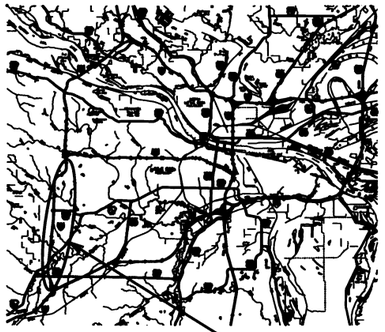
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061505	1	56
				① I-30 - I-630 BRIDGE PAINTING (I-430) (S)				

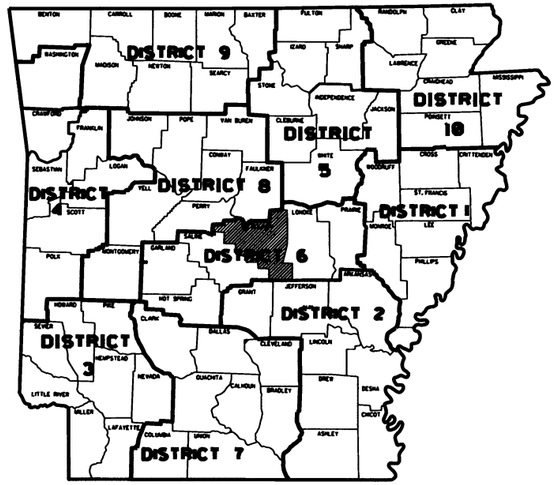
ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
MAINTENANCE PLANS

I-30 - I-630 BRIDGE PAINTING (I-430) (S)

PULASKI COUNTY
ROUTE 430 SECTION 21
FEDERAL AID PROJ. NHPP-0060(52)
JOB 061505



VICINITY MAP



ARKANSAS HIGHWAY DIST. 6

BRIDGE DATA:

1 BRIDGE NO. 05504
I-30 WB FRONTAGE
270'-0" CONT. COMPOSITE WELDED PL GIRDER UNIT
WITH 35'-6" CLEAR ROADWAY.
LAT. 34° 39' 53" LONG. 92° 24' 11"

2 BRIDGE NO. 05308
SH 5, SEC. 09, LM 3.28
402'-2⅜" CONT. COMPOSITE GIRDER UNIT
WITH 63' CLEAR ROADWAY.
LAT. 34° 40' 43" LONG. 92° 24' 26"

3 BRIDGE NO. 05309
DAVID O. DODD ROAD
284'-4" CONT. WELDED PLATE GIRDER UNIT
WITH 31' CLEAR ROADWAY.
LAT. 34° 41' 46" LONG. 92° 24' 15"

4 BRIDGE NO. A5310
I-430 NB, SEC. 21, LM 3.56
205' CONT. COMPOSITE I-BEAM UNIT
WITH 51' CLEAR ROADWAY.
LAT. 34° 42' 45" LONG. 92° 24' 06"

5 BRIDGE NO. B5310
I-430 SB, SEC. 21, LM 3.56
205' CONT. COMPOSITE I-BEAM UNIT
WITH 51' CLEAR ROADWAY.
LAT. 34° 42' 45" LONG. 92° 24' 07"

6 BRIDGE No. A5311
I-430 NB, SEC. 21, LM 4.15
249' CONT. COMPOSITE I-BEAM SPANS
WITH 51' CLEAR ROADWAY.
LAT. 34° 43' 16" LONG. 92° 24' 4"

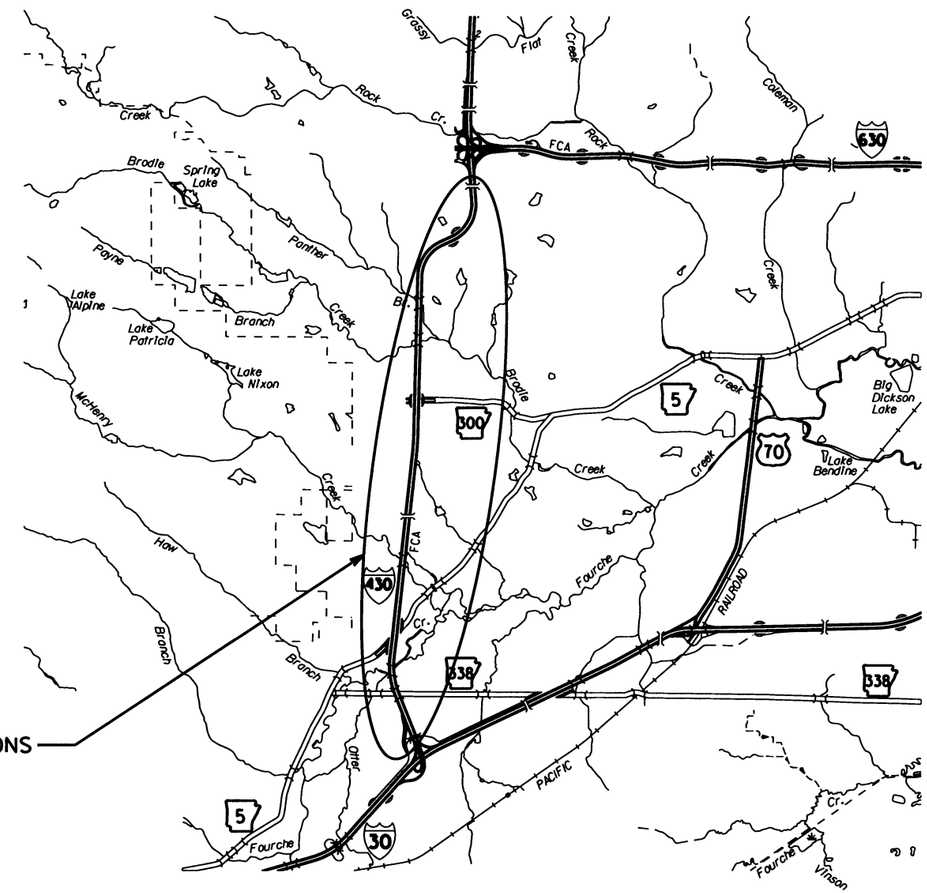
7 BRIDGE NO. B5311
I-430 SB, SEC. 21, LM 4.15
249' CONT. COMPOSITE I-BEAM SPANS
WITH 51' CLEAR ROADWAY.
LAT. 34° 43' 16" LONG. 92° 24' 3"

8 BRIDGE NO. 05312
SHACKLEFORD ROAD
343' CONT. COMPOSITE GIRDER SPANS
WITH 44' CLEAR ROADWAY.
LAT. 34° 44' 11" LONG. 92° 23' 40"

9 BRIDGE NO. 05313
KANIS ROAD
314' CONT. COMPOSITE GIRDER SPANS
WITH 44' CLEAR ROADWAY.
LAT. 36° 21' 54" LONG. 94° 33' 05"

N

NOT TO SCALE



SITE LOCATIONS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7527
JOSEPH A. SARGENTI

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061505	2	56

INDEX OF SHTS. & GOVERNING SPECS.

INDEX OF SHEETS

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3.-9.	MAINTENANCE OF TRAFFIC		
10.	QUANTITIES AND GENERAL NOTES		
11.	SUMMARY OF QUANTITIES AND REVISIONS		
12.	SITE LOCATIONS MAP		
13.	BRIDGE PICTURES (SHEET 1 OF 2)		
14.	BRIDGE PICTURES (SHEET 2 OF 2)		
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16.	PL. GIRDER UNIT DETAILS - BRIDGE NO. 05504 - FOR INFORMATION ONLY		
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26.	PL. GIRDER UNIT DETAILS - BRIDGE NO. 05308 - FOR INFORMATION ONLY		
27.	LAYOUT OF BRIDGE NO. 05309 - FOR INFORMATION ONLY		
28.	PL. GIRDER UNIT DETAILS - BRIDGE NO. 05309 - FOR INFORMATION ONLY		
29.	PL. GIRDER UNIT DETAILS - BRIDGE NO. 05309 - FOR INFORMATION ONLY		
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31.	PL. GIRDER UNIT DETAILS - BRIDGE NO. 05309 - FOR INFORMATION ONLY		
32.	LAYOUT OF BRIDGE NOS. A&B5310 - FOR INFORMATION ONLY		
33.	STEEL DETAILS - BRIDGE NOS. A&B5310 - FOR INFORMATION ONLY		
34.	STEEL DETAILS - BRIDGE NOS. A&B5310 - FOR INFORMATION ONLY		
35.	STEEL DETAILS - BRIDGE NOS. A&B5310 - FOR INFORMATION ONLY		
36.	STEEL DETAILS - BRIDGE NOS. A&B5310 - FOR INFORMATION ONLY		
37.	LAYOUT OF BRIDGE NOS. A&B5311 - FOR INFORMATION ONLY		
38.	STEEL DETAILS - BRIDGE NOS. A&B5311 - FOR INFORMATION ONLY		
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40.	STEEL DETAILS - BRIDGE NOS. A&B5311 - FOR INFORMATION ONLY		
41.	STEEL DETAILS - BRIDGE NOS. A&B5311 - FOR INFORMATION ONLY		
42.	LAYOUT OF BRIDGE NO. 05312 - FOR INFORMATION ONLY		
43.	STEEL DETAILS - BRIDGE NOS. 05312 - FOR INFORMATION ONLY		
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49.	LAYOUT OF BRIDGE NO. 05313 - FOR INFORMATION ONLY		
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52.	STEEL DETAILS - BRIDGE NOS. 05313 - FOR INFORMATION ONLY		
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55.	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCION	TC-2	9-2-15
56.	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCION	TC-3	9-2-15

GOVERNING SPECIFICATIONS

ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014, AND THE FOLLOWING SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS:

NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY – FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
100-3	CONTRACTOR'S LICENSE
102-2	ISSUANCE OF PROPOSALS
108-1	LIQUIDATED DAMAGES
108-2	WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB 061505	BIDDING REQUIREMENTS AND CONDITIONS
JOB 061505	CARGO PREFERENCE ACT REQUIREMENTS
JOB 061505	CONTAINMENT SYSTEM
JOB 061505	CONTRACTOR CERTIFICATION
JOB 061505	DOCUMENTATION OF PAYMENTS MADE TO DISADVANTAGED BUSINESS ENTERPRISES
JOB 061505	INSPECTOR'S PERSONAL PROTECTION CLOTHING
JOB 061505	MANDATORY ELECTRONIC CONTRACT
JOB 061505	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 061505	NESTING SITES OF MIGRATORY BIRDS
JOB 061505	PAINT CONTRACTOR LABEL
JOB 061505	SPECIAL MAINTENANCE OF TRAFFIC REQUIREMENTS
JOB 061505	SPECIAL SAFETY REQUIREMENTS FOR BRIDGES

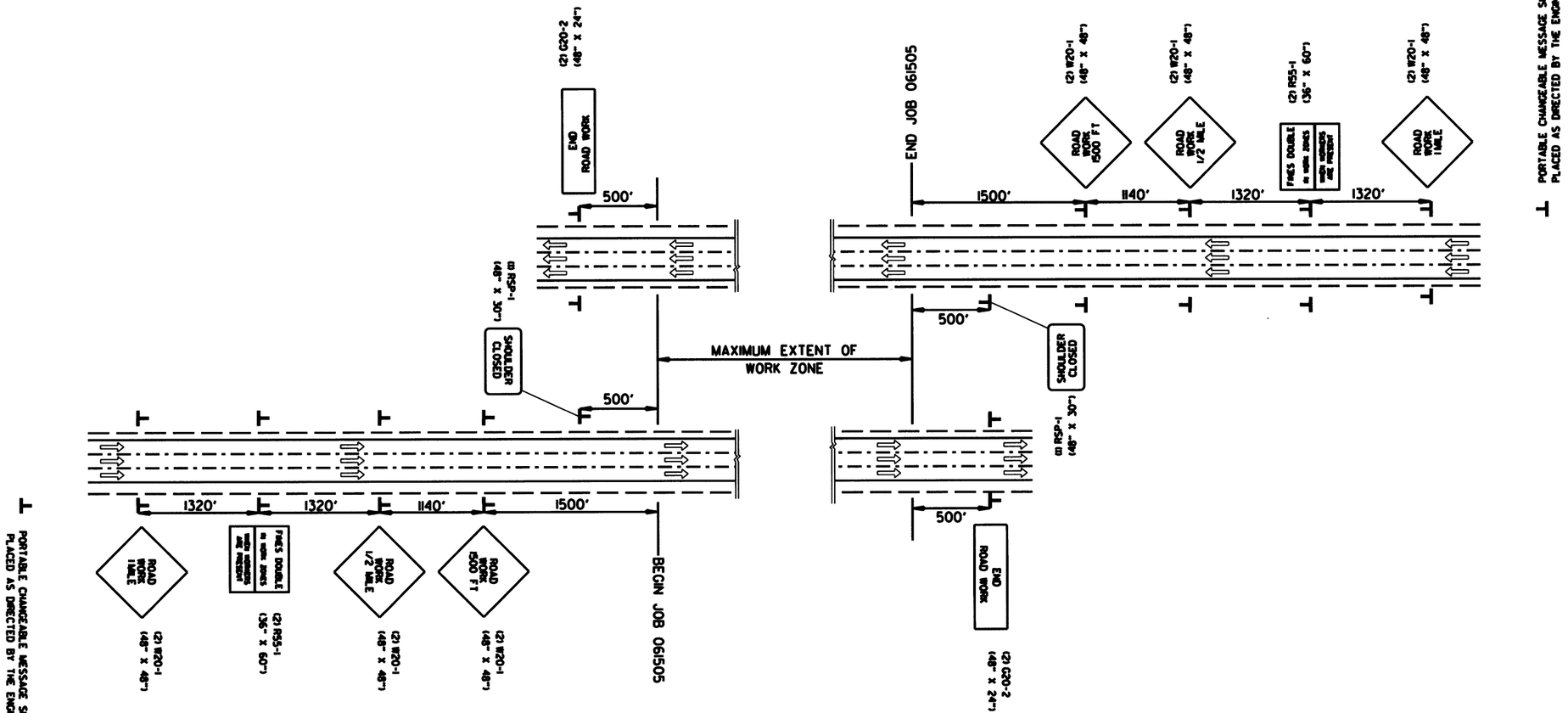
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7527
JOSEPH A. SARTIN
9/29/16

INDEX OF SHEETS & GOVERNING SPECIFICATIONS

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FEDERAL DIST. NO.	STATE	FED.AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061505	3	56

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-22-16



ADVANCE WARNING SIGNS AT BEGINNING AND END OF JOB
ALL STAGES

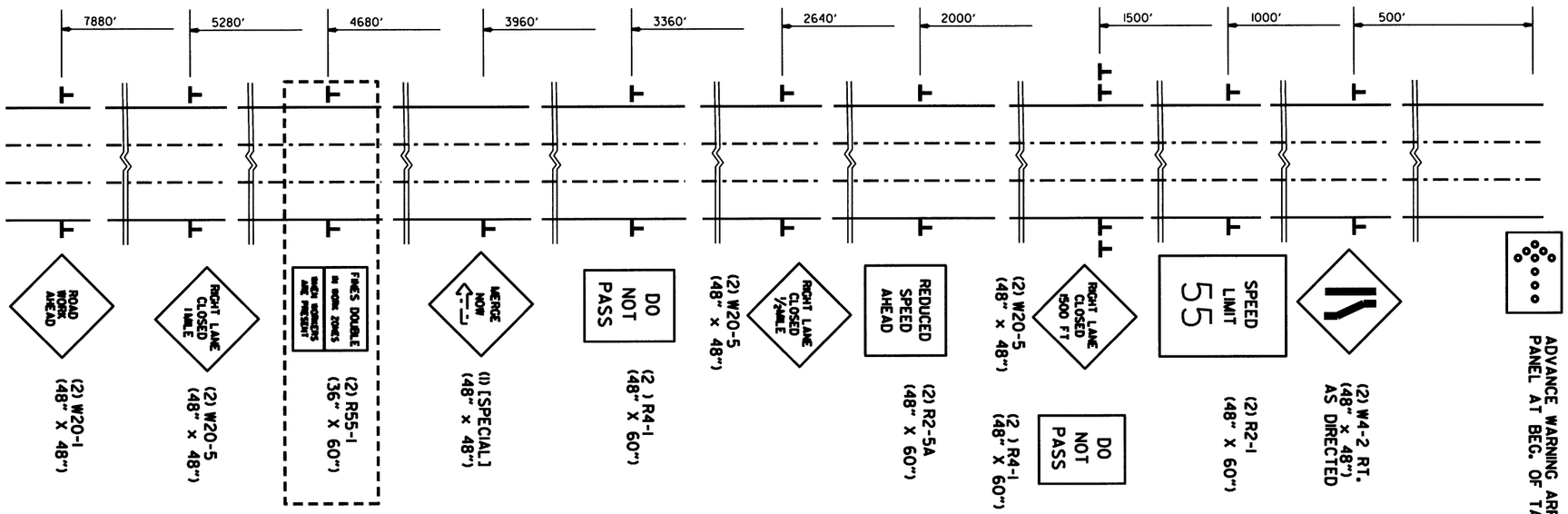
8/4/16

R061505.DGN

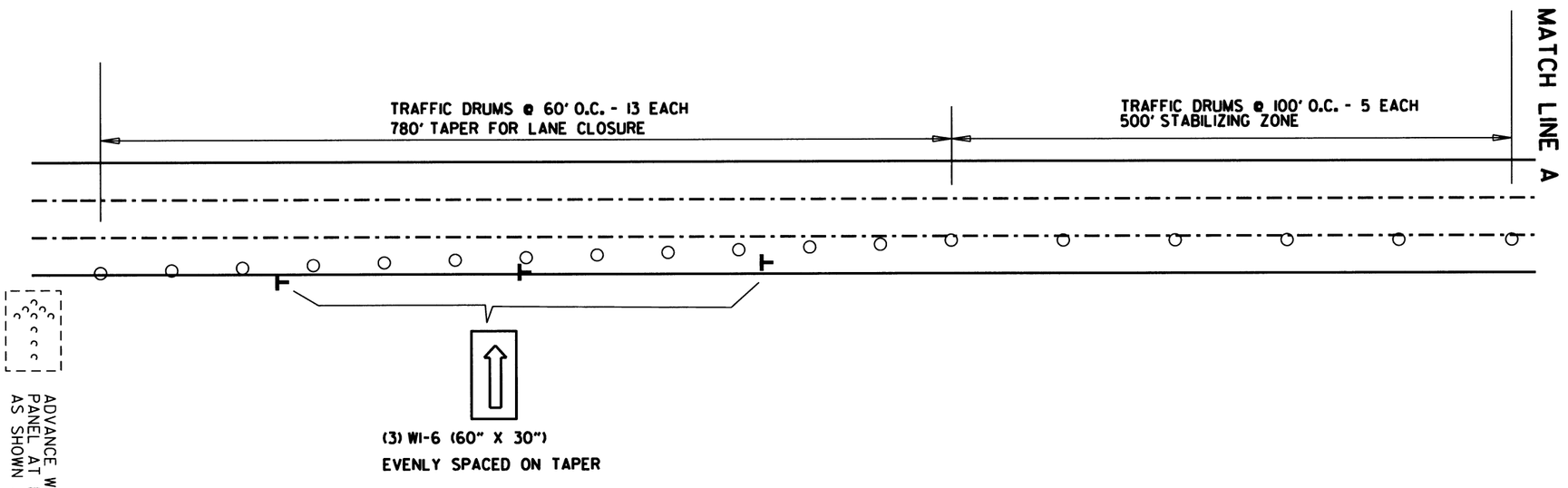
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FEDERAL DEPT./AGC.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061505	4	56

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-22-16



NOTE:
FOR LANE CLOSURES OTHER THAN AT THE APPROACH ENDS OF THE CONSTRUCTION ZONE, LEAVE OUT R55-1 SIGNS.



ADVANCE WARNING SIGNS & TYPICAL TRAFFIC DRUM PLACEMENT FOR OUTSIDE LANE CLOSURE

8/4/16

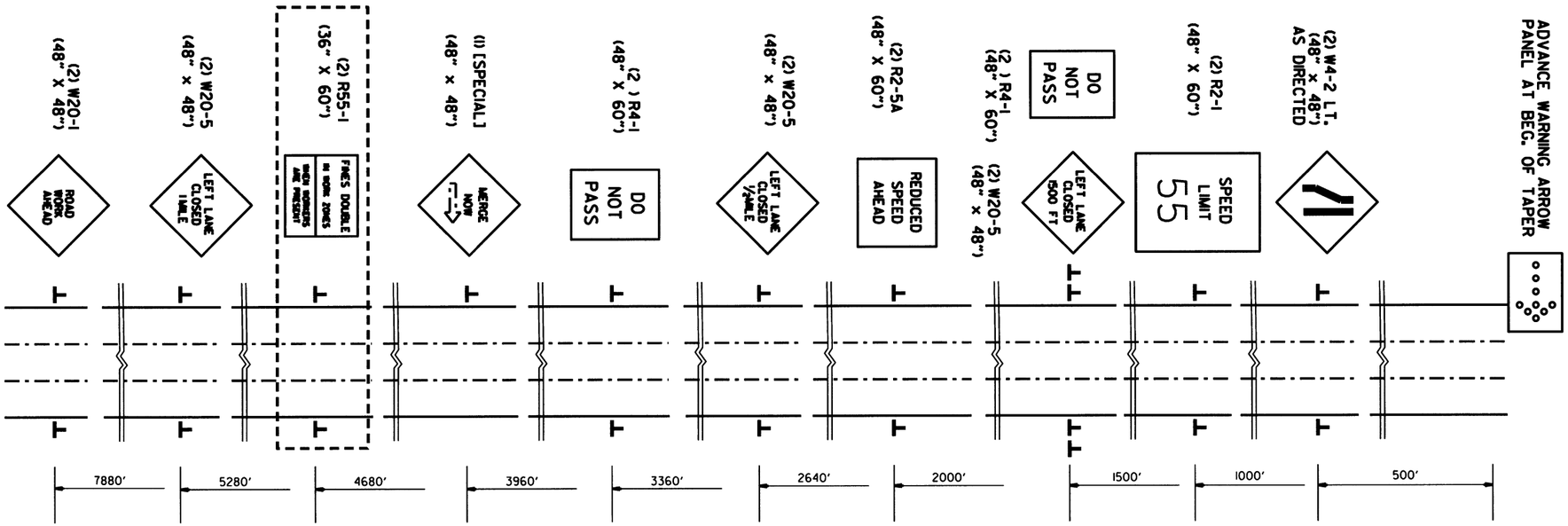
R061505.DGN

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED

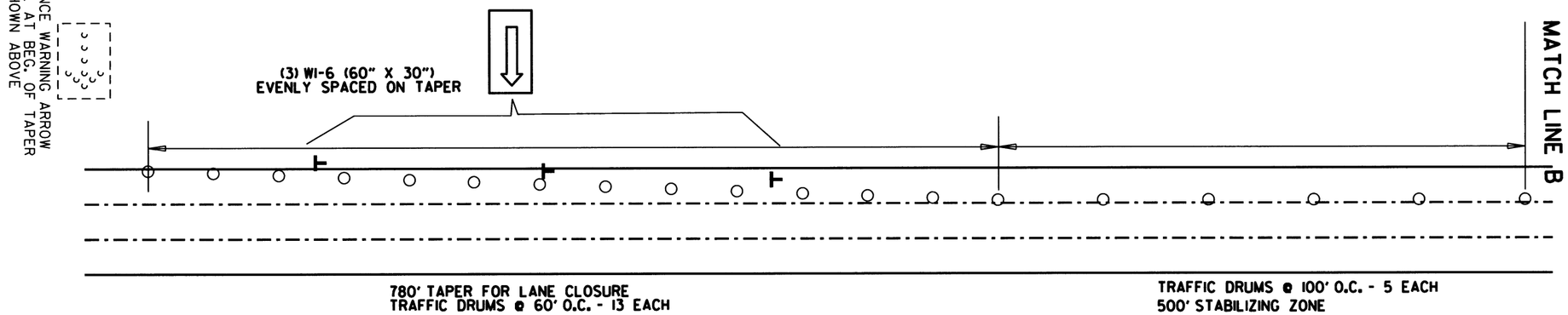
FEDERAL DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		061505	5	56

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY P. SMITH
9-22-16



NOTE:
FOR LANE CLOSURES OTHER THAN
AT THE APPROACH ENDS OF THE CONSTRUCTION ZONE,
LEAVE OUT R55-1 SIGNS.



ADVANCE WARNING SIGNS & TYPICAL TRAFFIC DRUM LAYOUT FOR INSIDE LANE CLOSURES

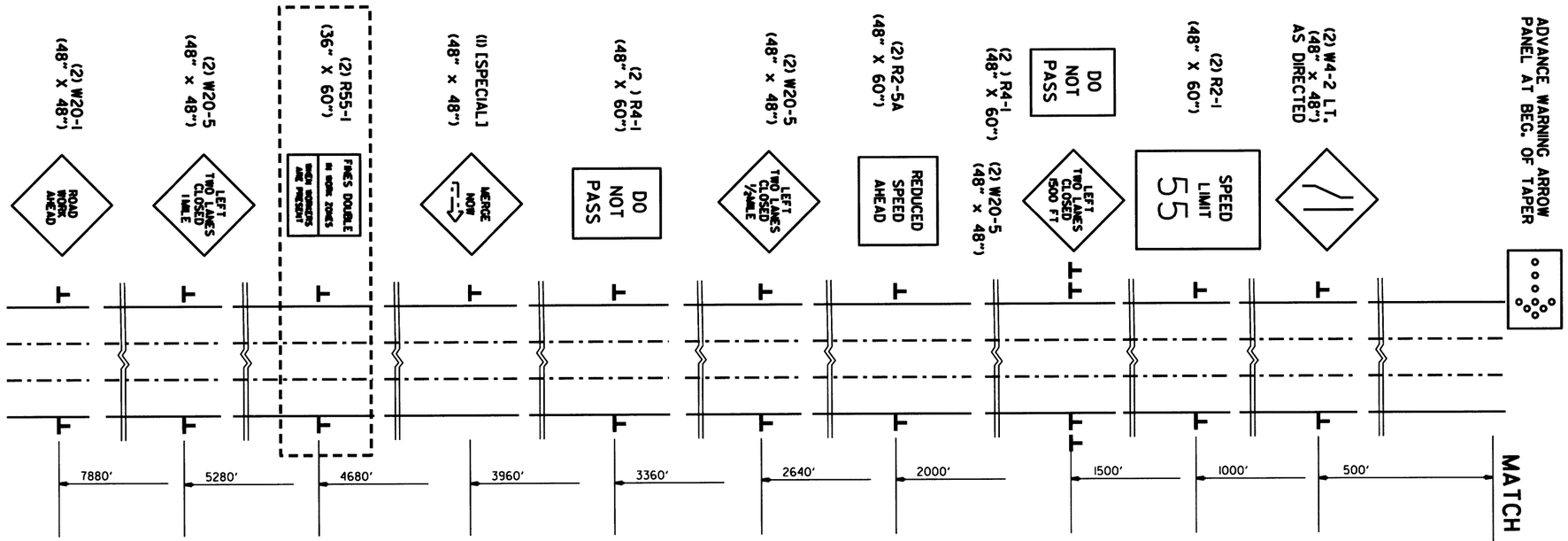
8/4/16

R061505.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FEDERAL DIST.NO.	STATE	FEDERAL PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061505	6	56

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-29-16



NOTE:
FOR LANE CLOSURES OTHER THAN
AT THE APPROACH ENDS OF THE CONSTRUCTION ZONE,
LEAVE OUT R55-1 SIGNS.

ADVANCE WARNING SIGNS
FOR INSIDE & MIDDLE LANE CLOSURES

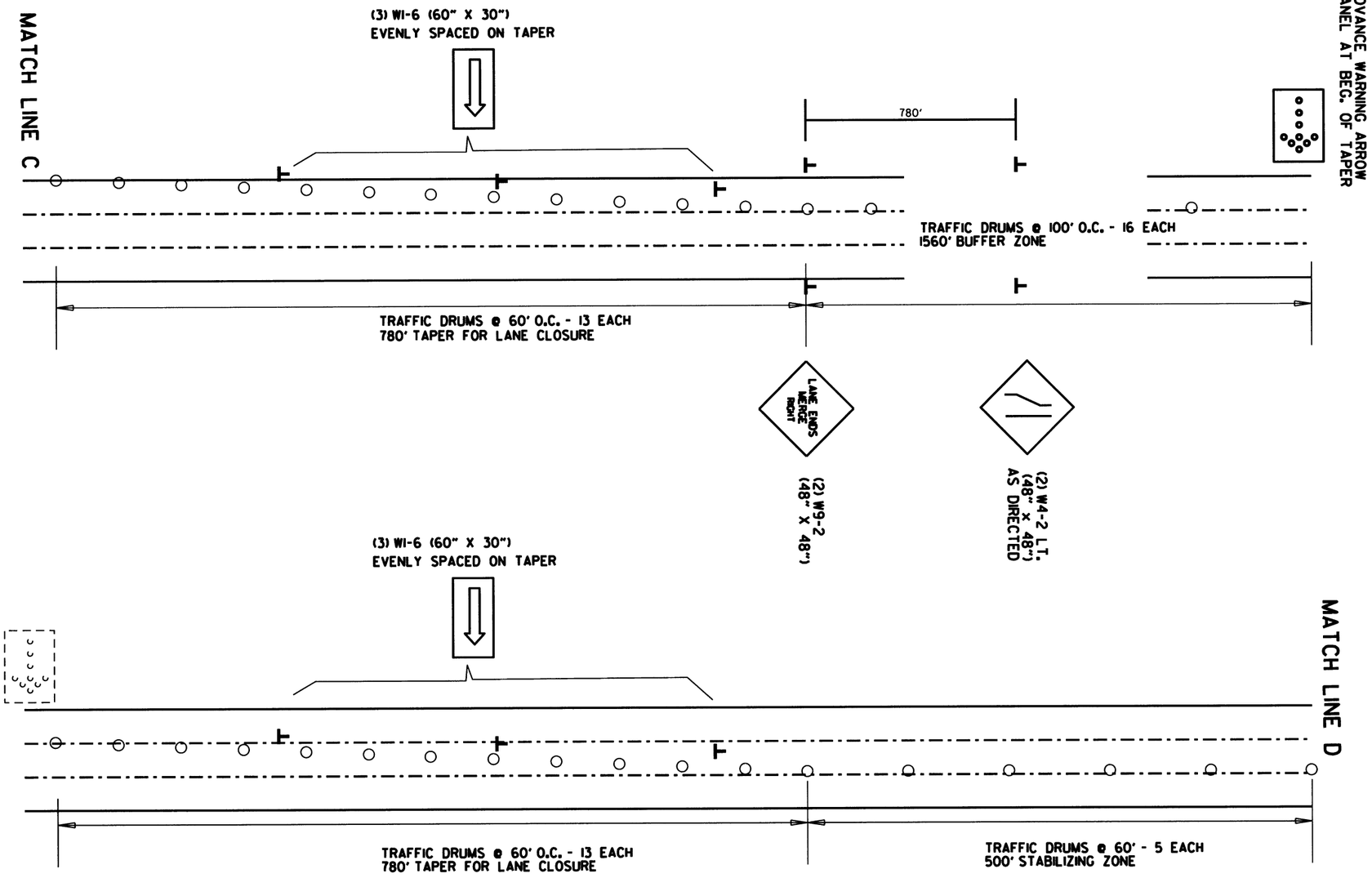
8/4/16

R061505.DGN

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED.HWY. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061505	7	56

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-22-16



ADVANCE WARNING SIGNS & TYPICAL TRAFFIC DRUM LAYOUT FOR INSIDE & MIDDLE LANE CLOSURES

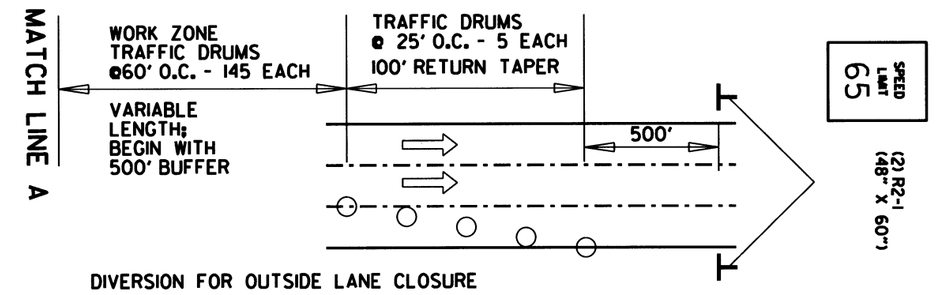
8/4/16

R061505.DGN

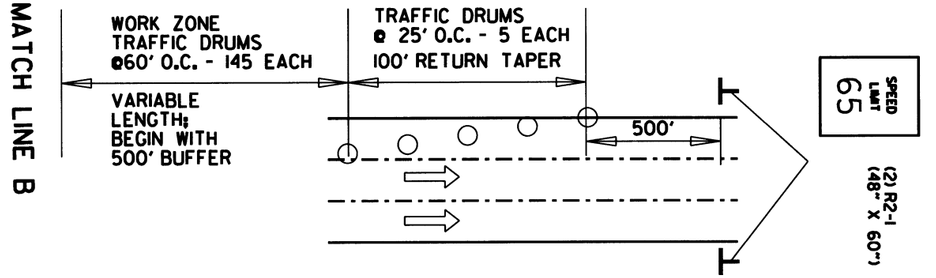
DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FEDERAL DIST. NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061505	8	56

(2) MAINTENANCE OF TRAFFIC

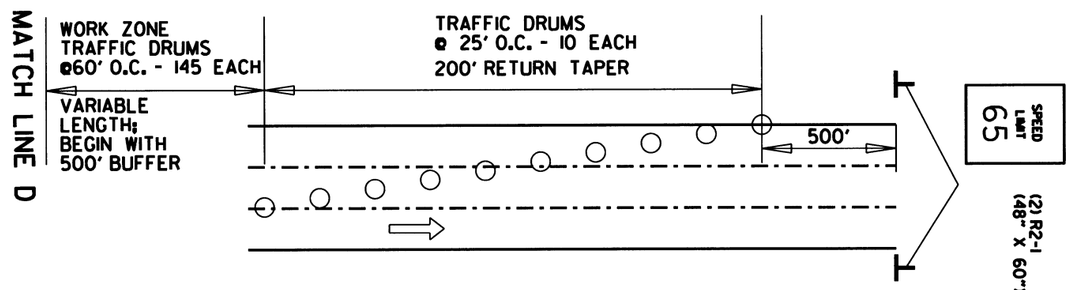
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-22-16



DIVERSION FOR OUTSIDE LANE CLOSURE



DIVERSION FOR INSIDE LANE CLOSURE



DIVERSION FOR INSIDE AND MIDDLE LANE CLOSURES

TYPICAL TRAFFIC DRUM LAYOUT FOR DIVERSION OF LANE CLOSURES

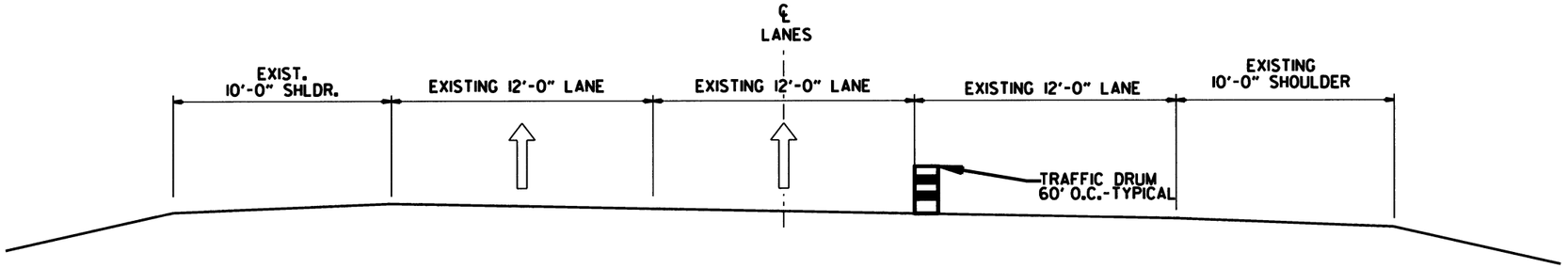
8/4/16

R061505.DGN

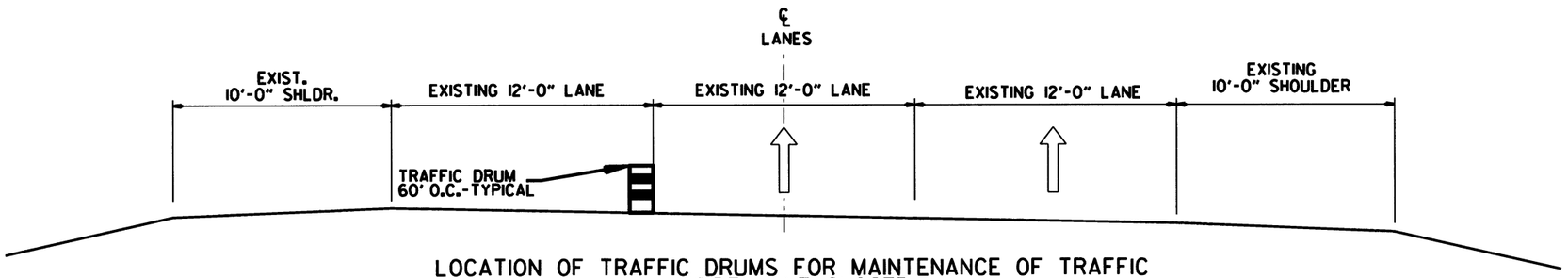
DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FEDERAL DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061505	9	56

(2) MAINTENANCE OF TRAFFIC

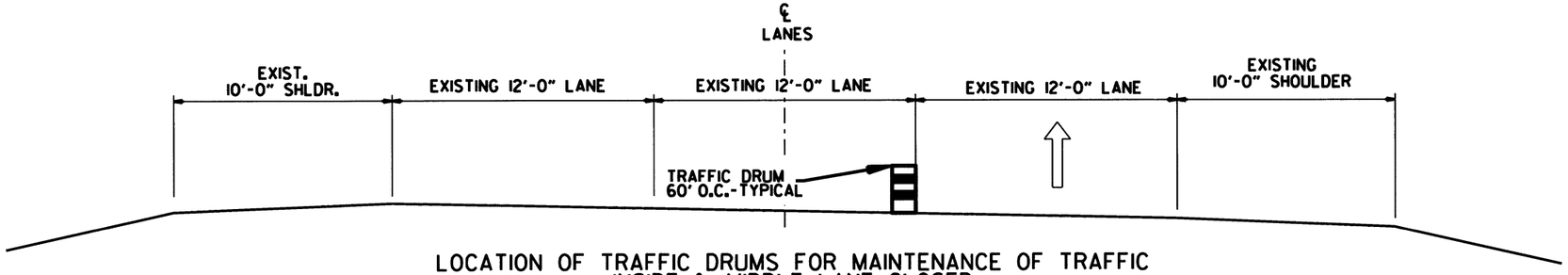
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-22-16



LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
OUTSIDE LANE CLOSED
(SHOWN IN DIRECTION OF TRAFFIC)



LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
INSIDE LANE CLOSED
(SHOWN IN DIRECTION OF TRAFFIC)



LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
INSIDE & MIDDLE LANE CLOSED
(SHOWN IN DIRECTION OF TRAFFIC)

8/4/16

R061505.DGN

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED.ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		060505	10	56
				QUANTITIES & GENERAL NOTES				

CLEANING AND PAINTING EXISTING STRUCTURAL STEEL (TYPE II)

DESCRIPTION	QUANTITY	UNIT
BRIDGE NO. 05504	144	TON
BRIDGE NO.05308	372	TON
BRIDGE NO. 05309	115	TON
BRIDGE NO. A5310	116	TON
BRIDGE NO. B5310	116	TON
BRIDGE NO. A5311	180	TON
BRIDGE NO. B5311	180	TON
BRIDGE NO. 05312	291	TON
BRIDGE NO. 05313	167	TON
TOTAL:	1681	TON

*DISPOSAL OF HAZARDOUS WASTE

DESCRIPTION	QUANTITY	UNIT
BRIDGE NO. 05504 (SITE NO. 1)	1.00	LUMP SUM
BRIDGE NO. 05308 (SITE NO. 2)	1.00	LUMP SUM
BRIDGE NO. 05309 (SITE NO. 3)	1.00	LUMP SUM
BRIDGE NO. A5310 (SITE NO. 4)	1.00	LUMP SUM
BRIDGE NO. B5310 (SITE NO. 5)	1.00	LUMP SUM
BRIDGE NO. A5311 (SITE NO. 6)	1.00	LUMP SUM
BRIDGE NO. B5311 (SITE NO. 7)	1.00	LUMP SUM
BRIDGE NO. 05312 (SITE NO. 8)	1.00	LUMP SUM
BRIDGE NO. 05313 (SITE NO. 9)	1.00	LUMP SUM

* POTENTIAL HAZARDOUS WASTE IN THE FORM OF LEAD PAINT DEBRIS WILL BE REMOVED FROM THIS STRUCTURE AND SENT TO AN APPROPRIATE TREATMENT FACILITY AS PER CODE OF FEDERAL REGULATIONS 40 CFR PART 260.

MOBILIZATION

DESCRIPTION	QUANTITY	UNIT
ENTIRE PROJECT	1.00	LUMP SUM
TOTAL:	1.00	LUMP SUM

**MAINTENANCE OF TRAFFIC

DESCRIPTION	QUANTITY	UNIT
ENTIRE PROJECT	1.00	LUMP SUM
TOTAL:	1.00	LUMP SUM

** ALL TRAFFIC CONTROL DEVICES AND/OR PAVEMENT MARKINGS WILL BE PLACED IF AND WHERE APPROVED BY THE ENGINEER. ALL ITEMS NECESSARY FOR TRAFFIC CONTROL IS SUBSIDIARY TO THE ITEM OF "MAINTENANCE OF TRAFFIC".

