

PROJECT	DESIGNATION
2101684	2101684
CONTRACT	BRIDGE FILE
B-44309	91-00237 B

STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
91-00237 B	Continuous Reinforced Concrete Slab Bridge	3 Spans: 40'-0", 40'-0" & 40'-0" Skew: 35°00'00" Rt.	Moots Creek	13+50.00 Line "A"

INDIANA DEPARTMENT OF TRANSPORTATION



BRIDGE PLANS FOR SPANS OVER 20 FEET

ROUTE: CR 150 WEST

PROJECT NO. 2101684 P.E.
2101684 CONST.
2101684 R/W

Bridge Replacement on CR 150 W over Moots Creek
Located 0.02 miles south of CR 950 S
Section 17, T-25-N, R-4-W, Prairie Township, White County, Indiana



Approved By: White County Board of Commissioners

Steven Burton (President - District 1) _____ Date _____

James B. Davis (District 2) _____ Date _____

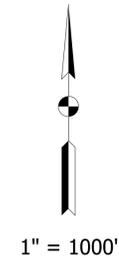
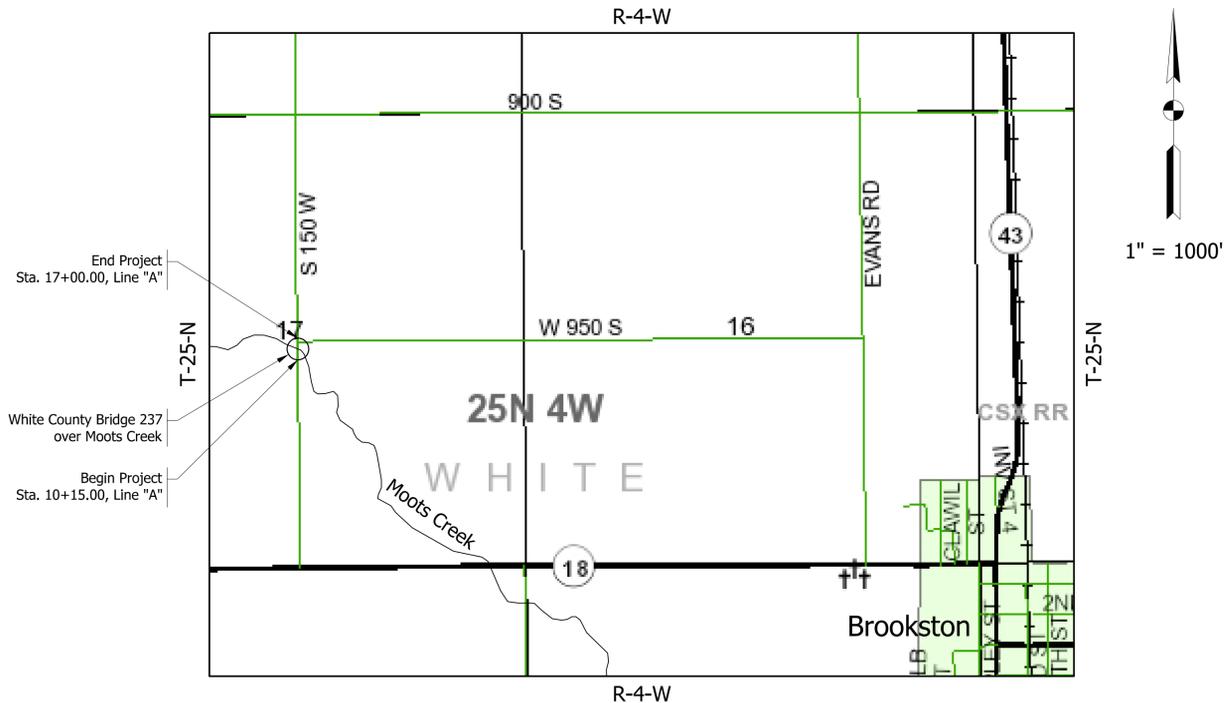
Michael R. Smolek (District 3) _____ Date _____

Attest:

Elizabeth Billue (Auditor) _____ Date _____

Recommended for Approval:

Mike Kyburz (Highway Superintendent)
Employee in Responsible Charge (ERC) _____ Date _____



TRAFFIC DATA		
A.A.D.T. (2027)		120 V.P.D.
A.A.D.T. (2047)		160 V.P.D.
D.H.V (2047)		16 V.P.H.
DIRECTIONAL DISTRIBUTION		50 %
TRUCKS		5% A.A.D.T. N/A D.H.V.

DESIGN DATA	
DESIGN SPEED	55 M.P.H.
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	LOCAL ROAD
RURAL/URBAN	RURAL
TERRAIN	LEVEL
ACCESS CONTROL	NONE



LATITUDE: 40° 36' 43.6" N LONGITUDE: 86° 53' 53.7" W

BRIDGE LENGTH:	0.023 MI.
ROADWAY LENGTH:	0.107 MI.
TOTAL LENGTH:	0.130 MI.
MAX. GRADE:	2.000 %

HUC: 051201061308

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



INDIANAPOLIS - TERRE HAUTE
LAFAYETTE - MUNCIE - NEW ALBANY
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11/2024

PLANS PREPARED BY:	HWC Engineering	(317) 347-3663
		PHONE NUMBER
CERTIFIED BY:	_____	DATE
APPROVED FOR LETTING:	INDIANA DEPARTMENT OF TRANSPORTATION	DATE

BRIDGE FILE	
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REVISION	SHEETS
N/A	1 of 17
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B-44309	2101684

UTILITIES

POWER: CARROLL WHITE REMC
119 FRANKLIN ST.
DELPHI, IN 46923
TRAVIS CURTS
(574) 583-0251
TCURTS@CWREMC.COOP

COMMUNICATIONS: BRIGHTSPEED
ERIC FLORY
(419) 579-7089
ERIC.FLORY@BRIGHTSPEED.COM

INDIANA UNDERGROUND PLANT PROTECTION SERVICE, INC.



Per Indiana State Law IC-8-1-26-16, It is against the law to excavate without notifying the underground location service two (2) working days before commencing work.

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

Note: Utility Locations are shown based upon information (maps and paint marks) supplied by others, and there is no guarantee of the accuracy or completeness of said locations.

INDEX

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1	TITLE SHEET
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4	MAINTENANCE OF TRAFFIC
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7	EROSION CONTROL
8	LAYOUT
9	GENERAL PLAN
10	BRIDGE SUMMARY
11 - 12	ROAD SUMMARY
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REVISIONS

SHEET NO.	DATE	REVISED

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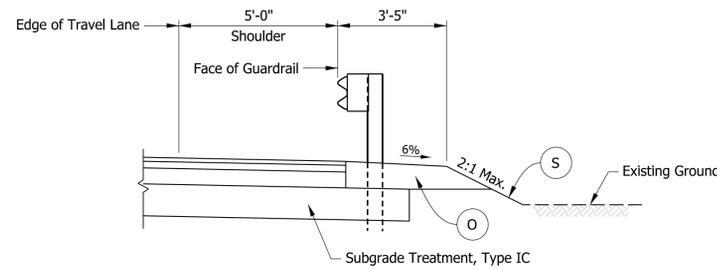
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RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: LS 11/2024	DRAWN: AJ 11/2024	
CHECKED: JI 11/2024	CHECKED: JI 11/2024	

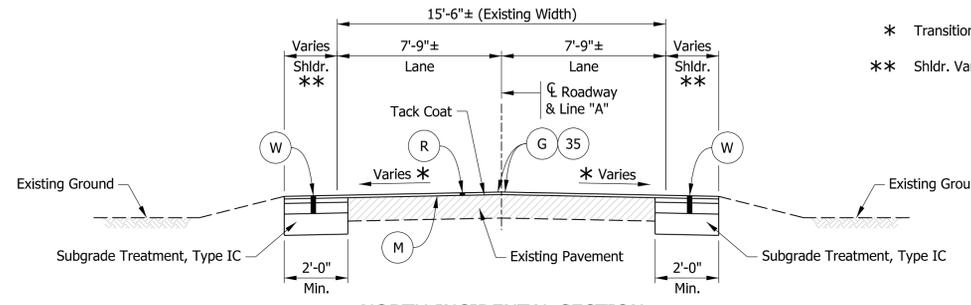
INDIANA
DEPARTMENT OF TRANSPORTATION

INDEX

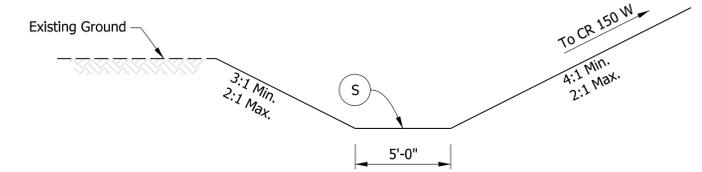
SCALE	BRIDGE FILE
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	2101684
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CONTRACT	PROJECT
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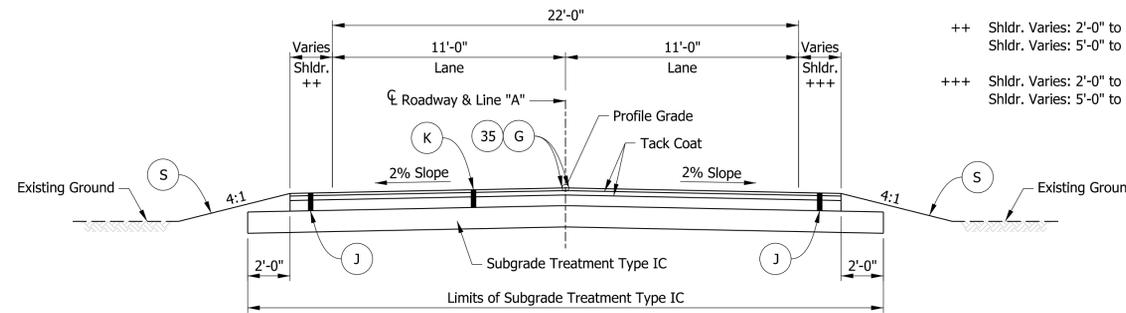
TYPICAL GUARDRAIL SECTION
 Scale: $\frac{3}{8}$ " = 1'-0"
 Sta. 11+25.00 to Sta. 12+57.51, Rt.
 Sta. 12+30.00 to Sta. 12+57.51, Lt.
 Sta. 14+42.49 to Sta. 16+00.00, Lt.



