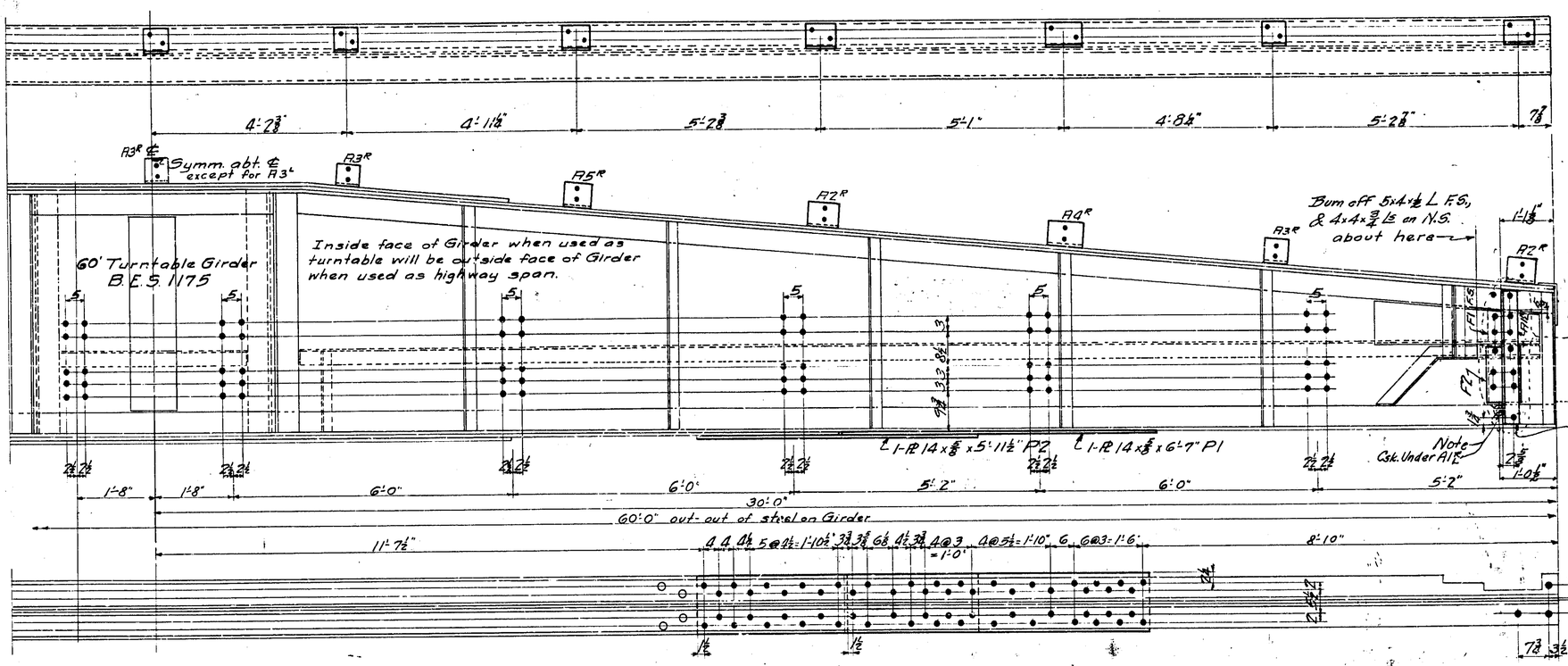
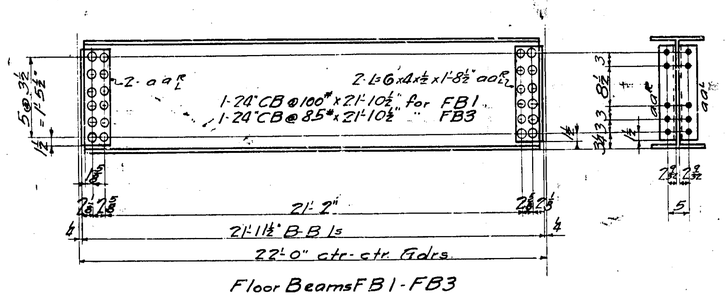


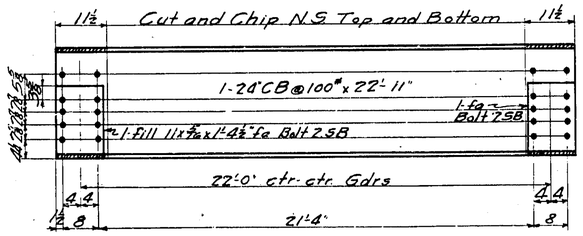
Summary of Field Rivets				
No. Req'd	Dia.	Length	Act. No	Remarks
240	⅞" ℄	2½	200	No. Req'd
55	"	2⅝	40	- Act. No
40	"	4⅛	28	+15% +10
56	"	3½	40	
25	"	4½	12	
200	"	3⅜	164	
110	"	2⅞	88	
25	"	3⅛	12	

Required List		
No	Description	Mark
1	Sole Plate	M1R
1	do	M1L
1	do	M2R
1	do	M2L
4	Smoke Plates	SP1
4	do	SP2
2	do	SP3
24	Hook Bolts	HB1
44	do	HB2
8	Floor Beams	FB1
2	do	FB2
4	Plates	P1
4	do	P2
4	Slabs	S1
4	Angles	A1R
4	do	A1L
4	Fills	F1
4	do	F2
4	Angles	A2R
4	do	A2L
5	do	A3R
5	do	A3L
2	do	A4R
2	do	A4L
2	do	A5R
2	do	A5L
2	Apron Pls	AP1
8	Bolts	B1
68	Cast Washers	W1
2	Floor Beams	FB3

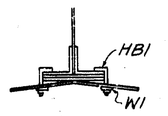
Estimated Weight 18 Tons.
Ord. on Req'n. No. 717081
Shipped to Hart, Mo.
Gdrs. out Stock C on Req'n. No. 717080



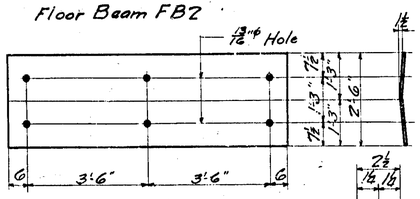
Floor Beams FB1-FB3



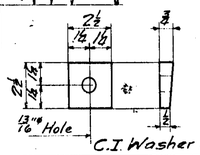
Floor Beam FB2



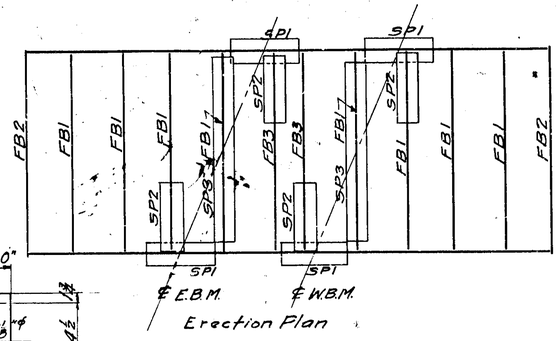
SP1 on Gdrs.



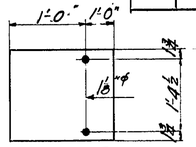
1-PL 30x⅜x8'-0" SP1



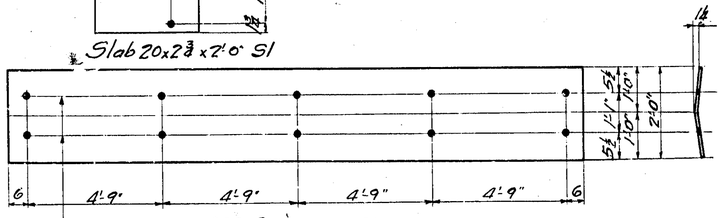
C.I. Washer W1



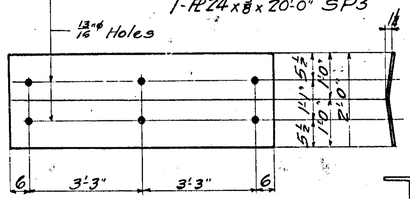
Erection Plan



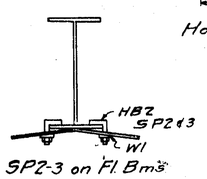
Slab 20x2⅜x2'-0" S1



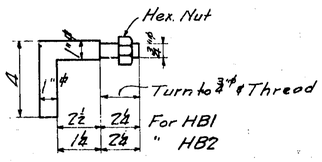
1-PL 24x⅜x20'-0" SP3



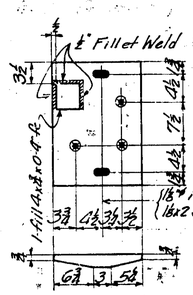
1-PL 24x⅜x7'-6" SP2



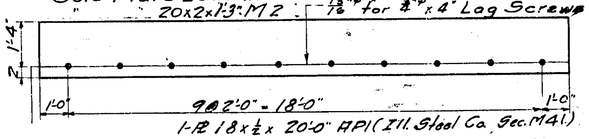
SP2-3 on Fl. Bms.