GENERAL NOTES

1. TOTAL ALLOWABLE WORKING DAYS: 85 DAYS
2. PAINT SYSTEM: SEE SECTION 807 AND 820 OF THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
   PRIME COAT: ONE COAT OF INORGANIC ZINC, 3 MIL DFT MINIMUM UNLESS NOTED.
   INTERMEDIATE EPOXY TIE COAT: 2 MIL DFT MINIMUM
   FINISH COAT: ONE COAT URETHANE, 3 MIL DFT MINIMUM, BROWN - FEDERAL STANDARD 595B COLOR CHIP 20108
   MAXIMUM DFT FOR EACH COAT AS RECOMMENDED BY COATING MANUFACTURER.
3. ALL SURFACES TO BE PAINTED SHALL BE CLEAN AND FREE OF DUST OR OTHER OBJECTIONABLE MATTER.
4. CONTRACTOR IS RESPONSIBLE FOR BEING FAMILIAR WITH THE LOCATION OF ALL UTILITIES ON THE BRIDGES BEFORE BIDDING.
5. UTILITIES ON BRIDGES SHOULD BE PROTECTED DURING THE CLEANING AND PAINTING OPERATION.
6. CONTAINMENT REQUIRED :

BRIDGE NUMBER	CLASS OF CONTAINMENT	MIGRATORY BIRDS
05504	3	NO
05308	3	NO
05309	3	NO
A5310	3	NO
B5310	3	NO
A5311	3	NO
B5311	3	NO
05312	3	YES
05313	3	NO

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061505	11	56
				SUMMARY OF QUANTITIES & REVISIONS				

SUMMARY OF QUANTITIES

LOCATION			BRIDGE DATA		ITEM NO.	SP & 820	601	SP & 603	820
BRIDGE NUMBER	I-430 LOG MILE	COUNTY	ROADWAY WIDTH (FT)	ROADWAY LENGTH (FT)	PAY ITEM / BRIDGE NAME / UNIT	CLEANING AND PAINTING EXISTING STRUCTURAL STEEL (TYPE II)	MOBILIZATION	MAINTENANCE OF TRAFFIC	DISPOSAL OF HAZARDOUS WASTE (SITE NO.)
					UNIT	TON	LUMP SUM	LUMP SUM	LUMP SUM
05504	0.22	PULASKI	35.5	270	I-30 WB FRONTAGE RD. OVER I-430	144			1.00 (SITE NO. 1)
05308	1.24	PULASKI	63	402	ST. HWY. 5 INTERCHANGE	372			1.00 (SITE NO. 2)
05309	2.43	PULASKI	31	284	DAVID O. DODD. RD. OVER I-430	115			1.00 (SITE NO. 3)
A5310	3.56	PULASKI	51	205	I-430 OVER COLONEL GLENN RD.	116			1.00 (SITE NO. 4)
B5310	3.56	PULASKI	51	205	I-430 OVER COLONEL GLENN RD.	116			1.00 (SITE NO. 5)
A5311	4.15	PULASKI	51	249	I-430 OVER W. 36TH ST.	180			1.00 (SITE NO. 6)
B5311	4.15	PULASKI	51	249	I-430 OVER W. 36TH ST.	180			1.00 (SITE NO. 7)
05312	5.33	PULASKI	22	252	SHACKLEFORD RD. OVER I-430	291			1.00 (SITE NO. 8)
05313	5.92	PULASKI	22	341	KANIS RD. OVER I-430	167			1.00 (SITE NO. 9)
					TOTAL JOB NO. 061505	1681	1.00	1.00	

REVISIONS

DATE	REVISION	SHEET NO.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
9752
JOSEPH A. SARKANI

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				STATE ARK.		
				JOB NO. 060505	12	56

SITE LOCATIONS MAP

9 BRIDGE NO. 05313
KANIS ROAD
OVER I-430 LM 5.92

8 BRIDGE NO. 05312
SHACKLEFORD ROAD
Over I-430 LM 5.33

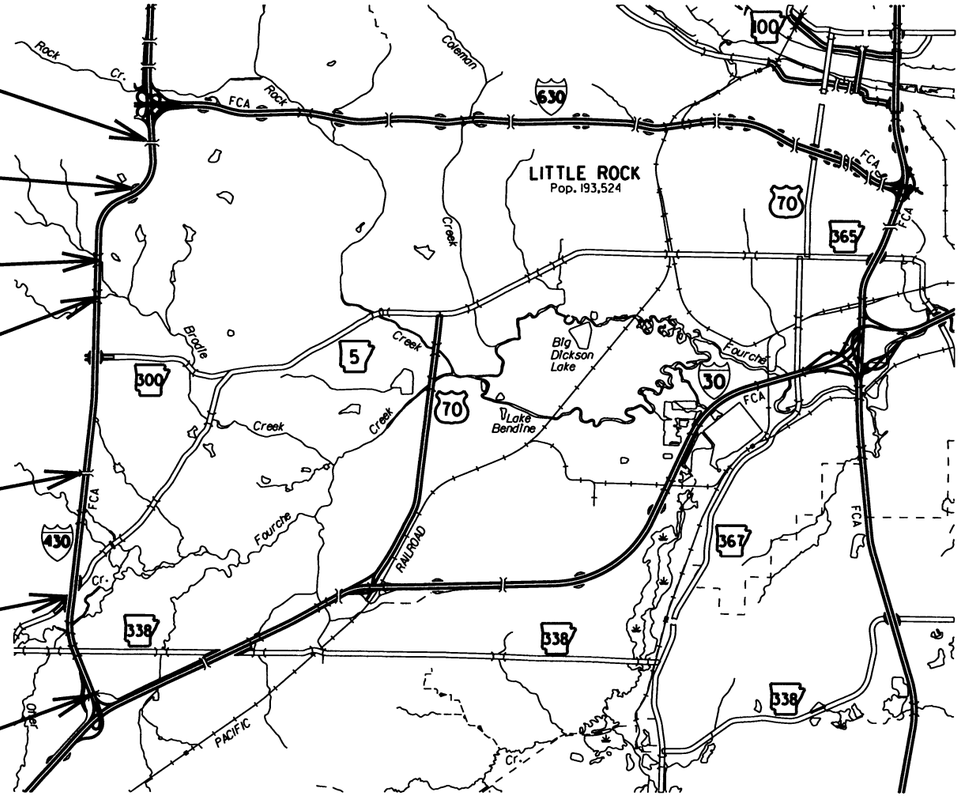
6 & 7 BRIDGE NOS. A5311 & B5311
I-430 LM 4.15

4 & 5 BRIDGE NOS. A5310 & B5310
I-430 LM 3.56

3 BRIDGE NO. 05309
DAVID O. DODD ROAD
OVER I-430 LM 2.43

2 BRIDGE NO. 05308
SH 5, SEC. 09, LM 3.28
OVER I-430 LM 1.24

1 BRIDGE NO. 05504
I-30 WB FRONTAGE
OVER I-430 LM 0.22



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7529
JOSEPH A. SARTINI
2/11/16

SITE LOCATIONS MAP

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061505	13	56

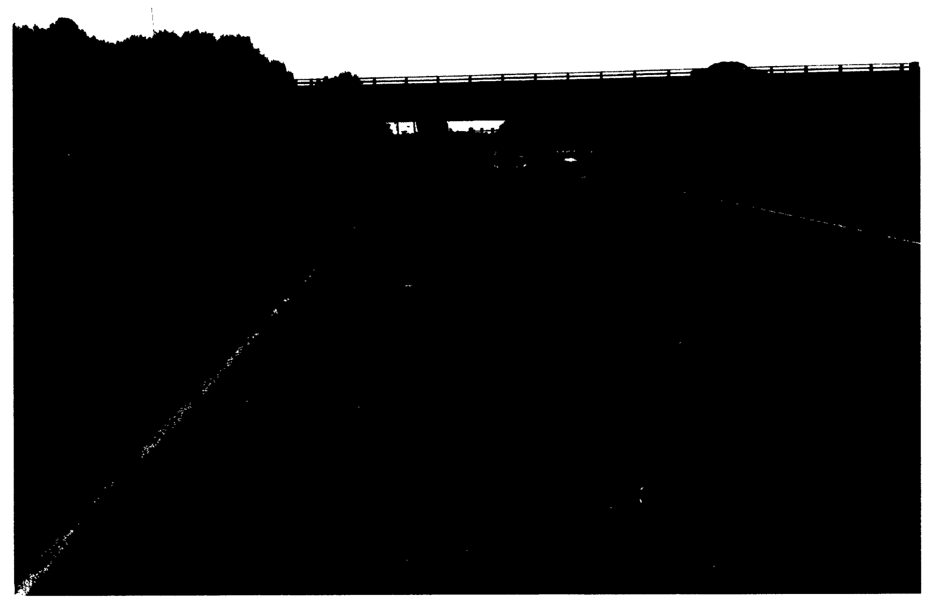
BRIDGE PICTURES

SITE NO. 1 - BRIDGE NO. 05504

SITE NO. 2 - BRIDGE NO. 05308

SITE NO. 3 - BRIDGE NO. 05309

SITE NO. 4 - BRIDGE NO. A5310



SITE NO. 5 - BRIDGE NO. B5310

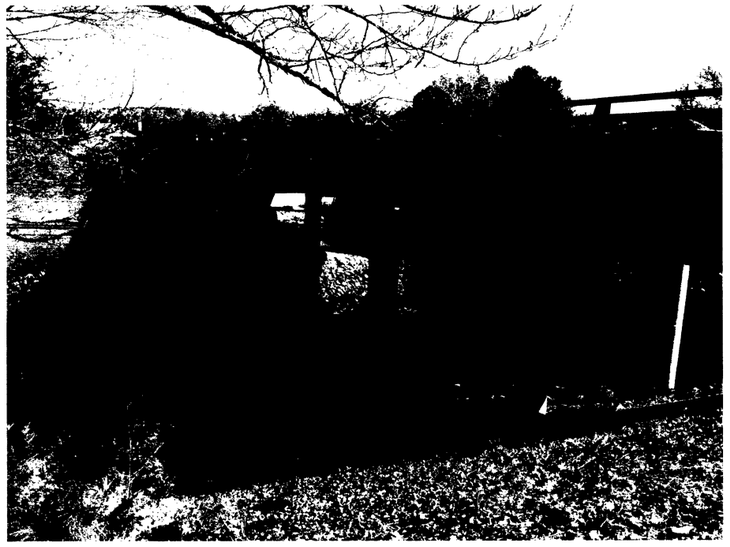
SITE NO. 6 - BRIDGE NO. A5311

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7527
JOSEPH A. SA...NI

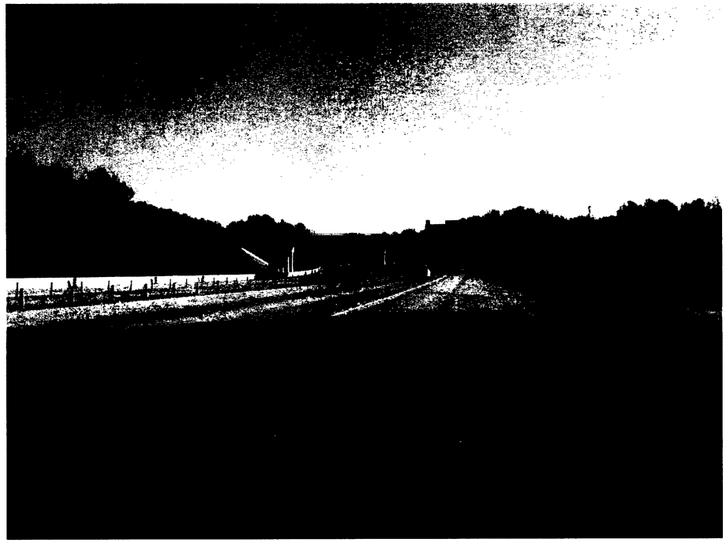
BRIDGE PICTURES (SHEET 1 OF 2)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		060505	14	56

BRIDGE PICTURES



SITE NO. 7 - BRIDGE NO. B5311



SITE NO. 8 - BRIDGE NO. 05312

SITE NO. 9 - BRIDGE NO. 05313

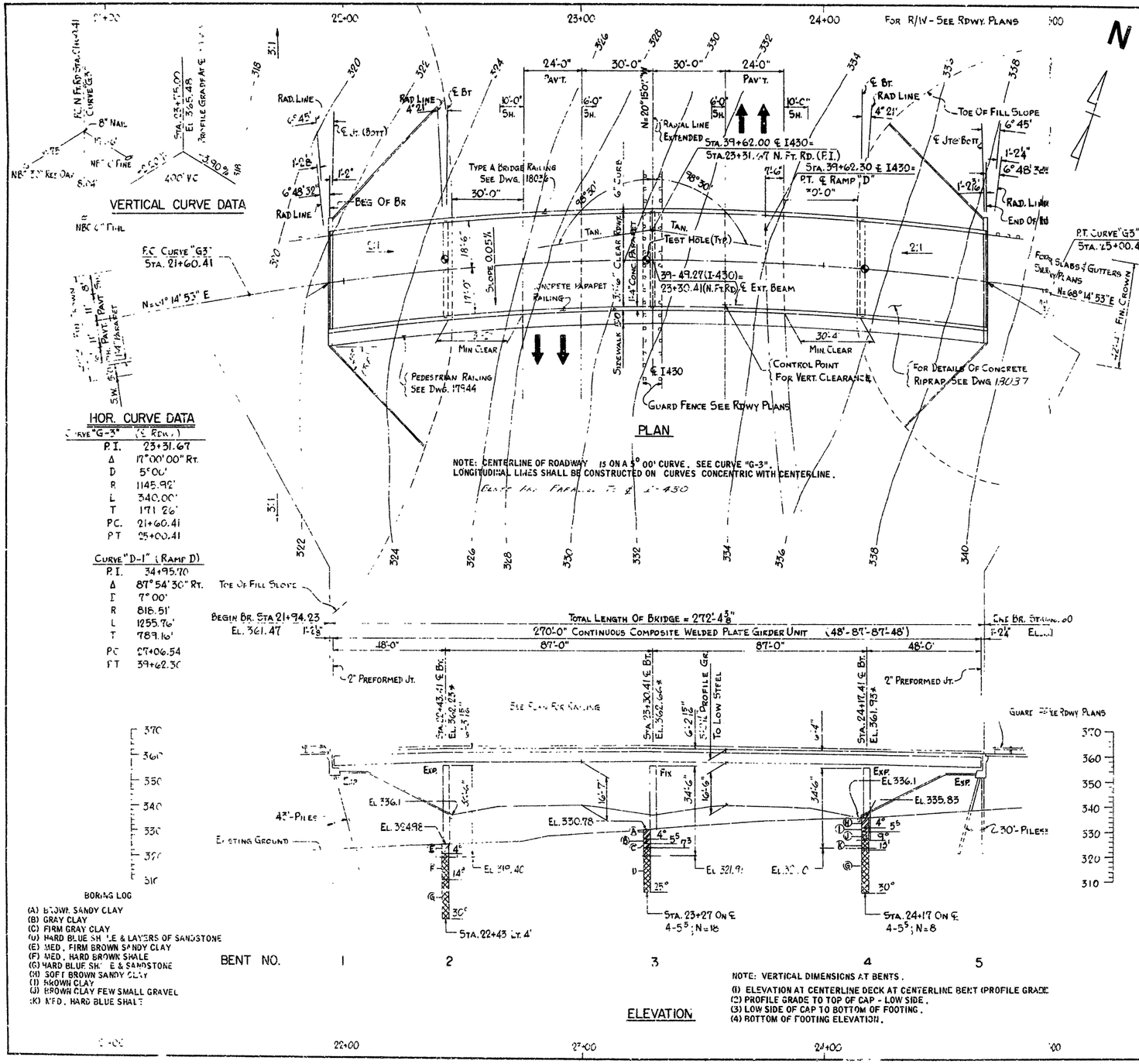
STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 7527 JOSEPH A. SANTELLI 2/21/11

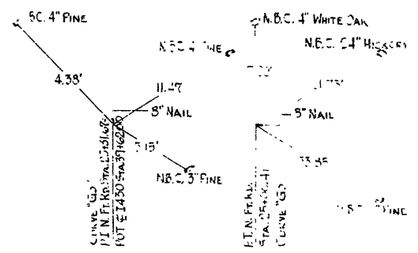
DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	15	56

① SITE NO. 1 - FOR INFORMATION ONLY

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	I 430-2 (103) 30		48	215
				JOB NO.		6848			

① 5504 Layout 17935





GENERAL NOTES

BENCH MARK - NAIL IN SIDE POWER POLE - 173' LT. STATION 29+69 (RAMP A), ELEV. 348.01.

SPREAD FOOTINGS SHALL BE SET A MINIMUM OF 1'-6" INTO SHALE. ROCK EXCAVATIONS SHALL BE MADE TO NEAT LINES OF CONCRETE FOOTINGS. CARE SHALL BE EXERCISED TO AVOID SHATTERING OF ROCK FACES BY EXCESSIVE BLASTING. CONCRETE IN FOOTINGS SHALL BE POURED DIRECTLY AGAINST EXCAVATED SURFACES OF ROCK.

ALL CONCRETE SHALL BE POURED IN THE DRY.

ALL PILING SHALL BE HP10X42 AND SHALL BE DRIVEN WITH AN APPROVED AIR, STEAM, OR DIESEL HAMMER WITH A MINIMUM ENERGY OF 10,000 FOOT POUNDS PER BLOW TO A MINIMUM BEARING CAPACITY OF 55 TONS PER PILE AND INTO THE MATERIAL DESIGNATED AS BLUE OR BROWN SHALE ON THE BORING LOGS. LENGTHS OF PILE SHOWN ARE FOR ESTIMATING QUANTITIES ONLY. ORDER LENGTHS SHOWN; CUT-OFF OR BUILD-UP, IF NECESSARY, TO BE PAID FOR IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

PILES IN END BENT TO BE DRIVEN AFTER EMBANKMENT TO SUBGRADE IS IN PLACE.

FOR DETAILS OF END BENTS, SEE DWG. NO. 17936 & 17937.
FOR DETAILS OF INTERMEDIATE BENTS, SEE DWG. NO. 17938, 17939 & 17940.
FOR DETAILS OF SUPERSTRUCTURE, SEE DWG. NO. 17941 THRU 17946.

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1972, AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHO 1969

LIVE LOADING: HS20 AND SPECIAL INTERSTATE LOADING OF TWO 24,000# AXLES SPACED AT 4'-0" ON CENTERS.

UNIT STRESSES:

CLASS S OR S(AE) CONCRETE (N=10)	1,200 PSI
REINFORCING STEEL	20,000 PSI
STRUCTURAL STEEL (A36)	20,000 PSI
STRUCTURAL STEEL (A572 - GRADE 50)	27,000 PSI

FOUNDATION PRESSURE:

	MAXIMUM	MINIMUM
GROUP I	8.05 KSF	8.05 KSF
GROUP II	11.92 KSF	6 KSF
GROUP III	11.76 KSF	4.34 KSF

FOR INFORMATION ONLY

LAYOUT OF UNDERPASS
NORTH FRONTAGE ROAD
JCT. I-30-FOURCHE CREEK
PULASKI COUNTY
INT. ROUTE 430 SEC. 21

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: [illegible] DATE: [illegible]
TRACED BY: [illegible] DATE: [illegible] SCALE: 1" = 20'-0"
CHECKED BY: [illegible] DATE: [illegible]

Vincent Finkbeiner
BRIDGE ENGINEER

BRIDGE NO. 5504 DRAWING NO. 17935

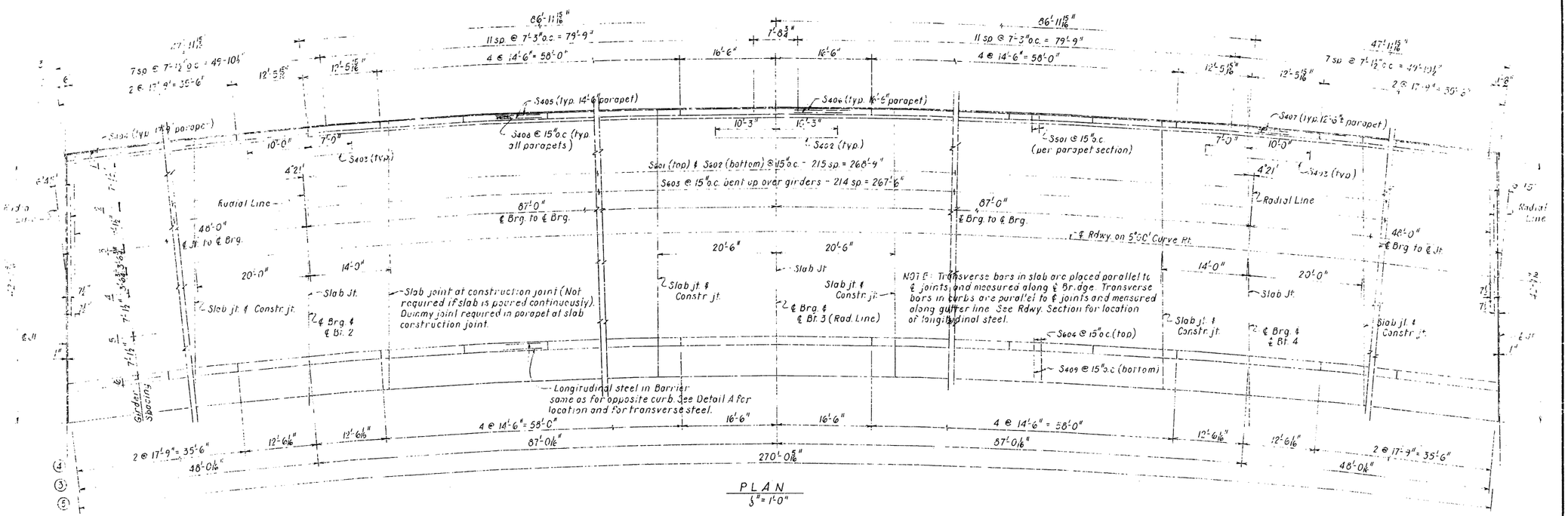
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD SEC. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	15	56

(1) SITE NO. 1 - FOR INFORMATION ONLY

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	I-030-2 (103)130		54	215
				JOB NO.		6848			

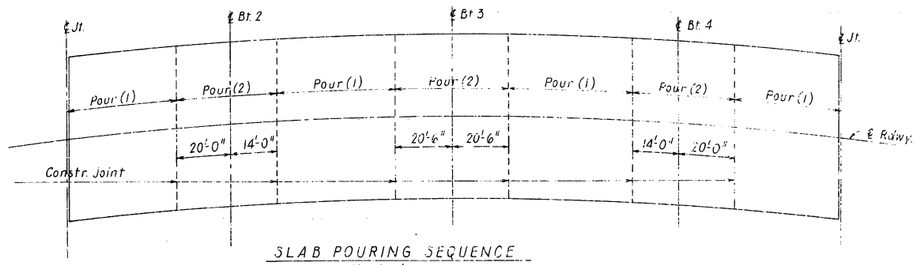
(1) 5504 SPAN 17941

Curbing Jts. to be formed in the parapet between Railing Posts. Dummy Jt. not required where Span Jt. is between posts.



PLAN
3/8" = 1'-0"

1. 3/4" Open Jts in parapet - Measured along front face of parapet.
2. Post spacing measured along front face of parapet
3. Measured along gutter line.
4. 8" Open Jts in Conc. Parapet Rail - Measured along gutter line. (Depth of Open Jt - 2'-0" below top of rail)
5. Pedestrian Rail measured along ℄ Rail.



SLAB POURING SEQUENCE
No Scale

All pours (1) adjacent to pours (2) must be placed before pours (2) can be placed. 48 hours shall elapse between pours (1) and 72 hours shall elapse between adjacent pours (1) and (2).

Weld end of longitudinal reinforcing steel as close to channel as possible

6 min.

3/4" x 8" automatically welded stud anchors, granular flux filled, solid fluxed, or equal.

ANCHOR DETAILS
No Scale

℄ Joint

1/4" x 1" poured asphalt joint in slab, curbs & sidewalk. To be paid for as "Class S (AE) Concrete."

NOTE: See Plan for location of joints

SLAB JOINTS
No Scale

FOR INFORMATION ONLY

SHEET 1 OF 6

DETAILS OF CONTINUOUS PLATE GIRDER UNIT
NORTH FRONTAGE ROAD
JCT. I-30 — FOURCHE CREEK
PULASKI COUNTY
INT. ROUTE 430 SEC. 21

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: W.S. DATE: 11-30-72
TRACED BY: DATE:
CHECKED BY: WAS DATE: 12-6-72
SCALE: As Shown

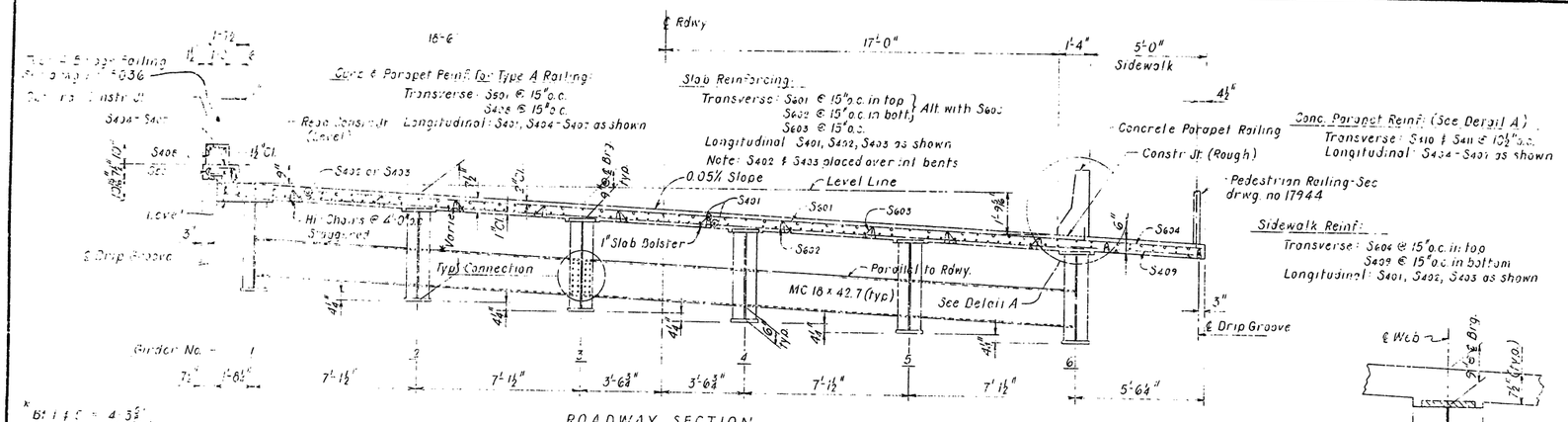
Virl Pemberton
BRIDGE ENGINEER

BRIDGE NO. 5504 DRAWING NO. 17941

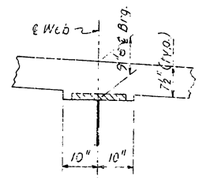
GRAHAM BLUE PRINT — No. 2 — 500

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	17	56
				① SITE NO. 1 - FOR INFORMATION ONLY				

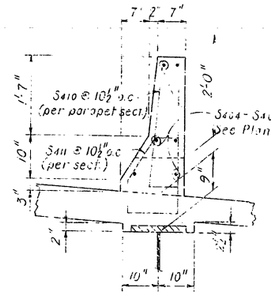
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	I 430-2 (105)30		55	215
				JOB NO.		6848			
				① 5504 SPAN 17942					



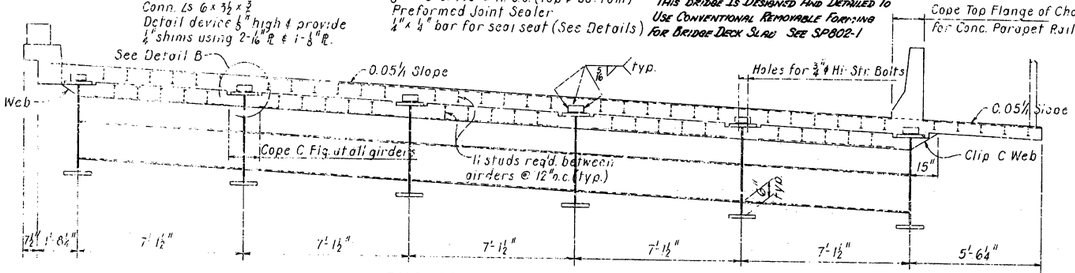
ROADWAY SECTION
(Looking Forward)
⅜" = 1'-0"



DETAIL B
¾" = 1'-0"



DETAIL A
¾" = 1'-0"

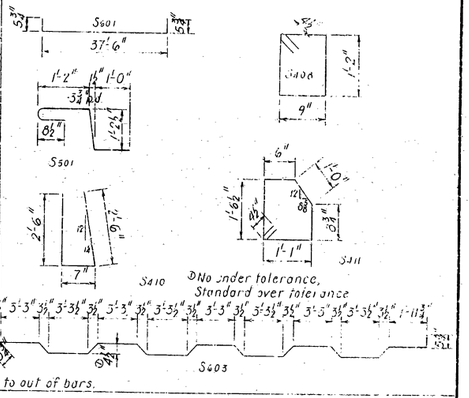


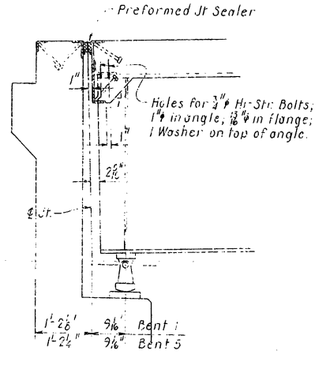
END SPAN SECTION
(Looking Forward)
⅜" = 1'-0"

BAR LIST

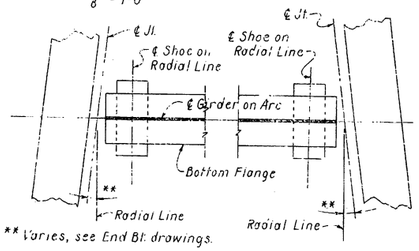
MK	No Reqd.	Length	Pin Dia
S601	216	38'-2"	3½"
S602	216	37'-6"	Str.
S603	215	39'-5"	3½"
S604	216	8'-8"	Str.
S501	218	4'-1"	2½"
S401	840	35'-3"	Str.
S402	28	20'-6"	Str.
S403	56	17'-0"	Str.
S404	32	17'-5"	Str.
S405	64	14'-2"	Str.
S406	16	12'-2"	Str.
S407	32	12'-2"	Str.
S408	218	4'-4"	2"
S409	216	8'-0"	Str.
S410	318	5'-7"	2"
S411	318	5'-4"	2"

Bending Diagrams

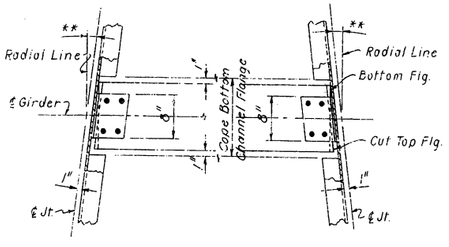




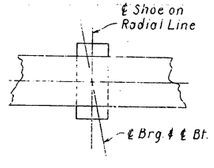
END BENT SECTION
THRU ℄ ROADWAY
¾" = 1'-0"



BEARING AT BRIDGE ENDS
¾" = 1'-0"



CHANNEL CONNECTION (TYP)
1" = 1'-0"



BEARING AT INT. BENTS
¾" = 1'-0"

FOR INFORMATION ONLY

SHEET 2 OF 6

DETAILS OF CONTINUOUS PLATE GIRDER UNIT
NORTH FRONTAGE ROAD
JCT. I-30 -- FOURCHE CREEK
PULASKI COUNTY
INT. ROUTE 430 SEC. 21

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: H. Maj DATE: 11-30-72
TRACED BY: DATE:
CHECKED BY: WAS DATE: 12-6-72
SCALE: As Shown

Vernal Pinkerton
BRIDGE ENGINEER

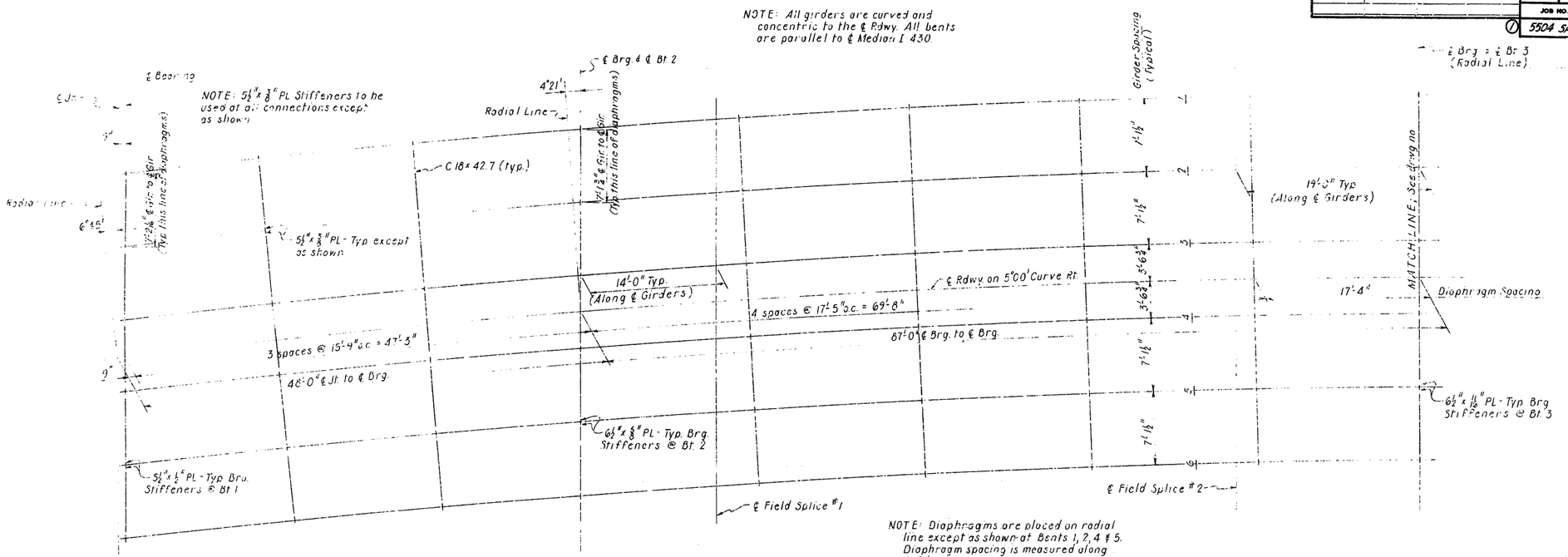
BRIDGE NO. 5504 DRAWING NO. 17942

BLUE PRINT — 9-72 — 500

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	18	56
				①	SITE NO. 1 - FOR INFORMATION ONLY			

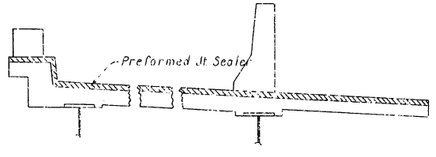
DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	I-430-2 (105)130		56	215
				JOB NO.		6848			
				①	5504 Span	17943			

NOTE: All girders are curved and concentric to the ℄ Rdwy. All bents are parallel to ℄ Median I 430.

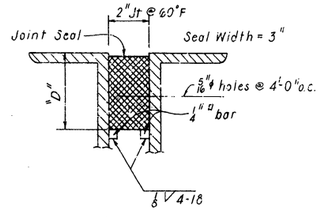


NOTE: Diaphragms are placed on radial line except as shown at Bents 1, 2, 4 & 5. Diaphragm spacing is measured along ℄ Rdwy.

FRAMING PLAN
3/16" = 1'-0"



JOINT SEALER PLACEMENT



JOINT SEAL SUPPORT
No Scale

The Dimension "D" shall conform to the recommendations of the seal manufacturer as approved by the Bridge Engineer. The depth of the seal shall be approximately equal to the uncompressed width of the seal.

NOTES:
ALL GIRDERS SHALL BE BLOCKED IN THEIR TRUE POSITION, WITH WEB PLATES HORIZONTAL, IN THE SHOP TO FORM EACH COMPLETE UNIT. THE CAMBER, LENGTH OF SECTIONS, DISTANCE BETWEEN BEARINGS AND OPENING OF JOINTS SHALL BE MEASURED WITH THE BEAMS IN THIS POSITION AND THIS INFORMATION SHALL BECOME A PART OF THE PERMANENT RECORD OF THIS JOB. THE COMPONENT PARTS SHALL BE MATCH MARKED IN THIS ASSEMBLY AND THESE MARKS SHALL BE SHOWN ON THE ERECTION DIAGRAM. ALL GIRDER DIMENSIONS ARE BASED ON A TEMPERATURE OF 60°F. A TOLERANCE OF ± 1/4" IS ALLOWED FOR CAMBER.

DIAPHRAGMS AT BEARING STIFFENERS SHALL BE INSTALLED AS GIRDERS ARE ERECTED. ALL DIAPHRAGMS SHALL BE INSTALLED AND COMPLETELY BOLTED PRIOR TO POURING OF FLOOR SLABS.

UNIT STRESSES:

CLASS S(AE) CONCRETE (N=10)	1,200 PSI
REINFORCING STEEL	20,000 PSI
STRUCTURAL STEEL (A36)	20,000 PSI
STRUCTURAL STEEL (A572, GRADE 50)	27,000 PSI

DESIGN SPECIFICATIONS: AASHO 1969 AND INTERIM SPECIFICATIONS

DESIGN LIVE LOAD - HS20

LOAD DISTRIBUTION

	DEAD LOAD TO GIRDER (INCLUDES 158 PLF FOR WEIGHT OF GIRDER)	DEAD LOAD TO COMP. GIRDER (INCLUDES 148 PLF FOR WEIGHT OF FUTURE SURFACE)	LIVE LOAD TO COMP. GIRDER
EXT. GIRDER 1	677 PLF	306 PLF	1.2324 WHEELS + IMPACT
INT. GIRDER 2-5	837 PLF	234 PLF	1.2955 WHEELS + IMPACT
EXT. GIRDER 6	962 PLF	333 PLF	1.2324 WHEELS + IMPACT

FOR INFORMATION ONLY

SHEET 3 OF 6

DETAILS OF CONTINUOUS PLATE GIRDER UNIT
NORTH FRONTAGE ROAD
JCT. I-30 – FOURCHE CREEK
PULASKI COUNTY
INT. ROUTE 430 SEC. 21

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: H.deV. DATE: 11-30-72
TRACED BY: DATE: SCALE: As Shown
CHECKED BY: H.E.S. DATE: 12-7-72

Virgil Pinkerton
BRIDGE ENGINEER

BRIDGE NO. 5504 DRAWING NO. 17943

KIMAN BLUE PRINT — 3-72 — 500

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		06505	19	56

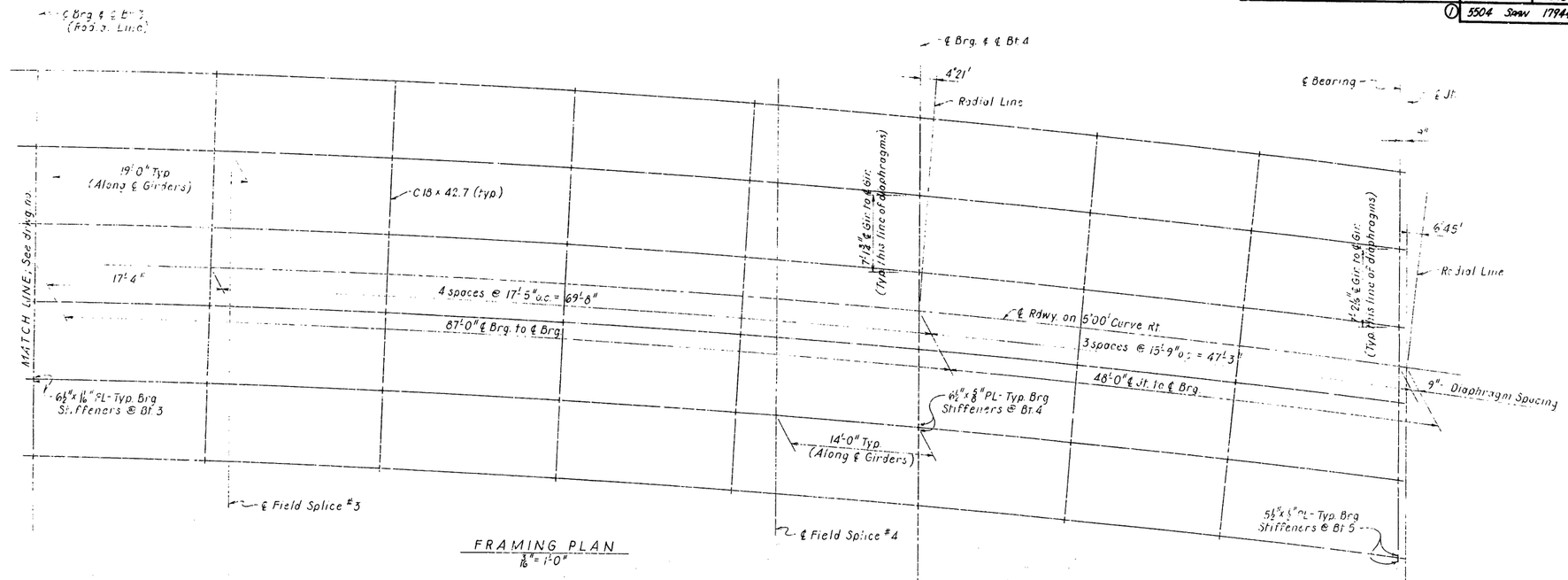
① SITE NO. 1 - FOR INFORMATION ONLY

63

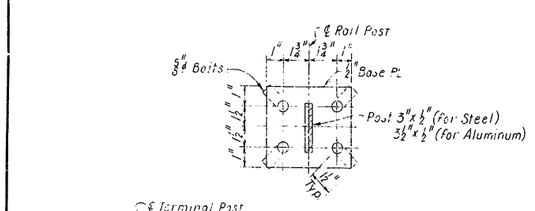
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	I-430-2 (108)130		57	215
JOB NO.		6848			

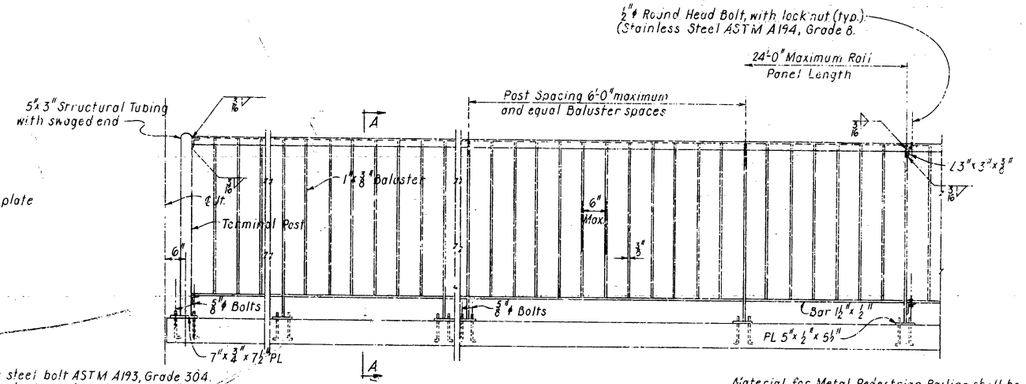
① 5504 Sstw 17944



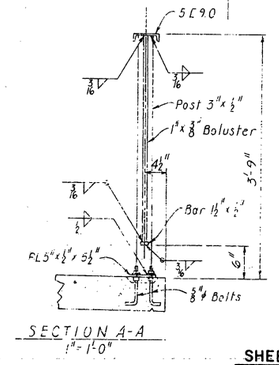
FRAMING PLAN
3/16" = 1'-0"



PEDESTRIAN RAILING - ANCHOR BOLT ASSEMBLIES
3" - 1'-0"



ELEVATION OF PEDESTRIAN RAILING
¾" = 1'-0"



SECTION A-A
1" = 1'-0"

Material for Metal Pedestrian Railing shall be ASTM A36 and galvanized in accordance with ASTM 123 or Aluminum Alloy 6061-T6, ASTM B 221. All bolts, nuts and washers shall be Stainless Steel as noted on details. Mixing of Aluminum and Galvanized Steel parts in railing assembly is not permitted.

FOR INFORMATION ONLY

Neal Pinkerton
BRIDGE ENGINEER

SHEET 4 OF 6

DETAILS OF CONTINUOUS PLATE GIRDER UNIT
NORTH FRONTAGE ROAD
JCT. I-30 — FOURCHE CREEK
PULASKI COUNTY
INT. ROUTE 430 SEC. 21

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: H. Riley DATE: 11-30-72
TRACED BY: DATE:
CHECKED BY: HAS DATE: 12-7-72
SCALE: As Shown

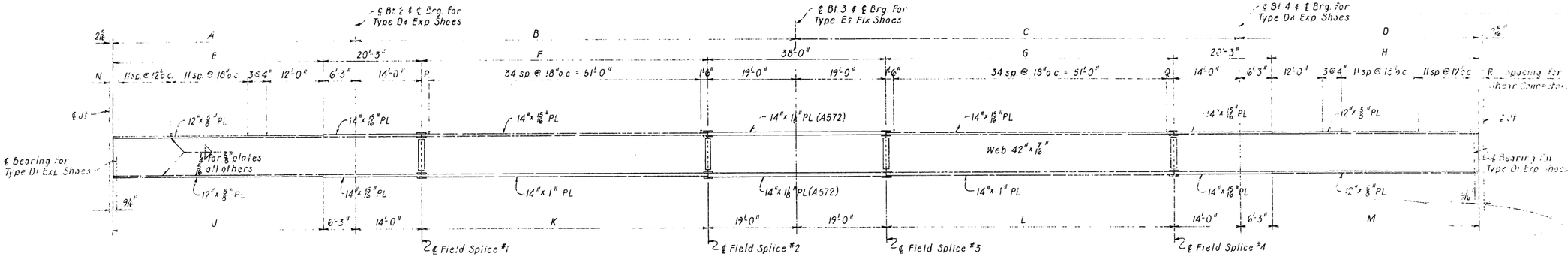
BRIDGE NO. 5504 DRAWING NO. 17944

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	20	56

(1) SITE NO. 1 - FOR INFORMATION ONLY

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	I-430-2 (109) 130		58	215
				JOB NO.		6848			

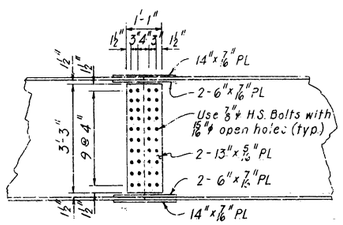
(1) 5504 Stan 17945



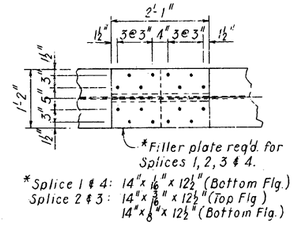
GIRDER ELEVATION (TYP)
No Scale

TABLE OF VARIABLES

Variable	Girder No 1	2	3	4	5	6
A	47'-9 3/8"	47'-9 3/8"	47'-9 1/16"	47'-9 1/16"	47'-9 3/8"	47'-9 3/4"
B	86'-11 15/16"	87'-0"	87'-0"	87'-0"	87'-0"	87'-0 1/16"
C	86'-11 15/16"	87'-0"	87'-0"	87'-0"	87'-0"	87'-0 1/16"
D	47'-9 3/8"	47'-9 3/8"	47'-9 11/16"	47'-9 1/16"	47'-9 3/8"	47'-9 3/4"
E	41'-6 3/8"	41'-6 3/8"	41'-6 11/16"	41'-6 1/16"	41'-6 3/8"	41'-6 3/4"
F	53'-11 15/16"	54'-0"	54'-0"	54'-0"	54'-0"	54'-0 1/16"
G	53'-11 15/16"	54'-0"	54'-0"	54'-0"	54'-0"	54'-0 1/16"
H	41'-6 3/8"	41'-6 3/8"	41'-6 11/16"	41'-6 1/16"	41'-6 3/8"	41'-6 3/4"
J	41'-6 3/8"	41'-6 3/8"	41'-6 11/16"	41'-6 1/16"	41'-6 3/8"	41'-6 3/4"
K	53'-11 15/16"	54'-0"	54'-0"	54'-0"	54'-0"	54'-0 1/16"
L	53'-11 15/16"	54'-0"	54'-0"	54'-0"	54'-0"	54'-0 1/16"
M	41'-6 3/8"	41'-6 3/8"	41'-6 1/16"	41'-6 1/16"	41'-6 3/8"	41'-6 3/4"
N	1'-2 15/16"	1'-2 15/16"	1'-3"	1'-3"	1'-3 1/16"	1'-3 1/16"
P	1'-5 15/16"	1'-6"	1'-6"	1'-6"	1'-6"	1'-6 1/16"
Q	1'-5 15/16"	1'-6"	1'-6"	1'-6"	1'-6"	1'-6 1/16"
R	1'-2 15/16"	1'-2 15/16"	1'-3"	1'-3"	1'-3 1/16"	1'-3 1/16"
Girder Radius	1163.73	1156.61	1149.48	1142.36	1135.23	1128.11

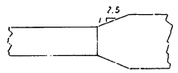


FIELD SPLICE DETAILS - TYP
1/2" = 1'-0"

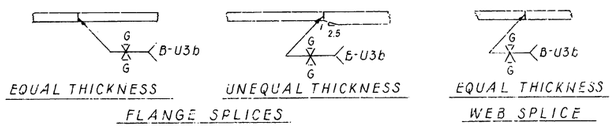


*Splice 1 & 4: 14"x 1 1/16"x 12'-2 1/2" (Bottom Flg.)
Splice 2 & 3: 14"x 1 1/8"x 12'-2 1/2" (Top Flg.)
14"x 7/8"x 12'-2 1/2" (Bottom Flg.)

FLANGE PLATES
3/4" = 1'-0"



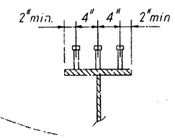
PLAN - UNEQUAL WIDTH (FLG)



EQUAL THICKNESS | UNEQUAL THICKNESS | EQUAL THICKNESS

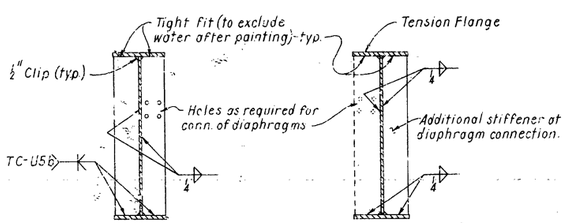
FLANGE SPLICES | WEB SPLICE

BUTT WELD DETAILS
No Scale



Stud shear connectors shown shall be 5" long, granular flux filled, solid fluxed or equal, and automatically end welded to girder flanges in accordance with recommendations of the manufacturer. 3/4" diameter studs may be substituted for the 7/8" diameter studs shown at the ratio of 0.73 - 3/4" studs in place of 1-7/8" studs. The 3/4" studs shall be used as the basis of payment of 74.0 lbs. per one hundred studs.

SHEAR CONNECTOR DETAIL
No Scale



BEARING STIFFENERS AT END & INT. BENTS
No Scale

INTERMEDIATE STIFFENERS
No Scale

NOTE: See Framing Plan for Plate sizes.

