ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 52	23-04132-00-BR	RICHLAND	20	1
DENVER ROAD DISTRICT		ILLINOIS		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
TOWNSHIP BRIDGE PROGRAM PROJECT

SECTION 23-04132-00-BR
RICHLAND COUNTY
DENVER ROAD DISTRICT
TR 52

INDEX OF SHEETS

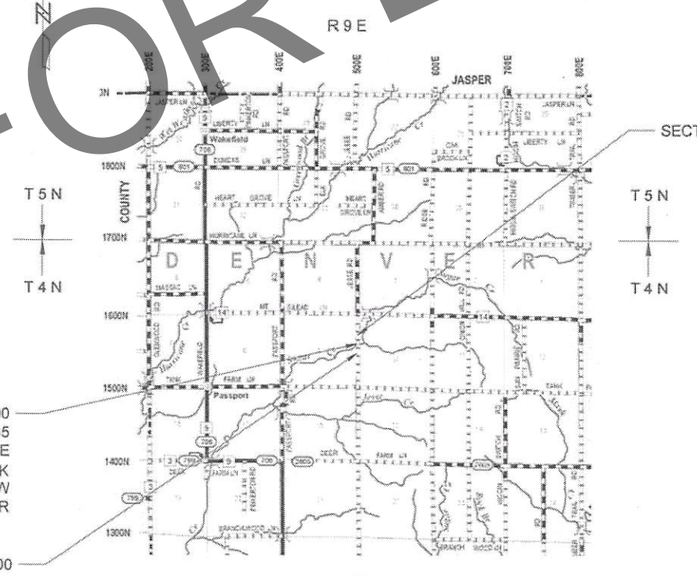
PLAN	0	50'	100'
PROFILE HOR.	0	50'	100'
PROFILE VERT.	0	5'	10'
CROSS SECTIONS			
HOR.	0	10'	20'
VERT.	0	10'	20'

NOTE: SCALES VALID FOR 22" X 34" SHEETS

STANDARD DRAWINGS

STANDARD 000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
STANDARD 280001-07	TEMPORARY EROSION CONTROL SYSTEMS
STANDARD 515001-04	NAME PLATE FOR BRIDGES
STANDARD 542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
STANDARD 542311-07	TRAVERSABLE PIPE GRATE FOR CONCRETE END SECTIONS
STANDARD 701901-10	TRAFFIC CONTROL DEVICES
STANDARD 725001-01	OBJECT AND TERMINAL MARKERS
STANDARD BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

J.U.L.I.E.
JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS
1-800-892-0123 OR 811
WEBSITE: https://www.illinois1call.com/



SECTION 23-04132-00-BR ENDS STA. 8+00.00

STA. 5+00.00
PROPOSED STRUCTURE NUMBER 080-3235
SINGLE SPAN PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE
62'-8½" SPAN, 27" DEPTH BEAMS, 24.0' WIDE DECK
25° FORWARD RIGHT SKEW
NO EXISTING STRUCTURE NUMBER

SECTION 23-04132-00-BR BEGINS STA. 0+00.00

NET LENGTH SECTION 23-04132-00-BR = 800.00 FEET = 0.152 MILES

FUNCTIONAL CLASSIFICATION - LOCAL ROAD
ADT = 50
DESIGN SPEED = 30 MPH

BRANDON M. BRIDGES
062.064453
LICENSED PROFESSIONAL ENGINEER
OF ILLINOIS
7/24/2025

LICENSE EXPIRES 11/30/2025

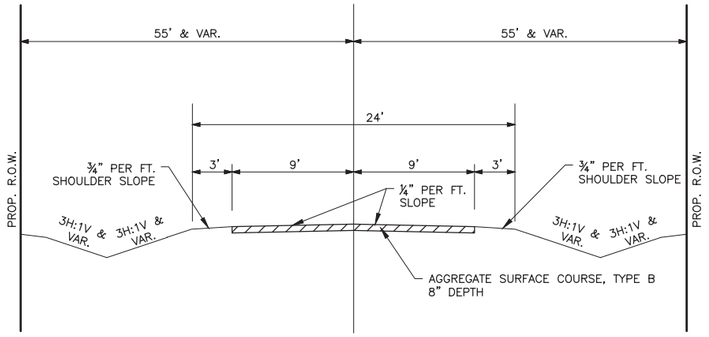
CHARLESTON ENGINEERING, INC.
CONSULTING ENGINEERS - LAND SURVEYORS
105 NORTH KITCHELL AVENUE
P.O. BOX 397
OLNEY, ILLINOIS 62450
(618) 392-0736
ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513

