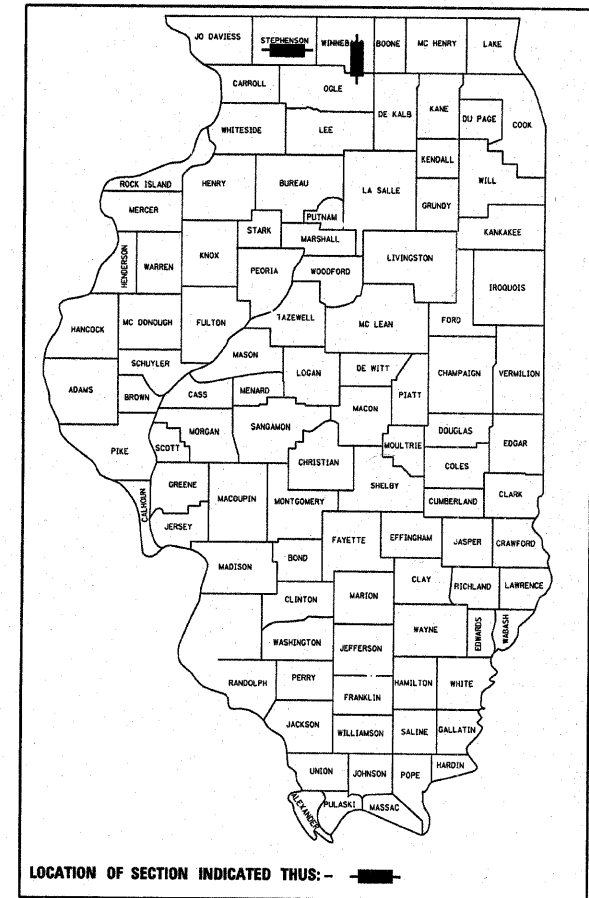


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5	D2	STEPHENSON & WINNEBAGO	14	1

- FAP 5 & FAI 39
- D2 Bridge Painting 2009-1
- Stephenson & Winnebago

D-92-005-09

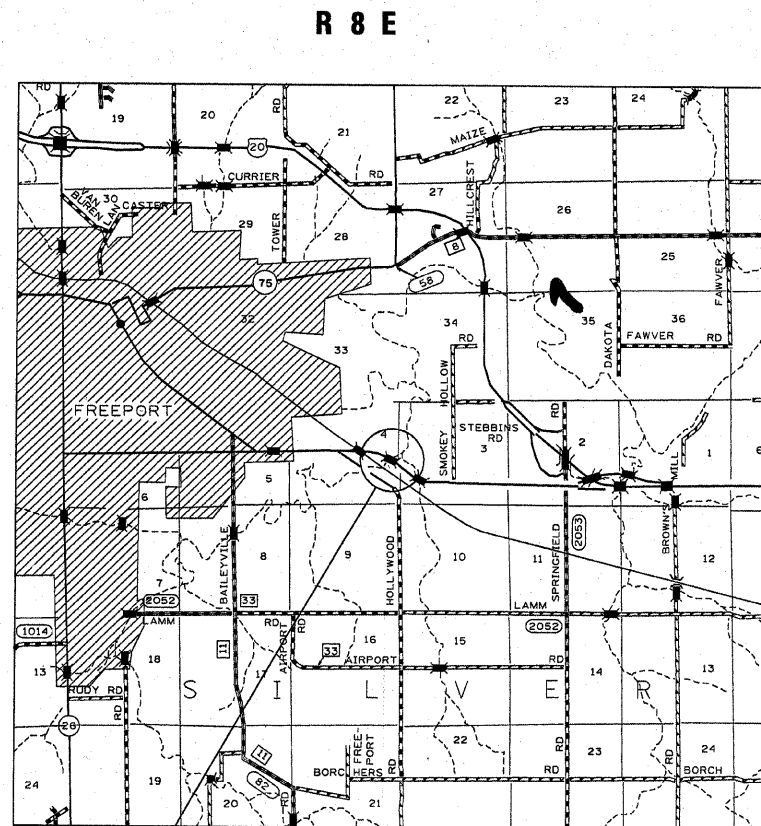


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAP ROUTE 5 & FAI ROUTE 39 (US Business 20 & I-39)
SECTION D2 Bridge Painting 2009-1
Stephenson & Winnebago Counties
C-92-030-09

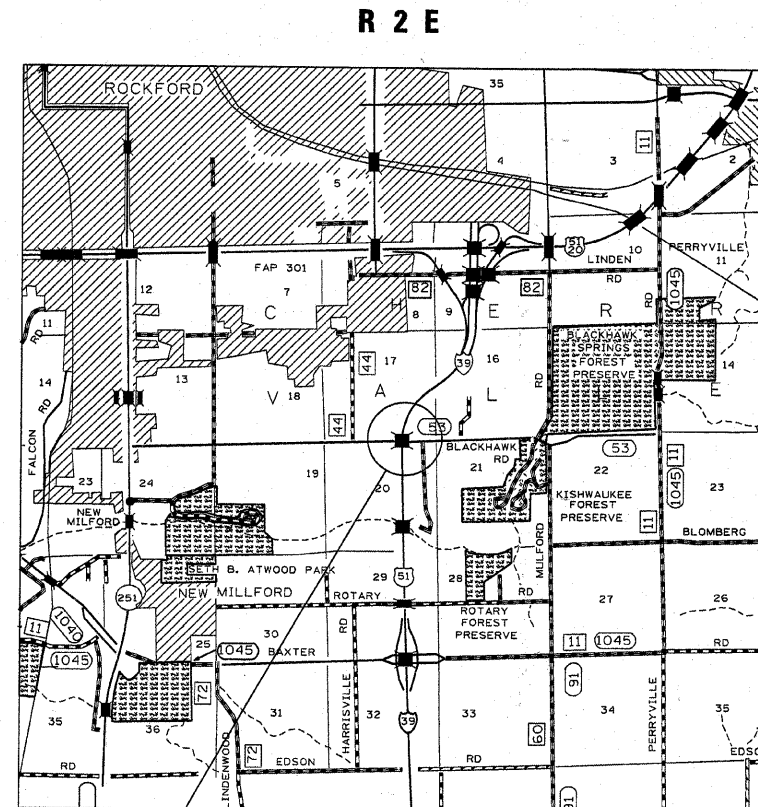
FOR INDEX OF SHEETS, SEE SHEET NO. 2



T 26 N

Stephenson

SN 089-0008



T 43 N

Winnebago

SN 101-0142
SN 101-0143

Bridge Maintenance Engineer
Mahmoud Etemadi (815) 284-5393

Bridge Paint Technician
Dan Link (815) 284-5416

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

CONTRACT NO. 64E62

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

10/15 20 08
Eric E. Haral
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

December 5, 20 08
Christine M. Reed
INTERIM ENGINEER OF DESIGN AND ENVIRONMENT

December 5, 20 08
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
..	**	***	14	2
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT _____		

- * FAP 5 & FAI 39 (US 20 Bus. & I-39)
- ** Section D2 Bridge Painting 2009-1
- *** Stephenson & Winnebago Counties

Index of Sheets

1. Cover Sheet
2. Index, General Notes
3. Summary of Quantities
4. Traffic Control Plan
5. -8. Existing Structure Plans SN 089-0008
9. -13. Existing Structure Plans SN 101-0142 & 101-0143
14. District Standard 99.4

General Notes:

A minimum of two (2) air monitors will be required to monitor abrasive blasting operations at EACH site, see special provision for "Containment and Disposal of Lead Paint Cleaning Residues."

