VERMILION SEC 92 (11RS, 11BR, 11VB-BR, 11VB-1-BR) I & R JUNE 21, 1991 # 307

095%
7-16-94

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	*	VERMILION	165	1
F.A.I.N. 0000	ILLINOIS	PROJECT		

*92(11RS,11BR,11VB-BR,11VB-1-BR)

D-95-026-89

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID INTERSTATE HIGHWAY

FOR INDEX OF SHEETS, SEE SHEET NO. 5
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 7-11 (INCL.)

SCALES { PLAN 1" = 1000' PROFILE HOR. PROFILE VERT. CROSS-SECTIONS

F.A.I. ROUTE 74, SECTION 92(11RS,11BR,11VB-BR,11VB-1-BR)

VERMILION COUNTY

C-95-067-90

INTERSTATE RESURFACING AND BRIDGE REHABILITATION

LOCATION OF SECTION INDICATED THUS: —

SCALE: 1"=1 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED April 25 1991
District Engineer
EXAMINED 5/7 1991
Engineer of Plans and Contracts
PASSED
Engineer of Design
APPROVED 5/7 1991
Bureau Chief of Design

SQUAD LEADER: DON CRAUN PROJECT ENGINEER: PAUL KOEHLER

DESIGN DESIGNATION
1630 (13) INTERSTATE 6.13(COMP.-6)

CONTRACT NO. 90165

TOTAL & NET LENGTH OF SECTION 92(11RS,11BR,11VB-BR,11VB-1-BR) = 19,200.00FEET = 3.63 MILES

TOLL FREE J.U.L.I.E. TELEPHONE NO.
1-800-892-0123

DANVILLE TOWNSHIP

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED
DIVISION ADMINISTRATOR DATE

MJF

VERMILION COUNTY SECTION * F.A.I. ROUTE 74
*92(11RS,11BR,11VB-BR,11VB-1-BR)

092-0126

5-161

092-0126

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 74	*	VERMILION	165	59

* 92(11RS,11BR,11VB-BR,11VB-1-BR))

DETAIL OF POST SPACING FOR STEEL BRIDGE RAIL

STRUCTURE: S.N. 092-0126

SEC. 92-11HB-1
MAUCK LANE (TR 250)
STA. 1742+16.65

ELEVATION

NOTE: THIS STRUCTURE HAS A CONCRETE STRUT BETWEEN THE BACK OF ABUTMENTS AND WING WALLS ON EACH CORNER APPROXIMATELY 3' BELOW THE DECK.

FACE OF PROPOSED RAIL TO BE PLACED FLUSH WITH FACE OF EXISTING CURB

SET THE SECOND POST FROM THE END OF THE BRIDGE ON THE TYPE 5A TERMINAL IN CONCRETE.

SET THE THIRD POST FROM THE END OF THE BRIDGE ON THE TYPE 5A TERMINAL IN CONCRETE.

PLAN

DESIGNED: FMS 1-91
CHECKED:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	*	VERMILION	165	61

* 92 (IIRS, IIBR, IIVB-BR, ii 68-1-82)

DETAIL OF STEEL BRIDGE RAIL SPECIAL

DETAIL OF SHIMS

SECTION AT RAIL POST

SECTION A-A

END OF RAIL DETAILS

SECTION B-B

RAIL SPLICE CONNECTION AT EXPANSION JT.

PLAN-BOTT. SPLICE ℄ TYPICAL

BOTTOM RAIL

TOP RAIL

SECTIONS AT RAIL SPLICE

NOTES

Hollow structural steel tubing shall conform to the requirements of ASTM designation A-500, Grade B, Structural Steel Tubing.

All other steel shapes and plates shall conform to the requirements of AASHTO M-183 except posts shall conform to AASHTO M-223, Grade 50.

Bolts, cap screws and nuts shall conform to the requirements of ASTM designation A-307 except that threaded rods, nuts and washers shall conform to AASHTO M-164.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized in accordance with AASHTO M-232.

All posts, railing, rail splices and anchor rods shall be galvanized after shop fabrication in accordance with AASHTO M-111 and ASTM A-385. Galvanized rail shall not be painted.

Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per lineal foot for STEEL BRIDGE RAIL SPECIAL.

All field drilled holes shall be coated with an approved zinc rich paint before erection.

Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.

STEEL BRIDGE RAIL SPECIAL expansion joint shall be provided between any two (2) posts which span a bridge expansion joint. Bolts located at expansion joint shall be provided with locknuts and shall be tightened only to a point that will allow railing movement.

Provide one 1/8" and two 1/16" steel shims for 25% of the posts. Shims shall be as shown in detail.

Expansion joint width shall be "D" at 50℉ F and shall be adjusted for other temperatures according to Article 503.07(c) of the Standard Specifications.

The Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes in accordance with the manufacturer's recommendations and proceaures.

The capsule or the adhesive cartridge shall be a sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Nuts for ¾" threaded anchor rods connecting the steel post to the concrete shall be tightened to a snug fit and given an additional ½ turn.

SPLICE DIMENSIONS

T	D	A	B	C	E
≤4"	2½"	1'-8"	2"	4"	2½"
>4" ≤ 6½"	3¾"	2'-0"	2½"	5½"	3½"
>6½" ≤ 9"	5"	2'-4"	3½"	6½"	5"
>9" ≤ 13"	7"	2'-10"	4½"	8½"	11"
Rail Splice	½"	1'-8"	2"	4"	—

T = Total movement at expansion joint as shown on the design plans.

	NAME	DATE
DESIGNED	D.D.C.	10-87
CHECKED		
CADD NO.	F-5.21	

REVISIONS	
NAME	DATE

(6'-4" Maximum Post Spacing)

BASE PLATE DETAIL

SECTION A-A

END OF RAIL DETAILS

NOTES

Hollow structural steel tubing shall conform to the requirements of ASTM designation A-500, Grade B, Structural Steel Tubing.

