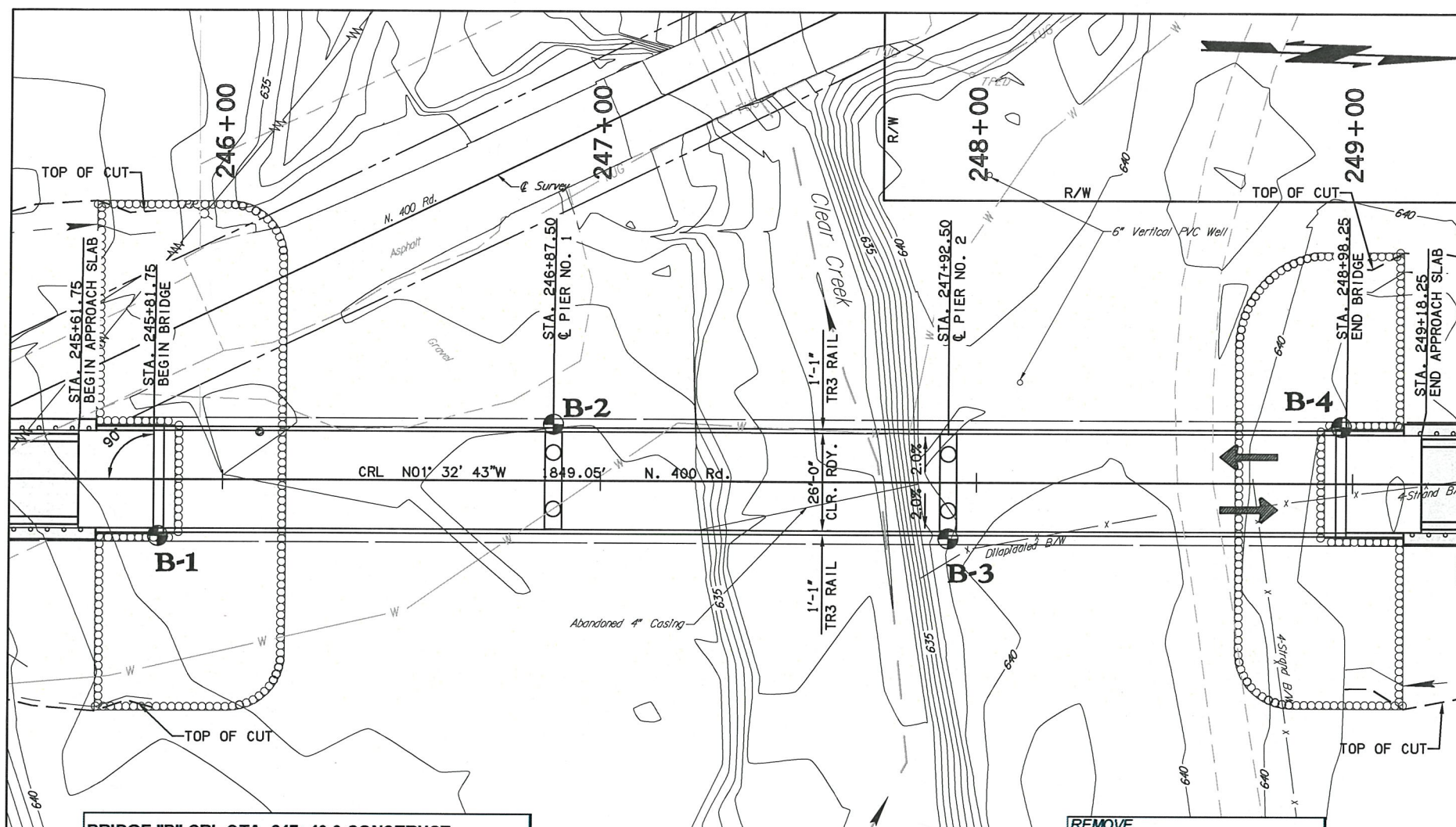


Wednesday, December 02, 2015 2:54:23 PM W:\E13-828E Barrington Hollow Br 22 & LWC-Cherokee 2-CED2\CV3D\PLANS\828-GR&E Br B.dwg



