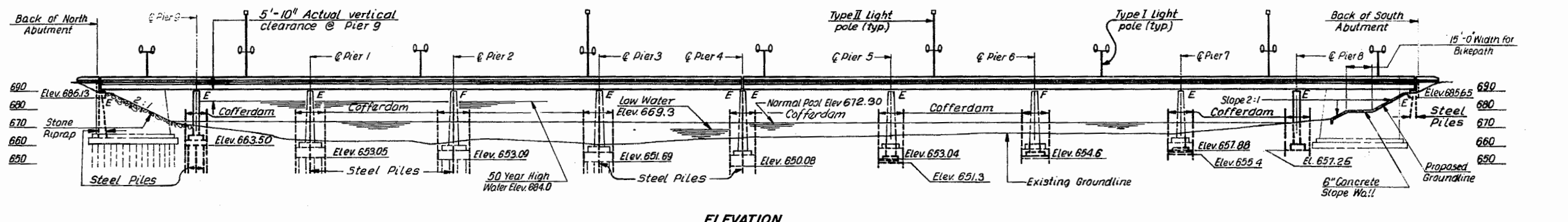
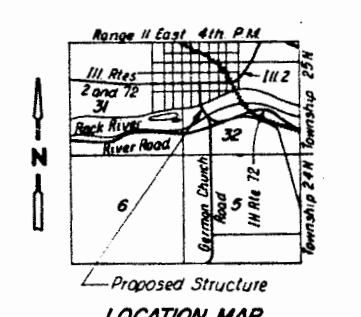
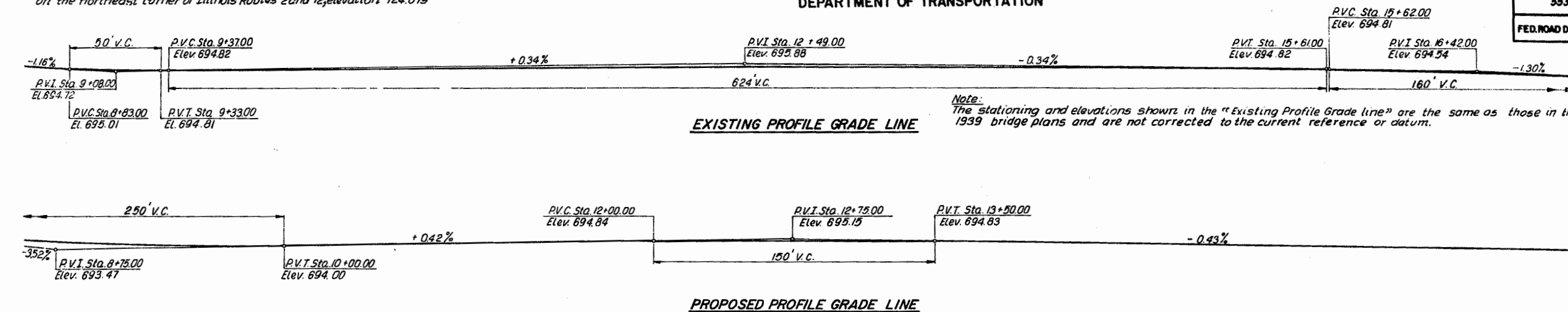


FOR INFORMATION ONLY

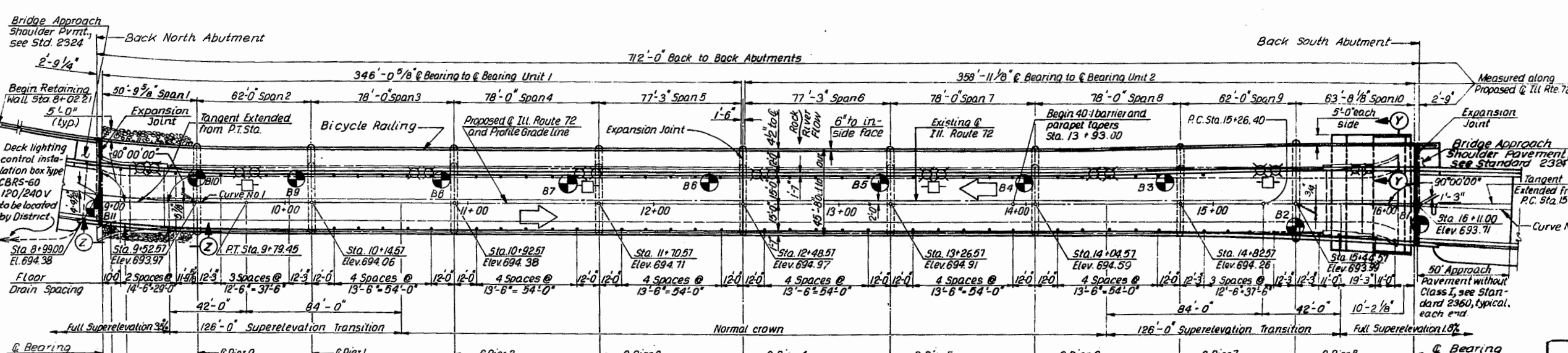
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