FOR INFORMATION ONLY

SHEET 5 OF 6

DETAILS OF CONTINUOUS PLATE GIRDER UNIT
NORTH FRONTAGE ROAD
JCT. I-30 — FOURCHE CREEK
PULASKI COUNTY
INT. ROUTE 430 SEC. 21

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: H.M.H. DATE: 11-30-72
TRACED BY: DATE:
CHECKED BY: W.A.S. DATE: 12-5-72
SCALE: As Shown

Verdi Pinkerton
BRIDGE ENGINEER

BRIDGE NO. 5504 DRAWING NO. 17945

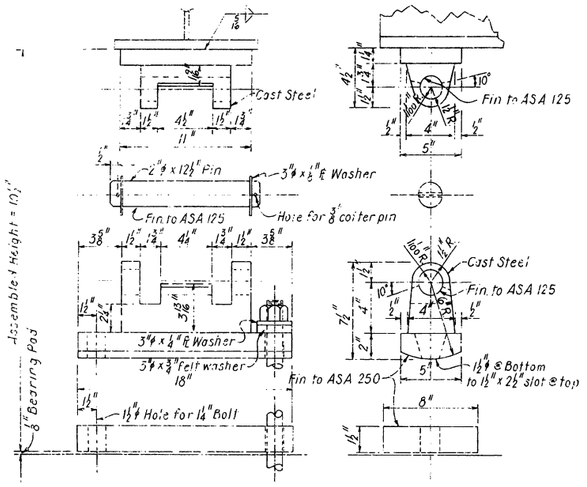
GRAHAM BLUE PRINT — 7-72 — 500

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	21	56

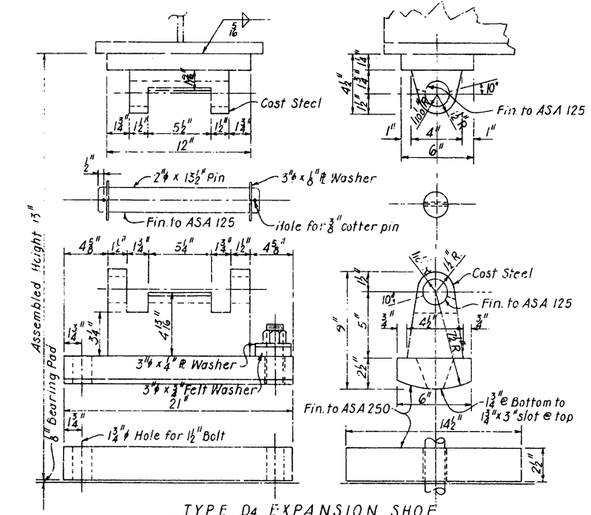
(1) SITE NO. 1 - FOR INFORMATION ONLY

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	F 430-2 (105) 130		59	215
				JOB NO.		6848			

(1) 5504 SAWN 17946

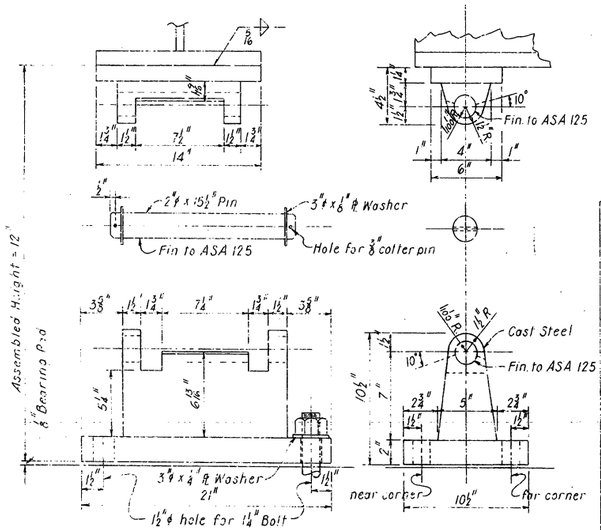


TYPE D1 EXPANSION SHOE
(Bents 1 & 5)

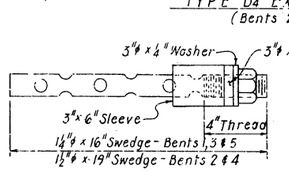


TYPE D4 EXPANSION SHOE
(Bents 2 & 4)

MATERIALS FOR SHOES: Steel Castings ASTM A27 Grade 70-40, & ASTM A36.



TYPE E2 FIXED SHOE
(Bent 3)



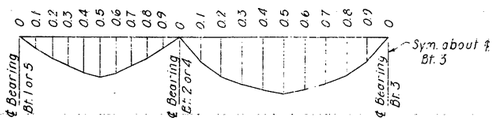
Use 3" diameter x 6" sheet metal sleeve when anchor bolts are built into the masonry. Dry pack with styrofoam or urethane foam or approved equal prior to pouring concrete. After pouring end bents & int bents and prior to erecting girders, adjust anchor bolts to match holes in masonry plates. Remove dry pack material from sleeve and refill with non-shrink grout.

ANCHOR BOLT DETAIL

TABLE OF DEFLECTIONS (IN.)

	Point Of Deflection	Wt. of Girder			Wt. of Girder & Slab			Wt. of Girder, Slab, Sidewalk, Parapet & Rails		
		Ext. 1	Int. 2-5	Ext. 6	Ext. 1	Int. 2-5	Ext. 6	Ext. 1	Int. 2-5	Ext. 6
Span 1	0	0	0	0	0	0	0	0	0	0
	0.1	-0.001	0.000	0.002	0.010	0.015	0.019	0.012	0.015	0.022
	0.2	-0.003	-0.001	0.002	0.016	0.024	0.031	0.018	0.024	0.037
	0.3	-0.005	-0.003	0.002	0.015	0.023	0.033	0.016	0.024	0.039
	0.4	-0.009	-0.006	0.000	0.006	0.013	0.023	0.005	0.012	0.028
	0.5	-0.012	-0.010	-0.003	-0.009	-0.006	0.003	-0.014	-0.009	0.006
	0.6	-0.017	-0.015	-0.007	-0.027	-0.028	-0.023	-0.036	-0.033	-0.025
	0.7	-0.019	-0.017	-0.009	-0.042	-0.048	-0.046	-0.055	-0.055	-0.051
	0.8	-0.017	-0.016	-0.010	-0.048	-0.056	-0.057	-0.062	-0.064	-0.064
	0.9	-0.012	-0.011	-0.007	-0.035	-0.041	-0.043	-0.044	-0.047	-0.049
Span 2	0	0	0	0	0	0	0	0	0	0
	0.1	0.036	0.035	0.025	0.124	0.151	0.162	0.158	0.169	0.189
	0.2	0.077	0.077	0.056	0.280	0.342	0.370	0.356	0.383	0.429
	0.3	0.114	0.113	0.083	0.413	0.511	0.553	0.529	0.570	0.641
	0.4	0.136	0.135	0.099	0.512	0.614	0.667	0.634	0.685	0.771
	0.5	0.138	0.137	0.101	0.514	0.629	0.684	0.650	0.703	0.792
	0.6	0.120	0.120	0.089	0.452	0.555	0.603	0.573	0.620	0.700
	0.7	0.088	0.088	0.065	0.332	0.408	0.444	0.423	0.457	0.518
	0.8	0.049	0.049	0.037	0.185	0.228	0.248	0.237	0.256	0.292
	0.9	0.015	0.015	0.012	0.057	0.070	0.076	0.073	0.079	0.090
	0	0	0	0	0	0	0	0	0	0

Camber for Dead Load Deflection plus vertical curve ±¼" tolerance. Deflections shown are from a chord from centerline bearing to centerline bearing. Vertical curve corrections not included. Negative sign (-) indicates point above chord



DEAD LOAD DEFLECTION

ALL CONCRETE TO BE CLASS S(AE). ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

FIELD CONNECTIONS TO BE BOLTED WITH HIGH STRENGTH BOLTS. BOLTS: 3/4" ϕ, OPEN HOLES 13/16" ϕ EXCEPT WHERE NOTED OTHERWISE. BOLT SPACING SHALL BE 2-1/2" UNLESS OTHERWISE NOTED. MINIMUM EDGE DISTANCE SHALL BE 1-1/4" UNLESS NOTED OTHERWISE. BOLTS SHALL BE PLACED WITH HEADS ON THE OUTSIDE FACE OF EXTERIOR GIRDERS AND ON BOTTOM OF GIRDER FLANGES.

STRUCTURAL SHAPES OF EQUAL OR GREATER STRENGTH MAY BE SUBSTITUTED FOR SHAPES SHOWN, BUT PAYMENT WILL BE MADE ON THE BASIS OF SHAPES SHOWN.

ALL WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STANDARD SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES, CURRENT EDITION.

SHOP PAINT: ALL STRUCTURAL STEEL EXCEPT GALVANIZED MEMBERS, CONTACT SURFACES OF BOLTED CONNECTIONS, AND SURFACES WITHIN 3" OF HOLES AND FIELD WELDS, AND SURFACES IN CONTACT WITH CONCRETE SHALL BE GIVEN ONE PRIME COAT.

FIELD PAINT: AFTER ERECTION ALL EXPOSED STEEL SURFACES WHICH DID NOT RECEIVE A COAT OF SHOP PAINT EXCEPT SURFACES IN CONTACT WITH CONCRETE SHALL BE GIVEN ONE PRIME COAT. TWO ADDITIONAL COATS OF FIELD PAINT SHALL BE APPLIED TO ALL EXPOSED SURFACES. FIRST COAT-RED LEAD TINTED WITH LAMP BLACK; SECOND COAT, SEE SP JOB 6848 "PAINTING OF STEEL STRUCTURES".

BEARINGS SHALL BE FINALLY SEATED IN ACCORDANCE WITH SEC. 807.51 INCLUDING ALTERNATE, OF THE STANDARD SPECIFICATIONS. THIS WORK AND MATERIAL IS TO BE CONSIDERED AS SUBSIDIARY TO THE ITEM OF "STRUCTURAL STEEL" AND WILL NOT BE PAID FOR DIRECTLY. THESE DRAWINGS SHOW GENERAL FEATURES OF DESIGN ONLY. SHOP DRAWINGS SHALL BE MADE IN ACCORDANCE WITH THE SPECIFICATIONS, SUBMITTED AND APPROVAL SECURED BEFORE FABRICATION IS BEGUN. ANCHOR BOLTS SHALL BE GALVANIZED TO CONFORM TO ASTM SPECIFICATIONS, DESIGNATION A153.

REINFORCING STEEL TO BE ASTM A615, GRADE 40. THE REINFORCING STEEL IS TO BE ACCURATELY LOCATED IN THE FORMS AND FIRMLY HELD IN PLACE BY STEEL WIRE SUPPORTS, SUFFICIENT IN NUMBER AND SIZE TO PREVENT DISPLACEMENT DURING THE COURSE OF CONSTRUCTION. THE WIRE SUPPORTS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED SUBSIDIARY TO THE ITEM OF "REINFORCING STEEL". SHOP LISTS AND BENDING DIAGRAMS OF REINFORCING STEEL, INCLUDING WIRE SUPPORTS, SHALL BE SUBMITTED AND APPROVAL SECURED BEFORE FABRICATION IS BEGUN.

THE CONTRACTOR, AT HIS OPTION, MAY POUR BRIDGE SLAB CONTINUOUS OVER THE ENTIRE UNIT USING A RETARDING AGENT TO RETARD SET. NOT LESS THAN 72 HOURS SHALL ELAPSE BETWEEN POURING OF SLAB AND THE CURB SECTIONS. IF THE PARAPET IS NOT POURED WITH THE CURB, 72 HOURS SHALL ELAPSE BETWEEN POURING OF CURB AND PARAPET.

ALL CONCRETE SHALL BE POURED AND SCREENED OFF PRIOR TO INITIAL SET. THE CONCRETE DECK SHALL BE FINISHED IN ACCORDANCE WITH SECTION 802.23 OF THE STANDARD SPECIFICATIONS. MOVEMENT OF THE FINISHING MACHINE ACROSS NEW CONCRETE SHALL BE ON PLANKS PLACED ON THE SURFACE AND SHALL BE PROHIBITED FOR 72 HOURS AFTER FINISHING THE POUR.

GIRDER WEBS MAY BE MADE BY SHOP SPLICING WITH MINIMUM LENGTH OF 25'-0" FOR SECTIONS. FLANGE PLATES LONGER THAN 50' MAY BE MADE BY SHOP SPLICING WITH MINIMUM LENGTH OF 25'-0" FOR SECTIONS. NO ADDITIONAL PAYMENT FOR WELDS FOR THESE SPLICES WILL BE MADE.

FLANGES NOTED ON GIRDER ELEVATION (SHEET 3) AS HIGH STRENGTH LOW ALLOY COLUMBIUM VANDIUM STEEL, ASTM DESIGNATION A572, GRADE 50 SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER POUND BID FOR "STRUCTURAL STEEL IN PLATE GIRDER SPANS A572". ALL OTHER STRUCTURAL STEEL SHALL BE ASTM DESIGNATION A36 AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER POUND BID FOR "STRUCTURAL STEEL IN PLATE GIRDER SPANS A36".

FOR DETAILS OF BRIDGE RAILINGS, SEE DRAWING NO. 18036.

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1972, AND APPLICABLE SPECIAL PROVISIONS.

ALL WELDING THAT IS TO BE DONE DURING FABRICATION OF STRUCTURAL STEEL, INCLUDING TEMPORARY WELDS, SHALL BE DETAILED ON THE SHOP DRAWINGS AND SUBMITTED FOR APPROVAL. IF THE CONTRACTOR OR ERECTOR SHOULD WANT TO MAKE ADDITIONAL WELDS, WHETHER TEMPORARY OR PERMANENT, HE SHALL SUBMIT DETAILED DRAWINGS WITH A FORMAL REQUEST TO THE BRIDGE DESIGN DIVISION OF THE ARKANSAS STATE HIGHWAY DEPARTMENT FOR APPROVAL.

ASTM A27, GRADE 70-40 STEEL SHOE CASTINGS SHALL BE PAID FOR AT THE UNIT PRICE PER POUND BID FOR "STRUCTURAL STEEL IN PLATE GIRDER SPANS A36".

SHEET 6 OF 6

DETAILS OF CONTINUOUS PLATE GIRDER UNIT
NORTH FRONTAGE ROAD
JCT. I-30 – FOURCHE CREEK
PULASKI COUNTY
INT. ROUTE 430 SEC. 21

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: H.M.H. DATE: 11-30-72
TRACED BY: DATE: SCALE: NO SCALE
CHECKED BY: J.A.S. DATE: 12-7-72

Vernal Pinkerton
BRIDGE ENGINEER

BRIDGE NO. 5504 DRAWING NO. 17946

FOR INFORMATION ONLY

GRAHAM BLUE PRINT — 7-72 — 500

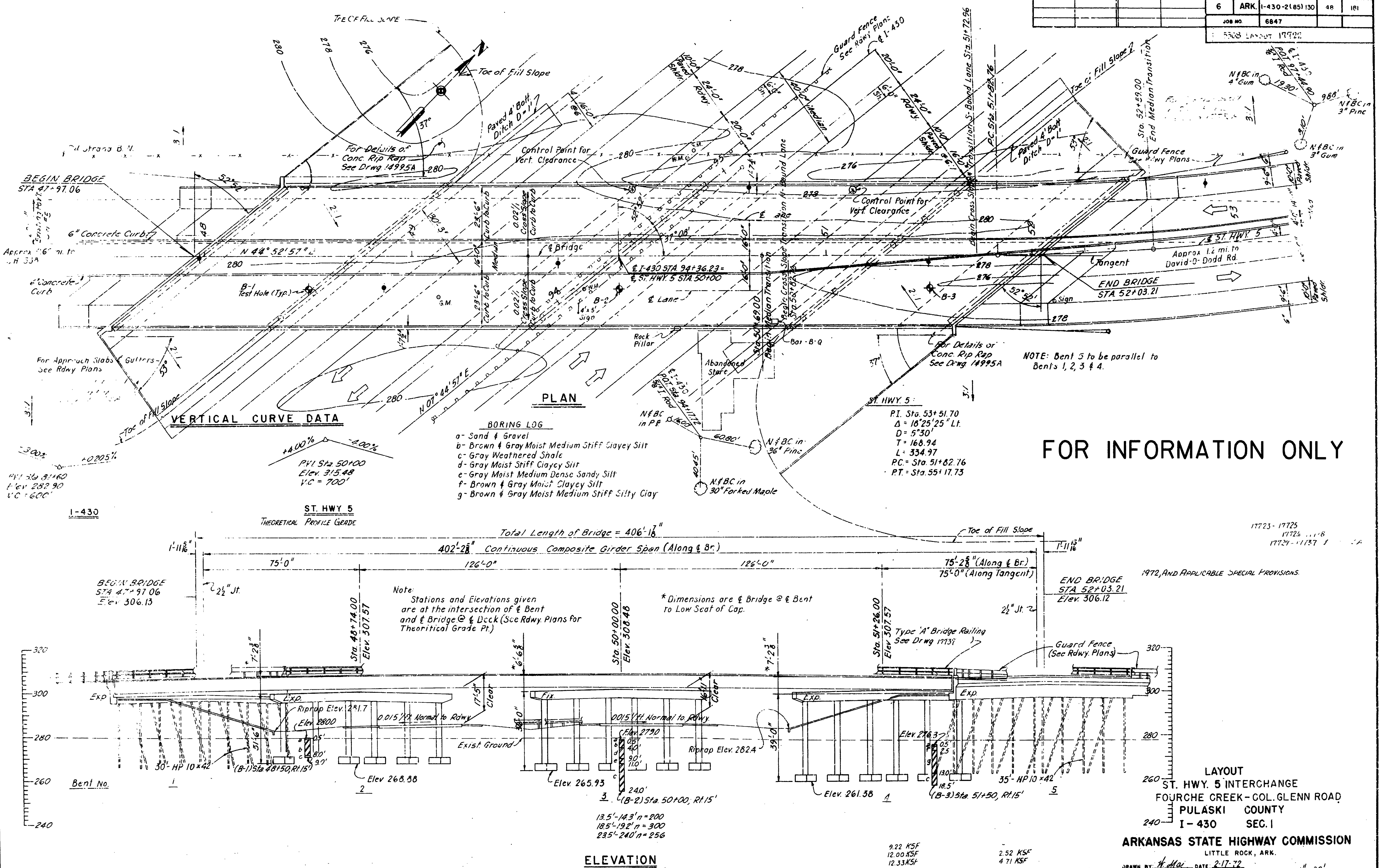
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	22	56

SITE NO. 2 - FOR INFORMATION ONLY

For R/W and Detour Rd. - See Rdwy. Plans

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED					
				6	ARK.	I-430-2(85)130	48	181
				JOB NO.	6847			

5308 LAYOUT 17722



Note: Stations and Elevations given are at the intersection of ¢ Bent and ¢ Bridge @ ¢ Deck (See Rdwy. Plans for Theoritical Grade Pt.)

*Dimensions are ¢ Bridge @ ¢ Bent to Low Seat of Cap.

VERTICAL CURVE DATA

I-430: PVI Sta. 81+60, Elev. 282.90, V.C. = 600'

ST. HWY. 5 (Theoretical Profile Grade): +4.00% / -4.00%, PVI Sta. 50+00, Elev. 315.48, V.C. = 700'

ST. HWY. 5:
P.I. Sta. 53+51.70
Δ = 16°25'25" Lt.
D = 5°30'
T = 168.94
L = 334.97
P.C. = Sta. 51+82.76
P.T. = Sta. 55+17.73

BORING LOG

a - Sand & Gravel
b - Brown & Gray Moist Medium Stiff Clayey Silt
c - Gray Weathered Shale
d - Gray Moist Stiff Clayey Silt
e - Gray Moist Medium Dense Sandy Silt
f - Brown & Gray Moist Clayey Silt
g - Brown & Gray Moist Medium Stiff Silty Clay

13.5'-14.3' n = 200
18.5'-19.2' n = 300
23.5'-24.0' n = 256

9.22 KSF
12.00 KSF
12.33 KSF

2.52 KSF
4.71 KSF

1972, And Applicable Special Provisions.

FOR INFORMATION ONLY

LAYOUT
ST. HWY. 5 INTERCHANGE
FOURCHE CREEK - COL. GLENN ROAD
PULASKI COUNTY
I-430 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: H. Maj DATE: 2-17-72
TRACED BY: DATE:
CHECKED BY: JCK DATE: 3-2-72
SCALE: 1" = 20'

BRIDGE ENGINEER

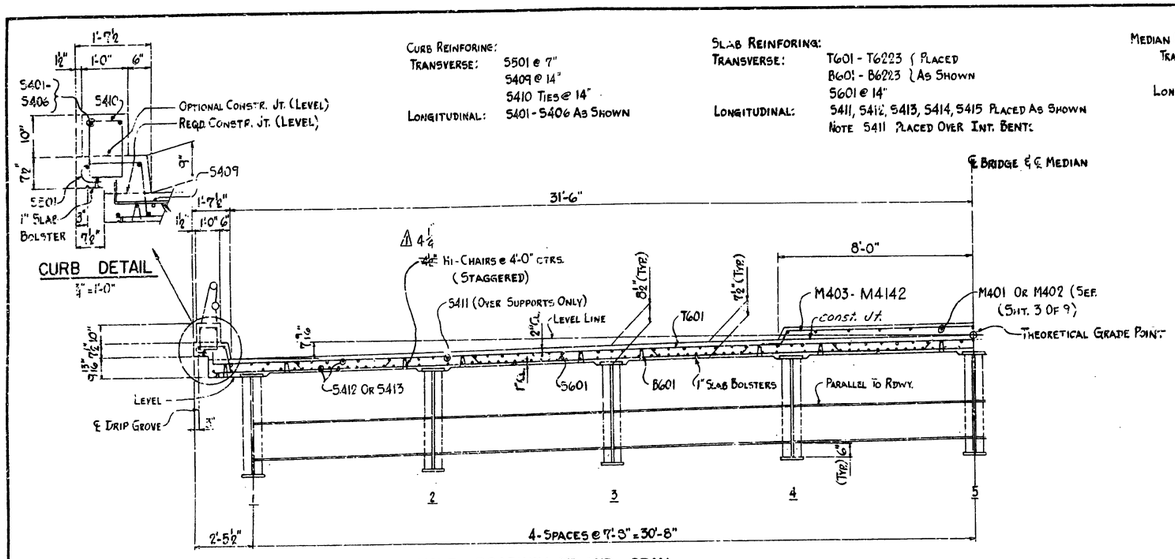
BRIDGE NO. 5308 DRAWING NO. 17722

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	23	56

(1) SITE NO. 2 - FOR INFORMATION ONLY

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1-12-73	5-11-73-73			6	ARK.	I-430-2 (35)1-0		55	151
				JOB NO.		6847			

(1) 5308 SPAN DETAILS 17732



HALF ROADWAY AT MID.-SPAN

SHOWN FOR TANGENT SECTION
SECTION IN TRANSITION SIMILAR
⅜" = 1'-0"

CURB REINFORING:
TRANSVERSE: 5501 @ 7"
5409 @ 14"
5410 TIES @ 14"
LONGITUDINAL: 5401 - 5406 AS SHOWN

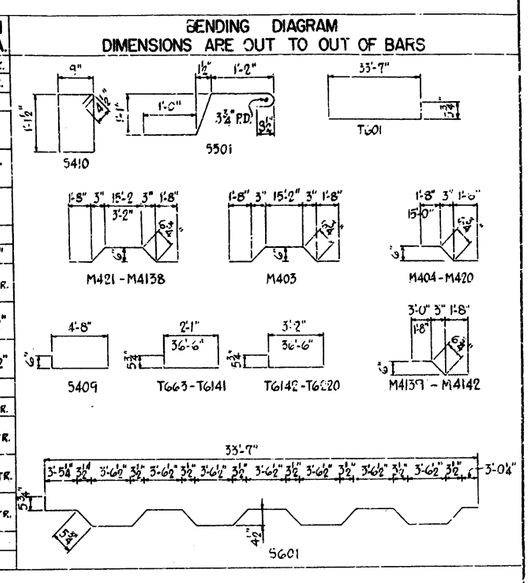
SLAB REINFORING:
TRANSVERSE: T601 - T6223 } PLACED
B601 - B6223 } AS SHOWN
5601 @ 14"
LONGITUDINAL: 5411, 5412, 5413, 5414, 5415 PLACED AS SHOWN
NOTE 5411 PLACED OVER INT. BENT.

MEDIAN REINFORING
TRANSVERSE: M403, M404 - M420, M421 - M4138, M4139 - M4142 @ 14"
5407 & 5408 PLACED AS SHOWN
LONGITUDINAL: M401 & M402 PLACED AS SHOWN

MARK	NO. REQD.	LENGTH	PIN DIA.
5601	546	34'-11"	3½"
5602	16	10'-0"	STR.
5501	1382	3'-11"	2½"
5401	6	12'-10"	STR.
5402	16	22'-10"	STR.
5403	32	23'-3"	STR.
5404	2	15'-2"	STR.
5405	16	~~15'-8~~ 15'-4"	STR.
5406	8	15'-0"	STR.
5407	1	25'-1"	STR.
5408	1	5'-4	STR.
5409	691	5'-1"	2"
5410	710	4'-3"	2"
5411	150	40'-0"	STR.
5412	1890	40'-0"	STR.
5413	189	18'-6"	STR.
5414	8	40'-0"	STR.
5415	4	29'-3"	STR.

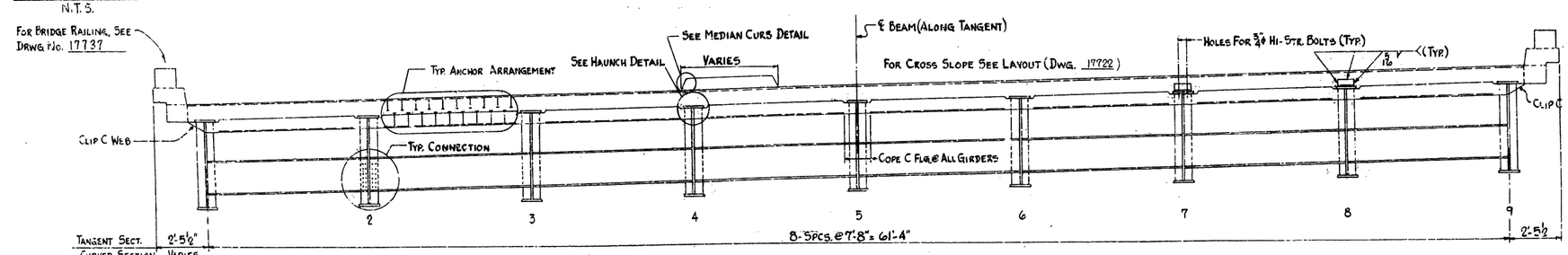
MARK	NO. REQD.	LENGTH	PIN DIA.
M401	133	40'-0"	STR.
M402	5	20'-0"	STR.
M403	222	19'-6"	2"
M404 To M420	1 EA.	3'-10" To 19'-2"	2"
M421 To M4138	1 EA.	19'-6" To 7'-6"	2"
M4139 To M4142	1 EA.	5'-2" To 3'-10"	2"
T601	670	33'-11"	3½"
T602 To T662	2 EA.	6'-3" To 32'-9"	STR.
T663 To T6141	1 EA.	2'-5" To 36'-10"	3½"
T6142 To T6220	1 EA.	36'-10" To 3'-6"	3½"
B601	670	33'-7"	STR.
B602 To B662	2 EA.	6'-3" To 32'-9"	STR.
B663 To B6141	1 EA.	2'-1" To 36'-6"	STR.
~~B6141~~ To ~~B6223~~ B6142 To B6220	1 EA.	36'-6" To 3'-2"	STR.

BENDING DIAGRAM
DIMENSIONS ARE OUT TO OUT OF BARS

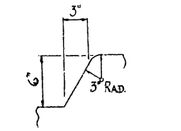


HAUNCH DETAIL
N.T.S.

EXPANSION DEVICE:
See Sh 9 of 9, Dwg No. 17736A.



ROADWAY SECTION AT END SPAN
⅜" = 1'-0"



MEDIAN CURB DETAIL
N.T.S.

NOTES:

ALL GIRDERS SHALL BE BLOCKED IN THEIR TRUE POSITION, WITH WEB PLATES HORIZONTAL, IN THE SHOP TO FORM EACH COMPLETE UNIT. THE CAMBER, LENGTH OF SECTIONS, DISTANCE BETWEEN BEARINGS AND OPENING OF JOINTS SHALL BE MEASURED WITH THE BEAMS IN THIS POSITION AND THIS INFORMATION SHALL BECOME A PART OF THE PERMANENT RECORD OF THIS JOB. THE COMPONENT PARTS SHALL BE MATCH MARKED IN THIS ASSEMBLY AND THESE MARKS SHALL BE SHOWN ON THE ERECTION DIAGRAM. ALL GIRDER DIMENSIONS ARE BASED ON A TEMPERATURE OF 60°F. A TOLERANCE OF ± 1/4" IS ALLOWED FOR CAMBER.

DIAPHRAGMS AT BEARING STIFFENERS SHALL BE INSTALLED AS GIRDERS ARE ERECTED. ALL DIAPHRAGMS SHALL BE INSTALLED AND COMPLETELY BOLTED PRIOR TO POURING OF FLOOR SLABS.

UNIT STRESSES:

CLASS S(AE) CONCRETE (N=10)	1,200 PSI
REINFORCING STEEL	20,000 PSI
STRUCTURAL STEEL (A36)	20,000 PSI
STRUCTURAL STEEL (A572, GRADE 50)	27,000 PSI

DESIGN SPECIFICATIONS - AASHO 1969 AND INTERIM SPECIFICATIONS

DESIGN LIVE LOAD - HS20

LOAD DISTRIBUTION

	DEAD LOAD TO GIRDER (INCLUDES 162 PLF FOR WEIGHT OF GIRDER)	DEAD LOAD TO COMP. GIRDER (INCLUDES 104 PLF FOR WEIGHT OF FUTURE SURFACES)	LIVE LOAD TO COMP. GIRDER
EXT. GIRDER	726 PLF	311 PLF	1.2957 WHEELS + IMPACT
INT. GIRDER	889 PLF	311 PLF	1.3939 WHEELS + IMPACT

⚠ Revised - Changed 4¼" Hi-Chairs to 4'-0" Changed S405, B6141 & B6223 As Shown. LDF 1-12-73

FOR INFORMATION ONLY

SHEET 4 OF 9

DETAILS OF CONTINUOUS WELDED PLATE GIRDER UNIT

STATE HWY. 5 INTERCHANGE

FOURCHE CREEK — COL. GLENN ROAD

PULASKI COUNTY

ROUTE I-430 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: D.S. DATE: 2-9-72
TRACED BY: DATE: SCALE: As Shown
CHECKED BY: J.C.K. DATE: 3-20-72

Neral Pinkerton
BRIDGE ENGINEER

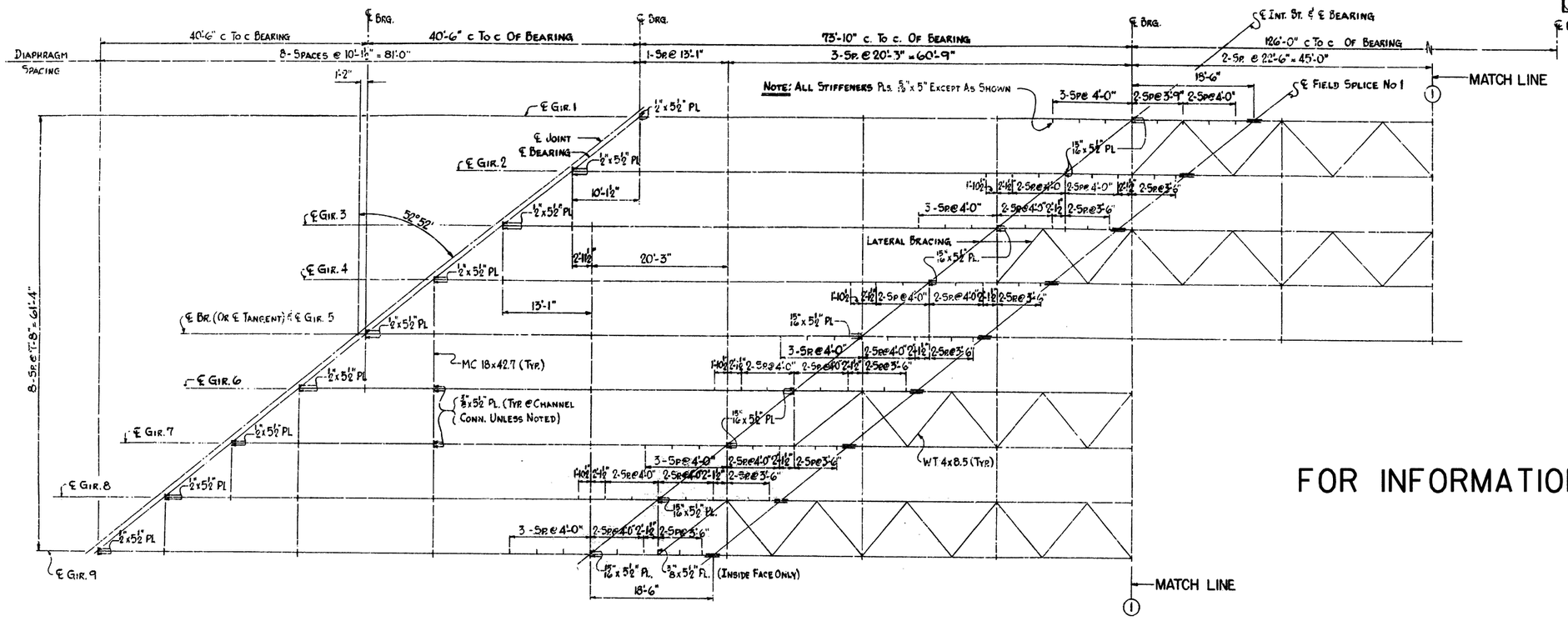
BRIDGE NO. 5308 DRAWING NO. 17732

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	24	56

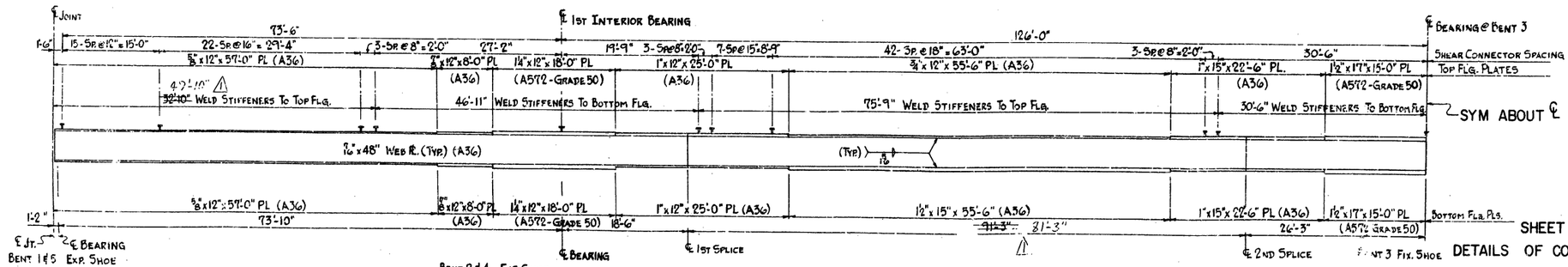
① SITE NO. 2 - FOR INFORMATION ONLY

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5-5-73	796-5-273			6	ARK.	I-430-2 (85)130		55	97
				JOB NO.		6847			

① 5308 SPAN DETAILS 17733



PART FRAMING PLAN



HALF GIRDER ELEVATION

NOTE: IN SPAN 4 ℄ GIRDERS ARE PARALLEL TO TANGENT LINE.

1 Revised - Changed 91'-3" To 31'-3" & 32'-10" To 42'-10" As Shown 5-9-73 LDF

SHEET 5 OF 9

DETAILS OF CONTINUOUS WELDED PLATE GIRDER UNIT

STATE HWY. 5 INTERCHANGE

FOURCHE CREEK — COL. GLENN ROAD

PULASKI COUNTY

ROUTE I-430 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: D.S. DATE: 2-7-72

TRACED BY: DATE:

CHECKED BY: JCK DATE: 3-20-72

SCALE: 1" = 1'-0"

Wesal Parkerton
BRIDGE ENGINEER

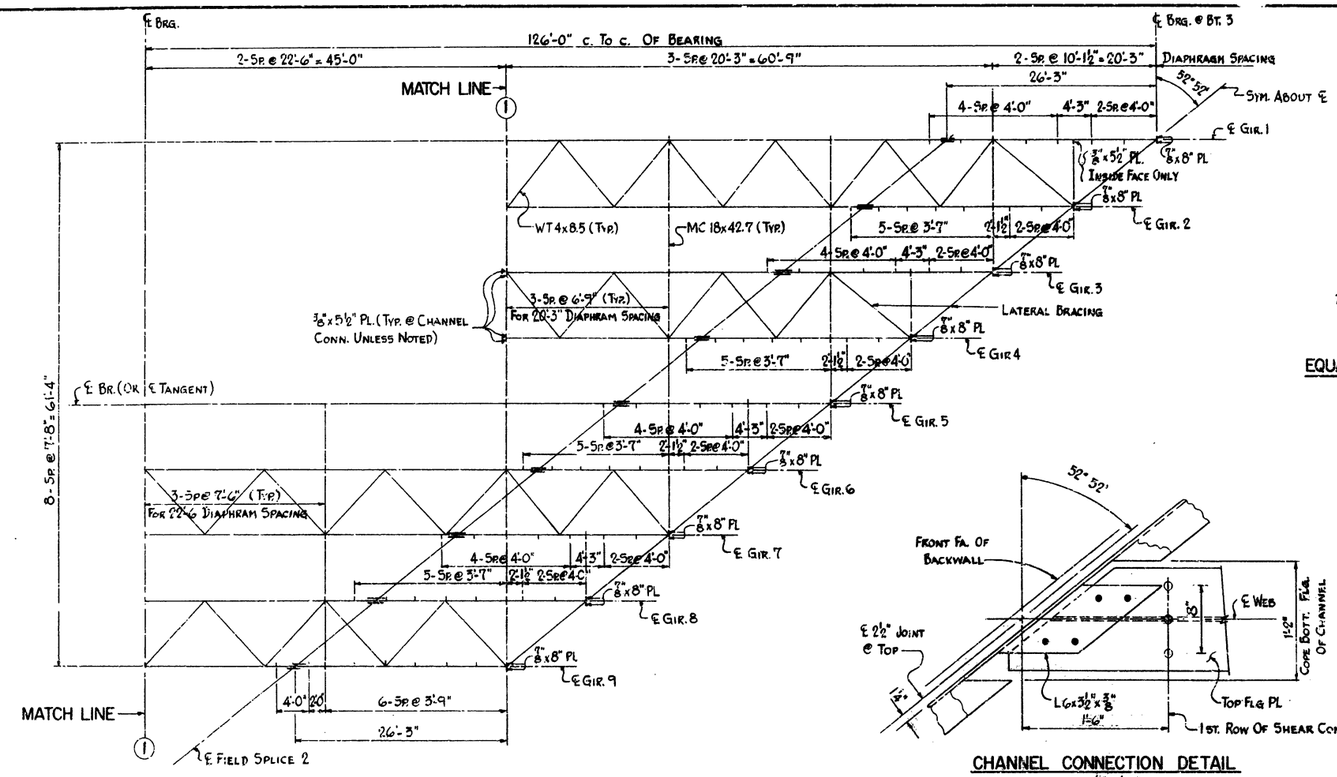
BRIDGE NO. 5308 DRAWING NO. 17733

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		060505	25	56

(1) SITE NO. 2 - FOR INFORMATION ONLY

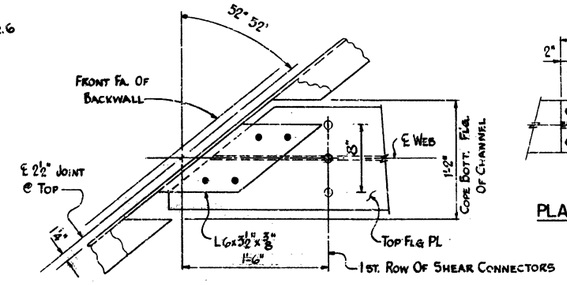
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	I-430-2 (85)150		5.0	15
				JOB NO.		6847			

(1) 5308 SPAN DETAILS 17734



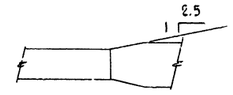
PART FRAMING PLAN

1" = 1'-0"

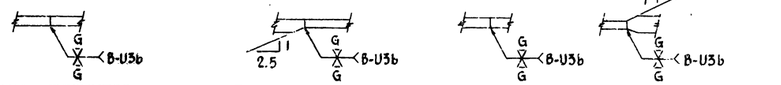


CHANNEL CONNECTION DETAIL

1½" = 1'-0"



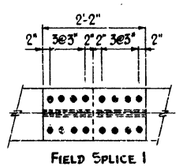
PLAN - UNEQUAL WIDTH (FLGS.)



EQUAL THICKNESS FLANGE SPLICES | UNEQUAL THICKNESS FLANGE SPLICES | EQUAL THICKNESS WEB SPLICES | UNEQUAL THICKNESS WEB SPLICES

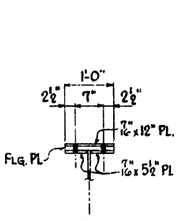
BUTT WELD DETAILS

N.T.S.

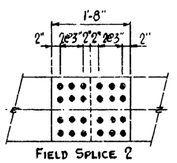


FIELD SPLICE 1

PLAN - FLG. - PLS.

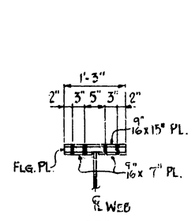


SEC. FIELD SPLICE 1

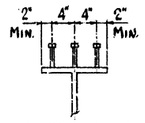


FIELD SPLICE 2

PLAN - FLG. - PLS.



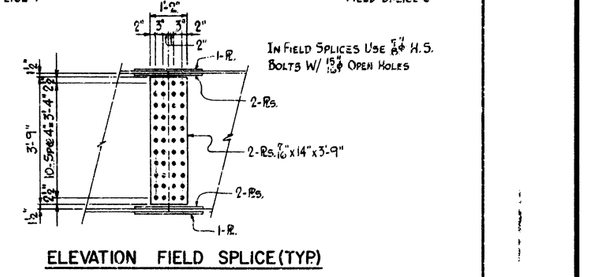
SEC. FIELD SPLICE 2



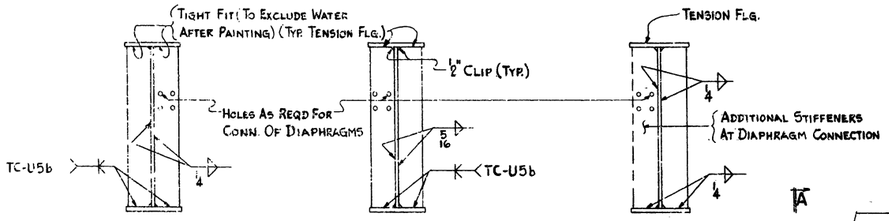
SHEAR CONNECTOR DETAIL

N.T.S.

STUD SHEAR CONNECTORS SHOWN SHALL BE 5" LONG, GRANULAR FLUX FILLED, SOLID FLUXED OR EQUAL, AND AUTOMATICALLY END WELDED TO GIRDER FLANGES IN ACCORDANCE WITH RECOMMENDATIONS OF THE MANUFACTURER. 7/8" DIAMETER STUDS MAY BE SUBSTITUTED FOR THE 3/4" DIAMETER STUDS SHOWN AT THE RATIO OF 0.73 - 7/8" STUDS IN PLACE OF 1 - 3/4" STUDS. THE 3/4" STUDS SHALL BE USED AS THE BASIS OF PAYMENT OF 740 LBS. PER ONE HUNDRED STUDS.



ELEVATION FIELD SPLICE (TYP)



BEARING STIFFENERS AT END BENTS

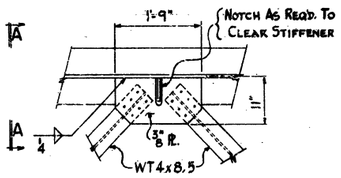
N.T.S.

BEARING STIFFENERS AT INT. BENTS

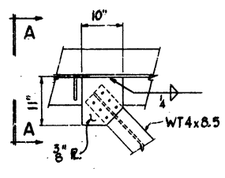
N.T.S.

INTERMEDATE STIFFENERS

N.T.S.

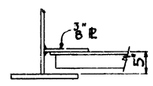


PLAN



LATERAL CONNECTIONS

N.T.S.



SECTION A-A

FOR INFORMATION ONLY

SHEET 6 OF 9

DETAILS OF CONTINUOUS WELDED PLATE GIRDER UNIT

STATE HWY. 5 INTERCHANGE

FOURCHE CREEK - COL. GLENN ROAD

PULASKI COUNTY

ROUTE I-430 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: D.S. DATE: 2-8-72

TRACED BY: DATE:

CHECKED BY: JCK DATE: 3-20-72

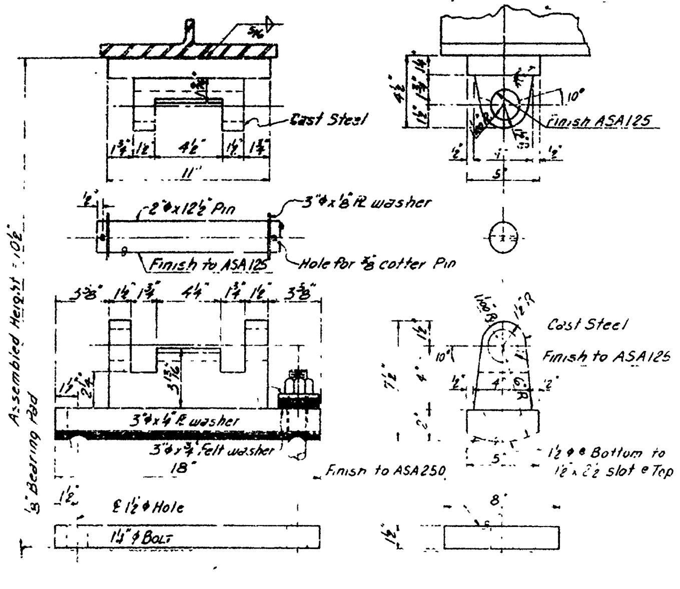
SCALE: ¾" = 1'-0" Or As N'd.