APPROVED July 24, 2025
Duane J. Schwedt, P.E.
COUNTY ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

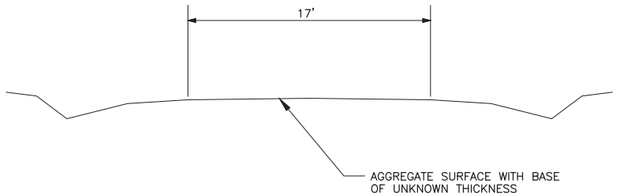
PASSED 07/30/25
DISTRICT SEVEN ENGINEER OF LOCAL ROADS AND STREETS

Releasing For Bid Based on Limited Review 07/30/25
REGION FOUR ENGINEER



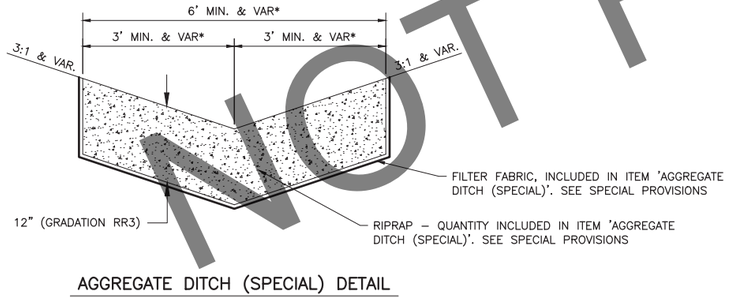
TYPICAL SECTION

PROPOSED
STA. 0+00 TO 8+00
(LOOKING NORTH)



TYPICAL SECTION

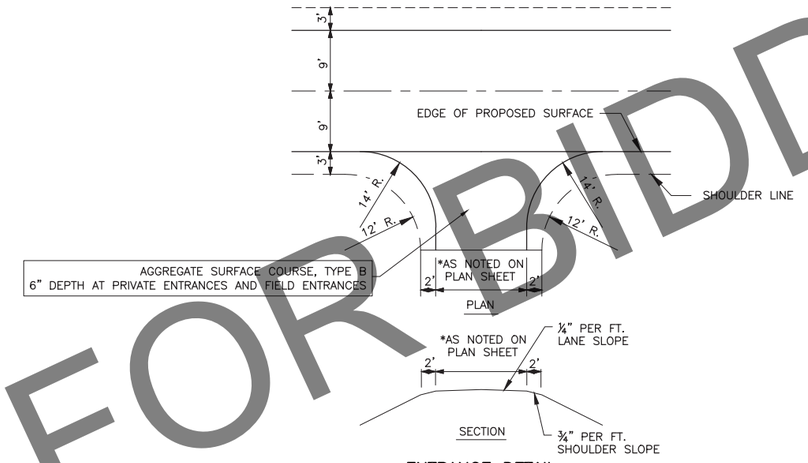
EXISTING



AGGREGATE DITCH (SPECIAL) DETAIL

RT. STA. 2+00 TO 4+00
LT. STA. 3+00 TO 4+60
LT. STA. 5+33 TO 5+70
LT. STA. 5+90 TO 7+00

*SEE PLAN & PROFILE AND CROSS SECTION SHEETS FOR VARIABLE WIDTHS AND DITCH SIDE SLOPES



ENTRANCE DETAIL

RT. STA. 4+25 – FE
LT. STA. 5+80 – FE

NOTES:
*SEE PLAN AND PROFILE SHEET FOR REQUIRED DIMENSION

GENERAL NOTES

THE CONTRACTOR SHALL CONTACT JULIE (1–800–892–0123) BEFORE COMMENCING WORK. UNDERGROUND UTILITIES SHOWN ON THE PLAN SHEETS WERE OBTAINED FROM LOCAL UTILITY COMPANIES AND OTHER AVAILABLE SOURCES. LOCATIONS, SIZE, MATERIAL, DESCRIPTION, OR TYPE OF EXISTING UTILITIES INDICATED ON THE PLANS ARE NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT, OR COMPLETE AND SHALL BE CONSIDERED APPROXIMATE. ABOVE GROUND UTILITY LOCATIONS ARE SHOWN AS FOUND DURING THE INITIAL SURVEY FIELD WORK AND MAY NOT REFLECT CURRENT CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND COORDINATION WITH UTILITY COMPANIES.

