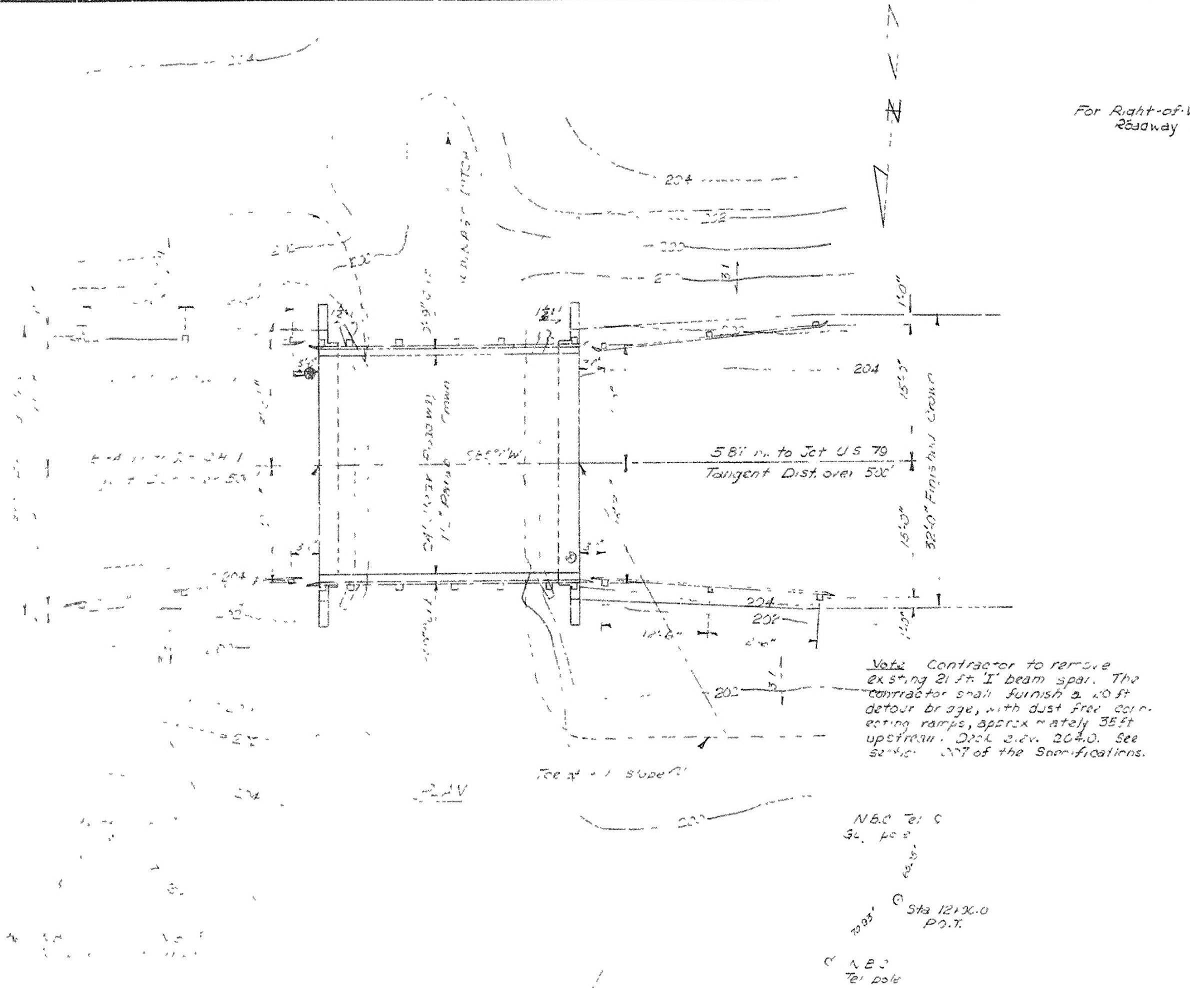
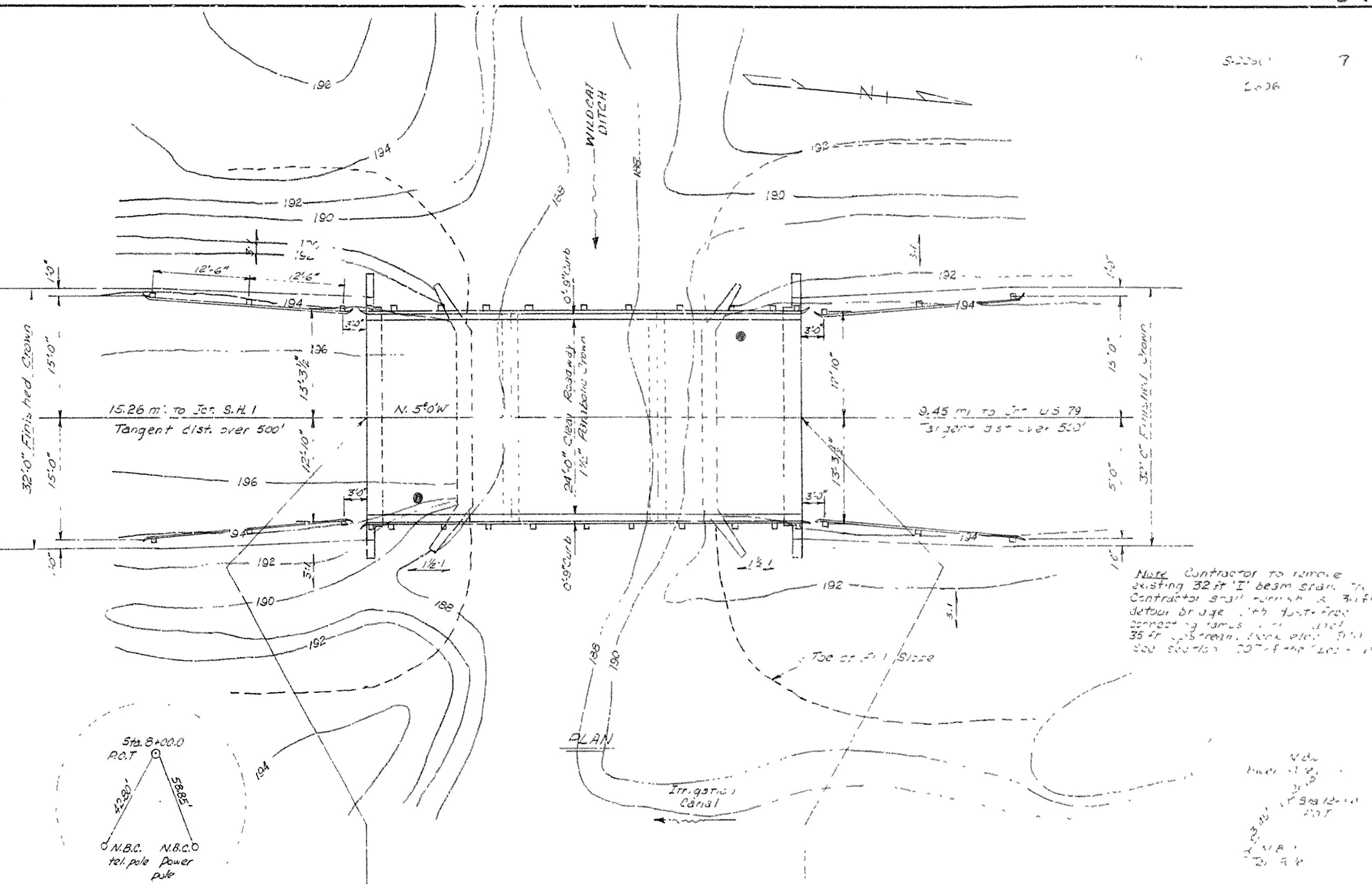
For Right-of-Way Data see Roadway Plans



