STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
SS NO. 23056	Precast Reinforced concrete Three-Sided Structure	14'-0" Span x 10'-0" Rise x 52'-0" Long Skew: 0°	Martha Hare Drain	℄ Structure 20+00.00 "PR-A"

HAMILTON COUNTY HIGHWAY DEPARTMENT

TRAFFIC DATA	
A.A.D.T. (2020)	307 V.P.D.
A.A.D.T. (2040)	344 V.P.D.
D.H.V	40 V.P.H.
DIRECTIONAL DISTRIBUTION	50 %
TRUCKS	13 % A.A.D.T.
	10 % D.H.V.

DESIGN DATA	
DESIGN SPEED	40 M.P.H.
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	COLLECTOR
RURAL/URBAN	RURAL
TERRAIN	ROLLING
ACCESS CONTROL	NONE

REPLACEMENT PLANS FOR SMALL STRUCTURE NO. 23056 PENNINGTON RD. OVER MARTHA HARE DRAIN WAYNE TOWNSHIP PB-18-0005

PLANS PREPARED BY:

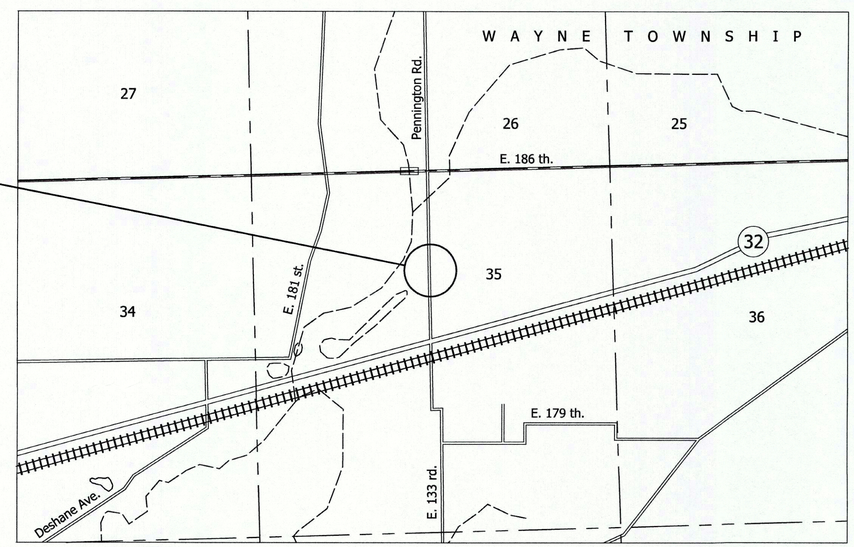
gai consultants

Indianapolis: 201 North Illinois Street, Suite 1700, Indianapolis, IN 46204
Fishers: 9998 Crosspoint Boulevard, Suite 110, Indianapolis, IN 46256

KYLE M. PEARL REGISTERED No. 11600518 STATE OF INDIANA PROFESSIONAL ENGINEER

CERTIFIED BY: Kyle Pearl DATE: 04/07/2020

PROJECT LOCATION
Begin Project-Sta. 19+00 "PR-A"
End Project-Sta. 21+00 "PR-A"



SCALE: 1" = 1000'

APPROVED BY DATE 04·13·20

CHRISTINE ALTMAN, PRESIDENT

STEVE DILLINGER, MEMBER

MARK E. HEIRBRANDT, MEMBER — BOARD OF COMMISSIONERS

ATTESTED

ROBIN M. MILLS — HAMILTON COUNTY AUDITOR

JAMES W. NEAL, P.E. — COUNTY HIGHWAY ENGINEER

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

Plot: 4/8/2020 1:25:49 PM By: ThomaTM Pen: Transportation.tbl
Z:\Infra\2018\D181006.00 - Pennington Rd Martha Hare\CAD\Production Drawings\01_D181006.00_Title Sheet.dgn

UTILITIES

TELEPHONE: AT&T - DISTRIBUTION
241 N. MERDIAN ST., ROOM 1791
INDIANAPOLIS, IN 46205
BRAD BAILEY
(317) 610-5422
BB3525@ATT.COM

ELECTRIC: DUKE ENERGY
2929 16TH STREET
BEDFORD, IN 47421
(812) 545-5667
QUENTIN.KNIGHT@DUKE-ENERGY.COM

GENERAL NOTES

All disturbed areas shall be mulch seeded unless noted otherwise

INDEX

SHEET NO.	SUBJECT
1	TITLE
2	INDEX
3	TYPICAL SECTION
4	MAINTENANCE OF TRAFFIC
5	SOIL BORINGS
6	EROSION CONTROL PLAN
7	LAYOUT
8	GENERAL PLAN
9	SUMMARY TABLES
10-19	CROSS SECTIONS

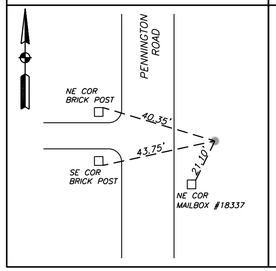
BENCHMARK

TBM #20 - Mag. SPK W. side PWP#072980 E. Side Pennington Rd.
Station 17+36.21 Line "A", 17.29 Rt., Elev. 801.15

TBM #21 - Mag. SPK W. side PWP#072979 E. Side Pennington Rd. 75'± S. of Bridge
Station 19+36.26 Line "A", 19.86' Rt., Elev. 793.48

TBM #22 - Mag. SPK W. side PWP#072977 E. Side Pennington Rd.
Station 24+83.70 Line "A", 16.27' Lt., Elev. 789.76

POINT #1



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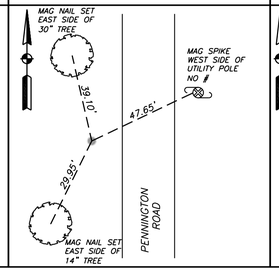

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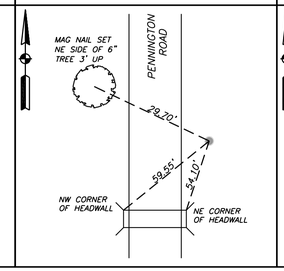

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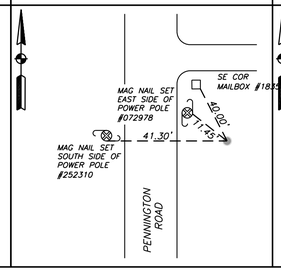

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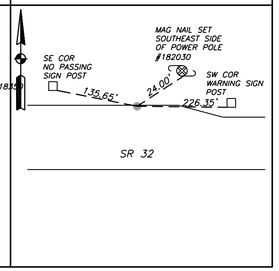


Point	Station	Offset	Baseline	Hamilton County Zone Indiana Geospatial Coordinate System		Latitude	Longitude	Description	Point Condition	Relation to Ground
				Northing	Easting					
1	N/A	N/A	N/A	174252.042	807200.383	40°03'14.72047"N	85°55'45.37942"W	Rebar Set w/ GAI Cap	New	FLUSH
2	16+97.97	11.63' Lt.	A	174479.532	807171.101	N40°03'16.9687"	W85°55'45.75365"	Rebar Set w/ GAI Cap	New	FLUSH
3	20+57.65	12.72' Rt	A	174839.398	807192.398	N40°03'20.52473"	W85°55'45.47610"	Rebar Set w/ GAI Cap	New	FLUSH
4	22+55.35	23.46' Rt	A	175037.186	807201.462	N40°03'22.47918"	W85°55'45.35752"	Rebar Set w/ GAI Cap	New	FLUSH
5	N/A	N/A	N/A	173670.385	807634.386	N40°03'08.96915"	W85°55'39.80448"	Mag Spike w/GAI Washer Set	New	FLUSH

gai consultants

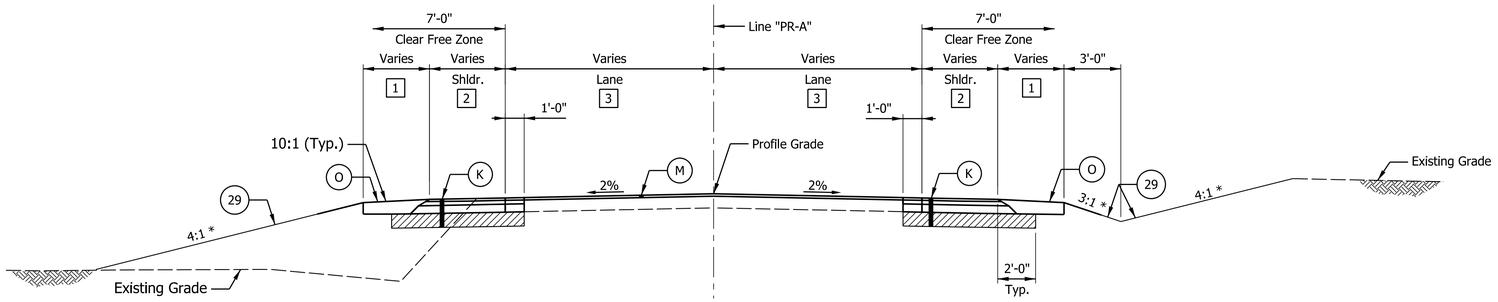
RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: KMP DRAWN: TMT
CHECKED: TDJ CHECKED: KMP

INDIANA
DEPARTMENT OF TRANSPORTATION

INDEX

SCALE	BRIDGE FILE
AS NOTED	SS NO. 23056
	DESIGNATION
DRAWING NUMBER	SHEETS
	2 of 19
CONTRACT	PROJECT
	PB-18-0005



TYPICAL FILL SECTION

TYPICAL CUT SECTION

INCIDENTAL SECTION

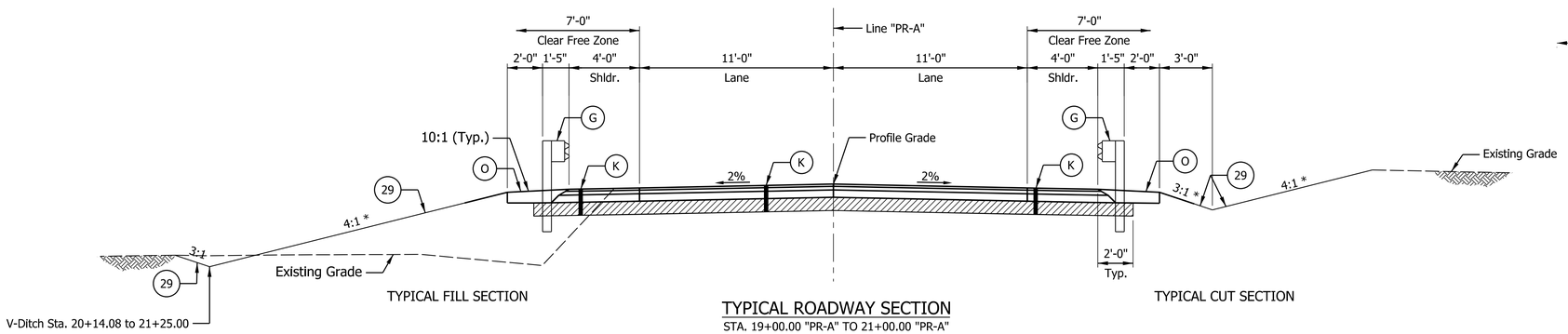
STA. 18+40.00 "PR-A" TO 19+00.00 "PR-A"

Scale: ¼" = 1'-0"

1 Varies from Existing to 5'-0"
From Sta. 18+40.00 "PR-A" to 18+90.00 "PR-A"

2 Varies from 0' to 4'-0"
From Sta. 18+40.00 "PR-A" to 19+00.00 "PR-A"

3 Varies from Existing to 11'-0"
From Sta. 18+40.00 "PR-A" to 19+00.00 "PR-A"



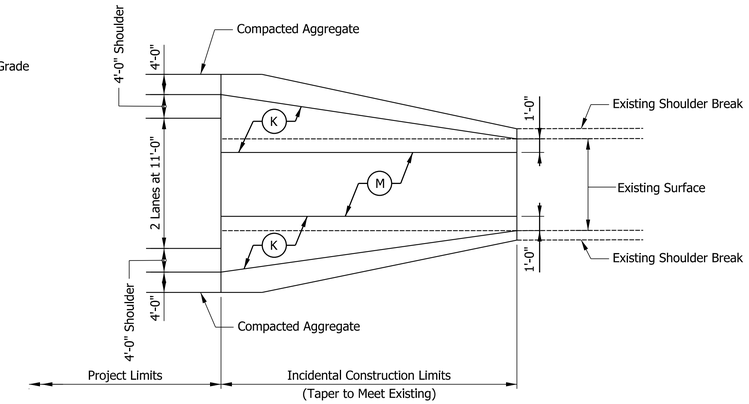
TYPICAL FILL SECTION

TYPICAL CUT SECTION

TYPICAL ROADWAY SECTION

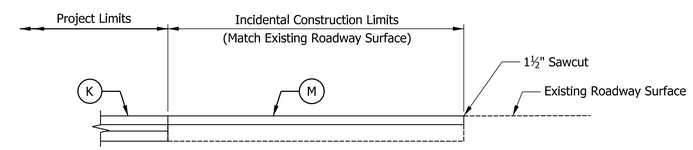
STA. 19+00.00 "PR-A" TO 21+00.00 "PR-A"

