PROJECT	DESIGNATION
1401716	1401716
CONTRACT	
R-38246	

INDIANA DEPARTMENT OF TRANSPORTATION

ROAD PLANS
GREENFIELD AVE. & HOWE RD.
PROJECT NO. 1401716

P.E.
R/W
CONST.

Intersection And Roadway Improvements At Greenfield Blvd. And Howe Rd., Located Approximately 1 mi. North Of The 146th St. & Howe Rd. Intersection And Approximately 1 mi. East Of The S.R. 27 & Greenfield Ave. Intersection. All Within Sections 8 & 17, Township 18 North, Range 5 East, In Noblesville Township Of Hamilton County, Indiana.

GROSS LENGTH: 0.19 mi.
NET LENGTH: 0.19 mi.

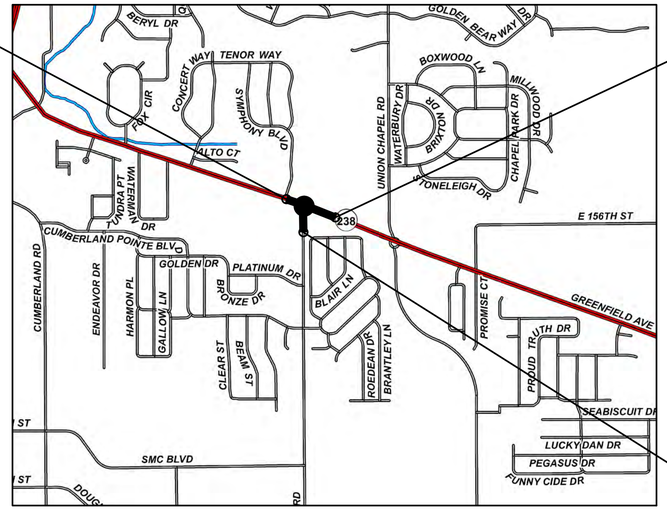
SCALES:

PLAN {LONG: 1" = 20' TRANS: 1" = 20' PROFILE {HORIZ: 1" = 20' VERT: 1" = 5' MAX. GRADE: 1.47%

BEGIN PROJECT 1401716
P.O.T. Sta. 18+00.00 "A"

END PROJECT 1401716
P.O.C. Sta. 24+51.06 "PR-1" =
O.P.O.T. Sta. 24+51.06 "A",
0.47' Rt.

END CONSTRUCTION
P.O.T. Sta. 52+80.00 "S-1-A"

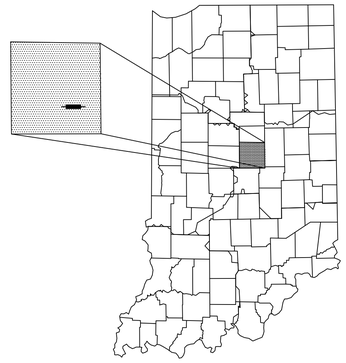


VICINITY MAP
HAMILTON COUNTY

SCALE: NONE

TRAFFIC DATA		GREENFIELD AVE.
A.A.D.T.	(2017)	9,450 V.P.D.
A.A.D.T.	(2037)	10,775 V.P.D.
D.H.V.	(2037)	1,078 V.P.H.
DIRECTIONAL DISTRIBUTION		50 %
TRUCKS		8 % D.H.V.
		8 % A.A.D.T.
DESIGN DATA		
DESIGN SPEED		40 mph
FUNCTIONAL CLASSIFICATION		Principal Arterial
TERRAIN		Level
RURAL/URBAN		Urban (Suburban)
ACCESS CONTROL		None
PROJECT DESIGN CRITERIA		New Constr. 4R (Non-Freeway)

TRAFFIC DATA		HOWE RD.
A.A.D.T.	(2017)	1,365 V.P.D.
A.A.D.T.	(2037)	1,555 V.P.D.
D.H.V.	(2037)	156 V.P.H.
DIRECTIONAL DISTRIBUTION		50 %
TRUCKS		2 % D.H.V.
		2 % A.A.D.T.
DESIGN DATA		
DESIGN SPEED		40 mph
FUNCTIONAL CLASSIFICATION		Local Street
TERRAIN		Level
RURAL/URBAN		Urban (Suburban)
ACCESS CONTROL		None
PROJECT DESIGN CRITERIA		New Constr. 4R (Non-Freeway)



PROJECT LOCATION SHOWN BY

Approx. 49°01'00" N. Lat. & 85°58'50" W. Long.

APPROVED BY
BOARD OF PUBLIC WORKS & SAFETY

HON. JOHN DITSLEAR — MAYOR

LAWRENCE J. STORK — MEMBER

JACK E. MARTIN — MEMBER

ATTEST

EVELYN L. LEES — CLERK

MICHAEL A. HOWARD — CITY ATTORNEY

RECOMMENDED FOR APPROVAL

JOHN BEERY, P.E. — CITY ENGINEER

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES.
REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES.

INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED 2016 TO BE USED WITH THESE PLANS.

PLANS PREPARED BY: Butler Fairman and Seufert Inc. (317)713-4615 PHONE

CERTIFIED BY: DATE

APPROVED FOR LETTING: INDIANA DEPARTMENT OF TRANSPORTATION DATE

BRIDGE FILE	
DESIGNATION	
1401716	
SURVEY BOOK	SHEET
356	1 OF
CONTRACT	PROJECT
R-38246	1401716

BFS NO. 5827

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UTILITIES

ELECTRIC: DUKE ENERGY
1619 W. DEFFENBAUGH ST.
KOKOMO, IN 46902
PH: 317-7538177
ATTN: TIM UMBAUGH
tim.umbaugh@duke-energy.com

WATER: INDIANA AMERICAN WATER
555 E. COUNTY LINE RD., SUITE 201
GREENWOOD, IN 46143
PH: 317-885-2447
ATTN: EZAT NAYERI
ezat.nayeri@amwater.com

GAS: VECTREN
16000 ALLISONVILLE RD.
NOBLESVILLE, IN 46060
PH: 317-776-5534
ATTN: BRIAN HARGER
bharger@vectren.com

COMMUNICATION: COMCAST (TELECOM PLACEMENT)
478 N. COUNTY ROAD 1100 E.
ZIONSVILLE, IN 46077
PH: 317-769-4777
ATTN: TOM SPENCER
tspencer@telecomplacement.com

AT&T
5870 N. COLLEGE AVE.
INDIANAPOLIS, IN 46220
PH: 317-252-5071
ATTN: MATT SPINDLER
ms4822@att.com

ZAYO BANDWIDTH
5200 E. 64TH ST.
INDIANAPOLIS, IN 46220
PH: 317-508-2807
ATTN: DAN JONES
dan.jones@zayo.com

REVISIONS

SHEET NO.	DATE	REVISED

GENERAL NOTES

	All earth shoulders, median areas, and cut and fill slopes shall be plain or mulch seeded except where sodding is specified.
	The final cross sections of the grading contract will be the original cross sections of the paving contract. However, partial or complete cross sections shall be taken if necessary to determine the actual excavation quantities.
	The paper relocation will be cross sectioned by the Engineer before construction.
	Existing asphalt pavement located outside the construction limits, between Sta. OO+00 and Sta. 00+00 shall be removed as directed.
	The quantity of Peat "Excavation" as shown on the plans has been estimated on the basis of theoretical cross-sections by using treatment of existing fills, treatment by removal, or treatment by displacement where each treatment applies.
	Contractor shall verify the existing flowline elevation to set appropriate sump depth.

** REPRESENTS GENERAL NOTES REQUIRED

INDEX

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER DATE

DESIGNED: KLW DRAWN: BEH

CHECKED: ACE CHECKED: KLW

INDIANA
DEPARTMENT OF TRANSPORTATION

INDEX

HORIZONTAL SCALE	BRIDGE FILE
NONE	
VERTICAL SCALE	DESIGNATION
NONE	1401716
SURVEY BOOK	SHEET
356	2 OF
CONTRACT	PROJECT
R-38246	1401716

BFS NO. 5827

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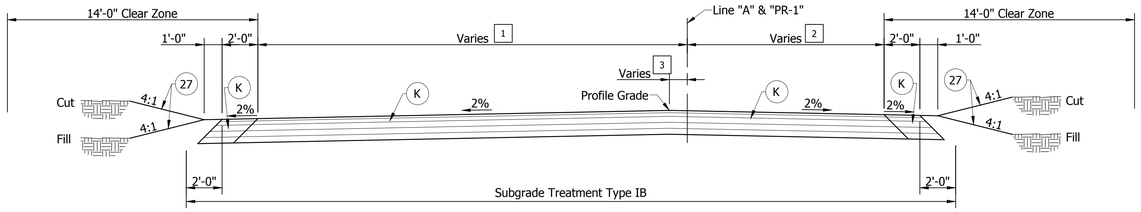


1 24'-0" from 18+00.00 to 18+18.00 "A"
Varies 14'-0" to 12'-0" from 23+43.75 to 23+75.00 "PR-1"
12'-0" from 23+75.00 to 24+51.06 "PR-1"

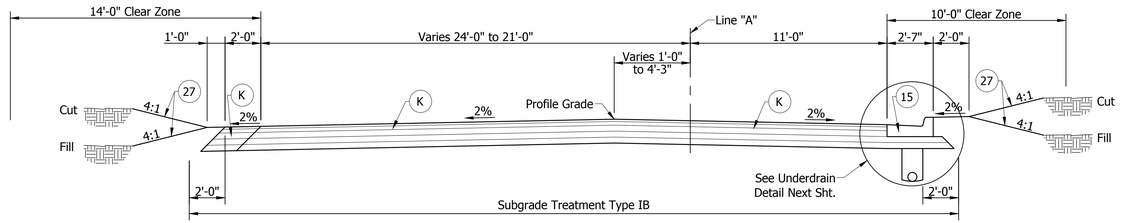
TYPICAL CROSS SECTION - GREENFIELD AVE.

Scale: 1/4" = 1'-0"

Sta. 18+00.00 "A" to Sta. 18+18.00 "A"
Sta. 23+43.75 "PR-1" to Sta. 24+51.06 "PR-1"

2 11'-0" from 18+00.00 to 18+18.00 "A"
12'-0" from 23+43.75 to 24+51.06 "PR-1"

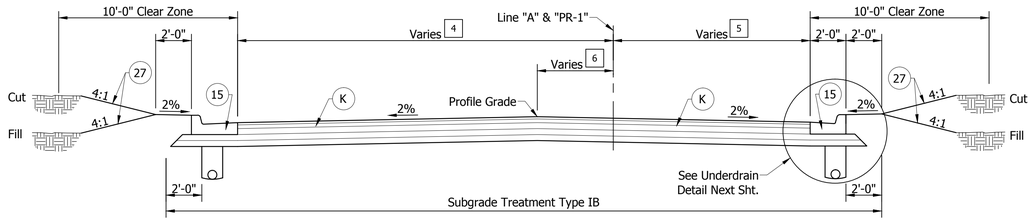
3 Varies 0' to 1'-0" from 18+00.00 to 18+18.00 "A"
Varies 1'-0" to 0' from 23+43.75 to 23+75.00 "PR-1"
0' from 23+75.00 to 24+51.06 "PR-1"



TYPICAL CROSS SECTION - GREENFIELD AVE.

Scale: 1/4" = 1'-0"

Sta. 18+18.00 "A" to Sta. 18+75.00 "A"



4 21'-0" from 18+75.00 to 18+88.00 "A"
Varies 20'-0" to 14'-0" from 22+50.00 to 23+43.75 "PR-1"

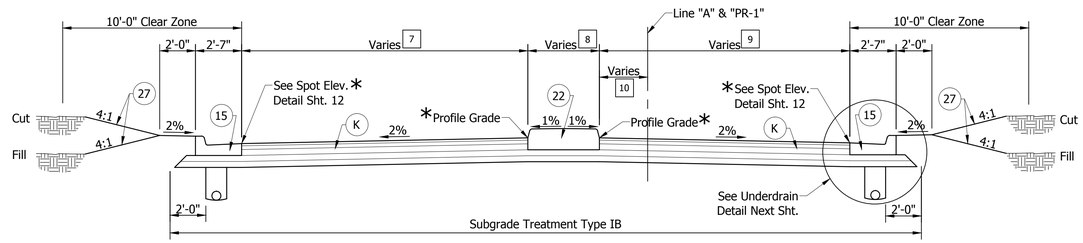
TYPICAL CROSS SECTION - GREENFIELD AVE.

Scale: 1/4" = 1'-0"

Sta. 18+75.00 "A" to Sta. 18+88.00 "A"
Sta. 22+50.00 "PR-1" to Sta. 23+43.75 "PR-1"

5 11'-0" from 18+75.00 to 18+88.00 "A"
12'-0" from 22+50.00 to 23+43.75 "PR-1"

6 Varies 4'-3" to 5'-0" from 18+75.00 to 18+88.00 "A"
Varies 4'-0" to 1'-0" from 22+50.00 to 23+43.75 "PR-1"



TYPICAL CROSS SECTION - GREENFIELD AVE.
(SPLITTER ISLAND)

Scale: 1/4" = 1'-0"

Sta. 18+88.00 "A" to Sta. 19+85.13 "A"
Sta. 20+97.47 "PR-1" to Sta. 22+50.00 "PR-1"

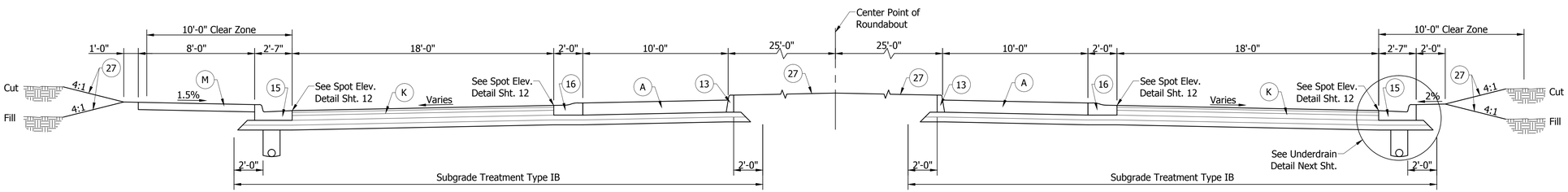
7 Varies 14'-0" to 18'-8" from 18+88.00 to 19+85.13 "A"
Varies 20'-0" to 14'-0" from 20+97.47 to 21+52.51 "PR-1"
14'-0" from 21+52.51 to 22+50.00 "PR-1"

8 Varies 4'-0" to 18'-0" from 18+88.00 to 19+85.13 "A"
Varies 20'-4" to 4'-0" from 20+97.47 to 21+47.47 "PR-1"
4'-0" from 21+47.47 to 22+50.00 "PR-1"

* Spot Elevation Details from Sta. 19+47.55 to 19+85.13 "A"
Spot Elevation Details from Sta. 20+97.47 to 21+50.00 "PR-1"

9 Varies 14'-0" to 19'-11" from 18+88.00 to 19+85.13 "A"
Varies 17'-9" to 14'-0" from 20+97.47 to 21+63.75 "PR-1"
14'-0" from 21+63.75 to 22+50.00 "PR-1"

10 Varies 4'-3" to 5'-0" from 18+75.00 to 18+88.00 "A"
Varies 3'-5" Rt. to 0'-0" from 20+97.47 to 21+19.25 "PR-1"
Varies 0'-0" to 2'-0" Lt. from 21+19.25 to 21+47.47 "PR-1"
2'-0" Lt. from 21+47.47 to 22+50.00 "PR-1"



TYPICAL CROSS SECTION - ROUNDBAOUT

Scale: 1/4" = 1'-0"

Radial Around Center Point @ 20+40.70 "A", 15.03' Lt.

LEGEND

- (A) Concrete Median/Truck Apron:
  10" PCCP, Decorative on
  440#/SYD HMA Base, Type B, 25.0mm on
  440#/SYD HMA Base, Type B, 25.0mm
- (F) Concrete Sidewalk, 6"
- (K) HMA Pavement:
  165#/SYD HMA Surface, Type B, 9.5mm on
  275#/SYD HMA Inter., Type B, 19.0mm on
  440#/SYD HMA Base, Type B, 25.0mm on
  440#/SYD HMA Base, Type B, 25.0mm on
  440#/SYD HMA Base, Type B, 25.0mm
- (M) HMA For Sidewalk:
  140#/SYD HMA Surface, Type B, 9.5mm on
  220#/SYD HMA Inter., Type B, 19.0mm on
  6" of Compacted Aggregate, No. 53, Base on Subgrade Treatment, Type III
- (13) Concrete Curb
- (15) 2'-7" Combined Conc. Curb & Gutter, Type II (6")
- (16) 2' Inverted Conc. Roll Curb & Gutter, Type I
- (22) Concrete Center Curb, Type 'D'
- (27) Seed Mixture, Type 'U'

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER _____ DATE

DESIGNED: KLW DRAWN: BEH

CHECKED: ACE CHECKED: KLW

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
AS SHOWN	
VERTICAL SCALE	DESIGNATION
AS SHOWN	1401716
SURVEY BOOK	SHEET
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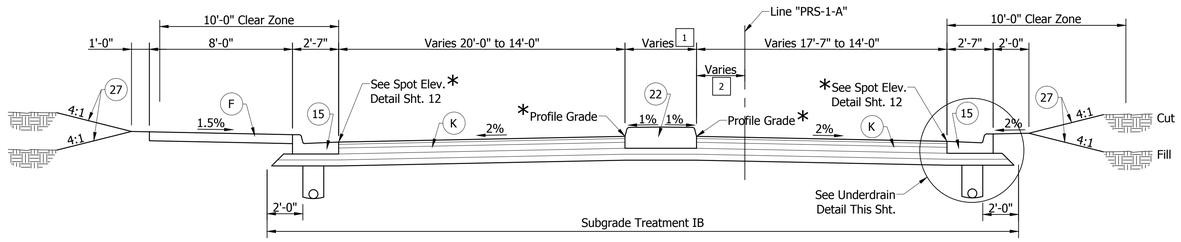


1 Varies 19'-10" to 4'-0" from 50+50.14 to 50+97.43 "PRS-1-A"
4'-0" from 50+97.43 to 51+10.00 "PRS-1-A"

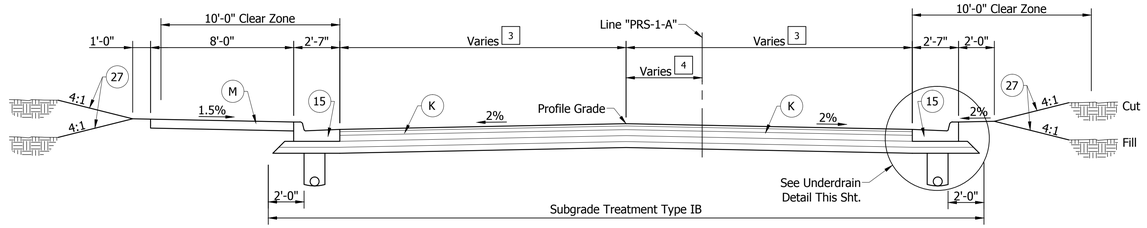
2 Varies 0'-9" Lt. to 0'-0" from 50+50.14 to 50+62.22 "PRS-1-A"
Varies 0'-0" to 6'-0" Rt. from 50+62.22 to 51+10.00 "PRS-1-A"

TYPICAL CROSS SECTION - HOWE RD. (SPLITTER ISLAND)

Scale: 1/4" = 1'-0"

Sta. 50+50.14 "PRS-1-A" to Sta. 51+10.00 "PRS-1-A"

* Spot Elevation Details from Sta. 50+50.14 to 51+00.00 "PRS-1-A"



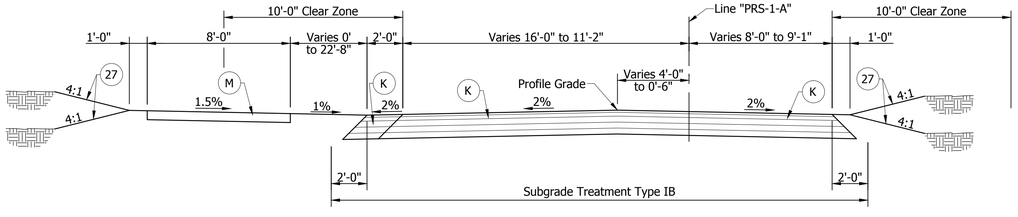
3 16'-0" from 51+10.00 to 51+60.00 "PRS-1-A"
Varies 16'-0" to 12'-0" from 51+60.00 to 52+80.00 "PRS-1-A"

4 8'-0" from 51+10.00 to 51+60.00 "PRS-1-A"
Varies 8'-0" to 4'-0" from 51+60.00 to 52+80.00 "PRS-1-A"

TYPICAL CROSS SECTION - GREENFIELD AVE.

