



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	(109) BR	LASALLE	351	1

STA. TO STA.
 ILLINOIS FED. AID PROJECT
 D-93-008-06
 P-93-057-02

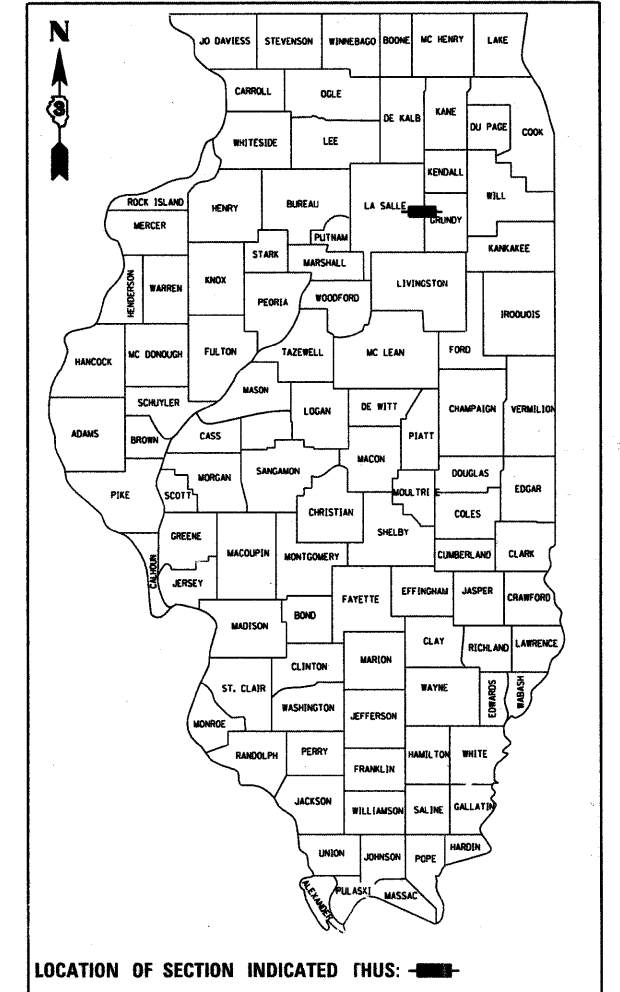
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- 200A BRIDGE APPROACH PAVEMENT PLANS AND DETAILS
- 201-209 STRUCTURE PLANS
- 290-298 DISTRICT 3 DETAILS
- 299-351 CROSS-SECTIONS

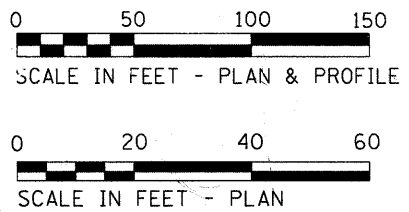
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
**PLANS FOR PROPOSED
 FEDERAL AID HIGHWAY**

F.A.P. 786 (IL 170)
 SECTION (109) BR
 PROJECT BRF-0786(008)
LA SALLE COUNTY

C-93-003-06
 ILLINOIS RIVER BRIDGE
 REPLACEMENT AT SENECA



DESIGN DESIGNATION
 IL 170: 7700(27) RURAL MINOR ARTERIAL



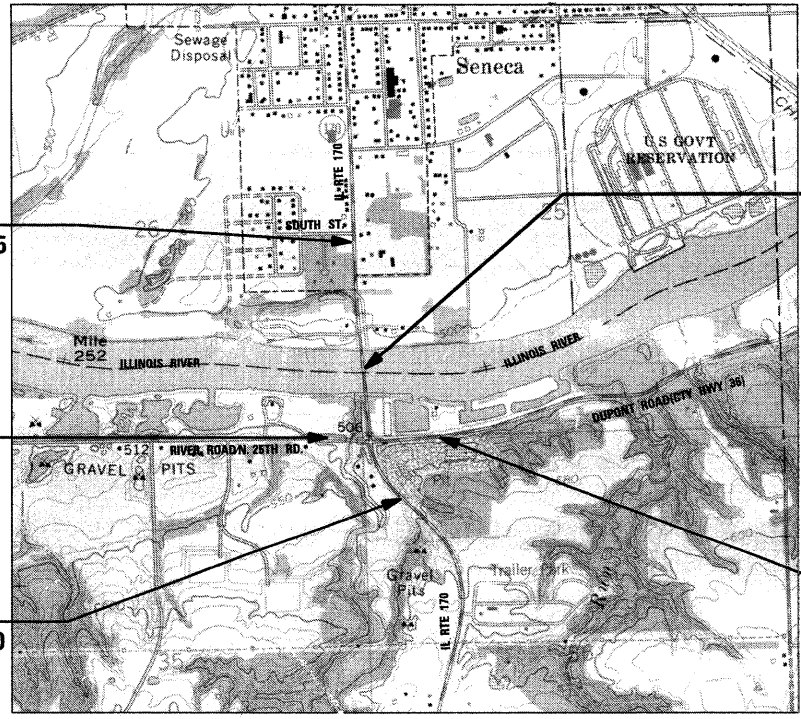
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD
 ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT
 CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS
 ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

MICROFILMED _____
 REEL NUMBER _____
 AWARDED _____
 RESIDENT ENGINEER _____
 AS BUILT CHANGES WERE MADE
 ON THE FOLLOWING SHEETS _____

JULIE 1-800-892-0123

DISTRICT 3 NO. (815) 434-6131

PROJECT ENGINEER: DAVID BROVIK
 SENIOR UNIT CHIEF: MARK E. JONES



PROJECT BEGINS
 IL RTE 170 STA. 64 + 34.35

PROJECT LIMITS
 RIVER RD. STA. 17 + 50.00

PROJECT ENDS
 IL RTE 170 STA. 97 + 49.50

IL RTE 170 RIVER CROSSING
 EXIST. STR. NO. 050-0070
 PROP. STR. NO. 050-0246
 LENGTH: 1510 FT
 STA. 79 + 04.42

PROJECT LIMITS
 DUPONT RD. STA. 154 + 00.00

LOCATION MAP

NOT TO SCALE

IL RTE 170: GROSS LENGTH = 3,351 FT. = 0.634 MI. NET LENGTH = 3351 FT. = 0.634 MI.
 RIVER RD.: GROSS LENGTH = 834 FT. = 0.158 MI. NET LENGTH = 834 FT. = 0.158 MI.
 DUPONT RD.: GROSS LENGTH = 1388 FT. = 0.263 MI. NET LENGTH = 1388 FT. = 0.263 MI.



Preston W. Keeffe

PRESTON W. KEEFFE
 NO. 062-040683
 EXP. DATE 11/30/09
 EARTH TECH, INC.

