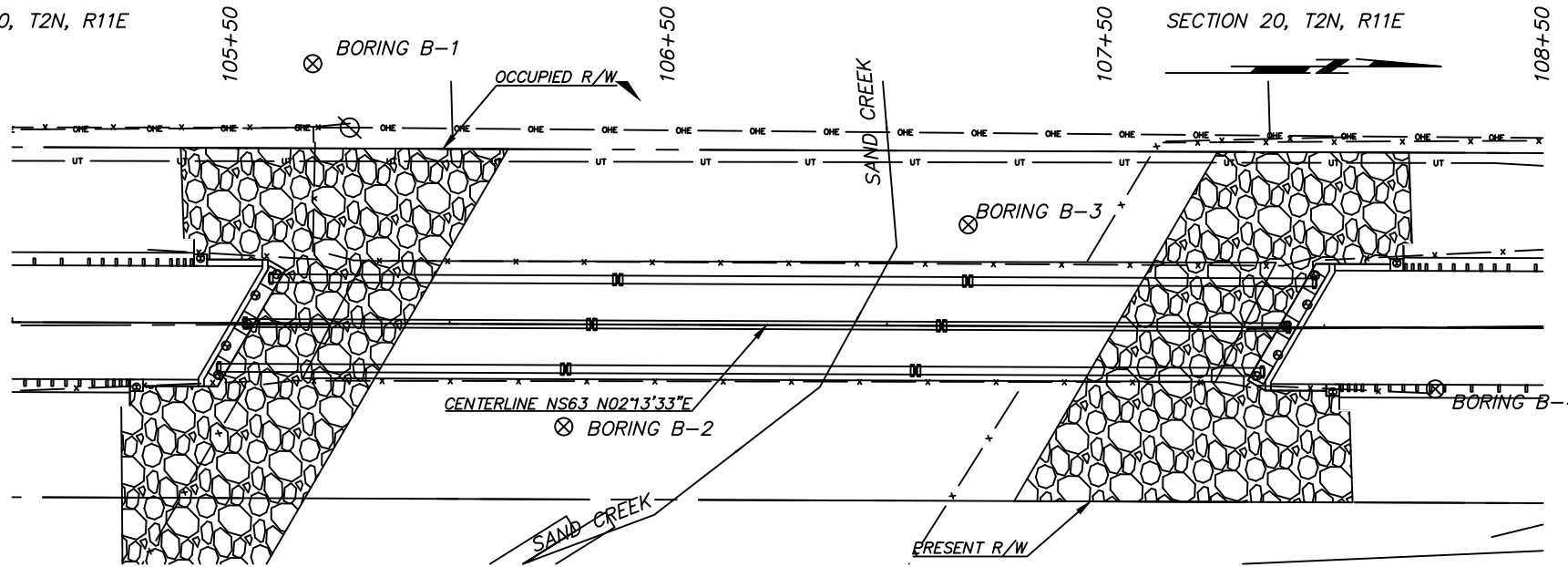


SECTION 20, T2N, R11E



PLAN  
SCALE: 1"=20'

