

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

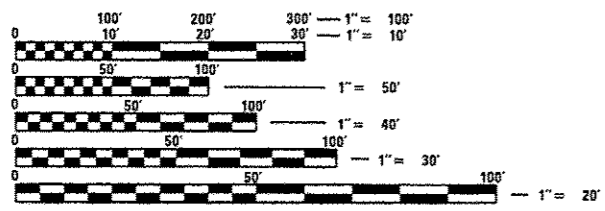
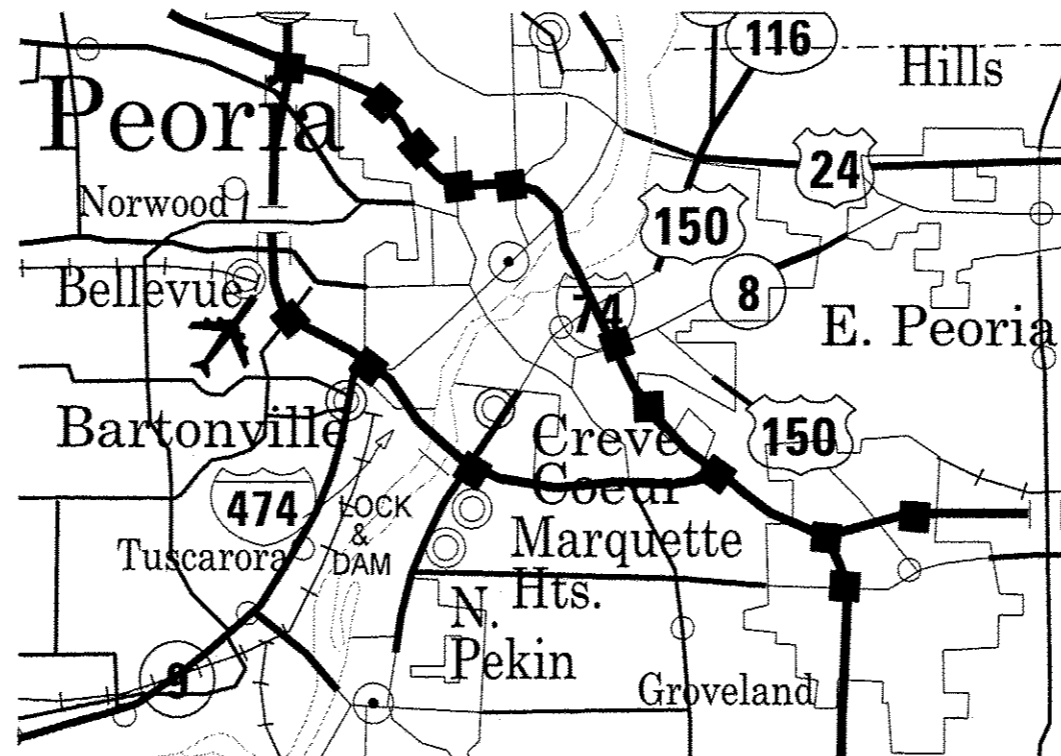
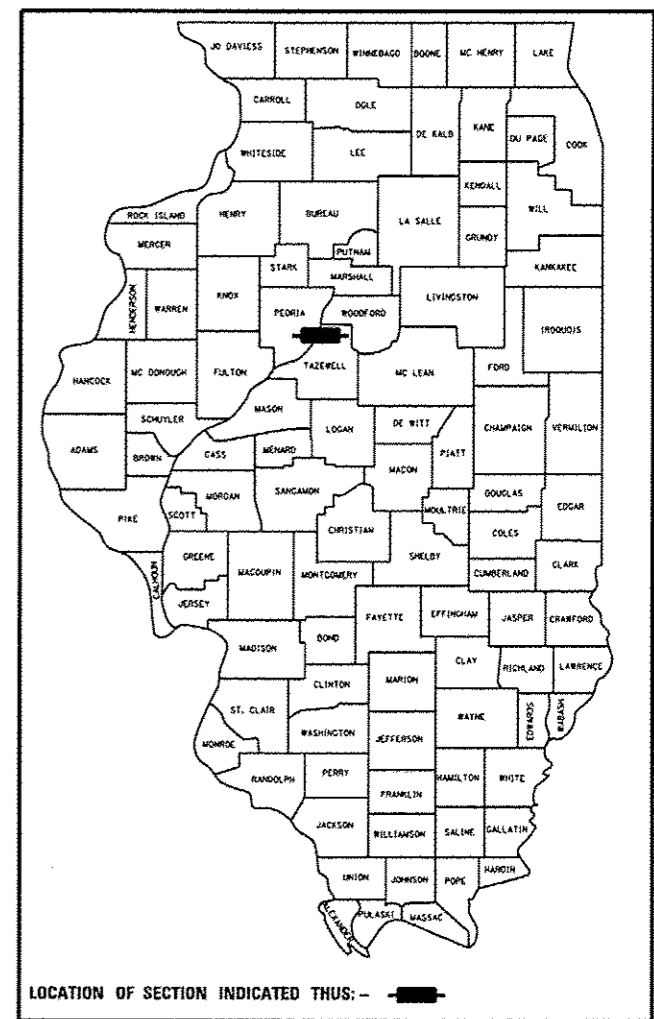
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	D4 MCHD 2014-1	PEORIA	8	1
		ILLINOIS	CONTRACT NO. 68B64	

