

NOTE: PERFORMANCE TABLES MAY BE ROUNDED UP TO ONE SIGNIFICANT DIGIT.



Luminaire Performance Table



Project

Date: 04/28/21 Contract Number: Section Number: County: Peoria

Marked Route Number: I-474 at US - 24 Municipality:

Roadway

Lane Width: 14 # of Lanes: 1 Median Width: I.E.S. Surface Classification: R3 Q-Zero Value: .07

Structure

Mounting Height: 45 Arm Length: 0.5 FT. Set-Back: 30 FT. Number of Luminares (Highmast & Sign Lighting Only): N/A

Luminaire

Description: Roadway, Output designation J I.E.S. Lateral Distribution: Type II I.E.S. Vertical Distribution: Medium
 Total Light Loss Factor (LLF): 0.7 B-U-G Rating: U = 0 Shields: N/A Dimming Protocol: 0-10V

Layout

Spacing (to Nearest 5 ft): 300 Configuration (Opposite, Staggered, 1 Sided, or Median): One Sided

Performance

Average Illuminance, E_{AVE} (fc): .8 Uniformity Ratio, E_{AVE}/E_{MIN}: 3.0
 Average Luminance, L_{AVE} (cd/m²): N/A Uniformity Ratio, L_{AVE}/L_{MIN}: N/A Uniformity Ratio, L_{MAX}/L_{MIN}: N/A Veiling Luminance Ratio, L_V/L_{AVE}: 0.4

Light Trespass

Distance to ROW (behind pole): N/A Max. Horizontal Illuminance at ROW, E_H: N/A Max. Vertical Illuminance at ROW, E_V: N/A

Notes

- Set-Back is from Edge of Pavement (white line) except for sign luminaires when it is vertical and horizontal distance from the sign to the luminaire.
- Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.
- Total Light Loss Factor (LLF) = the product of "Lumen Maintenance" (LLD) = 0.9, "Dirt Depreciation" (LDD) = 0.8, and "Equipment Factors" (EF) = 0.95.
- Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

Initial lumens of the proposed luminaire may vary from the values specified in the table given in Article 1067.06 of BDE Special Provision of Luminaire, LED
 Performance criteria shall be held to one significant digit.

Printed 04/28/21

BDE 5630 (04/10/19)



Luminaire Performance Table



Project

Date: 04/28/21 Contract Number: Section Number: County: Peoria

Marked Route Number: I-474 at US - 24 Municipality:

Roadway

Lane Width: 12 # of Lanes: 3 Median Width: I.E.S. Surface Classification: R3 Q-Zero Value: .07

Structure

Mounting Height: 45 Arm Length: 0.5 FT. Set-Back: 15 FT. Number of Luminares (Highmast & Sign Lighting Only): N/A

Luminaire

Description: Roadway, Output designation J I.E.S. Lateral Distribution: Type II I.E.S. Vertical Distribution: Medium
 Total Light Loss Factor (LLF): 0.7 B-U-G Rating: U = 0 Shields: N/A Dimming Protocol: 0-10V

Layout

Spacing (to Nearest 5 ft): 250 Configuration (Opposite, Staggered, 1 Sided, or Median): One Sided

Performance

Average Illuminance, E_{AVE} (fc): N/A Uniformity Ratio, E_{AVE}/E_{MIN}: N/A
 Average Luminance, L_{AVE} (cd/m²): 0.6 Uniformity Ratio, L_{AVE}/L_{MIN}: 3.5 Uniformity Ratio, L_{MAX}/L_{MIN}: 6.0 Veiling Luminance Ratio, L_V/L_{AVE}: 0.3

Light Trespass

Distance to ROW (behind pole): N/A Max. Horizontal Illuminance at ROW, E_H: N/A Max. Vertical Illuminance at ROW, E_V: N/A

Notes

- Set-Back is from Edge of Pavement (white line) except for sign luminaires when it is vertical and horizontal distance from the sign to the luminaire.
- Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.
- Total Light Loss Factor (LLF) = the product of "Lumen Maintenance" (LLD) = 0.9, "Dirt Depreciation" (LDD) = 0.8, and "Equipment Factors" (EF) = 0.95.
- Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

Initial lumens of the proposed luminaire may vary from the values specified in the table given in Article 1067.06 of BDE Special Provision of Luminaire, LED
 Performance criteria shall be held to one significant digit.

Printed 04/28/21

BDE 5630 (04/10/19)

MODEL: Default
 FILE NAME: G:\Common\GEN\Transfer - Bureau\BSC45 Lighting Plans\BSC45 - I-474 Lighting (FINAL) 2-25-21.dgn

USER NAME = hansonj	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 206,2628 ' / in.	CHECKED -	REVISED -
PLOT DATE = 5/6/2021	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PROPOSED LUMINAIRE PERFORMANCE TABLES (CONTINUED)

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72-(1)RS-3;(2,3,4)RS-2	PEORIA	240	201
CONTRACT NO. 68C45				
ILLINOIS FED. AID PROJECT				

NOTE: PERFORMANCE TABLES MAY BE ROUNDED UP TO ONE SIGNIFICANT DIGIT.



Luminaire Performance Table



Project

Date: 02/23/21 Contract Number: 68C45 Section Number: 72-(1)RS-3;(2,3,4)RS-2 County: Peoria

Marked Route Number: I-474 & US 24 Municipality: Peoria County

Roadway

Lane Width: 12 ft. # of Lanes: 2 Median Width: N/A I.E.S. Surface Classification: R3 Q-Zero Value: 0.07

Structure

Mounting Height: N/A Arm Length: N/A Set-Back: N/A Number of Luminaires (Highmast & Sign Lighting Only): 2

Luminaire

Description: LED, SIGN LIGHTING, OUTPUT DESIG. E I.E.S. Lateral Distribution: TYPE III I.E.S. Vertical Distribution: MEDIUM

Total Light Loss Factor (LLF): 0.684 B-U-G Rating: U=0 Shields: N/A Dimming Protocol: 0-10V

Layout

Spacing (to Nearest 5 ft): 5.0 FT. Configuration (Opposite, Staggered, 1 Sided, or Median): N/A

Performance

Average Illuminance, E_{AVE} (fc): Uniformity Ratio, E_{AVE}/E_{MIN}

Average Luminance, L_{AVE} (cd/m²): 0.6 Uniformity Ratio, L_{AVE}/L_{MIN} : 3.5 Uniformity Ratio, L_{MAX}/L_{MIN} : 6.0 Veiling Luminance Ratio, L_v/L_{AVE} : 0.30

Light Tresspass

Distance to ROW (behind pole): N/A Max. Horizontal Illuminance at ROW, E_H : N/A Max. Vertical Illuminance at ROW, E_v : N/A

Notes

- Set-Back is from Edge of Pavement (white line) except for sign luminaires when it is vertical and horizontal distance from the sign to the luminaire.
- Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.
- Total Light Loss Factor (LLF) = the product of "Lumen Maintenance" (LLD) = 0.9, "Dirt Depreciation" (LDD) = 0.8, and "Equipment Factors" (EF) = 0.95.
- Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

Printed 02/23/21

BDE 5630 (04/10/19)



Luminaire Performance Table



Project

Date: 02/23/21 Contract Number: 68C45 Section Number: 72-(1)RS-3;(2,3,4)RS-2 County: Peoria

Marked Route Number: US 24 Municipality: Peoria County

Roadway

Lane Width: 12 ft. # of Lanes: 2 Median Width: N/A I.E.S. Surface Classification: R3 Q-Zero Value: 0.07

Structure

Mounting Height: N/A Arm Length: N/A Set-Back: N/A Number of Luminaires (Highmast & Sign Lighting Only): 4

Luminaire

Description: LED, SIGN LIGHTING, OUTPUT DESIG. E I.E.S. Lateral Distribution: TYPE III I.E.S. Vertical Distribution: MEDIUM

Total Light Loss Factor (LLF): 0.684 B-U-G Rating: U=0 Shields: N/A Dimming Protocol: 0-10V

Layout

Spacing (to Nearest 5 ft): 5.0 FT. Configuration (Opposite, Staggered, 1 Sided, or Median): N/A

Performance

Average Illuminance, E_{AVE} (fc): Uniformity Ratio, E_{AVE}/E_{MIN}

Average Luminance, L_{AVE} (cd/m²): 0.6 Uniformity Ratio, L_{AVE}/L_{MIN} : 3.5 Uniformity Ratio, L_{MAX}/L_{MIN} : 6.0 Veiling Luminance Ratio, L_v/L_{AVE} : 0.30

Light Tresspass

Distance to ROW (behind pole): N/A Max. Horizontal Illuminance at ROW, E_H : N/A Max. Vertical Illuminance at ROW, E_v : N/A

Notes

- Set-Back is from Edge of Pavement (white line) except for sign luminaires when it is vertical and horizontal distance from the sign to the luminaire.
- Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.
- Total Light Loss Factor (LLF) = the product of "Lumen Maintenance" (LLD) = 0.9, "Dirt Depreciation" (LDD) = 0.8, and "Equipment Factors" (EF) = 0.95.
- Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

Printed 02/23/21

BDE 5630 (04/10/19)

USER NAME = \$USERS	DESIGNED -	REVISED -
PLOT SCALE = \$SCALES	DRAWN -	REVISED -
PLOT DATE = \$DATES	CHECKED -	REVISED -
	DATE -	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72-(1)RS-3;(2,3,4)RS-2	PEORIA	240	202
CONTRACT NO. 68C45				
ILLINOIS FED. AID PROJECT				

NOTE: PERFORMANCE TABLES MAY BE ROUNDED UP TO ONE SIGNIFICANT DIGIT.



Luminaire Performance Table



Project

Date: 02/23/21 Contract Number: 68C45 Section Number: 72-(1)RS-3;(2,3,4)RS-2 County: Peoria

Marked Route Number: MAXWELL RD. Municipality: Peoria County

Roadway

Lane Width: 12 ft. # of Lanes: 2 Median Width: N/A I.E.S. Surface Classification: R3 Q-Zero Value: 0.07

Structure

Mounting Height: N/A Arm Length: N/A Set-Back: N/A Number of Luminaires: 1

Luminaire

Description: LED, SIGN LIGHTING, OUTPUT DESIG. E I.E.S. Lateral Distribution: TYPE III I.E.S. Vertical Distribution: MEDIUM
 Total Light Loss Factor (LLF): 0.684 B-U-G Rating: U=0 Shields: N/A Dimming Protocol: 0-10V

Layout

Spacing (to Nearest 5 ft): N/A Configuration (Opposite, Staggered, 1 Sided, or Median): N/A

Performance

Average Illuminance, E_{AVE} (fc): Uniformity Ratio, E_{AVE}/E_{MIN} :
 Average Luminance, L_{AVE} (cd/m²): 0.6 Uniformity Ratio, L_{AVE}/L_{MIN} : 3.5 Uniformity Ratio, L_{MAX}/L_{MIN} : 6.0 Veiling Luminance Ratio, L_v/L_{AVE} : 0.30

Light Tresspass

Distance to ROW (behind pole): N/A Max. Horizontal Illuminance at ROW, E_H : N/A Max. Vertical Illuminance at ROW, E_v : N/A

Notes

- Set-Back is from Edge of Pavement (white line) except for sign luminaires when it is vertical and horizontal distance from the sign to the luminaire.
- Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.
- Total Light Loss Factor (LLF) = the product of "Lumen Maintenance" (LLD) = 0.9, "Dirt Depreciation" (LDD) = 0.8, and "Equipment Factors" (EF) = 0.95.
- Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

Printed 02/23/21

BDE 5630 (04/10/19)



Luminaire Performance Table



Project

Date: 02/23/21 Contract Number: 68C45 Section Number: 72-(1)RS-3;(2,3,4)RS-2 County: Peoria

Marked Route Number: AIRPORT RD. Municipality: Peoria County

Roadway

Lane Width: 12 ft. # of Lanes: 2 Median Width: N/A I.E.S. Surface Classification: R3 Q-Zero Value: 0.07

Structure

Mounting Height: N/A Arm Length: N/A Set-Back: N/A Number of Luminaires: 3

Luminaire

Description: LED, SIGN LIGHTING, OUTPUT DESIG. E I.E.S. Lateral Distribution: TYPE III I.E.S. Vertical Distribution: MEDIUM
 Total Light Loss Factor (LLF): 0.684 B-U-G Rating: U=0 Shields: N/A Dimming Protocol: 0-10V

Layout

Spacing (to Nearest 5 ft): 5.0 FT. Configuration (Opposite, Staggered, 1 Sided, or Median): N/A

Performance

Average Illuminance, E_{AVE} (fc): Uniformity Ratio, E_{AVE}/E_{MIN} :
 Average Luminance, L_{AVE} (cd/m²): 0.6 Uniformity Ratio, L_{AVE}/L_{MIN} : 3.5 Uniformity Ratio, L_{MAX}/L_{MIN} : 6.0 Veiling Luminance Ratio, L_v/L_{AVE} : 0.30

Light Tresspass

Distance to ROW (behind pole): N/A Max. Horizontal Illuminance at ROW, E_H : N/A Max. Vertical Illuminance at ROW, E_v : N/A

Notes

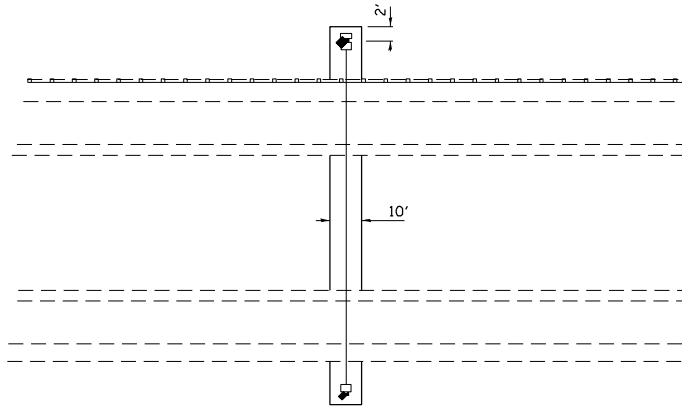
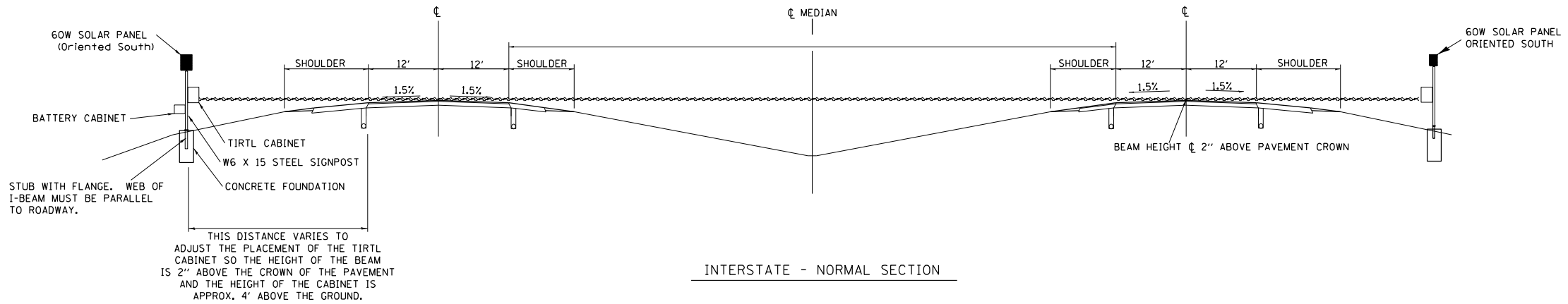
- Set-Back is from Edge of Pavement (white line) except for sign luminaires when it is vertical and horizontal distance from the sign to the luminaire.
- Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.
- Total Light Loss Factor (LLF) = the product of "Lumen Maintenance" (LLD) = 0.9, "Dirt Depreciation" (LDD) = 0.8, and "Equipment Factors" (EF) = 0.95.
- Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

Printed 02/23/21

BDE 5630 (04/10/19)

USER NAME = \$USERS	DESIGNED -	REVISED -
PLOT SCALE = \$SCALES	DRAWN -	REVISED -
PLOT DATE = \$DATES	CHECKED -	REVISED -
	DATE -	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72-(1)RS-3;(2,3,4)RS-2	PEORA	240	203
CONTRACT NO. 68C45				
ILLINOIS FED. AID PROJECT				



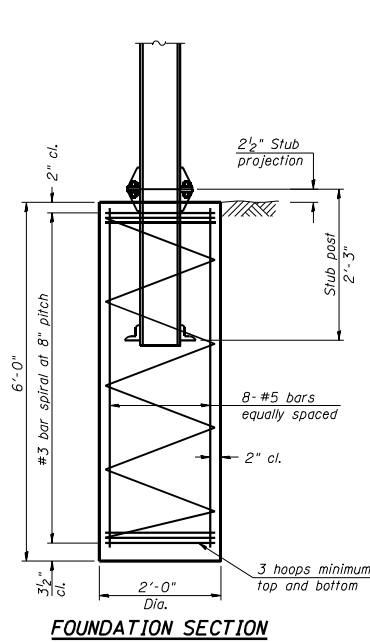
Weed Barrier - PCC concrete shall be placed as shown 8' to 10' wide and 4" thick as per the special provision

NOTES:

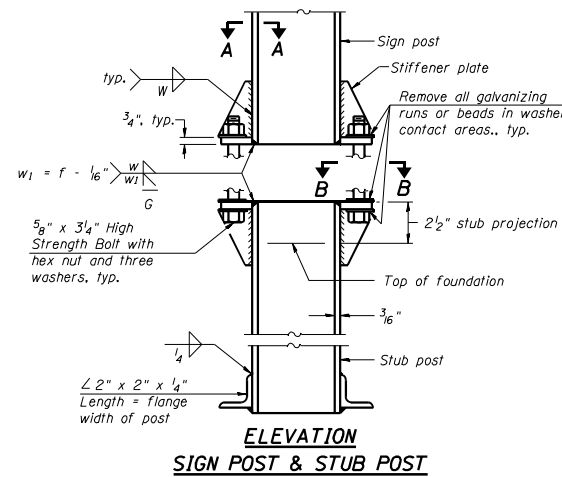
1. SYSTEM CONSISTS OF TWO W6 X 15 I-BEAM SIGNPOSTS WITH CONCRETE FOUNDATION AND A FLANGE WITH BREAKAWAY BOLTS
2. THE I-BEAMS ARE 12' LONG AND DRILLED AS PER THE I-BEAM DETAIL TO ACCOMMODATE A PIPE TO ALLOW THE MOUNTING OF THE SOLAR PANEL.
3. THE WEB OF THE I-BEAM IS TO BE PLACED PARALLEL TO THE LANES.
4. THE TWO POSTS MUST BE PLACED DIRECTLY ACROSS FROM EACH OTHER AND PERPENDICULAR TO THE LANES.
5. TWO POSTS ARE REQUIRED LOCATED AS PER THE ENGINEER AND DRAWING.
6. THE CABINETS ARE ATTACHED TO THE I-BEAM USING 8" GALVANIZED J-BOLTS.
7. THE BOTTOM OF THE CABINET HEIGHT MUST BE NO LOWER THAN 4' ABOVE THE GROUND AND BE ABLE TO VIEW ACROSS ALL LANES AT THE CROWN OF THE PAVEMENT.
8. THE IDOT OFFICE OF PLANNING AND PROGRAMMING DATA MANAGEMENT LAB RICH MARX (217-782-2065) MUST BE NOTIFIED TWO WEEKS PRIOR TO THE LAYOUT AND MUST BE PRESENT DURING THE LAYOUT AND PLACEMENT OF THE POST FOUNDATIONS.

**TIRTL TRAFFIC COUNTER
SCHEDULE OF QUANTITIES
(FOR INFORMATION ONLY)**

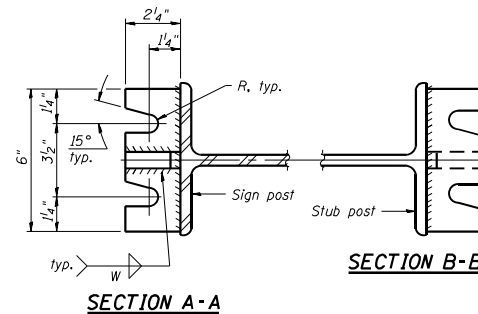
CODE NUMBER	ITEM	UNIT	QUANTITY
72700100	STRUCTURAL STEEL SIGN SUPPORT - BREAKAWAY	POUND	520
73400100	CONCRETE FOUNDATIONS	CU YD	1.4
X0323388	TRAFFIC COUNTER SYSTEM (INCLUDES BELOW)	EACH	1
TIRTL TRAFFIC DATA COLLECTION SYSTEM INCLUDES:			
	Sierra Wireless Modem RV-50	EACH	1
	Panorama Low Profile LTE MIMO LGAM-BC3G-26-3SP Antenna	EACH	1
	TIRTL CABINET 15" X 27" X 16"	EACH	2
	BATTERY CABINET 16.5" X 16" X 11.5" BBA1M w/ #2 Police Lock	EACH	1
	SOLAR PANEL 60 W 12 VDC with Bracket and junction box	EACH	2
	TIRTL TRAFFIC COUNTER	EACH	1
	SUNSAVER SOLAR CHARGE REGULATOR 10 AMP 12 VDC	EACH	2
	BATTERY - 33 AH ABSORBED ELECTROLYTE 8" X 5.5" X 7" (DEEP CYCLE)	EACH	1
	BATTERY - 104AH ABSORBED ELECTROLYTE 10" X 6" X 8" (DEEP CYCLE)	EACH	1



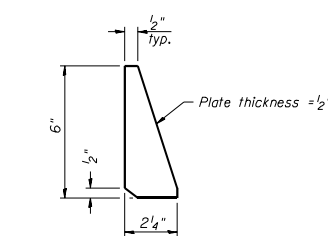
FOUNDATION SECTION



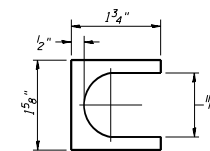
**ELEVATION
SIGN POST & STUB POST**



SECTION A-A



STIFFENER PLATE DETAIL



SHIM DETAIL
Furnish two 0.01" thick and two 0.03" thick stainless steel or brass (ASTM B36) shims per post.

GENERAL NOTES

Posts shall be plumbed by using shims with post-to-stub post connection bolts snug tight only. Final tightening of all High Strength Bolts shall be in accordance with Article 727.05 and threads at the junction of the bolt and nut shall be burred or center punched to prevent the nut from loosening.

LOADING: 80 m.p.h. wind with 30% gust factor, normal to sign.

DESIGN STRESSES:

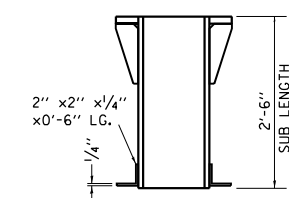
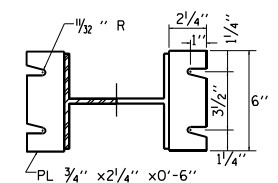
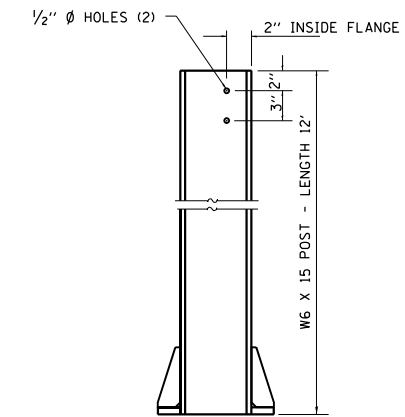
Structural steel - 20,000 p.s.i.

Reinforcing steel - 20,000 p.s.i.

Concrete - 1,400 p.s.i.

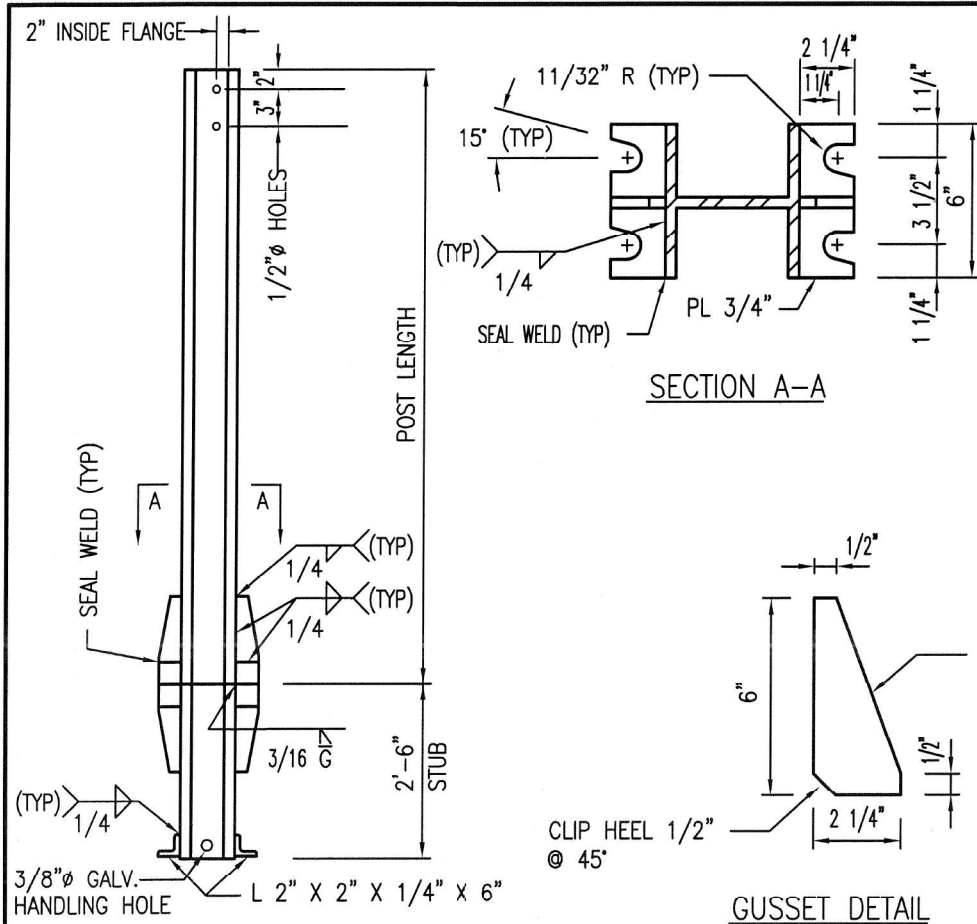
Footing soil pressure - 2,000 p.s.f.

After fabrication, the post and upper 6", min. of the stub post shall be hot-dip galvanized in accordance with AASHTO M111. All bolts, nuts and washers shall be hot-dip galvanized in accordance with AASHTO M232.



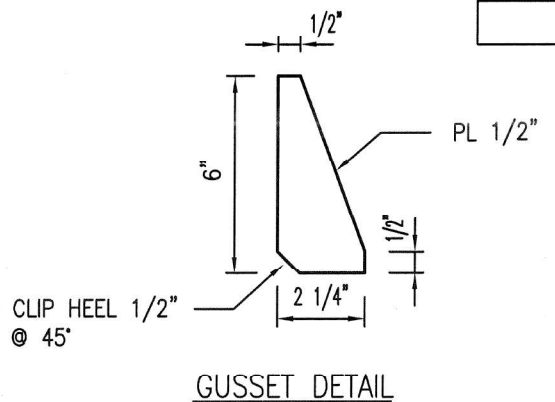
BREAK-AWAY WIDE FLANGE STEEL POST DETAILS

FILE NAME =	USER NAME = #USER*	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC COUNTER SYSTEM				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILEL#		DRAWN -	REVISED -		474	72[IRS-3+2-4]RS-2]	PEORIA	240	203A				
#MODELNAME#	PLOT SCALE = #SCALE*	CHECKED -	REVISED -		CONTRACT NO. 68C45								
	PLOT DATE = #DATE*	DATE -	REVISED -		ILLINOIS FED. AID PROJECT								
					SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.		



SEE TABLE 2
W 6 X 15 POSTS
W 6 X 15 STUBS

LOCATION	QUANTITY	MK.	POST LG.	REMARKS
	2	P1	12'-0"	



- BASE BOLTS**
 8 - 5/8"Ø X 3" H.S. HEX BOLT & NUT
 24 - 5/8"Ø HARDENED FLAT WASHERS
 4 - .012 STD. BRASS SHIMS
 4 - .032 STD. BRASS SHIMS

STRUCTURAL STEEL & PLATE TO BE ASTM A36
 BOLTS, NUTS & WASHERS TO BE A325
 GALV. STEEL AFTER FABRICATION PER A123
 GALV. BOLTS, NUTS & WASHERS PER A153
 BRASS SHIMS TO BE ASTM B36

HURTT FABRICATING CORP.
 P.O. BOX 128
 MARCELINE, MO 64658

STATE: ILLINOIS	APPROVED BY: TAP	JOB NO. HF 7507	DRAWN BY: EKG
DATE: 10-17-19			REVISED:
PROJECT: CONT.# 74703 FAP RTE 116 (IL 130) EDWARDS COUNTY, ILLINOIS		CUST PO# 2712 RELEASE 1	
CUSTOMER: RIGHT WAY TRAFFIC CONTROL, INC.		DRAWING NUMBER 1 OF 1	

POSSIBLE SOURCES for SPECIFIED ITEMS - TIRTL

Material	Possible Source	Contact	Telephone Number	Location
RV-50 Wireless Modem & Antenna	CDS Office	Ron Clark	(217)-541-3410	Springfield, IL
60l Solar Panel	Ameresco Solar	Sales	(855)-437-6527	Oakbrook, IL
Sun Xtender Battery 12v 104ah Part # PVX-1040T	Concord Battery Corp.	Sales	(626) 813-1234	West Covina, CA
Sun Xtender Battery 12v 34ah Part # PVX-340T	Concord Battery Corp.	Sales	(626) 813-1234	West Covina, CA
SunSaver 10L solar charger Part # SS-10L-12V	Sunwize Power & Battery	Sales	(800)-817-6527	San Jose, CA
Battery Box with Lock Part # BBA1M	Ameresco Solar	Sales	(855)-437-6527	Texas, California, Arizona, Florida
Battery Box with Lock	Control Specialists	Terence Tomlin	(407) 628-1965	Florida
Solar Panel Bracket Part # 007985	Sunwize Power & Battery	Sales	(800)-817-6527	San Jose, CA
TIRTL - Ver. 3 Traffic counter with cable kit	Control Specialists	Terence Tomlin	(407) 628-1965	Florida
TIRTL cabinet	Control Specialists	Terence Tomlin	(407) 628-1965	Florida

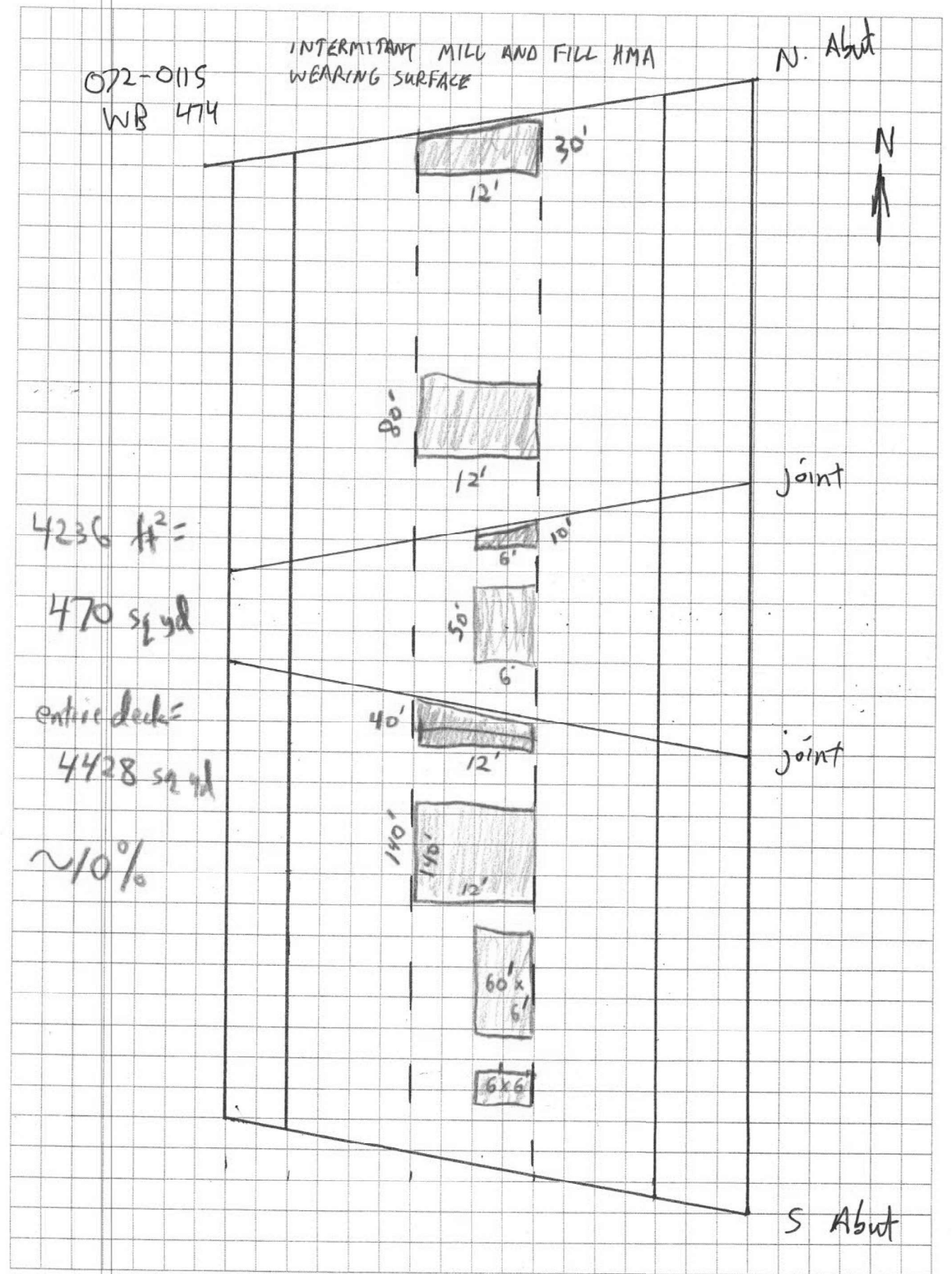
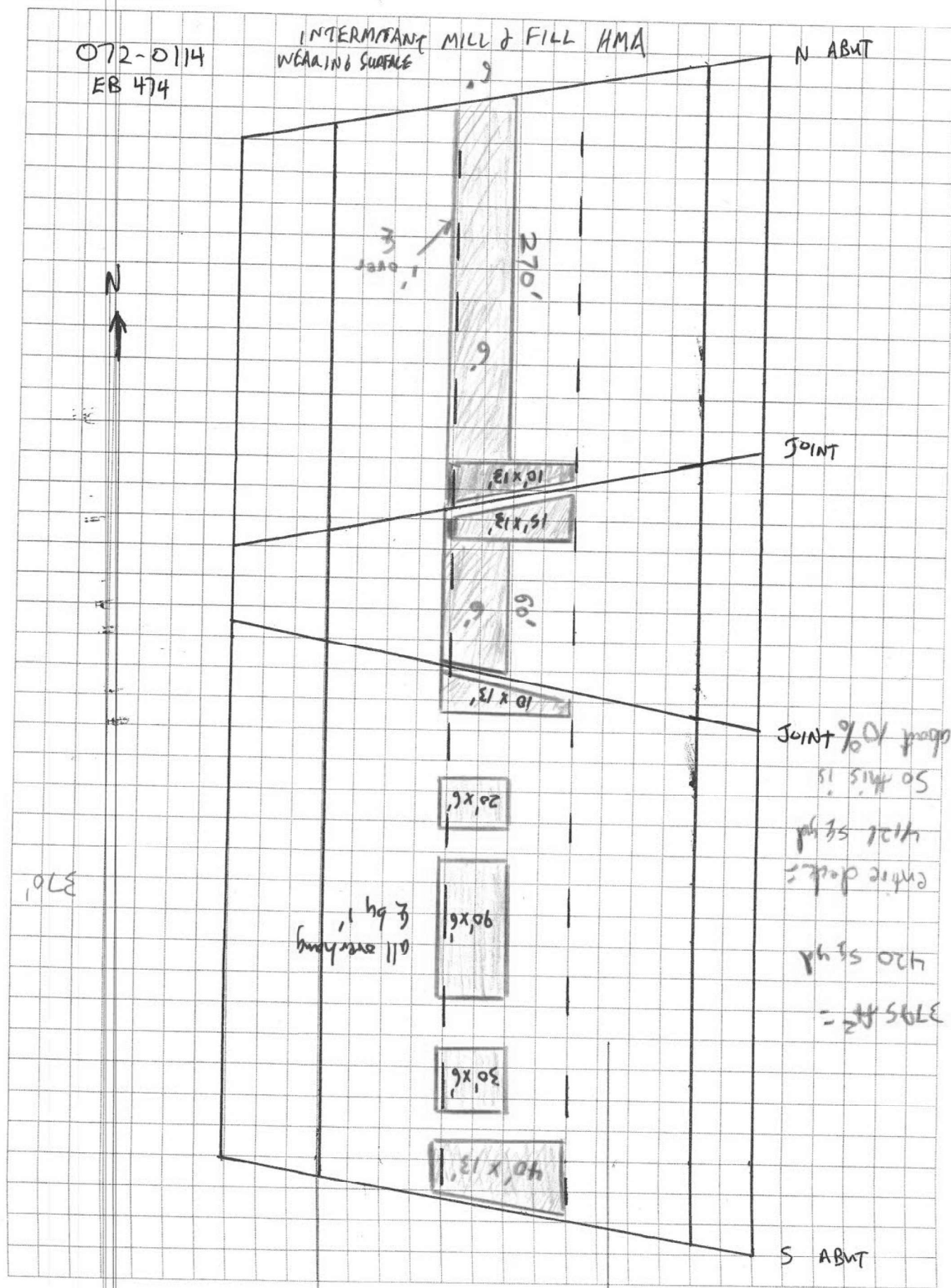
MODEL NAME: FILE NAME: SHEETS

USER NAME = \$USERS	DESIGNED -	REVISED -
PLOT SCALE = \$SCALES	DRAWN -	REVISED -
PLOT DATE = \$DATES	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	72[IRS-3;(2-4)RS-2]	PEORIA	240	203B
CONTRACT NO. 68C45				
ILLINOIS FED. AID PROJECT				



BBS 2049 (Rev. 9/06)

MODEL NUMBER
FILE NUMBER SHEETS

USER NAME = \$USERS	DESIGNED -	REVISED -
PLOT SCALE = \$SCALES	DRAWN -	REVISED -
PLOT DATE = \$DATES	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

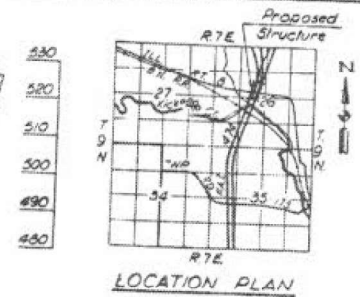
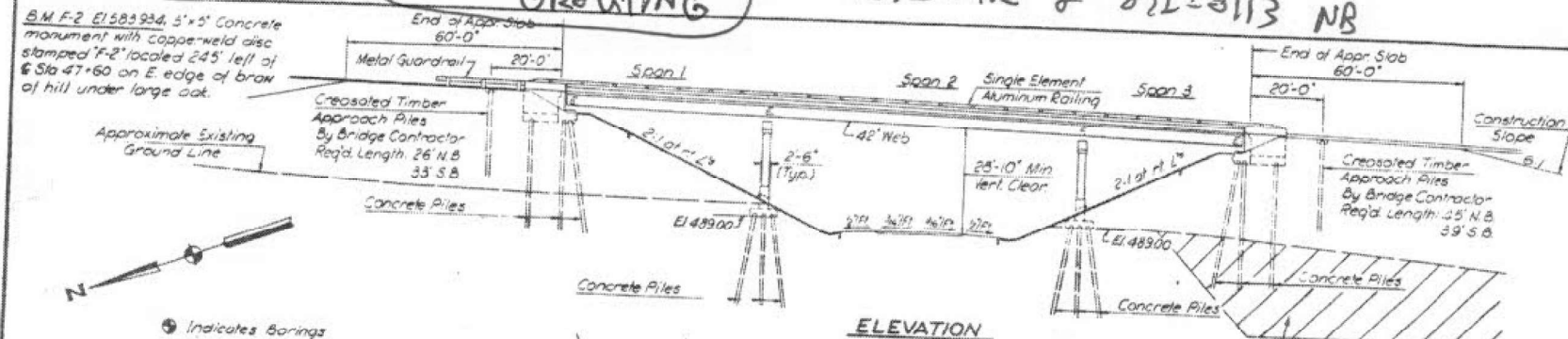
SN 072-0114 / 0115

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72(1RS-3:(2-4)RS-2)	PEORIA	240	204
CONTRACT NO. 68C45				
ILLINOIS FED. AID PROJECT				

SLOPE WALL VOID GROUTING

SB
072-0112 & 072-0113 NB



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS
F.A.I. - 474	72-2NB	PEORIA	48
FED. ROAD DIV. NO. 7	ILLINOIS PROJECT		

GENERAL NOTES

ALL REINFORCEMENT BARS SHALL BE LAPPED 24 DIAMETERS UNLESS OTHERWISE SHOWN.

PASTERNS SHALL BE HIGH STRENGTH BOLTS. BOLTS 3/4" Ø HOLES 13/16" Ø, UNLESS OTHERWISE NOTED.

CALCULATED WEIGHT OF STRUCTURAL STEEL - 652,600 LBS.

THE BASIC LEAD SILICO CHROMATE PAINT SYSTEM SHALL BE FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL.

FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF GIRDERS NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH SPAN LENGTH EACH WAY FROM THE PIER SUPPORTS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN AT BY THE ENGINEER.

ANCHOR BOLTS SHALL BE SET BEFORE BOLTING DIAPHRAGMS & SUPPORTS.

SLOPE WALL SHALL BE REINFORCED WITH WELDED WIRE FABRIC 6" X 6" MESH, WEIGHING 50# PER 100 SQ. FT.

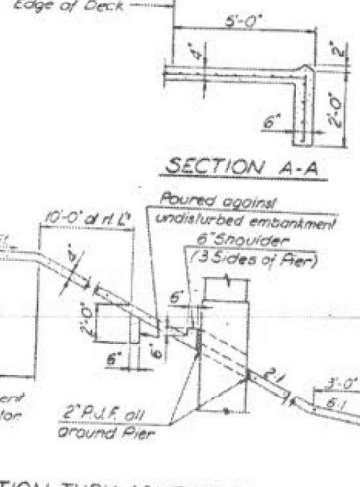
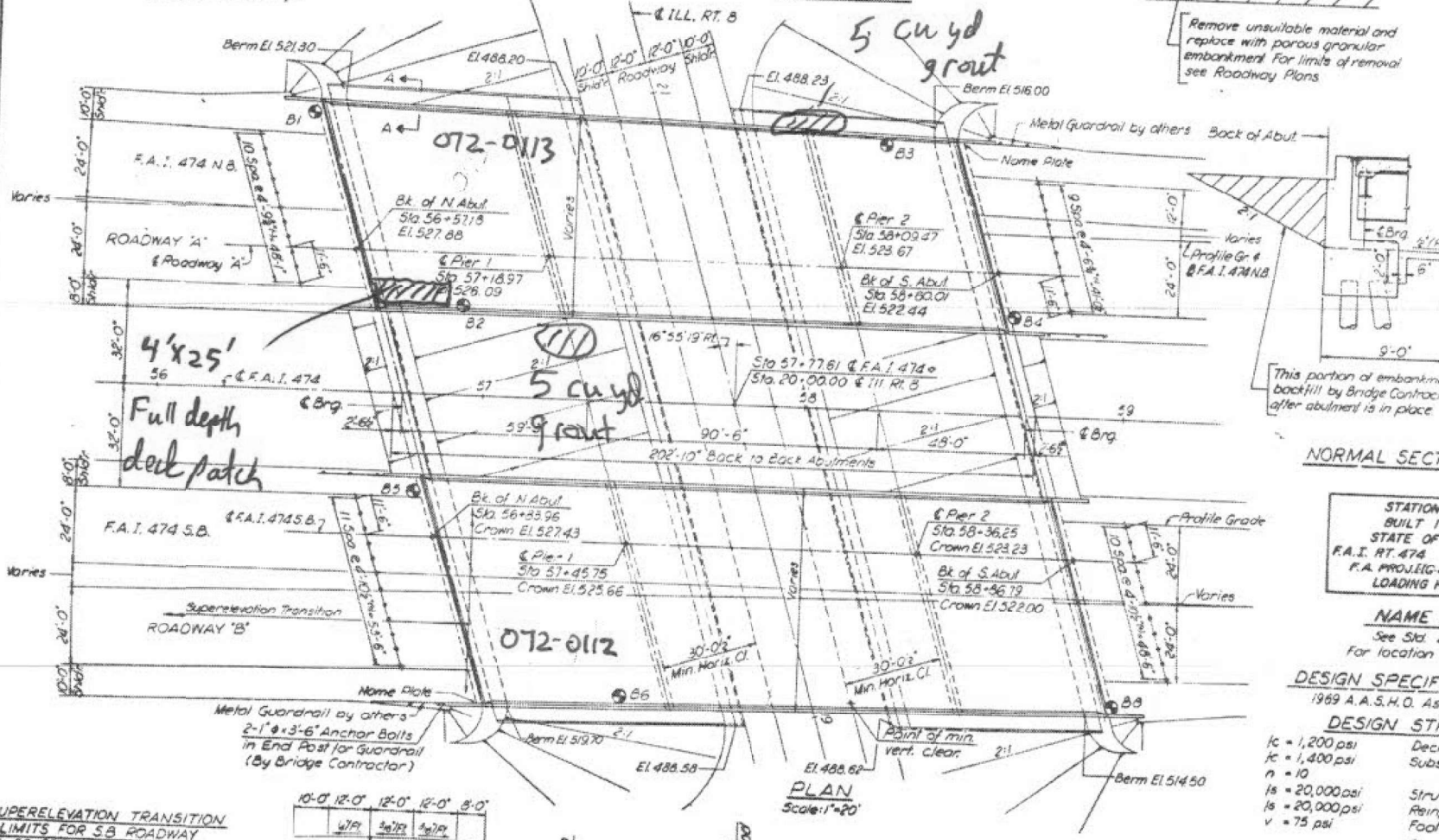
THE CONTRACTOR SHALL DRIVE ONE (1) CONCRETE TEST PILE PERMANENT LOCATION AT THE NORTH ABUTMENT AND PIER 2 ON NORTHBOUND ROADWAY AND PIER 1 AND SOUTH ABUTMENT OF THE SOUTHBOUND ROADWAY AS DIRECTED BY THE ENGINEER BEFORE THE REMINDER OF PILES.

CONCRETE PILES AT ABUTMENTS SHALL BE DRIVEN IN HOLES PRECURED THROUGH THE EMBANKMENT IN ACCORDANCE WITH ART 513.09(e) OF THE STANDARD SPECIFICATIONS.

THE EMBANKMENT CONFIGURATION SHOWN SHALL BE THE MINIMUM EMBANKMENT THAT MUST BE CONSTRUCTED PRIOR TO CONSTRUCTION OF THE ABUTMENTS.

THE CONCRETE NAIL SECTION ABOVE THE MANDATORY CONSTRUCTION JOINT AT THE TOP OF THE SLAB SHALL BE CONSTRUCTED OF C X CONCRETE, EXCEPT THE AGGREGATES SHALL CONFORM TO THE REQUIREMENTS OF HANDRAIL CONCRETE.

PROTECTIVE COAT SHALL NOT BE APPLIED TO SURFACES TO WHICH COAL TAR INTERLAYER PROTECTIVE COAT IS APPLIED.



NAME PLATE
See Sta. 2113
For location see Sh 12113

DESIGN SPECIFICATIONS
1989 A.A.S.H.O. As Applicable

DESIGN STRESSES

fc = 1,200 psi Deck Slab
fc = 1,400 psi Substructure, Curb & Parapet
n = 10
fs = 20,000 psi Structural Steel
fs = 20,000 psi Reinforcement
fv = 75 psi Roofings

LL Deflection: $\frac{L}{1,800}$

LOADING
HS 20-44 and Alternate
25% Future Wearing Surface

TOTAL BILL OF MATERIAL

Item	Unit	Superstr.	Substr.	Tot.
Structure Excavation	Cu Yd		465	465
Protective Coat	Sq Yd	283	40	323
Class 'X' Concrete	Cu Yd	794.7	774.0	1,568.7
F.F.E. Structural Steel	Lin Ft			
Slab Shear Connectors	Each	6,936		6,936
Aluminum Roofing	Lin Ft	899		899
Reinforcement Bars	Lb	218,780	108,370	327,150
Fur & Driving Creosoted Piles 20" to 30" Ø	Lin Ft		682	682
Fur & Driving Creosoted Piles over 30" Ø	Lin Ft		879	879
Fur & Driving Concrete Piles	Lin Ft		9,504	9,504
Test Pile Concrete	Each		4	4
Name Plate	Each		2	2
Slope Wall 4"	Sq Yd		3,840	3,840
Preformed Joint Sealer 2 1/2"	Lin Ft	135		135
Neoprene Expansion Joint 2"	Lin Ft	142		142

SUPERELEVATION TRANSITION LIMITS FOR SB ROADWAY
Sta 56+98.70 Normal Crown
Sta 54+58.70 Full Super-elevation
S.E. = 0.0534 (High on left side)

NORMAL SECTION AT STA 60+60.00

SECTION AT STA 56+27.76

CROSS SECTIONS - TRANSITION LIMITS FOR N.B. ROADWAY

PROFILE ALONG & F.A.I. 474
For point of application see Plan

PROFILE ALONG & ILL. ROUTE 8

STATE OF ILLINOIS
GENERAL HIGHWAYS
GENERAL PLAN
F.A.I. ROUTE 474
OVER
ILLINOIS ROUTE 8
STA 57+77.61
F.A.I. RT. 474 PEORIA COUNTY SECTION 72-2NB
CHRISTIAN-ROGE AND ASSOC.
ENGINEERS
CHICAGO, ILLINOIS

072-0112 SB (EB 474)
072-0113 NB (WB 474)

USER NAME = SUSERS	DESIGNED -	REVISED -
DRAWN -	REVISED -	
PLOT SCALE = 5/8"=1'	CHECKED -	REVISED -
PLOT DATE = 5/24/75	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SN 072-0112 / 0113

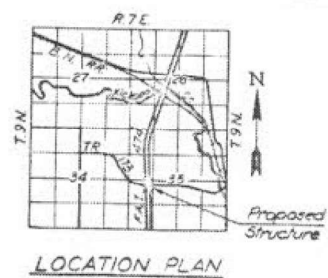
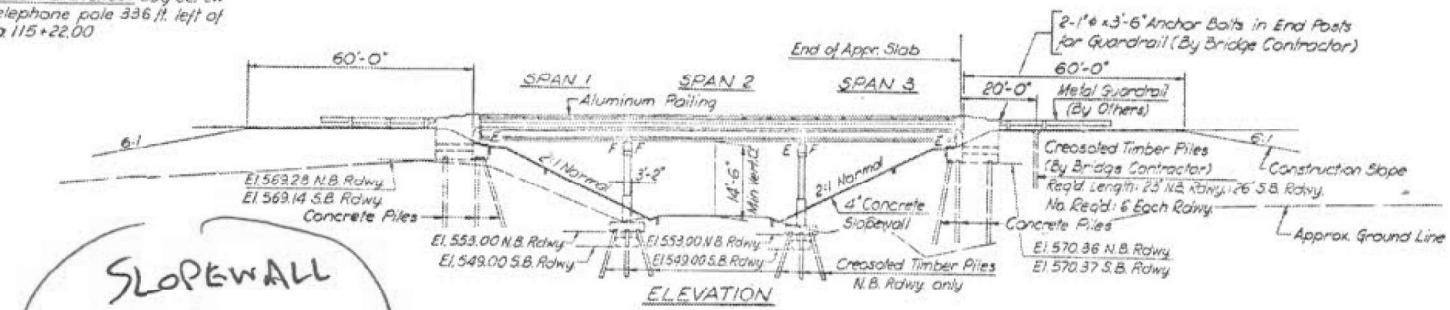
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[1RS-3;(2-4)RS-2]	PEORIA	240	205
CONTRACT NO. 68C45				
ILLINOIS FED. AID PROJECT				

072-0116 EB 474

072-0117 WB 474

B.M. - F&A El. 572.189; Log screw in telephone pole 336 ft. left of Sta 115+22.00



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 474	72-2NB-1	PEORIA	35	6
FED. ROAD DIV. NO. 7	ILLINOIS	PROJECT I-474-7(6)		

GENERAL NOTES

All reinforcement bars shall be lapped 24 diameters unless otherwise shown.

