

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	54BR-2	CHAMPAIGN	36	1
		ILLINOIS	CONTRACT NO. 70604	

11-18-2022 LETTING ITEM 029

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**PROPOSED
HIGHWAY PLANS**

FOR INDEX OF SHEETS, SEE SHEET NO. 2

CURRENT TRAFFIC DATA FOR F.A.S. 522

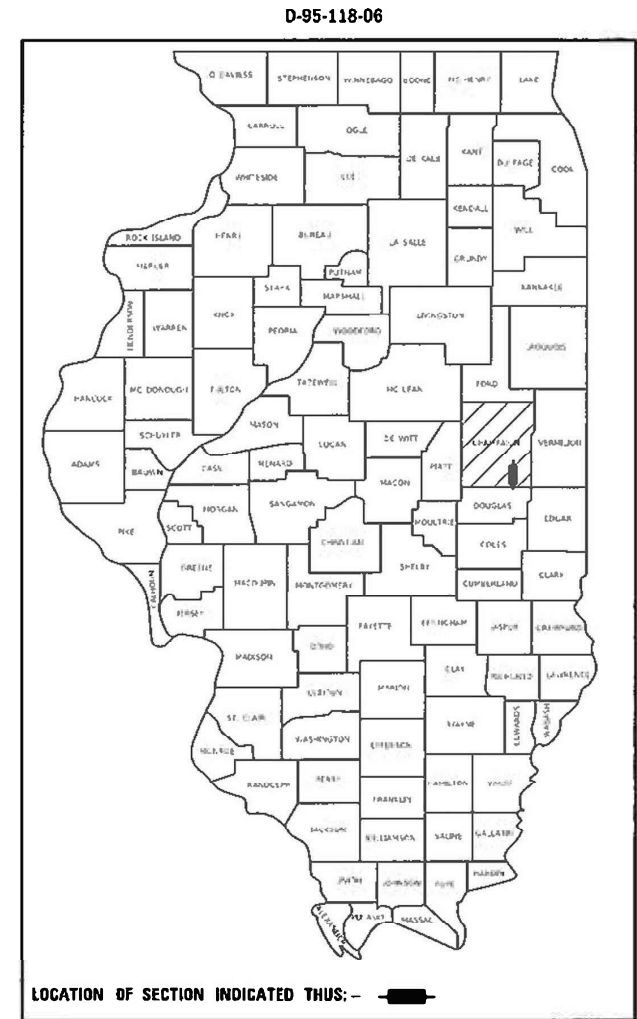
LEG "A"

2020 ADT	600
P.V.%	88.3
S.U.%	6.7
M.U.%	5.0

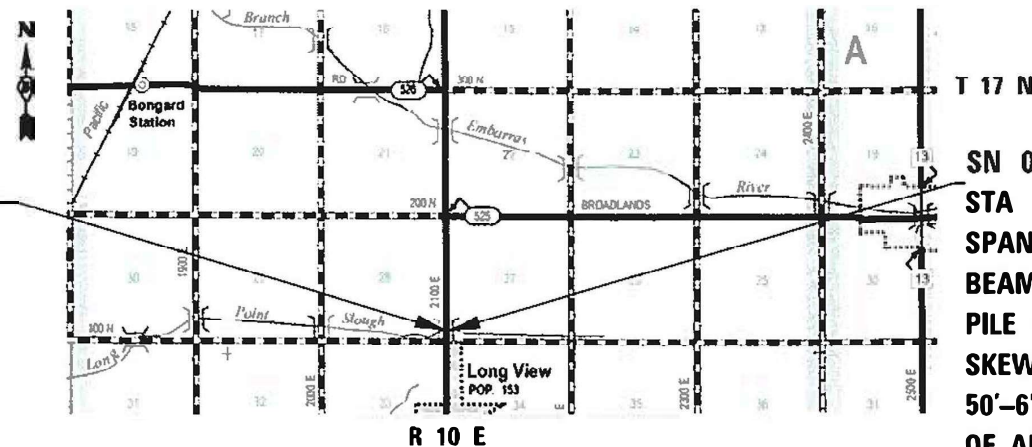
**FAS ROUTE 522 (CH 12 /BLOCK RD /2100 E)
SECTION 54BR-2
PROJECT HBFN-NMYU(698)
BRIDGE SUPERSTRUCTURE REPLACEMENT
CHAMPAIGN COUNTY**

C-95-055-18

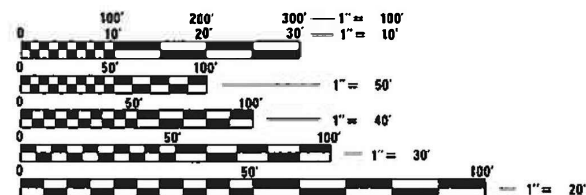
LONG POINT SLOUGH 0.1 MI N OF LONGVIEW NCL



**SECTION 54BR-2
STA 462+83.15 TO 463+33.65**



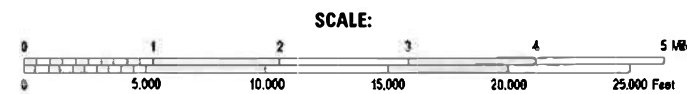
**SN 010-0255
STA 463+08.40 SINGLE
SPAN 21" PPC DECK
BEAM BRIDGE ON OPEN
PILE BENT ABUTMENTS,
SKEW 0 DEGREE,
50'-6" BACK TO BACK
OF ABUTMENT**



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

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

**PROJECT ENGINEER: JASON W. STULTS, P.E.
PROJECT MANAGER: DAVID F. JAYME, P.E.
DESIGNER: RAFAEL T. MONJARDIN
PHONE NUMBER: (217)-465-4181
CONTRACT NO. 70604**



GROSS LENGTH = 50.5 FT. = 0.010 MILE
NET LENGTH = 50.5 FT. = 0.010 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED 8/11 2022
Kenneth Barnettson
REGIONAL ENGINEER

October 14, 2022
Scott A. Etk
ENGINEER OF DESIGN AND ENVIRONMENT

October 14, 2022
Stephen M. Lewis
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

INDEX OF SHEETS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	COVER SHEET
2	INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES & COMMITMENTS
3 TO 5	SUMMARY OF QUANTITIES
6 TO 9	TYPICAL CROSS SECTIONS
10	SCHEDULES OF QUANTITIES
11	PLAN AND PROFILE SHEET
12	GUARDRAIL DETAILS SHEET
13 TO 24	STRUCTURE PLANS
25 TO 29	EXISTING STRUCTURE PLANS
30	TRAFFIC CONTROL & PROTECTION DEVICES (ROAD & SIDEROAD/STREET CLOSURES)
31 TO 36	CROSS SECTION SHEETS

HIGHWAY STANDARDS

<u>STANDARD</u>	<u>DESCRIPTION</u>
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
515001-04	NAME PLATE FOR BRIDGES
630001-12	STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631061	TRAFFIC BARRIER TERMINAL, TYPE 13
701001-02	OFF-RD OPERATIONS 2L, 2W, MORE THAN 15' (4.5m) AWAY
701006-05	OFF- RD OPERATIONS, 2L, 2W, 15' (4.5M) TO 24" (600 mm) FROM PAVEMENT
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701901-08	TRAFFIC CONTROL DEVICES
725001-01	OBJECT AND TERMINAL MARKERS
780001-05	TYPICAL PAVEMENT MARKINGS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

GENERAL NOTES

G.N.-100A
ELECTRONIC FILES AND/OR ELECTRONIC SURVEY INFORMATION INCLUDING CADD FILES WILL NOT BE AVAILABLE TO THE CONTRACTOR.

G.N.-105-09A
ALL ELEVATIONS SHOWN IN THE PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988. (NAVD 88)

G.N. -406H

MIXTURE REQUIREMENTS

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

Contract: 70604

Location	S.N. 010-0255
Mixture Use	Surface (Mainline & top 1.5" Shld)
AC/PG	PG 64-22
Design Air Voids	4.0% @ Ndes=50
Mix Comp(Gradation)	IL 9.5
Friction Aggregate	Mix C
Mixture Weight	112
Quality Management Program	QC/QA
Sublot Size	N.A.
Material Transfer Device (Required ?)	NO

COMMITMENTS

NO COMMITMENTS

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	DRAWN -	REVISED -
PLOT SCALE = 40.0955 ' / in.	CHECKED -	REVISED -
PLOT DATE = 8/9/2022	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS, LIST OF HIGHWAY STANDARDS,
GENERAL NOTES, & COMMITMENTS**

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	54BR-2	CHAMPAIGN	36	2
CONTRACT NO. 70604				

ILLINOIS FED. AID PROJECT

REV. 10/11/22

SUMMARY OF QUANTITIES

LOCATION OF WORK: F.A.S. 522 (CH 12, BLOCK RD, 2100 E)

RURAL 2L 2W

MAJOR COLLECTOR

SN 010-0255

STA 462+83.15 TO 463+33.75

CHAMPAIGN COUNTY

FUNDING BREAKOUT: 80% FEDERAL / 20% STATE

CONSTRUCTION TYPE CODE: 0013

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
20400800	FURNISHED EXCAVATION	CU YD	50.0
25000210	SEEDING, CLASS 2A	ACRE	0.25
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	22.5
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	22.5
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	22.5
25100630	EROSION CONTROL BLANKET	SQ YD	478.00
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	50.0
40604050	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX 'C', N50	TON	14.1
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	56.0
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1.0
50102400	CONCRETE REMOVAL	CU YD	0.4
50104000	BRIDGE RAIL REMOVAL	FOOT	101.0
50300225	CONCRETE STRUCTURES	CU YD	0.4
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	1,460.0

* DENOTES SPECIALTY ITEM

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USER NAME = Rafael.Morjardin PLOT SCALE = 40.0712' / in. PLOT DATE = 8/9/2022	DESIGNED - DRAWN - CHECKED - DATE -	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.S. RTE. 522	SECTION 54BR-2	COUNTY CHAMPAIGN	TOTAL SHEETS 36	SHEET NO. 3
SCALE: SHEET 1 OF 3 SHEETS STA. TO STA.				CONTRACT NO. 70604					
ILLINOIS FED. AID PROJECT									

SUMMARY OF QUANTITIES

LOCATION OF WORK: F.A.S. 522 (CH 12, BLOCK RD, 2100 E)

RURAL 2L 2W

MAJOR COLLECTOR

SN 010-0255

STA 462+83.15 TO 463+33.75

CHAMPAIGN COUNTY

FUNDING BREAKOUT: 80% FEDERAL / 20% STATE

CONSTRUCTION TYPE CODE: 0013

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	30.0
50900211	STEEL RAILING, TYPE IL-OH	FOOT	117.0
51500100	NAME PLATES	EACH	1.0
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	164.0
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	438.0
* 63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	150.0
* 63100117	TRAFFIC BARRIER TERMINAL, TYPE 13	EACH	4.0
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4.0
63200310	GUARDRAIL REMOVAL	FOOT	513.0
67100100	MOBILIZATION	L SUM	1.0
* 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4.0
* 78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	8.0
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1.0
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	16.0

* DENOTES SPECIALTY ITEM

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	DRAWN -	REVISED -	
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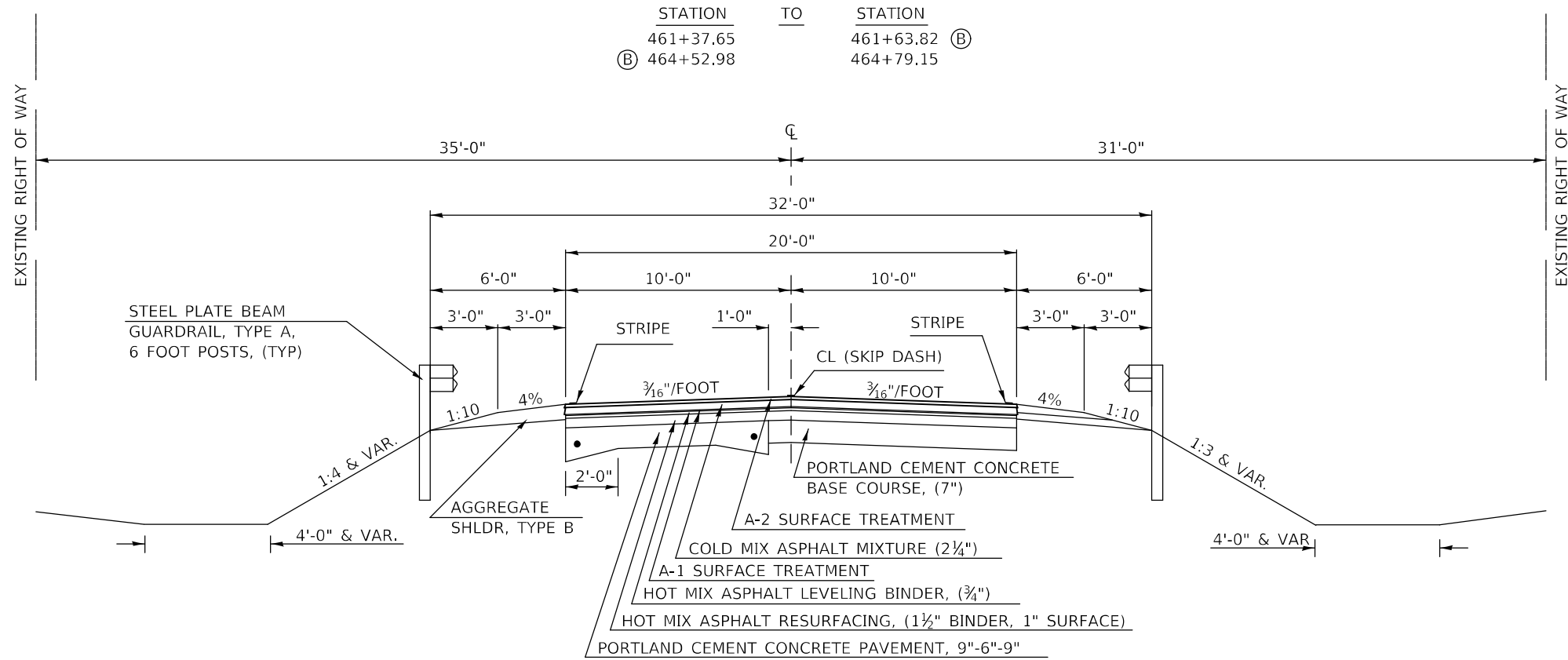
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: SHEET 2 OF 3 SHEETS STA. TO STA.

F.A.S. RTE. 522	SECTION 54BR-2	COUNTY CHAMPAIGN	TOTAL SHEETS 36	SHEET NO. 4
				CONTRACT NO. 70604
ILLINOIS FED. AID PROJECT				

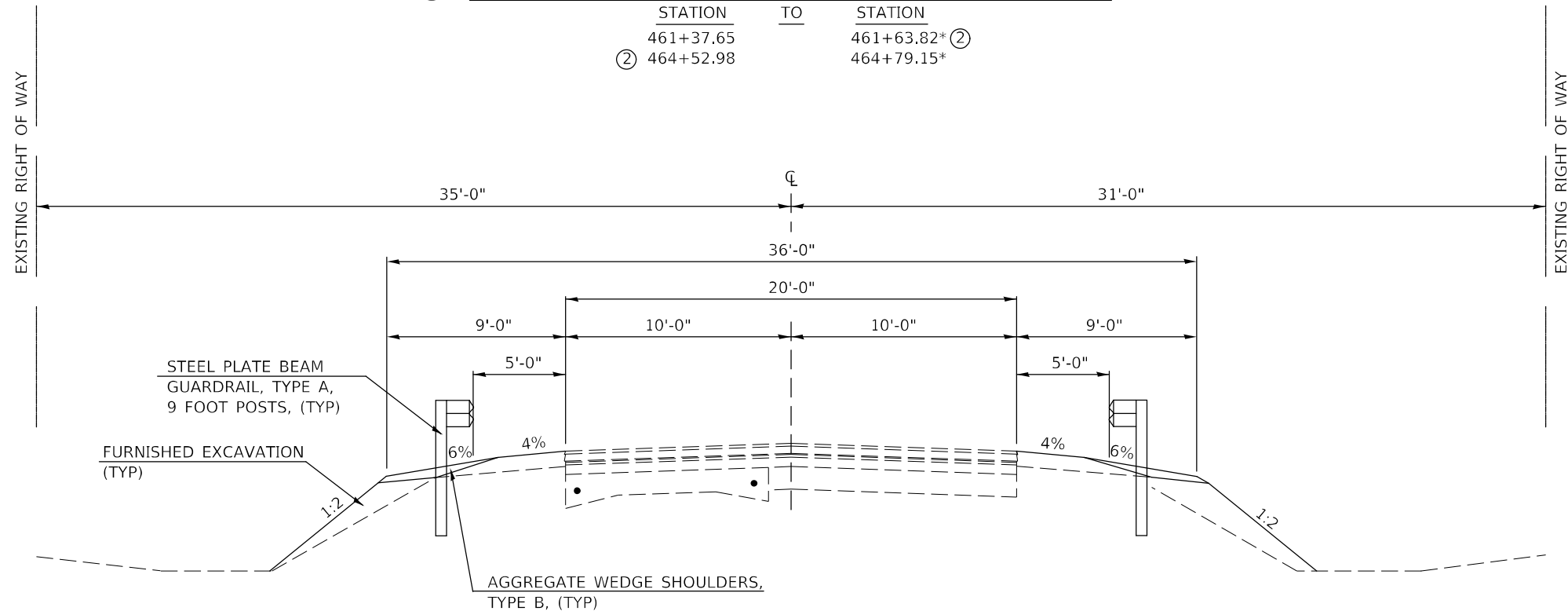
(A) EXISTING TYPICAL CROSS SECTION



*NOTE: 9 FT AGG WEDGE SHOULDER WIDTH

LT: STA 461+27.65 TO STA 461+62.65
 STA 464+04.15 TO STA 464+39.15
 RT: STA 461+77.65 TO STA 462+12.65
 STA 464+54.15 TO STA 464+89.15

(1) PROPOSED TYPICAL CROSS SECTION



NOTE: NOT DRAWN TO SCALE

MODEL: S:\MODELS\NAMES
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PLOT SCALE = 40,080/195' / in.	DRAWN -	REVISED -
PLOT DATE = 8/9/2022	CHECKED -	REVISED -
	DATE -	REVISED -

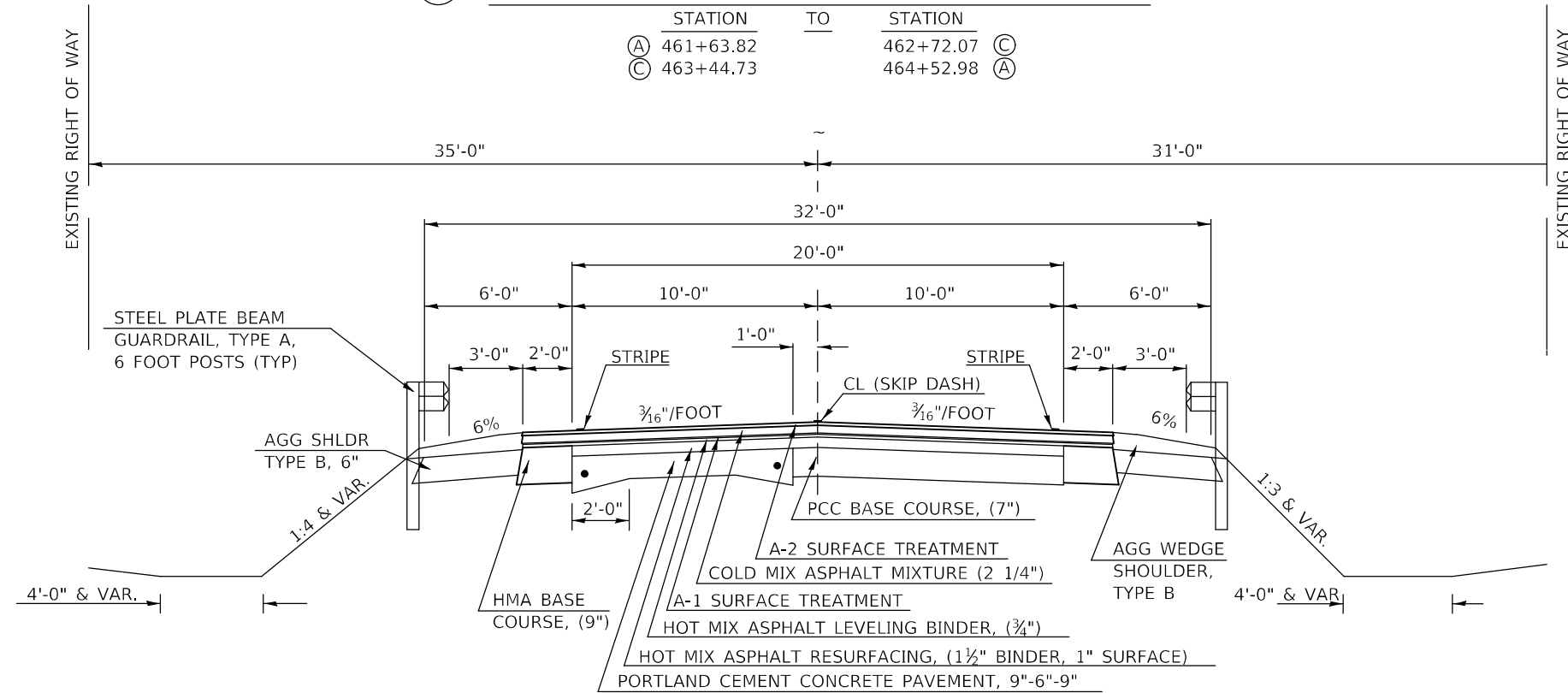
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

TYPICAL CROSS SECTIONS

SCALE: 1 SHEET 1 OF 4 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	54BR-2	CHAMPAIGN	36	6
CONTRACT NO. 70604				
ILLINOIS FED. AID PROJECT				

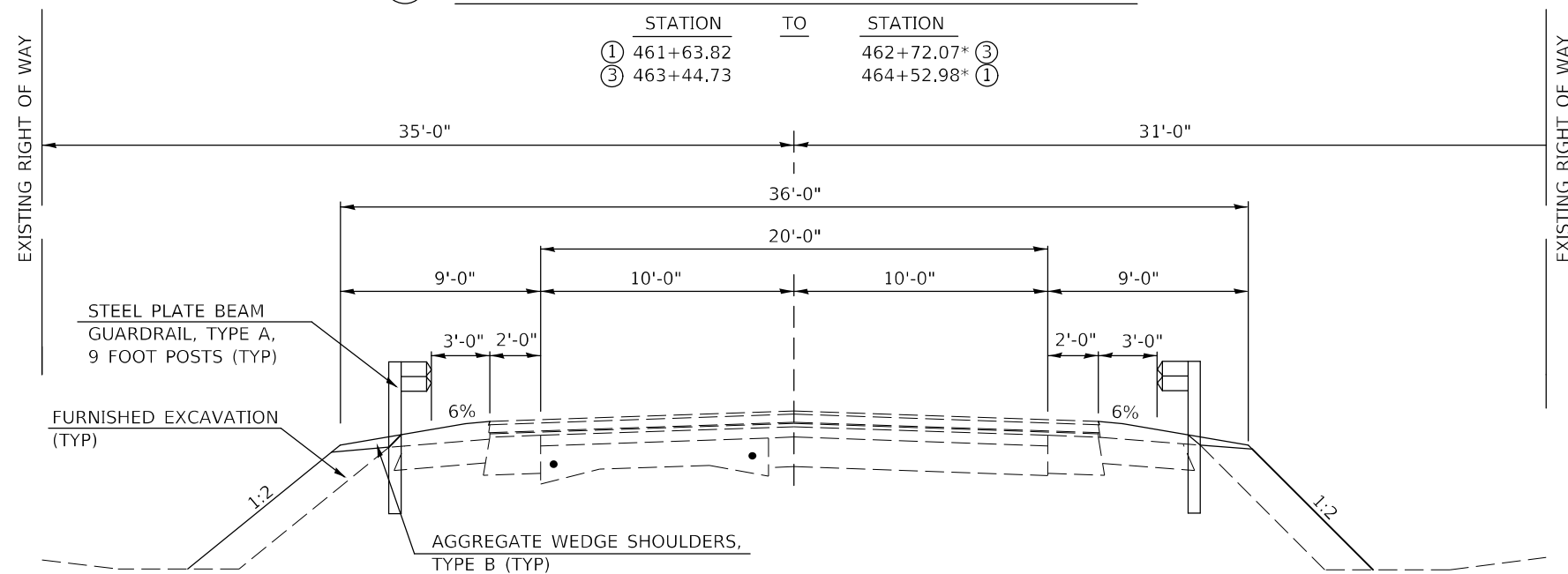
(B) EXISTING TYPICAL CROSS SECTION



*NOTE: 9 FT AGG WEDGE SHOULDER WIDTH

LT: STA 464+04.15 TO STA 464+39.15
 RT: STA 461+77.65 TO STA 462+12.65
 STA 464+54.15 TO STA 464+89.15

(2) PROPOSED TYPICAL CROSS SECTION



NOTE: NOT DRAWN TO SCALE

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DRAWN -		REVISD -	
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PLOT DATE =	8/9/2022	DATE -	REVISD -