FA ROUTE NO.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
553	119 BR-1	OGLE	90	41
FED. ROAD DIST. NO. 7	ILLINOIS			

Existing Structure: See below
Bench Mark No. 1: "R" in COREY on top of fire hydrant on the northeast corner of Illinois Routes 2 and 72, elevation 724.079



- LEGEND**
- Type I, 14' MH Pole & 2-70W Luminaires
 - Type II, 35' MH Pole with 1-250W Rect Luminaires & 2-70W Luminaires Mounted 14' above top of Parapet
 - Boring location
 - Direction of traffic lanes
 - F Fixed bearing
 - E Expansion bearing
 - Existing bridge
 - 6" floor drains



CURVE DATA

CURVE NO. 1		CURVE NO. 2	
P.C. Sta. 7+31.3	P.C. Sta. 15+26.40	P.C. Sta. 7+31.3	P.C. Sta. 15+26.40
Δ = 19°14'42"	Δ = 19°27'33"	Δ = 19°14'42"	Δ = 19°27'33"
D = 745.00'	D = 2°00'00"	D = 745.00'	D = 2°00'00"
R = 739.30'	R = 2864.19'	R = 739.30'	R = 2864.19'
T = 125.34'	T = 491.21'	T = 125.34'	T = 491.21'
L = 248.32'	L = 972.96'	L = 248.32'	L = 972.96'
SE = 3.9%	SE = 1.8%	SE = 3.9%	SE = 1.8%
SE Attained From Sta. 10+63.45 To Sta. 9+37.45	SE Attained From Sta. 14+42.40 To Sta. 15+58.40	SE Attained From Sta. 10+63.45 To Sta. 9+37.45	SE Attained From Sta. 14+42.40 To Sta. 15+58.40

Notes:
For adjustments to existing elevations and for Sections Y-Y & Z-Z, see Dwg No. B2.

WATERWAY INFORMATION

Flood Year	Freq. (C.F.S.)	Opening (Sq. Ft.)		Nat. Head (Feet)		At Sta.			
		Exist.	Prop.	Exist.	Prop.	Exist.	Prop.		
Design:	50	52,100	10,050	10,317	684.0	0.04	0.04	684.04	684.04
Base:	100	57,000	10,506	10,827	684.8	0.05	0.05	684.85	684.85
Overlapping:									
Max. Calc.:	500	70,854		70,850	687.1		0.10		687.20

GENERAL PLAN AND ELEVATION

ILLINOIS ROUTE 72 OVER ROCK RIVER
FA. ROUTE 553 SECTION 119 BR-1
OGLE COUNTY
STA. 12+48.57
STRUCTURE NUMBER 071-0040

Existing Structure: The existing bridge is Structure No. 071-0040 and is 36'± wide. It was built in 1939 and is 703' long. It consists of 8 spans which are 78' or 79' long in 2 continuous units of 4 spans each. The superstructure and substructure are reinforced concrete. Two deep abutments and seven piers support the deck and six arched girders.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY.

James J. Hubert
Engineer of Bridges and Structures

George J. Day

Designed by JLG
Drawn by EBP
Checked by JLG
Date: April 2, 1988

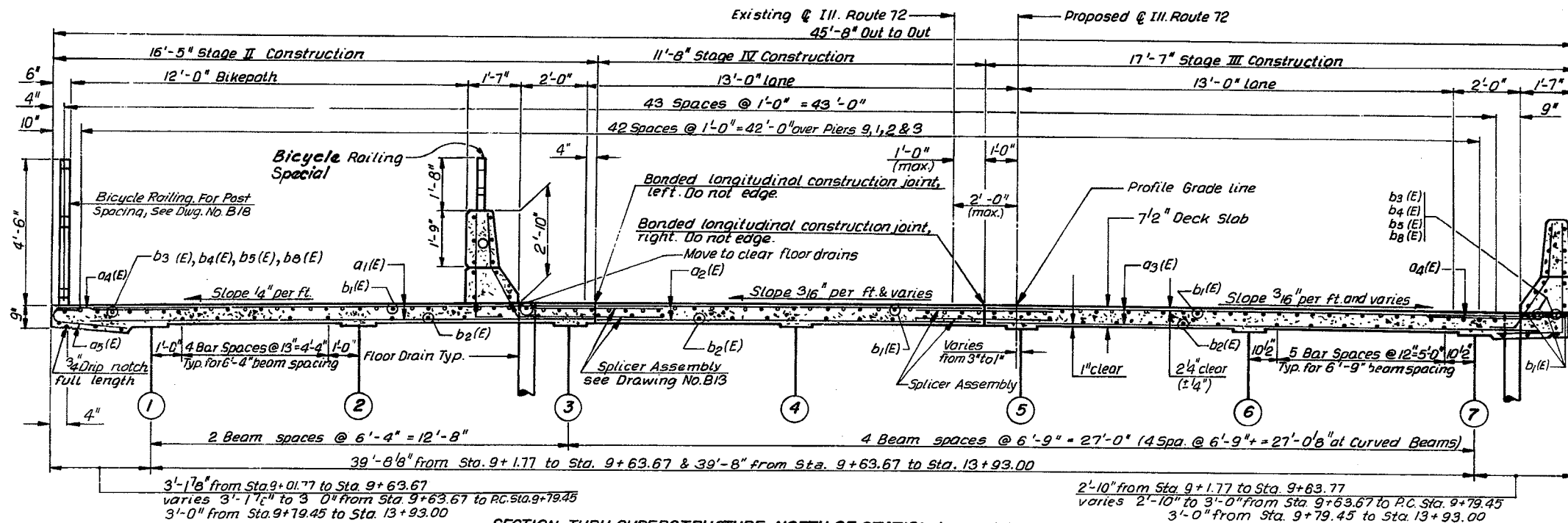
HDR Engineering, Inc.

