

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
658	(102B-1)BRR	SANGAMON	5*	1
		ILLINOIS	CONTRACT NO. 72738	

* 5 + 2 = 7 TOTAL SHEETS

FOR INDEX OF SHEETS, SEE SHEET NO. 2

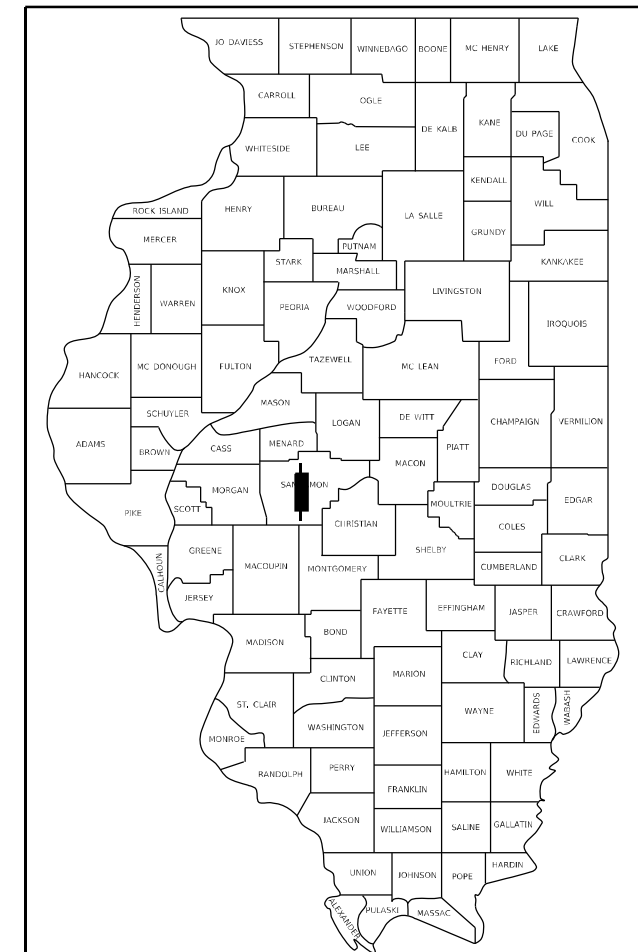
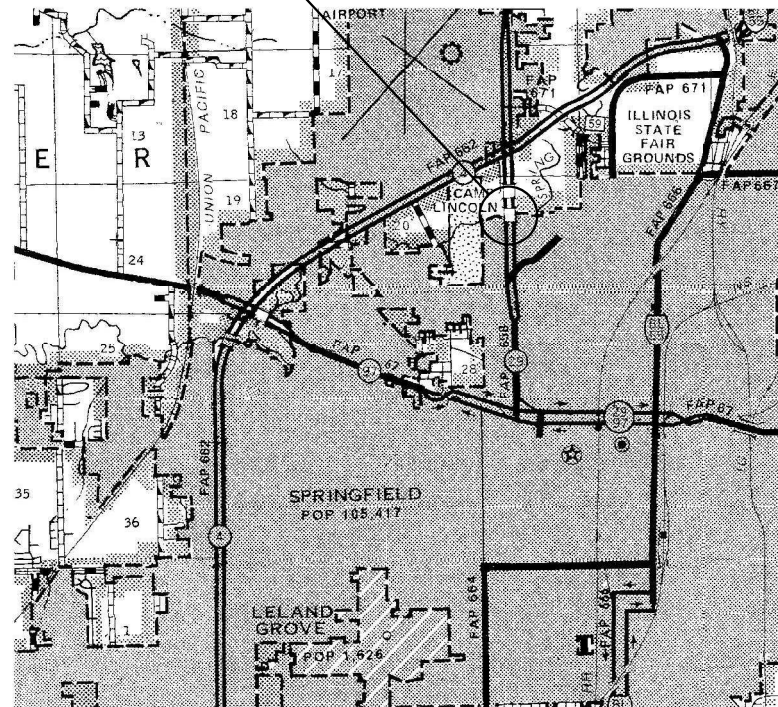
PROPOSED CONTRACT MAINTENANCE