Scale: ¼" = 1'-0"



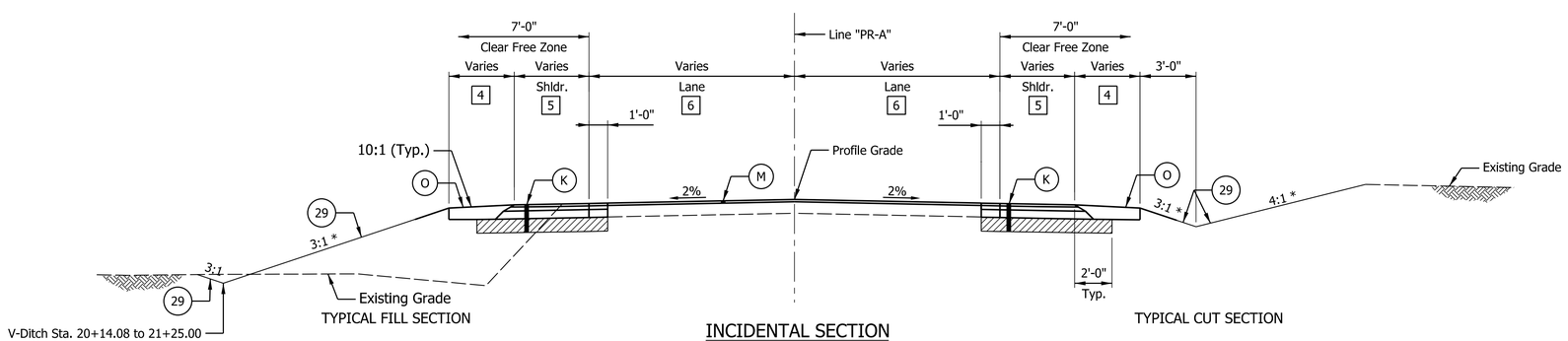
DETAIL - MATCHING EXISTING ROADWAY

Not to Scale



MATCH EXISTING PAVEMENT

Not to Scale



TYPICAL FILL SECTION

TYPICAL CUT SECTION

INCIDENTAL SECTION

STA. 21+00.00 "PR-A" TO 21+60.00 "PR-A"

Scale: ¼" = 1'-0"

4 Varies from 5'-0" to Existing
From Sta. 21+10.00 "PR-A" to 21+60.00 "PR-A"

5 Varies from 4'-0" to 0'
From Sta. 21+00.00 "PR-A" to 21+60.00 "PR-A"

6 Varies from 11'-0" to Existing
From Sta. 21+00.00 "PR-A" to 21+60.00 "PR-A"

NOTES:

* See Cross Sections for Slope

LEGEND

- (29) Erosion Control Blanket
- (D) HMA For Approaches, Type B:
  165 #/Sys HMA Surface, Type B on
  275 #/Sys HMA Intermediate, Type B on
  6" Compacted Agg. No .53 on
  Subgrade Treatment Type II
- (G) MGS Guardrail
- (K) Full Depth HMA Pavement
  165 #/Sys HMA Surface, Type B, 9.5 mm on
  330 #/Sys HMA Intermediate, Type B, 19.0 mm on
  440 #/Sys HMA Base, Type B, 25.0 mm on
  Subgrade Treatment Type II (6" of Course Agg. No .53)
- (M) Transition Milling, 1.5" Max.
  165 #/Sys. HMA Surface, Type B, 9.5mm
- (O) Compacted Aggregate No. 53 for Shoulders

gai consultants

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KMP DRAWN: TMT

CHECKED: TDJ CHECKED: KMP

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE	BRIDGE FILE
AS NOTED	SS NO. 23056
	DESIGNATION
DRAWING NUMBER	SHEETS
	3 of 19
CONTRACT	PROJECT
	PB-18-0005

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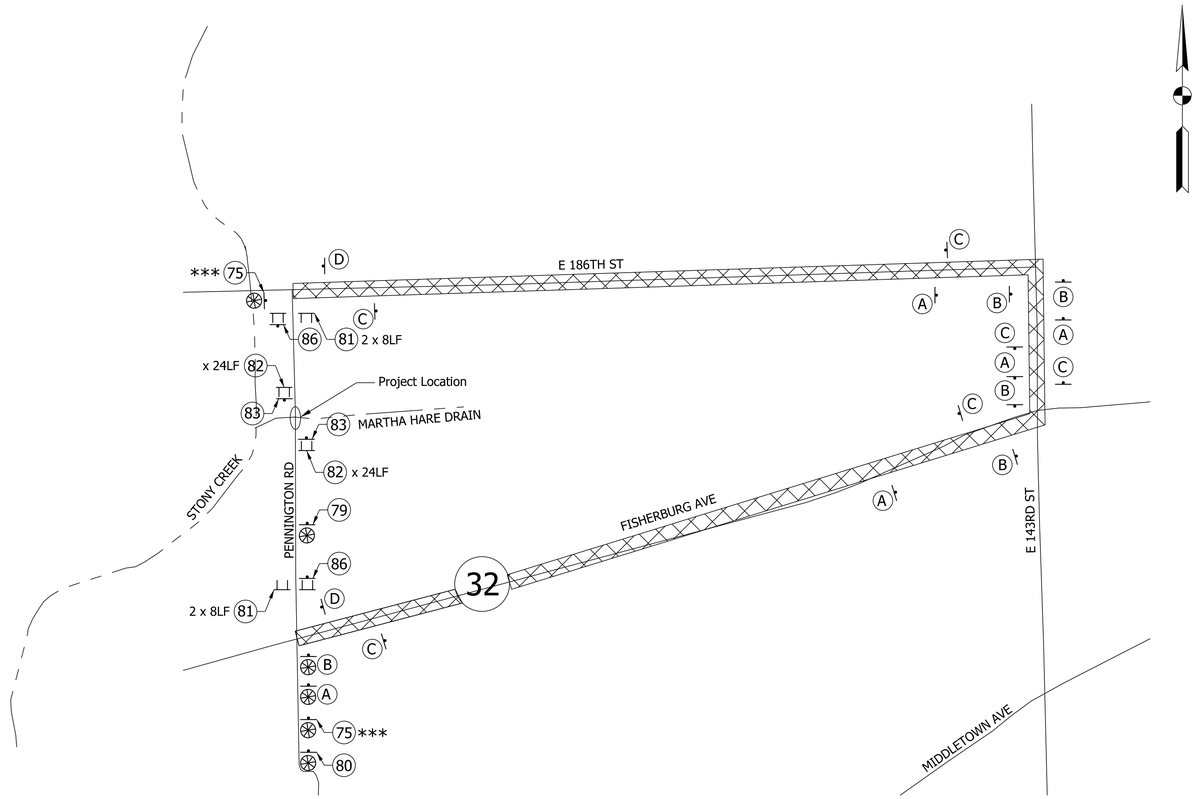


DETOUR PLAN
NOT TO SCALE

LEGEND

Detour Route

Construction Sign

Low Intensity Construction Warning Light, Type A

75 — DETOUR AHEAD — XW20-2 36"x36"

79 — ROAD CLOSED 500 FT — XW20-3 36"x36"

80 — ROAD CLOSED AHEAD — XW20-3 36"x36"

81 Standard Barricade, Type III-B

82 Standard Barricade, Type III-A

83 — ROAD CLOSED — R11-2 48"X30"

86 — ROAD CLOSED TO THRU TRAFFIC — R11-4 48"X30"
DETOUR — XM4-10(L or R) 48"x18"

A Advance Turn Detour Route Marker Assembly

B Directional Detour Route Marker Assembly

C Confirming Detour Route Marker Assembly

D End Detour Route Marker Assembly

NOTE

1. Refer to INDOT Standard Drawing E 801-TCDT-01 for placement of signs and devices in a rural detour and E 801-TCSN-01 through 06 for Detour Route Marker Details.
2. Two - "Route Number Closed On or After ___" Signs (XG20-5) to be placed as directed by the engineer prior to construction.
3. Access to residential driveways shall be maintained throughout construction. Adequate barricades or barrier shall be provided to block off construction at all times.

*** With Pennington Rd. Sign (D3-1)
Cardinal Direction (North, M3-1(N)) or (South, M3-3(S))

CONSTRUCTION SIGN SUMMARY TABLE

DESCRIPTION	SIGN TYPE	TOTAL
ROUTE NUMBER CLOSED ON OR AFTER __ (XG20-5)	A	2
ADVANCE DETOUR (XW20-2)	A	2
ROAD CLOSED 500 FT (XW20-3)	A	1
ROAD CLOSED AHEAD (XW20-3)	A	1
CARDINAL DIRECTION (NORTH) (M3-1)	B	2
CARDINAL DIRECTION (SOUTH) (M3-3)	B	2
PENNINGTON RD SIGN (D3-1)	B	2

MAINTENANCE OF TRAFFIC QUANTITIES

ITEM	UNITS	TOTAL
CONSTRUCTION SIGN, A	EACH	6
CONSTRUCTION SIGN, B	EACH	6
ROAD CLOSURE SIGN ASSEMBLY	EACH	4
DETOUR ROUTE MARKER ASSEMBLY	EACH	18
BARRICADE, III-A	LFT	48
BARRICADE, III-B	LFT	32

gai consultants

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

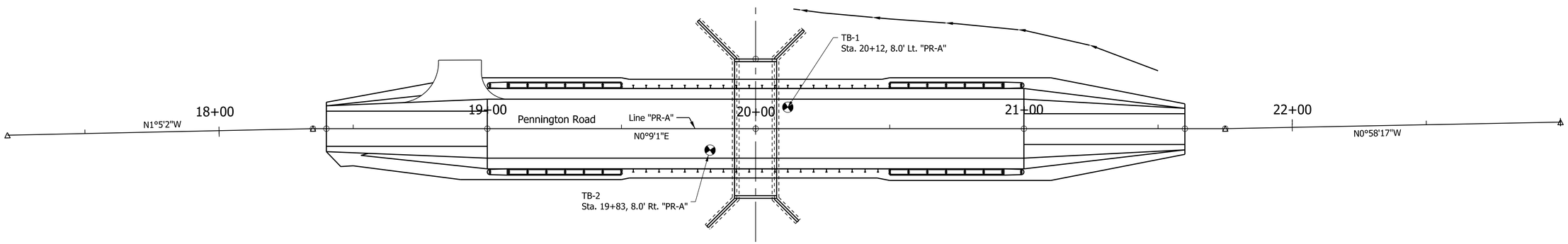
DESIGNED: JAS DRAWN: TMT

CHECKED: KMP CHECKED: JAS

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTANANCE OF TRAFFIC

SCALE	BRIDGE FILE
	SS NO. 23056
	DESIGNATION
DRAWING NUMBER	SHEETS
	4 of 19
CONTRACT	PROJECT
	PB-18-0005



PLAN - BORING LOCATIONS

Scale: 1" = 20'

BORING LOCATIONS

SOIL TEST BORING LOG

GEOTILL ENGINEERING, INC.

