proposed signs.
- |   |   |   |   |
|---|---|---|---|
| 1 | Temporary Pavement Markings, 4 In., Solid, White  | 3 | Temporary Pavement Markings, 4 In., Broken, White         |
| 2 | Temporary Pavement Markings, 4 In., Solid, Yellow | 4 | Temporary Pavement Markings, 4 In., Dotted, White         |
|   |   | 5 | Temporary Pavement Markings, 4 In., Solid, Double, Yellow |
|   |   | 6 | Temporary Pavement Markings, 24 In., Solid, Stop Line     |

**DRAFT**  
 NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: _____ DCK _____	DRAWN: _____ CPH _____	
CHECKED: _____ DLG _____	CHECKED: _____ DLG _____	

INDIANA  
 DEPARTMENT OF TRANSPORTATION  
  
 MAINTENANCE OF TRAFFIC  
 PHASE 3

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900171
SURVEY BOOK	SHEETS
ELECTRONIC	18 of 40
CONTRACT	PROJECT
T-42708	190071





105

110

115

120

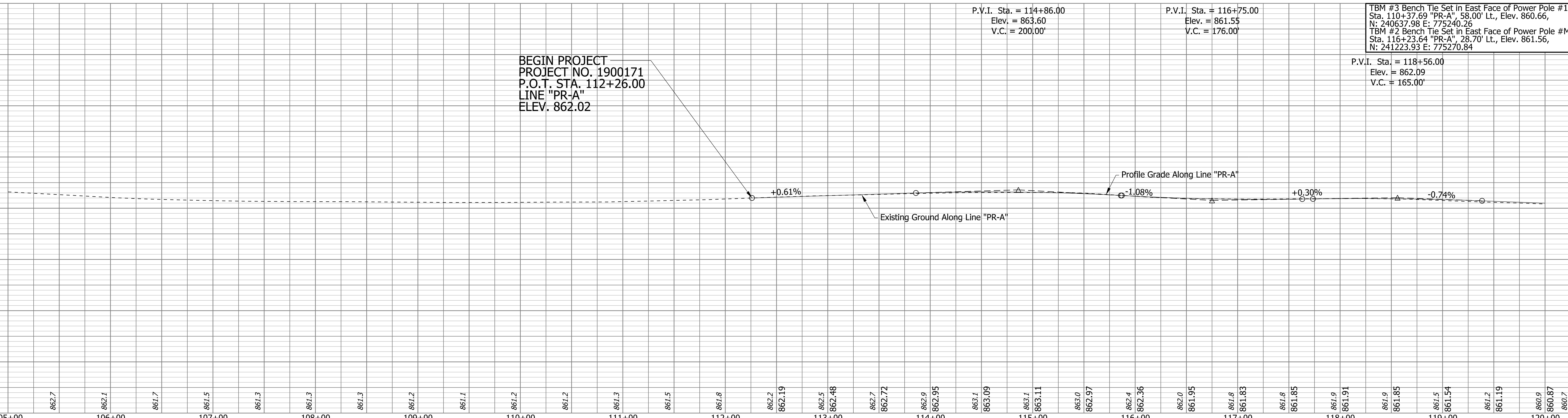
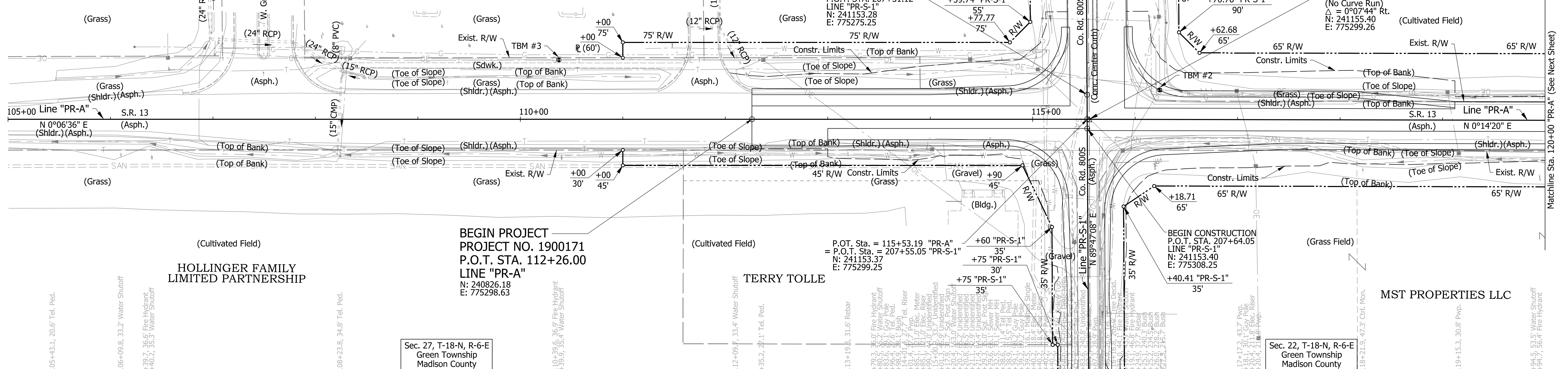
CHURCH OF THE BRETHEN  
AT SUMMERLAKE  
AN ADDITION IN GREEN TOWNSHIP,  
MADISON COUNTY INDIANA

JORDAN 7 LLC

INGALLS CREEK SHOPPES LLC

Sec. 21, T-18-N, R-6-E  
Green Township  
Madison County

SUNLAKE PROPERTIES LLC



BEGIN PROJECT  
PROJECT NO. 1900171  
P.O.T. STA. 112+26.00  
LINE "PR-A"  
ELEV. 862.02

P.V.I. Sta. = 114+86.00  
Elev. = 863.60  
V.C. = 200.00'

P.V.I. Sta. = 116+75.00  
Elev. = 861.55  
V.C. = 176.00'

TBM #3 Bench Tie Set in East Face of Power Pole #190-994,  
Sta. 110+37.69 "PR-A", 58.00' Lt., Elev. 860.66,  
N: 240637.98 E: 775240.26  
TBM #2 Bench Tie Set in East Face of Power Pole #MDI-284,  
Sta. 116+23.64 "PR-A", 28.70' Lt., Elev. 861.56,  
N: 241223.93 E: 775270.84

P.V.I. Sta. = 118+56.00  
Elev. = 862.09  
V.C. = 165.00'

**DRAFT**  
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: HDW	DRAWN: CPH	
CHECKED: DLG	CHECKED: DLG	

INDIANA  
DEPARTMENT OF TRANSPORTATION

ROADWAY PLAN AND PROFILE  
LINE "PR-A"

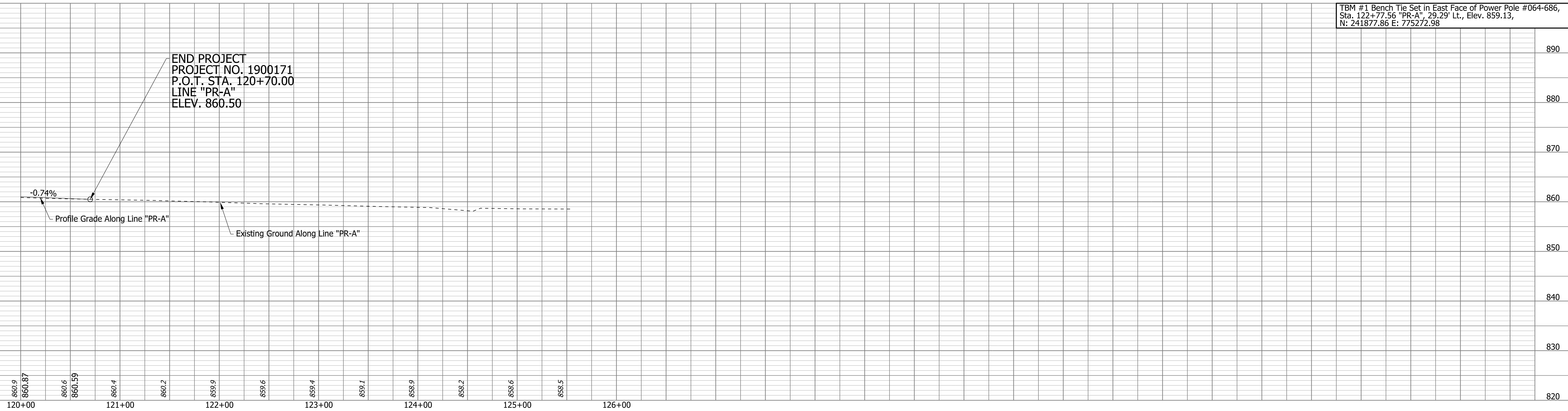
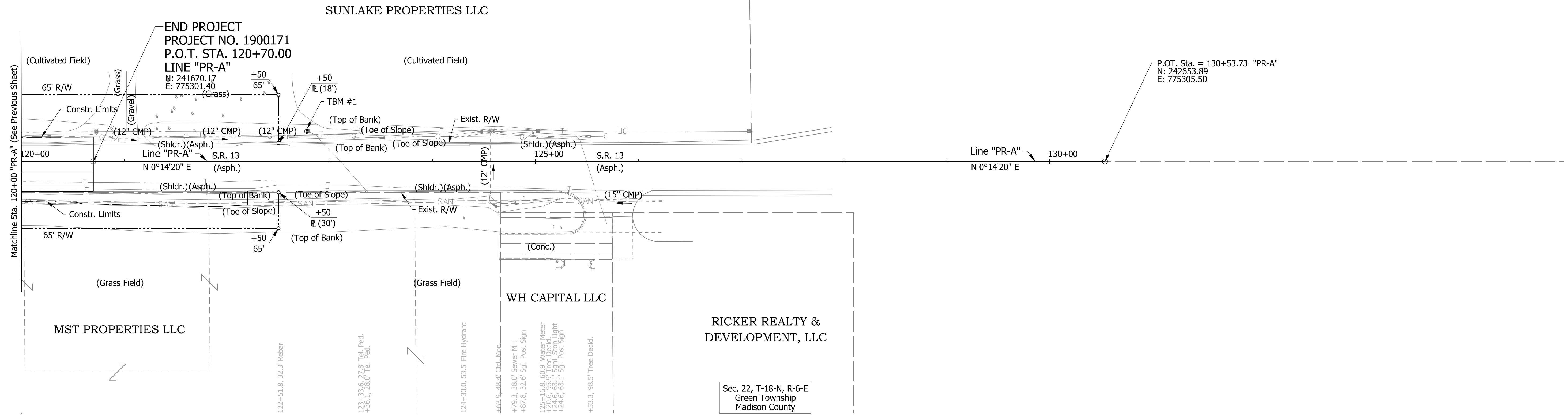
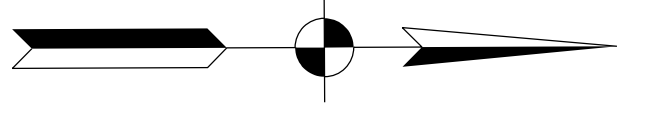
SCALE	BRIDGE FILE
1"=50'	N/A
VERTICAL SCALE	DESIGNATION
1"=10'	1900171
SURVEY BOOK	SHEETS
ELECTRONIC	20 of 40
CONTRACT	PROJECT
T-42708	1900171

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model-sheet1  
file: (I:\indw00\289\projects\74073\indw\of on call\010 sr 13 signal\05 cad\cads\74073-rd-s-ph01.dgn

120

125

130



TBM #1 Bench Tie Set in East Face of Power Pole #064-686, Sta. 122+77.56 "PR-A", 25.29' Lt., Elev. 859.13, N: 241877.86 E: 775272.98

dgarvin  
 12/17/2020 4:28:03 pm  
 model-sheet2  
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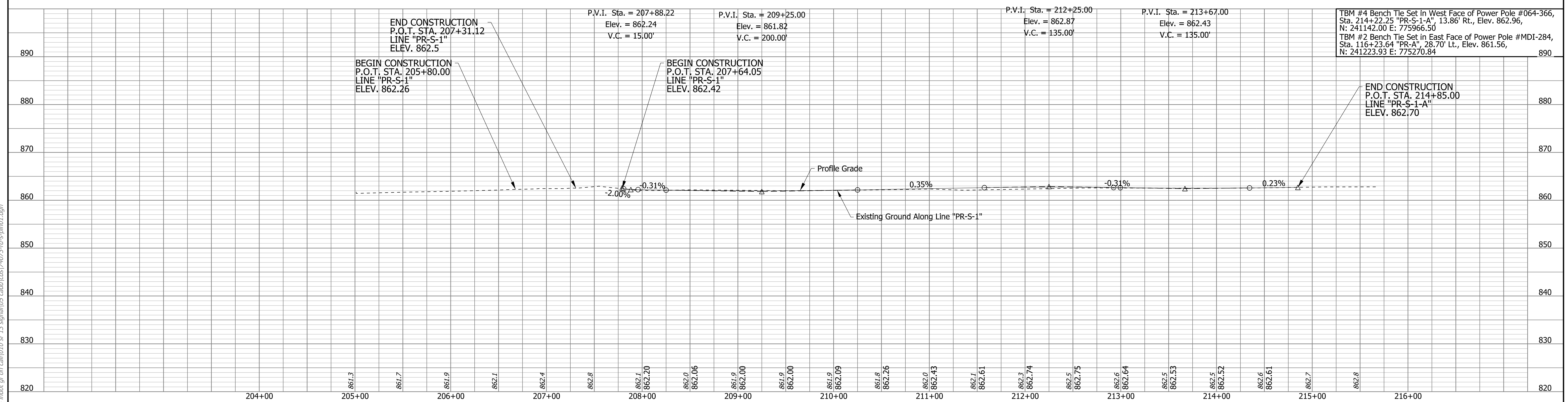
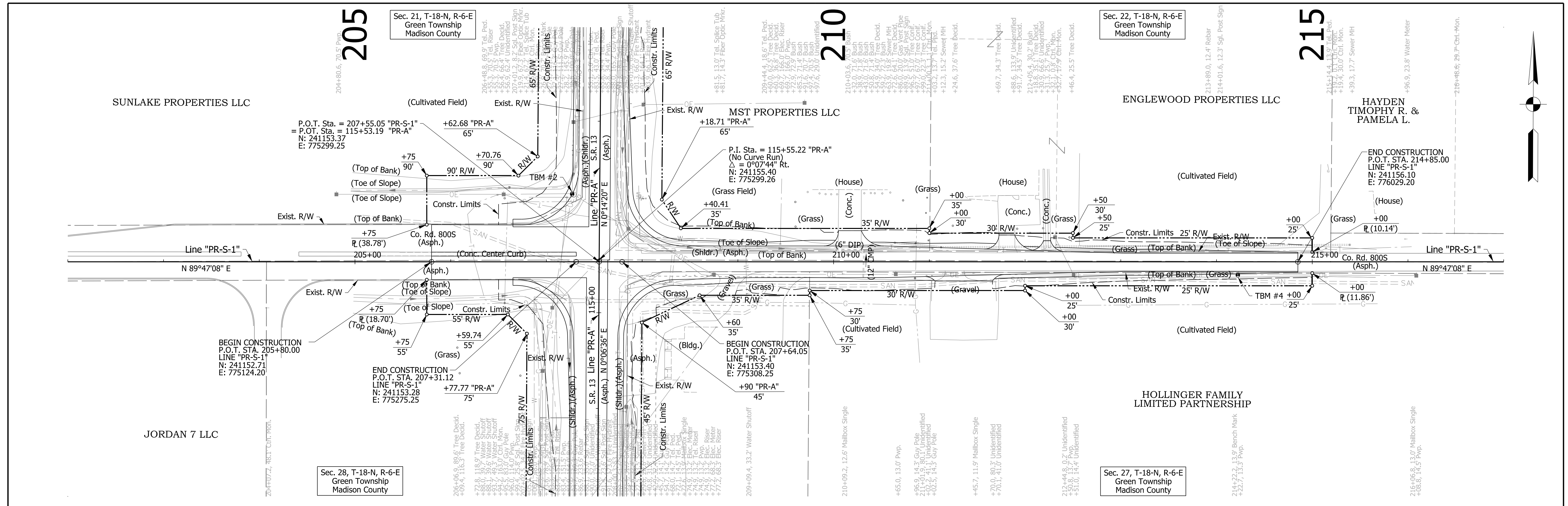
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NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: _____ HDW _____	DRAWN: _____ CPH _____	
CHECKED: _____ DLG _____	CHECKED: _____ DLG _____	

INDIANA  
DEPARTMENT OF TRANSPORTATION

**ROADWAY PLAN AND PROFILE  
LINE "PR-A"**

SCALE 1"=50'	BRIDGE FILE N/A
VERTICAL SCALE 1"=10'	DESIGNATION 1900171
SURVEY BOOK ELECTRONIC	SHEETS 21 of 40
CONTRACT T-42708	PROJECT 1900171



<b>DRAFT</b> NOT FOR CONSTRUCTION	RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____	<b>INDIANA</b> <b>DEPARTMENT OF TRANSPORTATION</b>  <b>ROADWAY PLAN AND PROFILE</b> <b>LINE "PR-S-1"</b>	SCALE 1"=50'	BRIDGE FILE N/A	
	DESIGNED: _____ HDW	DRAWN: _____ CPH			VERTICAL SCALE 1"=10'	DESIGNATION 1900171	
	CHECKED: _____ DLG	CHECKED: _____ DLG			SURVEY BOOK ELECTRONIC	SHEETS of 40	
					CONTRACT T-42708	PROJECT 1900171	

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106

107

108

109

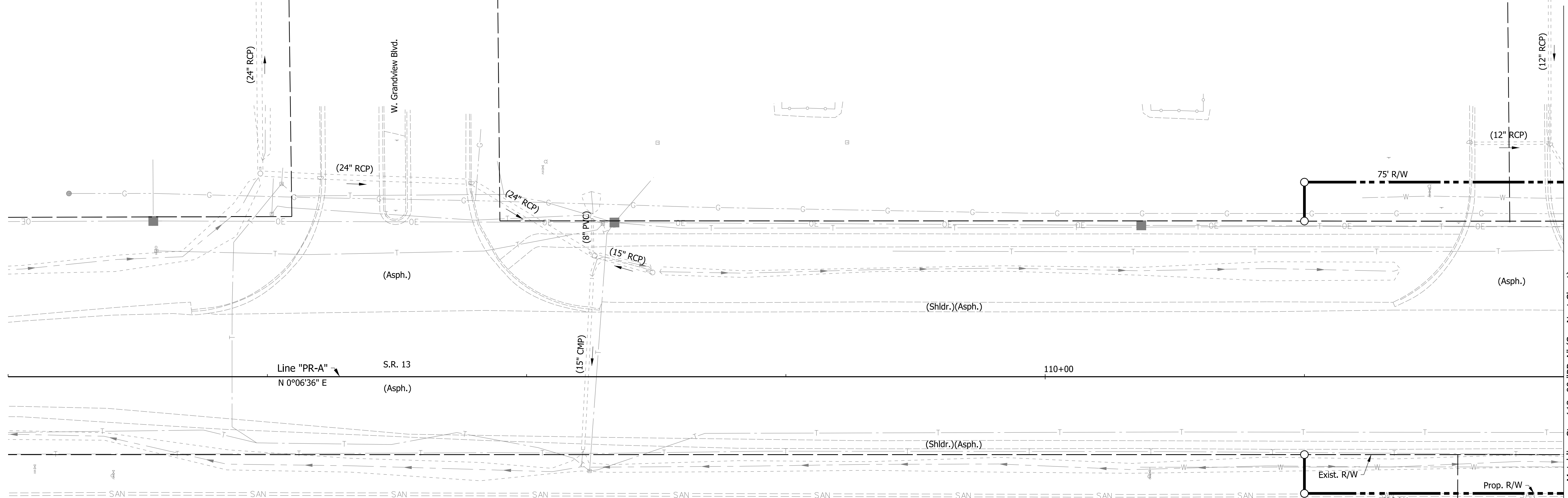
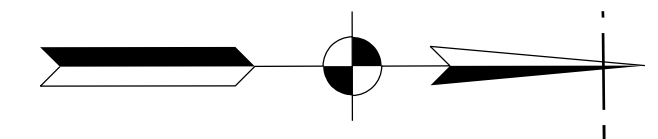
110

111

112

Sec. 28, T-18-N, R-6-E  
Green Township  
Madison County

Sec. 27, T-18-N, R-6-E  
Green Township  
Madison County



Matchline Sta. 112+00 "PR-A" (See Next Sheet)

Legend

- (D1) 165#/Syd. QC/QA-HMA, 4, 70, Surface, 9.5 mm on 275#/Syd. QC/QA-HMA, 4, 70, Intermediate, 19.0 mm on 880#/Syd. QC/QA-HMA, 4, 64, Base, 25.0 mm on 300#/Syd. QC/QA-HMA, 4, 76, Intermediate OG, 19.0 mm on 6 in. of Compacted Aggregate No. 53 on Subgrade Treatment Type IC
- (R1) 165#/Syd. QC/QA-HMA, 2, 64, Surface, 9.5 mm on Milling, Asphalt, 11#2 In.
- (M) HMA for Approaches: 165#/Syd. HMA Surface Type B on 385#/Syd. HMA Intermediate Type B on Subgrade Treatment Type IIIA
- (M1) PCCP for Approaches, 6", on Subgrade Treatment Type IIIA
- (P) HMA Patching Full Depth, Type D
- (S) Saw Cut (No Direct Pay)

**DRAFT**  
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: HDW	DRAWN: CPH	
CHECKED: DLG	CHECKED: DLG	

INDIANA DEPARTMENT OF TRANSPORTATION	
CONSTRUCTION DETAILS	

HORIZONTAL SCALE	BRIDGE FILE
1"=20'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900171
SURVEY BOOK	SHEETS CD-01
ELECTRONIC	23 of 40
CONTRACT	PROJECT
T-42708	1900171

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113

Sec. 28, T-18-N, R-6-E  
Green Township  
Madison County

114

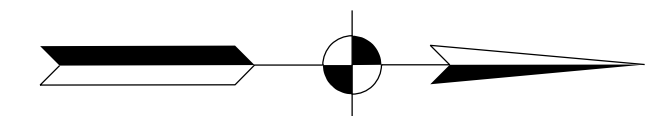
115

116

117

Sec. 21, T-18-N, R-6-E  
Green Township  
Madison County

118



END CONSTRUCTION  
P.O.T. STA. 207+31.12  
LINE "PR-S-1"  
N: 241153.28  
E: 775275.25

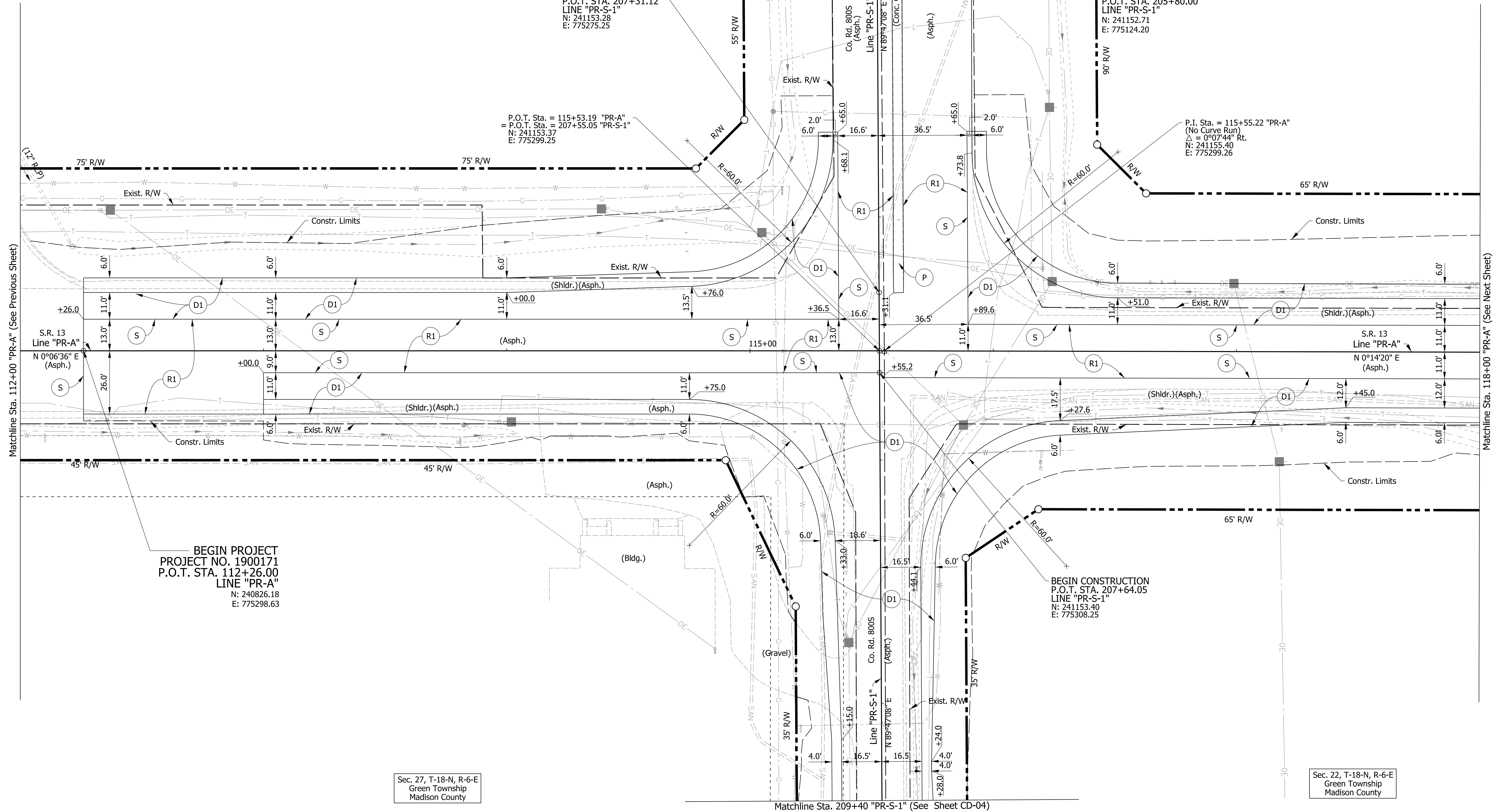
P.O.T. Sta. = 115+53.19 "PR-A"  
= P.O.T. Sta. = 207+55.05 "PR-S-1"  
N: 241153.37  
E: 775299.25

BEGIN CONSTRUCTION  
P.O.T. STA. 205+80.00  
LINE "PR-S-1"  
N: 241152.71  
E: 775124.20

P.I. Sta. = 115+55.22 "PR-A"  
(No Curve Run)  
 $\Delta = 0^{\circ}07'44"$  Rt.  
N: 241155.40  
E: 775299.26

BEGIN PROJECT  
PROJECT NO. 1900171  
P.O.T. STA. 112+26.00  
LINE "PR-A"  
N: 240826.18  
E: 775298.63

BEGIN CONSTRUCTION  
P.O.T. STA. 207+64.05  
LINE "PR-S-1"  
N: 241153.40  
E: 775308.25



Matchline Sta. 112+00 "PR-A" (See Previous Sheet)

Matchline Sta. 118+00 "PR-A" (See Next Sheet)

Matchline Sta. 209+40 "PR-S-1" (See Sheet CD-04)

Legend

- (D1) 165#/Syd. QC/QA-HMA, 4, 70, Surface, 9.5 mm on 275#/Syd. QC/QA-HMA, 4, 70, Intermediate, 19.0 mm on 880#/Syd. QC/QA-HMA, 4, 64, Base, 25.0 mm on 300#/Syd. QC/QA-HMA, 4, 76, Intermediate OG, 19.0 mm on 6 in. of Compacted Aggregate No. 53 on Subgrade Treatment Type IC
- (R1) 165#/Syd. QC/QA-HMA, 2, 64, Surface, 9.5 mm on Milling, Asphalt, 11#2 In.
- (M) HMA for Approaches: 165#/Syd. HMA Surface Type B on 385#/Syd. HMA Intermediate Type B on Subgrade Treatment Type IIIA
- (M1) PCCP for Approaches, 6", on Subgrade Treatment Type IIIA
- (P) HMA Patching Full Depth, Type D
- (S) Saw Cut (No Direct Pay)

**DRAFT**  
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: HDW	DRAWN: CPH	
CHECKED: DLG	CHECKED: DLG	

INDIANA  
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

HORIZONTAL SCALE	BRIDGE FILE	
1"=20'	N/A	
VERTICAL SCALE	DESIGNATION	
N/A	1900171	
SURVEY BOOK	SHEETS	CD-02
ELECTRONIC	24	of 40
CONTRACT	PROJECT	
T-42708	1900171	

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118

119

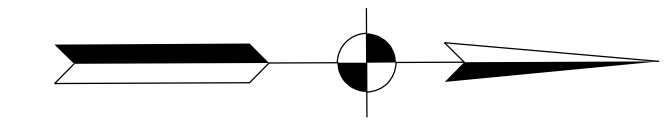
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121

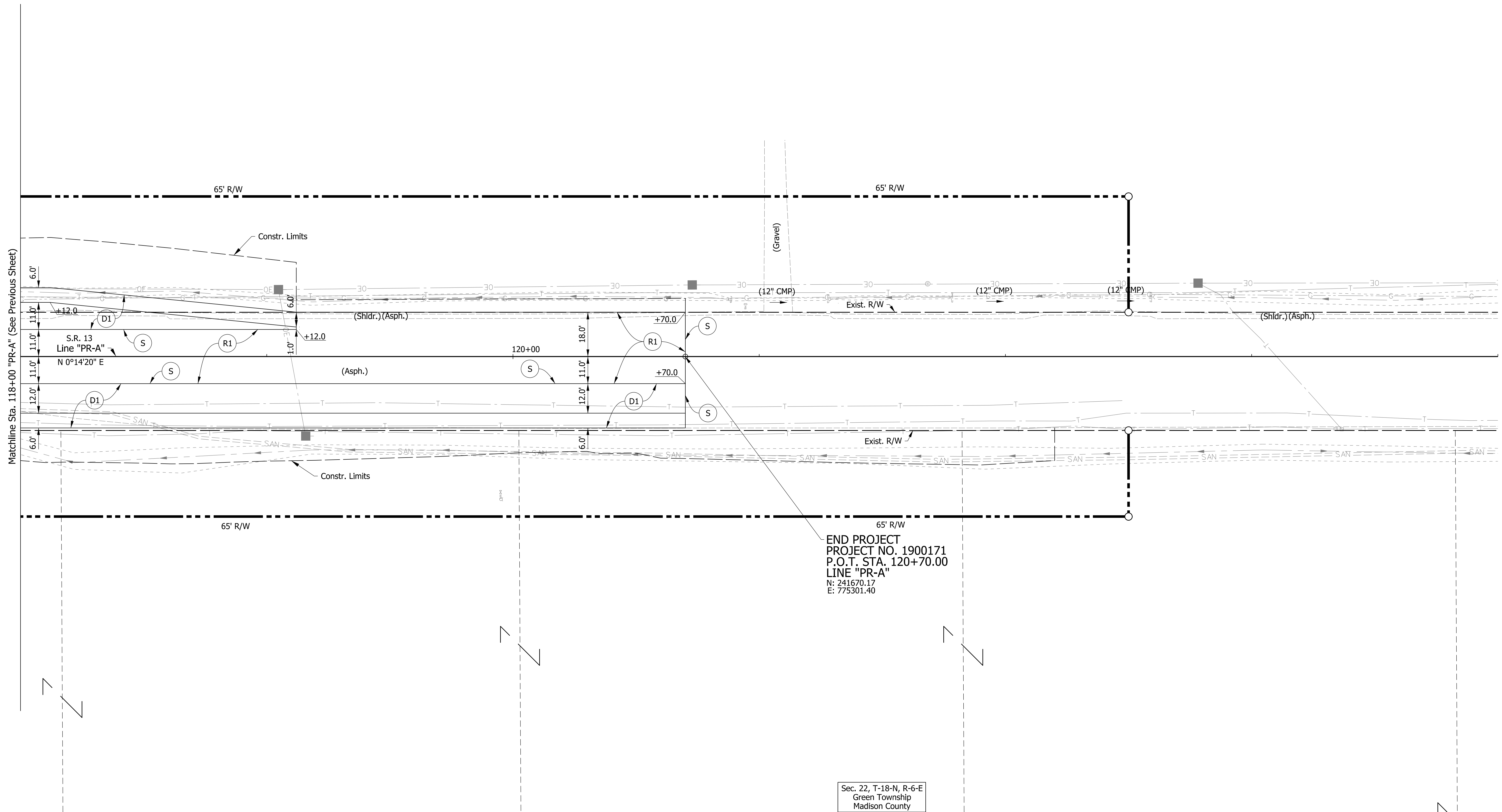
Sec. 21, T-18-N, R-6-E  
Green Township  
Madison County

122

123



124



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 model:Sheet3  
 file: \\india02\289\projects\1900171\1900171.dwg

Legend

- (D1)** 165#/Syd. QC/QA-HMA, 4, 70, Surface, 9.5 mm on 275#/Syd. QC/QA-HMA, 4, 70, Intermediate, 19.0 mm on 880#/Syd. QC/QA-HMA, 4, 64, Base, 25.0 mm on 300#/Syd. QC/QA-HMA, 4, 76, Intermediate OG, 19.0 mm on 6 in. of Compacted Aggregate No. 53 on Subgrade Treatment Type IC
- (M)** HMA for Approaches: 165#/Syd. HMA Surface Type B on 385#/Syd. HMA Intermediate Type B on Subgrade Treatment Type IIIA
- (M1)** PCCP for Approaches, 6", on Subgrade Treatment Type IIIA
- (P)** HMA Patching Full Depth, Type D
- (S)** Saw Cut (No Direct Pay)
- (R1)** 165#/Syd. QC/QA-HMA, 2, 64, Surface, 9.5 mm on Milling, Asphalt, 11#2 In.