Scale: 1/4" = 1'-0"

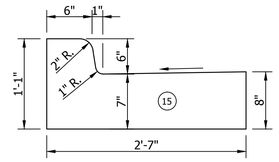
Sta. 51+10.00 "PRS-1-A" to Sta. 52+80.00 "PRS-1-A"



TYPICAL CROSS SECTION - GREENFIELD AVE.

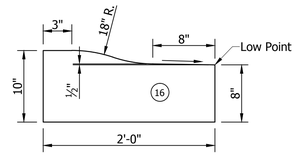
Scale: 1/4" = 1'-0"

Sta. 52+80.00 "PRS-1-A" to Sta. 53+55.00 "PRS-1-A"



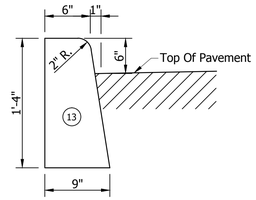
2'-0" COMBINED CONCRETE CURB & GUTTER, TYPE II DETAIL

Not To Scale



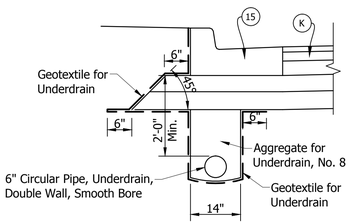
2'-0" INVERTED CONCRETE ROLL CURB, TYPE I DETAIL

Not To Scale



CONCRETE CURB DETAIL

Not To Scale



UNDERDRAIN DETAIL

Not To Scale

LEGEND

- (K) HMA Pavement:
  165#/SYD HMA Surface, Type B, 9.5mm on
  275#/SYD HMA Inter., Type B, 19.0mm on
  440#/SYD HMA Base, Type B, 25.0mm on
  440#/SYD HMA Base, Type B, 25.0mm on
  440#/SYD HMA Base, Type B, 25.0mm
- (M) HMA For Sidewalk:
  140#/SYD HMA Surface, Type B, 9.5mm on
  220#/SYD HMA Inter., Type B, 19.0mm on
  6" of Compacted Aggregate, No. 53, Base on Subgrade Treatment, Type III
- (13) Concrete Curb
- (15) 2'-7" Combined Conc. Curb & Gutter, Type II (6")
- (16) 2' Inverted Conc. Roll Curb & Gutter, Type I
- (27) Seed Mixture, Type 'U'

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER _____ DATE

DESIGNED: KLW DRAWN: BEH

CHECKED: ACE CHECKED: KLW

INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
AS SHOWN	
VERTICAL SCALE	DESIGNATION
AS SHOWN	1401716
SURVEY BOOK	SHEET
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BFS NO. 5827

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15+00 | 20+00 | 25+00

ARBOR GROVE HOME OWNERS ASSOCIATION, INC.

THOMAS R. & MARCEA S. SHANK

CARL E. WARD & KENT C. WARD

JAMES R. & LYNDA L. ARBUCKLE

LESEA BROADCASTING CORP.

ANGELA L. COTTRELL
Res. "A"

BRIAN M. & EMMA M. EDWARDS
Res. "A"

DAVID A. CLYMER
Res. "A"

A. DONALD WILES II REVOCABLE TRUST
Res. "A"

DEAN C. & JANET HANSEN

BRIGHTON KNOLL COMMUNITY ASSOC., INC.

ARBOR GROVE SECTION 2
LOT 172
LOT 171
LOT 170 (A)
LOT 166
LOT 167
LOT 168
LOT 169 (B)

BRIGHTON KNOLL SECTION 2
LOT 96 (D) | LOT 95 (E) | LOT 94 (F) | LOT 93 | LOT 92 | LOT 91 | LOT 90 | LOT 89

Symphony Blvd.

Greenfield Ave.

Wheeler-Wheeler Legal Drain

Index Letter	Property Owners
A	THOMAS H. & TERYL A. BARNHILL
B	MICHAEL L. CROSSETT
C	ARBOR GROVE HOME OWNERS ASSOC., INC.
D	WILLIAM D. & DIANA J. HEDGES
E	MARSHA NORRIS
F	MEGAN A. BASTIN

GRAPHIC SCALE
50 0 25 50 100
(IN FEET)
1 inch = 50 ft.

App. ℄ | App. Ex. R/W | App. ¼ Sec. Line | App. ½ ¼ Sec. Line | R/W | App. Ex. R/W | App. Ex. R/W

Common Area "D" | Common Area "K"

30' Indiana Gas Co. Easement

20' Drainage & Utility Easement

30' Drainage & Utility Easement

20' Sign & Landscape Easement

20' Ameritech Easement

2' Non-Access Easement

Utility Easement In Favor Of Indiana Bell Telephone Co., Inc.

Temp. R/W

Gas Line Easement In Favor Of Indiana Gas Co., Inc.

20' Utility Easement in favor of Indiana Bell Telephone Co.

5' Electric Easement

LINE "A" | LINE "PR-1" | Line "S-1-A" | Line "S-1-A"

P.I. Sta. 17+19.52 "A"
Δ = 0°22'19" Rt.
(No Curve Run)

BEGIN PROJECT
P.O.T. Sta. 18+00.00 "A"

P.O.T. Sta. 20+00.00 "A" =
P.O.T. Sta. 50+00.00 "S-1-A"

P.O.T. Sta. 20+76.25 "PR-1" =
O.P.O.T. Sta. 20+76.08 "A",
3.00' Lt.

P.C. Sta. 21+96.86 "PR-1"

P.I. Sta. 23+26.49 "A"
Δ = 4°50'53" Rt.
(No Curve Run)

P.I. Sta. 23+58.19 "PR-1"
Δ = 3°41'46" Rt.

P.T. Sta. 25+19.40 "PR-1" =
P.O.T. Sta. 25+19.40 "A"

P.O.T. Sta. 28+20.00 "A"

END CONSTRUCTION
P.O.T. Sta. 52+80.00 "S-1-A"

P.I. Sta. 53+36.11 "S-1-A"
Δ = 0°00'51" Rt.
(No Curve Run)

END PROJECT
P.O.C. Sta. 24+51.06 "PR-1"=
O.P.O.T. Sta. 24+51.06 "A", 0.47' Rt.

S.E. Cor. W. ½, S.E. ¼

App. Sec. Line & App. ℄

51+00 | 52+00 | 53+00 | 54+00

CURVE DATA
P.I Sta. 23+58.19 "PR-1"
Δ = 3°41'46" Rt.
R = 5000.00'
T = 161.33'
L = 322.55'
E = 2.60'

Sec. 8, T. 18 N., R. 5 E.
Noblesville Township
Hamilton County

Sec. 17, T. 18 N., R. 5 E.
Noblesville Township
Hamilton County

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RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER _____ DATE

DESIGNED: KLW DRAWN: BEH

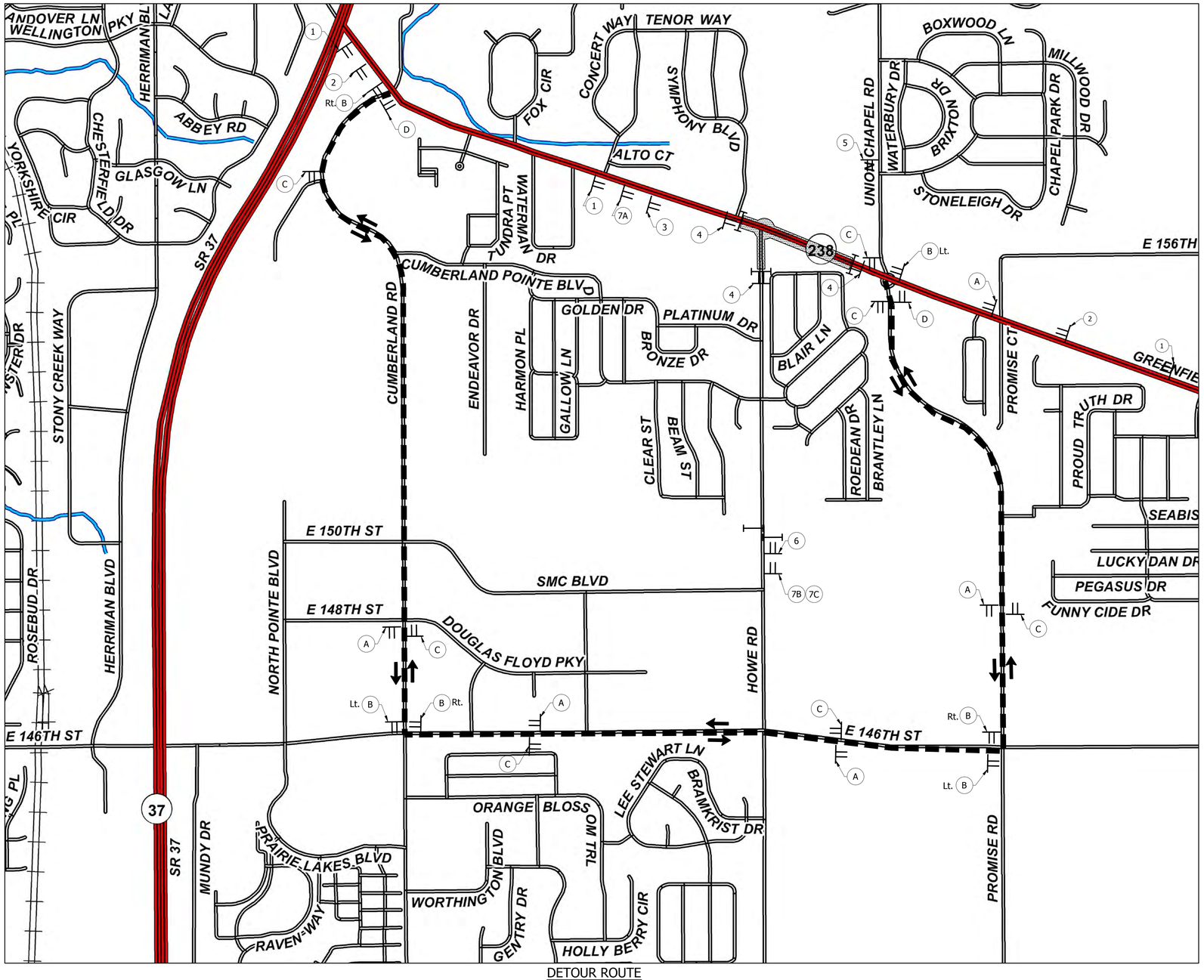
CHECKED: ACE CHECKED: KLW

INDIANA DEPARTMENT OF TRANSPORTATION

PLAT NO. 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1401716
SURVEY BOOK	SHEET
356	5 OF
CONTRACT	PROJECT
R-38246	1401716

BFS NO. 5827



DETOUR ROUTE
NOT TO SCALE

LEGEND

- DETOUR ROUTE
- AREA OF CONSTRUCTION
- TRAFFIC FLOW
- TYPE III-A BARRICADE
- CONSTRUCTION SIGN TYPE AS SHOWN W/ TYPE 'A' WARNING LIGHT

- (A) ADVANCE DETOUR ROUTE MARKER ASSEMBLY
- (B) DIRECTIONAL DETOUR ROUTE MARKER ASSEMBLY
- (C) CONFIRMING DETOUR ROUTE MARKER ASSEMBLY
- (D) END DETOUR ROUTE MARKER ASSEMBLY
- (1) ROAD CLOSED AHEAD XW20-3
- (2) DETOUR AHEAD XW20-2
- (3) WORK SITE PENALTY XG20-7
- (4) ROAD CLOSURE SIGN ASSEMBLY
- (5) ROAD CONSTRUCTION AHEAD XW20-1
- (6) ROAD CLOSED LOCAL TRAFFIC ONLY (1/4 Mi.) R11-3
- (7) OPEN TO SUBDIVISION

(A)
DETOUR XM4-8
GREENFIELD AVE. MI-6
M5-1(R or L)S

ADVANCE TURN DETOUR ROUTE MARKER ASSEMBLY
SCALE: NONE

(B)
DETOUR XM4-8
GREENFIELD AVE. MI-6
M6-1(L or R)S

DIRECTIONAL DETOUR ROUTE MARKER ASSEMBLY
SCALE: NONE

(C)
DETOUR XM4-8
GREENFIELD AVE. MI-6
M6-3S

CONFIRMING DETOUR ROUTE MARKER ASSEMBLY
SCALE: NONE

(D)
END XM4-6S
DETOUR XM4-8
GREENFIELD AVE. MI-6
M5-1(R OR L)S

END DETOUR ROUTE MARKER ASSEMBLY
SCALE: NONE

OPEN TO ARBOR GROVE SUBDIVISION

(7A) D3-1 (Mod.)
SCALE: NONE

OPEN TO BRIGHTON KNOLL SUBDIVISION

(7B) D3-2 (Mod.)
SCALE: NONE

OPEN TO CUMBERLAND POINTE SUBDIVISION

(7C) D3-3 (Mod.)
SCALE: NONE

DETOUR SIGN SUMMARY

	MESSAGE	CODE	TYPE	QTY.
(1)	ROAD CLOSED AHEAD	XW20-3	A	3
(2)	DETOUR AHEAD	XW20-2	A	2
(3)	WORK SITE PENALTY	XG20-7	A	1
(4)	ROAD CLOSURE SIGN ASSEMBLY			3
(5)	ROAD CONSTRUCTION AHEAD	XW20-1	A	1
(6)	ROAD CLOSED LOCAL TRAFFIC ONLY	R11-3	C	1
(7A)	OPEN TO ARBOR GROVE SUBDIVISION		C	1
(7B)	OPEN TO BRIGHTON KNOLL SUBDIVISION		C	1
(7C)	OPEN TO CUMBERLAND POINTE SUBDIVISION		C	1
(A)	ADVANCE DETOUR ROUTE MARKER ASSEMBLY			5
(B)	DIRECTIONAL DETOUR ROUTE MARKER ASSEMBLY			6
(C)	CONFIRMING DETOUR ROUTE MARKER ASSEMBLY			7
(D)	END DETOUR ROUTE MARKER ASSEMBLY			2

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER _____ DATE

DESIGNED: KLW DRAWN: BEH

CHECKED: ACE CHECKED: KLW

INDIANA
DEPARTMENT OF TRANSPORTATION

DETOUR ROUTE

HORIZONTAL SCALE	BRIDGE FILE
NONE	
VERTICAL SCALE	DESIGNATION
NONE	1401716
SURVEY BOOK	SHEET
356	6 OF
CONTRACT	PROJECT
R-38246	1401716

