

04-28-2017 LETTING ITEM 108

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

VARIOUS ROUTES
SECTION D5 BRIDGE PAINTING 2017-3

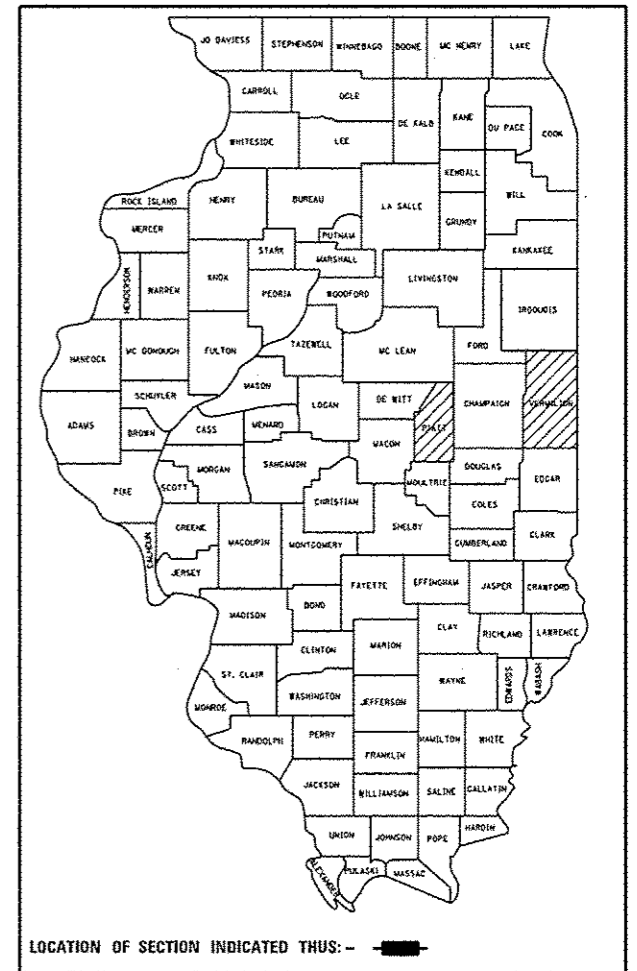
BRIDGE PAINTING
PIATT & VERMILION COUNTIES

C-95-015-17

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	**	*	35	1
ILLINOIS			CONTRACT NO. 70C59	

*PIATT & VERMILION
**D5 BRIDGE PAINTING 2017-3

D-95-015-17



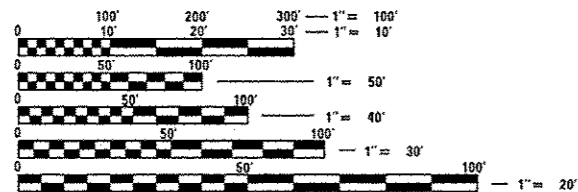
FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR SUMMARY OF QUANTITIES, SEE SHEETS 6-7

CURRENT ADT			
	LOC. #1	LOC. #2	LOC. #3
ADT (2015)	14,200	1,550	3,850

TRAFFIC DATA LOCATIONS

LOC. #1 = S.N. 074-0071 - FAP 741 (IL 105) OVER OVER I-72 0.25 MI. N. OF MONTICELLO.
 LOC. #2 = S.N. 092-0048 - FAP 697 (IL 9) OVER N FORK VERMILION RIVER - 2.5 MI. E. OF IL 9.
 LOC. #3 = S.N. 092-0050 - FAP 1512 (US 150) OVER MIDDLE FORK VERMILION RIVER - 2.6 MI. W. OF DANVILLE.

FOR LOCATION MAPS, SEE SHEETS 3-5



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
OR 811

PROJECT ENGINEER: NANCY FASIG
SQUAD LEADER: STEVE COOMBES
DESIGNER: JASON LEE
(217) 465-4181
CONTRACT NO. 70C59

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED January 30 2017
Kensil A. Samath REGIONAL ENGINEER
May 24 2017
Mauro M. Addison ENGINEER OF DESIGN AND ENVIRONMENT
May 24 2017
Michelle A. [Signature] DIRECTOR OF PROGRAM DEVELOPMENT

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OF THE STATE OF ILLINOIS

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	INDEX OF SHEETS, HIGHWAY STANDARDS, & GENERAL NOTES
3-5	DESCRIPTIONS & MAPS FOR LOCATIONS 1-3
6-7	SUMMARY OF QUANTITIES
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16-20	LOCATION #2 STRUCTURE DETAILS
21-28	LOCATION #3 STRUCTURE DETAILS
29-31	I-72 WB RAMP CLOSURE & DETOUR DETAILS
32-35	WIDTH RESTRICTION SIGNAGE DETAILS

GENERAL NOTES

G.N.-100
ENGLISH UNITS OF MEASURE SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

G.N.-100A
ELECTRONIC FILES AND/OR ELECTRONIC SURVEY INFORMATION INCLUDING CADD FILES WILL NOT BE AVAILABLE TO THE CONTRACTOR.

G.N.-501A
THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHALL FOLLOW THE GUIDE BRIDGE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES" TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT.

G.N.-506 (SPL.)
ALL FINAL SURFACES OF THE BEAMS SHALL BE PAINTED GRAY (MUNSELL COLOR STANDARD - 5B 7/1) EXCEPT THE EXTERIOR SURFACES OF THE EXTERIOR BEAMS WHICH SHALL BE PAINTED WITH EITHER INTERSTATE GREEN (MUNSELL COLOR STANDARD 7.5G 4/8) OR REDDISH BROWN (MUNSELL COLOR STANDARD 2.5YR 3/4) AS SPECIFIED UNDER THE DESCRIPTION FOR EACH STRUCTURE.

ONLY STRUCTURAL STEEL AND OTHER DESIGNATED SURFACES SHALL BE PAINTED. ALL OTHER SURFACES SHALL BE PROTECTED FROM CONTRACTORS BLASTING AND PAINTING OPERATIONS. ANY AREAS DAMAGED BY BLASTING OR OVERSPRAY WILL BE REMOVED OR REPAIRED AT THE CONTRACTOR'S EXPENSE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

CARE SHALL BE TAKEN NOT TO DAMAGE RUBBER BEARING OR JOINT COMPONENTS DURING BLASTING AND CLEANING OPERATIONS. ANY DAMAGE TO THESE COMPONENTS SHALL BE REPAIRED AT CONTRACTORS EXPENSE.

THE SSPC-QP1 AND QP2 PAINTING CONTRACTOR CERTIFICATIONS WILL BE REQUIRED FOR THIS CONTRACT.

ALL TRASH AND PAINTING DEBRIS, EXCLUDING WASTE BARRELS OR ROLL-OFF DUMPSTERS, SHALL BE REMOVED BEFORE BEGINNING WORK AT ANOTHER LOCATION.

2 YEAR PAINT WARRANTY REQUIRED FOR STRUCTURES NO.1 AND NO. 2

NO COMMITMENTS

HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701316-11	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR, FOR SPEEDS > 45 MPH
701400-09	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-10	LANE CLOSURE, FREEWAY/EXPRESSWAY
701402-12	LANE CLOSURE, FREEWAY/EXPRESSWAY, WITH BARRIER
701411-09	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS ≥ 45 MPH
701901-06	TRAFFIC CONTROL DEVICES

SCHEDULE OF QUANTITIES

Location #1 - 074-0071						
	70400100			70400200		
	Temporary Concrete Barrier			Relocate Temp Concrete Barrier		
	Taper	Tangent	Total	Taper	Tangent	Total
EBDL	150'	125'	275'	-	-	-
EBPL	-	-	-	150'	125'	275'
WBDL	200'	125'	325'	-	-	-
WBPL	-	-	-	150'	125'	275'
						50' *
			600'			600'

*Extra 50' from WBDL taper to be relocated to a safe location

Location #1 - 074-0071	
X7015005 - Changeable Message Sign	
7.0 CAL DA - Advance Notification for I-72 EB	
7.0 CAL DA - Advance Notification for I-72 WB	
7.0 CAL DA - Advance Notification for IL 105 to I-72 WB ramp closure	
21.0 CAL DA	

**LOCATION #1
DESCRIPTION**

DESCRIPTION: F.A.P. 741 (IL 105) OVER I-72 0.25 MILES N. OF MONTICELLO
 COUNTY: PIATT
 ROUTE: F.A.I. 72
 MARKED ROUTE: I-72
 SECTION: 74-68 HB-3
 STRUCTURE NO.: 074-0071
 TYPE OF STRUCTURE CONTINUOUS STEEL

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, BEARINGS AND OTHER STRUCTURAL STEEL SHALL BE CLEANED PER NEAR WHITE BLASTING SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR STEEL SURFACES SHALL BE GRAY, MUNSELL NO. 5B 7/1. THE COLOR OF THE FINAL FINISH COAT FOR ALL EXTERIOR AND BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE INTERSTATE GREEN (MUNSELL COLOR STANDARD 7.5G 4/8).

A MINIMUM OF FOUR (4) HIGH VOLUME AIR MONITORS WILL BE REQUIRED TO MONITOR AIR QUALITY DURING DUST PRODUCING OPERATIONS AT THIS SITE. SEE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES".

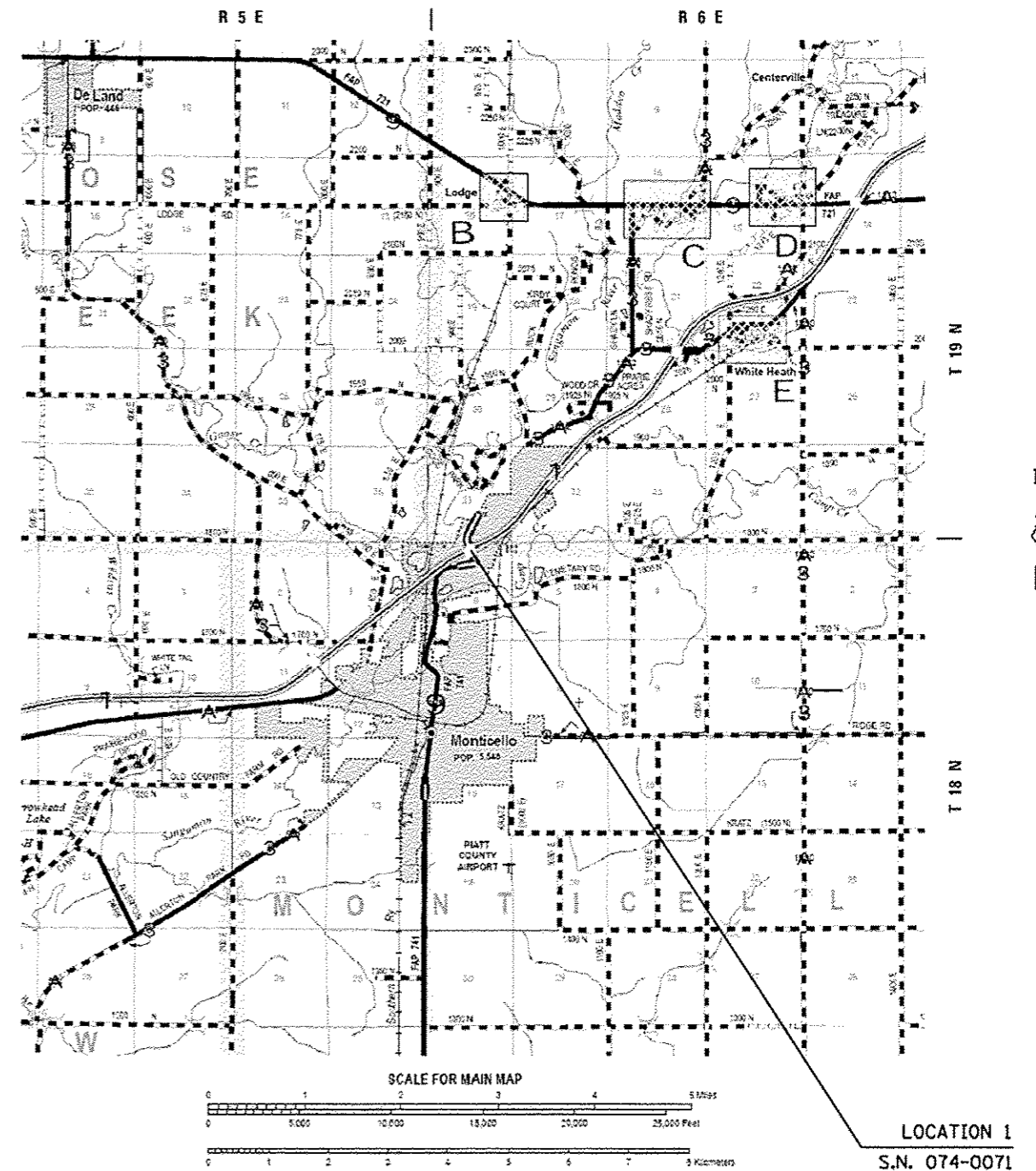
THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHALL FOLLOW THE GUIDE BRIDGE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES" TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT.

NOTE: DECK DRAINS TO BE PAINTED AT NO ADDITIONAL COST.

NOTE: ELASTOMERIC BEARINGS AT ABUTMENTS

2 YEAR PAINT WARRANTY REQUIRED FOR THIS STRUCTURE.

**LOCATION MAP #1
PIATT COUNTY**



FILE NAME *	USER NAME = coombesef	DESIGNED -	REVISED -
*****\IL084E0ID\TEG\Illinois.gov\PIATT\DOT\Documents\DOT Offices\District 5\Projects\0578\DRAWING\Design\0578CB9-ahs-Locmap.dwg	*****\DOT Offices\District 5\Projects\0578\DRAWING\Design\0578CB9-ahs-Locmap.dwg	DRAWN -	REVISED -
	PLOT SCALE = 48.0000 "/ in.	CHECKED -	REVISED -
MODELNAME*	PLOT DATE = 1/27/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION #1 DESCRIPTION AND LOCATION MAP

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
VAR	**	-	35 3
** 05 BRIDGE PAINTING 2017-3			CONTRACT NO. 70C59
ILLINOIS FED. AID PROJECT			

* PIATT & VERMILION

**LOCATION #2
DESCRIPTION**

DESCRIPTION: F.A.P. 697 (IL 9) OVER N FORK VERMILION RIVER - 2.5 MI E. OF IL 9
 COUNTY: VERMILION
 ROUTE: F.A.P. 697
 MARKED ROUTE: IL 9
 SECTION: 46BR
 STRUCTURE NO.: 092-0048
 TYPE OF STRUCTURE CONTINUOUS STEEL

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, BEARINGS AND OTHER STRUCTURAL STEEL SHALL BE CLEANED PER NEAR WHITE BLASTING SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 OZ/E.U. THE COLOR OF THE FINAL FINISH COAT FOR ALL STEEL SURFACES SHALL BE GRAY, MUNSELL NO. 5B 7/1.

A MINIMUM OF TWO (2) HIGH VOLUME AIR MONITORS WILL BE REQUIRED TO MONITOR AIR QUALITY DURING DUST PRODUCING OPERATIONS AT THIS SITE. SEE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES".

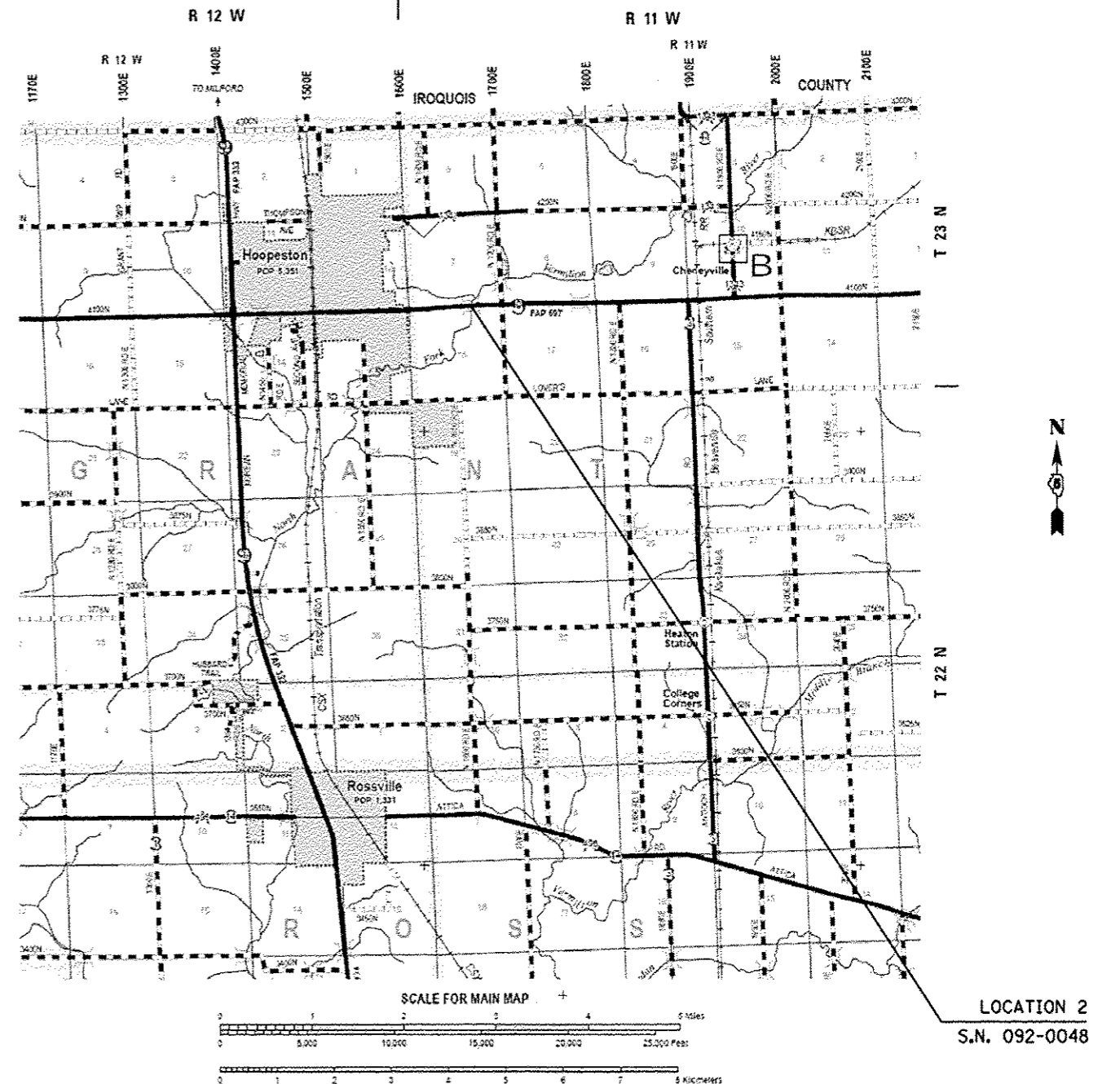
THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHALL FOLLOW THE GUIDE BRIDGE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES" TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT.

NOTE: DECK DRAINS TO BE PAINTED AT NO ADDITIONAL COST.

NOTE: ELASTOMERIC BEARINGS AT ABUTMENTS

2 YEAR PAINT WARRANTY REQUIRED FOR THIS STRUCTURE.

**LOCATION MAP #2
VERMILION COUNTY**



FILE NAME :	USER NAME : oombesef	DESIGNED -	REVISED -
\\L084EBID\INTEC\illinois.gov\PI\DOT\Documents\DOT_Offices\District 5\Projects\057\DRAWING\Design\097\059-shr-Locmap.dwg		DRAWN -	REVISED -
MODELNAME#	PLOT SCALE = 40.0000 1 / in.	CHECKED -	REVISED -
	PLOT DATE = 1/27/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION #2 DESCRIPTION AND LOCATION MAP

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	**	*	35	4
** DS BRIDGE PAINTING 2017-3			CONTRACT NO. 70C59	
ILLINOIS FED. AID PROJECT				

PIATT & VERMILION

**LOCATION #3
DESCRIPTION**

DESCRIPTION: F.A.S. 1512 (US 150) OVER MIDDLEFORK VERMILION RIVER - 2.6 MI W. OF DANVILLE
 COUNTY: VERMILION
 ROUTE: F.A.S. 1512
 MARKED ROUTE: US 150
 SECTION: 36BR
 STRUCTURE NO.: 092-0050
 TYPE OF STRUCTURE: CONTINUOUS STEEL

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, BEARINGS, DIAPHRAGMS AND OTHER STRUCTURAL STEEL IN SPANS 1 AND 3 MEASURED TEN (10) FT. ALONG THE BEAM LINES FROM EACH END OF THE STRUCTURE SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 OZ/E.U. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR STEEL SURFACES SHALL BE GRAY, MUNSELL NO. 5B 7/1. THE COLOR OF THE FINAL FINISH COAT FOR ALL EXTERIOR AND BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE REDDISH BROWN (MUNSELL COLOR STANDARD 2.5YR 3/4).

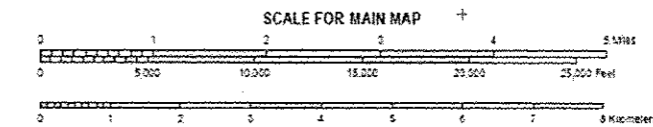
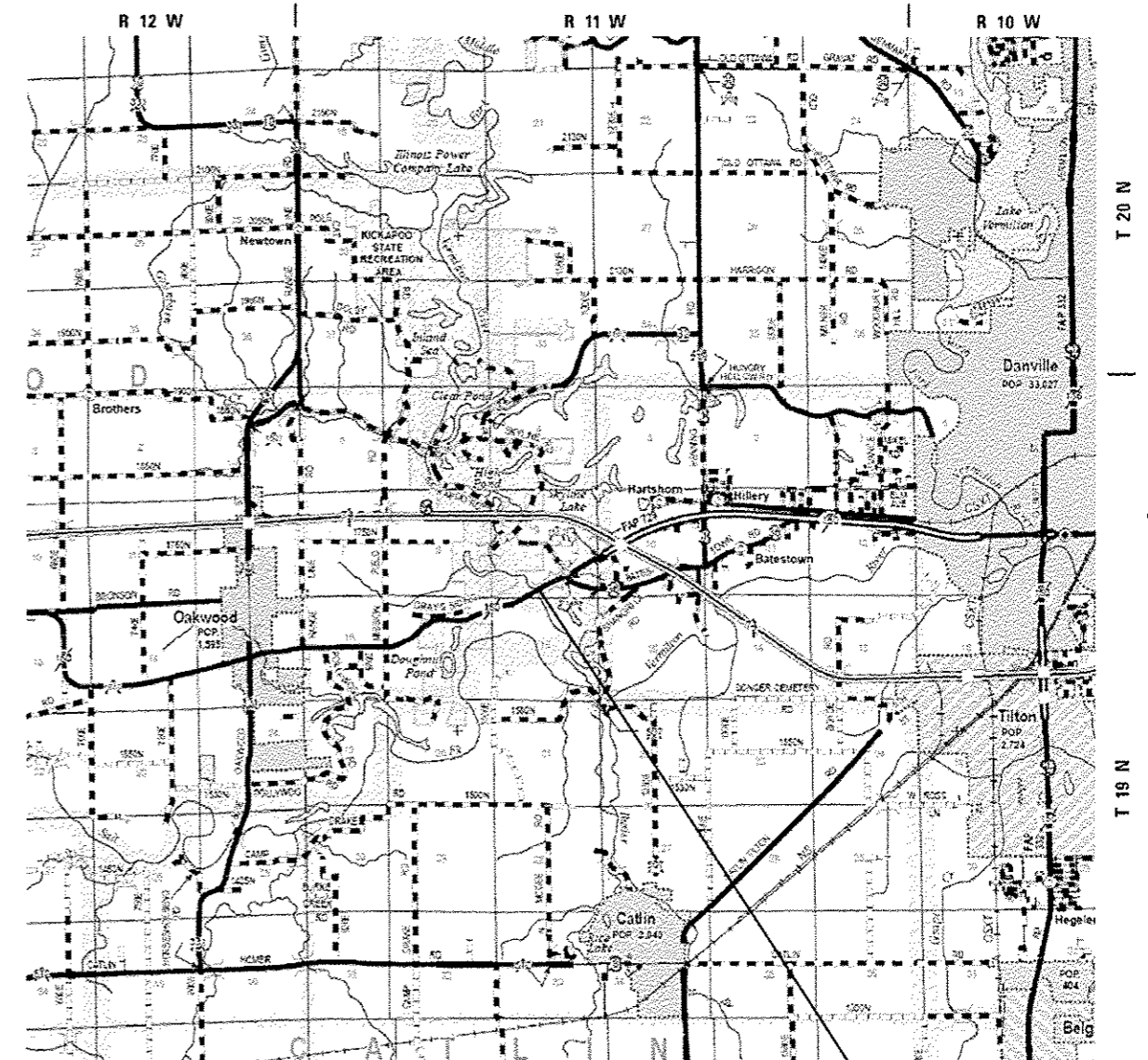
A MINIMUM OF TWO (2) HIGH VOLUME AIR MONITORS WILL BE REQUIRED TO MONITOR AIR QUALITY DURING DUST PRODUCING OPERATIONS AT THIS SITE. SEE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES".

THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHALL FOLLOW THE GUIDE BRIDGE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES" TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT.

NOTE: DECK DRAINS WITHIN THE PAINTING LIMITS DESCRIBED ABOVE ARE TO BE PAINTED AT NO ADDITIONAL COST.

NOTE: ELASTOMERIC BEARINGS AT ABUTMENTS

**LOCATION MAP #3
VERMILION COUNTY**



LOCATION 3
S.N. 092-0050

FILE NAME =	USER NAME = doombessf	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LOCATION #3 DESCRIPTION AND LOCATION MAP	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PROJECT =	PROJECT =	DRAWN	REVISED			VAR	**	*	35	5	
MODELNAME =	MODELNAME =	CHECKED	REVISED			** 05 BRIDGE PAINTING 2017-3		CONTRACT NO. 70C59		ILLINOIS FED. AID PROJECT	
		DATE	REVISED			SCALE:	SHEET	OF	SHEETS	STA.	TO

PIATT & VERMILION

SUMMARY OF QUANTITIES

LOCATION OF WORK:

LOC. #1 F.A.I. 72 S.N. 074-0071 PIATT CO. URBAN 100 % STATE ✓0014	LOC. #2 F.A.P. 697 S.N. 092-0048 VERMILION CO. RURAL 100 % STATE 0014	LOC. #3 F.A.S. 1512 S.N. 092-0050 VERMILION CO. RURAL 100 % STATE 0014
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CONSTRUCTION TYPE CODE:

CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	QUANTITY	QUANTITY	QUANTITY
67100100	MOBILIZATION	L SUM	1.0	0.4	0.3	0.3
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	4.0	4.0		
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	1.0	1.0		
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1.0		0.5	0.5
70400100	TEMPORARY CONCRETE BARRIER	FOOT	600.0	600.0		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	600.0	600.0		
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2.0	2.0		
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2.0	2.0		
X5067501	BRIDGE CLEANING AND PAINTING WARRANTY NUMBER 1	L SUM	1.0	1.0		
X5067502	BRIDGE CLEANING AND PAINTING WARRANTY NUMBER 2	L SUM	1.0		1.0	

10

FILE NAME =	USER NAME = caombessf	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
o:\11\204E8102\TEG.illinois.gov\FWID07\Do	uments\DOT Offices\District 5\Projects\057	DRAWN	REVISED			VAR	**	*	35	6	
MODELNAME#	PLOT SCALE = 48,0000' / in.	CHECKED -	REVISED -			** 05 BRIDGE PAINTING 2017-3		CONTRACT NO. 70C59		ILLINOIS FED. AID PROJECT	
	PLOT DATE = 1/5/2017	DATE -	REVISED -			SCALE:	SHEET	OF	SHEETS	STA.	TO STA.