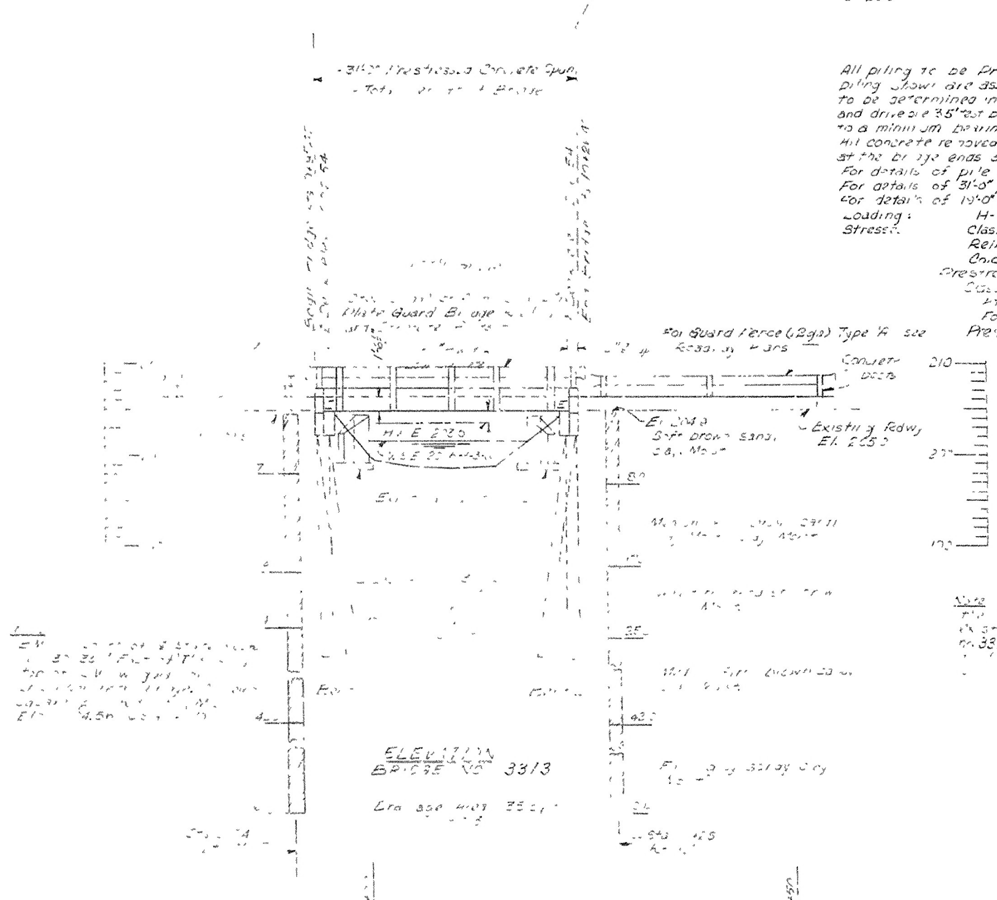


General Notes.