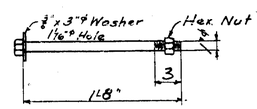
Hook Bolts HB1 & HB2



Erector's List of Field Rivets				
No.	Dia.	Grip	Length	Pieces Connected
200	⅞" ℄	1	2½	FB1 & 3 to Gird. Web
40	"	1⅝	2⅝	FB2 to Girder
28	"	3	4⅛	A1E-F1-F2 to Gdr. Web
40	"	1 13/16	3½	M2E-3-⅞"-4-⅞"-5-⅞" to Top Flg. Gdr.
12	"	2⅜	4⅛	A3E " " "
144	"	2	3½	P1-P2 to Bott. Flg. Gdr.
68	"	1⅝	2⅞	A " " " "
12	"	2⅜	3⅜	M1E-M2E to Gdrs.
20	"	2	3½	F1 & F2 to Gdr. Web



Sole Plate 20x2x1'-3" M1R
20x2x1'-3" M2
1-PL 18x½x 20'-0" AP1 (Ill. Steel Co. Sec. M41)



Bolt B1

Two 60'-0" Turntable Girders to come from Stock C" at Topeka, formerly at Collinsville, Okla. Item 61 Stock C" list as of Sept. 1, 1928.

General Notes:
Rivets: ⅞" ℄
Open Holes: 15/16" ℄ Unless noted
Reaming: None
Paint: One coat of Toch Bros China Wood Oil Primer #7101-R Use fitting up paint.

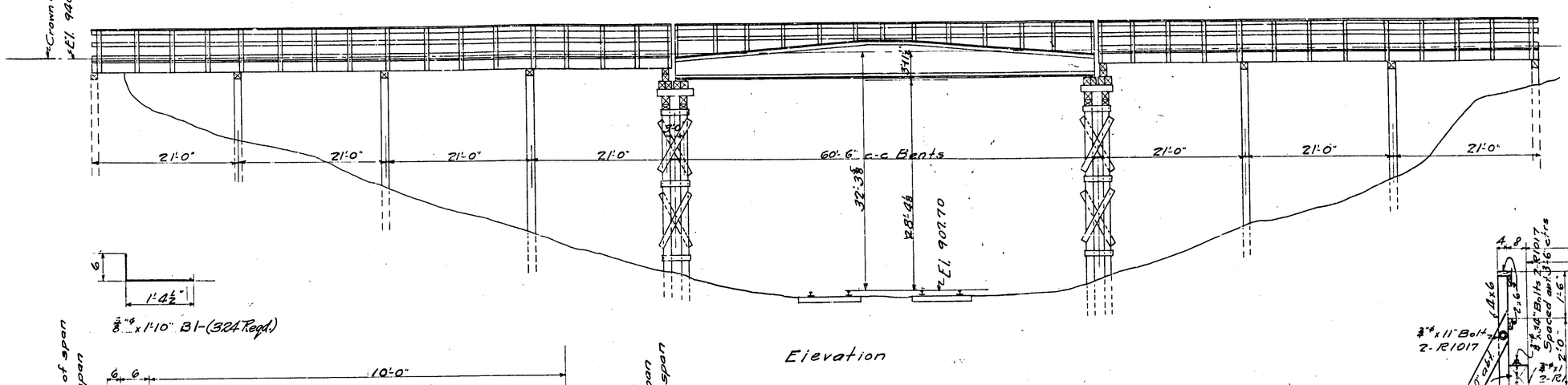
B.E.S. 2357
THE A.T. & S.F. RY. SYSTEM.
BR 334-B; MISSOURI DIV., 1ST DIST.
HIGHWAY SPAN
Scale ⅛"-¾"-3"=1'-0" Chicago, Ill.; Jan. 1929
CORRECT A. R. Mitchell
FOR BRIDGE ENGINEER SYSTEM

(1)

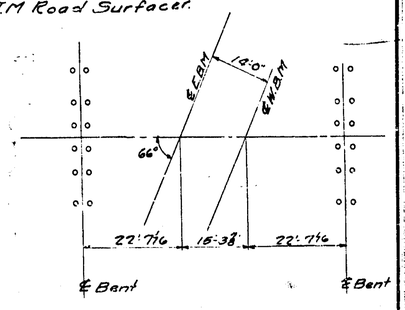
Rev. 2-18-29

Note: All field work in making concrete deck shall be in accord with the A.T.&S.F. Ry. System Employe's Concrete Manual C.E.S. 50153-22. At least 2 standard test cylinders shall be made.

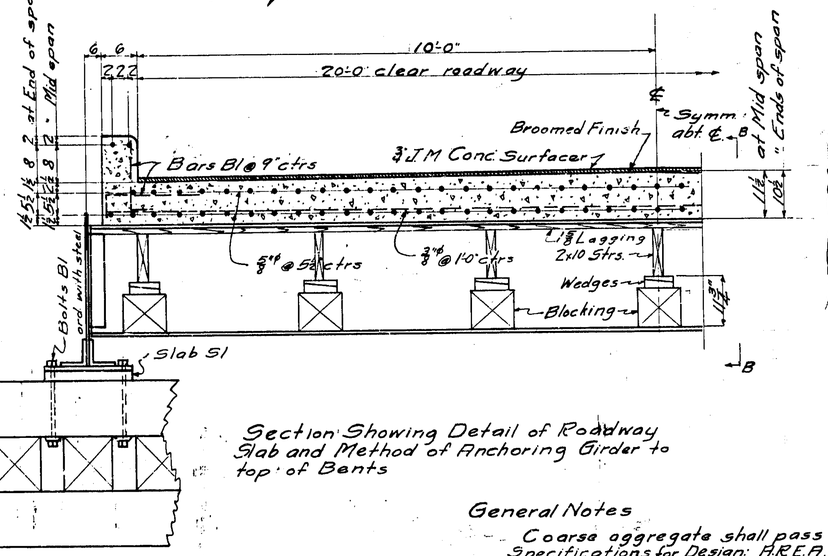
Note: Cover cracks between floor timbers with strips of old car roofing before laying J.M Road Surfacer.