FAP ROUTE 658 (J DAVID JONES PKWY)
SECTION (102B-1)BRR
PROJECT (STATE ONLY)
BRIDGE BEARING REPLACEMENT
SANGAMON COUNTY

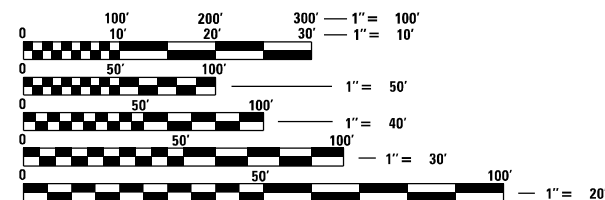
C-96-065-24



PROJECT LOCATION
SN 084-0169
IL 29 (J DAVID JONES PKWY)
OVER SPRING CREEK
0.5 MI S IL 4



LOCATION OF SECTION INDICATED THIS: - [thick black bar] -



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

BRIDGE MAINTENANCE ENGINEER: BRANDON DUDLEY - (217) 785-9290

GROSS LENGTH = 216 FT. = 0.04 MILE
NET LENGTH = 216 FT. = 0.04 MILE

CONTRACT NO. 72738

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED March 26 2024

[Signature]
REGIONAL ENGINEER

May 10, 2024 *[Signature]*
ENGINEER OF DESIGN AND ENVIRONMENT

May 10, 2024 *[Signature]*
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

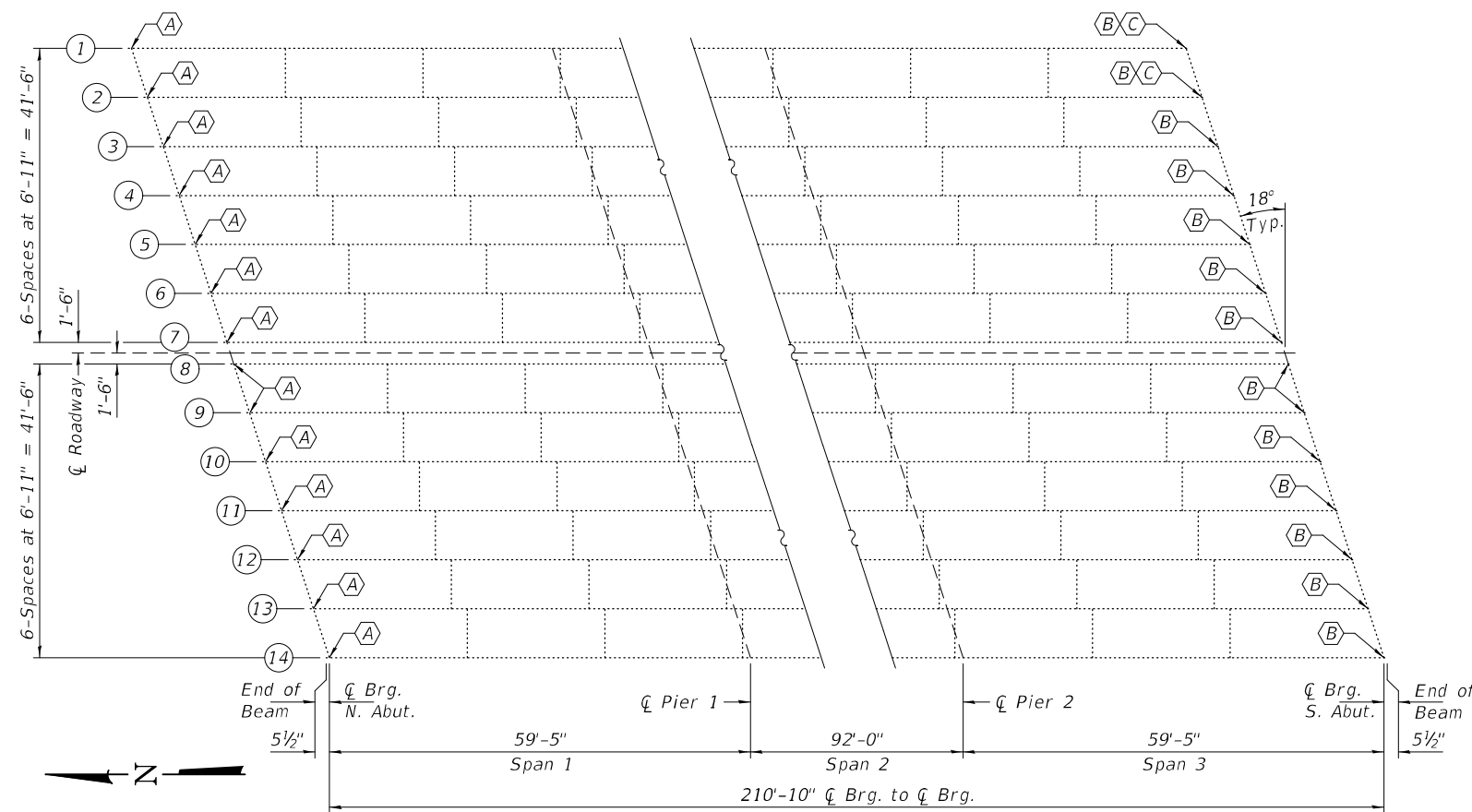
Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall 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.