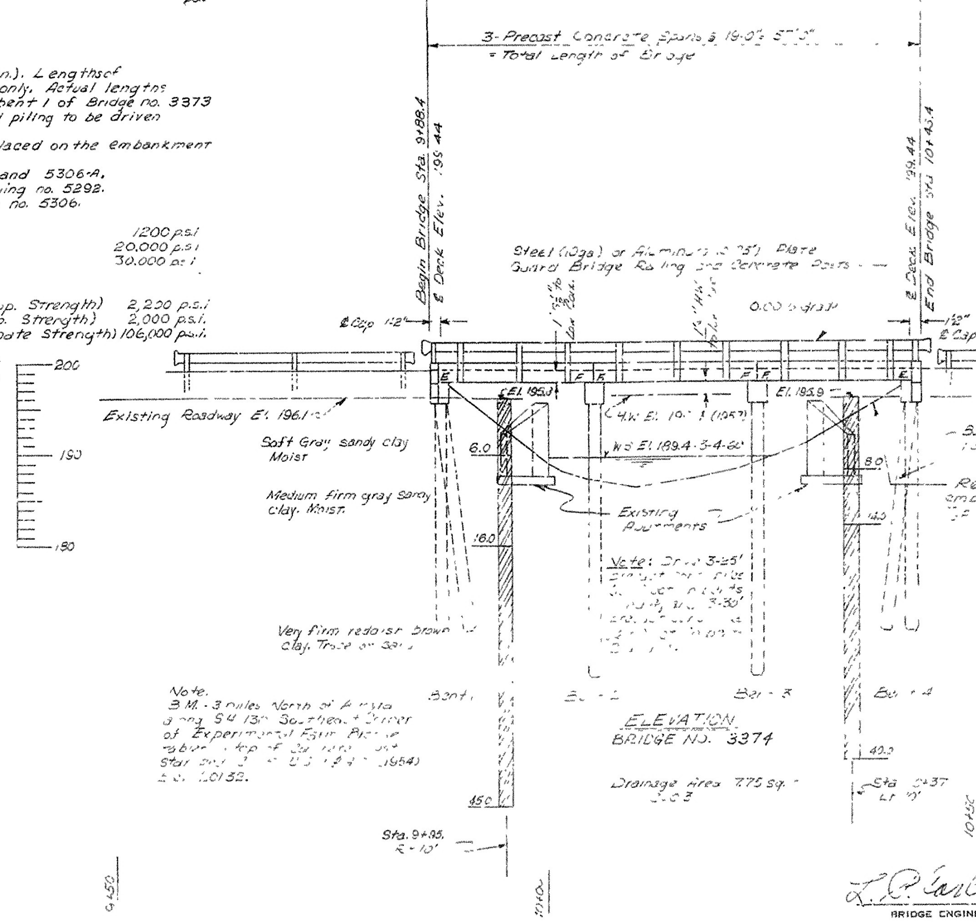
All piling to be Precast Octagonal Concrete Piles. (16 in.). Lengths of piling shown are assumed for estimating quantities only. Actual lengths to be determined in the field. Drive one 30' test pile in bent 1 of Bridge no. 3373 and drive one 35' test pile in bent 2 of Bridge no. 3374. All piling to be driven to a minimum bearing capacity of 34 tons per pile.
All concrete removed from existing bridges shall be placed on the embankment at the bridge ends as directed by the Engineer.
For details of pile bents see drawing no's. 5292 B and 5306-A.
For details of 31'-0" prestressed concrete span see drawing no. 5292.
For details of 19'-0" precast R.C. slab span see drawing no. 5306.

Loading:	H-15 (A.A.S.H.O. 1957)	
Stresses:	Class S Concrete - (n=10)	1200 p.s.i.
	Reinforcing Steel	20,000 p.s.i.
	Cold Drawn Wire Mesh	30,000 p.s.i.
	Prestressed Concrete Spans:	
	Class S Concrete	
	At Initial Prestress (4,000 p.s.i. Comp. Strength)	2,200 p.s.i.
	For Design Load (5,000 p.s.i. Comp. Strength)	2,000 p.s.i.
	Prestressing Steel (145,000 p.s.i. Ultimate Strength)	106,000 p.s.i.

Specifications: Arkansas State Highway Commission Standard Specifications for Highway Construction, adopted Dec. 9, 1959.



Note: The Contractor shall determine [illegible] of the back edge of the existing abutment footing at Bridge no. 3373 and reduce the batter of the [illegible] if necessary to clear these [illegible].



Note.
B.M. - 3 miles North of Almyra along S.H. 130. Southeast Corner of Experimental Farm. [illegible] Station [illegible] (1954) El. 20132.

LAYOUT OF BRIDGES OVER A DRAINAGE DITCH & WILDCAT DITCH

DEWITT - STUTTGART

ARKANSAS COUNTY

ROUTE 130 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

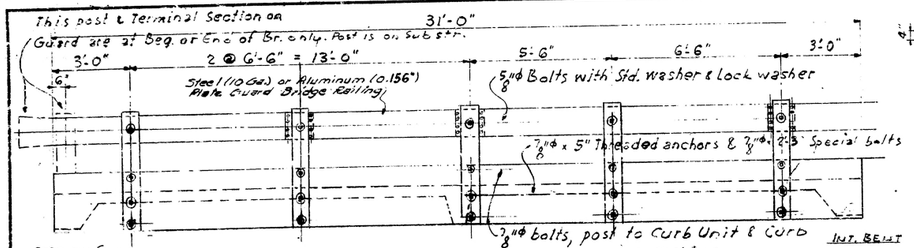
DRAWN BY C.E. DATE 4-8-60
TRACED BY ____ DATE ____ SCALE ____
CHECKED BY [illegible] DATE 4-12-60

L. P. Carlson
BRIDGE ENGINEER

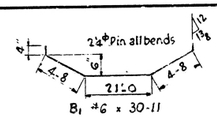
BRIDGE NO. 3373, 3374 DRAWING NO. 10985

FED. ROAD | STATE | FED. AID | SHEET | TOTAL SHEETS
JOB No.

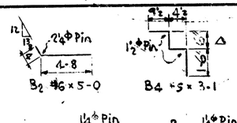
This post & Terminal Section on Guard are at Beg. or End of Br. only. Post is on Sub Str.



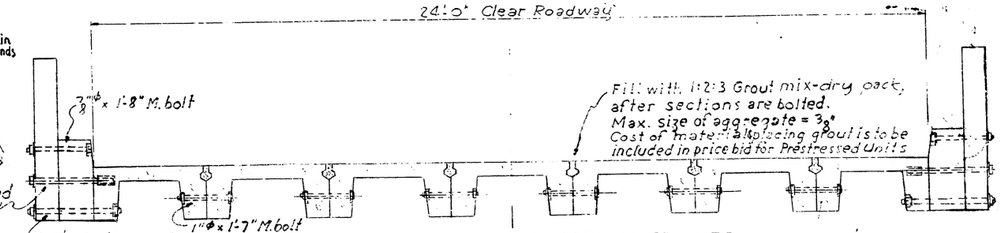
ELEVATION SHOWING SPACING OF POSTS
Scale: 3/8" = 1'-0"



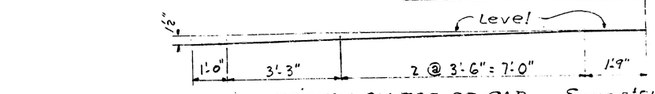
STRAIGHT BARS
B3 - #6 x 5'-0
B4 - #4 x 3'-3
B5 - #5 x 30'-8
C1 - #5 x 30'-8