Drawing Number 01

FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

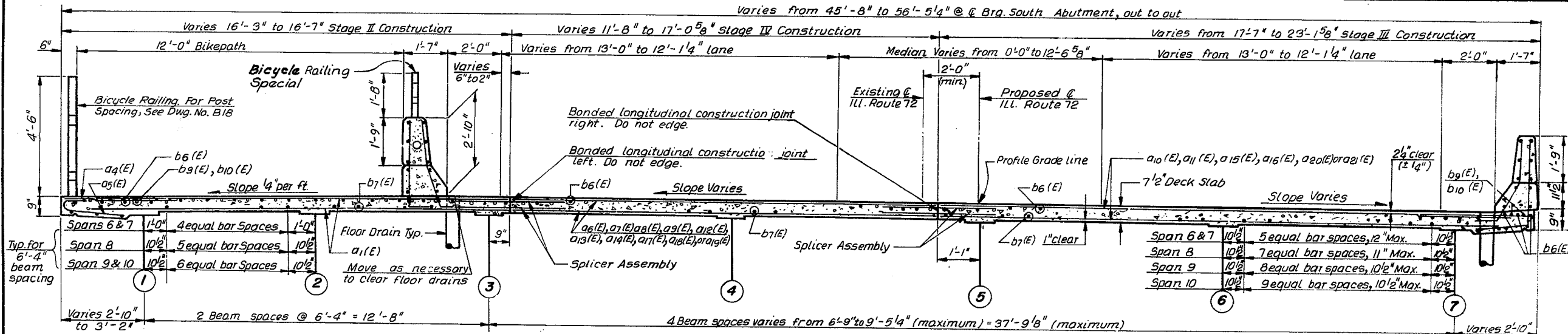
FA ROUTE NO.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
553	119 BR-1	OGLE	90	53
FED. ROAD DIST. NO. 7		ILLINOIS		



