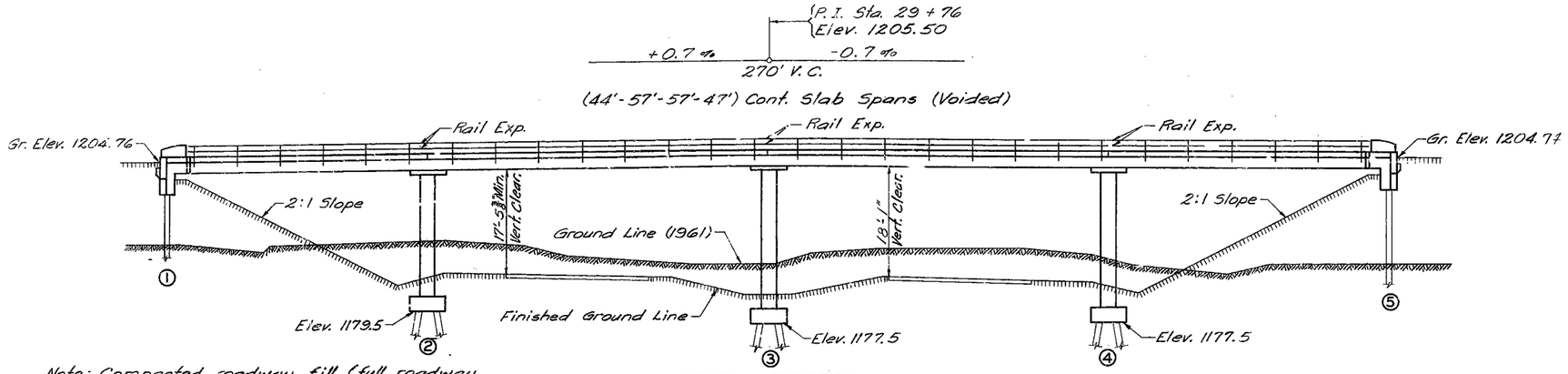
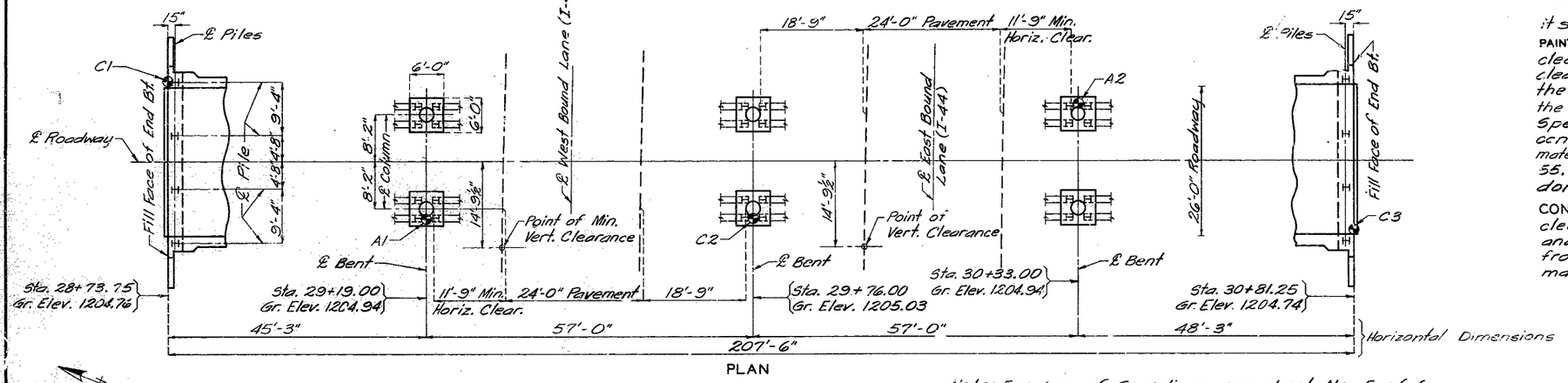
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	57	



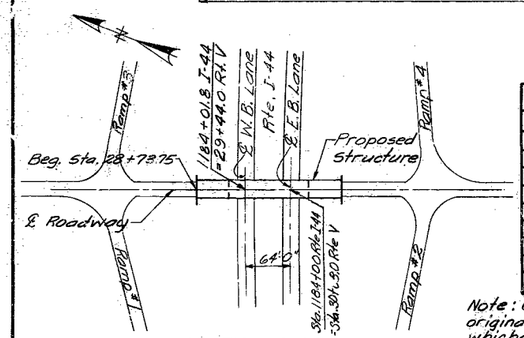
GENERAL ELEVATION

Note: Compacted roadway fill (full roadway width) shall be placed up to elevation of bottom of concrete beam in front of and not less than 25'-0" in back of End Bents Nos. 1 and 5 before steel piles are driven.



PLAN

Note: For Log of Soundings see sheet No. 5 of 6.



LOCATION SKETCH

ESTIMATED QUANTITIES				
ITEM		SUBSTR.	SUPERSTR.	TOTAL
Class 1 Excavation for Structures	Cu. Yds.	90		90
Steel Piles in Place (10")	Lin. Ft.	1,264		1,264
Steel Pile Cut-offs (10")	Lin. Ft.	96		96
Class B Concrete	Cu. Yds.	24.0		24.0
Class B1 Concrete	Cu. Yds.		392.5	392.5
Reinforcing Steel	Lbs.	720	98,750	99,470
Fabricated Structural Carbon Steel (Handrail)	Lbs.		16,410	16,410

Note: Class 1 Excavation for structures will be computed from the original ground line (1961) or from the lower limits of roadway excavation, whichever is lower regardless of the sequence of operations and the method of removal.

No payment for excavation will be allowed at End Bents No. 1 & 5.

All concrete and reinforcement above footings in intermediate bents is included in superstructure quantities.

Fabricated Structural Carbon Steel (Handrail) includes weight of anchor bolts for rail posts.

Note: This drawing is not to scale. Follow dimensions.

PILE DATA					
BENT NO.	1	2	3	4	5
Pile Type and size	10BP42	10BP42	10BP42	10BP42	10BP42
Number	4	8	8	5	4
Approximate Length Ft.	50	40	40	40	50
Plan Bearing Tons.	55	55	55	55	55
Min. Required Brg. Tons.	28	38	39	39	29
Hammer	Power	Power	Power	Power	Power
See Standard Specification 502.6					

All pile shall be driven to practical refusal on or into solid rock or other point bearing material at not less than the Plan Bearing shown, unless excessive splicing is required to obtain Plan Bearing, in which case the engineer will authorize a lesser bearing, but in no case less than the Minimum Required Bearing.

GENERAL NOTES

SPECIFICATIONS: Design Specification A.A.S.H.O.-1961

DESIGN LOADING: H15-44 (15#/sq. ft. Future Wearing Surface)

DESIGN UNIT STRESSES:
Structural Steel (A.S.T.M. A36-62T) Stress 20,000 psi
Reinforcing Steel Stress 20,000 psi
Concrete, Class B Stress 1,200 psi
Concrete, Class B1 Stress 1,600 psi
Steel Pile shall be A.S.T.M. A36-62T

CONCRETE:
Superstructure concrete shall be Class B1
Substructure concrete shall be Class B or Class B1 except payment will be on the basis of Class B.

SURFACE SEAL:
Super-structure deck to be surface sealed. (See special provisions)

BAR COVER:
All dimensions to reinforcing steel are to ℄ bar except where clear distance from face of concrete is indicated.

WELDING:
See Standard Specification 55.3.13 for qualification of welding operators.

FILLED JOINTS:
Where Joint filler is specified on the plans it shall conform to Standard Specification 157.2.4.

PAINT: Structural Steel (handrail) shall be cleaned and painted in the field or may be cleaned and painted one coat of red lead in the shop with the two remaining coats applied in the field; all to be in accordance with Standard Specification 55.4.10. In lieu of painting, the contractor may, if he prefers, galvanize this material in accordance with Standard Specifications 55.2.8 and 55.4.11. All galvanizing shall be done after fabrication.

CONSTRUCTION CLEARANCE: A minimum vertical clearance of 13'-6" from slab of existing lanes and a minimum lateral clearance of 14'-0" from centerline of existing lanes shall be maintained during construction.

B.M. Elev. 1192.65, ▫ on S.W. Cor. Sign post base 80' Lt. Sta. 1185+70 (U.S.G.S. Datum)

BRIDGE: ROUTE V UNDERPASS

STATE ROAD FROM ROUTE 63 TO ST. JAMES

ABOUT 3.8 MILES N.E. OF ROLLA

PROJECT NO. I-44-2 (48) (RTE. I-44) **STA.** 1184+00 (℄ E.B. LANE)

PHELPS **COUNTY**

DESIGNED OCT. 1963 BY JOHNSON
DETAILED JUN. 1964 BY BRADLEY
CHECKED July 1964 BY Storslett

SUBMITTED BY: D. B. Jenkins, BRIDGE ENGINEER DATE 8/18/64
APPROVED BY: M. J. Snider, CHIEF ENGINEER DATE 8/18/64

STD. 54.00
A-1296

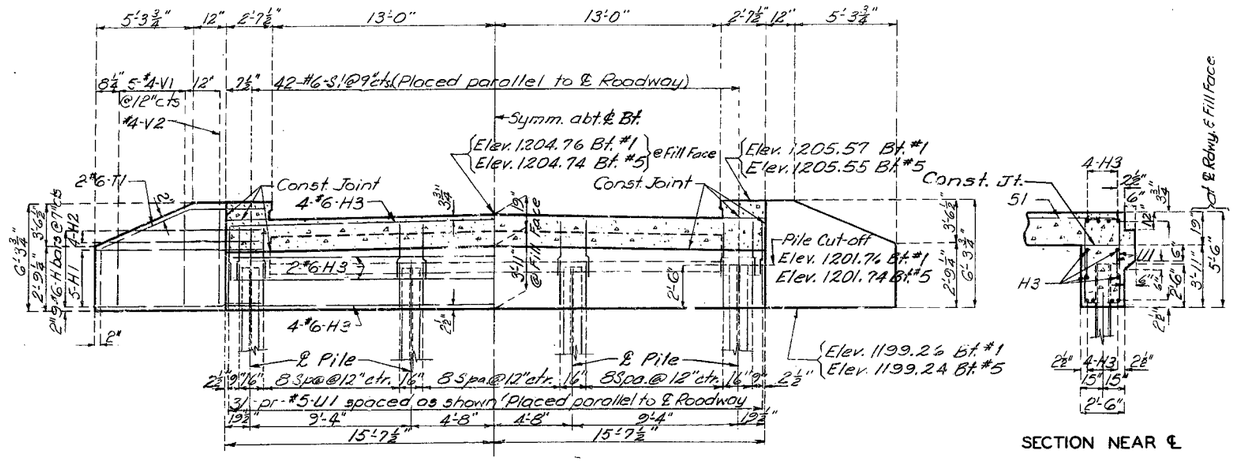
Sheet No. 1 of 6.

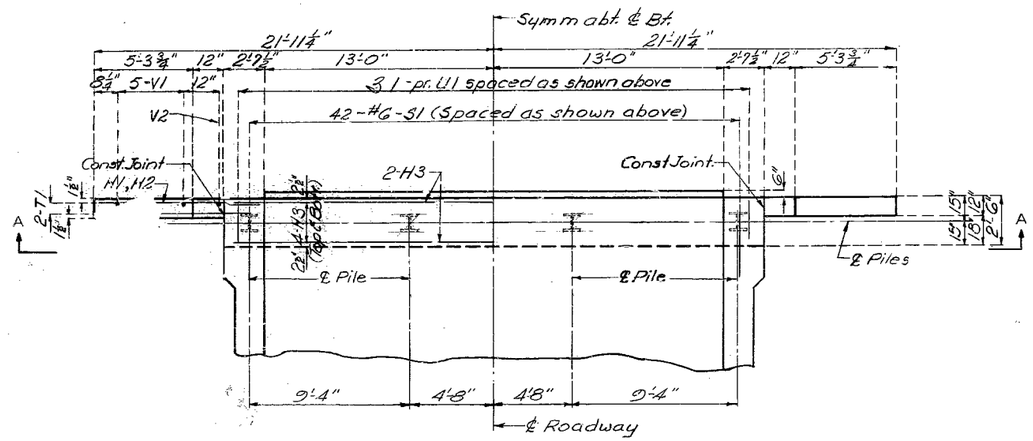
515

SEE FINAL PLANS BROWN-LINES

MISSOURI STATE HIGHWAY DEPARTMENT

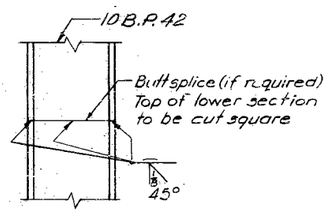
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	M		19	52	





PLAN

DETAILS OF END BENTS NO. 1 & 5

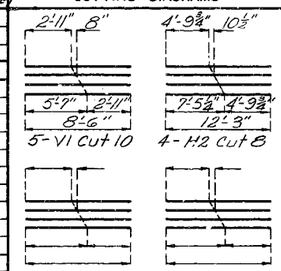


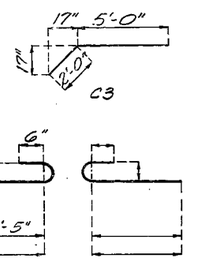
DETAIL OF STEEL PILE SPLICE
(Steel B.P. Section Only)

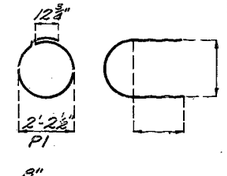
COMPLETE BILL OF REINFORCING STEEL

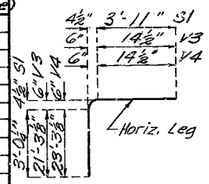
NO.	SIZE	LENGTH	MARK	LOCATION
Int. Bts. No. 2, 3 & 4 (Substructure)				
48	#6	7'-6"	D1	Footing
43	#5	3'-6"	D2	"
Superstructure				
80	#5	29'-6"	S2	Slab
20	#11	30'-0"	S3	"
20	#11	24'-3"	S4	"
36	#11	17'-0"	S5	"
20	#11	32'-0"	S6	"
20	#11	25'-0"	S7	"
18	#11	17'-6"	S8	"
492	#5	29'-3"	S10	"
80	#9	54'-3"	S12	"
20	#9	34'-9"	S13	"
18	#10	26'-3"	S14	"
40	#9	36'-6"	S15	"
18	#10	28'-0"	S16	"
20	#11	31'-6"	S17	"
20	#11	24'-9"	S18	"
40	#5	28'-6"	S20	"
40	#5	32'-0"	S21	"
18	#10	27'-6"	S23	"
20	#10	38'-6"	S24	"
18	#11	28'-3"	S25	"
4	#5	6'-9"	R3	End Post
4	#5	7'-3"	R4	" "
4	#5	7'-6"	R5	" "
8	#5	7'-9"	R6	" "
24	#5	6'-3"	C1	Curb
396	#5	5'-6"	C2	"
4	#5	7'-0"	C3	"
12	#5	23'-6"	C4	"
24	#5	29'-3"	C5	"
12	#5	24'-9"	C6	"
24	#5	4'-9"	R1	End Post
4	#5	6'-0"	R2	" "
End Bts. No. 1 & 5 (Superstructure)				
20	#6	8'-0"	H1	Wing
8	#6	12'-3"	H2	"
24	#6	31'-0"	H3	Beam
64	#6	7'-6"	S1	Beam
8	#6	11'-9"	T1	Wing
124	#5	9'-0"	U1	Beam
10	#4	8'-6"	V1	Wing
4	#4	6'-0"	V2	"
Int. Bt. No. 2 (Superstructure)				
11	#10	31'-9"	G1	Beam
11	#9	28'-9"	G2	"
42	#3	8'-0"	P1	Column
58	#5	8'-6"	U2	Beam
16	#9	23'-3"	V3	Column

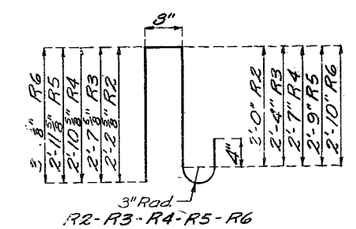
BENDING SKETCHES & CUTTING DIAGRAMS

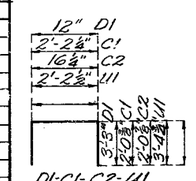


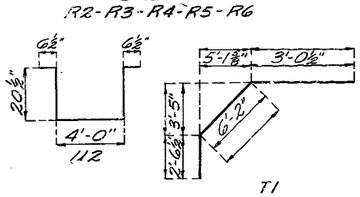












BRIDGE: ROUTE V UNDERPASS

STATE ROAD FROM ROUTE 63 TO ST. JAMES
ABOUT 3.8 MILES N.E. OF ROLLA
PROJECT NO. I-44-2(48) (RTE I-44) **STA.** 11 +00 (℄ E.B.L. ANE)

PHELPS **COUNTY**

516

NO.	Revised	DATE
52.1		MAY 1962

Drawn JUN. 1964 by EPPLE & BRADLEY
Checked July 1964 by Storslett

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 2 of 6

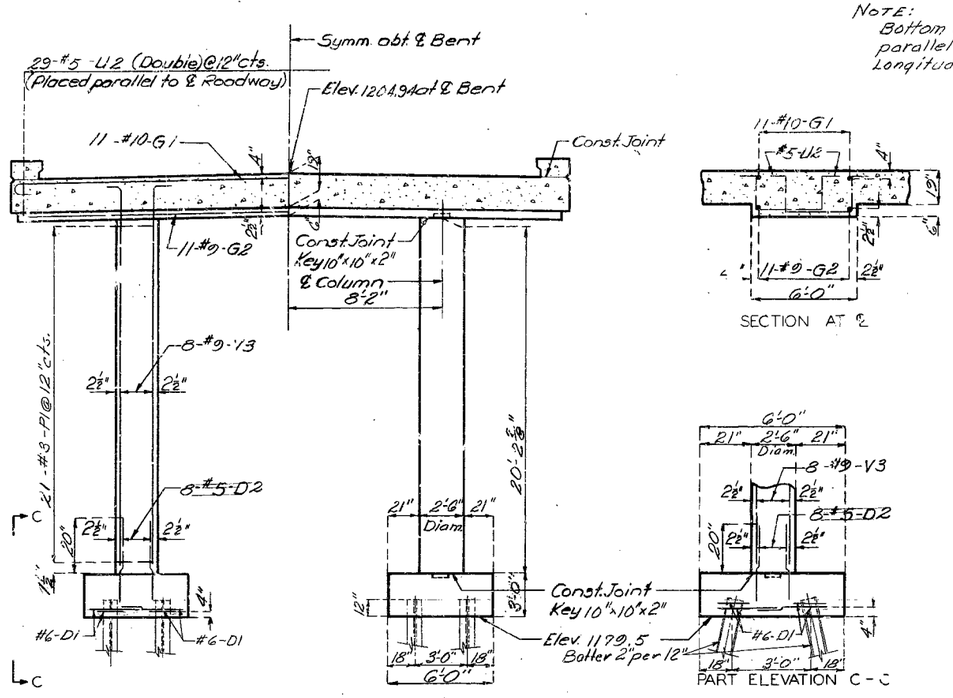
A-1296

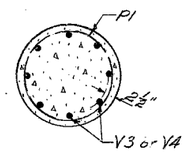
SEE FINAL PLANS BROWN-LINES

MISSOURI STATE HIGHWAY DEPARTMENT

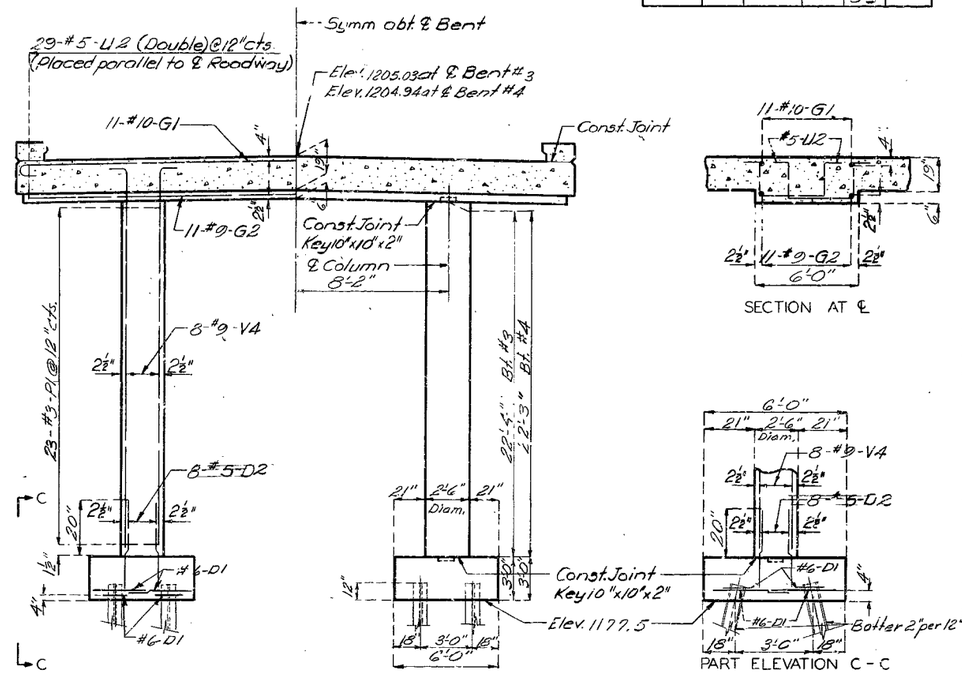
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	5	

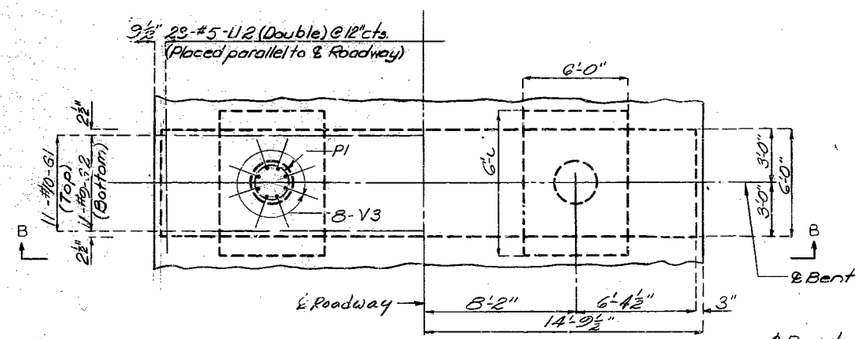
NOTE:
Bottom of drop panels to be parallel to top of slab both Longitudinally and transversely.



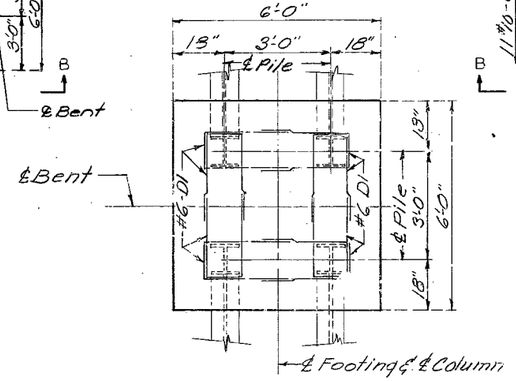


SECTION THRU COL.

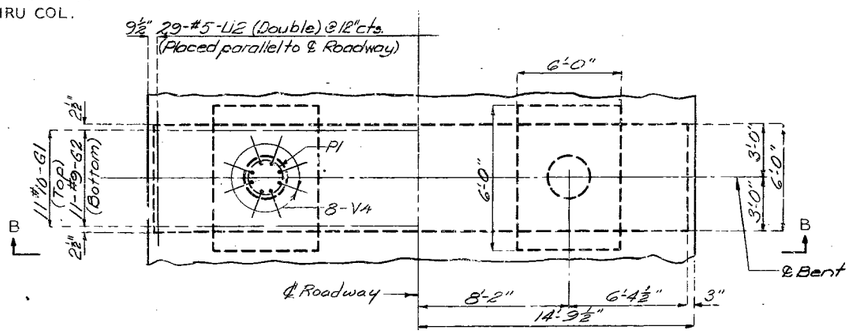




DETAILS OF INT. BENT NO. 2



PLAN OF FOOTING SHOWING
REINFORCING FOR BENTS NO. 2, 3 & 4



DETAILS OF INT. BENTS NO. 3 & 4

BRIDGE: ROUTE V UNDERPASS
STATE ROAD FROM ROUTE 63 TO ST. JAMES
ABOUT 3.8 MILES N.E. OF ROLLA
PROJECT NO. I-44-2 (48) (RTE. I44) **STA.** 1184+00 (℄ E.B. LANE)
PHELPS **COUNTY**

A-1296

517

No. 32.6	Mar. 1968	Revised	Oct. 1963

Drawn JUN. 1964 by EPPLE
Checked July 1964 by Storslett

Note: This drawing is not to scale. Follow dimensions.

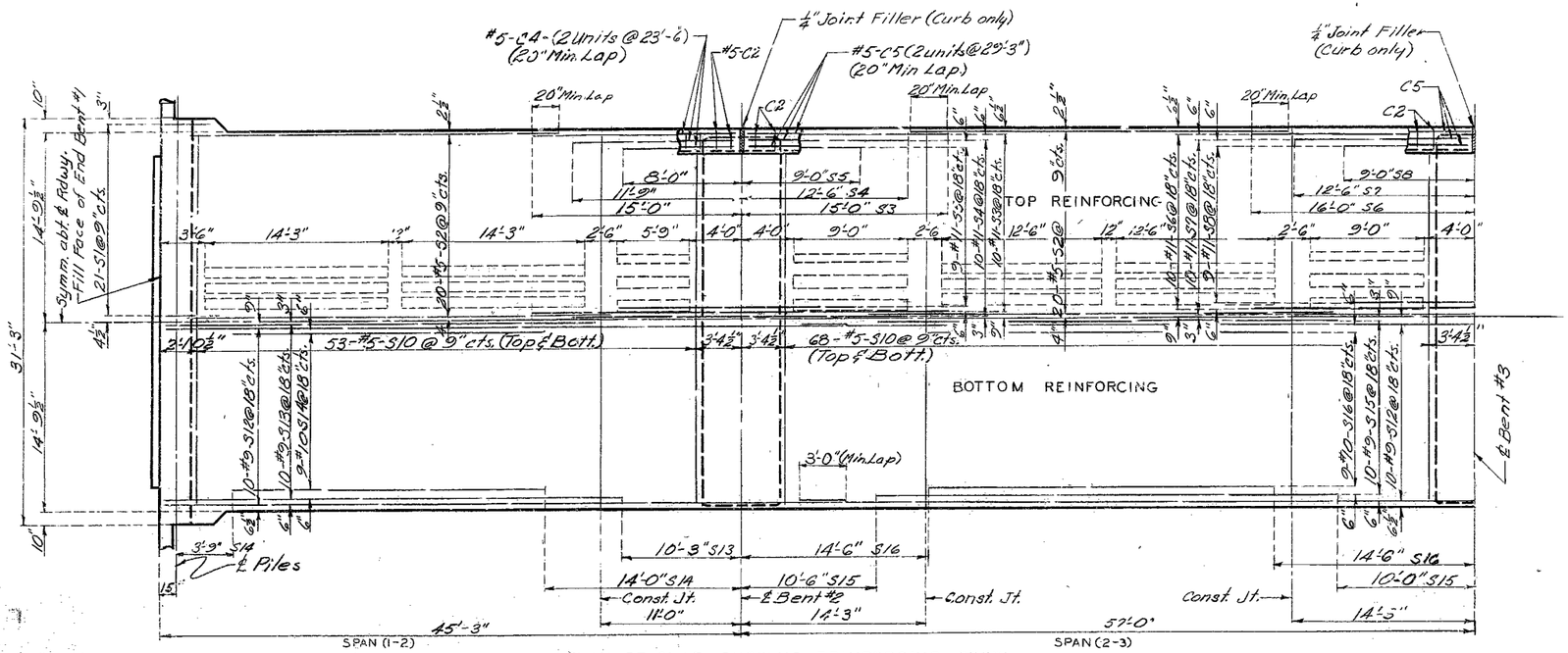
Sheet No. 3 of 6

SEE FINAL PLANS BROWN-LINES

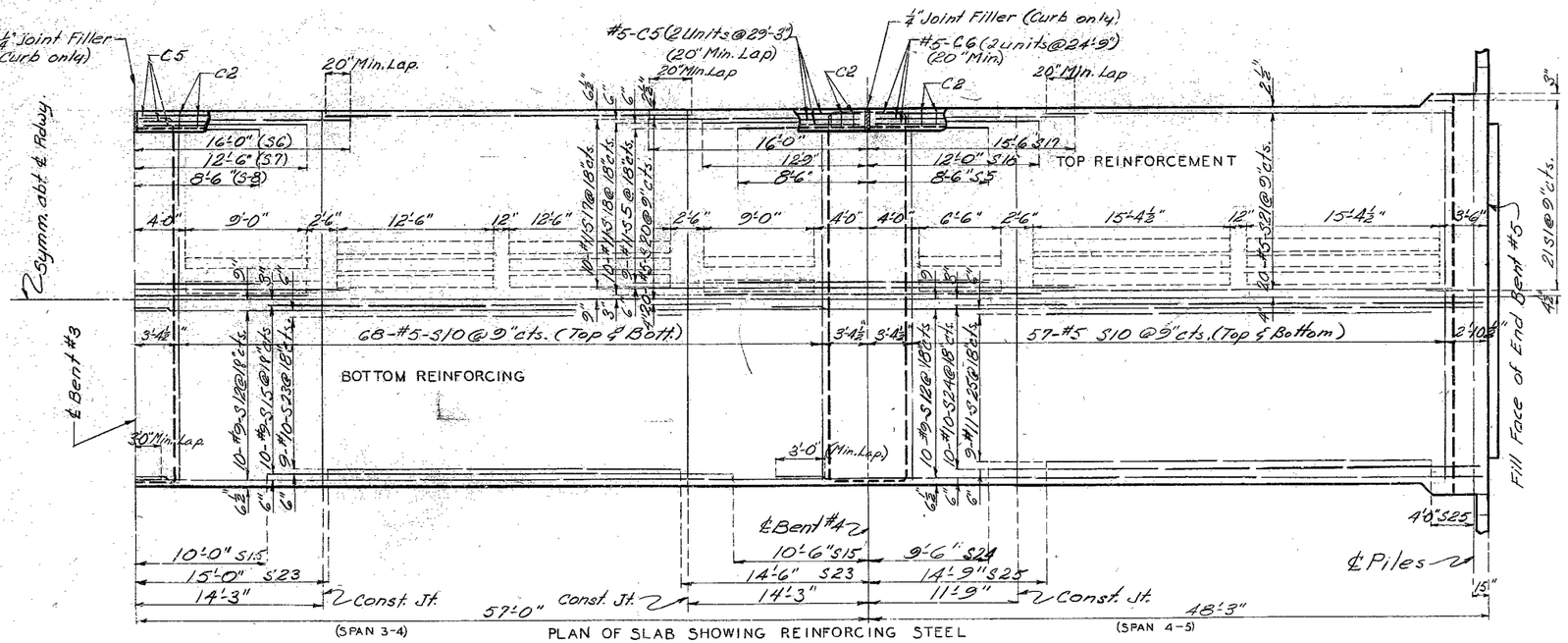
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	54	

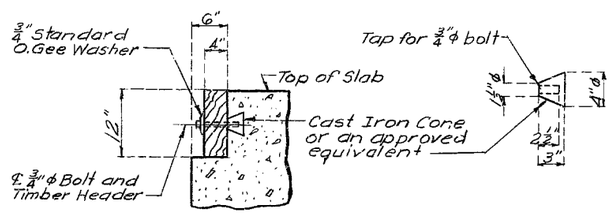
Note: All Longitudinal dimensions shown are horizontal



PLAN OF SLAB SHOWING REINFORCING STEEL

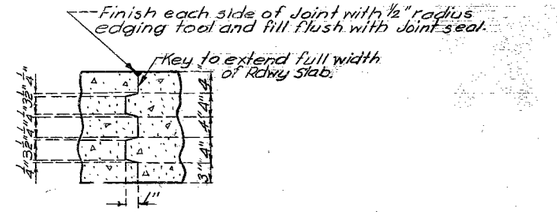


PLAN OF SLAB SHOWING REINFORCING STEEL

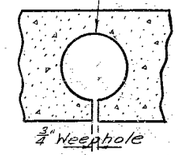


Note: ¾" ϕ bolt shall be 6¼" long with hex. or square head, threaded 3" long and placed at about 3'-0" cts.
Cost of timber headers complete in place to be included in price bid for concrete.

DETAILS OF TIMBER HEADER

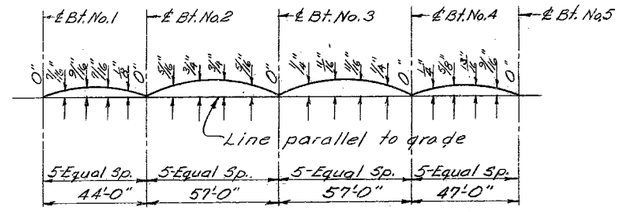


DETAIL OF SLAB CONSTRUCTION JOINT KEY



Note: One ¾" weephole shall be provided near each end of each void. Weepholes shall be placed in straight lines parallel to bents.

DETAIL OF WEEPHOLE IN VOIDS



CAMBER DIAGRAM

BRIDGE: ROUTE V UNDERPASS

STATE ROAD FROM ROUTE 63 TO ST. JAMES
ABOUT 3.8 MILES NE. OF ROLLA
PROJECT NO. I-44-2 (48) (R.T.E.I-44) STA. 1184+00 (℄ EB LANE)

PHELPS COUNTY

A-1296

DETAILED JUN. 1964 BY EPPLE
CHECKED July 1964 BY Storslett

Note: This drawing is not to scale. Follow dimensions.

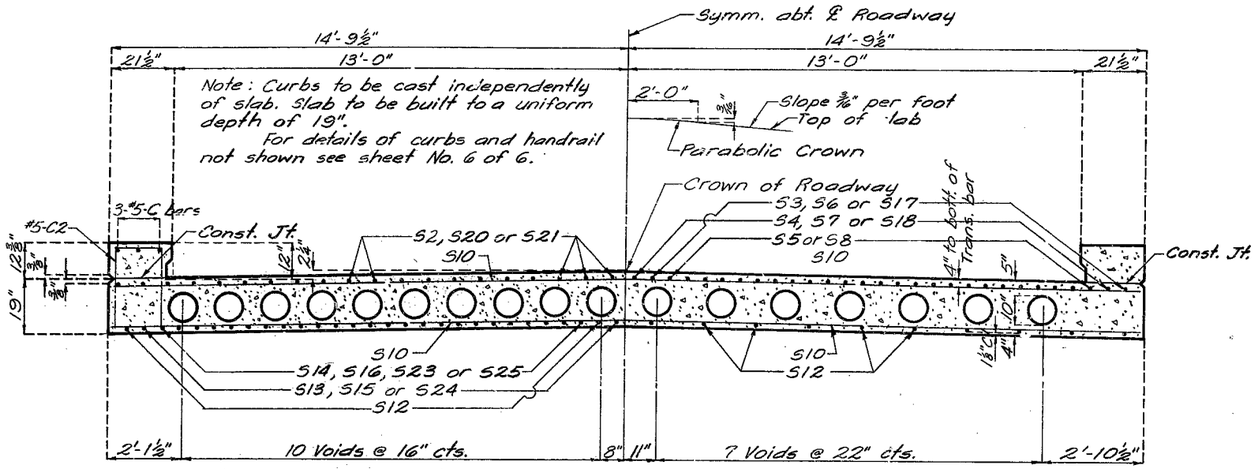
Sheet No. 4 of 6.

NO CONSTRUCTION CHANGES

518

MISSOURI STATE HIGHWAY DEPARTMENT

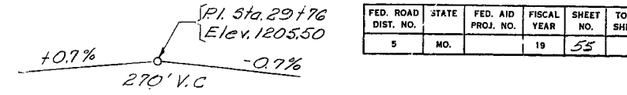
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	55	

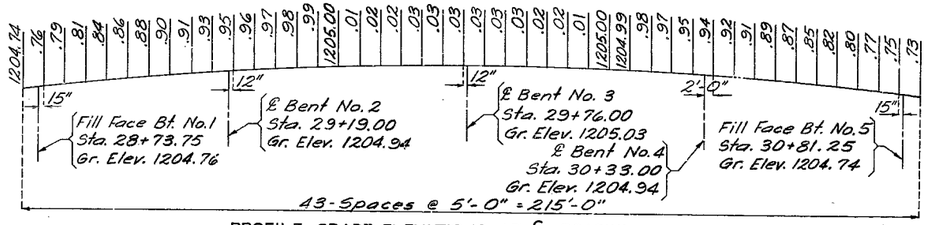


HALF SECTION NEAR CENTER OF SPAN

HALF SECTION NEAR INT. BENTS

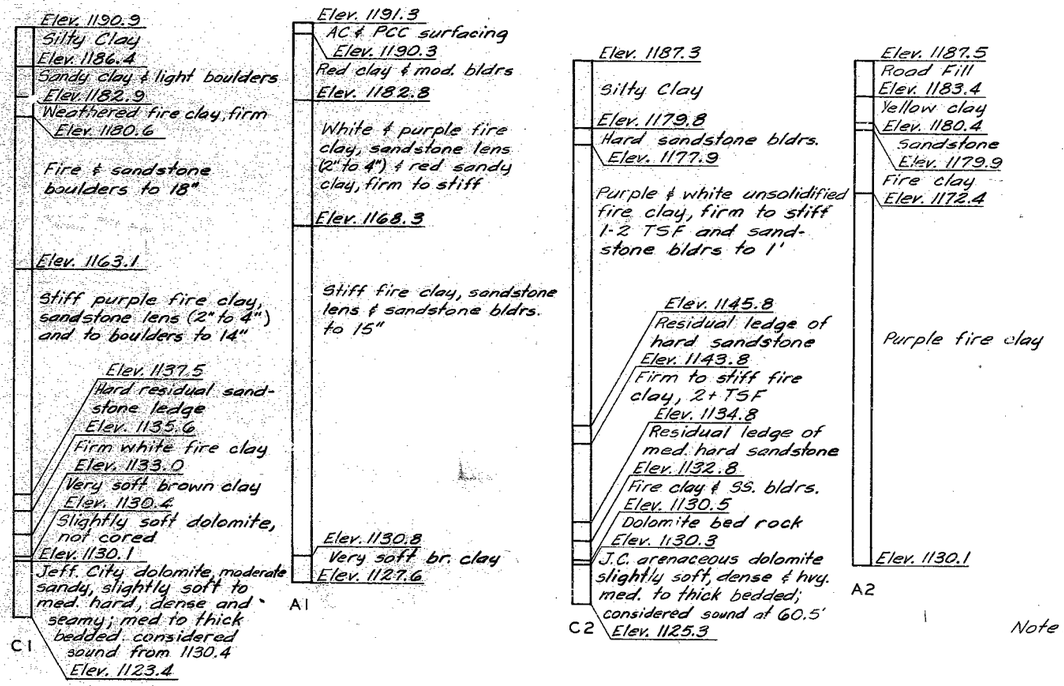
Note: Fiber tubes for producing voids shall have an outside diameter of 10.0" and a wall thickness of .225 and shall be anchored to joists carrying the floor form at not more than 4'-0" centers. See Special Provisions for metal tube alternate for voids.





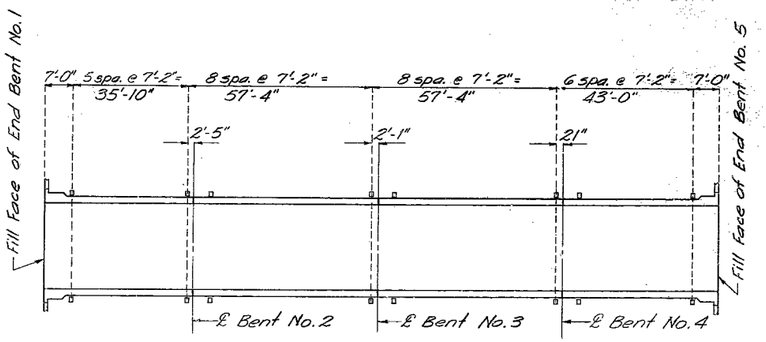
PROFILE GRADE ELEVATIONS AT ℄ ROADWAY

Note: The contractor shall use an approved oscillating screed type, self-propelled mechanical finishing machine and shall pour and satisfactorily finish the roadway slab at a rate of not less than 27 cubic yards per hour. He shall observe the transverse construction joints shown on plans unless he can demonstrate to the satisfaction of the engineer that he is equipped to pour and satisfactorily finish the roadway slab at a rate which will permit a continuous pouring through some or all of these joints. Finishing machine load will not be permitted on concrete less than 48 hours old.



LOG OF SOUNDINGS

Note: "⊕" indicates location of soundings. For location of soundings see sheet No. 1 of 6.
"A" indicates soundings taken with an Auger.
"C" indicates soundings taken with a Core Drill.
Bottom of all soundings on Limestone.



PLAN OF SLAB SHOWING RAILPOST SPACING

BRIDGE: ROUTE V UNDERPASS

STATE ROAD FROM ROUTE 63 TO ST. JAMES

ABOUT 3.8 MILES N.E. OF ROLLA

PROJECT NO. I-44-2 (48) (RTE. I-44) **STA.** 1184+00 (℄ E B LANE)

PHELPS **COUNTY**

A-1296

519

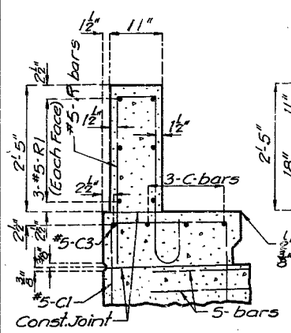
DETAILED JUN. 1964 BY BRADLEY
CHECKED July 1964 BY Storsieff

Note: This drawing is not to scale. Follow dimensions.

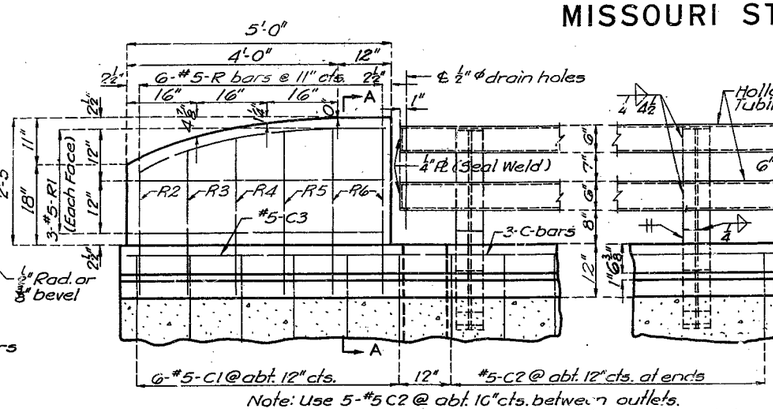
NO CONSTRUCTION CHANGES

MISSOURI STATE HIGHWAY DEPARTMENT

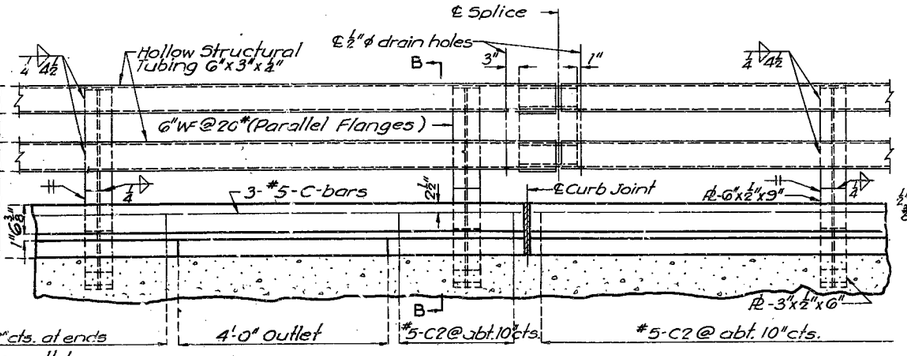
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	56	



SECTION A-A

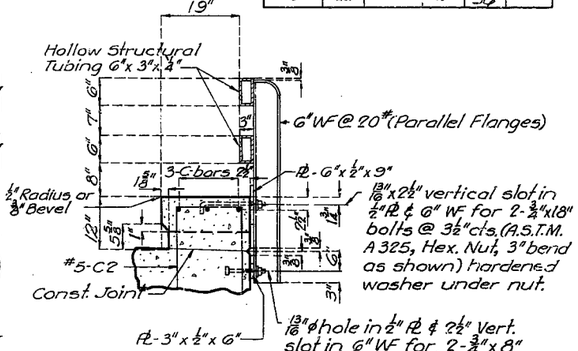


Note: Use 5-#5 C2 @ abt. 10" cts. between outlets.



TYPICAL RAIL PANEL

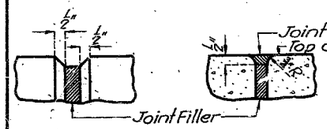
RAIL EXPANSION OR SPLICE PANEL
(Omit curb joint at rail splice)



13/16" x 2½" vertical slot in ½" PL & 6" WF for 2-¾"x18" bolts @ 3½" cts. (A.S.T.M. A 325, Hex. Nut, 3" bend as shown) hardened washer under nut.

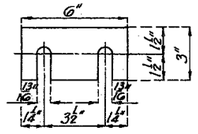
13/16" ϕ hole in ½" PL & ?½" Vert. slot in 6" WF for 2-¾"x8" Mach. bolt @ 3½" cts. (Hex. Hd. and nut) washer under nut.

SECTION B-B

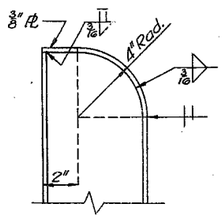


Note: Use bevel as shown for exposed faces of all filled joints except at top surface of roadway slab. Use edging tool with ¾" radius at top surface of roadway slab each side of joint and fill flush with joint seal as shown.

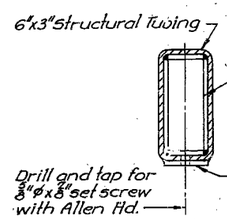
DETAILS OF BEVEL FOR FILLED JOINTS



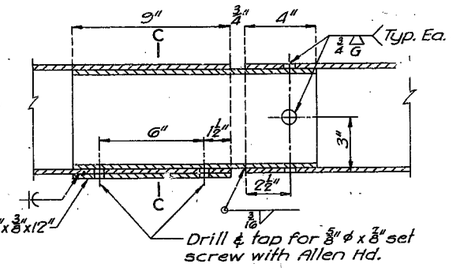
ALIGNMENT SHIM



DETAIL OF POST

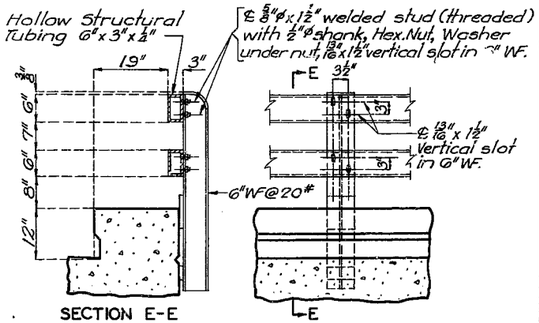


SECTION C-C



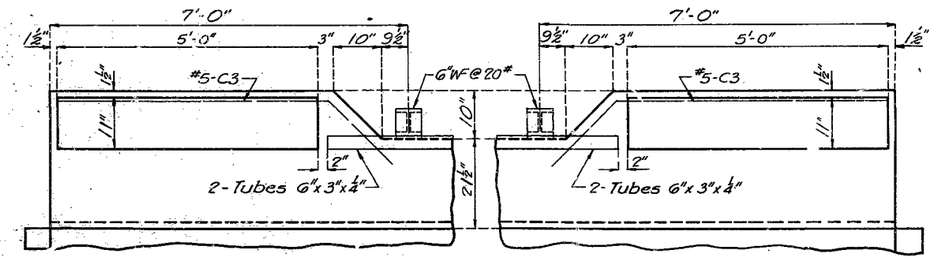
DETAIL OF RAIL EXPANSION OR SPLICE JOINT

Note: All rail splices shall be located near the ¼ point between rail posts.



SECTION E-E

ALTERNATE CONNECTION - RAIL TO POST



PLAN OF END POSTS

GENERAL NOTES:

Outlets to be centered between rail posts, For location of outlets, if any, see sheet No. 1 of design plans.

C2 bars in curb to be spaced at abt. 12" cts. from end post to end posts on br. 3 having no outlets.

Top of curbs and end posts to be built parallel to grade. vertical faces of end posts to be vertical. All exposed edges of end posts to be beveled ¾".

6" WF post to be set normal to grade.

Railing shall conform to horizontal and vertical alignment of curb and be fabricated in two or three panel lengths unless otherwise approved.

If contractor desires, 6"x3" structural tubing may be field welded to 6" WF posts or stud bolted as shown in Alternate connection.

Railing to be adjusted for horizontal alignment by the use of galvanized shims 3"x6"x⅛" and ¼" thickness (see detail) placed between ½" plate and curb. Cost of shims to be included in price bid for other items.

For bridges on grade, welded side of splice or expansion sleeve shall be placed on low side of rail joint.

Material for 18" anchor bolts shall meet A.S.T.M. A325 high strength bolt specifications.

BRIDGE: ROUTE V UNDERPASS (OVER)

STATE ROAD FROM ROUTE 63 TO ST. JAMES

ABOUT 3.8 MILES N. E. OF ROLLA

PROJECT NO. I-44-2 (48) (RTE. I-44) **STA.** 1134+00 ℄ E.B LANE

PHELPS **COUNTY**

A-1296

520

No. 12	Revised
June 1964	Aug. 1964

DETAILED AUG 1964 BY BRADLEY
CHECKED AUG 1964 BY WOODS

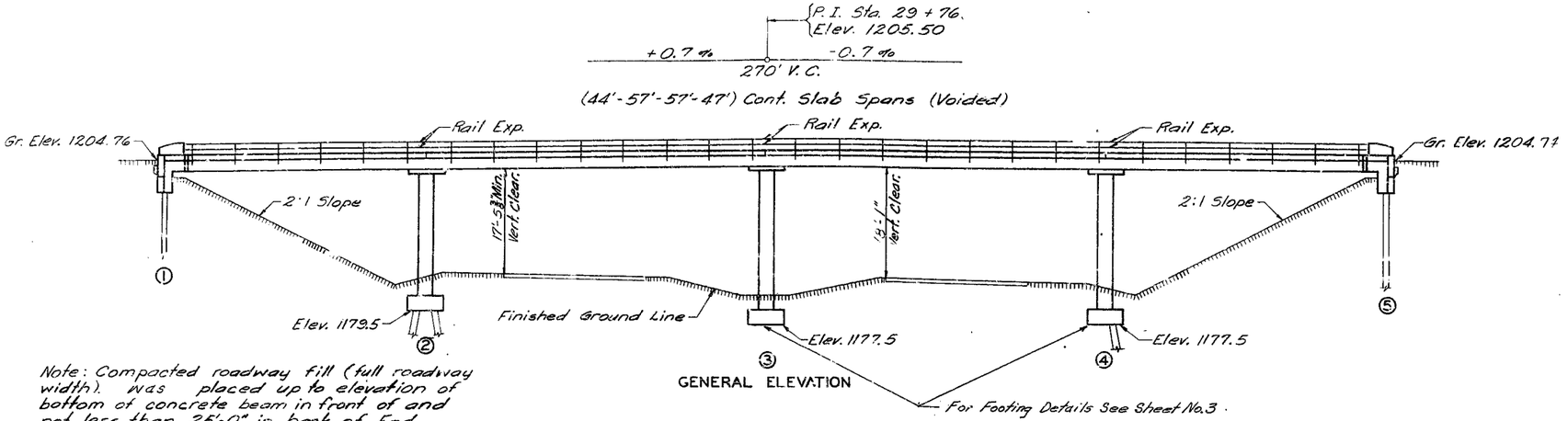
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 6 of 6.

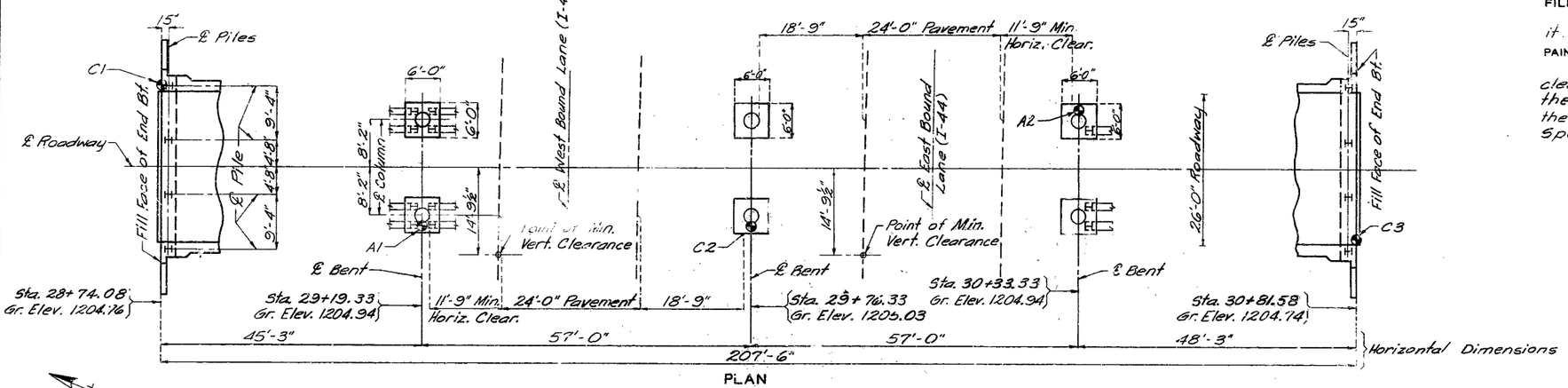
NO CONSTRUCTION CHANGES

MISSOURI STATE HIGHWAY DEPARTMENT

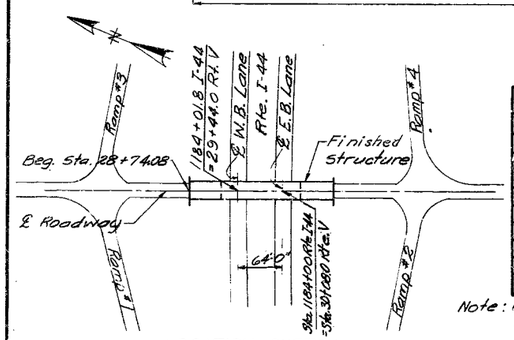
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	51	



Note: Compacted roadway fill (full roadway width) was placed up to elevation of bottom of concrete beam in front of and not less than 25'-0" in back of End Bents Nos. 1 and 5 before steel piles were driven.



Note: For Log of Soundings see sheet No. 5 of 6.



QUANTITIES

ITEM		SUBSTR.	SUPERSTR.	TOTAL
Class 1 Excavation for Structures	Cu. Yds.	98.5		98.5
Steel Piles in Place (10")	Lin. Ft.	281		281
Steel Pile Cut-offs (10")	Lin. Ft.	199		199
Class B Concrete	Cu. Yds.	24.0		24.0
Class B1 Concrete	Cu. Yds.		392.5	392.5
Reinforcing Steel	Lbs.	720	98750.	99470
Fabricated Structural Carbon Steel (Handrail)	Lbs.		17240	17240
Test Holes (Cont. Item)	L.F.	45		45

Note: Class 1 Excavation for structures was computed from the lower limits of roadway excavation.

No payment for excavation was allowed at End Bents No. 1 & 5. All concrete and reinforcement above footings in intermediate bents is included in superstructure quantities.

Fabricated Structural Carbon Steel (Handrail) includes weight of anchor bolts for rail posts.

Note: This drawing is not to scale. Follow dimensions.

PILE DATA

BENT NO.	1	2	3	4	5
Pile Type and size	10BP42	10BP42		10BP42	10BP42
Number	4	8		3	4
Approximate Length Ft	50	40		40	50
Plan Bearing Tons.	55	55		55	55
Min. Required Brg. Tons.	28	38	39	39	29
Hammer	Power	Power		Power	Power
See Standard Specification 52.2.6					

All pile were driven to practical refusal on or into solid rock or other point bearing material at not less than the Plan Bearing shown.

B. M. Elev. 1205.56 ⌀ on S.W. Corner of Lt. Ear Bent #1 16' Lt. Sta. 28+15 (U.S.G.S. Datum)

DESIGNED OCT. 1963 BY JOHNSON
DETAILED JUN. 1964 BY BRADLEY
CHECKED July 1964 BY Storslett

GENERAL NOTES

SPECIFICATIONS: Design Specification A.A.S.H.O.-1961

DESIGN LOADING: H15-44 (15#/sq. ft. Future Wearing Surface)

DESIGN UNIT STRESSES:
Structural Steel (A.S.T.M. A36-62T) Stress 20,000 psi
Reinforcing Steel Stress 20,000 psi
Concrete, Class B Stress 1,200 psi
Concrete, Class B1 Stress 1,600 psi
Steel Pile A.S.T.M. A36-62T

CONCRETE:
Superstructure concrete is Class B1.
Substructure concrete is Class B.

SURFACE SEAL:
Superstructure deck was surface sealed. (See special provisions)

BAR COVER:
All dimensions to reinforcing steel are to ℄ bar except where clear distance from face of concrete is indicated.

WELDING:
See Standard Specification 55.3.13 for qualification of welding operators.

FILLED JOINTS:
Where joint filler is specified on the plans it conforms to Standard Specification 157.2.4.

PAINT: Structural Steel (handrail) was cleaned and painted one coat of red lead in the shop with the two remaining coats applied in the field; all in accordance with Standard Specification 55.4.10.

BRIDGE: ROUTE V UNDERPASS

STATE ROAD FROM ROUTE 63 TO ST. JAMES

ABOUT 3.8 MILES N.E. OF ROLLA FINISHED

PROJECT NO. I-44-2 (48) (RTE. I-44) **STA.** 1184+00 (℄ E.B. LANE)

PHELPS COUNTY

FINISHED SUBMITTED BY D. B. Jenkins BRIDGE ENGINEER DATE 8/18/64

APPROVED BY M. J. Smith CHIEF ENGINEER DATE 8/18/64 FINISHED

STD. 54.00

A-1296

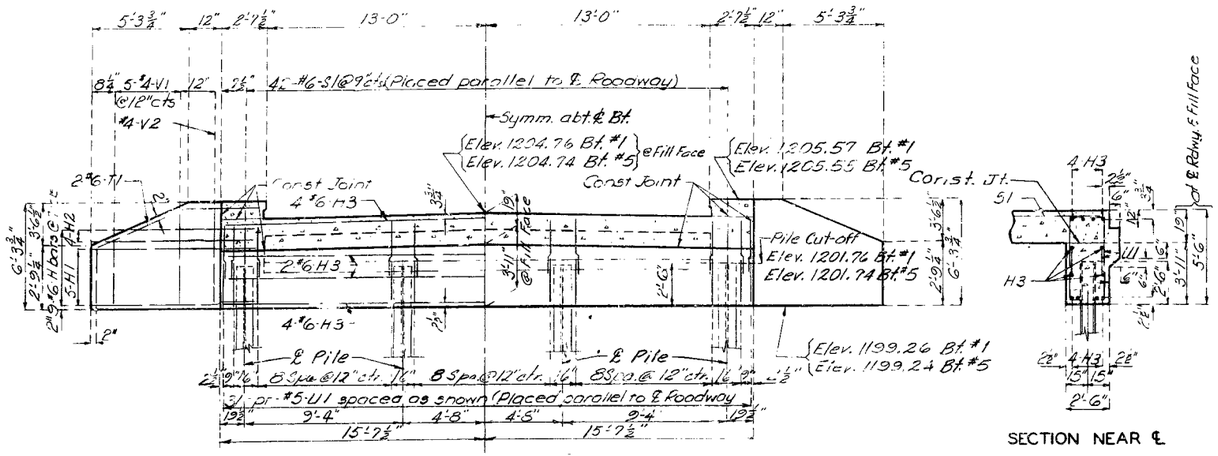
Sheet No. 1A of 3.

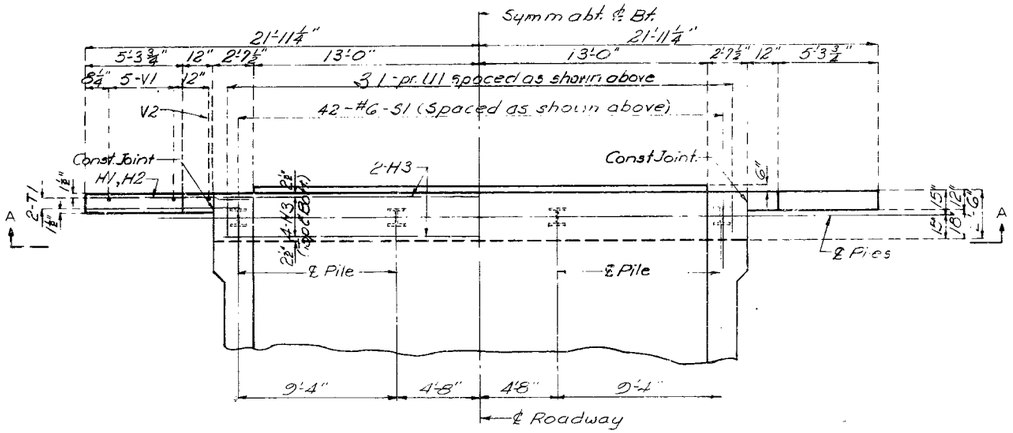
521

FINAL PLANS

MISSOURI STATE HIGHWAY DEPARTMENT

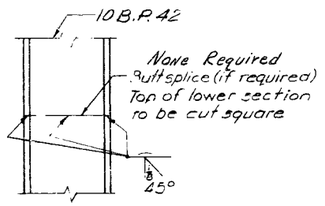
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	32	





PLAN

DETAILS OF END BENTS NO 1 & 5

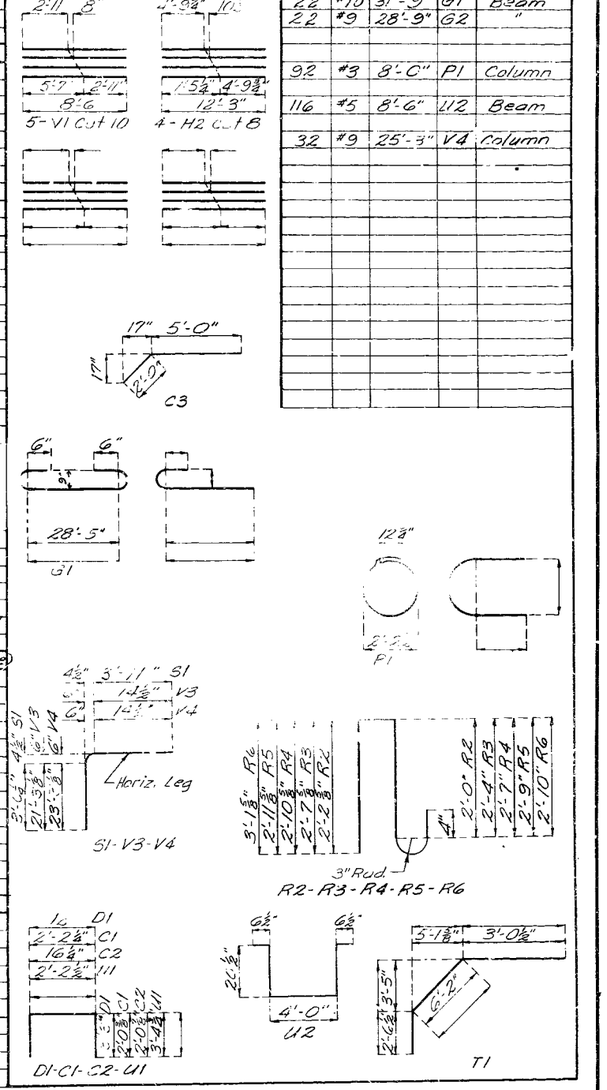


DETAIL OF STEEL PILE SPLICE
(Steel B.P. Section Only)

COMPLETE BILL OF REINFORCING STEEL

NO.	SIZE	LENGTH	MARK	LOCATION
Int. Bts. No. 2, 3 & 4 (Substructure)				
16	#6	7'-6"	D1	Footing
48	#5	3'-6"	D2	"
48	#6	5'-0"		"
Superstructure				
80	#5	29'-6"	S2	Slab
20	#11	30'-0"	S3	"
20	#11	24'-3"	S4	"
36	#11	17'-0"	S5	"
20	#11	32'-0"	S6	"
20	#11	25'-0"	S7	"
18	#11	17'-6"	S8	"
492	#5	29'-3"	S10	"
80	#9	54'-3"	S12	"
20	#9	34'-9"	S13	"
18	#10	26'-3"	S14	"
40	#9	36'-6"	S15	"
18	#10	28'-0"	S16	"
20	#11	31'-6"	S17	"
20	#11	24'-9"	S18	"
40	#5	28'-6"	S20	"
40	#5	32'-0"	S21	"
18	#10	27'-6"	S23	"
20	#10	38'-6"	S24	"
18	#11	28'-3"	S25	"
4	#5	6'-9"	R3	End Post
4	#5	7'-3"	R4	" "
4	#5	7'-6"	R5	" "
8	#5	7'-9"	R6	" "
24	#5	6'-3"	C1	Curb
396	#5	5'-6"	C2	"
4	#5	7'-0"	C3	"
12	#5	23'-6"	C4	"
24	#5	29'-3"	C5	"
12	#5	24'-9"	C6	"
24	#5	4'-3"	R1	End Post
4	#5	6'-0"	R2	" "
End Bts. No. 1 & 5 (Superstructure)				
20	#6	8'-0"	H1	Wing
8	#6	12'-3"	H2	"
24	#6	31'-0"	H5	Beam
84	#6	7'-6"	S1	Beam
8	#6	11'-3"	T1	Wing
124	#5	9'-0"	U1	Beam
10	#4	8'-6"	V1	Wing
4	#4	6'-0"	V2	"
Int. Bt. No. 2 (Superstructure)				
11	#10	31'-9"	G1	Beam
11	#9	28'-9"	G2	"
42	#8	8'-0"	P1	Column
58	#5	8'-6"	U2	Beam
16	#6	23'-3"	V3	Column

BENDING SKETCHES & CUTTING DIAGRAMS



BRIDGE: ROUTE V UNDERPASS

STATE ROAD FROM ROUTE 63 TO ST. JAMES

ABOUT 3.8 MILES N.E. OF ROLLA

PROJECT NO. I-44-2(48) (RTE. I-44) STA. 11 +00 (℄ E.B. LANE)

PHELPS COUNTY

A-1096

522

No.	Revised	Mar. 1962
52.1		

Drawn JUN. 1964 by EPPLE & BRADLEY

Checked July 1964 by Storslett

Note: This drawing is not to scale. Follow dimensions.

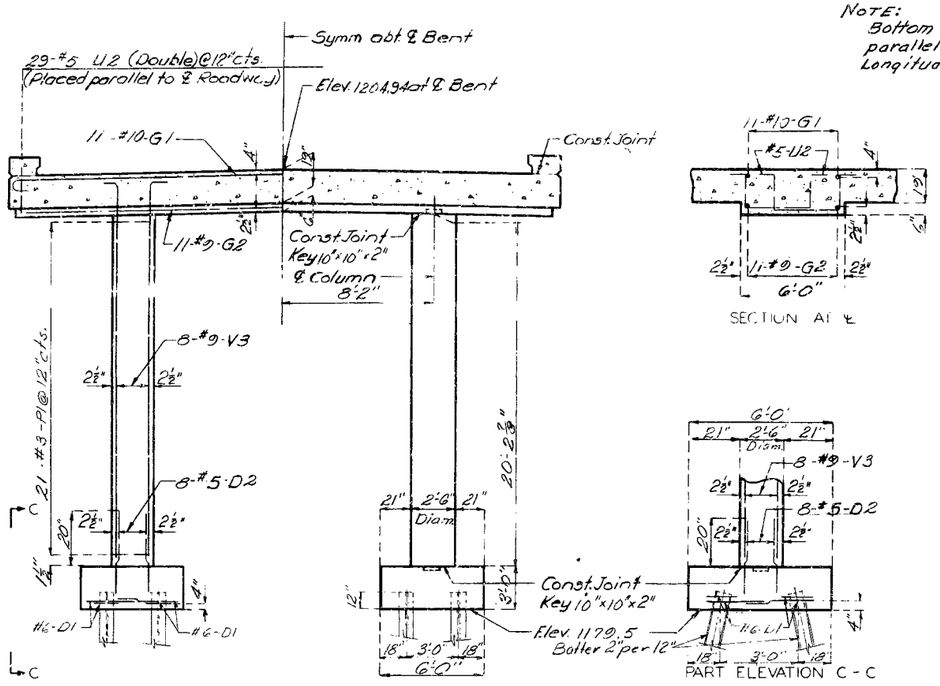
Sheet No. 2A

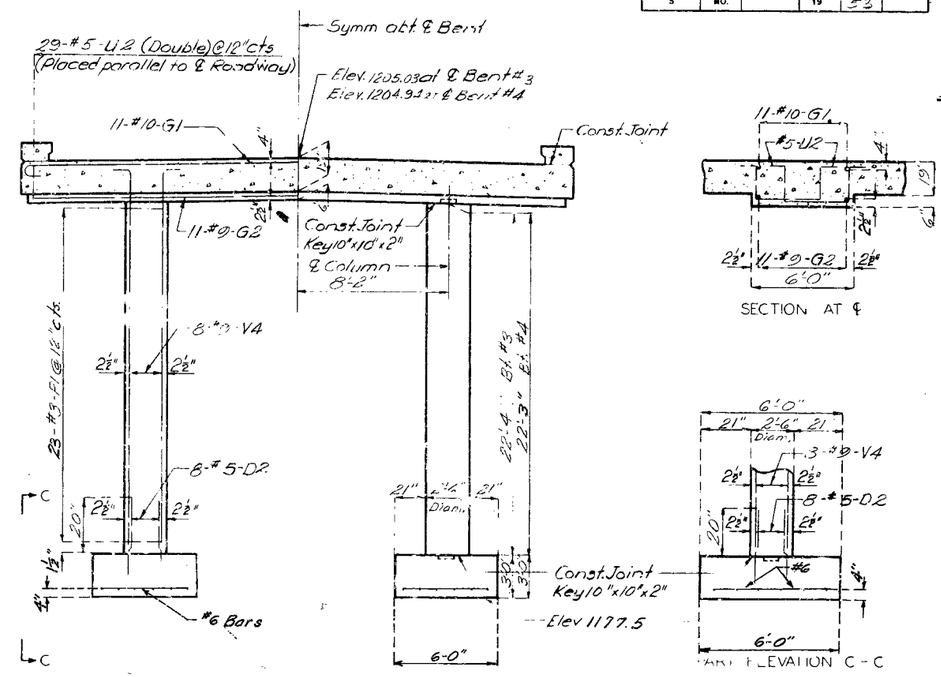
FINAL PLANS

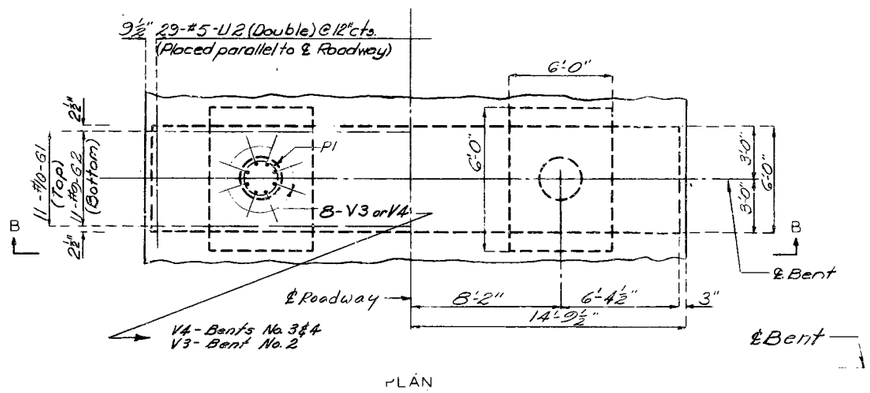
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	53	

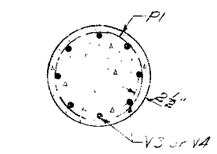
NOTE:
Bottom of drop panels are parallel to top of slab both Longitudinally and transversely.



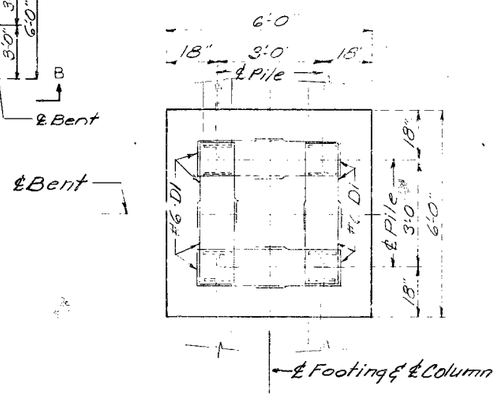




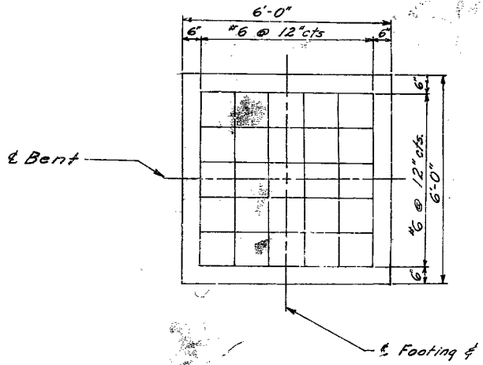
DETAILS OF INT. BENTS NO. 2, 3, & 4



SECTION THRU COL.



PLAN OF FOOTING SHOWING REINFORCING FOR BENT NO. 2



Plan of Footing Showing Reinforcing for Bents No. 3 & 4

No piles driven in Bent 3. One pile driven 5'in ft. Ftg. Bt. 4 and 2 piles 4'2.5" in Ft. Ftg. Bt. 4.

BRIDGE: ROUTE V UNDERPASS

STATE ROAD F[illegible] ROUTE 63 TO ST. JAMES FINISHED

ABOUT 3.8 MILES [illegible] OF [illegible] A

PROJECT NO [illegible] (RTE I-44 STA. 1184+00 (E. B. LANE)

PHELPS COUNTY

FINISHED

FINISHED

A-L-96

No. 52.5	Mar. 1962
Revised	Oct. 1963

Drawn JUN. 1964 by EPPLE
Checked July 1964 by Starsleff

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 34 of [illegible]

FINAL PLANS

523

Missouri Department of Transportation
State Bridge Inspection Report

September 01, 2023
10:24:02AM

COUNTY: PHELPS **DISTRICT: CD** **CLASS: STATBR** **FED-ID: 1072** **BRIDGE: A1296**

GENERAL STRUCTURE INFORMATION

ROUTE: RTVE	**# SPANS:** 4	**PLACE CODE:** 62912 ROLLA CITY	
FEATURE: IS 44	**LANES ON:** 3	**LENGTH:** 208 FT 0 IN	
STATUS: A-OPEN	**LANES UNDER:** 4	**MAXIMUM SPAN:** 57 FT 0 IN	
LOG MILE: 0.108	**COMPASS DIRECTION:** NORTH to SOUTH	**APPROACH ROADWAY:** 24 FT 0 IN	
DETOUR: 17.00 MILES	**DIRECTION OF TRAFFIC:** 2-WAY TRAF	**CURB TO CURB:** 38 FT 10 IN	
NHS: NO	**FUNCTIONAL CLASS:** UR-MINOR ARTERIAL	**OUT TO OUT:** 41 FT 6 IN	
BUILT: 1964	**NBI OWNER:** MODOT	**AADT:** 12506	
REHAB: 1991	**NBI MAINTAINED:** MODOT	**AADT YEAR:** 2022	
LOCATION: S 32 T 38 R 7 W	**MAINTENANCE DISTRICT:** CD	**AADT TRUCK:**	
LATITUDE: 37 58 45.9 (DMS)	**MAINTENANCE COUNTY:** PHELPS	**FUTURE AADT:** 20010	
LONGITUDE: 91 43 9.66 (DMS)	**SUB AREA:** 7D47	**FUTURE AADT YEAR:** 2042	

BRIDGE INSPECTION INFORMATION

DATE: 05/23/2023 **RESPONSIBILITY:** DISTRICT
FREQUENCY: 24 **CALCULATED INTERVAL**:** 24
TEAM LEADER: JOE GREEN **ELEMENT:** NO
INSPECTOR 2: **INSPECTOR 4:**
INSPECTOR 3:

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

GENERAL INSPECTION COMMENTS

FRACTURE CRITICAL INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

FRACTURE CRITICAL INSPECTION COMMENTS

INDEPTH INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

INDEPTH INSPECTION COMMENTS

SPECIAL INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

SPECIAL INSPECTION COMMENTS

UNDERWATER INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

UNDERWATER INSPECTION COMMENTS

OTHER SPECIAL INSPECTIONS

DATE	FREQUENCY	CATEGORY	NBI	CALCULATED INTERVAL	RESPONSIBILITY	METHOD

OTHER UNDERWATER INSPECTIONS

DATE	FREQUENCY	CATEGORY	NBI	CALCULATED INTERVAL	RESPONSIBILITY	METHOD

COUNTY: PHELPS **DISTRICT: CD** **CLASS: STATBR** **FED-ID: 1072** **BRIDGE: A1296**

STRUCTURE POSTING

APPROVED CATEGORY: S-1 NO POSTING REQUIRED
Ton 1: **Ton 2:** **Ton 3:**
COMMENTS:

FIELD CATEGORY: S-1 NO POSTING REQUIRED
Ton 1: **Ton 2:** **Ton 3:** **PROBLEM:** **PROBLEM DIRECTION:**
COMMENTS:

GENERAL COMMENTS/MAJOR RATED ITEMS

GENERAL COMMENTS: (BOWDEJ1, 08/21/2008)--(45'-57'-57'-48') CONT VOIDED CONC SLAB SPANS (WIDENED)

[ITEM 58] DECK: 6-SATISFACTORY CONDITION **COMMENTS:** (ZENTZA1, 09/07/2017)--CRACKING, LEACHING, SCALING.
RATING : 05/18/2001

[ITEM 59] SUPER: 6-SATISFACTORY CONDITION **COMMENTS:** (RACKEM, 11/04/2011)--CRACK, LEACH
RATING : 05/18/2001

[ITEM 60] SUB: 6-SATISFACTORY CONDITION **COMMENTS:** (ZENTZA1, 09/07/2017)--CRACKING, DETERIORATION, SPALLS, PATCHES.
RATING : 05/18/2001

[ITEM 61] BANK/CHANNEL: N-NOT APPLIC NO WATRWAY **COMMENTS:**
RATING : 05/18/2001

[ITEM 113] SCOUR: N-NOT APPLIC NOT WATERW **COMMENTS:**
RATING : 05/18/2001
EVALUATION TYPE :

[ITEM 71] WATERWAY ADEQUACY: NOT APPLICABLE **COMMENTS:**
RATING : 05/18/2001

[ITEM 72] APPRRDWY ALIGNMENT: 8-VERYGOOD **COMMENTS:**
RATING : 05/18/2001

RAILING AND APPROACH PAVEMENT COMPONENTS AND RATINGS

[ITEM 36A] BRIDGE RAILING RATING: *MEETS CURRENT STANDARDS-1* ***RATING :*** *05/18/2001* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
REINFORCED CONCRETE	SAFETY BARRIER CURB	BOTH	

[ITEM 36B] TRANSITION RAILING RATING: *MEETS CURRENT STANDARDS-1* ***RATING :*** *05/18/2001* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	THRIE BEAM TO W-BEAM	ALL	

[ITEM 36C] APPROACH RAILING RATING: *MEETS CURRENT STANDARDS-1* ***RATING :*** *05/18/2001* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	W-BEAM	ALL	

[ITEM 36D] RAIL END TREATMENT RATING: *DOESNT MEET CURRNT STND-0* ***RATING :*** *11/30/2009* ***COMMENTS:***

Design_No = a1296

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	BREKAWAY SYSTEM	ALL	

APPROACH PAVEMENT: *Overall condition assigned for each approach pavemenet component is shown below.