• PIATT & VERMILION

105 01 111

SUMMARY OF QUANTITIES

LOCATION OF WORK:

	LOC. #1	LOC. #2	LOC. #3
	F.A.I. 72	F.A.P. 697	F.A.S. 1512
	S.N. 074-0071	S.N. 092-0048	S.N. 092-0050
	PIATT CO. URBAN	VERMILION CO. RURAL	VERMILION CO. RURAL
	100 % STATE 0014	100 % STATE 0014	100 % STATE 0014

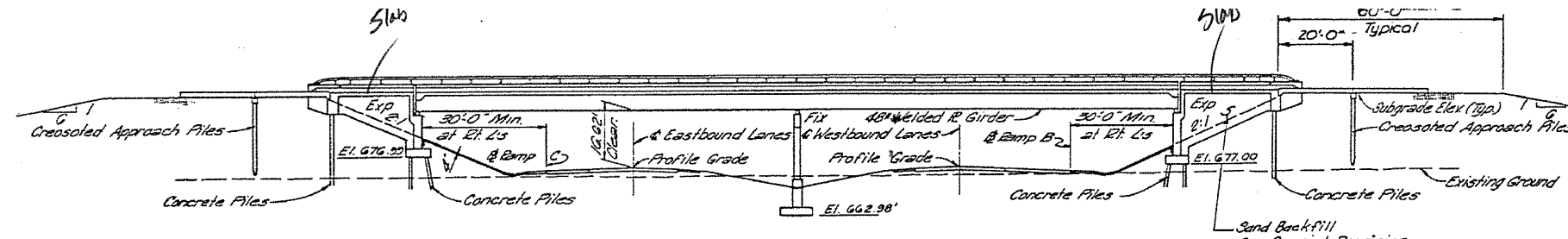
CONSTRUCTION TYPE CODE:

CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	QUANTITY	QUANTITY	QUANTITY
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	21.0	21.0		
X7200201	WIDTH RESTRICTION SIGNING	L SUM	1.0	0.4	0.3	0.3
X9700017	TRAFFIC CONTROL AND PROTECTION (DETOUR)	L SUM	1.0	1.0		
Z0007101	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1.0	1.0		
Z0007102	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 2	L SUM	1.0		1.0	
Z0007103	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 3	L SUM	1.0			1.0
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1.0	1.0		
Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1.0		1.0	
Z0010503	CLEANING AND PAINTING STEEL BRIDGE NO. 3	L SUM	1.0			1.0

9

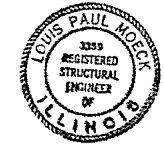
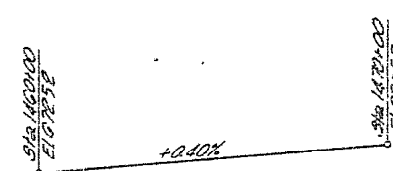
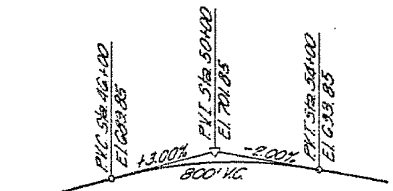
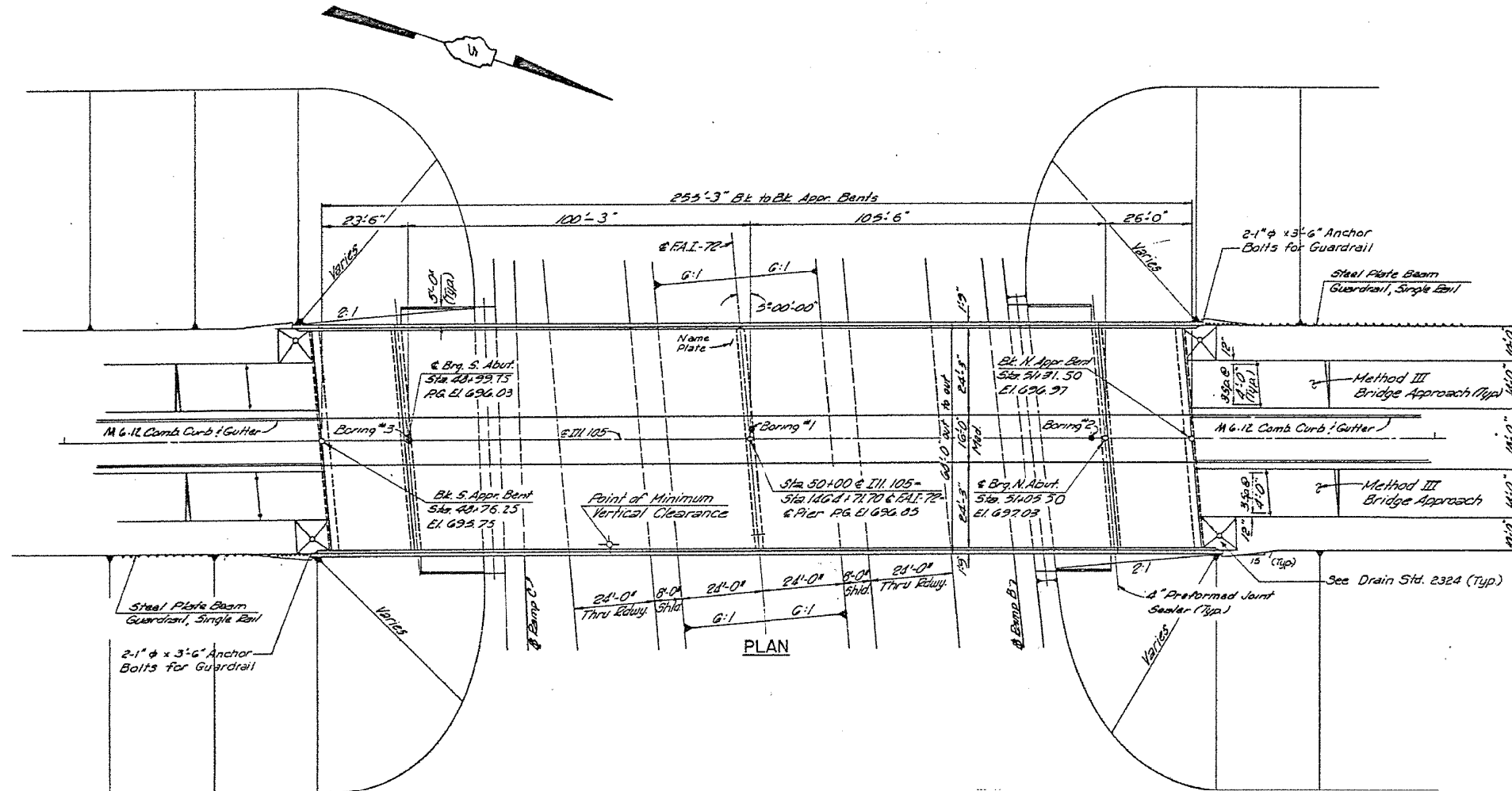
* PIATT & VERMILION

FOR INFORMATION ONLY
S.N. 074-0071



TOTAL BILL OF MATERIALS				
ITEM	UNIT	SUPER	SUB	TOTAL
Aluminum Railing	Lin. Ft.	525	-	525
Structure Excavation	Cu. Yd.	260	-	260
Class X Concrete	Cu. Yd.	577.7	406.6	984.3
Furnishing & Erecting Structural Steel	Lump Sum	1	-	1
Furnishing Concrete Piles	Lin. Ft.	-	2186	2186
Driving Concrete Piles	Lin. Ft.	-	2186	2186
Test Pile Concrete	Each	-	2	2
Name Plates	Each	-	1	1
Sand Backfill	Cu. Yd.	-	675	675
Slope Wall (4 inch)	Sq. Yd.	-	441	441
Stud Shear Connectors	Each	2349	-	2349
Reinforcement Bars	Pound	154,170	49,070	203,240
Preformed Joint Sealer (4")	Lin. Ft.	136	-	136
Furnishing Creosoted Piles (201 to 389)	Lin. Ft.	-	352	352
Driving Timber Piles	Lin. Ft.	-	352	352

Note: Protective Coat, Bituminous Concrete Surface Course Class I and Coat for Interlayer Protective Coat details are shown for information only.



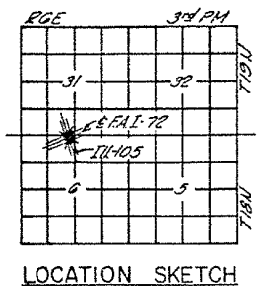
GENERAL PLAN & ELEVATION
PROJ. 1-72-2(53)63
FAI.72 SEC. 74-68-HB-3
PIATT COUNTY
STA. 1464+71.70 (FAI.72)

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Louis Paul Mock
Engineer of Bridge & Traffic Structures

DESIGN STRESSES
R = 1400 psi Curb, Parapet, Substructure & Approaches
R = 1200 psi Superstructure, Main Spans
V = 75 psi Footing
F = 20,000 psi Reinforcing
F = 20,000 psi Structural (A-36)
n = 10
Δ Deflection = 1/200 (Composite)

LOADING: H-20-44
Allow 25# / S.F. for future Wearing Surface
Allowable Footing Soil Pressure = 77 S.F.

BENCHMARK
Division of Highways Monument - Top of 5th Bronze Cap set in concrete at P.I. of existing curve in I-72.
Sta. 1463+65, Elev. 671.16.



SIGNED	D.M.
CHECKED	
DRAWN	C.S.
RECHECKED	S.T./L.P.M. 8-72

FOR INFORMATION ONLY
S.N. 074-0071

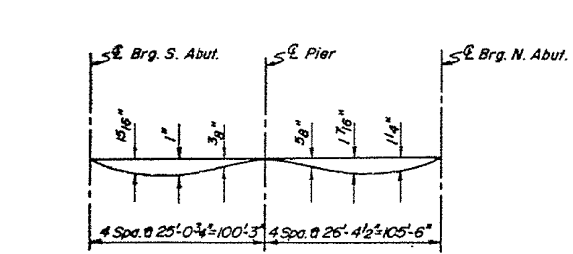
LOCATION	STATION	OFFSET	GRADE ELEVATION	CORRECTED ELEVATION
BACK SOUTH APPROACH BENT				
West Gutter Line	4873.428	-32.250	695.180	695.180
Outside South Bound Lane	4874.238	-23.000	695.383	695.383
Inside South Bound Lane	4875.463	-9.000	695.618	695.618
Inside North Bound Lane	4877.037	9.000	695.638	695.638
Outside North Bound Lane	4878.262	23.000	695.435	695.435
East Gutter Line	4879.072	32.250	695.252	695.252
END SOUTH APPROACH SLAB				
West Gutter Line	4873.929	-32.250	695.187	695.187
Outside South Bound Lane	4874.738	-23.000	695.390	695.390
Inside South Bound Lane	4875.963	-9.000	695.624	695.624
Inside North Bound Lane	4877.537	9.000	695.644	695.644
Outside North Bound Lane	4878.762	23.000	695.441	695.441
East Gutter Line	4879.572	32.250	695.259	695.259
"A"				
West Gutter Line	4883.929	-32.250	695.313	695.313
Outside South Bound Lane	4884.738	-23.000	695.515	695.515
Inside South Bound Lane	4885.963	-9.000	695.748	695.748
Inside North Bound Lane	4887.537	9.000	695.767	695.767
Outside North Bound Lane	4888.762	23.000	695.564	695.564
East Gutter Line	4889.572	32.250	695.381	695.381
BACK SOUTH ABUTMENT				
West Gutter Line	4895.074	-32.250	695.445	695.445
Outside South Bound Lane	4895.884	-23.000	695.647	695.647
Inside South Bound Lane	4897.109	-9.000	695.880	695.880
Inside North Bound Lane	4898.683	9.000	695.898	695.898
Outside North Bound Lane	4899.908	23.000	695.693	695.693
East Gutter Line	4900.718	32.250	695.510	695.510

LOCATION	GIRDER	STATION	OFFSET	GRADE ELEVATION	CORRECTED ELEVATION
E Brg. S. Abut.	1	4897.032	-31.000	695.494	695.494
	2	4897.711	-23.250	695.663	695.663
	3	4898.391	-15.500	695.793	695.793
	4	4899.070	-7.750	695.922	695.922
	5	4899.750	-0.000	696.075	696.075
	6	4900.430	7.750	695.937	695.937
	7	4901.109	15.500	695.824	695.824
	8	4901.789	23.250	695.709	695.709
	9	4902.468	31.000	695.555	695.555
"B"	1	4907.032	-31.000	695.605	695.605
	2	4907.711	-23.250	695.774	695.774
	3	4908.391	-15.500	695.903	695.903
	4	4909.070	-7.750	696.032	696.032
	5	4909.750	-0.000	696.185	696.185
	6	4910.430	7.750	696.046	696.046
	7	4911.109	15.500	695.932	695.932
	8	4911.789	23.250	695.817	695.817
	9	4912.468	31.000	695.663	695.663
"C"	1	4917.032	-31.000	695.710	695.710
	2	4917.711	-23.250	695.878	695.878
	3	4918.391	-15.500	696.007	696.007
	4	4919.070	-7.750	696.135	696.135
	5	4919.750	-0.000	696.288	696.288
	6	4920.430	7.750	696.149	696.149
	7	4921.109	15.500	696.035	696.035
	8	4921.789	23.250	695.919	695.919
	9	4922.468	31.000	695.765	695.765
"D"	1	4927.032	-31.000	695.809	695.809
	2	4927.711	-23.250	695.977	695.977
	3	4928.391	-15.500	696.105	696.105
	4	4929.070	-7.750	696.233	696.233
	5	4929.750	-0.000	696.385	696.385
	6	4930.430	7.750	696.246	696.246
	7	4931.109	15.500	696.131	696.131
	8	4931.789	23.250	696.015	696.015
	9	4932.468	31.000	695.860	695.860

LOCATION	GIRDER	STATION	OFFSET	GRADE ELEVATION	CORRECTED ELEVATION
"E"	1	4937.032	-31.000	695.901	695.994
	2	4937.711	-23.250	696.069	696.161
	3	4938.391	-15.500	696.197	696.289
	4	4939.070	-7.750	696.324	696.416
	5	4939.750	-0.000	696.476	696.568
	6	4940.430	7.750	696.336	696.428
	7	4941.109	15.500	696.221	696.313
	8	4941.789	23.250	696.104	696.197
	9	4942.468	31.000	695.949	696.041
"F"	1	4947.032	-31.000	695.988	696.072
	2	4947.711	-23.250	696.155	696.239
	3	4948.391	-15.500	696.282	696.367
	4	4949.070	-7.750	696.409	696.493
	5	4949.750	-0.000	696.561	696.645
	6	4950.430	7.750	696.420	696.505
	7	4951.109	15.500	696.305	696.389
	8	4951.789	23.250	696.188	696.272
	9	4952.468	31.000	696.032	696.116
"G"	1	4957.032	-31.000	696.068	696.134
	2	4957.711	-23.250	696.234	696.300
	3	4958.391	-15.500	696.362	696.428
	4	4959.070	-7.750	696.488	696.554
	5	4959.750	-0.000	697.305	697.305
	6	4960.430	7.750	696.498	696.564
	7	4961.109	15.500	696.382	696.448
	8	4961.789	23.250	696.265	696.331
	9	4962.468	31.000	696.109	696.175
"H"	1	4967.032	-31.000	696.141	696.183
	2	4967.711	-23.250	696.307	696.349
	3	4968.391	-15.500	696.434	696.476
	4	4969.070	-7.750	696.560	696.602
	5	4969.750	-0.000	697.311	697.352
	6	4970.430	7.750	696.569	696.611
	7	4971.109	15.500	696.453	696.495
	8	4971.789	23.250	696.335	696.377
	9	4972.468	31.000	696.179	696.221

LOCATION	GIRDER	STATION	OFFSET	GRADE ELEVATION	CORRECTED ELEVATION
"I"	1	4977.032	-31.000	696.209	696.227
	2	4977.711	-23.250	696.374	696.392
	3	4978.391	-15.500	696.501	696.519
	4	4979.070	-7.750	696.626	696.644
	5	4979.750	-0.000	697.377	697.395
	6	4980.430	7.750	696.635	696.653
	7	4981.109	15.500	696.518	696.536
	8	4981.789	23.250	696.400	696.418
	9	4982.468	31.000	696.243	696.261
"J"	1	4987.032	-31.000	696.270	696.272
	2	4987.711	-23.250	696.435	696.437
	3	4988.391	-15.500	696.561	696.564
	4	4989.070	-7.750	696.686	696.688
	5	4989.750	-0.000	697.436	697.438
	6	4990.430	7.750	696.694	696.696
	7	4991.109	15.500	696.577	696.579
	8	4991.789	23.250	696.458	696.460
	9	4992.468	31.000	696.301	696.303
"K"	1	4997.282	-31.000	696.326	696.326
	2	4997.961	-23.250	696.491	696.491
	3	4998.641	-15.500	696.617	696.617
	4	4999.320	-7.750	696.741	696.741
	5	5000.000	-0.000	697.491	697.491
	6	5000.680	7.750	696.748	696.748
	7	5001.359	15.500	696.630	696.630
	8	5002.039	23.250	696.511	696.511
	9	5002.718	31.000	696.354	696.354
"L"	1	5007.282	-31.000	696.375	696.387
	2	5007.961	-23.250	696.539	696.552
	3	5008.641	-15.500	696.665	696.677
	4	5009.320	-7.750	696.789	696.801
	5	5010.000	-0.000	697.537	697.550
	6	5010.680	7.750	696.794	696.807
	7	5011.359	15.500	696.676	696.689
	8	5012.039	23.250	696.557	696.569
	9	5012.718	31.000	696.399	696.411

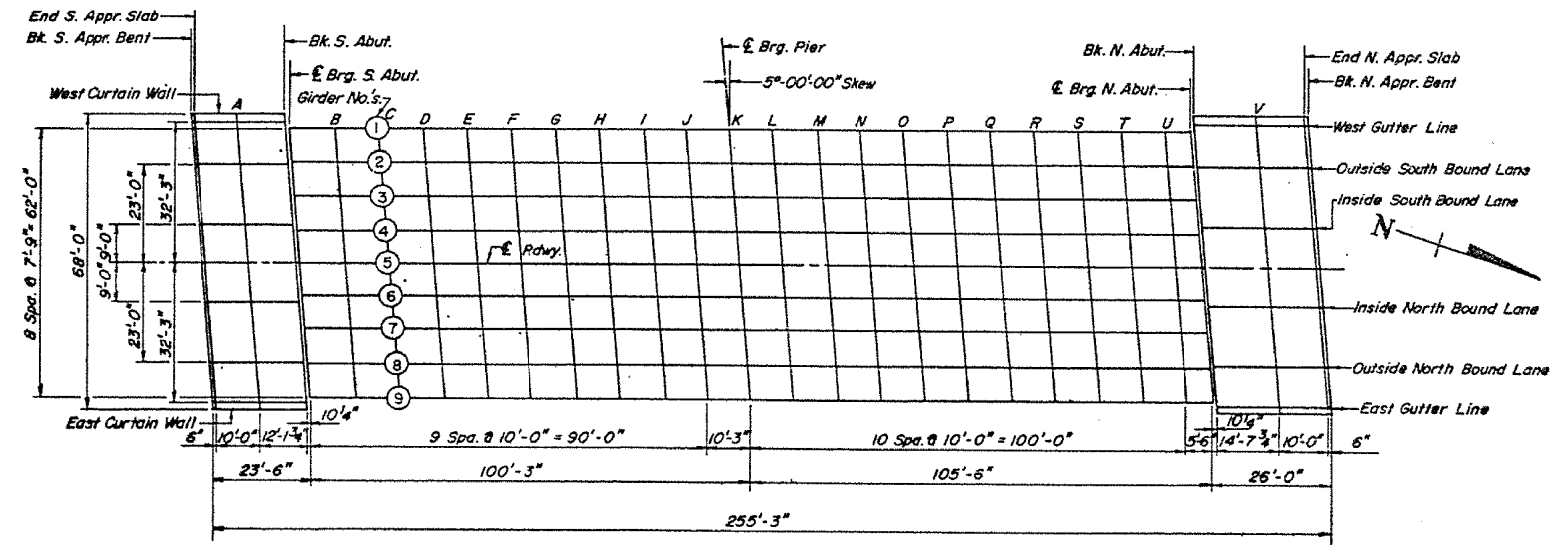
NOTE:
Elevation given on these Tables are Top of Concrete and 1/2" below finished grade where coal tar interlayer protective coat and Class I Surface Course are used. See sheet 4 for position of Elevations.



ALL GIRDERS
DEAD LOAD DEFLECTION DIAGRAMS

R.W.W.
W.B.C.
B.G.
R.W.W.

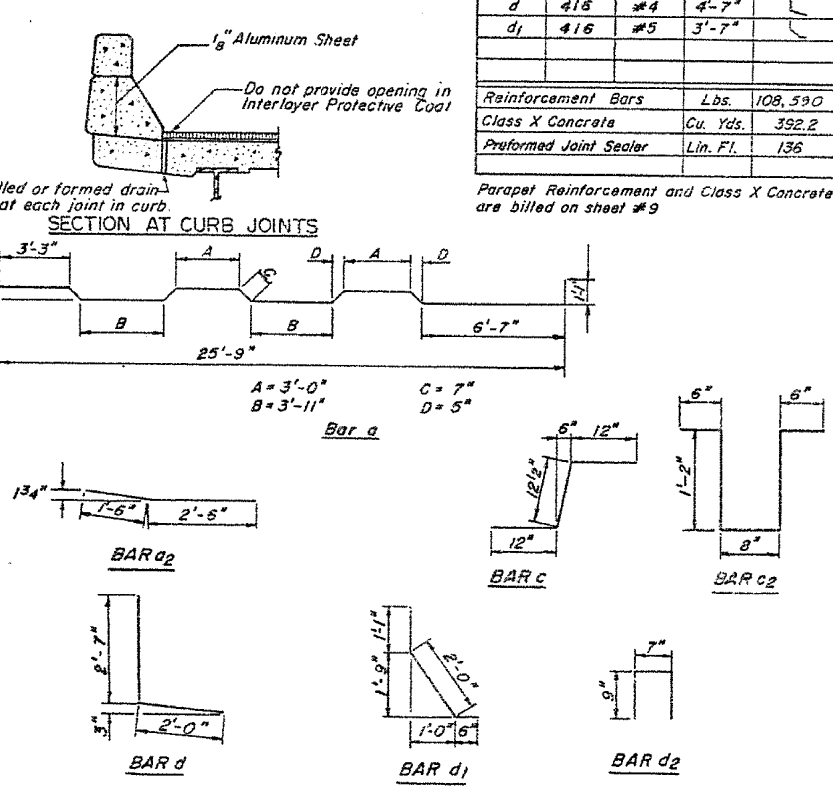
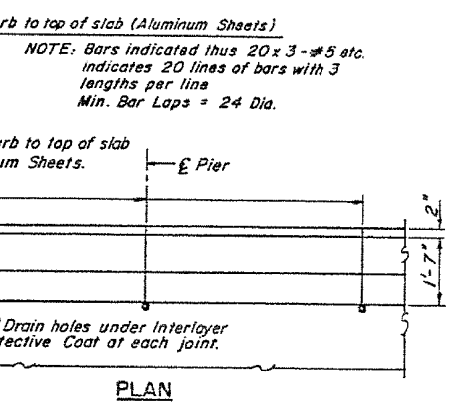
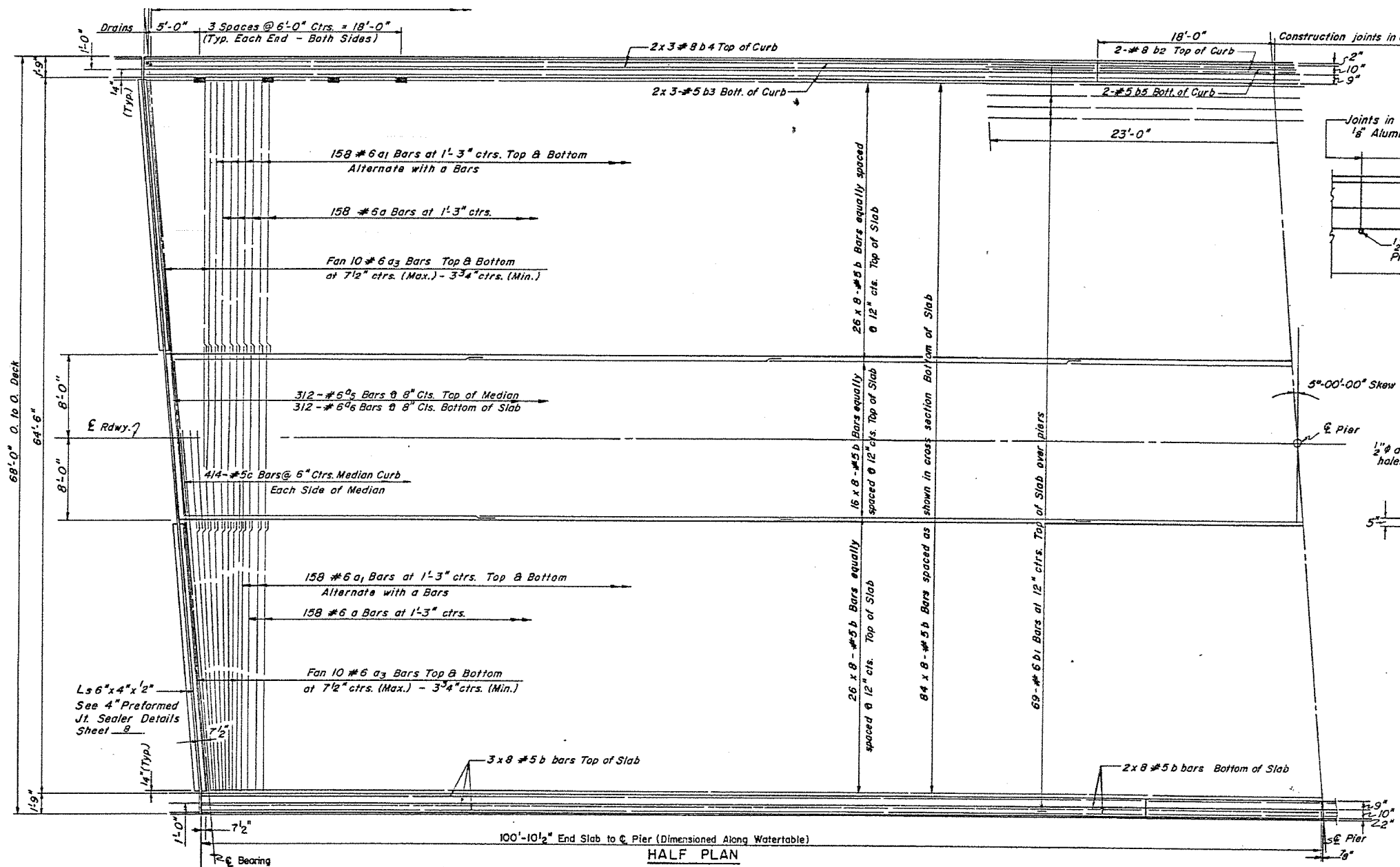
NOTE: The above deflections are not to be used in the field if the Engineer is working from the grade elevations adjusted for dead load deflections as shown above. Deflections shown are for the weight of the Concrete Slab and Superimposed loads of the Concrete Curb, Parapet and 1/2" Class I Surface.