THE SSPC QP-1 AND QP-2 CERTIFICATIONS WILL NOT BE REQUIRED FOR THIS CONTRACT

Standards

- 701101-02 Off-Road Operations, Multilane, 4.5 m (15') to 600 mm (24") From Pavement Edge
 701106-02 Off-Road Operations, Multilane, More Than 4.5 m (15') Away
 701301-03 Lane Closure, 2L, 2W, Short Time Operations
 701321-10 Lane Closure, 2L, 2W, Bridge Repair with Barrier
 701606-06 Urban Lane Closure, Multilane, 2W with Mountable Median
 701901-01 Traffic Control Devices
 704001-05 Temporary Concrete Barrier
 720001-01 Sign Panel Mounting Details
 728001-01 Telescoping Steel Sign Support
 729001-01 Applications of Types A and B Metal Posts (For Signs & Markers)

District Standard 99.4 Stop Line for Temporary Signals

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	***	14	3
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

- * FAP 5 & FAI 39 (US 20 Bus.& I-39)
- ** Section D2 Bridge Painting 2009-1
- *** Stephenson & Winnebago Counties

Summary of Quantities

100% State
SFTY-2A

Pay Item Number	Description	Units	Total Quantity	Winnebago	Stephenson
50606401	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO.1	L SUM	1	1	0
50606402	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO.2	L SUM	1	1	0
50606403	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO.3	L SUM	1	0	1
50606701	CLEANING AND PAINTING STRUCTURAL STEEL, LOCATION 1	L SUM	1	1	0
50606702	CLEANING AND PAINTING STRUCTURAL STEEL, LOCATION 2	L SUM	1	1	0
50606703	CLEANING AND PAINTING STRUCTURAL STEEL, LOCATION 3	L SUM	1	0	1
67100100	MOBILIZATION	L SUM	1	0.5	0.5
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1	0
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	0	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1	0
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	454	454	
70300200	TEMPORARY PAVEMENT MARKING	FOOT	2080	1360	720
70400100	TEMPORARY CONCRETE BARRIER	FOOT	388	388	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	100	100	
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	2175	2175	
78300100	PAVEMENT MARKING REMOVAL	SQ FT	25	25	
X5067501	BRIDGE CLEANING AND PAINTING WARRANTY NUMBER 1	L SUM	1	1	0
X5067502	BRIDGE CLEANING AND PAINTING WARRANTY NUMBER 2	L SUM	1	1	0
X5067503	BRIDGE CLEANING AND PAINTING WARRANTY NUMBER 3	L SUM	1	0	1
** Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
** Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2	

** SFTY-3N

* SPECIALTY ITEM

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
..	**	***	14	4
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

* FAP 5 & FAI 39 (US 20 Bus. & I-39)
 ** Section D2 Bridge Painting 2009-1
 *** Stephenson & Winnebago Counties

TRAFFIC CONTROL PLAN

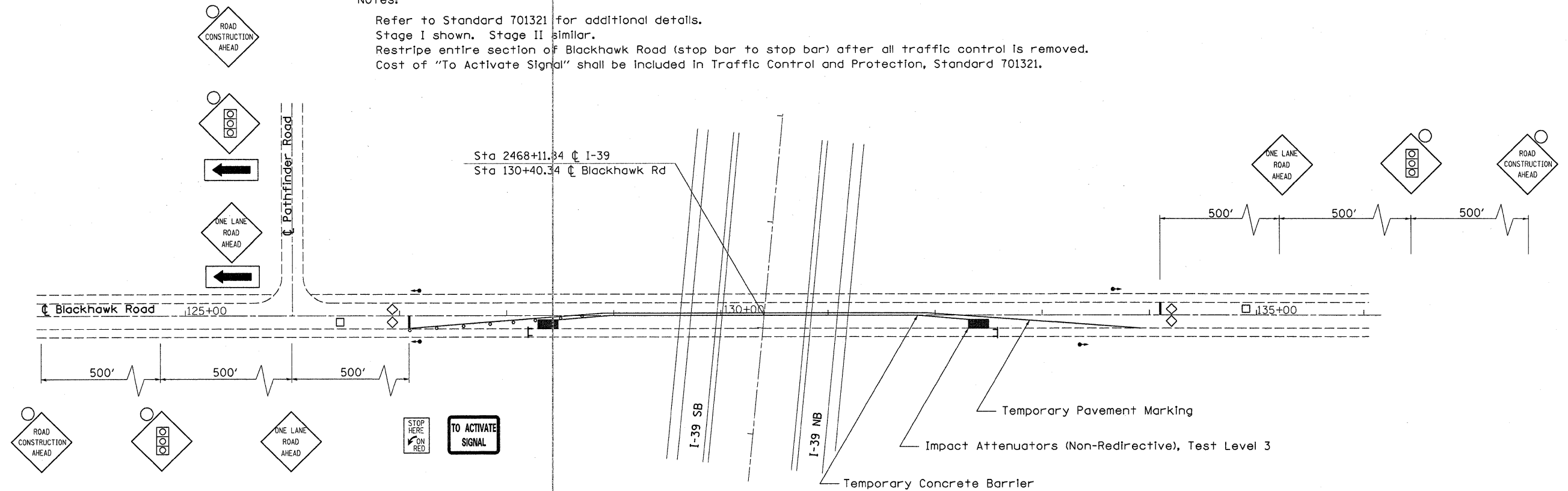
Blackhawk Road

No Scale



Notes:

Refer to Standard 701321 for additional details.
 Stage I shown. Stage II similar.
 Restripe entire section of Blackhawk Road (stop bar to stop bar) after all traffic control is removed.
 Cost of "To Activate Signal" shall be included in Traffic Control and Protection, Standard 701321.



Temporary Concrete Barrier Wall

	Feet
Stage I	
Tangent	287.50
2 Tapers @ 50' Each	100
Total	387.50

Relocate Temporary Concrete Barrier Wall

	Feet
Stage I	
2 Tapers @ 50' Each	100
Total	100

TRAFFIC CONTROL AND PROTECTION, STANDARD 701321

	Each
Entire Project	1
Total	1

TEMPORARY BRIDGE TRAFFIC SIGNALS

	Each
Entire Project	1
Total	1

Pavement Marking Removal

	Sq Ft
Skip Dash	25
Total	25

Temporary Pavement Marking

	Feet
Stage I	
White Edge Line 4"	680
Stage II	
White Edge Line 4"	680
Total	1360

Work Zone Pavement Marking Removal

	Sq Ft
Stage I	227
Stage II	227
Total	454

Thermoplastic Pavement Marking - Line 4"

	Foot
Edge Line	1450
Centerline Skip Dash	725
Total	2175

Impact Attenuators, Temporary

	Each
Stage I	2
Total	2

Impact Attenuators, Relocate

	Each
Stage II	2
Total	2

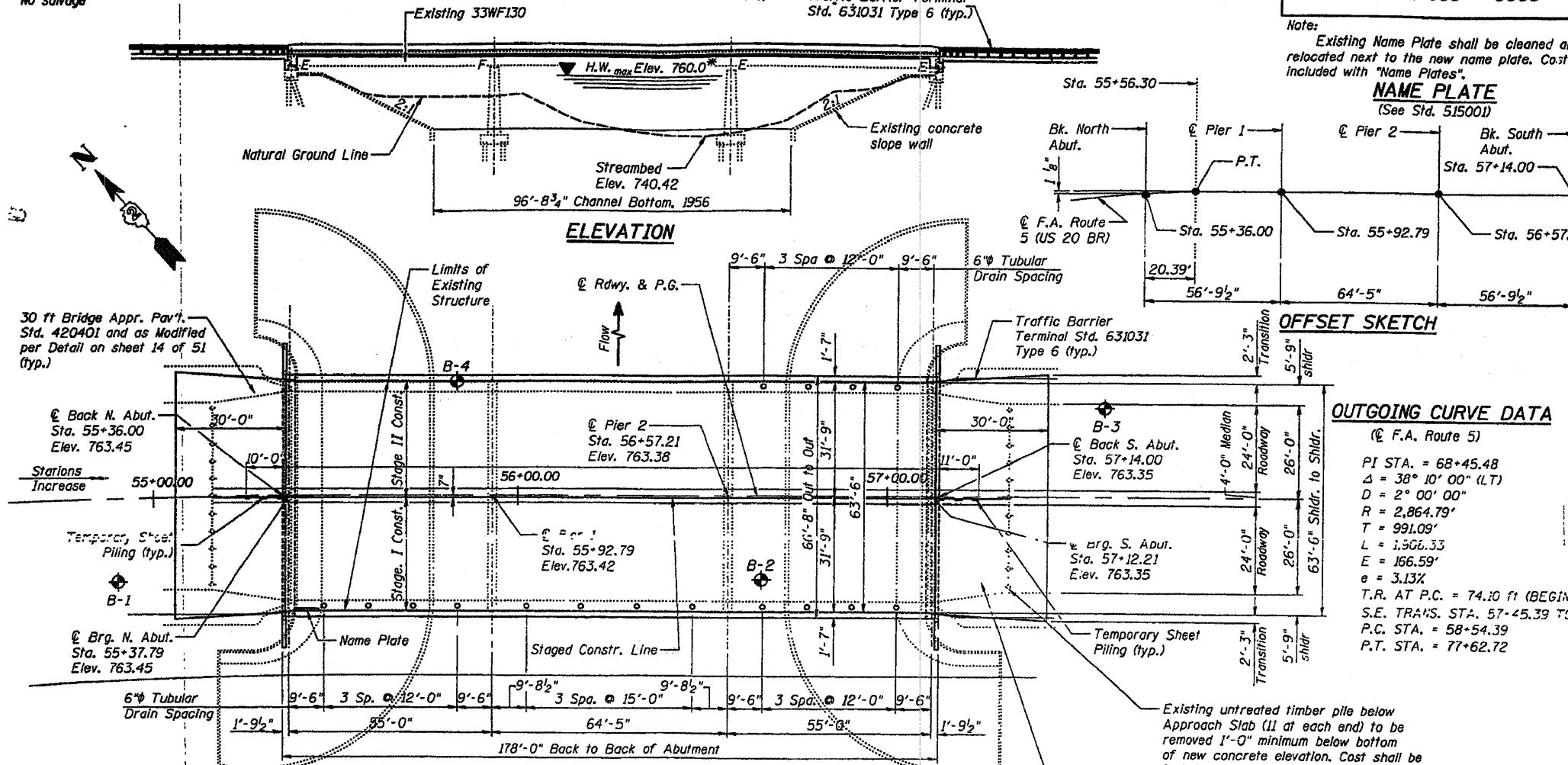
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5	19	BR	2-D	14
STA.	TO STA.			
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* Bench Mark Sta 57 1300 318 R offset Elev 763 329 chiseled "□" on southeast corner of bridge.
 Existing Structure SN 089 0008 Built in 1956 as SBI 5, Section 19B-1, at Sta. 56+25.00.
 Existing structure consists of a reinforced concrete deck with approximately 2" of plasticized concrete for an 8" thick slab. The superstructure is supported by concrete stub abutments and concrete piers on solid timber pile 178 0 Bk Bk of abuts. Clear deck width is 58'-0" with two 12 foot lanes in each direction with a 6 foot flush median. Concrete deck and abutment bearings to be removed and replaced. Two lanes of traffic to be maintained utilizing stage construction.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