MATERIAL	CONSTRUCTION	DIRECTION	CONDITION*	COMMENTS
ASPHALT	BITUMINOUS MAT	BOTH	GOOD	(OTTINM, 11/06/2013)--RUTTING

DRAINAGE, EXPANSION DEVICES, BANK/SLOPE, AND DECK PROTECTIVE COMPONENTS

DECK PROTECTIVE COMPONENTS:

SERIES TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	THICKNESS	YEAR APPLIED	MANUFACTURE	OVERALL CONDITION
MAIN SERIES-1	*WEARING SURFACE*	*PLAIN CONCRETE*	*LOW SLUMP*				*FAIR*

COMMENT:

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	COMMENT
LONGITUDINAL CRACKS	THROUGHOUT		FEW	
TRANSVERSE CRACKS	RANDOM		MANY	

DECK PROTECTION	*EPOXY POLYMER*	*COATED REBAR*

COMMENT:

MEMBRANE	*NOTAPPLICABLE*	*NONE*

COMMENT:

SECONDARY DECK PROTECTION	*LIQUID SEALANT*	*INTERNALLY SEALED*	*2012*	*STAR MACRO*

COMMENT:

COMMENT:

DRAINAGE COMPONENTS:

COMPONENT	MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
DRAINAGE	*REINFORCED CONCRETE*	*DRAIN BASIN-END BENT*		

EXPANSION DEVICE COMPONENTS:

SUB UNIT-#	SUB LABEL	COMPONENT	MATERIAL	CONSTRUCTION	GAP	YEAR APPLIED	MANUFACTURE	OVERALL CONDITION

COMMENT:

BANK/SLOPE PROTECTION COMPONENTS:

COMPONENT	MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS

DECK COMPONENTS

SPAN TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	COMMENTS
MAIN SPANS-1	*DECK*	*REINFORCED CONCRETE*	*CAST-IN-PLACE*	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DELAMINATION	RANDOM		FEW		
LONGITUDINAL CRACKS	DRIVING SURFACE		MANY		
PATCHES	DRIVING SURFACE		FEW		
SCALING	THROUGHOUT		MINOR		
TRANSVERSE CRACKS	DRIVING SURFACE		MANY		

MAIN SPANS-2 *DECK* *REINFORCED CONCRETE* *CAST-IN-PLACE*

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DELAMINATION	DRIVING SURFACE		FEW		
DELAMINATION	RANDOM		FEW		
LONGITUDINAL CRACKS	DRIVING SURFACE		MANY		
PATCHES	DRIVING SURFACE		FEW		
SCALING	THROUGHOUT		MINOR		
TRANSVERSE CRACKS	DRIVING SURFACE		MANY		

MAIN SPANS-3 *DECK* *REINFORCED CONCRETE* *CAST-IN-PLACE*

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
LONGITUDINAL CRACKS	DRIVING SURFACE		MANY		
PATCHES	DRIVING SURFACE		FEW		
SCALING	THROUGHOUT		MINOR		
SPALLS	RANDOM		FEW		
TRANSVERSE CRACKS	DRIVING SURFACE		MANY		

MAIN SPANS-4 *DECK* *REINFORCED CONCRETE* *CAST-IN-PLACE*

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
LONGITUDINAL CRACKS	DRIVING SURFACE		MANY		
PATCHES	DRIVING SURFACE		FEW		
SCALING	THROUGHOUT		MINOR		
SPALLS	RANDOM		FEW		
TRANSVERSE CRACKS	DRIVING SURFACE		MANY		

SUPERSTRUCTURE COMPONENTS

SERIES TYPE-#	SPAN TYPE	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
MAIN SERIES-1	*CONTINUOUS SPAN*	*REINFORCED CONCRETE*	*VOIDED SLAB*		

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-1	NON-COMPOSITE	45 FT 3 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DELAMINATION	RANDOM		FEW		
RUST STAINS	BOTTOM		MANY		
TRANSVERSE CRACKS	EDGE		MINOR		

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-2	NON-COMPOSITE	57 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DELAMINATION	RANDOM		FEW		
RUST STAINS	RANDOM		FEW		
TRANSVERSE CRACKS	EDGE		MINOR		
VERTICAL CRACKS	OVER INTERMEDIATE BENT		MINOR		

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-3	NON-COMPOSITE	57 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DIAGONAL CRACKS	OVER INTERMEDIATE BENT		MINOR		
LEACHING	OVER INTERMEDIATE BENT		MINOR		
RUST STAINS	BOTTOM		FEW		
VERTICAL CRACKS	OVER INTERMEDIATE BENT		MINOR		

MAIN SPANS-4 NON-COMPOSITE 48 FT 3 IN NO

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DIAGONAL CRACKS	ENDS		MINOR		

SUBSTRUCTURE COMPONENTS

SUBSTRUCTURE	SKEW	LENGTH	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
ABUTMENT-1		*41 FT 6 IN*	*REINFORCED CONCRETE*	*INTEGRAL*		

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
ASSOCIATED COMPONENT	**MATERIAL**	**CONSTRUCTION**			
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE			
DELAMINATION	ENDS		MINOR		
LEACHING	RANDOM		MINOR		
VERTICAL CRACKS	RANDOM		FEW		
PILING	STEEL	H-SHAPE			
TURNED BACK WINGS	REINFORCED CONCRETE	CAST-IN-PLACE			

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
BENT-2	*REINFORCED CONCRETE*	*MULTIPLE COLUMN*			
ASSOCIATED COMPONENT	**MATERIAL**	**CONSTRUCTION**			
COLUMN	REINFORCED CONCRETE	INTEGRAL CAST-IN-PLACE			
HORIZONTAL CRACKS	TOP		FINE		
PATCHES	RANDOM		FEW		
SCALING	GROUND LINE		MODERATE		
SPALLS	GROUND LINE		SMALL		
VERTICAL CRACKS	GROUND LINE		FEW		
FOOTING	REINFORCED CONCRETE	H-PILE			

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
BENT-3	*REINFORCED CONCRETE*	*MULTIPLE COLUMN*			
ASSOCIATED COMPONENT	**MATERIAL**	**CONSTRUCTION**			
COLUMN	REINFORCED CONCRETE	INTEGRAL CAST-IN-PLACE			
FOOTING	REINFORCED CONCRETE	SPREAD			

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
BENT-4	*REINFORCED CONCRETE*	*MULTIPLE COLUMN*			
ASSOCIATED COMPONENT	**MATERIAL**	**CONSTRUCTION**			
COLUMN	REINFORCED CONCRETE	INTEGRAL CAST-IN-PLACE			
SCALING	FRONT FACE		MINOR		
FOOTING	REINFORCED CONCRETE	H-PILE			

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
ABUTMENT-5	*41 FT 6 IN*	*REINFORCED CONCRETE*	*INTEGRAL*		

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

ASSOCIATED COMPONENT	MATERIAL	CONSTRUCTION			
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
DETERIORATION	CAP FACE		MINOR		
LEACHING	RANDOM		LIGHT		
VERTICAL CRACKS	RANDOM		MINOR		
PILING	STEEL	H-SHAPE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
TURNED BACK WINGS	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**

OVER/UNDER ROUTES CLEARANCE INFORMATION

CLEARANCES OVER DECK

**NOTE: Vertical clearances for permitting purposes are taken as 2 inches less than the actual field measured clearance.

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT

CLEARANCES UNDER BRIDGE

**NOTE: Vertical clearances for permitting purposes are taken as 2 inches less than the actual field measured clearance.

RECORD #	ROUTE	# LANES	DIRECTION OF TRAFFIC	RIGHT LATERAL CLEARANCE	LEFT LATERAL CLEARANCE	UR-ID
1	IS 44 E	2	1-WAY TRAF	11 FT 7 IN	11 FT 7 IN	2520

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT
ACTUAL	17 FT 7 IN			

RECORD #	ROUTE	# LANES	DIRECTION OF TRAFFIC	RIGHT LATERAL CLEARANCE	LEFT LATERAL CLEARANCE	UR-ID
2	IS 44 W	2	1-WAY TRAF	11 FT 7 IN	11 FT 7 IN	2521

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT
ACTUAL	16 FT 10 IN			

STRUCTURE PAINT INFORMATION

CONDITION: **RUST AMOUNT :** **STEEL TONS :** 0

ORIGINAL PAINT	CONTRACT REPAINT	DEPARTMENT REPAINT	
PAINT TYPE :	**PAINT TYPE :**	**PAINT TYPE :**	**MANUFACTURE :**
NAME :	**NAME :**	**NAME :**	**SURFACE PREP :**
PAINT COLOR :	**PAINT COLOR :**	**PAINT COLOR :**	
PAINT YEAR :	**PAINT YEAR :**	**PAINT YEAR :**	
MILS :	**MILS :**	**MILS :**	

REQUESTED WORK ITEMS

GENERAL WORK COMMENTS:

COUNTY: PHELPS **DISTRICT: CD** **CLASS: STATBR** **FED-ID: 1072** **BRIDGE: A1296**

RESPONSIBILITY	*LOCATION*	*ITEM*	*CATEGORY*	*PRIORITY*	*DATE*	*WORK ITEM COMMENT*
DISTRICT SPECIAL	ROADWAY SURFACE	SEAL DECK WITH IN DECK	DECK	3	10/08/2013	
DISTRICT ROUTINE	BOTTOM OF DECK	REPAIR OVERHEAD HAZARD	DECK	3	05/20/2021	(GREENA2, 05/20/2021)--REMOVE LOOSE CONCRETE ABOVE DRIVING LANE SPAN 2
DISTRICT SPECIAL		SEAL JTS - RODS/HOT POUR	DECK	3	05/20/2021	

UTILITY ATTACHMENTS

UTILITY	*OWNER*	*METHOD*	*MEASUREMENT TYPE*	*VALUE*	*NUMBER*	*UTILITY ATTACHMENT COMMENT*

PROGRAM NOTES INFORMATION

YEAR	PROJECT #	MONTH LET	YEAR LET	ITEMS	COMMENT

COMPUTER GENERATED RATINGS AND DEFICIENCY ITEMS

NOTE: The items listed in this section are updated whenever computer edits are ran on a structure after the inspection updates have been entered in to TMS.

Rated Item	Rating	Rating Date
[Item 67] Structure Evaluation Rating:	5-BETTER THAN MINIMUM	2/3/2017
[Item 68] Deck Geometry Rating:	3-BASICALLY INTOL CORRECT	3/14/2016
[Item 69] Underclearance:	5-BETTER THAN MINIMUM	1/26/2022
Sufficiency Rating:	53.9%	1/26/2022
Deficiency:	FUNCTIONAL	3/14/2016
Funding Eligibility:	PARTIAL	----
Estimated New Structure Length:	243 FT.	----
Estimated Structure Cost:	$1,354,803	----
Estimated Total Project Cost:	$2,032,204	----
Year of Cost Estimate:	2023	----

NOTE: The above structure length and cost estimates are computer generated using algorithims in the TMS system. These algorthims are generalized to use NBI items to come up with a new structure length and width to calculate a new area which is taken times a representative cost per square foot. The actual structure size and cost may vary significantly from these numbers once site specific engineering is done.

ADVANCED SIGN INFORMATION

SIGN #	SIGN TYPE	PROBLEM	PROBLEM DIRECTION
1			

OUTFALL INSPECTION INFORMATION

 # OUTFALLS: **INSPECTOR:**
STATUS: **DATE:**
NOTES:

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

September 1, 2023
10:22:22am

COUNTY : PHELPS **BRIDGE :** A1296 R **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : ROUTE CARRIED 'ON' STRUCT **RUN DATE :** 5/30/2023 **SUBMITTAL YEAR :** 2023

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	CD
3	County	PHELPS
8	Federal ID No.	1072
27	Year Built	1964
106	Year Reconstructed	1991
42A	Type of Service On	HIGHWAY
21	Structure Maintenance	STATE HIGHWAY AGENCY
22	Structure Owner	STATE HIGHWAY AGENCY
33	Br. Median Code	NO MEDIAN
37	Historical Significance	NOT ELIGIBLE FOR NR OF HP
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	YES

ROUTE DESIGNATION INFORMATION

5A	Record Type	ROUTE CARRIED 'ON' STRUCT
5B	Route Signing Prefix	MO
5C	Designated Level of Service	MAINLINE
5D	Route Number	0000V
5E	Directional Suffix	NOT APPLICABLE
7	Facility Carried	RT V E
12	Base Hwy. Network	NO
13A	LRS Inventory Route No.	
13B	Subroute No.	
20	Toll Status	ON FREE ROAD
26	Functional Classification	16-URBAN MINOR ARTERIAL
28A	Lanes on Structure	03
100	STRAHNET Designation	RTE NOT A DEFENSE HWY
104	National Highway System	NOT ON NHS
105	Federal Lands Highway	NOT APPLICABLE
110	Designated Nat. Network	NO

STRUCTURE LOCATION INFORMATION

4	Place	ROLLA CITY
	Code	62912
9	Location	S 32 T 38 N R 7 W
11	Milepoint	0.11 miles
16	Latitude	37 D 58 M 46 S
17	Longitude	91 D 43 M 10 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	12506
30	AADT Year	2022
102	Direction of Traffic	2-WAY TRAFFIC
109	AADT Truck Percent	10%
114	Future AADT	20010
115	Future AADT Year	2042

UNDERRECORD INFORMATION

6	Features Intersected	IS 44
42B	Type of Service Under	HIGHWAY
28B	Lanes Under Structure	04
54A	Vert. Clearance Ref.	HIGHWAY
54B	Vert. Clearance	16 Ft. 10 In.
55A	Rt. Lat Clear Ref.	HIGHWAY
55B	Rt. Lat Clearance	11 Ft. 6 In.
56	Left Lat Clearance	11 Ft. 6 In.
38	Navigation Control	N/A
39	Nav Vertical Clear	0 Ft. 0 In.
40	Nav Horizontal Clear	0 Ft. 0 In.
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	99 Ft. 99 In.
19	By pass Detour Length	16.88 miles
32	Approach Roadway Width	23 Ft. 11 In.
34	Skew	0.00 Degrees
35	Struct. Flared	NO
47	Total Horiz. Clear	40 Ft. 0 In.
48	Maximum Span Length	57 Ft. 1 In.
49	Structure Length	208 Ft. 0 In.
50A	Left Curb/Sidewalk Width	0 Ft. 8 In.
50B	Right Curb/Sidewalk Width	0 Ft. 8 In.
51	Curb to Curb Br. Width	38 Ft. 9 In.
52	Deck Width (Out-Out)	41 Ft. 4 In.
53	Vert.Clearance Over Deck	99 Ft. 99 In.

Design_No = a1296

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

September 1, 2023
10:22:22am

COUNTY : PHELPS **BRIDGE :** A1296 R **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : ROUTE CARRIED 'ON' STRUCT **RUN DATE :** 5/30/2023 **SUBMITTAL YEAR :** 2023

LOAD RATING AND POSTING INFORMATION

31	Design Load	H 15
41	Structure Status	OPEN NO RESTRICTIONS
63	Oper. Rating Meth.	ALLOWABLE STRESS
64	Operating Rating	48 Tons.
65	Inventory Rating Meth	ALLOWABLE STRESS
66	Inventory Rating	25 Tons.
70	Bridge Posting Code	=>LEGAL LOADS

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating	53.9 Percent
	Deficiency Rating	FUNCTIONAL
	Funding Eligibility	PARTIAL
75A	Proposed Work	REHAB-GENERAL DETERIORAT
75B	Work Done By	Contract
76	New Struc Length	242 Ft. 9 In.
94	Struc Improve Cost	$ 1,355,000
95	Roadway Improve Cost	$ 135,000
96	Total Project Cost	$ 2,032,000
97	Year of Cost Estimates	2023

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating	MEETS ACCEPTBLE STND
36B	Transition Rail App. Rating	MEETS ACCEPTBLE STND
36C	Approach Rail App. Rating	MEETS ACCEPTBLE STND
36D	Rail End Treat. App. Rating	DOES NOT MEET ACCEPT STND
67	Struc Eval App. Rating	5
68	Deck Geometry App. Rating	3
69	Underclearance App. Rating	5
71	Waterway Adeq. App. Rating	N
72	Approach Road App. Rating	8
113	Scour Assess App. Rating	N

APPROVED POSTING INFORMATION

Approved Posting Category S-1

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

NO POSTING REQUIRED

MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	CONCRETE CONTINUOUS
43B	Main struc Constr. Type	SLAB
45	# of Main Spans	4
44A	Appr Struc. Mat type	000
44B	Appr Struc. Cnstr. type	000
46	# of Approach Span	0
107	Deck Mat/Constr.	1 CONCRETE CIP
108A	Wear Surf Mat/Constr.	4 LOW SLUMP
108B	Membrane Mat/Constr.	0 NONE
108C	Deck Protect Mat/Constr.	1 EPOXY

CONDITION RATING INFORMATION

58	Deck Cond. Rating	6
59	Superstructure Cond. Rating	6
60	Substructure Cond. Rating	6
61	Channel /Channel Protection Cond. Rating	N
62	Culvert Cond. Rating	N

INSPECTION INFORMATION

90	Gen. Insp Date	5 / 23	
91	Gen. Insp. Frequency	24	Months
92A	Frac. Critical Inspection	N	Months
93A	Frac. Critical Insp. Date		
92B	Underwater Inspection	N	Months
93B	Underwater Insp. Date		
92C	Special Inspection	N	Months
93C	Special Inspection Date		

BORDER BRIDGE INFORMATION

98	Neighboring State Code
98B	Neighboring State % Respon
99	Neighboring State Struc. No.

FIELD POSTING INFORMATION

Field Posting Category S-1

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

NO POSTING REQUIRED

Design_No = a1296

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

September 1, 2023
10:22:22am

COUNTY : PHELPS **BRIDGE :** A1296 R **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : 1 RTE THAT GOES 'UNDER' S **RUN DATE :** 5/30/2023 **SUBMITTAL YEAR :** 2023

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	CD
3	County	PHELPS
8	Federal ID No.	1072
27	Year Built	1964
106	Year Reconstructed	0
42A	Type of Service On	HIGHWAY
21	Structure Maintenance	
22	Structure Owner	
33	Br. Median Code	
37	Historical Significance	
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	

ROUTE DESIGNATION INFORMATION

5A	Record Type	1 RTE THAT GOES 'UNDER' S	Code : A
5B	Route Signing Prefix	IS	
5C	Designated Level of Service	MAINLINE	
5D	Route Number	00044	
5E	Directional Suffix	NOT APPLICABLE	
7	Facility Carried	RT V E	
12	Base Hwy. Network		
13A	LRS Inventory Route No.		
13B	Subroute No.		
20	Toll Status	ON FREE ROAD	
26	Functional Classification	11-UR PRNCPL ARTERIAL-IS	
28A	Lanes on Structure	03	
100	STRAHNET Designation	ON A DEFENSE HWY	
104	National Highway System	ON NHS	
105	Federal Lands Highway		
110	Designated Nat. Network	YES	

STRUCTURE LOCATION INFORMATION

4	Place	ROLLA CITY
	Code	62912
9	Location	S 32 T 38 N R 7 W
11	Milepoint	190.85 miles
16	Latitude	37 D 58 M 46 S
17	Longitude	91 D 43 M 10 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	19008
30	AADT Year	2022
102	Direction of Traffic	1-WAY TRAFFIC
109	AADT Truck Percent	33%
114	Future AADT	
115	Future AADT Year	

UNDERRECORD INFORMATION

6	Features Intersected	IS 44
42B	Type of Service Under	HIGHWAY
28B	Lanes Under Structure	02
54A	Vert. Clearance Ref.	
54B	Vert. Clearance	
55A	Rt. Lat Clear Ref.	
55B	Rt. Lat Clearance	
56	Left Lat Clearance	
38	Navigation Control	
39	Nav Vertical Clear	
40	Nav Horizontal Clear	
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	17 Ft. 5 In.
19	By pass Detour Length	0.00 miles
32	Approach Roadway Width	
34	Skew	
35	Struct. Flared	
47	Total Horiz. Clear	40 Ft. 0 In.
48	Maximum Span Length	57 Ft. 1 In.
49	Structure Length	208 Ft. 0 In.
50A	Left Curb/Sidewalk Width	
50B	Right Curb/Sidewalk Width	
51	Curb to Curb Br. Width	
52	Deck Width (Out-Out)	
53	Vert.Clearance Over Deck	

Design_No = a1296

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

September 1, 2023
10:22:22am

COUNTY :	**PHELPS**	**BRIDGE :**	**A1296 R**	**REVIEW STATUS :**	**APPROVED**	**NBI STATUS :**	**T**
RECORD TYPE :	**1 RTE THAT GOES 'UNDER' S**			**RUN DATE :**	**5/30/2023**	**SUBMITTAL YEAR :**	**2023**

LOAD RATING AND POSTING INFORMATION

31	Design Load
41	Structure Status
63	Oper. Rating Meth.
64	Operating Rating
65	Inventory Rating Meth
66	Inventory Rating
70	Bridge Posting Code

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating
	Deficiency Rating
	Funding Eligibility
75A	Proposed Work
75B	Work Done By
76	New Struc Length
94	Struc Improve Cost
95	Roadway Improve Cost
96	Total Project Cost
97	Year of Cost Estimates

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating
36B	Transition Rail App. Rating
36C	Approach Rail App. Rating
36D	Rail End Treat. App. Rating
67	Struc Eval App. Rating
68	Deck Geometry App. Rating
69	Underclearance App. Rating
71	Waterway Adeq. App. Rating
72	Approach Road App. Rating
113	Scour Assess App. Rating

MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	CONCRETE CONTINUOUS
43B	Main struc Constr. Type	SLAB
45	# of Main Spans	
44A	Appr Struc. Mat type	
44B	Appr Struc. Cnstr. type	
46	# of Approach Span	
107	Deck Mat/Constr.	
108A	Wear Surf Mat/Constr.	
108B	Membrane Mat/Constr.	
108C	Deck Protect Mat/Constr.	

CONDITION RATING INFORMATION

58	Deck Cond. Rating
59	Superstructure Cond. Rating
60	Substructure Cond. Rating
61	Channel /Channel Protection Cond. Rating
62	Culvert Cond. Rating

INSPECTION INFORMATION

90	Gen. Insp Date
91	Gen. Insp. Frequency
92A	Frac. Critical Inspection
93A	Frac. Critical Insp. Date
92B	Underwater Inspection
93B	Underwater Insp. Date
92C	Special Inspection
93C	Special Inspection Date

BORDER BRIDGE INFORMATION

98	Neighboring State Code
98B	Neighboring State % Respon
99	Neighboring State Struc. No.

APPROVED POSTING INFORMATION

Approved Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

FIELD POSTING INFORMATION

Field Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

Design_No = a1296

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

September 1, 2023
10:22:22am

COUNTY : PHELPS **BRIDGE :** A1296 R **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : 2ND RTE THAT GOES 'UNDR'S **RUN DATE :** 5/30/2023 **SUBMITTAL YEAR :** 2023

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	CD
3	County	PHELPS
8	Federal ID No.	1072
27	Year Built	1964
106	Year Reconstructed	0
42A	Type of Service On	HIGHWAY
21	Structure Maintenance	
22	Structure Owner	
33	Br. Median Code	
37	Historical Significance	
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	

ROUTE DESIGNATION INFORMATION

5A	Record Type	2ND RTE THAT GOES 'UNDR'S Code : B
5B	Route Signing Prefix	IS
5C	Designated Level of Service	MAINLINE
5D	Route Number	00044
5E	Directional Suffix	NOT APPLICABLE
7	Facility Carried	RT V E
12	Base Hwy. Network	
13A	LRS Inventory Route No.	
13B	Subroute No.	
20	Toll Status	ON FREE ROAD
26	Functional Classification	11-UR PRNCPL ARTERIAL-IS
28A	Lanes on Structure	03
100	STRAHNET Designation	ON A DEFENSE HWY
104	National Highway System	ON NHS
105	Federal Lands Highway	
110	Designated Nat. Network	YES

STRUCTURE LOCATION INFORMATION

4	Place	ROLLA CITY
	Code	62912
9	Location	S 32 T 38 N R 7 W
11	Milepoint	104.00 miles
16	Latitude	37 D 58 M 46 S
17	Longitude	91 D 43 M 10 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	19049
30	AADT Year	2022
102	Direction of Traffic	1-WAY TRAFFIC
109	AADT Truck Percent	35%
114	Future AADT	
115	Future AADT Year	

UNDERRECORD INFORMATION

6	Features Intersected	IS 44
42B	Type of Service Under	HIGHWAY
28B	Lanes Under Structure	02
54A	Vert. Clearance Ref.	
54B	Vert. Clearance	
55A	Rt. Lat Clear Ref.	
55B	Rt. Lat Clearance	
56	Left Lat Clearance	
38	Navigation Control	
39	Nav Vertical Clear	
40	Nav Horizontal Clear	
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	16 Ft. 10 In.
19	By pass Detour Length	0.00 miles
32	Approach Roadway Width	
34	Skew	
35	Struct. Flared	
47	Total Horiz. Clear	40 Ft. 0 In.
48	Maximum Span Length	57 Ft. 1 In.
49	Structure Length	208 Ft. 0 In.
50A	Left Curb/Sidewalk Width	
50B	Right Curb/Sidewalk Width	
51	Curb to Curb Br. Width	
52	Deck Width (Out-Out)	
53	Vert.Clearance Over Deck	

Design_No = a1296

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

September 1, 2023
10:22:22am

COUNTY : PHELPS **BRIDGE :** A1296 R **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : 2ND RTE THAT GOES 'UNDR'S **RUN DATE :** 5/30/2023 **SUBMITTAL YEAR :** 2023

LOAD RATING AND POSTING INFORMATION

31	Design Load
41	Structure Status
63	Oper. Rating Meth.
64	Operating Rating
65	Inventory Rating Meth
66	Inventory Rating
70	Bridge Posting Code

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating
	Deficiency Rating
	Funding Eligibility
75A	Proposed Work
75B	Work Done By
76	New Struc Length
94	Struc Improve Cost
95	Roadway Improve Cost
96	Total Project Cost
97	Year of Cost Estimates

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating
36B	Transition Rail App. Rating
36C	Approach Rail App. Rating
36D	Rail End Treat. App. Rating
67	Struc Eval App. Rating
68	Deck Geometry App. Rating
69	Underclearance App. Rating
71	Waterway Adeq. App. Rating
72	Approach Road App. Rating
113	Scour Assess App. Rating

MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	CONCRETE CONTINUOUS
43B	Main struc Constr. Type	SLAB
45	# of Main Spans	
44A	Appr Struc. Mat type	
44B	Appr Struc. Cnstr. type	
46	# of Approach Span	
107	Deck Mat/Constr.	
108A	Wear Surf Mat/Constr.	
108B	Membrane Mat/Constr.	
108C	Deck Protect Mat/Constr.	

CONDITION RATING INFORMATION

58	Deck Cond. Rating
59	Superstructure Cond. Rating
60	Substructure Cond. Rating
61	Channel /Channel Protection Cond. Rating
62	Culvert Cond. Rating

INSPECTION INFORMATION

90	Gen. Insp Date
91	Gen. Insp. Frequency
92A	Frac. Critical Inspection
93A	Frac. Critical Insp. Date
92B	Underwater Inspection
93B	Underwater Insp. Date
92C	Special Inspection
93C	Special Inspection Date

BORDER BRIDGE INFORMATION

98	Neighboring State Code
98B	Neighboring State % Respon
99	Neighboring State Struc. No.

APPROVED POSTING INFORMATION

Approved Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

FIELD POSTING INFORMATION

Field Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

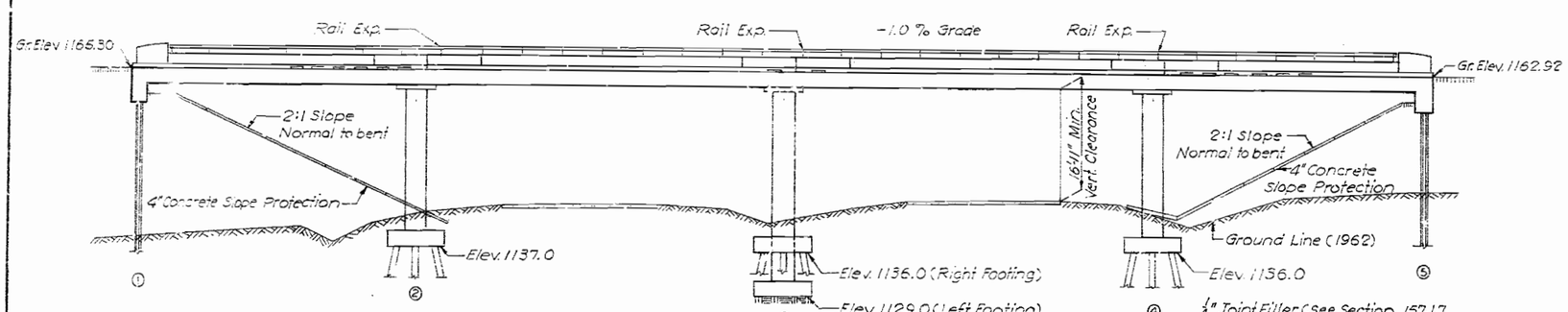
General Text for Posting Sign

Design_No = a1296

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	9	

52'-67'-67'-49' Cont. Slab Spans (Voided)



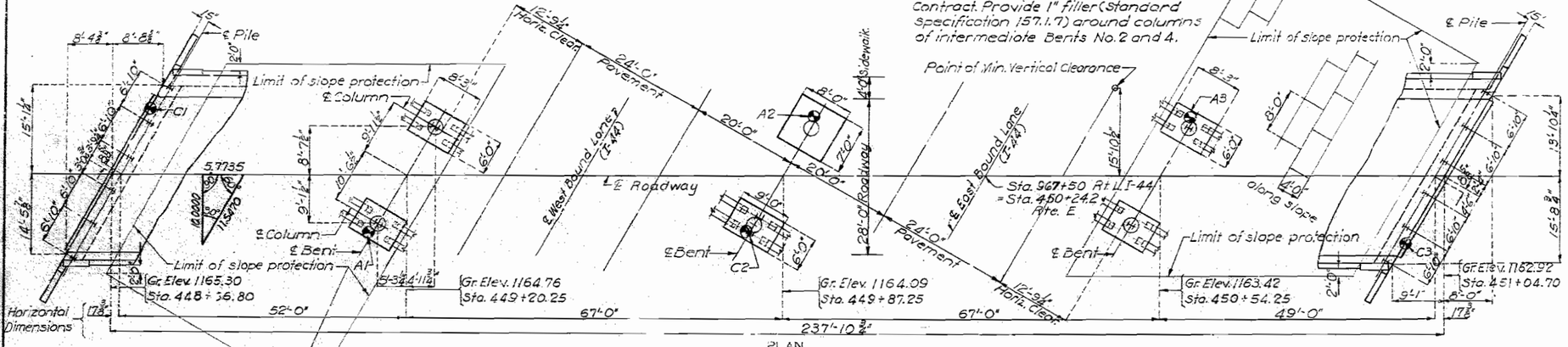
GENERAL ELEVATION

Note: Compacted roadway fill (full roadway width) shall be placed up to elevation of bottom of concrete beam in front of and not less than 25'-0" in back of End Bents No. 1 and 5 before steel piles for end bents are driven.

Note: Concrete protection on front slopes at end bents to be included under Road Contract. Provide 1" filler (Standard Specification 157.1.7) around columns of intermediate Bents No. 2 and 4.

FOOTING AND PILE DATA								
	BENT NO.	1	2	3-LT. FTG.	3-RT. FTG.	4	5	
SPREAD FOOTINGS	Foundation Material.			Rock				
	Design Bearing Tons / Sq. Ft.			5.0				
	See Standard Specifications 50.4.2							
BEARING PILE	Pile Type and Size.	10"BP42	12"BP53		12" BP53	12 BP53	10"BP42	
	Number	6	10		6	10	6	
	Approximate Length Ft.	40	15		20	15	35	
	Plan Bearing Tons.	37	47		47	47	37	
	Minimum Required Bearing Tons.	33	47		41	47	32	
	Hammer	Power	Power		Power	Power	Power	
	See Standard Specification 52.2.6							

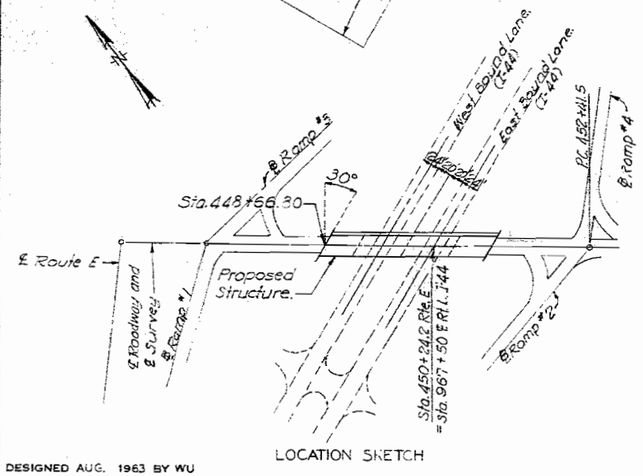
Note: All pile shall be driven to practical refusal on or into solid rock or other point bearing material of not less than the Plan Bearing shown, unless excessive splicing is required to obtain Plan Bearing, in which case the engineer will authorize a lesser bearing, but in no case less than the Minimum Required Bearing.



Note: For log of soundings See Sheet No. 2 of 9

GENERAL NOTES:

Design Specifications A.A.S.H.O.-1961.
Loading H20-44 (15#/sq. ft. Future wearing surface)
Structural Steel (A.S.T.M. A36-62T) Stress 20,000 psi.
Reinforcing Steel Stress 20,000 psi.
Concrete, Class B Stress 1,200 psi.
Concrete, Class B1 Stress 1,500 psi.
Superstructure Concrete shall be Class B1.
Substructure Concrete shall be Class B or Class B1 except payment will be on the basis of Class B.
Superstructure deck to be surface sealed. (See Special Provisions).
Where Joint filler is specified on the plans it shall conform to Standard Specification 157.2.4.
See Standard Specification 55.3.13 for qualification of welding operators.
All dimensions to reinforcing steel are to ℄ bar except where clear distance from face of concrete is indicated.
Steel pile shall be A.S.T.M. A-36-62T.
Painting or Galvanizing: Structural Steel handrail shall be cleaned and painted in the field or may be cleaned and painted one coat of red lead in the shop with the two remaining coats applied in the field; all to be in accordance with Standard Specification 55.4.10. In lieu of painting, the contractor may, if he prefers, galvanize this material in accordance with Standard Specification 55.2.8.



LOCATION SKETCH

ESTIMATED QUANTITIES				
ITEM		SUBSTR.	SUPERSTR.	TOTAL
Class 1 Excavation for Structures.	Cu. Yds.	150		150
Steel Piles in Place. (10")	Lin. Ft.	414		414
Steel Pile Cut-offs (10")	Lin. Ft.	36		36
Class B Concrete.	Cu. Yds.	35.5		35.5
Class B1 Concrete.	Cu. Yds.		606.9	606.9
Reinforcing Steel.	Lbs.	1490	147,840	149330
Fabricated Structural Carbon Steel.	Lbs.		9200	9200
Steel Piles in Place. (12")	Lin. Ft.	342		342
Steel Pile Cut-offs. (12")	Lin. Ft.	78		78
Conduit System (on Structures)	Lump Sum		1	1

Note: All excavation for bridge will be paid for as Class 1.
Class 1 Excavation for Structures will be computed from the original ground line (1962).
All concrete and reinforcement above footings in intermediate bents is included in superstructure quantities.
No payment for excavation will be allowed at End Bents No. 1 and 5.
Weight of bolts (steel to steel) is included in weight of Fabricated Structural Steel on the basis of the following weights per 100 bolts.
5/8" 40#; 3/4" 65#; 7/8" 95#; 1" 135#

B.M. Elev 1130.89 "on N.W. Cor. Hdwl. Cu'm. 30' Lt. Sta. 960+00 (I-44) "U.S.G.S. DATUM)

BRIDGE: ROUTE E UNDERPASS

STATE ROAD: INTERSTATE ROUTE 44

ABOUT 0.5 MILE N.W. OF ROLLA

PROJECT NO. I-44-2(36)(RTE. I-44) **STA.** 967+50 (RT. LANE)

PHELPS **COUNTY**

SUBMITTED BY D. B. Gaertner BRIDGE ENGINEER DATE 1/14/64

APPROVED BY T. H. Wiles CHIEF ENGINEER DATE 1/14/64

STD. 54.00
A-1261

DESIGNED AUG. 1963 BY WU
DETAILED SEPT. 1963 BY WOODS
CHECKED NOV 1963 BY MOBERLY

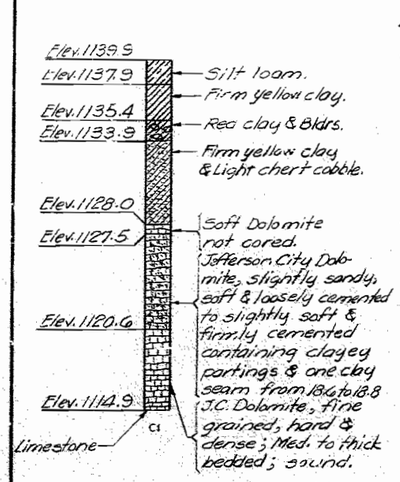
Note: This drawing is not to scale. Follow dimensions.

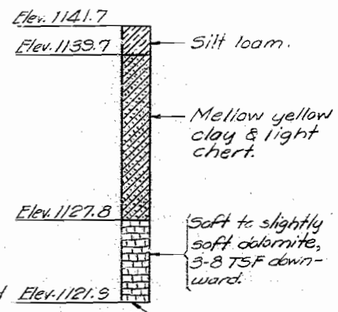
Sheet No. 1 of 9

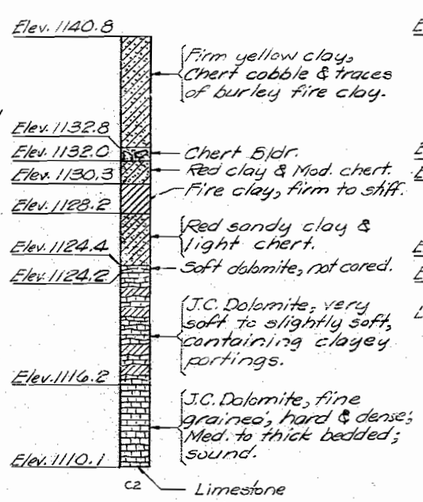
498

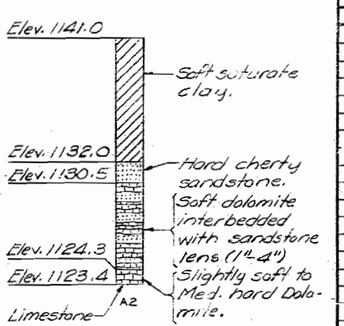
MISSOURI STATE HIGHWAY DEPARTMENT

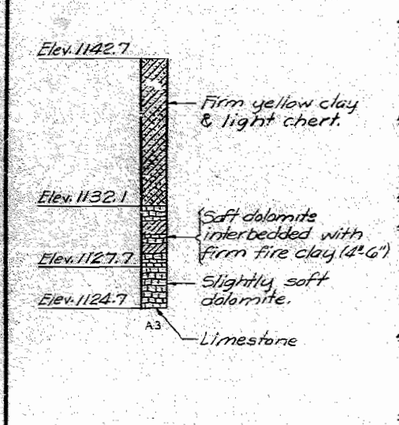
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	2 9	

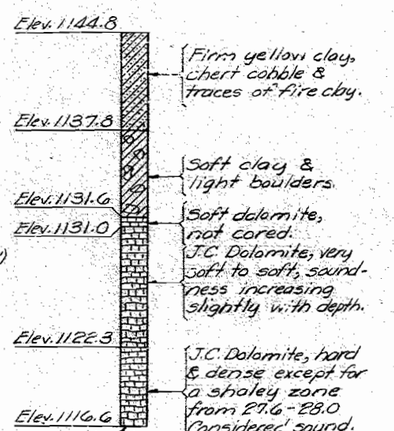












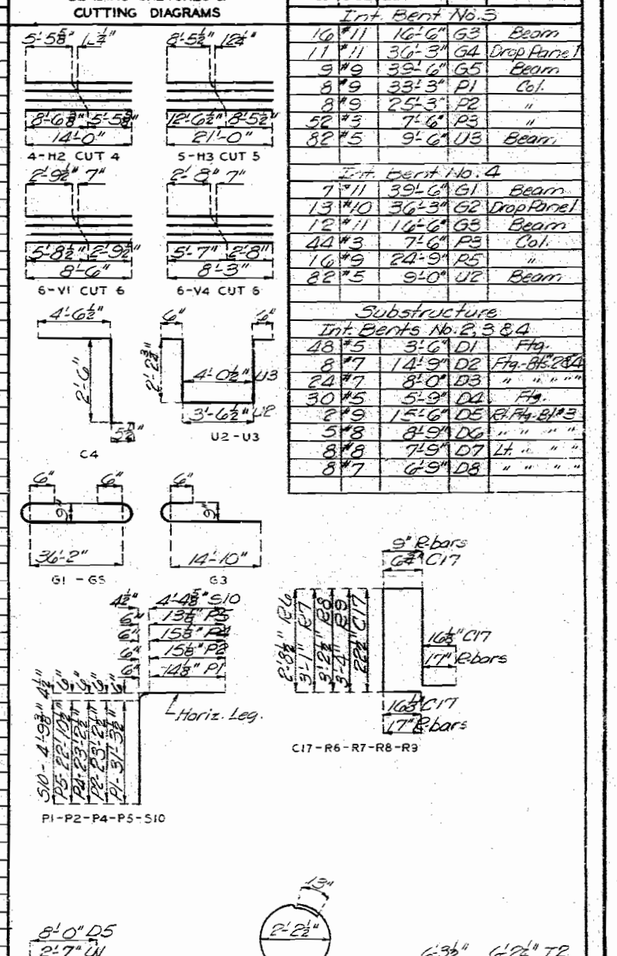
LOG OF SOUNDINGS

Note: "A" indicates sounding taken with an Auger.
"C" indicates sounding taken with a Core Drill.
For location of soundings, see ⑨ on Sheet No. 1 of 9.

COMPLETE BILL OF REINFORCING STEEL

NO.	SIZE	LENGTH	MARK	LOCATION
		Superstructure		
212	#5	18'-1"	C1	Curb
200	#4	5'-5"	C2	Parapet
2	#5	36'-3"	C3	"
212	#6	7'-6"	C4	Curb
28	#6	4'-6"	C5	"
10	#5	27'-0"	C6	"
24	#5	8'-9"	C7	Parapet
16	#5	25'-6"	C8	"
2	#5	38'-6"	C9	"
10	#5	34'-3"	C10	Curb
10	#5	27'-6"	C11	"
4	#5	20'-9"	C12	Parapet
2	#5	34'-9"	C13	"
6	#5	28'-3"	C14	Curb
6	#5	26'-0"	C15	"
212	#5	7'-0"	C16	"
228	#5	7'-0"	C17	"
32	#5	4'-3"	E1	End Post
2	#5	9'-0"	E2	" "
2	#5	9'-9"	E3	" "
2	#5	10'-0"	E4	" "
6	#5	10'-3"	E5	" "
2	#5	9'-0"	E6	" "
2	#5	9'-9"	E7	" "
2	#5	10'-0"	E8	" "
6	#5	10'-3"	E9	" "
568	#5	36'-9"	S1	Slab
43	#5	34'-6"	S2	"
22	#11	36'-0"	S3	"
21	#145	29'-3"	S4	"
21	#145	18'-0"	S5	"
86	#5	33'-3"	S6	"
22	#145	39'-6"	S7	"
21	#145	28'-6"	S8	"
21	#145	20'-0"	S9	"
86	#6	9'-9"	S10	"
66	#10	60'-0"	S11	"
21	#10	40'-6"	S12	"
21	#10	29'-3"	S13	"
22	#10	10'-6"	S14	"
21	#10	41'-9"	S15	"
21	#10	30'-0"	S16	"
22	#11	35'-3"	S17	"
43	#5	31'-6"	S18	"
21	#10	42'-9"	S19	"
21	#10	31'-6"	S20	"
21	#10	39'-0"	S21	"
21	#10	27'-3"	S22	"
22	#9	60'-0"	S23	"
21	#145	20'-6"	S24	"
21	#11	29'-3"	S25	"
		End Bents No. 1 & 5		
10	#6	9'-9"	H1	Wing.
4	#6	14'-0"	H2	"
5	#6	21'-0"	H3	"
8	#6	13'-0"	H4	"
24	#6	35'-0"	H7	Beam
4	#6	13'-0"	T1	Wing.
4	#6	15'-6"	T2	"
150	#5	9'-9"	U1	Beam
6	#4	8'-6"	V1	Wing.
12	#4	5'-9"	V2	"
6	#4	8'-3"	V4	"
		Int. Bent No. 2		
7	#11	39'-6"	G1	Beam
13	#10	36'-3"	G2	Drop Panel
12	#11	16'-6"	G3	Beam
44	#3	7'-6"	P3	Col.
16	#9	25'-3"	P4	"
82	#5	9'-0"	U2	Beam

BENDING SKETCHES & CUTTING DIAGRAMS



BRIDGE: ROUTE E UNDERPASS

STATE ROAD: INTERSTATE ROUTE 44

ABOUT 0.5 MILE N.W. OF ROLLA

PROJECT NO. I-44-2(36)(RTE. I-44) STA. 967+50 (RT. LANE)

PHELPS **COUNTY**

A-1261

No.	Revised	Date
90.2		June 1961

Drawn Sept. 1963 by Lindsey.
Checked Nov. 1963 by Moberly

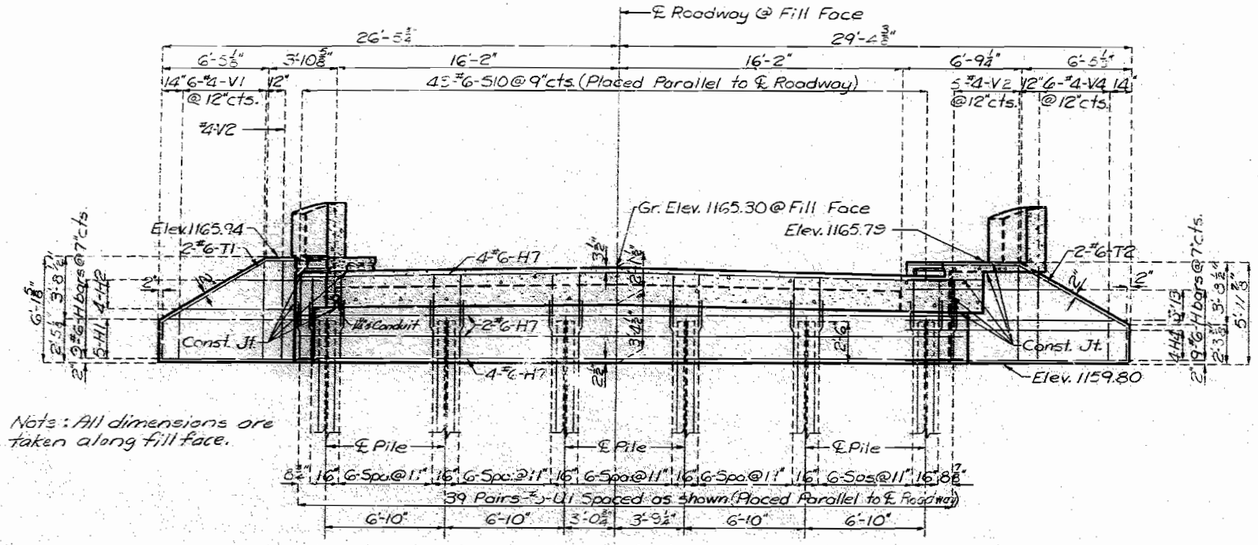
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 2 of 9

NO CONSTRUCTION CHANGES

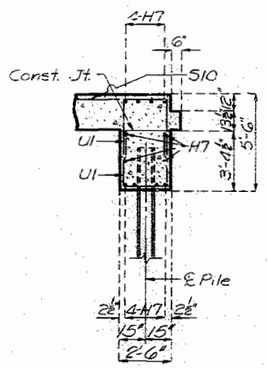
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	157	

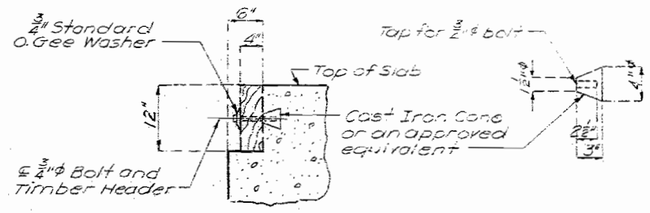


SECTION A-A

Note: All dimensions are taken along fill face.

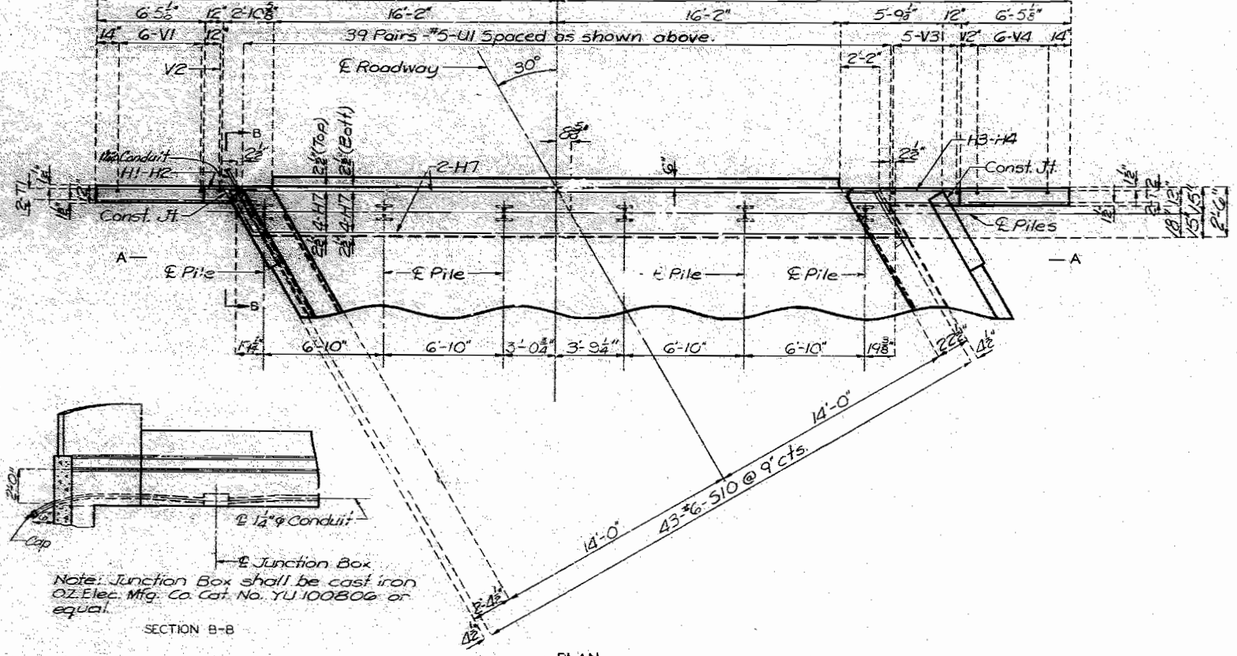


SECTION AT ℄ ROADWAY



Note: ¾"ϕ bolt shall be 6'-2" long with hex. or square head, threaded 3" long and placed at about 3'-0" cts.
Cost of timber headers complete in place to be included in price bid for concrete.

DETAILS OF TIMBER HEADER

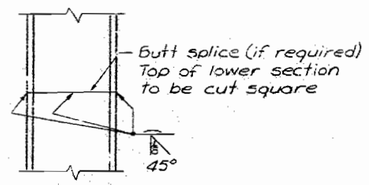


PLAN

Note: Junction Box shall be cast iron O.Z. Elec. Mfg. Co. Cat. No. YU 100806 or equal.

SECTION B-B

DETAILS OF END BENT NO. 1



DETAILS OF STEEL PILE SPLICE

BRIDGE: ROUTE E UNDERPASS

STATE ROAD: INTERSTATE ROUTE 44

ABOUT 0.5 MILE N.W. OF ROLLA

PROJECT NO. I-44-2(36)(RTE. I-44) **STA.** 967+50 (RT. LANE)

PHELPS **COUNTY**

DRAWN Aug. 1963 BY Weber

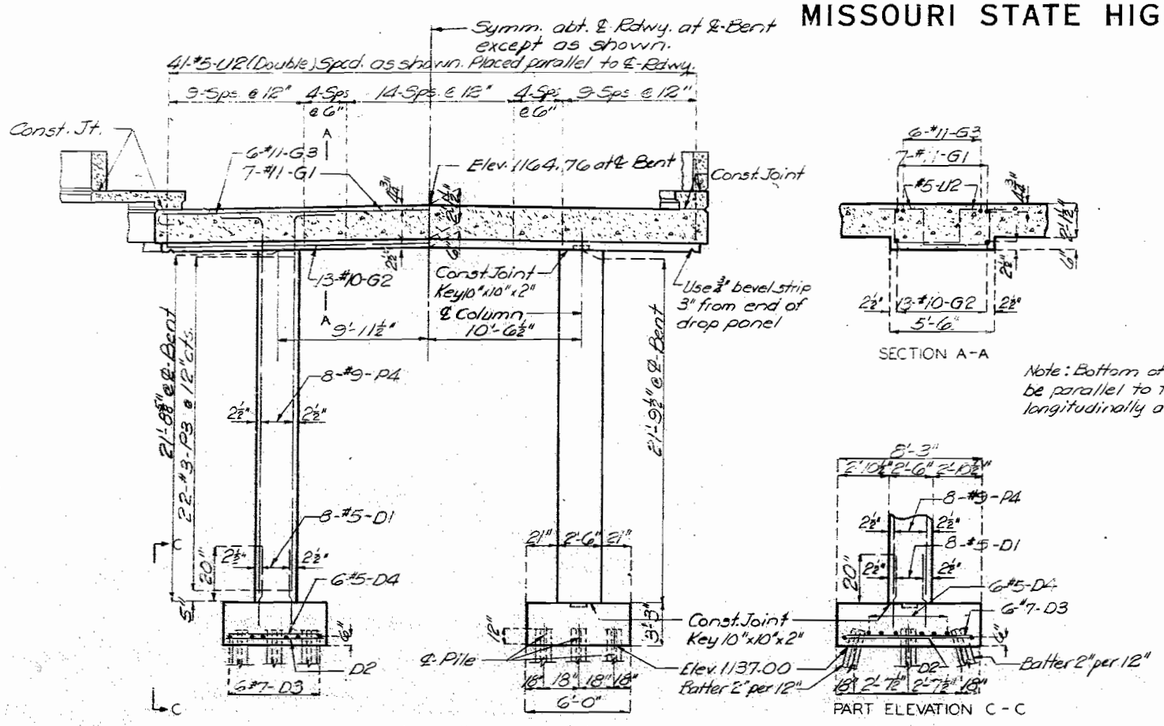
CHECKED Nov. 1963 BY Mobery

Note: This drawing is not to scale. Follow dimensions.

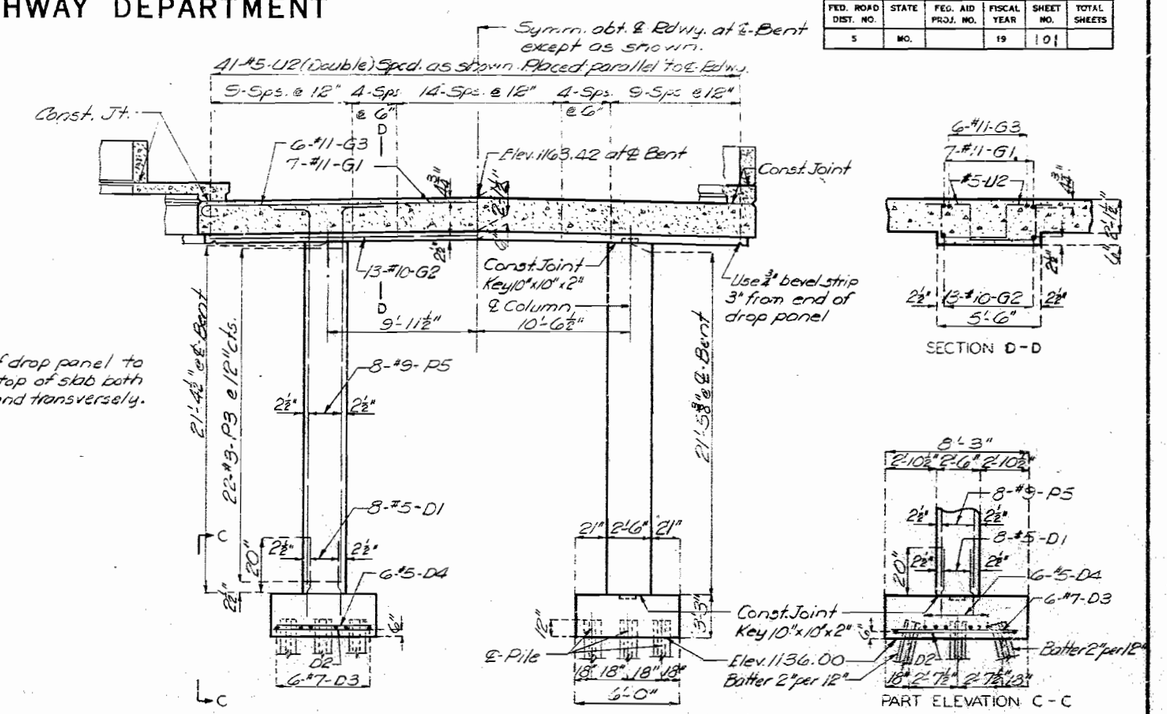
A-1261

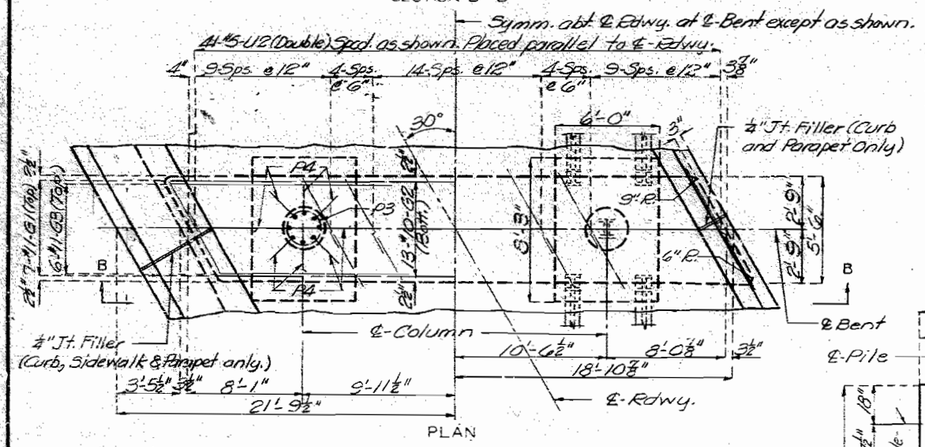
MISSOURI STATE HIGHWAY DEPARTMENT

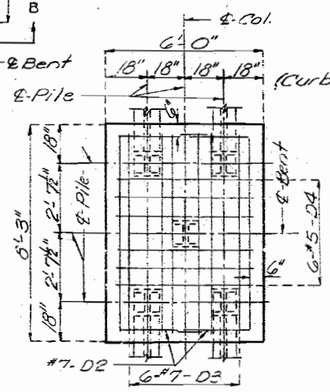
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	101	

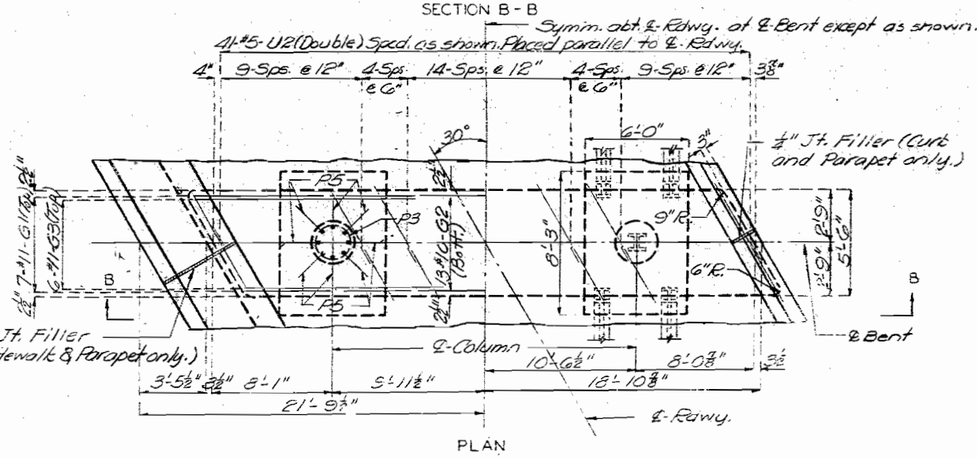


Note: Bottom of drop panel to be parallel to top of slab both longitudinally and transversely.









BRIDGE : ROUTE E UNDERPASS

STATE ROAD : INTERSTATE ROUTE 44

ABOUT 0.5 MILE N.W. OF ROLLA

PROJECT NO. I-44-2(36)(RTE. I-44) STA. 967+50 (RT. LANE)

PHELPS **COUNTY**

Drawn Sept. 1963 by Lindsey.
Checked Nov. 1963 by Moberly

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 4 of 5

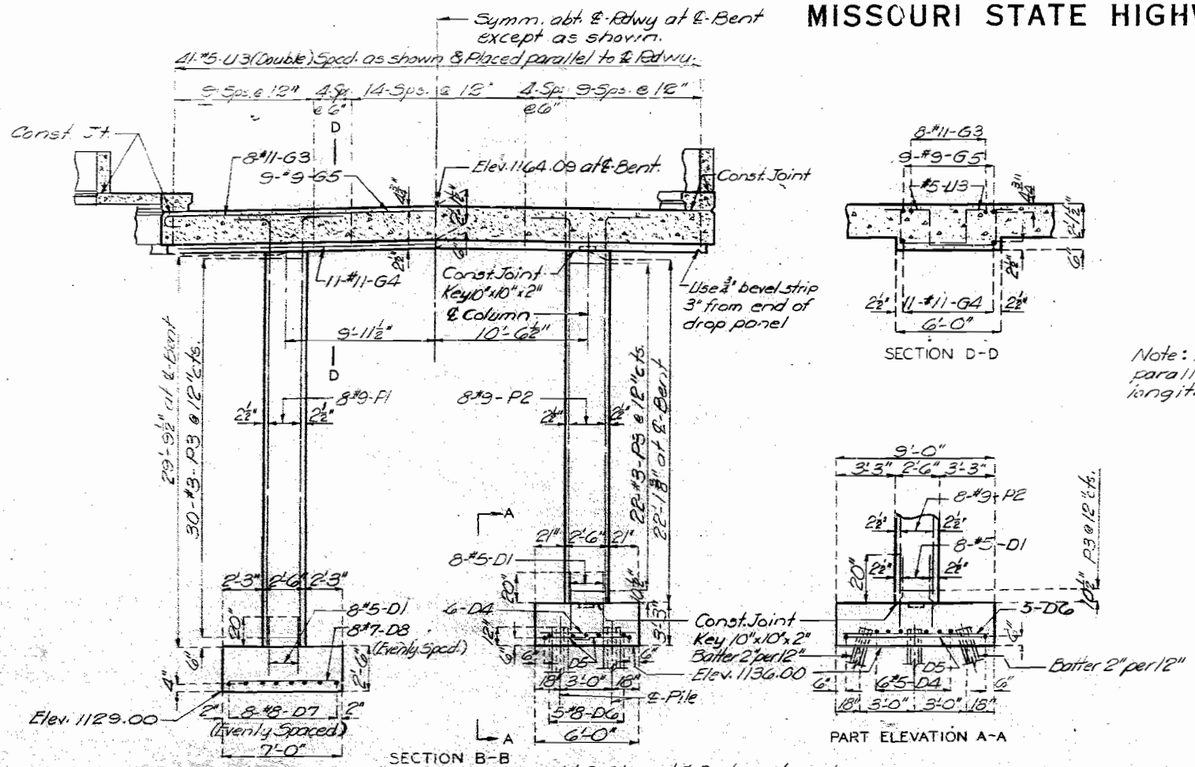
A-1261

No. 2 Revised Mar. 1968

NO CONSTRUCTION CHANGES

MISSOURI STATE HIGHWAY DEPARTMENT

FED. R. DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		15	102	



DETAILS OF INT. BENT NO. 3

BRIDGE: ROUTE E UNDERPASS

STATE ROAD: INTERSTATE ROUTE 44

ABOUT 0.5 MILES N.W. OF ROLLA

PROJECT NO. F-44-2(36)(RTE. I-44) STA. 967+50 (RT. LANE)

PHELPS **COUNTY**

A-1261

Drawn Sept. 1963 by Lindsey.
Checked Nov. 1963 by Moberly

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 5 of 9

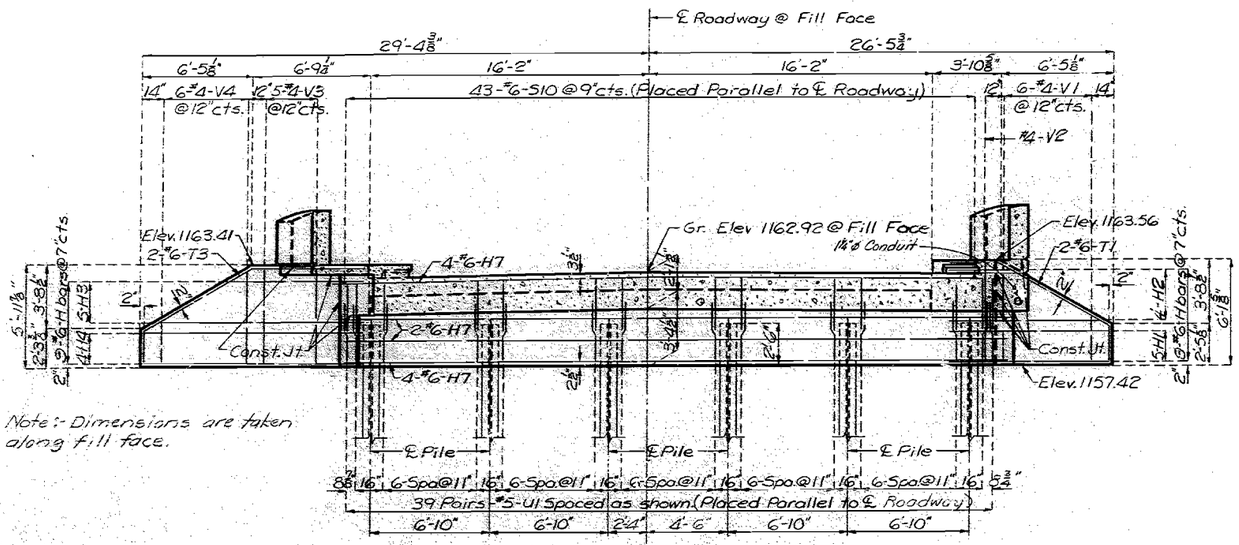
SEE FINAL PLANS BROWN-LINES

No. 62.5 Revised Feb. 1962

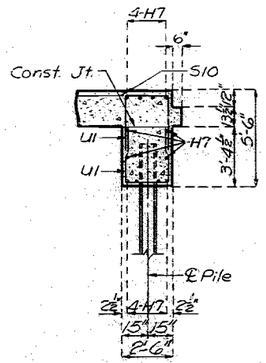
302

MISSOURI STATE HIGHWAY DEPARTMENT

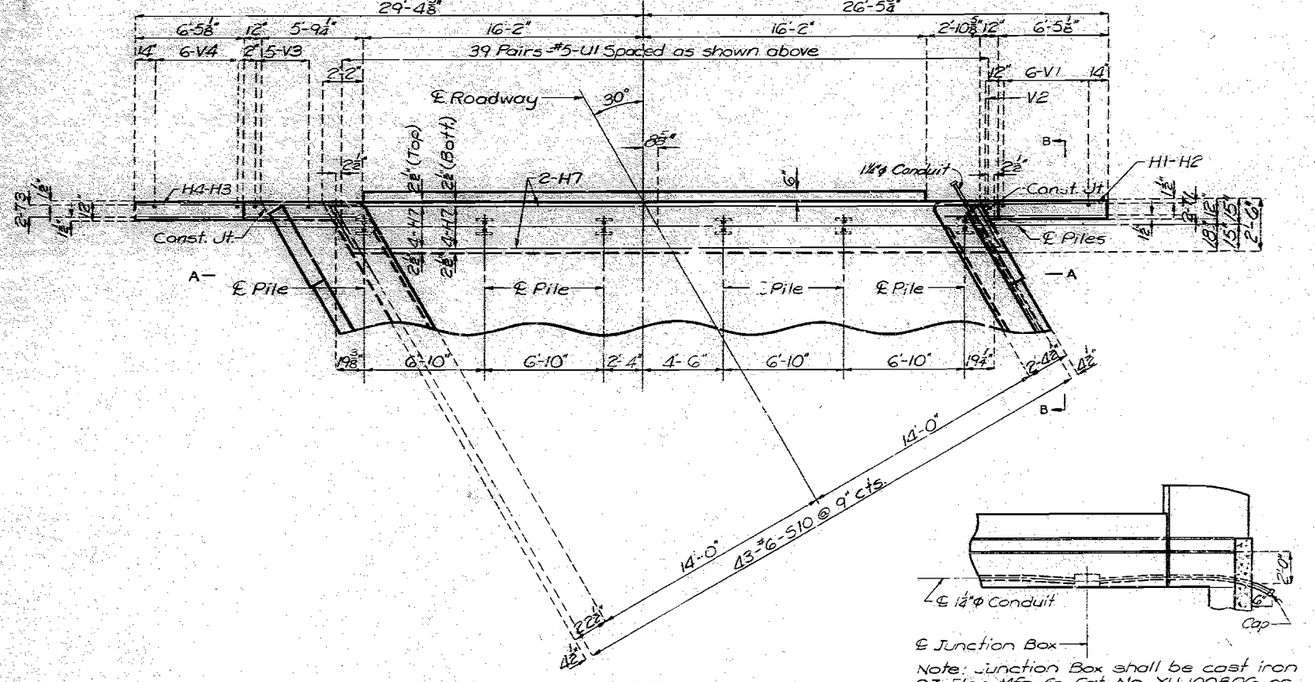
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	103	



SECTION A-A



SECTION AT ℄ ROADWAY



PLAN

Note: Junction Box shall be cast iron O.Z. Elec. Mfg. Co. Cat. No. YU 100806 or equal.

DETAILS OF END BENT NO. 5

DETAILED Sept. 1963 BY Weber
CHECKED Nov. 1963 BY Moberly

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 6 of 9.

BRIDGE: ROUTE E UNDERPASS

STATE ROAD: INTERSTATE ROUTE 44

ABOUT 0.5 MILE N.W. OF ROLLA

PROJECT NO. I-44-2(36)(RTE. I-44) **STA.** 967+50 (RT. LANE)

PHELPS **COUNTY**

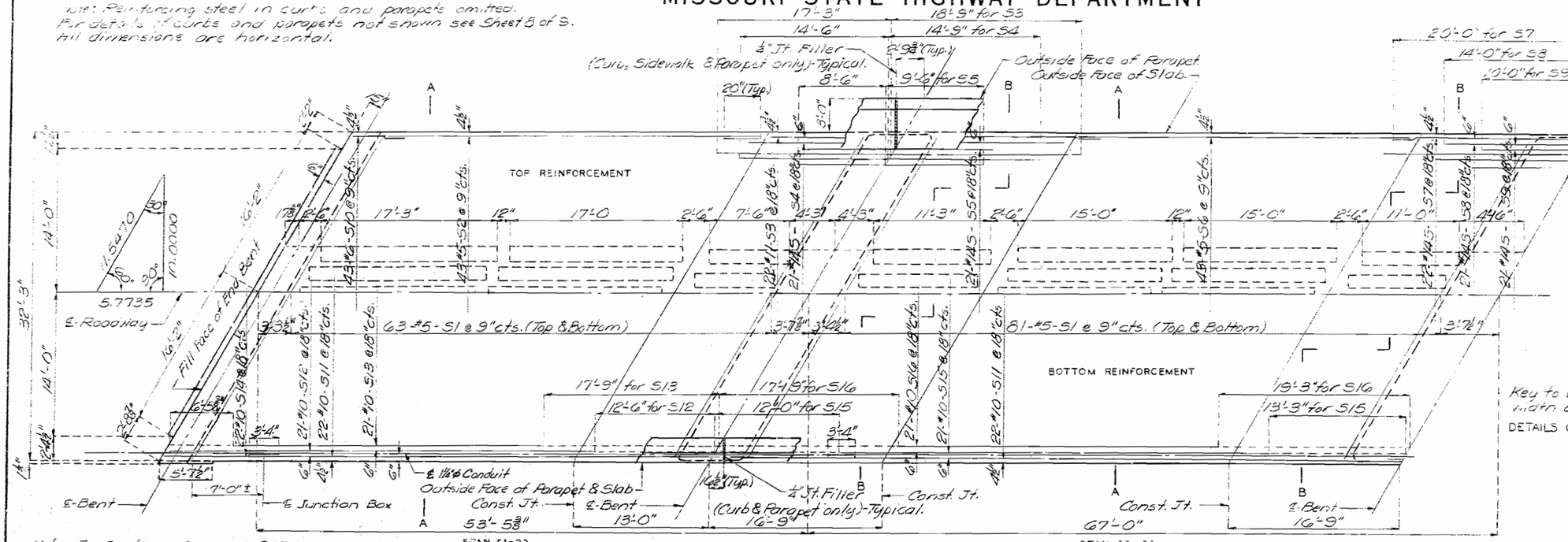
A-1261

503

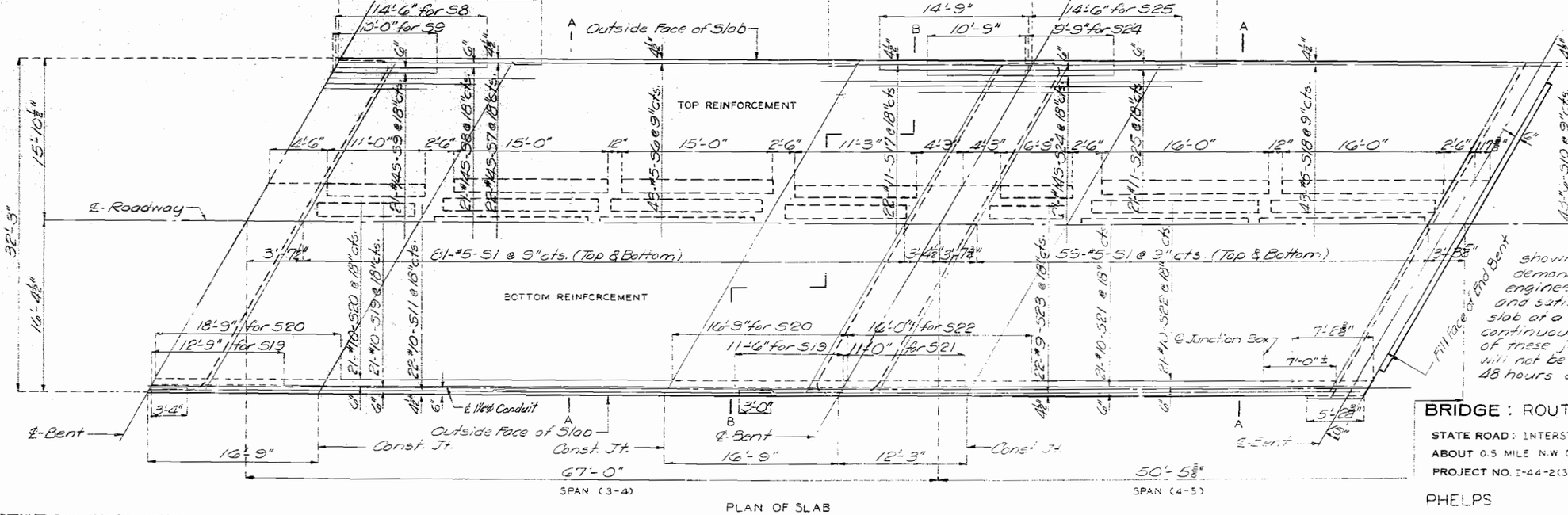
MISSOURI STATE HIGHWAY DEPARTMENT

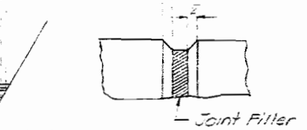
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	104	

Note: Reinforcing steel in curbs and parapets omitted. For details of curbs and parapets not shown see Sheet 8 of 9. All dimensions are horizontal.



Note: For Sections A-A and B-B See Sheet No. 8 of 9.

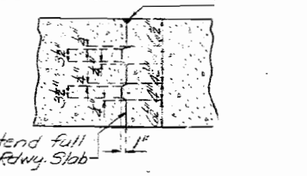




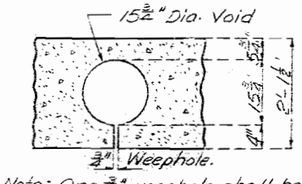
Note: Use bevel as shown for exposed faces of all filled joints.

DETAIL OF BEVEL FOR FILLED JOINTS

Finish each side of joint with ½" radius edging tool and fill flush with Joint Seal.



DETAILS OF SLAB CONSTRUCTION JOINT KEY



Note: One 3" weephole shall be provided near each end of each void. Weepholes shall be placed in straight lines parallel to bents.

DETAIL OF WEEPHOLE IN VOIDS

Note: The contractor shall use an approved oscillating screed type, self-propelled mechanical finishing machine and shall pour and satisfactorily finish the roadway slab at a rate of not less than 30 cubic yards per hour. He shall observe the transverse construction joints shown on the plans unless he can demonstrate to the satisfaction of the engineer that he is equipped to pour and satisfactorily finish the roadway slab at a rate which will permit a continuous pouring through some or all of these joints. Finishing machine load will not be permitted on concrete less than 48 hours old.

BRIDGE: ROUTE E UNDERPASS

STATE ROAD: INTERSTATE ROUTE 44

ABOUT 0.5 MILE N.W. OF ROLLA

PROJECT NO. I-44-2(36)(RTE I-44) **STA.** 967+50 (RT LANE)

PHELPS **COUNTY**

A-1261

DETAILED JULY 1963 BY LINDSEY

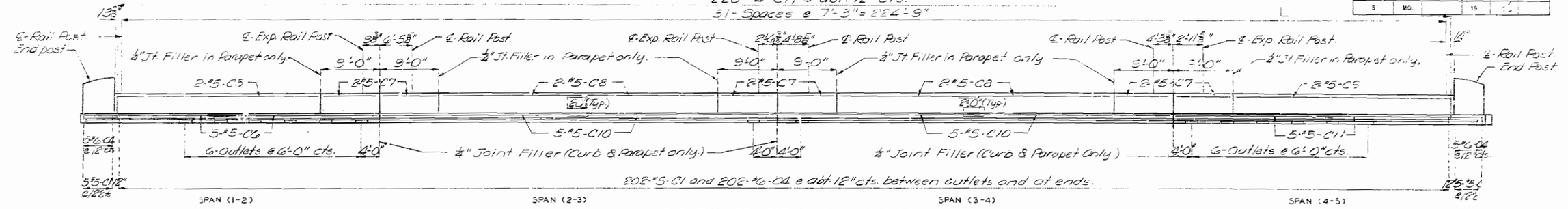
CHECKED NOV. 1963 BY MOBERLY

Note: This drawing is not to scale. Follow dimensions.

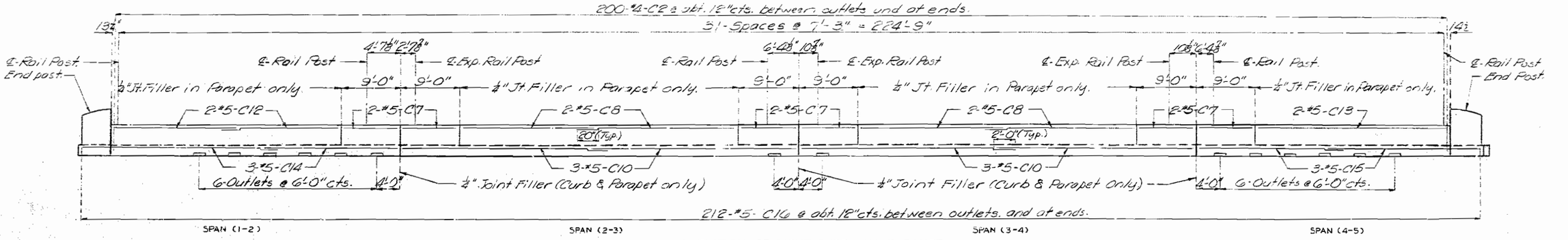
Sheet No. 7 of 9.

