

APPROX. LIMITS OF RIPRAP: 61 FEET LEFT, 55 FEET RIGHT
CARRY RIPRAP TO SECOND GUARD RAIL POST AT EACH WING WALL.

HYDRAULIC DATA

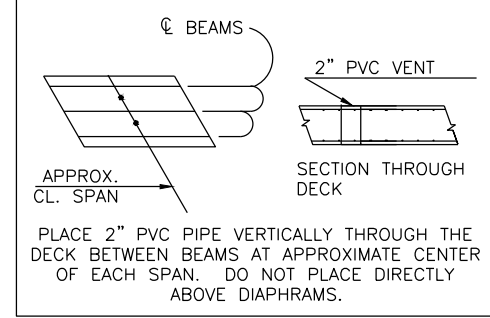
D.A. =	29.79	SQ. MI.
Q2 =	1,610	CFS
V2 =	2.86	FPS
CHW =	946.68	FT
Q5 =	3,320	CFS
V5 =	4.56	FPS
CHW =	949.40	FT
Q10 =	4,960	CFS
V10 =	5.16	FPS
CHW =	950.40	FT
Q25 =	7,660	CFS
V25 =	5.41	FPS
CHW =	951.18	FT
Q50 =	10,000	CFS
V50 =	5.68	FPS
CHW =	951.61	FT
Q100 =	12,400	CFS
V100 =	5.98	FPS
CHW =	951.96	FT
Qot =	Q5	

BRIDGE "A" PAY QUANTITIES

75' X 26' CLEAR ROADWAY ROLLED BEAM SPAN WITH TR3 CONCRETE RAILS, 30' SKEW

ITEM	DESCRIPTION	UNITS	ABUTS.	SUPSTR.	TOTALS
501(B)	SUBSTRUCTURE EXCAVATION COMMON	CY	190.00		190.00
501(F)	GRANULAR BACKFILL	CY	74.00		74.00
504(B)	SAW-CUT GROOVING	SY		193.30	193.30
504(D)	CONCRETE RAIL (TR3)	LF	57.60	160.50	218.10
506(A)	STRUCTURAL STEEL	LB		47,300.00	47,300.00
507(A)	WEATHERING STEEL FIXED BEARING ASSEMBLY	EA		3.00	3.00
507(B)	WEATHERING STEEL EXPANSION BEARING ASSEMBLY	EA		3.00	3.00
509(A)	CLASS AA CONCRETE	CY		58.90	58.90
509(B)	CLASS A CONCRETE	CY	69.80		69.80
511(A)	REINFORCING STEEL	LB	9,800.00	16,450.00	26,250.00
514(A)	PILES, FURNISHED (HP 10X42)	LF	184.00		184.00
514(A)	PILES, FURNISHED (HP 12X53)	LF	431.00		431.00
514(B)	PILES, DRIVEN (HP 10X42)	LF	184.00		184.00
514(B)	PILES, DRIVEN (HP 12X53)	LF	431.00		431.00
514(L)	PILE SPLICE, H-PILE (NON-BIDDABLE)	EA	1.00		1.00
601(B)	TYPE I-A PLAIN RIPRAP	TON	620.00		620.00
601(C)	TYPE I-A FILTER BLANKET	TON	200.00		200.00
613(H)	6" PERFORATED PIPE UNDERDRAIN ROUND	LF	60.00		60.00
613(I)	6" NON-PERF. PIPE UNDERDRAIN RND.	LF	150.00		150.00
619(D)	REMOVAL OF EXISTING BRIDGE STRUCTURE	LSUM			1.00
623(F)	GUARDRAIL ANCHOR UNIT (TYPE D-BF)	EA	4.00		4.00
623(F)	GUARDRAIL ANCHOR UNIT (TYPE A)	EA	4.00		4.00

AIR VENT DETAILS



LOAD AND RESISTANCE FACTOR DESIGN DATA

CONCRETE CLASS AA $f'_c = 4$ KSI
 CONCRETE CLASS A $f'_c = 3$ KSI
 REINF. STEEL $f_y = 60$ KSI
 STRUCTURAL STEEL M270 (GRADE 50W) $F_y = 50$ KSI