- INDEX OF SHEETS**
- 1. COVER SHEET
 - 2. SUMMARY OF QUANTITIES
 - 3-5. STRUCTURAL PLANS SN 072-0182
 - 6-8. STRUCTURAL PLANS SN 072-0179

**PROPOSED
HIGHWAY PLANS**

FAI ROUTE 74 (I74)
SECTION D4 MCHD 2014-1
PEORIA COUNTY

C-94-014-14



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 DESCRIPTION

Supply steel components for plate girder replacement to SN072-0182 carrying Adams St over WB I-74 and SN 072-0179 carrying Jefferson St over WB I-74 damaged by motorist

GROSS LENGTH = x.xx FT. = x.xxx MILE
NET LENGTH = x.xx FT. = x.xxx MILE

PROJECT ENGINEER: MARK ECKHOFF
PROJECT MANAGER: RAYMOND SAMARA
CATALOG NO. 035023-00D
CONTRACT NO. 68B64

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Oct 18 2013
Joseph E. Chowdhry
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Dec 6 2013
John D. Baranzelli, PE, P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

Dec 6 2013
Omer Osman, PE, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 50, unless otherwise noted.

Calculated weight of Structural Steel = 12,140 lbs.

Fasteners shall be high strength bolts. Bolts 7/8"φ, open holes 15/16"φ, unless otherwise noted.

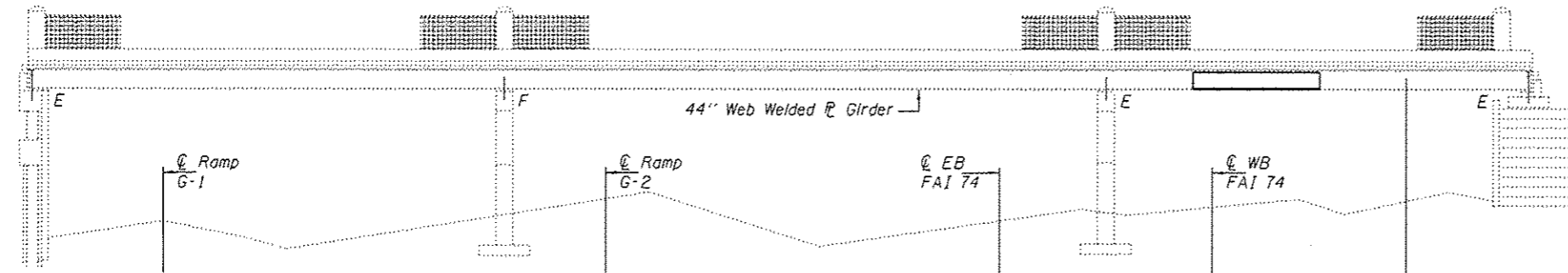
Diaphragm connection holes shall be 15/16"φ for 3/4"φ bolts. Two hardened washers shall be required at diaphragm connections.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

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

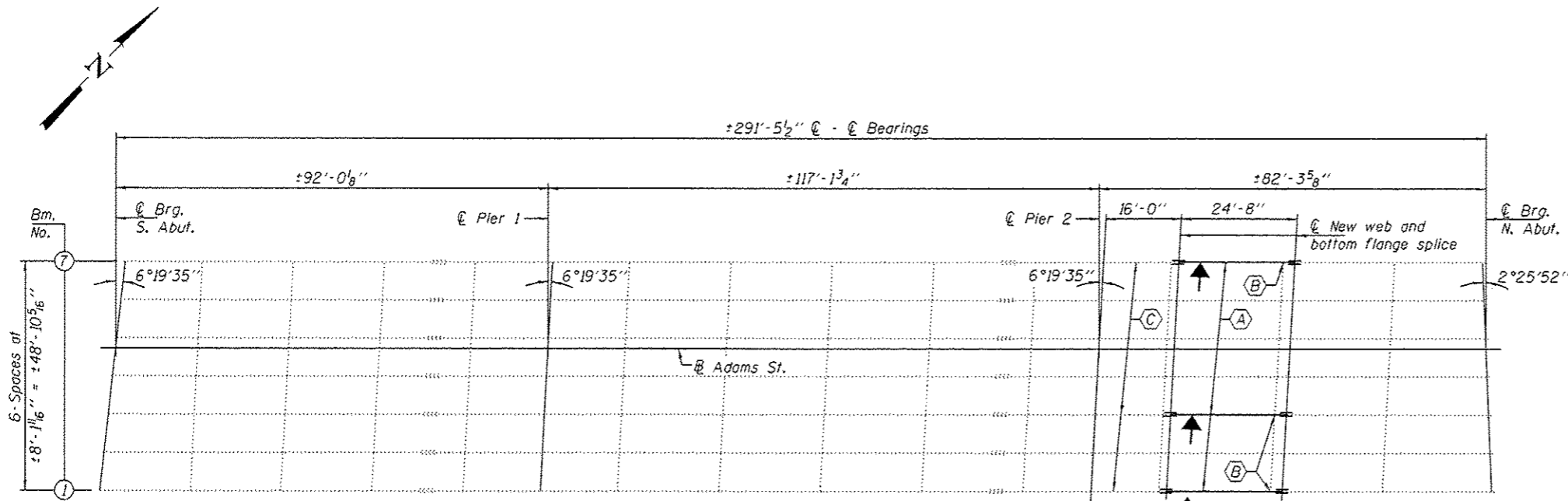
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

The Organic Zinc Rich Primer/Epoxy/Urethane paint system shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that the exterior surfaces and bottom of the bottom flange of the fascia beams, masked off connection surfaces, and field installed fasteners, all of which shall be touched up and finish coated in the field. The color of the final finish coat for all steel surfaces shall be gray, Munsell No. 5B 7/1. See Special Provision for "Cleaning and Painting New Metal Structures".



