DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.
				6	ARK.	
				JOB NO.		7911
				①	6342	LAYOUT

R/W DATA & GUARDRAILS - SEE RDWY. PLANS

Type A Approach Gutters at both ds of Bridge.

NBC 4" Ash

NBC 18" Hackberry

NBC 8" Ash

NBC 4" Oak

NBC 3" Locust

NBC 5" Sweet Gum

P.O.T. Sta. 105+54.82

P.C. Sta. 107+55.17

Approx. .1 mi. to Jct. I-30

Approx. 6.5 mi. to Jct. S.H. 51

Tangent Distance = 303.54'

Tangent Distance = 33.14'

N 27° 36' 11" W

P.C.

℄ Bridge & ℄ Survey

Test Hole (typ.)

Toe of Fill Slope (typ.)

Top of Cut (typ.)

Elev. 226.0 as

Slope Varies due to superelevation ion. See "METHOD OF SUPERELEVATION ITION".

Deck at ℄ Bridge to Low Steel at ing Bent No. 1

20'-0" Channel-Bottom - Elev. 218.0

Excavate to Elev. 226.0

Dumped Riprap 1'-6" thick placed on Filter Blanket. Top of Riprap to be Elev. 232.0.

S. FORK TERRE NOIR CREEK

28'-0" Fin. Crown (typ.)

20'-0" Pavt. (typ.)

4'-0" Shldr. (typ.)

28' Cl. Rdwy.

5'-0" (typ.)

5" Para.

Varies

10'-0" (typ.)

PLAN

HYDRAULIC DATA

FREQ.	DISCHARGE	*NATURAL WATER SURFACE ELEV.	WATER SURFACE ELEVATION WITH BACKWATER	
			PLANNED EMBANKMENT	**FUTURE EMBANKMENT
YEARS	CFS	FEET	FEET	FEET
50	5,400	231.3	232.2	232.5
100	6,550	231.6	232.5	232.9
30	4,650	-	231.8	232.5

ED WATER SURFACE AT PROPOSED BRIDGE LOCATION.

BANKMENT ASSUMED AT ELEVATION = 232.5 ft.

IGWATER ELEVATION = 229.3 ft.

A = 13.3 mi.²

NCE WITH LOCAL FLOODPLAIN REQUIREMENTS, THE FUTURE BANKMENT SHOULD NOT BE RAISED ABOVE A ELEVATION 232.5 ft ITIONAL WATERWAY OPENING IS PROVIDED.

Total Length of Bridge = 107'-1"

1'-0 11/16" | 3 - 35'-0" Composite W-Bm. Spans | 1'-0 5/16"

1" Jt. | 1 5/8" Jt. | 1" Jt.

Slope Intersection Sta. 106+08.94

Begin of Bridge Sta. 106+14.94 ℄ Deck Elev. 235.03

Top of Deck at ℄ Br. & ℄ Bt. to Low Seat of Cap = 3'-3 3/4" ℄ Br. No. 2 - Sta. 106+51.00

Elev. 229.0

Low Steel to Design H.W. = 0.8'

℄ Bt. No. 3 - Sta. 106+86.00

Concrete Parapet Rail (Open Drains - Low Side)

Top of Deck at ℄ Br. & ℄ Bt. to Low Seat of Cap = 3'-5 5/16"

℄ Deck Elev. 235.72 End of Bridge Sta. 107+22.03

Slope Intersection Sta. 107+28.03

2'-10 5/8"

FIX | EXP | EXP | FIX | EXP | FIX

Guard Rail

Proposed Grade Line @ ℄ Bridge

Elev. 228.0

Elev. 227.9

Existing Ground Line at ℄ Survey

240 230 220 210 200

HIST. H.W. EL. 229.3

Q 50 EL. 231.3

35' Piles

35' Piles (Bt. Nos. 2 & 3)

30' Piles

Sta. 107+22 - ℄ Survey

4.5'-5.5' N = 7	34.5'-34.7' N = 60
9.5'-10.5' N = 11	39.0'-39.2' N = 60
15.5'-16.5' N = 8	44.0'-44.2' N = 60
20.5'-21.5' N = 21	49.5'-50.5' N = 75
25.0'-25.9' N = 15	5[illegible].5'-54.8' N = 60
30.5'-31.3' N = 105	59.5'-60.3' N = 105