SUBMITTED 10/18 2007
 George E. Ryan REGION ENGINEER
 December 7, 2007
 Eric E. Haral ENGINEER OF DESIGN AND ENVIRONMENT
 December 7, 2007
 Christine M. Reed DIRECTOR, DIVISION OF HIGHWAYS

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 OF THE STATE OF ILLINOIS



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	(109) BR	LASALLE	351	4
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

80%/20% FED/STATE

IL RTE. 170 BRIDGE REPLACEMENT AT SENECA					CONSTRUCTION TYPE CODE				CITY
SP	CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	ROADWAY J000	BRIDGE X471	LIGHTING Y030	RETAINING WALL Y007	
	42400800	DETECTABLE WARNINGS	SO FT	30	30				
	44000100	PAVEMENT REMOVAL	SO YD	10,371	10,371				
	44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SO YD	1,287	1,287				
	44000200	DRIVEWAY PAVEMENT REMOVAL	SO YD	1,455	1,455				
	44000500	COMBINATION CURB & GUTTER REMOVAL	FOOT	3,325	3,325				
	44000600	SIDEWALK REMOVAL	SO FT	5,528	5,528				
	44201721	CLASS D PATCHES, TYPE III, 6 INCH	SO YD	20	20				
	48100500	AGGREGATE SHOULDERS, TYPE A 6"	SO YD	1,769	1,769				
	48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SO YD	654	654				
	48300100	PORTLAND CEMENT CONCRETE SHOULDERS 6"	SO YD	106	106				
	48300410	PORTLAND CEMENT CONCRETE SHOULDERS 9 1/2"	SO YD	803	803				
	50100200	REMOVAL OF EXISTING STRUCTURES	L SUM	1		1			
	50102400	CONCRETE REMOVAL	CU YD	0.2	0.2				
	50105220	PIPE CULVERT REMOVAL	FOOT	95	95				
	50157300	PROTECTIVE SHIELD	SO YD	482		482			
	50200100	STRUCTURE EXCAVATION	CU YD	1,910		1,206		704	
	50200300	COFFERDAM EXCAVATION	CU YD	1,195		1,195			
	50200800	COFFERDAM PIER 3	EACH	1		1			
	50200900	COFFERDAM PIER 4	EACH	1		1			
	50300225	CONCRETE STRUCTURES	CU YD	3069		2,789		280	
	50300255	CONCRETE SUPERSTRUCTURE	CU YD	2,254		2,254			
	50300260	BRIDGE DECK GROOVING	SO YD	5,761		5,761			
	50300280	CONCRETE ENCASEMENT	CU YD	8		8			
	50300300	PROTECTIVE COAT	SO YD	7,539		7,539			
	50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1			
	50500505	STUD SHEAR CONNECTORS	EACH	16,731		16,731			
	50800105	REINFORCEMENT BARS	POUND	53,680	1,100	52,580			
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	956,990		940,300		16,690	
	50800515	BAR SPLICERS	EACH	84		84			
	50901720	BICYCLE RAILING	FOOT	1,732		1,732			
	50901750	PARAPET RAILING	FOOT	1,762		1,762			
	51100100	SLOPE WALL 4 INCH	SO YD	475		475			
	51201700	FURNISHING STEEL PILES HP12X74	FOOT	5,108		5,108			
	51202305	DRIVING PILES	FOOT	5,108		5,108			
	51203700	TEST PILE STEEL HP12X74	EACH	9		9			
	51204650	PILE SHOES	EACH	150		150			
	51500100	NAME PLATES	EACH	1		1			
*	51604000	DRILLED SHAFT IN ROCK	CU YD	230		230			
	52000110	PREFORMED JOINT STRIP SEAL	FOOT	139		139			
	52000212	FINGER PLATE EXPANSION JOINT, 4"	FOOT	38		38			
	52000216	FINGER PLATE EXPANSION JOINT, 5"	FOOT	38		38			
	52000600	FABRIC REINFORCED ELASTOMERIC TROUGH	FOOT	80		80			
	52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	42		42			
	52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	12		12			
	52100030	ELASTOMERIC BEARING ASSEMBLY, TYPE III	EACH	6		6			
	52100520	ANCHOR BOLTS, 1" dia	EACH	98		98			
	52100530	ANCHOR BOLTS, 1 1/4" dia	EACH	14		14			
	52100540	ANCHOR BOLTS, 1 1/2" dia	EACH	50		50			
	54002080	EXPANSION BOLTS 3/4 INCH X 18 INCH	EACH	14	14				
	54003000	CONCRETE BOX CULVERTS	CU YD	5	5				
	54213657	PRECAST REINFORCED CONCRETE END SECTIONS 12" FLARED	EACH	4	4				
	54213669	PRECAST REINFORCED CONCRETE END SECTIONS 24" FLARED	EACH	5	5				
	54213675	PRECAST REINFORCED CONCRETE END SECTIONS 30" FLARED	EACH	1	1				

*SPECIALTY ITEM

REVISOR: 2/27/08

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
 II OF V
 SCALE: _____
 DATE: OCTOBER, 2007
 DRAWN BY: CJO
 CHECKED BY: JCL

PLOT DATE = 10/17/2007
 FILE NAME = 81111111
 USER NAME = PROJECT

GENERAL NOTES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

Contract # 66607

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 HPS70W.

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 the east parapet in not allowed because of embedded conduit & light pole blisters. A protective shield system shall be provided in span 10.

INDEX OF STRUCTURAL SHEETS

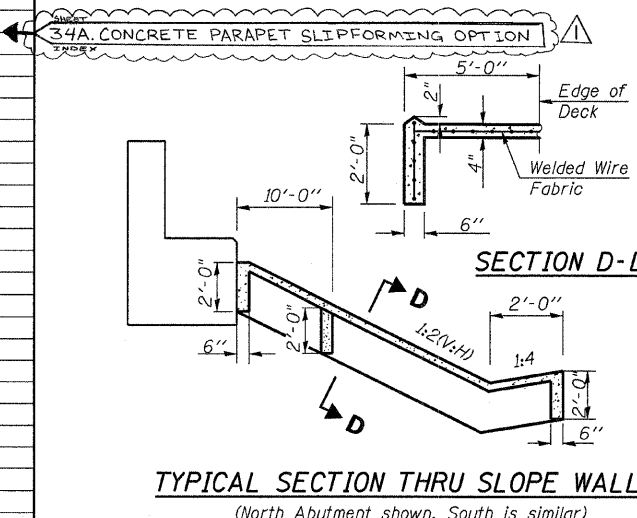
NO	SHEETS NAME
1.	GENERAL PLAN & ELEVATION
2.	GENERAL NOTES & BILL OF MATERIAL
3.	SUBSTRUCTURE LAYOUT
4.	TOP OF SLAB ELEVATIONS UNIT 1 (1 OF 2)
5.	TOP OF SLAB ELEVATIONS UNIT 1 (2 OF 2)
6.	TOP OF SLAB ELEVATIONS UNIT 2 (1 OF 6)
7.	TOP OF SLAB ELEVATIONS UNIT 2 (2 OF 6)
8.	TOP OF SLAB ELEVATIONS UNIT 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-11
36.	DRAINAGE SCUPPER DS-12
37.	BICYCLE RAILING
38.	PERFORMED 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