ELEVATION

Temporary shoring may be required to facilitate alignment of existing splice. Use 12" x 12" Timbers or HP's to be paid for as Temporary Shoring and Cribbing.



PLAN

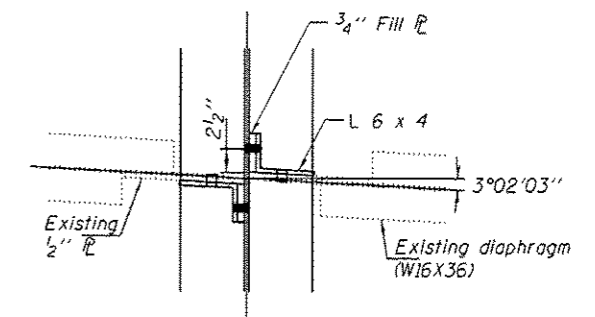
- (A) - Partial beam removal and replacement.
- (B) - Remove diaphragm connector R and replace with angle.
- (C) - Straighten portion of beam to remain.

Note:
Dimensions have been converted from existing metric plans.
The Contractor shall field verify all measurements prior to ordering of materials.

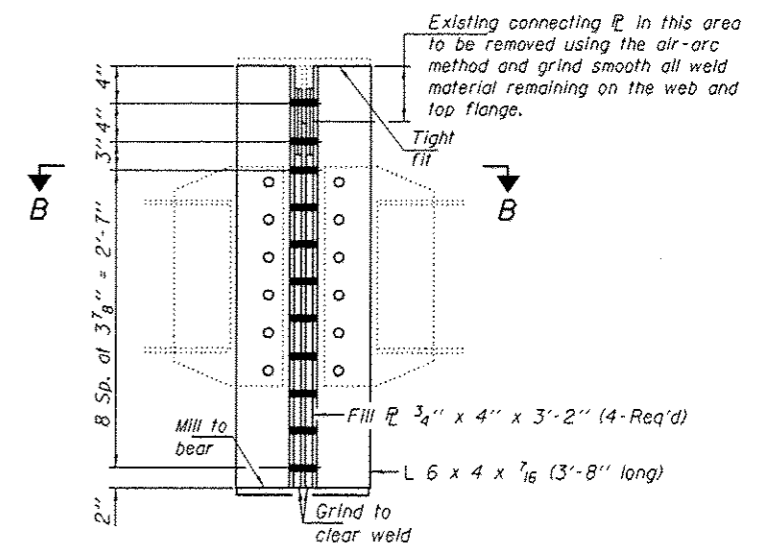


TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnishing Structural Steel	LS	1



SECTION B-B

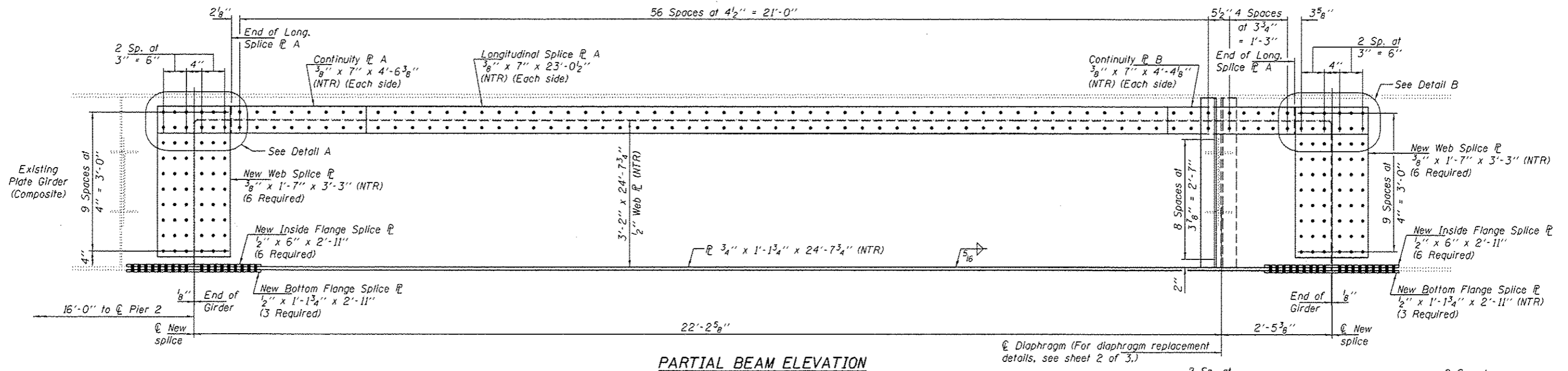


DIAPHRAGM REPLACEMENT

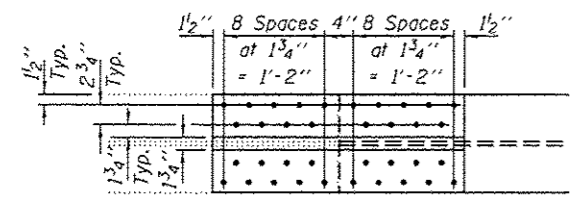
- Field Drill holes in new steel using holes in existing steel as template.
- Field Drill holes in existing steel using holes in new steel as template.