All other steel shapes and plates shall conform to the requirements of AASHTO M-183 except posts shall conform to AASHTO M-223, Grade 50.

Bolts, cap screws and nuts shall conform to the requirements of ASTM designation A-307 except that threaded rods, nuts and washers shall conform to AASHTO M-164.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized in accordance with AASHTO M-232.

All posts, railing, rail splices and anchor rods shall be galvanized after shop fabrication in accordance with AASHTO M-111 and ASTM A-385. Galvanized rail shall not be painted.

Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per lineal foot for STEEL BRIDGE RAIL.

All field drilled holes shall be coated with an approved zinc rich paint before erection.

Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.

STEEL BRIDGE RAIL expansion joint shall be provided between any two (2) posts which span a bridge expansion joint. Bolts located at expansion joint shall be provided with locknuts and shall be tightened only to a point that will allow railing movement.

Provide one ½" and two 1/16" steel shims for 25% of the posts. Shims shall be similar to base plates in size and holes.

Expansion joint width shall be "D" at 50° F and shall be adjusted for other temperatures according to Article 503.07(c) of the Standard Specifications.

The Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes in accordance with the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge shall be a sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Nuts for 1"ϕ threaded anchor rods connecting the base plate to the concrete shall be tightened to a snug fit and given an additional ⅛ turn.

SECTION AT RAIL POST

RAIL SPLICE CONNECTION AT EXPANSION JT.

BOTTOM RAIL

TOP RAIL

SECTIONS AT RAIL SPLICE

(6'-3" Maximum Post Spacing)

PLAN-BOTT. SPLICE ℄ TYPICAL

SPLICE DIMENSIONS

T	D	A	B	C	E
≤4"	2½"	1'-8"	2"	4"	2½"
>4" ≤6½"	3¾"	2'-0"	2½"	5½"	3½"
>6½" ≤9"	5"	2'-4"	3½"	6½"	9"
>9" ≤13"	7"	2'-10"	4½"	8½"	11"
Rail Splice	¼"	1'-8"	2"	4"	—

T = Total movement at expansion joint as shown on the design plans.

Illinois Department of Transportation

PASSED Sept. 1, 1987
Engineer of Bridge and Traffic Structures

APPROVED Sept. 1, 1987
Engineer of Design

ISSUED 2-22-85

STANDARD STEEL BRIDGE RAIL CURB MOUNTED

STANDARD 2399-1

F-3.47a

FEDERAL AID ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB-1 92-11B 92-11F	VERMILION	93	1
F.E.D. ROAD DIST. NO. 7	ILLINOIS	PROJECT	I-74-6(35) 213 I-74-6(37) 213	

FOR INDEX OF SHEETS - SEE SHEET. 3.
FOR SUMMARY OF QUANTITIES - SEE SHEET. 4.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

SCALES

PLAN	1 INCH	100 FT	
PROFILE HOR	1 INCH	100 FT	
PROFILE VERT	1 INCH	10 FT	
CROSS SECTIONS	1 INCH	100 FT	HORZ
CROSS SECTIONS	1 INCH	5 FT	VERT

N

FAI ROUTE 74, SEC 92-11HB-1, VERMILION COUNTY
PROJECT I-74-6(35) 213
FAI ROUTE 74, SEC 92-11B, VERMILION COUNTY
FAI ROUTE 74, SEC 92-11F, VERMILION COUNTY
PROJECT I-74-6(37) 213

SECTION 92-11F INCLUDES FURNISHING AND FABRICATING STRUCTURAL STEEL, FURNISHING AND APPLYING SHOP COAT OF PAINT AND DELIVERY OF STRUCTURAL STEEL AS SPECIFIED BELOW.

SECTION 92-11HB-1 INCLUDES A 4 SPAN REINFORCED CONCRETE GRADE SEPARATION STRUCTURE, SPANS 2 AT 54'-6" AND 2 AT 68'-6" WITH 24'-0" ROADWAY WIDTH AND 2'-0" SAFETY WALKS ON REINFORCED CONCRETE PIERS AND ABUTMENTS AT STATION 1742+16.65

SECTION 92-11B INCLUDES TWIN 6 SPAN DECK PLATE GIRDER BRIDGES OVER THE VERMILION RIVER, SPANS 2 AT 93'-0" AND 4 AT 116'-0" WITH 30' 0" ROADWAY WIDTH AND 2'-0" SAFETY WALKS ON REINFORCED CONCRETE PIERS AND ABUTMENTS AT STATION 1755+16 TOGETHER WITH ROUGH GRADING.

DESIGN CLASSIFICATION
1525-T-70
PROJECT I-74-6(37) 213

LOCATION OF SECTION INDICATED THUS:—

NOTE: STRUCTURAL STEEL SHALL BE DELIVERED F.O.B. RAILWAY TEAM TRACK NEAREST THE BRIDGE SITE, EXCEPT THAT DELIVERY MAY BE F.O.B. BRIDGE SITE BY TRUCK IF SUITABLE ARRANGEMENTS ARE MADE WITH THE CONTRACTOR FOR SECTION 92-11B

PROJECT I-74-6(37)213
SECTION 92-11B
BEGINS STA. 1739+40

OMISSION SEC. 92-11B
STA. 1758+59 TO
STA. 1769+40

PROJECT I-74-6(37)213
SECTION 92-11B
ENDS STA. 1775+30

PLANS PREPARED BY
CONSOER TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS
360 EAST GRAND AVE.
CHICAGO, ILL.

PROJECT I-74-6(35)213 LENGTH = 0.0 FT = 0.0 MI.
SECTION 92-11B GROSS LENGTH = 3530.0 FT. = 0.680 MI.
PROJECT I-74-6(37)213 LENGTH = 2529.0 FT. = 0.475 MI.