**DRAFT**  
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: _____	HDW	DRAWN: _____
CHECKED: _____	DLG	CHECKED: _____
		CPH
		DLG

**INDIANA  
DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION DETAILS**

HORIZONTAL SCALE	BRIDGE FILE
1"=20'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900171
SURVEY BOOK	SHEETS CD-03
ELECTRONIC	25 of 40
CONTRACT	PROJECT
T-42708	1900171



210

211

212

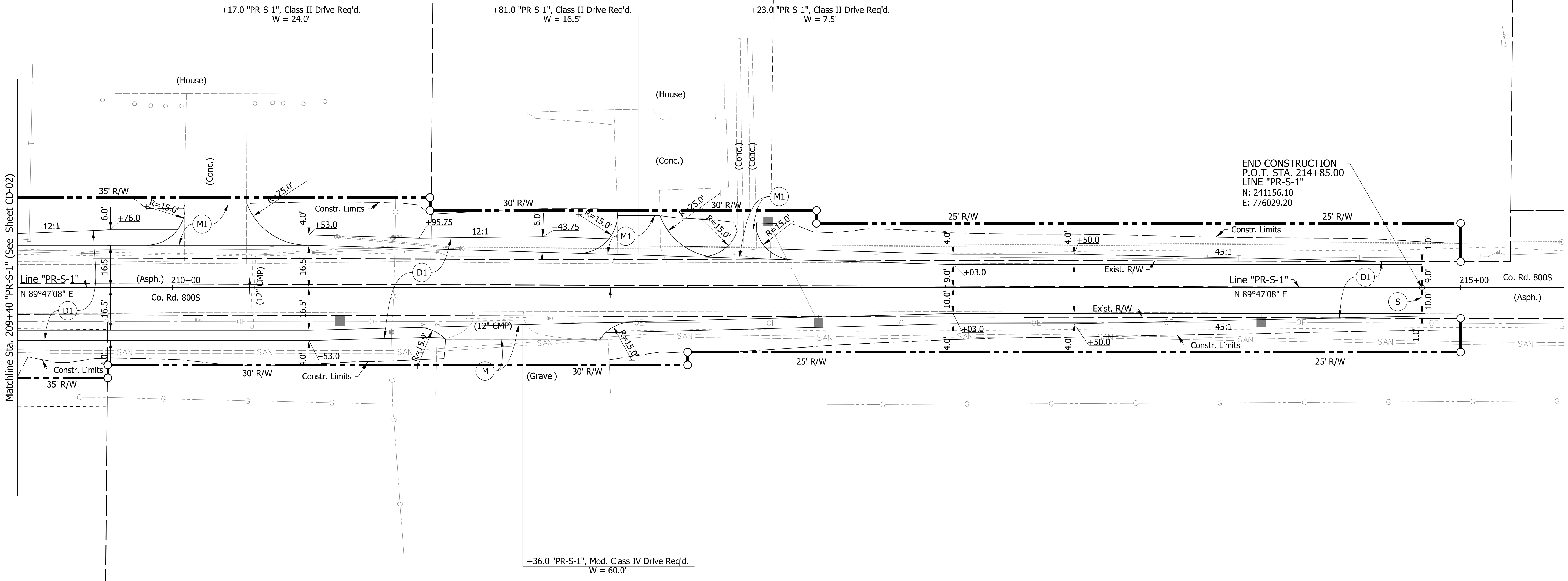
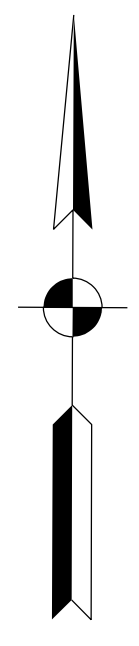
213

214

215

Sec. 22, T-18-N, R-6-E  
Green Township  
Madison County

Sec. 27, T-18-N, R-6-E  
Green Township  
Madison County



- Legend**
- (D1) 165#/Syd. QC/QA-HMA, 4, 70, Surface, 9.5 mm on 275#/Syd. QC/QA-HMA, 4, 70, Intermediate, 19.0 mm on 880#/Syd. QC/QA-HMA, 4, 64, Base, 25.0 mm on 300#/Syd. QC/QA-HMA, 4, 76, Intermediate OG, 19.0 mm on 6 in. of Compacted Aggregate No. 53 on Subgrade Treatment Type IC
  - (R1) 165#/Syd. QC/QA-HMA, 2, 64, Surface, 9.5 mm on Milling, Asphalt, 11#2 In.
  - (M) HMA for Approaches: 165#/Syd. HMA Surface Type B on 385#/Syd. HMA Intermediate Type B on Subgrade Treatment Type IIIA
  - (M1) PCCP for Approaches, 6", on Subgrade Treatment Type IIIA
  - (P) HMA Patching Full Depth, Type D
  - (S) Saw Cut (No Direct Pay)

**DRAFT**  
NOT FOR CONSTRUCTION

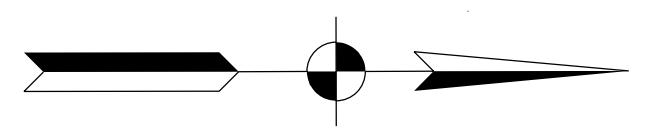
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DESIGNED: HDW	DRAWN: CPH	
CHECKED: DLG	CHECKED: DLG	

**INDIANA DEPARTMENT OF TRANSPORTATION**

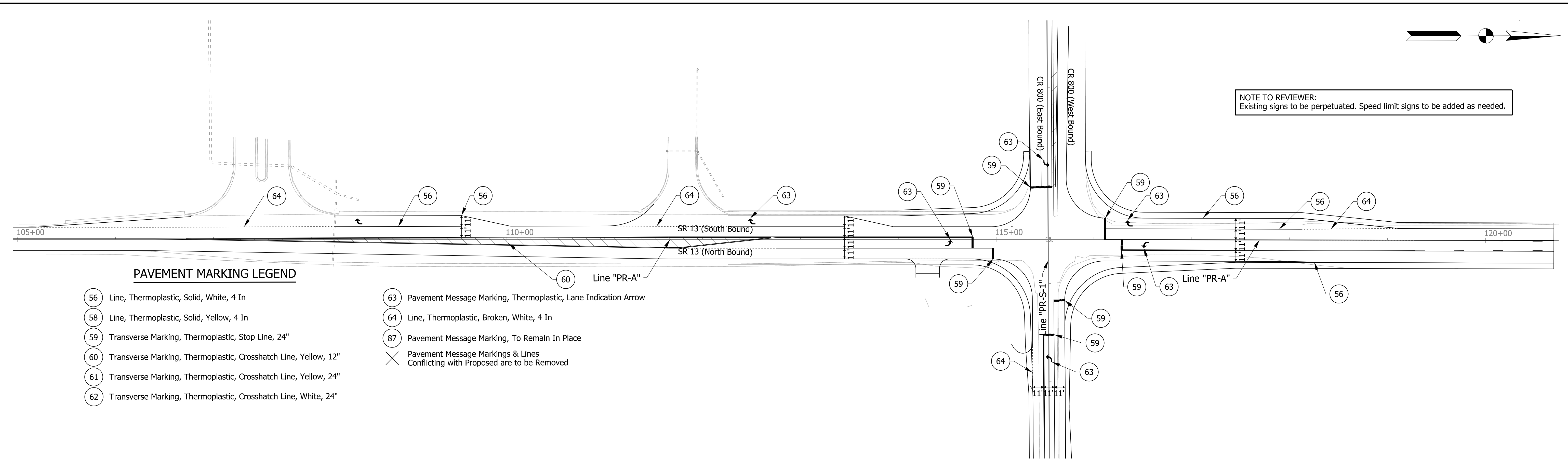
**CONSTRUCTION DETAILS**

HORIZONTAL SCALE	BRIDGE FILE
1"-20'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1900171
SURVEY BOOK	SHEETS CD-04
ELECTRONIC	26 of 40
CONTRACT	PROJECT
T-42708	1900171

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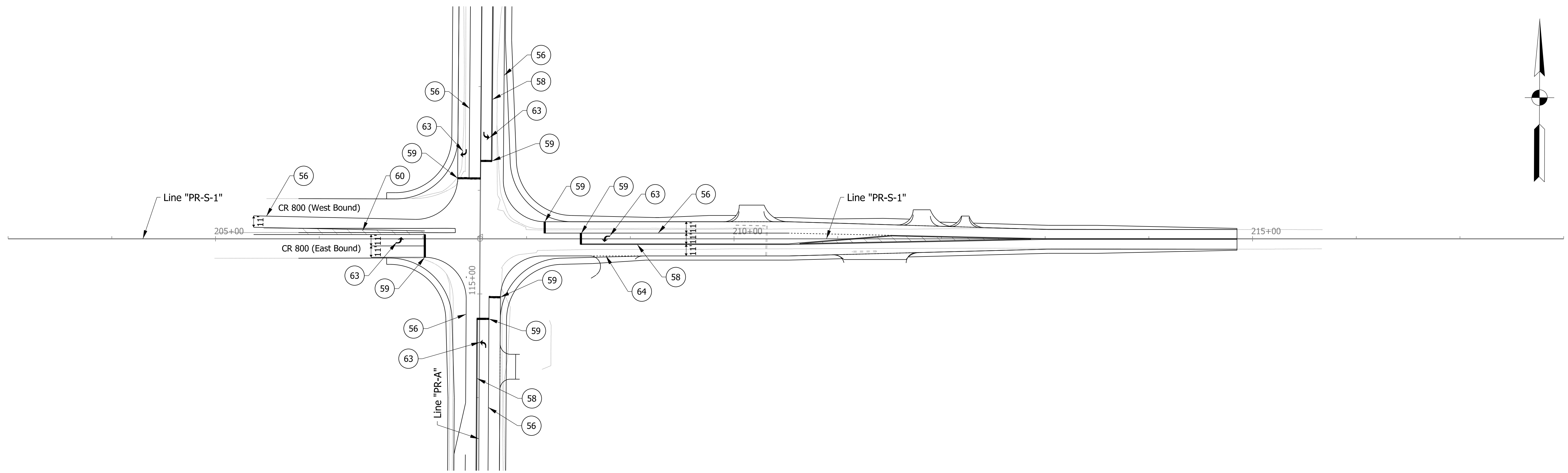
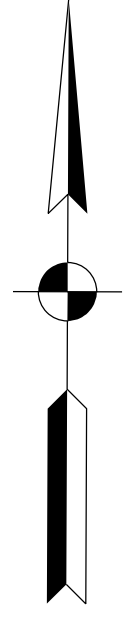


NOTE TO REVIEWER:  
Existing signs to be perpetuated. Speed limit signs to be added as needed.



**PAVEMENT MARKING LEGEND**

- 56 Line, Thermoplastic, Solid, White, 4 In
- 58 Line, Thermoplastic, Solid, Yellow, 4 In
- 59 Transverse Marking, Thermoplastic, Stop Line, 24"
- 60 Transverse Marking, Thermoplastic, Crosshatch Line, Yellow, 12"
- 61 Transverse Marking, Thermoplastic, Crosshatch Line, Yellow, 24"
- 62 Transverse Marking, Thermoplastic, Crosshatch Line, White, 24"
- 63 Pavement Message Marking, Thermoplastic, Lane Indication Arrow
- 64 Line, Thermoplastic, Broken, White, 4 In
- 87 Pavement Message Marking, To Remain In Place
- X Pavement Message Markings & Lines Conflicting with Proposed are to be Removed



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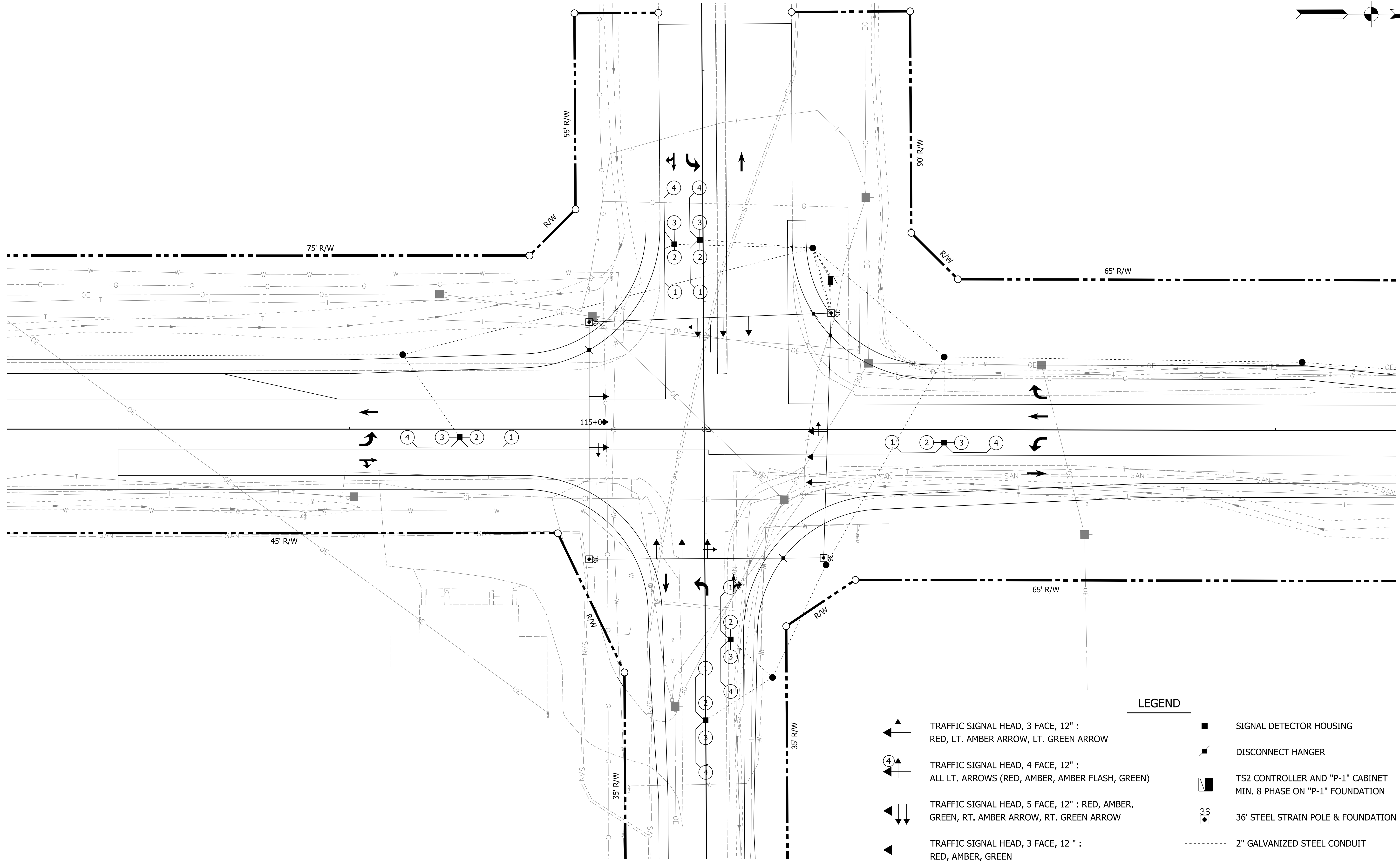
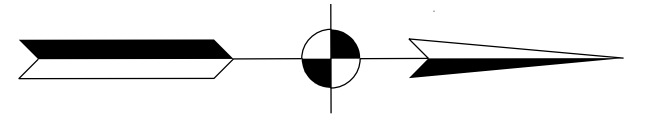
**DRAFT**  
NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: _____ HDW _____	DRAWN: _____ CPH _____	
CHECKED: _____ DLG _____	CHECKED: _____ DLG _____	

**INDIANA DEPARTMENT OF TRANSPORTATION**

**SIGNING AND PAVEMENT MARKINGS**

HORIZONTAL SCALE	BRIDGE FILE	
1"=50'	N/A	
VERTICAL SCALE	DESIGNATION	
N/A	1900171	
SURVEY BOOK	SHEETS	PM-01
ELECTRONIC	27	of 40
CONTRACT	PROJECT	
T-42708	1900171	



- LEGEND**
- TRAFFIC SIGNAL HEAD, 3 FACE, 12" :  
RED, LT. AMBER ARROW, LT. GREEN ARROW
  - TRAFFIC SIGNAL HEAD, 4 FACE, 12" :  
ALL LT. ARROWS (RED, AMBER, AMBER FLASH, GREEN)
  - TRAFFIC SIGNAL HEAD, 5 FACE, 12" : RED, AMBER,  
GREEN, RT. AMBER ARROW, RT. GREEN ARROW
  - TRAFFIC SIGNAL HEAD, 3 FACE, 12" :  
RED, AMBER, GREEN
  - SIGNAL DETECTOR HOUSING
  - DISCONNECT HANGER
  - TS2 CONTROLLER AND "P-1" CABINET  
MIN. 8 PHASE ON "P-1" FOUNDATION
  - 36' STEEL STRAIN POLE & FOUNDATION
  - 2" GALVANIZED STEEL CONDUIT

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**DRAFT**  
 NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: HDW	DRAWN: CPH	
CHECKED: DLG	CHECKED: DLG	

INDIANA  
 DEPARTMENT OF TRANSPORTATION  
  
 TRAFFIC SIGNAL DETAILS

HORIZONTAL SCALE	BRIDGE FILE	
1"=20'	N/A	
VERTICAL SCALE	DESIGNATION	
N/A	1900171	
SURVEY BOOK	SHEETS	SG-01
ELECTRONIC	28	of 40
CONTRACT	PROJECT	
T-42708	1900171	

## APPENDIX C: EARLY COORDINATION



# INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue  
Room N642  
Indianapolis, Indiana 46204

**Eric Holcomb, Governor**  
**Joe McGuinness, Commissioner**

December 11, 2020

**Sample Early Coordination Letter**

**[Recipient Address]**

Re: Early Coordination Letter  
Des. Nos. 1900171  
SR 13 at CR 800 Intersection Improvement  
Madison County, Indiana

Dear \_\_\_\_\_:

The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intend to proceed with a project involving the intersection of State Road (SR) 13 and County Road (CR) 800 in Madison County, Indiana. This letter is part of the early coordination phase of the environmental review process. We request comments from you within your area of expertise regarding any potential environmental or community effects associated with this proposed project. Please use the above designation number and description in your reply. We will incorporate your comments into a study of the project’s environmental effects.

**Project Location:** The project area is located at the intersection of SR 13 and West County Road (CR) 800 South, approximately 2.2 mi south of the town of Hardscrabble in Green Township, Madison County, Indiana. More specifically, the project is located in Sections 21, 22, 27, and 28 of Township 18 North, Range 6 East.

**Existing Conditions:** SR 13 is a two-lane free-flow, minor arterial running north-south. The CR 800 is a two-lane stop controlled local road running east-west.

**Purpose and Need:** The need for this project is due to poor Level of Service (LOS) at this intersection. Level of service describes the degree of traffic congestion of the roadway using “grades” on a letter scale from LOS A (best) to LOS F (worst). The purpose of this project is to improve the level of service to meet the minimum LOS for traffic through the intersection.

**Proposed Project:** A traffic signal will be installed at the intersection, with added turn lanes for the north and south approaches. The proposed project design will improve the intersection’s LOS from E/F to B/C. Turn lanes at the intersection will improve mobility and safety by providing shelter for turning vehicles. The current roadway width of SR 13 is 32 feet. The current roadway width of W CR 800 S is 20 feet. The project will increase the roadway width on SR 13

[www.in.gov/dot/](http://www.in.gov/dot/)  
**An Equal Opportunity Employer**



to 58 feet and on W CR 800 S to 44 feet. Useable shoulder width on SR 13 is three (3) feet. There is no useable shoulder on W CR 800 S. Useable shoulder widths will be increased to a maximum of seven (7) feet on SR 13 and five (5) feet on W CR 800 S. Total footage of useable shoulder will be fourteen (14) feet on SR 13 and ten (10) feet on W CR 800 S.

Additional turn lanes will be added onto the northbound and southbound routes of SR 13. The existing travel lane on northbound SR 13 will be converted into a left-turn lane. An additional 12-foot wide travel lane will be constructed as a straight/right-turn lane on SR 13's northbound section. The existing travel lane on southbound SR 13 will remain. A 12-foot wide right-turn lane will be constructed on SR 13's southbound route. There will be no additional turn lanes added to the eastbound or westbound route of W CR 800 S.

No tree clearing is anticipated for this project. HNTB will perform utility coordination to verify location of surrounding utilities for potential relocation.

Right-of-Way: Additional right-of-way is anticipated for the project, but at this time, the exact amount is undetermined.

Maintenance of Traffic (MOT): Traffic will be maintained on the existing pavement during construction for SR 13 and the west leg of W CR 800 S. The east leg of W CR 800 S will undergo significant construction and will be likely be closed during construction. A detour route for W CR 800 S has not yet been developed.

Surrounding Resources: Land use in the vicinity of the project is primarily agricultural with mixed residential properties throughout. One historic property, Center School, is located adjacent to the intersection of SR 13 and W CR 800 S. Center School is rated as "contributing" and is eligible for listing on the National Registry of Historic Places.

This project may qualify for the application of the United States Fish and Wildlife Service (USFWS) range-wide programmatic informal consultation for the Indiana bat and northern long-eared bat. The USFWS Information, Planning, and Consultation System (IPaC) will be utilized to determine the project's potential to affect the Indiana bat and northern long-eared bat.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area.

Comments Request: You are asked to review this information and provide any comments you may have relative to the anticipated effects of the project on areas which you have jurisdiction or special expertise. Please send your comments to Sharon Anton, of HNTB Corporation, at [santon@hntb.com](mailto:santon@hntb.com) or 317-917-5275. Should we not receive your response within thirty (30) calendar days from the date of this letter, it will be assumed that your agency feels that there will be no adverse effects incurred as a result of the proposed project. However, should you find that an extension to the response time is necessary; a reasonable amount may be granted upon request.

If you have any questions regarding this matter, please feel free to contact Sharon Anton, HNTB, [santon@hntb.com](mailto:santon@hntb.com), 317-917-5275, or Michelle Loveall, INDOT Project Manager, [mloveall@indot.in.gov](mailto:mloveall@indot.in.gov), 317-467-3438. Thank you in advance for your input.

Sincerely,



Sharon Anton  
Scientist I  
HNTB Indiana

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Attachments: Figure 1: Project Location Map  
Figure 2: Project Area Aerial  
Figure 3: USGS 7.5 Minute Topographic Quad Map  
Figure 4: Photo Location Map  
Project Location Photographs

Note: Attachments have been removed to avoid duplication. Graphics can be found in Appendix B.

Cc: Michelle Loveall, INDOT Project Manager  
Tom Shepherd, Madison County Surveyor  
Scott Harless, Madison County Highway Dept.  
Scott Mellinger, Madison County Sheriff  
Tammy Sidwell, Town of Ingalls Water Administrator  
Jerry Bridges, Madison County Council of Governments, Executive Director  
Tom Ecker, Madison County Emergency Management Agency, Executive Director  
Mark Hall, South Madison Community School Corporation, Superintendent  
Brad Newman, Madison County Planning Commission, Director  
Kelly Gaskill, Madison County Board of Commissioners, President  
Pete Heuer, Madison County Council President  
Grandview Church of the Brethren  
Mallory Duncan, Indiana Department of Transportation Communications  
Indiana Geological Survey, via webform  
Indiana Department of Environmental Management, via webform  
Brian Royer, Indiana Department of Natural Resources – Division of Oil and Natural Gas  
Christie Stanifer, Indiana Department of Natural Resources  
Rich Neilson, Natural Resource Conservation Service  
Robert Dirks, Federal Highway Administration Planning & Environmental Specialist  
Robin McWilliams-Munson, US Fish and Wildlife Service  
Taylor Darrah, INDOT Environmental Section Manager  
Tony Bagato, City of Fishers Planning and Zoning, Director

Sent on January 16, 2021

Jason Taylor, City of Fishers Engineering Department, Director  
Allen Bourff, Hamilton Southeastern School Corporation, Superintendent  
Jack Parker, Mount Vernon School Corporation, Superintendent  
Rachel Christenson, Town of Pendleton Planning Department, Director  
Jeff Moore, Town of Pendleton Fire Department, Chief  
Gary Shuck, Town of Lapel, Planning President  
Adam Zaklikowski, Town of Fortville, Planning & Building Director  
Town of Fortville Police Department  
Vernon Township Fire Department  
Mike Dale, Hancock County Area Plan Commission, Executive Director  
Gary Pool, Hancock County Highway Department  
Hamilton County Planning Department, Director  
Town of Ingalls Police Department  
Town of Ingalls Plan Commission, President  
Town of Ingalls Fire Department  
Town of Pendleton, Department of Public Works



## Sharon Anton

---

**From:** McWilliams, Robin <robin\_mcwilliams@fws.gov>  
**Sent:** Monday, January 11, 2021 12:56 PM  
**To:** Sharon Anton  
**Subject:** Re: [EXTERNAL] Early Coordination Letter - SR 13 at CR 800 Intersection Improvement Project (Des 1900171)

Dear Sharon,

This responds to your recent letter requesting our comments on the aforementioned project.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

The 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, if applicable (i.e. a federal transportation nexus is established). The Service has 14 days after a "Not Likely to Adversely Affect" determination letter is generated to review the project and provide additional comments or request additional information; if you do not receive a response from us within 14 days, we have no additional comments.

Based on a review of the information you provided, the U.S. Fish and Wildlife Service has no other comments on the project as currently proposed. However, should new information arise pertaining to project plans or a revised species list be published, it will be necessary for the Federal agency to reinitiate consultation. Standard recommendations are provided below.

We appreciate the opportunity to comment at this early stage of project planning. If you have any questions about our recommendations, please call (812) 334-4261 x. 207.

Sincerely,  
Robin McWilliams Munson

### **Standard Recommendations:**

1. Do not clear trees or understory vegetation outside the construction zone boundaries. **(This restriction is not related to the "tree clearing" restriction for potential Indiana Bat habitat.)**
2. 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. 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.
3. Restrict channel work and vegetation clearing to the minimum necessary for installation of the stream crossing structure.