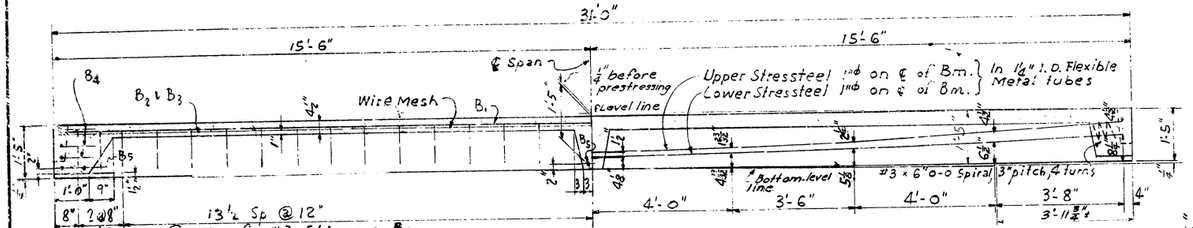
* Steel (10 Ga.) or Aluminum (0.156") Plate Guard Bridge Railing shall be of the type shown or an equivalent rigid type as approved by the Engineer. The quote including concrete posts, all bolts and fastenings shall be paid for at the unit price bid per linear foot for Steel or Aluminum Plate Guard Bridge Railing.



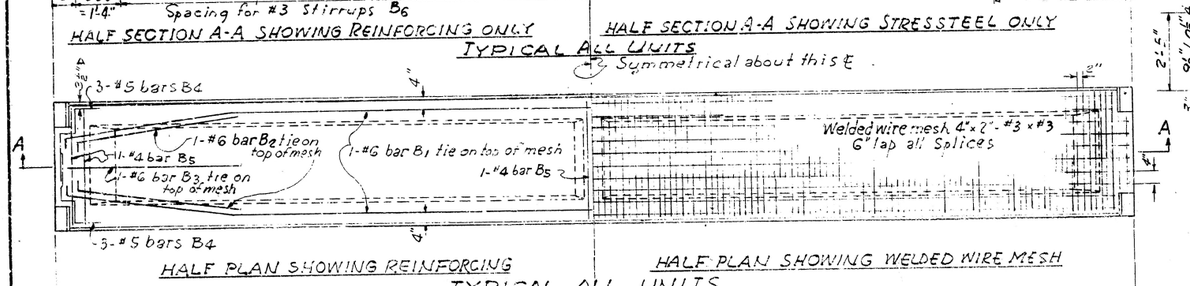
CROSS SECTION SHOWING ASSEMBLY OF UNITS



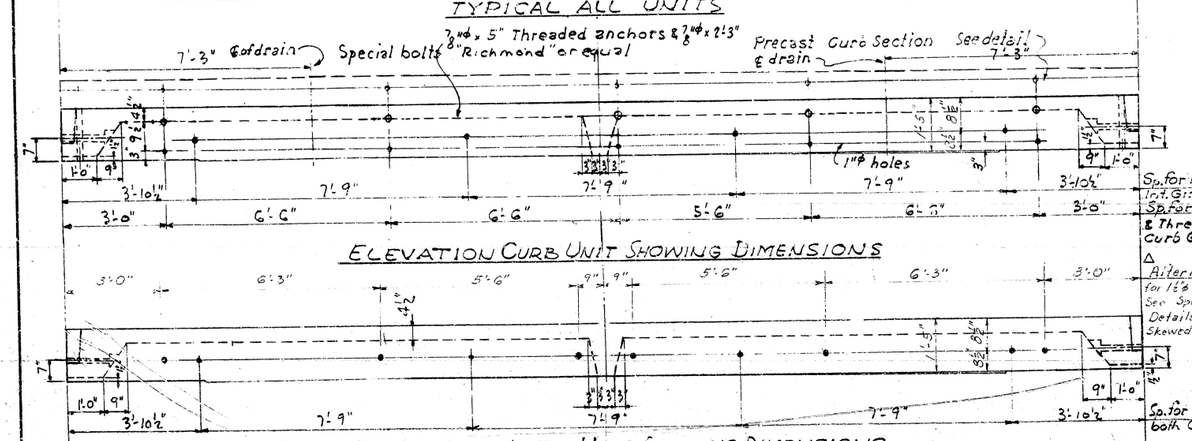
CROWN ON TOP OF CAP



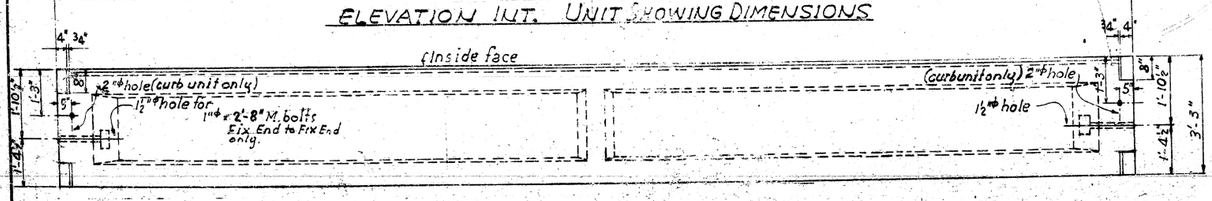
HALF SECTION A-A SHOWING REINFORCING ONLY
HALF SECTION A-A SHOWING STRESSTEEL ONLY
TYPICAL ALL UNITS



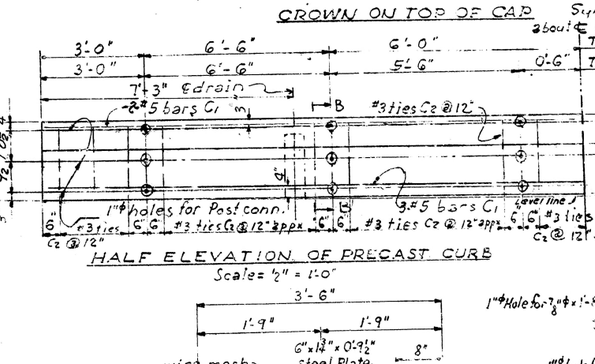
HALF PLAN SHOWING REINFORCING
HALF PLAN SHOWING WELDED WIRE MESH
TYPICAL ALL UNITS