THE FOLLOWING RATES HAVE BEEN USED TO CALCULATE PLAN QUANTITIES:

AGGREGATE DITCH (SPECIAL)	1.75 TONS/CU YD
AGGREGATE SURFACE COURSE, TYPE B	2.0 TONS/CU YD
AGGREGATE BASE COURSE, TYPE B	2.0 TONS/CU YD

SCHEDULE OF KNOWN UTILITIES

DESIGN STAGE JULIE NO. A242650372

UTILITY COMPANY	TYPE	CONTACT NAME	PHONE NUMBER	E–MAIL ADDRESS	MAILING ADDRESS
NORRIS ELECTRIC CO–OP	ELECTRIC	TIM HUBER	618–783–8765	thuber@norriselectric.com	8543 N. ILLINOIS 130, NEWTON, IL 62448

COMMITMENTS

1. U.S. ARMY CORPS OF ENGINEERS SECTION 404 NATIONWIDE PERMIT.
2. TREES THREE (3) INCHES OR GREATER IN DIAMETER AT BREAST HEIGHT SHALL NOT BE CLEARED BETWEEN APRIL 1 AND SEPTEMBER 30 OF ANY GIVEN YEAR.

SUMMARY OF QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL QUANTITY
1	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.50
2	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	24
3	AGGREGATE DITCH (SPECIAL)	TON	510
4	EARTH EXCAVATION	CU YD	570
5	CHANNEL EXCAVATION	CU YD	485
6	FURNISHED EXCAVATION	CU YD	1,120
7	POROUS GRANULAR EMBANKMENT (SPECIAL)	TON	106
8	TRENCH BACKFILL	CU YD	80
9	PERIMETER EROSION BARRIER	FOOT	150
10	STONE DUMPED RIPRAP, CLASS A4	TON	930
11	AGGREGATE BASE COURSE, TYPE B	TON	425
12	AGGREGATE SURFACE COURSE, TYPE B	TON	900
13	REMOVAL OF EXISTING STRUCTURES	EACH	1
14	PIPE CULVERT REMOVAL	FOOT	72
15	CONCRETE STRUCTURES	CU YD	31.8
16	CONCRETE ENCASEMENT	CU YD	2.8
17	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	1,536
18	REINFORCEMENT BARS	POUND	4,880
19	STEEL RAILING, TYPE S1	FOOT	133
20	FURNISHING STEEL PILES HP12X53	FOOT	280
21	DRIVING PILES	FOOT	280
22	TEST PILE STEEL HP12X53	EACH	1
23	PILE SHOES	EACH	8
24	NAME PLATES	EACH	1
25	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 48"	EACH	2
26	TRAVERSABLE PIPE GRATE (SPECIAL)	EACH	2
27	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	40
28	PIPE CULVERTS, CLASS D, TYPE 2 48"	FOOT	80
29	TERMINAL MARKER - DIRECT APPLIED	EACH	4
30	FENCE (SPECIAL)	FOOT	275

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ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513

DESIGNED – BMB	REVISED –	
DRAWN – BMB	REVISED –	
CHECKED – BMB	REVISED –	
DATE – 7–16–2025	REVISED –	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES, TYPICAL SECTIONS, GENERAL NOTES, AND DETAILS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 52	23–04132–00–BR	RICHLAND	20	2
DENVER ROAD DISTRICT		ILLINOIS		

SEEDING SCHEDULE

ITEM NUMBER		1	FOR INFORMATION ONLY			
LOCATION	STATION	SEEDING, CLASS 2 (SPECIAL)	NITROGEN FERTILIZER NUTRIENT (100 LBS/ACRE)	PHOSPHOROUS FERTILIZER NUTRIENT (100 LBS/ACRE)	SUITABLE POTASSIUM FERTILIZER NUTRIENT (100 LBS/ACRE)	MULCH METHOD 2 (2 TONS/ACRE)
		(ACRE)	(POUND)	(POUND)	(POUND)	(TONS)
LT. & RT.	STA. 1+00.00 TO 4+66.09	0.30	30	30	30	0.60
LT. & RT.	STA. 5+33.91 TO 8+00.00	0.20	20	20	20	0.40
	TOTAL =	**0.50**	**50**	**50**	**50**	**1.00**

NOTE: FERTILIZER AND MULCH QUANTITIES SHOWN ARE FOR INFORMATION ONLY, SEE SPECIAL PROVISIONS

TREE REMOVAL SCHEDULE

ITEM NUMBER			2
LOCATION	STATION	OFFSET FROM CL	TREE REMOVAL, OVER 15 UNITS DIAMETER
		(FT)	(UNIT)
LT.	STA. 4+58	25	24
	TOTAL =		**24**

AGGREGATE DITCH SCHEDULE

ITEM NUMBER		3
LOCATION	STATION	AGGREGATE DITCH (SPECIAL)
		(TON)
RT.	STA. 2+00 TO 4+00	180
LT.	STA. 3+00 TO 4+60	195
LT.	STA. 5+33 TO 5+70	30
LT.	STA. 5+90 TO 7+00	105
	TOTAL =	**510**