MISSOURI STATE HIGHWAY DEPARTMENT

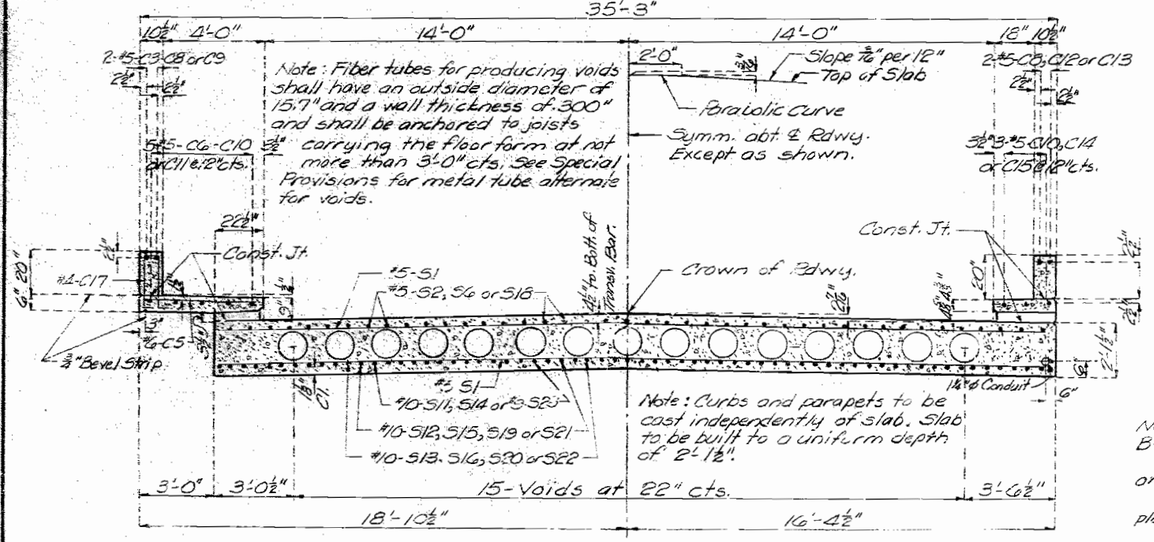
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19		



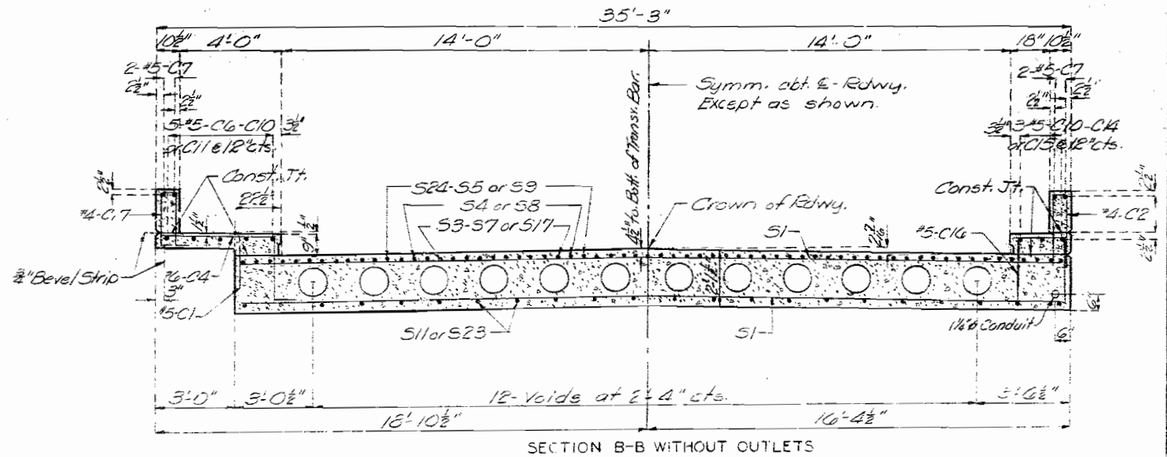
ELEVATION OF LEFT CURB AND PARAPET



ELEVATION OF RIGHT CURB AND PARAPET



SECTION A-A SHOWING OUTLETS



SECTION B-B WITHOUT OUTLETS

Note: For location of Sections A-A and B-B see Sheet No. 7 of 9.
For details of rail, end posts, curbs and parapets not shown see Sheet 9 of 9.
All conduit to be 1¼" ø rigid galvanized steel placed as shown.
Cost of furnishing and placing Junction Boxes and Conduit, complete with pull wires and end caps, shall be included in contract unit price of Conduit System.

BRIDGE: ROUTE E UNDERPASS

STATE ROAD: INTERSTATE ROUTE 44

ABOUT 0.5 MILE N.W. OF ROLLA

PROJECT NO. I-44-2(36)(RTE. I-44) STA. 967+50 (RT. LANE)

PHELPS **COUNTY**

A-1261

Drawn Aug. 1963 by Lindsey.
Checked Nov. 1963 by Moberly

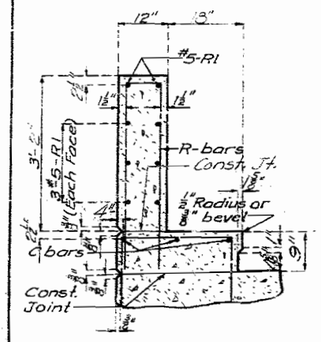
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 8 of 9.

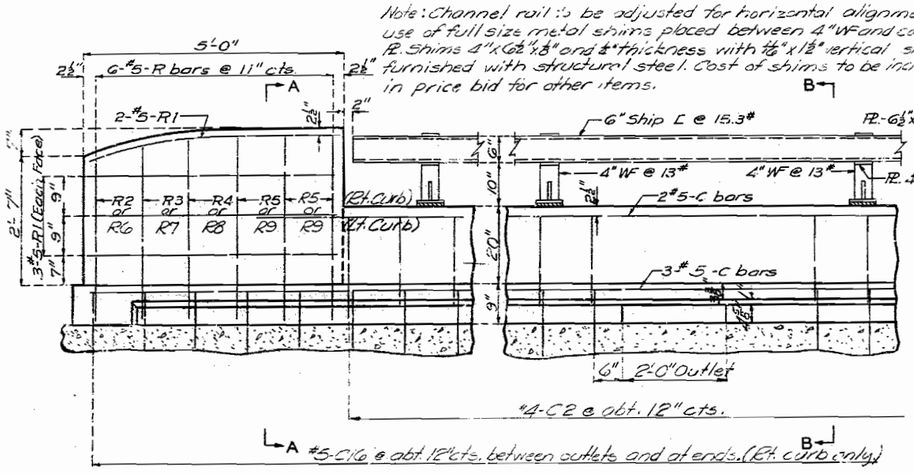
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.			9	9

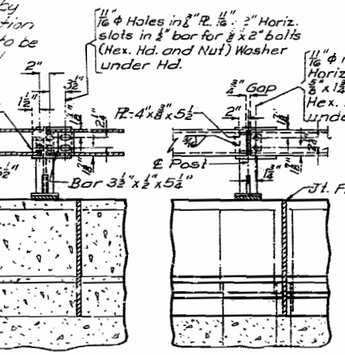
Note: Channel rail is to be adjusted for horizontal alignment by use of full size metal shims placed between 4" WF and connection PL. Shims 4"x6½"x⅛" and ¼" thickness with ⅞"x1½" vertical slots to be furnished with structural steel. Cost of shims to be included in price bid for other items.



SECTION A-A
(RIGHT CURB SHOWN)



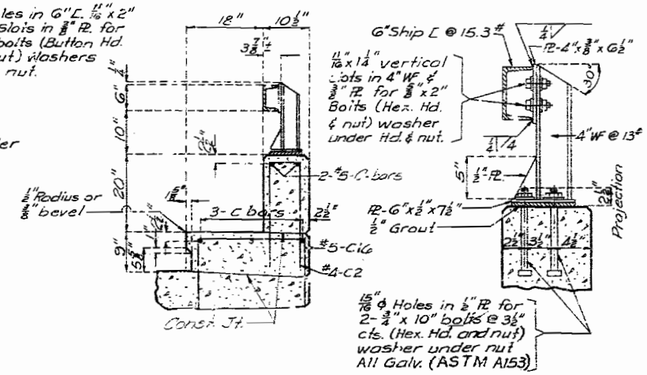
ELEVATION OF END POST



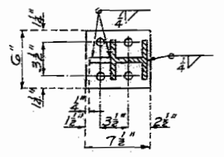
FIXED POST

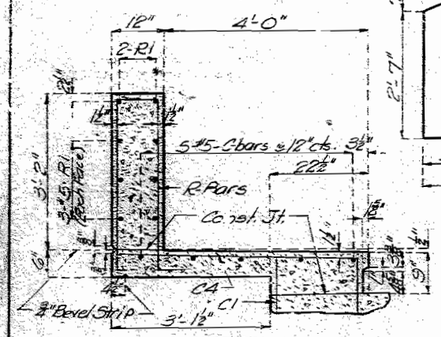
FIXED POST

SECTION F-F ELEVATION
SPLICE POST OR EXP. POST

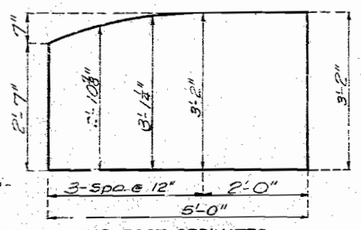


SECTION B-B
(RIGHT CURB SHOWN)

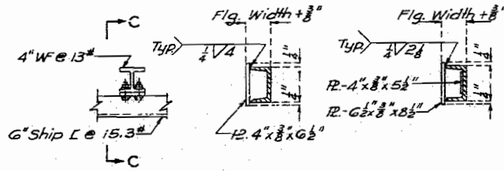




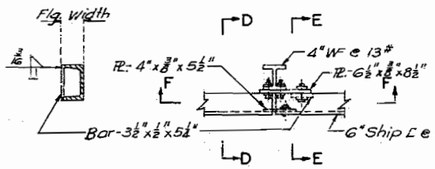
SECTION A-A
(LEFT CURB SHOWN)



END POST ORDINATES



FIXED RAIL CONNECTION

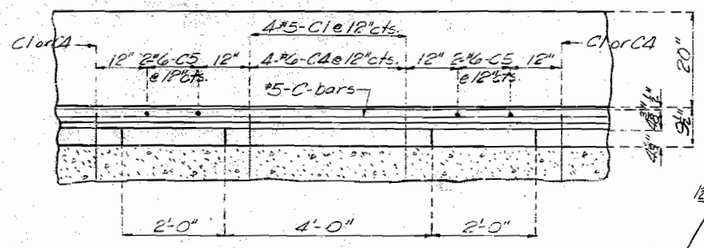


PART SECTION C-C

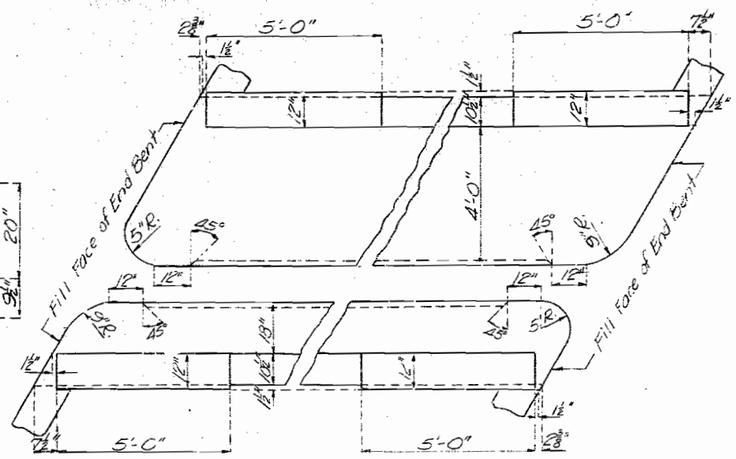
PART SECTION D-D

PART SECTION E-E

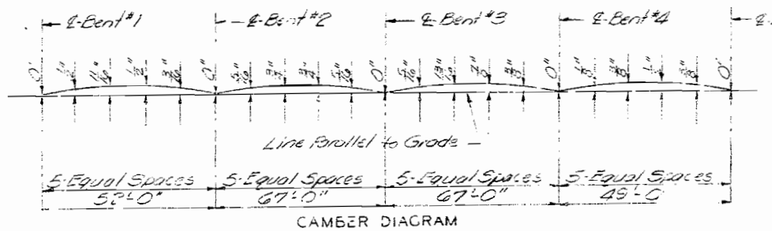
RAIL SPLICE-RAIL EXP.



DETAIL OF OUTLETS
(LEFT CURB SHOWN)



PLAN OF END POSTS



CAMBER DIAGRAM

GENERAL NOTES:

Top of curbs and parapets to be built parallel to grade. Vertical faces of end posts to be vertical. All exposed edges of end posts and parapets to be beveled ¾". 4" WF posts to be set normal to grade.

6" C rails shall be fabricated to conform to horizontal and vertical alignment of curb and shall be fabricated in two or three panel lengths unless otherwise approved.

BRIDGE: ROUTE E UNDERPASS

STATE ROAD:- INTERSTATE ROUTE 44

ABOUT 0.5 MILE N.W. OF ROLLA

PROJECT NO. I-44-2(36)(RTE. I-44) STA. 967+50 (RT. LANE)

PHELPS COUNTY

A-1261

206

No.	Revised	Aug. 15, 1963
2		

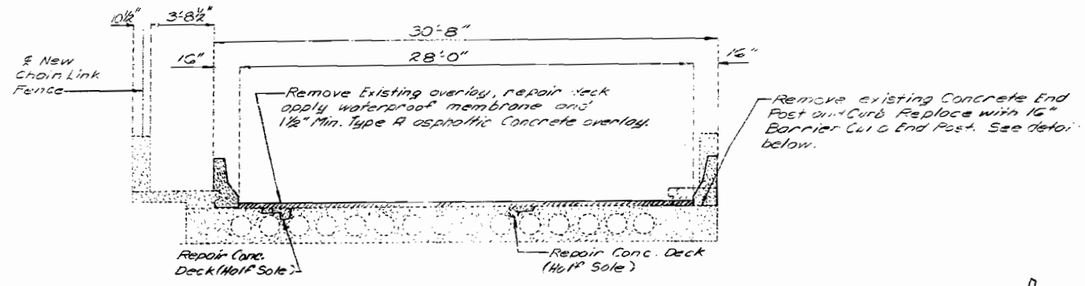
DETAILED AUG. 1963 BY LINDSEY
CHECKED NGK 1963 BY MCBERLY

Note: This drawing is not to scale. Follow dimensions.

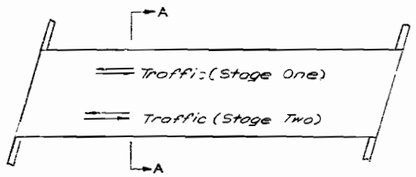
Sheet No. 9 of 9.

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	7	
SEC. 2		TWP 37 N		RGE. 8 W	



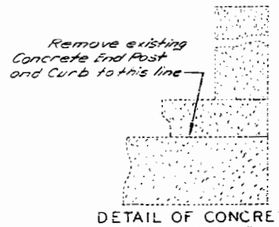
SECTION THRU STRUCTURE



PLAN OF SLAB

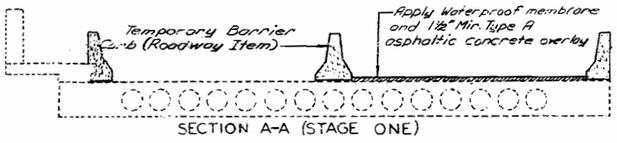
GENERAL NOTES:
Design Specifications: A.A.S.H.T.O. -1977 and Interims thru 1983.
Design Unit Stresses:
Class B1 Concrete (Safety E
f'_c = 4,000 p.s.i.
Reinforcing Steel (Grade 60) f_y = 60,000 p.s.i.
Joint Filler:
All joint filler shall meet the requirement of Std. Spec. 1057.2.4 except as noted.
Reinforcing Steel:
Minimum clearance to reinforcing steel shall be 1½" unless otherwise shown.
Outline of old work is indicated by light d-shed lines. Heavy lines indicate new work.
Bars bonded in old concrete not removed shall be cleanly stripped and embedded into new concrete where possible. If length is available old bar shall extend into new concrete at least 40 diameters for smooth bars and 30 diameters for deformed bars.
Maintain one lane of traffic over structure during construction.


DETAIL OF EXISTING POST & CURB

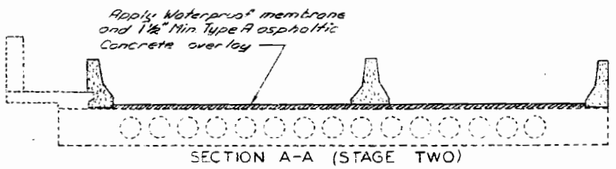


DETAIL OF CONCRETE END POST & CURB

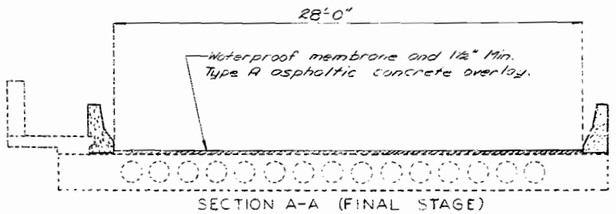
ESTIMATED QUANTITIES		
ITEM		TOTAL
Special Work	Lump Sum	1
Asphalt Cement (Asphaltic Concrete) (60-70 or AC-20)	Ton	3.1
Mineral Aggregate (Asphaltic Concrete) (Type A Mix)	Ton	58
Bridge Deck Waterproofing (Liquid)	Sq. Yds.	740
Safety Barrier Curb	Lin. Ft.	474
Repairing Concrete Deck (Half Soling)	Sq. Ft.	200
(60 IN.) Pedestrian Fence	Lin. Ft.	225



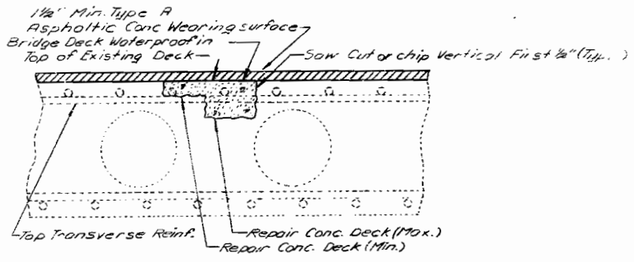
SECTION A-A (STAGE ONE)



SECTION A-A (STAGE TWO)



SECTION A-A (FINAL STAGE)



HALF SOLED AREA

REPAIRS TO
BRIDGE: ROUTE E UNDERPASS
STATE ROAD INTERSTATE ROUTE I-44
ABOUT 0.5 MILE N.W. OF ROLLA
PROJECT NO. IR-44-2 (115) **STA.** 967+50 =
JOB NO. 8-1044-243 **RTE.** I-44
PHELPS **COUNTY**
DATE SEPT. 24, 1984

STD.
STD.
A-1261R

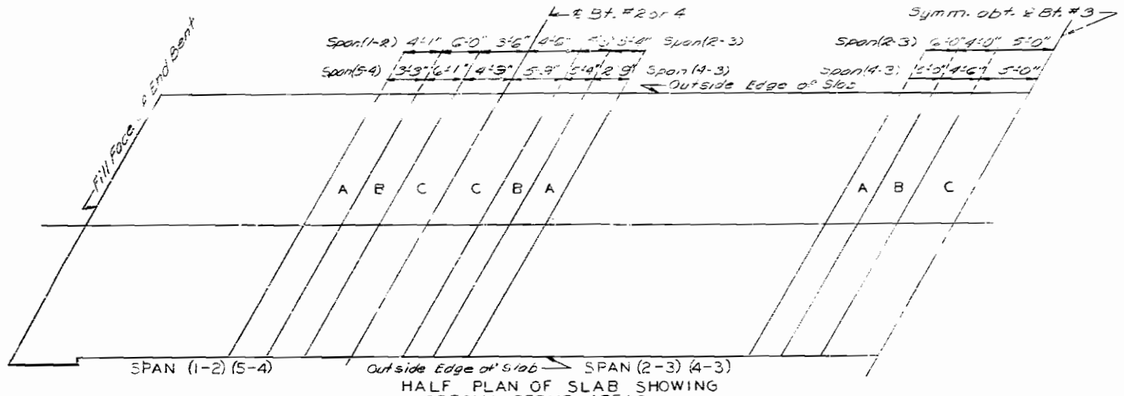
DESIGNED Aug. 19 84
DETAILED Aug. 19 84
CHECKED Sept. 19 84

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 1 of 6 .

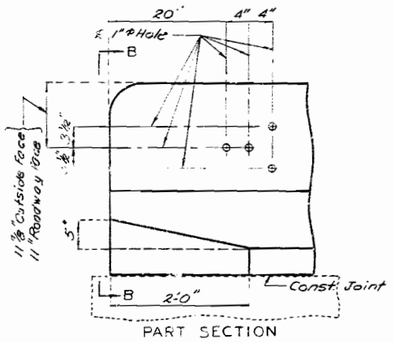
44

STATE	PROJ NO	SHEET NO
MO	IR-44-2(115)	8

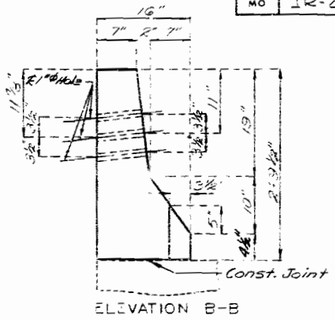


HALF PLAN OF SLAB SHOWING
SPECIAL REPAIR AREAS

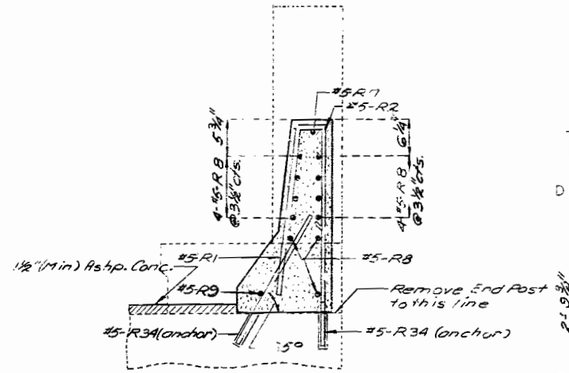
Note Care shall be exercised during deck repair to maintain structural integrity of bridge.
Sequence for repairs; Area "A", Area "B", then Area "C".
Repair area at one bent with the same letter designation may be repaired at the same time.
Any repair in the remainder of the bridge that is within 4'0" of Area "A" shall be completed before removing old Concrete in Area "A".



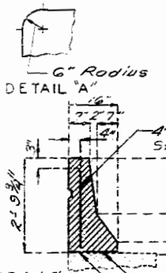
PART SECTION



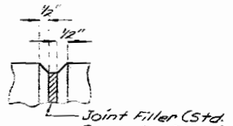
ELEVATION B-B



SECTION E-E
(Optional anchoring system)



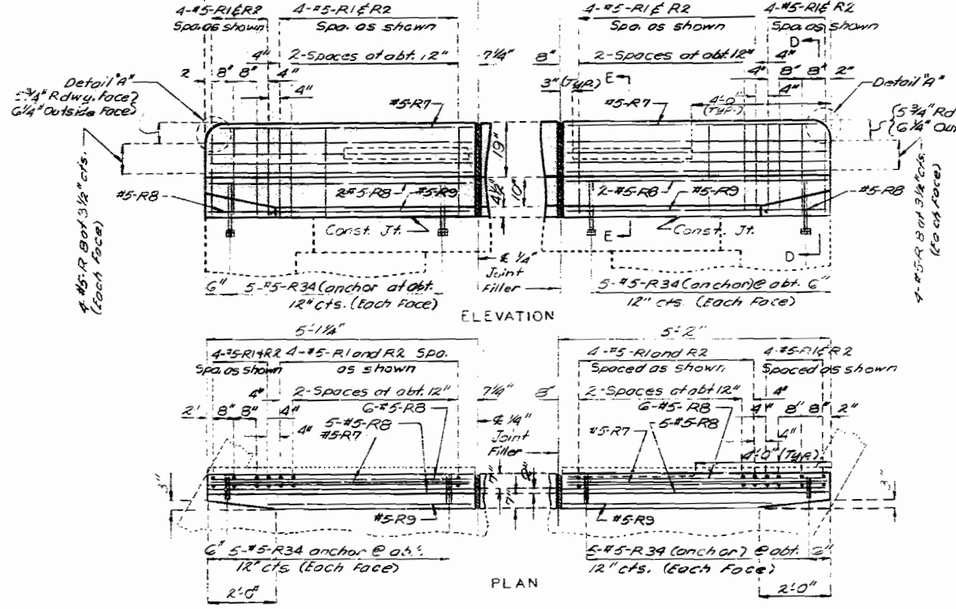
DETAIL "A"



FILLED JOINT DETAIL

DETAIL OF PLASTIC WATERSTOP IN SAFETY BARRIER CURB

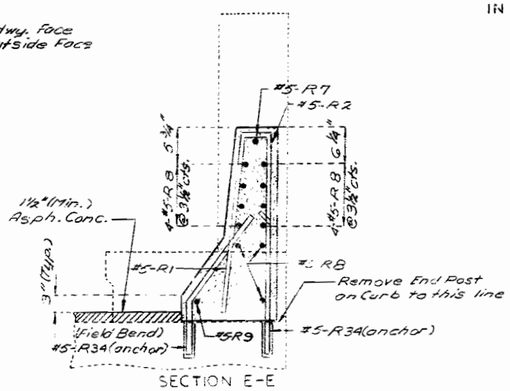
Note: Plastic water stop shall be placed in all safety barrier curbs filled joints
Cost of plastic waterstop complete in place to be included in contract unit price for concrete safety barrier curb.



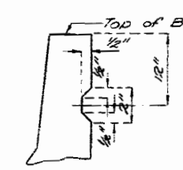
ELEVATION

PLAN

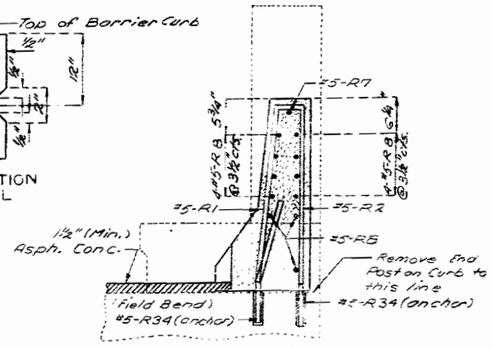
DETAILS OF RIGHT BARRIER CURB END POST



SECTION E-E



RUSTICATION DETAIL



SECTION D-D

45

DETAILED Aug. 1984
CHECKED Sept. 1984

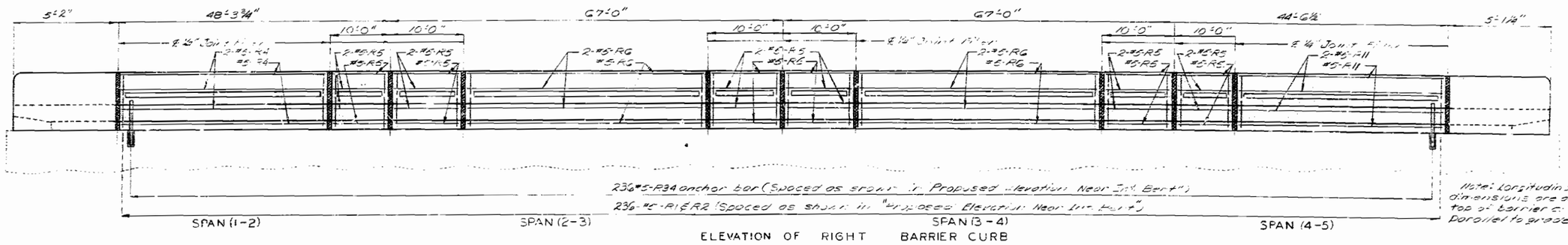
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 2 of 6

PHELPS **COUNTY**

A-1261R

STATE	PROJ NO	SHEET NO
MO	IR-44-2(115)	9



ELEVATION OF RIGHT BARRIER CURB

Note: Longitudinal dimensions are along top of barrier curb parallel to grade.

Note: Top of barrier curb to be Parallel to grade with barrier curb joints (except at end bents) normal to grade.

All exposed edges of barrier curb shall have ½" radius or ¾" bevel unless otherwise noted.

When the barrier curb is bid by linear feet, the contract unit price shall include the cost of all concrete and reinforcement complete in place.

Concrete in the safety barrier curb shall be Class B1.

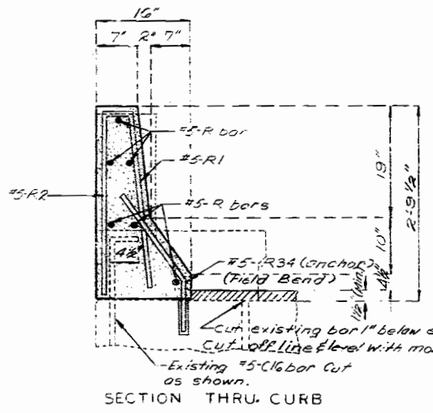
Measurement of safety barrier curb is to the nearest linear foot for each structure measured along the outside top face of the curb from end of wing to end of wing.

The Contractor shall use one of the following anchor systems for the #5-R34 (anchor) at the end bent wings and barrier curb.

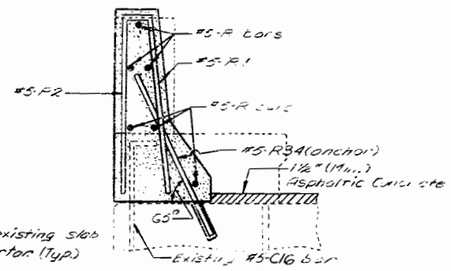
(1) Molly Parabond Capsule Anchors
(2) Hilti HVH Adhesive Anchors
(3) Su?-R-Set Synthetic Resin Capsule Anchor
(4) Kaligroutin Resin Bonding Anchor

These anchor systems shall be installed according to the manufacturers specifications, except that an epoxy coated ⅝"ø, Gr. 60 Reinf. bar (R34) 2'-6" long may be substituted for the epoxy coated or galvanized threaded rod stud and if the Kaligroutin Resin Bonding anchor System is used the minimum embedment in old concrete shall be 6½".

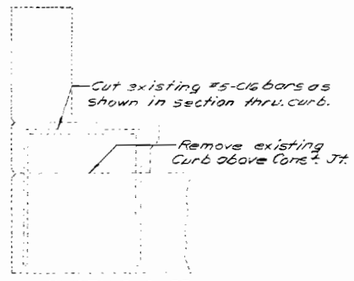
Cost of? furnishing and installing the #5-R34 (anchor) system complete in place shall be included in the price bid per Lin. Ft. of Barrier Curb.



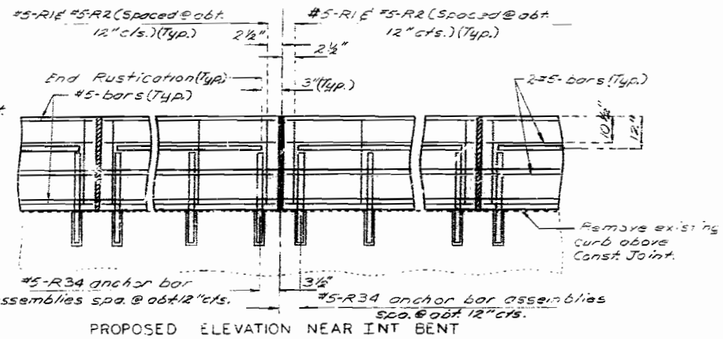
SECTION THRU. CURB



(OPTIONAL ANCHORING SYSTEM)



EXISTING CURB



PROPOSED ELEVATION NEAR INT BENT

46

DETAILED Aug. 1984
CHECKED Sept. 1984

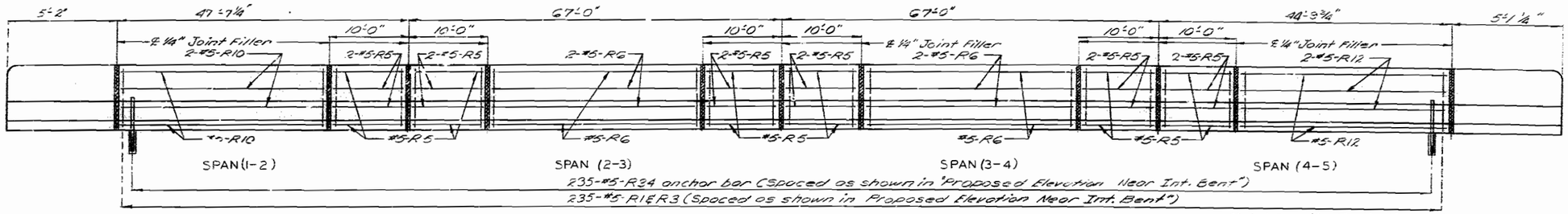
Note: This drawing is not to scale. Follow dimensions

Sheet No. 3 of 16

PHELPS COUNTY

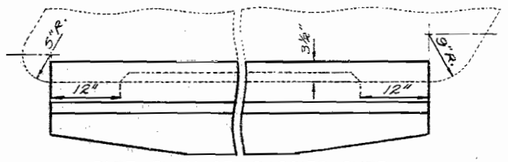
A-1261R

STATE	PROJ. NO.	SHEET NO.
MO.	IR-44-2(115)	10

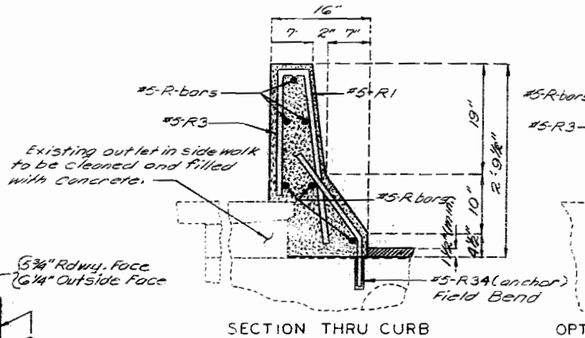


SECTION NEAR LEFT BARRIER CURB

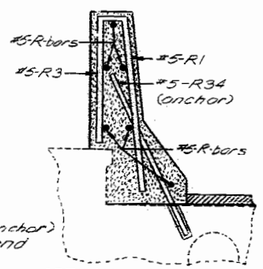
Note: Longitudinal dimensions are along top of barrier curb parallel to grade.



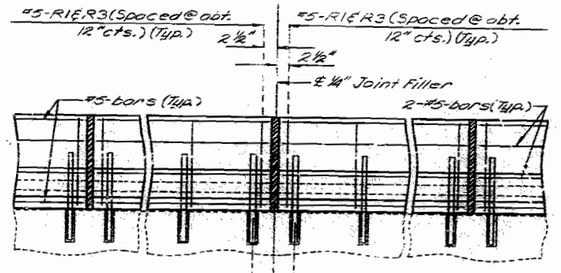
PART PLAN OF BARRIER CURB



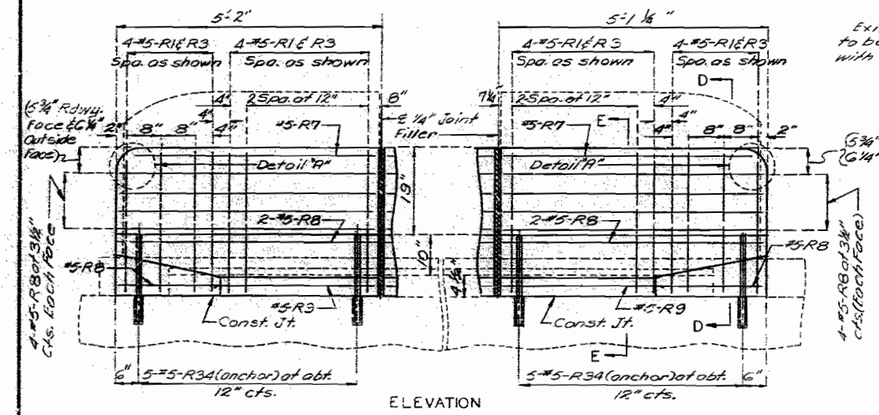
SECTION THRU CURB



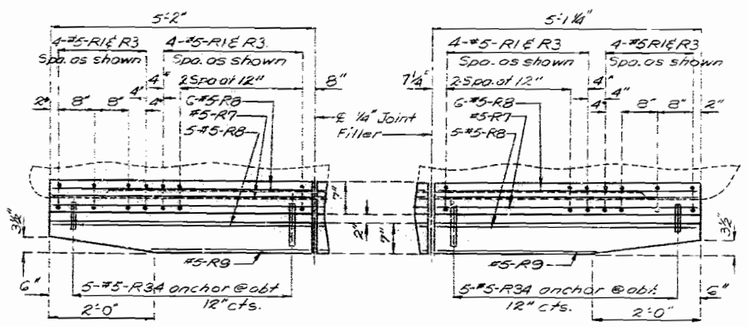
OPTIONAL ANCHORING SYSTEM



PROPOSED ELEVATION NEAR INT BENT

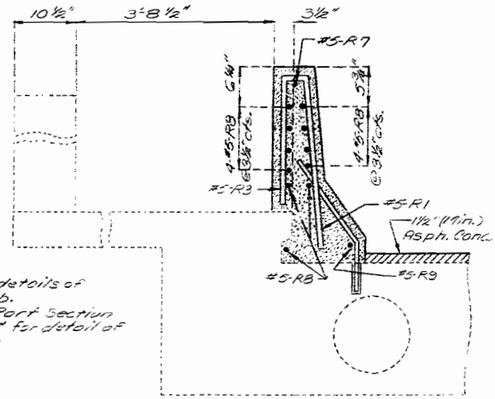


ELEVATION

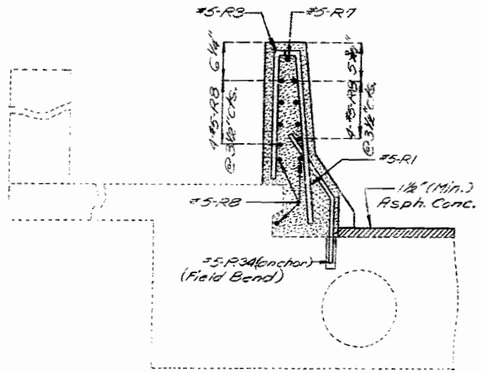


PLAN

Note: See sheet No. 2 for details of Joint Filler in Barrier Curb.
See sheet No. 2 For Part Section & Elevation B-B & Detail "A" for detail of Barrier Curb at End Bents.



SECTION E-E



SECTION D-D

47

DETAILED Aug. 1984
CHECKED Sept. 1984

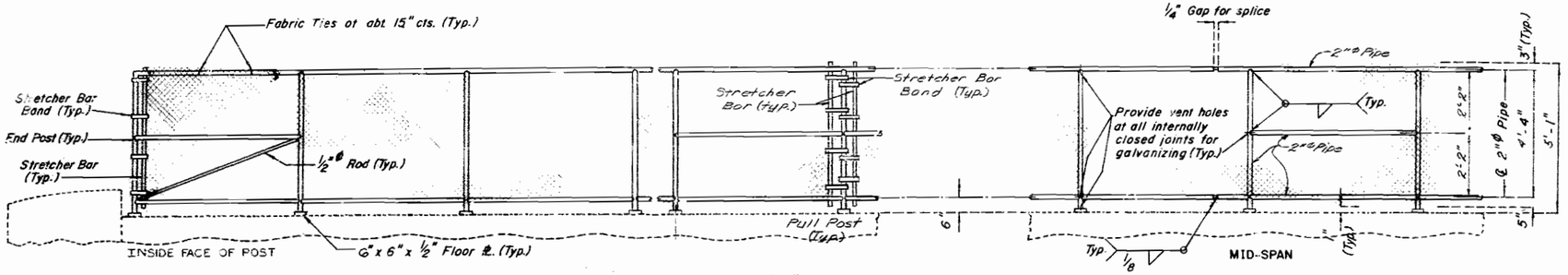
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 4 of 6

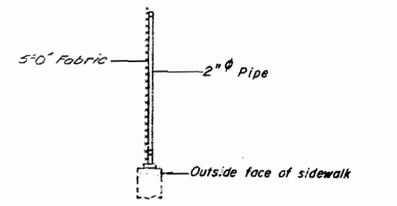
PHELPS COUNTY

A-1261R

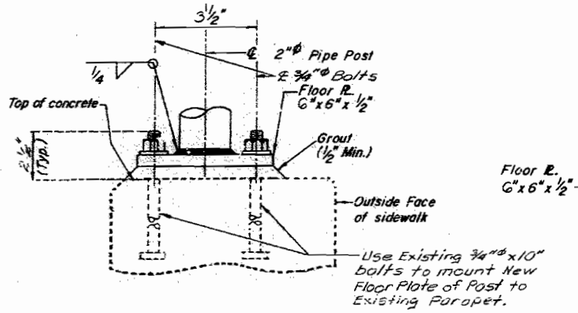
STATE	PROJ NO	SHEET NO
MO	IR-44-2(115)	11



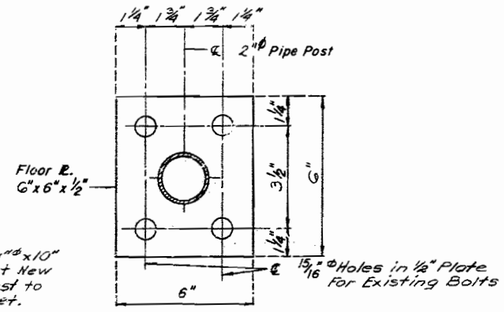
PART ELEVATION OF 5'-0" (GALVANIZED STEEL) GUARD FENCE



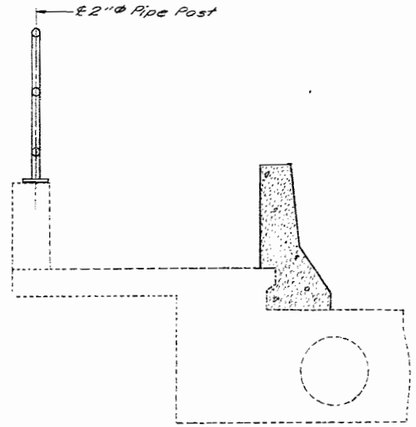
SECTION THRU FENCE



FENCE POST CONNECTION



PLAN OF FLOOR PLATE



PART SECTION THRU SIDEWALK

Note:

Pedestrian guard fence (chain link type) shall be in accordance with Section 1043 of the Std. Spec., except all fabric shall have top and bottom edges knuckled.

All rail posts shall be vertical. Grout of ½" minimum thickness shall be placed under floor plates to provide for vertical alignment of rail posts.

The contract unit price per linear foot for pedestrian guard fence (galvanized) shall include furnishing and erecting the fence and frame complete. Use existing ¾"ϕ x10" bolts in place. Use new hex nuts and washers.

Measurement of pedestrian guard fence shall be taken parallel to grade through the center line of posts. See Existing Left Parapet for post spacing and No. of post.

Pull post shall be used at approximately 100'-0" centers on straight runs.

48

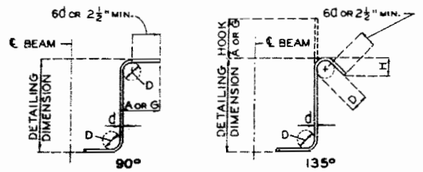
SIDEWALK & FENCE NOV. 1983 REVISED

DETAILED Aug. 1984
CHECKED Sept. 1984

Note: This drawing is not to scale. Follow dimensions.

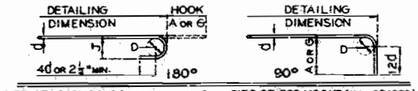
PHELPS COUNTY

A-1261R



STIRRUP HOOK DIMENSIONS				
	GRADES 40-50-60 KSI			
BAR SIZE	D (IN.)	90° HOOK	135° HOOK	
		HOOK A OR G	HOOK A OR G	APPROX. H
#3	1-1/2"	4"	4"	2-1/2"
#4	2"	4-1/2"	4-1/2"	3"
#5	2-1/2"	6"	5-1/2"	3-3/4"
#6	4-1/2"	8"	7"	4-1/2"

NOTE: UNLESS OTHERWISE NOTED DIAMETER"D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR.



SIZE OF 180° HOOKS (GRADE 40 KSI)

D = 5d FOR #3 THRU # 11
D = 10d FOR #14 AND # 18

SIZE OF 90° HOOKS (ALL GRADES) AND 180° HOOKS (GRADE 60 KSI)

D = 6d FOR #3 THRU #8
D = 8d FOR #9, #10 AND #11
D = 10d FOR #14 AND #18

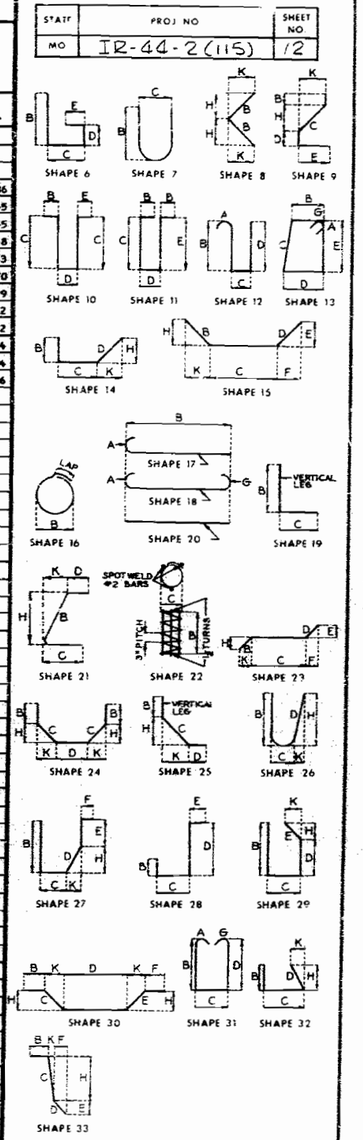
END HOOK DIMENSIONS					
BAR SIZE	180° HOOKS				90° HOOKS
	GRADE 40		GRADE 60		ALL GRADES
	A OR G	J	A OR G	J	A OR G
#3	5"	2-3/4"	5"	3"	6"
#4	6"	3-1/2"	6"	4"	8"
#5	7"	4-1/2"	7"	5"	10"
#6	8"	5-1/4"	8"	6"	12"
#7	9"	6-1/4"	10"	7"	14"
#8	10"	7"	11"	8"	16"
#9	12"	8"	15"	11-1/4"	19"
#10	13"	9"	17"	12-3/4"	22"
#11	14"	10"	19"	14-1/4"	2'-0"
#14	2'-2"	20-1/2"	2'-2"	20-1/2"	2'-7"

NOTES:

ALL STANDARD HOOKS AND BENDS OTHER THAN 180 DEG. TO BE BENT WITH SAME PROCEDURE AS FOR 90 DEG. STD. HOOKS.
HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE PROCEDURES AS SHOWN ON THIS SHEET.
E - EPOXY COATED REINFORCEMENT.
S - STIRRUP.
X - BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES.
V - BAR DIMENSIONS VARY IN EQUAL INCREMENTS BETWEEN DIMENSIONS SHOWN ON THIS LINE AND THE FOLLOWING LINE.
NO. EA. - NUMBER OF BARS OF EACH LENGTH.
NOMINAL LENGTHS - ARE BASED ON OUT TO OUT DIMENSIONS SHOWN IN BENDING DIAGRAMS AND ARE LISTED FOR FABRICATORS USE. (NEAREST INCH)
ACTUAL LENGTHS - ARE MEASURED ALONG CENTERLINE BAR TO THE NEAREST INCH.
PAYWEIGHTS ARE BASED ON ACTUAL LENGTHS.

COMPLETE BILL OF REINFORCING STEEL

NO. REQD.	MARK NO. SIZE MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	K FT.	K IN.	NOMINAL LENGTH FT.	NOMINAL LENGTH IN.	ACTUAL LENGTH FT.	ACTUAL LENGTH IN.	WEIGHT LBS.
		BARRIER CURB																									
503	5R1	BARRIER CURB	E	15	S			2	7.375		3.500								2	7.250	3.000		2	11	2	10	1486
252	5R2	BARRIER CURB	E	19	S			2	7.250		3.500												2	11	2	10	745
251	5R3	BARRIER CURB	E	19	S				23.000		3.500												2	3	2	1	545
6	5R4	BARRIER CURB	E	20				38	0.000														38	0	38	0	238
74	5R5	BARRIER CURB	E	20				9	9.000														9	9	9	9	753
24	5R6	BARRIER CURB	E	20				46	9.000														46	9	46	9	1170
4	5R7	BARRIER CURB	E	20				4	7.000														4	7	4	7	19
44	5R8	BARRIER CURB	E	20				4	10.000														4	10	4	10	222
4	5R9	BARRIER CURB	E	20				2	11.000														2	11	2	11	12
6	5R10	BARRIER CURB	E	20				37	4.000														37	4	37	4	234
6	5R11	BARRIER CURB	E	20				34	3.000														34	3	34	3	214
6	5R12	BARRIER CURB	E	20				34	6.000														34	6	34	6	216
		END OF BAR LIST																									



BENDING DIAGRAMS

STAFF	PROJ NO	SHEET NO
MO	IR-44-2(115)	12

Two Additional #5-R8 are included in our Bill for testing.

49

STD. 90.8.8	REVISED
MAY 1974	MAY 1984

DETAILED Sept. 1984
CHECKED Sept. 1984

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 6 of 6

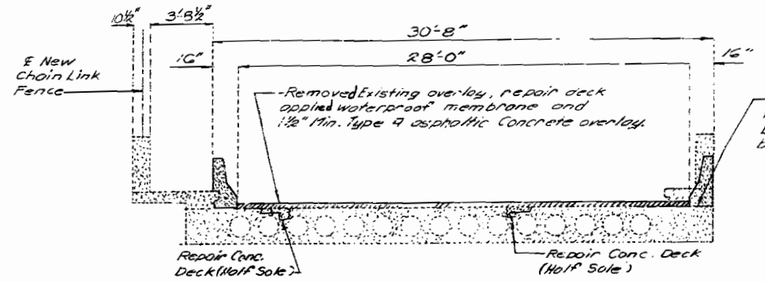
PHELPS COUNTY

A-1261R

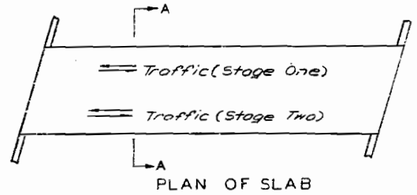
MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	1	
SEC. 2		TWP 37 N		RGE. 8 W	

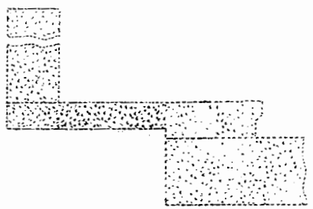
FINAL PLANS



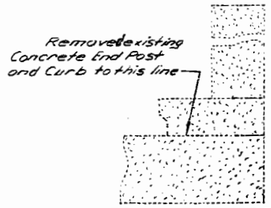
SECTION THRU STRUCTURE



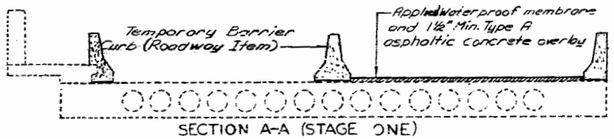
PLAN OF SLAB



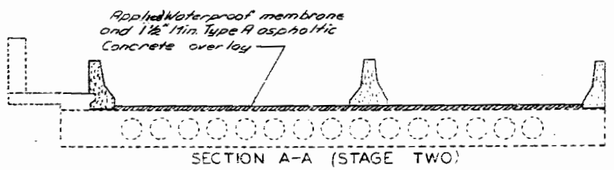
DETAIL OF EXISTING POST & CURB



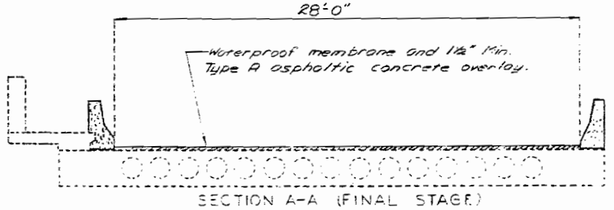
DETAIL OF CONCRETE END POST & CURB



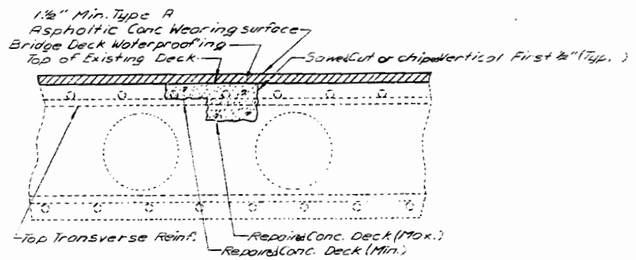
SECTION A-A (STAGE ONE)



SECTION A-A (STAGE TWO)



SECTION A-A (FINAL STAGE)



HALF SOLED AREA

GENERAL NOTES:

Design Specifications: A.A.S.H.T.O. - 1977 and Interims thru 1983.

Design Unit Stresses:
Class B1 Concrete (Safety Barrier Curb f'_c = 4,000 p.s.i.
Reinforcing Steel (Grade 60) f_y = 60,000 p.s.i.

Joint Filler:
All joint filler meets the requirement of Std. Spec. 1057.2.4 except as noted.

Reinforcing Steel:
Minimum clearance to reinforcing steel was 1½" unless otherwise shown.
Outline of old work is indicated by light dashed lines. Heavy lines indicate new work.
Bars bonded in old concrete not removed were cleanly stripped and embedded into new concrete where possible. If length was available old bar was extend into new concrete at least 40 diameters for smooth bars and 30 diameters for deformed bars.
Maintain one lane of traffic over structure during construction.

ESTIMATED QUANTITIES

ITEM		TOTAL
Special Work	Lump Sum	1
Asphalt Cement (Asphaltic Concrete) (60-70 or AC-20)	Ton	10
Mineral Aggregate (Asphaltic Concrete) (Type A Mix)	Ton	79
Bridge Deck Waterproofing (Liquid)	Sq. Yds.	140
Safety Barrier Curb	Lin. Ft.	474
Repairing Concrete Deck (Half Soling)	Sq. Ft.	0
(60 IN.) Pedestrian Fence	Lin. Ft.	225

REPAIRS TO
BRIDGE: ROUTE E UNDERPASS
STATE ROAD INTERSTATE ROUTE I-44
ABOUT 0.5 MILE N.W. OF ROLLA
PROJECT NO. IR-44-2(115) **STA.** 967+50 =
JOB NO. 8-1044-243 **RTE.** I-44
PHELPS **COUNTY**
DATE SEPT. 24, 1984

STD.
STD.
A-126iR

DESIGNED Aug. 1984
DETAILED Aug. 1984
CHECKED Sept. 1984

Note: This drawing is not to scale. Follow dimensions.

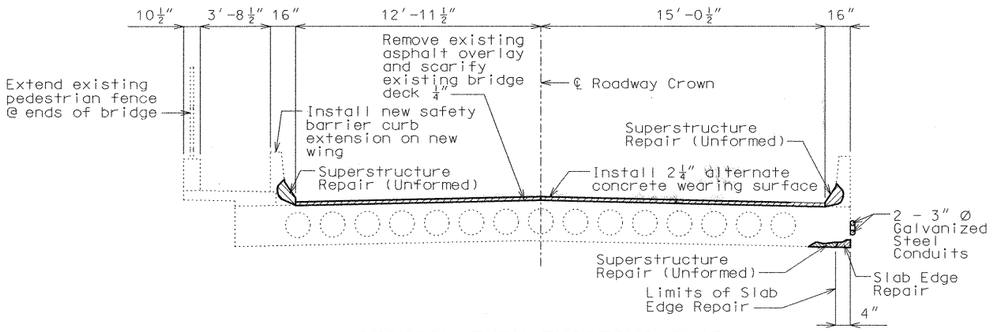
Sheet No. 1A of 6

Copied by Johnson 9-26-85
Added by Johnson 9-26-85
50

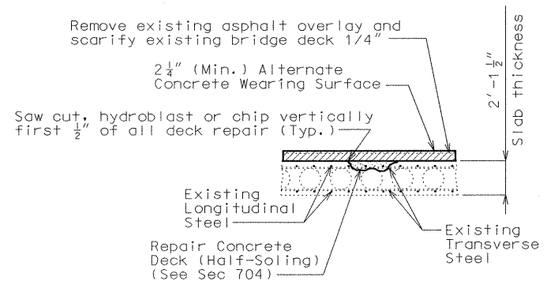
MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

U.I.P. (52'-67'-67'-49') CONT. VOIDED SLAB SPANS

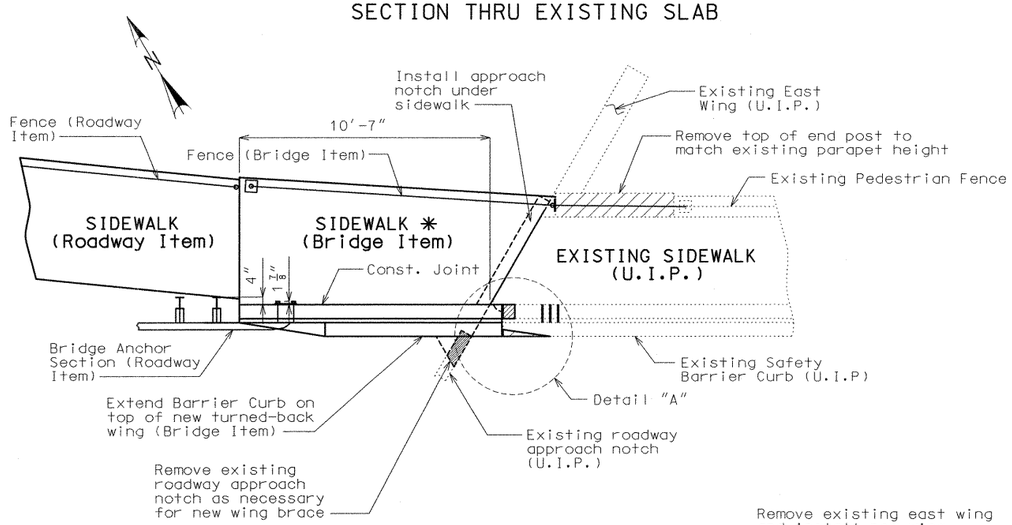
State	Proj. No.	Sheet No.
MO		S1
SEC 2	TWP 37N	RGE 8W



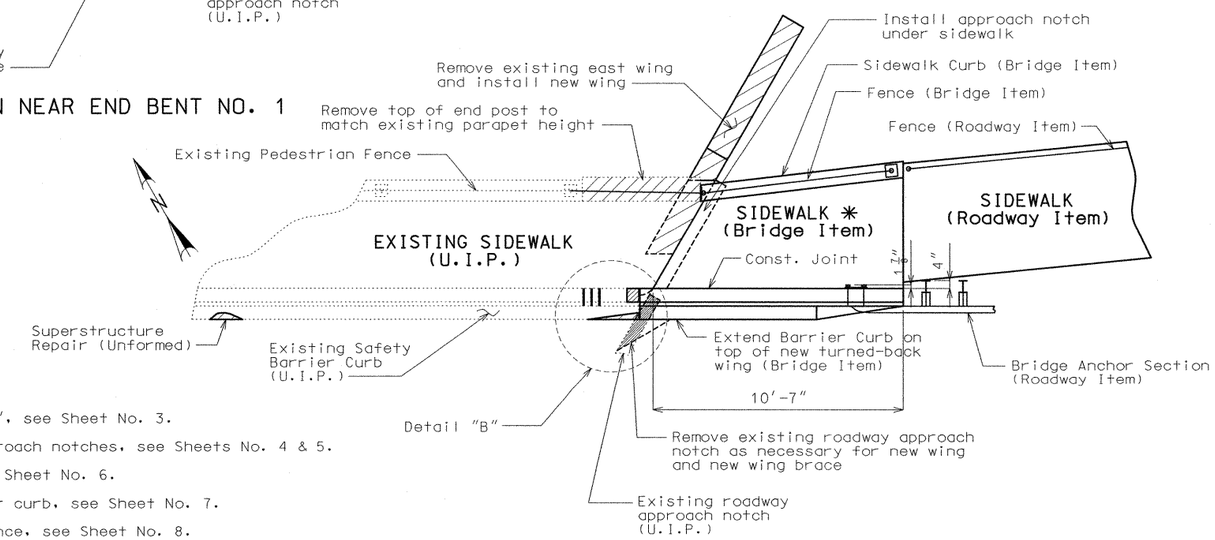
SECTION THRU EXISTING SLAB



REPAIRING CONCRETE DECK (HALF-SOLING)



PART PLAN NEAR END BENT NO. 1



PART PLAN NEAR END BENT NO. 5

For Detail "A" and Detail "B", see Sheet No. 3.

For details of wings and approach notches, see Sheets No. 4 & 5.

For details of sidewalk, see Sheet No. 6.

For details of safety barrier curb, see Sheet No. 7.

For details of pedestrian fence, see Sheet No. 8.

✳ Removal of existing sidewalk slab is covered under Roadway Item.

General Notes:

Design Specifications:
2002 AASHTO 17th Edition
Bridge Deck Rating = 6

Design Unit Stresses:
Class B-1 Concrete (All Concrete) f'c = 4,000 psi
Reinforcing Steel (Grade 60) fy = 60,000 psi

Joint Filler:
All joint filler shall be in accordance with Sec 1057 for preformed sponge rubber expansion and partition filler, except as noted.

Reinforcing Steel:
Minimum clearance to reinforcing steel shall be 1-1/2", unless otherwise shown.

Bars bonded in old concrete not removed shall be cleanly stripped and embedded into new concrete where possible. If length is available, old bars shall extend into new concrete at least 40 diameters for smooth bars and 30 diameters for deformed bars, unless otherwise noted.

Resin Anchors:
The contractor shall use one of the qualified resin anchor systems in accordance with Sec 1039.

Cost of furnishing and installing the resin anchor system complete-in-place will be considered completely covered by the contract unit price for Class B-1 Concrete.

The ½" diameter resin anchor systems shall have a minimum ultimate pullout strength of 9,800 lbs. in concrete with f'c = 4,000 psi.

A #4 Grade 60 reinforcing bar shall be substituted for the ½" Ø threaded rod. See Detail "M" on Sheet No. 4.

The ¾" diameter resin anchor systems shall have a minimum ultimate pullout strength of 20,400 lbs. in concrete with f'c = 4,000 psi.

A #6 Grade 60 reinforcing bar 3'-0" long shall be substituted for the ¾" Ø threaded rod.

Verify Dimensions:
Contractor shall verify all dimensions in field before ordering new material.

Traffic Handling:
Traffic over structure to be maintained during construction. See Roadway Plans for Traffic Control and Details of Staged Construction on Sheet No. 2.

Miscellaneous:
Outline of old work is indicated by dashed lines. Heavy lines indicate new work.

"Sec" refers to the sections in the standard and supplemental specifications unless specified otherwise.

In order to maintain grade and a minimum thickness of overlay as shown on plans it may be necessary to use additional quantities of overlay at various locations throughout the structure. The cost of furnishing and installing the overlay will be considered completely covered in the contract unit price, including all additional labor, materials or equipment for variations in thickness of overlay.

For Estimated Quantities Table and Alternate Concrete Wearing Surface Table, see Sheet No. 2.

Surface seal existing sidewalk, barrier curb, sidewalk curb and new deck wearing surface in accordance with Sec 703.

STATE OF MISSOURI
ANOUSONE AROUNPRADITH
NUMBER E-29317
REGISTERED PROFESSIONAL ENGINEER
DATE 6/1/05

REPAIRS TO BRIDGE: ROUTE E UNDERPASS

STATE ROAD: INTERSTATE ROUTE I-44

ABOUT 0.5 MILE WEST OF VICHY ROAD

PROJECT NO. STA. 967+50± (I-44 EBL) (Match Existing)

JOB NO. J9I0525 RTE. I-44

STD. 609.00
STD. 706.35
A12612

PHELPS COUNTY Date: 6/1/05

Designed Mar. 2005
Detailed Apr. 2005
Checked May 2005

Note: This drawing is not to scale. Follow dimensions.

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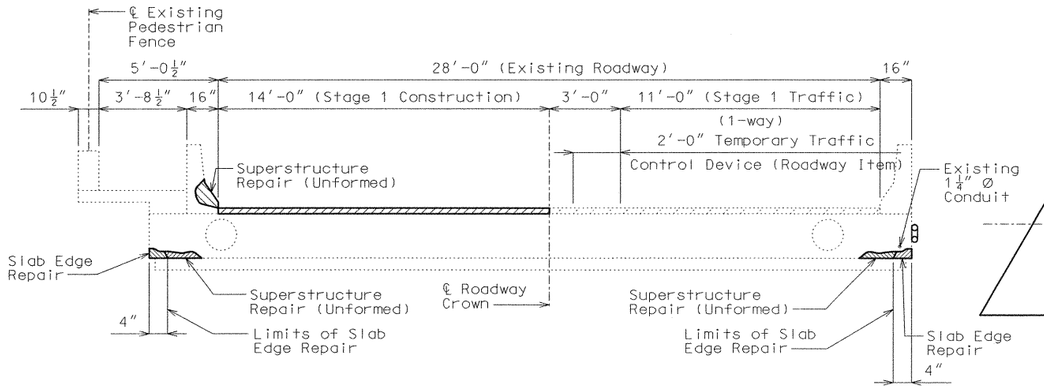
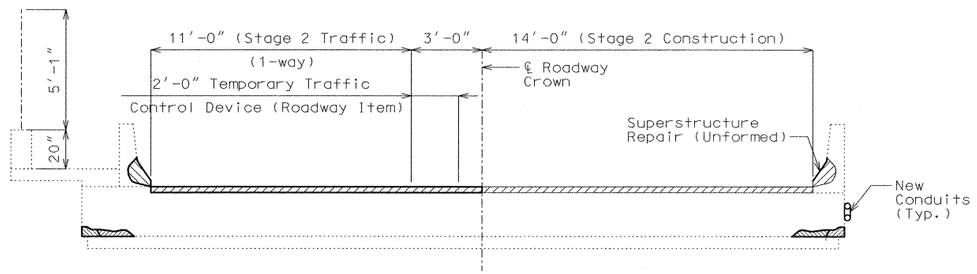
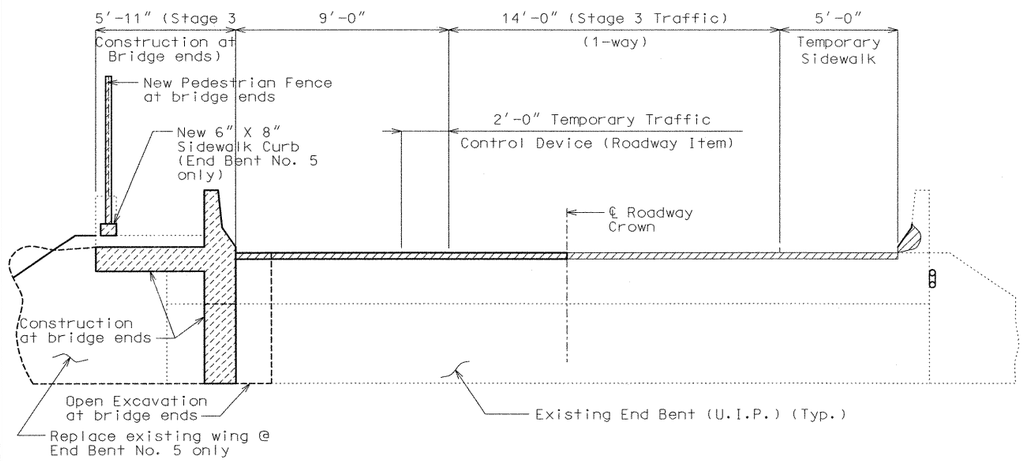
State	Proj. No.	Sheet No.
MO		B2



STAGE 1 CONSTRUCTION



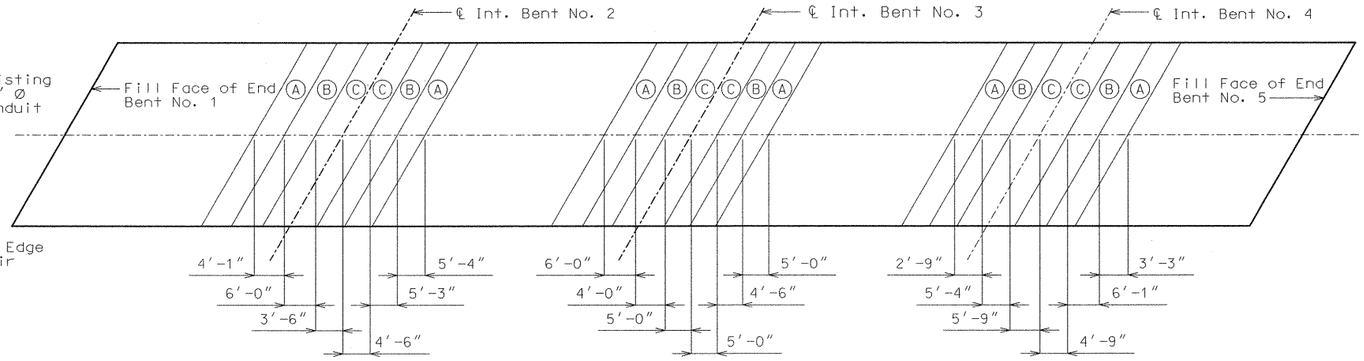
STAGE 2 CONSTRUCTION



STAGE 3 CONSTRUCTION

DETAILS OF STAGED CONSTRUCTION

NOTE: Temporary lane drop on I-44 will be necessary for superstructure and slab edge repair.



PART PLAN OF SLAB SHOWING REPAIR ZONES

NOTE:
Any half-soling required in the areas designated as special repair zones shall be completed in alphabetical sequence. Any repair in the remainder of the bridge that is adjacent to Zone A and not designated as a special repair zone shall be completed prior to work in Zone A.

Removal and repair shall be completed in one special repair zone and concrete shall have attained a compressive strength of 3,200 psi before work can be started in the next special repair zone. Before placing concrete in areas adjacent to areas of subsequent repair, the concrete shall be separated with a material such as polyethylene sheets to aid in removal of old concrete.

Zones with the same letter designation may be repaired at the same time.

If any single repair area does not exceed 4 square feet in size and the total repair within a special repair zone does not exceed 12 square feet, the special repair zone requirement does not apply for that zone. Any damage sustained to the void tube as a result of the contractor's operations shall be patched or replaced as required by the engineer at the contractor's expense.

An exposed void in the deck shall be patched as approved by the engineer in a manner that shall maintain the void area completely free of concrete. Cost of patching an exposed void will be considered completely covered by the contract unit price for repairing concrete deck (half-soling).

Roadway surface adjacent to bridge ends to match top of new bridge wearing surface (Roadway Item).

Estimated Quantities

Item		Total
Class 1 Excavation	cu. yard	30
Scarification of Bridge Decks	sq. yard	740
Removal of Asphalt Wearing Surface	sq. foot	6,661
Partial Removal of Substructure Concrete	lump sum	1
Alternate Concrete Wearing Surface	sq. yard	740
60″ Pedestrian Fence (Structures)	linear foot	12
72″ Pedestrian Fence (Structures)	linear foot	20
Class B-1 Concrete	cu. yard	12.2
Superstructure Repair (Unformed)	sq. foot	85
Repairing Concrete Deck (Half-Soling)	sq. foot	400
Slab Edge Repair (Bridges)	linear foot	40
Reinforcing Steel (Bridges)	pound	1,560
Conduit System on Structure	lump sum	1
Reinforcing Steel (Epoxy Coated)	pound	1,190

Alternate Concrete Wearing Surface

Type of Concrete Wearing Surface	Type Used (✓)
Low Slump Concrete Wearing Surface	
Silica Fume Concrete Wearing Surface	

MoDOT construction personnel will complete column labeled "Type Used (✓)".

The contractor shall select one of the alternate concrete wearing surfaces listed in the table. The alternate concrete wearing surface method of measurement and basis of payment shall be in accordance with Sec 505.

The area of the alternate concrete wearing surface will be measured and computed to the nearest square yard. This area will be measured transversely from out to out of overlay and longitudinally from end of slab to end of slab.

Payment for Alternate Concrete Wearing Surface will be considered completely covered by the contract unit price per square yard.

STATE OF MISSOURI
ANOUSONE AROUNPRADITH
NUMBER E-29317
REGISTERED PROFESSIONAL ENGINEER
DATE 6/1/05

Detailed Apr. 2005
Checked May 2005

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PHELPS COUNTY A12612 REV.

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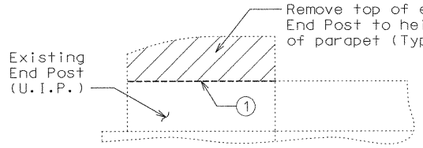
State	Proj. No.	Sheet No.
MO		B3

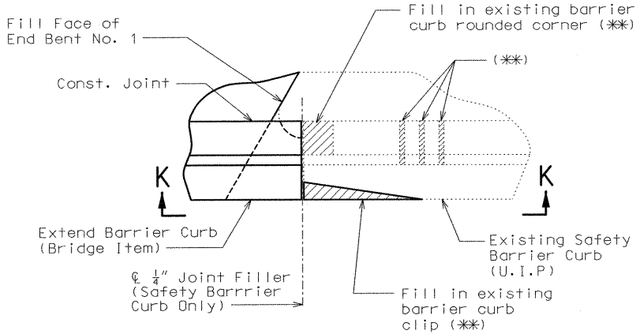


DETAIL SHOWING PARTIAL END POST REMOVAL AT LEFT PARAPET

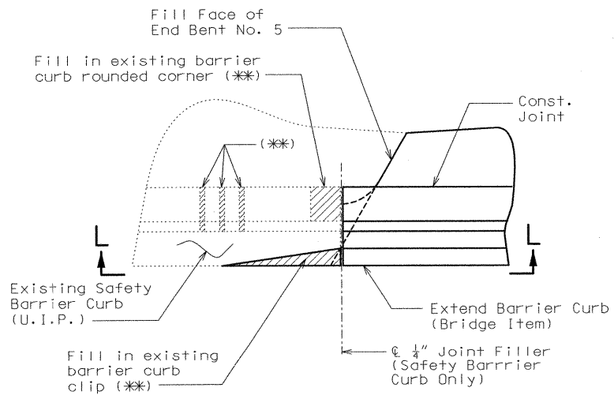
(End Bent No. 1 shown. End Bent No. 5 similar, by 180° rotation.)

Partial removal of End Post shall be considered completely covered by the contract lump sum price for "Partial Removal of Substructure Concrete".

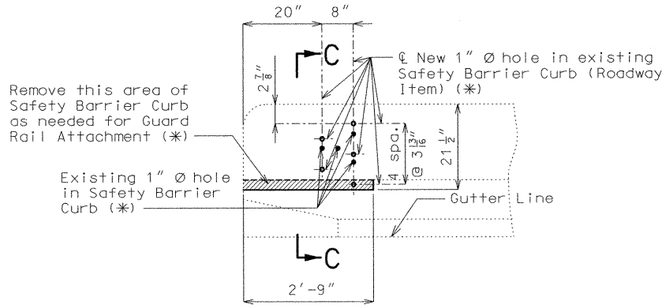
(1) The area exposed by the removal of the top of existing end post shall be coated with an approved qualified special mortar in accordance with Sec 704.



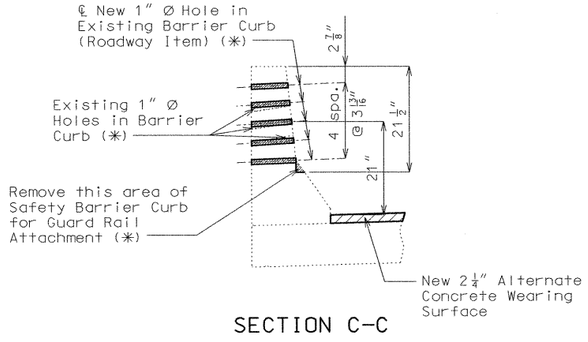
DETAIL "A"



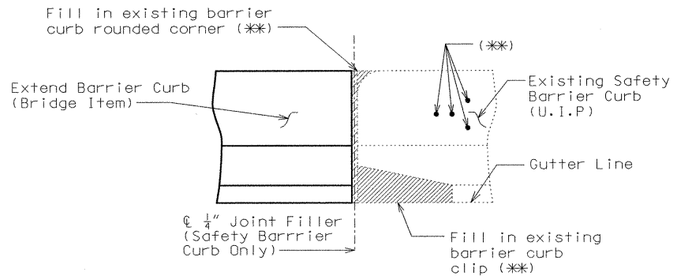
DETAIL "B"



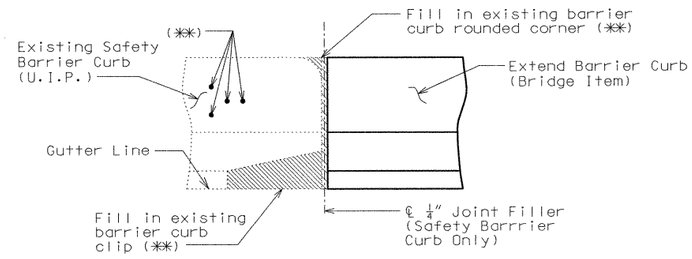
DETAIL SHOWING BRIDGE ANCHOR SECTION AT RIGHT SAFETY BARRIER CURB



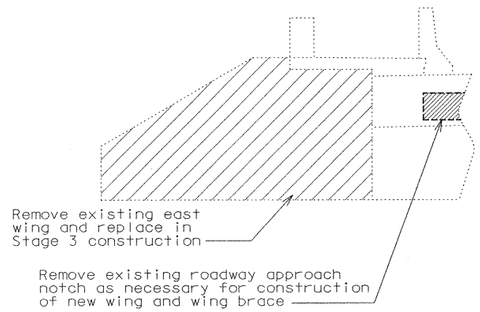
SECTION C-C



ELEVATION K-K SHOWING INTERFACE OF NEW AND EXISTING SAFETY BARRIER CURB

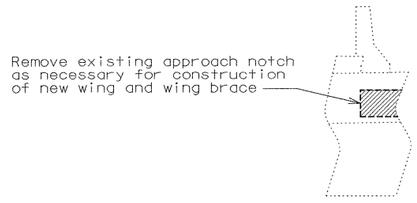


ELEVATION L-L SHOWING INTERFACE OF NEW AND EXISTING SAFETY BARRIER CURB



DETAILS OF WING AND ROADWAY APPROACH NOTCH REMOVAL AT END BENT NO. 5 (STAGE 3 CONSTRUCTION)

NOTE: Concrete removal shown above shall be considered completely covered by the contract lump sum price for "Partial Removal of Substructure Concrete".



DETAILS OF ROADWAY APPROACH NOTCH REMOVAL AT END BENT NO. 1 (STAGE 3 CONSTRUCTION)

NOTE: Concrete removal shown above shall be considered completely covered by the contract lump sum price for "Partial Removal of Substructure Concrete".

(*) Where attaching bridge guardrail to an existing bridge, a full-length bolt hole shall be drilled through the safety barrier curb as shown on the plans. Full-length, A307 bolts shall attach the guardrail to the roadway face of the safety barrier curb with the plate and nuts on the back side of the safety barrier curb. Existing guardrail attachment holes in safety barrier curb shall be filled with an approved epoxy mortar. Remove a small strip of concrete as shown on the plans for guardrail attachment. Payment for this work will be considered completely covered by the contract unit price for the bridge anchor section (Roadway Item).

(**) Existing guardrail attachment holes, end clip and rounded corner in safety barrier curb shall be filled with an approved epoxy mortar. Payment for this work will be considered completely covered by the contract unit price for Class B-1 Concrete.

For location of Detail "A" and Detail "B", see Sheet No. 1.

STATE OF MISSOURI
ANOUSONE AROUNPRADITH
NUMBER E-29317
REGISTERED PROFESSIONAL ENGINEER
DATE 5/23/05

Detailed Apr. 2005
Checked May 2005

Note: This drawing is not to scale. Follow dimensions.

PHELPS COUNTY A12612 REV.

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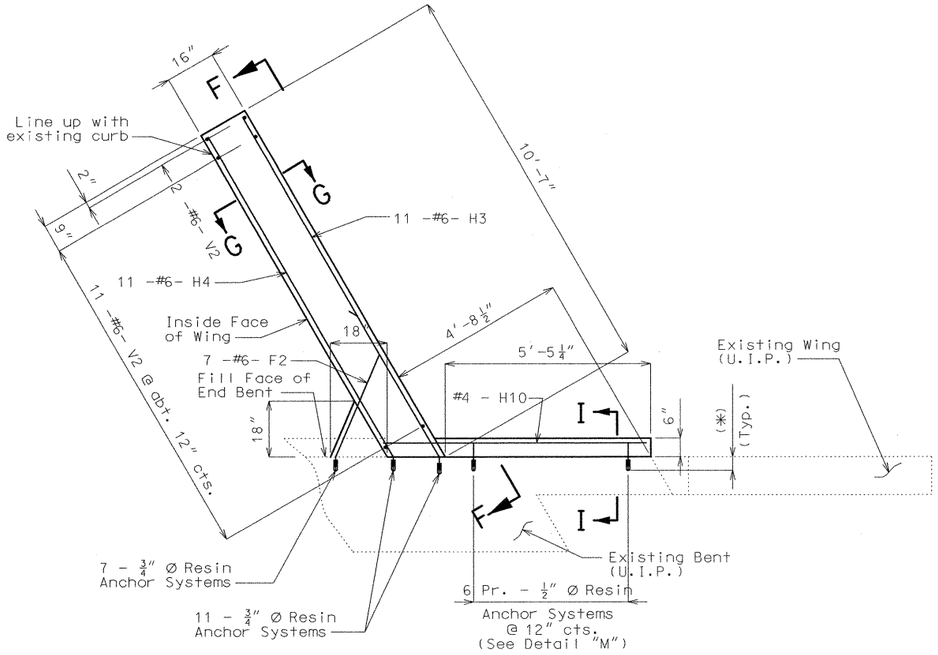
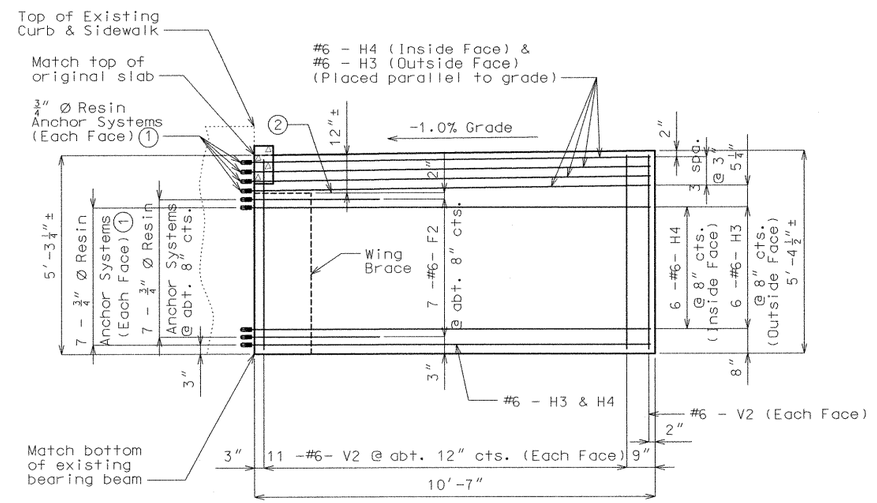
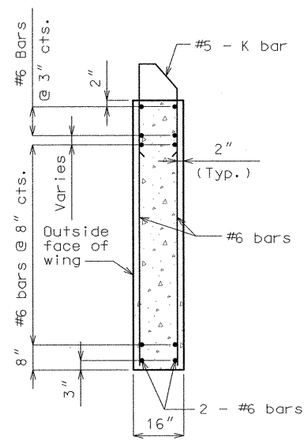
State	Proj. No.	Sheet No.
MO		B4



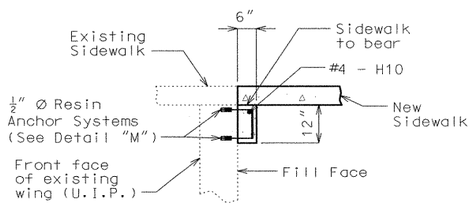
PART PLAN OF NEW LEFT WING
(Sidewalk not shown for clarity)



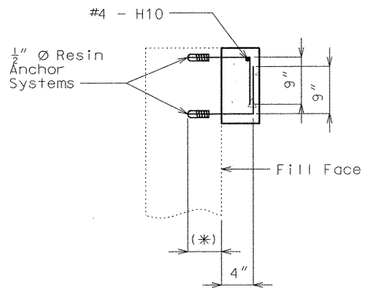
ELEVATION F-F
(Sidewalk approach notch reinforcement not shown for clarity)



SECTION G-G



PART SECTION I-I
(Showing new and existing sidewalk)



DETAIL "M"

NOTE: Field bend component reinforcing bar of resin anchor system when necessary to lap with paired reinforcing bar in barbill.

