

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	[90(107-2)HB]BJR,BDR,BRR	TAZEWELL	21	1
		ILLINOIS	CONTRACT NO. 68F75	

D-94-066-20



REPAIRS TO S.N. 090-0136 CARRYING TOWNLINE RD OVER I-155.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED December 17, 2021  
Ross A. Jones  
REGION THREE ENGINEER

February 4, 2022  
[Signature]  
ENGINEER OF DESIGN AND ENVIRONMENT

February 4, 2022  
[Signature]  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

03-11-2022 LETTING ITEM 110

**INDEX OF SHEETS**

1. COVER SHEET AND INDEX OF SHEETS
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5. SCHEDULES OF QUANTITIES
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7. PROPOSED PLAN
8. DETOUR DETAILS
9. TRAFFIC CONTROL DETAILS
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- 18-21. D4 CADD STANDARDS

**HIGHWAY STANDARDS**

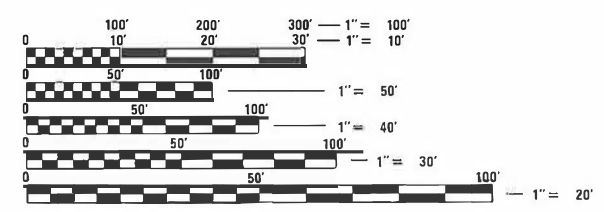
- 001001-02
- 542401-04
- 701006-05
- 701101-05
- 701301-04
- 701400-11
- 701406-13
- 701901-08

**I-155**

- ADT = 15600 (2019)
- SU = 4.16%
- MU = 13.46%

**TOWNLINE RD**

- ADT = 2150 (2018)
- SU = 4.65%
- MU = 7.44%



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811

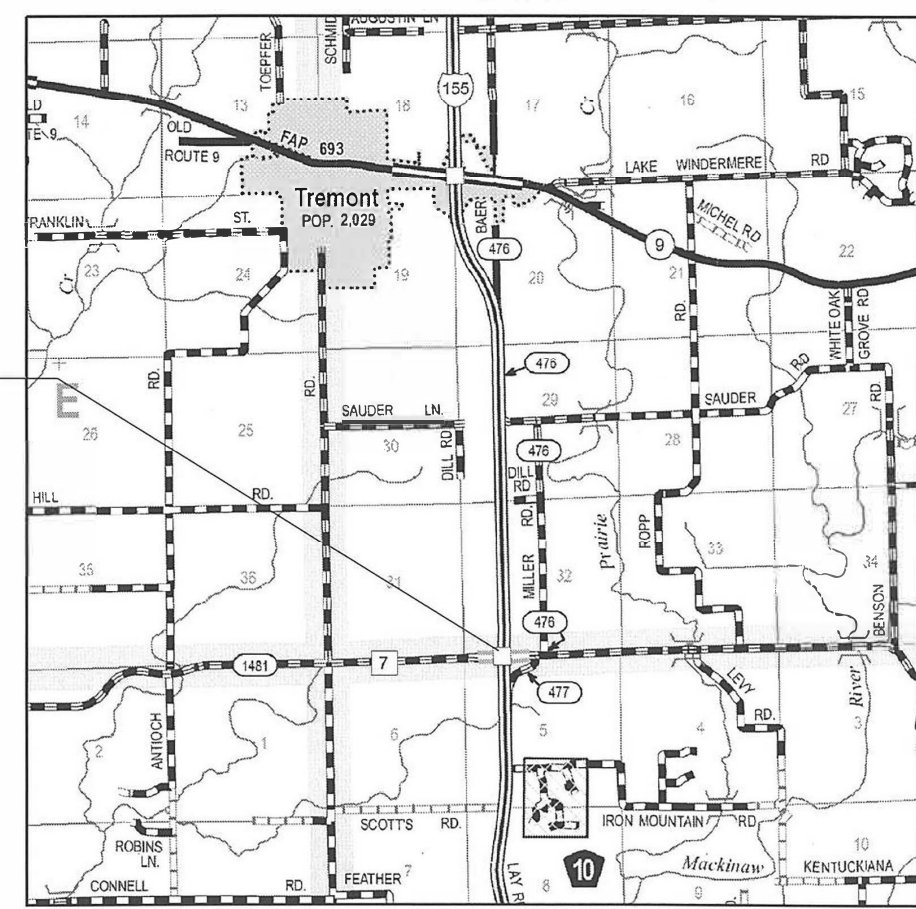
PROJECT ENGINEER RICH DOTSON (309-671-3455)  
PROJECT MANAGER MIA WRIGHT (309-671-3473)  
CATALOG NO. 036077-00D  
CONTRACT NO. 68F75

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
**PROPOSED  
HIGHWAY PLANS**

FAI ROUTE 155 (I-155)  
SECTION [90(107-2)HB]BJR,BDR,BRR  
PROJECT NHPP-80U2(099)  
TAZEWELL COUNTY

C-94-098-20

R 3 W



T 24 N

GROSS LENGTH = 319.50 FT. = 0.061 MILES  
NET LENGTH = 319.50 FT. = 0.061 MILES

**GENERAL NOTES**

**COMMITMENTS**

Commitments are not to be altered without the written approval of all parties to which the commitment was made.

No commitments have been made on this project.

**ENVIRONMENTAL REVIEWS**

Prior to the use of any proposed borrow areas, use areas (temporary access roads, detours, run-arounds, etc.) and/or waste areas, the Contractor shall file the required environmental resource request surveys according to Section 107.22 of the Standard Specifications. These surveys are required in order for the Department to conduct cultural and biological resource surveys for the proposed site.

The required environmental resource documentation shall include the following:

- \* BDE Form 2289 (Borrow Site Review)
- \* BDE Form 2290 (Waste/Use Area Review)
- \* A location map showing the size limits and location of the use area
- \* Color photographs depicting the use area
- \* Borrow Area Entry Agreement form – D4 PI0101

Prior to any waste materials being removed from the construction site the required environmental resource surveys shall be obtained and filed by the Contractor. Excess waste products removed from the construction site shall be disposed of as required in Section 202.03 of the Standard Specifications.

Any protruding metal bars shall be removed prior to the disposal of broken concrete at approved disposal sites.

Please note that a minimum of four weeks shall be allowed for the District to obtain the required waste site environmental clearances and six weeks for the required borrow site environmental clearances.

**ORDERING LENGTH CONFIRMATION – DRAINAGE ITEMS**

The Contractor shall consult with the Engineer in regard to the exact length of the box/pipe culverts, storm sewers, and/or pipe drains required prior to ordering these items.

**PROJECT SPECIFIC NOTES**

The removal and disposal of thrust blocks and seepage collars located within the limits of the proposed pipe culvert removal shall be considered included in the cost of PIPE CULVERT REMOVAL.

Storm sewer to be filled is 12" diameter concrete pipe.

Connecting pipe drains 12" to existing inlets shall be considered included in the cost of PIPE DRAINS 12".

FILLING INLETS shall include 8" of concrete to cap the filled inlet.

MODEL: C:\p1\c1\sheet FILE NAME: S:\CITY\W\ORD\STD&PLUS\68F75\68F75 - Townline Redline (DC)\68F75 - Sheet\_DWG.dwg

USER NAME = greenom	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL NOTES &amp; PROJECT SPECIFIC NOTES</b>		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 100,0000' / in.	DRAWN -	REVISED -				155	[90(107-2)HB]BJR,BDR,BRR	TAZEWELL	21	2
PLOT DATE = 12/16/2021	CHECKED -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.		CONTRACT NO. 68F75				
	DATE -	REVISED -		ILLINOIS FED. AID PROJECT						

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	90% FED 10% STATE
				CONSTRUCTION CODE
				TAZEWELL COUNTY
				BRIDGE
				0013
				S.N. 090-0136
28100225	STONE RIPRAP, CLASS B3	TON	11	11
50102400	CONCRETE REMOVAL	CU YD	28.2	28.2
50105220	PIPE CULVERT REMOVAL	FOOT	205	205
50300225	CONCRETE STRUCTURES	CU YD	21.2	21.2
50300255	CONCRETE SUPERSTRUCTURE	CU YD	28.2	28.2
50300300	PROTECTIVE COAT	SQ YD	206.2	206.2
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	7,450.0	7,450.0
52000110	PREFORMED JOINT STRIP SEAL	FOOT	128.0	128.0
54210182	PIPE ELBOW, 12"	EACH	8	8
54262712	METAL FLARED END SECTIONS 12"	EACH	4	4
59000200	EPOXY CRACK INJECTION	FOOT	88	88
60100945	PIPE DRAINS 12"	FOOT	205	205
60500305	FILLING INLETS	EACH	2	2
61000050	CONCRETE THRUST BLOCKS	EACH	4	4

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PLOT DATE = 12/16/2021	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	[90(107-2)HB]BJR,BDR,BRR	TAZEWELL	21	3
CONTRACT NO. 68F75			ILLINOIS FED. AID PROJECT	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE
				TAZEWELL COUNTY
				BRIDGE
				0013
				S.N. 090-0136
67100100	MOBILIZATION	L SUM	1	1
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	28	28
X0301834	STORM SEWER TO BE FILLED	FOOT	40	40
X0322215	CLEANING BRIDGE SCUPPERS AND DOWNSPOUTS	EACH	4	4
X0326444	SURFACE FILLER (SPECIAL)	GALLON	1	1
X5030550	PROTECTIVE COAT (SPECIAL)	SQ YD	292	292
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	16.5	16.5
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	60	60
Z0064540	SEEPAGE COLLAR	EACH	4	4
Z0065730	SLOPE WALL SLURRY PUMPING	CU YD	2	2

MODEL: Quantities  
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PLOT DATE = 12/16/2021	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	[90(107-2)HB]BJR,BDR,BRR	TAZEWELL	21	4
ILLINOIS FED. AID PROJECT			CONTRACT NO. 68F75	

REMOVAL SCHEDULE			
LOCATION			50105220 PIPE CULVERT REMOVAL FOOT
STA	98+81	LT	54
STA	101+21	LT	48
STA	98+79	RT	54
STA	101+20	RT	48.5
TOTAL			205

DRAINAGE SCHEDULE										
LOCATION			54210182 PIPE ELBOW 12"	54262712 METAL FLARED END SECTIONS 12"	60100945 PIPE DRAINS 12"	61000050 CONCRETE THRUST BLOCKS	X0301834 STORM SEWER TO BE FILLED	60500305 FILLING INLETS	Z0064540 SEEPAGE COLLAR	X0322215 CLEANING BRIDGE SCUPPERS AND DOWNSPOUTS
		LT/RT	EACH	EACH	FOOT	EACH	FOOT	EACH	EACH	EACH
STA	98+81	LT	2	1	54	1			1	1
STA	101+21	LT	2	1	48	1	20	1	1	1
STA	98+79	RT	2	1	54	1	20	1	1	1
STA	101+20	RT	2	1	48.5	1			1	1
TOTAL			8	4	205	4	40	2	4	4

CHANGEABLE MESSAGE SIGNS	
LOCATION	70107025 CHANGEABLE MESSAGE SIGN CAL DA
TOWNLIN RD.	14
I-155	14
TOTAL	28

TRAFFIC CONTROL SCHEDULE	
LOCATION	X7010216 TRAFFIC CONTROL AND PROTECTION, (SPECIAL) L SUM
PROJECT SITE	1
TOTAL	1

NOTE: 2 signs on each road at 7 days each.