PERIMETER EROSION BARRIER

ITEM NUMBER		9
LOCATION	STATION	PERIMETER EROSION BARRIER
		(FOOT)
RT.	STA. 5+50 TO 7+00	150
	TOTAL =	**150**

PIPE CULVERT REMOVAL SCHEDULE

ITEM NUMBER				14
LOCATION	STATION	DIAMETER	TYPE	PIPE CULVERT REMOVAL
		(IN)		(FOOT)
A.R.	STA. 4+06	48 E.R.S.	ELLIPTICAL CMP	51
LT.	STA. 5+51	18	CMP	21
		TOTAL =		**72**

PIPE CULVERT SCHEDULE

ITEM NUMBER		27	28	8	11	25	26
LOCATION	STATION	PIPE CULVERTS, CLASS D, TYPE 1 18"	PIPE CULVERTS, CLASS D, TYPE 2 48"	TRENCH BACKFILL	AGGREGATE BASE COURSE, TYPE B	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 48"	TRAVERSABLE PIPE GRATE (SPECIAL)
		(FOOT)	(FOOT)	(CY)	(TON)	(EACH)	(EACH)
A.R.	STA. 3+91.56	-	80	80	410	2	2
LT.	STA. 5+80	40	-	-	15	-	-
	TOTAL =	**40**	**80**	**80**	425	2	2

ROADWAY SCHEDULE

ITEM NUMBER		12
LOCATION	STATION	AGGREGATE SURFACE COURSE, TYPE B
		(TON)
LT. & RT.	STA. 0+00.00 TO 4+66.90	490
LT. & RT.	STA. 5+33.10 TO 8+00.00	310
RT.	STA. 4+25 (F.E.)	85
LT.	STA. 5+80 (F.E.)	15
	TOTAL =	**900**

EARTHWORK SCHEDULE

CODE NUMBER		4	5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LOCATION	STATION	EARTH EXCAVATION	CHANNEL EXCAVATION	PERCENT USED	ESTIMATED UNSUITABLE MATERIAL	ESTIMATED SUITABLE MATERIAL	SHRINKAGE FACTOR	ESTIMATED SUITABLE MATERIAL ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
		(CU YD)	(CU YD)	(%)	(CU YD)	(CU YD)	(%)	(CU YD)	(CU YD)	(CU YD)
LT. & RT.	STA. 1+50 TO 4+66.90	90		100	0	90	25	68	1145	-1077
LT. & RT.	STA. 4+66.90 TO 5+33.10 (PROPOSED BRIDGE)		485	50	242.5	242.5	25	182		182
LT. & RT.	STA. 5+33.10 TO 8+00	65		100	0	65	25	49	370	-321
	SUBTOTAL =	155	485		242.5	397.5		299	1515	
	VOLUMES NOT SHOWN ON CROSS SECTION SHEETS									
LT. & RT.	CONCRETE STRUCTURES & POROUS GRANULAR EMBANKMENT ABUTMENT BACKFILL VOID	130		100	0	130	25	98		98
LT. & RT.	AGGREGATE DITCH (SPECIAL)	285		100	0	285	25	214		214
RT.	STA. 4+25 (FIELD ENTRANCE)								155	-155
LT.	STA. 5+80 (FIELD ENTRANCE)								60	-60
	TOTAL =	570	485		242.5	812.5		611	1730	-1119

NOTES: 1. COST OF EXCAVATION FOR CONCRETE STRUCTURES INCLUDED IN ITEM "EARTH EXCAVATION."
2. SUITABLE EXCAVATED MATERIAL EXCAVATED FROM THE CHANNEL SHALL BE USED TO CONSTRUCT THE SHOULDER WIDENING.
3. UNSUITABLE MATERIAL SHALL BE DISPOSED OFF THE JOBSITE BY THE CONTRACTOR.
4. FURNISHED EXCAVATION = 1120 C.Y.