### SUMMARY OF QUANTITIES

DESCRIPTION	UNIT	SUPER	PIER	ABUT.	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.			100	100
CLSM BACKFILL	C.Y.			70	70
PRESTRESSED CONCRETE BEAMS (TYPE IV)	L.F.	942			942
APPROACH SLAB	S.Y.			115	115
SAW-CUT GROOVING	S.Y.			89	89
CONCRETE RAIL (TR3)	L.F.	633		62	695
STRUCTURAL STEEL	LB.	960		0	960
WEATHERING STEEL FIXED BEARING ASSEMBLY	EA.		9		9
WEATHERING STEEL EXPANSION BEARING ASSEMBLY	EA.		9		9
CLASS AA CONCRETE	C.Y.	266			266
CLASS A CONCRETE	C.Y.		40.4	41.8	82.2
REINFORCING STEEL	LB.	67,730	6,120	6,920	80,770
PILES, FURNISHED (HP 10x42)	L.F.			266	266
PILES, DRIVEN (HP 10x42)	L.F.			266	266
PILE SPLICE, H-PILE (NON-BIDDABLE)	EA.			1	1
DRILLED SHAFTS 42" DIAMETER	L.F.		128		128
CROSSHOLE SONIC LOGGING	EA.		1		1
TYPE 1-A PLAIN RIPRAP	TON			2,217	2,217
TYPE 1-A FILTER BLANKET	TON			314	314
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.			52	52
6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.			60	60
REMOVAL OF EXISTING BRIDGE STRUCTURE	L. SUM				1
BEAM GUARDRAIL W-BEAM SINGLE	L.F.			375	375
GUARDRAIL ANCHOR UNIT (TYPE D-BF)	EA.			4	4

DESCRIPTION	REVISIONS	DATE
STANDARDS		
CB26-I-SKO-ABUT-PC4-01E		
CB26-I-SKO-XSECT-PC234-01E		
CB26-I-SKO-LSECT-PCB-01E		
CB26-I-SKO-DKSLB-BLIST-PCB-01E		
CB26-I-SKO-PCB-IV-105-01E		
CB26-I-SKO-DIA-ABUT-PC4-01E		
CB26-I-SKO-DIA-INTPR-PCB-01E		
CB26-I-SKO-BRG-PC4-01E		
CB26-I-SKO-SPR-QUAN-PCB-1-01E		
CB26-I-SKO-SPR-QUAN-PCB-2-01E		
CB26-I-SKO-AS-01E		
CB26-.32-1-SKO-WING-PC4-01E		
CB26-.32-1-SKO-ABUT-MISC-01E		
CB26-.32-C...1-SKO...30-PCB-DTL-1-01		
CB26-.32-C...1-SKO...30-PCB-DTL-2-01		
HP1-2-00E		
DBF2-1-00		

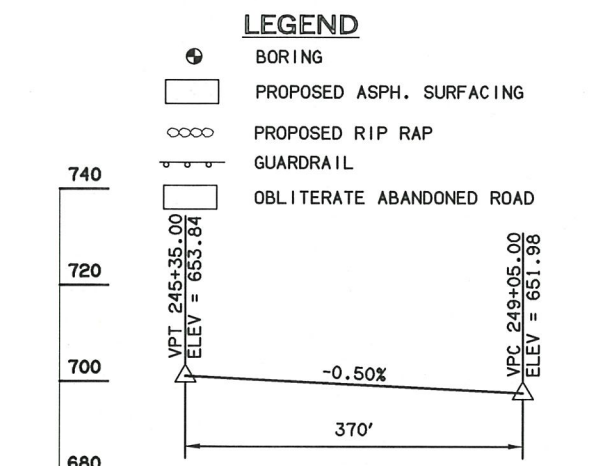
### BRIDGE 'B' HYDRAULIC DATA

D.A. = 22.40 SQ. MI.      Q100 = 21,200 CFS  
 Q10 = 6,680 CFS      V100 = 8.34 FPS  
 V10 = 5.96 FPS      CHW100 = 645.44 FT  
 CHW10 = 640.78 FT  
 Q50 = 12,200 CFS  
 V50 = 7.51 FPS  
 CHW50 = 642.88 FT

### LOAD AND RESISTANCE FACTOR DESIGN DATA

CLASS AA CONCRETE      f'c = 4,000 P.S.I.  
 CLASS A CONCRETE      f'c = 3,000 P.S.I.  
 REINFORCING STEEL      fy = 60,000 P.S.I.  
 STRUCTURAL STEEL M270 (GRADE 50W)      fy = 50,000 P.S.I.  
 STAINLESS STEEL A240 (TYPE 316)      fy = 30,000 P.S.I.

