

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIOUS	*	VARIOUS	8	1

* DIST 8 BRIDGE REHAB 2008-1 ¹/₉

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

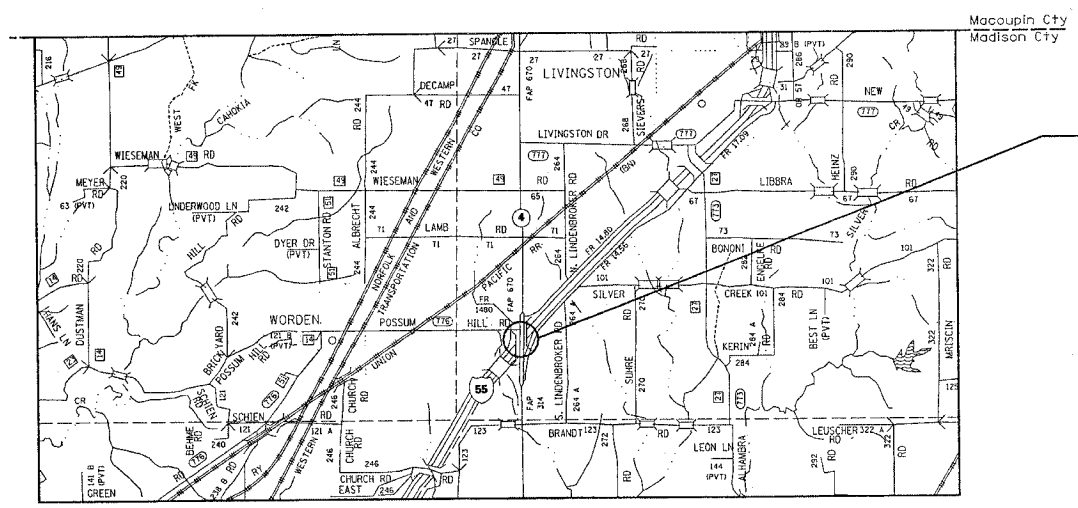
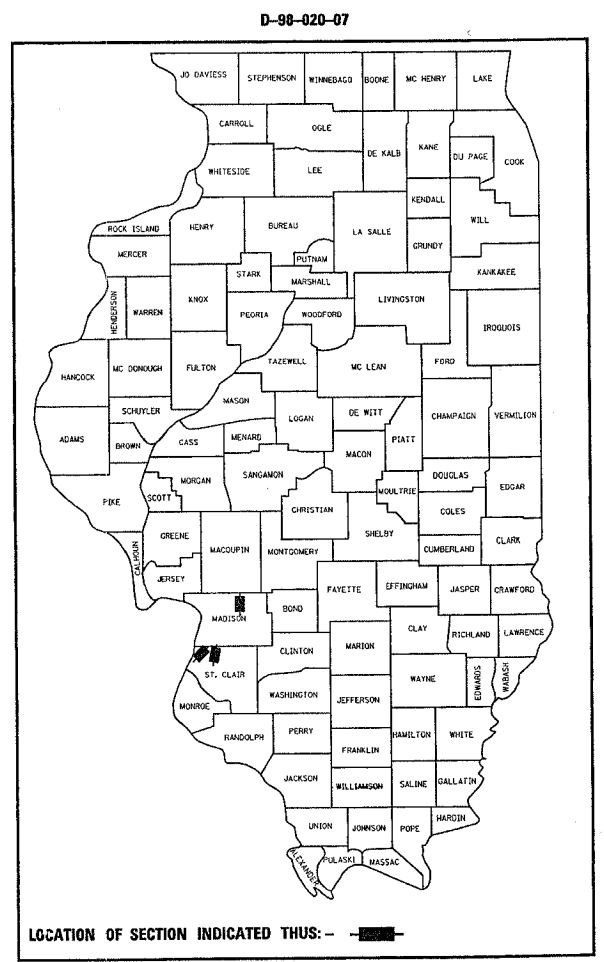
**PROPOSED
HIGHWAY PLANS**

VARIOUS ROUTES
SECTION DIST 8 BRIDGE REHAB 2008-1

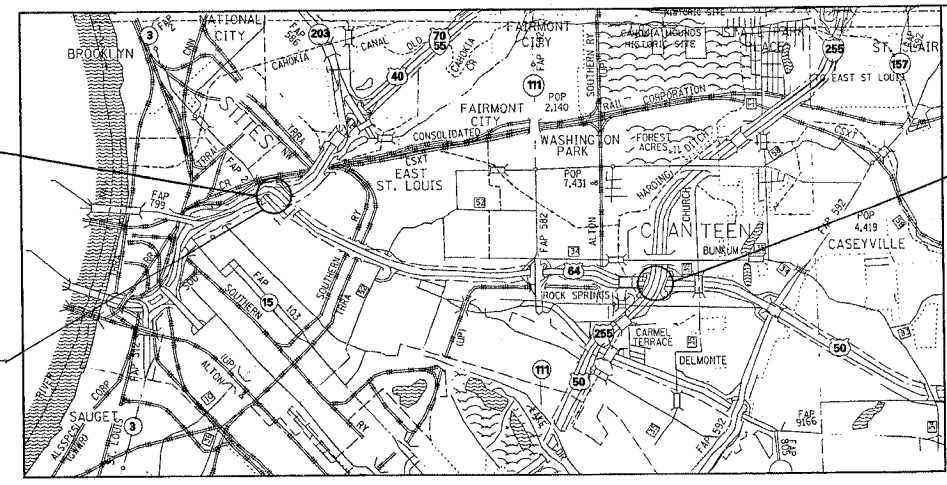
ST. CLAIR AND MADISON COUNTIES
PERMANENT PROTECTIVE SHIELDING

C-98-022-07

FOR INDEX OF SHEETS, SEE SHEET NO. 2



SN 060-0104
IL 4 over I-55
Lat: 38.93164°
Long: -89.80132°
I-55 ADT = 26,000
IL 4 ACT = 4,750
Net Length = 140 Ft.

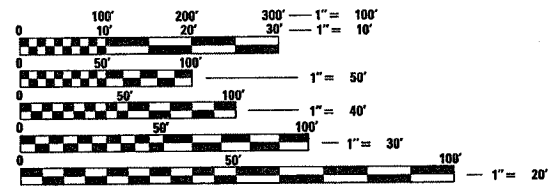


SN 082-0149
9th St over I-64
Lat: 38.63137°
Long: -90.14203°
I-64 ADT = 64,400
Net Length = 157 Ft.

SN 082-0241 & -0242
I-255 over I-64
Lat: 38.61886°
Long: -90.06855°
I-64 ADT = 74,600
I-255 ADT = 43,700
Net Length = 272 Ft.

SN 082-0150
10th St. over I-64
Lat: 38.63087°
Long: -90.14221°
Net Length = 148 Ft.

