



Latitude:36.02879, Longitude:-91.32438

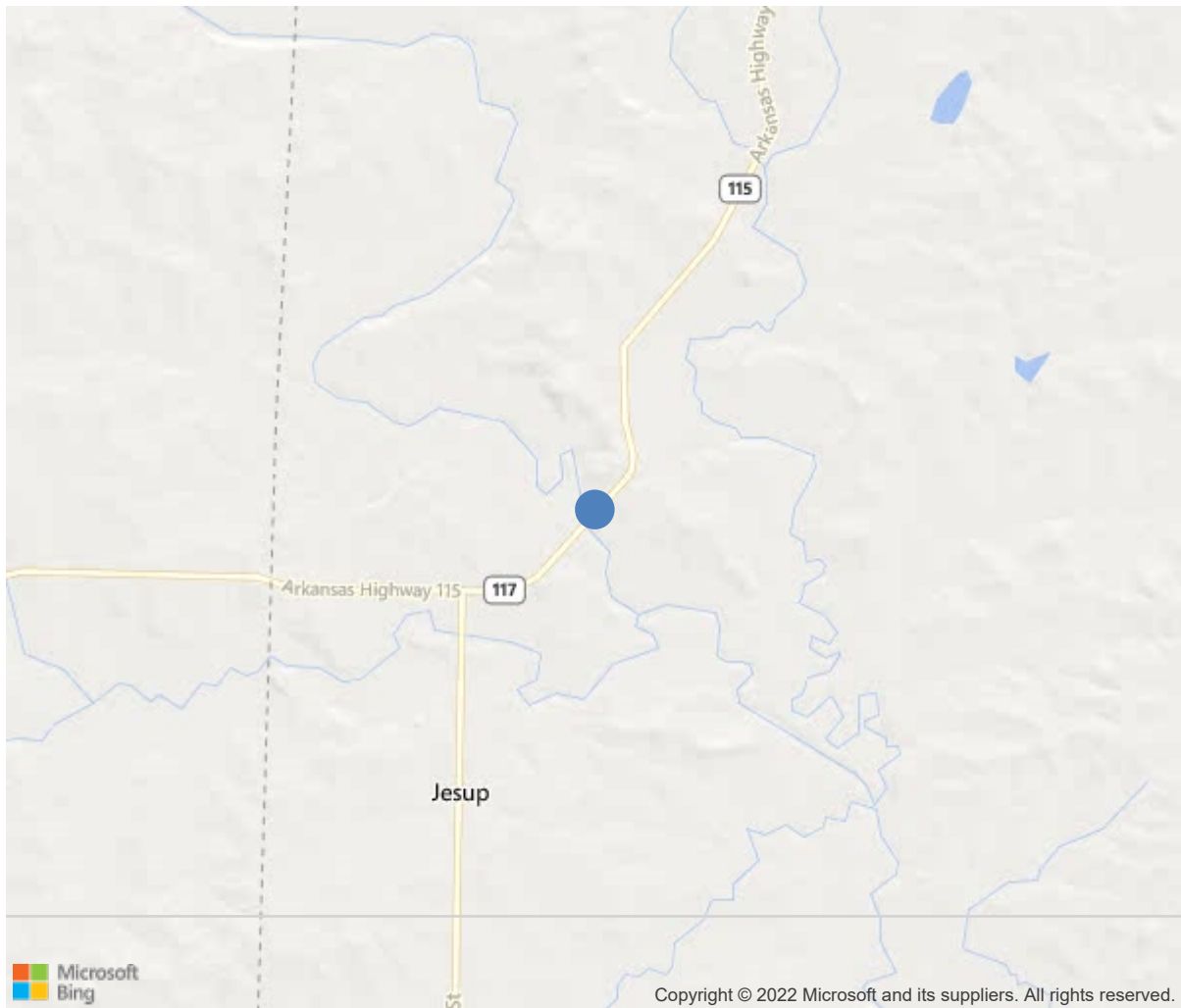
Route:115 Section:02 Log:16.14

Arnold Road ID:38x115x2xA, Arnold Log mile:16.045

District 10, Lawrence County

Owner: 1-State Highway Agency

4.0 MI S OF SMITHVILLE



36.02879, -91.32438



Bridge #03253(Routine)
SH 115-02-LM 16.14 over STRAWBERRY RIVER
Location: 4.0 MI S OF SMITHVILLE
Team Lead: Tim Myrick Inspection Date: July 06, 2021

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	03253
(5) Inventory Route	115
(2) Highway Agency District	10
(3) County Code	75-Lawrence County, Arkansas
(4) Place Code	0
(6) Features Intersected	STRAWBERRY RIVER
(7) Facility Carried	SH 115-02-LM 16.14
(9) Location	4.0 MI S OF SMITHVILLE
(11) Mile Point	16.14 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	36.02879
(17) Longitude	-91.32438
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	32
Material	3-Steel
Type	2-Stringer/Multi-beam or girder
(44) Approach Structure Type	00
Material	0-Other
Type	0-Other
(45) No. of Spans in Main Unit	17
(46) No. of Approach Spans	0
(107) Deck Structure Type	1-Concrete Cast-in-Place
(108) Wearing Surface/Protective System	
Type of Wearing Surface	6-Bituminous
Type of Membrane	0-None
Type of Deck Protection	0-None
AGE AND SERVICE	
(27) Year Built	1959
(106) Year Reconstructed	0
(42) Type of Service	15
On	1-Highway
Under	5-Waterway
(28) Lane	
On	2
Under	0
(29) Average Daily Traffic	1600
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	9 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	60 ft
(49) Structure Length	700 ft
(50) Curb or Sidewalk Width	
Left	1 ft
Right	1 ft
(51) Bridge Roadway Width Curb to Curb	24 ft
(52) Deck Width Out to Out	28.7 ft
(32) Approach Roadway Width (W/Shoulders)	27.9 ft
(33) Bridge Median	0-No median
(34) Skew	0 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	26.2 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	0 ft
Ref:	
(55) Min Lat Underclear RT	99.9 ft
Ref:	
(56) Min Lat Underclear LT	0 ft
NAVIGATION DATA	
(38) Navigation Control	0-No navigation control on water
(111) Pier Protection	5-None present but re-evaluation
(39) Navigation Vertical Clearance	0 ft
(116) Vert-Lift Bridge Nav Min Vert Clear	0 ft
(40) Navigation Horizontal Clearance	0 ft

CLASSIFICATION	
(112) NBIS Bridge Length	Y
(104) Highway System	0
(26) Functional Class	7-Rural Major Collector
(100) Defense Highway	0-The inventory route is not a S
(101) Parallel Structure	N-No parallel structure exists.
(102) Direction of Traffic	2 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0-N/A
(110) Designated National Network	0-The inventory route is not part of
(20) Toll	3-On free road. The structure is toll-
(21) Maintain	1-State Highway Agency
(22) Owner	1-State Highway Agency
(37) Historical Significance	5-Bridge is not eligible for the NRHP
CONDITION	
(58) Deck	6
(59) Superstructure	5
(60) Substructure	6
(61) Channel & Channel Protection	6
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	2-M 13.5 / H 15
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1-Load Factor(LF)
Rating	39
(65) Inventory Rating Method	1-Load Factor(LF)
(66) Inventory Rating	
Type	17
Rating	23
(70) Bridge Posting	2-20.0 - 29.9 % below
(41) Structure Open/Posted/Closed	P-Posted for load (may include o
APPRAISAL	
(67) Structural Evaluation	5
(68) Deck Geometry	4
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	6
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	0-Inspected feature does not meet cur
(36B) Transitions	0-Inspected feature does not meet cur
(36C) Approach Guardrail	0-Inspected feature does not meet cur
(36D) Approach Guardrail Ends	0-Inspected feature does not meet cur
(113) Scour Critical Bridges	5-Bridge foundations determined to be
PROPOSED IMPROVEMENTS	
(75) Type of Work	
(76) Length of Structure Improvement	0 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 0
(96) Total Project Cost	\$ 0
(97) Year of Improvement Cost Estimate	
(114) Future ADT	1250
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			07/2021
(91) Frequency			24 Months
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection	No		
* The inspection date and frequency information in this box contains the current NBI date and frequency information. Please refer to the report header for the date this inspection was conducted.			



Bridge #03253(Routine)

SH 115-02-LM 16.14 over STRAWBERRY RIVER

Location: 4.0 MI S OF SMITHVILLE

Team Lead: Tim Myrick, Inspection Date: July 06, 2021

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	16992	15186	0	1806	0
1080	Delamination/Spall/Patched Area	SF	1389	0	0	1389	0
1090	Exposed Rebar	SF	67	0	0	67	0
1120	Efflorescence/Rust Staining	SF	280	0	0	280	0
1130	Cracking (RC and Other)	SF	70	0	0	70	0
510	Wearing Surfaces	SF	16752	15363	0	1389	0
3210	Delam/Spall/Patched Area/Pothole	SF	1389	0	0	1389	0
107	Steel Open Girder/Beam	LF	3490	3367	0	110	13
1000	Corrosion	LF	165	42	0	110	13
515	Steel Protective Coating	SF	24978	17073	257	7178	470
3440	Effectiveness (Steel Protective Coatings)	SF	7905	0	257	7178	470
205	Reinforced Concrete Column	EA	4	3	0	1	0
1090	Exposed Rebar	EA	1	0	0	1	0
215	Reinforced Concrete Abutment	LF	66	66	0	0	0
225	Steel Pile	EA	58	0	28	18	12
1000	Corrosion	EA	58	0	28	18	12
515	Steel Protective Coating	SF	6556	6556	0	0	0
3440	Effectiveness (Steel Protective Coatings)	SF	0	0	0	0	0
234	Reinforced Concrete Pier Cap	LF	398	360	17	21	0
1080	Delamination/Spall/Patched Area	LF	11	0	0	11	0
1120	Efflorescence/Rust Staining	LF	10	0	0	10	0
1130	Cracking (RC and Other)	LF	17	0	17	0	0
304	Open Expansion Joint	LF	384	384	0	0	0
305	Assembly Joint without Seal	LF	48	48	0	0	0
311	Movable Bearing	EA	85	0	0	80	5
1000	Corrosion	EA	85	0	0	80	5
313	Fixed Bearing	EA	85	0	0	85	0
1000	Corrosion	EA	85	0	0	85	0
330	Metal Bridge Railing	LF	1396	1396	0	0	0
515	Steel Protective Coating	SF	4746	26	0	4720	0



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Location: 4.0 MI S OF SMITHVILLE

Team Lead: Tim Myrick, Inspection Date: July 06, 2021

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
3440	Effectiveness (Steel Protective Coatings)	SF	4720	0	0	4720	0





Beginning end



Ending end



S17 b17 g1-3, & 5 haunch plate
G2-4 tsplice



S16 b17 g1-5 haunch
G2-4 tsplice



S16 b16 b1-5 haunch plate



S15 b16 g1-5 haunch plate



S15 b15 g1-5 tsplice
G4 tsplice



S14 b15 g5 tsplice



S14 b15 g1-4 haunch plate
G4 tsplice



S13 b13 g3 typical



B14 drift



S12 b12 new bearings



S12 b12 g5 tsplice



S12 b12 g1-4 haunch plate
G2, 3, 5 tsplice



S11 b12 g1- 5 haunch plate



S11 b11 g1-5 haunch plate
G2, 4 tsplice



S10 b11 g1-5 haunch plate



S10 b10 g1-5 haunch plate
G2, 4 tsplice



S9 b10 g1-5 haunch plate
G1 web plate, g2, 4 tsplice



S9 b9 g1-5 haunch plate



S8 b9 g1-5 haunch plate
G2 tsplce



S8 b8 g1,2, & 5 haunch plate



S7 b8 g1-5 haunch plate
G2, 4 tsplice



S7 b7 g1-5 haunch plate



S6 b7 g1-5 haunch plate
G2,4 tsplice



S6 b6 g1-5 haunch plate



S5 b6 g1,5 haunch plate
G2,4 tsplice



S5 b5 g1-5 haunch plate



S4 b5 g1-5 haunch plate
G2-4 tsplice



S4 b4 g1-5 haunch plate



S3 b4 g1, 2, 3, & 5 haunch plate
G2 tsplce



S3 b3 g1, 3-5 tspliced



S2 b3 g1, 3, 5 tspliced



S2 b2 g1, 3- 5 tspliced



S1 b2 g1-5 tspliced

**Maintenance Needs**

Date Reported: 04/19/2012
Priority: D- Routine
Type of Work: Repair
Status: Monitor
Component: Superstructure

Deficiency Description

Ends of girders have rust with areas of section loss ($1/8"$ - $1/4"$ typical), especially near concrete haunch, several have holes rusted through.

Exterior girders have areas of section loss below drains.

Exterior girder on right side of bridge has rust and areas of section loss at utility connections.

Span 1 bent 1 girder 1 has approximately 10' of moderate to heavy section loss along bottom of web.

Span 1 bent 1 girder 2 has a 3.5" x 1" hole in web below haunch.

Span 1 bent 1 girder 3 has a 5" x 1" hole in web below haunch.

Span 1 bent 1 girder 4 has 3" x 1" hole in web below haunch.

Span 1 bent 2 girder 3 has a 1.5" x 1" hole in web below haunch.*

Span 2 bent 2 girder 1 has a 1" diameter hole 6" from end near haunch.*

Span 2 bent 2 girder 3 has a 2' x up to 3" area of moderate section loss to bottom of web. Bottom flange beginning to knife edge.*

Span 2 bent 2 girder 4 has a 5.5" x 1" hole in web below haunch.*

Span 2 bent 3 girder 3 has a 3" x 1" hole in web below haunch.*

Span 3 bent 3 girder 3 has a 2 x $1/2"$ hole in web below haunch.*

Span 3 bent 4 girder 1 has a 2" x 1" hole in web below haunch.

Span 3 bent 4 girder 2 has a 5" x 1" hole in web below haunch.

Span 3 bent 4 girder 2 is floating, $1/8"$ gap between bearing plates.

Span 3 bent 4 bearings 2 and 4 are each missing 1 anchor bolt.

Span 3 bent 4 girder 3 has a 1.5" x $1/2"$ hole in web below haunch.

Span 4 girder 2 bent 5 has a $1/2"$ diameter hole in web below haunch. Bottom of web has a $1/2"$ hole 5" from end of girder.

Span 4 bent 5 girder 3 has a 2" x $1/2"$ hole in web below haunch.

Span 5 bent 5 girder 2 has a $1/2"$ hole in web below haunch.

Span 6 bent 6 girder 1 has a $1/2"$ diameter hole in web below haunch.

Span 6 bent 6 girder 3 has a pin hole in web below haunch.

Span 6 bent 6 girder 4 bottom flange is beginning to knife edge.

Span 6 bent 7 girder 1 has a 2" x 3" hole in web below haunch.

Span 6 bent 7 girder 2 has a 1" diameter hole in web below haunch and 1.5' of heavy section loss along bottom flange.

Span 7 bent 7 girder 3 has a 2" x 1" hole in web below haunch.

Span 7 bent 8 girder 2 was repaired with a T splice in 2014. Bearing is floating with $1/8"$ gap at bearing.

Span 7 bent 8 bearing 2 has 1 anchor bolt missing.

Span 8 bent 8 girder 1 has a 3" diameter hole in web below haunch.

Span 8 bent 9 girder 1 has a 1" diameter hole in web below haunch.

Span 8 bent 9 girder 3 has a 2" diameter hole in web below haunch.

Span 9 bent 9 girder 5 has section loss on bottom flange and bottom of web near utility connection.

Span 9 bent 10 girder 1 has 4' of section loss along bottom of web.

Span 9 bent 10 girder 3 has a 1" diameter hole in web below haunch.