Veral Pinkerton
BRIDGE ENGINEER

BRIDGE NO. 5308 DRAWING NO. 17734

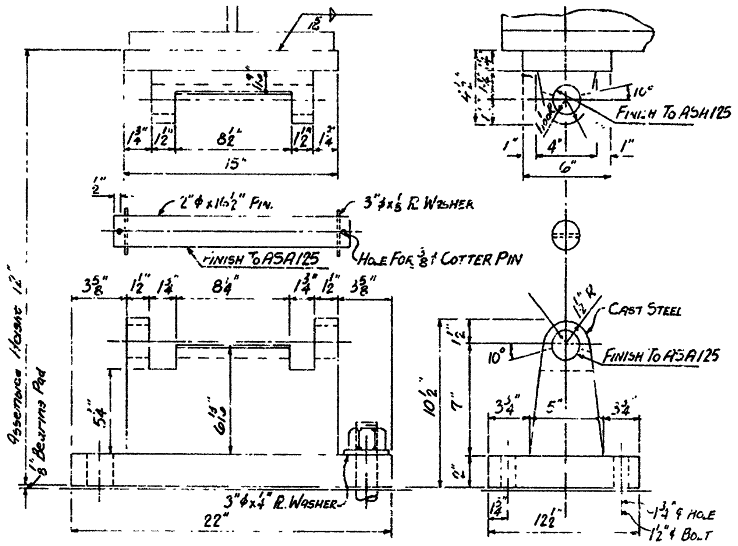
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	26	56

① SITE NO. 2 - FOR INFORMATION ONLY



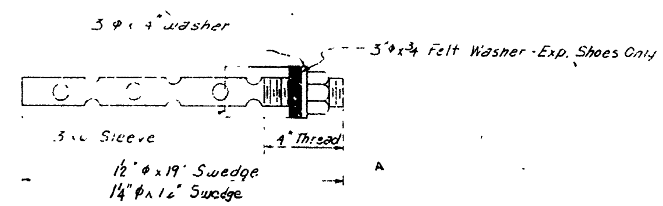
BENT 1 & 5 EXPANSION SHOE

Material: Steel Castings ASTM A27 Grade 70-40, R ASTM A-36

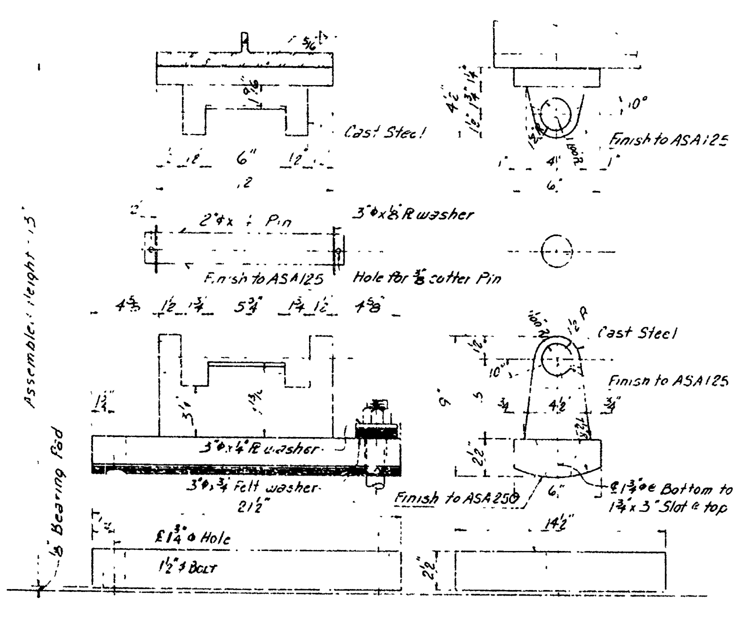


BENT 3 FIXED SHOE

MATERIAL

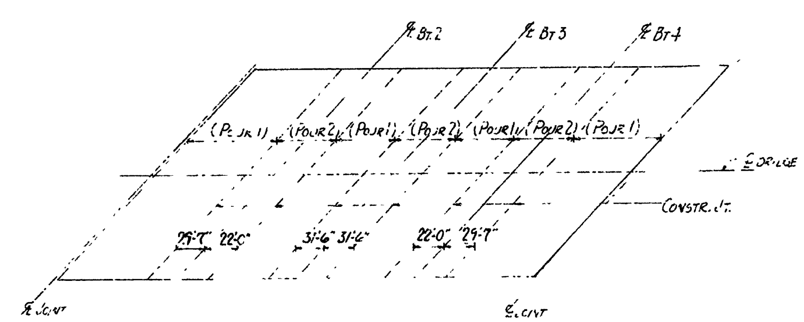


ANCHOR BOLT DETAIL



BENT 2 & 4 EXPANSION SHOE

Material: Steel Castings ASTM A27 Grade 70-40, R ASTM A-36



SLAB POURING SEQUENCE

All [illegible] Adjacent [illegible] Must Be Placed Before Pours (2) Can Be Placed. [illegible] Shall Elapse Between Pours (1) And 72 Hrs. [illegible] Shall Elapse Between Adjacent Pours (1) And (2).

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	I-430-2 (85) 30			
				JOB NO.		[illegible]			

GENERAL NOTES:

ALL CONCRETE TO BE CLASS S(AE). ALL EXPOSED CORNERS TO BE CHAMFERED [illegible] UNLESS OTHERWISE [illegible]

FIELD CONNECTIONS TO BE BOLTED WITH HIGH STRENGTH BOLTS. BOLTS [illegible] EXCEPT WHERE NOTED OTHERWISE. BOLT SPACING SHALL BE 2 1/2 UNLESS OTHERWISE [illegible] SHALL BE 1 1/4" UNLESS NOTED OTHERWISE. BOLTS SHALL BE PLACED [illegible] EXTERIOR GIRDERS AND ON BOTTOM OF GIRDER FLANGES

STRUCTURAL SHAPES OF EQUAL OR GREATER STRENGTH [illegible] WILL BE MADE ON THE BASIS OF [illegible]

ALL WELDING SHALL CONFORM TO THE AMERICAN [illegible] HIGHWAY BRIDGES CURRENT EDITION.

SHOP PAINT: ALL STRUCTURAL STEEL EXCEPT [illegible] AND SURFACES WITHIN [illegible] OF HOLES AND FIELD WELDS [illegible] ONE PRIME COAT.

FIELD PAINT: AFTER ERECTION ALL EXPOSED STEEL SURF[illegible] EXCEPT SURFACES IN CONTACT WITH CONCRETE SHALL [illegible] PRIME COAT. ADDITIONAL COATS OF FIELD PAINT SHALL BE AS [illegible] SECOND COAT - ALUMINUM [illegible]

[illegible] SHALL BE [illegible] IN ACCORDANCE [illegible] C7.5 [illegible] SPECIFICATIONS [illegible] AND MATERIALS [illegible] STEEL AND [illegible] SHOP DRAWINGS SHALL BE MADE IN ACCORDANCE [illegible] BEFORE FABRICATION [illegible] DESIGNATION.

REINFORCING STEEL [illegible] FORMS AND FIRMLY HELD IN PLACE BY STEEL WIRES [illegible] DISPLACEMENT DURING THE COURSE OF CONSTRUCTION [illegible] BE CONSIDERED SUBSIDIARY TO THE ITEM OF REI[illegible] STEEL INCLUDING [illegible] SUPPORTS, SHALL BE [illegible]

THE CONTRACTOR, AT HIS OPTION, MAY POUR [illegible] AGENT TO RETARD SET [illegible] NOT LESS THAN 72 HOURS [illegible] IF THE PARAPET IS NOT POURED WITH THE CURB, 72 HOURS [illegible]

[illegible] CONCRETE SHALL BE POURED AND SCREENED [illegible] IN ACCORDANCE WITH SECTION 802.23 OF THE STANDARD SPEC[illegible] OF THE FINISHING MACHINE ACROSS [illegible] SHALL BE PROHIBITED FOR 72 HOURS AFTER FINISH[illegible]

GIRDER [illegible] MAY BE MADE BY SHOP SPLICING WIT[illegible] LONGER THAN 50' MAY BE MADE BY SHOP SPLICING [illegible] FOR SECTIONS [illegible] ADDITIONAL PAYMENT FOR WELDS FOR THESE SPLICES WILL BE [illegible]

[illegible] AS NOTED ON GIRDER ELEVATION [illegible] 5 [illegible] DESIGNATION A572, GRADE 50 AND SHALL [illegible] STRUCTURAL STEEL IN PLATE GIRDER SPANS [illegible] ALL OTHER STEEL [illegible] AND SHALL BE PAID FOR [illegible]

FOR [illegible] OF BRIDGE [illegible], SEE DR[illegible] 17737

[illegible] SPECIFICATIONS [illegible] EDITION OF 1972, AND APPLICABLE SPECIAL PROVISIONS.

[illegible]

FOR INFORMATION ONLY

SHEET 7 OF 9

DETAILS OF CONTINUOUS WELDED PLATE GIRDER UNIT

STATE HWY [illegible] INTERCHANGE

FOURCHE CREEK — COL. GLENN ROAD

PULASKI COUNTY

ROUTE I-430 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK ARK

DRAWN BY D.S. DATE [illegible]
TRACED BY [illegible] DATE [illegible]
CHECKED BY [illegible] DATE [illegible]
SCALE [illegible]

BRIDGE ENGINEER

BRIDGE NO. 5308 DRAWING NO. 17735

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	27	56

(1) SITE NO. 3 - FOR INFORMATION ONLY

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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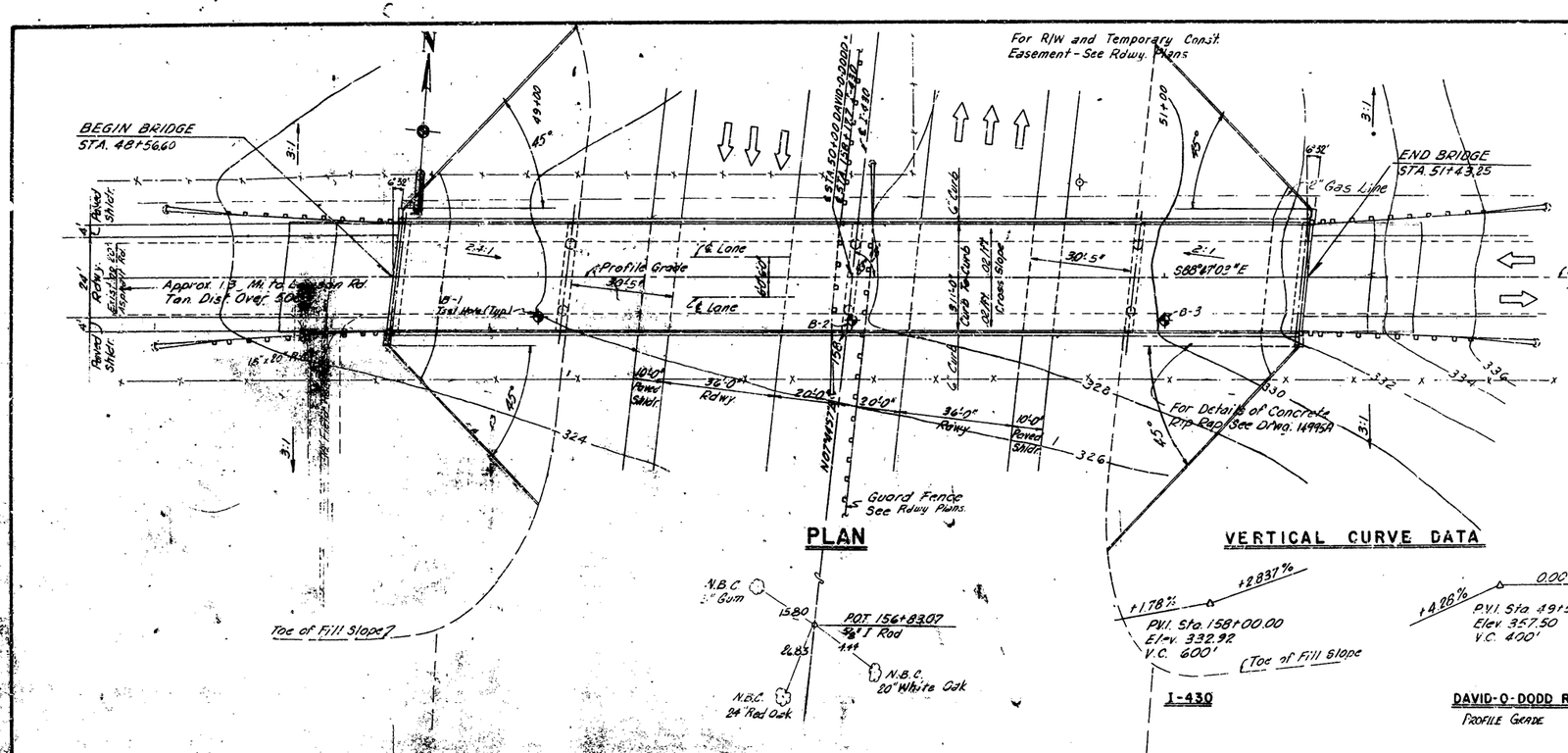
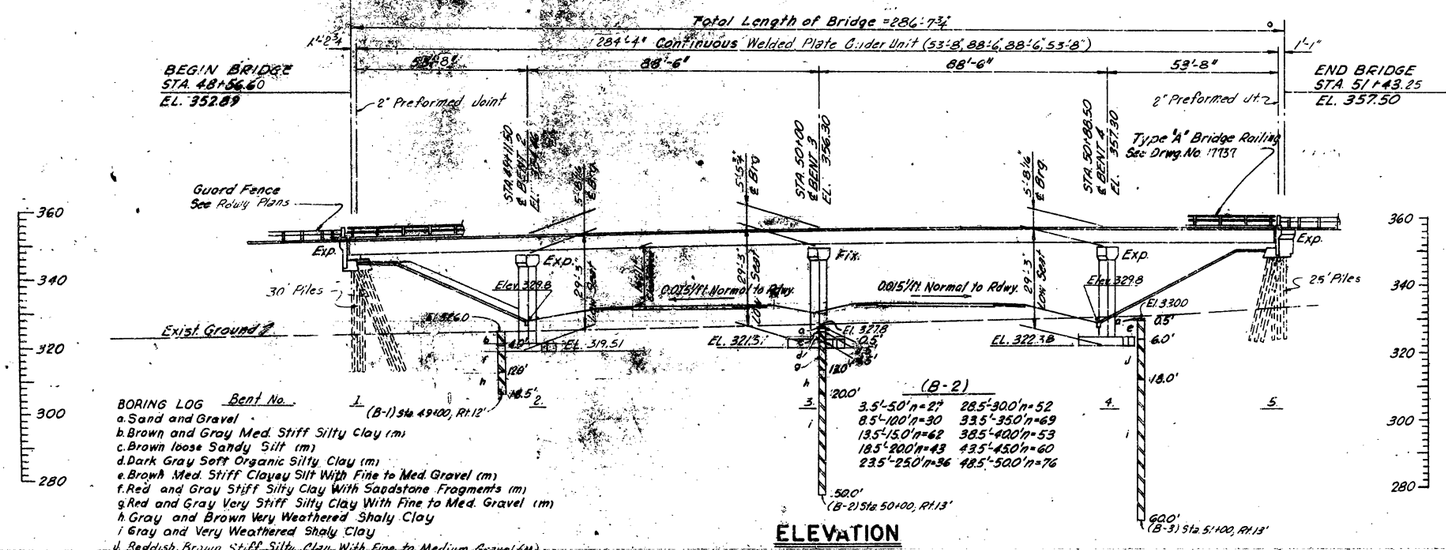
				JOB NO.		6847		
				(1) 5309 LAYOUT 17738				





GENERAL NOTES

BENCH MARK - TOP CONCRETE R/W MARKER 603' L.T. STA. 158+00, CENTERLINE I-430, ELEVATION 323.87.

SPREAD FOOTINGS SHALL BE SET A MINIMUM OF 1'-6" INTO MATERIAL DESIGNATED AS "RED AND GRAY STIFF SILTY CLAY WITH SANDSTONE FRAGMENTS", "RED AND GRAY VERY STIFF SILTY CLAY WITH FINE TO MED. GRAVEL", OR "REDDISH BROWN STIFF SILTY CLAY WITH FINE TO MEDIUM GRAVEL". SPECIAL CARE SHALL BE TAKEN NOT TO DISTURB THE BOTTOM OF THE EXCAVATION. THE FINAL ONE FOOT MINIMUM OF EXCAVATION SHALL BE CAREFULLY DONE BY HAND METHODS.

ALL CONCRETE SHALL BE POURED IN THE DRY.

ALL PILING SHALL BE HP10X42 AND SHALL BE DRIVEN WITH AN APPROVED AIR, STEAM, OR DIESEL HAMMER WITH A MINIMUM ENERGY OF 10,000 FOOT LBS. PER BLOW TO A MINIMUM BEARING CAPACITY OF 55 TONS PER PILE. LENGTHS OF PILE SHOWN ARE FOR ESTIMATING QUANTITIES ONLY. ORDER LENGTHS SHOWN: CUT-OFF OR BUILD-UP, IF NECESSARY, TO BE PAID FOR IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

PILES IN THE END BENTS ARE TO BE DRIVEN AFTER EMBANKMENT TO SUBGRADE IS IN PLACE.

FOR DETAILS OF END BENTS, SEE DWG. NO. 17739
FOR DETAILS OF INTERMEDIATE BENTS, SEE DWG. NOS. 17740 & 17741
FOR DETAILS OF SUPERSTRUCTURE, SEE DWG. NOS. 17742-17745

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1972, AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHO 1969

LIVE LOADING: HS20

UNIT STRESSES:

CLASS S OR S(AE) CONCRETE (N=10)	1,200 PSI
REINFORCING STEEL	20,000 PSI
STRUCTURAL STEEL (A36)	20,000 PSI
STRUCTURAL STEEL (A572, GRADE 50)	27,000 PSI

FOUNDATION PRESSURE:

	MAXIMUM	MINIMUM
GROUP I	4.6 KSF	4.4 KSF
GROUP II	6.0 KSF	0.2 KSF
GROUP III	5.8 KSF	2.6 KSF

FOR INFORMATION ONLY

LAYOUT OF
DAVID-O-DODD RD. OVER I-430
FOURCHE CREEK- COL. GLENN ROAD
PULASKI COUNTY
I-430 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: W.W.W. DATE: 3-30-72
TRACED BY: DATE:
CHECKED BY: JDS DATE: 4-3-72
SCALE: 1" = 20

BRIDGE NO. 5309 DRAWING NO. 17738

Wendell Pinkerton
BRIDGE ENGINEER

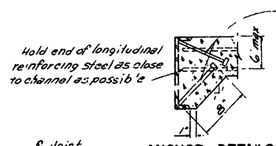
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD PROJ. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	28	56

(1) SITE NO. 3 - FOR INFORMATION ONLY

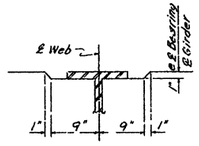
287

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	I-430-2 (85)32		5	
				JOB NO.		3567			

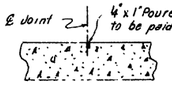
(1) 5309 SPAN DETAILS 17742



ANCHOR DETAILS
N.T.S.

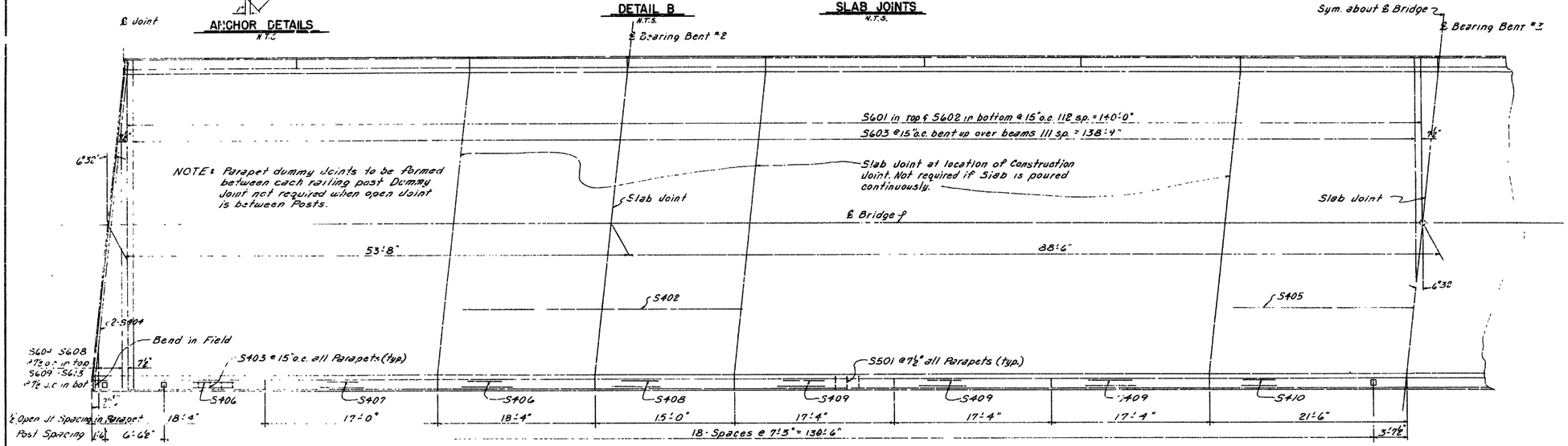


DETAIL B
N.T.S.

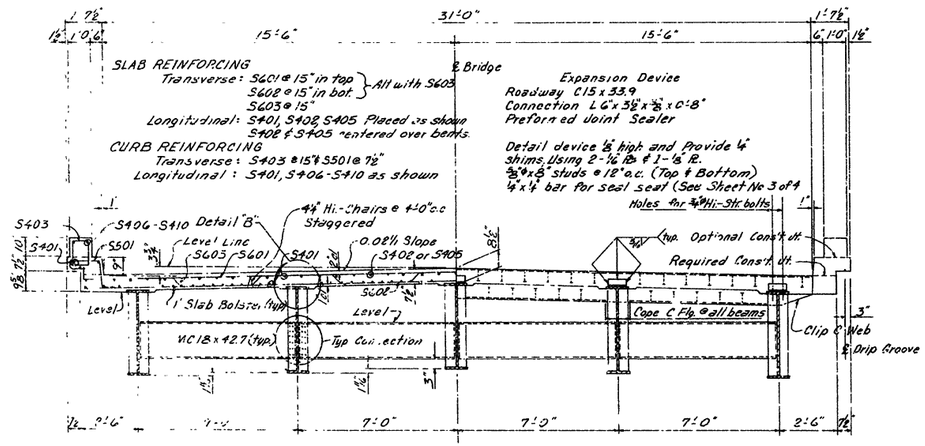


NOTE: See Plan View for location.

SLAB JOINTS
N.T.S.



PLAN
3/16" = 1'-0"



ROADWAY SECTION
3/8" = 1'-0"

BAR LIST

MARK	NO. REQ'D	LENGTH	PIN DIA.	BENDING DIAGRAMS
S601	225	33'-5"	3½"	
S602	225	38'-8"	Str.	
S603	284	34'-3"	3½"	
S604 to S608	2-ea.	8'-0" to 29'-11"	3½"	
S609 to S613	2-ea.	7'-8" to 29'-7"	Str.	
S501	910	3'-8"	3½"	
S401	664	37'-3"	Str.	
S402	40	30'-0"	Str.	
S403	136	4'-7"	2"	
S404	4	32'-10"	Str.	
S405	80	40'-0"	Str.	
S406	16	19'-1"	Str.	
S407	8	16'-8"	Str.	
S408	8	14'-8"	Str.	
S409	24	17'-0"	Str.	
S410	8	21'-2"	Str.	

Dimensions are out to out of bars.

FOR INFORMATION ONLY

SHEET 1 OF 4

DETAILS OF CONTINUOUS WELDED PLATE GIRDER UNIT

DAVID-O-DODD RD. OVER I-430

FOURCHE CREEK - COL. GLENN ROAD

PULASKI COUNTY

ROUTE I-430 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: W.W.W. DATE: 2-7-72

TRACED BY: DATE:

CHECKED BY: DATE: 2-24-72

SCALE: As Noted

Virgil Pinkston
BRIDGE ENGINEER

BRIDGE NO. 5300

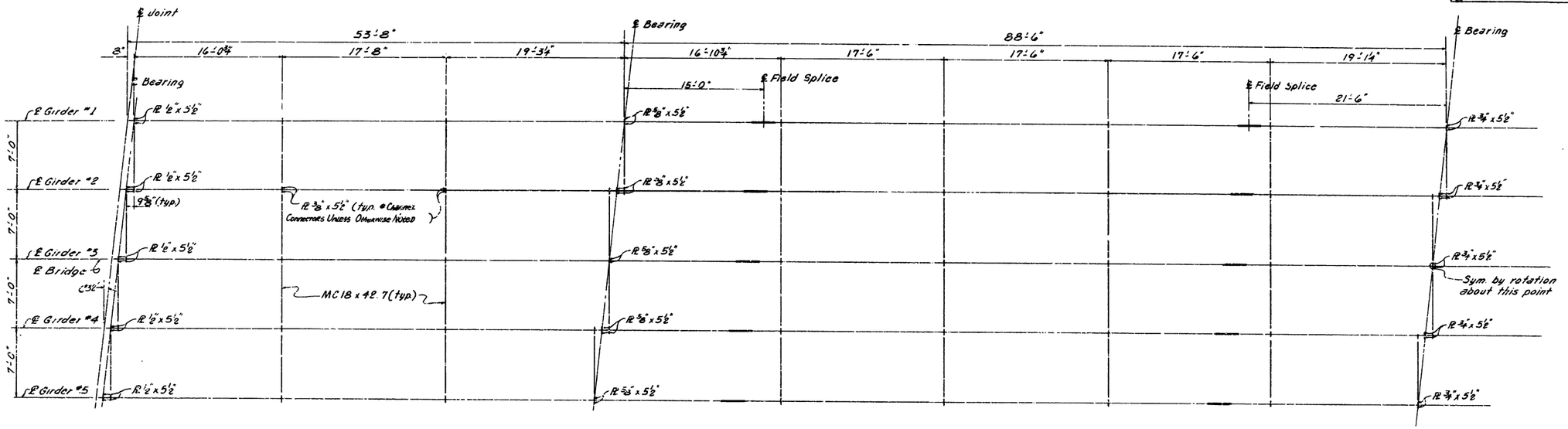
DRAWING NO. 17742

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	29	56

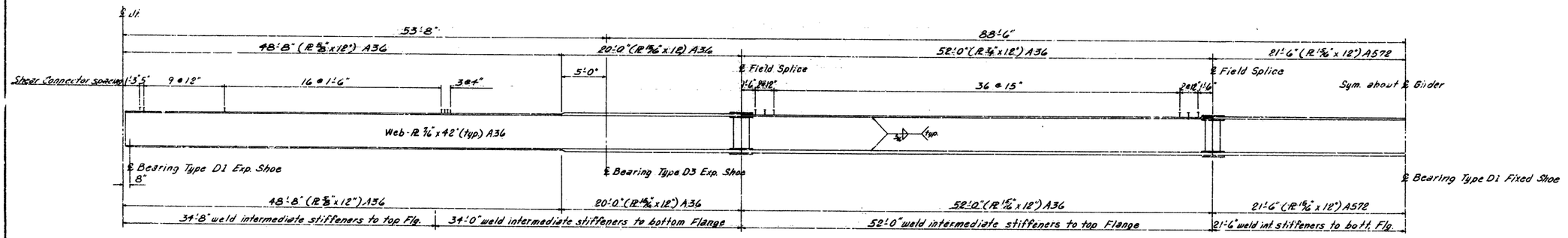
(1) SITE NO. 3 - FOR INFORMATION ONLY

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	I-430-8 (65)130		70	91
				JOB NO.		6847			

(1) 5309 SPAN DETAILS 17743



FRAMING PLAN



GIRDER ELEVATION

FOR INFORMATION ONLY

SHEET 2 OF 4

DETAILS OF CONTINUOUS WELDED PLATE GIRDER UNIT

[illegible] RD. OVER I-430

[illegible] ROCK - COL. GLENN ROAD

PULASKI COUNTY

ROUTE I-430 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: W.W.W. DATE: 2-10-72

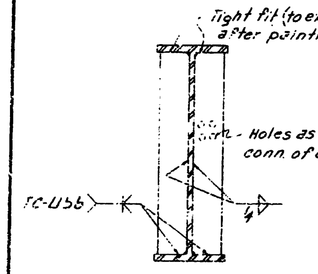
TRACED BY: DATE:

CHECKED BY: BDS DATE: 2-20-72

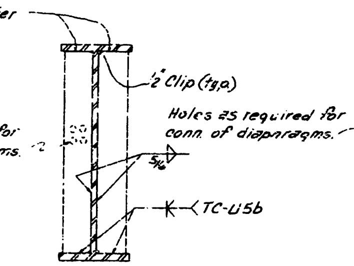
SCALE: 3/16" = 1'-0"

Vural Pinkerton
BRIDGE ENGINEER

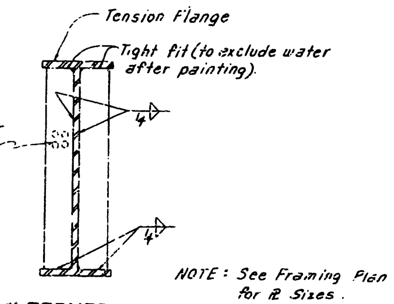
BRIDGE NO. 5309 DRAWING NO. 17743



BEARING STIFFENERS AT END BENTS
No Scale

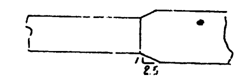


BEARING STIFFENERS AT INT. BENTS
No Scale

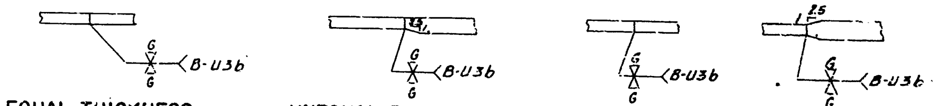


NOTE: See Framing Plan for ℞ Sizes.

INTERMEDIATE STIFFENERS
No Scale



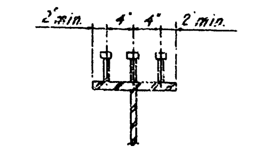
PLAN - UNEQUAL WIDTH (FLG.)



EQUAL THICKNESS — UNEQUAL THICKNESS
FLANGE SPLICES

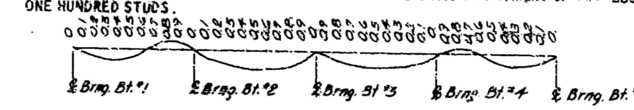
EQUAL THICKNESS — UNEQUAL THICKNESS
WEB SPLICES

BUTT WELD DETAILS
No Scale



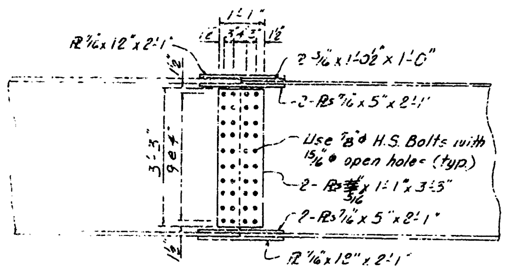
SHEAR CONNECTOR DETAIL
No Scale

STUD SHEAR CONNECTORS SHOWN SHALL BE 5" LONG, GRANULAR FLUX FILLED, SOLID FLUXED OR EQUAL, AND AUTOMATICALLY END WELDED TO GIRDER FLANGES IN ACCORDANCE WITH RECOMMENDATIONS OF THE MANUFACTURER. 7/8" DIAMETER STUDS MAY BE SUBSTITUTED FOR THE 3/4" DIAMETER STUDS SHOWN AT THE RATIO OF 0.73 - 7/8" STUDS IN PLACE OF 1-3/4" STUDS. THE 3/4" STUDS SHALL BE USED AS THE BASIS OF PAYMENT OF 74.0 LBS PER ONE HUNDRED STUDS.

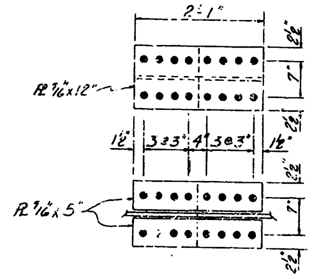


DEAD LOAD DEFLECTION

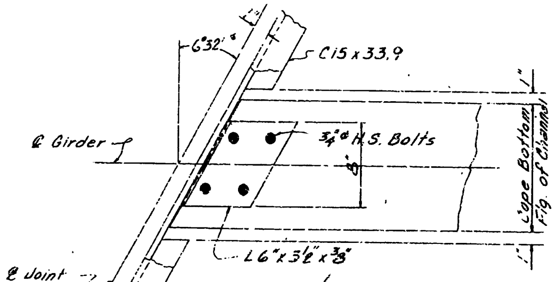
CAMBER FOR DEAD LOAD DEFLECTION PLUS VERTICAL CURVE + 1/4" TOLERANCE. DEFLECTIONS SHOWN ARE FROM A CHORD FROM CENTERLINE BEARING TO CENTERLINE BEARING. VERTICAL CURVE CORRECTIONS NOT INCLUDED. NEGATIVE SIGN (-) INDICATES POINT ABOVE CHORD.



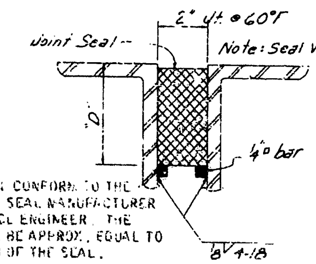
FIELD SPLICE
1/2" = 1'-0"



FIELD SPLICE ℞s
3/4" = 1'-0"

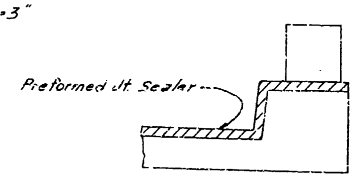


CHANNEL CONNECTION
1 1/2" = 1'-0"

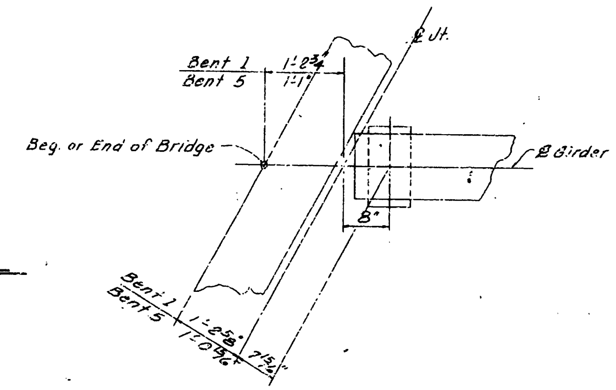


[illegible] DIMENSION [illegible] CONFORM TO THE RECOMMENDATIONS OF THE SEAL MANUFACTURER AS APPROVED BY THE BRIDGE ENGINEER. THE DEPTH OF THE SEAL SHALL BE APPROX. EQUAL TO THE UNCOMPRESSED WIDTH OF THE SEAL.

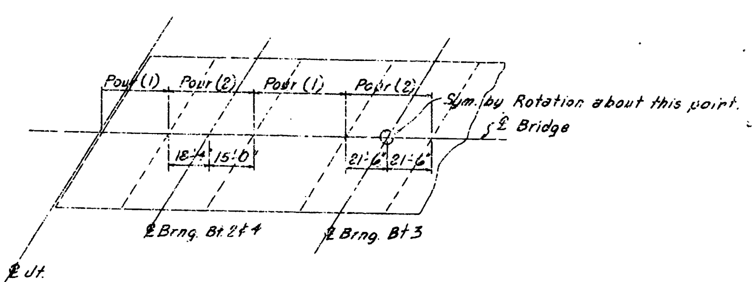
JOINT SEAL SUPPORT
No Scale



SEAL PLACEMENT IN CURB
No Scale



PLAN OF BEARING



SLAB POURING SEQUENCE
N.T.S.

ALL POURS (1) ADJACENT TO POURS (2) MUST BE PLACED BEFORE POURS (2) CAN BE PLACED. 48 HRS. SHALL ELAPSE BETWEEN POURS (1) AND 72 HRS. SHALL ELAPSE BETWEEN ADJACENT POURS (1) AND (2).

NOTES.

ALL GIRDERS SHALL BE BLOCKED IN THEIR TRUE POSITION, WITH WEB PLATES HORIZONTAL, IN THE SHOP TO FORM EACH COMPLETE UNIT. THE CAMBER, LENGTH OF SECTIONS, DISTANCE BETWEEN BEARINGS AND OPENING OF JOINTS SHALL BE MEASURED WITH THE BEAMS IN THIS POSITION AND THIS INFORMATION SHALL BECOME A PART OF THE PERMANENT RECORD OF THIS JOB. THE COMPONENT PARTS SHALL BE MATCH MARKED IN THIS ASSEMBLY AND THESE MARKS SHALL BE SHOWN ON THE ERECTION DIAGRAM. ALL GIRDER DIMENSIONS ARE BASED ON A TEMPERATURE OF 60°F. A TOLERANCE OF ± 1/4" IS ALLOWED FOR CAMBER.

DIAPHRAGMS AT BEARING STIFFENERS SHALL BE INSTALLED AS GIRDERS ARE ERECTED. ALL DIAPHRAGMS SHALL BE INSTALLED AND COMPLETELY BOLTED PRIOR TO POURING OF FLOOR SLABS.

UNIT STRESSES

CLASS S(AE) CONCRETE (N=10)	1,200 PSI
REINFORCING STEEL	20,000 PSI
STRUCTURAL STEEL (A36)	20,000 PSI
STRUCTURAL STEEL (A572, GRADE 50)	27,000 PSI

DESIGN SPECIFICATIONS - AASHO 1969 AND INTERIM SPECIFICATIONS

DESIGN LIVE LOAD - HS20

LOAD DISTRIBUTION

	DEAD LOAD TO GIRDER (INCLUDES * PLF FOR WEIGHT OF GIRDER & DIAPHRAGMS)	DEAD LOAD TO COMP. GIRDER (INCLUDES 155 PLF FOR WEIGHT OF FUTURE SURFACE)	LIVE LOAD TO COMP. GIRDER
EXT. GIRDER	722 PLF (136)*	281 PLF	1.2857 WHEELS + IMPACT
INT. GIRDER	809 PLF (143)*	281 PLF	1.2[illegible] WHEELS + IMPACT

Rev. 3-29-72 (Splice ℞) HD.

TABLE OF DEFLECTIONS (IN)

	POINT OF DEFLECTION	WEIGHT OF GIRDER EXT.	WEIGHT OF GIRDER INT.	WEIGHT OF GIRDER AND SLAB EXT.	WEIGHT OF GIRDER AND SLAB INT.	WEIGHT OF GIRDER, AND SLAB, PARAPET & RAIL EXT.	WEIGHT OF GIRDER, AND SLAB, PARAPET & RAIL INT.
Span 1 & 4	0	0	0	0	0	0	0
	0.1	0.004	0.005	0.035	0.040	0.040	0.044
	0.2	0.008	0.008	0.062	0.069	0.069	0.077
	0.3	0.009	0.010	0.073	0.083	0.083	0.092
	0.4	0.007	0.008	0.066	0.077	0.078	0.087
	0.5	0.003	0.003	0.048	0.054	0.055	0.062
	0.6	-0.003	-0.003	0.017	0.020	0.021	0.023
	0.7	-0.008	-0.009	-0.017	-0.018	-0.017	-0.018
	0.8	-0.012	-0.012	-0.040	-0.045	-0.045	-0.049
	0.9	-0.010	-0.010	-0.039	-0.044	-0.044	-0.048
Span 2 & 3	0	0	0	0	0	0	0
	0.1	0.032	0.034	0.152	0.171	0.173	0.191
	0.2	0.074	0.078	0.355	0.397	0.403	0.444
	0.3	0.110	0.117	0.539	0.604	0.610	0.674
	0.4	0.133	0.141	0.657	0.736	0.743	0.820
	0.5	0.138	0.146	0.681	0.763	0.770	0.851
	0.6	0.123	0.130	0.607	0.680	0.688	0.759
	0.7	0.091	0.096	0.452	0.506	0.514	0.567
	0.8	0.051	0.054	0.256	0.287	0.293	0.323
	0.9	0.016	0.017	0.079	0.089	0.091	0.101
	0	0	0	0	0	0	0

FOR INFORMATION ONLY

SHEET 3 OF 4

DETAILS OF CONTINUOUS WELDED PLATE GIRDER UNIT

DAVID-O-DODD RD. OVER I-430

FOURCHE CREEK-COL. GLENN ROAD

PULASKI COUNTY

ROUTE I-430 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION

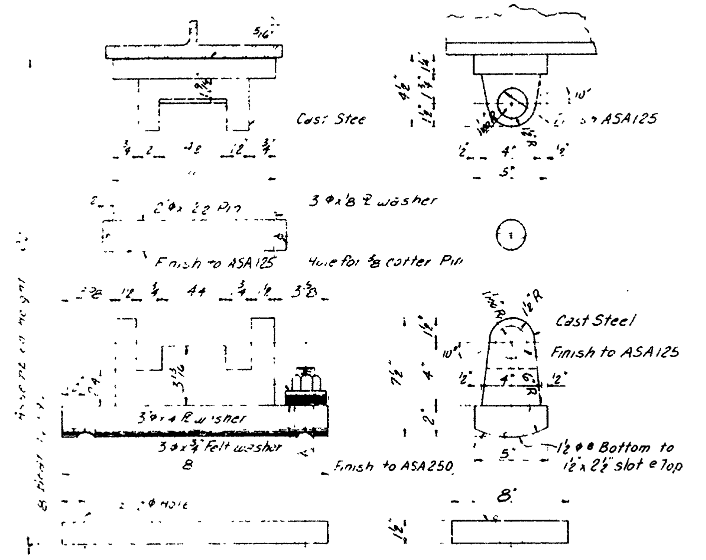
LITTLE ROCK, ARK.

DRAWN BY: [illegible] DATE: 2-24-72
TRACED BY: DATE:
CHECKED BY: BDS DATE: [illegible]
SCALE: As Noted

BRIDGE NO. 5309 DRAWING NO. 17744

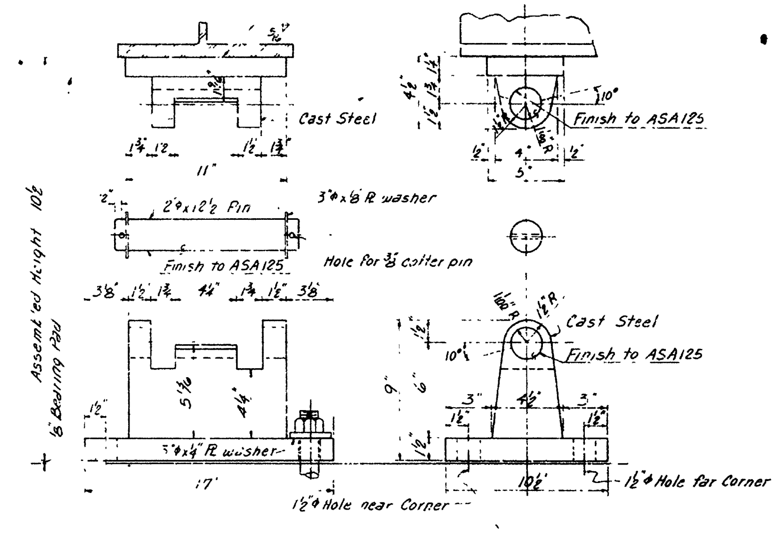
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	31	56

① SITE NO. 3 - FOR INFORMATION ONLY

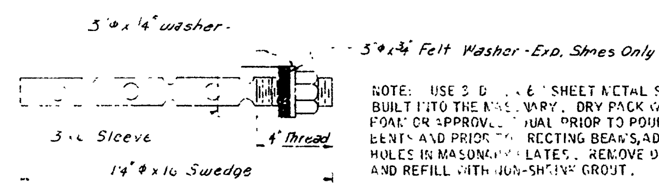


TYPE D1 EXPANSION SHOE
Bent 1 & 5

Material: Steel Castings ASTM A27 Grade 70-40 & ASTM A 36

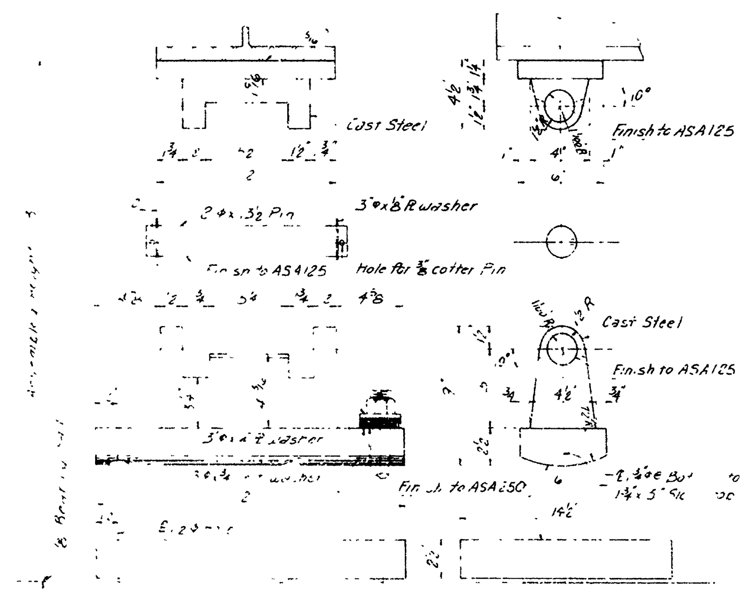


TYPE D1 FIXED SHOE
Bent 3
Material: Steel Castings ASTM A27 Grade 70-40



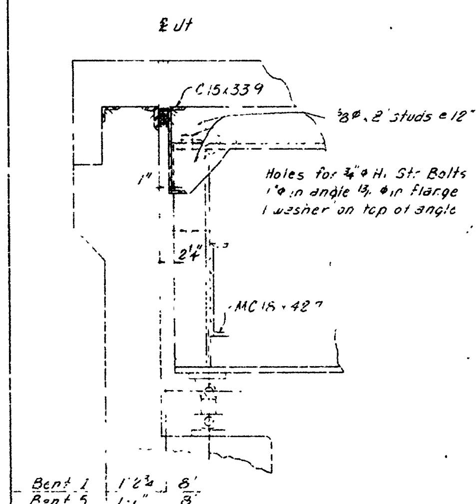
NOTE: USE 3" D[illegible] 6" SHEET METAL SLEEVE WHEN ANCHOR BOLTS ARE BUILT INTO THE MASONRY. DRY PACK WITH STYROFOAM OR URETHANE FOAM OR APPROVED EQUAL PRIOR TO POURING CONCRETE. AFTER POURING BENTS AND PRIOR TO ERECTING BEAMS, ADJUST ANCHOR BOLTS TO MATCH HOLES IN MASONRY PLATES. REMOVE DRY PACK MATERIAL FROM SLEEVE AND REFILL WITH NON-SHRINK GROUT.

ANCHOR BOLT DETAIL



TYPE D3 EXPANSION SHOE
Bent 2 & 4

Material: Steel Castings ASTM A27 Grade 70-40 & ASTM A-36



JOINT AT END BENT
3/4" = 1'-0"

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	[illegible]		[illegible]	9
				JOB NO.		[illegible]			

① 5307 SPAN DETAIL 1774[illegible]

GENERAL NOTES

ALL CONCRETE TO BE CLASS "AE". ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

FIELD CONNECTIONS TO BE BOLTED WITH HIGH STRENGTH BOLTS. BOLTS 3/4" ⌀ [illegible] HOLES 13/16" ⌀ EXCEPT WHERE NOTED OTHERWISE. BOLT SPACING SHALL BE 2 1/2" UNLESS OTHERWISE NOTED. MINIMUM EDGE DISTANCE SHALL BE 1 1/4" UNLESS NOTED OTHERWISE. BOLTS SHALL BE PLACED WITH [illegible] OUTSIDE FACE OF EXTERIOR GIRDERS AND ON BOTTOM OF GIRDER FLANGES.

STRUCTURAL SHAPES OF EQUAL OR GREATER STRENGTH MAY BE SUB[illegible] PAYMENT WILL BE MADE ON THE BASIS OF PLAN QUANTITIES.

ALL WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY ST[illegible] HIGHWAY AND RAILWAY BRIDGES, CURRENT EDITION.

SHOP PAINT: ALL STRUCTURAL STEEL EXCEPT GALVANIZED MEMBERS [illegible] CONNECTIONS, AND SURFACES WITHIN 3" OF HOLES AND FIELD WELDS, AND SURFACES IN [illegible] SHALL BE GIVEN ONE PRIME COAT.

FIELD PAINT: AFTER ERECTION ALL EXPOSED STEEL SURFACES WHICH [illegible] EXCEPT SURFACES IN CONTACT WITH CONCRETE SHALL BE GIVEN ONE PRIME COAT. [illegible] ADDITIONAL COATS OF FIELD PAINT SHALL BE APPLIED TO ALL EXPOSED [illegible] WITH LAMP BLACK, SECOND COAT - ALUMINUM PAINT.

