

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

E	F.A.P. ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO. 2 89 SHEETS
	786	109 BR	La Salle	351	202	
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract # 66607

**GENERAL NOTES**

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts (in painted areas and M164 Type 3 in unpainted areas). Bolts 7/8 in. φ, holes 15/16 in. φ, unless otherwise noted.

Calculated weight of Structural Steel Gr.50 = 4,024,470 Lbs

Calculated weight of Structural Steel Gr.70 = 411,330 Lbs

All structural steel shall be AASHTO M 270 Grade 50W except top and bottom flanges over Piers in Segment 2 which shall be AASHTO M 270 HPST0W.

No field welding is permitted except as specified in the contract documents.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions

Reinforcement bars designated (E) shall be epoxy coated.

Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

Concrete Sealer shall be applied to the designated areas of the piers and abutments.

Structural steel shall only be painted for a distance of 10 ft. each way from all piers & abutments. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to the IDNR permit number as shown in the contract plans.

All exposed structural steel of the bearings shall be cleaned and shop painted as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

Sloped wall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

The Contractor is alerted that the camber and dead load deflection values shown within the drawings were developed based on the deck pouring sequence shown on Sheet 23. Any deviation from this pouring sequence may require changes to the camber, dimensions and elevations derived from the dead load deflections. If the Contractor elects to vary from the pouring sequence shown on the Plans, an evaluation of the structure shall be performed by an Illinois Licensed Structural Engineer retained by the Contractor. Calculations and any revised details shall be submitted to the Engineer for review and approval.

The erection of the structural steel shall be accomplished by a steel erection contractor or sub-contractor certified as an Advanced Certified Steel Erector (ASCE) by AISC. See special provision for "Erection of Complex Steel Structures."

Slipforming of parapets is not allowed.