Girder 3 shown
 Girder 1, W. side only
 Girder 7, E. side only

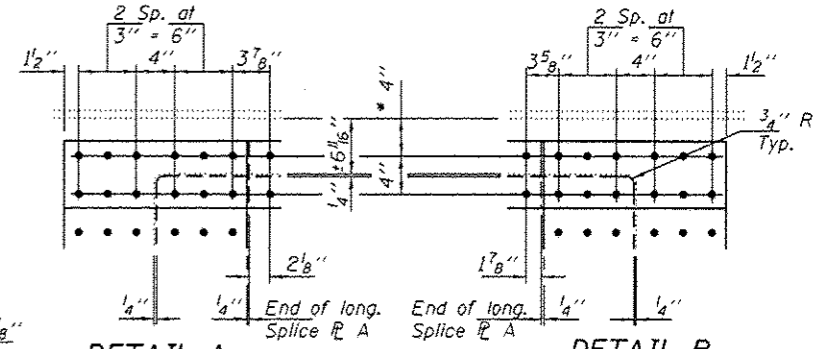
DESIGNED <i>GGE</i>	EXAMINED <i>Timothy A. Adelstein</i>	DATE <i>NOVEMBER 18, 2013</i>	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REPAIR DETAILS SN 072-0182	F.A.I. RTE. 74	SECTION 04 MCHD 2014-1	COUNTY PEORIA	TOTAL SHEETS 9	SHEET NO. 4	
CHECKED <i>ATH</i>	PASSED <i>Carl Kasper</i>	REVISOR			CONTRACT NO. 68B64					
DRAWN <i>baliva</i>	REVISOR	REVISOR			ILLINOIS FED. AID PROJECT					
CHECKED <i>GGE</i> <i>ATH</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISOR			SHEET NO. 2 OF 3 SHEETS					



PARTIAL BEAM ELEVATION

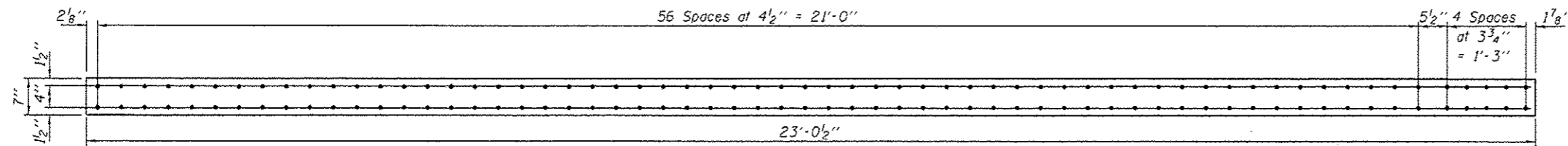


BOTTOM SPLICE DETAIL

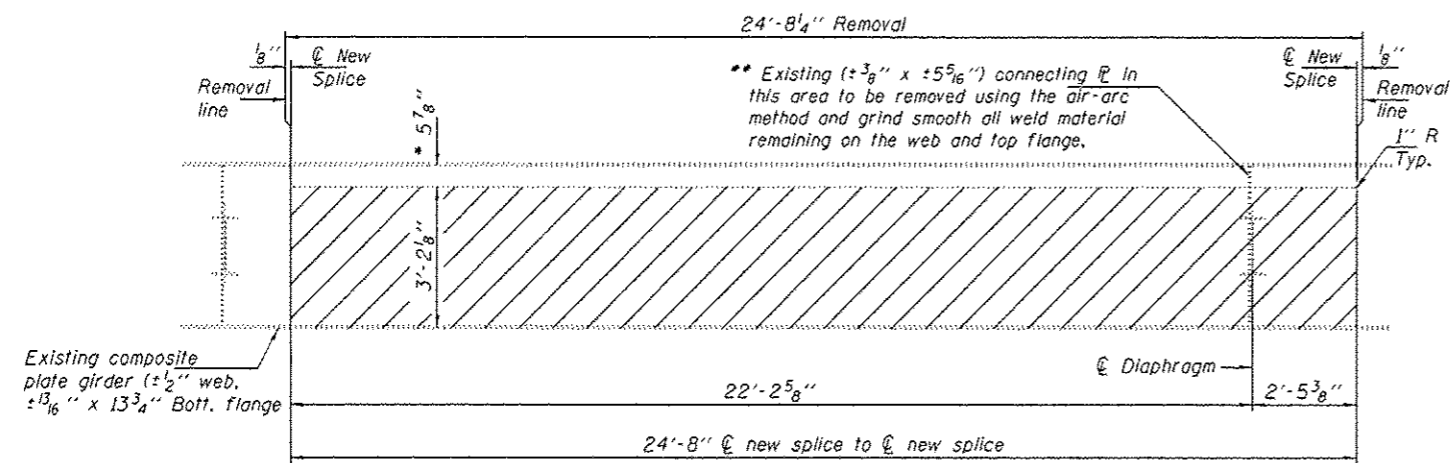


DETAIL A

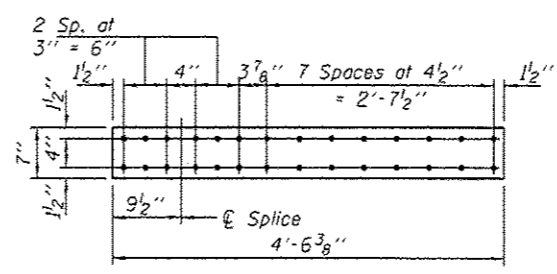
DETAIL B



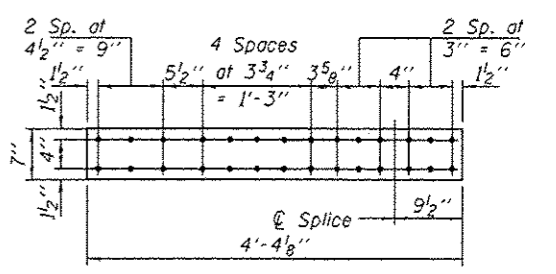
LONGITUDINAL SPLICE R A
R-3/8" x 7" x 23'-0 1/2"
(6 Required)