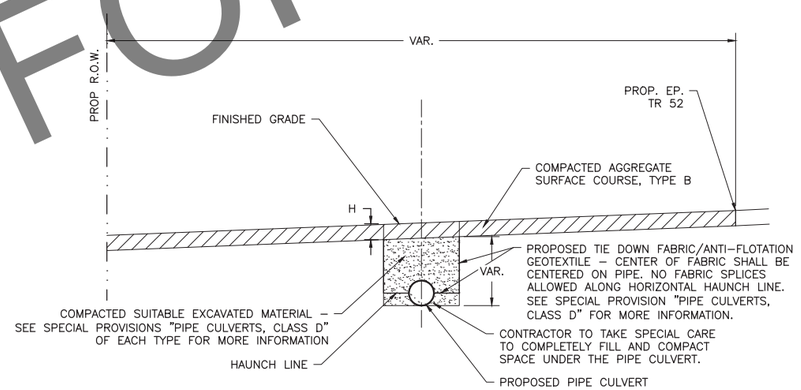
RIPRAP SCHEDULE

ITEM NUMBER			10
LOCATION	STATION	OFFSET FROM CL	STONE DUMPED RIPRAP, CLASS A4
		(FT)	TON
LT. & RT.	STA. 4+58	0 TO 55	812
RT.	STA. 4+67 TO 5+33	55	118
		TOTAL =	**930**

FENCE SCHEDULE

ITEM NUMBER		30	N/A	N/A
LOCATION	STATION	FENCE (SPECIAL)	FENCE REMOVAL	CATTLE GUARD REMOVAL
		(FOOT)	(FOOT)	(FOOT)
LT.	STA. 4+00 TO 4+39	45	-	-
LT.	STA. 5+08 TO 7+21	230	-	-
LT.	STA. 4+00 TO 7+21	-	325	-
LT.	STA. 4+80 TO 5+20	-	-	40
	TOTAL =	**275**	**325**	**40**

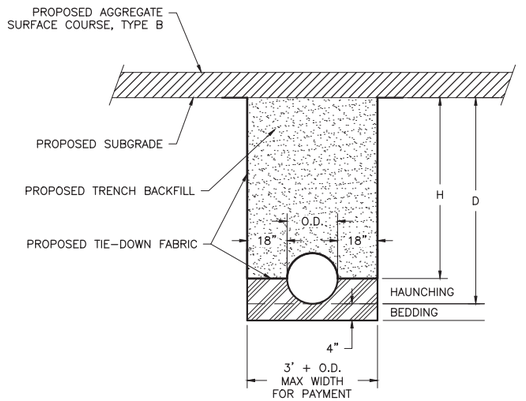
NOTE: FENCE REMOVAL AND CATTLE GUARD REMOVAL QUANTITY SHOWN IS FOR INFORMATION ONLY. FENCE REMOVAL AND CATTLE GUARD REMOVAL WILL NOT BE PAID FOR SEPARATALY, BUT SHALL BE INCLUDED IN THE COST OF FENCE (SPECIAL). RE-ERECTION OF THE CATTLE GUARD WILL BE BY OTHERS.



TRENCH DETAIL - ENTRANCES

THROUGH AGGREGATE OR GRASS SURFACES

NOTES:
1. DIMENSION H = 6" FOR PRIVATE ENTRANCES (PE)
2. DIMENSION H = 6" FOR FIELD ENTRANCES (FE)



TRENCH DETAIL - PIPE CULVERTS, CLASS D, TYPE 2 48"

NOTES:
1. BEDDING AND HAUNCHING TO THE MIDPOINT OF PIPE INCLUDED IN ITEM "PIPE CULVERTS, CLASS D, TYPE 2 48".
2. TIE DOWN FABRIC - CENTER OF FABRIC SHALL BE CENTERED ON PIPE. NO FABRIC SPLICES ALLOWED ALONG HORIZONTAL HAUNCH LINE.

