

76A16

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
329	125-1B-1-1	RANDOLPH	5	1

INDEX OF SHEETS

- COVER PAGE, INDEX OF SHEETS, HIGHWAY STANDARDS, SUMMARY OF QUANTITIES
- PLAN ELEVATION
- 5. REPAIR DETAILS

HIGHWAY STANDARDS

701006-02
701201-02
702001-06

STATE OF ILLINOIS

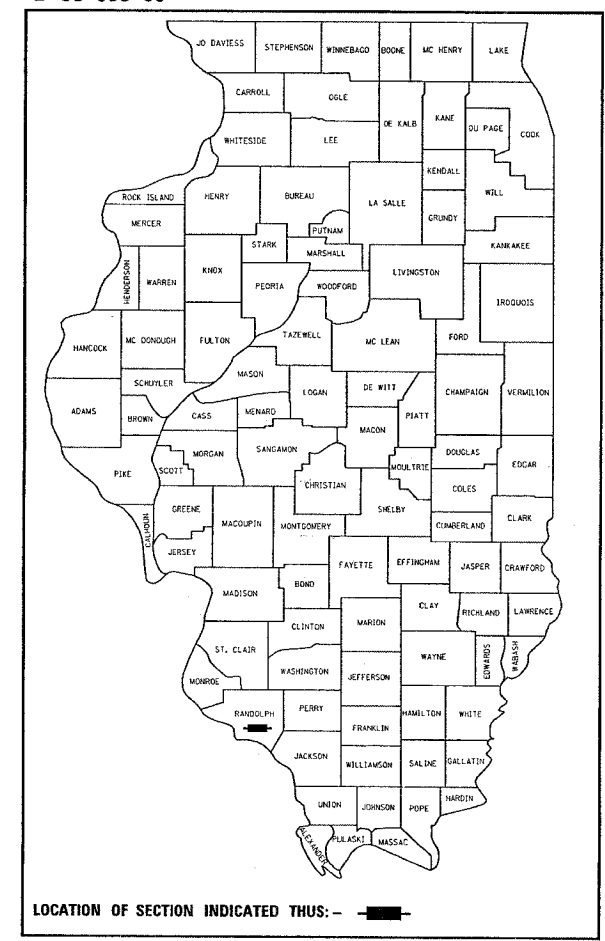
DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

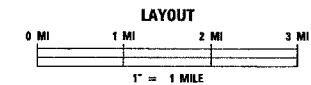
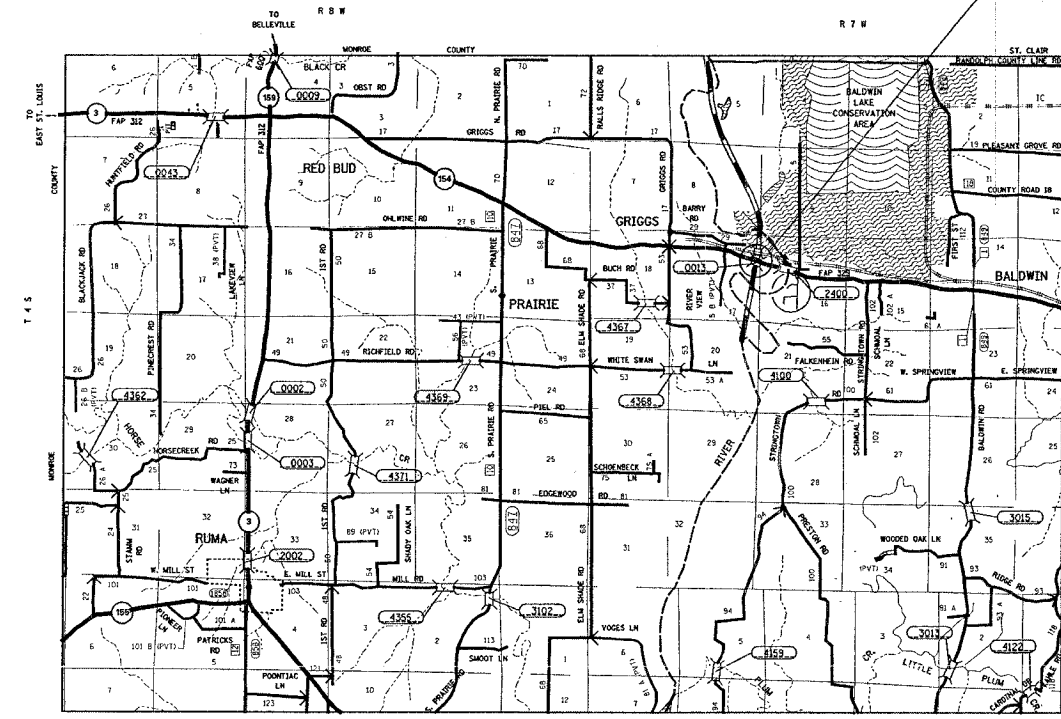
FAP ROUTE 329 (IL 154)
SECTION 125-1B-1-1
HOAN DETAIL RETROFIT
RANDOLPH COUNTY
C-98-044-06