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
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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

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	2,189
CONCRETE SUPERSTRUCTURE	CU YD	2,254.3
BRIDGE DECK GROOVING	SQ YD	5,761
CONCRETE ENCASEMENT	CU YD	6
PROTECTIVE COAT	SQ YD	7,539
FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1
STUD SHEAR CONNECTORS	EACH	16,731
REINFORCEMENT BAR	POUND	52,580
REINFORCEMENT BARS, EPOXY COATED	POUND	940,300
BAR SPLICERS FOR #5 BAR	EACH	84
MECHANICAL SPLICE	EACH	532
BICYCLE RAILING	FOOT	1,732
PARAPET RAILING	FOOT	1,762
SLOPE WALL 4 INCH	SQ YD	475
FURNISHING STEEL PILES HP12X74	FOOT	5,108
DRIVING PILES	FOOT	5,108
TEST PILE STEEL HP12X74	EACH	9
PILE SHOES	EACH	150
NAME PLATES	EACH	1
DRILLED SHAFT IN ROCK	CU YD	230
PERFORMED 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-12	EACH	10
DRAINAGE SCUPPERS, DS-11	EACH	10
HIGH LOAD MULTI-ROTATION BEARING, FIXED 800K	EACH	6
HIGH LOAD MULTI-ROTATION BEARING, GUIDED EXPANSION, 800K	EACH	6



* Prepared by Lin Engineering, Ltd.

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. (ft)	Created Head (ft)	Headwater Elev. (ft)
	10	73000	12318	12636	0.04	0.03
	50	98000	14218	14435	0.06	0.05
	100	106000	14874	15501	0.07	0.06
DESIGN	50	98000	14218	14435	0.06	0.05
BASE	100	106000	14874	15501	0.07	0.06
OVERTOPPING						
MAX CALC	500	130000	16846	18116	0.10	0.09

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

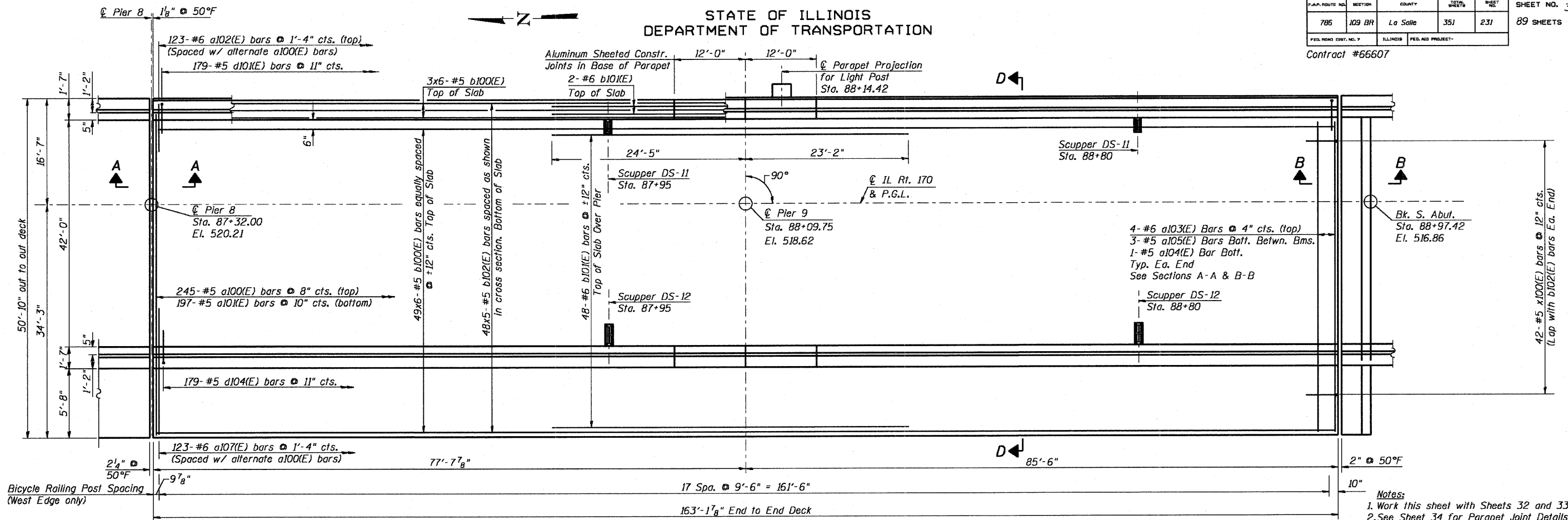
REVISD 2/27/08

**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**

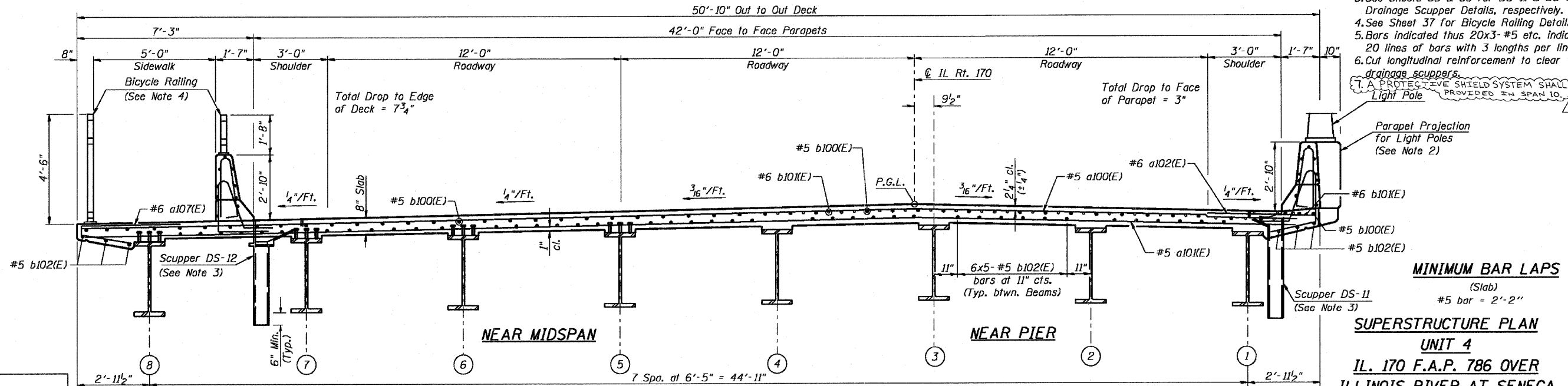
DESIGNED - CLS
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
786	109 BR	La Salle	351	231
SHEET NO. 31 89 SHEETS				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		
			Contract #66607	