GEOTECHNICAL CONSULTANT : Geotill Inc.		BORING NO.: TB-1	
PROJECT NO.: PB-18-0005	STRUCTURE # : 23056	SHEET 1 OF 1	
		LATITUDE : 40.055535	
		LONGITUDE : -85.929378	
PROJECT TYPE : Hamilton County Small Structure 23056 Replacement		DATUM :	
LOCATION : Pennington Rd Over Martha Hare Drain		DATE STARTED : 07-07-19	
COUNTY : Hamilton	GEOTILL PROJECT NO.: 111921901	DATE COMPLETED : 07-07-19	
ELEVATION : 786.0	BORING METHOD : Hollow Stem Auger	HAMMER : Auto	
STATION : 20+12	RIG TYPE : D-50 Truck	DRILLER/INSP : A. Hammons/F. Ezzein	
OFFSET : 8.0 ft Left	CASING DIA. : ---	TEMPERATURE : 84 °F	
LINE : "PR-A"	CORE SIZE : 2	WEATHER : Sunny	
DEPTH : 30.0 ft			

GROUNDWATER: Encountered at 24.0 ft; At completion 26.0 ft; --- After 24 hours; Caved in at 28.0 ft

ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT per 6"	% RECOVERY	MOISTURE CONTENT	DRY DENSITY, pcf	POCKET PEN., tsf	UNCONF. COMP., psf	ATTERBERG LIMITS LL	PL	PI	REMARKS
		Asphalt 7" (VISUAL) 0.6											
785.0		**Gravel 5"** (VISUAL) 1.0											
	2.5		SS 1	2-2-6	67					24	14	10	
	5.0		SS 2	3-2-4	67								
780.0		**Sandy Loam A-4 (0)**, Brown, Moist, Medium Stiff To Stiff, with some Sand and Gravel, (Lab No. 1)	SS 3	4-5-7	78	11							
	7.5												
	10.0		SS 4	1-2-4	56	14	125						
775.0		11.5											
	12.5												
	15.0		SS 5	2-4-6	67					25	16	9	
770.0													
	17.5												
	20.0		SS 6	6-15-16	78	11	126		8274				
765.0		**Clay Loam A-4 (3)**, Gray, Moist, Medium Stiff To Hard, (Lab No. 3)											
	22.5												
	25.0		SS 7	14-16-21	89	11	121		1744				
760.0													
	27.5												
	30.0	30.0	SS 8	13-16-18	67	16	126						
755.0		Bottom of Boring at 30.0 ft											
	32.5												
	35.0												

GEOTILL BORING LOG 111921901 HAMILTON COUNTY SMALL STRUCTURE 23056 REPLACEMENT.GPJ GEOTILL-INDOT.GDT 12/3/19

SOIL TEST BORING LOG

GEOTILL ENGINEERING, INC.

GEOTECHNICAL CONSULTANT : Geotill Inc.		BORING NO.: TB-2	
PROJECT NO.: PB-18-0005	STRUCTURE # : 23056	SHEET 1 OF 1	
		LATITUDE : 40.055486	
		LONGITUDE : -85.929314	
PROJECT TYPE : Hamilton County Small Structure 23056 Replacement		DATUM :	
LOCATION : Pennington Rd Over Martha Hare Drain		DATE STARTED : 07-07-19	
COUNTY : Hamilton	GEOTILL PROJECT NO.: 111921901	DATE COMPLETED : 07-07-19	
ELEVATION : 788.0	BORING METHOD : Hollow Stem Auger	HAMMER : Auto	
STATION : 19+83	RIG TYPE : D-50 Truck	DRILLER/INSP : A. Hammons/F. Ezzein	
OFFSET : 8.0 ft Right	CASING DIA. : ---	TEMPERATURE : 84 °F	
LINE : "PR-A"	CORE SIZE : 2	WEATHER : Sunny	
DEPTH : 30.0 ft			

GROUNDWATER: Encountered at 17.5 ft; At completion 24.0 ft; --- After 24 hours; Caved in at 24.0 ft

ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT per 6"	% RECOVERY	MOISTURE CONTENT	DRY DENSITY, pcf	POCKET PEN., tsf	UNCONF. COMP., psf	ATTERBERG LIMITS LL	PL	PI	REMARKS
		Asphalt 6.5" (VISUAL) 0.5											
		Gravel 4" (VISUAL) 0.9											
785.0	2.5		SS 1	3-2-2	50	18							
	5.0	**Sandy Loam A-4**, Brown, Moist To Very Moist, Soft To Medium Stiff, (Lab No. 1)	SS 2	1-2-2	78	20							
780.0			SS 3	2-5-4	78	17							
	7.5	8.0											
	10.0		SS 4	3-3-6	17	15							
775.0		**Clay Loam A-4**, Gray, Moist, Medium Stiff, (Lab No. 3)											
	12.5												
	15.0	16.5	SS 5	3-4-5	56	10							
770.0	17.5												
	20.0	**Sand A-1-b (0)**, Gray, Moist, Medium Dense, (Lab No. 2)	SS 6	9-9-9	78	12				NP	NP	NP	
		21.5											
765.0	22.5												
	25.0	**Sandy Loam (Weathered Limestone) A-2-4 (0)**, Yellow And Brown, Moist, Very Dense, (Lab No. 4)	SS 7	10-43-43	61	13				NP	NP	NP	
		26.5											
760.0	27.5	**Sand A-1-b**, Gray, Moist, Dense, with some Small Gravel, (Lab No. 2)											
	30.0	30.0	SS 8	11-22-21	100								
755.0		Bottom of Boring at 30.0 ft											
	32.5												
	35.0												

GEOTILL BORING LOG 111921901 HAMILTON COUNTY SMALL STRUCTURE 23056 REPLACEMENT.GPJ GEOTILL-INDOT.GDT 12/3/19

gai consultants

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KMP DRAWN: TMT

CHECKED: TDJ CHECKED: KMP

INDIANA
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS

SCALE	BRIDGE FILE
AS NOTED	SS NO. 23056
	DESIGNATION
DRAWING NUMBER	SHEETS
	5 of 19
CONTRACT	PROJECT
	PB-18-0005

Plot: 4/8/2020 1:27:01 PM By: ThomaTM Pen: Transportation.tbl

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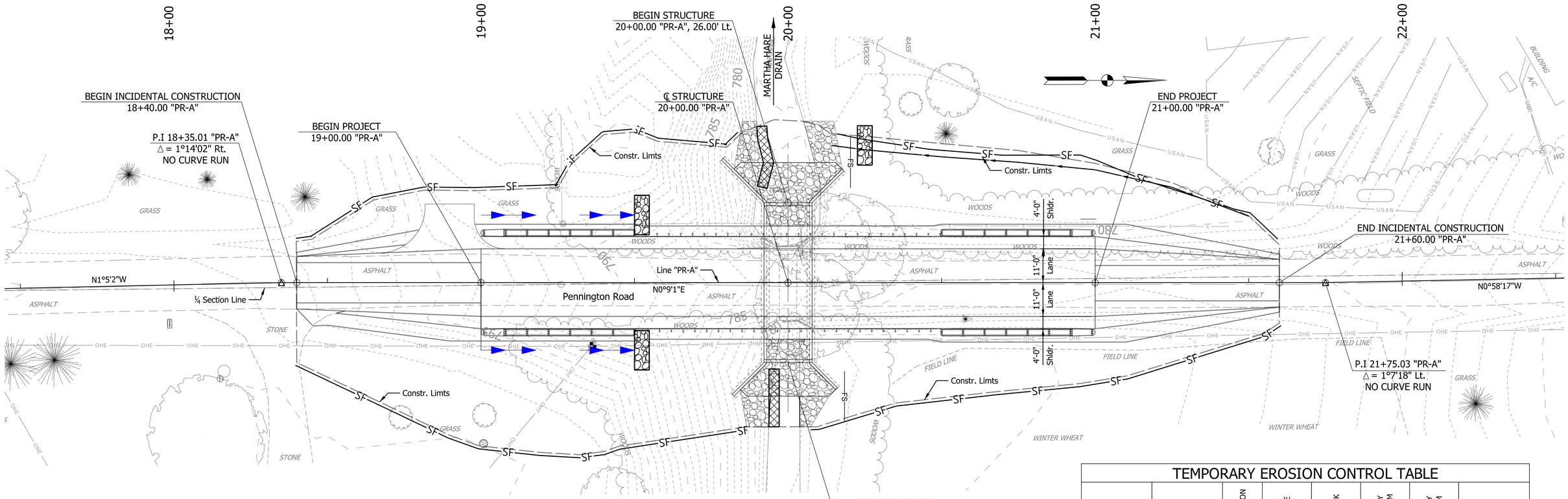
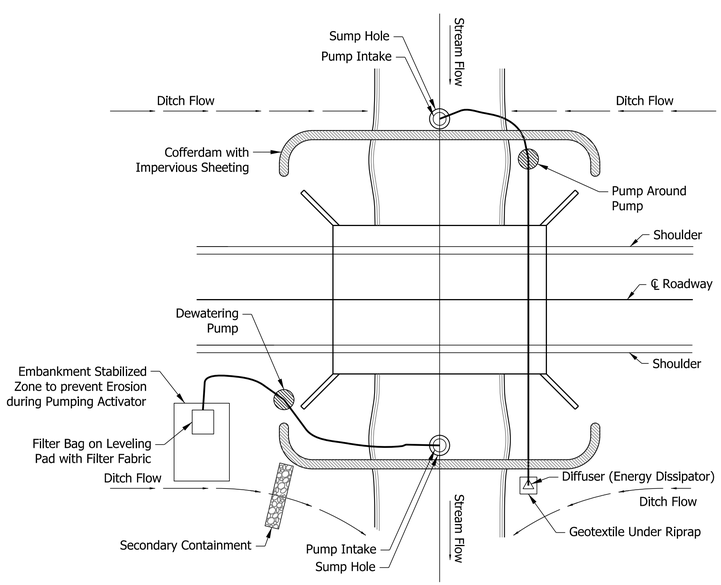
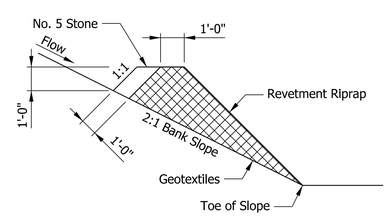


PLAN

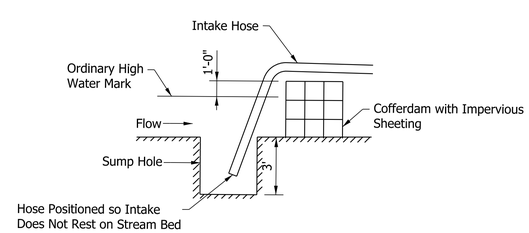
Scale: 1/16" = 1'-0"



PUMP AROUND DETAIL



FILTER BERM



COFFERDAM / SUMP HOLE WORK AREA

TEMPORARY EROSION CONTROL TABLE

FROM STATION	TO STATION	LOCATION LEFT	LOCATION MEDIAN	LOCATION RIGHT	SILT FENCE LFT	FILTER SOCK LFT	TEMPORARY FILTER BERM LFT	TEMPORARY CHECK DAM TON	REMARKS
Line "PR-A"									
18+40	19+84	X			159				
18+40	19+86			X	154				
19+15	19+15			X				15.00	
19+55	19+55	X						7.00	
19+90	19+90	X					20		
19+95	19+95			X			20		
19+81	20+19		X						
20+19	20+19			X		17.5			
20+20	20+20	X				17.5			
20+07	21+60			X	158				
21+60	21+60	X						10.00	
20+16	21+60	X			152				
Total					623	35	40	32	

TEMPORARY EROSION CONTROL NOTES

1. Provide a temporary pump around for stream during construction below the ordinary high water mark.
2. Construct Stable Construction Entrances as per Std. Dwg. E205-TECP-01 (Est. Qty. = 150 Tons of No. 2 Stone & 235 SYS Temporary Geotextile)
3. Provide concrete washouts as required.
4. Construction Rock filter berms and filter sock at channel banks.
5. Construct Revetment riprap check Dams at ditches.