All concrete to be Class B-1.

(*) Manufacturer's recommended embedment depth.

See details on Sheet No. 6 for placement of S2 bar in the wing.

(1) Lap reinforcing bar of resin anchor system with H3 & H4 bars.

(2) Top of new wing brace to be flush with top of existing roadway approach notch.

STATE OF MISSOURI
ANOUSONE AROUNPRADITH
NUMBER E-29317
REGISTERED PROFESSIONAL ENGINEER
DATE 6/1/05

DETAILS OF WING AT END BENT NO. 1

Detailed Apr. 2005
Checked May 2005

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 4 of 10

PHELPS COUNTY A12612

REV.

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State	Proj. No.	Sheet No.
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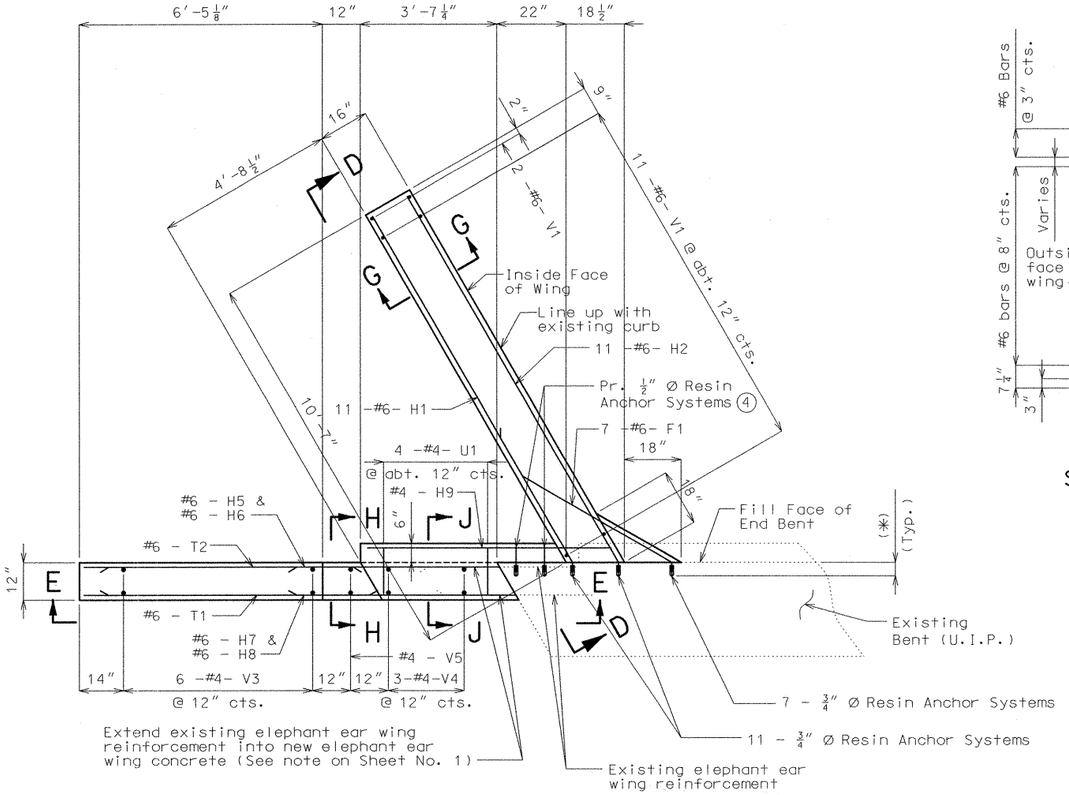
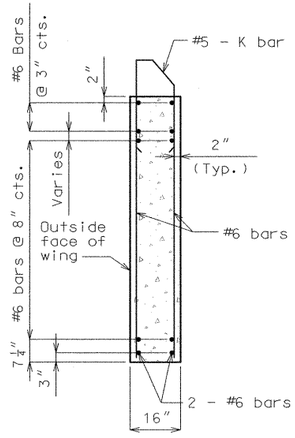
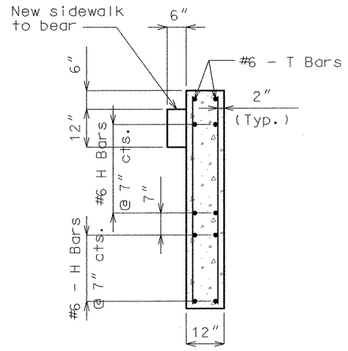


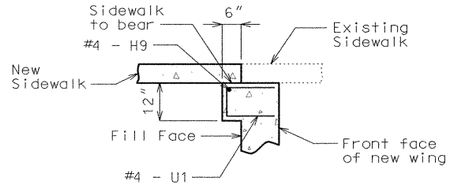
PART PLAN OF NEW LEFT WINGS
(Sidewalk not shown for clarity)



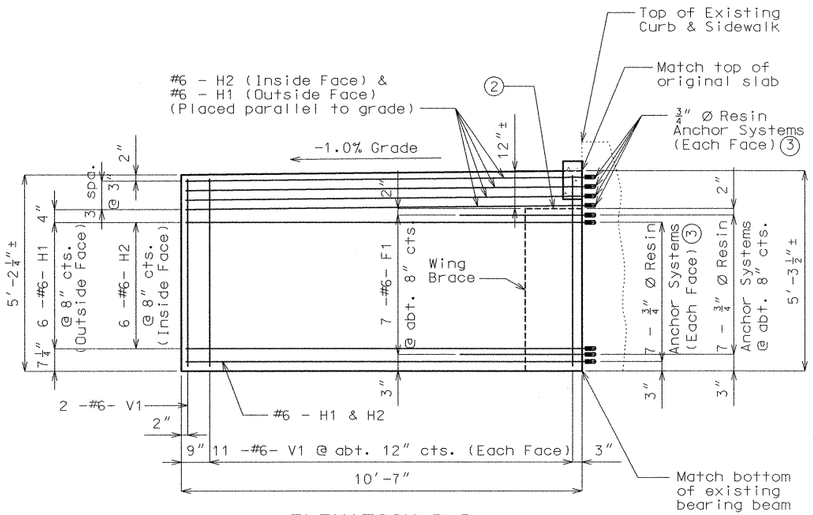
SECTION G-G



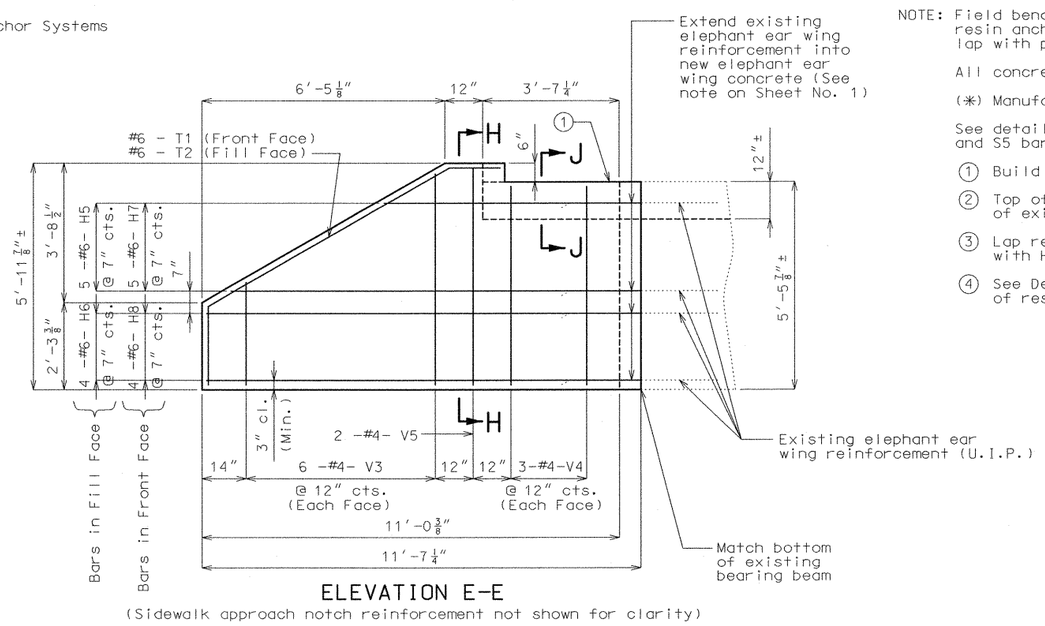
SECTION H-H



PART SECTION J-J
(Showing new and existing sidewalk)



ELEVATION D-D
(Sidewalk approach notch reinforcement not shown for clarity)



ELEVATION E-E
(Sidewalk approach notch reinforcement not shown for clarity)

NOTE: Field bend component reinforcing bar of resin anchor system when necessary to lap with paired reinforcing bar in barbill.

All concrete to be Class B-1.

(*) Manufacturer's recommended embedment depth.

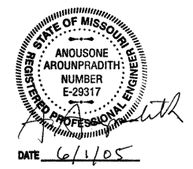
See details on Sheet No. 6 for placement of S4 and S5 bars in wing.

(1) Build back to bottom of existing sidewalk.

(2) Top of new wing brace to be flush with top of existing roadway approach notch.

(3) Lap reinforcing bar of resin anchor system with H1 & H2 bars.

(4) See Detail "M" on Sheet No. 4 for details of resin anchor system.



DETAILS OF WINGS AT END BENT NO. 5

Detailed Apr. 2005
Checked May 2005

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 5 of 10

PHELPS COUNTY A12612

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State	Proj. No.	Sheet No.
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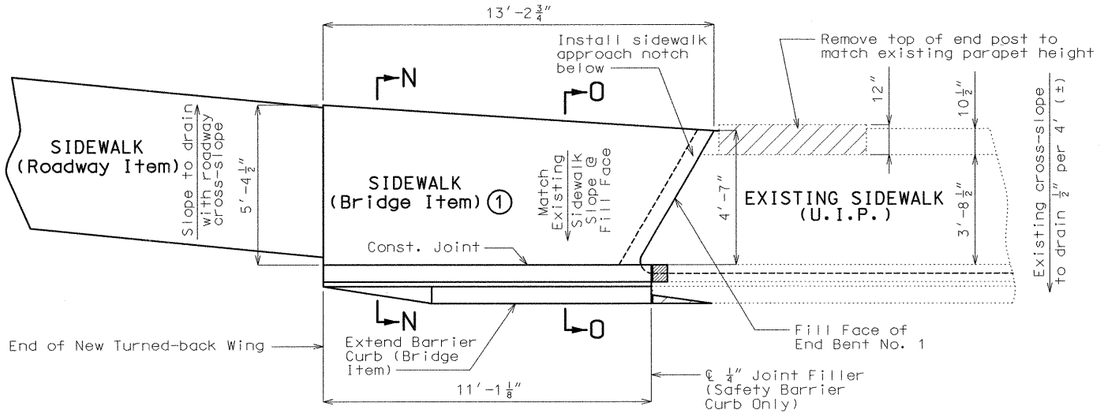
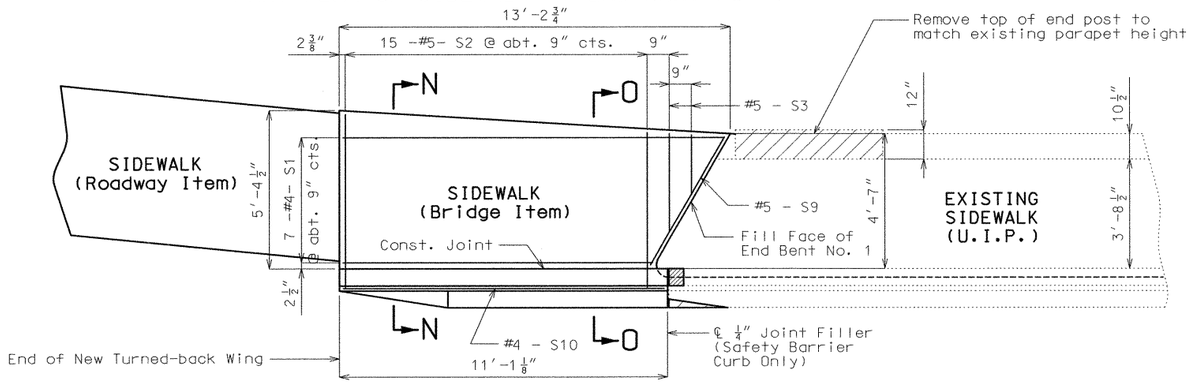
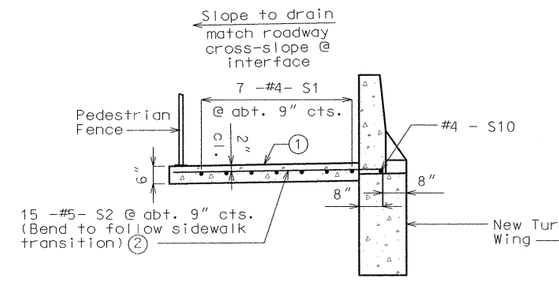


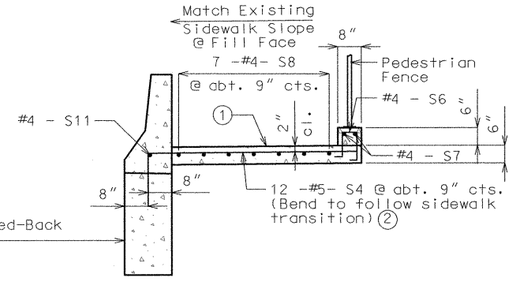
PART PLAN OF SIDEWALK AT END BENT NO. 1



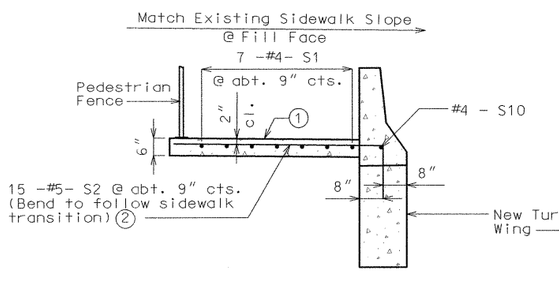
PART PLAN OF SIDEWALK AT END BENT NO. 1 SHOWING REINFORCEMENT



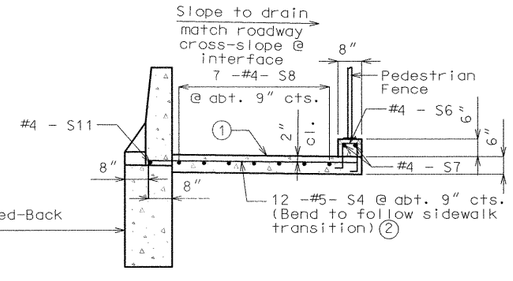
SECTION N-N



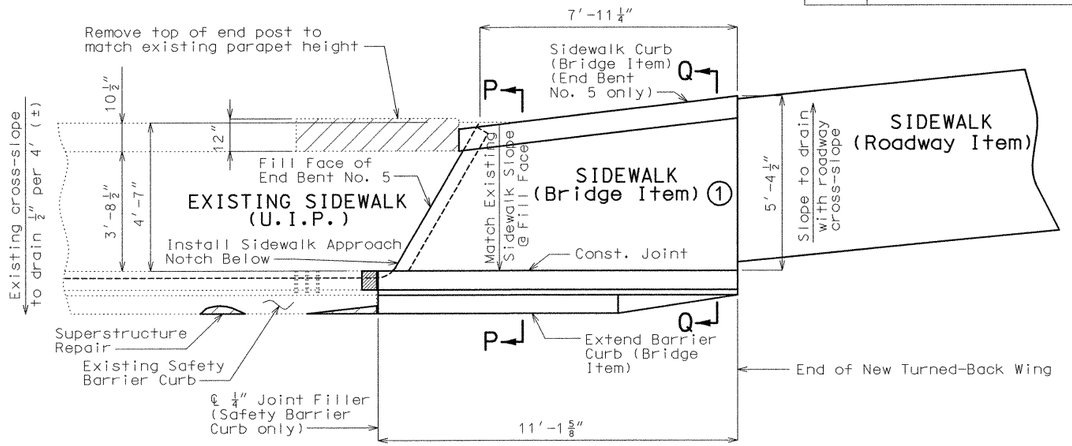
SECTION P-P



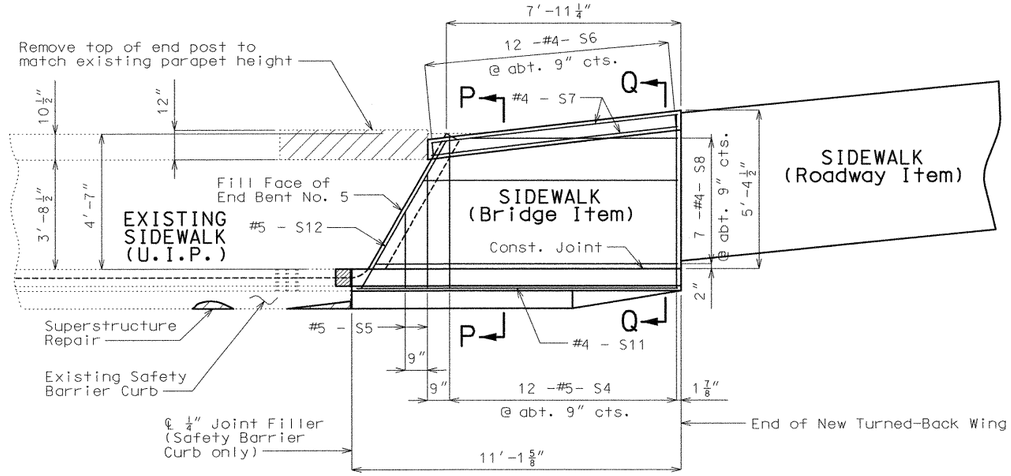
SECTION O-O



SECTION Q-Q



PART PLAN OF SIDEWALK AT END BENT NO. 5



PART PLAN OF SIDEWALK AT END BENT NO. 5 SHOWING REINFORCEMENT

NOTES:

All exposed edges of sidewalks shall have either a ½″ radius or a ⅜″ bevel, unless otherwise noted.

Concrete in the sidewalks shall be Class B-1.

For details of wings and sidewalk approach notch not shown, see Sheets No. 4 & 5.

For details of safety barrier curb not shown, see Sheet No. 7.

For details of 60″ Pedestrian Fence (Structures) and 72″ Pedestrian Fence (Structures), see Sheet No. 8.

(1) Transition grade and cross-slope of new bridge sidewalk to match grade and cross-slope of roadway sidewalk at interface.

(2) Vertically place S2 and S4 bars to allow for a smooth transition of grade for the new bridge sidewalk. Field bend the horizontal leg of S2 and S4 bars to accommodate sidewalk cross-slope.

STATE OF MISSOURI
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NUMBER E-29317
REGISTERED PROFESSIONAL ENGINEER
DATE 5/23/05

Detailed May 2005
Checked May 2005

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 6 of 10

PHELPS COUNTY

A12612 REV.

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State	Proj. No.	Sheet No.
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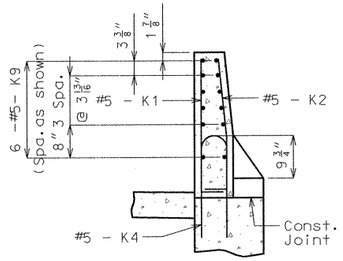
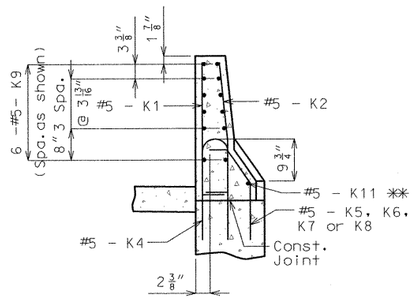
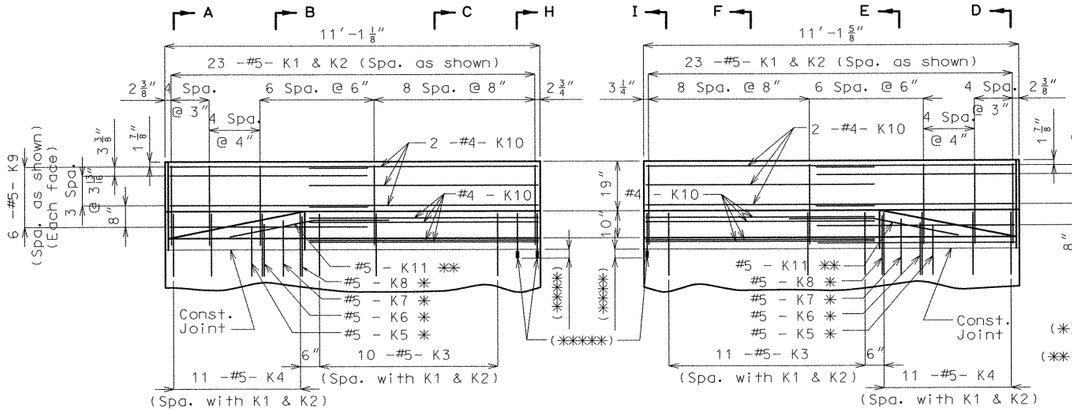


SECTION A-A



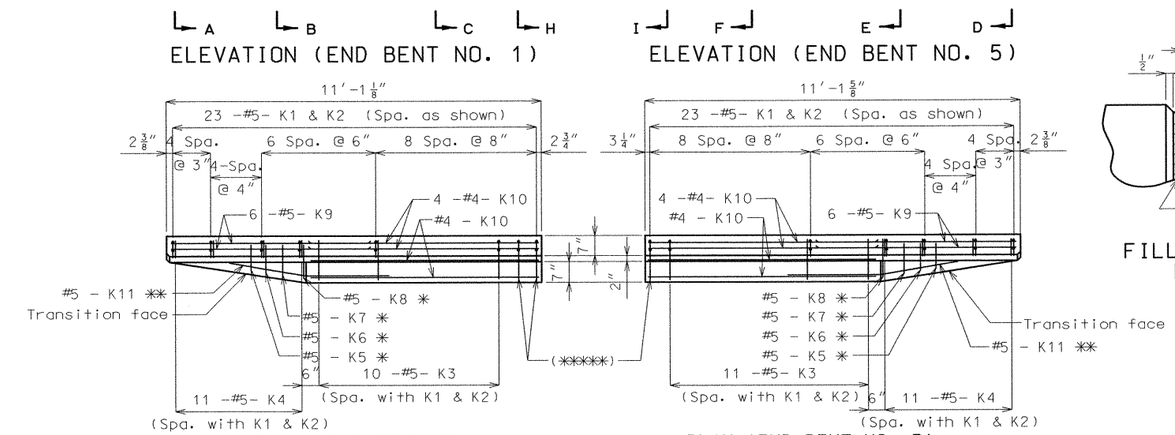
SECTION B-B



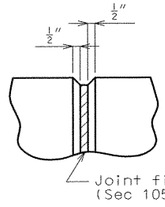
ELEVATION (END BENT NO. 1) ELEVATION (END BENT NO. 5)

(*) Spaced with #5-K4 bars.

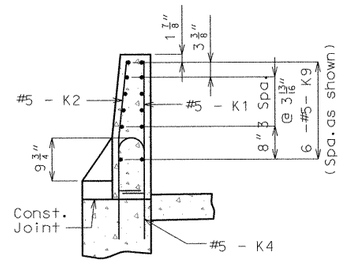
(**) Fit bar to follow transition face of curb.



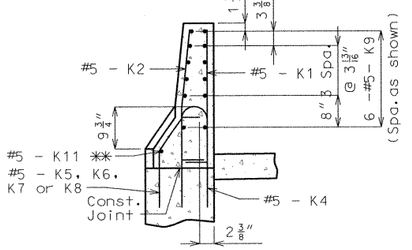
PLAN (END BENT NO. 1) PLAN (END BENT NO. 5)



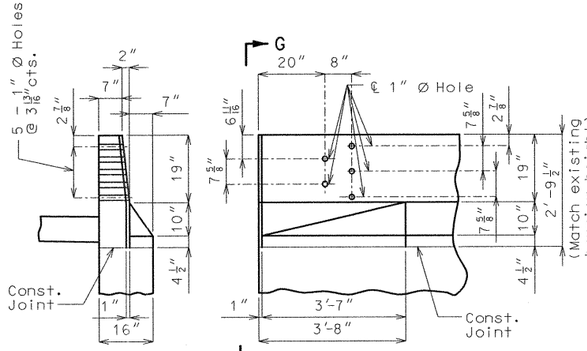
FILLED JOINT DETAIL



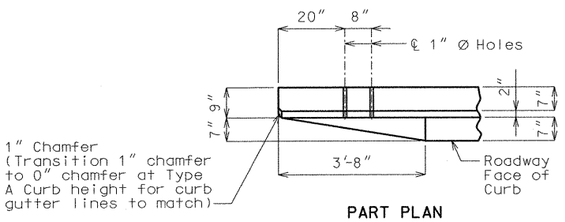
SECTION D-D



SECTION E-E

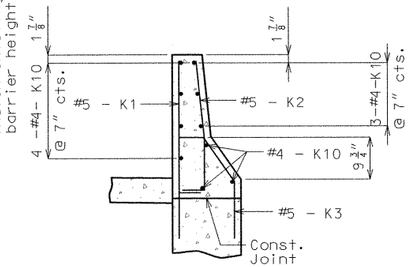


PART ELEVATION G-G G PART ELEVATION

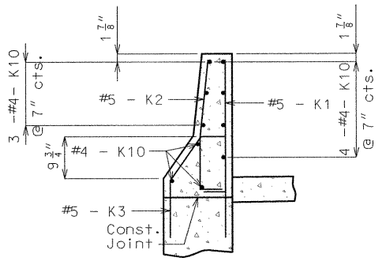


PART PLAN

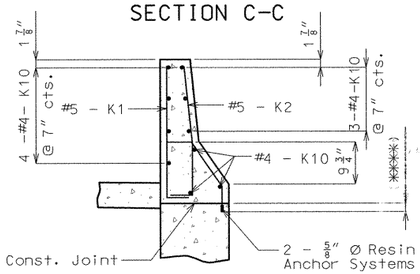
DETAILS OF GUARD RAIL ATTACHMENT



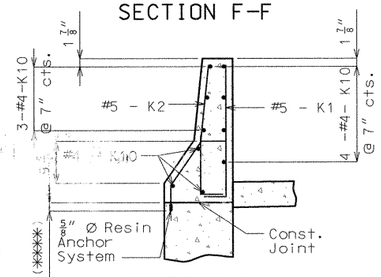
SECTION C-C



SECTION F-F

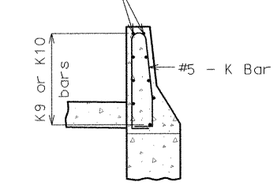


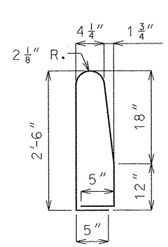
SECTION H-H



SECTION I-I

The top two K9 or K10 bars shall be kept with position close to those shown in Sections A-A thru I-I.





(K3 or K4 thru K8 bars not shown for clarity)

K1-K2 BAR PERMISSIBLE ALTERNATE SHAPE (***)

(***) The K1 and K2 bar combination may be furnished as one bar as shown, at the contractor's option.

NOTES:
Use a minimum lap of 2'-0" between K9 and K10 bars.

Top of safety barrier curb shall be built parallel to grade.

All exposed edges of safety barrier curb shall have either a 1/2" radius or a 3/4" bevel, unless otherwise noted.

Concrete in the Safety Barrier Curb shall be Class B-1.

(****) Manufacturer's recommended embedment depth.

(*****) 5/8" Ø resin anchor system (Spaced with K1 and K2 bars)

The 5/8" diameter resin anchor systems shall have a minimum ultimate pullout strength of 15,500 lbs. in concrete with f'c = 4,000 psi.

A #5 Grade 60 reinforcing bar 2'-6" long shall be substituted for the 5/8" Ø threaded rod.

STATE OF MISSOURI ANOUSONE ARQUNPRADITH NUMBER E-29317 REGISTERED PROFESSIONAL ENGINEER
DATE 5/23/05

Detailed Apr. 2005
Checked May 2005

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 7 of 10

PHELPS COUNTY A12612 REV.

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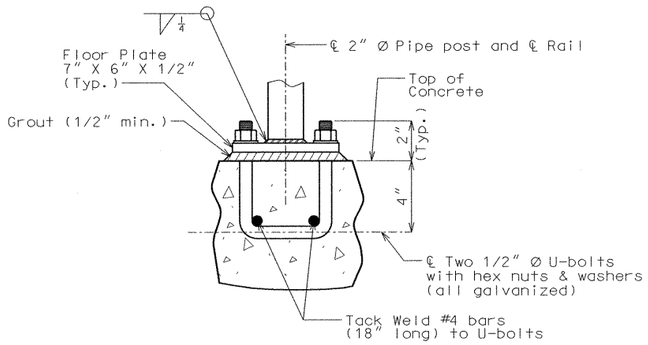
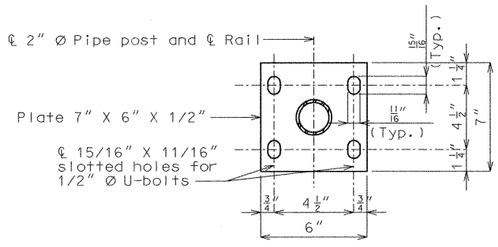
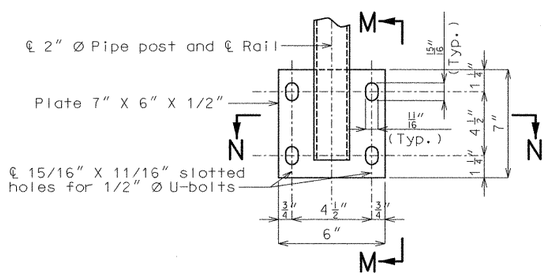
State	Proj. No.	Sheet No.
MO		B8



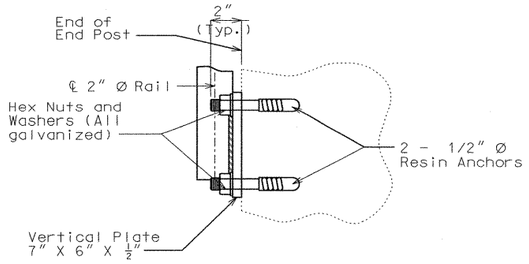
RAIL POST CONNECTION (TYPICAL)



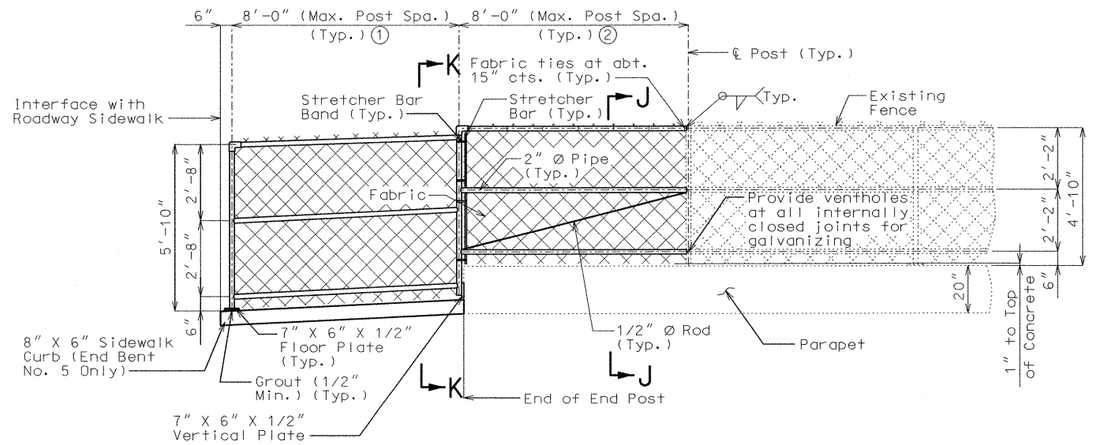
PLAN OF FLOOR PLATE



DETAIL "L" SHOWING VERTICAL PLATE AT END OF END POST



ELEVATION M-M

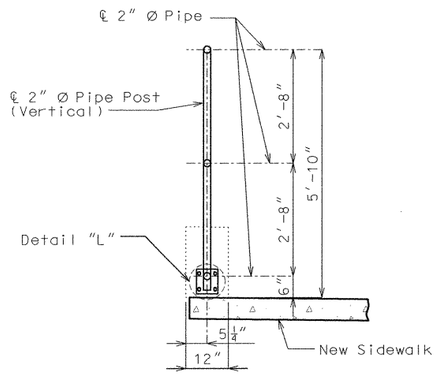


TYPICAL SECTION OF PEDESTRIAN CHAIN LINK FENCE

North sidewalk shown. South end similar by 180° rotation, except as shown.

① (72 in.) Pedestrian Fence (Structures)

② (60 in.) Pedestrian Fence (Structures)



SECTION K-K WITHOUT SIDEWALK CURB

NOTES:

Pedestrian guard fence (Chain link type) shall be in accordance with Sec 1043 except all fabric shall have the top and bottom edges knuckled.

All rail post shall be vertical. Grout of ½" minimum thickness shall be placed under floor plates to provide for vertical alignment of rail posts.

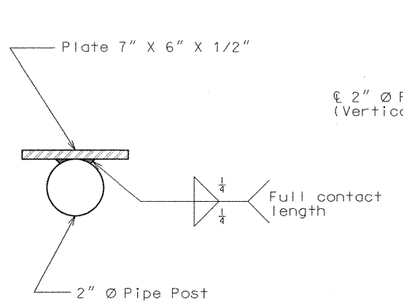
Payment for furnishing, galvanizing and erecting the fence and frame and attaching to existing fence complete with anchor bolts and washers will be considered completely covered by the contract unit price for (60 in.) Pedestrian Fence (Structures) per linear foot and (72 in.) Pedestrian Fence (Structures) per linear foot.

Dimensions of pedestrian guard fence are measured horizontally.

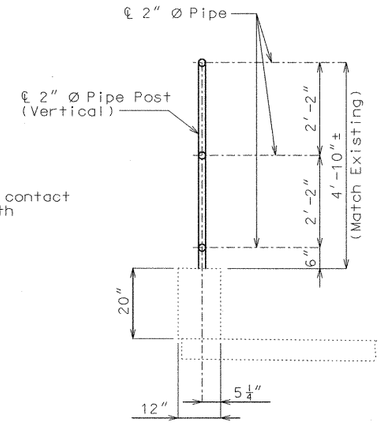
Connect the lower end of the ½" Ø rod to the end of the braced panel to which the stretcher bar is attached.

(60 in.) Pedestrian Fence (Structures) and (72 in.) Pedestrian Fence (Structures) will be measured to the nearest linear foot as shown above.

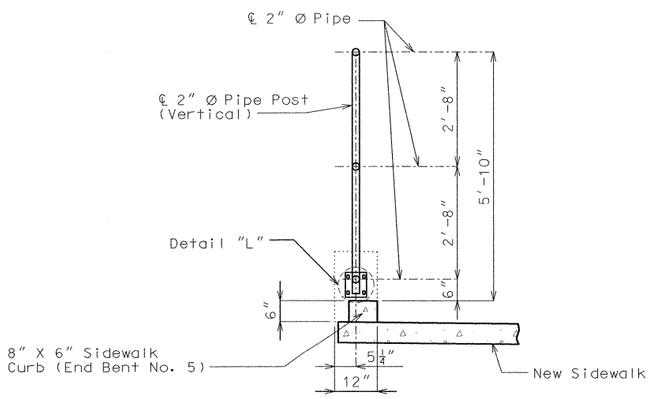
Core wire size for wire fabric shall be 6 gage minimum.



SECTION N-N



SECTION J-J



SECTION K-K SHOWING SIDEWALK CURB

REGISTERED PROFESSIONAL ENGINEER
STATE OF MISSOURI
ANOUSONE AROUNPRADITH
NUMBER E-29317
DATE 6/1/05

DETAILS OF PEDESTRIAN CHAIN LINK FENCE

Detailed Apr. 2005
Checked May 2005

Note: This drawing is not to scale. Follow dimensions.

PHELPS COUNTY A12612

REV.

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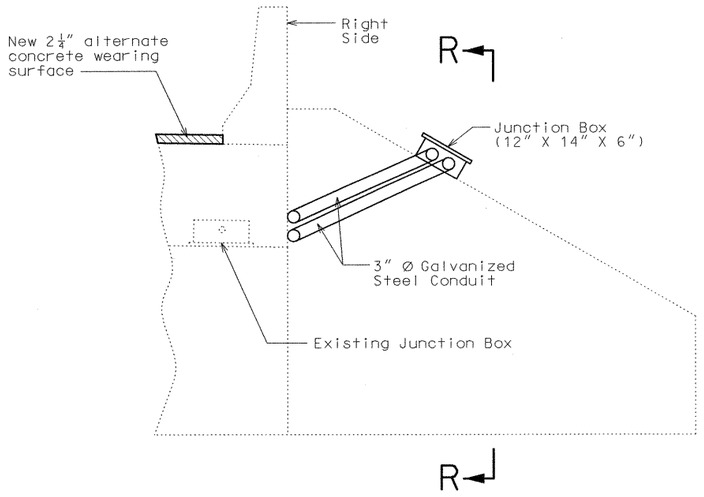
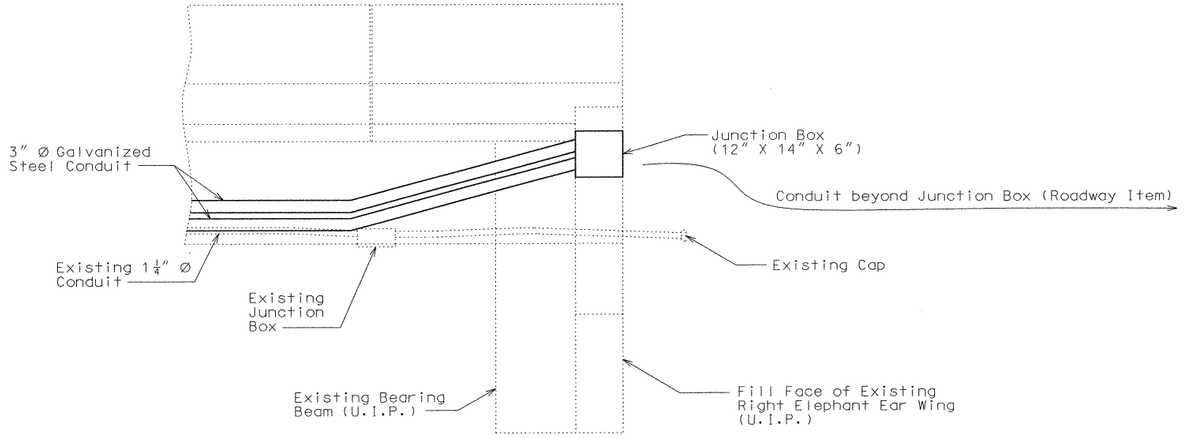
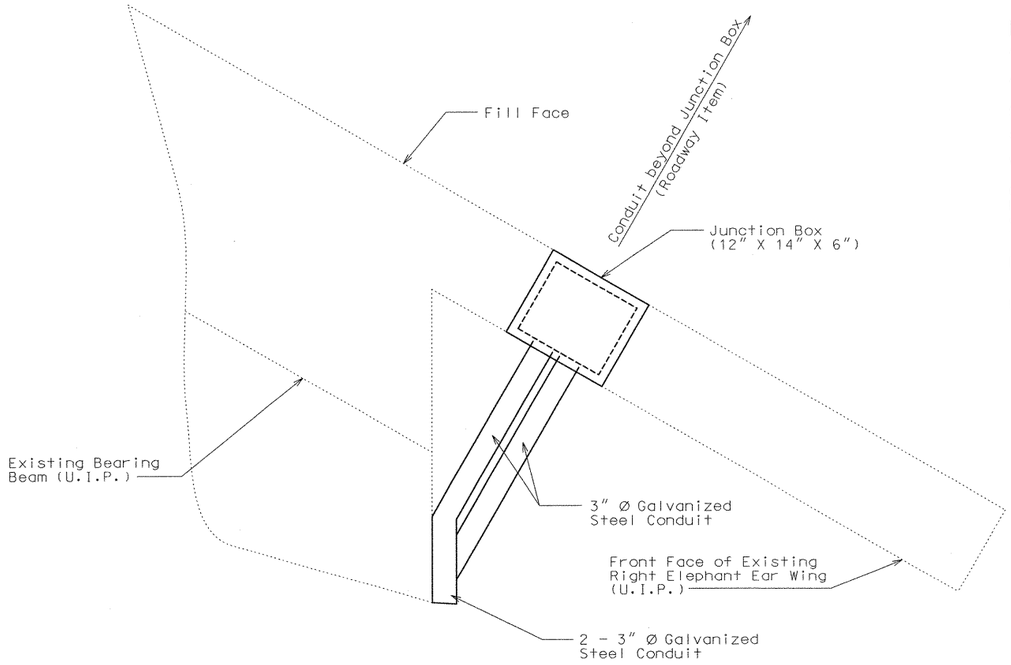
State	Proj. No.	Sheet No.
MO		89



PART ELEVATION OF CONDUIT AND JUNCTION BOX
(End Bent No. 5 shown, End Bent No. 1 similar by 180° rotation)



SECTION R-R
(End Bent No. 5 shown, End Bent No. 1 similar by 180° rotation)



PART PLAN SHOWING CONDUIT AND JUNCTION BOX
(End Bent No. 5 shown, End Bent No. 1 similar)

NOTES:

All conduit shall be galvanized steel pipe. Each section of conduit shall bear the Underwriters' Laboratories, Inc., (UL) label.

All Conduit Clamps shall be commercially available conduit clamp approved by the engineer.

All junction boxes shall be PVC molded surface mounted and equal to Carlon Electrical Construction Products or Cantex, Inc. The conduit terminations shall be permanent or separable. The terminations and covers shall be of watertight construction and shall meet requirements for NEMA 4 enclosure.

Weepholes shall be provided at appropriated locations to drain any moisture in the conduit system.

Conduit shall be secured to concrete with clamps at about 5'-0" cts. Concrete anchors for clamps shall be in accordance with Federal Specification FF-S-325, Group II, Type 4, Class I and shall be galvanized in accordance with ASTM -153, B695-91 Class 50 or stainless steel. Minimum embedment in concrete shall be 1-3/4". The supplier shall furnish a manufacturer's certification that the concrete anchors meet the required material and galvanizing specifications.

Payment for furnishing and installing Conduit System, complete-in-place, will be considered completely covered by the contract lump sum price for Conduit System on Structure.

Place junction box for conduit system as shown here or as directed by the engineer.

STATE OF MISSOURI
ANOUSONE AROUNPRADITH
NUMBER E-29317
REGISTERED PROFESSIONAL ENGINEER
DATE 5/23/05

DETAILS OF CONDUIT SYSTEM ON STRUCTURE

Detailed May 2005
Checked May 2005

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 9 of 10

PHELPS COUNTY A12612 REV.

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BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO. SIZE	MARK NO. MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	K FT.	K IN.	NOMINAL LENGTH FT.	NOMINAL LENGTH IN.	ACTUAL LENGTH FT.	ACTUAL LENGTH IN.	WEIGHT LBS.
			END BENT																									
			NO. 1																									
7	6	F2	WING BRACE		15					14.	000	2	11.375							11.125		8.500		4	1	4	1	43
11	6	H3	WING		20					10	4.000													10	4	10	4	171
11	6	H4	WING		20					9	9.000													9	9	9	9	161
1	4	H10	APPR. NOTCH		20					6	11.000													6	11	6	11	5
24	6	V2	WING		20			V	2	5	1.000													5	1	5	1	
			INCREMENT =							5	0.000													5	0	5	0	182
			0.125 INCH																									
			END BENT																									
			NO. 5																									
7	6	F1	WING BRACE		15					14.	000	4	5.875							7.000		12.125		5	8	5	8	60
11	6	H1	WING		20					10	6.000													10	6	10	6	173
11	6	H2	WING		20					11	1.000													11	1	11	1	183
5	6	H5	WING		20			V	1	10	4.000													10	4	10	4	
			INCREMENT =							6	3.000													6	3	6	3	62
			12.250 INCH																									
4	6	H6	WING		20					10	11.000													10	11	10	11	66
5	6	H7	WING		20			V	1	10	9.000													10	9	10	9	
			INCREMENT =							6	9.000													6	9	6	9	66
			12.000 INCH																									
4	6	H8	WING		20					11	5.000													11	5	11	5	69
1	4	H9	APPR. NOTCH		20					6	5.000													6	5	6	5	4
2	6	T1	WING		25					2	0.750	7	3.250	16.875						3	7.625	6	3.625	10	9	10	8	32
2	6	T2	WING		25					2	0.750	7	3.250	10.125						3	7.625	6	3.625	10	2	10	1	30
4	4	U1	APPR. NOTCH		10	S							16.000	9.000										3	5	3	3	9
24	6	V1	WING		20			V	2	5	0.000													5	0	5	0	
			INCREMENT =							4	11.000													4	11	4	11	179
			0.125 INCH																									
12	4	V3	WING		20			V	2	5	6.000													5	6	5	6	
			INCREMENT =							2	8.000													2	8	2	8	33
			6.750 INCH																									
6	4	V4	WING		20					5	2.000													5	2	5	2	21
2	4	V5	WING		20					5	8.000													5	8	5	8	8
			SIDEWALK																									
7	4	S1	SIDEWALK	E	20			V	1	12	10.000													12	10	12	10	
			INCREMENT =							10	5.000													10	5	10	5	54
			4.875 INCH																									
15	5	S2	SIDEWALK	E	19			V	1	2	2.000	5	10.000											8	0	7	11	
			INCREMENT =							2	2.000	5	3.000											7	5	7	4	119
			0.500 INCH																									
2	5	S3	SIDEWALK	E	20			V	1	3	4.000													3	4	3	4	
			INCREMENT =								23.000													0	23	0	23	5
			17.000 INCH																									
12	5	S4	SIDEWALK	E	19			V	1	2	2.000	5	10.000											8	0	7	11	
			INCREMENT =							2	2.000	5	0.000											7	2	7	1	94
			0.875 INCH																									

BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO. SIZE	MARK NO. MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	K FT.	K IN.	NOMINAL LENGTH FT.	NOMINAL LENGTH IN.	ACTUAL LENGTH FT.	ACTUAL LENGTH IN.	WEIGHT LBS.
2	5	S5	SIDEWALK	E	19			V	1	2	2.000	3	10.000											6	0	5	11	
			INCREMENT =							2	2.000	2	7.000											4	9	4	8	11
			15.000 INCH																									
12	4	S6	SIDEWALK	E	11	S				4.	000	9.	000	5.	000	9.	000							2	7	2	3	18
2	4	S7	SIDEWALK	E	20					8	4.000													8	4	8	4	11
7	4	S8	SIDEWALK	E	20			V	1	10	2.000													10	2	10	2	
			INCREMENT =							7	0.000													7	0	7	0	40
			6.375 INCH																									
3	5	S9	SIDEWALK	E	20					5	11.000													5	11	5	11	19
1	4	S10	SIDEWALK	E	20					10	10.000													10	10	10	10	7
1	4	S11	SIDEWALK	E	20					10	10.000													10	10	10	10	7
1	4	S12	SIDEWALK	E	20					5	9.000													5	9	5	9	4
			BARRIER CURB																									
46	5	K1	BARRIER CURB	E	19	S				2	6.000	5.	125											2	11	2	10	136
46	5	K2	BARRIER CURB	E	14	S				5.	125	12.	250	18.	000					2.	000	17.	875	2	11	2	10	136
21	5	K3	BARRIER CURB	E	27	S				2	7.000	5.	125	12.	000	21.	000			9.	875	6.	875	5	9	5	7	122
22	5	K4	BARRIER CURB	E	7					2	7.000	6.	000											5	4	5	4	122
2	5	K5	BARRIER CURB	E	25	S				21.	500	6.	750	4.	375					5.	500	4.	000	2	9	2	8	6
2	5	K6	BARRIER CURB	E	25	S				21.	500	7.	875	4.	375					6.	500	4.	500	2	10	2	9	6
2	5	K7	BARRIER CURB	E	25	S				21.	500	9.	625	4.	375					7.	875	5.	500	3	0	2	11	6
2	5	K8	BARRIER CURB	E	25	S				21.	500	11.	250	4.	375					9.	250	6.	500	3	1	3	0	6
24	5	K9	BARRIER CURB	E	20					5	7.000													5	7	5	7	140
22	4	K10	BARRIER CURB	E	20					7	3.000													7	3	7	3	107
2	5	K11	BARRIER CURB	E	8					2	2.125									2	2.000	2.	375	4	4	4	4	9
			TOTALS																									
	4																											80
	4			E																								248
	5			E																								937
	6																											1477
			TOTAL																									1557
			TOTAL	E																								1185

State	Proj. No.	Sheet No.
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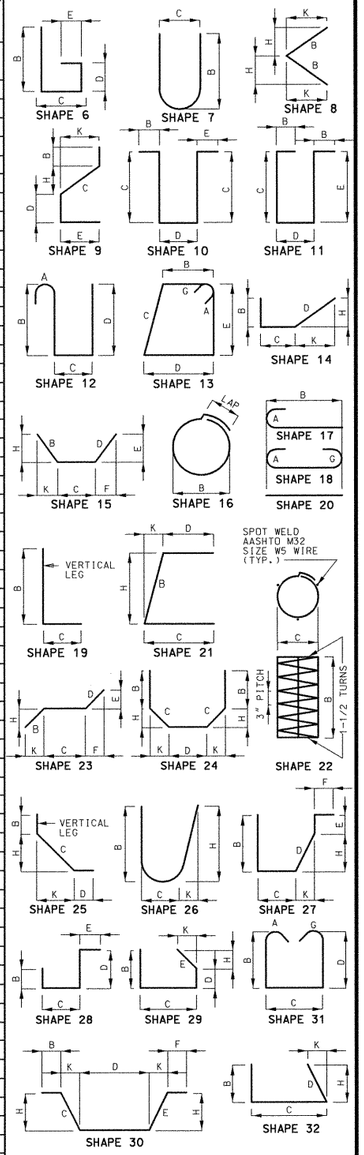
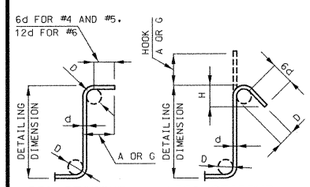
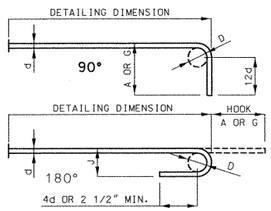




DETAILED MAY 2005
CHECKED MAY 2005

STIRRUP HOOK DIMENSIONS				
GRADES 40 – 50 – 60 KSI				
BAR SIZE	D (IN.)	90° HOOK	135° HOOK	
		HOOK A OR G	HOOK A OR G	APPROX. H
#4	2"	4 1/2"	4 1/2"	3"
#5	2 1/2"	6"	5 1/2"	3 3/4"
#6	4 1/2"	12"	8"	4 1/2"

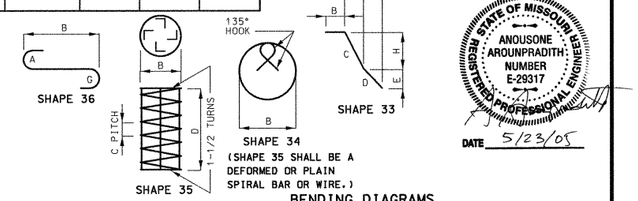
NOTE: UNLESS OTHERWISE NOTED DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR.



END HOOK DIMENSIONS				
BAR SIZE	D (IN.)	ALL GRADES		
		180° HOOKS		90° HOOKS
		A OR G	J	A OR G
#3	2 1/4"	5"	3"	6"
#4	3"	6"	4"	8"
#5	3 3/4"	7"	5"	10"
#6	4 1/2"	8"	6"	12"
#7	5 1/4"	10"	7"	14"
#8	6"	11"	8"	16"
#9	9 1/2"	15"	11 3/4"	19"
#10	10 3/4"	17"	13 1/4"	22"
#11	12"	19"	14 3/4"	2'-0"
#14	18 1/4"	2'-3"	21 3/4"	2'-7"

TWO ADDITIONAL #4 – K10 & #5 – S9 ARE INCLUDED IN THE BAR BILL FOR TESTING.

NOTE:
ALL STANDARD HOOKS AND BENDS OTHER THAN 180 DEG. TO BE BENT WITH THE SAME PROCEDURE AS FOR 90 DEG. STD. HOOKS.
HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE CRSI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES. STIRRUP AND TIE DIMENSIONS.
E = EPOXY COATED REINFORCEMENT.
S = STIRRUP.
X = BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES.
V = BAR DIMENSIONS VARY IN EQUAL INCREMENTS BETWEEN DIMENSIONS SHOWN ON THIS LINE AND THE FOLLOWING LINE.
NO. EA. = NUMBER OF BARS OF EACH LENGTH.
ALL DIMENSIONS ARE OUT TO OUT.
ACTUAL LENGTHS ARE MEASURED ALONG CENTERLINE BAR TO THE NEAREST INCH.
PAYWEIGHTS ARE BASED ON ACTUAL LENGTHS.
FOUR ANGLE OR CHANNEL SPACERS ARE REQUIRED FOR EACH COLUMN SPIRAL. SPACERS ARE TO BE PLACED ON INSIDE OF SPIRALS. LENGTH AND WEIGHT OF COLUMN SPIRALS DO NOT INCLUDE SPLICES OR SPACERS.
REINFORCING STEEL (GRADE 60) = FY 60.000 PSI.



STATE OF MISSOURI
ANOUSONE AROUNPRADITH
NUMBER E-29317
REGISTERED PROFESSIONAL ENGINEER
DATE 5/23/05

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

SHEET NO. 10 OF 10

PHELPS COUNTY A12612

T:\br-proj\robinp1\J9I0525\A12612_010.dgn 01:45:21 PM 05/23/2005

Missouri Department of Transportation
State Bridge Inspection Report

December 28, 2022
1:54:51PM

COUNTY: PHELPS **DISTRICT: CD** **CLASS: STATBR** **FED-ID: 1041** **BRIDGE: A1261**

GENERAL STRUCTURE INFORMATION

ROUTE: RTES	**# SPANS:** 4	**PLACE CODE:** 62912 ROLLA CITY	
FEATURE: IS 44	**LANES ON:** 2	**LENGTH:** 238 FT 0 IN	
STATUS: A-OPEN	**LANES UNDER:** 4	**MAXIMUM SPAN:** 67 FT 0 IN	
LOG MILE: 10.760	**COMPASS DIRECTION:** WEST to EAST	**APPROACH ROADWAY:** 24 FT 0 IN	
DETOUR: 2.00 MILES	**DIRECTION OF TRAFFIC:** 2-WAY TRAF	**CURB TO CURB:** 28 FT 0 IN	
NHS: NO	**FUNCTIONAL CLASS:** UR-MINOR ARTERIAL	**OUT TO OUT:** 35 FT 4 IN	
BUILT: 1964	**NBI OWNER:** MODOT	**AADT:** 8944	
REHAB: 1984	**NBI MAINTAINED:** MODOT	**AADT YEAR:** 2021	
LOCATION: S 2 T 37 R 8 W	**MAINTENANCE DISTRICT:** CD	**AADT TRUCK:** 4.4%	
LATITUDE: 37 57 22.26 (DMS)	**MAINTENANCE COUNTY:** PHELPS	**FUTURE AADT:** 14310	
LONGITUDE: 91 46 55.20 (DMS)	**SUB AREA:** 7D47	**FUTURE AADT YEAR:** 2041	

BRIDGE INSPECTION INFORMATION

DATE: 05/19/2021 **RESPONSIBILITY:** DISTRICT
FREQUENCY: 24 **CALCULATED INTERVAL**:** 20
TEAM LEADER: MICHAEL MEYERHOFF **ELEMENT:** NO
INSPECTOR 2: JOE GREEN **INSPECTOR 4:**
INSPECTOR 3:

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

GENERAL INSPECTION COMMENTS

FRACTURE CRITICAL INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

FRACTURE CRITICAL INSPECTION COMMENTS

INDEPTH INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

INDEPTH INSPECTION COMMENTS

SPECIAL INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

SPECIAL INSPECTION COMMENTS

UNDERWATER INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

UNDERWATER INSPECTION COMMENTS

OTHER SPECIAL INSPECTIONS

DATE	FREQUENCY	CATEGORY	NBI	CALCULATED INTERVAL	RESPONSIBILITY	METHOD

OTHER UNDERWATER INSPECTIONS

DATE	FREQUENCY	CATEGORY	NBI	CALCULATED INTERVAL	RESPONSIBILITY	METHOD

COUNTY: PHELPS **DISTRICT: CD** **CLASS: STATBR** **FED-ID: 1041** **BRIDGE: A1261**

STRUCTURE POSTING

APPROVED CATEGORY: S-1 NO POSTING REQUIRED
Ton 1: **Ton 2:** **Ton 3:**
COMMENTS:

FIELD CATEGORY: S-1 NO POSTING REQUIRED
Ton 1: **Ton 2:** **Ton 3:** **PROBLEM:** **PROBLEM DIRECTION:**
COMMENTS:

GENERAL COMMENTS/MAJOR RATED ITEMS

GENERAL COMMENTS: (RACKEM, 10/17/2007)--(52'-67'-67'-49') CONT VOIDED CONC SLAB SPANS

[ITEM 58] DECK: 6-SATISFACTORY CONDITION **COMMENTS:** (RACKEM, 11/04/2011)--CRACK, LEACH
RATING : 05/18/2001

[ITEM 59] SUPER: 6-SATISFACTORY CONDITION **COMMENTS:** (RACKEM, 11/04/2011)--CRACK, LEACH
RATING : 05/18/2001

[ITEM 60] SUB: 6-SATISFACTORY CONDITION **COMMENTS:** (RACKEM, 11/04/2011)--CRACK, LEACH
RATING : 05/18/2001

[ITEM 61] BANK/CHANNEL: N-NOT APPLIC NO WATRWAY **COMMENTS:**
RATING : 05/18/2001

[ITEM 113] SCOUR: N-NOT APPLIC NOT WATERW **COMMENTS:**
RATING : 05/18/2001
EVALUATION TYPE :

[ITEM 71] WATERWAY ADEQUACY: NOT APPLICABLE **COMMENTS:**
RATING : 05/18/2001

[ITEM 72] APPRRDWY ALIGNMENT: 8-VERYGOOD **COMMENTS:**
RATING : 05/18/2001

RAILING AND APPROACH PAVEMENT COMPONENTS AND RATINGS

[ITEM 36A] BRIDGE RAILING RATING: *MEETS CURRENT STANDARDS-1* ***RATING :*** *05/18/2001* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
REINFORCED CONCRETE	SAFETY BARRIER CURB	BOTH	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	COMMENT
DETERIORATION	THROUGHOUT		MINOR	
VERTICAL CRACKS	THROUGHOUT		MINOR	

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	PEDESTRIAN FENCE	LEFT	
REINFORCED CONCRETE	SIDEWALKS	LEFT	

[ITEM 36B] TRANSITION RAILING RATING: *MEETS CURRENT STANDARDS-1* ***RATING :*** *10/17/2007* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	THRIE BEAM TO W-BEAM	ALL	

Design_No = a1261

COUNTY: PHELPS **DISTRICT: CD** **CLASS: STATBR** **FED-ID: 1041** **BRIDGE: A1261**

[ITEM 36C] APPROACH RAILING RATING: *MEETS CURRENT STANDARDS-1* ***RATING :*** *05/18/2001* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	W-BEAM	ALL	

[ITEM 36D] RAIL END TREATMENT RATING: *MEETS CURRENT STANDARDS-1* ***RATING :*** *05/18/2001* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	BREKAWAY SYSTEM	ALL	(OTTINM, 11/06/2013)--ET 2000

APPROACH PAVEMENT: *Overall condition assigned for each approach pavemenet component is shown below.

MATERIAL	CONSTRUCTION	DIRECTION	CONDITION*	COMMENTS
REINFORCED CONCRETE	SLAB	BOTH	GOOD	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	COMMENT
SETTLEMENT	ENDS		MINOR	

DRAINAGE, EXPANSION DEVICES, BANK/SLOPE, AND DECK PROTECTIVE COMPONENTS

DECK PROTECTIVE COMPONENTS:

SERIES TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	THICKNESS	YEAR APPLIED	MANUFACTURE	OVERALL CONDITION
MAIN SERIES-1	*WEARING SURFACE*	*PLAIN CONCRETE*	*LOW SLUMP*	*2.25 IN*			*GOOD*

COMMENT:

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	COMMENT
LONGITUDINAL CRACKS	RANDOM		FEW	
TRANSVERSE CRACKS	THROUGHOUT		FEW	

DECK PROTECTION	*NOTAPPLICABLE*	*NONE*					

COMMENT:

COMMENT:

MEMBRANE	*NOTAPPLICABLE*	*NONE*			

COMMENT:

SECONDARY DECK PROTECTION	*LIQUID SEALANT*	*INTERNALLY SEALED*	*2022*	*SILANE*

COMMENT:

DRAINAGE COMPONENTS:

COMPONENT	MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
DRAINAGE	*REINFORCED CONCRETE*	*CURB OUTLET*		

EXPANSION DEVICE COMPONENTS:

SUB UNIT-#	SUB LABEL	COMPONENT	MATERIAL	CONSTRUCTION	GAP	YEAR APPLIED	MANUFACTURE	OVERALL CONDITION

COMMENT:

BANK/SLOPE PROTECTION COMPONENTS:

COMPONENT	MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
BANK PROTECTION	*PLAIN CONCRETE*	*PAVEDSLOPE*	*BOTH*	

DECK COMPONENTS

SPAN TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	COMMENTS
MAIN SPANS-1	*DECK*	*REINFORCED CONCRETE*	*CAST-IN-PLACE*	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DETERIORATION	EDGE		MINOR		
MAP CRACKS	EDGE		FEW		
PATCHES	EDGE		FEW		
SATURATION	EDGE		MINOR		
SPALLS	EDGE		MINOR		
TRANSVERSE CRACKS	OVERHANGS		FEW		

MAIN SPANS-2 *DECK* *REINFORCED CONCRETE* *CAST-IN-PLACE*

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DELAMINATION	EDGE		MINOR		
DETERIORATION	EDGE		MINOR		
MAP CRACKS	EDGE		FEW		
PATCHES	EDGE		FEW		
SATURATION	EDGE		MINOR		
SPALLS	EDGE		MINOR		
TRANSVERSE CRACKS	OVERHANGS		FEW		

MAIN SPANS-3 *DECK* *REINFORCED CONCRETE* *CAST-IN-PLACE*

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DETERIORATION	EDGE		MINOR		
MAP CRACKS	EDGE		FEW		
PATCHES	EDGE		FEW		
SATURATION	EDGE		MINOR		
TRANSVERSE CRACKS	OVERHANGS		FEW		

MAIN SPANS-4 *DECK* *REINFORCED CONCRETE* *CAST-IN-PLACE*

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DETERIORATION	EDGE		MINOR		
MAP CRACKS	EDGE		FEW		
PATCHES	EDGE		FEW		
SATURATION	EDGE		MINOR		
SPALLS	EDGE		LARGE		(BOWDEJ1, 02/02/2006)--W/ PIPE EXPOSED

SUPERSTRUCTURE COMPONENTS

SERIES TYPE-#	SPAN TYPE	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
MAIN SERIES-1	*CONTINUOUS SPAN*	*REINFORCED CONCRETE*	*VOIDED SLAB*		

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-1	NON-COMPOSITE	52 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DIAGONAL CRACKS	ENDS		FEW		
EFFLORESCENCE	ENDS		MINOR		
HORIZONTAL CRACKS	ENDS		MINOR		
VERTICAL CRACKS	ENDS		MEDIUM		

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-2	NON-COMPOSITE	67 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
HORIZONTAL CRACKS	ENDS		MINOR		
VERTICAL CRACKS	ENDS		MEDIUM		

MAIN SPANS-3 NON-COMPOSITE 67 FT 0 IN NO

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
HORIZONTAL CRACKS	ENDS		MINOR		
VERTICAL CRACKS	ENDS		MEDIUM		

MAIN SPANS-4 NON-COMPOSITE 49 FT 0 IN NO

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DIAGONAL CRACKS	ENDS		FEW		
EFFLORESCENCE	ENDS		MINOR		
HORIZONTAL CRACKS	ENDS		MINOR		
TRANSVERSE CRACKS	OVERHANGS		FEW		
VERTICAL CRACKS	ENDS		MEDIUM		

SUBSTRUCTURE COMPONENTS

SUBSTRUCTURE	SKEW	LENGTH	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
ABUTMENT-1	*LA-30 DEGREES*	*37 FT 5 IN*	*REINFORCED CONCRETE*	*INTEGRAL*		

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

ASSOCIATED COMPONENT	MATERIAL	CONSTRUCTION
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
PILING	STEEL	H-SHAPE			
STRAIGHT WINGS	REINFORCED CONCRETE	CAST-IN-PLACE			
DETERIORATION	AT WALL		MODERATE		
LEACHING	RANDOM		MINOR		
PATCHES	ENDS		SMALL		

BENT-2	LA-30 DEGREES	37 FT 9 IN	REINFORCED CONCRETE	MULTIPLE COLUMN		

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

ASSOCIATED COMPONENT	MATERIAL	CONSTRUCTION
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
COLUMN	REINFORCED CONCRETE	INTEGRAL CAST-IN-PLACE			
HORIZONTAL CRACKS	AT BEAM CAP		FINE		
FOOTING	REINFORCED CONCRETE	H-PILE			

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

BENT-3	LA-30 DEGREES	37 FT 5 IN	REINFORCED CONCRETE	MULTIPLE COLUMN		

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

ASSOCIATED COMPONENT	MATERIAL	CONSTRUCTION
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
COLUMN	REINFORCED CONCRETE	INTEGRAL CAST-IN-PLACE			
DELAMINATION	TOP		FEW		
HORIZONTAL CRACKS	TOP		FEW		
FOOTING	REINFORCED CONCRETE	H-PILE			

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

FOOTING		REINFORCED CONCRETE	SPREAD			
CONDITION		***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
BENT-4	*LA-30 DEGREES*	*37 FT 9 IN*	*REINFORCED CONCRETE*	*MULTIPLE COLUMN*		
CONDITION		***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
ASSOCIATED COMPONENT		***MATERIAL***	***CONSTRUCTION***			
BEAM CAP		REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION		***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
COLUMN		REINFORCED CONCRETE	INTEGRAL CAST-IN-PLACE			
CONDITION		***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
HORIZONTAL CRACKS		TOP		FEW		
FOOTING		REINFORCED CONCRETE	H-PILE			
CONDITION		***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
ABUTMENT-5	*LA-30 DEGREES*	*37 FT 5 IN*	*REINFORCED CONCRETE*	*INTEGRAL*		
CONDITION		***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
ASSOCIATED COMPONENT		***MATERIAL***	***CONSTRUCTION***			
BEAM CAP		REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION		***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
LEACHING		RANDOM		LIGHT		
VERTICAL CRACKS		RANDOM		FEW		
PILING		STEEL	H-SHAPE			
CONDITION		***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
STRAIGHT WINGS		REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION		***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
DIAGONAL CRACKS		THROUGHOUT		FEW		
LEACHING		THROUGHOUT		MINOR		

OVER/UNDER ROUTES CLEARANCE INFORMATION

CLEARANCES OVER DECK

**NOTE: Vertical clearances for permitting purposes are taken as 2 inches less than the actual field measured clearance.

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT

COUNTY: PHELPS **DISTRICT: CD** **CLASS: STATBR** **FED-ID: 1041** **BRIDGE: A1261**

CLEARANCES UNDER BRIDGE

**NOTE: Vertical clearances for permitting purposes are taken as 2 inches less than the actual field measured clearance.

RECORD #	ROUTE	# LANES	DIRECTION OF TRAFFIC	RIGHT LATERAL CLEARANCE	LEFT LATERAL CLEARANCE	UR-ID
1	IS 44 E	2	1-WAY TRAF	12 FT 7 IN	12 FT 7 IN	2446

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT
ACTUAL	16 FT 3 IN			

RECORD #	ROUTE	# LANES	DIRECTION OF TRAFFIC	RIGHT LATERAL CLEARANCE	LEFT LATERAL CLEARANCE	UR-ID
2	IS 44 W	2	1-WAY TRAF	12 FT 7 IN	12 FT 7 IN	2447

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT
ACTUAL	17 FT 2 IN			

STRUCTURE PAINT INFORMATION

CONDITION: **RUST AMOUNT :** **STEEL TONS :** 0

ORIGINAL PAINT	CONTRACT REPAINT	DEPARTMENT REPAINT	
PAINT TYPE :	**PAINT TYPE :**	**PAINT TYPE :**	**MANUFACTURE :**
NAME :	**NAME :**	**NAME :**	**SURFACE PREP :**
PAINT COLOR :	**PAINT COLOR :**	**PAINT COLOR :**	
PAINT YEAR :	**PAINT YEAR :**	**PAINT YEAR :**	
MILS :	**MILS :**	**MILS :**	

REQUESTED WORK ITEMS

GENERAL WORK COMMENTS:

RESPONSIBILITY	*LOCATION*	*ITEM*	*CATEGORY*	*PRIORITY*	*DATE*	*WORK ITEM COMMENT*
DISTRICT SPECIAL	ROADWAY SURFACE	SEAL WITH SILANE	DECK	3	09/21/2028	

UTILITY ATTACHMENTS

UTILITY	*OWNER*	*METHOD*	*MEASUREMENT TYPE*	*VALUE*	*NUMBER*	*UTILITY ATTACHMENT COMMENT*
ELECTRIC		CONDUIT	DIAMETER	3 IN	1	
ELECTRIC		ENCASED	DIAMETER	1.3 IN	1	

PROGRAM NOTES INFORMATION

YEAR	PROJECT #	MONTH LET	YEAR LET	ITEMS	COMMENT
2005	J9I0525	8	2005	SUBSTRUCTURE REPAIR, WEARING SURFACE	

COMPUTER GENERATED RATINGS AND DEFICIENCY ITEMS

NOTE: The items listed in this section are updated whenever computer edits are ran on a structure after the inspection updates have been entered in to TMS.

Rated Item	Rating	Rating Date
[Item 67] Structure Evaluation Rating:	5-BETTER THAN MINIMUM	2/22/2012
[Item 68] Deck Geometry Rating:	4-MEETS MINIMUM TOLERABLE	3/25/2002
[Item 69] Underclearance:	5-BETTER THAN MINIMUM	1/26/2022
Sufficiency Rating:	70.3%	2/22/2022
Deficiency:	NOT DEFICIENT	5/18/2001
Funding Eligibility:		----
Estimated New Structure Length:		----
Estimated Structure Cost:		----
Estimated Total Project Cost:		----
Year of Cost Estimate:		----

NOTE: The above structure length and cost estimates are computer generated using algorithims in the TMS system. These algorthims are generalized to use NBI items to come up with a new structure length and width to calculate a new area which is taken times a representative cost per square foot. The actual structure size and cost may vary significantly from these numbers once site specific engineering is done.

ADVANCED SIGN INFORMATION

SIGN #	SIGN TYPE	PROBLEM	PROBLEM DIRECTION
1			

OUTFALL INSPECTION INFORMATION

 # OUTFALLS: 4 **INSPECTOR:** JESSE ELSEMAN

STATUS: PASS **DATE:** 09/05/2017

NOTES:

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

August 31, 2023
3:09:35pm

COUNTY : PHELPS **BRIDGE :** A1261 2 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : ROUTE CARRIED 'ON' STRUCT **RUN DATE :** 5/30/2023 **SUBMITTAL YEAR :** 2023

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	CD
3	County	PHELPS
8	Federal ID No.	1041
27	Year Built	1964
106	Year Reconstructed	1984
42A	Type of Service On	HIGHWAY-PEDESTRIAN
21	Structure Maintenance	STATE HIGHWAY AGENCY
22	Structure Owner	STATE HIGHWAY AGENCY
33	Br. Median Code	NO MEDIAN
37	Historical Significance	NOT ELIGIBLE FOR NR OF HP
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	YES

ROUTE DESIGNATION INFORMATION

5A	Record Type	ROUTE CARRIED 'ON' STRUCT
5B	Route Signing Prefix	MO
5C	Designated Level of Service	MAINLINE
5D	Route Number	0000E
5E	Directional Suffix	NOT APPLICABLE
7	Facility Carried	RT E S
12	Base Hwy. Network	NO
13A	LRS Inventory Route No.	
13B	Subroute No.	
20	Toll Status	ON FREE ROAD
26	Functional Classification	16-URBAN MINOR ARTERIAL
28A	Lanes on Structure	02
100	STRAHNET Designation	RTE NOT A DEFENSE HWY
104	National Highway System	NOT ON NHS
105	Federal Lands Highway	NOT APPLICABLE
110	Designated Nat. Network	NO

STRUCTURE LOCATION INFORMATION

4	Place	ROLLA CITY
	Code	62912
9	Location	S 2 T 37 N R 8 W
11	Milepoint	10.82 miles
16	Latitude	37 D 57 M 22 S
17	Longitude	91 D 46 M 55 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	10011
30	AADT Year	2022
102	Direction of Traffic	2-WAY TRAFFIC
109	AADT Truck Percent	4%
114	Future AADT	16018
115	Future AADT Year	2042

UNDERRECORD INFORMATION

6	Features Intersected	IS 44
42B	Type of Service Under	HIGHWAY
28B	Lanes Under Structure	04
54A	Vert. Clearance Ref.	HIGHWAY
54B	Vert. Clearance	16 Ft. 3 In.
55A	Rt. Lat Clear Ref.	HIGHWAY
55B	Rt. Lat Clearance	12 Ft. 6 In.
56	Left Lat Clearance	12 Ft. 6 In.
38	Navigation Control	N/A
39	Nav Vertical Clear	0 Ft. 0 In.
40	Nav Horizontal Clear	0 Ft. 0 In.
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	99 Ft. 99 In.
19	By pass Detour Length	1.88 miles
32	Approach Roadway Width	23 Ft. 11 In.
34	Skew	30.00 Degrees
35	Struct. Flared	NO
47	Total Horiz. Clear	29 Ft. 2 In.
48	Maximum Span Length	66 Ft. 11 In.
49	Structure Length	237 Ft. 10 In.
50A	Left Curb/Sidewalk Width	4 Ft. 7 In.
50B	Right Curb/Sidewalk Width	0 Ft. 8 In.
51	Curb to Curb Br. Width	27 Ft. 11 In.
52	Deck Width (Out-Out)	35 Ft. 5 In.
53	Vert.Clearance Over Deck	99 Ft. 99 In.

Design_No = a1261

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

August 31, 2023
3:09:35pm

COUNTY : PHELPS **BRIDGE :** A1261 2 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : ROUTE CARRIED 'ON' STRUCT **RUN DATE :** 5/30/2023 **SUBMITTAL YEAR :** 2023

LOAD RATING AND POSTING INFORMATION

31	Design Load	H 20
41	Structure Status	OPEN NO RESTRICTIONS
63	Oper. Rating Meth.	ALLOWABLE STRESS
64	Operating Rating	52 Tons.
65	Inventory Rating Meth	ALLOWABLE STRESS
66	Inventory Rating	26 Tons.
70	Bridge Posting Code	=>LEGAL LOADS

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating	70.1 Percent
	Deficiency Rating	NOT DEFICIENT
	Funding Eligibility	
75A	Proposed Work	
75B	Work Done By	
76	New Struc Length	0 Ft. 0 In.
94	Struc Improve Cost	$ 0,000
95	Roadway Improve Cost	$ 0,000
96	Total Project Cost	$ 0,000
97	Year of Cost Estimates	0

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating	MEETS ACCEPTBLE STND
36B	Transition Rail App. Rating	MEETS ACCEPTBLE STND
36C	Approach Rail App. Rating	MEETS ACCEPTBLE STND
36D	Rail End Treat. App. Rating	MEETS ACCEPTBLE STND
67	Struc Eval App. Rating	5
68	Deck Geometry App. Rating	4
69	Underclearance App. Rating	5
71	Waterway Adeq. App. Rating	N
72	Approach Road App. Rating	8
113	Scour Assess App. Rating	N

APPROVED POSTING INFORMATION

Approved Posting Category S-1

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

NO POSTING REQUIRED

MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	CONCRETE CONTINUOUS
43B	Main struc Constr. Type	SLAB
45	# of Main Spans	4
44A	Appr Struc. Mat type	000
44B	Appr Struc. Cnstr. type	000
46	# of Approach Span	0
107	Deck Mat/Constr.	1 CONCRETE CIP
108A	Wear Surf Mat/Constr.	4 LOW SLUMP
108B	Membrane Mat/Constr.	0 NONE
108C	Deck Protect Mat/Constr.	0 NONE

CONDITION RATING INFORMATION

58	Deck Cond. Rating	6
59	Superstructure Cond. Rating	6
60	Substructure Cond. Rating	6
61	Channel /Channel Protection Cond. Rating	N
62	Culvert Cond. Rating	N

INSPECTION INFORMATION

90	Gen. Insp Date	5 / 23	
91	Gen. Insp. Frequency	24	Months
92A	Frac. Critical Inspection	N	Months
93A	Frac. Critical Insp. Date		
92B	Underwater Inspection	N	Months
93B	Underwater Insp. Date		
92C	Special Inspection	N	Months
93C	Special Inspection Date		

BORDER BRIDGE INFORMATION

98	Neighboring State Code
98B	Neighboring State % Respon
99	Neighboring State Struc. No.

FIELD POSTING INFORMATION

Field Posting Category S-1

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

NO POSTING REQUIRED

Design_No = a1261

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

August 31, 2023
3:09:35pm

COUNTY : PHELPS **BRIDGE :** A1261 2 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : 1 RTE THAT GOES 'UNDER' S **RUN DATE :** 5/30/2023 **SUBMITTAL YEAR :** 2023

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	CD
3	County	PHELPS
8	Federal ID No.	1041
27	Year Built	1964
106	Year Reconstructed	0
42A	Type of Service On	HIGHWAY-PEDESTRIAN
21	Structure Maintenance	
22	Structure Owner	
33	Br. Median Code	
37	Historical Significance	
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	

ROUTE DESIGNATION INFORMATION

5A	Record Type	1 RTE THAT GOES 'UNDER' S	Code : A
5B	Route Signing Prefix	IS	
5C	Designated Level of Service	MAINLINE	
5D	Route Number	00044	
5E	Directional Suffix	NOT APPLICABLE	
7	Facility Carried	RT E S	
12	Base Hwy. Network		
13A	LRS Inventory Route No.		
13B	Subroute No.		
20	Toll Status	ON FREE ROAD	
26	Functional Classification	11-UR PRNCPL ARTERIAL-IS	
28A	Lanes on Structure	02	
100	STRAHNET Designation	ON A DEFENSE HWY	
104	National Highway System	ON NHS	
105	Federal Lands Highway		
110	Designated Nat. Network	YES	

STRUCTURE LOCATION INFORMATION

4	Place	ROLLA CITY
	Code	62912
9	Location	S 2 T 37 N R 8 W
11	Milepoint	186.74 miles
16	Latitude	37 D 57 M 22 S
17	Longitude	91 D 46 M 55 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	16913
30	AADT Year	2022
102	Direction of Traffic	1-WAY TRAFFIC
109	AADT Truck Percent	37%
114	Future AADT	
115	Future AADT Year	

UNDERRECORD INFORMATION

6	Features Intersected	IS 44
42B	Type of Service Under	HIGHWAY
28B	Lanes Under Structure	02
54A	Vert. Clearance Ref.	
54B	Vert. Clearance	
55A	Rt. Lat Clear Ref.	
55B	Rt. Lat Clearance	
56	Left Lat Clearance	
38	Navigation Control	
39	Nav Vertical Clear	
40	Nav Horizontal Clear	
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	16 Ft. 3 In.
19	By pass Detour Length	0.00 miles
32	Approach Roadway Width	
34	Skew	
35	Struct. Flared	
47	Total Horiz. Clear	29 Ft. 2 In.
48	Maximum Span Length	66 Ft. 11 In.
49	Structure Length	237 Ft. 10 In.
50A	Left Curb/Sidewalk Width	
50B	Right Curb/Sidewalk Width	
51	Curb to Curb Br. Width	
52	Deck Width (Out-Out)	
53	Vert.Clearance Over Deck	

Design_No = a1261

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

August 31, 2023
3:09:35pm

COUNTY :	**PHELPS**	**BRIDGE :**	**A1261 2**	**REVIEW STATUS :**	**APPROVED**	**NBI STATUS :**	**T**
RECORD TYPE :	**1 RTE THAT GOES 'UNDER' S**			**RUN DATE :**	**5/30/2023**	**SUBMITTAL YEAR :**	**2023**

LOAD RATING AND POSTING INFORMATION

31	Design Load
41	Structure Status
63	Oper. Rating Meth.
64	Operating Rating
65	Inventory Rating Meth
66	Inventory Rating
70	Bridge Posting Code

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating
	Deficiency Rating
	Funding Eligibility
75A	Proposed Work
75B	Work Done By
76	New Struc Length
94	Struc Improve Cost
95	Roadway Improve Cost
96	Total Project Cost
97	Year of Cost Estimates

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating
36B	Transition Rail App. Rating
36C	Approach Rail App. Rating
36D	Rail End Treat. App. Rating
67	Struc Eval App. Rating
68	Deck Geometry App. Rating
69	Underclearance App. Rating
71	Waterway Adeq. App. Rating
72	Approach Road App. Rating
113	Scour Assess App. Rating

MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	CONCRETE CONTINUOUS
43B	Main struc Constr. Type	SLAB
45	# of Main Spans	
44A	Appr Struc. Mat type	
44B	Appr Struc. Cnstr. type	
46	# of Approach Span	
107	Deck Mat/Constr.	
108A	Wear Surf Mat/Constr.	
108B	Membrane Mat/Constr.	
108C	Deck Protect Mat/Constr.	