MODEL: Quantities  
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USER NAME = wrightmm	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SCHEDULE OF QUANTITIES</b>				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT DATE = 12/17/2021	CHECKED -	REVISED -		SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.				CONTRACT NO. 68F75				
	DATE -	REVISED -		ILLINOIS FED. AID PROJECT								



MODEL: Existing and Removal  
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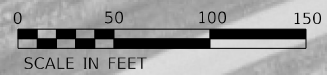
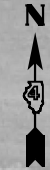
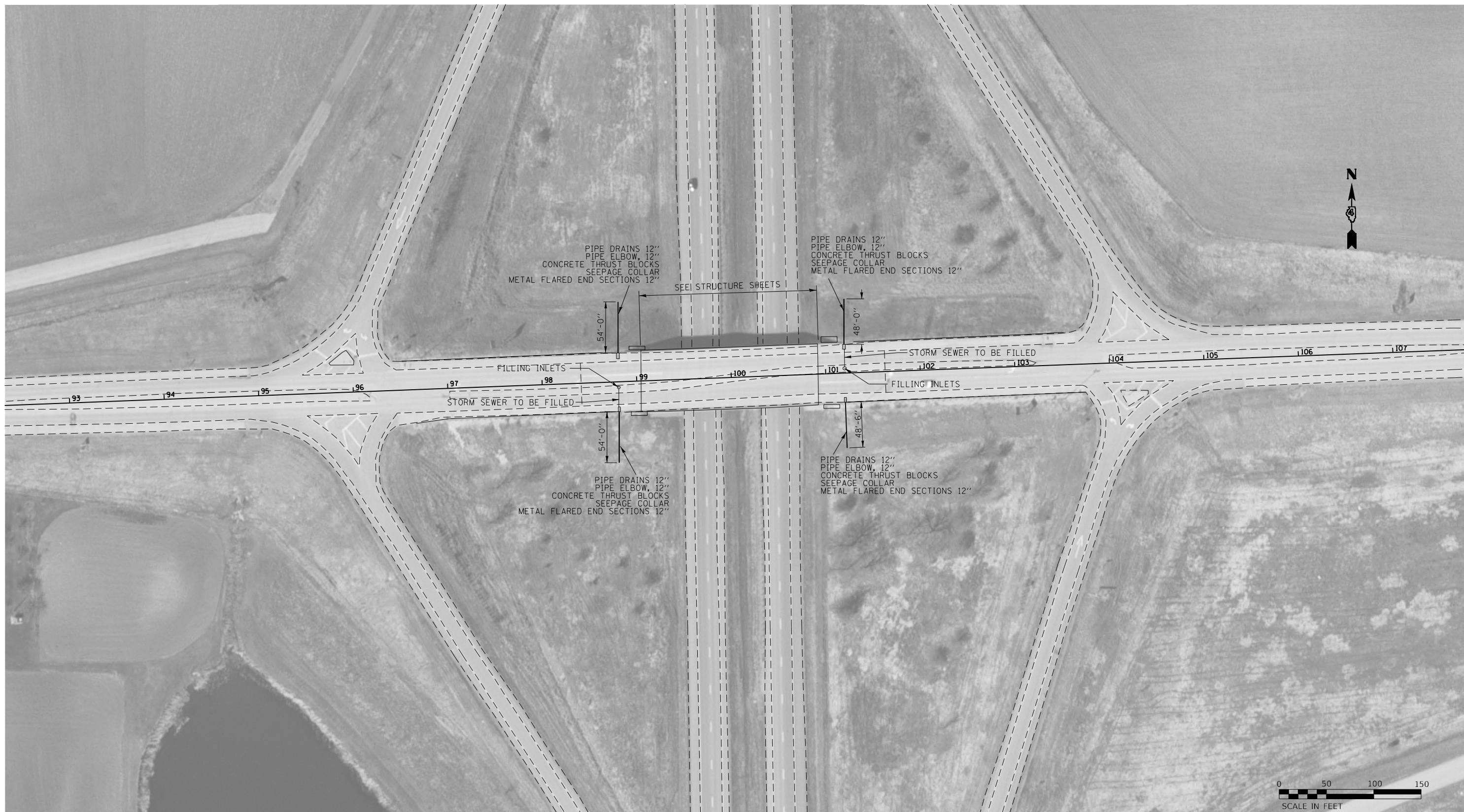
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PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 12/16/2021	DATE -	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**EXISTING AND REMOVAL**

SCALE: 1" = 50'    SHEET 1    OF 1    SHEETS    STA. 92+00    TO STA. 108+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	[90(107-2)HB]BJR,BDR,BRR	TAZEWELL	21	6
CONTRACT NO. 68F75				
ILLINOIS FED. AID PROJECT				



MODEL: Proposed Plan - Sheet  
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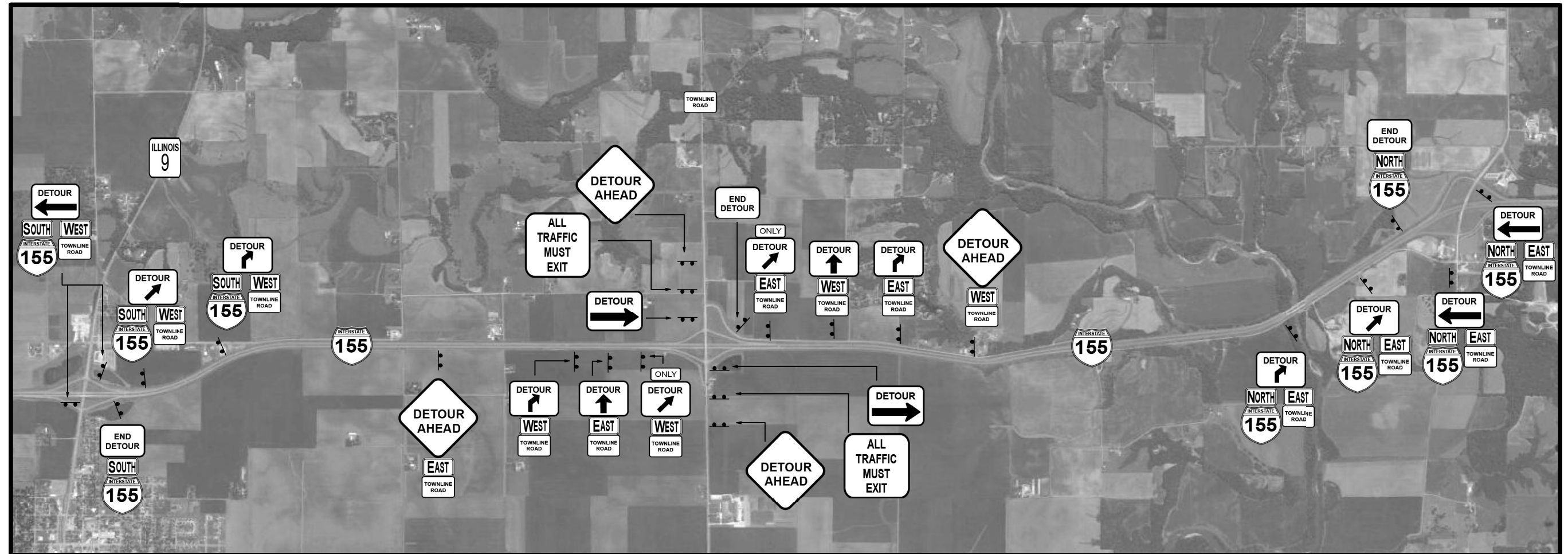
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PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 12/16/2021	DATE -	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PROPOSED PLAN**  
 SCALE: 1" = 50'    SHEET 1    OF 1    SHEETS    STA. 92+00    TO STA. 108+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	[90(107-2)HB]BJR,BDR,BRR	TAZEWELL	21	7
CONTRACT NO. 68F75				
ILLINOIS FED. AID PROJECT				

# TOWNLINER ROAD DETOUR DETAILS



TWO MESSAGE BOARDS SHALL BE PLACED ON TOWNLINER ROAD FOR SEVEN DAYS TO PROVIDE ADVANCE NOTICE OF THE CLOSURE.

TOWNLINER ROAD SHALL BE CLOSED AND TRAFFIC DETOURED DURING PROPOSED CONSTRUCTION ON TOWNLINER ROAD.

5 DRUMS SHALL BE INSTALLED ACROSS EACH U-TURN (PAVED OR UNPAVED) ON I-155 BETWEEN IL ROUTE 9 AND IL ROUTE 122.

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 FILE NAME: S:\CEN\W\W\ORD\STD&PLUS\55\55\031-155\_Townline\_Roadway\_(DC)\68F75\_Detour\_Details.dgn

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	DRAWN -	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 12/16/2021	DATE -	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

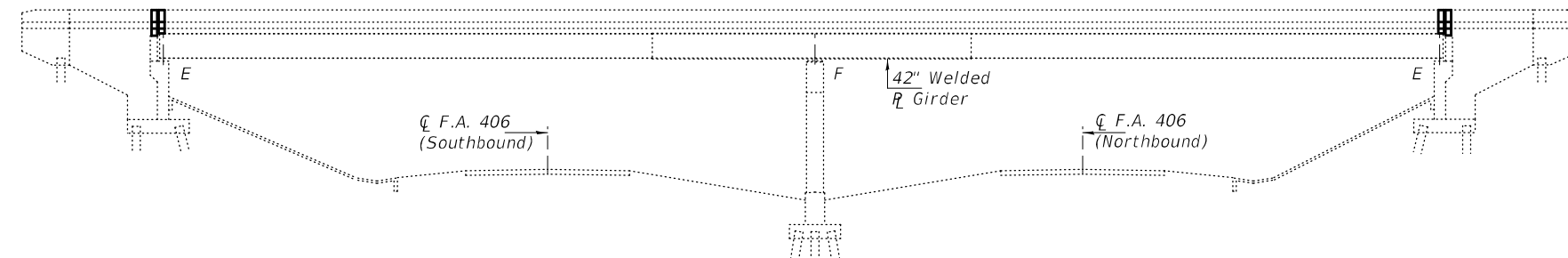
**DETOUR DETAILS**

SCALE: SHEET OF SHEETS STA. TO STA.

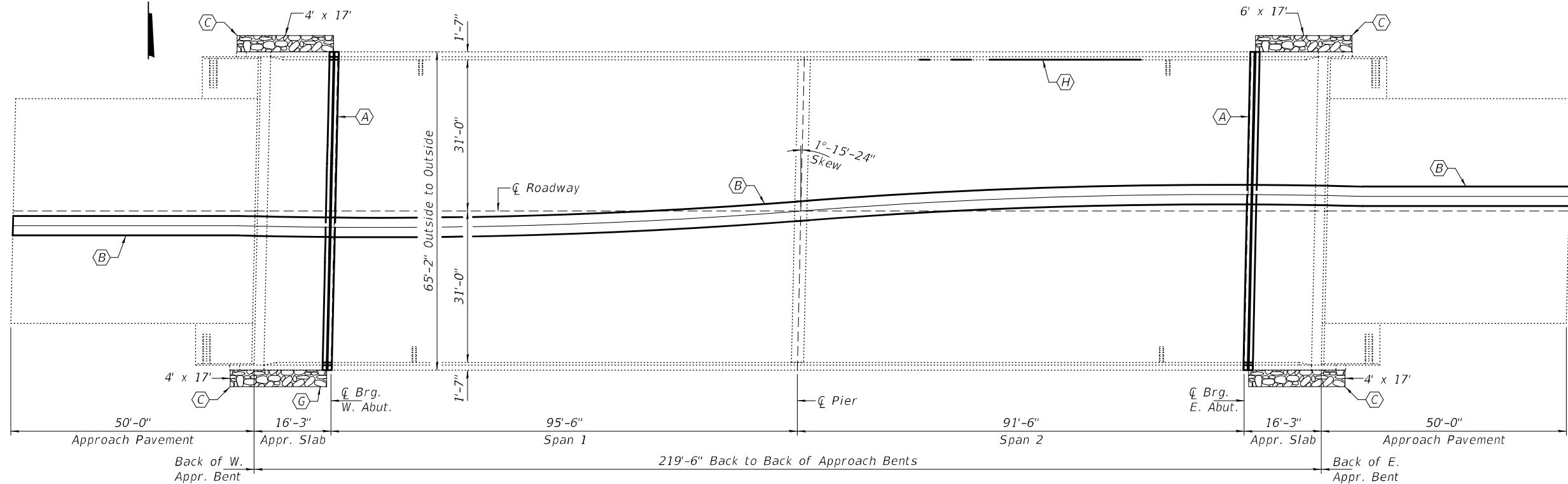
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	[90(107-2)HB]BJR,BDR,BRR	TAZEWELL	21	8
CONTRACT NO. 68F75				
		ILLINOIS	FED. AID PROJECT	







ELEVATION



PLAN

**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 for the work.

Reinforcement bars designated (E) shall be epoxy coated.

Existing reinforcement bars 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 splicer or anchorage system. Cost included with Concrete Removal.

Areas of deck repairs shown are estimated. The Engineer shall show actual locations of deck repairs on As-built Plans.

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

Work to be performed under road closure.

**SCOPE OF WORK**

- (A) - Remove & Replace Abutment Expansion Joints.
- (B) - Remove & Replace Bridge & Approach Median.
- (C) - Install Stone Rip Rap, Class B3
- (D) - Deck Slab Repair (See sheet 8 of 8)
- (E) - Apply Protective Coat to Parapets
- (F) - Epoxy Crack Injection (See sheet 7 of 8).
- (G) - Fill Hole Under Slopewall (See sheet 2 of 8).
- (H) - Structural Repair of Concrete (See sheets 7 & 8 of 8).
- (I) - Crashwall Extension at Pier (See sheet 6 of 8).
- (J) - Apply Protective Coat (Special) & Surface Filler (Special) to existing Bridge Parapets. (See sheet 2 of 8).