STATION 56+25.00
 REBUILT 20__ BY
 STATE OF ILLINOIS
 F.A. ROUTE 5 SEC. 19 BR-2-D
 LOADING HS20-44
 STR. NO. 089 - 0008

No salvage



INCOMING CURVE DATA
 (F.A. Route 5)
 P.I. STA. = 47+41.70
 $\Delta = 42^\circ 51' 00''$ (RT)
 $D = 2^\circ 30' 00''$
 $R = 2,291.83'$
 $T = 899.31'$
 $L = 1,714.00'$
 $E = 170.13'$
 $e = 4.5\%$
 T.R. AT P.T. = 89 ft
 S.E. RUN = 200 ft (50% ON TAN & 50% ON CURVE)
 P.C. STA. = 38+42.39
 P.T. STA. = 55+56.39
 S.E. TRANS. STA. 54+56.39 TO 57+45.39
 2.00% NORMAL CROWN AT 57+45.39

DESIGNED	L.C.M.
CHECKED	S.D.K.
DRAWN	T.L.N.
CHECKED	S.D.K.

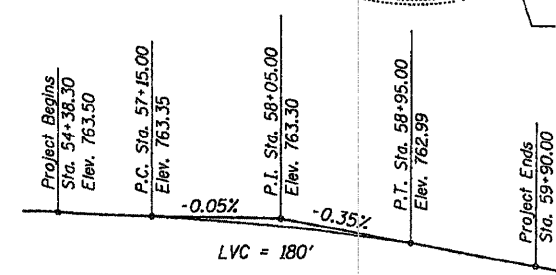
EXAMINED	20
PASSED	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

BORING LOCATION TABLE

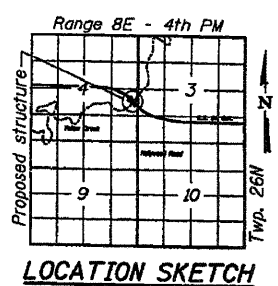
No.	Station	Offset
B-1	54+90.00	23.0' Rt.
B-2	56+67.00	23.0' Rt.
B-3	57+60.00	25.0' Lt.
B-4	55+83.00	32.0' Lt.

WATERWAY INFORMATION*
 Drainage Area = 194 sq. mi.
 Low Grade Elev. 761.63 @ Sta. 67+00.00
 Low Beam Elev. 759.065
 Max. Recorded Highwater Elev. 760.0

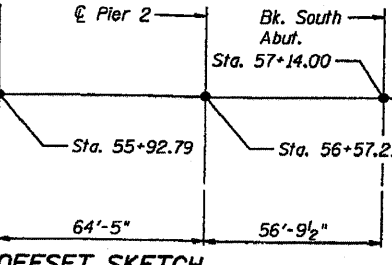
* An abbreviated hydraulic study was completed. Design discharges, highwater elevations, and waterway openings were not computed.



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



Note:
 Existing Name Plate shall be cleaned and relocated next to the new name plate. Cost included with "Name Plates".
NAME PLATE
 (See Std. 515001)



OUTGOING CURVE DATA
 (F.A. Route 5)
 P.I. STA. = 68+45.48
 $\Delta = 38^\circ 10' 00''$ (LT)
 $D = 2^\circ 00' 00''$
 $R = 2,864.79'$
 $T = 991.09'$
 $L = 1,906.33'$
 $E = 166.59'$
 $e = 3.13\%$
 T.R. AT P.C. = 74.10 ft (BEGIN @ STA. 57+45.39)
 S.E. TRANS. STA. 57+45.39 TO 59+35.39
 P.C. STA. = 58+54.39
 P.T. STA. = 77+62.72

LOADING HS20-44
 Allow 50#/sq. ft. for future wearing surface.
DESIGN SPECIFICATIONS
 1996 AASHTO with 1997, 1998, 1999, 2000, and 2002 Interims
DESIGN STRESSES

EXISTING STRUCTURE
 $f_c = 800$ psi (Substructure)
 $f_c = 1400$ psi (Superstructure)
 $f_y = 20,000$ psi (Reinforcement)
 $f_y = 33,000$ psi (Structural Steel)
NEW CONSTRUCTION
 $f'_c = 3500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 36,000$ psi (Structural Steel)

SEISMIC DATA
 Seismic Performance Category (SPC) = A
 Bedrock Acceleration Coefficient (A) = 3.1% g
 Site Coefficient (S) = 1.5

GENERAL NOTES
 Fasteners shall be high strength bolts. Bolts $\frac{3}{4}"$ ϕ open holes $\frac{7}{8}"$ ϕ unless otherwise noted.
 Field welding of construction accessories will not be permitted to beams or girders.
 Reinforcement bars shall conform to the requirements of AASHTO M-31, M-32Z Grade 60.
 Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to normal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work. However, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
 Prior to pouring the new concrete deck, all loose rust, loose mill scale, and other loose potentially detrimental foreign material shall be removed from the surfaces of the beams or girders in contact with concrete. The cost of this work will be included in the pay item covering removal of existing concrete. All heavy rust and other tightly adhered potentially detrimental foreign matter shall also be removed from the surfaces of the beams or girders in contact with concrete. Tightly adhered paint may remain unless otherwise noted. This removal shall be accomplished by methods that will not damage the steel. The cost of this work will be paid for according to Article 109.04.
 All existing construction accessories welded to the top flange over the pier(s) between the quarter points of the beams or girders shall be removed. The remaining weld shall be ground smooth and inspected for cracks using magnetic particle testing. Any cracks that can not be removed by grinding approximately $\frac{1}{4}$ inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of this work will be paid for according to Article 109.04.
 All new structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1.
 Painting of structural steel will be done under a separate painting contract.
 The existing structural steel coating contains lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project.
 The beams for this bridge were not designed to resist any torsional loads. The contractor must provide the necessary bracing to support the beams.
 All construction joints shall be bonded.
 The cost of any temporary bracing deemed necessary shall be included in the bid.
 Cost of removing existing bridge rail is included with "Removal of Existing Concrete Deck".