Span 9 bent 10 girder 5 has a 7" x 1" hole in web below haunch.

Span 10 bent 10 girder 1 has a 3" x 1" hole in web below haunch.

Span 10 bent 10 girder 2 has a 3.5" x 1" hole in web below haunch.

Span 10 bent 10 girder 5 has a 3" x 1" hole in web below haunch.

Span 10 bent 11 girder 2 has a 3" x 1" hole in web below haunch.

Span 11 bent 12 girder 1 has a 2" x 1" hole in web below haunch.

Span 11 bent 12 girder 4 has a 4" x 1" hole in web below haunch.

Span 12 bent 12 girder 2 has a 3" x 1" hole in web below haunch.

Span 12 bent 12 girder 4 has a 4" x 1" hole in web below haunch.

Span 13 bent 13 girder 2 has a 3.5" x 1" hole in web below haunch.

Span 13 bent 13 girder 3 has a 2" x 1" hole in web below haunch.



- Span 13 bent 13 bearing 3 has cotter key rusted off or missing and sleeve on center of pin has complete section loss.
- Span 13 bent 13 bearing 4 has 2 anchor bolts missing.
- Span 13 girder 5 bent 13 has 5 " hole in web below haunch. End of web has heavy section loss and out of plane bending. Bottom flange has heavy section loss at utility connection.
- Span 14 bent 14 girder 2 has a 5" x 1.5" diameter hole in web below haunch. Bearing has 1 anchor bolt missing.
- Span 14 bent 14 bearings 3 and 4 have cotter keys rusted off or missing and sleeve on center of pin has complete section loss.
- Span 15 bent 15 girder 3 has a 3" x 1" hole in web below haunch.
- Span 15 bent 15 girder 4 has a 3" x 1" hole in web below haunch.
- Span 15 bent 15 girder 5 has a 3" x 1" hole in web below haunch.
- Span 15 bent 16 girder 3 has a 4" x 1" hole in web below haunch.
- Span 16 bent 16 girder 1 has a 5" x 1" hole in web below haunch.
- Span 16 bent 16 girder 4 has a 5" x 1" hole in web below haunch.
- Span 16 bent 17 girders 2 – 5 have approximately 6' of advanced section loss at bottom flange and bottom 6" of web. Bottom flanges have heavy section loss.
- Span 16 bent 17 girder 3 has a 5.5" x 1" hole in web below haunch.
- Span 16 bent 17 girder 4 has a 4" x 1" hole in web below haunch. Bearing has 1 anchor bolt missing.
- Span 16 bent 17 girder 5 has a 8" x 2" hole in web below haunch.
- Span 17 bent 17 girder 5 has a 8" x 1" hole in web below haunch.
- Span 17 bent 18 girder 4 has a 2" x 1/2" hole in web at haunch.
- List of priority D girders repaired haunch
- **Span 3 girder 1 bent 4 has a 2" x 1" hole in web below haunch.
 - **Span 3 girder 2 bent 4 has a 5" x 1" hole in web below haunch.
 - **Span 3 girder 2 bent 4 is floating, 1/8" gap between bearing plates.
 - **Span 3 girder 3 bent 4 has a 1.5" x 1/2" hole in web below haunch.
 - **Span 4 girder 2 bent 5 has a 1/2" diameter hole in web below haunch. Bottom of web has a 1/2" hole 5" from end of girder.
 - **Span 4 girder 3 bent 5 has a 2" x 1/2" hole in web below haunch.
 - **Span 5 girder 2 bent 5 has a 1/2" hole in web below haunch
 - **Span 6 girder 1 bent 6 has a 1/2" diameter hole in web below haunch.
 - **Span 6 girder 3 bent 6 has a pin hole in web below haunch.
 - **Span 6 girder 4 bent 6 bottom flange has heavy section loss.
 - **Span 6 girder 1 bent 7 has a 2" x 3" hole in web below haunch.
 - **Span 6 girder 2 bent 7 has a 1" diameter hole in web below haunch and 1.5' of heavy section loss along bottom flange.
 - **Span 7 girder 2 bent 8 was repaired with a T splice in 2014. Bearing is floating with 1/8" gap at bearing.
 - **Span 8 girder 1 bent 8 has a 3" diameter hole in web below haunch.
 - **Span 8 girder 1 bent 9 has a 1" diameter hole in web below haunch.
 - **Span 8 girder 3 bent 9 has a 2" diameter hole in web below haunch.
 - **Span 9 girder 5 bent 9 has section loss on bottom flange and bottom of web near utility connection.
 - **Span 9 girder 1 bent 10 has 4' of section loss along bottom of web.
 - **Span 9 girder 3 bent 10 has a 1" diameter hole in web below haunch.
 - **Span 9 girder 5 bent 10 has a 7" x 1" hole in web below haunch.
 - **Span 10 girder 1 bent 10 has a 3" x 1" hole in web below haunch.
 - **Span 10 girder 2 bent 10 has a 3.5" x 1" hole in web below haunch.
 - **Span 10 girder 5 bent 10 has a 3" x 1" hole in web below haunch.
 - **Span 10 girder 2 bent 11 has a 3" x 1" hole in web below haunch.
 - **Span 11 girder 1 bent 12 has a 2" x 1" hole in web below haunch.
 - **Span 11 girder 4 bent 12 has a 4" x 1" hole in web below haunch.
 - **Span 12 girder 2 bent 12 has a 3" x 1" hole in web below haunch. Bearing has 1 anchor bolt missing.
 - **Span 12 girder 4 bent 12 has a 4" x 1" hole in web below haunch.
 - **Span 13 girder 2 bent 13 has a 3.5" x 1" hole in web below haunch.
 - **Span 13 girder 3 bent 13 has a 2" x 1" hole in web below haunch.
 - **Span 13 bent 13 bearing 3 has cotter key rusted off or missing and sleeve on center of pin has complete section loss.
 - **Span 14 girder 2 bent 14 has a 7" x 1.5" diameter hole in web below haunch. Bearing has 1 anchor bolt missing.
 - **Span 14 bearings 3 & 4 bent 14 have cotter keys rusted off or missing and sleeve on center of pin has complete section loss.
 - **Span 15 girder 3 bent 15 has a 3" x 1" hole in web below haunch.
 - **Span 15 girder 4 bent 15 has a 3" x 1" hole in web below haunch.
 - **Span 15 girder 5 bent 15 has a 3" x 1" hole in web below haunch.
 - **Span 15 girder 3 bent 16 has a 4" x 1" hole in web below haunch.
 - **Span 15 girder 3 bent 15 has a 3" x 1" hole in web below haunch.
 - **Span 15 girder 4 bent 15 has a 3" x 1" hole in web below haunch.

- **Span 15 girder 5 bent 15 has a 3" x 1" hole in web below haunch.
- **Span 15 girder 3 bent 16 has a 4" x 1" hole in web below haunch.
- **Span 16 girder 1 bent 16 has a 5" x 1" hole in web below haunch.
- **Span 16 girders 2 thru 5 bent 17 have approximately 6' of advanced section loss at bottom flange and bottom 6" of web. Bottom flanges have some beginning to knife edge.
- **Span 16 girder 3 bent 17 has a 5.5" x 1" hole in web below haunch.
- **Span 16 girder 4 bent 16 has a 5" x 1" hole in web below haunch. Bearing has 1 anchor bolt missing.
- **Span 16 girder 5 bent 17 has a 9" x 2" hole in web below haunch, web is beginning to buckle.
- **Span 17 girder 4 bent 17 has a 6" x 1" hole in web below haunch and a 19" x 2" hole in bottom of web 12" from end of girder. Bearing has 1 anchor bolt missing.
- **Span 17 girder 5 bent 17 has a 8" x 1" hole in web below haunch, web is beginning to buckle near hole.
- **Span 17 girder 4 bent 18 has a 2" x 1/2" hole in web at haunch.

Remarks

- *Girders have been repaired this report, observed at inspection, JFA/CWS 06-11-2020
- **Girders have been repaired this report, observed at inspection, TJM/CCP 07/01/2021



Date Reported: 04/19/2012
Priority: C - Important
Type of Work: Repair
Status: Monitor
Component: Deck

Deficiency Description

Deck at Spans 12 – 14 have several spalled areas with some exposed rebar. Wearing surface has several spalls and asphalt patches.

Remarks



Span 13



Span 14



Bridge #03253(Routine)
SH 115-02-LM 16.14 over STRAWBERRY RIVER
Location: 4.0 MI S OF SMITHVILLE
Team Lead: Tim Myrick Inspection Date: July 06, 2021

Date Reported: 04/22/2014
Priority: D- Routine
Type of Work: Clean
Status: Monitor
Component: Superstructure

Deficiency Description

Caps have heavy dirt and debris buildup at bents 12, 13, 15, 16, and 17

Remarks

District 10 Bridge crew have cleaned and repaired Bent 12 bearing , See photo 2021

Date Reported: 04/27/2015
Priority: C - Important

Type of Work: Repair
Status: Monitor
Component: Superstructure

Deficiency Description

Span 1 bent 2 girder 5 has heavy section loss on end with a 9" x 4" hole in web below haunch.*
Span 4 bent 5 girder 2 has ½" diameter holes in web below haunch and at bottom of web 5" from end of girder.
Span 4 bent 5 girder 4 has 1' of moderate section loss along bottom of web. Bottom flange beginning to knife edge.
Span 7 bent 7 girder 5 has a 6" x 2" hole in web below haunch.
Span 11 bent 11 girder 5 has a 5" x 2" hole in web below haunch.
Span 12 bent 12 girder 5 has 8' of advanced section loss on bottom flange and bottom ¼ of web. Bottom flange is knife edged.
Span 13 bent 13 girder 5 has 5" hole in web below haunch. End of web has section loss, beginning to knife edge with some out of plane bending. Bottom flange has section loss and is beginning to knife edge.
Span 14 bent 15 girder 4 has 3.5' of advanced section loss to bottom of web.
Span 14 bent 15 girder 5 has 7' of advanced section loss to bottom of web and bottom flange. Bottom flange is beginning to knife edge.
Span 15 girder 4 bent 16 has a 1" diameter hole in web below haunch.
Girders 2 – 5 over bent 17 have approx. 6' of advanced section loss at bottom flange and bottom 6" of web.
List of C priority have been repaired.
C**Span 4 girder 4 bent 5 has 1' of moderate section loss along bottom of web. Bottom flange has heavy section loss.
C**Span 7 girder 5 bent 7 has a 6" x 2" hole in web below haunch.
C**Span 11 bent 11 girder 5 has a 5" x 2" hole in web near haunch.
Span 11 girder 3 bent 12 has plates welded over hole in web below haunch.
C**Span 12 girder 5 bent 12 has 8' of advanced section loss on bottom flange and bottom ¼ of web with a 3" x 4" hole in web near haunch.
C**Span 13 girder 5 bent 13 has 5" hole in web below haunch. End of web has heavy section loss and out of plane bending. Bottom flange has heavy section loss at utility connection
C**Span 13 girder 5 bent 13 has 5" hole in web below haunch. End of web has heavy section loss and out of plane bending. Bottom flange has heavy section loss at utility connection
C**Span 13 girder 5 bent 13 has 5" hole in web below haunch. End of web has heavy section loss and out of plane bending. Bottom flange has heavy section loss at utility connection

Remarks

**Girders repaired as observed this inspection TJM/CCP 7/01/2021





Bridge #03253(Routine)

SH 115-02-LM 16.14 over STRAWBERRY RIVER

Location: 4.0 MI S OF SMITHVILLE

Team Lead: Tim Myrick Inspection Date: July 06, 2021





Span 13 Bent 13 Girder 5







Span 11 bent 11 girder 5



Span 7 bent 7 girder 5

Date Reported: 05/23/2017
Priority: B - Pressing; 6 month completion goal
Type of Work: Repair
Status: Assigned
Component: Superstructure

Deficiency Description

Span 5 bent 6 girder 2 has a 7" x 1" hole in bottom of web 4.5" from end of girder.

Span 7 girder 4 bent 8 has 1.5 ft. of heavy section loss along bottom of web. Bottom flange has heavy section loss on right side of flange with a 1 in. x 5 in. hole in flange.

Span 9 bent 10 girder 2 has heavy section loss along bottom of web with a 5" crack 4" from the end of girder.

Right flange has a 1 in diameter hole in flange.

Span 11 girder 4 bent 11 has section loss along bottom of web with a 1 in. hole near haunch.. Bottom flange has heavy section loss for 6 in. near bearing on both sides with a 1 in. hole in flange.

Span 12 bent 12 bearings have advanced section loss and are frozen from corrosion. Rocker pins have some lateral movement. Bearings are bouncing under traffic. Span 12 is a 1/2" lower at the road iron than Span 11.

Span 17 bent 17 girder 4 has a 6" x 1" hole in web below haunch and a 19" x 2" hole in bottom of web 12" from end of girder.

List of B priority that have been repaired.

B**Span 5 girder 2 bent 6 has a 7" x 1" hole in bottom of web 4.5" from end of girder.

B**Span 7 girder 4 bent 8 has 1.5' of heavy section loss along bottom of web. Bottom flange has heavy section loss on right side of flange with a 1" x 5" hole in flange

B**Span 9 girder 2 bent 10 has plates welded over hole in web below haunch. Bottom of web has heavy section loss with a 5" x 1" along bottom of web 4" from the end of girder. Right flange has a 1" diameter hole in flange.

B**Span 11 girder 4 bent 11 has section loss along bottom of web with a 1" hole near haunch. Bottom flange has heavy section loss for 6" near bearing on both sides with a 1" hole in flange.

B**Span 12 bent 12 bearings have advanced section loss and are frozen from corrosion. Rocker pins have some lateral movement. Bearings are bouncing under traffic. Span 12 is a 1/2" lower at the road iron than Span 11. Span 12 bent 12 girder portion of bearing has 1" of section loss on hole for pin connection.

Remarks

Bridge Crew busy on other repairs - will schedule this work later - KAW

**Girders repaired as observed this inspection TJM/CCP 07/01/2021





Bridge #03253(Routine)

SH 115-02-LM 16.14 over STRAWBERRY RIVER

Location: 4.0 MI S OF SMITHVILLE

Team Lead: Tim Myrick Inspection Date: July 06, 2021





Span 9 bent 10 girder 2 2019



Span 16 bent 17 girder 5 2019





Bridge #03253(Routine)
SH 115-02-LM 16.14 over STRAWBERRY RIVER
Location: 4.0 MI S OF SMITHVILLE
Team Lead: Tim Myrick Inspection Date: July 06, 2021



Span 12 bent 12 bearing 2 (pic 2).



Span 17 bent 17 girder 4 2019





Span 5 bent 6 girder 2 2019



Span 12 bent 12 bearing 2 2019



Span 9 bent 10 girder 2



Span 11 bent 11 girder 4



Span 17 bent 17 girder 4



Span 12 Bent 12 bearing 4 2020



Deck Notes

Inspected with snoopers 07-06-2021

Bridge rail posts have a few cracks and spalls with exposed rebar.

Spans 12, 13 & 14 have several spalled areas with some exposed rebar.

Wearing surface has several spalls and asphalt patches, especially spans 12, 13 & 14.

Soffit has several efflorescent cracks at left and right overhangs. Overhangs have a few minor spalls, some with exposed rebar.

Superstructure Notes

Ends of girders have rust with areas of section loss ($1/8"$ - $1/4"$), especially near concrete haunch, several have holes rusted through.

Exterior girders have areas of $1/8"$ to $1/4"$ section loss below drains especially spans 13, 14, & 15 bottom flange. Exterior girder on right side of bridge has rust and areas of section loss at utility connections.

Rocker bearings have pack rust with section loss, especially Bent 13 Bearing 2-4.

Several anchor bolts are missing.