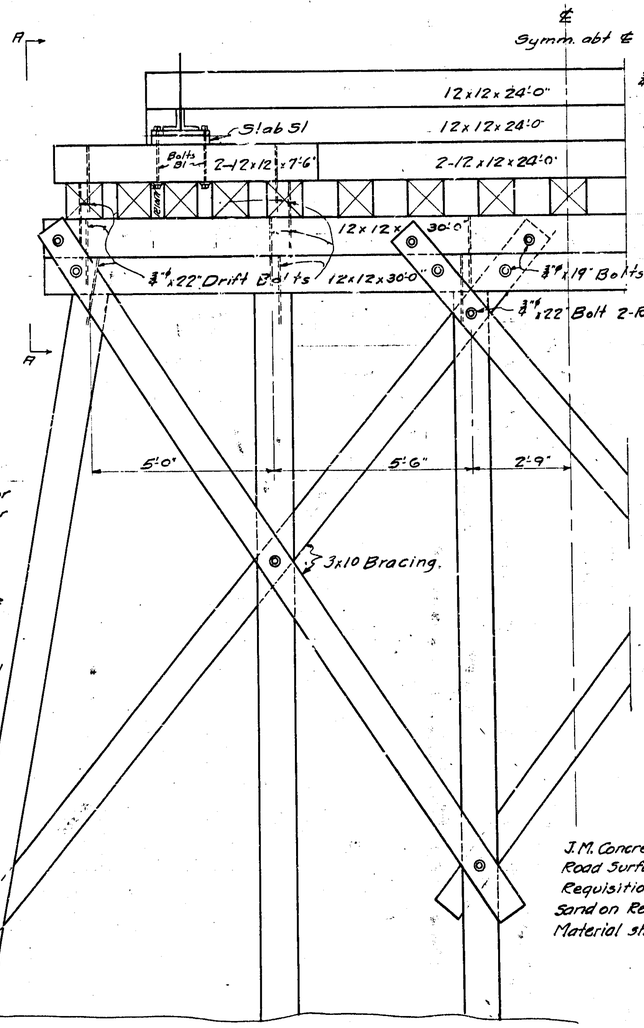
Elevation



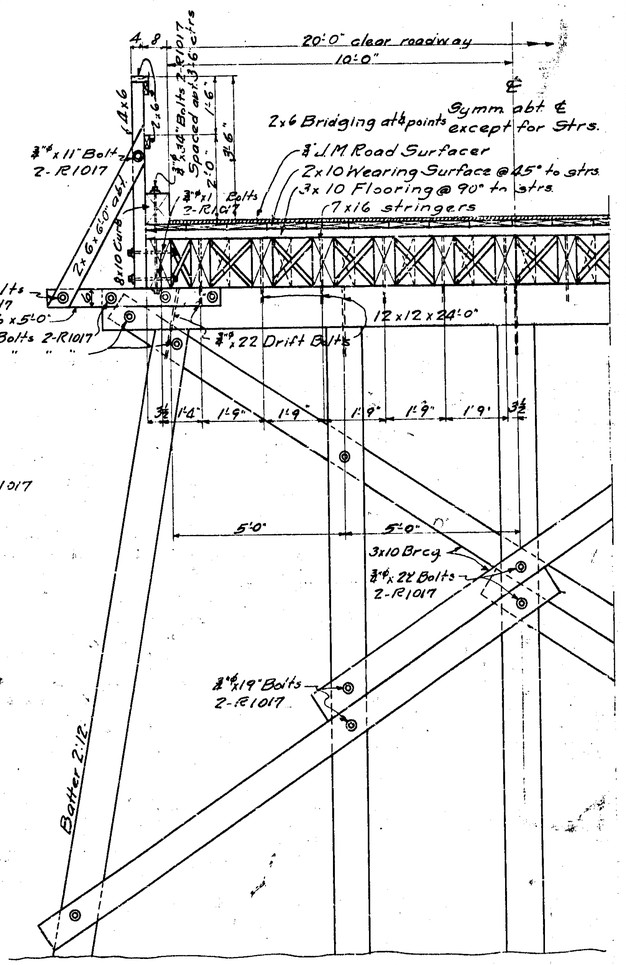
Location Plan



Sec. BB

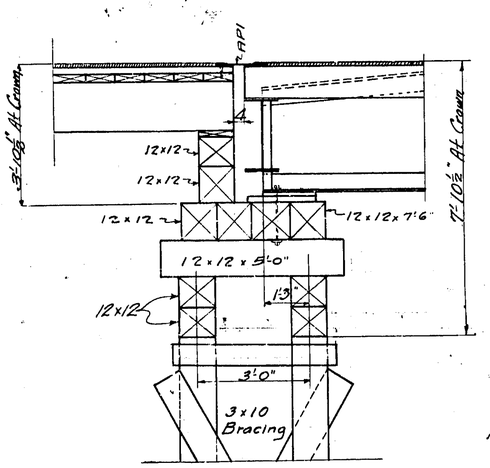


Details of Double Bents



Details of Timber Approaches.

Section Showing Detail of Roadway Slab and Method of Anchoring Girder to top of Bents



Sec. A-A

General Notes

Coarse aggregate shall pass a 1½" opening.
Specifications for Design: A.R.E.A. specifications for Highway Bridges, 1927. & A.R.E.A. specifications for Concrete, Plain and Reinforced, 1927.
Loading: H20-2 Lanes.
Concrete: Ultimate strength of concrete 3000# "a" in 28 days in 6"x12" cylinders.
Reinforcing: Deformed bars; O.H. steel; intermediate grade. To conform to A.S.T.M. spec. A15-14.
Timber: Creosoted Pine. In framing cut one end only of creosoted timber where possible. Where the original creosoted surface has been disturbed in framing, the freshly cut surfaces are to receive one coat of hot preservative and 2 coats of sealing compound applied hot. Empty holes to have one coat of hot preservative and the holes filled with creosoted plugs, which before insertion are dipped in hot sealing compound.
Apron Plates must be given 2 coats of paint before placing in deck.

Estimated Quantities.
43 Cu. Yds. Concrete
15 gals J.M. Conc. Primer
24900# J.M Concrete Highway Bridge Road Surfacer.

Note: Specifications for applying J.M. Surfacer to concrete & timber on file in office of Bridge Engineer System B.E.S. 261.

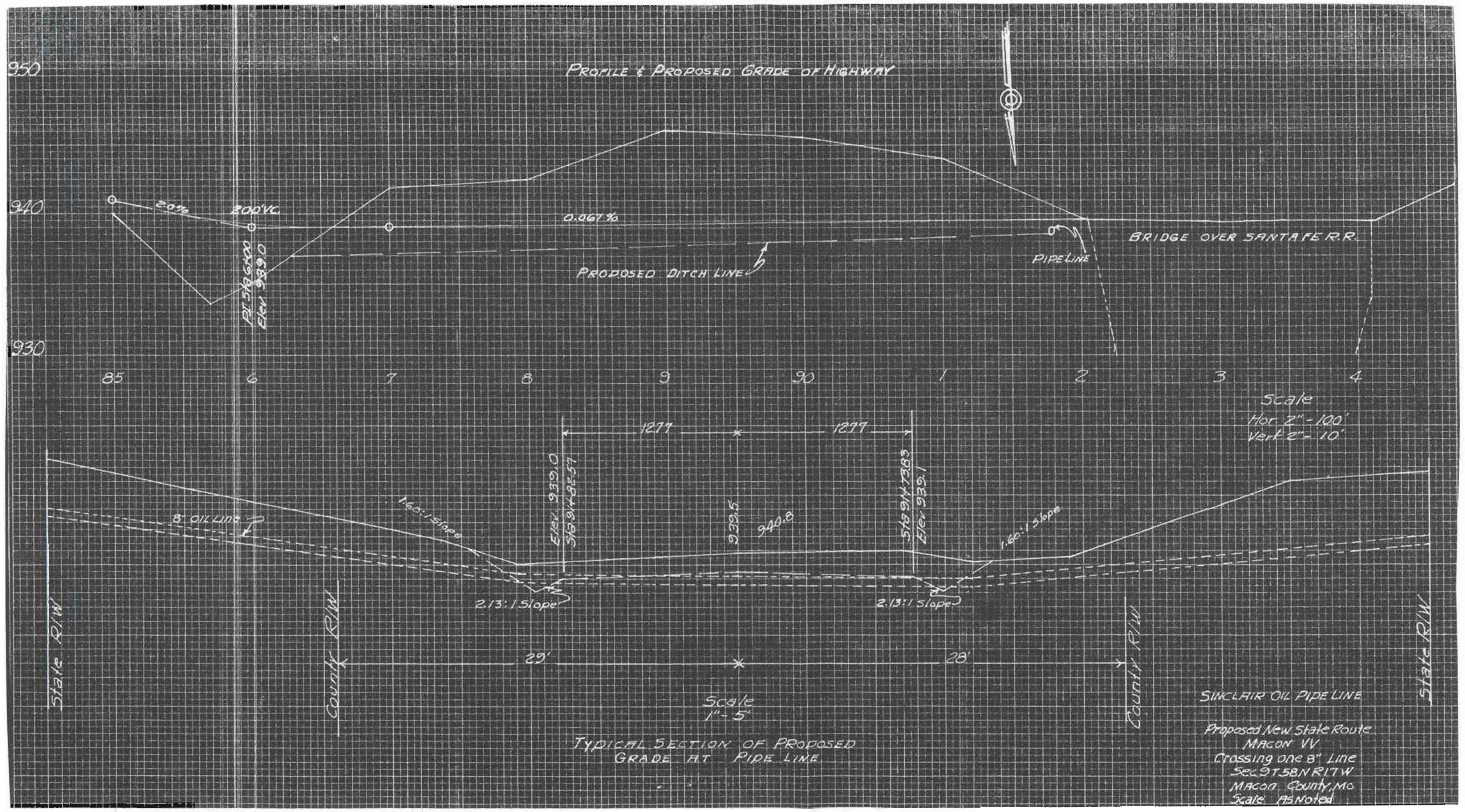
J.M. Concrete Highway Bridge Road Surfacer Compound on Requisition No. 717082
Sand on Requisition No. 717083
Material shipped to Hart, Missouri

