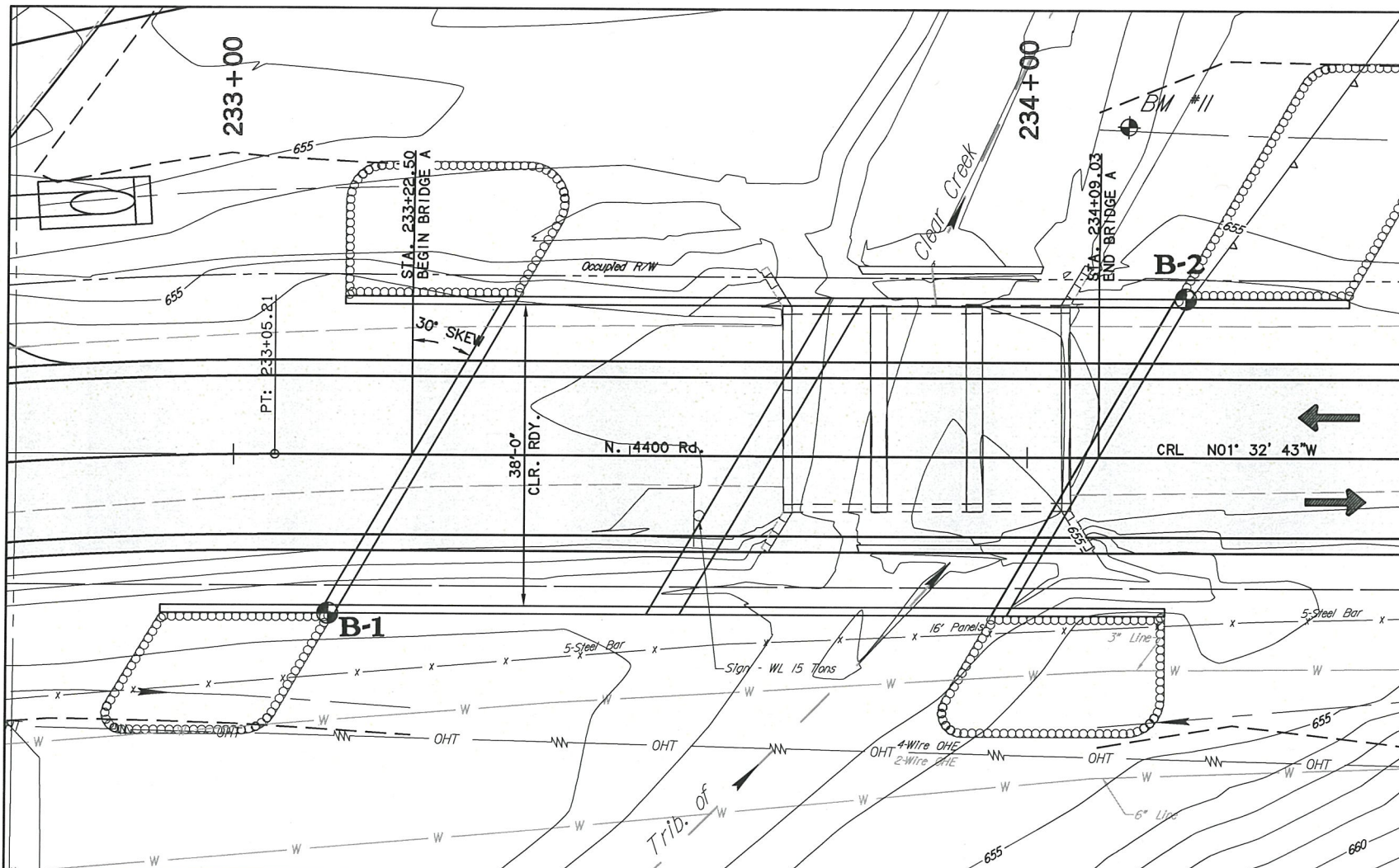


Wednesday, December 02, 2015 2:53:14 PM  
 W:\E13-828E Barrington Hollow Br 22 & LWC-Cherokee 2-CED2\PLANS\PLANS\828-GR&E Br A.dwg