Span 3 bent 4 bearings 2 and 4 are each missing 1 anchor bolt.

Span 7 bent 8 bearing 2 has 1 anchor bolt missing.

Span 12 girder 2 bent 12 bearing is missing 1 anchor bolt.

Span 13 bent 13 bearing 4 has 2 anchor bolts missing.

Span 16 girder 4 bent 16 bearing is missing 1 anchor bolt.

Span 17 girder 4 bent 17 bearing is missing 1 anchor bolt.

Span 1 bent 1 girders 2 - 4 were T spliced in 2014.

Span 1 girders 1, 3, & 5 at bent 2, Span 2 bent 2 girders 1, 3, 4, & 5, span 2 bent 3 girders 1, 3, & 5, span 3 girders 1, 3, 4, & 5 at bent 3 have been repaired since previous inspection with T-splices.

Several haunch repairs made in the past.

Span 6 girders 3 & 4 bent 7 have plates welded over holes in web below haunch.

Span 7 girder 2 bent 7 has plates welded over hole in web below haunch.

Span 8 girder 2 bent 9 has plates welded over hole in web below haunch.

Span 9 girders 2-4 bent 9 have plates welded over holes in web below haunch.

Span 10 girder 4 bent 11 has plates welded over hole in web below haunch.

Span 11 girders 2-4 bent 11 have plates welded over holes in web below haunch.

List of remaining girders with hole in web at bottom flange or at haunch areas.

Span 1 girder 1 bent 1 has approximately 10' of moderate to heavy section loss along bottom of web with holes to web.

Span 1 girder 2 bent 1 has a 3.5" x 1" hole in web below haunch.

Span 1 girder 3 bent 1 has a 5" x 1" hole in web below haunch.

Span 1 girder 4 bent 1 has 3" x 1" hole in web below haunch.

Span 1 bent 1 girder 5 has 1' on end with $1/8"$ section loss with 1" diam. Hole in web at haunch.

Span 7 girder 3 bent 7 has a 2" x 1" hole in web below haunch.

Span 13 girder 1 Bent 13 has 2" x 1" hole at haunch.

Span 13 girder 4 Bent 13 has 1" x $1/2"$ hole at haunch.

Span 13 girder 4 Bent 13 has 3" x 2" hole at haunch.

Span 14 girder 1 bent 14 has 2" diameter hole at haunch.

Span 14 girder 4 bent 14 has 1" diameter hole at haunch.

Span 14 bent 14 girder 5 end of girder has heavy section loss.

Span 17 girders 2-4 bent 18 were T spliced in 2014.

Span 17 girder 4 bent 18 has 4" diameter hole at haunch.

List of priority B girders repaired haunch



Bridge #03253(Routine)

SH 115-02-LM 16.14 over STRAWBERRY RIVER

Location: 4.0 MI S OF SMITHVILLE

Team Lead: Tim Myrick Inspection Date: July 06, 2021

**Span 3 girder 1 bent 4 has a 2" x 1" hole in web below haunch.
**Span 3 girder 2 bent 4 has a 5" x 1" hole in web below haunch.
**Span 3 girder 2 bent 4 is floating, 1/8" gap between bearing plates.
**Span 3 girder 3 bent 4 has a 1.5" x 1/2" hole in web below haunch.
**Span 4 girder 2 bent 5 has a 1/2" diameter hole in web below haunch. Bottom of web has a 1/2" hole 5" from end of girder.
**Span 4 girder 3 bent 5 has a 2" x 1/2" hole in web below haunch.
**Span 5 girder 2 bent 5 has a 1/2" hole in web below haunch
**Span 6 girder 1 bent 6 has a 1/2" diameter hole in web below haunch.
**Span 6 girder 3 bent 6 has a pin hole in web below haunch.
**Span 6 girder 4 bent 6 bottom flange has heavy section loss.
**Span 6 girder 1 bent 7 has a 2" x 3" hole in web below haunch.
**Span 6 girder 2 bent 7 has a 1" diameter hole in web below haunch and 1.5' of heavy section loss along bottom flange.
**Span 7 girder 2 bent 8 was repaired with a T splice in 2014. Bearing is floating with 1/8" gap at bearing.
**Span 8 girder 1 bent 8 has a 3" diameter hole in web below haunch.
**Span 8 girder 1 bent 9 has a 1" diameter hole in web below haunch.
**Span 8 girder 3 bent 9 has a 2" diameter hole in web below haunch.
**Span 9 girder 5 bent 9 has section loss on bottom flange and bottom of web near utility connection.
**Span 9 girder 1 bent 10 has 4' of section loss along bottom of web.
**Span 9 girder 3 bent 10 has a 1" diameter hole in web below haunch.
**Span 9 girder 5 bent 10 has a 7" x 1" hole in web below haunch.
**Span 10 girder 1 bent 10 has a 3" x 1" hole in web below haunch.
**Span 10 girder 2 bent 10 has a 3.5" x 1" hole in web below haunch.
**Span 10 girder 5 bent 10 has a 3" x 1" hole in web below haunch.
**Span 10 girder 2 bent 11 has a 3" x 1" hole in web below haunch.
**Span 11 girder 1 bent 12 has a 2" x 1" hole in web below haunch.
**Span 11 girder 4 bent 12 has a 4" x 1" hole in web below haunch.
**Span 12 girder 2 bent 12 has a 3" x 1" hole in web below haunch. Bearing has 1 anchor bolt missing.
**Span 12 girder 4 bent 12 has a 4" x 1" hole in web below haunch.
**Span 13 girder 2 bent 13 has a 3.5" x 1" hole in web below haunch.
**Span 13 girder 3 bent 13 has a 2" x 1" hole in web below haunch.
**Span 13 bent 13 bearing 3 has cotter key rusted off or missing and sleeve on center of pin has complete section loss.
**Span 14 girder 2 bent 14 has a 7" x 1.5" diameter hole in web below haunch. Bearing has 1 anchor bolt missing.
**Span 14 bearings 3 & 4 bent 14 have cotter keys rusted off or missing and sleeve on center of pin has complete section loss.
**Span 15 girder 3 bent 15 has a 3" x 1" hole in web below haunch.
**Span 15 girder 4 bent 15 has a 3" x 1" hole in web below haunch.
**Span 15 girder 5 bent 15 has a 3" x 1" hole in web below haunch.
**Span 15 girder 3 bent 16 has a 4" x 1" hole in web below haunch.
**Span 15 girder 3 bent 15 has a 3" x 1" hole in web below haunch.
**Span 15 girder 4 bent 15 has a 3" x 1" hole in web below haunch.
**Span 15 girder 5 bent 15 has a 3" x 1" hole in web below haunch.
**Span 15 girder 3 bent 16 has a 4" x 1" hole in web below haunch.
**Span 16 girder 1 bent 16 has a 5" x 1" hole in web below haunch.
**Span 16 girders 2 thru 5 bent 17 have approximately 6' of advanced section loss at bottom flange and bottom 6" of web. Bottom flanges have some beginning to knife edge.
**Span 16 girder 3 bent 17 has a 5.5" x 1" hole in web below haunch.
**Span 16 girder 4 bent 16 has a 5" x 1" hole in web below haunch. Bearing has 1 anchor bolt missing.
**Span 16 girder 5 bent 17 has a 9" x 2" hole in web below haunch, web is beginning to buckle.
**Span 17 girder 4 bent 17 has a 6" x 1" hole in web below haunch and a 19" x 2" hole in bottom of web 12" from end of girder. Bearing has 1 anchor bolt missing.
**Span 17 girder 5 bent 17 has a 8" x 1" hole in web below haunch, web is beginning to buckle near hole.
**Span 17 girder 4 bent 18 has a 2" x 1/2" hole in web at haunch.
Several concrete caps have minor cracks.

List of C priority have been repaired.

C**Span 4 girder 4 bent 5 has 1' of moderate section loss along bottom of web. Bottom flange has heavy section loss.

C**Span 7 girder 5 bent 7 has a 6" x 2" hole in web below haunch.

C**Span 11 bent 11 girder 5 has a 5" x 2" hole in web near haunch.

Span 11 girder 3 bent 12 has plates welded over hole in web below haunch.

C**Span 12 girder 5 bent 12 has 8' of advanced section loss on bottom flange and bottom 1/4 of web with a 3" x 4" hole in web near haunch.

C**Span 13 girder 5 bent 13 has 5" hole in web below haunch. End of web has heavy section loss and out of plane bending.



Bridge #03253(Routine)

SH 115-02-LM 16.14 over STRAWBERRY RIVER

Location: 4.0 MI S OF SMITHVILLE

Team Lead: Tim Myrick Inspection Date: July 06, 2021

Bottom flange has heavy section loss at utility connection

C**Span 13 girder 5 bent 13 has 5" hole in web below haunch. End of web has heavy section loss and out of plane bending.

Bottom flange has heavy section loss at utility connection

C**Span 13 girder 5 bent 13 has 5" hole in web below haunch. End of web has heavy section loss and out of plane bending.

Bottom flange has heavy section loss at utility connection

List of B priority that have been repaired.

B**Span 5 girder 2 bent 6 has a 7" x 1" hole in bottom of web 4.5" from end of girder.

B**Span 7 girder 4 bent 8 has 1.5' of heavy section loss along bottom of web. Bottom flange has heavy section loss on right side of flange with a 1" x 5" hole in flange

B**Span 9 girder 2 bent 10 has plates welded over hole in web below haunch. Bottom of web has heavy section loss with a 5" x 1" along bottom of web 4" from the end of girder. Right flange has a 1" diameter hole in flange.

B**Span 11 girder 4 bent 11 has section loss along bottom of web with a 1" hole near haunch. Bottom flange has heavy section loss for 6" near bearing on both sides with a 1" hole in flange.

B**Span 12 bent 12 bearings have advanced section loss and are frozen from corrosion. Rocker pins have some lateral movement. Bearings are bouncing under traffic. Span 12 is a 1/2" lower at the road iron than Span 11. Span 12 bent 12 girder portion of bearing has 1" of section loss on hole for pin connection.

Substructure Notes

Several concrete caps have minor cracks.

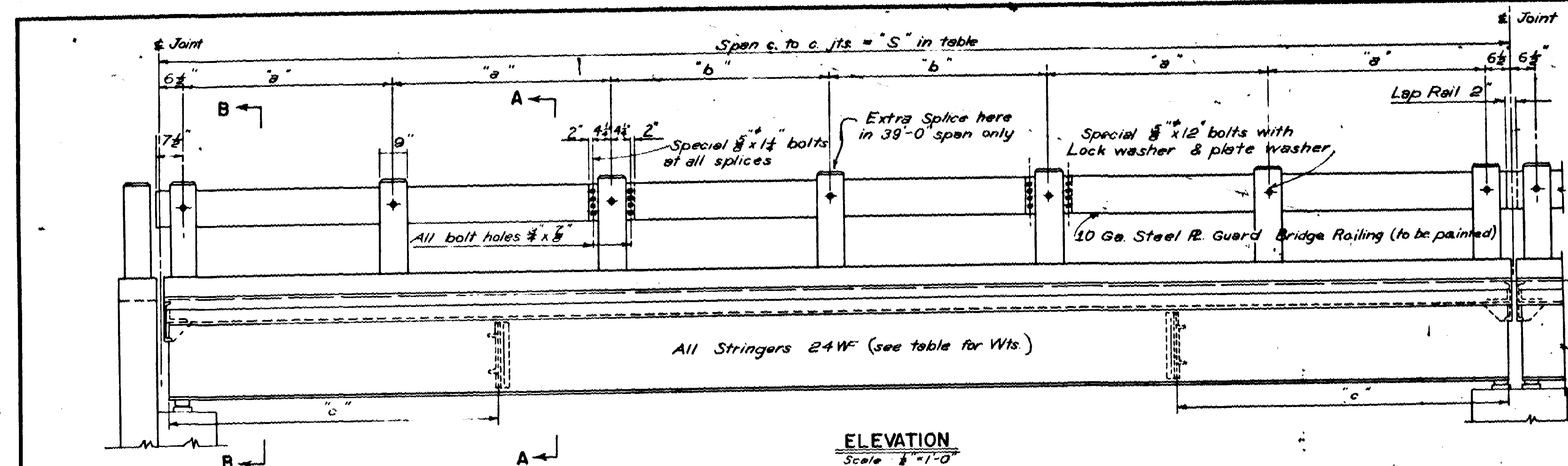
Bent 12 cap has heavy buildup of dirt on span 12 side at bearing seat. Clean and replaced bearings , see photo 2021.

Bent 14 column 1 has several small spalls with exposed rebar. Caps have heavy dirt and debris buildup at bents 12, 13, 15, 16, and 17.

Minor drift at bent 14.

Load Rating

NEW CALCULATED POSTING RECOMMENDATIONS ARE WITH IN TOLERANCE OF THE EXISTING CALCULATIONS.



LIST OF REINFORCING STEEL

Mark	Size	No. in Each Span					Length	Pin Dia.
		35	36	37	38	39		
S ₁	"5	56	58	60	62	64	25'-0"	5/8"
S ₂	"5	27	28	29	30	31	25'-0"	1/2"
S ₃	"4		47				5'-5"	5/8"
S ₄	"4	56	58	60	62	64	4'-5"	1/2"
S ₅	"4	54	56	58	60	62	3'-0"	1/2"
P0 ₁	"5				28		5'-4"	1/2"
P0 ₂	"3				42		2'-8"	1/4"

Bending Diagram

Dimensions are to centers of bars.

- Non Pay Item

GENERAL NOTES

All concrete to be Class S. All exposed corners to have $\frac{1}{4}$ " chamfer unless otherwise noted. Field Connections for diaphragms to be riveted or bolted with high strength bolts.

Rivets - $\frac{3}{4}$ " Open holes if $\frac{1}{4}$ " except as noted otherwise.

Structural shapes or angles of greater strength may be substituted for shapes shown but payment will be made on basis of shapes shown or those actually used, whichever is the lesser.

All welded connections to be $\frac{1}{4}$ " fillet shop welds except as noted. All welding shall conform to the American Welding Society Standard Specifications for Welded Highway & Railway Bridges, 5th Edition 1936.

Shop Paint - All structural steel, except surfaces in contact with concrete shall be given one coat of red lead and raw linseed oil before shipment.

Field Paint - 1st Coat - Red lead tinted with lamp black.

2nd Coat - Aluminum Paint

All bearing plates and roadway expansion devices to be paid for as "Structural Steel in Beam Spans".

Bearings shall be finally seated in a manner set forth by the Specifications.

This work and material are to be considered as subsidiary to the item "Structural Steel in Beam Spans" and will not be paid for directly.

This drawing shows general features of design only. Shop drawings shall be made in accordance with the Specifications, submitted and approved secured before fabrication is begun.

In order to secure a good riding surface it will be required that the Floor slab be struck off from curb to curb with a full span length longitudinal strike-off. The strike-off shall be sufficiently stiff so as to have no appreciable vertical deflection.

Reinforcing steel to be deformed bars of intermediate or hard grade; see Special Provisions. Steel to be accurately located in the forms and firmly held in place by means of steel wire supports, sufficient in number and size to prevent displacement during the course of construction and to keep the steel a proper distance from the forms. 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 approved secured before fabrication is begun.

Handrail to be steel plate guard bridge railing of the type shown or an equivalent rigid type as approved by the Engineer. The rail including posts and fastenings shall be paid for at the unit price bid per linear foot for Steel R. Guard Bridge Railing.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction, adopted March 1, 1940.