EXAMINED May 25 1961
W. E. Baumann
ENGINEER OF BRIDGE & TRAFFIC STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
SUBMITTED May 22, 1961 — DISTRICT ENGINEER
EXAMINED June 13 1961 — ENGINEER OF ROAD PLANS AND CONTRACTS
PASSED June 13 1961 — ENGINEER OF DESIGN
APPROVED June 13 1961 — ENGINEER OF BRIDGES AND HIGHWAYS
APPROVED June 13 1961 — CHIEF ENGINEER

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED
DIVISION ENGINEER — DATE

REEL 5-36

092-0126

Job No 20973(F) 20974(B)

U. S. BLUE CHICAGO — VERMILION COUNTY — SECTION 92-11HB-1 92-11B 92-11F — F.A.I. ROUTE 74

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB-1	VERMILION	93	10
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	PROJ. I-74-6(35)213	

FAI RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB	Vermilion	93	11
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	FISCAL	

PLAN OF BORING LOCATIONS

BORING NO	STATION	OFFSET
6	48 + 78	[illegible]
7	49 + 30	[illegible]
8	50 + 00	[illegible]
9	50 + 85	6' R.
10	51 + 22	15' L.

BORING NO.6
DATE: 11-7-57
GROUND ELEVATION: +648.0'
GROUND SURFACE

E	S	PR	Qu	R	CLASSIFICATION
+648.0'					
47.0					ASPHALT ROAD & FILL
46.5	1	39	-	0.5	SILT=SOME SAND & CLAY=TRACE OF GRAVEL=BROWN
46.0					
45.0	2	24	1.1	0.4	CLAY & SILT=TRACE OF SAND=BROWN=VERY TOUGH
44.0					WATER LEVEL=644.0' 24 HRS. AFTER BORING
43.0	3	22	1.0	0.9	SILT=SOME CLAY & SAND=TRACE OF GRAVEL=BROWN 3, GRAY=MED.DENSE
42.0					
41.0	4	26	-	0.7	
40.0					
38.0					SILT=SOME SAND=TRACE OF CLAY & GRAVEL=BROWN MED.DENSE
37.0	5	29		1.7	
36.0					WATER LEVEL=637.0' AFTER BORING
34.5					
33.0					
32.0	6	29	1.3	1.2	SILT=SOME CLAY & SAND=TRACE OF CLAY=GRAY=MED.DENSE
31.0					
30.5					
29.0					
28.0					
27.5	7	210	-	0.3	
27.0					
					SILT=SOME CLAY=TRACE OF SAND & GRAVEL=GRAY=VERY DENSE
23.0					
22.5	8	150	-	0.2	

END OF BORING

BORING NO.7
DATE: 11-8-57
GROUND ELEVATION: +648.4'
GROUND SURFACE

E	S	PR	Qu	R	CLASSIFICATION
+648.4'					
47.4	1	6	-	0.2	SAND=SOME SILT=TRACE OF CLAY=BROWN=LOOSE
46.4					
45.4	2	4	.94	0.2	CLAY & SILT=TRACE OF SAND=BROWN + GRAY= TOUGH
44.4					WATER LEVEL=644.4' 24 HRS. AFTER BORING
43.4	3	22	1.1	0.7	
42.4					SILT=SOME SAND & CLAY=BROWN & GRAY=MED.DENSE
41.4	4	18	1.1	0.5	
40.4					
39.4					
38.4					
37.4	5	87	-	1.5	SILT=SOME SAND=TRACE OF CLAY=BROWN=VERY DENSE
36.4					
35.4					
34.9					
33.4					
32.4	6	30	.94	1.5	SILT=SOME CLAY & SAND GRAY=MED.DENSE
31.4					
29.9					
28.4					WATER LEVEL=628.4' AFTER BORING
27.4	7	175	8.3	0.6	
26.4					SILT=SOME CLAY=TRACE OF SAND & GRAVEL=GRAY=VERY DENSE
23.4					
23.0	8	197	-	0.3	
22.4					

END OF BORING

BORING NO.8
DATE: 11-7-57
GROUND ELEVATION: +648.2'
GROUND SURFACE

E	S	PR	Qu	R	CLASSIFICATION
+648.9'					
47.9					ASPHALT ROAD & FILL
47.0	1	20	-	0.5	SILT=SOME SAND & CLAY=BROWN & BLACK=MED.DENSE
46.9					
45.9	2	14	-	0.7	SILT=SOME SAND & CLAY=TRACE OF GRAVEL=BROWN & GRAY=MED.DENSE
44.9					
43.9	3	20	.76	1.0	WATER LEVEL=643.0' 24 HRS. AFTER BORING
42.9					SILT=SOME SAND & CLAY=TRACE OF GRAVEL=BROWN & GRAY=MED.DENSE
41.9	4	20	-	0.7	
40.9					
39.9					
38.9					
37.9	5	38	-	1.2	SILT=SOME SAND & CLAY=TRACE OF GRAVEL=GRAY=DENSE
36.9					
35.4					
33.9					
32.9	6	29	1.6	1.5	SILT=SOME CLAY & SAND=TRACE OF GRAVEL=GRAY=MED.DENSE
31.9					
30.4					
28.9					
28.2	7	180	8.3	1.3	
27.6					
					SILT=SOME CLAY=TRACE OF SAND & GRAVEL=GRAY=VERY DENSE
23.9					
23.4	8	120	8.2	0.4	

END OF BORING

BORING NO.9
DATE: 11-7-57
GROUND ELEVATION: +649.0'
GROUND SURFACE

E	S	PR	Qu	R	CLASSIFICATION
+649.0'					
48.9	1	4	-	0.2	
47.0					SILT=SOME SAND & CLAY=TRACE OF GRAVEL=BROWN=LOOSE
46.0	2	4	-	0.1	
45.0					
44.0					WATER LEVEL=644.0' 24 HRS. AFTER BORING
43.0	3	22	-	1.0	SILT=SOME SAND=TRACE OF GRAVEL & CLAY=BROWN MED.DENSE
42.0	4	23	-	1.0	
41.0					
40.0					
39.0					
38.0	5	29	1.0	1.0	SILT=SOME CLAY & SAND=TRACE OF GRAVEL=BROWN MED.DENSE
37.0					
35.5					
34.0					
33.0	6	33	.94	1.5	SILT=SOME CLAY & SAND TRACE OF GRAVEL=GRAY=MED.DENSE
32.0					
30.5					
29.0					
28.0	7	149	6.1	0.6	
26.0					SILT=SOME CLAY=TRACE OF SAND & GRAVEL=GRAY=VERY DENSE
24.0					
23.5	8	120	8.3	0.2	