BEAM SEGMENT REMOVAL DETAIL



CONTINUITY R A
R-3/8" x 7" x 4'-6 3/8" (NTR)
(6 Required)



CONTINUITY R B
R-3/8" x 7" x 4'-4 1/8" (NTR)
(6 Required)

* Measured from bottom of top flange

Hatched areas indicate removal.
All cut edges are to be ground smooth and be free of any nicks, gouges or irregularities.

** Girder 1, W. side only
Girder 3, both sides
Girder 7, E. side only

DESIGNED GGE	EXAMINED	DATE NOVEMBER 18, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		REPAIR DETAILS SN 072-0182	F.A.I. RTE. 14	SECTION 04 MCHD 2014-1	COUNTY PEORIA	TOTAL SHEETS 8	SHEET NO. 5
CHECKED ATH	PASSED		REVISOR			CONTRACT NO. 68864		[ILLINOIS] FED. AID PROJECT		
DRAWN balliva			REVISOR			SHEET NO. 3 OF 3 SHEETS				
CHECKED GGE ATH			REVISOR							

GENERAL NOTES

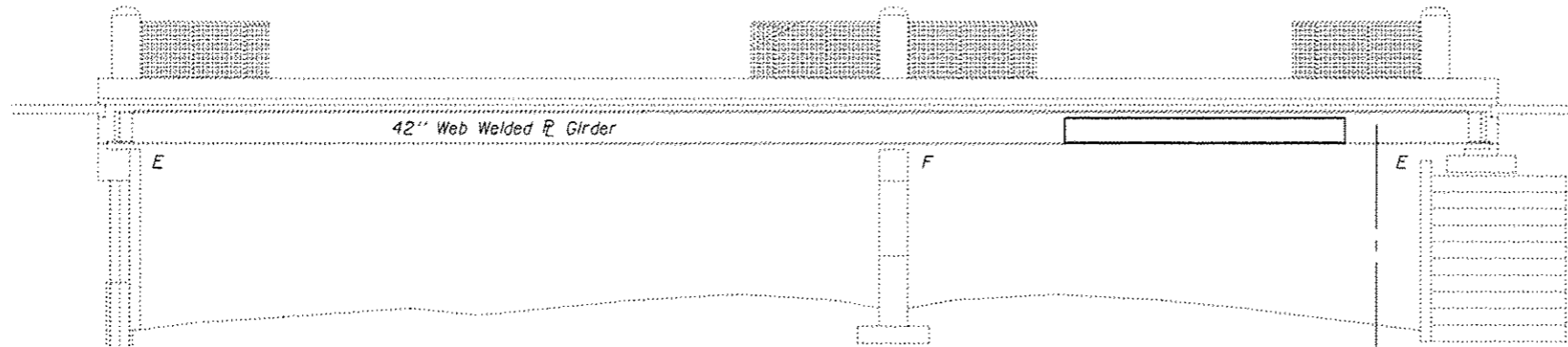
All structural steel shall conform to AASHTO Classification M-270 Gr. 50, unless otherwise noted.
 Calculated weight of Structural Steel = 22,120 lbs.
 Fasteners shall be high strength bolts. Bolts 7/8"φ, open holes 15/16"φ, unless otherwise noted.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