SECTION THRU SUPERSTRUCTURE NORTH OF STATION 13+93, LOOKING SOUTH

SUPERSTRUCTURE BILL OF MATERIAL UNIT I

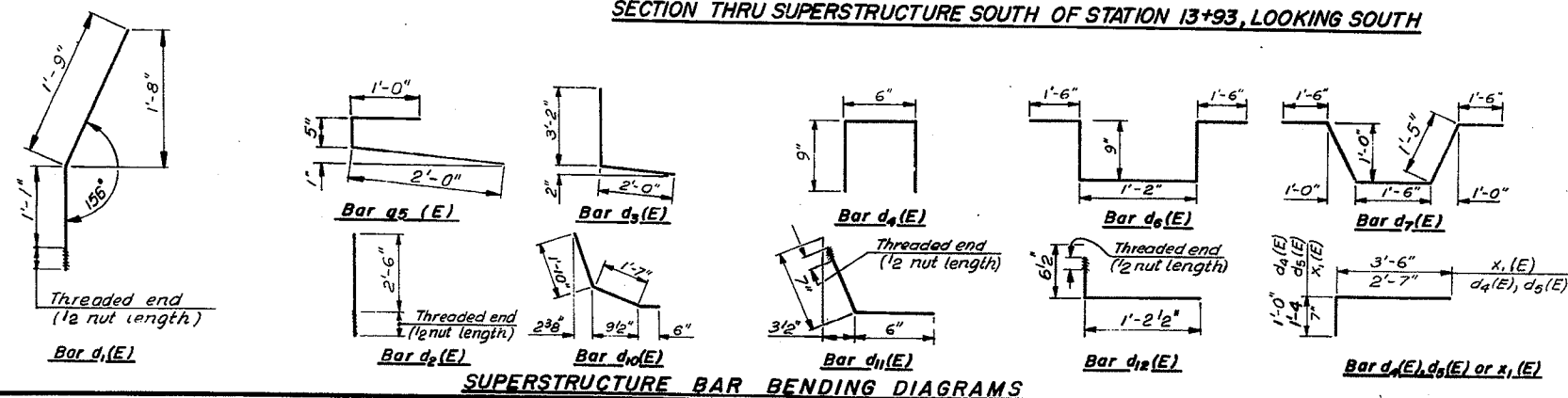
Bar	No.	Size	Length	Shape
a ₁ (E)	1108	#5	15'-3"	
a ₂ (E)	1108	#5	11'-6"	
a ₃ (E)	1108	#5	16'-5"	
a ₄ (E)	640	#6	4'-0"	
a ₅ (E)	320	#4	3'-5"	
b ₁ (E)	658	#5	26'-5"	
b ₂ (E)	520	#5	26'-4"	
b ₃ (E)	45	#6	29'-3"	
b ₄ (E)	90	#6	35'-6"	
b ₅ (E)	45	#6	45'-0"	
b ₂₁ (E)	4	#5	44'-2"	
b ₂₂ (E)	4	#8	44'-2"	
b ₂₃ (E)	8	#5	7'-3"	
b ₂₄ (E)	8	#8	7'-3"	
b ₂₅ (E)	4	#5	44'-8"	
b ₂₆ (E)	4	#8	44'-8"	
b ₂₇ (E)	8	#5	9'-5"	
b ₂₈ (E)	8	#8	9'-5"	
b ₂₉ (E)	8	#5	30'-0"	
b ₃₀ (E)	8	#8	30'-6"	
b ₃₁ (E)	8	#5	9'-5"	
b ₃₂ (E)	8	#8	9'-5"	
d ₁ (E)	380	#5	2'-10"	
d ₂ (E)	348	#4	2'-6"	
d ₃ (E)	348	#4	5'-2"	
d ₄ (E)	4	#6	3'-7"	
d ₅ (E)	6	#6	3'-11"	
d ₆ (E)	10	#6	5'-8"	
d ₇ (E)	10	#6	7'-4"	
d ₁₀ (E)	380	#5	3'-11"	
d ₁₁ (E)	380	#5	1'-1"	
d ₁₂ (E)	348	#4	1'-9"	
e ₁ (E)	36	#4	14'-7"	
e ₂ (E)	24	#4	7'-3"	
e ₃ (E)	36	#4	14'-9"	
e ₄ (E)	24	#4	9'-5"	
e ₅ (E)	48	#4	14'-4"	
e ₆ (E)	24	#4	9'-6"	
e ₇ (E)	48	#4	14'-0"	
e ₈ (E)	24	#4	11'-0"	
e ₉ (E)	48	#4	16'-5"	
x ₁ (E)	94	#5	4'-1"	



SECTION THRU SUPERSTRUCTURE SOUTH OF STATION 13+93, LOOKING SOUTH

Item	Unit	Quantity
Class X Concrete Superstructure	Cu. Yd	484.2
Reinforcement Bars, Epoxy coated	Pound	112,050

Note: +&- indicate that adjustments must be made in bar lengths to account for threads.



SUPERSTRUCTURE BAR BENDING DIAGRAMS

SUPERSTRUCTURE CROSS SECTIONS AND DETAILS

ILLINOIS ROUTE 72 OVER ROCK RIVER
FA. ROUTE 553 SECTION 119 BR-1
OGLE COUNTY
STA. 12+48.57
STRUCTURE NUMBER 071-0040

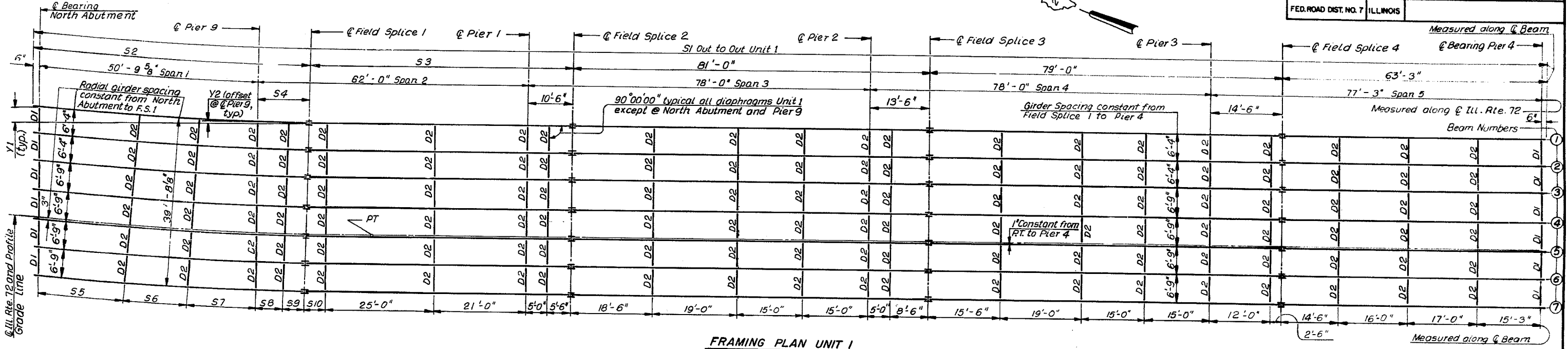
Designed by: <i>[Signature]</i>	Drawing Number: B13
Drawn by: <i>[Signature]</i>	Checked by: <i>[Signature]</i>
Date: 3/11/1988	HDR Engineering, Inc.