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

CONTRACT NO. 76A49

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED April 3 2007
Mary C Lami
DEPUTY DIRECTOR OF HIGHWAYS
REGION FIVE ENGINEER

May 11 2007
Eric E. Harlan
ENGINEER OF DESIGN AND ENVIRONMENT

May 11 2007
Milton R. Sees, P.E.
DIRECTOR, DIVISION OF HIGHWAYS

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

PROJECT ENGINEER: PATTI LEBEAU 618-346-3179
SQUAD LEADER: CHERYL KEPLAR 618-346-3186

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	*	Various	8	2
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* DIST 8 BRIDGE REHAB 2008-1

INDEX OF SHEETS

1. COVER SHEET
2. INDEX OF SHEETS, GENERAL NOTES, AND STANDARDS
3. SUMMARY OF QUANTITIES
4. LOCATION MAPS
- * 5. SN 082-0149 (9TH ST. OVER I-64)
6. SN 082-0241 & 0242 (I-255 OVER I-64)
7. SN 060-0104 (IL 4 OVER I-55)
8. PERMANENT PROTECTIVE SHIELD DETAILS
- * 5A. SN 082-0150 (10th ST. OVER I-64)

GENERAL NOTES

1. Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal 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 for the work.
2. Field welding of construction accessories will not be permitted to beams or girders.
3. All lanes on the structures shall be kept open to traffic.
4. The protective shielding plywood shall be cut to miss all crossframes or diaphragms that interfere. All gaps between plywood and crossframes or diaphragms shall be less than 1/2".
5. Utility interferences are not anticipated on this contract. Should this prove to be otherwise during any time of the construction, no additional cost shall be added to the contract resulting from the occurrence. The Joint Utility Locating Information for Excavators (J.U.L.I.E.) System number is (800) 892-0123.
6. Protective shielding shall extend to the outer edges of the shoulders but sections may extend further as shown on the plans due to bridge skew.
7. A two-week notice shall be given to the Resident Engineer prior to all lane closures.

STANDARDS

- 701400-02
- 701406-04
- 701411-03
- 701446
- 702001-06

PLOT DATE = 2/19/2007
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 USER NAME = mlacomm

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION INDEX OF SHEETS, GENERAL NOTES, AND STANDARDS VARIOUS ROUTES DIST 8 BRIDGE REHAB 2008-1 ST. CLAIR & MADISON COUNTIES
NAME	DATE	
		SCALE: VERT. DRAWN BY HORIZ. CHECKED BY DATE

Rev.

SUMMARY OF QUANTITIES

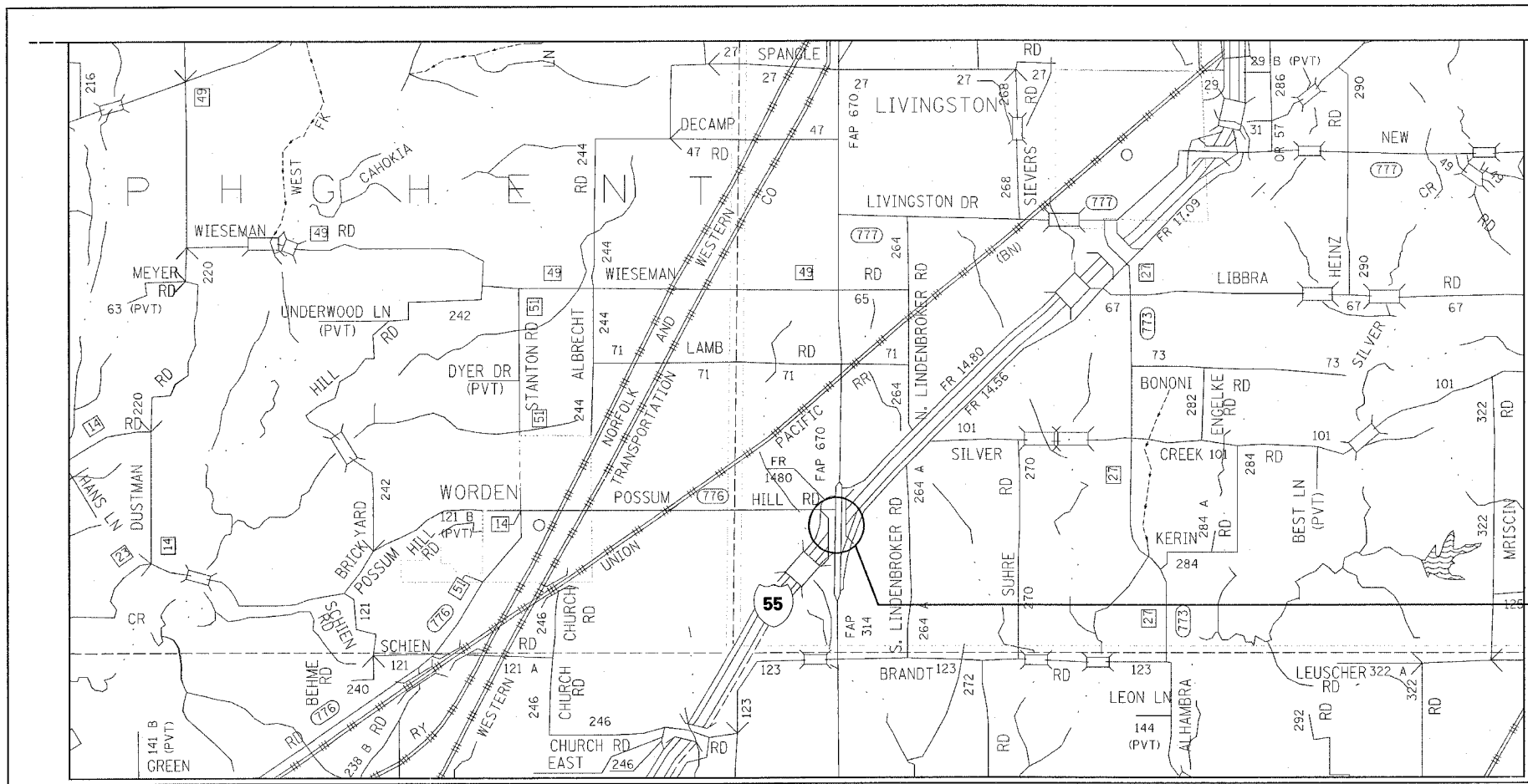
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	*	VARIOUS	8	3
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• DIST 8 BRIDGE REHAB 2008-1

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE (SFTY2A 100% STATE)				
CODE NO	ITEM	UNIT	URBAN TOTAL QUANTITIES	082-0149	082-0241	060-0104	082-0150
				9TH OVER I-64	& 0242 255 OVER I-64	IL 4 OVER 55	10TH OVER I-64
			ST. CLAIR CO.	ST. CLAIR CO.	MADISON CO.	ST. CLAIR CO.	
67100100	MOBILIZATION	L SUM	1	0.2	0.3	0.3	0.2
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	4	2	2		
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1	0.2	0.3	0.3	0.2
70100815	TRAFFIC CONTROL AND PROTECTION, STANDARD 701446	L SUM	1	0.3	0.5		0.2
X0322066	PROTECTIVE SHIELD (PERMANENT)	SQ YD	1647	134	504	887	122