BEARINGS SHALL BE FINALLY SEATED IN ACCORDANCE WITH SEC. 807.51 [illegible] OF THE STANDARD SPECIFICATIONS. THIS WORK AND MATERIAL IS TO BE CONSIDERED AS SUBSIDIARY [illegible] STRUCTURAL STEEL" AND WILL NOT BE PAID FOR DIRECTLY. THESE DRAWINGS SHOW GENERAL [illegible] ONLY. SHOP DRAWINGS SHALL BE MADE IN ACCORDANCE WITH THE SPECIFICATIONS. SUBMITTED [illegible] SECURED BEFORE FABRICATION IS BEGUN. ANCHOR BOLTS SHALL BE GALVANIZED TO CONFORM [illegible] SPECIFICATIONS DESIGNATION A153.

REINFORCING STEEL TO BE ASTM A615, GRADE 40. THE REINFORCING STEEL IS [illegible] LOCATED [illegible] FORMS AND FIRMLY HELD IN PLACE BY STEEL WIRE SUPPORTS, SUFFICIENT IN [illegible] PREVENT DISPLACEMENT DURING THE COURSE OF CONSTRUCTION. THE WIRE SUPPORTS [illegible] DIRECTLY [illegible] WILL BE CONSIDERED SUBSISIARY TO THE ITEM OF "REINFORCING STEEL". SHOP [illegible] OF REINFORCING STEEL, INCLUDING WIRE SUPPORTS, SHALL BE SUBMITTED AND APPROVAL [illegible] FABRICATION IS BEGUN.

THE CONTRACTOR, AT HIS OPTION, MAY POUR BRIDGE SLAB CONTINUOUS [illegible] RETARDING AGENT TO RETARD SET. NOT LESS THAN 72 HOURS SHALL ELAPSE BETWEEN [illegible] OF SL[illegible] THE CURB SECTIONS. IF THE PARAPET IS NOT POURED WITH THE CURB, 72 HOURS SHALL ELAPSE BETWEEN [illegible] OF CURB AND PARAPET.

ALL CONCRETE SHALL BE POURED AND SCREEDED OFF PRIOR TO INITIAL SET. THE CONC[illegible] SHALL BE FINISHED IN ACCORDANCE WITH SECTION 802.23 OF THE STANDARD SPECIFICATIONS. [illegible] ENT OF THE FINISHING MACHINE ACROSS NEW CONCRETE SHALL BE [illegible] PLACED [illegible] THE SURFACE AND SHALL BE PROHIBITED FOR 72 HOURS AFTER FINISHING THE POUR.

GIRDER WEBS MAY BE MADE BY SHOP SPLICING WITH MINIMUM LENGTH OF 25'-0" FOR SECTIONS. FLANGE PLATES LONGER THAN 50' MAY BE MADE BY SHOP SPLICING WITH MINIMUM LENGTH OF 25'-0" FOR SECTIONS. NO ADDITIONAL PAYMENT FOR WELDS FOR THESE SPLICES WILL BE MADE.

[illegible] AS NOTED ON GIRDER ELEVATION (SHEET 2) AS HIGH STRENGTH LOW ALLOY COLUMBIUM VANDIUM STEEL, [illegible] DESIGNATION A572, GRADE 50 AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER POUND BID FOR "STRUCTURAL STEEL IN PLATE GIRDER SPANS A572". ALL OTHER STRUCTURAL STEEL SHALL BE ASTM DESIGNATION A36 [illegible] SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER POUND BID FOR "STRUCTURAL STEEL IN PLATE GIRDER SPANS A36".

FOR DETAILS OF BRIDGE RAILING, SEE DRAWING NO. 17737

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1972, AND APPLICABLE SPECIAL PROVISIONS.

ALL WELDING THAT IS TO BE DONE DURING FABRICATION OF STRUCTURAL STEEL, INCLUDING TEMPORARY WELDS, SHALL BE DETAILED ON THE SHOP DRAWINGS AND SUBMITTED FOR APPROVAL. IF THE CONTRACTOR OR ERECTOR SHOULD WANT TO MAKE ADDITIONAL WELDS, WHETHER TEMPORARY OR PERMANENT, HE SHALL SUBMIT DETAILED DRAWINGS WITH A FORMAL REQUEST TO THE BRIDGE DESIGN DIVISION OF THE ARKANSAS STATE HIGHWAY DEPARTMENT FOR APPROVAL.

ASTM A27, GRADE 70-40 STEEL-SHOE CASTINGS SHALL BE PAID FOR AT THE UNIT PRICE PER POUND BID FOR "STRUCTURAL STEEL IN PLATE GIRDER SPANS A36".

FOR INFORMATION ONLY

SHEET 4 OF 4

DETAILS OF CONTINUOUS WELDED PLATE GIRDER UNIT
DAVID O-DODD RD OVER I-430
FOURCHE CREEK-COL. GLENN ROAD
PULASKI COUNTY
ROUTE I-430 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

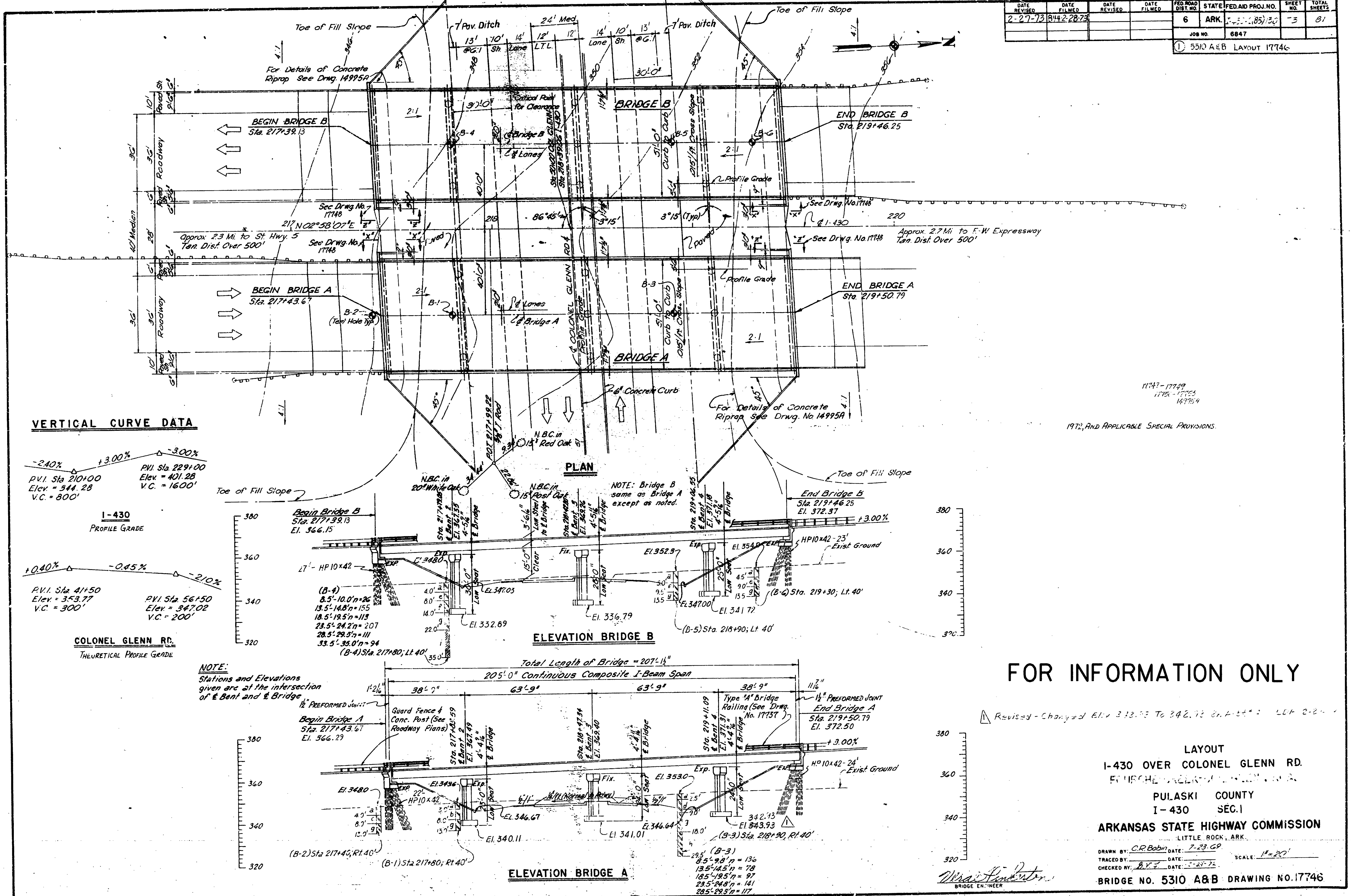
DRAWN BY W.W.W. DATE [illegible]
TRACED BY ______ DATE ______
CHECKED BY [illegible] DATE ______
SCALE: As Noted

[signature]
BRIDGE ENGINEER

BRIDGE NO. 309 DRAWING NO. 17745

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	32	56

① SITE NOS. 4 & 5 - FOR INFO. ONLY



FOR INFORMATION ONLY

⚠ Revised - Changed Elev. 343.93 To 342.13 ...

LAYOUT
I-430 OVER COLONEL GLENN RD.
PULASKI COUNTY
I-430 SEC. 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: C.R. Bobin DATE: 7-23-69 SCALE: 1" = 20'
TRACED BY: DATE:
CHECKED BY: B.Y.T. DATE:

BRIDGE ENGINEER

BRIDGE NO. 5310 A&B DRAWING NO. 17746

ALBERT SWITZER & ASSOCIATES, INC. CONSULTING ENGINEERS

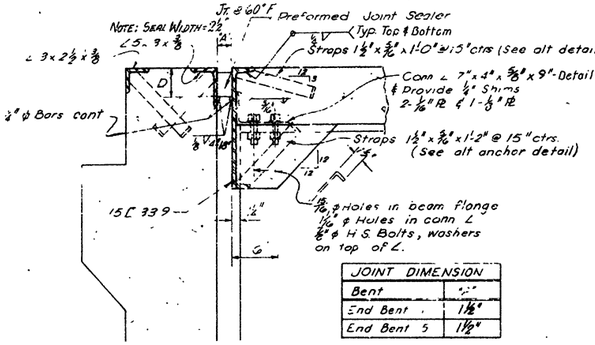
DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		060505	33	56

(1) SITE NOS. 4 & 5 - FOR INFO. ONLY

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	I-430-1(25)50	-	-
				JOB NO.	6847			

NOTE: The Dimension 'D' shall conform to the recommendations of the seal manufacturer as approved by the Bridge Engineer. The depth of the seal shall be approximately equal to the uncompressed width of the seal.

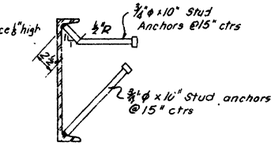
NOTE: The Contractor may furnish either type of anchors, at his option. The stud anchors shall be granular flux filled solid fluxed or equal - automatically end welded. Use weight of straps as basis for payment.



JOINT DIMENSION	
Bent 1	2"
End Bent 4	1⅝"
End Bent 5	1⅝"

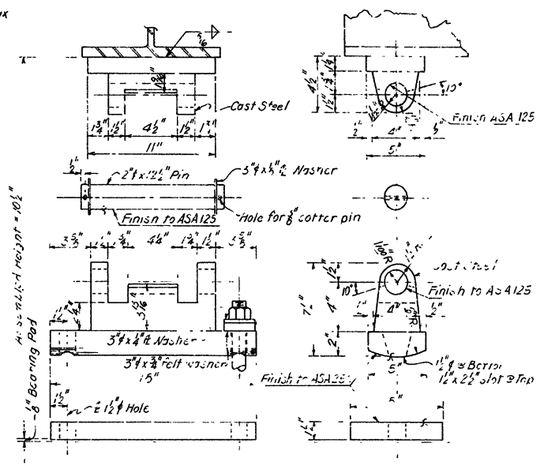
SECTION THRU END CHANNEL

Scale: 1½" = 1'-0"



STUD ANCHOR ALTERNATE

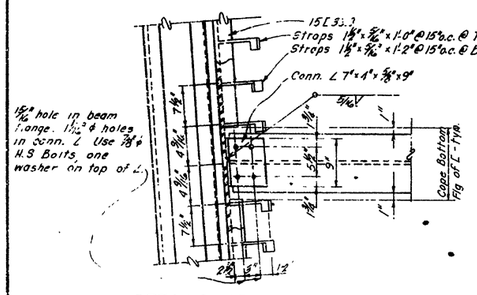
Scale: 1½" = 1'-0"



EXP. SHOES AT BENTS 1, 2, 4 & 5

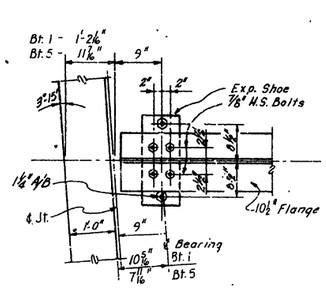
¾" = 1'-0"

Material: Steel Castings ASTM A27 Grade 70-40



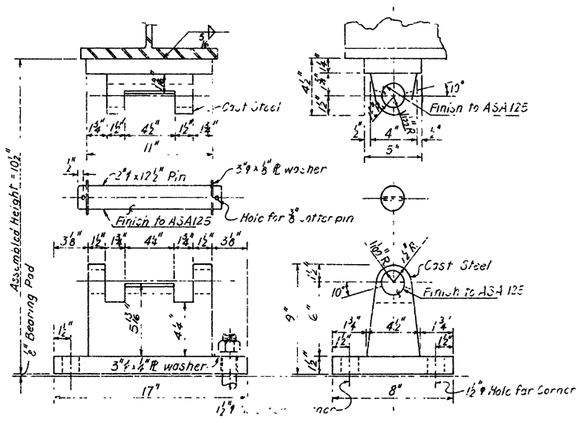
DETAILS OF TOP FLANGE AT BEAM ENDS

Scale: 1" = 1'-0"



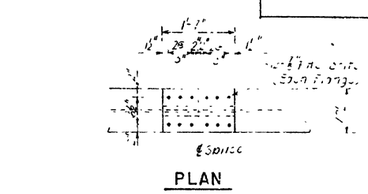
DETAILS OF BOTTOM FLANGE AT BEAM ENDS

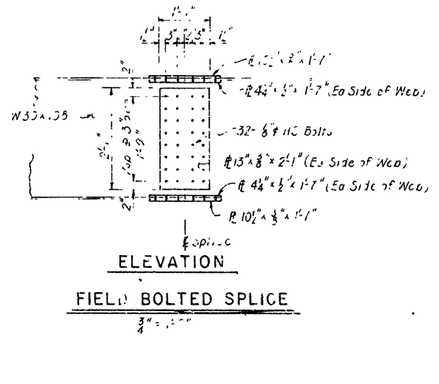
Scale: 1" = 1'-0"

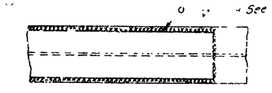


FIXED SHOES AT BENT 3

¾" = 1'-0"



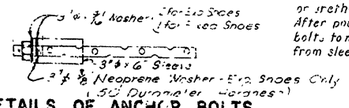




COVER PLATE DETAIL

Scale: 1" = 1'-0"

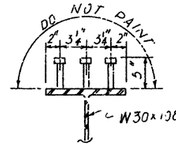
COVER ℄ WELD TABLE	
℄ SIZE	WELD SIZE
9" x ⅜"	5/16"
9" x ½"	5/16"



DETAILS OF ANCHOR BOLTS

Scale: 1½" = 1'-0"

NOTE: Use 3" Dia x 6" Sheet Metal Sleeves When Anchor Bolts Are Built Into The Masonary. Dry pack with styrofoam, or urethane foam or approved equal prior to pouring concrete. After pouring bents and prior to erecting beams, adjust anchor bolts to match holes in masonry plates. Remove dry pack material from sleeve and refill with non-shrink grout.



STUD SHEAR CONNECTORS

N.T.S.

WELD SHEAR CONNECTORS SHOWN SHALL BE ¾" DIA. x 5" LONG STUD TYPE FLUX FILLED, SOLID FLUXED OR EQUAL, AND AUTOMATICALLY WELDED TO GIRDER FLANGES IN ACCORDANCE WITH RECOMMENDATIONS OF THE MANUFACTURER. 7/8" DIAMETER STUDS MAY BE SUBSTITUTED FOR THE 3/4" DIAMETER STUDS SHOWN AT THE RATE OF 1.25 7/8" DIA. STUDS FOR EACH 1" DIA. STUD SHOWN. THE 3/4" STUDS SHALL BE SPACED AT AN INTERVAL OF 7 INCHES OR ONE HUNDRED TWENTY

FOR INFORMATION ONLY

STEEL DETAILS

I-430 OVER COLONEL GLENN RD.

FOURCHE CREEK - COL. GLENN ROAD

PULASKI COUNTY

I-430 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK

DRAWN BY JNSolano DATE 4-8-72

TRACED BY _____ DATE: _____

CHECKED BY E.W.C. DATE 5-24-72

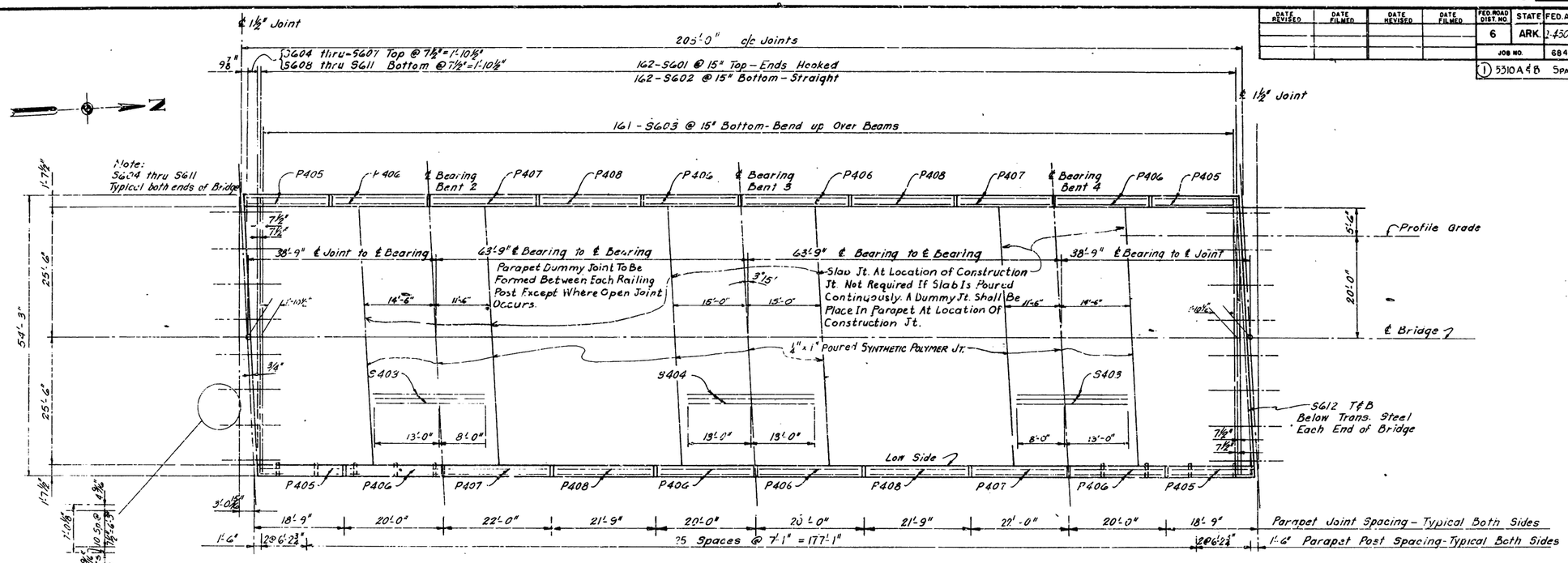
SCALE As Shown

BRIDGE NO. 5310 A & B DRAWING NO. 17750

Wm. F. Laman
BRIDGE ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06503	34	56
				①		SITE NOS. 4 & 5 - FOR INFO. ONLY		

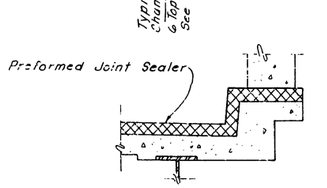
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	I-430-2(35)13	72	5'
				JOB NO.		6847		
				① 5310A&B SPAN DETAILS 17751				



SLAB PLAN

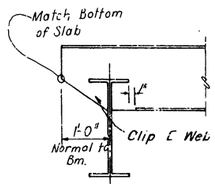
BRIDGE A SHOWN BRIDGE B SIMILAR

Scale: 3/32"=1'-0"



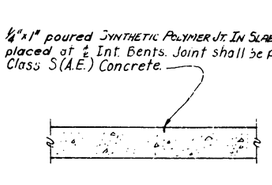
SEAL PLACEMENT IN CURB

Scale: 3/4"=1'-0"



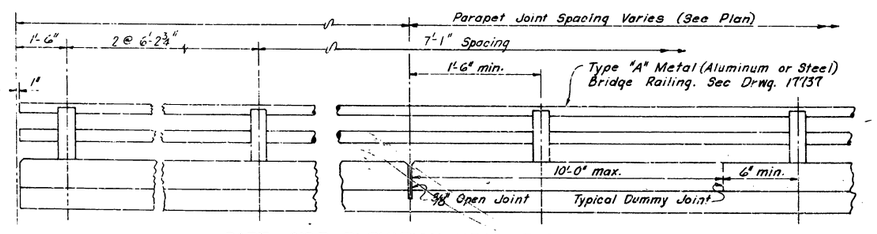
SECTION "S-S"

Scale: 3/4"=1'-0"



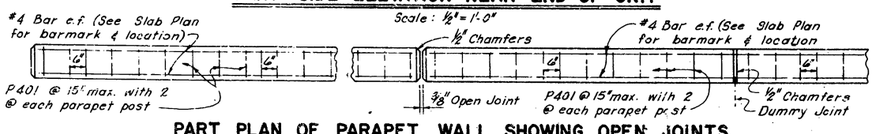
TRANSVERSE JOINT

Scale: 3/4"=1'-0"



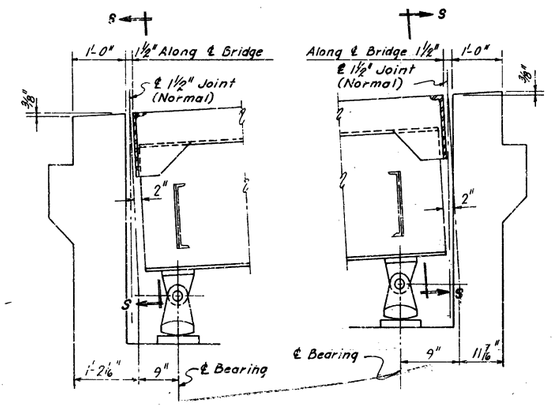
PART SIDE ELEVATION NEAR END OF UNIT

Scale: ½"=1'-0"



PART PLAN OF PARAPET WALL. SHOWING OPEN JOINTS

Scale: ½"=1'-0"



SECTION ALONG ℄ BRIDGE AT END BENT NO. 1

Scale: 3/4"=1'-0"

SECTION ALONG ℄ BRIDGE AT END BENT NO. 5

Scale: 3/4"=1'-0"

NOTES:

ALL CONCRETE SHALL BE CLASS S (AE).

REINFORCING STEEL TO BE ASTM A615, GRADE 40. SHOP LISTS AND BENDING DIAGRAMS ARE TO BE SUBMITTED AND APPROVAL SECURED BEFORE FABRICATION IS BEGUN.

ALL EXPOSED CORNERS SHALL HAVE 3/4" CHAMFER UNLESS NOTED.

FOR TYPICAL CROSS SECTION THRU SLAB, SEE DWG. 17753

FOR BARLIST SEE DWG. 17753

FOR INFORMATION ONLY

SLAB PLAN
I-430 OVER COLONEL GLENN RD.
FOURCHE CREEK-COL. GLENN ROAD
PULASKI COUNTY
I-430 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: D.J. Allan DATE: 12-4-69
TRACED BY: DATE:
CHECKED BY: B.Y.P. DATE: 3-24-72
SCALE: As Shown

Vernon Pinkerton
BRIDGE ENGINEER

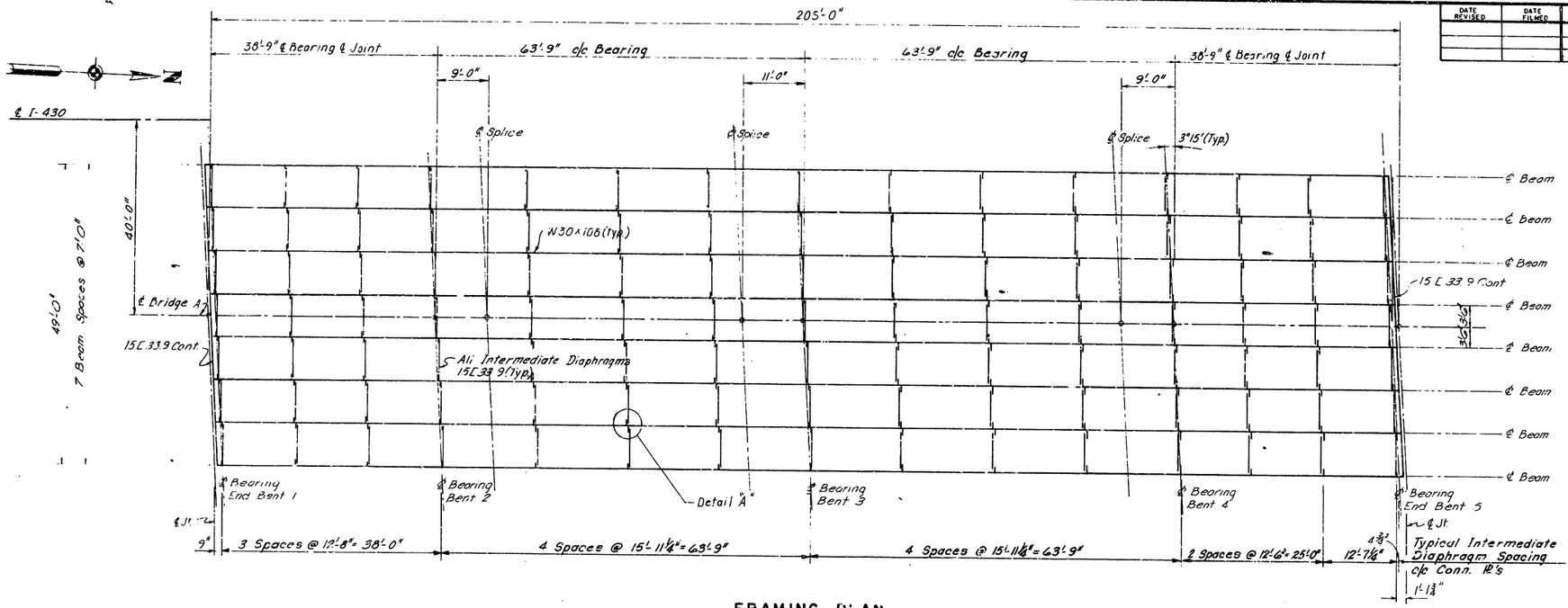
BRIDGE NO. 5310 A&B DRAWING NO. 17751

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		066505	35	56

(1) SITE NOS. 4 & 5 - FOR INFO. ONLY

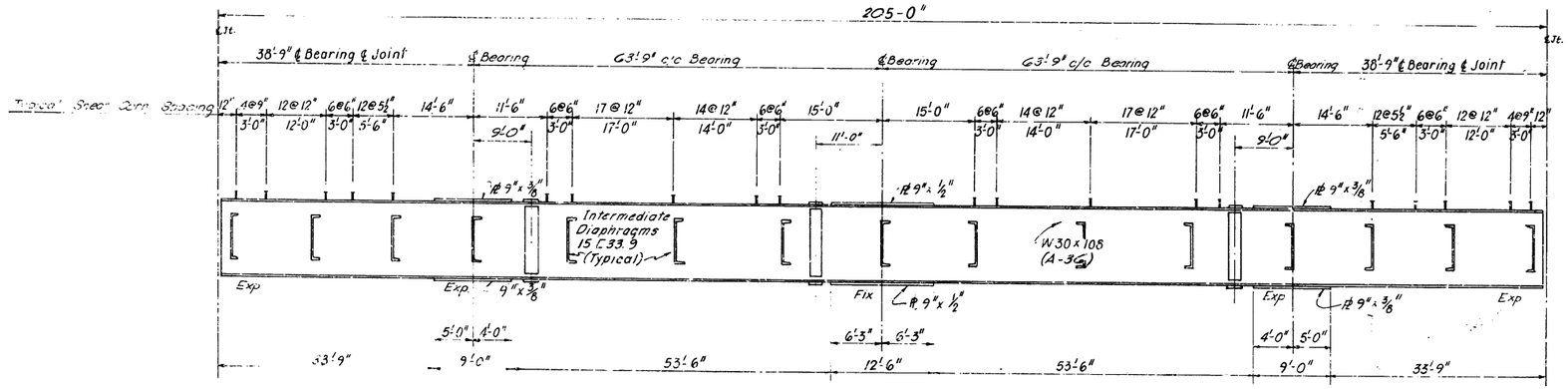
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED ROAD DIST NO	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK	I-430-2(35)12	12	17
				JOB NO.		6847		

1. 5310 A&B SPAN DETAILS 17752



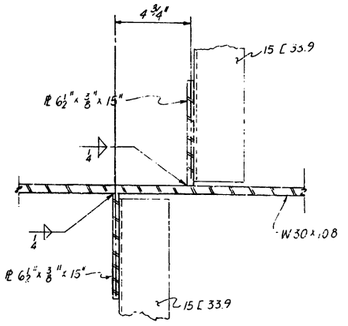
FRAMING PLAN

SCALE: 1"=10'



BEAM ELEVATION & SHEAR CONNECTOR SPACING

N.T.S.



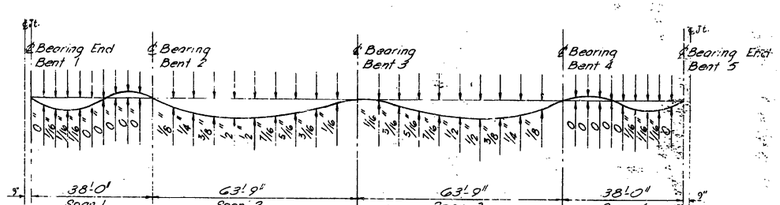
DETAIL "A"

Scale: 3"=1'-0"

(Typ.- All Interior Connections)

CAMBER PERCENTAGES

LOADS	Int Bm	Ext Bm
Beam Deadload	13%	14%
Slab Deadload	73%	62%
Comp. Deadload	14%	24%



DEFLECTION DIAGRAM

Virgil Pinkerton
BRIDGE ENGINEER

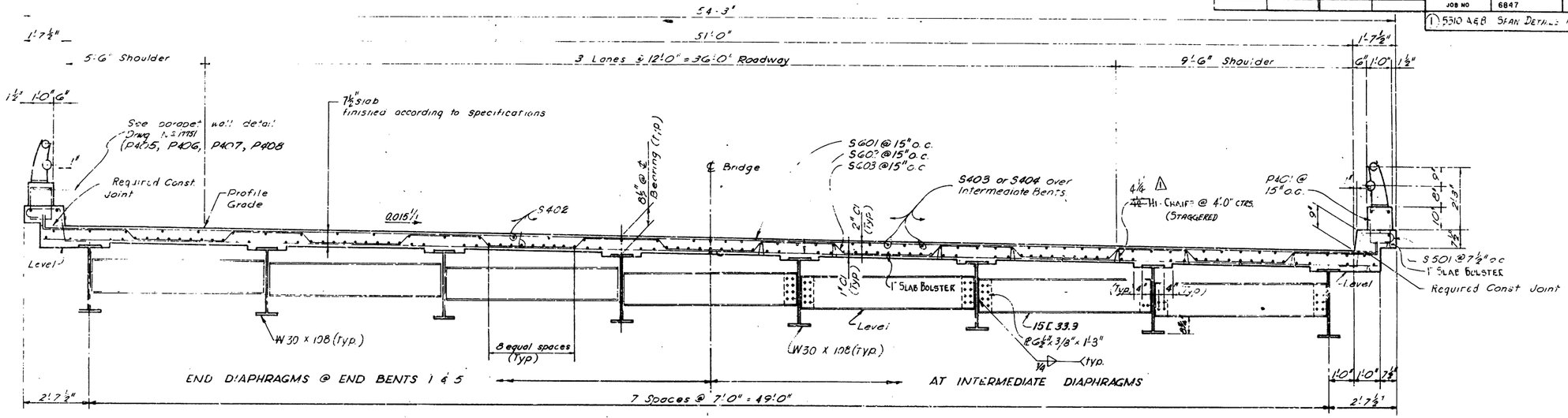
FOR INFORMATION ONLY

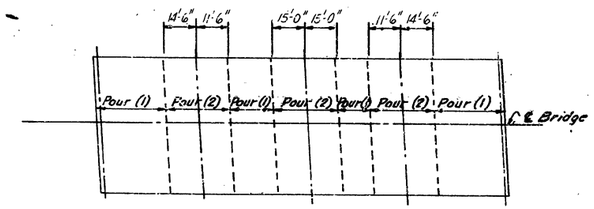
STEEL FRAMING PLAN
I-430 OVER COLONEL GLENN RD.
FOURCHE CREEK-COL. GLENN ROAD
PULASKI COUNTY
I-430 SEC. 1

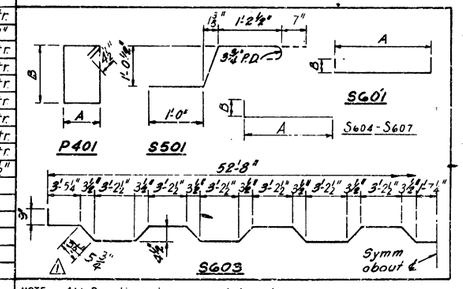
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: D.J. Allan DATE: 2-16-70
TRACED BY: DATE:
CHECKED BY: D.Y.J. DATE: 3-24-72
SCALE: As Shown

BRIDGE NO. 5310 A&B DRAWING NO. 17752







DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	36	56

① SITE NOS. 4 & 5 - FOR INFO. ONLY

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED ROAD DIST NO	STATE	FED. AID PROJ. NO.	SHEET NO	TOTAL SHEETS
1-12-73	512-1-16-73			6	ARK.	I-430-2(85)15		
				JOB NO		6847		

① 5310 A&B SPAN DETAILS 17755

TYPICAL CROSS SECTION

GENERAL NOTES

All Concrete to be Class S or S(AE). All exposed corners to be chamfered 3/4" unless otherwise noted

Field connections to be bolted with high strength bolts

Bolts 7/8"Φ, open holes 15/16"Φ, except where noted otherwise. Bolt spacing shall be 3", unless otherwise noted. Minimum edge distance shall be 1 1/2" unless otherwise noted. Bolts shall be placed with heads on the outside face of exterior girders and on bottom of girder flanges

The contractor, at his option, may pour bridge slab continuous, using a retarding agent to retard set. Not less than 72 hours shall elapse between pouring of slab and the curb sections, and 72 additional hours between curb and parapet. Concrete finishing shall be done in the daylight hours

Reinforcing steel to be ASTM A615, Grade 40. The reinforcing steel is to be accurately located in the forms and firmly held in place by means of steel wire supports, sufficient in size and number to prevent displacement during the course of construction. The wire supports will not be paid for directly but will be considered subsidiary to the item of "Reinforcing Steel". Shop lists and bending diagrams of reinforcing steel, including wire supports, shall be submitted, and approval secured before fabrication is begun.

Anchor bolts are to be galvanized in accordance with ASTM Specification Designation A153

All welded connections shall be made by the electric arc process. All design, material and workmanship shall conform to the current American Welding Society Standard Specifications for Welded Highway and Railway Bridges and applicable Special Provisions

Shapes of equal, or greater strength may be substituted for structural shapes shown, but payment will be made on Plan Quantities.

Structural Steel shall be Structural Steel ASTM Designation A-36, and shall be paid for at the contract unit price per pound bid for "Structural Steel in Beam Spans (A-36)"

The steel shoes and the roadway expansion devices are to be paid for as "Structural Steel in Beam Spans (A-36)". All shoes to be finally seated in a manner set forth in the Specifications. This work and material are to be considered as subsidiary to the item of "Structural Steel in Beam Spans (A-36)", and will not be paid for directly

Shop Paint. All structural steel except galvanized members, contact surfaces of bolted connections, and surfaces within 3" of holes and field welds and surfaces in contact with concrete shall be given one prime coat.

Field Paint. After erection all exposed steel surfaces which did not receive a coat of shop paint except surfaces in contact with concrete shall be given one Prime Coat. Two additional coats of field paint shall be applied to all exposed surfaces. First Coat - red lead tinted with lamp black. Second coat - aluminum paint.

Neoprene washers to be subsidiary to "Structural Steel in Beam Spans (A-36)".

These drawings show general features of design only. Shop drawings shall be made in accordance with the Specifications, submitted and approval secured before fabrication is begun

All beams shall be blocked in their true position with webs horizontal, in the shop to form each complete unit. The camber, length of sections, distance between bearings and opening of joints shall be measured with beams in this position and this information shall become a part of the permanent record of this job. The component parts shall be match marked in this assembly and these marks shall be shown on the erection diagram. All beam dimensions are based on a temperature of 60° F. A tolerance of ±¼" is allowed for camber.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1972, AND APPLICABLE SPECIAL PROVISIONS. Special Provisions.

DESIGN SPECIFICATIONS: A.A.S.H.O. 1969 and American Welding Society Specifications for Welded Highway and Railway Bridges, current edition and applicable Special Provisions

DESIGN LIVE LOADING. HS20 Loading

LOAD DISTRIBUTION	To Interior Beam	To Exterior Beam
Dead Load to Beam	793 #/Linear Ft.	661 #/Linear Ft.
Dead Load to Composite Beam	180 #/Linear Ft.	286 #/Linear Ft.
Live Load to Composite Beam	1.273 Wheels + Impact	1.217 Wheels + Impact

UNIT STRESSES:		
	Class S or S(AE) Concrete (n=10)	1,200 psi.
	Reinforcing Steel	20,000 psi.
	Structural Steel (A-36)	20,000 psi.

SLAB POURING SEQUENCE

All pours (1) adjacent to pours (2) must be placed before pours (2) can be placed. 48 hours shall elapse between pours (1) and 72 hours shall elapse between adjacent pours (1) and (2).

BAR LIST

MARK	SIZE	NO. REQ'D	LENGTH	A	B	PIN DIA.
S601	6	162	53'-11"	52'-8"	9"	3½"
S602	6	162	52'-8"	-	-	Str.
S603	6	161	55'-7"	See Diagram		3½"
S604-S607	6	2 ea.	12'-3" to 45'-4"	11'-8" to 44'-9"	9"	3½"
S608-S611	6	2 ea	11'-8" to 44'-9"		-	Str.
S612	6	4	52'-9"	-	-	Str.
P401 △ ~~S401~~	4	392	4'-1"	1'-1½"	8"	2"
S402	4	822	35'-6"	-	-	Str.
S403	4	74	21'-0"	-	-	Str.
S404	4	37	26'-0"	-	-	Str.
P405	4	8	18'-3"	-	-	Str.
P406	4	16	19'-8"	-	-	Str.
P407	4	8	21'-8"	-	-	Str.
P408	4	8	21'-5"	-	-	Str.
S501	5	656	3'-8"	See Diagram		2½"

NOTE:

For Slab Plan see Drwg. 17751
For additional Notes see Drwg. 17751
For Transverse Joint detail see Drwg. 17751
Diaphragms at center-line of bearing shall be installed as beams are erected.
All Diaphragms shall be completely bolted prior to pouring of floor slabs.

NOTE: All Bar dimensions are out to out.

△ Revised-Changed 4½" Hi-Chairs to 4¼"
" S401 to P401
" S603 As Shown LDF 1-12-73

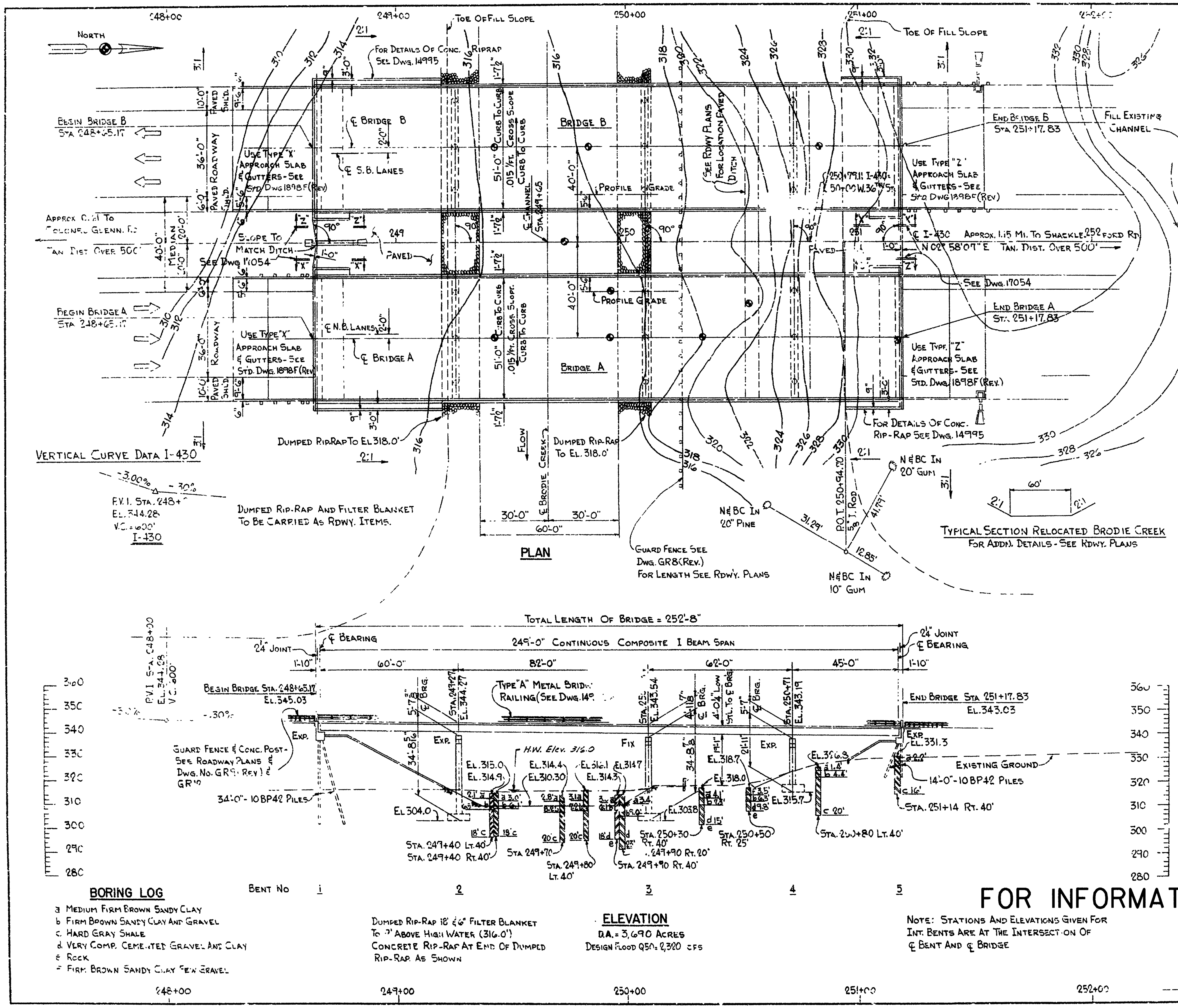
FOR INFORMATION ONLY

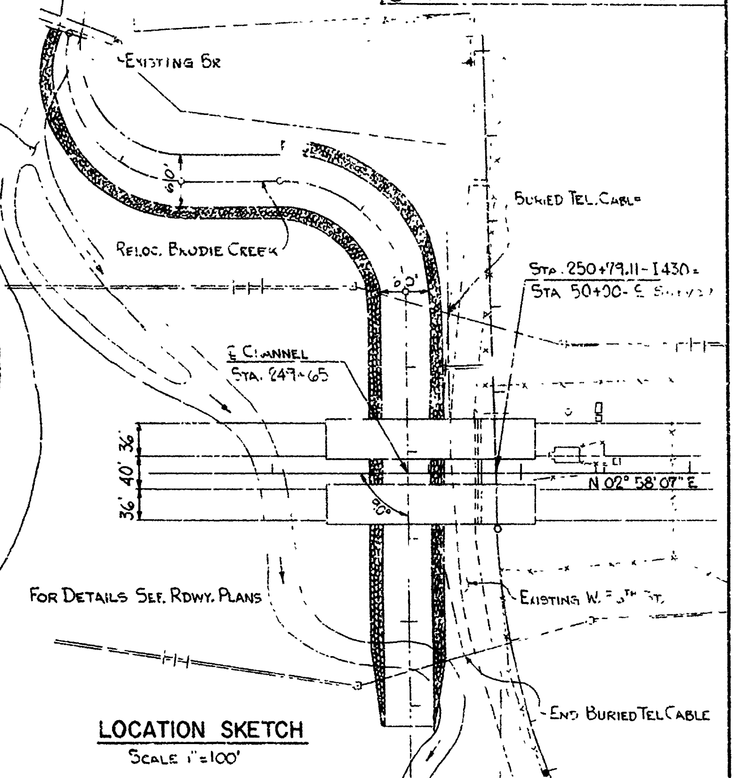
Veral Pinkerton
BRIDGE ENGINEER

SLAB SECTION
I-430 OVER COLONEL GLENN RD.
FOURCHE CREEK-COL. GLENN ROAD

PULASKI COUNTY
I-430 SEC. I
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY D.J. Allan DATE 2-20-70
TRACED BY: ______ DATE: ______ SCALE: As Shown
CHECKED BY: EYZ DATE: 3-24-72
BRIDGE NO. 5310A&B DRAWING NO. 17753





NOTES:

FOR GENERAL NOTES, SEE DRWG. 17060.

BENCH MARK - NAIL IN 20" RED OAK 150' LT. STA. 250 + 00 ELEV. 324.983.

ROCK EXCAVATION SHALL BE MADE TO NEAT LINES OF FOOTING. EXCAVATE 2'-0" MIN. INTO WEATHERED SHALE.

ALL CONCRETE SHALL BE POURED IN THE DRY.

ALL PILING SHALL BE 10BP42, DRIVEN WITH AN APPROVED AIR, STEAM OR DIESEL HAMMER TO 10' BELOW EXIST. GROUND, OR REFUSAL, WITH A MINIMUM BEARING CAPACITY OF 55 TONS. PILES IN END BENTS SHALL BE DRIVEN AFTER EMBANKMENT IS IN PLACE TO SUBGRADE ELEVATION. ORDER LENGTH SHOWN. CUT OFF OR BUILD UP ACCORDING TO SPECIFICATIONS.

FOR DETAILS OF SUBSTRUCTURE SEE DRWGS. 17053 THRU 17056.
FOR DETAILS OF SUPERSTRUCTURE SEE DRWGS. 17057 THRU 17060.
FOR DETAILS OF 10BP42 STEEL PILE SEE DRWG. 17054.