B.E.S. 2357
THE A.T.&S.F. RY. SYSTEM
BR 334-B; MISSOURI DIV., 1ST DIST.
HIGHWAY SPAN

Scale ⅛-½"-⅜"-1'-0" Chicago, Ill., Jan. 1929

CORRECT A. Mitchell
FOR BRIDGE ENGINEER SYSTEM

(2)



PROFILE & PROPOSED GRADE OF HIGHWAY
950
940
930
20%
200' V.C.
0.067%
P.I. Sta 86+00
Elev 939.0
PROPOSED DITCH LINE
PIPE LINE
BRIDGE OVER SANTA FE R.R.
85
6
7
8
9
90
1
2
3
4
Scale
Hor. 2" - 100'
Vert. 2" - 10'
8" Oil Line
1.60:1 Slope
Elev 939.0
12.77
12.77
939.5
940.8
Elev 939.1
1.60:1 Slope
2.13:1 Slope
2.13:1 Slope
State R/W
County R/W
29'
28'
County R/W
State R/W
Scale
1" - 5'
TYPICAL SECTION OF PROPOSED
GRADE AT PIPE LINE
SINCLAIR OIL PIPE LINE
Proposed New State Route
Macon VV
Crossing one 8" Line
Sec 9 T 58 N R 17 W
Macon County, Mo
Scale As Noted

September 7, 1956

BRIDGES: Maintenance
Supplementary Bridges Used in Place
Bridge W-404, Take-Over No. 1
Station 92+05.13
Route VV, Macon County

Mr. F. D. Harris:

An inspection has recently been made on a structure located 2.7 miles northeast of Hart over the Santa Fe Railroad. This structure consists of 7-20' creosoted timber spans and 1-60' steel plate girder with timber handrail, concrete floor on the plate girder span and creosoted timber floor with mat coat on the 20' creosoted timber spans. The width of roadway is 20'0". The substructure consists of creosoted pile bents.

The entire structure is in good condition except there is a sagged place in the concrete floor where water stands 1" to 2" deep. The bituminous mat coat is rough. There is a long sloping bank from the face of the abutment down to the ditch along side of the railroad tracks and this fill is washing badly and sliding down to fill the ditches, especially at all four corners of the structure. A long pipe had been placed at one corner to take care of this condition and it has washed out and is not now effective.

This structure has been built by the railroad company and was designed for an H20 loading. The alignment is fair with a curve beginning a short distance from each end of the structure. The grades, visibility and rail crossing are good.

It will be satisfactory to use this structure in place when the adjacent roadwork is placed under contract, with the structure to remain the property of the railroad company and to be maintained by them. It will be necessary that the road plans provide for a better way to handle drainage from the road ditches.

However, if the railroad company desires that we take the structure into our supplementary system and maintain, it will be satisfactory provided that the railroad paints the handrail from the hubguard up with two coats of paint,

preferably that the top coat be aluminum. Place a pre-mixed bituminous mat over the entire floor and raise grade over the concrete floor so that water will drain. Also provide better drainage along the cut slopes to prevent erosion of the railroad back slopes through this section of the cut, both from drainage off of the structure and from the side ditches.

Bridge Engineer

cc: Mr. B. F. Leslie
Mr. H. C. Johnson

SJW:mjs
file

August 28, 1956

BRIDGES: Maintenance
Supplementary Bridges Used in Place
Bridge No. W-404, T. O. No. 1, Sta. 92+05
Route VV, Macon County

Mr. B. F. Leslie:

This will acknowledge receipt of your letter of August 24, together with the used in place report for the AT&SF Railroad Crossing on the above mentioned route.

We will arrange to make an inspection of this structure at an early date, and we will see what we can do to eliminate water ponds on the span.

Bridge Engineer

file

SJW:cja

MISSOURI STATE
HIGHWAY DEPARTMENT

RECEIVED
AUG 27 1956
Bureau of Bridges

INTER-DEPARTMENT CORRESPONDENCE

August 24, 1956 DATE

SUBJECT BRIDGES: Surveys
A.T.& S.F. Railroad Crossing
Route VV, Macon County

W-404
T.O. # 1

TO Mr. J. A. Williams

Attached please find copy of a U.I.P. Bridge Report for the crossing of the A.T. & S.F. Railroad at Station 92+05.13 on the above mentioned route. Also attached is a set of plans for this structure furnished by the Railroad.

In connection with this bridge it has been noted that after a rain the center or main span ponds 1½ inches of water. We would like for the Railroad to lay a new mat on this section of the bridge in order to eliminate this ponding of water.

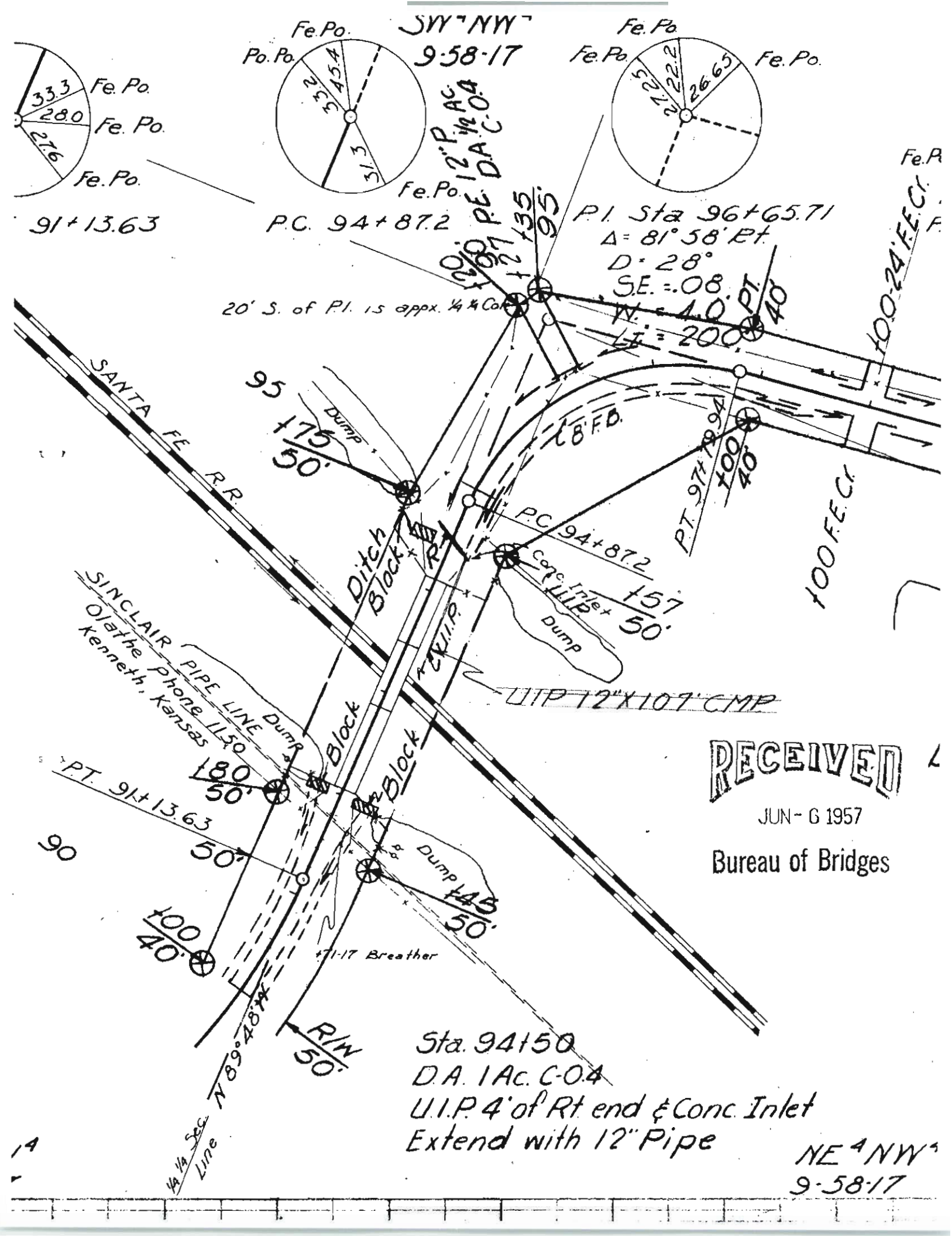
A check of this structure, in order to determine if it can be used in place, will be appreciated and may be done at your convenience.