BFS NO. 5827

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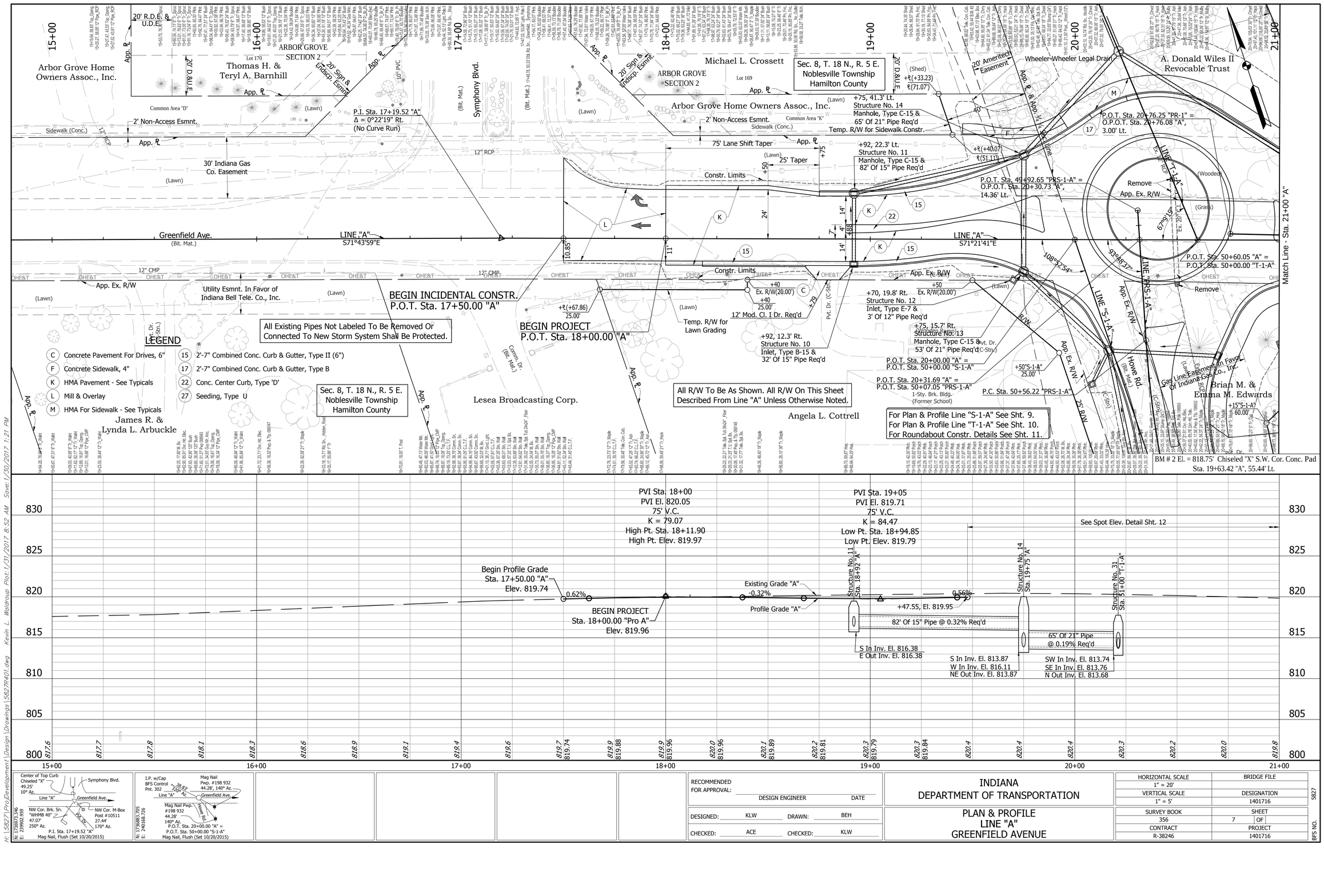
15+00
16+00
17+00
18+00
19+00
20+00
21+00
Arbor Grove Home Owners Assoc., Inc.
Thomas H. & Teryl A. Barnhill
Lot 170
ARBOR GROVE SECTION 2
Michael L. Crossett
Lot 169
Sec. 8, T. 18 N., R. 5 E. Noblesville Township Hamilton County
A. Donald Wiles II Revocable Trust
Wheeler-Wheeler Legal Drain
20' Ameritech Easement
20' R.D.E. & U.D.E.
20' Sign & Unscp. Esmnt.
App. ℄
Common Area "D"
Common Area "K"
2' Non-Access Esmnt.
Sidewalk (Conc.)
12" RCP
30' Indiana Gas Co. Easement
(Lawn)
P.I. Sta. 17+19.52 "A"
Δ = 0°22'19" Rt.
(No Curve Run)
Symphony Blvd.
(Bit. Mat.)
10" PVC
12" RCP
Greenfield Ave.
LINE "A"
S71°43'59"E
LINE "A"
S71°21'41"E
75' Lane Shift Taper
25' Taper
Constr. Limits
+92, 22.3' Rt.
Structure No. 11
Manhole, Type C-15 & 82' Of 15" Pipe Req'd
+75, 41.3' Lt.
Structure No. 14
Manhole, Type C-15 & 65' Of 21" Pipe Req'd
Temp. R/W for Sidewalk Constr.
+70, 19.8' Rt.
Structure No. 12
Inlet, Type E-7 & 3' Of 12" Pipe Req'd
+92, 12.3' Rt.
Structure No. 10
Inlet, Type B-15 & 32' Of 15" Pipe Req'd
+75, 15.7' Rt.
Structure No. 13
Manhole, Type C-15 & 53' Of 21" Pipe Req'd
12' Mod. CI. I Dr. Req'd
Pvt. Dr. (C-Stn.)
Temp. R/W for Lawn Grading
Utility Esmnt. In Favor of Indiana Bell Tele. Co., Inc.
BEGIN INCIDENTAL CONSTR.
P.O.T. Sta. 17+50.00 "A"
BEGIN PROJECT
P.O.T. Sta. 18+00.00 "A"
All Existing Pipes Not Labeled To Be Removed Or Connected To New Storm System Shall Be Protected.
All R/W To Be As Shown. All R/W On This Sheet Described From Line "A" Unless Otherwise Noted.
P.O.T. Sta. 20+00.00 "A" = P.O.T. Sta. 50+00.00 "S-1-A"
P.O.T. Sta. 20+31.69 "A" = P.O.T. Sta. 50+07.05 "PRS-1-A"
1-Sty. Brk. Bldg. (Former School)
P.C. Sta. 50+56.22 "PRS-1-A"
P.O.T. Sta. 20+76.25 "PR-1" = O.P.O.T. Sta. 20+76.08 "A", 3.00' Lt.
P.O.T. Sta. 49+92.65 "PRS-1-A" = O.P.O.T. Sta. 20+30.73 "A", 14.36' Lt.
P.O.T. Sta. 50+60.05 "A" = P.O.T. Sta. 50+00.00 "T-1-A"
Remove
App. Ex. R/W
LINE "T-1-A"
LINE "PRS-1-A"
LINE "S-1-A"
Match Line - Sta. 21+00 "A"
For Plan & Profile Line "S-1-A" See Sht. 9.
For Plan & Profile Line "T-1-A" See Sht. 10.
For Roundabout Constr. Details See Sht. 11.
Howe Rd. (Bit. Mat.)
Gas Line Easement In Favor Of Indiana Gas Co., Inc.
Brian M. & Emma M. Edwards
Angela L. Cottrell
James R. & Lynda L. Arbuckle
Lesea Broadcasting Corp.
Comm. Dr. (Bit. Mat.)
Pvt. Dr. (C-Stn.)
LEGEND
C Concrete Pavement For Drives, 6"
F Concrete Sidewalk, 4"
K HMA Pavement - See Typicals
L Mill & Overlay
M HMA For Sidewalk - See Typicals
15 2'-7" Combined Conc. Curb & Gutter, Type II (6")
17 2'-7" Combined Conc. Curb & Gutter, Type B
22 Conc. Center Curb, Type 'D'
27 Seeding, Type U
Sec. 8, T. 18 N., R. 5 E. Noblesville Township Hamilton County
BM # 2 El. = 818.75' Chiseled "X" S.W. Cor. Conc. Pad Sta. 19+63.42 "A", 55.44' Lt.
PVI Sta. 18+00
PVI El. 820.05
75' V.C.
K = 79.07
High Pt. Sta. 18+11.90
High Pt. Elev. 819.97
PVI Sta. 19+05
PVI El. 819.71
75' V.C.
K = 84.47
Low Pt. Sta. 18+94.85
Low Pt. Elev. 819.79
See Spot Elev. Detail Sht. 12
Begin Profile Grade Sta. 17+50.00 "A" Elev. 819.74
0.62%
BEGIN PROJECT Sta. 18+00.00 "Pro A" Elev. 819.96
Existing Grade "A"
-0.32%
Profile Grade "A"
0.56%
Structure No.11 Sta. 18+92 "A"
Structure No. 14 Sta. 19+75 "A"
Structure No. 31 Sta. 51+00 "T-1-A"
+47.55, El. 819.95
82' Of 15" Pipe @ 0.32% Req'd
65' Of 21" Pipe @ 0.19% Req'd
S In Inv. El. 816.38
E Out Inv. El. 816.38
S In Inv. El. 813.87
W In Inv. El. 816.11
NE Out Inv. El. 813.87
SW In Inv. El. 813.74
SE In Inv. El. 813.76
N Out Inv. El. 813.68
817.6 817.7 817.8 818.1 818.3 818.6 818.9 819.1 819.4 819.6 819.7 819.74 819.9 819.88 819.9 819.96 820.0 819.96 820.1 819.89 820.2 819.81 820.3 819.79 820.3 819.84 820.4 820.4 820.4 820.3 820.2 820.0 819.8
Center of Top Curb Chiseled "X" 49.25' 10° Az.
Symphony Blvd.
Line "A"
Greenfield Ave.
NW Cor. Brk. Sn. "WHMB 40" 47.07' 250° Az.
NW Cor. M-Box Post #10511 27.44' 170° Az.
P.I. Sta. 17+19.52 "A"
Mag Nail, Flush (Set 10/20/2015)
N: 1736973.346
E: 239902.959
I.P. w/Cap BFS Control Pnt. 302
Mag Nail Pwp. #198 932 44.28', 140° Az.
Mag Nail Pwp. #198 932 44.28' 140° Az.
Howe Rd.
P.O.T. Sta. 20+00.00 "A" = P.O.T. Sta. 50+00.00 "S-1-A"
Mag Nail, Flush (Set 10/20/2015)
N: 1736883.705
E: 240168.726
RECOMMENDED FOR APPROVAL:
DESIGN ENGINEER
DATE
DESIGNED: KLW
DRAWN: BEH
CHECKED: ACE
CHECKED: KLW
INDIANA DEPARTMENT OF TRANSPORTATION
PLAN & PROFILE LINE "A" GREENFIELD AVENUE
HORIZONTAL SCALE 1" = 20'
VERTICAL SCALE 1" = 5'
SURVEY BOOK 356
CONTRACT R-38246
BRIDGE FILE
DESIGNATION 1401716
SHEET 7 OF
PROJECT 1401716
BFS NO. 5827
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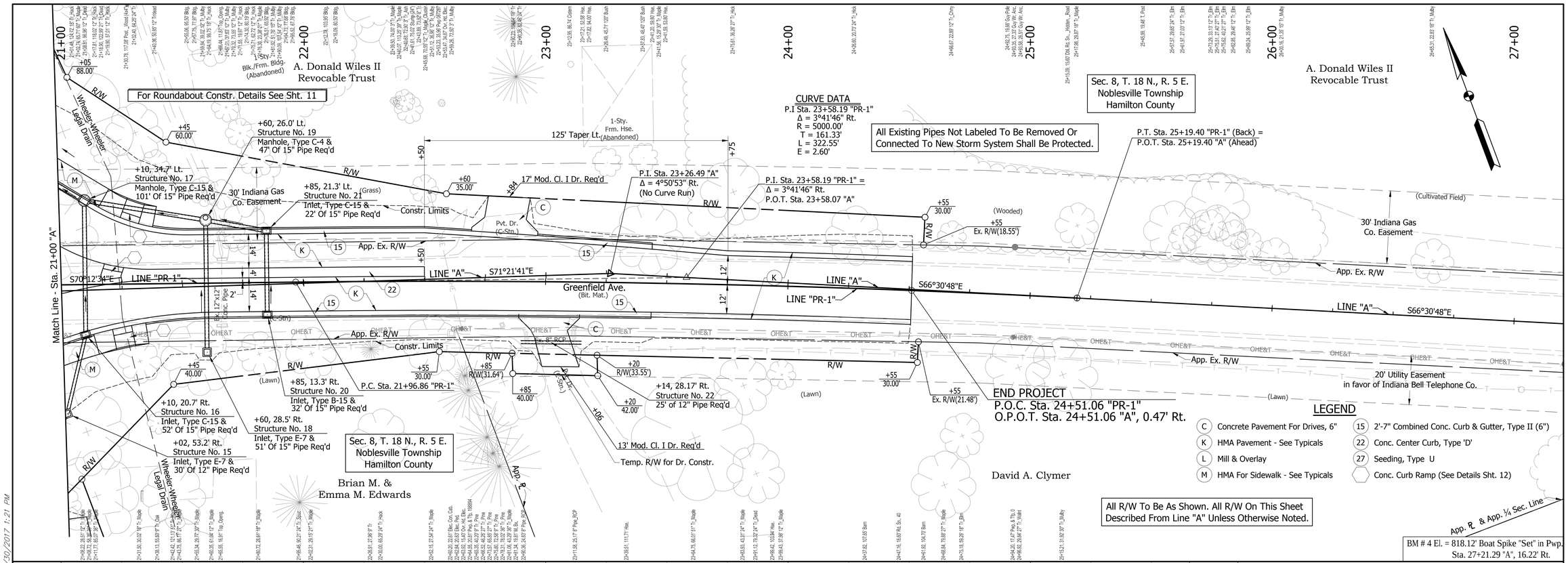

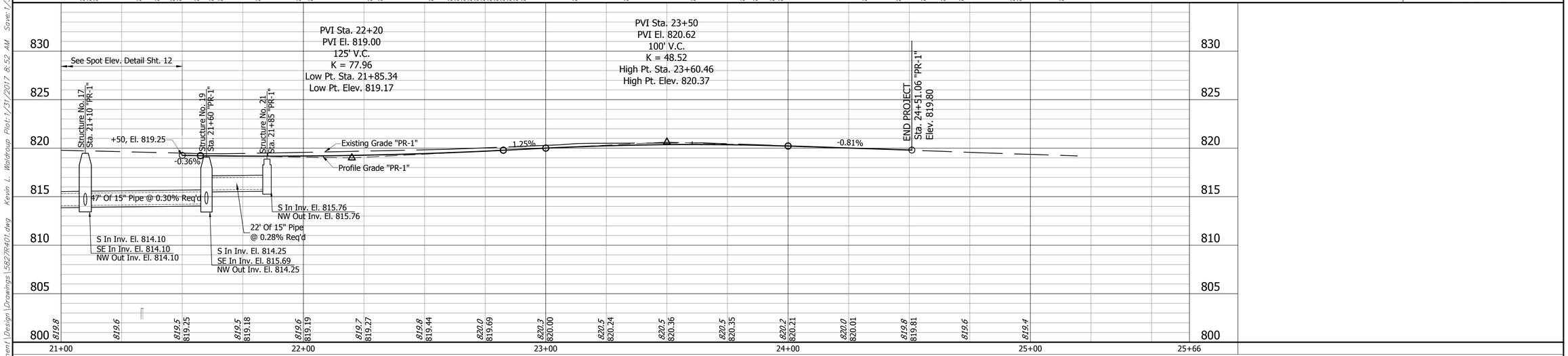

NW Cor. M-Box
Post #10609
49.56'
270° Az.
Mag Nail w/Washer
S&A GPS Control Firm 0008
20.64'
320° Az.
Pvt. Dr.
Line "A"
Greenfield Ave.
NE Cor. Conc. Headwall
25.85'
230° Az.
N: 1736779.358
E: 240478.096
P.I. Sta. 23+26.49 "A"
Mag Nail, Flush (Set 10/20/2015)

Mag Nail
in E.P.
12.03'
0° Az.
Line "A"
Greenfield Ave.
100.00'
180° Az.
NE Cor. Sn. Post
"Union Chapel
Roundabout"
22.74'
170° Az.
Boat Spike
Pwp. BM #4
N: 1736582.676
E: 240930.719
P.O.T. Sta. 28+20.00 "A"
Mag Nail, Flush (Set 10/20/2015)

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER _____ DATE

DESIGNED: KLW DRAWN: BEH

CHECKED: ACE CHECKED: KLW

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE
LINE "A"
GREENFIELD AVENUE

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1401716
SURVEY BOOK	SHEET
356	8 OF
CONTRACT	PROJECT
R-38246	1401716

BFS NO. 5827

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Sec. 17, T. 18 N., R. 5 E.
Noblesville Township
Hamilton County

Sec. 8, T. 18 N., R. 5 E.
Noblesville Township
Hamilton County

Sec. 17, T. 18 N., R. 5 E.
Noblesville Township
Hamilton County

Sec. 8, T. 18 N., R. 5 E.
Noblesville Township
Hamilton County

A. Donald Wiles II Revocable Trust

Brian M. & Emma M. Edwards

William D. & Diana J. Hedges

Brighton Knoll Comm. Assoc., Inc.

Angela L. Cottrell

Dean C. & Janet Hansen

BRIGHTON KNOLL SECTION 2

Lot 96

1-Sty. Frm. Hse.

30' Indiana Gas Co. Easement

Greenfield Ave.

LINE "A"

App. Ex. R/W

Wheeler-Wheeler Legal Drain

20' Mod. Cl. I Dr. Req'd

Temp. R/W for Drive Constr.

Gas Line Esmt. In Favor Of Indiana Gas Co., Inc.

5' Elec. Esmnt.

10' D.E.

20' D.U. & S.S.E.

App. ℄ & App. Sec. Line

App. ℄

Pedestrian Trail (Bit. Mat.)

Howe Rd. (Bit. Mat.)

LINE "S-1-A" & App. ¼ ¼ Sec. Line

LINE "PRS-1-A" S14°39'42"W

Constr. Limits

25' R/W

75' Taper Lt. & Rt.

120' Taper Lt.

Ex. 12" RCP

Ex. 8" PVC w/6" HDPE

9.08' 11.19'

P.O.T. Sta. 49+92.65 "PRS-1-A"

P.O.T. Sta. 50+07.05 "PRS-1-A" = P.O.T. Sta. 20+31.69 "A"

P.C. Sta. 50+56.22 "PRS-1-A"

P.O.T. Sta. 50+00.00 "S-1-A" = P.O.T. Sta. 20+00.00 "A"

P.O.T. Sta. 51+87.74 "PRS-1-A" (Back) = P.O.T. Sta. 51+87.74 "S-1-A" (Ahead)

P.I. Sta. 51+22.36 "PRS-1-A" = Δ = 15°04'17" Lt. P.O.T. Sta. 51+21.60 "S-1-A"

P.O.T. Sta. 53+75.00 "PRS-1-A"

P.I. Sta. 53+36.11 "S-1-A" = Δ = 0°00'51" Rt. (No Curve Run) P.I. Sta. 53+36.11 "PRS-1-A" Δ = 0°00'51" Rt. (No Curve Run)

END INCIDENTAL CONSTR. P.O.T. Sta. 53+55.00 "S-1-A"

END CONSTRUCTION P.O.T. Sta. 52+80.00 "S-1-A"

+07, 42.0' Lt. Structure No. 29 Inlet, Type E-7 & 19' Of 12" Pipe Req'd

+95, 23.6' Lt. Structure No. 26 Inlet, Type C-15 & 30' Of 15" Pipe Req'd

+67, 34.5' Lt. Structure No. 24 Inlet, Type B-15 & 50' Of 15" Pipe Req'd

+75, 28.0' Rt. Structure No. 25 Inlet, Type E-7 & 15' Of 12" Pipe Req'd

+60, 18.5' Rt. Structure No. 23 Manhole, Type C-15 & 53' Of 18" Pipe Req'd

+05, 19.6' Rt. Structure No. 28 Manhole, Type C-15 & 146' Of 18" Pipe Req'd

+95, 9.3' Rt. Structure No. 27 Inlet, Type C-15 & 10' Of 15" Pipe Req'd

+42.8, 14.8' Rt. Structure No. 100 Exst. Inlet- Replace Casting & Connect To Str. 27

Sta. 53+51.72 "S-1-A", Off. 65.84' Lt.

Sta. 53+60.70 "S-1-A", Off. 66.45' Lt.

Sta. 53+62.09 "S-1-A", Off. 45.80' Lt.

Sta. 53+53.21 "S-1-A", Off. 43.66' Lt.

Sta. 54+17.61 "S-1-A", Off. 59.19' Lt.

Sta. 54+17.47 "S-1-A", Off. 49.73' Lt.

Sta. 54+10.42 "S-1-A", Off. 49.23' Lt.

All R/W To Be As Shown. All R/W On This Sheet Described From Line "S-1-A" Unless Otherwise Noted.

All Existing Pipes Not Labeled To Be Removed Or Connected To New Storm System Shall Be Protected.

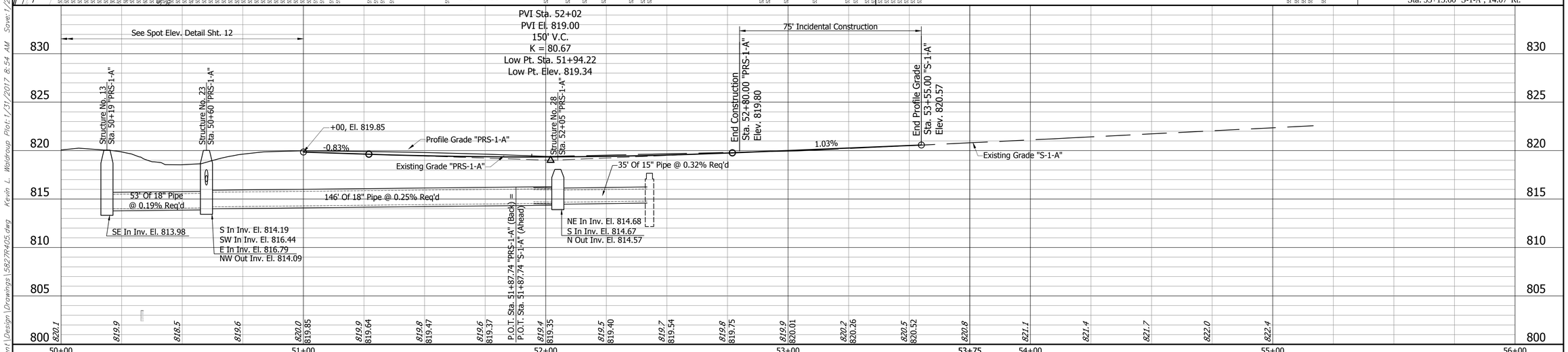
For Plan & Profile Line "A" See Sht. 7.
For Roundabout Constr. Details See Sht. 11.

CURVE DATA
P.I Sta. 51+22.36 "PRS-1-A"
Δ = 15°04'17" Lt.
R = 500.00'
T = 66.14'
L = 131.52'
E = 4.36'

BM # 1 El. = 822.69' Boat Spike "Set" in Pwp. #HMI4790
Sta. 55+13.60 "S-1-A", 14.07' Rt.

LEGEND

- C Concrete Pavement For Drives, 6"
- K HMA Pavement - See Typicals
- L Mill & Overlay
- M HMA For Sidewalk - See Typicals
- 15 2'-7" Combined Conc. Curb & Gutter, Type II (6")
- 22 Conc. Center Curb, Type 'D'
- 27 Seeding, Type U



RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER _____ DATE

DESIGNED: KLW DRAWN: BEH

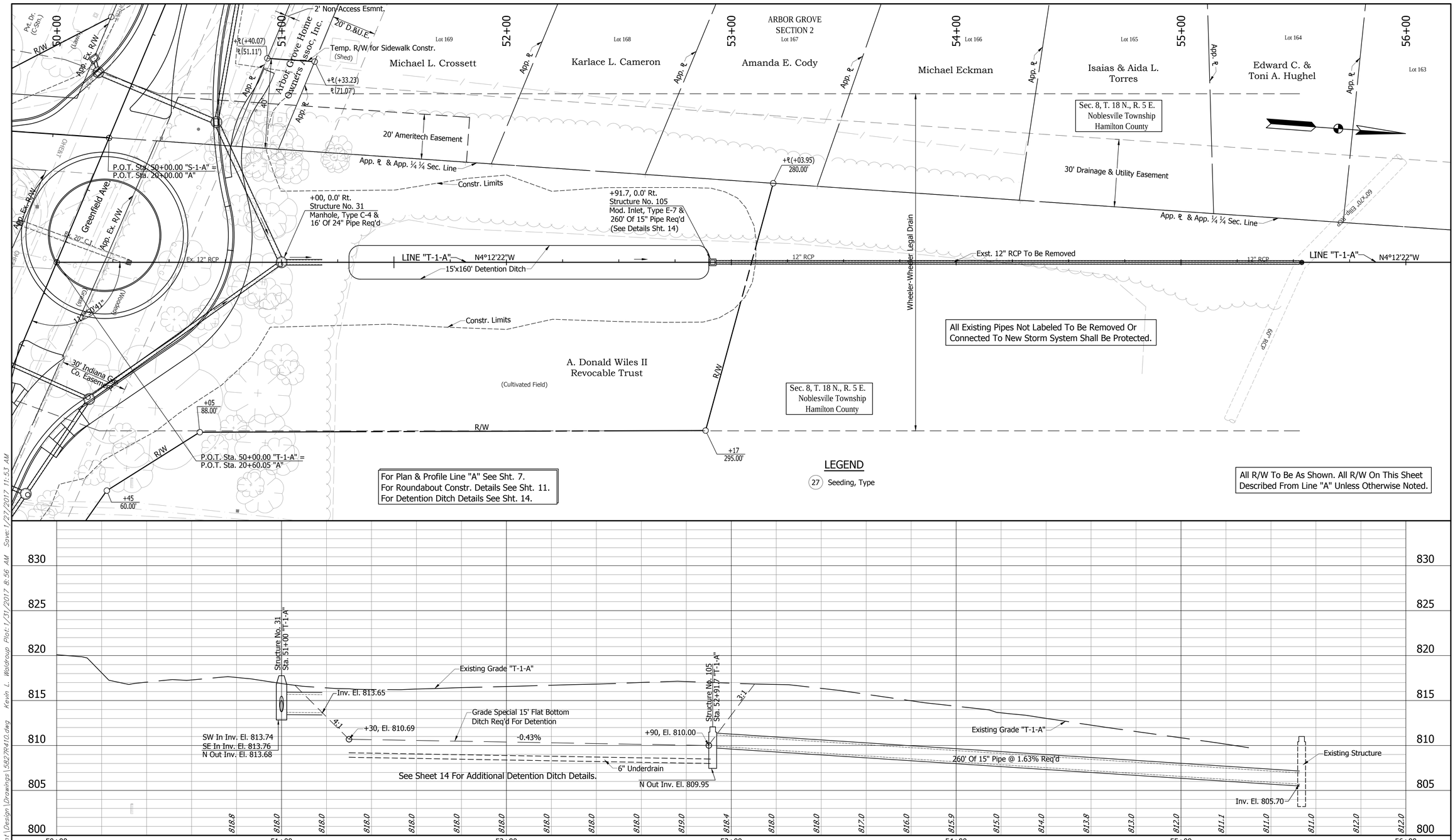
CHECKED: ACE CHECKED: KLW

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE
LINE "S-1-A"
HOWE ROAD

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1401716
SURVEY BOOK	SHEET
356	9 OF
CONTRACT	PROJECT
R-38246	1401716