**TOTAL BILL OF MATERIAL**

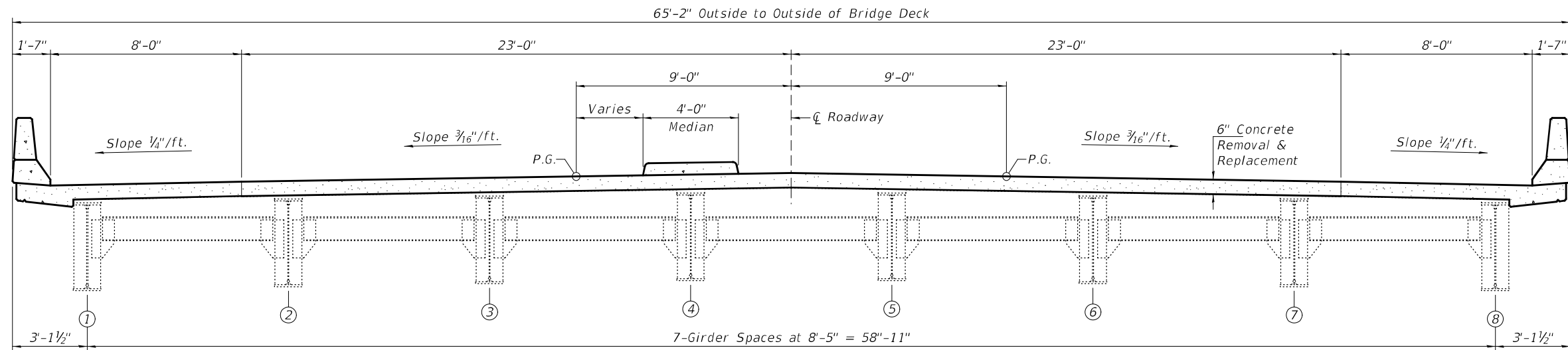
ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	28.2
Concrete Structures	Cu. Yd.	21.2
Concrete Superstructure	Cu. Yd.	28.2
Reinforcement Bars, Epoxy Coated	Pound	7450
Preformed Joint Strip Seal	Foot	128
* Structural Repair of Concrete (Depth ≤ 5")	Sq. Ft.	16.5
* Deck Slab Repair (Partial)	Sq. Yd.	60
* Epoxy Crack Injection	Foot	88
* Slope Wall Slurry Pumping	Cu. Yd.	2.0
** Protective Coat	Sq. Yd.	206.2
Stone Rip Rap, Class B3	Ton	11.0
Protective Coat (Special)	Sq. Yd.	292
* Surface Filler (Special)	Gallon	1.0

\* Quantities are estimated.  
 \*\* Protective Coat on proposed concrete repairs.

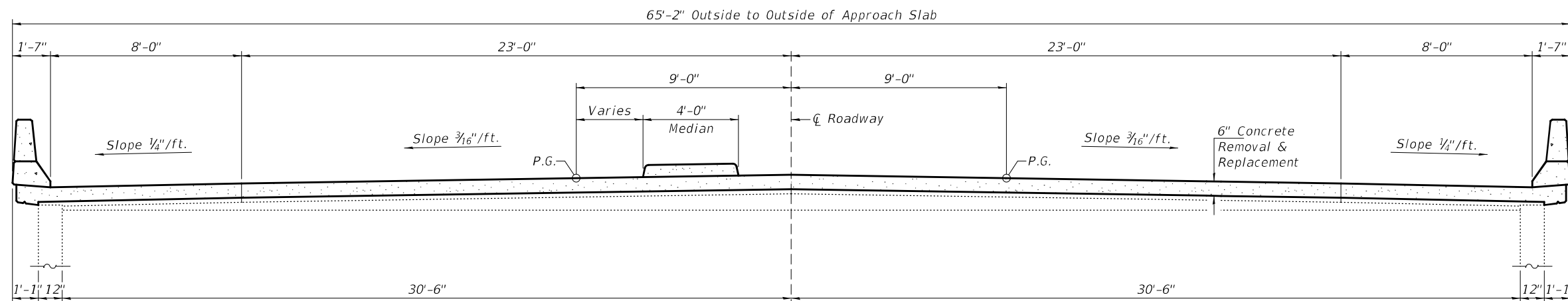


Expires: November 30, 2022

DESIGNED - Stephen M. Ryan	EXAMINED - <i>Twg A. Beck</i>	DATE - FEBRUARY 7, 2022	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL PLAN AND ELEVATION</b> <b>TOWNLINE ROAD (C.H. RTE. 7) OVER I-155</b> <b>SN 090-0136</b>	F.A.I. RTE. 155	SECTION [90(107-2)HB]BJR,BDR,BRR	COUNTY TAZEWELL	TOTAL SHEETS 21	SHEET NO. 10	
CHECKED - Victor V. Veliz	PASSED - <i>David Carl Puzey</i>	REVISI -			CONTRACT NO. 68F75					
DRAWN - STEFFEN	ENGINEER OF BRIDGES AND STRUCTURES	REVISI -			SHEET NO. 1 OF 8 SHEETS					
CHECKED - SMR VHV	ENGINEER OF STRUCTURAL SERVICES				ILLINOIS FED. AID PROJECT					



CROSS SECTION THRU BRIDGE DECK

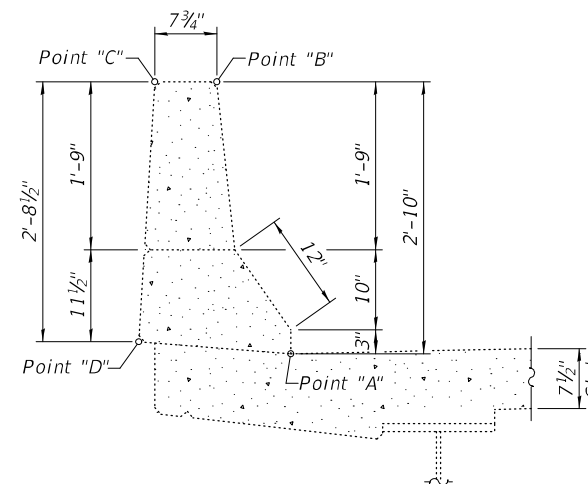


CROSS SECTION THRU APPROACH SLAB



Fill hole under the Southwest Slopewall. Cost included with Slopewall Slurry Pumping.

SLOPEWALL REPAIR



EXISTING BRIDGE PARAPET SEALING DETAIL

Note:  
Protective Coat (Special) shall cover from Point "A" thru Points "B", "C" & "D" of all existing parapets.

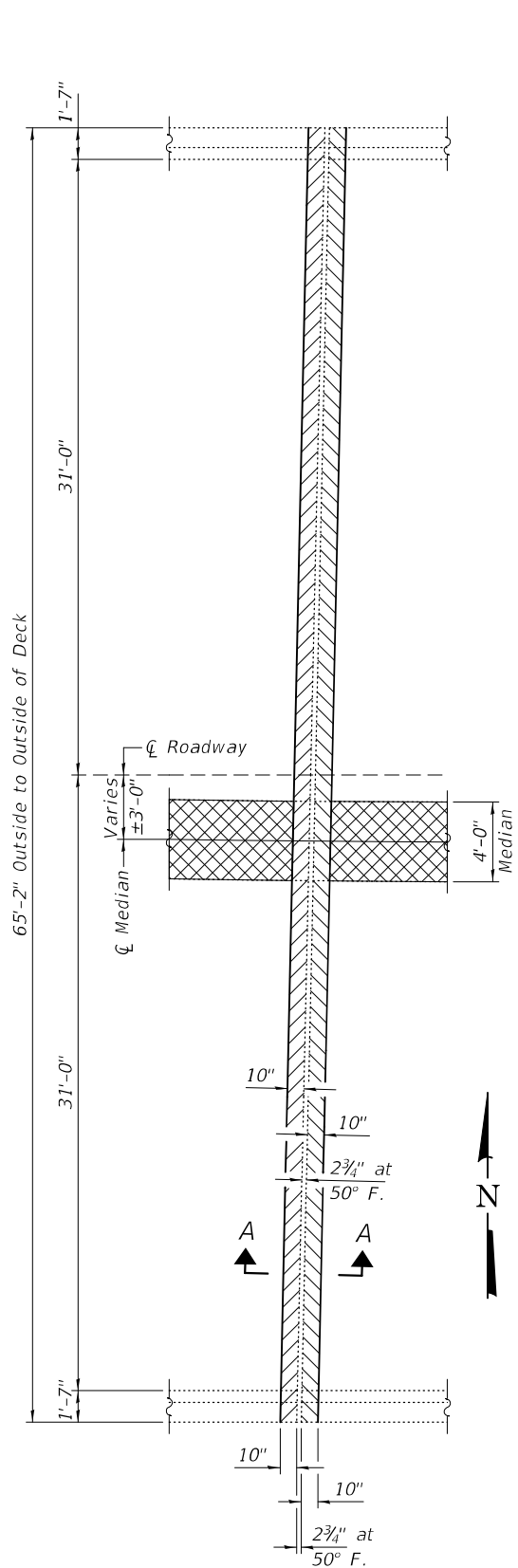
DESIGNED - SMR	EXAMINED - <i>Timothy A. Daulton</i>	DATE - FEBRUARY 7, 2022
CHECKED - VHV	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED - <i>Carl Ringer</i>	REVISED -
CHECKED - SMR VHV	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

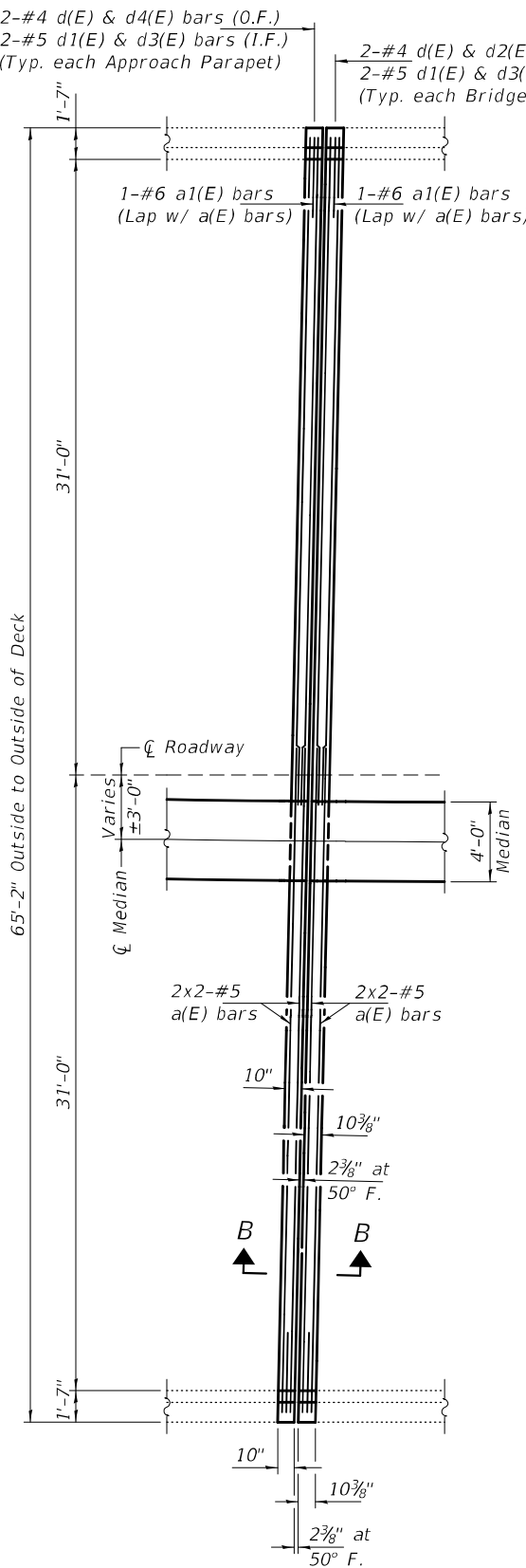
CROSS SECTIONS, SLOPEWALL REPAIR, & PARAPET SEALING  
SN 090-0136

SHEET NO. 2 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	[90(107-2)HB]BJR,BDR,BRR	TAZEWELL	21	11
CONTRACT NO. 68F75				
ILLINOIS FED. AID PROJECT				