Sta. 106+15 - 10' Right of ℄ Survey

6.5' N = 6	25.5'-26.5' N = 9	45.5'-45.7' N = 60
11.5' N = 6	32.1'-33.5' N = 20	50.5'-50.9' N = 60
16.5' N = 8	35.5'-36.2' N = 122	55.5'-56.5' N = 74
21.5' N = 36	40.5'-40.9' N = 60	60.5'-60.9' N = 60

Sta. 106+68 - 8' Left of ℄ Survey

5.5'-6.5' N = 15	15.5'-16.5' N = 14	25.5'-26.5' N = 22	40.0'-40.4' N = 60	50.0-50.3' N = 60
10.5'-11.5' N = 15	20.5'-21.5' N = 7	35.5'-35.9' N = 60	45.5'-45.8' N = 60	55.5'-56.5' N = 68
				60.5'-61.0' N = 60

Bent Number 1 2 3 4

ELEVATION

D.A. = 13.3 sq. mi.

106+00 107+00

THE CONTRACTOR SHALL FILL THE EXISTING CHANNEL TO ELEV. 226.0 AS SHOWN. APPROX. 2005 CU. YD. OF FILL.

TEMPORARY CONSTRUCTION EASEMENT

S. FORK TERRE NOIR CREEK

TOP OF CUT (TYP.)

TOE OF CUT (TYP.)

20'-0" CHANNEL BOTT. ELEV. 218.0

BEGIN OF BRIDGE STA. 106+14.94

STA. 105+50.00

N 27° 36' 11" W

℄ BRIDGE & ℄ SURVEY

FILL TO ELEV. 226.0 AS SHOWN.

END OF BRIDGE STA. 107+22.03

STA 107+25.00

EXISTING BRIDGE NO. M3716

APPROX. 3040 CU. YD. OF CHANNEL EXCAVATION.

EXCAVATE TO ELEV. 226.0

THE CONTRACTOR SHALL RELOCATE THE CHANNEL AS SHOWN.

TEMPORARY CONSTRUCTION EASEMENT

LOCATION SKETCH

1" = 50'-0"

BEGIN OF BRIDGE STA. 106+14.94

END OF BRIDGE STA. 107+22.03

P.T. EL.

1.200%

RT. GUTTER EL. 235.340

0.08%

LT. GUTTER EL. 234.724

LT. EL.

METHOD OF SUPERELEVATION TRANSIT

N.T.S.

GENERAL NOTES

BENCH MARK: N.I.S. of 8" Pine 127' Rt. of Sta. 107 + 1 229.34.

CONSTRUCTION SPECIFICATIONS: Arkansas State Highw Transportation Department Standard Specifications for Construction, 1991 edition, with applicable suppl specifications and special provisions.

DESIGN SPECIFICATIONS: AASHTO Standard Specificati Highway Bridges, 1989 with current interim specifications

LIVE LOADING: HS20 METHOD OF DESIGN: Load Fac

MATERIALS AND STRENGTHS:

Class S(AE) Concrete (superstructure)	f'c = 4,000
Class S Concrete (substructure)	f'c = 3,500
Reinforcing Steel (A615 or A617, GR. 50)	Fy = 60,000
Structural Steel (A588)	Fy = 50,000
Structural Steel (A36)	Fy = 36,000

BORING LOGS: Boring logs may be obtained from the Prog Contracts Division.

CONCRETE PILING: Piling for Bents 1 through 4 shall octagonal or 16" square precast concrete and shall be dr a minimum safe bearing capacity of 44 tons per pile. shapes shall not be mixed. All piling shall be driven approved air, steam, or diesel hammer. Piling in end ben be driven after embankment to bottom of cap is in place. of piling shown are assumed for estimating quantitie Actual lengths to be determined in the field. Drive one pile in Bent 2 and one 35' test pile in Bent 4.

BRIDGE DECK: The concrete bridge deck shall be given finish as specified for final finishing in SP JOB NO. 7911 BRIDGE ROADWAY SURFACE FINISH.

DETAIL DRAWINGS:

	DRAWING NO.
Bents	30628-30630
W-Beam spans	30631
Concrete Piling	2383
Dumped Riprap and Filter Blanket	1891F
Type A Approach Gutters	2016A

EXISTING BRIDGE: The existing bridge (M3716) is 12' wide long and consists of a 30' span (timber stringers wit deck) and a 10' span (timber stringers with timbe supported by concrete and steel substructure.

