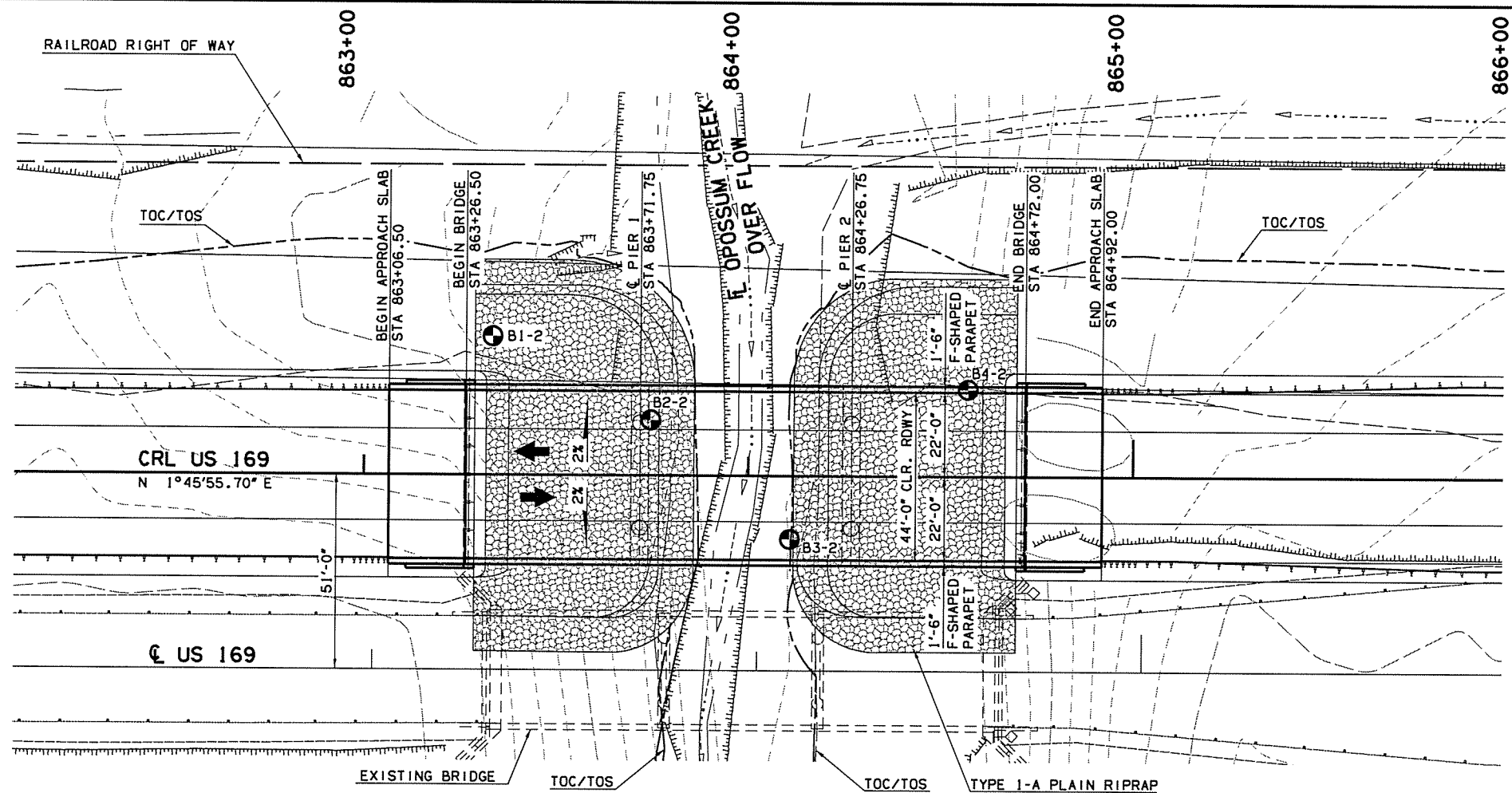


COUNT	STATE	J/P PROJ NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
8	OKLA	27092(04)		68	143