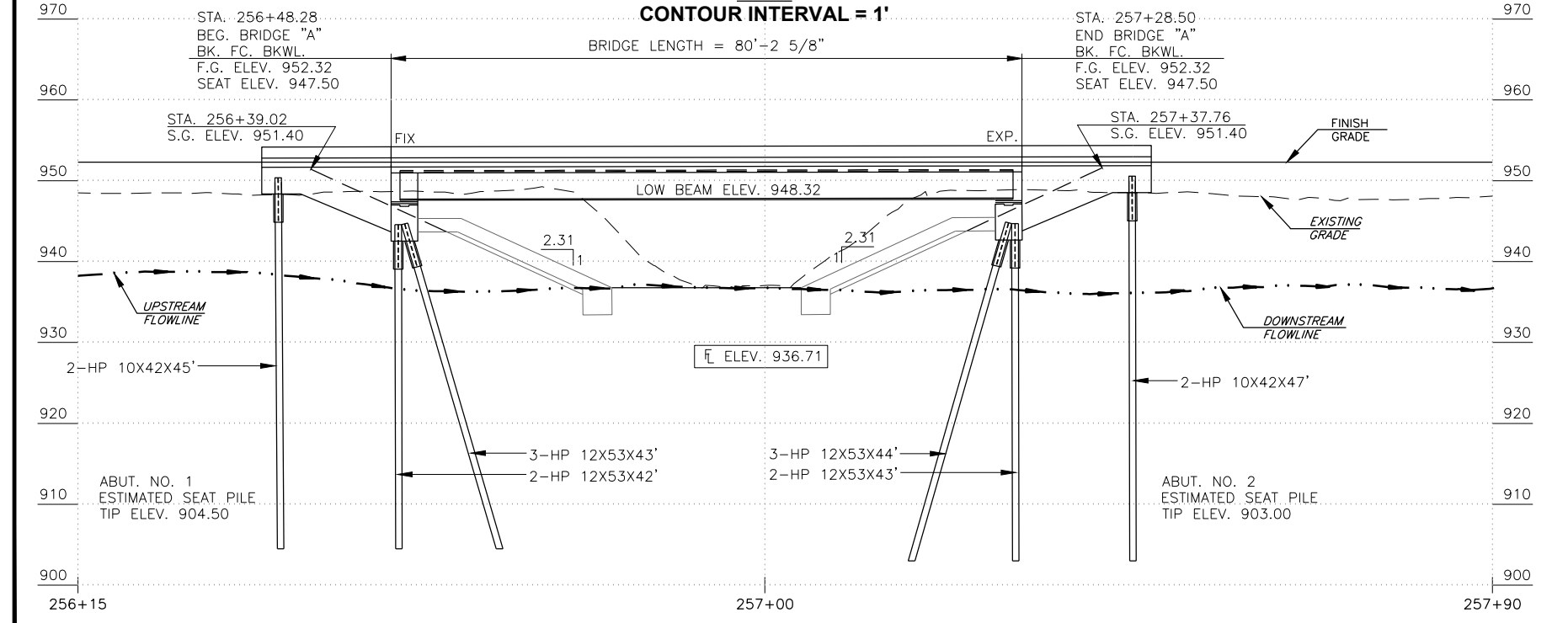
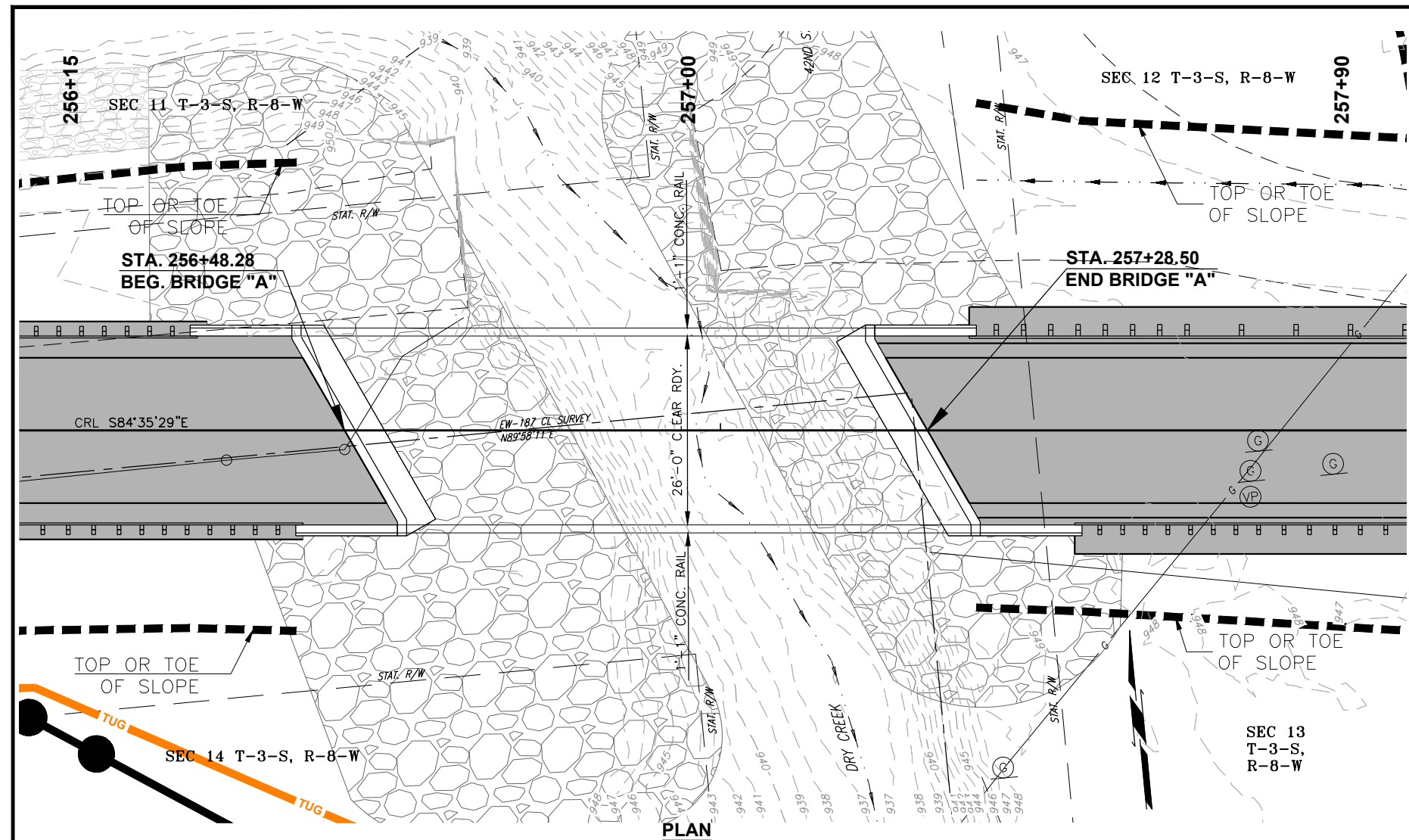
LFD OPERATING RATING: HS 33.2
 LOADING: HL-93
 20 P.S.F. FUTURE WEARING SURFACE.
 5 P.S.F. STAY-IN-PLACE FORMS

DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 5TH EDITION WITH 2010 INTERIMS, EXCEPT AS MODIFIED BY CURRENT ODOT BRIDGE DIVISION DESIGN POLICIES.
 ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE.

ABUTMENT FOUNDATION DATA

ABUTMENTS: HP 12X53 PILING **ABUTMENTS NO. 1 & 2**
 REQUIRED ULTIMATE PILE CAPACITY 76.4 TON/PILE

PILE CAPACITY SHALL BE VERIFIED USING THE ODOT MODIFIED GATES EQUATION SHOWN ON SHEET AR02. ALL ABUTMENT PILING SHALL BE DRIVEN THROUGH THE COMPACTED FILL TO POINT BEARING ON SOLID FOUNDATION MATERIAL. PILING SHALL BE DRIVEN TO THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF THE REQUIRED ULTIMATE PILE CAPACITY IS NOT OBTAINED AT THIS ELEVATION, DRIVING SHALL CONTINUE UNTIL THE REQUIRED ULTIMATE PILE CAPACITY IS OBTAINED. THE LENGTH OF STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY.



BRIDGE A: 75' X 26' CLEAR ROADWAY CONVENTIONAL ROLLED BEAM SPAN WITH TR3 CONCRETE RAILS 30' DEGREE SKEW.

EXISTING BRIDGE: 35' I-BEAM SPAN. (REMOVE)

BRIDGE "A" GENERAL PLAN AND ELEVATION