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	*	VARIOUS	8	4
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

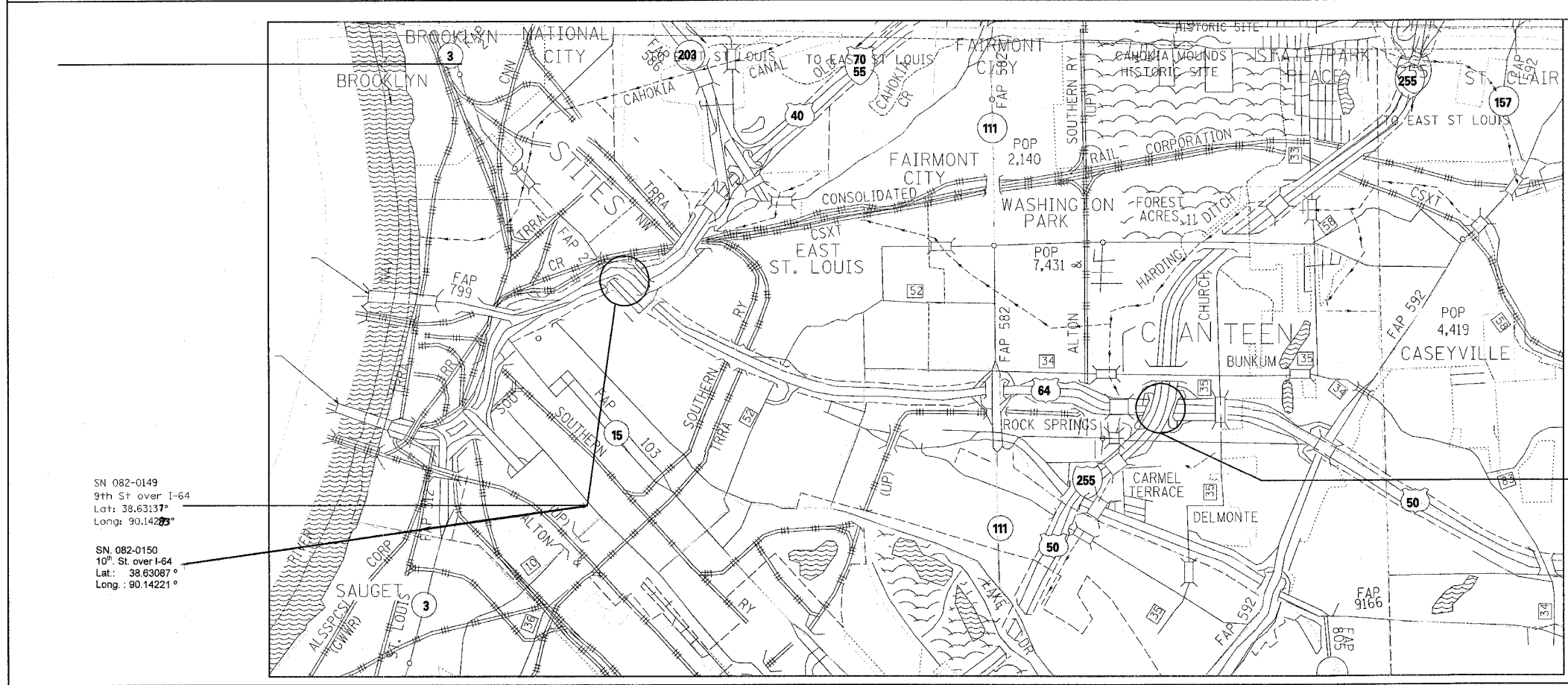
* DIST 8 BRIDGE REHAB 2008-1



Madison City
Madison City

1" = 1/2mi

SN 060-0104
I-4 over I-55
Lat: 38.93164°
Long: 89.80132°



Madison City
St. Clair City

1" = 1/2mi

SN 082-0241 & 0242
I-255 over I-64
Lat: 38.61886°
Long: 90.06855°

PLOT DATE = 5/28/2007
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SN 082-0149
9th St over I-64
Lat: 38.63137°
Long: 90.14221°