The basic lead silico chromate paint system shall be used for shop and field painting of structural steel.

Slope wall shall be reinforced with welded wire fabric 6" x 6" mesh, weighing 50# per 100 sq. ft.

The Contractor shall drive one (1) concrete test pile in a permanent location at the North Abutment of the Northbound roadway, and South Abutment of the Southbound roadway, and one (1) timber test pile at Pier 2 of the Northbound roadway as directed by the Engineer before ordering the remainder of piles.

Concrete piles at South abutments shall be driven in holes precast through the embankment in accordance with Article 513.09(c) of the Standard Specifications.

An alternate strand pattern using Extra High Strength Prestressing strand (270 K.S.I.) is permitted.

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class I Concrete, except the aggregates shall conform to the requirements of Mandrel Concrete.

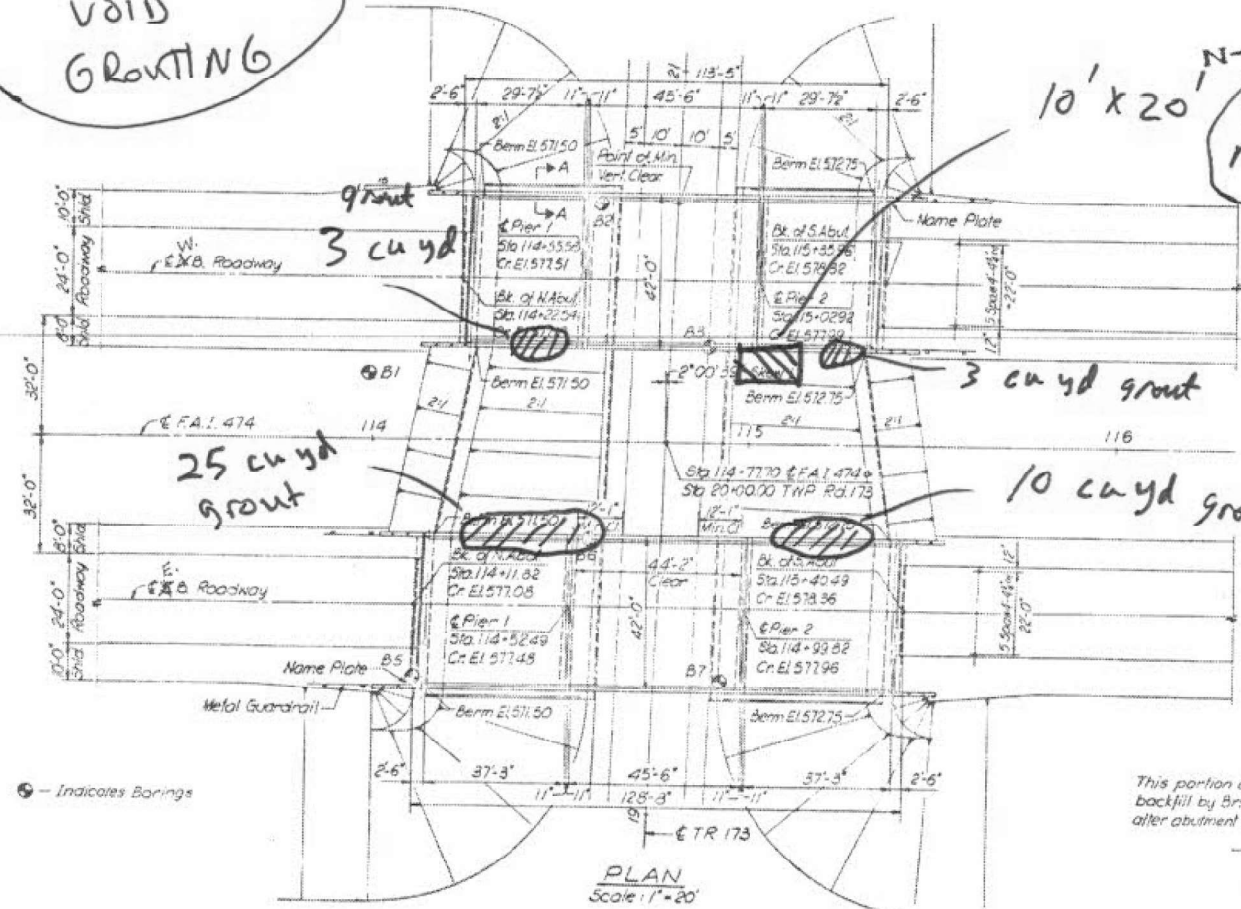
Protective Coat shall not be applied to surfaces to which Coal Tar Interlayer Protective Coat is applied.

SLOPEWALL VOID GRouting

10' x 20' Slopewall replacement

STATION 114+77.70
BUILT 197 BY
STATE OF ILLINOIS
F.A.I. RT. 474 SEC. 72-2NB-1
F.A. PROJ. I-474-7(4)
LOADING HS20 & ALT.

NAME SLATE
See Sid. 2113



DESIGN STRESSES

$f_c = 1,200$ psi	Deck Slab
$f_c = 1,400$ psi	Substructure, Curb & Parapet
$n = 10$	
$f_s = 20,000$ psi	Reinforcement
$v = 75$ psi	Footings

LL Deflection $\frac{1}{800}$

Precast Prestressed Concrete Beams

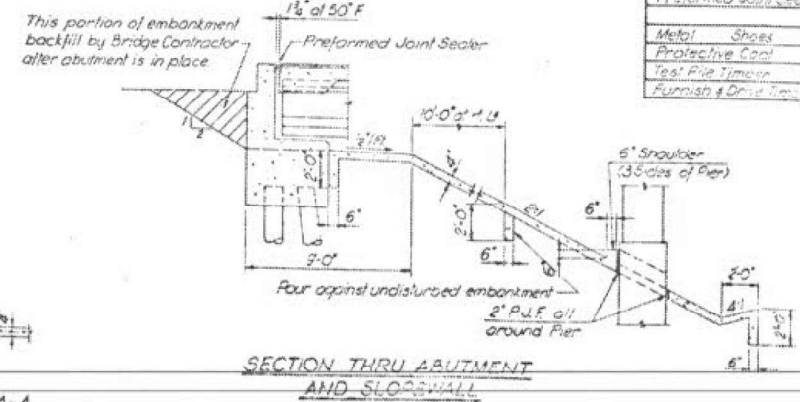
$f_c = 5,000$ psi	
$f_c = 4,000$ psi	
$f_s = 248,000$ psi	Strands
$f_{at} = 173,600$ psi	Strands

LOADING
HS 20-44 and Alternate
25' Future Wearing Surface

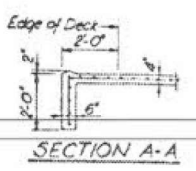
DESIGN SPECIFICATIONS
1969 AASHTO as applicable

TOTAL BILL OF MATERIAL

Item	Unit	Quantity	Subtotal	Total
Structure Excavation	Cu Yd	186	186	
Class X Concrete	Cu Yd	849.2	451.1	800.3
F & E. P.C. Concrete Beams 36"	Lin Ft	1,277		1,277
F & E. Structural Steel	Pounds	19,080		19,080
Aluminum Railing	Lin Ft	471		471
Reinforcement Bars	Lb	79,870	44,590	124,460
Furnish & Drive Timber Piles 24" x 24" x 20'	Lin Ft		756	756
Furnish & Drive Concrete Piles	Lin Ft		1,507	1,507
Test Pile Concrete	Each	2	2	2
Name Plate	Each	2	2	2
Slope Wall #	Sq Yd		1,590	1,590
Preformed Joint Sealer	Lin Ft	336		336
Metal Shoes	Each		32	32
Protective Coat	Sq Yd	184	40	224
Test Pile Timers	Each	1	1	1
Furnish & Drive Timber Piles 24" x 24" x 20'	Lin Ft		337	337



28857 (E.B.)
28858 (M.B.)



STATE OF ILLINOIS
GENERAL PLAN
F.A.I. ROUTE 474
OVER
TOWNSHIP ROAD 173
STA 114+77.70
F.A.I. RT. 474 PEORIA COUNTY SECTION 72-2NB-1
CHECKED BY: [Signature]
DATE: 12-12-72

#18 12-12-72 4-103
072-0116 EB 474
072-0117 WB 474

MODEL: 1400ELEMNTS
FILE NAME: STRESSES

USER NAME =	DESIGNED -	REVISED -
ASUSERS	-	-
DRAWN -	REVISED -	REVISED -
E.T.	-	-
PLOT SCALE =	CHECKED -	REVISED -
SSCALES	-	-
PLOT DATE =	DATE -	REVISED -
SDATES	-	-

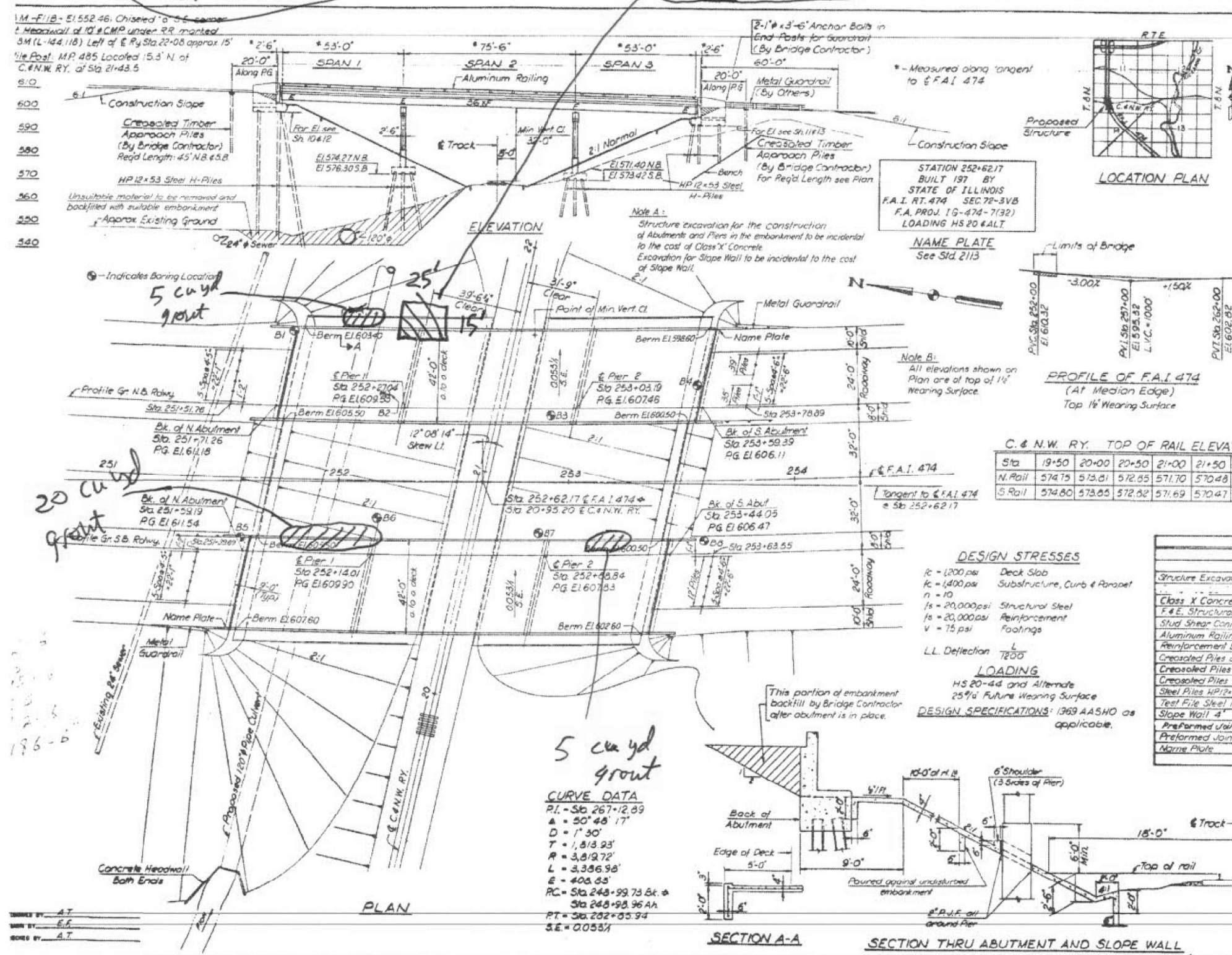
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK SLAB REPAIR PARTIAL

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[1RS-3;(2-4)RS-2]	PEORIA	240	206
				CONTRACT NO. 68C45
				ILLINOIS FED. AID PROJECT

SLOPEWALL VOID GROUTING
 022-0124 EB 474
 022-0125 WB 474
 Slope wall removal. Replace with grouted RR4 ave 3' thick



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F A I - 474	72-3VB	PEORIA	44	6
FED. ROAD DIV. NO. 7 ILLINOIS PROJECT 10-474-7(329)				

GENERAL NOTES

All reinforcement bars shall be lapped 24 diameters unless otherwise shown.

Fasteners shall be high strength bolts. Bolts 3/4" Ø, open holes 1 1/16", unless otherwise noted.

Calculated weight of Structural Steel = 396,000 Lbs.

The basic lead silico chromate paint system shall be used for shop and field painting of Structural Steel.

Field welding of construction accessories will not be permitted to the bottom flange of beams nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.

Anchor bolts shall be set before bolting diaphragms over supports.

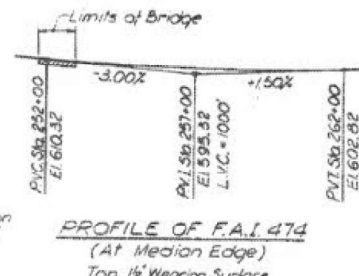
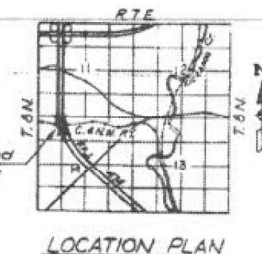
Slope wall shall be reinforced with welded wire fabric 6" X 6" mesh, weighing 50# per 100 sq. ft.

The Contractor shall drive two (2) Steel Test piles each in a permanent location at Pier 2 and S. Abutment of the N.B. Roadway and one (1) Steel Test pile each at the N. Abutment, Pier 2 and S. Abutment of the S.B. Roadway as directed by the Engineer before ordering the remainder of the piles.

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Handrail Concrete.

Protective Coat shall not be applied to surfaces to which Coal Tar Interlayer Protective Coat is to be applied.



C. & N.W. RY. TOP OF RAIL ELEVATIONS

Sta	19+50	20+00	20+50	21+00	21+50	22+00
N. Rail	574.75	575.01	572.55	571.70	570.48	569.26
S. Rail	574.80	573.85	572.52	571.69	570.47	569.25

TOTAL BILL OF MATERIAL

Item	Unit	Superstr.	Substr.	Total
Structure Excavation	Cu Yd		113	113
Class X Concrete	Cu Yd	479.3	480.5	959.8
F & E. Structural Steel	Lump Sum	1		1
Stud Shear Connectors	Each	4,932		4,932
Aluminum Railing	Lin Ft	732		732
Reinforcement Bars	Pound	116,480	68,780	185,260
Creosoted Piles up to 20 Ft. (Furn & Dr.)	Lin Ft		72	72
Creosoted Piles 20' to 38 Ft. (Furn & Dr.)	Lin Ft		105	105
Creosoted Piles over 38 Ft. (Furn & Dr.)	Lin Ft		657	657
Steel Piles HP12x53 (Furn & Dr.)	Lin Ft		3,558	3,558
Test Pile Steel HP12x53	Each		7	7
Slope Wall 4"	Sq Yd		3,127	3,127
Preformed Joint Sealer 2 1/2"	Lin Ft	86		86
Preformed Joint Sealer 4"	Lin Ft	86		86
Name Plate	Each		2	2

DESIGN STRESSES

$f_c = 1200$ psi Deck Slab
 $f_c = 1400$ psi Substructure, Curb & Rampet
 $n = 10$
 $f_s = 20,000$ psi Structural Steel
 $f_s = 20,000$ psi Reinforcement
 $v = 75$ psi Footings

LL Deflection $\frac{L}{7200}$

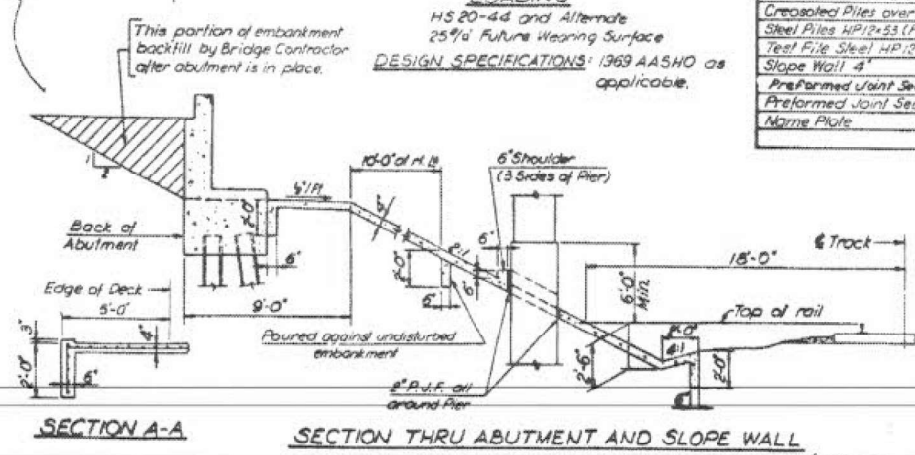
LOADING

HS 20-44 and Alternate
 25'0" Future Wearing Surface

DESIGN SPECIFICATIONS: 1969 AASHTO as applicable.

CURVE DATA

P.I. - Sta 267+12.89
 $\Delta = 50^\circ 48' 17"$
 $D = 1' 30"$
 $T = 1,813.93'$
 $R = 3,819.72'$
 $L = 3,336.98'$
 $E = 408.85'$
 $PC = Sta 248+99.73$ Sta. 248+98.96 AA
 $PT = Sta 262+05.94$
 $SE = 0.053\%$



STATE OF ILLINOIS

GENERAL PLAN
 F.A.I. ROUTE 474
 OVER
 C & N.W. RY.

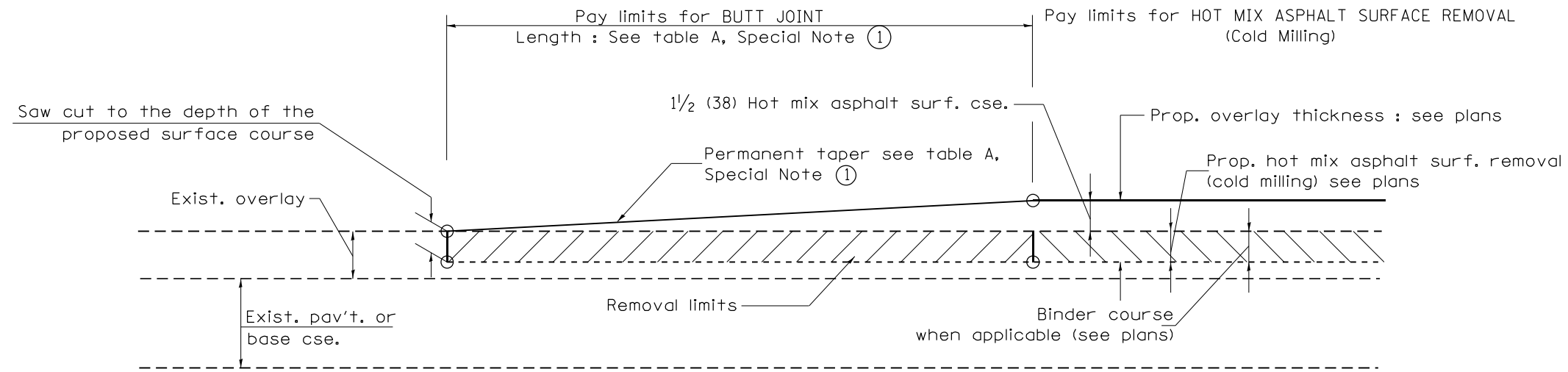
STA. 252+62.17
 F.A.I. RT. 474 PEORIA COUNTY SECTION 72-3VB

CHRISTIAN-ROGE AND ASSOC.
 ENGINEERS
 CHICAGO, ILLINOIS

SHEET
 1 of 19

#34 5-1-73

072-0124 EB 474
 072-0125 WB 474



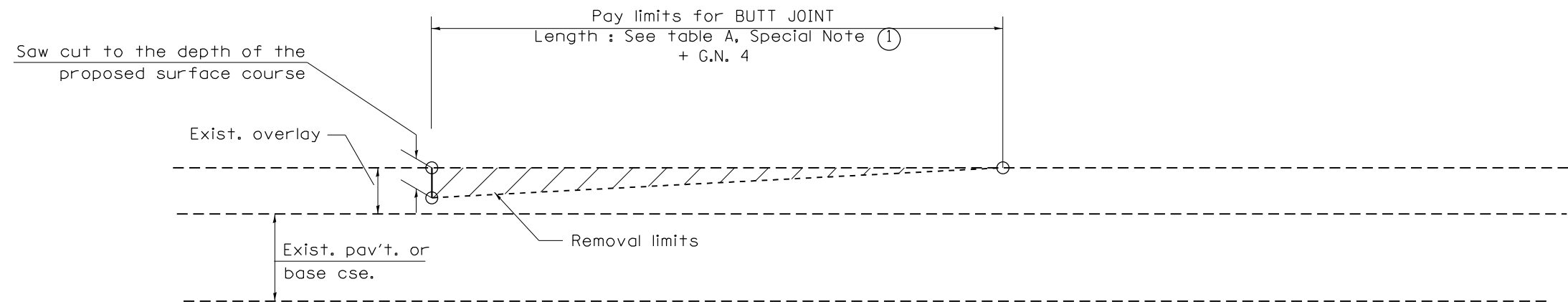
CASE 1 : WITH HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

**TABLE A
TAPER RATES**

SPECIAL NOTE NUMBER	ELEMENT	MAINLINE INTERSTATES & 4-LANE EXPRESSWAYS	ALL OTHERS
①	BUTT JOINT TAPER RATE	1:480	1:240
②	TEMPORARY RAMP TAPER RATE	1:80	1:40

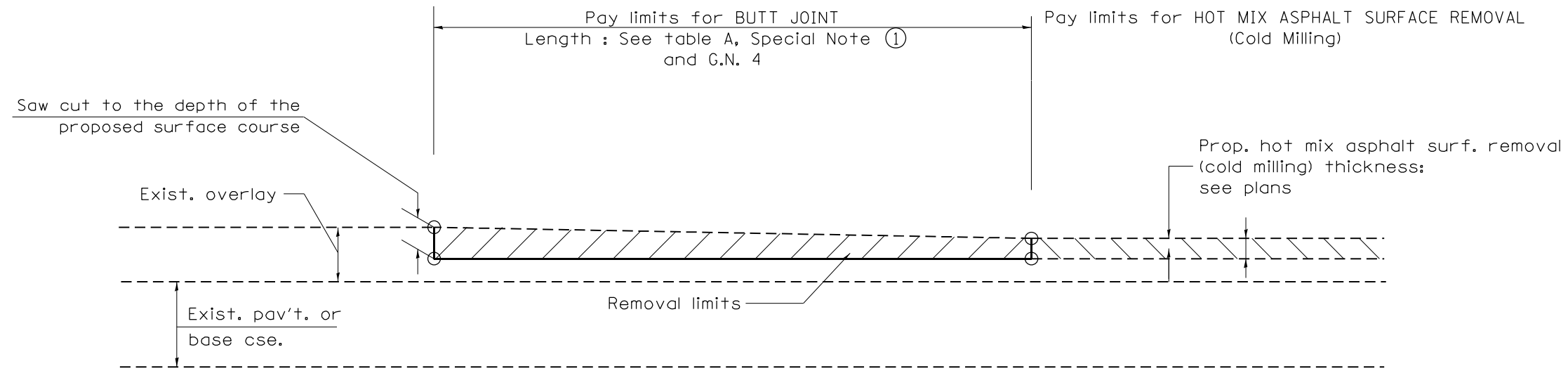
GENERAL NOTES

1. The work shall be done in accordance with Article 406.08 and the Special Provision for Butt Joints.
2. The pavement surface to be removed may be either bituminous or P.C. concrete. The work shall be performed in accordance with Article 440.04 and the Special Provisions for Butt Joints.
3. The saw cut joints shall be primed just prior to the placing of bituminous material. The work will be in accordance with the applicable portions of Article 406.05.
4. The length of butt joint is based on the taper rate times change in cold milling depth within the butt joint pay limits, unless otherwise indicated.
5. Temporary ramps are paid for separately and not included in the cost of the butt joints.

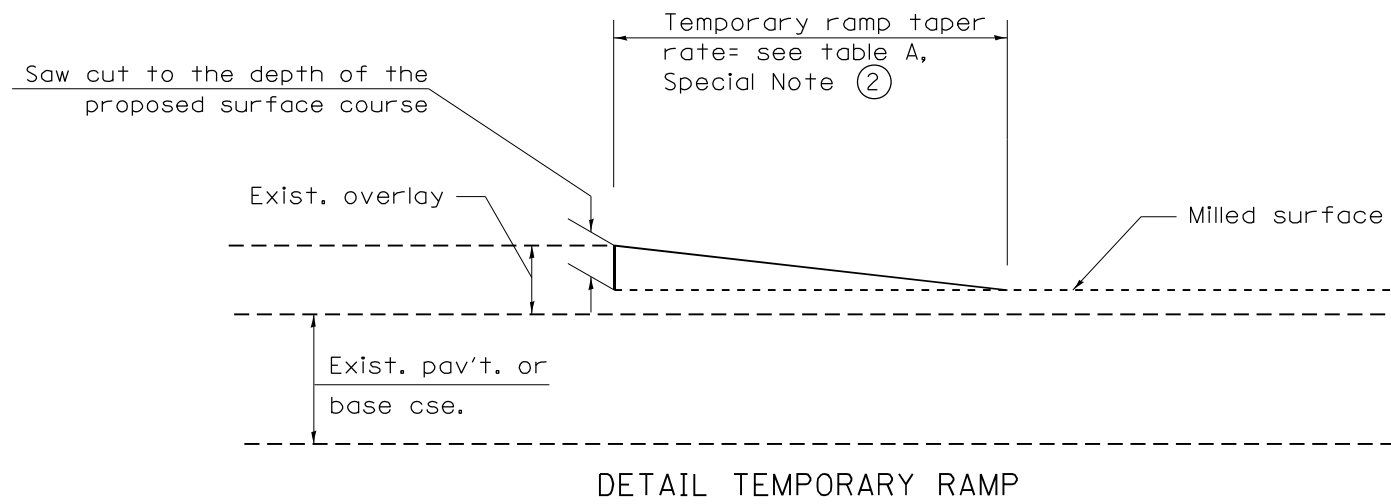


CASE 2 : NO HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

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



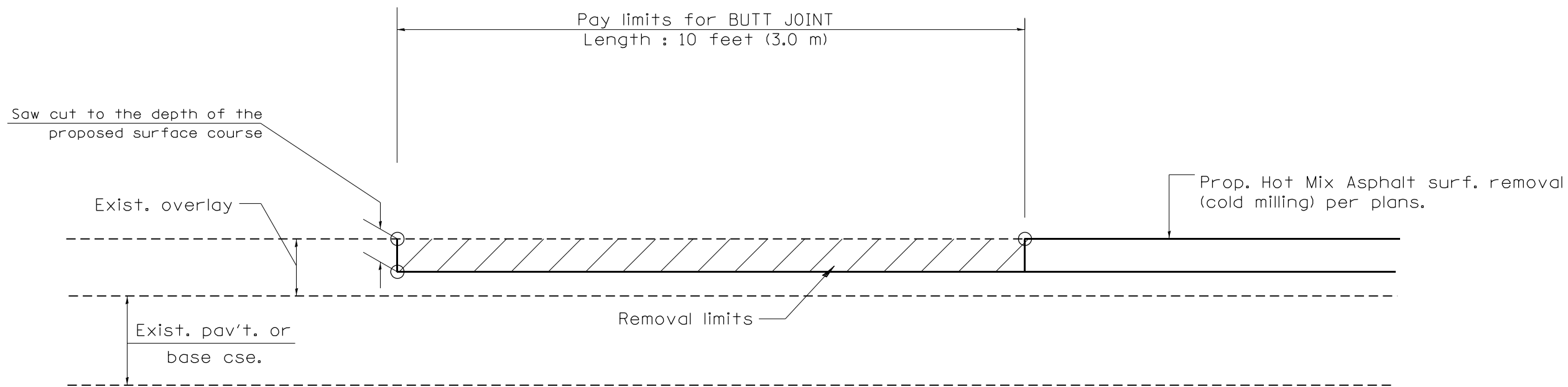
**CASE 3 : HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)
TIE-IN TO EXISTING BITUMINOUS TAPER**



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

				STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		BUTT JOINTS		SHT. 2 OF 3 CADD STD. 406101-D4	
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.					
474	72[1R5-3;(2-4)R5-2]	PEORIA	240	209					
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		CONTRACT NO. 68C45				

NOT TO SCALE

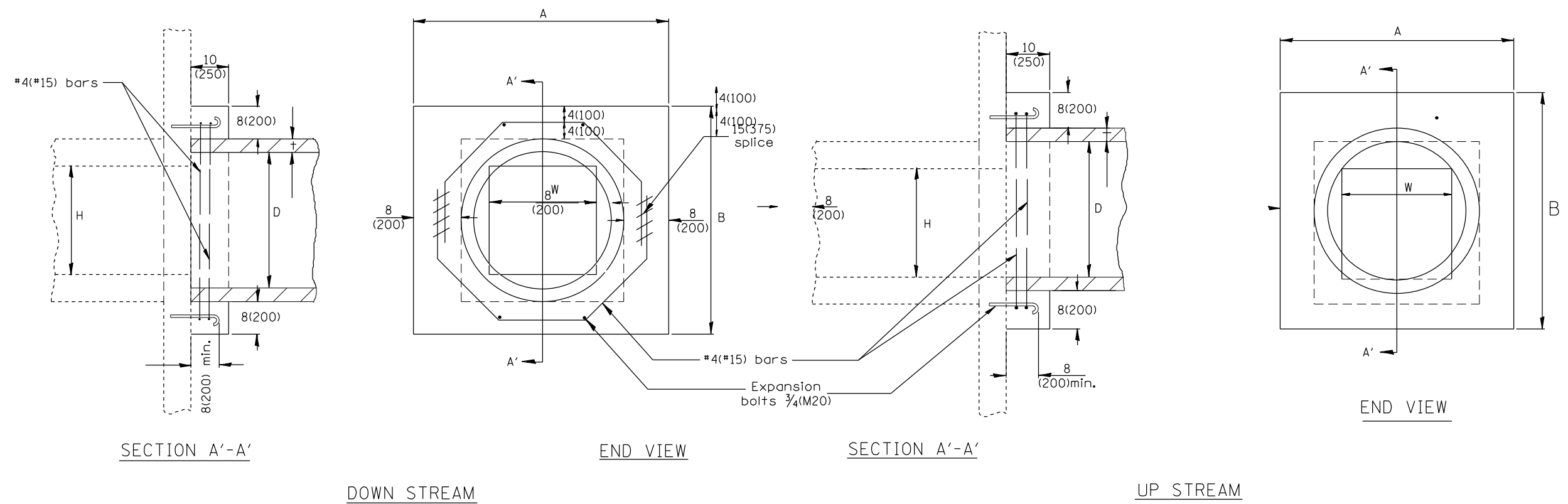


CASE 4 : SINGLE LIFT OVERLAY WITH EQUIVALENT DEPTH
HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)
TIE-IN TO EXISTING BITUMINOUS TAPER

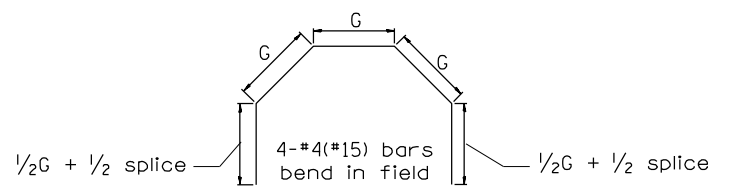
All dimensions are in inches (millimeters) unless otherwise noted.

		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		BUTT JOINTS	SHT. 3 OF 3 CADD STD. 406101-D4	
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
474	72[1RS-3;(2-4)RS-2]	PEORIA	240	210	CONTRACT NO. 68C45	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT				

NOT TO SCALE



EXISTING BOX		EACH COLLAR									
W	H	A	B	D	t	CONC. COLLAR	REINFORCEMENT BARS			EXPANSION BOLT	
						CU. YD. (m³)	G	L	LBS. (KG)	EACH	
12(300) PIPE		32 (810)	32 (810)	12 (300)	2(50)	0.18(0.14)	10 (254)	4'-7" (1.40m)	12(5.5)	4	
18(450) PIPE		39 (990)	39 (990)	18 (450)	2 1/2(65)	0.24(0.18)	12 3/4 (324)	5'-6" (1.68m)	15(7)	4	
24(600) PIPE		3'-10" (1.17m)	3'-10" (1.17m)	24 (600)	3(75)	0.30(0.23)	15 3/4 (400)	6'-6" (1.98m)	17(8)	4	
24(600)	24(600)	4'-5" (1.35m)	4'-5" (1.35m)	30 (750)	3 1/2(90)	0.37(0.28)	18 3/4 (416)	7'-6" (2.29m)	20(9)	4	
30(750)	30(750)	5'-0" (1.52m)	5'-0" (1.52m)	36 (900)	4(100)	0.45(0.34)	21 1/2 (546)	8'-5" (2.57m)	22.5(10)	8	
36(900)	36(900)	5'-7" (1.7m)	5'-7" (1.7m)	42 (1050)	4 1/2(115)	0.50(0.38)	24 1/2 (622)	9'-5" (2.87m)	25(11)	10	
42(1050)	42(1050)	6'-2" (1.88m)	6'-2" (1.88m)	48 (1200)	5(125)	0.61(0.47)	27 1/4 (692)	10'-4" (3.15m)	28(12.5)	10	
48(1200)	48(1200)	6'-9" (2.06m)	6'-9" (2.06m)	54 (1350)	5 1/2(140)	0.80(0.61)	30 1/4 (768)	11'-4" (3.45m)	30(14)	10	



GENERAL NOTES

1. The collar shall be constructed entirely of CLASS SI CONCRETE and in accordance with the applicable portions of Section 503 of the Standard Specifications. Reinforcement Bars shall conform to Section 508.
2. Expansion Bolts shall consist of approved Expansion Anchors, and 3/4(M20) Hook Bolts which conform to Section 1006.09. These Bolts shall extend at least 8(200) into the new Concrete.
3. This work will be paid for by the cubic yard (cubic meter) for CONCRETE COLLAR, by the pound (kg) for REINFORCEMENT BARS, and by Each for EXPANSION BOLTS of the size indicated.

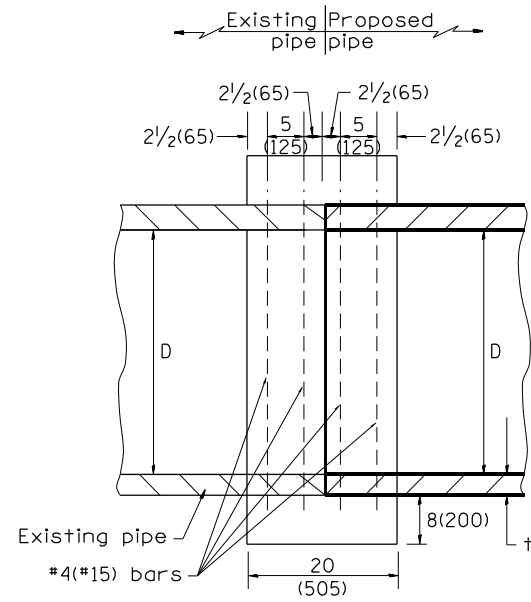
QUANTITIES

CALC. BY: _____ DATE: _____

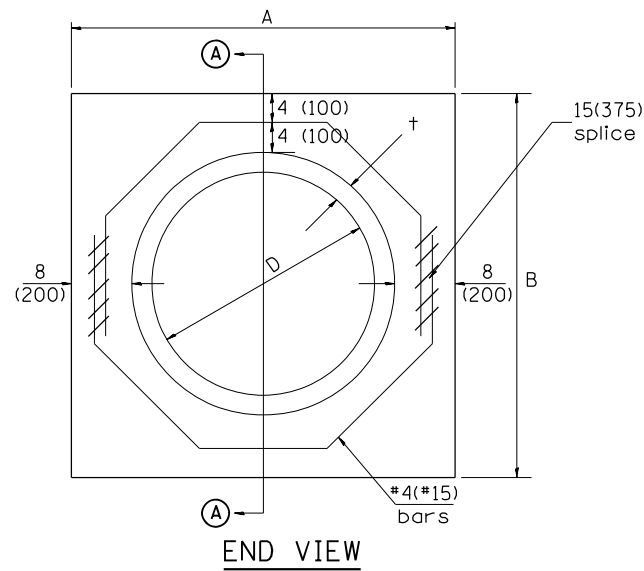
CHECKED BY: _____ DATE: _____

QUANTITY CALCULATIONS ARE ON FILE AT THE DISTRICT 4 OFFICE; BUREAU OF PROJECT IMPLEMENTATION; DOCUMENTATION SECTION

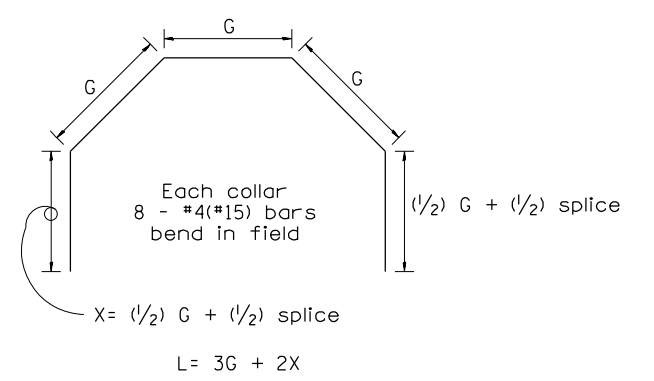
All dimensions are in inches (millimeters) unless otherwise noted.



SECTION A - A



END VIEW



Each Collar									
					Reinforcement Bars				
D	t	A	B	CL. SI CONC.	G	X	L	Weight	
in (mm)	in (mm)	ft (m)	ft (m)	cu.yd. (m ³)	in (mm)	in (mm)	ft (m)	lb (kg)	
12 (300)	2.00 (51)	2.67 (0.814)	2.67 (0.814)	0.4 (0.270)	9 ¹⁵ / ₁₆ (253)	12 ⁷ / ₁₆ (317)	4.57 (1.393)	24 (11)	
15 (375)	2.25 (57)	2.96 (0.902)	2.96 (0.902)	0.4 (0.315)	11 ³ / ₈ (290)	13 ³ / ₁₆ (335)	5.05 (1.541)	27 (12)	
18 (450)	2.50 (64)	3.25 (0.991)	3.25 (0.991)	0.5 (0.362)	12 ¹³ / ₁₆ (327)	13 ⁷ / ₈ (354)	5.54 (1.689)	30 (14)	
21 (525)	2.75 (70)	3.54 (1.079)	3.54 (1.079)	0.5 (0.411)	14 ¹ / ₄ (364)	14 ⁵ / ₈ (372)	6.02 (1.836)	32 (15)	
24 (600)	3.00 (76)	3.83 (1.167)	3.84 (1.167)	0.6 (0.460)	15 ¹¹ / ₁₆ (401)	15 ⁵ / ₁₆ (391)	6.51 (1.984)	35 (16)	
27 (675)	3.25 (83)	4.13 (1.259)	4.13 (1.259)	0.7 (0.516)	17 ¹ / ₄ (438)	16 ¹ / ₁₆ (409)	6.99 (2.131)	37 (17)	
30 (750)	3.50 (89)	4.42 (1.347)	4.42 (1.347)	0.7 (0.570)	18 ¹¹ / ₁₆ (475)	16 ³ / ₄ (428)	7.48 (2.279)	40 (18)	
33 (825)	3.75 (95)	4.71 (1.436)	4.71 (1.436)	0.8 (0.624)	20 ¹ / ₈ (512)	17 ¹ / ₂ (446)	7.96 (2.426)	43 (19)	
36 (900)	4.00 (102)	5.00 (1.524)	5.00 (1.524)	0.9 (0.682)	21 ⁹ / ₁₆ (549)	18 ³ / ₁₆ (465)	8.44 (2.574)	45 (20)	
42 (1050)	4.50 (114)	5.58 (1.701)	5.58 (1.701)	1.0 (.800)	24 ⁷ / ₁₆ (622)	19 ³ / ₄ (501)	9.41 (2.869)	50 (23)	
48 (1200)	5.00 (127)	6.17 (1.881)	6.17 (1.881)	1.2 (0.930)	27 ⁵ / ₁₆ (696)	21 ³ / ₁₆ (538)	10.38 (3.164)	55 (25)	

GENERAL NOTES

1. THE COLLAR SHALL BE CONSTRUCTED ENTIRELY OF CLASS SI CONCRETE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 503 OF THE STANDARD SPECIFICATIONS. REINFORCEMENT BARS SHALL CONFORM TO SECTION 508.
2. This work shall be paid for by the cubic yard (cubic meter) for CONCRETE COLLAR and by the pound (kg) for REINFORCEMENT BARS.

QUANTITIES	
CALC. BY: R. J. D.	2-2-98 DATE:
CHECKED BY: R. D. H.	2-6-98 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. B-8.03, NEW REVISION BOX, REVISED	T.P.	09-01-00	CORRECT WEIGHT	J.A.	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIPE CULVERT EXTENSION COLLAR (WITHOUT END SECTION)	NOT TO SCALE	CADD STD. 542016-D4	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TITLE BOX, ADDED QUANTITY CALCULATION BOX		10-16-06	REV. TO 2007 SPEC., CORRECT mm UNITS	M.A.					474	72[1R5-3;(2-4)R5-2]	PEORIA	240	212
04-01-97	CORRECT BAR	J.A.	2-15-11	ADDED GENERAL NOTE #2	R.D.					CONTRACT NO. 68C45				
02-10-98	REVISE QUANTITIES	J.A.								FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

DESIGNER NOTES: 1. Use with District CADD Standards: Slope Drains, Buried Pipe and/or Slope Drains - Exposed Pipe

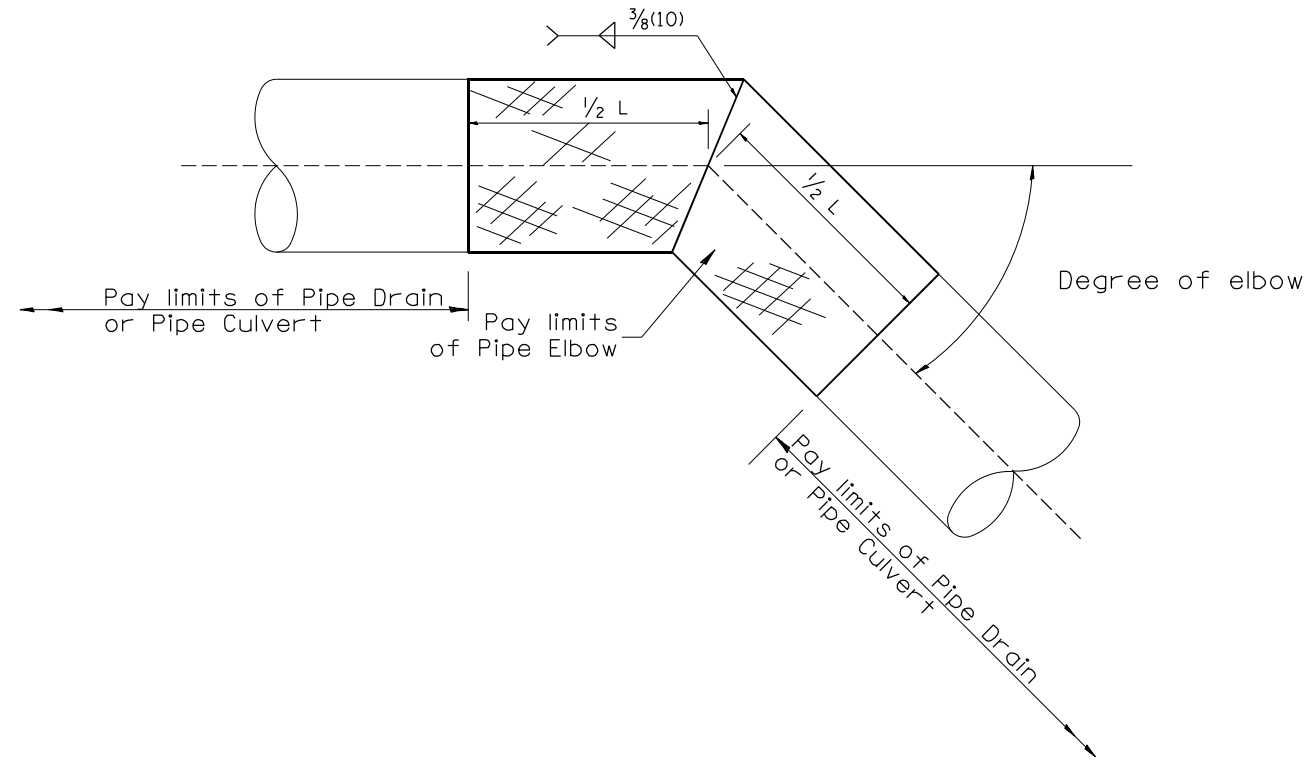
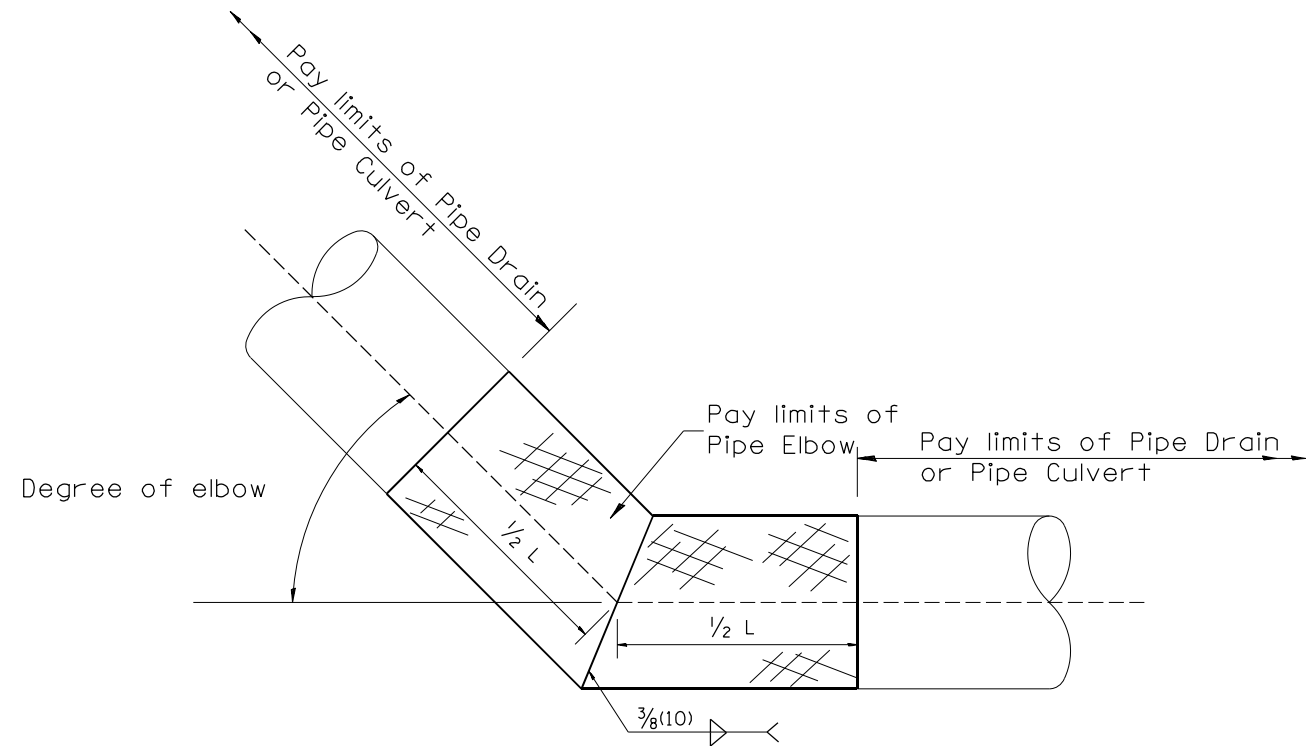