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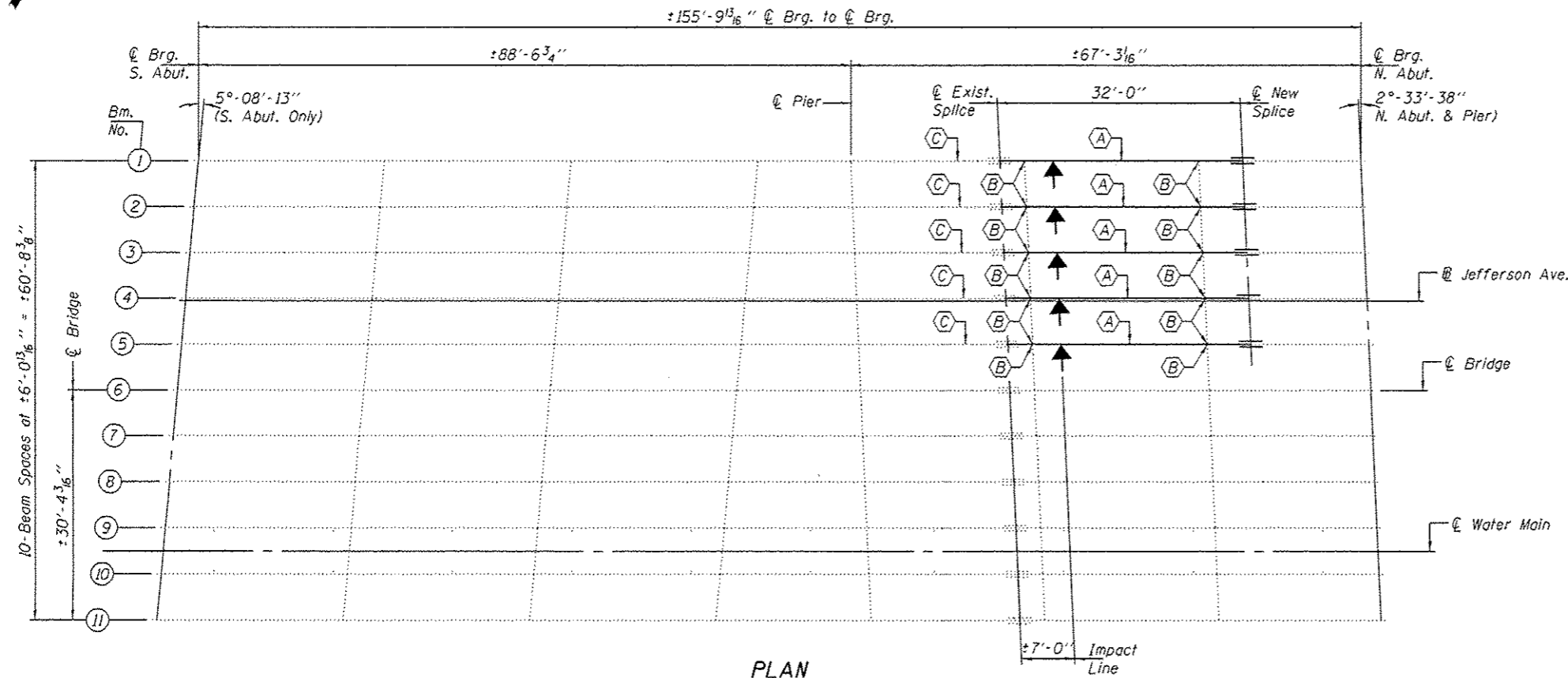
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

The Organic Zinc Rich Primer/Epoxy/Urethane paint system shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that the exterior surfaces and bottom of the bottom flange of the fascia beams, masked off connection surfaces, and field installed fasteners, all of which shall be touched up and finish coated in the field. The color of the final finish coat for all steel surfaces shall be gray, Munsell No. 5B 7/1. See Special Provision for "Cleaning and Painting New Metal Structures".

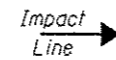


ELEVATION

Temporary shoring may be required to facilitate alignment of existing splice. Use 12" x 12" Timbers or HP's to be paid for as Temporary Shoring and Cribbing.



PLAN



- (A) - Partial beam removal and replacement.
- (B) - Remove diaphragm connector \mathbb{R} and replace with angle.
- (C) - Straighten portion of beam to remain.

Note:
 Dimensions have been converted from existing metric plans.
 The Contractor shall field verify all measurements prior to ordering of materials.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnishing Structural Steel	LS	1



EXPIRES 11-30-2014

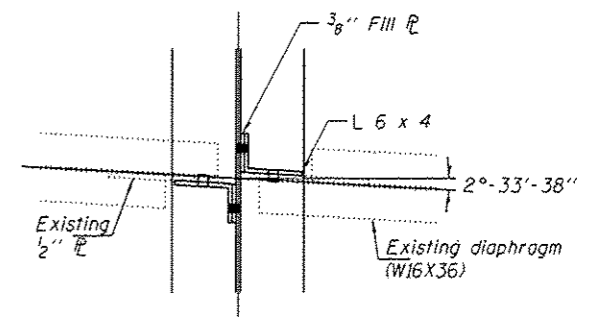
DESIGNED <i>[Signature]</i>	EXAMINED <i>[Signature]</i>	DATE NOVEMBER 18, 2013
CHECKED <i>[Signature]</i>	PASSED <i>[Signature]</i>	REVISED
DRAWN Kyle M. Steffen	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED
CHECKED <i>[Signature]</i>		

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

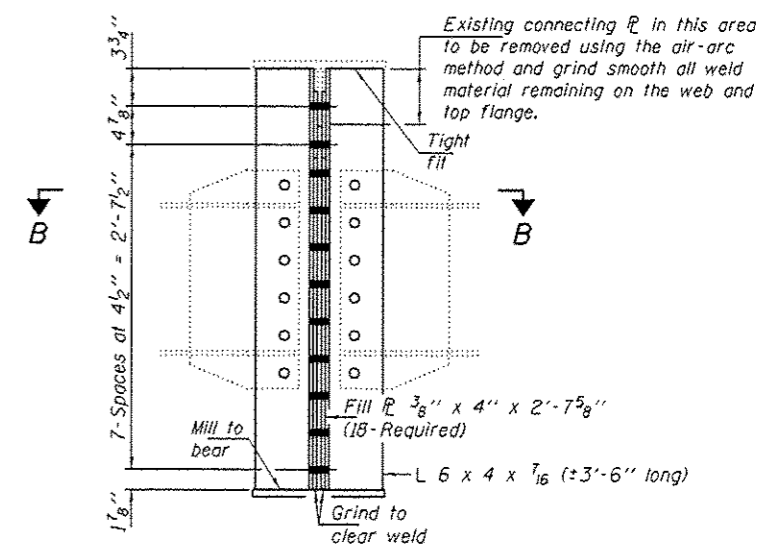
PLAN AND ELEVATION
 JEFFERSON AVE. OVER FAI 74
 SN 072-0179

SHEET NO. 1 OF 3 SHEETS

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	04 MCHD 2014-1	PEORIA	8	6
CONTRACT NO. 68B64			ILLINOIS FED. AID PROJECT	