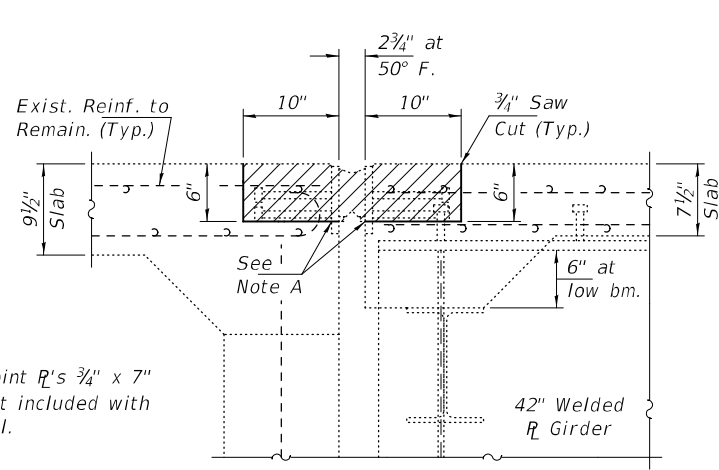


**CONCRETE REMOVAL PLAN**  
West Abut. shown; East Abut. similar by 180° rotation.

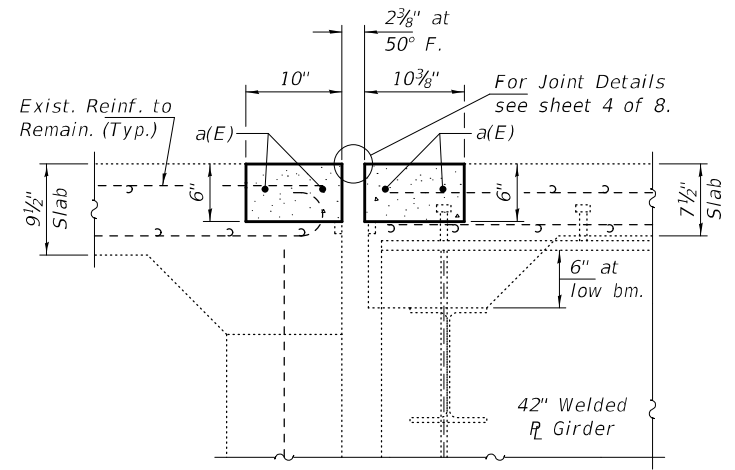


**CONCRETE REPLACEMENT PLAN**  
West Abut. shown; East Abut. similar by 180° rotation.

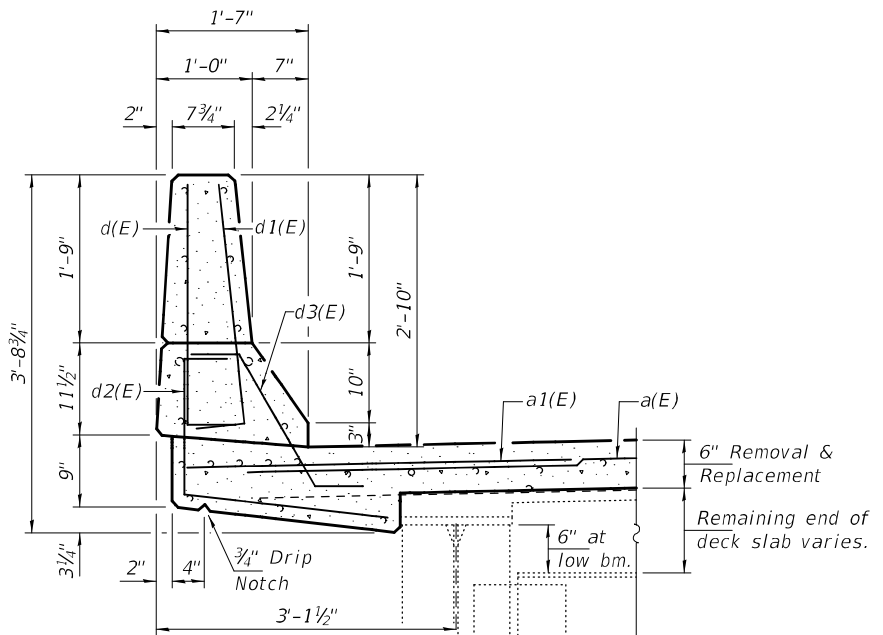
Note A:  
Cut existing Joint P's 3/4" x 7" as required. Cost included with Concrete Removal.



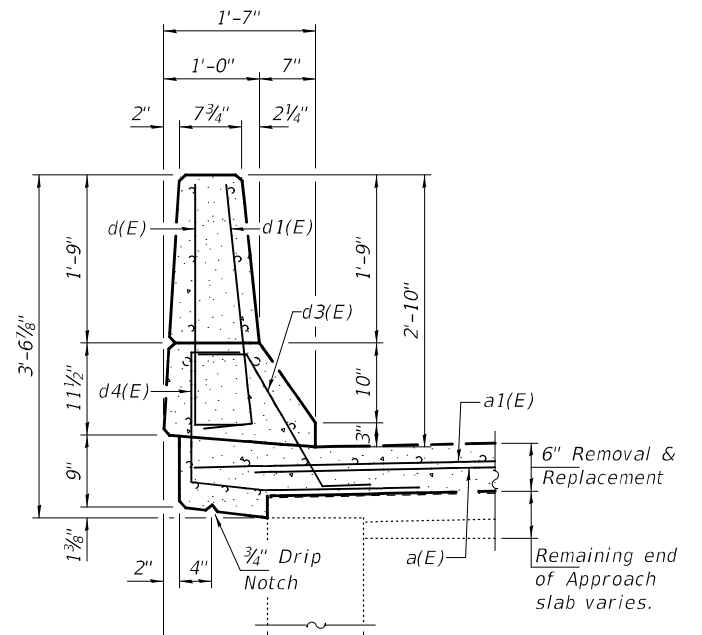
**SECTION A-A**  
Dims. at Rt. L



**SECTION B-B**  
Dims. at Rt. L

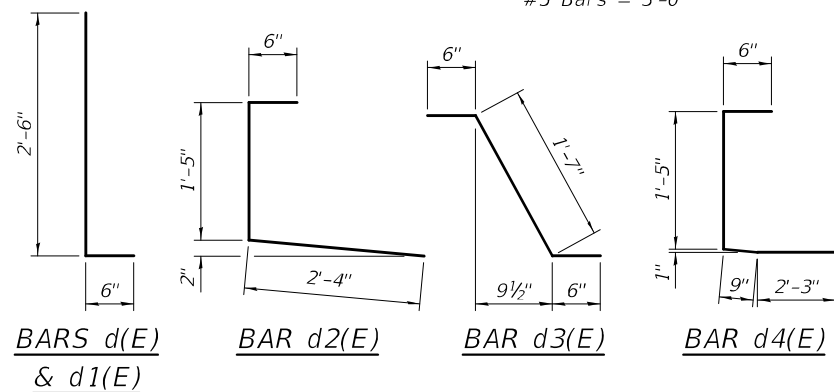


**BRIDGE PARAPET**



**APPROACH PARAPET**

**MIN. BAR LAP**  
#5 Bars = 3'-0"



**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	16	#5	33'-9"	—
a1(E)	8	#6	4'-0"	—
d(E)	16	#4	3'-0"	┌
d1(E)	16	#5	3'-0"	┌
d2(E)	8	#4	4'-1"	┌
d3(E)	16	#5	2'-7"	┌
d4(E)	8	#4	4'-11"	┌
Concrete Removal			Cu. Yd.	4.9
Concrete Superstructure			Cu. Yd.	4.9
Reinforcement Bars, Epoxy Coated			Pound	1350

Bars indicated thus 2 x 2-#5 etc. indicates 2 lines of bars with 2 lengths per line.

Notes:  
Hatched areas indicate Concrete Removal for Joint Replacement.  
Cross-Hatched areas indicate Median removal. See sheet 5 of 8 for details.  
For Median Replacement Details & Reinforcement see sheet 5 of 8.

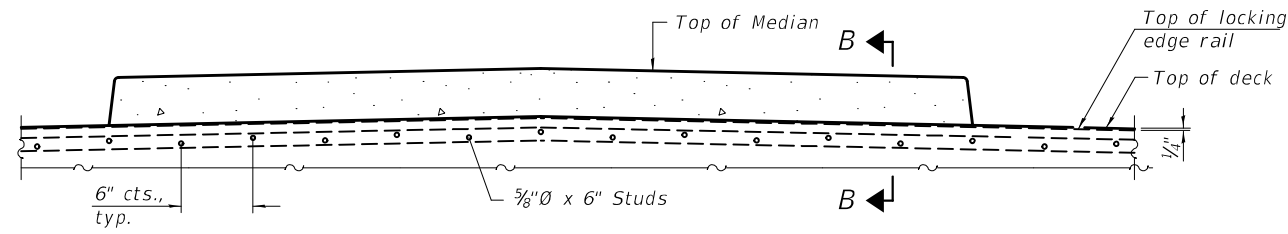
DESIGNED - SMR	EXAMINED - <i>Timothy A. Daulton</i>	DATE - FEBRUARY 7, 2022
CHECKED - VHV	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED - <i>Carl Ringer</i>	REVISER -
CHECKED - SMR VHV	ENGINEER OF BRIDGES AND STRUCTURES	REVISER -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**JOINT REMOVAL & REPLACEMENT DETAILS**  
**SN 090-0136**

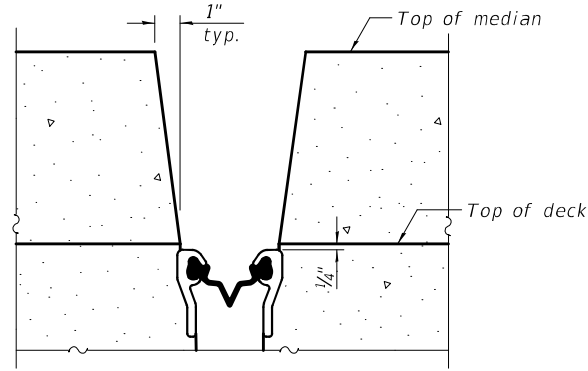
SHEET NO. 3 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	[90(107-2)HB]BJR,BDR,BRR	TAZEWELL	21	12
ILLINOIS			CONTRACT NO. 68F75	
FED. AID PROJECT				

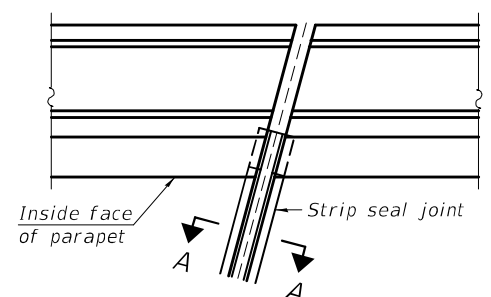


**SECTION AT MEDIAN**

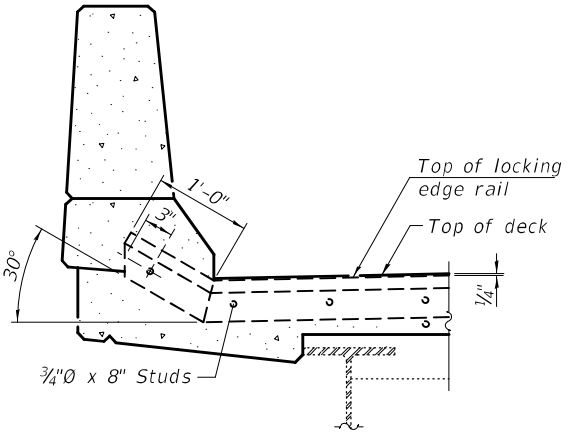
For skews > 30°, chamfer acute corners 2" similar to sidewalk.



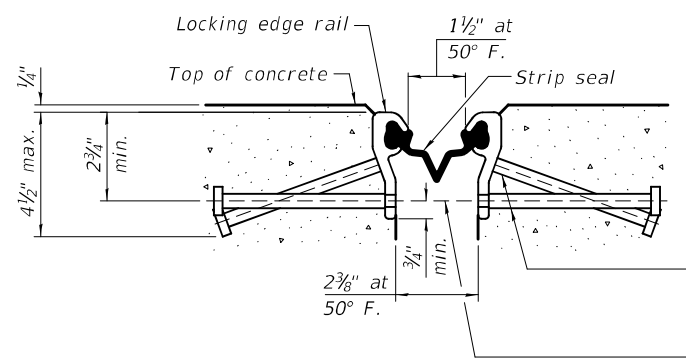
**SECTION B-B**  
(at Rt. L's)



**FOR SKEWS ≤ 30°**  
**PLAN AT PARAPET**



**SECTION AT PARAPET**  
(Skews ≤ 30°)

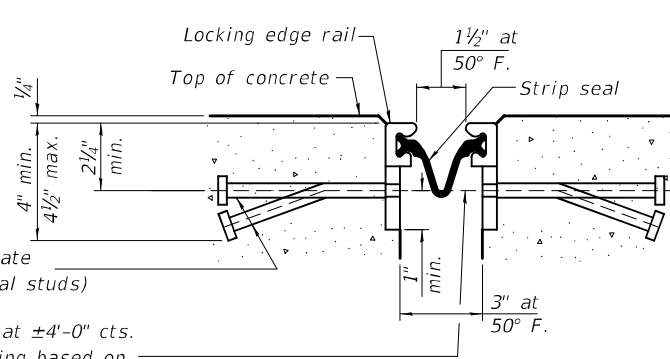


**SHOWING ROLLED RAIL JOINT**

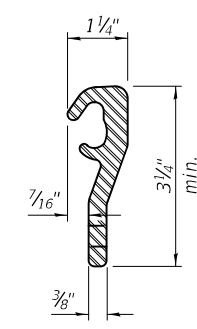
\* 5/8" x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)  
3/8" threaded rods in 7/16" holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

**SECTION A-A**

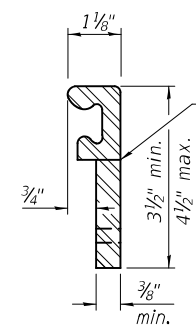
\* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



**SHOWING WELDED RAIL JOINT**



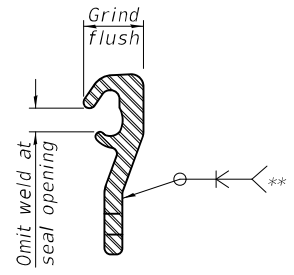
**ROLLED (EXTRUDED) RAIL**



**WELDED RAIL**

**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**

Item	Unit	Total
Preformed Joint Strip Seal	Foot	128

DESIGNED - SMR	EXAMINED -
CHECKED - VHV	PASSED -
DRAWN - STEFFEN	
CHECKED - SMR VHV	

Timothy A. [Signature]  
ENGINEER OF STRUCTURAL SERVICES

Carl [Signature]  
ENGINEER OF BRIDGES AND STRUCTURES

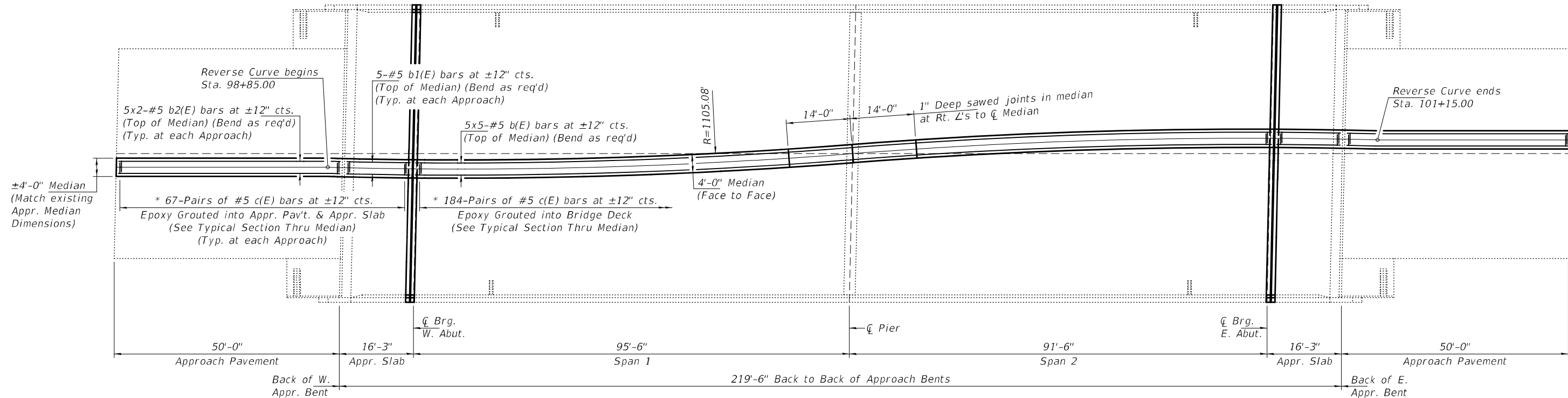
DATE - FEBRUARY 7, 2022
REVISED -
REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PREFORMED JOINT STRIP SEAL DETAILS**  
**SN 090-0136**

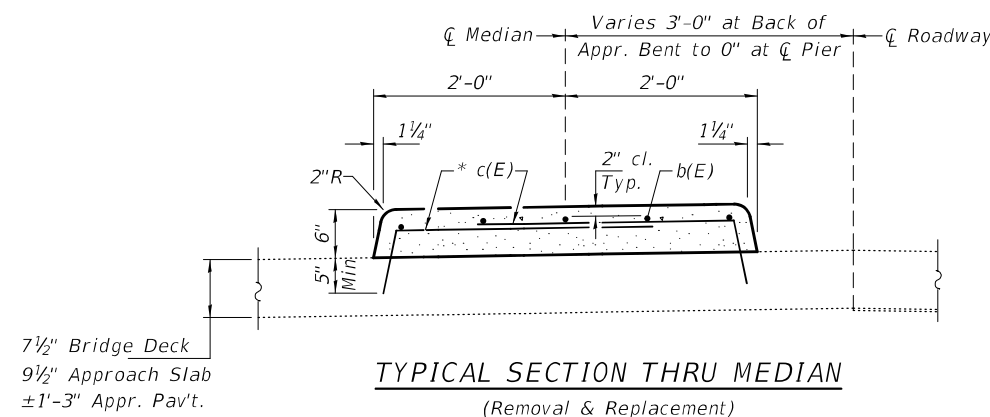
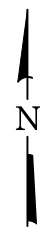
SHEET NO. 5 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	[90(107-2)HB]BJR,BDR,BRR	TAZEWELL	21	13
CONTRACT NO. 68F75			ILLINOIS FED. AID PROJECT	



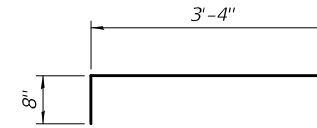
**MEDIAN REMOVAL & REPLACEMENT PLAN**

\* c(E) bars to be epoxy grouted into 5" min. holes according to Article 584 of the Standard Specifications.



**TYPICAL SECTION THRU MEDIAN**  
(Removal & Replacement)

**MINIMUM BAR LAP**  
#5 Bars = 3'-0"



\* BAR c(E)

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
b(E)	25	#5	40'-0"	—
b1(E)	10	#5	15'-9"	—
b2(E)	20	#5	26'-6"	—
c(E)	636	#5	4'-0"	┌
Concrete Removal			Cu. Yd.	23.3
Concrete Superstructure			Cu. Yd.	23.3
Reinforcement Bars, Epoxy Coated			Pound	4410

Bars indicated thus 5 x 2-#5 etc. indicates 5 lines of bars with 2 lengths per line.

DESIGNED - SMR  
CHECKED - VHV  
DRAWN - STEFFEN  
CHECKED - SMR VHV

EXAMINED  
PASSED  
Timothy A. [Signature]  
ENGINEER OF STRUCTURAL SERVICES  
[Signature]  
ENGINEER OF BRIDGES AND STRUCTURES

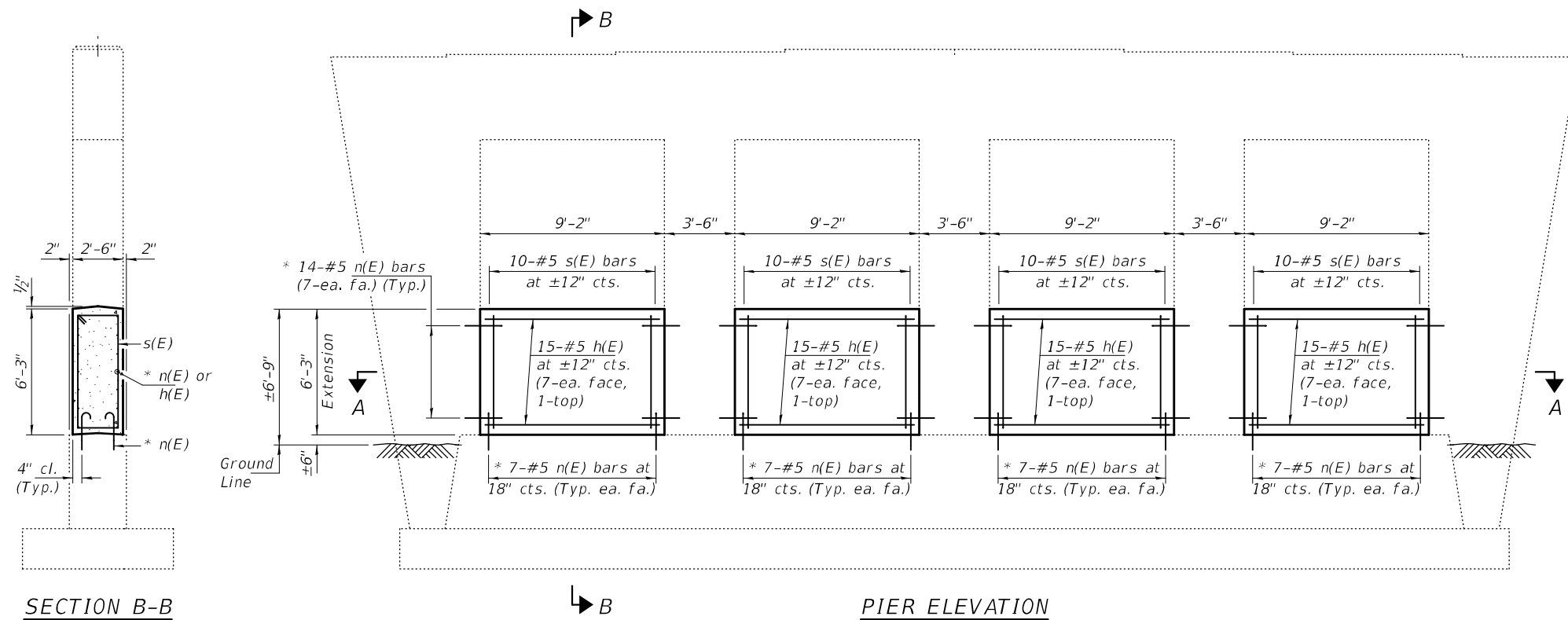
DATE - FEBRUARY 7, 2022  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

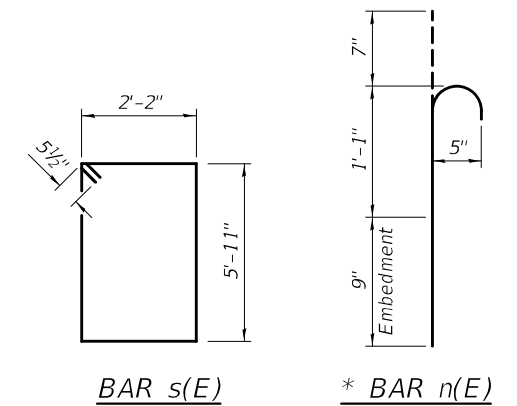
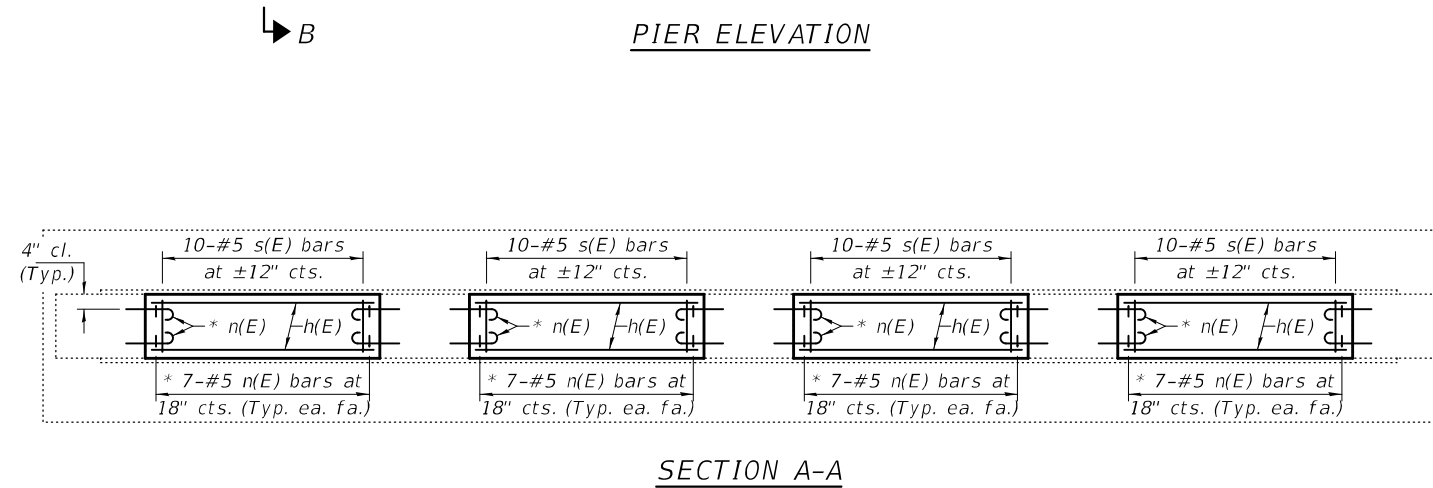
MEDIAN REMOVAL & REPLACEMENT DETAILS  
SN 090-0136

SHEET NO. 5 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	[90(107-2)HB]BJR,BDR,BRR	TAZEWELL	21	14
CONTRACT NO. 68F75				
ILLINOIS		FED. AID PROJECT		



\* Epoxy grout n(E) bars in 9" min. holes according to Article 584 of the Standard Specifications. Cost included with Reinforcement Bars, Epoxy Coated.



**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	60	#5	8'-10"	—
n(E)	168	#5	2'-5"	⌋
s(E)	40	#5	17'-1"	□
Concrete Structures			Cu. Yd.	21.2
Reinforcement Bars, Epoxy Coated			Pound	1690

DESIGNED - SMR  
 CHECKED - VHV  
 DRAWN - STEFFEN  
 CHECKED - SMR VHV

EXAMINED  
 PASSED  
*Timothy A. Daulton*  
 ENGINEER OF STRUCTURAL SERVICES  
*Carl R. Rupp*  
 ENGINEER OF BRIDGES AND STRUCTURES

DATE - FEBRUARY 7, 2022  
 REVISED -  
 REVISED -

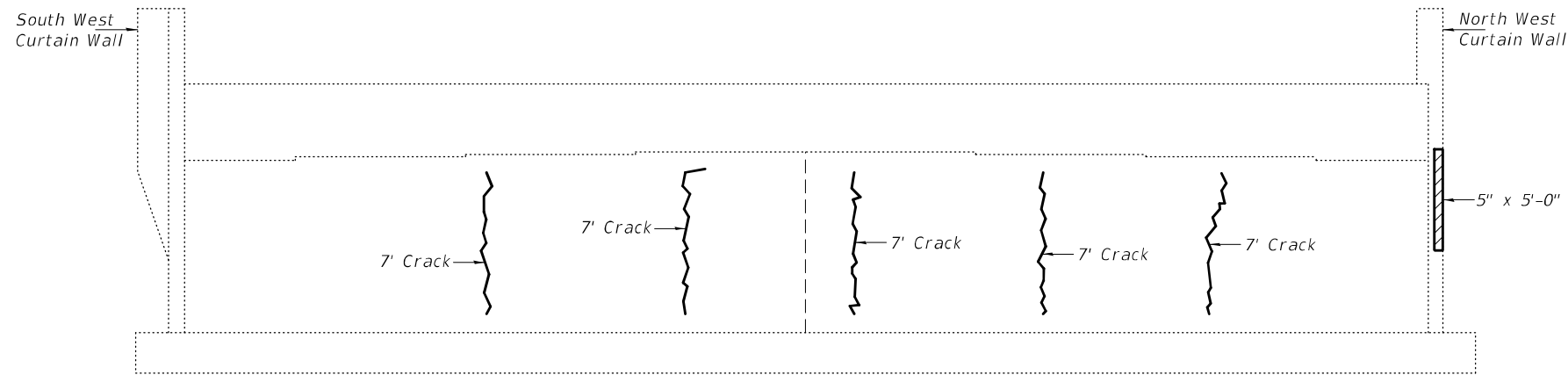
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CRASHWALL EXTENSION DETAILS  
 SN 090-0136

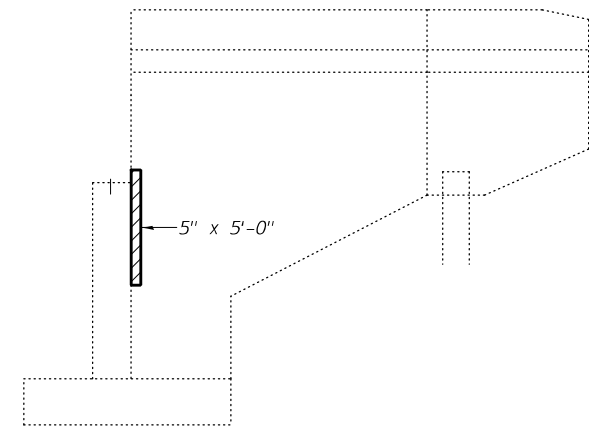
SHEET NO. 6 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	[90(107-2)HB]BJR,BDR,BRR	TAZEWELL	21	T5
ILLINOIS			FED. AID PROJECT	

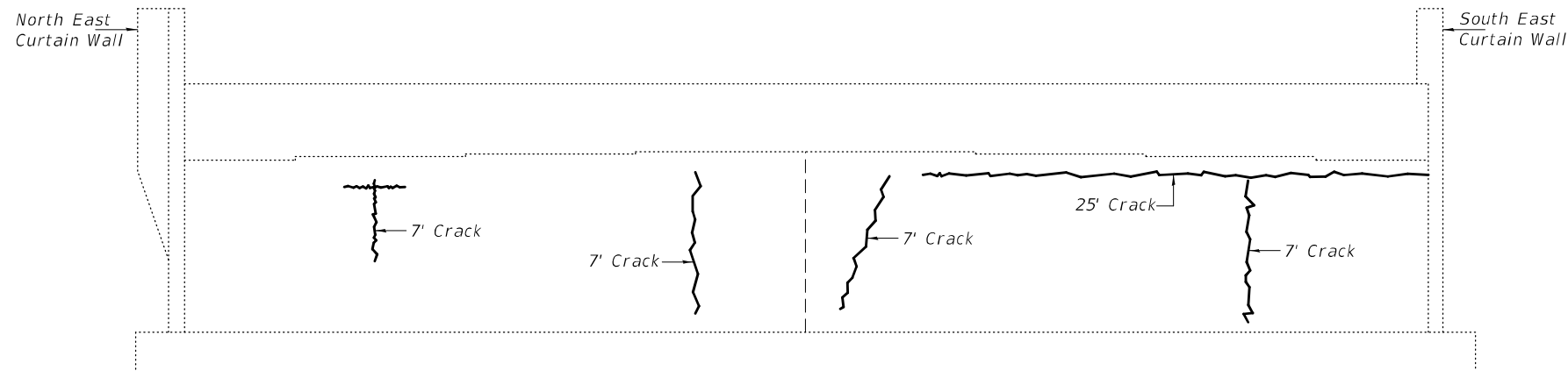
CONTRACT NO. 68F75



**WEST ABUTMENT ELEVATION**  
(Looking West)



**NORTH WEST CURTAIN WALL**  
(Looking South)



**EAST ABUTMENT ELEVATION**  
(Looking East)

**LEGEND**

- Structural Repair of Concrete (Depth ≤ 5 inches)
- Epoxy Crack Sealing

Notes:  
Cracks shall be with be repaired with Epoxy Crack Injection. Locations and lengths are estimated.

**BILL OF MATERIAL**

Item	Unit	Total
Structural Repair of Concrete (Depth ≤ 5 inches)	Sq. Ft.	4.2
Epoxy Crack Injection	Foot	88

DESIGNED - SMR	EXAMINED	DATE - FEBRUARY 7, 2022
CHECKED - VHV		
DRAWN - STEFFEN	ENGINEER OF STRUCTURAL SERVICES	
CHECKED - SMR VHV	PASSED	REVISIED -
		REVISIED -
	ENGINEER OF BRIDGES AND STRUCTURES	

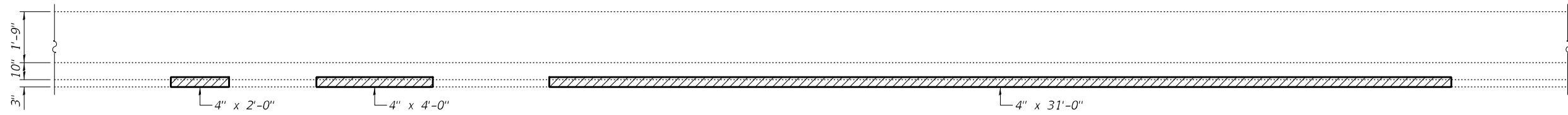
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**SUBSTRUCTURE REPAIR DETAILS**  
**SN 090-0136**

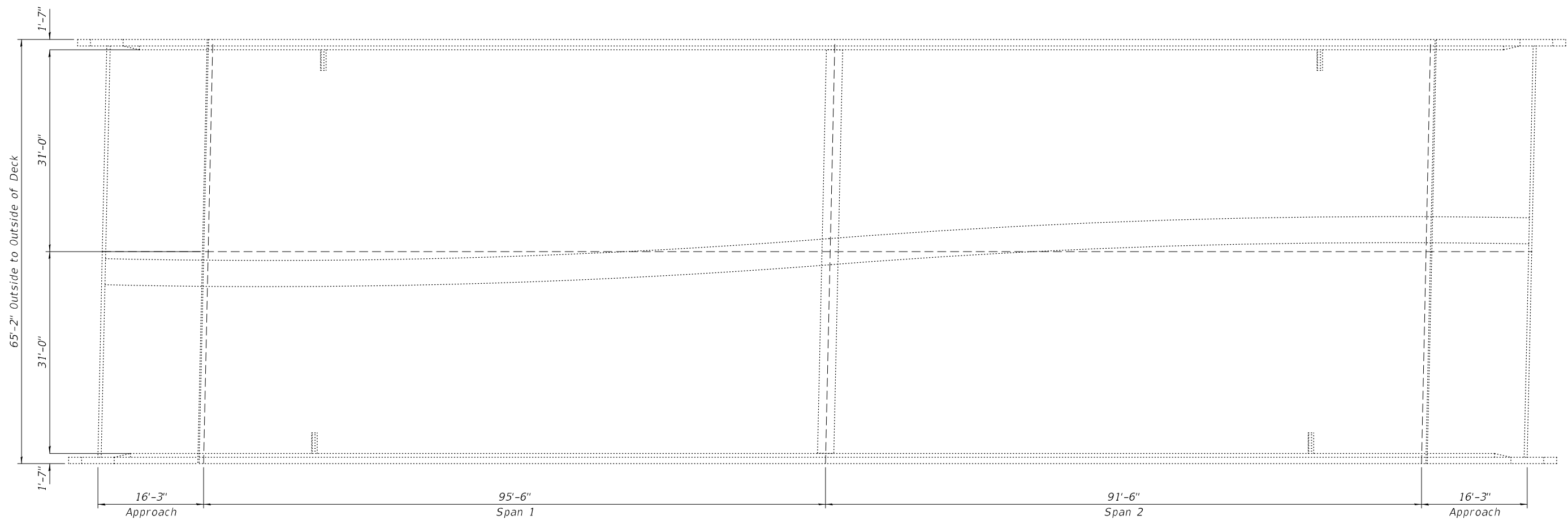
SHEET NO. 7 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	[90(107-2)HB]BJR,BDR,BRR	TAZEWELL	21	16
CONTRACT NO. 68F75				
ILLINOIS		FED. AID PROJECT		

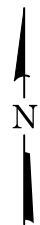




**NORTH EAST PARAPET - INSIDE ELEVATION**  
(Looking North)



**DECK PATCHING PLAN**



**LEGEND**

- Structural Repair of Concrete  
(Depth ≤ 5 inches)

\* Quantities of deck repairs are estimated. The Engineer shall identify, in the field, the location and size of the actual repairs. Repairs to be included in the AS-BUILT plans.