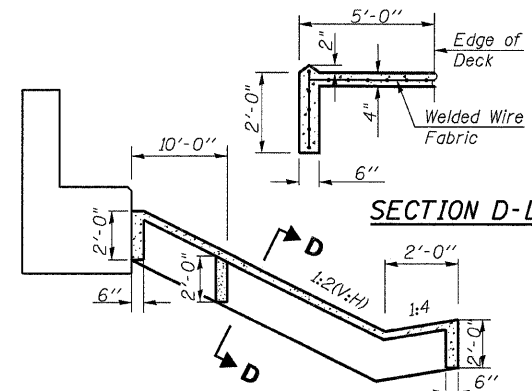
**INDEX OF STRUCTURAL SHEETS**

NO	SHEETS NAME
1.	GENERAL PLAN & ELEVATION
2.	GENERAL NOTES & BILL OF MATERIAL
3.	SUBSTRUCTURE LAYOUT
4.	TOP OF SLAB ELEVATIONS UNIT 1 (1 OF 2)
5.	TOP OF SLAB ELEVATIONS UNIT 1 (2 OF 2)
6.	TOP OF SLAB ELEVATIONS UNIT 2 (1 OF 6)
7.	TOP OF SLAB ELEVATIONS UNIT 2 (2 OF 6)
8.	TOP OF SLAB ELEVATIONS UNIT 2 (3 OF 6)
9.	TOP OF SLAB ELEVATIONS UNIT 2 (4 OF 6)
10.	TOP OF SLAB ELEVATIONS UNIT 2 (5 OF 6)
11.	TOP OF SLAB ELEVATIONS UNIT 2 (6 OF 6)
12.	TOP OF SLAB ELEVATIONS UNIT 3 (1 OF 3)
13.	TOP OF SLAB ELEVATIONS UNIT 3 (2 OF 3)
14.	TOP OF SLAB ELEVATIONS UNIT 3 (3 OF 3)
15.	TOP OF SLAB ELEVATIONS UNIT 4 (1 OF 2)
16.	TOP OF SLAB ELEVATIONS UNIT 4 (2 OF 2)
17.	TOP OF SLAB ELEVATIONS N. APPR. PAVT.
18.	TOP OF SLAB ELEVATIONS S. APPR. PAVT.
19.	SUPERSTRUCTURE PLAN UNIT 1
20.	DECK CROSS-SECTION UNIT 1
21.	PARAPET DETAILS UNIT 1
22.	SUPERSTRUCTURE DETAILS UNIT 1
23.	SUPERSTRUCTURE PLAN UNIT 2
24.	DECK CROSS-SECTION UNIT 2
25.	PARAPET DETAILS UNIT 2
26.	SUPERSTRUCTURE DETAILS UNIT 2
27.	SUPERSTRUCTURE PLAN UNIT 3
28.	DECK CROSS-SECTION UNIT 3
29.	PARAPET DETAILS UNIT 3
30.	SUPERSTRUCTURE DETAILS UNIT 3
31.*	SUPERSTRUCTURE PLAN-UNIT 4
32.*	PARAPET DETAILS UNIT 4
33.*	SUPERSTRUCTURE DETAILS UNIT 4
34.	GENERAL SUPERSTRUCTURE DETAILS
35.	DRAINAGE SCUPPER DS-II
36.	DRAINAGE SCUPPER DS-I2
37.	BICYCLE RAILING
38.	PREFORMED JOINT STRIP SEAL
39.	FINGER PLATE EXP. JOINT AT PIER 2
40.	FINGER PLATE EXP. JOINT AT PIER 5
41.	FINGER PLATE EXP. JOINT DETAILS 1
42.	FINGER PLATE EXP. JOINT DETAILS 2
43.	FRAMING PLAN UNIT 1
44.	CAMBER DIAGRAM UNIT 1
45.	FRAMING PLAN UNIT 2-1
46.	FRAMING PLAN UNIT 2-2
47.	FRAMING PLAN UNIT 2-3
48.	CAMBER DIAGRAM UNIT 2
49.	FRAMING PLAN UNIT 3-1
50.	FRAMING PLAN UNIT 3-2
51.	CAMBER DIAGRAM UNIT 3
52.*	FRAMING PLAN UNIT 4
53.*	STRUCTURAL STEEL DETAILS UNIT 4
54.	CROSS FRAME DETAILS
55.	NAVIGATION LIGHT SUPPORT DETAILS
56.	ELASTOMERIC BEARING ASSEMBLY 1
57.	ELASTOMERIC BEARING ASSEMBLY 2
58.	ELASTOMERIC BEARING ASSEMBLY 3
59.	EXPANSION POT BEARING ASSEMBLIES
60.	FIXED POT BEARING ASSEMBLIES

\* Prepared by Lin Engineering, Ltd.

**INDEX OF STRUCTURAL SHEETS CONT.**

NO	SHEETS NAME
61.	NORTH ABUTMENT
62.	NORTH ABUTMENT DETAILS 1
63.	NORTH ABUTMENT DETAILS 2
64.	SOUTH ABUTMENT
65.	SOUTH ABUTMENT DETAILS 1
66.	SOUTH ABUTMENT DETAILS 2
67.	PIER 1
68.	PIER 2
69.	PIER 2 DETAILS
70.	PIER 3
71.	PIER 3 DETAILS
72.	PIER 4
73.	PIER 4 DETAILS
74.	PIER 5
75.	PIER 5 DETAILS
76.	PIER 6
77.	PIER 7
78.	PIER 8
79.	PIER 8 DETAILS
80.	PIER 9
81.	STEEL H-PILES DETAILS
82.	BAR SPLICER ASSEMBLY DETAIL
83.	BORING LOG 1
84.	BORING LOG 2
85.	BORING LOG 3
86.	BORING LOG 4
87.	BORING LOG 5
88.	BORING LOG 6
89.	BORING LOG 7



**TYPICAL SECTION THRU SLOPE WALL**

(North Abutment shown, South is similar)