D-98-056-06



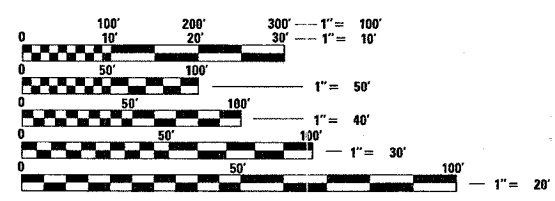
SUMMARY OF QUANTITIES			TOTAL QUANTITIES	100% STATE SFTY-2A
CODE NO	ITEM	UNIT		
50501130	STRUCTURAL STEEL REPAIR	POUND	3290	3290
67100100	MOBILIZATION	L SUM	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
X0322556	STIFFENER INTERSECTION MODIFICATION	EACH	200	200

PROJECT LOCATION
IL 154 OVER KASKASKIA RIVER
SN: 079-0013
STA 321+96.23



LATITUDE: 38.18919 LONGITUDE: 89.89031

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



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.

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

TRAFFIC DATA
ADT: 4300 (2006)
ADT: 4350 (2007)
SU: 4.1%
MU: 7.6%

CONTRACT NO. 76A16

PROJECT ENGINEER: PATTI LEBEAU (618) 346-3179
SQUAD CONTACT: ART MUEHLFELD (618) 346-3209

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED March 22, 2006
May 12, 2006
May 12, 2006
May 12, 2006

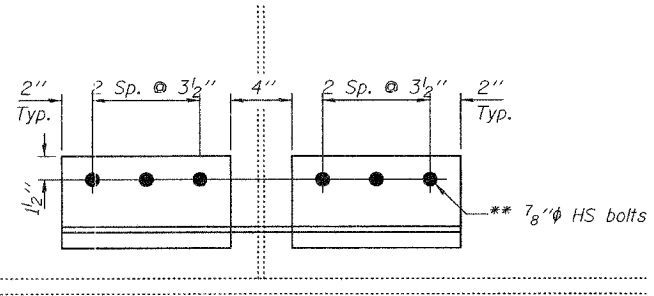
DEPUTY DIRECTOR OF HIGHWAYS
REGION FIVE ENGINEER

ENGINEER OF DESIGN AND ENVIRONMENT

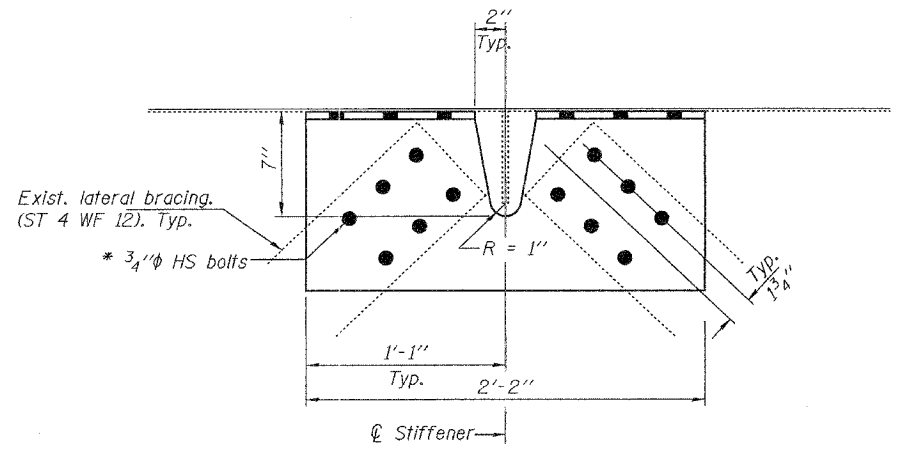
DIRECTOR, DIVISION OF HIGHWAYS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION



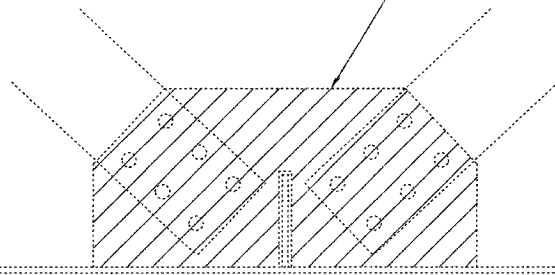
PLAN
REPAIRS A THRU A9
P 3/8" x 11" x 2'-2"

* Use holes in existing lateral bracing as a template for drilling holes on new plate.
** Use holes in new 1/2" x 6" P as a template for drilling holes in existing web.

REPAIR	N	NO. REQ'D.
A	4 1/16"	1
A1	4 5/8"	2
A2	4 13/16"	3
A3	4 9/16"	3
A4	5"	5
A5	3"	21
A6	4 3/4"	3
A7	4 1/2"	1
A8	4 7/16"	1
A9	4 3/8"	1

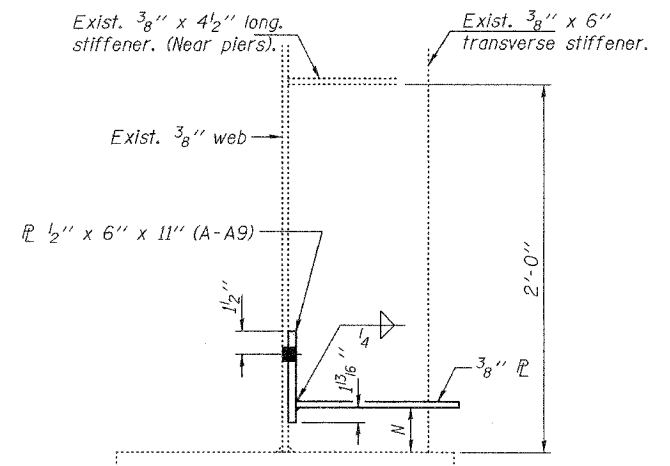
Procedure for Lateral Bracing Retrofit Detail:
(Cost included with Structural Steel Repair)

1. Remove existing 3/8" connecting plate. The minimum distance from cut to face of web shall be the larger of 1/4" or web to plate weld size, with removal of remaining material by grinding as described below. The cut shall be made parallel to the web without angling the cut towards the web. Equipment and method of cutting shall be approved by the Engineer. Any method of removal to be used shall ensure that no damage is done to the existing web, vertical stiffener or welds connecting these elements. Cutting shall be done in a manner such that the paint on the opposite face of the web is not damaged. If damage occurs, the damaged area shall be repainted at the contractor's expense and procedures shall be modified to prevent damage at subsequent removal locations.
2. Remove material between cut and web by grinding and grind smooth at web surface. Web plate surfaces shall have a roughness average (Ra) of 250µ in. or less. Grinding equipment shall be approved by the Engineer. The grinding operation should not gouge the girder web plate.
3. The web surface at the modification shall be inspected using dye penetrant or magnetic particle (MT) methods. Any cracks found shall be identified and reported to the Bureau of Bridges and Structures for further disposition.



REPAIR A THRU A9
EXISTING CONNECTION PLATE REMOVAL
(See table for no. req'd.)

Notes:
Work at adjacent connection locations shall not be performed concurrently.
At each location, the 2 lateral bracing members shall be removed and stored to allow removal of the connection plate and shall be re-installed after erection of the new brackets. Cost shall be included with Structural Steel Repair.