SN 082-0150
10th St over I-64
Lat: 38.63087°
Long: 90.14221°

REVISIONS	
NAME	DATE

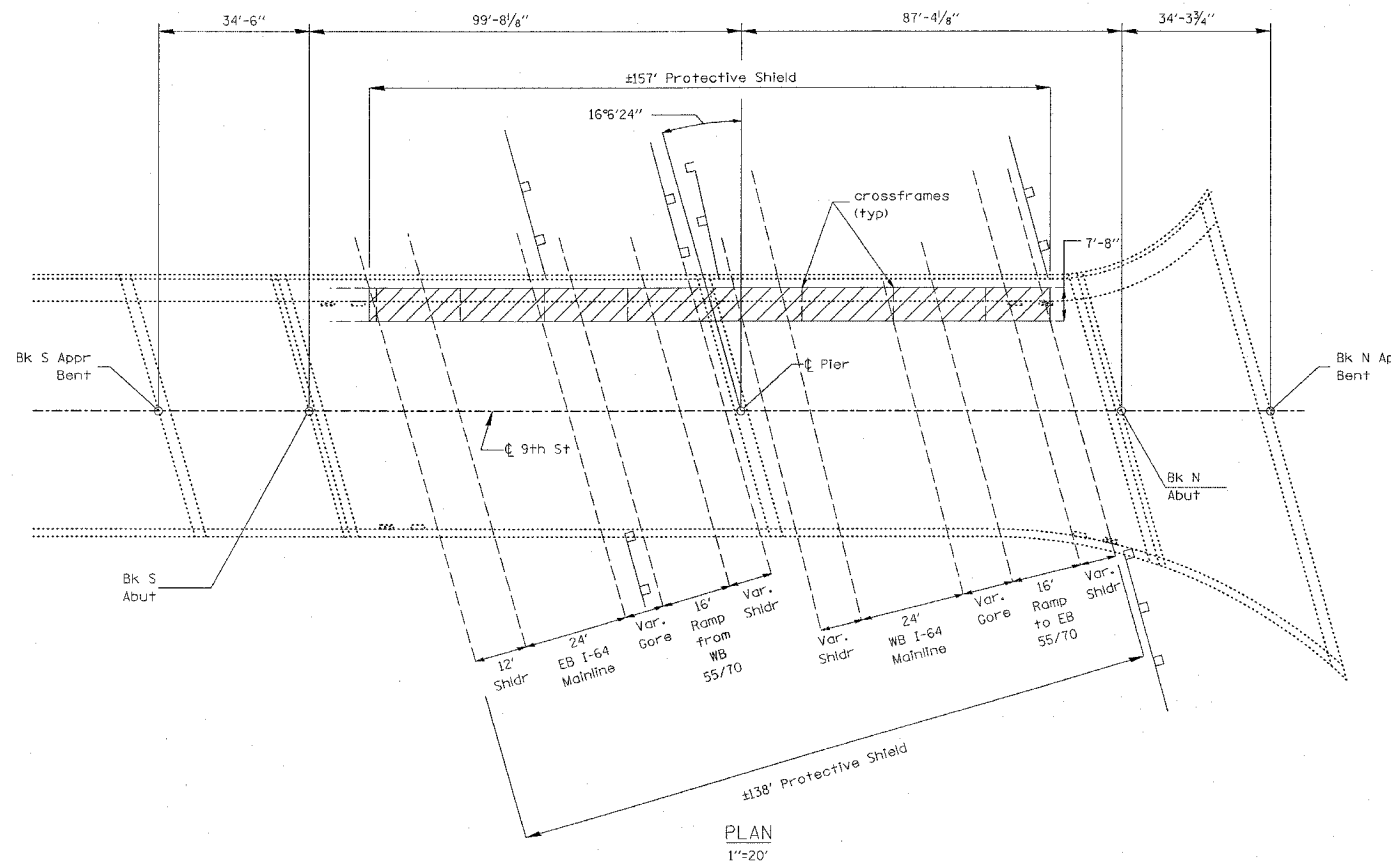
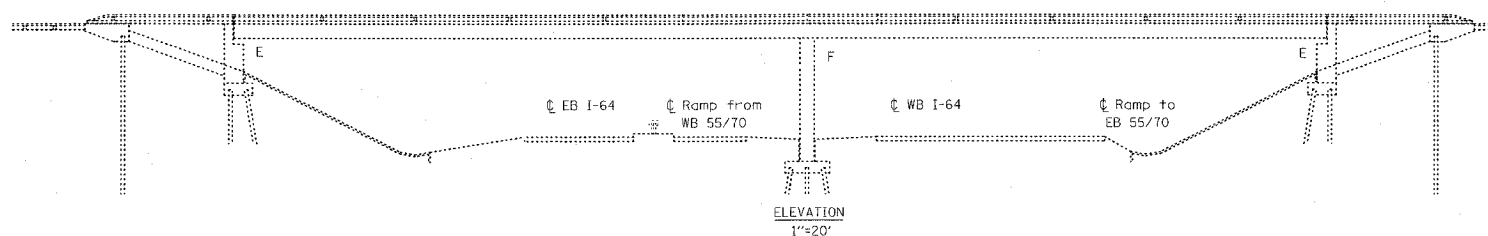
ILLINOIS DEPARTMENT OF TRANSPORTATION
LOCATION MAP

VARIOUS ROUTES
DIST 8 BRIDGE REHAB 2008-1
ST. CLAIR & MADISON COUNTIES

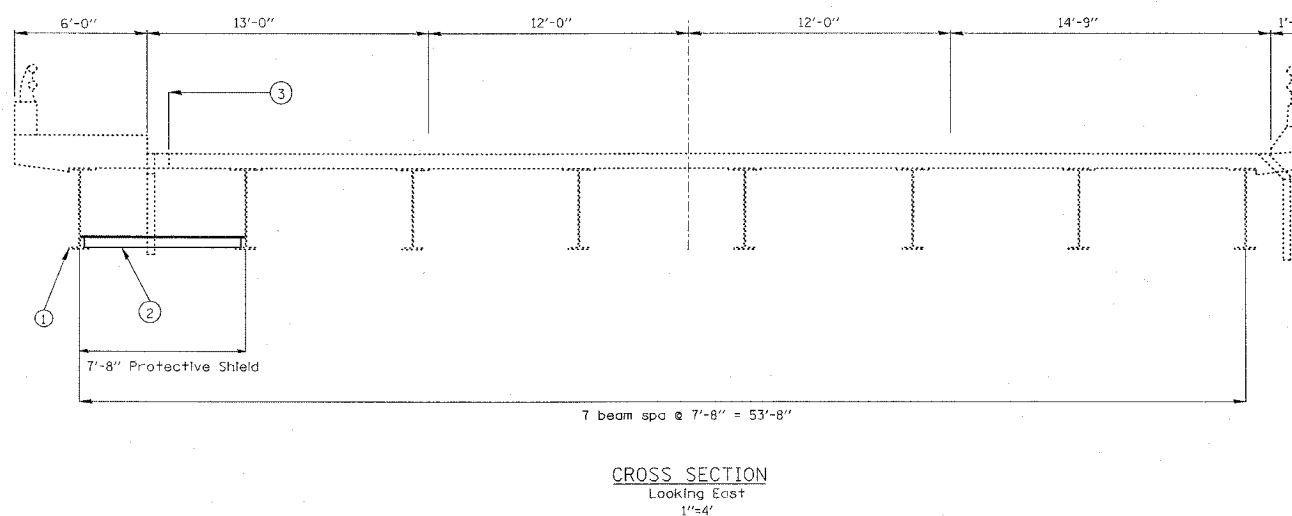
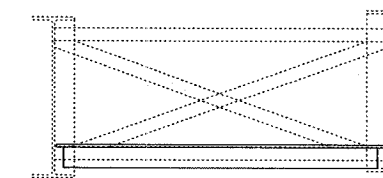
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HORIZ. CHECKED BY
DATE

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	•	VARIOUS	8	5
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

• DIST 8 BRIDGE REHAB 2008-1



- LEGEND
- ① Existing 42" web R Girder (Bottom flange is 14" wide)
 - ② PROTECTIVE SHIELDING (PERMANENT) - W bay only
 - ③ Existing deteriorated longitudinal construction joint



