

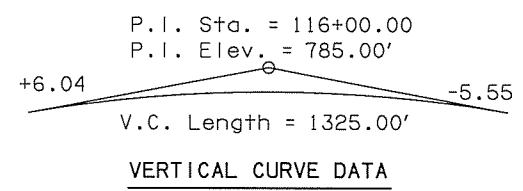
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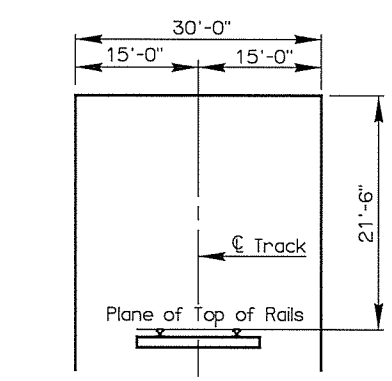
STANDARD DRAWINGS

BRIDGE

B40-C-ABUT-MISC-01E	GHW2-1-00
B40-C-AS-03E	HP1-2-00E
B40-STL-BM-BRACING-00E	LECS-4-1
CRCP2-3-0	PUD-3-2
EJ-SK-03E	SKT-1-00
EJ-DTL-01E	THRI-1-02
GHW1-1-00	TR4-2-00E

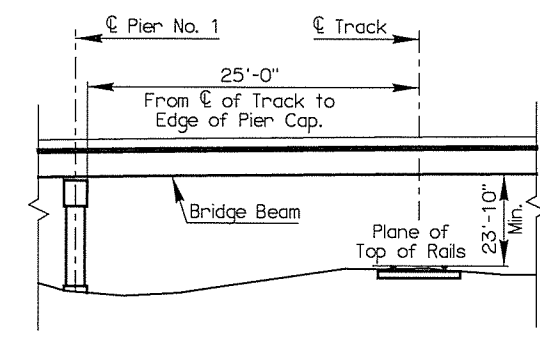


SUMMARY OF QUANTITIES						
ITEM	UNIT	ABUTMENT	PIERS	SUPER-STRUCTURE	APPROACH	TOTAL
(SP) Railroad Flagging (Non-Biddable)	DAYS	175.00				175.00
Substructure Excavation Common	C.Y.	980.00				980.00
CLSM Backfill	C.Y.	787.00				787.00
Approach Slabs	S.Y.				656.00	656.00
Saw-Cut Grooving	S.Y.			2,183.00	548.00	2,731.00
Sealed Expansion Joints	L.F.			161.50		161.50
Concrete Rail (TR4)	L.F.			1,103.40	277.00	1,380.40
Structural Steel	LB.			1,580,140.00		1,580,140.00
Stainless Steel Fixed Bearing Assembly	EA.			5.00		5.00
Stainless Steel Expansion Bearing Assembly	EA.			15.00		15.00
Class AA Concrete	C.Y.			640.90		640.90
Class A Concrete	C.Y.	268.60	356.70			625.30
Class C Concrete	C.Y.					12.00
Slope Wall (5")	S.Y.	3,438.00				3,438.00
MSE Retaining Wall	S.Y.	855.00				855.00
Reinforcing Steel	LB.		2,070.00			2,070.00
Epoxy Coated Reinforcing Steel	LB.	29,280.00	71,150.00	202,830.00		303,260.00
Piles, Furnished (HP 10 x 42)	L.F.	368.00				368.00
Piles, Furnished (HP 12 x 53)	L.F.	1,944.00				1,944.00
Piles, Driven (HP 10 x 42)	L.F.	368.00				368.00
Piles, Driven (HP 12 x 53)	L.F.	1,944.00				1,944.00
Pile Splice, H-Pile (Non-Biddable)	EA.					1.00
Water Repellent (Visually Inspected)	S.Y.	248.00	388.00	982.00	254.00	1,872.00
Drilled Shafts 84" Diameter	L.F.		92.00			92.00
Crosshole Sonic Logging	EA.		1.00			1.00
Sealer Crack Preparation	L.F.			320.00		320.00
Sealer Resin	GAL.			2.20		2.20
6 inch Perf. Pipe Underdrain Rnd	L.F.	646.00				646.00
6 inch Non-Perf. Pipe Underdrain Rnd	L.F.	40.00				40.00
Pipe Underdrain Cover Material	C.Y.	70.00				70.00
Removal Of Existing Structure	LSUM					1.00



BNSF MINIMUM CONSTRUCTION CLEARANCE ENVELOPE

NOTE: Minimum Construction Clearance Envelope required by R.R. for operation during Construction. Horizontal Dimensions shown are  $\phi$  of R.R. Track. All Measurements to or Parallel with Plane of Top of Rails.



VERTICAL & HORIZONTAL CLEARANCE DIAGRAM

NOTE: Final Vertical Clearance required by Bridge Division for Low Beam is 23'-10" at Lowest Point over Railroad Track Top of Rail. Minimum Horizontal Clearance required is 25'-0" and is shown from  $\phi$  of R.R. Track to edge of nearest structural component. All Measurements to or Parallel with Plane of Top of Rails.

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 (Grade 60)  $f_y = 60,000$  p.s.i.  
 Structural Steel M270 (Grade 50W)  $f_y = 50,000$  p.s.i.  
 Loading: HL 93 and 20 p.s.f. Future Wearing Surface or Oklahoma Overload Truck  
 Design: AASHTO LRFD Bridge Design Specifications, 7th Edition with Interims  
 ANSI/AASHTO/AWS D1.5 and D1.6 Bridge Welding Code  
 LRFR Operating Rating: 2.17

FOUNDATION DATA

ABUTMENTS (HP 12 x 53 PILING)

ABUTMENT #1	
Factored Pile Reaction	= 76.0 Tons/Pile
ABUTMENT #2	
Factored Pile Reaction	= 76.0 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 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.

PIERS (84" Diameter Drilled Shafts)

	Pier1	Pier2
Factored Reaction (Tons/Shaft)	1,574.0	1,574.0
Nominal Unit Bearing Resistance T.S.F. =	60.0	60.0
Bearing Resistance Factor	0.7	0.7
Factored Bearing Resistance (Tons/Shaft)	1,616.3	1,616.3
Nominal Unit Friction Resistance T.S.F. =	8.2	8.2
Friction Resistance Factor	0.45	0.45
Factored Friction Resistance (Tons/Shaft)	244.5	244.5
Depth of Rock Neglected for Friction FT. =	7.0	7.0
Total Factored Resistance (Tons/Shaft)	1,861.0	1,861.0

NOTE: All Elevations Should Be Verified By Contractor Prior to Construction

US 75A OVER BNSF RR	CREEK COUNTY	Design	N/A	N/A
GENERAL PLAN AND ELEVATION		Detail	RAH	11/12
CONSTRUCT 2-150' & 1-235' P.G. BM SPANS		Check	KMS	03/16
X 40'-0" CLEAR ROADWAY WITH TR-4 TRAFFIC RAIL		Special	MAYFIELD	
$\phi$ BRIDGE STATION 115+70.73		Eng.	ELYAZGI	
SHEET 2 OF 2		STATE OF OKLAHOMA DEPARTMENT OF TRANSPORTATION		
		STATE JOB NO.	27075(04)	SHEET NO. 46