BFS NO. 5827



RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER _____ DATE

DESIGNED: KLW DRAWN: BEH

CHECKED: ACE CHECKED: KLW

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE
LINE "T-1-A"
DETENTION AREA

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1401716
SURVEY BOOK	SHEET
356	10 OF
CONTRACT	PROJECT
R-38246	1401716

BFS NO. 5827

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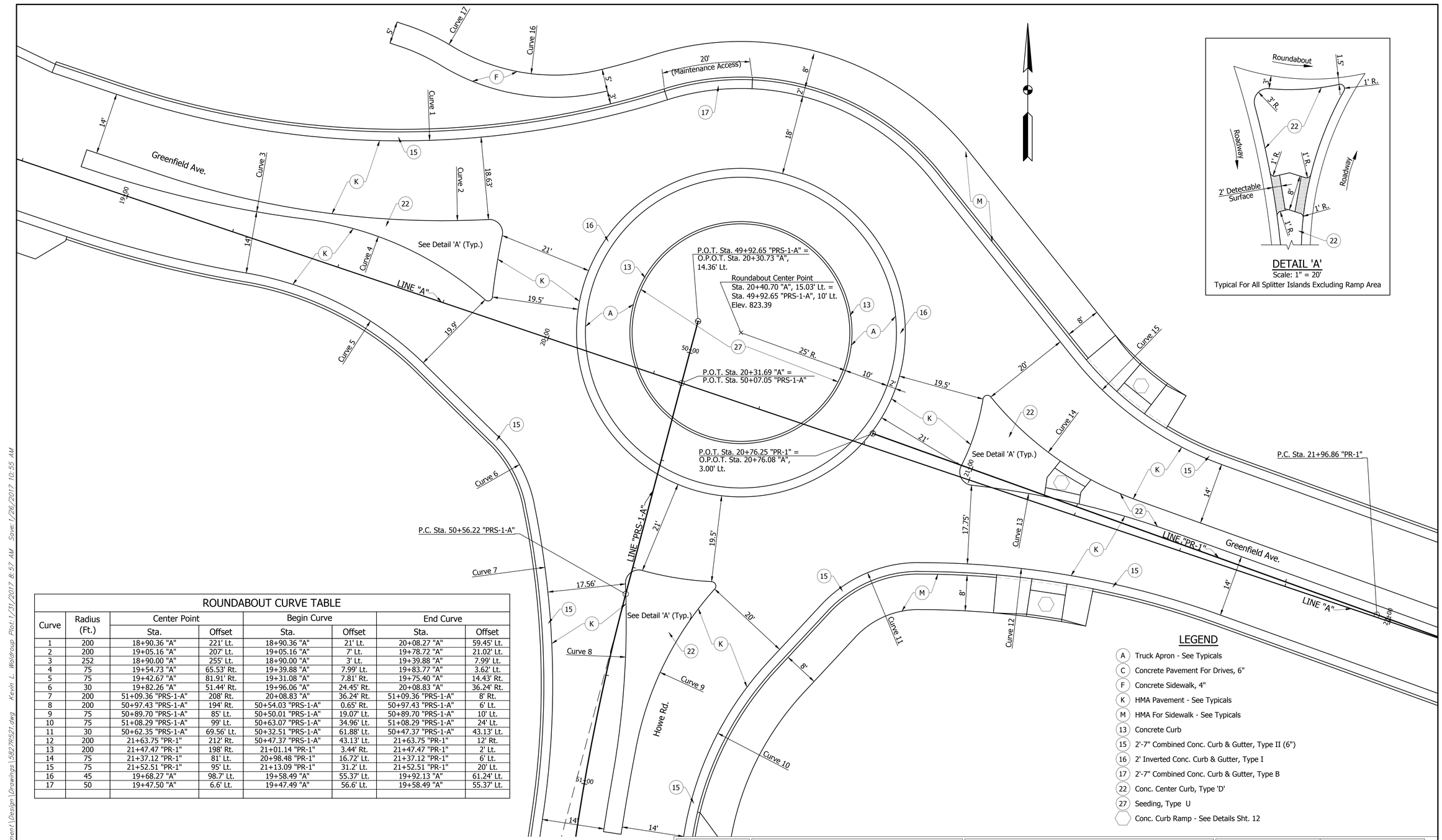


DETAIL 'A'
Scale: 1" = 20'
Typical For All Splitter Islands Excluding Ramp Area

ROUNDABOUT CURVE TABLE

Curve	Radius (Ft.)	Center Point		Begin Curve		End Curve	
		Sta.	Offset	Sta.	Offset	Sta.	Offset
1	200	18+90.36 "A"	221' Lt.	18+90.36 "A"	21' Lt.	20+08.27 "A"	59.45' Lt.
2	200	19+05.16 "A"	207' Lt.	19+05.16 "A"	7' Lt.	19+78.72 "A"	21.02' Lt.
3	252	18+90.00 "A"	255' Lt.	18+90.00 "A"	3' Lt.	19+39.88 "A"	7.99' Lt.
4	75	19+54.73 "A"	65.53' Rt.	19+39.88 "A"	7.99' Lt.	19+83.77 "A"	3.62' Lt.
5	75	19+42.67 "A"	81.91' Rt.	19+31.08 "A"	7.81' Rt.	19+75.40 "A"	14.43' Rt.
6	30	19+82.26 "A"	51.44' Rt.	19+96.06 "A"	24.45' Rt.	20+08.83 "A"	36.24' Rt.
7	200	51+09.36 "PRS-1-A"	208' Rt.	20+08.83 "A"	36.24' Rt.	51+09.36 "PRS-1-A"	8' Rt.
8	200	50+97.43 "PRS-1-A"	194' Rt.	50+54.03 "PRS-1-A"	0.65' Rt.	50+97.43 "PRS-1-A"	6' Lt.
9	75	50+89.70 "PRS-1-A"	85' Lt.	50+50.01 "PRS-1-A"	19.07' Lt.	50+89.70 "PRS-1-A"	10' Lt.
10	75	51+08.29 "PRS-1-A"	99' Lt.	50+63.07 "PRS-1-A"	34.96' Lt.	51+08.29 "PRS-1-A"	24' Lt.
11	30	50+62.35 "PRS-1-A"	69.56' Lt.	50+32.51 "PRS-1-A"	61.88' Lt.	50+47.37 "PRS-1-A"	43.13' Lt.
12	200	21+63.75 "PR-1"	212' Rt.	50+47.37 "PRS-1-A"	43.13' Lt.	21+63.75 "PR-1"	12' Rt.
13	200	21+47.47 "PR-1"	198' Rt.	21+01.14 "PR-1"	3.44' Rt.	21+47.47 "PR-1"	2' Lt.
14	75	21+37.12 "PR-1"	81' Lt.	20+98.48 "PR-1"	16.72' Lt.	21+37.12 "PR-1"	6' Lt.
15	75	21+52.51 "PR-1"	95' Lt.	21+13.09 "PR-1"	31.2' Lt.	21+52.51 "PR-1"	20' Lt.
16	45	19+68.27 "A"	98.7' Lt.	19+58.49 "A"	55.37' Lt.	19+92.13 "A"	61.24' Lt.
17	50	19+47.50 "A"	6.6' Lt.	19+47.49 "A"	56.6' Lt.	19+58.49 "A"	55.37' Lt.

LEGEND

- (A) Truck Apron - See Typicals
- (C) Concrete Pavement For Drives, 6"
- (F) Concrete Sidewalk, 4"
- (K) HMA Pavement - See Typicals
- (M) HMA For Sidewalk - See Typicals
- (13) Concrete Curb
- (15) 2'-7" Combined Conc. Curb & Gutter, Type II (6")
- (16) 2' Inverted Conc. Curb & Gutter, Type I
- (17) 2'-7" Combined Conc. Curb & Gutter, Type B
- (22) Conc. Center Curb, Type 'D'
- (27) Seeding, Type U
- Conc. Curb Ramp - See Details Sht. 12

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER _____ DATE

DESIGNED: KLW DRAWN: BEH

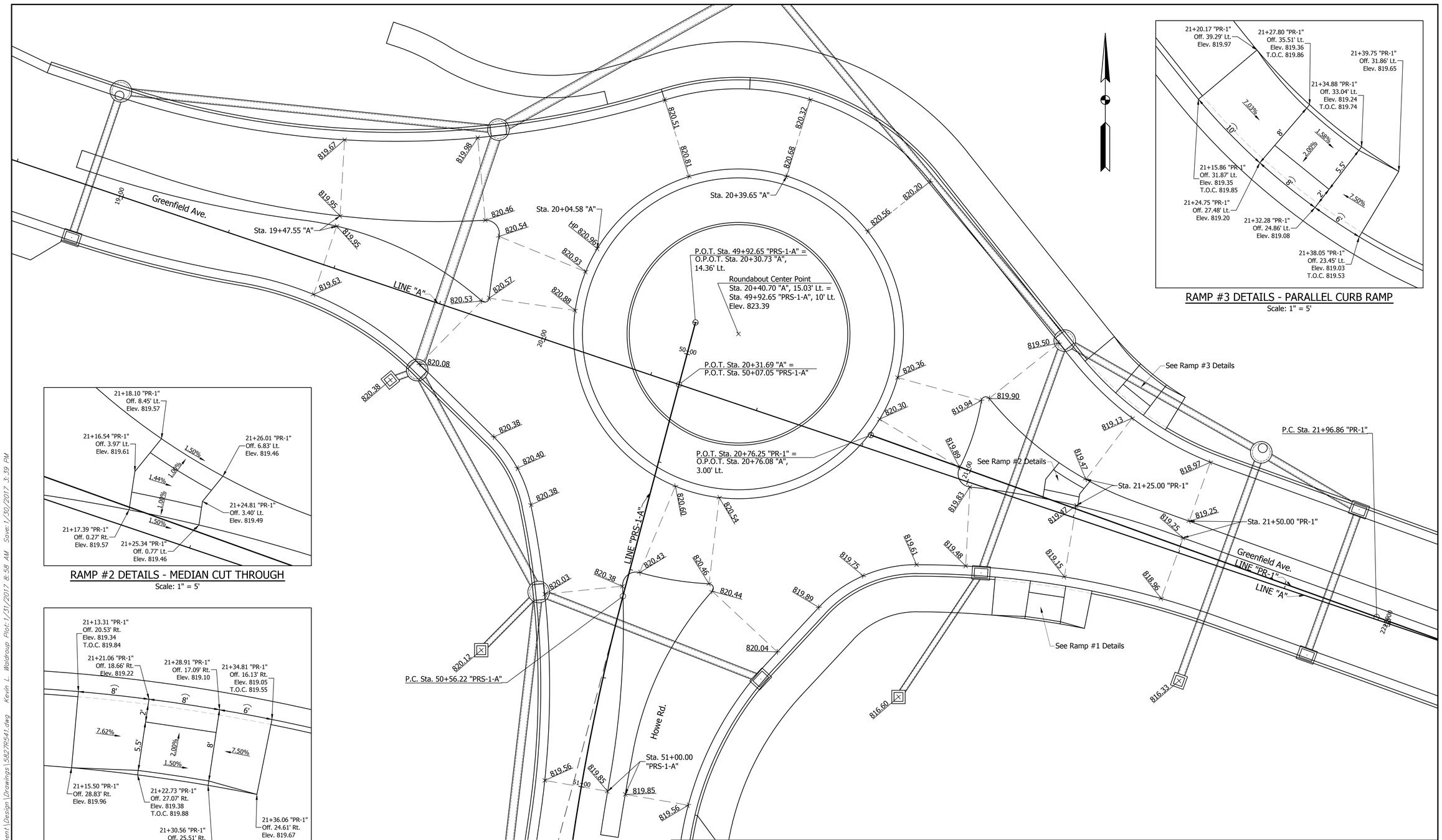
CHECKED: ACE CHECKED: KLW

INDIANA
DEPARTMENT OF TRANSPORTATION

ROUNADBOUT CONSTRUCTION DETAILS
GREENFIELD AVE. @ HOWE RD.

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	
VERTICAL SCALE	DESIGNATION
1" = 10'	1401716
SURVEY BOOK	SHEET
356	11 OF
CONTRACT	PROJECT
R-38246	1401716

BFS NO. 5827



RAMP #3 DETAILS - PARALLEL CURB RAMP

Scale: 1" = 5'

RAMP #2 DETAILS - MEDIAN CUT THROUGH

Scale: 1" = 5'

RAMP #1 DETAILS - PARALLEL CURB RAMP

Scale: 1" = 5'

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 10'	BRIDGE FILE
		VERTICAL SCALE 1" = 10'	DESIGNATION 1401716
DESIGNED: KLW DRAWN: BEH	SPOT ELEVATION DETAIL & CURB RAMP DETAILS	SURVEY BOOK 356	SHEET 12 OF
CHECKED: ACE CHECKED: KLW		CONTRACT R-38246	PROJECT 1401716

S827

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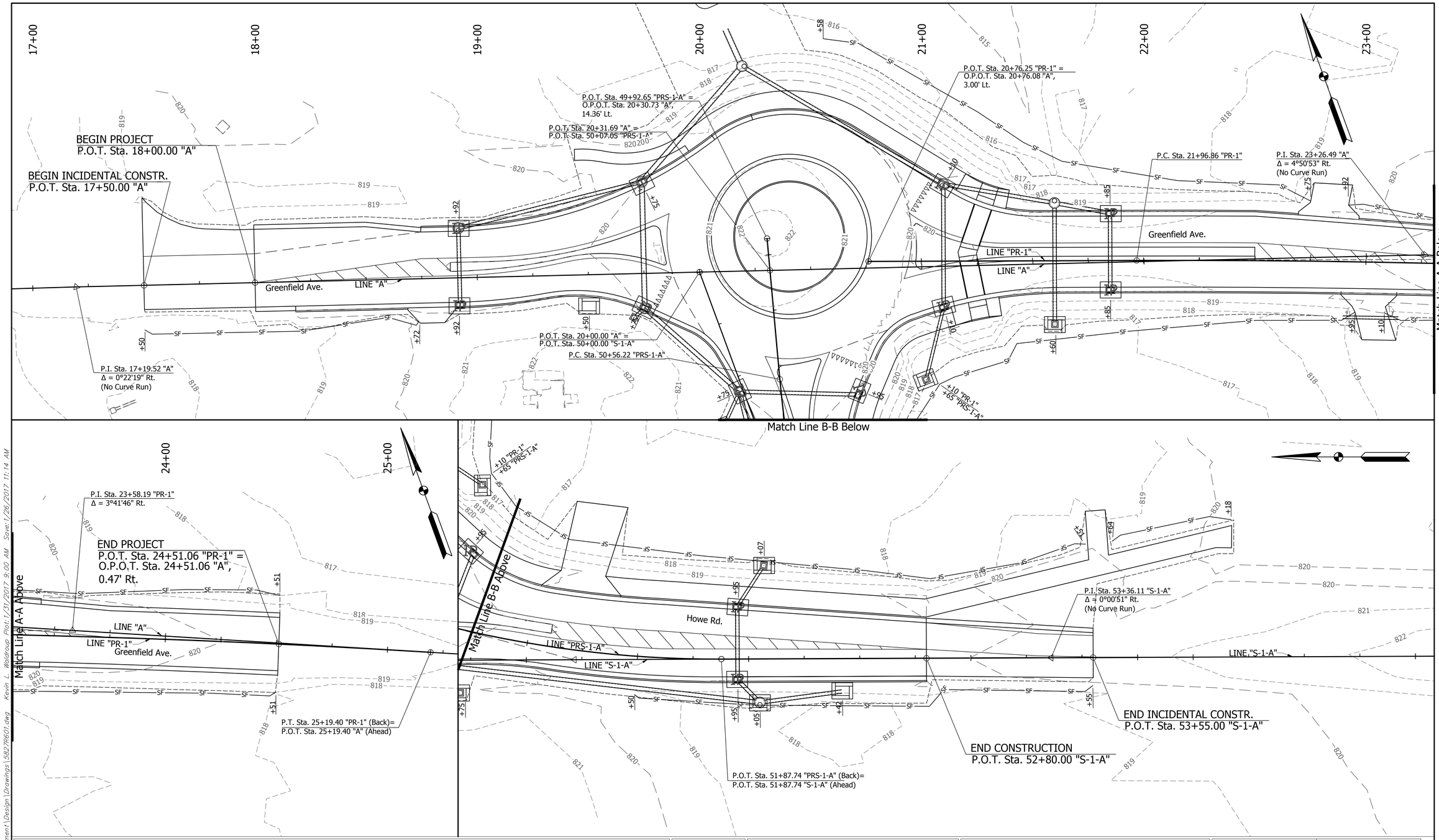

LEGEND

- IP — CURB INLET PROTECTION
- DROP INLET PROTECTION
- SF — PERIMETER PROTECTION (SILT FENCE)

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CHECKED: ACE CHECKED: KLW

INDIANA
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN
GREENFIELD AVE. & HOWE RD.

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 20'	1401716
SURVEY BOOK	SHEET
356	13 OF
CONTRACT	PROJECT
R-38246	1401716

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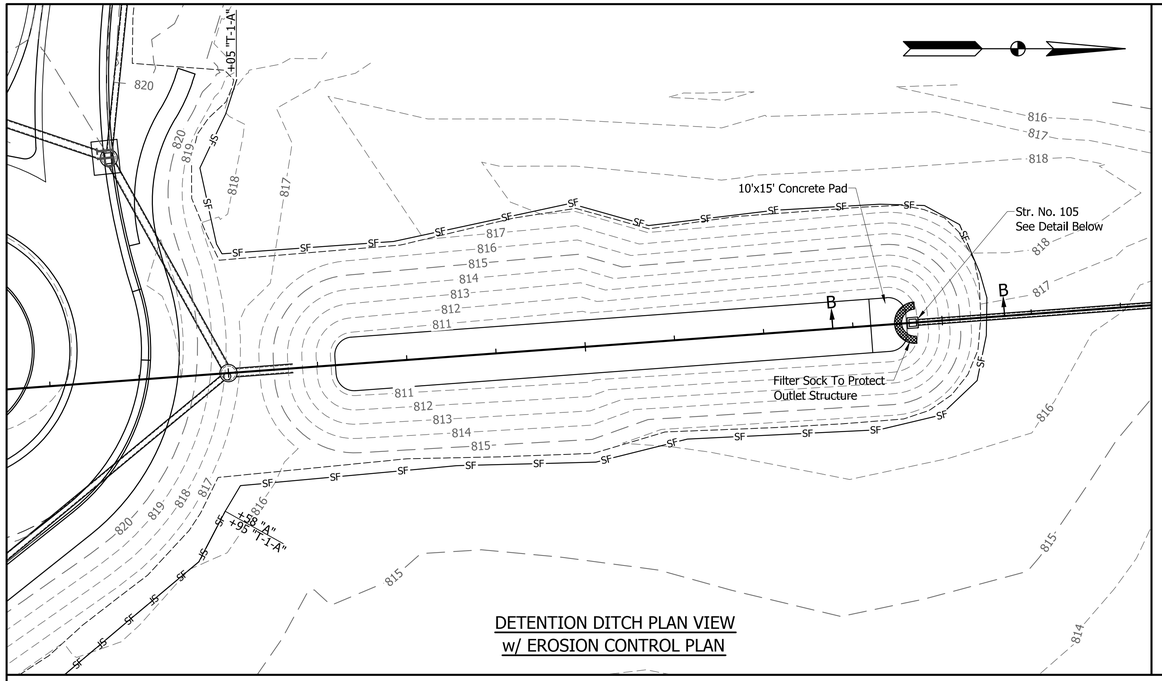
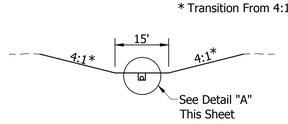
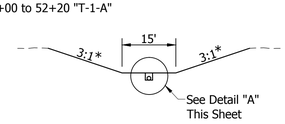


DETENTION DITCH PLAN VIEW
w/ EROSION CONTROL PLAN

* Transition From 4:1 to 3:1 From 52+00 to 52+20 "T-1-A"



Detention Ditch Typical Section
Scale: 1" = 20'
Sta. 51+30 to Sta. 52+00 "T-1-A"



Detention Ditch Typical Section
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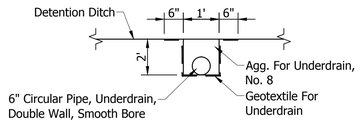
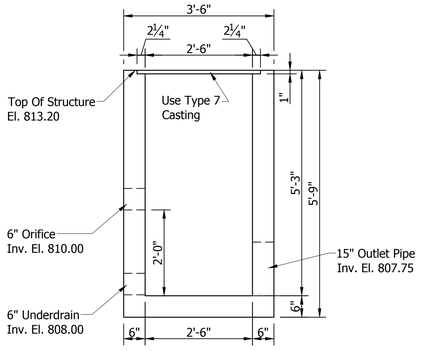
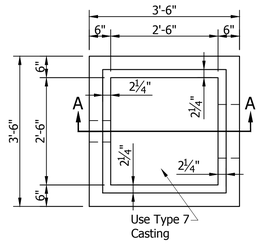
Sta. 52+20 to Sta. 52+90 "T-1-A"



Detail A
Not To Scale

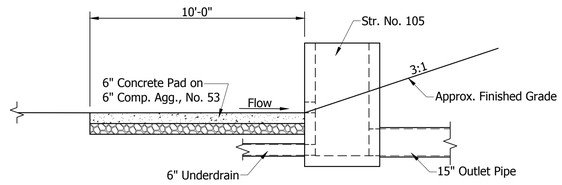


Sec. A-A



Plan

Structure No. 105 - Detail
Not To Scale



Section B-B
Not To Scale

LEGEND

——SF—— PERIMETER PROTECTION (SILT FENCE)

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INDIANA
DEPARTMENT OF TRANSPORTATION

DETENTION DITCH DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS SHOWN	
VERTICAL SCALE	DESIGNATION
AS SHOWN	1401716
SURVEY BOOK	SHEET
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CONTRACT	PROJECT
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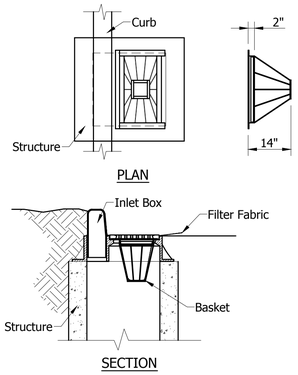
BFS NO. S827



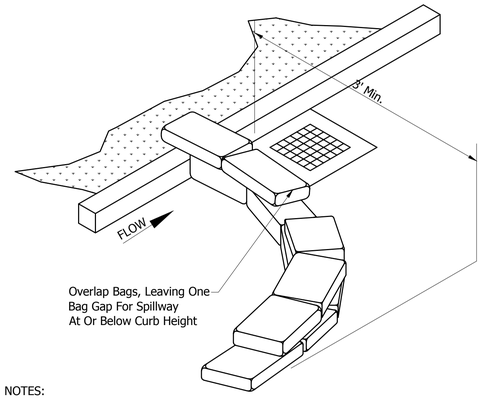
NOTES:
Installation:
Install Basket Curb Inlet Protection As Soon As Inlet Boxes Are Installed (New Development) Or Prior To Land Disturbing Activities (Existing Development).