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION 1959, 1966 SUPPLEMENTAL SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHO 1969 AND CURRENT REVISIONS.
LOADING: HS20-44 AND SPECIAL INTERSTATE LOADING OF 2-24,000# AXLES SPACED AT 4'-0" ON CENTERS.

STRESSES:	CLASS S OR S(AE) CONCRETE (N=10)		1,200 PSI
	REINFORCING STEEL		20,000 PSI
	STRUCTURAL STEEL (A-36)		20,000 PSI
FOUNDATION PRESSURE:	MAX. ALLOWABLE NET =		10.00 KSF
	GROUP I	5.87 KSF	
	GROUP III	6.97 KSF (MAX.)	2.37 KSF (MIN.)
	GROUP V	3.89 KSF (MAX.)	.97 KSF (MIN.)

FOR INFORMATION ONLY

LAYOUT
I-430 OVER W. 36TH STREET
LITTLE ROCK BYPASS WEST
PULASKI COUNTY
ROUTE I-430 SEC. 11
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY D.S. DATE 5-11-71
TRACED BY ____ DATE ____
CHECKED BY ____ DATE ____
SCALE: 1" = 20' OR AS SHOWN

BRIDGE ENGINEER

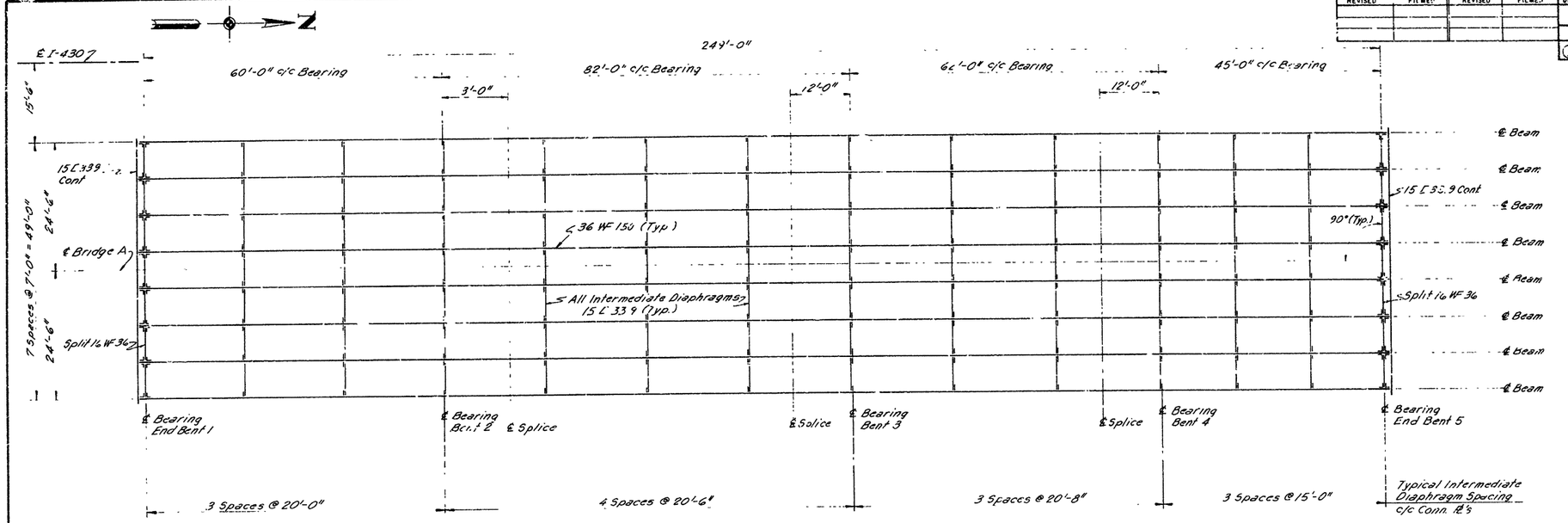
BRIDGE NO. 5311 A & B DRAWING NO. 17052

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	38	56

① SITE NOS. 6 & 7 - FOR INFO. ONLY

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	I-430-2(88)133	81	28.
				JOB NO.		6846		

① 5311A&B Framing Plan 17057



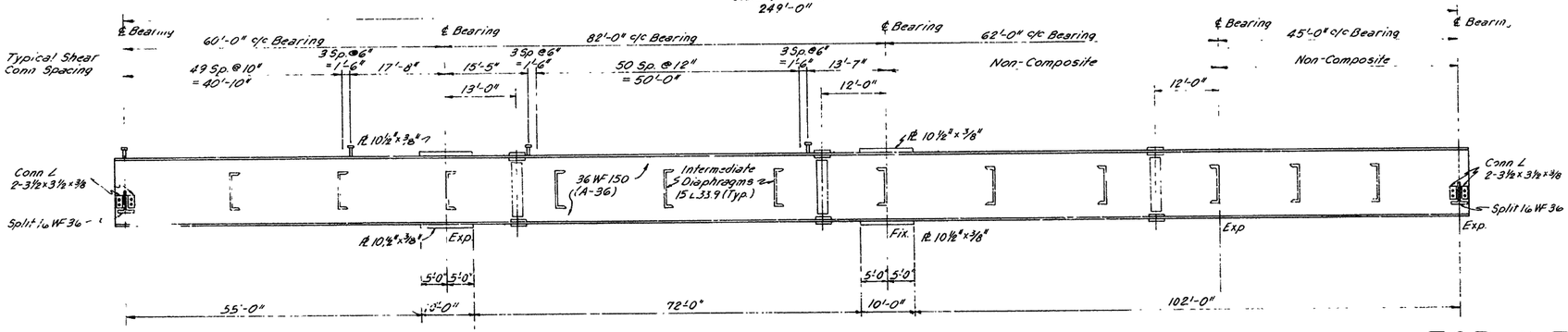
NOTE

All beams shall be blocked in their true position with web plates horizontal, in the shop to form each complete unit. The camber, length of sections, distance between bearings and opening of joints shall be measured with the beams in this position and this information shall become a part of the permanent record of this job. The component parts shall be match marked as in this assembly and these marks shall be shown on the erection diagram. All beam dimensions are based on a temperature of 60° F. A tolerance of ±1/4" is allowed for camber.

FRAMING PLAN

BRIDGE A SHOWN BRIDGE B OPP. HAND

Scale: 3/32" = 1'-0"

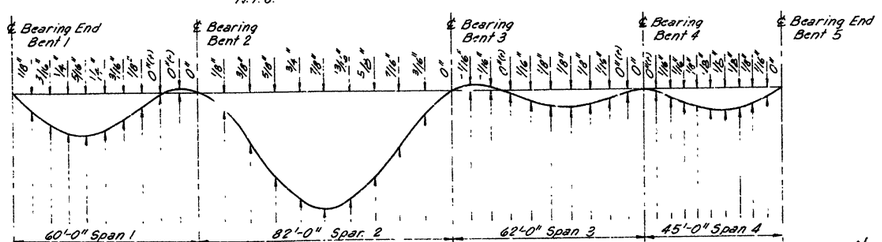


NOTES

For General Notes see Drwg. 17060
For Field Splice Details see Drwg. 17058
For Miscellaneous Steel Details see Drwg. 17058
For Diaphragm Connections see Drwg. 17060

BEAM ELEVATION & SHEAR CONNECTOR SPACING

N.T.S.



DEFLECTION DIAGRAM

Revised Structural Steel w.w.w. 9-10-70

CAMBER PERCENTAGES

LOADS	INT. BEAM	EXT. BEAM
Beam Deadload	19%	19%
Slab Deadload	67%	57%
Comp. Deadload	14%	24%

Viral Pinkerton
BRIDGE ENGINEER

FOR INFORMATION ONLY

STEEL FRAMING PLAN
I-430 OVER W. 36th STREET
LITTLE ROCK BYPASS WEST
PULASKI COUNTY
I-430 SEC. 11

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: J.N. Soileau DATE 1-8-70
TRACED BY: DATE:
CHECKED BY: R.G. Drouet DATE: 2-16-70
SCALE: As Shown

BRIDGE NO. 5311 A&B DRAWING NO. 17057

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	39	56

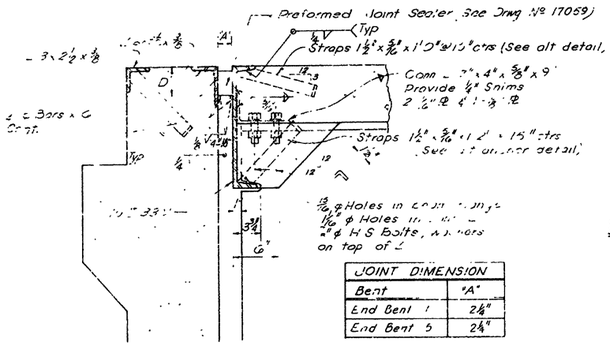
① SITE NOS. 6 & 7 - FOR INFO. ONLY

82

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK	I-430-2(88)133	82	283
				JOB NO.		6846		

① 53'11A&B Steel Details 17058

NOTE: The Dimension 'D' shall conform to the recommendations of the seal manufacturer as approved by the Bridge Engineer. The depth of the seal shall be approximately equal to the uncompressed width of the seal.

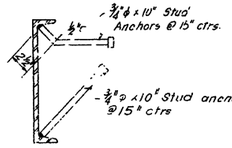


JOINT DIMENSION	
Bent	"A"
End Bent 1	2½"
End Bent 5	2½"

SECTION THRU END CHANNEL

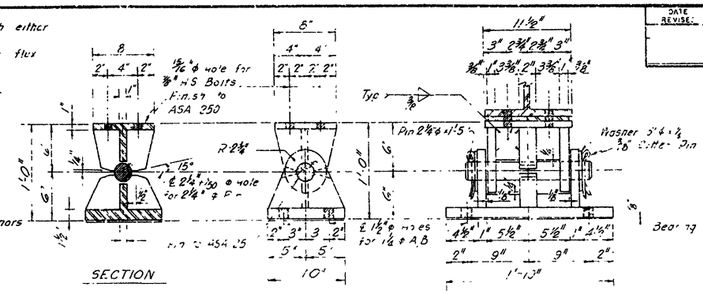
Scale: 1½" = 1'-0"

NOTE: The contractor may furnish either type of anchors, at his option. The stud anchors shall be granular flux filled, solid fluxed, or equal — automatically end welded. Use weight of straps as basis for payment.



STUD ANCHOR ALTERNATE

Scale: ½" = 1'-0"



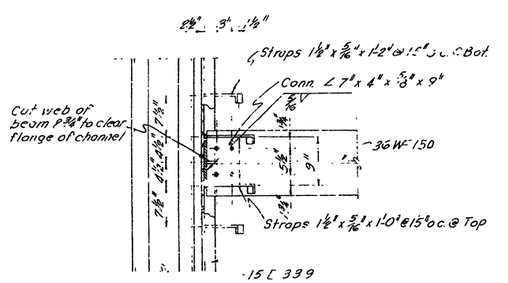
DETAILS OF FIXED SHOE AT BENT 3

N.T.S.

SHOE MATERIAL

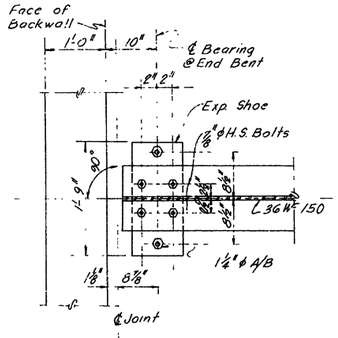
Shoes Weldment of ASTM A572 ... of cast steel AASHO designation M-192 Class 90

Pins ASTM A-108 Gr. ... 1018 to 1030 incl or ASTM A-235 Class ...



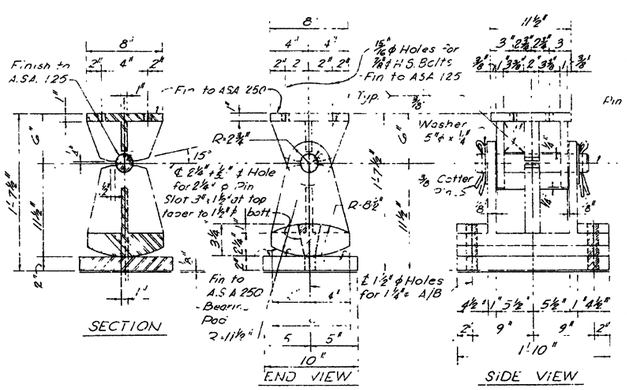
DETAILS OF TOP FLANGE AT BEAM ENDS

Scale: 1" = 1'-0"



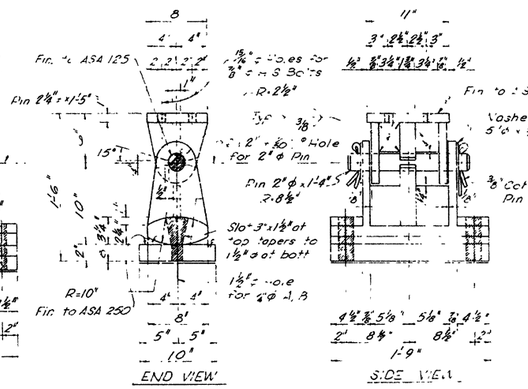
DETAILS OF BOTTOM FLANGE AT BEAM ENDS

Scale: 1" = 1'-0"



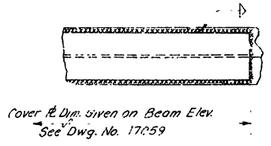
DETAILS OF EXPANSION SHOE AT BENTS 2 & 4

N.T.S.



DETAILS OF EXPANSION SHOE AT BENTS 1 & 5

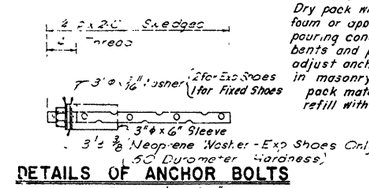
N.T.S.



COVER PL WELD TABLE	
PL SIZE	WELD SIZE
10½" x ⅜"	¼"

COVER PLATE DETAIL

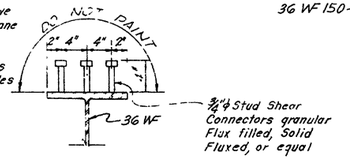
Scale: 1" = 1'-0"



DETAILS OF ANCHOR BOLTS

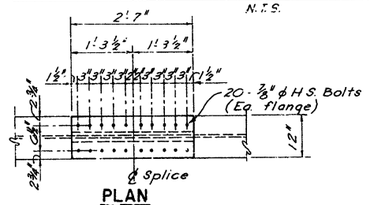
Scale: 1½" = 1'-0"

NOTE: 3" dia. x 6" sheet metal sleeve Dry pack with Styrofoam, or Urethane foam or approved equal prior to pouring concrete. After pouring bents and prior to erecting beams adjust anchor bolts to match holes in masonry plates. Remove dry pack material from sleeve and refill with non shrink grout.



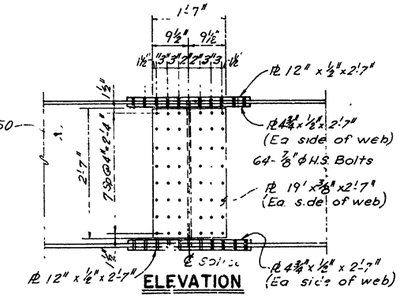
STUD SHEAR CONNECTORS

N.T.S.



PLAN

Scale: ⅜" = 1'-0"



ELEVATION FIELD BOLTED SPLICE

Scale: ⅜" = 1'-0"

NOTES

For General Notes see Drwg. 17056

For Steel Framing Plan and Elevation see Drwg. 17057

FOR INFORMATION ONLY

Revised Structural Steel. w.w.w. 9-10-70.

Neal Pinkerton
BRIDGE ENGINEER

STEEL DETAILS
I-430 OVER W. 36th STREET
LITTLE ROCK BYPASS WEST
PULASKI COUNTY
I-430 SEC. 11

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY JN Soileau DATE 1-21-70
TRACED BY ____ DATE ____
CHECKED BY RG Drouet DATE 2-16-70
SCALE As Shown

BRIDGE NO. 5311 A&B DRAWING NO. 17058

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		060505	40	56
				① SITE NOS. 6 & 7 - FOR INFO. ONLY				

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED ROAD DIST. NO	STATE	FED AID PROJ. NO.	SHEET NO	TOTAL SHEETS
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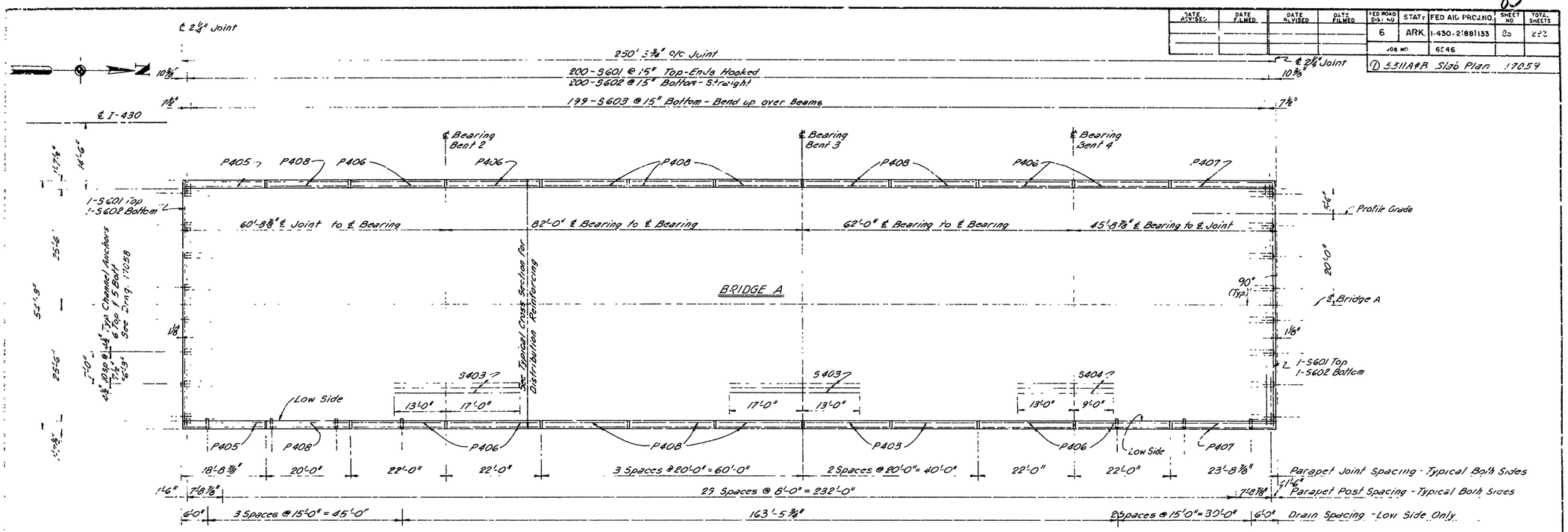
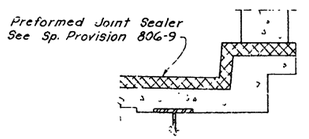
				JOB NO		6546		
				① 5311A&B Slab Plan .17059				



SLAB PLAN

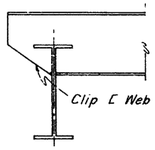
BRIDGE A SHOWN BRIDGE B OPP. HAND

Scale: 3/32" = 1'-0"



SEAL PLACEMENT IN CURB

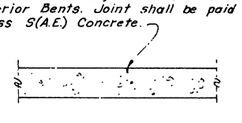
Scale: ¾" = 1'-0"



SECTION "S-S"

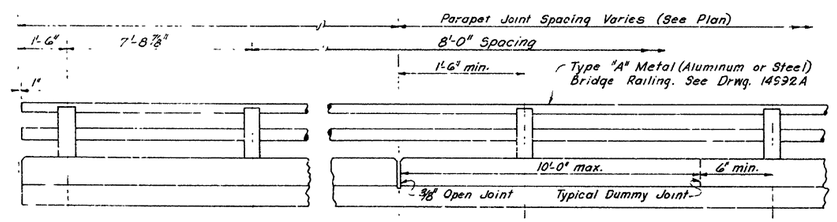
Scale: ¾" = 1'-0"

¼" x 1" poured asphalt joint in slab and curb, placed transversely 5'-0" each side of ℄ Interior Bents. Joint shall be paid for as Class S(A.E.) Concrete.

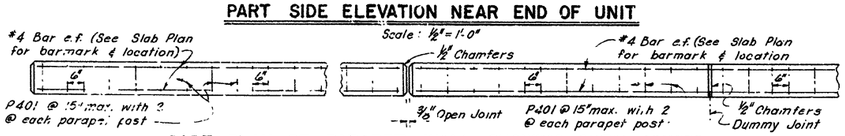


TRANSVERSE JOINT

Scale: ¾" = 1'-0"

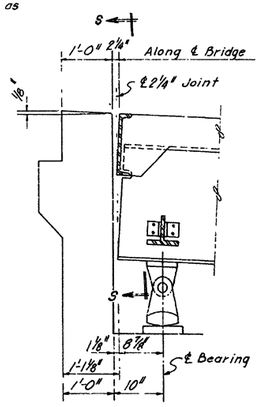


PART SIDE ELEVATION NEAR END OF UNIT



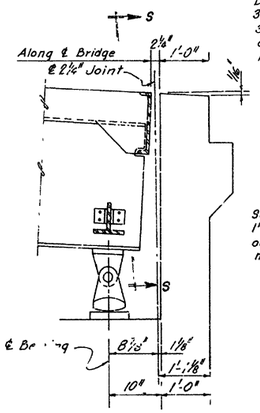
PART PLAN OF PARAPET WALL SHOWING OPEN JOINTS

Scale: 1" = 1'-0"



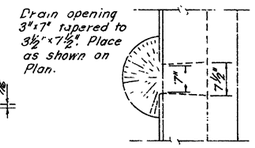
SECTION ALONG ℄ BRIDGE AT END BENT NO. 1

Scale: ¾" = 1'-0"



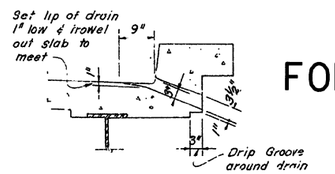
SECTION ALONG ℄ BRIDGE AT END BENT NO. 5

Scale: ¾" = 1'-0"



DRAIN PLAN

Scale: ¾" = 1'-0"



SECTION THRU DRAIN

Scale: ¾" = 1'-0"

NOTES

For General Notes see Drwg. 17060
All Concrete shall be Class S(A.E.)
Reinforcing Steel to be ASTM A615, Grade 40.
All exposed corners shall have 3/4" chamfer unless noted
For Typical Cross Section thru slab see Drwg. 17058
For Bar List see Drwg. 17060

FOR INFORMATION ONLY

SLAB PLAN
I-430 OVER W. 36th STREET
LITTLE ROCK BYPASS WEST

PULASKI COUNTY
I-430 SEC. 11

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK

DRAWN BY J.N. Sailers DATE 1-23-70
TRACED BY ____ DATE ____
CHECKED BY P.G. Drouet DATE 2-16-70
SCALE As Shown

BRIDGE NO. 5311 A & B DRAWING NO. 17059

Revised Structural Steel, w.w.w. 9-10-70.

Vesal Pinkerton
BR. DGF. ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	41	56
				① SITE NOS. 6 & 7 - FOR INFO. ONLY				

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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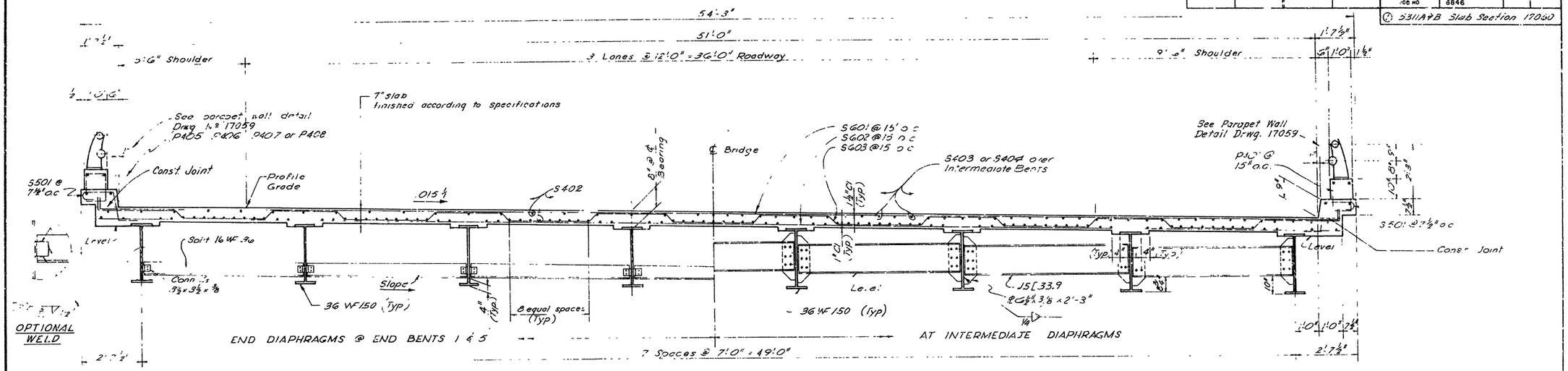
				JOB NO.		8846		
				① 5311A&B Slab Section 17060				



GENERAL NOTES

All Concrete to be Class S or S(AE) All exposed corners to be chamfered 3/4" unless otherwise noted

Field connections to be bolted with high strength bolts

Bolts 7/8"Ø open holes 15/16"Ø except where noted otherwise Bolt spacing shall be 3" unless otherwise noted Minimum edge distance shall be 1 1/2" unless otherwise noted Bolts shall be placed with heads on the outside face of exterior girders and on bottom of girder flanges

The contractor, at his option, may pour bridge slab continuous, using a retarding agent to retard set Not less than 72 hours shall elapse between pouring of slab and the curb sections, and 72 additional hours between curb and parapet All concrete shall be poured and screeded off prior to initial set Concrete finishing shall be done in the daylight hours

Reinforcing steel to be ASTM A615, Grade 40 The reinforcing steel is to be accurately located in the forms and firmly held in place by means of steel wire supports, sufficient in size and number to prevent displacement during the course of construction The wire supports will not be paid for directly but will be considered subsidiary to the item of "Reinforcing Steel". Shop lists and bending diagrams of reinforcing steel, including wire supports shall be submitted, and approval secured before fabrication is begun

Anchor bolts are to be galvanized in accordance with ASTM Specification Designation A153

All welded connections shall be made by the electric arc process All design, material and workmanship shall conform to the current American Welding Society Standard Specifications for Welded Highway and Railway Bridges and applicable Special Provisions

Shapes of equal or greater strength may be substituted for structural shapes shown, cut payment will be made on shapes shown or actually used, whichever is the lesser

Structural Steel shall be Structural Steel ASTM Designation A-36, and shall be paid for at the contract unit price per pound bid for "Structural Steel in Beam Spans (A-36)

The steel shoes and the roadway expansion devices are to be paid for as "Structural Steel in Beam Spans (A-36)". All shoes to be finally seated in a manner set forth in the Specifications, including alternate This work and material are to be considered as subsidiary to the item of "Structural Steel in Beam Spans (A-36)", and will not be paid for directly

Shop Paint All structural steel except galvanized members contact surfaces of bolted connections, and surfaces within 3" of holes and field welds, and surfaces in contact with concrete shall be given one prime coat as specified in Special Provision 806-18 "Painting of Steel Structures"

Field Paint After erection all exposed steel surfaces which did not receive a coat of shop paint except surfaces in contact with concrete shall be given one coat as specified in Sec 806-18 Two additional coats of field paint shall be applied to all exposed surfaces First Coat - red lead tinted with lamp black. Second coat - aluminum paint. Field paint shall be as specified in Special Provision 806-18 "Painting of Steel Structures"

Neoprene washers to be subsidiary to "Structural Steel in Beam Spans (A-36)".

These drawings show general features of design only Shop drawings shall be made in accordance with the Specifications submitted and approval secured before fabrication is begun

TYPICAL CROSS SECTION

All beams shall be blocked in their true position with webs horizontal, in the shop to form each complete unit The camber, length of sections, distance between bearings and opening of joints shall be measured with beams in this position, and this information shall become a part of the permanent record of this job The component parts shall be match marked in this assembly and these marks shall be shown on the erection diagram All beam dimensions are based on a temperature of 60° F

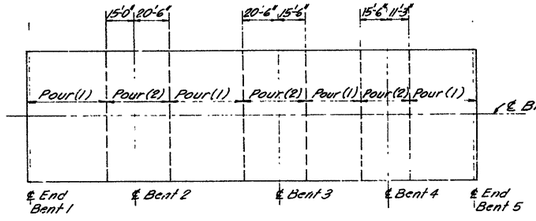
SPECIFICATIONS Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959 with 1966 Supplemental Specifications, and applicable Special Provisions

DESIGN SPECIFICATIONS A A S H O 1369 and American Welding Society Specifications for Welded Highway and Railway Bridges, current edition and applicable Special Provisions

DESIGN LIVE LOADING HS 20-44 Loading (Modified)

LOAD DISTRIBUTION	To Interior Beam	To Exterior Beam
Dead Load to Beam	808 #/Linear Ft.	706 #/Linear Ft
Dead Load to Composite Beam	133 #/Linear Ft	238 #/Linear Ft
Live Load to Composite Beam	1.272 Wheels + Impact	1.217 Wheels + Impact

UNIT STRESSES	
Class S or S(AE) Concrete (n=10)	1,200 psi
Reinforcing Steel	20,000 psi
Structural Steel (A-36)	20,000 psi



SLAB POURING SEQUENCE

All pours (1) adjacent to pours (2) must be placed before pours (2) can be placed 48 hours shall elapse between pours (1) and 72 hours shall elapse between adjacent pours (1) and (2).

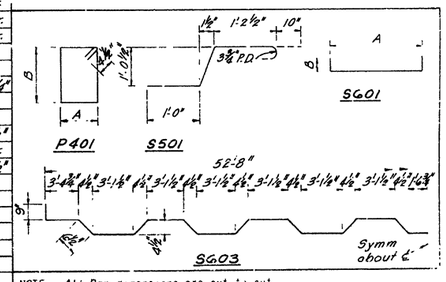
BAR LIST

ONE BRIDGE LISTED TWO REQUIRED

MARK	SIZE	NO. REQ'D	LENGTH	A	B	PIN DIA.
P401	#4	556	4'-6"	9½"	1'-2½"	2"
S402	#4	959	37'-2"			Str.
S403	#4	74	30'-0"			Str.
S404	#4	37	22'-0"			Str.
P405	#4	4	18'-3"			Str.
P406	#4	16	21'-7"			Str.
P407	#4	4	23'-3"			Str.
P408	#4	24	19'-7"			Str.
S501	#5	802	4'-1"	(See Diagram)		3¾"
S601	#6	202	53'-11"	52'-8"	9"	4½"
S602	#6	202	52'-8"			Str.
S603	#6	199	56'-3"	(See Diagram)		4½"

NOTE

For Slab Plan see Drwg 17059
For additional Notes see Drwg 17059
For Transverse Joint detail see Drwg 17059
Diaphragms at centerline of bearing shall be installed as Leans are erected
All Diaphragms shall be completely bolted prior to pouring of floor slabs



NOTE All Bar dimensions are out to out
All Bar spaces are center to center
Quantities for ONE bridge listed TWO are required

FOR INFORMATION ONLY

SLAB SECTION
I-430 OVER W. 36th STREET
LITTLE ROCK BYPASS WEST

PULASKI COUNTY
I-430 SEC. 11

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK

DRAWN BY J.N. Sorleau DATE 1-22-70
TRACED BY _____ DATE _____
CHECKED BY R.G. Drouet DATE 2-16-70
SCALE As Shown

BRIDGE NO. 5311 A&B DRAWING NO. 17060

Revised Structural Steel www. 9-10-70

Virgil Pinkerton
BRIDGE ENGINEER

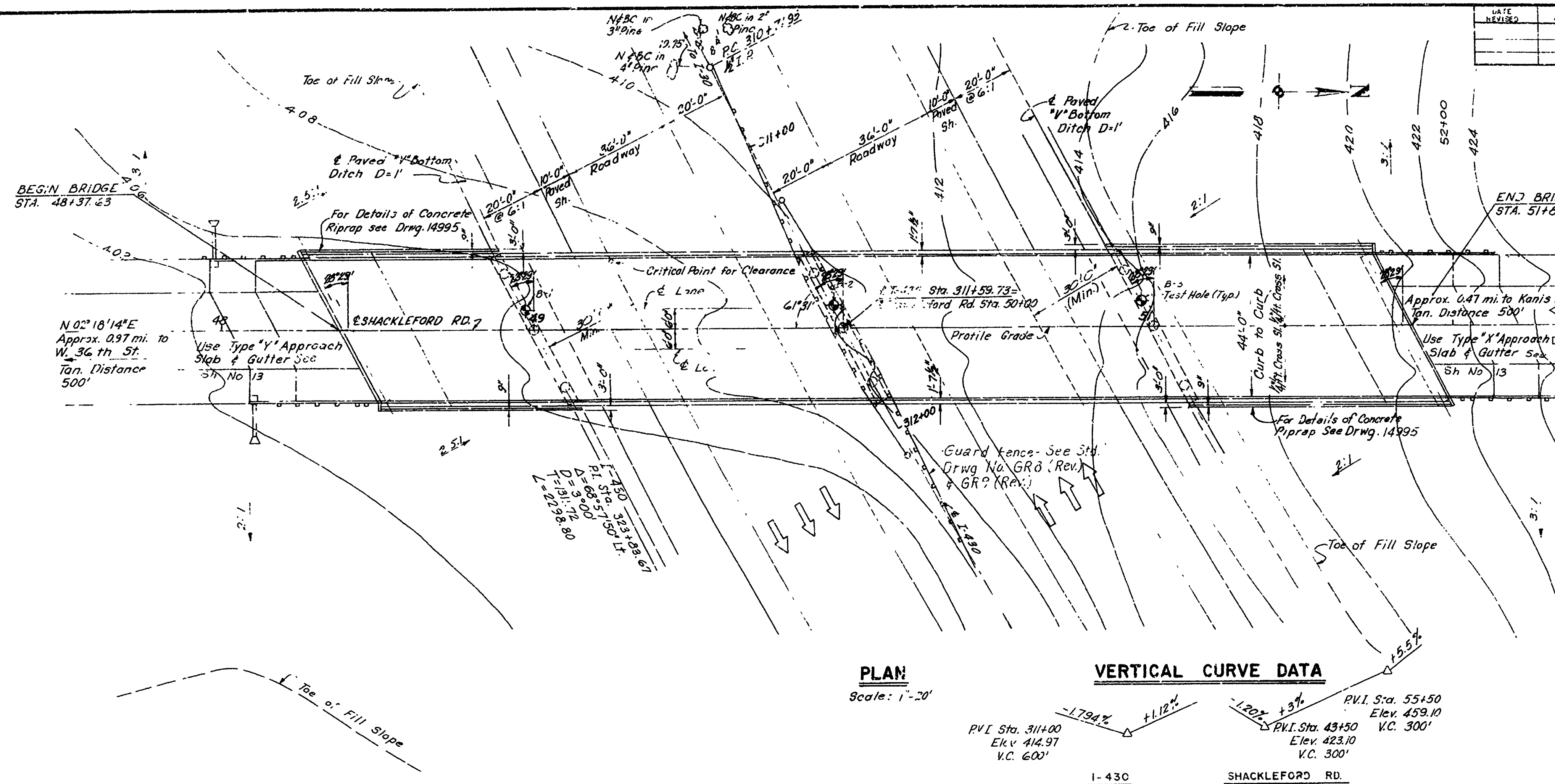
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	42	56

(1) SITE NO. 8 - FOR INFORMATION ONLY

85

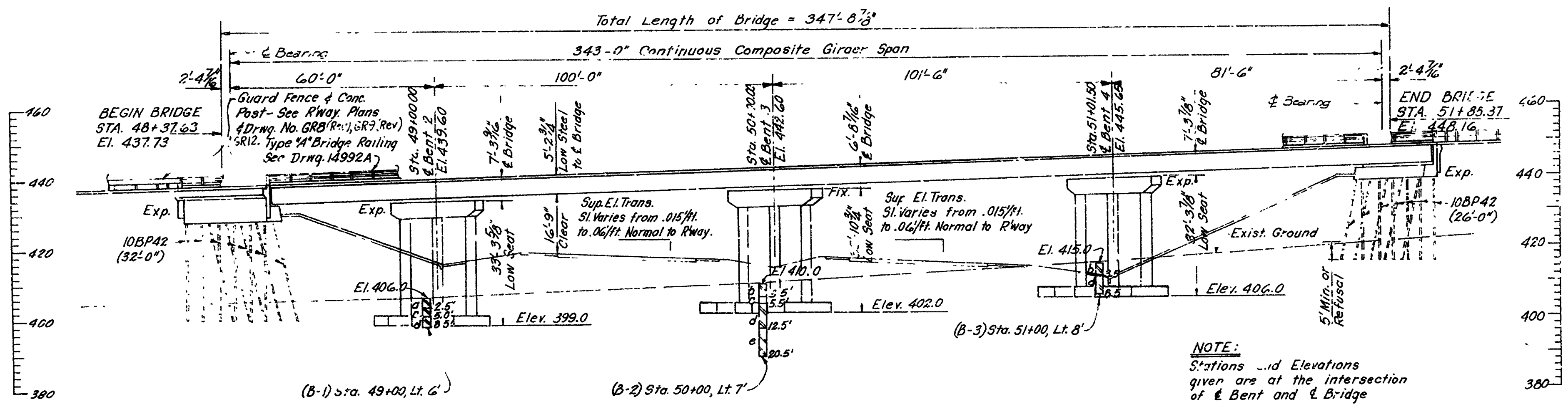
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED ROAD DIST NO	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK	I-430-2(88)133	85	283
				JOB NO		6846		

(1) 5312 Layout 17061



VERTICAL CURVE DATA

I-430	SHACKLEFORD RD.
P.V.I. Sta. 311+00, Elev. 414.97, V.C. 600' (-1.794%, +1.12%)	P.V.I. Sta. 43+50, Elev. 423.10, V.C. 300' (-1.20%, +3%); P.V.I. Sta. 55+50, Elev. 459.10, V.C. 300' (+3%, +5.5%)



NOTES

For General Notes see Drwg No 17069

Bench Mark - Nail in 10" Post Oak 2'Rt Sta 318+98 Elev 429 028

Rock excavation shall be made to nec lines of footing

Excavate 2'-0" min into weathered Shale or Sandstone

All Concrete shall be poured in the dry

All Piling shall be 10BP42, driven with an approved air steam or diesel hammer to 5' below exist ground, or refusal with a minimum bearing capacity of 55 tons Piles in end bents shall be driven after embankment is in place to Subgrade Elevation Order length shown Cut off or build up according to specifications

For details of Substructure see Drwgs 17062 thru 17065

For details of Superstructure see Drwgs 17066 thru 17069

For Approach Slab & Gutter details see Std. Drwg. 1898F (Rev.)

For details of 10BP42 Steel Pile see Drwg 17063

SPECIFICATIONS Arkansas State Highway Commission, Standard Specifications for Highway Construction, Edition 1959, 1966 Supplemental Specifications and applicable Special Provisions

DESIGN SPECIFICATIONS AASHO 1969 and current revisions

Loading HS20-44

Stresses

Class S or S(AE) Concrete (n=10)	1,200 psi
Reinforcing Steel	20 000 psi
Structural Steel (A-36)	20 000 psi
Structural Steel A[illegible]	2[illegible],000 psi

FOUNDATION PRESSURE
Max Allowable Net =

Group I	4 32 ksf	10 00 ksf
Group III	4 80 ksf (Max)	2 11 ksf (Min)
Group V	4 25 ksf (Max)	1 11 ksf (Min)

BORING LOG

a Brown Med Stiff Clayey Silt with Sand and Fine to Coarse Gravel (m)
b Brown Stiff Silty Clay with Fine to Coarse Gravel (m)
c Brown Very Weathered Sandstone
d Gray Weathered Shale
e Dark Gray Shale
(m)=Moist

FOR INFORMATION ONLY

LAYOUT
SHACKLEFORD RD. OVER I-430
LITTLE ROCK BYPASS WEST
PULASKI COUNTY
I-430 SEC. 11

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY D.J. Allen DATE: 11-17-69
TRACED BY: DATE:
CHK. ED BY R.G. Drouet DATE: 4-3-70
SCALE: As Shown

Revised Structural Steel 8/24/70 D.F.L.
Revised rdwy width, 11-9-70 - D.F.L.

Verval Pinkerton

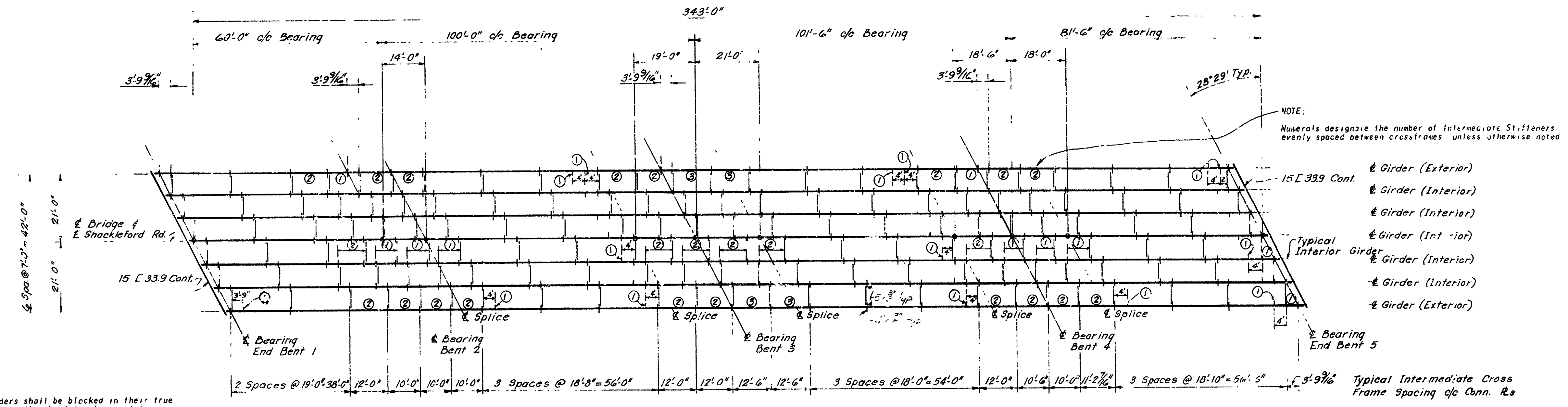
BRIDGE NO. 5312 DRAWING NO. 17061

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		061505	43	56

(1) SITE NO. 8 - FOR INFORMATION ONLY

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	I-430-2(88)133	50	263
				JOB NO.		6846		

(1) 5312 Steel Framing 17066

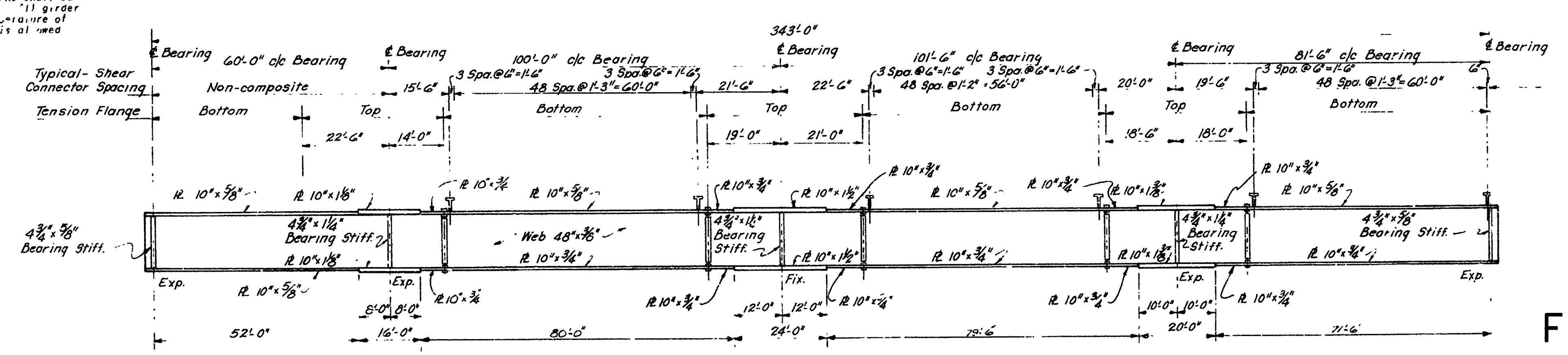


FRAMING PLAN

SCALE: 1/16" = 1'-0"

NOTES

All girders shall be blocked in their true position, with web plates horizontal in the shop to form each complete unit. The camber, length of sections, distance between bearings and opening of joints shall be measured with the girders in this position and this information shall become a part of the permanent record of this job. The component parts shall be match marked in this assembly and these marks shall be shown on the erection diagram. All girder dimensions are based on a temperature of 60° F. A tolerance of ±1/4" is allowed for camber.



GIRDER ELEVATION & SHEAR CONNECTOR SPACING

N.T.S.

NOTES:

For General Notes see Drwg 17069

For Field Splice Details see Drwg 17067

For Miscellaneous Steel Details see Drwg 17067

Flange and Web Material ASTM- grade 42. All others A36 unless noted.

There shall be an Intermediate Stiffener opposite the cross frame connection plate

The first two stiffener spacing from End Bents 1 & 5 shall be 2'-0" (Max.)

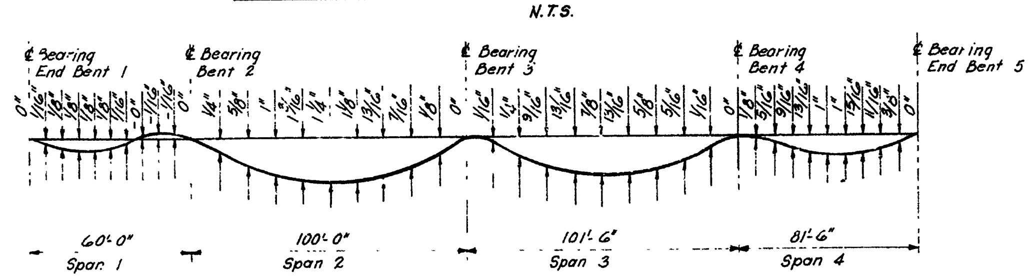
For Cross Frame Connections see

FOR INFORMATION ONLY

Revised ... Revised rdwy width 11-9-70

CAMBER PERCENTAGES

LOADS	INT. GIRDER	EXT. GIRDER
Girder Deadload	15%	14%
Slab Deadload	70%	60%
Comp. Deadload	15%	26%



DEFLECTION DIAGRAM

N.T.S.