Fasteners shall be ASTM F 3125 Grade A325 Type 1, mechanically galvanized bolts. Bolts $\frac{7}{8}"\varnothing$, open holes $1\frac{1}{16}"\varnothing$, unless otherwise noted.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

All new structural steel and bearing assemblies shall be hot-dip galvanized. See Special Provisions for "Hot Dip Galvanizing for Structural Steel."

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".



PARTIAL FRAMING PLAN

- (A) - Existing Exp. Brg. Assembly to be Removed & Replaced. (14-Locations)
(See sheet 2 of 4.)
- (B) - Existing Exp. Brg. Assembly to be Removed & Replaced. (14-Locations)
(See sheet 3 of 4.)
- (C) - Additional Brg. Stiffener Angle to be installed. (2-Locations)
(See sheet 4 of 4.)

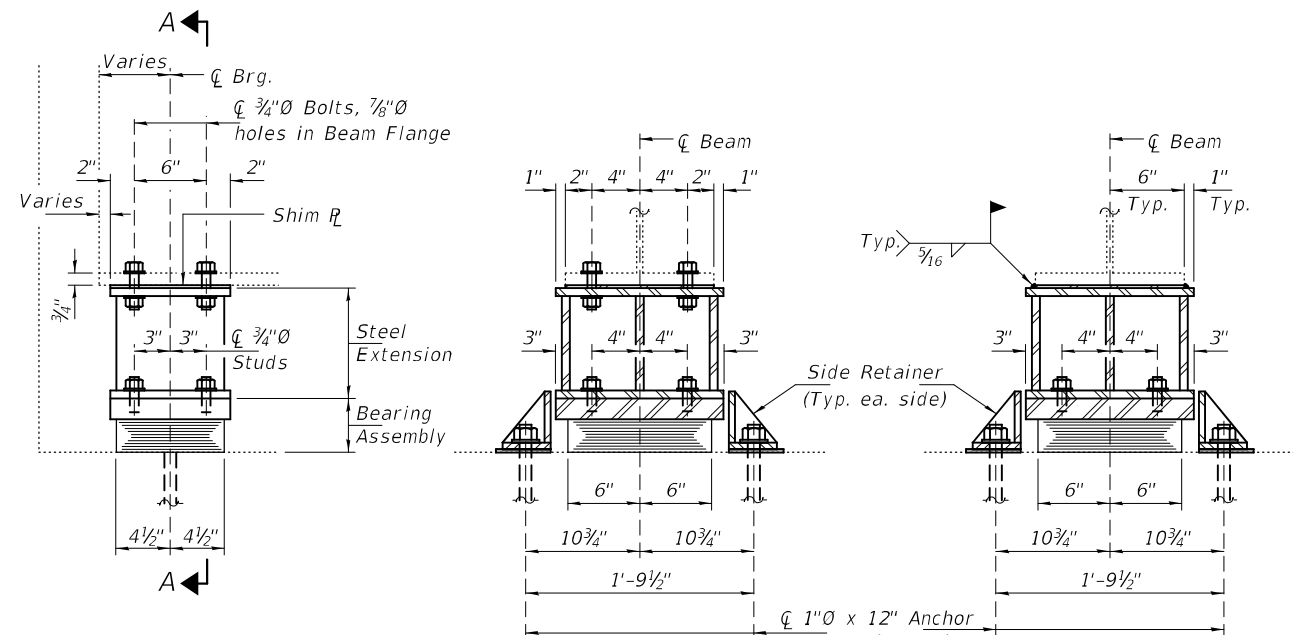
TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Jack and Remove Existing Bearings	Each	28
Elastomeric Bearing Assembly, Type I	Each	28
Furnishing and Erecting Structural Steel	Pound	4580
Anchor Bolts, 1"Ø	Each	56