If Necessary, Adapt Basket Dimensions To Fit Inlet Box Dimensions.

Remove The Grate And Install The Frame Into The Grate Opening. Cut And Install Geotextile Fabric According To The Manufacturer's Recommendations. Replace The Grate.

Maintenance:
Inspect Daily And After Each Storm And Remove Sediment. Replace Or Clean Geotextile Fabric As Needed. Remove Tracked On Sediment From The Street (But Not By Flushing With Water) To Reduce The Sediment Load On This Curb Inlet Practice.

BASKET CURB INLET PROTECTION DETAIL
NOT TO SCALE



NOTES:
Installation:
Fill Bags Approximately Half Full With Washed Aggregate.

Place Bags In A Row Curving From The Curb, And Away From The Inlet Up-Slope From The Inlet.

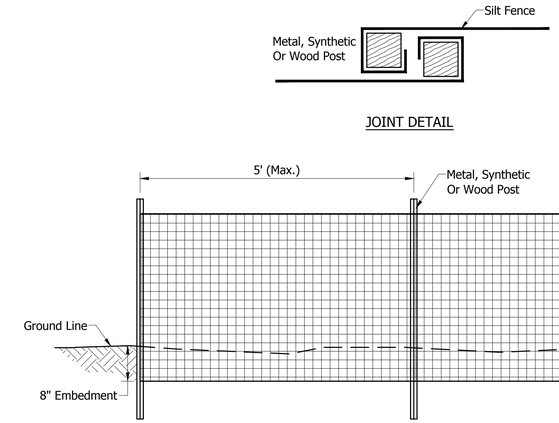
Overlap The Barrier Onto The Curb, Extending It A Minimum Of 3 Feet Into The Street.

Maintenance:
Inspect Daily And After Each Storm Event For Damage And Make Needed Repairs Immediately.

Inspect For Damage By Vehicular Traffic And Repair As Needed.

Remove Sediment (But Not By Flushing) When It Reaches Half The Height Of The Barrier.

STONE BAG INLET SEDIMENT DETAIL
NOT TO SCALE



UNSUPPORTED SILT FENCE

NOTES:
Installation:
Silt Fence Is Not Recommended For Use As A Diversion And Should Not Be Used Across A Stream, Channel, Ditch, Swale, Or Anywhere That Concentrated Flow Is Anticipated.

Lay Out The Location Of The Fence So That It Is Parallel To The Contour Of The Slope And At Least 10 Feet Beyond The Toe Of The Slope To Provide A Sediment Storage Area. Turn The Ends Of The Fence Up Slope Such That The Point Of Contact Between The Ground And The Bottom Of The Fence End Terminates At A Higher Elevation Than The Top Of The Fence At Its Lowest Point

Along The Entire Fence Line, Dig An 8 Inch Deep Flat Bottomed Or V-Shaped Trench. Place Fence According To Manufacturer's Recommendations.

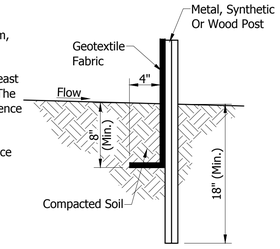
Maintenance:
Inspect The Silt Fence Weekly And After Each Storm Event.

If Fence Fabric Tears, Starts To Decompose, Or In Any Way Becomes Ineffective, Replace The Affected Portion Immediately.

Remove Deposited Sediment When It Reaches Half The Height Of The Fence At Its Lowest Point Or Is Causing The Fabric To Bulge.

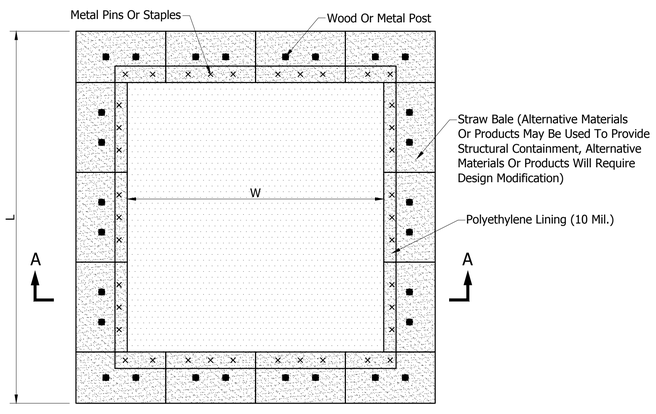
Take Care To Avoid Undermining The Fence During Clean Out.

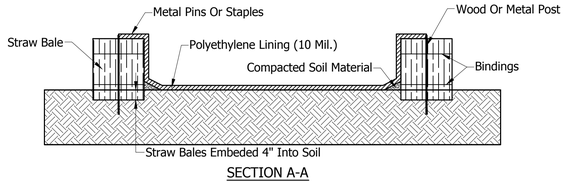
After The Contributing Drainage Area Has Been Stabilized, Remove The Fence And Sediment Deposits, Bring The Disturbed Area To Grade, And Stabilize.



TRENCH DETAIL

SILT FENCE (SEDIMENT FENCE) DETAIL
NOT TO SCALE





CONCRETE WASHOUT DETAIL
NOT TO SCALE

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INDIANA
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL DETAILS

HORIZONTAL SCALE	BRIDGE FILE
NONE	
VERTICAL SCALE	DESIGNATION
NONE	1401716
SURVEY BOOK	SHEET
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CONTRACT	PROJECT
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EROSION CONTROL NOTES

GENERAL:
Take Measures To Control Erosion And Sedimentation To Assure That Sediment Is Not Transported From The Site By Storm Events. Practices Such As Silt Traps Or Filters Shall Be Installed Prior To Land Disturbing Activities. New Drainage Swales Shall Be Seeded And/Or Sodded, Or Other Protective Practices Applied, Immediately Following Construction. All Practices Shall Be Maintained To Remove Sediment From Runoff Leaving The Site As Long As Unstabilized Soil Conditions Exist.

After Land Disturbing Activities Cease And The Soil Is Stabilized, Temporary Erosion Control Measures May Be Eliminated If Their Purpose Has Been Fulfilled. Any Disturbed Soil Resulting From Removal Of Such Practices Shall Be Stabilized By Approved Methods.

Dispose Properly All Waste And Unused Building Materials Including, But Not Limited To, Garbage, Debris, Cleaning Wastes, Water, Toxic Materials, And Hazardous Substances. Do Not Allow Substances To Be Carried By Runoff Into A Receiving Channel Or Storm Sewer System.

Clean Public Or Private Roadways Daily And After Major Storms Using Acceptable Methods To Remove Any Accumulated Sediment. The Developer's Contractors Are Responsible For Supervision Of The Construction Activity Within The Development And Shall Take All Necessary Actions To Remove Sediment From The Streets.

For Construction Sequence, Maintenance, And Other Soil Erosion Requirements, See Specifications For Site Clearing, Slope Protection, Erosion Control, Landscaping, And Seeding.

Erosion And Sediment Control Practices Must Adhere To, Or Exceed Those Shown On The Erosion Control Plan, (And Rule 5 327 IAC 15-5) And Shall Be In Accordance With The Indiana Storm Water Quality Manual, Indiana Department Of Environmental Management.

SURFACE STABILIZATION:
Cut Slopes Which Are To Be Topsoiled Should Be Scarified To A Minimum Depth Of 4 Inches Prior To Placement Of Topsoil. Install Erosion Control Blankets On All Slopes Of 3 (Horizontal) To 1 (Vertical).

Stabilize All Disturbed Ground Left Inactive For Fifteen Or More Days By Seeding, Sodding, Mulching, Or By Other Equivalent Erosion Control Practices. See The Landscape Plan For Permanent Ground Cover Requirements Adjacent To The Building And Parking Areas.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT PAD:
Construct The Temporary Gravel Drive Using 2-3 Inches INDOT CA No. 53 Washed Stone Over A Stable Foundation, 6 Inches Minimum Thickness. Geotextile Fabric May Be Used Under Wet Conditions Or For Soils Within A High Seasonal Water Table To Provide Greater Bearing Strength. Grade For Positive Drainage.

Inspect The Entrance Pad Area Weekly And After Storm Events Or Heavy Use. Reshape The Pad As Needed For Drainage And Runoff Control. Top Dress Pad With Clean Stone.

SODDING:
Do Not Install Sod On Hot, Dry Soil, Frozen Soil, Compacted Clay, Loose Sand Or Gravel, Or Pesticide Treated Soil. Ideal Sodding Time Is May 1-June 1, Or September 1-October 20, Although It Can Be Installed As Early As March 15, If Available And Temperatures Are Above 32°F, Or June 1-September 1 If Irrigated.

Install Sod After Other Erosion Control Practices Have Been Completed. Break Up Compacted Soils Sufficiently To Create A Favorable Rooting Depth Of 6-8 Inches, Using A Chisel Plow, Disk, Harrow, Or Rake.

Apply Topsoil If The Site Is Otherwise Unsuitable For Establishing Vegetation. Shape, Smooth, And Firm The Soil Surface.

Have The Soil In The Sod Bed Tested To Determine Its pH And Nutrient Level. If The pH Is Too Acidic For The Grass Sod To Be Installed, Apply Lime According To Test Results Or At The Rate Recommended By The Sod Supplier.

Fertilize As Recommended By The Soil Test. If Testing Was Not Done, Consider Applying 400-600 Lbs./Acre Of 12-12-12 Analysis Fertilizer, Or Equivalent Fertilizer, As Recommended By The Soil Test. Work The Fertilizer Into The Soil To 2-4 Inches Deep.

TREE CONSERVATION/PROTECTION:
Protect Trees From Construction Equipment By Fencing Off An Area Equivalent To The Tree's Crown With Temporary Construction Safety Fence. If A Fence Cannot Be Erected, Cushion The Rooting Area With 6 Inches Of Wood Chips, Or Wood Or Brick Paths.

Create Traffic Patterns Such As To Keep Soil Compaction To A Minimum. Store Supplies And Equipment Away From Protected Tree Areas. Aerate Soil Where Compaction Has Been Excessive.

When Clearing Areas Adjacent To Protected Trees, Use Equipment Such As A Brush Cutter Or Rotary Ax, Or Cut By Hand. Where Root Areas Must Be Graded, Cut Large Roots Instead Of Tearing Them With Equipment.

EROSION CONTROL NOTES (Con't)

Minimize Changes In The Drainage Pattern. Avoid Putting Fill Over The Root System.

Prune Low Hanging Limbs That Could Otherwise Be Broken Off By Equipment.

Repair Wounds Simply By Removing Damaged Bark And Wood Tissue (Do Not Use Tree Paint).

EROSION CONTROL BLANKETS:
Use Machine Produced Mat Of Straw Fiber Matrix Or Curled Wood Excelsior Of 80 Percent, 6 Inch Or Longer Fiber Length.

Evenly Distribute Fibers Over Entire Area Of Blanket To Provide Consistent Thickness.

Provide Blanket With Top Side Covered With Biodegradable Extruded Plastic Mesh.

Treat Blankets To Impart Smolder Resistance Without Use Of Chemical Additives.

Provide "Curlex Blankets" By American Excelsior Company, Or "S150" By North American Green, Or Accepted Substitute.

EROSION CONTROL BLANKET STAPLES:
Use Minimum 0.091 Inch Diameter Steel Wire "U" Shape With Legs 6 Inches In Length With 1 Inch Crown.

SEEDING:
The Following Table Is For General Seeding Information Only. Consult The Indiana Storm Water Quality Manual For Recommendations Relating To Steep Banks And Cuts, High Maintenance Areas, And Channels And Areas Of Concentrated Flow.

SEEDS:
40 Percent Kentucky Bluegrass
40 Percent Creeping Red Fescue
20 Percent Annual Rye Grass

FERTILIZER:
Commercial Fertilizer (12-12-12)

STRAW:
Clean And Free Of Weed Seeds

Spread Fertilizer Uniformly Over Finish Graded Surfaces At A Rate Of 20 Pounds Per 1,000 Square Feet. Thoroughly Disk, Harrow, Or Rake Fertilizer Into Soil To Depth Not Less Than 2 Inches.

Distribute Seed Mix Same Day As Fertilizer Is Applied. Spread Evenly At A Rate Of 3 Pounds Per 1,000 Square Feet. Rake Lightly And Compact Areas With 100 Pound Roller.

Cover Areas With Straw Evenly Spread At A Rate Of 2 Tons Per Acre Immediately After Seeding. Water Areas With Fine Spray. Do Not Flood Or Create Washes. Protect Seeded Areas From Erosion.

Continue Watering Of These Areas On A Daily Basis For The Remainder Of The Construction Period.

Hold Sloped Areas Steeper Than 2 (Horizontal) To 1 (Vertical) With Wire Mesh Or Stakes And Wire.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
					Temporary Seeding Dates							
Wheat Or Rye												
Oats												
Annual Rye Grass												
					Permanent Seeding Dates							
Non-Irrigated*												
Irrigated												
Dormant Seeding**												

Irrigation Required

* Seeding Dates May Be Extended 5 Days If Mulch Applied And Planted Late Summer

** Increase Seeding Rate By 50%

NOTES:

If Construction Activities Take Place During The Months Of November Through February, Use Dormant Seeding Practices In Place Of Temporary And Permanent Seeding Practices.

See Chapter 7 Of The Indiana Storm Water Quality Manual, For Additional Seeding Recommendations.

Potential Storm Water Pollutants Material Handling and Spill Prevention

Trade Name /Material	Source	Chemical/Physical Description	Storm Water Pollutants	Remedial Action
Fertilizer	Landscaping Activities	Liquid or Solid Grains	Nitrogen, Phosphorus	(1), (2), (3)
Cleaning Solvents	Normal Business Operation	Colorless, Blue Or Yellow-Green Liquid	Percholoroethylene, Methylene Chloride, Trichloroethylene, Petroleum Distillates	Seal Drains & Inlets w/Plastic And Or Tape And Collect Excess, (1), (2), (3), (4)
Asphalt	Site Construction	Black Solid	Oil, Petroleum Distillates	(1), (2) Due To Contamination Of Runoff Before Curing Is Complete
Concrete	Bridge Construction	White Solid	Limestone, Sand	Concrete Washout Areas Shall Be Utilized & Concrete Disposed Of Properly Once Hardened (2).
Paints	Roadway Striping	Various Colored Liquids	Metal Oxides, Stoddard Solvent, Talc, Calcium Carbonate, Arsenic	Care Should Be Taken To Minimize Overspray (1), (2), (3), (4)
Curing Compounds	Site Construction	Creamy White Liquid	Naphtha	(1), (2), (3), (4)
Wastewater From Constr. Equipment Washing	Construction Equipment	Water	Soil, Oil, Grease, Solids	Equipment Washing Shall Be Executed In A Location Which Does Not Cause Wastewater To Drain Directly To Storm Sewers Or Ditches (i.e. Flat Vegetated Area) (2)
Hydraulic Oil/Fluids	Construction Equipment, Cars	Brown Oily Petroleum Hydrocarbon	Mineral Oil	Storm Structures Incorporate A Hooded Outlet Preventing Floatables From Exiting Site, (3), (4)
Gasoline	On Site Storage Tanks, Cars, Construction Equipment, Fueling Operations	Colorless, Pale Brown Or Pink Petroleum Hydrocarbon	Benzene, Ethyl Benzene, Toluene, Xylene, MTBE	Storage Tanks Shall Have Emergency Storage Capacity Below Tank In Case Of Rupture, 3'x3'x6" Spill Pans Shall Be Used During Fueling. (3), (4)
Diesel Fuel	On Site Storage Tanks, Cars, Construction Equipment, Fueling Operations	Clear, Blue-Green To Yellow Liquid	Bpetroleum Distillate, Oil And Grease, Naphthalene, Xylenes	Storage tanks shall have emergency storage capacity below tank in case of rupture, 3'x3'x6" spill pans shall be used during fueling. (3), (4)
Kerosene	Cleaning Operations, Heaters	Pale Yellow Liquid Petroleum Hydrocarbon	Coal Oil, Petroleum Distillates, Arsenic, Copper	3'x3'x6" Spill Pans Shall Be Used During Fueling Operations And Cleaning Of Equip. To Catch Excess, (1), (2), (3), (4)
Antifreeze Coolant	Construction Equipment, Cars	Clear Green/Yellow Liquid	Ethylene Glycol, Propylene Glycol, Heavy Metals (Copper, Lead, Zinc)	(1), (2), (3), (4)
Soil Erosion	Exposed Soil	Solid Particles	Soil Sediment	Erosion Control Measures (This Sht.)
Solid Waste Trash	Normal Business Operation	Trash, Debris, Refuse	Trash, Debris, Refuse	Trash Cans Shall Be Utilized On Site During And After Construction

This Table Was Provided For General Information Only To Supplement Information Used In The Rule 5 Permitting Process. The Contractor Is Responsible For Material Handling And Spill Mitigation Procedures.

Notes:
1. All Excess Materials Shall Be Collected And Disposed Of In Accordance With All Federal, State And Local Regulations.
2. Material Shall Not Be Applied Immediately Preceding, During Or Following Rainfall (When Applicable).
3. Spillage Should Be Cleaned Immediately By A Trained Individual And Disposed Of Per Note (2).
4. Store In Sealed Containers Appropriate For Specific Use.

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CHECKED: ACE CHECKED: KLW

INDIANA DEPARTMENT OF TRANSPORTATION

EROSION CONTROL NOTES

HORIZONTAL SCALE	BRIDGE FILE
NONE	
VERTICAL SCALE	DESIGNATION
NONE	1401716
SURVEY BOOK	SHEET
356	16 OF
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BFS NO. 5827

Rule 5 Checklist - Section A:
Construction Plan Elements

1. Index Showing Locations Of Required Plan Elements
See The Index Sheet.

2. 11x17 Inch Plat With Building, Lots, Boundaries, Road Layout Names
See Plat No. 1 Sheet.

3. Narrative Describing Nature And Purpose Of Project
The City of Noblesville Proposes A Project Involving The Construction Of A Roundabout At The Existing T-Intersection Of Greenfield Avenue And Howe Road. The Purpose Of The Project Is To Address The Poor Level Of Service And Sight Distance And Improve The Overall Travel Conditions For The Motoring Public At The Intersection.