REMOVAL AND SALVAGE: After the new bridge is open to traf existing bridge (M3716) shall be removed in accorda section 205 of the Standard Specifications. All mater the existing bridge shall become the property of the co except the following which shall remain the property State:

Item	No.	Size
I-Beams	2	12" x 25'
I-Beams	4	10" x 25'
Channels	2	10" x 25'

BORING LEGEND

A. Moist, medium dense, brown sand
B. Moist, medium stiff, brown sandy clay
C. Wet, very loose, gray sand
D. Moist, medium stiff, gray sandy clay
E. Wet, medium dense, gray sand and gravel
F. Wet, dense, gray sand
G. Wet, dense, gray sand and gravel with some organic matter
H. Moist, very dense, gray silty sand with cemented sand seams
I. Moist, very dense, gray sandy silt with cemented silt seams
J. Moist, very dense, gray sandy silt with cemented sand seams
K. Moist, very dense, gray clayey, sandy silt with some cemented sand seams
L. Moist, very hard, gray clay with silt and sand lenses
M. Moist, stiff, brown sandy clay
N. Moist, stiff, brown to gray and brown silty clay
O. Moist, stiff, gray and brown sandy clay
P. Wet, loose to medium dense, gray sand
R. Moist, medium dense, gray sandy silt
T. Moist, very dense, gray clayey, sandy silt with cemented sand seams
U. Moist, very hard, gray clay with silt and sand lenses and shells
V. Moist, medium stiff, brown to gray and brown sandy clay
W. Moist, stiff, brown and gray to gray sandy clay
X. Wet, loose, gray sand
Y. Wet, medium dense, gray silty sand
Z. Moist, very dense, gray sandy silt with some clay and shells
AA. Moist, very hard, gray silty, sandy clay with cemented sand seams

LAYOUT OF BRIDGE OVER
S. FORK TERRE NOIR CREEK
S. FORK TERRE NOIR CREEK BR. & APP
CLARK COUNTY
ROUTE 182 SEC. 0

ARKANSAS STATE HIGHWAY COMMIS

LITTLE ROCK, ARK.

DRAWN BY: TEB DATE 28 FEB 89
CHECKED BY: DLY DATE 3-6-89
DESIGNED BY: GSC DATE 2-14-89
SCALE 1" = 20'-0"

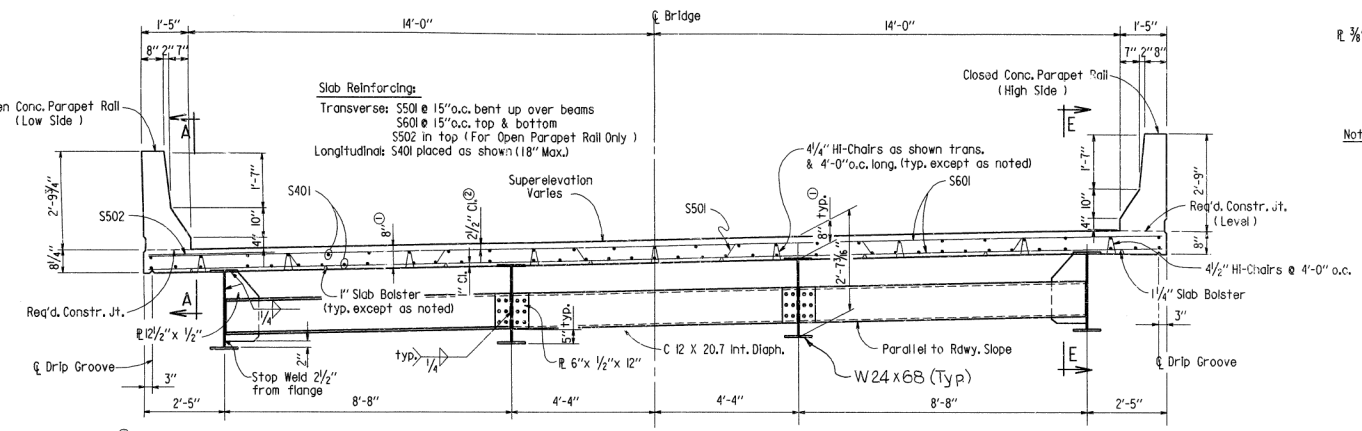
Earl Pinkerton
BRIDGE ENGINEER

BRIDGE NO. 6342 DRAWING NO. 306

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.
				6	ARK.	
				JOB NO.		7911
				①	6342	SPAN DETAILS

Note: Boiled Linseed Oil Treatment shall be applied to the Roadway Surface and the Face and Top of Concrete Parapet Rail.

Note: At Contractor's Option, in lieu of providing bar S501, one #5 bar top and bottom may be substituted. Payment for reinforcing will be based on the weight of bar S501.