END OF BORING

BORING NO.10
DATE: 11-7-57
GROUND ELEVATION: + 649.0'
GROUND SURFACE

E	S	PR	Qu	R	CLASSIFICATION
+649.0'					
48.0	1	21	-	0.0	SAND & GRAVEL=SILT=CLAY=BROWN=MED. DENSE
47.0					
46.0	2	16	-	0.4	CLAY & SILT=TRACE OF SAND & GRAVEL=BROWN & GRAY=VERY TOUGH
45.0					
44.0	3	25	1.0	0.9	SILT=SOME SAND & CLAY=BROWN=MED. DENSE
43.0					
42.0	4	32	[illegible]	0.2	SILT=SOME SAND & [illegible] TRACE OF CLAY & [illegible] BROWN=DENSE
41.0					
40.0					
39.0					
38.0	5	46	-	1.5	SILT=SOME SAND=TRACE OF GRAVEL & CLAY=BROWN DENSE
37.0					
35.5					
					WATER LEVEL=635.0' AFTER BORING
34.0					
33.0	6	26	-	0.9	CLAY & SILT=TRACE OF SAND & GRAVEL=GRAY=TOUGH
32.0					
30.5					
29.0					
28.0	7	156	8.7	0.4	SILT=SOME CLAY=TRACE OF SAND & GRAVEL=GRAY VERY DENSE
27.0					
24.0					
23.5	8	195	8.8	0.5	
23.0					

END OF BORING

BORING FILLED IN AFTER COMPLETION
NO 24 HRS. WATER LEVEL READING

General Notes

1950 CHICAGO BUILDING CODE SOIL CLASSIFICATIONS ARE USED.

E = ELEVATION
S = SAMPLE NUMBERS
PR = PENETRATION IN BLOWS PER FOOT OF 140 POUND HAMMER FALLING 30 INCHES
Qu = UNCONFINED COMPRESSIVE STRENGTH=T/SQ.FT.
R = RECOVERY IN FEET
SS = SPLIT SPOON=SIZE: 2"O.D. SIZE: 1 3/8" I.D.

*LOGS PREPARED BY
SOIL TESTING SERVICES, INC.
1827 N. HARLEM AVE.
CHICAGO 30, ILL.

WATER LEVELS INDICATED ON THE BORING LOGS ARE THE LEVELS MEASURED IN THE BORING AT THE TIMES INDICATED. IN PERVIOUS SOILS, THE INDICATED ELEVATIONS ARE CONSIDERED RELIABLE GROUND WATER LEVELS. IN IMPERVIOUS SOILS, THE ACCURATE DETERMINATION OF GROUND WATER ELEVATIONS IS NOT POSSIBLE IN EVEN SEVERAL DAYS OBSERVATION, AND ADDITIONAL EVIDENCE ON GROUND WATER ELEVATIONS MUST BE SOUGHT.

LOCATION NO.2

LOCATION NO.2

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
MAUCK LANE BRIDGE OVER FAI RT. 74
FAI RT. 74 SECTION 92-11 HB-1
VERMILION COUNTY STA. 1742 +1685

BORING LOGS

DESIGNED	DRAWN	TRACED	CHECKED	SUBMITTED	FOR	APPROVED
			L.D.B.	H.S.M. 8-13-59		

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB-1	Vermilion	93	12
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	PROJ.	

AT ℄ SPANS

AT PIERS

TYPICAL DECK SECTION

SPAN 1 OR 4

SECTION NEAR ℄ SPAN

SPAN 2 OR 3

PIER 1 OR 3

SECTION NEAR PIERS

PIER 2

TYPICAL INTERMEDIATE DIAPHRAGM

For Spacing See Sh. No. 13

TYPICAL PIER DIAPHRAGM

For Location See Sh. No. 13

a6 Bar

b3 Bar

g1 Bar

a1 Bar

a3 Bar

S1 Bar

S7, S8 & S9 Bars

S2, S3, S4, S5 & S6 Bars

g9 Bar

BENDING DIAGRAMS

Bar dimensions are out to out

BAR SCHEDULE

Bar	No.	Size	Length	Spacing	Shape
a1	196	5	29'-0	1'-2	
a2	458	5	26'-8	As Shown	
a3	424	4	6'-9	1'-2	
a4	8	8	32'-0	0'-6	
a5	2	4	32'-0	As Shown	
a6	4	4	4'-6	As Shown	
b1	147	4	36'-6	As Shown	
b2	98	4	10'-9	"	
b3	62	4	7'-0	"	
b4	32	4	23'-6	As Shown	
b5	32	4	28'-0	As Shown	
g1	32	11	46'-6	As Shown	
g2	16	10	35'-6	"	
g3	16	10	29'-6	"	
g4	16	10	22'-0	"	
g5	16	11	47'-6	"	
g6	16	11	45'-6	"	
g7	16	11	34'-0	"	
g8	16	10	22'-0	"	
g9	40	11	27'-4	"	
g10	48	9	21'-0	"	
g11	36	7	21'-0	"	
g12	18	7	32'-0	"	
g13	24	11	60'-0	"	
g14	24	11	45'-0	"	
g15	27	5	60'-0	"	
g16	16	11	40'-3	"	
g17	18	5	36'-9	"	
m1	64	5	32'-3	As Shown	
m2	24	5	36'-0	"	
m3	96	4	9'-6	"	
m4	54	4	11'-8	"	
S1	176	4	7'-8	As Shown	
S2	544	4	5'-6	"	
S3	208	4	6'-0	"	
S4	144	4	6'-6	1'-6	
S5	144	4	7'-0	1'-6	
S6	144	4	7'-6	1'-6	
S7	42	4	6'-3	1'-0	
S8	84	4	6'-9	1'-0	
S9	63	4	11'-7	1'-0	
S10	42	4	7'-3	1'-0	

SUPERSTRUCTURE QUANTITIES

Class X Concrete 910.7 Cu. Yds.