CHARLESTON ENGINEERING, INC.
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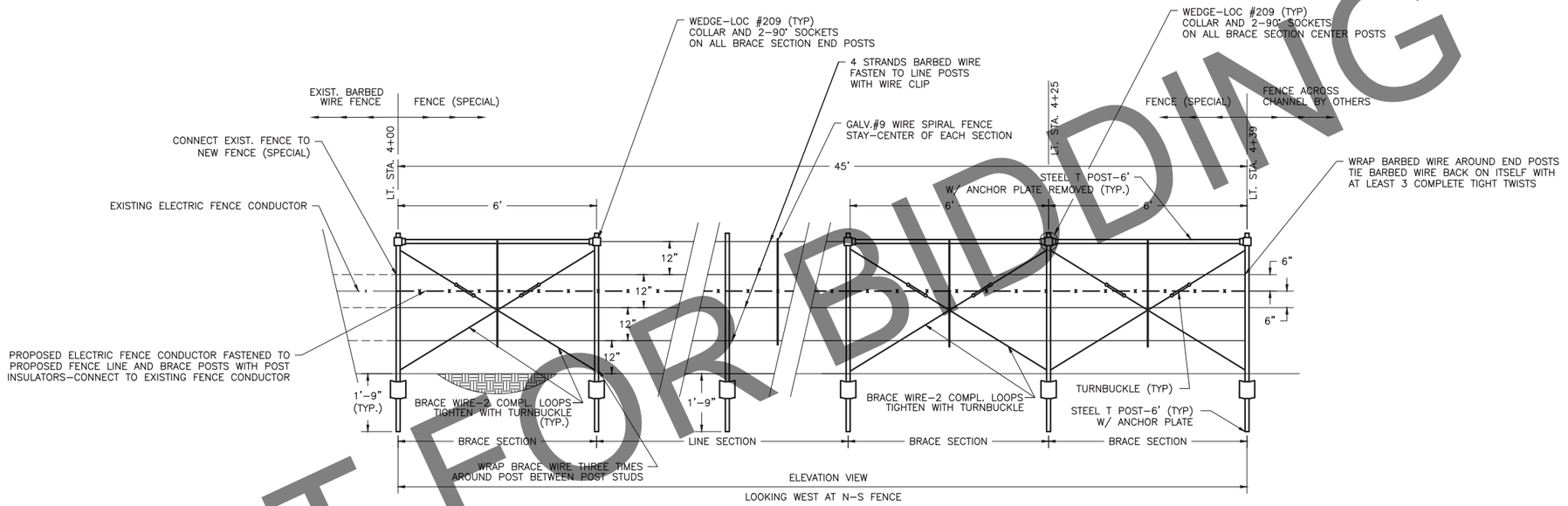
105 NORTH KITCHELL AVENUE OLNEY, ILLINOIS 62450
P.O. BOX 397 (618) 392-0736
ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513

DESIGNED - BMB	REVISED -
DRAWN - BMB	REVISED -
CHECKED - BMB	REVISED -
DATE - 7-16-2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES AND DETAILS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 52	23-04132-00-BR	RICHLAND	20	3
DENVER ROAD DISTRICT		ILLINOIS		