Loading H15 (AASHTO 1957)

Dead Load = 760 $\frac{lb}{ft}$ + (Wt. per ft. of WF used) — Outside Stringers
Truck Live Load = 0.90 wheels
Dead Load = 546 $\frac{lb}{ft}$ + (Wt. per ft. of WF used) — Inside Stringers
Truck Live Load = 1.1 wheels

Unit Stresses:

Structural Steel	18,000 psi
Reinforcing Steel	20,000 psi
Class S Concrete ($n=10$)	1,200 psi

REVISIONS

REVISIONS
Changed-camber diagram W.W.M. 6-26-54

DETAILS OF STANDARD

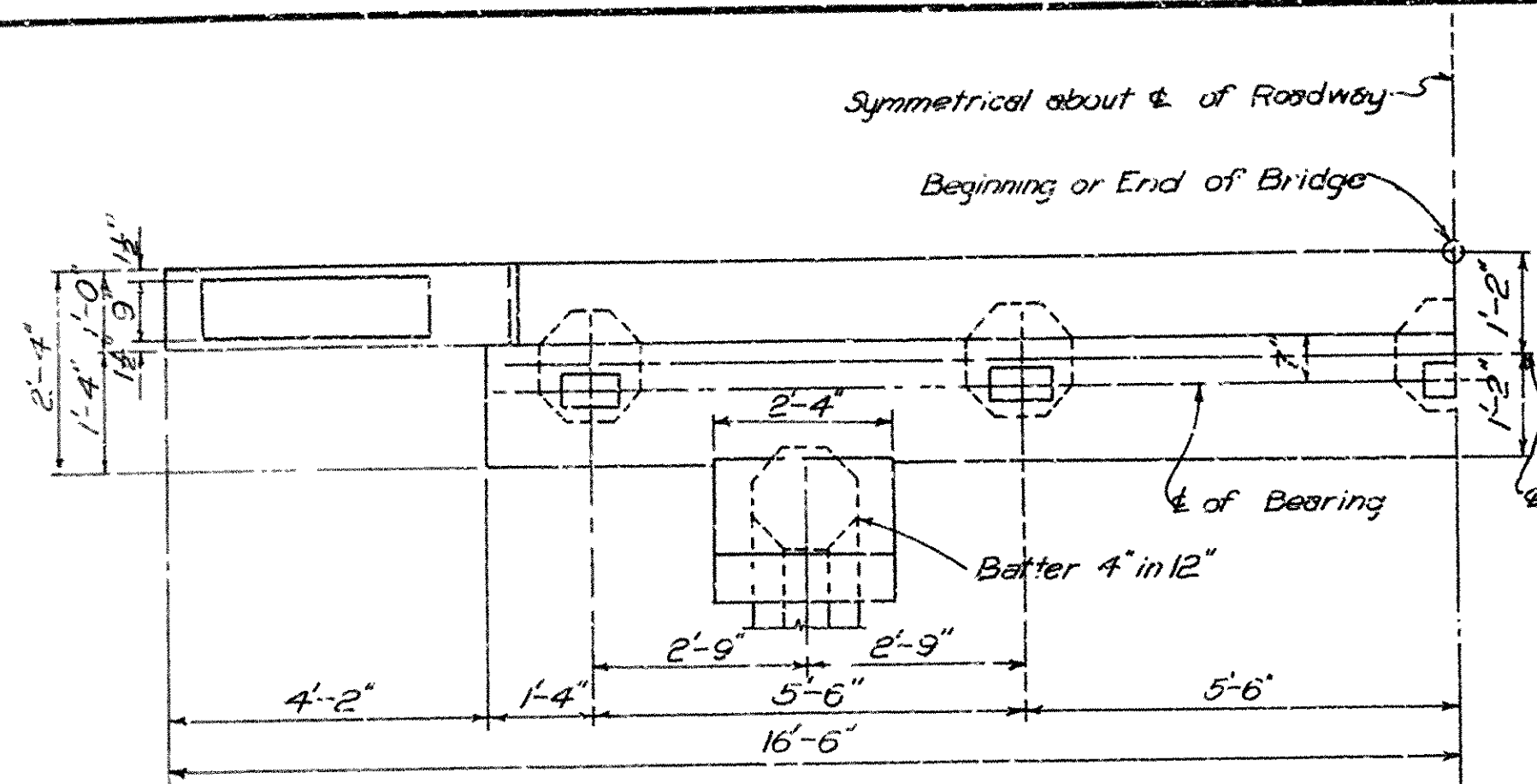
35'-39' I-BEAM SPANS
24'-0" CLEAR RDWY. 1'-0" CURBS

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

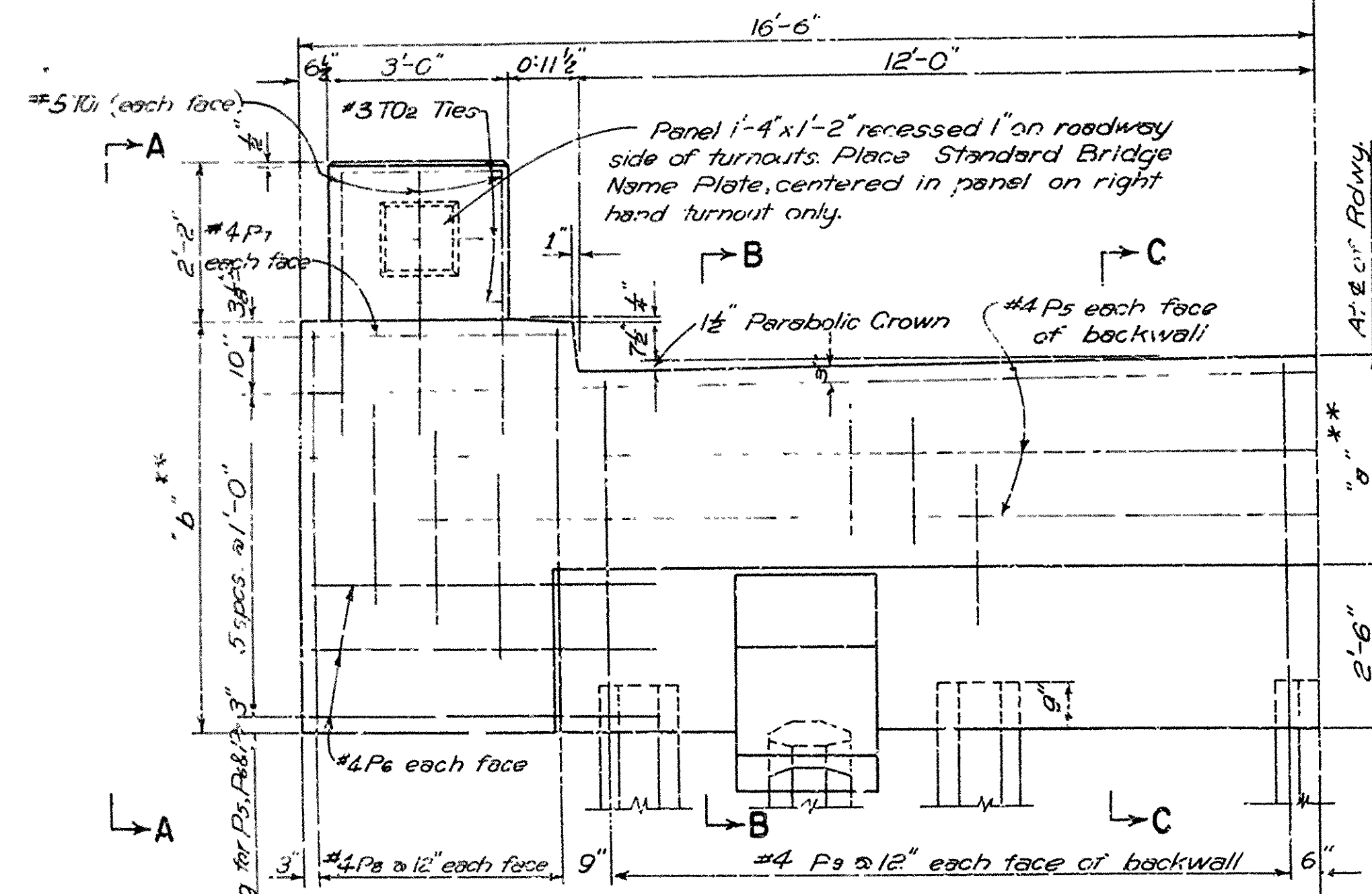
Drawn By: W.W.M. Date: 12-20-52
Traced By: L.W.H. Date: 5-9-55 Checked By: ERH/10 Scale: as noted

Checked By: Date:
BRIDGE NO. DRAWING NO. 5500

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
0	ARK.				
STATE JOB NO.					

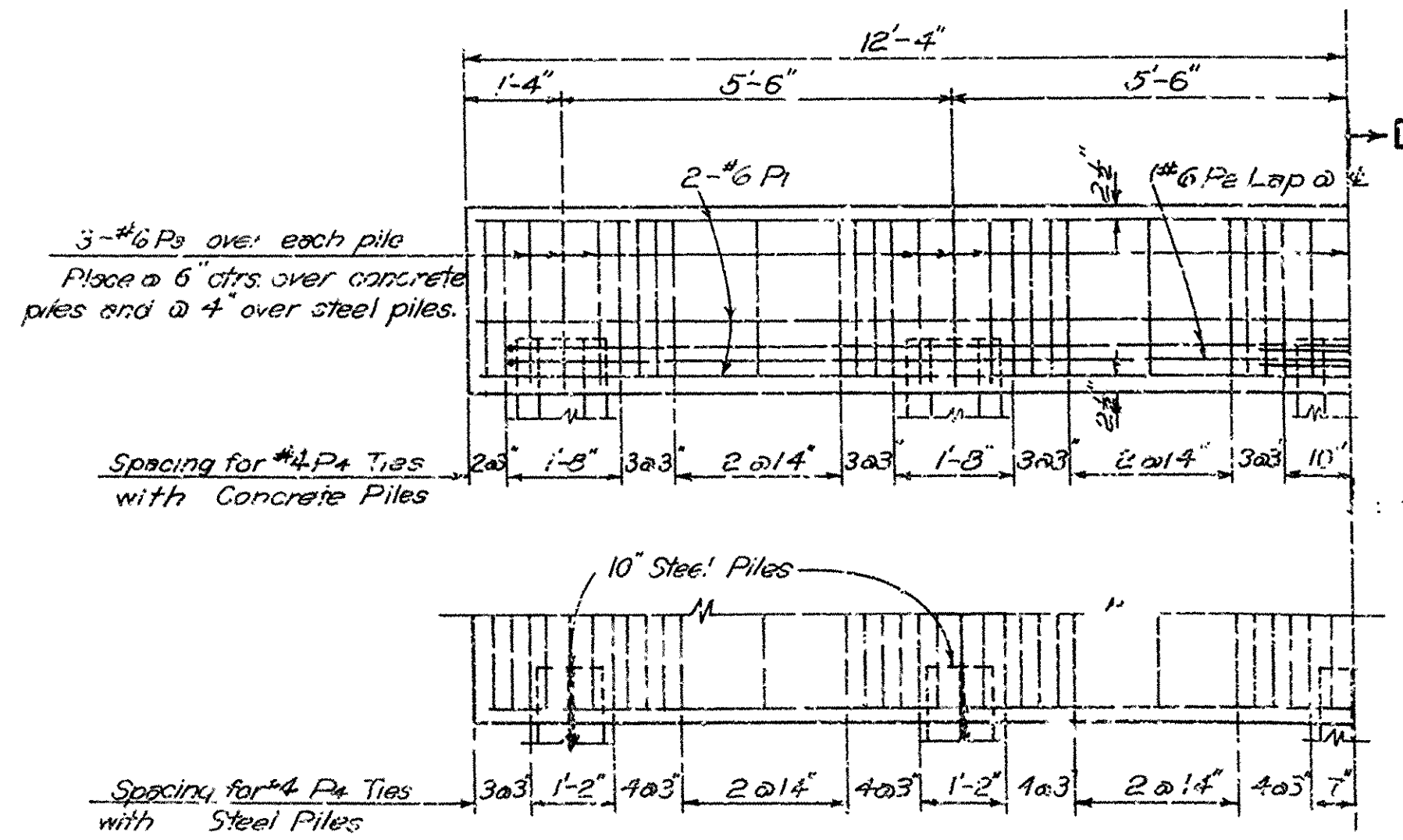


HALF PLAN OF END BENT



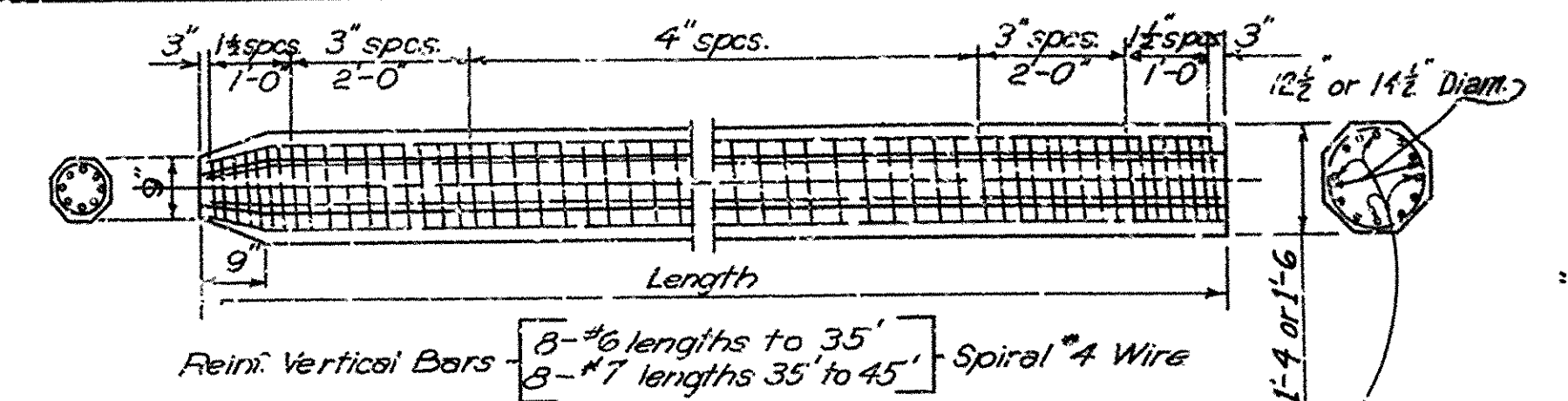
HALF ELEVATION END BENT

Cap reinforcing same as shown for Intermediate Bent



HALF ELEVATION INTERMEDIATE BENT

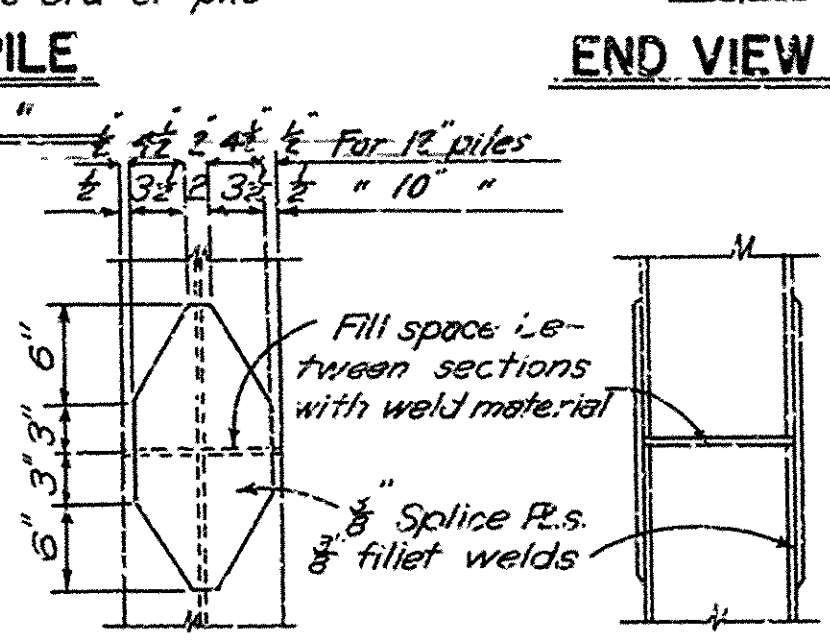
(other reinf. same as above)