4. 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.
5. Implement temporary erosion and sediment control methods within areas of disturbed soil. All disturbed soil areas upon project completion will be vegetated following INDOT's standard specifications.
6. 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 Mark during this time unless the machinery is within the caissons or on the cofferdams.
7. 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

Robin McWilliams Munson  
Fish and Wildlife Biologist  
U.S. Fish and Wildlife Service  
620 South Walker Street  
Bloomington, IN 46142  
812-334-4261

Mon-Tues 8-3:30p

Wed-Thurs 8:30-3p Telework

---

**From:** Sharon Anton <santon@HNTB.com>

**Sent:** Friday, December 11, 2020 3:11 PM

**To:** McWilliams, Robin <robin\_mcwilliams@fws.gov>

**Subject:** [EXTERNAL] Early Coordination Letter - SR 13 at CR 800 Intersection Improvement Project (Des 1900171)

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Dear Ms. McWilliams-Munson,

Please see the attached early coordination letter and supporting graphics for the SR 13 at CR 800 Intersection Improvement Project (Des 1900171).

If you have any questions regarding this project, please feel free to contact me by phone or email.

Best regards,

**Sharon Anton**

Scientist I

Environmental Planning

Tel (317) 917-5275 Email [santon@hntb.com](mailto:santon@hntb.com)

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

**DNR #:** ER-23277

**Request Received:** December 11, 2020

**Requestor:** HNTB Corporation  
Sharon Anton  
111 Monument Circle, Suite 1200  
Indianapolis, IN 46204-5178

**Project:** SR 13 and CR 800 South intersection improvement, about 2.2 miles south of Hardscrabble; Des #1900171

**County/Site info:** Madison

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

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

**Regulatory Assessment:** Formal approval by the Department of Natural Resources under the regulatory programs administered by the Division of Water is not required for this project.

**Natural Heritage Database:** The Natural Heritage Program's data have been checked. To date, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity.

**Fish & Wildlife Comments:** The measures below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:  
1. Revegetate all bare and disturbed areas with a mixture of grasses (excluding all varieties of tall fescue) and legumes as soon as possible upon completion; low endophyte tall fescue may be used in the ditch bottom and side slopes only.  
2. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.

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

*Christie L. Stanifer*  
\_\_\_\_\_  
Christie L. Stanifer  
Environ. Coordinator  
Division of Fish and Wildlife

**Date:** January 8, 2021



## Organization and Project Information

**Project ID:**  
**Des. ID:** 190171  
**Project Title:** SR 13 at CR 800 S Intersection Improvement Project  
**Name of Organization:** HNTB Corporation  
**Requested by:** Sharon Anton

## Environmental Assessment Report

1. Geological Hazards:
  - Moderate liquefaction potential
  - 1% Annual Chance Flood Hazard
2. Mineral Resources:
  - Bedrock Resource: High Potential
  - Sand and Gravel Resource: Low Potential
3. Active or abandoned mineral resources extraction sites:
  - Petroleum Exploration Wells

\*All map layers from Indiana Map ([maps.indiana.edu](http://maps.indiana.edu))

### **DISCLAIMER:**

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

This information was furnished by Indiana Geological Survey

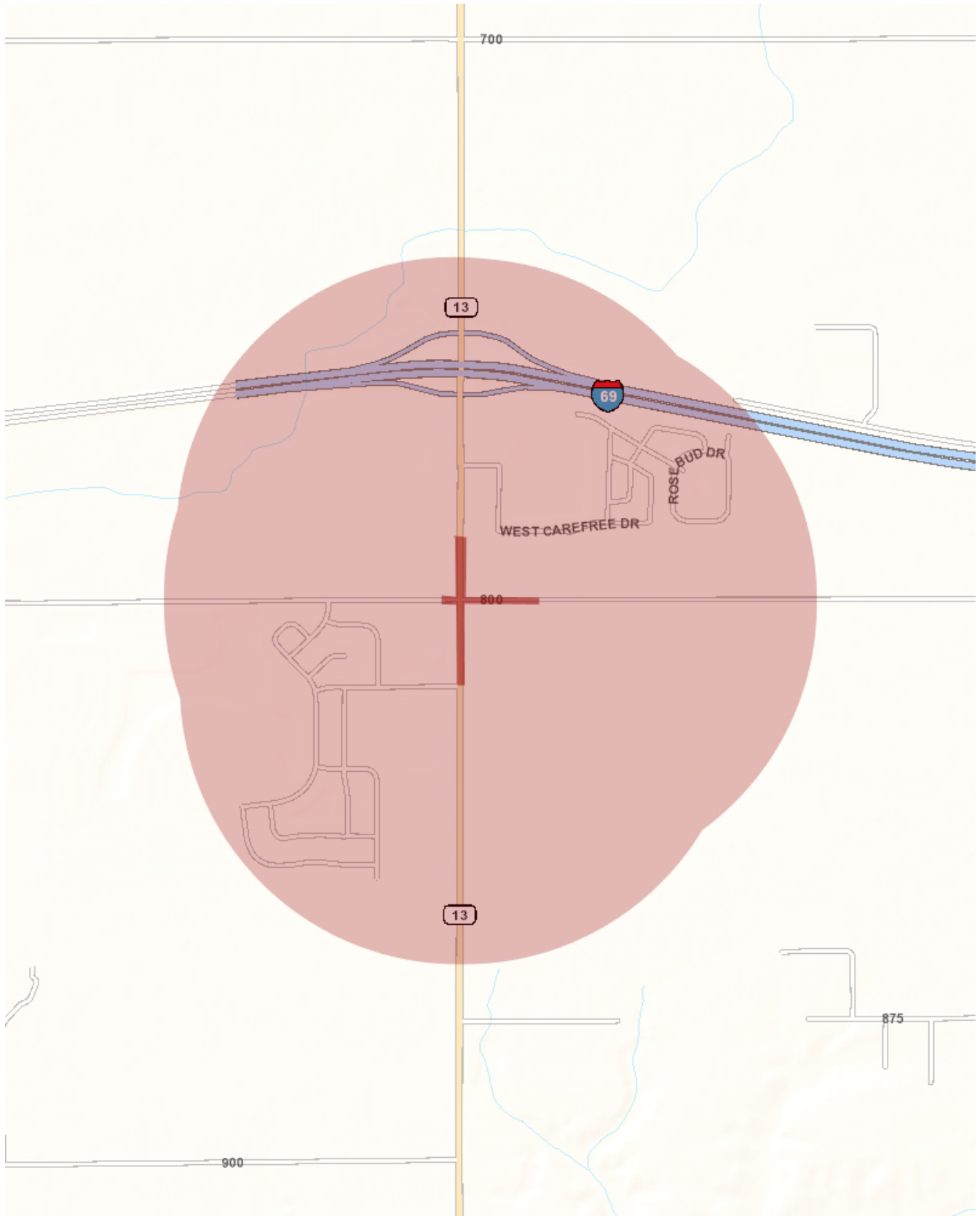
Address: 420 N. Walnut St., Bloomington, IN 47404

Email: [IGSEnvir@indiana.edu](mailto:IGSEnvir@indiana.edu)

Phone: 812 855-7428

Date: February 04, 2021





## Metadata:

- [https://maps.indiana.edu/metadata/Geology/Petroleum\\_Wells.html](https://maps.indiana.edu/metadata/Geology/Petroleum_Wells.html)
- [https://maps.indiana.edu/metadata/Geology/Seismic\\_Earthquake\\_Liquefaction\\_Potential.html](https://maps.indiana.edu/metadata/Geology/Seismic_Earthquake_Liquefaction_Potential.html)
- [https://maps.indiana.edu/metadata/Geology/Industrial\\_Minerals\\_Sand\\_Gravel\\_Resources.html](https://maps.indiana.edu/metadata/Geology/Industrial_Minerals_Sand_Gravel_Resources.html)
- [https://maps.indiana.edu/metadata/Hydrology/Floodplains\\_FIRM.html](https://maps.indiana.edu/metadata/Hydrology/Floodplains_FIRM.html)
- [https://maps.indiana.edu/metadata/Geology/Bedrock\\_Geology.html](https://maps.indiana.edu/metadata/Geology/Bedrock_Geology.html)





# Indiana Department of Environmental Management

*We Protect Hoosiers and Our Environment.*

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

INDOT  
Michelle Loveall  
32 S Broadway St  
Greenfield , IN 46140

HNTB Corporation  
Sharon Anton  
111 Monument Circle  
Suite 1200  
Indianapolis , IN 46204

Date

To Engineers and Consultants Proposing Roadway Construction Projects:

RE: INDOT and the FHWA intend to proceed with an intersection improvement project at the intersection of SR 13 and W CR 800 S in Madison County, Indiana. Proposed project activities include installation of a traffic signal and added turn lanes for the north, south, and east approaches. Additional construction activities will include replacement of driveway culverts.

This letter from the Indiana Department of Environmental Management (IDEM) serves as a standardized response to enquiries inviting IDEM comments on roadway construction, reconstruction, or other improvement projects within existing roadway corridors when the proposed scope of the project is beneath the threshold requiring a formal National Environmental Policy Act-mandated Environmental Assessment or Environmental Impact Statement. As the letter attempts to address all roadway-related environmental topics of potential concern, it is possible that not every topic addressed in the letter will be applicable to your particular roadway project.

For additional information on specific roadway-related topics of interest, please visit the appropriate Web pages cited below, many of which provide contact information for persons within the various program areas who can answer questions not fully addressed in this letter. Also please be mindful that some environmental requirements may be subject to change and so each person intending to include a copy of this letter in their project documentation packet is advised to download the most recently revised version of the letter; found at: <http://www.in.gov/idem/5283.htm> (<http://www.in.gov/idem/5283.htm>).

To ensure that all environmentally-related issues are adequately addressed, IDEM recommends that you read this letter in its entirety, and consider each of the following issues as you move forward with the planning of your proposed roadway construction, reconstruction, or improvement project:

## WATER AND BIOTIC QUALITY

1. Section 404 of the Clean Water Act requires that you obtain a permit from the U.S. Army Corps of Engineers (USACE) before discharging dredged or fill materials into any wetlands or other waters, such as rivers, lakes, streams, and ditches. Other activities regulated include the relocation, channelization, widening, or other such alteration of a stream, and the mechanical clearing (use of heavy construction equipment) of wetlands. Thus, as a project owner or sponsor, it is your responsibility to ensure that no wetlands are disturbed without the proper permit. Although you may initially refer to the U.S. Fish and Wildlife Service National Wetland Inventory maps as a means of identifying potential areas of concern, please be mindful

that those maps do not depict jurisdictional wetlands regulated by the USACE or the Department of Environmental Management. A valid jurisdictional wetlands determination can only be made by the USACE, using the 1987 Wetland Delineation Manual.

USACE recommends that you have a consultant check to determine whether your project will abut, or lie within, a wetland area. To view a list of consultants that have requested to be included on a list posted by the USACE on their Web site, see USACE Permits and Public Notices (<http://www.lrl.usace.army.mil/orf/default.asp>) (<http://www.lrl.usace.army.mil/orf/default.asp>) and then click on "Information" from the menu on the right-hand side of that page. Their "Consultant List" is the fourth entry down on the "Information" page. Please note that the USACE posts all consultants that request to appear on the list, and that inclusion of any particular consultant on the list does not represent an endorsement of that consultant by the USACE, or by IDEM.

Much of northern Indiana (Newton, Lake, Porter, LaPorte, St. Joseph, Elkhart, LaGrange, Steuben, and Dekalb counties; large portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and lesser portions of Benton, White, Pulaski, Kosciusko, and Wells counties) is served by the USACE District Office in Detroit (313-226-6812). The central and southern portions of the state (large portions of Benton, White, Pulaski, Kosciusko, and Wells counties; smaller portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and all other Indiana counties located in north-central, central, and southern Indiana) are served by the USACE Louisville District Office (502-315-6733).

Additional information on contacting these U.S. Army Corps of Engineers (USACE) District Offices, government agencies with jurisdiction over wetlands, and other water quality issues, can be found at <http://www.in.gov/idem/4396.htm> (<http://www.in.gov/idem/4396.htm>). IDEM recommends that impacts to wetlands and other water resources be avoided to the fullest extent.

2. In the event a Section 404 wetlands permit is required from the USACE, you also must obtain a Section 401 Water Quality Certification from the IDEM Office of Water Quality Wetlands Program. To learn more about the Wetlands Program, visit: <http://www.in.gov/idem/4384.htm> (<http://www.in.gov/idem/4384.htm>).
3. If the USACE determines that a wetland or other water body is isolated and not subject to Clean Water Act regulation, it is still regulated by the state of Indiana. A State Isolated Wetland permit from IDEM's Office of Water Quality (OWQ) is required for any activity that results in the discharge of dredged or fill materials into isolated wetlands. To learn more about isolated wetlands, contact the OWQ Wetlands Program at 317-233-8488.
4. If your project will involve over a 0.5 acre of wetland impact, stream relocation, or other large-scale alterations to water bodies such as the creation of a dam or a water diversion, you should seek additional input from the OWQ Wetlands Program staff. Consult the Web at: <http://www.in.gov/idem/4384.htm> (<http://www.in.gov/idem/4384.htm>) for the appropriate staff contact to further discuss your project.
5. Work within the one-hundred year floodway of a given water body is regulated by the Department of Natural Resources, Division of Water. The Division issues permits for activities regulated under the follow statutes:
  - o IC 14-26-2 Lakes Preservation Act 312 IAC 11
  - o IC 14-26-5 Lowering of Ten Acre Lakes Act No related code
  - o IC 14-28-1 Flood Control Act 310 IAC 6-1
  - o IC 14-29-1 Navigable Waterways Act 312 IAC 6
  - o IC 14-29-3 Sand and Gravel Permits Act 312 IAC 6
  - o IC 14-29-4 Construction of Channels Act No related code

For information on these Indiana (statutory) Code and Indiana Administrative Code citations, see the DNR Web site at: <http://www.in.gov/dnr/water/9451.htm> (<http://www.in.gov/dnr/water/9451.htm>) . Contact the DNR Division of Water at 317-232-4160 for further information.

The physical disturbance of the stream and riparian vegetation, especially large trees overhanging any affected water bodies should be limited to only that which is absolutely necessary to complete the project. The shade provided by the large overhanging trees helps maintain proper stream temperatures and dissolved oxygen for aquatic life.

6. For projects involving construction activity (which includes clearing, grading, excavation and other land disturbing activities) that result in the disturbance of one (1), or more, acres of total land area, contact the Office of Water Quality – Watershed Planning Branch (317/233-1864) regarding the need for of a Rule 5 Storm Water Runoff Permit. Visit the following Web page
  - <http://www.in.gov/idem/4902.htm> (<http://www.in.gov/idem/4902.htm>)

To obtain, and operate under, a Rule 5 permit you will first need to develop a Construction Plan (<http://www.in.gov/idem/4917.htm#constreq> (<http://www.in.gov/idem/4917.htm#constreq>)), and as described in 327 IAC 15-5-6.5 (<http://www.in.gov/legislative/iac/T03270/A00150> [PDF] (<http://www.in.gov/legislative/iac/T03270/A00150.PDF>), pages 16 through 19). Before you may apply for a Rule 5 Permit, or begin construction, you must submit your Construction Plan to your county Soil and Water Conservation District (SWCD) (<http://www.in.gov/isda/soil/contacts/map.html> (<http://www.in.gov/isda/soil/contacts/map.html>)).

Upon receipt of the construction plan, personnel of the SWCD or the Indiana Department of Environmental Management will review the plan to determine if it meets the requirements of 327 IAC 15-5. Plans that are deemed deficient will require re-submittal. If the plan is sufficient you will be notified and instructed to submit the verification to IDEM as part of the Rule 5 Notice of Intent (NOI) submittal. Once construction begins, staff of the SWCD or Indiana Department of Environmental Management will perform inspections of activities at the site for compliance with the regulation.

Please be mindful that approximately 149 Municipal Separate Storm Sewer System (MS4) areas are now being established by various local governmental entities throughout the state as part of the implementation of Phase II federal storm water requirements. All of these MS4 areas will eventually take responsibility for Construction Plan review, inspection, and enforcement. As these MS4 areas obtain program approval from IDEM, they will be added to a list of MS4 areas posted on the IDEM Website at: <http://www.in.gov/idem/4900.htm> (<http://www.in.gov/idem/4900.htm>).

If your project is located in an IDEM-approved MS4 area, please contact the local MS4 program about meeting their storm water requirements. Once the MS4 approves the plan, the NOI can be submitted to IDEM.

Regardless of the size of your project, or which agency you work with to meet storm water requirements, IDEM recommends that appropriate structures and techniques be utilized both during the construction phase, and after completion of the project, to minimize the impacts associated with storm water runoff. The use of appropriate planning and site development and appropriate storm water quality measures are recommended to prevent soil from leaving the construction site during active land disturbance and for post construction water quality concerns. Information and assistance regarding storm water related to construction activities are available from the Soil and Water Conservation District (SWCD) offices in each county or from IDEM.

7. For projects involving impacts to fish and botanical resources, contact the Department of Natural Resources - Division of Fish and Wildlife (317/232-4080) for addition project input.
8. For projects involving water main construction, water main extensions, and new public water supplies, contact the Office of Water Quality - Drinking Water Branch (317-308-3299) regarding the need for permits.
9. For projects involving effluent discharges to waters of the State of Indiana , contact the Office of Water Quality - Permits Branch (317-233-0468) regarding the need for a National Pollutant Discharge Elimination System (NPDES) permit.
10. For projects involving the construction of wastewater facilities and sewer lines, contact the Office of Water Quality - Permits Branch (317-232-8675) regarding the need for permits.

## AIR QUALITY

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

1. Regarding open burning, and disposing of organic debris generated by land clearing activities; some types of open burning are allowed (<http://www.in.gov/idem/4148.htm> (<http://www.in.gov/idem/4148.htm>)) under specific conditions. You also can seek an open burning variance from IDEM.

However, IDEM generally recommends that you take vegetative wastes to a registered yard waste composting facility or that the waste be chipped or shredded with composting on site (you must register with IDEM if more than 2,000 pounds is to be composted; contact 317/232-0066). The finished compost can then be used as a mulch or soil amendment. You also may bury any vegetative wastes (such as leaves, twigs, branches, limbs, tree trunks and stumps) onsite, although burying large quantities of such material can lead to subsidence problems, later on.

Reasonable precautions must be taken to minimize fugitive dust emissions from construction and demolition activities. For example, wetting the area with water, constructing wind barriers, or treating dusty areas with chemical stabilizers (such as calcium chloride or several other commercial products). Dirt tracked onto paved roads from unpaved areas should be minimized.

Additionally, if construction or demolition is conducted in a wooded area where blackbirds have roosted or abandoned buildings or building sections in which pigeons or bats have roosted for 3-5 years precautionary measures should be taken to avoid an outbreak of histoplasmosis. This disease is caused by the fungus *Histoplasma capsulatum*, which stems from bird or bat droppings that have accumulated in one area for 3-5 years. The spores from this fungus become airborne when the area is disturbed and can cause infections over an entire community downwind of the site. The area should be wetted down prior to cleanup or demolition of the project site. For more detailed information on histoplasmosis prevention and control, please contact the Acute Disease Control Division of the Indiana State Department of Health at (317) 233-7272.

2. The U.S. EPA and the Surgeon General recommend that people not have long-term exposure to radon at levels above 4 pCi/L. (For a county-by-county map of predicted radon levels in Indiana, visit: <http://www.in.gov/idem/4145.htm> (<http://www.in.gov/idem/4145.htm>).)

The U.S. EPA further recommends that all homes (and apartments within three stories of ground level) be tested for radon. If in-home radon levels are determined to be 4 pCi/L, or higher, EPA recommends a follow-up test. If the second test confirms that radon levels are 4 pCi/L, or higher, EPA recommends the installation

of radon-reduction measures. (For a list of qualified radon testers and radon mitigation (or reduction) specialists visit: [http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon\\_testers\\_mitigators\\_list.pdf](http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf) ([http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon\\_testers\\_mitigators\\_list.pdf](http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf).) It also is recommended that radon reduction measures be built into all new homes, particularly in areas like Indiana that have moderate to high predicted radon levels.

To learn more about radon, radon risks, and ways to reduce exposure visit:

<http://www.in.gov/isdh/regsvcs/radhealth/radon.htm> (<http://www.in.gov/isdh/regsvcs/radhealth/radon.htm>), <http://www.in.gov/idem/4145.htm> (<http://www.in.gov/idem/4145.htm>), or <http://www.epa.gov/radon/index.html> (<http://www.epa.gov/radon/index.html>).

3. With respect to asbestos removal: all facilities slated for renovation or demolition (except residential buildings that have (4) four or fewer dwelling units and which will not be used for commercial purposes) must be inspected by an Indiana-licensed asbestos inspector prior to the commencement of any renovation or demolition activities. If regulated asbestos-containing material (RACM) that may become airborne is found, any subsequent demolition, renovation, or asbestos removal activities must be performed in accordance with the proper notification and emission control requirements.

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

For questions on asbestos demolition and renovation activities, you can also call IDEM's Lead/Asbestos section at 1-888-574-8150.

However, in all cases where a demolition activity will occur (even if no asbestos is found), the owner or operator must still notify IDEM 10 working days prior to the demolition, using the form found at <http://www.in.gov/icpr/webfile/formsdiv/44593.pdf> (<http://www.in.gov/icpr/webfile/formsdiv/44593.pdf>).

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

For more information about IDEM policy regarding asbestos removal and disposal, visit:

<http://www.in.gov/idem/4983.htm> (<http://www.in.gov/idem/4983.htm>).

4. With respect to lead-based paint removal: IDEM encourages all efforts to minimize human exposure to lead-based paint chips and dust. IDEM is particularly concerned that young children exposed to lead can suffer from learning disabilities. Although lead-based paint abatement efforts are not mandatory, any abatement that is conducted within housing built before January 1, 1978, or a child-occupied facility is required to comply with all lead-based paint work practice standards, licensing and notification requirements. For more information about lead-based paint removal visit: <http://www.in.gov/isdh/19131.htm> (<http://www.in.gov/isdh/19131.htm>).
5. Ensure that asphalt paving plants are permitted and operate properly. The use of cutback asphalt, or asphalt emulsion containing more than seven percent (7%) oil distillate, is prohibited during the months April through October. See 326 IAC 8-5-2, Asphalt Paving Rule

(<http://www.ai.org/legislative/iac/T03260/A00080.PDF>  
(<http://www.ai.org/legislative/iac/T03260/A00080.PDF>)).

6. If your project involves the construction of a new source of air emissions or the modification of an existing source of air emissions or air pollution control equipment, it will need to be reviewed by the IDEM Office of Air Quality (OAQ). A registration or permit may be required under 326 IAC 2 (View at: [www.ai.org/legislative/iac/t03260/a00020.pdf](http://www.ai.org/legislative/iac/t03260/a00020.pdf) (<http://www.ai.org/legislative/iac/t03260/a00020.pdf>)). New sources that use or emit hazardous air pollutants may be subject to Section 112 of the Clean Air Act and corresponding state air regulations governing hazardous air pollutants.
7. For more information on air permits visit: <http://www.in.gov/idem/4223.htm> (<http://www.in.gov/idem/4223.htm>), or to initiate the IDEM air permitting process, please contact the Office of Air Quality Permit Reviewer of the Day at (317) 233-0178 or OAMPROD atdem.state.in.us.

## LAND QUALITY

In order to maintain compliance with all applicable laws regarding contamination and/or proper waste disposal, IDEM recommends that:

1. If the site is found to contain any areas used to dispose of solid or hazardous waste, you need to contact the Office of Land Quality (OLQ) at 317-308-3103.
2. All solid wastes generated by the project, or removed from the project site, need to be taken to a properly permitted solid waste processing or disposal facility. For more information, visit <http://www.in.gov/idem/4998.htm> (<http://www.in.gov/idem/4998.htm>).
3. If any contaminated soils are discovered during this project, they may be subject to disposal as hazardous waste. Please contact the OLQ at 317-308-3103 to obtain information on proper disposal procedures.
4. If PCBs are found at this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding management of any PCB wastes from this site.
5. If there are any asbestos disposal issues related to this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding the management of asbestos wastes (Asbestos removal is addressed above, under Air Quality).
6. If the project involves the installation or removal of an underground storage tank, or involves contamination from an underground storage tank, you must contact the IDEM Underground Storage Tank program at 317/308-3039. See: <http://www.in.gov/idem/4999.htm> (<http://www.in.gov/idem/4999.htm>).

## FINAL REMARKS

Should you need to obtain any environmental permits in association with this proposed project, please be mindful that IC 13-15-8 requires that you notify all adjoining property owners and/or occupants within ten days your submittal of each permit application. However, if you are seeking multiple permits, you can still meet the notification requirement with a single notice if all required permit applications are submitted with the same ten day period.

Should the scope of the proposed project be expanded to the extent that a National Environmental Policy Act Environmental Assessment (EA) or Environmental Impact Statement (EIS) is required, IDEM will actively participate in any early interagency coordination review of the project.



Meanwhile, please note that this letter does not constitute a permit, license, endorsement or any other form of approval on the part of the Indiana Department of Environmental Management regarding any project for which a copy of this letter is used. Also note that it is the responsibility of the project engineer or consultant using this letter to ensure that the most current draft of this document, which is located at <http://www.in.gov/idem/5284.htm> (<http://www.in.gov/idem/5284.htm>), is used.

---

## Signature(s) of the Applicant

I acknowledge that the following proposed roadway project will be financed in part, or in whole, by public monies.

### Project Description

INDOT and the FHWA intend to proceed with an intersection improvement project at the intersection of SR 13 and W CR 800 S in Madison County, Indiana. Proposed project activities include installation of a traffic signal and added turn lanes for the north, south, and east approaches. Additional construction activities will include replacement of driveway culverts.

With my signature, I do hereby affirm that I have read the letter from the Indiana Department of Environment that appears directly above. In addition, I understand that in order to complete that project in which I am interested, with a minimum of impact to the environment, I must consider all the issues addressed in the aforementioned letter, and further, that I must obtain any required permits.

Date: February 8, 2021

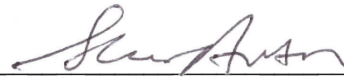
Signature of the INDOT  
Project Engineer or Other Responsible Agent \_\_\_\_\_



Michelle Loveall

Date: February 3, 2021

Signature of the  
For Hire Consultant \_\_\_\_\_



Sharon Anton

December 16, 2020

Sharon Anton  
HNTB Corporation  
111 Monument Circle, Suite 1200  
Indianapolis, Indiana 46204  
[Santon@hntb.com](mailto:Santon@hntb.com)

Dear Ms. Anton:

The proposed project to make intersection improvements at State Road 13 and County Road 800 in Madison County, Indiana (Des. No. 1900171), as referred to in your letter received December 11, 2020 will cause a conversion of prime farmland.

The attached packet of information is for your use completing Parts VI and VII of the AD-1106. After completion, the federal funding agency needs to forward one copy to NRCS for our records.

If you need additional information, please contact John Allen at 317-295-5859.

Sincerely,

**JOHN ALLEN** Digitally signed by JOHN ALLEN  
Date: 2020.12.17 11:44:55  
-05'00' Acting For

RICK NEILSON  
State Soil Scientist

Enclosures

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**FARMLAND CONVERSION IMPACT RATING**

<b>PART I</b> (To be completed by Federal Agency)		Date Of Land Evaluation Request <b>12/11/2020</b>			
Name of Project <b>DES1900171 SR13 at 800 South</b>		Federal Agency Involved <b>FHWA</b>			
Proposed Land Use <b>Travel lane, shoulder, adjacent ROW</b>		County and State <b>Madison County, Indiana</b>			
<b>PART II</b> (To be completed by NRCS)		Date Request Received By NRCS <b>12/11/2020</b>		Person Completing Form: <b>JRA</b>	
Does the site contain Prime, Unique, Statewide or Local Important Farmland? <i>(If no, the FPPA does not apply - do not complete additional parts of this form)</i>		YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		Acres Irrigated	
				Average Farm Size <b>312 ac</b>	
Major Crop(s) <b>Corn</b>		Farmable Land In Govt. Jurisdiction Acres: <b>281882 % 97</b>		Amount of Farmland As Defined in FPPA Acres: <b>27010 % 93</b>	
Name of Land Evaluation System Used <b>LESA</b>		Name of State or Local Site Assessment System		Date Land Evaluation Returned by NRCS <b>12/16/2020</b>	
<b>PART III</b> (To be completed by Federal Agency)		<b>Alternative Site Rating</b>			
		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly					
B. Total Acres To Be Converted Indirectly					
C. Total Acres In Site					
<b>PART IV</b> (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland		<b>1.29</b>			
B. Total Acres Statewide Important or Local Important Farmland		<b>0.00</b>			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted		<b>&lt;0.001</b>			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		<b>30</b>			
<b>PART V</b> (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)		<b>90</b>			
<b>PART VI</b> (To be completed by Federal Agency) Site Assessment Criteria <i>(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)</i>		<b>Maximum Points</b>	Site A	Site B	Site C
1. Area In Non-urban Use		(15)	<b>12</b>		
2. Perimeter In Non-urban Use		(10)	<b>10</b>		
3. Percent Of Site Being Farmed		(20)	<b>1</b>		
4. Protection Provided By State and Local Government		(20)	<b>0</b>		
5. Distance From Urban Built-up Area		(15)	<b>0</b>		
6. Distance To Urban Support Services		(15)	<b>0</b>		
7. Size Of Present Farm Unit Compared To Average		(10)	<b>0</b>		
8. Creation Of Non-farmable Farmland		(10)	<b>0</b>		
9. Availability Of Farm Support Services		(5)	<b>2</b>		
10. On-Farm Investments		(20)	<b>0</b>		
11. Effects Of Conversion On Farm Support Services		(10)	<b>0</b>		
12. Compatibility With Existing Agricultural Use		(10)	<b>0</b>		
<b>TOTAL SITE ASSESSMENT POINTS</b>		<b>160</b>	<b>25</b>	<b>0</b>	<b>0</b>
<b>PART VII</b> (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)		100	<b>90</b>	<b>0</b>	<b>0</b>
Total Site Assessment (From Part VI above or local site assessment)		160	<b>25</b>	<b>0</b>	<b>0</b>
<b>TOTAL POINTS (Total of above 2 lines)</b>		<b>260</b>	<b>115</b>	<b>0</b>	<b>0</b>
Site Selected: <b>A</b>		Date Of Selection <b>4 Feb 2021</b>		Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	
Reason For Selection:  Site A was selected due to the projected increase in traffic in this area and the resulting need for traffic control at this intersection that improves the mobility and safety without causing undue delays for motorists.					
Name of Federal agency representative completing this form: <b>Sharon Anton, HNTB Corporation</b>				Date: <b>4 Feb 2021</b>	

(See Instructions on reverse side)

Form AD-1006 (03-02)

## Sharon Anton

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**From:** Dave Benefiel <dave@heartlandmpo.org>  
**Sent:** Friday, December 18, 2020 11:52 AM  
**To:** Sharon Anton; Douglas Garvin  
**Cc:** Loveall, Michelle (MLOVEALL@indot.IN.gov); Ryan Phelps; Scot Lawyer; Carl Marlett; Neil Stevenson; Jerrold Bridges  
**Subject:** 1900171  
**Attachments:** 1900171 - SR @ CR 800 Intersection Improvement Project; 1900171 - EC Letter 10-23-20.pdf; 1900171 - EC Letter 12-11-20.pdf

Susan & Doug,

Please see attached email response to the EC Letter sent by INDOT-CRO dated 10-23-20 and response sent to directly to Alyssa Reynolds (CRA) regarding proposed additional EC Letter recipients that were not included in the 10-23-20 Letter or in the recently received 12-11-20 Letter from Ms. Anton (HNTB) [both letters attached].