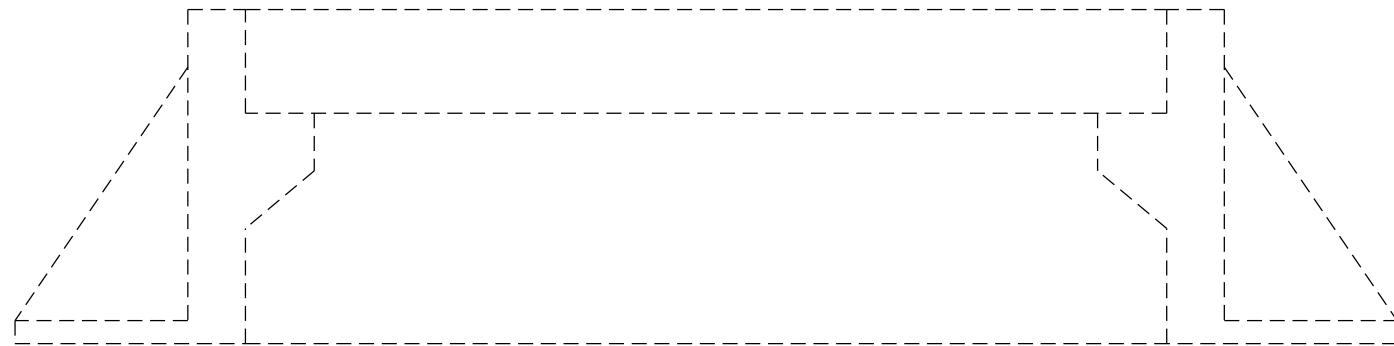
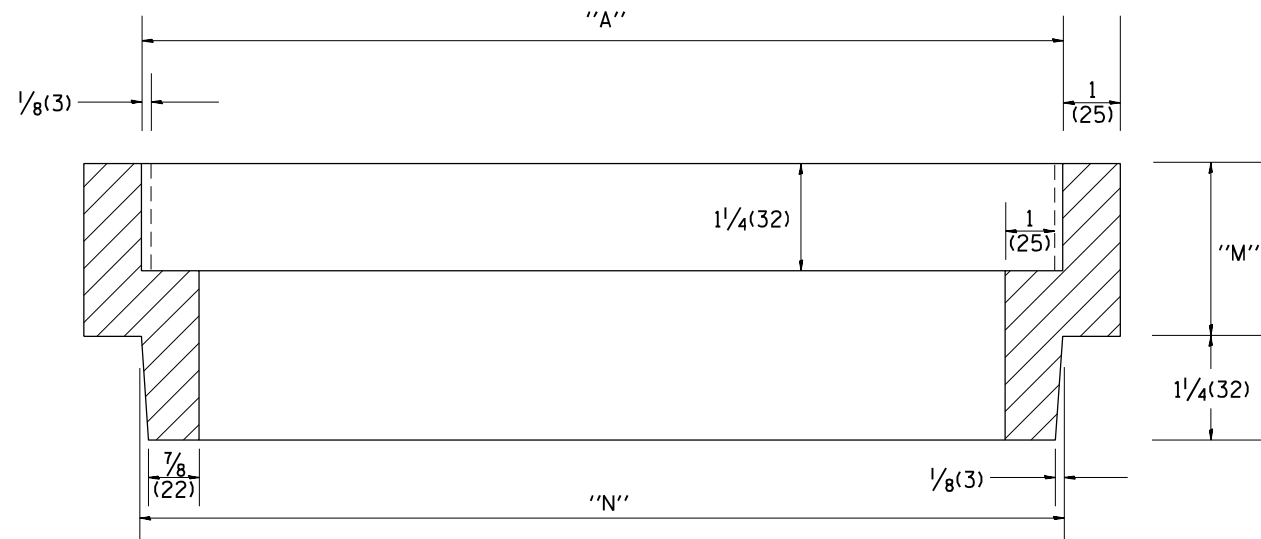
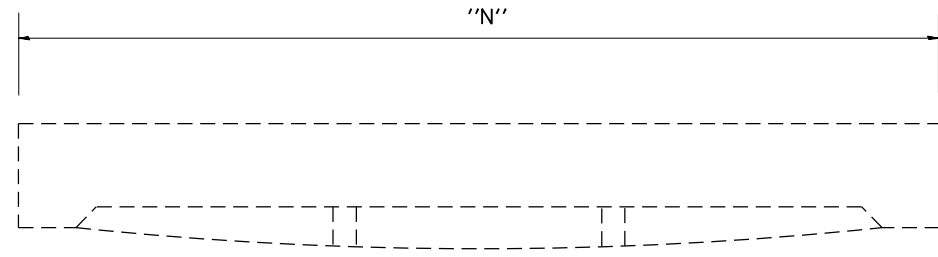
TABLE A		
ELBOW DESIGN CONTROLS		
PIPE DIAMETER	L = Pay limits of Pipe Elbow and minimum length of pipe required for fabrication	
	DEGREE OF ELBOW ≤ 45°	DEGREE OF ELBOW ≥ 46°
12(300)	24(600)	4'(1.22M)
15(375)	24(600)	4'(1.22M)
18(450)	24(600)	4'(1.22M)
21(525)	24(600)	4'(1.22M)
24(600)	4'(1.22M)	4'(1.22M)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

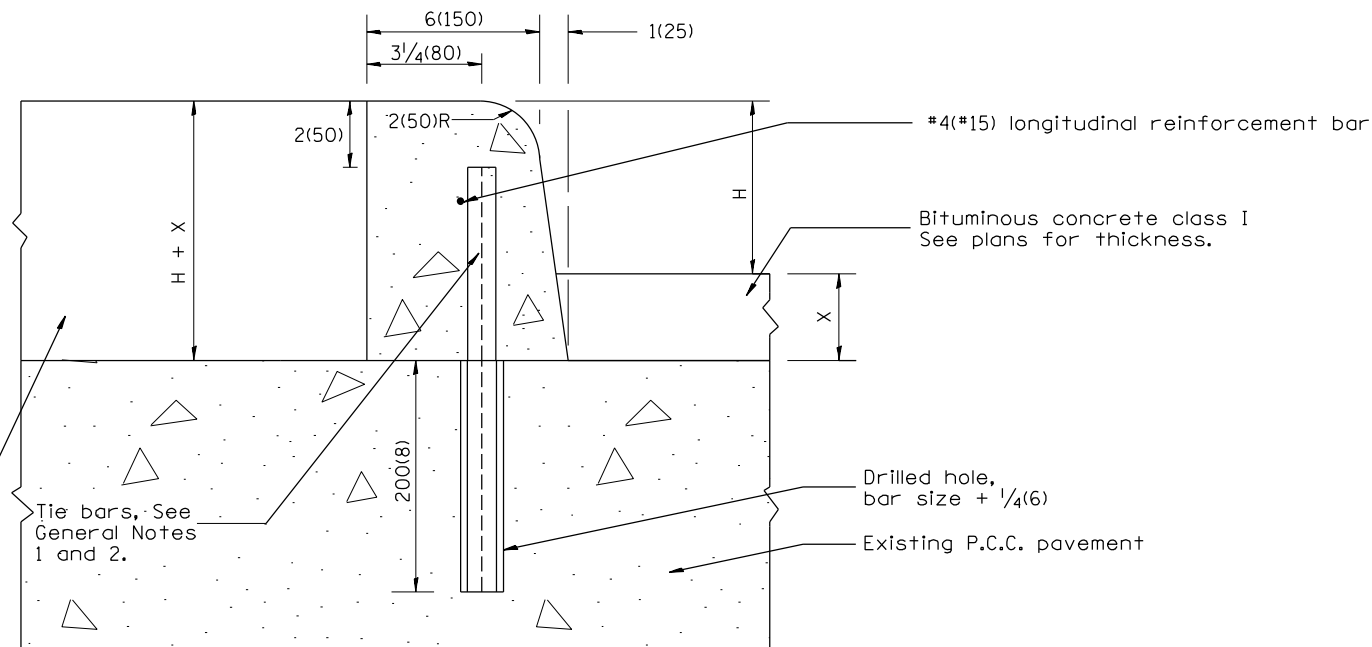


Station	Dimension inches (millimeters)			Quantity
	"A"	"N"	"M"	
Total				

General Notes:
1. Article 603.08 shall apply

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

TYPICAL CURB INSTALLATION
ON TOP OF EXISTING PAVEMENT



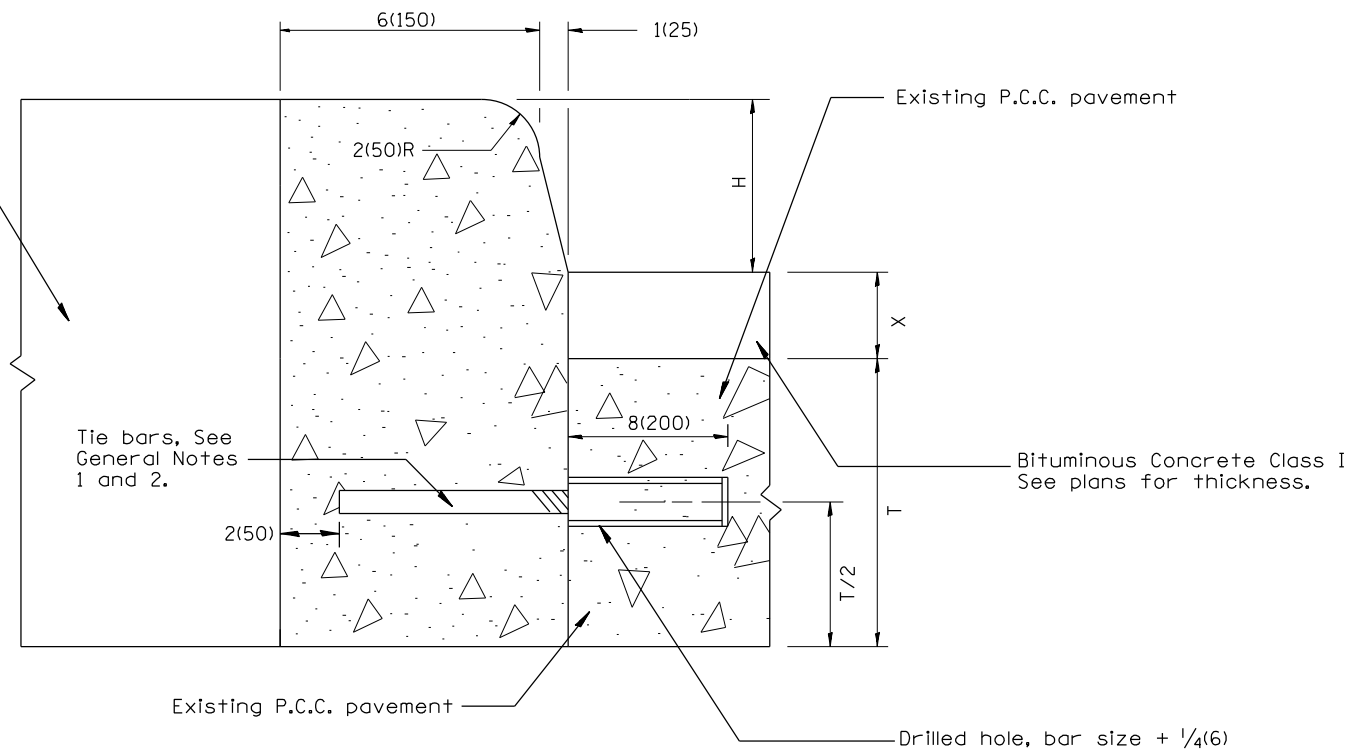
LEGEND

- H = curb height: 6(150) or 9(225).
(see plans for curb height)
- X = thickness of bituminous resurfacing.
(see plans for thickness)
- T = thickness of existing P.C.C. pavement.
(see plans for thickness)

GENERAL NOTES:

1. Tie bars shall be #6(#20) at 24(600mm) center in accordance with details for longitudinal construction joint shown in Standard 420001.
2. A minimum clearance of 2(50mm) between the end of the tie bar and the back or top of the curb shall be maintained.
3. Drainage openings 1 sq. ft.(0.1m²) in area shall be cut through existing concrete within median along curb at 20'(6.1m) centers and at low points.
4. CONCRETE CURB, TYPE B (MODIFIED) shall be constructed in accordance with the applicable portions of Standards 420001 and 606001, and in accordance with the applicable portions of Article 420.10 and Section 606 of the Standard Specifications except as noted herein.

Backfill as shown elsewhere on plans



TYPICAL CURB INSTALLATION
AT EDGE OF EXISTING PAVEMENT

DESIGNER NOTE: 1. INCLUDE STATE STANDARDS 420001 AND 606001.

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

01-01-97	RENUM. A-7.10, NEW REVISION BOX, NEW FORMAT,	T.P.
	REVISED NOTES, ELIMINATED EXPANSION TIE ANCHORS	
03-31-99	REMOVED EPOXY COAT REQUIREMENT	J.A.
10-16-06	REVISED TO 2007 SPEC.	M.A.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

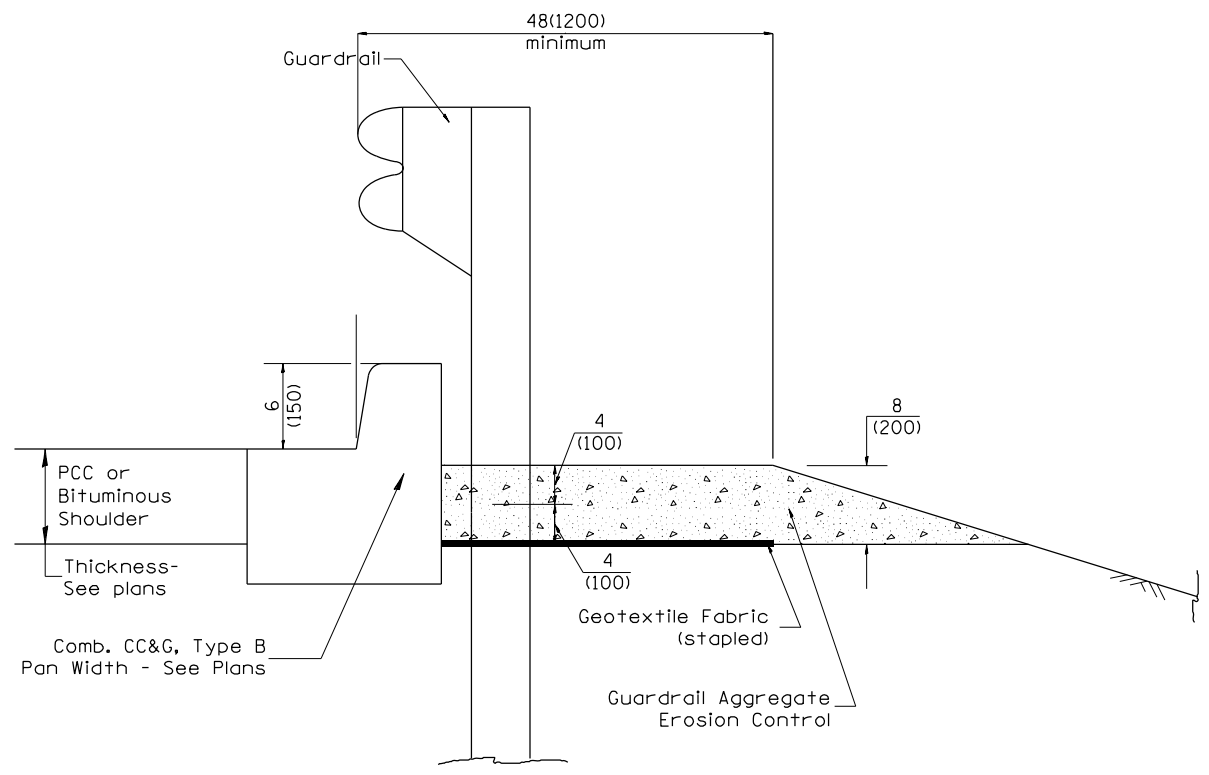
CONCRETE CURB, TYPE B (MODIFIED)

NOT TO SCALE

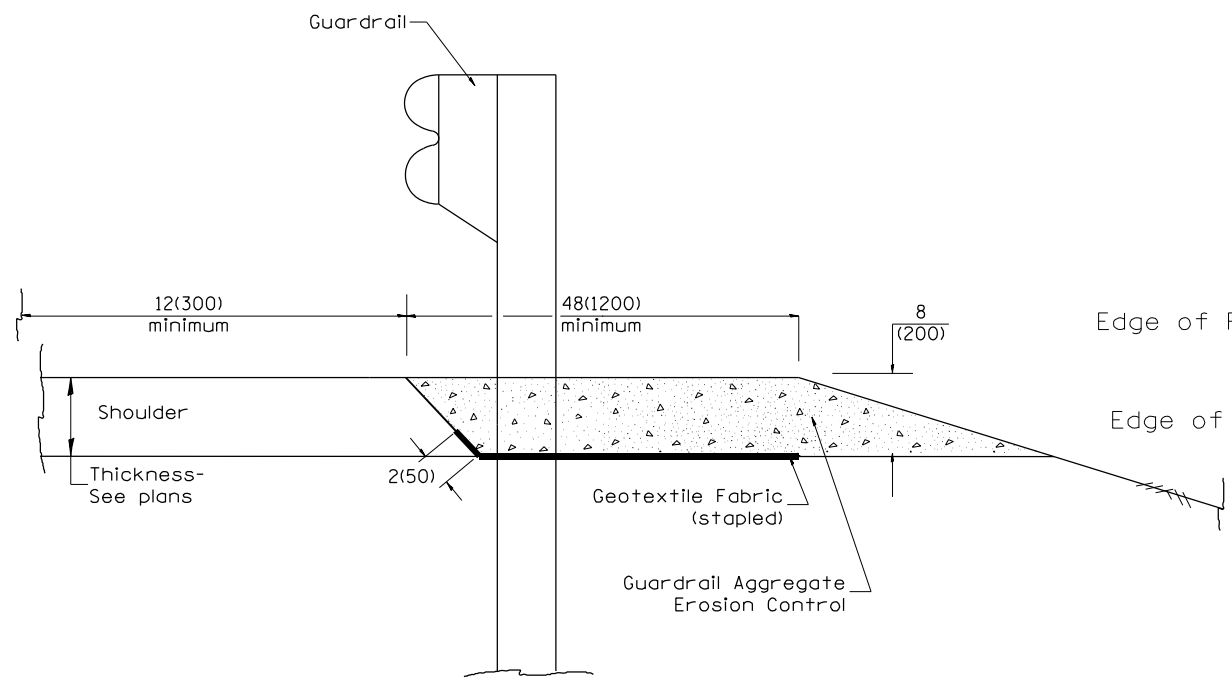
CADD STD. 606001-D4

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[1R5-3;(2-4)R5-2]	PEORIA	240	215
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 68C45	

CONSIDER USING A "B" CURB PAY ITEM AT GUARDRAIL INSTALLATIONS WHERE GRADES ARE EQUAL TO OR GREATER THAN 1% AND AT INLETS. (INCLUDE DISTRICT SPECIAL PROVISION
 1. USE "GUARDRAIL AGGREGATE EROSION CONTROL" AT GUARDRAIL INSTALLATIONS WHERE GRADES ARE LESS THAN 1% (INCLUDE DISTRICT SPECIAL PROVISION).
 2. INCLUDE STATE STANDARD 610001, IF APPLICABLE.
 3. INCLUDE THE FOLLOWING DISTRICT CADD STANDARDS AS NEEDED: SLOPE DRAINS FOR EXPOSED PIPES; SLOPE DRAINS FOR BURIED PIPES; SEE PAGE COLLARS FOR BURIED PIPES
 4. SEE PAGE COLLARS FOR EXPOSED PIPES; CONCRETE THRUST BLOCKS AND PIPE ELBOW.
 5. INCLUDE DISTRICT SPECIAL PROVISION - "AGGREGATE QUALITY" FOR PROJECTS LOCATED IN THE WESTERN AREA OF THE DISTRICT - APPROX. DIVIDING LINE IS IL 97.
 6. DELETE DESIGNER NOTES WHEN INSERTING INTO PLAN FILES.
 7. OPERATIONS PREFERS USE OF PIPE OUTLETTING ONTO FORESLOPE WITH RIPRAP. USE NON-METALLIC PIPE WHEN POSSIBLE BECAUSE OF FUTURE CORROSION ISSUES.
 8. IF NO OTHER SEEDING IS PAID FOR ON THE CONTRACT, USE DISTRICT SPECIAL PROVISION FOR SEEDING, MINOR AREAS



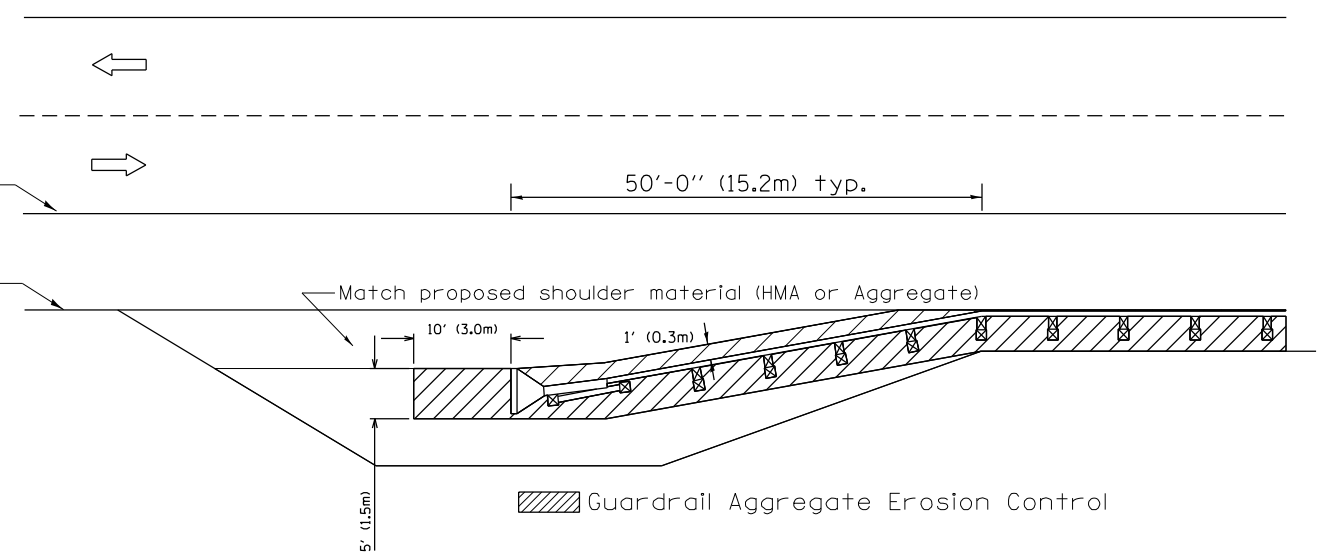
TYPICAL SECTION WITH COMBINATION CONCRETE CURB & GUTTER



TYPICAL SECTION WITHOUT EROSION CONTROL CURB

GENERAL NOTES: GUARDRAIL AGGREGATE EROSION CONTROL

1. This work shall consist of grading as needed, furnishing and installing geotextile fabric and staples, and furnishing, placing and shaping crushed aggregate around and behind Steel Plate Beam Guardrail posts in accordance with Plan Details.
2. Before placing the aggregate and the Geotextile Fabric, weeds and grass shall be removed from the area to be covered.
3. After the area has been prepared, and in a dry condition, the Geotextile fabric shall be placed with a 12(300) minimum overlap. A knife cut for guardrail post installation is necessary.
4. The aggregate shall be deposited, compacted and shaped by either mechanical or hand methods, in a manner reasonably true to line and grade.
5. The Contractor shall have the option of placing the guardrail before or after the Geotextile Fabric and Aggregate are in place. If the guardrail is placed after the Geotextile Fabric and Aggregate, then any voids must be filled and the aggregate returned to line and grade.
6. Materials shall meet the following requirements:
 - A. The crushed aggregate shall be CA1 gradation in accordance with Article 1004.01(c) of the Standard Specifications.
 - B. The Geotextile Fabric shall be nonwoven fabric in accordance with Article 1080.02 of the Standard Specifications.



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

DESIGNER NOTES:

03-07-11	ADDED DETAIL SHOWING PLAN VIEW	R.D.	5-30-18	CHANGE B CURB TO CC&G	R.D.
08-10-12	REVISED CURB "B" AND AGGREGATE	R.D.	07-16-19	SPELLING CORRECTIONS	R.D.
07-15-15	ADDRESSED SHOULDER INLET CURB	R.D.			
01-26-17	REVISED	R.D.			

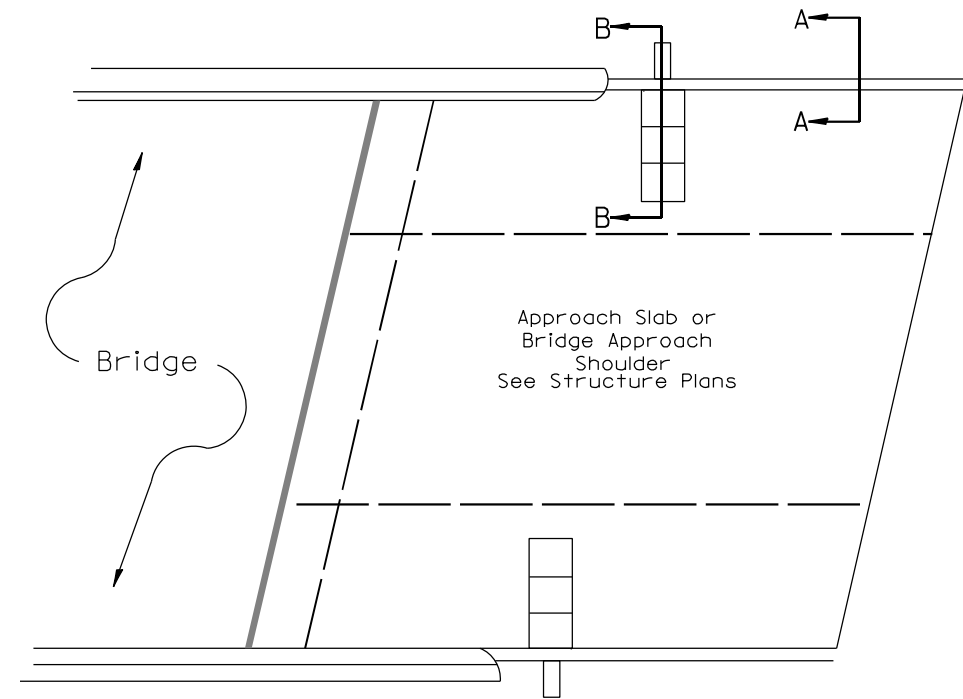
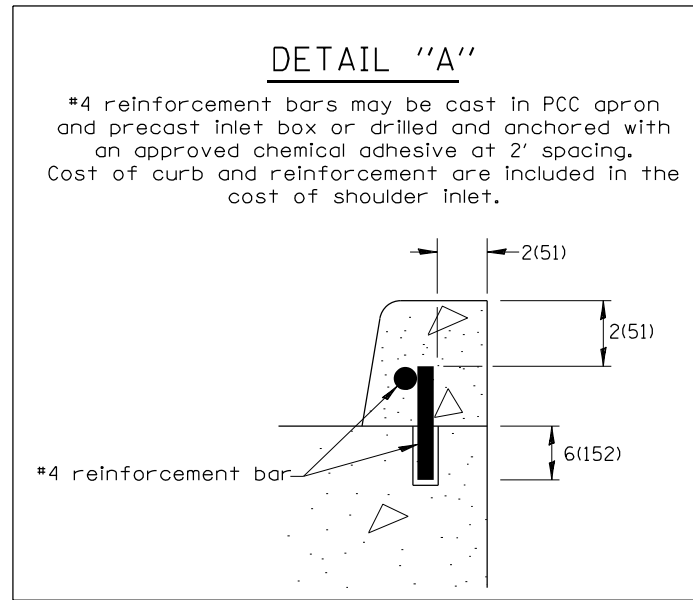
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GUARDRAIL EROSION CONTROL TREATMENTS

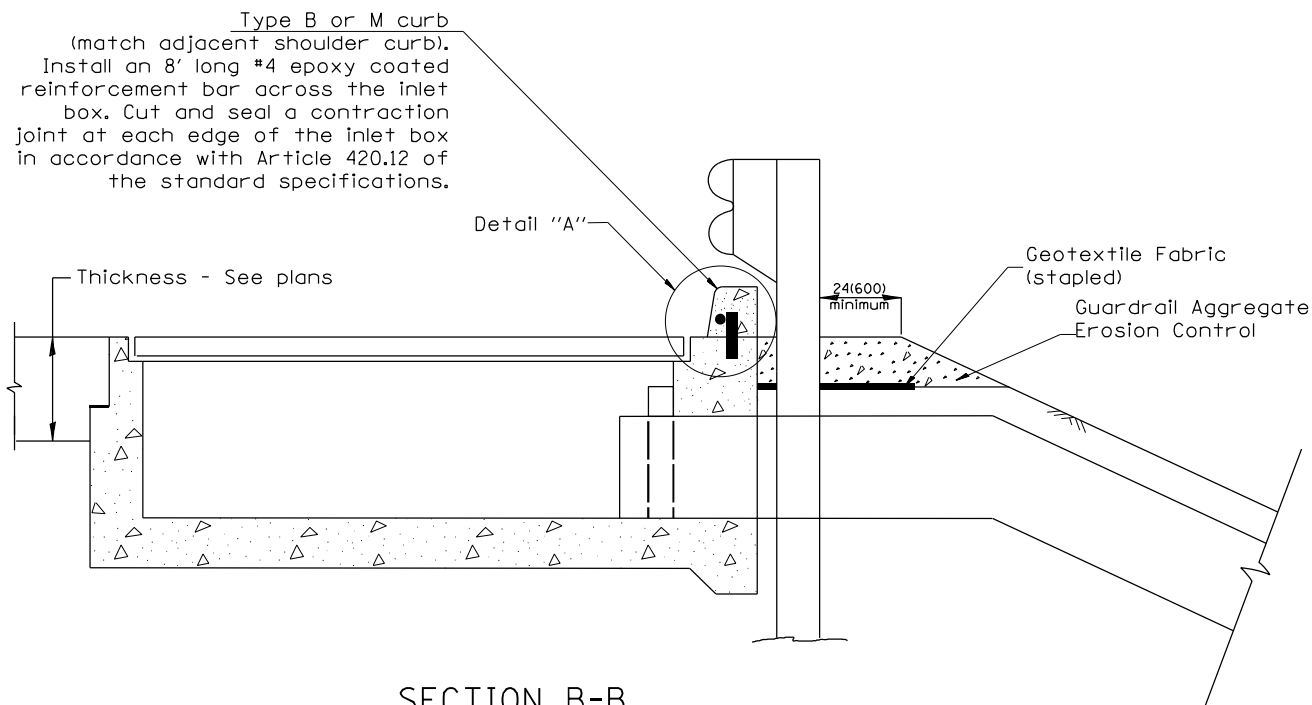
NOT TO SCALE

SHT. 1 OF 2
CADD STD. 630101-D4

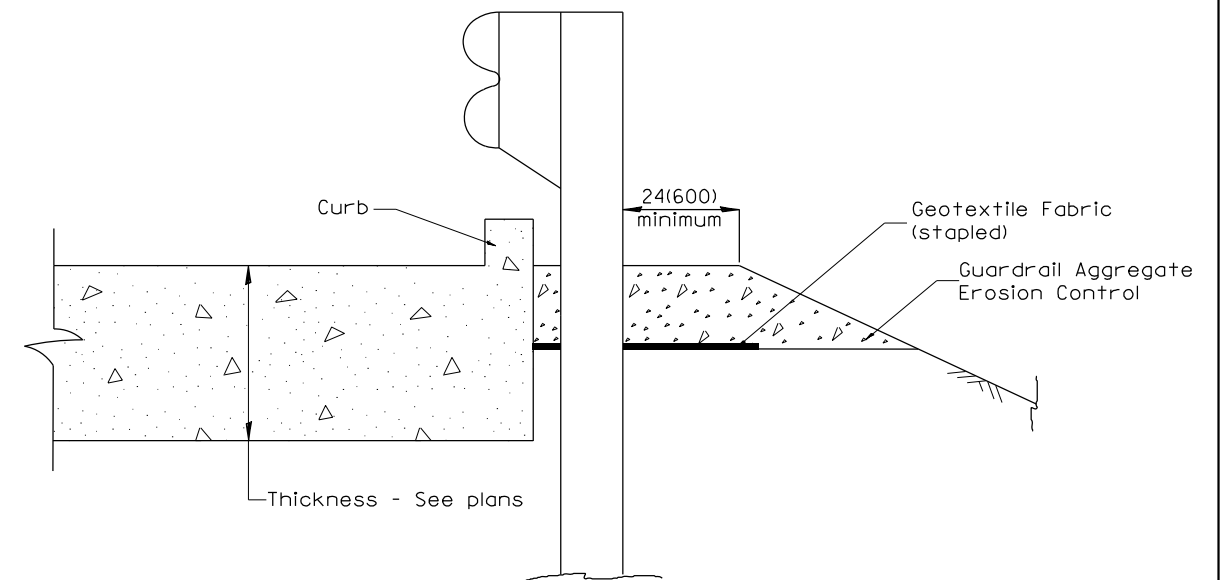
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[1R5-3;(2-4)R5-2]	PEORIA	240	216
CONTRACT NO. 68C45				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



PLAN VIEW
APPROACH SLAB OR SHOULDER PLACEMENT



SECTION B-B
TYPICAL SECTION AT INLETS
TYPE E, F & G (HIGHWAY STANDARD 610001)



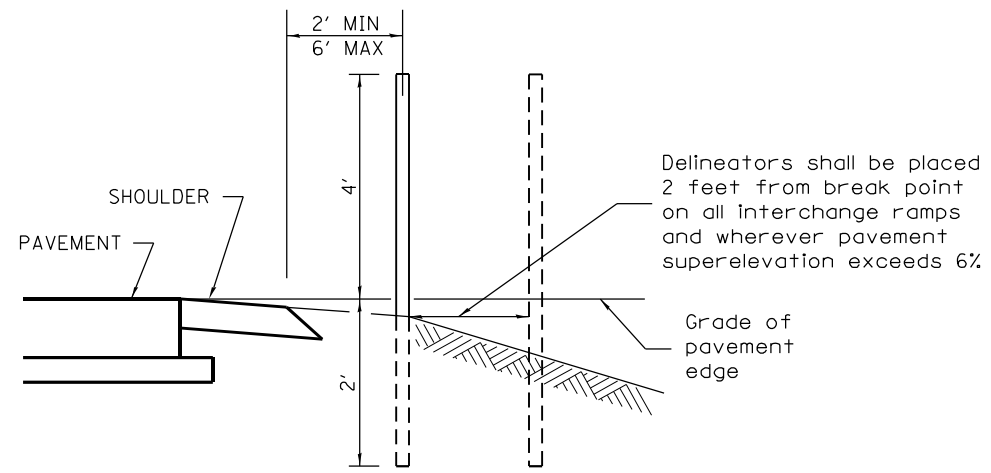
SECTION A-A
TYPICAL SECTION WITH BRIDGE APPROACH CURB

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

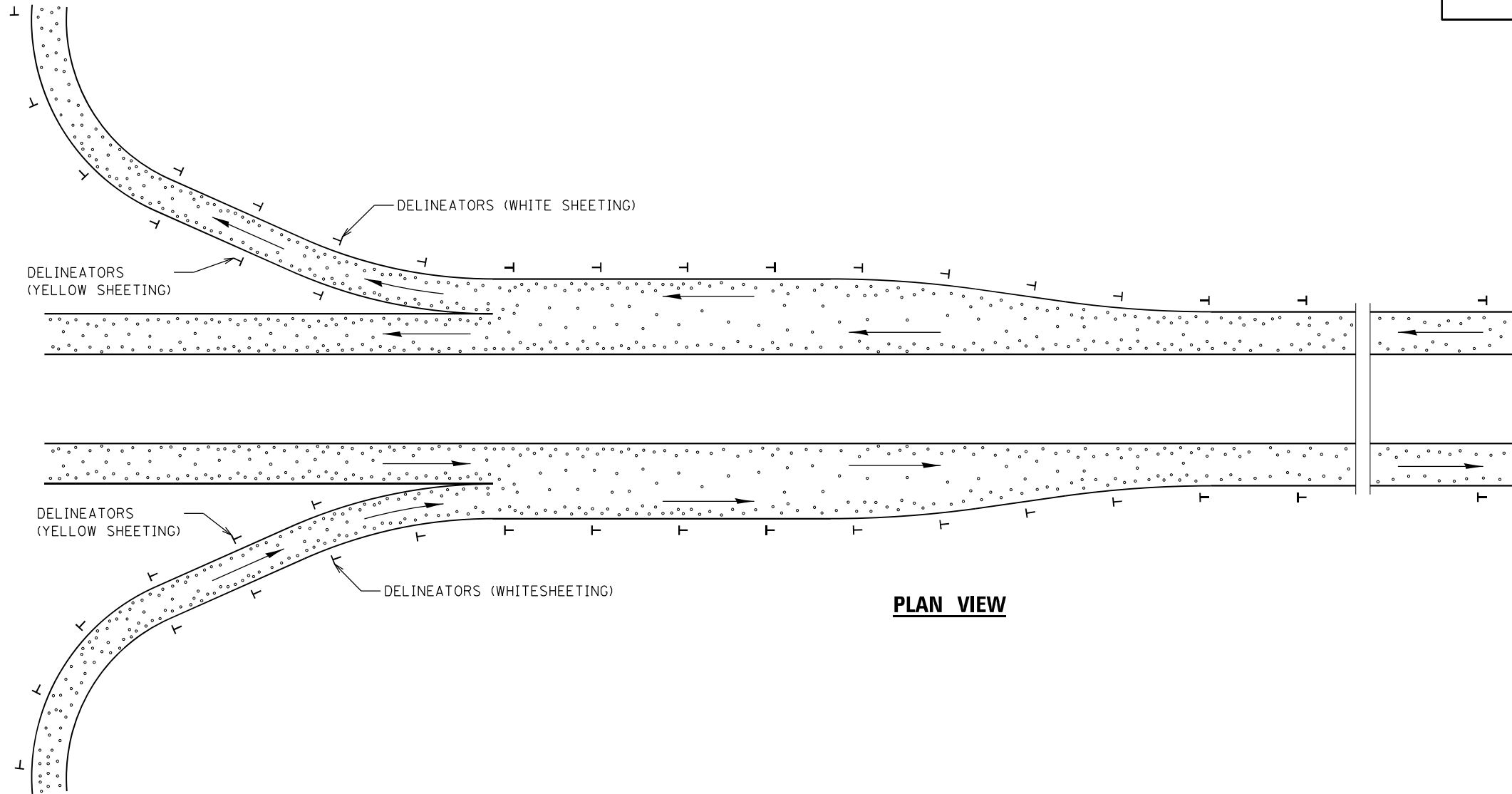
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				GUARDRAIL EROSION CONTROL TREATMENTS				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
				NOT TO SCALE				474	72[1RS-3;(2-4)RS-2]	PEORIA	240	217
				SHT. 2 OF 2 CADD STD. 630101-D4				CONTRACT NO. 68C45				
								FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

DESIGNER NOTES:

1. USE DISTRICT SPECIAL PROVISION FOR RECOVERABLE DELINEATORS WHEN USING THIS CADD STANDARD.
2. USE ON INTERSTATE AND EXPRESSWAY FACILITIES.



SECTIONAL VIEW



PLAN VIEW

SPACING FOR RECOVERABLE DELINEATORS ON HORIZONTAL CURVES

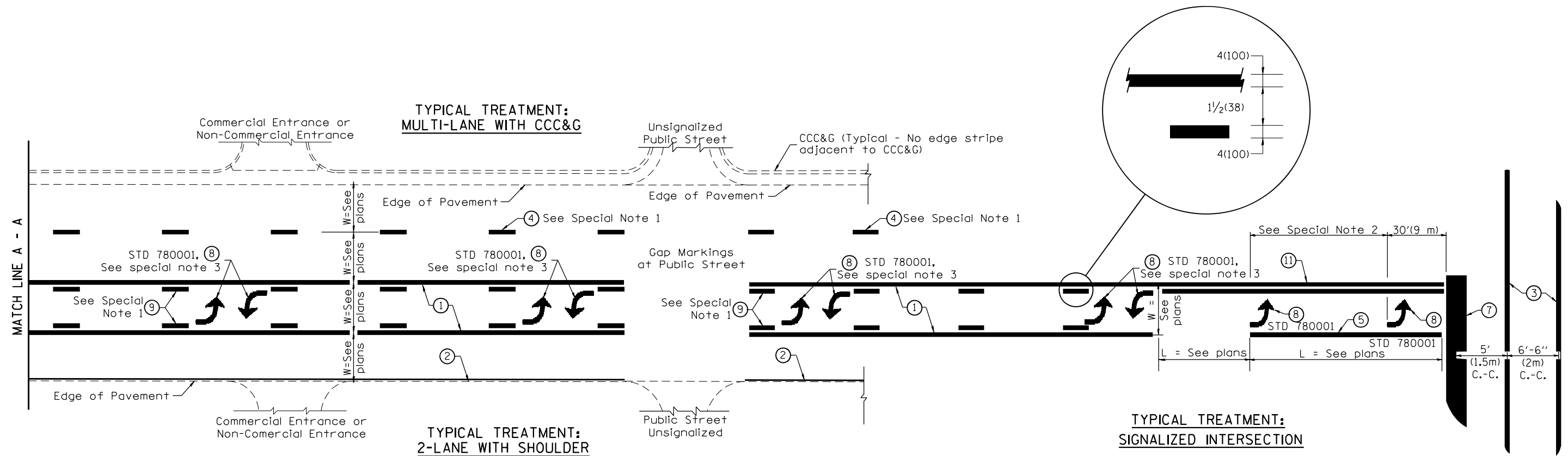
LOCATION	RADIUS OF CURVE (FEET)	SPACING ON CURVE (FEET)

GENERAL NOTES

Delineators on mainline shall be placed at 400' spacing on tangent sections, and 200' spacing on curved sections.

Delineators on ramps, shall be placed as follows:
 1. On tangent sections, acceleration lanes and deceleration lanes at maximum spacing of 100'.
 2. On outside of all curved sections.
 (See table above for spacing)

DESIGNER NOTES:
1. Include State Standard 780001 (Typical Pavement Markings)



FLUSH PAVED MEDIAN: TWO-WAY LEFT TURN LANE WITH ONE-WAY LEFT TURN LANE AT SIGNALIZED INTERSECTION

TYPICAL PAVEMENT MARKING LEGEND

(Note: This is a District Standard Legend. Some elements may not apply to specific project.)

- ① 4(100) Solid (Yellow)
- ② 4(100) Solid (White)
- ③ 2-6(150) Crosswalk @ 6'-6" (2m)min C.-C. (White)
2-8(200) Crosswalk @ 6'-6" (2m)min C.-C. (White) (When traffic signals are present.)
- ④ 6(150) Skip-Dash (White) (See Special Note 1)
- ⑤ 8(200) Solid (White)
- ⑥ 12(300) Diagonal (White) (Item ⑥ is shown on Std. 780001)
- ⑦ 24(600) Stop Bar (White)
- ⑧ Letters & Arrows (See Std. 780001 and Special Notes 2 & 3)
- ⑨ 4(100) Skip-Dash (Yellow) (See Special Note 1)
- ⑩ 12(300) Diagonal (Yellow) (See Table A) (See Table A)
- ⑪ 4(100) Double Solid (Yellow) (See Table A)

SPECIAL NOTES

1. Skip-Dash markings will be centered between both ends of city blocks and shall be placed in alignment transversely across the pavement.
2. The following shall apply to arrows located in one-way left turn lanes:
 - A. A minimum of two (2) arrows is required.
 - B. The maximum spacing between arrows is 80' (24 m).
 - C. Arrows shall be evenly spaced if three (3) or more are required.
3. The following shall apply to arrow pairs located in two-way left turn lanes:
 - A. A minimum of two (2) arrow pairs is required.
 - B. The maximum spacing between arrow pairs is 200' (61 m).
 - C. Arrow pairs shall be evenly spaced if three (3) or more are required.
 - D. The spacing between Bi Directional Left Turn Arrows is 33' (10 m).

GENERAL NOTES

1. Refer to State Standard 780001 for additional Pavement Markings including letters & arrows.
2. See Plans for Pavement Markings adjacent to curbed islands and medians, and through lane reductions.
3. Refer to Article 780.13 for letter, number and symbol areas (sq. ft.)
4. Areas are grooved 1" beyond each edge for the following symbols:
 - Through Arrow= 14.8 sq. ft.
 - Large Left or Right Arrow= 21.9 sq. ft.
 - 2 Arrow Combination Left (or Right) and Through= 34.9 sq. ft.
 - Wrong Way Arrow= 29.5 sq. ft.
 - Railroad Crossing Symbol= 69.8 sq. ft.
 (For further information, refer to BDE Special Provision: Grooving for Recessed Pavement Markings)

01-01-97	RENUM. F-8.03, NEW REVISION BOX	T.P.	10-16-06	REVISED TO 2007 SPEC.	
02-07-97	ADD BI DIRECTIONAL DIMENSION	J.A.	2/29/16	ADDED GROOVING AREAS	R.D.
10-97	CORRECT BI DIRECTIONAL DIMENSION	J.A.	07-16-19	SPELLING CORRECTIONS	R.D.
08-02	ADD CROSSWALK DMNS. WITH T.S.	M.A.			

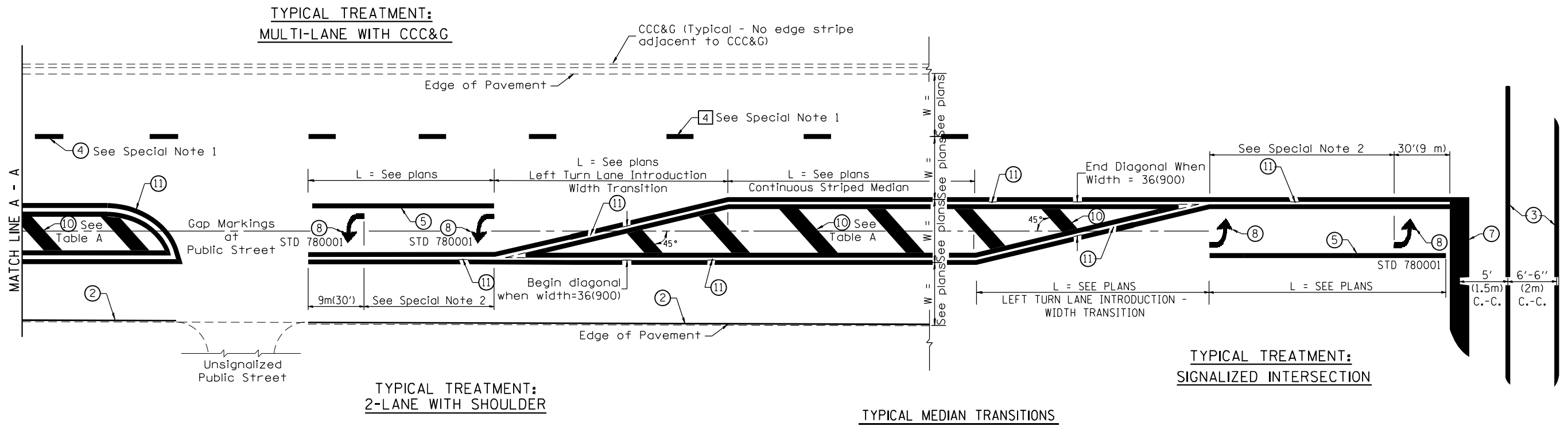
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

NOT TO SCALE

TYPICAL PAVEMENT MARKINGS

SHT. 1 OF 2
CADD STD. 780001-D4

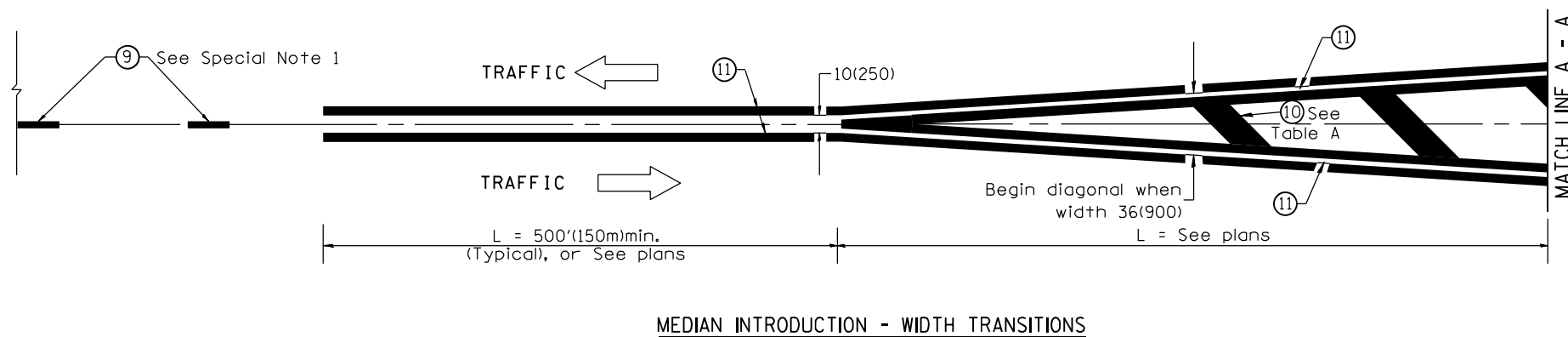
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[1R5-3;(2-4)R5-2]	PEORIA	240	219
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 68C45	



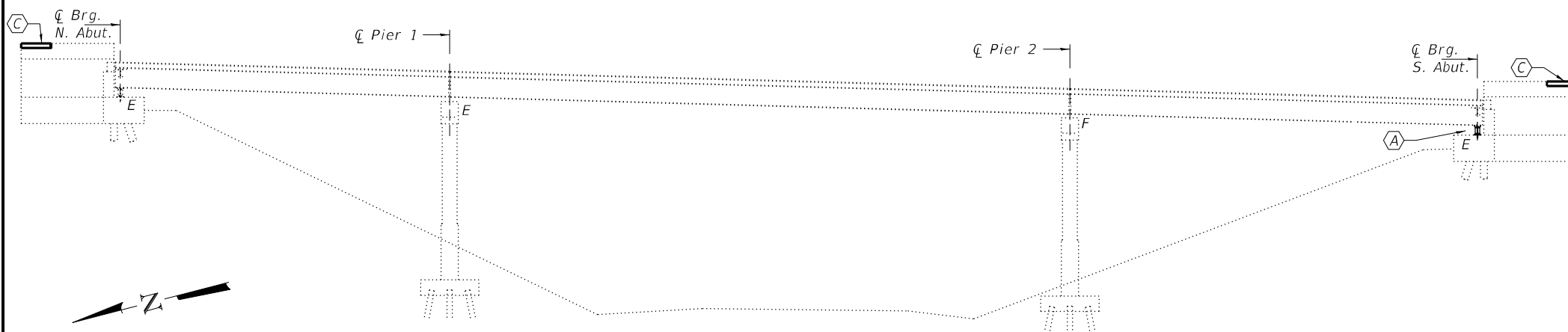
FLUSH PAVED MEDIAN: RESTRICTED LEFT TURN LANE

TABLE A
RECOMMENDED SPACING BETWEEN DIAGONAL LINES

SPEED LIMIT RANGE	INTERSECTION CHANNELIZATION (Includes Width Transitions for Median and Left Turn Lane Introductions)	
	CONTINUOUS	
Less Than 30 mph (50 km/h)	50' (15m)	15' (5m)
30 - 45 mph (50 - 70 km/h)	75' (23m)	20' (6m)
Over 45 mph (70 km/h)	150' (46m)	30' (9m)



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



ELEVATION

GENERAL NOTES

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

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

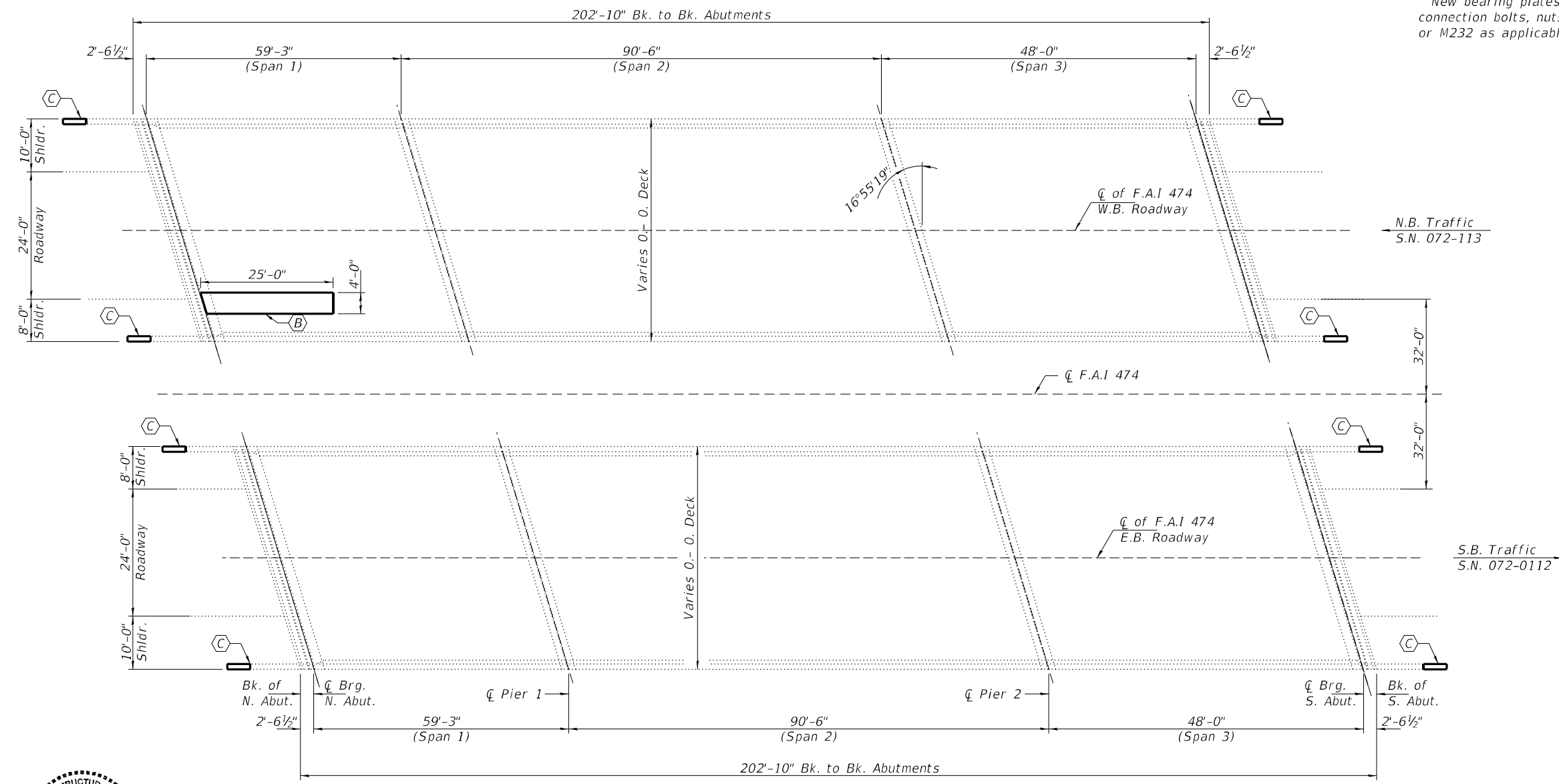
Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods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

Reinforcement bars designated (E) shall be epoxy coated.