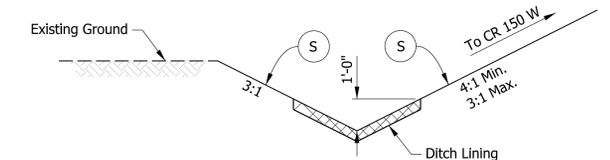
NORTH INCIDENTAL SECTION
 Scale: $\frac{1}{4}$ " = 1'-0"
 Sta. 17+00.00 to Sta. 17+65.00, Line "A"



TYPICAL FLAT-BOTTOM DITCH SECTION
 Scale: $\frac{3}{8}$ " = 1'-0"
 Sta. 14+50.00 to Sta. 17+50.00, Lt.



TYPICAL FULL DEPTH SECTION
 Scale: $\frac{1}{4}$ " = 1'-0"
 Sta. 10+15.00 to Sta. 12+57.51, Line "A"
 Sta. 14+42.49 to Sta. 17+00.00, Line "A"



TYPICAL V-DITCH SECTION
 Scale: $\frac{3}{8}$ " = 1'-0"
 Sta. 9+75.00 to Sta. 13+00.00, Lt.

LEGEND

- (D) 165 lb/syd QC/QA-HMA, 3, 58S, Surface 9.5 mm on HMA for Approaches, Type B, consisting of 275 lb/syd HMA, Intermediate, Type B on 6" Compacted Aggregate No. 53, on Subgrade Treatment, Type II
- (J) 165 lb/syd QC/QA-HMA, 3, 58S, Surface 9.5 mm on 275 lb/syd QC/QA-HMA, 3, 58S, Intermediate 19.0 mm on 660 lb/syd QC/QA-HMA, 3, 58S, Base 25.0 mm on Subgrade Treatment, Type IC
- (K) 165 lb/syd QC/QA-HMA, 3, 58S, Surface 9.5 mm on 275 lb/syd QC/QA-HMA, 3, 58S, Intermediate 19.0 mm on 660 lb/syd QC/QA-HMA, 3, 58S, Base 25.0 mm on Subgrade Treatment, Type IC
- (M) Transition Milling
- (N) 12" Compacted Aggregate for Surface No. 53
- (O) Variable-Depth Compacted Aggregate No. 53
- (R) 165 lb/syd QC/QA-HMA, 3, 58S, Surface 9.5 mm
- (S) Mulched Seeding, R and Erosion Control Blankets
- (W) 165 lb/syd QC/QA-HMA, 3, 58S, Surface 9.5 mm on Widening with HMA, Type B, consisting of 275 lb/syd HMA, Intermediate, Type B on 660 lb/syd HMA, Base, Type B on Subgrade Treatment, Type IC
- (35) Line, Multi-Component, Solid, Yellow, 4 in.
- (G) Grooving for Pavement Markings

- * Transition Cross Slope to match existing at End of Incidental Construction
- ** Shldr. Varies: 5'-3" to 0'-0", Sta. 17+00.00 to Sta. 17+65.00 Lt. & Rt.

- ++ Shldr. Varies: 2'-0" to 5'-0", Sta. 11+65.00 Lt. to Sta. 12+30.00 Lt. Shldr. Varies: 5'-0" to 2'-0", Sta. 16+00.00 Lt. to Sta. 16+65.00 Lt.
- +++ Shldr. Varies: 2'-0" to 5'-0", Sta. 10+60.00 Rt. to Sta. 11+25.00 Rt. Shldr. Varies: 5'-0" to 2'-0", Sta. 14+75.00 Rt. to Sta. 15+40.00 Rt.

- * Transition Cross Slope to match existing at End of Incidental Construction
- ** Shldr. Varies: 0'-0" to 4'-6", Sta. 9+75.00 to Sta. 10+15.00 Lt. & Rt.

NOTES

1. For additional information, see Roadway Construction Details on sheet 6.
2. Tack Coat shall be applied between all layers of Asphalt.
3. Longitudinal Joint Adhesive is required for Surface and Intermediate layers of Asphalt.
4. Liquid Asphalt Sealant is required on Surface layer over Longitudinal Joint applied at 24" width.

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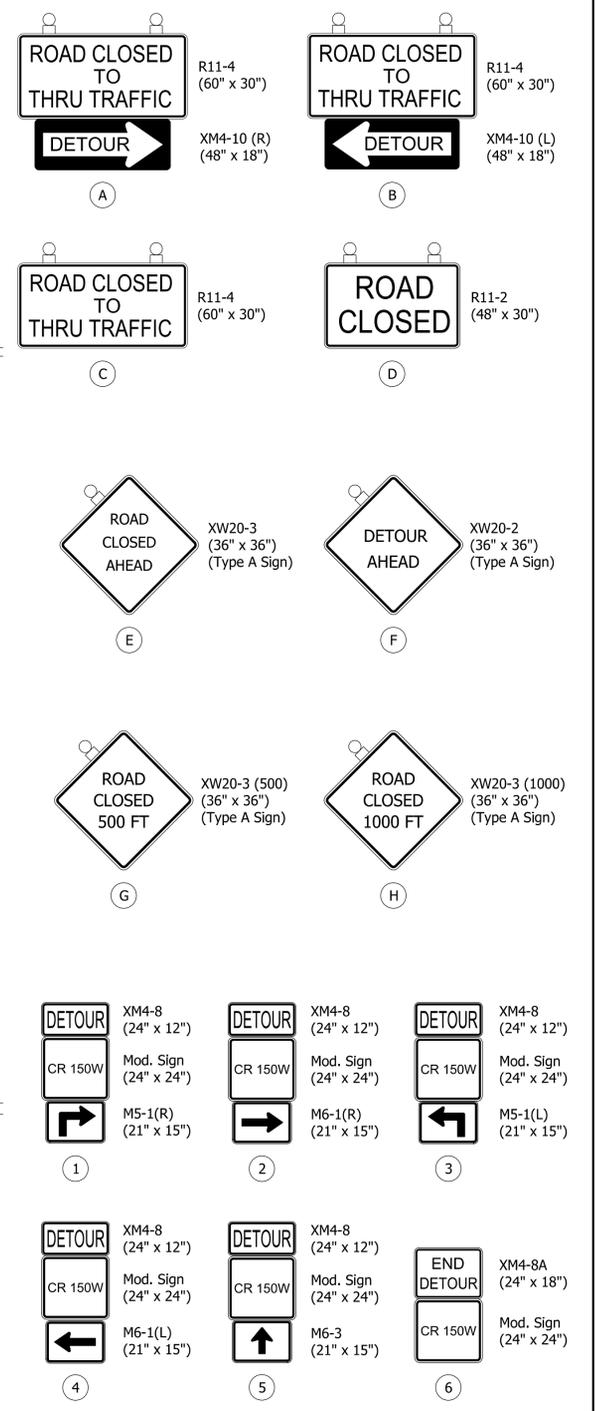
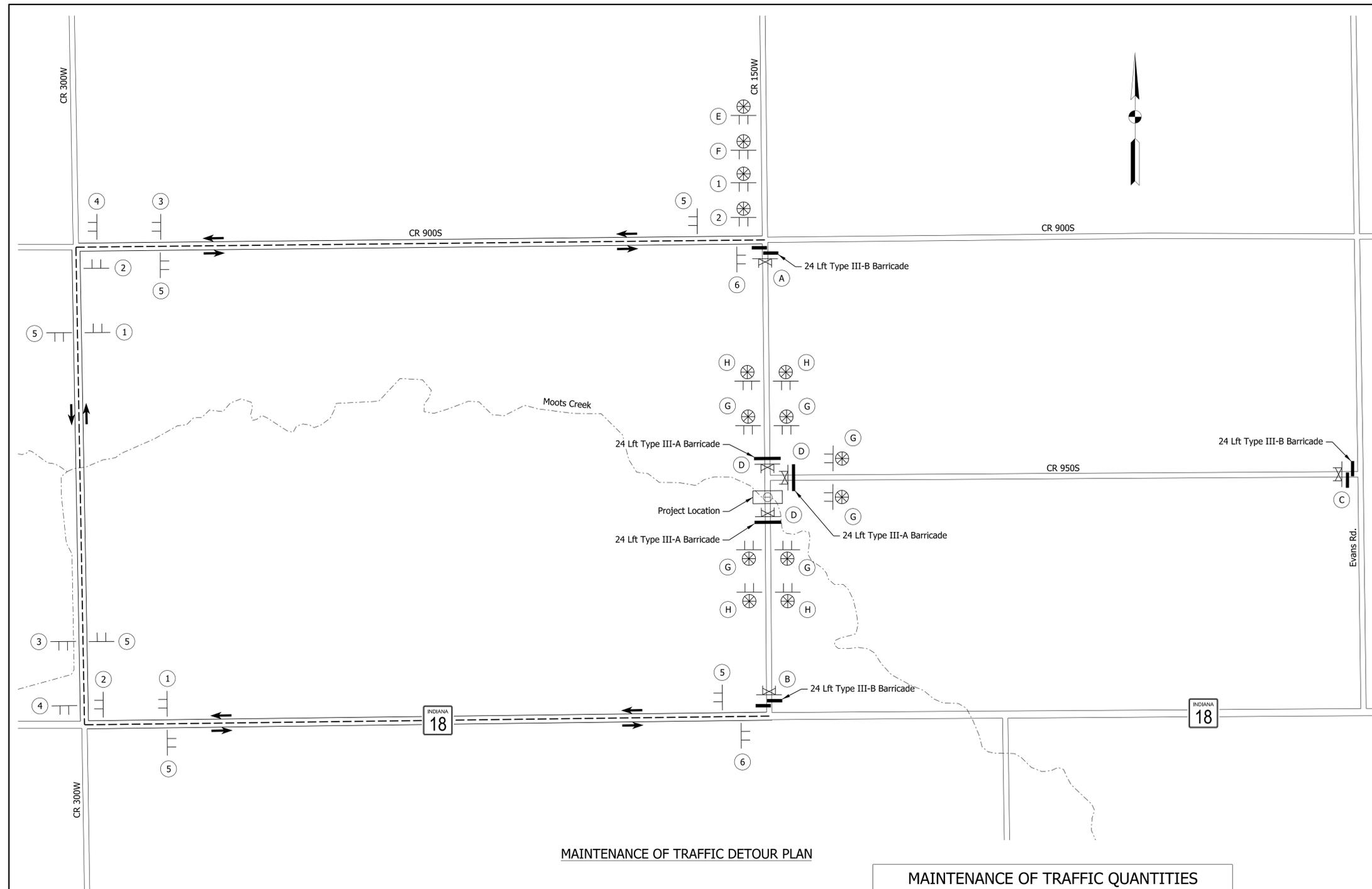
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CHECKED: JI	11/2024	CHECKED: JI