Per our PFC Meeting today, some of these proposed additional EC Letter recipients may be critical to inclusion in the Section 106 and NEPA Processes, as well as any Public Hearings that might be warranted as part of the development of the NEPA Document because of the intensity of ongoing and planned developments, as well as existing development. (significant detail included in attached email)

In addition to the proposed additional EC Letter recipients noted in attached email, per our PFC discussion today, additional parties that may need to be consulted or contacted either as part of EC or during the design of the project for consideration of access, notification, and MOT:

- Town of Ingalls Fire Department (future Ingalls/Green Township Fire Territory)
- Town of Pendleton Fire Department (mutual assistance agreement)
- Town of Fortville Fire Department (mutual assistance agreement)
- Madison County Sherriff Department
- Town of Ingalls Police Department
- Town of Fortville Police Department (mutual assistance agreement)
- Town of Ingalls Plan Commission
- Madison County Plan Commission
- Property Owners along the proposed MOT Route (Fall Creek Drive & CR 800 W) during Temp. Closure of CR 800 East of SR 13

Please contact me directly if you have any questions.

Thanks.

### David Benefiel, AICP

Principal Transportation Planner

Federal Funding and Programming Lead

Community Planning, Public Participation, Grantwriting, & Architectural History

[dave@heartlandmpo.org](mailto:dave@heartlandmpo.org)

Anderson MPO

739 Main Street

## Sharon Anton

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**From:** Bagato, Tony <bagatoa@fishers.in.us>  
**Sent:** Friday, January 8, 2021 1:55 PM  
**To:** Sharon Anton  
**Subject:** RE: Early Coordination Letter - SR 13 at CR 800 Intersection Improvement Project (Des 1900171)

No concerns.

Thank you.

### Tony Bagato

Director, Planning and Zoning

P 317.595.3213



[www.fishers.in.us/Index.aspx?NID=631](http://www.fishers.in.us/Index.aspx?NID=631)



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**From:** Sharon Anton <santon@HNTB.com>  
**Sent:** Wednesday, January 6, 2021 4:21 PM  
**To:** Bagato, Tony <bagatoa@fishers.in.us>  
**Subject:** Early Coordination Letter - SR 13 at CR 800 Intersection Improvement Project (Des 1900171)

**EXTERNAL SENDER:** Please exercise increased caution. Do not open attachments or click links from unknown senders or unexpected email messages.

Dear Mr. Bagato,

Please see the attached early coordination letter and supporting graphics for the SR 13 at CR 800 Intersection Improvement Project (Des 1900171).

If you have any questions regarding this project, please feel free to contact me by phone or email.

Best regards,

**Sharon Anton**

Scientist I

Environmental Planning

Tel (317) 917-5275 Email [santon@hntb.com](mailto:santon@hntb.com)

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## Sharon Anton

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**From:** Havard, John E. <JHavard@citizensenergygroup.com>  
**Sent:** Wednesday, February 24, 2021 9:26 AM  
**To:** Sharon Anton  
**Subject:** RE: Early Coordination Letter-- Source Water Assessment Area -- Des 1900171

Dear Sharon Anton,

Thank you for bringing this project to our attention. We believe that impacts from the construction work to the source water protection area will be minimal. Typical spill prevention and erosion control measures should be adequate for the protection of the source water.

**John Havard, P.E.**  
Manager, Environmental Technical Programs  
Citizens Energy Group  
(O) 317-693-8716



---

**From:** Sharon Anton <santon@HNTB.com>  
**Sent:** Tuesday, February 23, 2021 12:02 PM  
**To:** Havard, John E. <JHavard@citizensenergygroup.com>  
**Subject:** Early Coordination Letter-- Source Water Assessment Area -- Des 1900171

**WARNING:** This email originated outside of Citizens Energy Group. **DO NOT CLICK** links or attachments unless you recognize the sender and know the content is safe.

Dear Mr. Havard,

Please see the attached early coordination letter and supporting graphics for the SR 13 at CR 800 Intersection Improvement Project.

If you have any questions regarding this project, please feel free to contact me by phone or email.

Best regards,

**Sharon Anton**  
Scientist I  
Environmental Planning  
Tel (317) 917-5275 Email [santon@hntb.com](mailto:santon@hntb.com)

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## Sharon Anton

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**From:** Darrah, Taylor N <TDarrah@indot.IN.gov>  
**Sent:** Tuesday, September 1, 2020 9:22 AM  
**To:** Kate Williams  
**Subject:** RE: Bat Check needed for Des. 1900171

Kate,

A review of the USFWS GIS database for Indiana bat and Northern long-eared bat roosting, hibernacula and capture sites was conducted for Des No. 1900171 on September 1, 2020. There are no documented sites within a half mile the project area. The USFWS Information for Planning and Conservation (IPaC) website must be consulted and a new project created to obtain an official species list and complete the questionnaire for the project to determine the applicability of the programmatic consultation. If needed, the IPaC generated documents must be forwarded to the USFWS for verification.

Thank you,

### Taylor Darrah

#### *Environmental Section Manager*

Indiana Department of Transportation  
32 South Broadway  
Greenfield, IN 46140

**Office:** (317) 467-3915

**Cell:** (317) 526-6080 – Please temporarily direct all calls to my cell phone

**Email:** [TDarrah@indot.in.gov](mailto:TDarrah@indot.in.gov)



 Go Green, There is no Planet B

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**From:** Kate Williams <klwilliams@HNTB.com>  
**Sent:** Sunday, August 30, 2020 7:45 PM  
**To:** Darrah, Taylor N <TDarrah@indot.IN.gov>  
**Subject:** Bat Check needed for Des. 1900171

\*\*\*\* This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. \*\*\*\*

Good morning,

HNTB would like to request a query of the USFWS Bat Database for inclusion in the environmental documentation for Des No 1900171 – SR 13 at CR 800 Intersection Improvement Project. The project consists of improvements to the intersection of State Road (SR) 13 at County Road (CR) 800 in Madison County, Indiana. The current preferred alternative proposed installation of a traffic signal with turn lanes with added turn lanes for the north, south, and east approaches..

See attached graphic for location information. Please let me know if you need any additional information.





# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

Phone: (812) 334-4261 Fax: (812) 334-4273

<http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html>

In Reply Refer To:

December 31, 2020

Consultation Code: 03E12000-2021-SLI-0240

Event Code: 03E12000-2021-E-01985

Project Name: State Road (SR) 13 at County Road (CR) 800 Intersection Improvement Project  
(Des. 1900171)

Subject: Updated list of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The attached species list identifies any federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat if present within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the Service if they determine their project “may affect” listed species or critical habitat.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally. You may verify the list by visiting the ECOS-IPaC website <http://ecos.fws.gov/ipac/> at regular intervals during project planning and implementation and completing the same process you used to receive the attached list. As an alternative, you may contact this Ecological Services Field Office for updates.

Please use the species list provided and visit the U.S. Fish and Wildlife Service’s Region 3 Section 7 Technical Assistance website at - <http://www.fws.gov/midwest/endangered/section7/s7process/index.html>. This website contains step-by-step instructions which will help you

determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process.

For all **wind energy projects** and **projects that include installing towers that use guy wires or are over 200 feet in height**, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*) and Migratory Bird Treaty Act (16 U.S.C. 703 *et seq.*), as are golden eagles. Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near an eagle nest or winter roost area, see our Eagle Permits website at <http://www.fws.gov/midwest/midwestbird/EaglePermits/index.html> to help you determine if you can avoid impacting eagles or if a permit may be necessary.

We appreciate your concern for threatened and endangered species. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

## Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Indiana Ecological Services Field Office**

620 South Walker Street

Bloomington, IN 47403-2121

(812) 334-4261

## Project Summary

Consultation Code: 03E12000-2021-SLI-0240

Event Code: 03E12000-2021-E-01985

Project Name: State Road (SR) 13 at County Road (CR) 800 Intersection Improvement Project (Des. 1900171)

Project Type: TRANSPORTATION

Project Description: The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with the signal installation and added turn lane project at the intersection of State Road (SR) 13 and West County Road (CR) 800 S (Des. No. 1900171). The proposed undertaking is near the Town of Ingalls, Madison County, Indiana. It is within Green Township, as shown on the Ingalls, Indiana, USGS Topographic Quadrangle, in Sections 21, 22, 27, & 28, Township 18 North, Range 6 East.

The purpose of this project is to improve the level of service (LOS) of the intersection to an acceptable level. The existing level of service of this intersection is LOS E/F. The need for the project stems from severe traffic congestion at this intersection. Currently, this intersection is a two-way, stop-controlled. SR 13 is a non-signalized, two-lane minor arterial running north-south, while W CR 800 S is a stop-controlled, two-lane minor arterial running east-west. A traffic signal will be installed at the intersection, with added turn lanes for the north and south approaches. Project design will improve the intersection's LOS from E/F to B/C. Turn lanes at the intersection will improve mobility and safety by providing shelter for turning vehicles.

Few large street trees suitable for roosting by both the Indiana bat and the northern long-eared bat exist along to project area. These trees are associated with residential buildings and parcels. No tree clearing is anticipated. The project involves permanent lighting alternations, as a traffic signal will be installed at the intersection. Temporary lighting may also be necessary during construction. A query of the USFWS Bat Database by INDOT Greenfield District staff conducted on September 1, 2020 did not identify any documented sites within 0.5 mile of the project area. An inquiry using the USFWS Information for Planning and Consultation (IPaC) website did not indicate the presence or the federally endangered species, the Rusty Patched Bumble Bee, in or within 0.5 mile of the project area. No impact is expected. Construction is anticipated to take place during the Fall of 2022.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.98730890543195,-85.84321343874973,14z>



Counties: Madison County, Indiana

## Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/5949">https://ecos.fws.gov/ecp/species/5949</a>	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> <li>▪ Incidental take of the NLEB is not prohibited here. Federal agencies may consult using the 4(d) rule streamlined process. Transportation projects may consult using the programmatic process. See <a href="http://www.fws.gov/midwest/endangered/mammals/nleb/index.html">www.fws.gov/midwest/endangered/mammals/nleb/index.html</a></li> </ul> Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Threatened

## Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

Phone: (812) 334-4261 Fax: (812) 334-4273

<http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html>

In Reply Refer To:

November 30, 2020

Consultation Code: 03E12000-2021-I-0240

Event Code: 03E12000-2021-E-01132

Project Name: State Road (SR) 13 at County Road (CR) 800 Intersection Improvement Project (Des. 1900171)

Subject: Concurrence verification letter for the 'State Road (SR) 13 at County Road (CR) 800 Intersection Improvement Project (Des. 1900171)' project under the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request to verify that the **State Road (SR) 13 at County Road (CR) 800 Intersection Improvement Project (Des. 1900171)** (Proposed Action) may rely on the concurrence provided in the February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action is within the scope and adheres to the criteria of the PBO, including the adoption of applicable avoidance and minimization measures, and may affect, but is not likely to adversely affect (NLAA) the endangered Indiana bat (*Myotis sodalis*) and/or the threatened Northern long-eared bat (*Myotis septentrionalis*).

The Service has 14 calendar days to notify the lead Federal action agency or designated non-federal representative if we determine that the Proposed Action does not meet the criteria for a NLAA determination under the PBO. If we do not notify the lead Federal action agency or designated non-federal representative within that timeframe, you may proceed with the Proposed Action under the terms of the NLAA concurrence provided in the PBO. This verification period allows Service Field Offices to apply local knowledge to implementation of the PBO, as we may identify a small subset of actions having impacts that were unanticipated. In such instances,



Service Field Offices may request additional information that is necessary to verify inclusion of the proposed action under the PBO.

**For Proposed Actions that include bridge/structure removal, replacement, and/or maintenance activities:** If your initial bridge/structure assessments failed to detect Indiana bats, but you later detect bats during construction, please submit the Post Assessment Discovery of Bats at Bridge/Structure Form (User Guide Appendix E) to this Service Office. In these instances, potential incidental take of Indiana bats may be exempted provided that the take is reported to the Service.

If the Proposed Action is modified, or new information reveals that it may affect the Indiana bat and/or Northern long-eared bat in a manner or to an extent not considered in the PBO, further review to conclude the requirements of ESA Section 7(a)(2) may be required. If the Proposed Action may affect any other federally-listed or proposed species, and/or any designated critical habitat, additional consultation between the lead Federal action agency and this Service Office is required. If the proposed action has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please contact this Service Office.

## Project Description

The following project name and description was collected in IPaC as part of the endangered species review process.

### Name

State Road (SR) 13 at County Road (CR) 800 Intersection Improvement Project (Des. 1900171)

### Description

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with the signal installation and added turn lane project at the intersection of State Road (SR) 13 and West County Road (CR) 800 S (Des. No. 1900171). The proposed undertaking is near the Town of Ingalls, Madison County, Indiana. It is within Green Township, as shown on the Ingalls, Indiana, USGS Topographic Quadrangle, in Sections 21, 22, 27, & 28, Township 18 North, Range 6 East.

The purpose of this project is to improve the level of service (LOS) of the intersection to an acceptable level. The existing level of service of this intersection is LOS E/F. The need for the project stems from severe traffic congestion at this intersection. Currently, this intersection is a two-way, stop-controlled. SR 13 is a non-signalized, two-lane minor arterial running north-south, while W CR 800 S is a stop-controlled, two-lane minor arterial running east-west. A traffic signal will be installed at the intersection, with added turn lanes for the north and south approaches. Project design will improve the intersection's LOS from E/F to B/C. Turn lanes at the intersection will improve mobility and safety by providing shelter for turning vehicles.

Few large street trees suitable for roosting by both the Indiana bat and the northern long-eared bat exist along to project area. These trees are associated with residential buildings and parcels. No tree clearing is anticipated. The project involves permanent lighting alternations, as a traffic signal will be installed at the intersection. Temporary lighting may also be necessary during construction. A query of the USFWS Bat Database by INDOT Greenfield District staff conducted on September 1, 2020 did not identify any documented sites within 0.5 mile of the project area. An inquiry using the USFWS Information for Planning and Consultation (IPaC) website did not indicate the presence or the federally endangered species, the Rusty Patched Bumble Bee, in or within 0.5 mile of the project area. No impact is expected. Construction is anticipated to take place during the Fall of 2022.

## Determination Key Result

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the endangered Indiana bat and/or the threatened Northern long-eared bat, therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required. However, also based on your answers provided, this project may rely on the concurrence provided in the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

## Qualification Interview

1. Is the project within the range of the Indiana bat<sup>[1]</sup>?

[1] See [Indiana bat species profile](#)

**Automatically answered**

Yes

2. Is the project within the range of the Northern long-eared bat<sup>[1]</sup>?

[1] See [Northern long-eared bat species profile](#)

**Automatically answered**

Yes

3. Which Federal Agency is the lead for the action?

A) *Federal Highway Administration (FHWA)*

4. Are *all* project activities limited to non-construction<sup>[1]</sup> activities only? (examples of non-construction activities include: bridge/abandoned structure assessments, surveys, planning and technical studies, property inspections, and property sales)

[1] Construction refers to activities involving ground disturbance, percussive noise, and/or lighting.

No

5. Does the project include *any* activities that are **greater than** 300 feet from existing road/rail surfaces<sup>[1]</sup>?

[1] Road surface is defined as the actively used [e.g. motorized vehicles] driving surface and shoulders [may be pavement, gravel, etc.] and rail surface is defined as the edge of the actively used rail ballast.

No

6. Does the project include *any* activities **within** 0.5 miles of a known Indiana bat and/or NLEB hibernaculum<sup>[1]</sup>?

[1] For the purpose of this consultation, a hibernaculum is a site, most often a cave or mine, where bats hibernate during the winter (see suitable habitat), but could also include bridges and structures if bats are found to be hibernating there during the winter.

*No*

7. Is the project located **within** a karst area?

*No*

8. Is there *any* suitable<sup>[1]</sup> summer habitat for Indiana Bat or NLEB **within** the project action area<sup>[2]</sup>? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

[2] The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR Section 402.02). Further clarification is provided by the [national consultation FAQs](#).

*Yes*

9. Will the project remove *any* suitable summer habitat<sup>[1]</sup> and/or remove/trim any existing trees **within** suitable summer habitat?

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

*No*

10. Does the project include activities **within documented Indiana bat habitat**<sup>[1][2]</sup>?

[1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

[2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

*No*

11. Does the project include activities **within documented NLEB habitat**<sup>[1][2]</sup>?

[1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

[2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

*No*

12. Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?

*No*

13. Does the project include slash pile burning?

*No*

14. Does the project include *any* bridge removal, replacement, and/or maintenance activities (e.g., any bridge repair, retrofit, maintenance, and/or rehabilitation work)?

*No*

15. Does the project include the removal, replacement, and/or maintenance of *any* structure other than a bridge? (e.g., rest areas, offices, sheds, outbuildings, barns, parking garages, etc.)

*No*

16. Will the project involve the use of **temporary** lighting *during* the active season?

*No*

17. Will the project install new or replace existing **permanent** lighting?

*Yes*

18. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **permanent** lighting will be installed or replaced?

*Yes*

19. Does the project include percussives or other activities (**not including tree removal/trimming or bridge/structure work**) that will increase noise levels above existing traffic/background levels?

No

20. Are *all* project activities that are **not associated with** habitat removal, tree removal/trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives, limited to actions that DO NOT cause any additional stressors to the bat species?

Examples: lining roadways, unlighted signage , rail road crossing signals, signal lighting, and minor road repair such as asphalt fill of potholes, etc.

Yes

21. Will the project raise the road profile **above the tree canopy**?

No

22. Are the project activities that are not associated with habitat removal, tree removal/trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives consistent with a No Effect determination in this key?

**Automatically answered**

*Yes, other project activities are limited to actions that DO NOT cause any additional stressors to the bat species as described in the BA/BO*

23. **General AMM 1**

Will the project ensure *all* operators, employees, and contractors working in areas of known or presumed bat habitat are aware of *all* FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable Avoidance and Minimization Measures?

Yes

24. **Lighting AMM 2**

Does the lead agency use the BUG (Backlight, Uplight, and Glare) system developed by the Illuminating Engineering Society<sup>[1][2]</sup> to rate the amount of light emitted in unwanted directions?

[1] Refer to [Fundamentals of Lighting - BUG Ratings](#)

[2] Refer to [The BUG System—A New Way To Control Stray Light](#)

Yes

**25. Lighting AMM 2**

Will the **permanent** lighting be designed to be as close to 0 for all three BUG ratings as possible, with a priority of "uplight" of 0 and "backlight" as low as practicable?

Yes

## Project Questionnaire

1. Have you made a No Effect determination for *all* other species indicated on the FWS IPaC generated species list?

N/A

2. Have you made a May Affect determination for *any* other species on the FWS IPaC generated species list?

N/A

## Avoidance And Minimization Measures (AMMs)

This determination key result includes the commitment to implement the following Avoidance and Minimization Measures (AMMs):

### 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.

### LIGHTING AMM 2

When installing new or replacing existing permanent lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those transportation agencies using the BUG system developed by the Illuminating Engineering Society, be as close to 0 for all three ratings with a priority of "uplight" of 0 and "backlight" as low as practicable.



## **Determination Key Description: FHWA, FRA, FTA Programmatic Consultation For Transportation Projects Affecting NLEB Or Indiana Bat**

This key was last updated in IPaC on December 02, 2019. Keys are subject to periodic revision.

This decision key is intended for projects/activities funded or authorized by the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and/or Federal Transit Administration (FTA), which may require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) for the endangered **Indiana bat** (*Myotis sodalis*) and the threatened **Northern long-eared bat** (NLEB) (*Myotis septentrionalis*).

This decision key should only be used to verify project applicability with the Service's [February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects](#). The programmatic biological opinion covers limited transportation activities that may affect either bat species, and addresses situations that are both likely and not likely to adversely affect either bat species. This decision key will assist in identifying the effect of a specific project/activity and applicability of the programmatic consultation. The programmatic biological opinion is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic biological opinion, or that may affect ESA-listed species other than the Indiana bat or NLEB, or any designated critical habitat, may require additional ESA Section 7 consultation.

## APPENDIX D: SECTION 106 OF NHPA

## Minor Projects PA Project Assessment Form

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**Date:** 4/13/2021

**Project Designation Number:** 1900171

**Route Number:** SR 13

**Project Description:** Added Turn Lane and Signal Installation at County Road (CR) 800 S

The Indiana Department of Transportation intends to proceed with an added turn lane and signal installation project at the intersection of SR 13 and W CR 800 S in Madison County. The purpose of this project is to improve the level of service (LOS) of the intersection to an acceptable level. Level of service describes the degree of traffic congestion on a given roadway using “grades” on a letter scale from LOS A (best) to LOS F (worst). LOS A represents near-ideal traffic flow, while LOS F represents a breakdown of the traffic flow. The existing level of service of this intersection is LOS E/F. The need for the project stems from severe traffic congestion at this intersection. Currently, this intersection is a two-way, stop-controlled. SR 13 is a non-signalized, two-lane minor arterial running north-south, while W CR 800 S is a stop-controlled, two-lane minor arterial running east-west.

A traffic signal will be installed at the intersection, with added turn lanes for the north and south approaches. Project designers will improve the intersection’s LOS from E/F to B/C. Turn lanes at the intersection will improve mobility and safety by providing shelter for turning vehicles. The current roadway width of SR 13 is 32 feet. The current roadway width of W. CR 800 S is 20 feet. The project will increase the roadway width on SR 13 to 58 feet and on W. CR 800 S to 44 feet. Useable shoulder width on SR 13 is three (3) feet. There is no useable shoulder on W. CR 800 S. Useable shoulder widths will be increased to a maximum of seven (7) feet on SR 13 and five (5) feet on W. CR 800 S. Total footage of useable shoulder will be fourteen (14) feet on SR 13 and ten (10) feet on W. CR 800 S.

Additional turn lanes will be added onto the northbound and southbound routes of SR 13. The existing travel lane on northbound SR 13 will be converted into a left-turn lane. An additional 12-foot wide travel lane will be constructed as a straight/right-turn lane on SR 13’s northbound section. The existing travel lane on southbound SR 13 will remain. A 12-foot wide right-turn lane will be constructed on SR 13’s southbound route. There will be no additional turn lanes added to the eastbound or westbound routes of W. CR 800 S. Additional right-of-way is anticipated for the project, but at this time, the exact amount is undetermined.

The proposed SR 13 & W. CR 800 S signal installation and added turn lane project area begins along W. CR 800 S, approximately 1,023 feet (0.19 mile) east of its intersection with South Midsummer Boulevard and extends 1,023 feet (0.19 mile) east along W. CR 800 S. Along SR 13, the project area begins 4,277 feet (0.81 mile) north of its intersection with CR 900 S and extends north for 2,009 feet (0.38 mile) along the current route of SR 13. In total, the project area is 7.66 acres and is located in an agricultural and suburbanized area of Madison County.

Traffic will be maintained on the existing pavement during construction for SR 13 and the west leg of W. CR 800 S. The east leg of W. CR 800 S will undergo significant construction and will be likely be closed during construction. A detour route for W CR 800 S has not yet been developed.

**Feature crossed (if applicable):**

**City/Township:** Green Township

**County:** Madison County

**Information reviewed (please check all that apply):**

General project location map     USGS map     Aerial photograph     Interim Report

- Written description of project area     General project area photos     Soil survey data  
 Previously completed historic property reports     Previously completed archaeology reports  
 Bridge Inspection Information     SHAARD     SHAARD GIS     Streetview Imagery

**Other (please specify):** Indiana Historic Building, Bridges, and Cemeteries Map (IHBBCM); project information provided by Cultural Resource Analysts, Inc. dated 3/30/2021 on file at INDOT-CRO; County GIS data (accessed via <https://www.arcgis.com/apps/webappviewer/index.html?id=09bf2f0e07a243ffb262793cf106cd01>);

Cupka Head, Kevin  
 2020 A Phase Ia Archaeological Reconnaissance Survey for Proposed SR 13 and CR 800 S Intersection Improvements, Madison County, Indiana (INDOT Des 1900171). Report on file, Indiana Department of Transportation, Cultural Resources Office, Indianapolis, In.

**Please specify all applicable categories and condition(s) (applicable conditions are highlighted):**

B-2. Installation of new lighting, signals, signage and other traffic control devices under the following conditions **[BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied]**:

**Condition A (Archaeological Resources)**

One of the two conditions listed below must be met (*EITHER Condition i or Condition ii must be satisfied*):

- i. Work occurs in previously disturbed soils; *OR*
- ii. Work occurs in undisturbed soils and an archaeological investigation conducted by the applicant and reviewed by INDOT Cultural Resources Office determines that no National Register-listed or potentially National Register-eligible archaeological resources are present within the project area. If the archaeological investigation locates National Register-listed or potentially National Register-eligible archaeological resources, then full Section 106 review will be required. Copies of any archaeological reports prepared for the project will be provided to the DHPA and any archaeological site form information will be entered directly into the SHAARD by the applicant. The archaeological reports will also be available for viewing (by Tribes only) on INSCOPE.

**Condition B (Above-Ground Resources)**

Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource.

B-3. Construction of added travel, turning, or auxiliary lanes (e.g., bicycle, truck climbing, acceleration and deceleration lanes) and shoulder widening under the following conditions **[BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied]**:

**Condition A (Archaeological Resources)**

One of the two conditions listed below must be met (*EITHER Condition i or Condition ii must be satisfied*):

- i. Work occurs in previously disturbed soils; *OR*
- ii. Work occurs in undisturbed soils and an archaeological investigation conducted by the applicant and reviewed by INDOT Cultural Resources Office determines that no National Register-listed or potentially National Register-eligible archaeological resources are present within the project area. If the archaeological investigation locates National Register-listed or potentially National Register-eligible archaeological resources, then full Section 106 review will be required. Copies of any archaeological reports prepared for the project will be provided to the DHPA and any archaeological site form information will be entered directly into the SHAARD by the applicant. The archaeological reports will also be available for viewing (by Tribes only) on INSCOPE.

**Condition B (Above-Ground Resources)**

Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource.

Are there any commitments associated with this project? If yes, please explain and include in the Additional Comments Section below.      yes                       no

Does the project result in a de minimis impact to a Section 4(f) protected historic resource? If yes, please explain in the Additional Comments Section below.      yes                       no

**Additional comments:**

**Above-ground Resources**

An INDOT-Cultural Resources Office (CRO) historian who meets the Secretary of the Interior’s Professional Qualification Standards as per 36 CFR Part 61 first performed a desktop review, checking the Indiana Register of Historic Sites and Structures (State Register) and National Register of Historic Places (National Register) lists for Madison County. No listed resources are present within 0.15 mile of the project area, a distance that would serve as an adequate area of potential effects (APE) given the scope of the project and the surrounding terrain.

The Indiana Historic Sites and Structures Inventory (IHSSI) and National Register information for Madison County are available in the Indiana State Historic Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM). All sites were reviewed through the IHBBCM, which contains the most recently updated SHAARD information. The following IHSSI sites are recorded within 0.15 mile of the project:

- IHSSI #095-298-65014 (House; CR 800 S; c. 1880; demolished)
- IHSSI #095-298-65015 (Center School; CR 900 W; 1929; “contributing”)—demolished March 2021

According to the IHSSI rating system, generally properties rated "contributing" do not possess the level of historical or architectural significance necessary to be considered individually National Register eligible, although they would contribute to a historic district. If they retain material integrity, properties rated “notable” might possess the necessary level of significance after further research. Properties rated “outstanding” usually possess the necessary level of significance to be considered National Register eligible if they retain material integrity. Historic districts identified in the IHSSI are usually considered eligible for the National Register.

It should be noted that this project was undergoing full Section 106 consultation, during the process of which it was recommended that the Center School (IHSSI #095-298-65015) was eligible to the National Register. In their letter dated March 15, 2021 (DHPA No. 26653), the Indiana SHPO concurred with the eligibility recommendation, noting in their response that “there are no other historic properties located within the project’s APE.” During the Section 106 consultation period, however--and unbeknownst to the parties participating therein--the private property owner demolished the Center School at some point during the month of March 2021. Due to the fact that no additional historic properties were identified within the project’s APE, the project can now qualify under Categories B-2 and B-3 of the Minor Projects PA.

Based on the available information, as summarized above, no above-ground concerns exist as long as the project scope does not change.