DETAILS OF 16" PRECAST CONCRETE PILE

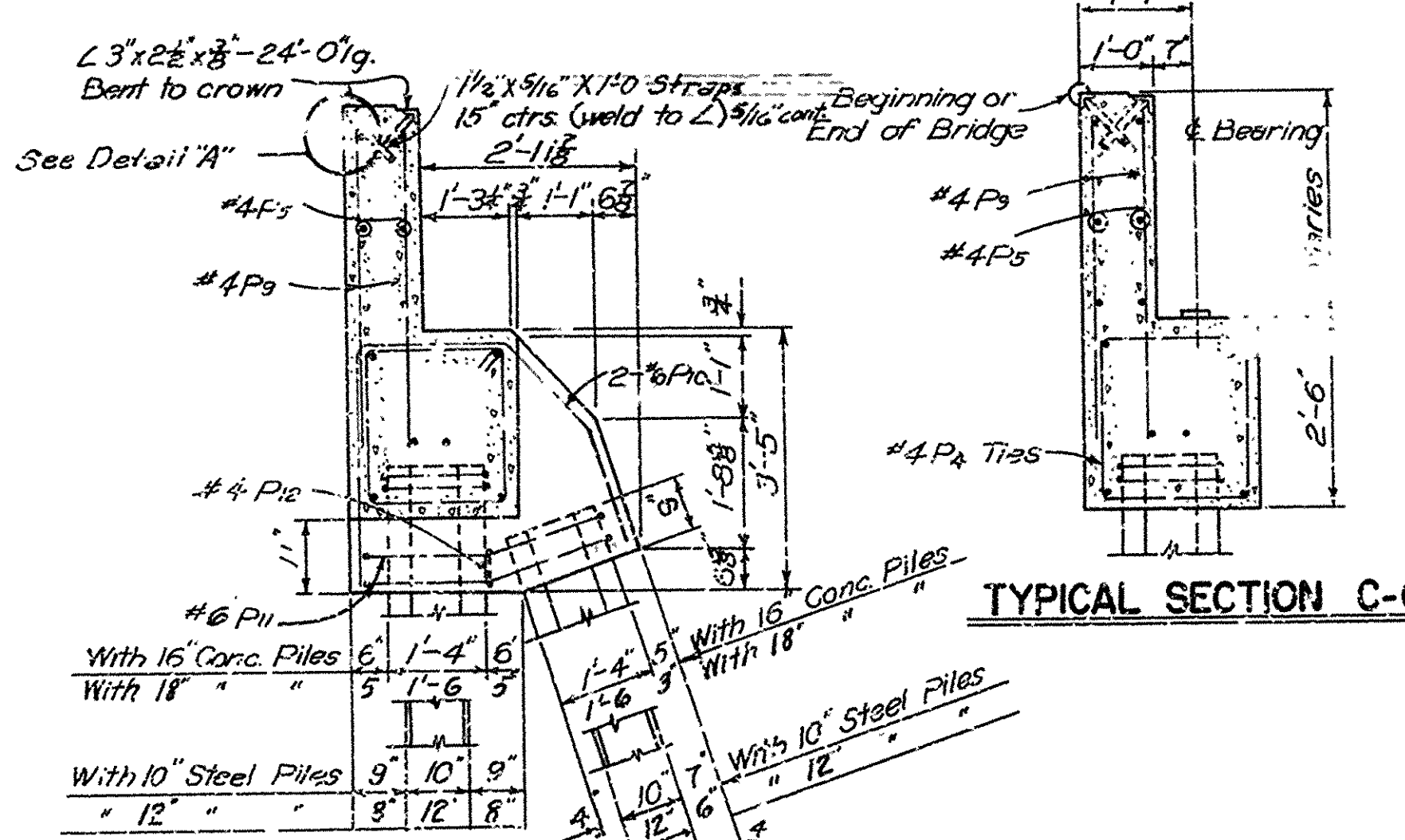
LIST OF VARIABLES **

Span	Vertical Dimensions	a'	b'	c'
46'	3'-2 3/4"	5'-7 1/2"	3'-6 3/4"	
47'	"	"	"	
48'	"	"	"	
49'	"	"	"	
50'	"	"	"	
51'	"	"	"	
52'	"	"	"	
53'	"	"	"	
54'	3'-2 1/4"	6'-4 1/4"	3'-6 1/4"	
55'	"	"	"	



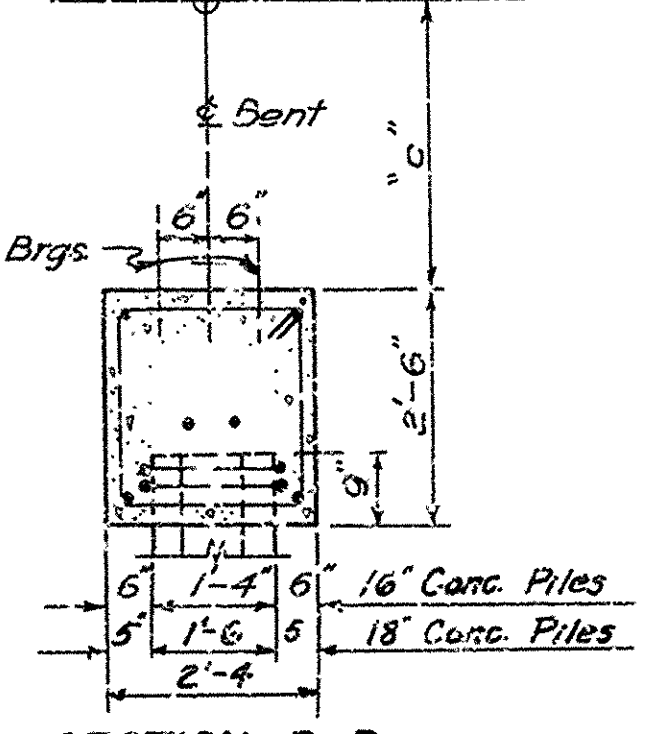
STEEL PILE SPLICE DETAILS

Scale: 1" = 1'-0"
Generally all piles shall be driven full length and shall not be spliced except by permission of the Engineer.



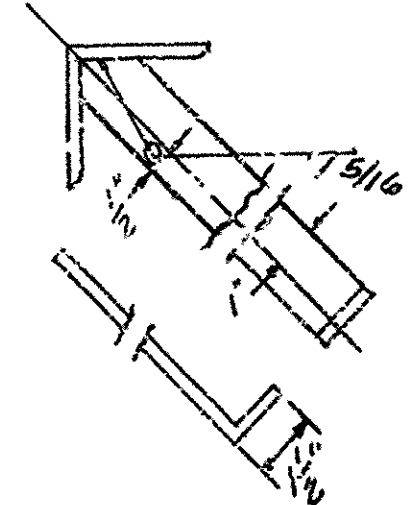
SECTION B-B AT BATTER PILES

Deck Elev. & of Rdwy.



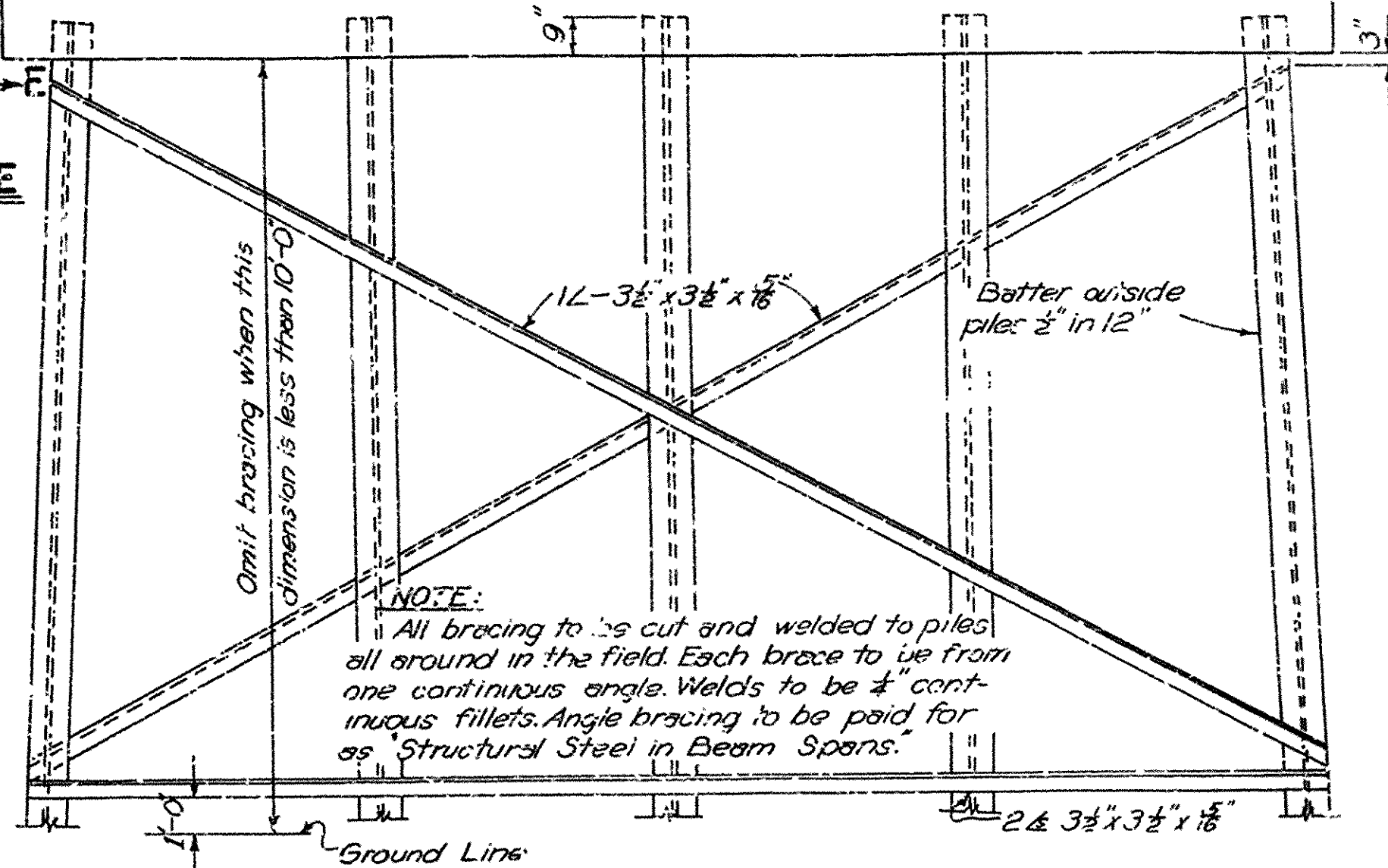
SECTION D-D

(Showing conc. pile)



Detail A (typ)
Scale: 3" = 1'-0"

END VIEW E-E



TYPICAL BRACING INTERMEDIATE BENT

Scale: 3" = 1'-0"

LIST OF REINFORCING STEEL

NO.	SIZE	NO. IN BENTS	LENGTH	BENDING DIAGRAM	
				INT.	EXT.
P1	6	6	24'-4"	Str.	13'-2" for 16" pile
P2	4	4	27'-5"	Str.	13'-1" for 16" pile
P3	15	15	6'-2"	Str.	4'-2" p.d.
P4	40	40	8'-11"	Str.	4'-2" p.d.
P5	6	6	32'-5"	Str.	1'-11"
P6	12	12	5'-8"	Str.	1'-9"
P7	4	4	4'-2"	Str.	1'-9"
P8	20	20	5'-0"	Str.	1'-9"
P9	48	48	4'-6"	Str.	2'-4" p.d.
P10	6	4	7'-10"	Str.	1'-11"
P11	4	4	11'-2"	Str.	2'-9"
P12	4	2	5'-3"	Str.	1'-11"
P13	5	12	4'-0"	Str.	1'-11"
P14	3	6	6'-11"	Str.	1'-11"

Dimensions are to ctrs. of bars.

** 50 Bars, if steel piles are used.

NOTES

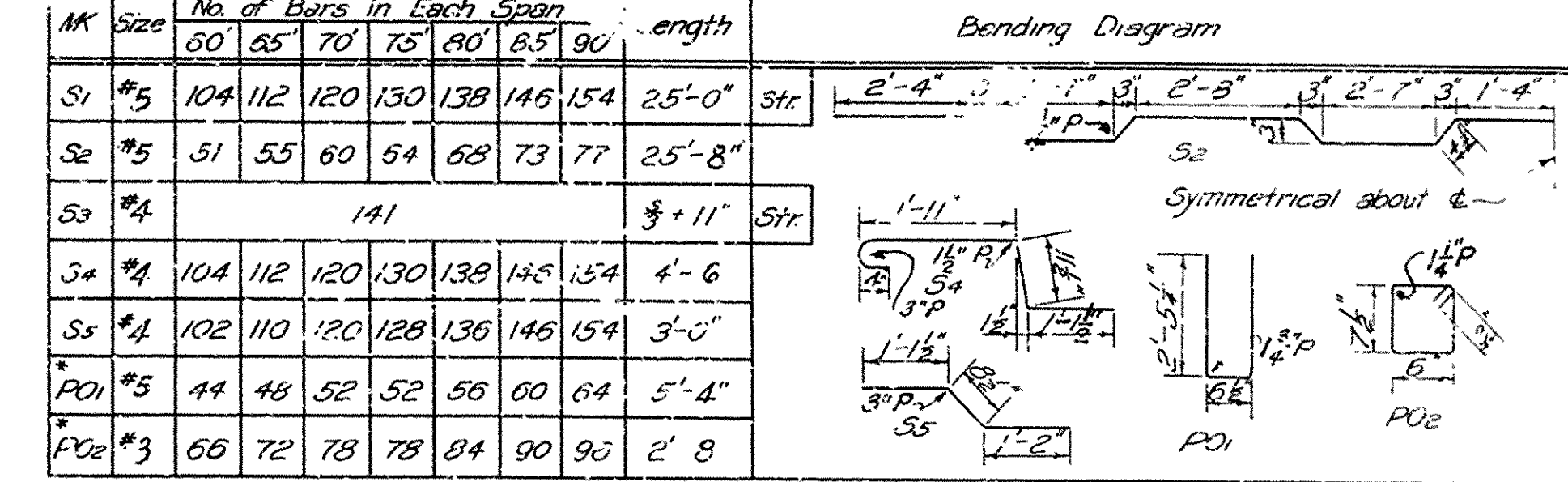
Steel Piles are to be driven to refusal. Concrete Piles to be driven to a minimum capacity of 34 Tons.
For Details of Superstructure and for General Notes, see Dwg. No. 5500 L.
Use type of pile called for on Bridge Layout.

Revised to include 18" Piles - 9-21-54 WWM
Revised to include 12" " 10-10-55 WWM
Revised to include Pile for 18" piles - 7-17-57 REC
Revised: Cure dimensions, bar numbers & shapes E.R.B. 11-5-57
Added detail A. E.R.B. 11-7-57
Revised Curb Widths 4-25-58 K.E.C.

