11-5-10 LETTING ITEM 083

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIOUS	D6 BDGE PAINTING 2011	MONT. SANG. SCHUYLER	16	1
FED. ROAD DIST. NO. 6	ILLINOIS	CONTRACT NO. 72D87		

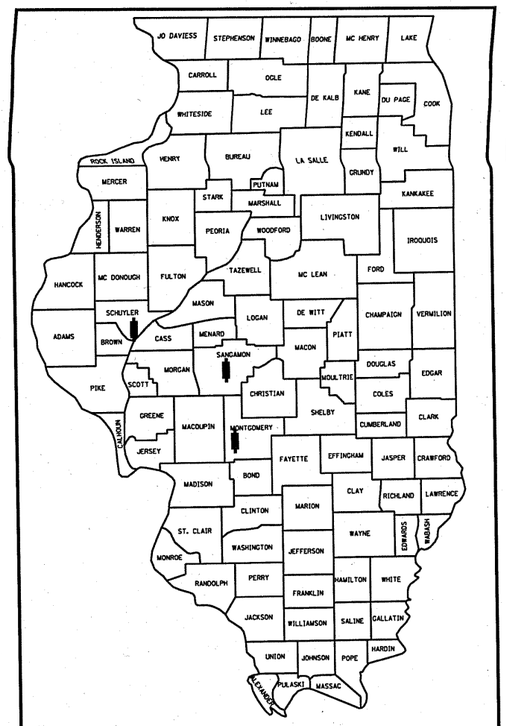
C–96–027–10

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

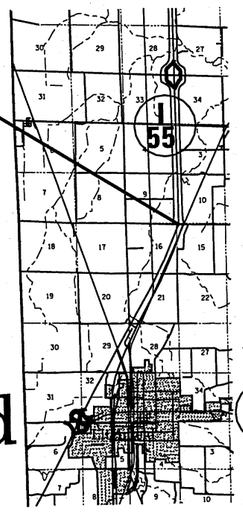
FOR INDEX OF SHEETS, SEE SHEET NO. 2

VARIOUS ROUTES
SECTION D6 REHAB BDGE PAINTING 2011
BRIDGE PAINTING
MONTGOMERY, SANGAMON AND SCHUYLER COUNTIES

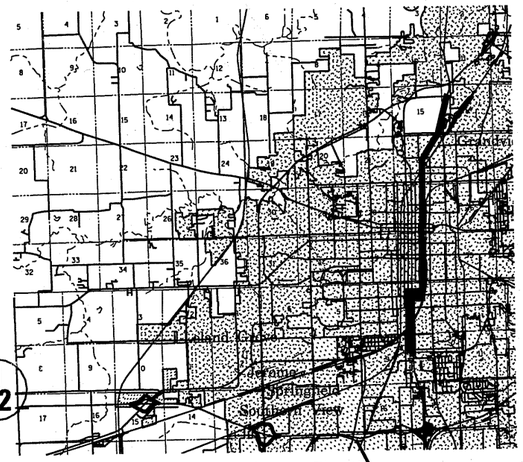


LOCATION OF SECTION INDICATED THUS: –

SN 068–0044

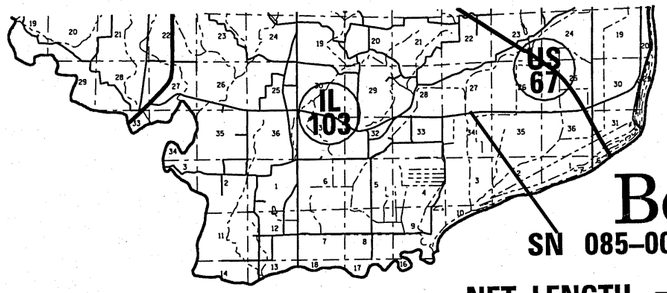


Litchfield



Springfield

SN 084–0074,0075



Beardstown

SN 085–0005

NET LENGTH = 940 FT. = 0.18 MILE

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1–800–892–0123
OR 811

D6 BRIDGE MAINTENANCE ENGINEER –
STEVE BERAN (217) 785–9290
D6 BRIDGE INSPECTION ENGINEER –
DAVE COPENBARGER (217) 785–5306

CONTRACT NO. 72D87

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED August 26 20 10
Roger L Driskell
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
October 1 20 10
Scott E. Stitt P.E. /a
acting ENGINEER OF DESIGN AND ENVIRONMENT
October 1 20 10
Christine M. Reed /a
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS:

STANDARDS

701001-02
701006-03
701101-02
701106-02
701400-04
701401-05
701201-03
701801-04
701901-01

GENERAL NOTES:

STRUCTURE NO 1 - SN 068-0044 CH 24 OVER I-55 LOCATED 3 M S IL 108 IN MONTGOMERY CO
CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES".
ALL EXISTING STEEL SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING - SSPC-SP10.
ALL EXISTING STEEL SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 - OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR SURFACES SHALL BE GRAY, MUNSELL NO 5B 7/1. THE COLOR OF THE FINAL FINISH COAT FOR THE EXTERIOR AND BOTTOM FLANGE OF THE FASCIA BEAM SHALL BE INTERSTATE GREEN, MUNSELL NO 7.5G 4/8.

STRUCTURES NO 2 AND 3 - 084-0074, 0075 I72 OVER UPRR/BIKE PATH LOCATED 1.3 M W I-55
CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES".
ALL EXISTING STEEL, EXCEPT THE STEEL OVER THE RR, SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING - SSPC-SP10. ALL STEEL OVER THE RR SHALL BE CLEANED PER COMMERCIAL POWER TOOL CLEANING - SSPC-SP15. ALL EXISTING STEEL SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 - OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR SURFACES SHALL BE GRAY, MUNSELL NO 5B 7/1. THE COLOR OF THE FINAL FINISH COAT FOR THE EXTERIOR AND BOTTOM FLANGE OF THE FASCIA BEAM SHALL BE INTERSTATE GREEN, MUNSELL NO 7.5G 4/8
NOTE: STRUCTURES 2 AND 3 (SN 084-0074 & 084-0075) HAVE A NEW BEAM LINE AND NEW BEARINGS AT THE ABUTMENTS (INSTALLED IN 2009) THAT SHALL NOT BE CLEANED AND PAINTED.

STRUCTURE NO 4 - SN 085-0005 IL 103 OVER CRANE CREEK LOCATED 2.4 M W US 67
CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES".
ALL BEAMS, BEARING AND OTHER STRUCTURAL STEEL WITHIN 5' (MEASURED ALONG THE BEAM) OF EITHER SIDE OF DECK JOINTS SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING PER SSPC SP 10.
THE EXTERIOR SURFACES AND BOTTOM OF THE BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE CLEANED PER COMMERICAL POWER TOOL CLEANING - SSPC-SP15. ALL EXISTING STEEL CLEANED SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 - OZ/E/U.
THE COLOR OF THE FINAL FINISH COAT SHALL BE GREEN, MUNSELL NO 7.5G 4/8.
THE SSPC-QP-1 AND SSPC-QP2 PAINTING CONTRACTOR CERTIFICATIONS WILL BE REQUIRED FOR THESE BRIDGES.

THE USE OF AIR MONITORS WILL BE REQUIRED AT STRUCTURES NUMBERS 2 AND 3. A MINIMUM OF 2 MONITORS WILL BE REQUIRED AT EACH BRIDGE TO MONITOR ABRASIVE BLASTING OPERATIONS AT THIS SITE, SEE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES".

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
DISTRICT 6

EXAMINED August 9 20 10
ENGINEER OF OPERATIONS

EXAMINED August 11 20 10
ENGINEER OF PROGRAM IMPLEMENTATION

EXAMINED August 12 20 10
ENGINEER OF PROGRAM DEVELOPMENT

INDEX, STANDARDS, & NOTES
VARIOUS ROUTES
D6REHAB BDGE PAINTING 2011
MONT, SANG AND SCHUY COUNTIES

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	100% STATE 0014 MONT QTY	100% STATE 0014 SANG QTY	100% STATE 0014 SCHUY QTY	100% STATE 0014 TOTAL QTY
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1			1
Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM		1		1
Z0010503	CLEANING AND PAINTING STEEL BRIDGE NO. 3	L SUM		1		1
Z0010504	CLEANING AND PAINTING STEEL BRIDGE NO. 4	L SUM			1	1
Z0007101	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1			1
Z0007102	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 2	L SUM		1		1
Z0007103	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 3	L SUM		1		1
Z0007104	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 4	L SUM			1	1
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM		1		1
Z0052396	PORTABLE TEMPORARY BARRIER SYSTEM, TL-3	FOOT	600			600
67100100	MOBILIZATION	L SUM	0.3	0.4	0.3	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	0.5		0.5	1
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1			1
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM		1		1
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	3	2	2	7
X7040092	RELOCATE PORTABLE TEMPORARY BARRIER SYSTEM, TEST LEVEL 3	L SUM	1			1

QUANTITIES
VARIOUS ROUTES
D6REHAB BDGE PAINTING 20111
MONT, SANG, SCHUY COUNTIES

BM: #4 Bolt Spike in power pole 168' Rt. Sta. 1812+33 Elev. 651.61

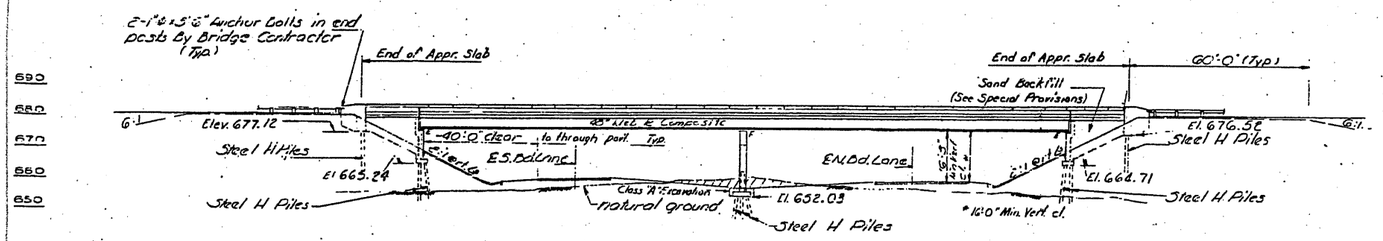
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

D044

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 55	68-2HB	MONTGOMERY	28	9

SHEET NO. 1
12 SHEETS

CONTRACT: 72D87
SHEET 4 OF 16

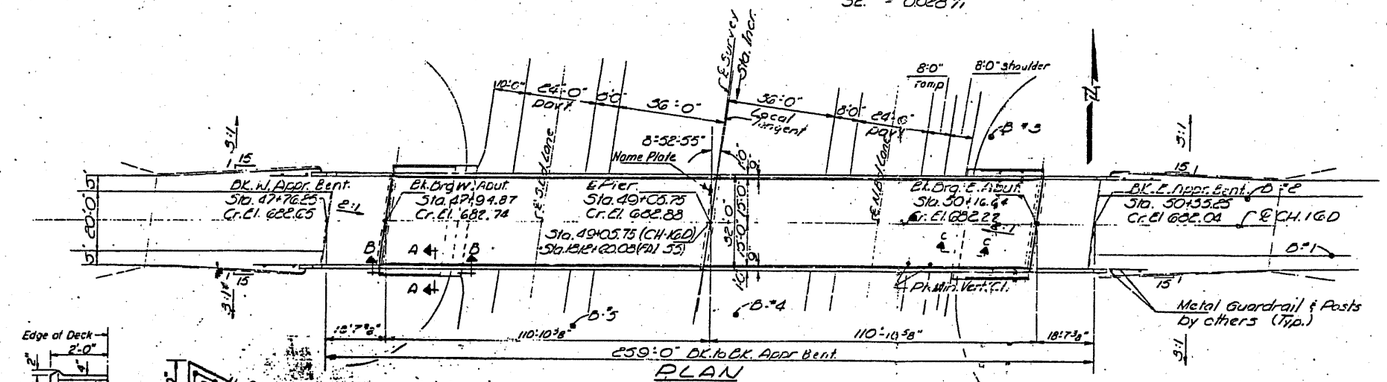


ELEVATION

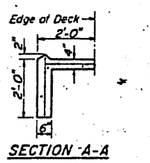
STATION 1812+60.08
BUILT 19 BY
STATE OF ILLINOIS
F.A.I. RT. 55 SEC. 68-2HB
F.A. PROJ. I-55-2(53)
LOADING HS 15