Expires: November 30, 2024

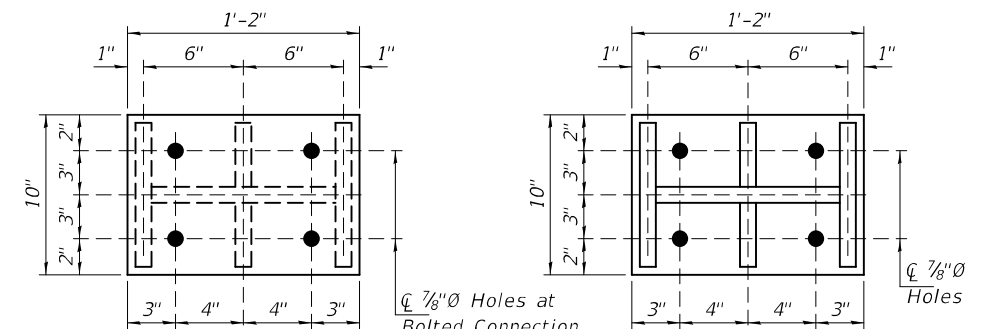
DESIGNED - Victor H. Veliz	EXAMINED -	DATE - MAY 9, 2024	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PARTIAL FRAMING PLAN & REPAIR DETAILS IL 29 (J. DAVID JONES PARKWAY) OVER SPRING CREEK SN 084-0169	F.A.P. RTE. 658	SECTION (102B-1)BRR	COUNTY SANGAMON	TOTAL SHEETS 5	SHEET NO. 4
CHECKED - Chi-Cheung Chau	PASSED -	REVISED -			CONTRACT NO. 72738				
DRAWN - STEFFEN	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -			SHEET NO. 1 OF 4 SHEETS				
CHECKED - VHV CCC					ILLINOIS FED. AID PROJECT				



BEAM REACTIONS

R _P + S _P (K)	21.3
R _L (K)	36.7
Imp. (K)	10.0
R (Total) (K)	68.0

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. Adjustment must account for deck heave due to pack rust (if present).
Min. jack capacity = 35 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.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Cost of Side retainers and Stainless Steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.



ELEVATION AT ABUTMENT

Bolted Connection shown; Welded Connection similar, See Section A-A.