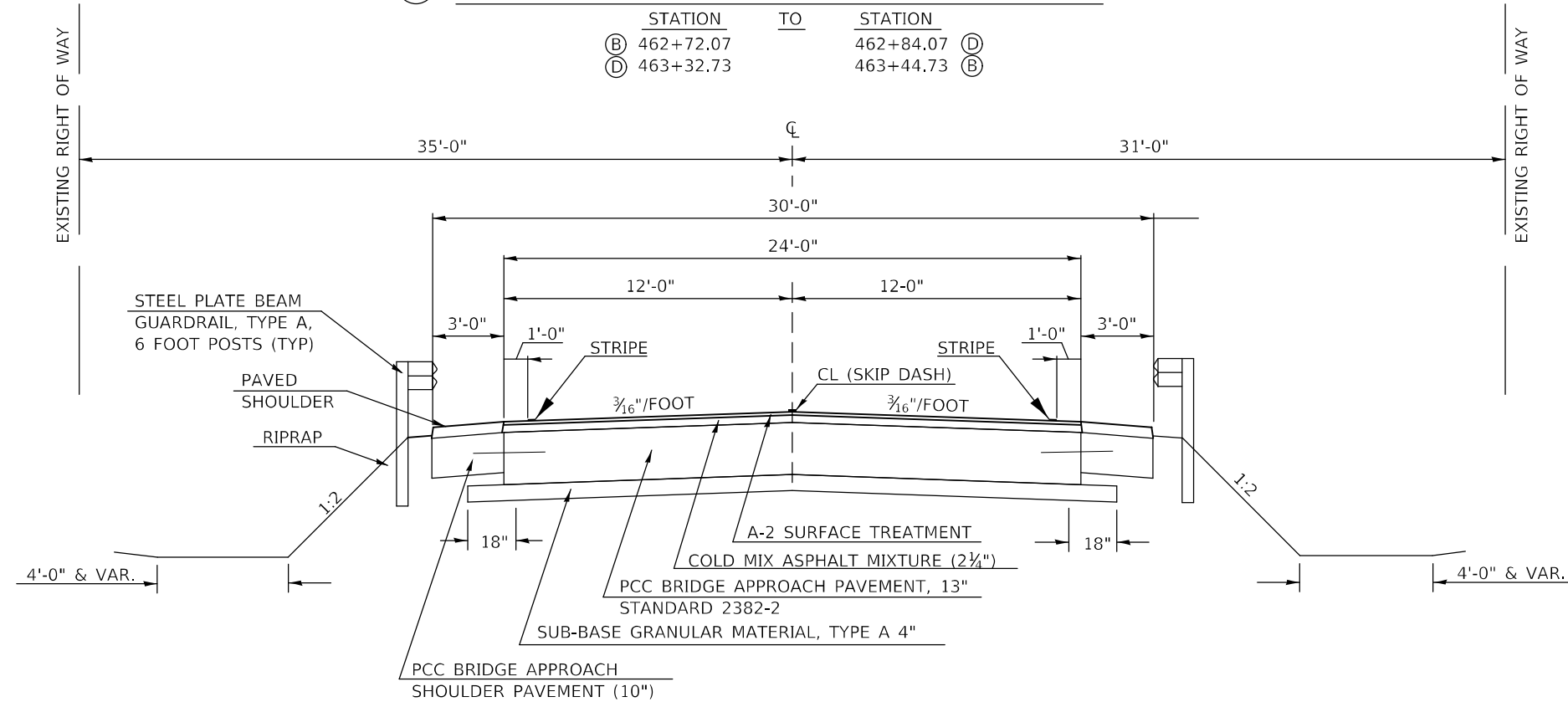
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TYPICAL CROSS SECTIONS

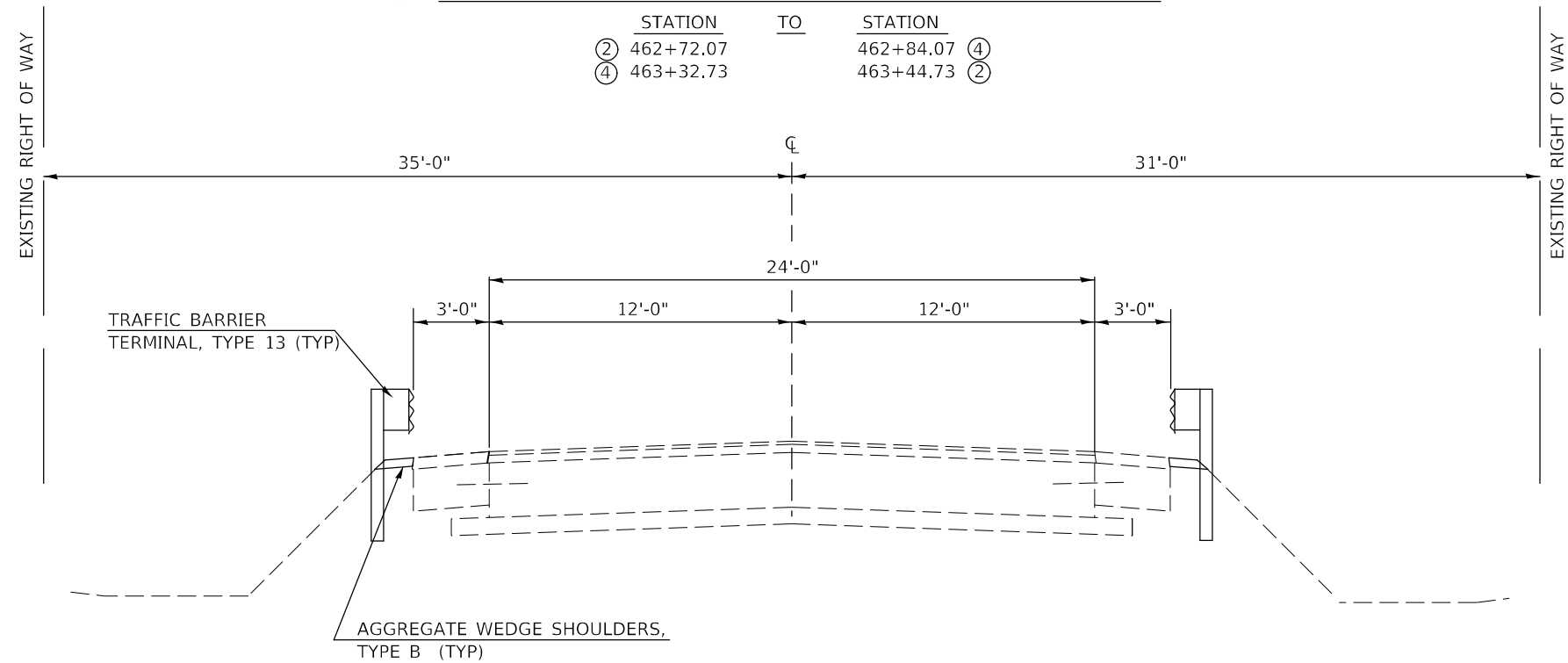
SCALE: 1 SHEET 2 OF 4 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	54BR-2	CHAMPAIGN	36	7
CONTRACT NO. 70604			ILLINOIS FED. AID PROJECT	

C EXISTING TYPICAL CROSS SECTION



3 PROPOSED TYPICAL CROSS SECTION



NOTE: NOT DRAWN TO SCALE

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	DRAWN -	REVISED -
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PLOT DATE = 8/9/2022	DATE -	REVISED -

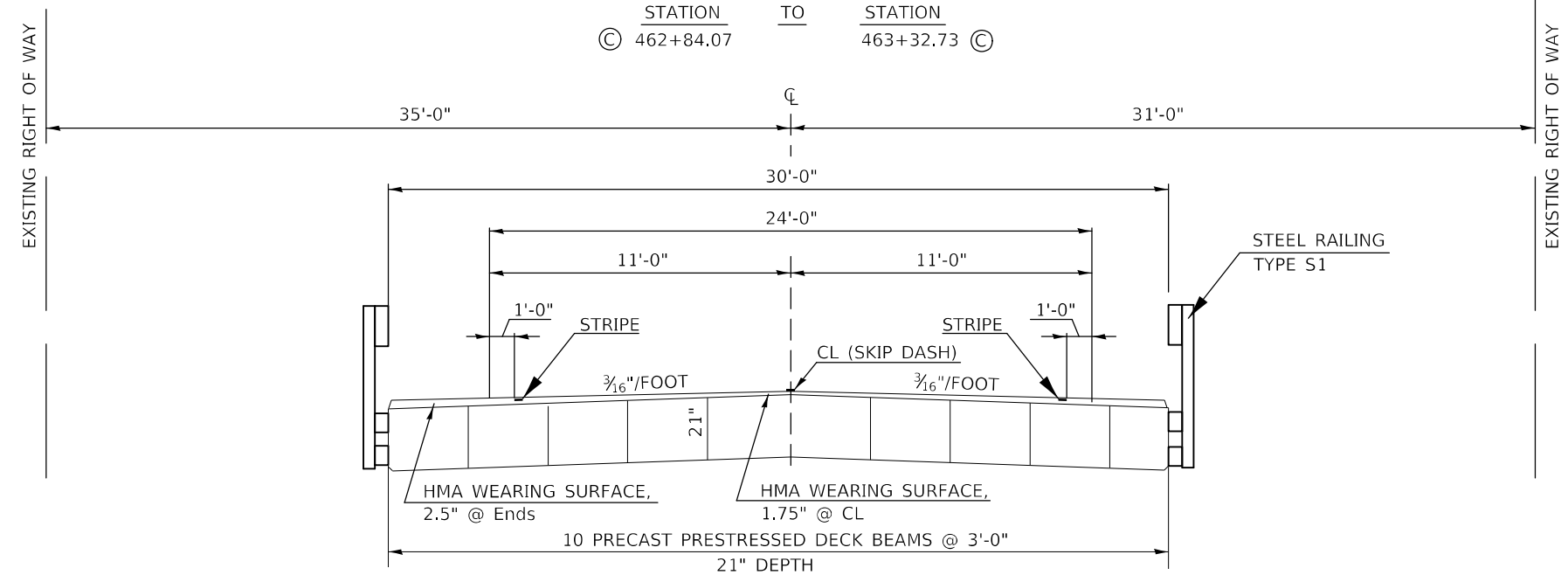
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

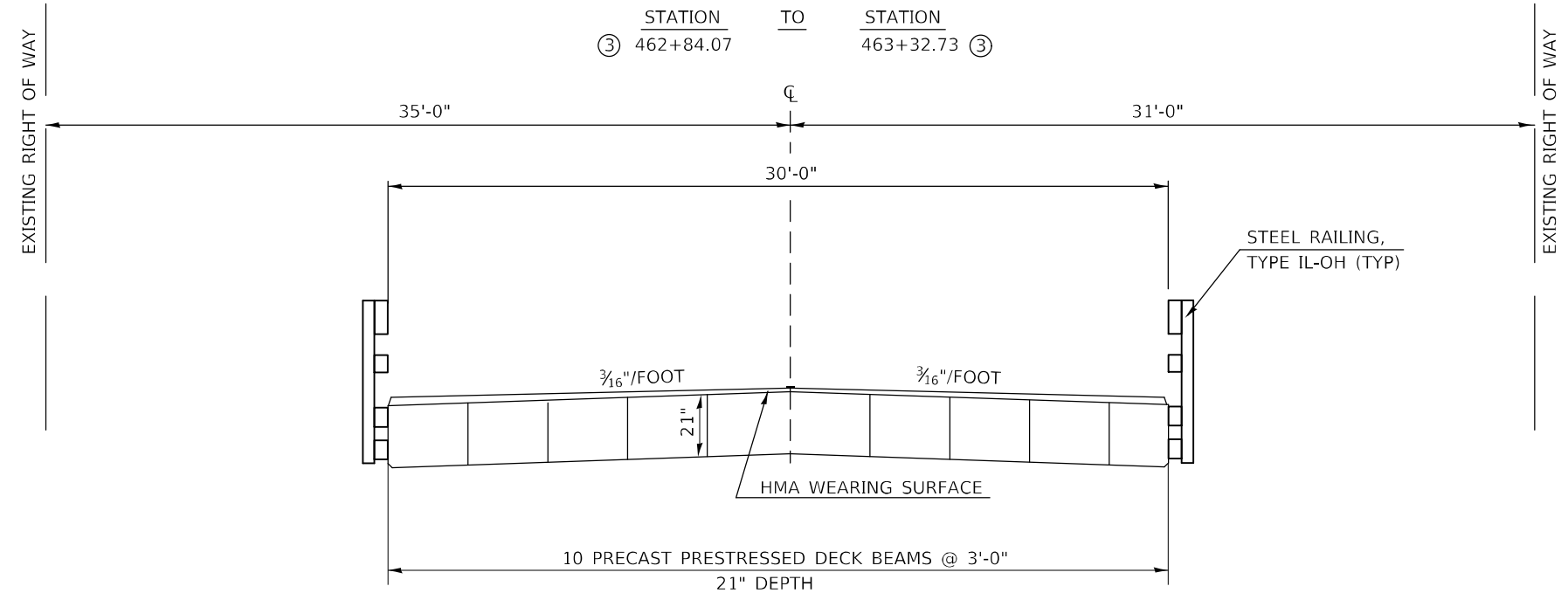
SCALE: 1 SHEET 3 OF 4 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	54BR-2	CHAMPAIGN	36	8
CONTRACT NO. 70604				
ILLINOIS FED. AID PROJECT				

D EXISTING TYPICAL CROSS SECTION



4 PROPOSED TYPICAL CROSS SECTION



NOTE: NOT DRAWN TO SCALE

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USER NAME = Rafael.Morjordin	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40,080195' / in.	CHECKED -	REVISED -
PLOT DATE = 8/9/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

SCALE: 1 SHEET 4 OF 4 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	54BR-2	CHAMPAIGN	36	9
CONTRACT NO. 70604				
ILLINOIS FED. AID PROJECT				

SCHEDULES OF QUANTITIES

GUARDRAIL SCHEDULE

LOCATION	DIRECTION	DESCRIPTION	63000003				63100117				50900211				63100167				63200310	78200005	72501000								
			STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS				TRAFFIC BARRIER TERMINAL, TYPE 13				STEEL RAILING, TYPE IL-OH				TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT				GUARDRAIL REMOVAL	GUARDRAIL REFLECTORS, TYPE A	TERMINAL MARKER- DIRECT APPLIED								
			STATION	TO	STATION	FOOT	STATION	TO	STATION	EACH	STATION	TO	STATION	FOOT	STATION	TO	STATION	EACH	FOOT	EACH	EACH								
SN 010-0255 CL STA 463+08.40	NB	NB APPROACH	464+29.15	TO	463+66.65	62.50			463+66.65	TO	463+37.65	1.0			463+37.65	TO	462+79.15	58.5			464+79.15	TO	464+29.15	1.0	150.00	4	1.0		
		NB DEPARTURE	462+37.65	TO	462+50.15	12.50			462+79.15	TO	462+50.15	1.0						462+37.65	TO	461+87.65	1.0			461+87.65	TO	461+87.65	1.0	100.00	
	SB	SB APPROACH	461+87.65	TO	462+50.15	62.50			462+50.15	TO	462+79.15	1.0			462+79.15	TO	463+37.65	58.5			461+37.65	TO	461+87.65	1.0	162.50		1.0		
		SB DEPARTURE	463+66.65	TO	463+79.15	12.50			463+37.65	TO	463+66.65	1.0									463+79.15	TO	464+29.15	1.0	100.00	4	1.0		
TOTAL FAS 522:						150.00						4.0												4.0	512.50	8	4.0		
ROUNDED TOTAL:						150.00						4.0												4.0	513.00	8	4.0		

NOTES:

SN 010-0255 LON = 259.3, L1= 128.8, L2= 50.5, L3=80.0

FURNISHED EXCAVATION SCHEDULE

DIRECTION	STATION	TO	STATION	20400800	
				FURNISHED EXCAVATION*	CU YD
SOUTHBOUND	461+03.65		462+72.07		18.2
SOUTHBOUND	463+44.73		464+39.15		15.5
NORTHBOUND	464+39.15		463+44.73		3.9
NORTHBOUND	462+72.07		461+53.65		12.0
				TOTAL:	49.6
				ROUNDED TOTAL:	50.0

*MEASURED IN CADD

BRIDGE RAIL REMOVAL SCHEDULE

DIRECTION	STATION	TO	STATION	50104000	
				BRIDGE RAIL REMOVAL	FOOT
NORTHBOUND	463+33.65		462+83.15		50.5
SOUTHBOUND	462+83.15		463+33.65		50.5
				TOTAL:	101.0
				ROUNDED TOTAL:	101.0

SEEDING SCHEDULE

DIRECTION	STATION	TO	STATION	AREA TO BE SEEDED* WITH CLASS 2A SQ FT	25000210				25000400				25000500				25000600			
					SEEDING, CLASS 2A				NITROGEN FERTILIZER NUTRIENT				PHOSPOROUS FERTILIZER NUTRIENT				POTASSIUM FERTILIZER NUTRIENT			
					ACRE	POUND	POUND	POUND	POUND	POUND	POUND	POUND								
SOUTHBOUND	461+03.65		461+87.65	1,039.79	0.02	2.1	2.1	2.1	2.1											
SOUTHBOUND	463+79.15		464+63.15	1,053.37	0.02	2.2	2.2	2.2	2.2											
NORTHBOUND	464+29.15		465+13.15	1,106.63	0.03	2.3	2.3	2.3	2.3											
NORTHBOUND	462+37.65		461+53.65	1,098.04	0.03	2.3	2.3	2.3	2.3											
				TOTAL:	4,297.83	0.10	8.9	8.9	8.9	8.9										
				USE:**	0.25	22.5	22.5	22.5	22.5											

*MEASURED FROM CADD

** USE MINIMUM PER BDE 64-1.04

TEMPORARY EROSION CONTROL SEEDING & BLANKET SCHEDULE

DIRECTION	STATION	TO	STATION	AREA TO BE SEEDED WITH TEMP EROSION CONTROL SEEDING* ACRE	28000250		25100630	
					TEMPORARY EROSION CONTROL SEEDING *** POUND		EROSION CONTROL BLANKET* SQ YD	
					SOUTHBOUND	461+03.65		461+87.65
SOUTHBOUND	463+79.15		464+63.15	0.02	4.00	117.04		
NORTHBOUND	464+29.15		465+13.15	0.03	6.00	122.96		
NORTHBOUND	462+37.65		461+53.65	0.03	6.00	122.00		
				TOTAL:	0.10	20.00	477.54	
				USE:**	0.25	50.00	478.00	

*MEASURED FROM CADD

** USE MINIMUM PER BDE 64-1.04

***100 LB/ACRE @ 2 APPLICATION

AGGREGATE WEDGE SHOULDER, TYPE B, SCHEDULE

DIRECTION	STATION	TO	STATION	CU YD	48102100	
					AGGREGATE WEDGE SHOULDERS, TYPE B	TON
Southbound	461+03.65		462+72.07	8.0	14.3	
Southbound	463+44.73		464+63.15	8.5	15.3	
Northbound	465+13.15		463+44.73	7.5	13.5	
Northbound	462+72.07		461+53.65	6.7	12.1	
				TOTAL:	30.7	55.2
				ROUNDED TOTAL:		56.0

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USER NAME = Rafael.Morjardin	DESIGNED -	REVISED -
DRAWN -	REVISOR -	
PLOT SCALE = 40.0124' / 1 in.	CHECKED -	REVISED -
PLOT DATE = 8/9/2022	DATE -	REVISED -

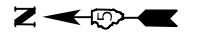
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCHEDULES OF QUANTITIES

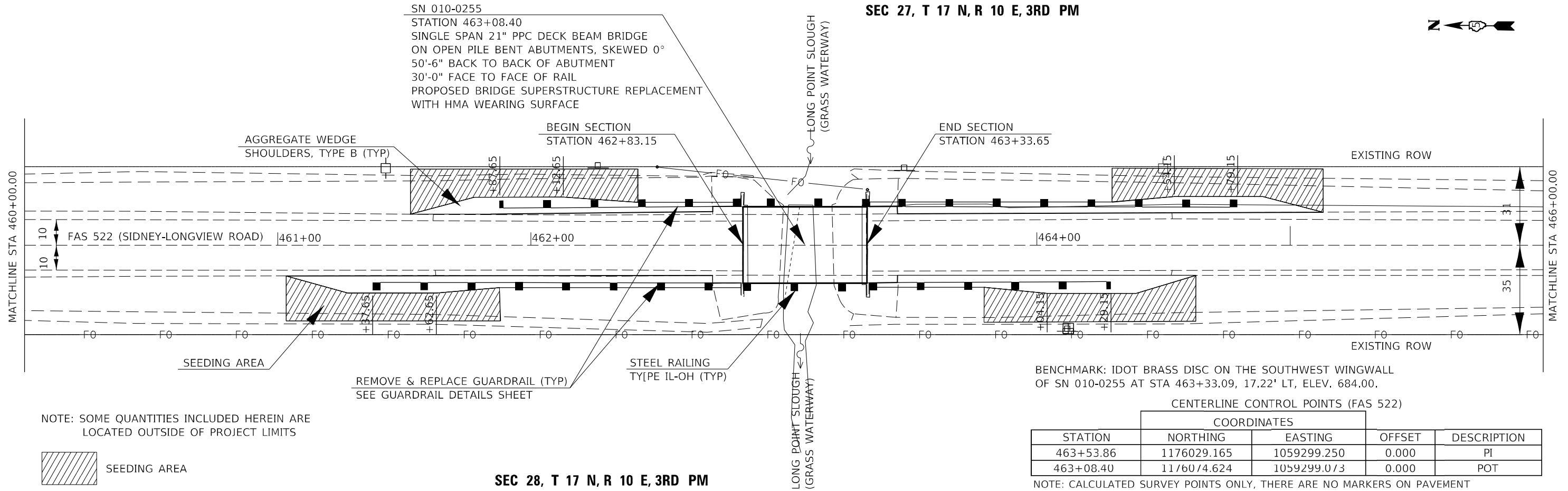
SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	54BR-2	CHAMPAIGN	36	10
CONTRACT NO. 70604				
ILLINOIS FED. AID PROJECT				

SEC 27, T 17 N, R 10 E, 3RD PM



PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNMENT CHECKED	
	NOTE BOOK NO.	
	FILE NAME	



NOTE: SOME QUANTITIES INCLUDED HEREIN ARE LOCATED OUTSIDE OF PROJECT LIMITS



BENCHMARK: IDOT BRASS DISC ON THE SOUTHWEST WINGWALL OF SN 010-0255 AT STA 463+33.09, 17.22' LT, ELEV. 684.00.