REVISIONS	
NAME	DATE

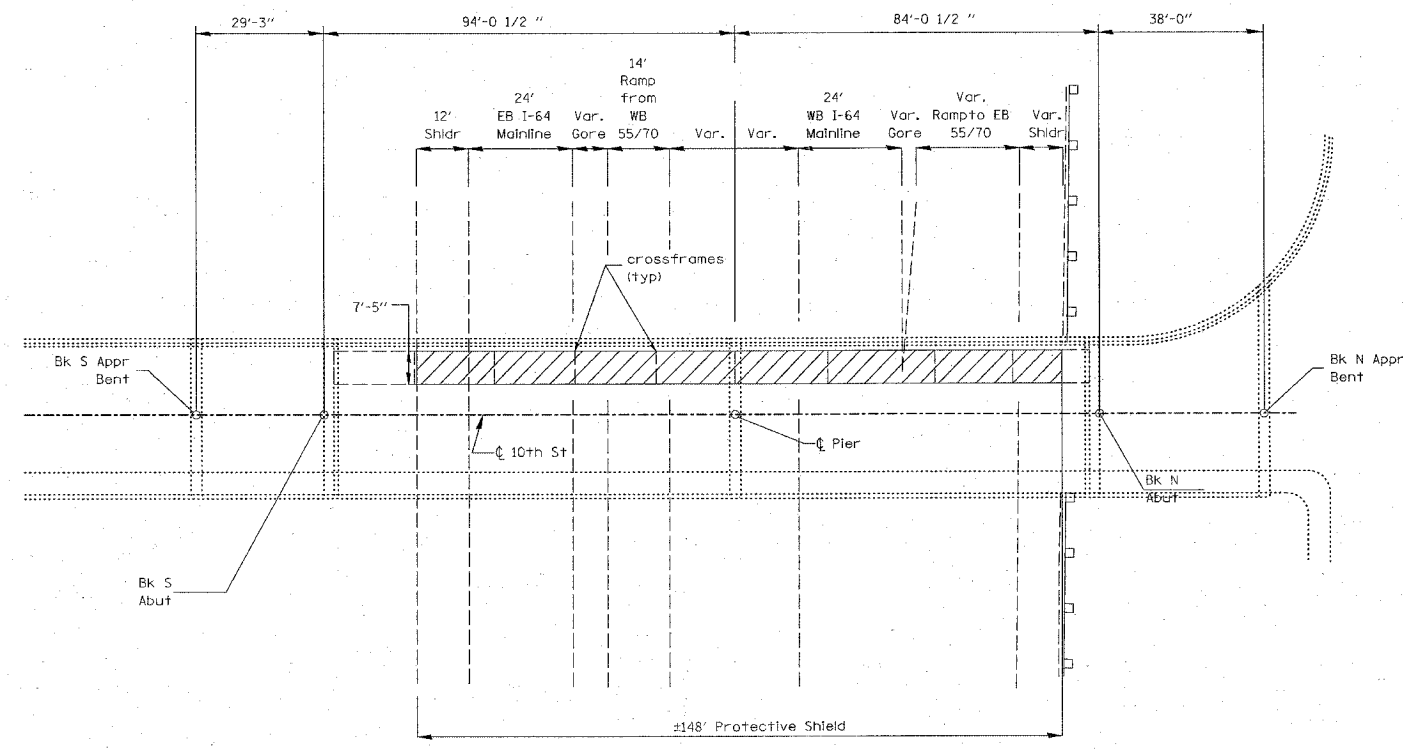
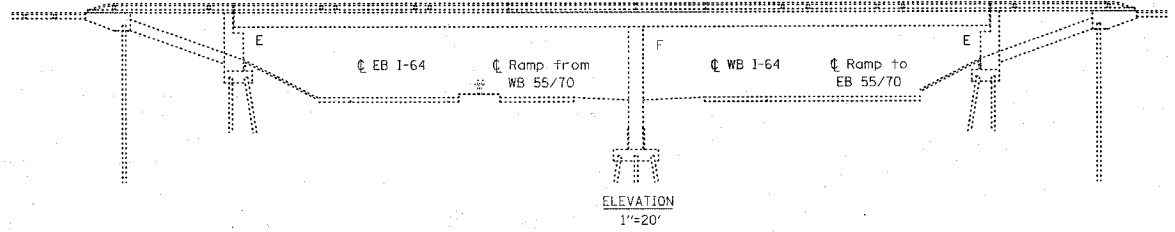
ILLINOIS DEPARTMENT OF TRANSPORTATION
SN 082-0149
9TH ST. OVER I-64
 VARIOUS ROUTES
 DIST 8 BRIDGE REHAB 2008-1
 ST. CLAIR & MADISON COUNTIES

SCALE: VERT. _____
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 DATE _____

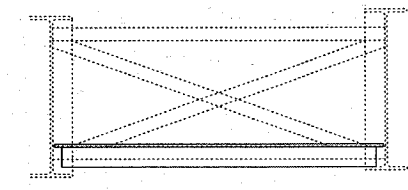
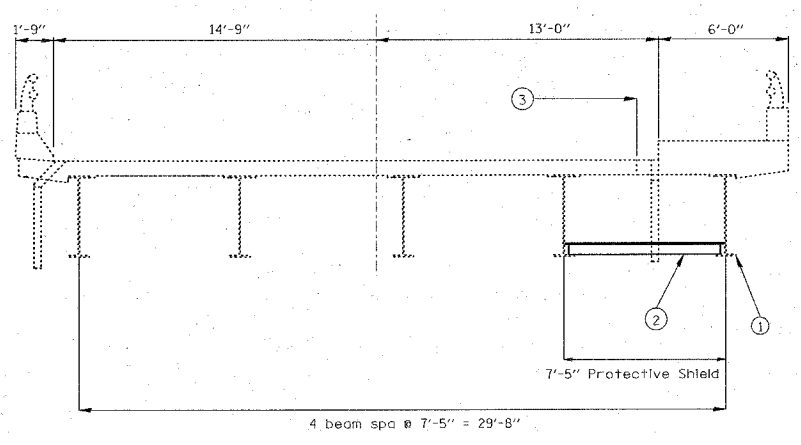
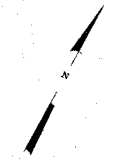
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CONTRACT NO. 76A49			
F.A. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
VAR.	•	VARIOUS	8 5A
STA.		TO STA.	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
• DIST 8 BRIDGE REHAB 2008-1			



- LEGEND
- ① Existing 48" web P Girder (Bottom flange is 14" wide)
 - ② PROTECTIVE SHIELDING (PERMANENT) - S bay only
 - ③ Existing deteriorated longitudinal construction joint



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SN 082-0150
10TH ST. OVER I-64
 VARIOUS ROUTES
 DIST 8 BRIDGE REHAB 2008-1
 ST. CLAIR & MADISON COUNTIES

SCALE: VERT. _____
 HORIZ. _____

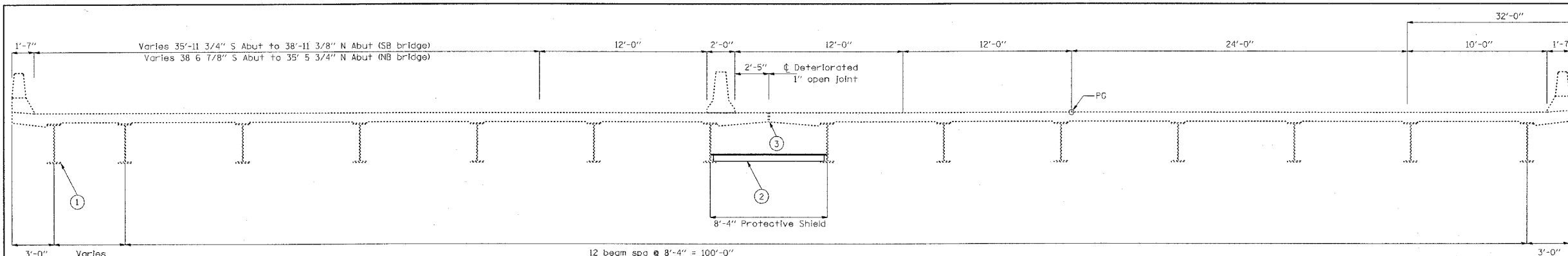
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	*	VARIOUS	8	6