NAME PLATE
See Std. 2113

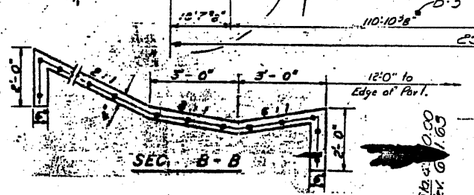
CURVE DATA
FAI. RT. 55
Δ = 8°39'48"
D = 1°00'
T = 1099.35'
L = 2,036.33'
R = 5,729.58'
E = 99.51'
SE. = 0088.11



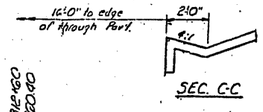
PLAN



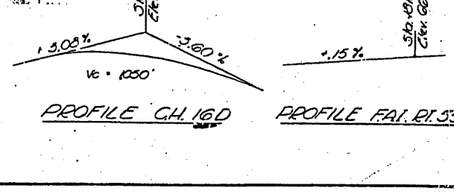
SECTION A-A



SEC. B-B

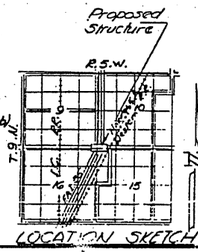


SEC. C-C



PROFILE C.H. 16D

PROFILE F.A.I. RT. 55



LOCATION SKETCH

DESIGNED A. McHumrickd.
CHECKED J. Y. Schuyler
DRAWN
CHECKED J.Y.K.

EXAMINED May 19 19 70
PASSED H.C. Baumann
APPROVED Richard H. Gilstrap
Director of Highways

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Class "A" Excavation for Struct.	Cu. Yds.		55	55
Protective Coat	Sq. Yds.	1023		1023
Class X Concrete	Cu. Yds.	255.8	182.9	438.7
Structural Steel	L.S.	L.S.		L.S.
Stud Shear Connectors	Each	1650		1650
Aluminum Railing	Lin. Ft.	508		508
Reinforcement Bars	Lbs.	57,780	23,620	81,400
Steel Piles (8BP36)	Lin. Ft.		2,138	2,138
Test Piles Steel (8BP36)	Each		3	3
Name Plates	Each		1	1
Slope Wall (4")	Sq. Yds.			294
Preformed Jt. Sealer	Lin. Ft.	64		64
Sand Backfill	Cu. Yds.	0	177	177

GENERAL NOTES

All reinforcement bars shall be lapped 24 diameters unless otherwise shown.

The Basic Lead Silico Chromate paint system shall be used for shop and field painting of structural steel.

Field welding of construction accessories will not be permitted to the bottom flange of beams or girders nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.

Anchor bolts shall be set before riveting diaphragms over supports.

Slope wall shall be reinforced with welded wire fabric 6" x 6" mesh, weighing 58 # per 100 sq. ft.

The Contractor shall drive three Steel H test piles in a permanent location. One at each Abutment and one at the pier as directed by the Engineer before ordering the remainder of piles.

Class A Excavation for structures includes excavation for slope wall.

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

The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Handrail Concrete.

Calculated plan weight of structural steel - 229,970 lbs.

Field connections shall be bolted using high strength bolts. Bolts 3/4"ø, open holes 13/16"ø, unless otherwise noted.

Drive all steel piles to refusal.

068-0044

GENERAL PLAN & ELEVATION
PROJ. I-55-2 (53) 61
C.H. 16D over F.A.I. RT. 55
F.A.I. RT. 55 SEC. 68-2HB
MONTGOMERY COUNTY
STATION 1812+60.08 (FAI. 55)
STATION 49+05.75 (CH. 16D)

STRUCTURE No. 1

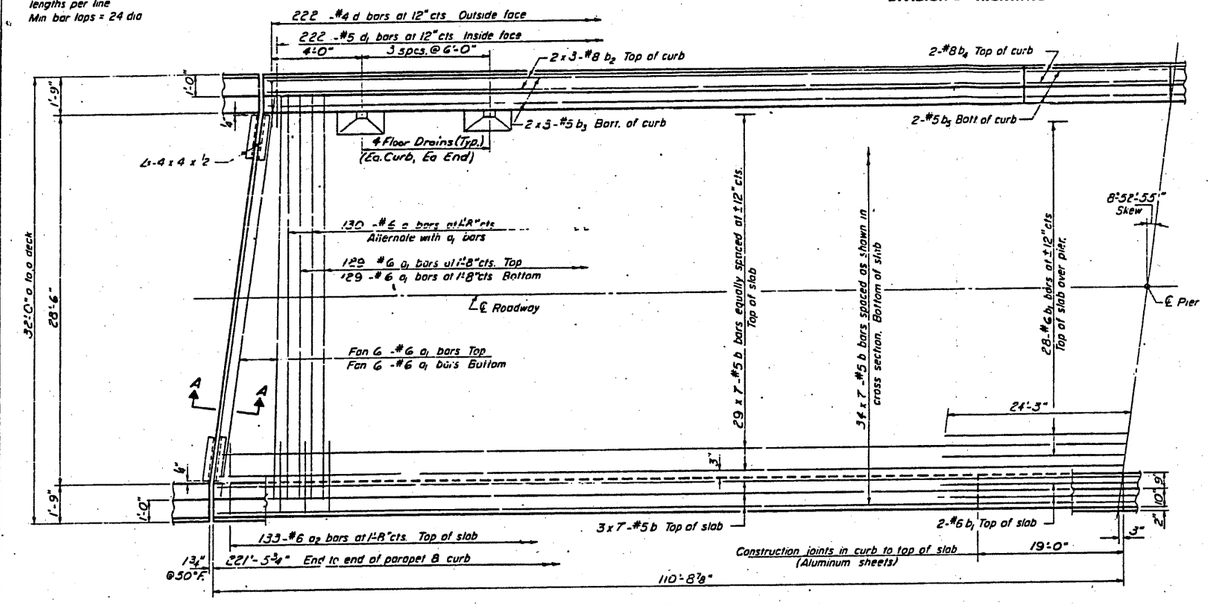
FOR INFORMATION ONLY

EXISTING PLANS, SN 068-0044
VARIOUS ROUTES
D6REHAB BDGE PAINTING 2011
MONT, SANG, SCHUY COUNTIES

CONTRACT: 72D87
SHEET 5 OF 16

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

NOTE:
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line
Min bar laps = 24 dia



HALF PLAN

7/16"ø holes at 12" cts. for 3/8" bolts set on 2 1/2" gage line. All bolts shall be burned, sawed or clipped off flush with back of angles after forms are removed.

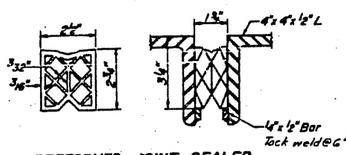
1-1/4" at 50°F

7/16"ø vent holes at 12" cts. set on 1 3/8" gage line.

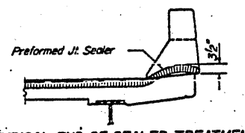
L 4 x 4 x 1/2 x 28'-9 3/8" long Fabricate to crown

3/4"ø x 8" CR. 1020 STL. granular or solid flux filled headed studs automatically end welded. (29 - studs at 12" alternate cts.)

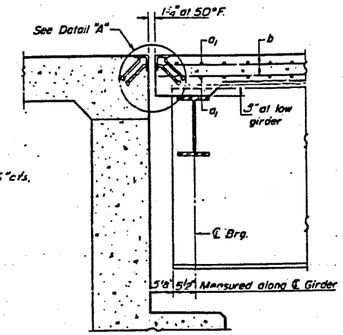
DETAIL "A"



PREFORMED JOINT SEALER



TYPICAL END OF SEALER TREATMENT



SECTION A-A

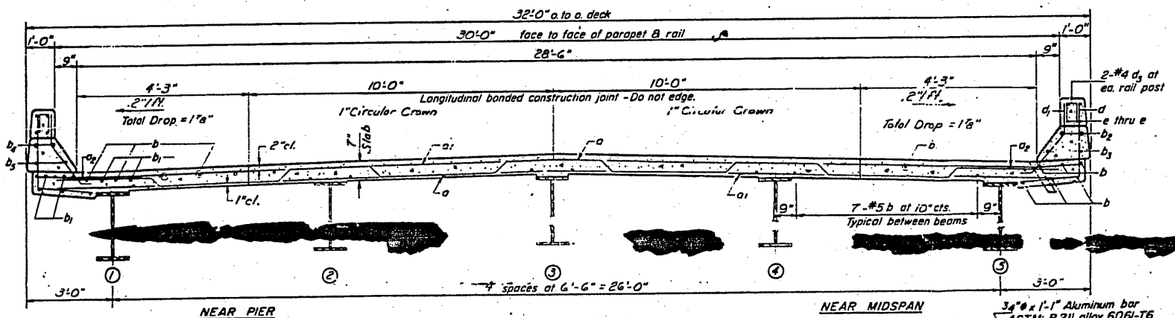
16 13/8
17 6/8
3/4

22°
221'-5 3/8"

NOTE: For placement of bars d3 and e thru e see sheet #

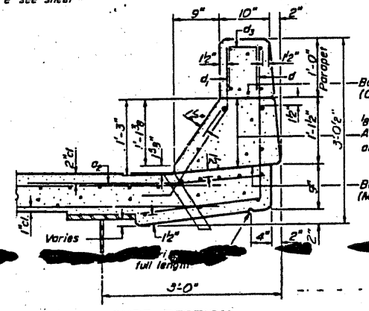
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	130	#6	30'-11"	
a1	282	#6	29'-11"	
a2	266	#6	4'-0"	
b	983	#5	32'-9"	
b1	32	#6	48'-6"	
b2	24	#8	31'-10"	
b3	24	#5	31'-6"	
b4	8	#8	18'-9"	
b5	8	#5	18'-9"	
d	444	#4	4'-7"	
d1	444	#5	3'-3"	
Reinforcement Bars			Lbs.	45,390
Class X Concrete			Cu. Yds.	187.3



NEAR PIER — NEAR MIDSPAN

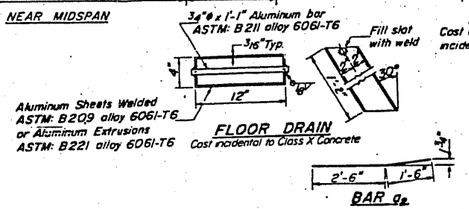
CROSS SECTION



CURB SECTION

Cost of Aluminum Sheets shall be incidental to Class X Concrete.