Reinforcement Bars 94,990 Lbs.

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS

MAUCK LANE BRIDGE OVER FAI RT. 74

FAI RT. 74 SECTION 92-11HB-1
VERMILION COUNTY STA. 1742+16.65

SUPERSTRUCTURE DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
SMH	RLF	RLF	JWH LDB	HSM	7-18-60	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11 HB	Vermilion	93	13
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	PROJ.	

FLOOR PLAN SPAN 1

DETAIL "A"

DETAIL "B"

SECTION A-A

FLOOR PLAN SPAN 2

DETAIL "C"

SECTION B-B

SCUPPER DETAIL

Construction Joint in Curb to Top of Slab Over all piers. '8' Aluminum Plate No reinforcement to pass through joint in curb (Typ. all curbs over piers)

Note: Spread Slab Reinforcing Bars to clear opening

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
MAUCK LANE BRIDGE OVER FAI RT. 74
FAI RT. 74 SECTION 92-11HB-1
VERMILION COUNTY STA. 1742+16.65

SUPERSTRUCTURE DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
SWH	RLF	RLF	JWH LDB	HSM	7-18-60	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11H9	Vermilion	93	14
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	PROJ.	

GIRDER ELEVATION

SPAN #1

Span #4 Identical by 180° Rotation

GIRDER SECTION

REINFORCING PLAN TOP OF SLAB

SPAN #1

Span #4 Identical by 180° Rotation

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS — CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS

MAUCK LANE BRIDGE OVER FAI RT. 74
FAI RT. 74 SECTION 92-11H8-1

VERMILION COUNTY — STA. 1742+16.65

SUPERSTRUCTURE DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
SMH	DS	RLF	JWH LDB	HSM	7-18-68	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11 HB	Vermilion	93	15
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	PROJ.	

GIRDER ELEVATION

SPAN #2

Span #3 Identical by 180° Rotation

REINFORCING PLAN TOP OF SLAB

SPAN #2

Span #3 Identical by 180° Rotation

GIRDER SECTION

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS — CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS

MAUCK LANE BRIDGE OVER FAI RT. 74

FAI RT. 74 — SECTION 92-11 HB-1

VERMILION COUNTY — STA. 1742+16.65

SUPERSTRUCTURE DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
SMH	DS	RLF	JWH LDB	HSM	7-18-60	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB1	Vermilion	93	16
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	PROJ.	

GIRDER ELEVATION

NOTES: 1. THEORETICAL ELEVATION IS THE THEORETICAL TOP OF SLAB ELEVATION.

2. ADJUSTED ELEVATION IS THE THEORETICAL TOP OF SLAB ELEVATION ADJUSTED FOR THE CONCRETE DEAD LOAD DEFLECTION.

LOAD DEFLECTION

ELEVATION AT 1/10 POINTS OF SPAN

PLAN

SECTION EXTERIOR GIRDER

SPAN 1

1/10 POINT	BEAM NO.	STATION	ELEVATION THEOR.	ELEVATION ADJUSTED
℄ Brg. So. Abut.	1	[illegible].316	649.296	649.296
	2	[illegible].068	649.395	649.395
	3	[illegible].020	649.389	649.389
	4	[illegible].331	649.373	649.373
	5	[illegible].795	649.232	649.232
1.	1	[illegible].404	649.334	649.365
	2	[illegible].968	649.433	649.464
	3	[illegible].900	649.427	649.458
	4	[illegible].331	649.411	649.442
	5	[illegible].695	649.270	649.301
2.	1	[illegible].004	649.373	649.415
	2	[illegible].368	649.471	649.513
	3	[illegible].900	649.465	649.507
	4	[illegible].731	649.489	649.491
	5	[illegible].595	649.308	649.350
3.	1	[illegible].004	649.411	649.442
	2	[illegible].768	649.500	649.540
	3	[illegible].700	649.503	649.534
	4	[illegible].631	649.488	649.519
	5	[illegible].495	649.366	649.377
4.	1	[illegible].404	649.459	649.459
	2	[illegible].668	649.547	649.557
	3	[illegible].600	649.542	649.552
	4	[illegible].531	649.526	649.536
	5	[illegible].395	649.384	649.394
℄ Brg. Pier #1	1	[illegible].704	649.487	649.487
	2	[illegible].568	649.585	649.585
	3	[illegible].500	649.580	649.580
	4	[illegible].431	649.564	649.564
	5	[illegible].295	649.423	649.423