**Archaeological Resources**

With regards to archaeological resources, an INDOT Cultural Resources Office (CRO) archaeologist, who meets the Secretary of the Interior’s Professional Qualification Standards as per 36 CFR Part 61, reviewed and approved the Phase Ia reconnaissance report prepared for this project (Cupka Head 2020).

The reconnaissance examined 7.5 acres of proposed right-of-way through a combination of shovel probing, pedestrian survey, and visual inspection of disturbed areas. As a result of the survey, site 12-M-812, an Early Archaic Kirk hafted biface isolate and small historic scatter, was identified. The site was determined not eligible for listing on the NRHP and no further work was recommended. SHPO concurred with the results and recommendations of the reconnaissance report on March 15, 2021. Therefore, there are no archaeological concerns.

**Accidental Discovery:** If any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, construction within 100 feet of the find will be stopped and the INDOT Cultural Resources Office and the Division of Historic Preservation and Archaeology will be notified immediately.

**INDOT Cultural Resources staff reviewer(s):** Kelyn Alexander and Shaun Miller

*\*\*\*Be sure to attach this form to the National Environmental Policy Act documentation for this project. Also, the NEPA documentation shall reference and include the description of the specific stipulation in the PA that qualifies the project as exempt from further Section 106 review.*

**A PHASE IA ARCHAEOLOGICAL RECONNAISSANCE  
SURVEY FOR PROPOSED SR 13 AND CR 800 S  
INTERSECTION IMPROVEMENTS,  
MADISON COUNTY, INDIANA (INDOT DES 1900171)**

By

Kevin Cupka Head, RPA

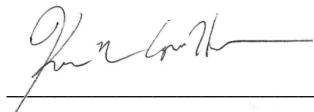
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been removed for  
brevity.

*Prepared for*

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Email: kthead@crai-ky.com  
CRA Project No.: I20H009



Kevin Cupka Head, RPA  
Principal Investigator

October 27, 2020

Lead Agency: Indiana Department of Transportation  
INDOT Des. No.: 1900171  
Indiana State Museum Accession No.: 71.19.1779



# ABSTRACT

On October 13, 2020, Cultural Resource Analysts, Inc., personnel conducted a phase Ia archaeological reconnaissance for proposed improvements to the intersection of State Route 13 and County Road 800 South in Madison County, Indiana (Indiana Department of Transportation Des. No. 1900171). The survey was conducted at the request of HNTB Corporation. The survey area covers approximately 3.0 ha (7.5 acres), encompassing the limits of the proposed right-of-way, and was investigated in its entirety. Field methods included shovel testing, pedestrian survey, and visual inspection.

Prior to initiating the fieldwork, a records review was conducted utilizing data from the Indiana Division of Historic Preservation and Archaeology. Based on this research, no previous archaeological surveys or previously recorded archaeological sites were reported within the current survey area.

This survey resulted in the identification of one previously unrecorded archaeological site (12M812). Site 12M812 is a precontact, Early Archaic isolated find and low density scatter of historic artifacts dating from the late nineteenth to early twentieth century. This site demonstrated poor archaeological integrity and is recommended not eligible for inclusion in the National Register of Historic Places. No additional archaeological work is recommended for this project.

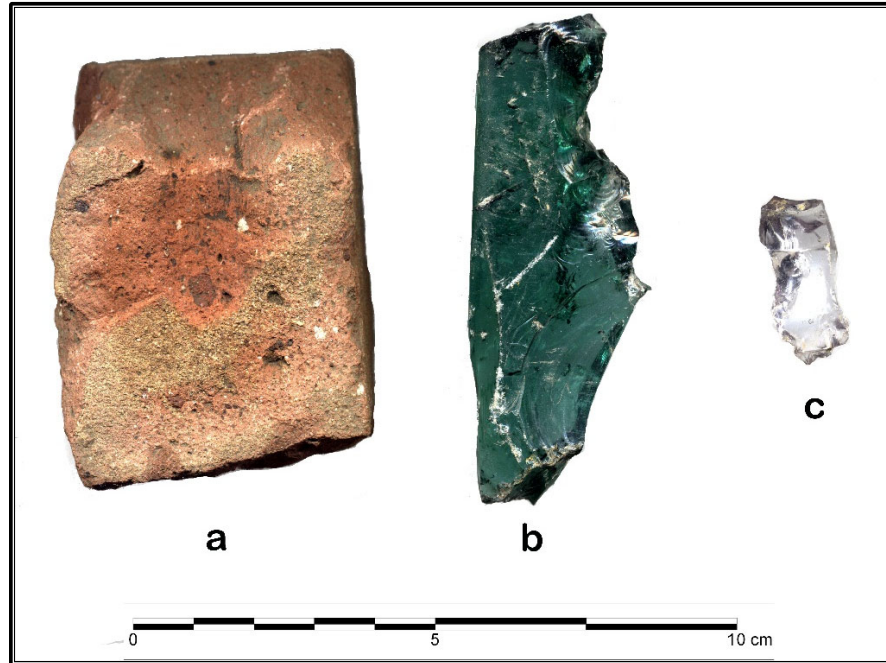


Figure 12. Historic materials recovered: a) handmade brick fragment, b) BIM aqua indeterminate mold glass container base, c) ABM amethyst glass container body.

## VI. CONCLUSIONS AND RECOMMENDATIONS

On October 13, 2020, CRA personnel conducted a phase Ia archaeological reconnaissance for proposed improvements to the intersection of SR 13 and CR 800 S in Madison County, Indiana (INDOT Des. No. 1900171). The survey was conducted at the request of HNTB Corporation. The survey area covers approximately 3.0 ha (7.5 acres), encompassing the limits of the proposed right-of-way, and was investigated in its entirety by shovel testing, pedestrian survey, and visual inspection.

Prior to initiating the fieldwork, a records review was conducted utilizing data from the DHPA. Based on this research, no previous archaeological surveys or previously recorded archaeological sites were reported within the current survey area.

This survey resulted in the identification of one previously unrecorded archaeological site (12M812). Site 12M812 is a precontact, Early Archaic isolated find and low density scatter of historic artifacts dating from the late nineteenth to

early twentieth century. This site demonstrated poor archaeological integrity and is recommended not eligible for inclusion in the NRHP. No additional archaeological work is recommended for this project.

Note that a principal investigator or field archaeologist cannot grant or withhold clearance to a project. Although the decision to grant or withhold clearance is reached, at least in part, on the recommendations made by the field investigator, clearance may be obtained only through an administrative decision made by a lead federal agency in consultation with INDOT and the State Historic Preservation Officer (Indiana DHPA).

If any previously unrecorded archaeological materials are encountered during construction activities, the DHPA should be notified immediately at (317) 232-1646, as well as the INDOT Cultural Resources Office (CRO) at (317) 233-6795. If human remains are discovered, construction activities should cease immediately, and the DHPA, the INDOT CRO, the local coroner, and the local law enforcement agency must be notified.

## APPENDIX E: RED FLAG AND HAZARDOUS MATERIALS



# INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue  
Room N642  
Indianapolis, Indiana 46204

PHONE: (317) 232-5113  
FAX: (317) 233-4929

**Eric Holcomb, Governor**  
**Joe McGuinness,**  
**Commissioner**

Date: September 15, 2020

To: Site Assessment & Management (SAM)  
Environmental Policy Office - Environmental Services Division (ESD)  
Indiana Department of Transportation  
100 N Senate Avenue, Room N642  
Indianapolis, IN 46204

From: Kate Williams  
HNTB Corporation  
111 Monument Circle  
Indianapolis, IN 46204  
klwilliams@hntb.com

Re: RED FLAG INVESTIGATION  
DES 1900171, State Project  
Intersection Improvement  
SR 13 at County Road 800  
Madison County, Indiana

## PROJECT DESCRIPTION

Brief Description of Project: The project consists of improvements to the intersection of State Road (SR) 13 at County Road (CR) 800 in Madison County, Indiana. The current preferred alternative proposes installation of a traffic signal with added turn lanes for the north, south, and east approaches. Additional construction activities will include replacement of driveway culverts.

Bridge and/or Culvert Project: Yes  No  Structure # \_\_\_\_\_

If this is a bridge project, is the bridge Historical? Yes  No  , Select  Non-Select

(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations Section of the report).

Proposed right of way: Temporary  # Acres \_\_\_\_\_ Permanent  # Acres 2.5, Not Applicable

Type of excavation: Excavation to a depth of up to eight feet for installation of new signals and up to two feet for construction of turn lanes.

Maintenance of traffic: Traffic will be maintained on SR 13 during construction of signals and turn lanes utilizing lane closures.

Work in waterway: Yes  No  Below ordinary high water mark: Yes  No

State Project:  LPA:

Any other factors influencing recommendations: N/A

## **INFRASTRUCTURE TABLE AND SUMMARY**

<b>Infrastructure</b>			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Religious Facilities	<b>1</b>	Recreational Facilities	<b>N/A</b>
Airports <sup>1</sup>	<b>N/A</b>	Pipelines	<b>1</b>
Cemeteries	<b>1</b>	Railroads	<b>N/A</b>
Hospitals	<b>N/A</b>	Trails	<b>N/A</b>
Schools	<b>N/A</b>	Managed Lands	<b>N/A</b>

<sup>1</sup>In order to complete the required airport review, a review of public airports within 3.8 miles (20,000 feet) is required.

### Explanation:

**Religious Facilities:** One religious facility is located within the 0.5 mile search radius. The nearest facility, Grandview Church of the Brethren, is located adjacent to the project area. This church is mapped in its previous location just north of the project area, near Beech Grove Cemetery. However, when Love's Travel Stop was built, the church was demolished and rebuilt in its current location at 9064 W. Grandview Blvd. and renamed Grandview Church of the Brethren. Coordination with Grandview Church of the Brethren will occur.

**Cemeteries:** One cemetery is located within the 0.5 mile search radius. Beech Grove Cemetery is located 0.03 mile northwest of the project area. No impact is expected.

**Pipelines:** One pipeline segment is located within the 0.5 mile search radius. An Indiana Gas Company pipeline is located approximately 0.08 mile east of the project area. No impact is expected.

## **WATER RESOURCES TABLE AND SUMMARY**

<b>Water Resources</b>			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
NWI - Points	<b>N/A</b>	Canal Routes - Historic	<b>N/A</b>
Karst Springs	<b>N/A</b>	NWI - Wetlands	<b>12</b>
Canal Structures – Historic	<b>N/A</b>	Lakes	<b>2</b>
NPS NRI Listed	<b>N/A</b>	Floodplain - DFIRM	<b>1</b>
NWI-Lines	<b>2</b>	Cave Entrance Density	<b>N/A</b>
IDEM 303d Listed Streams and Lakes (Impaired)	<b>1</b>	Sinkhole Areas	<b>N/A</b>
Rivers and Streams	<b>N/A</b>	Sinking-Stream Basins	<b>N/A</b>

### Explanation:

**NWI-Wetlands:** Twelve (12) wetlands are located within the 0.5 mile search radius. The nearest wetland is located 0.06 mile east of the project area. No impact is expected.

**Lakes:** Two (2) lakes are located within the 0.5 mile search radius. The nearest lake is located 0.06 mile east of the project area. No impact is expected.

Floodplains: One (1) floodplain polygon is located within the 0.5 mile search radius. The floodplain polygon is located approximately 0.15 mile northwest of the project area. No impact is expected.

NWI-Lines: Two (2) NWI-Lines are located within the 0.5 mile search radius. The nearest NWI-Line segment is located 0.3 mile to the northwest of the project area. No impact is expected.

IDEM 303d Listed Streams and Lakes: One (1) 303d Listed Stream is located within the 0.5 mile search radius. A tributary of Fall Creek is located 0.5 mile south of the project area and is listed for E. coli. No impact is expected.

**URBANIZED AREA BOUNDARY SUMMARY**

Explanation: The project lies within the Madison County UAB. Post construction Storm Water Quality Best Management Practices (BMPs) may need to be considered. Coordination with the appropriate MS4 will be necessary.

**MINING AND MINERAL EXPLORATION TABLE AND SUMMARY**

<b>Mining/Mineral Exploration</b>			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Petroleum Wells	<b>6</b>	Mineral Resources	<b>N/A</b>
Mines – Surface	<b>N/A</b>	Mines – Underground	<b>N/A</b>

Explanation:

Petroleum Wells: Six (6) petroleum wells are located within the 0.5 mile search radius. One petroleum well is located within the project area. Coordination with IDNR Oil and Gas Division will occur.

**HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY**

<b>Hazardous Material Concerns</b>			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Superfund	<b>N/A</b>	Manufactured Gas Plant Sites	<b>N/A</b>
RCRA Generator/ TSD	<b>N/A</b>	Open Dump Waste Sites	<b>N/A</b>
RCRA Corrective Action Sites	<b>N/A</b>	Restricted Waste Sites	<b>N/A</b>
State Cleanup Sites	<b>N/A</b>	Waste Transfer Stations	<b>N/A</b>
Septage Waste Sites	<b>N/A</b>	Tire Waste Sites	<b>N/A</b>
Underground Storage Tank (UST) Sites	<b>1</b>	Confined Feeding Operations (CFO)	<b>N/A</b>
Voluntary Remediation Program	<b>N/A</b>	Brownfields	<b>N/A</b>
Construction Demolition Waste	<b>N/A</b>	Institutional Controls	<b>N/A</b>
Solid Waste Landfill	<b>N/A</b>	NPDES Facilities	<b>6</b>
Infectious/Medical Waste Sites	<b>N/A</b>	NPDES Pipe Locations	<b>N/A</b>
Leaking Underground Storage (LUST) Sites	<b>2</b>	Notice of Contamination Sites	<b>N/A</b>

Unless otherwise noted, site specific details presented in this section were obtained from documents reviewed on the Indiana Department of Environmental Management (IDEM) Virtual File Cabinet (VFC).

Explanation:

Underground Storage Tank (UST) Sites: One (1) UST site is mapped within the 0.5 mile search radius. Ricker's Oil 24, 7788 S SR 13, Agency ID 45622, is mapped within the project area. An IDEM Underground Storage Tank Inspection occurred on June 20, 2018, and the facility was found to be out of compliance with equipment, operating, and maintenance requirements set forth in Indiana's UST Rule 329 IAC 9; however, documentation reviewed does not indicate that a release occurred. No impact is expected.

Leaking Underground Storage Tank (LUST) Sites: Two (2) LUST sites are mapped within the 0.5 mile search radius. The nearest mapped LUST, Pilot Corporation 362, 7455 SR 13, Agency ID 42985, is mapped 0.36 mile north of the project area. No impact is expected.

NPDES Facilities: Six (6) NPDES Facilities are located within the 0.5 mile search radius. One (1) facility, Love's Travel Stop & Country Store, Permit Number INR10H085, is located 0.06 mile north of the project area. No impact is expected.

**ECOLOGICAL INFORMATION SUMMARY**

The Madison County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities is attached with ETR species highlighted. A preliminary review of the Indiana Natural Heritage Database by INDOT Environmental Services did not indicate the presence of ETR species within the 0.5 mile search radius. Coordination with USFWS and IDNR will occur.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

**RECOMMENDATIONS SECTION**

Include recommendations from each section. If there are no recommendations, please indicate N/A:

INFRASTRUCTURE: Religious Facilities: One religious facility is located within the 0.5 mile search radius. The nearest facility, Grandview Church of the Brethren, is located adjacent to the project area. Coordination with Grandview Church of the Brethren will occur.

WATER RESOURCES: N/A

URBANIZED AREA BOUNDARY:

The project lies within the Madison County UAB. Post construction Storm Water Quality BMPs may need to be considered. Coordination with the appropriate MS4 will be necessary.

MINING/MINERAL EXPLORATION: One petroleum well is located within the project area. Coordination with IDNR Oil and Gas Division will occur.

HAZARDOUS MATERIAL CONCERNS: N/A

*www.in.gov/dot/  
An Equal Opportunity Employer*



ECOLOGICAL INFORMATION:

Coordination with the USFWS and IDNR will occur. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

INDOT Environmental Services concurrence:

**Nicole Fohey-  
Breting**  
Digitally signed by  
Nicole Fohey-Breting  
Date: 2020.12.07  
15:29:33 -05'00' (Signature)

Prepared by:  
Kate Williams  
Science Project Manager  
HNTB

**Graphics:**

A map for each report section with a 0.5 mile search radius buffer around all project area(s) showing all items identified as possible items of concern is attached. If there is not a section map included, please change the YES to N/A:

SITE LOCATION: YES

INFRASTRUCTURE: YES

WATER RESOURCES: YES

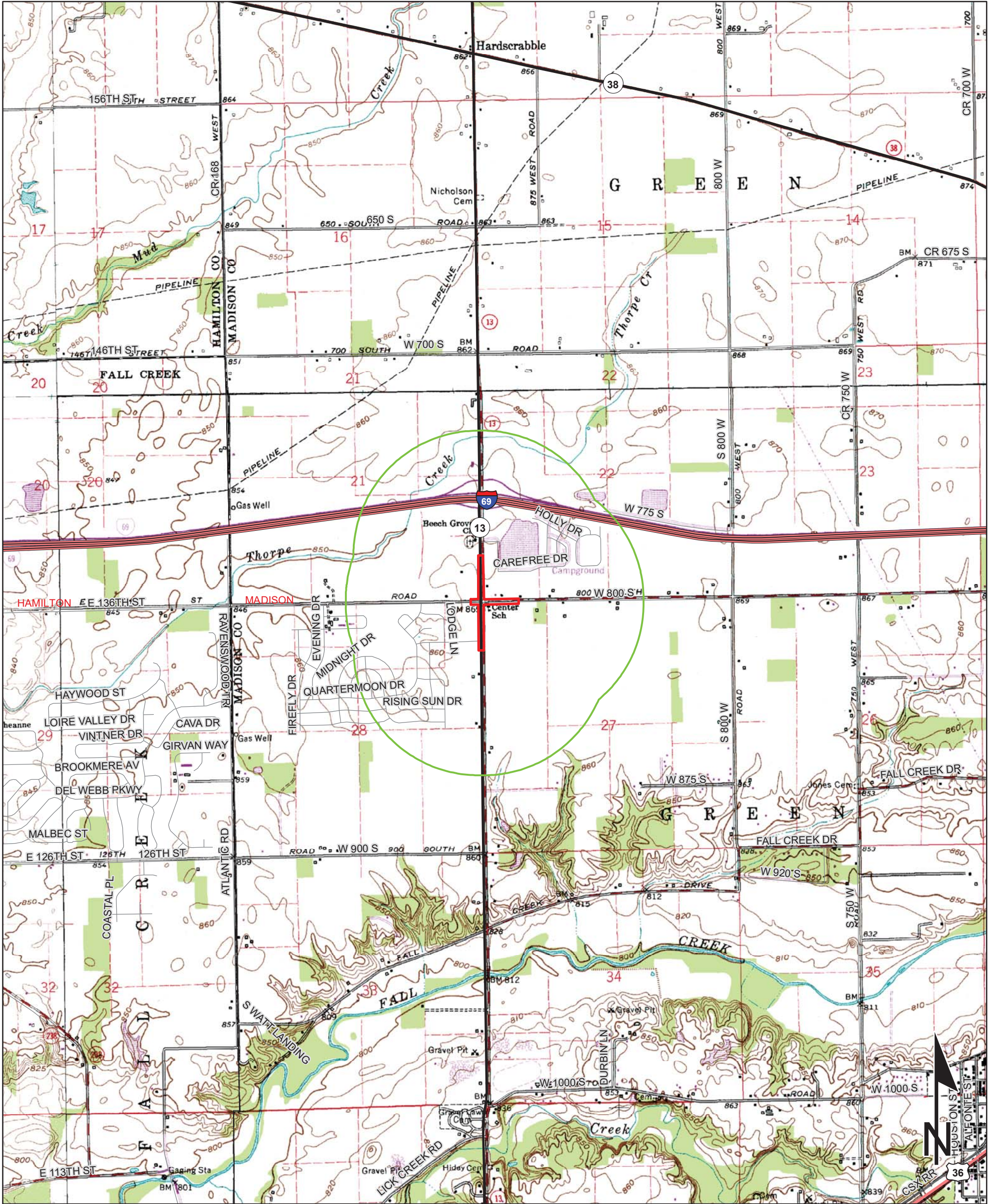
URBANIZED AREA BOUNDARY: YES

MINING/MINERAL EXPLORATION: YES

HAZARDOUS MATERIAL CONCERNS: YES



Red Flag Investigation - Site Location  
 SR 13 at County Road 800  
 Des. No. 1900171, Intersection Improvement  
 Madison County, Indiana



Sources: 0.5 0.25 0 0.5 Miles  
**Non Orthophotography**  
 Data - Obtained from the State of Indiana Geographical Information Office Library  
**Orthophotography** - Obtained from Indiana Map Framework Data ([www.indianamap.org](http://www.indianamap.org))  
 Map Projection: UTM Zone 16 N Map Datum: NAD83  
 This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

**INGALLS QUADRANGLE  
 INDIANA  
 7.5 MINUTE SERIES  
 (TOPOGRAPHIC)**



# Red Flag Investigation - Infrastructure

## SR 13 at County Road 800

### Des. No. 1900171, Intersection Improvement

### Madison County, Indiana



**Sources:**  
**Non Orthophotography**  
**Data** - Obtained from the State of Indiana Geographical Information Office Library  
**Orthophotography** - Obtained from Indiana Map Framework Data ([www.indianamap.org](http://www.indianamap.org))  
**Map Projection:** UTM Zone 16 N **Map Datum:** NAD83

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.



	Religious Facility		Recreation Facility		Project Area
	Airport		Pipeline		Half Mile Radius
	Cemeteries		Railroad		Toll
	Hospital		Trails		Interstate
	School		Managed Lands		State Route
			County Boundary		US Route
					Local Road



# Red Flag Investigation - Water Resources

## SR 13 at County Road 800

### Des. No. 1900171, Intersection Improvement

### Madison County, Indiana



**Sources:** 0.15 0.075 0 0.15 Miles

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

**Orthophotography** - Obtained from Indiana Map Framework Data ([www.indianamap.org](http://www.indianamap.org))

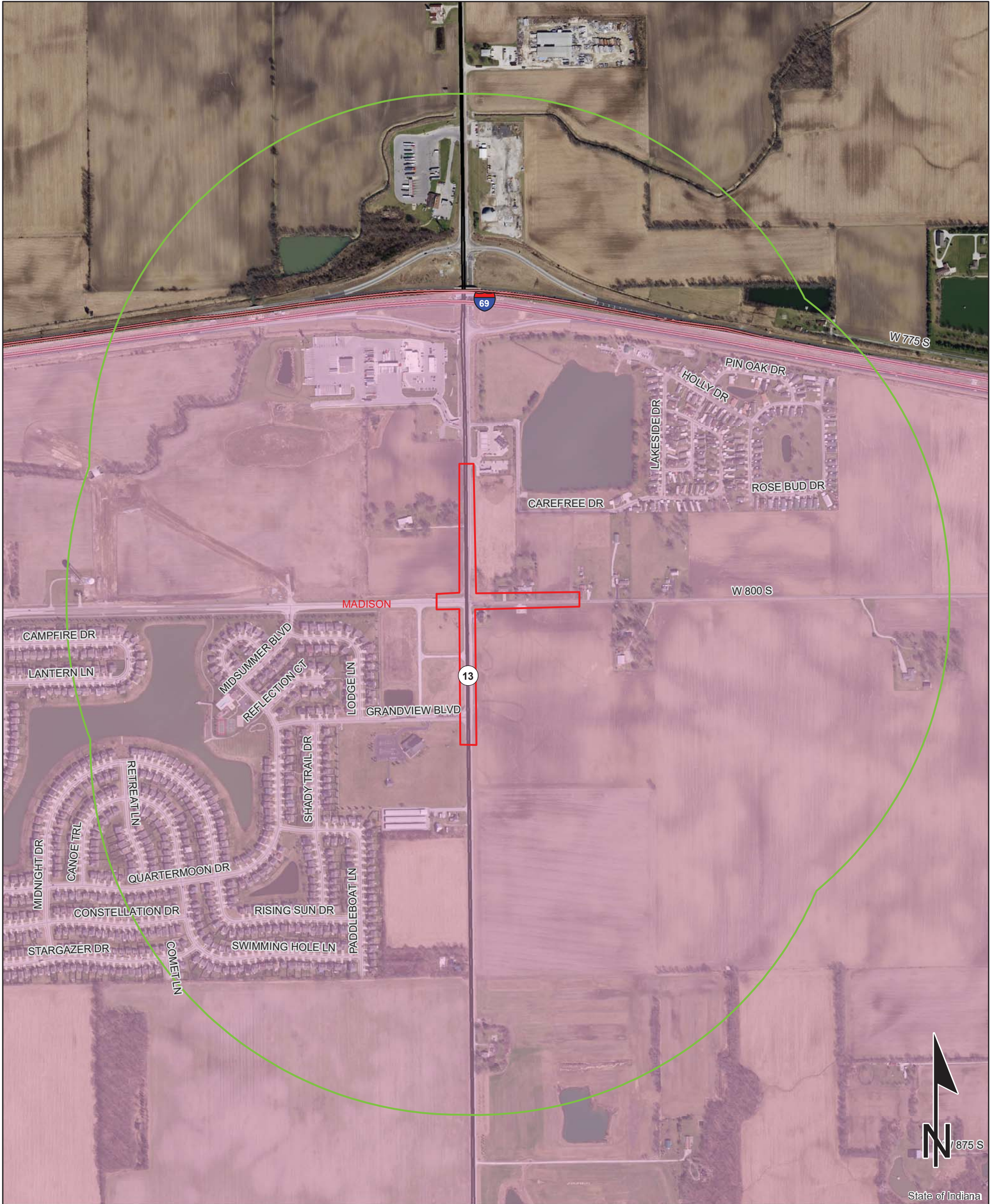
**Map Projection:** UTM Zone 16 N **Map Datum:** NAD83

**This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.**

	NW1 - Point		Wetlands		Project Area
	Karst Spring		Lake		Half Mile Radius
	NW1 - Line		Floodplain - DFIRM		Toll
	Impaired_Stream_Lake		Cave Entrance Density		Interstate
	NPS NRI listed		Sinkhole Area		State Route
	River		Sinking-Stream Basin		US Route
	Canal Structure - Historic		County Boundary		Local Road
	Canal Route - Historic				

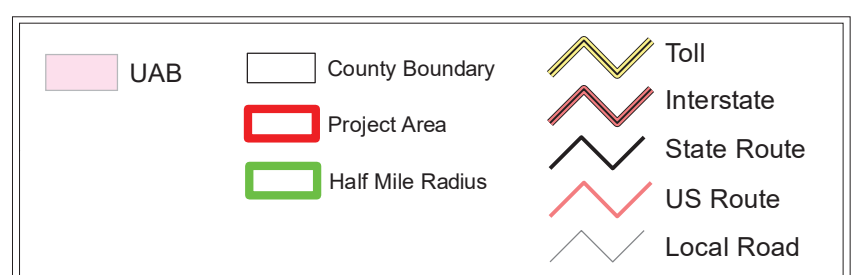


# Red Flag Investigation - Urbanized Area Boundary SR 13 at County Road 800 Des. No. 1900171, Intersection Improvement Madison County, Indiana



**Sources:**  
**Non Orthophotography Data** - Obtained from the State of Indiana Geographical Information Office Library  
**Orthophotography** - Obtained from Indiana Map Framework Data ([www.indianamap.org](http://www.indianamap.org))  
**Map Projection:** UTM Zone 16 N **Map Datum:** NAD83

**This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.**





# Red Flag Investigation - Mining and Mineral Exploration

## SR 13 at County Road 800

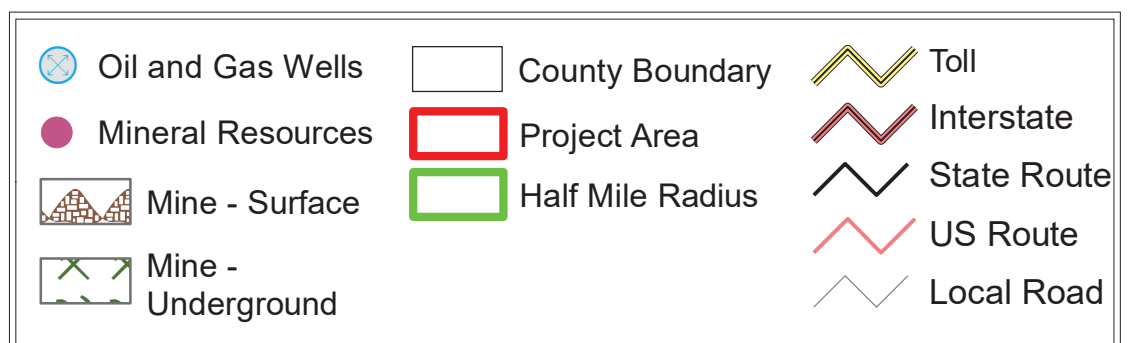
### Des. No. 1900171, Intersection Improvement

### Madison County, Indiana



**Sources:**  
**Non Orthophotography Data** - Obtained from the State of Indiana Geographical Information Office Library  
**Orthophotography** - Obtained from Indiana Map Framework Data ([www.indianamap.org](http://www.indianamap.org))  
**Map Projection:** UTM Zone 16 N **Map Datum:** NAD83

**This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.**



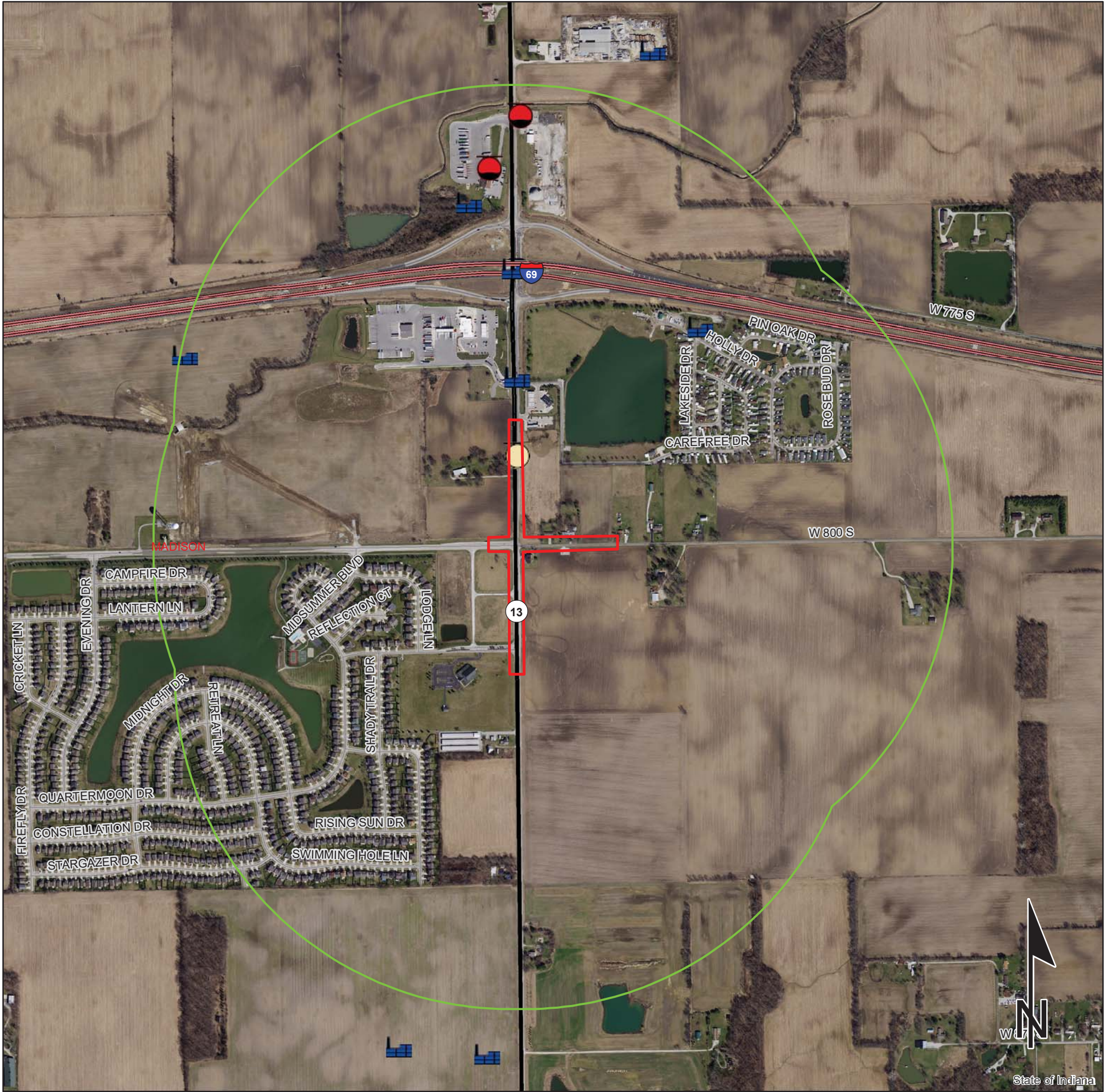


# Red Flag Investigation - Hazardous Material Concerns

## SR 13 at County Road 800

### Des. No. 1900171, Intersection Improvement

### Madison County, Indiana



	Brownfield		RCRA Generator/TSD		Institutional Controls
	RCRA Corrective Action Sites		Restricted Waste Site		County Boundary
	Confined Feeding Operation		Septage Waste Site		Project Area
	Notice_of_Contamination		Solid Waste Landfill		Half Mile Radius
	Construction/Demolition Site		State Cleanup Site		Toll
	Infectious/Medical Waste Site		Superfund		Interstate
	Leaking Underground Storage Tank		Tire Waste Site		State Route
	Manufactured Gas Plant		Underground Storage Tank		US Route
	NPDES Facilities		Voluntary Remediation Program		Local Road
	NPDES Pipe Locations		Waste Transfer Station		
	Open Dump Waste Site				



This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.