Veral Pinkerton
BRIDGE ENGINEER

STEEL FRAMING PLAN
SHACKLEFORD RD. OVER I-430
LITTLE ROCK BYPASS WEST
PULASKI COUNTY
I-430 SEC. 11

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: D.J. Allan DATE: 11-20-69
TRACED BY: DATE:
CHECKED BY: R.G. Drouet DATE: 4-3-70
SCALE: As Shown

BRIDGE NO. 5312 DRAWING NO. 17066

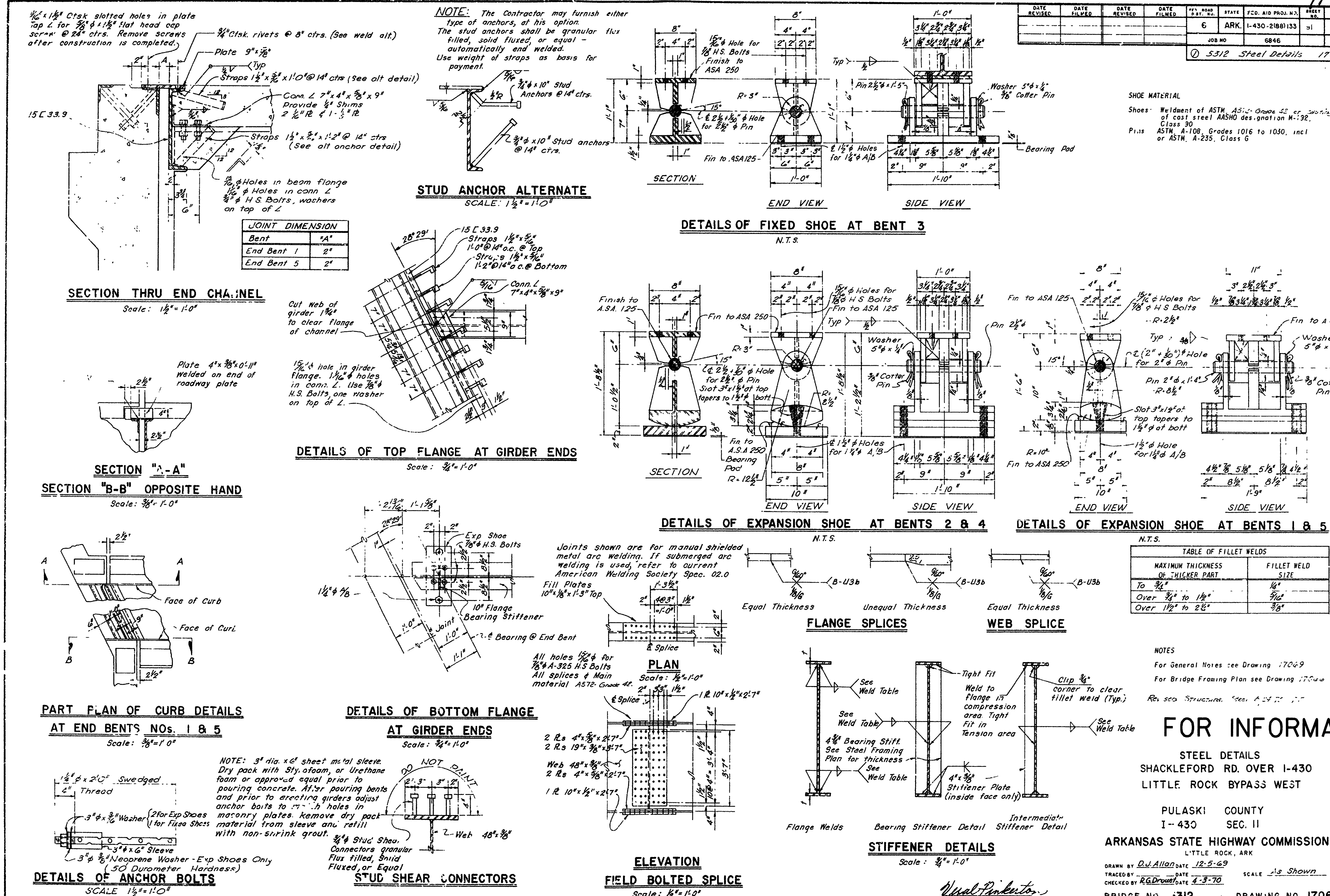
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	44	56

① SITE NO. 8 - FOR INFORMATION ONLY

91

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	I-430-2(88)133	91	283
				JOB NO		6846		

① 5312 Steel Details 17067



SECTION THRU END CHANNEL
Scale: 1½" = 1'-0"
SECTION "A-A"
SECTION "B-B" OPPOSITE HAND
Scale: ⅜" = 1'-0"
PART PLAN OF CURB DETAILS
AT END BENTS NOs. 1 & 5
Scale: ⅜" = 1'-0"
DETAILS OF ANCHOR BOLTS
SCALE 1½" = 1'-0"
NOTE: The Contractor may furnish either type of anchors, at his option. The stud anchors shall be granular flux filled, solid fluxed, or equal - automatically end welded. Use weight of straps as basis for payment.
STUD ANCHOR ALTERNATE
SCALE: 1½" = 1'-0"
DETAILS OF TOP FLANGE AT GIRDER ENDS
Scale: ¾" = 1'-0"
DETAILS OF BOTTOM FLANGE AT GIRDER ENDS
Scale: ¾" = 1'-0"
NOTE: 3" dia. x 6" sheet metal sleeve. Dry pack with Styrofoam, or Urethane foam or approved equal prior to pouring concrete. After pouring bents and prior to erecting girders adjust anchor bolts to match holes in masonry plates. Remove dry pack material from sleeve and refill with non-shrink grout.
STUD SHEAR CONNECTORS
DETAILS OF FIXED SHOE AT BENT 3
N.T.S.
DETAILS OF EXPANSION SHOE AT BENTS 2 & 4
N.T.S.
DETAILS OF EXPANSION SHOE AT BENTS 1 & 5
N.T.S.
Joints shown are for manual shielded metal arc welding. If submerged arc welding is used, refer to current American Welding Society Spec. 02.0
All holes 15/16"⌀ for ⅞"⌀ A-325 H.S Bolts
All splices & Main material A572 Grade 42
PLAN
Scale: ½" = 1'-0"
ELEVATION
FIELD BOLTED SPLICE
Scale: ½" = 1'-0"
FLANGE SPLICES
WEB SPLICE
STIFFENER DETAILS
Scale: ¾" = 1'-0"

SHOE MATERIAL

Shoes: Weldment of ASTM A5?? Grade 42 or casting of cast steel AASHO designation M-?32, Class 90

Pins: ASTM A-108, Grades 1016 to 1030, incl or ASTM A-235, Class G

TABLE OF FILLET WELDS

MAXIMUM THICKNESS OF THICKER PART	FILLET WELD SIZE
To ¾"	¼"
Over ¾" to 1½"	5/16"
Over 1½" to 2¼"	⅜"

NOTES

For General Notes see Drawing 17069

For Bridge Framing Plan see Drawing 17066

Rev. see Structural Steel [illegible]

FOR INFORMATION ONLY

STEEL DETAILS
SHACKLEFORD RD. OVER I-430
LITTLE ROCK BYPASS WEST

PULASKI COUNTY
I-430 SEC. II

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK

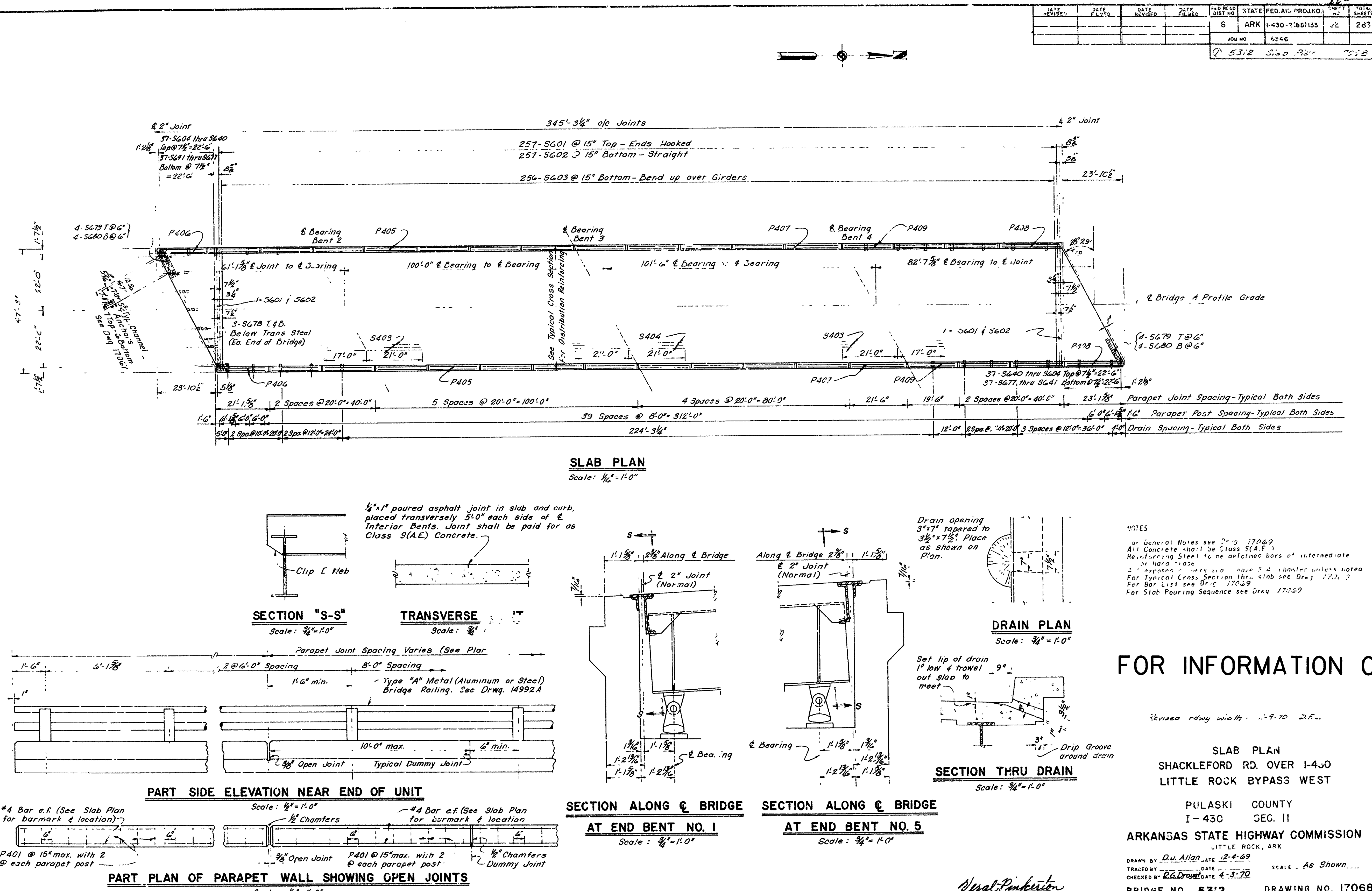
DRAWN BY D.J. Allan DATE 12-5-69
TRACED BY ______ DATE ______
CHECKED BY R.G. Drouet DATE 4-3-70
SCALE As Shown

Vural Pinkerton, BRIDGE ENGINEER

BRIDGE NO. 5312 DRAWING NO. 17067

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
					JOB NO.	06505	45	56

SITE NO. 8 - FOR INFORMATION ONLY



NOTES

For General Notes see Drwg 17069
All Concrete shall be Class S(A.E.)
Reinforcing Steel to be deformed bars of intermediate or hard grade
All exposed corners shall have 3/4" chamfer unless noted
For Typical Cross Section thru slab see Drwg 17069
For Bar List see Drwg 17069
For Slab Pouring Sequence see Drwg 17069

FOR INFORMATION ONLY

Revised rdwy width - 1-9-70 D.F.

SLAB PLAN
SHACKLEFORD RD. OVER I-430
LITTLE ROCK BYPASS WEST

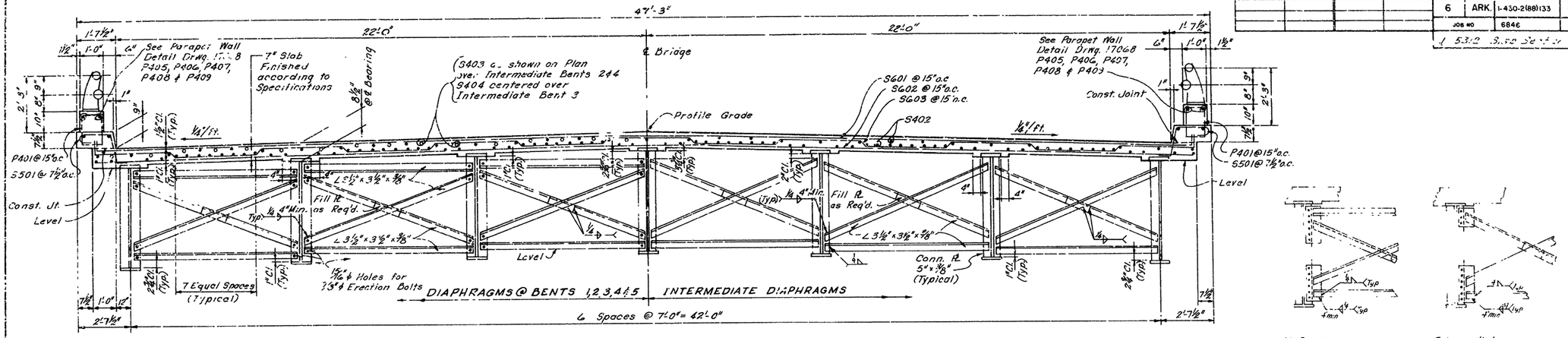
PULASKI COUNTY
I-430 SEC. II

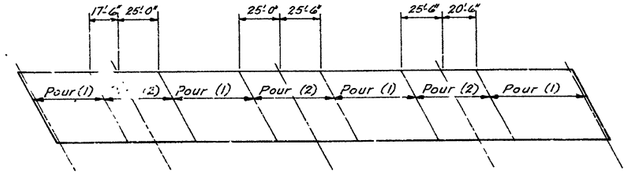
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK

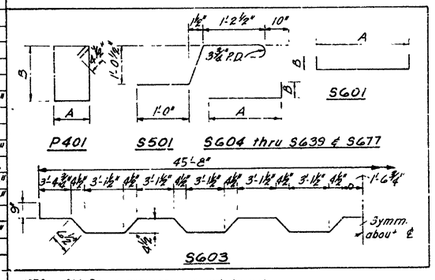
DRAWN BY D.J. Allan DATE 12-4-69
TRACED BY DATE
CHECKED BY P.G. Drouet DATE 4-3-70
SCALE: As Shown

BRIDGE NO 5312 DRAWING NO. 17068

Bridge Engineer







DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	46	56

① SITE NO. 8 - FOR INFORMATION ONLY

93

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED ROAD D'ST NO	STATE	FED. AID PROJ.NO.	SHEET NO	TOTAL SHEETS
				6	ARK.	I-430-2(88)133	93	283
				JOB NO		6846		

TYPICAL CROSS SECTION

Scale: ½" = 1'-0"

OPTIONAL BOLTED CONNECTIONS

Bid & pay quantities based on welded connection.

NOTE
For slab plan see Drwg 17068
For additional Notes see Drwg 17068
For transverse joint detail see Drwg 17068
Crossframes at centerline of bearing shall be installed as girders are erected
All Crossframes shall be completely welded prior to pouring of floor slabs

GENERAL NOTES

All Concrete to be Class S or S(AE). All exposed corners to be chamfered 3/4" unless otherwise noted.

Field connections to be bolted with high strength bolts.

Bolts 7/8"φ open holes 15/16"φ, except where noted otherwise. Bolt spacing shall be 3" unless otherwise noted. Minimum edge distance shall be 1 1/2" unless otherwise noted. Bolts shall be placed with heads on the outside face of exterior girders and on bottom of girder flanges.

The contractor, at his option, may pour bridge slab continuous, using a retarding agent to retard set. Not less than 72 hours shall elapse between pouring of slab and the curb sections, and 72 additional hours between curb and parapet. All concrete shall be poured and screeded off prior to initial set. Concrete finishing shall be done in the daylight hours.

Reinforcing steel to be ASTM A615, Grade 40. The reinforcing steel is to be accurately located in the forms and firmly held in place by means of steel wire supports, sufficient in size and number to prevent displacement during the course of construction. The wire supports will not be paid for directly but will be considered subsidiary to the item of "Reinforcing Steel". Shop lists and bending diagrams of reinforcing steel, including wire supports, shall be submitted, and approval secured, before fabrication is begun.

Anchor bolts are to be galvanized in accordance with ASTM Specification Designation A153.

All welded connections shall be made by the electric arc process. All design, material and workmanship shall conform to the current American Welding Society Standard Specifications for Welded Highway and Railway Bridges, and applicable Special Provisions.

Shapes of equal or greater strength may be substituted for structural shapes shown, but payment will be made on shapes shown or actually used whichever is the lesser.

The steel shoes and the roadway expansion devices are to be paid for as "Structural Steel in Beam Spans (A 36)". All shoes to be finally seated in a manner set forth in the Specifications, including alternate. This work and material are to be considered as subsidiary to the item of "Structural Steel in Beam Spans (A-36)", and will not be paid for directly.

Shop Paint. All structural steel except galvanized members, contact surfaces of bolted connections, and surfaces within 3" of holes and field welds, and surfaces in contact with concrete shall be given one prime coat as specified in Special Provision 806 18 "Painting of Steel Structures".

Field Paint. After erection all exposed steel surfaces which did not receive a coat of shop paint except surfaces in contact with concrete shall be given one coat as specified in SP 806-18. Two additional coats of field paint shall be applied to all exposed surfaces. First Coat - red lead tinted with lamp black. Second coat - aluminum paint. Field paint shall be as specified in Special Provision 806 18 "Painting of Steel Structures".

Neoprene washers to be subsidiary to "Structural Steel in Beam Spans (A-36)".

These drawings show general features of design only. Shop drawings shall be made in accordance with the Specifications, submitted and approval secured before fabrication is begun.

All girders shall be blocked in their true position with webs horizontal, in the shop to form each complete unit. The camber, length of sections, distance between bearings and opening of joints shall be measured with girders in this position, and this information shall become a part of the permanent record of this job. The component parts shall be match marked in this assembly and these marks shall be shown on the erection diagram. All girder dimensions are based on a temperature of 60° F.

SPECIFICATIONS. Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959 with 1966 Supplemental Specifications, and applicable Special Provisions.

DESIGN SPECIFICATIONS. A A S H O 1969 and American Welding Society Specifications for Welded Highway and Railway Bridges, current edition and applicable Special Provisions.

DESIGN LIVE LOADING. HS-20-44 Loading

LOAD DISTRIBUTION	To Interior Girder	To Exterior Girder
Dead Load to Girder	767 #/Linear Ft	677 #/Linear Ft
Dead Load to Composite Girder	140 #/Linear Ft	235 #/Linear Ft
Live Load to Composite Girder	1.273 Wheels + Impact	1.217 Wheels + Impact

UNIT STRESSES		
	Class S or S(AE) Concrete (n=10)	1,200 psi
	Reinforcing Steel	20,000 psi
	Structural Steel (A-36)	20,000 psi
	Structural Steel (A572-Grade 42)	23,000 psi

SLAB POURING SEQUENCE

N.T.S.

All pours (1) adjacent to pours (2) must be placed before pours (2) can be placed. 48 hours shall elapse between pours (1) and 72 hours shall elapse between adjacent pours (1) and (2).

FOR INFORMATION ONLY

BAR LIST

MARK	SIZE	NO. REQ'D	LENGTH	A	B	PIN DIA.
P401	#4	588	4'-6"	9½"	1'-2½"	2"
S402	#4	1017	39'-10"			Str.
S403	#4	64	38'-0"			Str.
S404	#4	32	42'-0"			Str.
P405	#4	52	19'-8"			Str.
P406	#4	4	20'-8"			Str.
P407	#4	4	21'-2"			Str.
P408	#4	4	22'-8"			Str.
P409	#4	4	19'-2"			Str.
S501	#5	1102	4'-1"	(See Diagram)		3¾"
S601	#6	259	46'-11"	45'-8"	9"	4½"
S602	#6	259	45'-8"			Str.
S603	#6	256	48'-11"	(See Diagram)		4½"
S604	#6		3'-1"	2'-5½"	9"	4½"
thru		2 ea.				
S640	#6		44'-8"	44'-0½"	9"	4½"
S641	#6		2'-5"			Str.
thru		2 ea.				
S677	#6		44'-0"			Str.
S678	#6	12	51'-2"			Str.
S679	#6	8	7'-8"	7'-0½"	9"	4½"
S680	#6	8	7'-0"			Str.

NOTE All Bar dimensions are out to out
All Bar spaces are center to center

Revised [illegible]
Revised rdwy width - 11-3-70

SLAB SECTION
SHACKLEFORD RD. OVER I-430
LITTLE ROCK BYPASS WEST
PULASKI COUNTY
I-430 SEC. 11

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK

DRAWN BY D.J. Allan DATE 12-15-69
TRACED BY ______ DATE ______
CHECKED BY R.G. Drouet DATE 4-3-70
SCALE As Shown

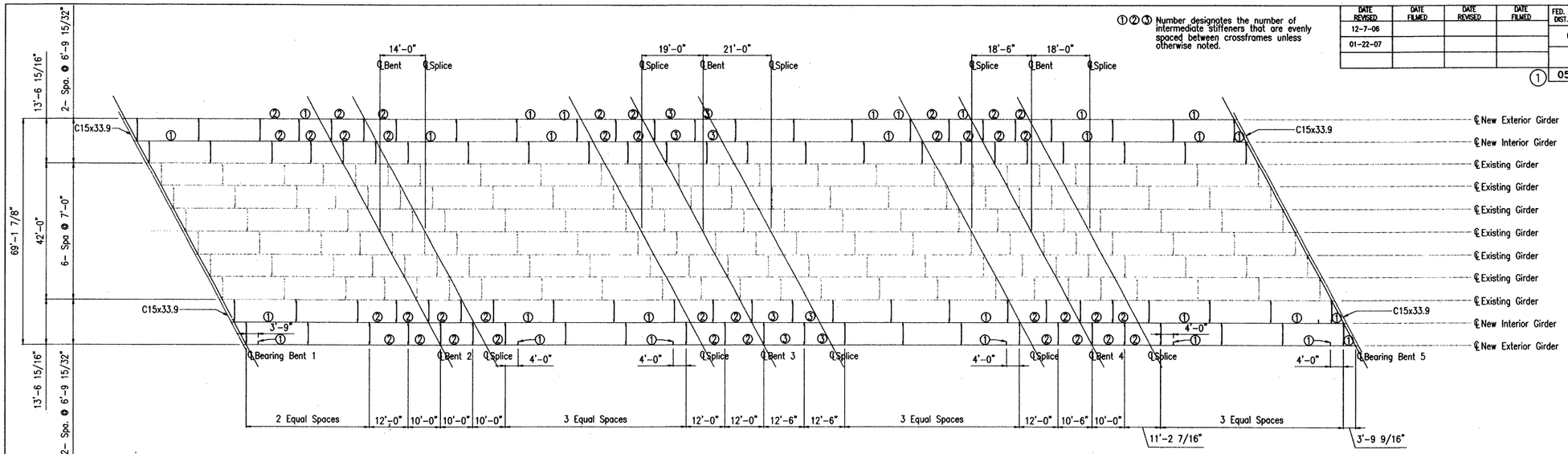
Wise Pinkerton
BRIDGE ENGINEER

BRIDGE NO. 5312 DRAWING NO. 17069

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	47	56
				①	SITE NO. 8 - FOR INFORMATION ONLY			

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
12-7-06				6	ARK.		9	
01-22-07				JOB NO.				
				①	05312	SPAN DTLS.		9

①②③ Number designates the number of intermediate stiffeners that are evenly spaced between crossframes unless otherwise noted.

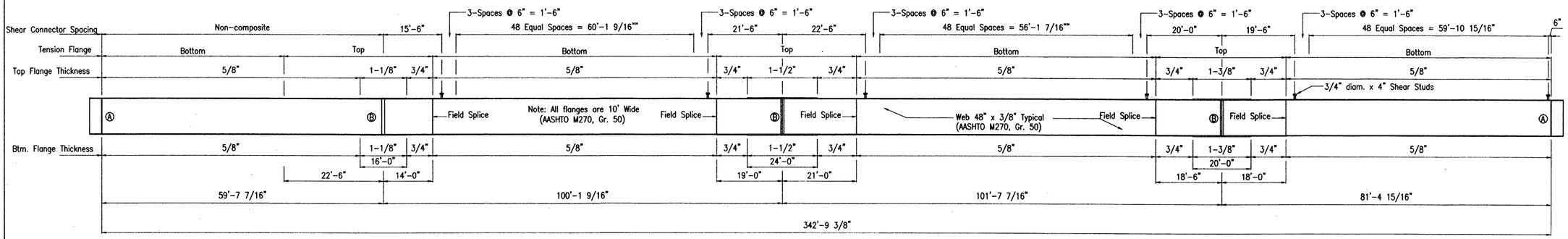


STEEL FRAMING PLAN
Scale: 1/16" = 1'-0"

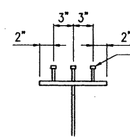
NOTE:
Contractor to field verify all conditions relevant to existing structure before commencing construction or fabrication of components.

FOR INFORMATION ONLY

Ⓐ 4 3/4"x5/8" Bearing Stiffener
Ⓑ 4 3/4"x1 1/4" Bearing Stiffener



341'-7 3/16" CONTINUOUS PLATE GIRDER
Scale: No Scale



Stud Shear Connectors shown shall be 3/4" ø x 4" long, granular flux filled, solid fluxed or equal, and automatically end welded to the beam flange in accordance with the recommendations of the manufacturer.

SHEAR CONNECTION DETAIL
No Scale

Longitudinal girders and all field splice plates are considered main load carrying members and shall meet the longitudinal Charpy-V-Notch test specified in Subsection 807.05.

CERTIFICATE OF AUTHORITY — SPECTRUM ENGINEERING INC. #82 — ARKANSAS — ENGINEER

STATE OF ARKANSAS — REGISTERED PROFESSIONAL ENGINEER — No. 7240 — WILLIAM M. GIBSON

BRIDGE ENGINEER

DETAILS OF 342'-9 3/8" CONTINUOUS COMPOSITE PLATE GIRDER UNIT SHACKLEFORD RD. OVER I-430 LITTLE ROCK BYPASS WEST PULASKI COUNTY

I-430 SEC. 11

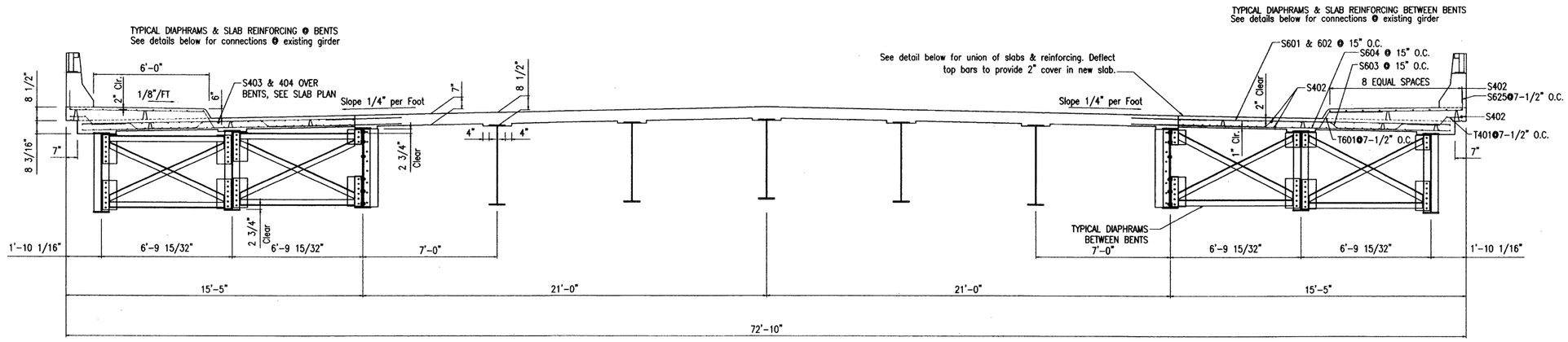
DRAWN BY: WMG DATE: 9-05-06
CHECKED BY: WMG DATE: 9-05-06 SCALE: As Shown
DESIGNED BY: WMG DATE: 9-05-06

BRIDGE NO. 05312 DRAWING NO. 9 (61)

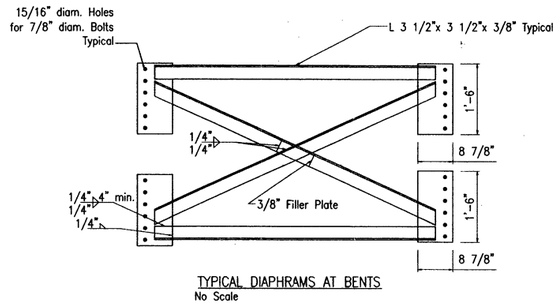
DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.				
				① SITE NO. 8 - FOR INFORMATION ONLY				

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
12-07-06				6	ARK.		12	
01-22-07				JOB NO.				
				① 05312	SPAN DTLS.		12	

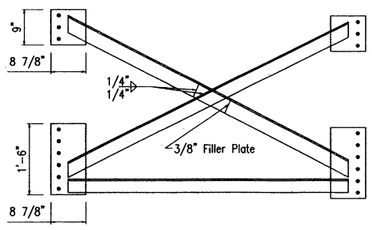
NOTE:
Contractor to field verify all conditions relevant to existing structure before commencing construction or fabrication of components.



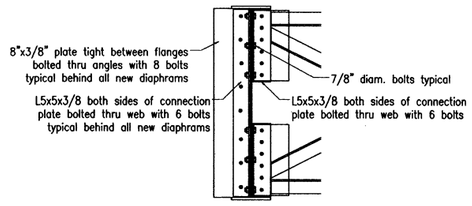
TYPICAL ROADWAY SECTION (LOOKING AHEAD)
Scale: 3/8" = 1'-0"



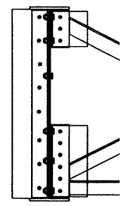
TYPICAL DIAPHRAMS AT BENTS
No Scale



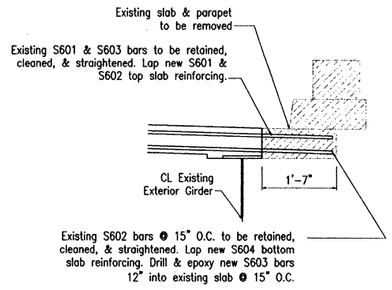
TYPICAL INTERMEDIATE DIAPHRAMS
No Scale



TYPICAL DIAPHRAM CONNECTION TO EXISTING GIRDER AT BENTS
No Scale

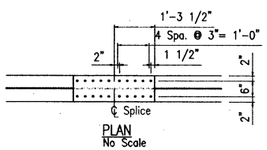


TYPICAL INTERMEDIATE DIAPHRAM CONNECTION TO EXISTING GIRDER
No Scale

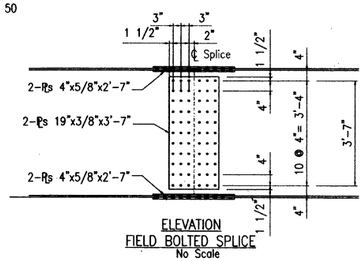


TYPICAL SLAB TO SLAB CONNECTION
No Scale

Note:
All holes 15/16" diam. for 7/8" diam. A325 Bolts. All Splices & Main Material to be AASHTO M270, Gr. 50

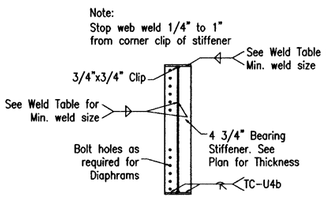


PLAN
No Scale



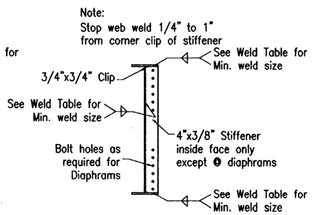
ELEVATION
FIELD BOLTED SPLICE
No Scale

Note:
Stop web weld 1/4" to 1" from corner clip of stiffener

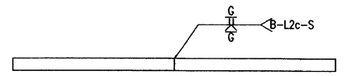


BEARING STIFFENER DETAILS
No Scale

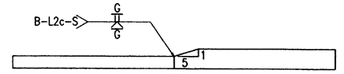
Note:
Stop web weld 1/4" to 1" from corner clip of stiffener



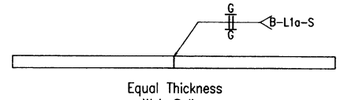
TYPICAL DIAPHRAM CONNECTION PLATE & TRANSVERSE STIFFENER PLATE
No Scale



Equal Thickness
Flange Splice
No Scale



Unequal Thickness
Flange Splice
No Scale



Equal Thickness
Web Splice
No Scale

FOR INFORMATION ONLY

CERTIFICATE OF AUTH. SPECTRUM ENGINEERING INC. #92 ARKANSAS ENGINEER

STATE OF ARKANSAS WILLIAM M. CROSS REGISTERED PROFESSIONAL ENGINEER No. 7640

BRIDGE ENGINEER

DETAILS OF 342'-9 3/8" CONTINUOUS COMPOSITE PLATE GIRDER UNIT
SHACKLEFORD RD. OVER I-430
LITTLE ROCK BYPASS WEST
PULASKI COUNTY
I-430 SEC. II

DRAWN BY: WMC DATE: 9-05-06
CHECKED BY: WMC DATE: 9-05-06
DESIGNED BY: WMC DATE: 9-05-06
SCALE: As Shown

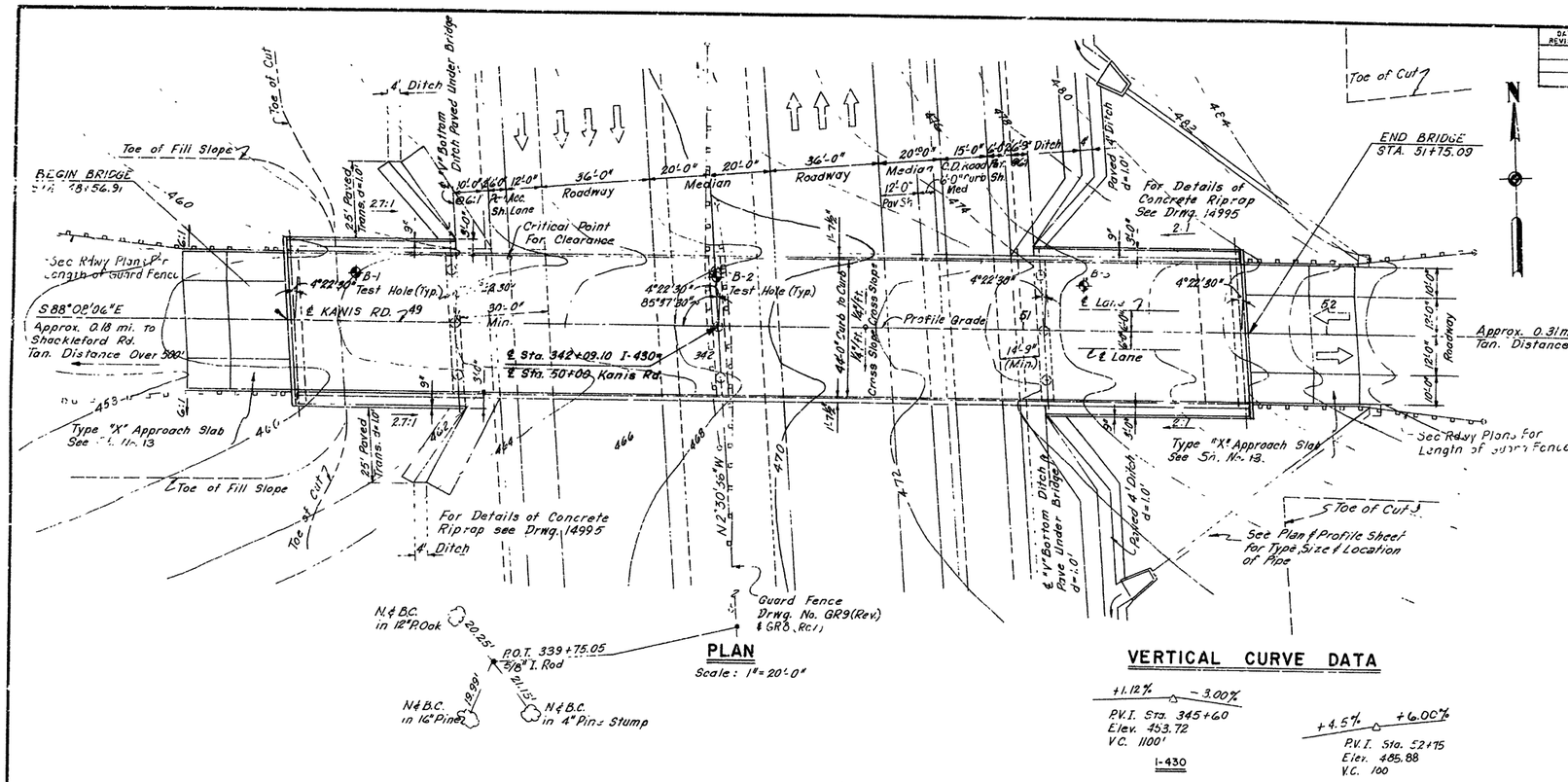
BRIDGE NO. 05312 DRAWING NO. 12 (64)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	49	56

SITE NO. 9 - FOR INFORMATION ONLY

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED ROAD DIST NO	STATE	FED AID PROJ NO	SHEET NO	TOTAL SHEETS
				6	ARK.	I-430-2(38)133	94	283
				JOB NO		6846		

(D) 5313 Layout 17070



PLAN
Scale: 1"=20'-0"

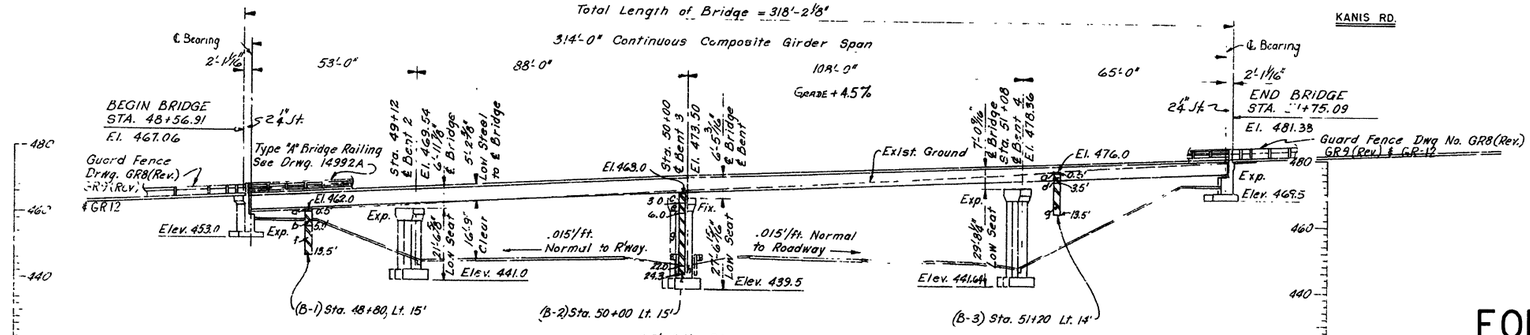
VERTICAL CURVE DATA

+1.12% — −3.00%
P.V.I. Sta. 345+60
Elev. 453.72
V.C. 1100'

I-430

+4.5% — +6.00%
P.V.I. Sta. 521+75
Elev. 485.88
V.C. 100

KANIS RD.



8.5'-10.0'n = 84
13.5'-15.0'n = 99
18.5'-20.0'n = 52
23.5'-24.3'n = 200

ELEVATION
Scale: 1"=20'-0"

NOTE:
Stations and elevations given are at ℄ Bent and ℄ Bridge

BORING LOG

a Sand and Gravel
b Brown and Gray Med Stiff Sandy Clay with Fine to Med Gravel (m)
c Brown Med Dense Sandy Clayey Silt with Fine to Coarse Gravel (m)
d Brown Stiff Clayey Silt (m)
e Brown and Grey Stiff Silty Clay
f Gray and Brown Very Weathered Shaly Clay
g Reddish Brown and Grey Very Weathered Shaly Clay
h Grey Weathered Shale
(m)=moist

NOTES

For General Notes see Drwg 17077

Bench Mark - Nail in 24" Post Oak Root 280 Rt Sta 342 + 15 Lt

Rock excavation shall be made to neat lines of footing

Excavate 2'-0" min into weathered Shale.

All Concrete shall be poured in the dry

For details of Substructure see Drwgs 17011 thru 17013

For details of Superstructure see Drwgs 17074 thru 17076

SPECIFICATIONS Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition 1959, 1966 Supplemental Specifications and applicable Special Provisions

DESIGN SPECIFICATIONS AASHO 1969 and current revisions

Loading HS20-44

Stresses

Class S or S(AE) Concrete (n=10)	1,350 psi
Reinforcing Steel	20,000 psi
Structural Steel (A-36)	22,000 psi
Structural Steel (A 572 Grade 42)	23,000 psi

FOUNDATION PRESSURE

Max Allowable Net Intermediate Bents 10 ksf
Max Allowable Net End Bents 12 ksf

	Intermediate Bents	End Bents
Group I	7.16 ksf	5.50 ksf
Group III	9.14 ksf (Max)	2.32 ksf (Min)
Group V	7.42 ksf (Max)	-2.08 ksf (Min)

FOR INFORMATION ONLY

--Revised structural steel-D.S. 5-24-71
Revised roadway width - D.F.L. - 11-9-70
Revised Grade & Elevation - D.S. - 5-25-71

LAYOUT
KANIS RD. OVER I-430
LITTLE ROCK BYPASS WEST
PULASKI COUNTY
I-430 SEC. 11

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: D.J. Allan DATE: 1-23-70
TRACED BY: DATE:
CHECKED BY: R.G. Drouet DATE: 4-2-70
SCALE: As Shown

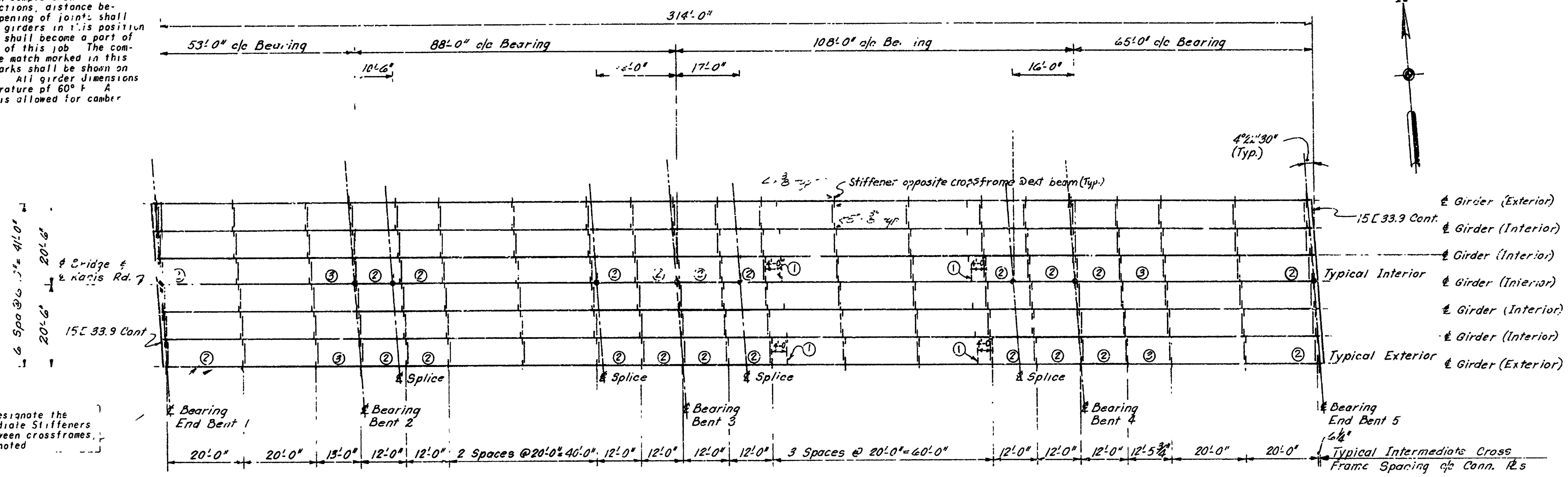
BRIDGE NO. 5313 DRAWING NO. 17070

Donald Pinkerton

ALBERT SWITZER & ASSOCIATES, INC.
CONSULTING ENGINEERS

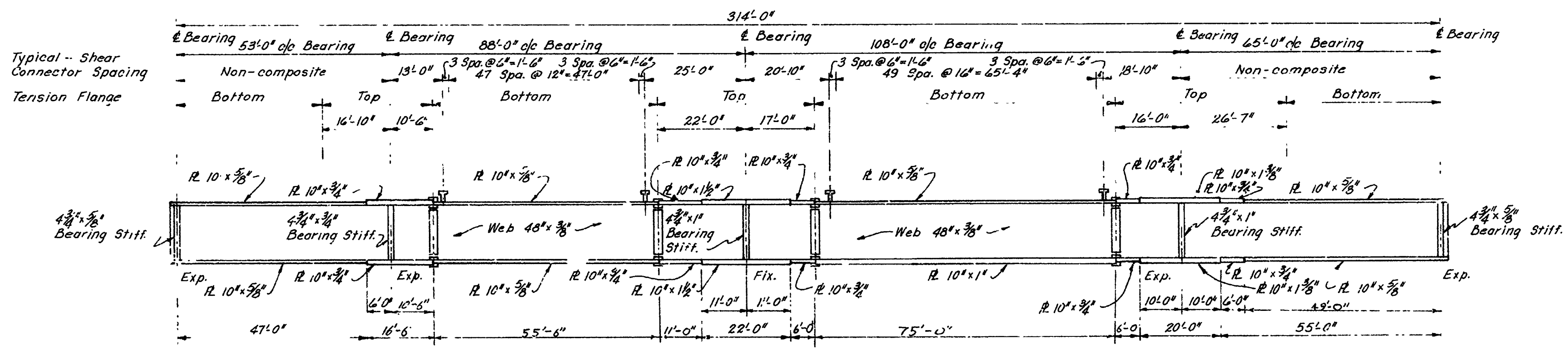
NOTE

All girders shall be blocked in their true position, with web plates horizontal, in the shop to form each complete unit. The camber, length of sections, distance between bearings and opening of joints shall be measured with the girders in this position and this information shall become a part of the permanent record of this job. The component parts shall be match marked in this assembly and these marks shall be shown on the erection diagram. All girder dimensions are based on a temperature of 60° F. A tolerance of ± 1/4" is allowed for camber.