INDIANA
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TYPICAL CROSS SECTIONS

SCALE	BRIDGE FILE
AS NOTED	91-00237 B
	DESIGNATION
	2101684
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MAINTENANCE OF TRAFFIC DETOUR PLAN

MAINTENANCE OF TRAFFIC QUANTITIES			
Designation	Item	Unit	Quantity
A B C D	Road Closure Sign Assembly	Each	6
E F G H	Construction Sign, Type A ##	Each	14
1 2 3 4 5 6	Detour Route Sign Assembly	Each	18
	Barricade, Type III-A	Lft	72
	Barricade, Type III-B	Lft	72

Quantity includes 2 XG20-5 Route Closure Notice Signs (Locations shall be determined by Project Engineer in the field)

LEGEND

- Detour Traffic Arrows
- Route of Detour Traffic
- Railroad
- Waterway
- Construction Sign or Detour Assembly and Supports with Low Intensity Construction Warning Light, Type A
- Typical Sign Standard (Detour Route Marker Assembly)
- Typical Sign Standard (Road Closure Assembly)
- Standard Type III-A Barricade as Required
- Standard Type III-B Barricade as Required

NOTES

- Detour signage shall be placed in accordance with INDOT Specifications. For additional details, see Standard Drawing E-801-TCDDT-01.
- Advanced notice of closure (XG20-5 signs) shall be placed at least 7 days prior to start of construction.
- Directional Detour signs assemblies shall be located 100 ft. to 200 ft. in advance of all required turns within the Detour limits.
- Confirming Detour sign assemblies shall be located 200 ft. after all required turns as well as not be spaced by more than 3 miles within the Detour limits.
- Detour signage locations may not be shown to scale and should be confirmed in the field by Contractor.
- Access to private drives shall be available at all times during construction.

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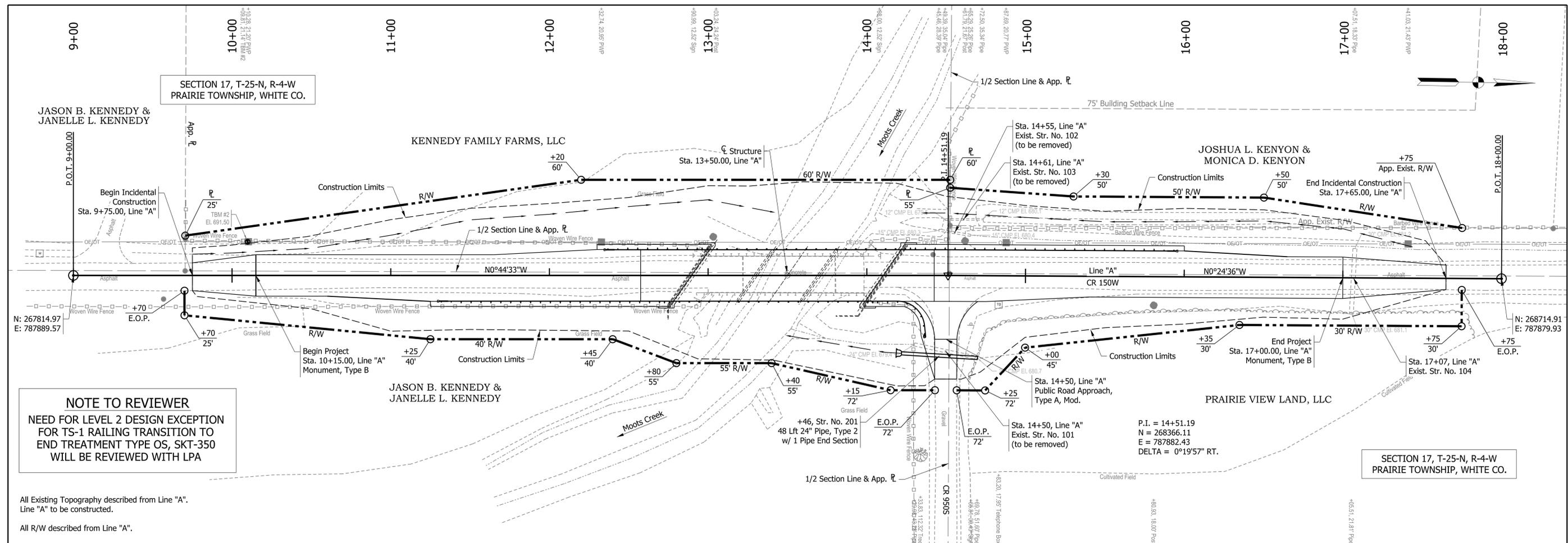
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MAINTENANCE OF TRAFFIC

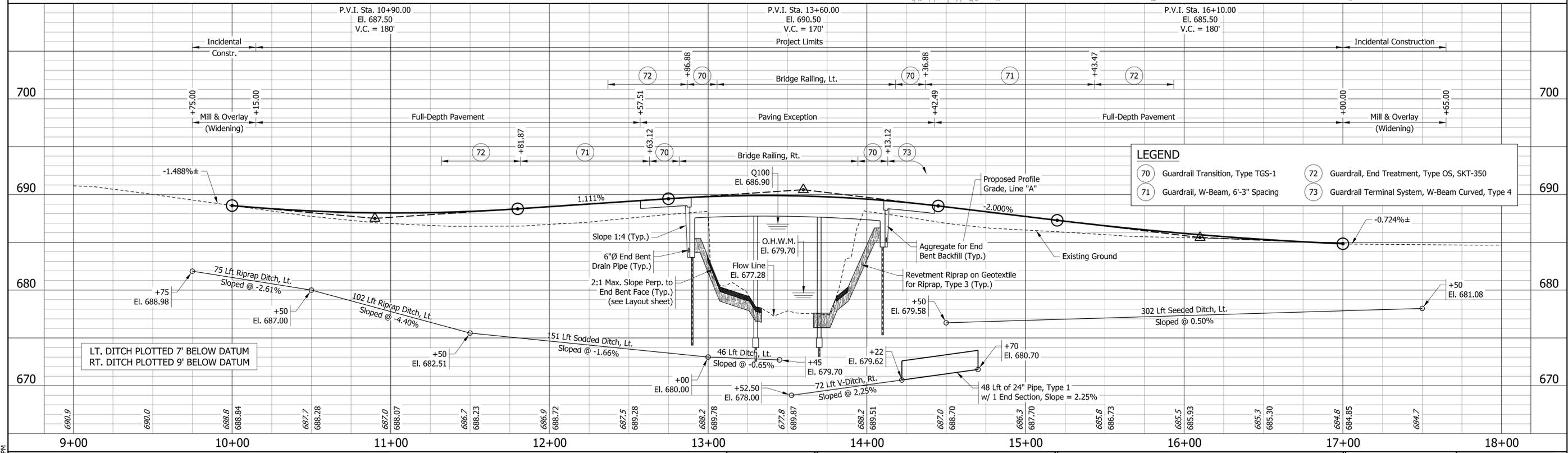
SCALE	BRIDGE FILE
1" = 600'	91-00237 B
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NOTE TO REVIEWER
 NEED FOR LEVEL 2 DESIGN EXCEPTION
 FOR TS-1 RAILING TRANSITION TO
 END TREATMENT TYPE OS, SKT-350
 WILL BE REVIEWED WITH LPA

All Existing Topography described from Line "A".
 Line "A" to be constructed.
 All R/W described from Line "A".

P.I. = 14+51.19
 N = 268366.11
 E = 787882.43
 DELTA = 0°19'57" RT.