DETAILS OF
STANDARD PILE BENTS
46' TO 55' I-BEAM SPANS
24'-0" CLF R RDWY. 1'-0" CURBS

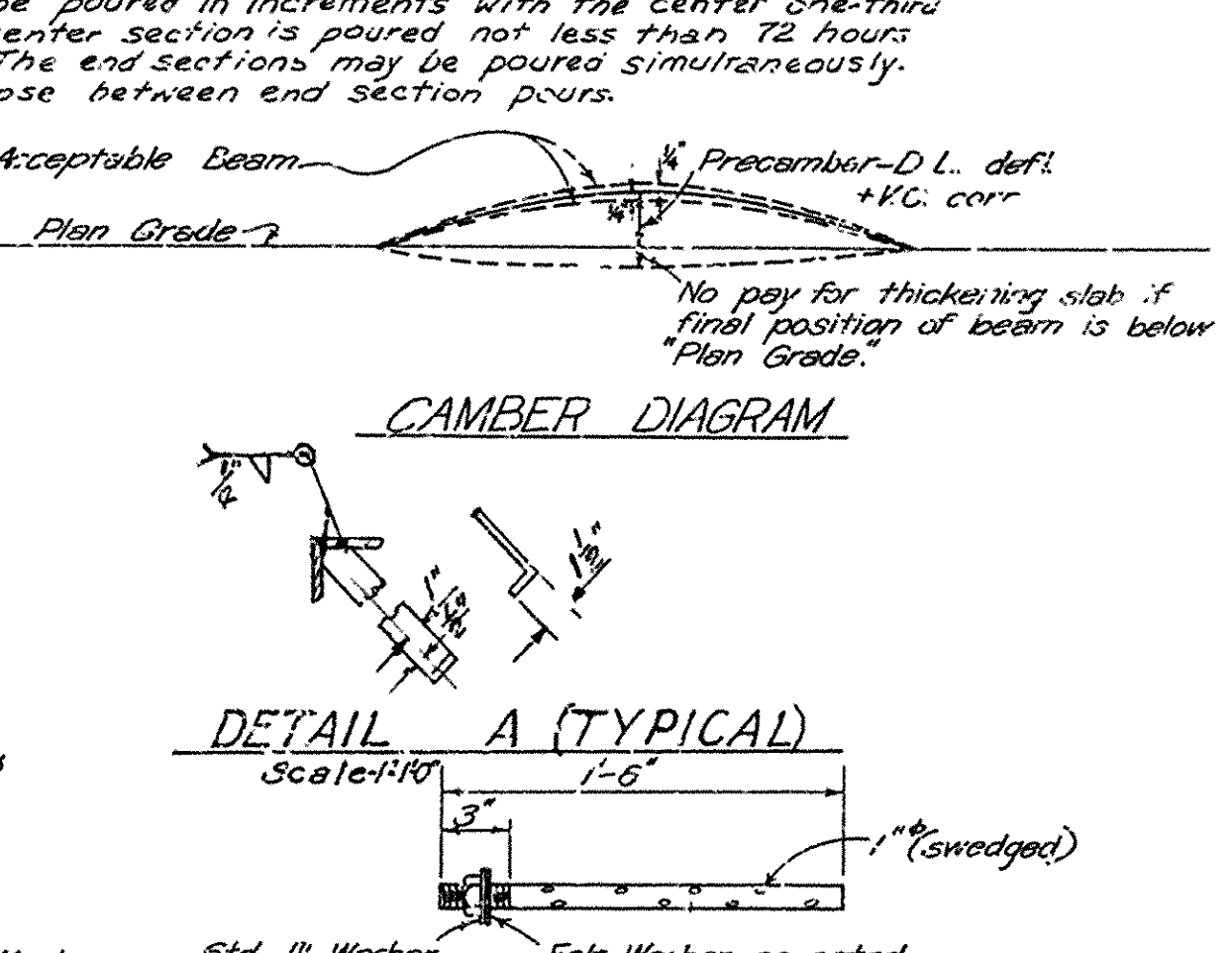
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

Drawn By: WWM Date: 2-27-53
Traced By: LWH Date: 3-2-54
Checked By: LWH Date: 3-2-54
BRIDGE NO. DRAWING NO. 5500H

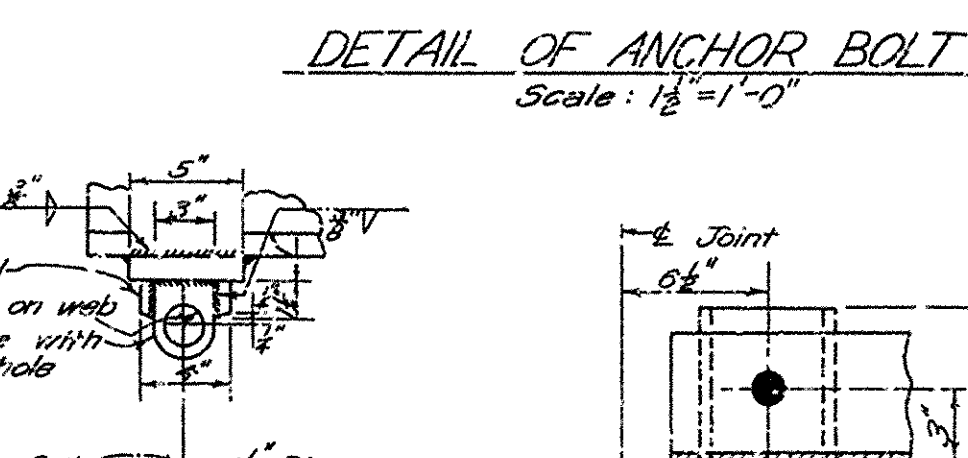


GENERAL NOTES

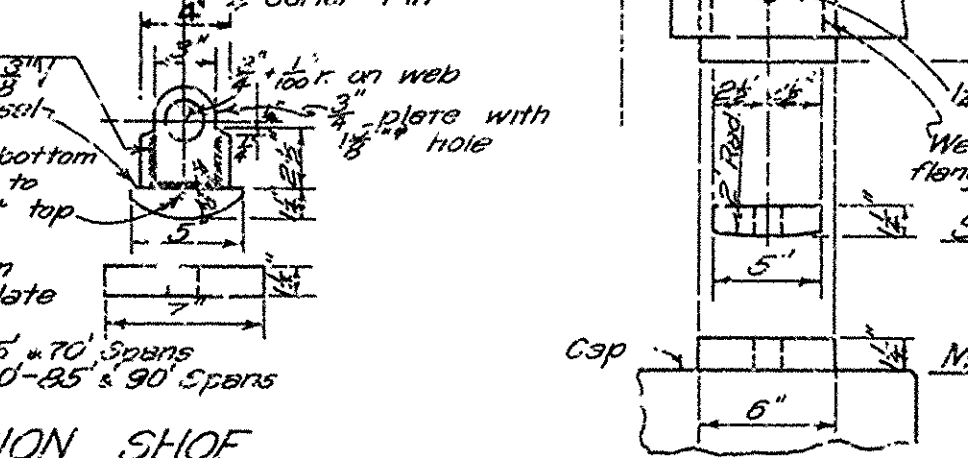
This drawing shows general features of design only. Shop drawings shall be made in accordance with the Specifications submitted and a, proved, secured before fabrication is begun.



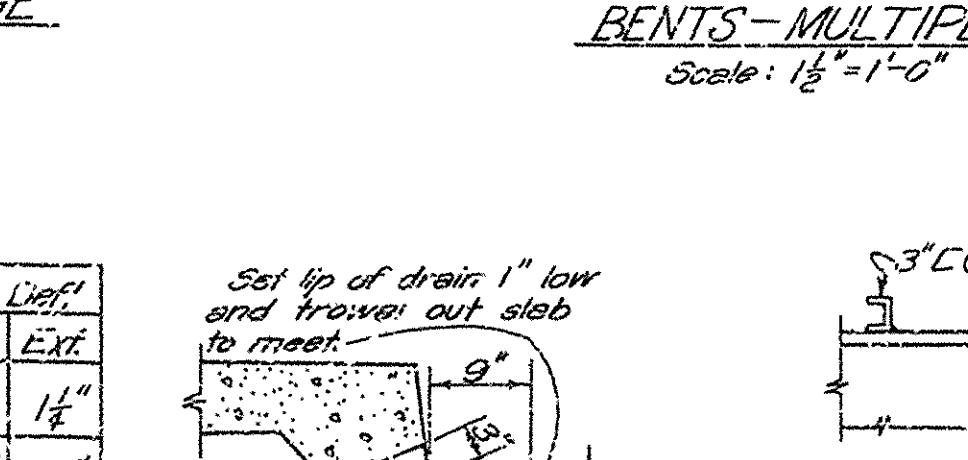
DETAIL OF ANCHOR BOLT
Scale: 1" = 1'-0"



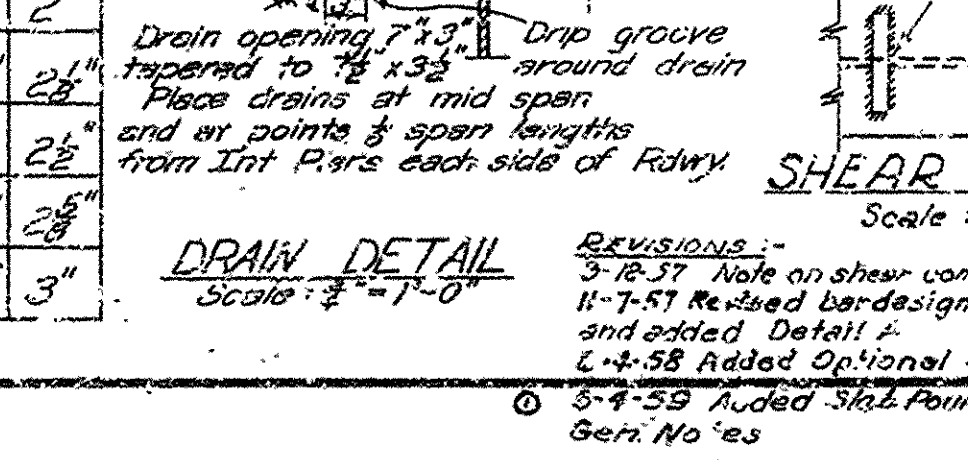
$\frac{3}{4} + \frac{1}{100}$ on web



BENTS - MULTIPLE
Scale: $1\frac{1}{2}" = 1'-0"$



opening 7" x 3" Drip groove
red to 7/8" x 3/4" around drain



Set lip of drain 1" low and fraivol out slab to meet.

9"

3" L⁶ 6"

Drain opening 7x13 Drip groove tapered to 1/2 x 3/4 around drain

Place drains at mid span and/or points & span lengths from Int Piers each side of Rdwy.

DRAIN DETAIL

Scale: $\frac{1}{2}'' = 1'-0''$

REVISIONS:-

3-10-57 Note on shear connectors
11-7-57 Revised designation

J.L.H.

L.own By: G.W.B. Date: 8-30-55
 Traced By: L.W.H. Date: 8-10-56
 Checked By: J.H.K. Date: 9-22-55
 J.E.M. 8-11-56

Scale: $\frac{1}{2}$ " in. = 1 ft.
Except as Noted

BRIDGE NO. DRAWING NO. 5500P

from Int. Pairs each side of Rdwy. SHEAR CONNECTORS
Scale: $\frac{1}{4}'' = 1'-0''$

DRAWING DETAIL REVISIONS:-
Scale: $\frac{1}{4}'' = 1'-0''$

3-15-31 Note on shear connectors J.E.H.
11-7-31 Revised designation
Added Detail NEW
2-4-58 Added Optional Stud Welding F.R.B.
5-4-58 Added Steel Forming Note & Revised
Gen. Notes B.L.R.

LITTLE ROCK, ARK.