CONDITION RATING INFORMATION

58	Deck Cond. Rating
59	Superstructure Cond. Rating
60	Substructure Cond. Rating
61	Channel /Channel Protection Cond. Rating
62	Culvert Cond. Rating

INSPECTION INFORMATION

90	Gen. Insp Date
91	Gen. Insp. Frequency
92A	Frac. Critical Inspection
93A	Frac. Critical Insp. Date
92B	Underwater Inspection
93B	Underwater Insp. Date
92C	Special Inspection
93C	Special Inspection Date

BORDER BRIDGE INFORMATION

98	Neighboring State Code
98B	Neighboring State % Respon
99	Neighboring State Struc. No.

APPROVED POSTING INFORMATION

Approved Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

FIELD POSTING INFORMATION

Field Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

Design_No = a1261

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

August 31, 2023
3:09:35pm

COUNTY : PHELPS **BRIDGE :** A1261 2 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : 2ND RTE THAT GOES 'UNDR'S **RUN DATE :** 5/30/2023 **SUBMITTAL YEAR :** 2023

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	CD
3	County	PHELPS
8	Federal ID No.	1041
27	Year Built	1964
106	Year Reconstructed	0
42A	Type of Service On	HIGHWAY-PEDESTRIAN
21	Structure Maintenance	
22	Structure Owner	
33	Br. Median Code	
37	Historical Significance	
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	

ROUTE DESIGNATION INFORMATION

5A	Record Type	2ND RTE THAT GOES 'UNDR'S Code : B
5B	Route Signing Prefix	IS
5C	Designated Level of Service	MAINLINE
5D	Route Number	00044
5E	Directional Suffix	NOT APPLICABLE
7	Facility Carried	RT E S
12	Base Hwy. Network	
13A	LRS Inventory Route No.	
13B	Subroute No.	
20	Toll Status	ON FREE ROAD
26	Functional Classification	11-UR PRNCPL ARTERIAL-IS
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	Code	62912
9	Location	S 2 T 37 N R 8 W
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16	Latitude	37 D 57 M 22 S
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STRUCTURE TRAFFIC INFORMATION

29	AADT	18637
30	AADT Year	2022
102	Direction of Traffic	1-WAY TRAFFIC
109	AADT Truck Percent	29%
114	Future AADT	
115	Future AADT Year	

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6	Features Intersected	IS 44
42B	Type of Service Under	HIGHWAY
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55B	Rt. Lat Clearance	
56	Left Lat Clearance	
38	Navigation Control	
39	Nav Vertical Clear	
40	Nav Horizontal Clear	
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	17 Ft. 2 In.
19	By pass Detour Length	0.00 miles
32	Approach Roadway Width	
34	Skew	
35	Struct. Flared	
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108A	Wear Surf Mat/Constr.	
108B	Membrane Mat/Constr.	
108C	Deck Protect Mat/Constr.	

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APPROVED POSTING INFORMATION

Approved Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

FIELD POSTING INFORMATION

Field Posting Category

Ton1 Ton2 Ton3

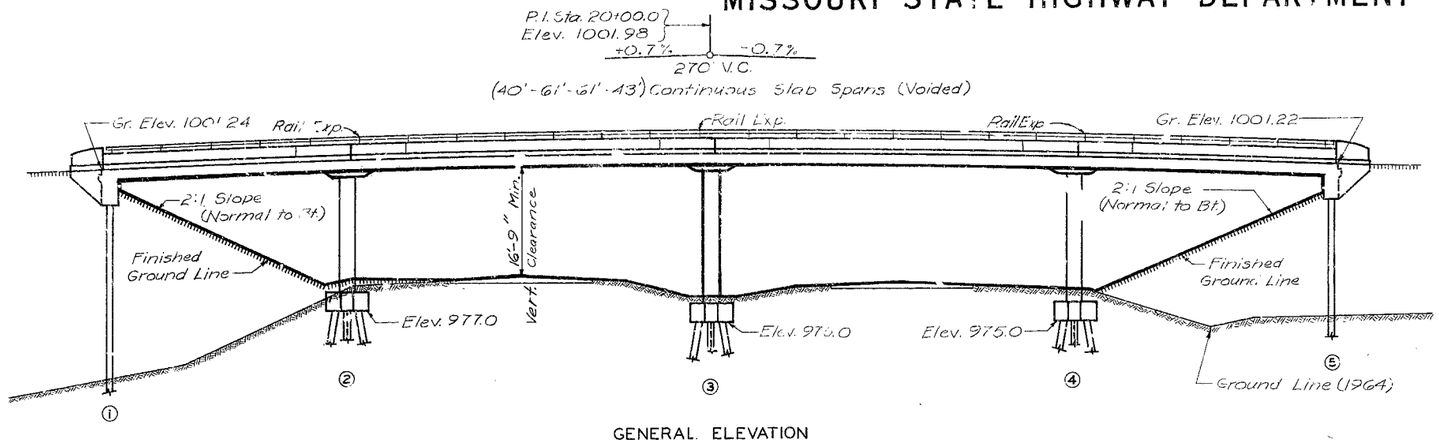
Tonnage Values for Posting Sign

General Text for Posting Sign

Design_No = a1261

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	1	



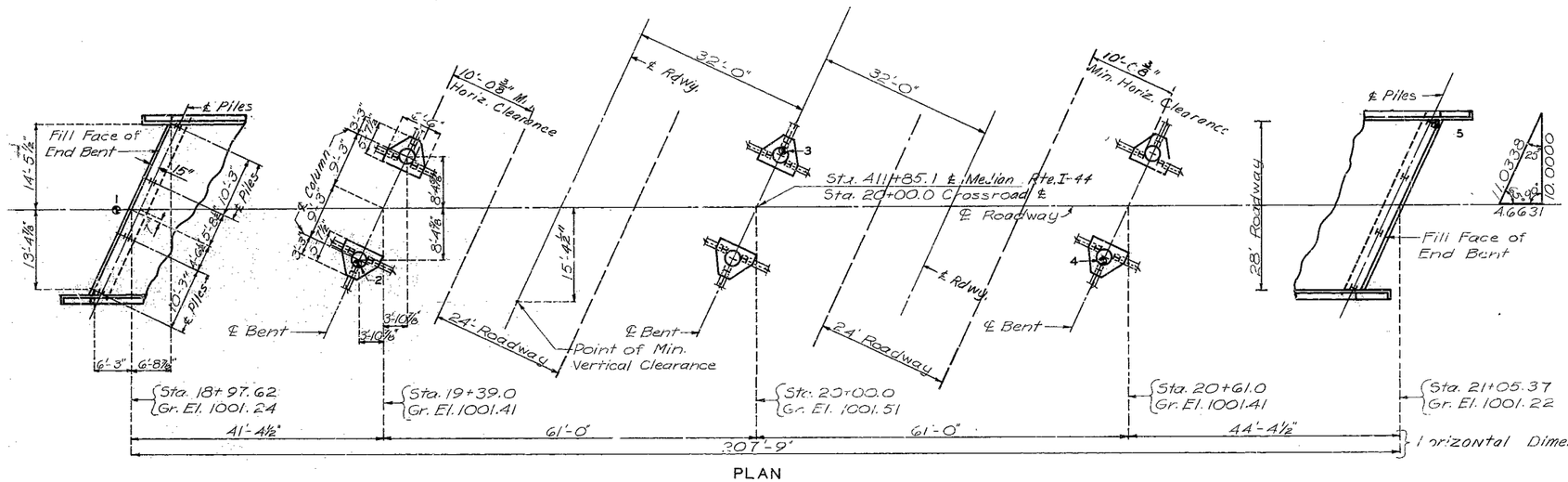
GENERAL ELEVATION

PILE DATA					
BENT NO.	1	2	3	4	5
Pile Type and size	10BP42	10BP42	10BP42	10BP42	10BP42
Number:	4	6	6	6	4
Approximate Length Ft.	52	32	32	32	52
Design Bearing Tons.	29	55	55	55	31
Hammer Energy required Ft. LBS.	7,000	13,000	13,000	13,000	7,000

Minimum energy requirement of hammer based on plan length and design bearing value of piles. Increase by the factor (W+w)/2W when the weight of the ram (W) is less than the weight of the pile (w).

All pile shall be driven to practical refusal.

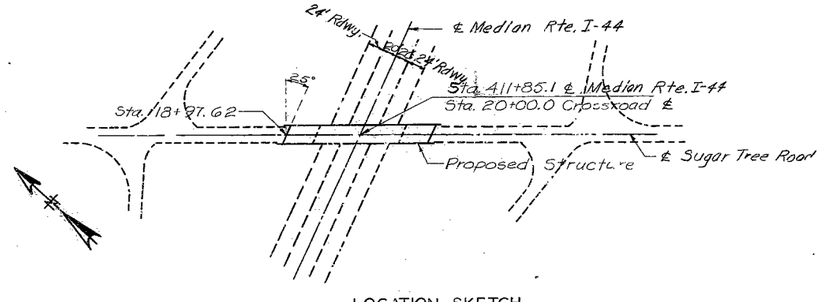
Compacted roadway fill (fill roadway width) shall be placed up to elevation of bottom of concrete beam in front of and not less than 25'-0" in back of End Bents before steel piles are driven for End Bents Nos. 1 & 5



PLAN

Note: For Boring Data see Sheet No. 2 of 7

● Indicates location of boring



LOCATION SKETCH

ESTIMATED QUANTITIES				
ITEM		SUBSTR.	SUPERSTR.	TOTAL
Class 1 Excavation for Structures	Cu.Yd.	65		65
Steel Piles in Place (10")	Lin.Ft.	992		992
Class B Concrete	Cu.Yd.	18.9		18.9
Class B1 Concrete	Cu.Yd.		426.4	426.4
Reinforcing Steel	Lb.	600	106,410	107,010
Bridge Rail (Single Tube type)	Lin.Ft.		415	415

Notes: Concrete in end posts, parapets and curbs is included with Superstructure Concrete.

All concrete and reinforcement above footings in Intermediate bents is included in superstructure quantities.

No payment for excavation will be allowed at End Bents No. 1 & 5.

GENERAL NOTES:

Design Specifications: A.A.S.H.O. - 1961

Design Loading:
H15-44 (15#/Sq.ft. Future Wearing Surface)
Earth 120# Equivalent Fluid Pressure 30#

Design Unit Stresses:
Class B Concrete (substructure) f_c = 1,200 psi
Class B1 Concrete (superstructure) f_c = 1,600 psi
Reinforcing Steel f_s = 20,000 psi
Steel Pile (A.S.T.M. A36-62T) f_c = 9,000 psi

Surface Seal:
Superstructure deck to be surface sealed.

Construction Clearance:
Falsework over existing lanes shall be constructed with a minimum vertical clearance of 13'-6" from crown of existing lanes and a minimum lateral clearance of 28'-0" centered on existing lanes.

B.M. Elev. 967.67 □ on N.E. Cor. of N. hdwl., 122' Lt. Sta. 410+25, U.S.G.S. Datum.

BRIDGE: SUGAR TREE ROAD UNDERPASS

STATE ROAD: INTERSTATE ROUTE 44

ABOUT 2.8 MILES N.E. OF ARLINGTON

PROJECT NO. I-IG-44-2 (44) (RTE. I-44) **STA.** 411+85.1

PHELPS **COUNTY**

SUBMITTED BY D.B. Jenkins BRIDGE ENGINEER DATE 6/9/66

APPROVED BY M.F. Snider CHIEF ENGINEER DATE 6/9/66

STD. 54.00

A-1627

537

DESIGNED JUN 1965 BY ASATOORIAN

DETAILED AUG 1965 BY WEBSTER & TERRILL

CHECKED April 1966 BY Ault

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 1 of 7.

SEE FINAL PLANS ADDED

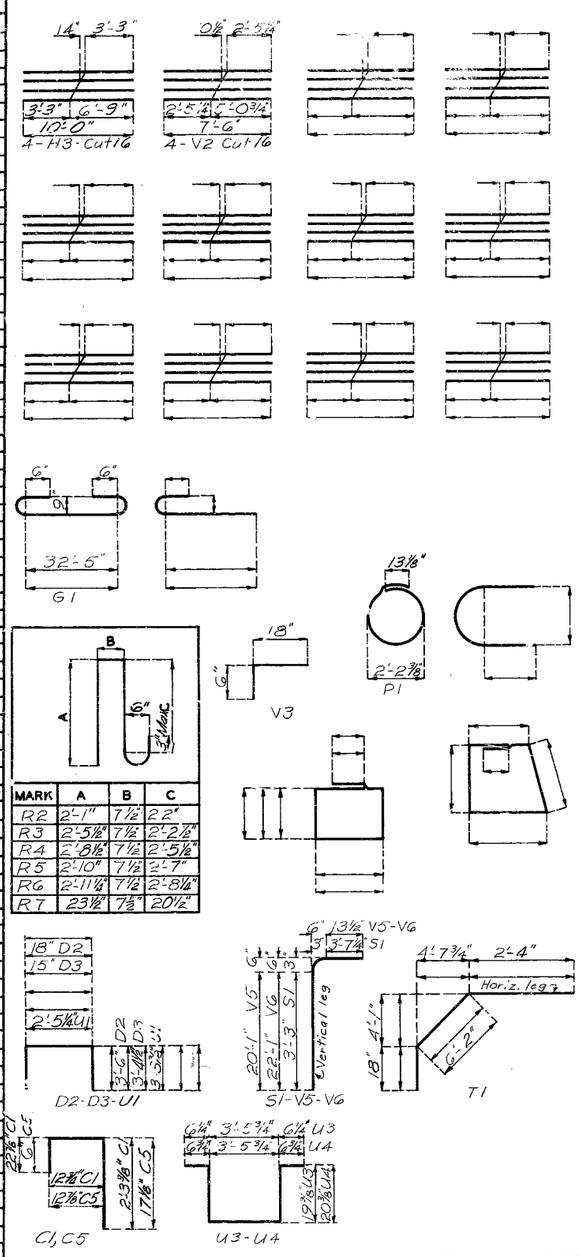
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	1.6	

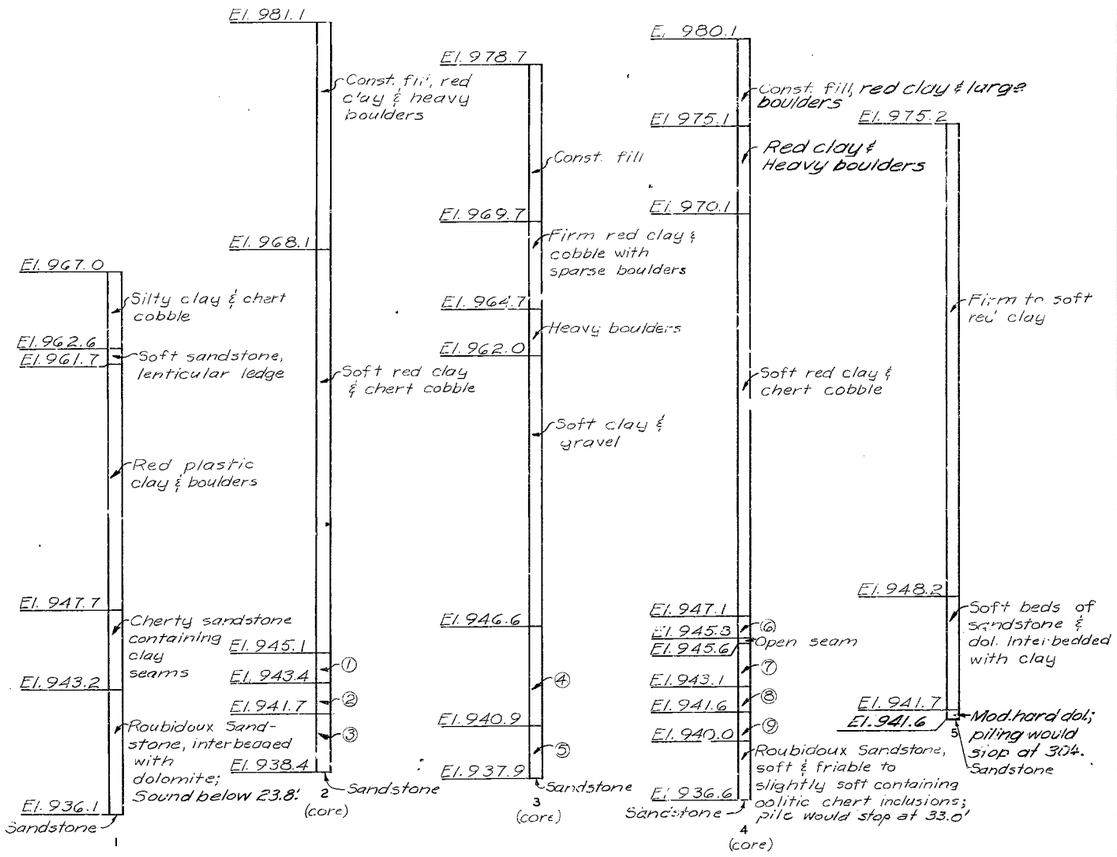
COMPLETE BILL OF REINFORCING STEEL

NO.	SIZE	LENGTH	MARK	LOCATION
		Superstructure		
416	#5	5'-3"	C1	Curb
8	#5	21'-3"	C2	"
16	#5	31'-0"	C3	"
8	#5	22'-9"	C4	"
24	#5	4'-9"	R1	End Post
4	#5	5'-6"	R2	" "
4	#5	6'-3"	R3	" "
4	#5	6'-9"	R4	" "
4	#5	7'-0"	R5	" "
8	#5	7'-3"	R6	" "
416	#5	5'-3"	R7	Parapet
4	#5	32'-6"	R8	"
48	#5	8'-3"	R9	"
32	#5	22'-6"	R10	"
8	#5	18'-6"	R11	"
4	#5	32'-9"	R12	"
8	#5	18'-6"	R13	"
496	#5	33'-6"	S2	Slab
41	#5	24'-3"	S3	"
50	#10	31'-0"	S4	"
48	#10	24'-0"	S5	"
48	#11	15'-0"	S6	"
82	#5	33'-3"	S7	"
25	#11	34'-0"	S8	"
24	#11	26'-0"	S9	"
24	#11	17'-0"	S10	"
41	#5	28'-6"	S14	"
21	#8	44'-3"	S16	"
20	#8	30'-9"	S17	"
20	#8	21'-0"	S18	"
42	#9	60'-0"	S19	"
40	#9	39'-0"	S20	"
40	#10	31'-0"	S21	"
21	#8	47'-3"	S22	"
20	#9	34'-6"	S23	"
20	#9	22'-9"	S24	"
		Superstructure End Bts. No 1 & 5		
24	#5	3'-0"	C5	Cur.bt Wing
8	#6	5'-3"	C6	Curb
24	#6	33'-6"	H1	Beam
8	#6	7'-0"	H2	Wing
16	#6	10'-0"	H3	Wing
2	#4	31'-0"	H4	Appr. Haunch
82	#6	7'-3"	S1	Beam
8	#6	10'-0"	T1	Wing
136	#5	5'-0"	U1	Beam
8	#4	5'-9"	V1	Wing
16	#4	7'-6"	V2	Wing
82	#4	2'-0"	V3	Appr. Haunch

BENDING SKETCHES & CUTTING DIAGRAMS



NO.	SIZE	LENGTH	MARK	LOCATION
		Superstructure Int. Bents No 2 & 4		
22	#11	35'-9"	G1	Beam
24	#9	33'-0"	G2	"
40	#3	8'-0"	P1	Cols-Bt #2
44	#3	8'-0"	P1	Cols-Bt #4
140	#5	7'-9"	U3	Beam
18	#8	22'-0"	V5	Cols-Bt #2
18	#8	24'-0"	V6	Cols-Bt #4
		Substructure Int. Bents No 2 & 4		
36	#5	2'-6"	D1	Footing
16	#6	8'-6"	D2	"
8	#6	8'-0"	D3	"
		Superstructure Int. Bent No 3		
11	#11	35'-9"	G1	Beam
12	#9	33'-0"	G2	"
44	#3	8'-0"	P1	Cols
78	#5	8'-0"	U4	Beam
18	#8	24'-0"	V6	Cols.
		Substructure Int. Bent No. 3		
18	#5	2'-6"	D1	Footing
8	#6	8'-6"	D2	"
4	#6	8'-0"	D3	"



BORING DATA

1) Sandstone & chert bedrock, Sandstone soft, chert hard.
2) Roubidoux Dol., mod. hard & dense, containing a slight amount of shaley-clayey inclusions.
3) Roubidoux Sandstone, slightly soft containing clayey-shaley laminations; sound at 36'-0.
4) Roubidoux sandy dolomite, weathered soft with a mod. amount of shale & clayey inclusions containing beds of loosely cemented chert breccia
5) Sandstone soft to slightly soft containing shale laminations; piling would stop at 32.1
6) Oolitic chert bedrock, hard, containing solution seams
7) Roubidoux Dol., soft & argillaceous with clay seams.
8) Brecciated chert with clay inclusions
9) Soft earthy dol., very argillaceous.

Note: For Boring Locations see Sheet No. 1 of 7.

BRIDGE: SUGAR TREE ROAD UNDERPASS
STATE ROAD: INTERSTATE ROUTE 44
ABOUT 2.8 MILES N.E. OF ARLINGTON
PROJECT NO. I-IG-44-2 (44) (RTE. I-44) STA. 411 + 85.1
PHELPS COUNTY

A-1627

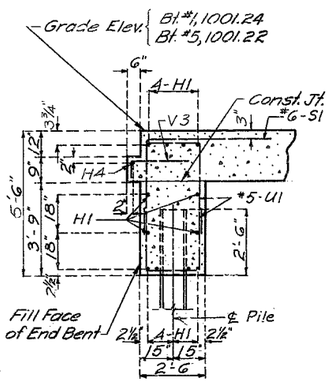
No. 90.3 | Revised June 1961 | Dec 1964

DETAILED Aug 1965 BY Webster
CHECKED Mar 1966 BY Ault

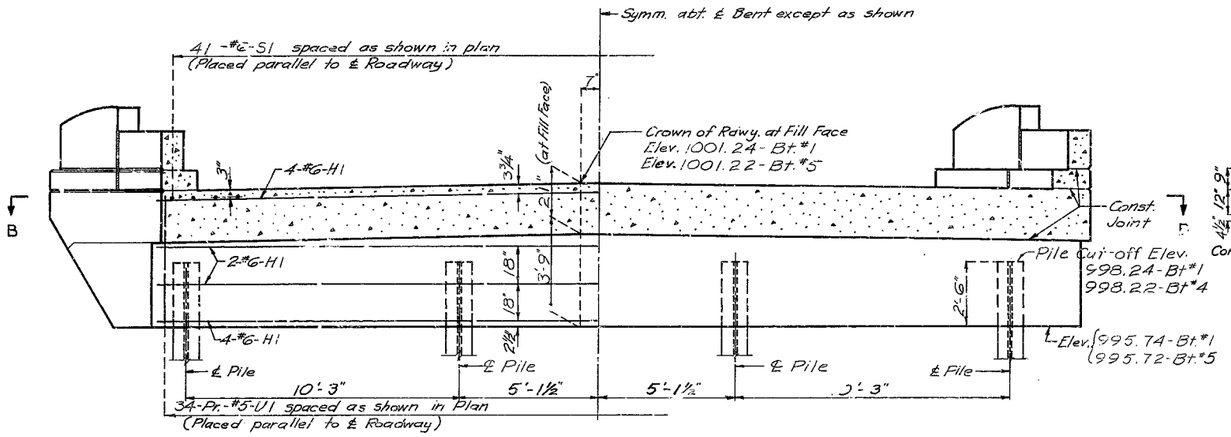
Note: This drawing is not to scale. Follow dimensions.

MISSOURI STATE HIGHWAY DEPARTMENT

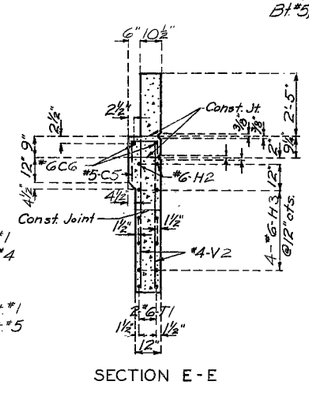
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	59	



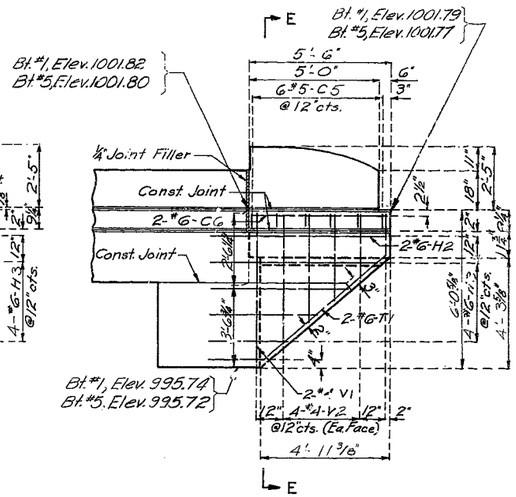
SECTION AT ℄



SECTION A-A

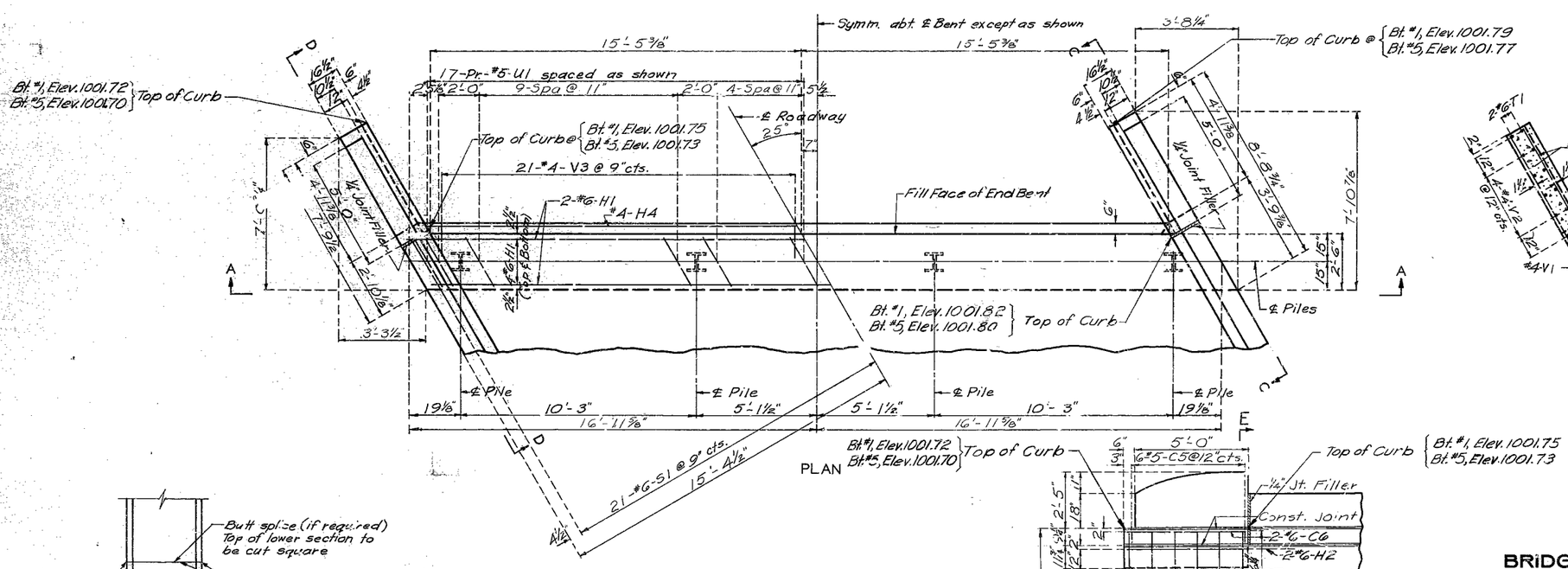


SECTION E-E



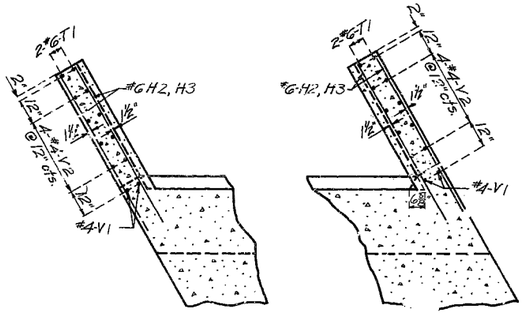
ELEVATION C-C

Note: For details of Curb, Parapet & End Posts see Sheet No. 7 of 7.



PLAN

ELEVATON D-D



PART SECTION B-B

DETAIL OF STEEL PILE SPLICE

DETAILS OF END BENTS NO. 1 & 5

Note: Fill at End Bents No. 1 & 5 shall not be carried above bottom of beam and wings until adjacent superstructure span is in place.

BRIDGE: SUGAR TREE ROAD UNDERPASS

STATE ROAD: INTERSTATE ROUTE 44

ABOUT 2.8 MILES N.E. OF ARLINGTON

PROJECT NO. I-IG-44-2(44) (RTE. I-44) STA. 411+85.1

PHELPS **COUNTY**

A-1627

DETAILED Aug. 1965 BY Webster

CHECKED Mar. 1966 BY Ault

Note: This drawing is not to scale. Follow dimensions.

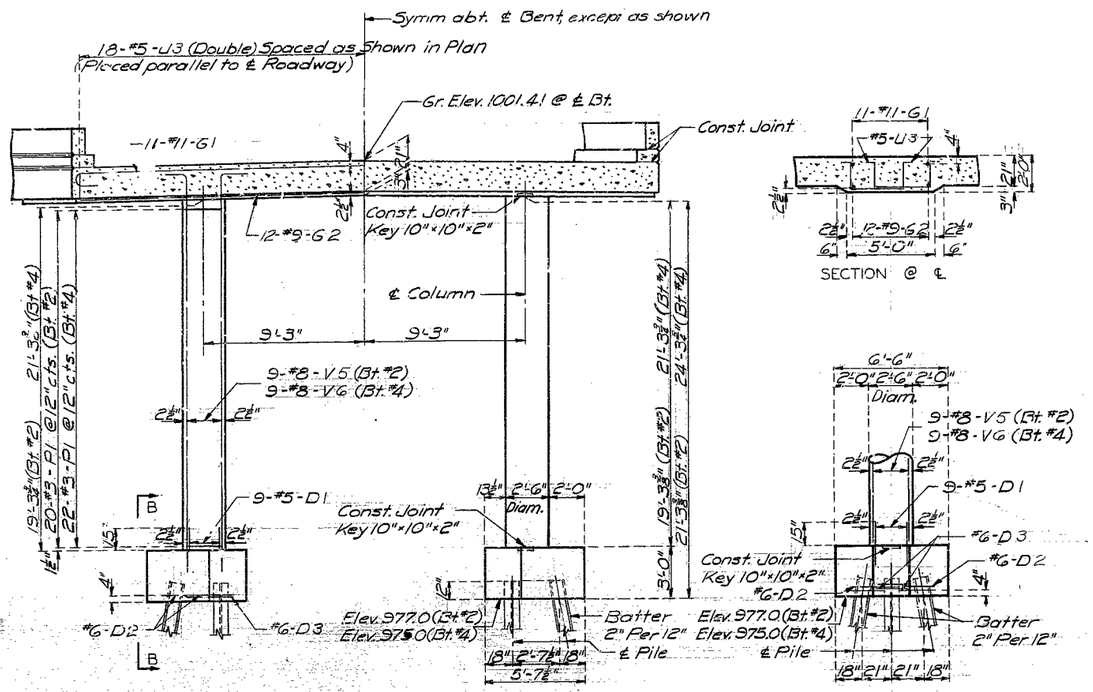
Sheet No. 3 of 7.

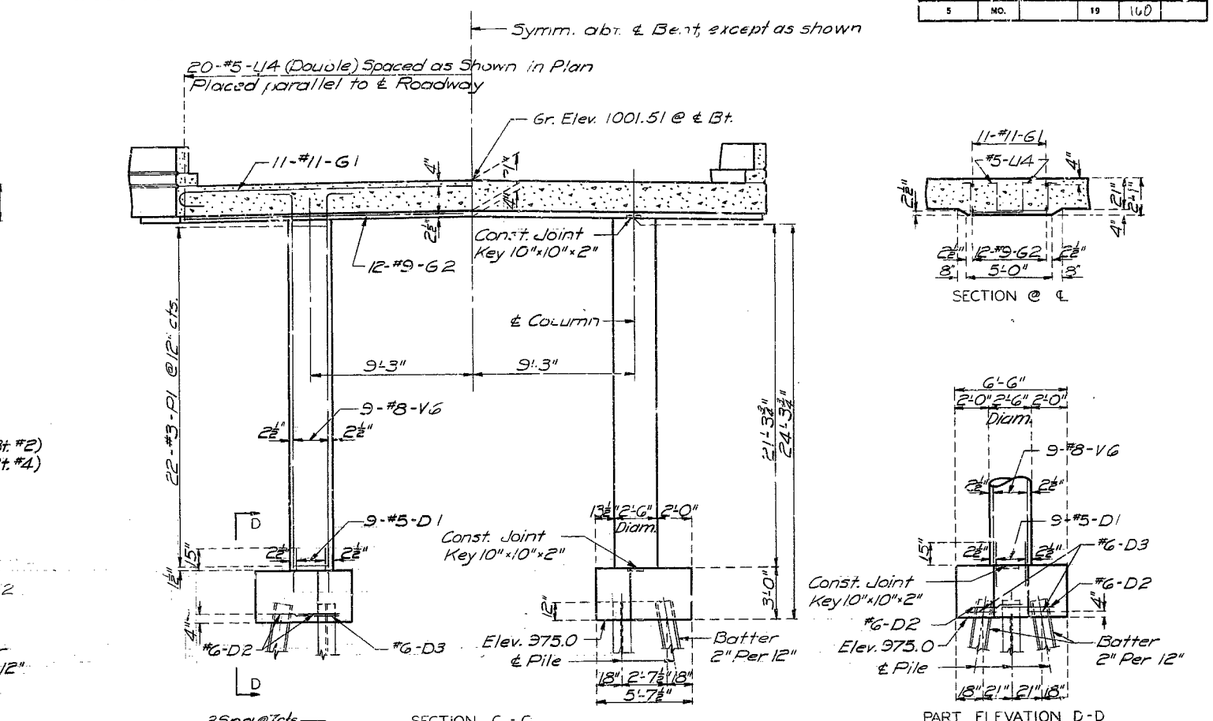
537

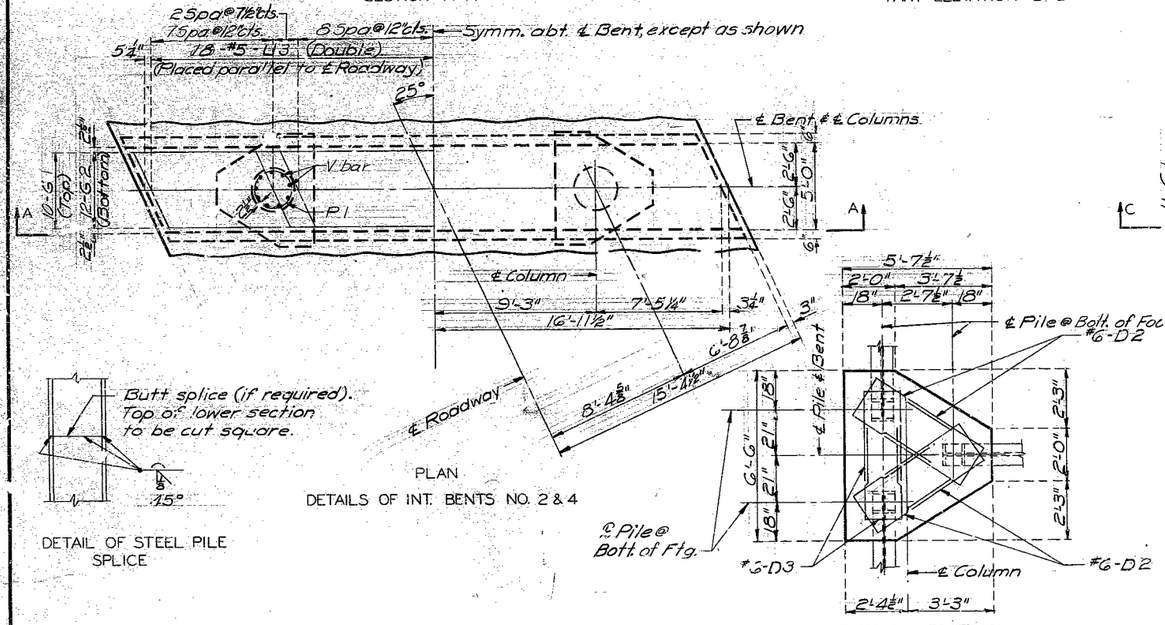
NO CONSTRUCTION CHANGES

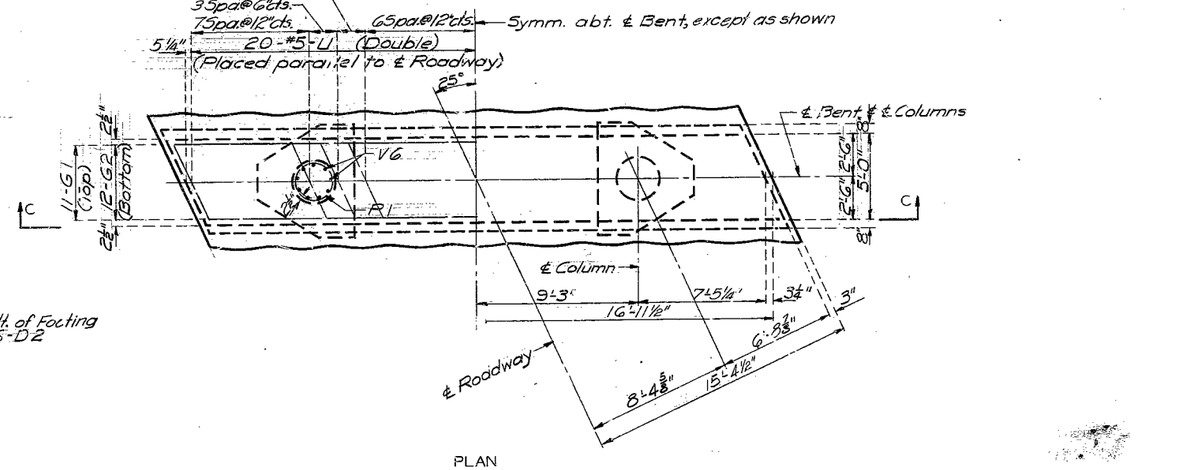
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	160	









BRIDGE: SUGAR TREE ROAD UNDERPASS

STATE ROAD: INTERSTATE ROUTE 44

ABOUT 2.8 MILES N.E. OF ARLINGTON

PROJECT NO. I-IG-44-2(44)(RTE. I-44) STA. 411+85.1

PHELPS **COUNTY**

A-1627

538

DETAILED July 1965 BY Brockman

CHECKED March, 1966 BY Ault

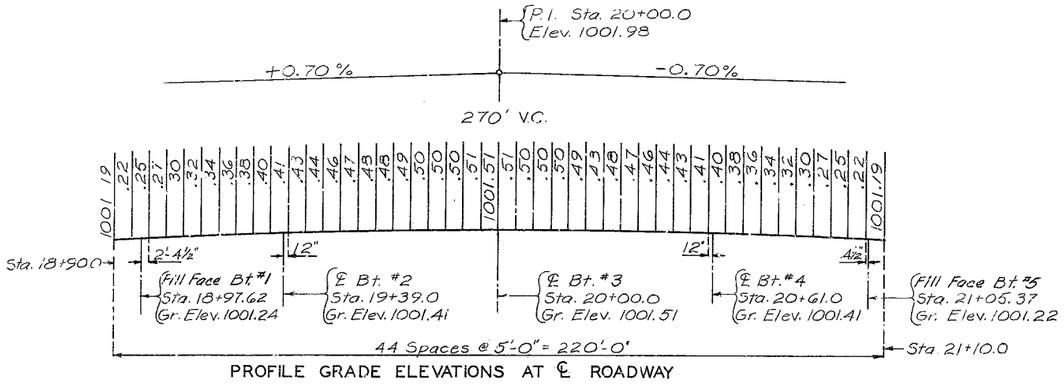
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 4 of 7.

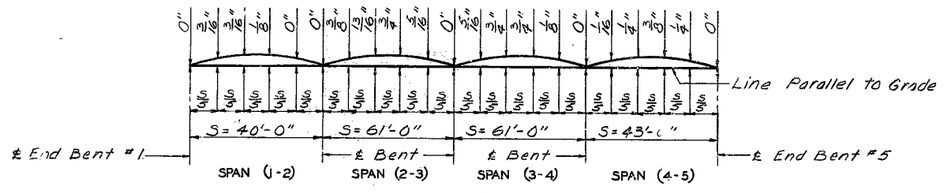
NO CONSTRUCTION CHANGES

MISSOURI STATE HIGHWAY DEPARTMENT

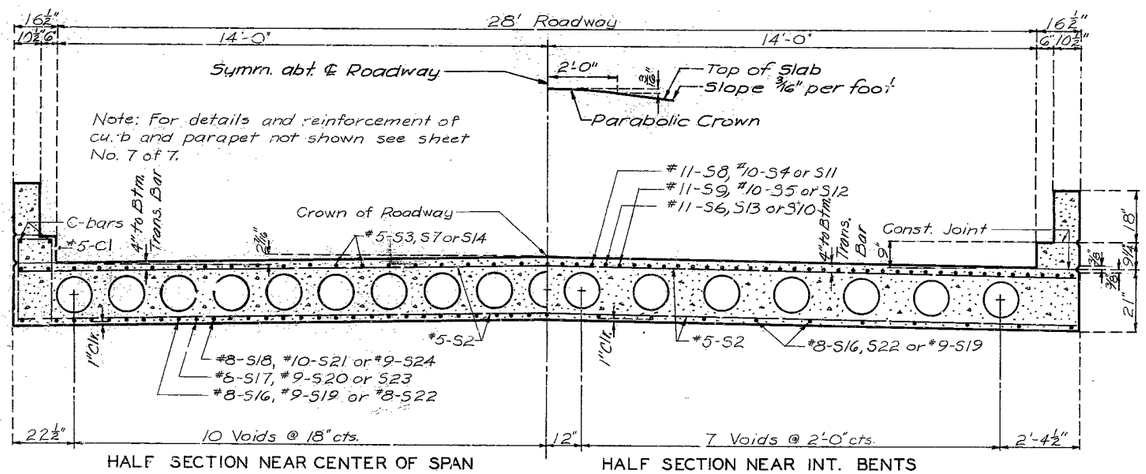
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	16	



PROFILE GRADE ELEVATIONS AT ℄ ROADWAY



CAMBER DIAGRAM



HALF SECTION NEAR CENTER OF SPAN

HALF SECTION NEAR INT. BENTS

Note: The contractor shall use an approved oscillating screed type, self-propelled mechanical finishing machine and shall pour and satisfactorily finish the roadway slab at a rate of not less than 25 cubic yards per hour. He shall observe the transverse construction joints shown on plans unless he can demonstrate to the satisfaction of the engineer that he is equipped to pour and satisfactorily finish the roadway slab at a rate which will permit a continuous pouring through some or all of these joints. Finishing machine load will not be permitted on concrete less than 48 hours old.

BRIDGE: SUGAR TREE ROAD UNDERPASS

STATE ROAD: INTERSTATE ROUTE 44

ABOUT 2.8 MILES N.E. OF ARLINGTON

PROJECT NO. I-IG-44-2 (44) (RTE. I-44) **STA.** 411+85.1

PHELPS **COUNTY**

A-1627

DETAILED Aug. 1965 **BY** Webster & Terrill

CHECKED March 1966 **BY** Ault

Note: This drawing is not to scale. Follow dimensions.

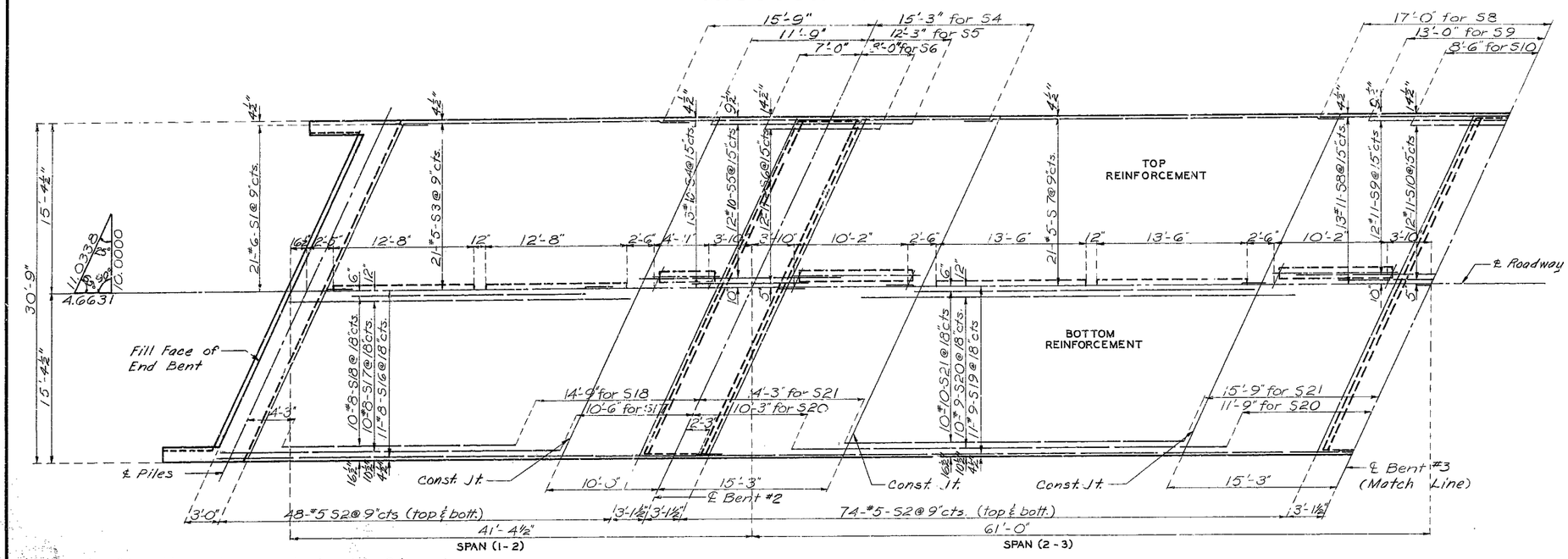
Sheet No. 5 of 7.

NO CONSTRUCTION CHANGES

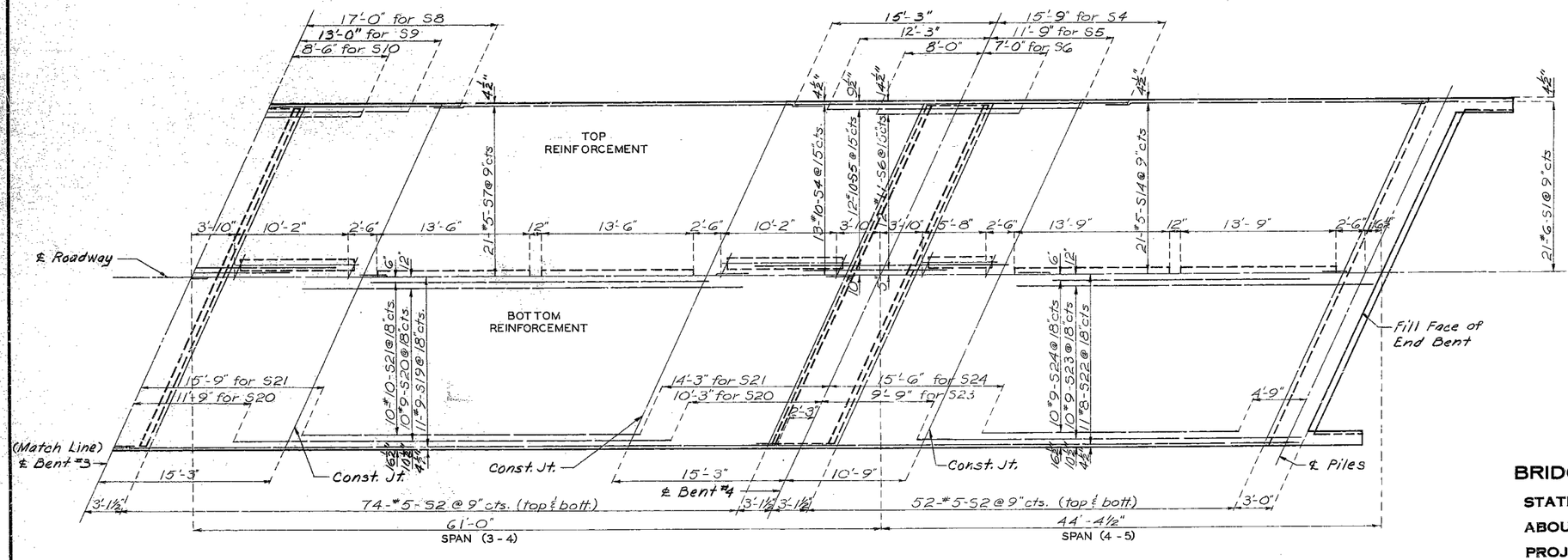
939

MISSOURI STATE HIGHWAY DEPARTMENT

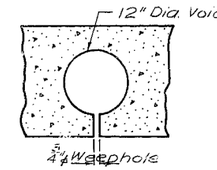
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	1647	



Note: Dimensions shown are horizontal Dimensions.

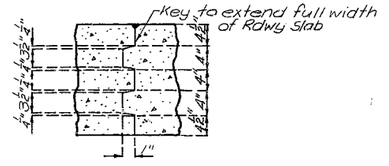


PLAN OF SLAB



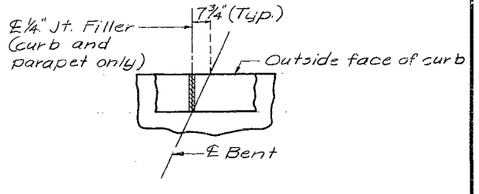
DETAIL OF WEEPHOLE IN VOIDS

Note: One ¾" ø weephole shall be provided near each end of each void. Weepholes shall be placed in straight lines parallel to bents.



DETAILS OF SLAB CONSTRUCTION
JOINT KEY

Note: Fibre tubes for producing voids shall have an outside diameter of 12.0" and a wall thickness of 0.225" and shall be anchored to joists carring the floor from at not more than 4'-0" centers. See Special Provisions for metal tube alternate for voids.



DETAIL OF CURB AT ℄ BENT

BRIDGE: SUGAR TREE ROAD UNDERPASS

STATE ROAD: INTERSTATE ROUTE 44

ABOUT 2.8 MILES N.E. OF ARLINGTON

PROJECT NO. I-IG-44-2(44) (RTE. I-44) STA. 411+85.1

PHELPS **COUNTY**

A-1627

540

DETAILED Aug 1965 BY Webster
CHECKED Mar. 1966 BY Ault

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 6 of 7.

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	11 7/8	

GENERAL NOTES:

All handrail posts shall be set normal to grade.

Aluminum tube handrail shall be bent to conform to vertical and horizontal alignment of parapet.

Aluminum washer shims between top of parapet and post base may be used for adjusting handrail alignment. Maximum thickness of shims to be 1/8". Where more tilting of post is required for proper alignment, concrete bearing areas shall be ground down.

All parts of handrail, except anchor bolts, nuts, washers, and set screws are to be of aluminum material.

The contract unit price per linear foot of "Bridge Rail" shall include furnishing and erecting the handrail complete with anchor bolts, shims and Insulating compound.

All fillets 1/4" except as noted.

All drafts 3° except as noted.

Pipe rail to be fabricated in two or three panel lengths unless otherwise approved.

Omit set screw on side near filled joint in parapet at all expansion posts.

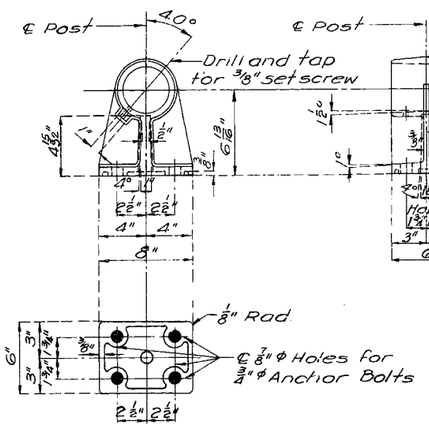
Top of curbs and parapets to be built parallel to grade with curb and parapet joints normal to grade.

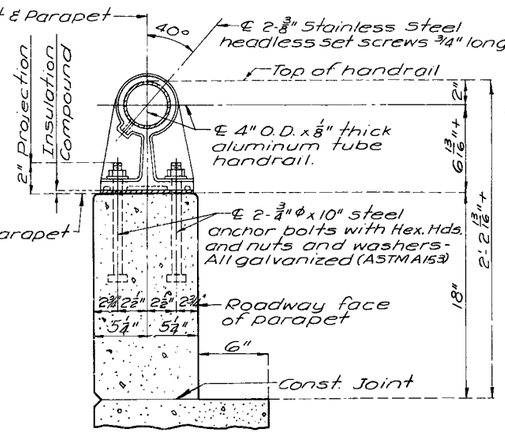
Concrete end posts to be vertical.

All exposed edges of end posts, parapets and curbs shall have 1/2" radius.

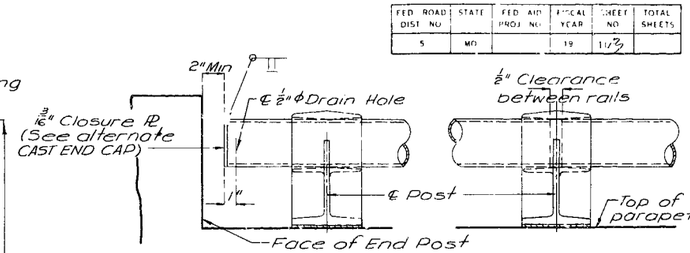
If the contractor desires, he may use drive fit cast aluminum end caps in lieu of welded aluminum closure plates.

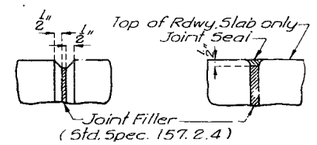
Integrally cast test coupons and a coat of clear lacquer specified in Std. Spec. 56.2.4 and 56.3.5 respectively will not be required for these rail posts.

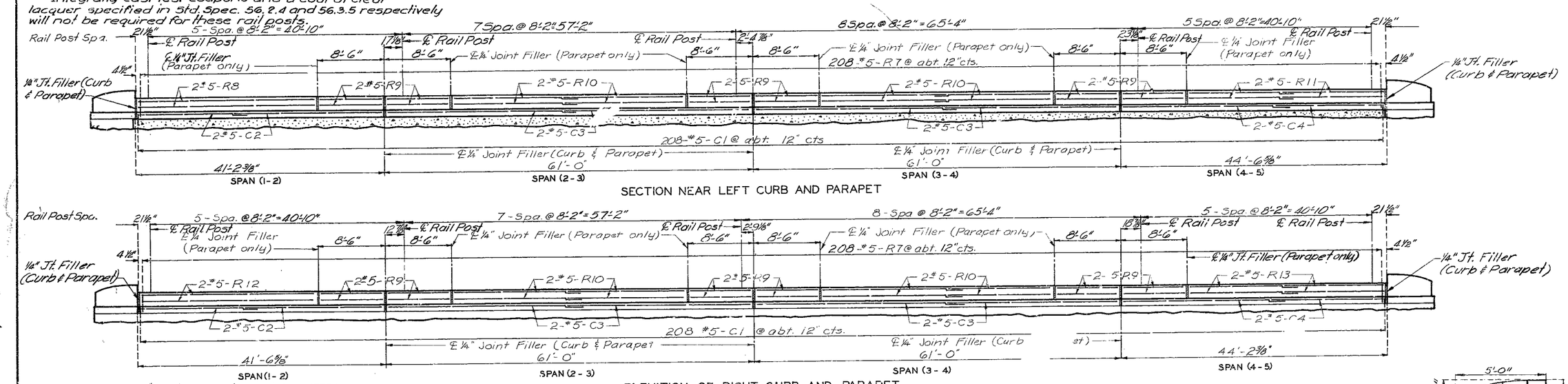


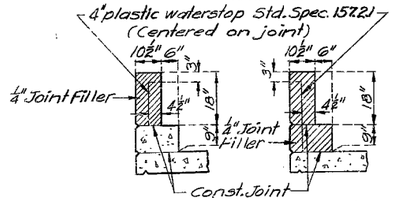


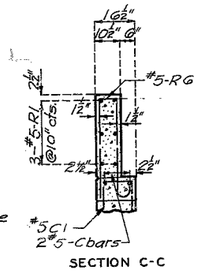
SINGLE TUBE ALUMINUM RAILING

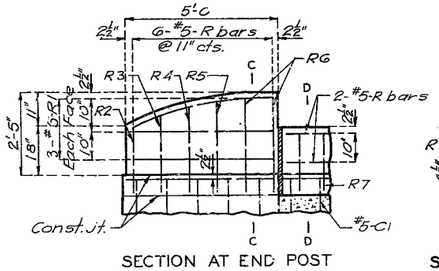


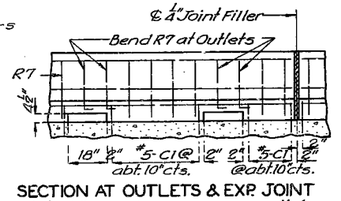


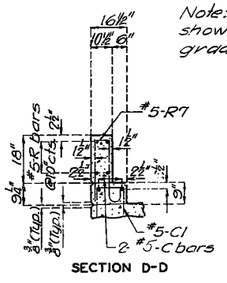




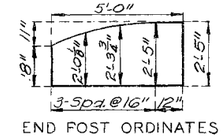








Note: Longitudinal dimensions shown are taken parallel to grade at top of parapet.



BRIDGE: SUGAR TREE ROAD UNDERPASS

STATE ROAD: INTERSTATE ROUTE 44

ABOUT 2.8 MILES N.E OF ARLINGTON

PROJECT NO. I-IG-44-2(44)(RTE. I-44) STA. 411+85.1

PHELPS COUNTY

A-1627

No.	Revised	May 1965
1.52A		
Nov. 1963		

DETAILED Aug. 1965 BY Webster

CHECKED March 1966 BY Ault

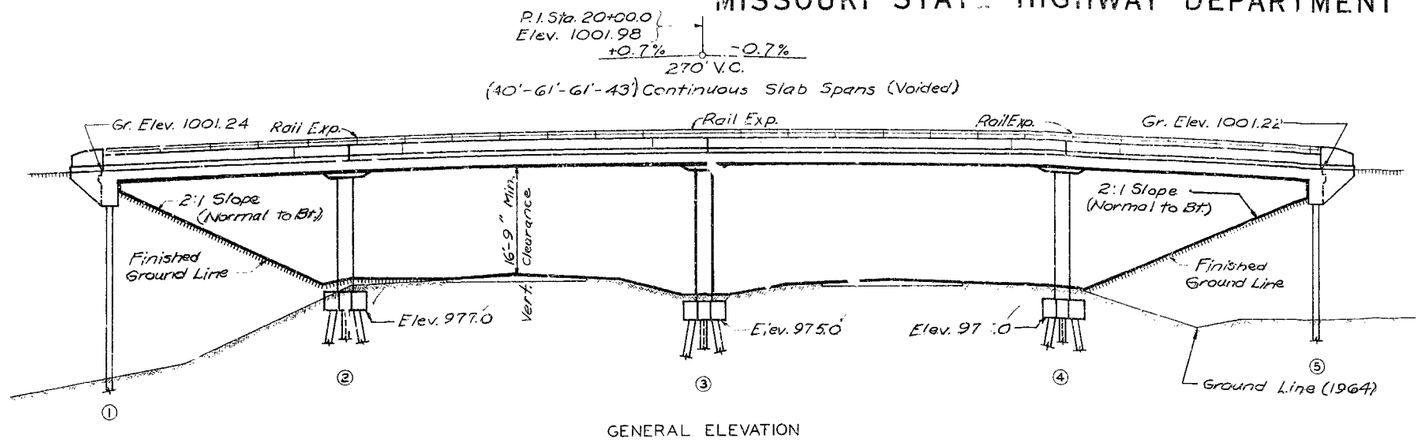
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 7 of 7

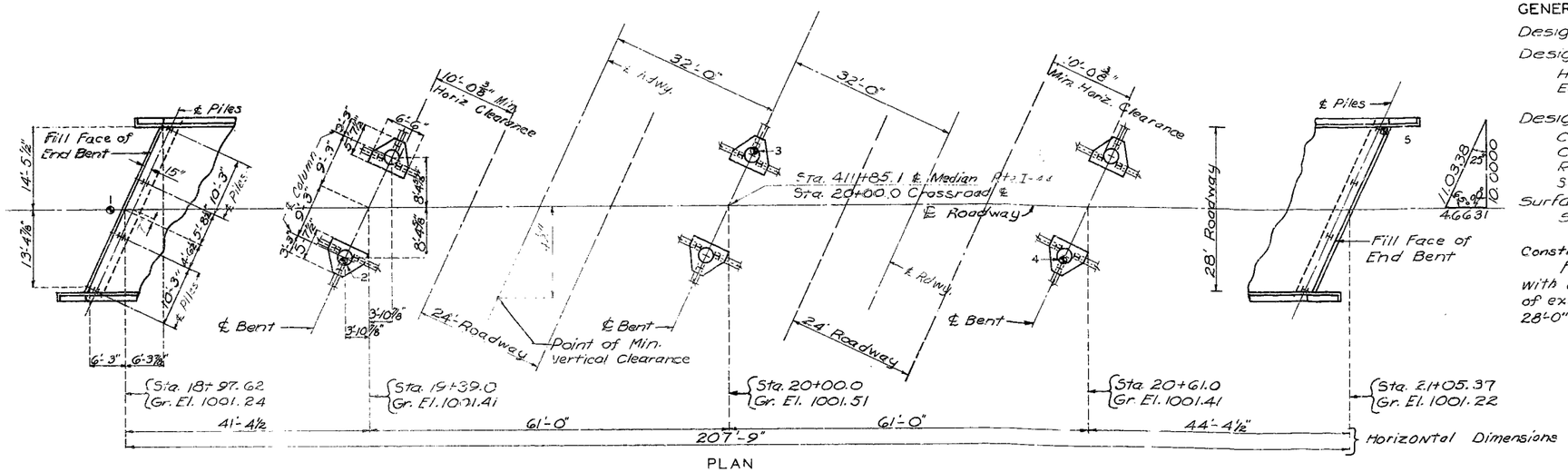
541

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	ST.	FED. AID NO.	CAL. YEAR	SHEET NO.
5	MO.		19	

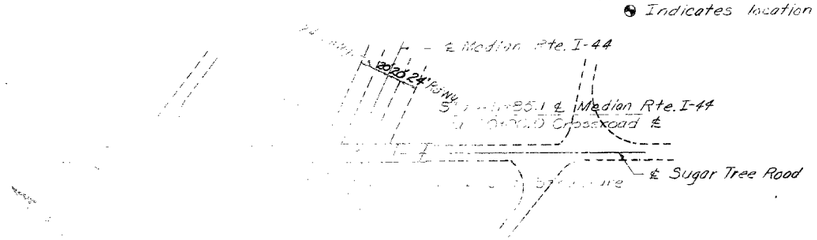


GENERAL ELEVATION



PLAN

Note: For Boring Data see Sheet No. 2 of 7
● Indicates location of boring



LOCATION SKETCH

Note: This drawing is not to scale. Follow dimensions.

PILE DATA					
BENT NO.	1	2	3	4	5
Pile Type and size	10BP42	10BP42	10BP42	10BP42	10BP42
Number	4	6	6	6	4
Approximate Length Ft	52	32	32	32	52
Les. in Bearing Tons	29	55	55	55	31
Hammer Energy requirec Ft. LBS.	7,000	13,000	13,000	13,000	7,000

Minimum energy requirement of hammer based on length and design bearing value of piles, Increase by (W+w)/2w where the weight of the ram (W) is less than 7 ft. · pile (w).

All pile were driven to practical refusal

Compacted roadway fill (fill roadway width) was up to elevation of bottom of concrete beam in front not less than 25'-0" in back of End Bents before piles were driven for End Bents Nos. 1 & 5

GENERAL NOTES:

Design Specifications: AASHO - 1961

Design Loading:
H15-44 (15 lb/sq ft. Future Wearing Surface)
Earth 120# Equivalent Fluid Pressure 30#

Design Unit Stresses:
Class B Concrete (substructure) fc = 1,200 psi
Class BI Concrete (superstructure) fc = 1,600 psi
Reinforcing Steel fs = 20,000 psi
Steel Pile (A.S.T.M. A36-62T) fs = 9,000 psi

Surface Seal:
Superstructure deck was surface sealed

Construction Clearance:
Falsework over existing lanes was constructed with a minimum vertical clearance of 13'-6" from crown of existing lanes and a minimum lateral clearance of 28'-0" centered on existing lanes.

FINAL QUANTITIES				
ITEM		SUBSTR.	SUPERSTR.	TOTAL
Class 1 Excavation for Structures	Cu.Yd.	66.5		66.5
Steel Piles in Place (10")	Lin.Ft.	949		949
Class B Concrete ?	Cu.Yd.	18.9		18.9
Class BI Concrete ?	Cu.Yd.		426.4	426.4
Reinforcing Steel	Lb.	600	106410	107010
Bridge Rail (Single tube type)	Lin.Ft.		415	415

Notes: Concrete in end posts, parapets and curbs is included with Superstructure Concrete.
All concrete and reinforcement above footings in Intermediate bents is included in superstructure quantities.
No payment for excavation was allowed at End Bents No. 1 & 5.

B.M. Bolt on top Lt. Wing Bl. #5 Sta. 21+05.37 @ Elev. 1001.76

BRIDGE: SUGAR TREE ROAD UNDERPASS

STATE ROAD: INTERSTATE ROUTE 44

ABOUT 2.8 MILES N.E. OF ARLINGTON

PROJECT NO. I-IG-44-2 (44) (RTE. I-44) **STA.** 411+85.1

PHELPS **COUNTY**

SUBMITTED BY D.B. Steelman BRIDGE ENGINEER DATE 6/9/66

APPROVED BY W.A. Linden CHIEF ENGINEER DATE 6/9/66

STD. 54.00

A-1627

Sheet No. 1A of 1

FINAL PLANS

542

Missouri Department of Transportation
State Bridge Inspection Report

September 07, 2023
1:27:03PM

COUNTY: PHELPS **DISTRICT: CD** **CLASS: STATBR** **FED-ID: 1320** **BRIDGE: A1627**

GENERAL STRUCTURE INFORMATION

ROUTE: CRD8490S	**# SPANS:** 4	**PLACE CODE:** 01918 ARLINGTON	
FEATURE: IS 44	**LANES ON:** 2	**LENGTH:** 208 FT 0 IN	
STATUS: A-OPEN	**LANES UNDER:** 4	**MAXIMUM SPAN:** 61 FT 0 IN	
LOG MILE: 4.468	**COMPASS DIRECTION:** NORTH to SOUTH	**APPROACH ROADWAY:** 24 FT 0 IN	
DETOUR: 4.00 MILES	**DIRECTION OF TRAFFIC:** 2-WAY TRAF	**CURB TO CURB:** 28 FT 0 IN	
NHS: NO	**FUNCTIONAL CLASS:** RL-LOCAL	**OUT TO OUT:** 30 FT 8 IN	
BUILT: 1966	**NBI OWNER:** MODOT	**AADT:** 262	
REHAB:	**NBI MAINTAINED:** MODOT	**AADT YEAR:** 2022	
LOCATION: S 8 T 37 R 9 W	**MAINTENANCE DISTRICT:** CD	**AADT TRUCK:** 10.7%	
LATITUDE: 37 56 36.86 (DMS)	**MAINTENANCE COUNTY:** PHELPS	**FUTURE AADT:** 393	
LONGITUDE: 91 56 11.40 (DMS)	**SUB AREA:** 7D47	**FUTURE AADT YEAR:** 2042	

BRIDGE INSPECTION INFORMATION

DATE: 05/22/2023 **RESPONSIBILITY:** DISTRICT
FREQUENCY: 24 **CALCULATED INTERVAL**:** 24
TEAM LEADER: JOE GREEN **ELEMENT:** NO
INSPECTOR 2: **INSPECTOR 4:**
INSPECTOR 3:

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

GENERAL INSPECTION COMMENTS

FRACTURE CRITICAL INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

FRACTURE CRITICAL INSPECTION COMMENTS

INDEPTH INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

INDEPTH INSPECTION COMMENTS

SPECIAL INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

SPECIAL INSPECTION COMMENTS

UNDERWATER INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

UNDERWATER INSPECTION COMMENTS

OTHER SPECIAL INSPECTIONS

DATE	FREQUENCY	CATEGORY	NBI	CALCULATED INTERVAL	RESPONSIBILITY	METHOD

OTHER UNDERWATER INSPECTIONS

DATE	FREQUENCY	CATEGORY	NBI	CALCULATED INTERVAL	RESPONSIBILITY	METHOD

COUNTY: PHELPS **DISTRICT: CD** **CLASS: STATBR** **FED-ID: 1320** **BRIDGE: A1627**

STRUCTURE POSTING

APPROVED CATEGORY: S-1 NO POSTING REQUIRED
Ton 1: **Ton 2:** **Ton 3:**
COMMENTS:

FIELD CATEGORY: S-1 NO POSTING REQUIRED
Ton 1: **Ton 2:** **Ton 3:** **PROBLEM:** **PROBLEM DIRECTION:**
COMMENTS:

GENERAL COMMENTS/MAJOR RATED ITEMS

GENERAL COMMENTS: (BOWDEJ1, 08/21/2008)--(41'-61'-61'-44') CONT CONC DECK GDR SPANS

[ITEM 58] DECK: 6-SATISFACTORY CONDITION **COMMENTS:** (RACKEM, 11/04/2011)--CRACK, LEACH, PATCH.
RATING : 05/18/2001

[ITEM 59] SUPER: 6-SATISFACTORY CONDITION **COMMENTS:** (RACKEM, 11/04/2011)--CRACK, LEACH, PATCH.
RATING : 05/18/2001

[ITEM 60] SUB: 7-GOOD CONDITION **COMMENTS:** (RACKEM, 11/04/2011)--CRACK, LEACH
RATING : 05/18/2001

[ITEM 61] BANK/CHANNEL: N-NOT APPLIC NO WATRWAY **COMMENTS:**
RATING : 05/18/2001

[ITEM 113] SCOUR: N-NOT APPLIC NOT WATERW **COMMENTS:**
RATING : 05/18/2001
EVALUATION TYPE :

[ITEM 71] WATERWAY ADEQUACY: NOT APPLICABLE **COMMENTS:**
RATING : 05/18/2001

[ITEM 72] APPRRDWY ALIGNMENT: 8-VERYGOOD **COMMENTS:**
RATING : 05/18/2001

RAILING AND APPROACH PAVEMENT COMPONENTS AND RATINGS

[ITEM 36A] BRIDGE RAILING RATING: *DOESNT MEET CURRNT STND-0* ***RATING :*** *11/30/2009* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
REINFORCED CONCRETE	CURB	BOTH	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	COMMENT
DETERIORATION	VERTICAL JOINTS		MINOR	

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
REINFORCED CONCRETE	PARAPET	BOTH	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	COMMENT
SPALLS	BOTTOM		MODERATE	

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
ALUMINUM	CIRCULAR TUBE	BOTH	

[ITEM 36B] TRANSITION RAILING RATING: *MEETS CURRENT STANDARDS-1* ***RATING :*** *10/17/2007* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	THRIE BEAM TO W-BEAM	ALL	

COUNTY: PHELPS **DISTRICT: CD** **CLASS: STATBR** **FED-ID: 1320** **BRIDGE: A1627**

[ITEM 36C] APPROACH RAILING RATING: *MEETS CURRENT STANDARDS-1* ***RATING :*** *05/18/2001* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	W-BEAM	ALL	

[ITEM 36D] RAIL END TREATMENT RATING: *MEETS CURRENT STANDARDS-1* ***RATING :*** *10/17/2007* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	BREKAWAY SYSTEM	ALL	

APPROACH PAVEMENT: *Overall condition assigned for each approach pavemenet component is shown below.

MATERIAL	CONSTRUCTION	DIRECTION	CONDITION*	COMMENTS
ASPHALT	BITUMINOUS MAT	BOTH	FAIR	(OTTINM, 11/07/2013)--FEW CRACKS, SOME RUTTING.

DRAINAGE, EXPANSION DEVICES, BANK/SLOPE, AND DECK PROTECTIVE COMPONENTS

DECK PROTECTIVE COMPONENTS:

SERIES TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	THICKNESS	YEAR APPLIED	MANUFACTURE	OVERALL CONDITION
MAIN SERIES-1	*WEARING SURFACE*	*EPOXY POLYMER*	*EPOXY POLYMER*	*.2 IN*	*1992*		*FAIR*

COMMENT: (OTTINM, 11/07/2013)--MANY MAP CRACKS & L-CR

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	COMMENT
MAP CRACKS	RANDOM		FEW	
PATCHES	RANDOM		FEW	

DECK PROTECTION *POLYMER* *IMPREGNATED*

COMMENT:

MEMBRANE *LIQUID SEALANT* *BUILT-UP*

COMMENT:

SECONDARY DECK PROTECTION *LIQUID SEALANT* *INTERNALLY SEALED* *2020* *PAVON INDECK*

COMMENT:

DRAINAGE COMPONENTS:

COMPONENT	MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS

EXPANSION DEVICE COMPONENTS:

SUB UNIT-#	SUB LABEL	COMPONENT	MATERIAL	CONSTRUCTION	GAP	YEAR APPLIED	MANUFACTURE	OVERALL CONDITION

COMMENT:

BANK/SLOPE PROTECTION COMPONENTS:

COMPONENT	MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
BANK PROTECTION	*EARTH FILL*	*BERM*	*BOTH*	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	COMMENT
ERODING	THROUGHOUT		MINOR	(ELSEMJ, 09/07/2017)--SOUTH ABUT

DECK COMPONENTS

SPAN TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	COMMENTS
MAIN SPANS-1	DECK	REINFORCED CONCRETE	CAST-IN-PLACE	(OTTINM, 11/07/2013)--WATER STANDS / WBL

MAIN SPANS-2	DECK	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**	
OTHER	RANDOM		NOT APPLICABLE		(GREENA2, 05/26/2021)--PONDING WATER SPAN 2 & 3	
PATCHES	RANDOM		FEW			

MAIN SPANS-3	DECK	REINFORCED CONCRETE	CAST-IN-PLACE		
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
PATCHES	RANDOM		FEW		

MAIN SPANS-4	DECK	REINFORCED CONCRETE	CAST-IN-PLACE		
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
PATCHES	RANDOM		FEW		

SUPERSTRUCTURE COMPONENTS

SERIES TYPE-#	SPAN TYPE	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
MAIN SERIES-1	CONTINUOUS SPAN	REINFORCED CONCRETE	VOIDED SLAB		

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-1	NON-COMPOSITE	41 FT 5 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DELAMINATION	RANDOM		FEW		
LEACHING	BOTTOM		LIGHT		
LONGITUDINAL CRACKS	RANDOM		FEW		

MAIN SPANS-2	NON-COMPOSITE	61 FT 0 IN	NO		
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
DELAMINATION	RANDOM		FEW		
LEACHING	OVER INTERMEDIATE BENT		MINOR		
TRANSVERSE CRACKS	RANDOM		FEW		
VERTICAL CRACKS	OVER INTERMEDIATE BENT		FEW		

MAIN SPANS-3	NON-COMPOSITE	61 FT 0 IN	NO		
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
DELAMINATION	RANDOM		FEW		
LEACHING	OVER INTERMEDIATE BENT		MINOR		
VERTICAL CRACKS	OVER INTERMEDIATE BENT		FEW		

MAIN SPANS-4	NON-COMPOSITE	44 FT 5 IN	NO		
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
DELAMINATION	RANDOM		FEW		

SUBSTRUCTURE COMPONENTS

SUBSTRUCTURE	SKEW	LENGTH	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
ABUTMENT-1	LA-25 DEGREES	33 FT 11 IN	REINFORCED CONCRETE	INTEGRAL		

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
ASSOCIATED COMPONENT	**MATERIAL**	**CONSTRUCTION**			
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
LEACHING	RANDOM		MINOR		
VERTICAL CRACKS	RANDOM		FEW		
PILING	STEEL	H-SHAPE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
TURNED BACK WINGS	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**

BENT-2 LA-25 DEGREES 33 FT 11 IN REINFORCED CONCRETE MULTIPLE COLUMN

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
ASSOCIATED COMPONENT	**MATERIAL**	**CONSTRUCTION**			
COLUMN	REINFORCED CONCRETE	INTEGRAL CAST-IN-PLACE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
HORIZONTAL CRACKS	TOP		FEW		
FOOTING	REINFORCED CONCRETE	H-PILE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**

BENT-3 LA-25 DEGREES 33 FT 11 IN REINFORCED CONCRETE MULTIPLE COLUMN

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
ASSOCIATED COMPONENT	**MATERIAL**	**CONSTRUCTION**			
COLUMN	REINFORCED CONCRETE	INTEGRAL CAST-IN-PLACE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
HORIZONTAL CRACKS	TOP		FEW		(GREENA2, 05/26/2021)--DID NOT SEE 2021
FOOTING	REINFORCED CONCRETE	H-PILE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**

BENT-4 LA-25 DEGREES 33 FT 11 IN REINFORCED CONCRETE MULTIPLE COLUMN

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
ASSOCIATED COMPONENT	**MATERIAL**	**CONSTRUCTION**			
COLUMN	REINFORCED CONCRETE	INTEGRAL CAST-IN-PLACE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
HORIZONTAL CRACKS	TOP		FEW		(GREENA2, 05/26/2021)--DID NOT SEE 2021
FOOTING	REINFORCED CONCRETE	H-PILE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**

ABUTMENT-5 LA-25 DEGREES 33 FT 11 IN REINFORCED CONCRETE INTEGRAL

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
ASSOCIATED COMPONENT	**MATERIAL**	**CONSTRUCTION**			
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
LEACHING	RANDOM		MINOR		
VERTICAL CRACKS	RANDOM		FEW		
PILING	STEEL	H-SHAPE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
TURNED BACK WINGS	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**

OVER/UNDER ROUTES CLEARANCE INFORMATION

CLEARANCES OVER DECK

**NOTE: Vertical clearances for permitting purposes are taken as 2 inches less than the actual field measured clearance.

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT

CLEARANCES UNDER BRIDGE

**NOTE: Vertical clearances for permitting purposes are taken as 2 inches less than the actual field measured clearance.

RECORD #	ROUTE	# LANES	DIRECTION OF TRAFFIC	RIGHT LATERAL CLEARANCE	LEFT LATERAL CLEARANCE	UR-ID
1	IS 44 E	2	1-WAY TRAF	10 FT 0 IN	10 FT 0 IN	3092

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT
ACTUAL	17 FT 6 IN		12/20/2012	

RECORD #	ROUTE	# LANES	DIRECTION OF TRAFFIC	RIGHT LATERAL CLEARANCE	LEFT LATERAL CLEARANCE	UR-ID
2	IS 44 W	2	1-WAY TRAF	10 FT 0 IN	10 FT 0 IN	3093

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT
ACTUAL	16 FT 5 IN		12/21/2009	

STRUCTURE PAINT INFORMATION

CONDITION: **RUST AMOUNT :** **STEEL TONS :** 0

ORIGINAL PAINT	CONTRACT REPAINT	DEPARTMENT REPAINT	
PAINT TYPE :	PAINT TYPE :	PAINT TYPE :	MANUFACTURE :
NAME :	NAME :	NAME :	SURFACE PREP :
PAINT COLOR :	PAINT COLOR :	PAINT COLOR :	
PAINT YEAR :	PAINT YEAR :	PAINT YEAR :	
MILS :	MILS :	MILS :	

REQUESTED WORK ITEMS

GENERAL WORK COMMENTS:

RESPONSIBILITY	LOCATION	ITEM	CATEGORY	PRIORITY	DATE	WORK ITEM COMMENT
DISTRICT SPECIAL	ROADWAY SURFACE	SEAL DECK WITH IN DECK	DECK	3	07/06/2023	

UTILITY ATTACHMENTS

UTILITY	OWNER	METHOD	MEASUREMENT TYPE	VALUE	NUMBER	UTILITY ATTACHMENT COMMENT

PROGRAM NOTES INFORMATION

Design_No = a1627

COUNTY: PHELPS | DISTRICT: CD | CLASS: STATBR | FED-ID: 1320 | BRIDGE: A1627

YEAR	PROJECT #	MONTH LET	YEAR LET	ITEMS	COMMENT

COMPUTER GENERATED RATINGS AND DEFICIENCY ITEMS

NOTE: The items listed in this section are updated whenever computer edits are ran on a structure after the inspection updates have been entered in to TMS.