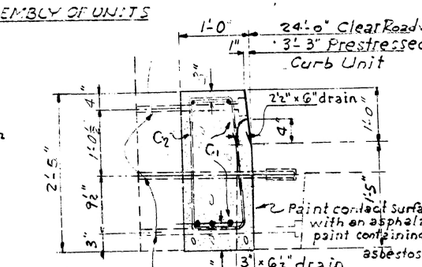
ELEVATION CURB UNIT SHOWING DIMENSIONS
ELEVATION INT. UNIT SHOWING DIMENSIONS



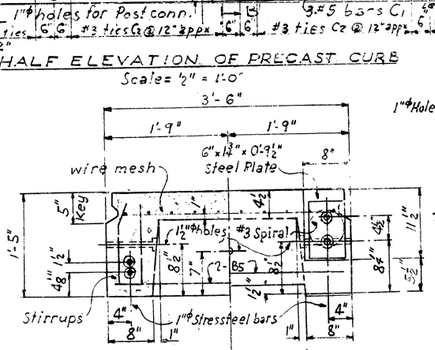
PLAN OF CURB UNIT (INTERIOR UNIT SIMILAR SEE SECTIONS)



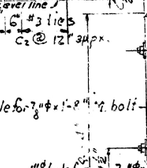
HALF ELEVATION OF PRECAST CURB
Scale: ½" = 1'-0"



SECTION B-B
Scale: 1" = 1'-0"

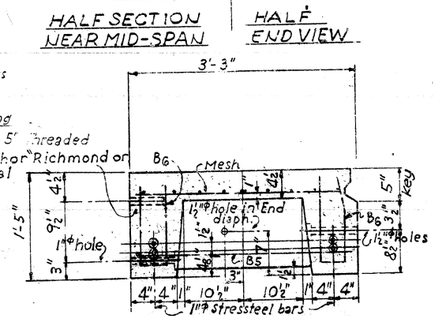


HALF SECTION NEAR MID-SPAN

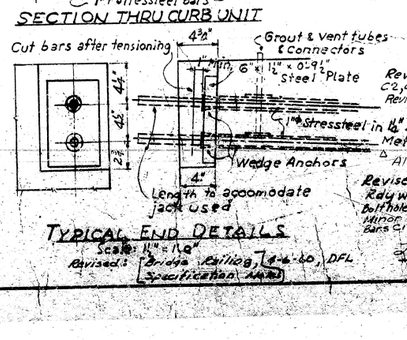


HALF END VIEW

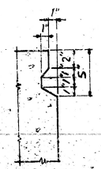
DETAIL OF PRECAST POST
Scale: 3/4" = 1'-0"



SECTION THRU CURB UNIT



TYPICAL END DETAILS
Scale: 1" = 1'-0"



DETAIL OF SHEAR KEY
Scale: 1½" = 1'-0"

GENERAL NOTES:

Approved systems and materials for Tensioning may be substituted for the design shown.

SPECIFICATIONS:
Current A.A.S.H.O. Specifications and Arkansas State Highway Commission Standard Specifications for Highway Construction. Adopted Dec. 9, 1959.

PAY ITEMS & UNITS ARE:
Prestressed Slab Curb Unit — Each
Prestressed Slab Interior Unit — Each
Steel or Aluminum Plate Guard Bridge Railing, Lin. Ft.

All prestressed concrete shall be Class S with a minimum strength at 28 days of 5000#/in². Minimum strength for handling is 3000#/in². Preliminary bar tensioning 42000# in two upper bars only before handling. Full tension of 84000# to be applied after concrete reaches a strength of 4000#/in².

All exposed corners to have ¾" chamfers other corners to be rounded to ¼" radius.

Stressteel bars shall have a minimum ultimate strength of 145000#/in². Stressteel bars, flexible metal tubes & fittings and tensioning devices are not to be paid for directly but will be considered as subsidiary to the item "Prestressed Slab Unit."

Grout stressteel bars with cement and water mix applied by Pressure Pump after full tension is on bars. Units are not to be moved until grout is fully set. Pick up points for handling not to exceed 6'-0" from ends of unit.

When tensioning, the differential on girders shall not exceed 21000#.

Reinforcing steel to be deformed bars of Intermediate or hard grade.

Wire Mesh shall conform to ASTM Designation, A185-54T.

Reinforcing steel shall be accurately located in the forms and securely held in place by steel wire supports. Reinforcing steel, wire supports and wire mesh are not to be paid for directly but will be considered as subsidiary to the item "Prestressed Slab Unit."

* See Note above for Bridge Railing.

Concrete for precast rail posts and precast curbs shall be Class S with a minimum compressive strength of 3500#/in² at 28 days.

Standard washers to be provided under head & nut of all bolts where in contact with concrete. Paint heads and nuts with aluminum paint after assembly is complete. All bolts, washers, threaded anchors and any other fastenings are not to be paid for directly but will be considered as subsidiary to the pay item involved.

Precast curb sections, including reinforcing are to be included in price bid each for "Prestressed Slab Curb Unit."

DESIGN DATA
Specifications — Current A.A.S.H.O. Specifications — H-15
Loading — 0.5 Lane per unit
fs = 20000#/in² — fc = 2000#/in² — n = 6
fm = 30000#/in² — fsy = 120000#/in² — f'c = 5000#/in²

Revision: Curb height, bar C2, camber 1-10-67 H.B.
Revision: Stress Steel location 2-28-61 L.K.
Revision: Reinf. note 11-7-61 H.B.
Revision: Conc. note 1-25-62 H.B.
Revision: Pick-up point 8-17-64 H.B.

Revised: Rdy width, Curbs, 5-28-53 EAW
Bolt holes, Diaphragms, Bar B6 4-27-54 EAW
Minor Corrections 7-10-57 EAW
Bars C1, Grout 6-20-57 H.B.
Revised: Bridge Railing 7-6-60, DFL
Specification 1964

DETAILS OF
31' PRE-STRESSED CONCRETE SPAN
24' CLEAR ROADWAY

ROUTE — SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: E.A.W. DATE: 1-10-53
TRACED BY: DATE:
CHECKED BY: DATE: 1-10-57
BRIDGE DESIGN ENGINEER

SCALE: 1" = 1'-0" unless otherwise shown

BRIDGE NO.