Drawn By G.W.B. Date: 8-30-55

Traced By L.W.H. Date: 8-10-56

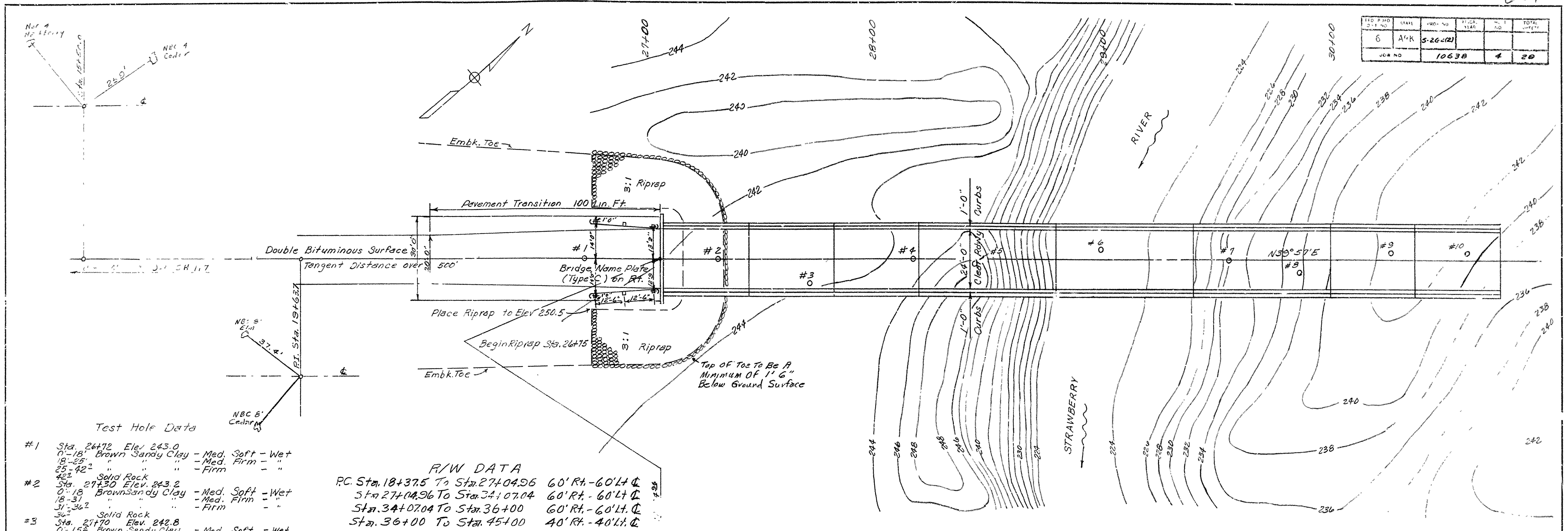
Checked By J.H.K. Date: 8-11-56

Scale: $\frac{1}{2}$ in. = 1 ft.
except as noted

BRIDGE No. DRAWING No. 5500P

BRIDGE DESIGN ENGINEER

FEED ROAD	STAGE	PROJ. NO.	FIG. NO.	TOTAL
6	A4K	5-26-12		
JOB NO.	10638	4	20	



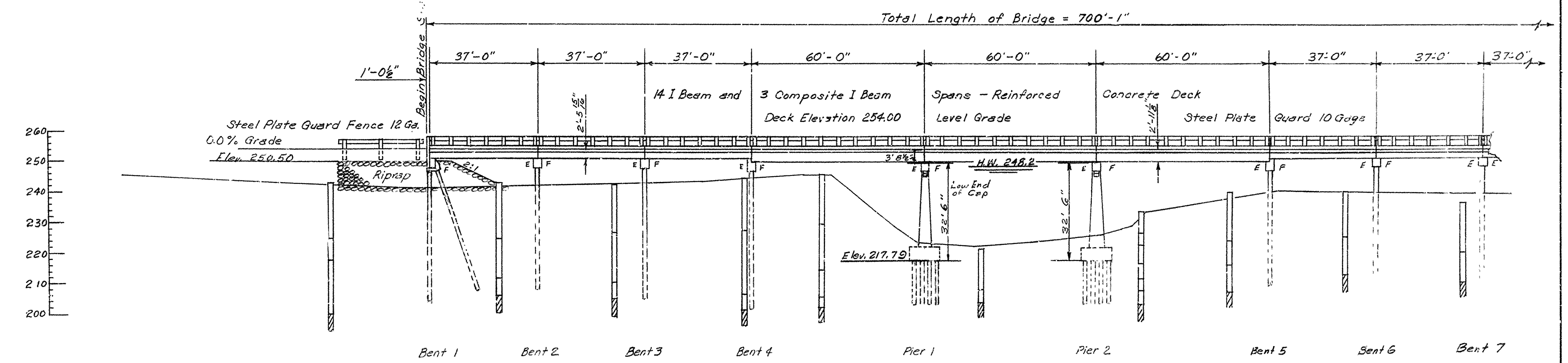
Test Hole Data

- #1 Sta. 26+72 Elev. 243.0
0-18" Brown Sandy Clay - Med. Soft - Wet
18-25" " " - Med. Firm - "
25-42" " " - Firm - "
- #2 Sta. 27+30 Elev. 243.2
0-18" Brown Sandy Clay - Med. Soft - Wet
18-31" " " - Med. Firm - "
31-36" " " - Firm - "
- #3 Sta. 27+70 Elev. 242.8
0-15" Brown Sandy Clay - Med. Soft - Wet
15-32" Brown Clay Mostly Sand - Med. Firm - "
32-37" Brown Sandy Clay - Firm - "
- #4 Sta. 28+15 Elev. 244.5
0-17" Brown Sandy Clay - Med. Soft - Wet
17-28" Brown Clay Mostly Sand - Med. Firm - "
28-43" Brown Sandy Clay - Firm - "
- #5 Sta. 28+52 Elev. 245.8
0-16" Brown Sandy Clay - Med. Soft - Wet
16-31" Brown Clay Mostly Sand - Med. Firm - "
31-40" Brown Sandy Clay - Med. Firm - "
- #6 Sta. 28+57 Elev. 241.5
0-13" Gravel and some Sand - Loose - Wet
13-17" " " - Bourgeois - Med. Comp. - "
- #7 Sta. 29+53 Elev. 233.5
0-7" Brown Sandy Clay - Med. Soft - Wet
7-11" Brown Clay Mostly Sand - Med. Soft - "
11-17" Brown Sandy Clay & Gravel - Med. Firm - "
17-22" " " - Med. Soft - "
22-26" " " & Gravel - Med. Firm - "
26-30" " " - Med. Comp. - "
- #8 Sta. 29+54 Elev. 239.9
0-16" Brown Sandy Clay - Med. Soft - Wet
16-24" Brown Sandy Clay and Gravel - Med. Firm - Wet
24-32" " " - Med. Firm - Wet
- #9 Sta. 30+54 Elev. 240.2
0-15" Brown Sandy Clay - Med. Soft - Wet
15-17" Brown Sandy Clay & Gravel - Med. Firm - Wet
17-26" " " - Med. Firm - Wet
- #10 Sta. 30+54 Elev. 239.4
0-16" Brown Sandy Clay - Med. Soft - Wet
16-26" " " - Med. Firm - Wet
26-32" " " - Med. Firm - Wet

Note: All Test Holes show small amount of gravel and boulders mixed with the soil

R/W DATA

- P.C. Sta. 18+37.5 To Sta. 27+04.96 60' Rt. - 60' Lt. &
- Sta. 27+04.96 To Sta. 34+07.04 60' Rt. - 60' Lt. &
- Sta. 34+07.04 To Sta. 36+00 60' Rt. - 60' Lt. &
- Sta. 36+00 To Sta. 45+00 40' Rt. - 40' Lt. &



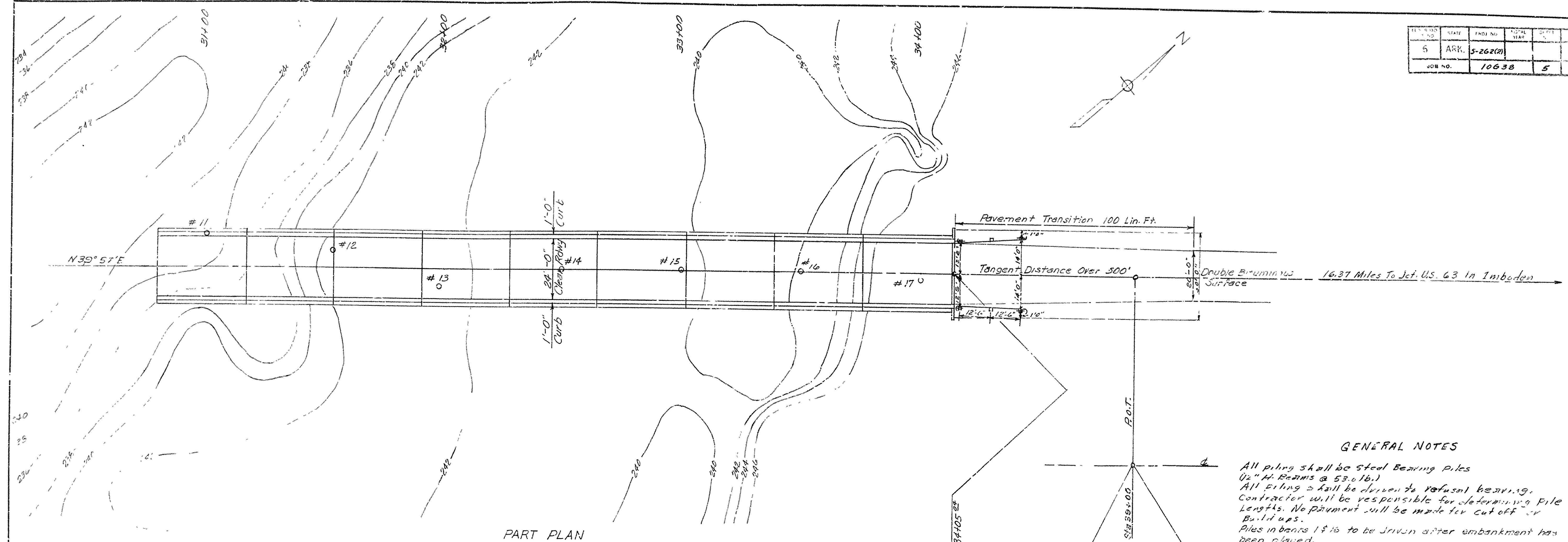
Note: All piles shall be driven to refusal bearing. Contractor will be responsible for determining pile lengths. No payment will be made for cut off or build up.

Estimate	Pile Lengths
Bents 1 thru 3	45'
Bent 4	48'
Piers 1 & 2	15'
Bent 5	40'
Bent 6 & 7	36'

B.M. Elevation 229.39 Nail inside of 8" cotton wood 5' Rt. Sta. 28+55

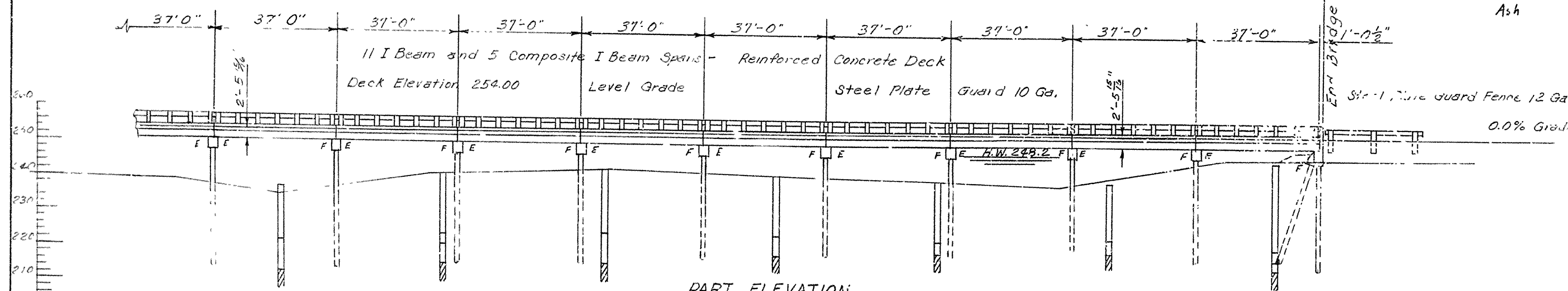
LAYOUT OF BRIDGE
OVER
STRAWBERRY RIVER
LAWRENCE COUNTY
ROUTE 115 SEC. 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: VHS. DATE: 7-8-58
TRACED BY: DATE: SCALE: 1" = 20'
CHECKED BY: DATE:
BRIDGE NO. 3253 DRAWING NO. 10019

DESIGN NO.	STATE	PROJ. NO.	SECTION	DATE
5	ARK.	5-262(2)		
JOB NO.		10638	5	28



PART PLAN

Total Length of Bridge = 700'-1"



PART ELEVATION

Bent	Station	Elevation	Soil Profile	Notes
#11	Sta 31+00	Elev. 235.5	0'-15' Brown Silty Clay - Med. Soft	
	15'-24'		" " " Gravel - Firm	
#12	Sta 32+50	Elev. 240.8	0'-7' Brown Silty Clay - Med. Soft	
	7'-18'		" " " Gravel - Firm	
	18'-24'		" " " Solid Rock - Comp	
#13	Sta 31+05	Elev. 243.6	0'-18' Brown Silty Clay - Med. Soft	
	18'-24'		" " " Gravel - Firm	
#14	Sta 32+50	Elev. 242.2	0'-17' Brown Silty Clay - Med. Soft	
	17'-24'		" " " Gravel - Firm	
#15	Sta 33+00	Elev. 240.5	0'-17' Brown Silty Clay - Med. Soft	
	17'-24'		" " " Gravel - Firm	
	24'		Solid Rock	

Bent	Station	Elevation	Soil Profile	Notes
#16	Sta 33+50	Elev. 240.7	0'-16' Brown Sandy Clay - Med. Soft	
	16'-20'		" " " Gravel - Firm	
	20'		Solid Rock	
#17	Sta 34+00	Elev. 244.3	0'-25' Brown Sandy Clay - Med. Soft	
	25'-28'		" " " Gravel - Firm	
	28'-30'		" " " Solid Rock - Soft	

Estimated Pile Lengths

Bent 8	40'
Bents 9 & 10	36'
Bent 11	32'
Bent 12, 13 & 14	30'
Bents 15 & 16	32'

1/2" Nail in side of 18" Sweetgum 70 Rt Ste 40' x 30

GENERAL NOTES

All piling shall be steel bearing piles (12" H. Beams @ 53.0 lb.)
All piling shall be driven to refusal bearing.
Contractor will be responsible for determining pile lengths. No payment will be made for cut off or build ups.
Piles in bents 1 & 16 to be driven after embankment has been placed.
For details of pile bents see standard drawing nos. 5500A & 5500B
For details of riser and bents see drawing no. 10021
For details of bents 1 & 2 see drawing no. 10020
For details of 3" standard I beam spans see drawing no. 5500
For details of 60" composite I beam spans see standard drawing no. 5500P

SPECIFICATIONS: Arkansas State Highway Commission
Standard specifications for Road and Bridge Construction, Adopted March 1, 1940

DESIGN SPECIFICATIONS - (AASHTO 1957 Revised)

LIVE LOADING - H-15
UNIT STRESSES
Class A Concrete (f_c=15) 840 psi
Class B Concrete (f_c=10) 500 psi
Reinforcing Steel 24,000 psi
Structural Steel 18,000 psi

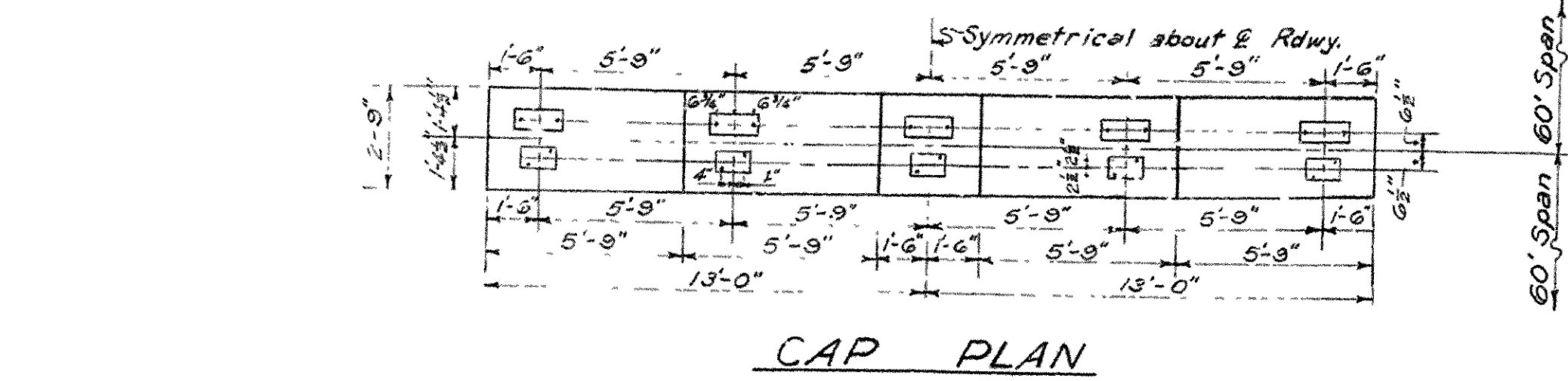
LAYOUT OF BRIDGE
OVER
STRAWBERRY RIVER
LAWRENCE COUNTY
ROUTE 115 SEC. 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: K.H.D. DATE: 7-9-58
CHECKED BY: DATE: SCALE: 1"=30'
BRIDGE NO. 3253 DRAWING NO. 10019A