Rated Item	Rating	Rating Date
[Item 67] Structure Evaluation Rating:	5-BETTER THAN MINIMUM	3/25/2002
[Item 68] Deck Geometry Rating:	6-EQ TO PRESENT MIN CRITR	6/10/2019
[Item 69] Underclearance:	4-MEETS MINIMUM TOLERABLE	1/26/2022
Sufficiency Rating:	82.4%	1/26/2022
Deficiency:	NOT DEFICIENT	3/25/2002
Funding Eligibility:		----
Estimated New Structure Length:		----
Estimated Structure Cost:		----
Estimated Total Project Cost:		----
Year of Cost Estimate:		----

NOTE: The above structure length and cost estimates are computer generated using algorithims in the TMS system. These algorthims are generalized to use NBI items to come up with a new structure length and width to calculate a new area which is taken times a representative cost per square foot. The actual structure size and cost may vary significantly from these numbers once site specific engineering is done.

ADVANCED SIGN INFORMATION

SIGN #	SIGN TYPE	PROBLEM	PROBLEM DIRECTION
1			

OUTFALL INSPECTION INFORMATION

 # OUTFALLS: **INSPECTOR:**
STATUS: **DATE:**
NOTES:

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

September 7, 2023
1:29:48pm

COUNTY : PHELPS **BRIDGE :** A1627 R **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : ROUTE CARRIED 'ON' STRUCT **RUN DATE :** 5/30/2023 **SUBMITTAL YEAR :** 2023

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	CD
3	County	PHELPS
8	Federal ID No.	1320
27	Year Built	1966
106	Year Reconstructed	0
42A	Type of Service On	HIGHWAY
21	Structure Maintenance	STATE HIGHWAY AGENCY
22	Structure Owner	STATE HIGHWAY AGENCY
33	Br. Median Code	NO MEDIAN
37	Historical Significance	NOT ELIGIBLE FOR NR OF HP
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	YES

ROUTE DESIGNATION INFORMATION

5A	Record Type	ROUTE CARRIED 'ON' STRUCT
5B	Route Signing Prefix	CRD
5C	Designated Level of Service	MAINLINE
5D	Route Number	08490
5E	Directional Suffix	NOT APPLICABLE
7	Facility Carried	8490 S
12	Base Hwy. Network	NO
13A	LRS Inventory Route No.	
13B	Subroute No.	
20	Toll Status	ON FREE ROAD
26	Functional Classification	09-RURAL LOCAL
28A	Lanes on Structure	02
100	STRAHNET Designation	RTE NOT A DEFENSE HWY
104	National Highway System	NOT ON NHS
105	Federal Lands Highway	NOT APPLICABLE
110	Designated Nat. Network	NO

STRUCTURE LOCATION INFORMATION

4	Place	ARLINGTON
	Code	01918
9	Location	S 8 T 37 N R 9 W
11	Milepoint	4.49 miles
16	Latitude	37 D 56 M 37 S
17	Longitude	91 D 56 M 11 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	262
30	AADT Year	2022
102	Direction of Traffic	2-WAY TRAFFIC
109	AADT Truck Percent	11%
114	Future AADT	393
115	Future AADT Year	2042

UNDERRECORD INFORMATION

6	Features Intersected	IS 44
42B	Type of Service Under	HIGHWAY
28B	Lanes Under Structure	04
54A	Vert. Clearance Ref.	HIGHWAY
54B	Vert. Clearance	16 Ft. 5 In.
55A	Rt. Lat Clear Ref.	HIGHWAY
55B	Rt. Lat Clearance	9 Ft. 10 In.
56	Left Lat Clearance	9 Ft. 10 In.
38	Navigation Control	N/A
39	Nav Vertical Clear	0 Ft. 0 In.
40	Nav Horizontal Clear	0 Ft. 0 In.
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	99 Ft. 99 In.
19	By pass Detour Length	3.75 miles
32	Approach Roadway Width	23 Ft. 11 In.
34	Skew	25.00 Degrees
35	Struct. Flared	NO
47	Total Horiz. Clear	27 Ft. 11 In.
48	Maximum Span Length	61 Ft. 0 In.
49	Structure Length	208 Ft. 0 In.
50A	Left Curb/Sidewalk Width	0 Ft. 0 In.
50B	Right Curb/Sidewalk Width	0 Ft. 0 In.
51	Curb to Curb Br. Width	27 Ft. 11 In.
52	Deck Width (Out-Out)	30 Ft. 10 In.
53	Vert.Clearance Over Deck	99 Ft. 99 In.

Design_No = a1627

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

September 7, 2023
1:29:48pm

COUNTY : PHELPS **BRIDGE :** A1627 R **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : ROUTE CARRIED 'ON' STRUCT **RUN DATE :** 5/30/2023 **SUBMITTAL YEAR :** 2023

LOAD RATING AND POSTING INFORMATION

31	Design Load	H 15
41	Structure Status	OPEN NO RESTRICTIONS
63	Oper. Rating Meth.	ALLOWABLE STRESS
64	Operating Rating	43 Tons.
65	Inventory Rating Meth	ALLOWABLE STRESS
66	Inventory Rating	22 Tons.
70	Bridge Posting Code	=>LEGAL LOADS

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating	82.4 Percent
	Deficiency Rating	NOT DEFICIENT
	Funding Eligibility	
75A	Proposed Work	
75B	Work Done By	
76	New Struc Length	0 Ft. 0 In.
94	Struc Improve Cost	$ 0,000
95	Roadway Improve Cost	$ 0,000
96	Total Project Cost	$ 0,000
97	Year of Cost Estimates	0

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating	DOES NOT MEET ACCEPT STND
36B	Transition Rail App. Rating	MEETS ACCEPTBLE STND
36C	Approach Rail App. Rating	MEETS ACCEPTBLE STND
36D	Rail End Treat. App. Rating	MEETS ACCEPTBLE STND
67	Struc Eval App. Rating	5
68	Deck Geometry App. Rating	6
69	Underclearance App. Rating	4
71	Waterway Adeq. App. Rating	N
72	Approach Road App. Rating	8
113	Scour Assess App. Rating	N

APPROVED POSTING INFORMATION

Approved Posting Category S-1

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

NO POSTING REQUIRED

MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	CONCRETE CONTINUOUS
43B	Main struc Constr. Type	SLAB
45	# of Main Spans	4
44A	Appr Struc. Mat type	000
44B	Appr Struc. Cnstr. type	000
46	# of Approach Span	0
107	Deck Mat/Constr.	1 CONCRETE CIP
108A	Wear Surf Mat/Constr.	5 EPOXY OVERLAY
108B	Membrane Mat/Constr.	1 BUILT UP
108C	Deck Protect Mat/Constr.	6 POLYMER

CONDITION RATING INFORMATION

58	Deck Cond. Rating	6
59	Superstructure Cond. Rating	6
60	Substructure Cond. Rating	7
61	Channel /Channel Protection Cond. Rating	N
62	Culvert Cond. Rating	N

INSPECTION INFORMATION

90	Gen. Insp Date	5 / 23	
91	Gen. Insp. Frequency	24	Months
92A	Frac. Critical Inspection	N	Months
93A	Frac. Critical Insp. Date		
92B	Underwater Inspection	N	Months
93B	Underwater Insp. Date		
92C	Special Inspection	N	Months
93C	Special Inspection Date		

BORDER BRIDGE INFORMATION

98	Neighboring State Code
98B	Neighboring State % Respon
99	Neighboring State Struc. No.

FIELD POSTING INFORMATION

Field Posting Category S-1

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

NO POSTING REQUIRED

Design_No = a1627

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

September 7, 2023
1:29:48pm

COUNTY : PHELPS **BRIDGE :** A1627 R **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : 2ND RTE THAT GOES 'UNDR'S **RUN DATE :** 5/30/2023 **SUBMITTAL YEAR :** 2023

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	CD
3	County	PHELPS
8	Federal ID No.	1320
27	Year Built	1966
106	Year Reconstructed	0
42A	Type of Service On	HIGHWAY
21	Structure Maintenance	
22	Structure Owner	
33	Br. Median Code	
37	Historical Significance	
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	

ROUTE DESIGNATION INFORMATION

5A	Record Type	2ND RTE THAT GOES 'UNDR'S Code : B
5B	Route Signing Prefix	IS
5C	Designated Level of Service	MAINLINE
5D	Route Number	00044
5E	Directional Suffix	NOT APPLICABLE
7	Facility Carried	8490 S
12	Base Hwy. Network	
13A	LRS Inventory Route No.	
13B	Subroute No.	
20	Toll Status	ON FREE ROAD
26	Functional Classification	01-RU PRINCIPL ARTRIAL-IS
28A	Lanes on Structure	02
100	STRAHNET Designation	ON A DEFENSE HWY
104	National Highway System	ON NHS
105	Federal Lands Highway	
110	Designated Nat. Network	YES

STRUCTURE LOCATION INFORMATION

4	Place	ARLINGTON
	Code	01918
9	Location	S 8 T 37 N R 9 W
11	Milepoint	117.29 miles
16	Latitude	37 D 56 M 37 S
17	Longitude	91 D 56 M 11 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	16698
30	AADT Year	2022
102	Direction of Traffic	1-WAY TRAFFIC
109	AADT Truck Percent	44%
114	Future AADT	
115	Future AADT Year	

UNDERRECORD INFORMATION

6	Features Intersected	IS 44
42B	Type of Service Under	HIGHWAY
28B	Lanes Under Structure	02
54A	Vert. Clearance Ref.	
54B	Vert. Clearance	
55A	Rt. Lat Clear Ref.	
55B	Rt. Lat Clearance	
56	Left Lat Clearance	
38	Navigation Control	
39	Nav Vertical Clear	
40	Nav Horizontal Clear	
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	16 Ft. 5 In.
19	By pass Detour Length	0.00 miles
32	Approach Roadway Width	
34	Skew	
35	Struct. Flared	
47	Total Horiz. Clear	27 Ft. 11 In.
48	Maximum Span Length	61 Ft. 0 In.
49	Structure Length	208 Ft. 0 In.
50A	Left Curb/Sidewalk Width	
50B	Right Curb/Sidewalk Width	
51	Curb to Curb Br. Width	
52	Deck Width (Out-Out)	
53	Vert.Clearance Over Deck	

Design_No = a1627

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

September 7, 2023
1:29:48pm

COUNTY :	**PHELPS**	**BRIDGE :**	**A1627 R**	**REVIEW STATUS :**	**APPROVED**	**NBI STATUS :**	**T**
RECORD TYPE :	**2ND RTE THAT GOES 'UNDR'S**			**RUN DATE :**	**5/30/2023**	**SUBMITTAL YEAR :**	**2023**

LOAD RATING AND POSTING INFORMATION

31	Design Load
41	Structure Status
63	Oper. Rating Meth.
64	Operating Rating
65	Inventory Rating Meth
66	Inventory Rating
70	Bridge Posting Code

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating
	Deficiency Rating
	Funding Eligibility
75A	Proposed Work
75B	Work Done By
76	New Struc Length
94	Struc Improve Cost
95	Roadway Improve Cost
96	Total Project Cost
97	Year of Cost Estimates

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating
36B	Transition Rail App. Rating
36C	Approach Rail App. Rating
36D	Rail End Treat. App. Rating
67	Struc Eval App. Rating
68	Deck Geometry App. Rating
69	Underclearance App. Rating
71	Waterway Adeq. App. Rating
72	Approach Road App. Rating
113	Scour Assess App. Rating

MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	CONCRETE CONTINUOUS
43B	Main struc Constr. Type	SLAB
45	# of Main Spans	
44A	Appr Struc. Mat type	
44B	Appr Struc. Cnstr. type	
46	# of Approach Span	
107	Deck Mat/Constr.	
108A	Wear Surf Mat/Constr.	
108B	Membrane Mat/Constr.	
108C	Deck Protect Mat/Constr.	

CONDITION RATING INFORMATION

58	Deck Cond. Rating
59	Superstructure Cond. Rating
60	Substructure Cond. Rating
61	Channel /Channel Protection Cond. Rating
62	Culvert Cond. Rating

INSPECTION INFORMATION

90	Gen. Insp Date
91	Gen. Insp. Frequency
92A	Frac. Critical Inspection
93A	Frac. Critical Insp. Date
92B	Underwater Inspection
93B	Underwater Insp. Date
92C	Special Inspection
93C	Special Inspection Date

BORDER BRIDGE INFORMATION

98	Neighboring State Code
98B	Neighboring State % Respon
99	Neighboring State Struc. No.

APPROVED POSTING INFORMATION

Approved Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

FIELD POSTING INFORMATION

Field Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

Design_No = a1627

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

September 7, 2023
1:29:48pm

COUNTY : PHELPS **BRIDGE :** A1627 R **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : 1 RTE THAT GOES 'UNDER' S **RUN DATE :** 5/30/2023 **SUBMITTAL YEAR :** 2023

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	CD
3	County	PHELPS
8	Federal ID No.	1320
27	Year Built	1966
106	Year Reconstructed	0
42A	Type of Service On	HIGHWAY
21	Structure Maintenance	
22	Structure Owner	
33	Br. Median Code	
37	Historical Significance	
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	

ROUTE DESIGNATION INFORMATION

5A	Record Type	1 RTE THAT GOES 'UNDER' S	Code : A
5B	Route Signing Prefix	IS	
5C	Designated Level of Service	MAINLINE	
5D	Route Number	00044	
5E	Directional Suffix	NOT APPLICABLE	
7	Facility Carried	8490 S	
12	Base Hwy. Network		
13A	LRS Inventory Route No.		
13B	Subroute No.		
20	Toll Status	ON FREE ROAD	
26	Functional Classification	01-RU PRINCIPL ARTRIAL-IS	
28A	Lanes on Structure	02	
100	STRAHNET Designation	ON A DEFENSE HWY	
104	National Highway System	ON NHS	
105	Federal Lands Highway		
110	Designated Nat. Network	YES	

STRUCTURE LOCATION INFORMATION

4	Place	ARLINGTON
	Code	01918
9	Location	S 8 T 37 N R 9 W
11	Milepoint	177.56 miles
16	Latitude	37 D 56 M 37 S
17	Longitude	91 D 56 M 11 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	15883
30	AADT Year	2022
102	Direction of Traffic	1-WAY TRAFFIC
109	AADT Truck Percent	42%
114	Future AADT	
115	Future AADT Year	

UNDERRECORD INFORMATION

6	Features Intersected	IS 44
42B	Type of Service Under	HIGHWAY
28B	Lanes Under Structure	02
54A	Vert. Clearance Ref.	
54B	Vert. Clearance	
55A	Rt. Lat Clear Ref.	
55B	Rt. Lat Clearance	
56	Left Lat Clearance	
38	Navigation Control	
39	Nav Vertical Clear	
40	Nav Horizontal Clear	
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	17 Ft. 6 In.
19	By pass Detour Length	0.00 miles
32	Approach Roadway Width	
34	Skew	
35	Struct. Flared	
47	Total Horiz. Clear	27 Ft. 11 In.
48	Maximum Span Length	61 Ft. 0 In.
49	Structure Length	208 Ft. 0 In.
50A	Left Curb/Sidewalk Width	
50B	Right Curb/Sidewalk Width	
51	Curb to Curb Br. Width	
52	Deck Width (Out-Out)	
53	Vert.Clearance Over Deck	

Design_No = a1627

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

September 7, 2023
1:29:48pm

COUNTY : PHELPS **BRIDGE :** A1627 R **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : 1 RTE THAT GOES 'UNDER' S **RUN DATE :** 5/30/2023 **SUBMITTAL YEAR :** 2023

LOAD RATING AND POSTING INFORMATION

31	Design Load
41	Structure Status
63	Oper. Rating Meth.
64	Operating Rating
65	Inventory Rating Meth
66	Inventory Rating
70	Bridge Posting Code

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating
	Deficiency Rating
	Funding Eligibility
75A	Proposed Work
75B	Work Done By
76	New Struc Length
94	Struc Improve Cost
95	Roadway Improve Cost
96	Total Project Cost
97	Year of Cost Estimates

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating
36B	Transition Rail App. Rating
36C	Approach Rail App. Rating
36D	Rail End Treat. App. Rating
67	Struc Eval App. Rating
68	Deck Geometry App. Rating
69	Underclearance App. Rating
71	Waterway Adeq. App. Rating
72	Approach Road App. Rating
113	Scour Assess App. Rating

MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	CONCRETE CONTINUOUS
43B	Main struc Constr. Type	SLAB
45	# of Main Spans	
44A	Appr Struc. Mat type	
44B	Appr Struc. Cnstr. type	
46	# of Approach Span	
107	Deck Mat/Constr.	
108A	Wear Surf Mat/Constr.	
108B	Membrane Mat/Constr.	
108C	Deck Protect Mat/Constr.	

CONDITION RATING INFORMATION

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59	Superstructure Cond. Rating
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Approved Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

FIELD POSTING INFORMATION

Field Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

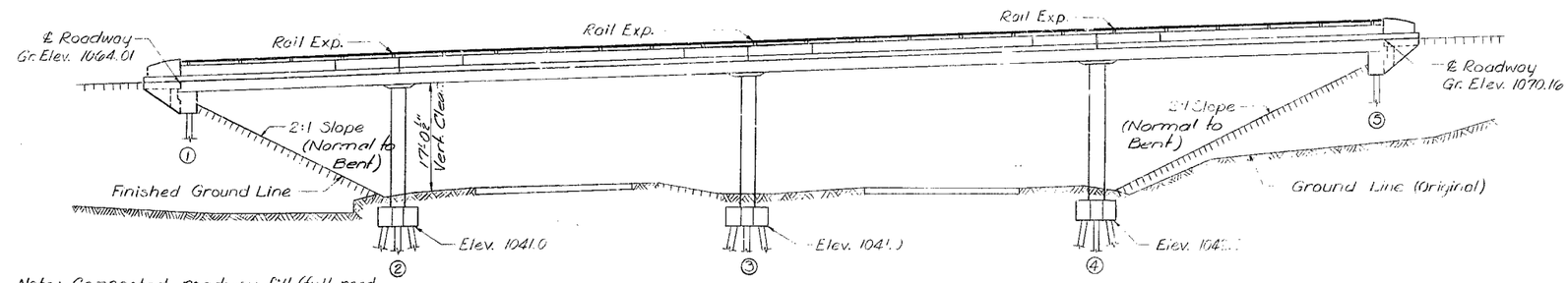
General Text for Posting Sign

Design_No = a1627

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	99	

(33'-54'-54'-43') C.n.f. Slab Spans (Voided)

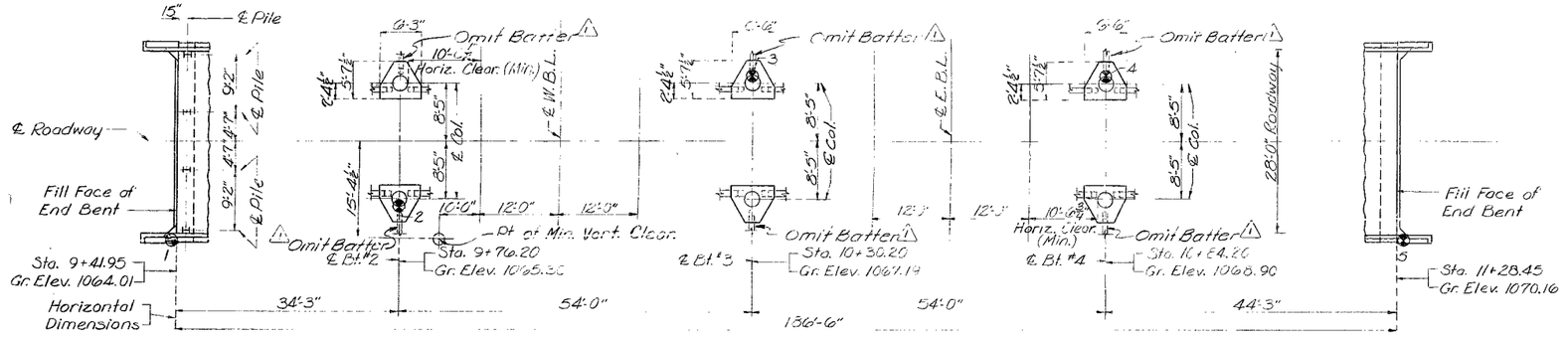


GENERAL ELEVATION

Note: Compacted roadway fill (full roadway width) shall be placed up to elevation of bottom of concrete beam in front of and not less than 25'-0" in back of End Bents before steel piles are driven.

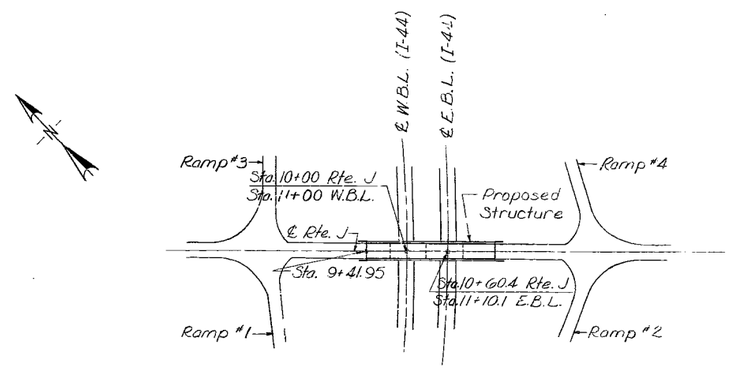
PILE DATA					
BENT NO.	1	2	3	4	5
Pile Type and size	10BP42				
Number	4	6	6	6	4
Approximate Length Ft.	85'	67	67	67	92
Design Brg. Value Tons.	24	45	50	45	28
*Hammer Energy Reqd. ft#	11,300	10,600	11,800	11,600	12000

Note: *Minimum energy requirement of hamer based on plan length and design bearing value of Piles. Increase by the factor (W+w)/2W when the wgt. of the ram (W) is less than the wgt. of the pile (w).
All pile shall be driven to practical refusal.
Steel pile authorized in lengths greater than 65' may be furnished in two pieces for field splicing.



PLAN

Note: For Boring Data see sheet No. 2 of 6.
"⊗" Indicates location of boring.



LOCATION SKETCH

ESTIMATED QUANTITIES				
ITEM		SUBSTR.	SUPERSTR.	TOTAL
Class 1 Excavation for Structures	Cu. Yds.	75		75
Steel Piles in Place (10")	Lin. Ft.	2,130		2,130
Class B Concrete	Cu. Yds.	18.7		18.7
Class B1 Concrete	Cu. Yds.		371.0	371.0
Reinforcing Steel	Lb.	570	67,300	67,870
Bridge Rail (Single tube type)	Lin. Ft.		372	372

Note: No payment for excavation will be allowed at End Bents 1 & 5.
All concrete and reinforcement above footings in intermediate bents is included in superstructure quantities.

GENERAL NOTES:

Design Specifications: A.A.S.H.O. - 1961

Design Loading:
H15-44 15#/sq. ft. Future Wearing Surface
Earth 120# Equivalent Fluid Pressure 30#

Design Unit Stresses:
Class B Concrete (substructure) fc = 1,200 psi
Class B1 Concrete (superstructure) fc = 1,600 psi
Reinforcing Steel fs = 20,000 psi
Steel Pile (A.S.T.M. A36-62T) fb = 9,000 psi

Surface Seal:
Superstructure deck to be surface sealed.

Falsework:
Falsework over existing lanes shall be constructed with a minimum vertical clearance of 13'-6" from crown of existing lanes and a minimum lateral clearance of 28'-0" centered on existing lanes.

B.M. Elev. 1024.92, N. & W. in root 14" Bl. Oak 50' Lt. Sta. 9+70 Outer Rdwy. (U.S.G.S. Datum)

BRIDGE: ROUTE J UNDERPASS

STATE ROAD: INTERSTATE ROUTE 44

ABOUT 4.0 MILES S.W. OF ARLINGTON

PROJECT NO. I-IG-44-2(44)(RTE. I-44) **STA.** 11+00 (W.B.L.) 11+10.1 (E.B.L.)

PHELPS **COUNTY**

SUBMITTED BY D. B. Jensen BRIDGE ENGINEER DATE 6/9/66

APPROVED BY M. D. Snider CHIEF ENGINEER DATE 6/9/66

STD. 5400
A-1633

DESIGNED MAY 1965 BY ASATOORIAN
DETAILED JULY 1965 BY MEISEL
CHECKED APRIL 1966 BY Baig

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 1 of 6. △ Rev. 1-10-67

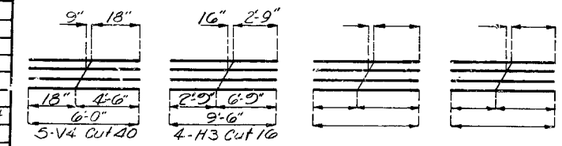
MISSOURI STATE HIGHWAY DEPARTMENT

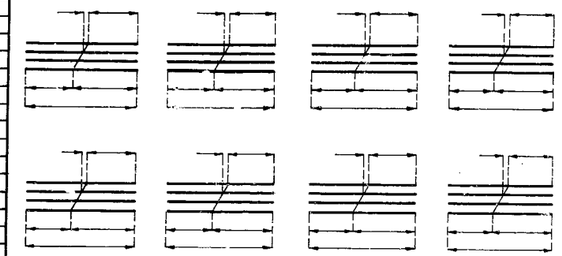
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	100	

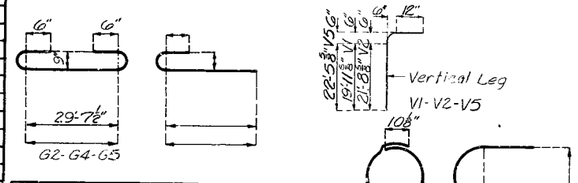
COMPLETE BILL OF REINFORCING STEEL

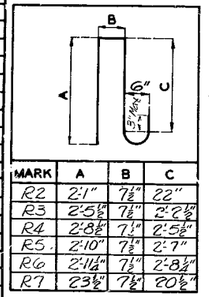
NO.	SIZE	LENGTH	MARK	LOCATION
SUPERSTRUCTURE				
372	#5	5'-0"	C1	Curb
8	#5	20'-6"	C2	"
16	#5	27'-6"	C3	"
8	#5	25'-6"	C4	"
24	#5	4'-9"	C5	"
24	#5	4'-9"	R1	End Post
4	#5	5'-6"	R2	" "
4	#5	6'-3"	R3	" "
4	#5	6'-9"	R4	" "
4	#5	7'-0"	R5	" "
8	#5	7'-3"	R6	" "
378	#5	5'-3"	R7	Parapet
8	#5	23'-9"	R8	"
48	#5	9'-9"	R9	"
8	#5	34'-0"	R10	"
16	#5	33'-9"	R11	"
446	#5	30'-6"	S1	Slab
41	#5	23'-3"	S2	"
21	#10	24'-3"	S3	"
20	#10	19'-3"	S4	"
20	#10	12'-0"	S5	"
41	#5	30'-0"	S6	"
2	#11	28'-6"	S7	"
20	#11	23'-0"	S8	"
20	#11	14'-6"	S9	"
41	#5	28'-9"	S10	"
21	#10	26'-6"	S11	"
20	#11	23'-0"	S12	"
20	#11	14'-6"	S13	"
41	#5	32'-3"	S14	"
20	#7	18'-0"	S15	"
20	#7	25'-0"	S16	"
21	#7	35'-0"	S17	"
20	#9	26'-0"	S18	"
20	#9	34'-6"	S19	"
21	#9	55'-0"	S20	"
20	#9	26'-6"	S21	"
20	#9	35'-0"	S22	"
21	#8	55'-0"	S23	"
20	#9	21'	S24	"
20	#9	3[illegible]	S25	"
21	#9	46'-3"	S26	"

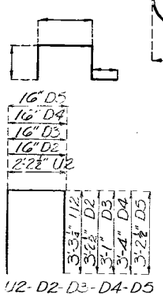
BENDING SKETCHES & CUTTING DIAGRAMS

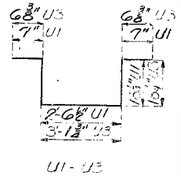


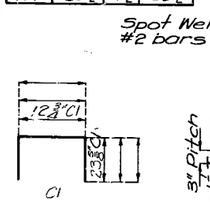


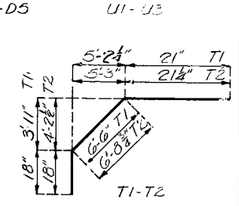


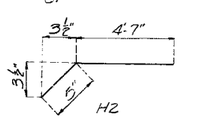


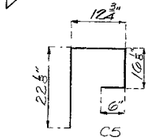


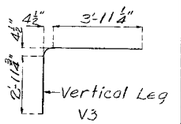












NO.	SIZE	LENGTH	MARK	LOCATION
END BENTS NO. 1 & 5 (SUPERSTRUCTURE)				
24	#6	30'-3"	H1	Beam & Slab
8	#6	5'-0"	H2	Wing & Beam
16	#6	9'-6"	H3	Wing
8	#6	7'-0"	H4	"
4	#6	9'-0"	T1	Wing Bt. 1
4	#6	10'-0"	T2	Wing Bt. 5
124	#5	8'-9"	U2	Beam
82	#6	7'-6"	V3	Beam & Slab
40	#4	6'-0"	V4	Wing
INT. BENT NO. 2 (SUPERSTRUCTURE)				
7	#10	30'-0"	G1	Drop Panel
9	#11	33'-0"	G2	Beam
40	#3	7'-0"	P1	Col.
78	#5	6'-0"	U1	Beam
18	#8	21'-0"	V1	Col.
INT. BENT NO. 3 (SUPERSTRUCTURE)				
10	#9	30'-0"	G3	Drop Panel
10	#11	33'-0"	G4	Beam
42	#3	7'-0"	P1	Col.
78	#5	[illegible]'-3"	U3	Beam
13	#8	[illegible]'-6"	V2	Col.
INT. BENT NO. 4 (SUPERSTRUCTURE)				
10	#9	30'0"	G3	Drop Panel
12	#10	33'-0"	G5	Beam
44	#3	7'-0"	P1	Col.
78	#5	7'-3"	U3	Beam
18	#8	21'-3"	V5	Col.
INT. BENT NO. 2 (SUBSTRUCTURE)				
13	#5	2'-6"	D1	Footing
8	#6	7'-9"	D2	"
4	#6	7'-6"	D3	"
INT. BENT NO. 3 & 4 (SUBSTRUCTURE)				
36	#5	2'-6"	D1	Footing
16	#6	8'-0"	D4	"
8	#6	7'-9"	D5	"

BORING DATA

1044.5
Red Plastic clay with boulder from 2.3'.
1036.5
Quartzose Sandstone, very hard, residual ledge.
1035.5
Red Plastic clay & heavy chert boulders, 1t TSF
1007.5
Sandstone & chert, stratified.
1006.5
Red clay & chert cobble.
997.5
Quartzose Sandstone with chert, hard residual ledge.
994.3
Soft red clay & chert gravel.
973.0
Roubidoux Sandstone mod. hard, dense, except for clayey seams from 72.0-73.5'
971.0
Roubidoux Dol, mod. hard & dense except for a slight amount of shale & clay inclusions.
968.5
Calcareous sandstone, slightly soft & friable but dense.
967.0
Cherty dol. hard & dense
966.0
Soft severely weathered dol. with open seams.
964.8
Soft to slightly soft dol. with clayey inclusions
963.5
Bottom on Limestone.

1 (CORE)

1045.5
Red clay & chert cobble.
1039.3
Hard quartzite
1038.0
Firm red clay & med. boulders.
1013.7
Cherty sandstone hard.
1011.8
Red clay & chert cobble.
998.4
Hard sandstone.
996.9
Soft red clay & gravel.
975.6
Roubidoux Sandstone, mod. hard & dense except for a slight amount of clay & loose sand along bedding planes.
972.0
Open seam.
971.8
Dolomite, mod. hard & dense except for a slight amount of clay inclusions & sparse vugs; containing a sandstone bed from 75.0-76.5' which is dense but slightly soft with shale inclusions; sound at 69.9'.
967.2
Bottom on Limestone.

2 (CORE)

1046.1
Stiff red clay.
1037.3
Hard sandstone.
1036.6
Red clay & chert cobble with sparse boulders.
1008.8
Hard sandstone.
1007.7
Soft red clay & gravel.
974.5
Roubidoux Sandstone, hard & dense.
973.1
Dolomite mod. hard except for shaley-clayey inclusions, dense except for thin solution seams.
970.1
Sandstone, slightly soft & porous.
968.1
Sandy dolomite, containing shaley-clayey inclusions, slightly vugy, matrix hard & dense; sound at 71.6'.
965.6
Bottom on Limestone.

3 (CORE)

1046.8
Firm red clay & chert cobble.
1030.3
Quartzite boulders.
1029.1
Red clay & chert cobble.
1014.8
Cherty sandstone.
1011.9
Soft sandstone with clay seams & inclusions.
997.3
Very soft clay & gravel.
980.1
Mod. hard sandstone.
978.9
Clay seam.
978.6
Soft sandstone.
978.1
Mod. hard sandstone interbedded with soft sandstone.
976.8
Sandstone.

4

1053.5
Red clay & chert cobble with scattered boulders to 50.0'
978.2
Roubidoux Sandstone, mod. hard & dense except for thin clay seams.
974.5
Dolomite slightly weathered soft, with clayey inclusions.
973.5
Sandstone, mod. hard & dense
971.5
Dolomite, mod. hard & dense, with clayey inclusions.
970.0
Limestone

5 (CORE)

Note: For location of borings see sheet no. 1 of 6.

BRIDGE : ROUTE J UNDERPASS

STATE ROAD : INTERSTATE ROUTE 44

ABOUT 4.0 MILES S.W. OF ARLINGTON

PROJECT NO. I-IG-44-2(44) (RTE. I-44) **STA.** 11+00 (W.B.L.) 11+10.1 (E.B.L.)

PHELPS **COUNTY**

A-1633

2

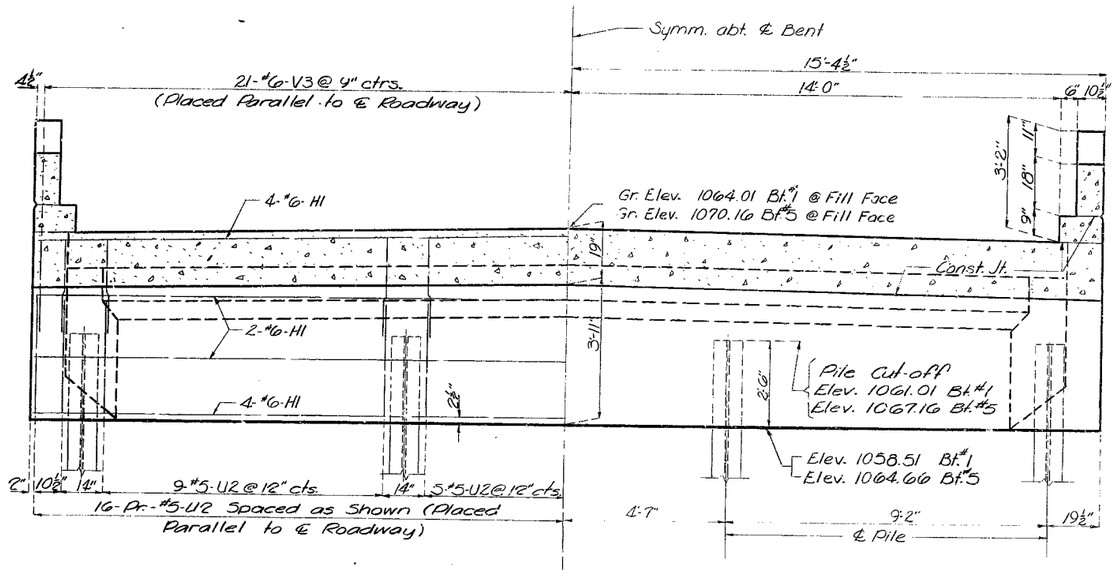
No.	Revised	Dec. 1964
3	June 1961	

DETAILED AUG. 1965 BY MEISEL
CHECKED APRIL 1966 BY Baig

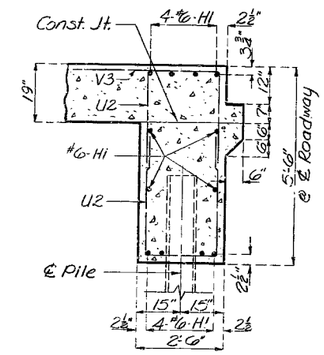
Note: This drawing is not to scale. Follow dimensions.

MISSOURI STATE HIGHWAY DEPARTMENT

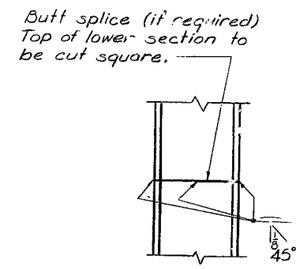
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	101	



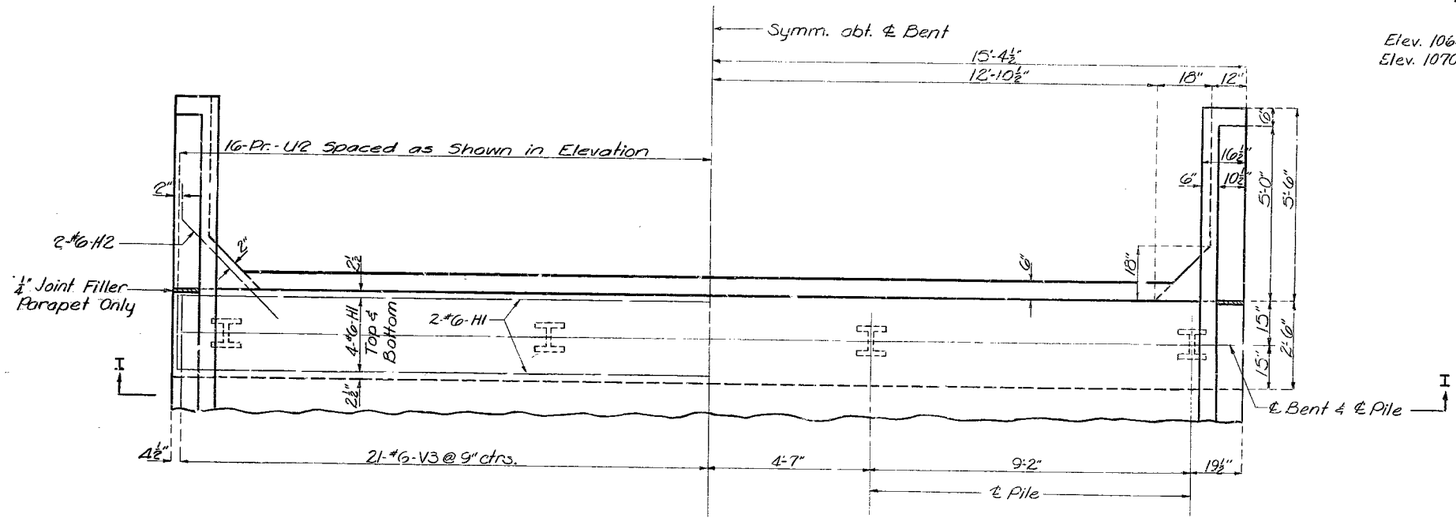
ELEVATION I-I



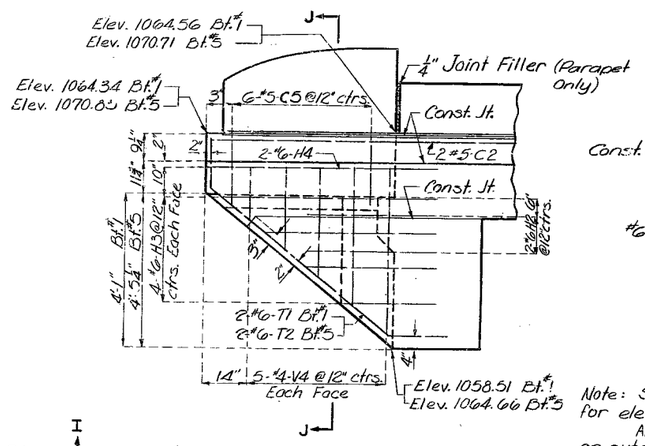
SECTION AT ℄



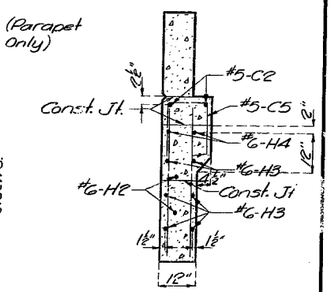
DETAIL OF STEEL PILE SPLICE



PLAN



ELEVATION OF WING (TYPICAL)



SECTION J-J

Note: See sheet No. 6 of 6 for elevation of end post. All dimensions are shown on outside face of wing.

DETAILS OF END BENTS NO. 1&5

BRIDGE : ROUTE J UNDERPASS

STATE ROAD : INTERSTATE ROUTE 44

ABOUT 4.0 MILES S.W. OF ARLINGTON

PROJECT NO. I-IG-44-[illegible]44) (RTE. I-44) **STA.** 11+00 (W.B.L.) 11+10.1 (E.B.L.)

PHELPS **COUNTY**

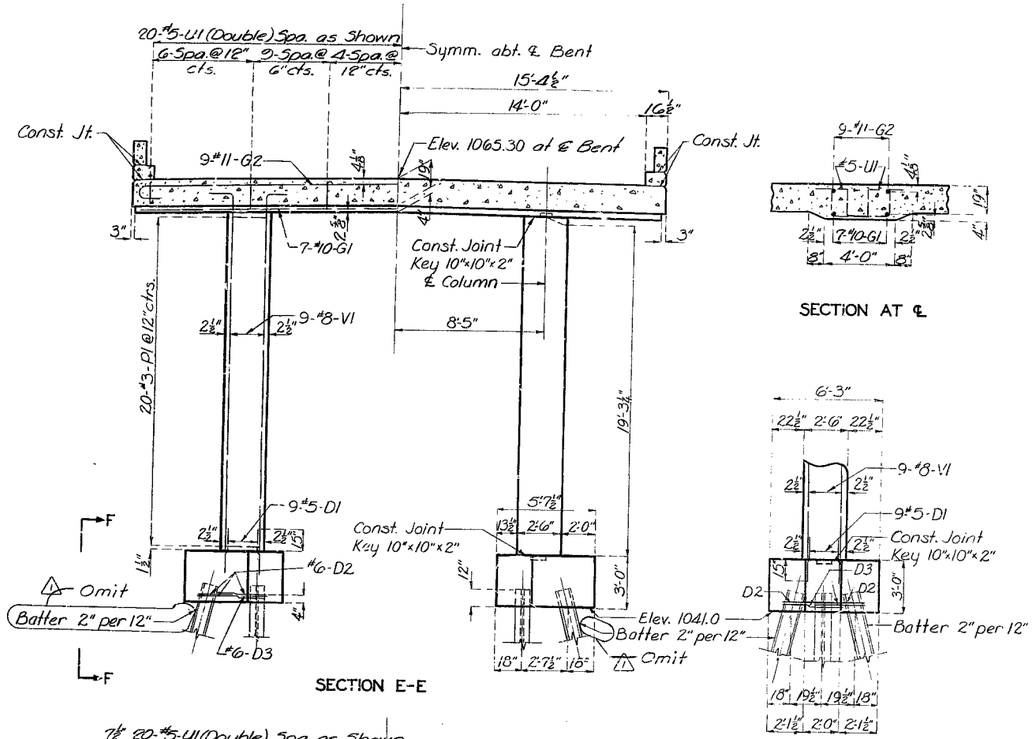
DETAILED JULY 1965 BY MEISEL
CHECKED APRIL 1966 BY Bdig

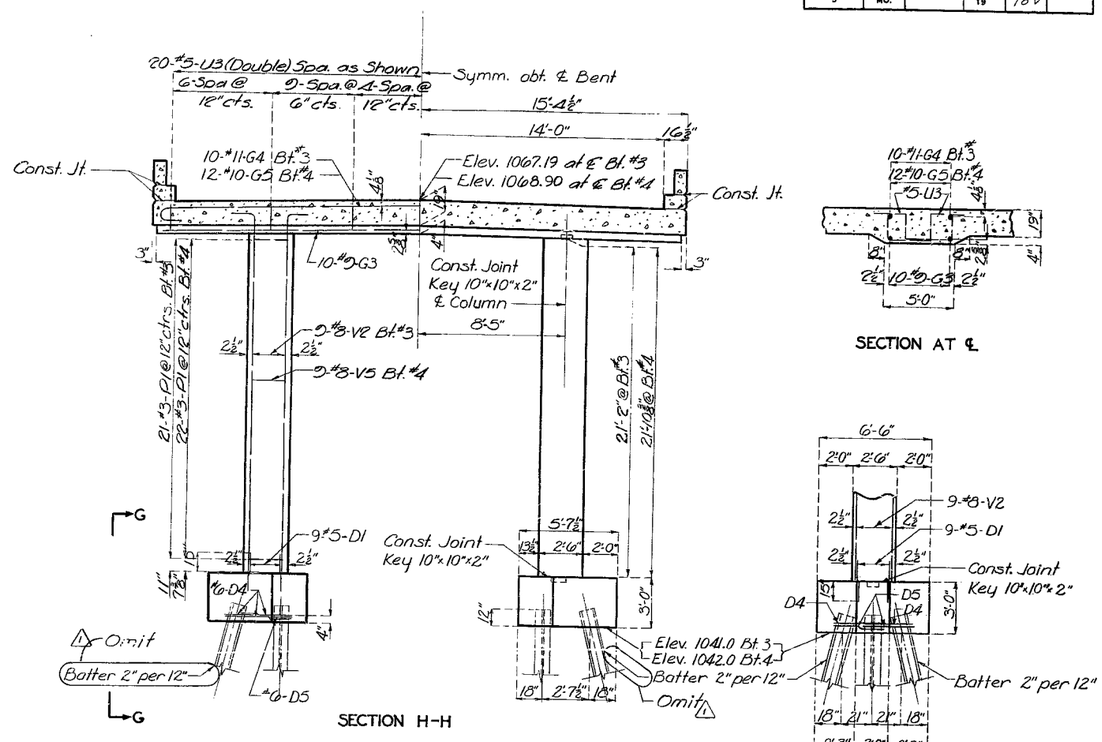
Note: This drawing is not to scale. Follow dimensions.

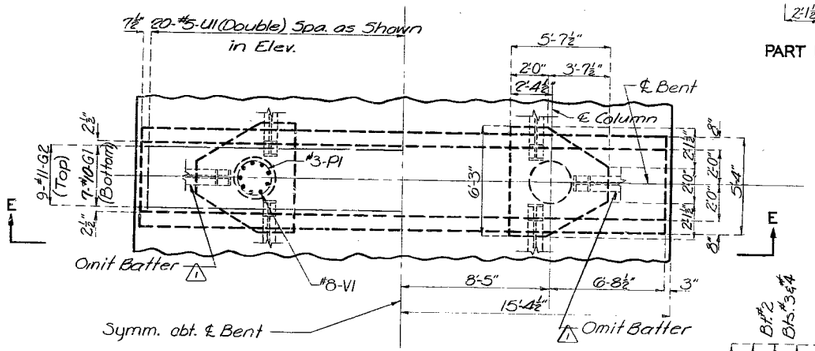
A-1633

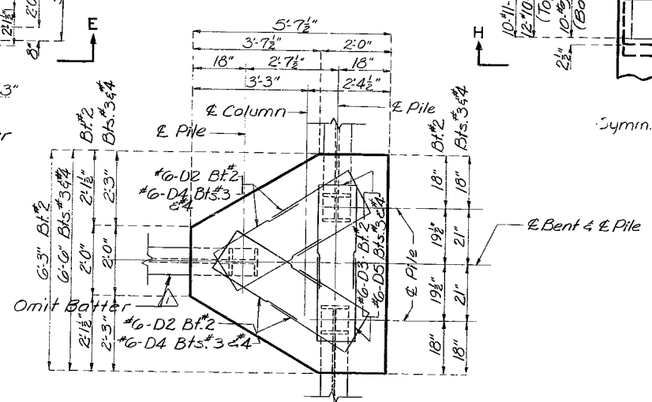
MISSOURI STATE HIGHWAY DEPARTMENT

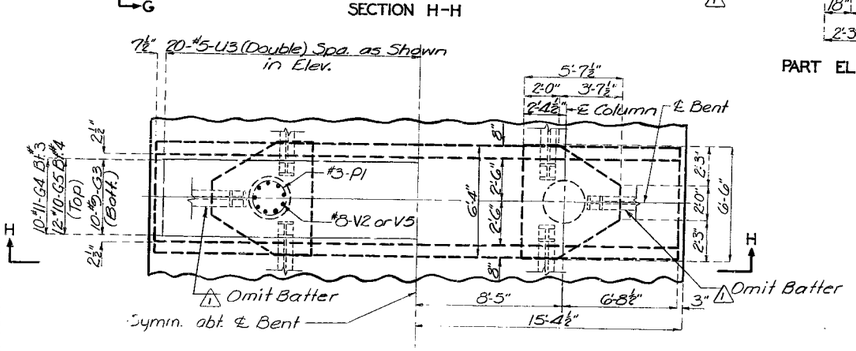
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	10V	











BRIDGE: ROUTE J UNDERPASS

STATE ROAD: INTERSTATE ROUTE 44

ABOUT 4.0 MILES S.W. OF ARLINGTON

PROJECT NO. I-IG-44-2(44) (RTE. I-44) **STA.** 11+00 (W.B.L.) 11+10.1 (E.B.L.)

PHELPS **COUNTY**

DETAILED JULY 1965 BY MEISEL

CHECKED APRIL 1966 BY Baig

Note: This drawing is not to scale. Follow dimensions.

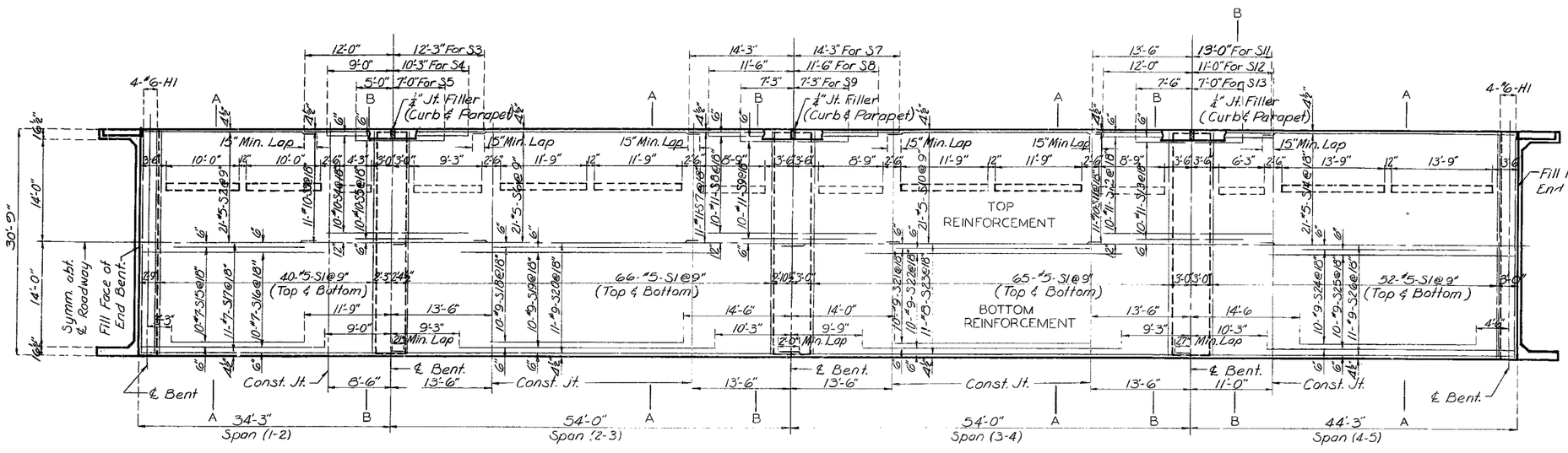
Sheet No. 4 of 6. △ Rev. 1-10-67

A-1633

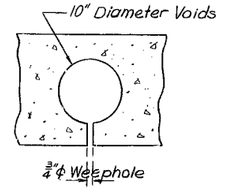
4

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	103	



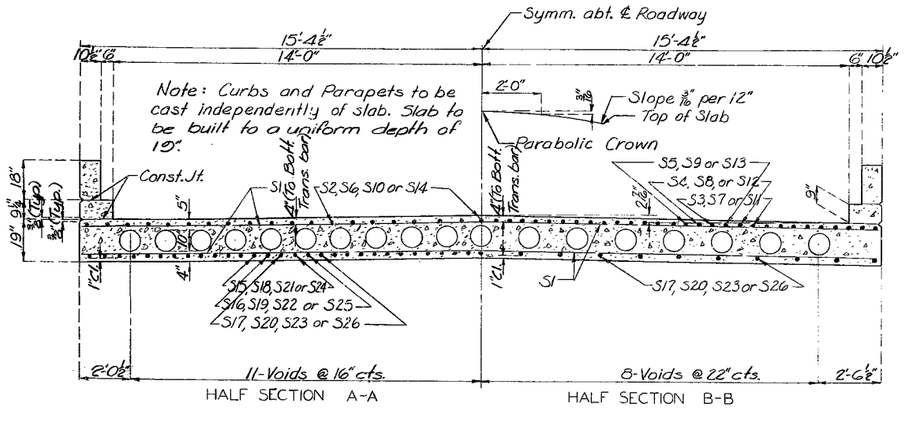
PLAN OF SLAB



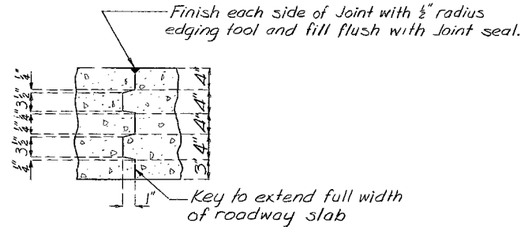
DETAIL OF WEEPHOLE IN VOIDS

Note: One ¾"ϕ weephole shall be provided near each end of each void. Weepholes shall be placed in straight lines parallel to bents.

Note: All Longitudinal dimensions shown are horizontal.

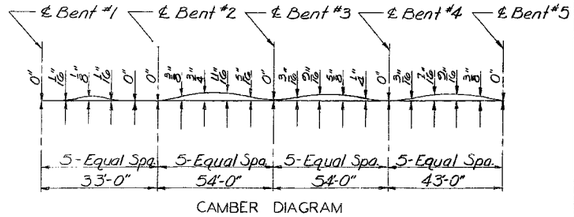


Note: Fiber tubes for producing voids shall have an outside diameter of 10.0" and a wall thickness of .225" and shall be anchored to joists carrying the floor form at not more than 4'-0" centers. See Special Provisions for metal tube alternate for voids.



DETAILS OF SLAB CONSTRUCTION JOINT KEY

Note: The contractor shall use an approved oscillating screed type, self-propelled mechanical finishing machine and shall pour and satisfactorily finish the roadway slab at a rate of not less than 30 cubic yards per hour. He shall observe the transverse construction joints shown on plans unless he can demonstrate to the satisfaction of the engineer that he is equipped to pour and satisfactorily finish the roadway slab at a rate which will permit a continuous pouring through some or all of these joints. Finishing machine load will not be permitted on concrete less than 48 hours old.



CAMBER DIAGRAM

BRIDGE: ROUTE J UNDERPASS

STATE ROAD: INTERSTATE ROUTE 44

ABOUT 4.0 MILES S.W. OF ARLINGTON

PROJECT NO. I-IG-44-2(44) (RTE. I-44) **STA.** 11+00 (W.B.L.) 11+10.1 (E.B.L.)

PHELPS **COUNTY**

A-1633

DETAILED JUNE 1965 BY MEISEL
CHECKED APRIL 1966 BY Baig

Note: This drawing is not to scale. Follow dimensions.

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		'69	10f	

GENERAL NOTES:

All handrail posts shall be set normal to grade.

Aluminum tube handrail shall be bent to conform to vertical and horizontal alignment of parapet.

Aluminum washer shims between top of parapet and post base may be used for adjusting handrail alignment. Maximum thickness of shims to be 1/8". Where more tilting of post is required for proper alignment, concrete bearing areas shall be ground down.

All parts of handrail, except anchor bolts, nuts, washers, and set screws are to be of aluminum material.

The contract unit price per lineor foot of "Bridge Rail" shall include furnishing and erecting the handrail complete with anchor bolts, shims and Insulating compound.

All fillets 1/4" except as noted.

All drafts 3° except as noted.

Pipe rail to be fabricated in two or three panel lengths unless otherwise approved.

Omit set screw on side near filled joint in parapet at all expansion posts.

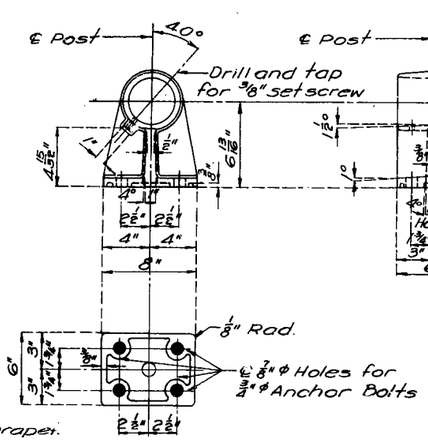
Top of curbs and parapets to be built parallel to grade with curb and parapet joints (except at end posts) normal to grade.

Concrete end posts to be vertical.

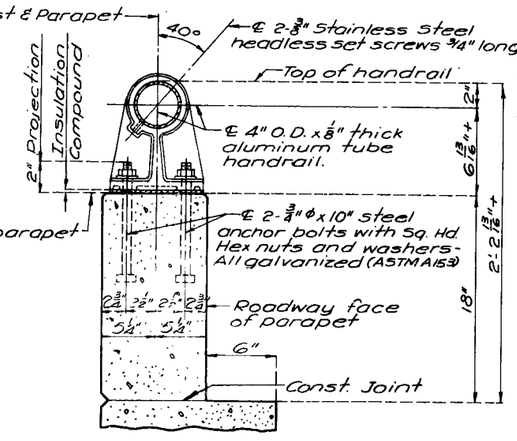
All exposed edges of end posts, parapets and curbs shall have 1/2" radius or 1/2" bevel for curbs and parapet.

If the contractor desires, he may use drive fit cast aluminum end caps in lieu of welded aluminum closure plates.

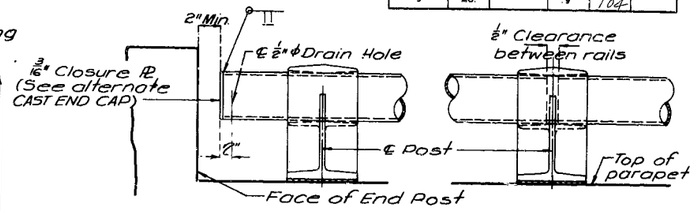
Integrally cast test coupons and a coat of clear lacquer specified in Std. Spec. 56.2.4 and 56.3.5, respectively will not be reqd. for these rail posts.



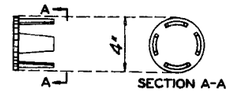
POST DETAILS



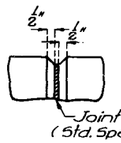
SECTION THRU HANDRAIL



TYPICAL HANDRAIL DETAILS

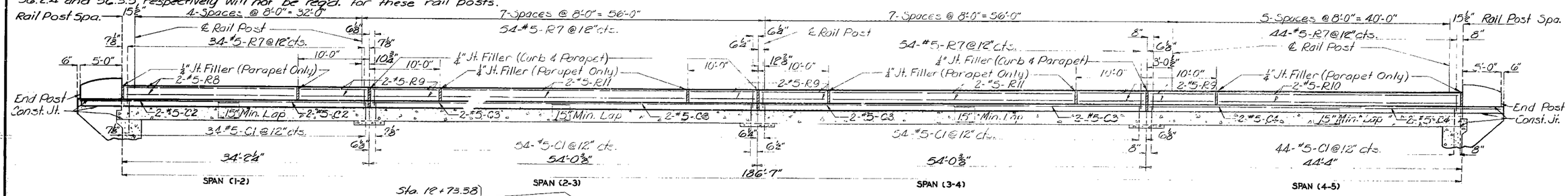


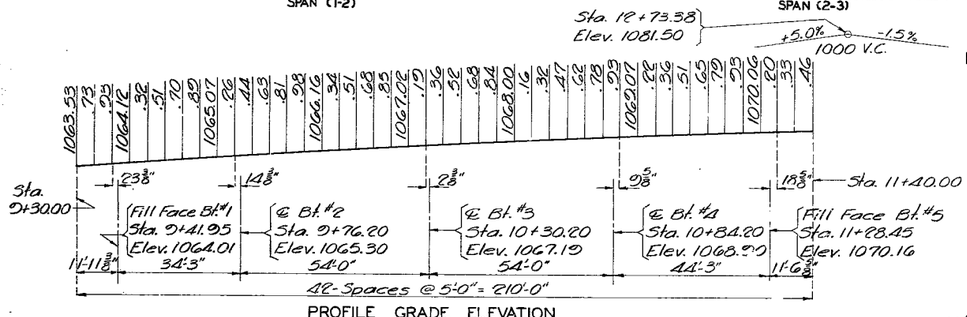
CAST END CAP
(Drive Fit Type)



FILLED JOINT DETAILS

SINGLE TUBE ALUMINUM RAILING

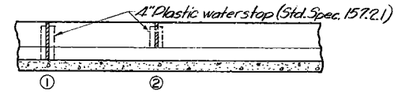


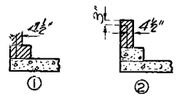


ELEVATION OF CURB AND PARAPET

PROFILE GRADE ELEVATION

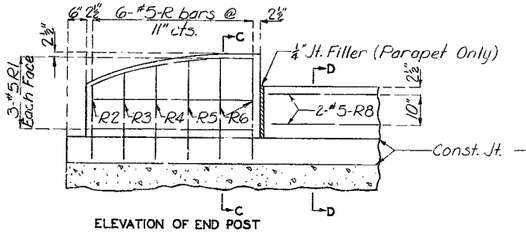
Note: Longitudinal dimensions shown are taken along top of Parapet.



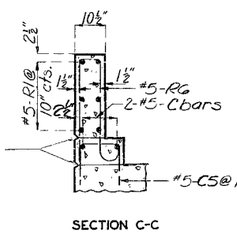


PLASTIC WATERSTOP

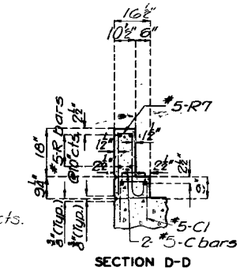
Note: Plastic waterstop shall be placed in all parapet and curb filled joints.
Cost of plastic waterstop complete in place to be included in unit price bid for concrete.



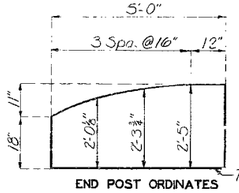
ELEVATION OF END POST



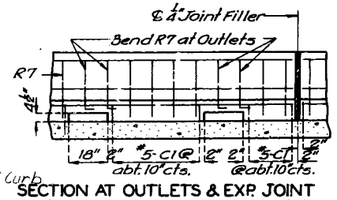
SECTION C-C



SECTION D-D



END POST ORDINATES



SECTION AT OUTLETS & EXP. JOINT

Note: Where there are no outlets use #5-C1 @ abt. 12" cts.

Note: For horizontal curb and parapet bars use minimum lap of 15" for #5 and 18" for #6.

BRIDGE: ROUTE J UNDERPASS

STATE ROAD: INTERSTATE ROUTE 44

ABOUT 4.0 MILES S.W. OF ARLINGTON

PROJECT NO. I-IG-44-2(44)(RTE. I-44) **STA.** 11+00 (W.B.L.)
11+10.1 (E.B.L.)

PHELPS **COUNTY**

A-1633

No. 1.5.2 Sq.	Revised	May 1965
Nov 1963		

DETAILED JULY 1965 BY MEISEL
CHECKED APRIL 1966 BY Baig

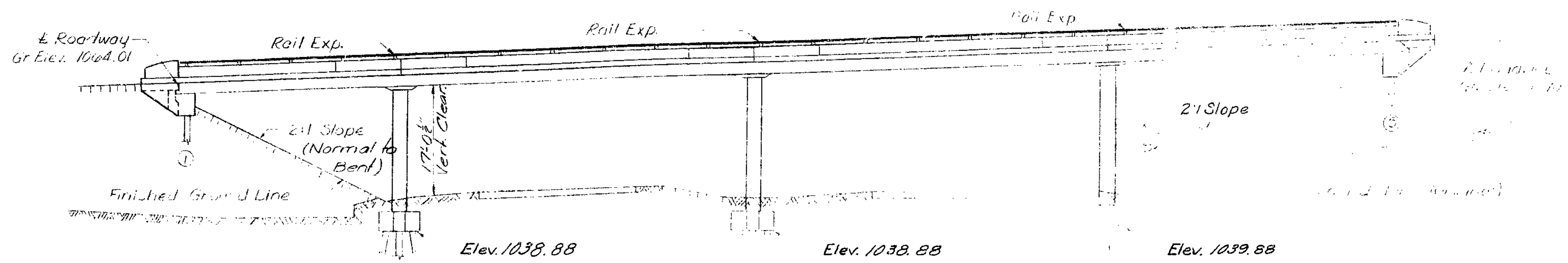
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 6 of 6.

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO		19	95	

(33'-54'-54'-43') Conf. Slab Spans (Voided)

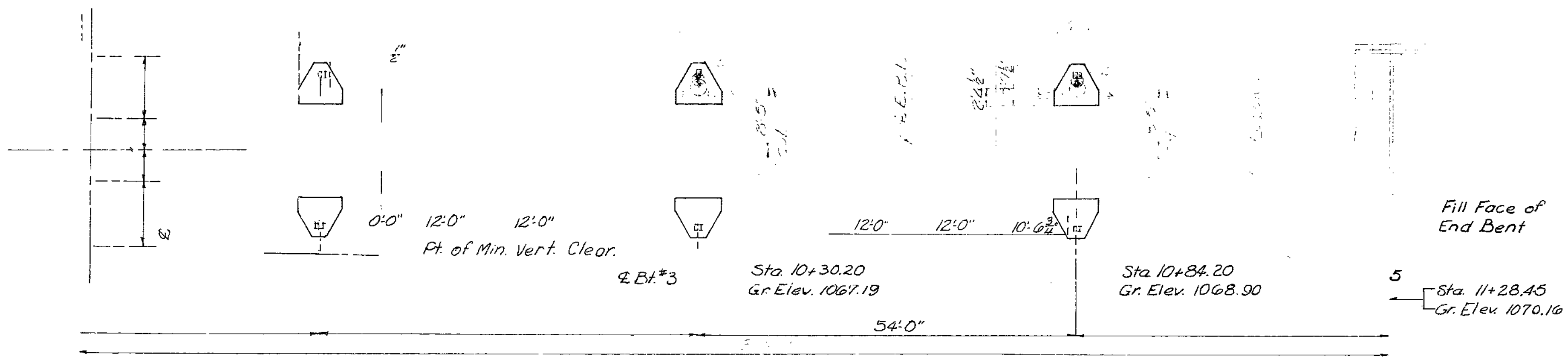


PILE DATA					
BENT NO	1	2	3	4	5
Pile T...	10BP42				
Numb...	4	6	6	6	4
Approx. ...	87	67	67	67	92
Design ...	[illegible]	[illegible]	[illegible]	42	28
*Hammer E...	[illegible]	10,600	11,800	11,600	12,000

Note *Min... ...nt of hammer based on ... Piles ... was ... Steel p... authorized ...

was

were



GENERAL NOTES:

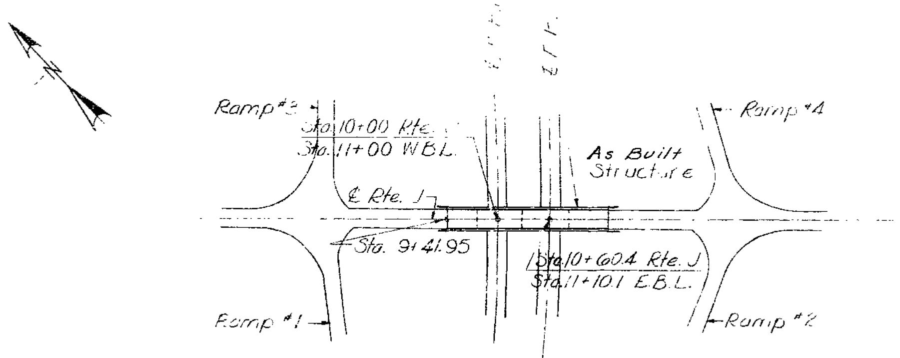
Design Specifications ... 40-1961

Design Loading
- H... 44 ... Future Wearing Surface
- Earth ... # Equivalent Fluid Pressure 30#

Design Unit Stresses:
- Class B Concrete (substructure) fc = 1,200 psi
- Class BI Concrete (superstructure) fc = 1,600 psi
- Reinforcing Steel fs = 20,000 psi
- Steel Pile (A.S.T.M. A36-62T) fb = 9,000 psi

...rface Seal:
Superstructure deck was surface sealed

... over existing lanes was constructed ... minimum vertical clearance of 13'-6" ... of existing lanes and a minimum ... clearance of 28'... centered on ... lanes.



LOCATION SKETCH

QUANTITIES				
ITEM		SUBSTR.	SUPERSTR.	TOTAL
Class 1 Excavation for Structures	Cu. Yds.	80.5		80.5
Steel Piles in Place (10")	Lin. Ft.	670		670
Steel Pile handling charge (Cont. Item)	L.F.	1247		1247
Class B Concrete	Cu. Yds.	18.7		18.7
Class BI Concrete	Cu. Yds.		391.0	391.0
Reinforcing Steel	Lb.	570	87300	87870
Bridge Rail (Single tube type)	Lin. Ft.		372	372
Cl. I Exc for Strs. (below plan - Cont.)	CY	32		32
Reinf. Steel (Cont. Item)	lb.		2830	2830

... No payment for excavation was ... at End Bents #1 & #5.
All concrete and reinforcement above ... intermediate bents is included in superstructure ...

B.M. Elev. 1074.59
U.S.G.S. Brass Cap @ Sta. 14+50 ± Rt. J-55' Rt. of ...

BRIDGE: ROUTE J UNDERPASS

STATE ROAD: INTERSTATE ROUTE 44

ABOUT 4.0 MILES S.W. OF ARLINGTON

PROJECT NO. I-IG-44-2(44) (RTE. I-44) STA. 11+00 (W.B.L.) 11+10.1 (E.B.L.)

PHELPS COUNTY

SUBMITTED BY [signature] BRIDGE ENGINEER DATE 6/19/66

APPROVED BY [signature] CHIEF ENGINEER DATE 6/19/66

STD. 5400

A-1633

DESIGNED MAY 1965 BY ASATOORIAN
DETAILED JULY 1965 BY MEISEL
CHECKED APRIL 1966 BY Bolg

Note: This drawing is not to scale. Follow dimensions.

MISSOURI STATE HIGHWAY DEPARTMENT

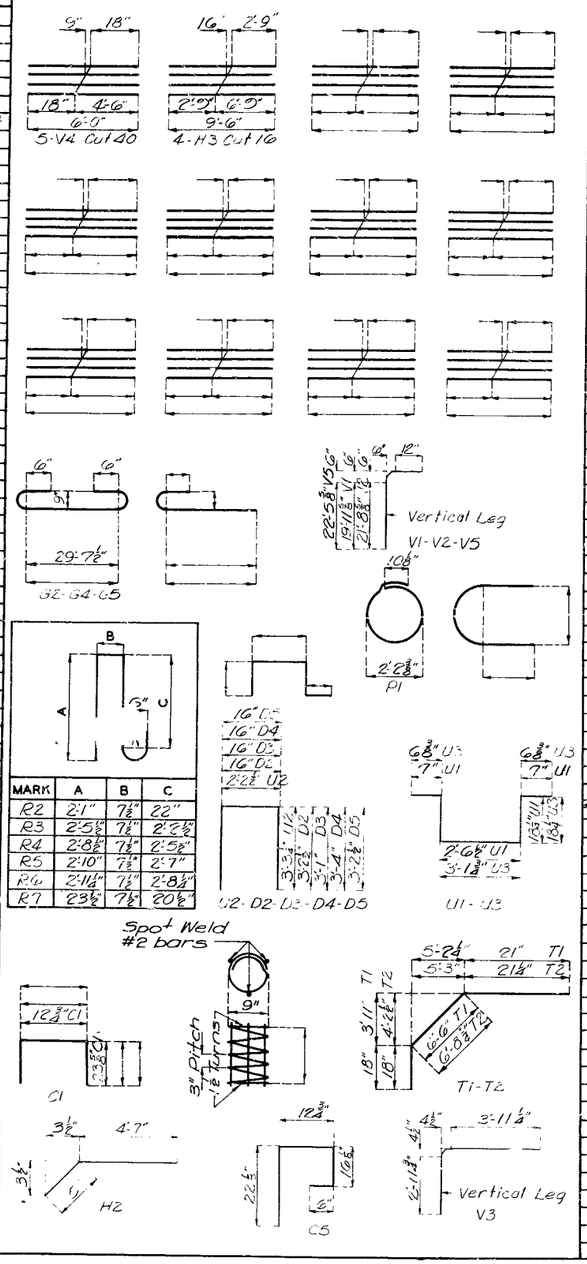
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	10(1)	

12

COMPLETE BILL OF REINFORCING STEEL

NO.	SIZE	LENGTH	MARK	LOCATION
SUPERSTRUCTURE				
376	#5	5'-0"	C1	Curb
8	#5	20'-6"	C2	"
16	#5	27'-2"	C3	"
8	#5	25'-6"	C4	"
24	#5	4'-9"	C5	"
24	#5	4'-3"	R1	End Post
4	#5	5'-6"	R2	" "
4	#5	6'-3"	R3	" "
4	#5	6'-9"	R4	" "
4	#5	7'-0"	R5	" "
8	#5	7'-3"	R6	" "
376	#5	5'-3"	R7	Parapet
8	#5	23'-9"	R8	"
48	#5	9'-3"	R9	"
8	#5	34'-0"	R10	"
16	#5	33'-9"	R11	"
446	#5	30'-6"	S1	Slab
41	#5	23'-3"	S2	"
21	#10	24'-3"	S3	"
20	#10	19'-3"	S4	"
20	#10	12'-3"	S5	"
41	#5	30'-3"	S6	"
21	#11	28'-2"	S7	"
20	#11	23'-3"	S8	"
20	#11	14'-6"	S9	"
41	#5	23'-3"	S10	"
21	#10	26'-6"	S11	"
20	#11	23'-0"	S12	"
20	#11	14'-6"	S13	"
41	#5	32'-3"	S14	"
20	#7	18'-0"	S15	"
20	#7	25'-0"	S16	"
21	#7	35'-9"	S17	"
20	#9	26'-0"	S18	"
20	#9	34'-6"	S19	"
21	#9	55'-0"	S20	"
20	#9	26'-6"	S21	"
20	#9	35'-0"	S22	"
21	#8	55'-0"	S23	"
20	#9	24'-0"	S24	"
20	#9	33'-9"	S25	"
21	#9	46'-3"	S26	"

BENDING SKETCHES & CUTTING DIAGRAMS



NO.	SIZE	LENGTH	MARK	LOCATION
END BENTS NO. 1 & 5 (SUPERSTRUCTURE)				
24	#6	30'-3"	H1	Beam & Slab
8	#6	5'-0"	H2	Wing & Beam
16	#6	5'-6"	H3	Wing
8	#6	7'-0"	H4	"
4	#6	9'-9"	T1	Wing Bt 1
4	#6	10'-0"	T2	Wing Bt 5
124	#5	8'-9"	U2	Beam
82	#6	7'-6"	V3	Beam & Slab
40	#4	6'-0"	V4	Wing
INT. BENT NO. 2 (SUPERSTRUCTURE)				
7	#10	30'-0"	G1	Drop Panel
9	#11	33'-0"	G2	Beam
40	#3	7'-9"	P1	Col.
78	#5	6'-9"	U1	Beam
18	#8	21'-9"	V1	Col.
INT. BENT NO. 3 (SUPERSTRUCTURE)				
10	#9	30'-0"	G3	Drop Panel
10	#11	33'-0"	G4	Beam
42	#3	7'-9"	P1	Col.
78	#5	7'-3"	U3	Beam
18	#8	22'-6"	V2	Col.
INT. BENT NO. 4 (SUPERSTRUCTURE)				
10	#9	30'-0"	G3	Drop Panel
12	#10	33'-0"	G5	Beam
44	#3	7'-9"	P1	Col.
78	#5	7'-3"	U3	Beam
18	#8	24'-3"	V5	Col.
INT. BENT NO. 2 (SUBSTRUCTURE)				
18	#5	2'-6"	D1	Footing
6	#6	1'-9"	D2	"
4	#6	7'-6"	D3	"
INT. BENT NO. 3 & 4 (SUBSTRUCTURE)				
36	#5	2'-6"	D1	Footing
16	#6	8'-0"	D4	"
8	#6	7'-9"	D5	"
Additional Reinforcing Steel Required to adjust Bents 1 through 5 to correct Elev.				
4	#6	30'-3"	H1	Beams #4 #5
8	#6	7'-0"	H4	Wings #4 #5
4	#6	3'-0	T1-5	Wings #1
4	#6	3'-0	T2-5	Wings #5
54	#8	5'-11"	V-5	Int. Cols
86	#6	7'-9"	V3-5	Beams #4 #5
4	#6	5'-0"	H-2	Wings #1
4	#6	5'-0"	H-2	Wings #5
38	#5	9'-11"	U2-S	Beam #1
38	#5	8'-11"	U2-S	Beam #5

BORING DATA

1044.5 Red Plastic clay with boulder from 2.3'.
1036.5 Quartzose Sandstone, very hard, residual ledge.
1035.5 Red Plastic clay & heavy chert boulders, 1ª TSF
1007.5 Sandstone & chert, stratified.
1006.5 Red clay & chert cobble.
997.5 Quartzose Sandstone with chert, hard residual ledge.
994.3 Soft red clay & chert gravel.
973.0 Roubidoux Sandstone mod. hard, dense, except for clayey seams from 72.0-73.5'
971.0 Roubidoux Dol., mod. hard & dense except for a slight amount of shale & clay inclusions.
968.5 Calcareous sandstone, slightly soft & friable but dense.
967.0 Cherty dol. hard & dense.
966.0 Soft severely weathered dol. with open seams.
964.8 Soft to slightly soft dol. with clayey inclusions.
963.5 Bottom on Limestone.

1 (CORE)

1045.5 Red clay & chert cobble.
1039.3 Hard quartzite
1038.0 Firm red clay & med. boulders.
1013.7 Cherty sandstone hard.
1011.8 Red clay & chert cobble.
998.4 Hard sandstone.
996.9 Soft red clay & gravel.
975.6 Roubidoux Sandstone, mod. hard & dense except for a slight amount of clay & loose sand along bedding planes.
972.0 Open seam.
971.8 Dolomite, mod. hard & dense except for a slight amount of clay inclusions & sparse vugs; containing a sandstone bed from 75.0-76.5' which is dense but slightly soft with shale inclusions; sound at 69.9.
967.2 Bottom on Limestone.

2 (CORE)

1046.1 Stiff red clay.
1037.3 Hard sandstone.
1036.6 Red clay & chert cobble with sparse boulders.
1008.8 Hard sandstone.
1007.7 Soft red clay & gravel.
97..5 Roubidoux Sandstone, hard & dense.
973.1 Dolomite mod. hard except for sholey-clayey inclusions, dense except for thin solution seams.
970.1 Sandstone, slightly soft & porous.
968.1 Sandy dolomite, containing shaley-clayey inclusions, slightly vugy, matrix hard & dense; sound at 71.6'.
965.6 Bottom on Limestone.

3 (CORE)

1046.8 Firm red clay & chert cobble.
1030.3 Quartzite boulders.
1029.1 Red clay & chert cobble.
1014.8 Cherty sandstone.
1011.9 Soft sandstone with clay seams & inclusions.
997.3 Very soft clay & gravel.
980.1 Mod. hard sandstone.
978.9 Clay seam.
978.6 Soft sandstone.
978.1 Mod. hard sandstone interbedded with soft sandstone.
974.8 Sandstone.

4

1053.5 Red clay & chert cobble with sparse boulders to 50.0'
978.2 Roubidoux Sandstone, mod. hard & dense except for thin clay seams.
974.5 Dolomite slightly weathered soft, with clayey inclusions.
973.5 Sandstone, mod. hard & dense
971.5 Dolomite, mod. hard & dense, with clayey inclusions.
970.0 Limestone

5 (CORE)

Note: For location of borings see sheet no. 1 of 6.

FINISHED

BRIDGE : ROUTE J UNDERPASS

STATE ROAD : INTERSTATE ROUTE 44

ABOUT 4.0 MILES S.W. OF ARLINGTON

PROJECT NO. I-IG-44-2(44) (RTE. I-44) **STA.** 11+00 (W.B.L.) 11+10.1 (E.B.L.)