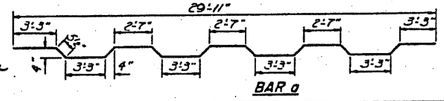
Parapet Reinforcement and Class X Concrete are billed on sheet # 8



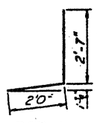
Aluminum Sheets Welded ASTM: B 209 alloy 6061-T6 or Aluminum Extrusions ASTM: B 221 alloy 6061-T6

FLOOR DRAIN
Cost incidental to Class X Concrete

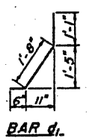
BAR a



BAR a_2



BAR d



BAR d_1

DESIGNED A. [illegible]
CHECKED A.Y. Khayyat
DRAWN S.E. Lindsey
CHECKED J.V.K.
EXAMINED
PASSED M.P. Baumann
APPROVED Richard H. Rotter
MAY 15 1970

S-586-L (2151)

MAIN SPAN
SUPERSTRUCTURE
FAI RT. 55 SEC. 68-2 HB
MONTGOMERY COUNTY
STA. 1812 + 60.08 (FAI 55)

EXISTING PLANS, SN 068-0044
VARIOUS ROUTES
D6REHAB BDGE PAINTING 2011
MONT, SANG, SCHUY COUNTIES

FOR INFORMATION ONLY

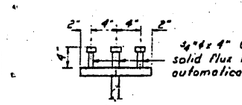
CONTRACT: 72D87
SHEET 6 OF 16

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

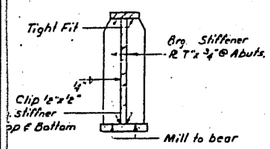
0044

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 55	68-2HB	MONTGOMERY	28	14
PROJ. ROAD DIST. NO. 7	ILLINOIS	PROJ. AID PROJECT		

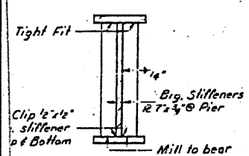
SHEET NO. 6
16 SHEETS



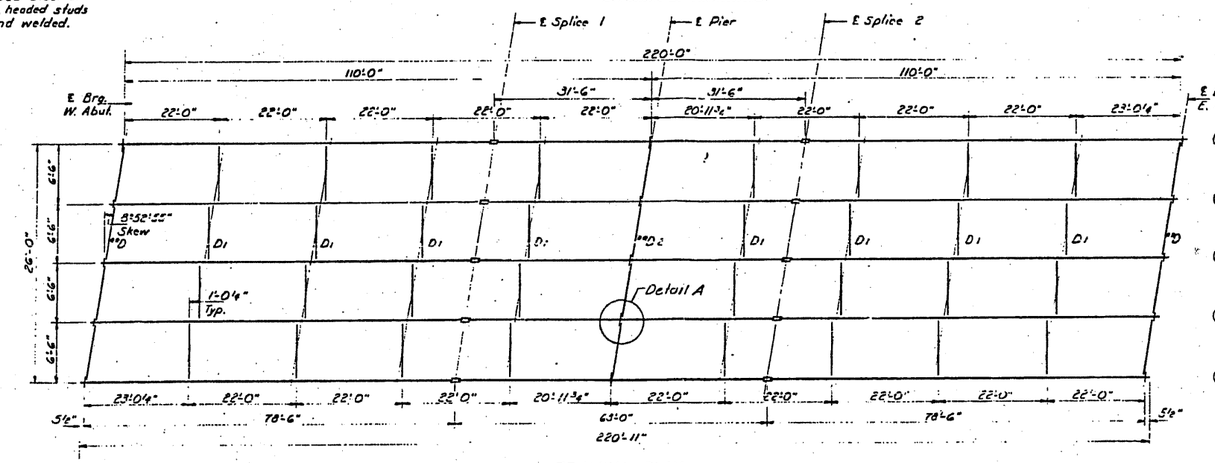
SECTION A-A



SECTION B-B



SECTION C-C

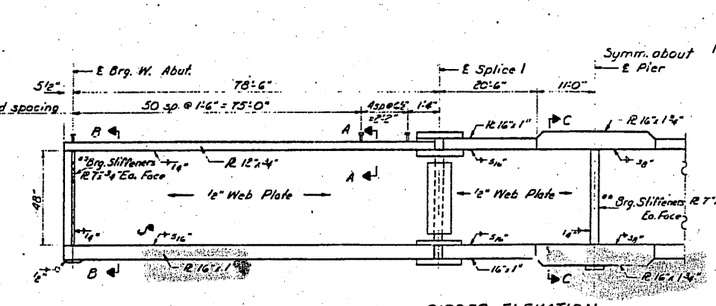


FRAMING PLAN

INTERIOR GIRDER MOMENT TABLE			
		Sp. 1	Pier
I_s	(in^4)	18952.9	39273.2
I_c	(in^4)	43892.0	
S_{sb}	(in^3)	882.5	1325.2
S_{cb}	(in^3)	1170.2	
Q	(in^3)	.788	1.089
M_D	(k ft)	587.40	1812.15
f_{sD}	(ksi)	7.99	14.26
S_D	(in^3)	.301	
M_{SD}	(k ft)	268.70	
M_L	(k ft)	625.50	2241.98
M_{IMP}	(k ft)	133.11	1174.46
TOTAL	(k ft)	1027.31	669.64
$f_s\,(L+S+I)$	(ksi)	10.53	5.27
f_s TOTAL	(ksi)	18.52	19.53
VR	(k)	38.16	

INTERIOR GIRDER REACTION TABLE			
		Abut.	Pier
R_{D+S+I}	(k)	43.41	150.72
R_L	(k)	28.65	49.94
Imp.	(k)	6.10	10.63
R_{TOTAL}	(k)	78.16	213.29

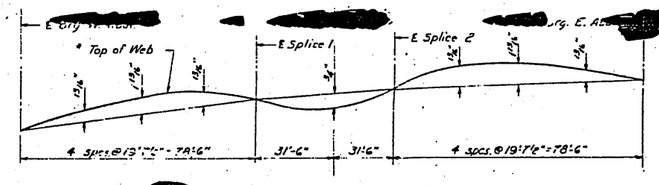
I_s and S_s are the moment of inertia and section modulus of the steel section.
I_c and S_c are the moment of inertia and section modulus of the composite section used in computing f_s.
VR is the maximum L + Impact shear range.



GIRDER ELEVATION

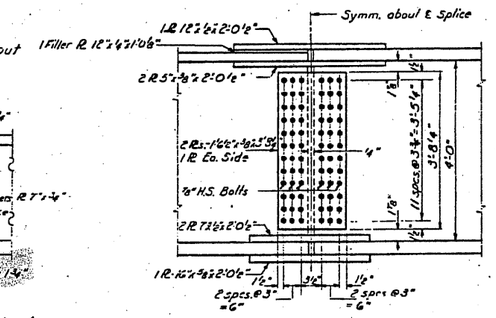
** Note: All interior bearing stiffeners shall be placed on 8°-52'-55" skew for D & D2 connections.

DETAIL A

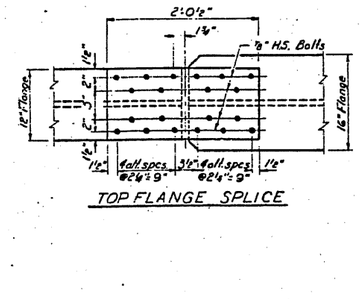


CAMBER DIAGRAM

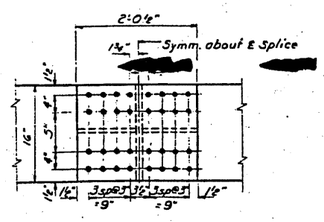
* For top of web elevations of splices & bearings see table on sheet # 7.



WEB SPLICE



TOP FLANGE SPLICE



BOTTOM FLANGE SPLICE

DESIGNED	A.D. Hummel	
CHECKED	A.V. Hummel	EXAMINED
DRAWN	S.E. Lindsey	PASSED
CHECKED	SYK	APPROVED for Director of Highways

MAY 13 1970

STRUCTURAL STEEL DETAILS
F.A.I. RT. 55 SEC. 68-2 HB
MONTGOMERY COUNTY
STA. 1812+60.08

FOR INFORMATION ONLY

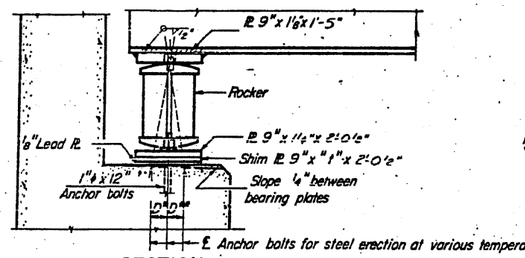
EXISTING PLANS, SN 068-0044
VARIOUS ROUTES
D6REHAB BDGE PAINTING 2011
MONT, SANG, SCHUY COUNTIES

CONTRACT: 72D87
SHEET 7 OF 16

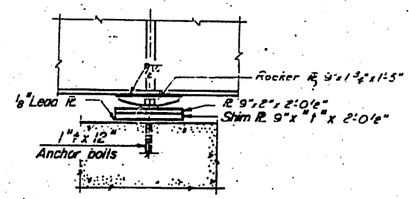
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

0044

					SHEET NO. 7
F.A.I. 55	68-2HB	MONTGOMERY	28	15	12 SHEETS



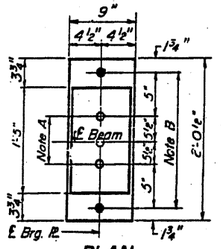
SECTION



ELEVATION

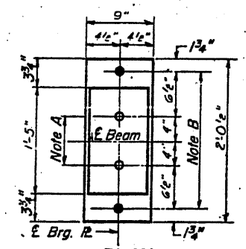
SHIM PLATES
Thickness "t" in inches

Beams	1	2	3	4	5
W. Abut.	0	0	½	1/8	1/8
Pier	⅛	⅛	½	0	0
E. Abut.	½	¼	3/8	0	0



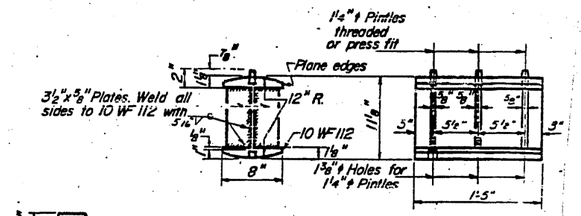
PLAN
AT ABUTMENT

NOTE A
⅜"ϕ Holes – 1" deep in top ℄ for pintles. Thread or press fit pintles into bottom ℄.

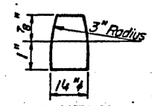


PLAN
AT PIER

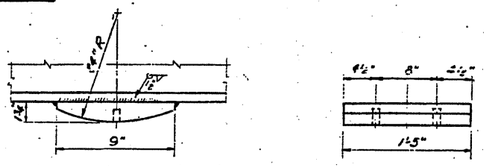
NOTE B
1½"ϕ Holes for 1"ϕ anchor bolts. 2½"x 2½"x 5/16" ℄. Washers under nut.



ROCKER



PINTLE



ROCKER PLATE

Note : See Sheet # 6 for framing plan.

NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BRGS.