B. F. Leslie
B. F. Leslie
District Engineer

Enc-

BFL:rm

ANSWERED
By
Date 8-27-56
Verbal
Letter or Wire
Phone


SW¼NW¼
9-58-17
Fe. Po.
33.3
28.0
27.6
91+13.63
Po. Po.
32.2
45.4
31.3
P.C. 94+87.2
12" P. A.C. D.A. 1½ C-0.4
Fe. Po.
22.5
22.2
26.65
P.I. Sta 96+65.71
Δ = 81°58' Rt.
D = 28°
S.E. = .08
W. = 4.0
Lt = 200
P.T.
40
100-24' F.E. Cr.
20' S. of P.I. is appx. ¼ ¼ Cor.
SANTA FE R.R.
95
+75
50'
Dump
C.B.F.B.
P.T. 97+79.94
+00
40'
100 F.E. Cr.
Ditch
Block
R/W
P.C. 94+87.2
Conc. Inlet
U.I.P.
+57
50'
Dump
U.I.P. 12"X107' CMP
SINCLAIR PIPE LINE
Olathe Phone 1150
Kenneth, Kansas
Dump
Block
Block
P.T. 91+13.63
+80
50'
90
50'
Dump
+48
50'
+00
40'
+71-17 Breather
R/W
50'
N 89°48' W
¼ ¼ Sec Line
Sta. 94+50
D.A. 1 Ac. C-0.4
U.I.P. 4' of Rt end & Conc. Inlet
Extend with 12" Pipe
RECEIVED
JUN - 6 1957
Bureau of Bridges
NE¼NW¼
9-58-17

J. A. WILLIAMS

Macon, Missouri
June 4, 1957

SURVEYS & PLANS: Overhead Crossing
A.T. & S.F. Railroad
Route VV, Macon County

Mr. C. P. Owens

Attention: Mr. Roy C. Johnson

On August 24, 1956, we forwarded a UIP Bridge Report for the above crossing to Mr. Williams, to determine whether the existing overhead crossing would be suitable for use in place. It is listed under "Supplementary Bridges Used in Place" as Bridge W-404 T.O. #1, Station 92+05.

The bridge was inspected by Mr. White, and a report was made to Mr. Harris under date of September 7, 1956. In the 4th paragraph of this letter the statement was made that it would be satisfactory to use the structure in place when the adjacent road work is placed under contract with the structure to remain the property of the railroad company and to be maintained by them. However, Mr. William's letter further states, in the 5th paragraph, that if the railroad company desires that we take the structure into our supplementary system and maintain it, that would be satisfactory provided that the railroad company paints the handrail from the hubguard up with two coats of paint. Also, that the railroad company places a premixed bituminous mat over the entire floor and raises the grade over the concrete floor so that water will drain. Further, that it will provide better drainage along the cut-slopes through this section of cut, both from drainage off the structure and from the side ditches.

We have no information that this matter was ever taken up with the Santa Fe. We have placed this project on our current construction program and hope to place the work under contract sometime this summer.

All of the right-of-way has been cleared now with the exception of the arrangements to be made with the railroad company and also with the Sinclair Pipe Line Company.

We would be agreeable to taking this structure over for maintenance provided the railroad company would agree to take care of the items set out in Mr. William's letter, and, since our plans will be completed within the next week, would like to suggest that the necessary arrangements with the railroad company and pipe line people be completed as soon as possible.

When we fieldchecked this route it occurred to us that it might be desirable to require the railroad to do certain other things in connection with our taking over and assuming maintenance of the overhead structure, in addition to Mr. William's recommendations. These would include:

1. Realigning and repairing the handrails.

2. Retiring the railroad fence within the limits of the easements and reconstructing same in the location shown in red on the attached prints.

Our design will permit drainage from the east end of the overhead structure to flow east in the road ditches. It will, of course, correct to a great extent, the washy condition on the east cutslope of the railroad. On the west side our plans call for handling the drainage in the same manner as it is presently being handled, that is, the ditch water from both sides of the highway will be carried to a drop inlet near the northwest corner of the overhead structure, thence through an existing 12" corrugated metal pipe under the west cutslope.

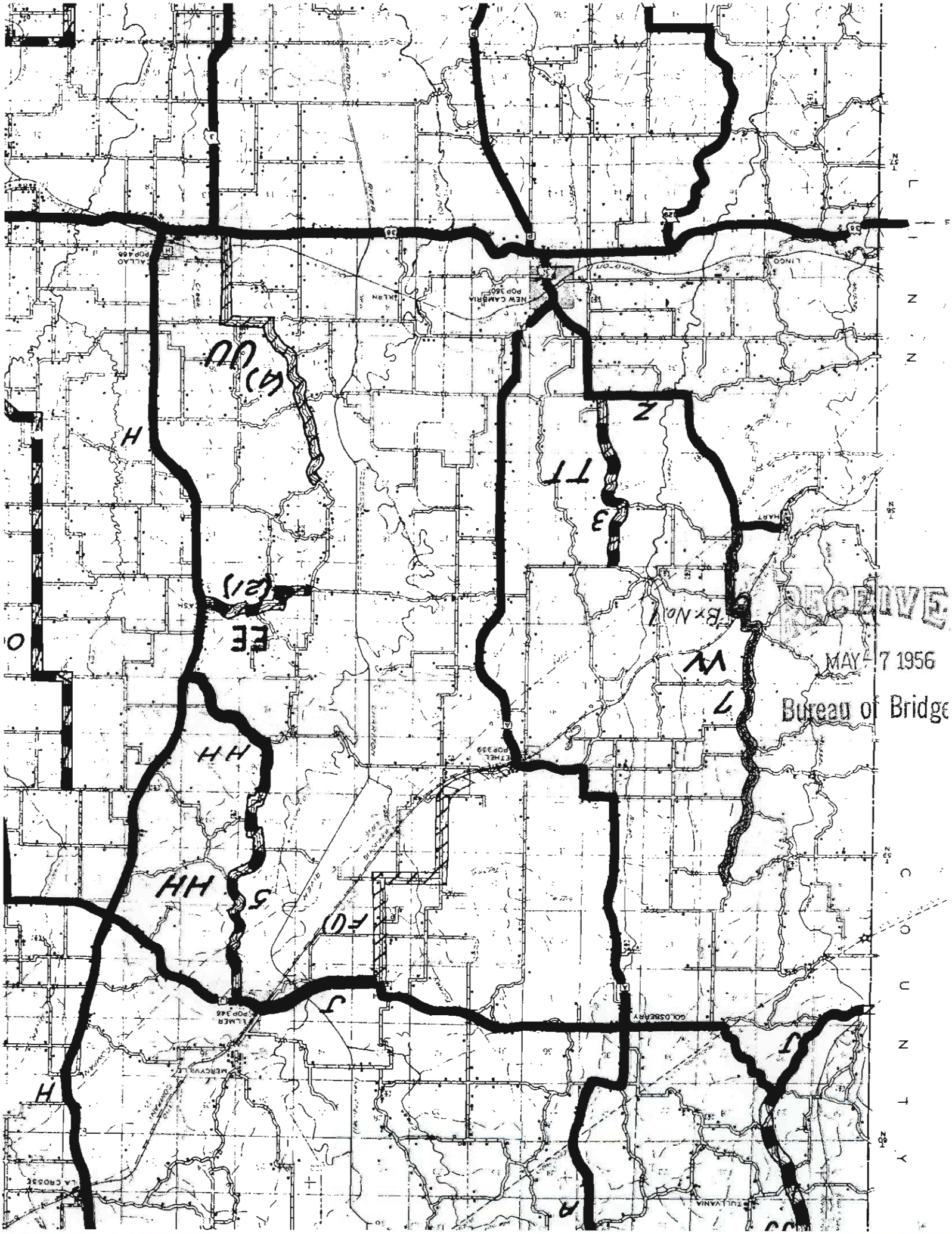
Our contract with the railroad, we believe, should provide for continued maintenance by the railroad company of this drop inlet and pipe, as well as the backslopes in the railroad cut under the bridge.