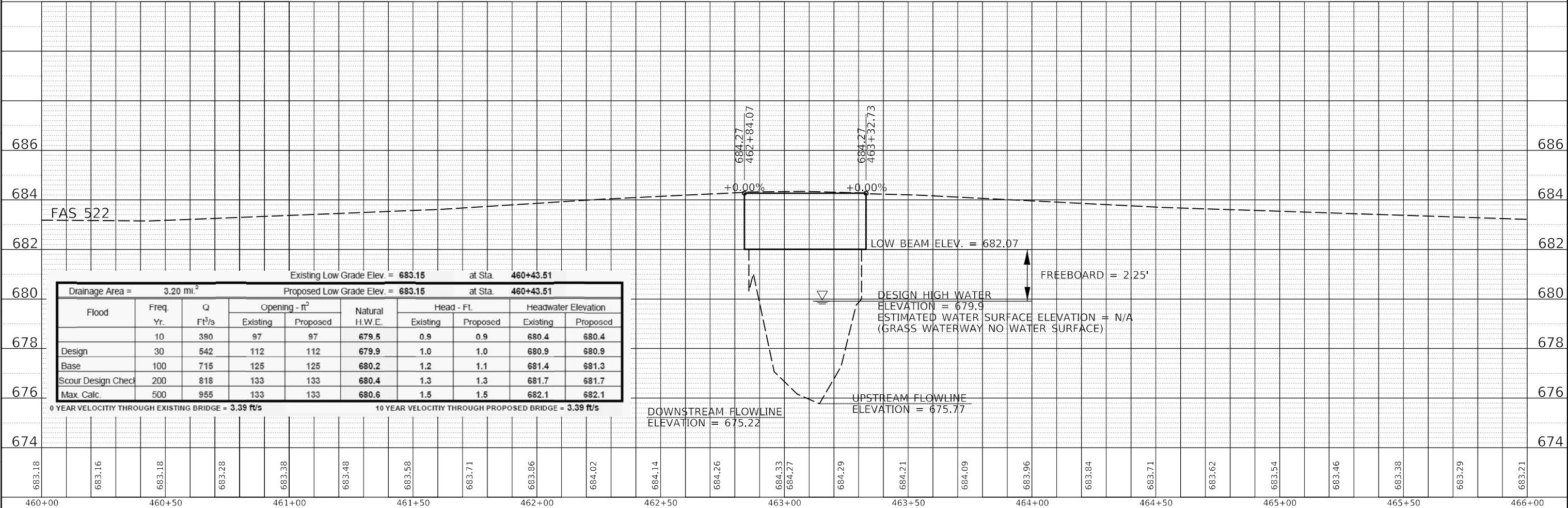
CENTERLINE CONTROL POINTS (FAS 522)

STATION	COORDINATES		OFFSET	DESCRIPTION
	NORTHING	EASTING		
463+53.86	1176029.165	1059299.250	0.000	PI
463+08.40	117604.624	1059299.073	0.000	POT

NOTE: CALCULATED SURVEY POINTS ONLY, THERE ARE NO MARKERS ON PAVEMENT

SEC 28, T 17 N, R 10 E, 3RD PM

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	NOTE BOOK NO.	
	STRUCTURE NOTATION	



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE SHEET
SN 010-0255

USER NAME = Rafael.Morjardin	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.021971' / in.	CHECKED -	REVISED -
PLOT DATE = 8/9/2022	DATE -	REVISED -

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

F.A.S. RTE. 522	SECTION 54BR-2	COUNTY CHAMPAIGN	TOTAL SHEETS 36	SHEET NO. 11
CONTRACT NO. 70604			ILLINOIS FED. AID PROJECT	

Benchmark: IDOT brass disc on the southwest wingwall of structure number 010-0255 at Sta. 463+33.09, 17.22' Lt. Elev. 684.00.

Existing Structure: SN 010-0255 was constructed in 1988 under F.A.S. Route 522, Section 41BR-2 at Sta. 463+08.40. The existing structure consists of a single-span PPC deck beam superstructure on open abutments with concrete piles. The back-to-back of abutment length is 50'-6" and out-to-out width of 30'-0". The existing superstructure is to be removed and replaced. Traffic to be detoured during construction.

No salvage.

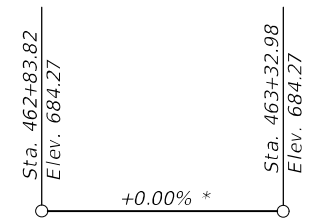
DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

LOADING HL-93

Allow 25#/sq. ft. for future wearing surface

* PG may be modified in the field to maintain the minimum wearing surface thickness.



PROFILE GRADE
(Along \bar{C} Sidney Longview Road)

GENERAL NOTES

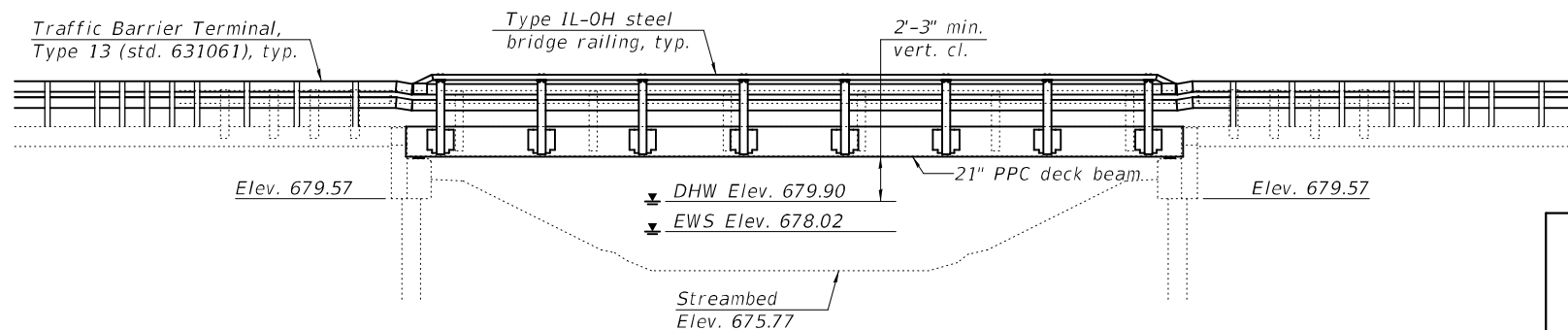
Reinforcement bars designated (E) shall be epoxy coated.
Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to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

The Contractor is advised that the existing PPC deck beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for the removal and replacement of the superstructure.

Repair of abutment caps shall be completed prior to placement of new deck beams.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Hot-Mix Asphalt Surface Course, IL-9.5, Mix "C", N50	Ton	14.1		14.1
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu. Yd.		0.4	0.4
Concrete Structures	Cu. Yd.		0.4	0.4
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1460		1460
Reinforcement Bars, Epoxy Coated	Pound		30	30
Steel Railing, Type IL-0H	Foot	117		117
Name Plates	Each	1		1
Waterproofing Membrane System	Sq. Yd.	164		164
Portland Cement Mortar Fairing Course	Foot	438		438
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.		16.0	16.0



STATION 463+08.40
RE-BUILT 20 BY
STATE OF ILLINOIS
F.A.S. RTE. 522 SEC 54BR-2
LOADING HL-93
STRUCTURE NO. 010-0255

NAME PLATE

Existing name plate shall be cleaned and relocated next to new name plate. Cost included with Name plates. See Std. 515001

WATERWAY INFORMATION

Drainage Area = 3.20 sq. mi. Proposed Low Grade Elev. = 683.15 at Sta. 460+43.51
Existing Low Grade Elev. = 683.15 at Sta. 460+43.51

Flood	Freq. Yr.	Q C.F.S.	Opening Ft ²		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	390	97	97	679.5	0.9	0.9	680.4	680.4
Base	30	542	112	112	679.9	1.0	1.0	680.9	680.9
Scour Design Check	100	715	125	125	680.2	1.2	1.1	681.4	681.3
Max. Calc.	200	818	133	133	680.4	1.3	1.3	681.7	681.7
	500	955	133	133	680.6	1.5	1.5	682.1	682.1

10 year velocity through existing bridge = 3.39 ft/s
10 year velocity through proposed bridge = 3.39 ft/s

DESIGN STRESSES

FIELD & EXISTING UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

PRECAST PRESTRESSED UNITS

$f'_c = 6,000$ psi
 $f'_{ci} = 5,000$ psi
 $f_{pu} = 270,000$ psi ($\frac{1}{2}$ " low lax strands)
 $f_{pbt} = 201,960$ psi ($\frac{1}{2}$ " low lax strands)

DESIGN SCOUR ELEVATION TABLE

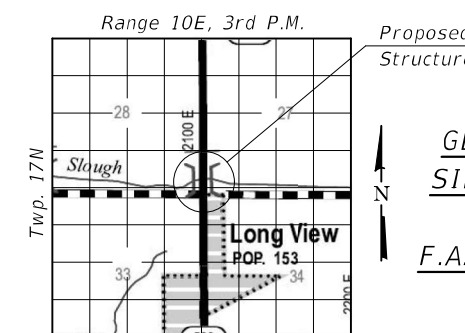
Design Scour Elevation (ft.)		
N. Abut.	S. Abut.	Item 113
679.57	679.57	8

SEISMIC DATA

Seismic Performance Category (SPC) = A
Horizontal Bedrock Acceleration Coefficient (A) = .048g
Site Coefficient (S) = 1.5

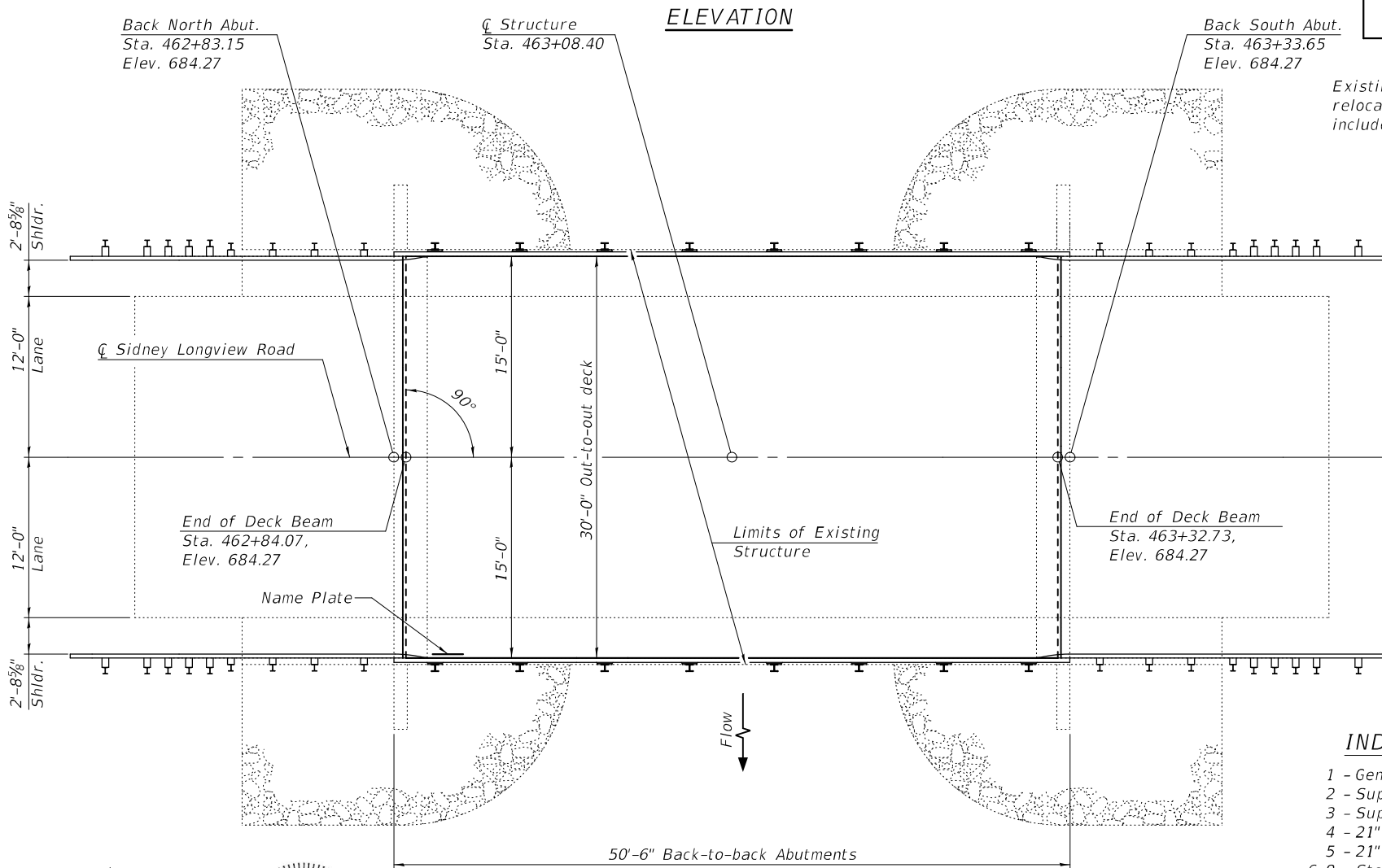
INDEX OF SHEETS

- 1 - General Plan & Elevation
- 2 - Superstructure
- 3 - Superstructure Details
- 4 - 21" x 36" PCC Deck Beam
- 5 - 21" x 36" PCC Deck Beam Details
- 6-9 - Steel Railings, Type IL-0H
- 10 - North Abutment Removal and Repairs
- 11 - South Abutment Removal and Repairs
- 12 - Wingwall Details



LOCATION SKETCH

GENERAL PLAN & ELEVATION
SIDNEY LONGVIEW ROAD OVER
LONG POINT SLOUGH
F.A.S. ROUTE 522 - SEC 54BR-2
CHAMPAIGN COUNTY
STA. 463+08.40
STRUCTURE NO. 010-0255



PLAN



EXPIRES 11-30-2024

DESIGNED - RYAN P. NEGANGARD	EXAMINED - Jayme F. Schiff	DATE - 10-11-2022
CHECKED - TIFFANY L. MEIER	PASSED - Jayme F. Schiff	REVISIONS -
DRAWN - ALAN JOHNSTONE		
CHECKED - R.P.N. / T.L.M. / G.R.A.		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

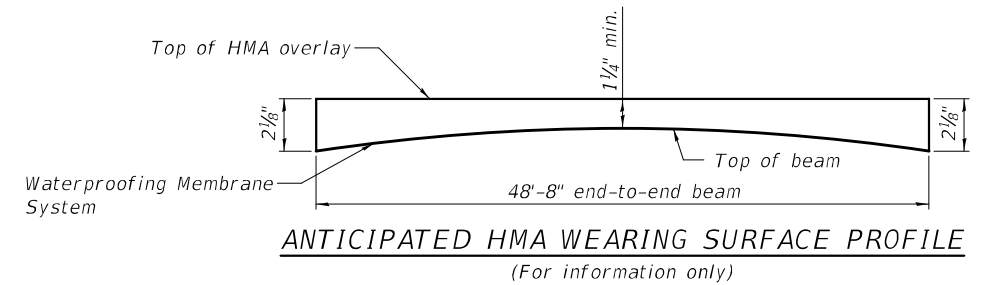
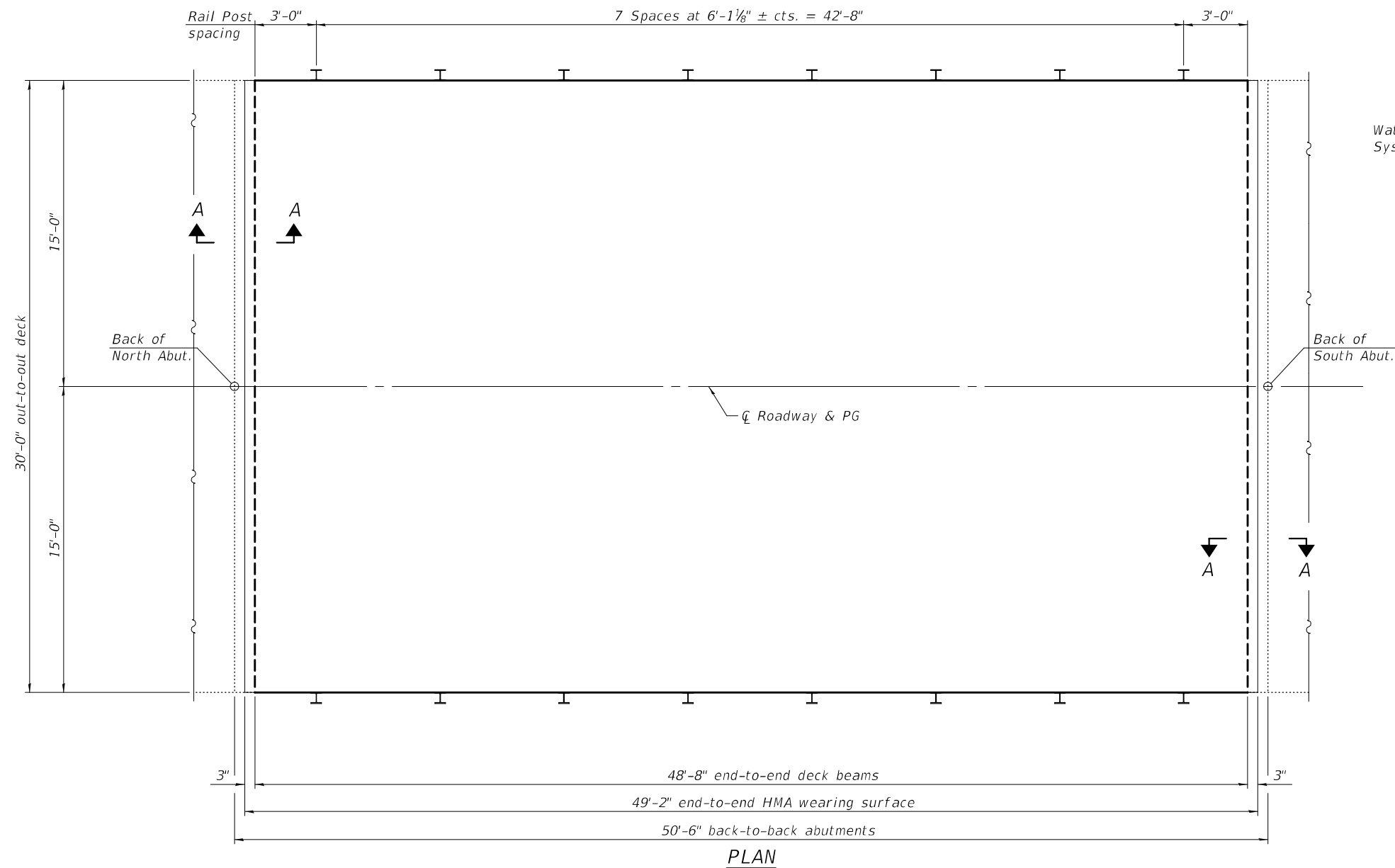
SHEET 1 OF 12 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	54BR-2	CHAMPAIGN	36	13
CONTRACT NO. 70604				

ILLINOIS FED. AID PROJECT

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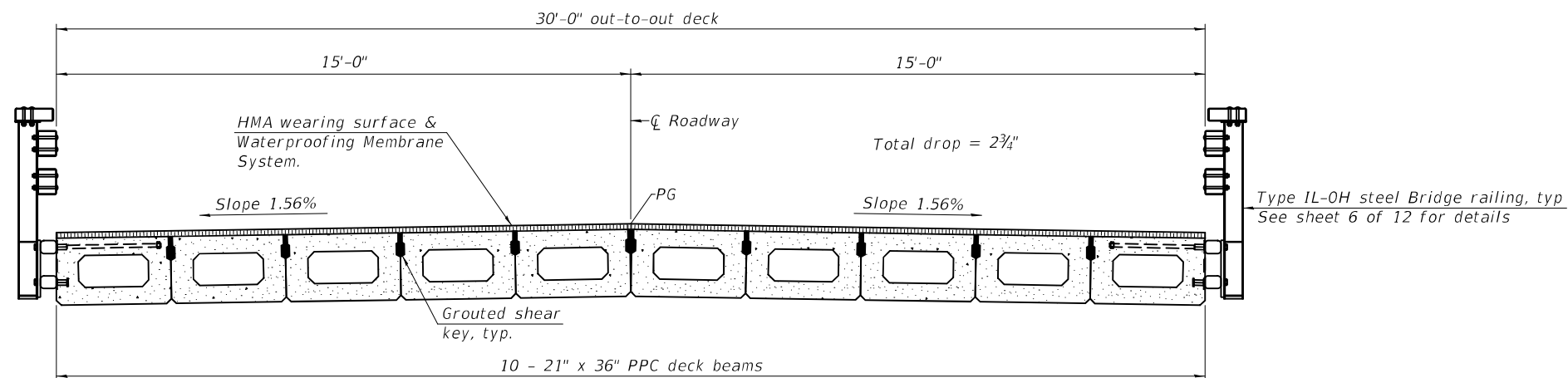
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Notes:
See sheet 5 of 12 for fabric bearing pad details.
See sheet 3 of 12 for section A-A and superstructure details

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Hot-Mix Asphalt Surface Course, IL-9.5, Mix "C", N50	Ton	14.1



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DESIGNED - RYAN P. NEGANGARD
CHECKED - TIFFANY L. MEIER
DRAWN - ALAN JOHNSTONE
CHECKED - R.P.N. / T.L.M. / G.R.A.

EXAMINED
PASSED

Jaime F. [Signature]
ENGINEER OF BRIDGE DESIGN

Jaime F. [Signature]
ENGINEER OF BRIDGES AND STRUCTURES

DATE - OCTOBER 11, 2022
REVISED -
REVISED -

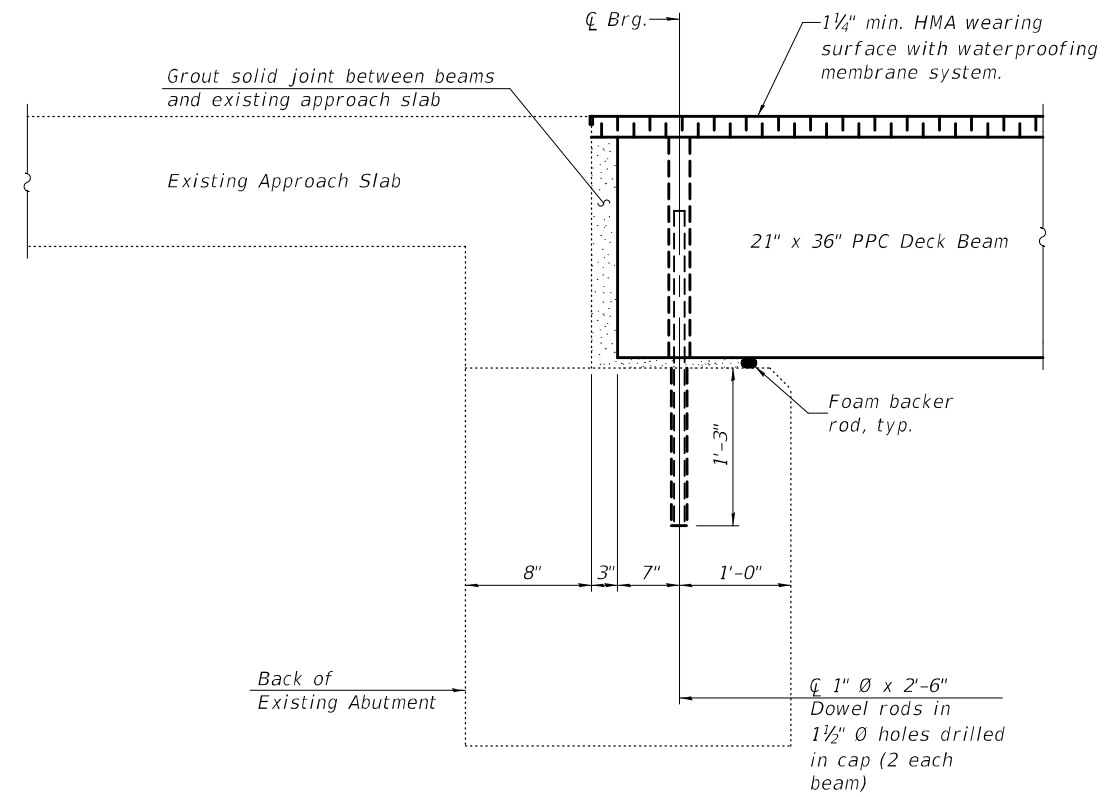
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO. 010 - 0255

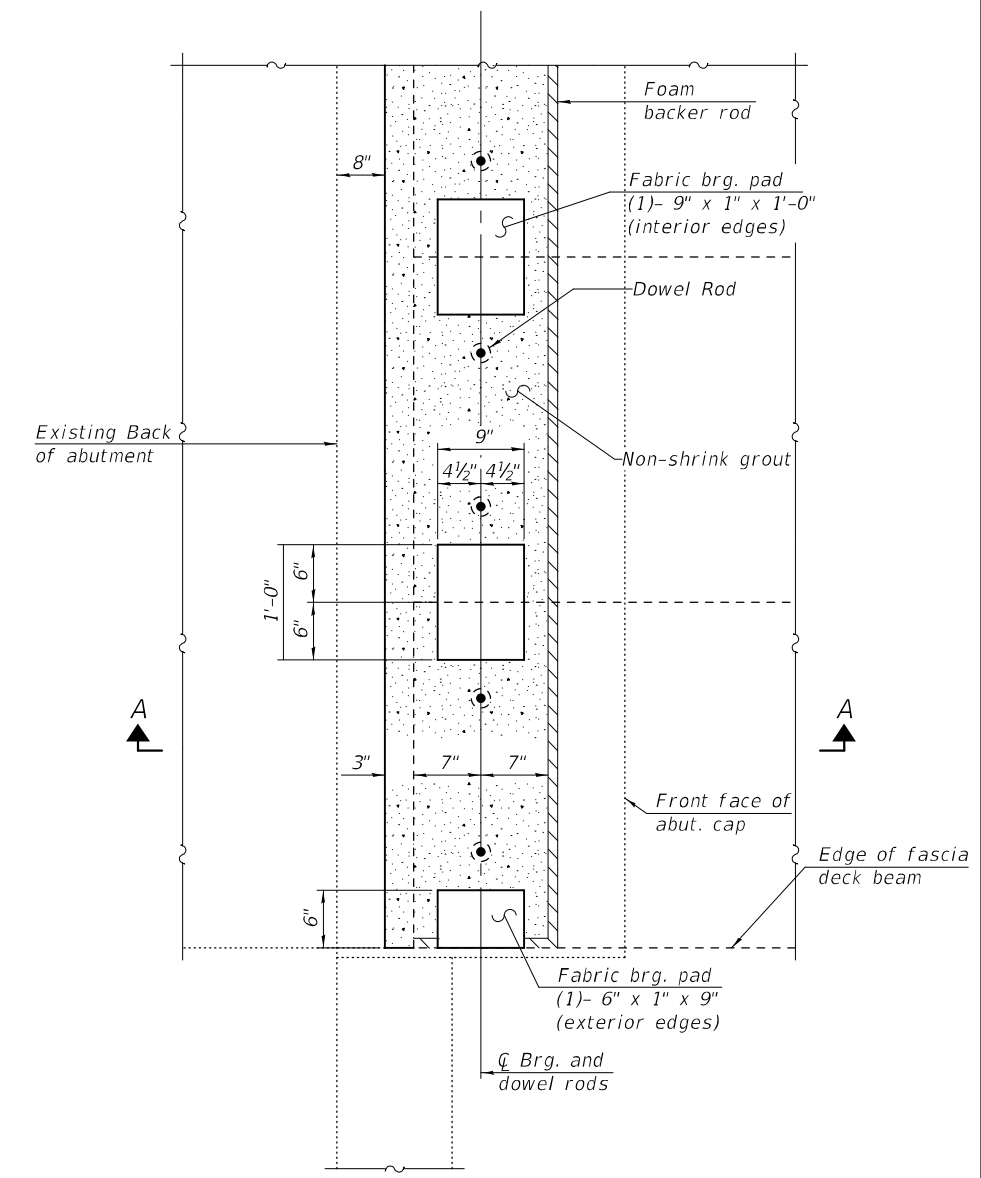
SHEET 2 OF 12 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	54BR-2	CHAMPAIGN	36	14
CONTRACT NO. 70604				
ILLINOIS FED. AID PROJECT				

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SECTION A-A



PLAN

Notes:
 The bearing seat surfaces shall be adjusted by shimming the bearing to assure firm and even bearing prior to placement of grout. 2-1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shown shall be provided for each bearing.
 Burn existing dowel rods flush with existing concrete surfaces. Grind existing dowel rod smooth and seal with epoxy. Cost included with Removal of Existing Superstructures.
 All non-shrink grout is included in the cost of PPC Deck Beams.