LEGEND

70	Guardrail Transition, Type TGS-1	72	Guardrail, End Treatment, Type OS, SKT-350
71	Guardrail, W-Beam, 6'-3" Spacing	73	Guardrail Terminal System, W-Beam Curved, Type 4

NOTE TO REVIEWER
 SURVEY REFERENCE TIES WILL BE
 PROVIDED IN FUTURE SUBMISSION



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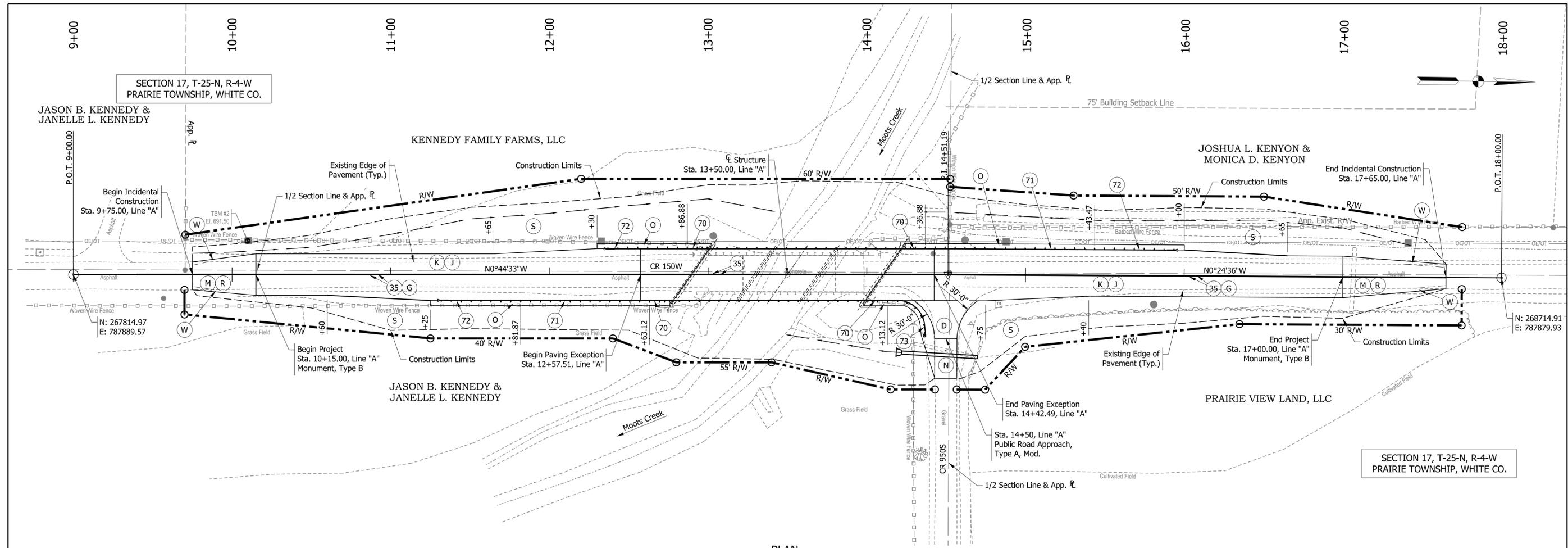
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 PLAN & PROFILE

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	91-00237 B
VERTICAL SCALE	DESIGNATION
1" = 5'	2101684
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PLAN
Scale: 1" = 30'

LEGEND

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- (35) Line, Multi-Component, Solid, Yellow, 4 in.
- (G) Grooving for Pavement Markings
- (70) Guardrail Transition, Type TGS-1
- (71) Guardrail, W-Beam, 6'-3" Spacing
- (72) Guardrail, End Treatment, Type OS, SKT-350
- (73) Guardrail Terminal System, W-Beam Curved, Type 4

NOTES

1. For additional information, see Typical Cross Sections on sheet 3.
2. Pavement Widening shown shall be a minimum of 2 ft. wide.
3. Tack Coat shall be applied between all layers of Asphalt.
4. Longitudinal Joint Adhesive is required for Surface and Intermediate layers of Asphalt.
5. Liquid Asphalt Sealant is required on Surface layer over Longitudinal Joint applied at 24" width.

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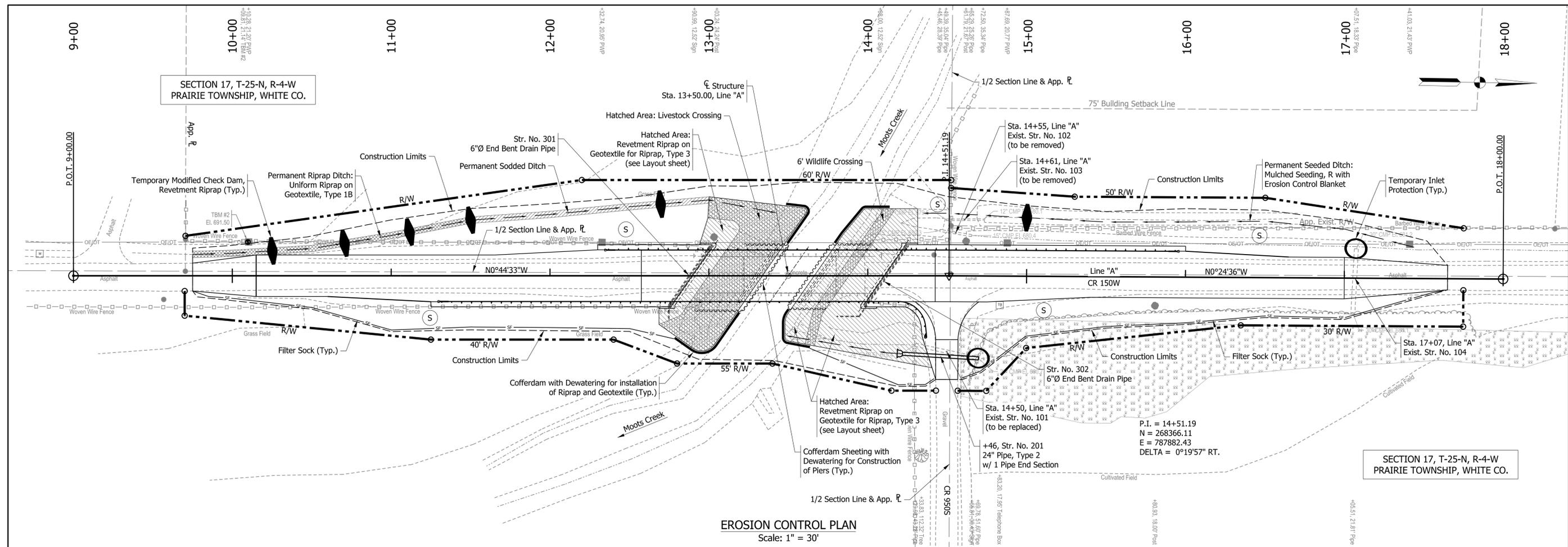
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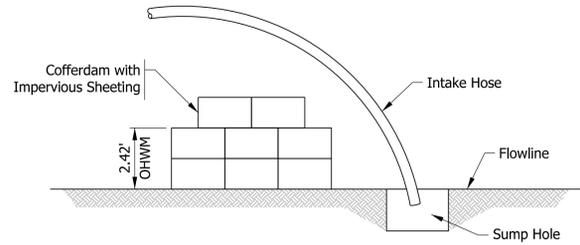
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ROADWAY CONSTRUCTION DETAILS	

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AS NOTED	91-00237 B
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EROSION CONTROL PLAN
Scale: 1" = 30'

TEMPORARY PERIMETER PROTECTION QUANTITIES			
Stations	Lt. / Rt.	Quantity (Lft)	
9+75 to 12+78	Rt.	310	
13+64 to 14+41	Rt.	85	
14+59 to 17+65	Rt.	320	
Total:		715	



COFFERDAM / SUMP HOLE WORK AREA DETAIL
Not to Scale

LEGEND

- Sodded Ditch
- Riprap Ditch
- Direction of Ditch Flow
- Temporary Inlet Protection (see note 1)
- Temporary Modified Check Dam, Revetment Riprap (see note 2)
- Perimeter Protection as noted (Filter Sock or equivalent, see note 3)
- Mulched Seeding, R and Erosion Control Blankets (see Erosion Control note A)

TEMPORARY EROSION CONTROL QUANTITIES	
Item	Quantity Totals
Perimeter Protection (Filter Sock or equivalent)	715.0 Lft
No. 2 Stone	100.0 Ton
Temporary Check Dam, Revetment Riprap	24.0 Ton
Temporary Filter Stone	6.0 Ton
Temporary Geotextile	295.0 Sys
Temporary Inlet Protection	2 Each
Temporary Mulch	2.3 Ton
Temporary Seed	135 Lbs

EROSION CONTROL NOTES

- A. Erosion Control Blanket shall be placed on all graded slopes 3:1 and steeper and in concentrated flow areas to be seeded.
- B. Permanent Seeding and Mulching to be placed on all disturbed areas, unless noted otherwise.
- C. Temporary Seeding shall take place on all disturbed areas that are expected to be inactive for more than seven days.
- D. Re-use Riprap from Temporary Modified Check Dams for ditch construction to greatest extent possible. Temporary Modified Check Dams are only needed when Erosion Resistant Linings are not in place downstream of the Check Dam, except for the most downstream Check dam. Erosion Resistant Linings include Riprap or Sod.

NOTES

1. For additional guidance for Temporary Inlet Protection, see INDOT Std. Dwg. E 205-TECD-02.
2. For additional guidance for Temporary Modified Check Dam with Revetment Riprap, see INDOT Std. Dwg. E 205-TECD-06.
3. For additional guidance for Temporary Perimeter Protection with Filter Sock, see INDOT Std. Dwg. E 205-TECD-10.
4. For additional guidance for Temporary Erosion Control Perimeter Construction Entrance, see INDOT Std. Dwg. E 205-TECD-12.