SPAN 2

1/10 POINT	BEAM NO.	STATION	ELEVATION THEOR.	ELEVATION ADJUSTED
1.	1	4947.559	649.511	649.511
	2	4941.413	649.609	649.609
	3	4938.350	649.604	649.604
	4	4935.281	649.588	649.538
	5	4929.145	649.487	649.487
2.	1	4954.404	649.535	649.545
	2	4948.258	649.633	649.643
	3	4945.200	649.628	649.638
	4	4942.131	649.612	649.622
	5	4935.995	649.470	649.480
3.	1	4961.254	649.559	649.580
	2	4955.118	649.657	649.678
	3	4952.050	649.652	649.673
	4	4948.981	649.636	649.657
	5	4942.845	649.494	649.515
4.	1	4968.104	649.583	649.609
	2	4961.968	649.681	649.707
	3	4958.900	649.676	649.702
	4	4955.831	649.660	649.686
	5	4949.695	649.518	649.544
5.	1	4974.954	649.607	649.638
	2	4968.818	649.705	649.736
	3	4965.750	649.700	649.731
	4	4962.681	649.684	649.715
	5	4956.545	649.542	649.573
6.	1	4981.804	649.631	649.657
	2	4975.668	649.729	649.755
	3	4972.600	649.724	649.750
	4	4969.531	649.708	649.734
	5	4963.395	649.566	649.592
7.	1	4988.654	649.655	649.665
	2	4982.518	649.753	649.763
	3	4979.450	649.748	649.758
	4	4976.381	649.732	649.742
	5	4970.245	649.590	649.600
8.	1	4995.504	649.679	649.689
	2	4989.368	649.777	649.782
	3	4986.300	649.772	649.777
	4	4983.231	649.756	649.761
	5	4977.095	649.614	649.619
9.	1	5002.354	649.703	649.703
	2	4996.218	649.801	649.801
	3	4993.150	649.796	649.796
	4	4990.081	649.780	649.780
	5	4983.945	649.638	649.638
℄ Brg. Pier #2	1	5009.204	649.727	649.727
	2	5003.068	649.825	649.825
	3	5000.000	649.820	649.820
	4	4996.931	649.804	649.804
	5	4990.795	649.662	649.662

SPAN 3

1/10 POINT	BEAM NO.	STATION	ELEVATION THEOR.	ELEVATION ADJUSTED
1.	1	5046.054	649.751	649.751
	2	5039.918	649.849	649.849
	3	5036.850	649.843	649.843
	4	5033.781	649.828	649.828
	5	4997.645	649.686	649.686
2.	1	5022.904	649.775	649.780
	2	5016.768	649.873	649.878
	3	5013.700	649.867	649.872
	4	5010.631	649.852	649.857
	5	5004.495	649.710	649.715
3.	1	5028.754	649.799	649.809
	2	5022.618	649.897	649.907
	3	5019.550	649.891	649.901
	4	5016.481	649.875	649.885
	5	5010.345	649.734	649.744
4.	1	5034.604	649.823	649.849
	2	5028.468	649.921	649.947
	3	5025.400	649.915	649.941
	4	5022.331	649.899	649.925
	5	5016.195	649.758	649.784
5.	1	5043.454	649.847	649.878
	2	5037.318	649.945	649.976
	3	5034.250	649.939	649.970
	4	5031.181	649.923	649.954
	5	5025.045	649.782	649.813
6.	1	5052.304	649.871	649.897
	2	5046.168	649.969	649.995
	3	5043.100	649.963	649.989
	4	5039.031	649.947	649.973
	5	5032.895	649.806	649.832
7.	1	5057.154	649.895	649.918
	2	5051.018	649.993	650.016
	3	5047.950	649.987	650.008
	4	5044.881	649.971	649.992
	5	5038.745	649.830	649.851
8.	1	5064.004	649.919	649.929
	2	5057.868	650.017	650.027
	3	5054.800	650.011	650.021
	4	5051.731	649.995	650.005
	5	5045.595	649.854	649.864
9.	1	5071.854	649.942	649.942
	2	5065.718	650.041	650.041
	3	5062.650	650.035	650.035
	4	5059.581	650.019	650.019
	5	5053.445	649.878	649.878
℄ Brg. Pier #3	1	5077.704	649.866	649.966
	2	5071.568	650.065	650.065
	3	5068.500	650.059	650.059
	4	5065.431	650.043	650.043
	5	5059.295	649.902	649.902

SPAN 4

1/10 POINT	BEAM NO.	STATION	ELEVATION THEOR.	ELEVATION ADJUSTED
	1	5088.604	650.005	650.015
	2	5082.468	650.103	650.113
	3	5079.400	650.097	650.107
	4	5076.331	650.081	650.091
	5	5070.195	649.940	649.950
	1	5099.504	650.043	650.074
	2	5093.368	650.141	650.172
	3	5090.300	650.136	650.167
	4	5087.231	650.120	650.151
	5	5081.095	649.978	650.009
	1	5112.904	650.081	650.123
	2	5106.768	650.179	650.221
	3	5103.700	650.174	650.216
	4	5098.131	650.158	650.200
	5	5091.995	650.016	650.058
	1	5121.304	650.119	650.150
	2	5115.168	650.217	650.248
	3	5112.100	650.212	650.243
	4	5109.031	650.196	650.227
	5	5102.895	650.055	650.086
℄ Brg. No. Abut.	1	5132.204	650.157	650.157
	2	5126.068	650.256	650.256
	3	5123.000	650.250	650.250
	4	5119.931	650.234	650.234
	5	5113.795	650.093	650.093

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
MAUCK LANE BRIDGE OVER FAI RT. 74
FAI RT. 74 SECTION 92-11HB-1
VERMILION COUNTY STA. 1742+16.65

SUPERSTRUCTURE DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
SMH	RLF	RLF	JWH LDB	HBM	7-18-60	

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
S.B.I. F.A.				
I. FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 16A
76 SHEETS

BAR DETAILS

BAR LIST
CAP AND FOOTING

	BAR	ORIGINAL NO	ADD. NO REQD	SIZE	LENGTH	SHAPE
	d1	37	20	#5	9'-2"	L
	d2	84	40	#5	5'-6"	L
*	d201	0	57	#5	10'-0"	U
	f1	12	0	#7	42'-2"	—
*	f201	0	12	#11	54'-6"	—
*	f202	0	11	#11	32'-0"	—
	h1	4	0	#7	41'-0"	—
	h2	8	0	#7	56'-2"	—
	h3	8	0	#5	8'-8"	D
*	h201	0	12	#7	16'-0"	—
	W1	43	0	#7	6'-0"	—
	W101	43	0	#7	3'-6"	—

* New Bars

QUANTITY OF ADDITIONAL MATERIALS

Class X Concrete	Cu Yds	27.0
Reinforcement Bars	Lbs	6730

Note: Work this sheet with sheets 16, 17 & 18 of Contract plans for Relocated West Abutment. All elevations and details not shown on this sheet remain unchanged.