PLAN

TOP OF SLAB ELEVATIONS
F.A.I.-72 SEC. 74-68-HB-3
PIATT COUNTY
STA. 1464+71.70 (F.A.I.-72)

FOR INFORMATION ONLY
S.N. 074-0071



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	316	#6	27'-3"	
a1	634	#6	26'-0"	
a2	334	#6	4'-0"	
a3	80	#6	26'-3"	
a4	312	#6	15'-2"	
a5	312	#5	15'-8"	
b	1842	#5	27'-0"	
b1	69	#6	45'-0"	
b2	8	#8	17'-6"	
b3	12	#5	28'-3"	
b4	12	#8	28'-9"	
b5	8	#5	17'-6"	
b6	12	#5	30'-1"	
b7	12	#8	30'-7"	
c	828	#5	3'-0 1/2"	
c2	208	#5	4'-0"	
d	416	#4	4'-7"	
d1	416	#5	3'-7"	

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

Reinforcement Bars	Lbs.	108,590
Class X Concrete	Cu. Yds.	392.2
Preformed Joint Sealer	Lin. Ft.	136

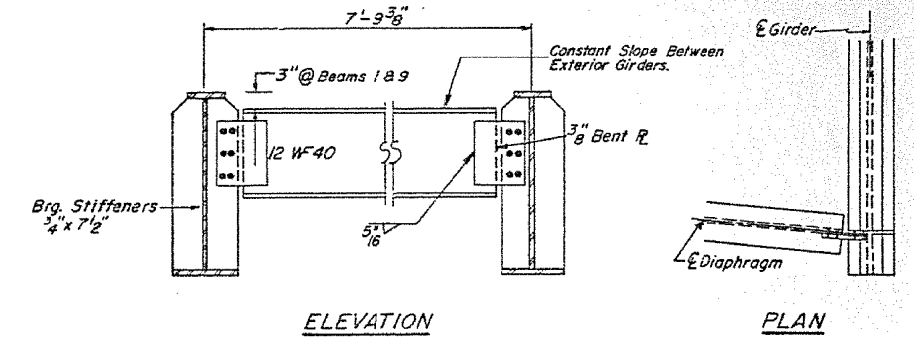
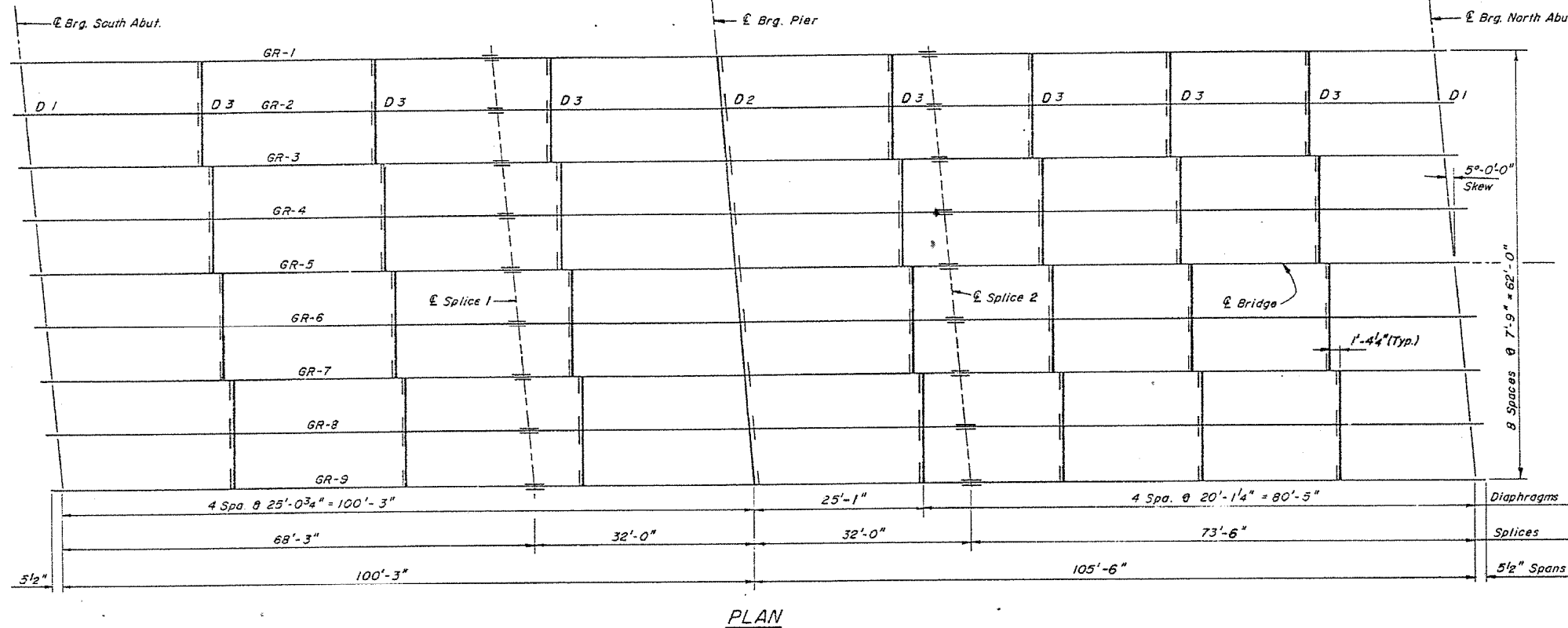
Parapet Reinforcement and Class X Concrete are billed on sheet #9

DESIGNED R.W.W. 4-72
CHECKED W.B.C. 4-72
DRAWN B.G. 5-72
CHECKED R.W.W. 7-72

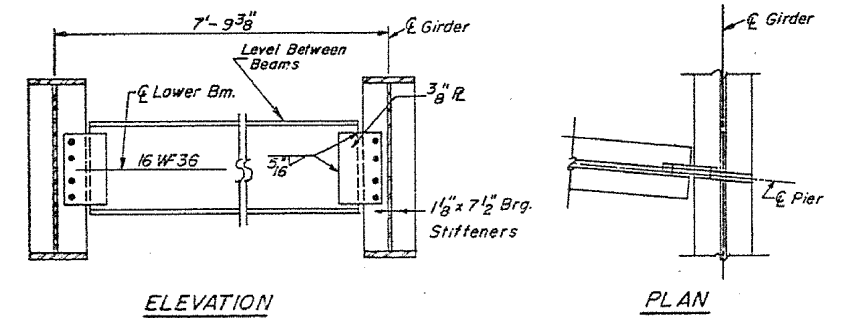
SLAB DETAILS
F.A.I. 72 SEC. 74-68-HB-3
PIATT COUNTY
STA. 1464 + 71.70 (F.A.I. 72)

FOR INFORMATION ONLY
S.N. 074-0071

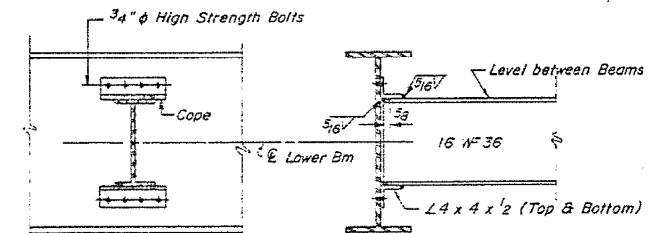
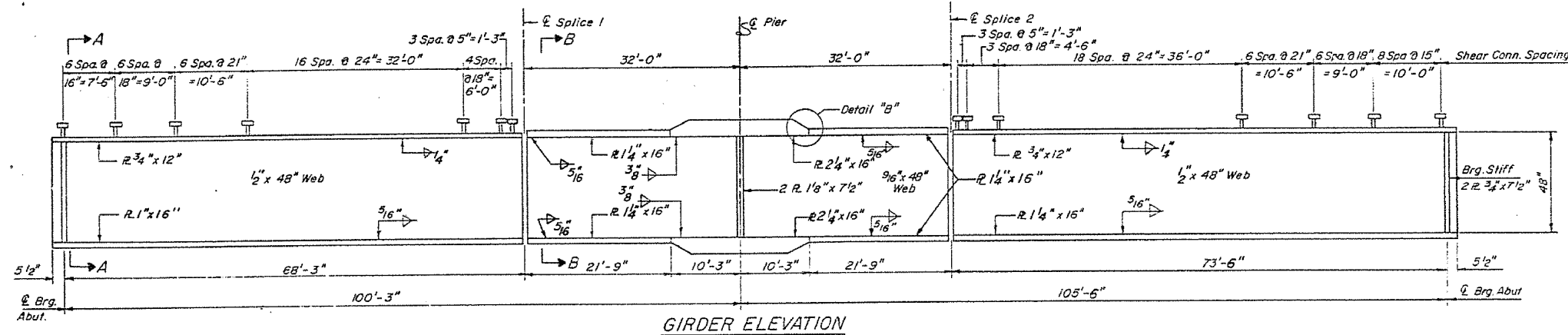
F.A.I.-72 SEC. 74-68-HB-3 PIATT 33 20 SHEETS 17
FED. ROAD DIST. NO. * ILLINOIS FED. AID PROJECT



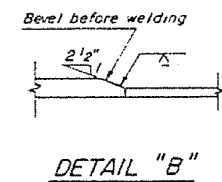
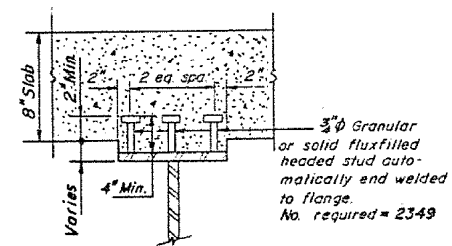
DIAPHRAGM D1
16 Req'd.



DIAPHRAGM D2
8 Req'd



DIAPHRAGM D3
56 Req'd



DESIGNED	R.W.W.
CHECKED	
DRAWN	B.G.
CHECKED	

FRAMING DETAILS
F.A.I.-72 SEC. 74-68-HB-3
PIATT COUNTY
STA. 1464+71.70 (F.A.I.-72)

FOR INFORMATION ONLY
S.N. 074-0071

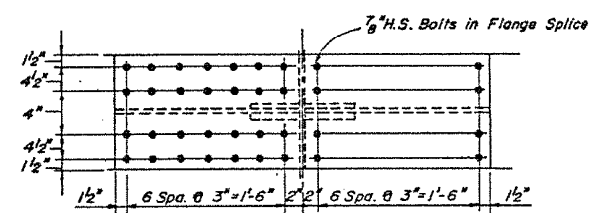
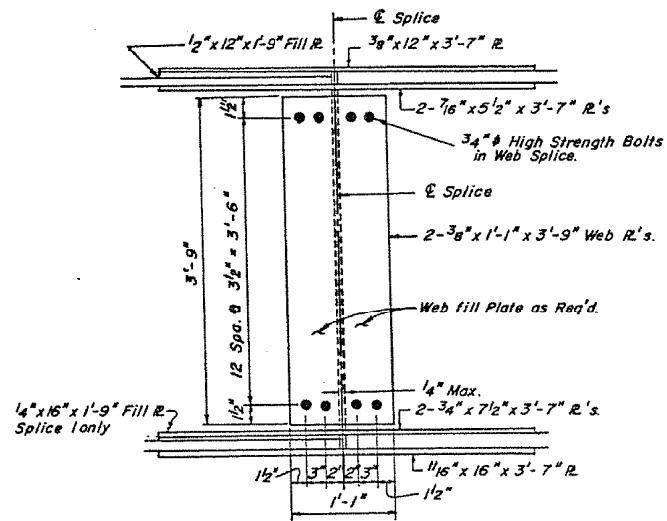
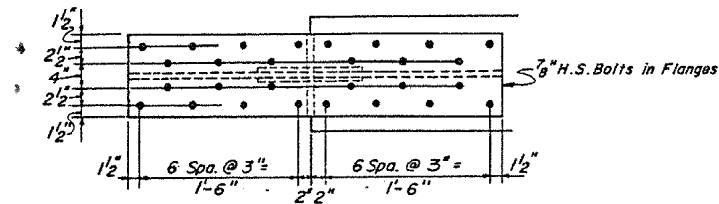
ELEVATIONS TOP OF WEB *					
GIRDER NO.	E BRG. S. ABUT.	SPLICE	E BRG. PIER	SPLICE	E BRG. N. ABUT.
1	694.72	695.29	695.41	695.62	695.75
2	694.89	695.45	695.57	695.77	695.91
3	695.02	695.58	695.70	695.91	696.03
4	695.15	695.70	695.82	696.02	696.15
5	695.28	695.83	695.95	696.15	696.27
6	695.17	695.71	695.83	696.03	696.15
7	695.05	695.59	695.71	695.91	696.03
8	694.94	695.47	695.59	695.79	695.91
9	694.78	695.32	695.44	695.63	695.74

* For Fabrication Only

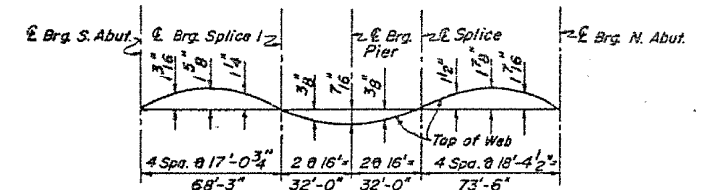
INTERIOR GIRDER MOMENT TABLE			
	0.4 Sp. 1	Pier	0.6 Sp. 2
I_s (in ⁴)	18953	50666	20679
I_c (in ⁴)	51081	—	57709
S_s (in ³)	882	1930	1029
S_c (in ³)	1239	—	1436
E (K/1)	.977	1.137	.990
M (V/k)	540.7	1605.3	684.4
F_s (ksi)	3.90	13.18	10.6
S (K/1)	.37	.37	.37
M_s (V/k)	249.8	491.1	297.0
MLL (V/k)	892.9	771.9	935.1
Mimp (V/k)	198.2	169	204.8
TOTAL (V/k)	1881.6	3037.3	2121.3
F_s (ksi)	10.09	5.92	9.11
F_s TOTAL (ksi)	19.99	19.10	19.71
VR (k)	675	—	66.9

INTERIOR GIRDER REACTION TABLE			
	Abutment	Pier	Abutment
R (k)	46.6	184.0	51.9
R (k)	50.7	75.3	50.9
IMP (k)	11.2	16.6	11.1
R TOTAL (k)	108.5	275.9	113.9

VED	R.W.W
ED	W.B.C.
V	B.G.
ED	W.B.C.

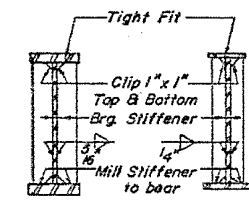


SPLICE DETAILS



CAMBER DIAGRAM

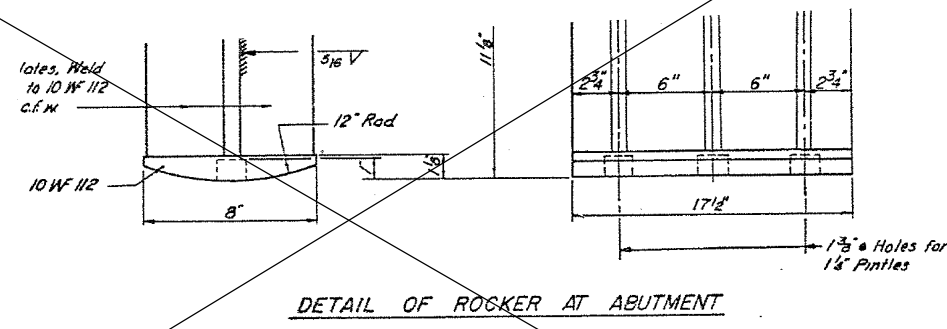
Camber Diagram Includes Dead Load Deflection For the Steel, Concrete, 1/2" Coal Tar Interlayer Protective Coat and a Component for the Vertical Curve.



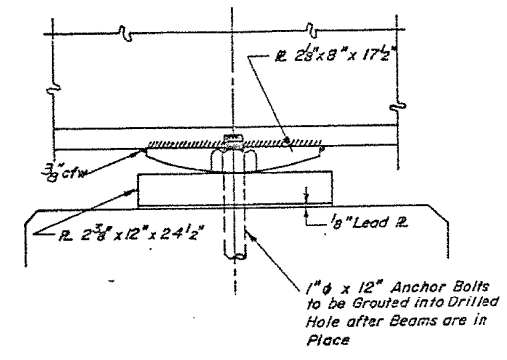
SECTION AT PIER SECTION AT ABUTMENT

FRAMING DETAILS
F.A.I.-72 SEC.74-68-HB-3
PIATT COUNTY
STA.1464+71.70(F.A.I.-72)

FOR INFORMATION ONLY
S.N. 074-0071

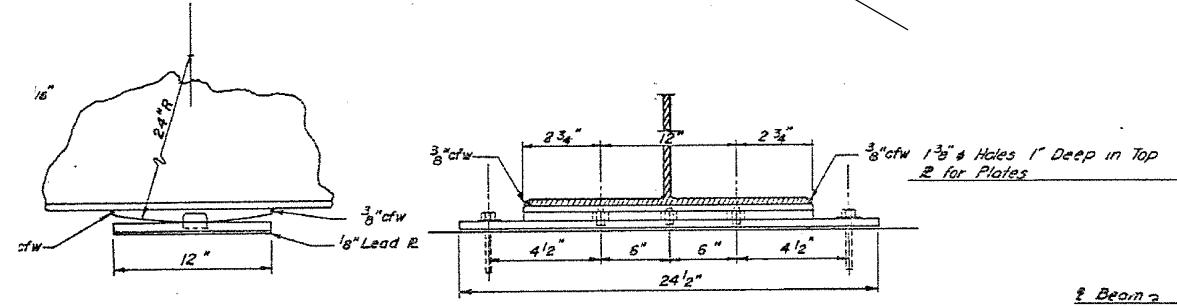


DETAIL OF ROCKER AT ABUTMENT

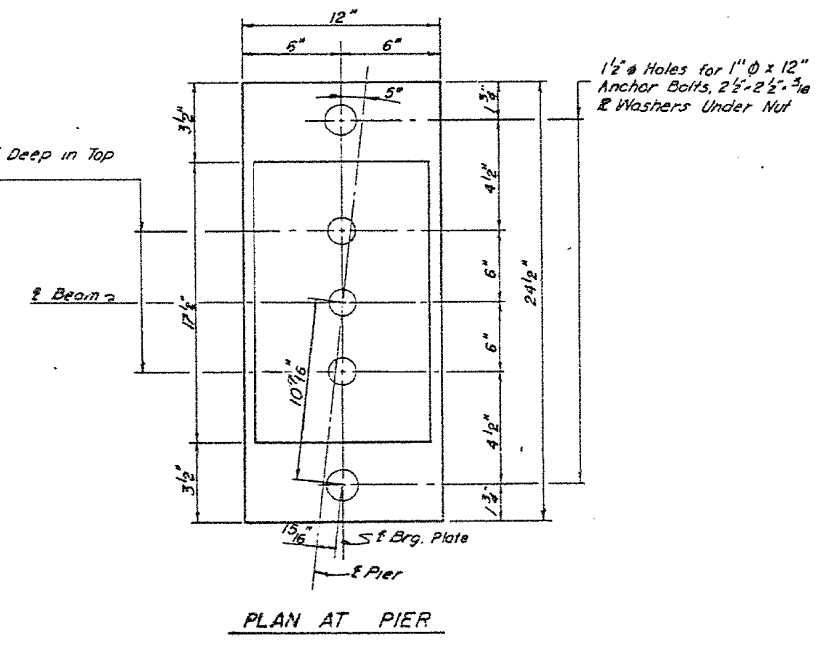


SECTION AT PIER

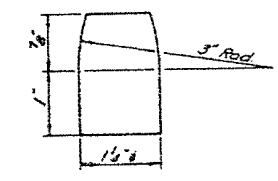
SEE SHEET 15 FOR ABUTMENT BEARINGS



DETAIL OF BOLSTER AT PIER



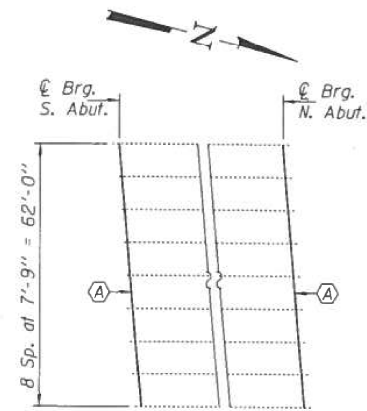
PLAN AT PIER



DETAIL OF PINTLE

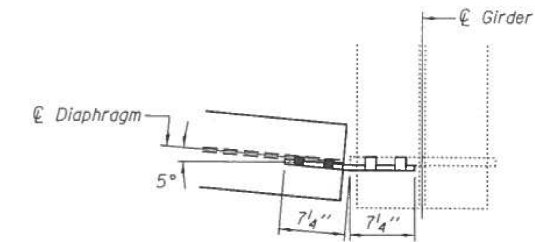
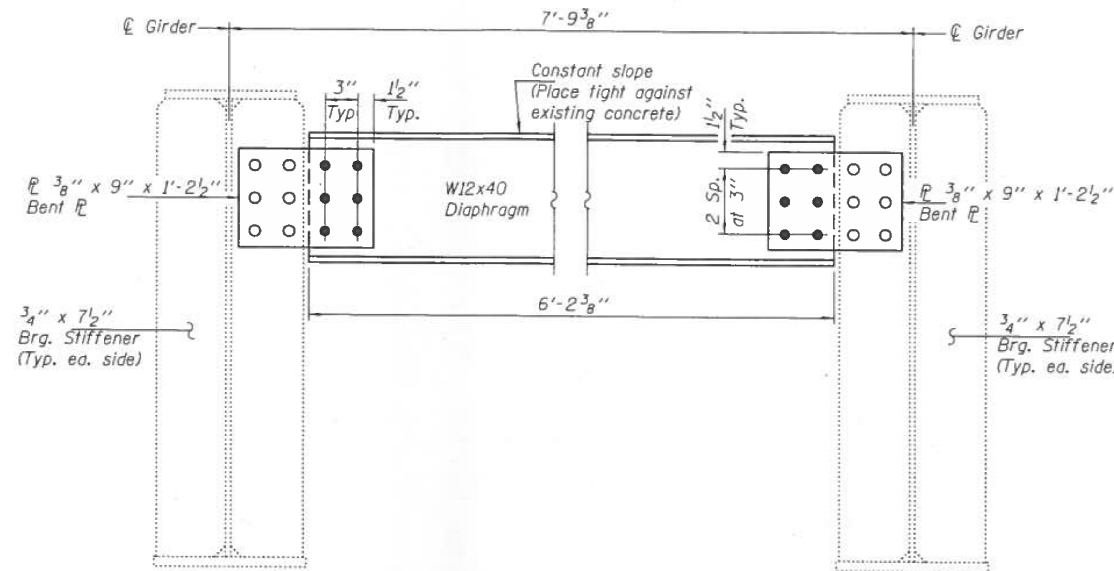
BEARING DETAILS
F.A.I.-72 SEC. 74-68-HB-3
PIATT COUNTY
STA. 1464+71.70(F.A.I.-72)

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S.N. 074-0071



NOTES

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat shall be Interstate Green, Munsell No. 7.5G 4/8. Fasteners shall be high strength bolts. Bolts $\frac{3}{4}$ " ϕ , open holes $\frac{3}{16}$ " ϕ , unless otherwise noted.



DIAPHRAGM REPLACEMENT DETAILS

- - Field Drill holes to match existing holes.
- - Shop Drill holes.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Structural Steel	Pound	4670
Structural Steel Removal	Pound	4670

FILE NAME =	USER NAME = coombessf	DESIGNED -	REVISED -
pw:\IL\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 5\Projects\0570C59\Drawings\Design\0570C59-shd-Details.dwg		DRAWN -	REVISED -
\$MODELNAME\$	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 1/5/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

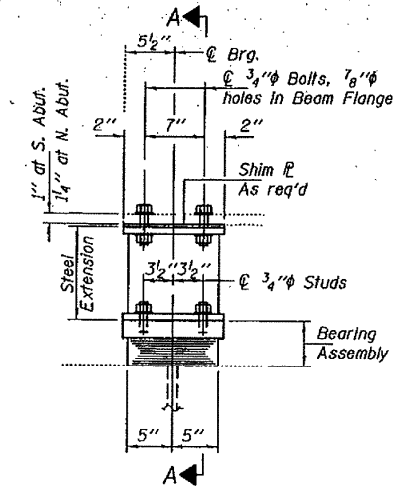
LOCATION #1 STRUCTURE DETAILS

SCALE: SHEET OF SHEETS STA. TO STA.

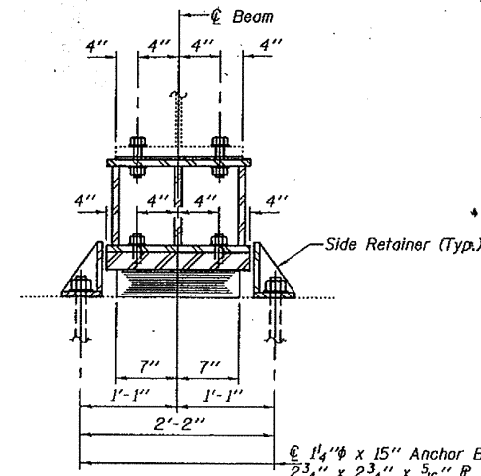
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	••	•	35	14
• D5 BRIDGE PAINTING 2017-3			CONTRACT NO. 70C59	
ILLINOIS FED. AID PROJECT				

• PIATT & VERMILION

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S.N. 074-0071

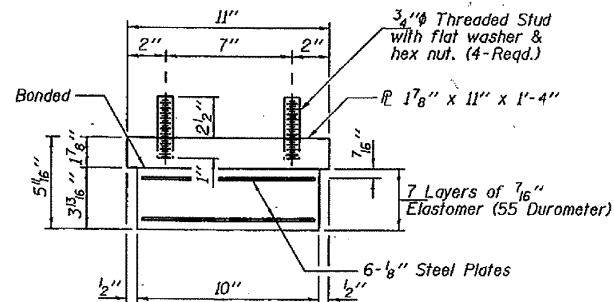


ELEVATION AT ABUTMENT



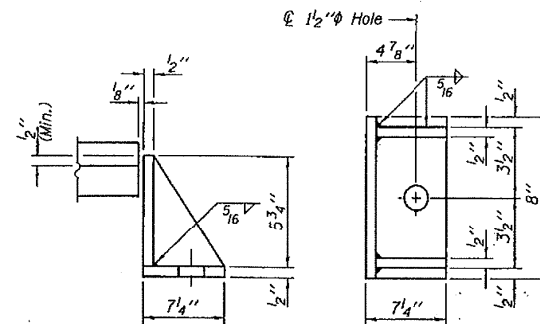
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

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



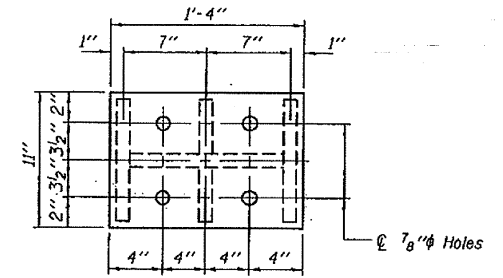
SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

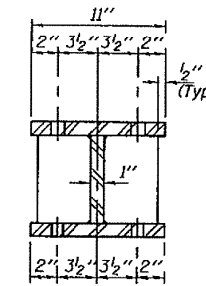
BEAM REACTIONS

RP	(K)	51.9
R _L	(K)	50.9
Imp.	(K)	11.0
R (Total)	(K)	113.8

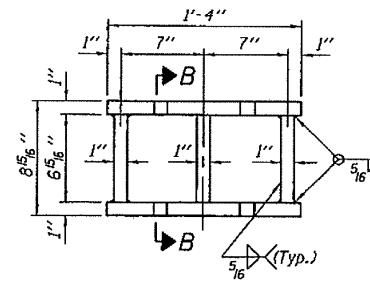
Notes:
Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 65 Tons.
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (F_y=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type I.