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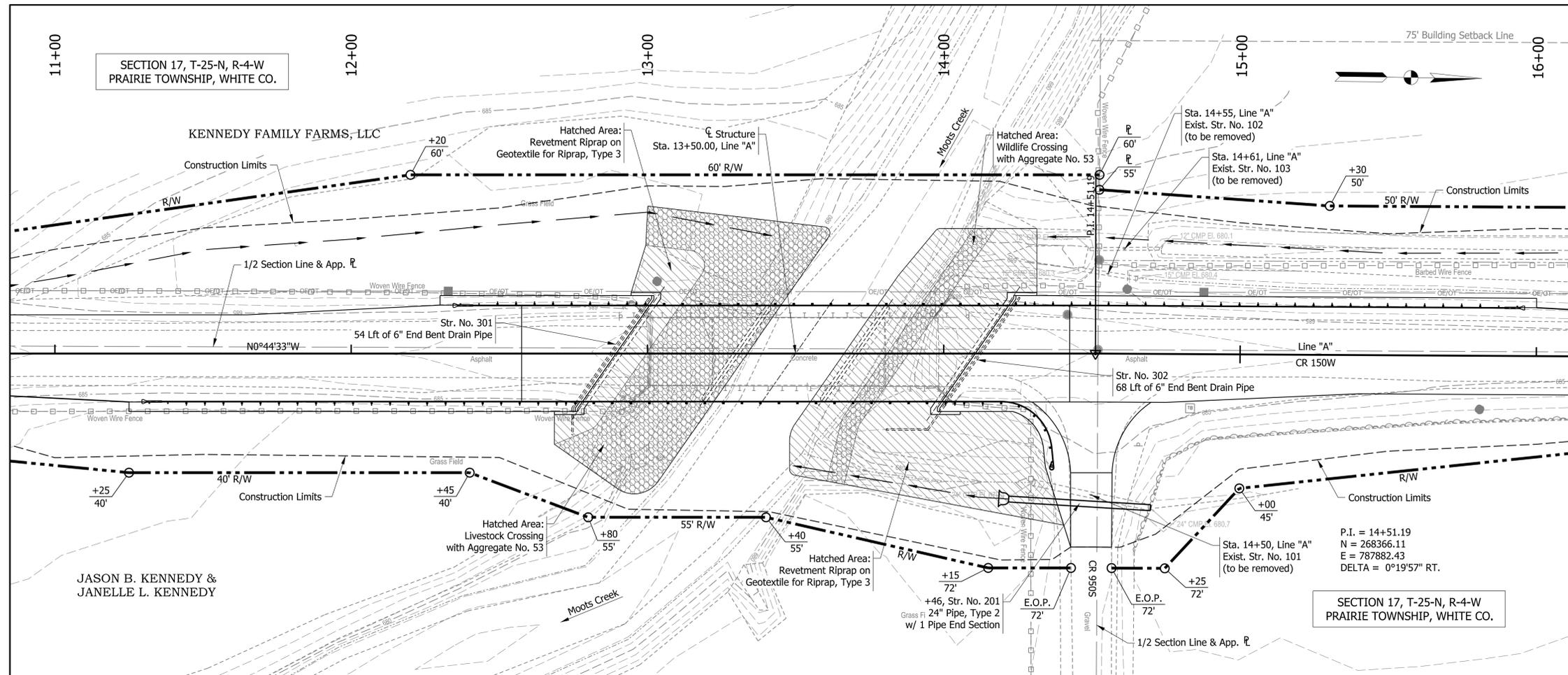
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INDIANA DEPARTMENT OF TRANSPORTATION
EROSION CONTROL DETAILS

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EXISTING STRUCTURE
 Existing Structure is a three-span (18'-0", 58'-0", 22'-0") bridge consisting of precast adjacent concrete box beams, concrete abutments and open pile bent piers, built in 1932, and reconstructed in 1964. Existing structure to be removed.

HYDRAULIC DATA

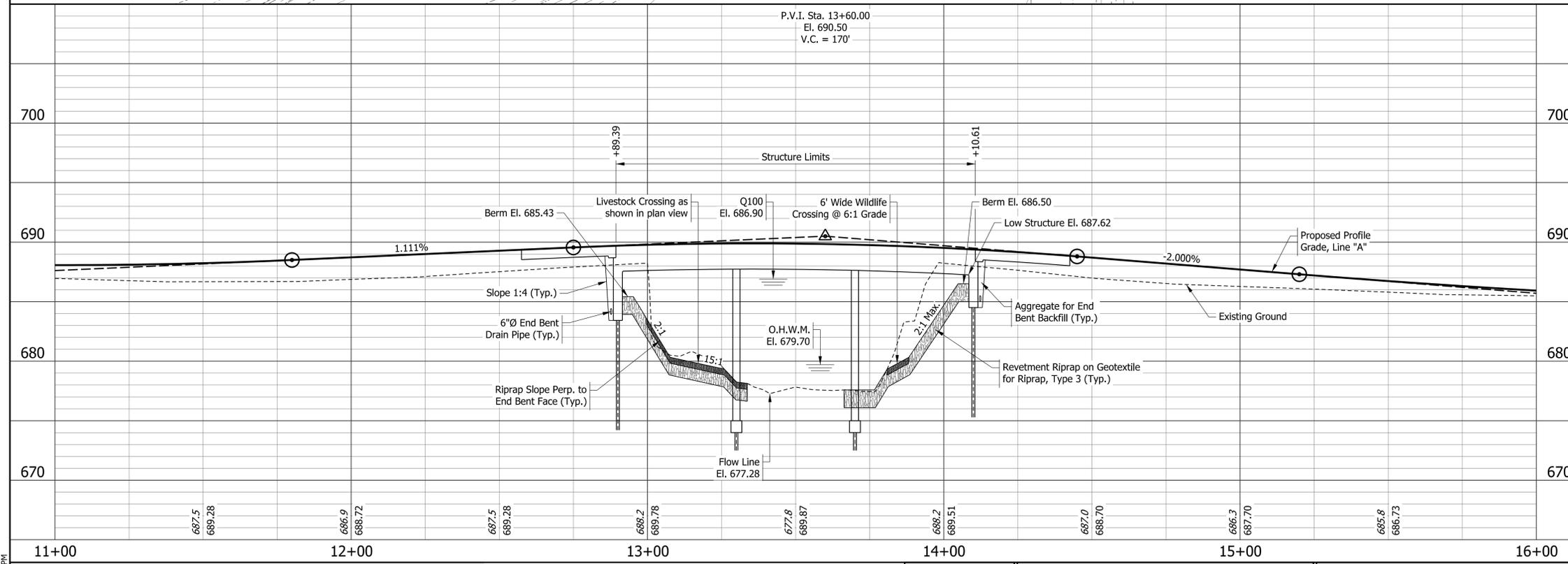
Drainage Area Upstream	24.72	sq mi
Q100 Discharge Upstream	3700	cfs
Q500 Discharge Upstream	4995	cfs
Proposed Q100 Headwater Elevation	686.90	ft
Existing Q100 Headwater Elevation	686.90	ft
Proposed Q100 Elevation	686.83	ft
Existing Q100 Elevation	686.83	ft
Proposed Q100 Backwater	0.19	ft
Existing Q100 Backwater	0.19	ft
Proposed Gross Waterway Area Opening Below Q100	3022.15	sq ft
Existing Gross Waterway Area Opening Below Q100	750.59	sq ft
Proposed Q100 Average Velocity	1.92	ft/sec
Existing Q100 Average Velocity	1.78	ft/sec
Proposed Q100 Maximum Velocity	2.97	ft/sec
Existing Q100 Maximum Velocity	2.43	ft/sec
Proposed Q100 Road Overflow Area	0.00	sq ft
Existing Q100 Road Overflow Area	0.00	sq ft
Proposed Low Structure Elevation	687.62	ft
Existing Low Structure Elevation	686.08	ft
Proposed Skew to Flowline of Waterway	0	deg
Existing Skew to Flowline of Waterway	35	deg

HYDRAULIC SCOUR DATA

	Q100	Q500
Discharge	3700 cfs	4995 cfs
Contraction Scour Depth	0.76 ft	0.56 ft
Pier Scour Depth	1.92 ft	2.03 ft
Total Scour Depth	2.68 ft	2.59 ft
Flow Line Elevation	677.28 ft	677.28 ft
Low Scour Elevation	674.60 ft	674.69 ft
Maximum Velocity	2.97 ft/sec	2.47 ft/sec
D ₅₀ (assumed)	0.01 mm	0.01 mm

EARTHWORK TABULATION

Fill +20%	XXX	Cys
Common Excavation	XXX	Cys
Rock Excavation	XXX	Cys
Foundation Excavation, Unclassified (70% reusable)	XXX	Cys
Total Waterway Excavation	XXX	Cys
Borrow	XXX	Cys
B-Borrow	XXX	Cys
Benching (Estimated)	XXX	Cys



CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE
 3 SPANS: 40'-0", 40'-0", 40'-0"
 32'-0" CLEAR ROADWAY; 35°00'00" SKEW, RT.
 CR 150 W OVER MOOTS CREEK
 WHITE COUNTY, IN

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 DESIGN ENGINEER _____ DATE _____

DESIGNED: LS 11/2024 DRAWN: AJ 11/2024
 CHECKED: JI 11/2024 CHECKED: JI 11/2024

INDIANA DEPARTMENT OF TRANSPORTATION

LAYOUT

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	91-00237 B
VERTICAL SCALE	DESIGNATION
1" = 5'	2101684
SURVEY BOOK	SHEETS
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SUMMARY OF BRIDGE QUANTITIES

ITEM	CONCRETE			BRIDGE RAILING STEEL, TYPE TS-1 LFT	BRIDGE RAILING TRANSITION, TYPE TGS-1 LFT	REINF. BARS, GALVANIZED LBS	6'-0" TIE-BAR ASSEMBLY, GALVANIZED EACH	R.C. BRIDGE APPROACH (10") SYS	SUBBASE FOR PCCP (9") CYS	FLOWABLE BACKFILL, REMOVABLE CYS	GEOTEXTILE FOR PAVEMENT, TYPE 2B SYS	PILES										SURFACE SEAL ** SFT	
	CLASS C	CLASS A	CLASS B									STEEL PIPE (SIZE) LFT	STEEL PIPE EPOXY COATED (SIZE) LFT	STEEL HP12 x 53 LFT	STEEL HP12 x 84 LFT	PILE SHOE HP12 x 53 EACH	PILE SHOE HP12 x 84 EACH	CORED HOLE IN CONCRETE EACH	CORED HOLE IN ROCK		PILE TIP STEEL H (SIZE) EACH		STEEL H EPOXY COATED LFT
	SUPERSTR	SUBSTR	IN MUDSILL																NO.	LFT			
	CYS	CYS	CYS																				
Superstructure																							
Bent No. 1																							
Pier No. 2																							
Pier No. 3																							
Bent No. 4																							
R.C. Bridge Approach (10") at Bent No. 1																							
R.C. Bridge Approach (10") at Bent No. 4																							
Totals:	0.0	0.0	0.0	0.0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0	0