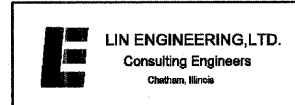


- Notes:**
1. Work this sheet with Sheets 32 and 33.
 2. See Sheet 34 for Parapet Joint Details, Parapet Projection Details/Reinforcement, & Scupper Reinforcement Details.
 3. See Sheets 35 & 36 for DS-11 & DS-12 Drainage Scupper Details, respectively.
 4. See Sheet 37 for Bicycle Railing Details.
 5. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 6. Cut longitudinal reinforcement to clear drainage scuppers.
 7. A PROTECTIVE SHIELD SYSTEM SHALL BE PROVIDED IN SPAN 10.



DESIGNED	RKM
CHECKED	MTH
DRAWN	AJF
CHECKED	MTH

REVISD 2/27/08



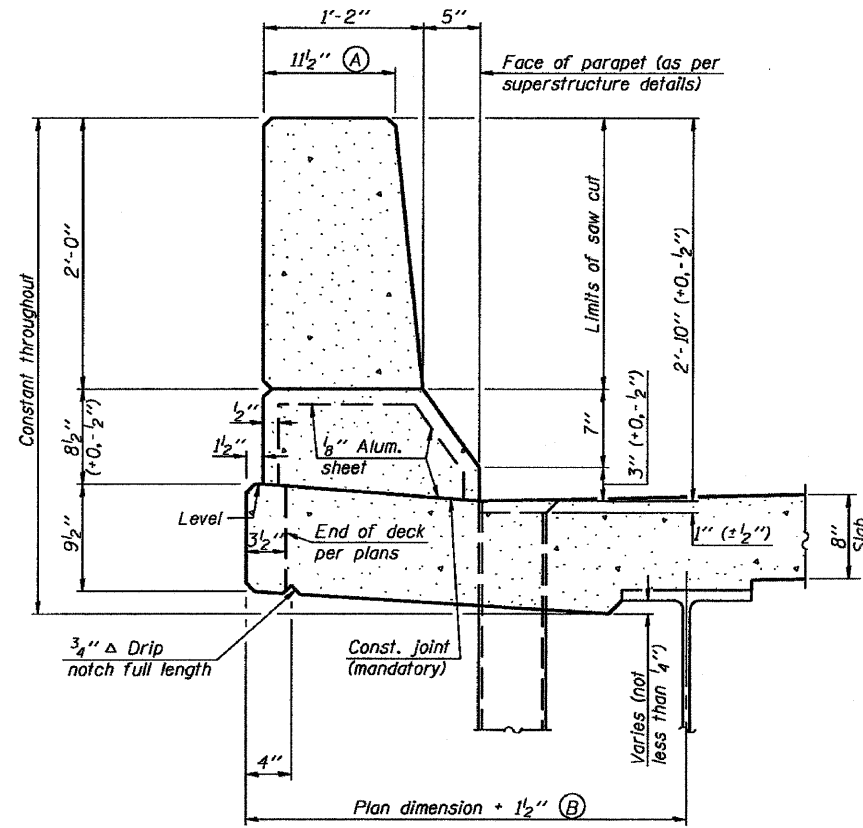
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



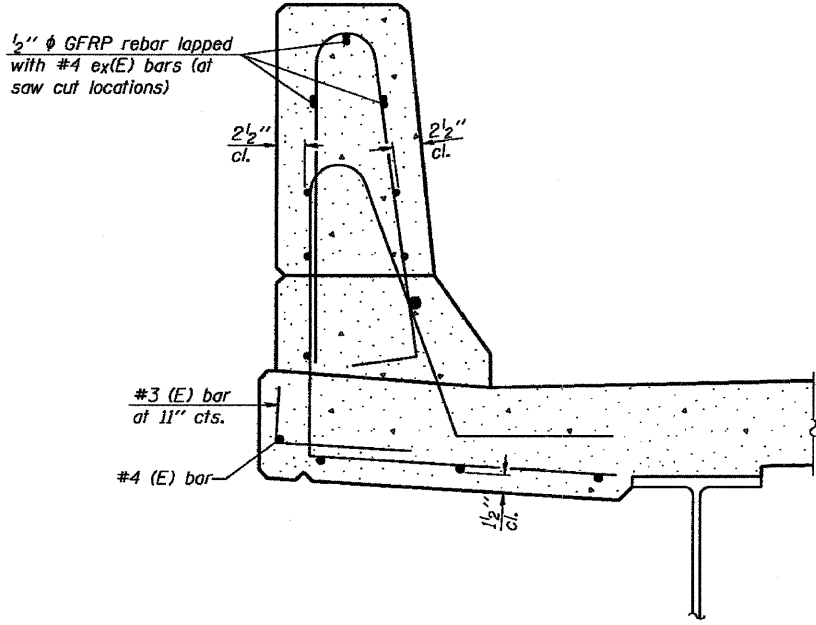
F.A.P. ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
786	109 BR	La Salle	351	234A
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 34A
89 SHEETS

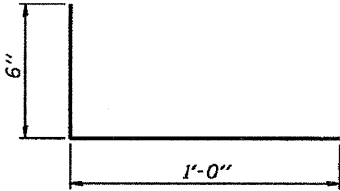
Contract # 66607



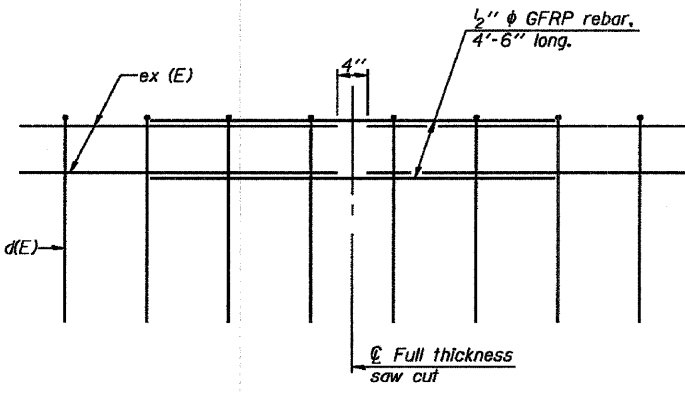
SECTION
(Showing dimensions)



SECTION
(Showing reinforcement clearances for slip forming and additional reinforcement bars)