LEGEND

- SF — Silt Fence
- FS — Filter Sock
- Filter Berm (Revetment Riprap)
- Direction Of Flow
- Check Dam (Revetment Riprap)

gai consultants

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: ECL DRAWN: TMT

CHECKED: KMP CHECKED: KMP

INDIANA
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN

SCALE	BRIDGE FILE
AS NOTED	SS NO. 23056
	DESIGNATION
DRAWING NUMBER	SHEETS
	6 of 19
CONTRACT	PROJECT
	PB-18-0005

Plot: 4/8/2020 1:27:30 PM By: ThomaTM Pen: Transportation.tbl

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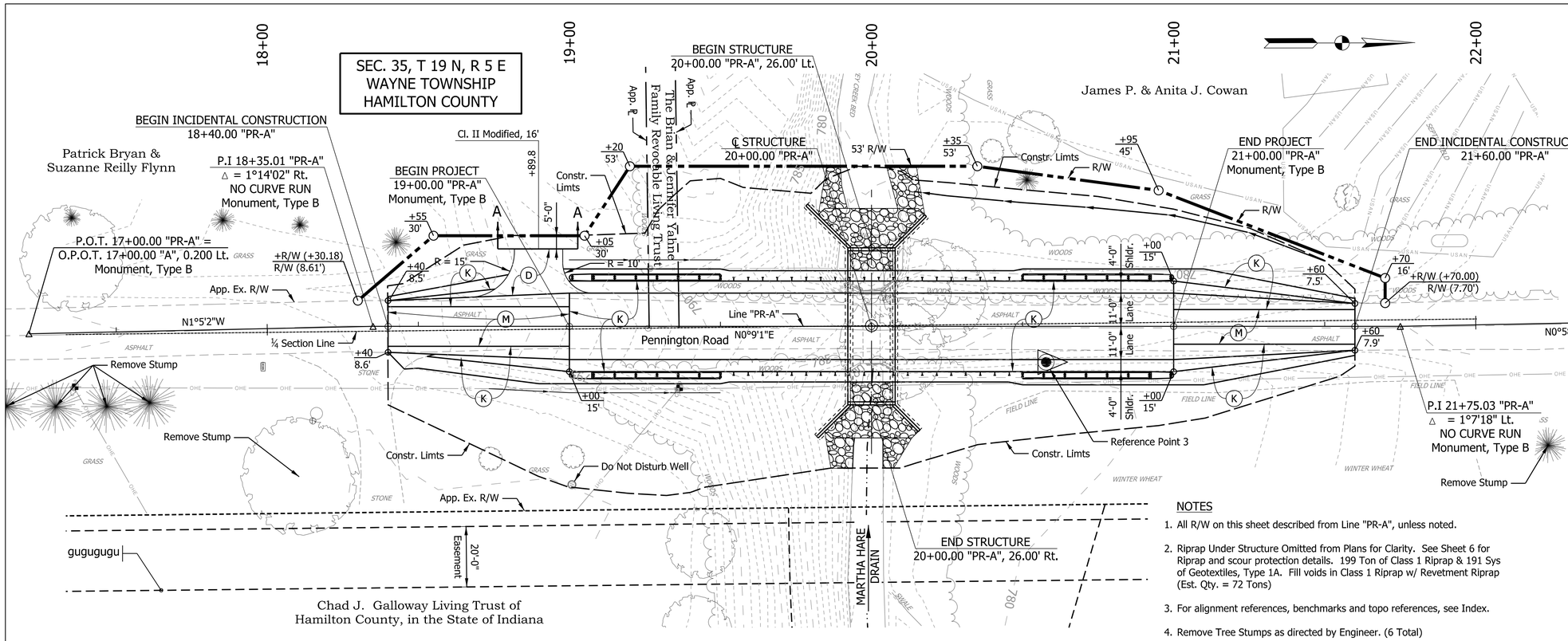


EXISTING STRUCTURE

Precast Reinforced Concrete Three-Sided Structure
To Be Removed.

EARTHWORK SUMMARY

Fill +25%	1085 Cys.
Common Excavation	729 Cys.
Usable Structure Excavation	165 Cys.
Borrow	191 Cys.
Benching*	178 Cys.

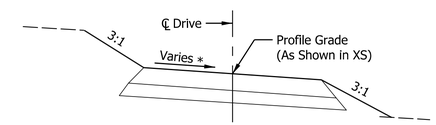
*Benching will not be paid for directly but will be included in the cost of other items

HILL BLOCKS VIEW — W7-6 (30"x30")

35 M.P.H. — W13-1P (18"x18")

SIGN DETAILS

Place at Sta. 16+00.00 "A" & 21+60.00 "A"



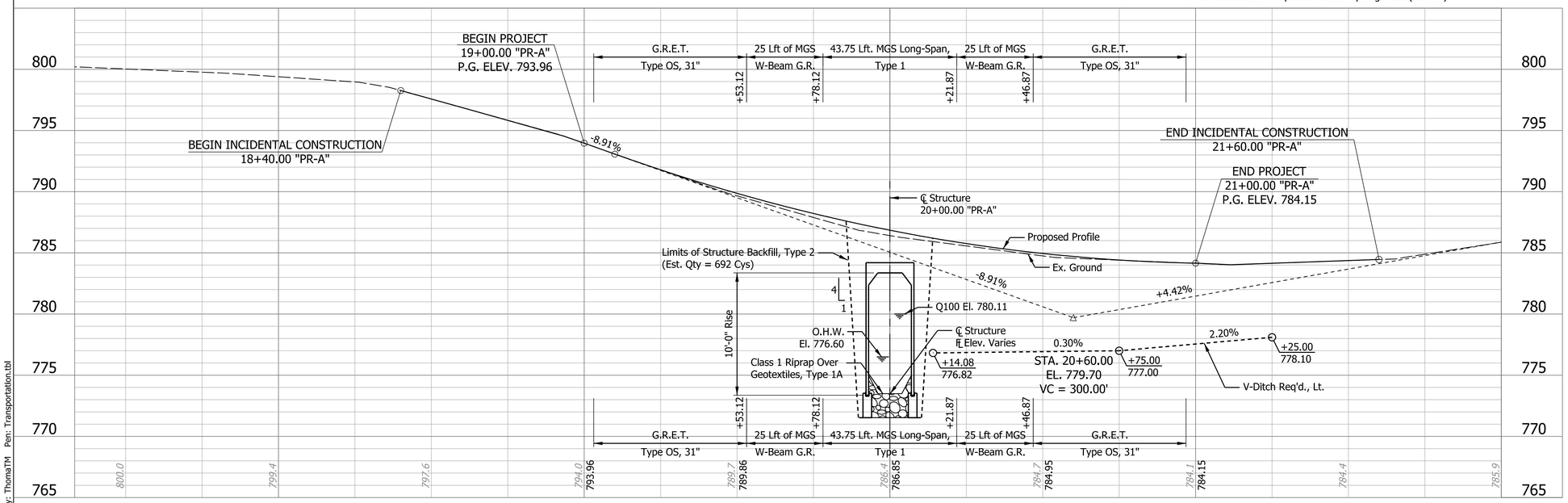
SECTION A-A

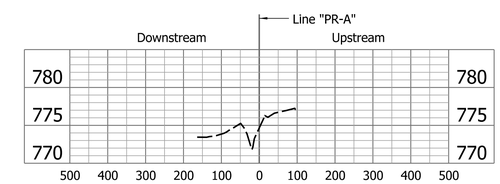
Scale: NTS

* Match Roadway grade at Edge of pavement. Rotate Cross slope about drive ℄ to match existing ground cross slope at end of drive.

NOTES

1. All R/W on this sheet described from Line "PR-A", unless noted.
2. Riprap Under Structure Omitted from Plans for Clarity. See Sheet 6 for Riprap and scour protection details. 199 Ton of Class 1 Riprap & 191 Sys of Geotextiles, Type 1A. Fill voids in Class 1 Riprap w/ Revetment Riprap (Est. Qty. = 72 Tons)
3. For alignment references, benchmarks and topo references, see Index.
4. Remove Tree Stumps as directed by Engineer. (6 Total)





EXISTING STREAM PROFILE

Scales: 1" = 200'-0" Horizontal, 1" = 10'-0" Vertical

HYDRAULIC DATA

Waterway Opening Required:	= 36	sq.ft.
Waterway Opening Provided:	= 98	sq.ft.
Proposed Road Overflow Waterway Area:	= 0	sq.ft.
Drainage Area:	= 0.393	sq.mi.
Design Discharge:	= 358.8	cfs
Velocity Existing:	= 15.58	ft./sec
Velocity Proposed:	= 10.84	ft./sec
Existing Backwater at Q100:	= 4.64	ft.
Proposed Backwater at Q100:	= 0.68	ft.
Existing Q100 Headwater Elev.:	= 784.07	ft.
Proposed Q100 Headwater Elev.:	= 780.11	ft.
Existing Low Structure Elev.:	= 782.23	ft.
Proposed Low Structure Elev.	= 783.11	ft.

PRECAST REINFORCED CONCRETE THREE-SIDED STRUCTURE
14'-0" SPAN X 10'-0" RISE
30'-0" CLEAR ROADWAY, NO SKEW
PENNINGTON RD. OVER MARTHA HARE DRAIN
HAMILTON COUNTY, IN

LEGEND

(K) See Sheet 3 for Details
(M) See Sheet 3 for Details
(D) See Sheet 3 for Details

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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KMP DRAWN: TMT
CHECKED: TDJ CHECKED: KMP

INDIANA
DEPARTMENT OF TRANSPORTATION

LAYOUT

HORIZONTAL SCALE	BRIDGE FILE
1"=20'-0"	SS NO. 23056
VERTICAL SCALE	DESIGNATION
1"=5'-0"	
DRAWING NUMBER	SHEETS
	7 of 19
CONTRACT	PROJECT
	PB-18-0005

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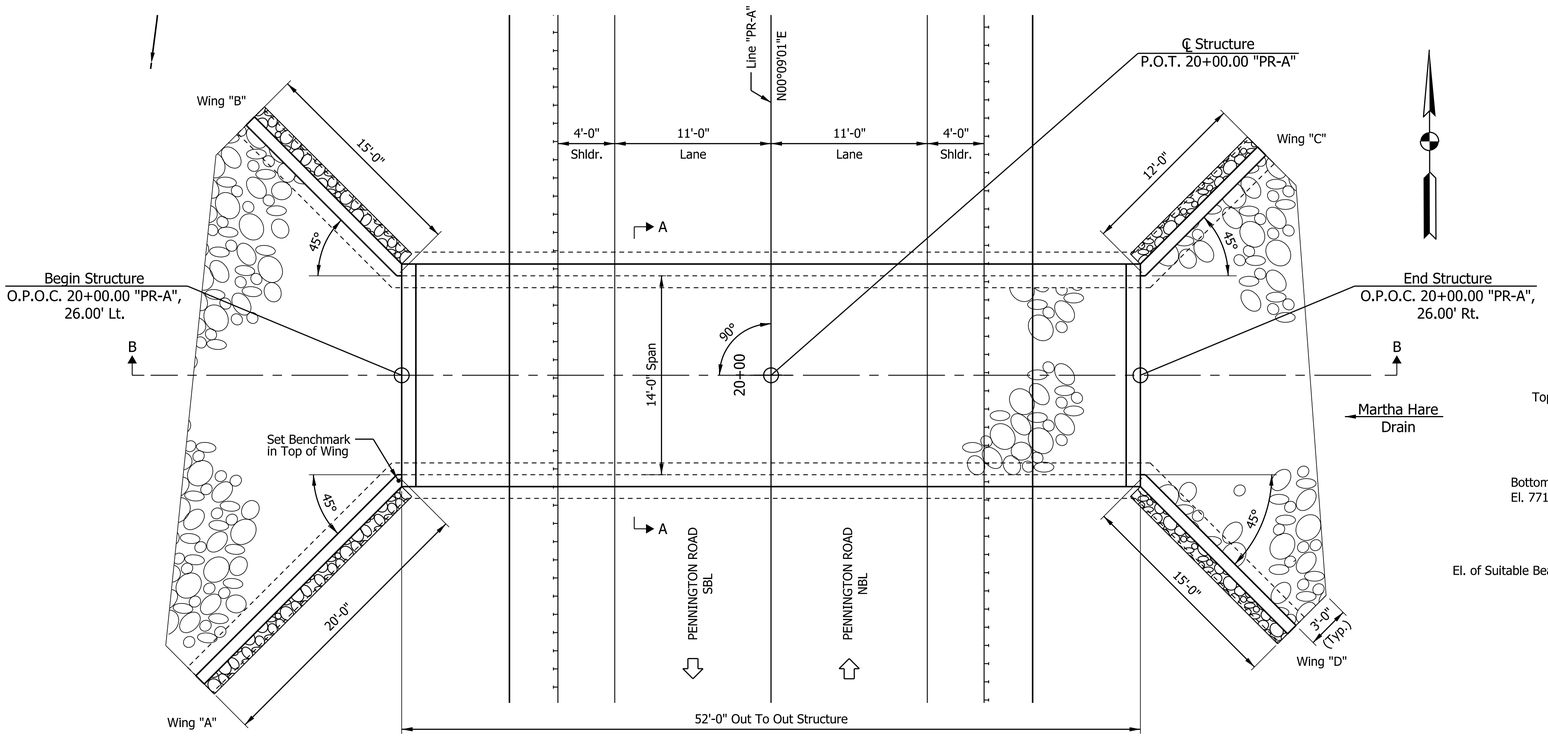
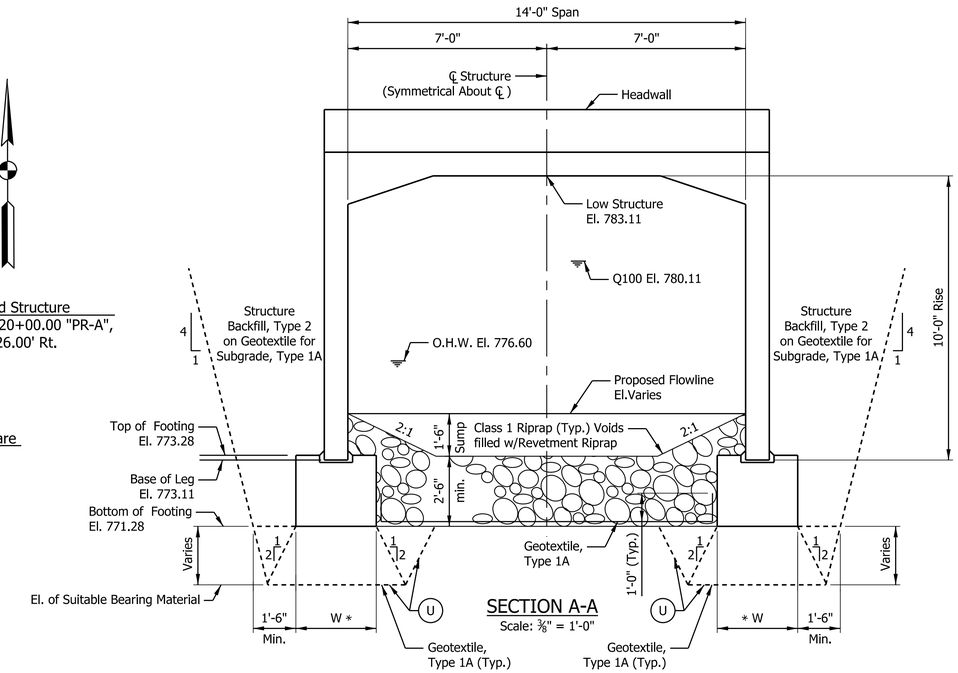