** Estimated Quantity

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DESIGNED: <u>LS</u>	<u>11/2024</u>	DRAWN: <u>AJ</u>
CHECKED: <u>JJ</u>	<u>11/2024</u>	CHECKED: <u>JJ</u>
		<u>11/2024</u>

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BRIDGE SUMMARY

SCALE	BRIDGE FILE
N/A	91-00237 B
	DESIGNATION
	2101684
SURVEY BOOK	SHEETS
N/A	10 of 17
CONTRACT	PROJECT
B-44309	2101684

PAVEMENT QUANTITIES AND APPROACH TABLE

LOCATION	LEFT	RIGHT	DESCRIPTION (APPROACH TYPE OR CLASS)	WIDTH	LENGTH	RADIUS	DISTANCE BEYOND R/W LINE	SURFACE BEYOND R/W LINE			EXCAVATION	MILLING, TRANSITION	MILLING, 1 1/2"	WIDENING WITH HMA, TYPE B	HMA FOR ROADS			SEAL COAT TYPE	ASPHALT MATERIAL FOR		COMPACTED AGGREGATE NO.53 FOR SHOULDERS & FIELD DRIVES	LIQUID ASPHALT SEALANT	JOINT ADHESIVE SURFACE	JOINT ADHESIVE INTERMEDIATE	SUBGRADE TREATMENT TYPE 1C	GEOTEXTILE FOR PAVEMENT TYPE 2B	
								COMPACTED AGGREGATE BASE	HMA	PCCP					HMA, 3, 64, SURFACE, 9.5MM	HMA, 3, 64, INT., 19.0MM	HMA, 3, 64, BASE, 25.0MM		PRIME COAT	TACK COAT							
																											CUT CYS
								TON	SYS	SYS					TONS	TONS	TONS		TONS	SYS							SYS
Line "A"																											
9+40.00 - 10+00.00																											
10+00.00 - 12+57.21																											
14+92.79 - 17+00.00																											
17+00.00 - 17+65.00																											
Totals:																											

PERMANENT EROSION CONTROL SUMMARY TABLE

LOCATION		LEFT	CROSS	RIGHT	ACTUAL LENGTH	RIPRAP DITCH			SODDING				NURSERY SODDING FOR LAWNS	SEEDING			RIPRAP, CLASS 1	GEOTEXTILES FOR RIPRAP, TYPE 1A
FROM STATION	TO STATION					CUT OFF WALLS (8 FT EQUAL LENGTH EACH)	RIPRAP, REVETMENT	RIPRAP, UNIFORM	GEOTEXTILES FOR RIPRAP, TYPE 1B	FOR PAVED SIDE DITCHES	FOR DITCHES	FOR SHOULDER BREAK		SODDING AT BRIDGE CONE	TOTAL SODDING	MULCHED SEEDING R		
		LFT	EACH	TONS	TONS	SYS	SYS	SYS	SYS	SYS	SYS	SYS	TON	TON	SYS			
Line "A"																		
9+40.00		17+65.00																
Bridge Cone @ End Bent No. 1																		
Bridge Cone @ End Bent No. 4																		
Totals:																		

GUARDRAIL SUMMARY TABLE

LOCATION		LEFT	RIGHT	W-BEAM GUARDRAIL		GUARDRAIL END TREATMENT, TYPE SKT-350	CURVED W-BEAM GUARDRAIL SYSTEM			GUARDRAIL REMOVE	REMARKS
FROM STATION	TO STATION			STANDARD POST AT 6 FT 3 IN. SPA.			TERMINAL SYSTEM	CONNECTOR SYSTEM			
		LFT	EACH	TYPE	EACH	TYPE	EACH	LFT			
Line "A"											
Totals:											

R/W MARKER TABLE

STATION	OFFSET

PAVEMENT MARKINGS SUMMARY TABLE

LOCATION	MULTI-COMPONENT		GROOVING FOR PAVEMENT MARKINGS
	4 IN. BROKEN YELLOW		
	LFT	LFT	
Line "A"			
Sta. 9+40.00 to Sta. 17+65.00			
Totals:			

MONUMENT TABLE

STATION	OFFSET	MONUMENT

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ROAD SUMMARY

SCALE	BRIDGE FILE
N/A	91-00237 B
	DESIGNATION
	2101684
SURVEY BOOK	SHEETS
N/A	11 of 17
CONTRACT	PROJECT
B-44309	2101684

STRUCTURE DATA TABLE

STRUCTURE NUMBER	LOCATION					DESCRIPTION MANHOLE, INLET, CATCH BASIN, OR SPECIALTY STRUCTURE AND TYPE	LENGTH FT	SKEW	COVER		FLOW LINE		SUMP DEPTH IN.	TOP OF CASTING ELEV.	SERVICE LIFE YRS	BACKFILL METHOD	STRUCTURE BACKFILL		GEOTEXTILES FOR RIPRAP, TYPE 1B SYS	REVTMENT RIPRAP TONS	CONCRETE, CLASS A, FOR STRUCTURES CYS	VIDEO INSPECTION LFT	PIPE END SECTION EA.	CONNECT TO STR. NO.	CULVERT ASSET ID	REMARKS			
	STATION	OFFSET FT	LEFT	CROSS	RIGHT				SIZE IN	PIPE TYPE	MIN	MAX					UP STREAM ELEV.	DOWN STREAM ELEV.									TYPE	CYS	
											FT	FT																	
	Line "A"																												
Totals:																													

PIPE MATERIAL TABLE

STRUCTURE NUMBER		201	202	203	204	
PIPE TYPE / SHAPE (CIR or DEF)		CIR	CIR	CIR	CIR	
INT. DES.	SMOOTH PIPE SIZE					
	CORRUGATED PIPE SIZE					
	SEMI-SMOOTH PIPE SIZE					
CONC.	RCP/RCHEP (S)					
	CLASS D 0.01 RATING					
PLASTIC PIPE	NON-REINFORCED CONCRETE PIPE, CLASS 3 (S)					
	CORRUGATED PE PIPE, TYPE S (S)*					
	PROFILE WALL (RIBBED) PE PIPE (S)*					
	PROFILE WALL (CLOSED) PE PIPE (S)*					
	SMOOTH WALL PE PIPE (S)* / MAXIMUM DR					
	CORRUGATED PP PIPE (S)					
	PROFILE WALL PVC PIPE (S)					
	SMOOTH WALL PVC PIPE (S)*					
CLAY	VITRIFIED CLAY PIPE, EXTRA STRENGTH (S)					
CORRUGATED STEEL PIPE / PIPE-ARCH	FULLY BIT. PAVED & LINED (S)	CORR. PROFILE THICKNESS				
	ZINC COATED (C)	CORR. PROFILE THICKNESS				
	ZINC COATED W/ BPI† (C)	CORR. PROFILE THICKNESS				
	ALUM. COATED TYPE 2 W/BPI† (C)	CORR. PROFILE THICKNESS				
	POLYMER PRECOATED GALVANIZED† (C)	CORR. PROFILE THICKNESS				
	POLYMER PRECOATED GALVANIZED CORRUGATED STEEL PIPE TYPE 1A (S)	CORR. PROFILE THICKNESS				
	COR. ALUM. PIPE / P-ARCH	CORRUGATED ALUM. ALLOY (C)	CORR. PROFILE THICKNESS			
		CORRUGATED ALUM. ALLOY W/ BPI† (C)	CORR. PROFILE THICKNESS			
	SPIRAL RIB STEEL PIPE	ZINC COATED (SS)	RIB PROFILE THICKNESS			
		ZINC COATED W/ BPI (SS)	RIB PROFILE THICKNESS			
ALUM. COATED TYPE 2 (SS)		RIB PROFILE THICKNESS				
POLYMER PRECOATED GALVANIZED (SS)		RIB PROFILE THICKNESS				
		RIB PROFILE THICKNESS				
STRUCTURAL PLATE PIPE / PIPE-ARCH	STR. PLATE ALUMINUM ALLOY (C)	CORR. PROFILE THICKNESS				
	STR. PLATE ALUMINUM ALLOY W/ CFP (C)	CORR. PROFILE THICKNESS				
	STR. PLATE STEEL (C)	CORR. PROFILE THICKNESS **				
	STR. PLATE STEEL W/ CFP (C)	CORR. PROFILE THICKNESS **				

LEGEND

PIPE MATERIAL	
RCP	Reinforced Concrete Pipe
RCHEP	Reinforced Concrete Horizontal Elliptical Pipe
PE	Polyethylene
DR	Dimension Ratio
PVC	Polyvinyl Chloride
PP	Polypropylene
CORR	Corrugation
ALUM	Aluminum
STR	Structural
	† Lock-Seam & Riveted (U.N.O.)
PIPE PROTECTION	
BPI	Bituminous Paved Invert
CFP	Concrete Field Paving
BIT	Bituminous
SHAPE	
CIR	Circular Pipe
DEF	Deformed Pipe
INTERIOR DESIGNATION	
(S)	Smooth Pipe Material
(C)	Corrugated Pipe Material
(SS)	Semi-Smooth Pipe Material
PIPE SIZE	
	Circular pipe is shown as diameter in inches
	Deformed pipe is shown as area in square feet

* Refer to Standard Drawings 715-PHCL-20 through -22 for nominal diameter appropriate for pay item diameter.

** Tabulated thickness refers to top and side plates. For pipes and pipe-arches with a thickness less than .280 in., bottom plates shall be of next greater available thickness.