Traffic will be maintained using stage construction.

The deck surface shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Deck Slab Repair (Full Depth Type II)

New bearing plates, steel extensions, shim plates, side retainers, anchor bolts, connection bolts, nuts and washers shall be galvanized according to AASHTO M111 or M232 as applicable.



PLAN

- (A) - Remove Existing Abutment Bearings and Install New Elastomeric Bearings, Type I
- (B) - Full Depth Patching.
- (C) - Wingwall Retrofit.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Structures	Cu. Yd.	1.6
Jack and Remove Existing Bearings	Each	17
Elastomeric Bearing Assembly, Type I	Each	17
Anchor Bolts, 1" \odot	Each	34
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	11.1
Reinforcement Bars, Epoxy Coated	Pound	420
* Protective Coat	Sq. Yd.	11.1
* Furnishing and Erecting Structural Steel	Pound	2600

* Apply to new concrete only.



EXPIRES 11-30-2022

DESIGNED - Victor H. Veliz	EXAMINED - <i>Trig A. Dack</i>	DATE - MAY 04, 2021
CHECKED - Adrian T. Hallaway	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Venkat Ramana Reddy V	PASSED - <i>Dr. Carl Puzey</i>	REVISED -
CHECKED - VHV ATH	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

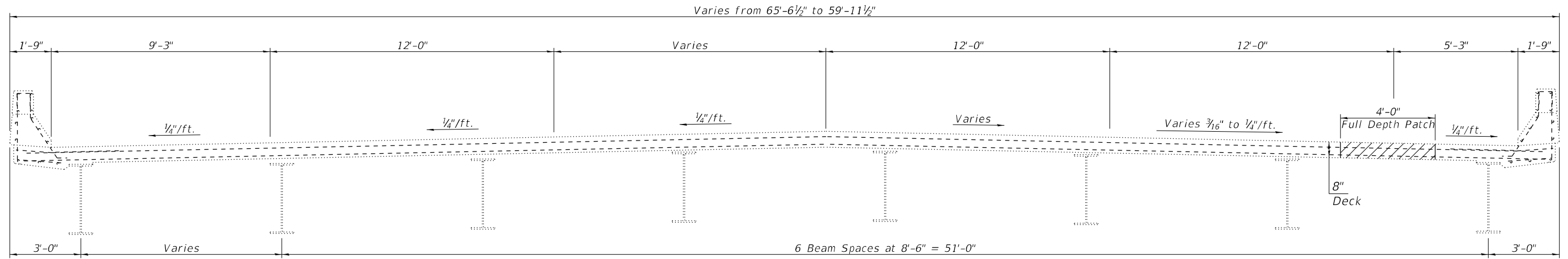
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION
FAI 474 OVER ABANDONED UPRR
SN 072-0112 (E.B.) & 072-0113 (W.B.)**

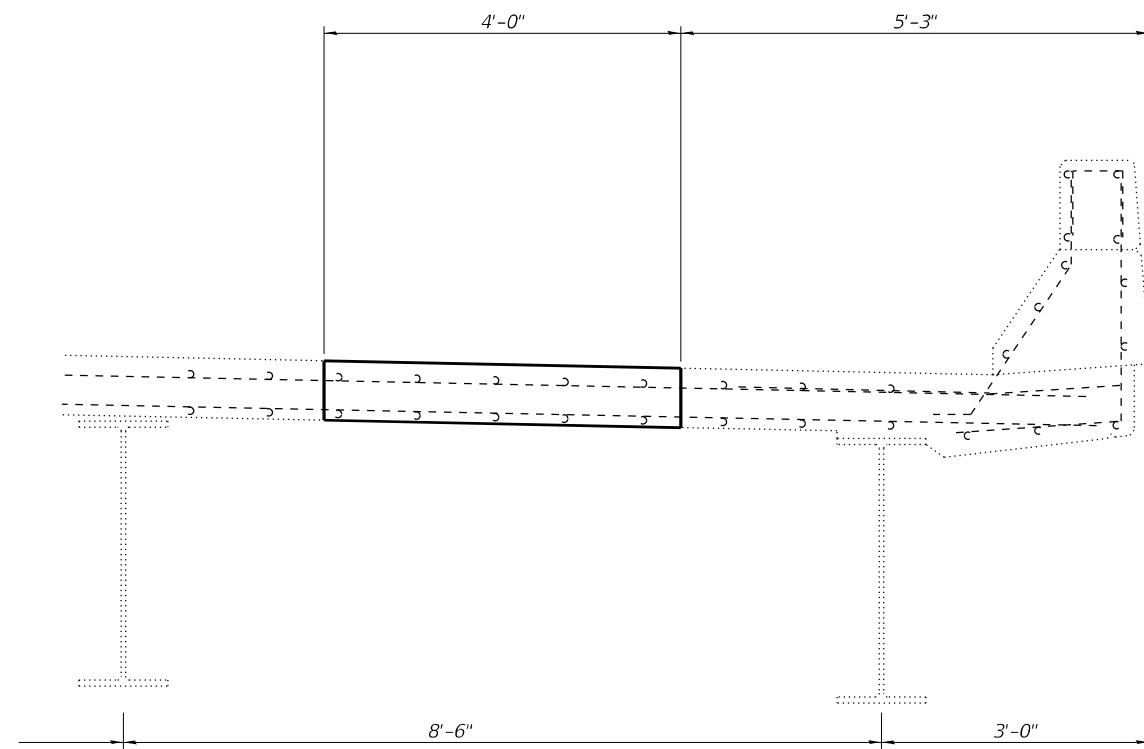
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[RS-3; (2-4)RS-2]	PEORIA	240	221
CONTRACT NO. 68C45				

SHEET NO. 1 OF 4 SHEETS

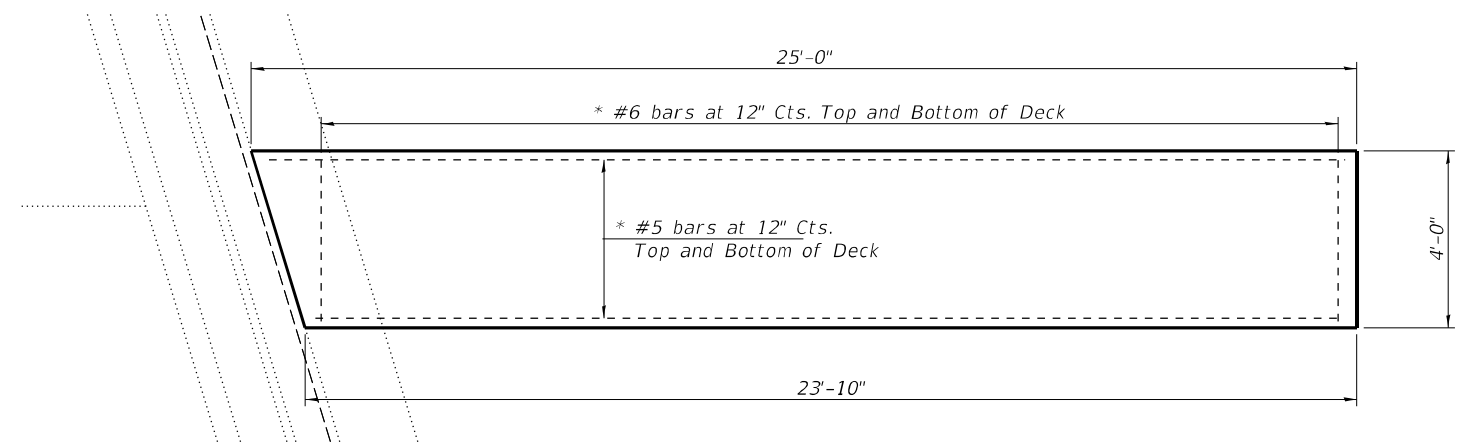
ILLINOIS FED. AID PROJECT



CROSS SECTION AT SPAN 1
(SN 072-0113 N.B. Looking South)



REPAIR B - CROSS SECTION THRU DECK
(SN 072-0113 N.B. Looking South)



REPAIR B - PLAN VIEW
* Existing Reinforcement to remain

DESIGNED - VHV
CHECKED - ATH
DRAWN - Venkat Ramana Reddy
CHECKED - VHV ATH

EXAMINED
PASSED
ENGINEER OF STRUCTURAL SERVICES
ENGINEER OF BRIDGES AND STRUCTURES

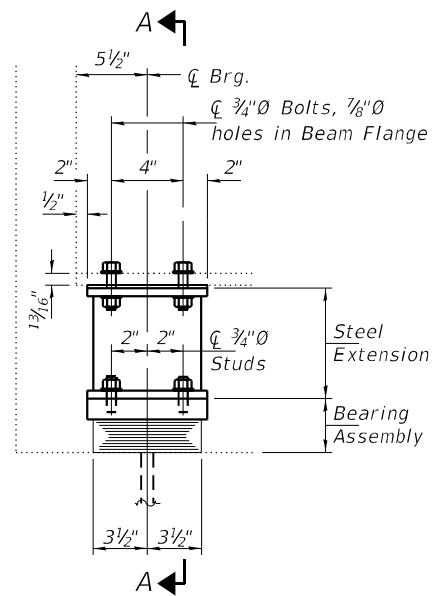
DATE - MAY 04, 2021
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FULL DEPTH PATCH DETAILS
SN 072-0112 (E.B) & 072-0113 (W.B)

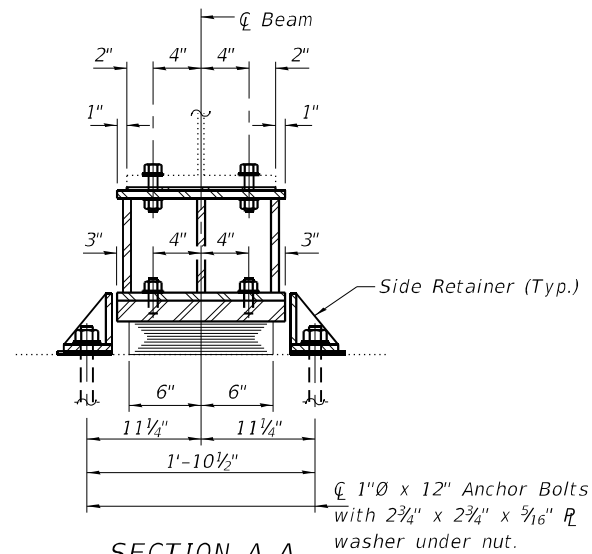
SHEET NO. 2 OF 4 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[1RS-3; (2-4)RS-2]	PEORIA	240	222
CONTRACT NO. 68C45				
ILLINOIS		FED. AID PROJECT		



ELEVATION AT ABUTMENT

TYPE I ELASTOMERIC EXP. BRG.



SECTION A-A

BEAM REACTIONS

R _∅	(K)	19.3
R _L	(K)	45.3
Imp.	(K)	15.0
R (Total)	(K)	79.6

Notes:

Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.

New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.

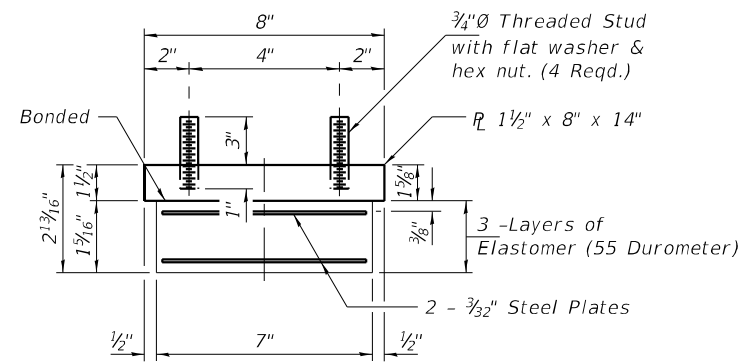
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust (if present).

Min. jack capacity = 37 Tons.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

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

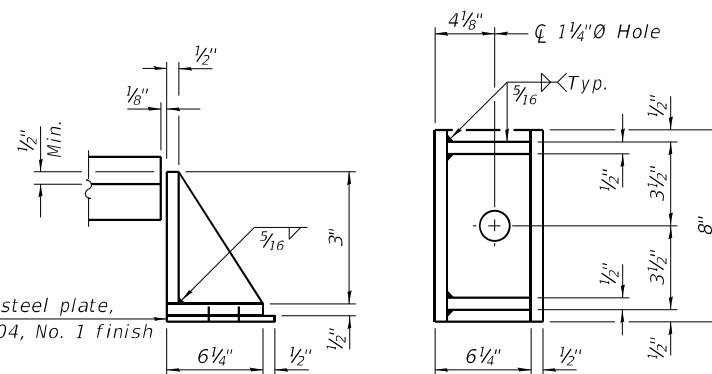
Cost of Side retainers and Stainless Steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.



BEARING ASSEMBLY

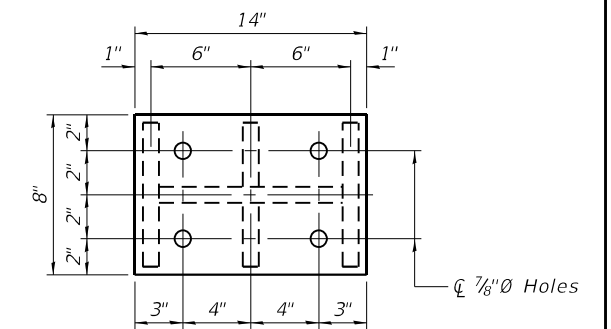
Note:

Shim plates shall not be placed under Bearing Assembly.

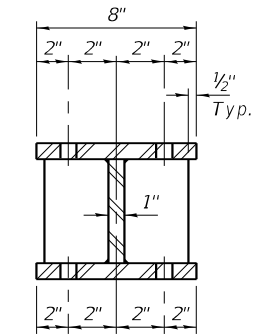


SIDE RETAINER

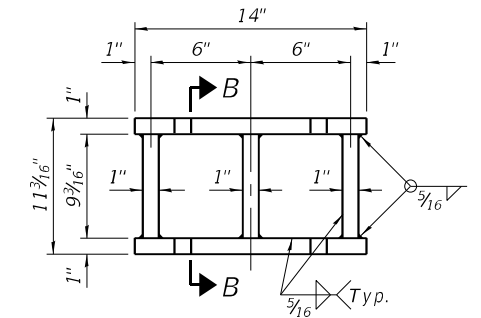
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



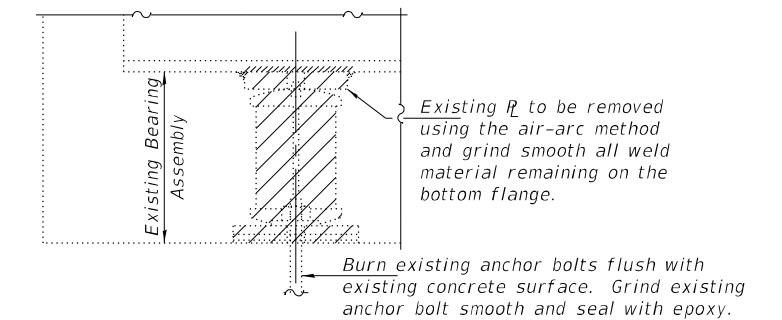
PLAN TOP AND BOTTOM PLATE



SECTION B-B



STEEL EXTENSION DETAIL



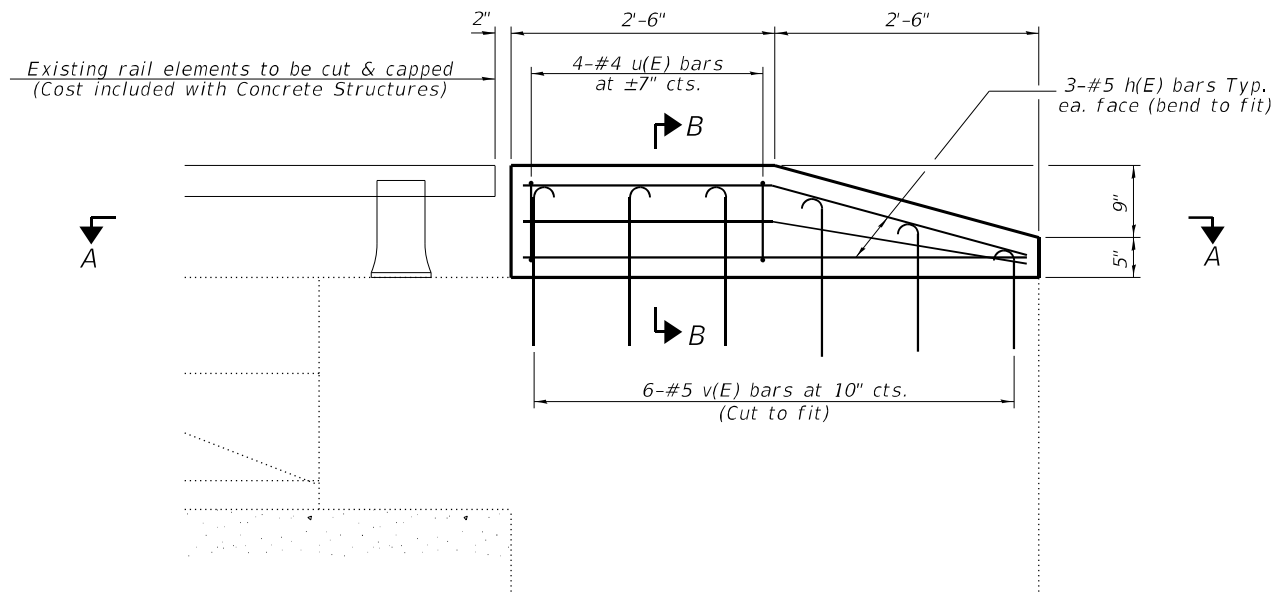
EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

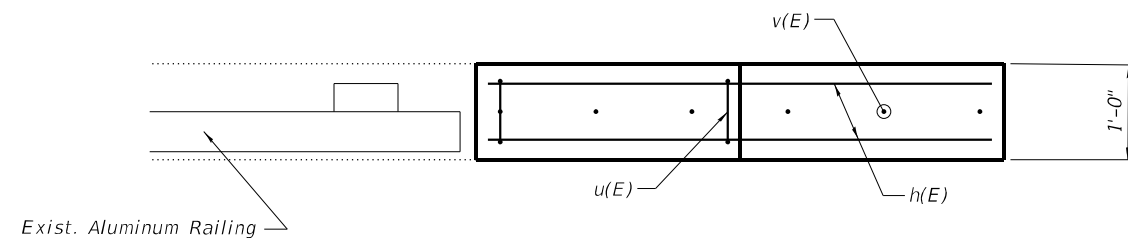
BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	17
Jack and Remove Existing Bearings	Each	17
Furnishing and Erecting Structural Steel	Pound	2600
Anchor Bolts, 1"∅	Each	34

TYI/REPS 5-17-2018

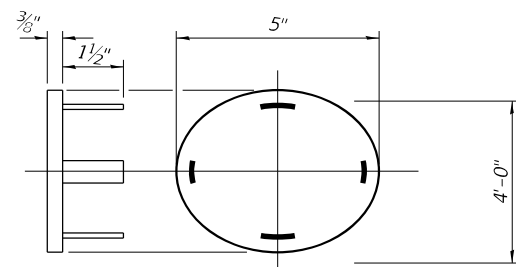


PROPOSED ELEVATION

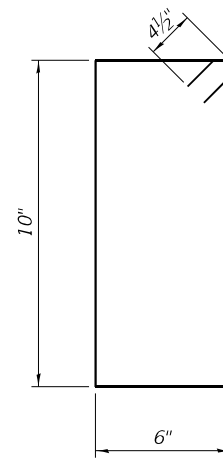


SECTION A-A

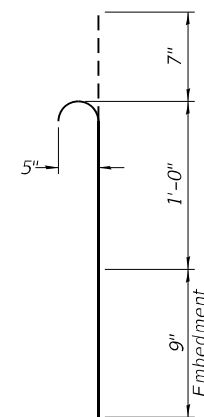
* Epoxy grout v(E) bars in 9" min. holes according to Article 584 of the Standard Specs.



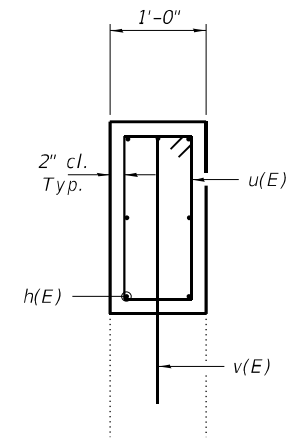
CAST END CAP



BAR u(E)



BAR v(E)



SECTION B-B

**TOTAL BILL OF MATERIAL
8 LOCATIONS**

Bar	No.	Size	Length	Shape
h(E)	48	#5	4'-8"	—
u(E)	32	#4	3'-5"	⊠
v(E)	48	#5	2'-4"	U
Concrete Superstructure			Cu. Yd.	1.6
Reinforcement Bars, Epoxy Coated			Pound	420

DESIGNED - VHV
 CHECKED - ATH
 DRAWN - Venkat Ramana Reddy
 CHECKED - VHV ATH

EXAMINED
 PASSED
Timothy A. Daulton
 ENGINEER OF STRUCTURAL SERVICES
Carl Pinner
 ENGINEER OF BRIDGES AND STRUCTURES

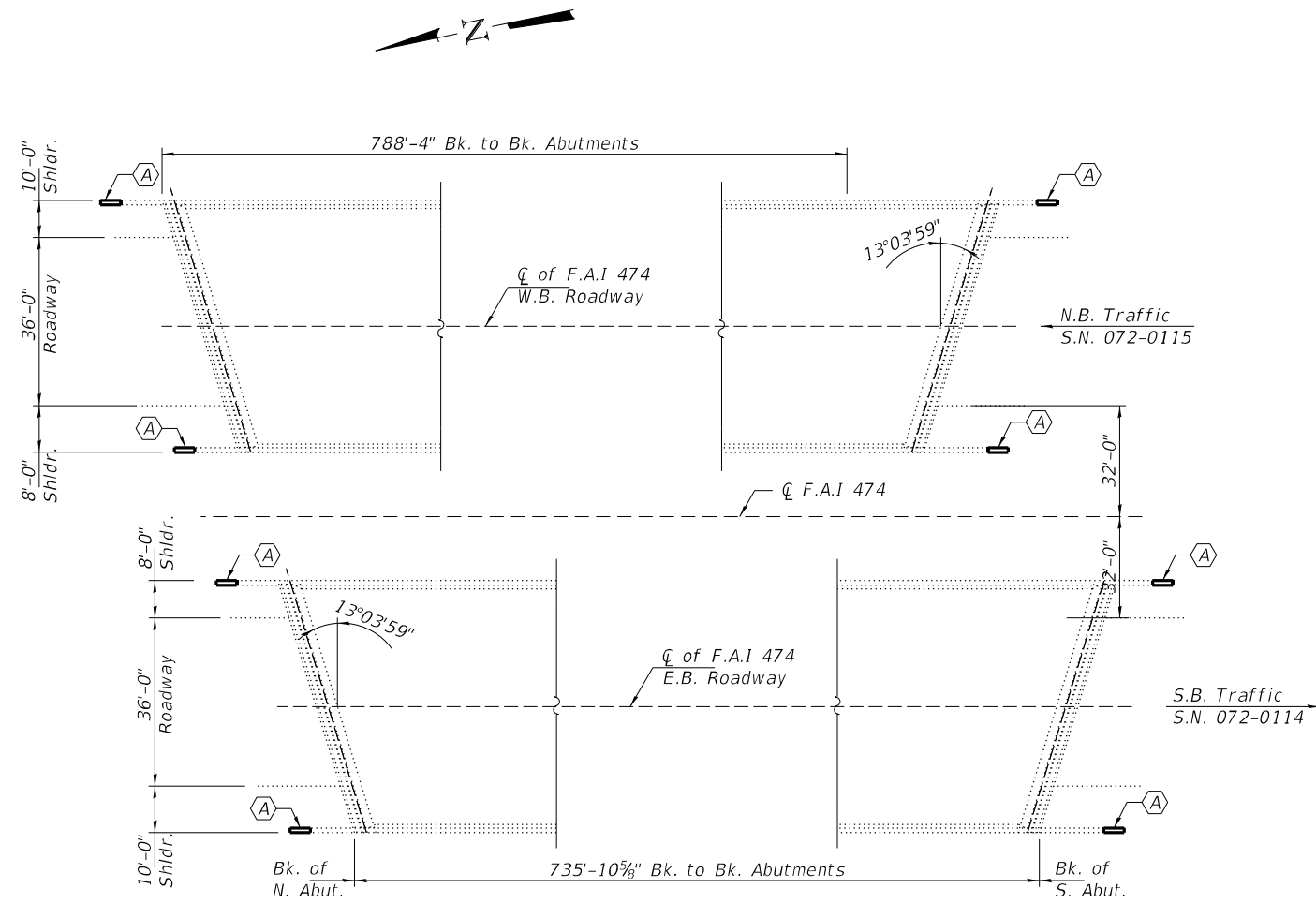
DATE - MAY 04, 2021
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**WINGWALL MODIFICATIONS
 SN 072-0112 (E.B) & 072-0113 (W.B)**

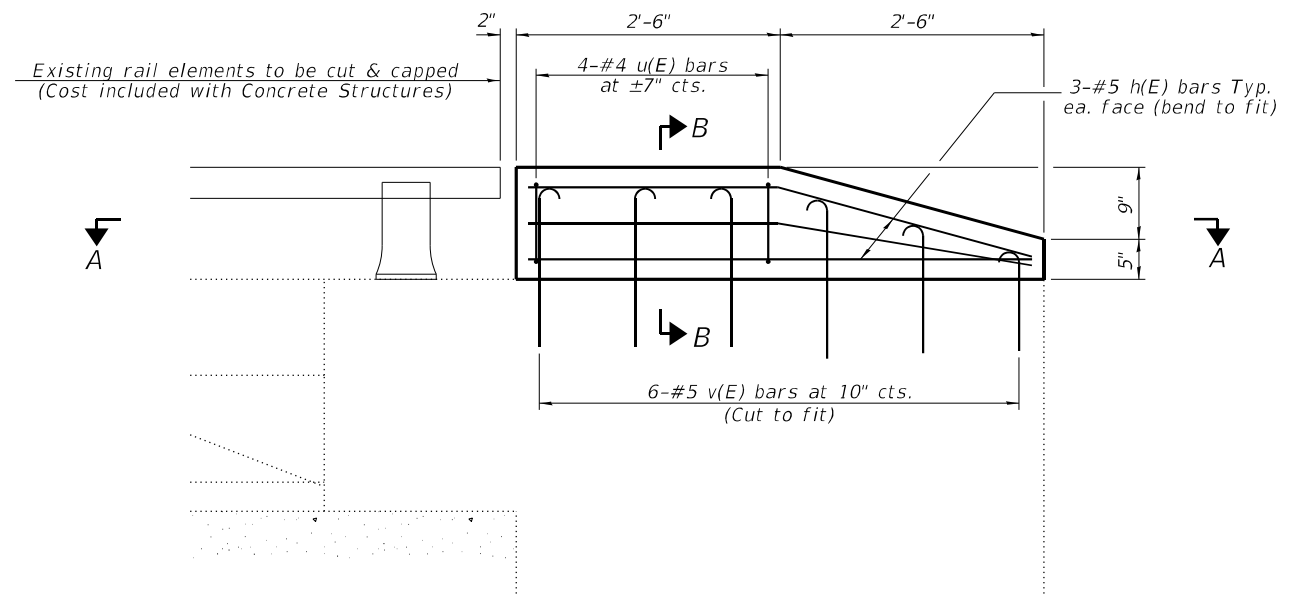
SHEET NO. 4 OF 4 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[1RS-3; (2-4)RS-2]	PEORIA	240	224
ILLINOIS FED. AID PROJECT			CONTRACT NO. 68C45	

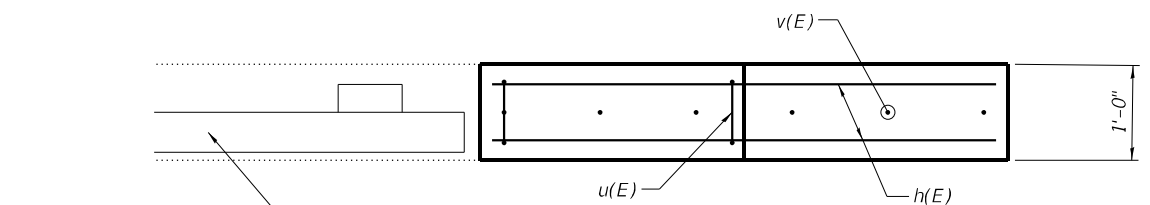


PARTIAL PLAN

(A) - Wingwall Retrofit.

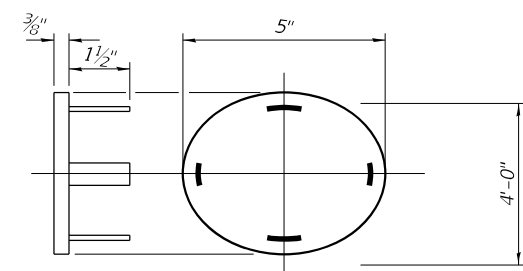


PROPOSED ELEVATION

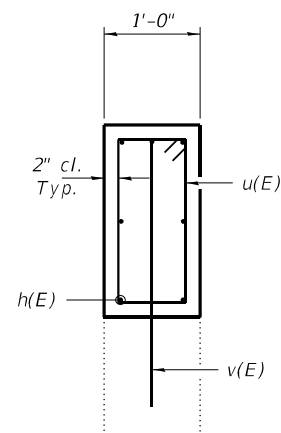


SECTION A-A

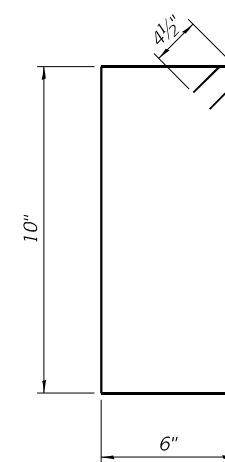
* Epoxy grout v(E) bars in 9" min. holes according to Article 584 of the Standard Specs.



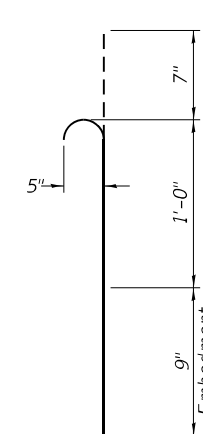
CAST END CAP



SECTION B-B



BAR u(E)



BAR v(E)

**TOTAL BILL OF MATERIAL
8 LOCATIONS**

Bar	No.	Size	Length	Shape
h(E)	48	#5	4'-8"	—
u(E)	32	#4	3'-5"	□
v(E)	96	#5	2'-4"	⌋
Concrete Superstructure		Cu. Yd.	1.6	
Reinforcement Bars, Epoxy Coated		Pound	560	



EXPIRES 11-30-2022

DESIGNED - Victor H. Veliz
CHECKED - Adrian T. Halloway
DRAWN - Venkat Ramana Reddy
CHECKED - VHV ATH

EXAMINED - *Trig A. Beck*
PASSED - *Sh. Carl Puze*
ENGINEER OF STRUCTURAL SERVICES
ENGINEER OF BRIDGES AND STRUCTURES

DATE - MAY 04, 2021
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WINGWALL & RAILING MODIFICATIONS
SN 072-0114 (E.B.) & 072-0115 (W.B.)

SHEET NO. 1 OF 1 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[1RS-3; (2-4)RS-2]	PEORIA	240	225
CONTRACT NO. 68C45				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES

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

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

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material 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.

Reinforcement bars designated (E) shall be epoxy coated.

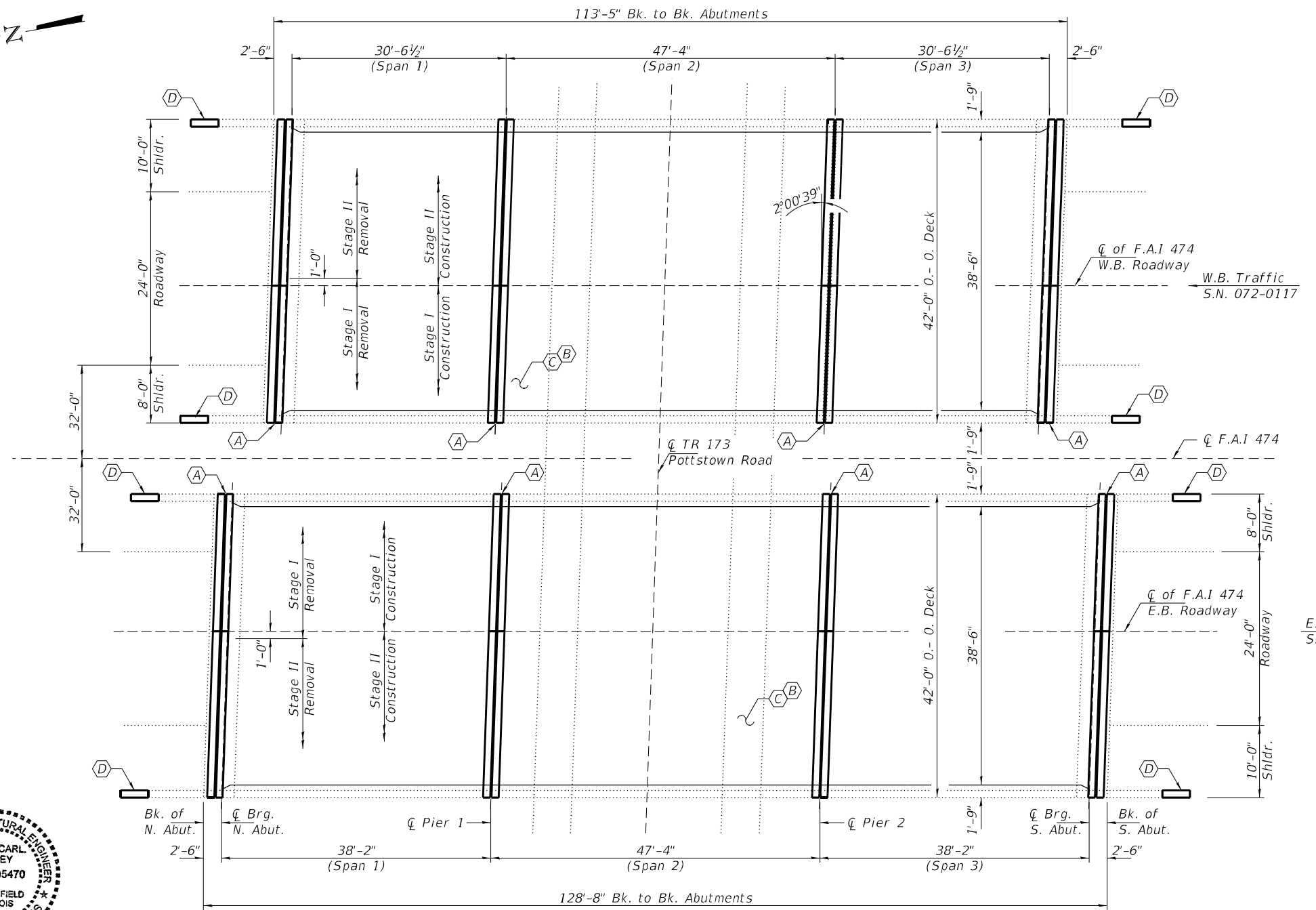
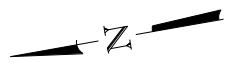
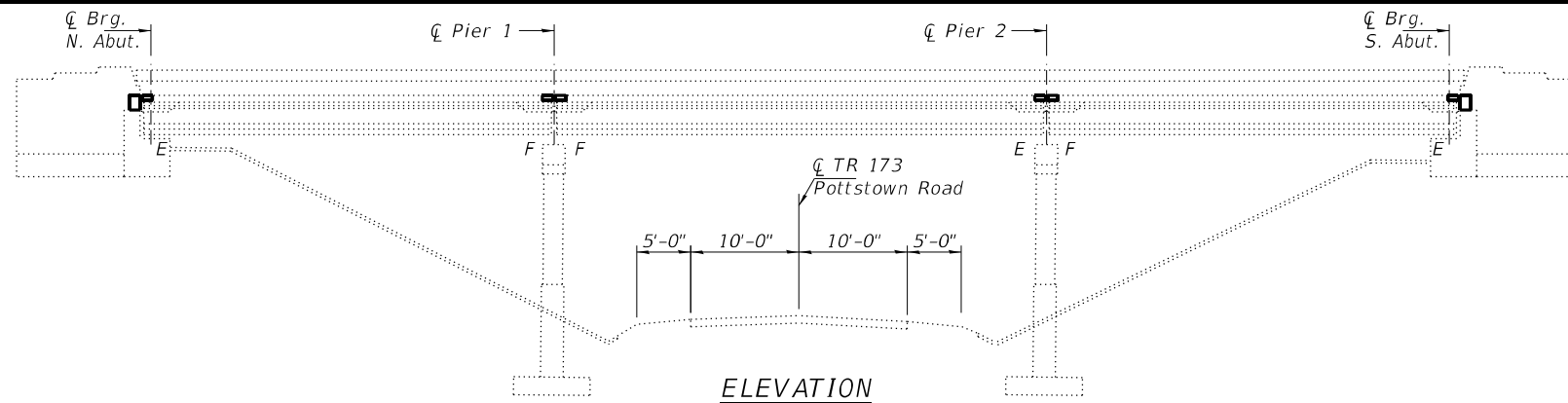
Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

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.

Traffic will be maintained using stage construction.

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

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



- (A) - Remove existing Neoprene Joints and install new Preformed Joint Strip Seal.
- ** (B) - Deck Patching. Estimated quantity. Size of patches and locations to be determined by the Engineer in the field and documented on sheet 2 of 8.
- (C) - Remove & Replace Existing HMA Surface & Waterproofing Membrane System
- (D) - Retrofit Existing Wingwall.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	18.6
Concrete Superstructure	Cu. Yd.	18.6
Concrete Structures	Cu. Yd.	0.8
Preformed Joint Strip Seal	Foot	336
Reinforcement Bars, Epoxy Coated	Pound	4360
** Deck Slab Repair (Partial)	Sq. Yd.	40
Hot Mix Asphalt Surface Removal (Deck)	Sq. Yd.	941
Waterproofing Membrane System	Sq. Yd.	967
Polymerized Hot-Mix Asphalt Surface Course, IL-9.5, Mix "D", N70	Tons	79
* Protective Coat	Sq. Yd.	300
Bar Splicers	Each	40

* Apply to new concrete only.



EXPIRES 11-30-2022

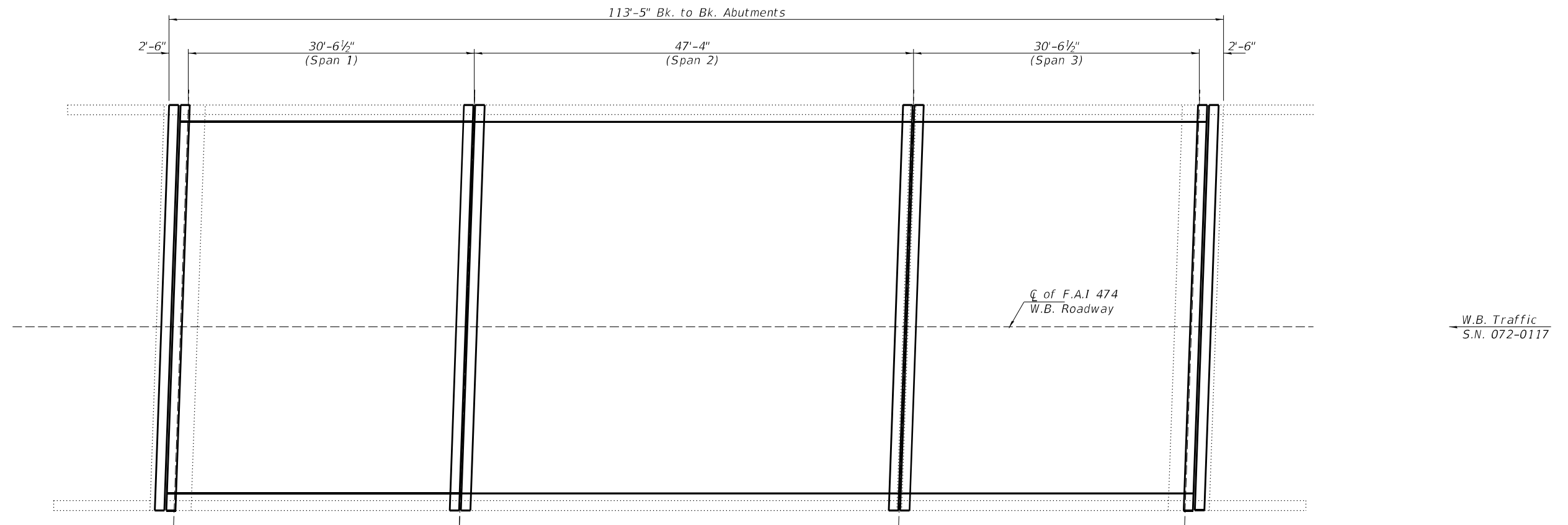
DESIGNED - Victor H. Veliz	EXAMINED - <i>Ting A. Best</i>	DATE - MAY 04, 2021
CHECKED - Adrian T. Halloway	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Venkat Ramana Reddy	PASSED - <i>Dr. Carl Puzey</i>	REVISED -
CHECKED - VHV ATH	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

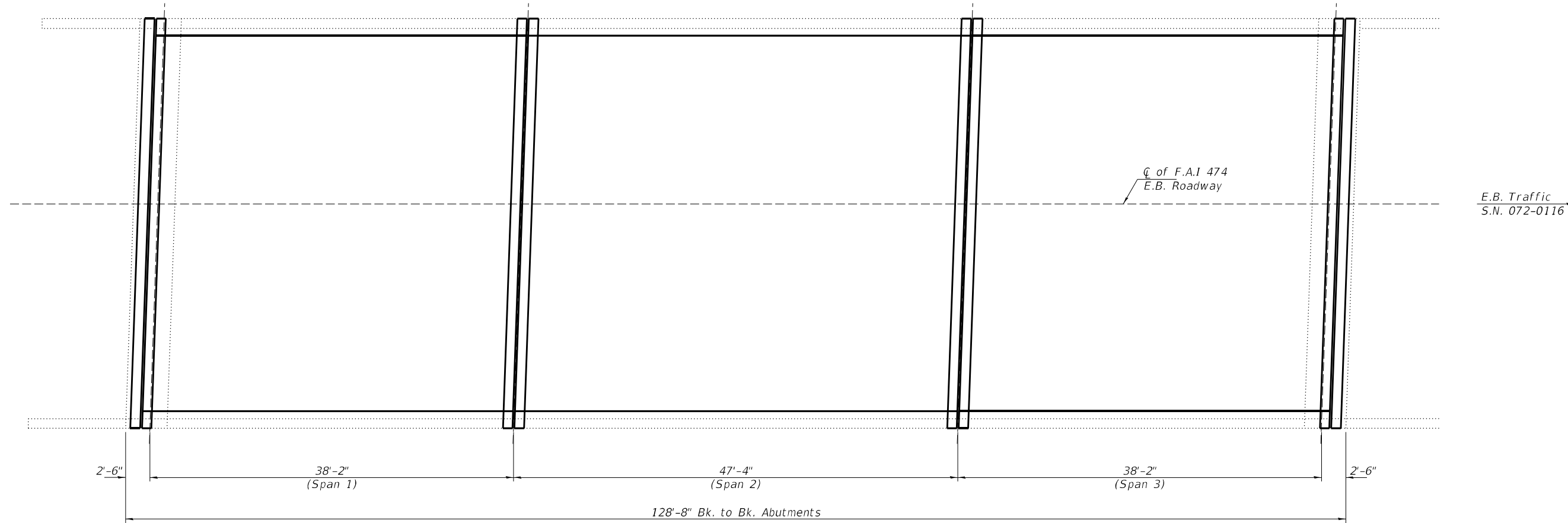
**GENERAL PLAN AND ELEVATION
FAI 474 OVER TR 173 POTTSTOWN ROAD
SN 072-0116 (E.B.) & 072-0117 (W.B.)**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[RS-3; (2-4)RS-2]	PEORIA	240	226
ILLINOIS			CONTRACT NO. 68C45	

SHEET NO. 1 OF 8 SHEETS



W.B.(072-0117) PLAN



E.B.(072-0117) PLAN

DESIGNED - VHV
 CHECKED - ATH
 DRAWN - Venkat Ramana Reddy
 CHECKED - VHV ATH

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

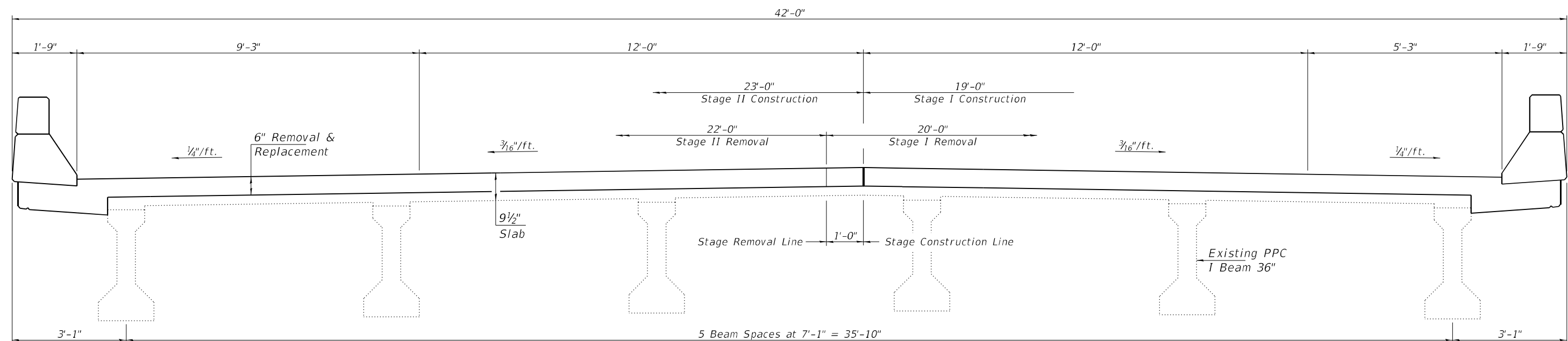
DATE - MAY 04, 2021
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DECK PATCHING - REPAIR B
 SN 072-0116 (E.B) & 072-0117 (W.B)