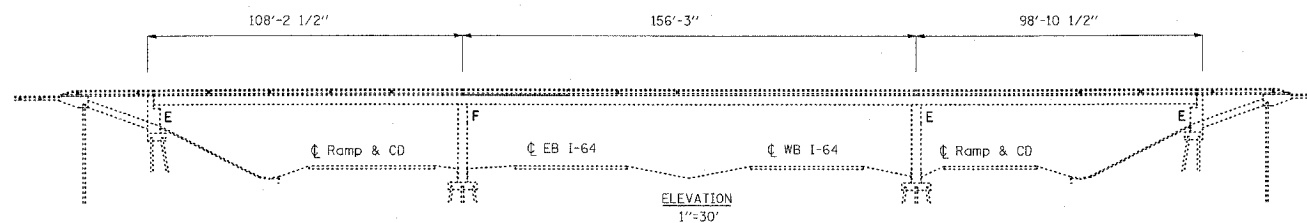
STA.	TO STA.
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT

* DIST 8 BRIDGE REHAB 2008-1

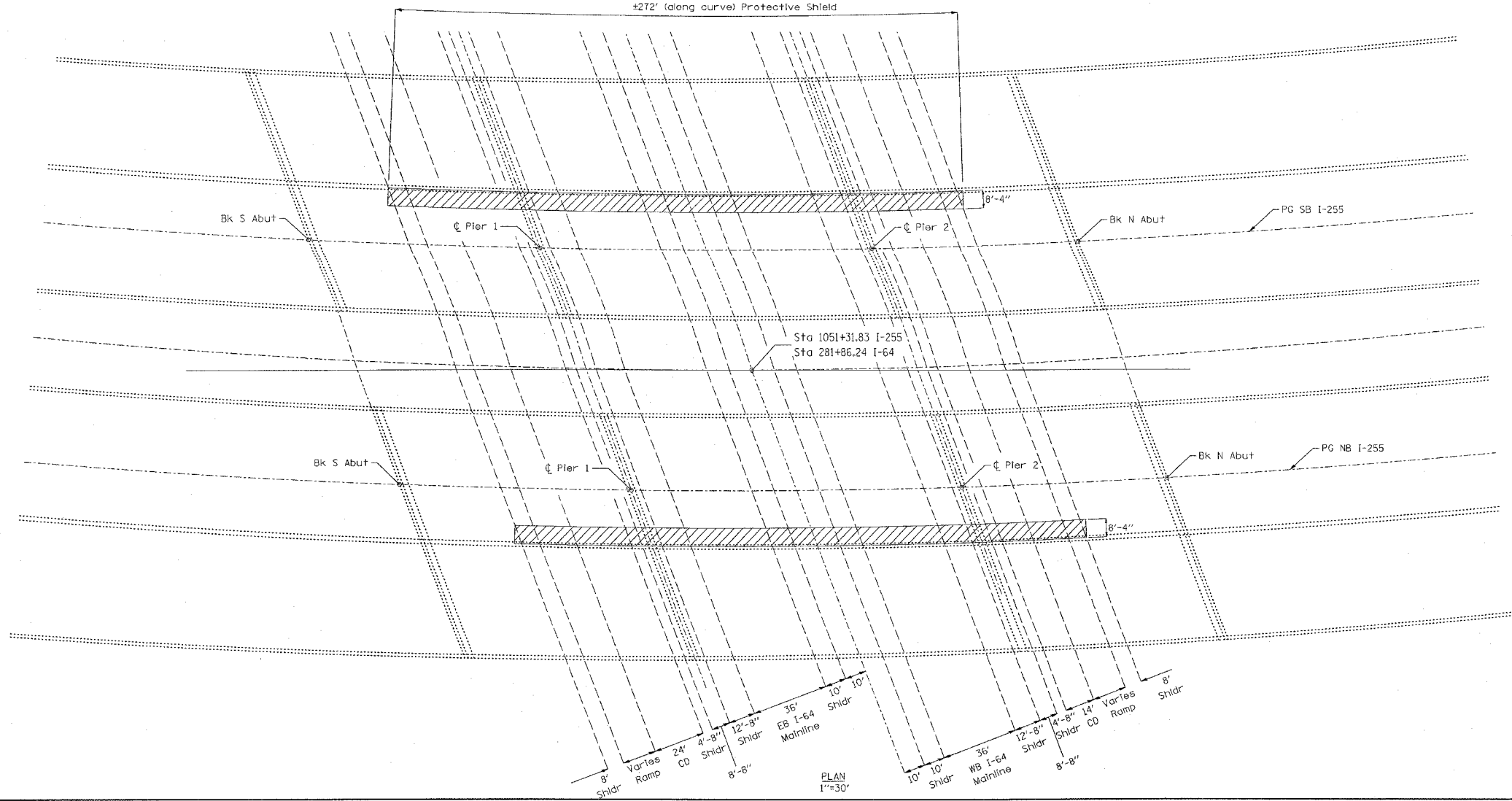


12 beam spa @ 8'-4" = 100'-0"

CROSS SECTION
1"=4'
SB bridge looking N
NB bridge looking S



+272' (along curve) Protective Shield



- LEGEND
- ① Existing 60" web I-Grder (Bottom flange varies from 16" to 24" wide)
 - ② PROTECTIVE SHIELDING (PERMANENT) - under open joint only
 - ③ Existing deteriorated longitudinal open joint

Note: Crossframes are located in all bays, except for the bay with protective shielding.