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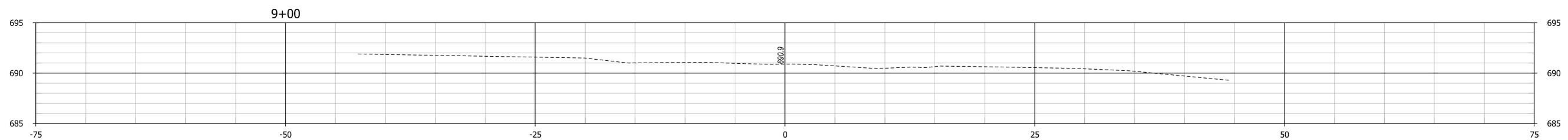
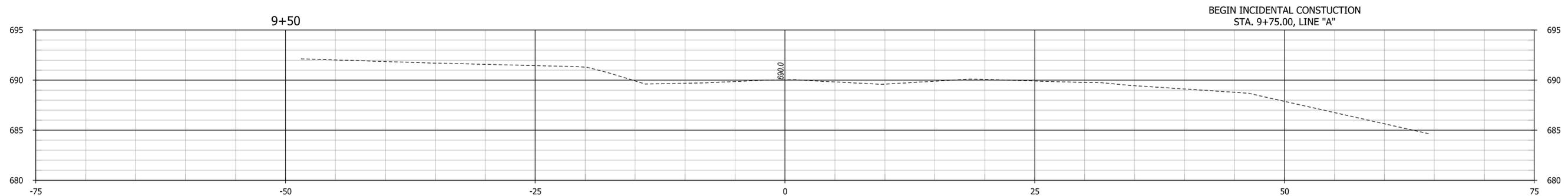
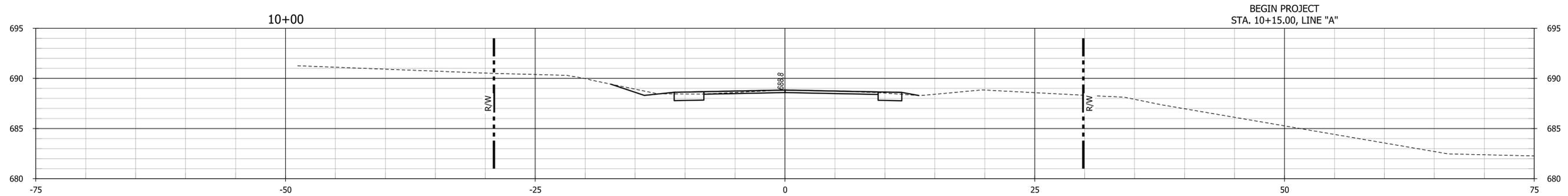
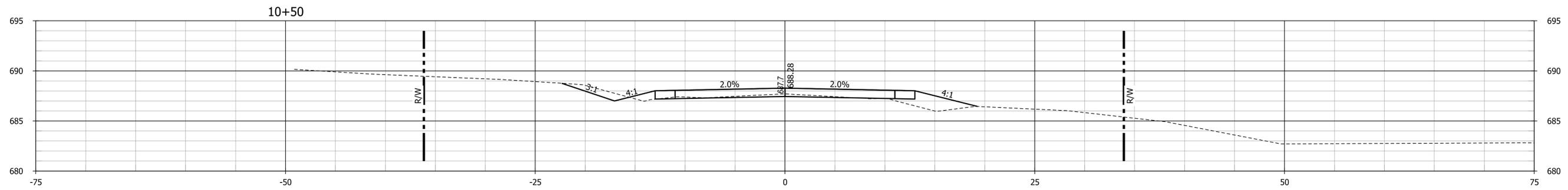
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ROAD SUMMARY

SCALE	BRIDGE FILE
N/A	91-00237 B
	DESIGNATION
	2101684
SURVEY BOOK	SHEETS
N/A	12 of 17
CONTRACT	PROJECT
B-44309	2101684



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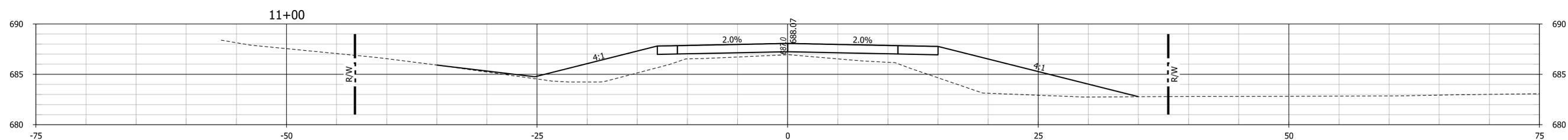
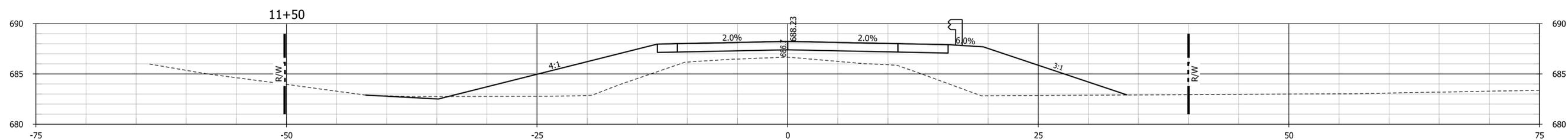
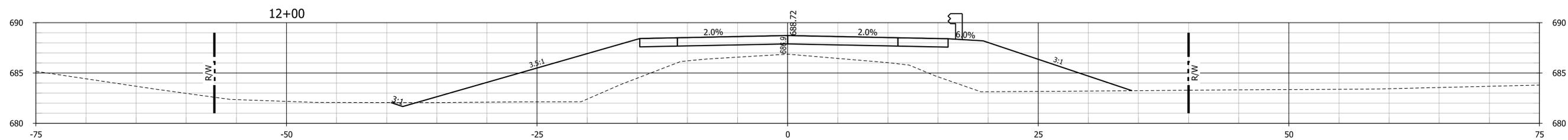
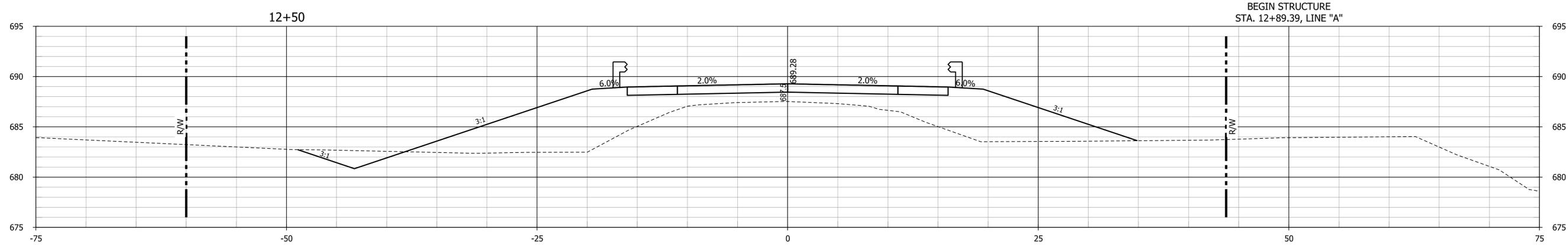
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	<u>11/2024</u>	<u>11/2024</u>

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CROSS SECTIONS
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	91-00237 B
VERTICAL SCALE	DESIGNATION
1" = 5'	2101684
SURVEY BOOK	SHEETS
N/A	13 of 17
CONTRACT	PROJECT
B-44309	2101684

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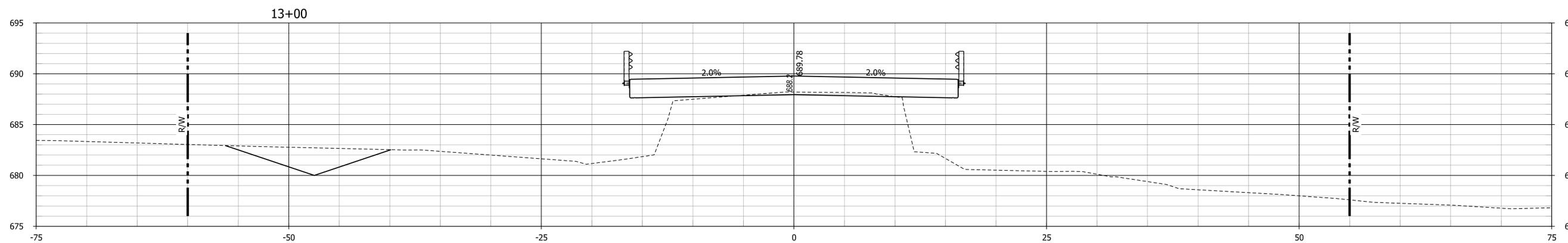
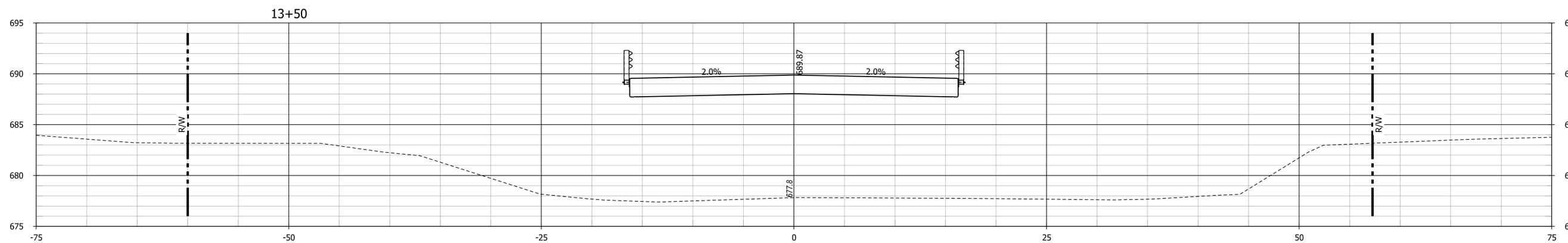
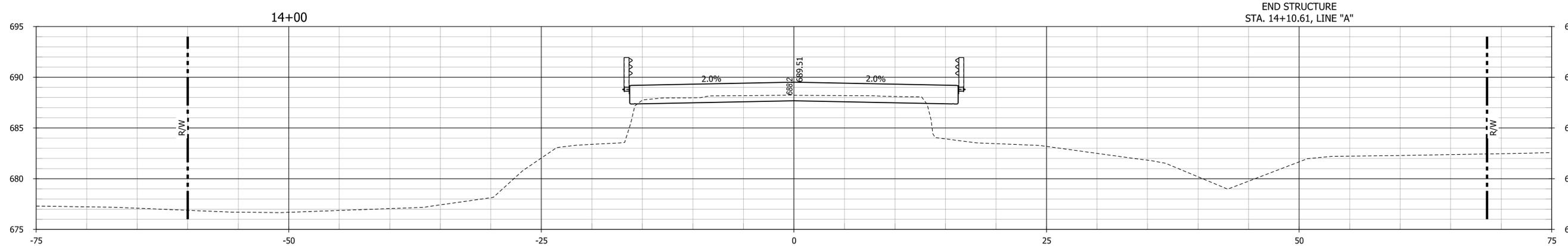
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CROSS SECTIONS
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	91-00237 B
VERTICAL SCALE	DESIGNATION
1" = 5'	2101684
SURVEY BOOK	SHEETS
N/A	14 of 17
CONTRACT	PROJECT
B-44309	2101684