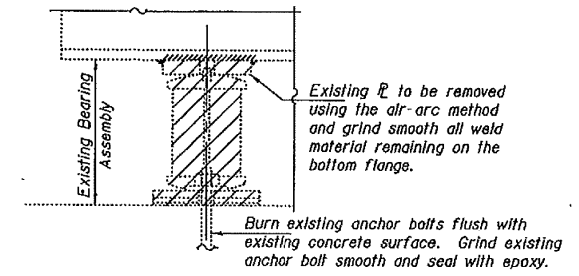
PLAN TOP AND BOTTOM PLATE



SECTION B-B



STEEL EXTENSION DETAIL



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

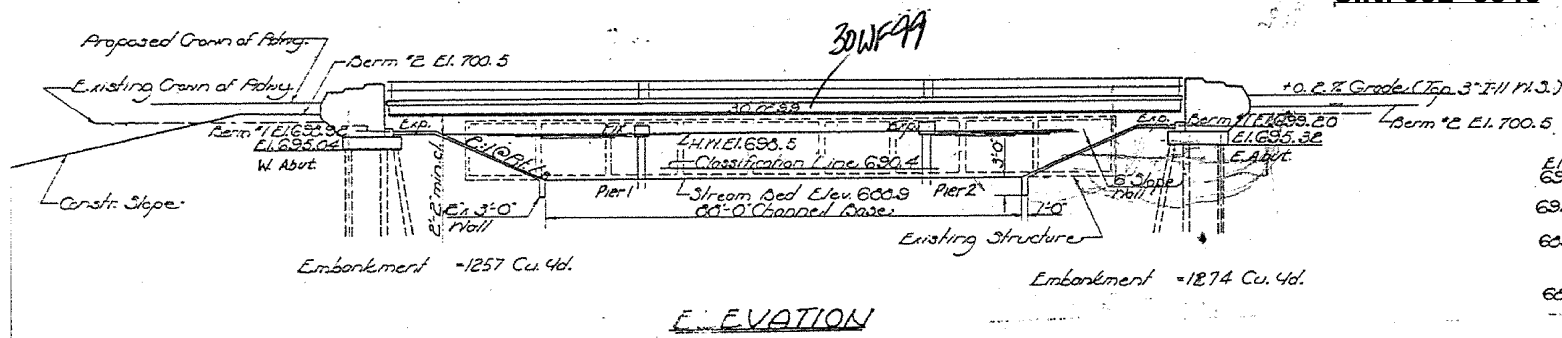
BILL OF MATERIAL
(2 ABUTMENTS)

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	18
Jack and Remove Existing Bearings	Each	18
Furnishing and Erecting Structural Steel	Pound	3320
Anchor Bolts 1/4\"/>		

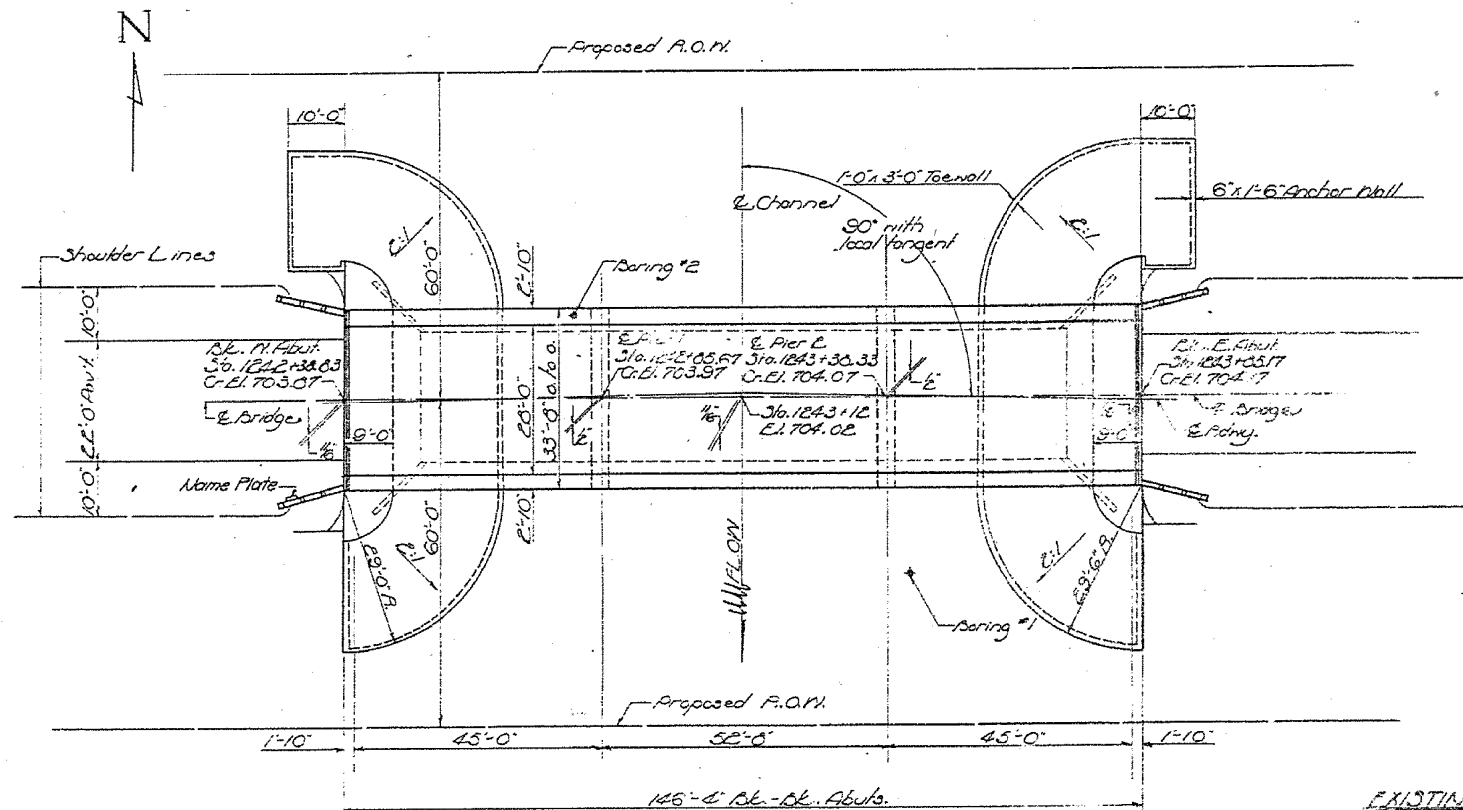
PRE-FINAL

DATE: 11/1/2012

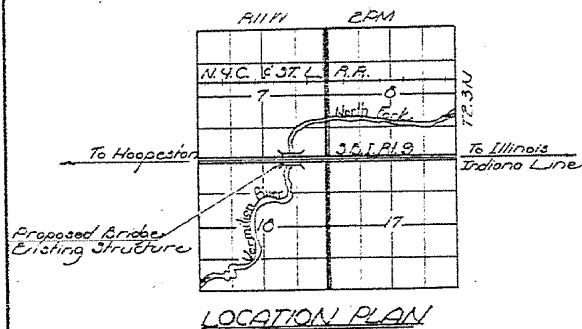
FOR INFORMATION ONLY
S.N. 092-0048



ELEVATION



PLAN



LOCATION PLAN

DESIGNED: C.W. Slick	APR 26 1961
CHECKED: G.H. Hogreen	EXAMINED: [Signature]
DRAWN: C.W. Slick	PASSED: [Signature]
CHECKED: G.H. Hogreen	APPROVED: R.L. Bartelme

STATION 1243+12
BUILT 196 BY
STATE OF ILLINOIS
S.B.I. RT. 9-SEC. 46-B/R
F.A. PROJ. F-56(14)
LOADING HS 20

NAME PLATE
See Standard E113-1

WATERWAY INFORMATION
Drainage Area: 40,000 Acres
Character: Level, Rolling & Cultivated
Required Opening (25 Yr. Flood): 1000 Sq. Ft.
Present Opening: 999 Sq. Ft.
Proposed Opening: 1006 Sq. Ft.
Ordinary Water Elev: 689.6
Low Water Elev: 683.4
High Water Elev: 696.5

BORING #1 36" A.P. Sta. 1243+42		BORING #2 15" L.I. Sta. 1242+00	
Elev. N.G.	Ground Surface	Elev. N.G.	Ground Surface
693.4	Medium Block Silty Clay Topsoil	693.1	Medium Block Silty Clay Embankment
691.4	Loose Brown Sand Loom		
688.4	Loose Well Graded Brown Sand	693.1	Medium Dark Brown Clay Loom Till Embankment
686.4	Medium and Dense Gray Well Graded Sand	690.1	Loose to Medium Brown Sand Loom (Gravelly)
682.4	Dense Gray Sand Loom Till (Gravelly)	686.6	Medium Gray Well Graded Sand and Fine Gravel
680.4	Very Dense Brown Gray Well Graded Sand	676.6	Medium to Dense Well Graded Sand and Fine Gravel
678.4	Medium to Stiff Gray Sandy Clay Loom Till	672.5	Very Stiff Gray and Brown Clay Till
673.4	Stiff Gray Silty Clay Loom Till		
671.4	Very Stiff Gray Silty Clay Loom Till	672.5	Medium Gray Well Graded Sand and Fine Gravel
667.9	Hard to Stiff Gray Clay Till	668.1	Very Stiff Gray and Brown Clay Till
653.5	Medium Gray Sand Loom Till		
654.9	Hard Gray Sandy Clay Loom Till (Gravelly)		
653.4			

BORING DATA
Notes: N = Blows per foot of penetration of sampling spoon. Hummer Weight = 140 Lbs. Drop = 30 inches.
Qu = Unconfined compressive strength in tons per square foot.

EXISTING CURVE DATA
P.I. - Sta. 1244+21.2
P.C. - Sta. 1239+20.5
P.T. - Sta. 1249+20.5
Δ = 2°-20'
R = 24,555.4
T = 500.70
L = 1000.0
E = 5.08'
O = 0°-14'

FIELD WELDING OF CONSTRUCTION ACCESSORIES TO THE BOTTOM FLANGES OR FOR A DISTANCE OF 4" OF THE SPAN EACH WAY FROM FIELD SUPPORTS ON THE TOP FLANGES OF BEAMS OR GIRDS WILL NOT BE PERMITTED. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.
PERMANENT FORMS WILL NOT BE PERMITTED IN FORMING THE CONCRETE DECK.

GENERAL NOTES
Class X Concrete shall be used throughout.
Coarse aggregate which is to be used in parapet, handrails and wingwalls must be free of chert, flint, limonite, lignite and soft sandstone.
The concrete floor slab shall be finished in accordance with Article 5119 of the Standard Specifications.
Slope wall shall be reinforced with welded wire fabric 6" x 6" mesh, #4 wires, weighing 53 lbs. per 100 sq. ft.
Layout of slope walls may be varied to suit ground conditions in the field as directed by the Engineer.
Piers 2/3 Open holes 1/8", unless noted.
All bolsters, rockers, bearing plates, lead plates, pintles and anchor bolts shall be fabricated and set in accordance with Article 5115 of the Standard Specifications and are included in quantity of Structural Steel.
Anchor bolts shall be set before riveting diaphragms over supports.
The exposed surfaces of the expansion guard shall be given two shop coats of red lead paint, the contact surfaces shall be given one coat of red lead paint. Anchor studs shall not be painted.
Expansion guards are included in quantity of Structural Steel. Est. Weight 1350 lbs.
All Structural Steel shall comply with the Specifications for Structural Steel A.S.T.M. designation A-36.
Except as otherwise provided, all structural steel shall receive one shop coat of red lead paint and two field coats of aluminum paint. See Articles 56.1 to 56.5 inclusive of the Standard Specifications.
The contractor shall drive 2 test piles in permanent locations as directed by the Engineer before ordering remainder of piles. One test pile at W. Abut. and one at Pier Bent 2.
All reinforcement bars shall be lapped 20 diameters unless otherwise specified.
Excavation for portions of structures in the embankments shall not be classified.

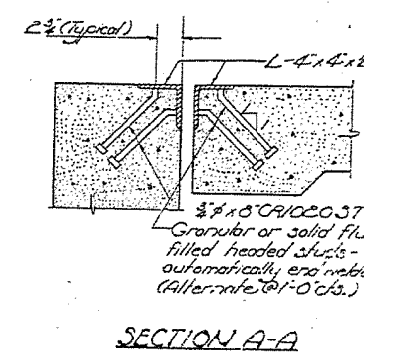
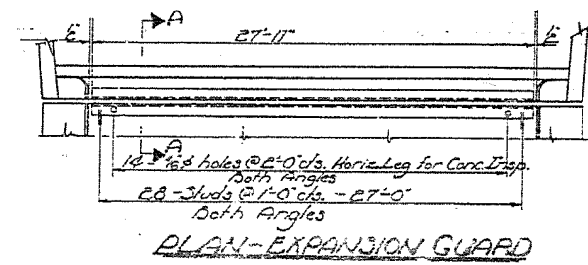
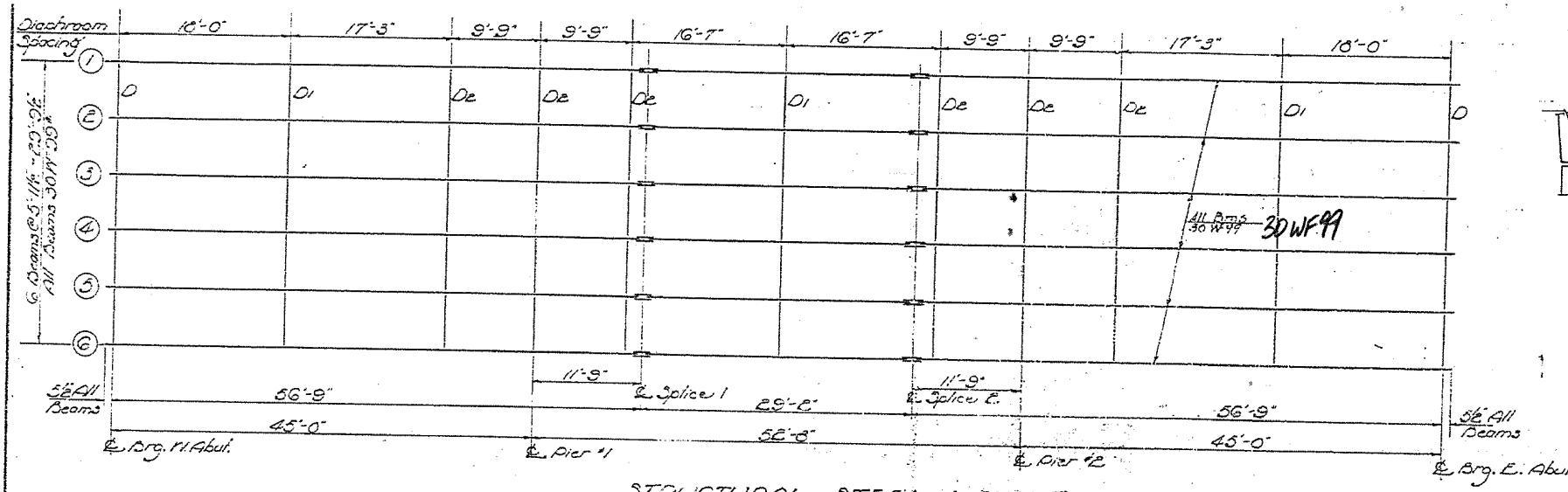
TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Channel Excavation	Cu. Yd.		960	960
Removal of Existing Structure	Each			1
* Class A Excavation for Structures	Cu. Yd.		120	120
* Class B Excavation for Structures	Cu. Yd.		45	45
Class X Concrete	Cu. Yd.	146.4		234.1
Forming & Erecting Structural Steel	Pound	113,010		113,010
Forming & Erecting Aluminum Handrail	Lin. Ft.	288		288
Reinforcement Bars	Pound	34,080	6,320	40,400
** Bridge Seat Sealant	Lump sum		L.S.	L.S.
Precast Concrete Piles	Lin. Ft.		495	495
Test Piles (Precast Concrete)	Each		1	1
Concrete Piles	Lin. Ft.		510	510
Test Piles (Concrete)	Each		1	1
Name Plates	Each			1
Slope Wall (6')	Sq. Yd.		634	634
Protective Coat	Sq. Yd.			611

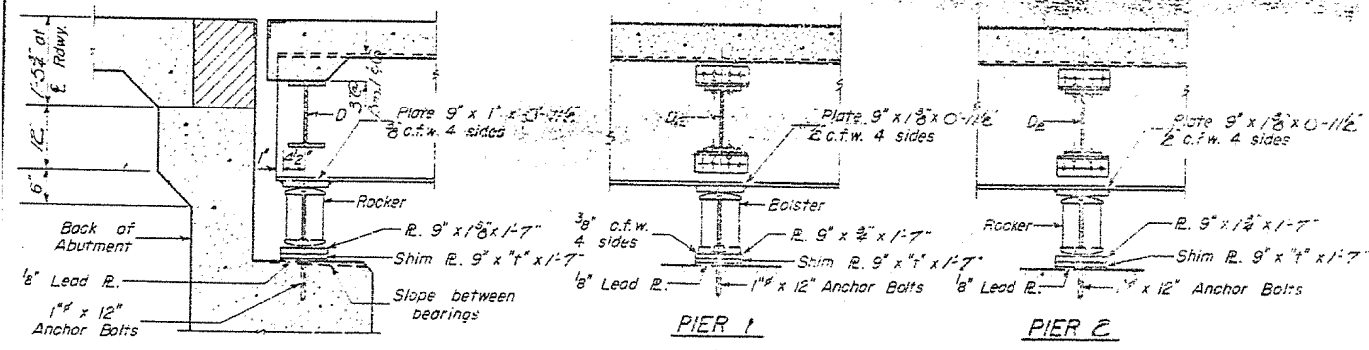
** Applied at abutments.
* Includes excavation for Slope Wall.

PROJECT F-56(14)
GENERAL PLAN & ELEVATION
NORTH FORK VERMILION RIVER
S.B.I. RT. 9-SEC. 46-B/R
VERMILION COUNTY
STA. 1243+12

FOR INFORMATION ONLY
S.N. 092-0048



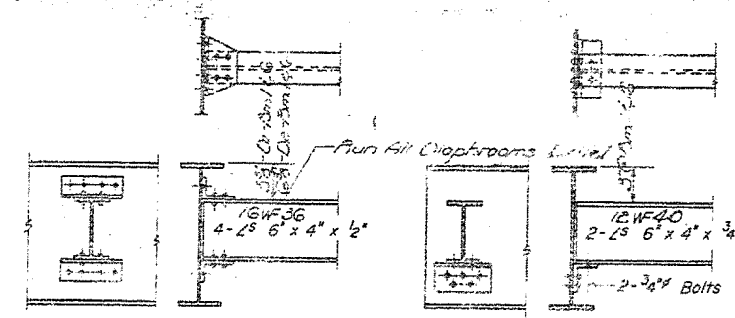
STRUCTURAL STEEL LAYOUT



SECTION AT ABUTMENT

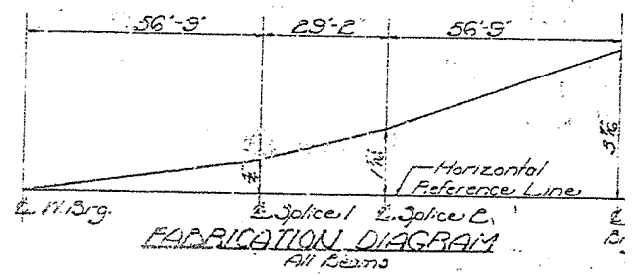
PIER 1

PIER 2



DIAPHRAGM D1 & D2
45 Required

DIAPHRAGM D
10 Required

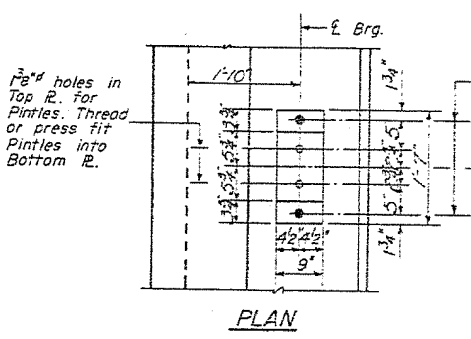


FABRICATION DIAGRAM
All Beams

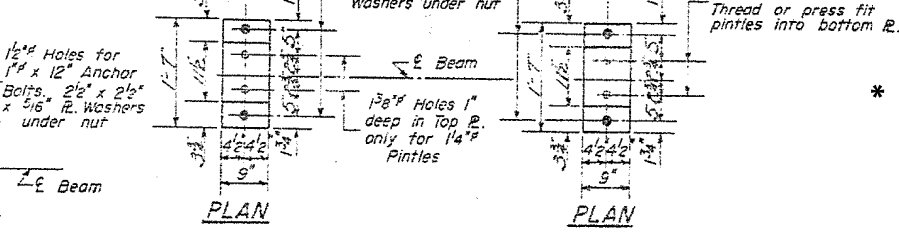
ELEVATION TOP OF BEAMS

	Bm. 1	Bm. 2	Bm. 3	Bm. 4	Bm. 5	Bm. 6
E. Brg. #1	703.44	703.23	703.31	703.31	703.29	703.42
E. Pier #1	703.19	703.30	703.36	703.36	703.30	703.19
E. Splice #1	703.20	703.31	703.37	703.37	703.31	703.20
E. Splice #2	703.26	703.37	703.43	703.43	703.37	703.26
E. Pier #2	703.29	703.40	703.46	703.46	703.40	703.29
E. Brg. E. Abut.	703.42	703.53	703.59	703.59	703.53	703.42

* SEE SHEETS 19 & 20 FOR ABUTMENT BEARINGS



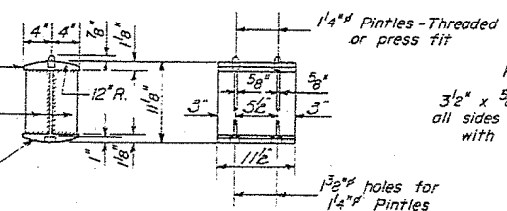
PLAN



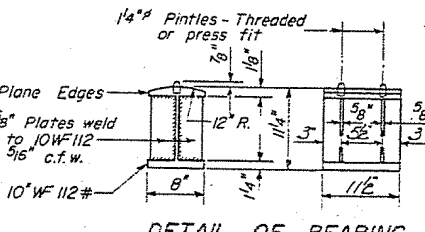
PLAN

PLAN

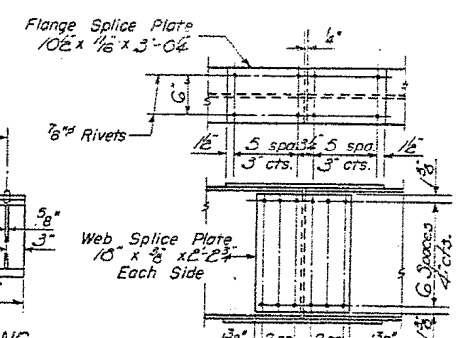
DETAIL OF PINTLE



DETAIL OF BEARING AT PIER 2 & ABUTS.



DETAIL OF BEARING AT PIER 1



DETAIL OF SPLICE

TABLE OF 7" DIMENSIONS

	Bm. 1	Bm. 2	Bm. 3	Bm. 4	Bm. 5	Bm. 6
West Abut.	0	0	3/4	3/4	0	0
Pier #1	0	0	3/4	3/4	0	0
Pier #2	0	0	3/4	3/4	0	0
East Abut.	0	0	3/4	3/4	0	0

STRUCTURAL STEEL
S.B.I.R.T. 9-SEC. 46-BB
VERMILION COUNTY
STA. 1243+12

DESIGNED: C.W. Blik
CHECKED: P.H. Hoyer
DRAWN: W.A. Sausamor
APPROVED: R.L. Bartelme

APR 26 1961
EXAMINED: H.G. Blum
PASSED: E. Phinney

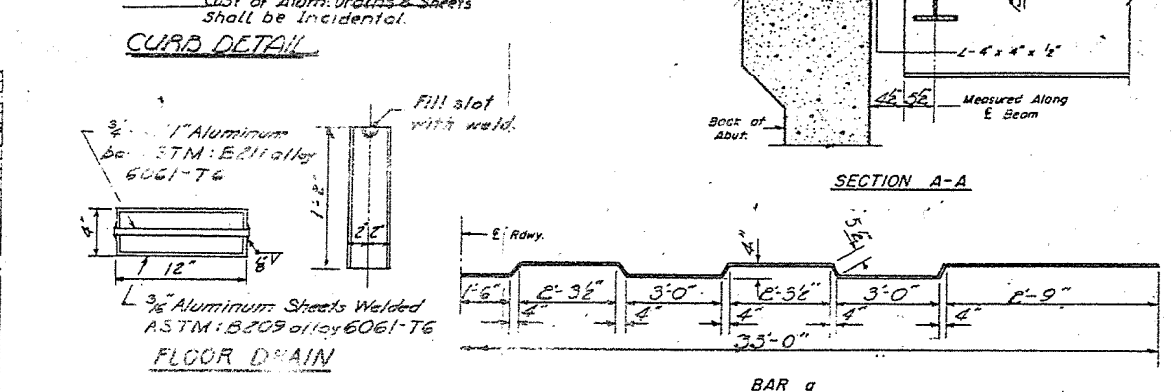
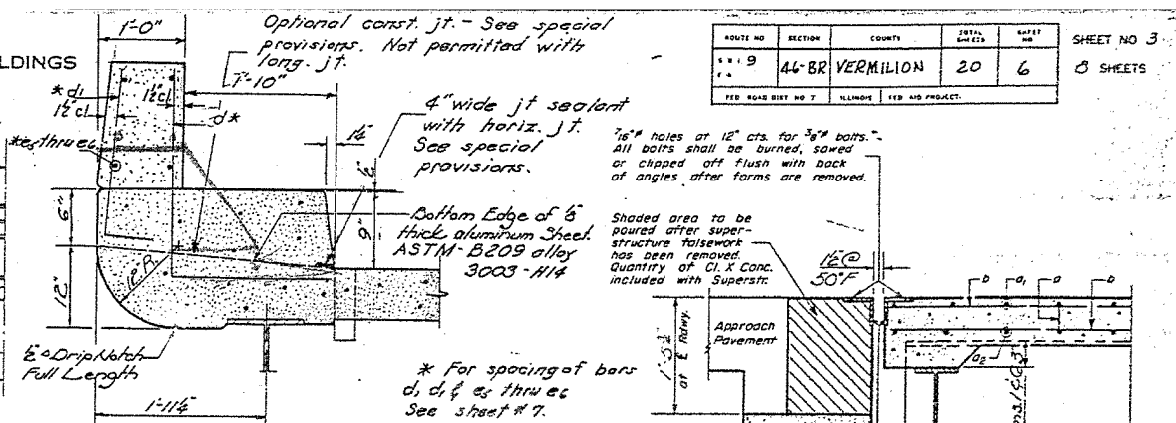
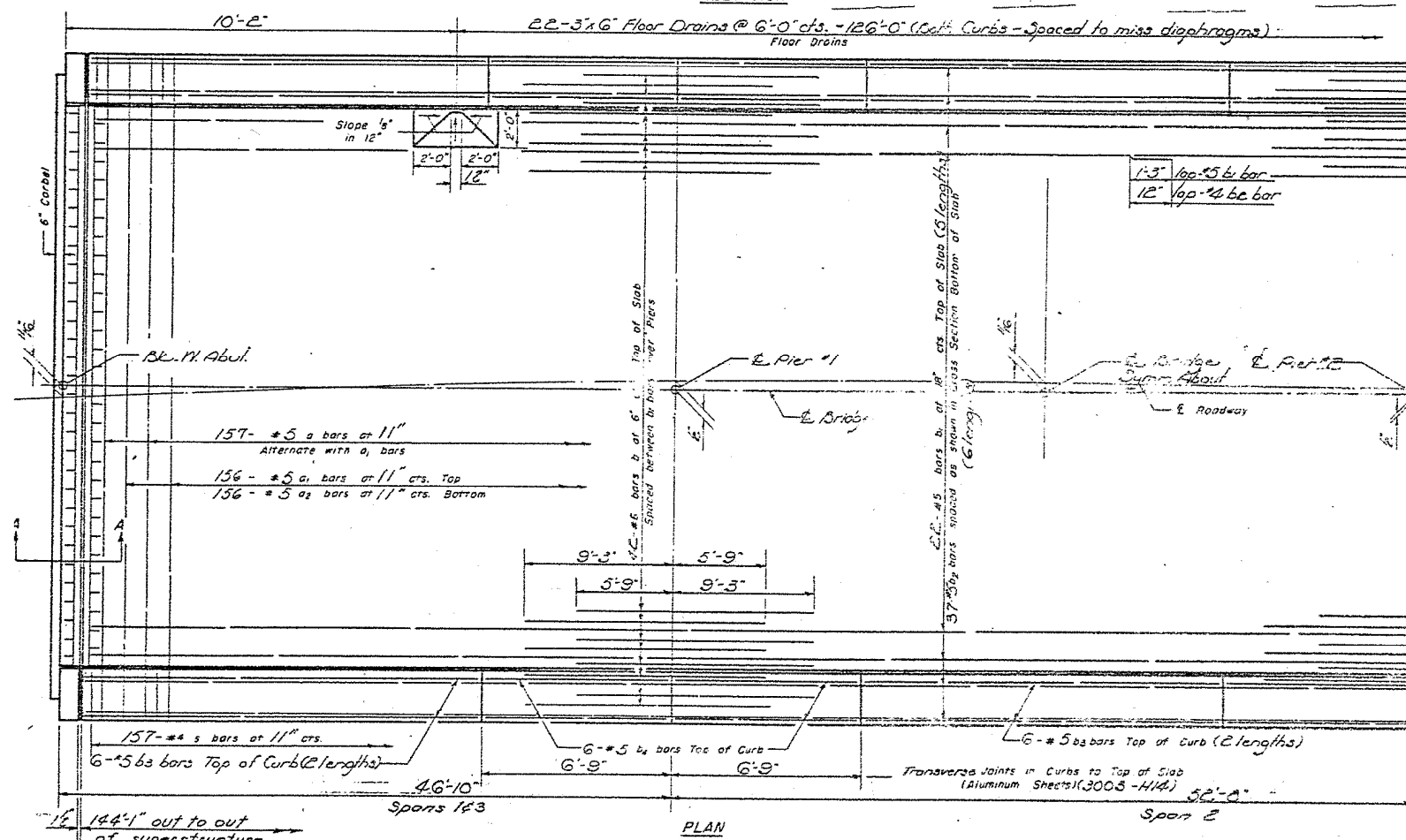
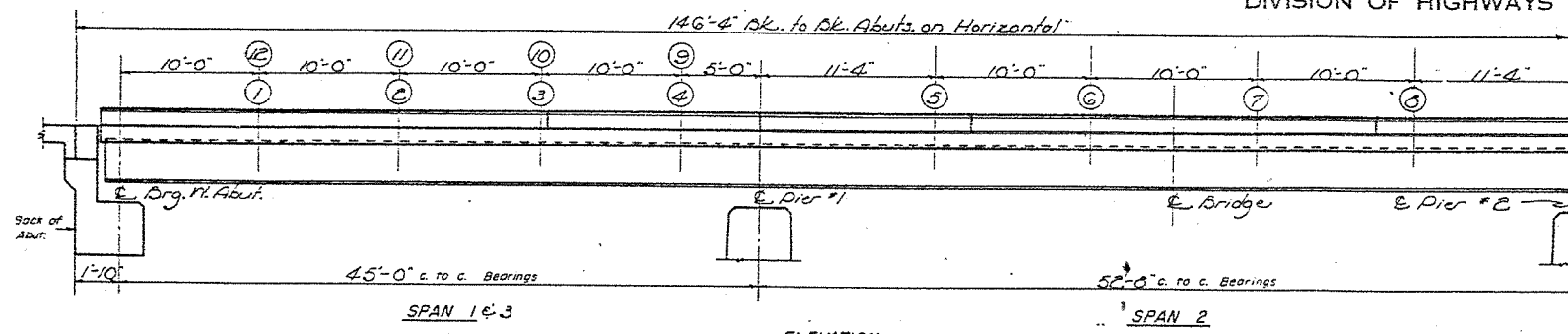
T-2 Re-drawn 8-18-59