FOR INFORMATION ONLY

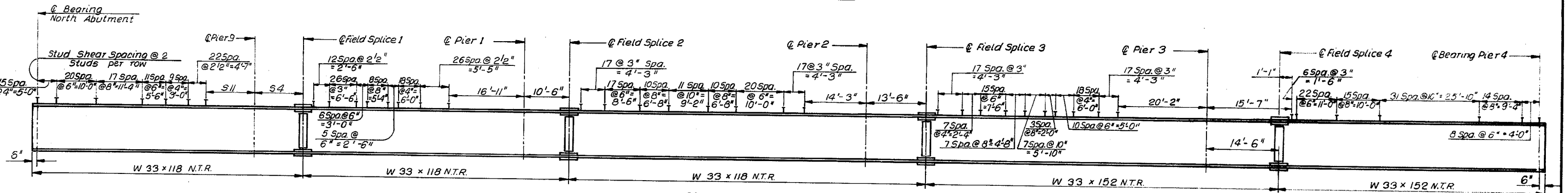
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

FA ROUTE NO.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
553	119 BR-1	OGLE	90	61
FED. ROAD DIST. NO. 7 ILLINOIS				

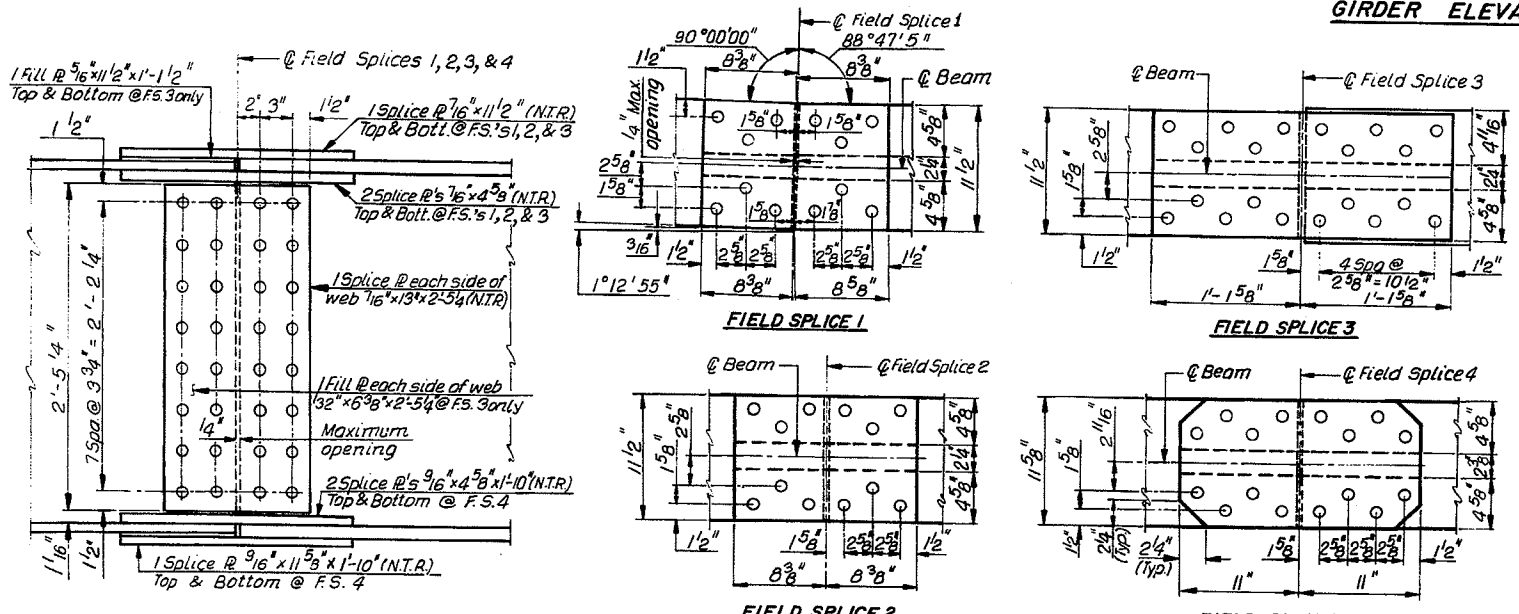
Note: North Abutment, and all piers, diaphragms, and field splice @'s in this unit are parallel except that Field Splice 1 is radial and the 3 interior diaphragm lines between the North Abutment and Field Splice 1 are radial. All beams from North Abutment to Field Splice 1 are curved. All beams from Field Splice 1 to Pier 4 are straight.