PHELPS **COUNTY**

A-1633

No.	Revised	By
30.3	Dec. 1964	GI
June 1961		

DETAILED AUG. 1965 BY MEISEL
CHECKED APRIL 1966 BY Baig

Note: This drawing is not to scale. Follow dimensions

Sheet No. 2A of 64

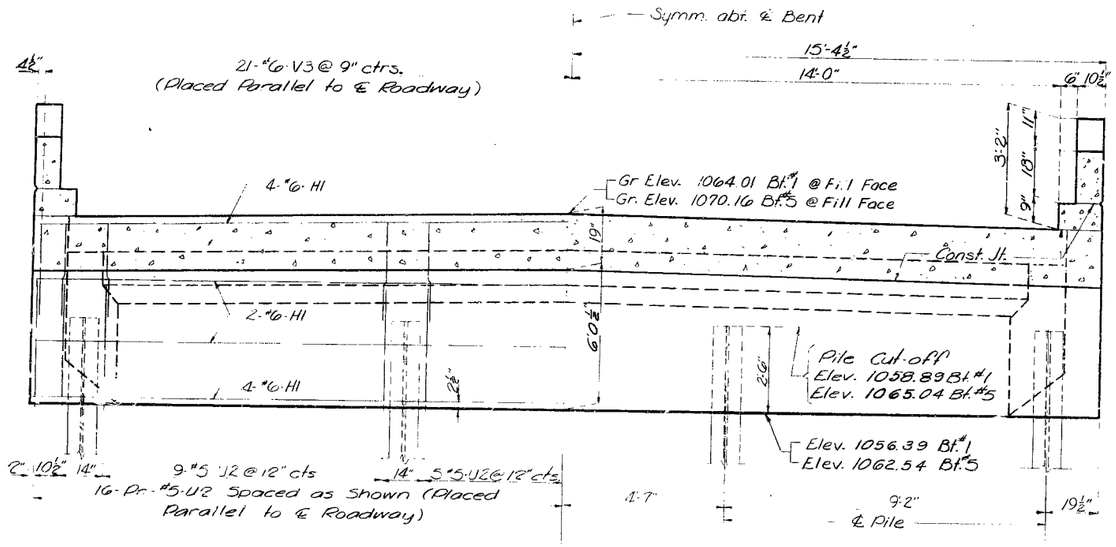
FINAL

FINISHED

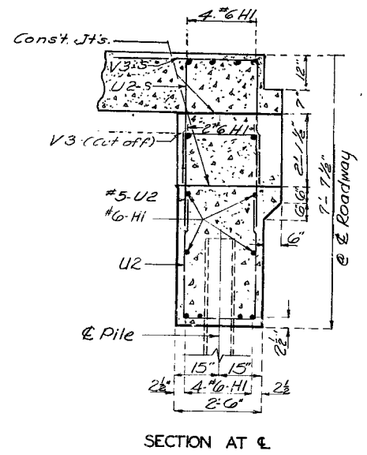
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	101	

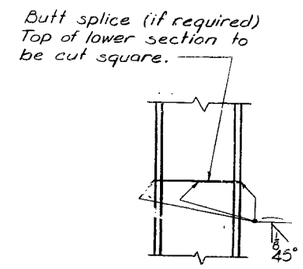
13



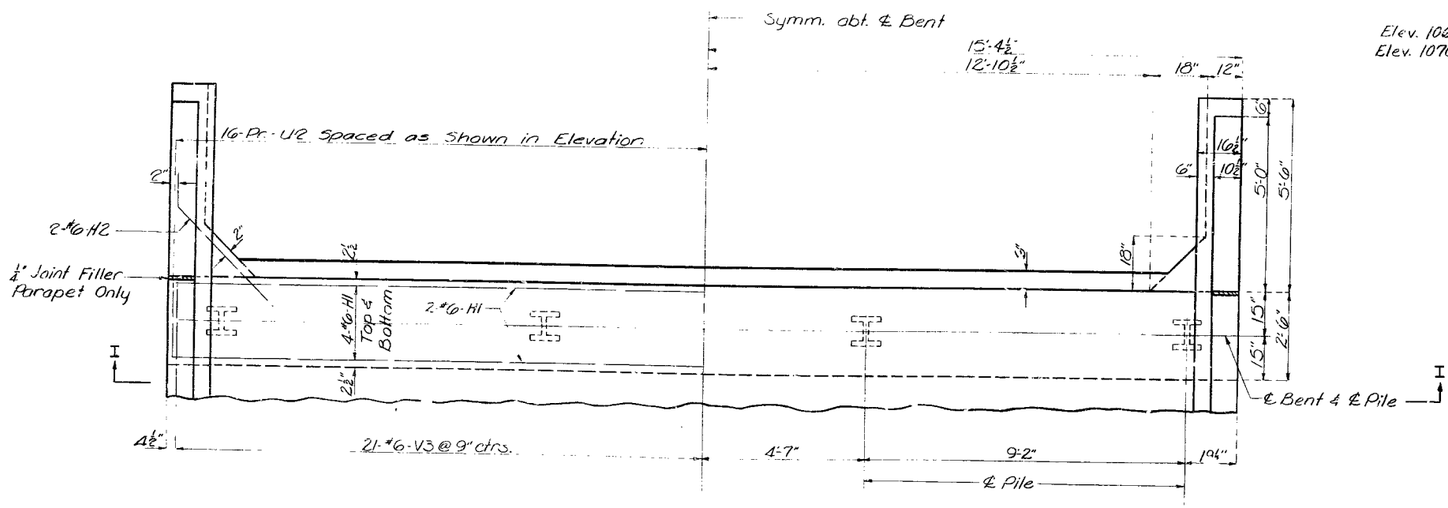
ELEVATION I-I



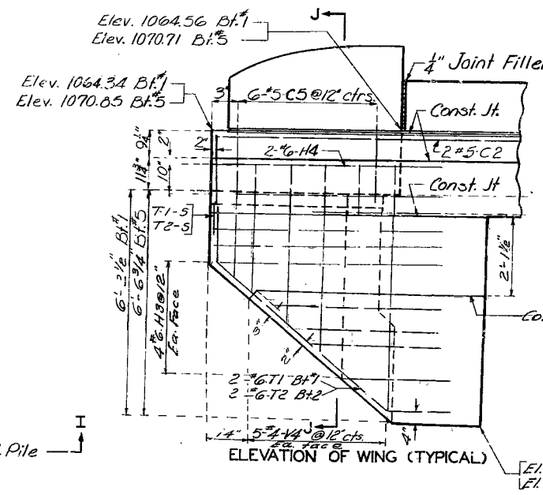
SECTION AT ℄



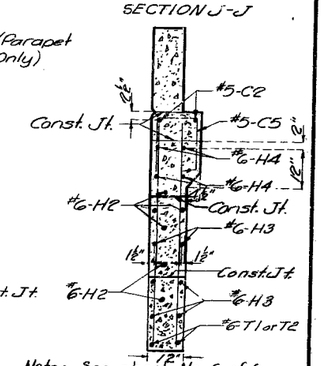
DETAIL OF STEEL PILE SPLICE



PLAN



ELEVATION OF WING (TYPICAL)



Note: See sheet No. 6 of 6 for elevation of end post. All dimensions are shown on outside face of wing.

DETAILS OF END BENTS NO. 1 & 5

BRIDGE : ROUTE J UNDERPASS

STATE ROAD : INTERSTATE ROUTE 44

ABOUT 4.0 MILES S.W. OF ARLINGTON

PROJECT NO. I-IG-44-2(44) (RTE. I-44) **STA.** 11+00 (W.B.L.) 11+10.1 (E.B.L.)

PHELPS **COUNTY**

A-1633

DETAILED JULY 1965 BY MEISEL
CHECKED APRIL 1966 BY BDG

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 3A of 6 4

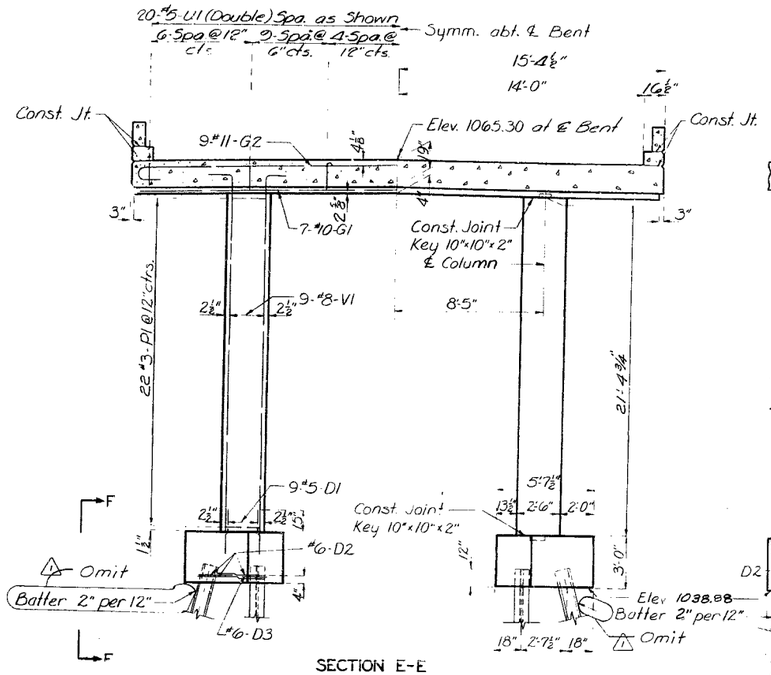
FINAL PLANS

FINISHED

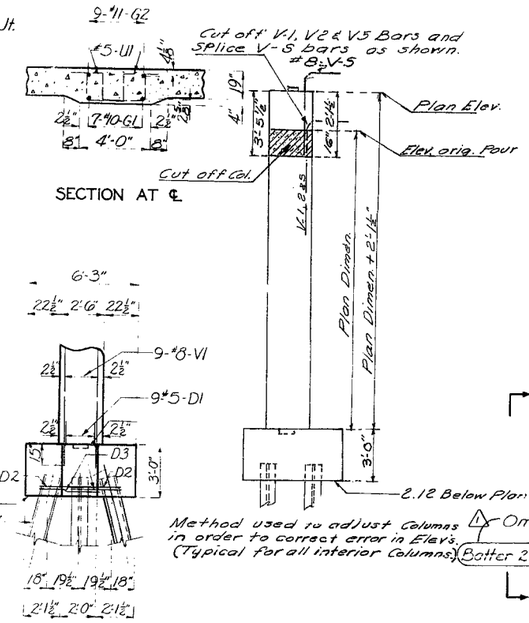
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	10V	

14

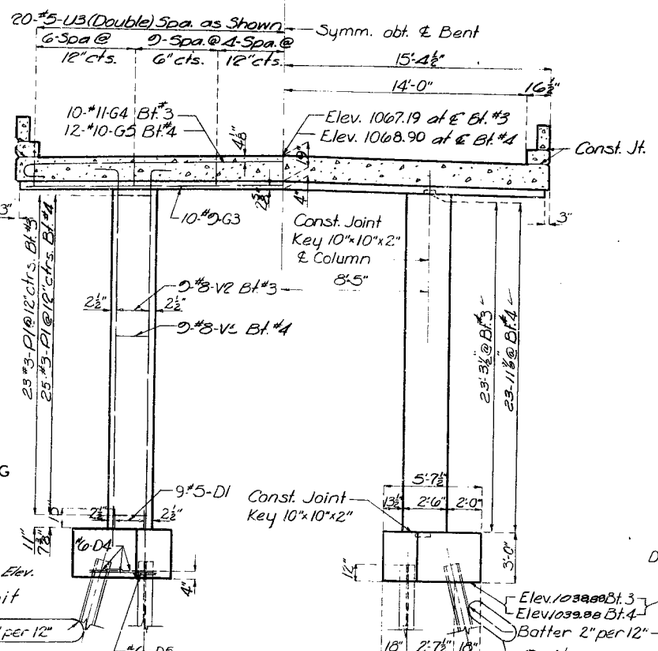


SECTION E-E

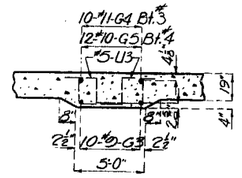


SECTION AT ℄

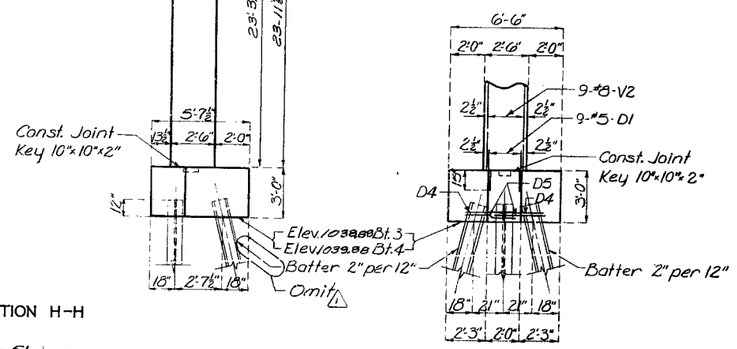
PART ELEVATION F-F



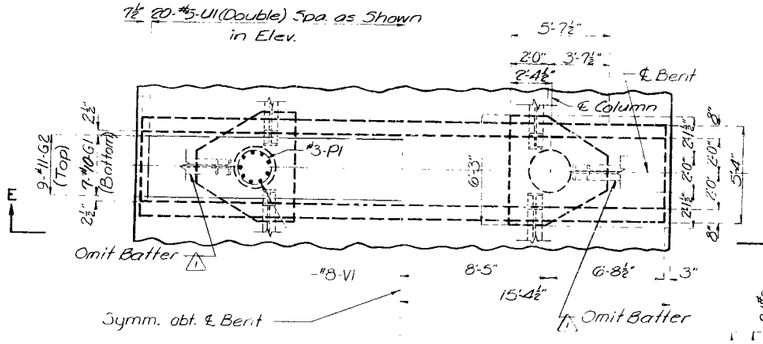
SECTION H-H



SECTION AT ℄

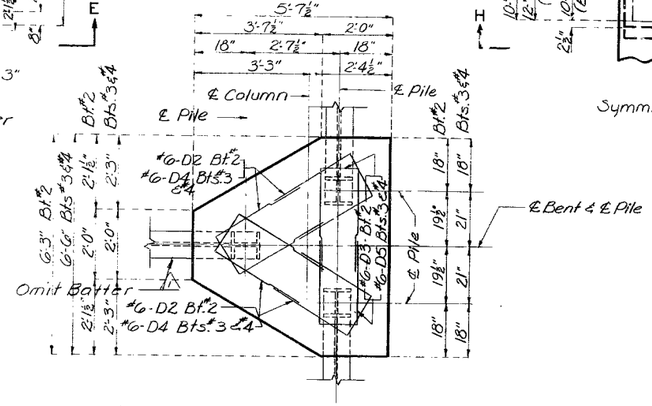


PART ELEVATION G-G

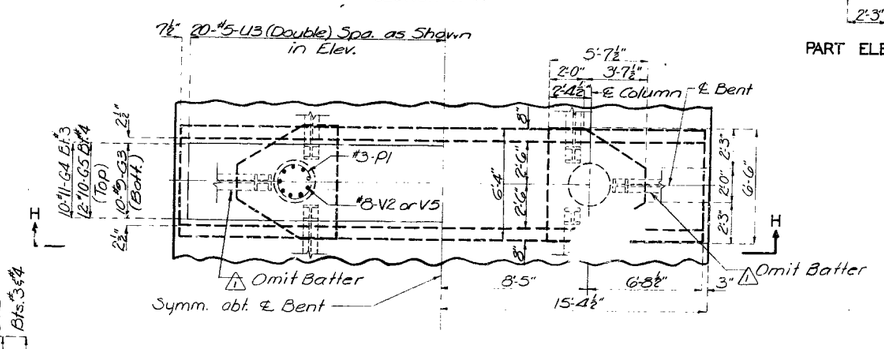


PLAN

DETAILS OF INT. BENT NO. 2



PLAN OF FOOTING SHOWING REINFORCEMENT, BENTS NO. 2,3&4



PLAN

DETAILS OF INT. BENT NO. 3 & 4

10

4

DETAILED JULY 1965 BY MEISEL
CHECKED APRIL 1966 BY Baig

Note: This drawing is not to scale. Follow dimensions.

FINISHED

BRIDGE: ROUTE J UNDERPASS
STATE ROAD: INTERSTATE ROUTE 44
ABOUT 4.0 MILES S.W. OF ARLINGTON
PROJECT NO. I-IG-44-2(44) (RTE. I-44) **STA.** 11+00 (W.B.L.) 11+10.1 (E.B.L.)
PHELPS **COUNTY**

Sheet No. 4A of 54 △ Rev. 1-10-67

FINISHED

A-1633

FINAL PLANS

Missouri Department of Transportation
State Bridge Inspection Report

September 07, 2023
1:42:11PM

COUNTY: PHELPS **DISTRICT: CD** **CLASS: STATBR** **FED-ID: 1322** **BRIDGE: A1633**

GENERAL STRUCTURE INFORMATION

ROUTE: RTJS	**# SPANS:** 4	**PLACE CODE:** 42248 LIBERTY	
FEATURE: IS 44	**LANES ON:** 2	**LENGTH:** 187 FT 0 IN	
STATUS: A-OPEN	**LANES UNDER:** 4	**MAXIMUM SPAN:** 54 FT 0 IN	
LOG MILE: 0.041	**COMPASS DIRECTION:** NORTH to SOUTH	**APPROACH ROADWAY:** 24 FT 0 IN	
DETOUR: 25.00 MILES	**DIRECTION OF TRAFFIC:** 2-WAY TRAF	**CURB TO CURB:** 28 FT 0 IN	
NHS: NO	**FUNCTIONAL CLASS:** RL-MAJOR COLLECTOR	**OUT TO OUT:** 30 FT 8 IN	
BUILT: 1966	**NBI OWNER:** MODOT	**AADT:** 1065	
REHAB:	**NBI MAINTAINED:** MODOT	**AADT YEAR:** 2022	
LOCATION: S 3 T 36 R 10 W	**MAINTENANCE DISTRICT:** CD	**AADT TRUCK:** 3.3%	
LATITUDE: 37 52 6.76 (DMS)	**MAINTENANCE COUNTY:** PHELPS	**FUTURE AADT:** 1598	
LONGITUDE: 92 1 11.64 (DMS)	**SUB AREA:** 7D47	**FUTURE AADT YEAR:** 2042	

BRIDGE INSPECTION INFORMATION

DATE: 05/10/2023 **RESPONSIBILITY:** DISTRICT
FREQUENCY: 24 **CALCULATED INTERVAL**:** 24
TEAM LEADER: JOE GREEN **ELEMENT:** NO
INSPECTOR 2: **INSPECTOR 4:**
INSPECTOR 3:

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

GENERAL INSPECTION COMMENTS

FRACTURE CRITICAL INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

FRACTURE CRITICAL INSPECTION COMMENTS

INDEPTH INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

INDEPTH INSPECTION COMMENTS

SPECIAL INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

SPECIAL INSPECTION COMMENTS

UNDERWATER INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

UNDERWATER INSPECTION COMMENTS

OTHER SPECIAL INSPECTIONS

DATE	FREQUENCY	CATEGORY	NBI	CALCULATED INTERVAL	RESPONSIBILITY	METHOD

OTHER UNDERWATER INSPECTIONS

DATE	FREQUENCY	CATEGORY	NBI	CALCULATED INTERVAL	RESPONSIBILITY	METHOD

COUNTY: PHELPS **DISTRICT: CD** **CLASS: STATBR** **FED-ID: 1322** **BRIDGE: A1633**

STRUCTURE POSTING

APPROVED CATEGORY: S-1 NO POSTING REQUIRED
Ton 1: **Ton 2:** **Ton 3:**
COMMENTS:

FIELD CATEGORY: S-1 NO POSTING REQUIRED
Ton 1: **Ton 2:** **Ton 3:** **PROBLEM:** **PROBLEM DIRECTION:**
COMMENTS:

GENERAL COMMENTS/MAJOR RATED ITEMS

GENERAL COMMENTS: (BOWDEJ1, 08/21/2008)--(34'-54'-54'-44') CONT VOIDED CONC SLAB SPANS

[ITEM 58] DECK: 6-SATISFACTORY CONDITION **COMMENTS:** (RACKEM, 11/04/2011)--CRACK, LEACH, SPALL
RATING : 05/18/2001

[ITEM 59] SUPER: 6-SATISFACTORY CONDITION **COMMENTS:** (RACKEM, 11/04/2011)--CRACK, LEACH, SPALL
RATING : 05/18/2001

[ITEM 60] SUB: 6-SATISFACTORY CONDITION **COMMENTS:** (RACKEM, 11/04/2011)--CRACK, LEACH, SPALL
RATING : 05/18/2001

[ITEM 61] BANK/CHANNEL: N-NOT APPLIC NO WATRWAY **COMMENTS:**
RATING : 05/18/2001

[ITEM 113] SCOUR: N-NOT APPLIC NOT WATERW **COMMENTS:**
RATING : 05/18/2001
EVALUATION TYPE :

[ITEM 71] WATERWAY ADEQUACY: NOT APPLICABLE **COMMENTS:**
RATING : 05/18/2001

[ITEM 72] APPRRDWY ALIGNMENT: 8-VERYGOOD **COMMENTS:**
RATING : 05/18/2001

RAILING AND APPROACH PAVEMENT COMPONENTS AND RATINGS

[ITEM 36A] BRIDGE RAILING RATING: *DOESNT MEET CURRNT STND-0* ***RATING :*** *11/30/2009* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
REINFORCED CONCRETE	CURB	BOTH	
REINFORCED CONCRETE	PARAPET	BOTH	
ALUMINUM	CIRCULAR TUBE	BOTH	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	COMMENT
COLLISION DAMAGE	THROUGHOUT		MINOR	

[ITEM 36B] TRANSITION RAILING RATING: *DOESNT MEET CURRNT STND-0* ***RATING :*** *11/30/2009* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	W-BEAM	ALL	

[ITEM 36C] APPROACH RAILING RATING: *MEETS CURRENT STANDARDS-1* ***RATING :*** *05/18/2001* ***COMMENTS:***

Design_No = a1633

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	W-BEAM	ALL	

[ITEM 36D] RAIL END TREATMENT RATING: DOESNT MEET CURRNT STND-0 *RATING :* 11/30/2009 *COMMENTS:*

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	CRASH ATTENUATOR/CUSHION	SOUTHWEST	
GALVANIZED STEEL	CRASH ATTENUATOR/CUSHION	NORTHEAST	

APPROACH PAVEMENT: *Overall condition assigned for each approach pavemenet component is shown below.

MATERIAL	CONSTRUCTION	DIRECTION	CONDITION*	COMMENTS
REINFORCED CONCRETE	SLAB	BOTH	GOOD	

DRAINAGE, EXPANSION DEVICES, BANK/SLOPE, AND DECK PROTECTIVE COMPONENTS

DECK PROTECTIVE COMPONENTS:

SERIES TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	THICKNESS	YEAR APPLIED	MANUFACTURE	OVERALL CONDITION
MAIN SERIES-1	WEARING SURFACE	ASPHALT	BITUMINOUS SEAL COAT	.4 IN			POOR

COMMENT: (BOWDEJ1, 04/23/2010)--APPLIED IN 1989 & 2009

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	COMMENT
FAILING	THROUGHOUT		NOT APPLICABLE	(TRAMPA, 03/10/2017)--ABOUT HALF STRIPPED OFF; WHAT REMAINS SEEMS TIGHT;
DECK PROTECTION	NOTAPPLICABLE	NONE		

COMMENT:

MEMBRANE	NOTAPPLICABLE	NONE		

COMMENT:

SECONDARY DECK PROTECTION	LIQUID SEALANT	INTERNALLY SEALED	2020	PAVON INDECK

COMMENT:

DRAINAGE COMPONENTS:

COMPONENT	MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS

EXPANSION DEVICE COMPONENTS:

SUB UNIT-#	SUB LABEL	COMPONENT	MATERIAL	CONSTRUCTION	GAP	YEAR APPLIED	MANUFACTURE	OVERALL CONDITION

COMMENT:

BANK/SLOPE PROTECTION COMPONENTS:

COMPONENT	MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
BANK PROTECTION	EARTH FILL	BERM	BOTH	

DECK COMPONENTS

SPAN TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	COMMENTS
MAIN SPANS-1	DECK	REINFORCED CONCRETE	CAST-IN-PLACE	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

DELAMINATION	AT ABUTMENTS		FEW
PATCHES	RANDOM		FEW
TRANSVERSE CRACKS	BOTTOM		FEW
TRANSVERSE CRACKS	DRIVING SURFACE		RANDOM

MAIN SPANS-2 *DECK* *REINFORCED CONCRETE* *CAST-IN-PLACE*

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DETERIORATION	EDGE		MINOR		
PATCHES	RANDOM		FEW		
SPALLS	RANDOM		FEW		
TRANSVERSE CRACKS	BOTTOM		FEW		
TRANSVERSE CRACKS	DRIVING SURFACE		RANDOM		

MAIN SPANS-3 *DECK* *REINFORCED CONCRETE* *CAST-IN-PLACE*

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DELAMINATION	BOTTOM		FEW		
PATCHES	RANDOM		FEW		
TRANSVERSE CRACKS	BOTTOM		FEW		
TRANSVERSE CRACKS	DRIVING SURFACE		RANDOM		

MAIN SPANS-4 *DECK* *REINFORCED CONCRETE* *CAST-IN-PLACE*

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DELAMINATION	AT ABUTMENTS		FEW		
PATCHES	RANDOM		FEW		
SPALLS	AT ABUTMENTS		FEW		
PATCHES	RANDOM		FEW		
SPALLS	AT ABUTMENTS		FEW		
TRANSVERSE CRACKS	DRIVING SURFACE		RANDOM		

SUPERSTRUCTURE COMPONENTS

SERIES TYPE-#	SPAN TYPE	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
MAIN SERIES-1	*CONTINUOUS SPAN*	*REINFORCED CONCRETE*	*VOIDED SLAB*		

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-1	NON-COMPOSITE	34 FT 3 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DIAGONAL CRACKS	ENDS		FEW		
EFFLORESCENCE	ENDS		MINOR		
SATURATION	BOTTOM		MINOR		
SPALLS	RANDOM		FEW		

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-2	NON-COMPOSITE	54 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DIAGONAL CRACKS	ENDS		FEW		
EFFLORESCENCE	ENDS		MINOR		

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-3	NON-COMPOSITE	54 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DIAGONAL CRACKS	ENDS		FEW		
EFFLORESCENCE	ENDS		MINOR		

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-4	NON-COMPOSITE	44 FT 3 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DIAGONAL CRACKS	ENDS		FEW		
EFFLORESCENCE	ENDS		MINOR		

SUBSTRUCTURE COMPONENTS

SUBSTRUCTURE	SKEW	LENGTH	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
ABUTMENT-1		*30 FT 9 IN*	*REINFORCED CONCRETE*	*INTEGRAL*		

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
ASSOCIATED COMPONENT	**MATERIAL**	**CONSTRUCTION**			
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE			
LEACHING	THROUGHOUT		MINOR		
SPALLS	RANDOM		FEW		
VERTICAL CRACKS	THROUGHOUT		MINOR		
PILING	STEEL	H-SHAPE			
TURNED BACK WINGS	REINFORCED CONCRETE	CAST-IN-PLACE			
DETERIORATION	FRONT FACE		MINOR		
DIAGONAL CRACKS	THROUGHOUT		MINOR		
LEACHING	THROUGHOUT		MODERATE		

SUBSTRUCTURE	SKEW	LENGTH	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
BENT-2		*30 FT 9 IN*	*REINFORCED CONCRETE*	*MULTIPLE COLUMN*		

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
ASSOCIATED COMPONENT	**MATERIAL**	**CONSTRUCTION**			
COLUMN	REINFORCED CONCRETE	INTEGRAL CAST-IN-PLACE			
HORIZONTAL CRACKS	TOP		FEW		
FOOTING	REINFORCED CONCRETE	H-PILE			

SUBSTRUCTURE	SKEW	LENGTH	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
BENT-3		*30 FT 9 IN*	*REINFORCED CONCRETE*	*MULTIPLE COLUMN*		

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
ASSOCIATED COMPONENT	**MATERIAL**	**CONSTRUCTION**			
COLUMN	REINFORCED CONCRETE	INTEGRAL CAST-IN-PLACE			
HORIZONTAL CRACKS	TOP		FEW		
FOOTING	REINFORCED CONCRETE	H-PILE			

SUBSTRUCTURE	SKEW	LENGTH	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
BENT-4		*30 FT 9 IN*	*REINFORCED CONCRETE*	*MULTIPLE COLUMN*		

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
ASSOCIATED COMPONENT	**MATERIAL**	**CONSTRUCTION**			
COLUMN	REINFORCED CONCRETE	INTEGRAL CAST-IN-PLACE			
HORIZONTAL CRACKS	TOP		FEW		
FOOTING	REINFORCED CONCRETE	H-PILE			

SUBSTRUCTURE	SKEW	LENGTH	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
ABUTMENT-5		*30 FT 9 IN*	*REINFORCED CONCRETE*	*INTEGRAL*		

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

COUNTY: PHELPS **DISTRICT: CD** **CLASS: STATBR** **FED-ID: 1322** **BRIDGE: A1633**

ASSOCIATED COMPONENT	*MATERIAL*	*CONSTRUCTION*			
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
DELAMINATION	RANDOM		LARGE		
LEACHING	THROUGHOUT		MODERATE		
SPALLS	RANDOM		LARGE		
VERTICAL CRACKS	THROUGHOUT		MINOR		
PILING	STEEL	H-SHAPE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
TURNED BACK WINGS	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
DETERIORATION	THROUGHOUT		HEAVY		
DIAGONAL CRACKS	THROUGHOUT		MODERATE		
LEACHING	THROUGHOUT		MODERATE		

OVER/UNDER ROUTES CLEARANCE INFORMATION

CLEARANCES OVER DECK

**NOTE: Vertical clearances for permitting purposes are taken as 2 inches less than the actual field measured clearance.

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT

CLEARANCES UNDER BRIDGE

**NOTE: Vertical clearances for permitting purposes are taken as 2 inches less than the actual field measured clearance.

RECORD #	ROUTE	# LANES	DIRECTION OF TRAFFIC	RIGHT LATERAL CLEARANCE	LEFT LATERAL CLEARANCE	UR-ID
1	IS 44 E	2	1-WAY TRAF	10 FT 6 IN	10 FT 6 IN	3097

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT
ACTUAL	18 FT 3 IN			

RECORD #	ROUTE	# LANES	DIRECTION OF TRAFFIC	RIGHT LATERAL CLEARANCE	LEFT LATERAL CLEARANCE	UR-ID
2	IS 44 W	2	1-WAY TRAF	10 FT 6 IN	10 FT 6 IN	3098

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT
ACTUAL	16 FT 6 IN			

STRUCTURE PAINT INFORMATION

CONDITION: **RUST AMOUNT :** **STEEL TONS :** 0

ORIGINAL PAINT	CONTRACT REPAINT	DEPARTMENT REPAINT	
PAINT TYPE :	**PAINT TYPE :**	**PAINT TYPE :**	**MANUFACTURE :**
NAME :	**NAME :**	**NAME :**	**SURFACE PREP :**
PAINT COLOR :	**PAINT COLOR :**	**PAINT COLOR :**	
PAINT YEAR :	**PAINT YEAR :**	**PAINT YEAR :**	
MILS :	**MILS :**	**MILS :**	

COUNTY: PHELPS **DISTRICT: CD** **CLASS: STATBR** **FED-ID: 1322** **BRIDGE: A1633**

REQUESTED WORK ITEMS

GENERAL WORK COMMENTS:

RESPONSIBILITY	*LOCATION*	*ITEM*	*CATEGORY*	*PRIORITY*	*DATE*	*WORK ITEM COMMENT*
DISTRICT SPECIAL	ROADWAY SURFACE	REPAIR CONCRETE>100 SF	DECK	3	05/16/2023	

UTILITY ATTACHMENTS

UTILITY	*OWNER*	*METHOD*	*MEASUREMENT TYPE*	*VALUE*	*NUMBER*	*UTILITY ATTACHMENT COMMENT*

PROGRAM NOTES INFORMATION

YEAR	PROJECT #	MONTH LET	YEAR LET	ITEMS	COMMENT

COMPUTER GENERATED RATINGS AND DEFICIENCY ITEMS

NOTE: The items listed in this section are updated whenever computer edits are ran on a structure after the inspection updates have been entered in to TMS.

Rated Item	Rating	Rating Date
[Item 67] Structure Evaluation Rating:	5-BETTER THAN MINIMUM	5/18/2001
[Item 68] Deck Geometry Rating:	5-BETTER THAN MINIMUM	5/18/2001
[Item 69] Underclearance:	4-MEETS MINIMUM TOLERABLE	1/26/2022
Sufficiency Rating:	67.4%	2/22/2022
Deficiency:	NOT DEFICIENT	5/18/2001
Funding Eligibility:		----
Estimated New Structure Length:		----
Estimated Structure Cost:		----
Estimated Total Project Cost:		----
Year of Cost Estimate:		----

NOTE: The above structure length and cost estimates are computer generated using algorithims in the TMS system. These algorthims are generalized to use NBI items to come up with a new structure length and width to calculate a new area which is taken times a representative cost per square foot. The actual structure size and cost may vary significantly from these numbers once site specific engineering is done.

ADVANCED SIGN INFORMATION

SIGN #	SIGN TYPE	PROBLEM	PROBLEM DIRECTION
1			

OUTFALL INSPECTION INFORMATION

 # OUTFALLS: **INSPECTOR:**
STATUS: **DATE:**
NOTES:

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

September 7, 2023
1:37:09pm

COUNTY : PHELPS **BRIDGE :** A1633 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : ROUTE CARRIED 'ON' STRUCT **RUN DATE :** 5/16/2023 **SUBMITTAL YEAR :** 2023

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	CD
3	County	PHELPS
8	Federal ID No.	1322
27	Year Built	1966
106	Year Reconstructed	0
42A	Type of Service On	HIGHWAY
21	Structure Maintenance	STATE HIGHWAY AGENCY
22	Structure Owner	STATE HIGHWAY AGENCY
33	Br. Median Code	NO MEDIAN
37	Historical Significance	NOT ELIGIBLE FOR NR OF HP
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	YES

ROUTE DESIGNATION INFORMATION

5A	Record Type	ROUTE CARRIED 'ON' STRUCT
5B	Route Signing Prefix	MO
5C	Designated Level of Service	MAINLINE
5D	Route Number	0000J
5E	Directional Suffix	NOT APPLICABLE
7	Facility Carried	RT J S
12	Base Hwy. Network	NO
13A	LRS Inventory Route No.	
13B	Subroute No.	
20	Toll Status	ON FREE ROAD
26	Functional Classification	07-RURAL MAJOR COLLECTOR
28A	Lanes on Structure	02
100	STRAHNET Designation	RTE NOT A DEFENSE HWY
104	National Highway System	NOT ON NHS
105	Federal Lands Highway	NOT APPLICABLE
110	Designated Nat. Network	NO

STRUCTURE LOCATION INFORMATION

4	Place	LIBERTY
	Code	42248
9	Location	S 3 T 36 N R 10 W
11	Milepoint	0.04 miles
16	Latitude	37 D 52 M 7 S
17	Longitude	92 D 1 M 12 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	1065
30	AADT Year	2022
102	Direction of Traffic	2-WAY TRAFFIC
109	AADT Truck Percent	3%
114	Future AADT	1598
115	Future AADT Year	2042

UNDERRECORD INFORMATION

6	Features Intersected	IS 44
42B	Type of Service Under	HIGHWAY
28B	Lanes Under Structure	04
54A	Vert. Clearance Ref.	HIGHWAY
54B	Vert. Clearance	16 Ft. 6 In.
55A	Rt. Lat Clear Ref.	HIGHWAY
55B	Rt. Lat Clearance	10 Ft. 6 In.
56	Left Lat Clearance	10 Ft. 6 In.
38	Navigation Control	N/A
39	Nav Vertical Clear	0 Ft. 0 In.
40	Nav Horizontal Clear	0 Ft. 0 In.
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	99 Ft. 99 In.
19	By pass Detour Length	25.00 miles
32	Approach Roadway Width	23 Ft. 11 In.
34	Skew	0.00 Degrees
35	Struct. Flared	NO
47	Total Horiz. Clear	27 Ft. 11 In.
48	Maximum Span Length	54 Ft. 2 In.
49	Structure Length	187 Ft. 0 In.
50A	Left Curb/Sidewalk Width	0 Ft. 0 In.
50B	Right Curb/Sidewalk Width	0 Ft. 0 In.
51	Curb to Curb Br. Width	27 Ft. 11 In.
52	Deck Width (Out-Out)	30 Ft. 10 In.
53	Vert.Clearance Over Deck	99 Ft. 99 In.

Design_No = a1633

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

September 7, 2023
1:37:09pm

COUNTY : PHELPS **BRIDGE :** A1633 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : ROUTE CARRIED 'ON' STRUCT **RUN DATE :** 5/16/2023 **SUBMITTAL YEAR :** 2023

LOAD RATING AND POSTING INFORMATION

31	Design Load	H 15
41	Structure Status	OPEN NO RESTRICTIONS
63	Oper. Rating Meth.	ALLOWABLE STRESS
64	Operating Rating	42 Tons.
65	Inventory Rating Meth	ALLOWABLE STRESS
66	Inventory Rating	21 Tons.
70	Bridge Posting Code	=>LEGAL LOADS

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating	67.4 Percent
	Deficiency Rating	NOT DEFICIENT
	Funding Eligibility	
75A	Proposed Work	
75B	Work Done By	
76	New Struc Length	0 Ft. 0 In.
94	Struc Improve Cost	$ 0,000
95	Roadway Improve Cost	$ 0,000
96	Total Project Cost	$ 0,000
97	Year of Cost Estimates	0

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating	DOES NOT MEET ACCEPT STND
36B	Transition Rail App. Rating	DOES NOT MEET ACCEPT STND
36C	Approach Rail App. Rating	MEETS ACCEPTBLE STND
36D	Rail End Treat. App. Rating	DOES NOT MEET ACCEPT STND
67	Struc Eval App. Rating	5
68	Deck Geometry App. Rating	5
69	Underclearance App. Rating	4
71	Waterway Adeq. App. Rating	N
72	Approach Road App. Rating	8
113	Scour Assess App. Rating	N

MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	CONCRETE CONTINUOUS
43B	Main struc Constr. Type	SLAB
45	# of Main Spans	4
44A	Appr Struc. Mat type	000
44B	Appr Struc. Cnstr. type	000
46	# of Approach Span	0
107	Deck Mat/Constr.	1 CONCRETE CIP
108A	Wear Surf Mat/Constr.	6 BITUMINOUS
108B	Membrane Mat/Constr.	0 NONE
108C	Deck Protect Mat/Constr.	0 NONE

CONDITION RATING INFORMATION

58	Deck Cond. Rating	6
59	Superstructure Cond. Rating	6
60	Substructure Cond. Rating	6
61	Channel /Channel Protection Cond. Rating	N
62	Culvert Cond. Rating	N

INSPECTION INFORMATION

90	Gen. Insp Date	5 / 23	
91	Gen. Insp. Frequency	24	Months
92A	Frac. Critical Inspection	N	Months
93A	Frac. Critical Insp. Date		
92B	Underwater Inspection	N	Months
93B	Underwater Insp. Date		
92C	Special Inspection	N	Months
93C	Special Inspection Date		

BORDER BRIDGE INFORMATION

98	Neighboring State Code
98B	Neighboring State % Respon
99	Neighboring State Struc. No.

APPROVED POSTING INFORMATION

Approved Posting Category S-1

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

NO POSTING REQUIRED

FIELD POSTING INFORMATION

Field Posting Category S-1

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

NO POSTING REQUIRED

Design_No = a1633

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

September 7, 2023
1:37:09pm

COUNTY : PHELPS **BRIDGE :** A1633 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : 1 RTE THAT GOES 'UNDER' S **RUN DATE :** 5/16/2023 **SUBMITTAL YEAR :** 2023

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	CD
3	County	PHELPS
8	Federal ID No.	1322
27	Year Built	1966
106	Year Reconstructed	0
42A	Type of Service On	HIGHWAY
21	Structure Maintenance	
22	Structure Owner	
33	Br. Median Code	
37	Historical Significance	
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	

ROUTE DESIGNATION INFORMATION

5A	Record Type	1 RTE THAT GOES 'UNDER' S	Code : A
5B	Route Signing Prefix	IS	
5C	Designated Level of Service	MAINLINE	
5D	Route Number	00044	
5E	Directional Suffix	NOT APPLICABLE	
7	Facility Carried	RT J S	
12	Base Hwy. Network		
13A	LRS Inventory Route No.		
13B	Subroute No.		
20	Toll Status	ON FREE ROAD	
26	Functional Classification	01-RU PRINCIPL ARTRIAL-IS	
28A	Lanes on Structure	02	
100	STRAHNET Designation	ON A DEFENSE HWY	
104	National Highway System	ON NHS	
105	Federal Lands Highway		
110	Designated Nat. Network	YES	

STRUCTURE LOCATION INFORMATION

4	Place	LIBERTY
	Code	42248
9	Location	S 3 T 36 N R 10 W
11	Milepoint	170.07 miles
16	Latitude	37 D 52 M 7 S
17	Longitude	92 D 1 M 12 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	15506
30	AADT Year	2022
102	Direction of Traffic	1-WAY TRAFFIC
109	AADT Truck Percent	29%
114	Future AADT	
115	Future AADT Year	

UNDERRECORD INFORMATION

6	Features Intersected	IS 44
42B	Type of Service Under	HIGHWAY
28B	Lanes Under Structure	02
54A	Vert. Clearance Ref.	
54B	Vert. Clearance	
55A	Rt. Lat Clear Ref.	
55B	Rt. Lat Clearance	
56	Left Lat Clearance	
38	Navigation Control	
39	Nav Vertical Clear	
40	Nav Horizontal Clear	
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	18 Ft. 3 In.
19	By pass Detour Length	0.00 miles
32	Approach Roadway Width	
34	Skew	
35	Struct. Flared	
47	Total Horiz. Clear	27 Ft. 11 In.
48	Maximum Span Length	54 Ft. 2 In.
49	Structure Length	187 Ft. 0 In.
50A	Left Curb/Sidewalk Width	
50B	Right Curb/Sidewalk Width	
51	Curb to Curb Br. Width	
52	Deck Width (Out-Out)	
53	Vert.Clearance Over Deck	

Design_No = a1633

Missouri Department of Transportation
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September 7, 2023
1:37:09pm

COUNTY : PHELPS **BRIDGE :** A1633 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : 1 RTE THAT GOES 'UNDER' S **RUN DATE :** 5/16/2023 **SUBMITTAL YEAR :** 2023

LOAD RATING AND POSTING INFORMATION

31	Design Load
41	Structure Status
63	Oper. Rating Meth.
64	Operating Rating
65	Inventory Rating Meth
66	Inventory Rating
70	Bridge Posting Code

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating
	Deficiency Rating
	Funding Eligibility
75A	Proposed Work
75B	Work Done By
76	New Struc Length
94	Struc Improve Cost
95	Roadway Improve Cost
96	Total Project Cost
97	Year of Cost Estimates

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating
36B	Transition Rail App. Rating
36C	Approach Rail App. Rating
36D	Rail End Treat. App. Rating
67	Struc Eval App. Rating
68	Deck Geometry App. Rating
69	Underclearance App. Rating
71	Waterway Adeq. App. Rating
72	Approach Road App. Rating
113	Scour Assess App. Rating

MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	CONCRETE CONTINUOUS
43B	Main struc Constr. Type	SLAB
45	# of Main Spans	
44A	Appr Struc. Mat type	
44B	Appr Struc. Cnstr. type	
46	# of Approach Span	
107	Deck Mat/Constr.	
108A	Wear Surf Mat/Constr.	
108B	Membrane Mat/Constr.	
108C	Deck Protect Mat/Constr.	

CONDITION RATING INFORMATION

58	Deck Cond. Rating
59	Superstructure Cond. Rating
60	Substructure Cond. Rating
61	Channel /Channel Protection Cond. Rating
62	Culvert Cond. Rating

INSPECTION INFORMATION

90	Gen. Insp Date
91	Gen. Insp. Frequency
92A	Frac. Critical Inspection
93A	Frac. Critical Insp. Date
92B	Underwater Inspection
93B	Underwater Insp. Date
92C	Special Inspection
93C	Special Inspection Date

BORDER BRIDGE INFORMATION

98	Neighboring State Code
98B	Neighboring State % Respon
99	Neighboring State Struc. No.

APPROVED POSTING INFORMATION

Approved Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

FIELD POSTING INFORMATION

Field Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

Design_No = a1633

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

September 7, 2023
1:37:09pm

COUNTY : PHELPS **BRIDGE :** A1633 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : 2ND RTE THAT GOES 'UNDR'S **RUN DATE :** 5/16/2023 **SUBMITTAL YEAR :** 2023

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	CD
3	County	PHELPS
8	Federal ID No.	1322
27	Year Built	1966
106	Year Reconstructed	0
42A	Type of Service On	HIGHWAY
21	Structure Maintenance	
22	Structure Owner	
33	Br. Median Code	
37	Historical Significance	
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	

ROUTE DESIGNATION INFORMATION

5A	Record Type	2ND RTE THAT GOES 'UNDR'S Code : B
5B	Route Signing Prefix	IS
5C	Designated Level of Service	MAINLINE
5D	Route Number	00044
5E	Directional Suffix	NOT APPLICABLE
7	Facility Carried	RT J S
12	Base Hwy. Network	
13A	LRS Inventory Route No.	
13B	Subroute No.	
20	Toll Status	ON FREE ROAD
26	Functional Classification	01-RU PRINCIPL ARTRIAL-IS
28A	Lanes on Structure	02
100	STRAHNET Designation	ON A DEFENSE HWY
104	National Highway System	ON NHS
105	Federal Lands Highway	
110	Designated Nat. Network	YES

STRUCTURE LOCATION INFORMATION

4	Place	LIBERTY
	Code	42248
9	Location	S 3 T 36 N R 10 W
11	Milepoint	124.88 miles
16	Latitude	37 D 52 M 7 S
17	Longitude	92 D 1 M 12 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	14422
30	AADT Year	2022
102	Direction of Traffic	1-WAY TRAFFIC
109	AADT Truck Percent	29%
114	Future AADT	
115	Future AADT Year	

UNDERRECORD INFORMATION

6	Features Intersected	IS 44
42B	Type of Service Under	HIGHWAY
28B	Lanes Under Structure	02
54A	Vert. Clearance Ref.	
54B	Vert. Clearance	
55A	Rt. Lat Clear Ref.	
55B	Rt. Lat Clearance	
56	Left Lat Clearance	
38	Navigation Control	
39	Nav Vertical Clear	
40	Nav Horizontal Clear	
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	16 Ft. 6 In.
19	By pass Detour Length	0.00 miles
32	Approach Roadway Width	
34	Skew	
35	Struct. Flared	
47	Total Horiz. Clear	27 Ft. 11 In.
48	Maximum Span Length	54 Ft. 2 In.
49	Structure Length	187 Ft. 0 In.
50A	Left Curb/Sidewalk Width	
50B	Right Curb/Sidewalk Width	
51	Curb to Curb Br. Width	
52	Deck Width (Out-Out)	
53	Vert.Clearance Over Deck	

Design_No = a1633

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

September 7, 2023
1:37:09pm

COUNTY : PHELPS **BRIDGE :** A1633 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : 2ND RTE THAT GOES 'UNDR'S **RUN DATE :** 5/16/2023 **SUBMITTAL YEAR :** 2023

LOAD RATING AND POSTING INFORMATION

31	Design Load
41	Structure Status
63	Oper. Rating Meth.
64	Operating Rating
65	Inventory Rating Meth
66	Inventory Rating
70	Bridge Posting Code

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating
	Deficiency Rating
	Funding Eligibility
75A	Proposed Work
75B	Work Done By
76	New Struc Length
94	Struc Improve Cost
95	Roadway Improve Cost
96	Total Project Cost
97	Year of Cost Estimates

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating
36B	Transition Rail App. Rating
36C	Approach Rail App. Rating
36D	Rail End Treat. App. Rating
67	Struc Eval App. Rating
68	Deck Geometry App. Rating
69	Underclearance App. Rating
71	Waterway Adeq. App. Rating
72	Approach Road App. Rating
113	Scour Assess App. Rating

MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	CONCRETE CONTINUOUS
43B	Main struc Constr. Type	SLAB
45	# of Main Spans	
44A	Appr Struc. Mat type	
44B	Appr Struc. Cnstr. type	
46	# of Approach Span	
107	Deck Mat/Constr.	
108A	Wear Surf Mat/Constr.	
108B	Membrane Mat/Constr.	
108C	Deck Protect Mat/Constr.	

CONDITION RATING INFORMATION

58	Deck Cond. Rating
59	Superstructure Cond. Rating
60	Substructure Cond. Rating
61	Channel /Channel Protection Cond. Rating
62	Culvert Cond. Rating

INSPECTION INFORMATION

90	Gen. Insp Date
91	Gen. Insp. Frequency
92A	Frac. Critical Inspection
93A	Frac. Critical Insp. Date
92B	Underwater Inspection
93B	Underwater Insp. Date
92C	Special Inspection
93C	Special Inspection Date

BORDER BRIDGE INFORMATION

98	Neighboring State Code
98B	Neighboring State % Respon
99	Neighboring State Struc. No.

APPROVED POSTING INFORMATION

Approved Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

FIELD POSTING INFORMATION

Field Posting Category

Ton1 Ton2 Ton3

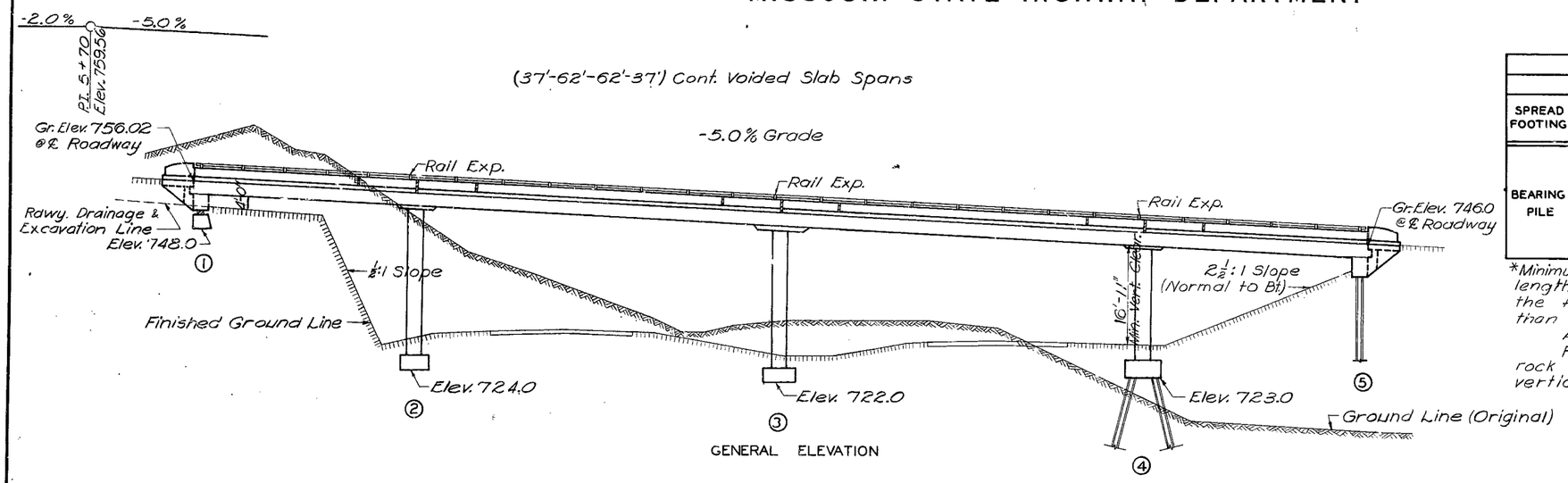
Tonnage Values for Posting Sign

General Text for Posting Sign

Design_No = a1633

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	129	



GENERAL ELEVATION

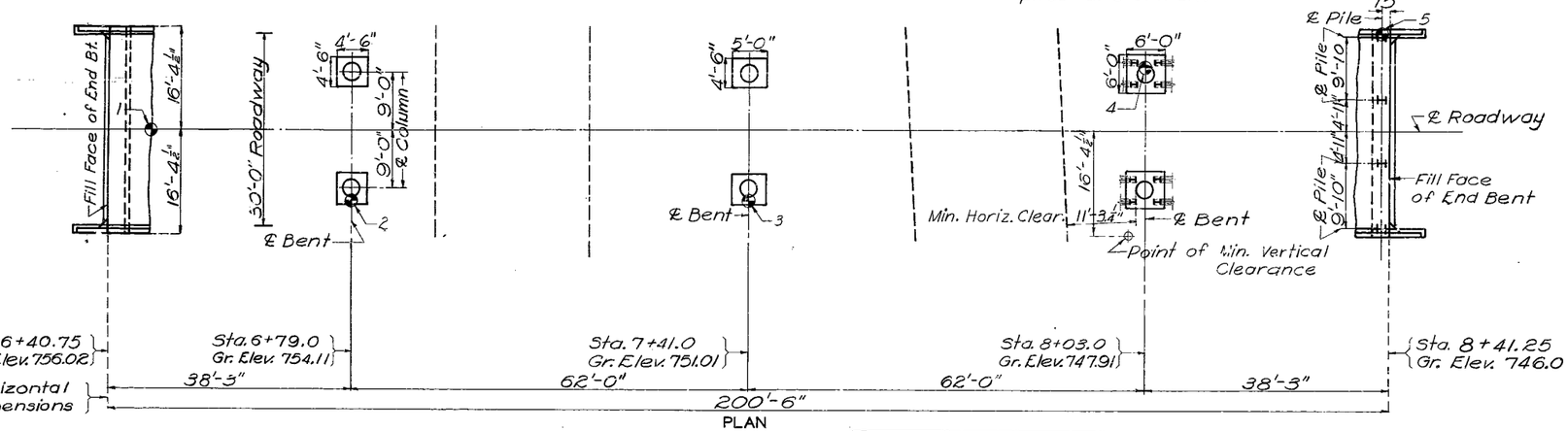
FOOTING AND PILE DATA						
BENT NO.		1	2	3	4	5
SPREAD FOOTING	Foundation Material	Rock	Rock	Rock		
	Design Brg. Tons/Sq. Ft.	1.4	8.2	9.6		
BEARING PILE	Pile Type & Size				10BP42	
	Number				4	4
	Approximate Length Ft.				22	42
	Design Bearing Value Tons				42	28
	Hammer Energy Reqd* Ft. lbs				9900	7000

*Minimum Energy requirement of hammer based on plan length and design bearing value of piles. Increase by the factor (W+w)/2W when the ram (W) is less than the weight of the pile (w).

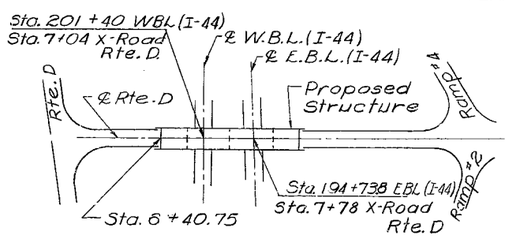
All pile shall be driven to practical refusal.

Footings shall be carried 6" into hard, solid, undisturbed rock or 18" into soft rock or shale and cast against vertical faces of same for Bts. No. 1, 2 & 3.

Note: Compacted roadway fill (full roadway width) shall be placed up to elevation of bottom of concrete beam in front of and not less than 25'-0" in back of End Bent No. 5 before steel piles are driven.



PLAN



LOCATION SKETCH

ESTIMATED QUANTITIES				
ITEM		SUBSTR.	SUPERSTR.	TOTAL
Class I Excavation for Structures	Cu. yd.	100		100
Steel Piles in Place (10")	Lin. Ft.	344		344
Class B Concrete	Cu. yd.	23.9		23.9
Class BI Concrete	Cu. yd.		468.9	468.9
Reinforcing Steel	L. lb.	1080	103680	104760
Bridge Rail (Single Tube Type)	Lin. Ft.		401	401

Note: No payment for excavation will be allowed for End Bent #5. All concrete and reinforcement above footings in intermediate bents is included in superstructure quantities. Payment for excavation will be allowed for Int. Bent #4 from Finished Ground Line.

GENERAL NOTES:

Design Specifications: A.A.S.H.O. - 1961

Design Loading:
H20-44 15#/sq. ft. Future Wearing Surface
Earth 120#. Equivalent Fluid Pressure 30#

Design Unit Stresses:
Class B Concrete (substructure) fc = 1,200 psi
Class BI Concrete (superstructure) fc = 1,600 psi
Reinforcing Steel fs = 20,000 psi
Steel Pile: (ASTM A-36-62T) fb = 9000 psi.

Surface Seal:
Superstructure deck to be surface sealed.

Note: For Boring Data See Sheet No. 5 of 8.
"⊕" Indicates location of Boring.

B.M. Elev. 798.89 Nail in top 6" Bl. J. Stump 25' Rt. Sta. 206+21.1 Outer Rdwy. Lt. (U.S.G.S. Datum)

BRIDGE ROUTE D UNDERPASS

STATE ROAD INTERSTATE ROUTE 44

ABOUT 0.5 MILE S. W. OF ARLINGTON

PROJECT NO. I-IG-44-2(44) (RTE. I44) **STA.** 201+40 (W.B.L.) 194+73.8 (E.B.L.)

PHELPS **COUNTY**

SUBMITTED BY D. B. Jenkins BRIDGE ENGINEER DATE 6/9/66

APPROVED BY M. J. Snider CHIEF ENGINEER DATE 6/9/66

STD. 54.00

A-1634

DESIGNED MAY 1965 BY FRITZ
DETAILED AUG. 1965 BY BRANSTETTER
CHECKED April 1966 BY Rhodes

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 1 of 8.

USE FINAL PLANS BROWN LINES

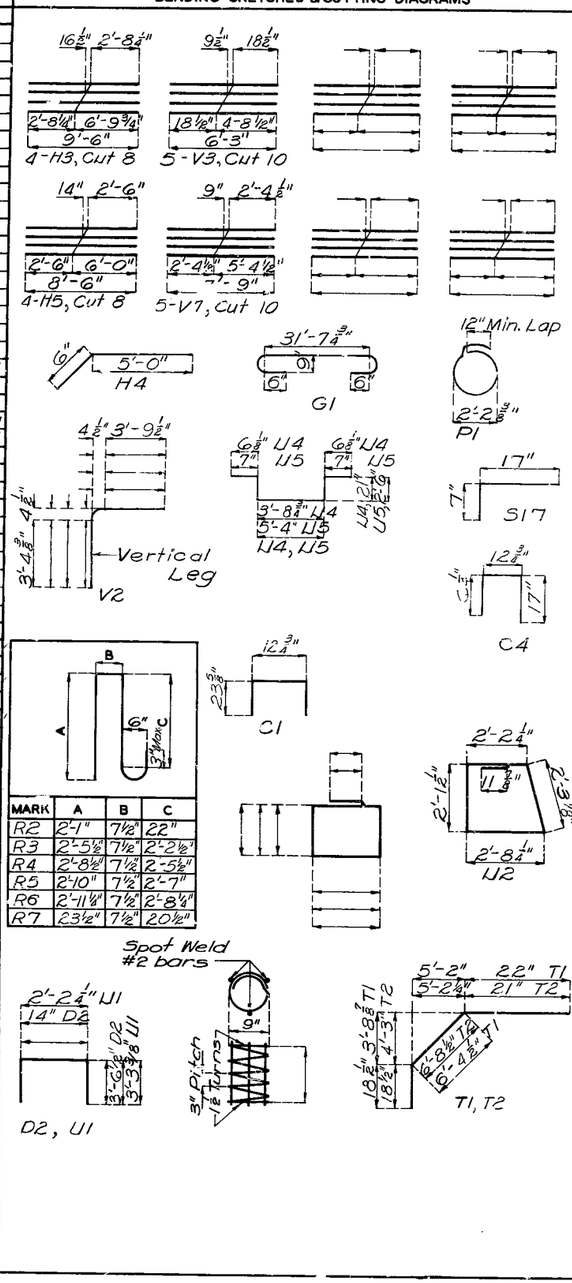
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	130	

COMPLETE BILL OF REINFORCING STEEL

NO.	SIZE	LENGTH	MARK	LOCATION
END BENT NO. 1 (SUBSTRUCTURE)				
8	#6	32'-6"	H1	Brg. Bm.
33	#5	10'-3"	U2	" "
INT. BENT NO. 2, 3, & 4 (SUBSTR.)				
54	#5	2'-6"	D1	Footing
16	#6	8'-3"	D2	" Bt. #4
END BENTS NO. 1 & 5 (SUPERSTRUCTURE)				
24	#5	3'-0"	C4	Curb
8	#5	5'-3"	C5	"
24	#6	32'-6"	H1	Beam
8	#6	7'-0"	H2	Wing
8	#6	9'-6"	H3	" Bt. #5
16	#5	5'-6"	H4	Wing
8	#6	8'-6"	H5	" Bt. #1
4	#6	9'-9"	T1	Wing Bt. #5
4	#6	10'-0"	T2	" " #1
66	#5	8'-9"	U1	Beam Bt. #1
62	#5	8'-9"	U1	" " #5
86	#6	7'-9"	V2	Beam
10	#4	6'-3"	V3	Wing bt. #5
10	#4	7'-9"	V7	" " #1
INT. BENT NO. 2 (SUPERSTRUCTURE)				
13	#10	35'-0"	G1	Beam
9	#11	32'-0"	G2	Drop Panel
52	#3	8'-0"	P1	Column
66	#5	8'-3"	U4	Beam
18	#8	27'-3"	V4	Column
INT. BENT NO. 3 (SUPERSTRUCTURE)				
13	#10	35'-0"	G1	Beam
8	#11	32'-0"	G2	Drop Panel
48	#3	8'-0"	P1	Column
66	#5	11'-6"	U5	Beam
18	#8	26'-0"	V5	Column
INT. BENT NO. 4 (SUPERSTRUCTURE)				
13	#10	35'-0"	G1	Beam
9	#11	32'-0"	G2	Drop Panel
40	#3	8'-0"	P1	Column
66	#5	8'-3"	U4	Beam
18	#8	21'-6"	V6	Column

BENDING SKETCHES & CUTTING DIAGRAMS



MARK	A	B	C
R2	2'-1"	7½"	22"
R3	2'-5½"	7½"	2'-2½"
R4	2'-8½"	7½"	2'-5½"
R5	2'-10"	7½"	2'-7"
R6	2'-11⅛"	7½"	2'-8⅛"
R7	23½"	7½"	20½"

NO.	SIZE	LENGTH	MARK	LOCATION
SUPERSTRUCTURE				
402	#5	5'-0"	C1	Curb
8	#5	38'-0"	C2	"
16	#5	31'-6"	C3	"
24	#5	4'-9"	R1	End Post
4	#5	5'-6"	R2	"
4	#5	6'-3"	R3	"
4	#5	6'-9"	R4	"
4	#5	7'-0"	R5	"
8	#5	7'-3"	R6	"
402	#5	5'-3"	R7	Parapet
16	#5	28'-0"	R8	"
48	#5	5'-9"	R9	"
32	#5	21'-6"	R10	"
464	#5	32'-6"	S1	Slab
88	#5	24'-6"	S2	"
52	#10	28'-6"	S3	"
52	#10	21'-6"	S4	"
50	#10	12'-3"	S5	"
88	#5	32'-3"	S6	"
26	#11	37'-6"	S7	"
26	#11	30'-0"	S8	"
25	#11	20'-0"	S9	"
44	#8	28'-0"	S10	"
40	#7	18'-0"	S11	"
44	#10	41'-0"	S12	"
40	#10	27'-0"	S13	"
44	#8	49'-0"	S14	"
44	#8	45'-0"	S15	"
22	#8	20'-0"	S16	"
80	#4	2'-0"	S17	App. Hch.
2	#4	29'-9"	S18	"

BRIDGE ROUTE D UNDERPASS

STATE ROAD INTERSTATE ROUTE 44

ABOUT 0.5 MILE S.W. OF ARLINGTON

PROJECT NO. IIG-44-2(44)(RTE. I-44) **STA** 201+40 (W.B.L.) 194+73.8 (E.B.L.)

PHELPS COUNTY

12

No.	Revised
30.3	Dec. 1964
June 1961	

DETAILED JULY 1965 BY BRANSTETTER

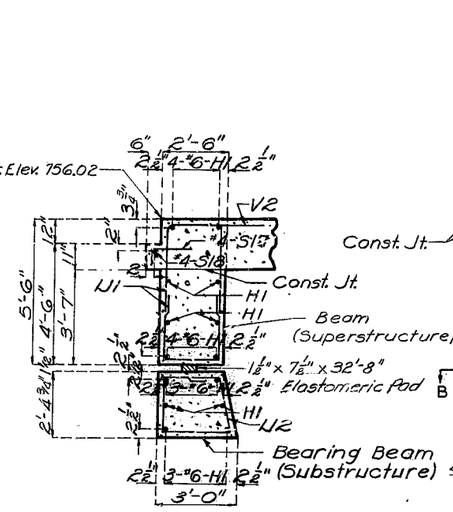
CHECKED April 1966 BY Rhodes

Note: This drawing is not to scale. Follow dimensions.

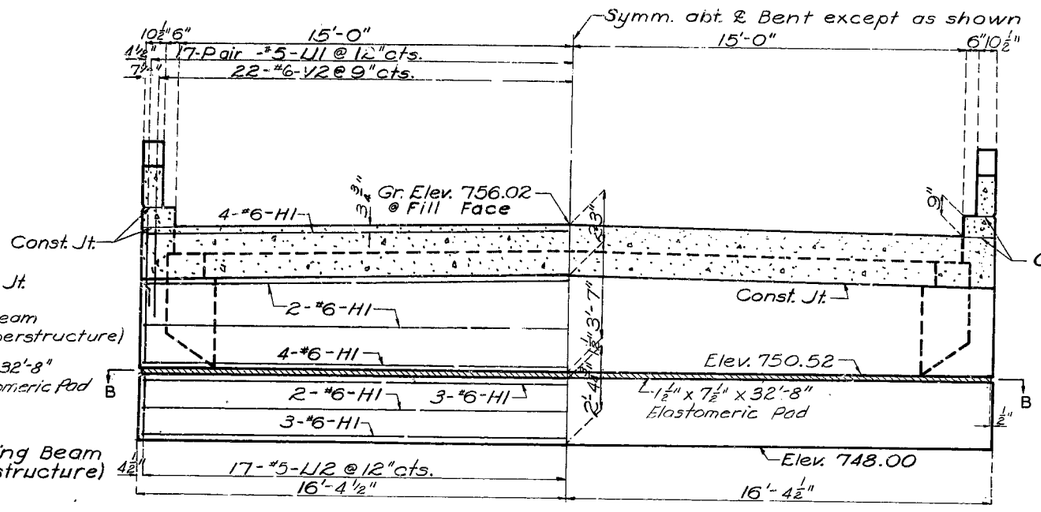
A-1634

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	13	

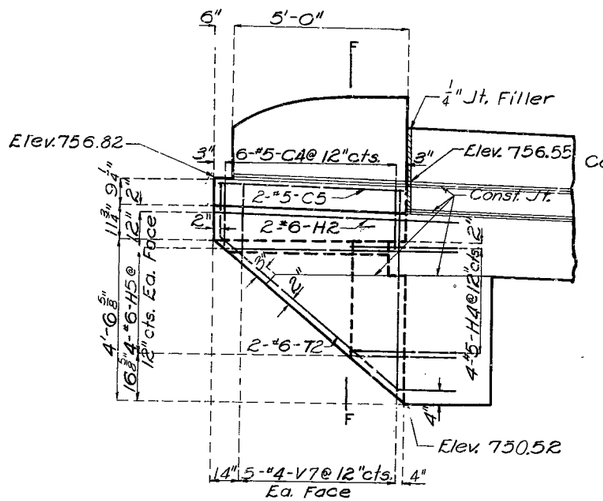


ECTION AT ℄

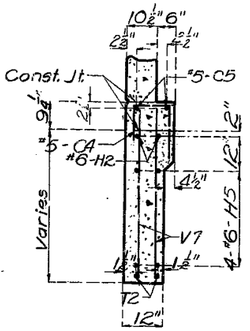


SECTION A-A

Note: Bearings shall be Elastomeric Pads (50 durometer) 7½" x 12½" x 32'-8". See Special Provisions. Cost of pads shall be included in unit price bid for Class B1 Concrete.

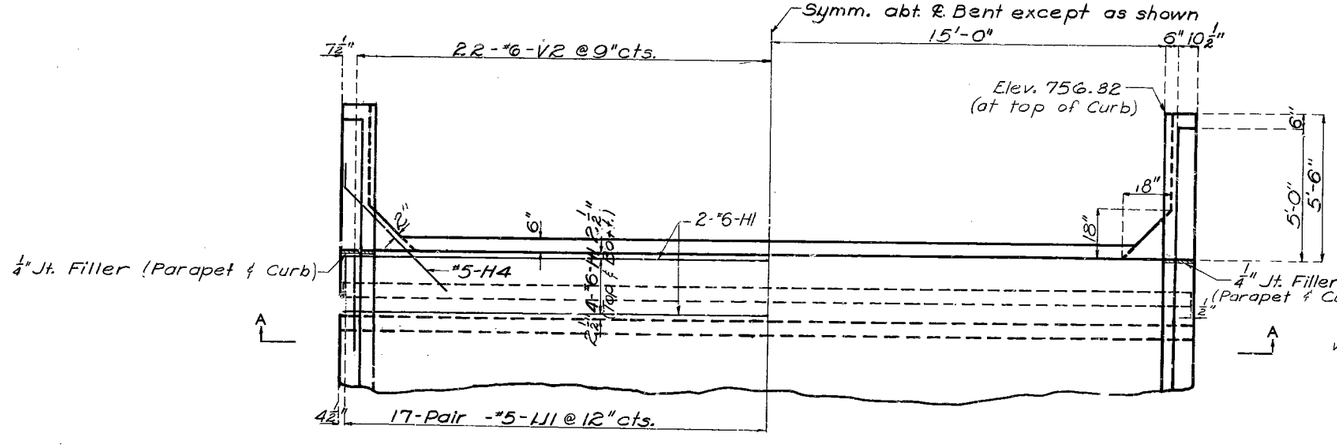


ELEVATION OF WING (TYPICAL)

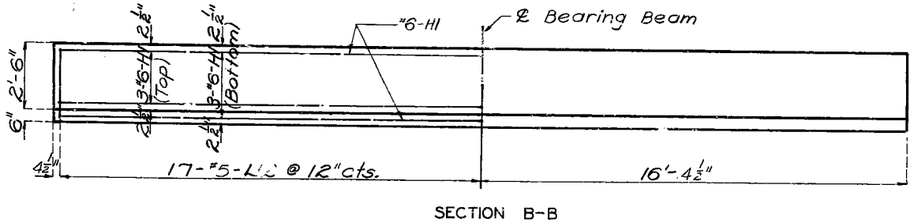


SECTION F-F

Note: See Sheet No. 8 of 8 for elevation of End Post.
Dimensions and Elevations of Wings are taken along outside face.

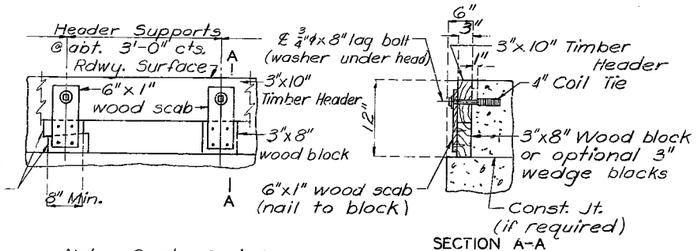


PLAN



SECTION B-B

DETAILS OF END BENT NO. 1



SECTION A-A

Note: Cost of timber headers complete in place to be included in price bid for concrete.

DETAILS OF TIMBER HEADER

BRIDGE ROUTE D UNDERPASS

STATE ROAD INTERSTATE ROUTE 44

ABOUT 0.5 MILE S.W. OF ARLINGTON

PROJECT NO. IG-44-2( ) (RTE. I-44) **STA.** 201+40 (W.B.L.)
194+73.8 (E.B.L.)

PHELPS **COUNTY**

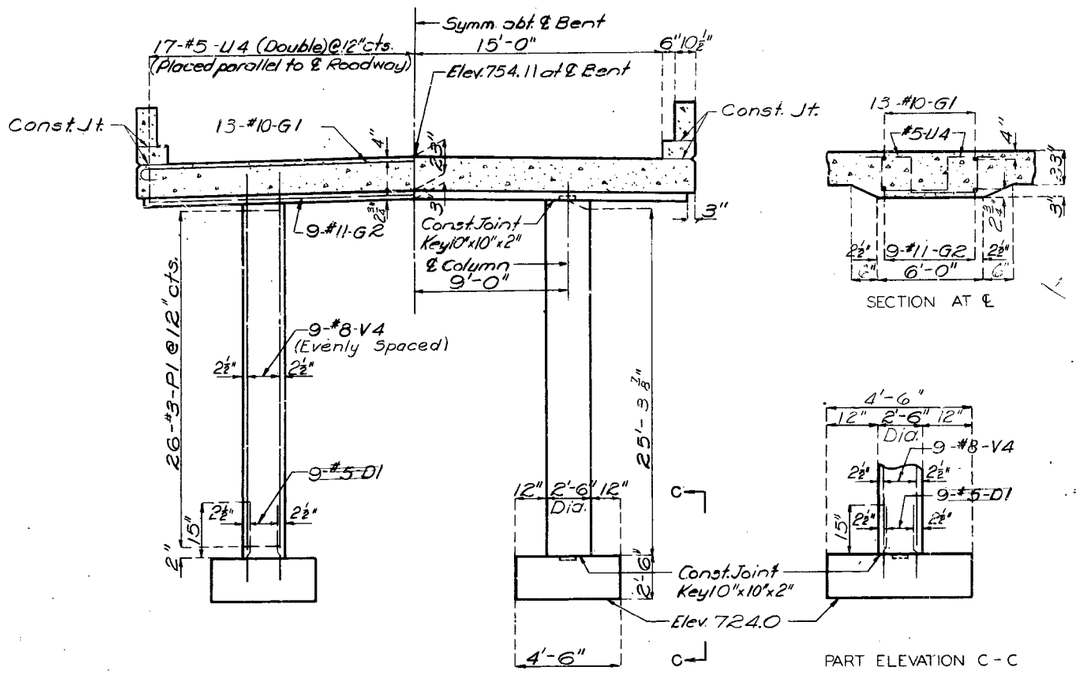
DETAILED JULY 1965 BY BRANSTETTER
CHECKED April 1966 BY Rhodes

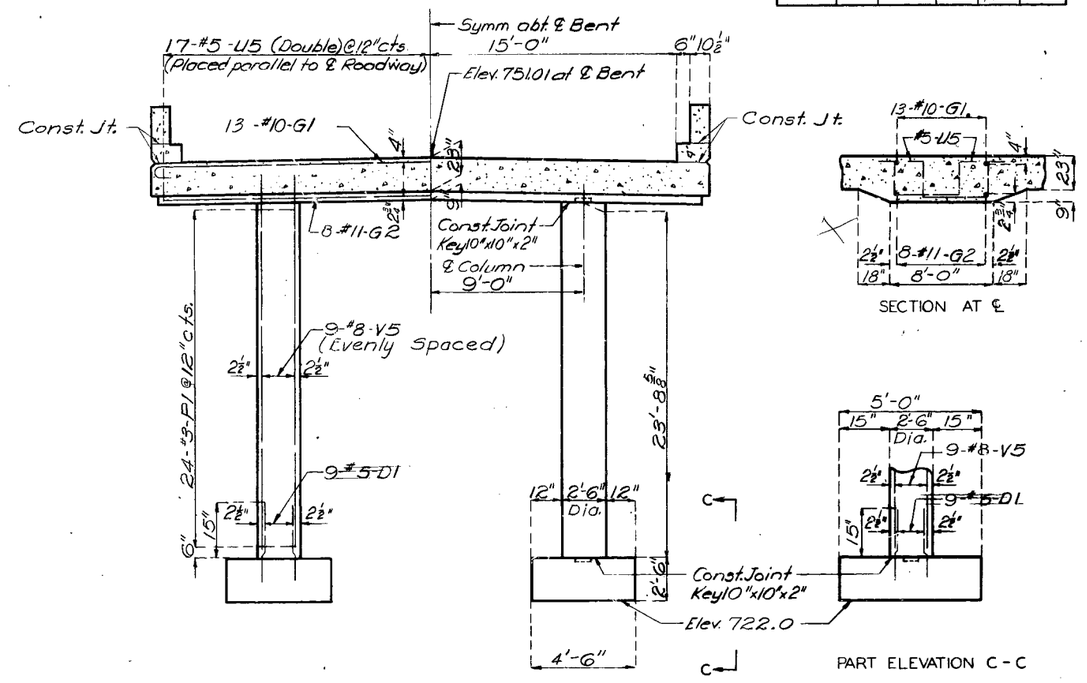
Note: This drawing is not to scale. Follow dimensions.

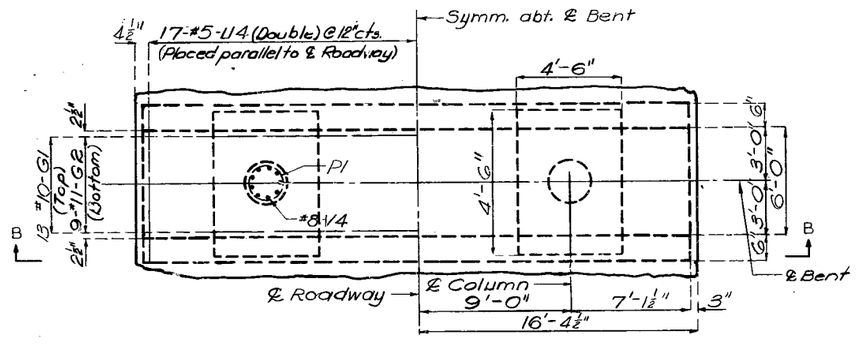
A-1634

MISSOURI STATE HIGHWAY DEPARTMENT

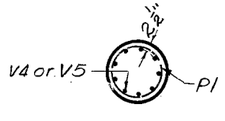
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	13✓	





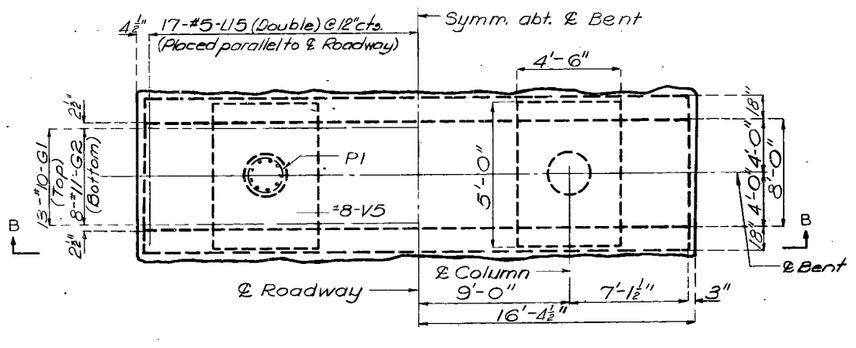


PLAN



SECTION THRU COLUMN

DETAILS OF INT. BENT NO. 2



PLAN

DETAILS OF INT. BENT NO. 3

BRIDGE ROUTE D UNDERPASS

STATE ROAD INTERSTATE ROUTE 44

ABOUT 0.5 MILE S.W. OF ARLINGTON

PROJECT NO. I-IG-44-2(44) **STA.** 201+40 (W.B.L.)
(RTE. I-44) 194+73.8 (E.B.L.)

PHELPS **COUNTY**

No. 52.5	Mar. 1968	Revised	Oct. 1963

Drawn JUNE 1965 by BRANSTETTER
Checked April 1966 by Rhodes

Note: This drawing is not to scale. Follow dimensions.