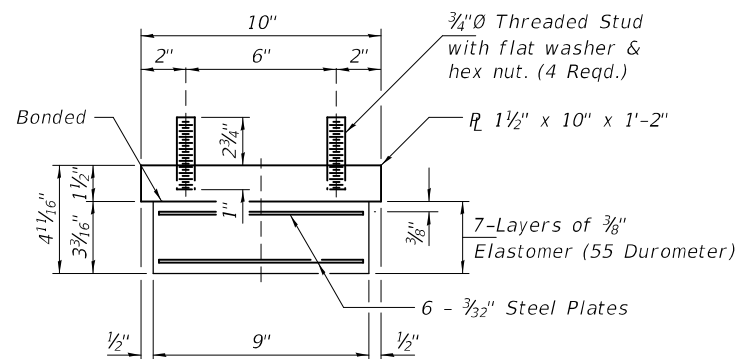
SECTION A-A (BOLTED CONNECTION)

(5-Locations)

SECTION A-A (WELDED CONNECTION)

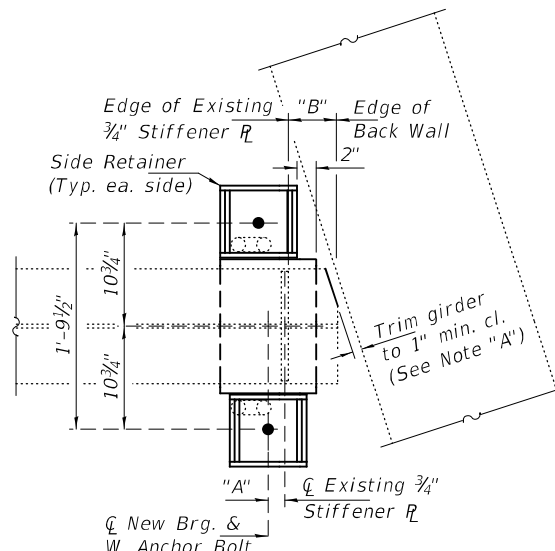
(9-Locations)

TYPE I ELASTOMERIC EXPANSION BRG.



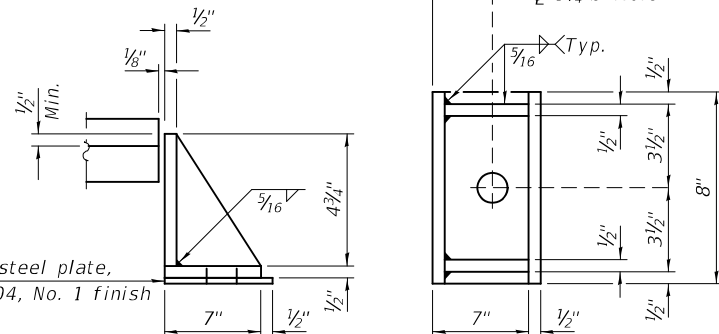
BEARING ASSEMBLY

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



BEARING LOCATION PLAN

See Table for Dims. "A" & "B".
(New Stiffener L at Beams 1 & 2 not shown, see sheet 4 of 4.)

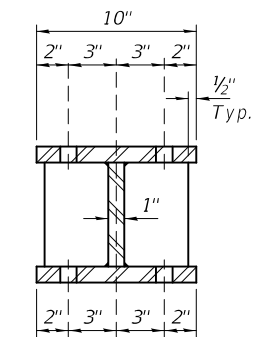


SIDE RETAINER

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

PLAN - TOP PLATE

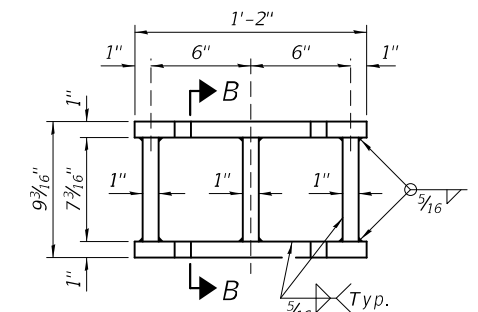
1" x 10" x 1'-2" (14-Req'd)
(5-with holes; 9-without holes.)