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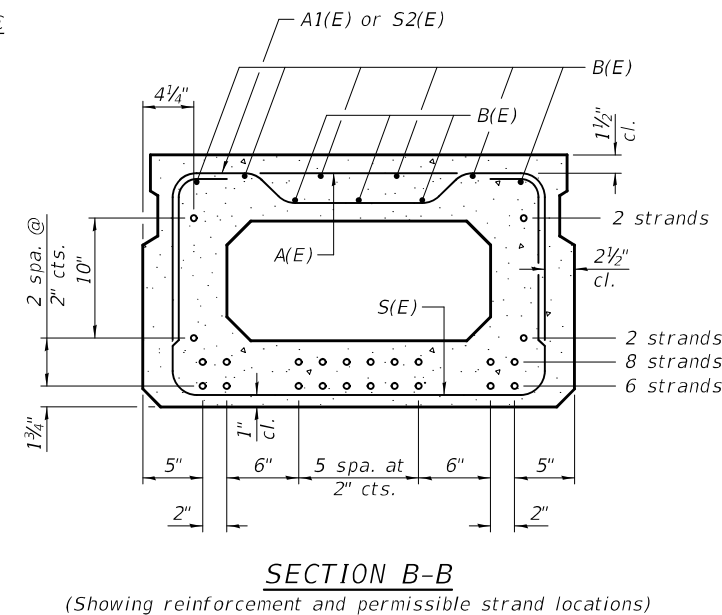
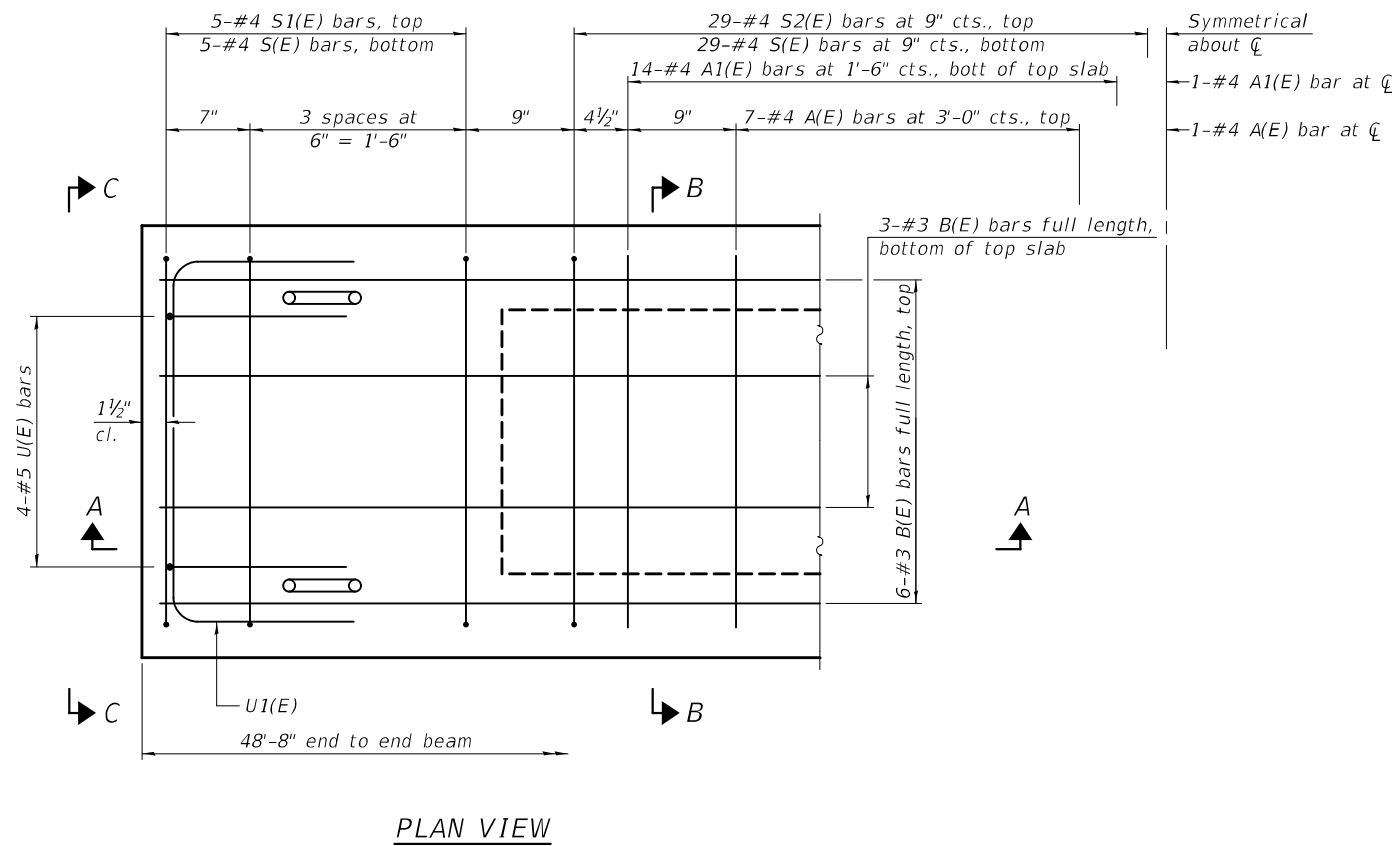
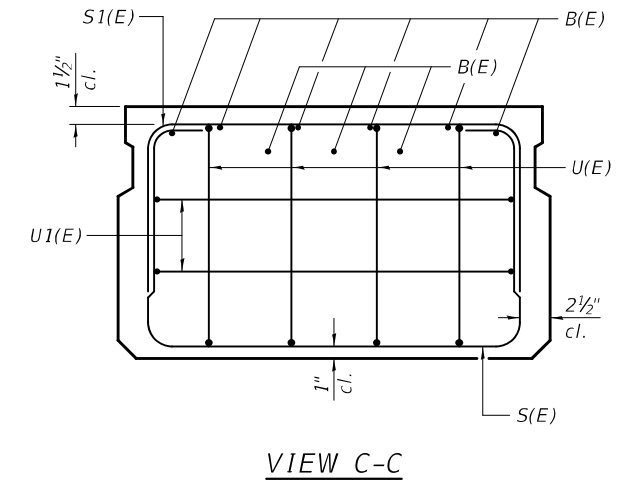
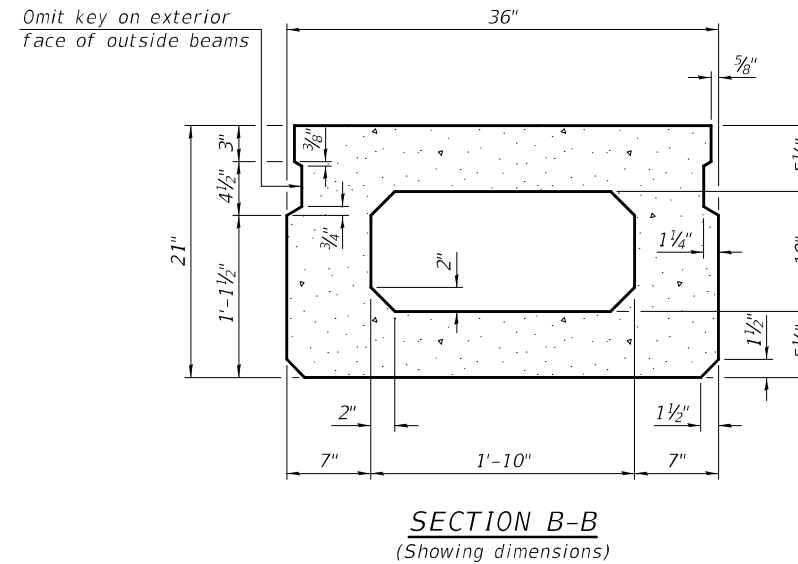
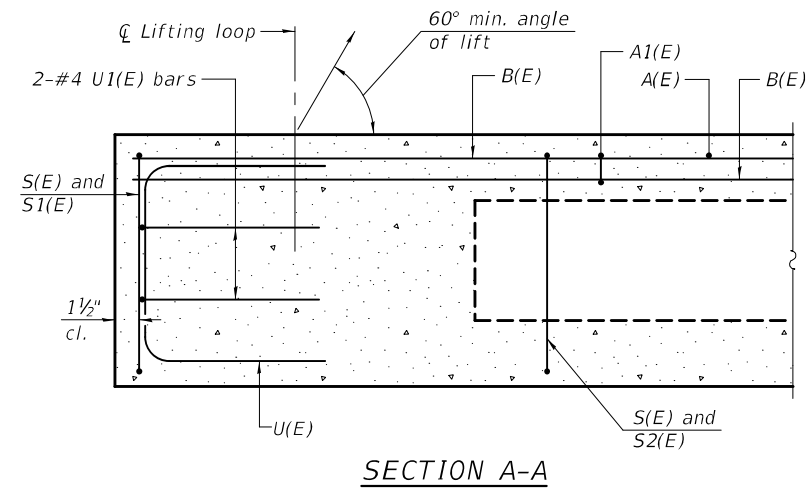
DESIGNED - RYAN P. NEGANGARD	EXAMINED - <i>Jaime F. [Signature]</i>	DATE - OCTOBER 11, 2022
CHECKED - TIFFANY L. MEIER	PASSED - <i>Jaime F. [Signature]</i>	REVISED -
DRAWN - ALAN JOHNSTONE		REVISED -
CHECKED - R.P.N. / T.L.M. / G.R.A.		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 010 - 0255

SHEET 3 OF 12 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	54BR-2	CHAMPAIGN	36	15
CONTRACT NO. 70604				
ILLINOIS		FED. AID PROJECT		



SECTION B-B
(Showing reinforcement and permissible strand locations)
Note:
Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

MINIMUM BAR LAP
#3 bar = 1'-6"

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	15	#4	2'-7"	—
A1(E)	29	#4	2'-10"	—
B(E)	18	#3	25'-0"	—
S(E)	68	#4	6'-5"	U
S1(E)	10	#4	4'-11"	U
S2(E)	58	#4	5'-2"	U
U(E)	8	#5	4'-0"	C
U1(E)	4	#4	5'-0"	C

Note:
See sheet 5 of 12 for additional details and Bill of Material.

Note:
Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

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PD-2136-0 1-1-2020

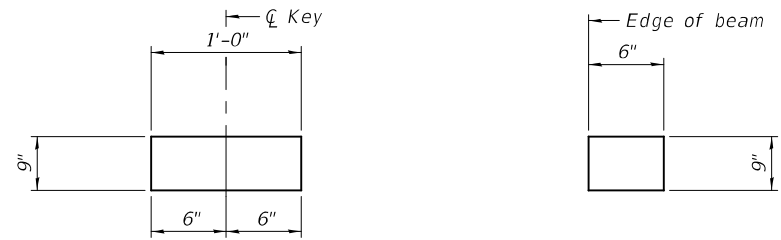
DESIGNED - RYAN P. NEGANGARD	EXAMINED - <i>Jaime F. [Signature]</i>	DATE - OCTOBER 11, 2022
CHECKED - TIFFANY L. MEIER	PASSED - <i>Jaime F. [Signature]</i>	REVISER -
DRAWN - ALAN JOHNSTONE	ENGINEER OF BRIDGES AND STRUCTURES	REVISER -
CHECKED - R.P.N. / T.L.M. / G.R.A.		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

21" X 36" PCC DECK BEAM
STRUCTURE NO. 010 - 0255

SHEET 4 OF 12 SHEETS

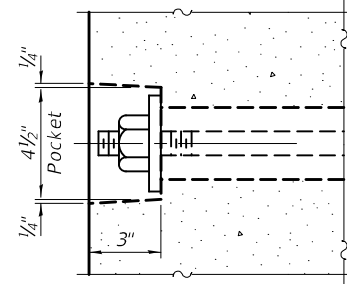
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	54BR-2	CHAMPAIGN	36	16
CONTRACT NO. 70604				
ILLINOIS FED. AID PROJECT				



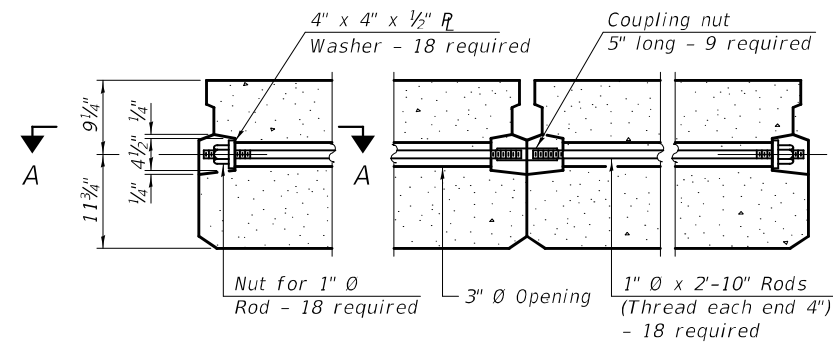
FABRIC BEARING PAD
(Interior) **FABRIC BEARING PAD**
(Exterior)

FIXED

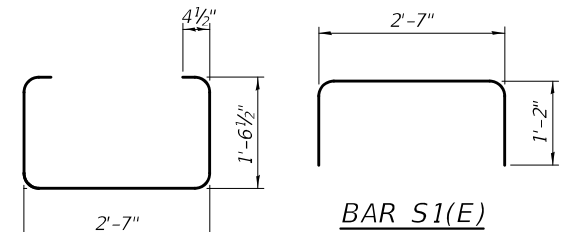
Note:
All bearing pads shall be 1" thick.



SECTION A-A

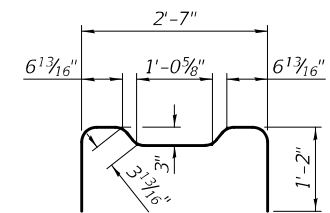


TYPICAL TRANSVERSE TIE ASSEMBLY



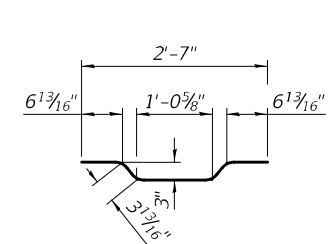
BAR S1(E)

BAR S(E)



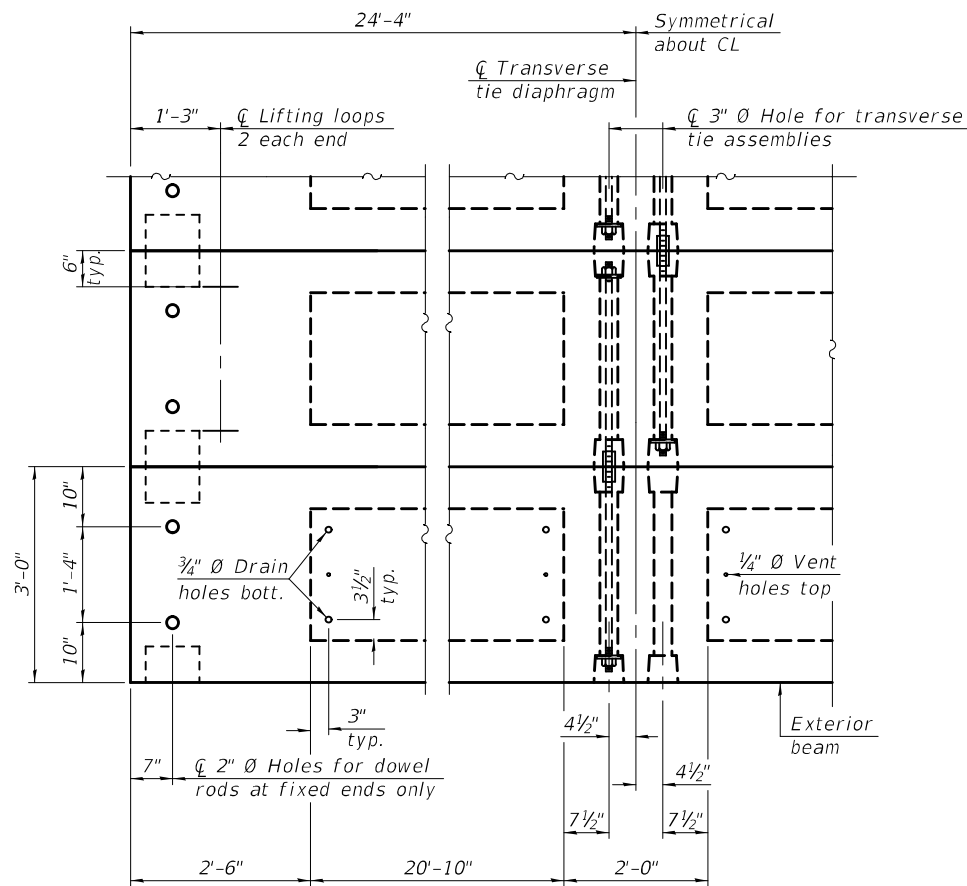
BAR U(E)

BAR S2(E)



BAR U1(E)

BAR A1(E)

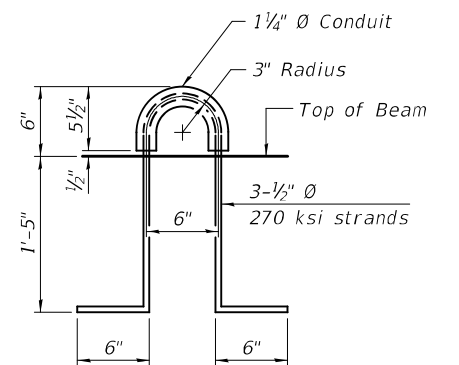


PLAN VIEW

Note:
Connect beams in pairs with the transverse tie configuration shown.

NOTES

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.
- For rail post spacing, see sheet 2 of 12.
- For railing and anchorage details, see sheets 6 thru 9 of 12.



LIFTING LOOP DETAIL

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft. 1,460
-------------------------------------------------	---------------

MODEL: 0100255-70604-005
FILE NAME: p:\w\p-w\benley.com\FWIDOT\Documents\DOT Offices\Bureau of Bridges and Structures\Projects\0100255\CADD Plans\0100255-70604.dgn

DESIGNED - RYAN P. NEGANGARD	EXAMINED - <i>Jaime F. Joffe</i>	DATE - OCTOBER 11, 2022
CHECKED - TIFFANY L. MEIER	PASSED - <i>Jaime F. Joffe</i>	REVISOR -
DRAWN - ALAN JOHNSTONE		REVISION -
CHECKED - R.P.N. / T.L.M. / G.R.A.		

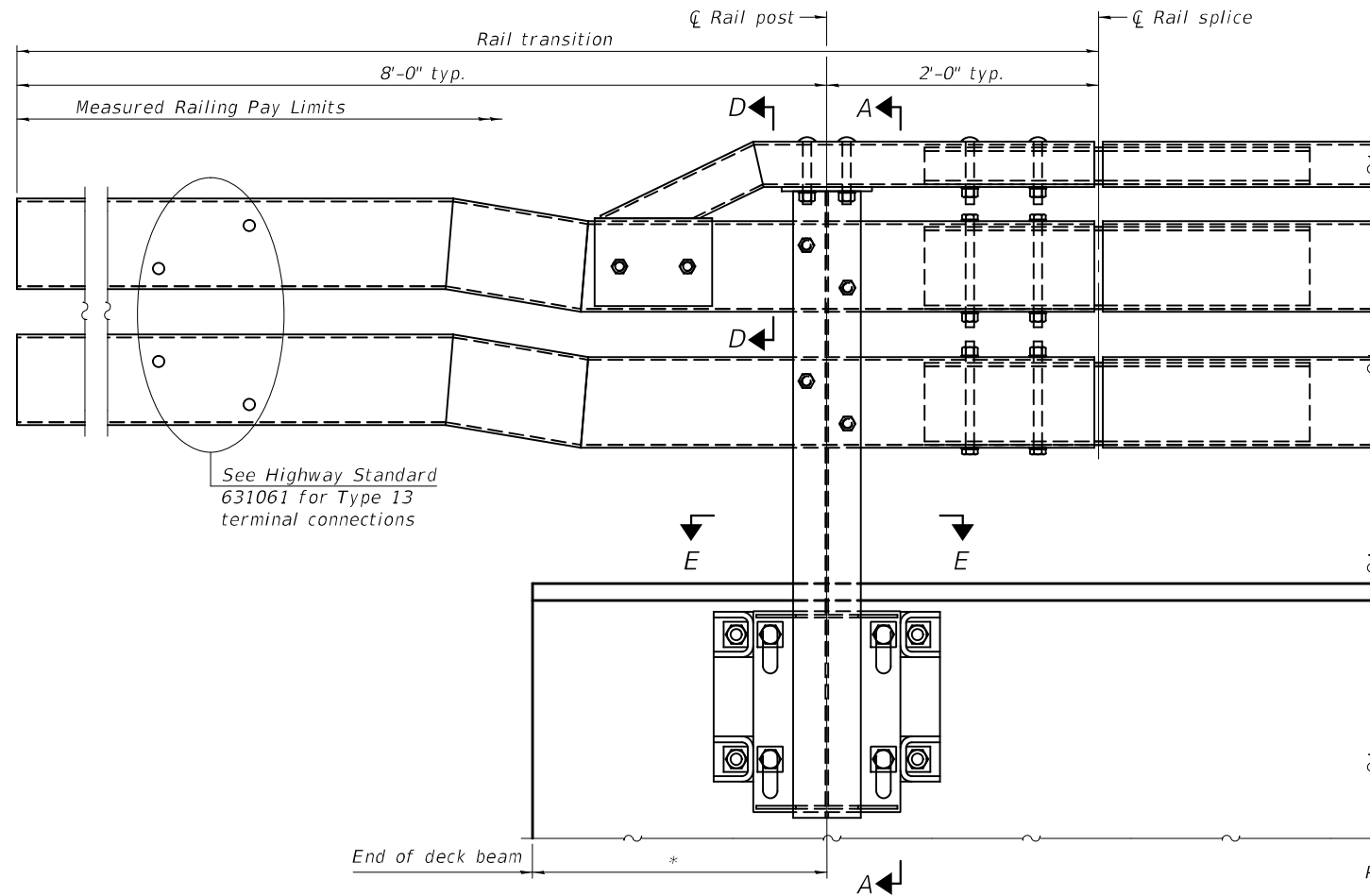
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**21" X 36" PCC DECK BEAM DETAILS
STRUCTURE NO. 010 - 0255**