BM 7 - CHISELED "X" ON SE WINGWALL
 STA 859+49.26 - 20.77 RT CL
 STA 859+51.72 - 71.77 RT CRL
 ELEV-717.95

BM 8 - 80D IN 15' ELM
 STA 871+27.16 - 166.81 RT CL
 STA 871+33.88 - 216.01 RT CRL
 ELEV-701.48

PLAN
 SCALE: 1:20

DESIGN DATA

LOADING
 HL-93, OKLAHOMA OVERLOAD TRUCK OR 315 OVERLOAD TRUCK
 20 PSF FUTURE WEARING SURFACE.
 LRFR OPERATING RATING = 1.83

DESIGN
 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION,
 EXCEPT FOR PILES WHICH SATISFY AASHTO STANDARD
 SPECIFICATIONS FOR HIGHWAY BRIDGES, 16TH EDITION WITH NO
 INTERIMS.

ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE
 ANSI/AWS D1.6 STRUCTURAL WELDING CODE - STAINLESS STEEL

MATERIAL
 CONCRETE:
 CLASS AA f'c = 4,000 PSI
 CLASS A f'c = 3,000 PSI
 REINFORCING STEEL: Fy = 60,000 PSI
 STRUCTURAL STEEL M270 (GRADE 50W) Fy = 50,000 PSI
 STAINLESS STEEL A240 (TYPE 316) Fy = 30,000 PSI
 STAINLESS STEEL A320, CLASS 2, (GRADE B8M) Fy = 58,000 PSI

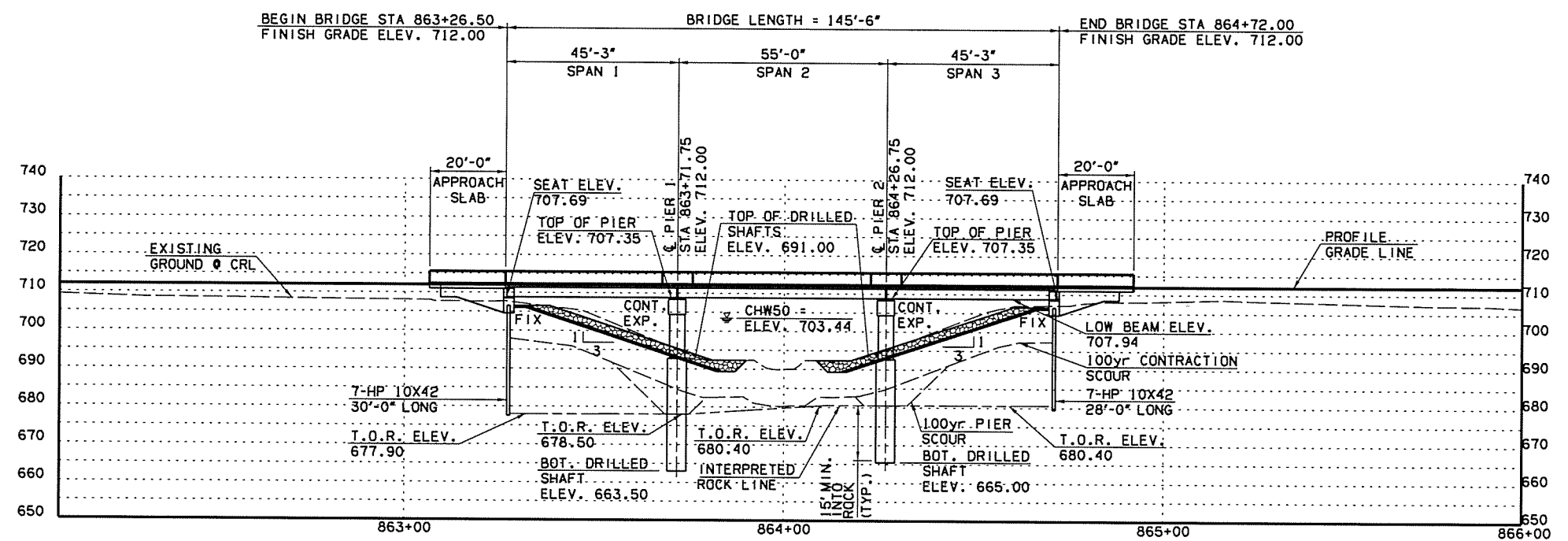
FOUNDATION DESIGN
 ABUTMENTS (HP 10X42 PILING)
 FACTORED PILE REACTION = 57.62 TONS/PILE
 PIER 1 AND 2 (60" DIA. DRILLED SHAFTS)
 MAX. FACTORED REACTION = 413.20 T/SHAFT
 FACTORED FRICTION RESISTANCE (9 TSF) = 635.90 T/SHAFT
 FACTORED BEARING RESISTANCE (60 TSF) = 823.20 T/SHAFT
 TOTAL FACTORED RESISTANCE = 1459.10 T/SHAFT
 BEARING RESISTANCE FACTOR = 0.7
 FRICTION RESISTANCE FACTOR = 0.45
 FRICTION DEPTH OF ROCK NEGLECTED (FEET) = 5