#3 (E) BAR



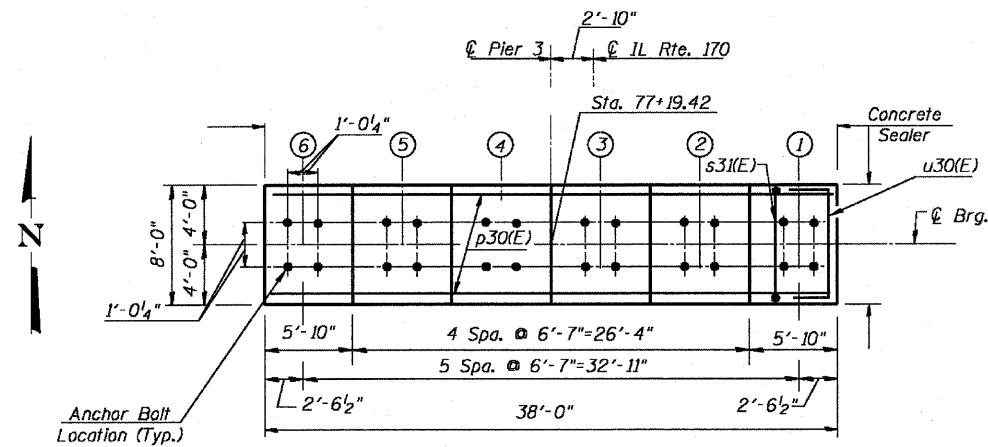
GFRP REBAR STIFFENING DETAIL
(Place as shown in parapet section at each parapet joint location.)

DESIGNED - DEV
CHECKED - DSB
DRAWN - JHR
CHECKED - DSB

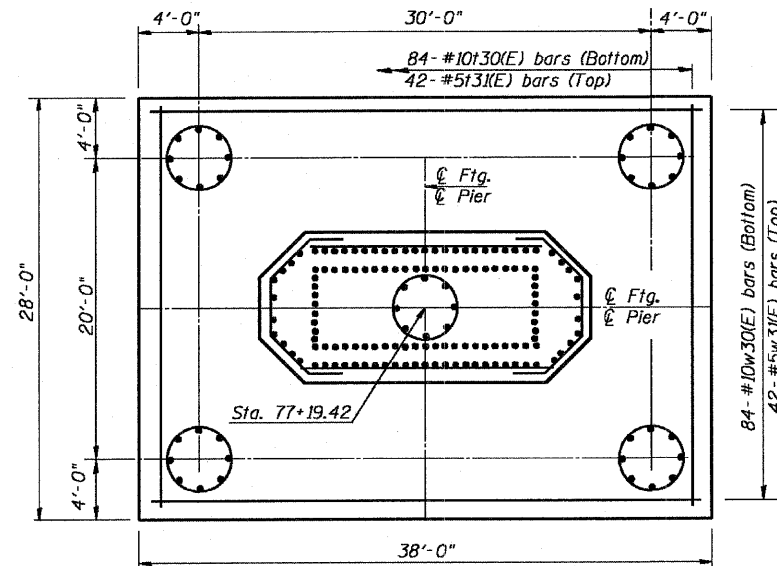
GENERAL NOTES
All dimensions shall remain the same as shown on contract plans, except dimensions A and B which are to be revised as shown to provide additional clearance. Additional concrete needed to revise dimension A and B= 0.0165 cu. yds./ft. of parapet.
Place aluminum sheet in curb portion at and near piers. Full thickness saw cut at all joint locations in lieu of cork joint filler.

**CONCRETE PARAPET
SLIPFORMING OPTION
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**

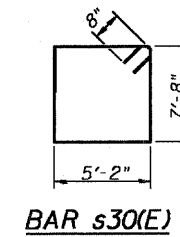
Contract # 66607



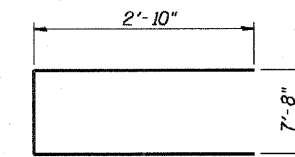
TOP PLAN



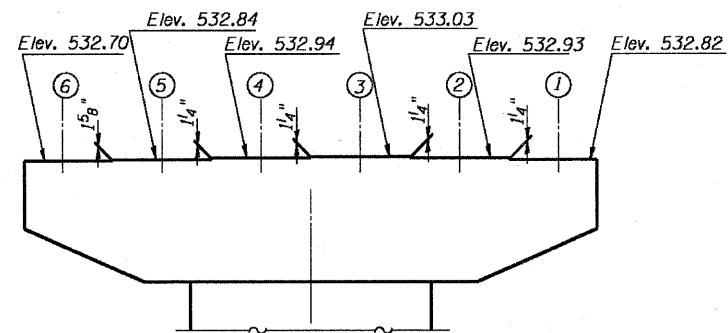
FOOTING PLAN



BAR s30(E)



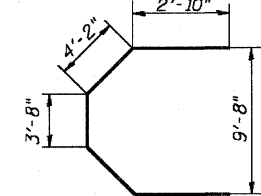
BAR u30(E)



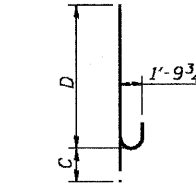
TOP OF PIER
(Showing Steps Elevations)

C & D DIMENSIONS

Bar	C	D
n30(E)	2'-3"	12'-0"
n31(E)	2'-3"	15'-0"

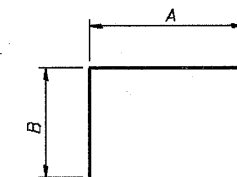


BAR s33(E)



BAR n30(E) & n31(E)

BARS nxx(E)

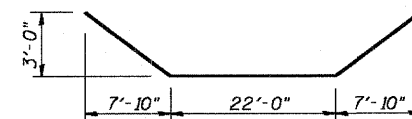


BARS sx(E)

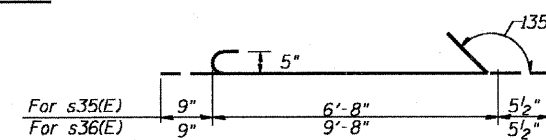
A & B DIMENSIONS

Bar	A	B
s31(E)	5'-2"	4'-8"
s32(E)	6'-8"	2'-10"
s34(E)	7'-8"	2'-6"
s37(E)	5'-2"	5'-5"

BARS syy(E)



BAR p31(E)



BAR s35(E) and s36(E)

VESSEL COLLISION FORCES

Load Case 1
Static Load = 2800K
Elevation = 500.13 ft (Barge Bow Rake 6' above MHW)
Direction = Parallel to Pier & Navigational Channel

Load Case 2
Static Load = 1400K
Elevation = 500.13 ft (Barge Bow Rake 6' above MHW)
Direction = Perpendicular to Pier & Navigational Channel