SECTION THRU GIRDER
(A-A9)

REPAIR DETAILS
FAP RT. 329 (IL 154)
RANDOLPH COUNTY
SN 079-0013

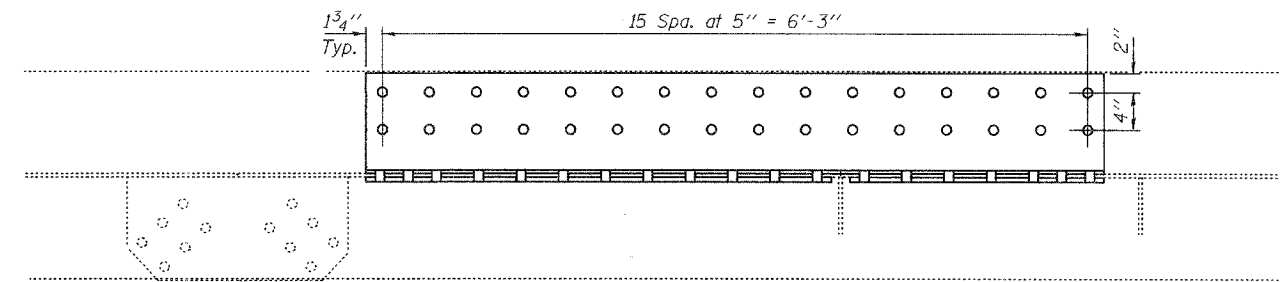
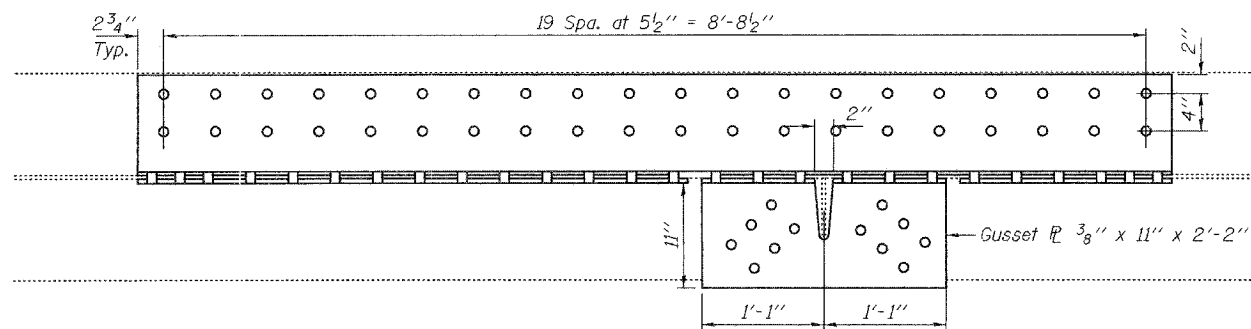
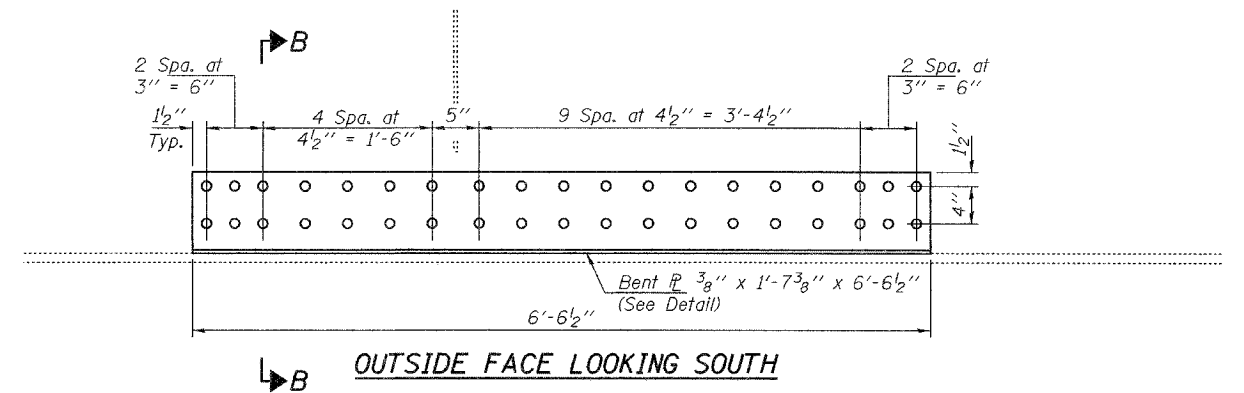