HYDRAULIC DATA

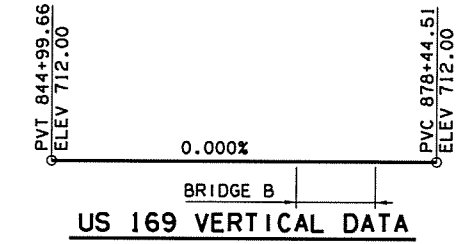
TOTAL DA = 0.44 SQ MI (1) Q50 = 3970 cfs
 CONTROLLED DA = 0 SQ MI V50 = 1.22 fps
 EFFECTIVE DA = 0.44 SQ MI CHW50 = 703.44
 Q2 = 110 cfs Q100 = 5155 cfs
 V2 = 1.51 fps V100 = 1.07 fps
 CHW2 = 693.25 CHW100 = 704.45
 Q5 = 665 cfs *100yr PIER SCOUR = 7.28'
 V5 = 2.03 fps 100yr CONTRACTION SCOUR = 9.65'
 CHW5 = 696.46 *100yr TOTAL SCOUR = 16.93'
 Q10 = 1520 cfs Q-0T > Q500 = 8055 cfs
 V10 = 3.46 fps V500 = 0.96 fps
 CHW10 = 699.14 CHW500 = 706.69
 Q25 = 2985 cfs *500yr PIER SCOUR = 7.28'
 V25 = 1.92 fps 500yr CONTRACTION SCOUR = 21.23'
 CHW25 = 702.09 *500yr TOTAL SCOUR = 28.51'
 BRIDGE LENGTH = 145.50'

* NOT APPLICABLE DUE TO ROCK ELEVATION

NOTE:
 (1) FLOWS WERE TAKEN FROM HEC-RAS FLOW DISTRIBUTION FOR
 MULTIPLE BRIDGE OPENING ROUTINE MODELING THE MAIN
 CHANNEL AND OVERFLOW CHANNEL



ELEVATION
 SCALE: HORIZ. 1" = 20'
 VERT. 1" = 20'



BRIDGE B, CL STA. 863+99.25 CRL CONST. INTEGRAL 45'-55'-45' STEEL BEAM SPANS, 44'-0" CLR. RDY., SKEW 0°, F-SHAPED PARAPET

TO BE REMOVED EXISTING BRIDGE CL STA. 893+18.00, 45'-40'-45' 1-BM SPANS, 28' CLR. RDY W/2 18" S.C. SKEW 0°

Design	SAK	6/16	US 169 OVER OPOSSUM CREEK OVER FLOW NOWATA COUNTY BRIDGE B GENERAL PLAN AND ELEVATION Job Piece No. 27092(04) Sheet No. 68
Drawn	WZB	6/16	
Checked	STF	6/16	
Approved	SAK	6/16	
Squad	BENHAM		