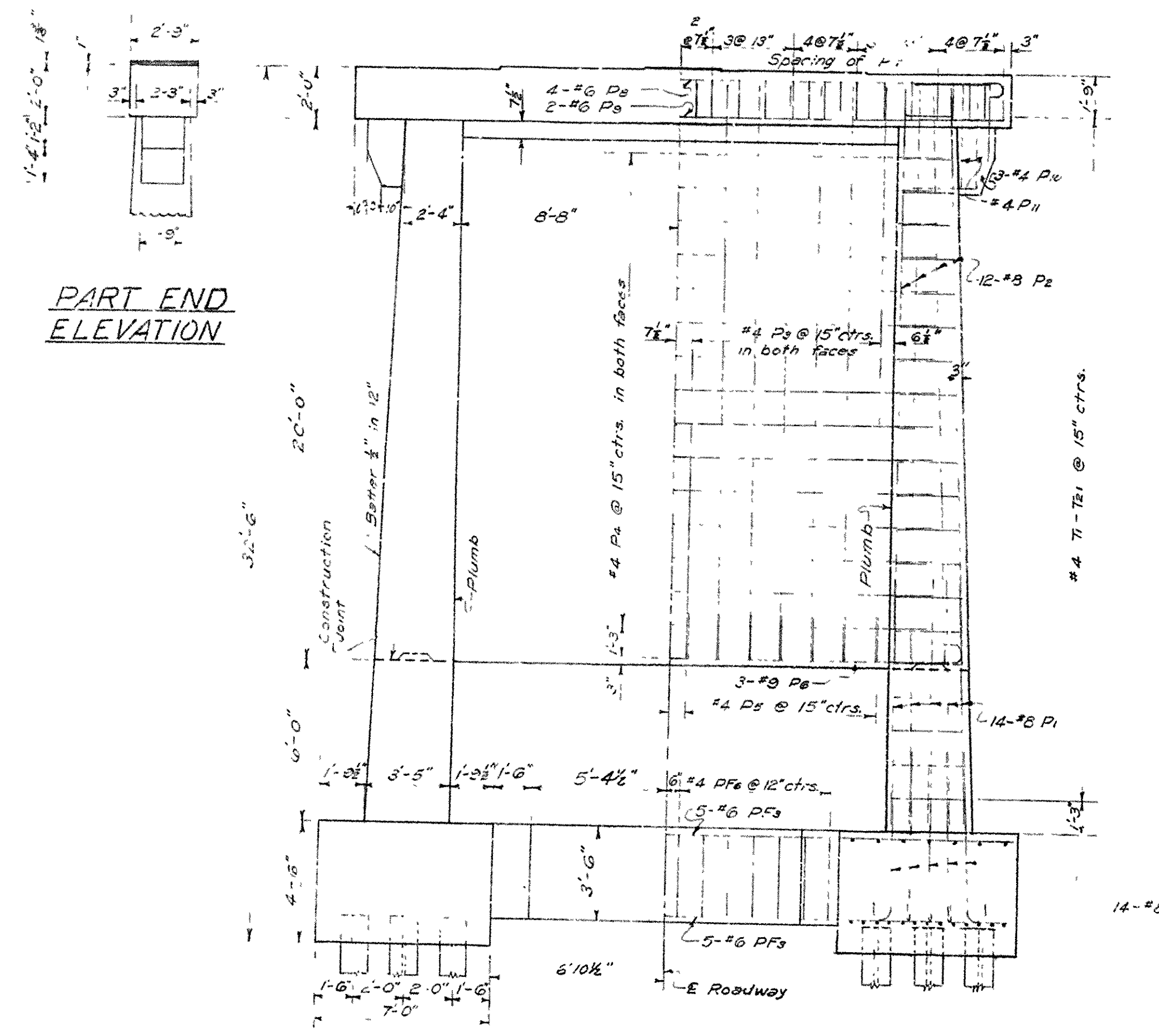
BRIDGE DESIGN ENGINEER

286

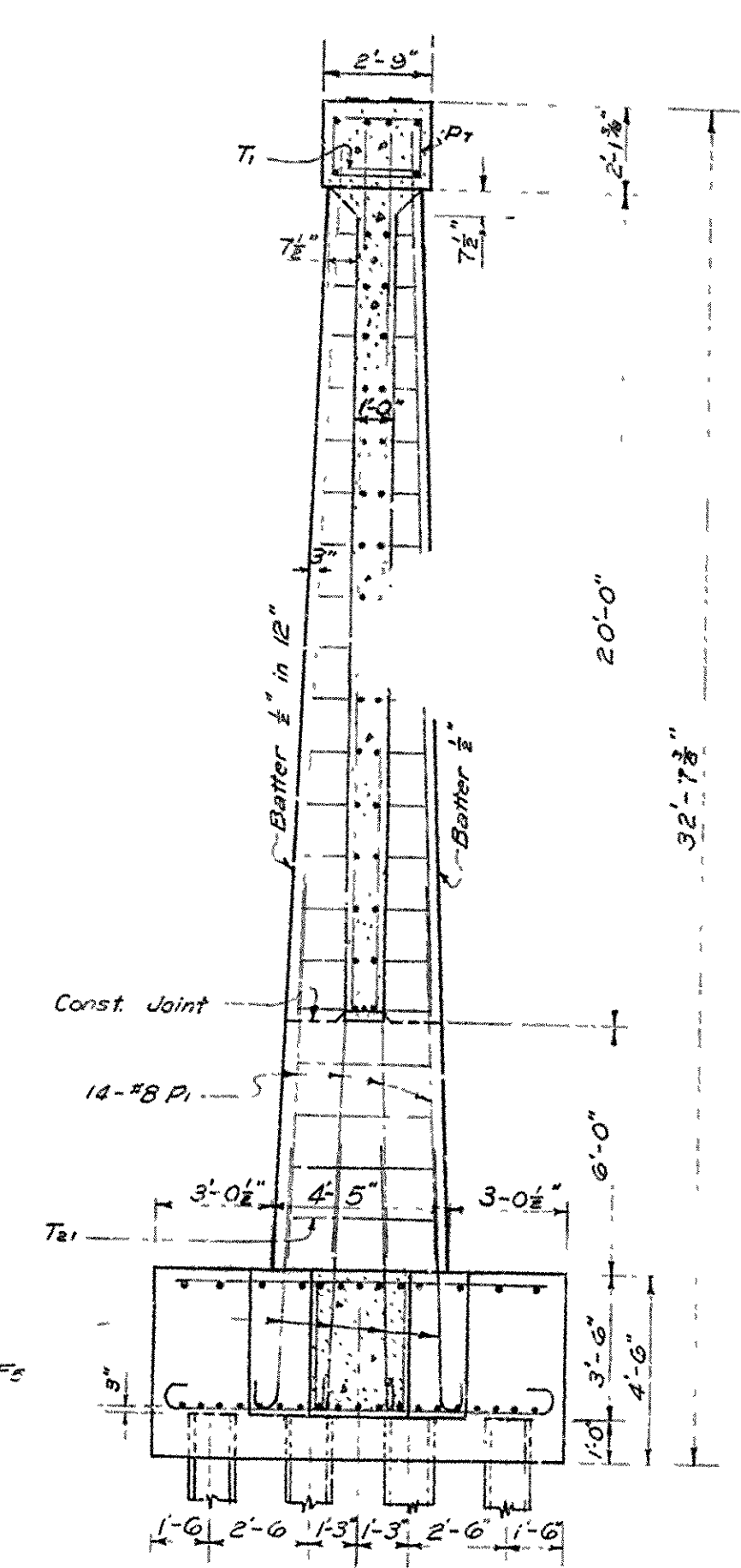
PROJECT NO.	STATE	PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	5-252(2)		9	20
JOB NO.		10638			



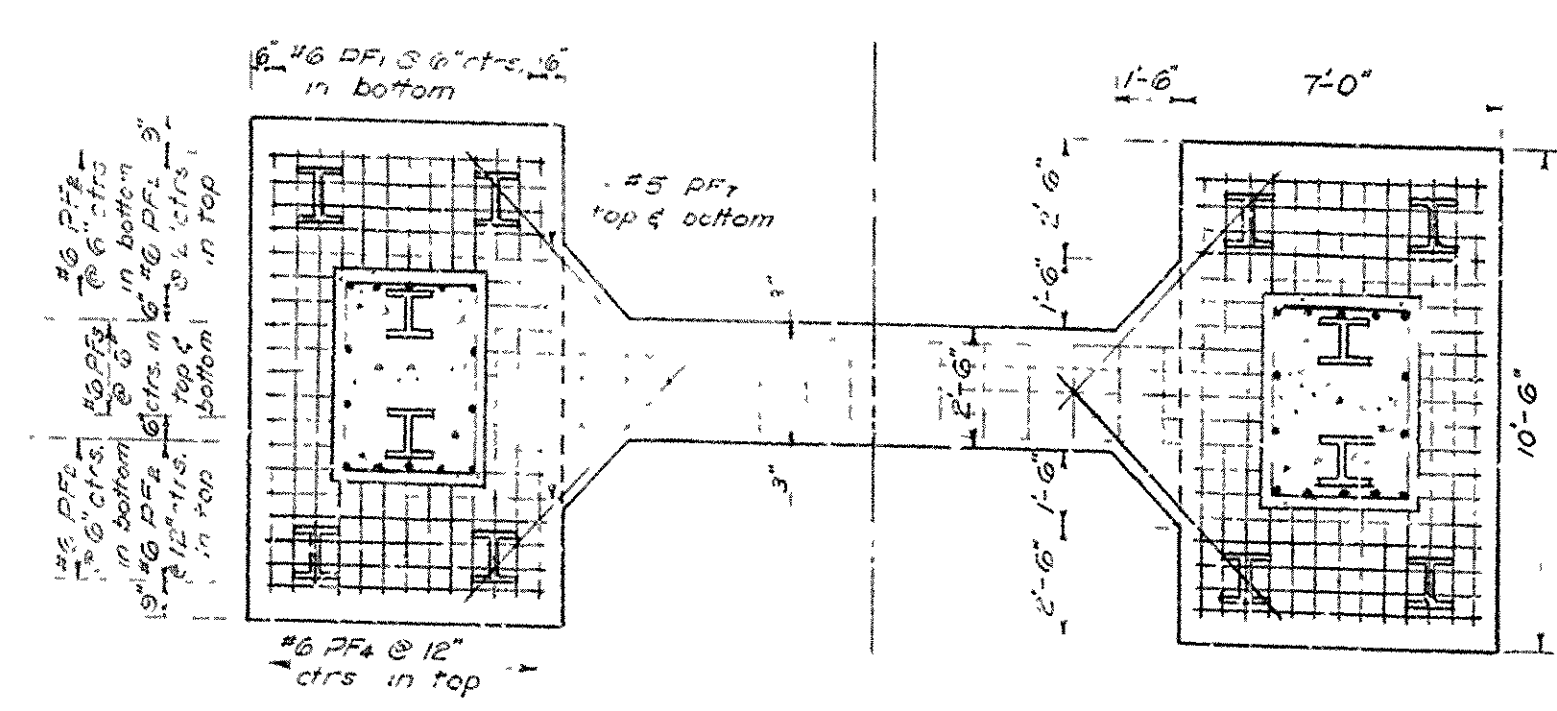
CAP PLAN



PART END ELEVATION



E SECTION



FOOTING PLAN

STRAIGHT				BENDING DIAGRAM		BENT					
MARK	SIZE	NO REQD. PER PIER	LENGTH			MARK	SIZE	NO REQD. PER PIER	LENGTH	A	B
PF ₁	#6	44	6'-6"			PF ₁	#6	26	11'-0"	9'-6"	6'
PF ₂	#6	10	27'-3"			PF ₂	#8	28	7'-7"	6'-7"	8'
PF ₃	#6	14	10'-0"			PF ₆	#4	14	10'-9"	2'-0"	3'-0"
PF ₇	#5	8	7'-8"			P ₆	#4	14	4'-5 1/2"		
P ₁	#8	28	9'-0"			P ₆	#9	3	25'-6"	23'-6"	
P ₂	#8	24	21'-4"			P ₇	#4	33	8'-9"	2'-5"	1'-8"
P ₃	#4	28	21'-4"			P ₈	#6	4	27'-0"	25'-6"	6'
P ₄	#4	15	20'-8"			P ₁₀	#4	6	9'-7"		
P ₅	#6	2	25'-6"			P ₁₁	#4	4	10'-2"		
						T ₁ to T ₂	#4	2 c/w	8'-2 1/2" to 14'-5 1/2"	1'-10 1/4" to 3'-11 1/4"	1'-11 1/2" to 3'-0"

Dimensions are to ctrs. of bars.

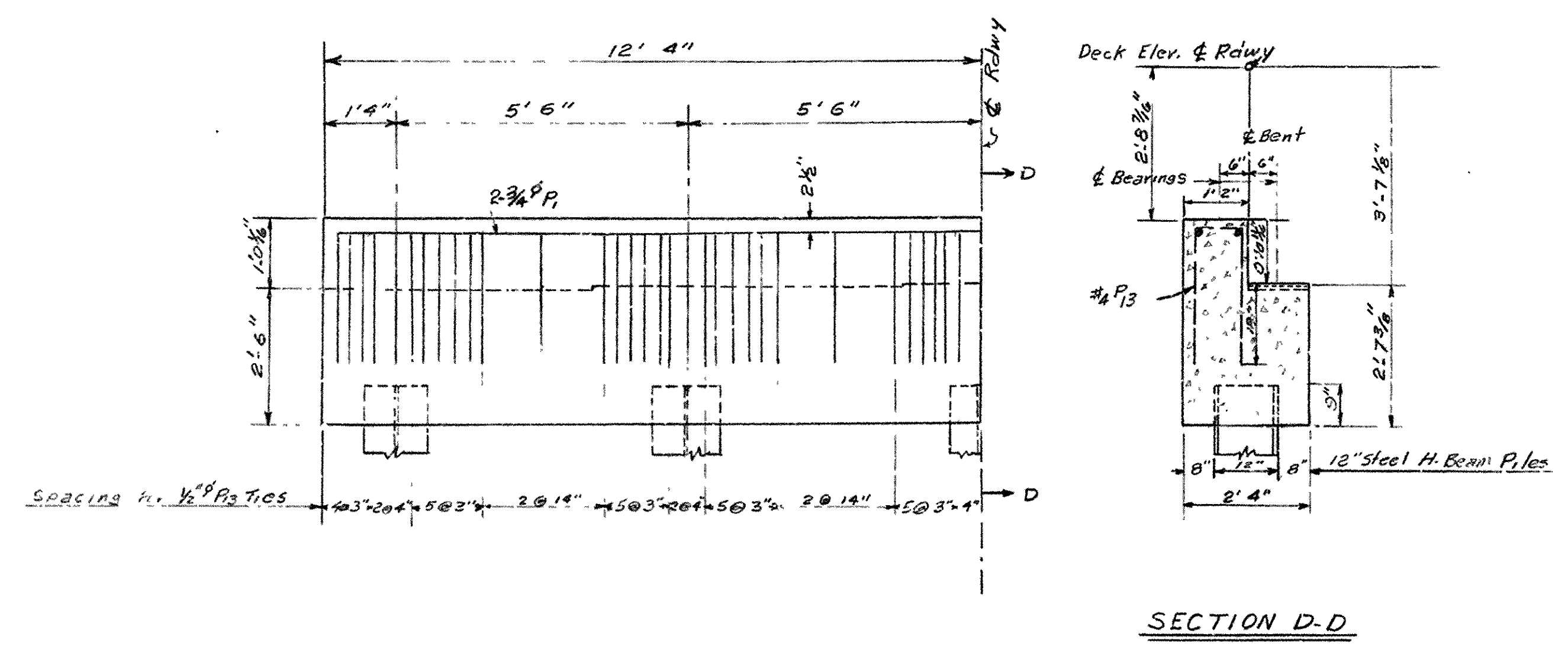
Dimensions are to ctrs. of bars.

GENERAL NOTES

All concrete to be Class A and shall be poured in the dry. All exposed corners shall be chamfered 1/4" unless otherwise noted.
Piling to be 12" steel H-Beams @ 53.0 L.B. and to be driven to refusal.
Reinforcing steel to be deformed bars of intermediate grade otherwise modified by Special Provisions. Shop lists and bending diagrams shall be submitted and approval secured before fabrication is begun.
All construction joints shall be horizontal and shall be provided with keys not less than 3" high covering the middle third of both dimensions.
For details of 60' I-Beam Span See Drawing No. 5500R.
SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction adopted March 1, 1940.

DETAILS OF PIERS NO. 1 & 2
BRIDGE OVER STRAWBERRY RIVER
LAWRENCE COUNTY
ROUTE 115 SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: _____ DATE: _____
TRACED BY: _____ DATE: _____ SCALE: 1/8" = 1'-0"
CHECKED BY: _____ DATE: _____
BRIDGE NO. 3253 DRAWING NO. 10020

DES. NO.	ST. NO.	PROJECT NO.	DATE	BY	CHKD.
6	ARK	5-2422			
JOB NO.	10638	8	28		



HALF ELEVATION INTERMEDIATE BENTS NO. 4 & 5
Details Not Shown Same As Shown On Dwg. No. 5500H

LIST OF REINFORCING STEEL (ADDITIONAL)

MK.	SIZE	NO. IN EACH BENT	LENGTH	BENDING DIAGRAM
P1	3/4" ϕ	2	24' 4"	Str.
P3	1/2" ϕ	65	5' 3"	

Note: For Additional Reinforcing Steel in Int. Bents No. 4 & 5 See Std Dwg. No. 5500H

DETAILS OF
RISER ON INTERMEDIATE CAPS
BENTS NO 4 & 5

ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK

DRAWN BY: H.C.M. DATE: 8-5-58
TRACED BY: H.C.M. DATE: 8-5-58
CHECKED BY: DATE:

SCALE: 1/2" = 1"
BRIDGE NO. 3253 DRAWING NO. 10021

BRIDGE DESIGN ENGINEER