REVISION OF CAP & FOOTING
SOUTHWEST ABUT.
FAI RT 74 SEC. 92-11B
VERMILION CO.
STATION 1755+16

DESIGNED R Kowert	19
CHECKED	EXAMINED — ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
DRAWN	PASSED — ENGINEER OF DESIGN
CHECKED	APPROVED — CHIEF HIGHWAY ENGINEER

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB-1	VERMILION	93	17
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	PROJ.	

HALF ELEVATION OF HANDRAIL

ANCHOR DEVICE
FOR DOUBLE POSTS

HANDRAIL DETAIL ON SUPERSTRUCTURE

DETAIL OF RAIL

DETAIL OF ¼ BENT PL

Note:- After erection all bolts and washers shall be spot painted with one coat of red lead and two coats of aluminum paint.

ANCHOR DEVICE
SINGLE POSTS

ELEVATION

BOTTOM VIEW
HANDRAIL JUNCTION PLATE

PLAN OF BASE PLATE
ALL POSTS

STATION 1742 + 16.65
BUILT 196- BY
STATE OF ILLINOIS
FAI RT 74 SEC. 92-11-HB-1
FA PROJ. I-74-6(35)
LOADING H15- S12

Brass or bronze name plate, Illinois Highway Standard No. 2113, included with Plans.

ELEVATION
BRIDGE NAME PLATE
(Provide 2)

Note: Anchor Bolt Assembly to be furnished under item for "Furnishing & Erecting metal Handrail."
Handrail Posts to be vertical.

Provide 1-¼" and 2-1/16" shims for 50% of Posts.

Furnishing and erecting metal handrail 498 Lin. Ft.

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ILLINOIS DIVISION OF HIGHWAYS
MAUCK LANE BRIDGE OVER FAI RT. 74
FAI RT. 74 SECTION 92-11HB-1
VERMILION COUNTY STA. 1742 + 16.65

HANDRAIL DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.T.	J.T.	J.T.	J.W.H. LDB	HSM	8-13-59	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB-1	VERMILION	93	18
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	PROJ.	

EXPANSION JOINT DEVICE

(2 Required)

(Expansion Joint @ South Abutment Shown; Expansion Joint @ North Abutment Identical.)

NOTE: Set curb plates flush with plane of curb and weld to roadway angles as shown.
Grind exposed welds smooth.
All welds are 5/16" fillet welds except as otherwise noted.

TOTAL COMPUTED WEIGHT OF JOINT DEVICES
STRUCTURAL STEEL 1720 LBS.

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
MAUCK LANE BRIDGE OVER FAI RT. 74
FAI RT. 74 SECTION 92-11HB-1
VERMILION COUNTY STA. 1742+16.65

STRUCTURAL STEEL JOINT DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JWH	JWH	DS	JT LDB	HSM	7-18-60	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB-1	VERMILION	93	19
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	PROJ.	

ELEVATION – EXPANSION BEARING DEVICE AT ABUTMENTS

ELEVATION – EXPANSION BEARING DEVICE AT PIERS 1 & 3

ELEVATION – FIXED BEARING DEVICE AT PIER 2

ANCHOR BOLT (40 Req'd)

Note: Add 3/8" Projection for Anchor Bolts @ Girder "B"

PINTLE

PLAN – BOTTOM ABUTMENT BEARING PLATE

ROCKER – R1 (16 Req'd)

ROCKER – R2 (4 Req'd)

SHIM PLATE

Provide 2 Shim ℞'s 10 x 2 1/2 x 3/8

Provide 3 Shim ℞'s 9 x 2 1/2 x 3/8

PLAN

PLAN

PLAN

PLAN

PLAN

PLAN

ELEVATION

PLATE-P1 (8 Req'd)

ELEVATION

PLATE-P2 (8 Req'd)

ELEVATION

PLATE-P3 (8 Req'd)

ELEVATION

PLATE-P4 (8 Req'd)

ELEVATION

PLATE-P5 (4 Req'd)

ELEVATION

PLATE-P6 (4 Req'd)

TOTAL COMPUTED WEIGHT OF BEARING DEVICES
STRUCTURAL STEEL 8930 LBS.

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS — CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
MAUCK LANE BRIDGE OVER FAI RT. 74
FAI RT. 74 — SECTION 92-11 HB-1
VERMILION COUNTY — STA. 1742 + 16.65

STRUCTURAL STEEL BEARING DEVICES

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JT	JT	DS	JWH LDB	HSM	7-18-60	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB-1	Vermilion	93	20
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	PROJ.	

NOTE: Backwall between curb lines, shaded area, to be poured after superstructure falsework has been removed.

ESTIMATED LENGTHS & QUANTITIES OF PILES		
Abutment	Concrete Piles	
North Abutment	10@17' = 170 Lin. Ft.	
South Abutment	11@17' = 187 Lin. Ft.	
TOTAL	357 Lin. Ft.	
Test Pile (In North Abutment)	One Each	

CONSOER, TOWNSEND & ASSOCIATES
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ILLINOIS DIVISION OF HIGHWAYS
MAUCK LANE BRIDGE OVER FAI RT. 74
FAI RT. 74 — SECTION 92-11HB-1
VERMILION COUNTY — STA. 1742+16.65

ABUTMENTS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JT	JT	DS	JH LDB	HSM	7.18.60	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11 HB1	Vermilion	93	21
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJ.		

PLAN OF ABUTMENTS & CONCRETE GUTTERS

(Abutments are identical by 180° Rotation except as noted)

SECTION A-A

LONGITUDINAL SECTION

SECTION B-B

SECTION C-C

EDGE OF SLOPE WALL

SIDE ELEVATION

WINGWALL REINFORCING

VIEW E-E

BENDING DIAGRAMS

(All bar dimensions are out to out.)