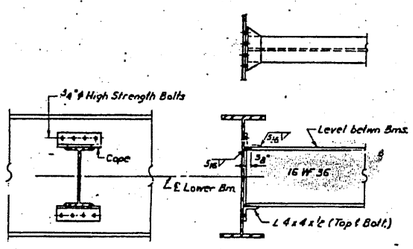
a) D* (Side of brg. away from fixed brg.)
D* = ⅛" per each 100' of expansion for every 15° fall below the normal temp. of 50°F.
D** (Side of brg. toward fixed brg.)
D** = ⅛" per each 100' of expansion for every 15° rise above the normal temp. of 50°F.

b) After beams have been erected and dimensions D* or D** determined, holes shall be drilled and anchor bolts shall be grouted in place. All fixed anchor bolts may be built into the masonry.

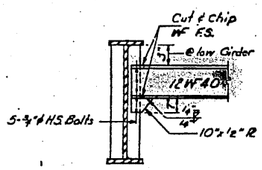
BEARING ASSEMBLY DETAILS

ELEVATION TOP OF WEB
(For fabrication only.)

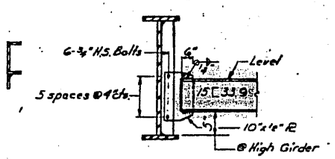
Lor. of Girder	1	2	3	4	5
E Brg. W. Abut.	601.96	682.06	682.10	682.07	681.97
E Field Splice 1	682.14	682.23	682.27	682.23	682.14
E Brg. Pier	681.01	682.10	682.13	682.09	682.00
E Field Splice 2	682.00	682.09	682.12	682.08	681.98
E Brg. E. Abut.	681.47	681.56	681.59	681.54	681.43



INTERIOR DIAPHRAGM D1 (32 Req'd.)



DIAPHRAGM-D
8 Required



DIAPHRAGM-D2
4 Required

CROSS FRAMES & BEARING DETAILS
F.A.I. RT. 55 SEC. 68-2 H B
MONTGOMERY COUNTY
STA. 1812 + 60.08 (F.A.I. 55)

DESIGNED	A. A. Hamraddi
CHECKED	A.V. Schuyler
S.L.	
DRAWN	P.G. Barnett
CHECKED	S.Y.K.

EXAMINED May 19 1970
PASSED W. E. Peterman
APPROVED Richard H. Gelterman

2-B 9-1-65

FOR INFORMATION ONLY

EXISTING PLANS, SN 068-0044
VARIOUS ROUTES
D6REHAB BDGE PAINTING 2011
MONT, SANG, SCHUY COUNTIES

CONTRACT: 72D87
SHEET 8 OF 16

Bench Marks:
IDOT BM #15 Chiseled square at the southeast quadrant of the intersection of West Grand Avenue and Hazel Dell Road. Benchmark is located 33 feet south of the centerline of Hazel Dell Road on a headwall of a concrete pipe culvert. NAVD88 El. 602.47
IDOT BM #80 Chiseled cross on the center bolt of the east leg of an iron sign truss over the eastbound lane of Interstate 72. Benchmark is located 1.62 miles east of II Route 4. NAVD88 El. 601.28
IDOT BM #0150 Disk in monument vault on survey calibration baseline. Benchmark is located 13 feet north of the centerline of Hazel Dell Road and 0.5 miles west of the intersection of Hazel Dell Road and West Grand Avenue. NAVD88 El. 600.47
IDOT BM #374 Railroad spike in power pole west of a bike path and southeast of Recreation Drive. Benchmark is located 0.81 miles south of the intersection of West Grand Avenue and Hazel Dell Road. NAVD88 El. 604.61

EXISTING STRUCTURE

Sta. 608+51.98 F.A.I. 72
Over Recreation Drive and U.P. Railroad
Dual 4-Span Continuous non-composite steel stringer structure. Constructed in 1966.
Length of W.B. Structure = 238'-3/4" and Length of E.B. Structure = 236'-2". Bk. to Bk. Abutments along ℄ of Roadway. Both E.B. and W.B. Structures are 36'-0" wide. Substructure consists of 6 reinforced concrete piers on steel piles and 4 reinforced concrete Abutments supported on steel piles. Structure No. 084-0074 Eastbound, Structure No. 084-0075 Westbound.

No Salvage.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEET NO.	SHEET NO.
FAI 72	"	SANGAMON	559	254
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

SHEET NO. 01
44 SHEETS

"(84-9-4)A,HBK,BY,BY-1 Contract No. 72541

DESIGN SPECIFICATIONS

AASHTO 2002
AASHTO 2003 Curved Girder Spec.

LOADING HS20-44 & ALT.

Allow 25 psf for future wearing surface.

SEISMIC DATA

Seismic Performance Category (SPC) = A
Badrock Acceleration Coefficient (A) = 0.05g
Site Coefficient (S) = 2.0

DESIGN STRESSES

FIELD UNITS (Load Factor Design)
f'c = 3,500 psi (Existing and New Concrete)
fy = 40,000 psi (Existing Reinforcement)
Fy = 60,000 psi (New Reinforcement)
fy = 36,000 psi ASTM A36. (Existing Structural Steel)
fy = 36,000 psi ASTM A36 (New Structural Steel)

CURVE DATA

(I-72 Survey Baseline)
P.I. STA = 607+25.73
Δ = 36° 03' 13" (Lt.)
D = 01° 36' 09"
R = 3,575.66'
T = 1,163.65'
L = 2,250.00'
E = 184.58'
P.C. STA = 595+62.07
P.T. STA = 618+12.07
S.E. = 4.5%
S.E. ATTN: 594+35 to 596+35
617+52 to 619+52

Existing Creosoted Approach Piles to be removed 2'-0" below top of subgrade (Typ.). 28 Piles total. Cost included with Bridge Approach Pavement Removal.

See Std. 515001

STATION 608+51.98
BUILT 20__ BY
STATE OF ILLINOIS
F.A.I. 72 SEC. (84-9-4)A,HBK,BY,BY-1
LOADING HS20-44
**

NAME PLATE

**(Structure No. 084-0074 Eastbound Structure & Structure No. 084-0075 Westbound Structure)

20'-0" Typ.
Limits of Protective Shield
No Construction Activities Or Other Obstructions May Be Placed Within These Limits
Steel H Piles
Existing wingwall pile Steel BP Pile
Existing Steel BP Piles and Steel H Piles
Existing Slope wall to be removed and replaced with a 6" Bituminous Coated Aggregate Slopewall.
Bk. W. Abut. Sta 607+58.59 Elev. 632.94
W33x130 (Composite) Existing & Proposed
Existing Conc. Barrier
Existing Recreation Dr.
Existing Bike Path
Existing 48" ℄ RCCP Storm Sewer
Existing 36" ℄ Pipe Culvert
Existing Steel BP Piles (Typ.)
Steel H Piles (Typ.)
1:2 (V:H) at Rt. ±5
*19'-11" min.
*19'-9" min.
21'-0"
23'-0" min. Vert. Clr.
℄ U.P. R.R.
*8'-0"
*12'-0" (typ.)
Top Of Rail
Temporary Sheet Piling
Existing Slope wall to be removed and replaced with a 6" Bituminous Coated Aggregate Slopewall
Existing 36" ℄ Pipe Culvert
Steel H Piles
Existing wingwall pile Steel BP Pile
Existing Steel BP Piles and Steel H Piles

ELEVATION

* Dimensions At Right Angles to ℄ Track

6'-0" Bridge Approach Pavement Connector See Std. 420401 (Typ.)
30' Bridge Appr. Pav't. See Std. 420401 (Typ.)
Inlet to be removed
Brdg. Appr. Shldr. Pav't. Drain Std. 609006 (Typ.)
Exist. Conc. Hdwl. To Be Removed
5'-0"
Proposed 36" ℄ Pipe Culvert Extension
Exist. 48" ℄ RCCP Storm Sewer
Existing Railroad R.O.W.
Point of Min. Vert. Clearance Offset 20'-8½" from ℄ I-72 W.B.
Existing Concrete Barrier
Station Identification
Temporary Sheet Piling
3-6" ℄ Floor Drains, 2 Spa. at 8'-0" each = 16'-0" Typ. Span 1 & 4
Existing 36" ℄ Pipe Culvert
8'-0"
13'-0"
5'-0"
Name Plate
Bridge Appr. Pav't. Drain (Typ.) Std. 609006
Inlet to be removed
Drainage Scupper (DS-11 Typ.)
℄ I-72 (W.B.) & P.G.
Stage I Constr.
Stage II Constr.
12'-0"
12'-0"
10'-0"
6'-0" Shldr.
24'-0" Roadway
40'-0" Out to Out
43'-2" Out to Out
1'-7"
32'-7" Min.
8'-0"
19'-11" Min.
℄ Pier #1 Sta 608+14.38 Elev. 633.09
℄ Pier #2 Sta 608+78.06 Elev. 633.17
1964-10
1964-8
1964-2
Temp. Sheet Piling (Typ.)
℄ Exist. Pier #1
℄ Exist. Pier #2
℄ Exist. Pier #3 Stage Constr. Jt.
1964-6
℄ Pier #3 Sta 609+42.37 Elev. 633.16
1964-5
Sta. 609+17.56 I-72 Survey Baseline
Sta. 03+40.17 ℄ U.P. R.R.
Bk. E. Abut. Sta 609+99.80 Elev. 633.06
Indicates Boring Location
Existing Approach Piles (Typ.)
℄ Existing Brg. West Abutments
Back Existing West Abutments
Existing 36" ℄ Pipe Culvert
R.R. R.O.W.
28°-51'-38"
℄ U.P. R.R.
610
I-72 Survey Baseline
Sta. 608+51.98
Sta. 02+86.53 U.P. R.R. Mile Post 189.45
℄ Existing Brg. East Abutments
Bk. Existing East Abutments
Drainage Scupper (DS-11 Typ.)
Local Tangent at Sta. 608+51.98
Paved Ditch to be removed each end.
Bk. W. Abut. Sta 607+10.74 Elev. 632.69
Limits of Existing Structures
EXISTING RECREATION DRIVE
EXISTING BIKE PATH
℄ Pier #1 Sta 607+64.70 Elev. 632.90
℄ Pier #2 Sta 608+26.26 Elev. 633.05
1964-7
1964-9
1964-1
1964-4
℄ Pier #3 Sta 608+88.39 Elev. 633.12
1964-3
℄ Exist. Pier #3 Stage Constr. Jt.
℄ I-72 (E.B.) & P.G.
Name Plate
℄ Exist. Pier #1
Sta. 608+64.45 I-72 Survey Baseline
Sta. 02+32.21 ℄ U.P. R.R.
Exist. 48" ℄ RCCP Storm Sewer
2'-9⅞"
52'-9½"
62'-10⅞"
237'-0½" Bk. to Bk. Abutment, Existing
R.R. Mile Post Reference
Existing Railroad R.O.W.
Temporary Sheet Piling
Exist. Conc. Hdwl. To Be Removed
Proposed 36" ℄ Pipe Culvert Ext.
2'-0"
Bk. E. Abut. Sta 609+43.82 Elev. 633.10
47'-5"
46'-8"

PLAN

Note:
Traffic Barrier Terminal, Type 6, Std. 631031 at Approaching Ends.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

JAMES K. HOLT
4376
REGISTERED STRUCTURAL ENGINEER OF ILLINOIS
SIGNATURE:
DATE SIGNED: 1-20-06
LISC. EXP. DATE: 11-30-06

Range 5W - 3RD PM
Twp. 15N
Existing Structure

LOCATION SKETCH

Corporate License Number 184-001-084

GENERAL PLAN AND ELEVATION
F.A.I. 72 OVER UNION PACIFIC RAILROAD
SECTION (84-9-4)A,HBK,BY,BY-1
SANGAMON COUNTY
STATION 608+51.98
STR NO. 084-0074 EB - 084-0075 WB