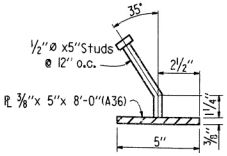
SECTION NEAR MIDSPAN

½" = 1'-0"

(Looking Forward)

② Tolerance: Minus = ¼"
Plus: Equal to amount of slab thickening used to meet slab thickness tolerance-See Detail A on drwg. no. 14990H.

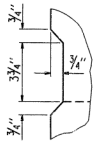
① See Detail A, drwg. no. 14990H



DETAIL Z

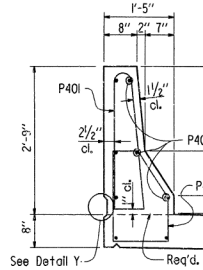
N.T.S.

Note:
The surfaces of the ⅜" Plates which will not be in contact with concrete shall receive two coats of paint in the shop. These coats shall be those specified as Shop Prime Coat and Finish Coat in *Section 638 or as approved by the Engineer. Painting will not be paid for separately but will be included in the item of structural steel.*



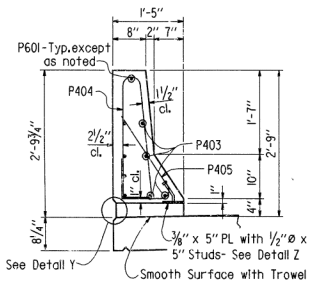
DETAIL Y

N.T.S.



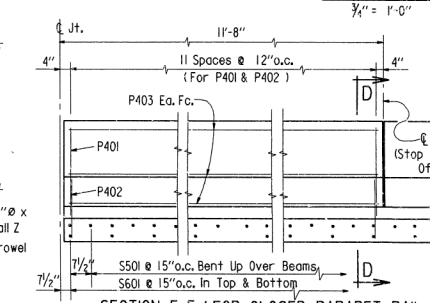
SECTION D-D

¾" = 1'-0"



SECTION B-B

¾" = 1'-0"

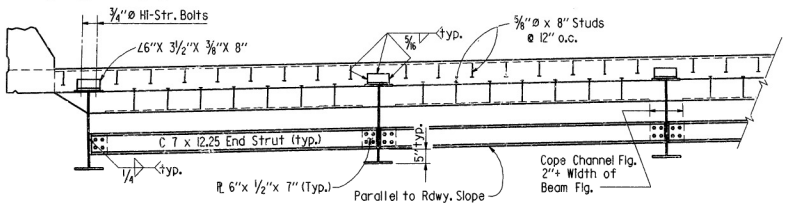


SECTION E-E (FOR CLOSED PARAPET RAIL

½" = 1'-0"

Expansion Device:
Rdwy. C 15 x 33.9
Conn. L's 6"x 3½"x ⅜"x 8"
Detail Device ⅛" high & provide ¼" Shims using 2- 1/16" & 1- ⅛" PLs

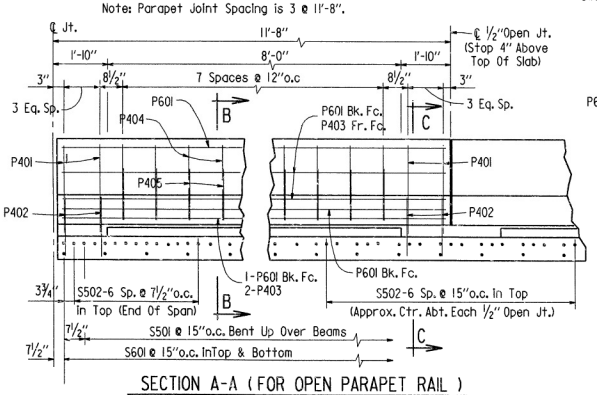
⅝"ø x 8" Studs @ 12" o.c.(Top & Bottom)
For Details of Bumper PL & Seal Support, see Drwg. No. 14990H.



PART-VIEW AT ℄ JOINT

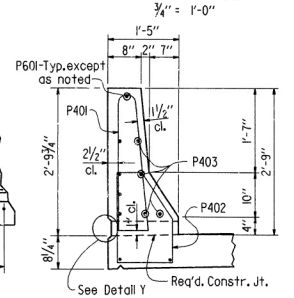
½" = 1'-0"

Note: Parapet Joint Spacing is 3 @ 11'-8".