Note: Load Cases are considered independently
Load Combination 1.0(1.0D)+1.0P+1.0B+1.0SF+1.0E)

DESIGNED - RJC
CHECKED - DEV
DRAWN - JHR
CHECKED - DEV

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h30(E)	12	#6	37'-8"	—
h31(E)	2	#6	32'-8"	—
h32(E)	48	#6	15'-8"	—
h33(E)	60	#6	16'-0"	—
h34(E)	2	#6	27'-4"	—
h35(E)	9	#5	19'-5"	—
n30(E)	66	#14	14'-3"	—
n31(E)	64	#14	17'-3"	—
p30(E)	20	#14	37'-8"	—
p31(E)	6	#9	37'-10"	—
s30(E)	64	#6	27'-0"	—
s31(E)	100	#6	14'-6"	—
s32(E)	48	#6	12'-4"	—
s33(E)	60	#6	17'-8"	—
s34(E)	19	#4	12'-8"	—
s35(E)	168	#5	7'-11"	—
s36(E)	210	#5	10'-10"	—
s37(E)	36	#6	16'-0"	—
sp30	5	#5	1084'-0"	—
t30(E)	84	#10	27'-8"	—
t31(E)	42	#5	27'-8"	—
u30(E)	12	#6	13'-4"	—
v30(E)	66	#14	26'-6"	—
v31(E)	64	#14	23'-3"	—
v32(E)	32	#14	33'-0"	—
v33(E)	30	#14	36'-0"	—
v34(E)	32	#14	28'-8"	—
v35(E)	30	#14	24'-8"	—
v36	100	#11	36'-3"	—
w30(E)	84	#10	37'-8"	—
w31(E)	42	#5	37'-8"	—
Cofferdam Excavation	Cu. Yd.		548	
Concrete Structures	Cu. Yd.		162	
Reinforcement Bars, Epoxy Coated	Pound		118,340	
Reinforcement Bars	Pound		24,920	
Drilled Shaft in Rock	Cu. Yd.		107	
Mechanical Splice	Ea.		192	

Notes:

1. Work this Sheet with Sheet 70
2. Space reinforcement in cap to miss anchor balls. Pour steps monolithically with cap.
3. Cofferdam Struts are not allowed to pass through Foundation.
4. Final Design & Dimensions of Cofferdams are the Responsibility of the Contractor.

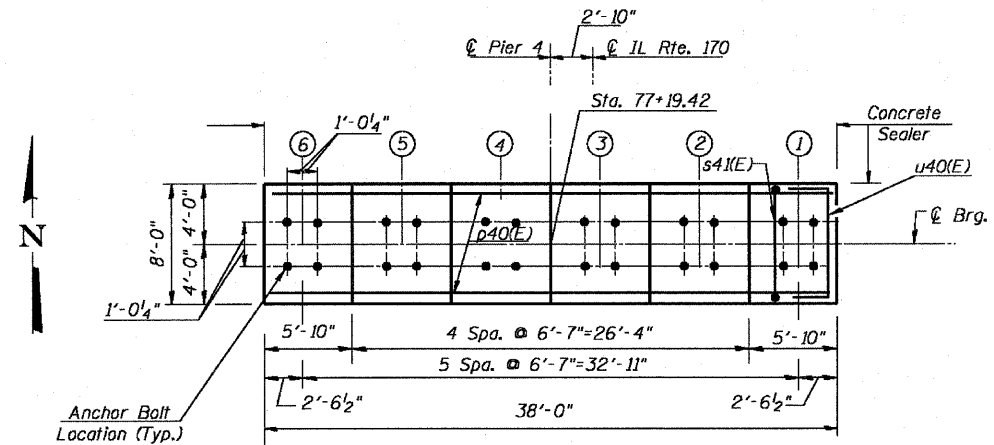
PIER 3 DETAILS
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

REVISED 2/27/08

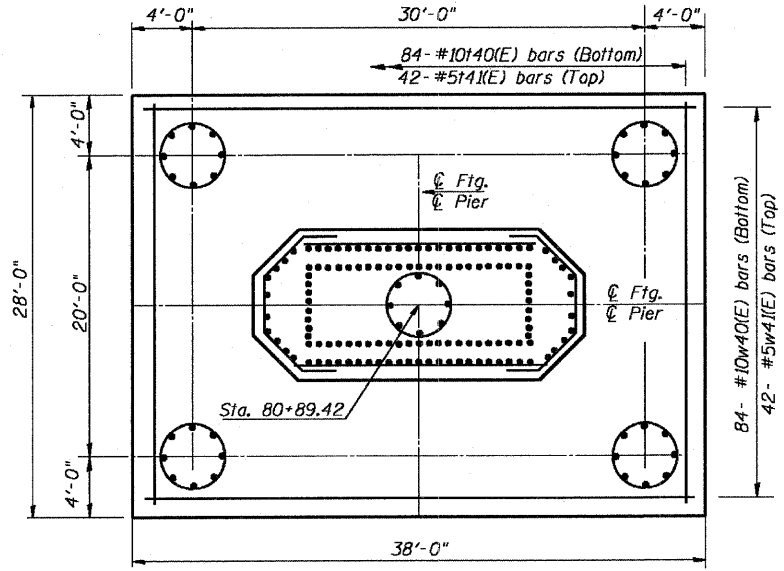
Contract # 66607

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
n40(E)	12	#6	37'-8"	—
n41(E)	2	#6	32'-8"	—
n42(E)	50	#6	15'-8"	—
n43(E)	76	#6	16'-0"	—
n44(E)	2	#6	27'-4"	—
n45(E)	9	#5	19'-5"	—
n40(E)	66	#14	14'-3"	—
n41(E)	64	#14	17'-3"	—
p40(E)	20	#14	37'-8"	—
p41(E)	6	#9	37'-10"	—
s40(E)	64	#6	27'-0"	—
s41(E)	100	#6	14'-6"	—
s42(E)	50	#6	12'-4"	—
s43(E)	76	#6	17'-8"	—
s44(E)	19	#4	12'-8"	—
s45(E)	175	#5	7'-10"	—
s46(E)	266	#5	10'-11"	—
s47(E)	36	#6	16'-0"	—
sp40	5	#5	1201'-0"	—
140(E)	84	#10	27'-8"	—
141(E)	42	#5	27'-8"	—
u40(E)	12	#6	13'-4"	—
v40(E)	66	#14	34'-6"	—
v41(E)	64	#14	31'-6"	—
v42(E)	32	#14	41'-0"	—
v43(E)	30	#14	44'-0"	—
v44(E)	32	#14	28'-8"	—
v45(E)	30	#14	25'-8"	—
v46	100	#11	40'-3"	—
w40(E)	84	#10	37'-8"	—
w41(E)	42	#5	37'-8"	—
Cofferdam Excavation	Cu. Yd.		617	
Concrete Structures	Cu. Yd.		806	
Reinforcement Bars, Epoxy Coated	Pound		132,070	
Reinforcement Bars	Pound		27,660	
Drilled Shaft in Rock	Cu. Yd.		122	
Mechanical Splice	Ea.		192	