FRAMING PLAN UNIT I



GIRDER ELEVATION UNIT I



ELEVATION VIEW FIELD SPLICES UNIT I
TOP & BOTTOM FLANGE PLAN VIEWS OF FIELD SPLICES UNIT I

TABLE OF VARIABLE DIMENSIONS

Beam or line	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	Y1	Y2	Radius	θ ₁	θ ₂
(1)	347'-0 3/4"	63'-0 3/4"	60'-9"	11'-9"	22'-9 1/2"	14'-5 1/2"	13'-6 3/8"	6'-11 3/8"	4'-9 1/8"	4'-7 3/8"	11'-4 3/8"	4'-0 3/8"	4 1/2"	713.38'	67°24'	2°09'32"
(2)	347'-0 1/16"	62'-11 1/8"	60'-10 5/8"	11'-7 3/4"	22'-3 3/4"	14'-7 1/4"	13'-10 1/16"	6'-9"	4'-10 1/16"	4'-8 1/16"	11'-4 1/16"	4'-0 3/16"	4 1/2"	719.71'	67°10'50"	2°08'24"
(3)	347'-0 1/16"	62'-9 1/2"	61'-0 3/16"	11'-5 3/4"	21'-9 3/4"	14'-8 3/8"	14'-3"	6'-6 3/8"	4'-10 5/16"	4'-8 3/16"	11'-4 1/16"	3'-11 3/8"	4"	726.05'	67°01'50"	2°07'16"
(4)	347'-0 5/8"	62'-7 1/16"	61'-1 5/16"	11'-4 1/16"	21'-3 1/4"	14'-10 1/16"	14'-7 7/16"	6'-4 3/8"	4'-11 1/2"	4'-9 1/16"	11'-4 5/8"	3'-11 3/8"	3 3/4"	732.80'	67°04'26"	2°06'06"
(5)	347'-0 3/8"	62'-5 1/8"	61'-3 3/8"	11'-2 3/8"	20'-9 3/8"	15'-0"	15'-0"	6'-2 3/8"	5'-0"	4'-9 5/8"	11'-4 5/8"	4'-0 5/8"	5 1/2"	739.30'	67°01'13"	2°05'00"
(6)	347'-0 9/16"	62'-4 3/8"	61'-5 3/8"	11'-2 3/8"	20'-9 3/8"	15'-0 1/2"	15'-0 3/4"	6'-2 3/8"	5'-0"	4'-9 5/8"	11'-4 5/8"	4'-0 5/8"	5 1/2"	739.55'	67°01'06"	2°04'57"
(7)	347'-0 9/16"	62'-2 1/16"	61'-7 1/16"	10'-10 1/8"	19'-8 3/8"	15'-3 3/8"	15'-9 3/4"	5'-9 3/4"	5'-11 3/8"	4'-10 1/16"	11'-4 3/8"	3'-10 1/16"	3 3/4"	746.30'	67°01'48"	2°03'48"

Note:
θ₁ = Skew angle @ @ Bearing North Abutment
θ₂ = Skew angle @ @ Pier 9

Notes:
N.T.R. indicates Notch Toughness Requirement. See General Notes.
Diaphragm types are indicated by D1 and D2. See Drawing No B 23.

All W33 & W36 wide flange beams and all splice R material (except fill R's) shall be AASHTO M-223 Grade 50.

FRAMING PLAN, GIRDER ELEVATION, AND FIELD SPLICES, UNIT I

ILLINOIS ROUTE 72 OVER ROCK RIVER
F.A. ROUTE 553 SECTION 119 BR-1
OGLE COUNTY
STA. 12+48.57
STRUCTURE NUMBER 071-0040

Designed by: MCB
Drawn by: W.S.
Checked by: W.S.
Date: 11/11/88

HDR Engineering, Inc.
Drawing Number: B 21

FOR INFORMATION ONLY

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

FA ROUTE NO.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NUMBER
553	119 BR-1	OGLE	90	62
FED. ROAD DIST. NO. 7		ILLINOIS		

Note:
@ Brg. South Abutment, and @ all piers, diaphragms,
and @'s field splices are parallel in this unit.