NOTE: Numerals designate the number of Intermediate Stiffeners evenly spaced between crossframes, unless otherwise noted

FRAMING PLAN
Scale: 1/16" = 1'-0"



GIRDER ELEVATION & SHEAR CONNECTOR SPACING

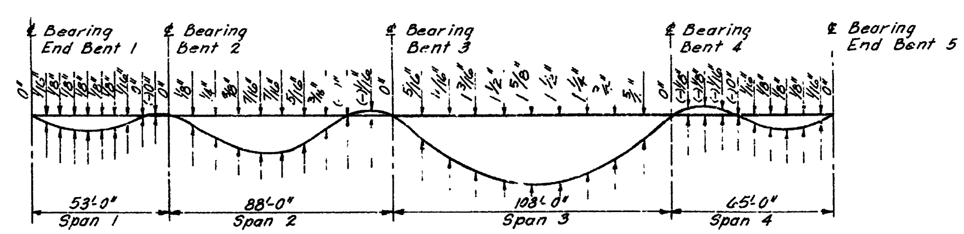
NOTES

For General Notes see Drwg 17077
For Field Splice Details see Drwg 17075
For Miscellaneous Steel Details see Drwg 17075
Flange and Web Material A572 Gr.42, All others A36 unless noted

The first two stiffener spacings from Bents 1 & 5 shall be 2'-0"
For Cross Frame Connections see Drwg 17077

CAMBER PERCENTAGES

LOADS	Ext.	Int.
Girder Deadload	13%	14%
Slab Deadload	63%	70%
Comp. Deadload	24%	16%



DEFLECTION DIAGRAM

- Revised structural steel - 8-24-70

FOR INFORMATION ONLY

STEEL FRAMING PLAN
KANIS RD. OVER I-430
LITTLE ROCK BYPASS WEST
PULASKI COUNTY
I-430 SEC. 11

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

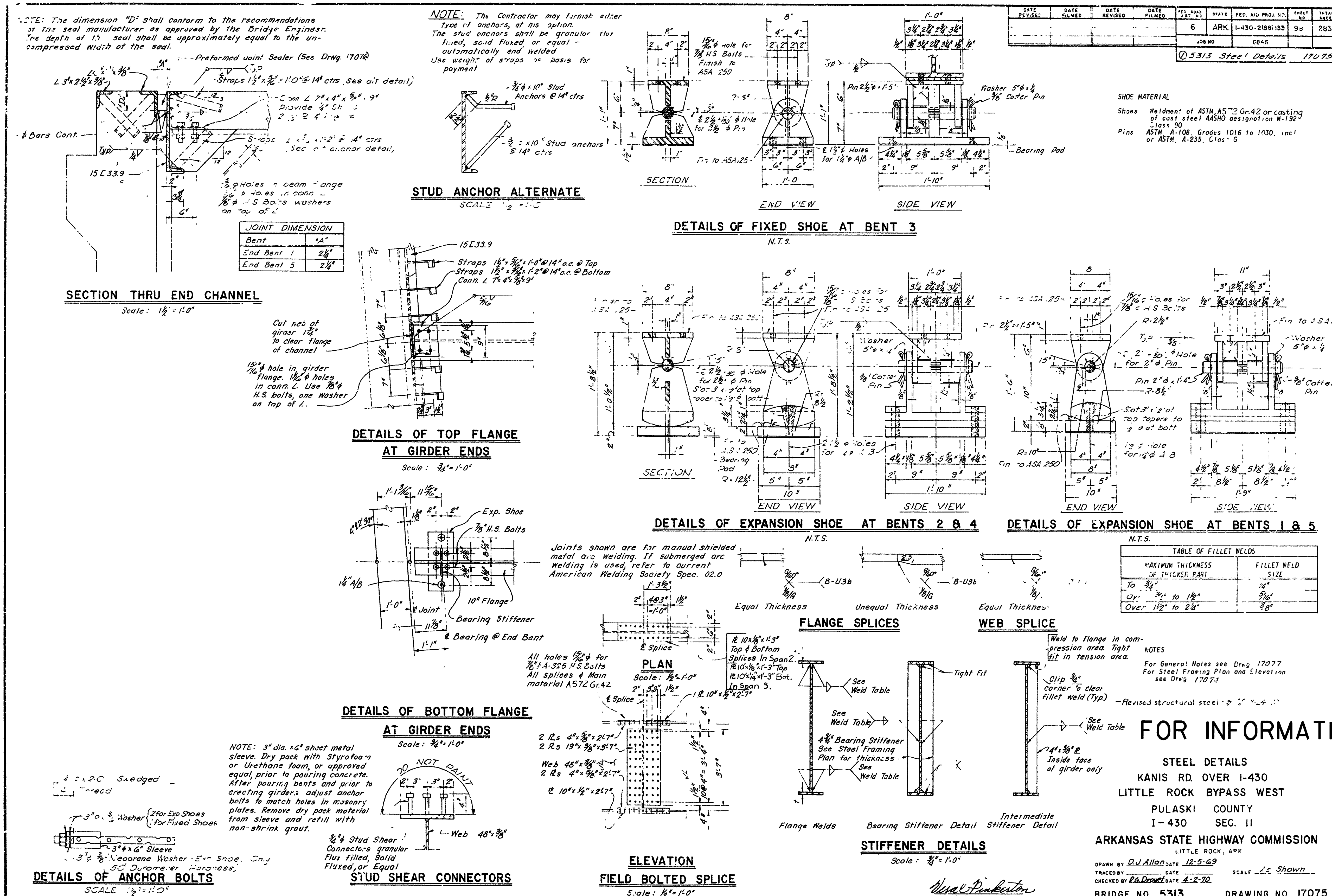
DRAWN BY: D.J. Allan DATE: 1-30-70
TRACED BY: DATE:
CHECKED BY: R.G. Drouet DATE: 4-2-70
SCALE: As Shown

BRIDGE ENGINEER

BRIDGE NO. 5313 DRAWING NO. 17074

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	51	56

(1) SITE NO. 9 - FOR INFORMATION ONLY



NOTE: The dimension "D" shall conform to the recommendations of the seal manufacturer as approved by the Bridge Engineer. The depth of the seal shall be approximately equal to the uncompressed width of the seal.
Preformed Joint Sealer (See Drwg. 17076)
SECTION THRU END CHANNEL
Scale: 1½" = 1'-0"
JOINT DIMENSION
Bent | "A"
End Bent 1 | 2½"
End Bent 5 | 2¼"
NOTE: The Contractor may furnish either type of anchors, at his option. The stud anchors shall be granular flux filled, solid fluxed, or equal - automatically end welded. Use weight of straps as basis for payment.
STUD ANCHOR ALTERNATE
DETAILS OF FIXED SHOE AT BENT 3
N.T.S.
SECTION
END VIEW
SIDE VIEW
Bearing Pad
Washer 5"φ x ¼
3/16" Cotter Pin
SHOE MATERIAL
Shoes Weldment of ASTM A572 Gr.42 or casting of cast steel AASHO designation M-192 Class 90
Pins ASTM A-108, Grades 1016 to 1030, incl. or ASTM A-235, Class G
15 [33.9
Straps 1½" x 5/16" x 1'-0" @ 14" c.c. @ Top
Straps 1½" x 5/16" x 1'-2" @ 14" c.c. @ Bottom
Conn. L 7" x 4" x 3/8" x 9"
Cut web of girder 1¾" to clear flange of channel
15/16"φ hole in girder flange. 1 1/16"φ holes in conn. L. Use 7/8"φ H.S. bolts, one washer on top of L.
DETAILS OF TOP FLANGE AT GIRDER ENDS
Scale: ¾" = 1'-0"
DETAILS OF EXPANSION SHOE AT BENTS 2 & 4
N.T.S.
DETAILS OF EXPANSION SHOE AT BENTS 1 & 5
N.T.S.
Exp. Shoe
7/8" H.S. Bolts
10" Flange
Bearing Stiffener
℄ Bearing @ End Bent
℄ Joint
DETAILS OF BOTTOM FLANGE AT GIRDER ENDS
Scale: ¾" = 1'-0"
Joints shown are for manual shielded metal arc welding. If submerged arc welding is used, refer to current American Welding Society Spec. 02.0
Equal Thickness
Unequal Thickness
FLANGE SPLICES
WEB SPLICE
TABLE OF FILLET WELDS
MAXIMUM THICKNESS OF THICKER PART | FILLET WELD SIZE
To ¾" | ¼"
Ov. ¾" to 1½" | 5/16"
Over 1½" to 2¼" | 3/8"
All holes 15/16"φ for 7/8"φ A-325 H.S. Bolts. All splices & Main material A572 Gr.42
PLAN
Scale: ½" = 1'-0"
℄ Splice
ELEVATION
FIELD BOLTED SPLICE
Scale: ½" = 1'-0"
Weld to flange in compression area. Tight fit in tension area.
Clip ¾" corner to clear fillet weld (Typ.)
4" x 3/8" ℄ Inside face of girder only
See Weld Table
Tight Fit
4¾" Bearing Stiffener See Steel Framing Plan for thickness
Flange Welds
Bearing Stiffener Detail
Intermediate Stiffener Detail
STIFFENER DETAILS
Scale: ¾" = 1'-0"
NOTE: 3" dia. x 6" sheet metal sleeve. Dry pack with Styrofoam or Urethane foam, or approved equal, prior to pouring concrete. After pouring bents and prior to erecting girders adjust anchor bolts to match holes in masonry plates. Remove dry pack material from sleeve and refill with non-shrink grout.
DO NOT PAINT
¾"φ Stud Shear Connectors granular Flux filled, Solid Fluxed, or Equal
Web 48" x 3/8"
STUD SHEAR CONNECTORS
Washer 2 for Exp. Shoes, 1 for Fixed Shoes
3"φ x 6" Sleeve
Neoprene Washer - Exp. Shoe Only 50 Durometer Hardness
DETAILS OF ANCHOR BOLTS
SCALE 1½" = 1'-0"

NOTES

For General Notes see Drwg 17077
For Steel Framing Plan and Elevation see Drwg 17074

—Revised structural steel

FOR INFORMATION ONLY

STEEL DETAILS
KANIS RD. OVER I-430
LITTLE ROCK BYPASS WEST
PULASKI COUNTY
I-430 SEC. 11

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK

DRAWN BY D.J Allan DATE 12-5-69
TRACED BY ______ DATE ______ SCALE As Shown
CHECKED BY R.G. Drouet DATE 4-2-70

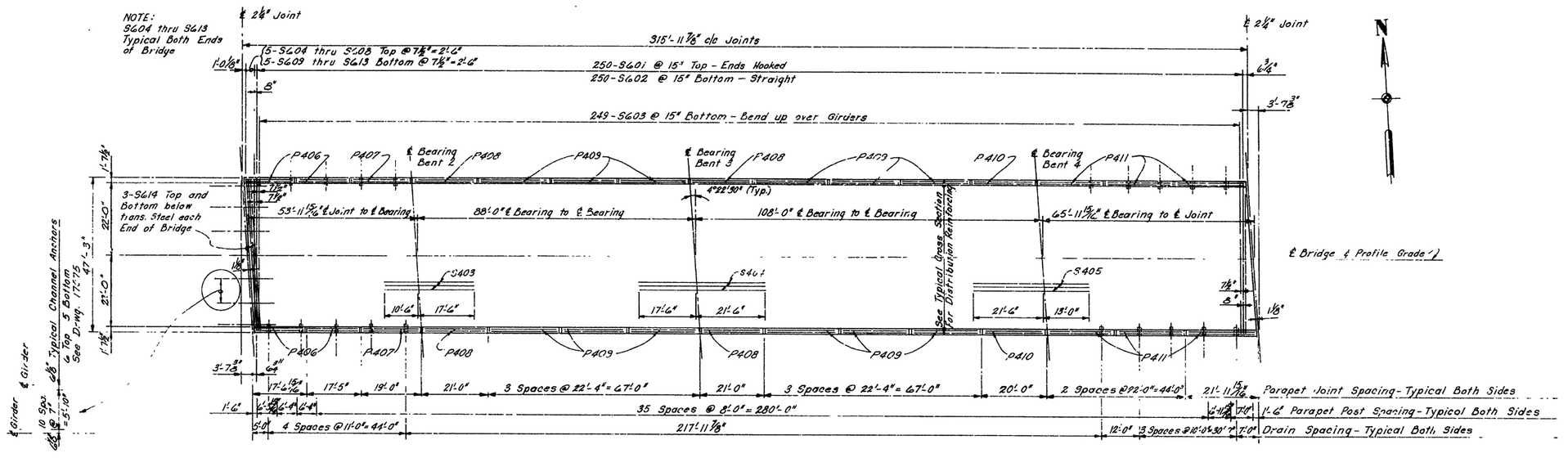
BRIDGE NO. 5313 DRAWING NO. 17075

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED ROAD DIST NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		060505	52	56
				① SITE NO. 9 - FOR INFORMATION ONLY				

100

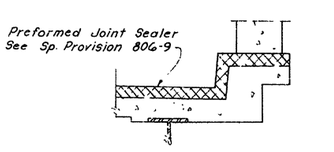
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED ROAD DIST NO	STATE	FED. AID PROJ NO.	SHEET NO	TOTAL SHEETS
				6	ARK	I-430-2(86)133	100	283
				JOB NO		C846		

① 5313 Slab Plan 17076



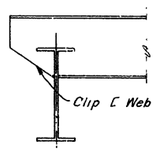
SLAB PLAN

Scale: 1/16" = 1'-0"



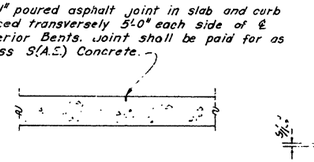
SEAL PLACEMENT IN CURB

Scale: 3/4" = 1'-0"



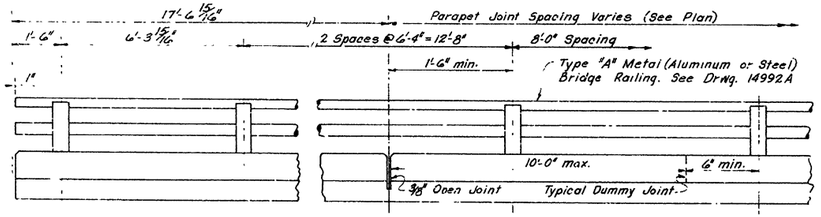
SECTION "S-S"

Scale: 3/4" = 1'-0"



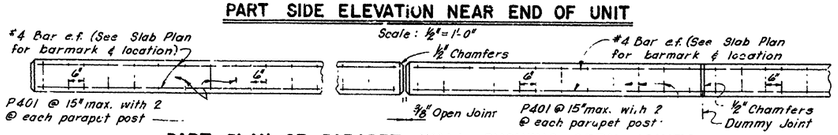
TRANSVERSE JOINT

Scale: 3/4" = 1'-0"



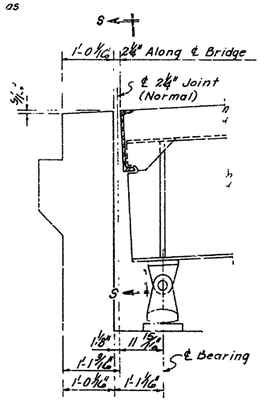
PART SIDE ELEVATION NEAR END OF UNIT

Scale: ½" = 1'-0"



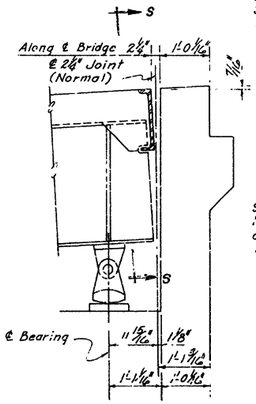
PART PLAN OF PARAPET WALL SHOWING OPEN JOINTS

Scale: ½" = 1'-0"



SECTION ALONG ℄ BRIDGE AT END BENT NO. 1

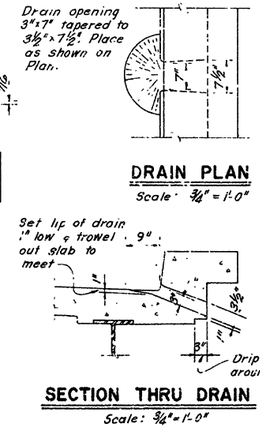
Scale: 3/4" = 1'-0"



SECTION ALONG ℄ BRIDGE AT END BENT NO. 5

Scale: 3/4" = 1'-0"

Revise ... width - D.F.L. 11-9-70



DRAIN PLAN

Scale: 3/4" = 1'-0"

SECTION THRU DRAIN

Scale: 3/4" = 1'-0"

NOTES

For General Notes see Drwg. 17075
All Concrete shall be Class S(A.E.)
Reinforcing Steel to be ASTM A615 Grade 40
All exposed corners shall have 3/4" chamfer unless noted
For Typical Cross Section thru slab see Drwg. 17077
For Bar List see Drwg. 17077
For Slab Pouring Sequence see Drwg. 17077

Wesal Pinkerton
BRIDGE ENGINEER

FOR INFORMATION ONLY

SLAB PLAN
KANIS RD. OVER I-430
LITTLE ROCK BYPASS WEST
PULASKI COUNTY
I-430 SEC. 11

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

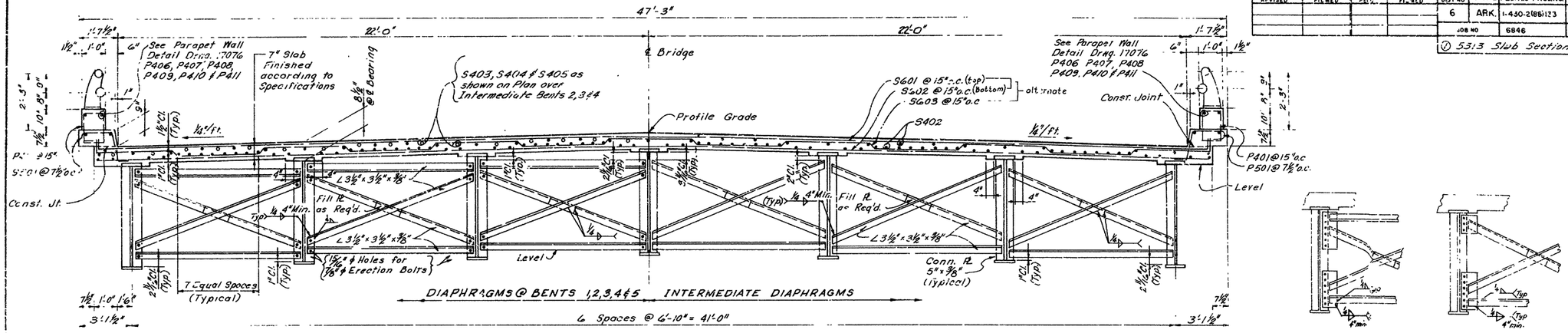
DRAWN BY D.J. Allan DATE 12-4-69
TRACED BY ____ DATE ____
CHECKED BY R.G. Drouet DATE 4-2-70
SCALE As Shown

BRIDGE NO. 5313 DRAWING NO. 17076

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		06505	53	56
				①	SITE NO. 9 - FOR INFORMATION ONLY			

101

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED ROAD DIST NO	STATE	FED. AID PROJ NO.	SHEET NO.	TOT. SHEETS
				6	ARK.	I-430-2(86)123	10.	2d3
				JOB NO		6846		
				① 5313 Slab Section 17077				



TYPICAL CROSS SECTION

Scale: ½" = 1'-0"

OPTIONAL BOLTED CONNECTIONS

Bidding quantities based on welded connection.

GENERAL NOTES

All Concrete to be Class S(AE) All exposed corners to be chamfered 3/4" unless otherwise noted

Field connections to be bolted with high strength bolts

Bolts 7/8" ϕ open holes 15/16" ϕ except where noted otherwise Bolt spacing shall be 3", unless otherwise noted Minimum edge distance shall be 1 1/2" unless otherwise noted Bolts shall be placed with heads on the outside face of exterior girders and on bottom of girder flanges

The contractor, at his option, may pour bridge slab continuous, using a retarding agent to retard set Not less than 72 hours shall elapse between pouring of slab and the curb sections, and 72 additional hours between curb and parapet All concrete shall be poured and screeded off prior to initial set Concrete finishing shall be done in the daylight hours

Reinforcing steel to be ASTM A615, Grade 40. The reinforcing steel is to be accurately located in the forms and firmly held in place by means of steel wire supports, sufficient in size and number to prevent displacement during the course of construction The wire supports will not be paid for directly but will be considered subsidiary to the item of "Reinforcing Steel". Shop lists and bending diagrams of reinforcing steel, including wire supports, shall be submitted, and approval secured, before fabrication is begun

Anchor bolts are to be galvanized in accordance with ASTM Specification Designation A153

All welded connections shall be made by the electric arc process All design, material and workmanship shall conform to the current American Welding Society Standard Specifications for Welded Highway and Railway Bridges and applicable Special Provisions

Shapes of equal or greater strength may be substituted for structural shapes shown, but payment will be made on shapes shown or actually used whichever is the lesser

The webs and flanges of the built-up section of girders shall be High-Strength, Low-Alloy Steel ASTM Designation A572 Grade 42, and shall be paid for at the contract unit price per pound bid for "Structural Steel in Plate Girder Spans (A572 Grade 42)". All other structural steel shall be Structural Steel ASTM Designation A-36, and shall be paid for at the contract unit price per pound bid for "Structural Steel in Beam Spans (A-36)"

The steel shoes and the roadway expansion devices are to be paid for as "Structural Steel in Beam Spans (A-36)". All shoes to be finally seated in a manner set forth in the specifications, including alternate This work and material are to be considered as subsidiary to the item of "Structural Steel in Beam Spans (A-36)", and will not be paid for directly

Shop Paint All structural steel except galvanized members contact surfaces of bolted connections, and surfaces within 3" of holes and field welds and surfaces in contact with concrete shall be given one prime coat as specified in Special Provision 305-18 "Painting of Steel Structures"

Field Paint After erection all exposed steel surfaces which did not receive a coat of shop paint except surfaces in contact with concrete shall be given one coat as specified in SP 806-18 Two additional coats of field paint shall be applied to all exposed surfaces. First Coat - red lead tinted with lamp black. Second coat - aluminum paint. Field paint shall be as specified in Special Provision 806-18 "Painting of Steel Structures"

Neoprene washers to be subsidiary to "Structural Steel in Beam Spans (A-36)".

These drawings show general features of design only Shop drawings shall be made in accordance with the Specifications, submitted and approval secured before fabrication is begun

All bar dimensions are out to out All bar spacings are center to center.

All girders shall be blocked in their true position with webs horizontal, in the shop to form each complete unit The camber, length of sections, distance between bearings and opening of joints shall be measured with girders in this position, and this information shall become a part of the permanent record of this job The component parts shall be match marked in this assembly and these marks shall be shown on the erection diagram All girder dimensions are based on a temperature of 60° F

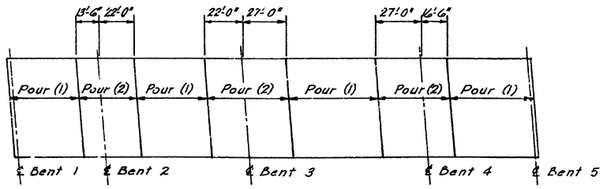
SPECIFICATIONS Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959 with 1966 Supplemental Specifications, and applicable Special Provisions

DESIGN SPECIFICATIONS A A S H O 1969 and American Welding Society Specifications for Welded Highway and Railway Bridges, current edition and applicable Special Provisions

DESIGN LIVE LOADING HS-20-44 Loading

LOAD DISTRIBUTION	To Interior Girder	To Exterior Girder
Dead Load to Girder	747 #/Linear Ft	797 #/Linear Ft
Dead Load to Composite Girder	142 #/Linear Ft	237 #/Linear Ft
Live Load to Composite Girder	1.242 Wheels + Impact	1.197 Wheels + Impact

UNIT STRESSES	
Class S or S(AE) Concrete (n=10)	1,200 psi.
Reinforcing Steel	20,000 psi.
Structural Steel (A-36)	20,000 psi.
Structural Steel (A572 Grade 42)	23,000 psi.



SLAB POURING SEQUENCE

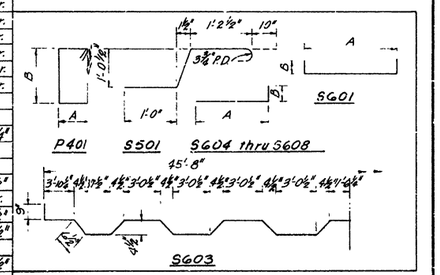
N.T.S.

All pours (1) adjacent to pours (2) must be placed before pours (2) can be placed 48 hours shall elapse between pours (1) and 72 hours shall elapse between adjacent pours (1) and (2).

BAR LIST

MARK	SIZE	NO. REQ'D	LENGTH	A	B	PIN DIA.
P401	#4	704	21'-6"	9½"	1'-2½"	2"
S402	#4	1017	36'-7"			Str.
S403	#4	32	40'-0"			Str.
S404	#4	32	39'-0"			Str.
S405	#4	32	34'-6"			Str.
P406	#4	8	17'-0"			Str.
P407	#4	4	18'-7"			Str.
P408	#4	3	20'-7"			Str.
P409	#4	24	21'-11"			Str.
P410	#4	4	19'-7"			Str.
P411	#4	12	21'-6"			Str.
S501	#5	1012	4'-1"	(See Diagram)		3¾"
S601	#6	250	46'-11"	45'-3"	9"	4½"
S602	#6	250	45'-8"			Str.
S603	#6	249	48'-11"	(See Diagram)		4½"
S604	#6		9'-8"	9'-0⅛"	9"	4½"
thru		2ea.				
S608	#6		12'-5"	11'-9⅛"	9"	4½"
S609	#6		9'-0"			Str.
thru		2ea.				
S613	#6		41'-9"			Str.
S614	#6	12	45'-9"			Str.

NOTE
For Site Plan see Drwg. 17076
For Typical Notes see Drwg. 17076
For Transverse Joint detail see Drwg. 17076
Crossframes at centerline of bearing shall be installed after girders are erected
Crossframes shall be completely welded prior to pouring of floor slabs



NOTE All dimensions are out to out
All spacings are center to center

—Revised structural steel—B.V.F. 3-24-70
Revised rdwy width - D.F.L. 11-9-70

Ural Pinkerton
BRIDGE ENGINEER

FOR INFORMATION ONLY

SLAB SECTION
KANIS RD. OVER I-430
LITTLE ROCK BYPASS WEST
PULASKI COUNTY
I-430 SEC. 11

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK

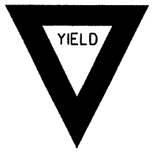
DRAWN D.J. Allon DATE 12-15-69
TRACED _____ DATE _____
CHECKED R.G. Drouet DATE 4-2-70
SCALE As Shown

BRIDGE NO. 5313 DRAWING NO. 17077

R1-1

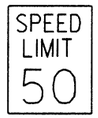
STANDARD 30"X30"
EXPRESSWAY 36"X36"
SPECIAL 48"X48"

R1-2



STD. 36"X36"X36"
EXPWY. 48"X48"X48"
FWY. 60"X60"X60"

R2-1



STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

W3-5

STD. 36"X36"
EXPWY. 48"X48"
FWY. 48"X48"

W3-5a

STD. 36"X36"
EXPWY. 48"X48"
FWY. 48"X48"

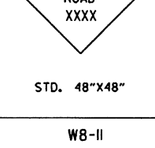
R4-1

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R4-2

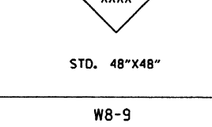
STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R5-1



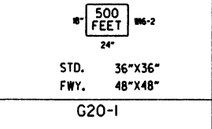
STD. 30"X30"
EXPWY. 36"X36"
SPECIAL 48"X48"

R11-2



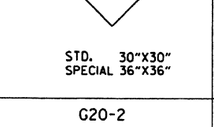
48"X30"

R11-3A



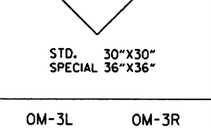
60"X30"

R11-4



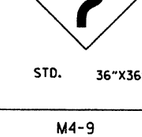
60"X30"

RSP-1



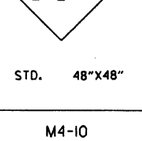
48"X30"

W1-1



STD. 36"X36"
FWY. 48"X48"

W1-2

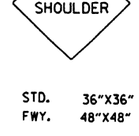


STD. 36"X36"
FWY. 48"X48"

W1-3

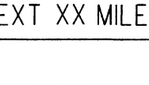
STD. 48"X48"

W1-4



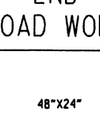
STD. 48"X48"

W1-6



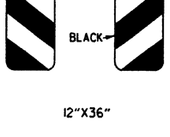
STD. 48"X24"
SPECIAL 60"X30"

W1-8



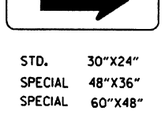
STD. 18"X24"
SPECIAL 24"X30"
EXPWY. 30"X36"
FWY. 36"X48"

W3-1



STD. 36"X36"
SPECIAL 48"X48"

W3-2



STD. 36"X36"
SPECIAL 48"X48"

W4-2

STD. 36"X36"
FWY. 48"X48"

W5-1

STD. 36"X36"
SPECIAL 48"X48"

W6-3

EXPWY. 36"X36"
SPECIAL 48"X48"

W8-7

EXPWY. 36"X36"
FWY. 48"X48"

W9-2

STD. 36"X36"
FWY. 48"X48"

W13-1

STD. 24"X24"

W20-1

STD. 48"X48"

W20-2

STD. 48"X48"

W20-3

STD. 48"X48"

W20-4

STD. 48"X48"

W20-5

STD. 48"X48"

W20-7a

STD. 36"X36"
FWY. 48"X48"

W21-2

STD. 30"X30"
SPECIAL 36"X36"

W21-5

STD. 30"X30"
SPECIAL 36"X36"

W24-1

STD. 36"X36"

W1-4b

STD. 48"X48"

R56-1

STD. 18"X18"

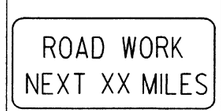
W8-11

STD. 36"X36"
FWY. 48"X48"

W8-9

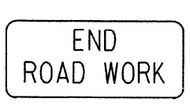
STD. 36"X36"
FWY. 48"X48"

G20-1



60"X24"

G20-2



48"X24"

OM-3L OM-3R

12"X36"

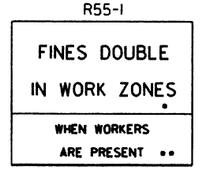
M4-9

STD. 30"X24"
SPECIAL 48"X36"
SPECIAL 60"X48"

M4-10

48"X18"

R55-1



36"X60"
• USE 6" C LETTERS
•• USE 4" D LETTERS

ADVANCE DISTANCES
(XXXX)

500 FT	½ MILE
1000 FT	¾ MILE
1500 FT	1 MILE
	AHEAD

GENERAL NOTES:

1. ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.
2. TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER.
3. EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED.
- 4. SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE.
- 5. SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3.
6. POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE.
7. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE, EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS.
8. FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
9. MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT, HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT.
10. R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN.

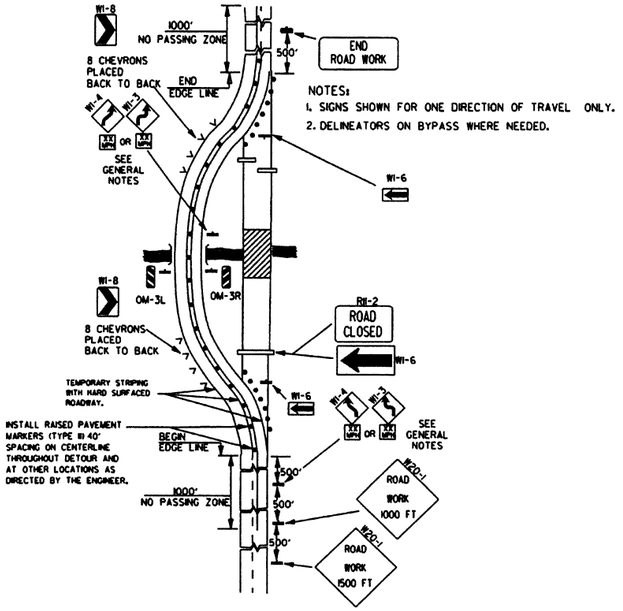
• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED FOR ALL PROJECTS.

DATE	REVISION	FILMED
9-2-15	REVISED REDUCED SPEED LIMIT AHEAD SIGNS REVISED ROAD WORK NEXT XX MILES	
12-15-11	REVISED W24-1	
11-17-10	DELETED W8-9a & ADDED W8-9	
10-15-09	ADDED REFERENCE TO MASH & ADDED SIGN W24-1	
4-17-08	REVISED SIGN DESIGNATIONS	
11-18-04	REVISED NOTES	
10-9-03	REVISED NOTE 1	
11-16-01	REVISED NOTE 7	
9-28-00	REVISED NOTE	
11-18-98	ADDED NOTE	
6-26-97	REVISED NOTE 5	
4-03-97	REVISED NOTE 5	
10-18-96	ADDED CONTROLLED ACCESS HWY. SIGN & TO NOTE 7	
10-12-95	ADDED R55-1	
6-8-95	REVISED TO CORRECT SIGN ILLUSTRATIONS	6-8-95
2-2-95	REVISED PER PART VI, MUTCD SEPT. 3, 1993	
11-15-91	DRAWN AND PLACED IN USE	

ARKANSAS STATE HIGHWAY COMMISSION

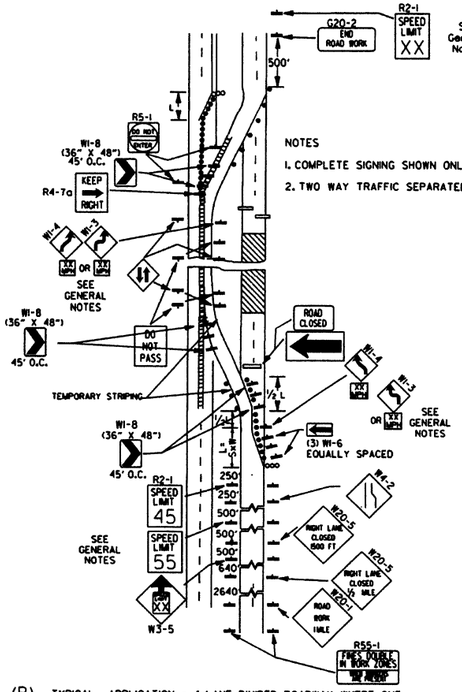
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



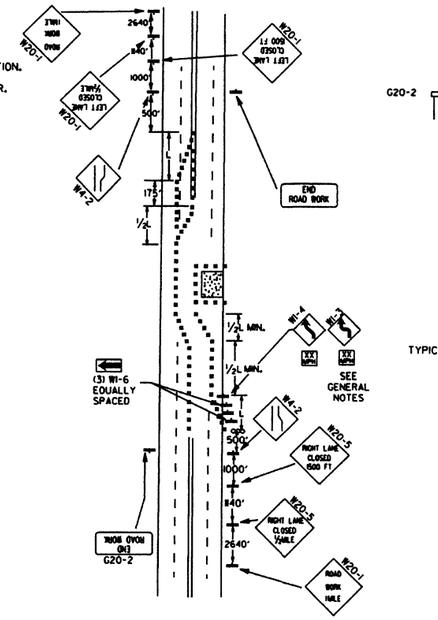
NOTES:
1. SIGNS SHOWN FOR ONE DIRECTION OF TRAVEL ONLY.
2. DELINEATORS ON BYPASS WHERE NEEDED.

(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.

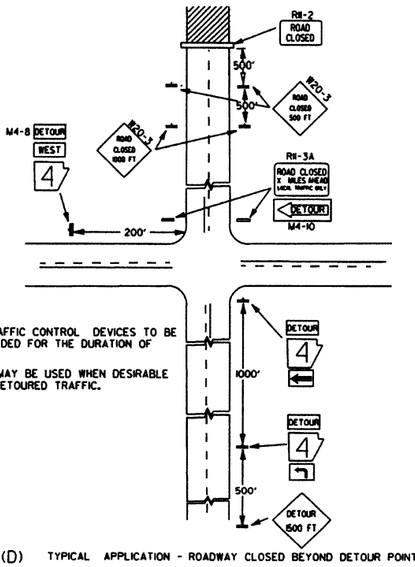


NOTES
1. COMPLETE SIGNING SHOWN ONLY IN CROSSOVER DIRECTION.
2. TWO WAY TRAFFIC SEPARATED WITH POSITIVE BARRIER.

(B) TYPICAL APPLICATION - 4-LANE DIVIDED ROADWAY WHERE ONE ROADWAY IS CLOSED.

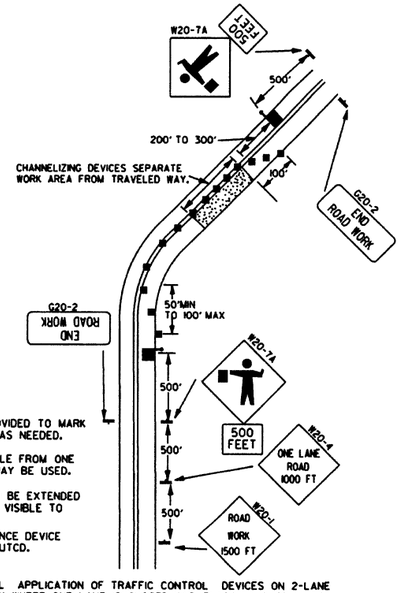


(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



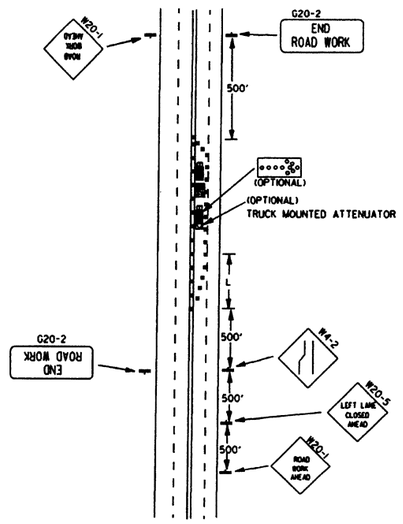
NOTES:
1. REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
2. STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC.

(D) TYPICAL APPLICATION - ROADWAY CLOSED BEYOND DETOUR POINT.

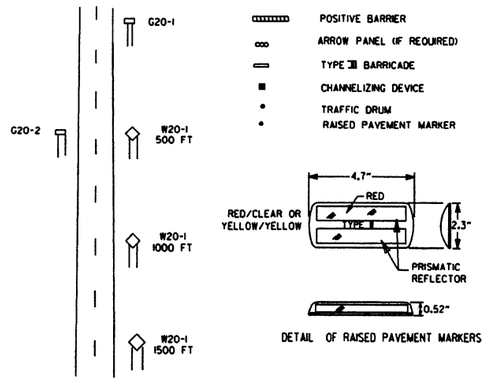


NOTES:
1. FLOOD LIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.
2. IF ENTIRE WORK AREA IS VISIBLE FROM ONE STATION, A SINGLE FLAGGER MAY BE USED.
3. CHANNELIZING DEVICES ARE TO BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
4. AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) OPTIONAL. REFER TO MUTCD.

(E) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON 2-LANE HIGHWAY WHERE ONE LANE IS CLOSED AND FLAGGING IS PROVIDED.



(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.



TYPICAL ADVANCE WARNING SIGN PLACEMENT

TAPER FORMULAE:

L=SXW FOR SPEEDS OF 45MPH OR MORE.

$L = \frac{WS^2}{60}$ FOR SPEEDS OF 40MPH OR LESS.

WHERE:
L= MINIMUM LENGTH OF TAPER.
S= NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.
W= WIDTH OF OFFSET.

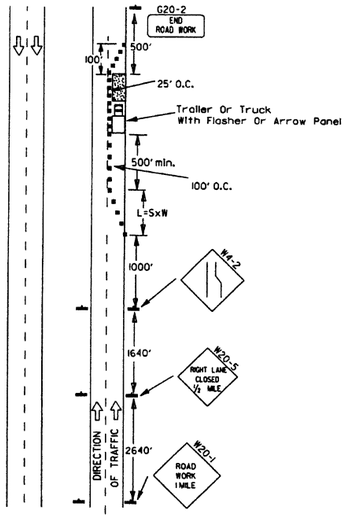
GENERAL NOTES:
1. ADVISORY SPEED POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS TO BE DETERMINED AT SITE. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1 45MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-(45) SHALL BE OMITTED. ADDITIONAL R2-1 55MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT, OR AS DIRECTED BY THE ENGINEER.
5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
7. TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER. WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE.
8. DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE AHTD QUALIFIED PRODUCTS LIST.

DATE	REVISION	FILMED
9-2-15	REVISED NOTE 2, ADDED NOTE 8, REVISED DRAWING (A) & REPLACED R2-5A WITH W3-5	
9-12-13	REVISED DETAIL OF RAISED PAVEMENT MARKERS	
3-8-10	ADDED (AFAD)	
8-20-08	REVISED SIGN DESIGNATIONS	
8-16-04	ADDED GENERAL NOTE	
10-18-96	ADDED R55-1	
4-26-96	CORRECTED (a) BEHIND G20-2	
6-8-95	CORRECTED SIGN IDENT. ON W1-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

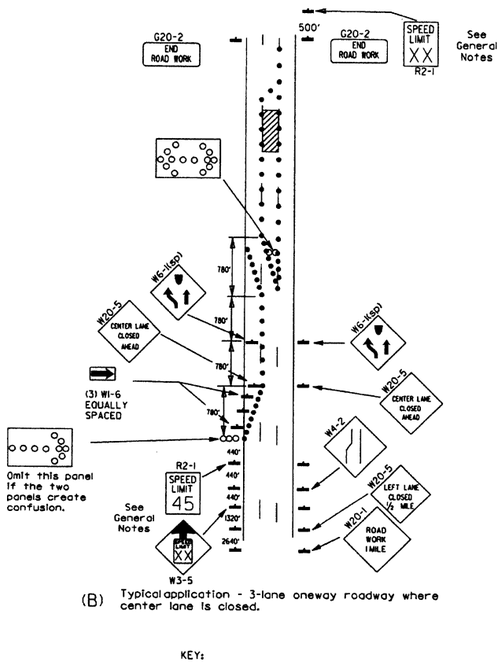
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

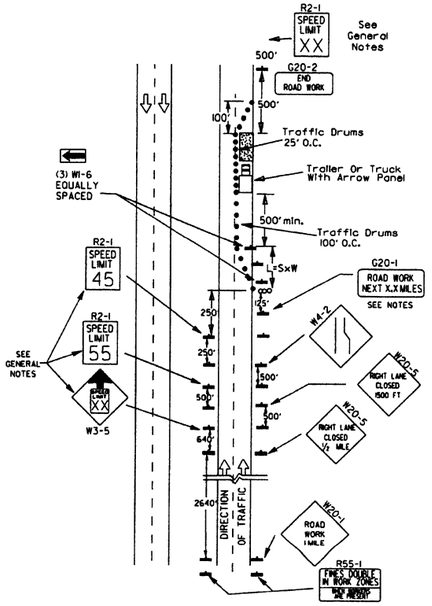
STANDARD DRAWING TC-2



(A) Typical application - daytime maintenance operations of short duration on a 4-lane divided roadway where half of the roadway is closed.



(B) Typical application - 3-lane oneway roadway where center lane is closed.



(C) Typical application - construction operatipns of intermediate to long term duration on a 4-lane divided roadway where half of the roadway is closed.

KEY:

ooo Arrow Panel (If Required)

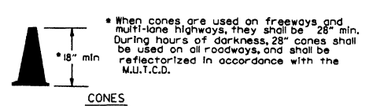
■ Channelizing Device

● Traffic drum

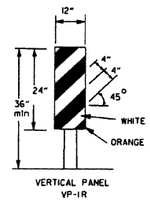
GENERAL NOTES:

1. A speed limit reduction may be implemented ONLY when designated in the plan or when recommended by the Roadway Design Division.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the W3-5 shall be installed at that location. Additional R2-1 45mph speed limit signs shall be installed at a maximum of 1 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
3. When the existing speed limit is 65mph and the plans require a speed limit of 55mph, the R2-1(45) shall be omitted. Additional R2-1 55mph speed limit signs shall be installed at a maximum of 1 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
4. The maximum spacing between channelizing devices in a taper should be approximately equal in feet to the speed limit. Beyond the taper, maximum spacing shall be two times the speed limit or as directed by the Engineer.
5. Warning lights and/or flags may be mounted to signs or channelizing devices at night as needed.
6. Pavement markings no longer applicable which might create confusion in the minds of vehicle operators shall be removed or obliterated as soon as practicable.
7. The G20-1 sign will be required on jobs of over two miles in length. When the lane closure is not at the beginning of the project, the G20-1 sign shall be erected 125' in advance of the job limit. Additional W20-1 (1 MILE) signs are not required in advance of lane closures that begin inside the project limits.
8. Flaggers shall use STOP/SLOW paddles for controlling traffic through work zones. Flags may be used only for emergency situations.
9. All plastic drums and cones shall meet the requirements of NCHRP-350 or Manual For Assessing Safety Hardware (MASH).
10. Trailer mounted devices such as arrow panels and portable changeable message signs shall be delineated by affixing conspicuity material in a continuous line on the face of the trailer. When placed on or adjacent to the shoulder and not behind a positive barrier, these devices shall be delineated by placing five (5) traffic drums, equally spaced along the traffic side of the device.

Channelizing devices

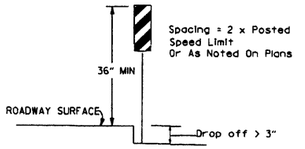


* When cones are used on freeways and multi-lane highways, they shall be 28" min. During hours of darkness, 28" cones shall be used on all roadways, and shall be reflectorized in accordance with the M.U.T.C.D.



NOTE:
For all road closures, the Type III barricades shall be of sufficient length to extend across entire roadway.

VERTICAL PANEL PLACEMENT



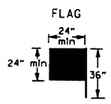
TRAFFIC CONTROL DEVICES FOR VERTICAL PAVEMENT DIFFERENTIALS

VERTICAL DIFFERENTIAL	LOCATIONS	TRAFFIC CONTROL
1" to 3"	Centerline, lane lines	W8-11
1" to 3"	Edge of shoulder	W8-9
Greater than 3"	Lane lines	Standard lane closure required
Greater than 3"	Edge of traveled lane	*RSP-1 and vertical panels, drums or concrete barrier
Greater than 3"	Edge of shoulder	*Vertical panels, drums or concrete barrier

* When shown on the plans concrete barrier will be used.

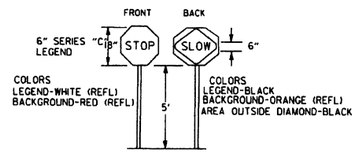
When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.

FLAG



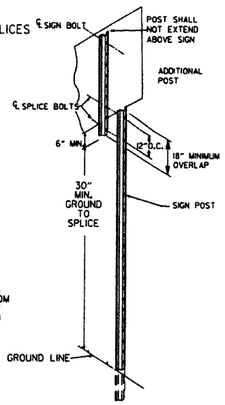
Flag shall be of good grade red material

STOP SLOW PADDLE



(D) Typical application - closing multiple lanes of a multilane highway.

DETAIL OF SPLICES



NOTES: USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-2)

NORMAL INSTALLATIONS WILL REQUIRE 1/4" DIA. BOLTS TO MOUNT SIGNS TO POST AND 5/16" DIA. BOLTS TO ASSEMBLE THE VARIOUS POST SUPPORTS. EACH OF THESE BOLTS SHALL BE CARRIAGE BOLTS.

SIGN POSTS SHALL BE PAINTED GREEN; SIGNS SHALL NOT BE PAINTED, AND ALL SIGN POSTS SHALL BE PLUMB.

DATE	REVISION	FILMED
9-2-15	REVISED NOTE 2 & REPLACED R2-5A WITH W3-5	
10-15-09	ADDED REFERENCE TO MASH	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED NOTE	
10-1-98	ADDED NOTE	
4-03-97	ADDED (SP) TO W6-1 & REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL, TEXT	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-3