TOTAL BILL OF MATERIAL

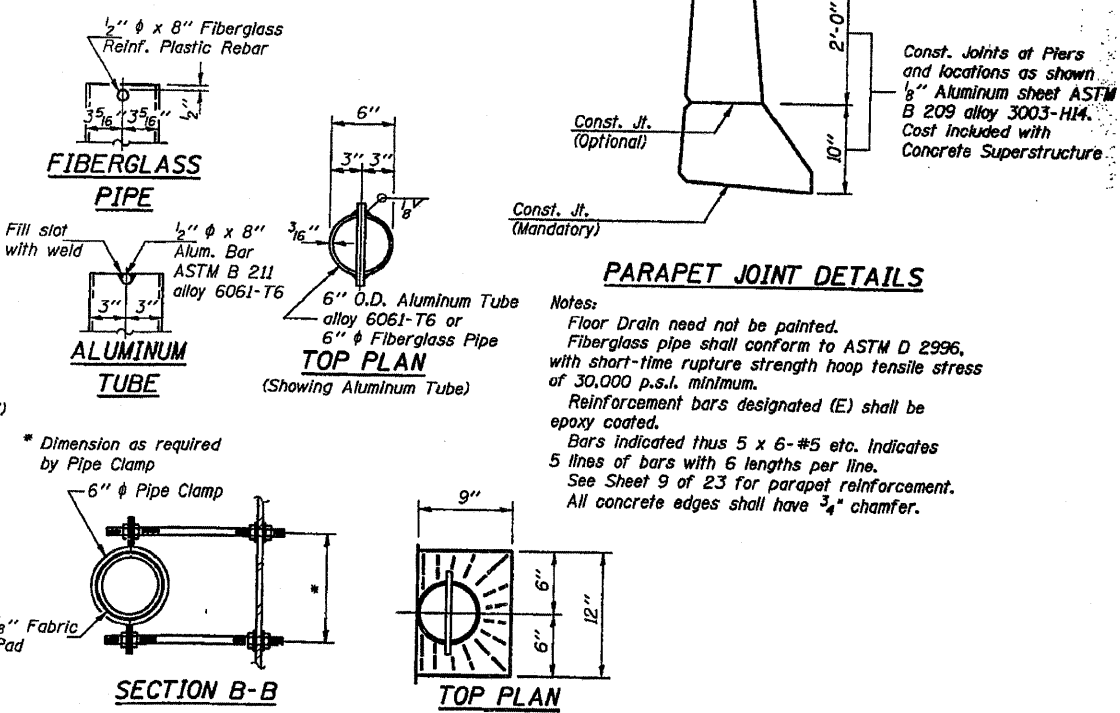
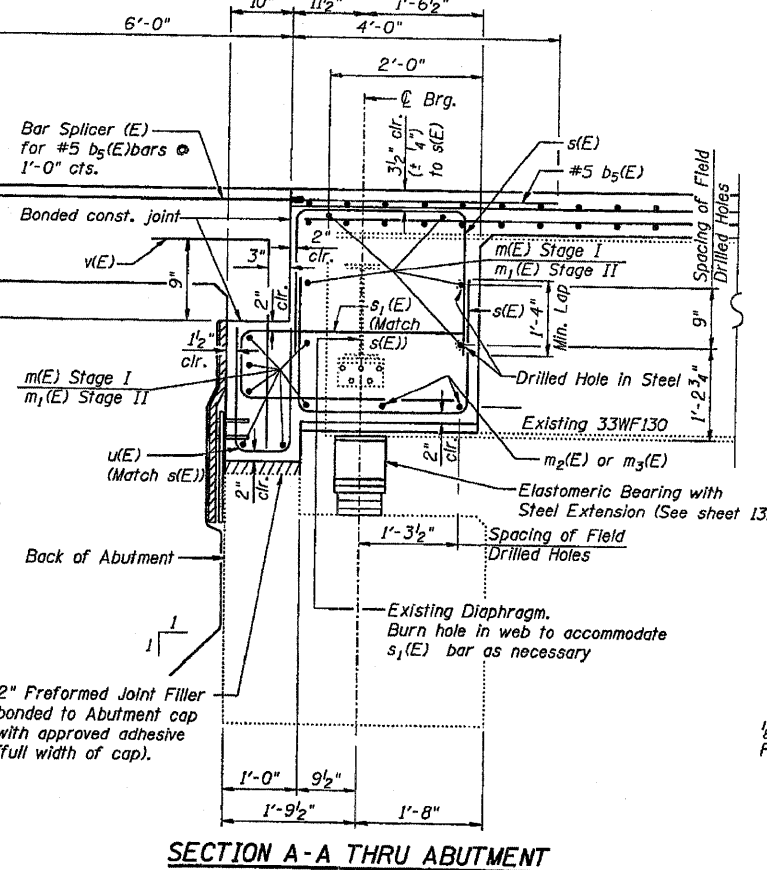
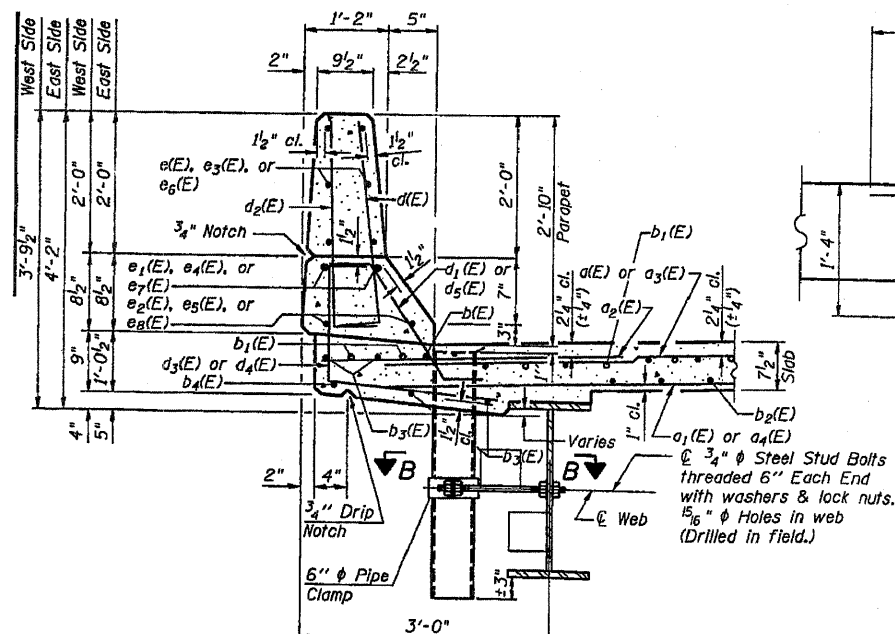
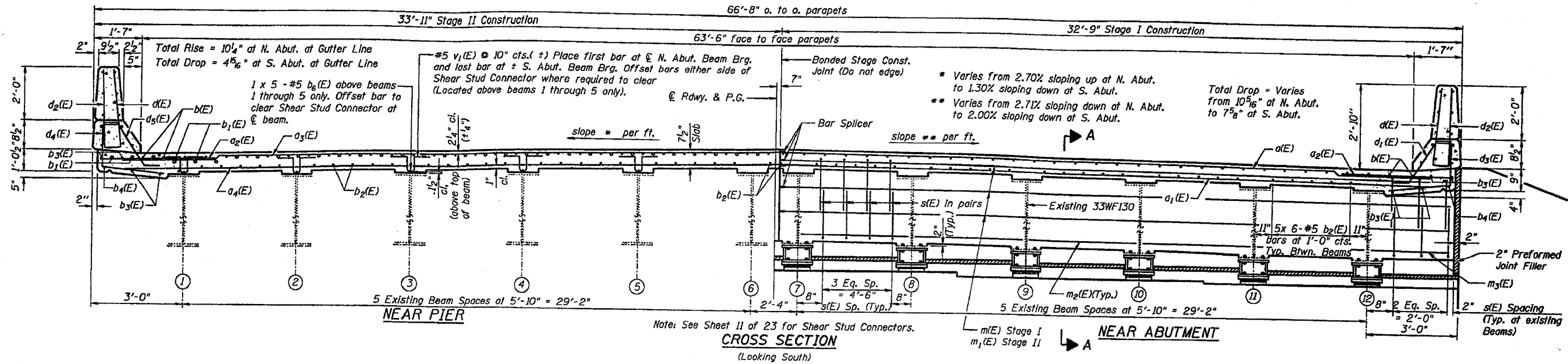
ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Concrete Deck	Each	1	-	1
Concrete Removal	Cu. Yd.	-	27.5	27.5
Structure excavation	Cu. Yd.	-	100.3	100.3
Floor Drains	Each	16	-	16
Concrete Superstructure	Cu. Yd.	397.7	-	397.7
Protective Coat	Sq. Yd.	1 393	-	1 393
Elastomeric Bearing Assembly Type I	Each	24	-	24
Concrete Structures	Cu. Yd.	-	11.7	11.7
Stud Shear Connectors	Each	4 896	-	4 896
Reinforcement Bars, Epoxy Coated	Pound	81 978	2 226	84 204
Temporary Sheet Piling	Sq. Ft.	-	581	581
Bar Splicers	Each	673	-	673
Name Plates	Each	1	-	1
Bridge Deck Grooving	Sq. Yd.	1 205	-	1 205
Jack and Remove Existing Bearings	Each	24	-	24
Formed Concrete Repair Depth > 5"	Sq. Ft.	-	28.3	28.3
Furnishing and Erecting Structural Steel	Pound	4 448	-	4 448
Porous Granular Embankment	Cu. Yd.	-	272.5	272.5

Existing Plans SN 089-0008 FOR INFORMATION ONLY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
---	---	---	14	6
STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

* FAP 5 & FAI 39 (US 20 Bus. & I-39)
** Section D2 Bridge Painting 2009-1
*** Stephenson & Winnebago Counties



DESIGNED	L.C.M.	EXAMINED	20
CHECKED	S.D.K.	PASSED	ENGINEER OF BRIDGE DESIGN
DRAWN	T.L.N.		ENGINEER OF BRIDGES AND STRUCTURES
CHECKED	S.D.K.		