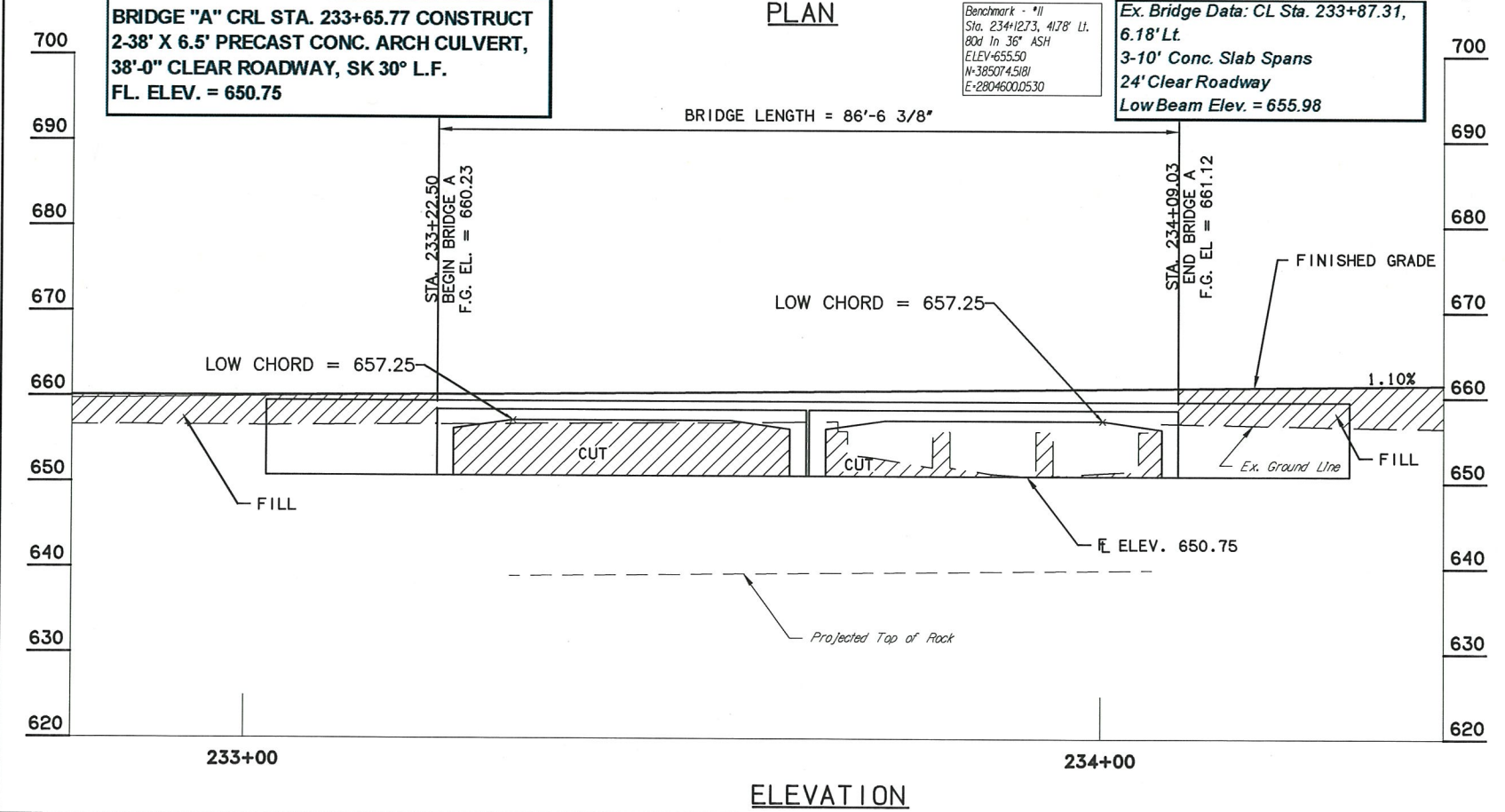


**BRIDGE "A" CRL STA. 233+65.77 CONSTRUCT**  
**2-38' X 6.5' PRECAST CONC. ARCH CULVERT,**  
**38'-0" CLEAR ROADWAY, SK 30° L.F.**  
**FL. ELEV. = 650.75**

Benchmark - #11  
 Sta. 234+09.03, 4178' L.  
 80d In 36" ASH  
 ELEV=655.50  
 N=385074.5181  
 E=280460005.30

**Ex. Bridge Data: CL Sta. 233+87.31,**  
**6.18' Lt.**  
**3-10' Conc. Slab Spans**  
**24' Clear Roadway**  
**Low Beam Elev. = 655.98**

BRIDGE LENGTH = 86'-6 3/8"



**LEGEND**

- ⊕ BORING
- ▭ PROPOSED ASPH. SURFACING
- PROPOSED RIP RAP
- +— GUARDRAIL

DESCRIPTION	REVISIONS	DATE

**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.

**BRIDGE 'A' HYDRAULIC DATA**

D.A. = 1.63 SQ. MI. Q100 = 3,280 CFS  
 V100 = 9.64 FPS  
 CHW100 = 659.63 FT

Q10 = 1,440 CFS  
 V10 = 5.74 FPS  
 CHW10 = 657.88 FT

Q50 = 2,650 CFS  
 V50 = 7.79 FPS  
 CHW50 = 658.86 FT

QOT (193 YR) = 3,630 CFS  
 VOT (193 YR) = 10.11 FPS  
 CHWOT (193 YR) = 660.08 FT (RDY)