SHEET 5 OF 12 SHEETS

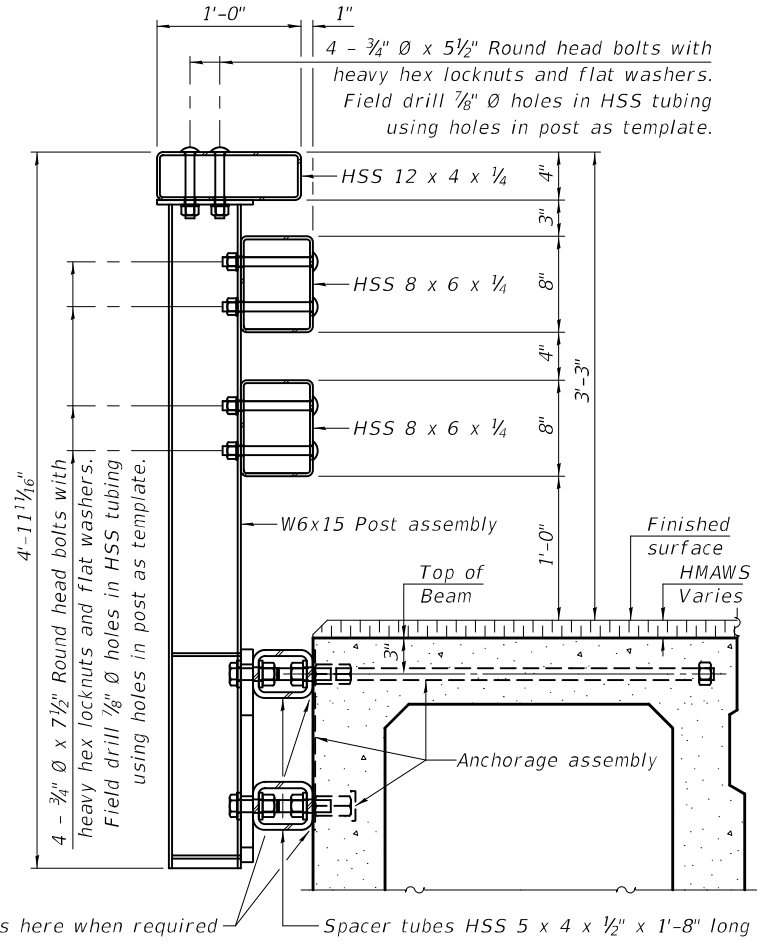
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	54BR-2	CHAMPAIGN	36	17
CONTRACT NO. 70604				

ILLINOIS FED. AID PROJECT

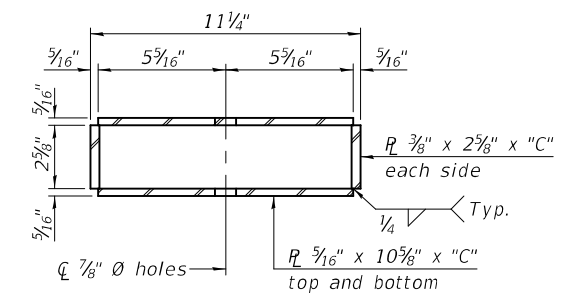


See Highway Standard 631061 for Type 13 terminal connections

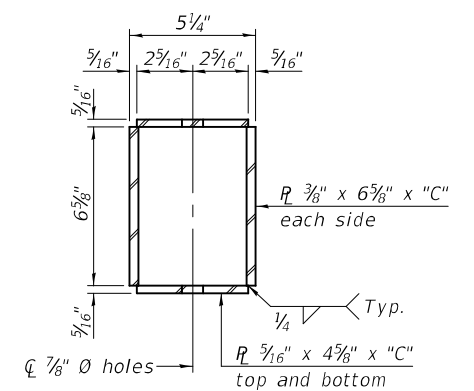
OUTSIDE ELEVATION OF RAIL
* 3'-0" at abutments; 3'-0" min. at piers



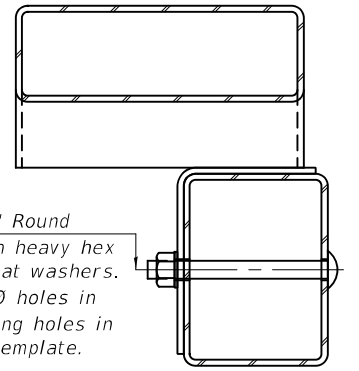
SECTION A-A



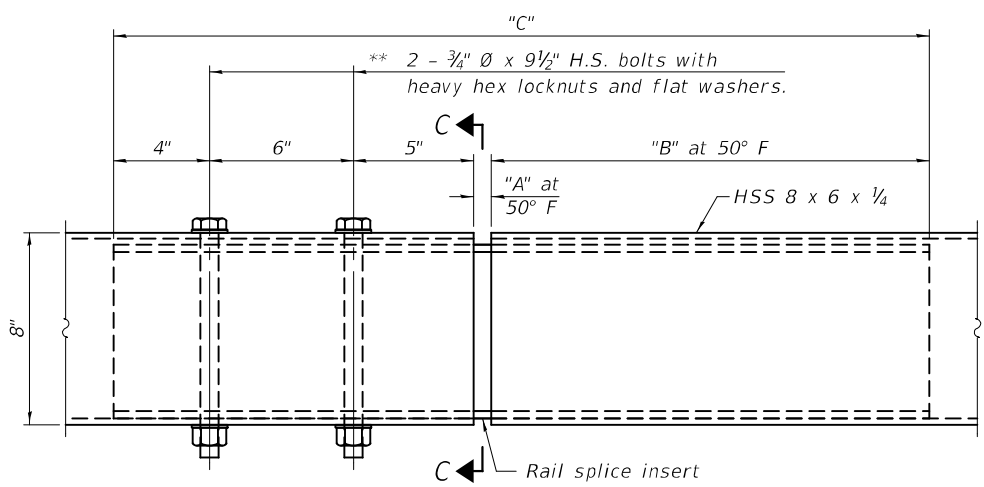
SECTION B-B



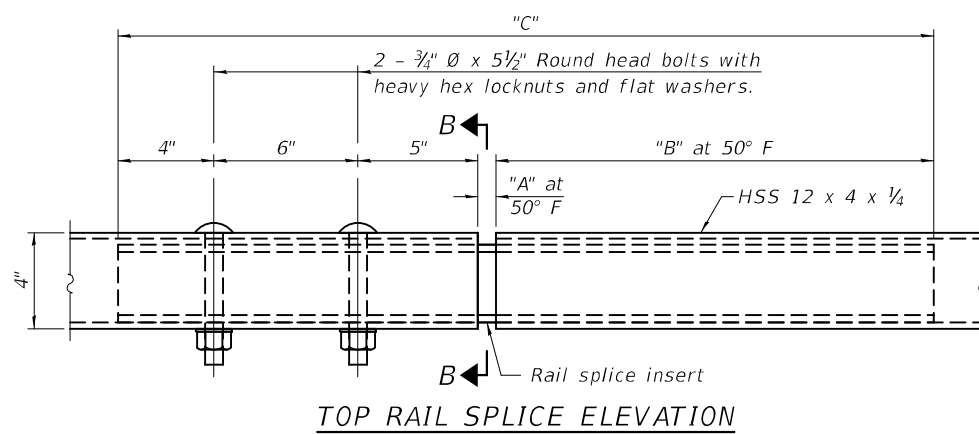
SECTION C-C



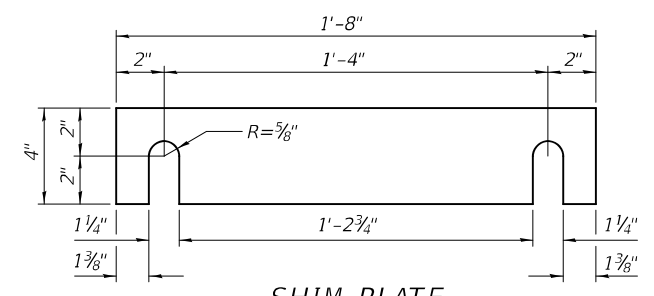
SECTION D-D



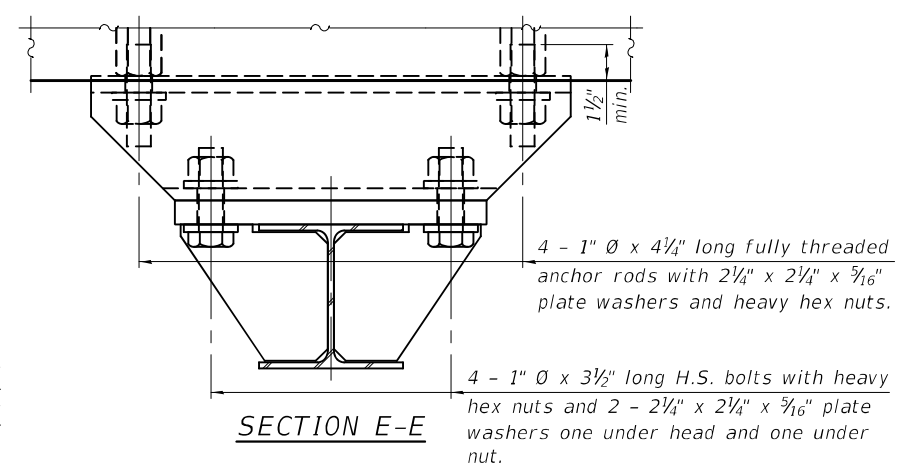
MIDDLE & BOTTOM RAIL SPLICE ELEVATION
** Bolt orientation shown for middle rail. Flip for bottom rail.



TOP RAIL SPLICE ELEVATION



SHIM PLATE



SECTION E-E

RAILING CRITERIA

MASH 2016 Test Level	4
Rail system weight (plf)	120
Max post spacing	8'-0"
HMAWS thickness range (in.)	1 1/2 - 4 1/4

SPLICE DIMENSIONS

Location	T	A	B	C
All locs. not over exp. jts.	0	1/2"	1'-6"	2'-9 1/2"
Over Strip Seal Jt.	≤4"	2 1/2"	1'-8"	3'-1 1/2"

T = 0"; total movement along centerline of roadway at expansion joint.

R-40HMAWS

10-12-2021

DESIGNED - RYAN P. NEGANGARD	EXAMINED
CHECKED - TIFFANY L. MEIER	PASSED
DRAWN - ALAN JOHNSTONE	
CHECKED - R.P.N. / T.L.M. / G.R.A.	

Signature: *James F. ...*
ENGINEER OF BRIDGES AND STRUCTURES

DATE - OCTOBER 11, 2022
REVISED -
REVISED -

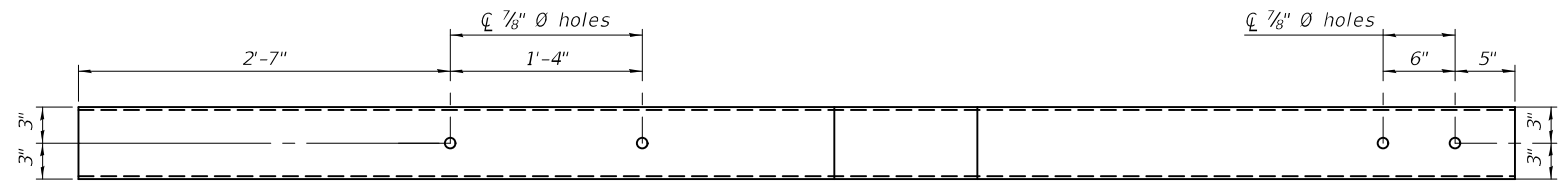
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STEEL RAILING, TYPE IL-OH
STRUCTURE NO. 010 - 0255**

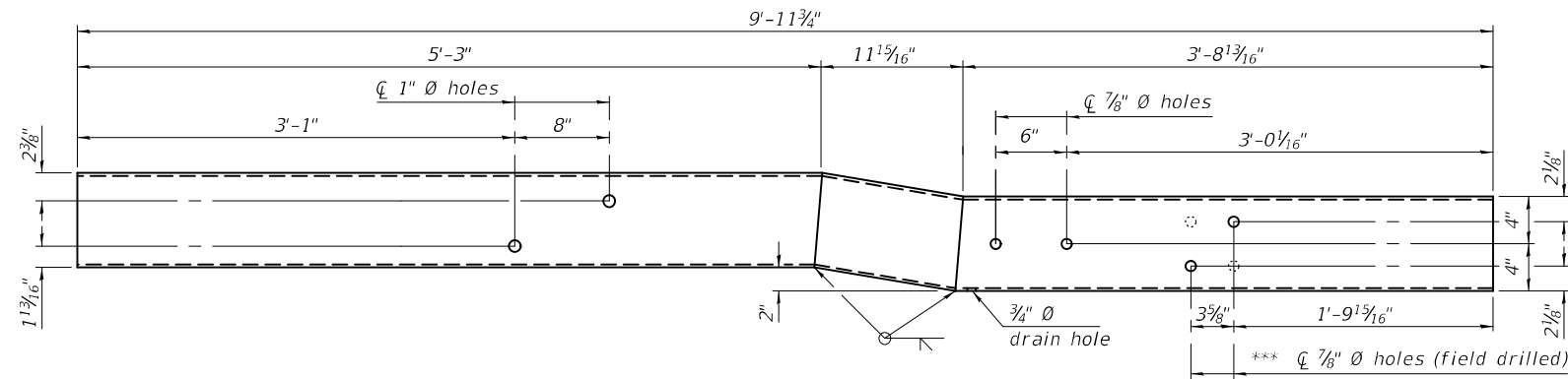
SHEET 6 OF 12 SHEETS

F.A.S. RTE. 522	SECTION 54BR-2	COUNTY CHAMPAIGN	TOTAL SHEETS 36	SHEET NO. 18
CONTRACT NO. 70604				
ILLINOIS FED. AID PROJECT				

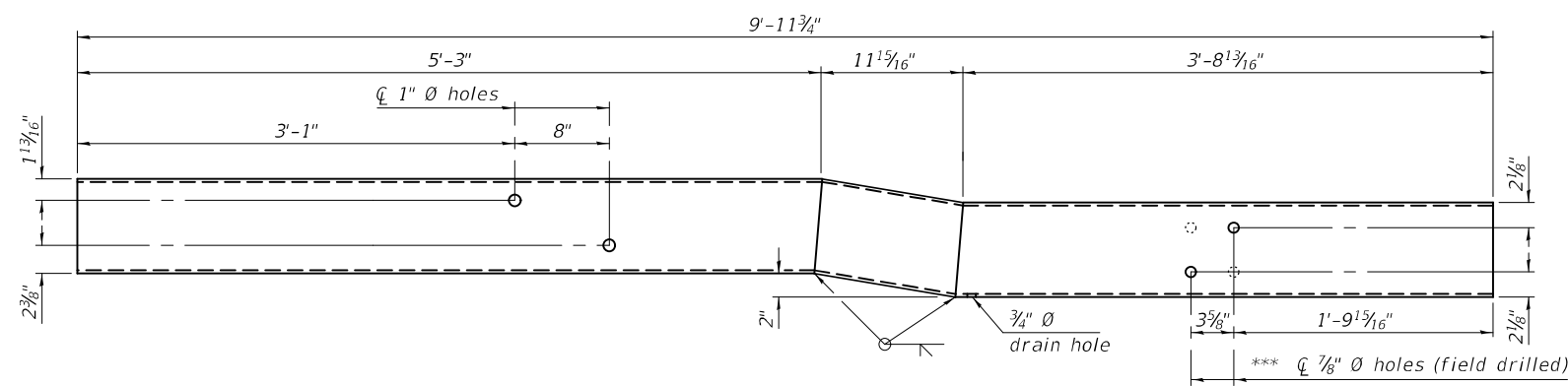
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PLAN OF MIDDLE AND BOTTOM RAIL TRANSITION

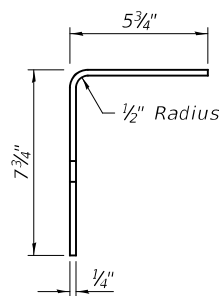


INSIDE ELEVATION OF LEFT MIDDLE RAIL TRANSITION

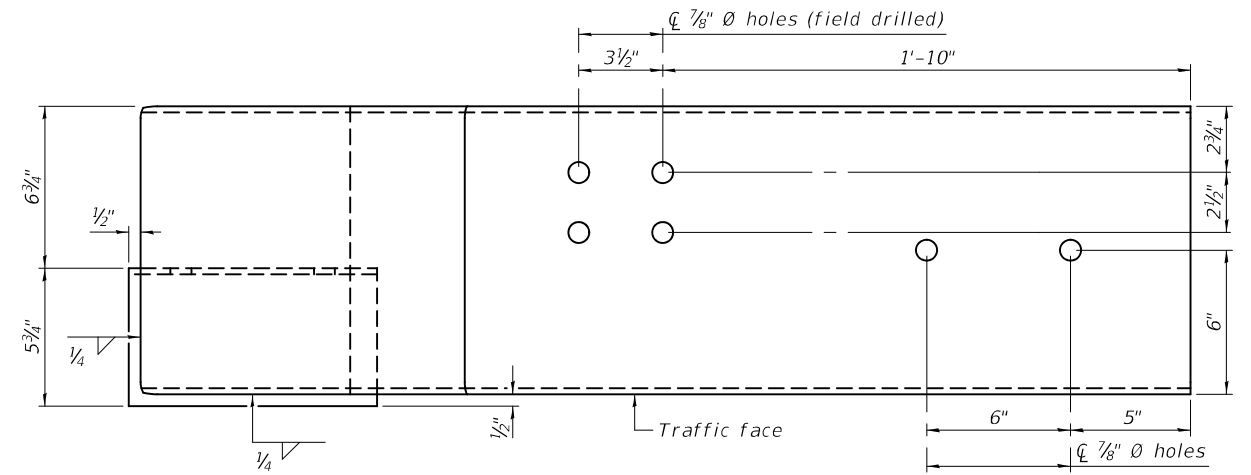


INSIDE ELEVATION OF LEFT BOTTOM RAIL TRANSITION

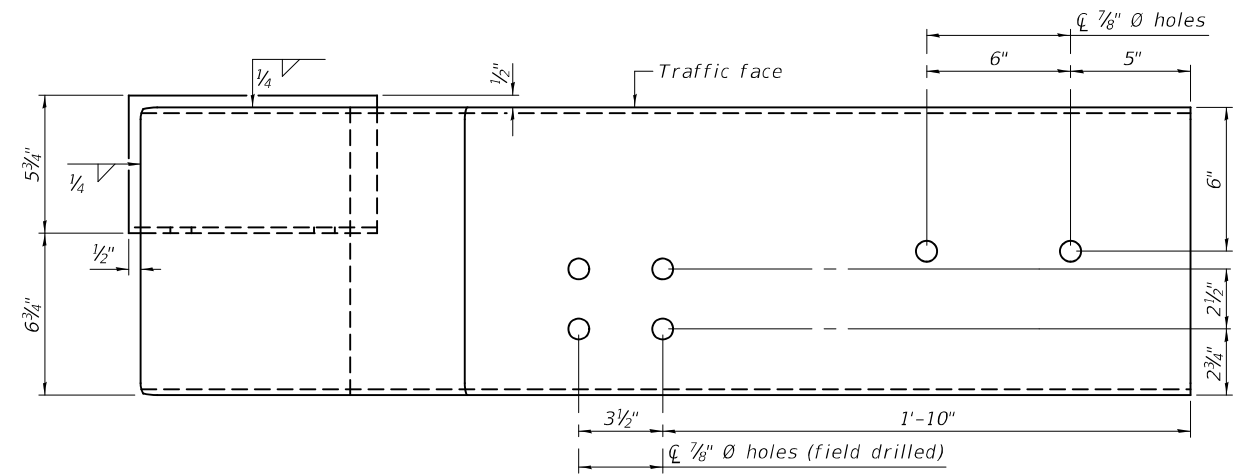
*** Hole orientation is flipped as shown with the dashed holes for the right side piece.



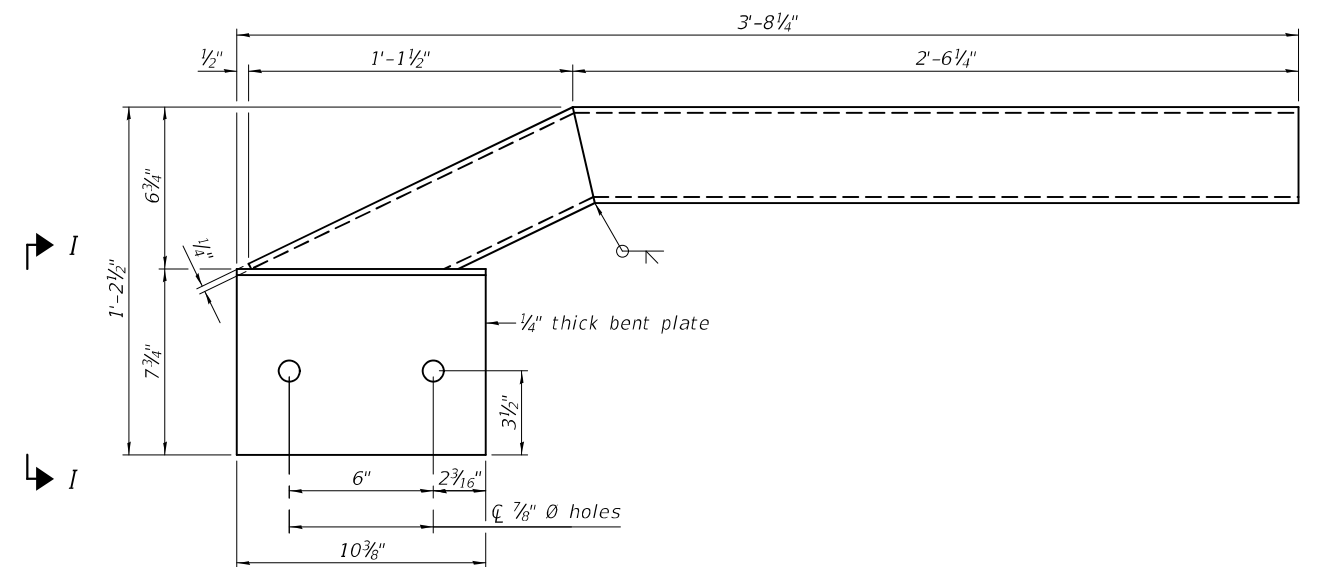
VIEW I-I



PLAN OF LEFT TOP RAIL TERMINATION ASSEMBLY



PLAN OF RIGHT TOP RAIL TERMINATION ASSEMBLY



INSIDE ELEVATION OF LEFT TOP RAIL TERMINATION ASSEMBLY

(Right Similar)

(Sheet 3 of 4)

MODEL: 0100255-70604-008
FILE NAME: p:\w\p\w\benley.com\FWIDOT\Documents\DOT Offices\Bureau of Bridges and Structures\Projects\0100255\CADD Plans\0100255-70604.dgn

R-40HMAWS

10-12-2021

DESIGNED - RYAN P. NEGANGARD
CHECKED - TIFFANY L. MEIER
DRAWN - ALAN JOHNSTONE
CHECKED - R.P.N. / T.L.M. / G.R.A.

