

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

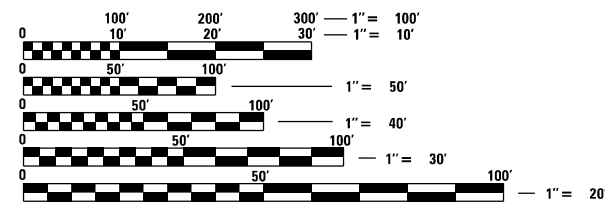
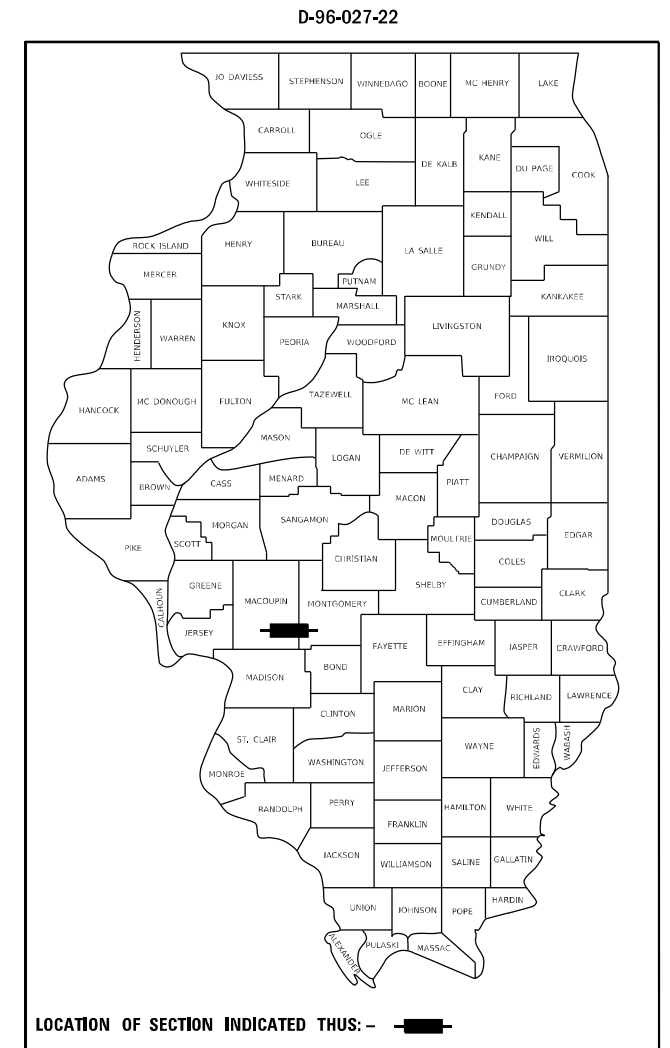
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(59-1HB-2)BRR	MACOUPIN	5	1
		ILLINOIS	CONTRACT NO. 72N50	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROPOSED CONTRACT MAINTENANCE

FAI ROUTE 55 (I-55)
SECTION (59-1HB-2)BRR
PROJECT (STATE ONLY)
BRIDGE BEARING REPLACEMENT
MACOUPIN COUNTY

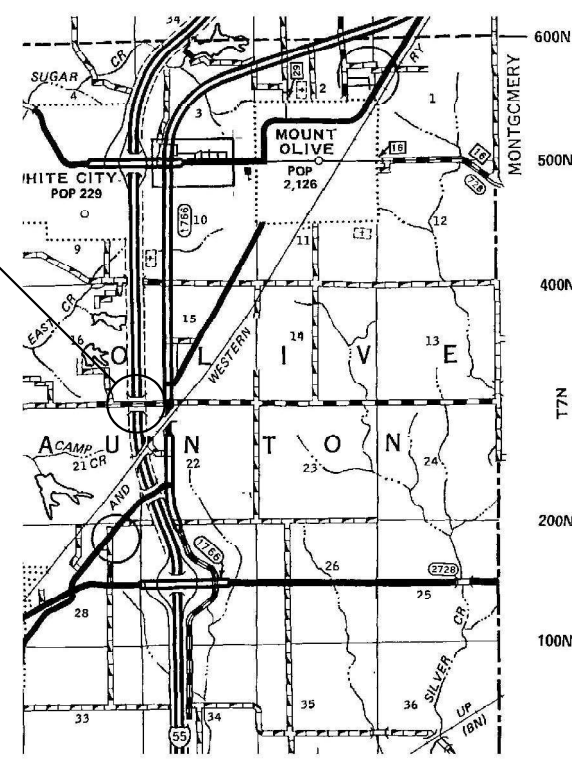
C-96-031-22



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 LOCATION
SN 059-0042
TR 457 OVER I-55
2.0 MI S IL 138



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

GROSS LENGTH = XX FT. = XX MILE
NET LENGTH = XX FT. = XX MILE

CONTRACT NO. 72N50

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED October 5 2021

John P. Myer
REGIONAL ENGINEER

December 10 2021

Stephen M. Frantz
ENGINEER OF DESIGN AND ENVIRONMENT

December 10 2021

Stephen M. Frantz
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS




INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX, STANDARDS, SIGNATURES, & GENERAL NOTES
- 3 SUMMARY OF QUANTITIES
- 4-5 SN 059-0042 BRIDGE PLANS

STANDARDS

- 000001-08
- 001001-02
- 001006
- 701001-02
- 701006-05
- 701101-05
- 701106-02
- 701201-05
- 701901-08

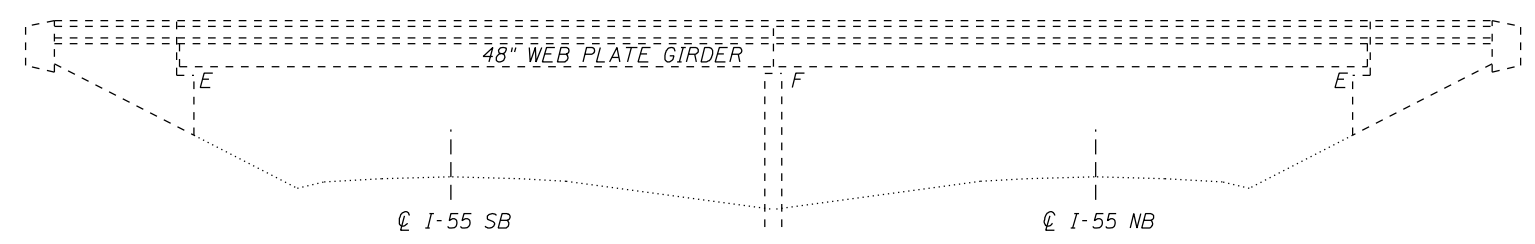
GENERAL NOTES:

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS DISTRICT 6
EXAMINED <u>October 4</u> 20 <u>21</u>  ENGINEER OF OPERATIONS
EXAMINED <u>October 5</u> 20 <u>21</u>  ENGINEER OF PROJECT IMPLEMENTATION
EXAMINED <u>October 5</u> 20 <u>21</u>  ENGINEER OF PROGRAM DEVELOPMENT

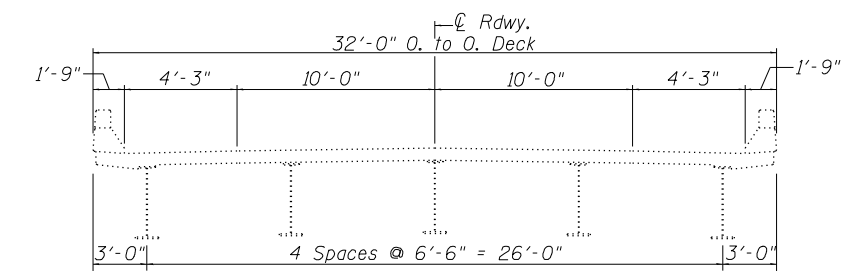
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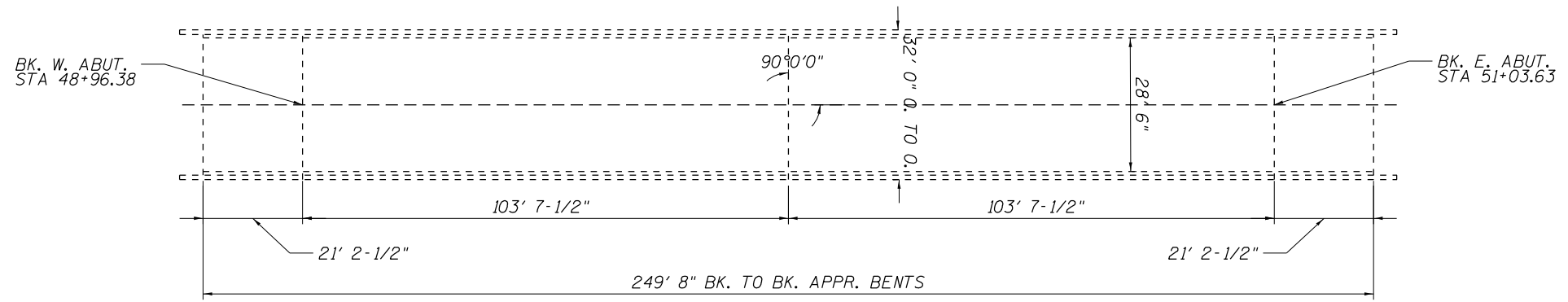
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				SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.



ELEVATION



DECK CROSS SECTION



PLAN



Expires 11-30-2022

David Carl Puze

STRUCTURE GENERAL NOTES:

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 THE SCOPE OF WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

ALL STRUCTURAL STEEL SHALL BE AASHTO M270 GRADE 36 UNLESS OTHERWISE NOTED.

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".

ALL NEW STRUCTURAL STEEL AND BEARING ASSEMBLIES SHALL BE HOT-DIP GALVANIZED. SEE SPECIAL PROVISIONS FOR "HOT DIP GALVANIZING FOR STRUCTURAL STEEL".

THE CONTRACTOR SHALL CORRECT ELEVATION DIFFERENCES IN THE PROFILE GRADE ACROSS THE EXISTING EXPANSION JOINTS AT THE ENDS OF THE DECK. THIS SHALL BE ACCOMPLISHED BY ADJUSTING THE VERTICAL DIMENSION OF THE PROPOSED STEEL BEARING EXTENSIONS. THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING DIMENSIONS AND PROPOSE ALL VERTICAL ADJUSTMENTS TO THE ENGINEER PRIOR TO ORDERING MATERIALS. THE ALLOWABLE ELEVATION TOLERANCES BETWEEN THE TWO SIDES OF THE EXPANSION JOINTS SHALL BE ±1/4". RECORDING ACCURATE MEASUREMENTS AND ORDERING PROPERLY SIZED BEARING EXTENSIONS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

TOTAL BILL OF MATERIAL (SN 059-0042)

ITEM	UNIT	QUANTITY
Elastomeric Bearing Assembly, Type I	Each	10
Jack and Remove Existing Bearings	Each	10
Furnishing and Erecting Structural Steel	Pound	1890
Anchor Bolts, 1" φ	Each	20

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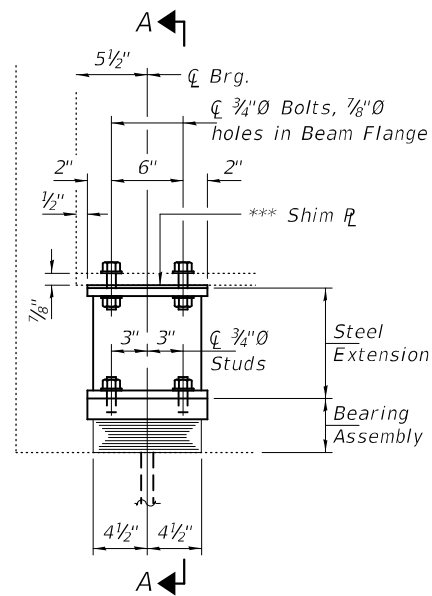
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PLOT DATE = 10/14/2021	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BRIDGE PLAN & ELEVATION
SN 059-0042**

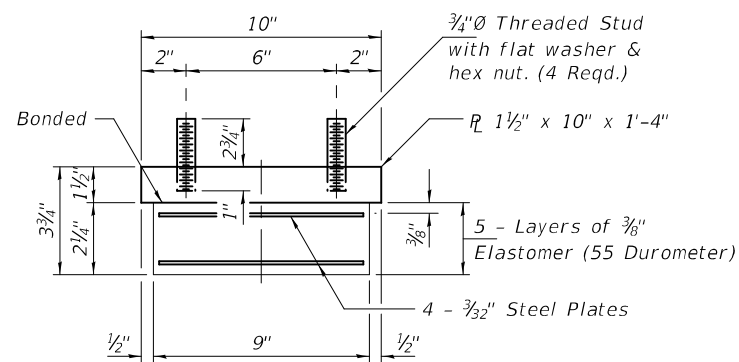
SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(59-1HB-2)BRR	MACOUPIN	5	4
ILLINOIS FED. AID PROJECT			CONTRACT NO. 72N50	



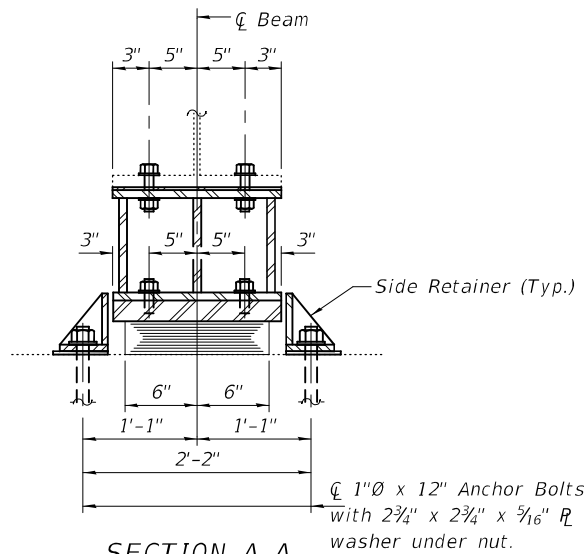
ELEVATION AT ABUTMENT

TYPE I ELASTOMERIC EXP. BRG.

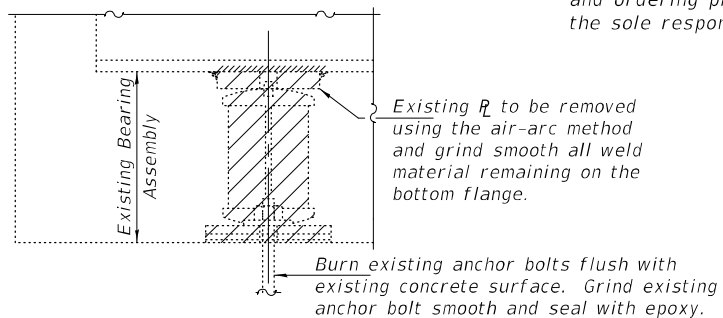


BEARING ASSEMBLY

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

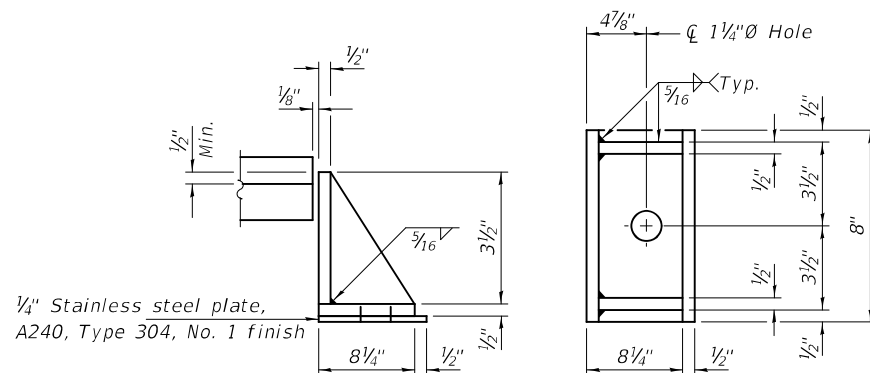


SECTION A-A



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.

BEAM REACTIONS

R _l	(K)	39.7
R _r	(K)	28.4
Imp.	(K)	6.2
R (Total)	(K)	74.3

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).

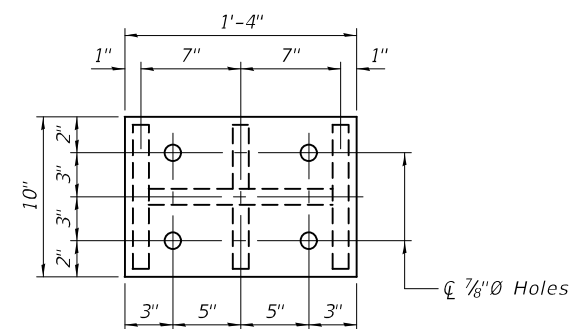
Min. jack capacity = 43 Tons.

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.

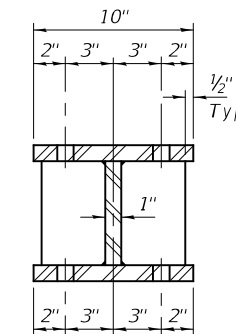
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Cost of Side retainers and Stainless Steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.

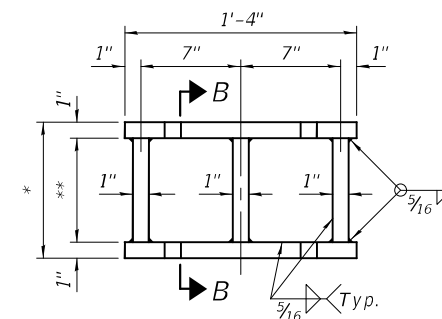
The contractor shall correct elevation differences in the profile grade across the existing expansion joints at the ends of the deck. This shall be accomplished by adjusting the vertical dimension of the proposed steel bearing extensions. The contractor shall field verify the existing dimensions and propose all vertical adjustments to the Engineer prior to ordering materials. The allowable elevation tolerances between the two sides of the expansion joints shall be ±1/4". Recording accurate measurements and ordering properly sized bearing extensions shall be the sole responsibility of the contractor.



PLAN TOP AND BOTTOM PLATE



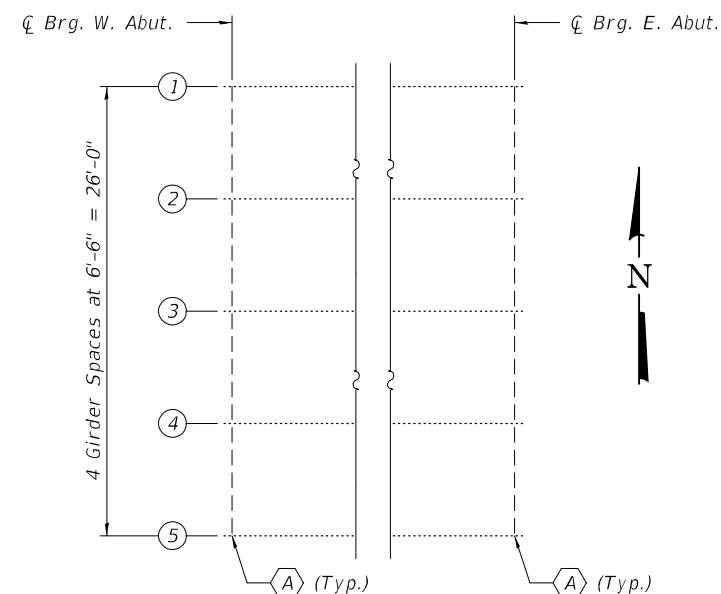
SECTION B-B



STEEL EXTENSION DETAIL

* 10" - W. Abut.
10 3/8" - E. Abut.

** 8" - W. Abut.
8 5/8" - E. Abut.



PARTIAL FRAMING PLAN

⬡ - Bearing Replacement

*** The Contractor shall correct elevation differences in the profile grade across the existing expansion joints at the ends of the deck. This shall be accomplished by adding shim plates at locations shown on the plans. No more than two shim plates shall be added to each bearing location. The Contractor shall field verify the existing dimensions and propose all vertical adjustments to the Engineer prior to ordering the extra shims. The allowable elevation tolerances between the two sides of the expansion joints shall be ±1/4". Recording accurate measurements and ordering properly sized shims shall be the sole responsibility of the Contractor. Cost included with Furnishing and Erecting Structural Steel.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	10
Jack and Remove Existing Bearings	Each	10
Furnishing and Erecting Structural Steel	Pound	1890
Anchor Bolts, 1"Ø	Each	20

TYI/REPS 5-17-2018

DESIGNED - Victor H. Veliz
CHECKED - Stephen M. Ryan
DRAWN - daburdell
CHECKED - VHV SMR

EXAMINED	<i>Timothy A. Daulton</i>
PASSED	<i>Carl R. Meyer</i>
	ENGINEER OF BRIDGES AND STRUCTURES

DATE - DECEMBER 3, 2021
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS
T.R. 457 OVER I55
SN 059-0042

SHEET NO. 1 OF 1 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(59-11B-2)BRR	MACOUPIN	5	5
ILLINOIS			CONTRACT NO. 72N50	
FED. AID PROJECT				