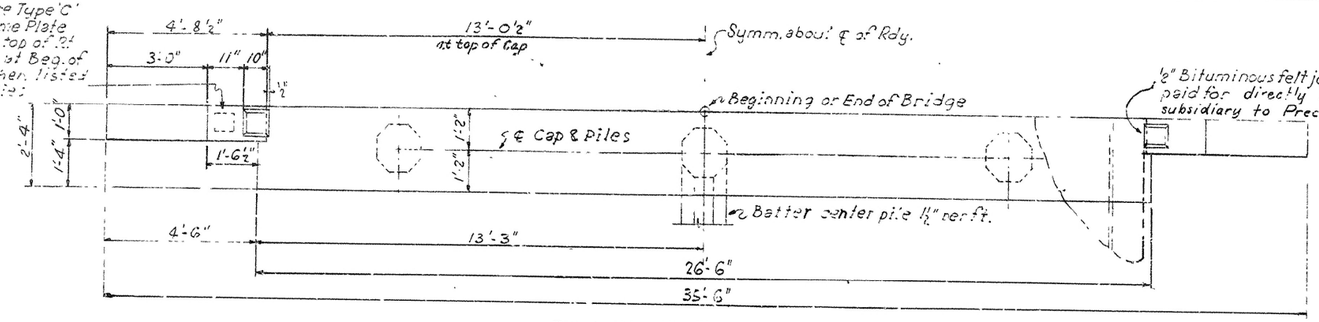
DRAWING NO. 5298

5A

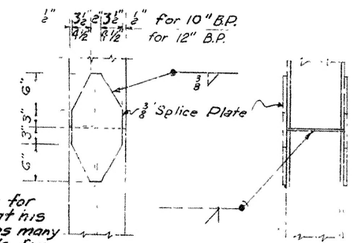
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED
7-18-73	509-9-18-73		

KEY SHEET	SHT.	KEY NO.		SHEETS	TOTAL SHTS.
6	KEY SHEET				

NOTE: Place Type 'C' Bridge Name Plate flush with top of 'A' hand wing at Beg. of Bridge, when listed in quantities.

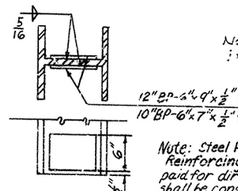


PLAN OF END BENT



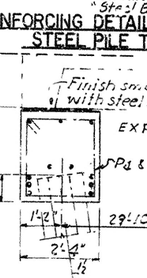
STEEL PILE SPLICE DETAILS
Scale: 1"= 1'-0"

Note: The contractor may for his convenience and at his own expense provide as many as three splices per pile for steel bearing piling. Minimum spacing between splices shall be 5 feet.



Note: Steel Pile Tip Reinforcing will not be paid for directly, but shall be considered subsidiary to the item of "Steel Bearing Piling"

REINFORCING DETAIL FOR STEEL PILE TIP
1"=1'-0"



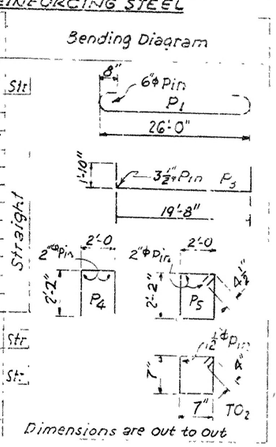
SECTION B-B

LIST OF REINFORCING STEEL

Mark	Size	No. Req. End Bent	No. Req. Int. Bent	Length	
P1	#8	3	3	27'-10"	
P2		4	4	26'-0"	Str.
P3	#6	4	4	23'-1"	
P4		9	9	6'-2"	
P5		38	38	8'-10"	
P6		8		4-7	
P7		4		3-3	
P8		4		2-9	
P9	#4	4		2-3	
P10		12		6-0	
P11		4		2-3	
P12		4		1-4	
P13		4		4-9	
P14	#6	See Sec. C-C		1-11	Str.
TO1	#8	8		4-2	Str.
TO2	#3	6		2-10	

Not a pay item

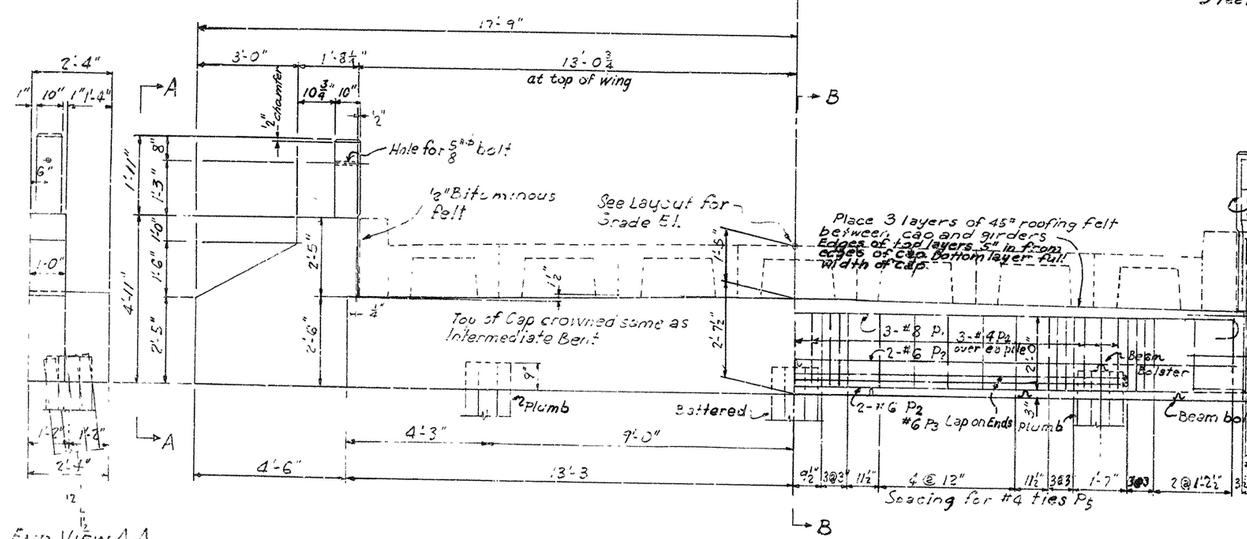
Bending Diagram



Dimensions are out to out

NOTES:
All concrete to be Class S. All exposed corners to be chamfered ¾ unless otherwise noted.
For General Notes and details of Prestressed Slab Units See Drwg. No. 5292
Joint materials and roofing felt not to be paid for directly but considered subsidiary to Precast Slab Units.
Reinforcing steel to be ASTM A615 Grade 40