REVISIONS	
NAME	DATE

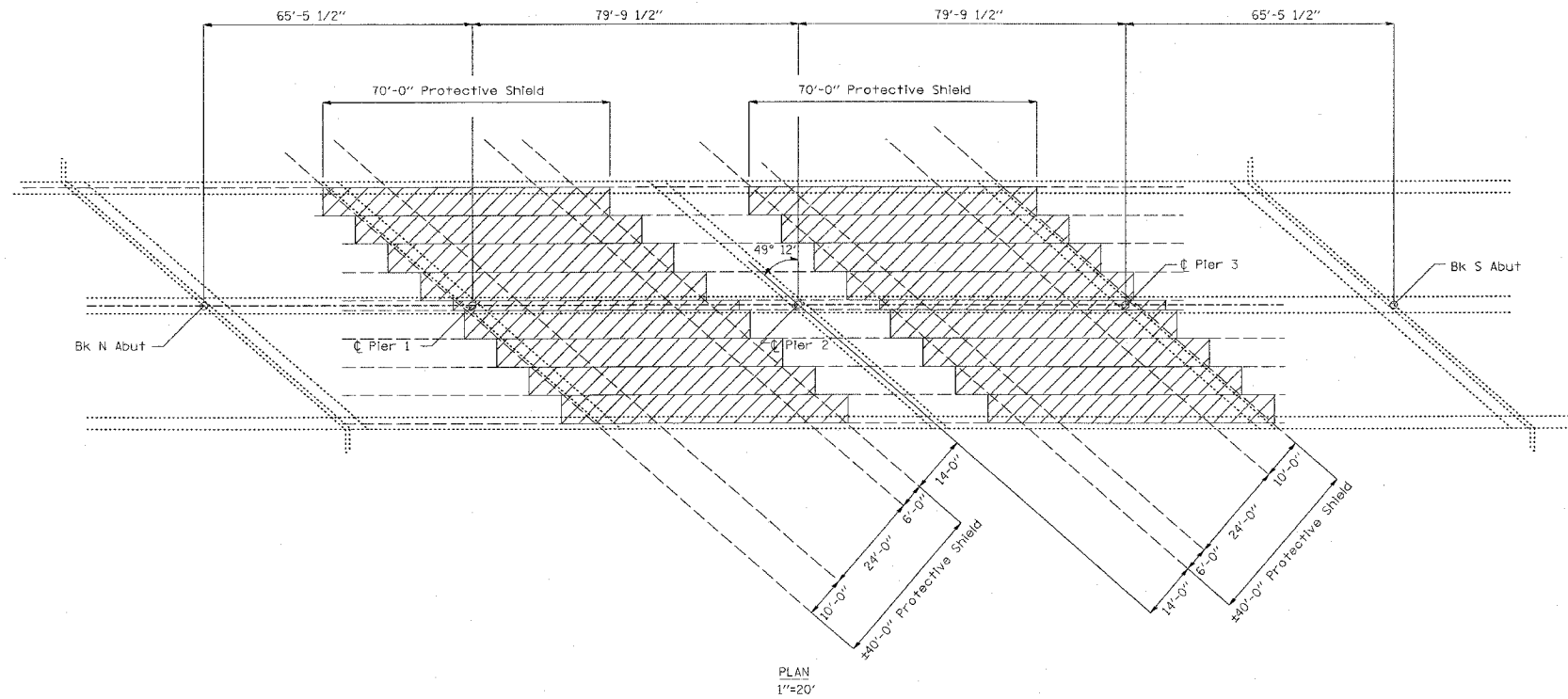
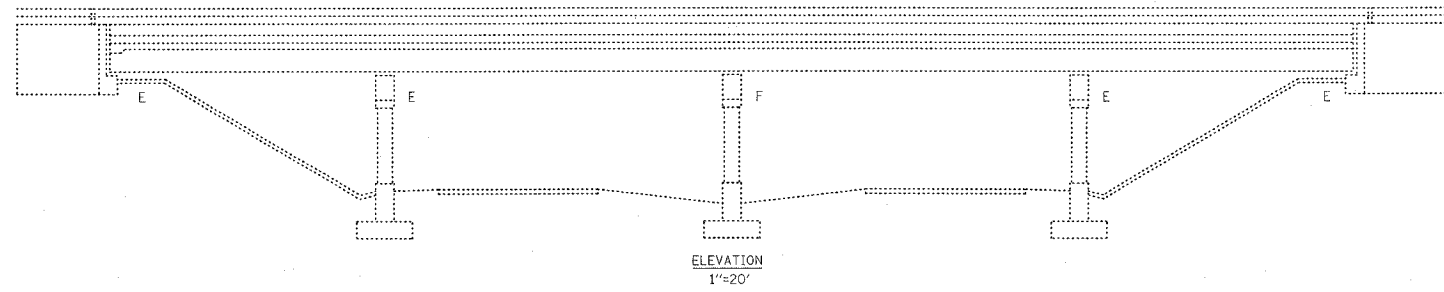
ILLINOIS DEPARTMENT OF TRANSPORTATION
SN 082-0241 & 0242
I-255 OVER I-64
VARIOUS ROUTES
DIST 8 BRIDGE REHAB 2008-1
ST. CLAIR & MADISON COUNTIES

SCALE: VERT. DATE
HORIZ. DRAWN BY
CHECKED BY

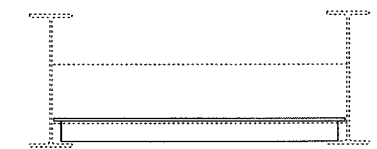
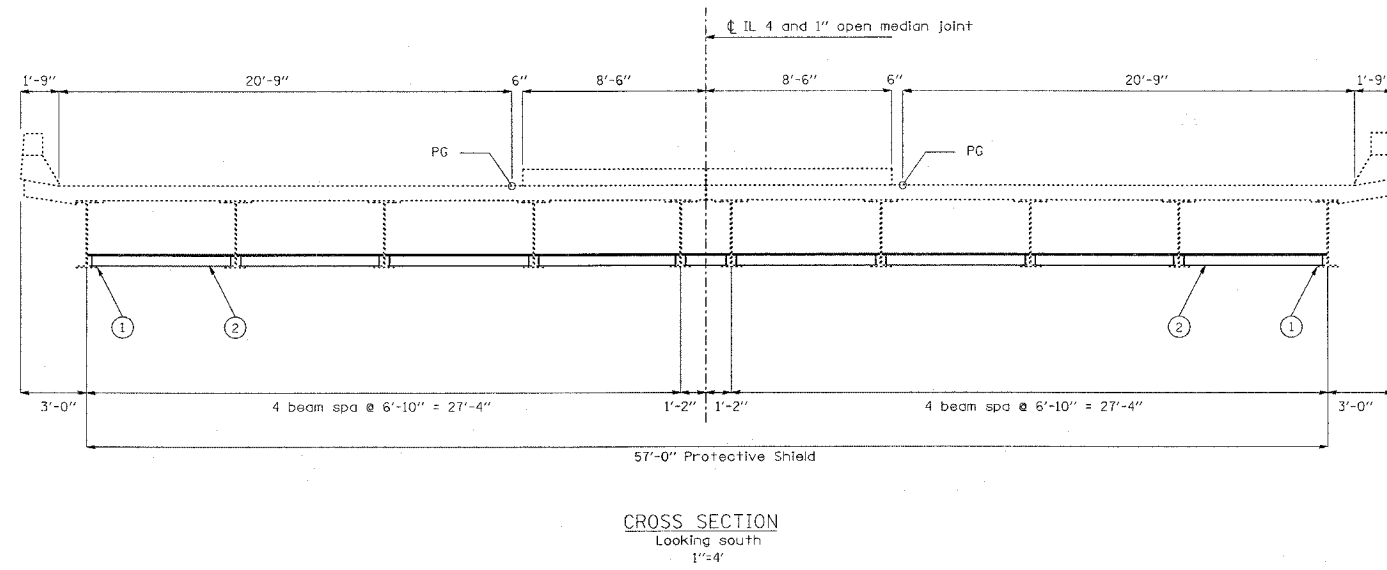
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VAR.	*	VARIOUS	8	7
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