SECTION B-B

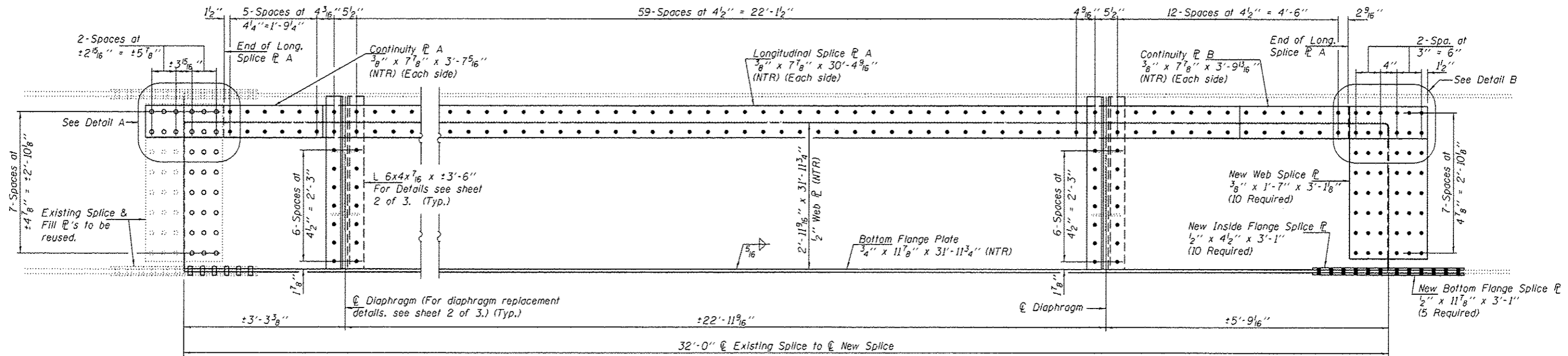


DIAPHRAGM REPLACEMENT

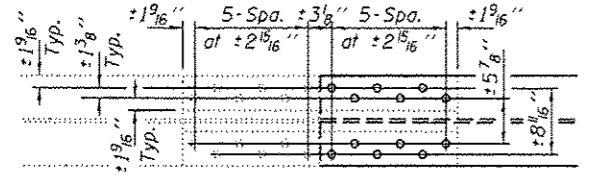
Girders 2 thru 5 shown.
Girder 1 South side only.

- Field Drill holes in new steel using holes in existing steel as template.
- Field Drill holes in existing steel using holes in new steel as template.

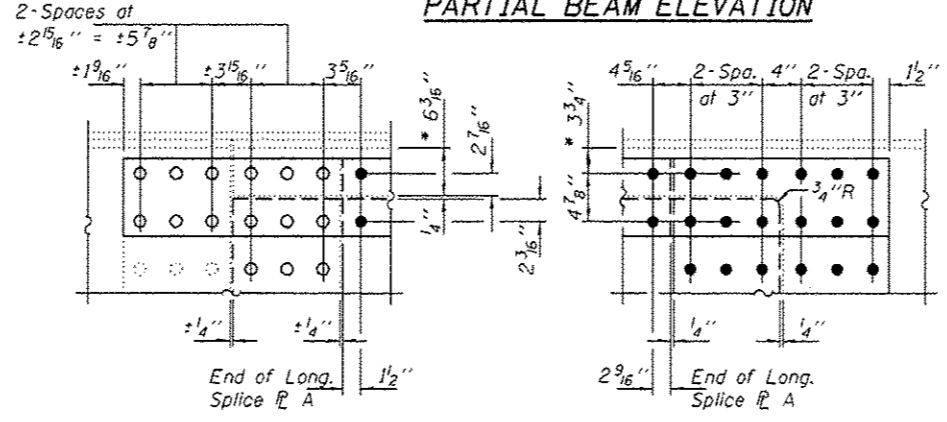
DESIGNED GGE	EXAMINED <i>Timothy A. Anelli</i>	DATE NOVEMBER 18, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REPAIR DETAILS SN 072-0179	F.A.I. RTE. 14	SECTION 04 MCHD 2014-1	COUNTY PEORIA	TOTAL SHEETS 8	SHEET NO. 7
CHECKED ATH	PASSED <i>A. Carl Meyer</i>	REVISED			CONTRACT NO. 68864				
DRAWN Kyle M. Steffen	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED			ILLINOIS FED. AID PROJECT				
CHECKED GGE ATH					SHEET NO. 2 OF 3 SHEETS				