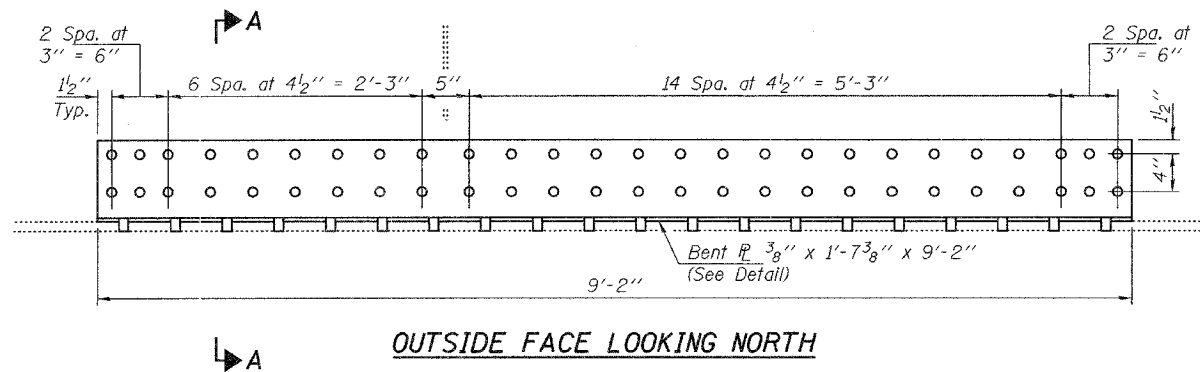
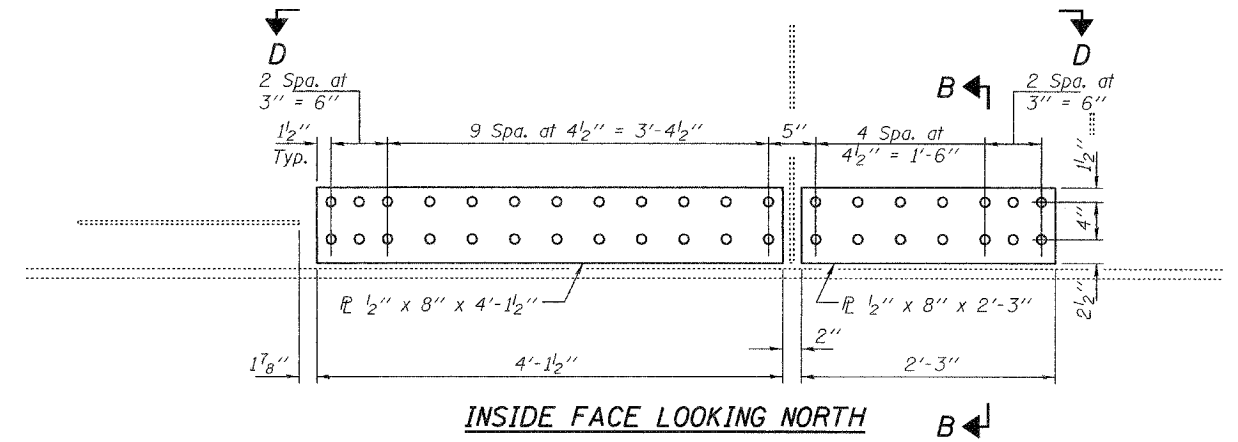
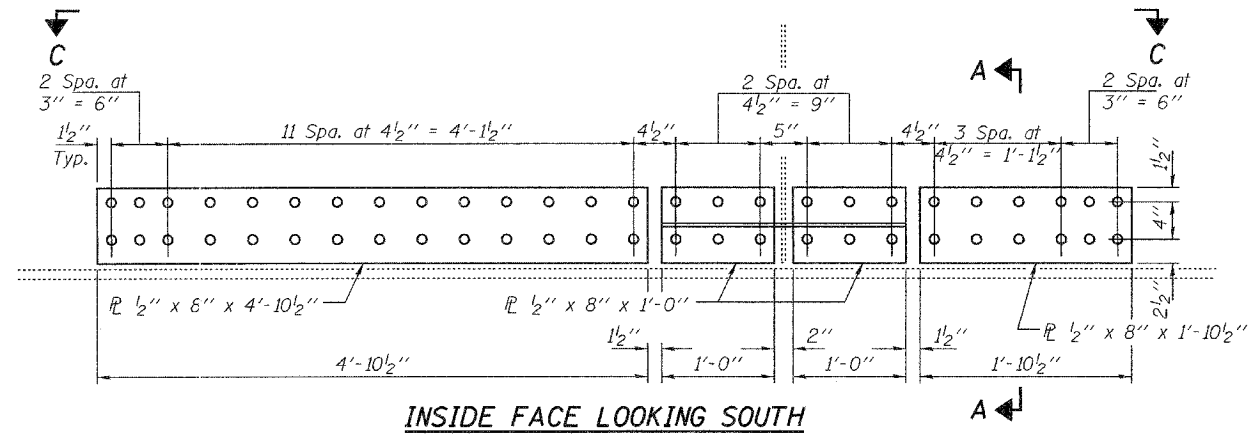
DESIGNED	SJB
CHECKED	ATH
DRAWN	baliva
CHECKED	SJB ATH