**BILL OF MATERIAL**

Item	Unit	Total
Structural Repair of Concrete (Depth ≤ 5 inches)	Sq. Ft.	12.3
Deck Slab Repair (Partial)	Sq. Yd.	60

DESIGNED - SMR	EXAMINED -	DATE - FEBRUARY 7, 2022
CHECKED - VHV	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED -	REVISER -
CHECKED - SMR VHV	ENGINEER OF BRIDGES AND STRUCTURES	REVISER -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**DECK PATCHING AND PARAPET REPAIR DETAILS**  
**SN 090-0136**

SHEET NO. 8 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	[90(107-2)HB]BJR,BDR,BRR	TAZEWELL	21	17
CONTRACT NO. 68F75				
ILLINOIS		FED. AID PROJECT		

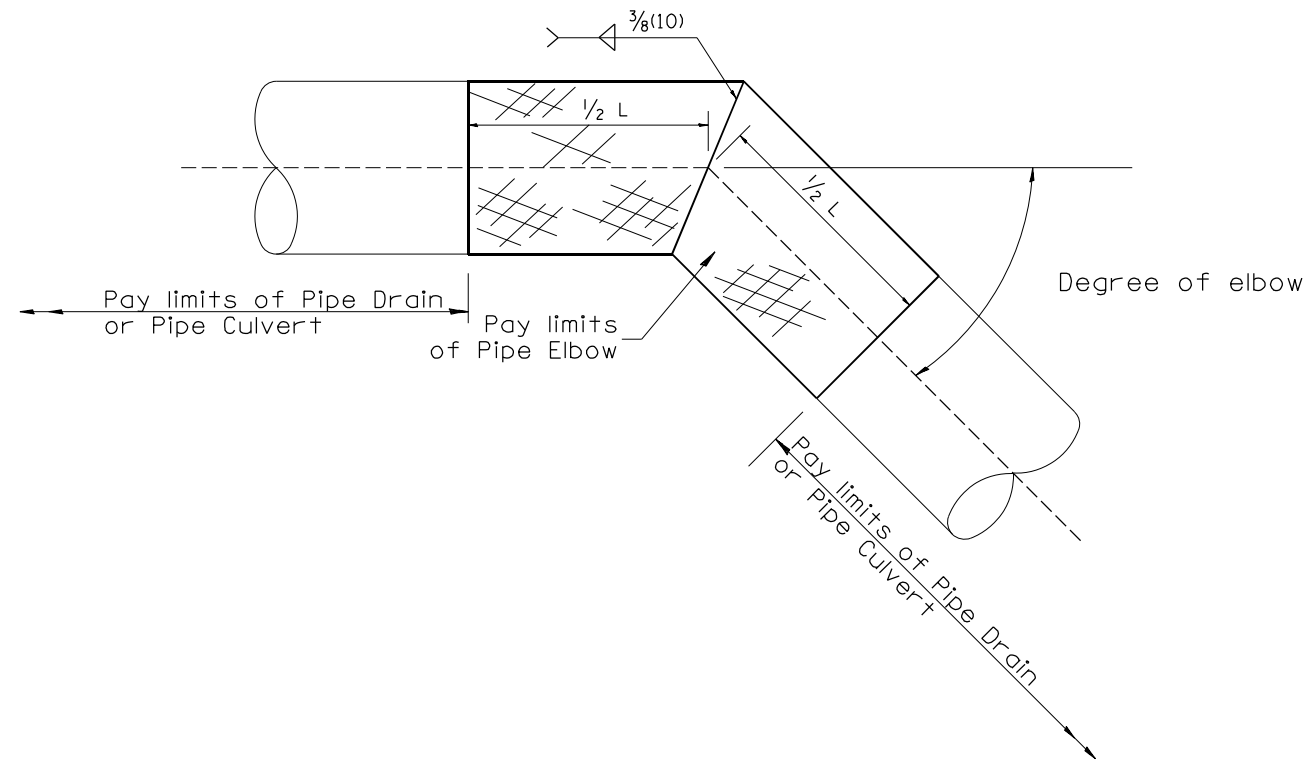
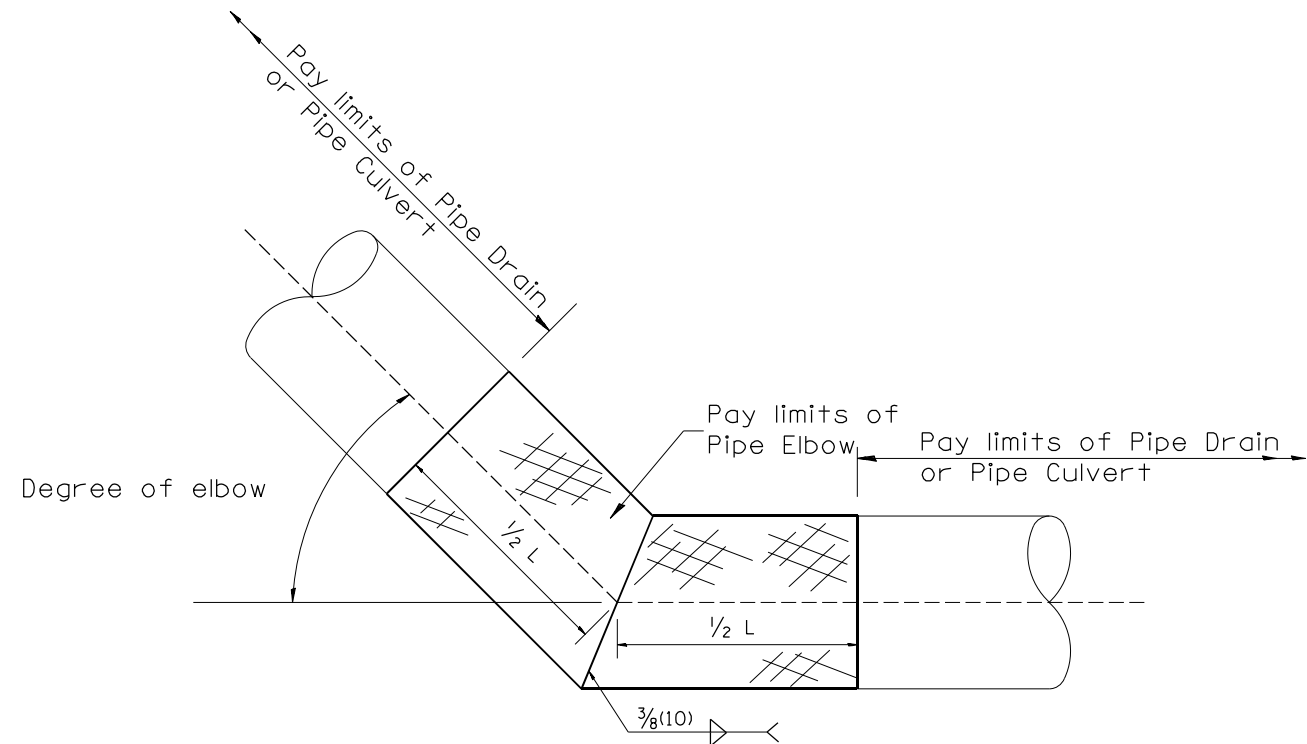


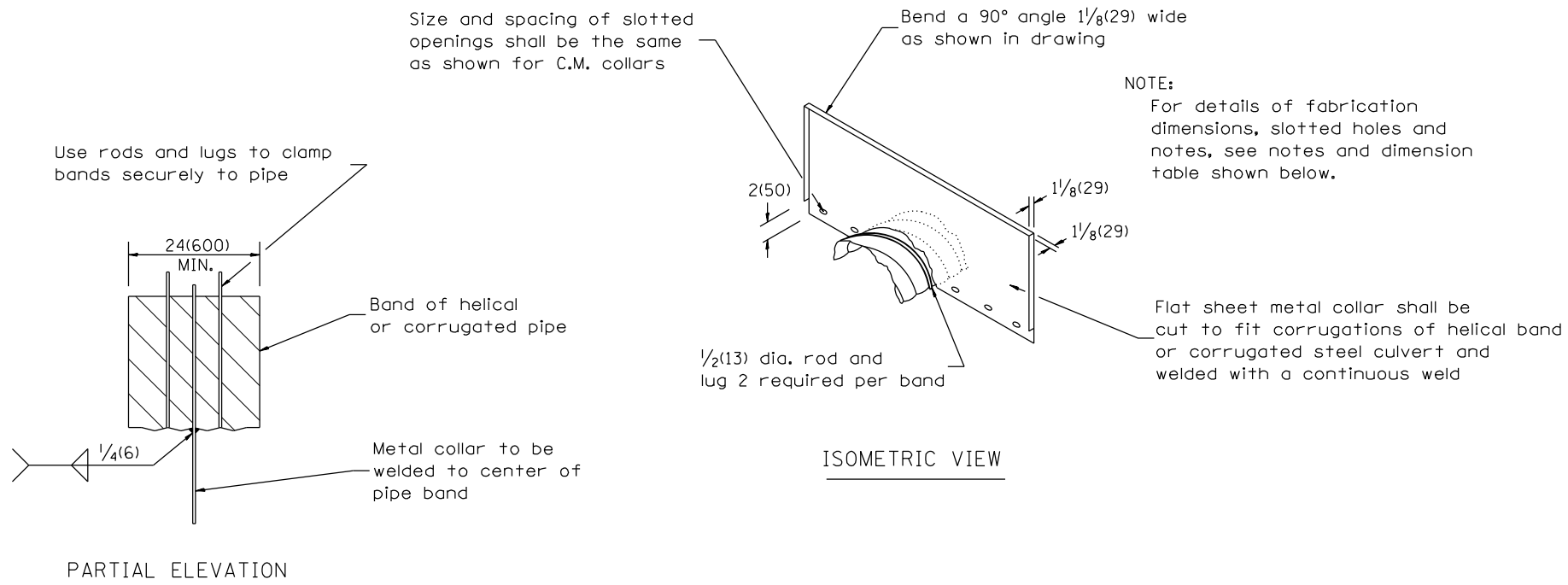
TABLE A ELBOW DESIGN CONTROLS		
PIPE DIAMETER	L = Pay limits of Pipe Elbow and minimum length of pipe required for fabrication	
	DEGREE OF ELBOW ≤ 45°	DEGREE OF ELBOW ≥ 46°
12(300)	24(600)	4'(1.22M)
15(375)	24(600)	4'(1.22M)
18(450)	24(600)	4'(1.22M)
21(525)	24(600)	4'(1.22M)
24(600)	4'(1.22M)	4'(1.22M)
30(750)	4'(1.22M)	6'(1.83M)
36(900)	4'(1.22M)	6'(1.83M)

TABLE B ELBOW DESIGN CONTROLS	
EARTH SLOPE (V:H)	DEGREE OF ELBOW *
1:6	9°
1:4	14°
1:3	18°
1:2	26°
1:1 1/2	33°

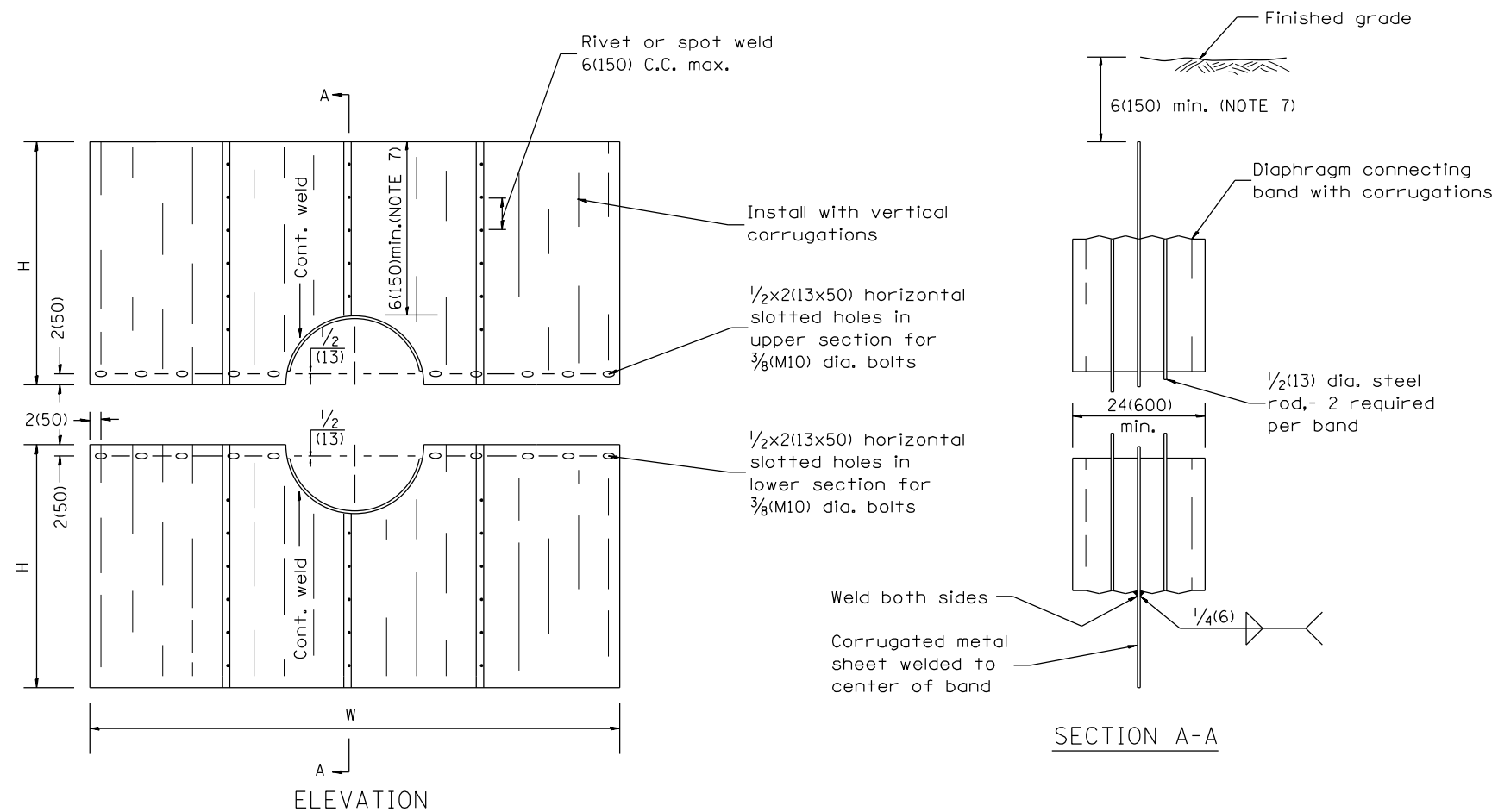
\* Approximate - based upon 0.5% inlet and outlet flowlines.