4. Vicinity Map Showing Project Location
See Title Sheet.

5. Legal Description Of The Project Site
Latitude: 49°01'00"N, Longitude: 85°58'50"W; The Project Is Located Approximately 1 Mile North Of The 146th Street And Howe Road Intersection And Approximately 1 Mile East Of The S.R. 27 And Greenfield Avenue Intersection; All Within Sections 8 And 17, Township 18 North, Range 5 East, On The U.S.G.S. Riverwood Quadrangle, In Noblesville Township, Hamilton County, Indiana.

6. Location Of All Site Improvements
Improvements Shall Be Contained Within The Construction Limits, As Shown On The Plan And Profile Sheets.

7. Hydrologic Unit Code
05120201070070

8. Note Any State Or Federal Water Quality Permits
An IDEM Rule 5 Erosion Control Permit Is Required For This Project.

9. Specific Points Where Stormwater Discharge Will Leave The Site
Stormwater Will Leave The Pipe Network At 51+00 Line "T-1-A" And Enter The Extended Dry Detention Basin Before Draining To Wheeler And Wheeler Legal Drain At The Northern Border Of The Project. See The Plan And Profile Sheets.

10. Location And Name Of All Wetlands, Lakes And Water Courses On And Adjacent To The Site
The Wheeler And Wheeler Legal Drain Is Located At The Northern Limits Of This Project.
There Are No Known Wetlands Or Lakes Located Within The Project Limits.

11. Identification Of All Receiving Waters
Stormwater Will Discharge From The Proposed Pipe Network To The Dry Detention Basin The Empties To Wheeler And Wheeler Legal Drain.

12. Identification Of Potential Discharges To Ground Water (Abandoned Well, Sinkholes, Etc.)
No Potential Locations For Groundwater Infiltration Are Known To Exist For This Project..

13. 100 Year Floodplains, Floodways, And Floodway Fringes
See The Attached Flood Insurance Rate Map.

14. Pre-Construction And Post Construction Estimate Of Peak Discharge (10 Year Storm Event)

Location	Pre-Construction (10 yr.)	Post-Construction (10 yr.)
51+00 "T-1-A"	6.42 cfs	5.22 cfs

15. Adjacent Land Use, Including Upstream Watershed
The Land Use Within, And Adjacent To, The Project Limits Mostly Consists Of Residential And Agricultural Development.

16. Construction Limits
See The Plan And Profile Sheets For Construction Limits.

17. Identification Of Existing Vegetative Cover
The Project Is Located Mostly On Existing Pavement, Grass, And Woods.

18. Soils Map Including Soil Descriptions And Limitations

Br	Brookston Silty Clay Loam, 0 To 2% Slopes	31.2%
CrA	Crosby Silt Loam, Fine-Loamy Subsoil, 0 To 2% Slopes	68.8%

See The Attached Soils Map.

19. Locations, Size And Dimensions Of Proposed Stormwater Systems (e.g. Pipes, Swales, And Channels)
See The Plan And Profile Sheets And The Structure Data Table.

20. Plans For Any Off Site Construction Activities Associated With This Project (Sewer/Water Tie-ins)
There Are No Known Offsite Construction Activities Associated With This Project.

21. Locations Of Proposed Soil Stockpiles And/or Borrow Disposal Areas
The Contractor Shall Determine The Location Of Stockpiles, Borrow, And/Or Disposal Areas Used During Construction. The Determined Locations Shall Be Approved By INDOT. Proposed Borrow Or Disposal Sites Shall Be Identified By The Contractor Before The Material Is Excavated Or Disposed Of Within Or Outside The R/W In Accordance With Sections 203.08, 203.09, And 212. The Contractor Shall Comply With Section 108.04 Of The INDOT Standard Specifications And RSP 108-C-192D Storm Water, Erosion, And Sediment Control Inspection Report.

22. Existing Site Topography At An Interval Appropriate To Indicate Drainage Patterns
See The Plan And Profile Sheets, Erosion Control Sheets, And Cross Section Sheets For Existing Topography.

23. Proposed Final Topography At An Interval Appropriate To Indicate Drainage Patterns
Refer To The Plan And Profile Sheets And Cross Section Sheets For Final Topography.

Rule 5 Checklist - Section B:
Stormwater Pollution Prevention Plan-Construction Component

1. Description Of Potential Pollutant Sources Associated With Construction Activities.
The Following Could Generate Potential Pollutants Associated With Construction Activities:
- A. Fueling Of Vehicles
- B. Leaking Equipment Or Vehicles
- C. Material Storage
- D. Site Demolition
- E. Excavation Of Materials
- F. Exposed Soils
- G. Construction Waste And Litter
- H. Sanitary Waste
- I. Concrete Waste And Washout
- J. Tracking Of Soils Offsite

See The Potential Stormwater Pollutants And Spill Prevention Handling Table Located On The Erosion Control Notes.

2. Sequence Describing Stormwater Quality Measure Implementation Relative To Land Disturbing Activities.
Preconstruction:
- A. Notify Project Owner
- B. Contact The Indiana Underground Plant Protection Systems, Inc. To Verify The Location Of Any And All Underground Utilities.
- C. Install Temporary Construction Entrances At All Access Points.
- D. Exhibit Rule 5 Information At The Job Site. Contractor Shall Designate A Person Responsible For On-Site Inspections And For Providing This SWPPP On-Site.
- E. Install Silt Fence And Drop Inlet Protection For Existing Inlets.

Construction:
- A. Establish Construction Entrances.
- B. Contractor Shall Construct Concrete Washouts. Contractor Shall Coordinate Location Of Concrete Washouts With Owner And Engineer.
- C. Install Erosion Control Measures As Each New Item Of The Project Is Installed As Required Which May Include But Is Not Limited To Drop Inlet Protection, Silt Fence, Rock Check Dams, Erosion Control Blankets, and Riprap.
- D. Begin Mass Earthwork Operations.
- E. Install Temporary Diversion Swales.
- F. Install Staging Areas, Material Storage Areas, & Fueling Stations.
- G. Temporary Seed Disturbed Areas If To Be Disturbed More Than 7 Days.
- H. Begin Trenching For Storm Sewers.
- I. Install Ditch Inlet Protection.
- J. Riprap Storm Sewer Discharge Location.
- K. Complete Subgrade Operations.
- L. Install Storm Sewers.
- M. Finish Grading.
- N. Install Permanent Seeding.

3. Stable Construction Entrance Locations And Specifications (At All Points Of Ingress And Egress)
The Contractor Shall Utilize Existing Streets And Drives As Much As Possible For Construction Ingress And Egress. The Contractor Shall Keep Public Roads And Private Drives Clear And Remove All Dust, Dirt, And Debris As A Result Of Construction Activities. Temporary Construction Entrances Shall Meet The Requirements Of INDOT Standard Drawing E 205-TECP-01.

4. Sediment Control Measures For Sheet Flow Areas
Sediment Control In Areas Of Sheet Flow Shall Be Handled Via Silt Fence And Temporary And Permanent Seeding. See The Plan And Profile Sheets, The Erosion Control Sheets, The Erosion Control Details, The Erosion Control Notes, And INDOT Standard Drawing No. E 205-TECP-02.

5. Sediment Control Measures For Concentrated Flow Areas
Sediment Control In Areas Of Concentrated Flow Shall Be Handled Via Inlet Protections. See The Erosion Control Sheets, The Erosion Control Details, And INDOT Standard Drawing No. E 205-TECI-04.

6. Storm Sewer Inlet Protection Measure Locations And Specifications
Inlets Shall Be Protected From Sediment During Construction Using Temporary Erosion Control Inlet Bag Protection From The INDOT Standard Drawings. See The Erosion Control Sheets And INDOT Standard Drawing No. E 205-TECI-04.

7. Runoff Control Measures (e.g. Diversions, Rock Check Dams, Slope Drains, Etc.)
Runoff Will Be Controlled By Curb And Gutter, Inlets, And Permanent Seeding. The Runoff Will Be Routed Through A Dry Detention Basin Which Will Outlet To Wheeler And Wheeler Legal Drain. See The Plan And Profile Sheets.

8. Stormwater Outlet Protection Specifications
Stormwater Will Discharge To The Extended Dry Detention Basin, Which Was Sized Based On Outlet Rates From The Hamilton County Surveyor's Office And The Noblesville Stormwater Technical Standards Manual And Does Not Require Specific Outlet Protection. See The Plan And Profile Sheets.

9. Grade Stabilization Structure Locations And Specifications.
A Grade Stabilization Will Not Be Required For This Project.

10. Location, Dimensions, Specifications, And Construction Details Of Each Stormwater Quality Measure.
See The Plan And Profile Sheets, Erosion Control Sheets, Erosion Control Details Sheet, Erosion Control Notes Sheet, And The Applicable INDOT Standard Specifications And Drawings.

11. Temporary Surface Stabilization Methods Appropriate For Each Season.
Temporary Seeding Shall Be Implemented For All Disturbed Land Let Inactive For A Period Of 7 Days.

12. Permanent Surface Stabilization Specifications.
Permanent Seeding Shall Be Implemented For All Disturbed Land And Shall Occur Once Final Grading Has Been Completed. See The Plan And Profile Sheets And Erosion Control Details Sheet.

Rule 5 Checklist - Section B: (Continued)

13. Material Handling And Spill Prevention Plan
Vehicle And Equipment Maintenance: Onsite Vehicle And Equipment Maintenance Shall Only Be Used Where It Is Impractical To Send Vehicles And Equipment Offsite For Maintenance And Repair. For Onsite Maintenance, Locate Maintenance Area At Least Fifty (50) Feet From Storm Drains, Open Ditches, Or Bodies Of Water. Use Drip Pans And Absorbent Pads During Vehicle And Equipment Maintenance Work That Involves Fluids, Unless The Maintenance Work Is Performed Over An Impermeable Surface In A Designated Maintenance Area. Properly Dispose Of Used Oils, Fluids, Lubricants, And Spill Cleanup Materials. Do Not Place Used Oil In A Dumpster Or Pour Into A Storm Drain Or Watercourse. Inspect Onsite Vehicles And Equipment For Leaks Daily At The Startup, And Repair Immediately.

Vehicle Fueling: Onsite Vehicle And Equipment Fueling Shall Only Be Used Where It Is Impractical To Send Vehicles And Equipment Offsite For Fueling. For Onsite Fueling, Locate Fueling Area At Least Fifty (50) Feet From Storm Drains, Open Ditches, Or Bodies Of Water. Use Drip Pans And Absorbent Pads During Fueling, Unless The Fueling Is Performed Over An Impermeable Surface In A Designated Fueling Area. Nozzles Used In Vehicle And Equipment Fueling Shall Be Equipped With An Automatic Shutoff To Control Drips. Do Not Place Used Oil In A Dumpster Or Pour Into A Storm Drain Or Watercourse. Fueling Operations Shall Not Be Left Unattended. Observe Federal, State, And Local Requirements For Any Stationary Above Ground Storage Tanks.

Debris Collection: Litter And Debris Removal From Drainage Grates, Trash, Rocks, And Ditch Lines Shall Be A Priority To Prevent Clogging Of The Storm Drainage System. Remove Construction Debris And Waste From The Site Biweekly Or More Frequently As Needed. Store Construction Material Visible To The Public In An Orderly Manner. Prevent Stormwater From Contacting Solid Waste.

Concrete Washout: Perform Washout Of Concrete Trucks Offsite Or In Designated Areas Only. For An Onsite Washout, Locate Washout Area At Least Fifty (50) Feet From Storm Drains, Open Ditches, Or Bodies Of Water. Do Not Allow Runoff From This Area By Constructing A Temporary Berm Or Holding Area Large Enough For Liquid And Solid Waste. Wash Out Waste Into The Designated Area Where The Concrete Can Set And Be Broken Up And Then Disposed Of Properly. Do Not Wash Out Concrete Trucks Into Storm Drains, Open Ditches, Streets, Or Streams. Do Not Allow Excess Concrete To Be Dumped Onsite, Except In Designated Areas.

Alert Procedure For Spills: In The Event Of A Material Spill (Fuel, Oil, Fluids, Lubricants, Etc.), Barricade The Area To Keep Vehicles From Entering Or Leaving The Spill Zone. Notify The Indiana Department Of Environmental Management (IDEM), Office Of Emergency Response, By Calling The Appropriate Phone Number: Office 317-233-7745 Or Toll Free 800-424-88023. Also, The National Response Center Can Be Contacted At 800-424-8802. Provide The Following Information: Time Of Observation Of The Spill, Location Of The Spill, Identify The Material Spills, Probable Time And Source Of The Spill, Weather Conditions, Personnel At The Scene, And Action Initiated By Personnel. Notify The Local Fire Department And Police Department. Coordinate And Monitor Cleanup Until The Situation Has Been Stabilized And The Spill Has Been Eliminated.

14. Monitoring And Maintenance Guidelines For Each Proposed Stormwater Quality Measure.
The Contractor Shall Maintain All Water Quality Measures During Construction To Prevent Any Blockages From Accumulated Sediment. Monitoring Of The Protective Measures Shall Be Done On A Weekly Basis, And Again Within 24 Hours Of Every Half-Inch Rain Event. Maintenance Shall Include A Written Record Of Each Inspection By Filling Out The Storm Water, Erosion, And Sediment Control Inspection Report Included In INDOT RSP 108-C-192D. The Written Record Shall Be Made Available Upon Request.

Temporary Construction Entrance:
- A. Inspect Weekly, Within 24 Hours Of Every Half-Inch Rain Event, And After Heavy Use.
- B. Reshape Pad As Needed.
- C. Top Dress Pad As Needed.
- D. Immediately Remove Any Mud And Sediment Tracked Or Washed Onto The Street Using Brushing Or Sweeping. Flush Area Only If Runoff Will Be Flowing Through A Sediment Trap.
- E. Repair Any Damaged Pavement Immediately.

Silt Fence:
- A. Replace If Torn, Starts To Degrade, Or Becomes Ineffective In Any Way.
- B. Remove Sediment When It Reaches Half Of The Fence Height, Taking Care Not To Undermine.
- C. Remove Trash And Other Debris From Riser, Emergency Spillway, And Pool Area.
- D. Clean Or Replace Aggregate Around The Riser If The Sediment Pool Does Not Dewater Within 48 To 72 Hours Following A Stormwater Runoff Event.

Temporary Inlet Protection:
- A. Inspect Daily And Following Each Storm Event.
- B. Remove Accumulated Sediment As Needed To Maintain Drainage And To Prevent Large Flows From Displacing Sediment.
- C. Add Aggregate As Needed To Maintain Design Height And Cross Section.

Seeding:
- A. Monitor Until It Reaches 70% Coverage.
- B. Reseed As Needed.
- C. Install Additional Erosion Control To Help Establish Cover.

Concrete Washout:
- A. Inspect Weekly, Within 24 Hours Of Every Half-Inch Rain Event, And After Heavy Use.
- B. Repair Or Replace Leaks, Spills, And Tears As Needed.
- C. Ensure Each Containment System Maintains Adequate Capacity.

Check And Maintain Any Additional Erosion Control Measures As Needed.

15. Erosion & Sediment Control Specifications For Individual Building Lots.
N/A.

Rule 5 Checklist - Section C:
Stormwater Pollution Prevention Plan-Post Construction Component

1. Description Of Pollutants And Their Sources Associated With The Proposed Land Use.
The Pollutants From The Proposed Land Use Shall Be The Same As The Pollutants From The Existing Land Use; Vehicular Traffic, Littler, And Their Associated Pollutants. See The Potential Storm Water Pollutants And Spill Prevention Handling Table Located On The Erosion Control Notes.

2. Sequence Describing Stormwater Quality Measure Implementation.
Typical Construction Sequence Schedule:
1. Install Water Quality BMPs Before Draining The Proposed Storm Network Into Wheeler And Wheeler Legal Drain.
2. All Disturbed Ground Shall Be Permanently Seeded Immediately After Final Grading Or When The Project Is Substantially Complete.
3. Silt Fence And Inlet Protections Shall Be Removed After Disturbed Soil Areas Have Been Stabilized.

3. Description Of Proposed Post Construction Stormwater Quality Measures.
All Disturbed, Non-Paved Areas Will Be Seeded. All On-Site Runoff Will Be Routed Through The Extended Dry Detention Basin.

4. Location, Dimensions, Specifications, And Construction Details Of Each Stormwater Quality Measure.
See The Erosion Control Sheets, The Erosion Control Details, The Erosion Control Notes, And The Applicable INDOT Standard Specifications And Drawings.

5. Description Of Maintenance Guidelines For Post Construction Stormwater Quality Measures.
The Contractor Shall Ensure That Revegetated Areas Become Fully Established And Shall Water And Reseed As Necessary. The Owner Shall Clean Up Trash And Shall Perform Maintenance On The Storm Sewer System At Regularly Scheduled Intervals. The Extended Dry Detention Basin Shall Be Maintained Per The Specificaitons In Chapter 7 Of The Noblesville Stormwater Technical Standards Manual.

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DESIGNED: KLW DRAWN: BEH

CHECKED: ACE CHECKED: KLW

INDIANA
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL RULE 5 CHECKLIST

HORIZONTAL SCALE	BRIDGE FILE
NONE	
VERTICAL SCALE	DESIGNATION
NONE	1401716
SURVEY BOOK	SHEET
356	17 OF
CONTRACT	PROJECT
R-38246	1401716

BFS NO. 5827

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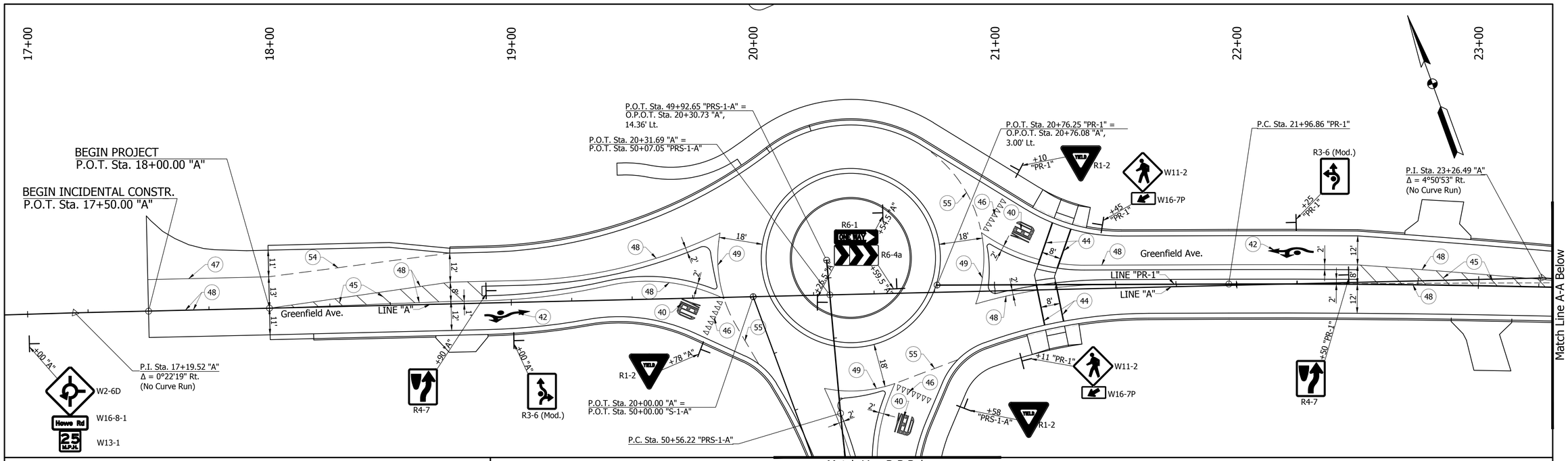

LEGEND

- (40) Pavement Message Marking, Thermo., Word (Yield)
- (42) Pavement Message Marking, Thermo., Fish Hook Arrow
- (44) Transverse Markings, Thermo., Crosswalk, White, 6"
- (45) Transverse Markings, Thermo., Crosshatch, Yellow, 12" (45° @ 10' Spa.)
- (46) Transverse Markings, Thermo., Yield Triangle, White
- (47) Line, Thermo., Solid, White, 4"
- (48) Line, Thermo., Solid, Yellow, 4"
- (49) Line, Thermo., Solid, White, 8"
- (54) Line, Thermo., Skip, White, 4" (5' Line, 3' Gap)
- (55) Line, Thermo., Dotted, White, 12" (2' Line, 2' Gap)
- ⊤ Ground Mounted, Sheet Sign

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CHECKED: ACE CHECKED: KLW

INDIANA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS & SIGNAGE PLAN
GREENFIELD AVE. @ HOWE RD.