SECTION B-B

PLAN - BOTTOM PLATE

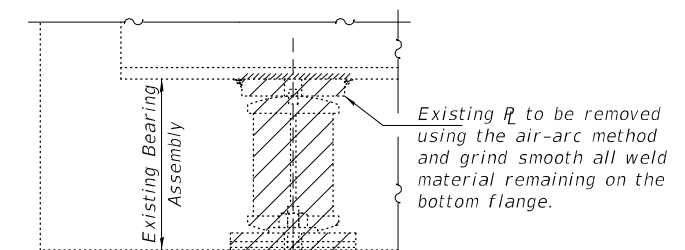
1" x 10" x 1'-2" (14-Req'd)



STEEL EXTENSION DETAIL

TABLE OF DIMENSIONS, EXTENSION CONNECTION TYPE & STIFFENER REPAIRS

BEAM	Dim. "A"	Dim. "B"	CONNECTION TYPE	NEW BRG. STIFFENER
1	2 1/2"	4"	Welded	Yes
2	2 1/2"	4"	Welded	Yes
3	1 3/8"	5"	Welded	No
4	1 3/4"	4 3/4"	Welded	No
5	1 3/4"	4 3/4"	Welded	No
6	1 3/4"	4 3/4"	Welded	No
7	1 1/4"	5 1/4"	Welded	No
8	1"	6 1/8"	Bolted	No
9	1"	6 1/8"	Bolted	No
10	1"	5 7/8"	Bolted	No
11	1"	5 3/4"	Bolted	No
12	1 1/8"	5 7/8"	Welded	No
13	1"	5 7/8"	Bolted	No
14	1 1/2"	5"	Welded	No



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	14
Jack and Remove Existing Bearings	Each	14
Furnishing and Erecting Structural Steel	Pound	2420
Anchor Bolts, 1"Ø	Each	28

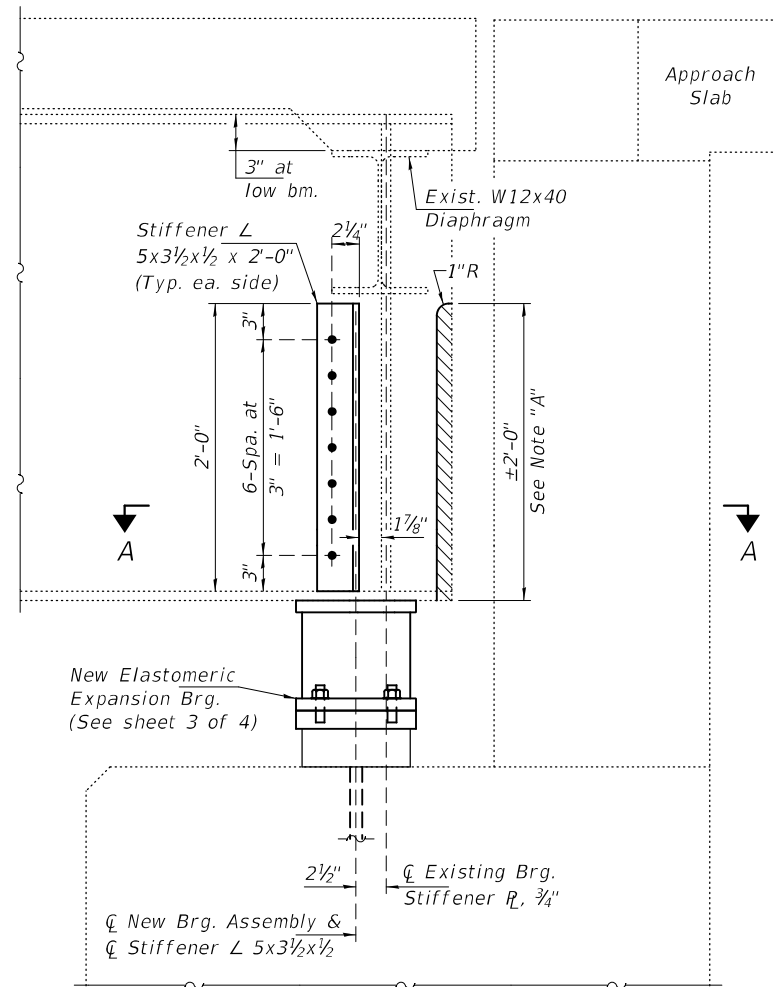
DESIGNED - VHV	EXAMINED -	DATE - MAY 9, 2024
CHECKED - CCC	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED -	REVISOR -
CHECKED - VHV CCC	ENGINEER OF BRIDGES AND STRUCTURES	REVISOR -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