APRIL 27, 2006
EXAMINED *John A. Morris*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO. 3
IL 154		RANDOLPH	5	4	4 SHEETS
FED. ROAD DIST. NO. 7	ALIGNMENT	FED. AID PROJECT			

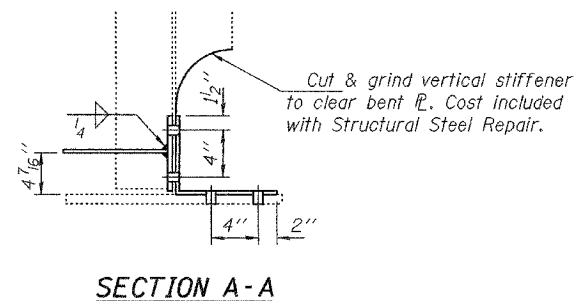
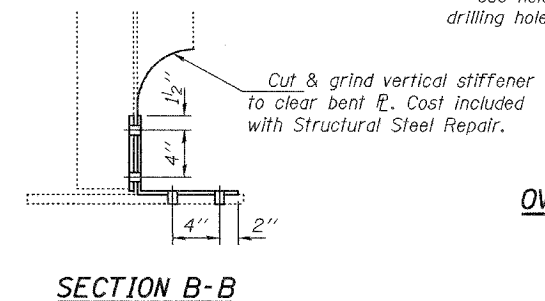
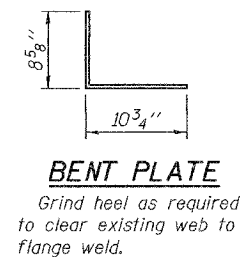
Contract Number: 76A16



REPAIR A10
(1 Required)

REPAIR A11
(1 Required)

Notes:
The Engineer shall field verify the location of repair detail A10 & A11 and ensure that the plate lengths are sufficient to cover the deteriorated areas.
Use holes in bent PL as a template for field drilling holes in existing web and flange.



REPAIR DETAILS
FAP RT. 329 (IL 154)
OVER THE KASKASKIA RIVER
RANDOLPH COUNTY
SN 079-0013

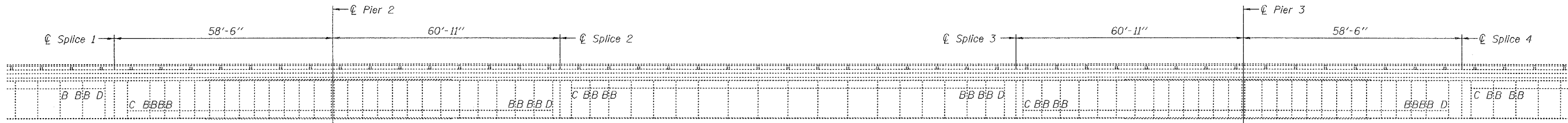
DESIGNED	SJB
CHECKED	ATH
DRAWN	baliva
CHECKED	SJB ATH

APRIL 27, 2006
EXAMINED *John A. Morris*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