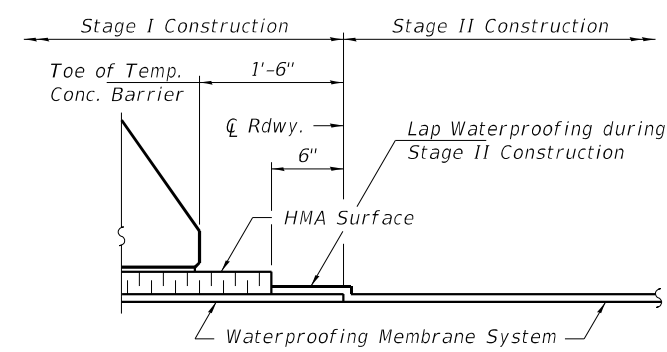
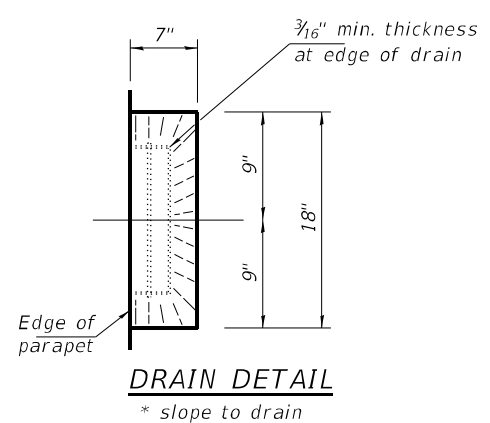
SHEET NO. 2 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[1RS-3; (2-4)RS-2]	PEORIA	240	227
CONTRACT NO. 68C45				
ILLINOIS FED. AID PROJECT				

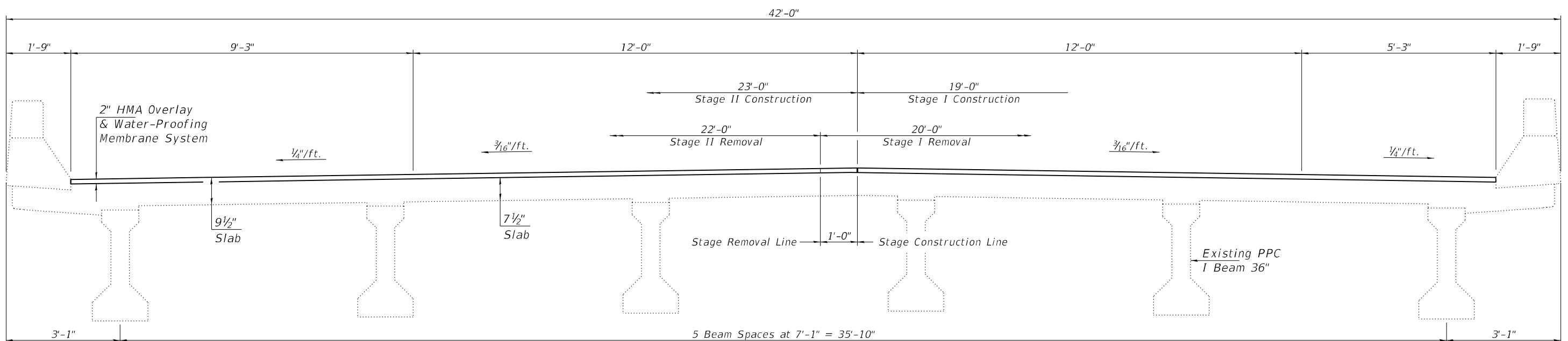


CROSS SECTION AT ABUTMENTS & PIERS

(SN 072-0116 E.B. Looking South)
(SN 072-0117 W.B. Looking North)



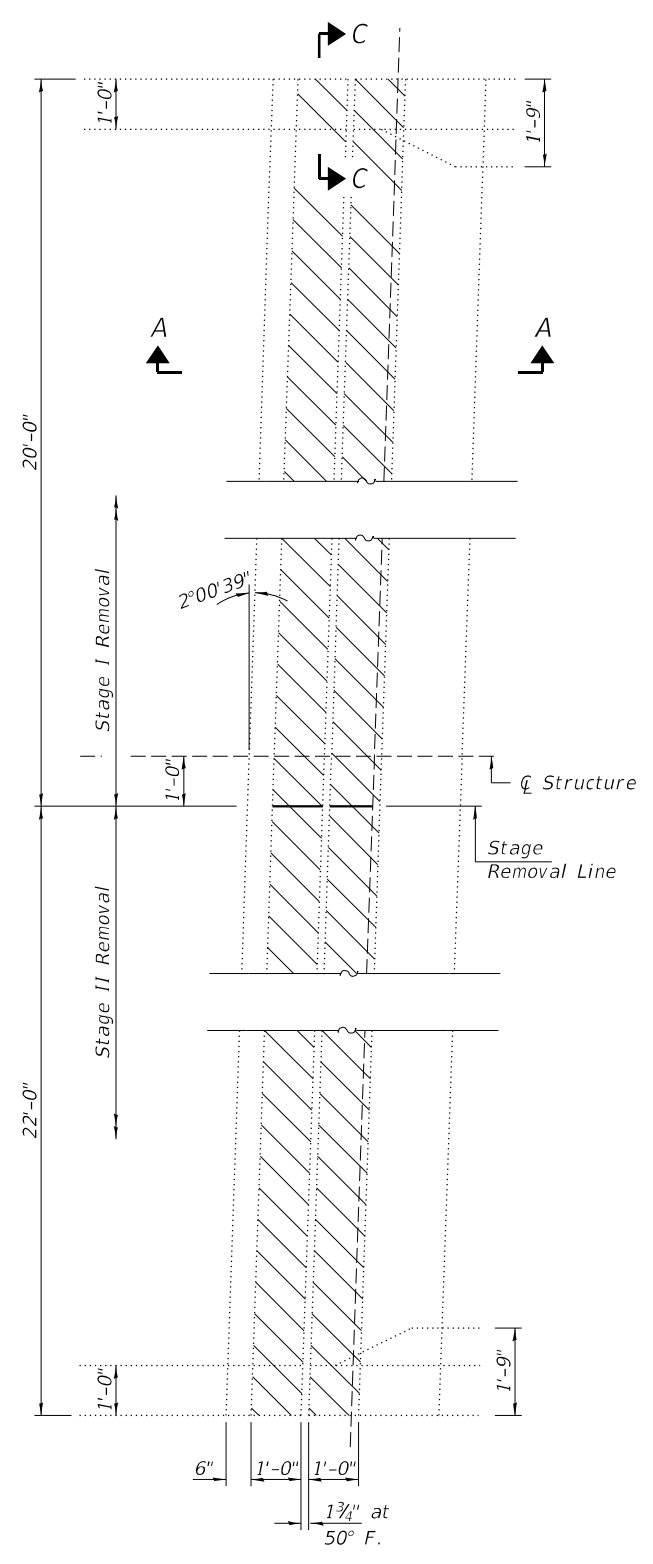
WATERPROOFING TREATMENT AT STAGE CONSTRUCTION



CROSS SECTION AT MID SPAN

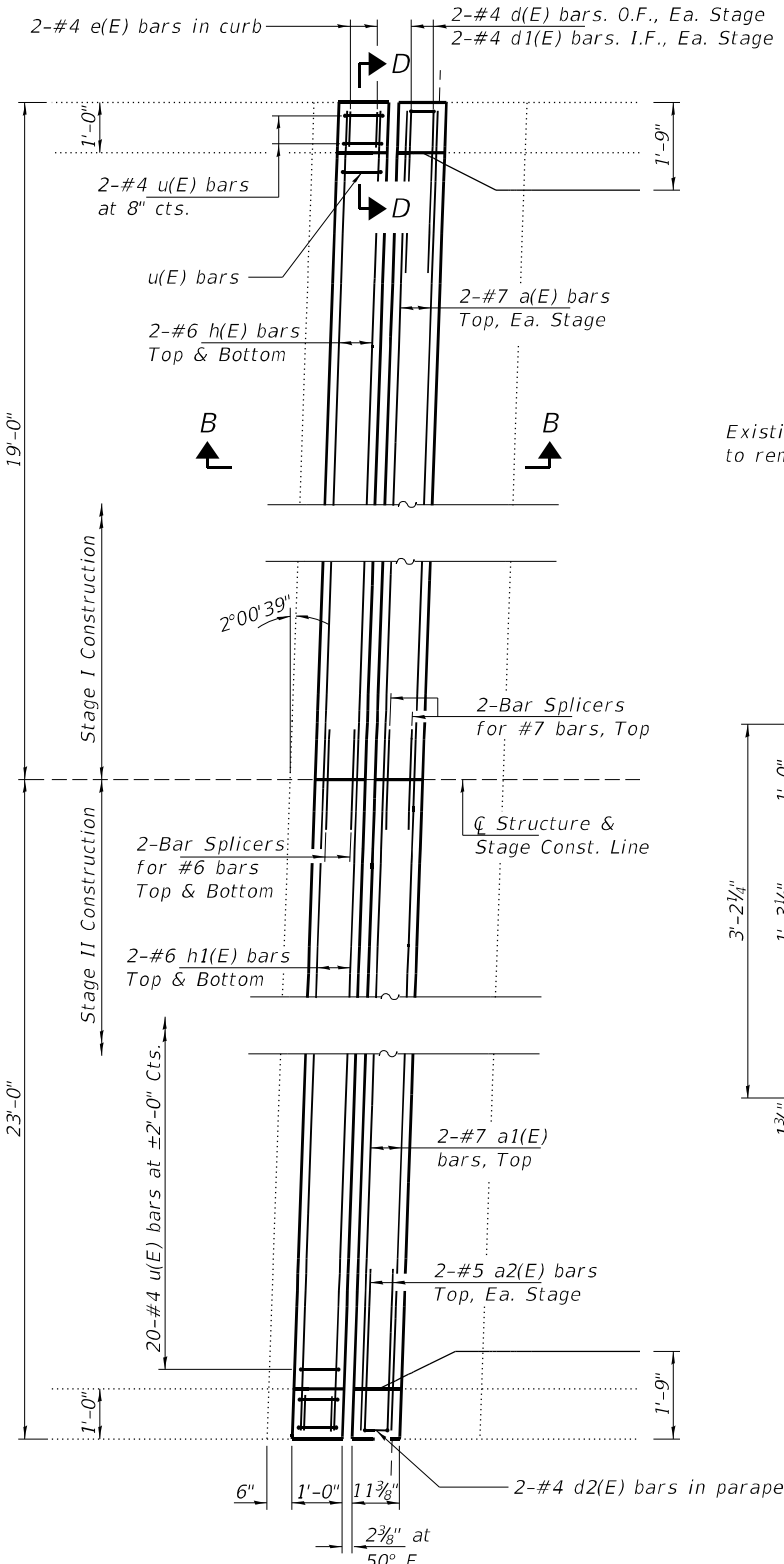
(SN 072-0116 E.B. Looking South)
(SN 072-0117 W.B. Looking North)

DESIGNED - VHV	EXAMINED - <i>Timothy A. Daulton</i>	DATE - MAY 04, 2021	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS & STAGING DETAILS SN 072-0116 (E.B.) & 072-0117 (W.B.)	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
CHECKED - ATH	PASSED - <i>Carl Ringer</i>	REVISED -			474	72[RS-3; (2-4)RS-2]	PEORIA	240	228	
DRAWN - Venkat Ramana Reddy	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -			CONTRACT NO. 68C45					
CHECKED - VHV ATH					SHEET NO. 3 OF 8 SHEETS					
				ILLINOIS FED. AID PROJECT						



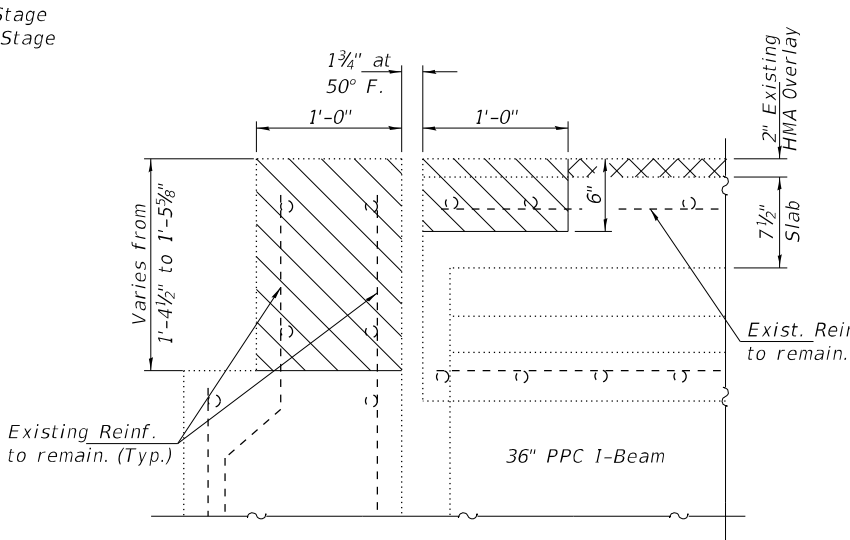
REMOVAL PLAN

North Abut. of SN 072-0116 E.B. shown,
South Abut. of SN 072-0117 W.B similar
by mirroring along \hat{C} F.A.I. 474.

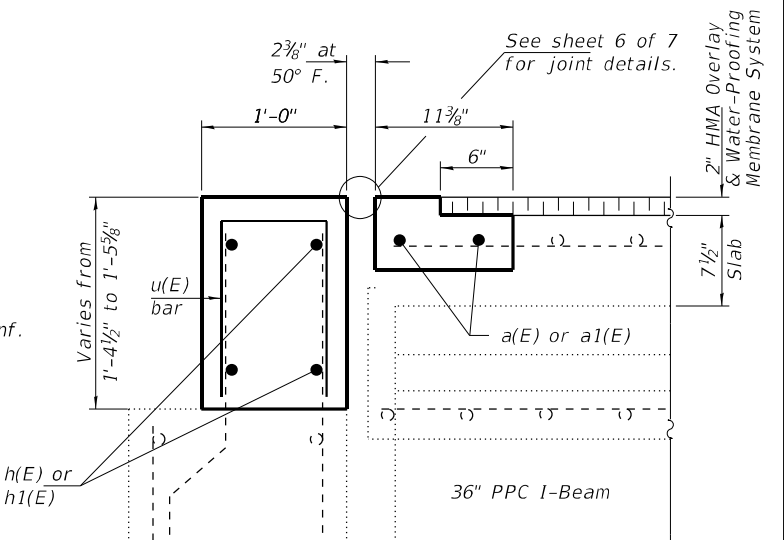


REPLACEMENT PLAN

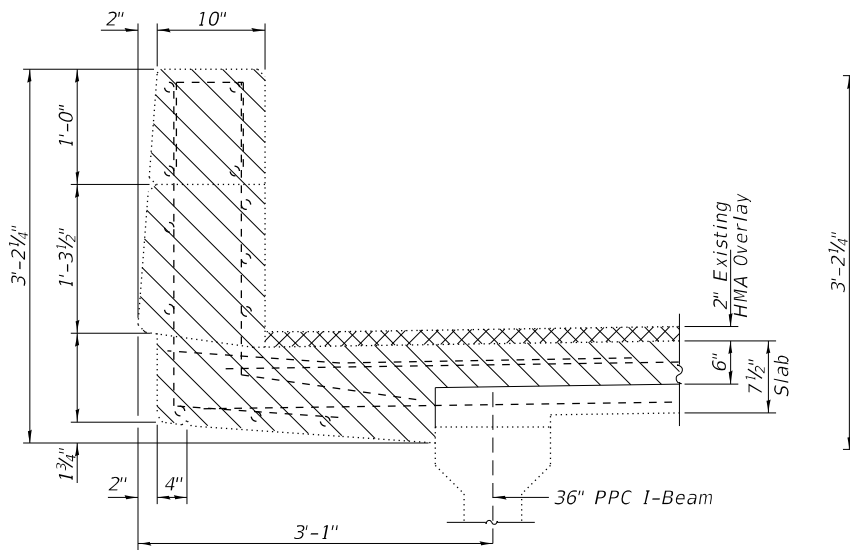
North Abut. of SN 072-0116 E.B. shown,
South Abut. of SN 072-0117 W.B similar
by mirroring along \hat{C} F.A.I. 474.



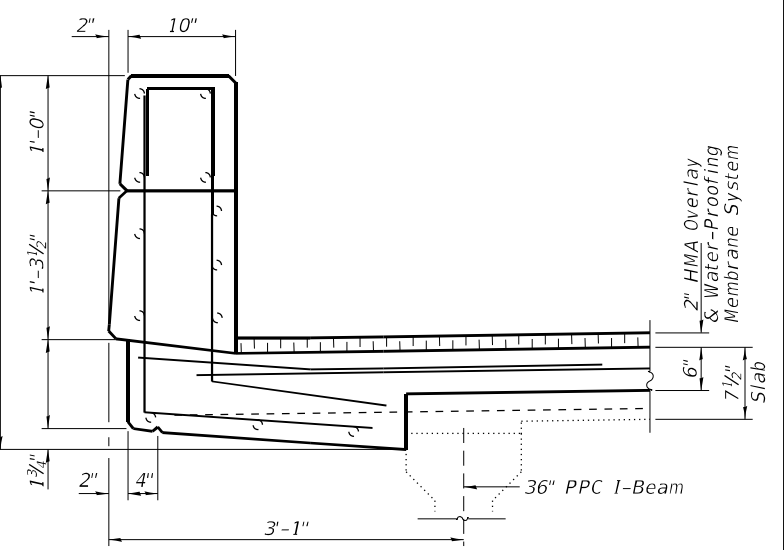
SECTION A-A



SECTION B-B

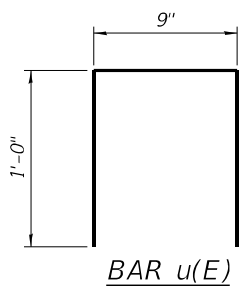


SECTION C-C



SECTION D-D

SECTION THRU BRIDGE PARAPET AT ABUTMENT



BILL OF MATERIAL (ABUTMENTS & PIERS)

Bar	No.	Size	Length	Shape
a(E)	24	#7	18'-8"	—
a1(E)	24	#7	22'-8"	—
a2(E)	48	#5	4'-0"	—
d(E)	48	#4	4'-10"	L
d1(E)	48	#4	3'-8"	L
d2(E)	32	#4	2'-1"	□
h(E)	24	#6	18'-8"	—
h1(E)	24	#6	22'-8"	—
u(E)	96	#4	2'-9"	U
Concrete Removal			Cu. Yd.	18.6
Concrete Superstructure			Cu. Yd.	18.6
Protective Coat			Sq. Yd.	294
Bar Splicers			Each	40
Reinforcement Bars, Epoxy Coated			Pound	4210

DESIGNED - VHV
CHECKED - ATH
DRAWN - Venkat Ramana Reddy
CHECKED - VHV ATH

EXAMINED
PASSED
ENGINEER OF STRUCTURAL SERVICES
ENGINEER OF BRIDGES AND STRUCTURES

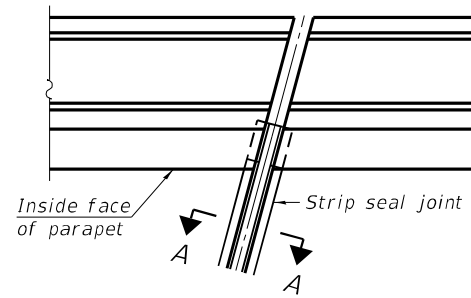
DATE - MAY 04, 2021
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

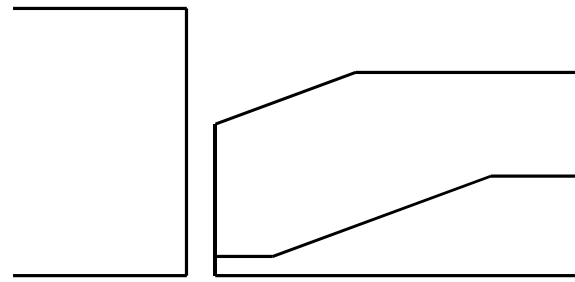
**JOINT REMOVAL & REPLACEMENT DETAILS - ABUTMENTS
SN 072-0116 (E.B.) & 072-0117 (W.B.)**

SHEET NO. 4 OF 8 SHEETS

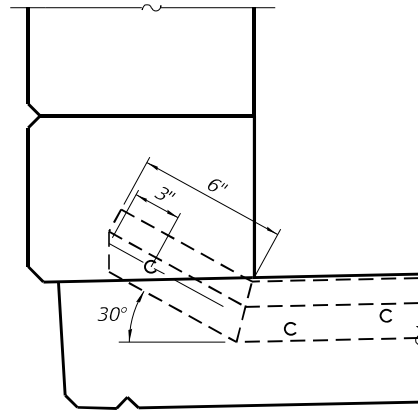
F.A.I. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.
474 72[RS-3; (2-4)RS-2] PEORIA 240 229
CONTRACT NO. 68C45
ILLINOIS FED. AID PROJECT



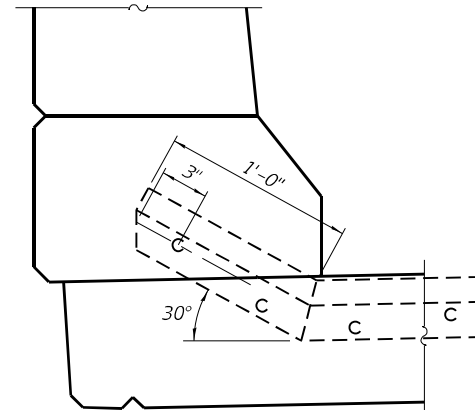
FOR SKEWS $\leq 30^\circ$
PLAN AT PARAPET



ELEVATION AT PARAPET

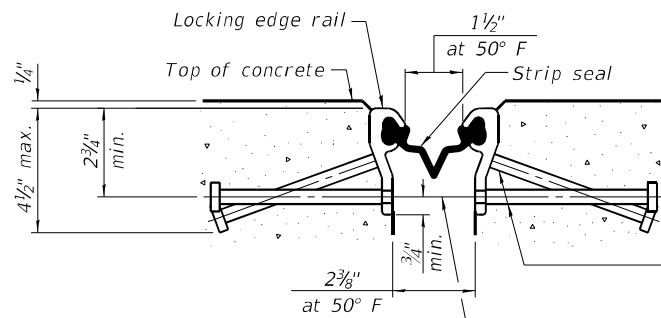


PARAPET ELEVATION AT ABUTMENTS
(Skews $\leq 30^\circ$)



PARAPET ELEVATION AT PIERS
(Skews $\leq 30^\circ$)

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.
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 $4\frac{1}{2}$ " maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.
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.
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.

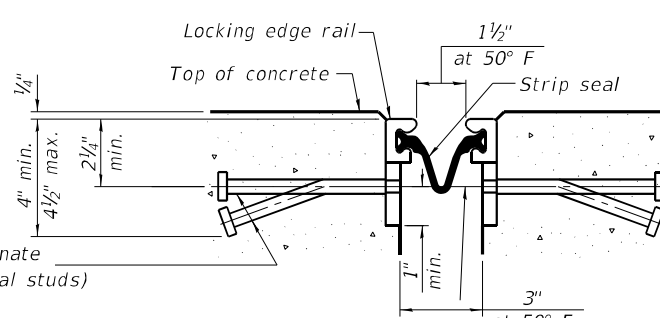


SHOWING ROLLED RAIL JOINT

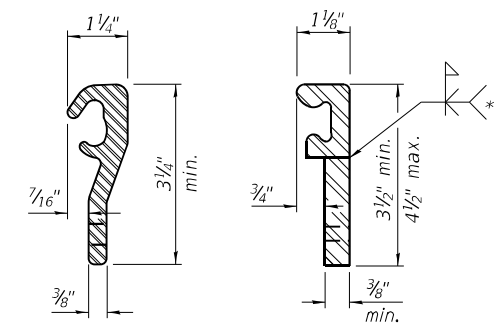
* $\frac{5}{8}$ " ϕ x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)
 $\frac{3}{8}$ " ϕ threaded rods in $\frac{1}{16}$ " ϕ holes at $\pm 4'-0"$ cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, 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.

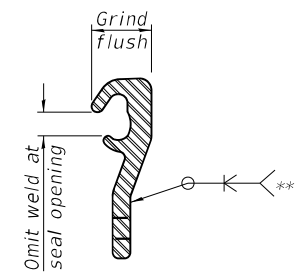


SHOWING WELDED RAIL JOINT



LOCKING EDGE RAILS
ROLLED (EXTRUDED) RAIL WELDED RAIL

** 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	336

EJ-SS1 LT30/REPS

2-25-20

DESIGNED - VHV
CHECKED - ATH
DRAWN - Venkat Ramana Reddy
CHECKED - VHV ATH

EXAMINED
PASSED
ENGINEER OF STRUCTURAL SERVICES
ENGINEER OF BRIDGES AND STRUCTURES

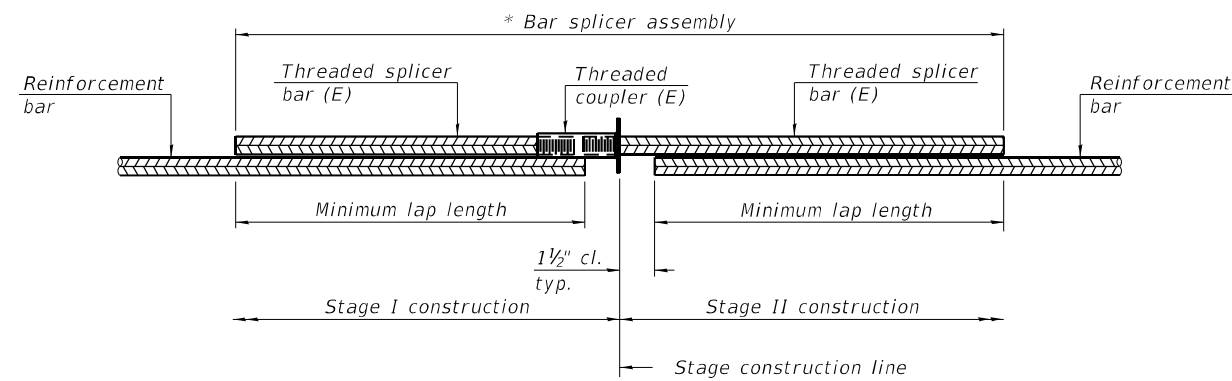
DATE - MAY 04, 2021
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
SN 072-0116 (E.B) & 072-0117 (W.B)

SHEET NO. 6 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[1RS-3; (2-4)RS-2]	PEORIA	240	231
ILLINOIS			CONTRACT NO. 68C45	
FED. AID PROJECT				

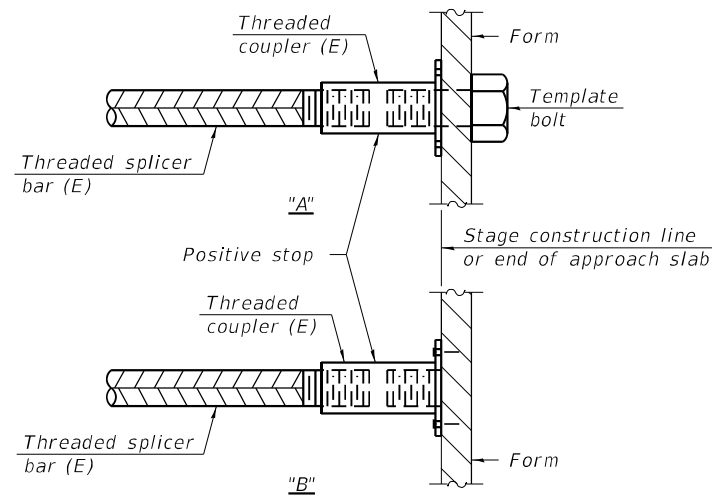


STANDARD BAR SPLICER ASSEMBLY PLAN
(All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

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

Location	Bar size	No. assemblies required	Minimum lap length
N. & S. Abut. (0116)	#6	8	3'-7"
N. & S. Abut. (0117)	#6	8	3'-7"
Pier 1 & Pier 2 (0116)	#7	8	4'-8"
Pier 1 & Pier 2 (0117)	#7	8	4'-8"
North & South Abut. (0116)	#7	4	4'-8"
North & South Abut. (0117)	#7	4	4'-8"

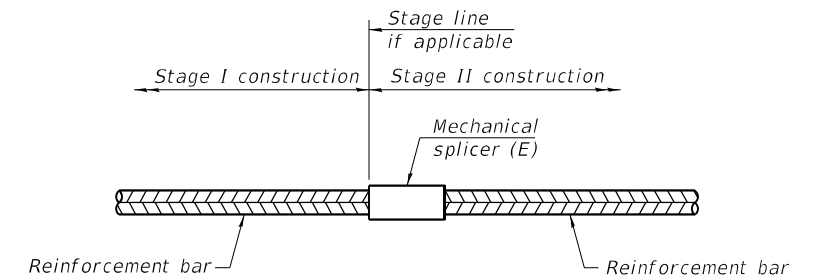


INSTALLATION AND SETTING METHODS

"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

1-1-2020

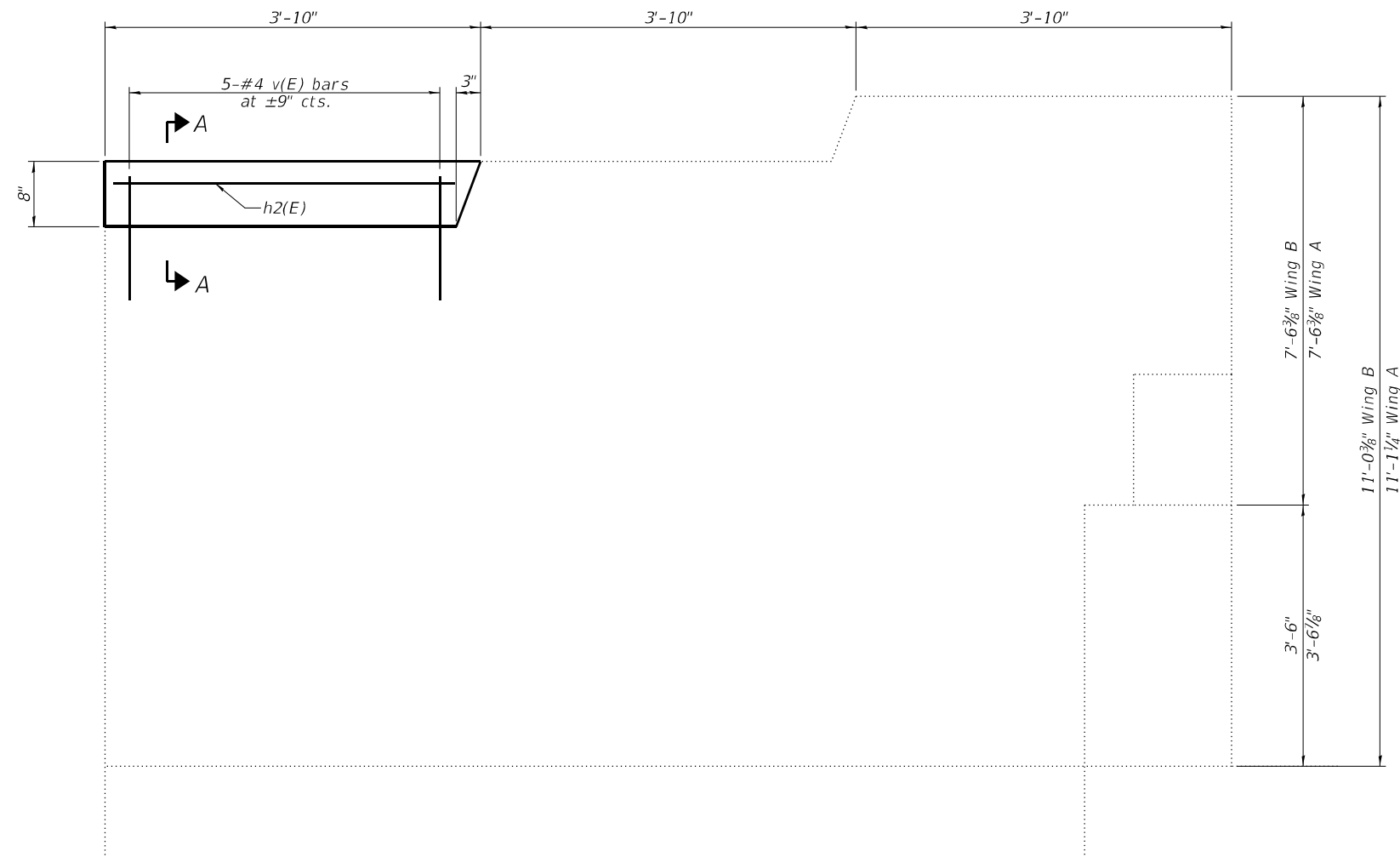
DESIGNED - VHV	EXAMINED	DATE - MAY 04, 2021
CHECKED - ATH	<i>Timothy A. ...</i> ENGINEER OF STRUCTURAL SERVICES	REVISED -
DRAWN - Venkat Ramana Reddy	PASSED	REVISED -
CHECKED - VHV ATH	<i>Carl ...</i> ENGINEER OF BRIDGES AND STRUCTURES	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

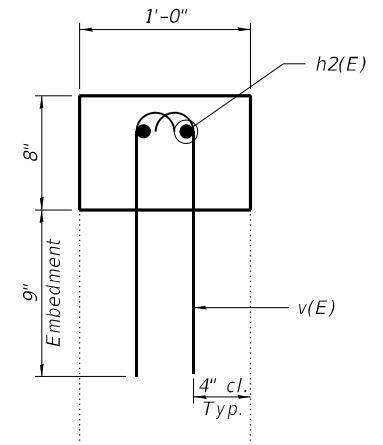
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
SN 072-0116 (E.B) & 072-0117 (W.B)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[1RS-3; (2-4)RS-2]	PEORIA	240	232
CONTRACT NO. 68C45				
ILLINOIS		FED. AID PROJECT		

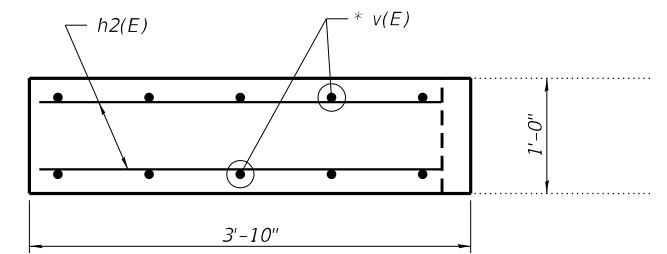
SHEET NO. 7 OF 8 SHEETS



ELEVATION

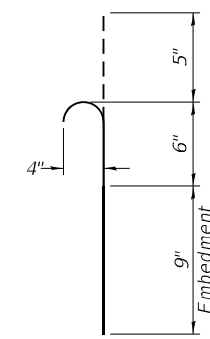


SECTION A-A



PLAN

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



BAR v(E)

BILL OF MATERIAL
(8 Locations)

Bar	No.	Size	Length	Shape
h2(E)	16	#5	3'-6"	—
v(E)	80	#4	1'-8"	⌋
Concrete Superstructure		Cu. Yd.	0.8	
Reinforcement Bars, Epoxy Coated		Pound	150	

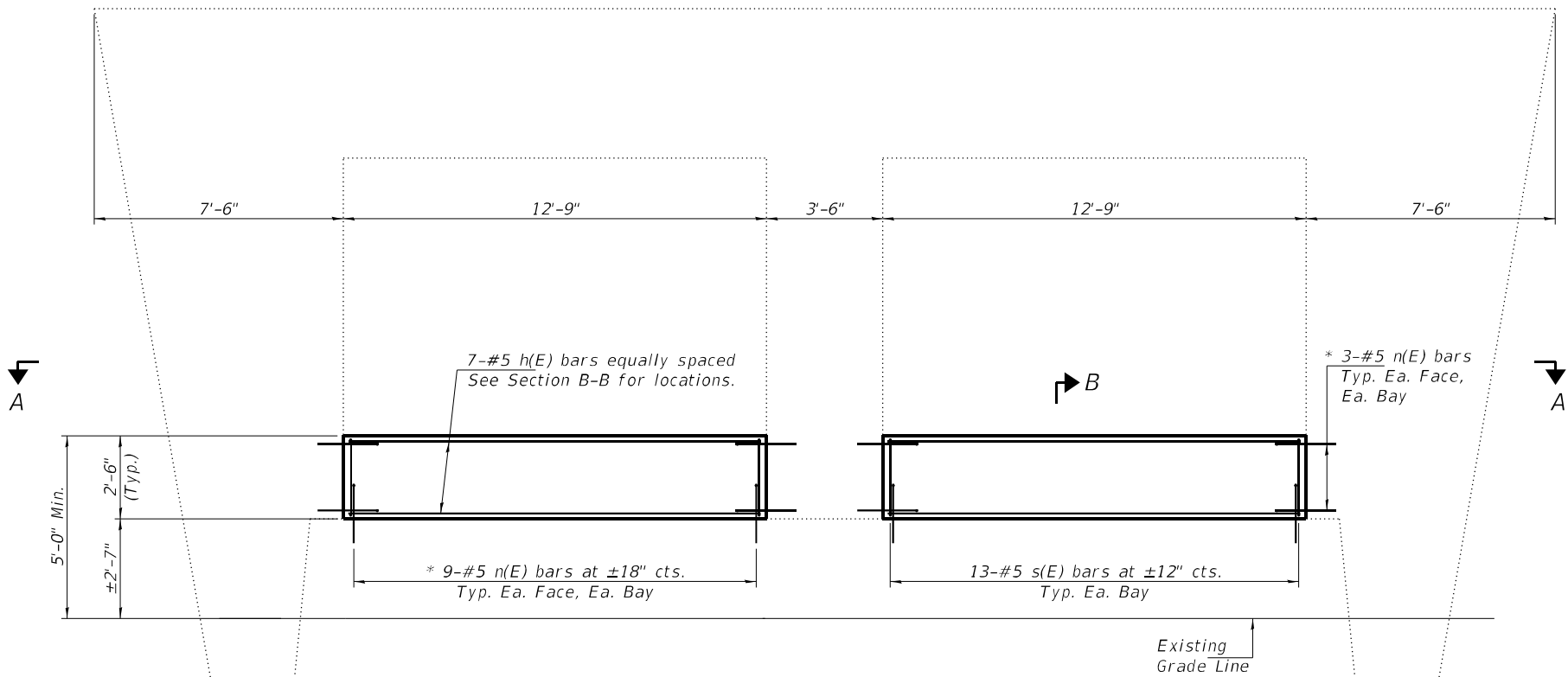
DESIGNED - VHV	EXAMINED	DATE - MAY 04, 2021
CHECKED - ATH	<i>Timothy A. ...</i> ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Venkat Ramana Reddy	PASSED	REVISED -
CHECKED - VHV ATH	<i>Carl ...</i> ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

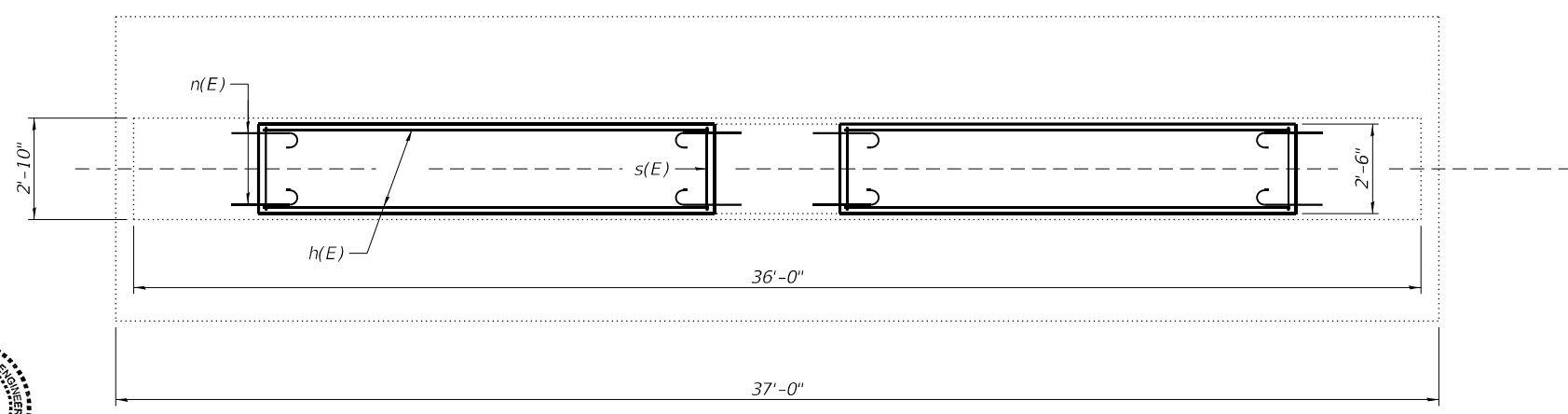
WINGWALL MODIFICATIONS
SN 072-0116 (E.B) & 072-0117 (W.B)

SHEET NO. 8 OF 8 SHEETS

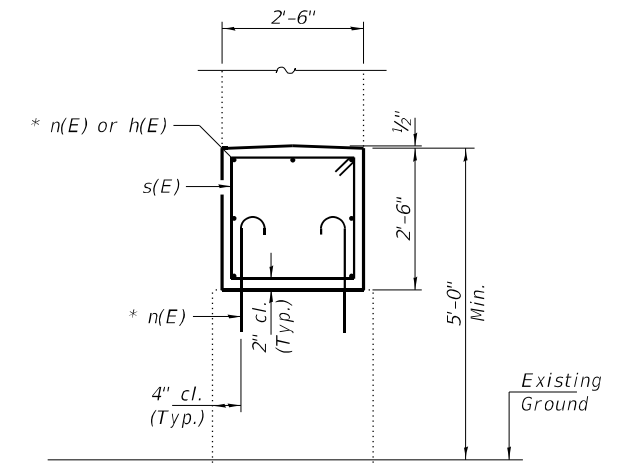
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[1RS-3; (2-4)RS-2]	PEORIA	240	233
			CONTRACT NO. 68C45	
ILLINOIS FED. AID PROJECT				



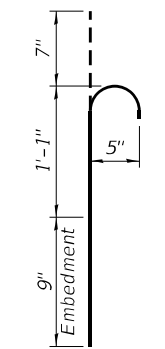
ELEVATION



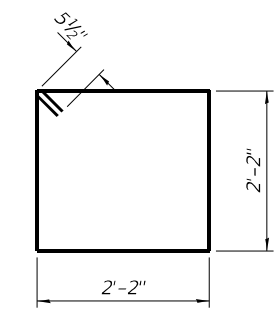
SECTION A-A



SECTION B-B



BAR n(E)



BAR s(E)

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

TOTAL BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	14	#5	12'-6"	—
n(E)	60	#5	2'-5"	⌋
s(E)	26	#5	9'-7"	□
** Protective Coat			Sq. Yd.	21
Concrete Structures			Cu. Yd.	5.9
Reinforcement Bars, Epoxy Coated			Pound	590

** Apply to new concrete only.



EXPIRES 11-30-2022

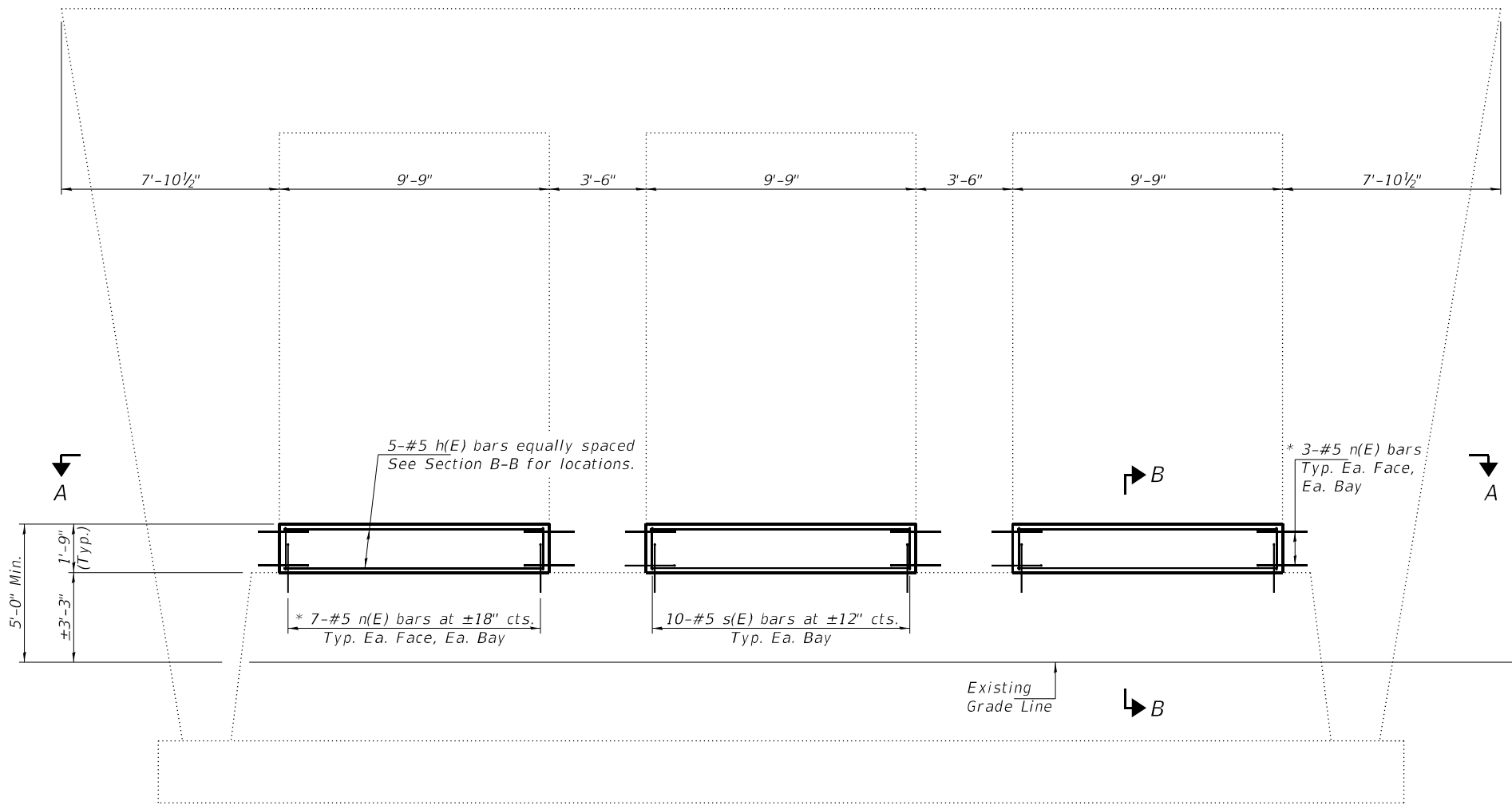
DESIGNED - Victor H. Veliz	EXAMINED - <i>Ting A. Rest</i>	DATE - MAY 04, 2021
CHECKED - Adrian T. Hallaway	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Venkat Ramana Reddy	PASSED - <i>David Puzy</i>	REVISED -
CHECKED - VHV ATH	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

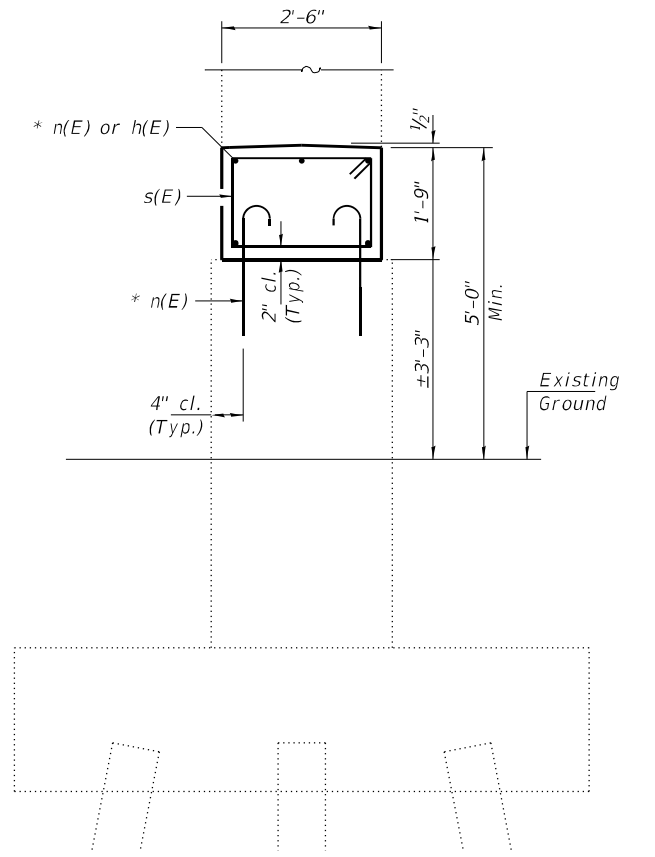
PIER CRASHWALL EXTENSIONS
SN 072-0118

SHEET NO. 1 OF 1 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6659	72[RS-3; (2-4)RS-2]	PEORIA	240	234
CONTRACT NO. 68C45				
ILLINOIS FED. AID PROJECT				

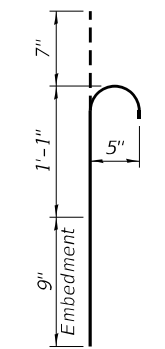


ELEVATION

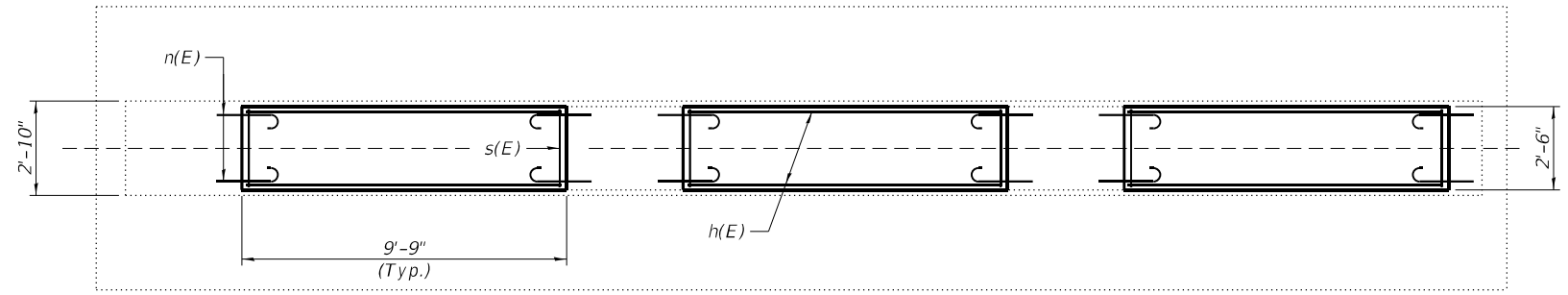


SECTION B-B

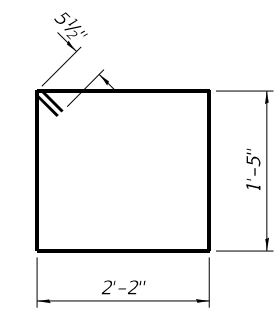
* Epoxy grout n(E) bars in 9" min. holes according to Article 584 of the Standard Specifications.