LOADING: HL-93 OR OKLAHOMA OVERLOAD TRUCK AND 20 P.S.F. FUTURE WEARING SURFACE, 5 P.S.F. STAY-IN-PLACE FORMS.  
 DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4TH EDITION WITH 2009 INTERIM REVISIONS.  
 ANSI / AASHTO / AWS D1.5 BRIDGE WELDING CODE  
 ANSI / AWS D1.6 STRUCTURAL WELDING CODE - STAINLESS STEEL  
 LFD OPERATING RATING: HS 55.0



### GRADE DATA

-0.50%

370'

VPT 245+35.00 ELEV. = 653.84  
 VPC 249+05.00 ELEV. = 651.98

### UTILITY COMPANY CONTACTS

COMPANY	CONTACT	PHONE NO.
AT&T	GLENN LEACH	(918) 351-5023
Cherokee Co. RWD #11	JOSHUA HUBBARD	(918) 207-2797
Lake Region Electric & Water Coop.	JAMES COOK DUANE ROGERS	(918) 772-2526

ALL UTILITY LOCATIONS SHOWN ON PLANS AND PROFILES ARE APPROXIMATE. CONTRACTOR MUST CONTACT EACH UTILITY COMPANY PRIOR TO CONSTRUCTION TO VERIFY LOCATION.

### ABUTMENTS (HP 10 X 42 PILING)

FACTORED PILE REACTION = 75.2 TONS/PILE

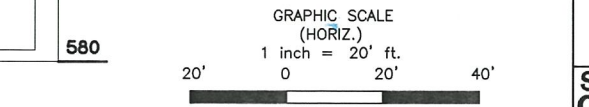
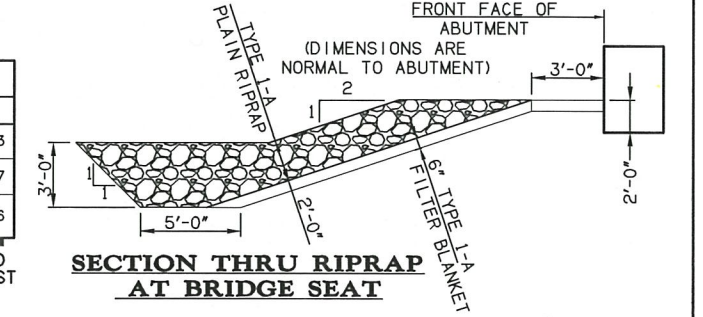
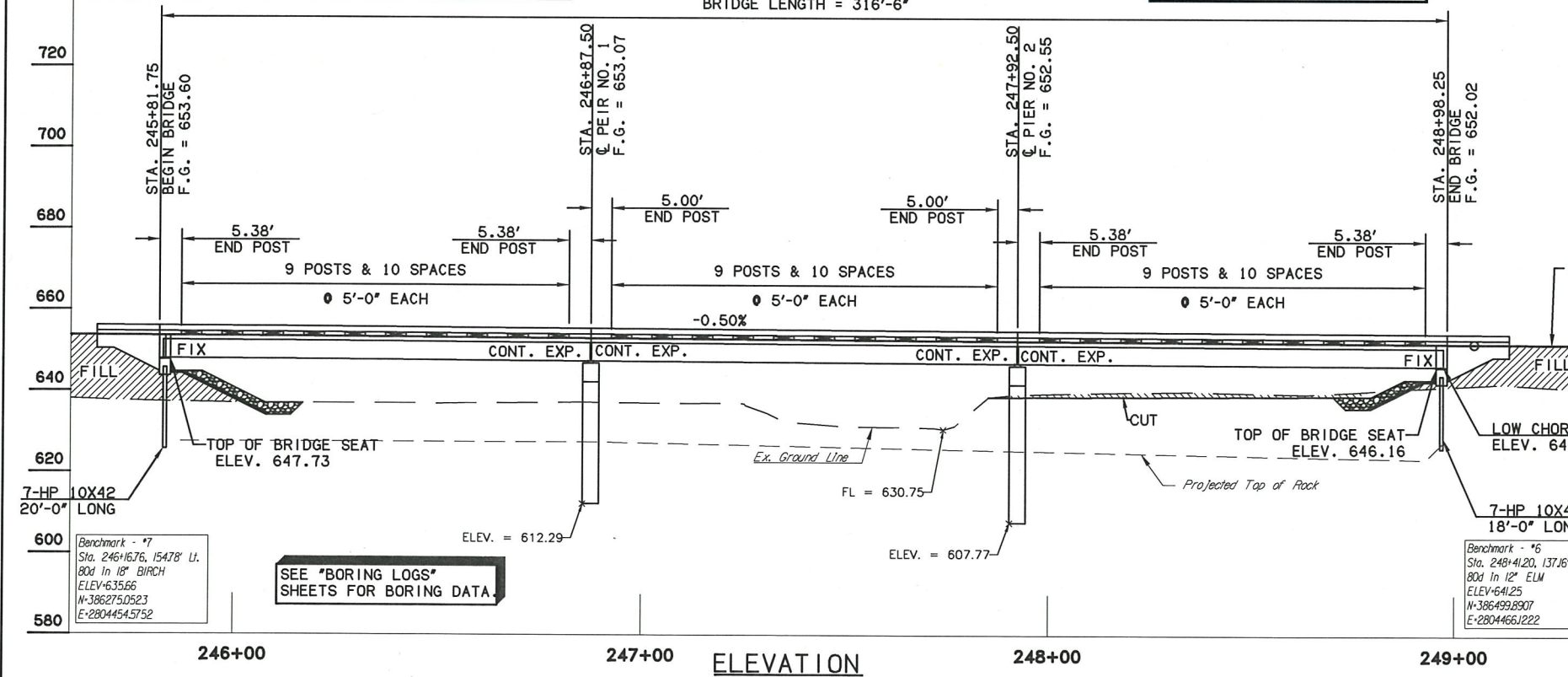
ALL ABUTMENT PILING SHALL BE DRIVEN THROUGH THE COMPACTED FILL. PILING SHALL BE DRIVEN TO POINT BEARING ON SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF THE ULTIMATE REQUIRED CAPACITY IS NOT OBTAINED AT THIS ELEVATION, DRIVING SHALL CONTINUE UNTIL THE REQUIRED ULTIMATE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