Indiana County Endangered, Threatened and Rare Species List

County: Madison



Species Name	Common Name	FED	STATE	GRANK	SRANK
<b>Mollusk: Bivalvia (Mussels)</b>					
<i>Alasmidonta viridis</i>	Slippershell Mussel		SSC	G4G5	S3
<i>Epioblasma rangiana</i>	Northern Riffleshell	LE	SE	G1	S1
<i>Eurynia dilatata</i>	Spike		SSC	G5	S4
<i>Lampsilis fasciola</i>	Wavyrayed Lampmussel		SSC	G5	S3
<i>Plethobasus cyphus</i>	Sheepnose	LE	SE	G3	S1
<i>Pleurobema clava</i>	Clubshell	LE	SE	G1G2	S1
<i>Ptychobranthus fasciolaris</i>	Kidneyshell		SSC	G4G5	S2
<i>Theliderma cylindrica</i>	Rabbitsfoot	LT	SE	G3G4	S1
<i>Toxolasma lividus</i>	Purple Lilliput	C	SSC	G3Q	S2
<i>Villosa fabalis</i>	Rayed Bean	LE	SE	G2	S1
<i>Villosa iris</i>	Rainbow		SSC	G5	S3
<i>Villosa lienosa</i>	Little Spectaclecase		SSC	G5	S3
<b>Insect: Odonata (Dragonflies &amp; Damselflies)</b>					
<i>Cordulegaster bilineata</i>	Brown Spiketail		WL	G5	S3
<i>Somatochlora tenebrosa</i>	Clamp-tipped Emerald		SR	G5	S2S3
<i>Tachopteryx thoreyi</i>	Gray Petaltail		WL	G4	S3
<b>Bird</b>					
<i>Botaurus lentiginosus</i>	American Bittern		SE	G5	S2B
<i>Haliaeetus leucocephalus</i>	Bald Eagle		SSC	G5	S2
<i>Lanius ludovicianus</i>	Loggerhead Shrike		SE	G4	S3B
<i>Nycticorax nycticorax</i>	Black-crowned Night-heron		SE	G5	S1B
<i>Rallus elegans</i>	King Rail		SE	G4	S1B
<b>Mammal</b>					
<i>Mustela nivalis</i>	Least Weasel		SSC	G5	S2?
<i>Taxidea taxus</i>	American Badger		SSC	G5	S2
<b>Vascular Plant</b>					
<i>Deschampsia cespitosa</i>	tufted hairgrass		ST	G5	S3
<i>Eriophorum gracile</i>	slender cotton-grass		ST	G5	S2
<i>Hypericum pyramidatum</i>	great St. John's-wort		ST	G4T4	S2
<i>Juglans cinerea</i>	butternut		ST	G3	S2
<i>Lithospermum parviflorum</i>	shaggy false-gromwell		SE	G4G5T4	S1
<i>Magnolia acuminata</i>	cucumber magnolia		SE	G5	S1
<i>Poa paludigena</i>	bog bluegrass		ST	G3G4	S3
<i>Selaginella apoda</i>	meadow spike-moss		WL	G5	S1
<i>Spiranthes lucida</i>	shining ladies'-tresses		ST	G4	S3
<i>Valerianella chenopodiifolia</i>	goose-foot corn-salad		WL	G4	S3
<b>High Quality Natural Community</b>					
Forest - upland mesic Central Till Plain	Central Till Plain Mesic Upland Forest		SG	GNR	S3

Indiana Natural Heritage Data Center  
 Division of Nature Preserves  
 Indiana Department of Natural Resources  
 This data is not the result of comprehensive county surveys.

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting  
 State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list  
 GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long-term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank  
 SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long-term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

Indiana County Endangered, Threatened and Rare Species List

County: Madison



Species Name	Common Name	FED	STATE	GRANK	SRANK
<i>Wetland - fen</i>	Fen		SG	G3	S3
<i>Wetland - marsh</i>	Marsh		SG	GU	S4
<b>Other Significant Feature</b>					
<i>Geomorphic - Nonglacial Erosional Feature - Water Fall and Cascade</i>	Water Fall and Cascade			GNR	SNR

Indiana Natural Heritage Data Center  
Division of Nature Preserves  
Indiana Department of Natural Resources  
This data is not the result of comprehensive county surveys.

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting  
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 SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long-term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

## APPENDIX F: WATER RESOURCES

## Waters of the U.S. Report

### SR 13 AT CR 800 INTERSECTION IMPROVEMENT PROJECT



MADISON  
COUNTY

DES. NO.  
1900171

Note: Attachments have been removed to avoid duplication. Graphics can be found in Appendix B.

Prepared by:

**HNTB**

111 Monument Circle, Suite 1200  
Indianapolis, IN, 46204  
317.636.4682

**December 11, 2020**

## 1. PROJECT INFORMATION

Date(s) of Field Reconnaissance: October 6, 2020

### 1.1 LOCATION

The project is located at the intersection of State Road (SR) 13 with County Road (CR) 800, in Madison County, Indiana.

- Sections 21, 22, 27, and 28, Township 18 North, Range 6 East
- Ingalls Quadrangle, Indiana 7.5 Minute Series
- 39.9878094, -85.842134, NAD 83 InGCS Hancock-Madison

### 1.2 PROJECT DESCRIPTION

The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intend to proceed with a project involving improvements to the intersection of SR 13 with CR 800 in Madison County. The current preferred alternative proposes installation of a traffic signal with added turn lanes for the north, south, and east approaches. Additional construction activities will include replacement of driveway culverts.

## 2. DESKTOP RECONNAISSANCE

### 2.1 SOIL ASSOCIATIONS AND SERIES TYPES

According to the Soil Survey Geographic (SSURGO) Database for Madison County, Indiana, the following mapped soils series within the intersection improvement project area (Attachment pages 7-11).

- **Brookston silty clay loam (Bs):** very deep, poorly drained soils formed in as much as 51 cm (20 inches) of silty material and the underlying loamy till in depressions on till plains and moraines. Slope ranges from 0 to 2 percent. Brookston silty clay loam is considered a hydric soil. This soil type has a hydric rating of 95%.
- **Crosby silt loam, fine loamy sub-soil (CrA):** very deep, somewhat poorly drained soils that are moderately deep to dense till. Slopes are 0-2 percent. Crosby silt loam is not considered a hydric soil. This soil type has a hydric rating of 2%.

### 2.2 NATIONAL WETLANDS INVENTORY

Based on the U.S. Fish and Wildlife National Wetlands Inventory (NWI) data ([www.fws.gov/wetlands/Data/State-Downloads.html](http://www.fws.gov/wetlands/Data/State-Downloads.html)), no wetland polygons are mapped within the investigated area (Attachment page 5). The nearest mapped wetland polygon, a freshwater pond classified as a palustrine, unconsolidated bottom, intermittently exposed excavated wetland (PUBGx), is located approximately 0.1 mile northeast of the project area

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## 2.3 HYDROLOGY

The 12- digit Hydrologic Unit Code (HUC) for the entirety of the project area is # 051202010809, which identifies the Thorpe Creek-Geist Reservoir Watershed. According to the Indiana Floodplain Information Portal, the project is not within a 100-year floodplain or regulatory floodway (<http://dnrmads.dnr.in.gov/appsphp/fdms/>).

## 3. FIELD RECONNAISSANCE

HNTB Indiana staff performed a field review of the investigated area on October 6, 2020. The purpose was to determine the presence of waters of the U.S. within the investigated area. HNTB Indiana staff collected data during the field review to appropriately characterize the investigated area and determine the presence or absence of jurisdictional waters. The field investigation area encompassed the area required for construction access and completion of the intersection improvement work. HNTB staff photographed select features and areas of interest throughout the investigated area. A photo location map and selected photographs are included as Attachment pages 12-22.

The proposed investigated area was analyzed using the methods outlined in the Routine Determination, On-site Inspection Necessary procedure in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual Midwest Region* (US Army corps of Engineers, 2010). Identification indicator status of plant species utilized the 2018 Midwest Region National Wetland Plant List. Field GIS data was collected using a Trimble R1 GNSS GPS with sub-meter accuracy.

## 4. WATERS

The October 2020 field reconnaissance for the SR 13 at CR 800 Intersection Improvement project did not reveal any water resources. The general topography of the site was relatively flat, surrounded by agricultural fields with residential subdivisions nearby. Evidence of tile drainage systems was observed during the field investigation, and such systems create conditions that are not conducive to wetland formation. The agricultural fields that are adjacent to the SR 13 and CR 800 roadside throughout much of the northwest, northeast, and southeast quadrants are relatively close to the right-of-way and consist primarily of corn and soybean crops. No hydrology indicators were observed within the investigated area. Vegetation consisted primarily of typical roadside vegetation, dominated by tall fescue (*Schedonorus arundinaceus* FACU) and red fescue (*Festuca rubra* FACU). There are no USGS Blueline streams mapped within the investigated area, and no drainage structures were observed during the investigation.

## 5. CONCLUSION

The October 2020 field review for the SR 13 at CR 800 Intersection Improvement project did not identify any jurisdictional features within the identified survey area. No wetlands, streams, or roadside ditches with OHWMs were identified within the survey.

If construction exceeds the limits of the survey review area illustrated in this document, further field investigation will be needed. This report is this office's best judgment of water resources that are likely to be under federal jurisdiction, based on the guidelines set forth by the U.S. Army Corps of Engineers (USACE). The final determination of jurisdictional waters is ultimately the responsibility of the USACE. The INDOT Office of Environmental Services should be contacted immediately if impacts occur.

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This waters determination has been prepared based on the best available information, interpreted in the light of the investigator's training, experience and professional judgement in conformance with the 1987 *Corps of Engineers Wetlands Delineation Manual*, the appropriate regional supplement, the USACE *Jurisdictional Determination Form Instructional Guidebook*, and other appropriate agency guidelines.



Sharon Anton, Scientist I

PREPARERS:

HNTB Inc., Staff	Position	Contributing Effort
Kate Williams, PWS	Science Project Manager	Project Management Field Data Collection
Sharon Anton	Scientist I	Field Data Collection Report Preparation

## APPENDIX G: PUBLIC INVOLVEMENT



Sample Notice of Survey Letter

June 12, 2020

Western, Patricia L. Et Al.  
7768 W SR 56  
Petersburg, IN 47567

Re: Madison County Tax Parcel – 63-05-04-200-002.000-001, 63-05-04-200-006.000-001

**NOTICE OF SURVEY**

Dear Property Owner:

HNTB, on behalf of The Indiana Department of Transportation (INDOT), will perform a survey for the proposed traffic control at the intersection of SR 13 and CR 800 S, located near Pendleton in Madison County, Indiana, Des No. 1900171. A portion of this survey work may be performed on your property in order to provide design engineers information for project design. The survey work will include mapping the location of features such as trees, buildings, fences, drives, ground elevations, etc. The survey is needed for the proper planning and design of this highway project.

At this stage we generally do not know what effect, if any, our project may eventually have on your property. If we determine later that your property is involved, we will contact you with additional information.

Indiana Code 8-23-7-26 allows HNTB, as the authorized employees of INDOT, *Right of Entry* to the project site (including private property) upon proper notification. A copy of a Notice of Survey discussion sheet, as found on INDOT's website (<http://www.in.gov/indot/2888.htm>), is attached to this letter. Pursuant to Indiana Code 8-23-7-27, this letter serves as written notification that we will be performing the above noted survey in the vicinity of your property on or after June 22, 2020.

HNTB employees will show you their identification, if you are available, before coming onto your property.

If you own but are not the tenant of this property (i.e. rental, sharecrop), please inform us so that we may also contact the actual tenant of the property prior to commencement of our work. If you have any questions or concerns regarding our proposed survey work or schedule, please contact the HNTB Project Manager. This contact information is as follows:

Chris Buergelin, PS  
111 Monument Circle, Suite 1200  
Indianapolis, IN 46204  
(317) 903-4852

Under Indiana Code 8-23-7-28, you have a right to compensation for any damage that occurs to your land or water as a result of the entry or work performed during the entry. To obtain such compensation, you should contact the Greenfield District Real Estate Manager; contact information is below. The District Real Estate Manager can provide you with a form to request compensation for damages. Once you fill out this form, you can return it to the District Real Estate Manager for consideration. If you are not satisfied with the compensation that INDOT determines is owed to you, Indiana Code 8-23-7-28 provides the following:

The amount of damages shall be assessed by the county agricultural extension educator of the county in which the land or water is located and two (2) disinterested residents of the county, one (1) appointed by the aggrieved party and one (1) appointed by the department. A written report of the assessment of damages shall be mailed to the aggrieved party and the department by first class United States mail. If either the department or the aggrieved party is not satisfied with the assessment of damages, either or both may file a petition, not later than fifteen (15) days after receiving the report, in the circuit or superior court of the county in which the land or water is located.

If you have questions regarding the rights and procedures outlined in this letter, please contact the Indiana Department of Transportation Central Office. This contact information is as follows:

1-855-INDOT4U (463-6848)  
www.INDOT4U.com

Thank you in advance for your cooperation in this matter.

Sincerely,

HNTB Corporation

A handwritten signature in blue ink that reads "William M. Jones". The signature is written in a cursive style with a large, looping "J" at the end.

William M. Jones  
Supervisory Survey Technician

## APPENDIX H: AIR QUALITY

SPONSOR	CONTR ACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2020	2021	2022	2023	2024	
Indiana Department of Transportation	42339 / 1900194	A 05	SR 32	Small Structure Replacement	3.674 MI E of SR 13	Greenfield	0	STBG	\$443,000.00	Bridge Consulting	PE	\$120,000.00	\$30,000.00	\$150,000.00					
Comments:Adding PE MCCOG Resolution 13-2019																			
Indiana Department of Transportation	42409 / 1900146	A 05	SR 9	Access Control	at 38th St in Anderson	Greenfield	0	Safety	\$200,893.00	Safety Consulting	PE	\$40,000.00	\$10,000.00	\$50,000.00					
Comments:Adding PE MCCOG Resolution 13-2019																			
Indiana Department of Transportation	42410 / 1900152	A 05	SR 9	Intersect. Improv. W/ Added Turn Lanes	at CR 600 N_Linwood Rd	Greenfield	0	Safety	\$1,307,410.00	Safety Consulting	PE	\$120,000.00	\$30,000.00	\$150,000.00					
Comments:Adding PE MCCOG Resolution 13-2019																			
Indiana Department of Transportation	42638 / 1902165	A 27	US 36	Access Control	At SR109	Greenfield	0	STBG	\$368,837.00	District Other Construction	CN	\$295,069.60	\$73,767.40		\$368,837.00				
Comments:A Add CN \$368,837.00 2021 MCCOG Resolution 04/14/2020 AQC Exempt 04/02/2020																			
Indiana Department of Transportation	42682 / 1902727	A 18	SR 13	New Signal Installation	@ Carefree Drive	Greenfield	0	Safety	\$160,646.00	Safety Construction	CN	\$88,516.80	\$22,129.20		\$110,646.00				
											Safety ROW	RW	\$40,000.00	\$10,000.00	\$50,000.00				
Comments:A Add CN RW \$110646.00 \$50,000 2020 2021 MCCOG Resolution 02/20/20 AQC Exempt 02/13/20																			
Indiana Department of Transportation	42708 / 1900171	A 18	SR 13	Traffic Signals, New Or Modernized	@ CR 800 S, Ingalls	Greenfield	0	Safety	\$1,037,053.00	Mobility Consulting	PE	\$100,000.00	\$25,000.00	\$125,000.00					
											Mobility ROW	RW	\$32,000.00	\$8,000.00			\$40,000.00		
Comments:A Add PE RW \$125,000.00 \$40,000 2020 2022 MCCOG Resolution 02/20/20 AQC Exempt 02/13/20																			
Madison County	42792 / 1902803	A 22	IR 2240	Bridge Deck Replacement	Bridge on Range Line Road/200 E between SR 232/Mounds Road and 10th Street over the	Greenfield	.136	STBG	\$1,857,000.00	Local Funds	PE	\$0.00	\$260,000.00		\$260,000.00				
Comments:MCCOG MPO - Add FY 21 PE Local 260,000 - resolution 7-2020 signed 4-14-2020 AQC - exempt 4-2-2020																			
Indiana Department of Transportation	42803 / 2001132	A 31	SR 9	Intersect. Improv. W/ New Signals	@ Cross Lakes Circle	Greenfield	.02	Safety	\$157,000.00	District Other Construction	CN	\$125,600.00	\$31,400.00		\$157,000.00				
Comments:A Add CN \$157,000.00 2021 MCCOG Resolution 08/06/2020 AQC Exempt 08/05/2020																			
Indiana Department of Transportation	43067 / 2000170	A 31	I 69	Bridge Painting	NB over OLD SR 109/COLUMB US AV, 00.60 S SR 9	Greenfield	0	NHPP	\$281,654.00	Bridge Construction	CN	\$253,488.60	\$28,165.40					\$281,654.00	
Comments:A Add CN \$281,654.00 2023 MCCOG Resolution 8/6/2020 AQC Exempt 08/05/2020																			

**Madison County Total**

Federal: \$50,091,712.04      Match :\$39,500,470.01      2020: \$55,633,743.90      2021: \$12,454,927.25      2022: \$1,149,178.90      2023: \$12,173,012.00      2024: \$8,181,320.00

\*Estimated Costs left to Complete Project column is for costs that may extend beyond the four years of a STIP. This column is not fiscally constrained and is for information purposes.

Indiana Department of Transportation (INDOT)  
 State Preservation and Local Initiated Projects FY 2022 - 2026

SPONSOR	CONTR ACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2022	2023	2024	2025	2026	
Performance Measure Impacted: Pavement Condition																			
Indiana Department of Transportation	42322 / 1900128	Init.	SR 236	Bridge Deck Replacement	SR 236 over I-69 NB/SB, 03.16 E SR 9	Greenfield	0	STPBG		Bridge Construction	CN	\$1,353,600.00	\$338,400.00			\$1,692,000.00			
										Bridge ROW	RW	\$24,000.00	\$6,000.00	\$30,000.00					
Performance Measure Impacted: Bridge Condition																			
Indiana Department of Transportation	42339 / 1900194	Init.	SR 32	Small Structure Replacement	3.674 MI E of SR 13	Greenfield	0	STPBG		Bridge ROW	RW	\$12,000.00	\$3,000.00	\$15,000.00					
										Bridge Construction	CN	\$222,400.00	\$55,600.00			\$278,000.00			
Performance Measure Impacted: Bridge Condition																			
Indiana Department of Transportation	42409 / 1900146	Init.	SR 9	Access Control	at 38th St in Anderson	Greenfield	0	STPBG		Safety Construction	CN	\$108,714.40	\$27,178.60			\$135,893.00			
										Safety ROW	RW	\$12,000.00	\$3,000.00	\$15,000.00					
Performance Measure Impacted: Reliability and Freight Reliability																			
Indiana Department of Transportation	42410 / 1900152	Init.	SR 9	Intersect. Improv. W/ Added Turn Lanes	at CR 600 N_Linwood Rd	Greenfield	0	STPBG		Safety Construction	CN	\$905,928.00	\$226,482.00			\$1,132,410.00			
										Safety ROW	RW	\$20,000.00	\$5,000.00	\$25,000.00					
Performance Measure Impacted: Safety																			
Indiana Department of Transportation	42708 / 1900171	Init.	SR 13	Traffic Signals, New Or Modernized	@ CR 800 S, Ingalls	Greenfield	0	STBG		Mobility Construction	CN	\$697,642.40	\$174,410.60			\$872,053.00			
Performance Measure Impacted: Safety																			
Madison County	42792 / 1902803	Init.	IR 2240	Bridge Deck Replacement	Bridge on Range Line Road/200 E between SR 232/Mounds Road and 10th Street over the	Greenfield	.136	STPBG		Local Bridge Program	CN	\$1,500,000.00	\$0.00				\$1,500,000.00		
										Local Funds	RW	\$0.00	\$42,000.00			\$42,000.00			
										Local Funds	CN	\$0.00	\$375,000.00				\$375,000.00		
Performance Measure Impacted: Bridge Condition																			
Indiana Department of Transportation	43067 / 2000170	Init.	I 69	Bridge Painting	NB over OLD SR 109/COLUMB US AV, 00.60 S SR 9	Greenfield	0	NHPP		Bridge Construction	CN	\$253,488.60	\$28,165.40		\$281,654.00				
Performance Measure Impacted: Bridge Condition																			
Indiana Department of Transportation	43071 / 1702905	Init.	US 36	Bridge Deck Overlay	OVER SPRING CREEK, 00.58 E SR 9	Greenfield	0	STPBG		Bridge Construction	CN	\$318,400.00	\$79,600.00		\$398,000.00				
Performance Measure Impacted: Bridge Condition																			
Indiana Department of Transportation	43076 / 2000584	Init.	SR 109	HMA Overlay, Preventive Maintenance	SR 38 to 0.4 Mile South of I-69 ( 67th Street)	Greenfield	4.74	STPBG		Road Construction	CN	\$2,392,809.60	\$598,202.40		\$2,991,012.00				

\*Estimated Costs left to Complete Project column is for costs that may extend beyond the four years of a STIP. This column is not fiscally constrained and is for information purposes.

**Madison County Council of Governments (Anderson MPO)  
FY 2020-2023 Transportation Improvement Program (TIP)**

All Projects: Current Through 10-1-20

REF	PROJECT DETAILS					PROJECT FUNDING								PERFORMANCE MEASURES					AIR QUALITY CONFORMITY			Reference Documents	
	DES	Sponsor Name	Work Category (Work Type)	Location & Description	County	Funding Obligation Year (State Fiscal)	Project Phase	Federal Funds by Phase	Required Local/State Matching Funds	Total Funds by Phase	Federal Funding Program	Letting Date (2-3 weeks prior to Obligation Date of CN Phase)	Contract Number (CN Phase)	Estimated Total Project Cost Extending Beyond SFY2023	Complete Streets (MPO)	Safety (MPO-INDOT)	Infrastructure Condition (MPO-INDOT)	System Performance (MPO-INDOT)	Transit (MPO-FTA)	AQ Conformity Analysis	Exempt Project Type (AQ)		Reference (AQ)
<b>Section 1: MPO-Funded Projects - Non-Exempt from Air Quality Conformity Analysis</b>																							
1	1592299	Anderson	New Road Construction	73rd Street Extension Project: Phase 1, Layton Road (CR 400) [Anderson] to SR 38 (State Street) [Pendleton]	48	2020	PE	\$ 619,340	\$ 154,835	\$ 774,175	DEMO	11/14/2019		\$ 20,000,000	SCOPE PROVIDED BY MPO	TBD	TBD	TBD	N/A	TBD	Other: Engineering to Assess Social, Economic, & Environmental Effects of the Proposed Action or Alternatives to that Action (38)	40 CFR 93.126.38	Res. 10-1-15, Res. 2-5-16, Res. 1-16-17, Res. 3-10-17, Res. 4-6-17, 4-5-18, Res. 4-4-19, Res. 9-17-19
2	1592299	Anderson	New Road Construction	73rd Street Extension Project: Phase 1, Layton Road (CR 400) [Anderson] to SR 38 (State Street) [Pendleton]	48	2020	PE	\$ 1,455,851	\$ 363,963	\$ 1,819,814	DEMO	11/14/2019		\$ 20,000,000	SCOPE PROVIDED BY MPO	TBD	TBD	TBD	N/A	TBD	Other: Engineering to Assess Social, Economic, & Environmental Effects of the Proposed Action or Alternatives to that Action (38)	40 CFR 93.126.38	Res. 10-1-15, Res. 2-5-16, Res. 1-16-17, Res. 3-10-17, Res. 4-6-17, 4-5-18, Res. 4-4-19, Res. 9-17-19
3	1592299	Anderson	New Road Construction	73rd Street Extension Project: Phase 1, Layton Road (CR 400) [Anderson] to SR 38 (State Street) [Pendleton]	48	2020	PE	\$ 52,568	\$ 13,142	\$ 65,710	DEMO	11/14/2019		\$ 20,000,000	SCOPE PROVIDED BY MPO	TBD	TBD	TBD	N/A	TBD	Other: Engineering to Assess Social, Economic, & Environmental Effects of the Proposed Action or Alternatives to that Action (38)	40 CFR 93.126.38	Res. 10-1-15, Res. 2-5-16, Res. 1-16-17, Res. 3-10-17, Res. 4-6-17, 4-5-18, Res. 4-4-19, Res. 9-17-19
4	1592299	Anderson	New Road Construction	73rd Street Extension Project: Phase 1, Layton Road (CR 400) [Anderson] to SR 38 (State Street) [Pendleton]	48	2020	PE	\$ 278,057	\$ 69,514	\$ 347,571	DEMO	11/14/2019		\$ 20,000,000	SCOPE PROVIDED BY MPO	TBD	TBD	TBD	N/A	TBD	Other: Engineering to Assess Social, Economic, & Environmental Effects of the Proposed Action or Alternatives to that Action (38)	40 CFR 93.126.38	Res. 10-1-15, Res. 2-5-16, Res. 1-16-17, Res. 3-10-17, Res. 4-6-17, 4-5-18, Res. 4-4-19, Res. 9-17-19
5	1592299	Anderson	New Road Construction	73rd Street Extension Project: Phase 1, Layton Road (CR 400) [Anderson] to SR 38 (State Street) [Pendleton]	48	2021	RW	\$ -	\$ 2,000,000	\$ 2,000,000	DEMO	11/14/2019		\$ 20,000,000	SCOPE PROVIDED BY MPO	TBD	TBD	TBD	N/A	TBD	Other: Engineering to Assess Social, Economic, & Environmental Effects of the Proposed Action or Alternatives to that Action (38)	40 CFR 93.126.38	Res. 10-1-15, Res. 2-5-16, Res. 1-16-17, Res. 3-10-17, Res. 4-6-17, 4-5-18, Res. 4-4-19, Res. 9-17-19
<b>Section 2: Non-MPO-Funded Projects - Non-Exempt from Air Quality Conformity Analysis</b>																							
6	1702936	INDOT	Added Travel Lanes	US 36 (SR 9/SR 67), .28 miles S. of SR 38 to N. Junction of SR 9/SR 67 [Pendleton]	48	2021	PE	\$ 86,320	\$ 21,580	\$ 107,900	NHPP	TBD		\$ -	SCOPE PROVIDED BY INDOT	TBD	TBD	TBD	N/A	Complete	Non-Exempt	N/A	Res. 12-13-18, Res. 2-14-19, Adopted with 2020-2023 TIP, Res. 8-6-20
7	1702936	INDOT	Added Travel Lanes	US 36 (SR 9/SR 67), .28 miles S. of SR 38 to N. Junction of SR 9/SR 67 [Pendleton]	48	2022	RW	\$ 240,000	\$ 60,000	\$ 300,000	STBG	TBD		\$ -	SCOPE PROVIDED BY INDOT	TBD	TBD	TBD	N/A	Complete	Non-Exempt	N/A	Res. 12-13-18, Res. 2-14-19, Adopted with 2020-2023 TIP, Res. 8-6-20
8	1702936	INDOT	Added Travel Lanes	US 36 (SR 9/SR 67), .28 miles S. of SR 38 to N. Junction of SR 9/SR 67 [Pendleton]	30	2023	CN	\$ 2,724,420	\$ 681,105	\$ 3,405,525	NHS	TBD		\$ -	SCOPE PROVIDED BY INDOT	TBD	TBD	TBD	N/A	Complete	Non-Exempt	N/A	Res. 12-13-18, Res. 2-14-19, Adopted with 2020-2023 TIP, Res. 8-6-20
9	1400064	INDOT	Intersect. Improv. W/ New Signals	SR 13 @ I-69 NB & SB Ramp Intersections [Ingalls]	48	2020	CN	\$ 4,028,886	\$ 1,007,221	\$ 5,036,107	STBG	9/11/2019		\$ -	Exempt	TBD	TBD	TBD	N/A	Under Review	Safety: Highway Safety Improvement Program Implementation (6)	40 CFR 93.126.6	Adopted with 2018-2021 TIP, Res. 4-5-18, Res. 2-14-19
10	1900152	INDOT	Intersect. Improv. W/ Added Turn Lanes	SR 9 @ CR 600 N (Linberg Road) [Anderson]	48	2021	PE	\$ 135,000	\$ 15,000	\$ 150,000	STBG	TBD		\$ -	Exempt	TBD	TBD	TBD	N/A	AQC Exempt - 8-5-20 - under review because of change in scope	Safety: Pavement Resurfacing and/or Rehabilitation (10)	40 CFR 93.126.10	Res. 8-1-19, Res. 8-6-20
11	1900152	INDOT	Intersect. Improv. W/ Added Turn Lanes	SR 9 @ CR 600 N (Linberg Road) [Anderson]	48	2022	RW	\$ 22,500	\$ 2,500	\$ 25,000	STBG	TBD		\$ -	Exempt	TBD	TBD	TBD	N/A	AQC Exempt - 8-5-20 - under review because of change in scope	Safety: Pavement Resurfacing and/or Rehabilitation (10)	40 CFR 93.126.10	Res. 8-1-19, Res. 8-6-20
12	1900171	INDOT	New Signal Installation	SR 13 @ CR 800 S [Ingalls]	48	2020	PE	\$ 100,000	\$ 25,000	\$ 125,000	STBG	TBD		\$ -	Exempt	TBD	TBD	TBD	N/A	AQC Exempt - 2-13-20 - under review because of change in scope	Safety: Traffic Control Devices & Operating Assistance other than Signalization Projects (7)	40 CFR 93.126.7	Res. 2-20-20
13	1900171	INDOT	New Signal Installation	SR 13 @ CR 800 S [Ingalls]	48	2021	RW	\$ 32,000	\$ 8,000	\$ 40,000	STBG	TBD		\$ -	Exempt	TBD	TBD	TBD	N/A	AQC Exempt - 2-13-20 - under review because of change in scope	Safety: Traffic Control Devices & Operating Assistance other than Signalization Projects (7)	40 CFR 93.126.7	Res. 2-20-20