EXAMINED
PASSED

Jaime F. [Signature]
ENGINEER OF BRIDGE DESIGN
Jaime F. [Signature]
ENGINEER OF BRIDGES AND STRUCTURES

DATE - OCTOBER 11, 2022

REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

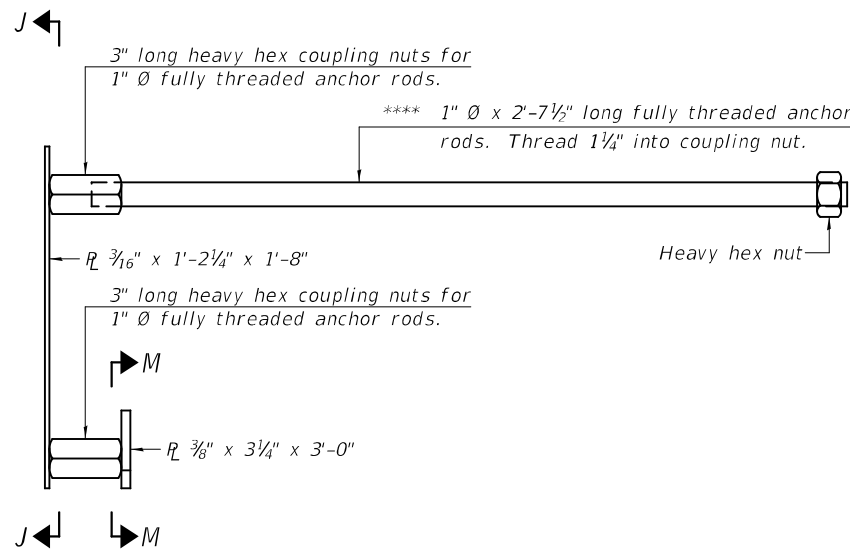
STEEL RAILING, TYPE IL-OH
STRUCTURE NO. 010 - 0255

SHEET 8 OF 12 SHEETS

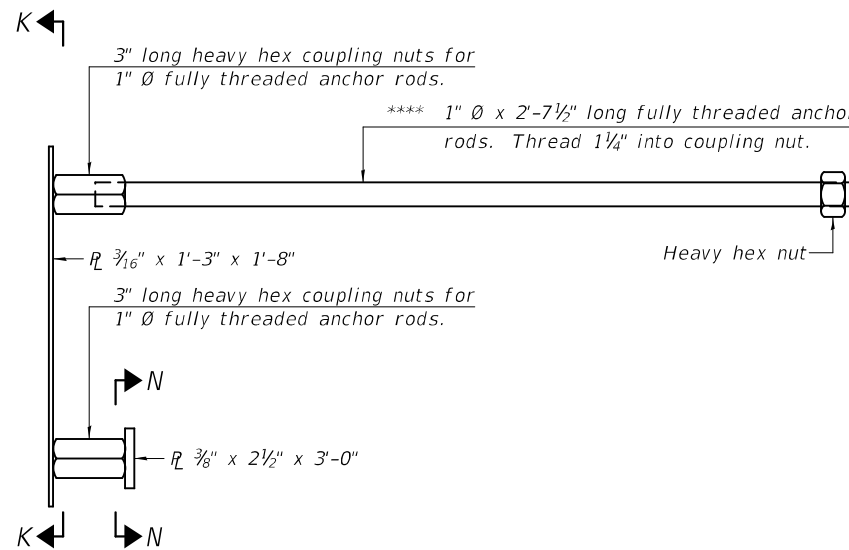
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	54BR-2	CHAMPAIGN	36	20
CONTRACT NO. 70604				

ILLINOIS FED. AID PROJECT

10/11/2022 1:12:19 PM

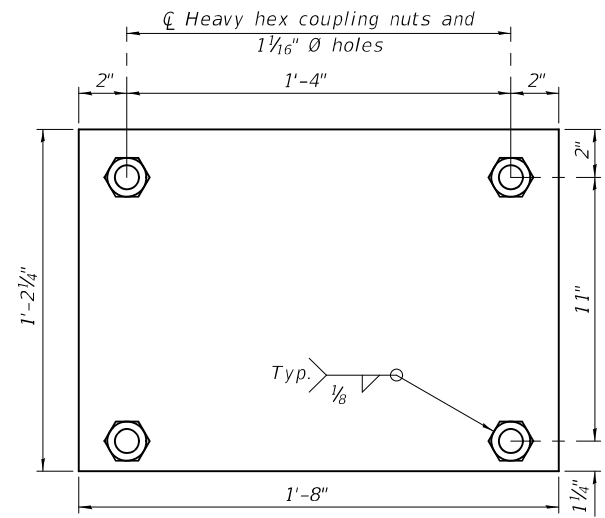


ANCHORAGE ASSEMBLY
(for 17" deck beams)

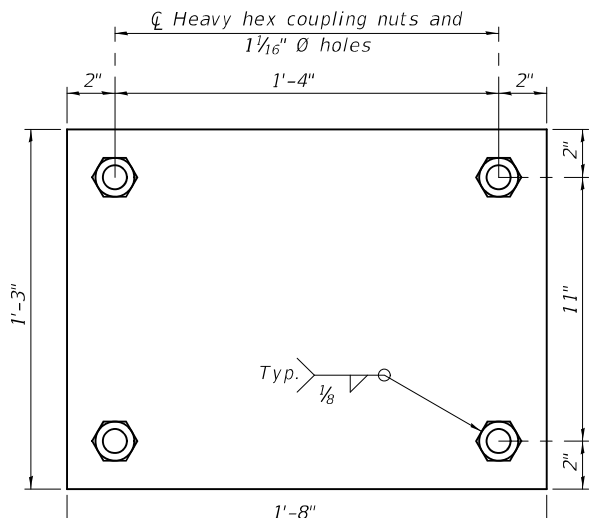


ANCHORAGE ASSEMBLY
(for 21" thru 42" deck beams)

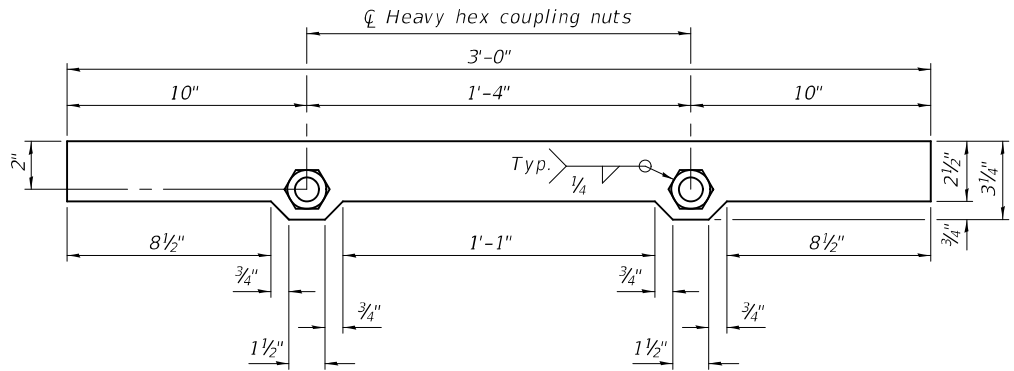
**** For skewed deck beams use 1" Ø x 1'-3" long fully threaded anchor rods at acute corners of beam ends.



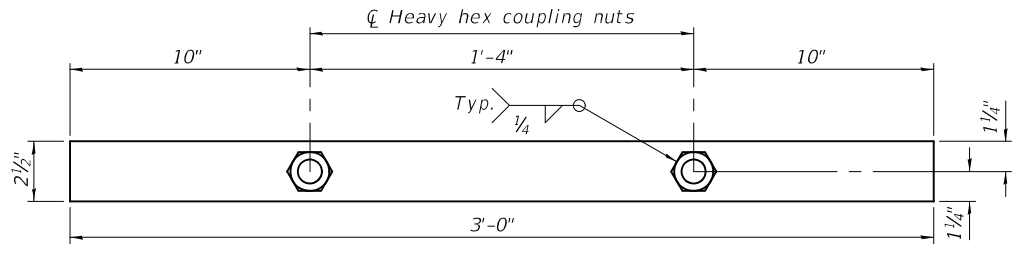
SECTION J-J



SECTION K-K

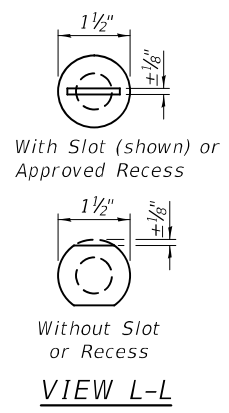
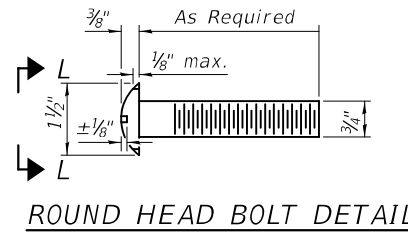


SECTION M-M



SECTION N-N

Notes:
 All plates shall be AASHTO M270 grade 50.
 All HSS tubing shall be ASTM A500 grade C.
 All heavy hex nuts including heavy hex coupling nuts shall be according to ASTM A563 grade DH.
 All fully threaded anchor rods shall be ASTM F1554 grade 105.
 All round head bolts shall be ASTM A449.
 All steel rail elements including shims shall be galvanized according to Article 509.05 of the Standard Specifications.
 Rail splice inserts may be built out of 2 - 3/8" bent plates in lieu of the 4 plate rail splice inserts shown, provided the outside dimensions are matched.
 One 3/16" thick shim per post and a sufficient number of shims of various thicknesses, built to the dimensions shown in the shim plate detail, shall be provided to adjust posts for plumbness and horizontal alignment. Cost included with Steel Railing, Type IL-OH.
 The spacer tubes shall be fastened to the deck beams snug tight and given an additional 1/2 turn. The 1" diameter high strength bolts used to connect the spacer tubes to the post assemblies shall be tightened according to Article 505.04(f)(2) of the Standard Specifications.
 All HSS tubing serving as railing shall be CVN tested according to Article 1006.34(b) of the Standard Specifications.



BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type IL-OH	Foot	117

MODEL: 0100255-70604-009
FILE NAME: p:\w\p\w\benley.com\FW\DOT\Documents\DOT Offices\Bureau of Bridges and Structures\Projects\0100255\CADD Plans\0100255-70604.dgn

R-40HMAWS

10-12-2021

DESIGNED	RYAN P. NEGANGARD
CHECKED	TIFFANY L. MEIER
DRAWN	ALAN JOHNSTONE
CHECKED	R.P.N. / T.L.M. / G.R.A.

EXAMINED	<i>Jaime F. [Signature]</i>
PASSED	<i>Jaime F. [Signature]</i>

DATE	OCTOBER 11, 2022
REVISED	-
REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

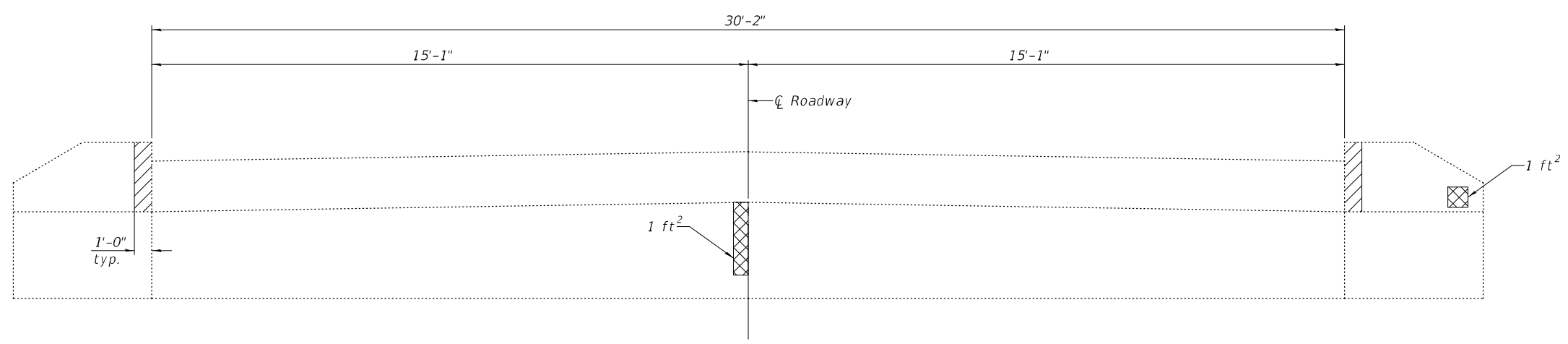
STEEL RAILING, TYPE IL-OH
STRUCTURE NO. 010 - 0255

(Sheet 4 of 4)

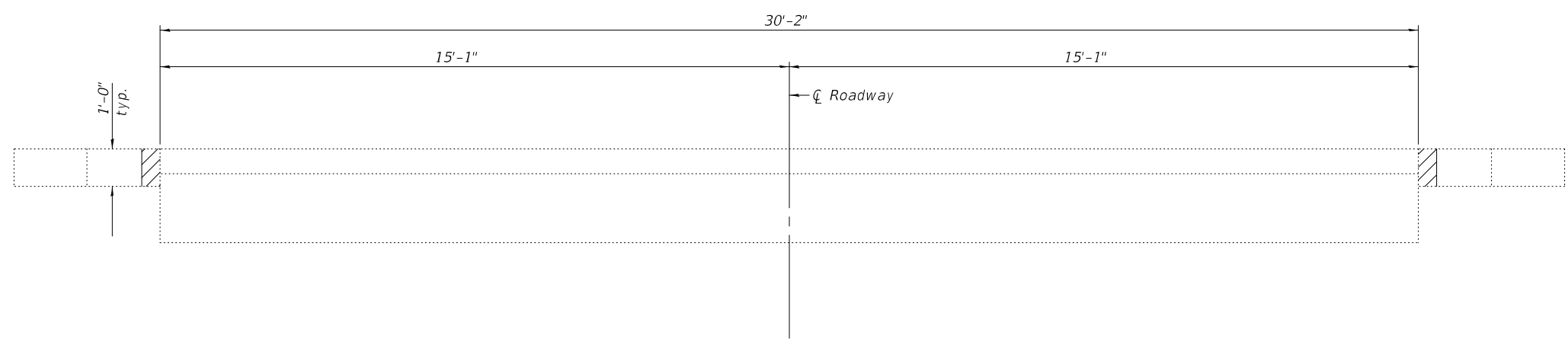
SHEET 9 OF 12 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	54BR-2	CHAMPAIGN	36	21
CONTRACT NO. 70604				
ILLINOIS FED. AID PROJECT				

MODEL: 0100255-70604-010
 FILE NAME: p:\w\idol-pw\benley.com\FWIDOT\Documents\DOT_Offices\Bureau of Bridges and Structures\Projects\0100255\CADD_Plans\0100255-70604.dgn



ELEVATION
 (Looking North)



PLAN

Notes:
 Hatched areas indicate areas of Concrete Removal.
 Cross-Hatched areas indicate areas of Structural repair of Concrete (Depth Equal to or Less than 5 Inches).

BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	0.2
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	2.0

DESIGNED - RYAN P. NEGANGARD	EXAMINED - <i>Jayne F. [Signature]</i>	DATE - OCTOBER 11, 2022
CHECKED - TIFFANY L. MEIER	PASSED - <i>Jayne F. [Signature]</i>	REVISER -
DRAWN - ALAN JOHNSTONE	ENGINEER OF BRIDGES AND STRUCTURES	REVISER -
CHECKED - R.P.N. / T.L.M. / G.R.A.		

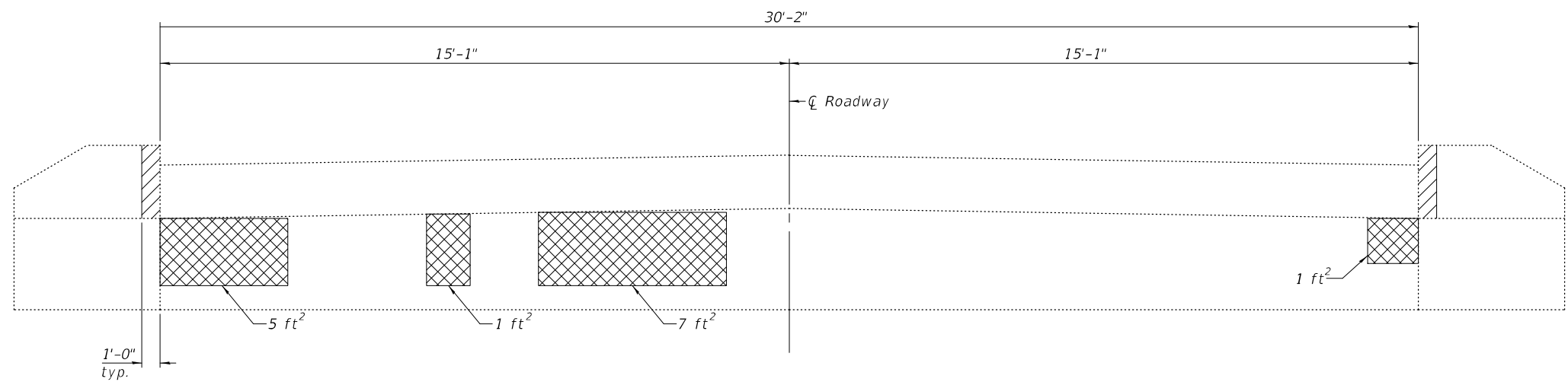
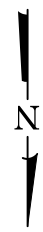
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT REMOVAL & REPAIRS
STRUCTURE NO. 010 - 0255

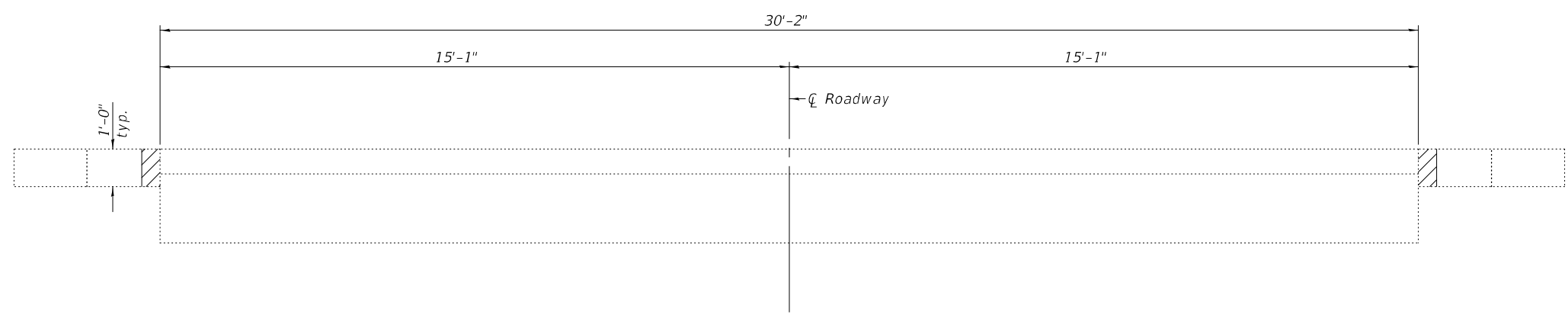
SHEET 10 OF 12 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	54BR-2	CHAMPAIGN	36	22
CONTRACT NO. 70604				
ILLINOIS		FED. AID PROJECT		

MODEL: 0100255-70604-011
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ELEVATION
 (Looking South)



PLAN

Notes:
 Hatched areas indicate areas of Concrete Removal.
 Cross-Hatched areas indicate areas of Structural Repair of Concrete (Depth Equal to or Less than 5 Inches).

BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	0.2
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	14.0

DESIGNED - RYAN P. NEGANGARD	EXAMINED - <i>Jaime F. [Signature]</i>	DATE - OCTOBER 11, 2022
CHECKED - TIFFANY L. MEIER	DESIGNED BY - RYAN P. NEGANGARD	
DRAWN - ALAN JOHNSTONE	PASSED - <i>Jaime F. [Signature]</i>	REVISED -
CHECKED - R.P.N. / T.L.M. / G.R.A.	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

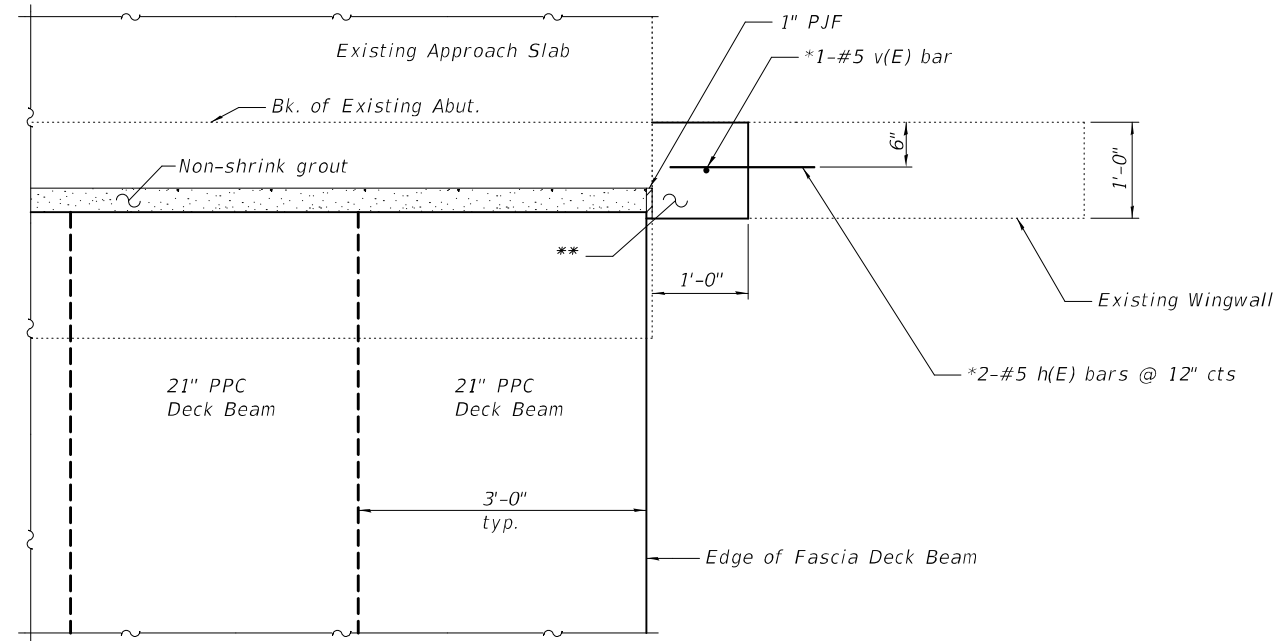
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT REMOVAL & REPAIRS
STRUCTURE NO. 010 - 0255

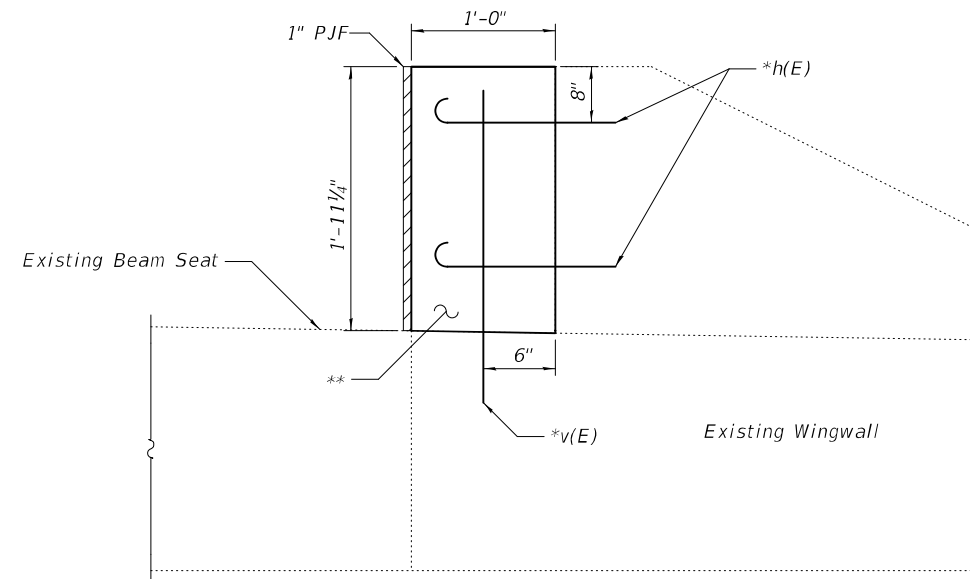
SHEET 11 OF 12 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	54BR-2	CHAMPAIGN	36	23
CONTRACT NO. 70604				
ILLINOIS		FED. AID PROJECT		

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PLAN
 (Typical all wingwalls)



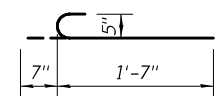
ELEVATION

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	8	#5	2'-2"	└─
v(E)	4	#5	2'-7"	—
Concrete Structures			Cu. Yd.	0.4
Reinforcement Bars, Epoxy Coated			Pound	30

*Epoxy grout h(E) & v(E) bars in 9" min. drilled holes according to Section 584 of Standard Specifications.

**Concrete to be placed after PPC deck beams have been erected and doweled into place.



BAR h(E)

Notes:
 Existing vertical reinforcement bars extending into the new construction shall be cleaned, straightened and incorporated into the new construction. Cost included with Concrete Removal.

DESIGNED - RYAN P. NEGANGARD	EXAMINED - <i>James F. [Signature]</i>	DATE - OCTOBER 11, 2022
CHECKED - TIFFANY L. MEIER	PASSED - <i>James F. [Signature]</i>	REVISER -
DRAWN - ALAN JOHNSTONE	ENGINEER OF BRIDGES AND STRUCTURES	REVISER -
CHECKED - R.P.N. / T.L.M. / G.R.A.		