HANSON

JOB 96S2002B
DATE 01/12/06

STRUCTURE No. 2 & 3

EXISTING PLANS, SN 084-0074,0075
VARIOUS ROUTES
D6REHAB BDGE PAINTING 2011
MONT, SANG, SCHUY COUNTIES

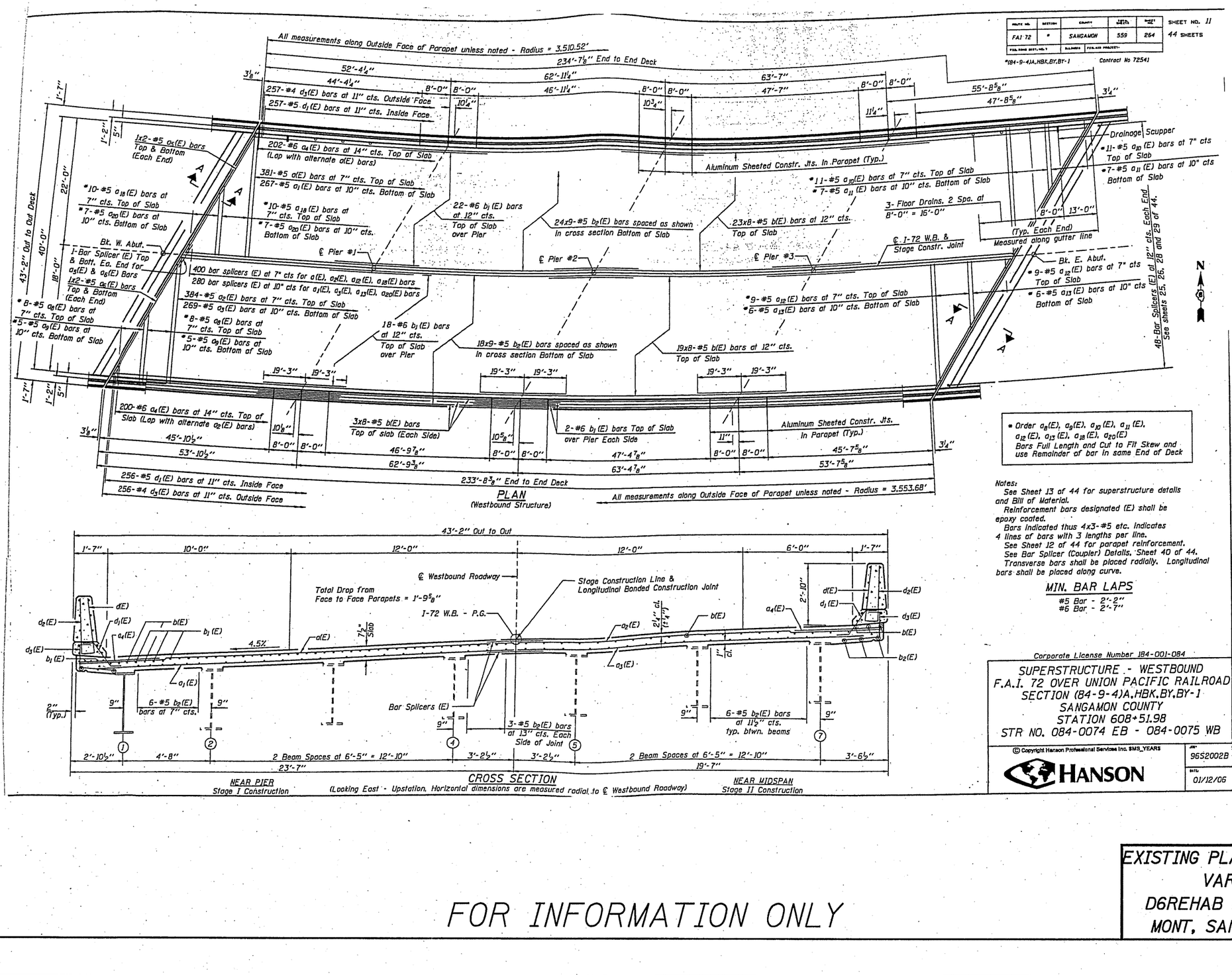
FOR INFORMATION ONLY

CONTRACT: 72D87
SHEET 9 OF 16

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 72	*	SANGAMON	559	264
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT=		

SHEET NO. 11
44 SHEETS

*(84-9-4)A, HBK, BY, BY-1 Contract No 72541



PLAN
(Westbound Structure)

NEAR PIER
Stage I Construction

CROSS SECTION
(Looking East - Upstation, Horizontal dimensions are measured radial to ℄ Westbound Roadway)

NEAR MIDSPAN
Stage II Construction

* Order a8(E), a9(E), a10(E), a11(E), a12(E), a13(E), a18(E), a20(E) Bars Full Length and Cut to Fit Skew and use Remainder of bar in same End of Deck

Notes:
See Sheet 13 of 44 for superstructure details and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 4x3-#5 etc. indicates 4 lines of bars with 3 lengths per line.
See Sheet 12 of 44 for parapet reinforcement.
See Bar Splicer (Coupler) Details, Sheet 40 of 44.
Transverse bars shall be placed radially. Longitudinal bars shall be placed along curve.

MIN. BAR LAPS
#5 Bar - 2'-2"
#6 Bar - 2'-7"

Corporate License Number 184-001-084

SUPERSTRUCTURE - WESTBOUND
F.A.I. 72 OVER UNION PACIFIC RAILROAD
SECTION (84-9-4)A, HBK, BY, BY-1
SANGAMON COUNTY
STATION 608+51.98
STR NO. 084-0074 EB - 084-0075 WB

HANSON

JOB# 96S2002B
DATE 01/12/06

FOR INFORMATION ONLY

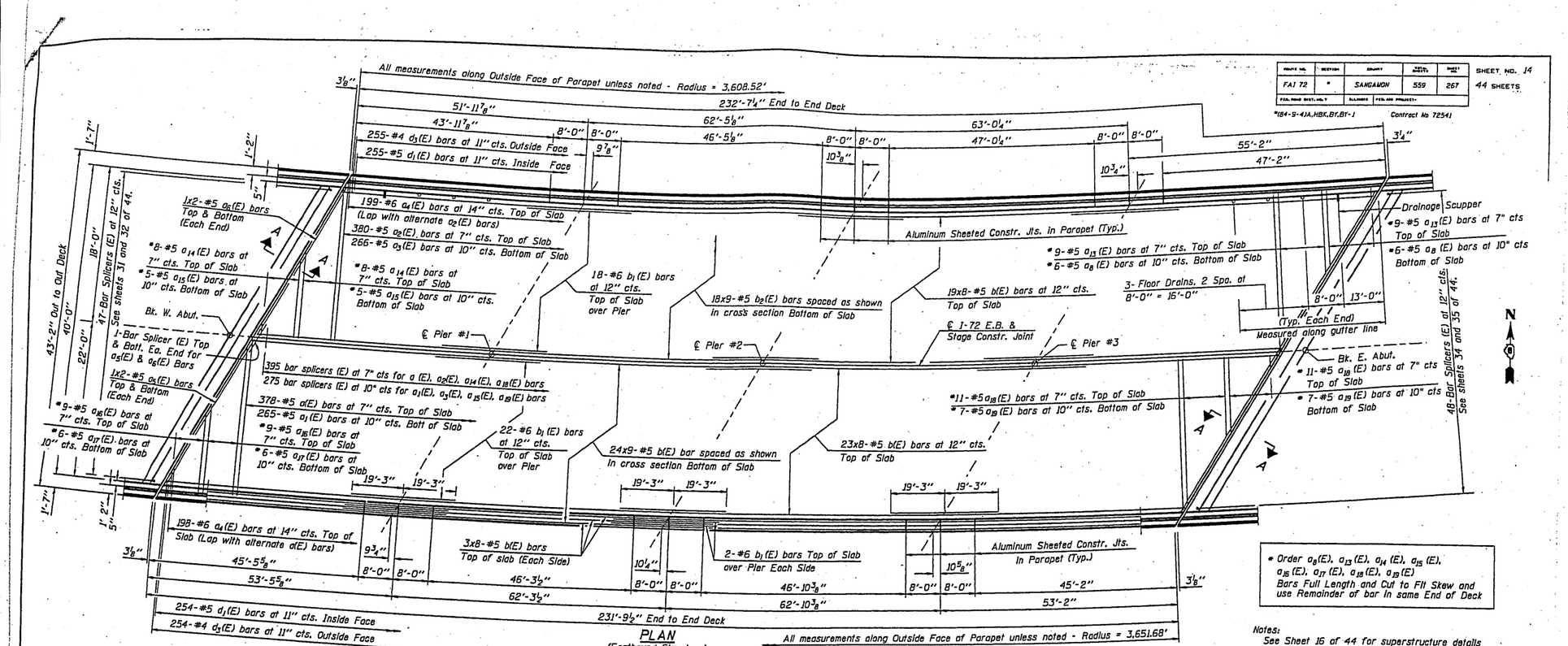
EXISTING PLANS, SN 084-0074,0075
VARIOUS ROUTES
D6REHAB BDGE PAINTING 2011
MONT, SANG, SCHUY COUNTIES

CONTRACT: 72D87
SHEET 10 OF 16

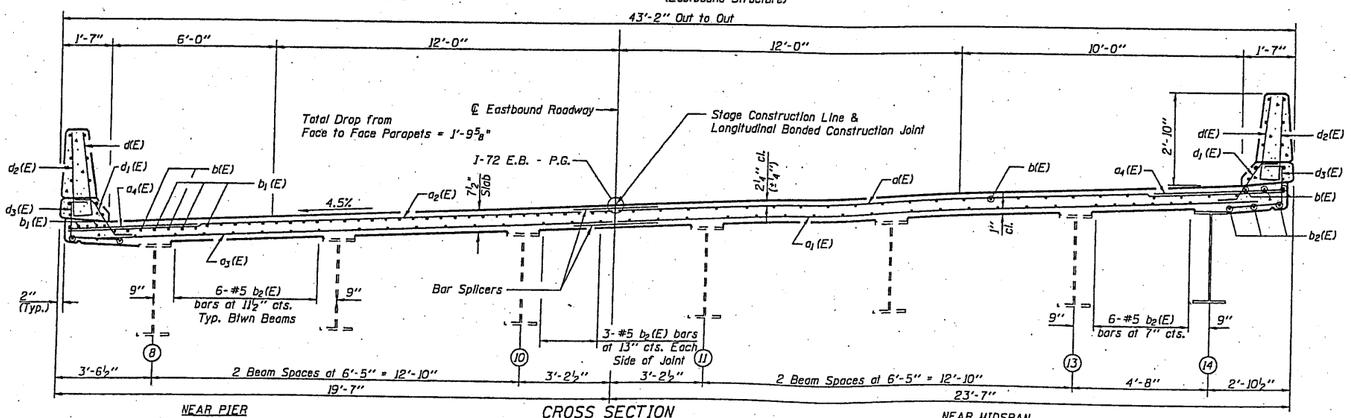
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 72	*	SANGAMON	559	267
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT=		

SHEET NO. 14
44 SHEETS

*(84-9-4)A,HBK,BY,BY-1 Contract No 72541



PLAN
(Eastbound Structure)



NEAR PIER
Stage II Construction

CROSS SECTION
(Looking East + Upstation, Horizontal dimensions are measured radial to ℄ Eastbound Roadway)

NEAR MIDSPAN
Stage I Construction

* Order a8(E), a13(E), a14(E), a15(E), a16(E), a17(E), a18(E), a19(E) Bars Full Length and Cut to Fit Skew and use Remainder of bar in same End of Deck

Notes:
See Sheet 16 of 44 for superstructure details and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 4x3-#5 etc. indicates 4 lines of bars with 3 lengths per line.
See Sheet 15 of 44 for parapet reinforcement.
See Bar Splicer (Coupler) Details, Sheet 40 of 44.
Transverse bars shall be placed radially. Longitudinal bars shall be placed along curve.