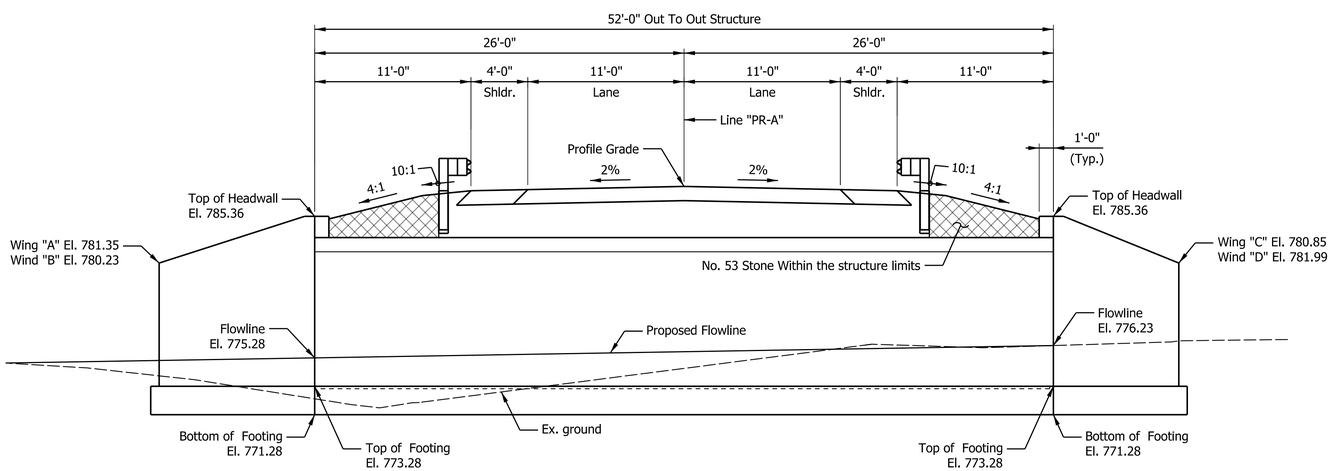
PLAN

Scale: 3/16" = 1'-0"



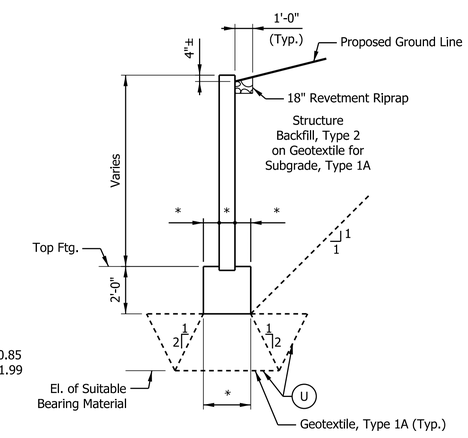
SECTION A-A

Scale: 3/8" = 1'-0"



SECTION B-B

Scale: 3/16" = 1'-0"



TYPICAL WING SECTION

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

DESIGN DATA

LOADING:

Designed for HL-93 loading, in accordance with the AASHTO LRFD Bridge Design Specifications, 8th Edition, and Interim Revisions through 2019.

FOUNDATIONS:

Spread footing sizing is to be designed for HL-93 loading, in accordance with the AASHTO LRFD Bridge Design Specifications, 8th Edition, and Interim Revisions through 2019.

See Geotechnical Report for additional Design Parameters.

GENERAL NOTES

* Indicates dimensions to be determined by precast unit manufacturer.

(U) Compacted Aggregates No. 8 on Geotextiles, Type 1A. (Limits of Undercut)

Nominal Soil Bearing Pressure = 10,280 lbs./sft.

Factored Soil Bearing Pressure = 4,600 lbs./sft.

An alternate three-sided structure (arch shape) with a 18' span and a 10' rise may be substituted for the structure indicated in the layout sheet.

Contractor shall verify the existing flowline elevation to set the appropriate sump depth.

WINGWALL SOIL PARAMETERS

Friction Angle of backfill (δ)	= 22°
Friction factor of foundation soil	= N/A
Angle of internal friction of the foundation soil (φ)	= N/A
Ultimate cohesion of foundation soil (C)	= 2,000 psf
Ultimate adhesion between foundation soil and concrete (C_A)	= 1,300 psf

PRECAST REINFORCED CONCRETE THREE-SIDED STRUCTURE
14'-0" SPAN X 10'-0" RISE
30'-0" CLEAR ROADWAY, NO SKEW
PENNINGTON RD. OVER MARTHA HARE DRAIN
HAMILTON COUNTY, IN

gai consultants

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KMP DRAWN: TMT

CHECKED: TDJ CHECKED: KMP

INDIANA
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

SCALE	BRIDGE FILE
AS NOTED	SS NO. 23056
	DESIGNATION
DRAWING NUMBER	SHEETS
of	8 of 19
CONTRACT	PROJECT
	PB-18-0005

Plot: 4/10/2020 1:42:50 PM By: ThomaTM Pen: Transportation.tbl

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SUMMARY OF BRIDGE QUANTITIES (PB-18-0005)

ITEM	CONCRETE CLASS C SUPERSTR.	CONCRETE CLASS A SUBSTR.	CONCRETE CLASS C SUBSTR.	BARRIER, DELINEATOR	RAILING, CONCRETE, FT	CONCRETE BRIDGE RAILING TRANSITION, TFT	REINFORCEMENT REINF. BARS, EPOXY COATED	REINFORCEMENT REINF. BARS	REINFORCEMENT THREADED TIE BAR ASSEMBLY, EPOXY COATED	REINFORCEMENT THREADED TIE BAR ASSEMBLY	REINF. CONCRETE BRIDGE APPROACH 12 IN.	SUBBASE FOR PCCP	TERMINAL JOINT, TYPE HMA	GEOTEXTILE FOR SUBGRADE TYPE 2B	SUBGRADE TREATMENT, TYPE IC	FIELD DRILLED HOLES IN CONCRETE	SLOPEWALL, REMOVE	COMPACTED AGGREGATE NO.8, UNDIST	CONCRETE PATCHING PATCHING CONCRETE STRUCTURES	CONCRETE PATCHING BRIDGE DECK PATCHING, FULL DEPTH	CONCRETE PATCHING BRIDGE DECK PATCHING, PARTIAL DEPTH	STRUCTURAL BACKFILL, TYPE 2	GEOTEXTILE, TYPE 1A	GEOTEXTILE, TYPE 1A, UNDIST	PIPE, END BENT DRAIN, 6 IN	STRUCTURAL STEEL*	R.C. COATED 3-SIDED STR.	SURFACE SEAL**
	CYS	CYS	CYS	EACH	LFT	EACH	LBS	LBS	EACH	EACH	SYS	CYS	LFT	SYS	SYS	EACH	SYS	CYS	SFT	SFT	SFT	CYS	SYS	SYS	LFT	LBS	LFT	SFT
SUPERSTRUCTURE																		77				692	340	324			52	
TOTALS	0.0	0.0	0.0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	77	0	0	0	692	340	324	0	0	52	0

* For Quantity Purposes only, included in cost of Beams

** Estimated quantity

PAVEMENT QUANTITIES AND APPROACH TABLE (PB-18-0005)

LOCATION	DESCRIPTION (APPROACH TYPE OR CLASS)	CURBS CURB, ASPHALT, REMOVE	CURBS CURB HMA	EXCAVATION, COMMON	EXCAVATION, COMMON, UNDIST	Type B SURFACE 9.5 mm (LBS PER SYD 165)	Type B INTERM 19.0 mm (LBS PER SYD 330)	Type B BASE 25.0 mm (LBS PER SYD 440)	HMA FOR APPROACHES, TYPE B	ASPHALT MATERIAL FOR PRIME COAT	ASPHALT MATERIAL FOR TACK COAT	COMPACTED AGGREGATE, NO.53	CRUSHED STONE, NO. 5, UNDIST	GEOTEXTILE FOR SUBGRADE TYPE 2B UNDIST	MILLING, TRANSITION	SUBGRADE TREATMENT, TYPE II	JOINT ADHESIVE, SURFACE	JOINT ADHESIVE, INTERMEDIATE	REMARKS
		LFT	LFT	CYS	CYS	TONS	TONS	TONS	TONS	SYS	SYS	TONS	CYS	SYS	SYS	SYS	LFT	LFT	
NORTH INCIDENTAL						12.5	6.5	9			300	20			113.4	66.5	180	120	
PROJECT LIMITS						55	110	146			1333	142			0	756	600	600	
SOUTH INCIDENTAL						12.5	6.5	9			300	20			106.6	66.5	180	120	
DRIVE									7.7			12				42			
TOTALS				748	85	80	123	164	7.7		1933	194	16	93	220	931	960	840	

GUARDRAIL SUMMARY TABLE (PB-18-0005)

LOCATION FROM STATION	LOCATION TO STATION	LEFT	RIGHT	MGS W-BEAM AT 6 FT 3 IN. SPA.	MGS, LONG SPAN, TYPE 1	GUADRAIL END TREATMENT, OS
				LFT	EACH	EACH
		X		25	1	1
			X	25	1	1
		X		25		1
			X	25		1
TOTALS				100	2	4

MONUMENT TABLE

SIGN	Type A	Type B	Type C	Type D	SECTION CORNER
P.O.T. 17+00.00 "PR-A"		1			
P.I. 18+35.01 "PR-A"		1			
19+00.00 "PR-A"		1			
21+00.00 "PR-A"		1			
P.I. 21+75.03 "PR-A"		1			
P.O.T. 23+00.00 "PR-A"		1			

SHEET SIGN & POST SUMMARY

SIGN LOCATION	SIGN PLAN SHEET NO.	SIGN SIGN CODE	REMARKS
16+00.00	7	NEW	2 ON POST
21+60.00	7	NEW	2 ON POST

RIGHT - OF - WAY MARKER TABLE

STATION	OFFSET (FT.)	LEFT	RIGHT		STATION	OFFSET (FT.)	LEFT	RIGHT
Line "PR-A"					Line "PR-A"			
18+55.00	30	X			20+35.00	53	X	
19+05.00	30	X			20+95.00	45	X	
19+20.00	53	X			21+70.00	16	X	