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**WINGWALL DETAILS
 STRUCTURE NO. 010 - 0255**

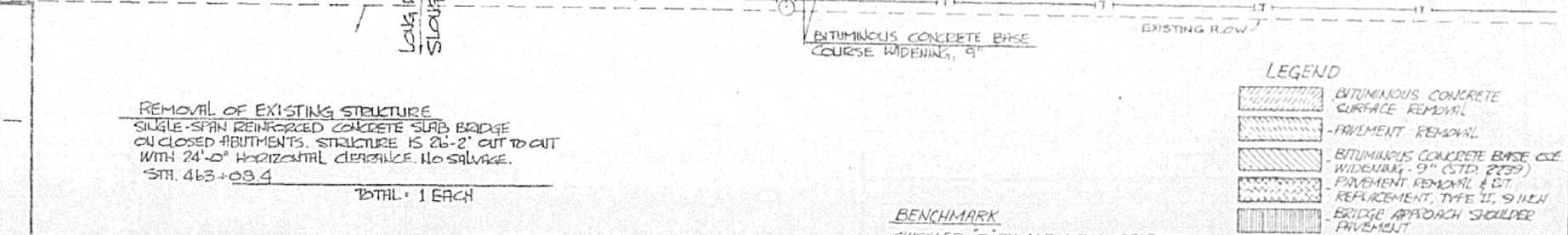
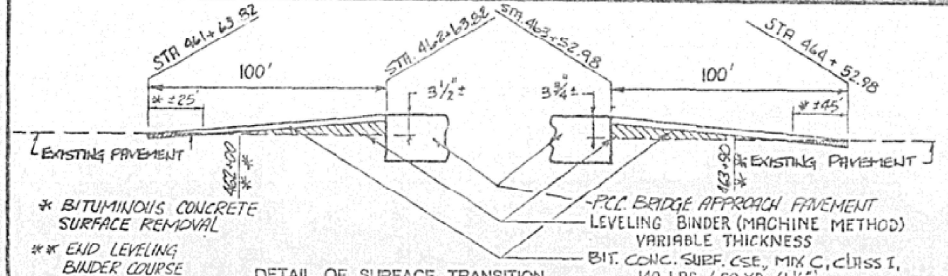
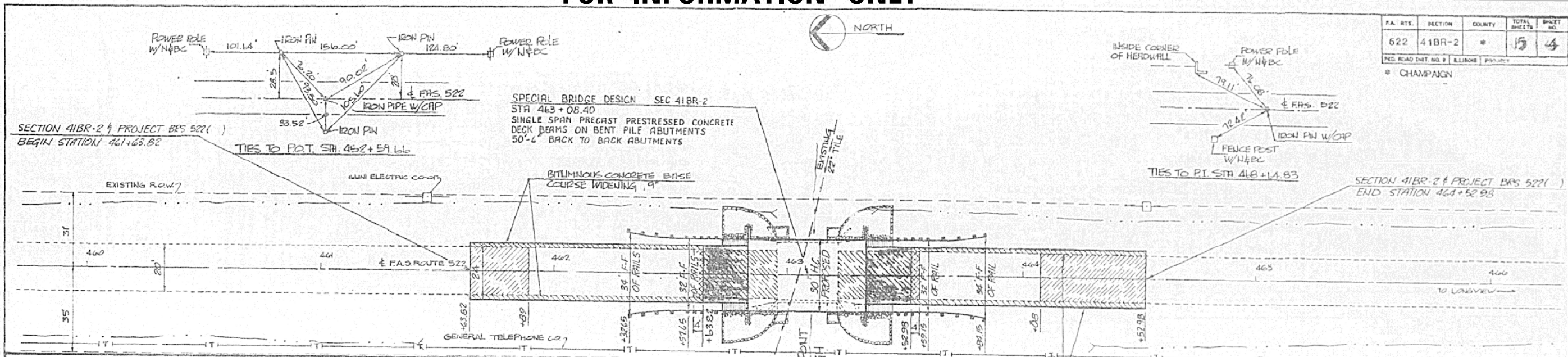
SHEET 12 OF 12 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	54BR-2	CHAMPAIGN	36	24
CONTRACT NO. 70604				
ILLINOIS FED. AID PROJECT				

FOR INFORMATION ONLY

P.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
622	41BR-2	CHAMPAIGN	15	4

FED. ROAD DIST. NO. 8 ILLINOIS PROJECT CHAMPAIGN



LEGEND

- BITUMINOUS CONCRETE SURFACE REMOVAL
- PAVEMENT REMOVAL
- BITUMINOUS CONCRETE BASE COURSE WIDENING, 9"
- PAVEMENT REMOVAL & ST. REINFORCEMENT, TYPE II, 9" MIN.
- BRIDGE APPROACH SHOULDER PAVEMENT
- BRIDGE APPROACH PAVEMENT (STD. 2382)

ITEM	DESCRIPTION	QUANTITY	ITEM	DESCRIPTION	QUANTITY
BITUMINOUS CONCRETE BASE COURSE WIDENING, 9"	LT. STA. 461+63.82 TO LT. STA. 462+63.82 = 20 SQ. YD.	20 SQ. YD.	STEEL PLATE BEAM GUARD RAIL TYPE B	LT. STA. 462+51.15 TO LT. STA. 462+51.15 = 0 TONS	0 TONS
PAVEMENT REMOVAL	STA. 462+63.82 TO STA. 462+63.82 = 20 SQ. YD.	20 SQ. YD.	TRAFFIC BARRIER TERMINAL, TYPE 1A	RT. STA. 462+30.11 TO RT. STA. 462+51.15 = 1 EACH	1 EACH
BITUMINOUS CONCRETE SURFACE REMOVAL	STA. 463+22.98 TO STA. 463+52.98 = 100 SQ. YD.	100 SQ. YD.	TRAFFIC BARRIER TERMINAL, TYPE 5A	LT. STA. 462+13.15 TO LT. STA. 462+83.40 = 1 EACH	1 EACH
PCC BRIDGE APPROACH PAVEMENT (STANDARD 2382)	STA. 462+63.82 TO STA. 462+83.82 = 54 SQ. YD.	54 SQ. YD.			
REINFORCEMENT BARS (STANDARD 2382)	STA. 462+63.82 TO STA. 462+83.82 = 3249 LBS.	3249 LBS.			
PROTECTIVE COAT	STA. 462+63.82 TO STA. 462+83.82 = 54 SQ. YD.	54 SQ. YD.			
TEMPORARY PAVEMENT MARKING	STA. 461+63.82 TO STA. 464+52.98 = 60 LIN. FT.	60 LIN. FT.			

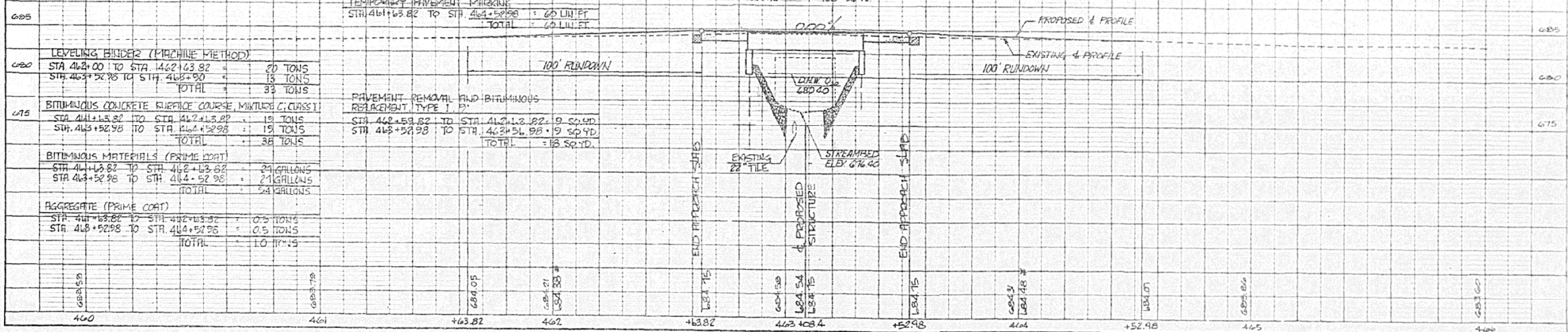


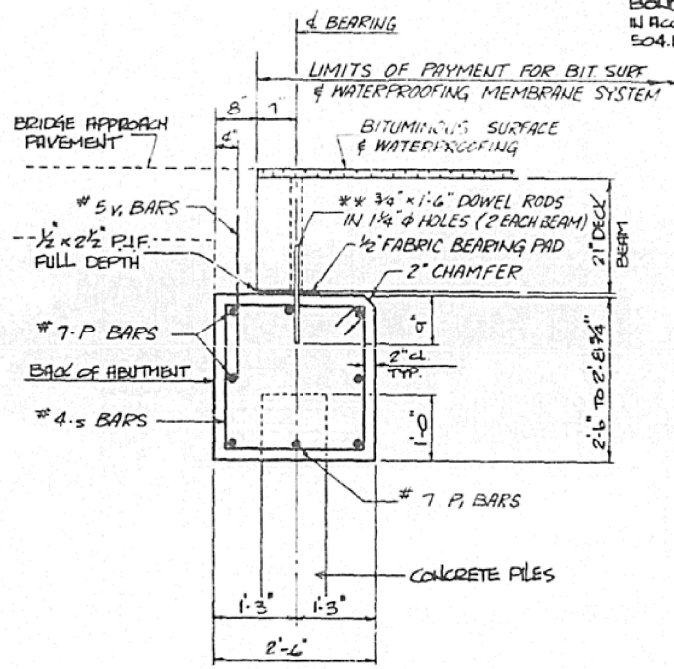
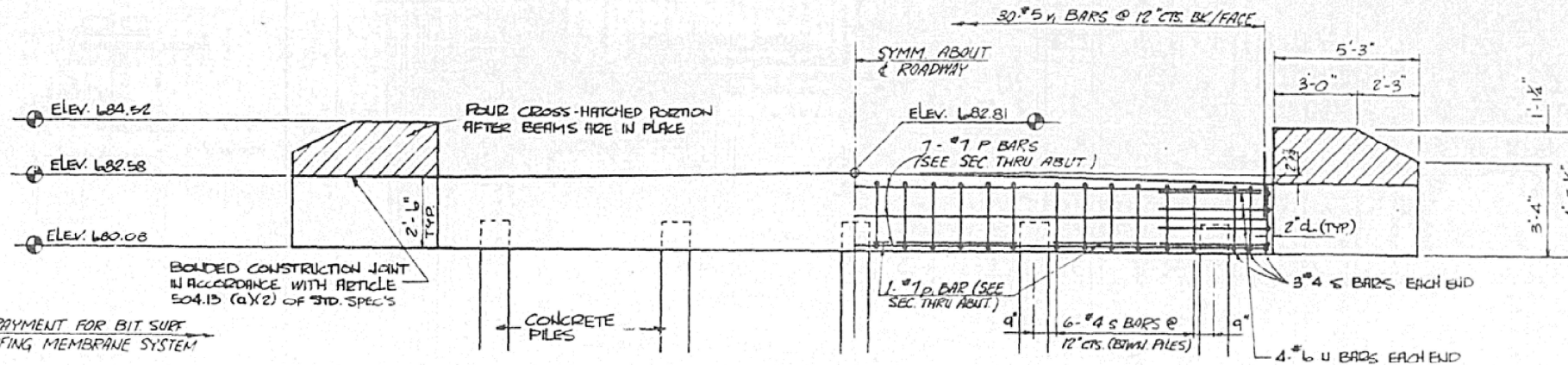
PLATE 1, PLAN PROFILE
SCALE: 1" = 20'

USER NAME = Rafael Monjardin	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	AS BUILT PLAN S.N. 010-0255	F.A.S. RTE. 522	SECTION 54BR-2	COUNTY CHAMPAIGN	TOTAL SHEETS 36	SHEET NO. 25
PLOT SCALE = 26.4379" / in.	CHECKED -	REVISED -	SCALE: 1:20	SHEET 1 OF 5 SHEETS	STA. 464+79.15 TO STA. 461+37.65		ILLINOIS FED. AID PROJECT		CONTRACT NO. 70604
PLOT DATE = 8/9/2022	DATE -	REVISED -							

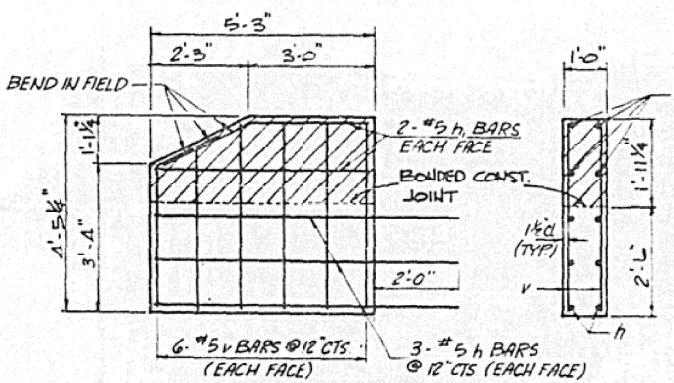
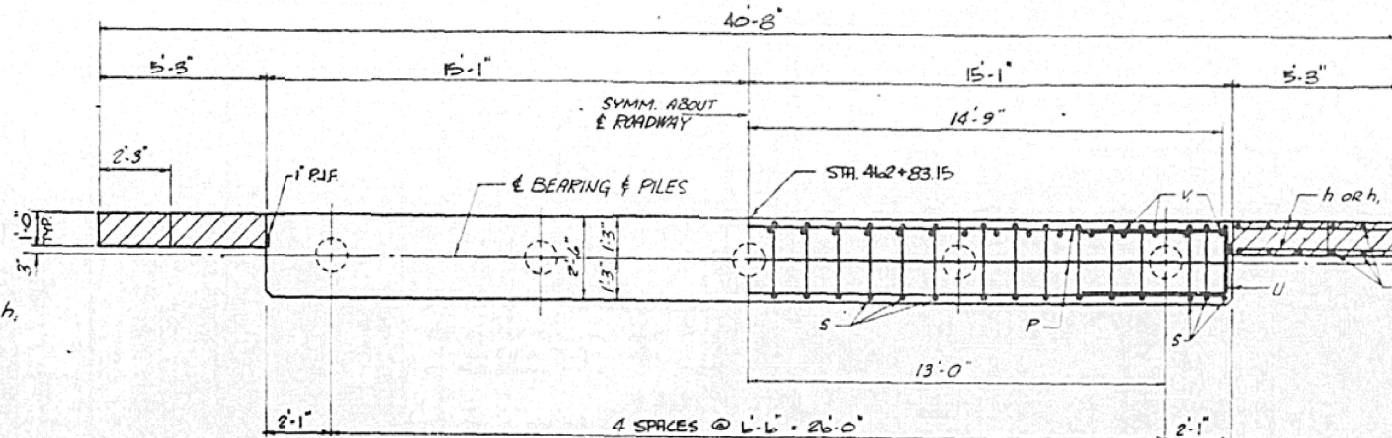
FOR INFORMATION ONLY

NOTES:
 ALL EDGES SHALL HAVE STANDARD 3/4" CHAMFER EXCEPT AS NOTED
 SPACE REINFORCEMENT IN CAP TO MISS DOWEL BARS

P.A. RTK.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	41BR-2	6	15	9
FED. ROAD DIST. NO. 6 ILLINOIS PROJECT				
* CHAMPAIGN BR. SHEET 4 OF 6				



** DOWEL RODS TO BE GROUTED AFTER BEAMS ARE IN PLACE AND ALLOWED TO CURE (MIN. 24 HRS.) PRIOR TO GROUTING THE SHEAR KEYS



NOTE: CROSS-HATCHED PORTION SHALL BE POURED AFTER DECK BEAMS ARE IN PLACE

BAR	SIZE	NO. REQ'D.	LENGTH	SHAPE
H	#5	12	7' - 3"	—
H ₁	#5	8	5' - 0"	—
P	#7	7	29' - 11"	—
P ₁	#7	4	5' - 0"	—
S	#4	30	9' - 5"	□
U	#6	8	10' - 11"	—
V	#5	16	4' - 2"	—
V ₁	#5	30	2' - 6"	—
CLASS "X" CONCRETE		CU. YD.	8.8	
REINFORCEMENT BARS		POUNDS	1070	
CONCRETE PILES		LIN. FT.	168	
TEST PILE		EACH	1	

TYPE	CONCRETE PILES
NO. REQUIRED	5 EACH *
CAPACITY	35 TONS
ESTIMATED LENGTH	42 LIN. FT. **
* INCLUDES ONE TEST PILE	

** DO NOT OVERDRIVE PILES

**NORTH ABUTMENT
 PLAN & ELEVATION**
 FAS ROUTE 522
 over
 LONG POINT SLOUGH
 SECTION 41BR-2
 CHAMPAIGN COUNTY
 STATION 463+08.40
 STRUCTURE NO. 010-0255

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 PLOT DATE: 8/9/2022

USER NAME = Rafael.Monjardin	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 26,4821' / in.	CHECKED -	REVISED -
PLOT DATE = 8/9/2022	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

AS BUILT PLAN
 S.N. 010-0255

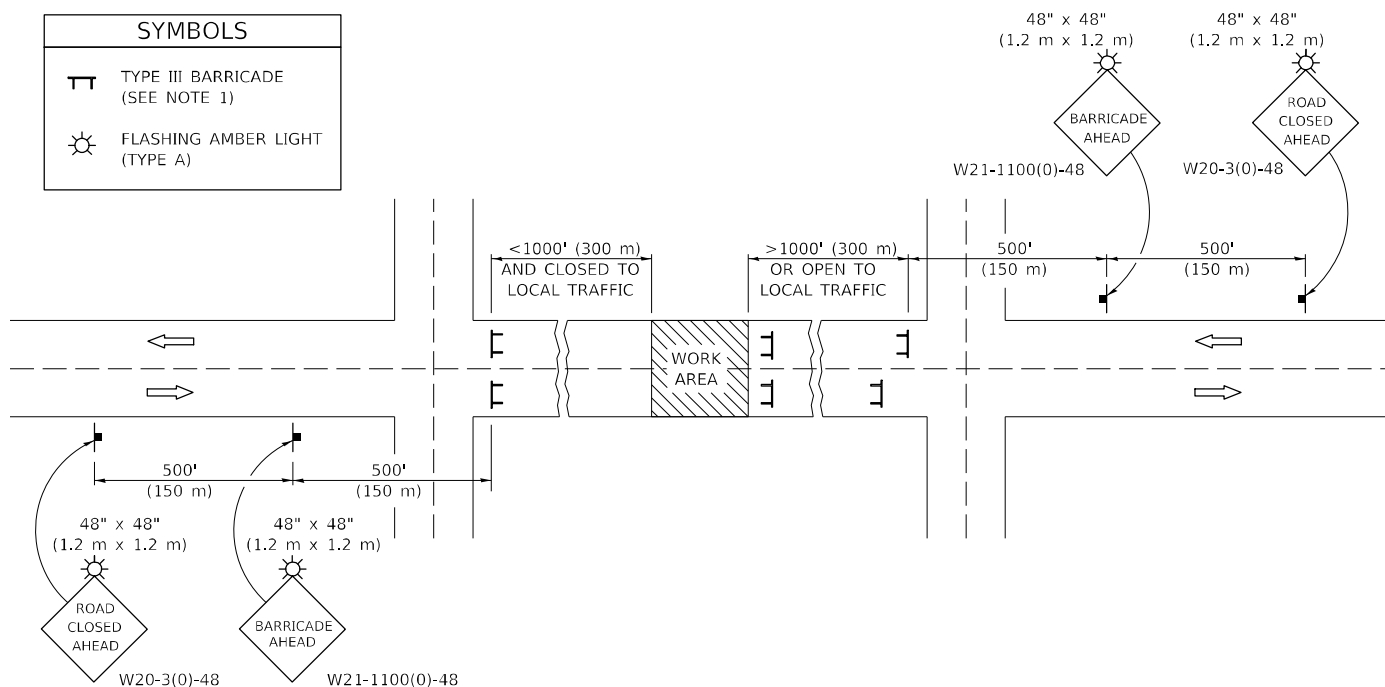
SCALE: 1:20 SHEET 4 OF 5 SHEETS STA. 464+79.15 TO STA. 461+37.65

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	54BR-2	CHAMPAIGN	36	28
CONTRACT NO. 70604				
ILLINOIS FED. AID PROJECT				

ROAD CLOSURE

SIDEROAD / STREET CLOSURE

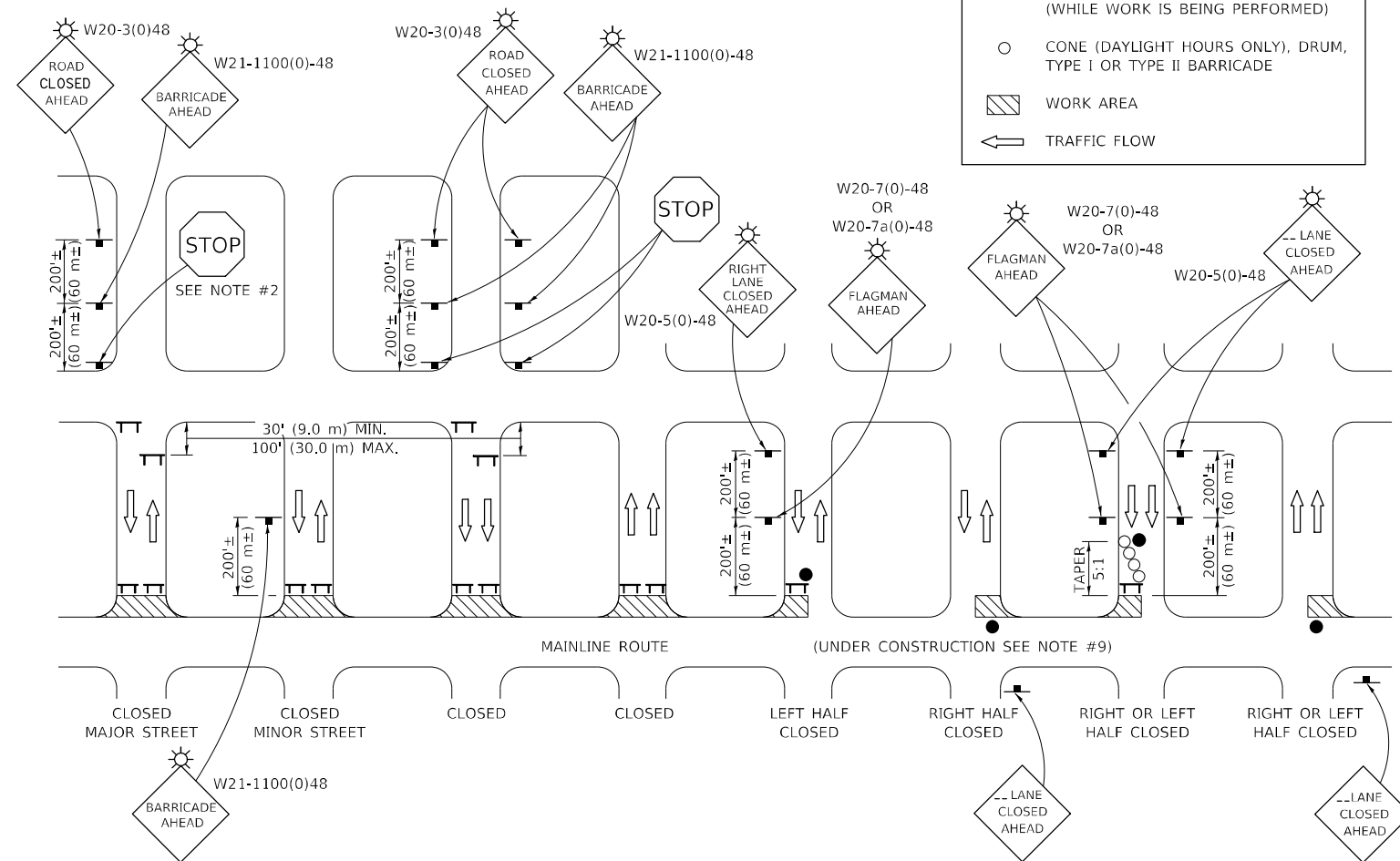
SYMBOLS	
	TYPE III BARRICADE (SEE NOTE 1)
	FLASHING AMBER LIGHT (TYPE A)



GENERAL NOTES

- TYPE III BARRICADES SHALL BE AS SHOWN ON STANDARD 701901 "TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD". EACH TYPE III BARRICADE SHALL HAVE TWO FLASHING AMBER LIGHTS MOUNTED ABOVE IT.
- IF THE ROAD IS OPEN TO LOCAL TRAFFIC OR EXCEEDS 1000' (300 m), ANOTHER SET OF TYPE III BARRICADES, EQUIPPED AS IN NOTE 1 ABOVE, SHALL BE PLACED AT EACH END OF THE WORK AREA.
- WHEN A STOP CONDITION EXISTS, NO SIGNS ARE REQUIRED IN ADVANCE OF THE "STOP" SIGN WHEN THE ROAD IS CLOSED WITHIN 100' (30 m) OF THE INTERSECTION.
- STANDARD 701901 SHALL APPLY FOR THE PLACEMENT & DESIGN OF TYPE III BARRICADES.
- IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON AN NCHRP 350 TEMPORARY SIGN SUPPORT DIRECTLY IN FRONT OF THE BARRICADE.
- REFLECTORIZED STRIPING SHALL APPEAR ON BOTH SIDES OF THE TYPE III BARRICADES IF ROAD IS OPEN TO LOCAL TRAFFIC.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- A MINIMUM OF TWO FLASHING LIGHTS SHALL BE USED AT NIGHT ON EACH APPROACH IN ADVANCE OF THE WORK AREA. FLASHING LIGHTS SHALL BE INSTALLED ABOVE THE FIRST TWO SIGNS IN THE SERIES.
- LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
- FORMS BT. 725 AND BT. 726 ARE REQUIRED.
- WHEN A SIDEROAD INTERSECTS THE HIGHWAY ON WHICH WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC DEVICES SHALL BE ERECTED AND PROVIDED AS DIRECTED BY THE ENGINEER.
- AN ADDITIONAL SIGN MAY BE REQUIRED AT A MAJOR INTERSECTING ROAD IN ADVANCE OF THE CLOSURE. THE ADDITIONAL SIGN SHALL GIVE THE DISTANCE TO THE BARRICADE IN MILES OR FRACTIONS OF A MILE.