SECTION A-A (FOR OPEN PARAPET RAIL)

½" = 1'-0"



SECTION C-C

¾" = 1'-0"

GENERAL NOTES

All Structural Steel shall be ASTM designation A588 unless otherwise no and shall be paid for at the unit price per pound bid for "Structur In Beam Spans (A588)". A588 steel shall not be painted. All exposed sur be cleaned in accordance with Subsection 807.67(e) of the Standard Structural steel completely embedded in concrete may be ASTM A36.

Beams are considered main load carrying members and shall meet the Charpy V-Notch test specified in Section 807.05.

Design Specifications: AASHTO 1989 with Interim Specifications

Live loading: HS20 Method of Design: Load Factor

Dead Load:	Interior Beam	Ext
A. To W-Beam	885 plf + 1.3 (Wt./Ft. of W-Bm.)	6 1.3 (Wt.
B. To Composite Beam		
Open Parapets	346 plf *	
Closed Parapets	363 plf *	
Live Load: To each composite beam	1.576 wheels + Impact	1.405 wl

* Includes 168 plf future wearing surface

Material Strength:

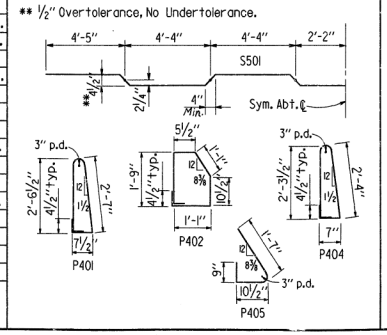
Class S(AE) Concrete (N-8)	f'c = 4,000 p.s.i.
Reinforcing Steel (A615 or A617)	fy = 60,000 p.s.i.
Structural Steel (A36)	Fy = 36,000 p.s.i.
Structural Steel (A588)	Fy = 50,000 p.s.i.

For additional notes see Std. Drawing No. 14990H

BAR LIST - PER SPAN

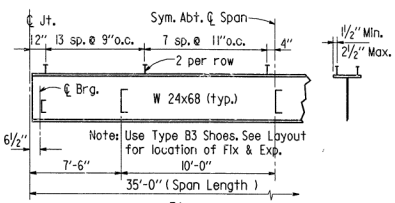
No. Req'd.	Length	Pin Dia.
64	34'-6"	Str.
56	30'-6"	Str.
27	31'-2"	3"
28	4'-4"	Str.
60	6'-4"	2"
60	5'-7"	2"
30	11'-4"	Str.
24	5'-10"	2"
24	3'-2"	2"
15	11'-4"	Str.

Bending Diagrams (Dimensions are out to out of bars.)



DEAD LOAD DEFLECTIONS

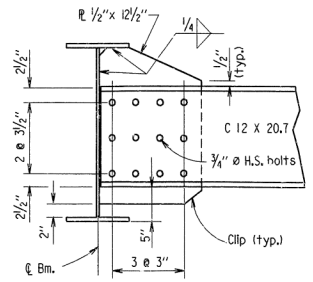
Load No.	Loading	Location			
		Int. Beam		Ext. Beam	
		¼ Pt.	½ Pt.	¼ Pt.	½ Pt.
1	Bm. & Diaph.	1/16"	1/16"	1/16"	1/16"
2	1 & Slab	3/8"	9/16"	5/16"	1/16"
3	2 & Parapet	7/16"	9/16"	5/16"	1/16"



SPACING FOR ⅞" STUD SHEAR CONNECTORS & DIAPHRAGMS

N.T.S.

Note: Stud Shear Connectors shall be 4" long. ¾"ø Studs may be used in place of the ⅞"ø Studs shown, at the ratio of 1.361-¾"ø Studs in place of one ⅞"ø Stud. ⅞"ø Studs will be used as basis for measurement of structural steel in shear connectors. Maximum Stud spacing = 24".



Note: Bolts in Diaphragm Connections shall be properly installed and tightened in accordance with Subsection 807.22 of the Standard Specifications.

DIAPHRAGM CONNECTIONS AT EXTERIOR BEAMS

N.T.S.

BRIDGE ENGINEER

DETAILS OF 35'-0" COMP. W-BEAM SPANS FOR S. FORK TERRE NOIR CREEK

ROUTE 182 SEC. 0

ARKANSAS STATE HIGHWAY COMMISS

LITTLE ROCK, ARK.

DRAWN BY: W.MAJ. DATE: 5-25-89
CHECKED BY: GEC DATE: 6-28-89
DESIGNED BY: DLV DATE: 3-89
SCALE: As Sho

BRIDGE NO. 6342 DRAWING NO. 30631

1, 550, 3001, 7911, RWME548, B7911, S01