**SUMMARY OF QUANTITIES**

DESCRIPTION	UNIT	TOTAL
UNCLASSIFIED EXCAVATION	C.Y.	1,591
AGGREGATE BASE TYPE A	C.Y.	49
STRUCTURAL EXCAVATION UNCLASSIFIED	C.Y.	832
PRECAST ARCH CULVERT	L.F.	76
TYPE 1-A PLAIN RIPRAP	TON	672
TYPE 1-A FILTER BLANKET	TON	30
REMOVAL OF EXISTING BRIDGE STRUCTURE	L. SUM	1

**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.

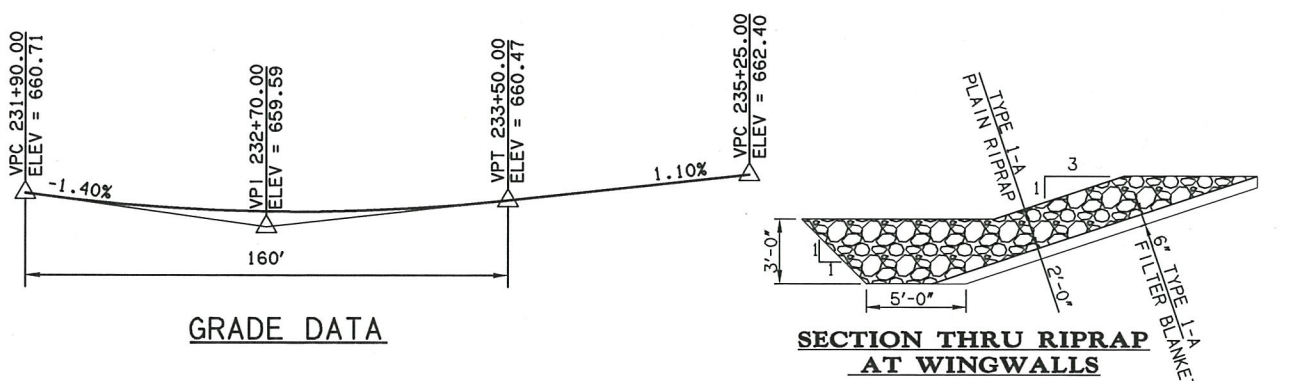
LOADING: HL-93 OR OKLAHOMA OVERLOAD TRUCK AND 20 P.S.F. FUTURE WEARING SURFACE, 5 P.S.F. STAY-IN-PLACE FORMS.  
 DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4TH EDITION WITH 2009 INTERIM REVISIONS.  
 ANSI / AASHTO / AWS D1.5 BRIDGE WELDING CODE  
 ANSI / AWS D1.6 STRUCTURAL WELDING CODE - STAINLESS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

**SHALLOW FOOTING FOUNDATION DATA**

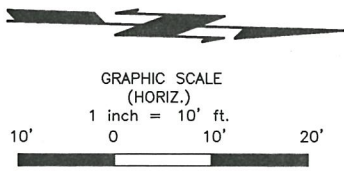
THE RECOMMENDED BEARING DEPTH FOR SHALLOW FOOTINGS IS APPROXIMATELY 8.5 FEET (APPROXIMATE ELEVATION 642.25 FEET). FOOTINGS BEARING IN STIFF NATIVE CLAY CAN BE DESIGNED USING A NOMINAL BEARING RESISTANCE OF 3,000 POUNDS PER SQUARE FOOT (PSF).

BEARING RESISTANCE FACTORS OF 1.0 AND 0.5, AS OUTLINED IN SECTION 10.5.5.1 OF THE LRFD MANUAL, SHOULD BE APPLIED TO THE NOMINAL BEARING VALUE WHEN ANALYZING THE SERVICE LIMIT STATE.

A QUALIFIED PERSON SHOULD OBSERVE AND EVALUATE THE FOOTING EXCAVATIONS TO VERIFY THAT MATERIALS SUITABLE FOR THE DESIRED BEARING RESISTANCE ARE ENCOUNTERED. FOOTING EXCAVATIONS SHOULD BE FREE OF LOOSE OR DISTURBED MATERIALS AND WATER AT THE TIME OF CONCRETE PLACEMENT. CONCRETE SHOULD BE PLACED AS SOON AS POSSIBLE AFTER EXCAVATION IS COMPLETED TO PREVENT WETTING AND DRYING OF THE BEARING SURFACE.



SEE "BORING LOGS" SHEETS FOR BORING DATA.



BARRINGTON HOLLOW BR 22 & LWC CHEROKEE COUNTY  
 BRIDGE "A"  
**GENERAL PLAN & ELEVATION**  
**BRIDGE 'A'**  
 86'-6 3/8" PRECAST BRIDGE x 38'-0" CLR RDWY,  
 SKEW 30° L.F.

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

STATE OF OKLAHOMA GUY ENGINEERING SERVICES, INC.  
 JOB PECE NO. 29399(04) SHEET NO. 25