BAR n(E)



SECTION A-A



BAR s(E)

TOTAL BILL OF MATERIAL

Pay Item	Unit	Value
Protective Coat	Sq. Yd.	39
Concrete Structures	Cu. Yd.	9.2
Reinforcement Bars, Epoxy Coated	Pound	1190

BILL OF MATERIAL 072-0119

Bar	No.	Size	Length	Shape
h(E)	15	#5	9'-5"	—
n(E)	78	#5	2'-5"	⌋
s(E)	30	#5	8'-1"	□

** Protective Coat	Sq. Yd.	20
Concrete Structures	Cu. Yd.	4.8
Reinforcement Bars, Epoxy Coated	Pound	600

** Apply to new concrete only.



EXPIRES 11-30-2022

DESIGNED - Victor H. Veliz
 CHECKED - Adrian T. Holloway
 DRAWN - Venkat Ramana Reddy
 CHECKED - VHV ATH

EXAMINED - *Twg A. Bick*
 ENGINEER OF STRUCTURAL SERVICES
 PASSED - *Dr. Carl Puzey*
 ENGINEER OF BRIDGES AND STRUCTURES

DATE - MAY 04, 2021
 REVISED -
 REVISED -

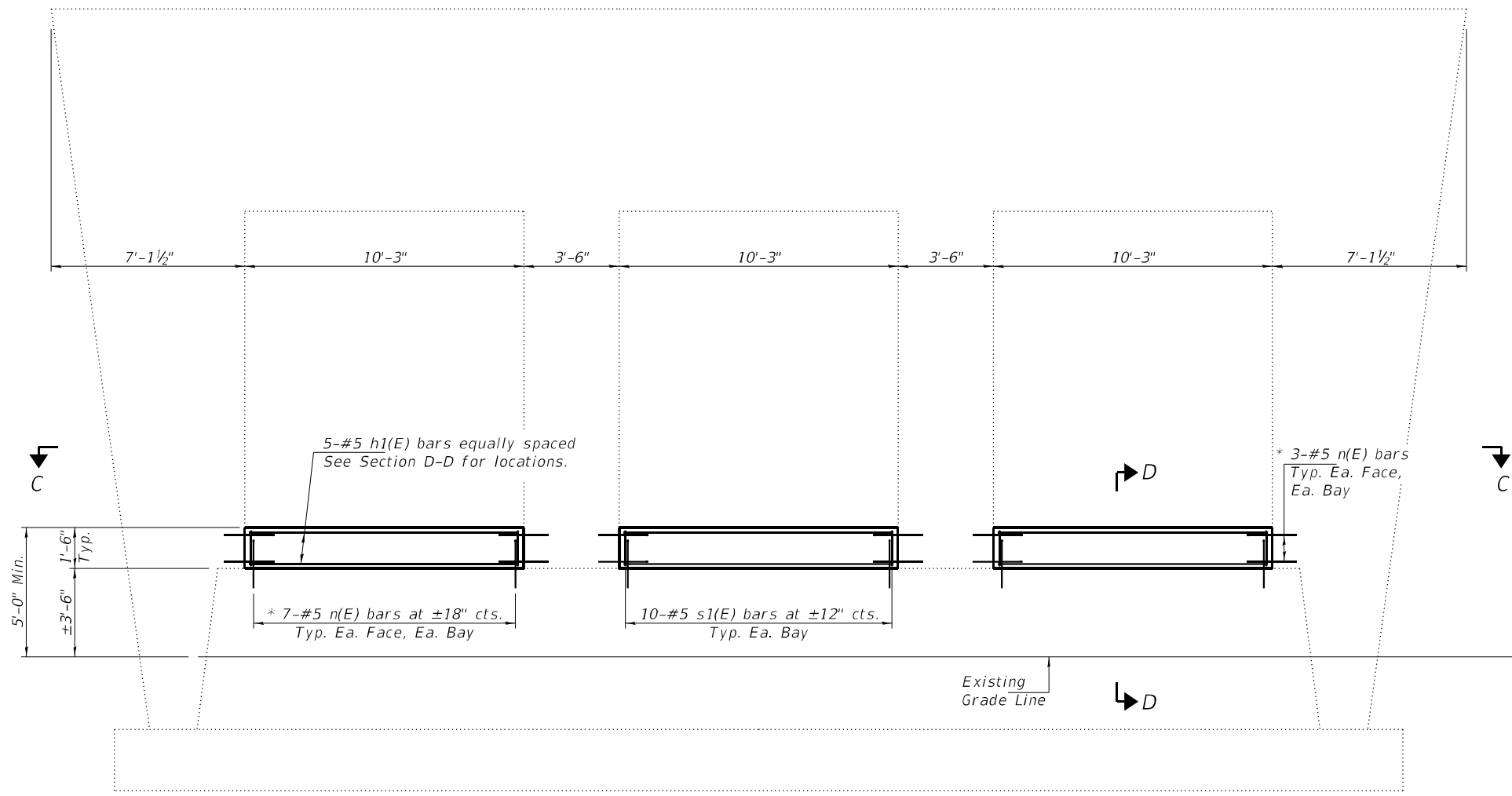
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PIER CRASHWALL EXTENSIONS
 SN 072-0119

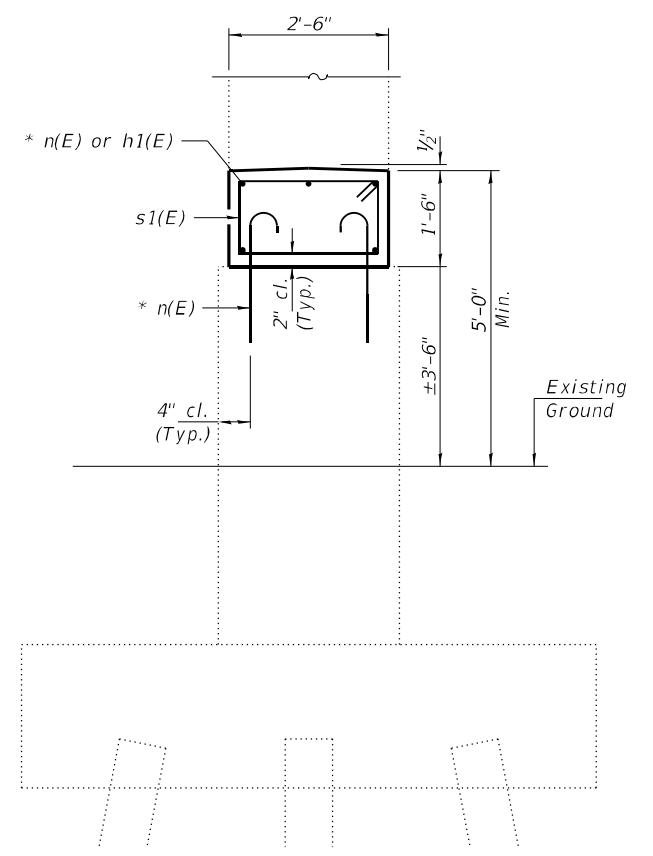
SHEET NO. 1 OF 2 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
671	72[1RS-3; (2-4)RS-2]	PEORIA	240	235

CONTRACT NO. 68C45
 ILLINOIS FED. AID PROJECT

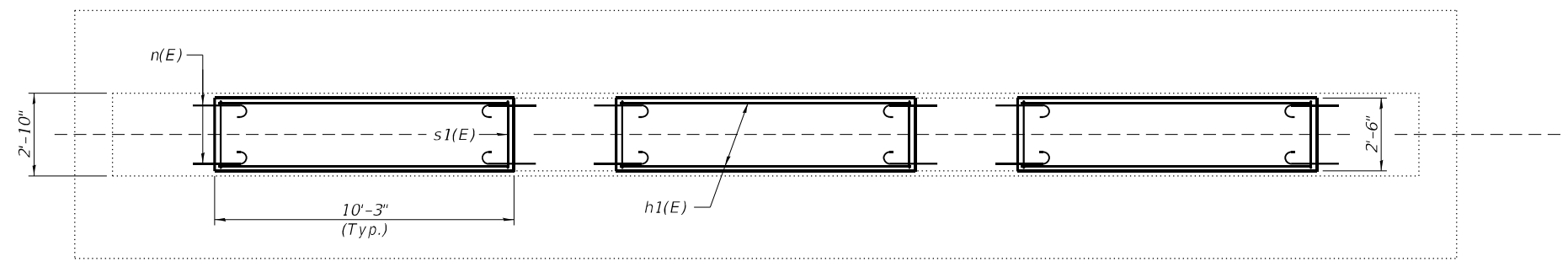


ELEVATION

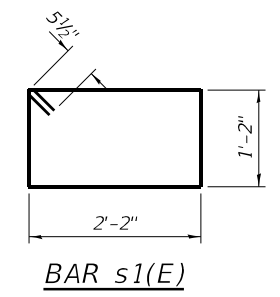


SECTION D-D

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



SECTION C-C



BILL OF MATERIAL 072-0120

Bar	No.	Size	Length	Shape
h1(E)	15	#5	9'-11"	—
n(E)	78	#5	2'-5"	⌋
s1(E)	30	#5	7'-7"	□
** Protective Coat			Sq. Yd.	19
Concrete Structures			Cu. Yd.	4.4
Reinforcement Bars, Epoxy Coated			Pound	590

** Apply to new concrete only.

DESIGNED - VHV	EXAMINED - <i>Timothy A. Daulton</i>	DATE - MAY 04, 2021
CHECKED - ATH	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Venkat Ramana Reddy	PASSED - <i>Carl Ruyter</i>	REVISER -
CHECKED - VHV ATH	ENGINEER OF BRIDGES AND STRUCTURES	REVISER -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

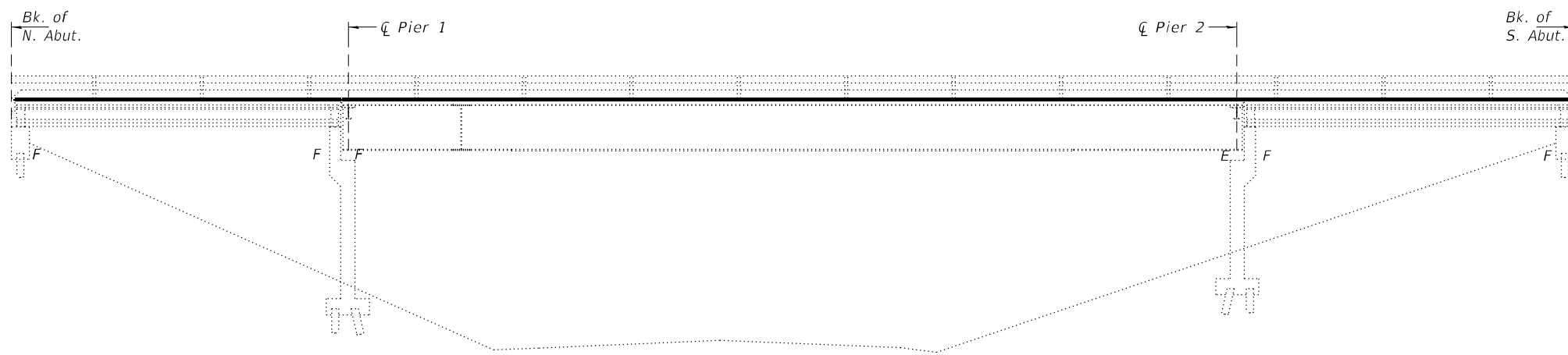
PIER CRASHWALL EXTENSIONS
SN 072 - 0120 (W.B)

SHEET NO. 2 OF 2 SHEETS

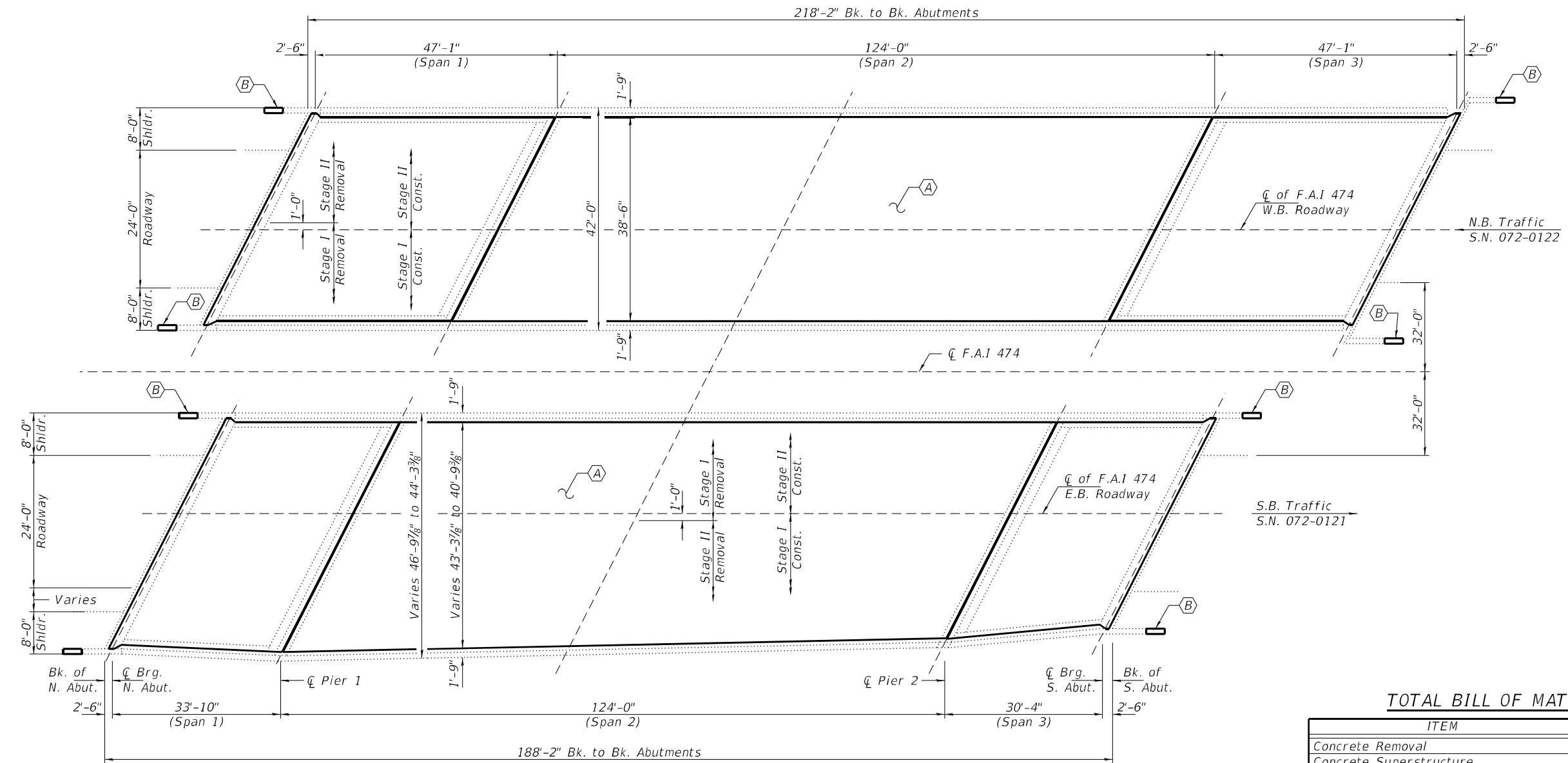
F.A.P. RTE. 671	SECTION 72[1RS-3; (2-4)RS-2]	COUNTY PEORIA	TOTAL SHEETS 240	SHEET NO. 236
			CONTRACT NO. 68C45	
ILLINOIS FED. AID PROJECT				

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. Traffic will be maintained using stage construction.



ELEVATION



PLAN

TOTAL BILL OF MATERIAL

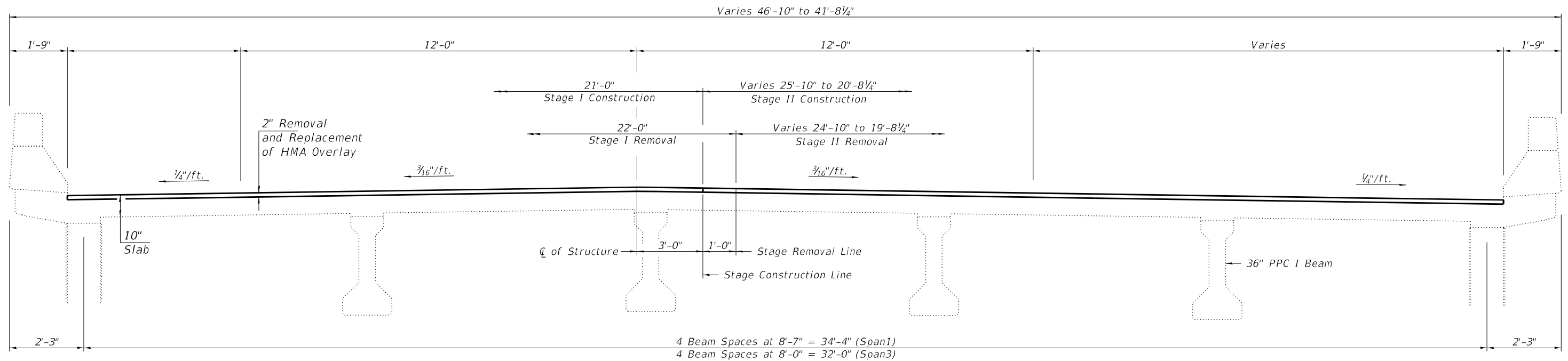
ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	0.4
Concrete Superstructure	Cu. Yd.	0.7
Reinforcement Bars, Epoxy Coated	Pound	120
Hot Mix Asphalt Surface Removal (Deck)	Sq. Yd.	1811
Polymerized Hot-Mix Asphalt Surface Course, IL-9.5, Mix "D", N70	Tons	148

- (A) - Remove & Replace Existing HMA Surface
- (B) - Wingwall Retrofit.

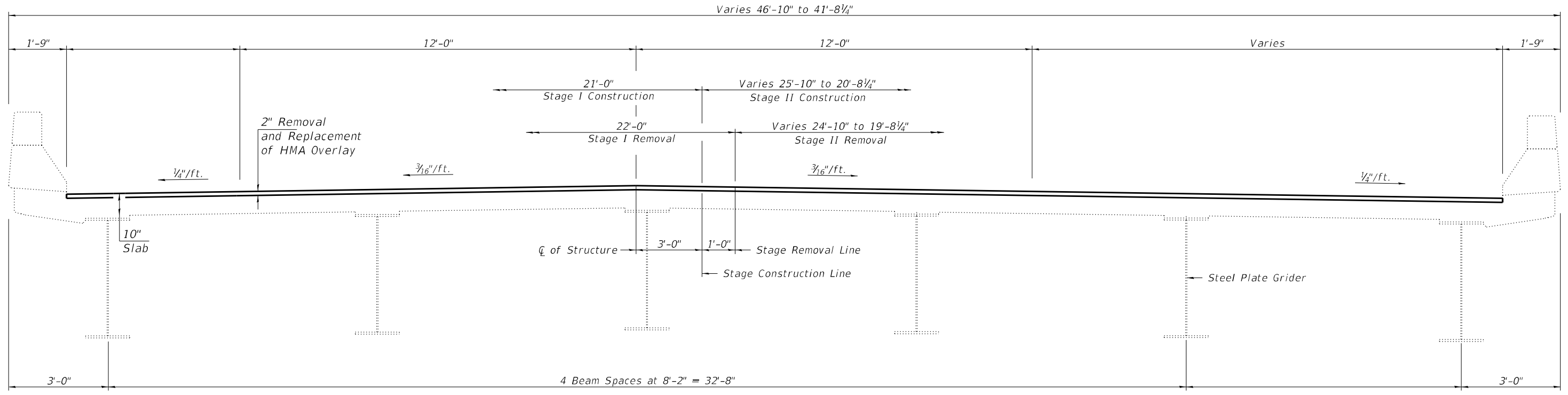


EXPIRES 11-30-2022

DESIGNED - Victor H. Veliz	EXAMINED - <i>Trig A. Dack</i>	DATE - MAY 04, 2021	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION FAI 474 OVER IL 116 SN 072-0121 (S.B) & 072-0122 (N.B)	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
CHECKED - Adrian T. Halloway	ENGINEER OF STRUCTURAL SERVICES	REVISD -			474	72[RS-3; (2-4)RS-2]	PEORIA	240	237	
DRAWN - Venkat Ramana Reddy	ENGINEER OF BRIDGES AND STRUCTURES	REVISD -			CONTRACT NO. 68C45					
CHECKED - VHV ATH					ILLINOIS FED. AID PROJECT					

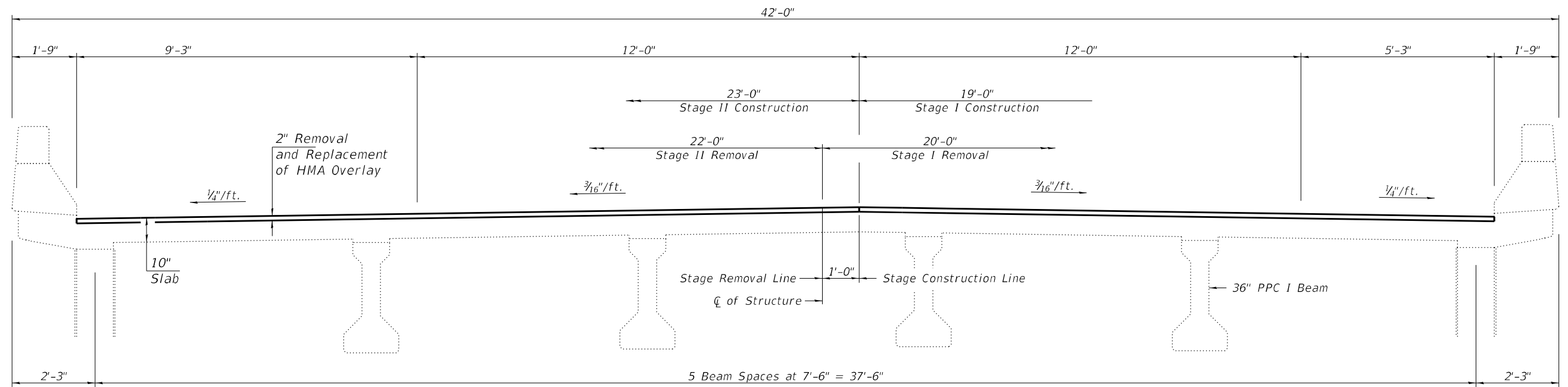


CROSS SECTION THRU SPAN 1 & 3
(SN 072-0121 S.B. Looking South)

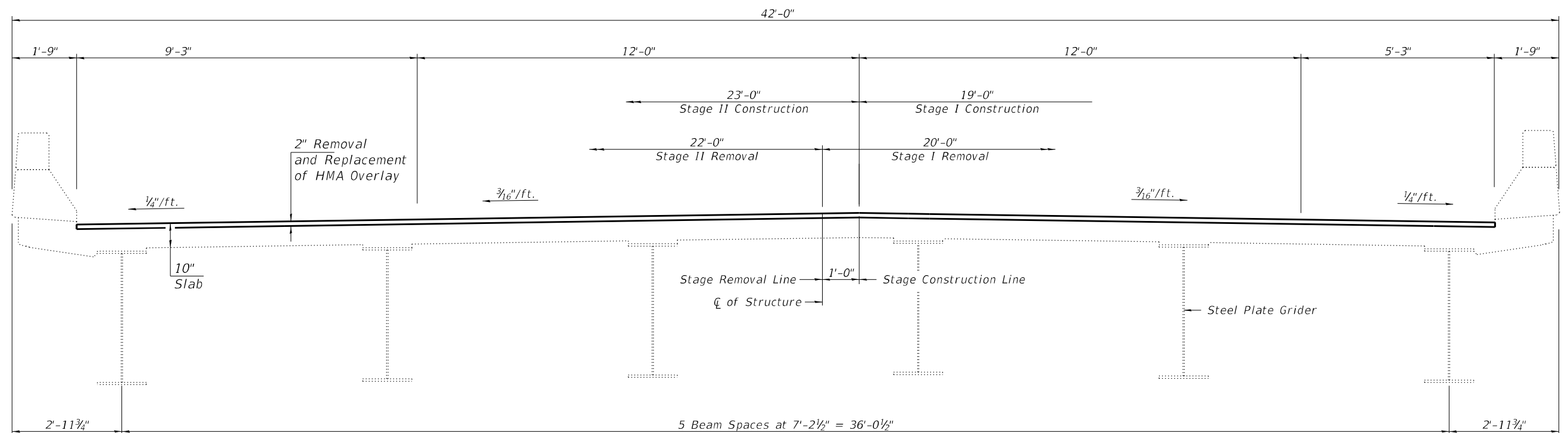


CROSS SECTION THRU SPAN 2
(SN 072-0121 S.B. Looking South)

DESIGNED - VHV	EXAMINED - <i>Timothy A. Daulton</i> ENGINEER OF STRUCTURAL SERVICES	DATE - MAY 04, 2021	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS & STAGING DETAILS SN 072-0121 (S.B.)	F.A.I. RTE. 474	SECTION 72[1RS-3; (2-4)RS-2]	COUNTY PEORIA	TOTAL SHEETS 240	SHEET NO. 238
CHECKED - ATH	PASSED - <i>Carl Rieger</i> ENGINEER OF BRIDGES AND STRUCTURES	REVISED -			SHEET NO. 2 OF 5 SHEETS		CONTRACT NO. 68C45		
DRAWN - Venkat Ramana Reddy		REVISED -	ILLINOIS FED. AID PROJECT						
CHECKED - VHV ATH									





CROSS SECTION THRU SPAN 1 & 3
(SN 072-0122 N.B. Looking South)



CROSS SECTION THRU SPAN 2
(SN 072-0122 N.B. Looking South)

DESIGNED - VHV
CHECKED - ATH
DRAWN - Venkat Ramana Reddy
CHECKED - VHV ATH

EXAMINED
PASSED


 ENGINEER OF STRUCTURAL SERVICES
 ENGINEER OF BRIDGES AND STRUCTURES

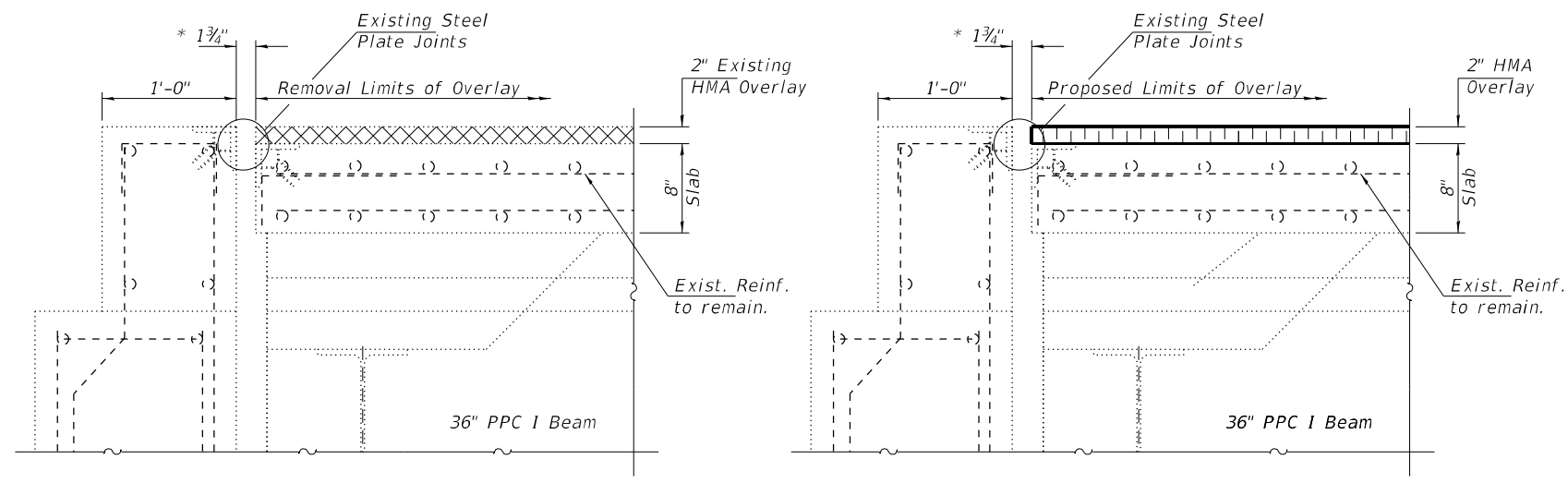
DATE - MAY 04, 2021
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS & STAGING DETAILS
072-0122 (N.B.)

SHEET NO. 3 OF 5 SHEETS

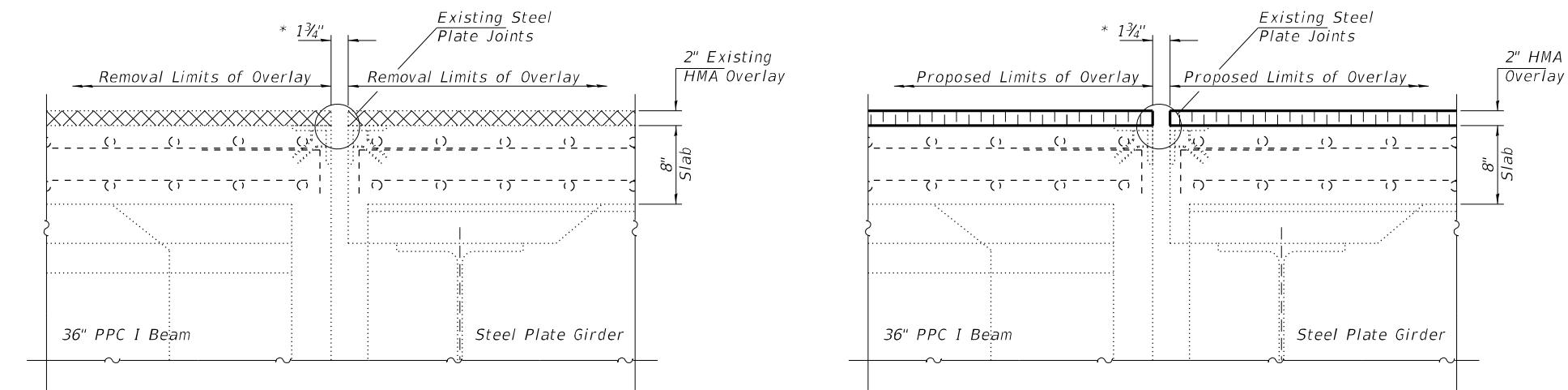
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[RS-3; (2-4)RS-2]	PEORIA	240	239
CONTRACT NO. 68C45				
ILLINOIS FED. AID PROJECT				



REMOVAL

REPLACEMENT

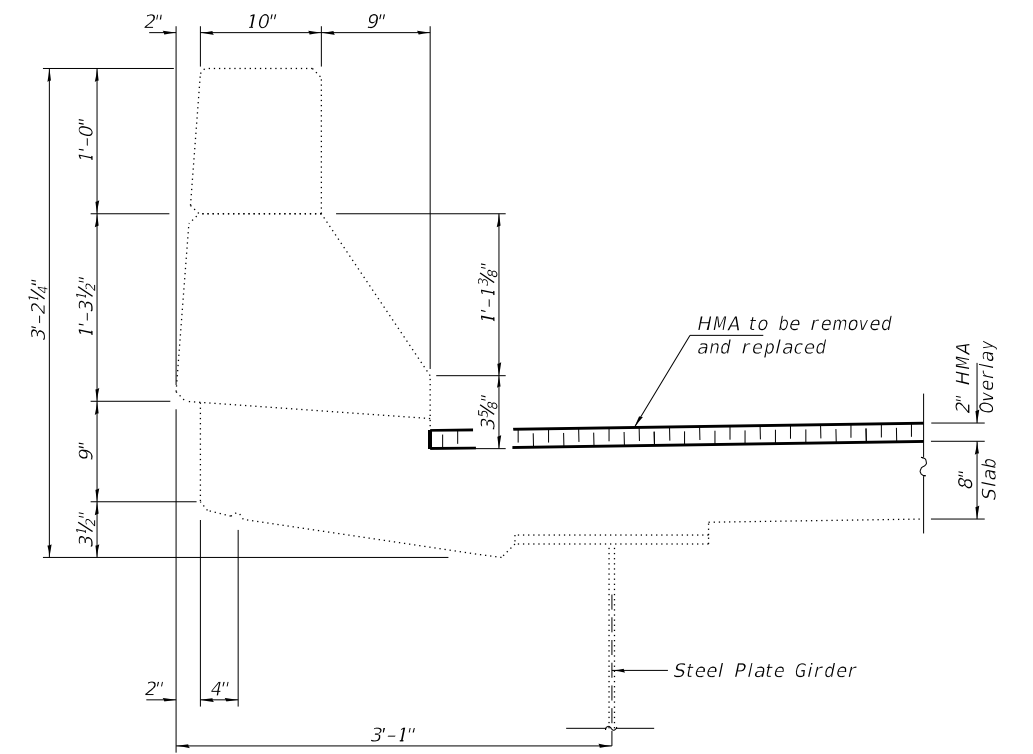
SECTION THRU ABUTMENT JOINT



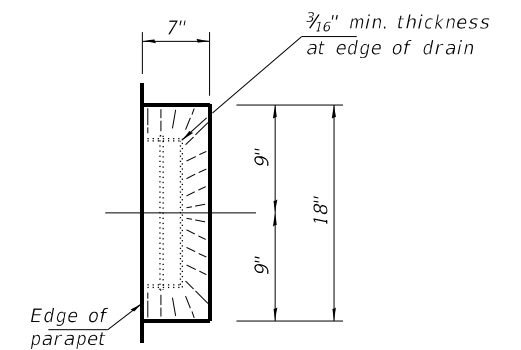
REMOVAL

REPLACEMENT

SECTION THRU ABUTMENT JOINT



SECTION THRU PARAPET



DRAIN DETAIL

* slope to drain

* Contractor must exercise extreme care not to damage the existing Joints during HMA Removal Operations. Any damage done to the Joints is to be repaired, to the satisfaction of the engineer, at the contractor's expense.

DESIGNED - VHV
 CHECKED - ATH
 DRAWN - Venkat Ramana Reddy
 CHECKED - VHV ATH

EXAMINED
 PASSED
 ENGINEER OF STRUCTURAL SERVICES
 ENGINEER OF BRIDGES AND STRUCTURES

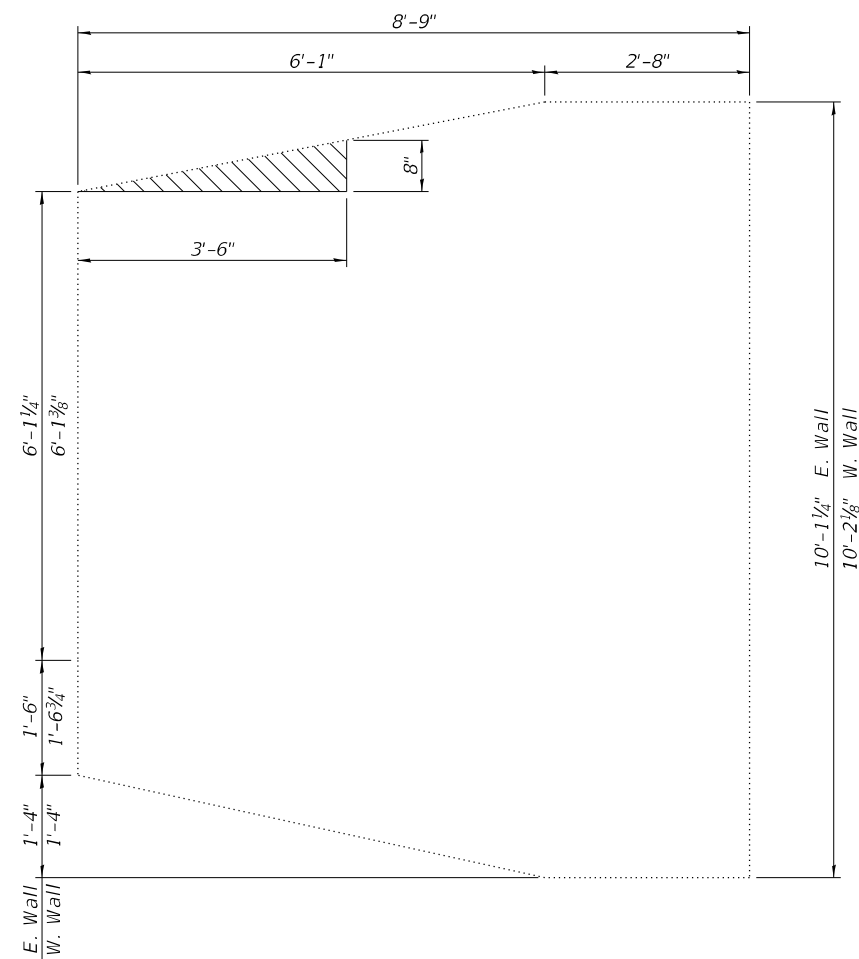
DATE - MAY 04, 2021
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

HMA REPLACEMENT DETAILS - ABUTMENTS & PIERS
 SN 072-0121 (S.B) & 072-0122 (N.B)

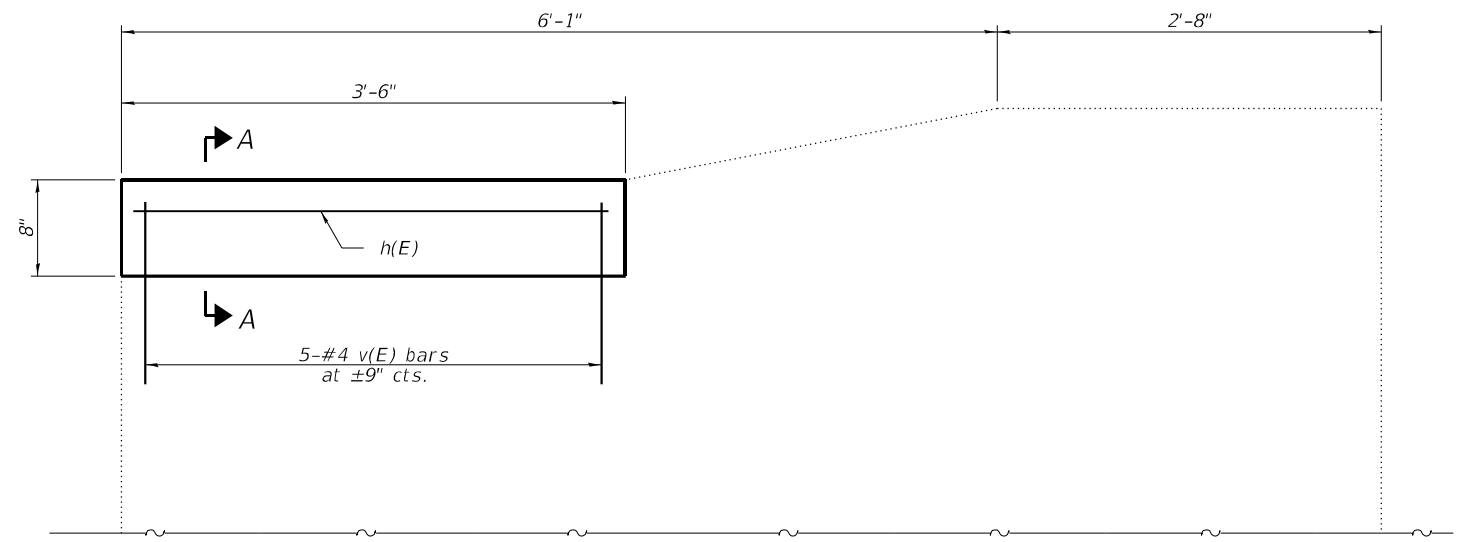
SHEET NO. 4 OF 5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[1RS-3; (2-4)RS-2]	PEORIA	240	240
CONTRACT NO. 68C45				
ILLINOIS FED. AID PROJECT				

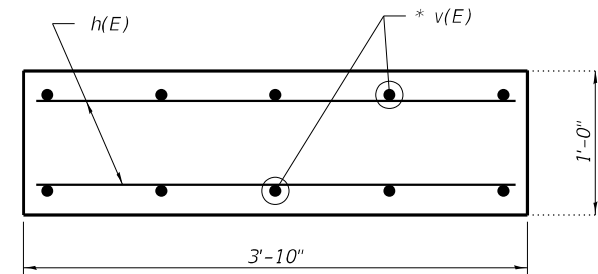


REMOVAL DETAILS

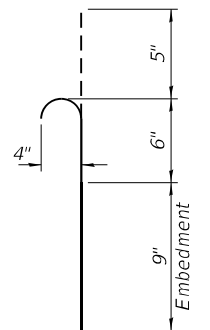
Concrete Removal



PROPOSED ELEVATION

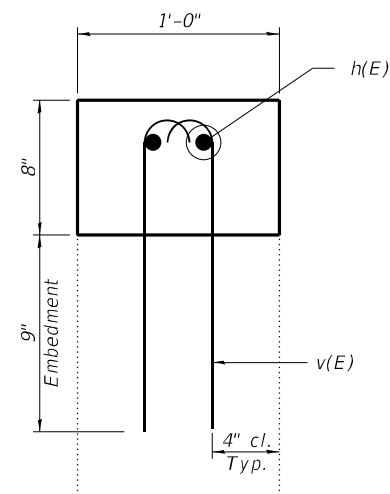


PLAN



BAR v(E)

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



SECTION A-A

**BILL OF MATERIAL
(8 Locations)**

Bar	No.	Size	Length	Shape
h(E)	16	#5	3'-2"	—
v(E)	80	#4	1'-8"	⤴
Concrete Removal			Cu. Yd.	0.4
Concrete Superstructure			Cu. Yd.	0.7
Reinforcement Bars, Epoxy Coated			Pound	120

EXPIRES 11-30-2022

DESIGNED - VHV
 CHECKED - ATH
 DRAWN - Venkat Ramana Reddy
 CHECKED - VHV ATH

EXAMINED DATE - MAY 04, 2021
 PASSED ENGINEER OF BRIDGES AND STRUCTURES

REVISIONS:
 REVISION -
 REVISION -

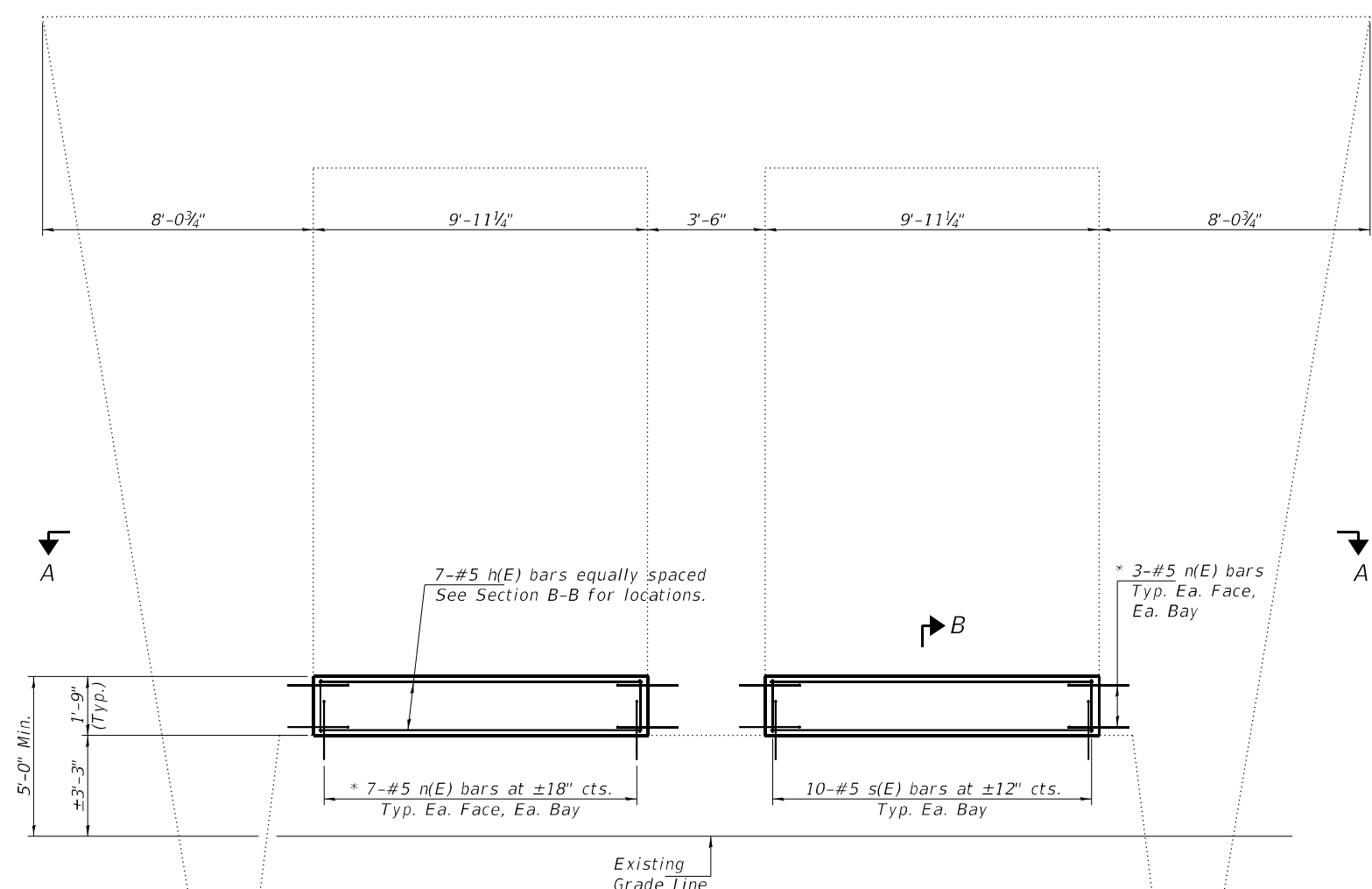
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**WINGWALL MODIFICATIONS
 SN 072-0121 (S.B) & 072-0122 (N.B)**

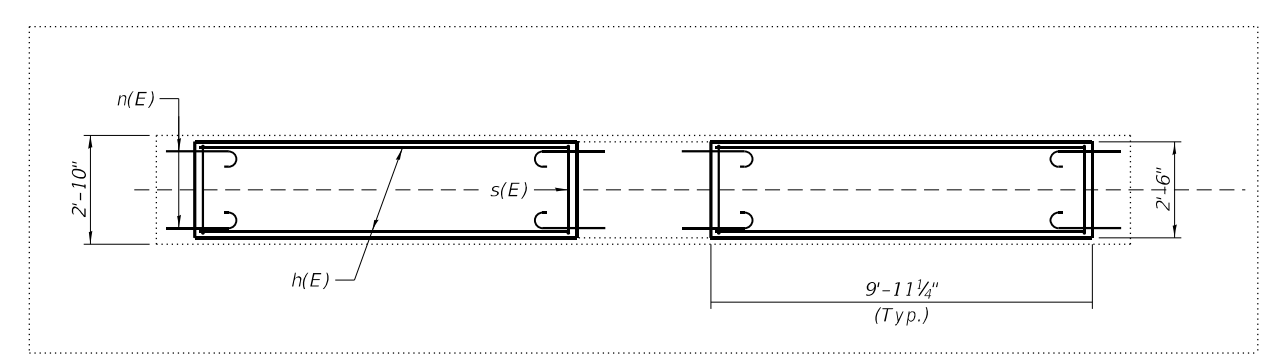
SHEET NO. 5 OF 5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[1RS-3; (2-4)RS-2]	PEORIA	240	240A
CONTRACT NO. 68C45				

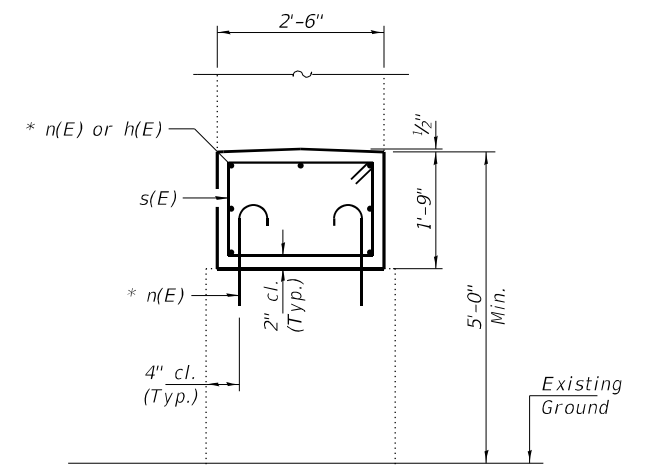
ILLINOIS FED. AID PROJECT



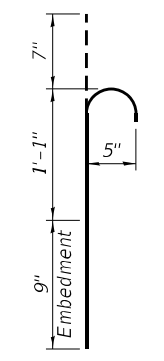
ELEVATION



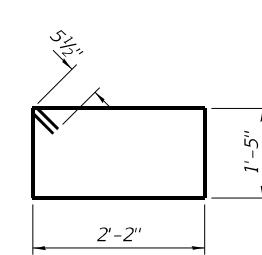
SECTION A-A



SECTION B-B



BAR n(E)



BAR s(E)

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

TOTAL BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	11	#5	9'-9"	—
n(E)	52	#5	2'-5"	⌋
s(E)	20	#5	8'-1"	□
** Protective Coat			Sq. Yd.	14
Concrete Structures			Cu. Yd.	3.4
Reinforcement Bars, Epoxy Coated			Pound	440

** Apply to new concrete only.

EXPIRES 11-30-2022

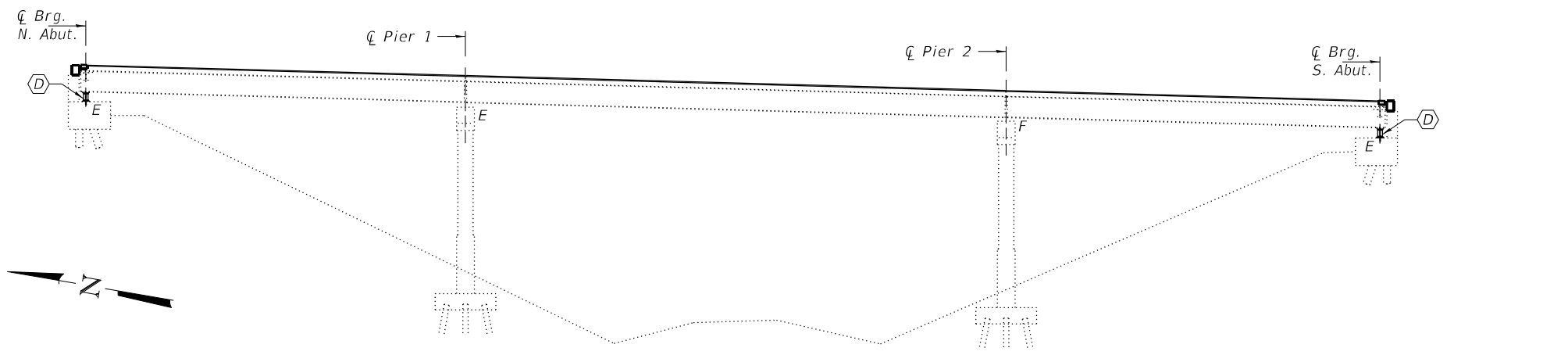
DESIGNED - Victor H. Veliz	EXAMINED	DATE - MAY 04, 2021
CHECKED - Adrian T. Halloway	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Venkat Ramana Reddy	PASSED	REVISED -
CHECKED - VHV ATH	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

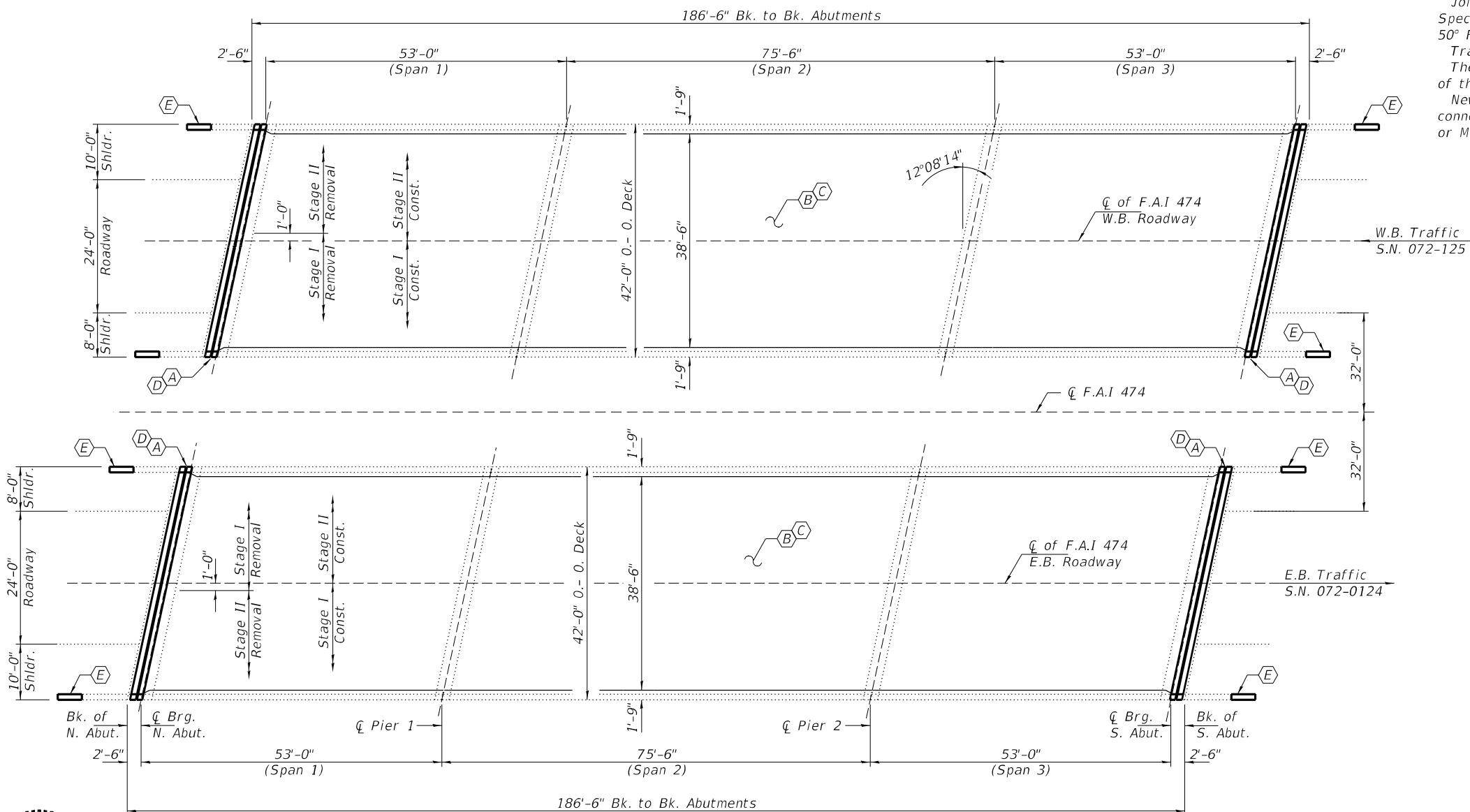
**PIER CRASHWALL EXTENSIONS
SN 072 - 0123**

SHEET NO. 1 OF 1 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[1RS-3; (2-4)RS-2]	PEORIA	240	240B
CONTRACT NO. 68C45			ILLINOIS FED. AID PROJECT	



ELEVATION



PLAN

GENERAL NOTES

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

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

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material 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.