PARTIAL BEAM ELEVATION



EXISTING BOTTOM SPLICE

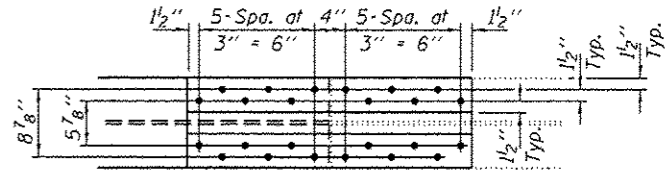


DETAIL A

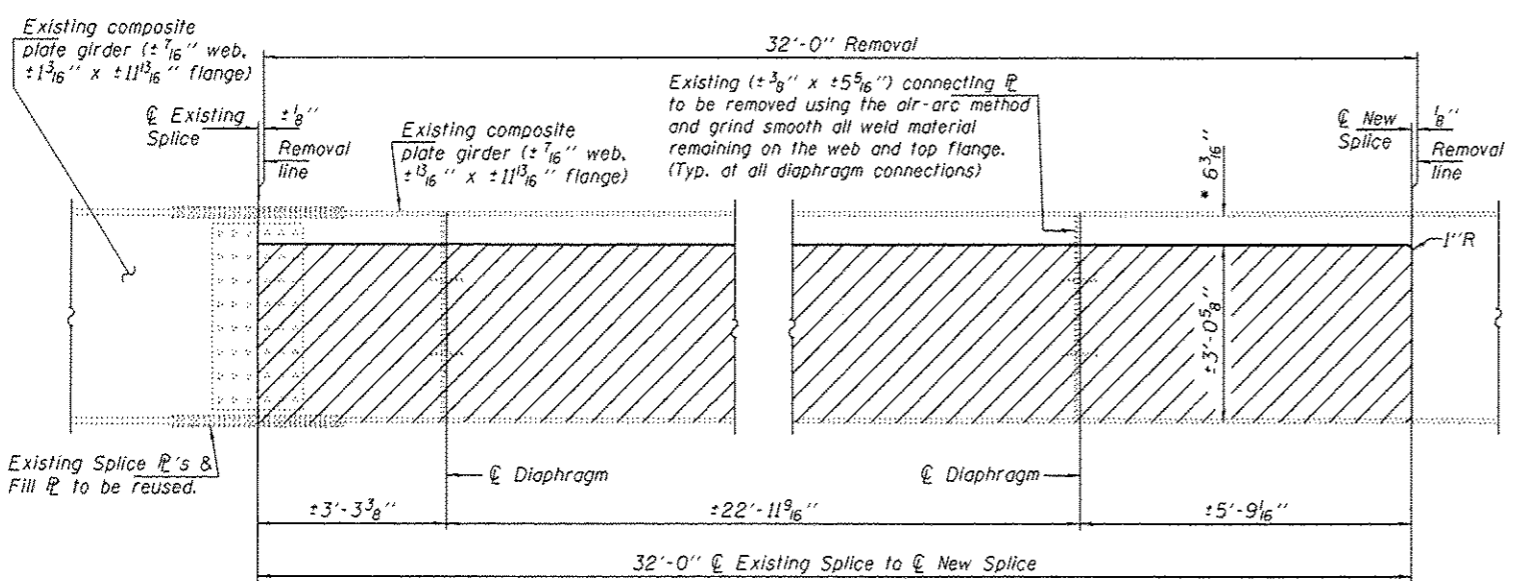
DETAIL B

BOLT HOLE LEGEND

- Existing Holes
- Field Drill holes in new steel using holes in existing steel as template.
- Field Drill holes in existing steel using holes in new steel as template.

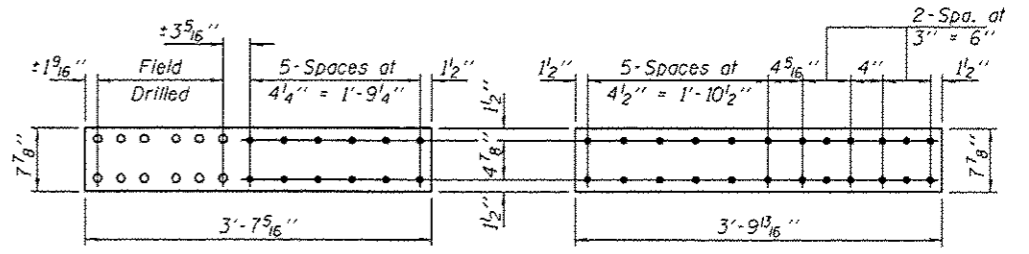


NEW BOTTOM SPLICE



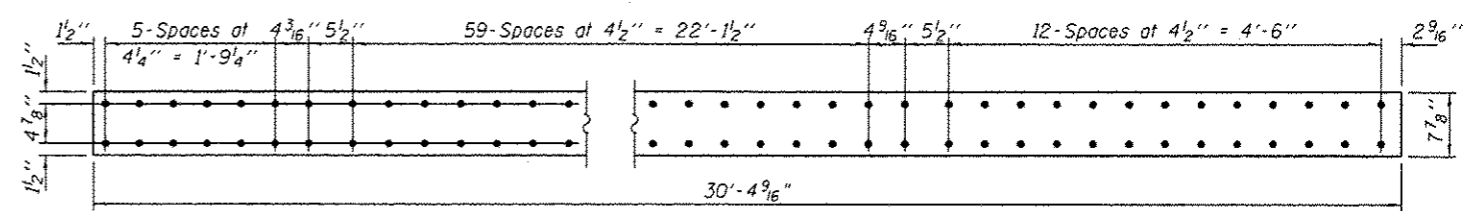
BEAM SEGMENT REMOVAL DETAIL

Hatched areas indicate removal.
All cut edges are to be ground smooth and be free of any nicks, gouges or irregularities.



CONTINUITY PL A

CONTINUITY PL B



LONGITUDINAL SPLICE PL A

PL 3/8\"/>

* Measured from bottom of top flange.

DESIGNED GGE	EXAMINED	DATE NOVEMBER 18, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REPAIR DETAILS SN 072-0179	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
CHECKED ATH	PASSED	REVISOR			14	04 MCHD 2014-1	PEORIA	8	8	
DRAWN Kyle M. Steffen	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISOR			CONTRACT NO. 68B64					
CHECKED GGE ATH	ACTING ENGINEER OF STRUCTURAL SERVICES	REVISOR			SHEET NO. 3 OF 3 SHEETS					