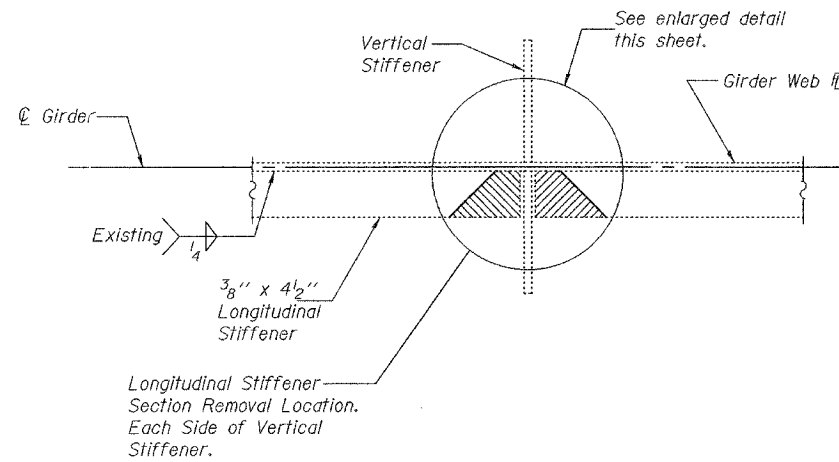
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
IL 154		RANDOLPH	5	4 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract Number: 76A16



PARTIAL GIRDER ELEVATION

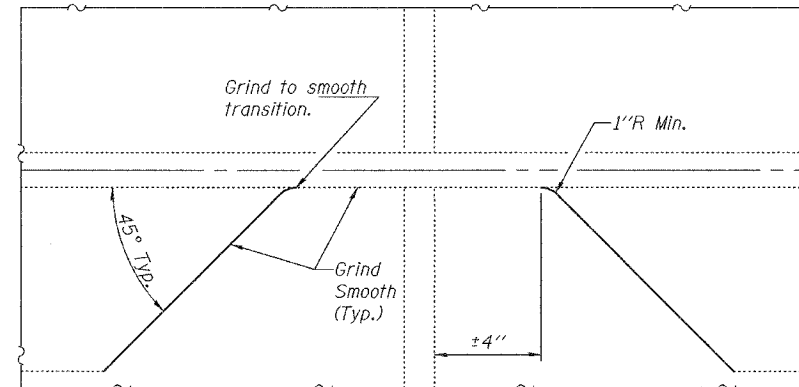


REPAIR DETAIL B, C & D

Hatched area indicates section removal.
(Showing 2 Locations)

Note:

Repair B to be performed to both sides of the stiffener.
Repair C to be performed to the right side of the stiffener only.
Repair D to be performed to the left side of the stiffener only.



Procedure for Stiffener Intersection Modification:

1. Cut existing longitudinal stiffener 4" from face of vertical stiffener and along web as shown, with a 1"R (Min) at Web. The minimum distance from cut to face of web shall be the larger of 1/4" or web to plate weld size, with removal of remaining material by grinding as described below. The cut shall be made parallel to the web without angling the cut towards the web. Equipment and method of cutting shall be approved by the Engineer. Any method of removal to be used shall ensure that no damage is done to the existing web, vertical stiffener or welds connecting these elements. Cutting shall be done in a manner such that the paint on the opposite face of the web is not damaged. If damage occurs, the damaged area shall be repainted at the contractor's expense and procedures shall be modified to prevent damage at subsequent removal locations.

2. Remove material between cut and web by grinding and grind smooth at web surface and cut end of stiffener. Web plate surfaces and cut end of stiffener shall have a roughness average (Ra) of 250µ.in. or less. Grinding equipment shall be approved by the Engineer. The grinding operation should not gouge the girder web plate.

3. The web surface at the modification shall be inspected using dye penetrant or magnetic particle (MT) methods. Any cracks found shall be identified and reported to the Bureau of Bridges and Structures for further disposition.

4. The exposed steel surfaces shall be cleaned and painted using an aluminum epoxy mastic primer according to Article 506.05.

Each 4" stiffener removal area is to be considered as one retrofit. Accepted above referenced work will be paid for at the contract unit price each for Stiffener Intersection Modification, which price shall include all materials, equipment, labor, cleaning, testing and painting.

Note:

Cost of grinding and testing shall be included with Stiffener Intersection Modification.

DESIGNED	SJB
CHECKED	ATH
DRAWN	baliva
CHECKED	SJB ATH

APRIL 27, 2006
EXAMINED *John A. Morris*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

SIMD/REPS 04-26-2004

REPAIR DETAILS
FAP RT. 329 (IL 154)
OVER THE KASKASKIA RIVER
RANDOLPH COUNTY
SN 079-0013