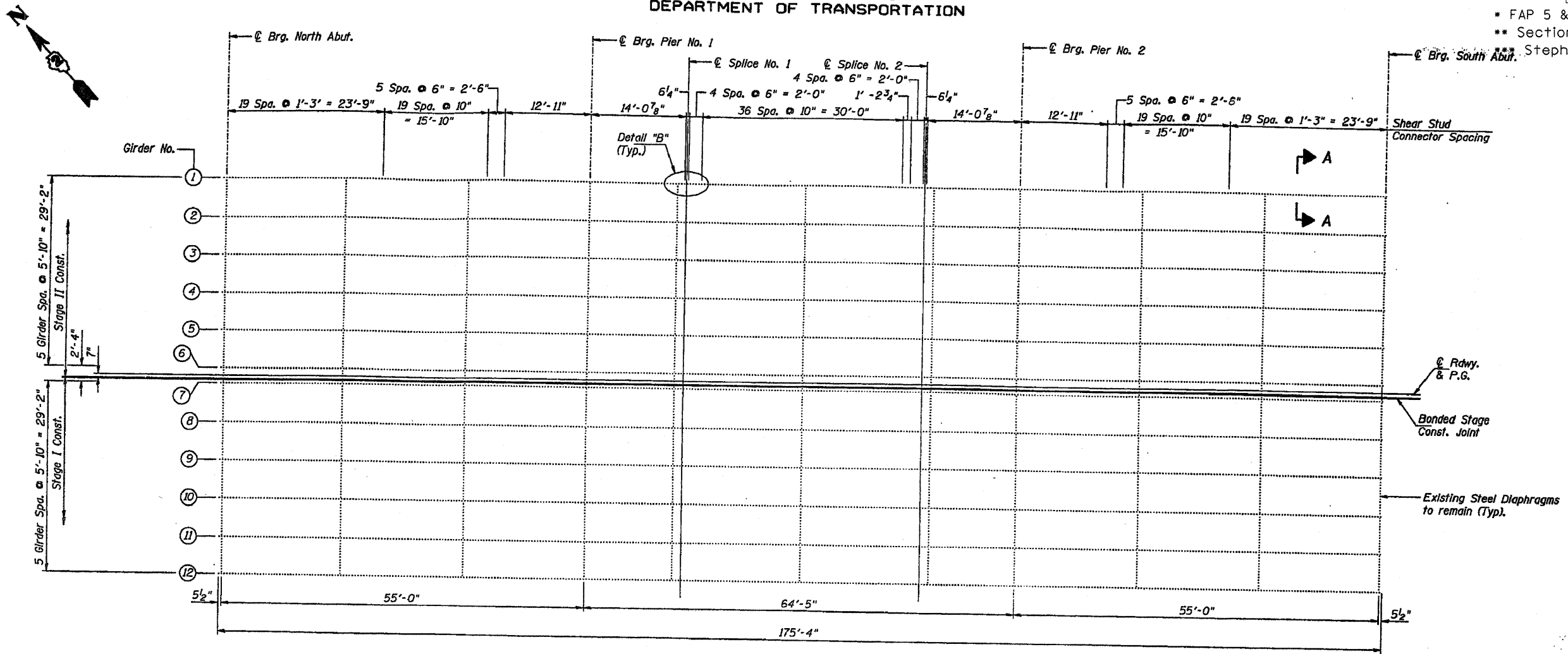
Existing Plans SN 089-0008 FOR INFORMATION ONLY

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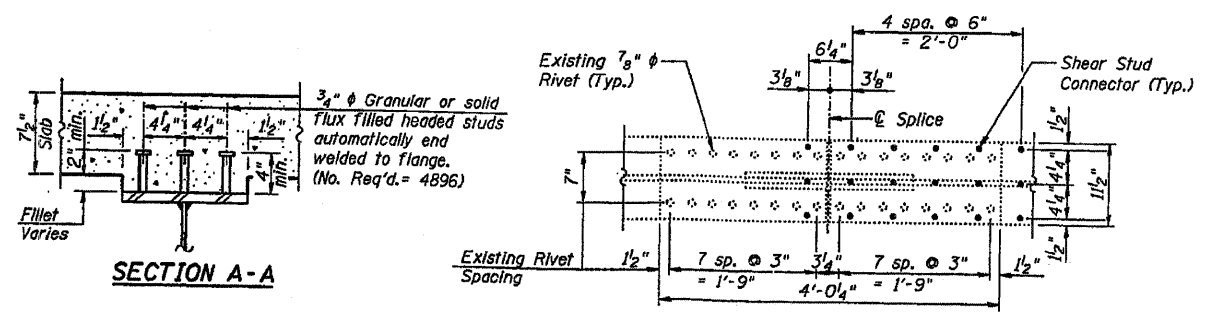
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..-2-	..-2-	..-2-	..-14-	..-7-
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

* FAP 5 & FAI 39 (US 20 Bus. & I-39)
** Section D2 Bridge Painting 2009-1
*** Stephenson & Winnebago Counties



FRAMING PLAN



SECTION A-A

DETAIL B

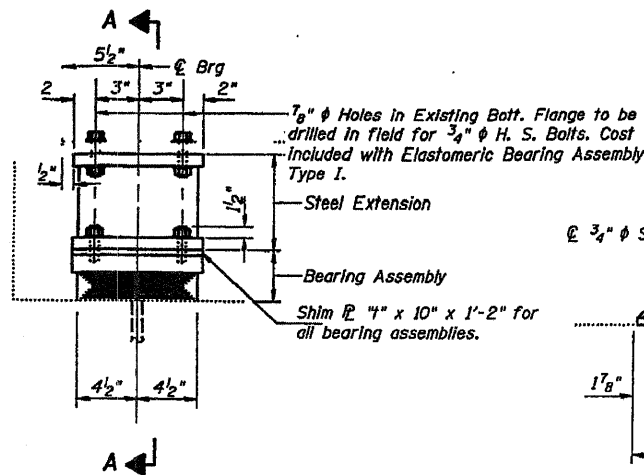
All Beams are W33x130.
All Diaphragms are W16x36.

DESIGNED	LCM	20
CHECKED	SDK	EXAMINED
DRAWN	T.L.N.	PASSED
CHECKED	SDK	ENGINEER OF BRIDGE DESIGN
		ENGINEER OF BRIDGE AND STRUCTURES

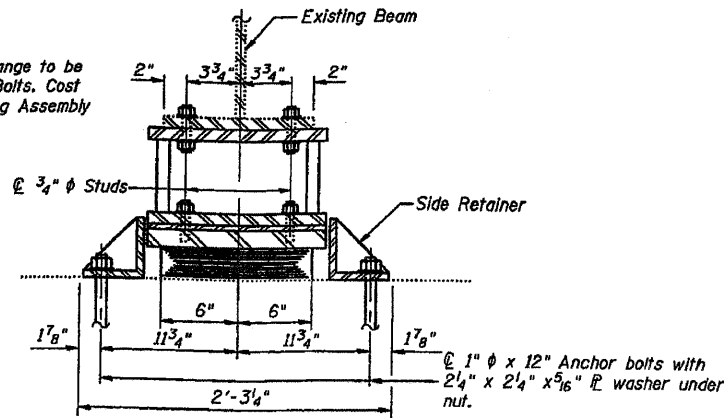
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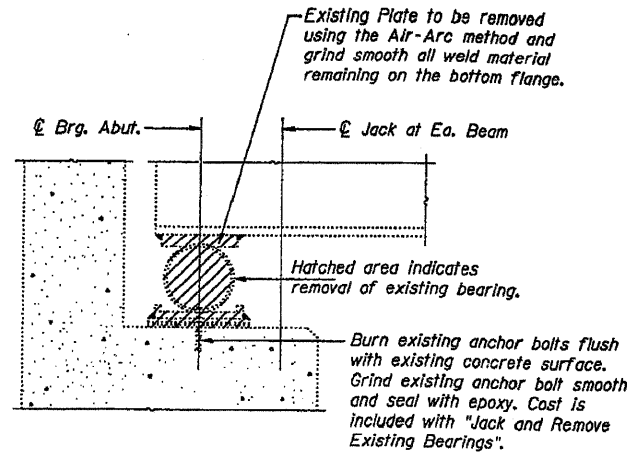
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
---	---	---	14	8
STA. -----		TO STA. -----		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



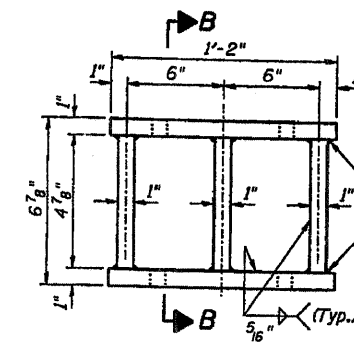
ELEVATION AT ABUT.