MIN. BAR LAPS
#5 Bar - 2'-2"
#6 Bar - 2'-7"

Corporate License Number 184-001-084

SUPERSTRUCTURE - EASTBOUND
F.A.I. 72 OVER UNION PACIFIC RAILROA
SECTION (84-9-4)A,HBK,BY,BY-1
SANGAMON COUNTY
STATION 608+51.98
STR NO. 084-0074 EB - 084-0075 WB

HANSON
JOB NO. 96S2002
DATE 01/12/0

REVISED MM/DD/YY 10/21/08 MM/DD/YY 12/16/2005

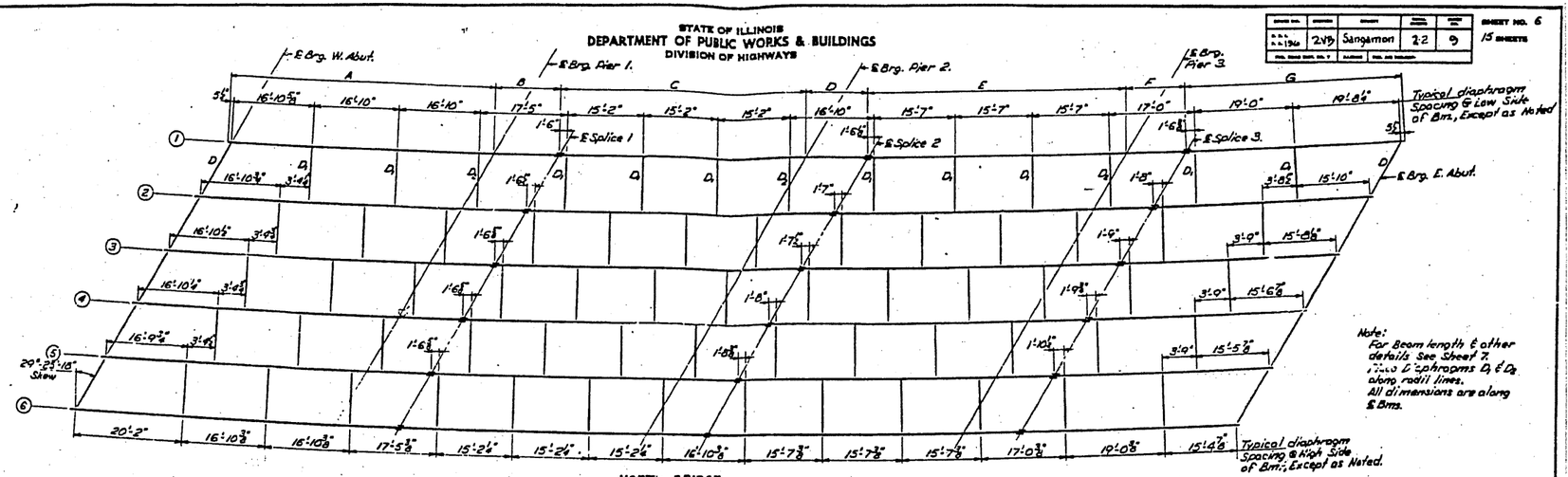
FOR INFORMATION ONLY

EXISTING PLANS, SN 084-0074,0075
VARIOUS ROUTES
D6REHAB BDGE PAINTING 2011
MONT, SANG, SCHUY COUNTIES

CONTRACT: 72D87
SHEET 11 OF 16

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

				SHEET NO. 6
A.A.R. A.A.196	2VB	Sangamon	2.2	9
FED. ROAD DIST. NO. 7	ALTERED	FED. AID PROJECT		15 SHEETS



DESIGNED	A.D. Heinz	Oct. 3 1961
CHECKED	Paul C. Wang	
DRAWN	Thomas A. Lewis	
CHECKED	Paul C. Wang	
EXAMINED	H.G.B.	
PASSED	H.G.B.	
APPROVED		

STRUCTURAL STEEL
F.A. Rt. 196 SEC. 2-VB
SANGAMON COUNTY
STATION 608+ .24

FOR INFORMATION ONLY

EXISTING PLANS, SN 084-0074,0075
VARIOUS ROUTES
D6REHAB BDGE PAINTING 2011
MONT, SANG, SCHUY COUNTIES

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

F.A.I. 196	24B	Sangamon	22	10

SHEET NO. 7
15 SHEETS

BEAM LENGTH
(Measured along ℄ Beam)

	North Bridge						South Bridge					
	Bm 1	Bm 2	Bm 3	Bm 4	Bm 5	Bm 6	Bm 1	Bm 2	Bm 3	Bm 4	Bm 5	Bm 6
Radius	3518.06	3524.42	3530.89	3537.31	[illegible]	[illegible]	3612.06	3618.48	3624.90	3631.31	3637.73	3644.15
A	32'-9 3/8"	32'-9 3/8"	32'-9 1/8"	32'-9"	32'-8 3/4"	32'-8 1/4"	32'-5 1/8"	32'-5"	32'-4 3/8"	32'-4 1/4"	32'-4 1/8"	32'-3 7/8"
B	14'-1 1/2"	14'-1 3/8"	14'-1 1/4"	14'-1 1/8"	14'-1 1/8"	14'-1"	14'-0 3/8"	14'-0 1/4"	14'-0 1/8"	14'-0"	13'-11 7/8"	13'-11 7/8"
C	48'-9 1/2"	48'-9 3/8"	48'-9"	48'-8 3/4"	48'-8 1/4"	48'-8 1/8"	48'-5"	48'-4 3/4"	48'-4 3/8"	48'-4 1/8"	48'-4"	48'-3 7/8"
D	13'-6 3/8"	13'-6 1/4"	13'-6 1/8"	13'-6"	13'-6"	13'-5 7/8"	13'-5"	13'-4 7/8"	13'-4 3/4"	13'-4 1/2"	13'-4 1/2"	13'-4 1/2"
E	50'-0 3/8"	50'-0 1/4"	50'-0"	49'-11 1/2"	49'-11 3/8"	49'-11"	49'-7 1/2"	49'-7 1/4"	49'-7"	49'-6 3/4"	49'-6 1/2"	49'-5 7/8"
F	13'-8"	13'-7 7/8"	13'-7 3/4"	13'-7 1/2"	13'-7 1/2"	13'-7 3/8"	13'-6 1/2"	13'-6 1/2"	13'-6 1/4"	13'-6"	13'-5 7/8"	13'-5 7/8"
G	40'-8 1/8"	40'-8"	40'-7 3/8"	40'-7 1/8"	40'-6 7/8"	40'-6 1/2"	40'-3 3/4"	40'-3 1/2"	40'-3 1/8"	40'-3"	40'-2 7/8"	40'-2 3/8"
Total	233'-7 7/8"	233'-6 1/4"	233'-4 5/8"	233'-3 1/8"	233'-1 1/8"	233'-0 1/4"	231'-9 1/4"	231'-7 7/8"	231'-6 1/4"	231'-4 5/8"	231'-3 3/8"	231'-1 7/8"

~~233.33~~ ~~231.47~~
~~8825~~ ~~8824~~

ELEVATION TOP OF W
(For Fabrication Only)

	North Bridge						South Bridge					
	Bm 1	Bm 2	Bm 3	Bm 4	Bm 5	Bm 6	Bm 1	Bm 2	Bm 3	Bm 4	Bm 5	Bm 6
℄ Brg. N. Abt.	631.80	632.15	632.45	632.73	633.00	633.28	631.67	631.96	632.26	632.54	632.81	633.05
℄ Brg. Pier 1	631.94	632.25	632.55	632.81	633.08	633.36	631.81	632.10	632.40	632.68	632.95	633.23
℄ Splice 1	631.96	632.25	632.55	632.83	633.10	633.38	631.85	632.14	632.44	632.72	632.99	633.27
℄ Brg. Pier 2	632.01	632.30	632.60	632.88	633.15	633.43	631.95	632.24	632.54	632.82	633.09	633.37
℄ Splice 2	632.02	632.31	632.61	632.89	633.16	633.44	631.98	632.27	632.57	632.85	633.12	633.40
℄ Brg. Pier 3	631.99	632.28	632.58	632.86	633.13	633.41	632.01	632.30	632.60	632.88	633.15	633.43
℄ Splice 3	631.98	632.27	632.57	632.85	633.12	633.40	632.02	632.31	632.61	632.89	633.16	633.44
℄ Brg. E. Abt.	631.98	632.27	632.57	632.85	633.12	633.40	632.06	632.35	632.65	632.93	633.20	633.48