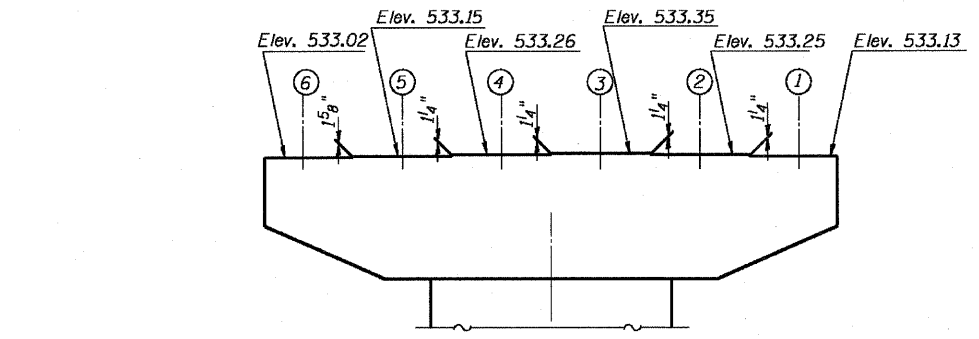


TOP PLAN



FOOTING PLAN

N.T.S.



TOP OF PIER

(Showing Steps Elevations)

VESSEL COLLISION FORCES

Load Case 1
Static Load = 2800K
Elevation = 500.13 ft (Barge Bow Rake 6' above MHW)
Direction = Parallel to Pier & Navigational Channel

Load Case 2
Static Load = 1400K
Elevation = 500.13 ft (Barge Bow Rake 6' above MHW)
Direction = Perpendicular to Pier & Navigational Channel

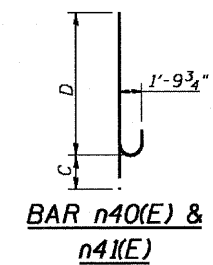
Note: Load Cases are considered independently
Load Combination 1.0X1.0D+1.0P+1.0B+1.0SF+1.0E)

DESIGNED - RJC
CHECKED - DEV
DRAWN - JHR
CHECKED - DEV

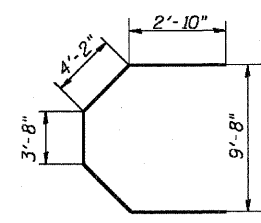
C & D DIMENSIONS

Bar	C	D
n40(E)	2'-3"	12'-0"
n41(E)	2'-3"	15'-0"

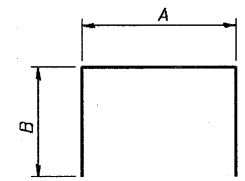
BARS nxx(E)



BAR n40(E) & n41(E)



BAR s43(E)

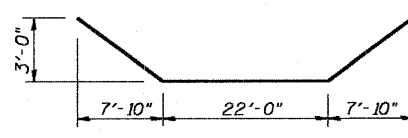


BARS sxx(E)

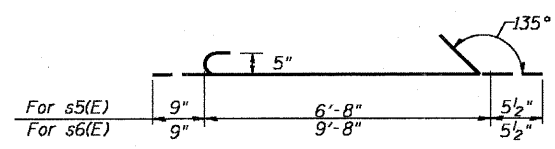
A & B DIMENSIONS

Bar	A	B
s41(E)	5'-2"	4'-8"
s42(E)	6'-8"	2'-10"
s44(E)	7'-8"	2'-6"
s47(E)	5'-2"	5'-5"

BARS sxx(E)



BAR p41(E)



BAR s45(E) and s46(E)

Notes:

1. Work this Sheet with Sheet 74.
2. Space reinforcement in cap to miss anchor bolts. Pour steps monolithically with cap.
3. Cofferdam struts are not allowed to pass through Foundation.
4. Final Design & Dimensions of Cofferdams are the Responsibility of the Contractor.

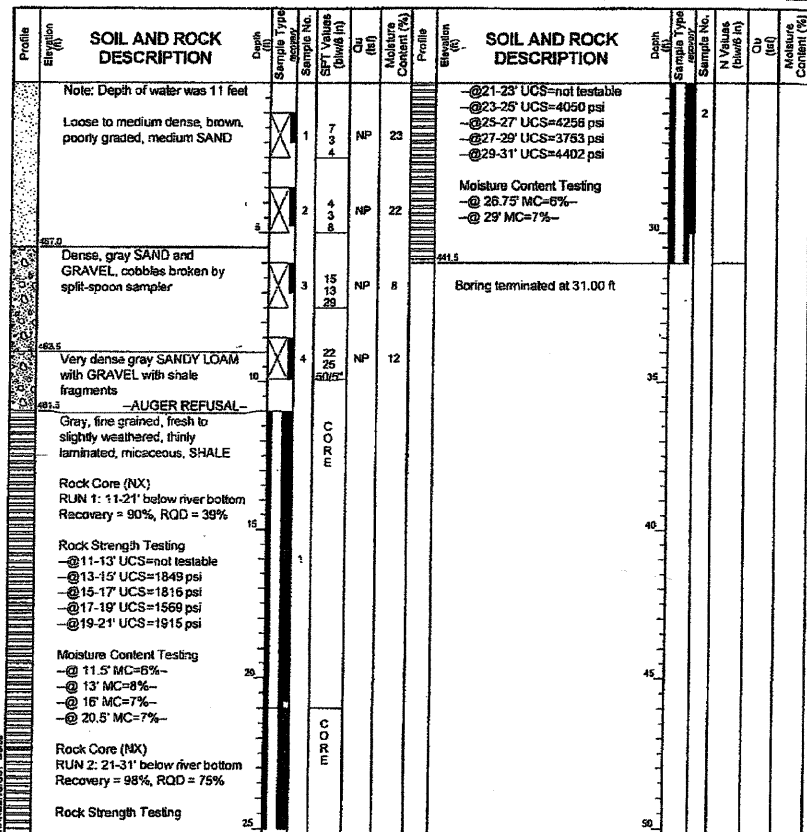
PIER 4 DETAILS
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

REVISED 2/27/08

BORING LOG NP-1 Page 1 of 1
WEI Job No.: 902-08-01
Datum: NGVD
Elevation: 472.50 ft
North: 7719.00 ft
East: 0.00 ft
Station: 77+19
Offset: 0