Plot: 4, 1:28:04 PM By: ThomaTM Pen: Transportation.tbl

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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KMP DRAWN: TMT

CHECKED: TDJ CHECKED: KMP

INDIANA
DEPARTMENT OF TRANSPORTATION

SUMMARY

SCALE	BRIDGE FILE
AS NOTED	SS NO. 23056
	DESIGNATION
DRAWING NUMBER	SHEETS 9 of 19
CONTRACT	PROJECT PB-18-0005

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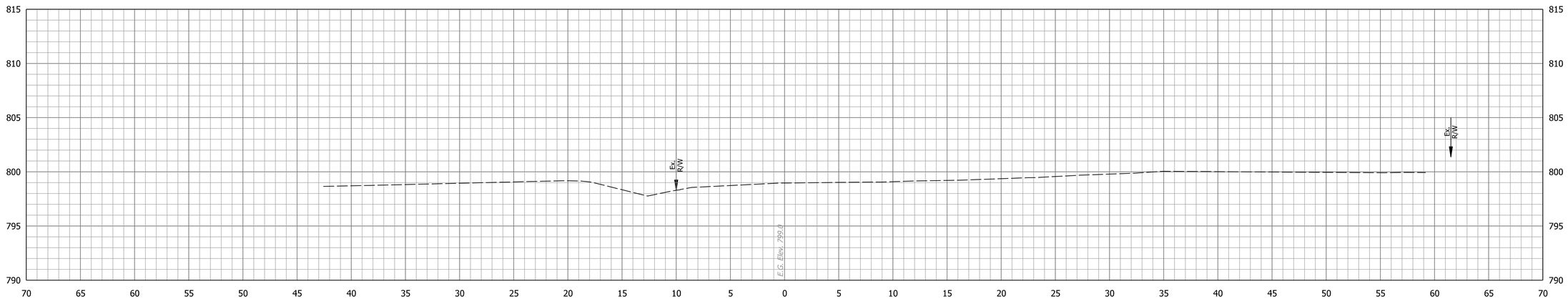

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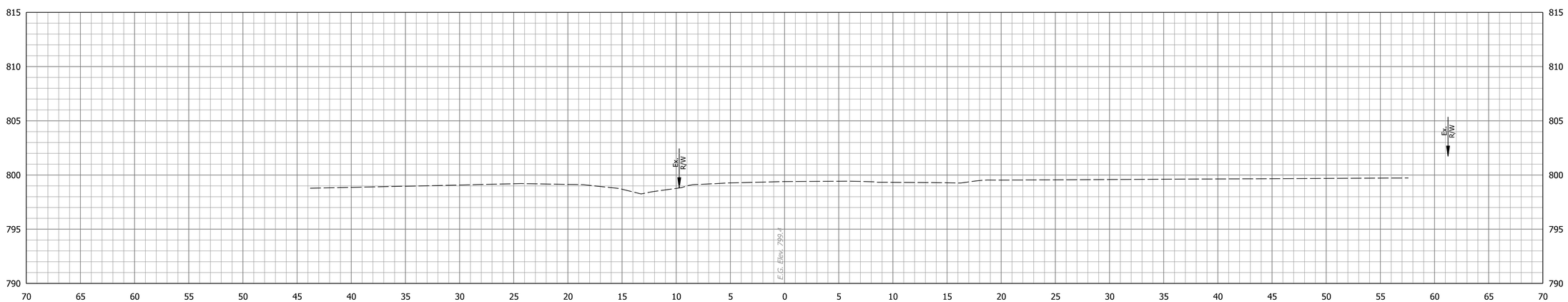
Vc = 0 CYS

Af = 0.0 SFT
Vf = 0 CYS

18+25.00



Ac = 0.0 SFT
Vc = 0 CYS

Af = 0.0 SFT
Vf = 0 CYS

18+00.00

STA. 18+00.00 TO STA. 18+25.00

Plot: 4/8/2020 1:28:33 PM By: ThomaTM Pen: Transportation.tbl

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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KMP DRAWN: KTH

CHECKED: TDJ CHECKED: KMP

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	SS NO. 23056
VERTICAL SCALE	DESIGNATION
1" = 5'	--
DRAWING NUMBER	SHEETS
	10 of 19
CONTRACT	PROJECT
--	PB-18-0005

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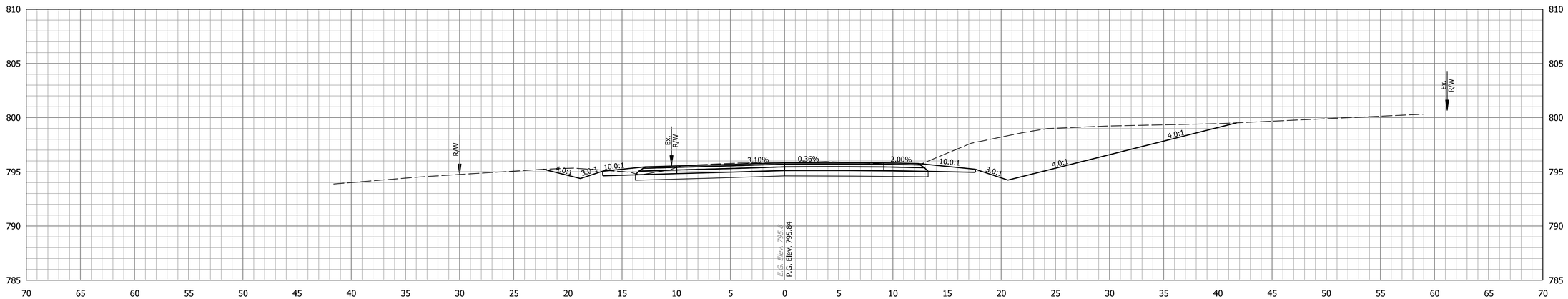
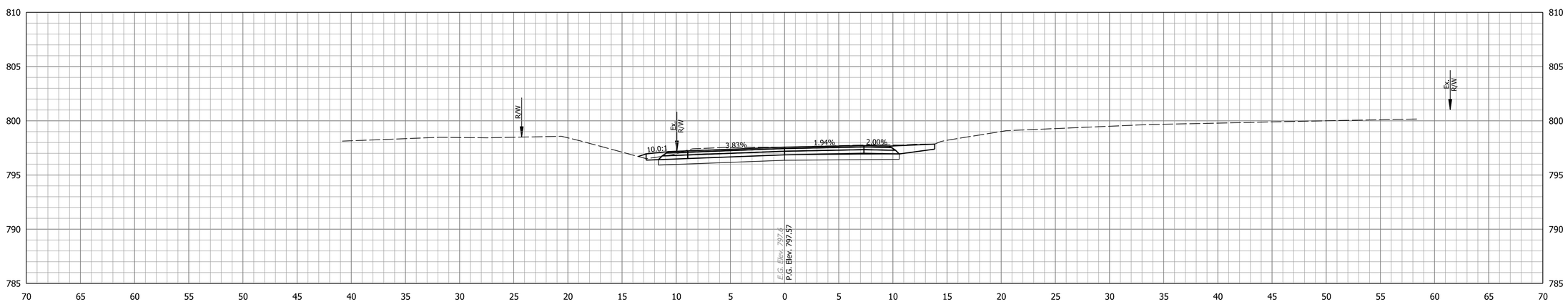


Ac = 88.3 SFT
Vc = 50 CYS

Af = 0.0 SFT
Vf = 0 CYS

18+75.00



Ac = 20.7 SFT
Vc = 10 CYS

Af = 0.0 SFT
Vf = 0 CYS

18+50.00

STA. 18+50.00 TO STA. 18+75.00

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DESIGNED: KMP DRAWN: KTH

CHECKED: TDJ CHECKED: KMP

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	SS NO. 23056
VERTICAL SCALE	DESIGNATION
1" = 5'	--
DRAWING NUMBER	SHEETS
of	11 of 19
CONTRACT	PROJECT
--	PB-18-0005

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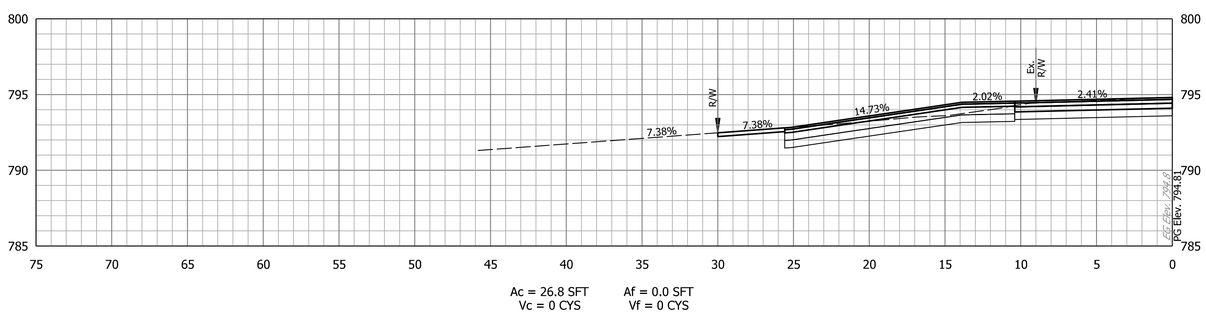

18+89.79

STA. 18+89.79 TO STA. 18+89.79

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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KMP DRAWN: KTH

CHECKED: TDJ CHECKED: KMP

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	SS NO. 23056
VERTICAL SCALE	DESIGNATION
1" = 5'	--
DRAWING NUMBER	SHEETS
of	12 of 19
CONTRACT	PROJECT
--	PB-18-0005

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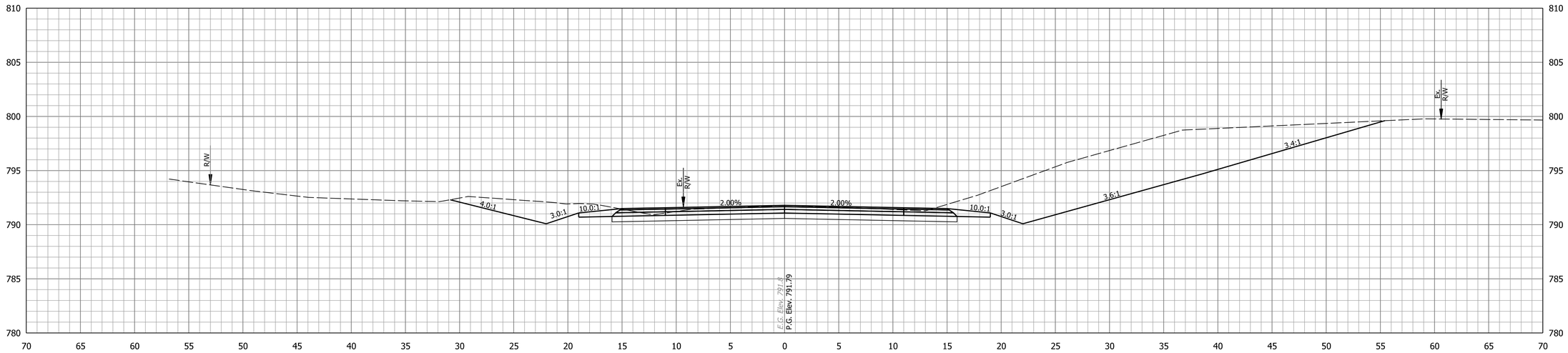
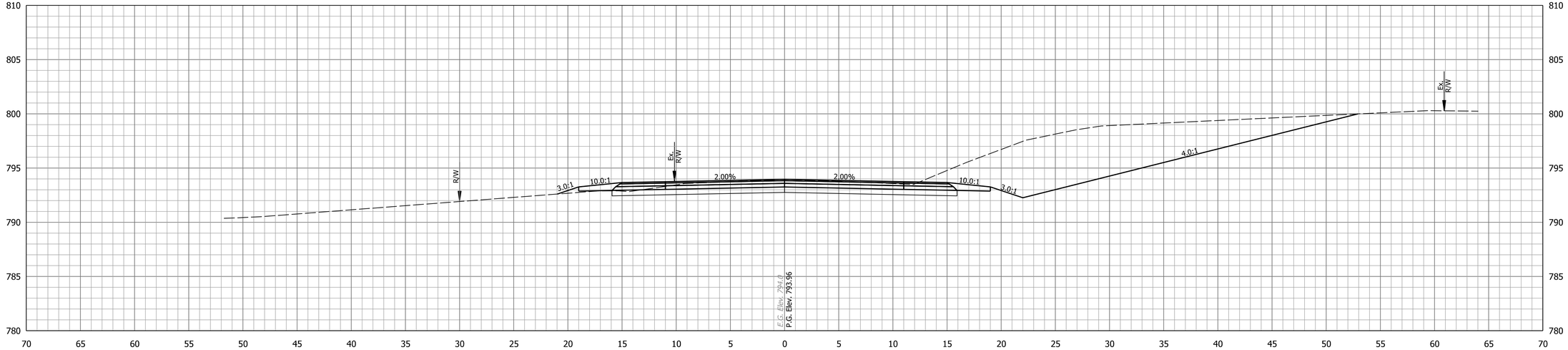