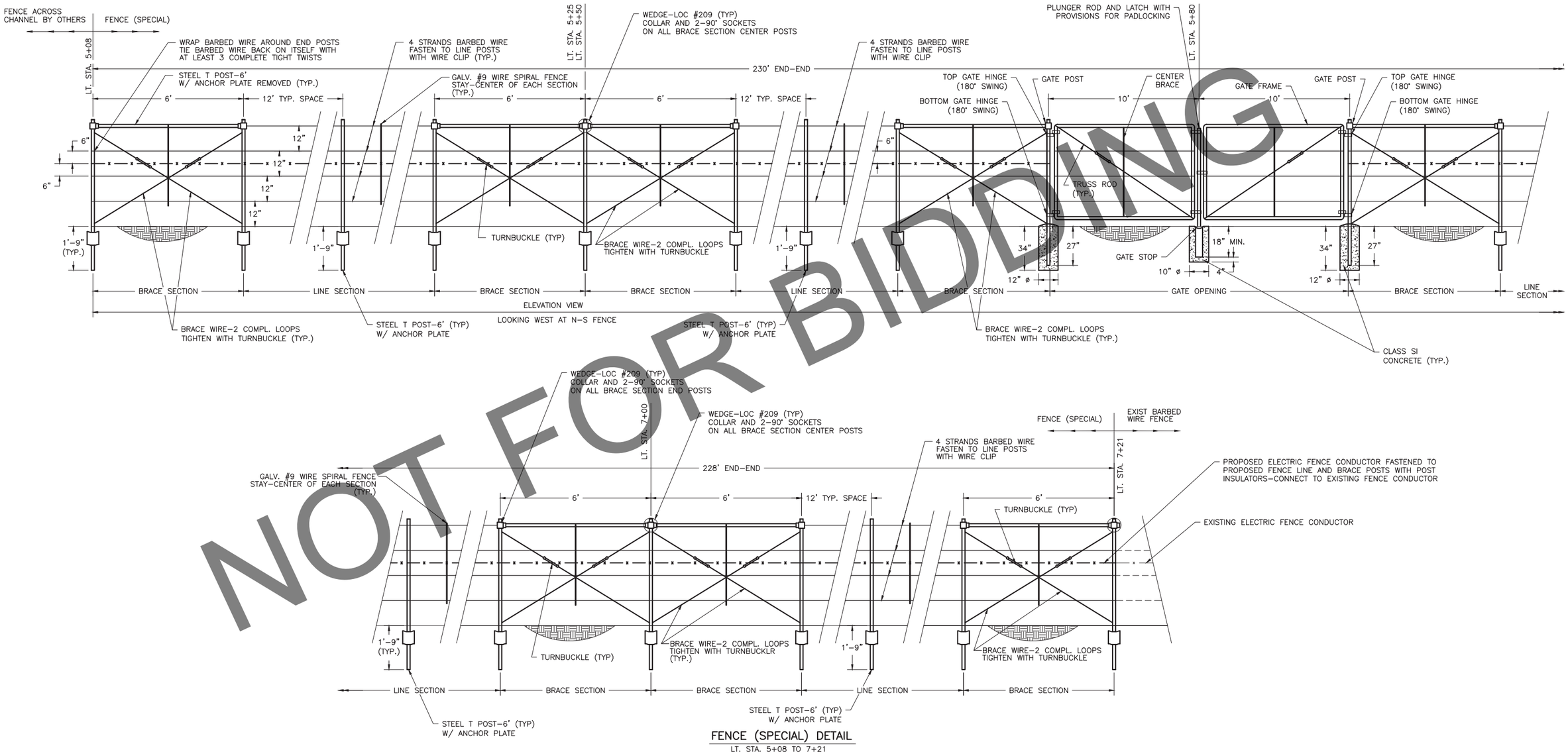


FENCE (SPECIAL) DETAIL

LT. STA. 4+00 TO 4+39

CHARLESTON ENGINEERING, INC. CONSULTING ENGINEERS - LAND SURVEYORS 105 NORTH KITCHELL AVENUE OLNEY, ILLINOIS 62450 P.O. BOX 397 (618) 392-0736 ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513	DESIGNED – BMB DRAWN – BMB CHECKED – BMB DATE – 7–16–2025	REVISED – REVISED – REVISED – REVISED –	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FENCE (SPECIAL) DETAIL	

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 52	23–04132–00–BR	RICHLAND	20	4
DENVER ROAD DISTRICT		ILLINOIS		



FENCE (SPECIAL) DETAIL

LT. STA. 5+08 TO 7+21

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FENCE (SPECIAL) DETAIL

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 52	23–04132–00–BR	RICHLAND	20	5
DENVER ROAD DISTRICT		ILLINOIS		

SCALES:
1" = 50' HOR
1" = 5' VER

P.O.T. STA. 0+00.00
N: 775617.17
E: 1020530.38
COORDINATES BASED ON NAD83
ILLINOIS STATE PLANE
COORDINATE SYSTEM
(TO BE SET)

MARK GARY RUDOLPHI
CHRISTOPHER DEAN RUDOLPHI

STA. 5+00.00 PROPOSED STRUCTURE 080-3235
SINGLE SPAN PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE
62'-8½" SPAN, 27" DEPTH BEAMS
STEEL PILE / SPILLTHROUGH ABUTMENTS
24.0' WIDE DECK
25° FORWARD RIGHT SKEW

EXISTING CATTLE GUARD FENCE-TO BE REMOVED AND SALVAGED ON THE EXISTING WEST PASTURE BY THE CONTRACTOR

P.O.T. STA. 8+00.00
N: 776417.16
E: 1020526.67
COORDINATES BASED ON NAD83
ILLINOIS STATE PLANE
COORDINATE SYSTEM
(TO BE SET)

PROPOSED FENCE (SPECIAL)

STA. 3+91.56 CONSTRUCT A.R. PIPE
48"ø X 80' PIPE CULVERT, CL-D, TY-2
2 - P.R.C.F.E.S. 48" WITH GRATING
U.S.F.L. = 464.25
D.S.F.L. = 463.29

B.M. LT. STA. 5+62
21.8' LT. OF PROPOSED ℄ ALIGNMENT
CHISELED "X" TOP CONCRETE GATE POST
ELEV. 473.97

LT. STA. 5+80.00
CONSTRUCT F.E. 18' WIDTH
PIPE CULVERT 40' X 18"ø
CL-D, TY-1
U.S.F.L. = 469.32
D.S.F.L. = 468.76

SECTION 23-04132-00-BR
BEGINS STA. 0+00.00

SECTION 23-04132-00-BR ENDS STA. 8+00.00

EXISTING FENCE

℄ SURVEY & CONSTRUCTION TR 52

EXIST. R.O.W.

PROP. R.O.W.

SUGAR CREEK

EXISTING OVERHEAD ELECTRIC LINE

NORRIS ELECTRIC CO-OP
ROUTE 130 SOUTH
NEWTON, ILLINOIS 62448
PH. 618-783-8765

HATCH LEGEND

PROPOSED AGGREGATE DITCH

EXISTING BROKEN
CONCRETE AND RIPRAP

TREE REMOVAL

TRANSITION EXISTING ROADWAY TO PROPOSED ROADWAY STA. -0+50 TO 1+00 AND 8+00 TO 8+50. QUANTITIES FOR THE ABOVE ARE INCLUDED IN THOSE LISTED.