FOR INFORMATION ONLY
S.N. 092-0048

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
44-BR	VERMILION	20	6	3

SHEET NO 3
3 SHEETS

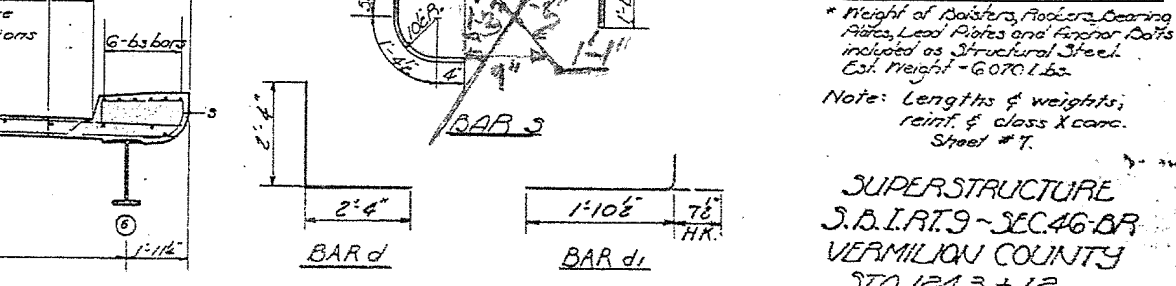


TOP OF SLAB ELEVATIONS INCLUDING D.L. DEFLECTION DUE TO W.T. OF CONCRETE
Theoretical Grade Plus Dead Load Deflection

Station	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Sta. 1243.00	703.70	703.74	703.76	703.78	703.79	703.79	703.80	703.81	703.81	703.82	703.82	703.83	703.83	703.84	703.84
Sta. 1243.50	703.81	703.84	703.86	703.88	703.89	703.89	703.90	703.91	703.91	703.92	703.92	703.93	703.93	703.94	703.94
Sta. 1244.00	703.92	703.94	703.96	703.98	703.99	703.99	704.00	704.01	704.01	704.02	704.02	704.03	704.03	704.04	704.04

BILL OF MATERIAL

Bar	No.	Size	Length	Weight
a	157	#5	34'-3"	—
d1	156	#5	33'-0"	—
d2	156	#5	32'-3"	—
b	84	#6	15'-0"	—
b1	110	#5	29'-0"	—
b2	222	#5	25'-0"	—
b3	72	#5	20'-0"	—
b4	48	#5	6'-6"	—
d	290	#6	4'-8"	—
d1	290	#4	2'-6"	—
s	318	#4	5'-10"	—
Class X Concrete	Cu 4%	151.7	—	—
Reinforcement Bars	LB	32,900	—	—
Structural Steel	LB	11300	—	—



DESIGNED C.W. Blisk
CHECKED P.H. Hogman
DRAWN W.A. Sartman
APPROVED R.H. Bartelme

APR 26 1961

Revised: 9-7-66 J.V.G. change slab steel and reinf. quantity from 14,770 lbs to 32,900 lbs

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

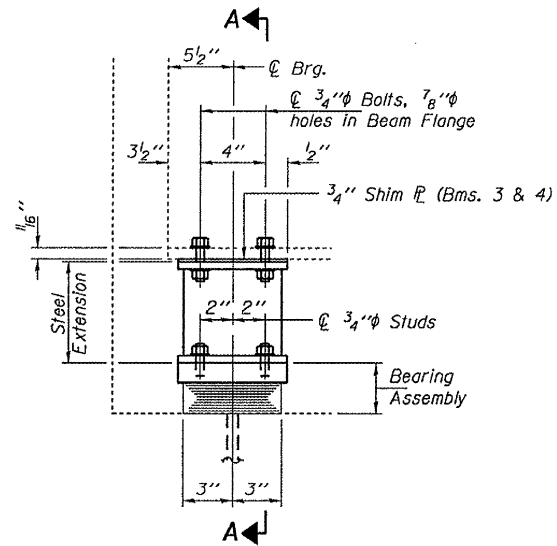
LOCATION #2 STRUCTURE DETAILS

PIATT & VERMILION
F.A. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.
VAR ** ** ** 35 18
** D5 BRIDGE PAINTING 2017-3 CONTRACT NO. 70C59
ILLINOIS FED. AID PROJECT

FILE NAME =
USER NAME = coombessf
DESIGNED -
REVISED -
CHECKED -
REVISED -
DRAWN -
REVISED -
PLOT SCALE = 48.0000 / in.
CHECKED -
REVISED -
DATE -
REVISED -

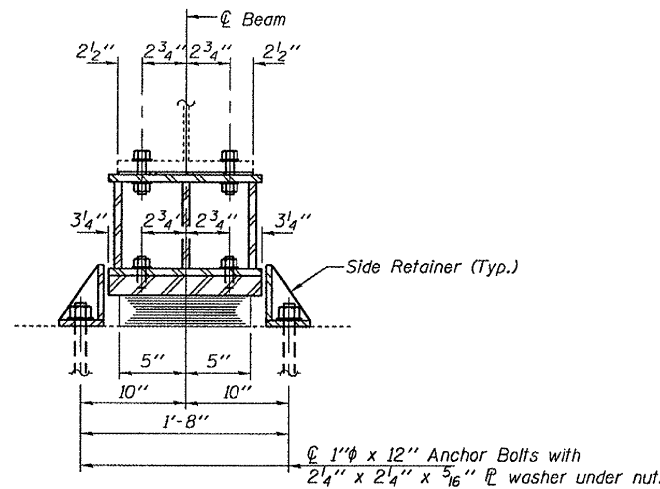
SCALE: SHEET OF SHEETS STA. TO STA.

FOR INFORMATION ONLY
S.N. 092-0048



ELEVATION AT ABUTMENT

TYPE I ELASTOMERIC EXP. BRG.

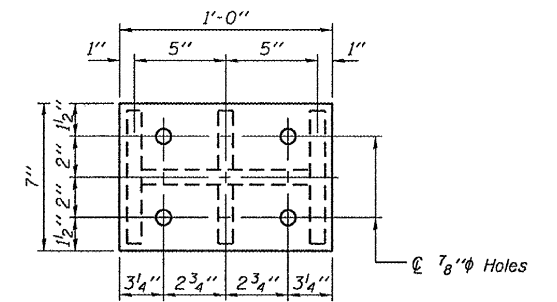


SECTION A-A

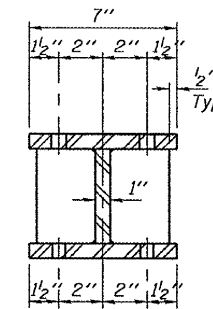
BEAM REACTIONS

RP	(K)	17.2
R4	(K)	29.3
Imp.	(K)	8.6
R (Total)	(K)	55.1

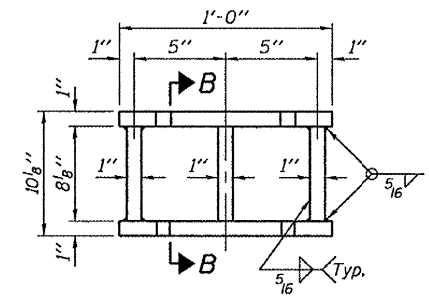
Notes:
Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 30 Tons.
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type I.



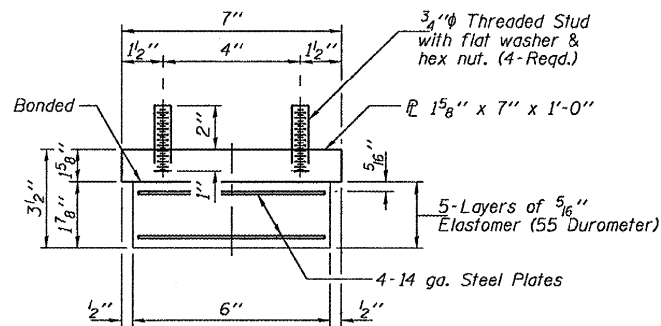
PLAN TOP AND BOTTOM PLATE



SECTION B-B

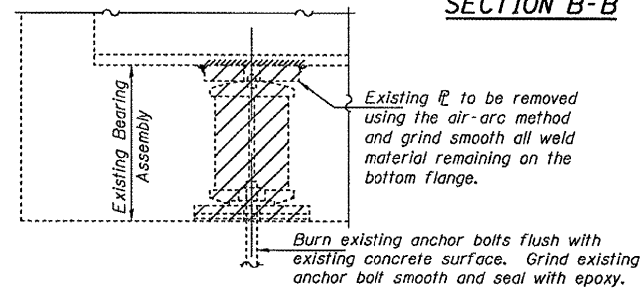


STEEL EXTENSION DETAIL



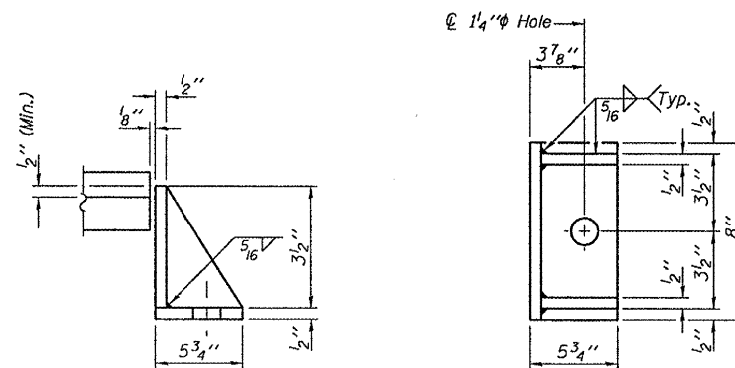
BEARING ASSEMBLY

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



EXISTING BEARING REMOVAL DETAIL

Cost Included with Jack and Remove Existing Bearings.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	6
Jack and Remove Existing Bearings	Each	6
Furnishing and Erecting Structural Steel	Pound	740
Anchor Bolts 1\"/>		

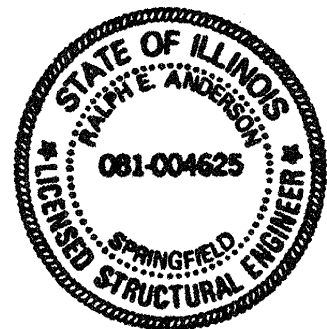
BEARING REPLACEMENT DETAILS

WEST ABUTMENT
SN 092-0048

SHEET NO. 1 2 SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	697	46RS-8 & 1RS-2 & 46BDR	VERMILION	75	57
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	CONTRACT NO. 90866	

DESIGNED *Nicholas A. Veloz* FEBRUARY 20, 2009
 CHECKED *Raimundo Pali*
 DRAWN *balliva*
 CHECKED *VHV*

EXAMINED *Dr. Carl Perry*
 PASSED *Ralph E. Anderson*
 ENGINEER OF STRUCTURAL SERVICES
 ENGINEER OF BRIDGES AND STRUCTURES



EXPIRES 11-30-2010

TYI/REPS 12-03-2008

FOR INFORMATION ONLY

S.N. 092-0048

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM REACTIONS

R _L	(K)	17.2
R _R	(K)	29.3
Imp.	(K)	8.6
R (Total)	(K)	55.1

Notes:

Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.

New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.

Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 30 Tons.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (F_y=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

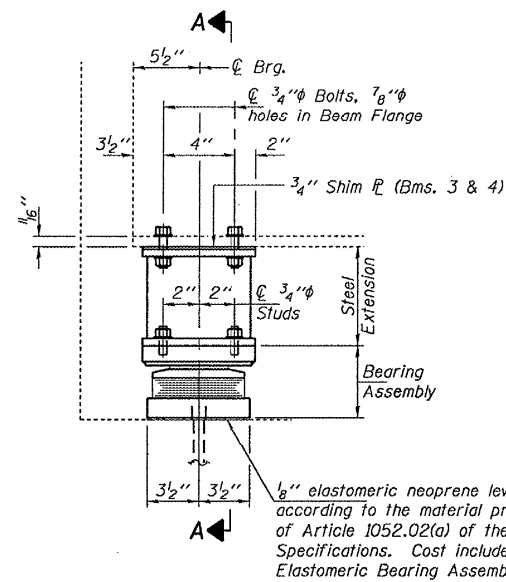
Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type II.

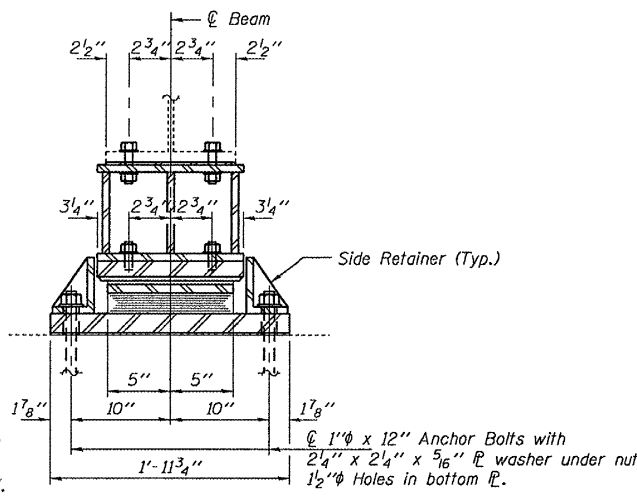
The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

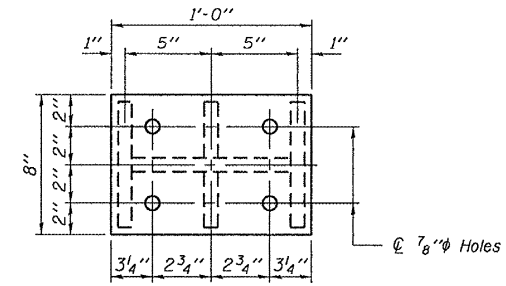


ELEVATION AT ABUTMENT

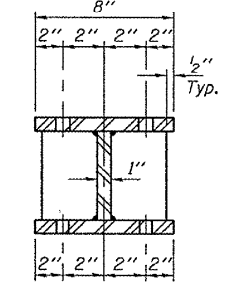
TYPE II TFE ELASTOMERIC EXP. BRG.



SECTION A-A

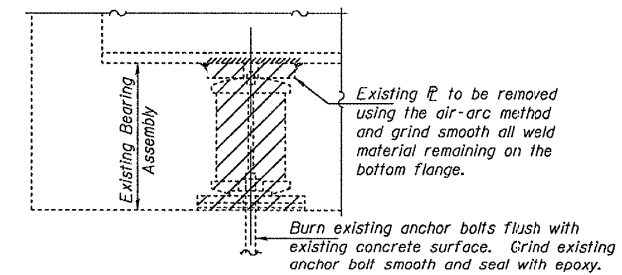


PLAN TOP AND BOTTOM PLATE



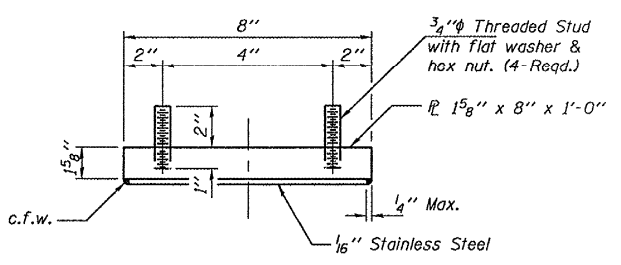
SECTION B-B

STEEL EXTENSION DETAIL

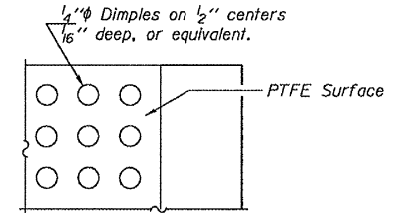


EXISTING BEARING REMOVAL DETAIL

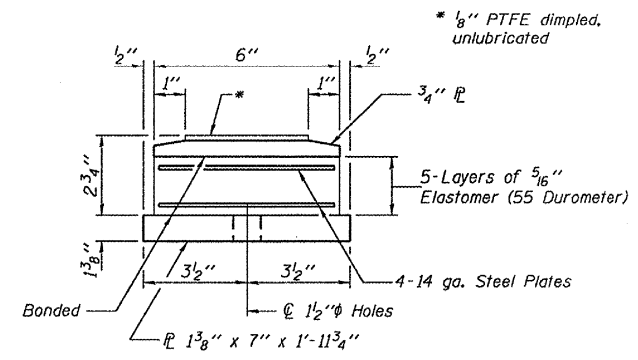
Cost included with Jack and Remove Existing Bearings.



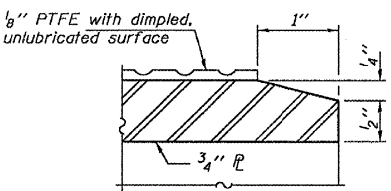
TOP BEARING ASSEMBLY



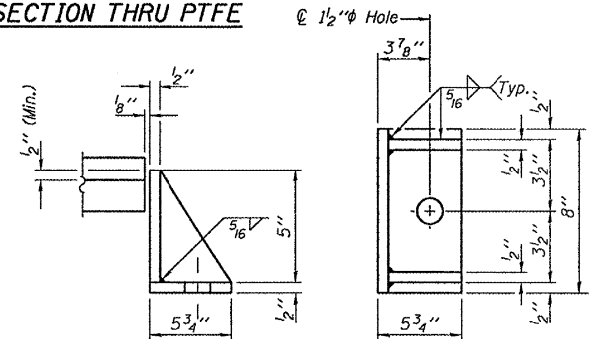
PLAN-PTFE SURFACE



BOTTOM BEARING ASSEMBLY

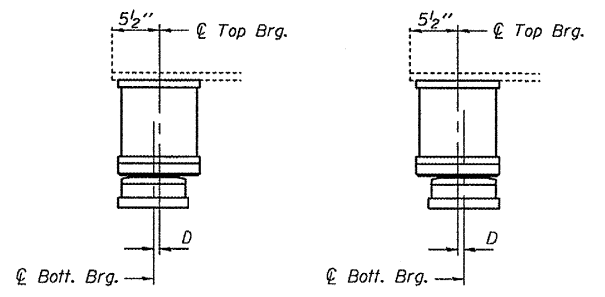


SECTION THRU PTFE



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



BELOW 50° F. (Move bott. brg. away from fixed brg.) ABOVE 50° F. (Move bott. brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	6
Jack and Remove Existing Bearings	Each	6
Furnishing and Erecting Structural Steel	Pound	660
Anchor Bolts 1"φ	Each	12

BEARING REPLACEMENT DETAILS

EAST ABUTMENT

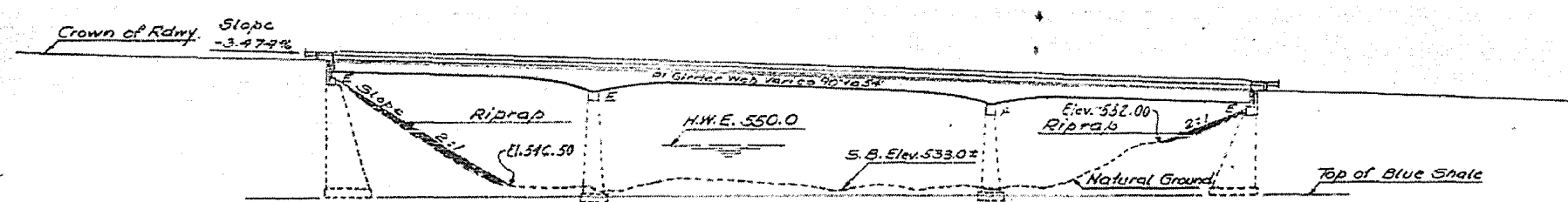
SN 092-0048

DESIGNED	VHV	FEBRUARY 20, 2009
CHECKED	DAB	EXAMINED <i>Carl Prosser</i>
DRAWN	baliva	PASSED <i>Ralph E. Anderson</i>
CHECKED	VHV DAB	ENGINEER OF BRIDGES AND STRUCTURES

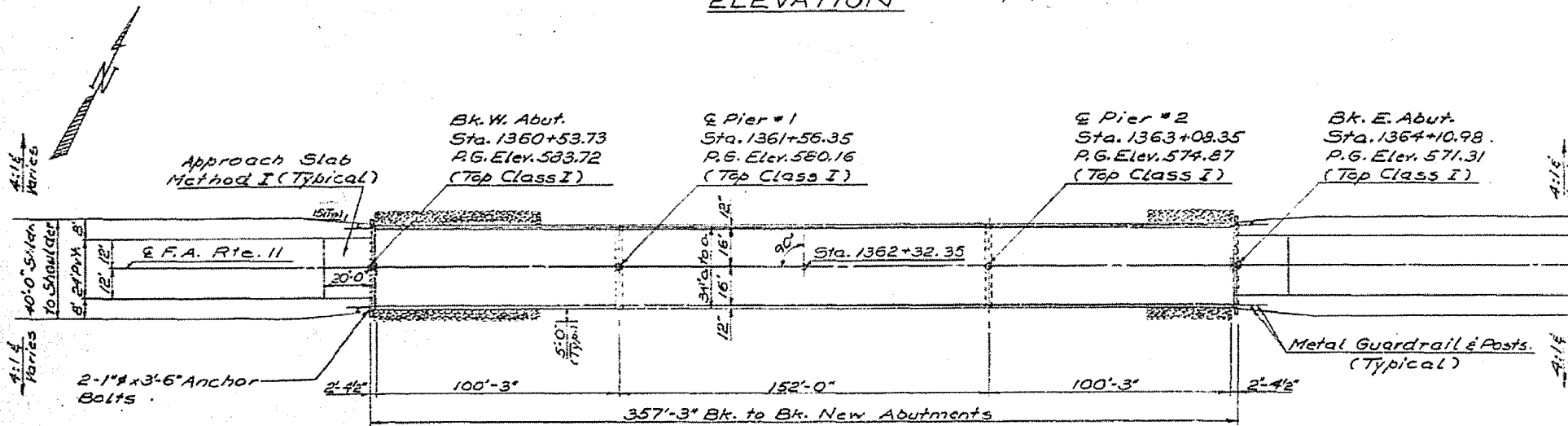
TYII/REPS 12-03-2008

SHEET NO. 2 2 SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	697	46RS-8 & 1RS-2 & 46BDR	VERMILION	75	58
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
			CONTRACT NO. 90866		

FOR INFORMATION ONLY
S.N. 092-0050



ELEVATION



PLAN

The bottom flange of beams or girders not 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 bolting cross frames 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.

Protective coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.

Expansion bolts shall consist of self drilling expansion anchors and 3/4" x 12" hooked bolts.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8". Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 1/2" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.

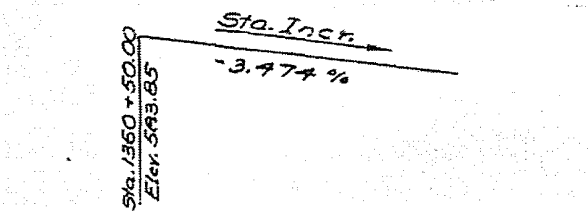
Any structure excavation required shall be incidental to Concrete Removal.

TOTAL BILL OF MATERIAL

Item	Unit	Suppr	Sub	Total
Bituminous Concrete Surface Dress. Class I	Sq. Yds	67		67
Removal of Existing Superstructures	Each			1
Concrete Removal	Cu. Yds.		153	153
Class X Concrete	Cu. Yds.	376.2	173.0	497.4
Reinforcement Bars	Lbs.	98480	17,600	116,080
Structural Steel	L.S.	L.S.		L.S.
Expansion Bolts (3/4")	Each		72	72
Name Plates	Each			1
Preformed Joint Sealer (2")	Lin. Ft.	34		34
Neoprene Exp. Joint (1")	Lin. Ft.	33		33
Shear Stud Connectors	Each	2385		2385
Protective Coat	Sq. Yds.	285		285
Waterproofing Membrane System	Sq. Yds.	1199		1199
Stone Riprap	Sq. Yds.		454	454

STATION 1362+32.35
REBUILT BY
STATE OF ILLINOIS
F.A.-RT. II SEC. 36 BR
LOADING HS 20

NAME PLATE
(See Std. 2113)



PROPOSED PROFILE F.A.R.T.E. II (@ E Rdwy.)

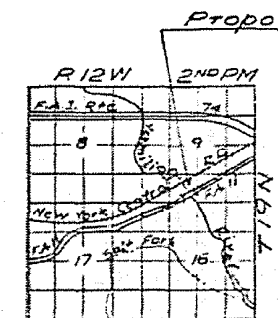
DESIGNED	R. E. Mathew
CHECKED	James Pence
DRAWN	V. H. J. G.
CHECKED	J. P.