## APPENDIX I: ADDITIONAL INFORMATION



The HNTB Companies  
Infrastructure Solutions

111 Monument Circle  
Suite 1200  
Indianapolis, IN 46204-5178

Telephone (317) 636-4682  
Facsimile (317) 917-5211  
www.hntb.com

## Abbreviated Engineers' Report

The INDOT Greenfield District project manager approved the use of the INDOT project "Mini Scope" and INDOT traffic signal warrant report as the official "Abbreviated Engineers' Report". The mini scope and INDOT traffic signal warrant report is included herein. Along with documentation of the INDOT approval. The meeting minutes from the project are also included herein.

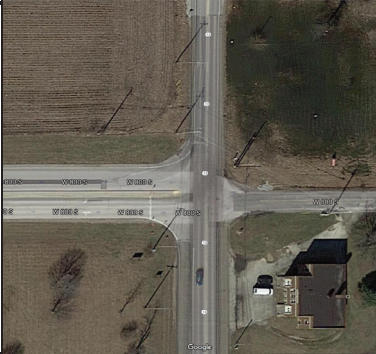


## Call Application Report (Mini Scope)

Date:	8/29/2018	District:	GREENFIELD	<b>SCORE</b>	<b>62</b>
DES:		Sub-District:	Tipton		
Proposed FY:	2024	Asset Group:	MOBILITY		
Work Type:	Traffic Signals, New Or Modernized	Work Category:	District Signal Project		

Project Location									
Route:	SR 13	City/Town:	Ingalls	County 1:	Madison	County 2:			
RP Start:	4+37			LOS:					
RP End:	4+37			LAT.LONG START:	39.98778	-85.843187	LAT.LONG END:	39.98778	-85.843187
AADT FY:	2018	Representative AADT:	9773	% Trucks:	2.0%		Icc:	1.89	
Length:	0.4	# Lanes:	2	Lane Mi:	0.8		Icf:	1.04	
Functional Class:	Minor Arterial			NHS?:	No				

**Location Description:** SR 13 @ County Road 800 S just south of interchange with I-69

CURRENT AND PROJECTED CONDITION	Picture of Project Site
<p>The intersection of SR 13 and CR 800 S is located in southern Madison County. This is a two-way stop controlled intersection. SR 13 is an uncontrolled two-lane minor arterial running north-south and CR 800 S is a stop-controlled two-lane local road running east-west. The existing traffic counts meet Signal Warrant 2 and nearly 1B</p>	

**INTENT/ PURPOSE OF PROJECT**

The intent of this project is to provide traffic control at this intersection without creating undue delay for motorists on the major approaches. The installation of a traffic signal with turn lanes will improve the minor street LOS from E/F in the design year to B/C. Turn lanes at each intersection will improve the mobility and safety of each intersection by providing shelter for turning vehicles. Several large residential and commercial developments are expected to break ground in 2019 and this area is expected to see rapid growth over the next 5 years due to its proximity to Fishers, Fortville and Pendleton.

**PRELIMINARY ALTERNATIVES with Estimated Costs (Indicate Recommended Alternative)**

Alternative 1: Recommended - Install a traffic signal with added turn lanes for each approach. (\$954,000)  
 A fully actuated traffic signal should be installed at this intersection. The signal should run in coordination with the traffic signal system to the north. The north, south and east approaches should be widened to allow for left turn lanes to be constructed. The west approach already has the appropriate lane configuration. The AASHTO Green Book values for turn lane lengths(350ft for 45 MPH) should be used to minimize the overall footprint of the intersection. The taper length should be included in the deceleration distance. The north approach should be design to match the existing layout for the signal at Carefree Drive. Durable pavement markings should be used for all markings in this project.

Alternative 3: - Do Nothing  
 This alternative does not fulfill the purposed and need of the project.





Proposed Layout  
Page 1

# SR 13 @ CR 800 S

Study Period: 2018 Location: 39.987780, -85.843187  
District: Greenfield County: Madison City/Town: Ingalls  
Analyst: Nathan Sturdevant Date: 12/21/18 DES: \_\_\_\_\_  
Letting Year: 2024





Proposed Layout  
Page 2

# SR 13 @ CR 800 S

Study Period: 2018 Location: 39.987780, -85.843187  
District: Greenfield County: Madison City/Town: Ingalls  
Analyst: Nathan Sturdevant Date: 12/21/18 DES: \_\_\_\_\_  
Letting Year: 2024

















LEVEL OF SERVICE  
& DELAY

# SR 13 @ CR 800 S

Study Period: 2018 Location: 39.987780, -85.843187  
 District: Greenfield County: Madison City/Town: Ingalls  
 Analyst: Nathan Sturdevant Date: 8/29/18 DES: Number Letting Year: 2024

ROAD	PM Peak							
	EB		WB		NB		SB	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Existing	E	41	C	21.6	A	8.7	A	8.3
Design Year Base	F	169.8	E	39.5	A	8.8	A	8.8
Design Year Proposed	C	30.4	C	28.4	A	4.6	A	6.3

**Study Name** GF-SR 13 & 800 S Madison Co  
**Start Date** Thursday, April 19, 2018 12:00 AM  
**End Date** Friday, April 20, 2018 12:00 AM  
**Site Code**

## Report Summary

Time Period	Class.	Southbound						Westbound						Northbound						Eastbound						Total						
		R	T	L	U	I	O	R	T	L	U	I	O	R	T	L	U	I	O	R	T	L	U	I	O							
<b>Peak 1</b>	Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Specified Period	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
12:00 AM - 12:00 PM	Cars	31	198	27	0	256	548	48	8	6	0	62	55	18	420	5	0	443	214	10	10	80	0	100	44	861						
One Hour Peak	%	60%	73%	79%	0%	72%	82%	84%	67%	86%	0%	82%	82%	90%	82%	56%	0%	82%	74%	77%	77%	79%	0%	79%	60%	78%						
7:00 AM - 8:00 AM	it Goods Vehi	13	64	5	0	82	106	9	4	1	0	14	6	0	78	1	0	79	67	2	1	19	0	22	18	197						
	%	25%	24%	15%	0%	23%	16%	16%	33%	14%	0%	18%	9%	0%	15%	11%	0%	15%	23%	15%	8%	19%	0%	17%	25%	18%						
	Buses	1	4	0	0	5	2	0	0	0	0	0	4	2	1	2	0	5	4	0	2	1	0	3	3	13						
	%	2%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	6%	10%	0%	22%	0%	1%	1%	0%	15%	1%	0%	2%	4%	1%						
	ngle-Unit Truc	7	3	2	0	12	7	0	0	0	0	0	2	0	7	1	0	8	4	1	0	0	0	1	8	21						
	%	13%	1%	6%	0%	3%	1%	0%	0%	0%	0%	0%	3%	0%	1%	11%	0%	1%	1%	8%	0%	0%	0%	1%	11%	2%						
	ticultural Truc	0	1	0	0	1	9	0	0	0	0	0	0	0	8	0	0	8	1	0	0	1	0	1	0	10						
	%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	1%	0%	0%	0%	1%	0%	1%	0%	1%						
	<b>Total</b>	<b>52</b>	<b>270</b>	<b>34</b>	<b>0</b>	<b>356</b>	<b>672</b>	<b>57</b>	<b>12</b>	<b>7</b>	<b>0</b>	<b>76</b>	<b>67</b>	<b>20</b>	<b>514</b>	<b>9</b>	<b>0</b>	<b>543</b>	<b>290</b>	<b>13</b>	<b>13</b>	<b>101</b>	<b>0</b>	<b>127</b>	<b>73</b>	<b>1102</b>						
	PHF	0.81	0.88	0.65	0	0.89	0.98	0.84	0.6	0.44	0	0.9	0.7	0.56	0.94	0.56	0	0.94	0.83	0.54	0.54	0.63	0	0.66	0.73	0.95						
	Approach %					32%	61%					7%	6%					49%	26%					12%	7%							
<b>Peak 2</b>	Motorcycles	0	2	0	0	2	1	0	0	0	0	0	0	0	1	0	0	1	2	0	0	0	0	0	0	3						
Specified Period	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
12:00 PM - 12:00 AM	Cars	72	363	65	0	500	358	34	20	10	0	64	97	14	266	7	0	287	384	11	18	58	0	87	99	938						
One Hour Peak	%	87%	80%	80%	0%	81%	80%	81%	95%	91%	0%	86%	82%	88%	77%	64%	0%	77%	80%	65%	82%	92%	0%	85%	86%	80%						
4:45 PM - 5:45 PM	it Goods Vehi	10	75	16	0	101	77	8	1	1	0	10	21	2	64	3	0	69	82	6	3	5	0	14	14	194						
	%	12%	16%	20%	0%	16%	17%	19%	5%	9%	0%	14%	18%	13%	19%	27%	0%	19%	17%	35%	14%	8%	0%	14%	12%	17%						
	Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	ngle-Unit Truc	1	11	0	0	12	8	0	0	0	0	0	1	0	8	1	0	9	11	0	1	0	0	1	2	22						
	%	1%	2%	0%	0%	2%	2%	0%	0%	0%	0%	0%	1%	0%	2%	9%	0%	2%	2%	0%	5%	0%	0%	1%	2%	2%						
	ticultural Truc	0	4	0	0	4	5	0	0	0	0	0	0	0	5	0	0	5	4	0	0	0	0	0	0	9						
	%	0%	1%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	1%						
	<b>Total</b>	<b>83</b>	<b>455</b>	<b>81</b>	<b>0</b>	<b>619</b>	<b>449</b>	<b>42</b>	<b>21</b>	<b>11</b>	<b>0</b>	<b>74</b>	<b>119</b>	<b>16</b>	<b>344</b>	<b>11</b>	<b>0</b>	<b>371</b>	<b>483</b>	<b>17</b>	<b>22</b>	<b>63</b>	<b>0</b>	<b>102</b>	<b>115</b>	<b>1166</b>						
	PHF	0.72	0.91	0.81	0	0.88	0.97	0.81	0.88	0.92	0	0.88	0.85	0.8	0.88	0.55	0	0.88	0.89	0.47	0.69	0.83	0	0.8	0.76	0.94						
	Approach %					53%	39%					6%	10%					32%	41%					9%	10%							

# Indiana Department of Transportation Traffic Signal Warrant Summary Worksheet

**70%**

The Worksheet(s) attached are provided as an attachment to the Engineering Investigation Study for:

Intersection: SR 13 & CR 800 S

County: Madison

Select one: Ingalls

Major Street: SR 13

Minor Street: 800 S

Critical Approach Speed: 55 mph

Critical Approach Speed: 45 mph

Lanes: 1 lane

Lanes: 1 lane

% Right Turns Included

From North (SB) 100%

From East (WB) 100%

From South (NB) 0%

From West (EB) 100%

In built-up area of isolated community of < 10,000 population? No

Total number of approaches at intersection? 4 or more

If it is a "T" intersection, inflate minor threshold to 150%? No

Manually set volume level? No

**Analysis based on EXISTING volume data.**

Date	Day of the Week	Time (HH:MM)			
		From	AM / PM	To	AM / PM
4/20/2018	Wednesday	12	AM	12	AM

<b>Warrant Evaluation Summary</b>	<b>Warrant Met:</b>
<b>Warrant 1: Eight - Hour Vehicular Volume</b>	<b>No</b>
Condition A: Minimum Vehicular Volume	No
Condition B: Interruption of Continuous Traffic	No
Condition C: Combination: 80% of A and B	No
<b>Warrant 2: Four-Hour Volume</b>	<b>Yes</b>
<b>Warrant 3: Peak Hour Volume</b>	<b>N/A</b>
<b>Warrant 4: Pedestrian Volume</b>	<b>N/A</b>
Criterion A: Four-Hour	
Criterion B: Peak-Hour	
<b>Warrant 5: School Crossing</b>	<b>N/A</b>
<b>Warrant 6: Coordinated Signal System</b>	<b>N/A</b>
<b>Warrant 7: Crash Experience</b>	<b>N/A</b>
<b>Warrant 8: Roadway Network</b>	<b>N/A</b>
<b>Warrant 9: Intersection Near a Grade Crossing</b>	<b>N/A</b>

**Warrant Analysis Conducted By:**

Name: Nathan Sturdevant

Agency: INDOT

Date: 5/16/2018

# Warrant 1: Eight - Hour Vehicular Volume

70%

Warrant Evaluated? Yes

Warrant Satisfied? No

Manually Set To:

Condition A : Min. Veh. Volume		
Volume Level	70%	56%
Major Rd. Req	350	280
Minor Rd. Req	105	84
Number of Hours	1	6

Satisfied? No

Condition B: Interruption of Continuous Traffic		
Volume Level	70%	56%
Major Rd. Req	525	420
Minor Rd. Req	53	42
Number of Hours	6	10

Satisfied? No

Condition C: Combination of A & B at 56%		
---	--	--

Satisfied? No

Time Period	From	To	Manually Set To:		Total
			Major Road: Both App. (VPH)	Minor Road: High App. (VPH)	
1	6:00	7:00	523	93	616
2	7:00	8:00	879	127	1006
3	8:00	9:00	632	88	720
4	9:00	10:00	348	57	405
5	10:00	11:00	334	41	375
6	11:00	12:00	372	47	419
7	12:00	13:00	385	57	442
8	13:00	14:00	399	47	446
9	14:00	15:00	483	66	549
10	15:00	16:00	681	79	760
11	16:00	17:00	822	86	908
12	17:00	18:00	969	94	1063
13	18:00	19:00	736	92	828
14	19:00	20:00	457	68	525
15	20:00	21:00	490	56	546
16	21:00	22:00	358	30	388

# Warrant 2: Four-Hour Volume

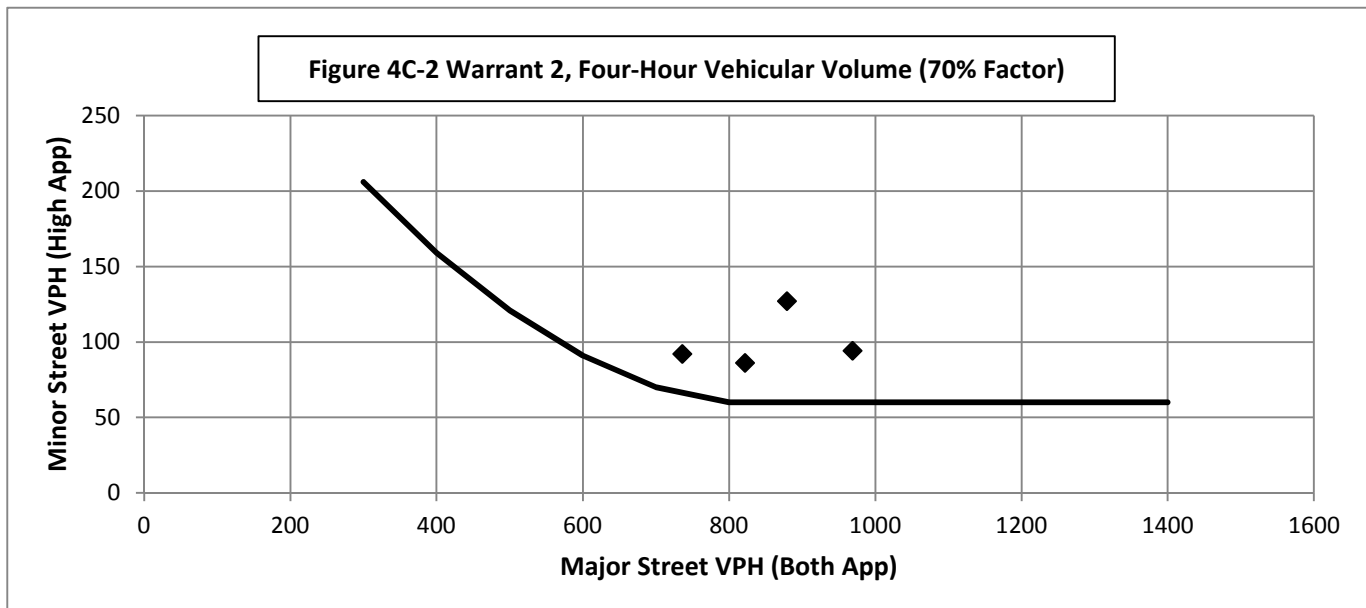
70%

Warrant Evaluated? Yes

Warrant Satisfied? Yes

Manually Set To:

Hour Start	17:00	7:00	16:00	18:00
Major Road Vol.	969	879	822	736
Minor Road Vol.	94	127	86	92



# Warrant 3: Peak Hour Volume

70%

Warrant Evaluated? No

Warrant Satisfied? N/A

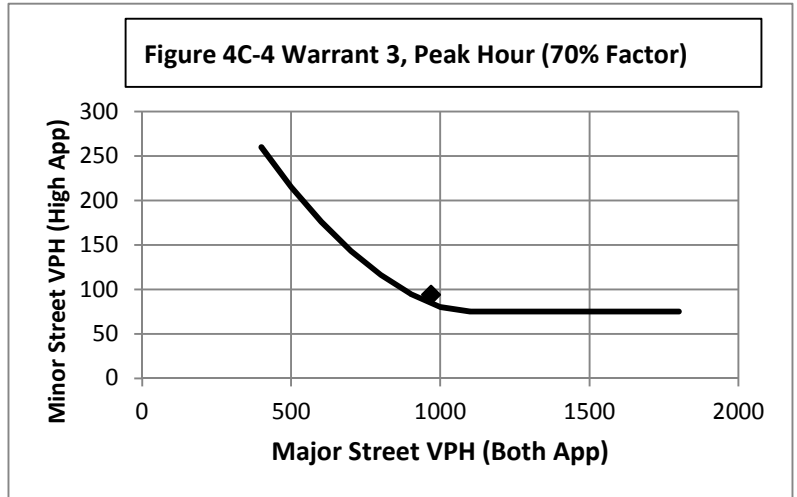
Manually Set To:

Condition justifying use of warrant:

Criteria		Met?
Delay on Minor Approach	4	
Volume on Minor Approach	100	
Total Entering Volume (veh/h)	800	

### Manually Set Peak Hour?

Peak Hour	Major Road Vol. (Both App.)	Minor Road Vol. (High App.)
17:00	969	94



# Warrant 4: Pedestrian Volume

70%

Warrant Evaluated?

Warrant Satisfied? N/A

Manually Set To:

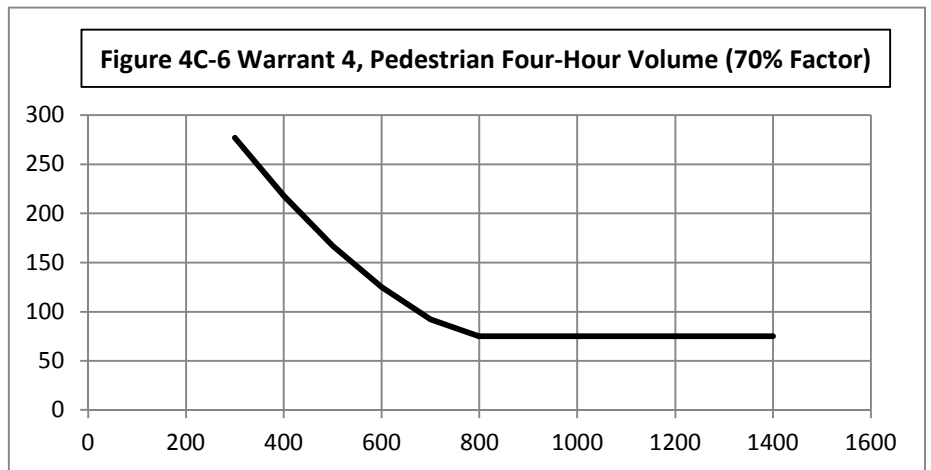
### Criterion A: Four Hour

Hour (Start)	Pedestrian Volume	Major Road Vol.
		0
		0
		0
		0

Manually Set Major Rd Vol?

Avg. walk speed less than 3.5 ft/s?

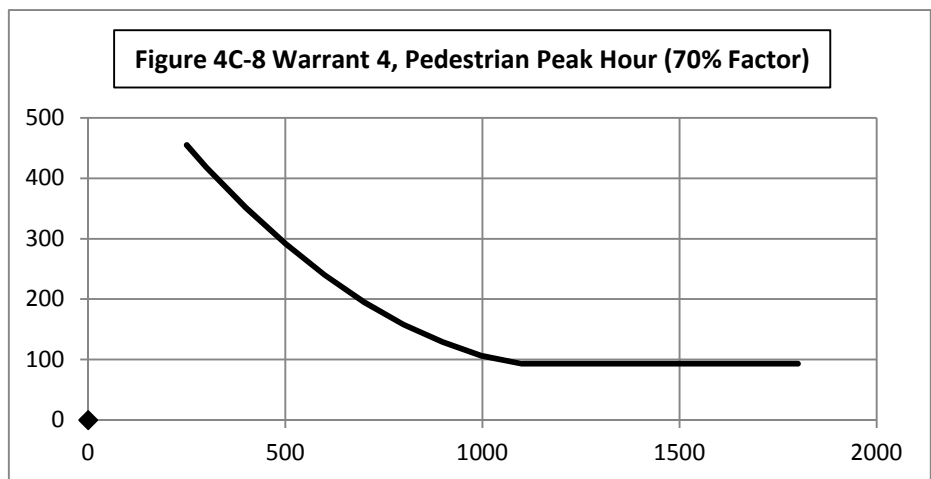
Criterion A Satisfied?



### Criterion B: Peak Hour

Peak Hour	Pedestrian Vol.	Major Road Vol.
0:00	0	0

Criterion B Satisfied?



## Warrant 5: School Crossing

**70%**

**Warrant Evaluated?**

**Warrant Satisfied? N/A**

**Manually Set To:**

Criteria		Fulfilled?
1	There are a MINIMUM of 20 school children during the highest crossing hour.	
2	There are fewer adequate gaps in the major road traffic stream during the period when the school children are using the crossing than the number of minutes in the same period.	
3	The nearest traffic signal along the major road is located more than 300 ft away. Or, the nearest traffic signal is within 300 ft but the proposed traffic signal will not restrict the progressive movement of traffic.	

## Warrant 6: Coordinated Signal System

**70%**

**Warrant Evaluated?**

**Warrant Satisfied? N/A**

**Manually Set To:**

Criteria		Fulfilled?
1	Signal spacing > 1000 ft	
2	On a one-way road or a road that has traffic predominantly in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning.	
3	On a two-way road, adjacent signals do not provide the necessary degree of platooning and the proposed and the adjacent signals will collectively provide a progressive operation.	

## Warrant 7: Crash Experience

**70%**

**Warrant Evaluated?**

**Warrant Satisfied? N/A**

**Manually Set To:**

Criteria		Met?	Fulfilled?
1	Adequate trial of other remedial measures has failed to reduce crash frequency. Measures Tried:		
2	Five or more reported crashes, of types susceptible to correction by signal, have occurred within a 12 month period.	# of crashes per 12 months	
3	Warrant 1, Condition A (80%)	No	Yes
	Warrant 1, Condition B (80%)	Yes	
	Warrant 4, Criterion A (80%)	No	
	Warrant 4, Criterion B (80%)	No	

## Warrant 8: Roadway Network

**70%**

**Warrant Evaluated?**

**Warrant Satisfied? N/A**

**Manually Set To:**

Criteria		Met?	Fulfilled?
1	Total entering volume of at least 1,000 veh/h during typical weekday peak hour	1063	Yes
	Five-year projected volumes that satisfy one or more of Warrants 1, 2, or 3.		No
2	Total entering vol. of at least 1,000 veh/h for each of any 5 hrs of non-normal business day (Sat. or Sun.)		
	Hour		
	Volume		

Characteristics of Major Routes - Select yes if all intersecting routes have characteristic			Fulfilled?
1	Part of the road or highway system that serves as the principal roadway network for through traffic flow		
2	Rural or suburban highway outside of, entering, or traversing a city		
3	Appears as a major route on an official plan		

# Warrant 9: Intersection Near a Grade Crossing

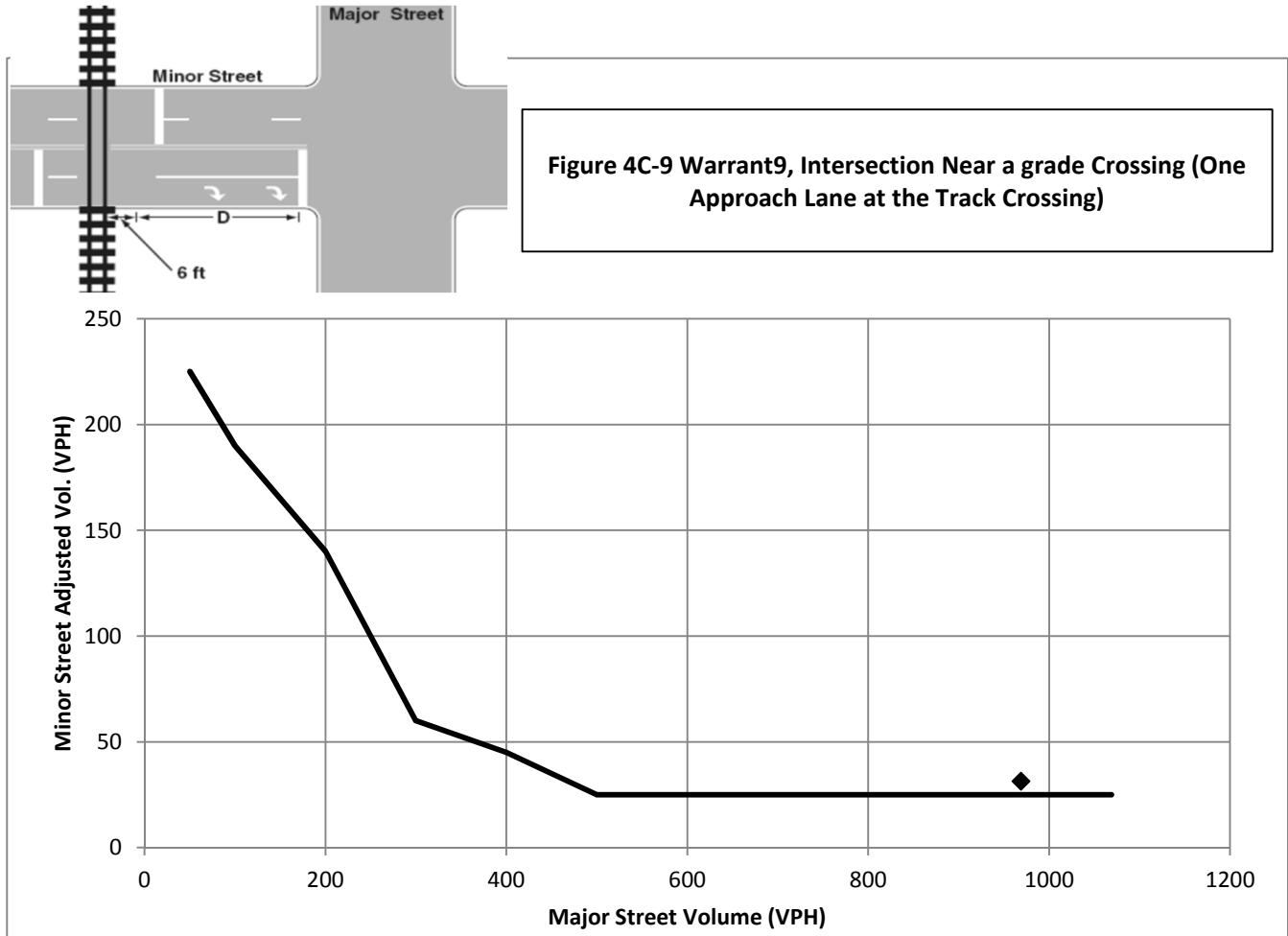
70%

Warrant Evaluated?