Ac = 161.0 SFT
Vc = 137 CYS

Af = 0.0 SFT
Vf = 0 CYS

19+25.00



Ac = 134.2 SFT
Vc = 103 CYS

Af = 0.6 SFT
Vf = 0 CYS

19+00.00

STA. 19+00.00 TO STA. 19+25.00

Plot: 4/8/2020 1:28:36 PM By: ThomaTM Pen: Transportation.tbl

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DESIGNED: KMP DRAWN: KTH

CHECKED: TDJ CHECKED: KMP

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	SS NO. 23056
VERTICAL SCALE	DESIGNATION
1" = 5'	--
DRAWING NUMBER	SHEETS
of	13 of 19
CONTRACT	PROJECT
--	PB-18-0005

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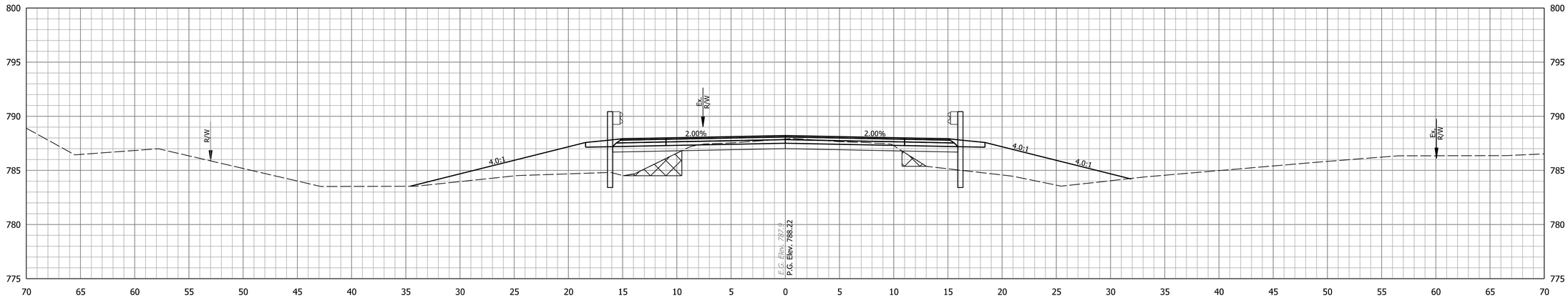
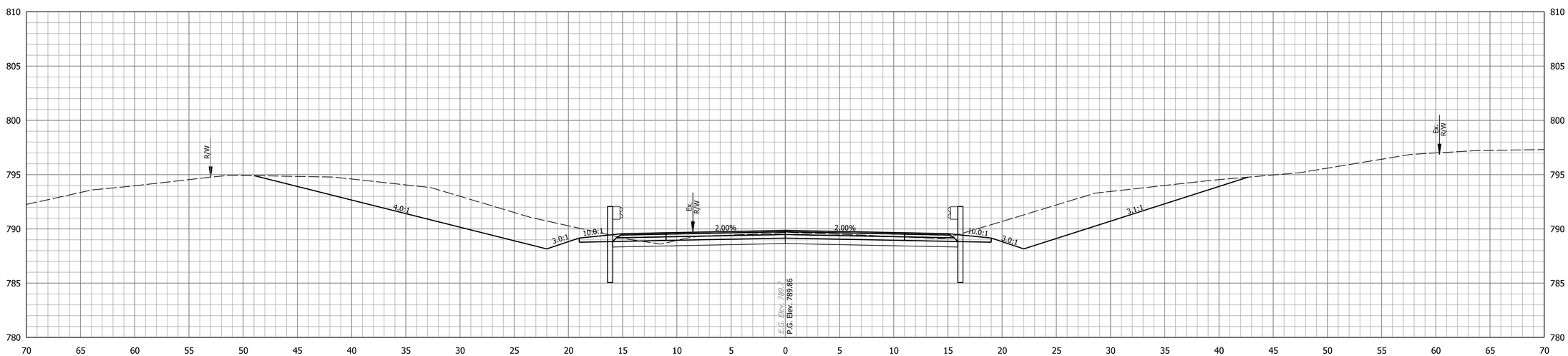


Ac = 5.7 SFT
Vc = 63 CYS

Af = 75.3 SFT
Vf = 35 CYS

Abench = 7.1 SFT
Vbench = 3 CYS

19+75.00



Ac = 131.2 SFT
Vc = 135 CYS

Af = 0.6 SFT
Vf = 0 CYS

Abench = 0.0 SFT
Vbench = 0 CYS

19+50.00

STA. 19+50.00 TO STA. 19+75.00

Plot: 4/8/2020 1:28:37 PM By: ThomaTM Pen: Transportation.tbl

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RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: KMP
DRAWN: KTH
CHECKED: TDJ
CHECKED: KMP

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	SS NO. 23056
VERTICAL SCALE	DESIGNATION
1" = 5'	--
DRAWING NUMBER	SHEETS
of	14 of 19
CONTRACT	PROJECT
--	PB-18-0005

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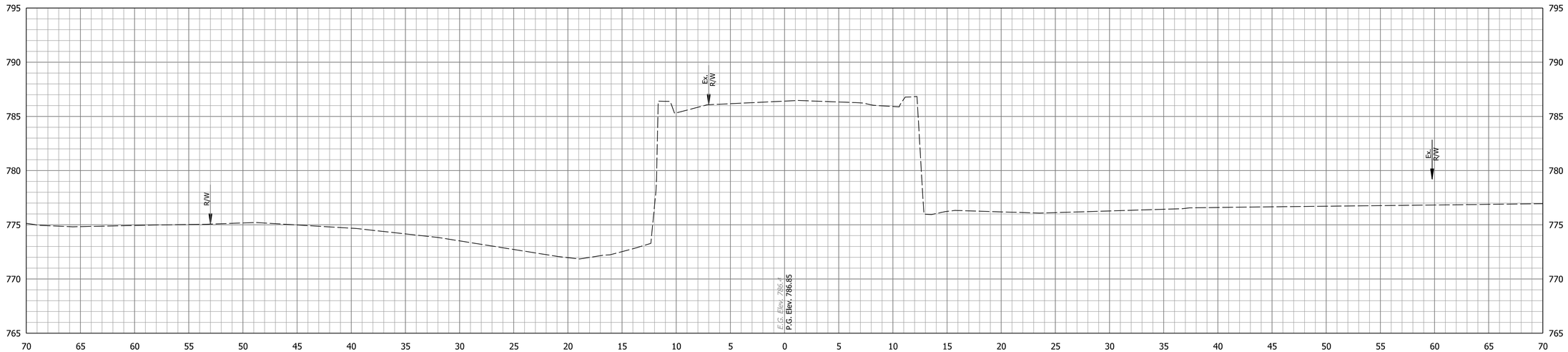
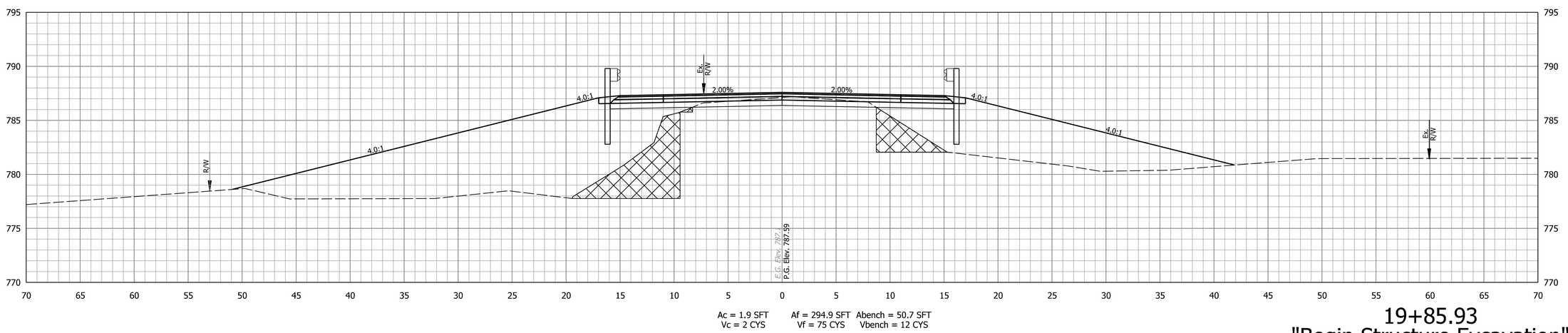


20+00.00



19+85.93
"Begin Structure Excavation"

STA. 19+85.93 TO STA. 20+00.00

Plot: 4/8/2020 1:28:39 PM By: ThomaTM Pen: Transportation.tbl

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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KMP DRAWN: KTH

CHECKED: TDJ CHECKED: KMP

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	SS NO. 23056
VERTICAL SCALE	DESIGNATION
1" = 5'	--
DRAWING NUMBER	SHEETS
of	15 of 19
CONTRACT	PROJECT
--	PB-18-0005

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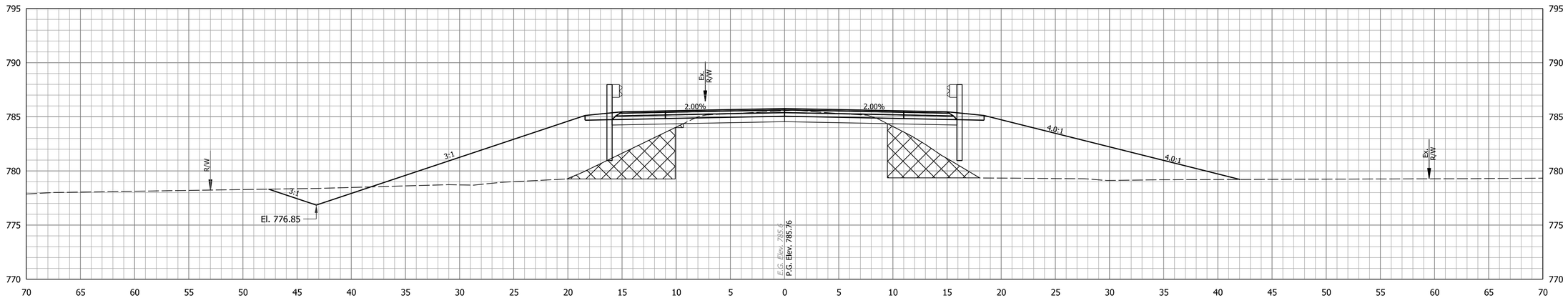
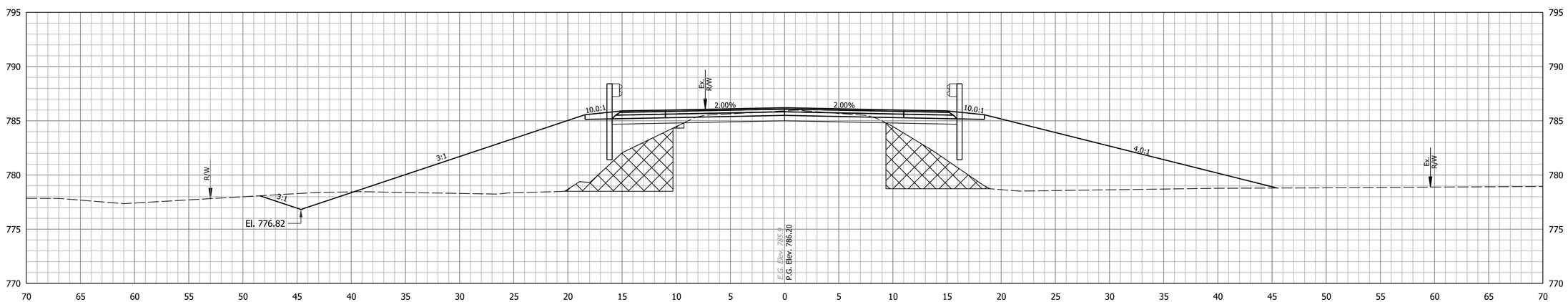