WATERWAY INFORMATION

Drainage Area 447 Sq. Mi.
Required Opening 2500 Sq. Ft.
Proposed Opening 2500 Sq. Ft.
H. W. E. (100) 550 ft.
 $\Delta H(100) = .1'$
 $Q(100) = 15,750 cfs$
H. W. E. (1100) 550.3 ft.
 $\Delta H(100) = .13'$
 $Q(1100) = 18,150 cfs$

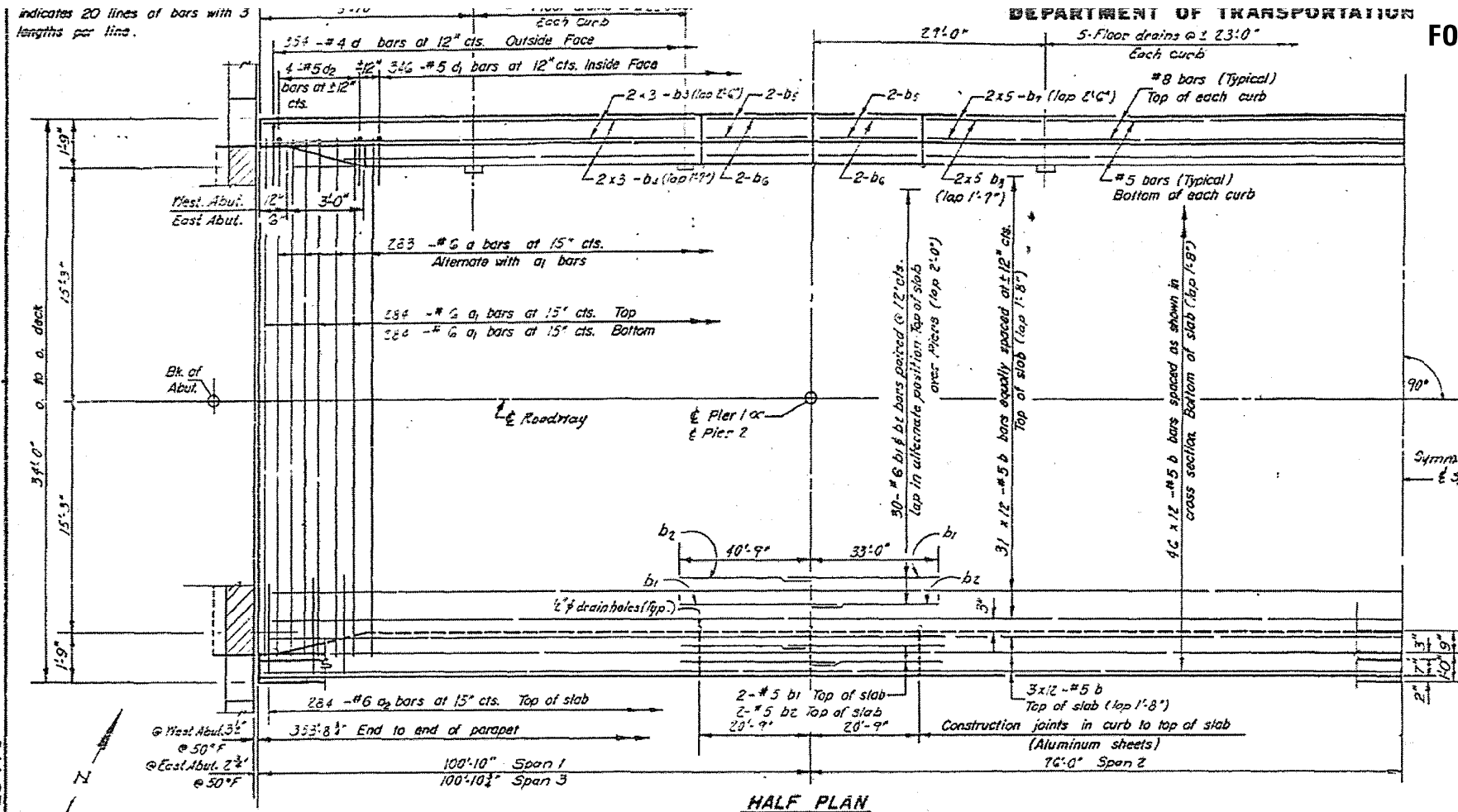
DESIGN STRESSES

$f_c = 1400$ psi (Sub. Curb & Parapet)
 $f_c = 1200$ psi (Deck Slab)
 $f_s = 20000$ psi (Reinf.)
 $f_s = 20000$ psi (Struct.) (M183)
 $f_s = 27000$ psi (Struct.) (M222)
 $n = 8.5$
Loading: HS 20-44
Allow 25 #/ft² for fut. W. S.
Design Specifications: 1973 AASHTO, 1974 and 1975 Interim Specifications.



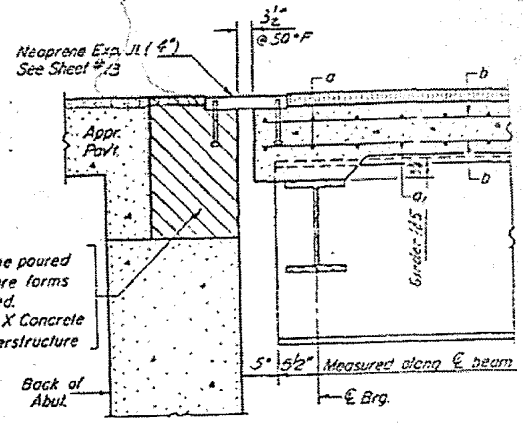
LOCATION SKETCH

GENERAL PLAN & ELEVATION
F.A.R.T.E. II OVER MIDDLE FORK
OF VERMILION RIVER
F.A.-RT. II SECTION 36 BR
VERMILION COUNTY
STA 1362+32.35

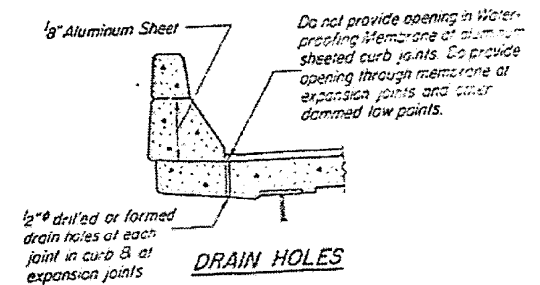


Note:
For Sec. of East Abut.
see sheet #5

Hatched area to be poured
after superstructure forms
have been removed.
Quantity of Class X Concrete
included with superstructure



SEC. AT WEST ABUT



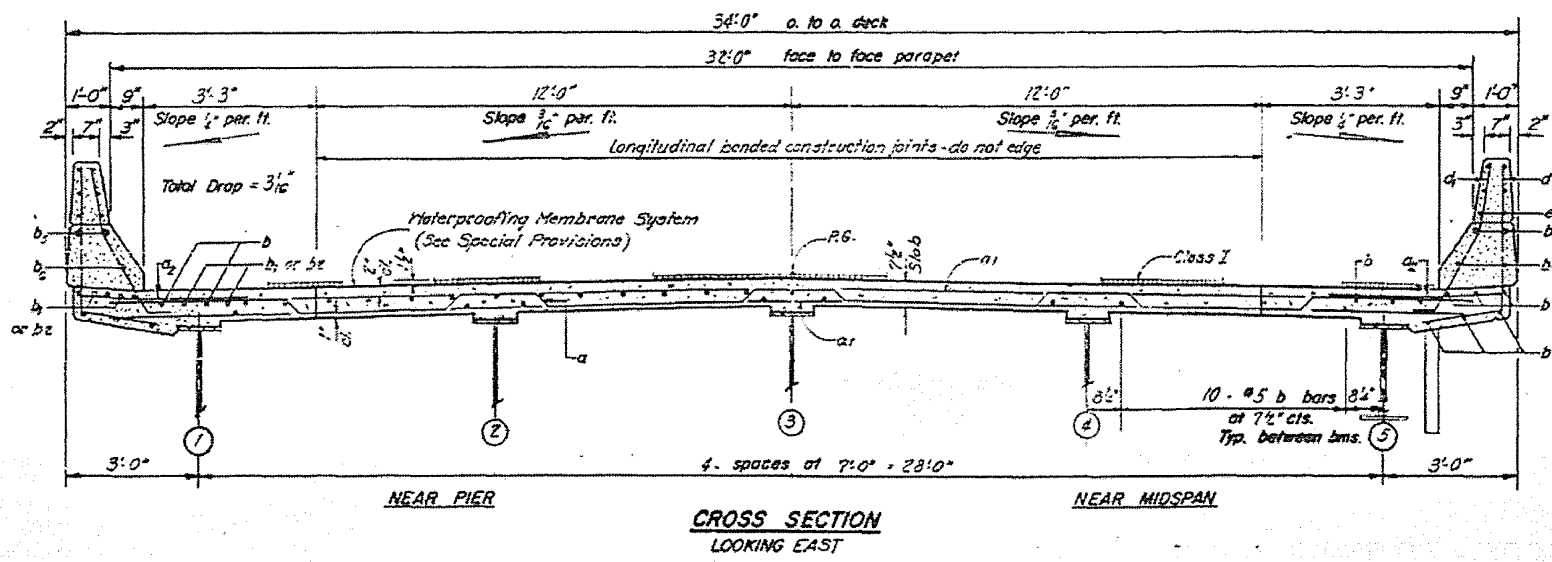
DRAIN HOLES

BILL OF MATERIAL

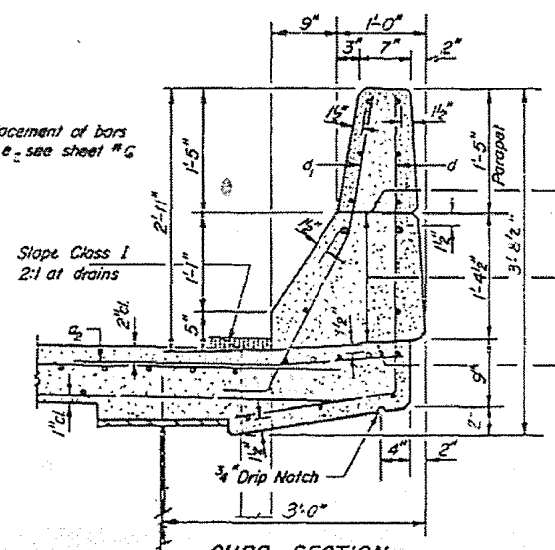
Bar	No.	Size	Length	Shape
a	33	#6	33'-4"	U
a1	56	#6	33'-0"	U
a2	368	#6	1'-0"	U
b	996	#5	30'-11"	U
b1	68	#6	45'-0"	U
b2	68	#6	30'-9"	U
b3	24	#6	23'-2"	U
b4	24	#5	27'-0"	U
b5	16	#5	20'-6"	U
b6	16	#5	20'-6"	U
b7	20	#6	24'-2"	U
b8	20	#5	23'-2"	U
d	728	#4	5'-5"	J
d1	802	#5	2'-0"	J
d2	16	#5	2'-0"	J
Reinforcement Bars Lbs. 41,619				
Class X Concrete Cu. Yds. 343.6				

Parapet reinforcement and Class X Concrete are billed on sheet #6

SUPERSTRUCTURE
F.A.R.T. II SEC. 3689
VERMILION CO.
STA. 13Q2-3E35



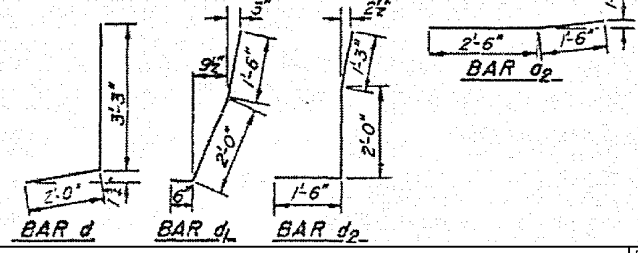
Note: For placement of bars
e thru e - see sheet #6



CURB SECTION

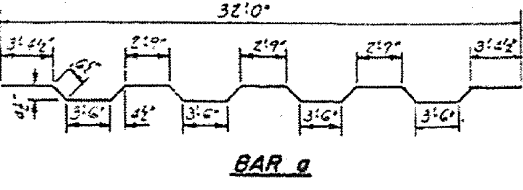
Cost of Aluminum Sheets and Drains
are incidental to Class X Concrete

Note:
For Drain details
see sheet #5



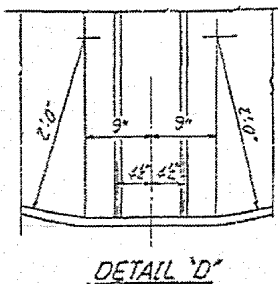
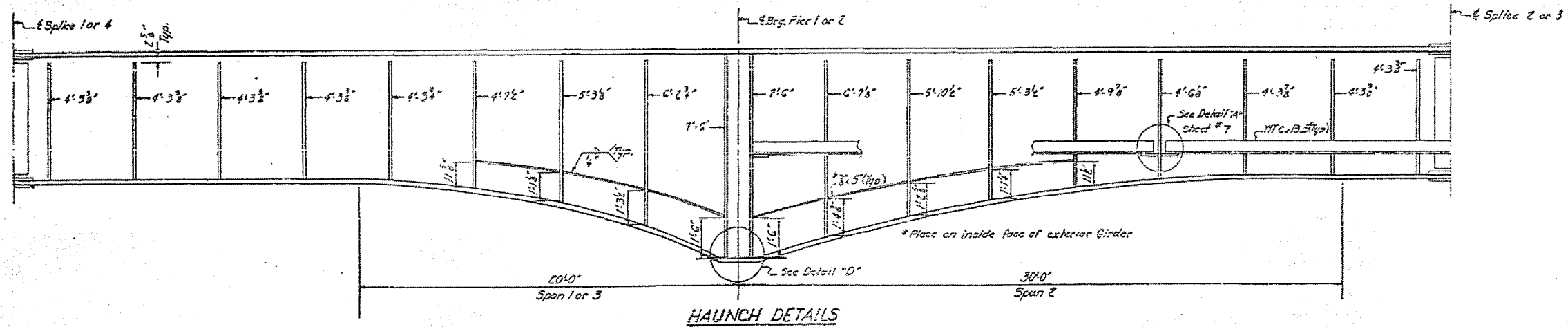
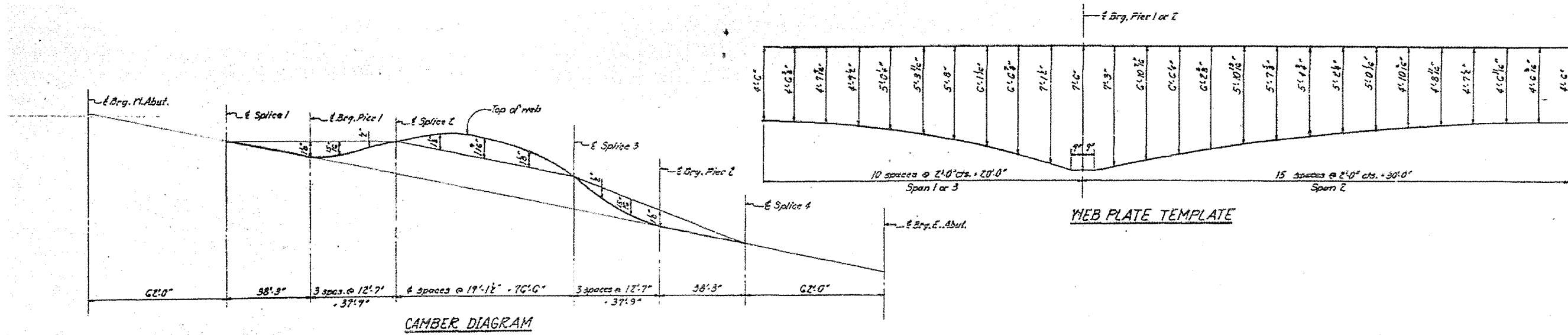
DESIGNED	R. C. Mathis
CHECKED	James Pence
DRAWN	Lincoln Roberts
CHECKED	JND

EXAMINED	March 5 1976 Carl E. Anderson
PASSED	
APPROVED	



BAR a

FOR INFORMATION ONLY
S.N. 092-0050



DESIGNED	R. V. Nathan
CHECKED	James Pence
DRAWN	Ann Spolarik
CHECKED	JUP

EXAMINED	Mark S. [Signature]
PASSED	[Signature]
APPROVED	[Signature]

STRUCTURAL STEEL-DETAILS
F.A.R.T.II SEC. 36 BR.
VERMILION COUNTY
STA. 1362+32.35

FOR INFORMATION ONLY
S.N. 092-0050

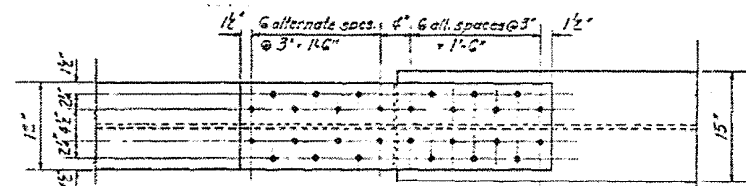
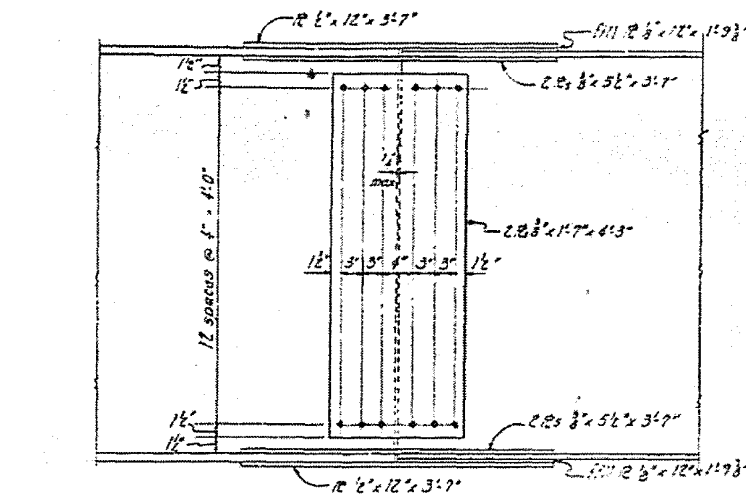
TOP OF WEB ELEVATIONS

Loc	1	2	3	4	5
E Bra. N. Abut.	582.554	582.674	582.783	572.674	572.554
E Splice 1	580.348	580.453	580.577	580.453	580.348
E Bra. Pier 1	579.066	579.196	579.295	579.196	579.066
E Splice 2	577.960	578.070	578.029	578.020	577.960
E Splice 3	575.237	575.357	575.464	575.357	575.237
E Bra. Pier 2	573.776	573.876	574.005	573.876	573.776
E Splice 4	572.811	572.831	572.640	572.531	572.411
E Bra. E. Abut.	570.309	570.429	570.538	570.429	570.309

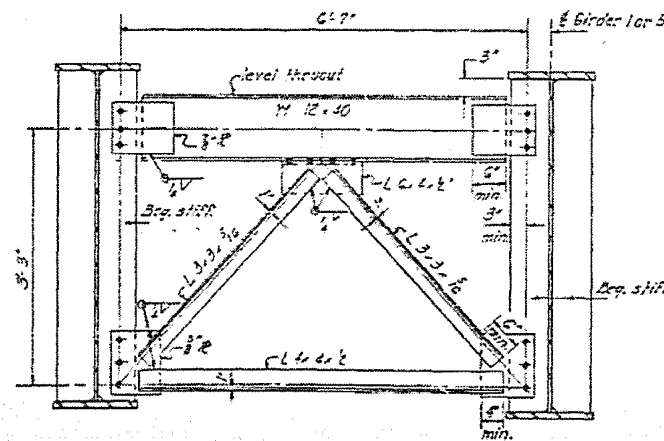
INTERIOR GIRDER MOMENT TABLE			
	0.4 So. 1	Pier	0.5 So. 2
I_s (in ⁴)	19229	80668	23 813
I_c (in ⁴)	46022	—	60604
S_s (in ³)	693	1736	991
S_c (in ³)	960	—	1336
Q (k/ft)	0.873	1.366	0.873
M_B (k)	372	2453	820
R_B (ksf)	6.4	17.0	9.9
Q_2 (k/ft)	0.493	—	0.493
M_S (k)	278	—	632
M_E (k)	788	966	1081
M_{imp} (k)	175	192	196
T_{total} (k)	1241	1158	1909
R_B (ksf)	15.5	7.9	17.1
R_{total} (ksf)	21.9	24.9	27.0
VR (k)	58	—	49.7

INTERIOR GIRDER REACTION TABLE		
	Abut.	Pier
R_B (k)	43.6	197.2
R_E (k)	40.6	77.2
M_{imp} (k)	9.0	15.4
R_{total} (k)	93.2	289.8

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 Q .
 VR is the maximum k + impact shear range.

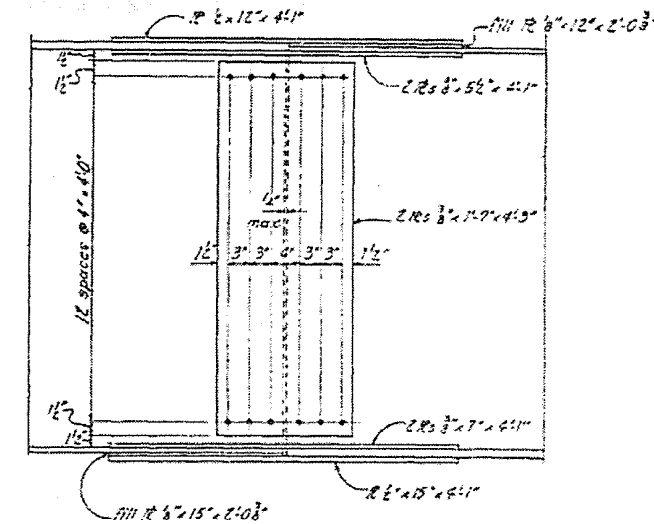
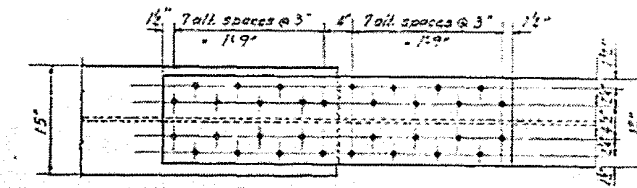


SPLICE 1 & 4
8" H.S. Bolts

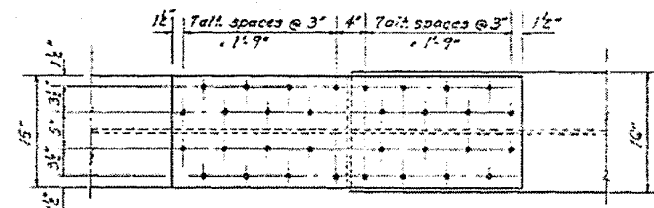


END CROSS FRAME-F
8 - Required

Note:
Use 1/2" holes in gusset Rs for 3/4" bolts.
Hardened washers shall be required over holes in gusset Rs.



SPLICE 2 & 3
8" H.S. Bolts

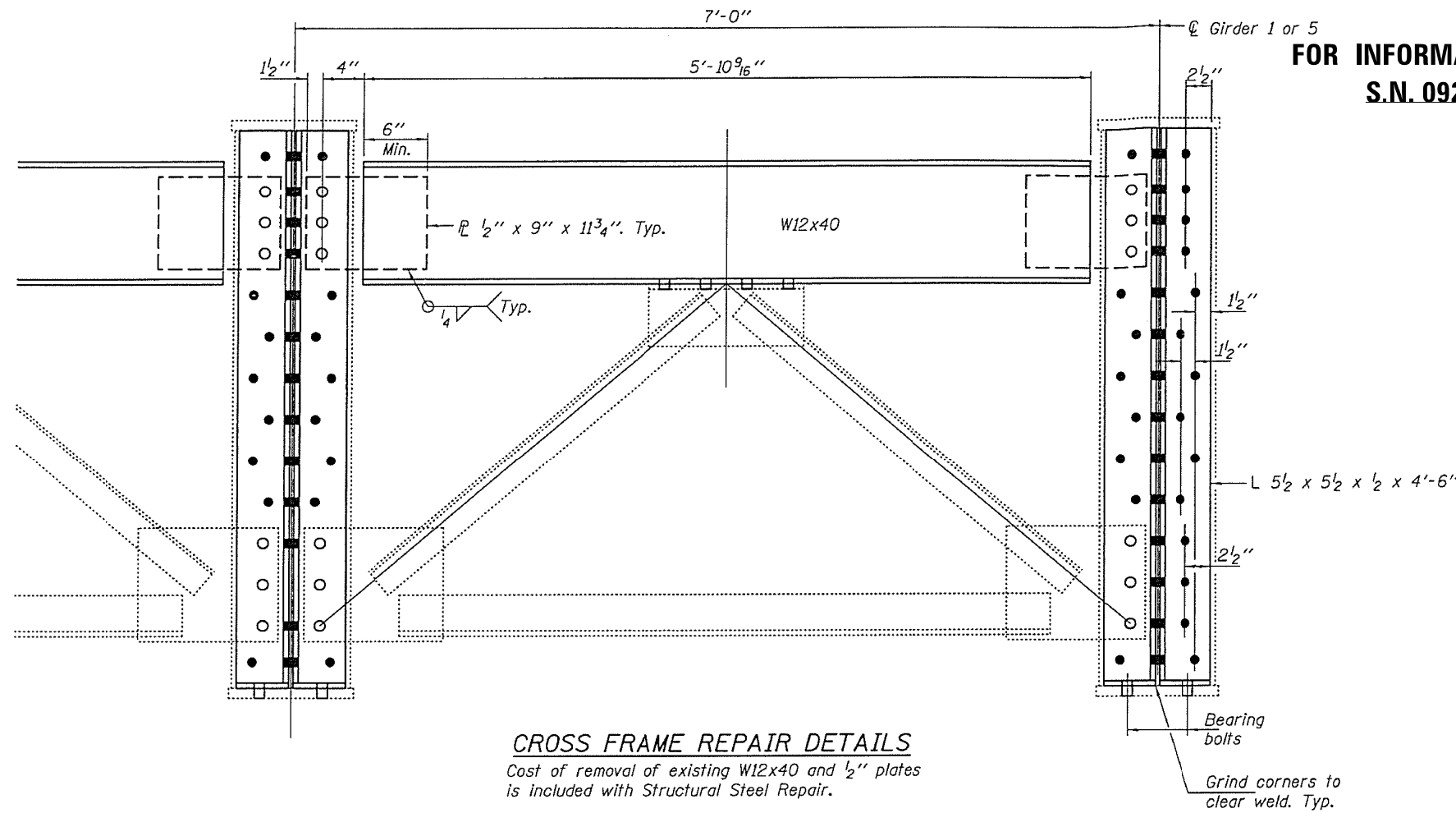


DESIGNED	R. S. Mathews
CHECKED	James Hance
DRAWN	James Hance
CHECKED	JWP

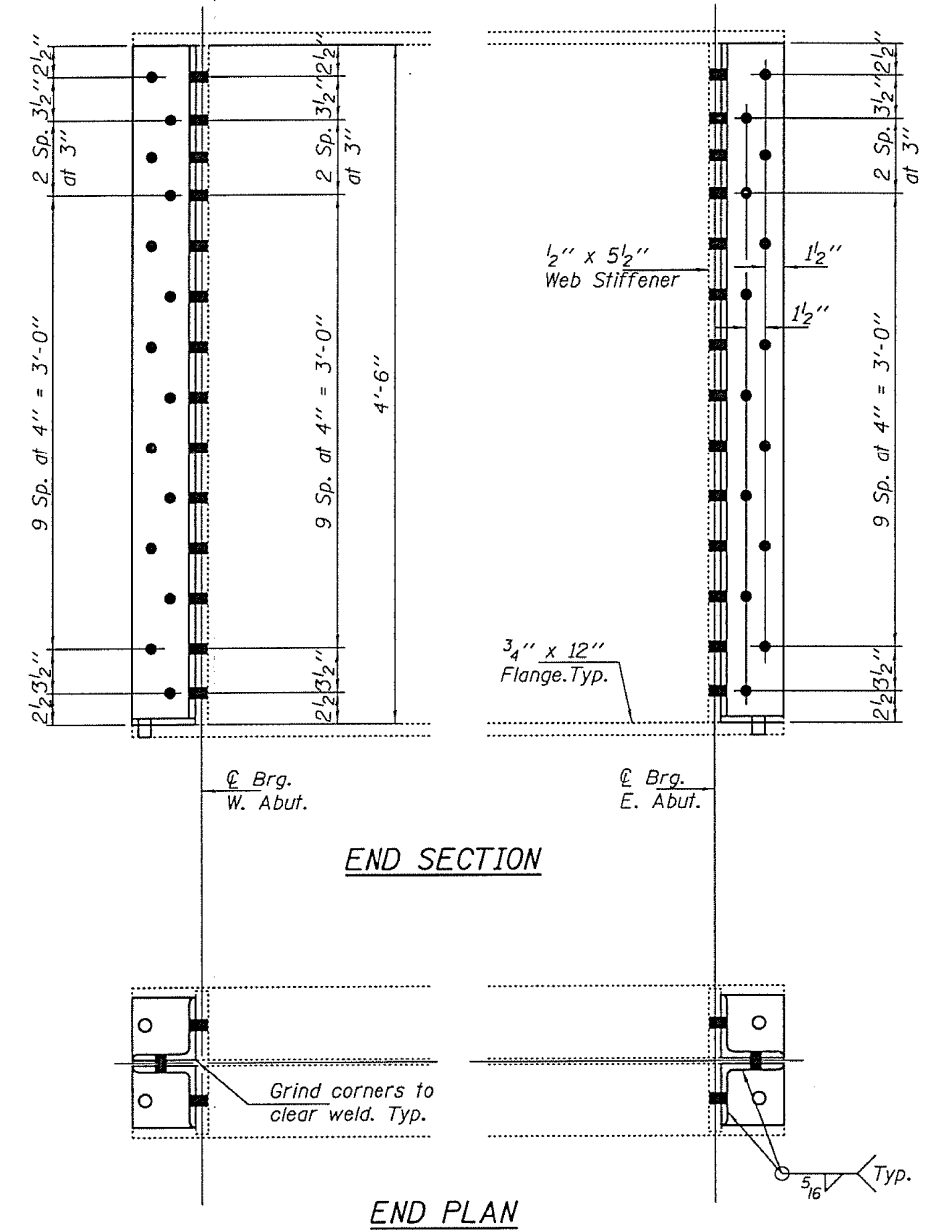
March 5 1976
EXAMINED
PASSED
APPROVED

STRUCTURAL STEEL DETAILS
F.A.R.T. II SEC. 36.52
VERMILION COUNTY
STA. 1362+32.35

FOR INFORMATION ONLY
S.N. 092-0050

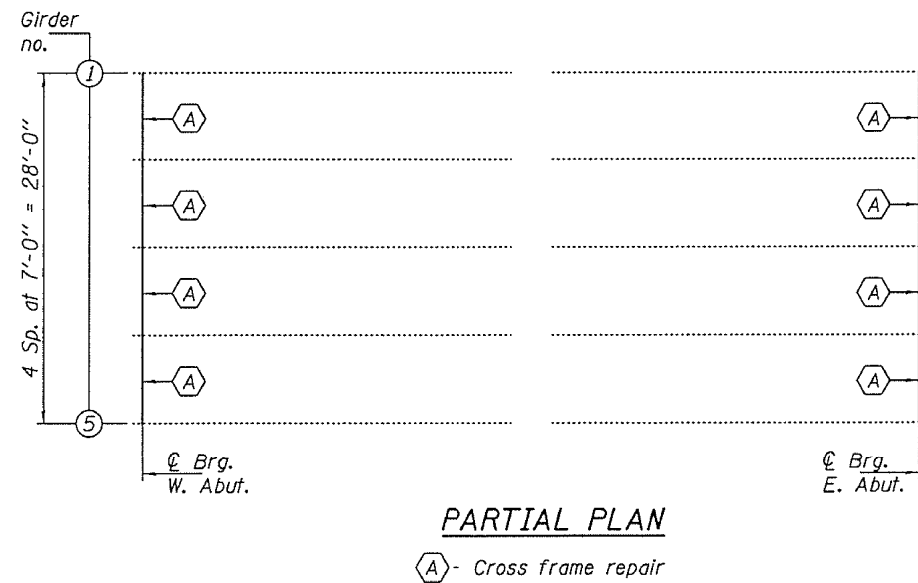


CROSS FRAME REPAIR DETAILS
Cost of removal of existing W12x40 and 1/2" plates is included with Structural Steel Repair.