We note from correspondence in our files that negotiations are under way with the pipe line company for the adjustment of the pipes on the east side of the Santa Fe Railroad right-of-way.

B. F. Leslie
District Engineer

cc: J. W. Williams
Fred Harris

EEZ:mw


RECEIVED
MAY 7 1956
Bureau of Bridge

Mr. J. A. Williams

March 6, 1957

SURVEYS & PLANS
Pipeline Crossing
Route SVV, Macon County, near Hart

Mr. Fred A. Crane, Ass't. Supt.
Right of Way Department
Sinclair Pipe Line Company
Independence, Kansas

Dear Mr. Crane:

Attached are two prints each of road information on the improvement of an existing road as a part of our Supplementary Road System.

At the east end of the Santa Fe overhead near this location the drainage from the side road ditches has caused and is now causing considerable trouble at each corner of the railroad structure. In order to eliminate this trouble the plan provides for reversing the existing road grade so that the water will be carried back to the east. At the point where this improvement crosses your pipeline the side road ditch can be eliminated, which will require less pipeline work.

The prints referred to above are sections of our road plans and a special sheet showing the proposed roadway grade from the Santa Fe structure back east. Under this plan it will be necessary to lower your pipeline some three feet at the point of crossing, and inasmuch as this improvement occupies an existing public road we must ask your company to lower this line at its expense.

We should be glad to have you investigate this matter as soon as possible and advise us if you can handle as outlined as we have this improvement scheduled for an early letting.

Very truly yours,

Chief Engineer

cc: Mr. H. E. Wilson
Mr. J. A. Williams
Mr. B. F. Leslie
RCJ:hh

DKM

FORM B-706R

A39-57Φ

MISSOURI HIGHWAY DEPARTMENT

RECEIVED
AUG 27 1956
Bureau of Bridges

BRIDGE REPORT

ON STRUCTURES USED IN PLACE

THIS REPORT TO BE FILLED IN WITH INK OR TYPEWRITER

Road under wsat 7-25-57

T.O. #1

[signature]

COUNTY Macon PROJ. NO. Rt. V.V. STA. NO. 92+05.13 BRIDGE NO. 334.3 DESIGN NO. W-404

*ON ROAD FROM Hart East & North to Goldsberry 2.7 MILES N. E. ~~S.W.~~ OF Hart

BRIDGE OVER Santa Fe R.R. SEC. 9 TWP. 58 N RG. 17 W

REPORTED BY R. Waller DATE March 1956

*GIVE ADJACENT TOWNS, EACH WAY, NOT TERMINAL POINTS OF ROUTE.

SUPERSTRUCTURE

TYPE OF STRUCTURE See plans attached

LENGTH OUT TO OUT OF FLOOR	WIDTH BETWEEN CURBS	WIDTH OF SIDEWALKS	DISTANCE GRADE TO LOW CONST.	DISTANCE GRADE TO HIGH WATER	DISTANCE GRADE TO STREAM BED	EXPANSION PROVISIONS
	See plans attached					

CLEARANCE DIMENSIONS HEIGHT MIN. MAX. WIDTH MIN. MAX.	TYPE AND SIZE OF RAIL	TYPE AND SIZE OF CURB	DESCRIPTION OF FLOOR DRAINAGE
	See plans attached		

GENERAL CONDITION Good

SUBSTRUCTURE

ABUTMENTS AND PIERS	MATERIAL	TYPE	TOP OF FOOTING TO BRIDGE SEAT	WIDTH OF BRIDGE SEAT	LENGTH OF BRIDGE SEAT	FOUNDATIONS (PILING)	WINGS (LENGTHS, ANGLES, ETC.)
WEST OR NORTH	See plans attached						
EAST OR SOUTH							
PIER							
PIER							
PIER							
PIER							

Take into system if RR will take care of drainage and paint it level of rail floor
9-6-56
J[illegible]

GENERAL CONDITION Good

GENERAL INFORMATION

DATE BUILT 1929 BY A.T.&S.F. R.R. FABRICATOR (IF STEEL BRIDGE)

CAN PLANS BE OBTAINED? Yes GIVE NAME AND ADDRESS R.R. plans attached

EXTREME HIGH WATER ELEV. LOW WATER ELEV. EL. FLOOR 940.0

ALIGNMENT OF STRUCTURE Straight SKEW OF STRUCTURE 30° 38' Lt. Ah

STREAM ALIGNMENT ABOVE STRUCTURE BELOW STRUCTURE

RIP RAP CHANNEL PROTECTION

WHAT IS EFFECTIVE WATERWAY UNDER BRIDGE, AT 90° WITH DIRECTION OF FLOW, BELOW EXTREME HIGH WATER SQ. FT.

DOES THIS WATERWAY CARRY ENTIRE FLOOD DISCHARGE?

DOES DRIFT PASS SATISFACTORILY? DOES BRIDGE BACK UP WATER DURING FLOOD?

IS THERE ANY INDICATION OF SCOUR AT PIERS OR ABUTMENTS?

DRAINAGE AREA ABOVE BRIDGE SITE SQ. MILES. HOW OBTAINED?

CHARACTER OF DRAINAGE AREA: FLAT, ROLLING, HILLY, OR MOUNTAINOUS

STEEL BRIDGES

TRUSSES

TYPE OF TRUSSES	LENGTH OF SPANS—C. TO C.	NO. OF PANELS	LENGTH OF PANELS

PLATE GIRDERS

LENGTH—C. TO C. OF BEARINGS	DEPTH—B. TO B. OF FLANGE ANGLES	WEB THICKNESS	FLANGE SECTION AT CENTER TOP	FLANGE SECTION AT CENTER BOTTOM	SIZE AND SPACING OF RIVETS IN FLANGE AT ENDS

BEAM SPANS

LENGTH C. TO C. OF BEARINGS	SPACING OF BEAMS	SIZE AND SHAPE OF INSIDE BEAMS	SIZE AND SHAPE OF OUTSIDE BEAMS

ARCHES-FRAMES-SUSPENSIONS

(DESCRIBE FULLY)

FLOOR BEAMS AND CONNECTIONS

TYPE	NUMBER	SPACING	SECTION	SIZE—SHAPE—NET SECTION	NO. & SIZE RIVETS FLOOR BEAM TO CONN.	NO. & SIZE RIVETS CONN. TO TRUSS
INTERMEDIATE FLOOR BEAMS						
END FLOOR BEAMS						

STRINGERS

KIND	NO. LINES	SIZE AND LENGTH	SPACING	FLANGE WIDTH	WEB THICKNESS

DO STRINGERS REST ON TOP OF FLOOR BEAMS	HOW FRAMED TO FLOOR BEAMS	NO. AND SIZE RIVETS STRINGER TO CONNECTION	NO. AND SIZE RIVETS CONNECTION TO FLOOR BEAM

ARE SHELF ANGLES USED

END STRINGERS—LENGTH

SUPPORTS

FLOOR

TYPE

INCHES THICK

WEARING SURFACE

INCHES THICK

HOW FASTENED TO STRINGERS

CONCRETE AND STONE MASONRY BRIDGES

CONCRETE SLAB

THICKNESS OF SLAB

CONCRETE GIRDER

WIDTH OF GIRDER	DEPTH OF GIRDER AT CENTER	DEPTH OF GIRDER AT ENDS	THICKNESS OF FLOOR SLAB

ARCHES OR FRAMES

TYPE SLAB / RIB — MATERIAL

CLEAR SPAN	RISE	CROWN THICKNESS	SPRING OR HAUNCH THICKNESS	BASE THICKNESS	FILLING MATERIAL	DEPTH OF FILL AT CROWN

CONCRETE BOX TYPE

SIZE	LENGTH BACK TO BACK OF HEADWALLS	SHOULDER WIDTH	FILL AT CENTER LINE	FLOOR—CONCRETE OR ROCK

TIMBER BRIDGES

STRINGERS

ACTUAL SIZE	SPACING	NO. OF LINES	SPECIES AND TREATMENT	HOW SUPPORTED	LAPPED OR BUTTED

FLOOR

TYPE	SIZE OR THICKNESS	SPECIES AND TREATMENT	HOW FASTENED TO STRINGERS OR CROSS BEAMS	HOW LAID			CROSS BEAMS	
				TRANSV.	LONG.	DIAG.	SIZE	SPACING