Ac = 6.2 SFT
Vc = 2 CYS

Af = 195.9 SFT
Vf = 90 CYS

Abench = 45.3 SFT
Vbench = 21 CYS

20+25.00



Ac = 4.9 SFT
Vc = 0.0 CYS

Af = 248.7 SFT
Vf = 0.0 CYS

Abench = 60.1 SFT
Vbench = 0 CYS

20+14.08
"End Structure Excavation"

STA. 20+14.08 TO STA. 20+25.00

Plot: 4/8/2020 1:28:40 PM By: ThomaTM Pen: Transportation.tbl

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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: KMP DRAWN: KTH

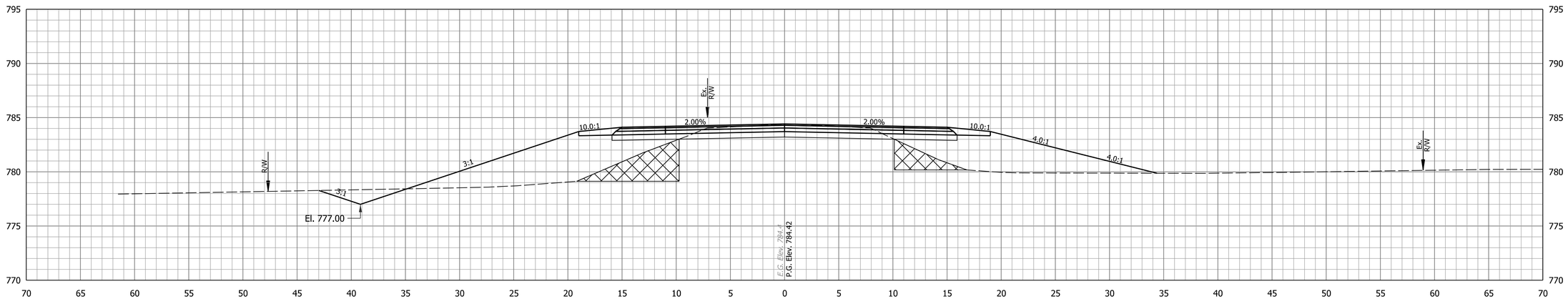
CHECKED: TDJ CHECKED: KMP

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	SS NO. 23056
VERTICAL SCALE	DESIGNATION
1" = 5'	--
DRAWING NUMBER	SHEETS
of	16 of 19
CONTRACT	PROJECT
--	PB-18-0005

Z:\Infra\2018\D181006.00 - Pennington Rd Martha Hare\CAD\Production Drawings\07_D181006.00_Cross Sections.dgn

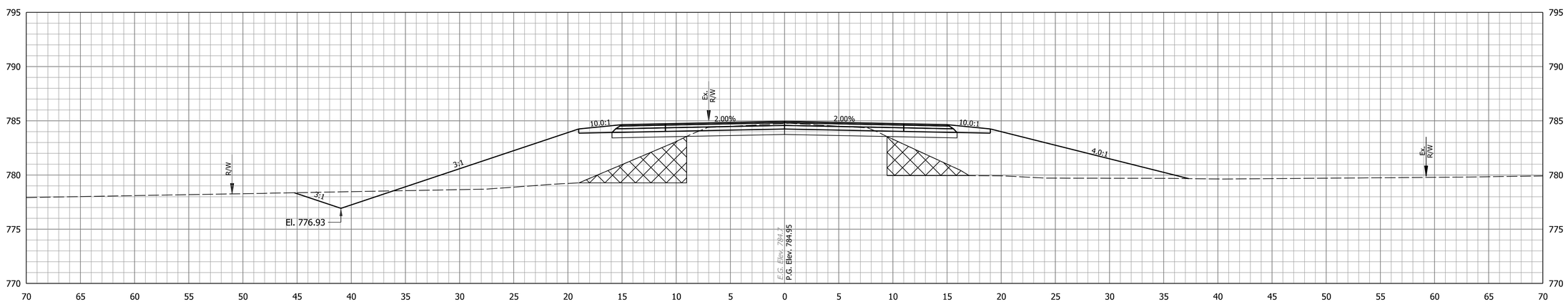


Ac = 9.6 SFT
Vc = 7 CYS

Af = 122.2 SFT
Vf = 127 CYS

Abench = 27.9 SFT
Vbench = 29 CYS

20+75.00



Ac = 6.2 SFT
Vc = 6 CYS

Af = 151.2 SFT
Vf = 161 CYS

Abench = 35.1 SFT
Vbench = 37 CYS

20+50.00

STA. 20+50.00 TO STA. 20+75.00

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INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	SS NO. 23056
VERTICAL SCALE	DESIGNATION
1" = 5'	--
DRAWING NUMBER	SHEETS
of	17 of 19
CONTRACT	PROJECT
--	PB-18-0005

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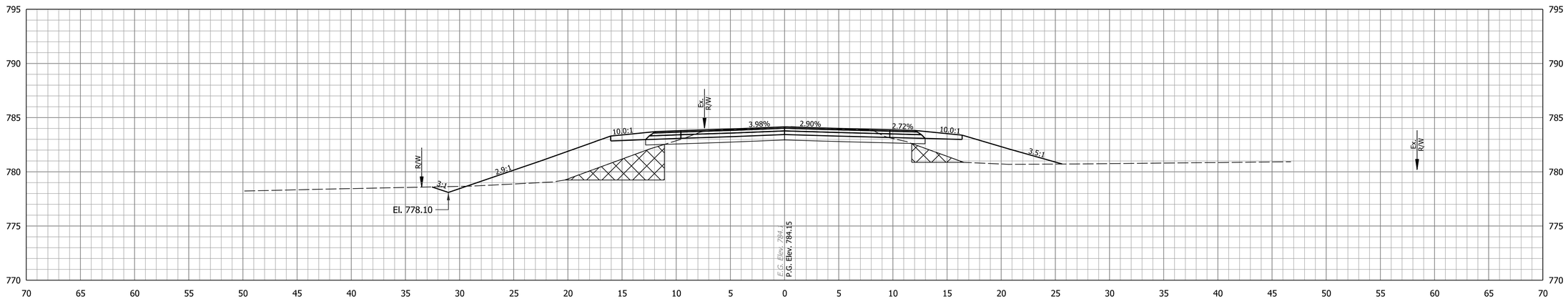
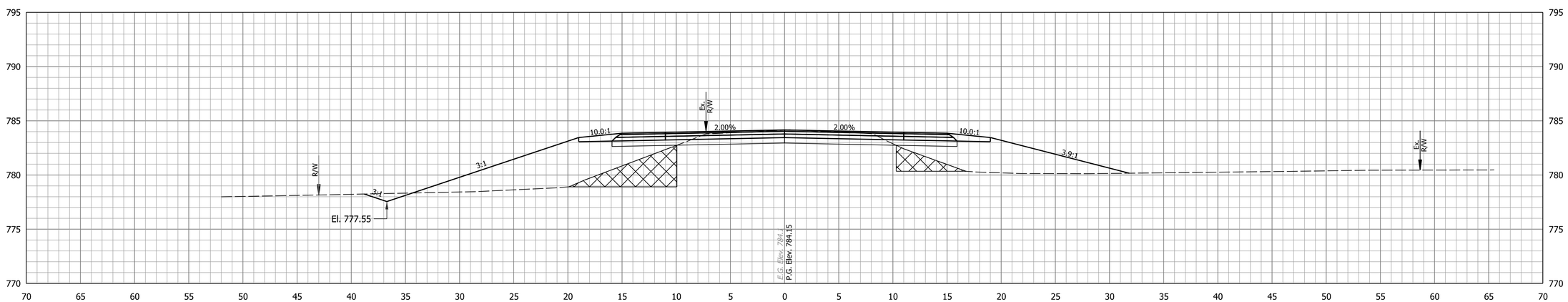


Ac = 11.5 SFT
Vc = 10 CYS

Af = 47.2 SFT
Vf = 69 CYS

Abench = 19.6 SFT
Vbench = 22 CYS

21+25.00



Ac = 10.0 SFT
Vc = 9 CYS

Af = 102.2 SFT
Vf = 104 CYS

Abench = 27.0 SFT
Vbench = 25 CYS

21+00.00

STA. 21+00.00 TO STA. 21+25.00

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INDIANA
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CROSS SECTIONS
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	SS NO. 23056
VERTICAL SCALE	DESIGNATION
1" = 5'	--
DRAWING NUMBER	SHEETS
of	18 of 19
CONTRACT	PROJECT
--	PB-18-0005

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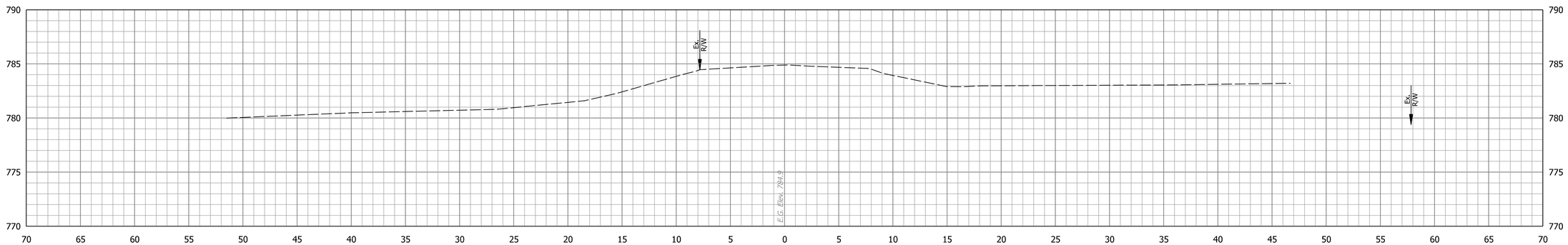
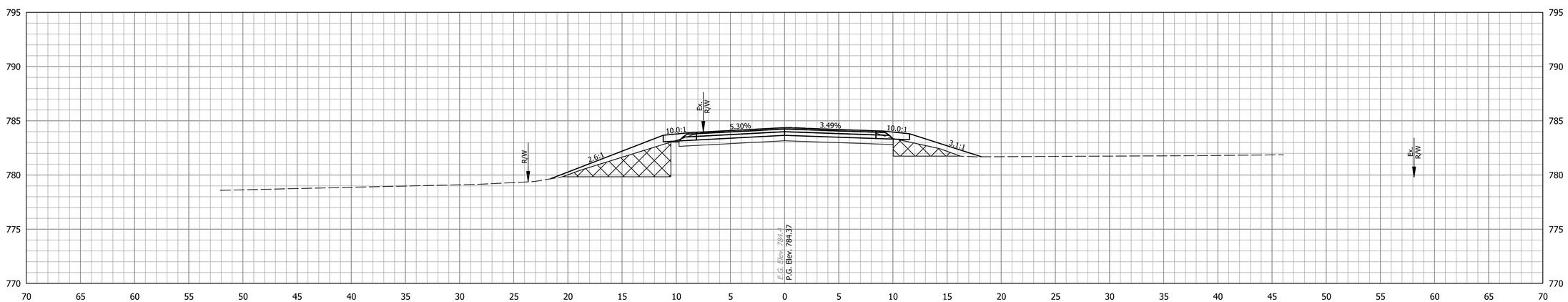


Ac = 0.0 SFT
Vc = 6 CYS

Af = 0.0 SFT
Vf = 3 CYS

Abench = 0.0 SFT
Vbench = 10 CYS

21+75.00



Ac = 12.7 SFT
Vc = 11 CYS

Af = 7.3 SFT
Vf = 25 CYS

Abench = 22.0 SFT
Vbench = 19 CYS

21+50.00

STA. 21+50.00 TO STA. 21+75.00

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INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	SS NO. 23056
VERTICAL SCALE	DESIGNATION
1" = 5'	--
DRAWING NUMBER	SHEETS
of	19 of 19
CONTRACT	PROJECT
--	PB-18-0005

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