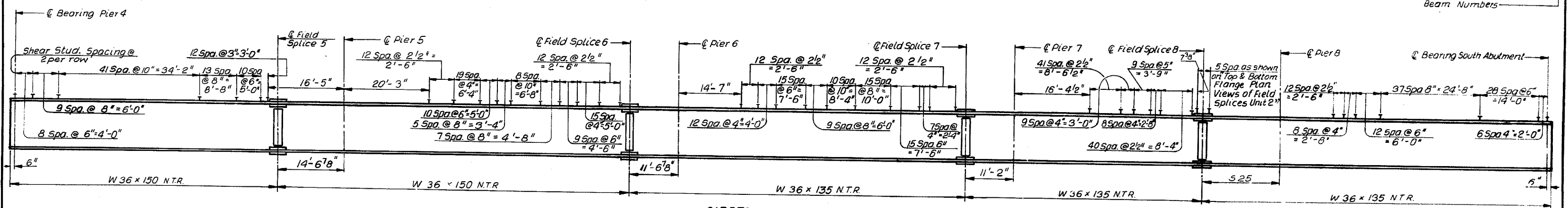
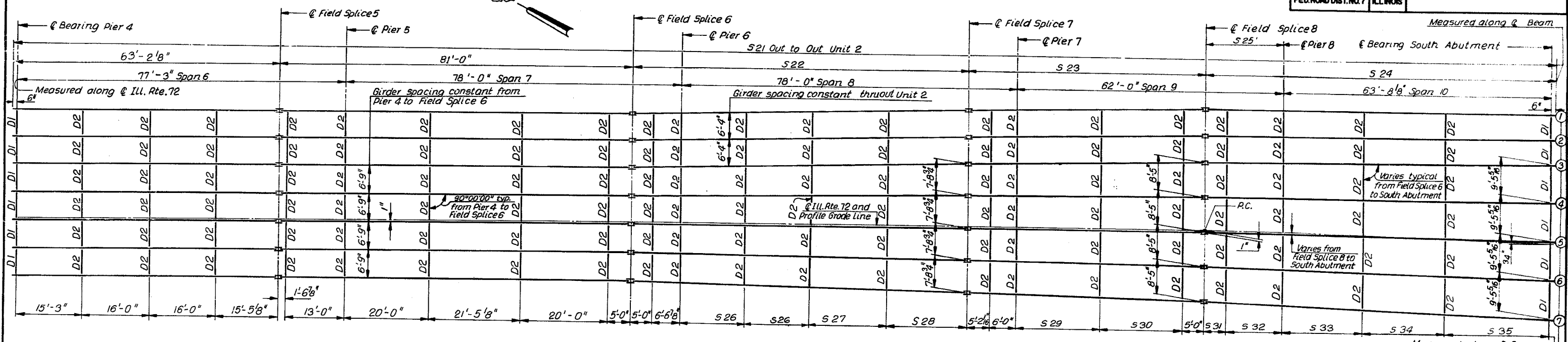
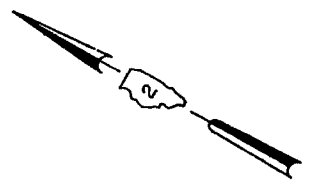
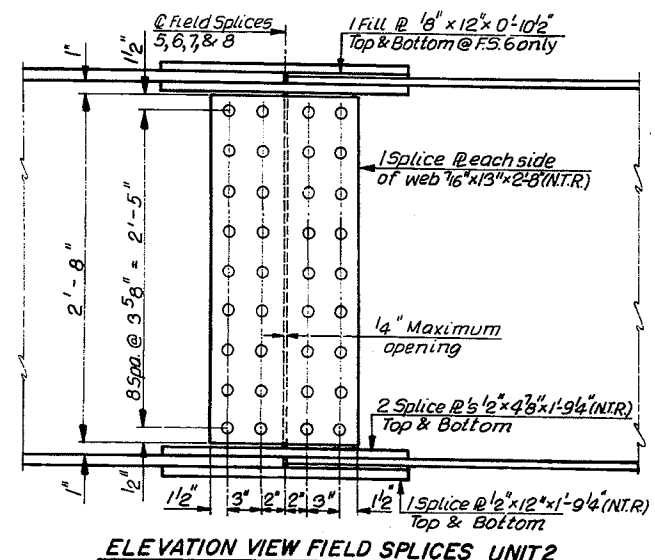
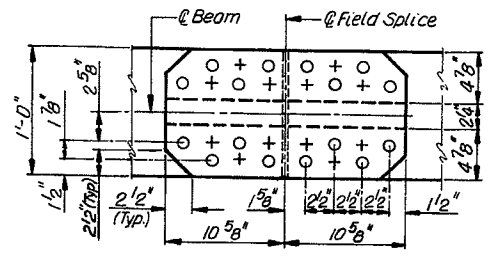