SECTION 21, T2N, R11E

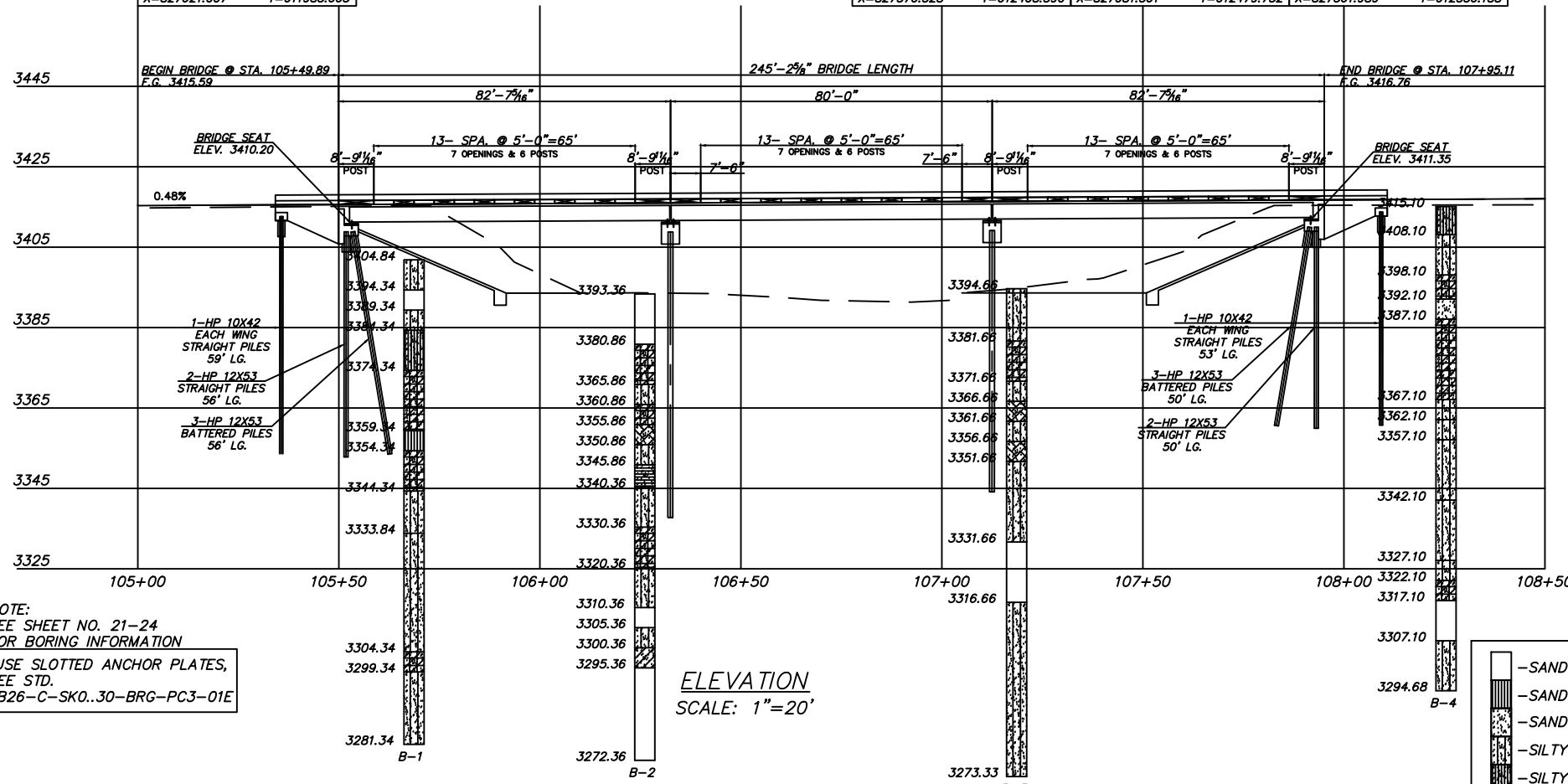
SECTION 21, T2N, R11E

BENCHMARK NO. 402  
1/2" IRON PIN 40.10 FT. RT.  
STA. 104+10.10 ELEV. 3402.47  
X=827621.007 Y=611985.663

CONTROL POINT NO. 2 23.10 FT. LT.  
STA. 108+90.94 ELEV. 3414.00  
X=827576.528 Y=612468.590

BENCHMARK NO. 401 81.42 FT. RT.  
STA. 109+06.17 ELEV. 3418.42  
X=827681.561 Y=612479.752

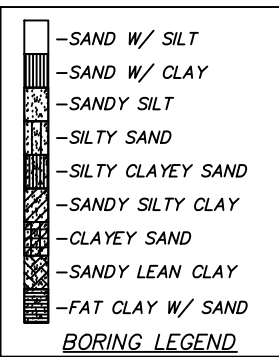
BENCHMARK NO. 400 41.03 FT. LT.  
STA. 109+77.91 ELEV. 3416.39  
X=827561.989 Y=612556.188