• DIST 8 BRIDGE REHAB 2008-1



- LEGEND**
- ① Existing 36WF170
 - ② PROTECTIVE SHIELDING (PERMANENT) - All bays



DIAPHRAGM DETAIL
1"=2"
(Diaphragms omitted at IL bay)

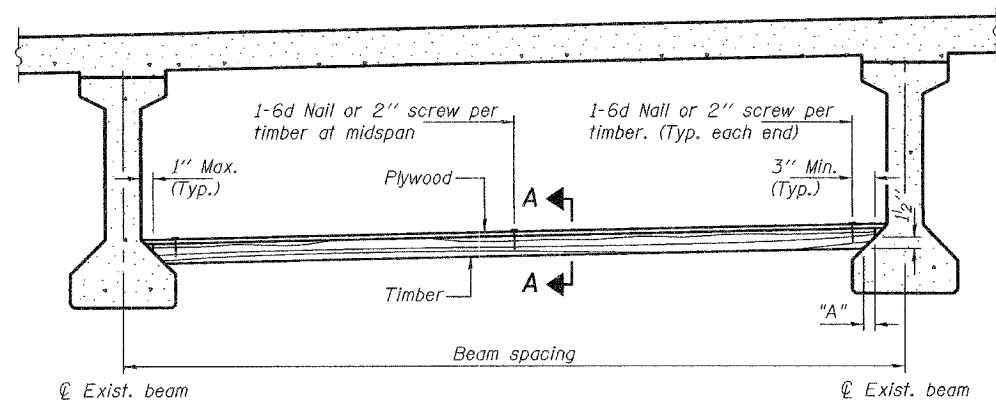
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION SN 060-0104 IL 4 OVER I-55 VARIOUS ROUTES DIST 8 BRIDGE REHAB 2008-1 ST. CLAIR & MADISON COUNTIES
NAME	DATE	

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DATE _____

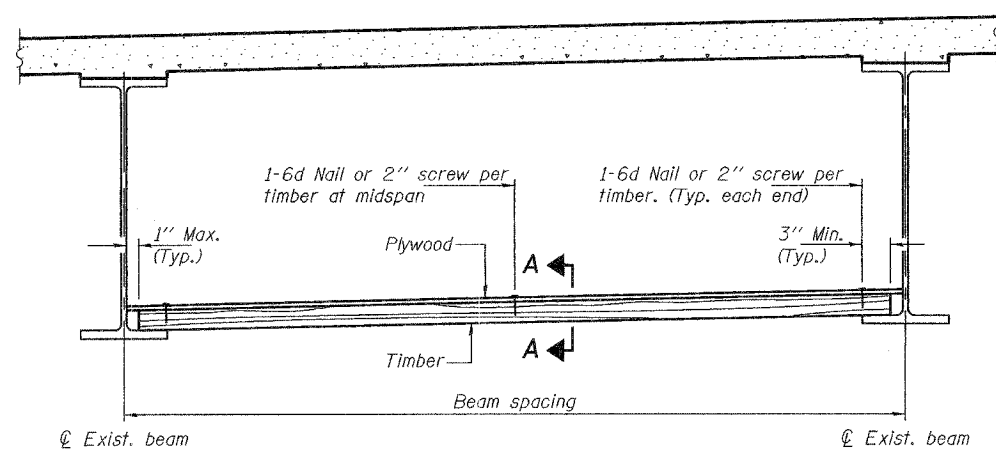
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

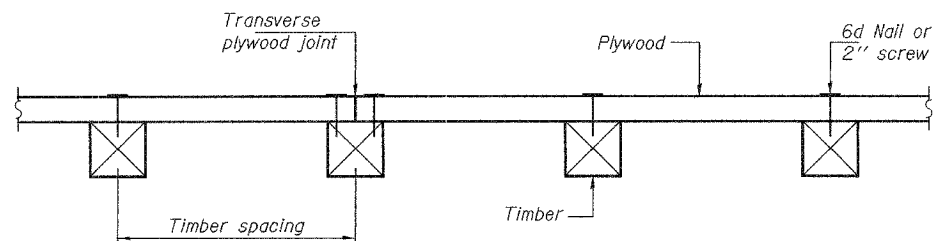
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VAR.		VARIOUS	8	8
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• DIST 8 BRIDGE REHAB 2008-1				



PPC I-BEAMS AND BULB-T'S



STEEL BEAMS



SECTION A-A

TIMBER SPACING

Beam Spacing (ft.)	Timber Sizes (in.)		
	4" x 4" with min. Fb=775 psi Fv=135 psi	4" x 6" with min. Fb=775 psi Fv=135 psi	6" x 6" with min. Fb=575 psi Fv=125 psi
	Maximum Timber Spacing (in.)		
4.5	16	16	16
4.75	16	16	16
5.0	16	16	16
5.25	16	16	16
5.5	16	16	16
5.75	16	16	16
6.0	16	16	16
6.25	12	16	16
6.5	12	16	16
6.75	12	16	16
7.0	8	16	16
7.25	8	16	16
7.5	8	16	16
7.75	8	16	16
8.0	8	12	16
8.25	8	12	16
8.5	6	12	12
8.75	6	12	12
9.0	6	8	12

PPC I-BEAMS AND BULB-T'S

BEAM	"A"
36" I-Beam	1 1/2"
42" I-Beam	1 1/2"
48" I-Beam	1 1/2"
54" I-Beam	1 5/8"
63" Bulb-T	3 3/8"
72" Bulb-T	3 3/8"

Notes: See special provision for Permanent Protective Shield System.
 Timber sizes shown are nominal sizes. Rough sawn timber of the dimensions shown will also be considered acceptable.
 The minimum Fb and Fv values shown are the tabulated design values given in the National Design Specification for Wood Construction for No. 2 Spruce-Pine-Fir without adjustment factors applied. Better grades or other species with equal or higher allowable stresses will also be considered acceptable.
 The timber spacings shown have been determined using allowable stresses with all adjustment factors necessary for the anticipated service conditions.
 All timber shall be treated.
 Plywood shall be 5/8" Exterior type plywood.
 Plywood shall be placed such that the face grain is perpendicular to the timber supports. When less than a full sheet (4' width) of plywood is used, the width of the strip used shall not be less than 2'.
 Transverse plywood joints shall be supported by timbers.
 When 4" x 6" timbers are used, they shall be placed such that the wide face is horizontal and the narrow face is vertical.
 Design load = 200 psf.

BILL OF MATERIAL

Item	Unit	Total
Protective Shield (Permanent)	Sq. Yd.	1647

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 PERMANENT PROTECTIVE
 SHIELD DETAILS
 VARIOUS ROUTES
 DIST 8 BRIDGE REHAB 2008-1
 ST. CLAIR & MADISON COUNTIES

SCALE: VERT. HORIZ.
 DATE
 DRAWN BY
 CHECKED BY