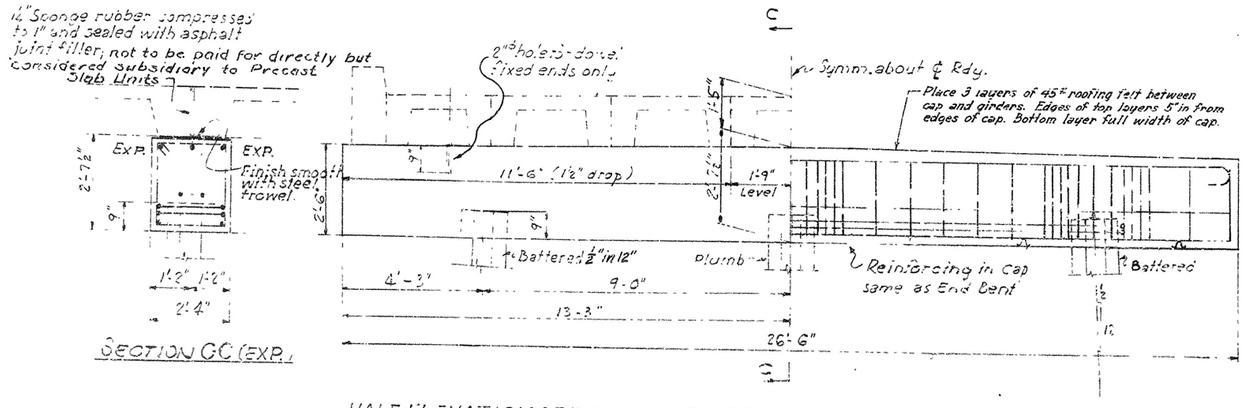
Bending diagrams shall be submitted and approved secured before fabrication is begun.
Drive piles to a minimum bearing capacity of 36 Tons per Pile
For details of concrete piles See Drwg. No. 2382.
For type of piles See Layout.
Turn out posts to be paid for at the unit price bid per linear foot for Steel or Aluminum Pipe Guard Bridge Railing.



END VIEW A-A

HALF FRONT ELEVATION OF END BENT SHOWING DIMENSIONS

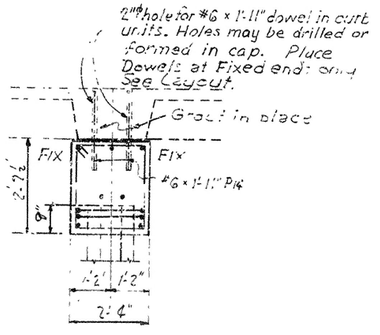
HALF FRONT ELEVATION OF END BENT SHOWING REINFORCING



SECTION GC (EXP.)

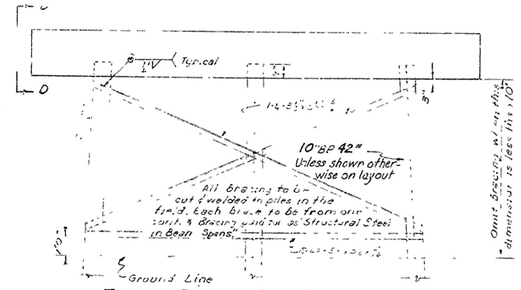
HALF ELEVATION OF INTERMEDIATE BENT SHOWING DIMENSIONS

HALF ELEVATION OF INTERMEDIATE BENT SHOWING REINFORCING



SECTION GC (FIX)

Revised Bar List, End Post 7-18-73 L.M



TYPICAL BRACING INT. STEEL PILE BENT
Scale: ¾"= 1'-0"

DETAILS OF STANDARD PILE BENTS FOR 31'-0" PRESTRESSED SLAB SPANS 24'-0" CLEAR RDY. 9" CURBS

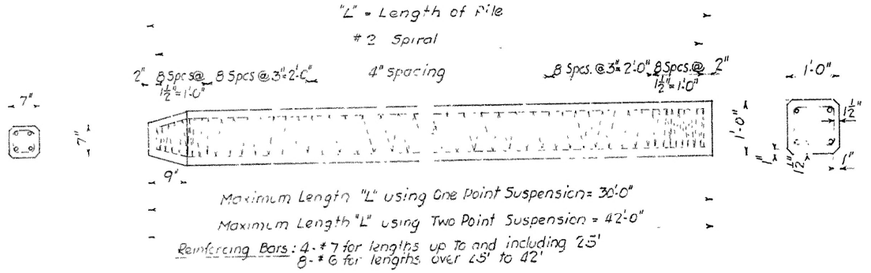
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: GAW D. TF: 1-12-57
TRACED BY: DATE
CHECKED BY: WFCL DATE: 1-23-57
SCALE: ½" = 1'-0"