**BRIDGE TOTAL BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	228
BRIDGE APPROACH PAVEMENT (SPECIAL)	SQ YD	284
REMOVAL OF EXISTING STRUCTURES	L SUM	1
PROTECTIVE SHIELD	SQ YD	482
STRUCTURE EXCAVATION	CU YD	1,206
COFFERDAM EXCAVATION	CU YD	1,195
COFFERDAM PIER 3	EACH	1
COFFERDAM PIER 4	EACH	1
CONCRETE STRUCTURES	CU YD	2988.0
CONCRETE SUPERSTRUCTURE	CU YD	2254.3
BRIDGE DECK GROOVING	SQ YD	5761
CONCRETE ENCASEMENT	CU YD	24
PROTECTIVE COAT	SQ YD	7539
FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1
STUD SHEAR CONNECTORS	EACH	16,731
REINFORCEMENT BAR	POUND	52580
REINFORCEMENT BARS, EPOXY COATED	POUND	933800
BAR SPLICERS FOR #5 BAR	EACH	84
MECHANICAL SPLICE	EACH	532
BICYCLE RAILING	FOOT	1,732
PARAPET RAILING	FOOT	1762
SLOPE WALL 4 INCH	SQ YD	475
FURNISHING STEEL PILES HP12X74	FOOT	5108
DRIVING PILES	FOOT	5108
TEST PILE STEEL HP12X74	EACH	11
PILE SHOES	EACH	150
NAME PLATES	EACH	1
DRILLED SHAFT IN ROCK	CU YD	230
PREFORMED JOINT STRIP SEAL	FOOT	139
FINGER PLATE EXPANSION JOINT, 4"	FOOT	37.5
FINGER PLATE EXPANSION JOINT, 5"	FOOT	37.5
FABRIC REINFORCED ELASTOMERIC TROUGH	FOOT	80
ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	42
ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	12
ELASTOMERIC BEARING ASSEMBLY, TYPE III	EACH	6
ANCHOR BOLTS, 1 IN	EACH	98
ANCHOR BOLTS, 1-1/4 IN	EACH	14
ANCHOR BOLTS, 1-1/2 IN	EACH	50
CONCRETE SEALER	SQ FT	2,796
GEOCOMPOSITE WALL DRAIN	SQ YD	151
PIPE UNDERDRAIN FOR STRUCTURES, 4 IN	FOOT	250
DRAINAGE SCUPPERS, DS-I2	EACH	10
DRAINAGE SCUPPERS, DS-II	EACH	10
HIGH LOAD MULTI-ROTATION BEARING, FIXED BOOK	EACH	6
HIGH LOAD MULTI-ROTATION BEARING, GUIDED EXPANSION, BOOK	EACH	6

**WATERWAY INFORMATION TABLE**

Drainage Area: 8,259 sq. miles		Existing Low Grade Elev. = 504.18 feet @ Sta. 67+00 Proposed Low Grade Elev. = 517 feet @ Sta. 88+94								
Flood	Frequency (Yr)	Discharge (cfs)	Waterway Opening (Sq.Ft.)		Natural H.W.E.		Created Head		Headwater Elev. (ft)	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
DESIGN	50	98000	14218	14435	494.10	494.13	0.06	0.05	494.16	494.18
BASE	100	106000	14874	15501	494.82	494.85	0.07	0.06	494.89	494.91
OVERTOPPING										
MAX CALC	500	130000	16846	18116	496.78	496.84	0.10	0.09	496.88	496.93

STATION 79+04.42  
BUILT BY  
STATE OF ILLINOIS  
IL. 170 F.A.P. 786  
LOADING HS20  
STRUCTURE NO. 050-0246

**NAME PLATE**  
See Std. 515001

**GENERAL NOTES AND  
BILL OF MATERIAL  
IL. 170 F.A.P. 786 OVER  
ILLINOIS RIVER AT SENECA  
PUBLIC WATERS  
LA SALLE COUNTY, SECTION 109 BR  
STATION 79+04.42  
STRUCTURE NO. 050-0246**

DESIGNED - CLS
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC