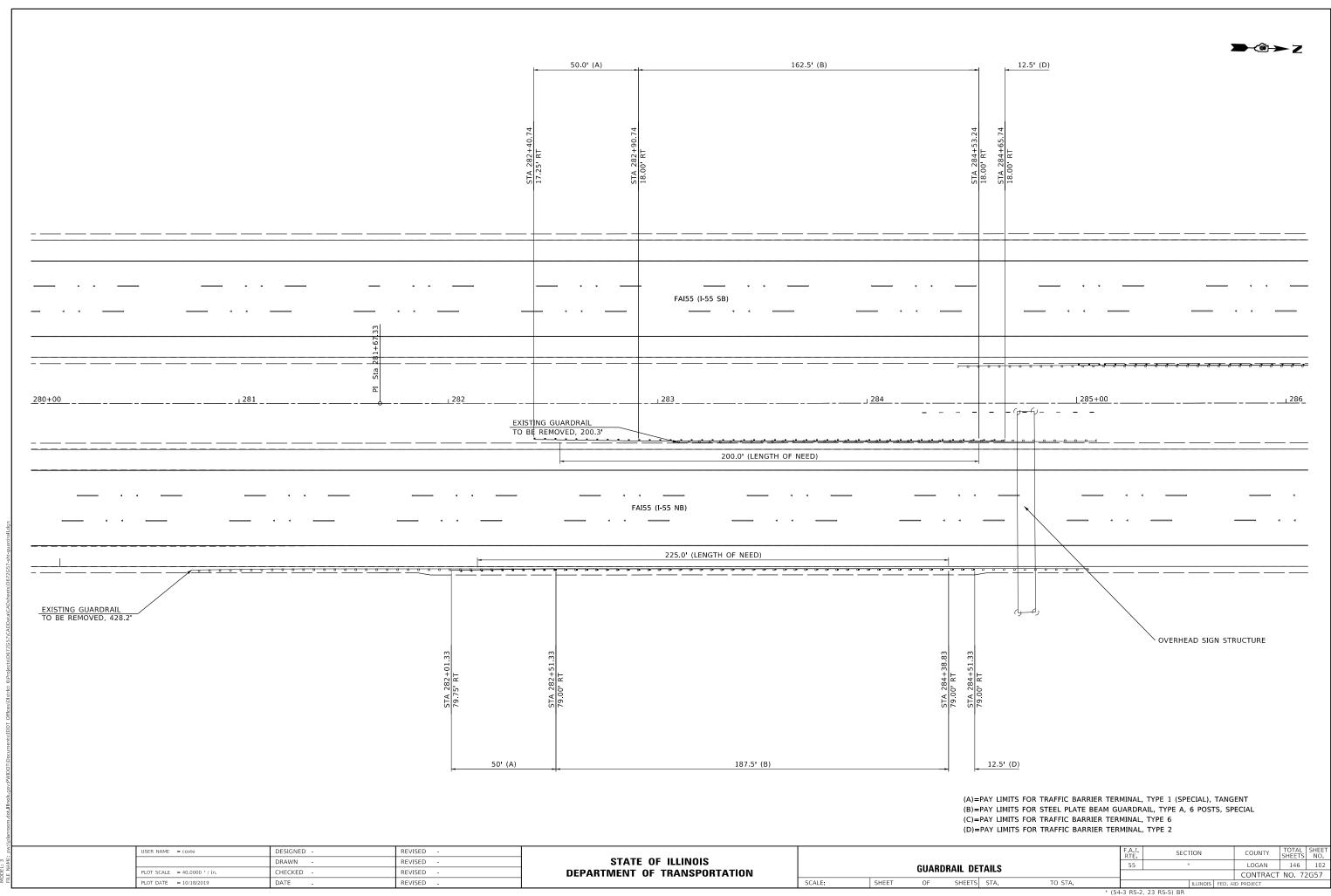
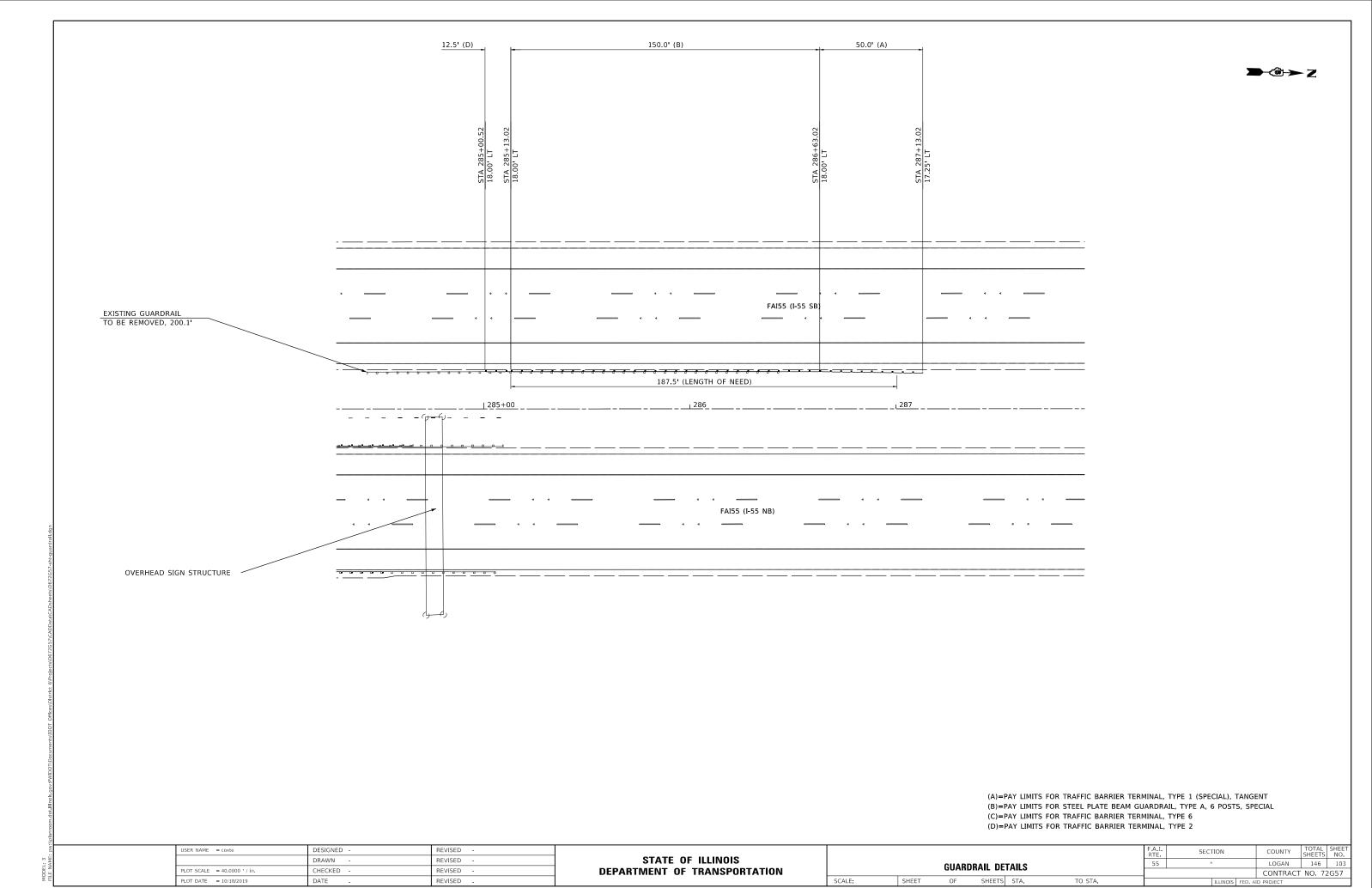
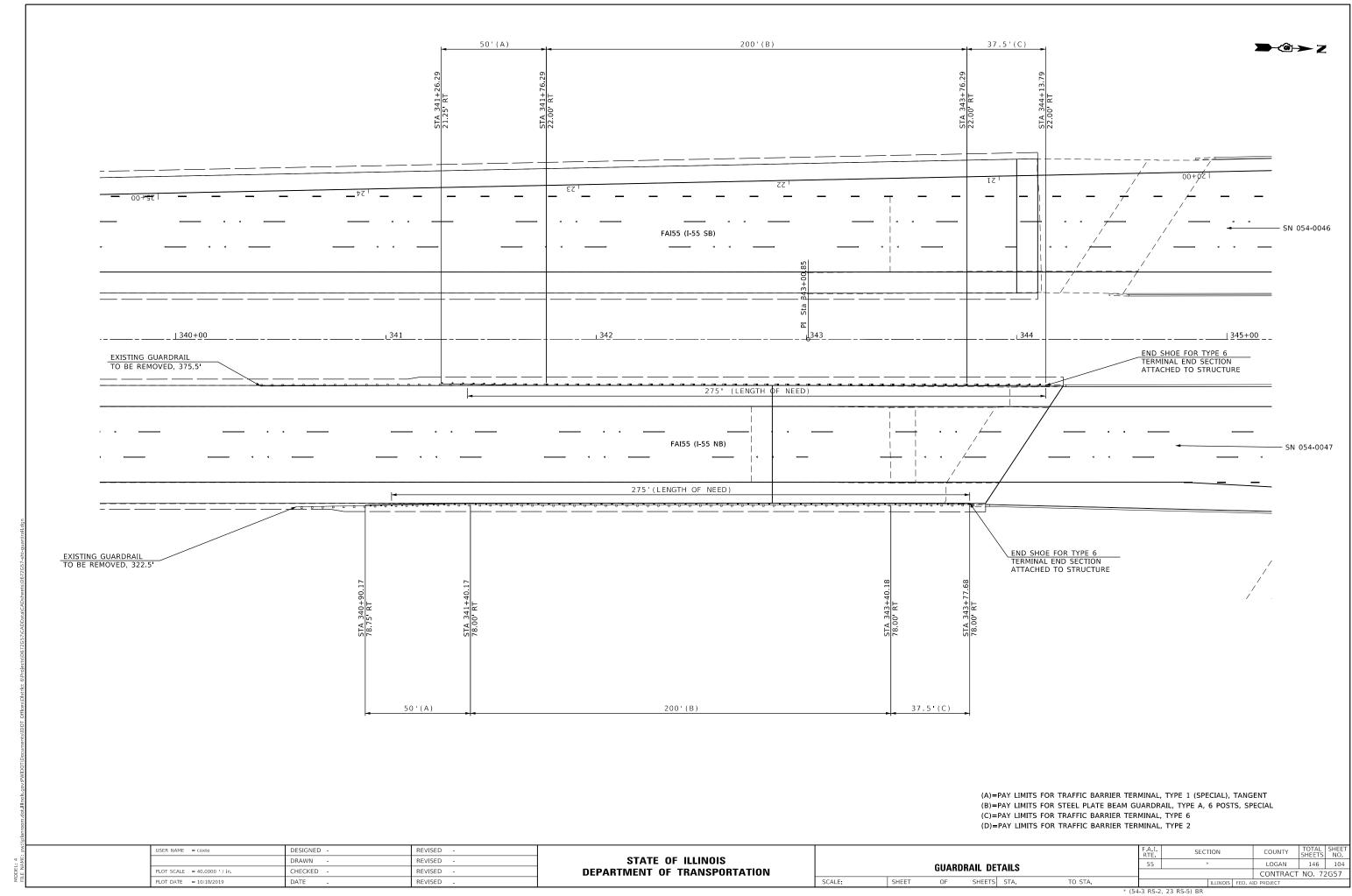
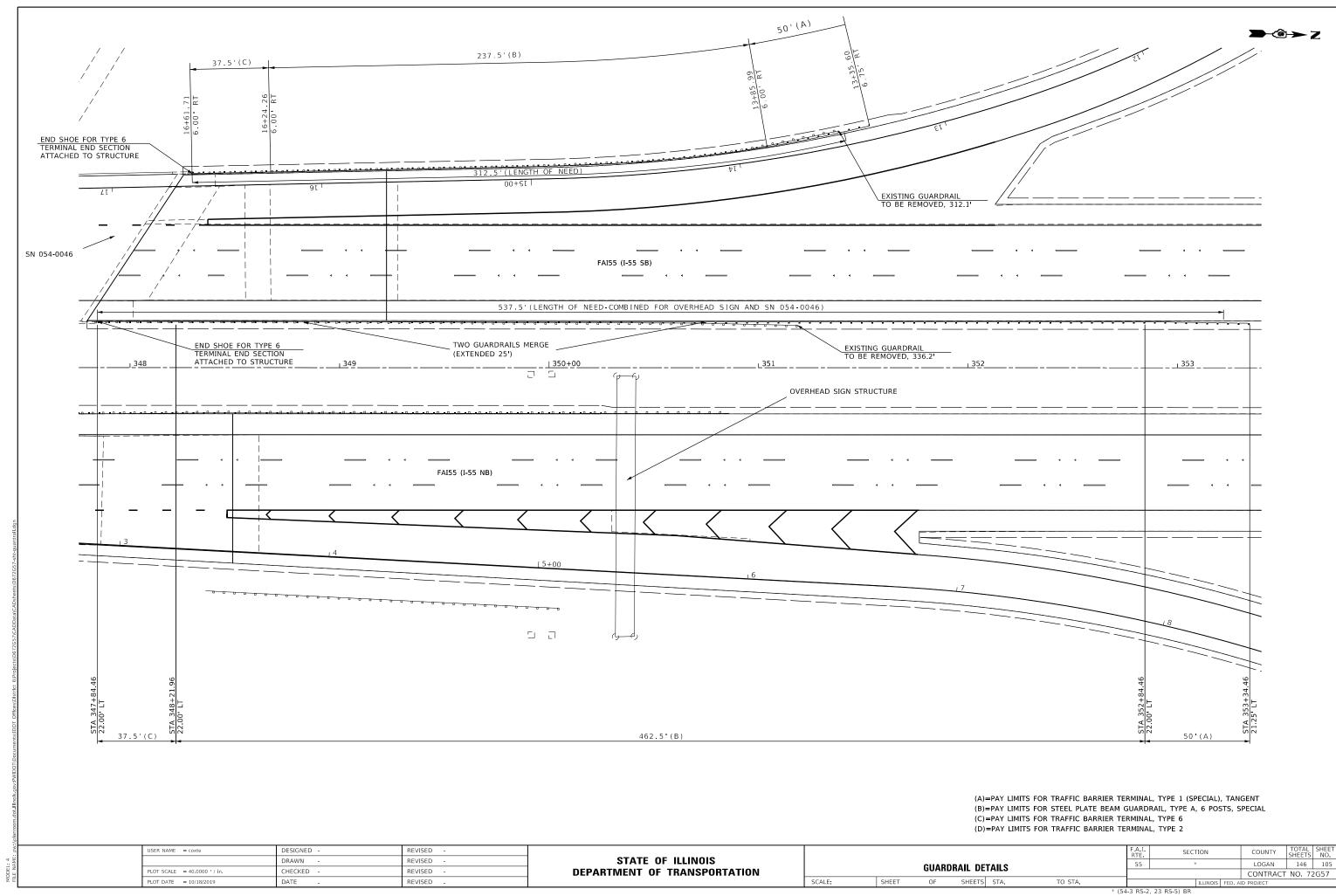


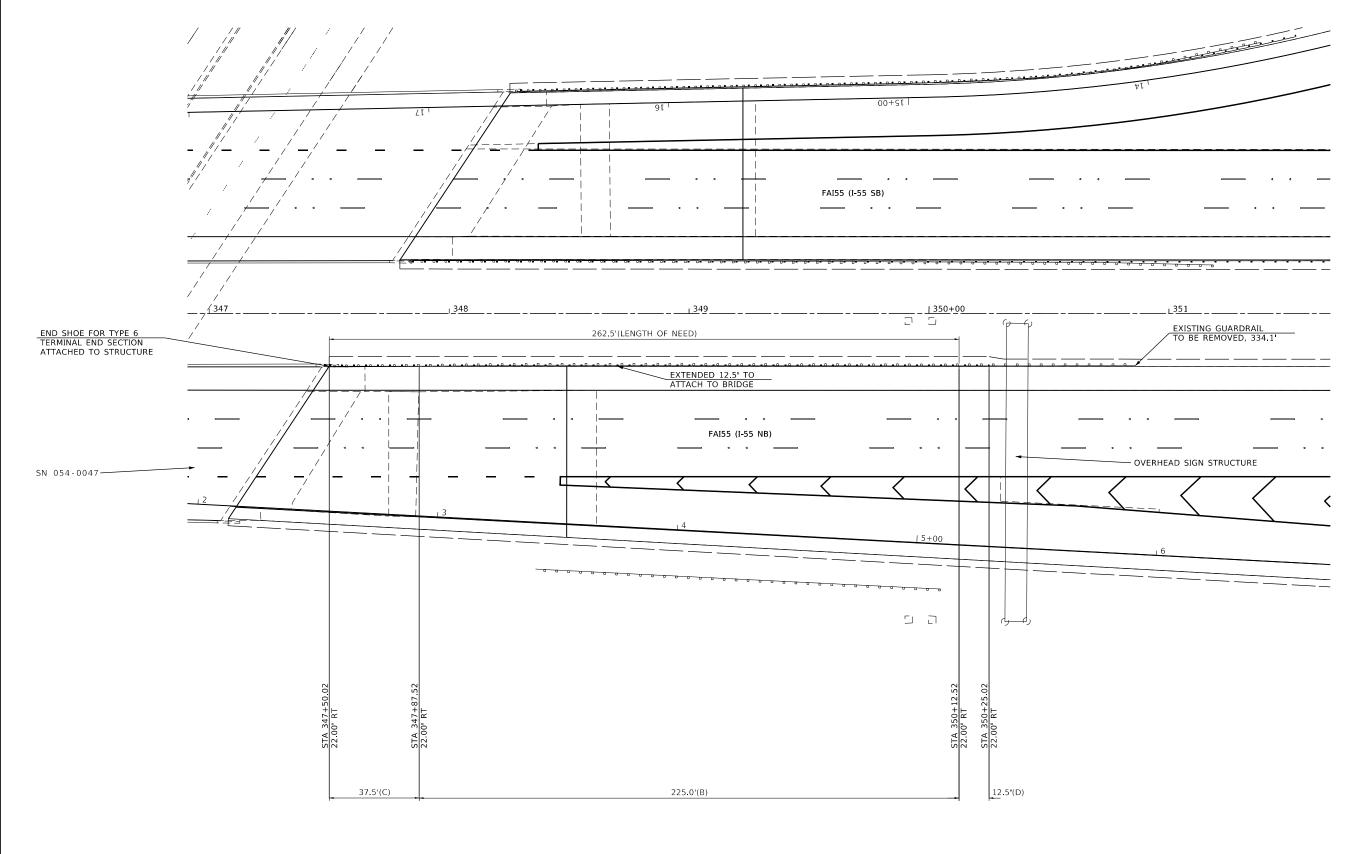
JSER NAME = coxte DESIGNED -REVISED SECTION COUNTY STATE OF ILLINOIS DRAWN REVISED LOGAN 146 101 55 **GUARDRAIL DETAILS** PLOT SCALE = 40.0000 ' / in. CHECKED REVISED **DEPARTMENT OF TRANSPORTATION** CONTRACT NO. 72G57 PLOT DATE = 10/18/2019 REVISED SCALE: SHEET SHEETS STA. DATE TO STA.











(A)=PAY LIMITS FOR TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL), TANGENT (B)=PAY LIMITS FOR STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 POSTS, SPECIAL (C)=PAY LIMITS FOR TRAFFIC BARRIER TERMINAL, TYPE 6 (D)=PAY LIMITS FOR TRAFFIC BARRIER TERMINAL, TYPE 2

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PLOT SCALE = 40.0000 / in.	CHECKED -	REVISED -	
PLOT DATE = 10/18/2019	DATE -	REVISED -	

STATE ()F ILLINOIS
DEPARTMENT OF	TRANSPORTATION

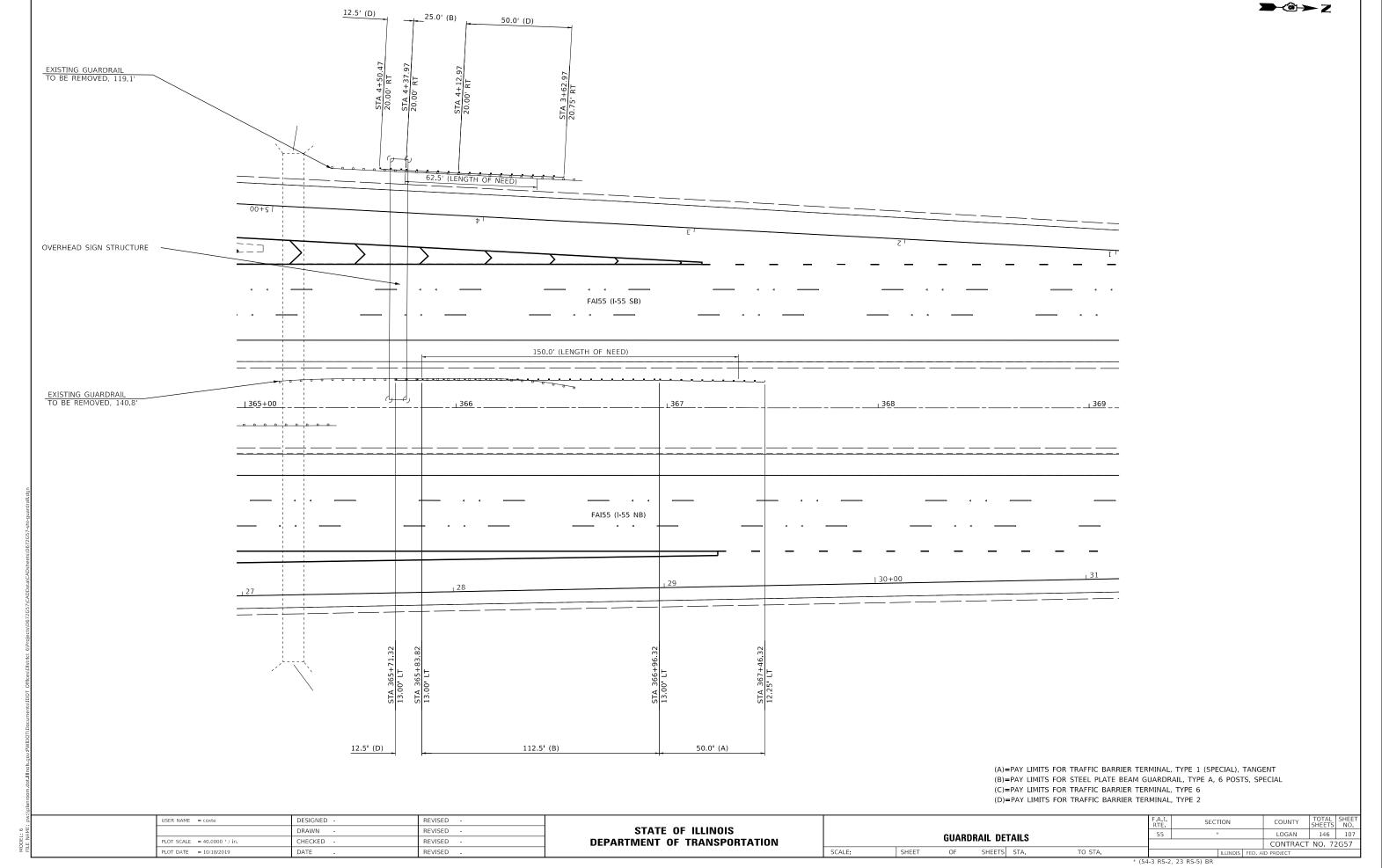
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COUNTY TOTAL SHEET NO.

LOGAN 146 106

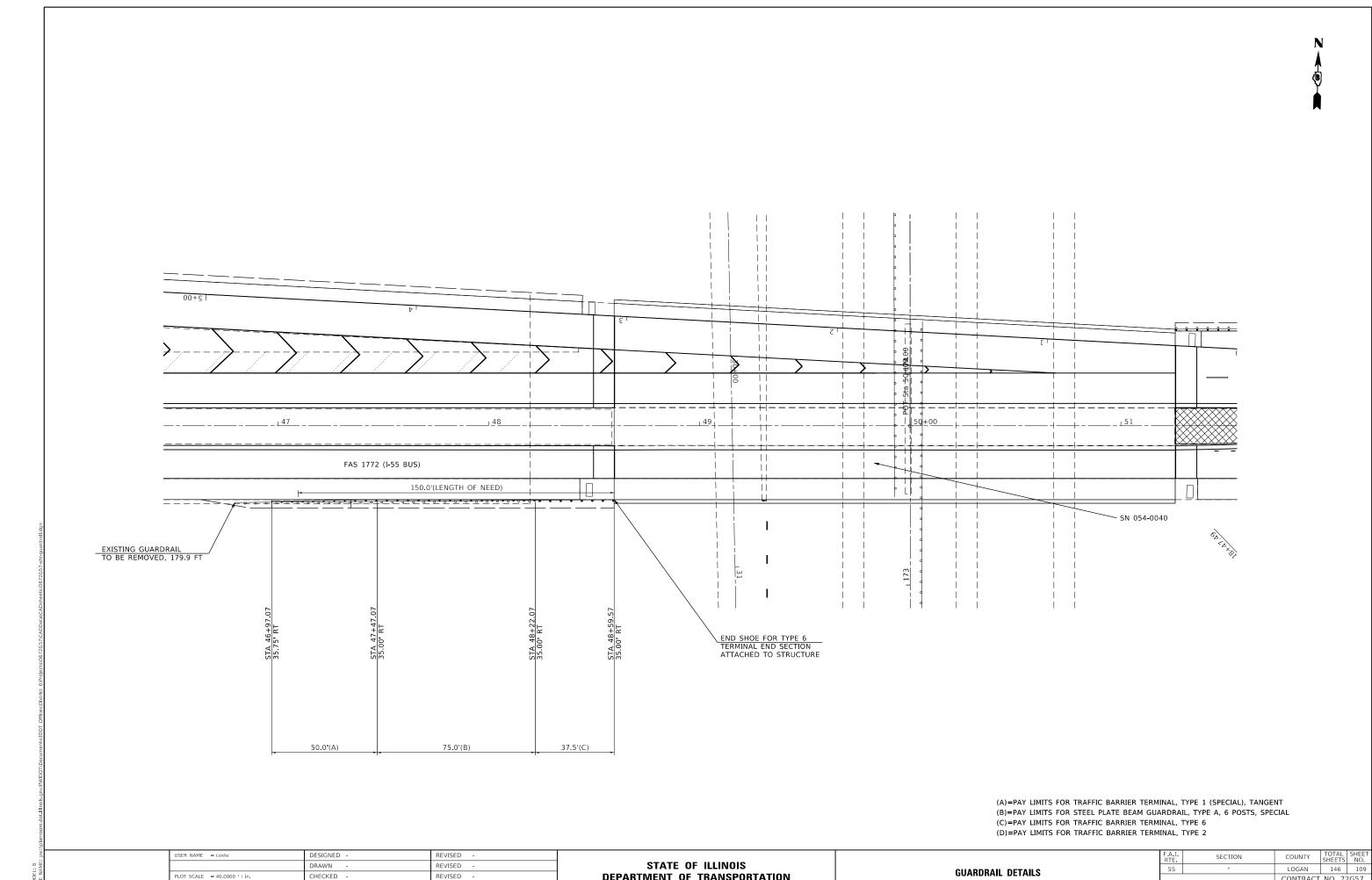
CONTRACT NO. 72G57



→©→Z 50.0 (A) 275.0'(B) 37.5 (C) STA 370+14.37 21.25 RT FAI55 (I-55 SB) <u> 1370+0</u> END SHOE FOR TYPE 6
TERMINAL END SECTION
ATTACHED TO STRUCTURE 350.0'(LENGTH OF NEED) EXISTING GUARDRAIL
TO BE REMOVED, 375.7 - SN 054-0049 FAI55 (I-55 NB) OVERHEAD SIGN STRUCTURE EXISTING GUARDRAIL
TO BE REMOVED, 309.6 412.5'(LENGTH OF NEED) END SHOE FOR TYPE 6 TERMINAL END SECTION ATTACHED TO STRUCTURE 37.5'(C) 337.5 (B) 50'(A) (A)=PAY LIMITS FOR TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL), TANGENT (B)=PAY LIMITS FOR STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 POSTS, SPECIAL (C)=PAY LIMITS FOR TRAFFIC BARRIER TERMINAL, TYPE 6 (D)=PAY LIMITS FOR TRAFFIC BARRIER TERMINAL, TYPE 2 COUNTY TOTAL SHEET NO.

LOGAN 146 108 JSER NAME = coxte DESIGNED -REVISED STATE OF ILLINOIS DRAWN REVISED **GUARDRAIL DETAILS** PLOT SCALE = 40.0000 ' / in. CHECKED REVISED **DEPARTMENT OF TRANSPORTATION** CONTRACT NO. 72G57 REVISED SCALE: SHEETS STA. PLOT DATE = 10/18/2019 DATE

* (54-3 RS-2, 23 RS-5) BR



CHECKED REVISED DATE REVISED

REVISED

DRAWN

PLOT SCALE = 40.0000 ' / in.

PLOT DATE = 10/18/2019

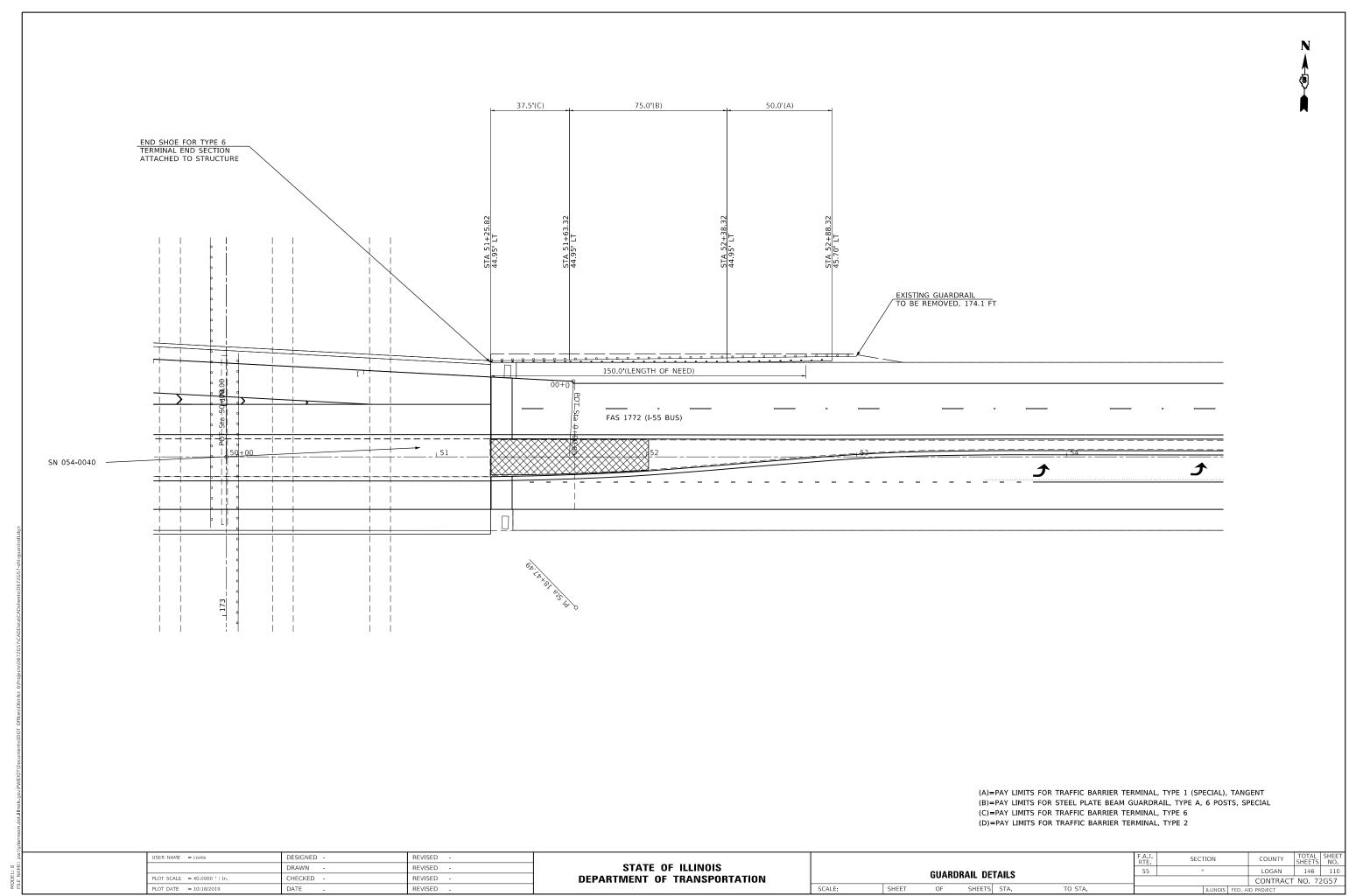
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

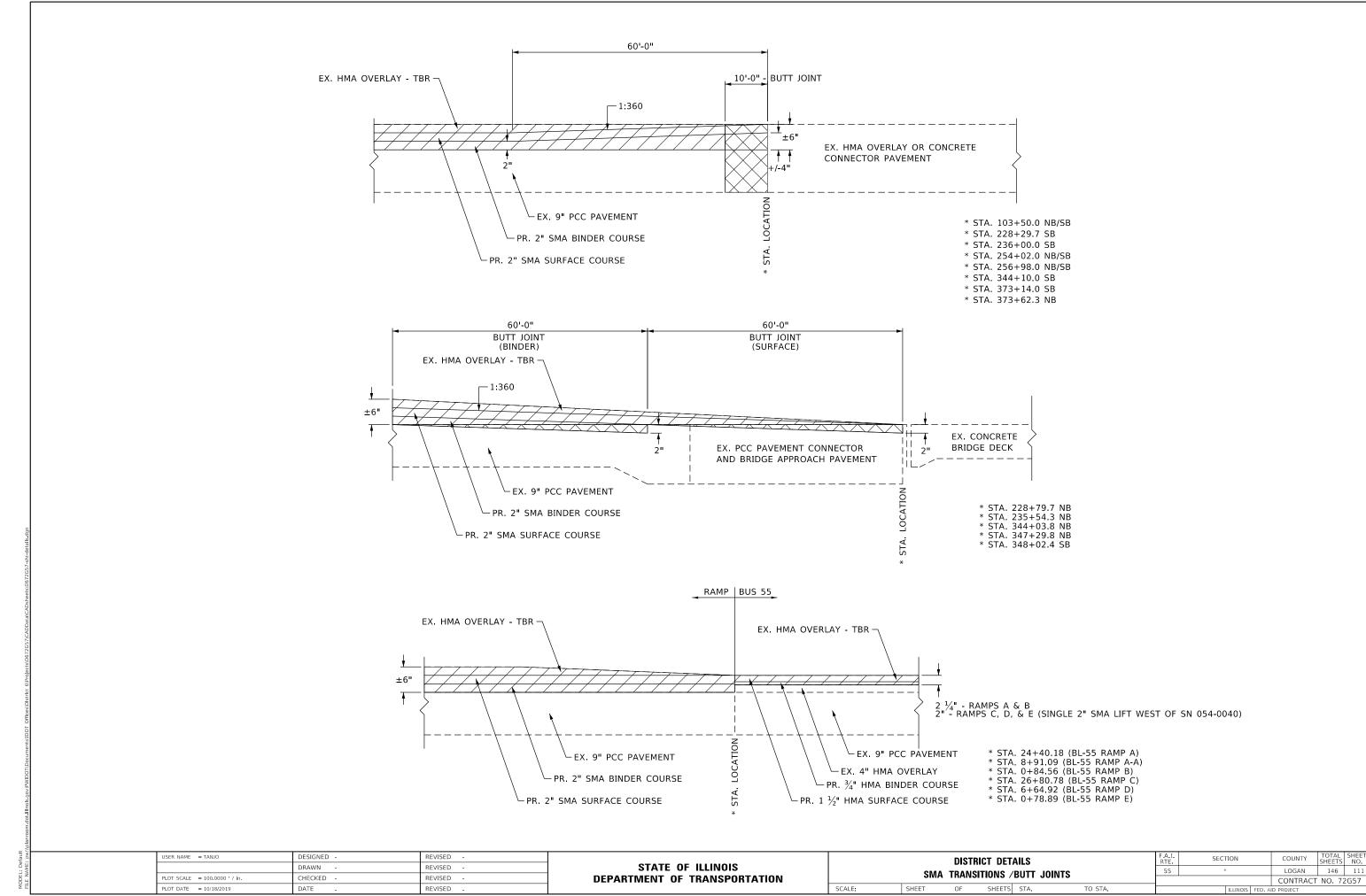
SCALE:

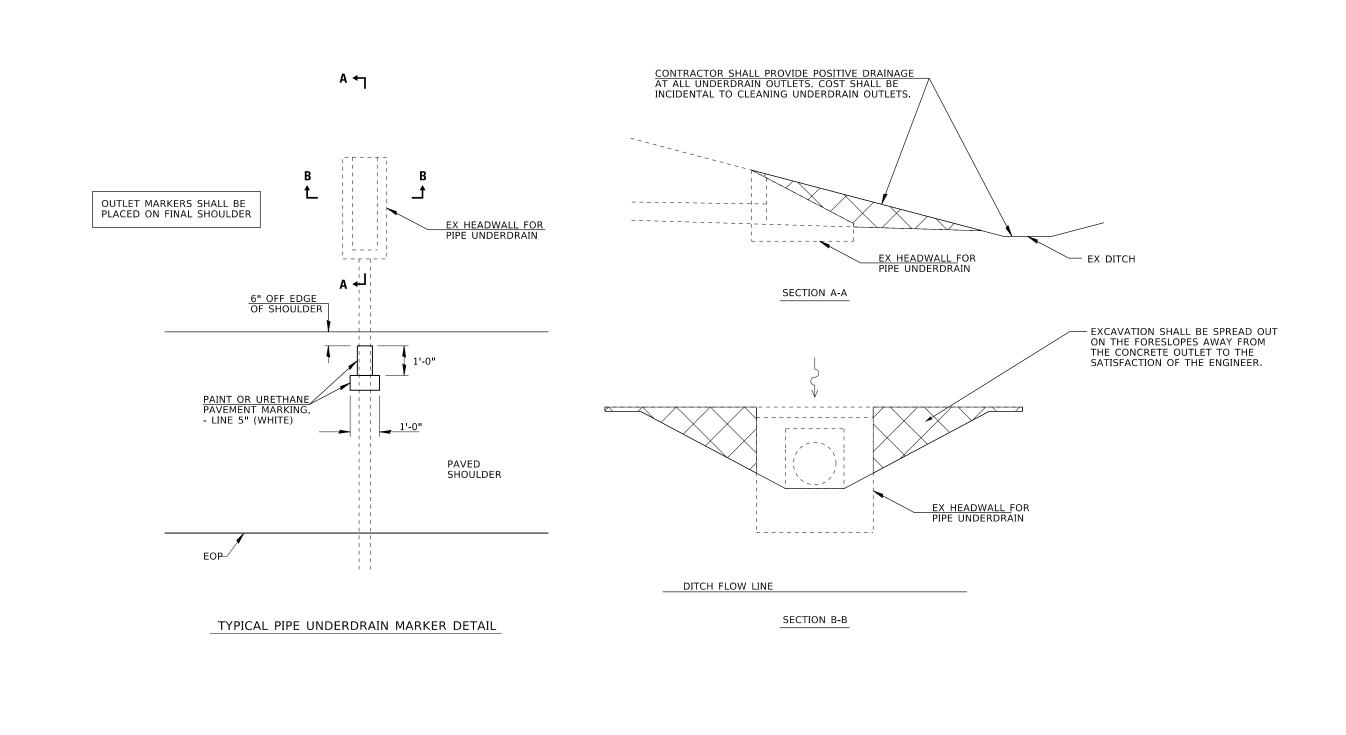
GUARDRAIL DETAILS SHEET SHEETS STA. TO STA.

* (54-3 RS-2, 23 RS-5) BR

CONTRACT NO. 72G57

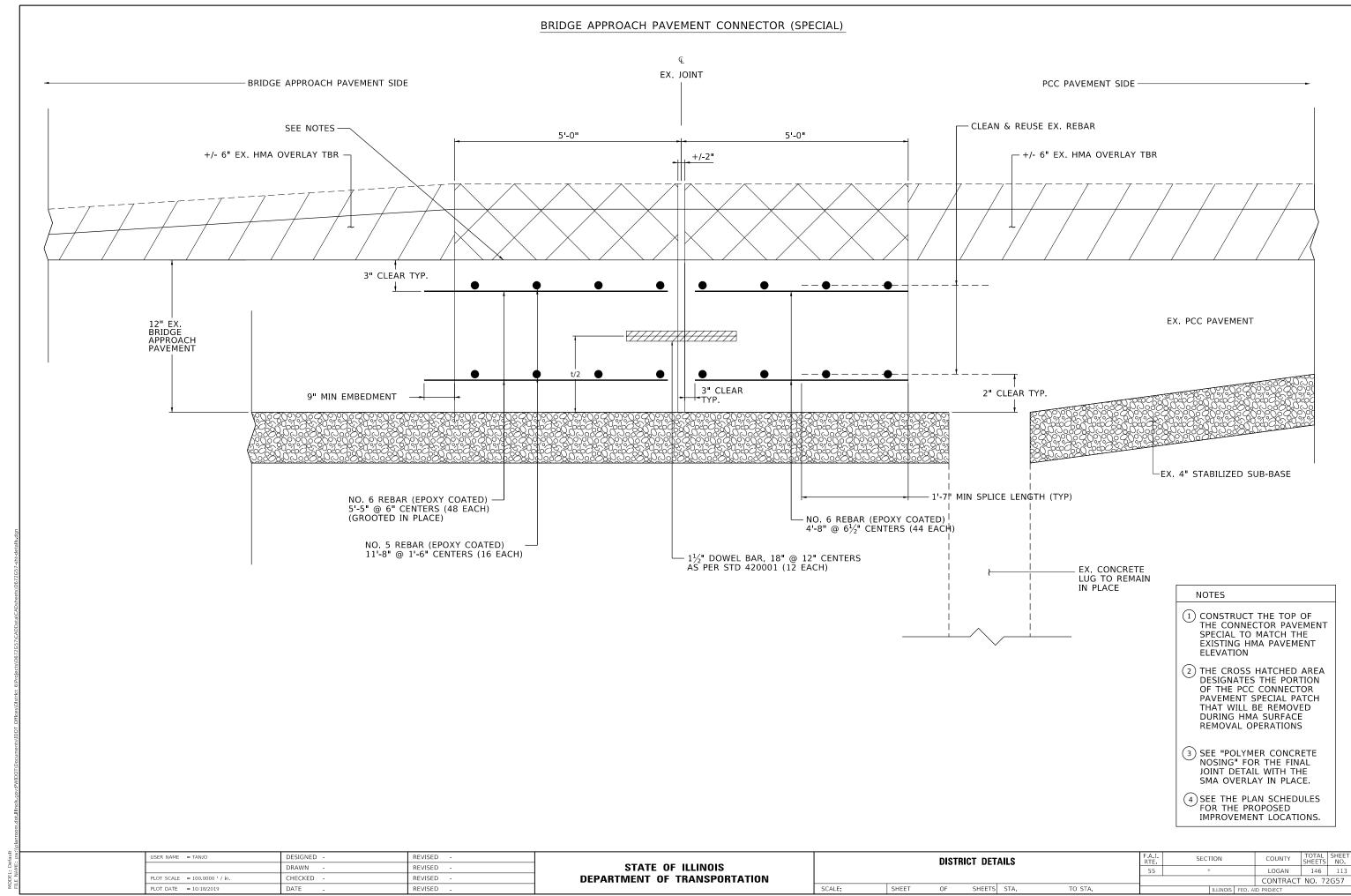






COUNTY TOTAL SHEET NO.

LOGAN 146 112 JSER NAME = TANJO DESIGNED -REVISED SECTION DISTRICT DETAILS STATE OF ILLINOIS DRAWN REVISED 55 PIPE UNDERDRAIN MARKER PLOT SCALE = 100.0000 ' / in. CHECKED REVISED **DEPARTMENT OF TRANSPORTATION** CONTRACT NO. 72G57 REVISED SHEETS STA. PLOT DATE = 10/18/2019 DATE * (54-3 RS-2, 23 RS-5) BR



POLYMER CONCRETE NOSING Œ EX. JOINT 5'-0" 5'-0" BRIDGE APPROACH PAVEMENT SIDE PCC PAVEMENT SIDE -POLYMER CONC. NOSING-AS PER STD. 420001 +/- 6" EX. HMA OVERLAY TBR +/-2" EXPANSION JOINT PR. 4" SMA OVERLAY -EX. 4" STABILIZED SUB-BASE (SEE NOTES) 12" EX. BRIDGE APPR. PAVEMENT EX. REINFORCED EXPANSION PATCH PARTIAL PCC EXPANSION PATCH REMOVAL +/-6" 4'-0" NOTES EX. CONTINUOUSLY REINFORCE PCC 1 THE CROSS HATCHED AREA PAVEMENT, 9" DESIGNATES THE PORTION OF THE PCC CONNECTOR PAVEMENT SPECIAL PATCH THAT WILL BE REMOVED DURING HMA SURFACE REMOVAL OPERATIONS. THE CONTRACTOR SHALL RESURFACE OVER THE EXISTING JOINT. ONCE RESURFACING OPERATIONS ARE COMPLETE, THE CONTRACTOR SHALL SAW 6'-0" 2'-0" CUT 6" ON EITHER SIDE OF THE EXPANSION JOINT - EX. CONCRETE LUG TO REMAIN IN PLACE & REMOVE THE SMA OVERLAY. THE CONTRACTOR SHALL THEN BLOCK OUT THE **EXPANSION JOINT & INSTALL** POLYMER CONCRETE NOSING. THE COST TO REMOVE THE SMA RESURFACING SHALL BE CONSIDERED INCLUDED IN THE POLYMER CONCRETE PAY ITEM. * STA. 228+33.33 NB * STA. 235+97.66 NB * STA. 343+45.90 NB * STA. 347+80.78 NB * STA. 348+60.94 SB (3) UPON INSTALLATION OF THE POLYMER CONCRETE NOSING, THE CONTRACTOR SHALL PLACE HOT POURED JOINT SEALERAS PER STANDARD SPECIFICATION 1050.02 OVER THE EXPANSION JOINT. THE COST OF THE JOINT SEALER SHALL BE CONSIDERED INCLUDED IN THE SMA RESURFACING PAY ITEMS. JSER NAME = TANJO DESIGNED -REVISED SECTION COUNTY DISTRICT DETAILS STATE OF ILLINOIS DRAWN REVISED 55 LOGAN 146 114 HECKED REVISED **DEPARTMENT OF TRANSPORTATION** CONTRACT NO. 72G57 SCALE: SHEET SHEETS STA. REVISED PLOT DATE = 10/18/2019 DATE OF TO STA.

* (54-3 RS-2, 23 RS-5) BR

INDEX OF SHEETS

- 1. General Plan and Elevation
- 2. General Data
- 3. Partial Depth Median Repairs
- 4. West Abutment Repair Details
- 5. East Abutment Repair Details
- 6. Pier Repair Details

SCOPE OF WORK

- 1. Replace preformed joint seals
- 2. Structural repair of concrete on abutments, pier and raised median.
- 3. Install a protective coat on parapets.
- 4. Raise pier crash wall.
- 5. Remove and replace a portion of slopewall.



LEGEND:

B F.A.S. 1772

Indicates location of Protective Shield

GENERAL PLAN AND ELEVATION BL-55 OVER I-55

F.A.S. 1772 SECTION (54-3 RS-2, 23 RS-5) BR

LOGAN COUNTY

STRUCTURE NO. 054-0040

HORNER SHIFRIN .com

DESIGNED -REVISED JJD CHECKED -MAC REVISED DRAWN REVISED REVISED CHECKED -MAC

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

Limits of Protective Shield

N.B. I-55

36'-0"

Rdwy.

57'-0"

99'-9"

Shldi

€ Brg. E. Abut.

27'-6"

ELEVATION

22'-0"

267'-3" back to back of approach bents

PLAN

Shldi

€ F.A.I. 55

Limits of Protective Shield

36'-0"

Rdwy.

72'-0"

112'-6"

8'-0" Shldr.

Width

Varies

€ Brg. W. Abut.

27'-6"

S.B. I-55

SHEET 1 OF 6 SHEETS

55 (54-3 RS-2, 23 RS-5) BR LOGAN 146 115 CONTRACT NO. 72G57

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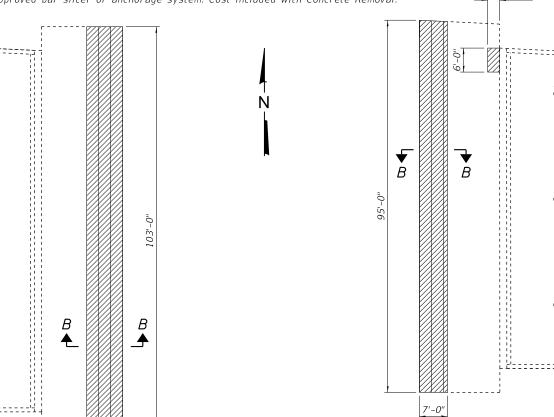
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GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

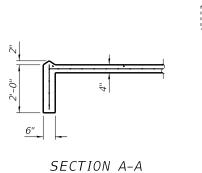
Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall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

Existing reinforcement extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar slicer or anchorage system. Cost included with Concrete Removal.



TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Slope Wall Removal	Sq. Yd.		179	179
Protective Shield	Sq. Yd.	268		268
Concrete Structures	Cu. Yd.		16.5	16.5
Reinforcement Bars, Epoxy Coated	Pound		1,590	1,590
Slope Wall 4 Inch	Sq. Yd.		179	179
Preformed Joint Seal, 2¾"	Foot	177.5		177.5
Surface Filler (Special)	Gallon	5		5
Protective Coat (Special)	Sq. Yd.	396		396
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.		262	262
Deck Slab Repair (Partial)	Sq. Yd.	85.9		85.9



'-0" at East slopewall Match previous HMA shoulder 3'-0" 3'-0" Exist. HMA shoulder * 1:6 (V:H)

3'-0" at West slopewall

LEGEND:

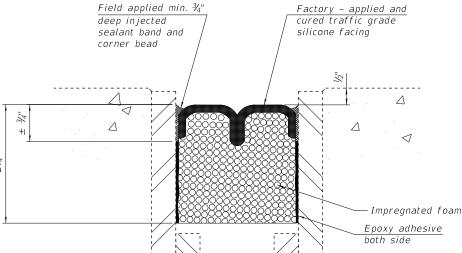
Apply Surface Filler (Special)

and Protective Coat (Special)

on bridge parapets and approach slab parapets

Indicates area of Slope Wall Removal and Slope Wall 4 inch.

SECTION B-B

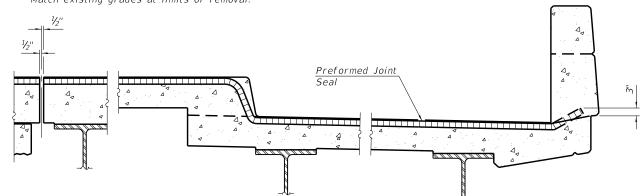


PART PLAN OF SLOPE WALL - EAST ABUTMENT

PART PLAN OF SLOPE WALL - WEST ABUTMENT

9'-0"

Notes: Slopewall shall be reinforced with welded wire fabric, 6 in. x 6 in. - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft. Match existing grades at limits of removal.



CURB SECTION

Note: Parapet on bridge shown, approach slab parapets similar.

Apply Surface Filler (Special)

and Protective Coat (Special) on bridge parapets and approach slab parapets

> Joint seals shall be preformed pre-compressed silicone coated self-expanding sealant system.

PREFORMED JOINT SEAL DETAILS

 $\pm 2\frac{3}{4}$ " at 50° F, typ.

The removal of the existing joint is included in the cost of the preformed joint seal.

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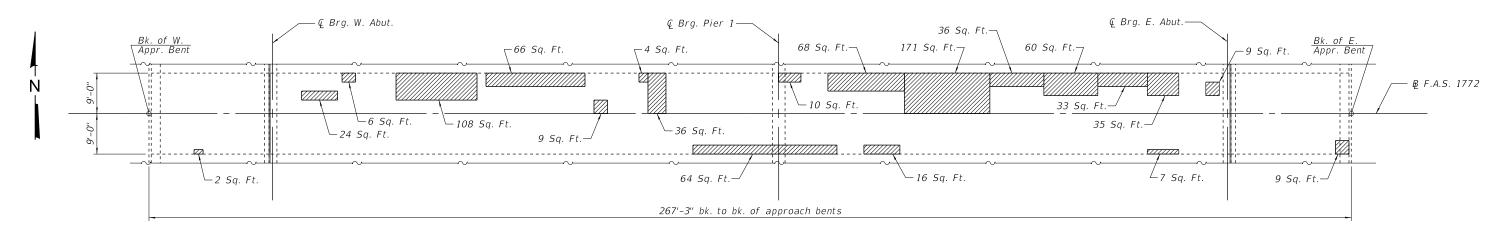
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	PLOT DATE =	CHECKED - MAC	REVISED -

TYPICAL END OF SEALER TREATMENT

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

GENERAL DATA		SEC
STRUCTURE NO. 054-0040		(54-3 RS-2,
3111001011L 140. 031-0010		
CUEET 3 OF C CUEETC		

F.A.I RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(54-3 RS-2, 23 RS-5) BR	LOGAN	146	116
		CONTRACT	NO. 72	G57
	ILLINOIS FED. AU	D PROJECT		



PLAN OF MEDIAN

LEGEND:

Deck Slab Repair (Partial) 85.9 Sq. Yd.

Notes:

The areas of Deck Slab Repairs are estimated. The actual size and location is to be determined by the Engineer. The depth of any partial depth patch shall not be deeper than 5".

The Engineer will show actual patch locations on

as-built plans.

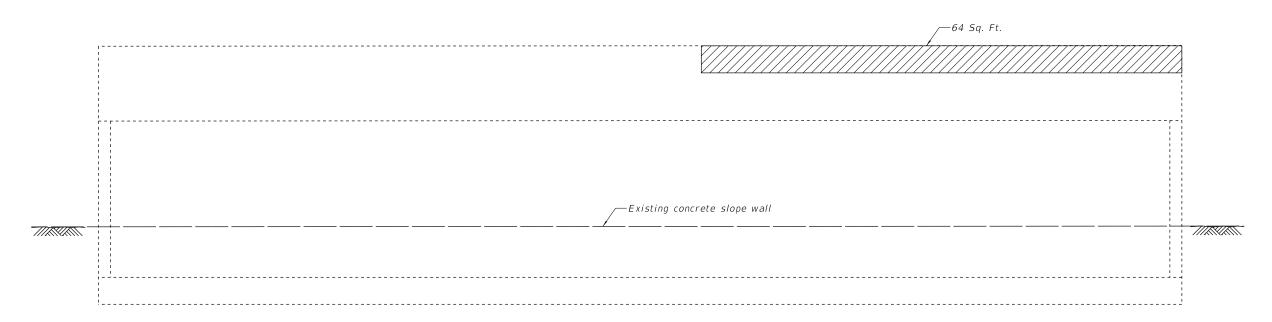
Deck survey September 16, 2019.

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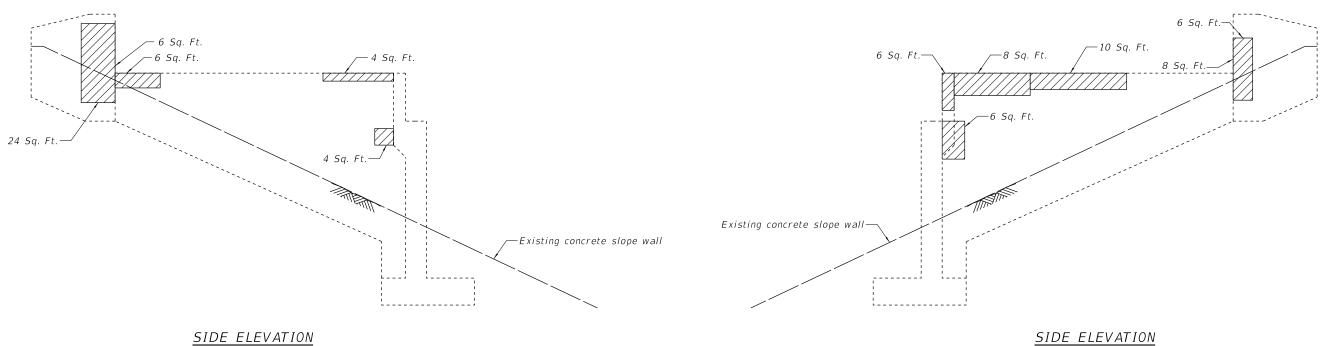
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PLOT SCALE =	DRAWN - CAB	REVISED -
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F.A.I RTE	SECTION			COUNTY	TOTAL SHEETS	SHEE NO.
55	(54-3 RS-2, 23 RS-5) BR			LOGAN	146	117
·			CONTRACT	NO. 72	G57	
ILLINOIS FED. AID				PROJECT		

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FRONT ELEVATION (Looking West)



SIDE ELEVATION (Looking South)

LEGEND



Structural Repair of Concrete (Depth equal to less than 5 inches)

Cost for excavation and backfill areas projected below the existing grade is included in Structural Repair of Concrete (Depth Equal to or Less than 5 inches).

BILL OF MATERIAL

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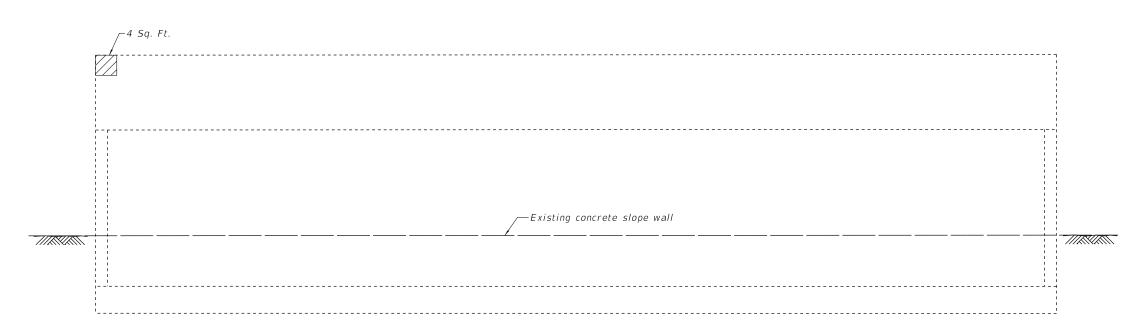
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(Looking North)

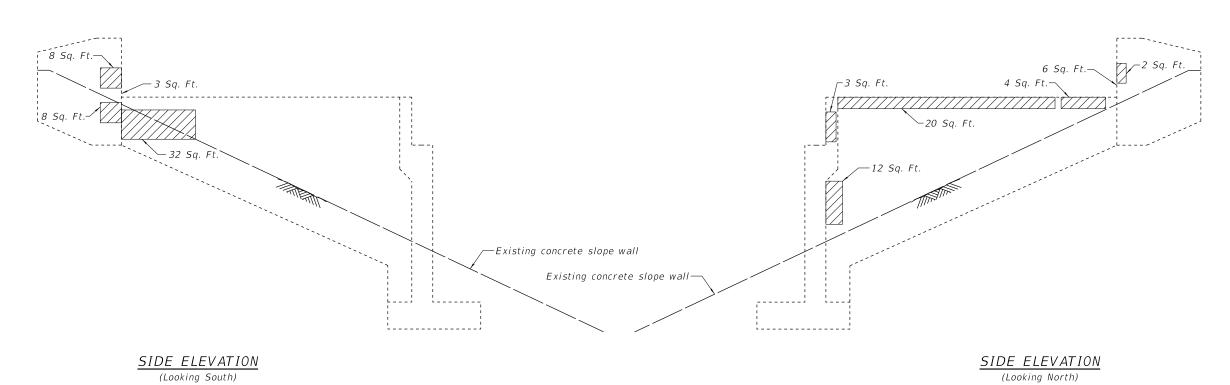
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

WEST ABUT	MENT I	REP <i>F</i>	IR DETAIL	.S
STRUCT	URE NO	0. 05	4-0040	
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F.AI RTE	SECTION	COUNTY	TOTAL SHEETS	SHE
55	(54-3 RS-2, 23 RS-5) BR	LOGAN	146	11
		CONTRACT	NO. 72	G57
	ILLINOIS FED. A	ID PROJECT		



FRONT ELEVATION (Looking East)



LEGEND



Structural Repair of Concrete (Depth equal to less than 5 inches)

Cost for excavation and backfill areas projected below the existing grade is included in Structural Repair of Concrete (Depth Equal to or Less than 5 inches).

BILL OF MATERIAL

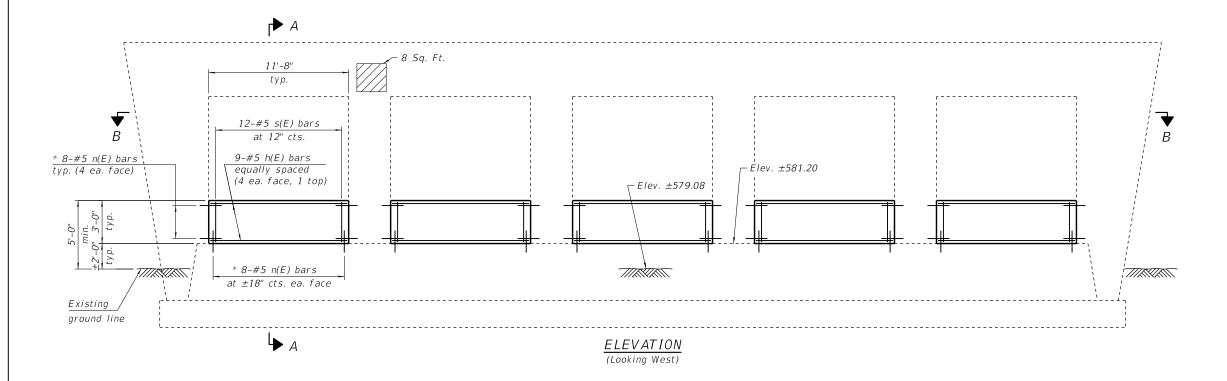
ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.	102

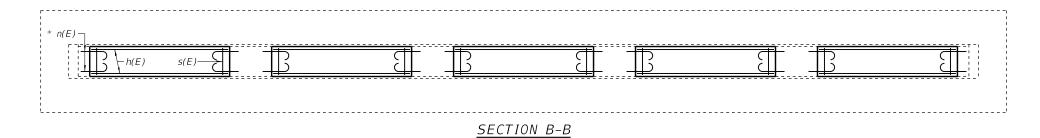
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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT REPAIR DETAILS STRUCTURE NO. 054-0040 OF 6 SHEETS

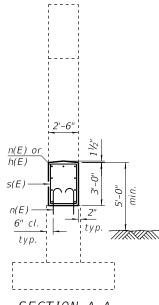
SECTION 55 (54-3 RS-2, 23 RS-5) BR LOGAN 146 119 CONTRACT NO. 72G57





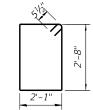
Note:

The cost of epoxy grouting shall be included with Reinforcement Bars, Epoxy Coated.

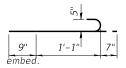


SECTION A-A

* Epoxy grout n(E) bars in 9" min. holes according to Article 584 of the Standard Specifications.



BAR s(E)



BAR n(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	45	#5	11'-5"	
n(E)	160	#5	2'-5"	
s(E)	60	#5	10'-5"	
Concrete Structures			Cu. Yd.	16.5
Reinforcement Bars,			Pound	1,590
Ероху	Coated		r ound	1,590
	ural Re			
	crete (I	,	Sq. Ft.	8
	to or L		34. 12.	
than 5	inches)		

LEGEND



Structural Repair of Concrete (Depth equal to less than 5 inches)

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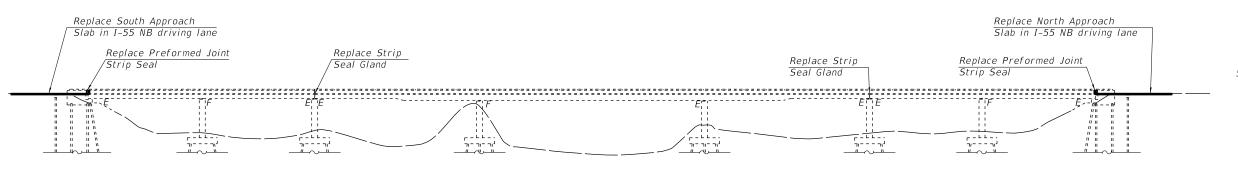
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	PLOT DATE =	CHECKED -	MAC	REVISED -

PIER REPAIR DETAILS				
STRUCTUR	E NO.	054-0040		
SHEET 6	OF 6	SHEETS		

F.A.I SECTION COUNTY TOTAL SHEETS NO.

55 (54-3 RS-2, 23 RS-5) BR LOGAN 146 120

CONTRACT NO. 72G57



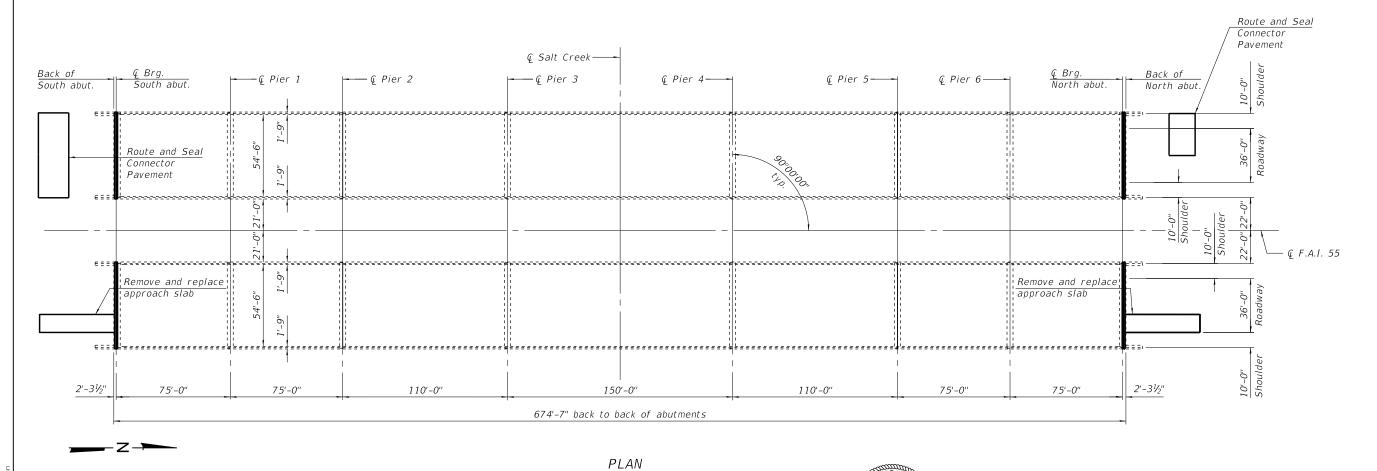
ELEVATION

INDEX OF SHEETS

- 1. General Plan and Elevation
- 2. General Data
- 3. Stage Construction Details
- 4. Temporary Concrete Barrier For Stage Construction
- 5.-6. Superstructure Repair Details
 - 7. Modified Preformed Joint Strip Seal Details
 - . Structural Concrete Repair Details
- 9. Approach Slab Details
- 10. Bar Splicer Assembly and Mechanical Splicer Details

SCOPE OF WORK

- 1. Perform joint reconstruction at abutments.
- 2. Replace strip seal glands at piers.
- 3. Structural repair of concrete on abutments and piers.
- 4. Remove and replace part of the approach slabs.
- 5. Route and seal southbound connector pavements.



<u>DESIGN STRESSES</u>
FIELD UNITS (NEW CONSTRUCTION)

f'c = 4,000 psi (Superstructure) fy = 60,000 psi (Reinforcement) JONATHAN J. *
DERNER : UI
DERNER : UI
UI CENSE NO. WE
OR : UICENSE NO. WE
OR : UICENSE

Fibires 11/30/2020

SHEET 1

OF 10 SHEETS

GENERAL PLAN AND ELEVATION

I-55 OVER SALT CREEK

F.A.I. ROUTE 55

SECTION (54-3 RS-2, 23 RS-5) BR

LOGAN COUNTY
STRUCTURE NO. 054-0041 (S.B.)

STRUCTURE NO. 054-0042 (N.B.)

Online

| Structure | Designed - CBW | Revised - County | Street | County | Street | County | Coun

HORNER PLO WWW. HORNERSHIFRIN COM PLO

 CHECKED
 JJD
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 PLOT SCALE
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

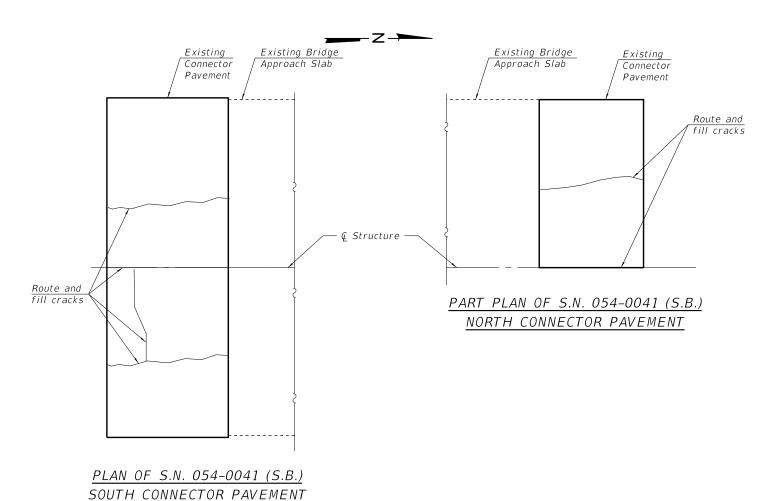
Reinforcement bars designated (E) shall be epoxy coated.

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 reinforcement extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50°F. The deck surface shall have its final finish tined according to Article 420.09 (e)

(1) of the Standard Specification. Cost is included with Concrete Superstructure. Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign materials shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.



TOTAL BILL OF MATERIAL S.N. 054-0041 (S.B.)

	ITEM	UNIT	SUPER	SUB	TOTAL
	Joint or Crack Routing (PC Concrete Pavement and Shoulder)	Foot	115		115
	Joint or Crack Filling	Pound	40		40
	Concrete Removal	Cu. Yd.	9.8		9.8
	Concrete Superstructure	Cu. Yd.	9.8		9.8
*	Protective Coat	Sq. Yd.	26		26
	Reinforcement Bars, Epoxy Coated	Pound	1,130		1,130
	Bar Splicers	Each	12		12
	Preformed Joint Strip Seal	Foot	116.0		116.0
	Strip Seal Gland Replacement	Foot	116.0		116.0
	Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.		90	90

TOTAL BILL OF MATERIAL S.N. 054-0042 (N.B.)

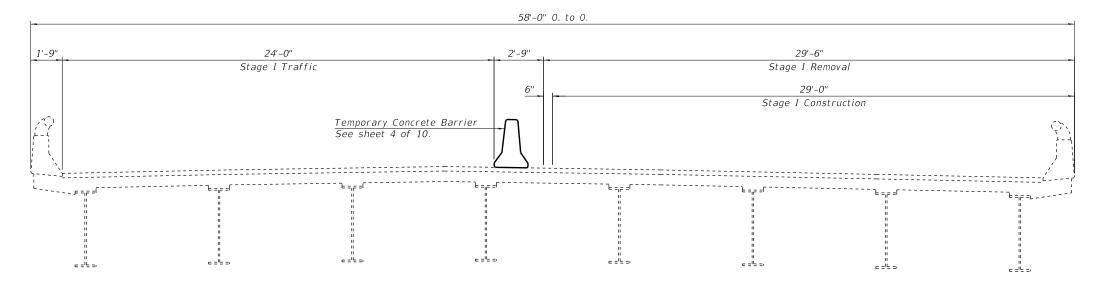
	ITEM	UNIT	SUPER	SUB	TOTAL
	Concrete Removal	Cu. Yd.	9.8		9.8
	Concrete Superstructure	Cu. Yd.	9.8		9.8
	Concrete Superstructure (Approach Slab)	Cu. Yd.	42.7		42.7
*	Protective Coat	Sq. Yd.	146		146
	Reinforcement Bars, Epoxy Coated	Pound	9,970		9,970
	Bar Splicers	Each	12		12
	Preformed Joint Strip Seal	Foot	116.0		116.0
	Strip Seal Gland Replacement	Foot	116.0		116.0
	Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.		53	53

* New concrete areas only

Note:

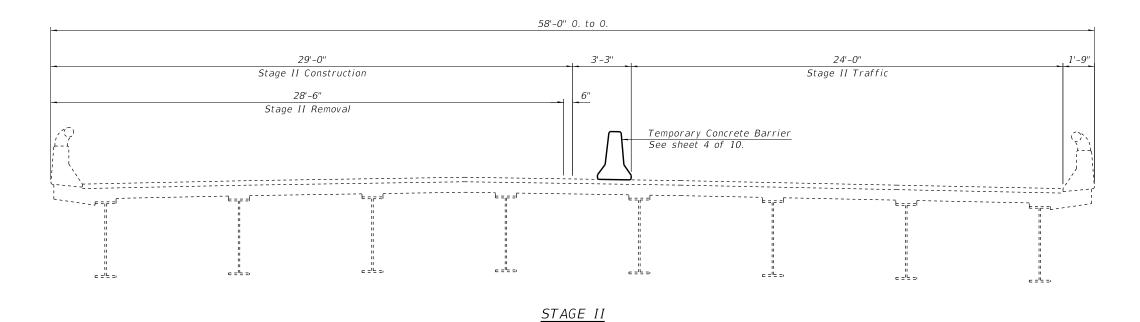
See roadway plans for Approach Slab Removal quantity.

7	USER NAME =	DESIGNED -	CBW	REVISED -	
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	PLOT SCALE =	DRAWN -	CBW	REVISED -	
	PLOT DATE =	CHECKED -	MAC	REVISED -	



<u>STAGE I</u> <u>CROSS SECTION</u>

Looking North (N.B.) Looking South (S.B.)



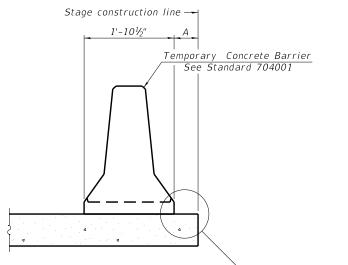
CROSS SECTION

Looking North (N.B.)
Looking South (S.B.)

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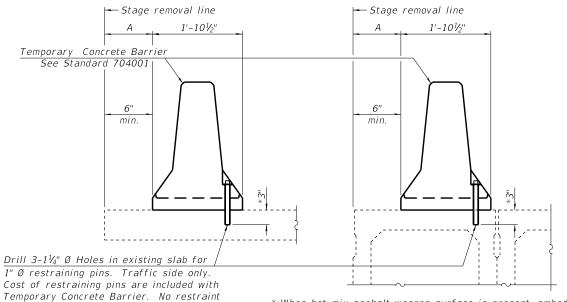
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	CHECKED - JJD	REVISED -
PLOT SCALE =	DRAWN - CBW	REVISED -
PLOT DATE =	CHECKED - MAC	REVISED -

STAGE CONSTRUCTION DETAILS	F.AI RTE	SECTION	COUNTY	TOTAL SHEETS
STRUCTURE NO. 054-0041 (S.B.) & 054-0042 (N.B.)	55	(54-3 RS-2, 23 RS-5) BR LOGAN 146		
3111001011L NO. 034-0041 (3.D.) & 034-0042 (N.D.)			CONTRACT	Γ NO. 72
SHEET 3 OF 10 SHEETS		ILLINOIS FED. AI	D PROJECT	



- See Detail I, II or III When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



* When hot-mix asphalt wearng surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

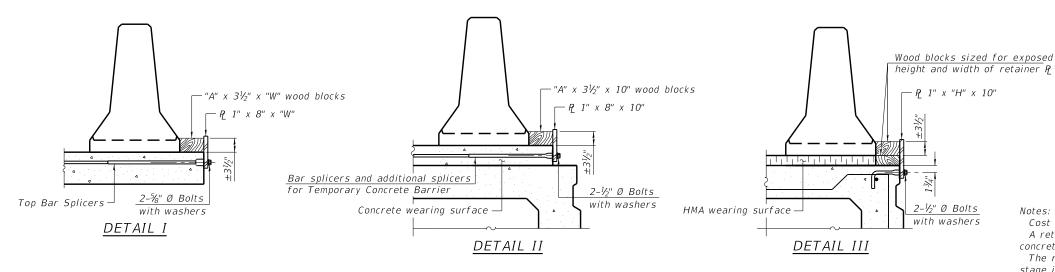
1x8 UNC US Std. 11/16" I.D. x 21/2" O.D. x approx. 8 guage thick washer

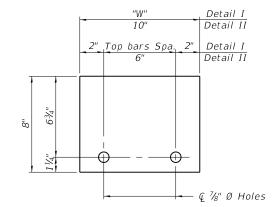
RESTRAINING PIN

SECTIONS THRU SLAB OR DECK BEAM

is required when "A" is greater than 3'-1".

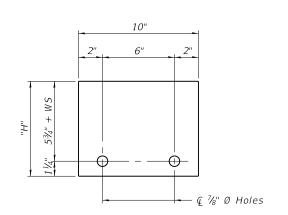
EXISTING SLAB



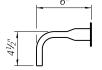


STEEL RETAINER P 1" x 8" x "W"

(Detail I and II)



STEEL RETAINER P 1" x "H" x 10" (Detail III)



BAR SPLICER FOR #4 BAR - DETAIL III

Cost of retainer assembly is included with Temporary Concrete Barrier. A retainer assembly shall be located at the approximate (of each temporary

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than $1\frac{1}{2}$ ", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

- Detail I Installation for a new bridge deck or bridge slab.
- Detail II Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.
- Detail III Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

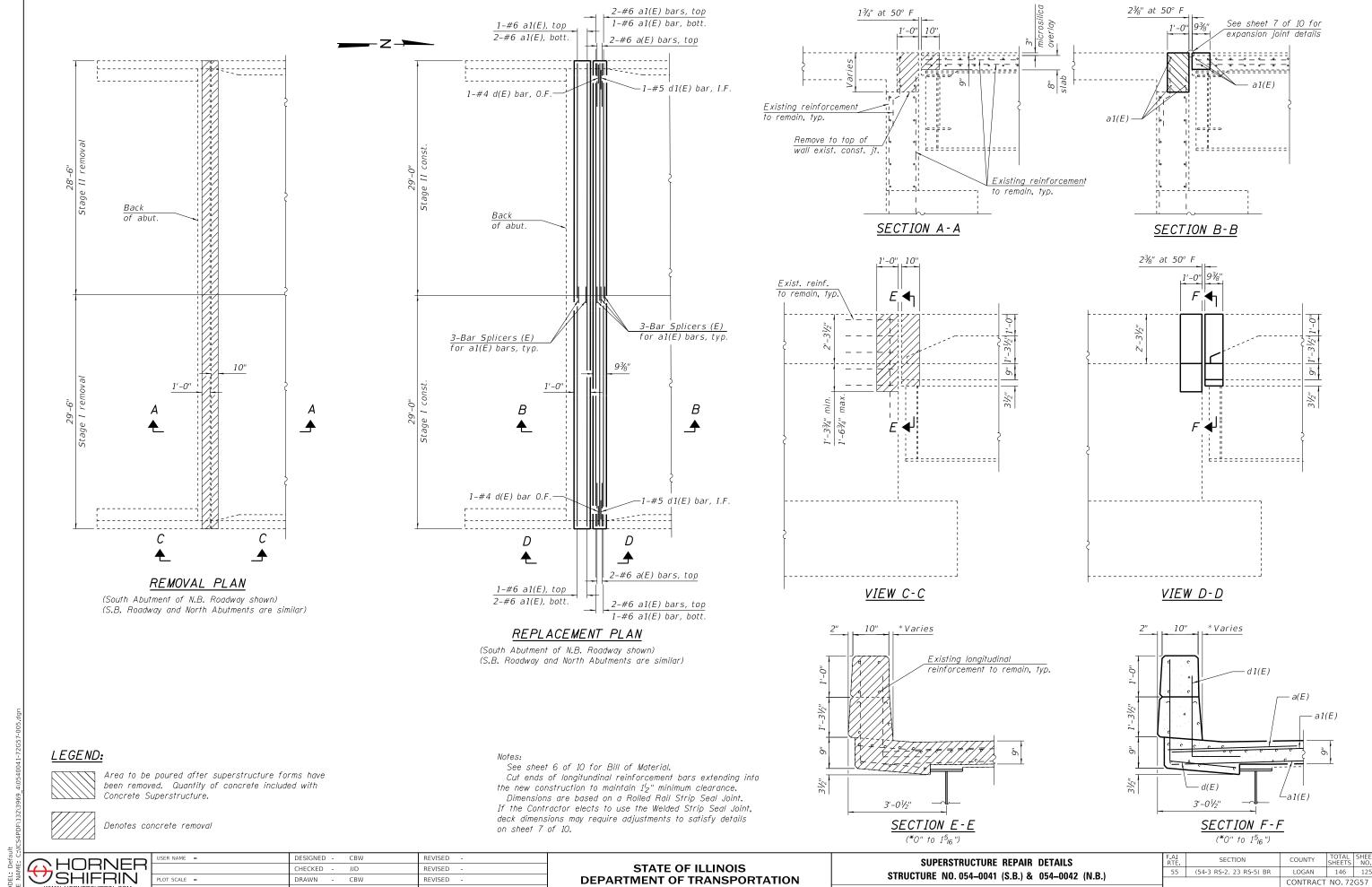
R-27

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	PLOT SCALE =	DRAWN -	CBW	REVISED -
	PLOT DATE =	CHECKED -	MAC	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION STRUCTURE NO. 054-0041 (S.B.) & 054-0042 (N.B.) SHEET 4 OF 10 SHEETS

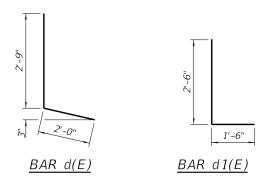
(54-3 RS-2, 23 RS-5) BR LOGAN 146 124 CONTRACT NO. 72G57



REVISED

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SUPERSTRUCTURE BILL OF MATERIAL S.N. 054-0041 (S.B.)

Bar	No.	Size	Length	Shape
a(E)	8	#6	6'-0"	
a1(E)	24	#6	28'-6"	
d(E)	4	#4	4'-9"	/
d1(E)	4	#5	4'-0"	
Concrete Removal			Cu. Yd.	9.8
Concrete		Cu. Yd.	9.8	
Supers	structur	e	Ca. ra.	9.0
Reinfo	rcemen	t Bars,	Pound	1,130
Ероху	Coated		Found	1,130

SUPERSTRUCTURE BILL OF MATERIAL S.N. 054-0042 (N.B.)

Bar	No.	Size	Length	Shape
a(E)	8	#6	6'-0"	
a1(E)	24	#6	28'-6"	
d(E)	4	#4	4'-9"	
d1(E)	4	#5	4'-0"	L
Concre	te Rem	oval	Cu. Yd.	9.8
Concre Supers	rte structur	·e	Cu. Yd.	9.8
	rcemen Coated		Pound	1,130

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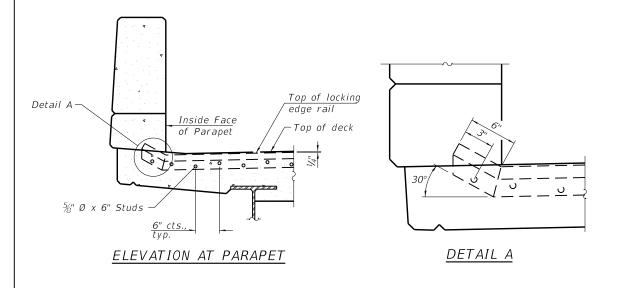
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

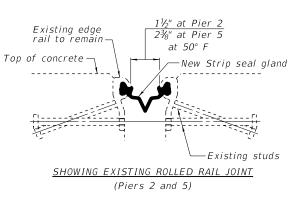
SUPERSTRUCTURE REPAIR DETAILS

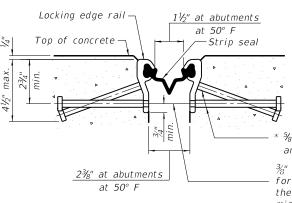
STRUCTURE NO. 054–0041 (S.B.) & 054–0042 (N.B.)

SHEET 6 OF 10 SHEETS

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SHOWING ROLLED RAIL JOINT (South and North Abutments)

⅓" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs) -

 $\frac{3}{8}$ " ϕ threaded rods in $\frac{7}{16}$ " ϕ holes at ± 4 '-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

Locking edge rail-

SHOWING WELDED RAIL JOINT

Top of concrete

SECTION A-A

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of $\frac{1}{4}$ ". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches for abutments and Pier 2, and $4\frac{1}{2}$ inches at Pier 5.

The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised according to the manufacturer's

The manufacturer's recommended installation methods shall be followed. All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

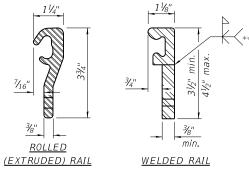
The Maximum space between locking edge rail segments shall be $\frac{3}{16}$ " and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.

34" F-shape barrier shown, 42" F-shape similar as noted

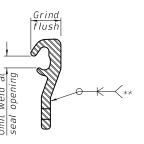
The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.

Cost of removing existing Preformed Joint Strip Seal gland and installing new Preformed Joint Strip Seal gland at Pier 2 and Pier 5 is included with Strip Seal Gland Replacement cost.



LOCKING EDGE RAILS

** Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL S.N. 054-0042 (N.B.

S.N. 054-0041 (S.B.) Prefor Strip

 $1\frac{1}{2}$ " at abutments

at 50° F

-Strip seal

3" at abutments

at 50° F

BILL OF MATERIAL

31111 03 1 00 11 (3	<u>,</u>		<u> </u>
Item	Unit	Total	Item
rmed Joint Strip Seal	Foot	116.0	Preformed Joint Strip
Seal Gland Replacement	Foot	116.0	Strip Seal Gland Repla

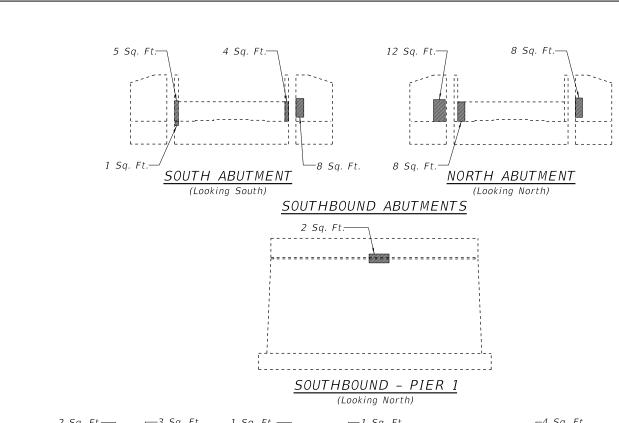
Item	Unit	Total
Preformed Joint Strip Seal	Foot	116.0
Strip Seal Gland Replacement	Foot	116.0

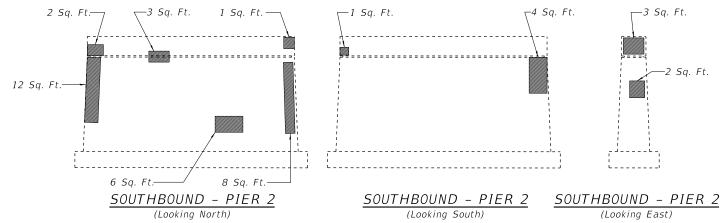
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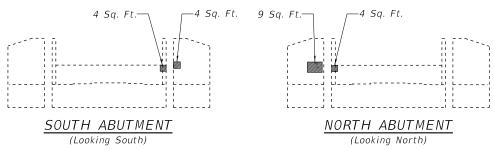
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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

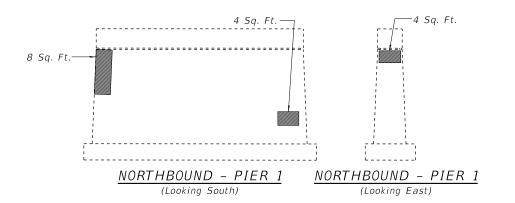
SECTION COUNTY MODIFIED PREFORMED JOINT STRIP SEAL DETAILS (54-3 RS-2, 23 RS-5) BR LOGAN 146 127 STRUCTURE NO. 054-0041 (S.B.) & 054-0042 (N.B.) CONTRACT NO. 72G57 OF 10 SHEETS

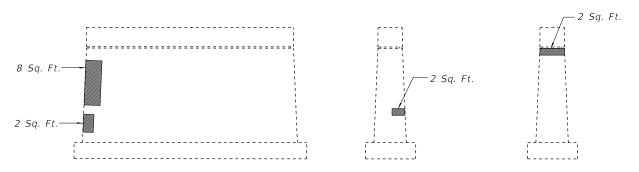




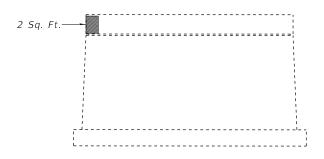


NORTHBOUND ABUTMENTS





NORTHBOUND - PIER 2	NORTHBOUND - PIER 2	NORTHBOUND - PIER 2
(Looking North)	(Looking East)	(Looking West)



NORTHBOUND - PIER 3 (Looking North)

BILL OF MATERIAL S.N. 054-0041 (S.B.)

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.	90

BILL OF MATERIAL S.N. 054-0042 (N.B.,

ITEM	UNIT	TOTAL	ITEM	UNIT	TOTAL
al Repair ete (Depth or Less nches)	Sq. Ft.	90	Structural Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.	53

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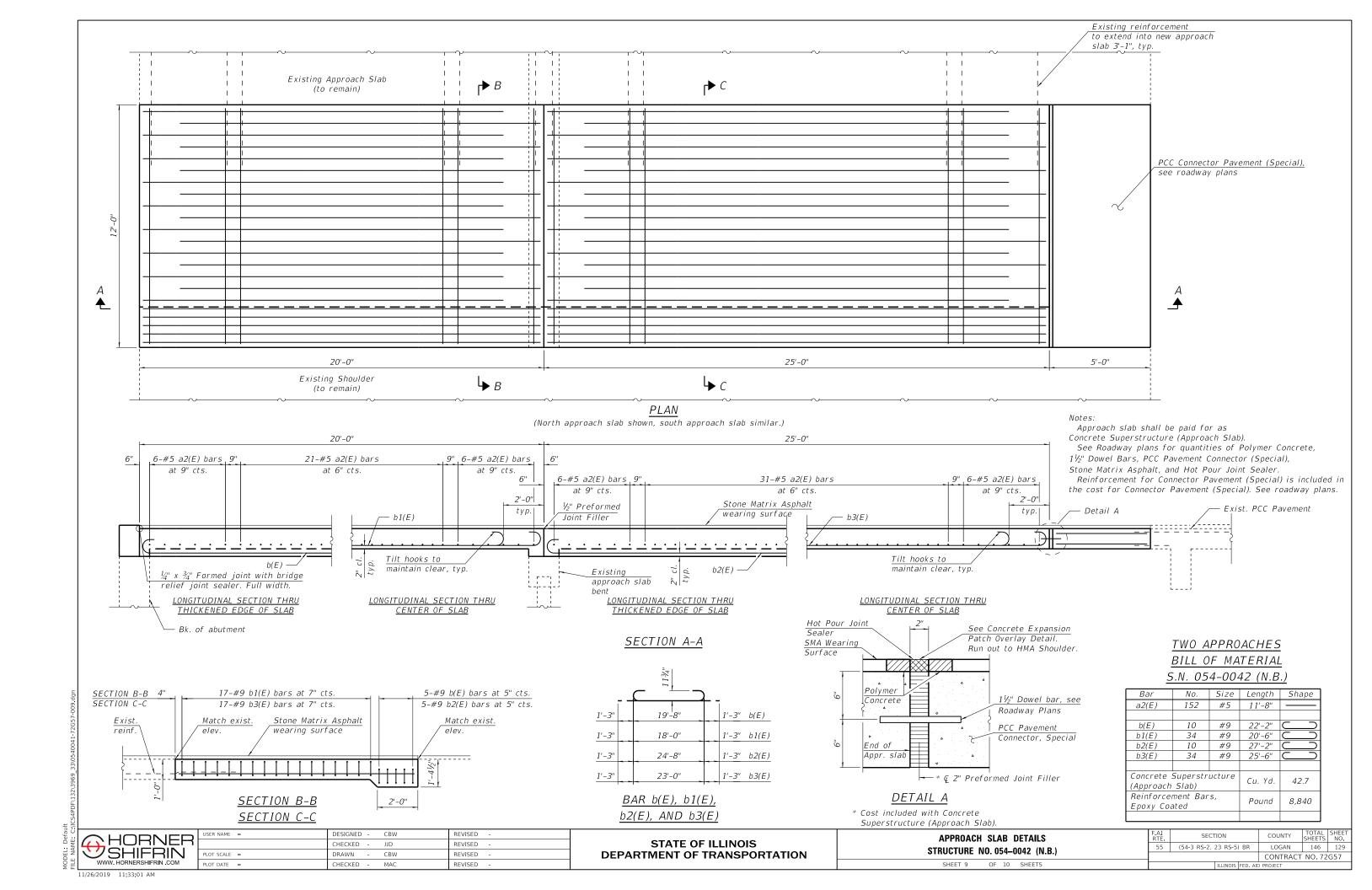
<u>LEGEND</u>

Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)

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	PLOT DATE =	CHECKED -	MAC	REVISED -

F.AI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.
55	(54-3 RS-2, 23 RS-5) BR	LOGAN	146	128
		CONTRACT	NO. 72	G57
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STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + $1\frac{1}{2}$ " + thread length

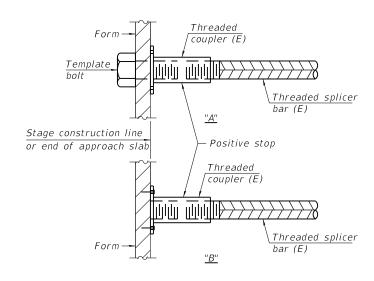
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

S.N. 054-0041 (S.B.)

Location	Bar	No. assemblies	Minimum
Location	size	required	lap length
Abutment	#6	6	5'-6"
Deck	#6	6	4'-5"

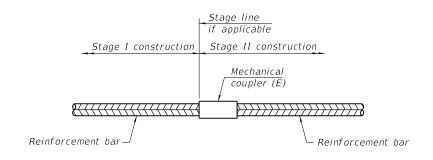
S.N. 054-0042 (N.B.)

Location	Bar size	No. assemblies required	Minimum lap length
Abutment	#6	6	5'-6"
Deck	#6	6	4'-5"



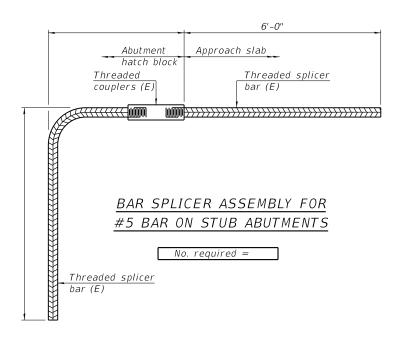
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt. "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms. (E): Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

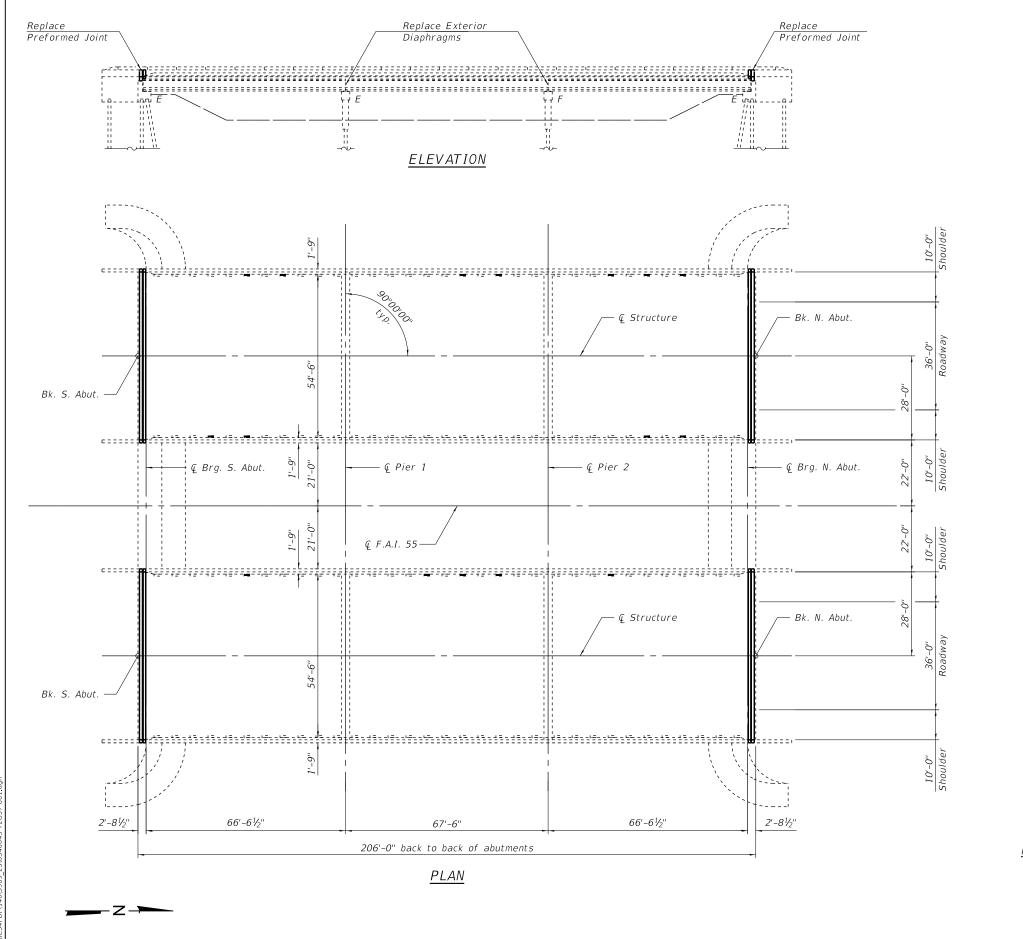
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F.AI RTE	SECTION		COUNTY	TOTAL SHEETS	SHEE NO.
55	(54-3 RS-2, 23 RS-5) BF	₹	LOGAN	146	130
·		CONTRACT	NO. 72	G57	
	ILLINOIS FED	. AIE	PROJECT		

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INDEX OF SHEETS

- 1. General Plan and Elevation
- 2. General Data
- 3. Stage Construction Details
- 4. Temporary Concrete Barrier For Stage Construction
- 5. Superstructure Repair Details
- 6. Modified Preformed Joint Strip Seal Details
- 7. Structural Concrete Repair Details
- 8. Bar Splicer Assembly and Mechanical Splicer Details

SCOPE OF WORK

- 1. Perform joint reconstruction at abutments.
- 2. Structural repair of concrete on abutments and piers.
- 3. Replace damaged or missing drain extensions.
- 4. Fill voids under slopewalls with CLSM.
- 5. Repair exterior diaphragms at piers.



Jon Serner 11.27.2019

LEGEND:

Location of plugged or drains not requiring a deck drain extension.

Location of deck drain requiring a Deck Drain Extension.

<u>DESIGN STRESSES</u>
FIELD UNITS (NEW CONSTRUCTION)

f'c = 4,000 psi (Superstructure) fy = 60,000 psi (Reinforcement)

SHEET 1

GENERAL PLAN AND ELEVATION

I-55 OVER SALT CREEK OVERFLOW

F.A.I. ROUTE 55

SECTION (54-3 RS-2, 23 RS-5) BR LOGAN COUNTY

STRUCTURE NO. 054-0043 (N.B.)
STRUCTURE NO. 054-0044 (S.B.)

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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

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Reinforcement bars designated (E) shall be epoxy coated.

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

Existing reinforcement extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50°F.

The deck surface shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specification. Cost is included with Concrete Superstructure.

2 Sq. Yd. Est. CLSM vol.=11 Cu. Yd.

Est. CLSM vol.=9 Cu. Yd.

A + +----

The Contractor shall use extreme care during the concrete removal so as not to damage the PPC I-Beams.

GENERAL NOTES

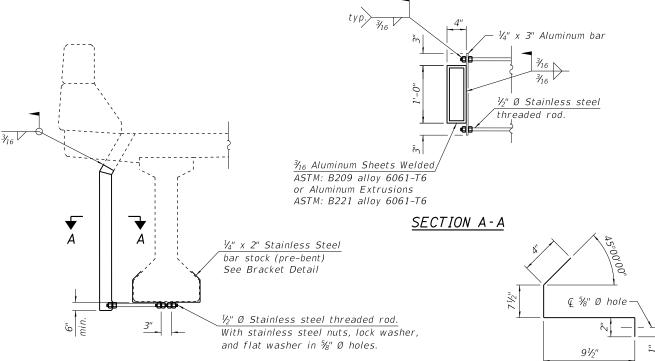
TOTAL BILL OF MATERIAL S.N. 054-0043 (N.B.)

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	7.9		7.9
Slope Wall Removal	Sq. Yd.		4	4
Concrete Superstructure	Cu. Yd.	7.9		7.9
* Protective Coat	Sq. Yd.	26		26
Reinforcement Bars, Epoxy Coated	Pound	1,160		1,160
Bar Splicers	Each	12		12
Slope Wall 6 Inch	Sq. Yd.		4	4
Preformed Joint Strip Seal	Foot	116.0		116.0
Controlled Low Strength Material	Cu. Yd.		18	18
Pumpable Concrete Mix	Cu. Ft.	2.7		2.7
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.		28	28
Deck Drain Extensions	Each	5		5

TOTAL BILL OF MATERIAL S.N. 054-0044 (S.B.)

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	7.9		7.9
Slope Wall Removal	Sq. Yd.		7	7
Concrete Superstructure	Cu. Yd.	7.9		7.9
Protective Coat	Sq. Yd.	26		26
Reinforcement Bars, Epoxy Coated	Pound	1,160		1,160
Bar Splicers	Each	12		12
Slope Wall 6 Inch	Sq. Yd.		7	7
Preformed Joint Strip Seal	Foot	116.0		116.0
Controlled Low Strength Material	Cu. Yd.		41	41
Pumpable Concrete Mix	Cu. Ft.	2.7		2.7
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.		131	131
Deck Drain Extensions	Each	11		11

* New concrete areas only.



DRAIN EXTENSION DETAIL

Welding shall be used to attach drain extension to existing floor drain. Cost of bracket is included with Deck Drain Extensions.

BRACKET DETAIL



Denotes limits of Slope Wall Removal and Slope Wall 6 Inch.

LEGEND

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	PLOT DATE =	CHECKED -	MAC	REVISED -	

PLAN OF SLOPEWALLS

Est. CLSM vol.=6 Cu. Yd.

Est. CLSM vol.=6 Cu. Yd.

2 Sq. Yd. Est. CLSM vol.=9 Cu. Yd.

1 Sq. Yd.

<u>1 Sq. Y</u>d.

1 Sq. Yd.

1 Sq. Yd.

Est. CLSM vol.=9 Cu. Yd.

Est. CLSM vol.=2 Cu. Yd.

Est. CLSM vol.=2 Cu. Yd.

1 Sq. Yd.

Est. CLSM vol.=5 Cu. Yd.

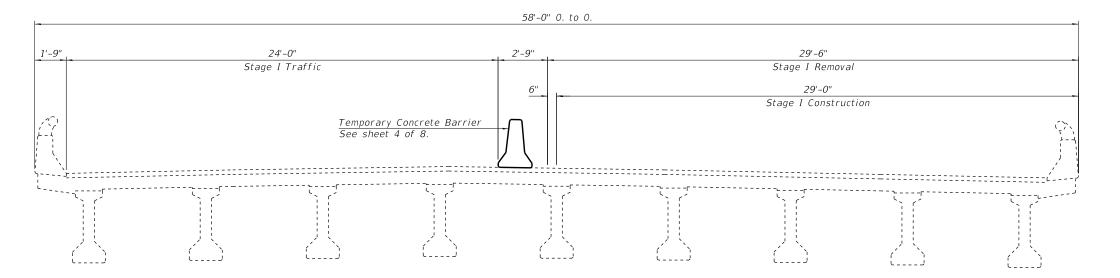
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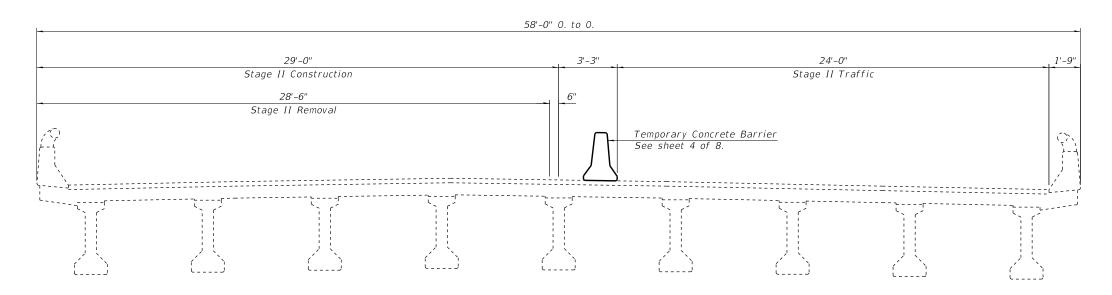
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

GENERAL DATA STRUCTURE NO. 054-0043 (N.B.) & 054-0044 (S.B.)		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		(54-3 RS-2, 23 RS-5) BR	LOGAN	146	132
			CONTRACT	NO. 72	G57
SHEET 2 OF 8 SHEETS		ILLINOIS FED. AII	PROJECT		



<u>STAGE I</u> CROSS SECTION

Looking North (N.B.) Looking South (S.B.)



STAGE II CROSS SECTION

Looking North (N.B.) Looking South (S.B.)

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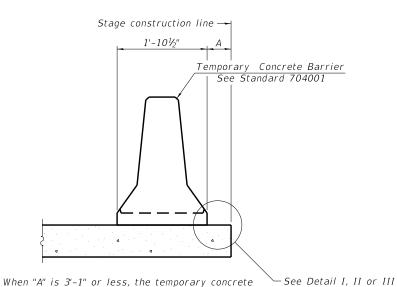
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PLOT SCALE =	DRAWN - JDH	REVISED -	
PLOT DATE =	CHECKED - MAC	REVISED -	

STAGE CONSTRUCTION DETAILS		SECTIO
STRUCTURE NO. 054-0043 (N.B.) & 054-0044 (S.B.)		(54-3 RS-2, 23
3111001011L NO. 034-0043 (N.D.) & 034-0044 (3.D.)		
SHEET 3 OF 8 SHEETS		

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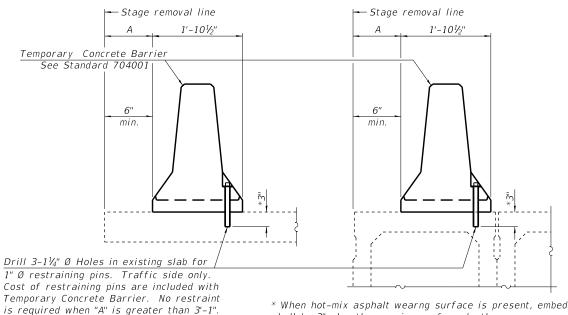
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barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM

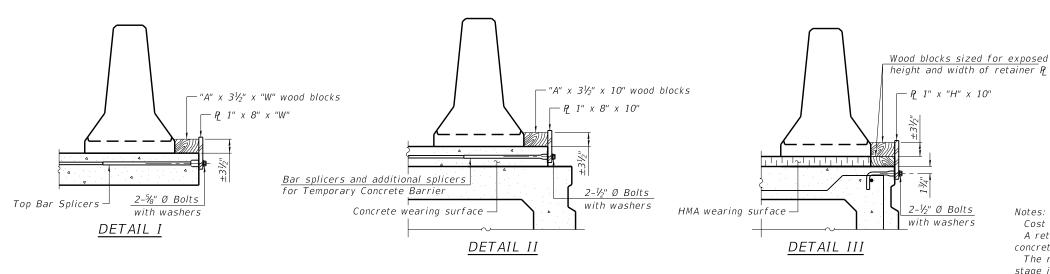


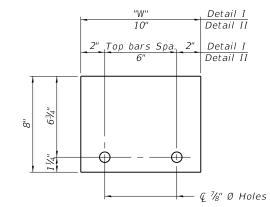
* When hot-mix asphalt wearng surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

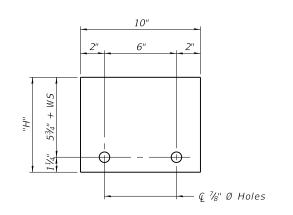
EXISTING SLAB



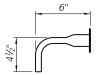


STEEL RETAINER P 1" x 8" x "W"

(Detail I and II)



STEEL RETAINER P 1" x "H" x 10" (Detail III)



RESTRAINING PIN

BAR SPLICER FOR #4 BAR - DETAIL III

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier. A retainer assembly shall be located at the approximate Q of each temporary concrete barrier.

1x8 UNC

US Std. 11/16" I.D. x 21/2" O.D. x approx. 8 guage thick washer

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than $1\frac{1}{2}$ ", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

- Detail I Installation for a new bridge deck or bridge slab.
- Detail II Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.
- Detail III Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

R-27

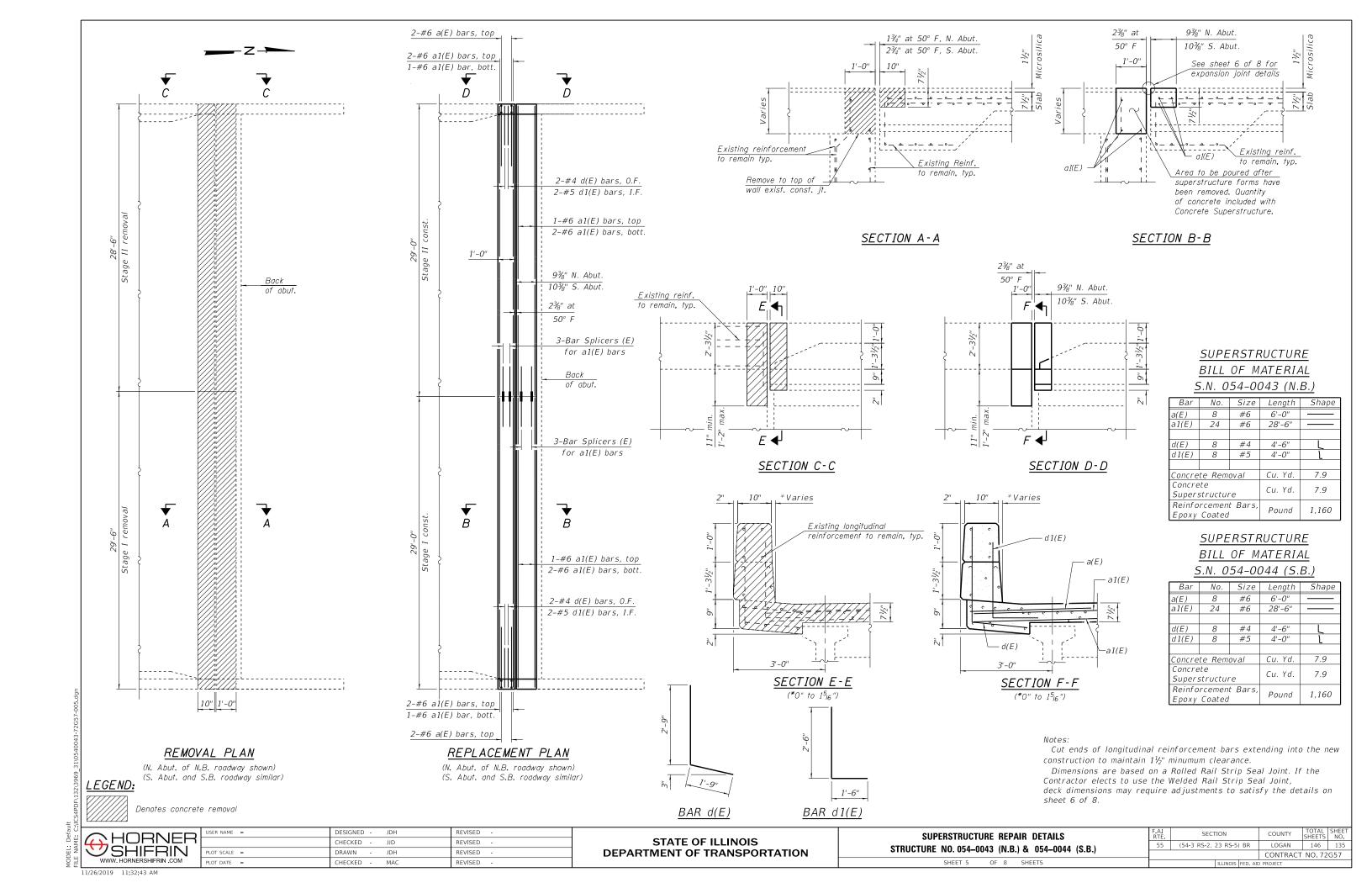
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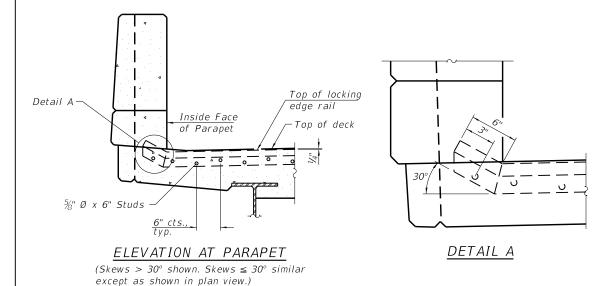
٦.	USER NAME =	DESIGNED -	JDH	REVISED -
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	PLOT SCALE =	DRAWN -	JDH	REVISED -
	PLOT DATE =	CHECKED -	MAC	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

	RRIER FOR STAGE CONSTRUCTION 0043 (N.B.) & 054–0044 (S.B.)
SHEET 4	OF 8 SHEETS

F.AI RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(54-3 RS-2, 23 RS-5) BR	LOGAN	146	134
		CONTRACT	NO. 72	G57
	ILLINOIS FED AIR	PROJECT		





Locking edge railat 50° F Top of concrete ∕—Strip seal * $\frac{1}{8}$ " Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs) at 50° F $\frac{3}{6}$ " ϕ threaded rods in $\frac{7}{16}$ " ϕ holes at ± 4 '-0" cts.

SHOWING ROLLED RAIL JOINT

at 50° F

at 50° F

Locking edge rail -

Top of concrete

SECTION A-A

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

for holding the proper joint opening based on

the temperature during the deck pour. Place to

miss studs. All rods shall be burned, or sawed

off flush with the plates after concrete is set.

SHOWING WELDED RAIL JOINT

STATE OF ILLINOIS

The strip seal shall be made continuous and shall have a minimum thickness of $\frac{1}{4}$ ". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

The Maximum space between locking edge rail segments shall be $\frac{3}{16}$ " and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.

34" F-shape barrier shown, 42" F-shape similar as noted. The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.

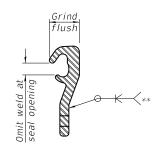
3/8" **ROLLED** WELDED RAIL (EXTRUDED) RAIL

LOCKING EDGE RAILS

** Back gouge not required if complete joint penetration is verified by mock-up.

BILL OF MATERIAL S.N. 054-0043 (N.B.)

Item	Unit	Total
Preformed Joint Strip Seal	Foot	116.0



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL S.N. 054-0044 (S.B.)

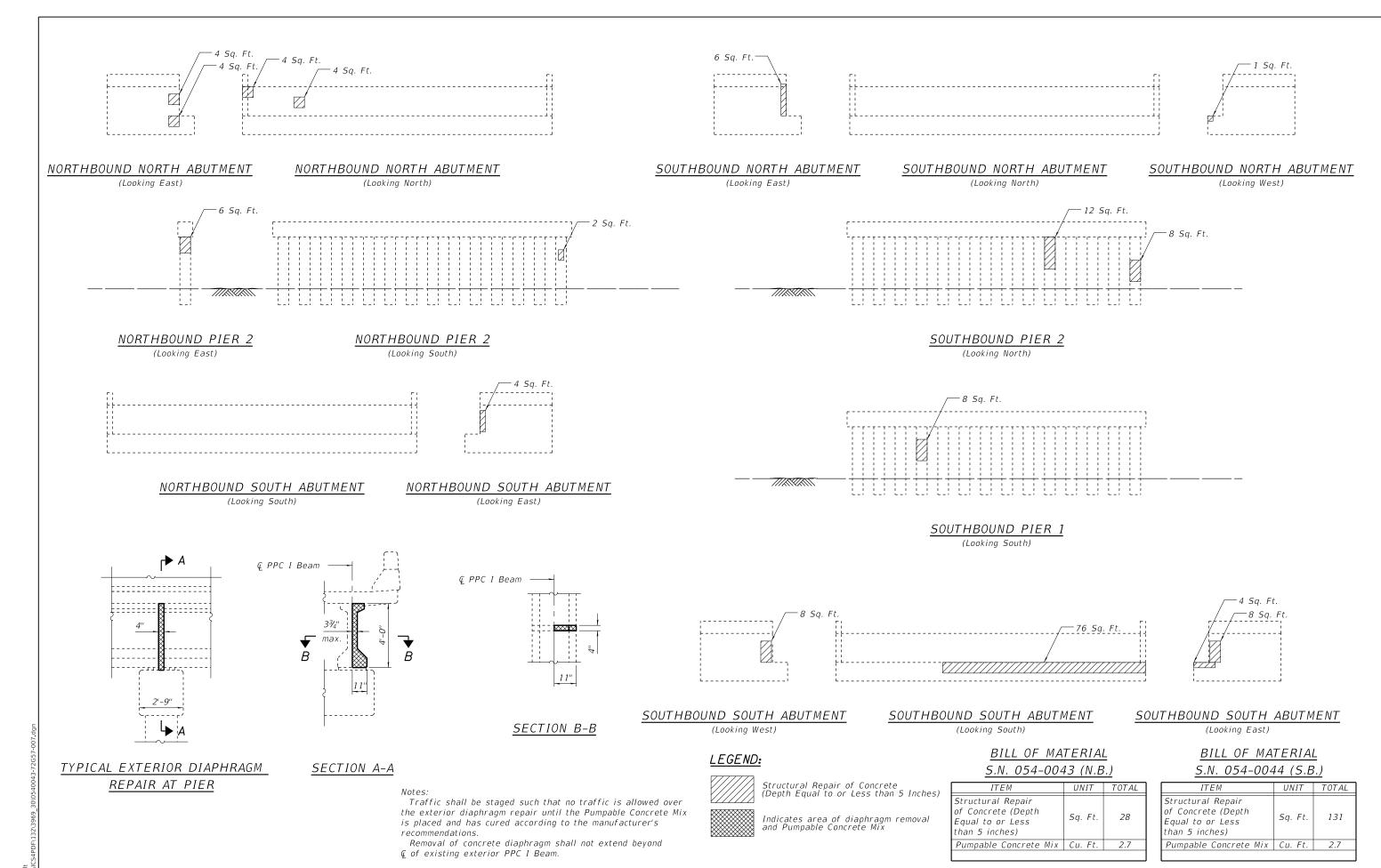
Item	Unit	Total
Preformed Joint Strip Seal	Foot	116.0



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DEPARTMENT OF TRANSPORTATION

SECTION COUNTY MODIFIED PREFORMED JOINT STRIP SEAL DETAILS (54-3 RS-2, 23 RS-5) BR LOGAN 146 136 STRUCTURE NO. 054-0043 (N.B.) & 054-0044 (S.B.) CONTRACT NO. 72G57 SHEET 6 OF 8 SHEETS



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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

STRUCTURAL CONCRETE REPAIR DETAILS STRUCTURE NO. 054-0043 (N.B.) & 054-0044 (S.B.)

AI TE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
55	(54-3 RS-2, 23 RS-5) BF	}	LOGAN	146	137
•			CONTRACT	NO. 72	G57
	ILLINOIS FED	. AII	PROJECT		

STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + $1\frac{1}{2}$ " + thread length

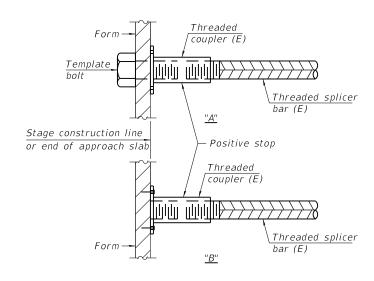
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

S.N. 054-0043 (N.B.)

Location	Bar	No. assemblies	Minimum
Location	size	required	lap length
Abutment	#6	6	5'-6"
Deck	#6	6	4'-5"

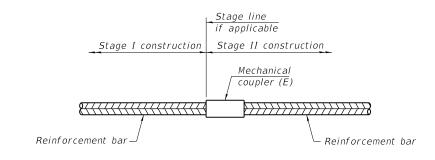
S.N. 054-0044 (S.B.)

Location	Bar size	No. assemblies required	Minimum lap length
Abutment	#6	6	5'-6"
Deck	#6	6	4'-5"



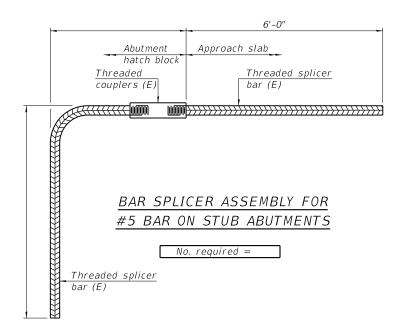
INSTALLATION AND SETTING METHODS

"A": Set bar splicer assembly by means of a template bolt.
"B": Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E): Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

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F.AI RTE	SECTION	COUNTY	TOTAL SHEETS	SHEE	
55	(54-3 RS-2, 23 RS-5)	BR	LOGAN	146	138
			CONTRACT	NO. 72	G57
	ILLINOIS F	ED. AID	PROJECT		

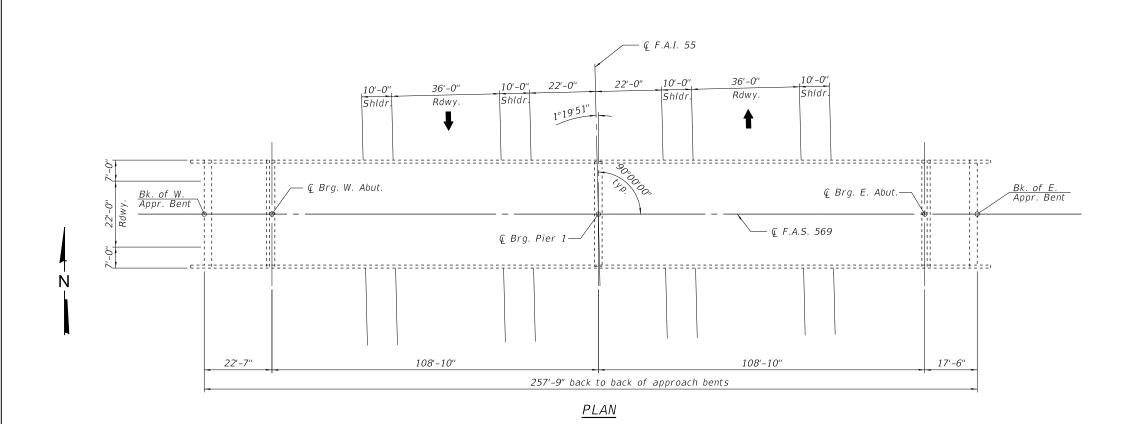
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INDEX OF SHEETS

- General Plan and Elevation
 General Data
 Pier Repair Details

SCOPE OF WORK

- 1. Replace preformed joint seals
- 2. Raise pier crash wall.



ELEVATION

N.B. I-55

S.B. I-55



GENERAL PLAN AND ELEVATION CH E52 OVER I-55 F.A.S. 569 SECTION (54-3 RS-2, 23 RS-5) BR

LOGAN COUNTY STRUCTURE NO. 054-0045

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	PLOT DATE =	CHECKED -	JJD	REVISED -

SHEET 1

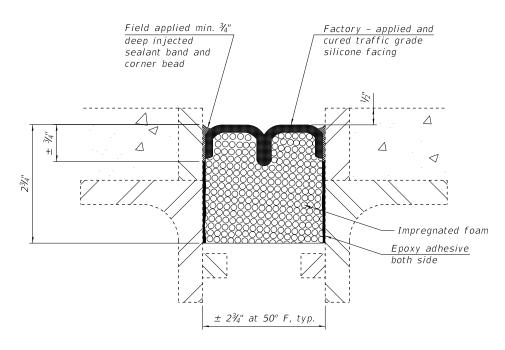
OF 3 SHEETS

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated. 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

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Structures	Cu. Yd.		5.8	5.8
Reinforcement Bars, Epoxy Coated	Pound		520	520
Preformed Joint Seal, 2¾"	Foot	72.0		72.0



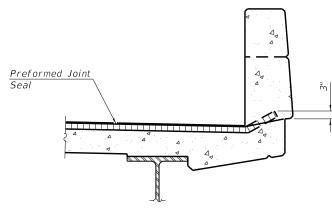
PREFORMED JOINT SEAL DETAILS

Notes:

Joint seals shall be preformed pre-compressed silicone coated self-expanding sealant system.

The removal of the existing joint is included in the cost of the

preformed joint seal.



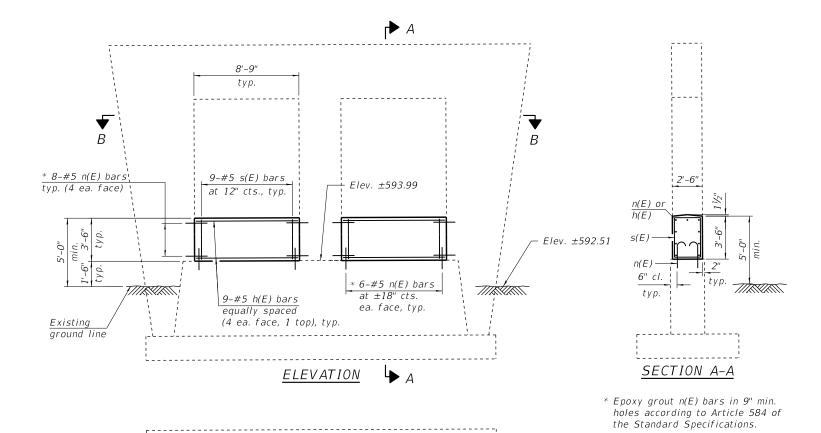
TYPICAL END OF SEALER TREATMENT

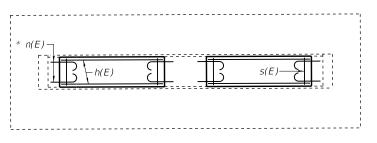
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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

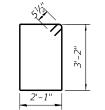
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SECTION COUNTY RS-2, 23 RS-5) BR LOGAN 146 140 CONTRACT NO. 72G57

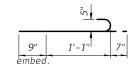




SECTION B-B



BAR s(E)



BAR n(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	18	#5	8'-6"	
n(E)	56	#5	2'-5"	
s(E)	18	#5	11'-5"	
Concre	te Stru	ctures	Cu. Yd.	5.8
Reinforcement Bars, Epoxy Coated		Pound	520	
		i oana	520	

The cost of epoxy grouting shall be included with Reinforcement Bars, Epoxy Coated.

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INDEX OF SHEETS

- 1. General Plan and Elevation
- 2. General Data
- 3. Stage Construction Details
- 4. Temporary Concrete Barrier For Stage Construction
- 5. Deck Slab Repairs

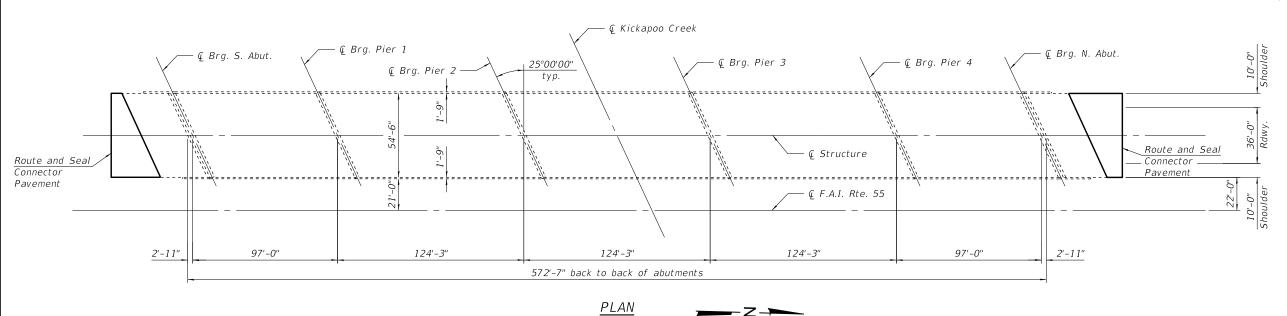


SCOPE OF WORK

- 1. Repair deck.
- 2. Route and seal connector pavements.



Expires 11/30/2020



GENERAL PLAN AND ELEVATION

I-55 OVER KICKAPOO CREEK

F.A.I. ROUTE 55

SECTION (54-3 RS-2, 23 RS-5) BR

LOGAN COUNTY

STRUCTURE NO. 054-0048 (S.B.)

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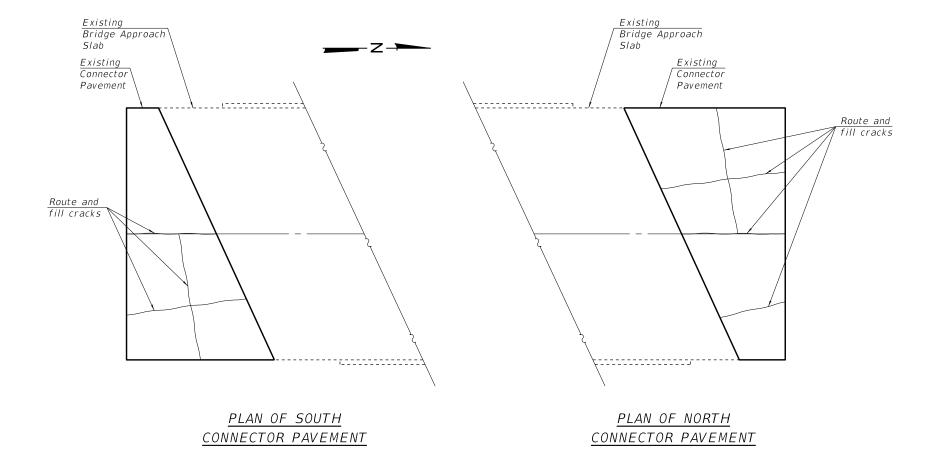
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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 scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Joint or Crack Routing (PC Concrete Pavement and Shoulder)	Foot	170		170
Joint or Crack Filling	Pound	50		50
Deck Slab Repair (Partial)	Sq. Yd.	34.6		34.6

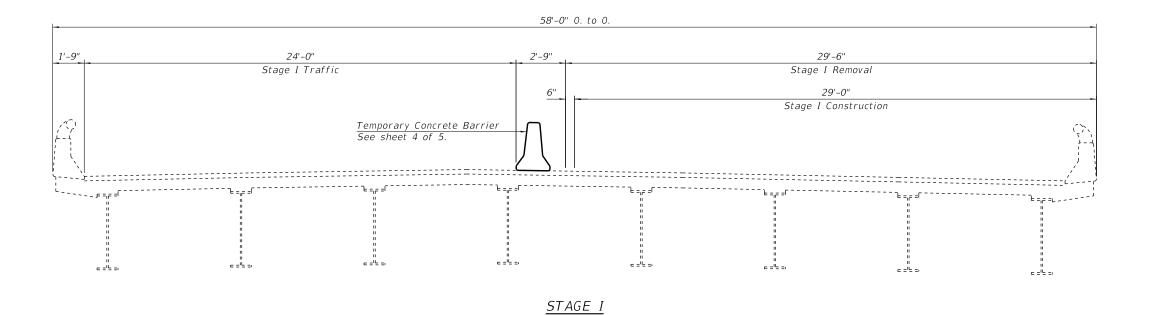


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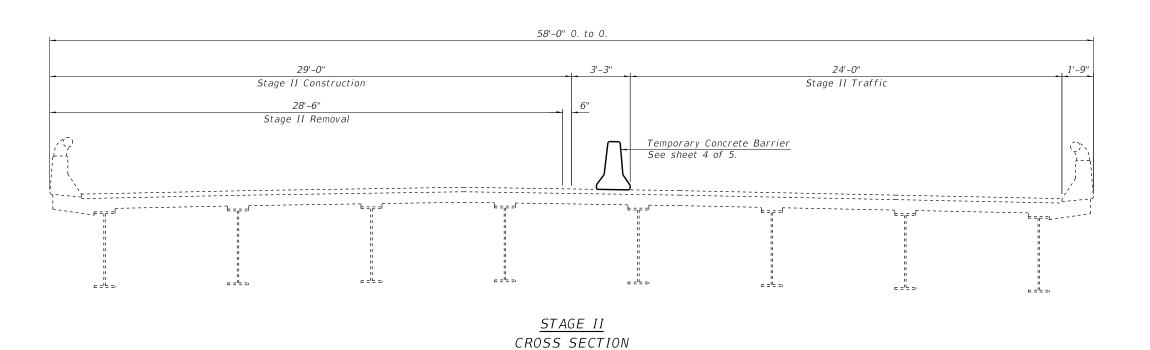
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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL DATA	F.A.I RTE	SECTION
TRUCTURE NO. 054-0048 (S.B.)	55	(54-3 RS-2, 23 RS-5) BR
111001011L NO. 034-0040 (S.B.)		
SHEET 2 OF 5 SHEETS		TI LINOIS SED



CROSS SECTION (Looking South)

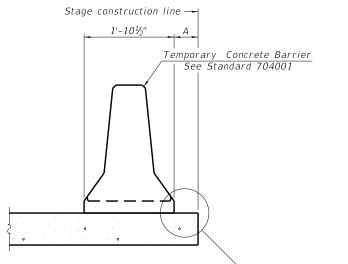


(Looking South)

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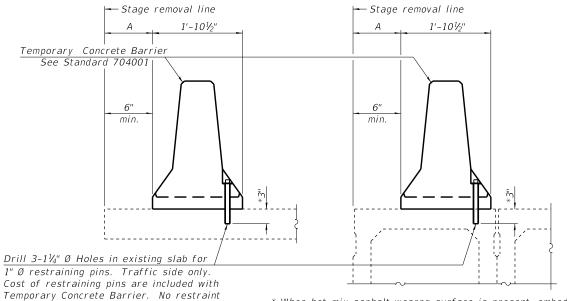
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SHEET 3	OF 5	SHEETS	

F.AI RTE				COUNTY	TOTAL SHEETS	SHEE NO.
55	(54-3 RS-2, 23 RS-5) BR			LOGAN	146	144
				CONTRACT	NO. 72	G57
		ILLINOIS	FED. AID	PROJECT		



When "A" is 3'-1" or less, the temporary concrete - See Detail I, II or III barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



* When hot-mix asphalt wearng surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

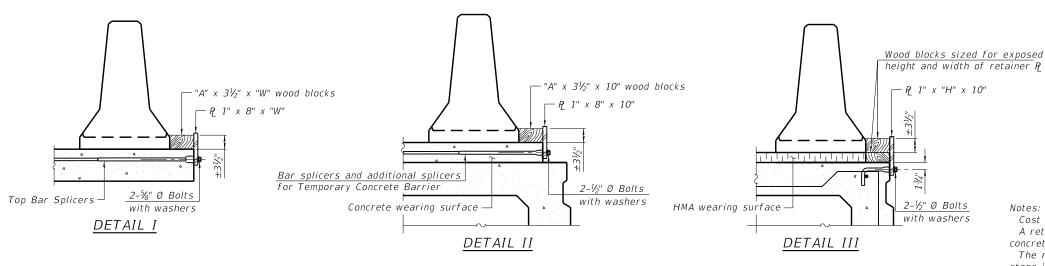
1x8 UNC US Std. 11/16" I.D. x 21/2" O.D. x approx. 8 guage thick washer

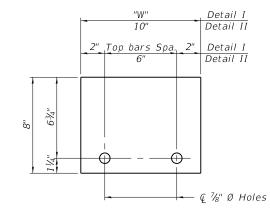
RESTRAINING PIN

SECTIONS THRU SLAB OR DECK BEAM

is required when "A" is greater than 3'-1".

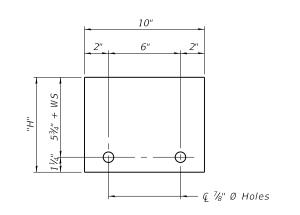
EXISTING SLAB





STEEL RETAINER P 1" x 8" x "W"

(Detail I and II)



STEEL RETAINER P 1" x "H" x 10" (Detail III)



BAR SPLICER FOR #4 BAR - DETAIL III

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier. A retainer assembly shall be located at the approximate Q of each temporary concrete barrier.

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than $1\frac{1}{2}$ ", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

- Detail I Installation for a new bridge deck or bridge slab.
- Detail II Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.
- Detail III Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

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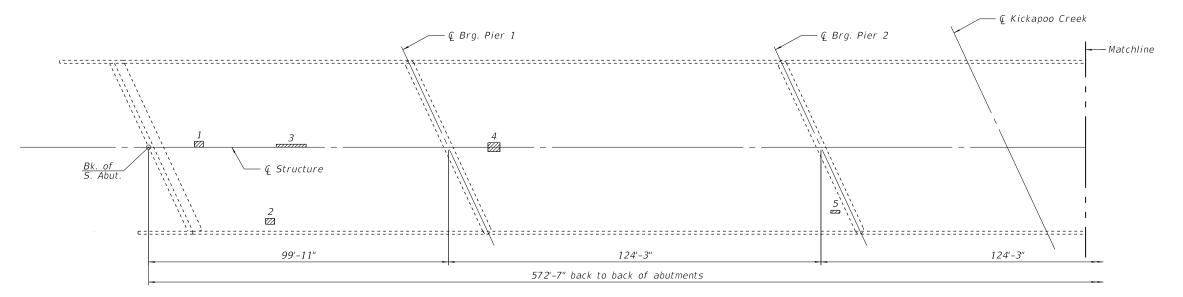
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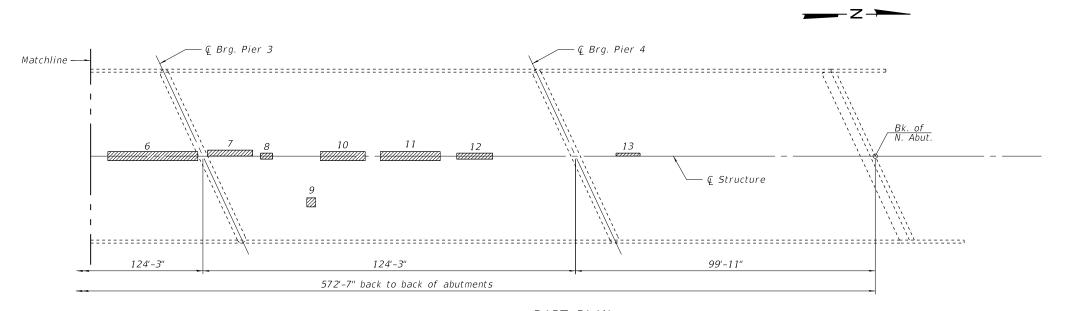
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	SHEET 4	OF	5	SHEETS	

F.AI RTE	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.	
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			CONTRACT	NO. 72	G57
ILLINOIS FED. AID			PROJECT		

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PART PLAN



PART PLAN

LEGEND:

Deck Slab Repair (Partial Depth)

Note:

Quantities and repair areas shown are estimated. Actual areas to be determined by the Resident Engineer and recorded on the As-Built Plans.

ANTICIPATED DECK SLAB REPAIR (PARTIAL DEPTH)

Patch	Width	Length	Quantity
#	(ft.)	(ft.)	(Sq. Yd.)
1	2	3	0.7
2	2	3	0.7
3	1	10	1.1
4	3	4	1.3
5	1	3	0.3
6	3	30	10
7	2	15	3.3
8	2	4	0.9
9	3	3	1.0
10	3	15	5.0
11	3	20	6.7
12	2	12	2.7
13	1	8	0.9

BILL OF MATERIAL

Item	Unit	Quantity
Deck Slab Repair (Partial Depth)	Sq. Yd.	34.6

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PLOT DATE =	CHECKED -	MAC	REVISED -

DECK SLAB REPAIRS	F.AI RTE	SECTI
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