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 20'	1401716
SURVEY BOOK	SHEET
356	18 OF
CONTRACT	PROJECT
R-38246	1401716

BFS NO. 5827

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PAVEMENT MARKINGS

FROM STATION	TO STATION	THERMOPLASTIC SOLID WHITE, 4"	THERMOPLASTIC SOLID YELLOW, 4"	THERMOPLASTIC BROKEN WHITE, 4"	THERMOPLASTIC BROKEN YELLOW, 4"	THERMOPLASTIC SOLID WHITE, 6"	THERMOPLASTIC SOLID YELLOW, 8"	THERMOPLASTIC SOLID WHITE, 8"	THERMOPLASTIC SKIP WHITE, 4" (5' Line, 3' Spa.)	THERMOPLASTIC DOTTED WHITE, 12" (2' Line, 2' Spa.)	TRANSVERSE MARKINGS, YIELD TRIANGLE, WHITE	TRANSVERSE MARKINGS CROSSHATCH LINE, YELLOW, 12"	TRANSVERSE MARKINGS STOP BAR, 24"	TRANSVERSE MARKINGS CROSSWALK, 6"	PVMNT. MESSAGE THERMOPLASTIC WORD (YIELD)	PVMNT. MESSAGE THERMOPLASTIC FISH HOOK ARROW
		LFT	LFT	LFT	LFT	LFT	LFT	LFT	LFT	LFT	LFT	LFT	LFT	LFT	EACH	EACH
Line "A"																
17+50	18+00	50	100													
18+00	20+00		380					28	47	16	43	57			1	1
Line "PR-1"																
20+77	22+50		300					30		20	43			69	1	1
22+50	24+51		402									70				
Line "PRS-1-A"																
50+25	51+10		130					30		14	43				1	
51+10	53+55		490									122				1

SHEET SIGN & POST SUMMARY

SIGN LOCATION	SIGN CODE	SIGN SIZE (IN. X IN.)	GROUND-MOUNTED SIGN AREA (SFT)		POST								
					U CHANNEL				SQUARE				
					POST LENGTH		POST LENGTH		2" x 2" x 12 GA. (TYPE 2)			2" x 2" x 12 GA. (TYPE 1)	
									REINFORCED ANCHOR			REINFORCED ANCHOR	
			0.080	0.100	1	1	TYPE A	TYPE B	POST LENGTH (FT)			POST LENGTH (FT)	
					FT	FT	FT	FT	1	2	TOTAL	1	TOTAL
Line "A"													
17+00 Rt.	W2-6	30"x30"	6.25										
	W16-8-1	30"x12"	2.50										
	W13-1P	18"x18"	2.25										
18+90 Lt.	R4-7	24"x30"	5.00										
19+00 Rt.	R3-6 (Mod.)	30"x36"	7.50										
19+78 Rt.	R1-2	36"x36"x36"	5.00										
20+26.5	R6-1	36"x12"	3.00										
	R6-4a	48"x24"	8.00										
20+54.5	R6-1	36"x12"	3.00										
	R6-4a	48"x24"	8.00										
20+59.5	R6-1	36"x12"	3.00										
	R6-4a	48"x24"	8.00										
Line "PR-1"													
21+10 Lt.	R1-2	36"x36"x36"	5.00										
21+11 Rt.	W11-2	30"x30"	6.25										
	W16-7P	24"x12"	2										
21+45 Lt.	W11-2	30"x30"	6.25										
	W16-7P	24"x12"	2.00										
22+25 Lt.	R3-6 (Mod.)	30"x36"	7.50										
22+50 Lt.	R4-7	24"x30"	5.00										
25+00 Lt.	W2-6	30"x30"	6.25										
	W16-8-1	30"x12"	2.50										
	W13-1P	18"x18"	2.25										
Line "PRS-1-A"													
50+58 Lt.	R1-2	30"x36"	5.00										
51+08 Lt.	R4-7	24"x30"	5.00										
51+50 Lt.	R3-6 (Mod.)	36"x36"x36"	7.50										
54+50 Lt.	W2-6	30"x30"	6.25										
	W16-8-2	36"x12"	3.00										
	W13-1P	18"x18"	2.25										

TEMPORARY EROSION CONTROL TABLE

FROM STATION	TO STATION	LOCATION			PERIMETER PROTECTION	DRAINAGE BARRIER AT SWALE	STRAW BALE DITCH CHECK	RIPRAP DITCH CHECK	CULVERT PIPE PROTECTION	SEDIMENT TRAP	DROP INLET PROTECTION	CURB INLET PROTECTION	REMARKS
		LEFT	MEDIAN	RIGHT									
					LFT	LFT	LFT	LFT	LFT	CYS	EA.	EA.	
Line "A"													
17+50.00	18+77.00			X	126								
18+92.00		X		X								2	
19+50.00				X							1		
19+75.00		X		X								2	
20+58.00	22+75.00	X			236								
Line "PR-1"													
21+10.00		X		X								2	
21+59.24				X							1		
21+85.00		X		X								2	
22+92.00	24+51.00	X			160								
22+95.00	53+51 "PRS-1-A"			X	477								
23+10.00	24+51.00			X	143								
Line "PRS-1-A"													
50+60.00				X								1	
50+65.00		X										1	
50+75.00				X							1		
51+50.00	53+55.00			X	211								
51+95.00		X		X								2	
52+05.00				X							1		
52+07.00		X									1		
52+42.00				X							1		
53+64.00	54+18.00	X			55.421								
Total					1408						6	12	

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DESIGNED: KLW DRAWN: BEH

CHECKED: ACE CHECKED: KLW

INDIANA
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS TABLES

HORIZONTAL SCALE	BRIDGE FILE
NONE	
VERTICAL SCALE	DESIGNATION
NONW	1401716
SURVEY BOOK	SHEET
356	19 OF
CONTRACT	PROJECT
R-38246	1401716

BFS NO. S827

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SUMMARY OF QUANTITIES AND APPROACH TABLE

LOCATION (STATION)	DESCRIPTION (APPROACH TYPE OR CLASS)	WIDTH	LENGTH	RADII	SURFACE BEYOND R/W LINE			GRADE		EXCAVATION		HMA FOR APPROACHES/PATH					QC/QA HMA MATERIAL FOR MAINLINE						HMA FOR TEMP. PAVEMENT				SUBGRADE TREATMENT TYPE IB	SUBGRADE TREATMENT TYPE II	SUBGRADE TREATMENT TYPE III	ASPHALT MATERIAL FOR		COMPACTED AGGREGATE FOR BASE NO. 53		D-1 CONTRACTION JOINTS	PCCP, 7.5 IN	PCCP FOR APPROACHES 9 IN.	2'-7" COMBINED CONCRETE CURB & GUTTER	2'-0" COMBINED CONCRETE CURB & GUTTER	2'-0" INVERTED COMBINED CONCRETE CURB & GUTTER	2'-0" CONCRETE ROLL CURB & GUTTER	CONCRETE CURB	REMARKS
					COMPACTED AGGREGATE BASE	HMA	CONCRETE	1	2	CUT	FILL	HMA TYPE "A" FOR APPROACH		HMA TYPE "A" SURFACE	HMA TYPE "A" INTERMEDIATE	HMA FOR ISLANDS TYPE "A"	2, 70, SURFACE 12.5mm	2, 70, INTERMEDIATE 19.0mm	3, 76, BASE 25.0mm	3, 76, BASE 25.0mm	5, 76, INTERMEDIATE C19.0mm		HMA TYPE "B"	HMA TYPE "B"	HMA TYPE "A"	HMA TYPE "A"				PRIME COAT	TACK COAT	6 IN.									
		FEET	FEET	FEET				%	%	CYS.	CYS.	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	SYS.	SYS.	SYS.	TONS	TONS	SYS.	SYS.	LFT	SYS	SYS.	LFT	LFT	LFT	LFT	LFT	
												LBS. PER SYD.					LBS. PER SYD.						LBS. PER SYD.									DEPTH									
Line "A"																																									
18+79	Mod. Cl. I	12																																							
Line "PR-1"																																									
22+84	Mod. Cl. I	17																																							
23+06	Mod. Cl. I	13																																							
Line "PRS-1-A"																																									
51+24	Mod. Cl. I	20																																							

STRUCTURE DATA

STRUCTURE NUMBER	LOCATION STATION	LOCATION LEFT	LOCATION RIGHT	LOCATION CROSS	SIZE IN.	PIPE TYPE	MANHOLE, INLET, CATCH BASIN, OR SPECIALTY STRUCTURE	LENGTH FEET	SKEW	FLOWLINE COVER FEET	FLOWLINE UP STREAM ELEV.	FLOWLINE DOWN STREAM ELEV.	SERVICE LIFE YEAR	SITE DESIGNATION	pH	BACKFILL METHOD	STRUCUTRE BACKFILL CYS.	REVETMENT RIPRAP TONS	CONCRETE CLASS "A" FOR STRUCTURES CYS.	PIPE END SECTION EA.	GEOTEXTILE SYS.	GRATED BOX END SECTION TYPE	GRATED BOX END SECTION EA.	SAFETY METAL END SECTION SLOPE	SAFETY METAL END SECTION EA.	RIM ELEVATION	CONNECT TO STRUCTURE	REMARKS
	Line "A"																											
10	18+92.00		X		15	II	Inlet, Type B-15	32		2.0	816.49	816.38	75	NA	7	1										819.48	11	
11	18+92.00	X			15	II	Manhole, Type C-15	82		2.3	816.38	816.11	75	NA	7	2										819.48	14	
12	19+50.00		X		12	II	Inlet, Type E-7	22		2.2	817.00	816.91	75	NA	7	2										820.43	13	
13	19+75.00		X		21	II	Manhole, Type C-15	53		4.5	813.98	813.87	75	NA	7	1										820.06	14	
14	19+75.00	X			21	II	Manhole, Type C-15	65		3.7	813.87	813.74	75	NA	7	2										820.01	31	
	Line "PR-1"																											
15	21+02.00		X		12	II	Inlet, Type E-7	30		1.7	814.50	814.37	75	NA	7	2										816.60	16	
16	21+10.00		X		15	II	Inlet, Type C-15	52		4.1	814.27	814.10	75	NA	7	1										819.40	17	
17	21+10.00	X			15	II	Manhole, Type C-15	101		4.1	814.10	813.76	75	NA	7	2										819.47	31	
18	21+60.00		X		15	II	Inlet, Type E-7	51		2.3	814.42	814.25	75	NA	7	1				1						816.33	19	
19	21+60.00	X			15	II	Manhole, Type C-4	47		3.6	814.25	814.10	75	NA	7	2										819.08	17	
20	21+85.00		X		15	II	Inlet, Type B-15	32		2.0	815.87	815.76	75	NA	7	1										818.87	21	
21	21+85.00	X			15	II	Inlet, Type C-15	22		2.0	815.76	815.69	75	NA	7	2										818.87	19	
22	23+14.00		X		12	II	Pipe	25		0.2	818.47	818.37	75	NA	7	2				2								
	Line "PRS-1-A"																											
23	50+60.00		X		18	II	Manhole, Type C-15	53		4.6	814.09	813.98	75	NA	7	2										820.01	13	
24	50+67.00	X			15	II	Inlet, Type B-15	50		2.0	816.96	816.79	75	NA	7	1										819.93	23	
25	50+75.00		X		12	II	Inlet, Type E-7	15		2.6	816.50	816.44	75	NA	7	2										820.12	23	
26	51+95.00	X			15	II	Inlet, Type C-15	30		2.9	814.82	814.72	75	NA	7	2										819.02	27	
27	51+95.00		X		15	II	Inlet, Type C-15	10		2.7	814.72	814.68	75	NA	7	2				1						819.01	28	
28	52+05.00		X		18	II	Manhole, Type C-15	146		3.5	814.57	814.19	75	NA	7	2										818.06	23	
29	52+07.00	X			12	II	Inlet, Type E-7	19		1.3	815.00	814.92	75	NA	7	1										817.22	26	
100	51+00.00		X		15	II	Adjust Casting to Grade	35		1.7	814.79	814.67	75	NA	7	2										817.66	28	
	Line "T-1-A"																											
31	51+00.00		X		24	II	Manhole, Type C-4	16		0.8	813.68	813.65	75	NA	7	2				1						817.76	105	
105	52+91.70			X	15	II	Inlet, Type E-7 Mod.	260		3.9	809.95	805.70	75	NA	7	20											Exst.	

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER _____ DATE

DESIGNED: KLW DRAWN: BEH

CHECKED: ACE CHECKED: KLW

INDIANA
DEPARTMENT OF TRANSPORTATION

APPROACH & STRUCTURE DATA TABLES

HORIZONTAL SCALE	BRIDGE FILE
NONE	
VERTICAL SCALE	DESIGNATION
NONE	1401716
SURVEY BOOK	SHEET
356	20 OF
CONTRACT	PROJECT
R-38246	1401716

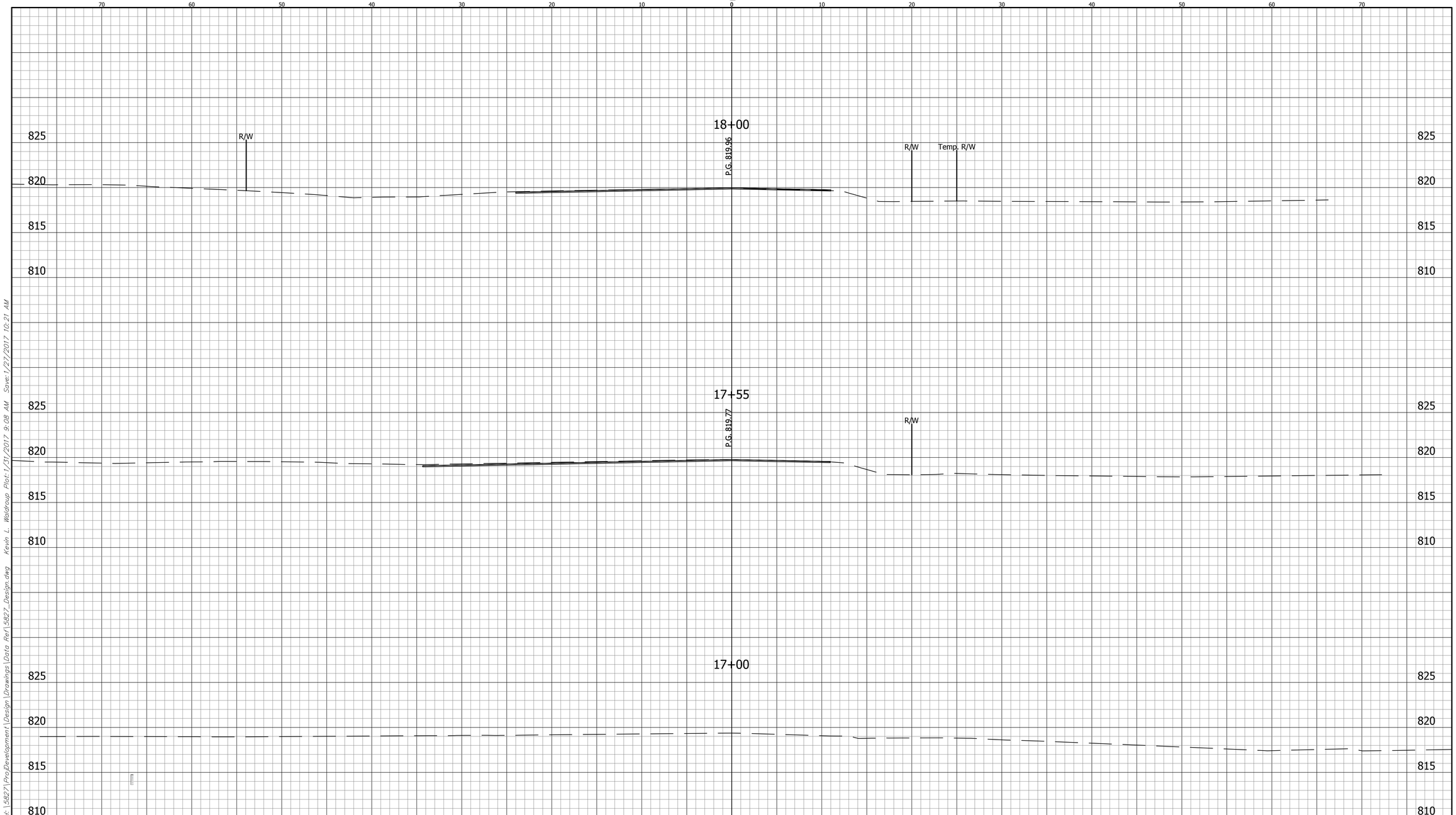
BFS NO. 5827

H:\5827\ProDevelopment\Design\Drawings\5827R931.dwg Kevin L. Waldroup Plot:1/31/2017 9:06 AM Saved:1/27/2017 11:44 AM

CROSS SECTIONS

CUT FILL

SCALE: 1"=5'



	CROSS SECTIONS LINE "A"	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 5' / BRIDGE FILE:
	DESIGNED: KLW / DRAWN: BEH	GREENFIELD AVENUE	VERTICAL SCALE: 1" = 5' / DESIGNATION: 1401716
	CHECKED: ACE / CHECKED: KLW		SURVEY BOOK: 356 / SHEET: 21 OF
			CONTRACT: R-38246 / PROJECT: 1401716

5827

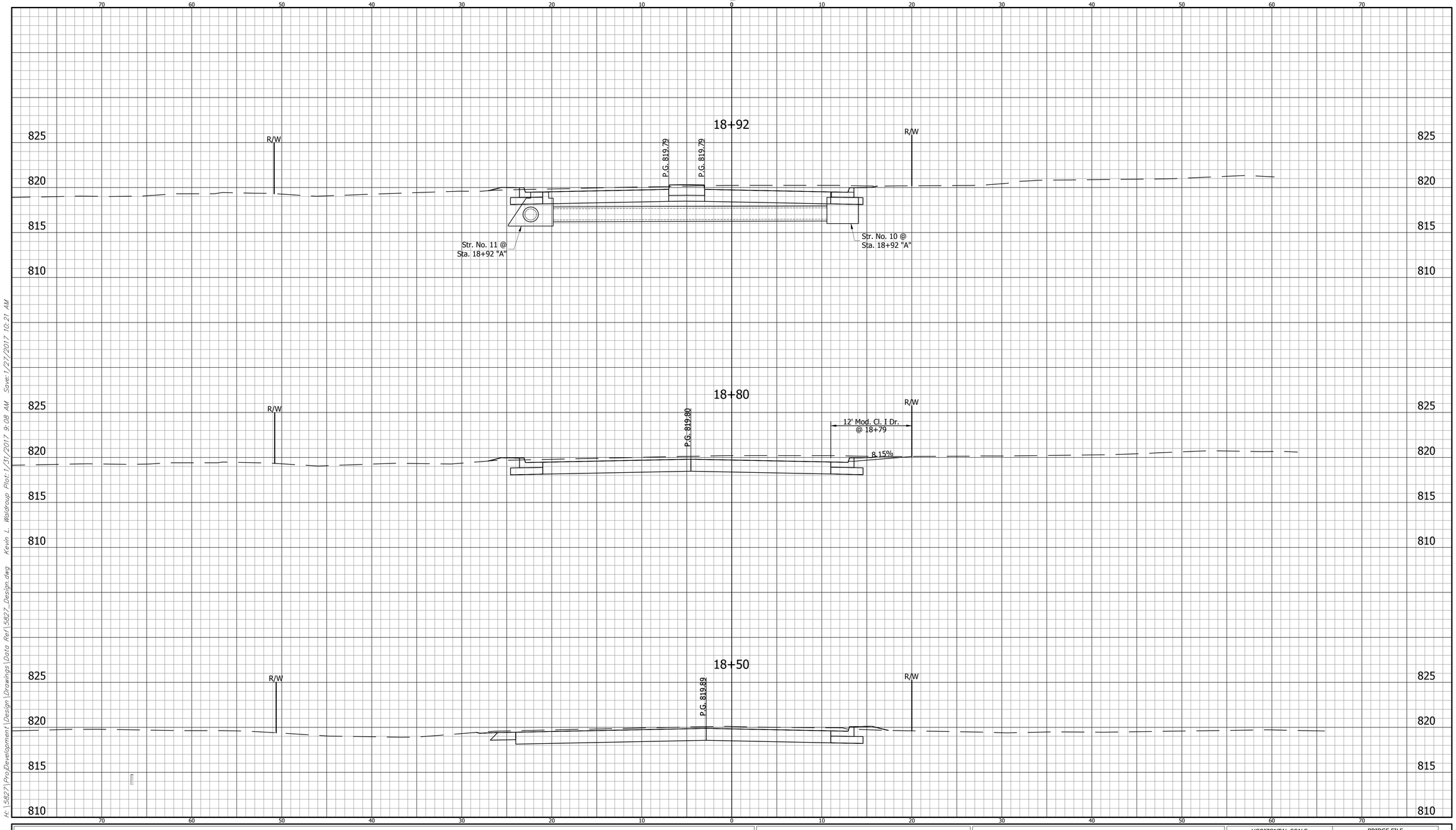
BFS NO.