### PIERS (48" DIAMETER DRILLED SHAFTS)

	PIER NO. 1	PIER NO. 2	
FACTORED REACTION	= 465.5	= 465.5	TONS/SHAFT
NOMINAL UNIT FRICTION RESISTANCE	= 8.07	= 6.35	T.S.F
FRICTION RESISTANCE FACTOR	= 0.55	= 0.55	
FACTORED FRICTION RESISTANCE	= 669	= 526	TONS/SHAFT
DEPTH OF ROCK NEGLECTED FOR FRICTION	= 3	= 3	FEET
TOTAL FACTORED RESISTANCE	= 669	= 526	TONS/SHAFT

**BRIDGE "B" CRL STA. 247+40.0 CONSTRUCT 3-105' TYPE IV PC BEAM BRIDGE, SKEWED 0° 26'-0" CLEAR ROADWAY, W/TR-3 CONCRETE RAILS AND APPROACH SLABS. LOW BEAM ELEV. = 646.62**

**REMOVE**  
 Ex. Bridge Data: CL Sta. 247+34.10, 110.48' Lt.  
 2-(5X3) Conc. Arch Box  
 22' Clear Roadway



BARRINGTON HOLLOW BR 22 & LWC CHEROKEE COUNTY

## GENERAL PLAN & ELEVATION BRIDGE 'B'

3-105' TYPE IV PC BEAM, 26'-0" CLR RWDY  
W/TR-3 CONCRETE RAILS AND APPROACH SLABS

Design	RAA	12/15
Detail	ALM	12/15
Check	RAP	12/15
Squad		
Eng.	GUY	

**STATE OF OKLAHOMA** GUY ENGINEERING SERVICES, INC.  
 JOB PECE NO. 29394(O4) SHEET NO. 28

BARRINGTON HOLLOW BR 22 & LWC

SEE "BORING LOGS" SHEETS FOR BORING DATA.