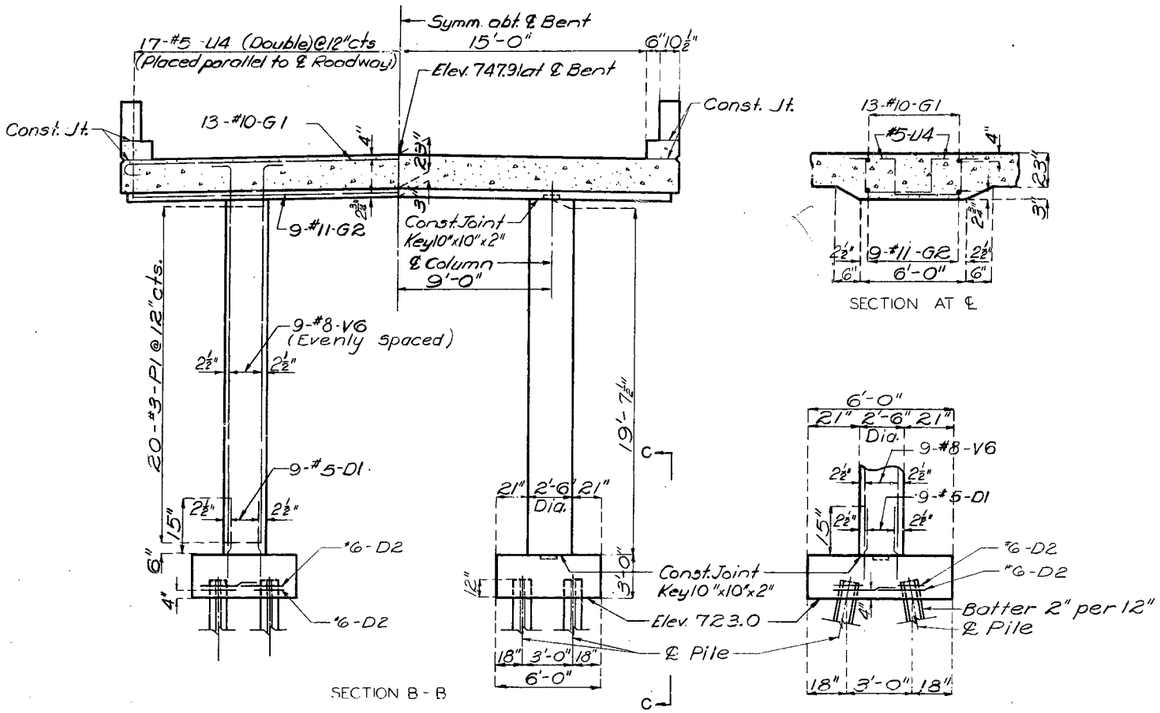
Sheet No. 4 of 8

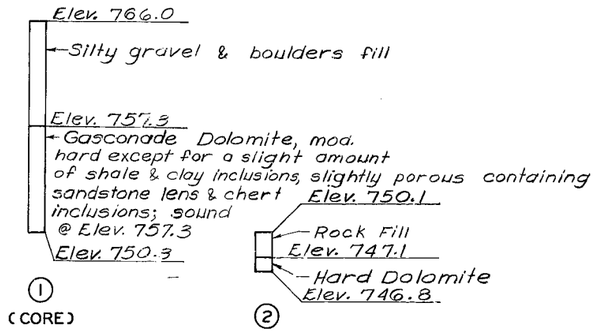
A-1634

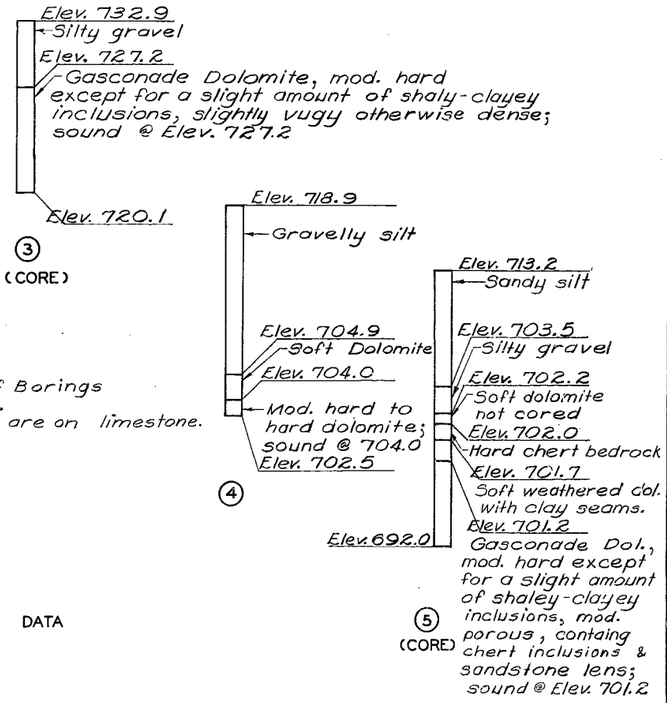
GET FINAL PLANS BROWN-LINES

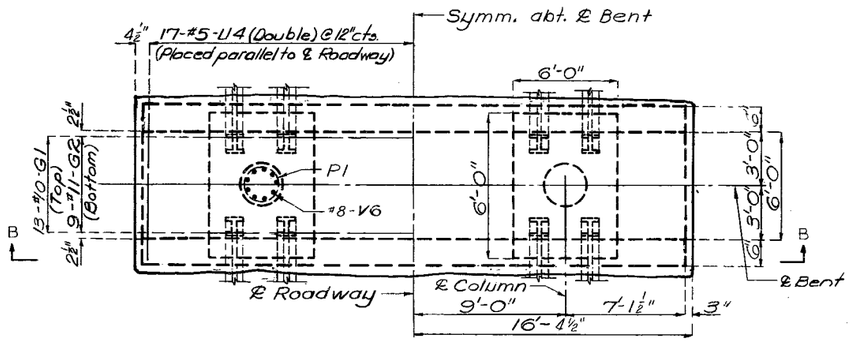
MISSOURI STATE HIGHWAY DEPARTMENT

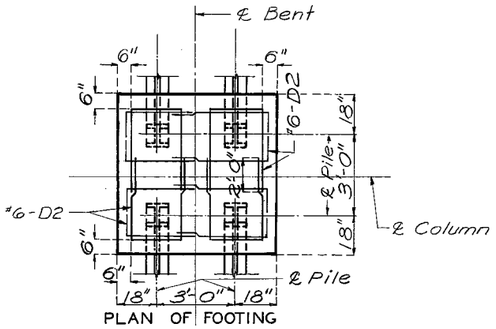
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	133	

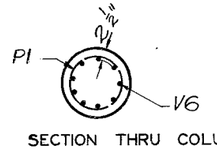












Note: For location of Borings see Sheet No. 1 of 8.
Bottom of Borings are on limestone.

BORING DATA

BRIDGE ROUTE D UNDERPASS

STATE ROAD INTERSTATE RTE. 44
ABOUT 0.5 MILE S.W. OF ARLINGTON
PROJECT NO. I-IG-44-2(44)(RTE. I-44) STA. 201+40 (W.B.L.)
194+73.8 (E.B.L.)

PHELPS **COUNTY**

15

No. 52.3	Feb. 1962
Revised	Oct. 1963

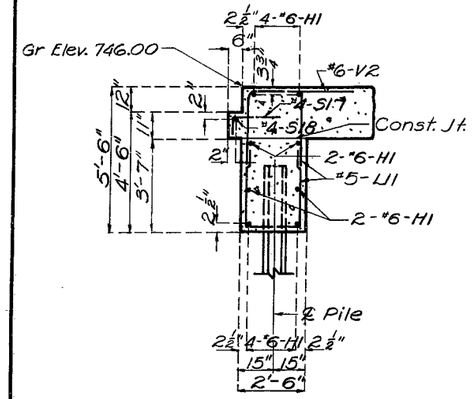
Drawn JULY 1965 by BRANSTETTER
Checked April 1966 by Rhodes

Note: This drawing is not to scale. Follow dimensions.

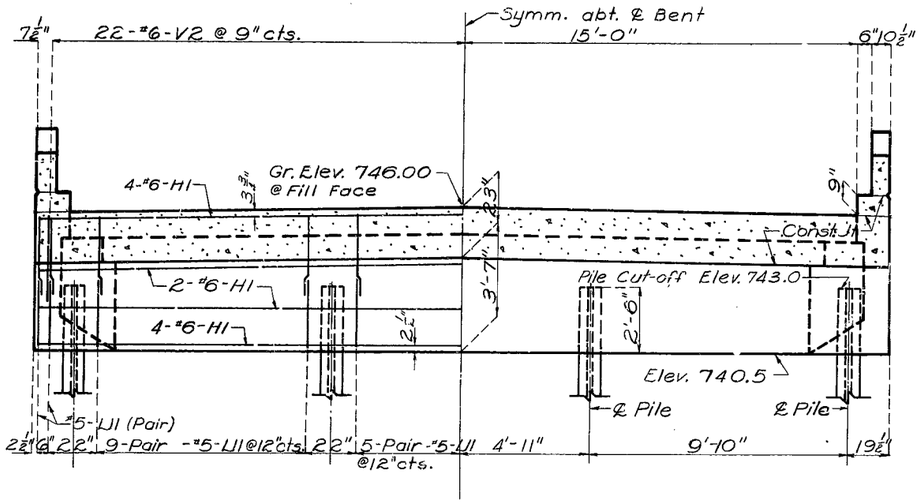
A-1634

MISSOURI STATE HIGHWAY DEPARTMENT

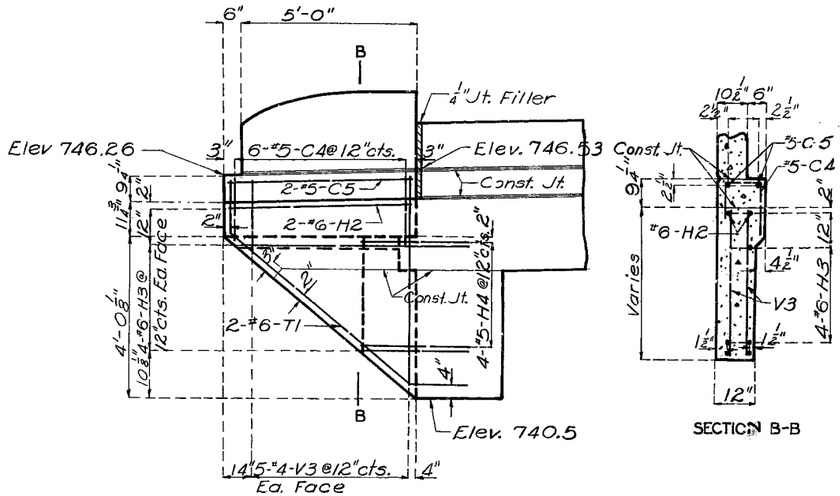
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	134	



SECTION AT ℄



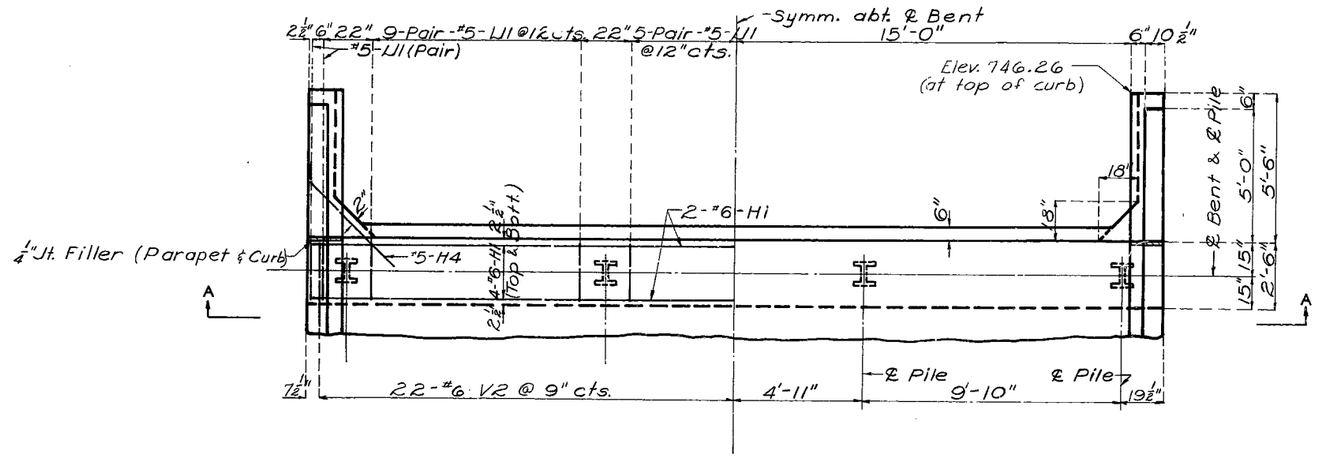
SECTION A-A



ELEVATION OF WING (TYPICAL)

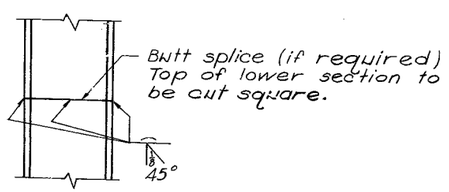
SECTION B-B

Note: See Sheet No. 8 of 8 for elevation of End Post.
Dimensions and Elevations of Wings are taken along outside face.



PLAN

DETAILS OF END BENT NO. 5



DETAIL OF STEEL PILE SPLICE

BRIDGE ROUTE D UNDERPASS

STATE ROAD INTERSTATE ROUTE 44

ABOUT 0.5 MILE S. W. OF ARLINGTON

PROJECT NO I-IG-44-2(44)(RTE. I-44) **STA.** 201 + 40 (W.B.L.)
194 + 73.8 (E.B.L.)

PHELPS **COUNTY**

DETAILED JULY 1965 BY BRANSTETTER
CHECKED April 1966 BY Rhodes

Note: This drawing is not to scale. Follow dimensions.

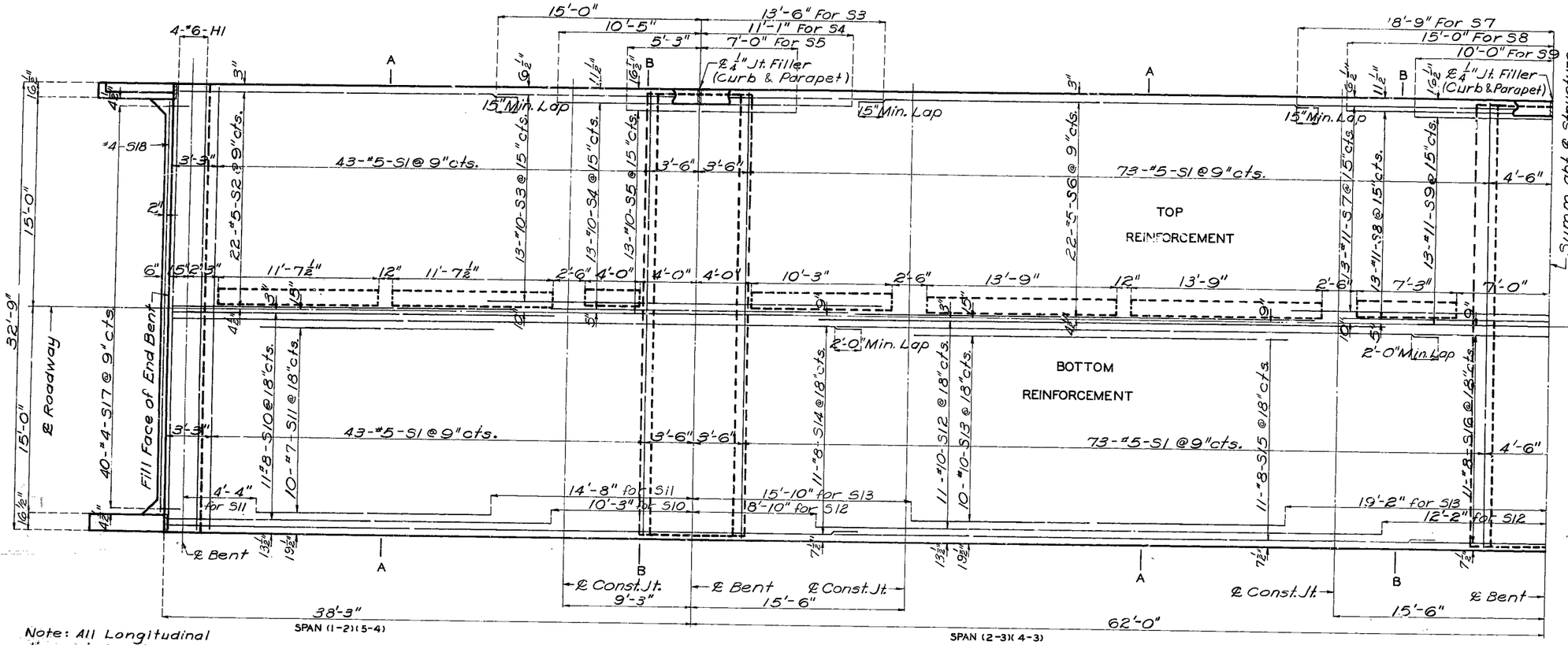
A-1634

19

NO CONSTRUCTION CHANGES

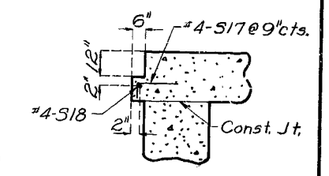
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	135	

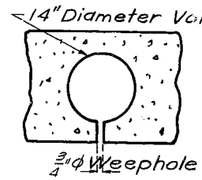


HALF PLAN OF SLAB

Note: All Longitudinal dimensions shown are horizontal.



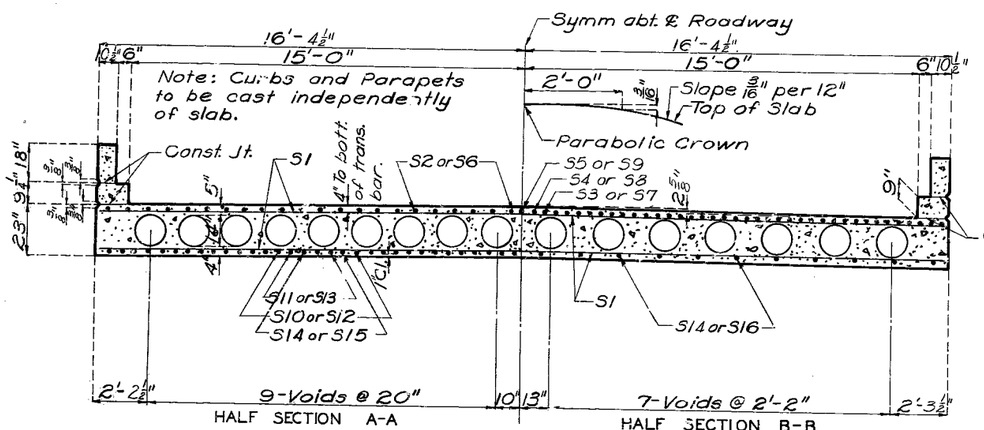
APPROACH HAUNCH DETAIL



DETAIL OF WEEPHOLE IN VOIDS

Note: One 3/4" ϕ weephole shall be provided near each end of each void. Weepholes shall be placed in straight lines parallel to bents.

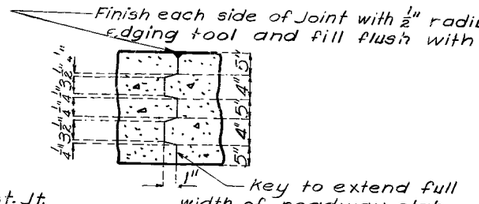
Note: For details and reinforcement of curbs and parapet see Sheet No. 8 of 8.



HALF SECTION A-A

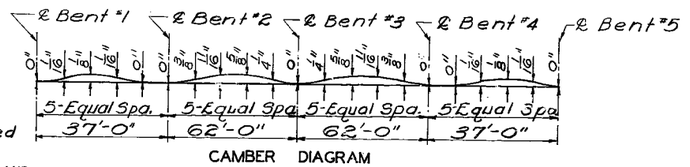
HALF SECTION B-B

Note: Fiber tubes for producing voids shall have an outside diameter of 14" and a wall thickness of .250" and shall be anchored to joists carrying the floor form at not more than 4'-0" centers. See Special Provisions for metal tube alternate for voids.



DETAILS OF SLAB CONSTRUCTION JOINT KEY

Note: The contractor shall use an approved oscillating screed type, self-propelled mechanical finishing machine and shall pour and satisfactorily finish the roadway slab at a rate of not less than 25 cubic yards per hour. He shall observe the transverse construction joints shown on plans unless he can demonstrate to the satisfaction of the engineer that he is equipped to pour and satisfactorily finish the roadway slab at a rate which will permit a continuous pouring through some or all of these joints. Finishing machine load will not be permitted on concrete less than 48 hours old.



CAMBER DIAGRAM

BRIDGE ROUTE D UNDERPASS

STATE ROAD INTERSTATE ROUTE 44

ABOUT 0.5 MILE S. W. OF ARLINGTON

PROJECT NO. IIG-44-2(44)(RTE. I-44) **STA.** 201 + 40 (W.B.L.)
194 + 73.8 (E.B.L.)

PHELPS **COUNTY**

DETAILED JUNE 1965 BY BRANSTETTER

CHECKED April 1966 BY Rhodes

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 7 of 8.

A-1634

17

NO CONSTRUCTION CHANGES

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	13A	

GENERAL NOTES:

All handrail posts shall be set normal to grade.

Aluminum tube handrail shall be bent to conform to vertical and horizontal alignment of parapet.

Aluminum washer shims between top of parapet and post base may be used for adjusting handrail alignment. Maximum thickness of shims to be 1/8". Where more tilting of post is required for proper alignment, concrete bearing areas shall be ground down.

All parts of handrail, except anchor bolts, nuts, washers, and set screws are to be of aluminum material.

The contract unit price per linear foot of "Bridge Rail" shall include furnishing and erecting the handrail complete with anchor bolts, shims and Insulating compound.

All fillets 1/4" except as noted.

All drafts 3° except as noted.

Pipe rail to be fabricated in two or three panel lengths unless otherwise approved.

Omit set screw on side near filled joint in parapet at all expansion posts.

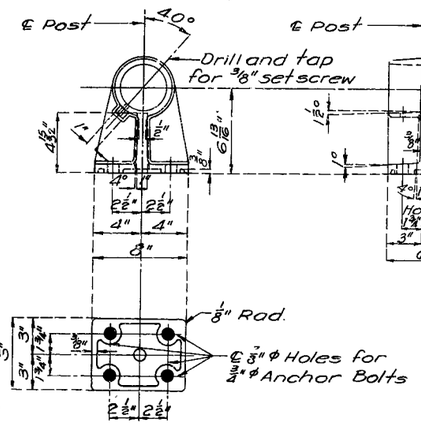
Top of curbs and parapets to be built parallel to grade with curb and parapet joints (except at end posts) normal to grade.

All exposed edges of end posts shall have 1/2" bevel. All exposed edges of curbs and parapets shall have 1/2" radius or 3/8" bevel.

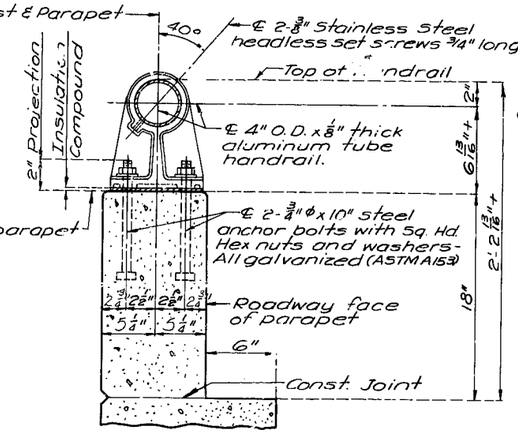
If the contractor desires, he may use drive fit cast aluminum end caps in lieu of welded aluminum closure plates.

Integrally cast test coupons and a coat of clear lacquer specified in Std. Spec. 56.2.4 and 56.3.5 respectively will not be required for these rail posts.

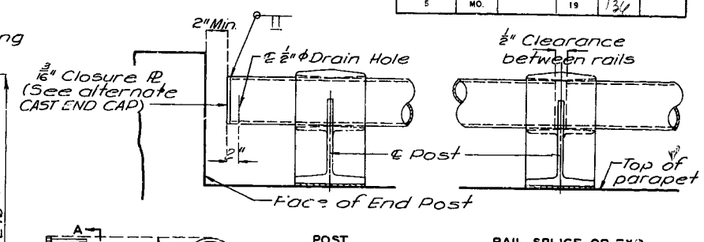
Concrete end posts to be vertical.



POST DETAILS

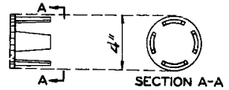


SECTION THRU HANDRAIL

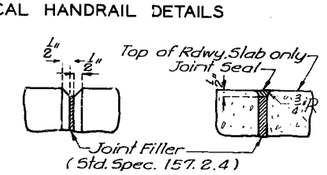


POST — RAIL SPLICE OR EXP.

TYPICAL HANDRAIL DETAILS

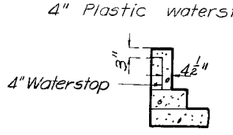


CAST END CAP
(Drive Fit Type)

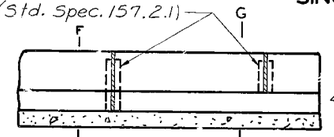


FILLED JOINT DETAILS

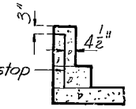
SINGLE TUBE ALUMINUM RAILING



SECTION G-G



SECTION NEAR CURB AND PARAPET SHOWING WATERSTOP

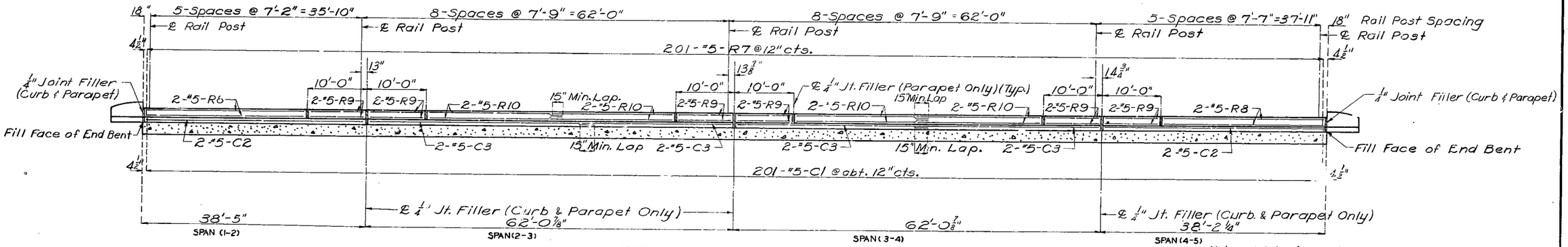


SECTION F-F

DETAILS OF WATERSTOP

Note: Plastic waterstop shall be placed in all parapet and curb filled joints, except at end bents.

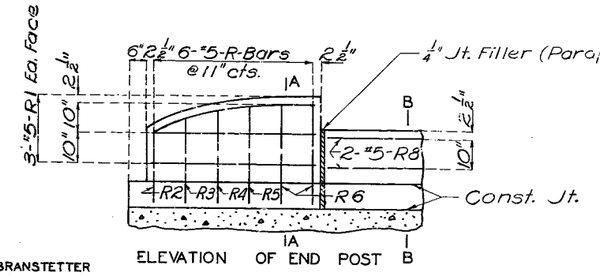
Cost of plastic waterstop complete in place to be included in unit price bid for concrete.



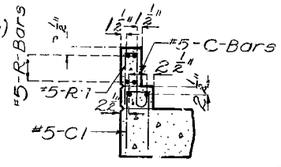
SECTION NEAR CURB AND PARAPET

Note: Joints in curbs and parapets to be normal to grade except for joints in parapet at end posts.

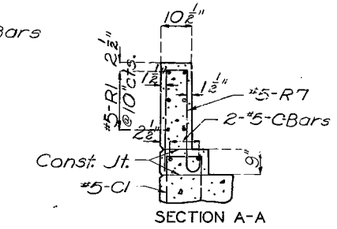
Longitudinal dimensions shown are along top of parapet parallel to grade.



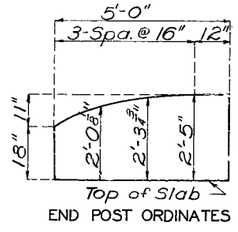
ELEVATION OF END POST



SECTION B-B



SECTION A-A



END POST ORDINATES

BRIDGE ROUTE D UNDERPASS

STATE ROAD INTERSTATE ROUTE 44

ABOUT 0.5 MILE S.W. OF ARLINGTON

PROJECT NO HG-44-2(44)(RTE. I-44) **STA.** 201 + 40 (W.B.L.) 194 + 73.8 (E.B.L.)

PHELPS **COUNTY**

A-1634

No.	Revised	Nov 1963
1.5.2 A	May 1965	

DETAILED JUNE 1965 BY BRANSTETTER

CHECKED April 1966 BY Rhodes

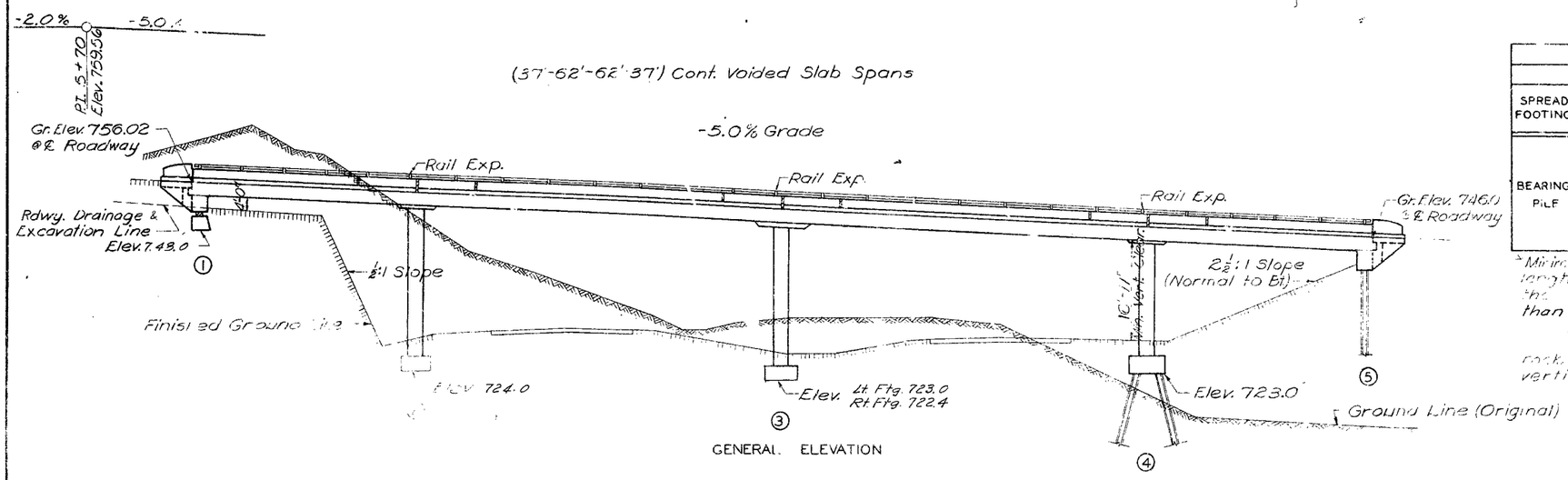
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 8 of 8

NO CONSTRUCTION CHANGES

MISSOURI STATE HIGHWAY DEPARTMENT

FED. AID PROJ. NO.	STATE NO.	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	M		19		



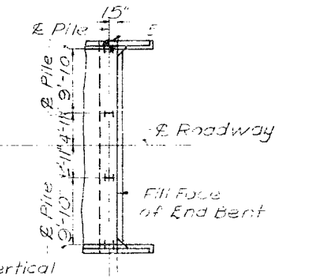
GENERAL ELEVATION

FOOTING AND PILE DATA						
	BENT NO.	1	2	3	4	5
SPREAD FOOTING	Foundation Material	Rock	Rock	Rock		
	Design Brg Tons/Sq Ft	1.4	5.3	9.6		
BEARING PILE	Pile Type & Size				10BP42	
	Number				8	4
	Approximate Length ft				22	42
	Design Bearing Value Tons				42	28
	Hammer Energy Reqd* Ft.lbs				9900	17000

*Minimum Energy requirement of hammer based on pile length and design bearing value of piles. Increase by the factor (W+w)/W when the ram (W) is less than the weight of the pile (w).

All pile was driven to refusal. Apparently on solid rock. Footings were ~~carried~~ to firm, hard, solid, undisturbed rock ~~or 12" into soft rock or shale~~ and cast against vertical faces of same for Bts. No. 1, 2 & 3.

Note: Compacted roadway fill (full roadway width) was placed up to elevation of bottom of concrete beam in front of and not less than 25'-0" in back of End Bent No. 5 before steel piles were driven.



GENERAL NOTES:

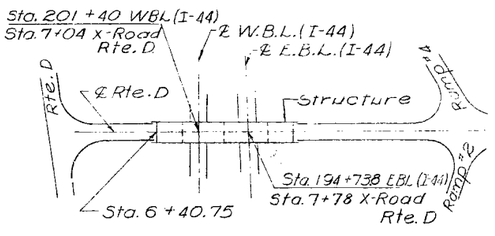
Design Specifications: A.A.S.H.O. - 1961

Design Loading:
H20-44 15#/sq ft Future Wearing Surface
Earth 120# Equivalent Fluid Pressure 30#

Design Unit Stresses:
Class B Concrete (substructure) f_c = 1,200 psi
Class B1 Concrete (superstructure) f_c = 1,600 psi
Reinforcing Steel f_s = 20,000 psi
Steel Pile: (ASTM A-36-62T) f_b = 9000 psi.

Surface Seal:
Superstructure deck was surface sealed

Note: For Boring Data See Sheet No. 2 of 3.
⊕ Indicates location of Boring.
Depth
⊙ Indicates location of test holes.



LOCATION SKETCH

FINAL QUANTITIES				
ITEM		SUBSTR.	SUPERSTR.	TOTAL
Class I Excavation for Structures	Cu. yd.	775		775
Steel Piles in Place (10")	Lin. Ft.	317.0		317.0
Class B Concrete	Cu. yd.	23.2		23.2
Class B1 Concrete	Cu. yd.		468.6	468.6
Reinforcing Steel	Lb.	1080	103680	104760
Bridge Rail (Single Tube Type)	Lin. Ft.		401	401
Test Holes (Contg Item)	Lin. Ft.	24.0		24.0

Note: No payment for excavation was allowed for Int. Bent #3. All concrete and reinforcement above footings in intermediate bents is included in superstructure quantities. Payment for excavation was allowed for Int. Bent #1 from Finished Ground Line.

B.M. 746.36 D on S.W. Corner of Curb Bt. #5 Rte. D. Sta. 8+41.25

BRIDGE ROUTE D UNDERPASS

STATE ROAD INTERSTATE ROUTE 44

ABOUT 0.5 MILE S. W. OF ARLINGTON

PROJECT NO. I-IG-44-2(44) (RTE. I44) STA. 201+40 (W.B.L.) 194+73.8 (E.B.L.)

PHELPS COUNTY

SUBMITTED BY ℄ P. Lenkus BRIDGE ENGINEER DATE 6/9/66

APPROVED BY CHIEF ENGINEER DATE 6/9/66

STL. 54.00
A-1634

DESIGNED MAY 1965 BY FRITZ
DETAILED AUG. 1965 BY BRANSTETTER
CHECKED April 1966 BY Rhodes

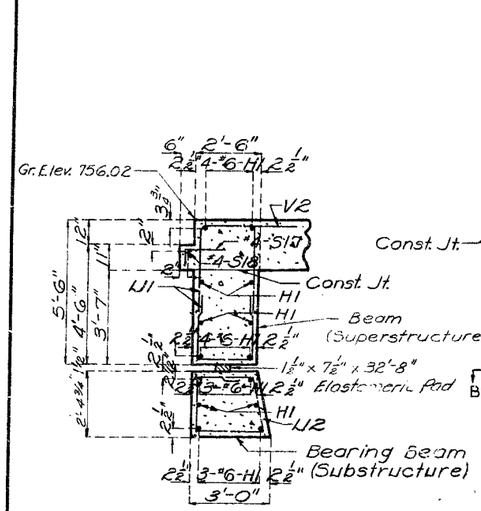
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 1A of 3

FINAL PLANS

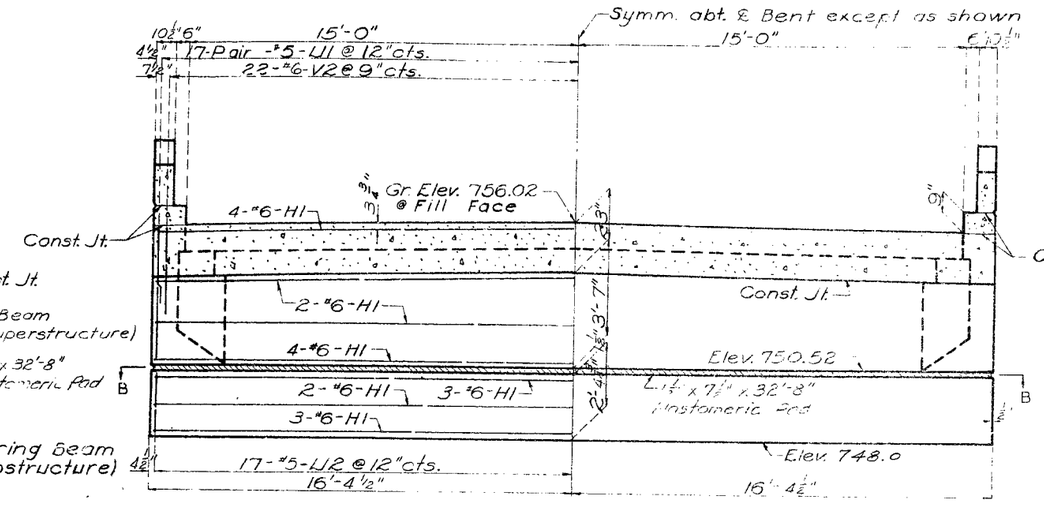
MISSOURI STATE HIGHWAY DEPARTMENT

DIST		JOB NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
	M		19		

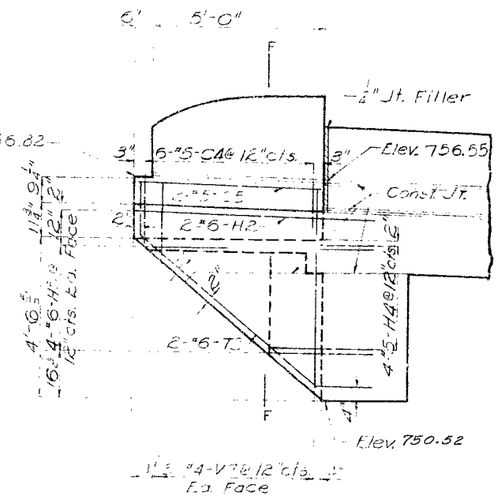


SECTION AT ℄

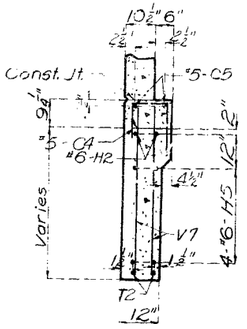
Note: Bearings are Elastomeric Pads (50 durometer) 7⅛" x 18" x 32'-8". See Special Provisions. Cost of pads was included in unit price bid for Class B, Concrete.



SECTION A-A

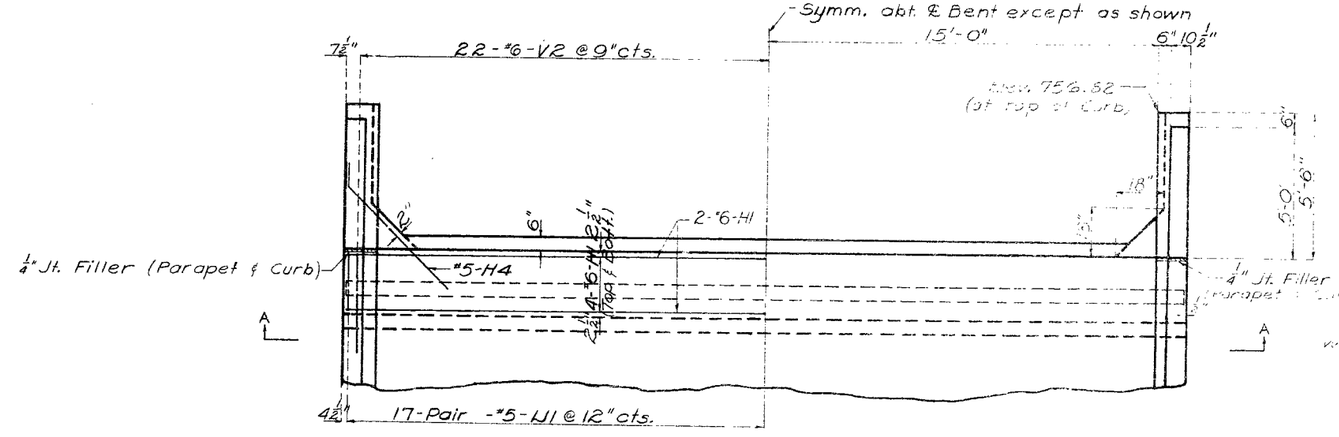


ELEVATION OF WING (TYPICAL)

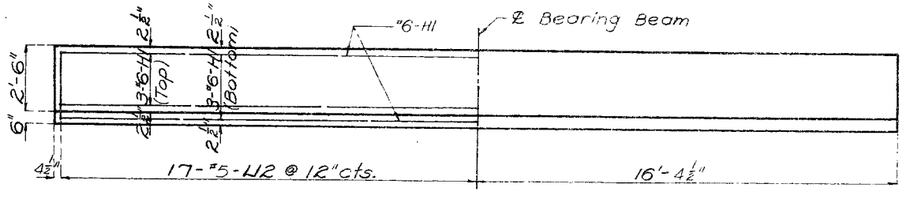


SECTION F-F

Note: See Sheet No. 3 of 3 for elevation of End Post.
Dimensions and Elevations of Wings were taken along outside face.

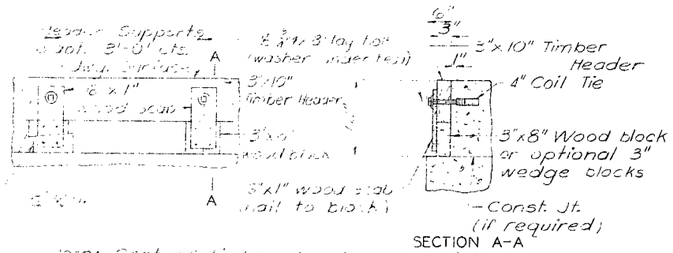


PLAN



SECTION B-B

DETAILS OF END BENT NO. 1



SECTION A-A

Note: Cost of timber headers complete in place included in price bid for concrete.

DETAILS OF TIMBER HEADER

BRIDGE ROUTE D UNDERPASS

STATE ROAD INTERSTATE ROUTE 44

ABOUT 0.5 MILE S.W. OF ARLINGTON

PROJECT NO. IG-44-2(44)(RTE. I-44) STA. 201+40 (W.B.L.) 194+73.8 (E.B.L.)

PHELPS COUNTY

A-1634

DETAILED JULY 1965 BY BRANSTETTER

CHECKED April 1966 BY Rhodes

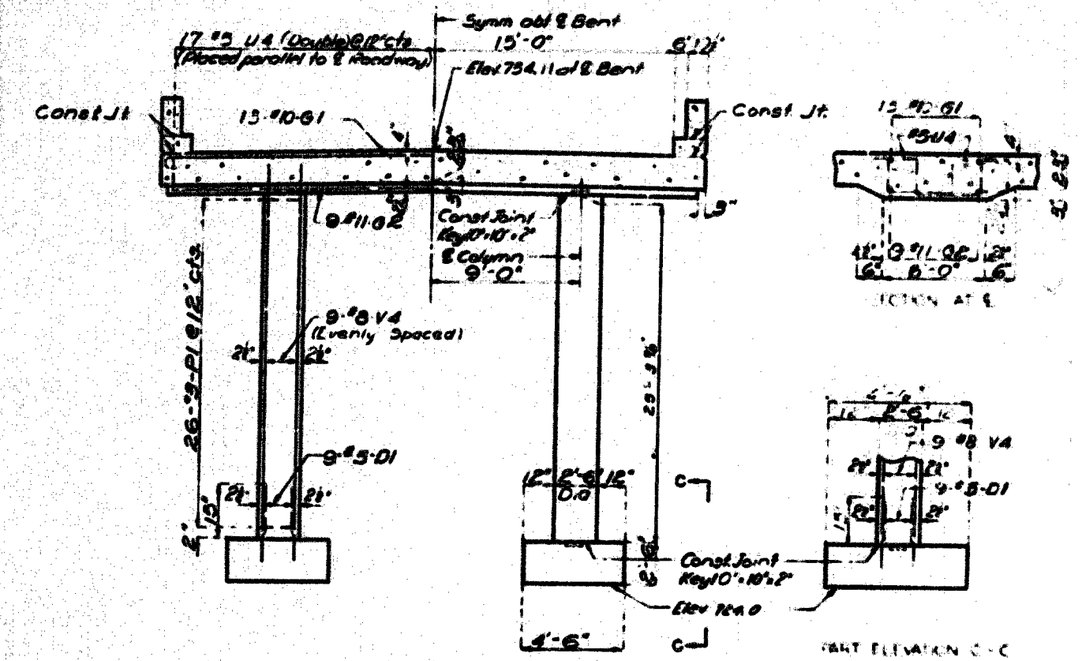
Note: This drawing is not to scale. Follow dimensions.

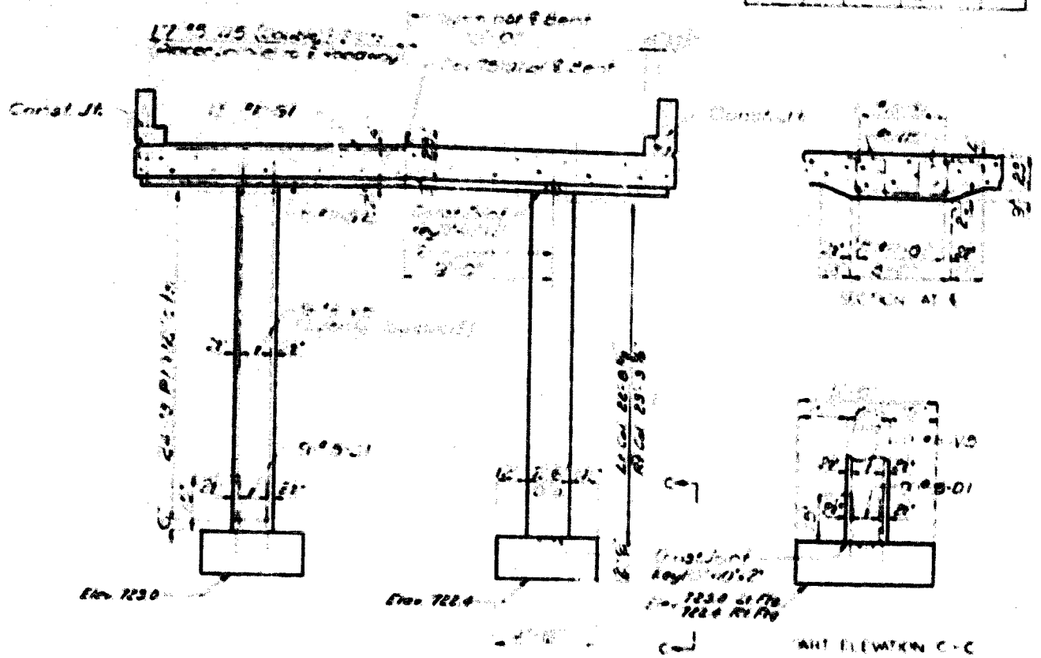
Sheet No. 3A of 3

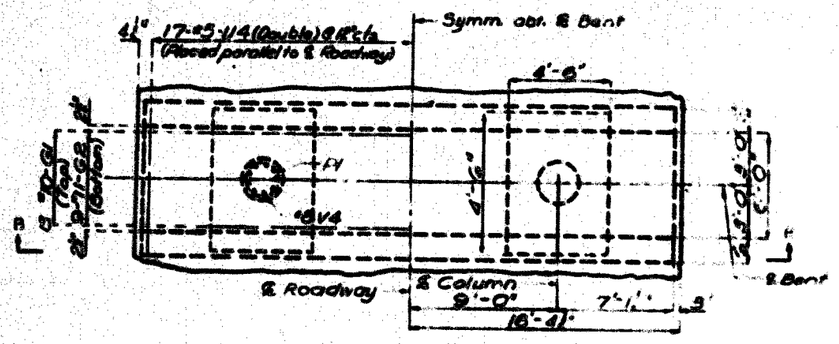
FINAL PLANS

20

MISSOURI STATE HIGHWAY DEPARTMENT

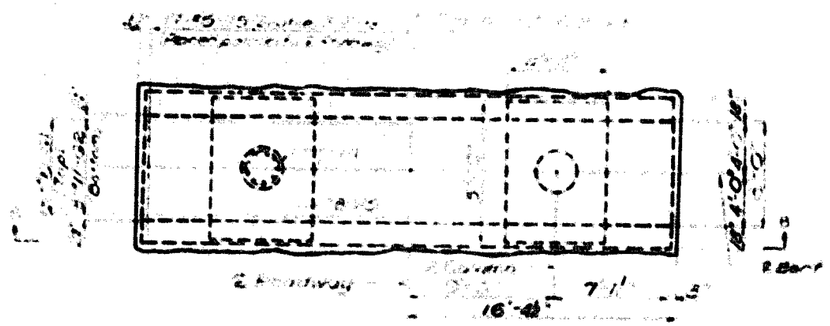






PLAN

SECTION THRU COLUMN



DETAILS OF INT BENT NO 2

DETAILS OF INT BENT NO 3

BRIDGE ROUTE D UNDERPASS
STATE ROAD INTERSTATE ROUTE 44
ABOUT 0.5 MILE SW OF ARLINGTON
PROJECT NO I-IG 44-2(44) STA 201+40 (WBL)
(RTE 144) 194+73.8 (EBL)
PHELPS COUNTY

Drawn JRE 1966 by BRANSTETTER
Checked Apr 1966 by Rhodes

Note: This drawing is not to scale. Follow dimensions.

Sheet No 44 of 5

A-1634

FINAL PLANS

Missouri Department of Transportation
State Bridge Inspection Report

September 11, 2023
1:00:28PM

COUNTY: PHELPS **DISTRICT: CD** **CLASS: STATBR** **FED-ID: 1323** **BRIDGE: A1634**

GENERAL STRUCTURE INFORMATION

ROUTE: RTDE	**# SPANS:** 4	**PLACE CODE:** 01918 ARLINGTON	
FEATURE: IS 44	**LANES ON:** 2	**LENGTH:** 201 FT 0 IN	
STATUS: A-OPEN	**LANES UNDER:** 4	**MAXIMUM SPAN:** 62 FT 0 IN	
LOG MILE: 9.070	**COMPASS DIRECTION:** NORTH to SOUTH	**APPROACH ROADWAY:** 24 FT 0 IN	
DETOUR: 25.00 MILES	**DIRECTION OF TRAFFIC:** 2-WAY TRAF	**CURB TO CURB:** 30 FT 0 IN	
NHS: NO	**FUNCTIONAL CLASS:** RL-MAJOR COLLECTOR	**OUT TO OUT:** 32 FT 8 IN	
BUILT: 1966	**NBI OWNER:** MODOT	**AADT:** 1804	
REHAB:	**NBI MAINTAINED:** MODOT	**AADT YEAR:** 2022	
LOCATION: S 24 T 37 R 10 W	**MAINTENANCE DISTRICT:** CD	**AADT TRUCK:** 11.2%	
LATITUDE: 37 54 29.06 (DMS)	**MAINTENANCE COUNTY:** PHELPS	**FUTURE AADT:** 2706	
LONGITUDE: 91 59 14.08 (DMS)	**SUB AREA:** 7D47	**FUTURE AADT YEAR:** 2042	

BRIDGE INSPECTION INFORMATION

DATE: 05/22/2023 **RESPONSIBILITY:** DISTRICT
FREQUENCY: 24 **CALCULATED INTERVAL**:** 24
TEAM LEADER: JOE GREEN **ELEMENT:** NO
INSPECTOR 2: **INSPECTOR 4:**
INSPECTOR 3:

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

GENERAL INSPECTION COMMENTS

FRACTURE CRITICAL INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

FRACTURE CRITICAL INSPECTION COMMENTS

INDEPTH INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

INDEPTH INSPECTION COMMENTS

SPECIAL INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

SPECIAL INSPECTION COMMENTS

UNDERWATER INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

UNDERWATER INSPECTION COMMENTS

OTHER SPECIAL INSPECTIONS

DATE	FREQUENCY	CATEGORY	NBI	CALCULATED INTERVAL	RESPONSIBILITY	METHOD

OTHER UNDERWATER INSPECTIONS

DATE	FREQUENCY	CATEGORY	NBI	CALCULATED INTERVAL	RESPONSIBILITY	METHOD

COUNTY: PHELPS **DISTRICT: CD** **CLASS: STATBR** **FED-ID: 1323** **BRIDGE: A1634**

STRUCTURE POSTING

APPROVED CATEGORY: S-1 NO POSTING REQUIRED
Ton 1: **Ton 2:** **Ton 3:**
COMMENTS:

FIELD CATEGORY: S-1 NO POSTING REQUIRED
Ton 1: **Ton 2:** **Ton 3:** **PROBLEM:** **PROBLEM DIRECTION:**
COMMENTS:

GENERAL COMMENTS/MAJOR RATED ITEMS

GENERAL COMMENTS: (BOWDEJ1, 08/21/2008)--(38'-62'-62'-38') CONT VOIDED CONC SLAB SPANS

[ITEM 58] DECK: 5-FAIR CONDITION **COMMENTS:** (GREENA2, 05/26/2021)--CRACK, LEACH, PATCHED, DELAM
RATING : 05/26/2021

[ITEM 59] SUPER: 6-SATISFACTORY CONDITION **COMMENTS:** (GREENA2, 05/22/2023)--CRACK, LEACH, PATCHED; MINOR DEADLOAD DEFLECTION.
RATING : 05/18/2001

[ITEM 60] SUB: 7-GOOD CONDITION **COMMENTS:** (TRAMPA, 11/16/2015)--CRACK, LEACH
RATING : 05/18/2001

[ITEM 61] BANK/CHANNEL: N-NOT APPLIC NO WATRWAY **COMMENTS:**
RATING : 05/18/2001

[ITEM 113] SCOUR: N-NOT APPLIC NOT WATERW **COMMENTS:**
RATING : 05/18/2001
EVALUATION TYPE :

[ITEM 71] WATERWAY ADEQUACY: NOT APPLICABLE **COMMENTS:**
RATING : 05/18/2001

[ITEM 72] APPRRDWY ALIGNMENT: 6-SATISFACTORY **COMMENTS:**
RATING : 05/18/2001

RAILING AND APPROACH PAVEMENT COMPONENTS AND RATINGS

[ITEM 36A] BRIDGE RAILING RATING: *DOESNT MEET CURRNT STND-0* ***RATING :*** *11/30/2009* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
REINFORCED CONCRETE	CURB	BOTH	
REINFORCED CONCRETE	PARAPET	BOTH	
ALUMINUM	CIRCULAR TUBE	BOTH	

[ITEM 36B] TRANSITION RAILING RATING: *DOESNT MEET CURRNT STND-0* ***RATING :*** *11/30/2009* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	W-BEAM	ALL	

[ITEM 36C] APPROACH RAILING RATING: *MEETS CURRENT STANDARDS-1* ***RATING :*** *05/18/2001* ***COMMENTS:***

COUNTY: PHELPS **DISTRICT: CD** **CLASS: STATBR** **FED-ID: 1323** **BRIDGE: A1634**

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	W-BEAM	ALL	

[ITEM 36D] RAIL END TREATMENT RATING: *DOESNT MEET CURRNT STND-0* ***RATING :*** *11/30/2009* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	TURN DOWN SECTION > 45	BOTH-NORTH	(RACKEM, 10/17/2007)--CONTINUOUS BOTH SOUTH

APPROACH PAVEMENT: *Overall condition assigned for each approach pavemenet component is shown below.

MATERIAL	CONSTRUCTION	DIRECTION	CONDITION*	COMMENTS
REINFORCED CONCRETE	SLAB	BOTH		

DRAINAGE, EXPANSION DEVICES, BANK/SLOPE, AND DECK PROTECTIVE COMPONENTS

DECK PROTECTIVE COMPONENTS:

SERIES TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	THICKNESS	YEAR APPLIED	MANUFACTURE	OVERALL CONDITION
MAIN SERIES-1	*WEARING SURFACE*	*ASPHALT*	*BITUMINOUS SEAL COAT*	*.3 IN*			*GOOD*

COMMENT: (RACKEM, 10/17/2007)--RESEALED IN 95 & 2007

DECK PROTECTION	*NOTAPPLICABLE*	*NONE*				

COMMENT:

MEMBRANE	*NOTAPPLICABLE*	*NONE*				

COMMENT:

SECONDARY DECK PROTECTION	*LIQUID SEALANT*	*INTERNALLY SEALED*		*2020*	*PAVON INDECK*	

COMMENT:

DRAINAGE COMPONENTS:

COMPONENT	MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS

EXPANSION DEVICE COMPONENTS:

SUB UNIT-#	SUB LABEL	COMPONENT	MATERIAL	CONSTRUCTION	GAP	YEAR APPLIED	MANUFACTURE	OVERALL CONDITION

COMMENT:

BANK/SLOPE PROTECTION COMPONENTS:

COMPONENT	MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
BANK PROTECTION	*EARTH FILL*	*BERM*	*BOTH*	

DECK COMPONENTS

SPAN TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	COMMENTS
MAIN SPANS-1	*DECK*	*REINFORCED CONCRETE*	*CAST-IN-PLACE*	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DELAMINATION	DRIVING SURFACE		FEW		
EFFLORESCENCE	BOTTOM		MINOR		
SPALLS	DRIVING SURFACE		FEW		
TRANSVERSE CRACKS	THROUGHOUT		MANY		

MAIN SPANS-2 *DECK* *REINFORCED CONCRETE* *CAST-IN-PLACE*

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DELAMINATION	DRIVING SURFACE		FEW		
EFFLORESCENCE	BOTTOM		MINOR		
HIGH STEEL SPALLS	RANDOM		FEW		
OTHER	VOID TUBE		NOT APPLICABLE		(GREENA2, 05/22/2023)--MODERATE LEAKING AT DRAIN HOLES.
TRANSVERSE CRACKS	THROUGHOUT		MANY		

MAIN SPANS-3 *DECK* *REINFORCED CONCRETE* *CAST-IN-PLACE*

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DELAMINATION	DRIVING SURFACE		FEW		
EFFLORESCENCE	BOTTOM		MINOR		
TRANSVERSE CRACKS	THROUGHOUT		MANY		

MAIN SPANS-4 *DECK* *REINFORCED CONCRETE* *CAST-IN-PLACE*

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DELAMINATION	RANDOM		MINOR		
DIAGONAL CRACKS	AT ABUTMENTS		MINOR		
EFFLORESCENCE	BOTTOM		MINOR		
LEACHING	AT ABUTMENTS		MINOR		
TRANSVERSE CRACKS	THROUGHOUT		MANY		

SUPERSTRUCTURE COMPONENTS

SERIES TYPE-#	SPAN TYPE	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
MAIN SERIES-1	*CONTINUOUS SPAN*	*REINFORCED CONCRETE*	*VOIDED SLAB*		

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-1	NON-COMPOSITE	38 FT 3 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DELAMINATION	RANDOM		FEW		
DIAGONAL CRACKS	EDGE		FEW		
EFFLORESCENCE	EDGE		MINOR		
PATCHES	RANDOM		FEW		

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-2	NON-COMPOSITE	62 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DEADLOAD DEFLECTION	MID SPAN		MINOR		
DELAMINATION	RANDOM		FEW		
DIAGONAL CRACKS	EDGE		FEW		
EFFLORESCENCE	EDGE		MINOR		
OTHER	BOTTOM		NOT APPLICABLE		(GREENA2, 05/22/2023)--MOD LEAKING AT DRAIN HOLES.
PATCHES	RANDOM		FEW		
RUST STAINS	BOTTOM		FEW		
TRANSVERSE CRACKS	BOTTOM		FEW		

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-3	NON-COMPOSITE	62 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DEADLOAD DEFLECTION	MID SPAN		MINOR		
DELAMINATION	RANDOM		FEW		

DIAGONAL CRACKS	EDGE		FEW	
EFFLORESCENCE	EDGE		MINOR	
PATCHES	RANDOM		FEW	
TRANSVERSE CRACKS	BOTTOM		FEW	

MAIN SPANS-4 NON-COMPOSITE 38 FT 3 IN NO

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DELAMINATION	RANDOM		FEW		
DIAGONAL CRACKS	EDGE		FEW		
EFFLORESCENCE	EDGE		MINOR		
PATCHES	RANDOM		FEW		

SUBSTRUCTURE COMPONENTS

SUBSTRUCTURE	SKEW	LENGTH	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
ABUTMENT-1		*32 FT 9 IN*	*REINFORCED CONCRETE*	*INTEGRAL*		

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
ASSOCIATED COMPONENT	**MATERIAL**	**CONSTRUCTION**			
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE			
VERTICAL CRACKS	RANDOM		FEW		
TURNED BACK WINGS	REINFORCED CONCRETE	CAST-IN-PLACE			
EFFLORESCENCE	AT WALL		MINOR		
VERTICAL CRACKS	AT WALL		MEDIUM		
FOOTING	REINFORCED CONCRETE	SPREAD			

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
FOOTING	REINFORCED CONCRETE	SPREAD			

SUBSTRUCTURE	SKEW	LENGTH	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
BENT-2		*32 FT 9 IN*	*REINFORCED CONCRETE*	*MULTIPLE COLUMN*		

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
ASSOCIATED COMPONENT	**MATERIAL**	**CONSTRUCTION**			
COLUMN	REINFORCED CONCRETE	CAST-IN-PLACE			
COLLISION DAMAGE	AT COLUMNS		MINOR		
HORIZONTAL CRACKS	TOP		FEW		
FOOTING	REINFORCED CONCRETE	SPREAD			

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

SUBSTRUCTURE	SKEW	LENGTH	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
BENT-3		*32 FT 9 IN*	*REINFORCED CONCRETE*	*MULTIPLE COLUMN*		

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
ASSOCIATED COMPONENT	**MATERIAL**	**CONSTRUCTION**			
COLUMN	REINFORCED CONCRETE	CAST-IN-PLACE			
FOOTING	REINFORCED CONCRETE	SPREAD			

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

SUBSTRUCTURE	SKEW	LENGTH	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
BENT-4		*32 FT 9 IN*	*REINFORCED CONCRETE*	*MULTIPLE COLUMN*		

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
ASSOCIATED COMPONENT	**MATERIAL**	**CONSTRUCTION**			
COLUMN	REINFORCED CONCRETE	CAST-IN-PLACE			
HORIZONTAL CRACKS	TOP		FEW		(MEYERM3, 01/21/2020)--DID NOT SEE 2019

FOOTING REINFORCED CONCRETE H-PILE

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

ABUTMENT-5 *32 FT 9 IN* *REINFORCED CONCRETE* *INTEGRAL*

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

ASSOCIATED COMPONENT	MATERIAL	CONSTRUCTION
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
EROSION	BOTTOM		MINOR		
LEACHING	RANDOM		MINOR		
VERTICAL CRACKS	RANDOM		FEW		

PILING STEEL H-SHAPE

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

TURNED BACK WINGS REINFORCED CONCRETE CAST-IN-PLACE

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
EFFLORESCENCE	AT WALL		MINOR		
VERTICAL CRACKS	AT WALL		MEDIUM		

OVER/UNDER ROUTES CLEARANCE INFORMATION

CLEARANCES OVER DECK

**NOTE: Vertical clearances for permitting purposes are taken as 2 inches less than the actual field measured clearance.

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT

CLEARANCES UNDER BRIDGE

**NOTE: Vertical clearances for permitting purposes are taken as 2 inches less than the actual field measured clearance.

RECORD #	ROUTE	# LANES	DIRECTION OF TRAFFIC	RIGHT LATERAL CLEARANCE	LEFT LATERAL CLEARANCE	UR-ID
1	IS 44 E	2	1-WAY TRAF	11 FT 4 IN	11 FT 4 IN	3100

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT
ACTUAL	16 FT 9 IN			

RECORD #	ROUTE	# LANES	DIRECTION OF TRAFFIC	RIGHT LATERAL CLEARANCE	LEFT LATERAL CLEARANCE	UR-ID
2	IS 44 W	2	1-WAY TRAF	11 FT 4 IN	11 FT 4 IN	3101

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT
ACTUAL	18 FT 10 IN			

STRUCTURE PAINT INFORMATION

COUNTY: PHELPS **DISTRICT: CD** **CLASS: STATBR** **FED-ID: 1323** **BRIDGE: A1634**

CONDITION: **RUST AMOUNT :** **STEEL TONS :** 0

ORIGINAL PAINT		CONTRACT REPAINT		DEPARTMENT REPAINT	
PAINT TYPE :		**PAINT TYPE :**		**PAINT TYPE :**	**MANUFACTURE :**
NAME :		**NAME :**		**NAME :**	**SURFACE PREP :**
PAINT COLOR :		**PAINT COLOR :**		**PAINT COLOR :**	
PAINT YEAR :		**PAINT YEAR :**		**PAINT YEAR :**	
MILS :		**MILS :**		**MILS :**	

REQUESTED WORK ITEMS

GENERAL WORK COMMENTS:

RESPONSIBILITY	*LOCATION*	*ITEM*	*CATEGORY*	*PRIORITY*	*DATE*	*WORK ITEM COMMENT*
DISTRICT SPECIAL	ROADWAY SURFACE	SEAL DECK WITH IN DECK	DECK	3	07/06/2023	

UTILITY ATTACHMENTS

UTILITY	*OWNER*	*METHOD*	*MEASUREMENT TYPE*	*VALUE*	*NUMBER*	*UTILITY ATTACHMENT COMMENT*

PROGRAM NOTES INFORMATION

YEAR	PROJECT #	MONTH LET	YEAR LET	ITEMS	COMMENT

COMPUTER GENERATED RATINGS AND DEFICIENCY ITEMS

NOTE: The items listed in this section are updated whenever computer edits are ran on a structure after the inspection updates have been entered in to TMS.

Rated Item	Rating	Rating Date
[Item 67] Structure Evaluation Rating:	6-EQ TO PRESENT MIN CRITR	3/25/2002
[Item 68] Deck Geometry Rating:	5-BETTER THAN MINIMUM	2/3/2017
[Item 69] Underclearance:	5-BETTER THAN MINIMUM	1/26/2022
Sufficiency Rating:	83.3%	2/22/2022
Deficiency:	NOT DEFICIENT	5/18/2001
Funding Eligibility:		----
Estimated New Structure Length:		----
Estimated Structure Cost:		----
Estimated Total Project Cost:		----
Year of Cost Estimate:		----

NOTE: The above structure length and cost estimates are computer generated using algorithims in the TMS system. These algorthims are generalized to use NBI items to come up with a new structure length and width to calculate a new area which is taken times a representative cost per square foot. The actual structure size and cost may vary significantly from these numbers once site specific engineering is done.

ADVANCED SIGN INFORMATION

SIGN #	SIGN TYPE	PROBLEM	PROBLEM DIRECTION
1			

OUTFALL INSPECTION INFORMATION

 # OUTFALLS: **INSPECTOR:**
STATUS: **DATE:**
NOTES:

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

September 11, 2023
1:03:15pm

COUNTY : PHELPS **BRIDGE :** A1634 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : 1 RTE THAT GOES 'UNDER' S **RUN DATE :** 5/30/2023 **SUBMITTAL YEAR :** 2023

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	CD
3	County	PHELPS
8	Federal ID No.	1323
27	Year Built	1966
106	Year Reconstructed	0
42A	Type of Service On	HIGHWAY
21	Structure Maintenance	
22	Structure Owner	
33	Br. Median Code	
37	Historical Significance	
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	

ROUTE DESIGNATION INFORMATION

5A	Record Type	1 RTE THAT GOES 'UNDER' S	Code : A
5B	Route Signing Prefix	IS	
5C	Designated Level of Service	MAINLINE	
5D	Route Number	00044	
5E	Directional Suffix	NOT APPLICABLE	
7	Facility Carried	RT D E	
12	Base Hwy. Network		
13A	LRS Inventory Route No.		
13B	Subroute No.		
20	Toll Status	ON FREE ROAD	
26	Functional Classification	01-RU PRINCIPL ARTRIAL-IS	
28A	Lanes on Structure	02	
100	STRAHNET Designation	ON A DEFENSE HWY	
104	National Highway System	ON NHS	
105	Federal Lands Highway		
110	Designated Nat. Network	YES	

STRUCTURE LOCATION INFORMATION

4	Place	ARLINGTON
	Code	01918
9	Location	S 24 T 37 N R 10 W
11	Milepoint	173.58 miles
16	Latitude	37 D 54 M 29 S
17	Longitude	91 D 59 M 14 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	15941
30	AADT Year	2022
102	Direction of Traffic	1-WAY TRAFFIC
109	AADT Truck Percent	29%
114	Future AADT	
115	Future AADT Year	

UNDERRECORD INFORMATION

6	Features Intersected	IS 44
42B	Type of Service Under	HIGHWAY
28B	Lanes Under Structure	02
54A	Vert. Clearance Ref.	
54B	Vert. Clearance	
55A	Rt. Lat Clear Ref.	
55B	Rt. Lat Clearance	
56	Left Lat Clearance	
38	Navigation Control	
39	Nav Vertical Clear	
40	Nav Horizontal Clear	
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	16 Ft. 9 In.
19	By pass Detour Length	0.00 miles
32	Approach Roadway Width	
34	Skew	
35	Struct. Flared	
47	Total Horiz. Clear	29 Ft. 10 In.
48	Maximum Span Length	62 Ft. 0 In.
49	Structure Length	201 Ft. 1 In.
50A	Left Curb/Sidewalk Width	
50B	Right Curb/Sidewalk Width	
51	Curb to Curb Br. Width	
52	Deck Width (Out-Out)	
53	Vert.Clearance Over Deck	

Design_No = a1634

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

September 11, 2023
1:03:15pm

COUNTY : PHELPS **BRIDGE :** A1634 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : 1 RTE THAT GOES 'UNDER' S **RUN DATE :** 5/30/2023 **SUBMITTAL YEAR :** 2023

LOAD RATING AND POSTING INFORMATION

31	Design Load
41	Structure Status
63	Oper. Rating Meth.
64	Operating Rating
65	Inventory Rating Meth
66	Inventory Rating
70	Bridge Posting Code

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating
	Deficiency Rating
	Funding Eligibility
75A	Proposed Work
75B	Work Done By
76	New Struc Length
94	Struc Improve Cost
95	Roadway Improve Cost
96	Total Project Cost
97	Year of Cost Estimates

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating
36B	Transition Rail App. Rating
36C	Approach Rail App. Rating
36D	Rail End Treat. App. Rating
67	Struc Eval App. Rating
68	Deck Geometry App. Rating
69	Underclearance App. Rating
71	Waterway Adeq. App. Rating
72	Approach Road App. Rating
113	Scour Assess App. Rating

MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	CONCRETE CONTINUOUS
43B	Main struc Constr. Type	SLAB
45	# of Main Spans	
44A	Appr Struc. Mat type	
44B	Appr Struc. Cnstr. type	
46	# of Approach Span	
107	Deck Mat/Constr.	
108A	Wear Surf Mat/Constr.	
108B	Membrane Mat/Constr.	
108C	Deck Protect Mat/Constr.	

CONDITION RATING INFORMATION

58	Deck Cond. Rating
59	Superstructure Cond. Rating
60	Substructure Cond. Rating
61	Channel /Channel Protection Cond. Rating
62	Culvert Cond. Rating

INSPECTION INFORMATION

90	Gen. Insp Date
91	Gen. Insp. Frequency
92A	Frac. Critical Inspection
93A	Frac. Critical Insp. Date
92B	Underwater Inspection
93B	Underwater Insp. Date
92C	Special Inspection
93C	Special Inspection Date

BORDER BRIDGE INFORMATION

98	Neighboring State Code
98B	Neighboring State % Respon
99	Neighboring State Struc. No.

APPROVED POSTING INFORMATION

Approved Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

FIELD POSTING INFORMATION

Field Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

Design_No = a1634

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

September 11, 2023
1:03:15pm

COUNTY : PHELPS **BRIDGE :** A1634 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : 2ND RTE THAT GOES 'UNDR'S **RUN DATE :** 5/30/2023 **SUBMITTAL YEAR :** 2023

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	CD
3	County	PHELPS
8	Federal ID No.	1323
27	Year Built	1966
106	Year Reconstructed	0
42A	Type of Service On	HIGHWAY
21	Structure Maintenance	
22	Structure Owner	
33	Br. Median Code	
37	Historical Significance	
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	

ROUTE DESIGNATION INFORMATION

5A	Record Type	2ND RTE THAT GOES 'UNDR'S Code : B
5B	Route Signing Prefix	IS
5C	Designated Level of Service	MAINLINE
5D	Route Number	00044
5E	Directional Suffix	NOT APPLICABLE
7	Facility Carried	RT D E
12	Base Hwy. Network	
13A	LRS Inventory Route No.	
13B	Subroute No.	
20	Toll Status	ON FREE ROAD
26	Functional Classification	01-RU PRINCIPL ARTRIAL-IS
28A	Lanes on Structure	02
100	STRAHNET Designation	ON A DEFENSE HWY
104	National Highway System	ON NHS
105	Federal Lands Highway	
110	Designated Nat. Network	YES

STRUCTURE LOCATION INFORMATION

4	Place	ARLINGTON
	Code	01918
9	Location	S 24 T 37 N R 10 W
11	Milepoint	121.27 miles
16	Latitude	37 D 54 M 29 S
17	Longitude	91 D 59 M 14 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	16698
30	AADT Year	2022
102	Direction of Traffic	1-WAY TRAFFIC
109	AADT Truck Percent	44%
114	Future AADT	
115	Future AADT Year	

UNDERRECORD INFORMATION

6	Features Intersected	IS 44
42B	Type of Service Under	HIGHWAY
28B	Lanes Under Structure	02
54A	Vert. Clearance Ref.	
54B	Vert. Clearance	
55A	Rt. Lat Clear Ref.	
55B	Rt. Lat Clearance	
56	Left Lat Clearance	
38	Navigation Control	
39	Nav Vertical Clear	
40	Nav Horizontal Clear	
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	18 Ft. 8 In.
19	By pass Detour Length	0.00 miles
32	Approach Roadway Width	
34	Skew	
35	Struct. Flared	
47	Total Horiz. Clear	29 Ft. 10 In.
48	Maximum Span Length	62 Ft. 0 In.
49	Structure Length	201 Ft. 1 In.
50A	Left Curb/Sidewalk Width	
50B	Right Curb/Sidewalk Width	
51	Curb to Curb Br. Width	
52	Deck Width (Out-Out)	
53	Vert.Clearance Over Deck	

Design_No = a1634

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

September 11, 2023
1:03:15pm

COUNTY : PHELPS **BRIDGE :** A1634 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : 2ND RTE THAT GOES 'UNDR'S **RUN DATE :** 5/30/2023 **SUBMITTAL YEAR :** 2023

LOAD RATING AND POSTING INFORMATION

31	Design Load
41	Structure Status
63	Oper. Rating Meth.
64	Operating Rating
65	Inventory Rating Meth
66	Inventory Rating
70	Bridge Posting Code

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating
	Deficiency Rating
	Funding Eligibility
75A	Proposed Work
75B	Work Done By
76	New Struc Length
94	Struc Improve Cost
95	Roadway Improve Cost
96	Total Project Cost
97	Year of Cost Estimates

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating
36B	Transition Rail App. Rating
36C	Approach Rail App. Rating
36D	Rail End Treat. App. Rating
67	Struc Eval App. Rating
68	Deck Geometry App. Rating
69	Underclearance App. Rating
71	Waterway Adeq. App. Rating
72	Approach Road App. Rating
113	Scour Assess App. Rating

MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	CONCRETE CONTINUOUS
43B	Main struc Constr. Type	SLAB
45	# of Main Spans	
44A	Appr Struc. Mat type	
44B	Appr Struc. Cnstr. type	
46	# of Approach Span	
107	Deck Mat/Constr.	
108A	Wear Surf Mat/Constr.	
108B	Membrane Mat/Constr.	
108C	Deck Protect Mat/Constr.	

CONDITION RATING INFORMATION

58	Deck Cond. Rating
59	Superstructure Cond. Rating
60	Substructure Cond. Rating
61	Channel /Channel Protection Cond. Rating
62	Culvert Cond. Rating

INSPECTION INFORMATION

90	Gen. Insp Date
91	Gen. Insp. Frequency
92A	Frac. Critical Inspection
93A	Frac. Critical Insp. Date
92B	Underwater Inspection
93B	Underwater Insp. Date
92C	Special Inspection
93C	Special Inspection Date

BORDER BRIDGE INFORMATION

98	Neighboring State Code
98B	Neighboring State % Respon
99	Neighboring State Struc. No.

APPROVED POSTING INFORMATION

Approved Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

FIELD POSTING INFORMATION

Field Posting Category

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

Design_No = a1634

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

September 11, 2023
1:03:15pm

COUNTY : PHELPS **BRIDGE :** A1634 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : ROUTE CARRIED 'ON' STRUCT **RUN DATE :** 5/30/2023 **SUBMITTAL YEAR :** 2023

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	CD
3	County	PHELPS
8	Federal ID No.	1323
27	Year Built	1966
106	Year Reconstructed	0
42A	Type of Service On	HIGHWAY
21	Structure Maintenance	STATE HIGHWAY AGENCY
22	Structure Owner	STATE HIGHWAY AGENCY
33	Br. Median Code	NO MEDIAN
37	Historical Significance	NOT ELIGIBLE FOR NR OF HP
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	YES

ROUTE DESIGNATION INFORMATION

5A	Record Type	ROUTE CARRIED 'ON' STRUCT
5B	Route Signing Prefix	MO
5C	Designated Level of Service	MAINLINE
5D	Route Number	0000D
5E	Directional Suffix	NOT APPLICABLE
7	Facility Carried	RT D E
12	Base Hwy. Network	NO
13A	LRS Inventory Route No.	
13B	Subroute No.	
20	Toll Status	ON FREE ROAD
26	Functional Classification	07-RURAL MAJOR COLLECTOR
28A	Lanes on Structure	02
100	STRAHNET Designation	RTE NOT A DEFENSE HWY
104	National Highway System	NOT ON NHS
105	Federal Lands Highway	NOT APPLICABLE
110	Designated Nat. Network	NO

STRUCTURE LOCATION INFORMATION

4	Place	ARLINGTON
	Code	01918
9	Location	S 24 T 37 N R 10 W
11	Milepoint	9.12 miles
16	Latitude	37 D 54 M 29 S
17	Longitude	91 D 59 M 14 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	1804
30	AADT Year	2022
102	Direction of Traffic	2-WAY TRAFFIC
109	AADT Truck Percent	11%
114	Future AADT	2706
115	Future AADT Year	2042

UNDERRECORD INFORMATION

6	Features Intersected	IS 44
42B	Type of Service Under	HIGHWAY
28B	Lanes Under Structure	04
54A	Vert. Clearance Ref.	HIGHWAY
54B	Vert. Clearance	16 Ft. 9 In.
55A	Rt. Lat Clear Ref.	HIGHWAY
55B	Rt. Lat Clearance	11 Ft. 2 In.
56	Left Lat Clearance	11 Ft. 2 In.
38	Navigation Control	N/A
39	Nav Vertical Clear	0 Ft. 0 In.
40	Nav Horizontal Clear	0 Ft. 0 In.
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	99 Ft. 99 In.
19	By pass Detour Length	25.00 miles
32	Approach Roadway Width	23 Ft. 11 In.
34	Skew	0.00 Degrees
35	Struct. Flared	NO
47	Total Horiz. Clear	29 Ft. 10 In.
48	Maximum Span Length	62 Ft. 0 In.
49	Structure Length	201 Ft. 1 In.
50A	Left Curb/Sidewalk Width	0 Ft. 0 In.
50B	Right Curb/Sidewalk Width	0 Ft. 0 In.
51	Curb to Curb Br. Width	29 Ft. 10 In.
52	Deck Width (Out-Out)	32 Ft. 10 In.
53	Vert.Clearance Over Deck	99 Ft. 99 In.

Design_No = a1634

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

September 11, 2023
1:03:15pm

COUNTY : PHELPS **BRIDGE :** A1634 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : ROUTE CARRIED 'ON' STRUCT **RUN DATE :** 5/30/2023 **SUBMITTAL YEAR :** 2023

LOAD RATING AND POSTING INFORMATION

31	Design Load	H 20
41	Structure Status	OPEN NO RESTRICTIONS
63	Oper. Rating Meth.	ALLOWABLE STRESS
64	Operating Rating	54 Tons.
65	Inventory Rating Meth	ALLOWABLE STRESS
66	Inventory Rating	30 Tons.
70	Bridge Posting Code	=>LEGAL LOADS

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating	83.3 Percent
	Deficiency Rating	NOT DEFICIENT
	Funding Eligibility	
75A	Proposed Work	
75B	Work Done By	
76	New Struc Length	0 Ft. 0 In.
94	Struc Improve Cost	$ 0,000
95	Roadway Improve Cost	$ 0,000
96	Total Project Cost	$ 0,000
97	Year of Cost Estimates	0

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating	DOES NOT MEET ACCEPT STND
36B	Transition Rail App. Rating	DOES NOT MEET ACCEPT STND
36C	Approach Rail App. Rating	MEETS ACCEPTBLE STND
36D	Rail End Treat. App. Rating	DOES NOT MEET ACCEPT STND
67	Struc Eval App. Rating	6
68	Deck Geometry App. Rating	5
69	Underclearance App. Rating	5
71	Waterway Adeq. App. Rating	N
72	Approach Road App. Rating	6
113	Scour Assess App. Rating	N

MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	CONCRETE CONTINUOUS
43B	Main struc Constr. Type	SLAB
45	# of Main Spans	4
44A	Appr Struc. Mat type	000
44B	Appr Struc. Cnstr. type	000
46	# of Approach Span	0
107	Deck Mat/Constr.	1 CONCRETE CIP
108A	Wear Surf Mat/Constr.	6 BITUMINOUS
108B	Membrane Mat/Constr.	0 NONE
108C	Deck Protect Mat/Constr.	0 NONE

CONDITION RATING INFORMATION

58	Deck Cond. Rating	5
59	Superstructure Cond. Rating	6
60	Substructure Cond. Rating	7
61	Channel /Channel Protection Cond. Rating	N
62	Culvert Cond. Rating	N

INSPECTION INFORMATION

90	Gen. Insp Date	5 / 23	
91	Gen. Insp. Frequency	24	Months
92A	Frac. Critical Inspection	N	Months
93A	Frac. Critical Insp. Date		
92B	Underwater Inspection	N	Months
93B	Underwater Insp. Date		
92C	Special Inspection	N	Months
93C	Special Inspection Date		

BORDER BRIDGE INFORMATION

98	Neighboring State Code
98B	Neighboring State % Respon
99	Neighboring State Struc. No.

APPROVED POSTING INFORMATION

Approved Posting Category S-1

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

NO POSTING REQUIRED

FIELD POSTING INFORMATION

Field Posting Category S-1

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

NO POSTING REQUIRED

Design_No = a1634