ELEVATION  
SCALE: 1"=20'

NOTE:  
SEE SHEET NO. 21-24  
FOR BORING INFORMATION  
\*USE SLOTTED ANCHOR PLATES,  
SEE STD.  
CB26-C-SK0..30-BRG-PC3-01E

B-1 PENETROMETER TEST		B-2 PENETROMETER TEST		B-3 PENETROMETER TEST		B-4 PENETROMETER TEST								
39/6"	50/5"	3330.34	40/6"	50/4.5"	3336.86	46/6"	50/4.25"	3302.86	24/6"	50/5.5"	3313.66	24/6"	50/2.5"	3319.10
22/6"	50/6"	3325.84	31/6"	50/4.5"	3332.36	26/6"	50/6"	3282.36	38/6"	50/4.5"	3308.16	47/6"	50/4.5"	3304.10
42/6"	50/5"	3315.84	30/6"	50/4.75"	337.36	26/6"	50/5"	3277.36	49/6"	50/5"	3298.16		50/5"	3299.16
27/6"	50/4.25"	3310.84	41/6"	50/3.5"	3321.86	26/6"	50/6"	3272.36	49/6"	50/4"	3278.16		50/5"	3294.68
38/6"	50/3.75"	3300.34	44/6"	50/2"	3317.36									
27/6"	50/4.5"	3295.34	43/6"	50/6"	3312.36									
46/6"	50/4.5"	3290.34	38/6"	50/5.5"	3306.86									



PAY QUANTITIES						
ITEM	DESCRIPTION	UNIT	ABUTMENT	SUPER STRUCTURE	PIER	QUANTITY
501(B)	1307	SUBSTRUCTURE EXCAVATION COMMON	C.Y.	200.00		200.00
501(C)	6309	CLSM BACKFILL	C.Y.	98.00		98.00
503(A)	1312	PRESTRESSED CONCRETE BEAMS (TYPE III)	L.F.		717.00	717.00
504(B)	1305	SAW-CUT GROOVING	S.Y.		591.20	591.20
504(C)	6250	SEALED EXPANSION JOINT	L.F.		66.12	66.12
504(D)	6239	CONCRETE RAIL (TR3)	L.F.	62.80	490.60	553.40
506(A)	1322	STRUCTURAL STEEL	LB.		960.00	2,860.00
507(A)	6172	WEATHERING STEEL FIXED BEARING ASSEMBLY	EA.		9.00	9.00
507(B)	6176	WEATHERING STEEL EXP. BEARING ASSEMBLY	EA.		9.00	9.00
509(A)	1326	CLASS AA CONCRETE	C.Y.		187.20	187.20
509(B)	1228	CLASS A CONCRETE	C.Y.	74.20		51.40
511(A)	1332	REINFORCING STEEL	C.Y.	10,440.00	51,250.00	4,440.00
514(A)	6010	PILES, FURNISHED (HP10X42)	L.F.		224.00	224.00
514(A)	6011	PILES, FURNISHED (HP12X53)	L.F.		530.00	530.00
514(A)	6011	PILES, FURNISHED (HP14X89)	L.F.			816.00
514(B)	6292	PILES, DRIVEN (HP10X42)	L.F.		224.00	224.00
514(B)	6294	PILES, DRIVEN (HP12X53)	L.F.		530.00	530.00
514(B)	6294	PILES, DRIVEN (HP14X89)	L.F.			816.00
514(L)	6220	PILE SPLICE, H-PILE (NON-BIDDABLE)	EA.		1.00	1.00
601(B)	1353	TYPE I-A PLAIN RIPRAP	TON		887.00	887.00
601(C)	1355	TYPE I-A FILTER BLANKET	TON		296.00	296.00
613(H)	0450	6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.		60.00	60.00
613(I)	1096	6" NON-PERFORATED PIPE UNDERDRAIN ROUND	L.F.		30.00	30.00
619(D)	1397	REMOVAL OF EXISTING BRIDGE STRUCTURE	L. SUM		1.00	1.00
623(F)	5686	GUARDRAIL ANCHOR UNIT (TYPE D-BF)	EA.			4.00
623(F)	6029	GUARDRAIL ANCHOR UNIT (TYPE A)	EA.			4.00
880(J)	8905	CONSTRUCTION TRAFFIC CONTROL	L. SUM			1.00