GRADE SEPARATIONS

TYPE OF SEPARATION OVERHEAD / UNDERPASS

SEPARATION OF

MAINTENANCE OF STRUCTURE BY

MAINTENANCE OF APPROACHES BY

MAINTENANCE OF DRAINAGE BY

MAINTENANCE OF LIGHTS BY

PROVISION FOR FUTURE R. R. DEVELOPMENT

ADDITIONAL INFORMATION

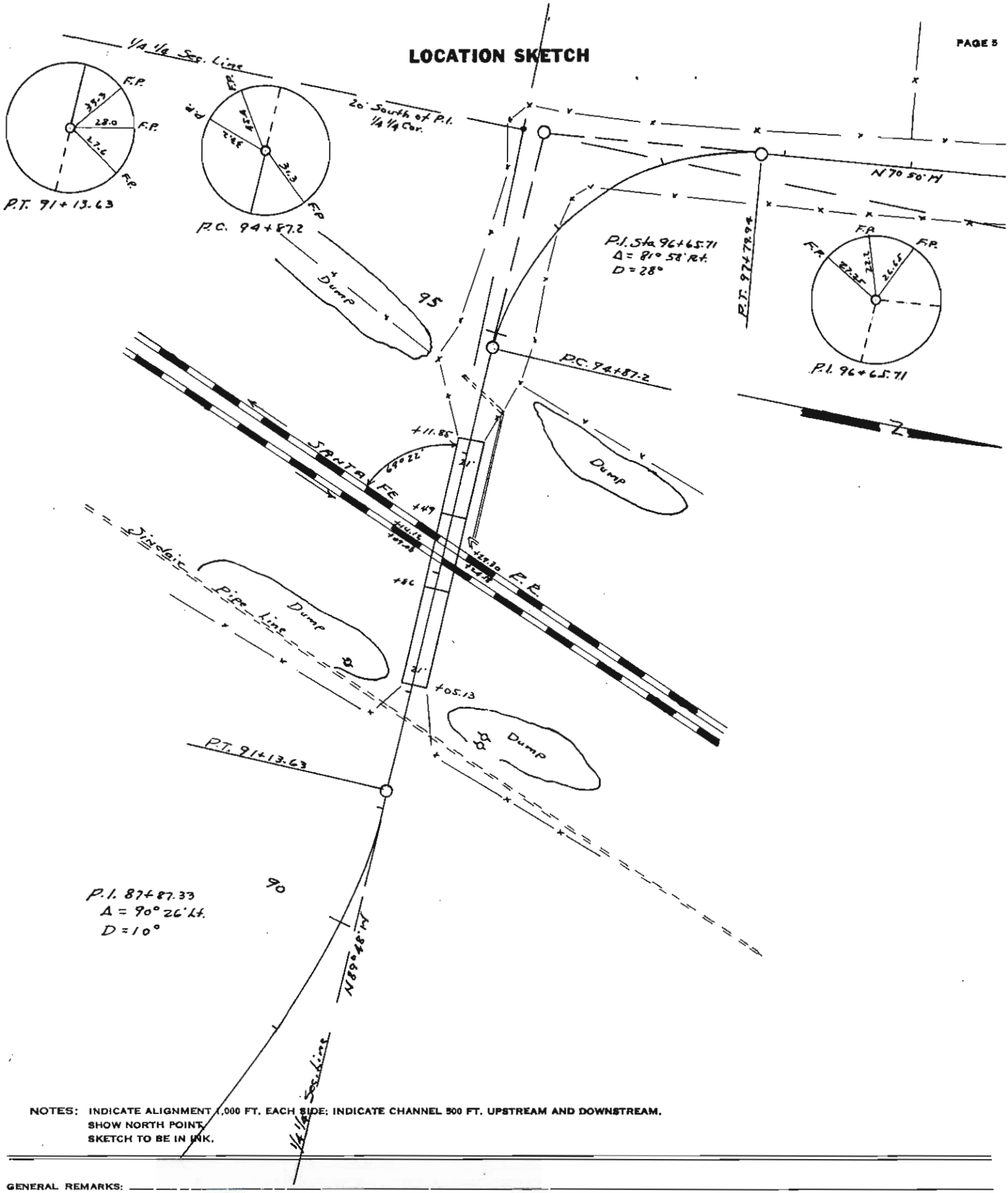
SHOW BELOW—BY SKETCH NO. OF TRACKS; R. R. AND HIGHWAY ALIGNMENT; SUBWAY CLEARANCES—HORIZONTAL AND VERTICAL

NOTE: SHOW STRUCTURAL DETAILS UNDER PROPER HEADING.

STREAM CROSSINGS

DESCRIBE FULLY LOW WATER BRIDGES, FORDS OR FERRY CROSSINGS

LOCATION SKETCH



NOTES: INDICATE ALIGNMENT 1,000 FT. EACH SIDE; INDICATE CHANNEL 500 FT. UPSTREAM AND DOWNSTREAM.
SHOW NORTH POINT.
SKETCH TO BE IN INK.

GENERAL REMARKS:

SKETCHES OF STRUCTURE

NOTES: SHOW ELEVATION AND PLAN OF STRUCTURE.
MAKE SKETCHES LARGE ENOUGH TO SHOW SIZES OF EACH MEMBER.
SKETCHES TO BE IN INK.
USE SEPARATE SHEETS FOR STRUCTURAL SKETCHES IF ADDITIONAL SPACE IS REQUIRED.

1-1-00
by L. St. Clair & H. Osborn

State System

PLATE 14
(REV: 12-78)

STRUCTURE INVENTORY & APPRAISAL SHEET

COUNTY MACON BRIDGE NO. M-404 Exc ROUTE VV

IDENTIFICATION

1 State MISSOURI
2 Hwy District
3 County
4 City/Town
5 Inventory Rte. On ☐ Under ☐
6 Features Intersected
7 Facility Carried by Struct.
8 Structure No. 1 of
9 Location
10
11 Milepoint
12 Road Section No.
13 Defense Bridge Description
14 Defense Milepoint
15 Defense Section Length
16 Latitude
17 Longitude
18 Physical Vulnerability
19 By-pass, Detour Length
20 Toll Bridge ☐ On Toll Rd. ☐ On Free Rd. ☐
21 Custodian M.S.H.D.
22 Owner M.S.H.D.
23 F.A.P. No.

CLASSIFICATION

24 Fed. Aid System
25 Administrative STATE
26 Functional

	By	Date
Transfer of Data		
Condition Analysis		
Appraisal		
Cost		
General Review		
Maintenance Inspection		

STRUCTURE DATA

27 Year Built
28 Lanes on Str. Under
29 ADT on Str. 30 Year
31 Design Load
32 Appr. Rdwy Width W/Sh'ld.
33 Br. Median ☐ None ☐ Open ☐ Closed
34 Skew
35 Struct. Flared ☐ Yes ☐ No
36 Traffic Safety Features ☐ ☐ ☐ ☐
37 Drainage Area Sq. Mi.
38 Navigation Control ☐ Yes ☐ No
-Vertical Ft
-Horizontal Ft
39 Open to Traffic ☐ Load Posted ☐ Closed ☐
40 Br. Sur. Report Available ☐ Yes ☐ No
41 Utility Attachments ☐ Yes ☐ No
A
B

CODE

42 Type Service
43 Structure Type-Main
44 -Approach
45 No. of Spans-Main
46 -Approach
47 Total Horiz. Clear. Ft
48 Max. Span Length Ft
49 Structure Length Ft
50 Sidewalk Rt Ft Lt Ft
51 Br. Width (Curb-Curb) Ft
52 Deck Width (Out-Out) Ft
53 Vert. Clearance Over Deck ' "
54 Under Clearance-Vertical ' "
55 -Lateral-Right Ft
56 -Left Ft
57 Wearing Surface Type CODE

CONDITION

	Material	Condition Analysis	Rating (9-0)
58 Deck			
59 Superstructure			
60 Substructure			
61 Channel & Channel Protection			
62 Culvert & Retaining Walls			
63 Estimated Remaining Life		65 Approach Roadway Alignment	
64 Operating Rating		66 Inventory Rating	