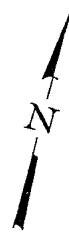


END SECTION

END PLAN



PARTIAL PLAN
A - Cross frame repair



LEGEND

- - Holes to be field drilled in existing \bar{L} using new \bar{L} as template.
- - Holes to be field drilled in new \bar{L} & L using existing holes as template.

NOTES

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the GBSP "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Steel Repair	Pound	3890

PIATT & VERMILION

FILE NAME =	USER NAME = coombessf	DESIGNED -	REVISED -
pw:\IL\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\0570\Drawings\Design\0570C59-sht-Details.dwg		DRAWN -	REVISED -
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
#MODELNAME#	PLOT DATE = 1/5/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION #3 STRUCTURE DETAILS

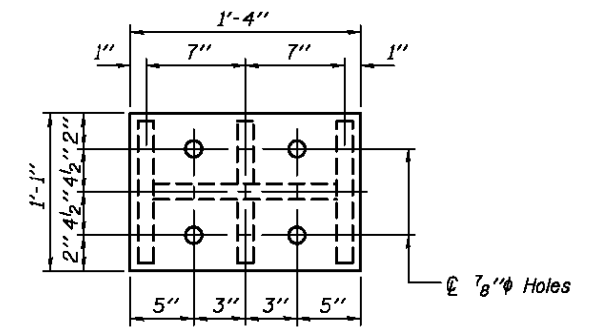
SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	**	*	35	26
** D5 BRIDGE PAINTING 2017-3			CONTRACT NO. 70C59	
ILLINOIS FED. AID PROJECT				

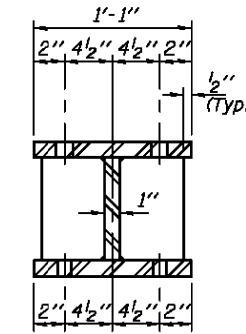
FOR INFORMATION ONLY BEAM REACTIONS
S.N. 092-0050

RP	(K)	43.6
RL	(K)	40.6
Imp.	(K)	9.0
R (Total)	(K)	93.2

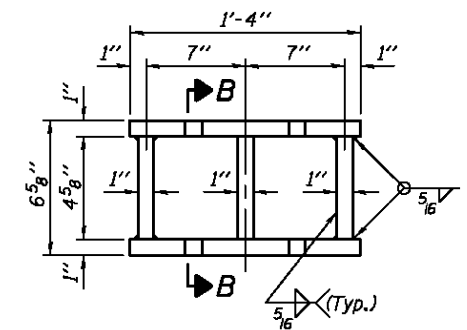
Notes:
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. Jack capacity = 55 Tons.
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type II.
 The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.
 Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



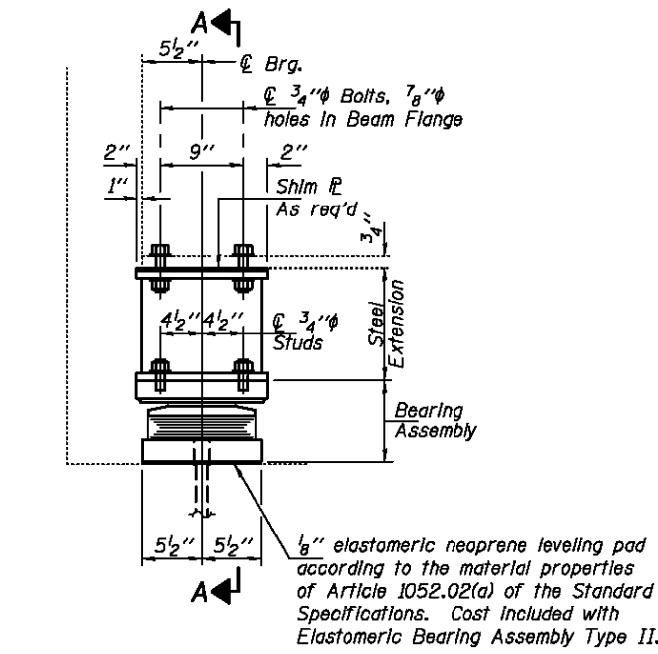
PLAN TOP AND BOTTOM PLATE



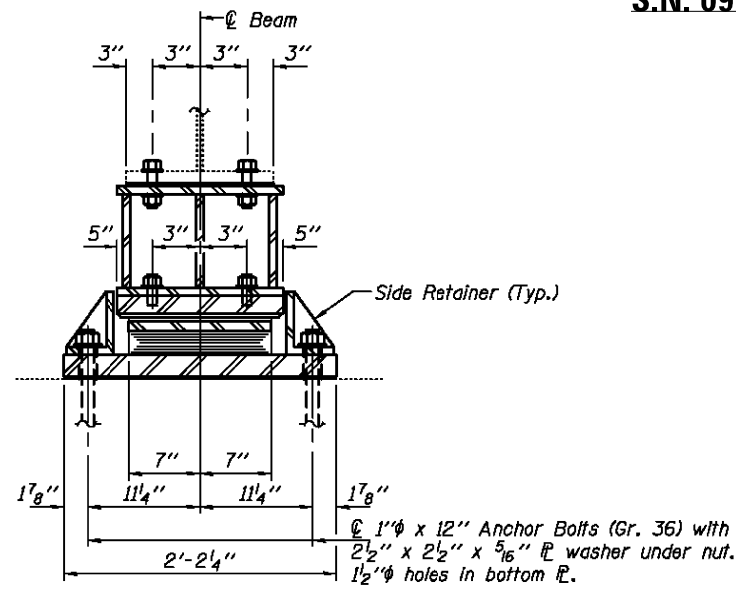
SECTION B-B



STEEL EXTENSION DETAIL

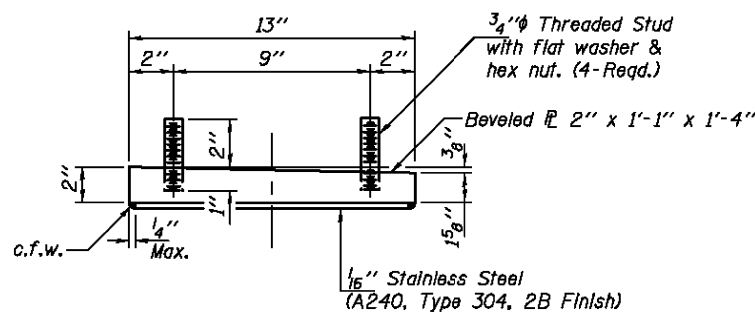


ELEVATION AT ABUTMENT

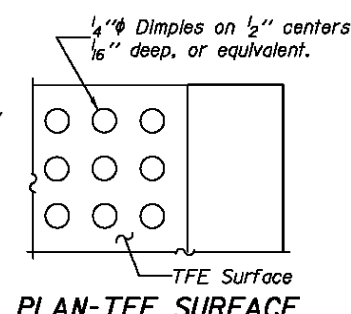


SECTION A-A

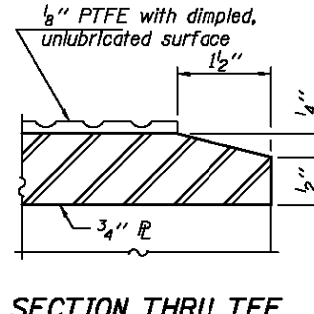
TYPE II TFE ELASTOMERIC EXP. BRG.



TOP BEARING ASSEMBLY (Looking North)

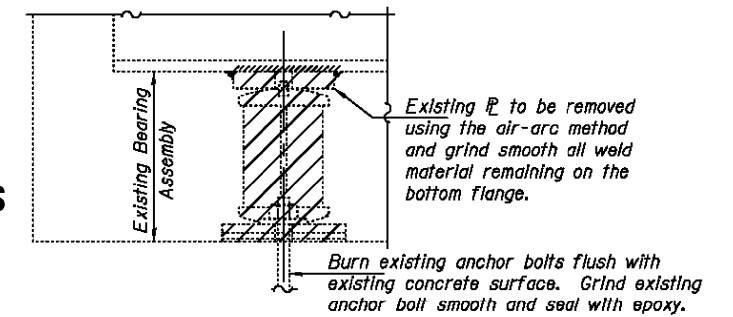


PLAN-TFE SURFACE



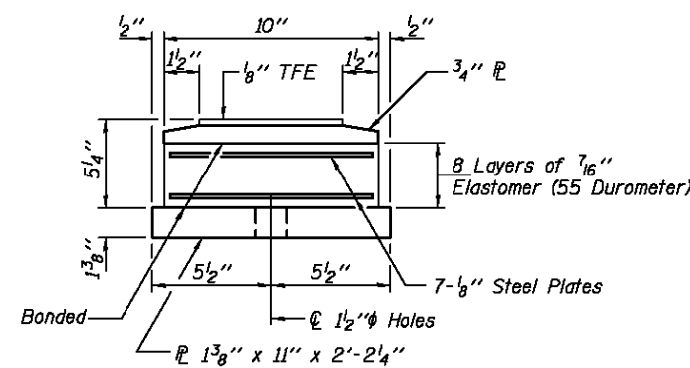
SECTION THRU TFE

WEST ABUTMENT BEARING REPLACEMENT DETAILS

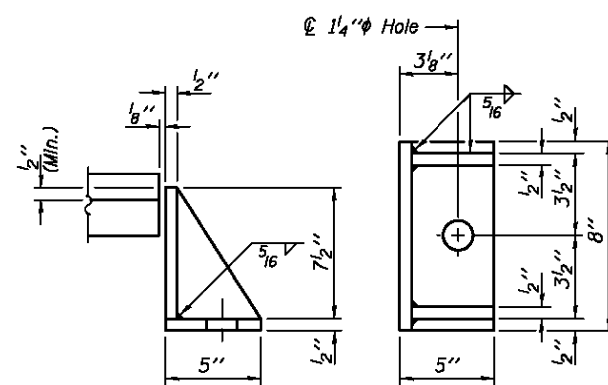


EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

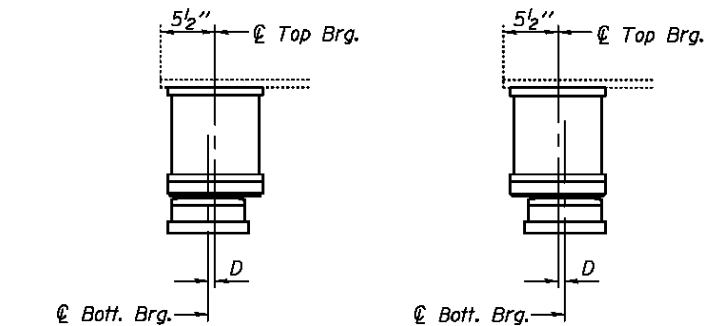


BOTTOM BEARING ASSEMBLY



SIDE RETAINER

Equivalent rolled angle with stiffeners with bevelled top flange of welded plates



SETTING ANCHOR BOLTS AT EXP. BRG.
 BELOW 50° F. (Move bott. brg. away from fixed brg.) ABOVE 50° F. (Move bott. brg. toward fixed brg.)

D = 1/8" per each 100' of expansion for every 15° temp.

BILL OF MATERIAL

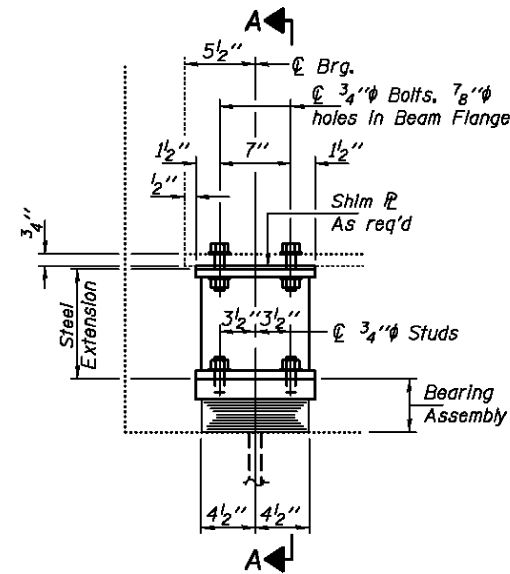
Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	5
Jack and Remove Existing Bearings	Each	5
Furnishing and Erecting Structural Steel	Pound	920
Anchor Bolts 1"φ	Each	10

FOR INFORMATION ONLY
S.N. 092-0050

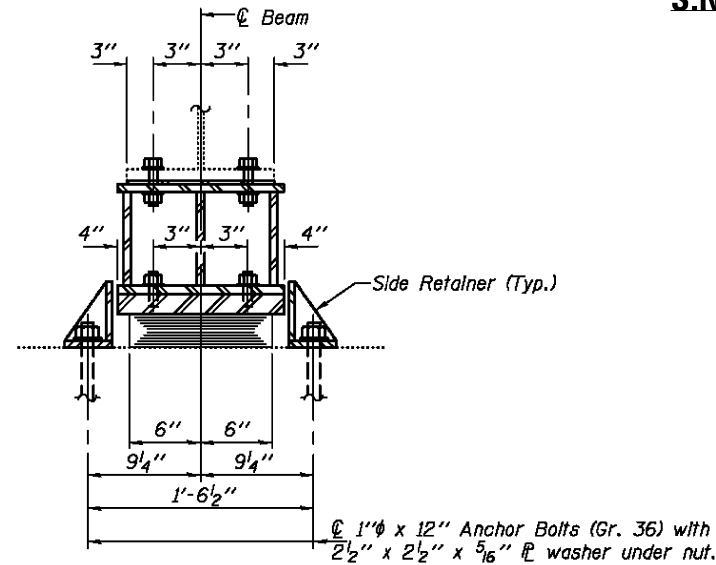
BEAM REACTIONS

R _D	(K)	43.6
R _L	(K)	40.6
Imp.	(K)	9.0
R (Total)	(K)	93.2

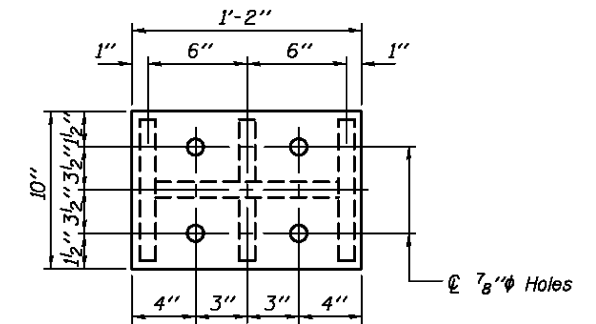
Notes:
Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. Jack capacity = 55 Tons.
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (F_y=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type I.



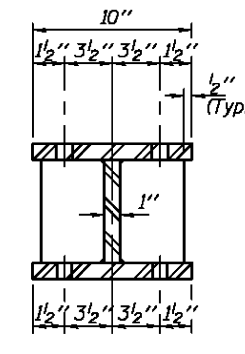
ELEVATION AT ABUTMENT



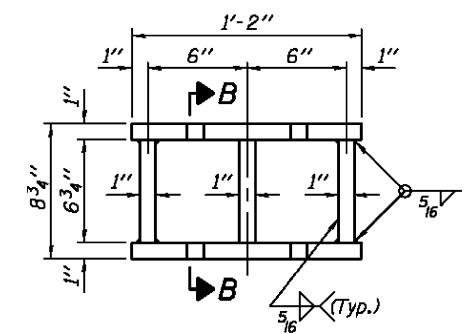
SECTION A-A



PLAN TOP AND BOTTOM PLATE

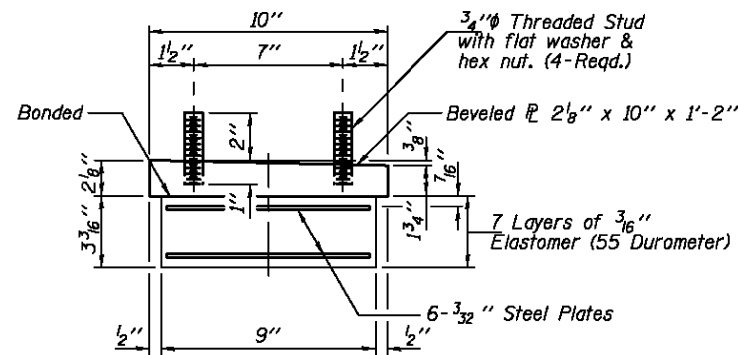


SECTION B-B



STEEL EXTENSION DETAIL

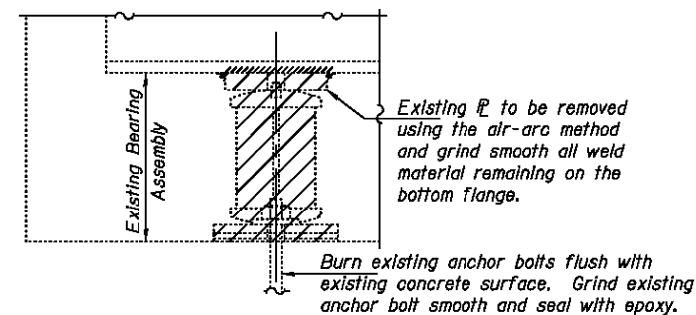
TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

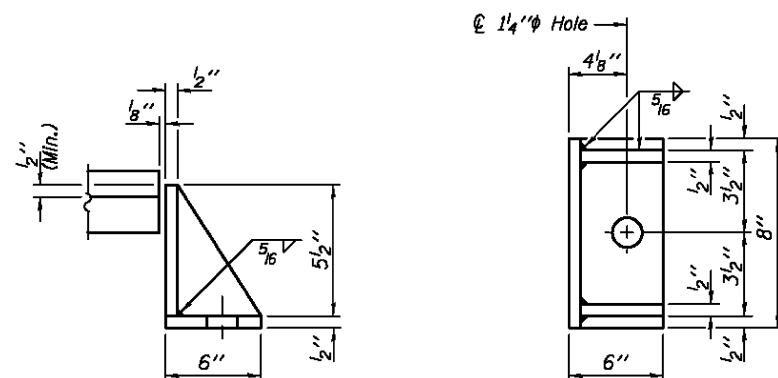
Note:
Shim plates shall not be placed under Bearing Assembly.

EAST ABUTMENT BEARING REPLACEMENT DETAILS



EXISTING BEARING REMOVAL DETAIL

Cost Included with Jack and Remove Existing Bearings.



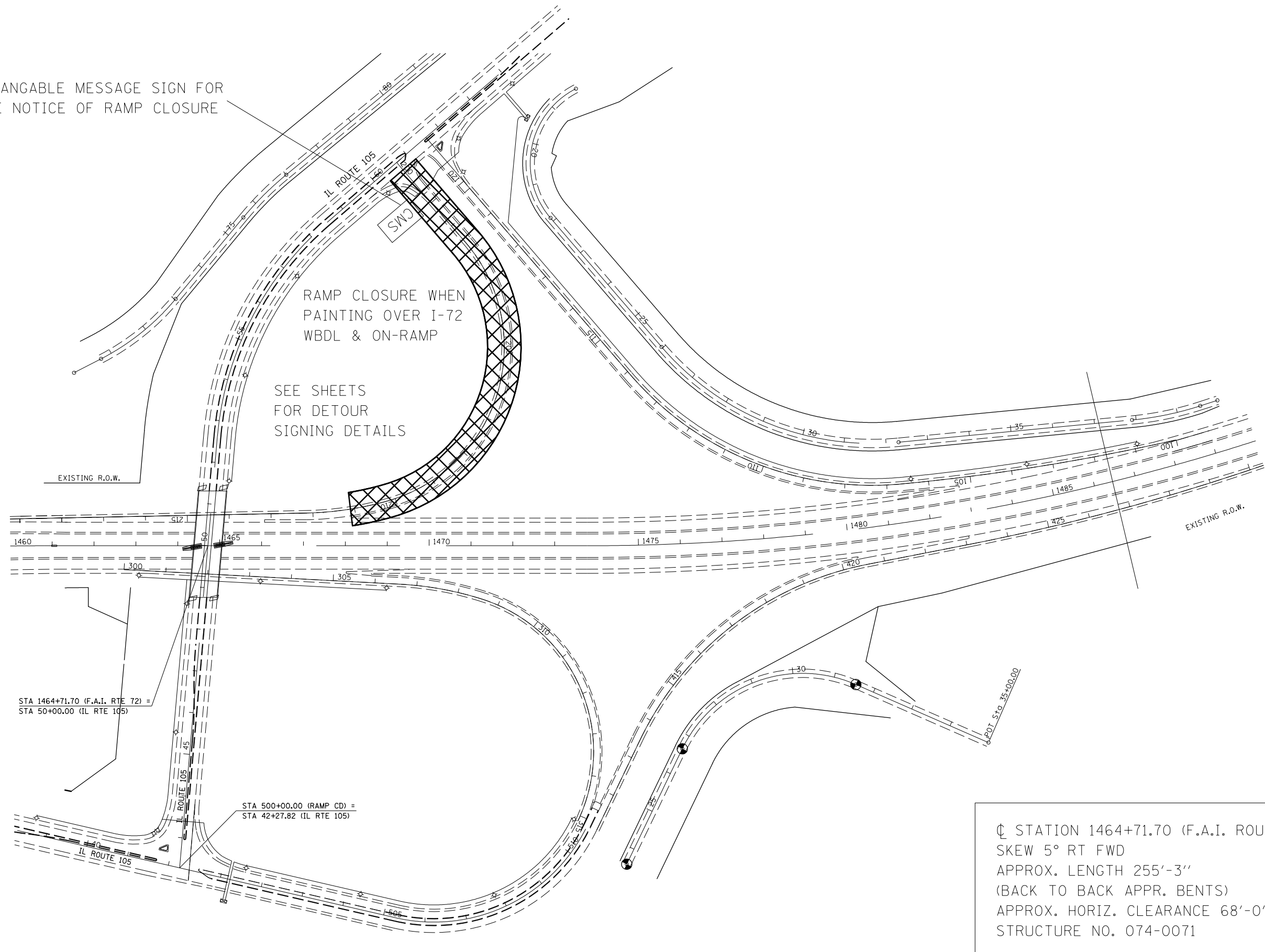
SIDE RETAINER

Equivalent rolled angle with stiffeners

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	5
Jack and Remove Existing Bearings	Each	5
Furnishing and Erecting Structural Steel	Pound	770
Anchor Bolts 1"φ	Each	10

LOCATION OF CHANGABLE MESSAGE SIGN FOR
7 DAYS ADVANCE NOTICE OF RAMP CLOSURE



RAMP CLOSURE WHEN
PAINTING OVER I-72
WBDL & ON-RAMP

SEE SHEETS
FOR DETOUR
SIGNING DETAILS

☐ STATION 1464+71.70 (F.A.I. ROUTE 72)
SKEW 5° RT FWD
APPROX. LENGTH 255'-3"
(BACK TO BACK APPR. BENTS)
APPROX. HORIZ. CLEARANCE 68'-0"
STRUCTURE NO. 074-0071