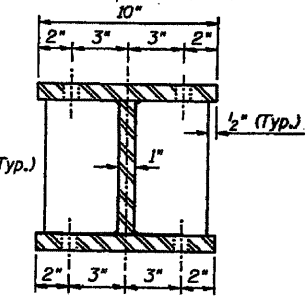
SECTION A-A



EXISTING BEARING REMOVAL DETAIL AT ABUTMENTS



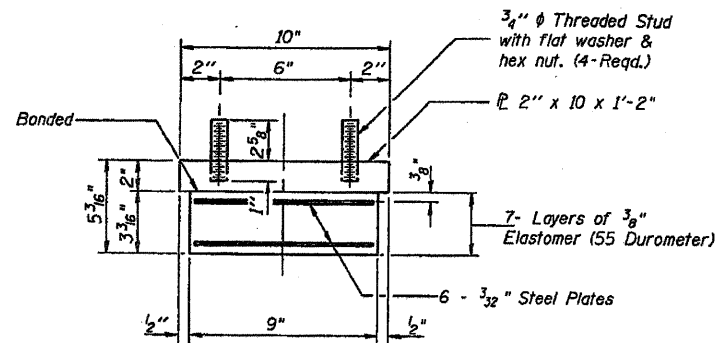
STEEL EXTENSION DETAIL



SECTION B-B

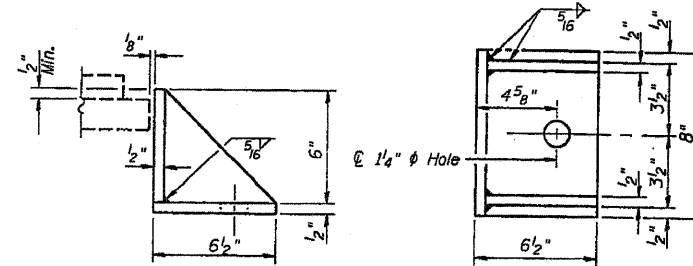
TYPE I ELASTOMERIC EXP. BRG.

Note: See sheet 14 for Anchor Bolt Installation.

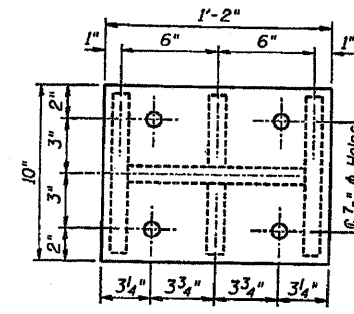


BEARING ASSEMBLY

Note: Shim plates shall not be placed under Bearing Assembly.



SIDE RETAINER



PLAN TOP AND BOTTOM PLATE

Note: Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	24
Jack and Remove Existing Bearings	Each	24
Furnishing and Erecting Structural Steel	Pound	4448

Beam No.	Shim Thickness "											
	1	2	3	4	5	6	7	8	9	10	11	12
North Abut.	0	0	0	0	0	0	0	0	0	0	0	0
South Abut.	0	9/16"	0	9/16"	0	9/16"	9/16"	0	9/16"	0	9/16"	0

JACK AND REMOVE EXISTING BEARINGS NOTES

- The Contractor shall submit for approval by the Engineer, plans for jacking prior to commencing any work at the bearings.
- Jacking and removing existing bearing shall be done after existing deck removal is completed and before a new deck is poured. The existing Abutment Diaphragms shall remain in place.
- The maximum dead load reaction with deck removed (per bearing) at each abutment is 4.4k. Minimum jack capacity at the abutments is 8.8k.
- The new bearings and steel extensions shall be in place and the jacks shall be lowered before the new concrete deck is poured.

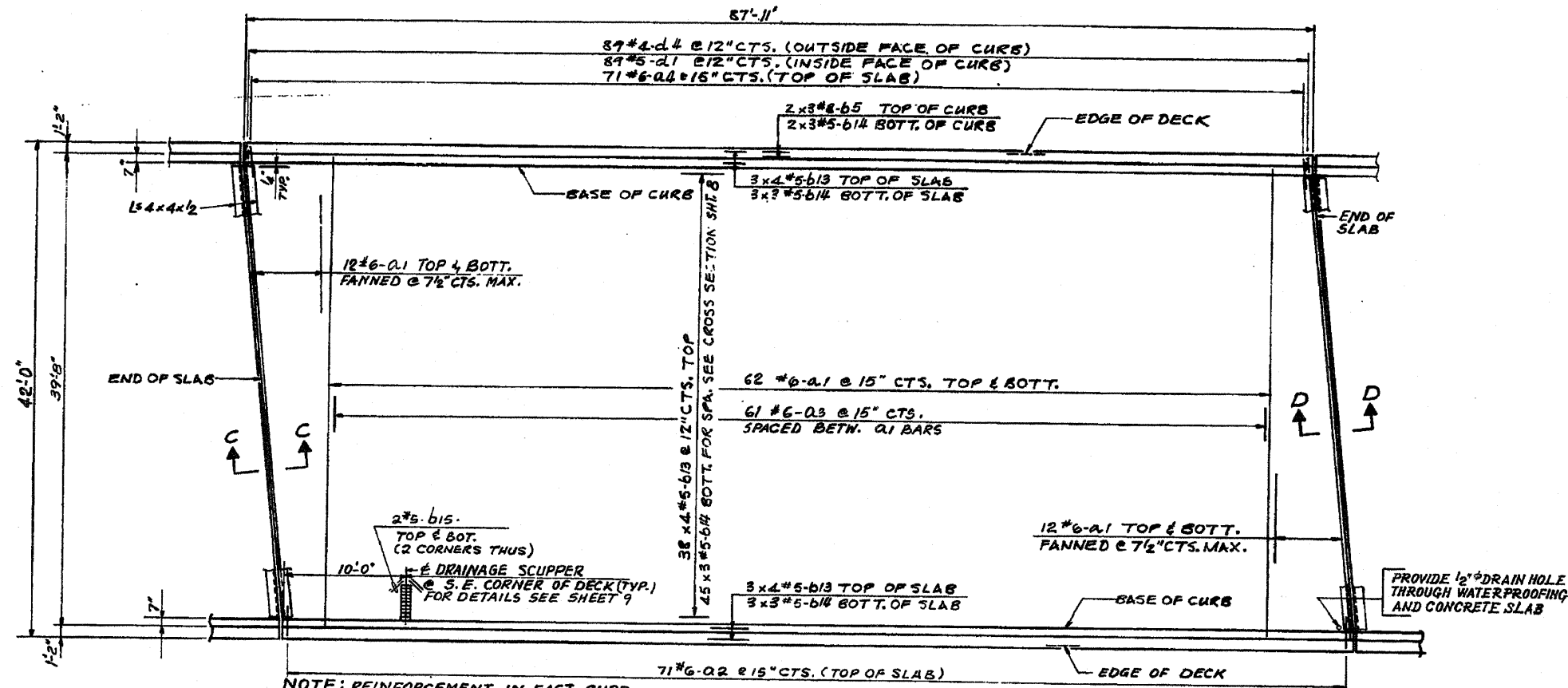
DESIGNED	L.C.M.	20
CHECKED	S.D.K.	EXAMINED
DRAWN	T.L.N.	PASSED
CHECKED	S.D.K.	ENGINEER OF BRIDGES AND STRUCTURES

Note: All items detailed on this sheet shall be included with "Elastomeric Bearing Assembly Type I" unless noted otherwise.

Existing Plans SN 089-0008 FOR INFORMATION ONLY

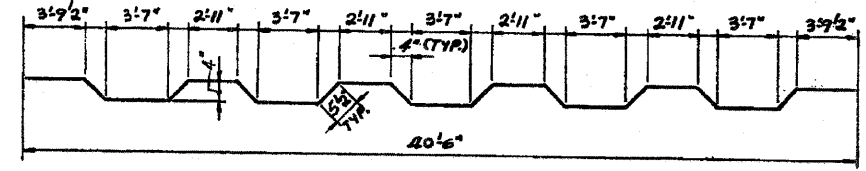
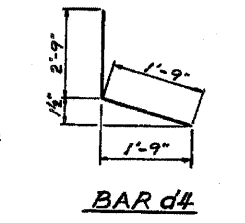
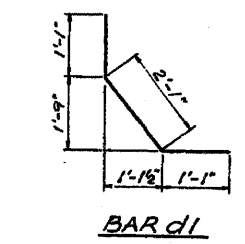
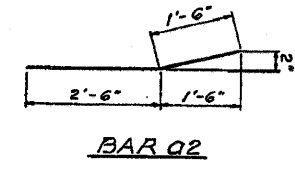
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
..
STA.	TO STA.			
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

* FAP 5 & FAI 39 (US 20 Bus. & I-39)
 ** Section D2 Bridge Painting 2009-1
 *** Stephenson & Winnebago Counties



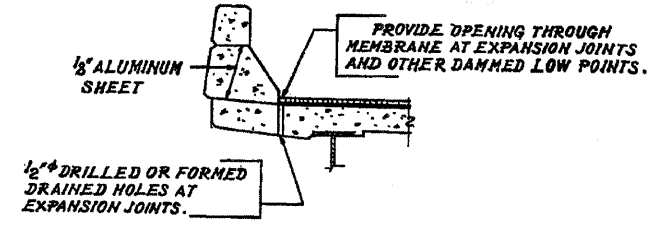
NOTE: REINFORCEMENT IN EAST CURB IS SAME AS IN WEST CURB EXCEPT AS NOTED.