APPRAISAL

	Deficiencies	Rating (9-0)
67 Structural Condition		
68 Deck Geometry		
69 Under Clearances-Vert. & Lateral		
70 Safe Load Capacity		
71 Waterway Adequacy		
72 Approach Roadway Alignment		

REMARKS Span # 5 - Bridge Floor is Conc with Asph overlay
Spans 1-2-3-4-6-7&8 - Bridge Floor is Timber with Asph Overlay

PROPOSED IMPROVEMENTS

73 Year Needed _____ Completed _____ Describe (item 75) _____

74 Type of Service _____

75 Type of Work _____

76 Improvement Length _____ Ft

77 Design Loading _____

78 Roadway Width _____ Ft

79 Number of Lanes _____

80 ADT _____ 81 Year _____

82 Prop. Rdwy Improvement-Year _____

83 -Type _____

84 Estimated Cost of Improvements $_____,_____,000.

85 Estimated Cost of Preliminary Engineering $_____,000.

86 Estimated Cost to Demolish Existing Structure $_____,000.

87 Estimated Cost to Construct Proposed Substructure $ ____,_____,000.

88 Estimated Cost to Construct Proposed Superstructure $ ____,_____,000.

89

90 Date Structure was Inspected ____ ____ ____
(MM Month, DD Day, YY Year)

C Year Remodeled _____

D Structure Plans on Microfilm Roll _____ Exposure _____

MISSOURI STATE HIGHWAY DEPARTMENT

BRIDGE DATA ON SUPPLEMENTARY ROUTES TAKEN OVER FOR MAINTENANCE

DISTRICT TWO

COUNTY Macon ROUTE VV DATE May 3, 1956 SHEET NO. 1 of 1

LOCATION From Route Z just east of Hart northerly

LENGTH 7 Miles TYPE 18-24' GE, Part Aggr. Surf. TRAFFIC COUNT

Br. No.	Location	Name of Stream	Drain Area	Super Struct.	Length	Sub-Struct.	Rdwy. Width	Type Floor	REMARKS
W-404 1	1 3/4 Mi. North of Rt. Z	A.T. & S.F. R.R.	---	Timber Appr. Steel Girder Timber Appr.	80' 60' 60'	Timber	20'	Apprs. - Wood Girder, Br. - Conc.	

RECEIVED
MAY - 7 1956
Bureau of Bridges

G

1 3/4 Mi. N. Route Z 8-29-56 VV

DIVISION OF BRIDGES

BRIDGE INSPECTION REPORT

FORM NO. B- 702R

COUNTY Macon ROUTE NUMBER VV W? BRIDGE NUMBER 1 DESIGN NUMBER W-404

DATE OF INSPECTION 5-14-56 INSPECTION MADE BY RVG:OC

TYPE OF SUPERSTR. 3 @ 20± Timb. 60' Gr. 4@20± Timb. 20' Hdwy. Appr. Timber. C.-Conc. TYPE OF SUBSTR. Timber

SUPERSTRUCTURE

1	TYPE AND CONDITION OF FLOOR AND WEARING SURFACE	Conc. & Timber rough & water stands in conc. floor mat on timber rough but has paint on timber H.B.
2	CONDITION OF DRAINAGE	CO
3	CONDITION OF RAILING, CURBS, ETC.	Good
4	CONDITION OF MAIN MEMBERS (TRUSSES, GIRDERS, BEAMS, ARCHES)	Good 90%
5	CONDITION OF FLOOR BEAMS AND CONNECTIONS	Good
6	CONDITION OF JOISTS AND CONNECTIONS	Good
7	CONDITION OF PAINT AND EXTENT OF CORROSION	Black - Good a few spots

EXPANSION DEVICES AND SUPERSTRUCTURE SUPPORTS

8 ARE THEY FUNCTIONING PROPERLY						9 DO THEY REQUIRE						10 IS PROPER EXPANSION SPACE PROVIDED					
ROLLERS		ROCKERS		SLIDING PLATES		CLEANING		PAINTING		OILING		W. OR N. ABUT.		E. OR S. ABUT.		PIERS	
YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
				X													

11 DESCRIBE ANY DAMAGE TO STRUCTURE BY COLLISION, OVERLOADING, OR OTHER CAUSES

SUBSTRUCTURE

		MATERIAL	CONDITION	IS THERE ANY SETTLING		SLIDING		TILTING		CRACKING		UNDERMINING		DISINTEGRATING	
				YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
12	W. OR N. ABUTMENT	Creo.TP	Good		—		—		—		—		—		—
13	E. OR S. ABUTMENT	"	"		—		—		—		—		—		—
14	PIER 7b	"	"		—		—		—		—		—		—
15	PIER														
16	PIER														
17	PIER														
18	PIER														

19 DESCRIBE IN DETAIL THE LOCATION, EXTENT AND CAUSE OF ANY UNSATISFACTORY CONDITION LISTED ABOVE fair pile

20 IF A SKEWED STRUCTURE, HAS THE SUPERSTRUCTURE MOVED TRANSVERSELY? ---

21 CONDITION OF RIPRAP ---

22 DESCRIBE DAMAGE, IF ANY, TO BACKWALLS AND WINGS None

fill washing bet abt Forms

GENERAL

23 ARE PROPER EXPANSION JOINTS PROVIDED IN RIGID PAVEMENT TO PROTECT STRUCTURE? OR

24 CONDITION OF STREAM CHANNEL AT, ABOVE, AND BELOW BRIDGE SITE hh A.T.S.F.

25 HAVE THE FOLLOWING REPAIRS, RECOMMENDED LAST YEAR, BEEN MADE?

A - FG
G - O
V - O
C - ER

26 REMARKS

Get UIP

(SEE REVERSE SIDE)

DIVISION OF BRIDGES

BRIDGE INSPECTION REPORT

FORM NO. B-702R

COUNTY | ROUTE NUMBER | BRIDGE NUMBER | DESIGN NUMBER

DATE OF INSPECTION | INSPECTION MADE BY

TYPE OF SUPERSTR. | TYPE OF SUBSTR.

27 REPAIRS RECOMMENDED

T.R. None

P.R. work by railroad recommended
~~Remove wearing surface.~~
place premixed ~~Place and~~ entire bridge + raise grade
~~Paint Hr.~~
on concrete span so water wont pool
and then roll
Paint HR from Hub guard up 2 coats of

28 TOTAL ESTIMATED COST OF REPAIRS RECOMMENDED $

29 REPAIRS COMPLETED TO SUPERSTRUCTURE paint preferable alumin for top coat

Some arrange will have to be made to take care of water off of structure and from all side ditches or approaches

30 ACTUAL COST OF REPAIRS TO SUPERSTRUCTURE $

31 REPAIRS COMPLETED TO SUBSTRUCTURE

We would be letting ourselves into something without better way to take care of roadway approach drainage

32 ACTUAL COST OF REPAIRS TO SUBSTRUCTURE $

33 DATE WORK WAS COMPLETED | GRAND TOTAL COST OF WORK COMPLETED $

34 HOW MUCH OF ITEM 33 IS DUE TO FLOOD DAMAGE? $

HAS ANY MONEY BEEN SPENT IN VALLEY CROSSING FROM SPECIAL FUNDS?

AMOUNT SPENT $ | AFE NO.

HOW MUCH SPECIAL FUNDS WAS SPENT AT BRIDGE ENDS? $

HOW MUCH WAS SPENT SOME DISTANCE FROM BRIDGE? $

REMARKS:

(SEE REVERSE SIDE)

Mr. Williams

June 20, 1957

SURVEYS & PLANS: Overhead
Route SVV, Macon County
Near Hart

Mr. B. F. Leslie

We have your letter of June 4, above subject, recommending that certain things be done on the overhead crossing prior to taking over by the State.

At a conference with Mr. Harris yesterday it was decided to make an exception of the Santa Fe structure on our road plans. The railroad now has an obligation to maintain this structure for vehicular traffic, and due to the drainage troubles existing at each corner of the structure we do not want to do anything which might obligate us for taking over this structure.

In regard to any road work at each end of the structure located upon railroad right of way, some one now has authority to maintain a public road at this location; therefore, we can go ahead with our road work up to the ends of railroad structure without any further handling with the railroad.

C. P. Owens

C. P. Owens
Engineer of Surveys and Plans

cc: Mr. Williams
Mr. Harris
RCJ:hh