BAR SCHEDULE

Bar	No.	Size	Length	Spacing	Shape
h1	16	6	40-0	10"	
h2	15	6	8-10	10"	
h3	16	7	23-2	As Shown	
h4	18	5	29-4		
h5	4	5	5-0		
h6	16	5	5-6		
h7	16	5	7-6		
h8	10	5	12-0		
h9	10	5	11-10		
h10	8	5	10-9	As Shown	
h11	8	5	5-6	1-0	
h12	8	5	8-0	1-0	
h13	8	5	10-0	1-0	
h14	16	5	12-9	1-0	
h15	16	5	13-1	1-0	
h16	40	5	3-6	As Shown	
h17	12	5	4-2		
h18	8	4	5-9		
h19	8	6	16-0		
h20	8	6	7-0		
h21	12	4	11-10		
h22	12	4	12-2		
V1	120	4	5-6	1-0	
V2	15	4	6-3	1-0	
V3	35	4	7-9	As Shown	
V4	68	4	3-8	1-0	
V5	15	4	9-0	As Shown	
V6	16	4	8-9	1-0	
V7	8	4	4'-10	As Shown	
V8	16	4	7-11	1-0	
V9	8	4	3'-8	As Shown	
V10	16	4	7-0	1-0	
V11	8	4	2'-5	As Shown	
V12	24	4	6-0	1-0	
V13	16	4	4-0	1-0	
V16	16	4	3-0	As Shown	
S11	12	5	12-6	As Shown	
S12	18	3	3-1	2-0	
S13	12	4	9-8	0-6	
d1	44	4	2-10	2-0	
d2	16	4	21-6	As Shown	*
d3	56	4	2-5	1-6	

ABUTMENT QUANTITIES

Class "X" Concrete	70.9	Cu. Yds.
Reinforcement	7,090	Lbs.

* Field Bend as Required

The above quantities are for two Abutments

TABLE OF ELEVATIONS

Abutment	Berm Elev.	Bottom of Cap Beam Elev.	Crown Elev. Inside face of ℄ Backwall	Wingwalls "A" & "C" Wing.	W		Y	Z	Wingwalls "B" & "D" Wing.	W		Y	Z	Bearing Seat Elev. (Top Conc.) A	B	C	D
North Abut.	649.88	642.88	650.25	"A"	651.09		651.13	645.96	"B"	651.03		651.07	645.90	645.95	646.01*	646.01	645.88
South Abut.	644.01	642.01	649.38	"C"	650.22		650.18	645.01	"D"	650.16		650.12	644.95	645.08	645.14*	645.14	645.01

* Use ⅛" Shim Plate

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS — CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS

MAUCK LANE BRIDGE OVER FAI RT. 74
FAI RT. 74 SECTION 92-11 HB-1
VERMILION COUNTY STA 1742+16.65

ABUTMENTS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JT	JT	DS	JH LDB	HSM	7-18-60	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB-1	VERMILION	93	22
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	PROJ.	

BAR SCHEDULE

Piers	Bar	No.	Size	Length	Spacing	Shape
1,2&3	f1	15	5	31-0	1-0	—
"	f2	60	5	6-0	1-0	—
"	f3	12	5	8-0	2-0	—
"	v1	96	7	8-6	1-0	—
"	d5	72	5	9-10	1-0	U
1,2&3	d6	18	5	4-1	Eq. Spa.	J
1,2&3	v21	72	5	12-0	1-0	⊓
"	v22	18	5	5-8	Eq. Spa.	⅂
1,2&3	v23	72	9	16-6	Eq. Spa.	—
1,2&3	11	18	4	7-10	As Shown	O
1,2&3	h25	24	5	23-4	1-0	—
"	h26	30	5	7-1	1-0	⊃
"	h27	15	6	25-0	As Shown	⊓
"	h28	15	9	26-0	As Shown	—
"	h29	6	5	34-0	As Shown	—
"	h30	6	11	37-2	As Shown	—
"	h31	6	11	39-10	As Shown	—
"	h32	6	11	12-7	As Shown	—
"	h33	12	11	12-5	As Shown	—
"	h34	12	5	7-7	As Shown	⊃
"	h35	12	5	8-8	As Shown	⅃
1,2&3	h36	12	5	9-8	As Shown	⅃
1,2&3	514	78	5	13-6	As Shown	▯
1,2&3	515 to 522	90*	4	*	As Shown	▯
1,2&3	Sp1	9	5	*	As Shown	▣

PIER QUANTITIES

Class X Concrete	183.9	Cu. Yds.
Reinforcement bars	13,640	Lbs.
Note: Quantities shown are for 3 Piers		
* See Bending Diagrams		
Class A Excavation	250	Cu. Yds.

BEARING SEAT ELEV. (TOP OF CONCRETE)

Pier	A	B	C	D
1	642.72	642.78*	642.78	642.65
2	643.05	643.11*	643.11	642.98
3	643.19	643.25*	643.25	643.12

* Use 3/8" Shim Plate

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS — CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS

MAUCK LANE OVER FAI RT. 74
FAI RT 74. SECTION 92-11HB-1
VERMILION COUNTY STA. 1742+16.65

PIERS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.T.	J.T.	J.T.	J.M. LDB	HSM	7-18-60	

FEDERAL AID ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	23
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT.		

F.A.I. RTE. NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
74	92-11HB-1	VERMILION	93	23
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJ.		

DETAIL OF CYLINDRICAL METAL SHELL
CAST IN PLACE CONCRETE PILES

DETAIL OF TAPERED METAL SHELL
CAST IN PLACE CONCRETE PILES

DETAIL OF PRECAST CONCRETE PILES

Note: For 14" Piles 45' long or longer, use 8-#9 bars (14 for the full length & 4 to the point of bevel). For 14" Piles under 45' long, use 4-#9 bars for the full length.

DETAIL OF MANDREL DRIVEN PILES
FOR CAST IN PLACE CONCRETE PILES

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
MAUCK LANE BRIDGE OVER FAI RT. 74
FAI-74 SECTION 92-11 HB-1, 92-11B
VERMILION COUNTY STA. 1742+16.65

PILE DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	GEE	BB	LDB	HSM	7-18-60	