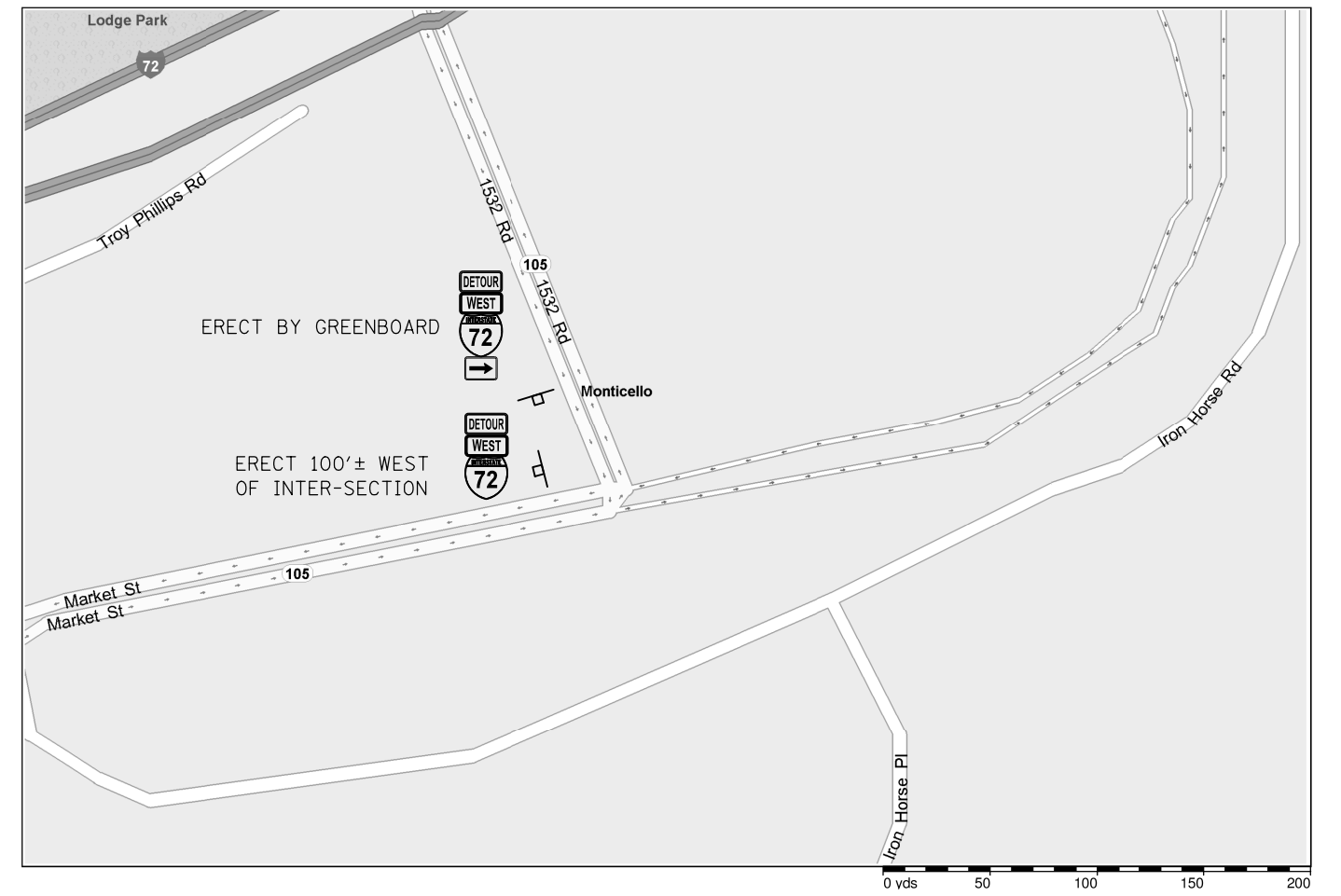
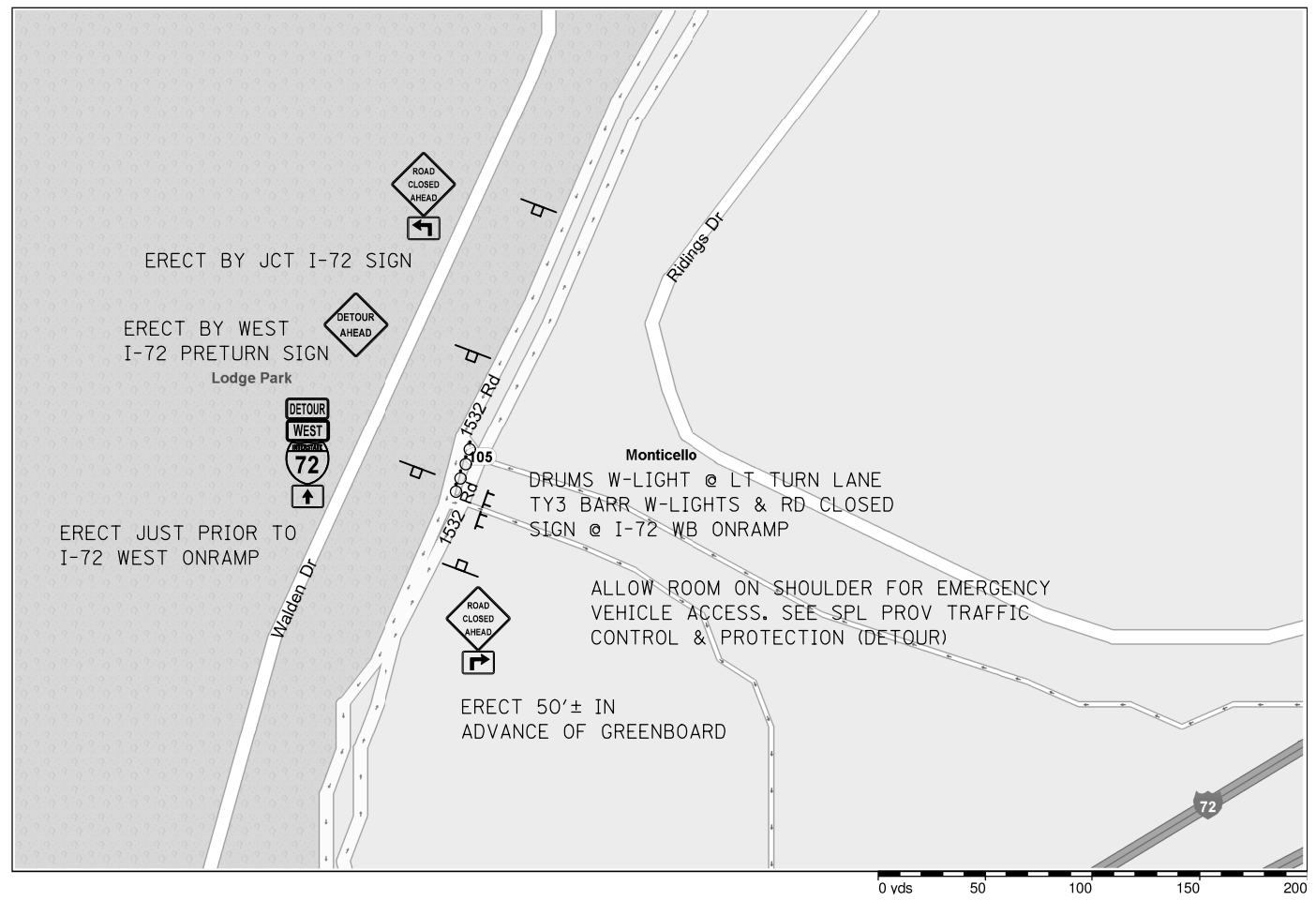
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

LOCATION #1 074-0071			
I-72 WB RAMP CLOSURE & DETOUR			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	••	•	35	29
•• D5 BRIDGE PAINTING 2017-3			CONTRACT NO. 70C59	
ILLINOIS FED. AID PROJECT				

• PIATT & VERMILION



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**LOCATION #1 074-0071
I-72 WB RAMP CLOSURE & DETOUR**

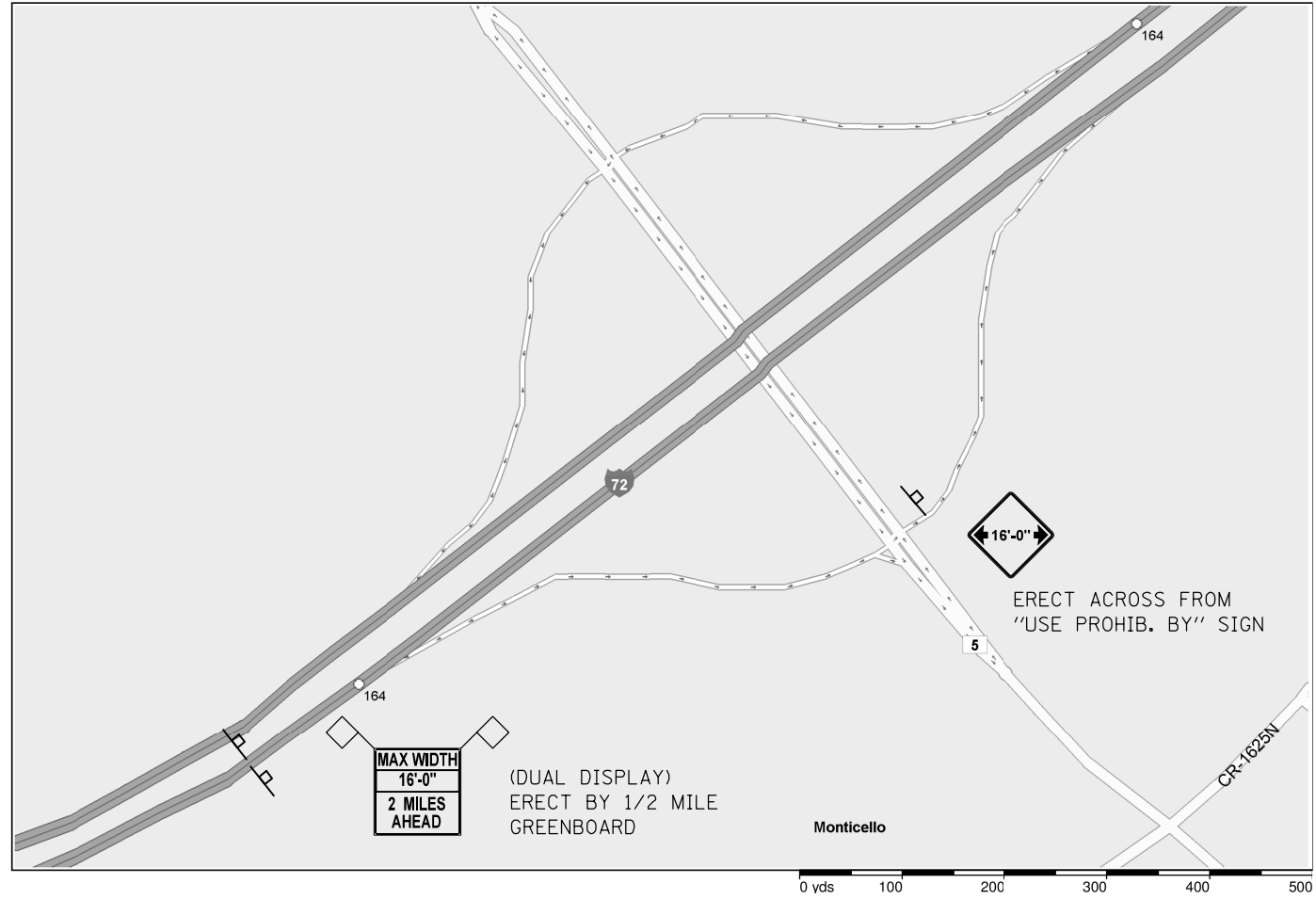
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•• D5 BRIDGE PAINTING 2017-3			CONTRACT NO. 70C59	
ILLINOIS FED. AID PROJECT				

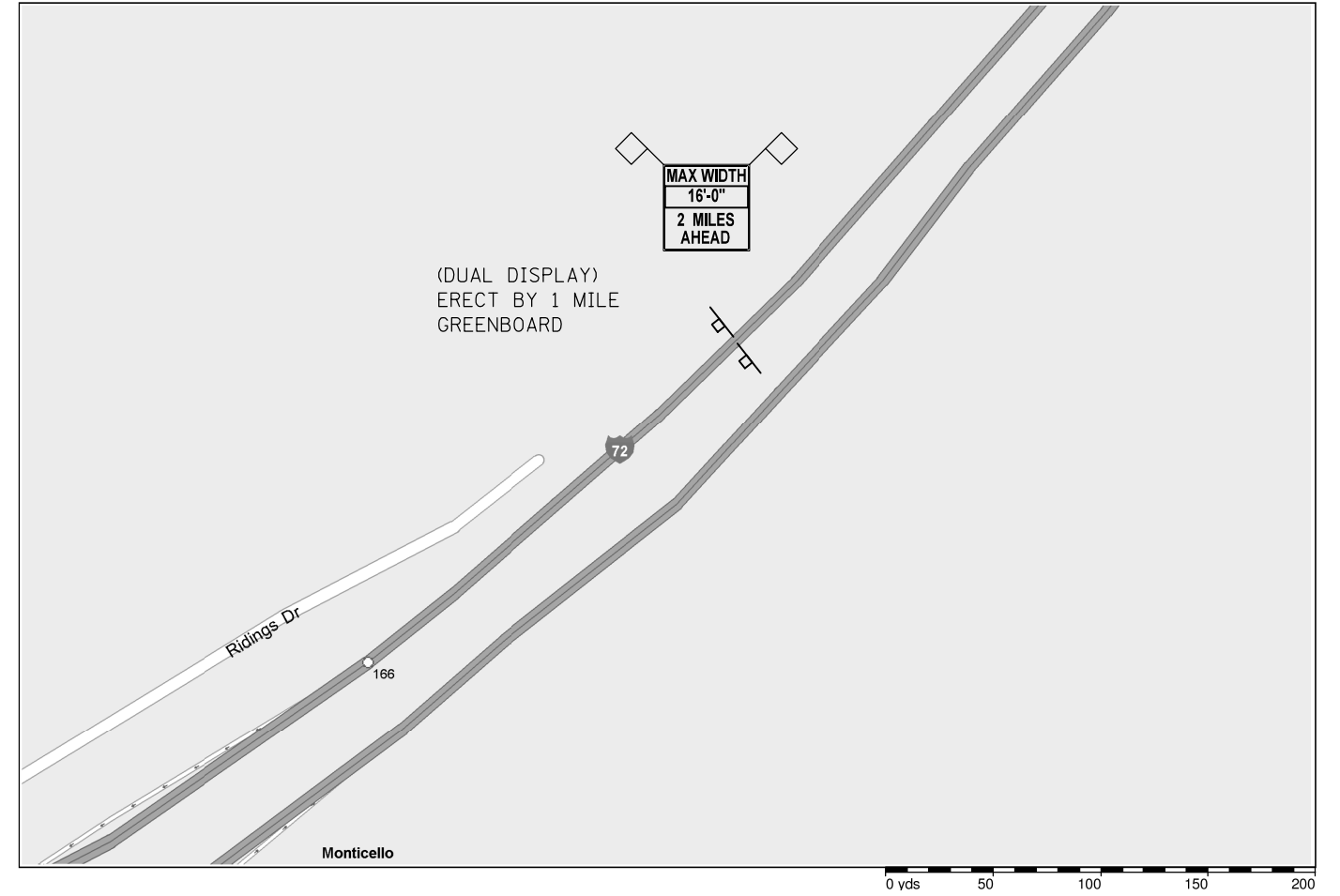
• PIATT & VERMILION

LOCATION #1

I-72 EB - 074-0071



I-72 WB - 074-0071



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

WIDTH RESTRICTION DETAILS

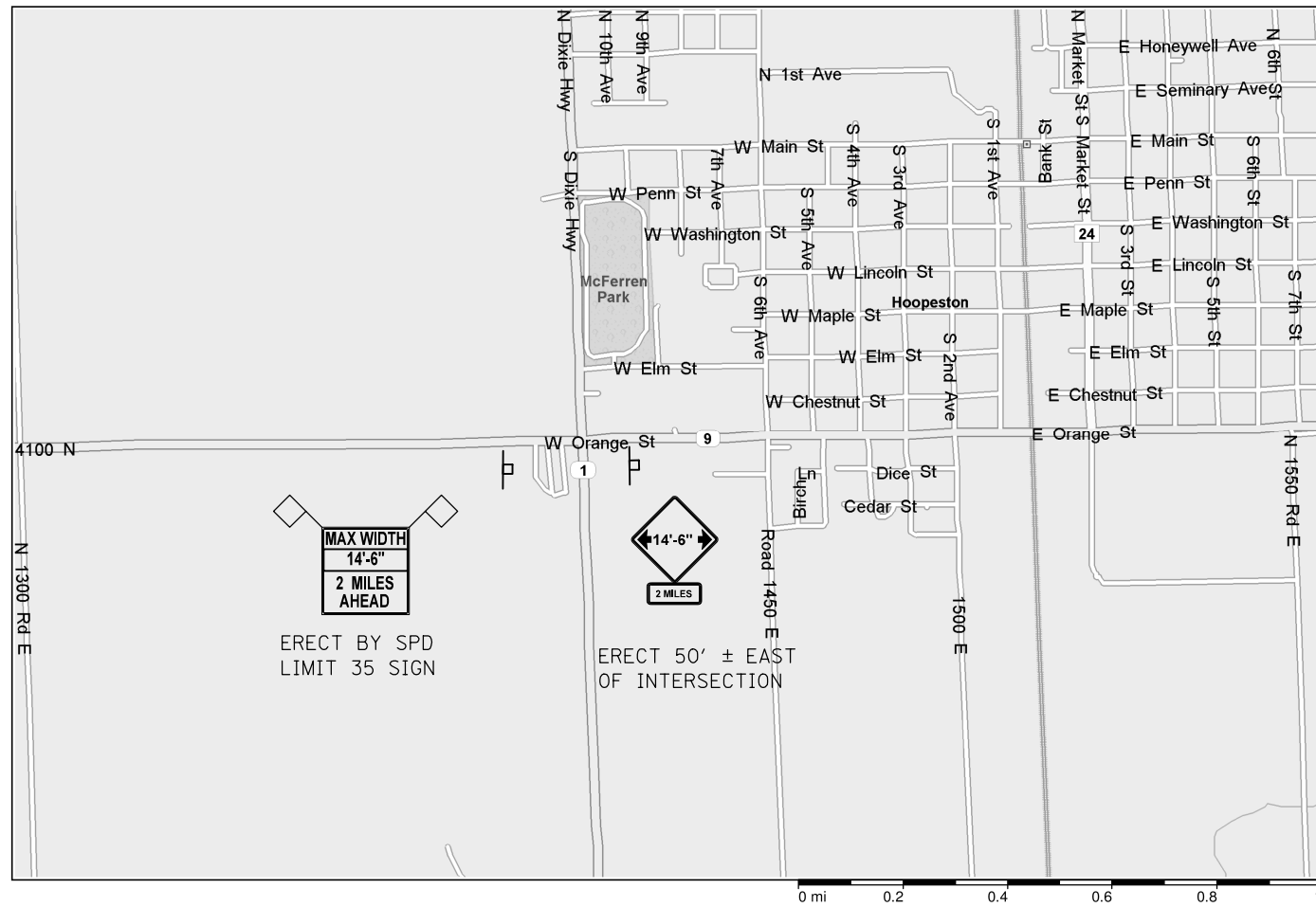
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	••	•	35	32
•• D5 BRIDGE PAINTING 2017-3			CONTRACT NO. 70C59	
ILLINOIS FED. AID PROJECT				

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LOCATION #2

HOOPESTON - 092-0048



CHENEYVILLE - 092-0048



FILE NAME =	USER NAME = coombessf	DESIGNED -	REVISED -
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	PLOT DATE = 1/5/2017	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

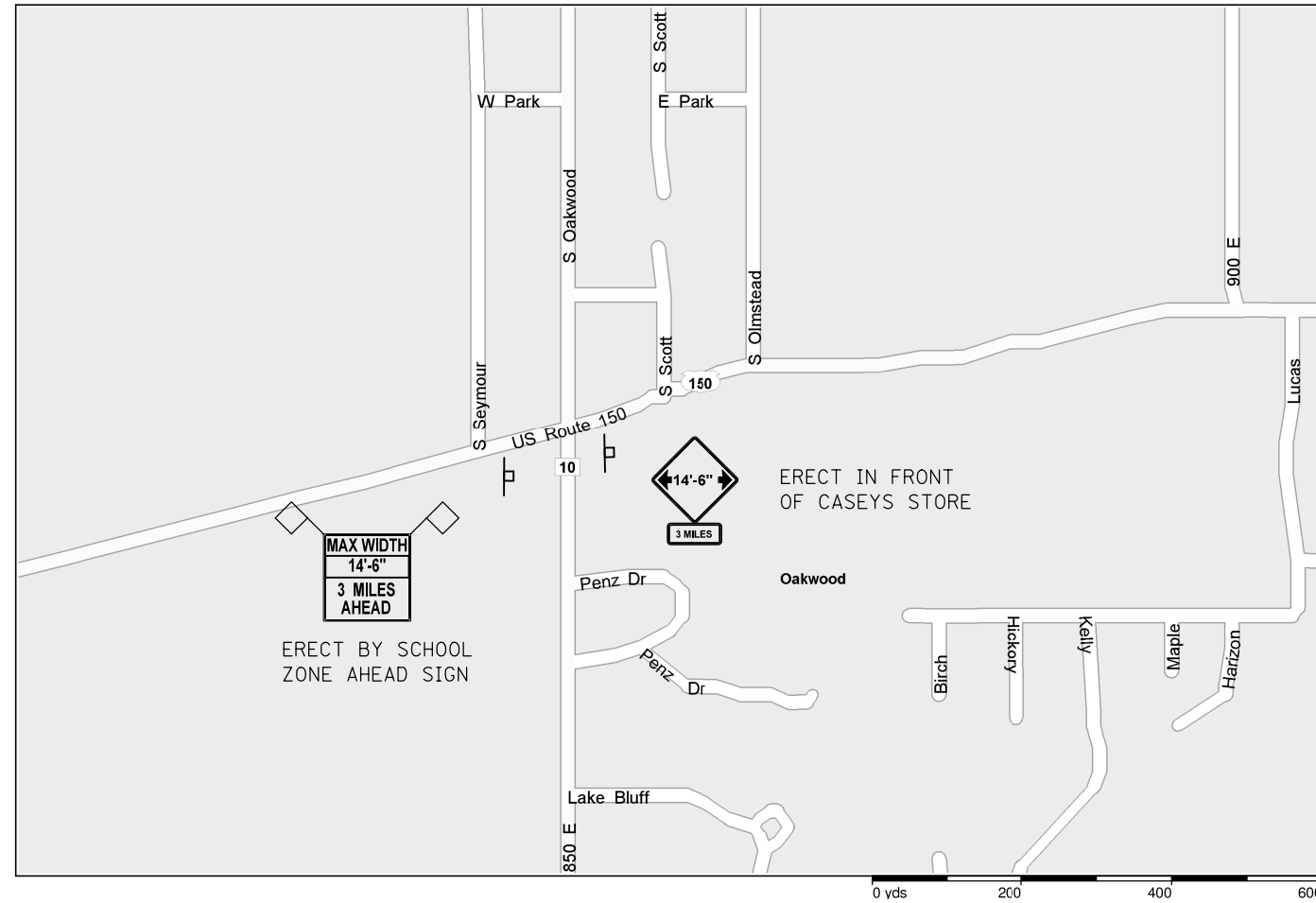
WIDTH RESTRICTION DETAILS			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	••	•	35	33
•• D5 BRIDGE PAINTING 2017-3			CONTRACT NO. 70C59	
ILLINOIS FED. AID PROJECT				

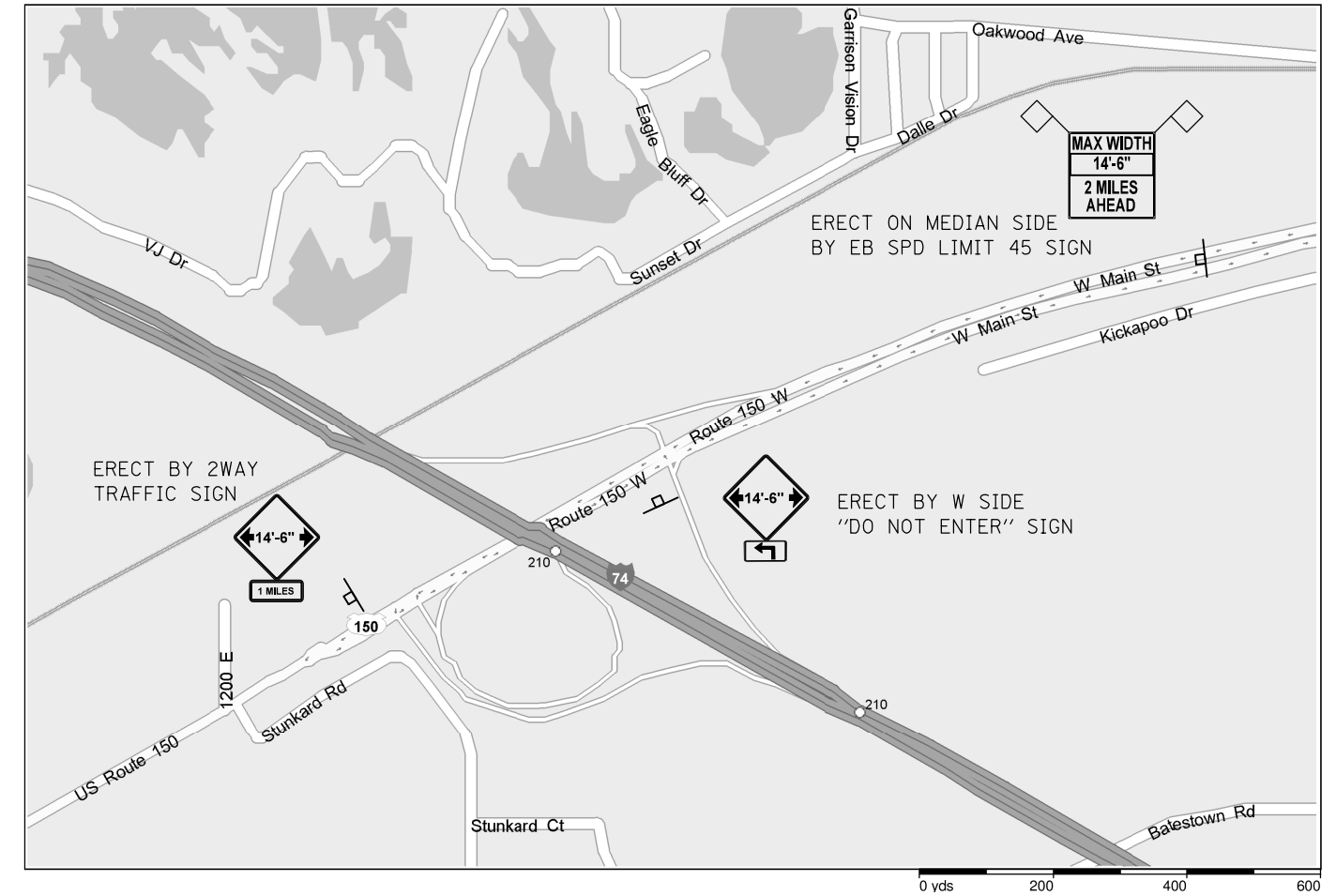
• PIATT & VERMILION

LOCATION #3

OAKWOOD – 092-0050



US 150 & I-74 – 092-0050



FILE NAME =	USER NAME = coombessf	DESIGNED -	REVISED -
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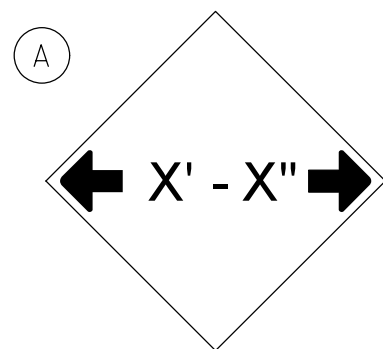
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

WIDTH RESTRICTION DETAILS

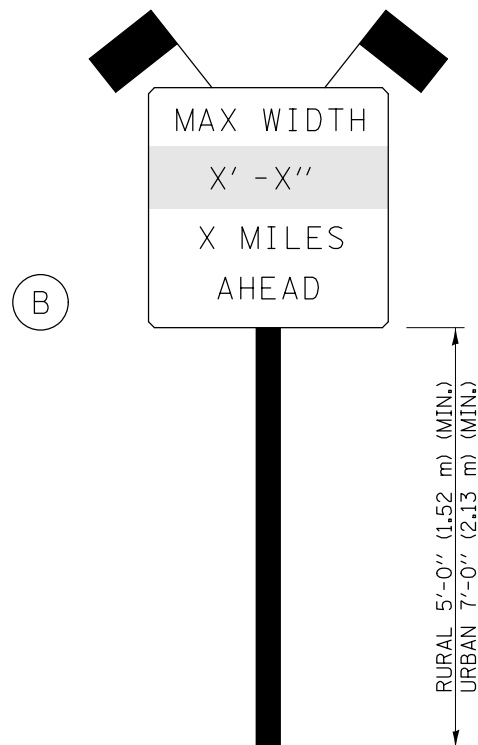
SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	**	*	35	34
** D5 BRIDGE PAINTING 2017-3			CONTRACT NO. 70C59	
ILLINOIS FED. AID PROJECT				

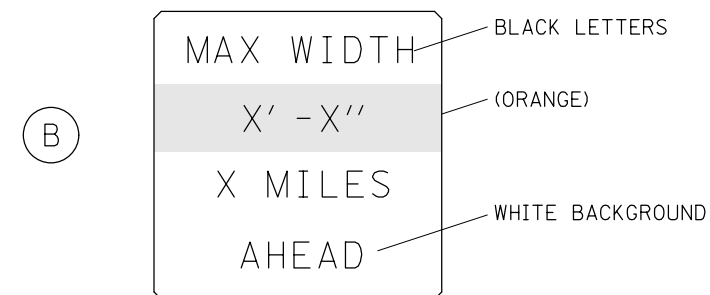
• PIATT & VERMILION



W12-2(0)-48"x48"(1200x1200)



SIGN PANEL, TYPE II



W12-I103(0)-48"x48"(1200x1200)
"D" LETTERS/NUMBERS

SIGN (A) 2 SIGNS - W12-2(0)-48"x48"(1200x1200) ARE TO BE PLACED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

SIGN (B) 2 SIGNS - (SIGN PANEL, TYPE II) AS SHOWN ARE TO BE PLACED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

MAX WIDTH

- LOCATION #1 - 074-0071 = 16' -0"
- LOCATION #2 - 092-0048 = 14' -6"
- LOCATION #3 - 092-0050 = 14' -6"

GENERAL NOTES

1. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
2. ALL (B) SIGNS SHALL HAVE FLAGS INSTALLED UNLESS OTHERWISE DIRECTED.
3. LOCATIONS OF TRAFFIC CONTROL DEVICES MAY BE ADJUSTED BY THE ENGINEER.
4. ALL TRAFFIC CONTROL SHOWN ON THIS SHEET SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR WIDTH RESTRICTION SIGNING.
5. ALL SIGNS SHALL BE POST MOUNTED UNLESS OTHERWISE DIRECTED.
6. ALL SIGNS SHOWN ORANGE (O) SHALL BE FLUORESCENT ORANGE.
7. ALL SIGNS SHOWN SHALL CONSIST OF THE CURRENT RETROREFLECTIVE SHEETING REQUIREMENTS AS OUTLINED IN SECTION 1106.01 OF THE STANDARD SPECIFICATIONS BOOK.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

• PIATT & VERMILION

DISTRICT 5 DETAIL NO. X7200201

FILE NAME =	USER NAME = coombessf	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WIDTH RESTRICTION SIGNING				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE = 1/5/2017	DATE -	REVISED -										

•• D5 BRIDGE PAINTING 2017-3 CONTRACT NO. 70C59
ILLINOIS FED. AID PROJECT