TABLE OF VARIABLE DIMENSIONS

Beamline	S 21	S 22	S 23	S 24	S 25	S 26	S 27	S 28	S 29	S 30	S 31	S 32	S 33	S 34	S 35	θ 3	θ 4	θ 5
(1)	359'-11 3/8"	78'-5 1/8"	55'-0 3/16"	82'-4 1/8"	18'-2"	15'-0 1/16"	18'-0 1/16"	18'-10"	19'-5 1/16"	19'-5"	5'-0"	13'-2"	19'-6"	19'-6"	24'-8 1/8"	-1°25'56"	+0°42'32"	-0°43'24"
(2)	359'-11 3/8"	78'-5 1/8"	55'-0 3/16"	82'-4 1/8"	18'-2"	15'-0 1/16"	18'-0 1/16"	18'-10"	19'-5 1/16"	19'-5"	5'-0"	13'-2"	19'-6"	19'-6"	24'-8 1/8"	-1°25'56"	+0°42'32"	-0°43'24"
(3)	359'-11 3/8"	78'-5 1/8"	55'-0 3/16"	82'-4 1/8"	18'-2"	15'-0 1/16"	18'-0 1/16"	18'-10"	19'-5 1/16"	19'-5"	5'-0"	13'-2"	19'-6"	19'-6"	24'-8 1/8"	-1°25'56"	+0°42'32"	-0°43'24"
(4)	359'-11 3/8"	78'-5 1/8"	55'-0 3/16"	82'-4 1/8"	18'-2"	15'-0 1/16"	18'-0 1/16"	18'-10"	19'-5 1/16"	19'-5"	5'-0"	13'-2"	19'-6"	19'-6"	24'-8 1/8"	-1°25'56"	+0°42'32"	-0°43'24"
@ & P.G.L.	359'-11 3/8"	78'-5 1/8"	55'-0 3/16"	82'-4 1/8"	18'-2"	15'-0 1/16"	18'-0 1/16"	18'-10"	19'-5 1/16"	19'-5"	5'-0"	13'-2"	19'-6"	19'-6"	24'-8 1/8"	-1°25'56"	+0°42'32"	-0°43'24"
(5)	359'-11 3/8"	78'-5 1/8"	55'-0 3/16"	82'-4 1/8"	18'-2"	15'-0 1/16"	18'-0 1/16"	18'-10"	19'-5 1/16"	19'-5"	5'-0"	13'-2"	19'-6"	19'-6"	24'-8 1/8"	-1°25'56"	+0°42'32"	-0°43'24"
(6)	359'-11 3/8"	78'-5 1/8"	55'-0 3/16"	82'-4 1/8"	18'-2"	15'-0 1/16"	18'-0 1/16"	18'-10"	19'-5 1/16"	19'-5"	5'-0"	13'-2"	19'-6"	19'-6"	24'-8 1/8"	-1°25'56"	+0°42'32"	-0°43'24"
(7)	359'-11 3/8"	78'-5 1/8"	55'-0 3/16"	82'-4 1/8"	18'-2"	15'-0 1/16"	18'-0 1/16"	18'-10"	19'-5 1/16"	19'-5"	5'-0"	13'-2"	19'-6"	19'-6"	24'-8 1/8"	-1°25'56"	+0°42'32"	-0°43'24"



Note:
+ Indicates location of shear studs for top flange splice plate for field splice B only. Field splice plan view as shown is drawn with θ 3 & θ 4 = 0°. See Table of Variable Dimensions on this sheet for values of θ 3 and θ 4 to be incorporated into dimensions for specific field splice locations.



Note:
θ 3 = Angle break @ @ Field Splice 6 and skew angle @ @ Piers 6 & 7
θ 4 = Angle break @ @ Field Splice 8
θ 5 = Skew angle @ @ Pier 8 & @ Bearing South Abutment
* Value shown is at @ Pier 8. Value is 1°38'13" at @ Bearing South Abutment
- Indicates angle break to the left (east) for θ 3, or indicates counterclockwise rotation of θ 5 to establish skew angle @ @ Pier 8 & @ Bearing South Abutment.
+ Indicates angle break to the right (west) for θ 3 & θ 4 or indicates clockwise rotation of θ 5 to establish skew angle @ @ Pier 8 & @ Bearing South Abutment.

Notes:
N.T.R. indicates Notch Toughness Requirement. See General Notes
Diaphragm types are indicated by D1, and D2. See Drawing No. B 23
All W 36 x W 36 wide flange beams and all splice R material (except fill R's) shall be AASHTO M-223 Grade 50.
For other notes, see Drawing No. B 21.

**FRAMING PLAN, GIRDER ELEVATION,
AND FIELD SPLICES, UNIT 2**

**ILLINOIS ROUTE 72 OVER ROCK RIVER
F.A. ROUTE 553 SECTION 119 BR-1
OGLE COUNTY
STA. 12+48.57
STRUCTURE NUMBER 071-0040**

Designed by:	Drawing Number: B 22
Checked by:	Date: 10/24/2012

HDR Engineering, Inc.