**LOADING DATA**

ABUTMENT PILES (HP 12X53):  
FACTOR PILE REACTION = 86.5 TONS/PILE. ALL ABUTMENT PILING SHALL BE DRIVEN THROUGH THE COMPACTED FILL. STEEL PILING SHALL BE DRIVEN TO POINT BEARING ON SOLID FOUNDATION MATERIAL UNTIL THE REQUIRED FACTOR PILE CAPACITY OF 86.5 TONS PER PILE IS OBTAINED.

PIERS (HP 14X89):  
FACTORED PILE REACTION = 134.50 TONS/PILE

**HYDRAULIC DATA**

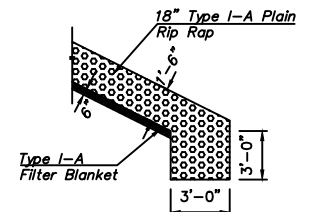
D.A. = 114.89 SQ. MI.  
SCS CONTROLLED D.A. = 0.00 SQ. MI.  
EFFECTIVE DRAINAGE AREA = 114.89 SQ. MI.  
Q25 = 7,390.00 C.F.S.  
V25 = 4.76 F.P.S.  
Q25 CALC. B.W. 3,403.66 FT.  
Q50 = 10,900.00 C.F.S.  
V50 = 5.65 F.P.S.  
Q50 CALC. B.W. 3,405.82 FT.  
Q100 = 14,600.00 C.F.S.  
V100 = 6.41 F.P.S.  
Q100 CALC. B.W. 3,408.47 FT.  
QO.T. = 27,600.00 C.F.S.  
OVERTOPPING ELEV. (LOW) = 3,409.04 FT.  
VO.T. (BRIDGE) = 6.83 F.P.S.  
EXTREME HIGHWATER ON RECORD = N/A  
MAXIMUM SCOUR DEPTH = 2.46 FT.

**DESIGN DATA**

CONCRETE (CLASS A) F'C=3,000 PSI  
CONCRETE (CLASS AA) F'C=4,000 PSI  
REINFORCING STEEL (GR 60) F\_Y=60,000 PSI  
STRUCTURAL STEEL (GR 50W) F\_Y=50,000 PSI

LOADING: HL-93 20 PSF FUTURE WEARING SURFACE  
5 PSF STAY-IN-PLACE FORMS

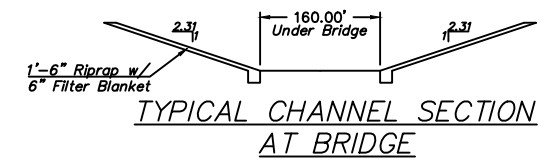
DESIGN SPECIFICATIONS - AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 5TH EDITION WITH 2010 INTERIMS, EXCEPT AS MODIFIED BY CURRENT ODOT BRIDGE DIVISION DESIGN POLICIES.  
ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE.  
LFD OPERATING RATING: HS 43.8



DETAIL OF TYPE I-A PLAIN RIPRAP

CONTRACTOR NOTE:  
EXTEND RIP RAP TO THE SECOND GUARDRAIL POST.

NOTE:  
"TOEING-IN" APPLIES TO THE ENTIRE LENGTH OF THE BASE OF RIPRAP.



TYPICAL CHANNEL SECTION AT BRIDGE

TEXAS COUNTY SAND CREEK

GENERAL PLAN & ELEVATION  
CL STA. 106+72.50  
80'-80'-80' TYPE III PCB SPAN W/26'-0" CL. RDY.  
30 DEG. W/1'-1" TR3 CONC. RAILS

J/P NO. 30490(04) SHEET NO. B001