Wang Engineering, Inc.
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

Client: EarthTech
Project: IL 170 Bridge over Illinois River, IDOT D-93-057-02
Location: Seneca, Illinois



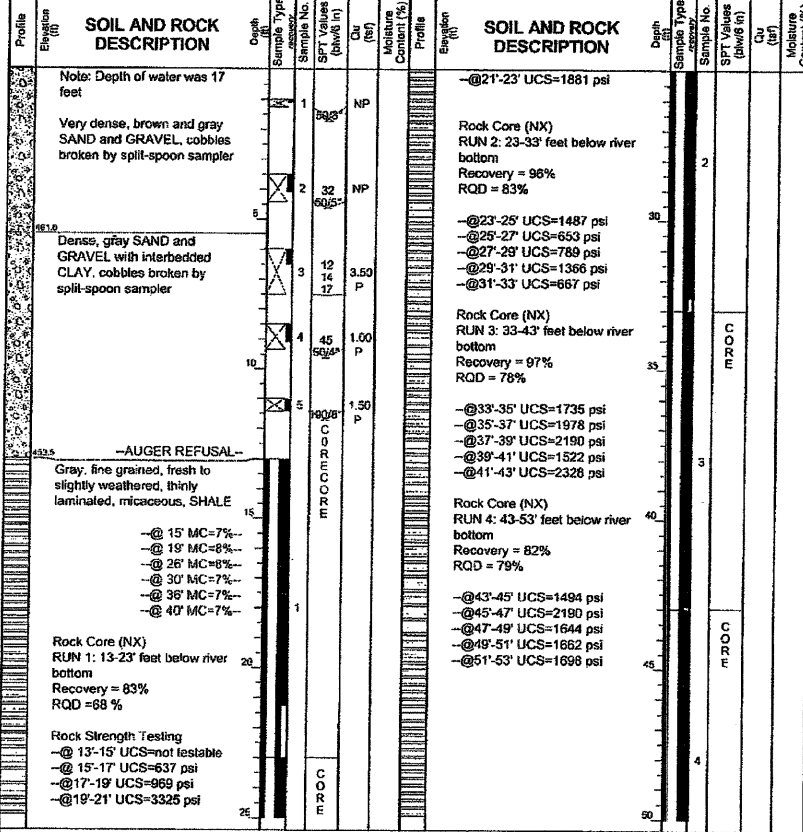
GENERAL NOTES
Begin Drilling 03-09-2005 Complete Drilling 03-09-2005
Drilling Contractor Precon Drilling Drill Rig CME 75
Driller J&L Logger B. Fugiel Checked by
Drilling Method 3.25-in HSA; NX rock core

WATER LEVEL DATA
While Drilling SFC
At Completion of Drilling SFC
Time After Drilling NA
Depth to Water NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

BORING LOG SP-1(Rev) Page 1 of 2
WEI Job No.: 902-08-01
Datum: NGVD
Elevation: 466.50 ft
North: 8089.00 ft
East: 0.00 ft
Station: 80+89
Offset: 0

Wang Engineering, Inc.
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

Client: EarthTech
Project: IL 170 Bridge over Illinois River, IDOT D-93-057-02
Location: Seneca, Illinois



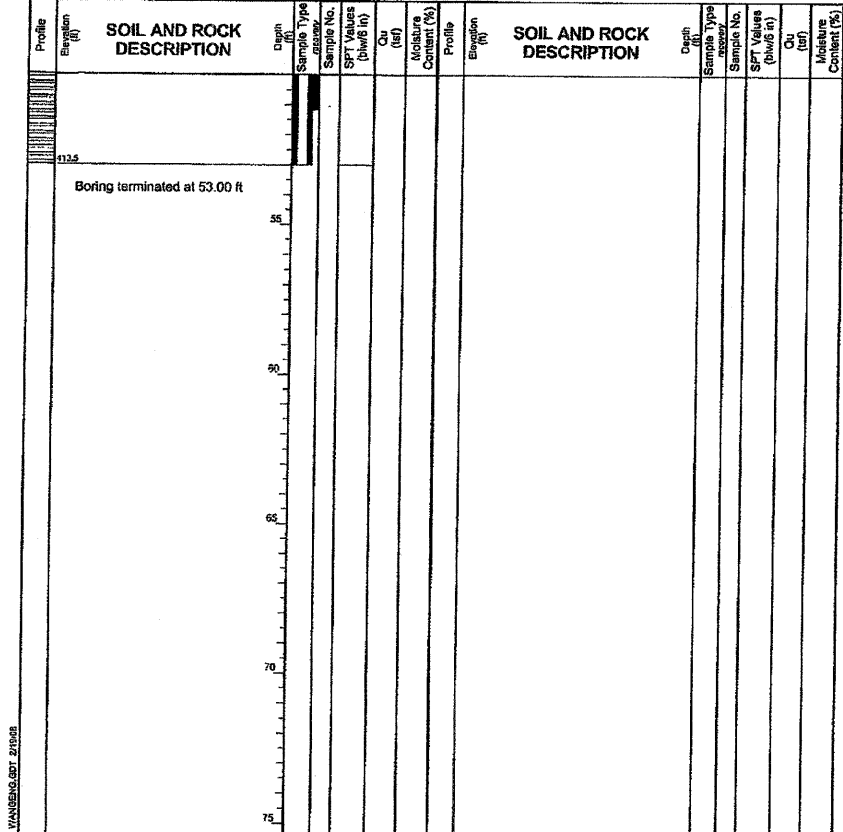
GENERAL NOTES
Begin Drilling 03-10-2005 Complete Drilling 03-10-2005
Drilling Contractor Precon Drilling Drill Rig CME 75
Driller J&L Logger B. Fugiel Checked by
Drilling Method 3.25-in HSA; NX rock core

WATER LEVEL DATA
While Drilling SFC
At Completion of Drilling SFC
Time After Drilling NA
Depth to Water NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

BORING LOG SP-1(Rev) Page 2 of 2
WEI Job No.: 902-08-01
Datum: NGVD
Elevation: 466.50 ft
North: 8089.00 ft
East: 0.00 ft
Station: 80+89
Offset: 0

Wang Engineering, Inc.
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

Client: EarthTech
Project: IL 170 Bridge over Illinois River, IDOT D-93-057-02
Location: Seneca, Illinois



GENERAL NOTES
Begin Drilling 03-10-2005 Complete Drilling 03-10-2005
Drilling Contractor Precon Drilling Drill Rig CME 75
Driller J&L Logger B. Fugiel Checked by
Drilling Method 3.25-in HSA; NX rock core

WATER LEVEL DATA
While Drilling SFC
At Completion of Drilling SFC
Time After Drilling NA
Depth to Water NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

DESIGNED - DEV
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

SOIL BORING LOGS #NP-1 & #SP-1
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