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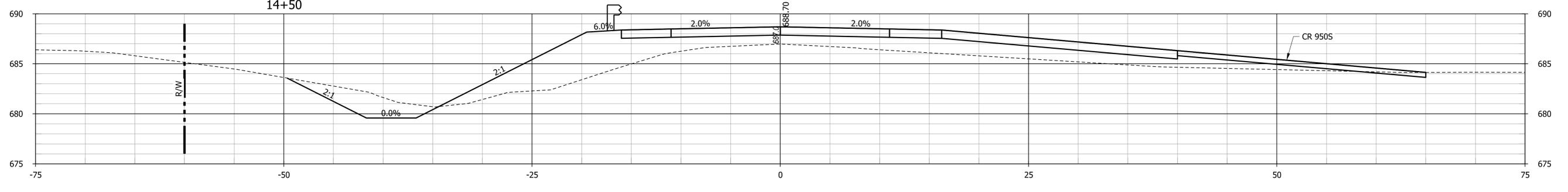
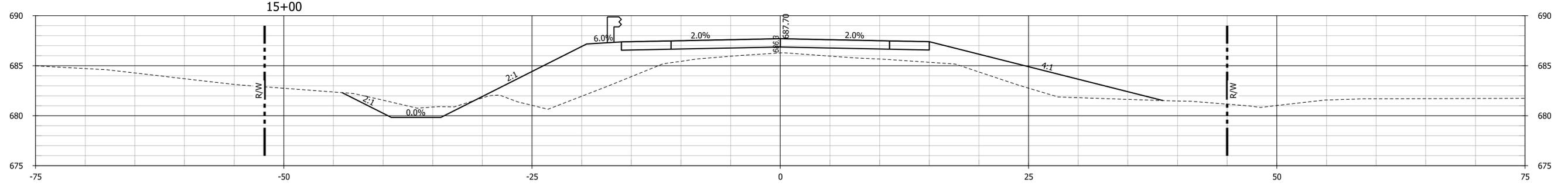
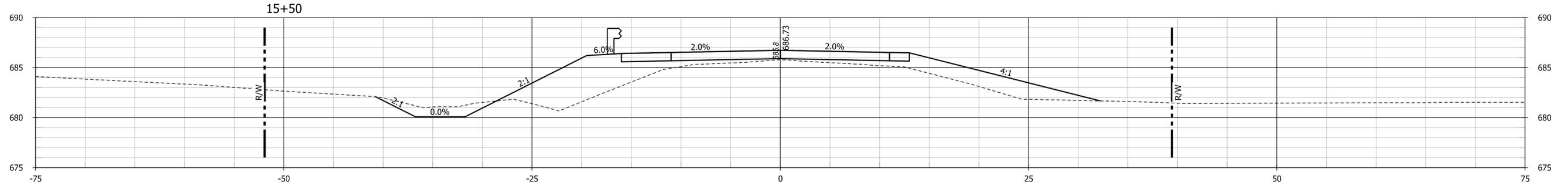
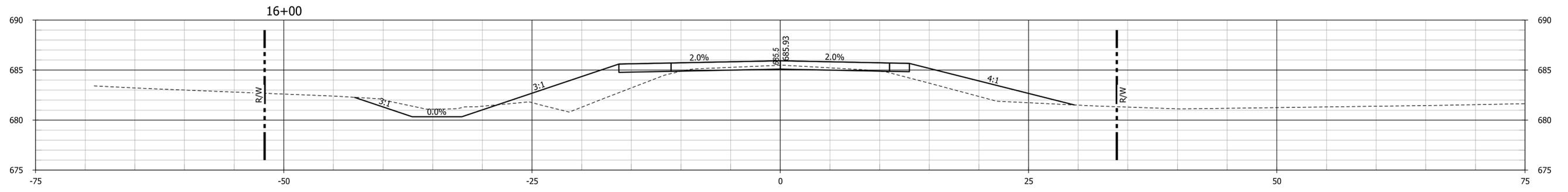
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CROSS SECTIONS
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	91-00237 B
VERTICAL SCALE	DESIGNATION
1" = 5'	2101684
SURVEY BOOK	SHEETS
N/A	15 of 17
CONTRACT	PROJECT
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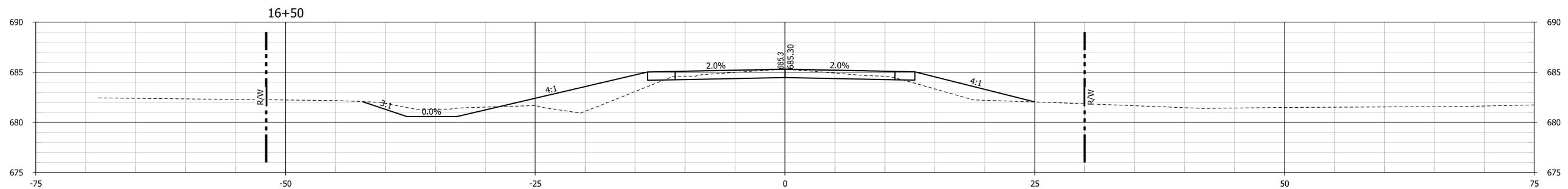
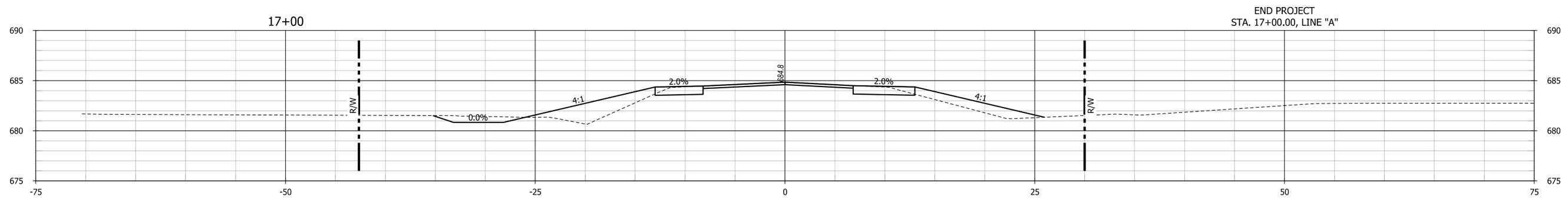
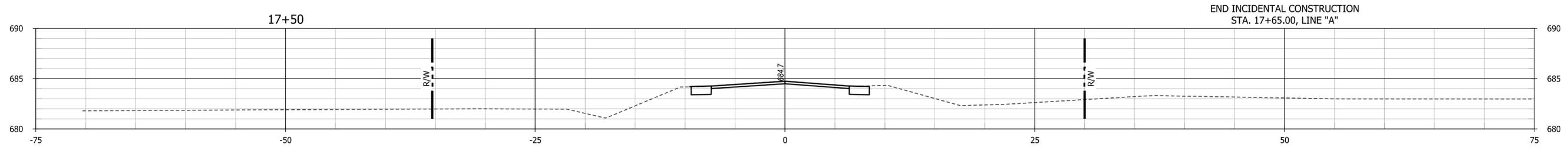
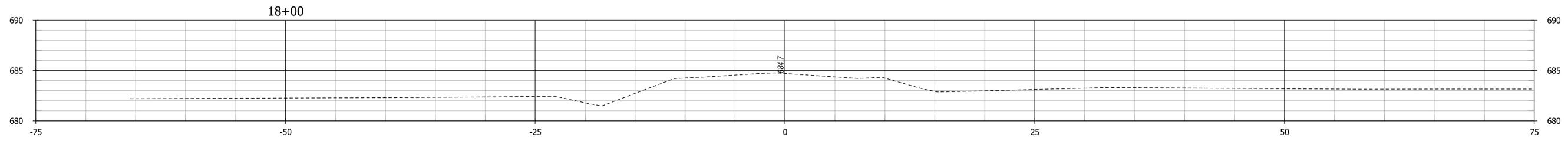
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**CROSS SECTIONS
LINE "A"**

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	91-00237 B
VERTICAL SCALE	DESIGNATION
1" = 5'	2101684
SURVEY BOOK	SHEETS
N/A	16 of 17
CONTRACT	PROJECT
B-44309	2101684



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**CROSS SECTIONS
LINE "A"**

HORIZONTAL SCALE 1" = 5'	BRIDGE FILE 91-00237 B
VERTICAL SCALE 1" = 5'	DESIGNATION 2101684
SURVEY BOOK N/A	SHEETS 17 of 17
CONTRACT B-44309	PROJECT 2101684

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