DECK REINFORCEMENT PLAN-SPAN 2
 (S.B. LANES SHOWN-N.B. LANES SIMILAR)



BILL OF MATERIAL

BAR	NO. REQ'D.	SIZE	LENGTH	SHAPE
S.B.D. N.B.D.				
Q1	172	#6	80'-0"	—
Q2	71	#6	8'-0"	—
Q3	61	#6	41'-9"	—
Q4	71	#6	4'-0"	—
b5	12	#8	30'-9"	—
b13	176	#5	23'-0"	—
b14	165	#5	30'-3"	—
b15	8	#5	3'-0"	—
d1	178	#5	4'-3"	—
d4	178	#4	4'-6"	L
ITEM UNIT S.B.D. N.B.D.				
CLASS "X" CONCRETE	CU/YD	183.6	183.0	
REINF. BARS	LBS.	26,775	26,775	



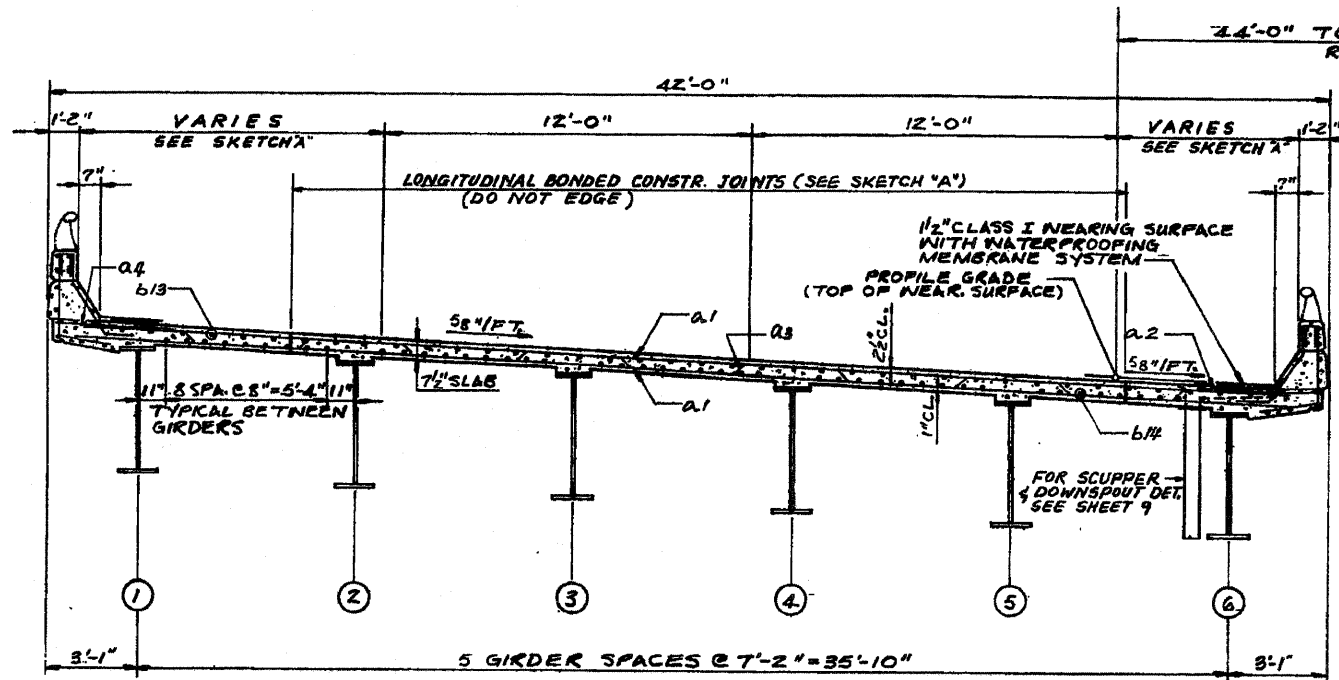
SECTION AT CURB

NOTES:
 ALL BAR DIMENSIONS ARE OUT TO OUT.
 ALL EDGES SHALL HAVE STANDARD 3/4" CHAMFERS, EXCEPT AS NOTED OTHERWISE.
 BARS INDICATED THUS: 38 X 4 #5-b ETC., INDICATE 38 LINES OF BARS WITH 4 BAR LENGTHS PER LINE.
 PARAPET REINFORCEMENT AND CLASS "X" CONCRETE ARE BILLED ON SHEET 10.
 FOR DECK DETAILS, SEE SHEET 8.
 FOR HANDRAIL DETAILS, SEE SHEET 10.
 FOR DRAINAGE DETAILS, SEE SHEET 9.

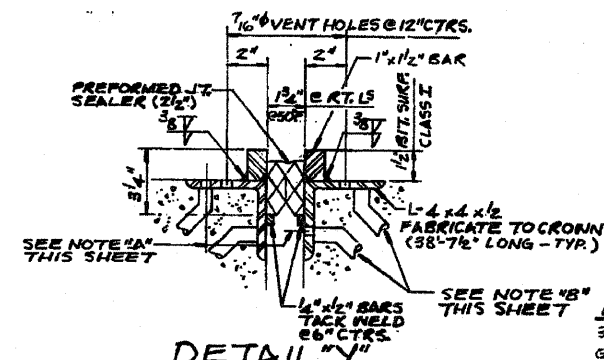
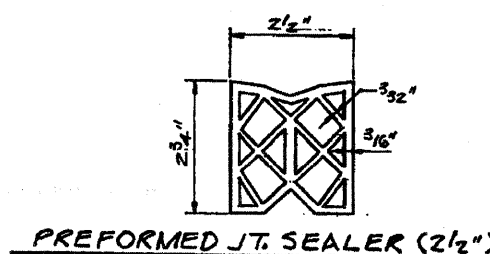
Existing Plans SN 101-0142, 0143 FOR INFORMATION ONLY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
..
STA.	TO STA.
FED. ROAD DIST. NO. ... ILLINOIS FED. AID PROJECT				

- * FAP 5 & FAI 39 (US 20 Bus. & I-39)
- ** Section D2 Bridge Painting 2009-1
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DECK CROSS SECTION - SPAN 2
(S.B. LANES SHOWN, N.B. LANES SIMILAR)

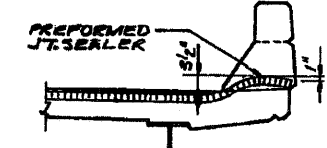
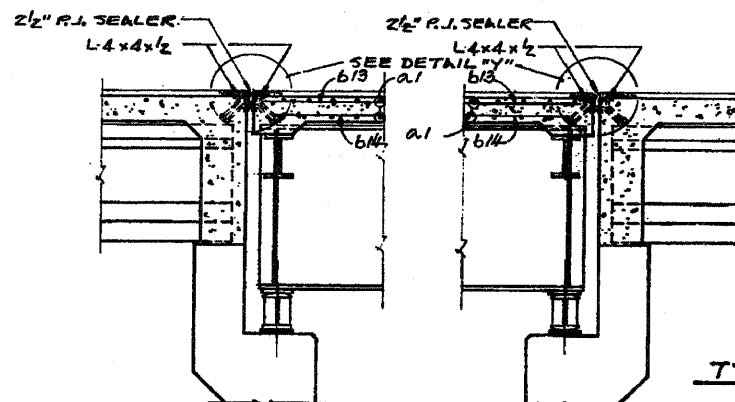


NOTE "B"

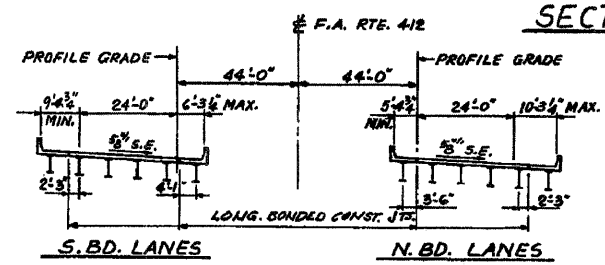
3/4" x 8" CR. 1020 STL GRANULAR OR SOLID FLUX FILLED HEADED STUDS AUTOMATICALLY END WELDED (ALT. @ 12" CTRS.) TOTAL REQ'D. = 3/2

NOTE "A"

7/16" HOLES AT 12" CTRS. FOR 5/8" BOLTS SET ON 2" GAGE LINE. ALL BOLTS SHALL BE BURNED, SAVED OR CHIPPED OFF PLUSH WITH THE SACK OF ANGLES AFTER FORMS ARE REMOVED.