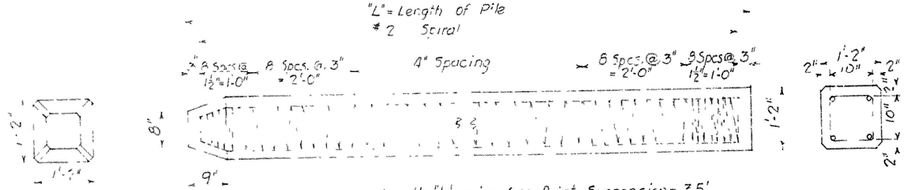
BRIDGE DESIGN ENGINEER

BRIDGE NO. DRAWING NO 52926



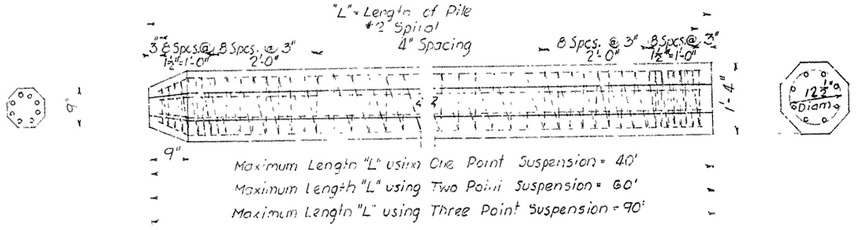
Maximum Length "L" using One Point Suspension = 30'-0"
Maximum Length "L" using Two Point Suspension = 42'-0"
Reinforcing Bars: 4-#7 for lengths up to and including 25'
8-#6 for lengths over 25' to 42'

DETAILS OF 12" SQUARE PILE



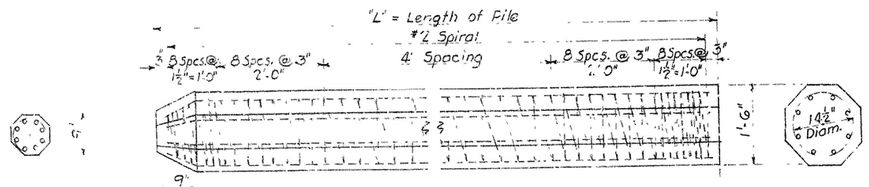
Maximum Length "L" using One Point Suspension = 35'
Maximum Length "L" using Two Point Suspension = 50'
Reinforcing Bars: 4-#7 for lengths up to and including 25'
5-#6 for lengths over 25' to 50'

DETAILS OF 14" SQUARE PILE



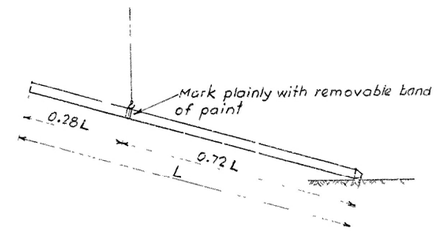
Maximum Length "L" using One Point Suspension = 40'
Maximum Length "L" using Two Point Suspension = 60'
Maximum Length "L" using Three Point Suspension = 90'
Reinforcing Bars: 8-#6 for lengths up to and including 35'
8-#7 for lengths over 35' to 45'
8-#7 with 4 additional #6 in middle third for lengths over 45'

DETAILS OF 16" OCTAGONAL PILE

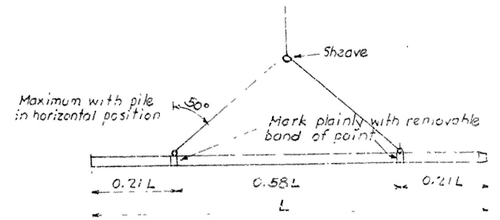


Maximum Length "L" using One Point Suspension = 50'
Maximum Length "L" using Two Point Suspension = 70'
Maximum Length "L" using Three Point Suspension = 100'
Reinforcing Bars: 8-#7 for lengths up to and including 45'
8-#7 with 4 additional #6 in middle third for lengths over 45'

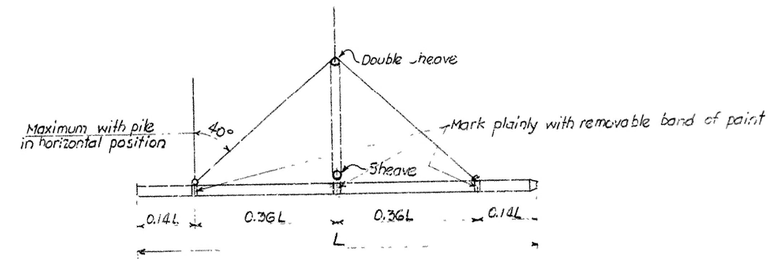
DETAILS OF 16" OCTAGONAL PILE



ONE POINT SUSPENSION DIAGRAM



TWO POINT SUSPENSION DIAGRAM



THREE POINT SUSPENSION DIAGRAM

Prestressing Alternate:-

As an alternate to the reinforcement shown, these piles may be prestressed by the use of steel strands of high tensile cold-drawn uncoated stress-relieved wire strands having an ultimate tensile strength of not less than 250,000 p.s.i. and an elongation at rupture of not less than 3% in 10"; number and size of strands and prestressing load to be as follows:-

Pile Size	Wire Strands No.	Nominal Dia.	*Prestressing Force Per Strand
12" Square	8	5/16"	10150#
14" Square	12	5/16"	10150#
16" Octagonal	12	3/8"	14000#
18" Octagonal	16	3/8"	14000#

* Prestressing force to be not more than 0.7 of the ultimate value of strand.

To permit splicing for buildup, where necessary, of prestressed piles, reinforcing as shown in details shall be provided in butt end of pile for a length of 3' and 6' for No. 6 & No. 7 bars respectively.

GENERAL NOTES

All concrete to be Class "S"
Longitudinal reinforcing steel shall be deformed bars of intermediate grade, unless otherwise modified by Special Provisions. Spiral shall be, formed from plain round billet steel reinforcing bars.
SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959.

Revisions:-
Provisions for prestressing 1-6-58 H.S.
Prestressing strands, forces 4-14-58 H.B.
Number Prestressing Strands 16" Pile 10-31-58 H.B.
General Notes 2-26-60 A.J.

L. D. Carlson
BRIDGE DES. IN ENGINEER

DETAILS OF STANDARD PRECAST CONCRETE PILES

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: C.W.H. DATE: 7-26-56 SCALE: 3/4" = 1'-0"
TRACED BY: DATE: 4-17-58
CHECKED BY: D.W.K. DATE: 7-27-56
RETRACED ONE 80 DATE 9-2-58
BRIDGE NO.
DRAWING NO. 2382

See Revised 5-22-61