Warrant Satisfied? N/A

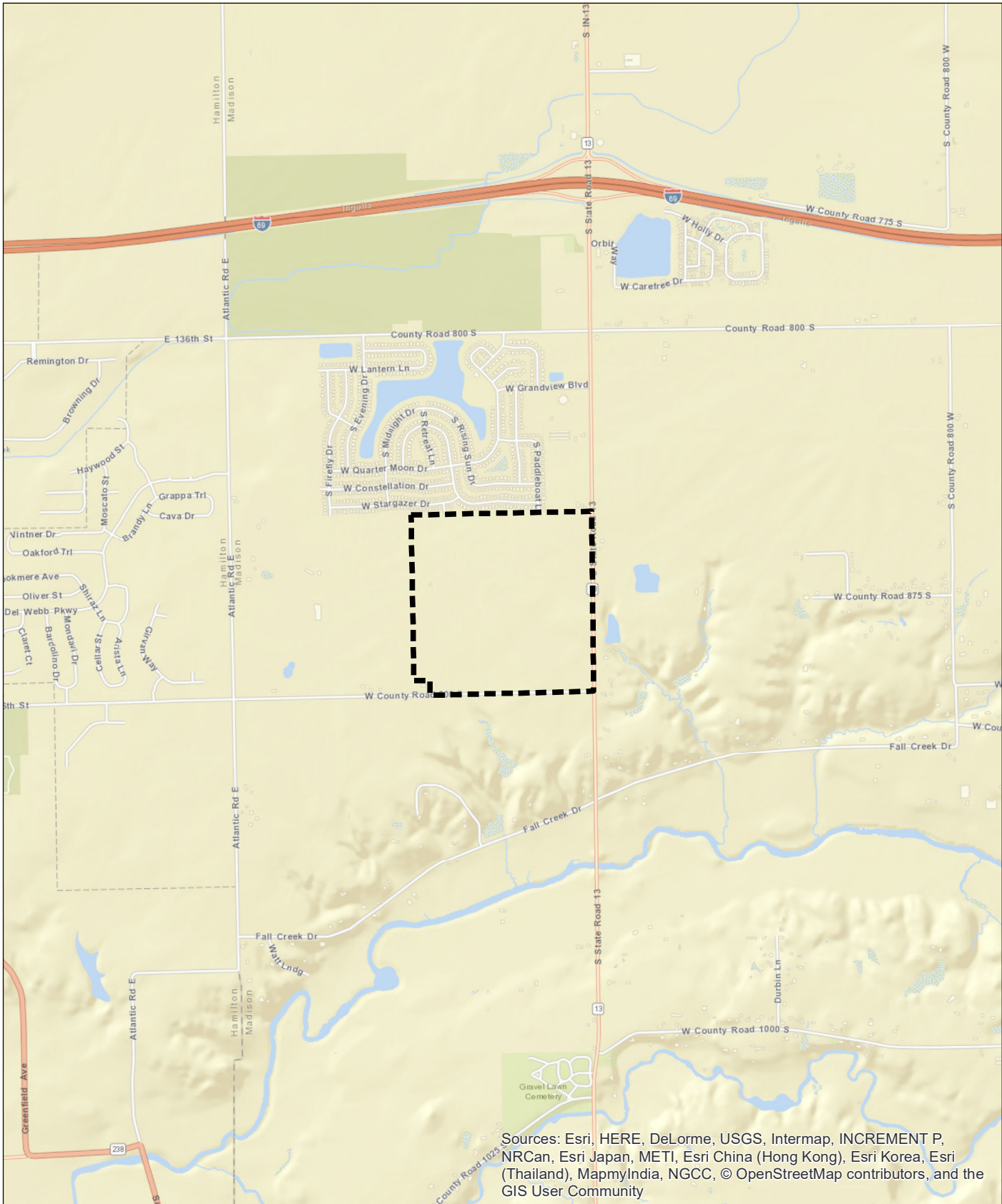
Manually Set To:

Adjustment Factors			Manually Set Peak Hour?				
Rail Traffic per Day	% High Occupancy Buses on Minor Road	% Tractor-Trailer Trucks on Minor Road	D	Peak Hour	Major Road Vol.	Minor Road Vol.	Adjusted Minor Vol.
1	0	0% to 2.5%	660	17:00	969	94	31.49

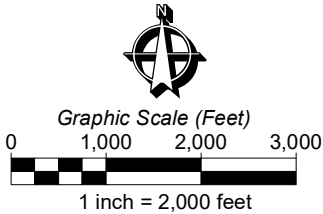


Conclusions/Comments:

Updated: 2/18/2016



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



Springbrook  
 Aerial Location Map  
 Madison County, Indiana  
 July 2018



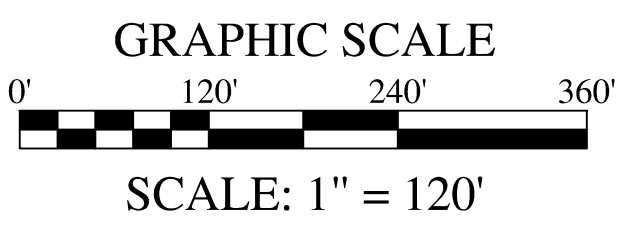




CONNECT WATER MAIN TO EXISTING MAIN AT CR 800 N.

IN-13

IN-13



- LEGEND
- 1 60'x130' = 268 LOTS
  - 319 67'x130' = 158 LOTS
- TOTAL LOTS = 426

WEST 900 SOUTH

Index of Crash Frequency and Cost - Form F1		Page 1/2
Location	SR 13 & CR 800 S Madison Co	
GIS		
Post		
Analyst	Marcie Henry	
Date		
<b>INPUT</b>		
Road Facility Type	Unsignalized Urban State-State Intersection	
Major Road AADT (veh/day)	9202	
Minor Road AADT (veh/day)	3435	
T-intersection Indicator (1 if present, 0 otherwise)	0	
First Year with Crash Data (yyyy)	2015	
Last Year with Crash Data (yyyy)	2017	
Number of Crashes (crash/period)		
Fatal and Incapacitating Injury Crashes	4	
Non-Incapacitating and Possible Injury Crashes	2	
Property Damage Only Crashes	10	
Route or Road Type	Unsignalized Urban State-State Intersection	
Average Crash Costs (\$)		
Fatal and Incapacitating Injury Crashes	342000	
Non-Incapacitating and Possible Injury Crashes	34000	
Property Damage Only Crashes	6000	
Crash Cost Year (yyyy)	2013	
<b>OUTPUT</b>		
Expected Crash Frequency (crash/year)		
Fatal and Incapacitating Injury Crashes	0.066	
Non-Incapacitating and Possible Injury Crashes	0.47	
Property Damage Only Crashes	2.15	
All Crashes	2.68	
Index of Crash Frequency	1.04	
Index of Crash Cost	1.89	

Index of Crash Frequency and Cost - Form F1		Page 2/2
Location	SR 13 & CR 800 S Madison Co	
GIS		
Post		
Analyst	Marcie Henry	
Date		

**MEETING MINUTES**

June 11, 2020

Traffic Signal Project – SR 13 at CR 800 S

RFP O191107b Greenfield District On-Call, Assignment #1

HNTB Project No. 74073-DS-010

INDOT Des No. 1900171

**ATTENDEES**

Seth Schickel – HNTB Project Manager	Austin Hastings – HNTB
Doug Garvin – HNTB task lead	Taylor Hartman – INDOT
Michelle Loveall – INDOT Project Manager	Lui Laracuenta – INDOT
Josh Betz – INDOT	Lawrence Starkey – INDOT

A virtual initial field check meeting was held to review the proposed scope of work for intersection improvements at SR 46 and SR 9 near Columbus IN. The following topics were discussed:

- The discussion followed the attached meeting agenda.
- Project Limits and Overview
  - a. The existing intersection consists of a two way stop controlled intersection. The county road has stop signs for east bound and west bound, SR 13 does not have stop signs. SR 13 is classified as a minor arterial.
- Design Scope
  - a. Intersection Design
    - i. INDOT developed the engineers report for the project in 2018. Report determines signalized intersection is warranted. HNTB will base the design on the engineers report.
    - ii. Design year level of service can be improved to B/C
    - iii. The signal will be linked with the signal to the north of the project
    - iv. SR 13 approaches will be constructed similar to the intersection just north of the project at SR 13 and Carefree. We assume the existing vertical and horizontal alignments can be maintained without need for design exceptions.
    - v. East county road approach to be constructed similar to the west county road approach
    - vi. Pedestrian facilities will not be designed or evaluated on this project
  - b. Signal Design
    - i. HNTB will perform field investigation of the existing traffic signal equipment and review existing plans.
  - c. Maintenance of Traffic

- i. Transportation management plan will not be required
- Right of Way
  - a. Right of Way engineering will be accelerated from the proposed schedule with the aim to appraisal of right of way complete prior to the environmental document approval
  - b. Right of Way lines should avoid 90-degree angles in order to accommodate utilities
  - c. Right of way should be designed to allow utilities to relocate within the right of way
- Utility Coordination
  - a. Utility relocations are not expected to be reimbursable, sanitary sewer contact is Tim McCurdy, water utility belongs to either Citizens Energy Group or the Town of Ingles.
- Schedule
  - a. Schedule will be controlled by right of way acquisition and section 106 process
  - b. Schedule to be adjusted as needed and accelerated where possible. Right of Way engineering will be pushed forward to allow appraisal work to go on prior to environmental document completion. Utility relocations accelerated to begin when right of way is clear.
  - c. HNTB will target January for right of way engineering complete
- Miscellaneous
  - a. Luis suggested substandard east approach on CR 800 S to reduce the risk of right of way impacts leading to schedule delays
  - b. Luis suggested onsite meeting later in the design process in confirm placement of traffic items like the cabinets and strain poles.

Sincerely,



Doug Garvin  
HNTB

Cc Attendees  
74073-DS-010



## Design Kick-Off Meeting Agenda

**Meeting Date:** June 11, 2020  
**Location:** Virtual Design Kick-Off  
**Project:** Traffic Signal Project – SR 13 at CR 800 S  
RFP O191107b Greenfield District On-Call, Assignment #1  
HNTB Project No. 74073-DS-010  
INDOT Des No. 1900171

1. Introductions
2. Project Limits and Overview (Google Earth)
3. Design Scope
  - a. Intersection Design
    - i. 2018 Engineers Report
    - ii. Improve CR 800 LOS from E/F to B/C
    - iii. Coordinate signal with intersection to the north
    - iv. North and south approaches widened similar to existing layout at Carefree
    - v. East approach widened similar to existing layout on west approach
    - vi. AASHTO Green Book values for turn lane lengths to minimize overall footprint
    - vii. Taper length included in the deceleration distance
    - viii. Pedestrian facilities – not currently addressed
  - b. Signal Design
    - i. Perform field investigation for project location
    - ii. Traffic data provided in engineers report will be utilized to design
    - iii. Pedestrian push buttons
    - iv. Lighting design is not required
  - c. Maintenance of Traffic
    - i. SR 13 traffic to be maintained throughout the project duration
    - ii. Anticipated two phases with widening completed first
  - d. INDOT Will Provide
    - i. Pavement design
    - ii. Geotechnical Services
    - iii. Utility Oversight
    - iv. Traffic Data – confirm
    - v. Land Acquisition
4. Right of Way
  - a. Right of Way engineering provided by HNTB
  - b. Right of Way acquisition for historic property on East leg of intersection

5. Utility Coordination
  - a. Utility Coordination provided by HNTB
  - b. Utility relocations expected for overhead and underground utilities
  - c. Confirm relocations are not reimbursable
  
6. Environmental / Permits
  - a. Environmental Document: CE Level 2
  - b. Section 106 required – Center School (SE corner) is eligible for listing in NRHP
    - i. Historic Property Report and Phase IA archaeological survey
  - c. Public Hearing not required
  - d. Permits
    - i. IDEM Rule 5 Permit: REQUIRED
    - ii. Section 404 Indiana Regional General Permit: NOT REQUIRED
    - iii. Section 401 Water quality Certification: NOT REQUIRED
    - iv. Construction in a Floodway and Wetland Mitigation: NOT REQUIRED
  
7. Miscellaneous
  - a. Adjacent projects (Carefree intersection signal, others?)
  
8. Proposed Schedule

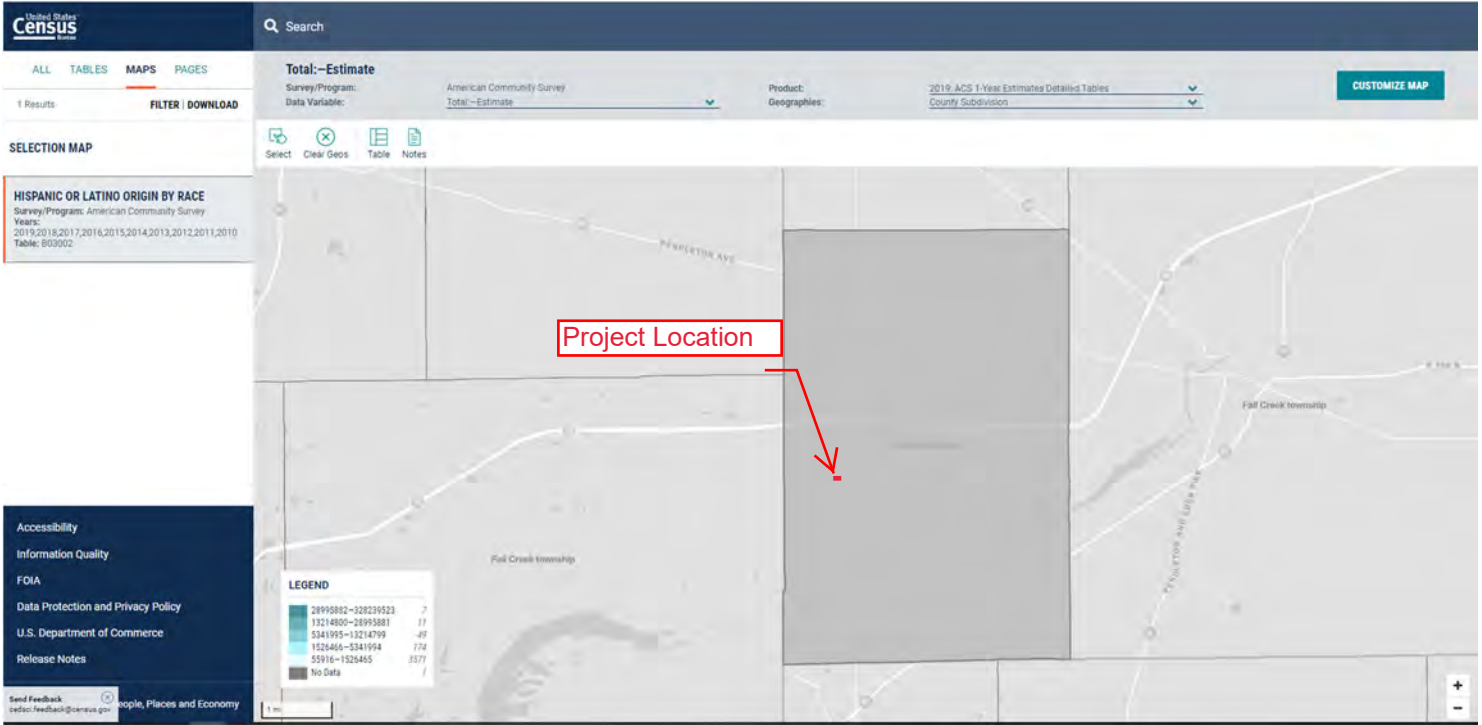
Deliverable	Date
Field Survey	7/21/2020
Stage 1 Plans	10/26/2020
Preliminary Field Check	11/27/2020
Environmental Document Submission	1/18/2021
Environmental Document Approval	3/19/2021
R/W Engineering Complete	5/17/2021
Permit Applications	08/23/2021
Permit Approvals	02/18/2022
Stage 3 Plans	02/18/2022
Final Field Check Meeting (If needed)	03/01/2022
Final Tracings	04/04/2022
Ready for Contracts	05/04/2022
Letting	07/13/2022

# US Census Data

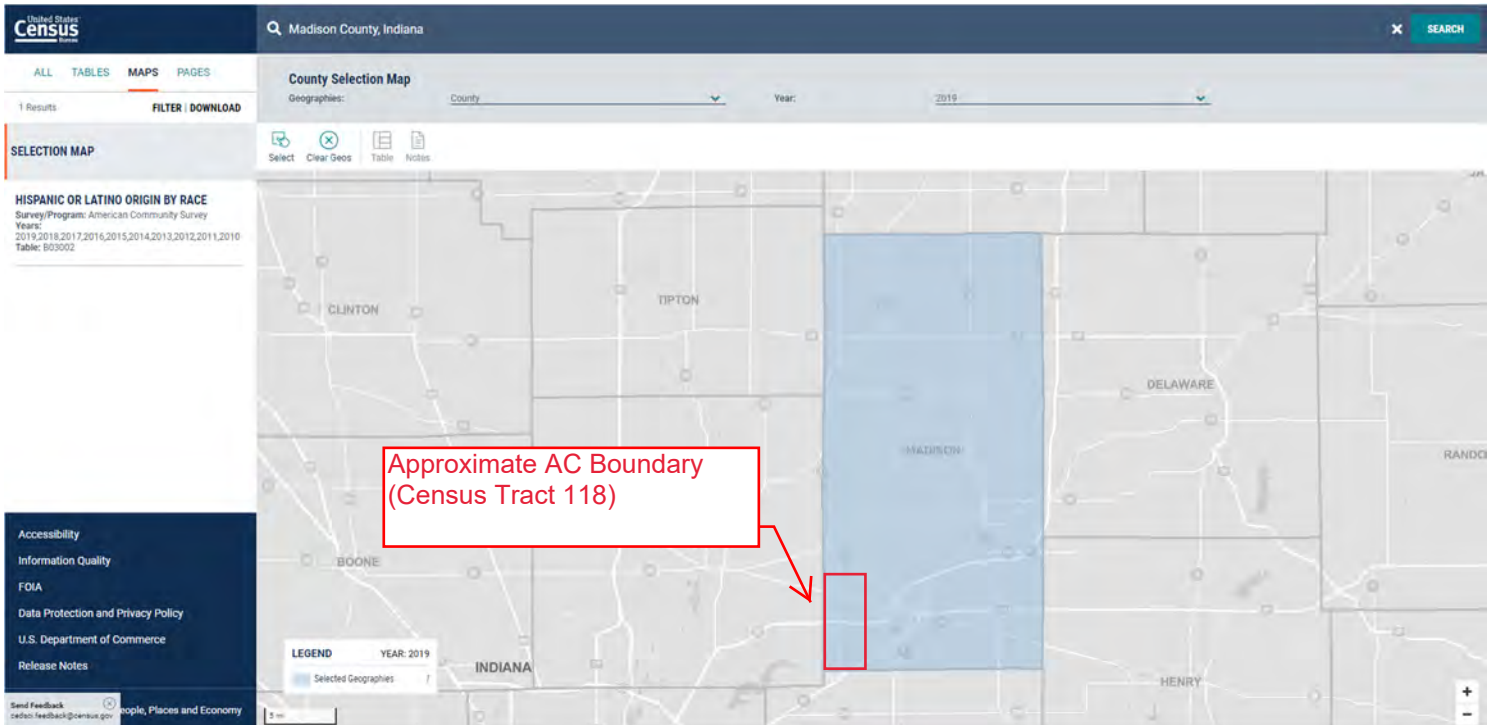
SR 13 at CR 800 W Environmental Justice Analysis

Des No. 1900171

## Affected Community: Census Tract 118/Green Township



## Community of Comparison: Madison County



**POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE**

TABLE ID: B17001  
 SURVEY/PROGRAM: American Community Survey  
 PRODUCT: ACS 5-Year Estimates Detailed Tables

**Note: The table shown may have been modified by user selections. Some information may be missing.**

Label	Madison County, Indiana		Census Tract 118, Madison County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
Total:	123,020	±423	7,477	±50
Income in the past 12 months below poverty level:	20,338	±1,235	858	±309
Male:	8,982	±627	481	±254
Under 5 years	1,028	±250	30	±50
5 years	167	±92	3	±5
6 to 11 years	869	±205	82	±78
12 to 14 years	539	±145	45	±61
15 years	297	±111	56	±72
16 and 17 years	315	±98	10	±15
18 to 24 years	1,070	±222	40	±57
25 to 34 years	1,030	±208	41	±64
35 to 44 years	1,176	±198	37	±28
45 to 54 years	876	±221	105	±143
55 to 64 years	1,050	±187	13	±16
65 to 74 years	327	±95	19	±24
75 years and over	238	±92	0	±17
Female:	11,356	±801	377	±168
Under 5 years	849	±161	7	±10
5 years	296	±137	0	±17
6 to 11 years	991	±194	26	±31
12 to 14 years	747	±203	10	±12
15 years	171	±82	26	±49
16 and 17 years	365	±122	57	±54
18 to 24 years	1,373	±265	59	±59
25 to 34 years	1,669	±260	64	±57
35 to 44 years	1,319	±192	63	±65
45 to 54 years	1,438	±222	12	±15
55 to 64 years	1,199	±214	43	±37
65 to 74 years	597	±158	5	±8
75 years and over	342	±82	5	±7
Income in the past 12 months at or above poverty level:	102,682	±1,289	6,619	±312
Male:	51,027	±758	3,502	±234
Under 5 years	2,675	±243	395	±169
5 years	552	±121	107	±64
6 to 11 years	3,817	±286	350	±110
12 to 14 years	2,001	±247	145	±81
15 years	636	±135	42	±30
16 and 17 years	1,176	±148	108	±79
18 to 24 years	4,015	±295	195	±78
25 to 34 years	6,288	±289	522	±137
35 to 44 years	6,295	±244	583	±131
45 to 54 years	7,146	±297	377	±115
55 to 64 years	7,091	±187	324	±98
65 to 74 years	5,659	±117	264	±78
75 years and over	3,676	±105	90	±49
Female:	51,655	±744	3,117	±212
Under 5 years	2,619	±192	193	±82
5 years	736	±177	34	±28
6 to 11 years	2,865	±264	293	±140
12 to 14 years	1,634	±231	126	±76
15 years	453	±117	44	±40
16 and 17 years	1,434	±146	90	±69
18 to 24 years	3,237	±269	222	±103
25 to 34 years	6,107	±266	494	±129
35 to 44 years	6,290	±190	565	±133
45 to 54 years	7,035	±230	425	±122
55 to 64 years	7,579	±234	312	±93
65 to 74 years	6,550	±169	221	±64
75 years and over	5,116	±170	98	±50



**DATA NOTES**

TABLE ID	B17001
SURVEY/PROGRAM	American Community Survey
VINTAGE	2019
DATASET	ACSDT5Y2019
PRODUCT:	ACS 5-Year Estimates Detailed Tables
FTP URL:	None
API URL:	Download the entire table at <a href="https://api.census.gov/data/2019/acs/acs5">https://api.census.gov/data/2019/acs/acs5</a>

**USER SELECTIONS**

GEOS	Census Tract 118, Madison County, Indiana; Madison County, Indiana
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**EXCLUDED COLUMNS**

None

**APPLIED FILTERS**

None

**APPLIED SORTING**

None

**WEB ADDRESS**

[https://data.census.gov/cedsci/table?text=b17001&g=0500000US18095\\_1400000US18095011800&tid=ACSDT5Y2019.B17001&hidePreview=true](https://data.census.gov/cedsci/table?text=b17001&g=0500000US18095_1400000US18095011800&tid=ACSDT5Y2019.B17001&hidePreview=true)

**TABLE NOTES:**

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Source: U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through The 2015-2019 American Community Survey (ACS) data generally reflect the September 2018 Office of Management and Budget (OMB) delineations of metropolitan Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for Explanation of Symbols:An "\*\*\*" entry in the margin of error column indicates that either no sample observations or too few sample observations were available to

**COLUMN NOTES**

None

**HISPANIC OR LATINO ORIGIN BY RACE**

TABLE ID: B03002  
 SURVEY/PROGRAM: American Community Survey  
 PRODUCT: ACS 5-Year Estimates Detailed Tables

Note: The table shown may have been modified by user selections. Some information may be missing.

Label	Madison County, Indiana		Census Tract 118, Madison County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
Total:	129,455	*****	7,524	±21
Not Hispanic or Latino:	124,154	*****	7,246	±229
White alone	109,837	±110	6,847	±275
Black or African American alone	10,037	±482	178	±144
American Indian and Alaska Native alone	205	±74	0	±17
Asian alone	660	±151	0	±17
Native Hawaiian and Other Pacific Islander alone	12	±14	0	±17
Some other race alone	235	±155	4	±6
Two or more races:	3,168	±531	217	±141
Two races including Some other race	51	±32	0	±17
Two races excluding Some other race, and three or more races	3,117	±523	217	±141
Hispanic or Latino:	5,301	*****	278	±226
White alone	3,669	±357	272	±226
Black or African American alone	218	±132	0	±17
American Indian and Alaska Native alone	97	±37	0	±17
Asian alone	3	±7	0	±17
Native Hawaiian and Other Pacific Islander alone	0	±28	0	±17
Some other race alone	974	±292	6	±9
Two or more races:	340	±153	0	±17
Two races including Some other race	225	±128	0	±17
Two races excluding Some other race, and three or more races	115	±62	0	±17

**DATA NOTES**

TABLE ID: B03002  
 SURVEY/PROGRAM: American Community Survey  
 VINTAGE: 2019  
 DATASET: ACSDT5Y2019  
 PRODUCT: ACS 5-Year Estimates Detailed Tables  
 FTP URL: None  
 API URL: Download the entire table at <https://api.census.gov/data/2019/acs/acs5>

**USER SELECTIONS**

GEOS: Census Tract 118, Madison County, Indiana; Madison County, Indiana

**EXCLUDED COLUMNS**

None

**APPLIED FILTERS**

None

**APPLIED SORTING**

None

**WEB ADDRESS**

[https://data.census.gov/cedsci/table?text=b03002&g=0500000US18095\\_1400000US18095011800&tid=ACSDT5Y2019.B03002&hidePreview=true](https://data.census.gov/cedsci/table?text=b03002&g=0500000US18095_1400000US18095011800&tid=ACSDT5Y2019.B03002&hidePreview=true)

**TABLE NOTES:**

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section. Sample size and Source: U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates  
 Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here The 2015-2019 American Community Survey (ACS) data generally reflect the September 2018 Office of Management and Budget (OMB) delineations of metropolitan and micropolitan statistical areas. In certain Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not Explanation of Symbols: An "\*\*\*\*\*" entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of

**COLUMN NOTES**

None

**Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated July 2020)**

ProjectNumber	SubProjectCode	County	Property
1800136	1800136	Madison	Funk Historic (8th St.) Park
1800139	1800139	Madison	General Pulaski ParkE. 38th St. Park
1800143	1800143	Madison	Streaty Park
1800145	1800145	Madison	Southside Sports Complex
1800169	1800169	Madison	Shadyside Recreation Complex (Aqua Gardens)
1800169.6	1800169.6	Madison	Crawford Field
1800171	1800171H	Madison	Mounds State Park
1800204	1800204	Madison	Beulah Park
1800238	1800238	Madison	Beulah Park
1800254	1800254	Madison	Falls Park
1800255	1800255	Madison	Alvin D. Brown Memorial Pool
1800258	1800258	Madison	Athletic Park
1800287	1800287	Madison	Shepherd Park
1800292	1800292	Madison	Elwood Municipal Swimming Pool
1800299	1800299	Madison	Alvin D. Brown Memorial Pool
1800305	1800305G	Madison	Mounds State Park
1800312	1800312I	Madison	Mounds State Park
1800370	1800370	Madison	Maple Meadows Park
1800382	1800382	Madison	Mounds State Park
1800413	1800413O	Madison	Mounds State Park
1800442	1800442	Madison	Walbridge Acres Park
1800466	1800466	Madison	Grand Avenue Wetlands & Killbuck Walkway
1800477	1800477a	Madison	Anderson Riverwalk
1800534	1800534	Madison	General Pulaski Park
1800587	1800587	Madison	Bodenhorn Park

\*Park names may have changed. If acquisition of publically owned land or impacts to publically owned land is anticipated, coordination with IDNR, Division of Outdoor Recreation, should occur.