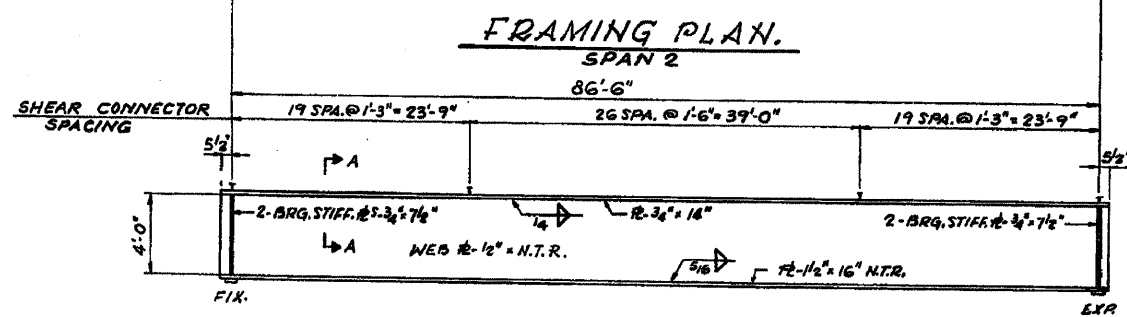
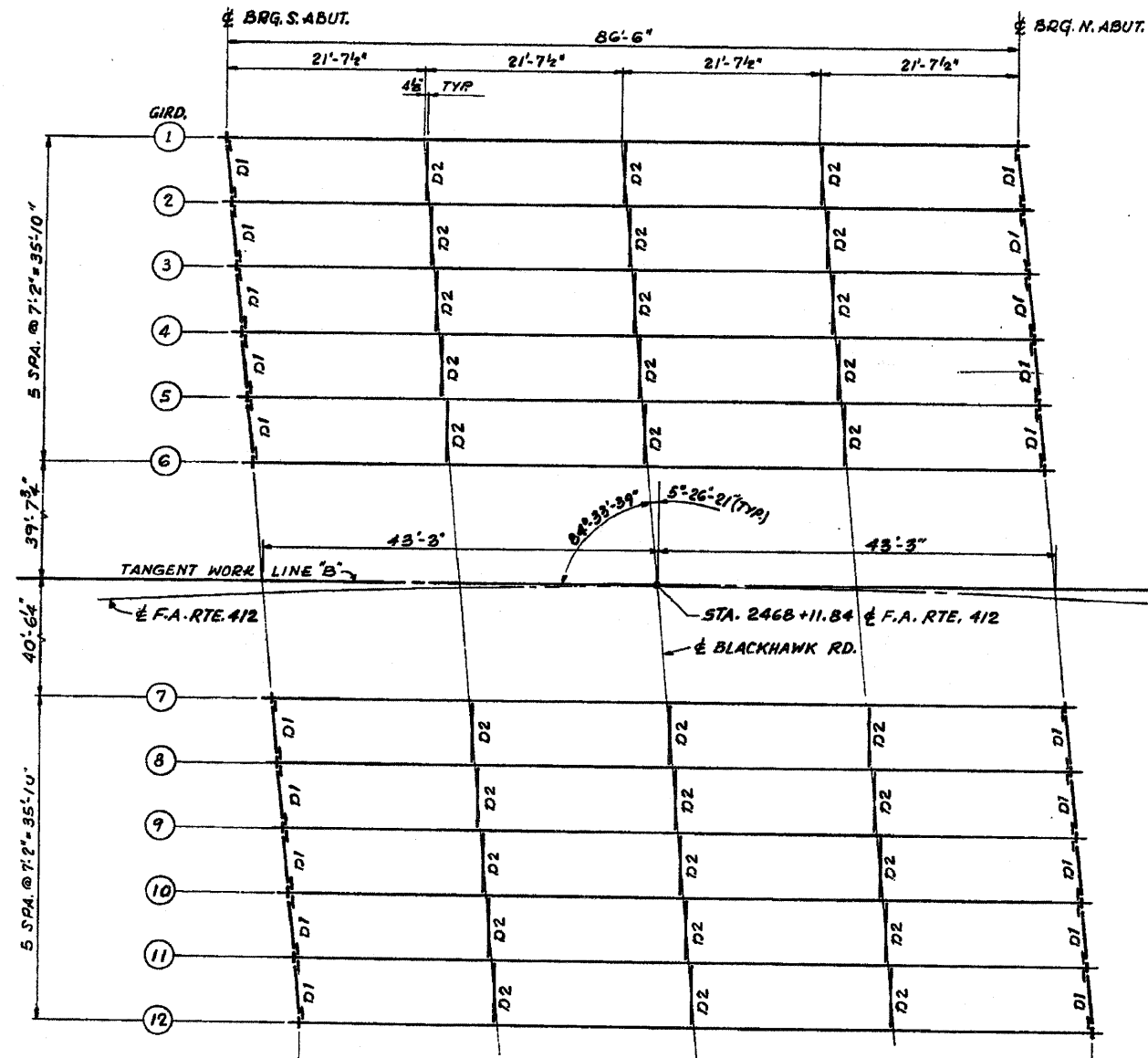
NOTES:
FOR STEEL FRAMING PLAN SEE SHEET 13.
FOR DECK REINFORCEMENT PLAN SEE SHEET 7.



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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
...
...
...

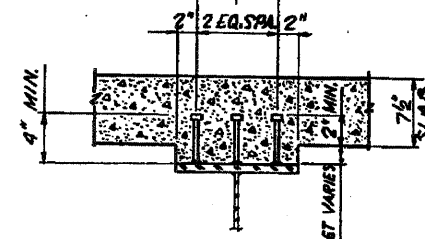
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REACTION TABLE

INTERIOR GIRDER REACTION TABLE	
	ABUT.
RDL (K)	57.5
RLL (K)	46.7
IMR (K)	11.0
R TOTAL (K)	115.2

3/4" GRANULAR OR SOLID FLUX FILLED HEADED STUDS AUTOMATICALLY END WELDED TO FLANGE
 NO. REQ'D = 2340



SECTION A-A

MOMENT TABLE
 SYMMETRICAL-COMPOSITE SPAN

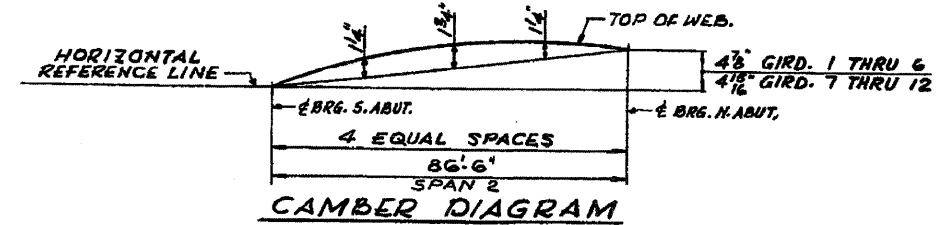
INTERIOR GIRDER MOMENT TABLE @ MIDSPAN	
I _s (in ⁴)	23600
I _c (in ⁴)	61712
S _s (in ³)	1197
S _c (in ³)	1616
D.L. (%)	0.905
M _{DL} (K)	847
f _s DL (KSI)	8.5
S _{DL} (%)	0.416
M _s DL (K)	389
M _{LL} (K)	833
M _{IMR} (K)	197
TOTAL (K)	1419
f _s LL + I + S _{DL} (KSI)	10.6
f _s TOTAL (KSI)	19.1
V _R (K)	57.7

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.
 V_R IS THE MAXIMUM LL + IMPACT SHEAR RANGE IN SPAN.

TOP OF WEB ELEVATIONS
 (UNDEFLECTED GIRDERS - FOR FABRICATION ONLY)

GIRDER LOCATION	1	2	3	4	5	6	7	8	9	10	11	12
± BRG. S. ABUT.	861.167	860.793	860.420	860.047	859.674	859.300	859.745	859.372	858.999	858.626	858.253	857.879
± BRG. N. ABUT.	861.573	861.200	860.827	860.454	860.081	859.707	860.157	859.785	859.412	859.039	858.666	858.293

NOTE: ELEVATIONS ARE GIVEN TO TOP OF WEB.



PLOT DATE = Tue, Oct 14, 11:28:32, 2008
 FILE NAME = P:\DRAWING\AFR02\PLAN\90.dgn
 PLOT SCALE = 82.9412 / IN.
 USER NAME = lmkj

Existing Plans SN 101-0142, 0143 FOR INFORMATION ONLY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
---	---	---	14	14
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

STOP LINE SIGN FOR TEMPORARY SIGNALS



SIZE: 600(24) x 450(18)
 100(4) CAPITAL LETTERS - BLACK
 13(1/2) BORDER - BLACK
 WHITE REFLECTIVE - TYPE B
 ENGINEERING GRADE SHEETING

GENERAL NOTE:

THIS SIGN SHALL BE INSTALLED AT THE STOP LINE AS DIRECTED BY ENGINEER.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

STOP LINE SIGN FOR TEMPORARY SIGNALS 99.4

REVISED 10-10-06

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