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.

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.

Traffic will be maintained using stage construction.

The new concrete shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Superstructures.

New bearing plates, steel extensions, shim plates, side retainers, anchor bolts, connection bolts, nuts and washers shall be galvanized according to AASHTO M111 or M232 as applicable.

- (A) - Remove existing Neoprene Joints and Install New Preformed Joint Strip Seal.
- (B) - Deck Patching, Estimated quantity, Size and location of the patches is to be determined in the field by the Engineer and documented on sheet 2 of 10.
- (C) - Remove & Replace Existing HMA Surface & Waterproofing Membrane System
- (D) - Remove Existing Abutment Bearings and Install New Elastomeric Bearings, Type I
- (E) - Wingwall Retrofit.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Structures	Cu. Yd.	0.4
Concrete Superstructure	Cu. Yd.	14.3
Concrete Removal	Cu. Yd.	13.9
Preformed Joint Strip Seal	Foot	172
Reinforcement Bars, Epoxy Coated	Pound	2040
Waterproofing Membrane System	Sq. Yd.	1557
Elastomeric Bearing Assembly Type I	Each	24
Jack and Remove Existing Bearings	Each	24
Anchor Bolts 1"	Each	48
Furnishing and Erecting Structural Steel	Pound	3585
Bar Splicers	Each	24
Deck Slab Repair (Partial)	Sq. Yd.	62
* Protective Coat	Sq. Yd.	50.1
Hot Mix Asphalt Surface Removal (Deck)	Sq. Yd.	1548
Polymerized Hot-Mix Asphalt Surface Course, IL-9.5, Mix "D", N70	Tons	127

* Apply to new concrete only.



EXPIRES 11-30-2022

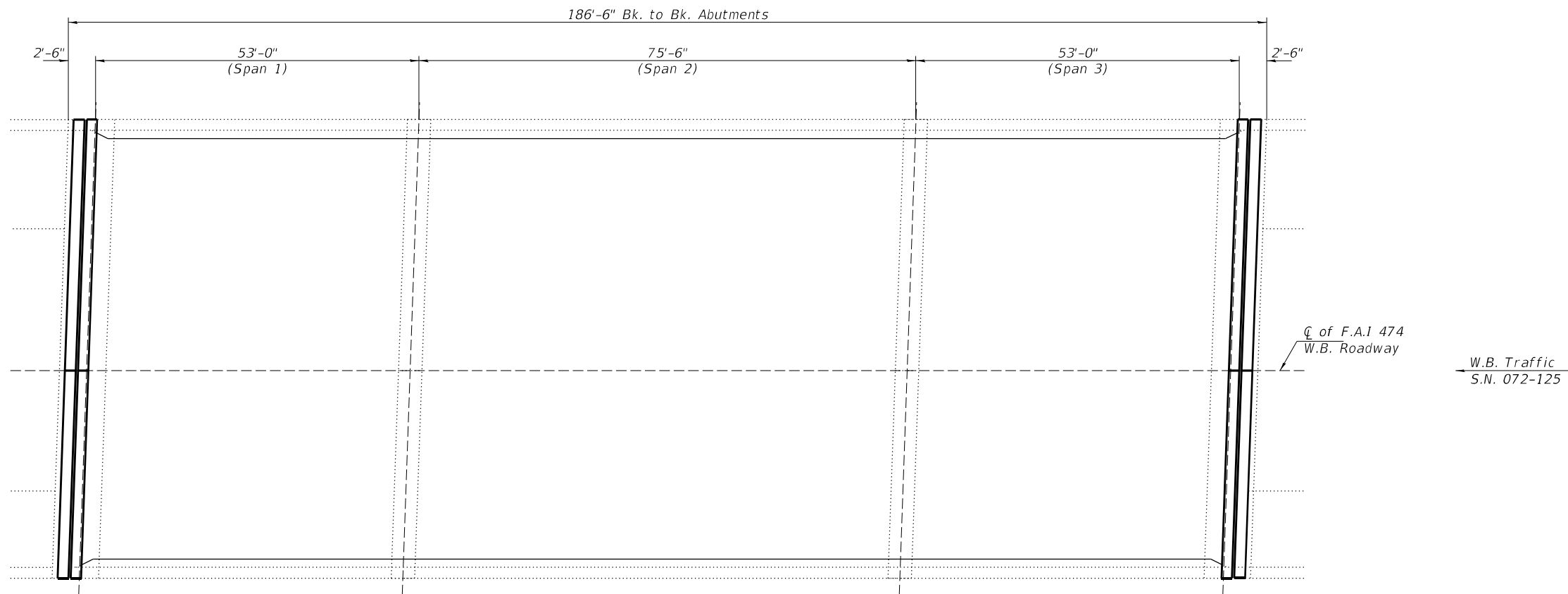
DESIGNED - Victor H. Veliz	EXAMINED - <i>Tracy A. Beck</i>	DATE - MAY 04, 2021
CHECKED - Adrian T. Holloway	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Venkat Ramana Reddy	PASSED - <i>Dr. Carl Puzey</i>	REVISED -
CHECKED - VHV ATH	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

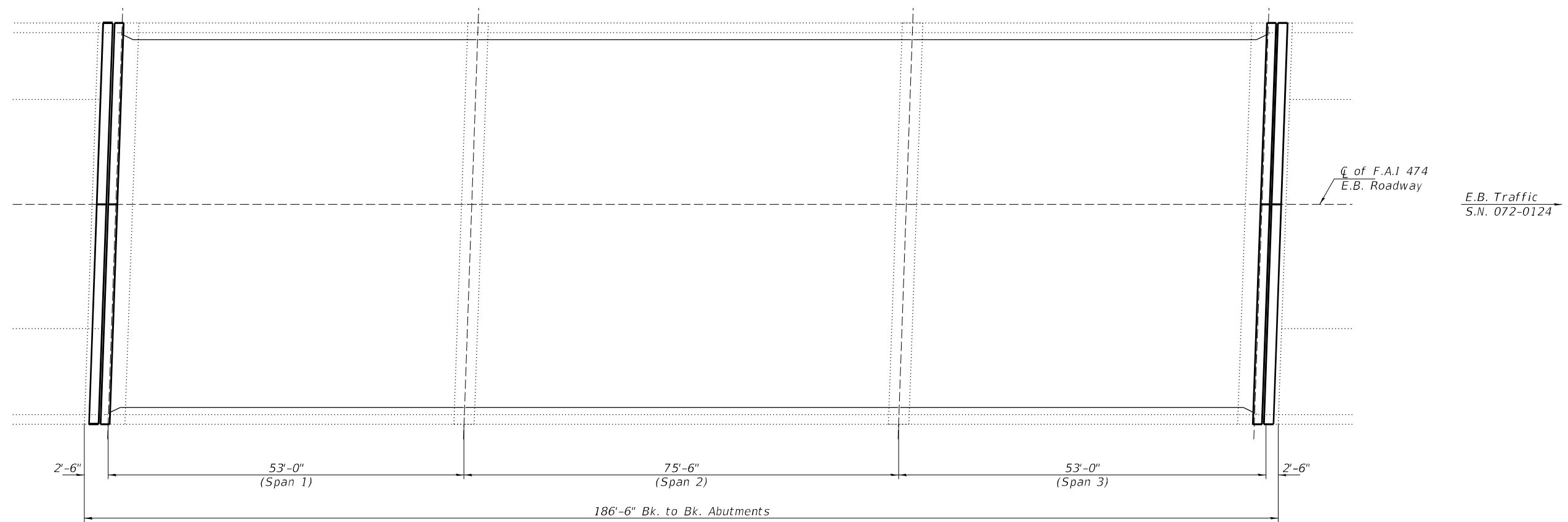
**GENERAL PLAN AND ELEVATION
FAI 474 OVER ABANDONED UPRR
SN 072-0124 (E.B.) & 072-0125 (W.B.)**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[RS-3; (2-4)RS-2]	PEORIA	240	240C
ILLINOIS FED. AID PROJECT			CONTRACT NO. 68C45	

SHEET NO. 1 OF 10 SHEETS



W.B.(072-0125) PLAN



E.B.(072-0124) PLAN

DESIGNED - VHV
 CHECKED - ATH
 DRAWN - Venkat Ramana Reddy
 CHECKED - VHV ATH

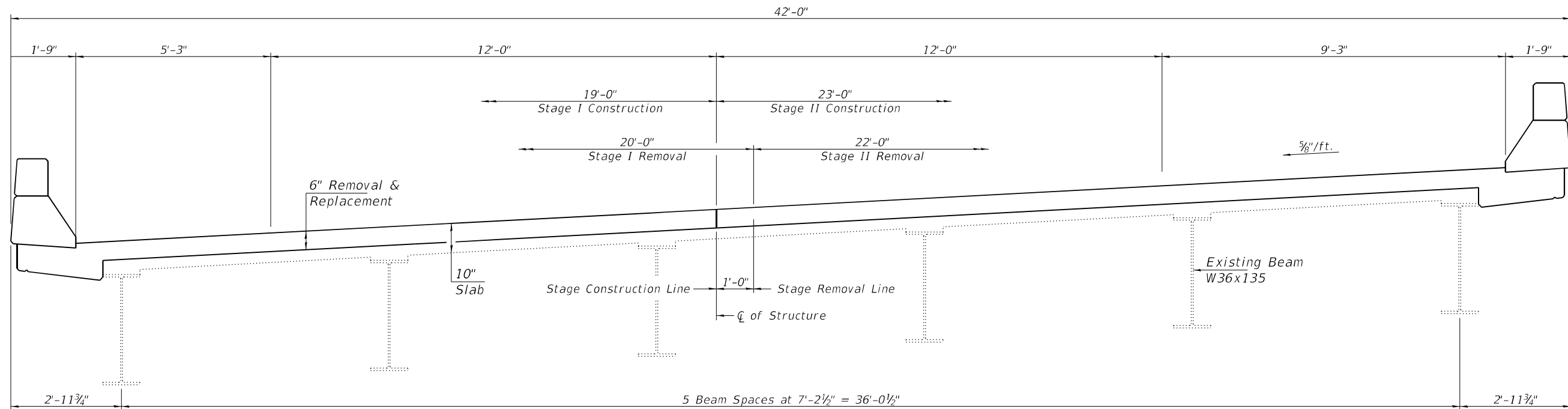
EXAMINED
 PASSED
Timothy A. Daulton
 ENGINEER OF STRUCTURAL SERVICES
Carl R. Meyer
 ENGINEER OF BRIDGES AND STRUCTURES

DATE - MAY 04, 2021
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

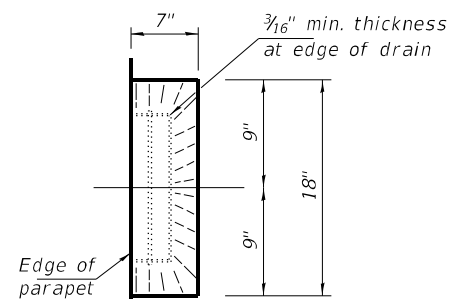
DECK PATCHING - REPAIR B
 SN 072-0124 (E.B) & 072-0125 (W.B)
 SHEET NO. 2 OF 10 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[1RS-3; (2-4)RS-2]	PEORIA	240	240D
CONTRACT NO. 68C45				
ILLINOIS FED. AID PROJECT				



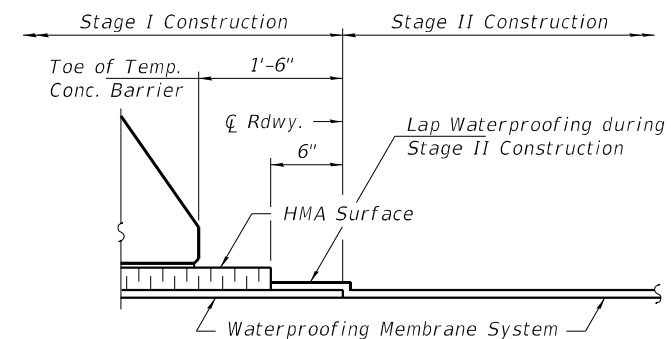
CROSS SECTION AT ABUTMENTS

(SN 072-0124 E.B. Looking South)
(SN 072-0125 W.B. Looking North)

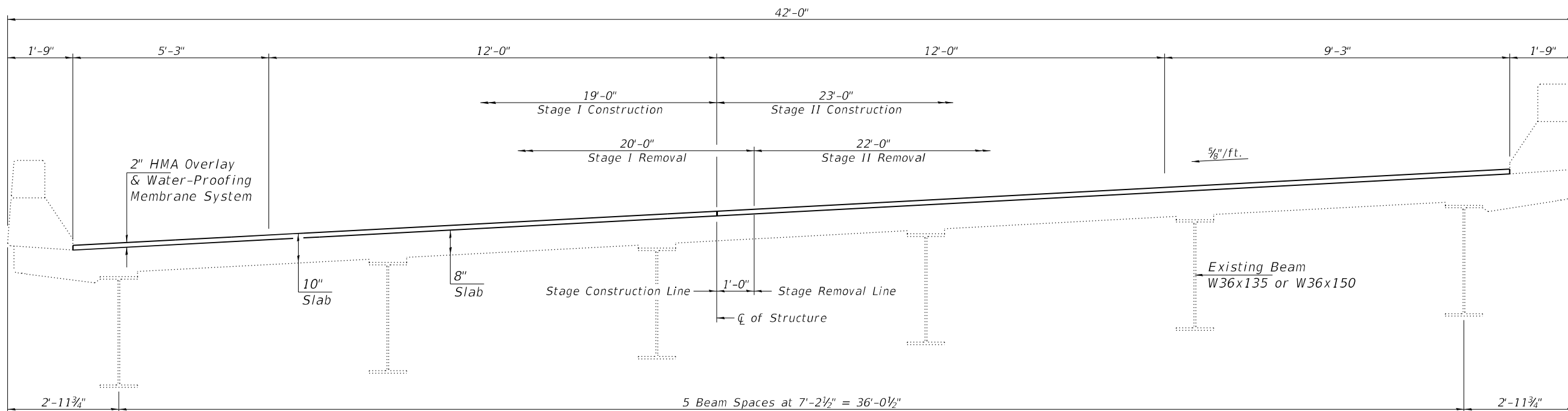


DRAIN DETAIL

* slope to drain



WATERPROOFING TREATMENT AT STAGE CONSTRUCTION



CROSS SECTION AT MID SPAN

(SN 072-0124 E.B. Looking South)
(SN 072-0125 W.B. Looking North)

DESIGNED - VHV
CHECKED - ATH
DRAWN - Venkat Ramana Reddy
CHECKED - VHV ATH

EXAMINED
PASSED
ENGINEER OF STRUCTURAL SERVICES
ENGINEER OF BRIDGES AND STRUCTURES

DATE - MAY 04, 2021
REVISED -
REVISED -

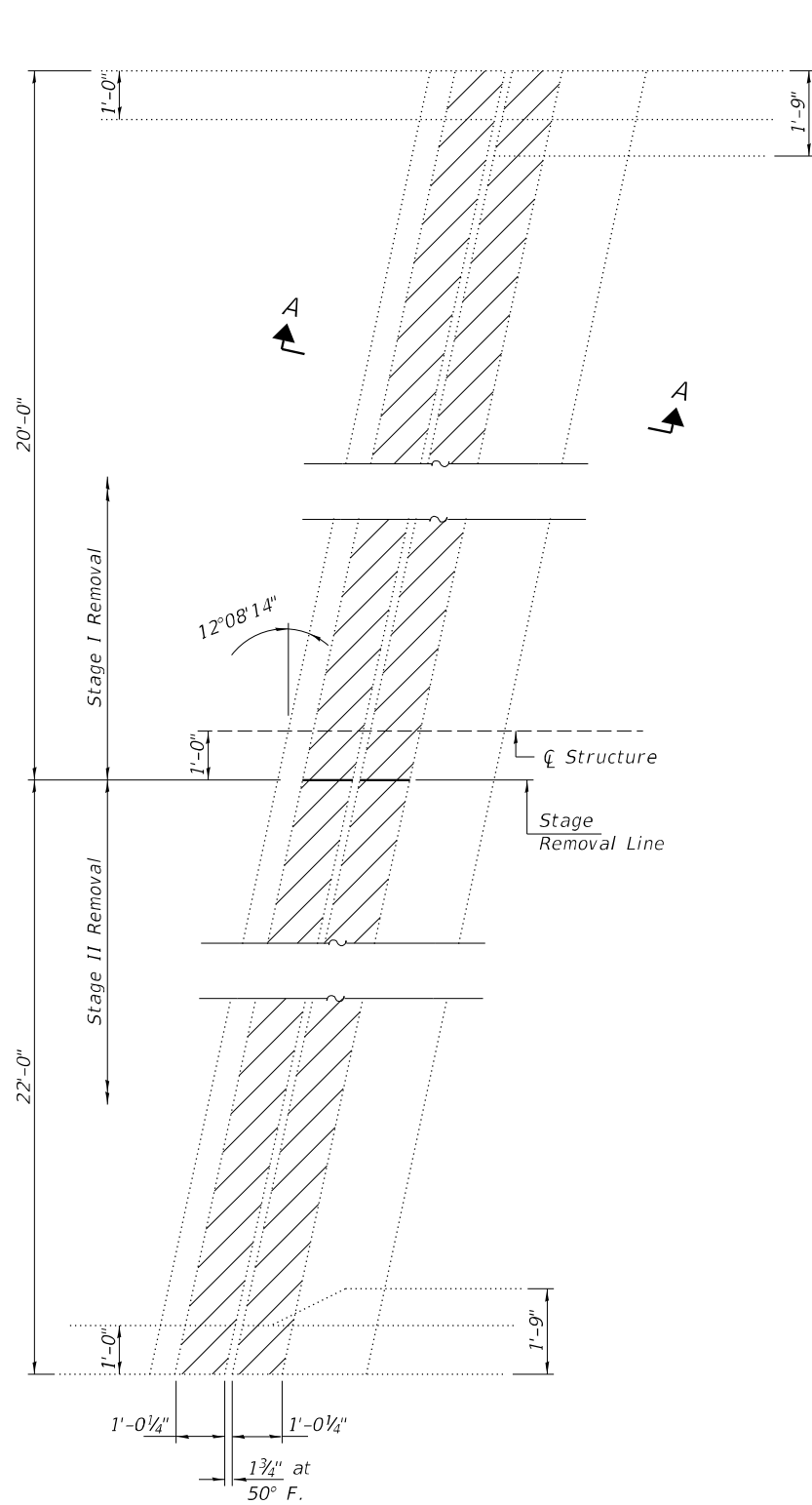
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS & STAGING DETAILS
SN 072-0124 (E.B.) & 072-0125 (W.B.)**

SHEET NO. 3 OF 10 SHEETS

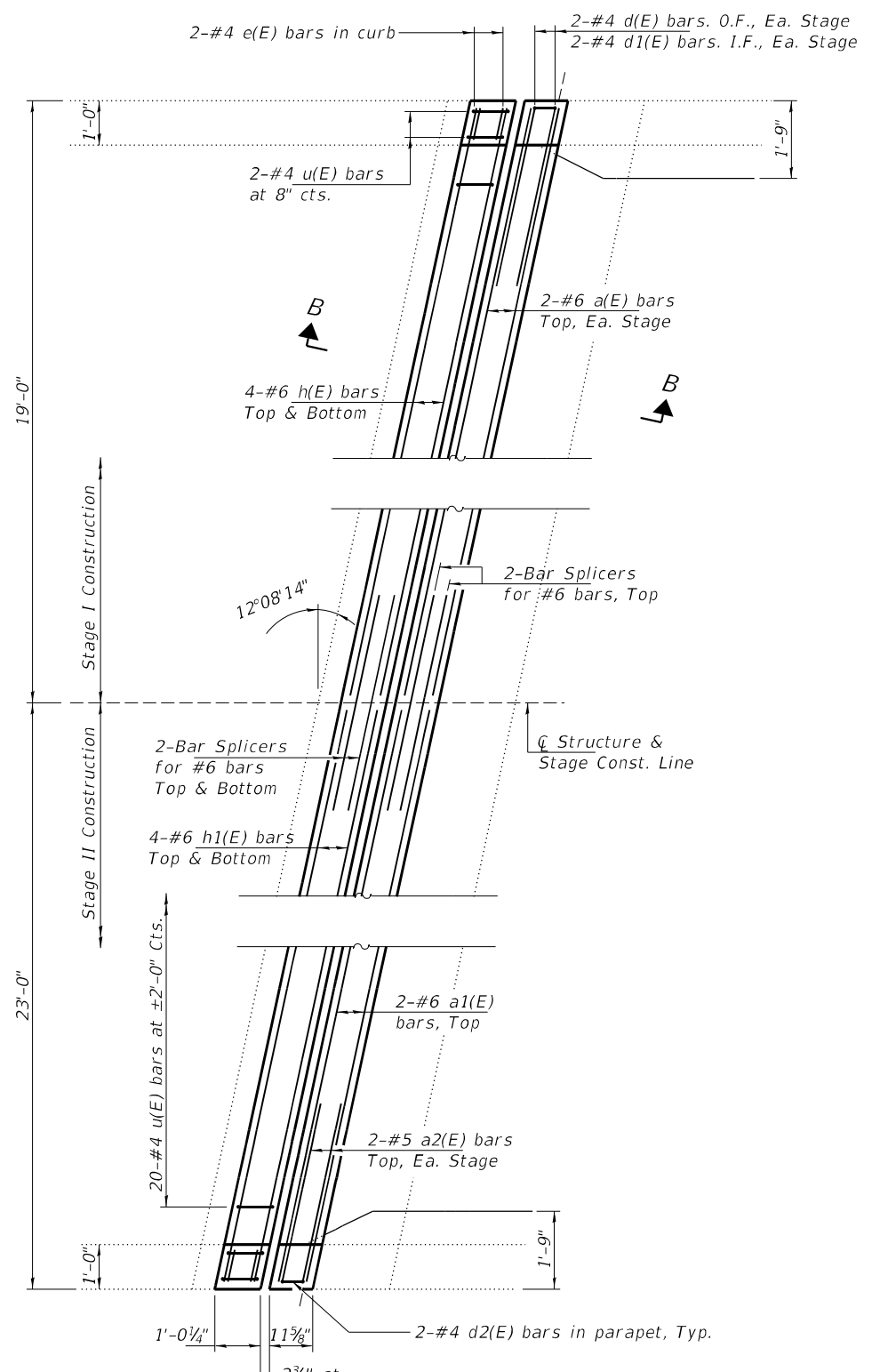
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[RS-3; (2-4)RS-2]	PEORIA	240	240E
ILLINOIS			FED. AID PROJECT	

CONTRACT NO. 68C45



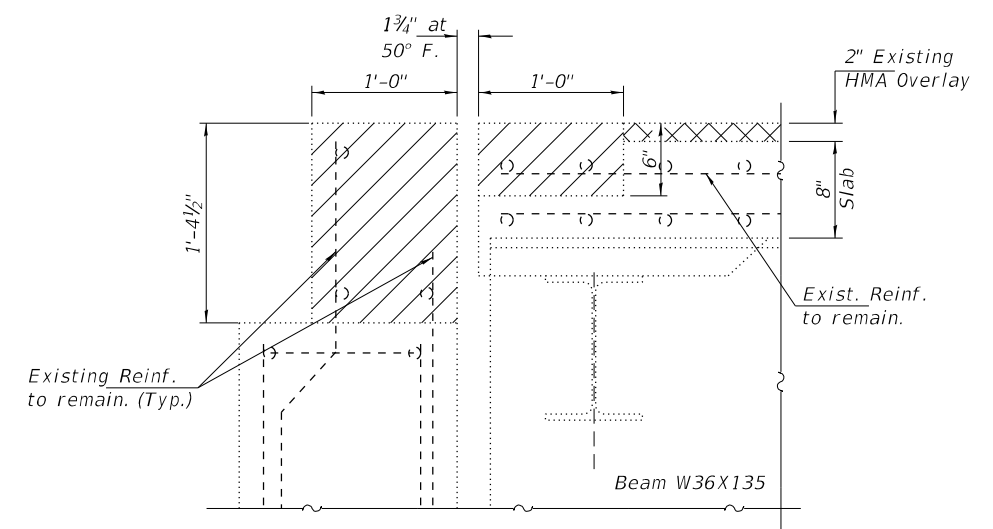
REMOVAL PLAN

North Abut. of SN 072-0124 E.B. shown,
South Abut. of SN 072-0125 W.B similar
by mirroring along \bar{C} F.A.I. 474.

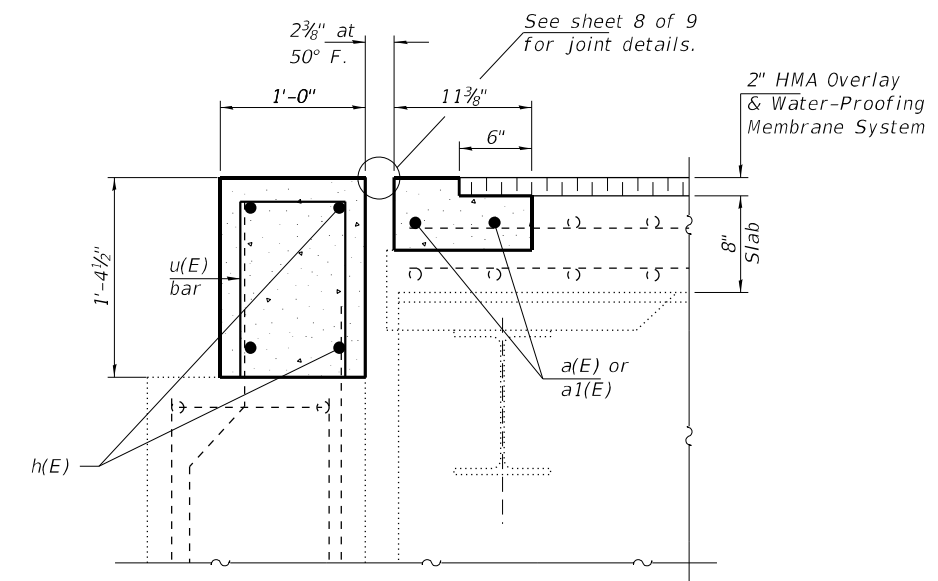


REPLACEMENT PLAN

North Abut. of SN 072-0124 E.B. shown,
South Abut. of SN 072-0125 W.B similar
by mirroring along \bar{C} F.A.I. 474.



SECTION A-A



SECTION B-B

Note:
See sheet 5 of 10 for Section Thru Bridge Parapet,
Bill of Material and reinforcement bending diagrams.
Hatched areas indicate Concrete Removal.

DESIGNED - VHV
CHECKED - ATH
DRAWN - Venkat Ramana Reddy
CHECKED - VHV ATH

EXAMINED	<i>Timothy A. ...</i> ENGINEER OF STRUCTURAL SERVICES
PASSED	<i>Carl ...</i> ENGINEER OF BRIDGES AND STRUCTURES

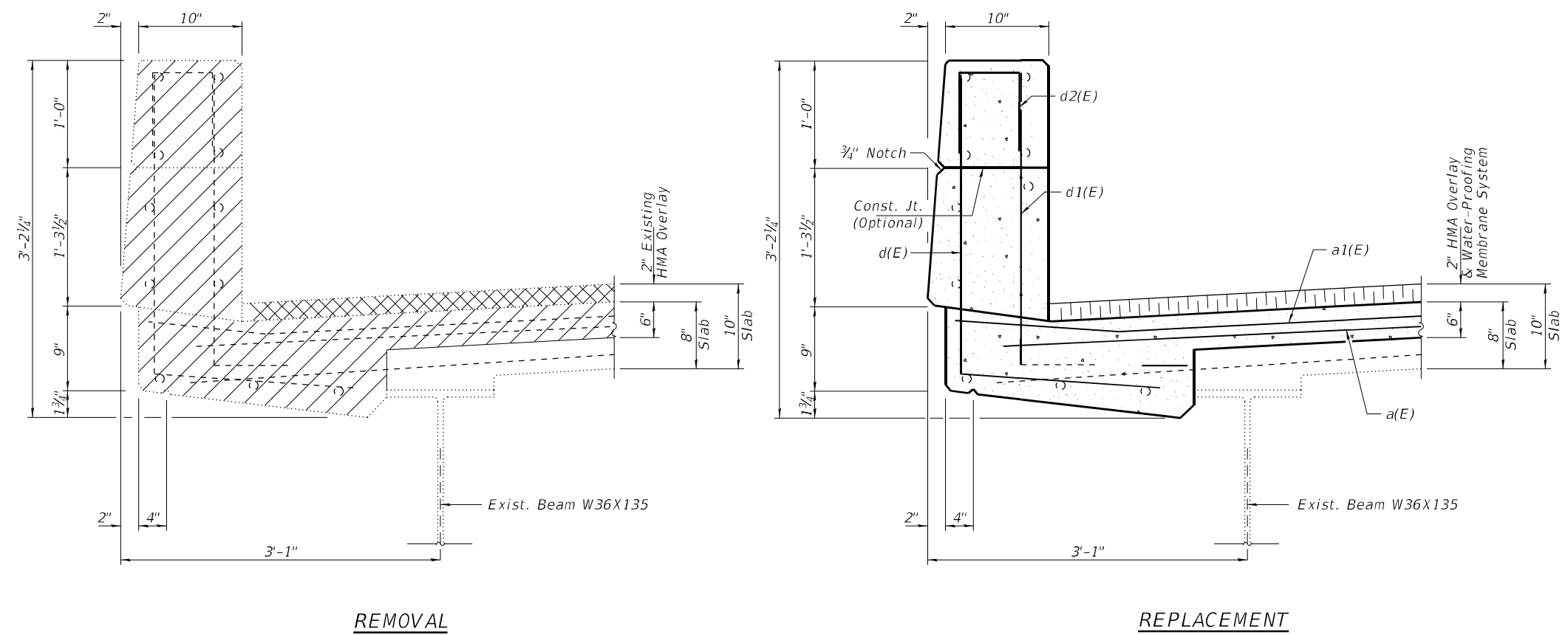
DATE - MAY 04, 2021
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

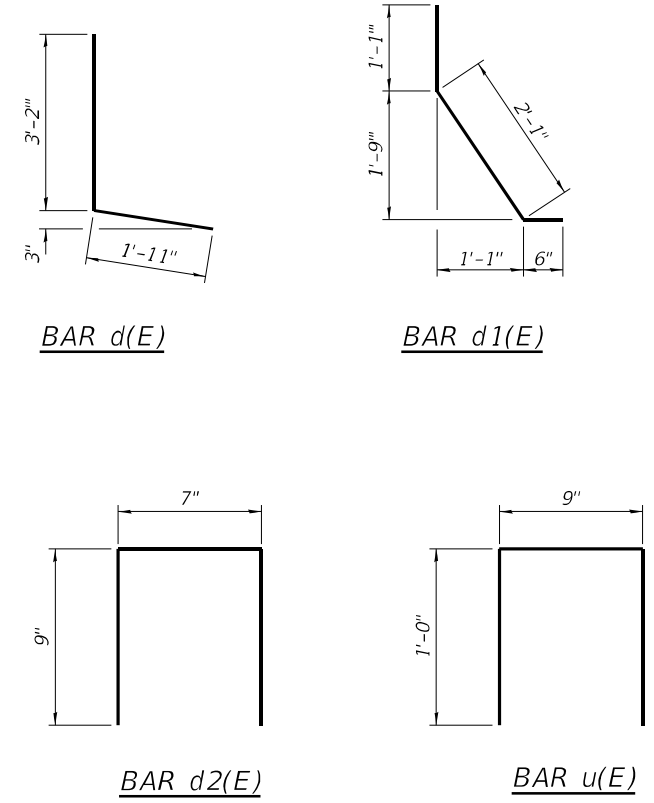
**JOINT REMOVAL & REPLACEMENT DETAILS - ABUTMENTS
SN 072-0124 (E.B) & 072-0125 (W.B)**

SHEET NO. 4 OF 10 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[RS-3; (2-4)RS-2]	PEORIA	240	240F
CONTRACT NO. 68C45				
ILLINOIS FED. AID PROJECT				

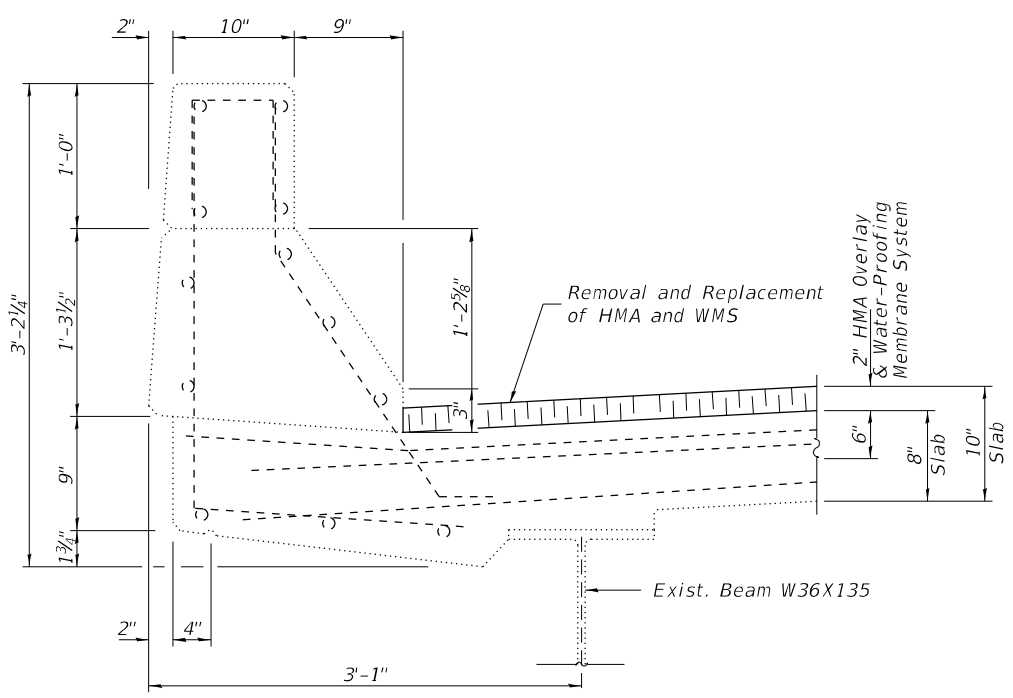


SECTION THRU PARAPET AT ABUTMENTS



REMOVAL

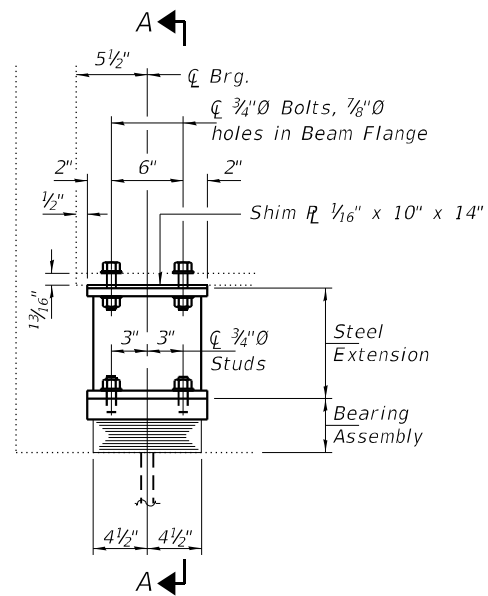
REPLACEMENT



SECTION THRU BRIDGE PARAPET

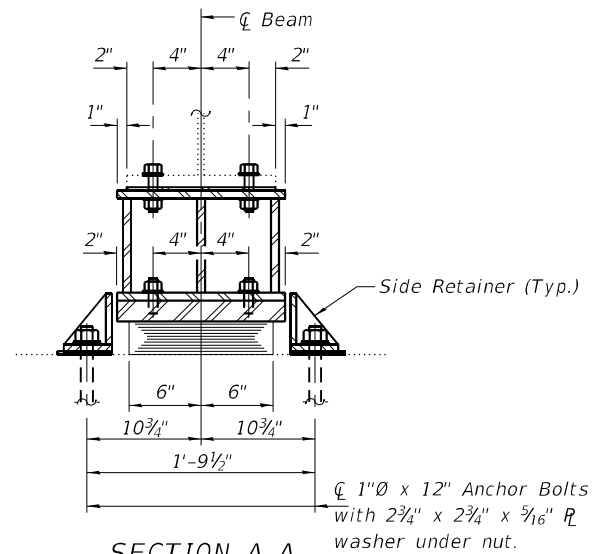
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	8	#6	18'-8"	—
a1(E)	8	#6	22'-8"	—
a2(E)	16	#5	4'-0"	—
d(E)	16	#4	4'-10"	L
d1(E)	16	#4	3'-8"	L
d2(E)	16	#4	2'-1"	□
h(E)	16	#6	18'-8"	—
h1(E)	16	#6	22'-8"	—
u(E)	96	#4	2'-9"	□
Concrete Removal			Cu. Yd.	13.4
Concrete Superstructure			Cu. Yd.	13.4
Protective Coat			Sq. Yd.	44
Bar Splicers			Each	24
Reinforcement Bars, Epoxy Coated			Pound	1850



ELEVATION AT ABUTMENT

TYPE I ELASTOMERIC EXP. BRG.



SECTION A-A

BEAM REACTIONS

R _l	(K)	24.4
R _t	(K)	39.7
Imp.	(K)	13.1
R (Total)	(K)	77.2

Notes:

Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.

New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.

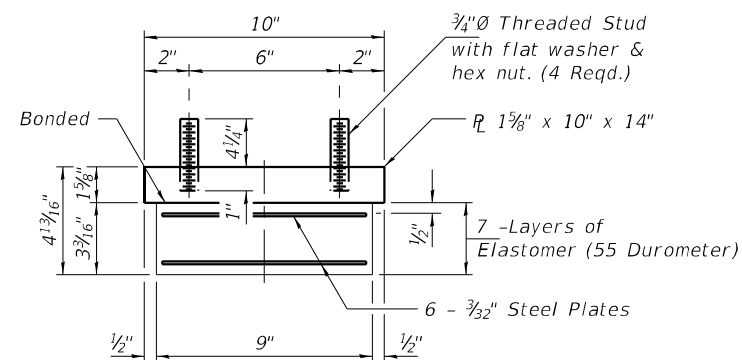
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust (if present).

Min. jack capacity = 38 Tons.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (F_y=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

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

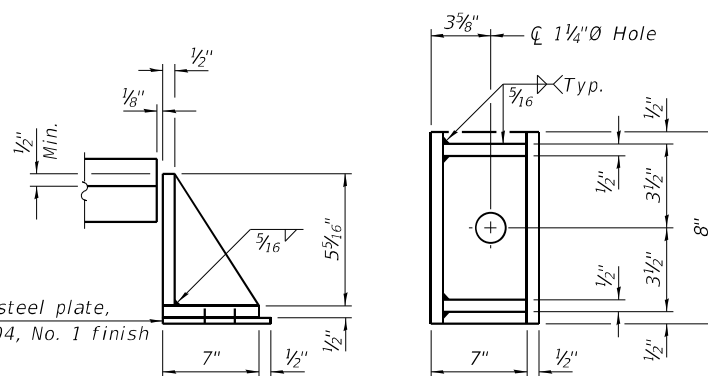
Cost of Side retainers and Stainless Steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.



BEARING ASSEMBLY

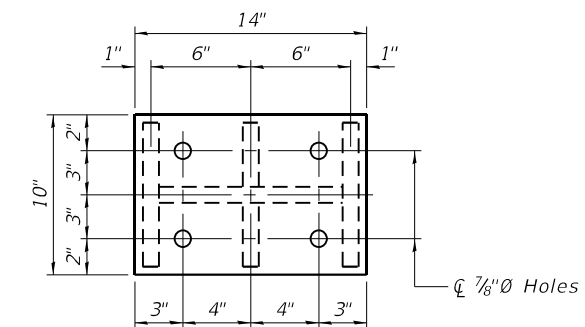
Note:

Shim plates shall not be placed under Bearing Assembly.

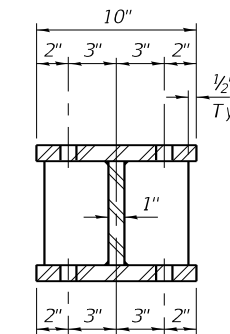


SIDE RETAINER

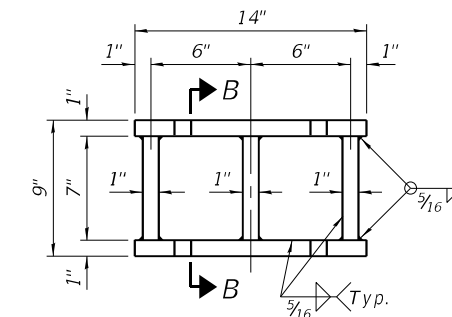
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



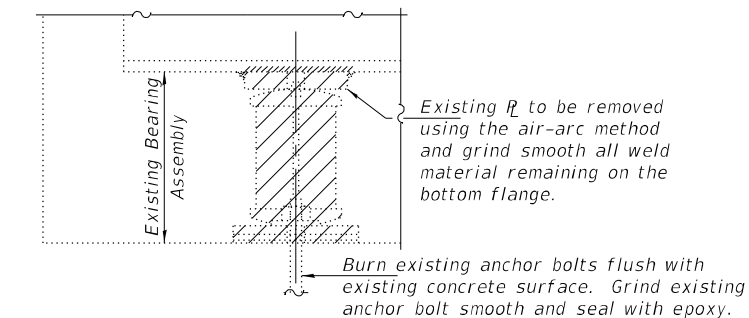
PLAN TOP AND BOTTOM PLATE



SECTION B-B



STEEL EXTENSION DETAIL



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	12
Jack and Remove Existing Bearings	Each	12
Furnishing and Erecting Structural Steel	Pound	1875
Anchor Bolts, 1"Ø	Each	24

TYI/REPS 5-17-2018

DESIGNED - VHV
CHECKED - ATH
DRAWN - Venkat Ramana Reddy
CHECKED - VHV ATH

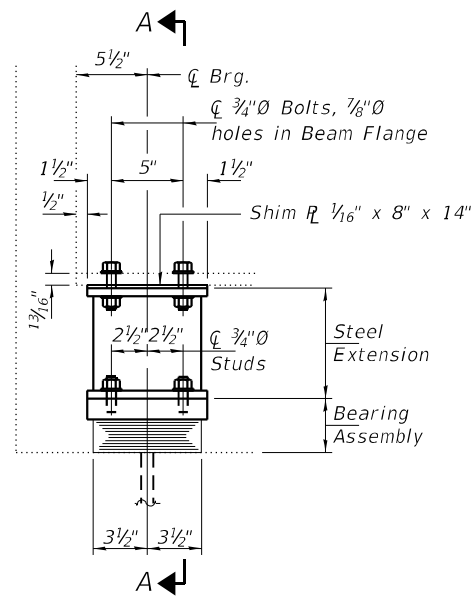
EXAMINED	<i>Timothy A. Daulton</i> ENGINEER OF STRUCTURAL SERVICES	DATE - MAY 04, 2021
PASSED	<i>Carl R. Roper</i> ENGINEER OF BRIDGES AND STRUCTURES	REVISED -
		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT BEARING DETAILS
SN 072-0124 (E.B) & 072-0125 (W.B)

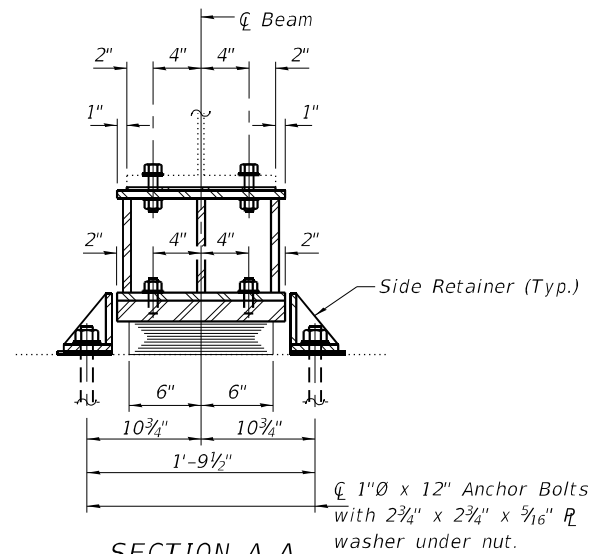
SHEET NO. 6 OF 10 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[1RS-3; (2-4)RS-2]	PEORIA	240	240H
			CONTRACT NO. 68C45	
ILLINOIS FED. AID PROJECT				



ELEVATION AT ABUTMENT

TYPE I ELASTOMERIC EXP. BRG.



SECTION A-A

BEAM REACTIONS

R _l	(K)	24.4
R _t	(K)	39.7
Imp.	(K)	13.1
R (Total)	(K)	77.2

Notes:

Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.

New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.

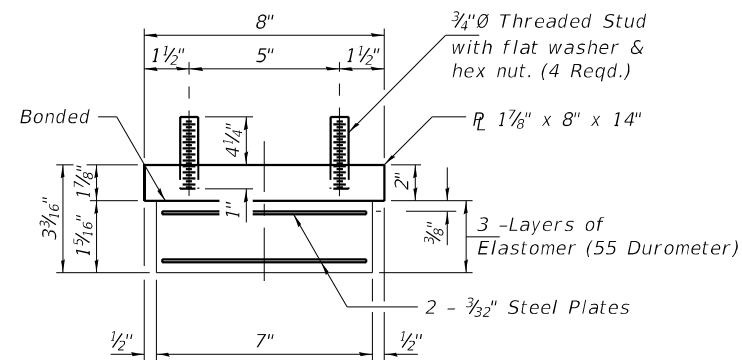
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust (if present).

Min. jack capacity = 38 Tons.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (F_y=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

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

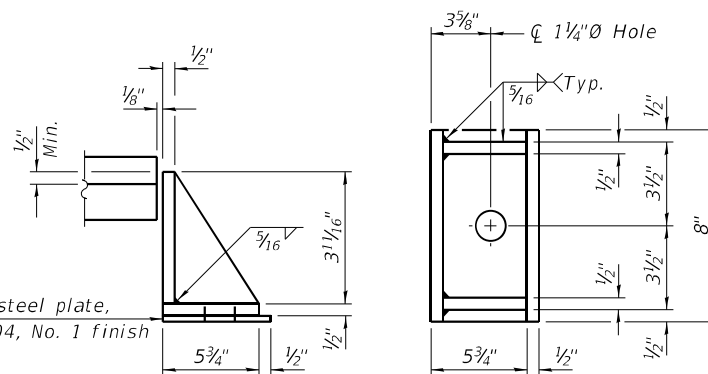
Cost of Side retainers and Stainless Steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.