H:\5827\ProjDevelopment\Design\Drawings\Data Ref\5827_Design.dwg Kevin L. Waldroup Plot: 1/31/2017 9:08 AM Save: 1/27/2017 10:21 AM

CROSS SECTIONS

CUT FILL

SCALE: 1"=5'



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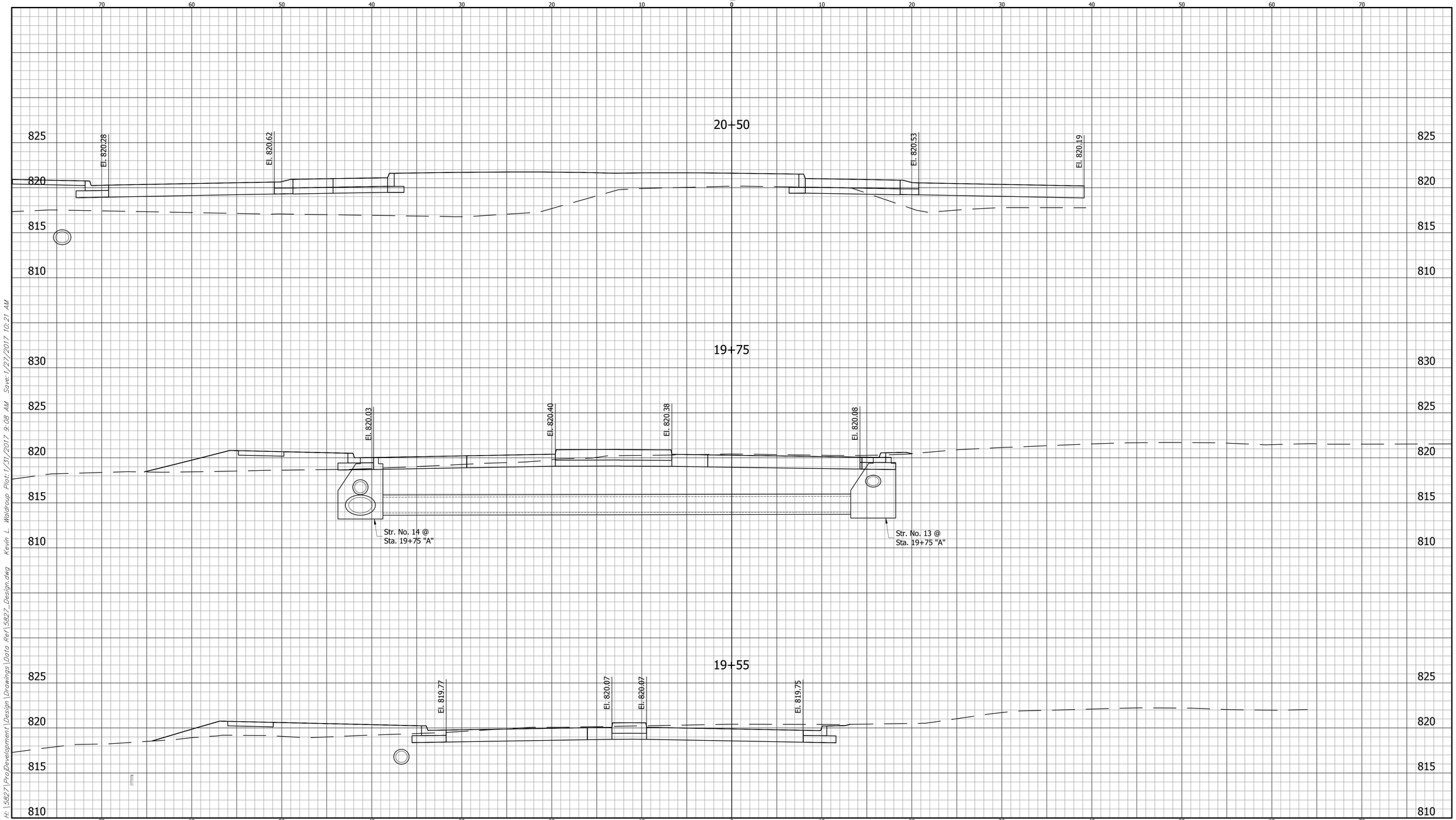
	CROSS SECTIONS LINE "A"	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 5' / BRIDGE FILE:
	DESIGNED: KLW / DRAWN: BEH CHECKED: ACE / CHECKED: KLW	GREENFIELD AVENUE	VERTICAL SCALE: 1" = 5' / DESIGNATION: 1401716 SURVEY BOOK: 356 / SHEET: 22 OF CONTRACT: R-38246 / PROJECT: 1401716

BFS NO. 5827

CROSS SECTIONS

SCALE: 1"=5'

CUT ℄ FILL



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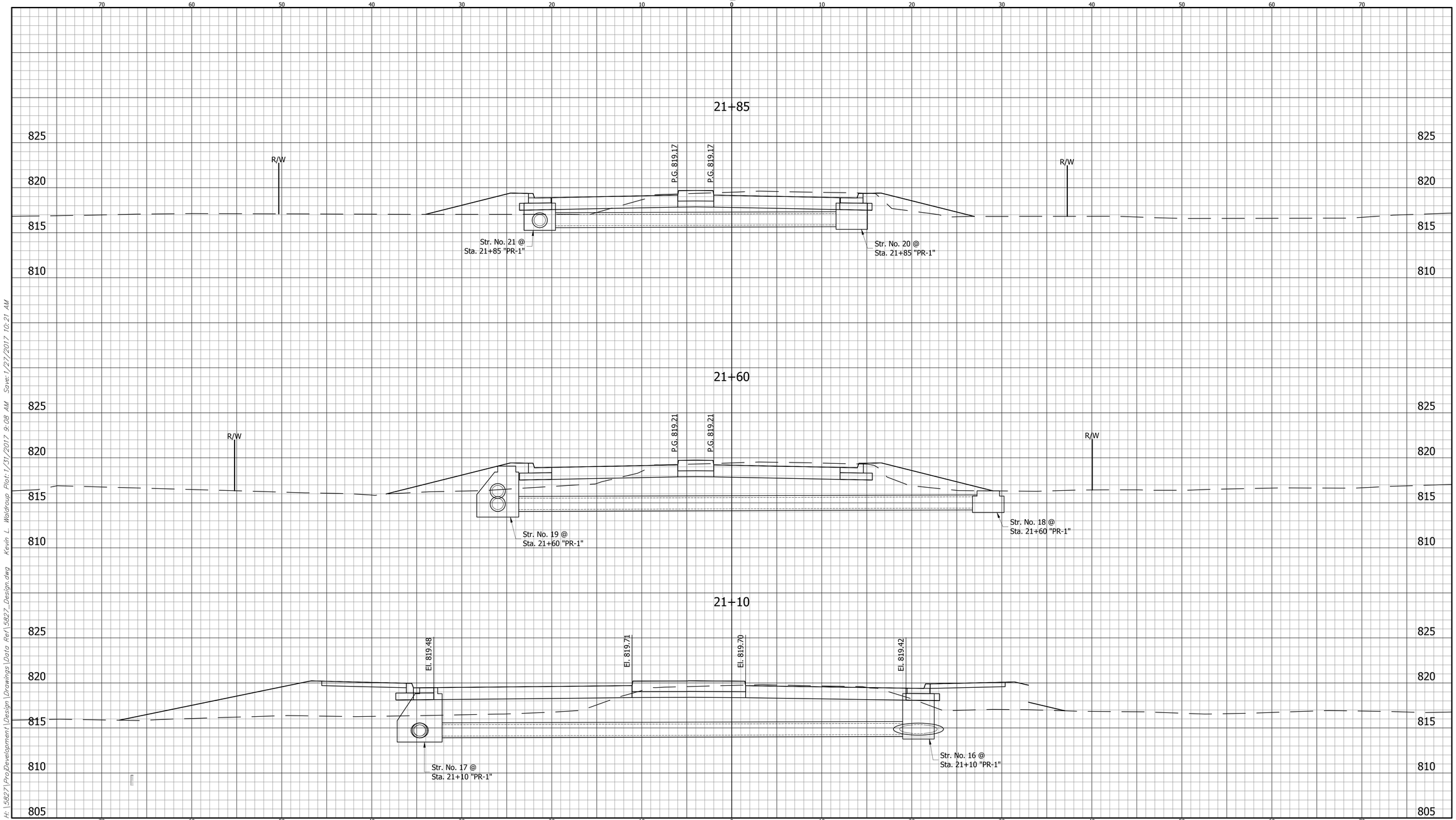
CROSS SECTIONS LINE "A"		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 5' / BRIDGE FILE:
DESIGNED: KLW	DRAWN: BEH		VERTICAL SCALE: 1" = 5' / DESIGNATION: 1401716
CHECKED: ACE	CHECKED: KLW	GREENFIELD AVENUE	SURVEY BOOK: 356 / SHEET: 23 OF
			CONTRACT: R-38246 / PROJECT: 1401716

BFS NO. 5827

CROSS SECTIONS

CUT FILL

SCALE: 1"=5'



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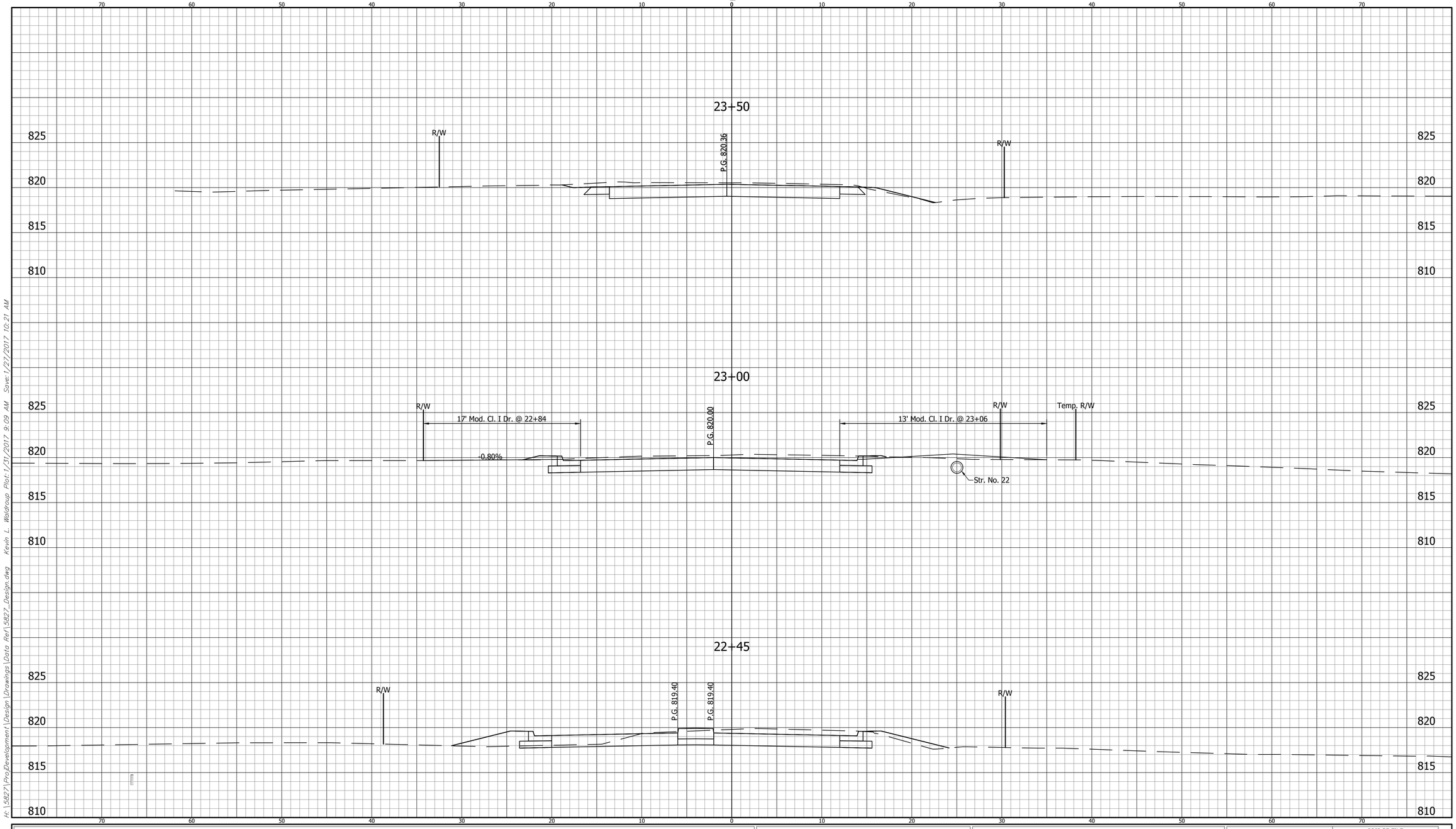
	CROSS SECTIONS LINE "PR-1"	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 5' / BRIDGE FILE	5827
	DESIGNED: KLW / DRAWN: BEH CHECKED: ACE / CHECKED: KLW	GREENFIELD AVENUE	VERTICAL SCALE: 1" = 5' / DESIGNATION: 1401716	BFS NO.
			SURVEY BOOK: 356 / SHEET: 24 OF	
			CONTRACT: R-38246 / PROJECT: 1401716	

CROSS SECTIONS

CUT FILL

SCALE: 1"=5'



H:\5827\Proj\Development\Design\Drawings\Data Ref\5827_Design.dwg Kevin L. Waldroup Plot:1/31/2017 9:09 AM Save:1/27/2017 10:21 AM

	CROSS SECTIONS LINE "PR-1"	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 5' / BRIDGE FILE:
	DESIGNED: KLW / DRAWN: BEH	GREENFIELD AVENUE	VERTICAL SCALE: 1" = 5' / DESIGNATION: 1401716
	CHECKED: ACE / CHECKED: KLW		SURVEY BOOK: 356 / SHEET: 25 OF
			CONTRACT: R-38246 / PROJECT: 1401716

BFS NO. 5827

CROSS SECTIONS

SCALE: 1"=5'

CUT FILL

25+00

24+50

24+00

℄

R/W

P.G. 819.81

P.G. 820.21

825
820
815
810

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

H:\5827\ProDevelopment\Design\Drawings\Data Ref\5827_Design.dwg Kevin L. Waldroup Plot: 1/31/2017 9:09 AM Save: 1/27/2017 10:21 AM

	CROSS SECTIONS LINE "PR-1"	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 5' / BRIDGE FILE VERTICAL SCALE: 1" = 5' / DESIGNATION: 1401716
	DESIGNED: KLW / DRAWN: BEH CHECKED: ACE / CHECKED: KLW	GREENFIELD AVENUE	SURVEY BOOK: 356 / SHEET: 26 OF CONTRACT: R-38246 / PROJECT: 1401716

BFS NO. 5827

CROSS SECTIONS

CUT FILL

SCALE: 1"=5'

℄

51+25

Temp. R/W

R/W

20' Mod. Cl. I Dr. @ 51+25

-9.64%

-6.00%

2.00%

2.00%

P.G. 819.64

R/W

50+75

El. 820.14

El. 820.13

Str. No. 25 @
Sta. 50+75 "PRS-1-A"

50+60

El. 821.06

El. 820.31

El. 820.31

El. 821.07

Str. No. 23 @
Sta. 50+60 "PRS-1-A"

	CROSS SECTIONS LINE "PRS-1-A"		INDIANA DEPARTMENT OF TRANSPORTATION	
	DESIGNED: KLW	DRAWN: BEH	HOWE ROAD	
	CHECKED: ACE	CHECKED: KLW		

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1401716
SURVEY BOOK	SHEET
356	27 OF
CONTRACT	PROJECT
R-38246	1401716

5827

BFS NO.

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CROSS SECTIONS

CUT FILL

SCALE: 1"=5'

52+27

P.G. 819.41

R/W R/W

51+95

P.G. 819.34

R/W R/W

Str. No. 26 @
Sta. 51+95 "PRS-1-A"

Str. No. 27 @
Sta. 51+95 "PRS-1-A"

51+75

P.G. 819.37

R/W R/W

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

830 825 820 815 810

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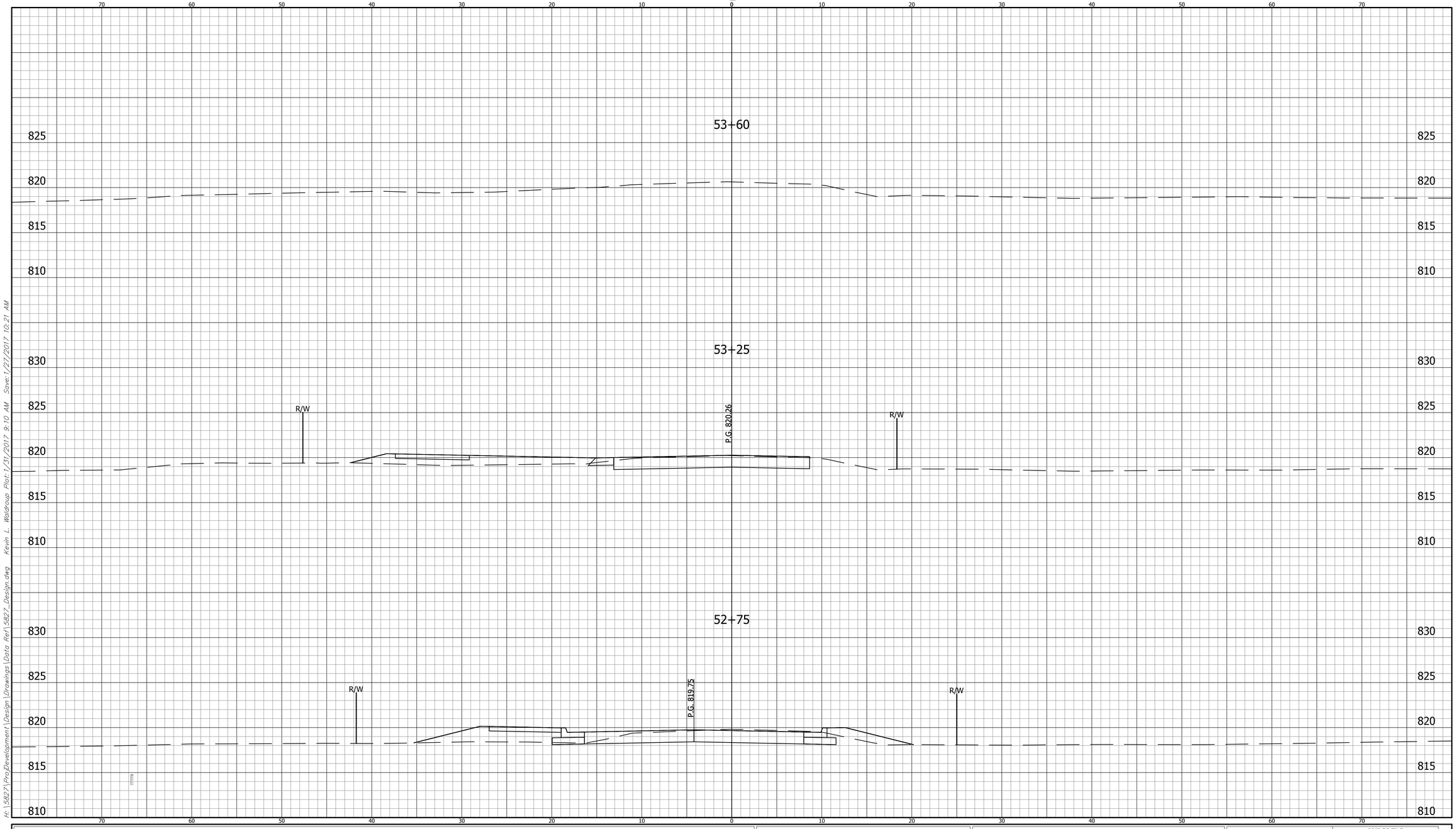
	CROSS SECTIONS LINE "PRS-1-A"	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 5' / BRIDGE FILE:
	DESIGNED: KLW / DRAWN: BEH		VERTICAL SCALE: 1" = 5' / DESIGNATION: 1401716
	CHECKED: ACE / CHECKED: KLW	HOWE ROAD	SURVEY BOOK: 356 / SHEET: 28 OF
			CONTRACT: R-38246 / PROJECT: 1401716

BFS NO. 5827

CROSS SECTIONS

CUT FILL

SCALE: 1"=5'



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	CROSS SECTIONS LINE "PRS-1-A"	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 5' / BRIDGE FILE:
	DESIGNED: KLW / DRAWN: BEH		VERTICAL SCALE: 1" = 5' / DESIGNATION: 1401716
	CHECKED: ACE / CHECKED: KLW	HOWE ROAD	SURVEY BOOK: 356 / SHEET: 29 OF
			CONTRACT: R-38246 / PROJECT: 1401716

BFS NO. 5827