SYMBOLS	
	TYPE III BARRICADE (SEE NOTE)
	FLASHING LIGHT
	FLAGGER WITH TRAFFIC CONTROL SIGN (WHILE WORK IS BEING PERFORMED)
	CONE (DAYLIGHT HOURS ONLY), DRUM, TYPE I OR TYPE II BARRICADE
	WORK AREA
	TRAFFIC FLOW



GENERAL NOTES

- TYPE III BARRICADES SHALL BE AS SHOWN ON "TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD". EACH TYPE III BARRICADE SHALL HAVE TWO FLASHING AMBER LIGHTS MOUNTED ABOVE IT.
- WHERE A STOP CONDITION EXISTS, AS SHOWN ABOVE, WARNING SIGNS MAY BE OMITTED IN ADVANCE OF THE "STOP" SIGN.
- STANDARD 701901 SHALL APPLY FOR THE PLACEMENT & MANUFACTURE OF TYPE III BARRICADES.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- ONE FLASHING LIGHT IS REQUIRED ABOVE EACH ADVANCE WARNING SIGN DURING HOURS OF DARKNESS.
- LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
- FORMS BT 725 AND BT 726 ARE REQUIRED.
- THE MAINLINE ROUTE TEMPORARY TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE PLANS, SPECIAL PROVISIONS AND STANDARD SPECIFICATIONS.
- ALL FLAGGERS REQUIRED AT SIDE ROADS AND ENTRANCES REMAINING OPEN TO TRAFFIC AND/OR ADDITIONAL BARRICADES REQUIRED BY THE ENGINEER TO CLOSE SIDE ROADS AND ENTRANCES WILL BE PAID FOR ACCORDING TO ARTICLE 109.04.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 7020000

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USER NAME = Rafael.Monjardin	DESIGNED -	REVISED - 11/06
	DRAWN -	REVISED - 12/07
PLOT SCALE = 40,0716" / ft.	CHECKED -	REVISED - 09/09 KJT
PLOT DATE = 6/9/2022	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL & PROTECTION DEVICES
(ROAD & SIDEROAD / STREET CLOSURES)**

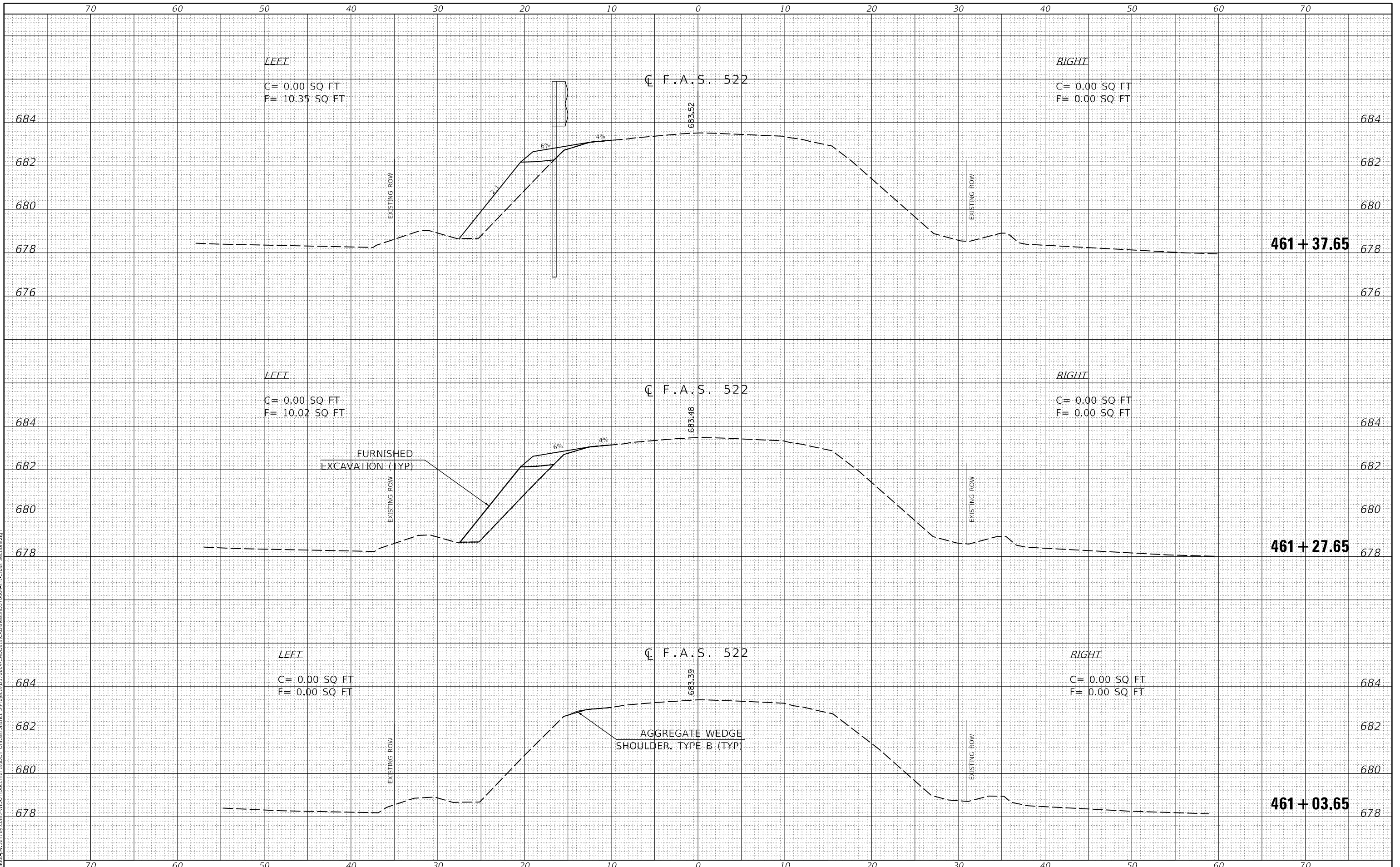
SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	54BR-2	CHAMPAIGN	36	30
CONTRACT NO. 70604				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINAL SURVEY NO. _____	
NOTE BOOK NO. _____	
NO. _____	
SURVEYED _____	
TEMPERATURE _____	
AREAS CHECKED _____	

DATE	
BY	
ORIGINAL SURVEY NO. _____	
NOTE BOOK NO. _____	
NO. _____	
SURVEYED _____	
TEMPERATURE _____	
AREAS CHECKED _____	

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USER NAME = RafaelMonjardin	DESIGNED -	REVISED -
PLOT SCALE = 10,0459' / in.	DRAWN -	REVISED -
PLOT DATE = 8/9/2022	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

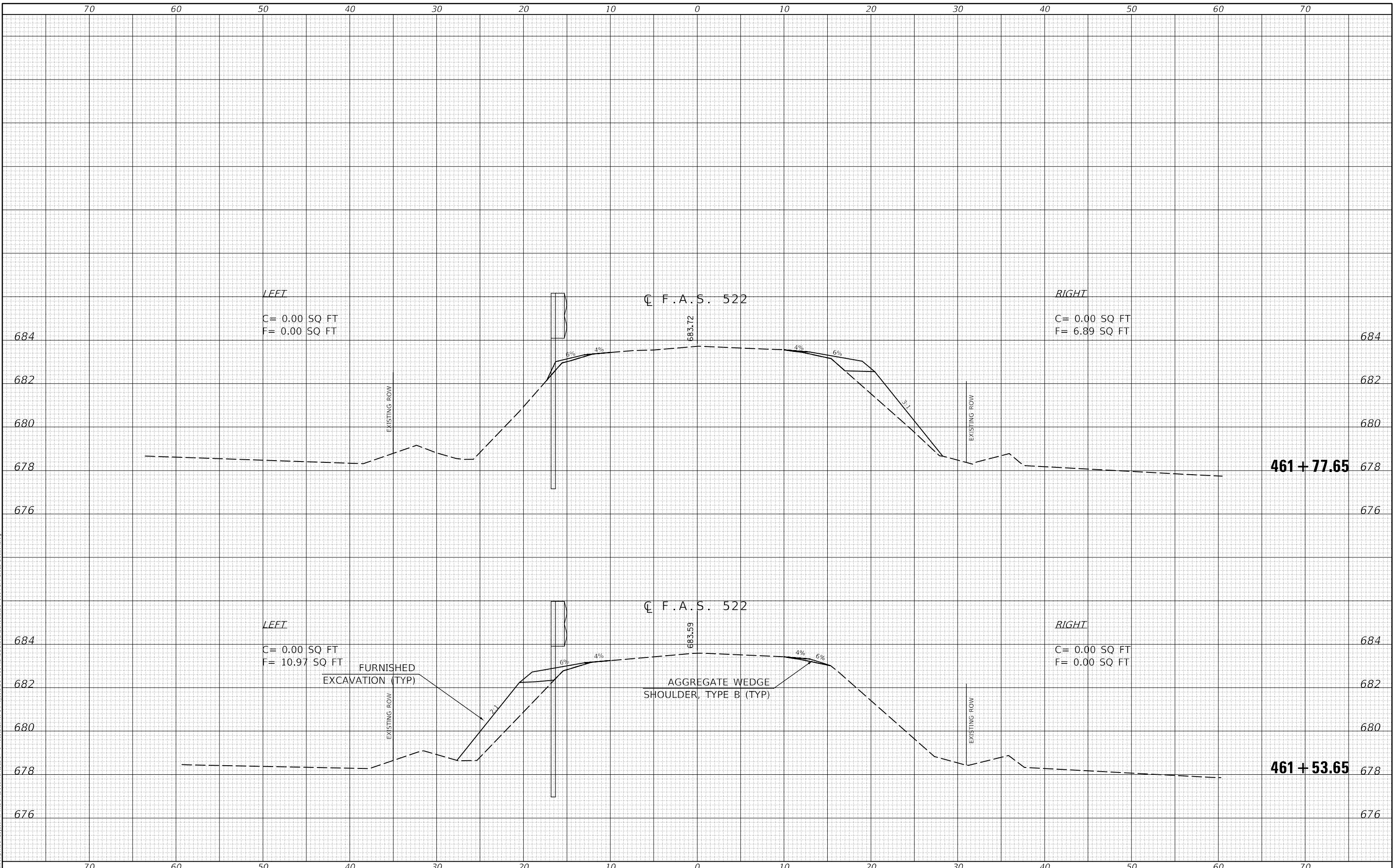
CROSS SECTIONS	
SCALE:	SHEET 1 OF 6 SHEETS STA. 461+03.65 TO STA. 461+37.65

F.A.S. RTE. 522	SECTION 54BR-2	COUNTY CHAMPAIGN	TOTAL SHEETS 36	SHEET NO. 31
CONTRACT NO. 70604				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY NOTE BOOK NO.	

DATE	
BY	
SURVEYED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY NOTE BOOK NO.	

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USER NAME = Rafael.Monjarin	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 10.0459' / in.	CHECKED -	REVISED -
PLOT DATE = 8/9/2022	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

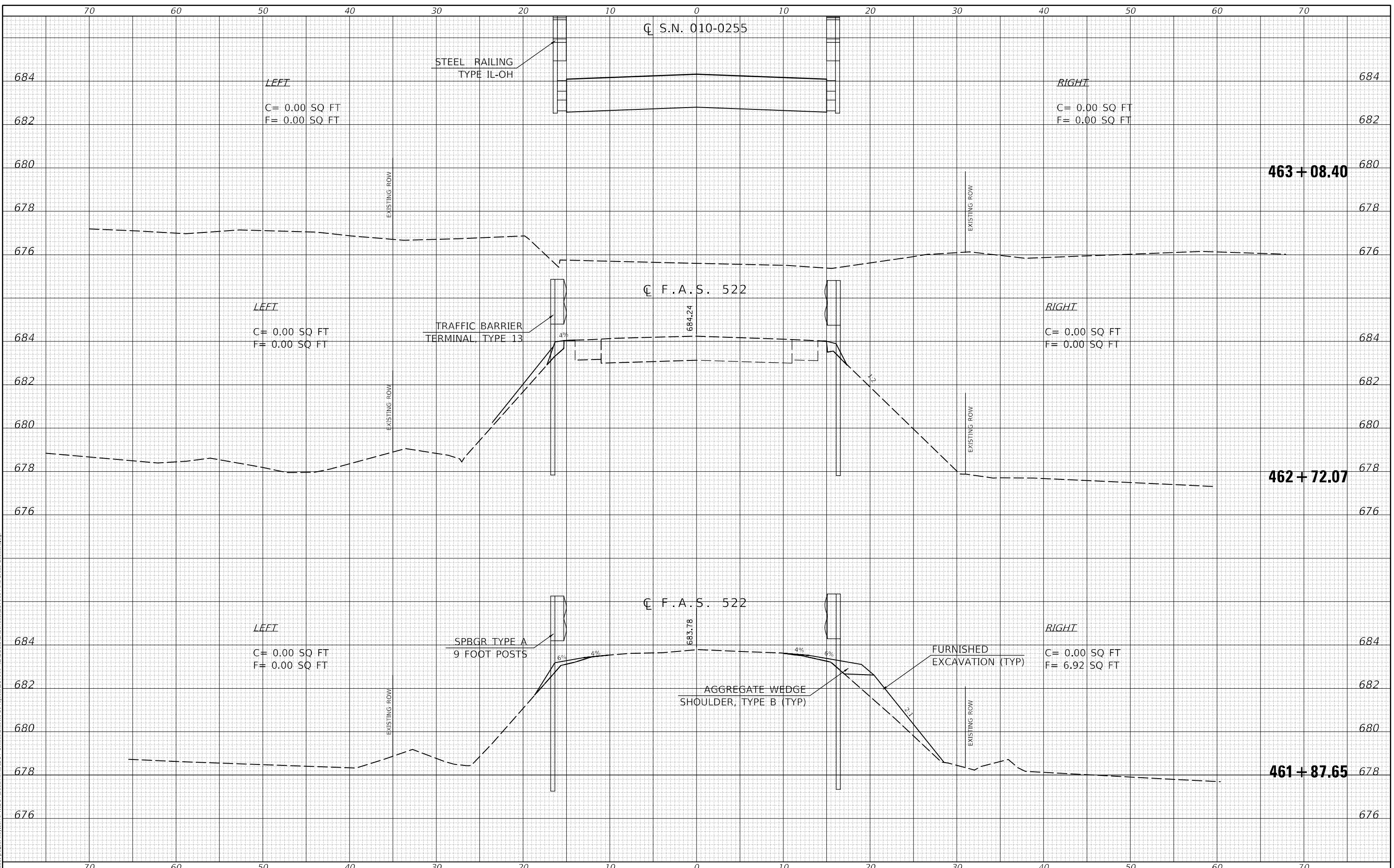
SCALE: SHEET 2 OF 6 SHEETS STA. 461+53.65 TO STA. 461+77.65

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	54BR-2	CHAMPAIGN	36	32
CONTRACT NO. 70604				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
TEMP. AT	
AREAS CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
TEMP. AT	
AREAS CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	

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USER NAME =	Rafael.Monfardin
DESIGNED -	
DRAWN -	
CHECKED -	
DATE -	8/9/2022

REVISED -	
REVISED -	
REVISED -	
REVISED -	

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

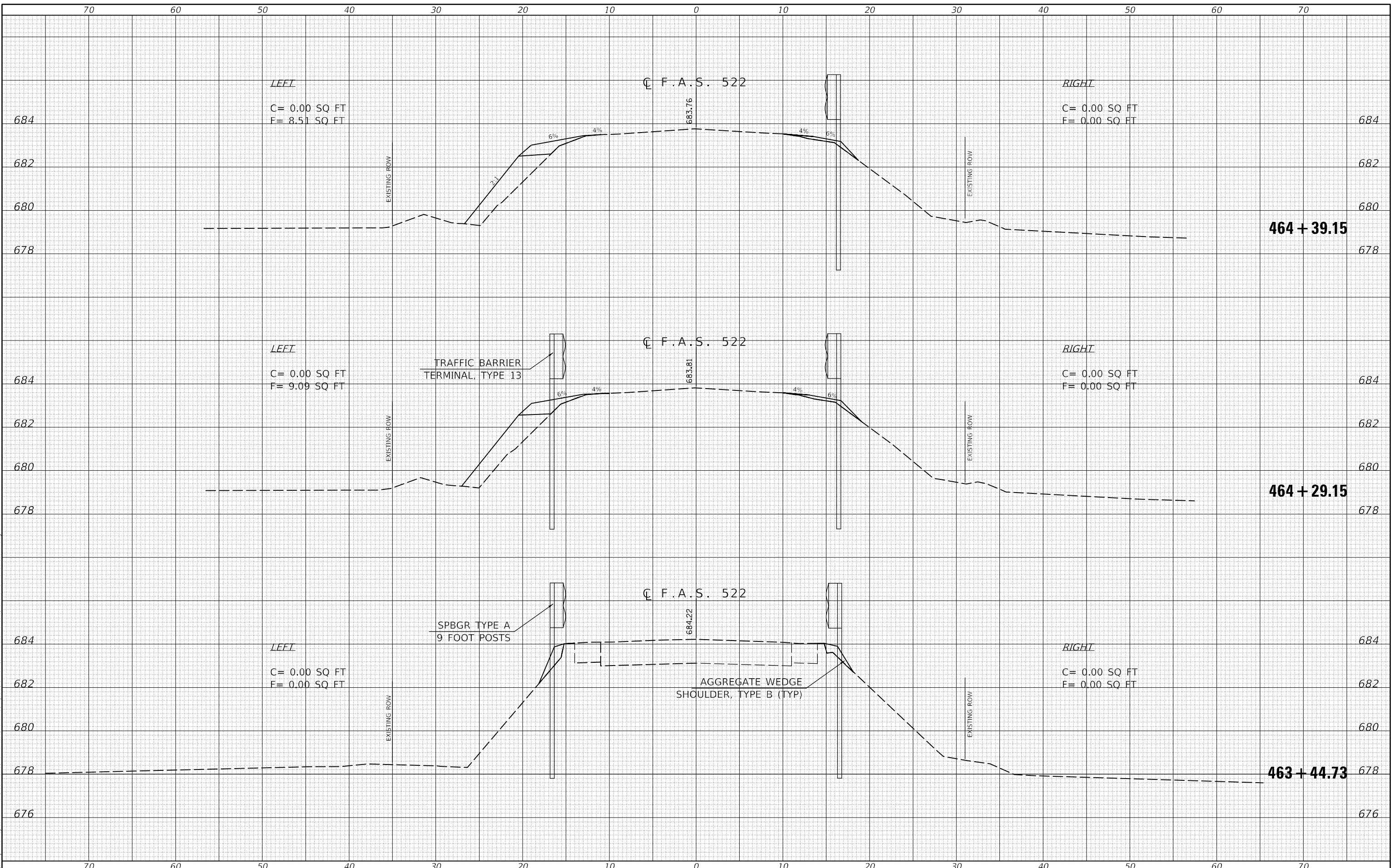
SCALE: SHEET 3 OF 6 SHEETS STA. 461+87.65 TO STA. 463+08.40

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	54BR-2	CHAMPAIGN	36	33
				CONTRACT NO. 70604
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
NOTE BOOK	
TEMPLATE	
AREAS CHECKED	
NO.	

DATE	
BY	
SURVEYED	
NOTE BOOK	
TEMPLATE	
AREAS CHECKED	
NO.	

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USER NAME = Rafael.Monjardin	DESIGNED -	REVISED -
PLOT SCALE = 10,0459' / in.	DRAWN -	REVISED -
PLOT DATE = 8/9/2022	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

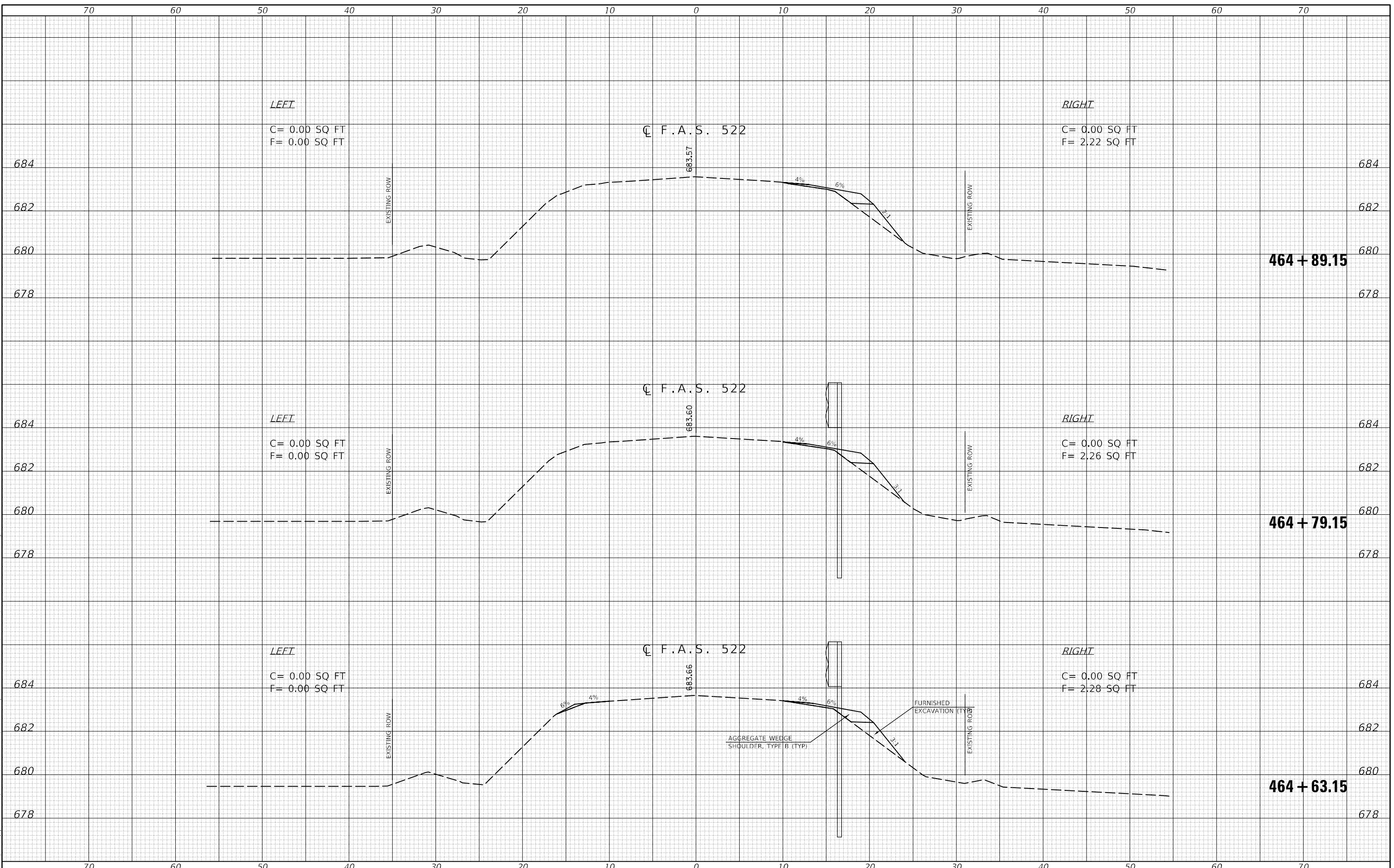
SCALE: SHEET 4 OF 6 SHEETS STA. 463+44.73 TO STA. 464+39.15

F.A.S. RTE. 522	SECTION 54BR-2	COUNTY CHAMPAIGN	TOTAL SHEETS 36	SHEET NO. 34
CONTRACT NO. 70604			ILLINOIS FED. AID PROJECT	

DATE	
BY	
SURVEYED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	

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USER NAME = Rafael.Monjardin	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 10.0459' / in.	CHECKED -	REVISED -
PLOT DATE = 9/9/2022	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

SCALE: SHEET 5 OF 6 SHEETS STA. 464+63.15 TO STA. 464+89.15

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
522	54BR-2	CHAMPAIGN	36	35
				CONTRACT NO. 70604
ILLINOIS FED. AID PROJECT				