replaced with elastomeric bearings 2009

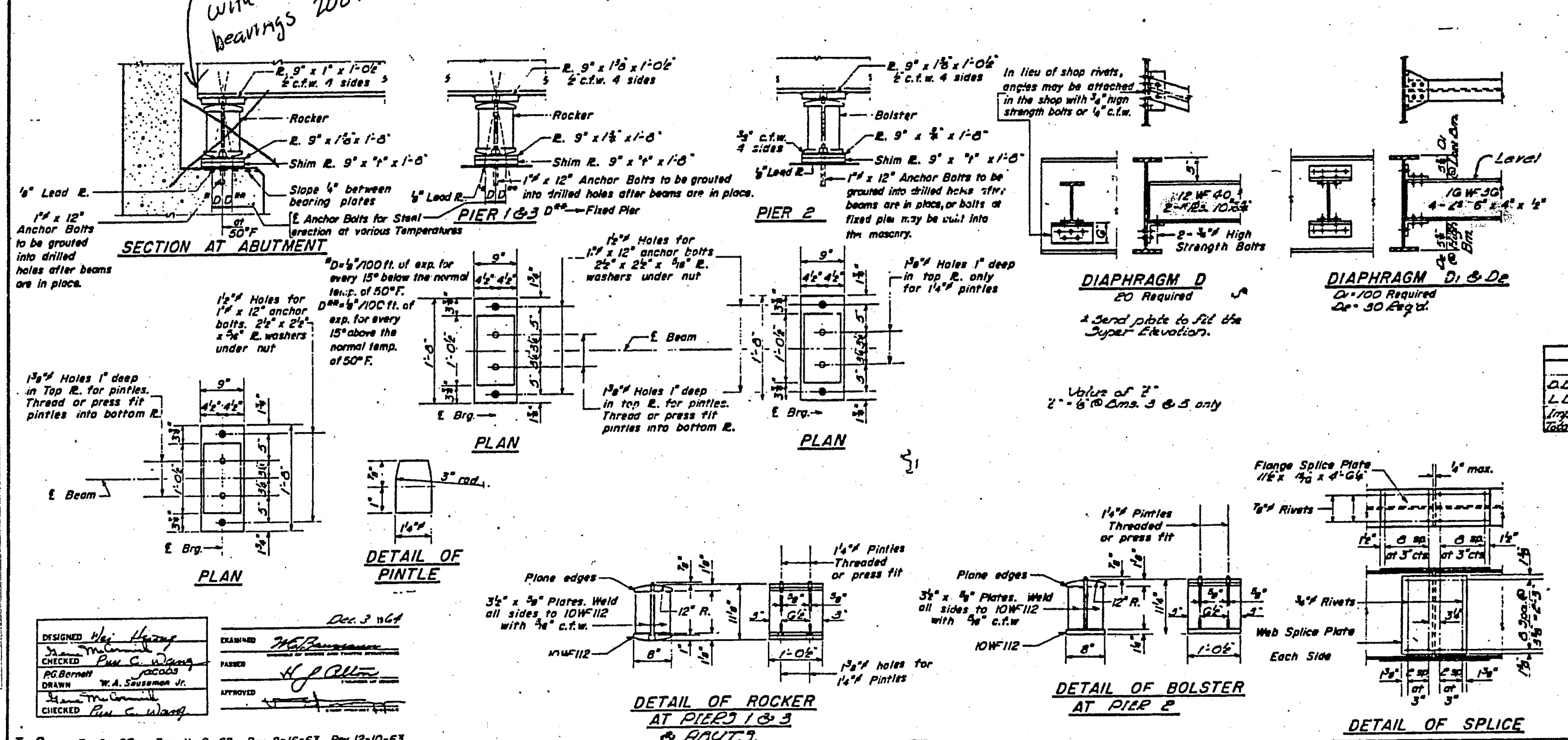


Table of Moments & Reactions for Interior Beams

	Moments				Reactions		
	4 Sp. 1	Pier 1	5 Sp. 2	Pier 2	Abut.	Pier 1	Pier 2
D.L.	196.9k	310.0k	152.2k	309.9k	18.7k	60.3k	58.3k
L.L.	318.7k	253.1k	316.9k	263.9k	33.3k	42.2k	42.8k
Imp.	88.2k	71.4k	88.0k	75.6k	9.9k	11.8k	12.0k
Total	594.8k	645.9k	557.1k	649.4k	61.9k	114.3k	113.1k

NO. & SO. BRIDGES
STRUCTURAL STEEL DETAILS
F.A. RT. 196 - SEC. 2-VB
SANGAMON COUNTY
STA. 608 + 68.24

EXISTING PLANS, SN 084-0074,0075
VARIOUS ROUTES
D6REHAB BDGE PAINTING 2011
MONT, SANG, SCHUY COUNTIES

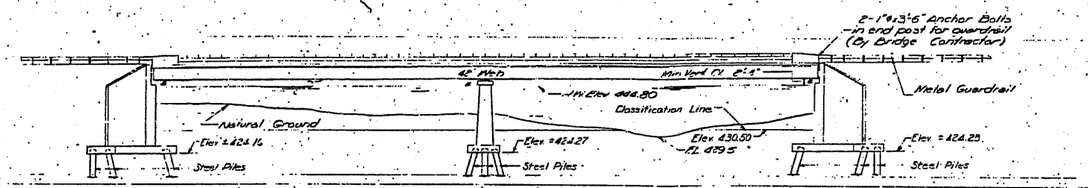
FOR INFORMATION ONLY

CONTRACT: 72D87
SHEET 13 OF 16

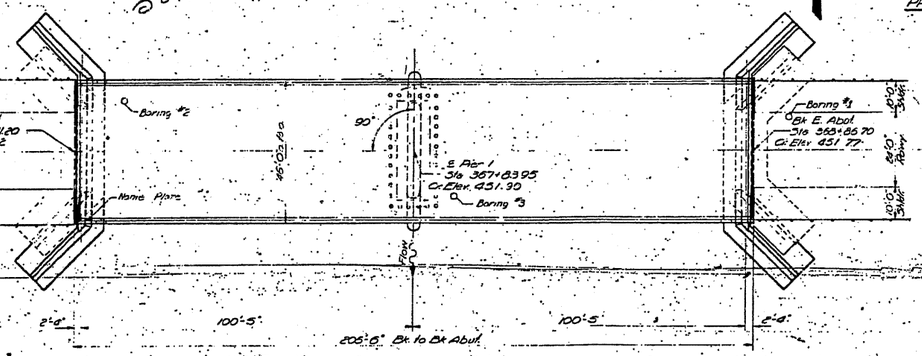
DM "A" RR Spike in Power Pole 40'±E of 36+377.90 Elev 430.57
Existing Structure built as SBI Route 103 Sec 10C-B Year built (1932). Superstructure
Truss. 2 roadway roll. RC Slab RC. Closed Abutments and solid piers
Contractor shall remove existing superstructure during construction of New Bridge. Trusses to become his property No temporary structure necessary Traffic detoured on marked route.

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

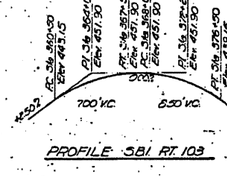
					SHEET NO. 1
F.A.P. 47	102BR	Schuyler	27	6	15 SHEETS
TOTAL SHEET NOS.	ILLINOIS	TOTAL NOS.			



ELEVATION



PLAN



PROFILE SBI RT 103

TOTAL FILL OF MATERIAL

Item	Unit	Super	Sub	Total
Concrete Removal	Cu Yds		37	37
Expansion Bolts 1"ø	Each		322	322
Removal of Existing Superstructure	Each	1		1
Cl A Excavation for Structures	Cu Yds		280	280
Protection Coat	Sq Yds	1150		1150
Class X Concrete	Cu Yds	273.2	330.2	603.4
Structural Steel	LS	1		1
Stud Shear Connectors	Each	2268		2268
Reinforcement Bars	lbs	65,417	28,623	94,040
Minimum Railing	Lin Ft	364		364
Steel Piles 10BP42	Lin Ft		3330	3330
Test Piles Steel 10BP42	Each		2	2
Cl B Excavation for Structures	Cu Yds		260	260
Name Plates	Each		1	1
Preformed Jt Sealer	Lin Ft	92		92
Class A Concrete				

GENERAL NOTES

All reinforcement bars shall be lapped 24 diameters unless otherwise shown.

Field connections shall be bolted using high strength bolts. Bolts 3/4" ø open holes 13/16" ø, unless otherwise noted.

The basic lead Silico Chromate paint system shall be used for shop and field painting of Structural Steel.

Field welding of construction accessories will not be permitted to the bottom flange of beams or girders nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding to other areas will be permitted only when approved by the Engineer.

Anchor bolts shall be set before fallaway diaphragms over supports.

It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.

The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Hundred Concrete.

The Contractor shall drive two steel test piles in permanent location, one each at both Abutment and Pier #1 at Bent as directed by the Engineer before ordering the remainder of piles.

The Back of Abutment and Back of Wing Walls shall be waterproofed from top of footing to 2' below finished grade.

Existing sheet piling at both ends of the pier and at toe of east abutment wings to be removed. (See Special Provisions)

Calculated weight of Structural Steel = 895,360 lbs.

DESIGNED	Harbel Singh	SEPTEMBER 23 1969	
CHECKED	O. Strawn	EXAMINED	
	C.L. Wilkins	PASSED	
DRAWN		APPROVED	
CHECKED	A.K.		Richard H. Gelle

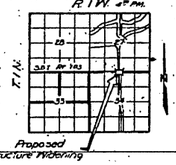
Revised 3-19-70 W.N.

WATERWAY INFORMATION

Drainage Area	25,216	Acres
Character	Rolling, Cultivated and Timber	
Required Opening	1540	Sq Ft
Provided Opening	1916	Sq Ft
Present Opening	1916	Sq Ft
Q(cs)	4600	cfs

DESIGN STRESSES

fc = 1,000 psi (Wingwall)
fc = 1200 psi (Deck Slab)
fc = 1400 psi (Curb, Parapet, Sub)
fs = 20,000 psi (Reinf.)
fs = 20,000 psi (Struct.)
n = 10
Allowable ± Deflection 4.00
LOADING H5 20-44



LOCATION SKETCH

STA 367+83.95
REBUILT 19 -BY
STATE OF ILLINOIS
F.A. RT 47 SEC. 102BR
FA PROJ F-162(11)
LOADING H520
NAME PLATE
Std. 2113-1

SBI RT 103 (ILL 103) OVER
COAL AND CRANE CREEK
PROJ F-162(11)
SBI RT 103 SEC 10C BR
SCHUYLER COUNTY
STA. 367+83.95

STRUCTURE No. 4

EXISTING PLANS, SN 085-0005
VARIOUS ROUTES
D6REHAB BDGE PAINTING 2011
MONT, SANG, SCHUY COUNTIES

FOR INFORMATION ONLY

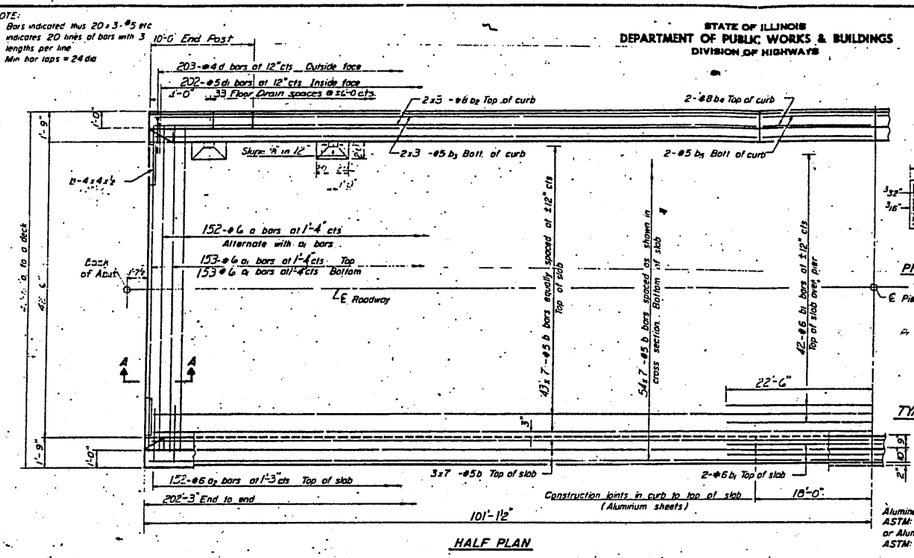
CONTRACT: 72D87
SHEET 14 OF 16

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

47	02BR	Schuyler	27	8

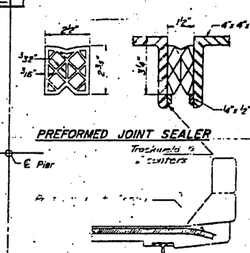
SHEET NO. 3
NO. SHEETS

NOTE:
Bars indicated thus 20 x 3 - #5 etc indicates 20 lines of bars with 3 lengths per line
Min bar laps = 24 dia



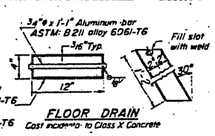
HALF PLAN

CROSS SECTION



PREFORMED JOINT SEALER

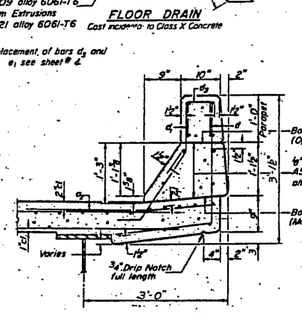
TYP END OF SEALER TREATMENT



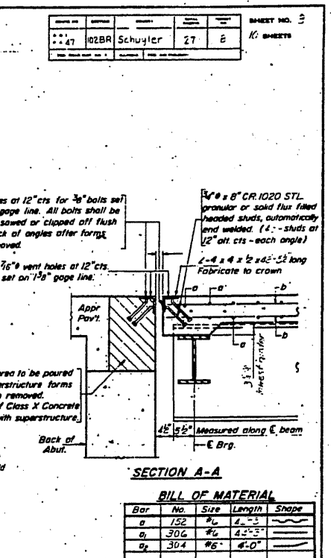
Aluminum Sheets Welded ASTM: B209 alloy 6061-T6 or Aluminum Extrusions ASTM: B221 alloy 6061-T6

FLOOR DRAIN
Cost incidental to Class X Concrete

NOTE: For placement of bars d_2 and e or e_1 see sheet # 4



CURB SECTION
Cost of Aluminum Sheets shall be incidental to Class X Concrete.