All dimensions are in inches (millimeters) unless otherwise noted.



DETAILS OF CORRUGATED PIPE COLLAR



DETAILS OF SEEPAGE COLLAR

NOTES FOR COLLARS:

- Materials and coatings for all collars shall be the same as that specified for the pipe, except that bituminous coated steel or aluminum collars may be used with PVC pipe.
- Collars shall be shop fabricated, assembled and marked by painting to identify matching half sections of each collar.
- The laps between the half sections and between the pipe and connecting bands shall be caulked with fiberized asphalt mastic at the time of installation.
- All tank lugs, rods, and nuts shall be galvanized steel. Where aluminum collars are used, The rods and lugs shall be separated from the aluminum bands. By at least two (2) layers of 2(50) wide plastic tape with a total thickness of 2 1/4 mils or more.
- The collars shall be welded to the connecting bands as shown on the drawings, all welds shall be treated as specified for class I, II, and III welds, miscellaneous. (Refer to AWS Standard Specifications)
- Bands shall be fabricated from material having the same class of corrugations as the pipe to which it is to be attached.
- Upper half of sheet may be cut shorter to provide 6(150) min. earth cover.

SEEPAGE COLLAR DIMENSION TABLE

PIPE DIAMETER	NOMINAL COLLAR SIZE	FABRICATIONS DIMENSIONS	
		W(WIDTH)	H(HEIGHT)
12(300) 15(375), 18(450) 21(525), 24(600)	8'x6' (2.4m x 1.8m)	8'-0" (2.44m)	38(966)
27(675) 30(750)	8'x7' (2.4m x 2.1m)	8'-0" (2.44m)	3'-8" (1.12m)
36(900), 42(1050) 48(1200)	10'x7' (3.0m x 2.1m)	10'-0" (3.05m)	3'-8" (1.12m)

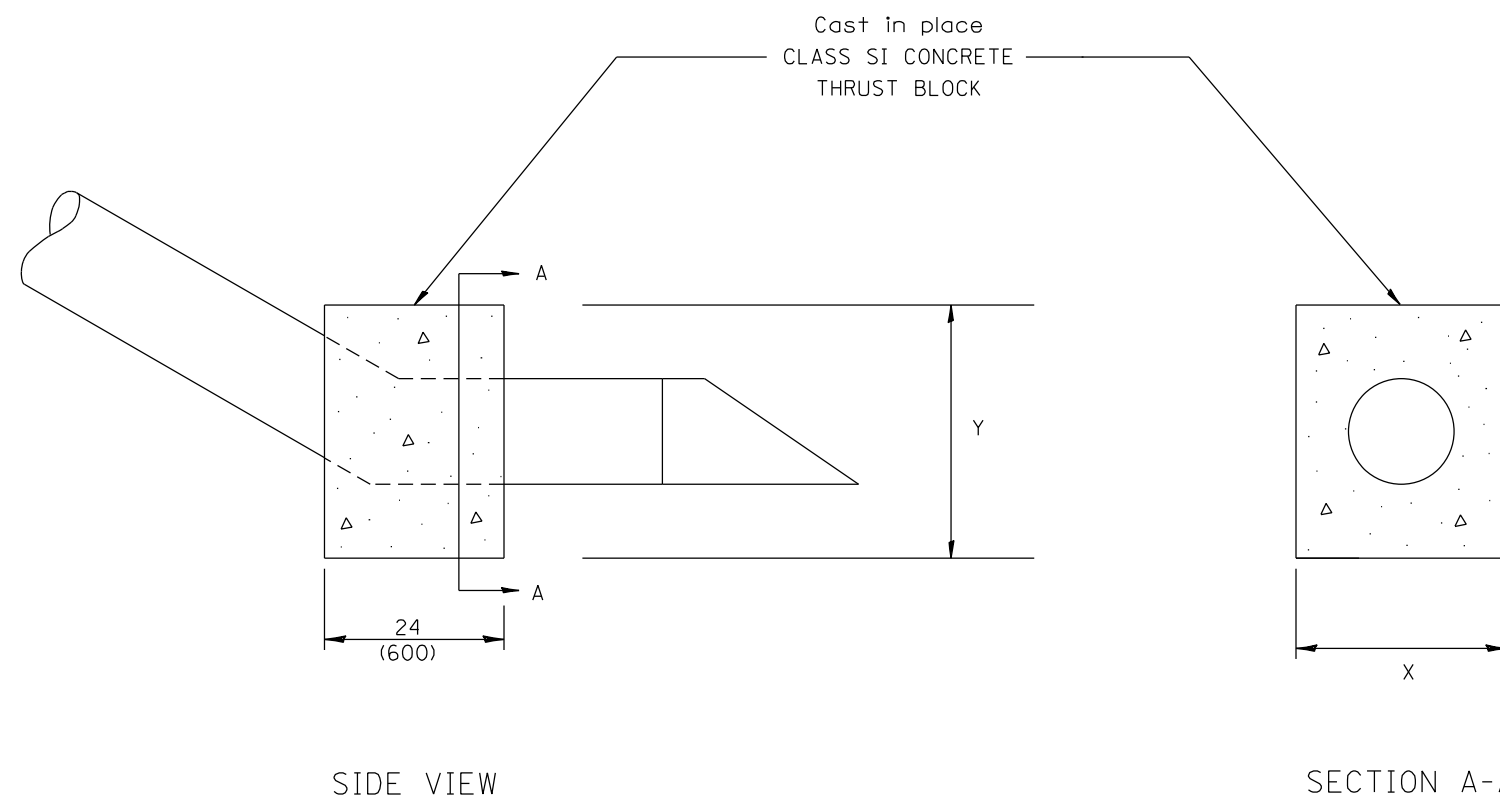
Collar dimensions shown may be increased to allow fabrication from standard size sheets.

SEEPAGE COLLAR SPACING
Less than 24(600) pipe: 100' (30m) spacing or midpoint
Equal to or greater than 24(600) pipe: 80' (24m) spacing or midpoint

All dimensions are in inches (millimeters) unless otherwise noted.

## CONCRETE THRUST BLOCK BILL OF MATERIALS

PIPE SIZE	X	Y	CLASS SI CONCRETE cu. yd. (m <sup>3</sup> )
12(300)	24(600)	24(600)	0.2(0.2)
15(375)	27(675)	27(675)	0.3(0.2)
18(450)	30(750)	30(750)	0.3(0.2)
24(600)	36(900)	36(900)	0.4(0.3)
30(750)	3'-6" (1.07m)	3'-6" (1.07m)	0.8(0.6)



The contract unit price each for CONCRETE THRUST BLOCK shall include the cost of excavation, CLASS SI CONCRETE and compacted backfill.

QUANTITIES	
CALC. BY: _____	DATE: _____
CHECKED BY: _____	DATE: _____
QUANTITY CALCULATIONS ARE ON FILE AT THE DISTRICT 4 OFFICE; BUREAU OF PROJECT IMPLEMENTATION; DOCUMENTATION SECTION	

All dimensions are in inches (millimeters) unless otherwise noted.

01-01-97	RENUM. J-10.04, NEW REVISION BOX, ADDED QUANTITY	T.P.	
	CALCULATION BOX		
10-16-06	REVISED TO 2007 SPEC.	M.A.	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

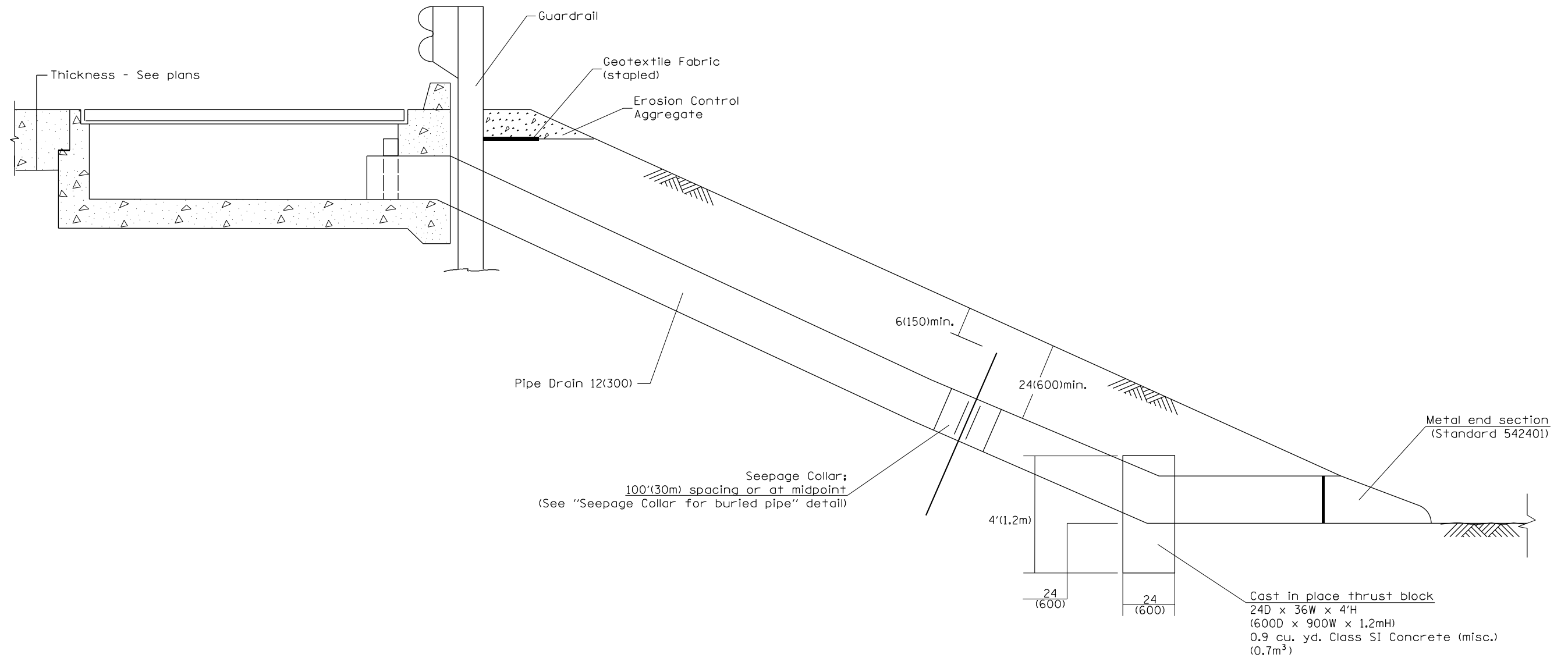
**CONCRETE THRUST BLOCKS**

NOT TO SCALE

CADD STD. 609001-D4

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
155	[90(107-2)HBJJR,BDR,BRR	TAZEWELL	21	20
CONTRACT NO. 68F75				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

SLOPE DRAIN FOR BURIED PIPES



GENERAL NOTES

1. The material for Pipe Drains shall be bituminous coated galvanized corrugated steel culvert pipe or bituminous coated corrugated aluminum alloy pipe in accordance with Article 601.02(b) or 601.02(e) or Polyvinyl Chloride (PVC) pipe in accordance with Article 601.02 (s).
2. An approved mastic material (Article 1055.01) shall be applied to the inside of the connecting bands.

All dimensions are in inches (millimeters) unless otherwise noted.

QUANTITIES	
CALC. BY: _____	DATE: _____
CHECKED BY: _____	DATE: _____
QUANTITY CALCULATIONS ARE ON FILE AT THE DISTRICT 4 OFFICE; BUREAU OF PROJECT IMPLEMENTATION; DOCUMENTATION SECTION	

01-01-97	RENUM. H-1.04, NEW REVISION BOX, REVISED TITLE BOX, REVISED DESIGNER NOTES, ADDED QUANTITY	T.P.	7-15-15	DELETED BC&D DETAIL FOR APPROACH DRAINS	R.D.	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SLOPE DRAIN DETAIL FOR BURIED PIPES</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CALCULATION BOX							155	[90(107-2)HB]BJR,BDR,BRR	TAZEWELL	21	21
10-16-06	REVISED TO 2007 SPEC.	M.A.						CONTRACT NO. 68F75				
						NOT TO SCALE	CADD STD. 601101-D4	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				