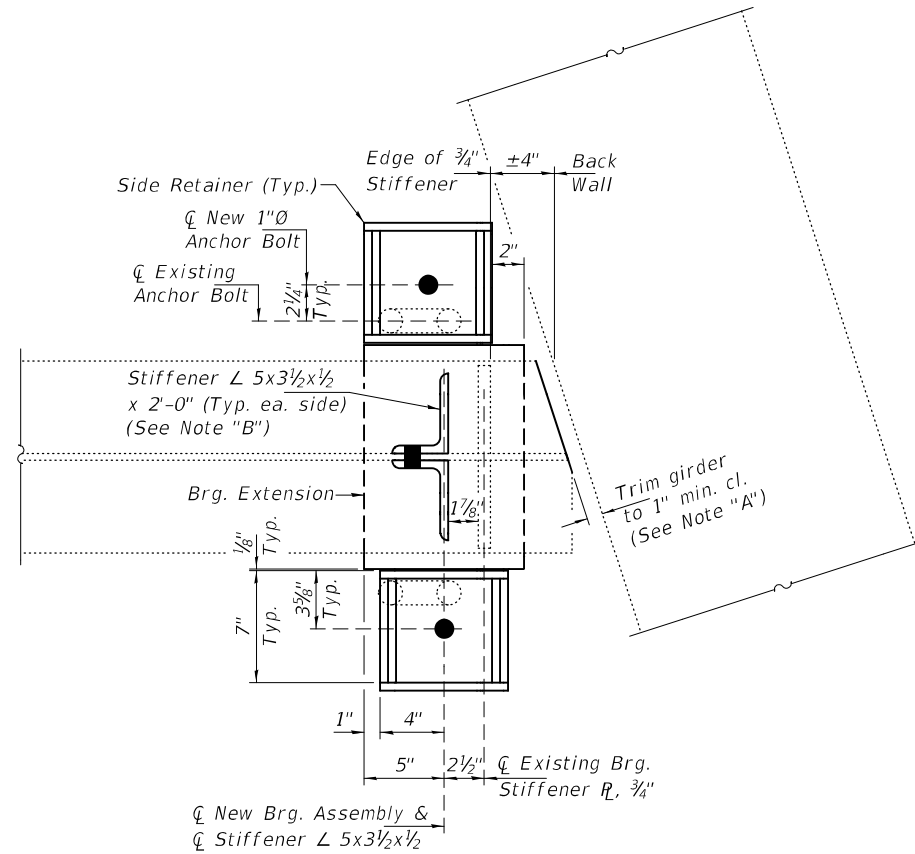
SOUTH ABUTMENT BEARING REPLACEMENT DETAILS
SN 084-0169

SHEET NO. 3 OF 4 SHEETS

F.A.P. RTE. 658	SECTION (102B)JBR	COUNTY SANGAMON	TOTAL SHEETS 5	SHEET NO. 5A
CONTRACT NO. 72738			ILLINOIS FED. AID PROJECT	



BEARING STIFFENER REPAIR
2-Locations



SECTION A-A

Note "A":
Trim existing girder web & flange as required to maintain 1" min. clearance from abutment backwall.

Note "B":
Cost of new stiffeners included with Furnishing & Erecting Structural Steel.

DESIGNED - VHV	EXAMINED	DATE - MAY 9, 2024
CHECKED - CCC	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED	REVISOR -
CHECKED - VHV CCC	ENGINEER OF BRIDGES AND STRUCTURES	REVISOR -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ADDITIONAL BEARING STIFFENER DETAILS
SN 084-0169

SHEET NO. 4 OF 4 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
658	(102B-1)BRR	SANGAMON	5	5B
CONTRACT NO. 72738				
ILLINOIS		FED. AID PROJECT		