SECTION A-A

BILL OF MATERIAL

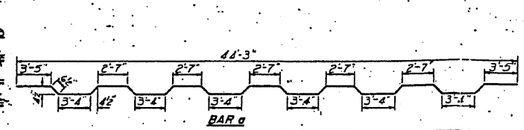
Bar	No.	Size	Length	Shape
a	152	#6	4'-3"	
a_1	306	#6	4'-3"	
a_2	304	#6	6'-0"	
b	721	#5	30'-0	
b_1	46	#6	45'-0"	
b_2	24	#8	2[illegible]	
b_3	24	#5	2'-6"	
b_4	8	#8	17'-9"	
b_5	8	#5	17'-9"	
c	106	#4	4'-6"	
d	424	#5	3'-3"	
Reinforcement Bars			Lbs.	4[illegible]
Class X Concrete			Cu Yds.	2[illegible]
* Structural Steel			Lbs.	295 3.0

* Weight of bearing assemblies with lead plates and anchor bolts are included as Structural Steel. Est. Wt. = 4190 lbs.

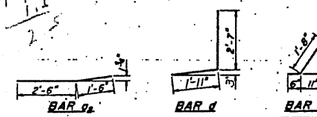
Parapet Reinforcement and Class X Concrete are billed on sheet # 4

DESIGNED	Herbert Smith
CHECKED	A. Karamoles
	C.E. Wilkins
DRAWN	
CHECKED	A.K.

Sept 23 1960
EXAMINED [illegible]
PASSED M F Baumann
APPROVED Richard H Holtermann

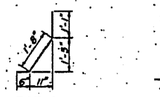


BAR a



BAR a_2

BAR d



BAR d_1

SUPERSTRUCTURE
S.B.I. RT. 103 SEC. 102BR
SCHUYLER COUNTY
STA. 367+83.95

S-586-0

FOR INFORMATION ONLY

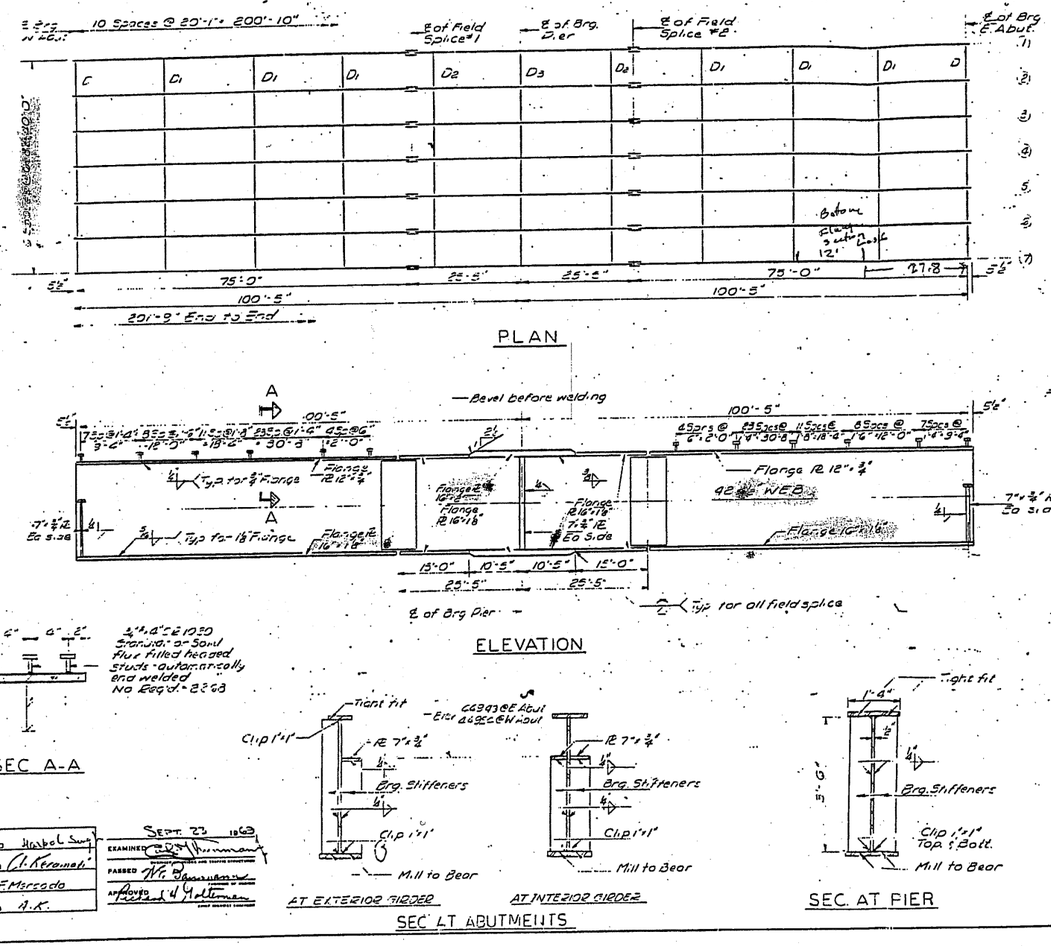
EXISTING PLANS, SN 085-0005
VARIOUS ROUTES
D6REHAB BDGE PAINTING 2011
MONT, SANG, SCHUY COUNTIES

CONTRACT: 72D87
SHEET 15 OF 16

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

DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
D-6 FAI 47	028A	Schuyler	27	10
FED. ROAD DIST. NO. 5	ILLINOIS	FED. AID PROJECT		

SHEET NO. 5
10 SHEETS



DESIGNED	Haskel Swy	EXAMINED	
CHECKED	C.L. Kramer	PASSED	
DRAWN	F. Mercado	APPROVED	
CHECKED	A.K.		

SEPT 27 1963

085 - 0005

STRUCTURAL STEEL
S.B.I. RTE 103 SEC. 102BR
SCHUYLER COUNTY
STA 367+83.95

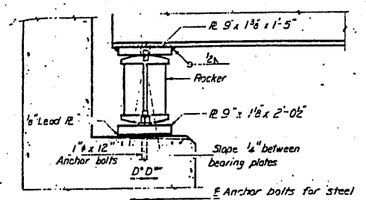
FOR INFORMATION ONLY

EXISTING PLANS, SN 085-0005
VARIOUS ROUTES
D6REHAB BDGE PAINTING 2011
MONT, SANG, SCHUY COUNTIES

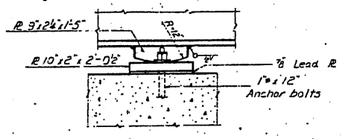
CONTRACT: 72D87
SHEET 16 OF 16

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

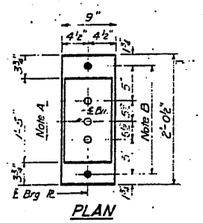
SHEET NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
A.A. 47	102BR	Schuyler	27	11



SECTION

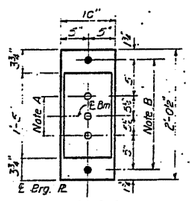


ELEVATION



PLAN
AT ABUTMENT

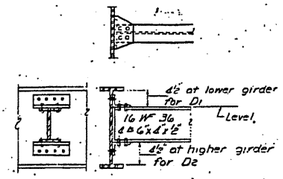
NOTE A
1⅜" ϕ Holes – 1" deep in top PL for pintles. Thread or press fit pintles into bottom PL.



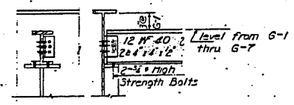
PLAN
AT PIER

NOTE B
1½" ϕ Holes for 1" ϕ anchor bolts 2½" x 2½" x ⅝" PL Washers under nut.

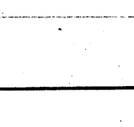
BEARING ASSEMBLY DETAILS



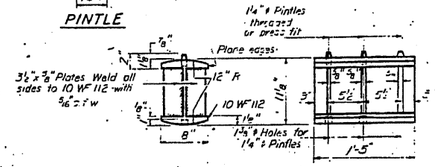
DIAPHRAM D1 & D2
48 Required



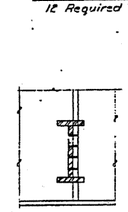
DIAPHRAGM D
12 Required



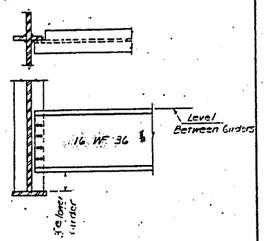
PINTLE



ROCKER



DIAPHRAGM D3
6 Required



NOTES ON SETTING OF ANCHOR BOLTS AT EXP BRGS.

a) D" (Srr. of brg away from fixed brg)
D" = 0 per each 100' of expansion for every 15° fall below the normal temperature of 50° F

D"" (Side of brg toward fixed brg)
D"" = 0 per each 100' of expansion for every 15° rise above the normal temperature of 50° F

b) After beams have been erected and dimensions D' or D" determined, holes may be drilled and anchor bolts shall be grouted in place. All fixed anchor bolts may be built into the masonry.

TOP OF WEB ELEVATIONS

Location	G-1	G-2	G-3	G-4	G-5	G-6	G-7
℄ Brg W. Abut	450.79	450.92	451.03	451.13	451.03	450.92	450.79
℄ Splice 1	450.78	450.91	451.02	451.12	451.02	450.91	450.78
℄ Brg Pier	450.78	450.91	451.02	451.12	451.02	450.91	450.78
℄ Splice 2	450.78	450.91	451.02	451.12	451.02	450.91	450.78
℄ Brg E Abut	450.74	450.87	450.98	451.08	450.98	450.87	450.74

(For Fabrication only)

TABLE OF MOMENTS AND REACTIONS

	Moments		Reactions	
	4 span for 2	Pier	Abutment	Pier
Initial Dead Load	883.13	1253.45	311.5	116.45
Composite Dead Load	191.57	357.64	99.9	32.24
Live Load	764.38	451.34	329.4	75.5
Impact	169.54	145.35	73.1	17.6
Total	1456.42	2467.98	813.9	232.49

PROPERTIES OF SECTIONS

	Steel Section		Comp Sec
	4 span for 2	Pier	4 span for 2
I	127455 in⁴	34063 in⁴	37020 in⁴
S_t	5716 in³	1481 in³	3687 in³
S_b	518 in³	1401 in³	1094 in³

DESIGNED Walter Lund
CHECKED J. Kermicle
DRAWN C.E Wilkins
CHECKED A.K.

Sept. 23 1969
EXAMINED
PASSED
APPROVED Robert H. Gutterman

BEARING DETAILS
S.B.I. RT. 103 SEC. 102BR
SCHUYLER COUNTY
STA. 367+83.35

FOR INFORMATION ONLY

EXISTING PLANS, SN 085-0005
VARIOUS ROUTES
D6REHAB BDGE PAINTING 2011
MONT, SANG, SCHUY COUNTIES