BEARING ASSEMBLY

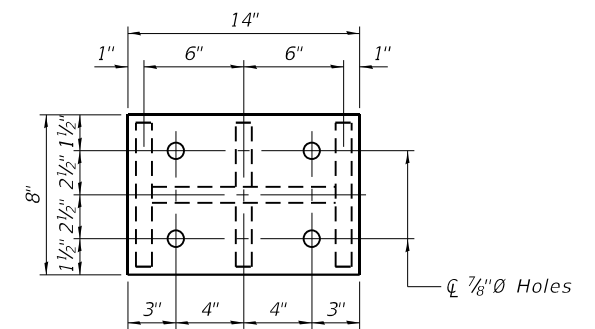
Note:

Shim plates shall not be placed under Bearing Assembly.

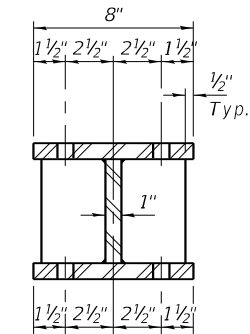


SIDE RETAINER

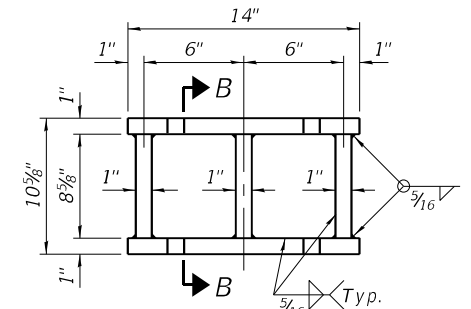
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



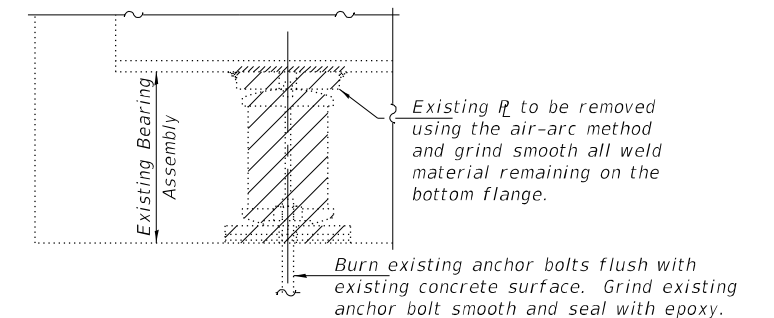
PLAN TOP AND BOTTOM PLATE



SECTION B-B



STEEL EXTENSION DETAIL



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	12
Jack and Remove Existing Bearings	Each	12
Furnishing and Erecting Structural Steel	Pound	1710
Anchor Bolts, 1"Ø	Each	24

TYI/REPS 5-17-2018

DESIGNED - VHV
CHECKED - ATH
DRAWN - Venkat Ramana Reddy
CHECKED - VHV ATH

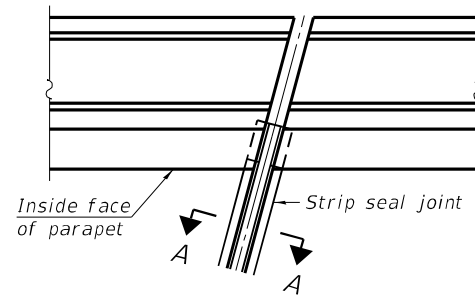
EXAMINED	<i>Timothy A. Daulton</i> ENGINEER OF STRUCTURAL SERVICES	DATE - MAY 04, 2021
PASSED	<i>Carl R. Roper</i> ENGINEER OF BRIDGES AND STRUCTURES	REVISED -
		REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

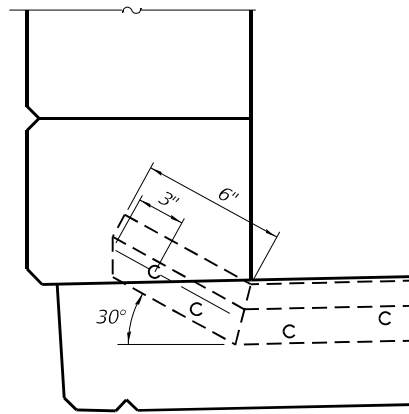
**SOUTH ABUTMENT BEARING DETAILS
SN 072-0124 (E.B) & 072-0125 (W.B)**

SHEET NO. 7 OF 10 SHEETS

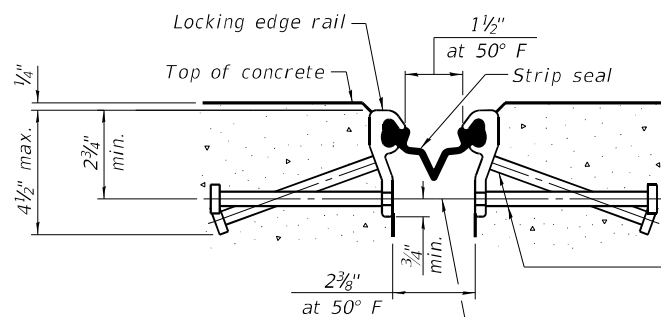
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[1RS-3; (2-4)RS-2]	PEORIA	240	240I
			CONTRACT NO. 68C45	
ILLINOIS FED. AID PROJECT				



FOR SKEWS $\leq 30^\circ$
PLAN AT PARAPET

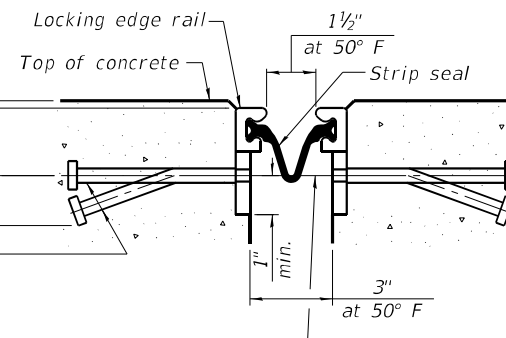


ELEVATION AT PARAPET
 (Skews $\leq 30^\circ$)



SHOWING ROLLED RAIL JOINT

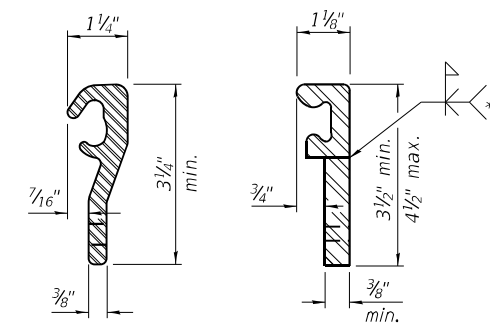
* $\frac{5}{8}$ " ϕ x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)
 $\frac{3}{8}$ " ϕ threaded rods in $\frac{1}{16}$ " ϕ holes at ± 4 "-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.



SHOWING WELDED RAIL JOINT

SECTION A-A

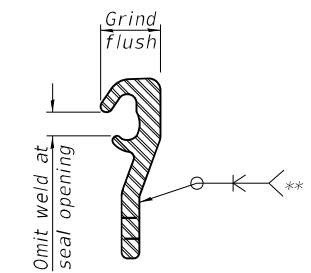
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



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	172

EJ-SS1 LT30/REPS

2-25-20

DESIGNED - VHV
CHECKED - ATH
DRAWN - Venkat Ramana Reddy
CHECKED - VHV ATH

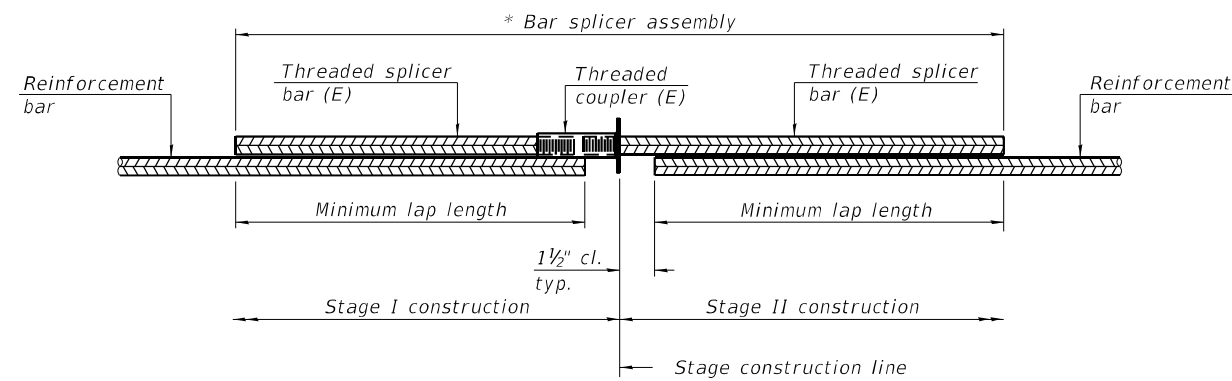
EXAMINED	<i>Timothy A. Daulton</i> ENGINEER OF STRUCTURAL SERVICES	DATE - MAY 04, 2021
PASSED	<i>Carl R. Meyer</i> ENGINEER OF BRIDGES AND STRUCTURES	REVISED -
		REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
 SN 072-0124 (E.B) & 072-0125 (W.B)

SHEET NO. 8 OF 10 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[1RS-3; (2-4)RS-2]	PEORIA	240	240J
ILLINOIS			FED. AID PROJECT	
			CONTRACT NO. 68C45	

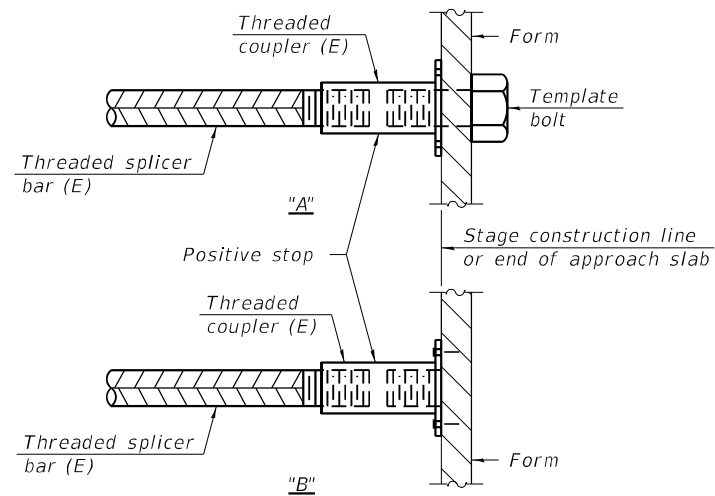


STANDARD BAR SPLICER ASSEMBLY PLAN
(All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

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

Location	Bar size	No. assemblies required	Minimum lap length
N. & S. Abut. (0124)	#6	12	4'-10"
N. & S. Abut. (0125)	#6	12	4'-10"

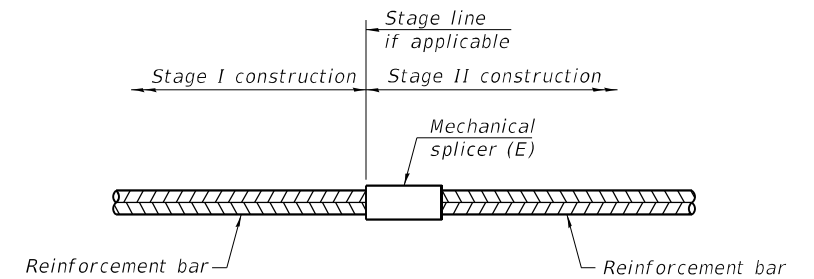


INSTALLATION AND SETTING METHODS

"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

1-1-2020

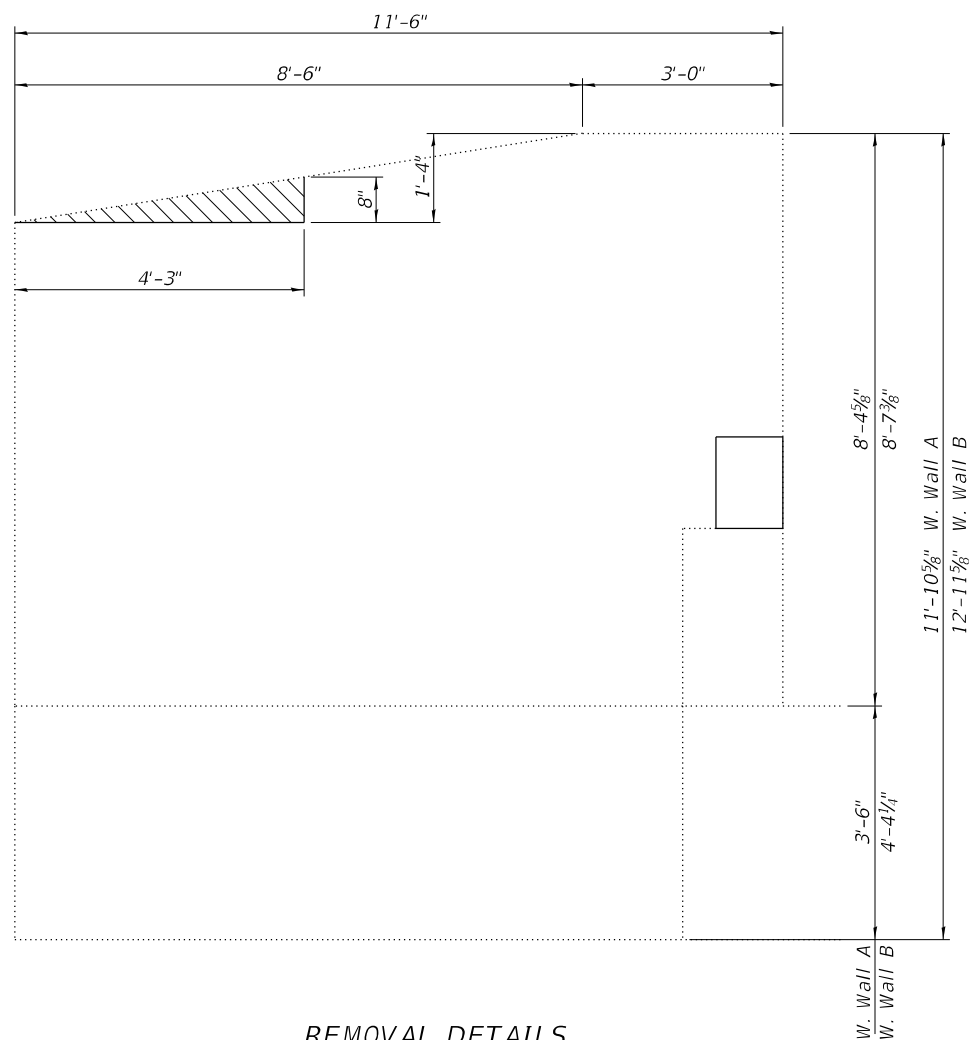
DESIGNED - VHV	EXAMINED	DATE - MAY 04, 2021
CHECKED - ATH	<i>Timothy A. ...</i> ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Venkat Ramana Reddy	PASSED	REVISED -
CHECKED - VHV ATH	<i>Carl ...</i> ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
SN 072-0124 (E.B) & 072-0125 (W.B)

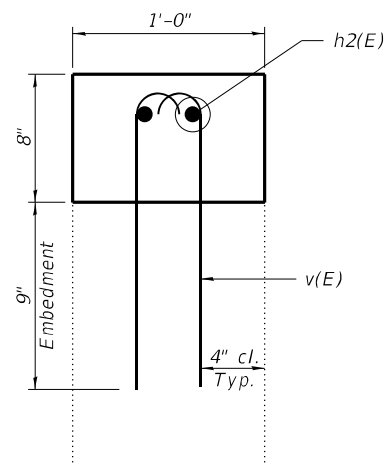
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[1RS-3; (2-4)RS-2]	PEORIA	240	240K
CONTRACT NO. 68C45				
ILLINOIS FED. AID PROJECT				

SHEET NO. 9 OF 10 SHEETS

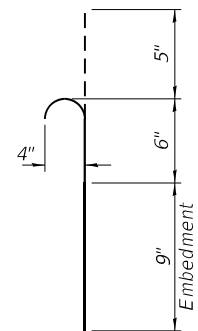


REMOVAL DETAILS

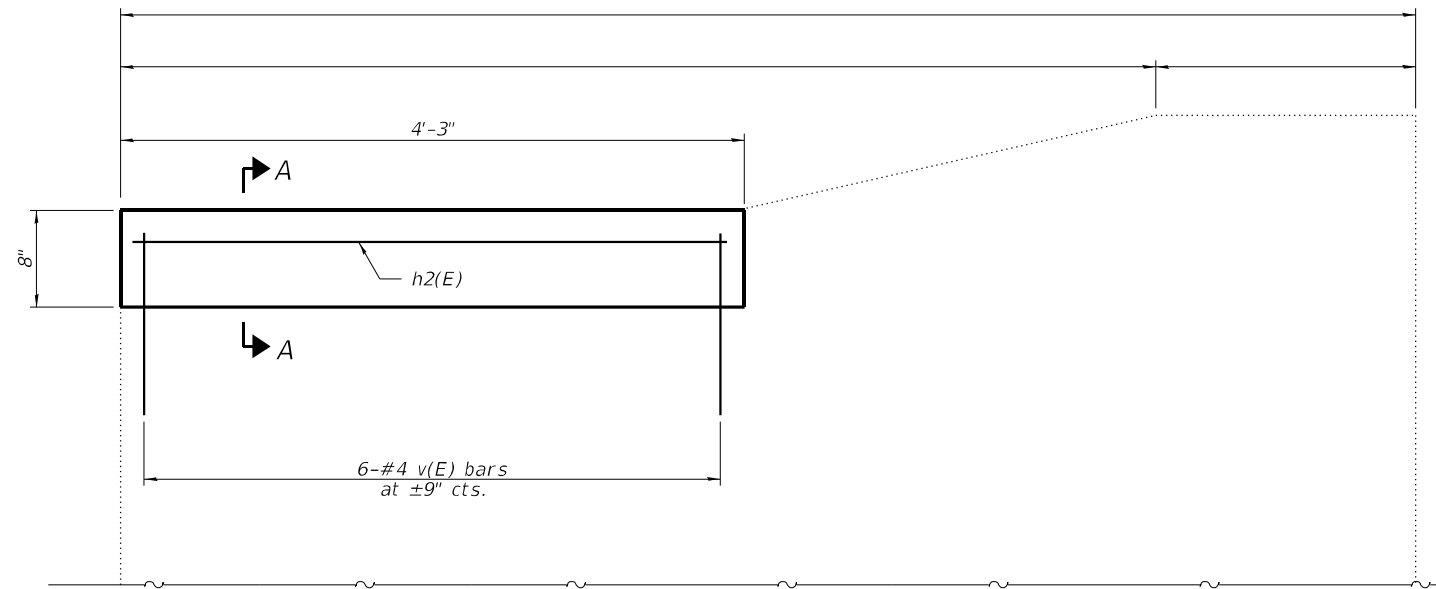
Concrete Removal



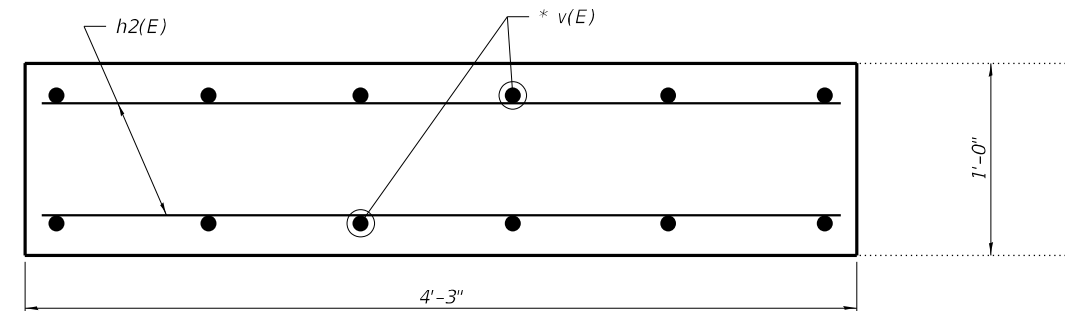
SECTION A-A



BAR v(E)



PROPOSED ELEVATION



PLAN

* Epoxy v(E) bars in 9" min. holes according to Article 584 of the Standard Specs.

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.

BILL OF MATERIAL
(8 Locations)

Bar	No.	Size	Length	Shape
h2(E)	16	#5	4'-0"	—
v(E)	96	#4	1'-8"	⤵
Concrete Removal			Cu. Yd.	0.5
Concrete Superstructure			Cu. Yd.	0.9
** Protective Coat			Sq. Yd.	6.3
Reinforcement Bars, Epoxy Coated			Pound	170

** Apply to New Concrete only

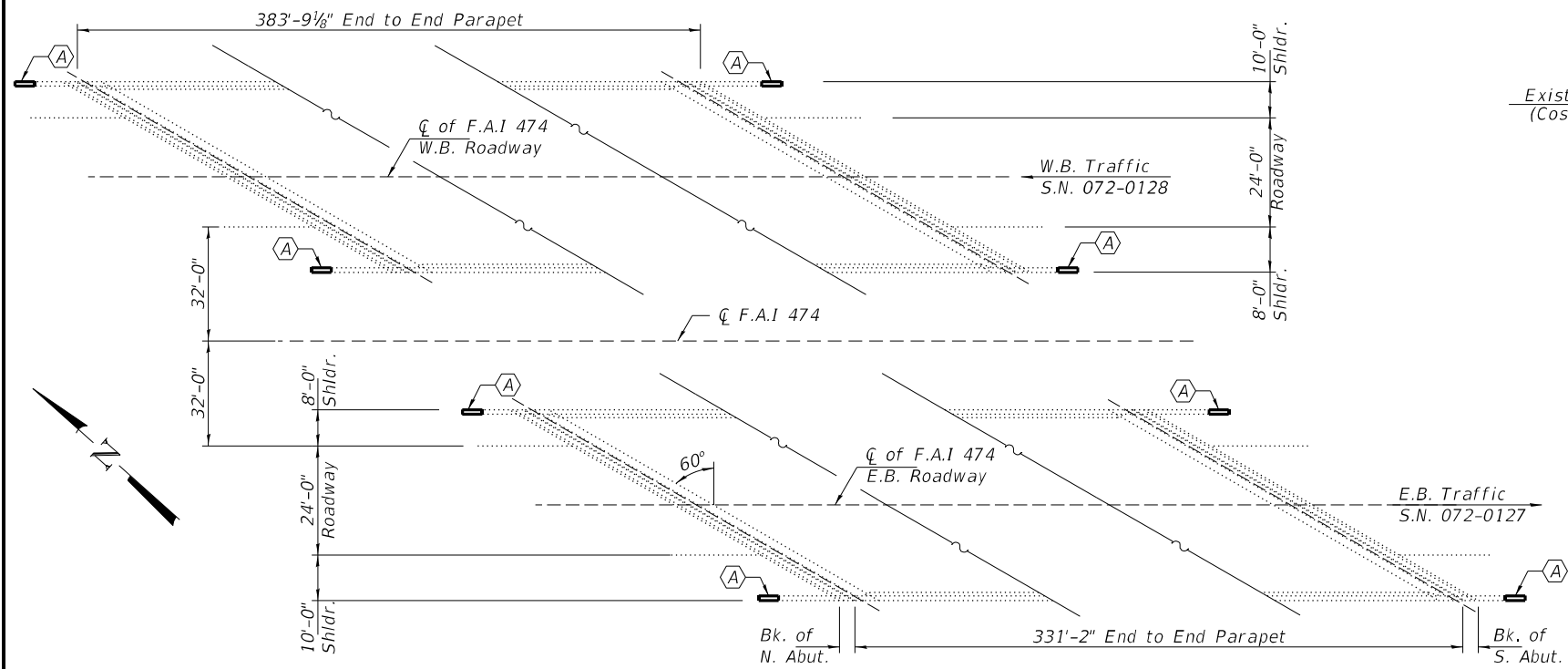
DESIGNED - VHV	EXAMINED -	DATE - MAY 04, 2021
CHECKED - ATH	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Venkat Ramana Reddy	PASSED -	REVISER -
CHECKED - VHV ATH	ENGINEER OF BRIDGES AND STRUCTURES	REVISER -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

WINGWALL MODIFICATIONS
 SN 072-0124 (E.B) & 072-0125 (W.B)

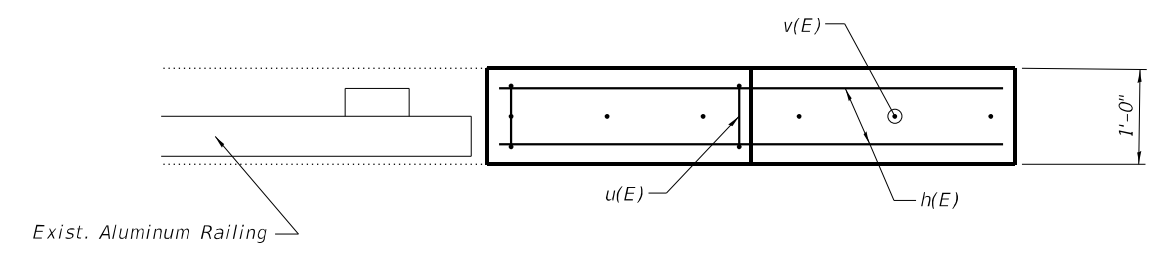
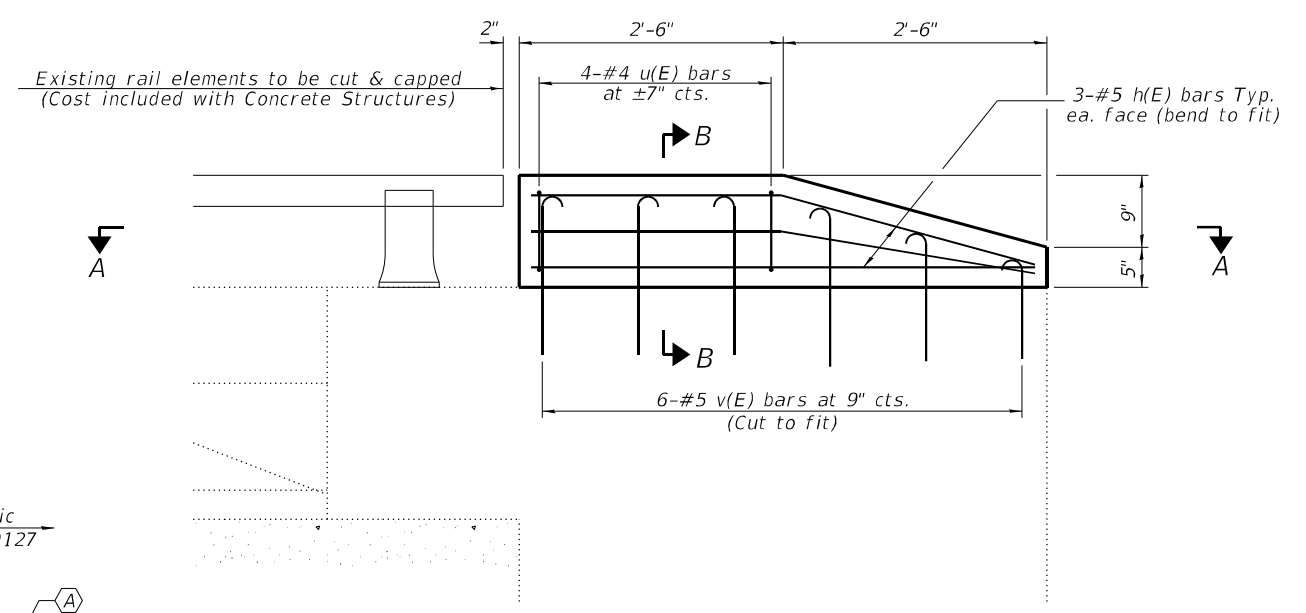
SHEET NO. 10 OF 10 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	72[1RS-3; (2-4)RS-2]	PEORIA	240	240L
			CONTRACT NO. 68C45	
ILLINOIS FED. AID PROJECT				

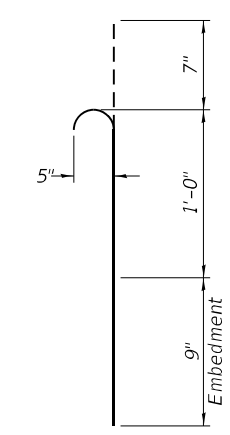
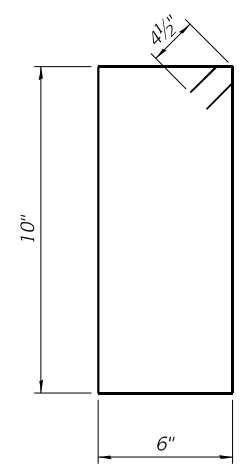
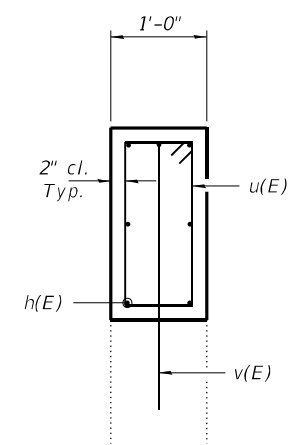
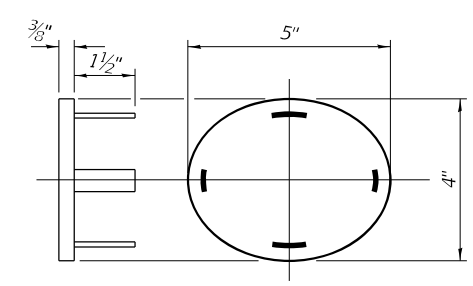


PARTIAL PLAN

(A) - Wingwall Retrofit.



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



TOTAL BILL OF MATERIAL (8 Locations)

Bar	No.	Size	Length	Shape	
h(E)	48	#5	4'-8"	—	
u(E)	32	#4	3'-5"	□	
v(E)	48	#5	2'-4"	⌋	
Concrete Structures				Cu. Yd.	1.6
Reinforcement Bars, Epoxy Coated				Pound	420



EXPIRES 11-30-2022

DESIGNED - Victor H. Veliz
 CHECKED - Adrian T. Hallaway
 DRAWN - Venkat Ramana Reddy
 CHECKED - VHV ATH

EXAMINED
 PASSED
 ENGINEER OF STRUCTURAL SERVICES
 ENGINEER OF BRIDGES AND STRUCTURES

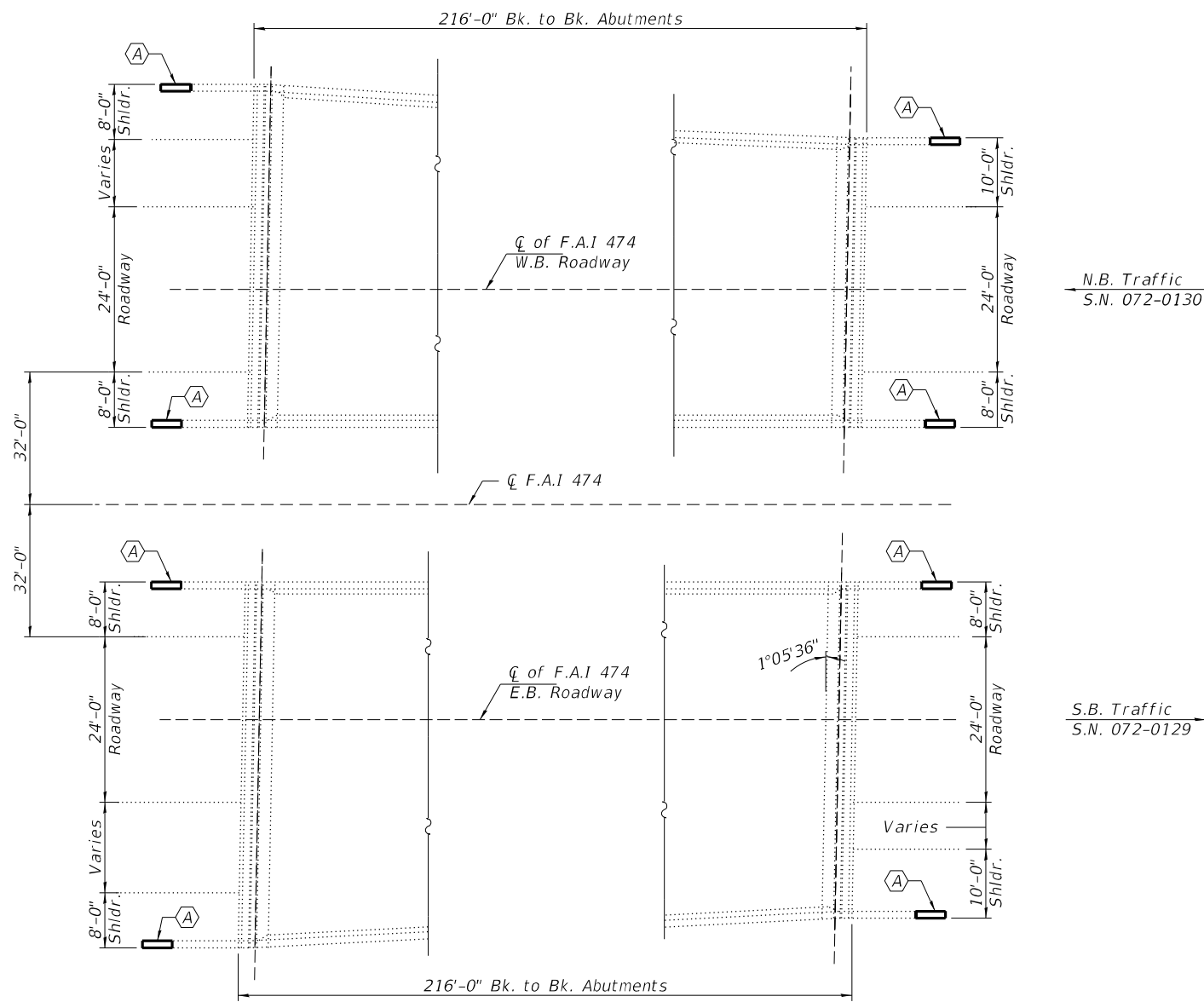
DATE - MAY 04, 2021
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**WINGWALL & RAILING MODIFICATIONS
 SN 072-0127 (W.B) & 072-0128 (E.B)**

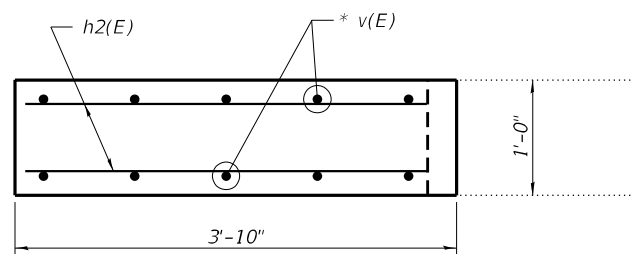
SHEET NO. 1 OF 1 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[1RS-3; (2-4)RS-2]	PEORIA	240	240M
			CONTRACT NO. 68C45	
ILLINOIS FED. AID PROJECT				



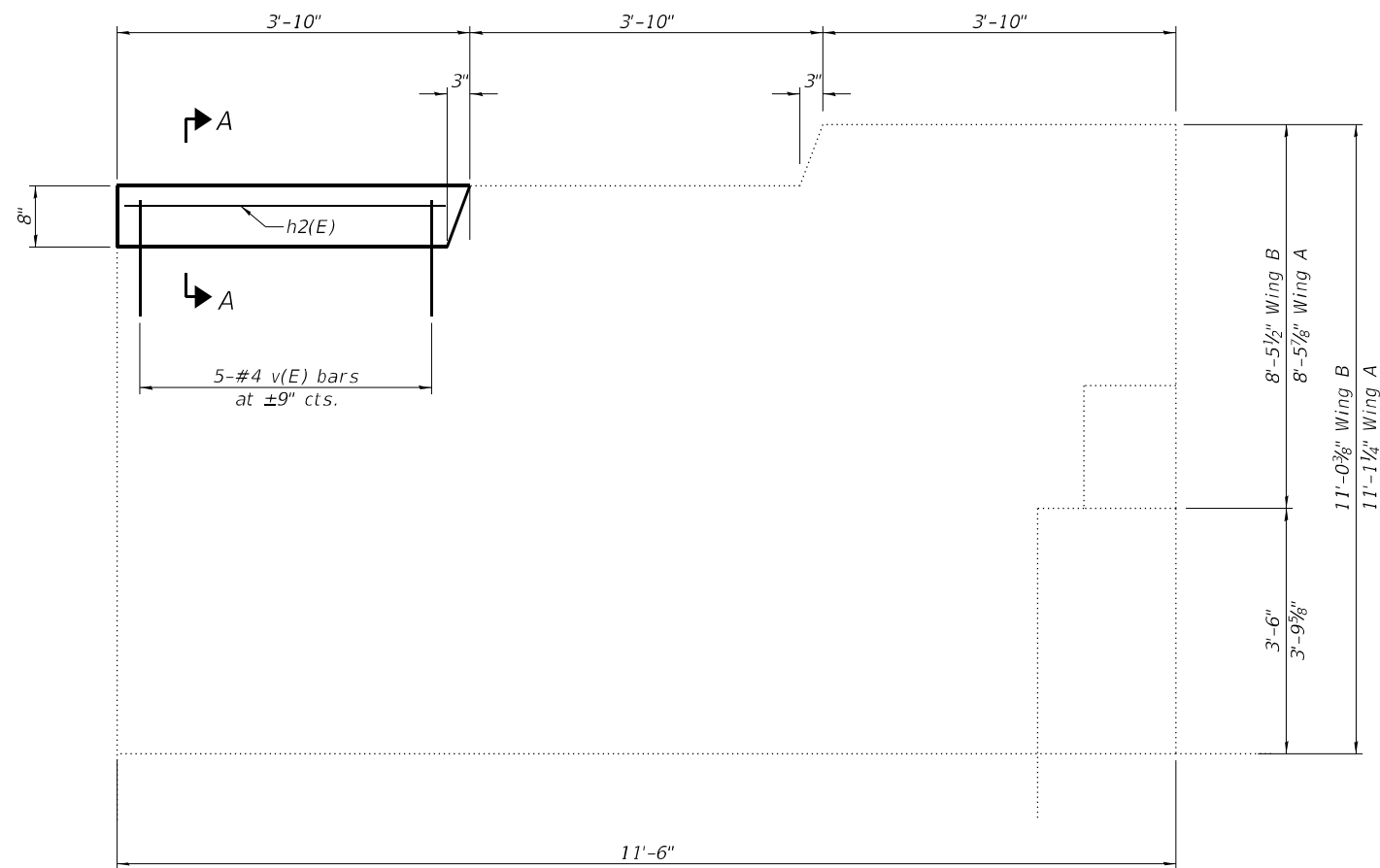
PARTIAL PLAN

Ⓐ - Wingwall Retrofit.



PLAN

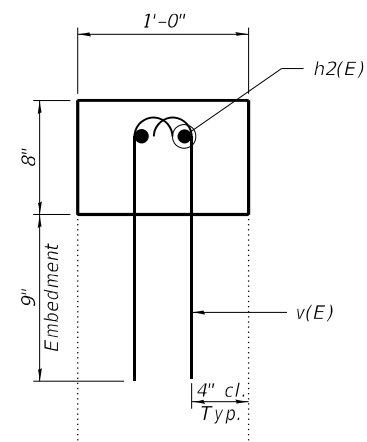
* Epoxy v(E) bars in 9" min. holes according to Article 584 of the Standard Specs.



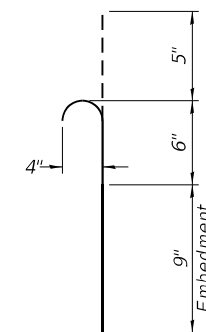
ELEVATION

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.



SECTION A-A



BAR v(E)

TOTAL BILL OF MATERIAL (8 Locations)

Bar	No.	Size	Length	Shape
h2(E)	16	#5	3'-6"	—
v(E)	80	#4	1'-8"	⌋
Concrete Superstructure		Cu. Yd.	0.8	
Reinforcement Bars, Epoxy Coated		Pound	150	



EXPIRES 11-30-2022

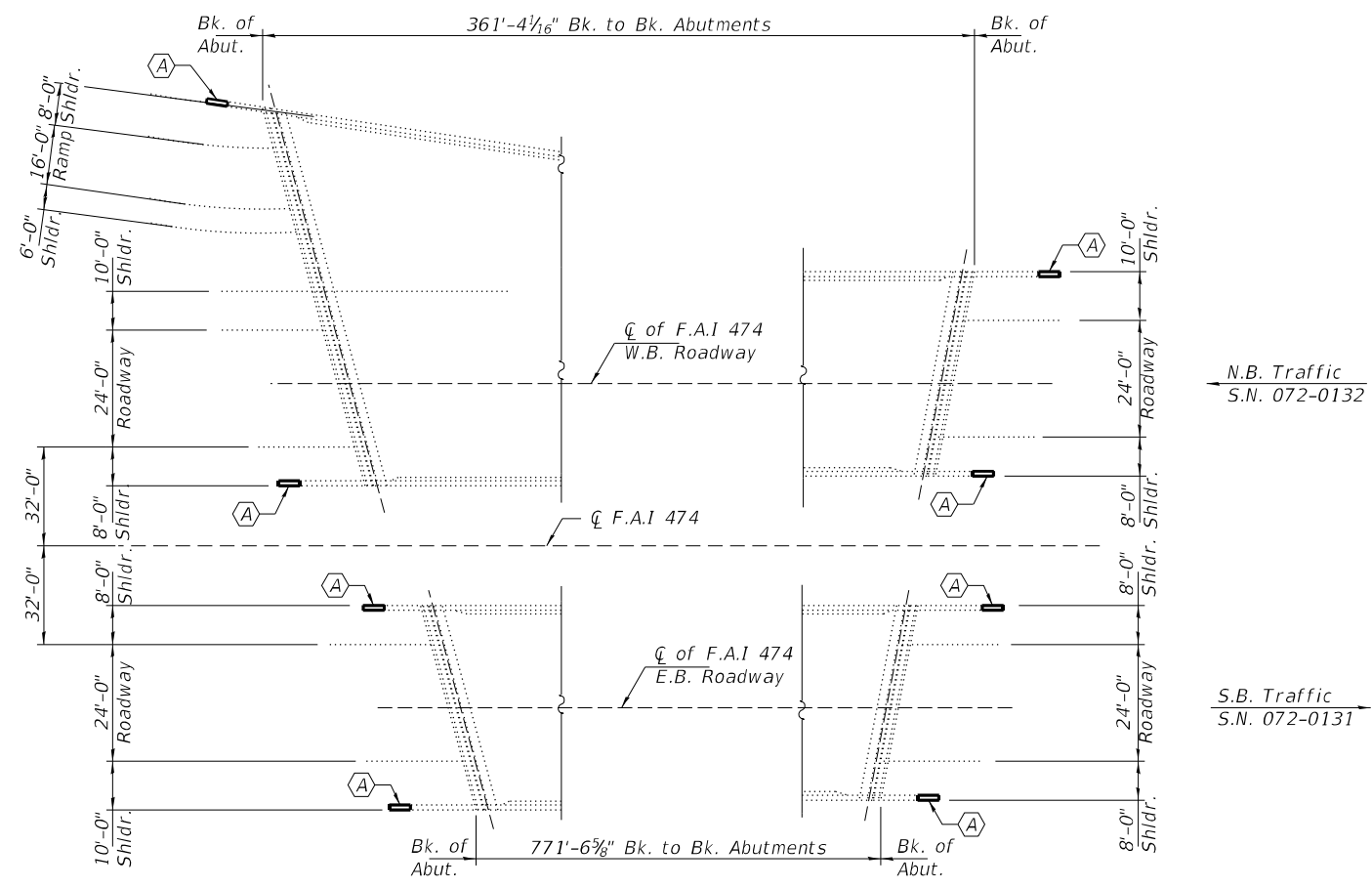
DESIGNED - Victor H. Veliz	EXAMINED - <i>Tring A. Beck</i>	DATE - MAY 04, 2021
CHECKED - Adrian T. Hallaway	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Venkat Ramana Reddy	PASSED - <i>Dr. Carl Puze</i>	REVISED -
CHECKED - VHV ATH	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WINGWALL MODIFICATIONS
SN 072-0129 (E.B) & 072-0130 (W.B)**

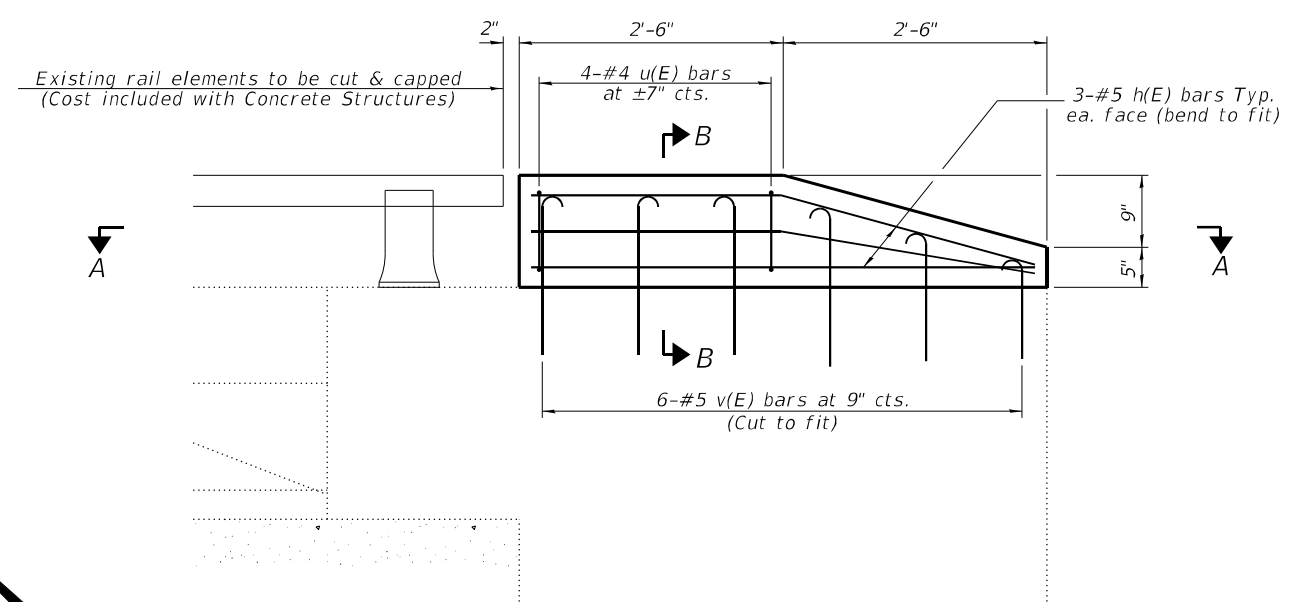
SHEET NO. 1 OF 1 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[RS-3; (2-4)RS-2]	PEORIA	240	240N
CONTRACT NO. 68C45				
ILLINOIS FED. AID PROJECT				

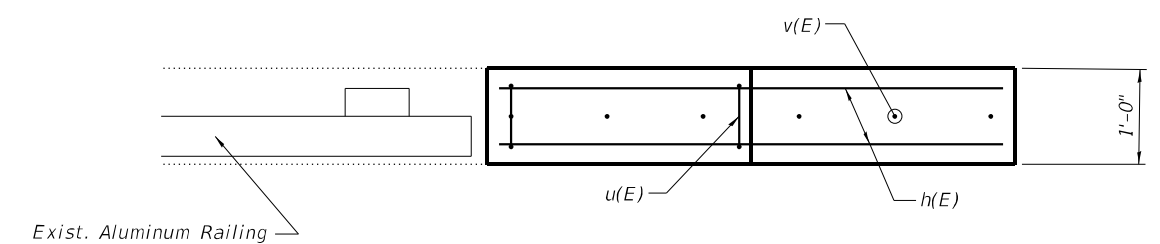


PARTIAL PLAN

(A) - Wingwall Retrofit.

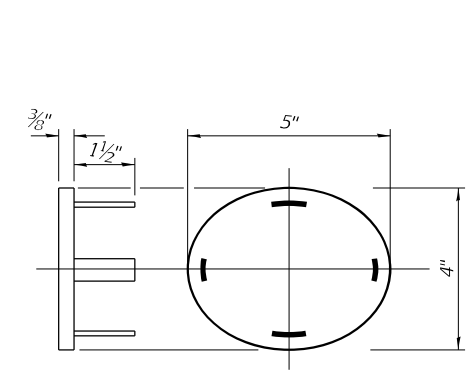


PROPOSED ELEVATION

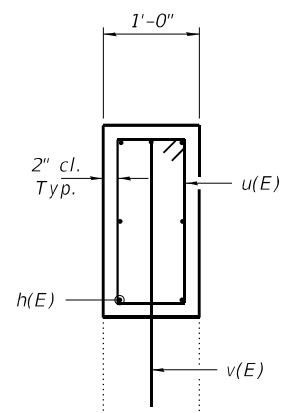


SECTION A-A

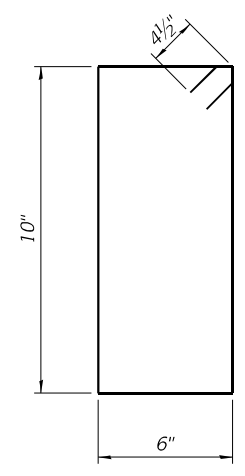
* Epoxy grout v(E) bars in 9" min. holes according to Article 584 of the Standard Specs.



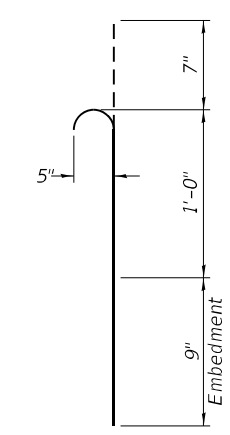
CAST END CAP



SECTION B-B



BAR u(E)



BAR v(E)

TOTAL BILL OF MATERIAL (8 Locations)

Bar	No.	Size	Length	Shape
h(E)	48	#5	5'-4"	—
u(E)	32	#4	3'-5"	▭
v(E)	48	#5	2'-4"	U
Concrete Structures			Cu. Yd.	1.6
Reinforcement Bars, Epoxy Coated			Pound	420



EXPIRES 11-30-2022

DESIGNED - Victor H. Veliz
 CHECKED - Adrian T. Hallaway
 DRAWN - Venkat Ramana Reddy
 CHECKED - VHV ATH

EXAMINED - *Tring A. Deet*
 ENGINEER OF STRUCTURAL SERVICES
 PASSED - *Dr. Carl Puzey*
 ENGINEER OF BRIDGES AND STRUCTURES

DATE - MAY 04, 2021
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**WINGWALL & RAILING MODIFICATIONS
 SN 072-0131 (E.B) & 072-0132 (W.B)**

SHEET NO. 1 OF 1 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
474	72[1RS-3; (2-4) RS-2]	PEORIA	240	2400
CONTRACT NO. 68C45				
ILLINOIS FED. AID PROJECT				