PROPOSED TEMPORARY
CONSTRUCTION EASEMENT

RT. STA. 4+25.00
CONSTRUCT F.E. 46' WIDTH
NO PIPE

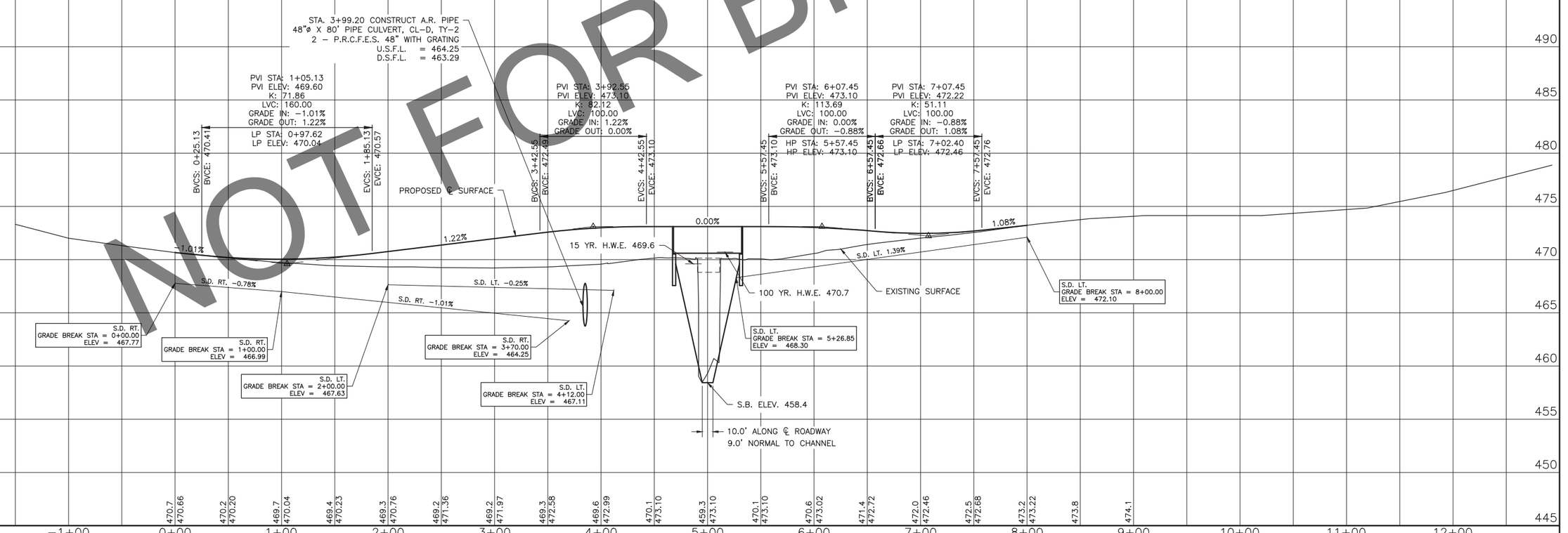
DUSTIN M. RUDOLPHI

APPROACH SHOULDER WIDENING
TRANSITION-SEE SHEET 7

STA. 5+00.67 EXISTING STRUCTURE (NO SN)
SINGLE SPAN STEEL GIRDER BRIDGE WITH C.I.P. CONCRETE DECK
BEARING ON CLOSED CONCRETE ABUTMENTS
TO BE REMOVED AND DISPOSED OFF OF THE JOBSITE BY THE CONTRACTOR
24.4' LENGTH DECK
20.1' WIDE DECK
NO SKEW

NOTE

RT. STA. 0+00 TO STA. 1+00 - PROVIDE 2.5H:1V FRONT AND BACK SLOPES
RT. STA. 1+00 TO STA. 2+00 - PROVIDE 2.5H:1V FRONT SLOPE AND 1.5H:1V BACK SLOPE
RT. STA. 2+00 TO STA. 3+50 - PROVIDE 1.5H:1V FRONT AND BACK SLOPES
LT. STA. 2+00 TO STA. 2+50 - PROVIDE 2.5H:1V FRONT SLOPE AND 1.5H:1V BACK SLOPE
LT. STA. 2+50 TO STA. 4+67 - PROVIDE 1.5H:1V FRONT AND BACK SLOPES
LT. STA. 5+33 TO LT. STA. 8+00 - PROVIDE 1.5H:1V FRONT AND BACK SLOPES



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DESIGNED - BMB	REVISED -	
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DATE - 7-16-2025	REVISED -	

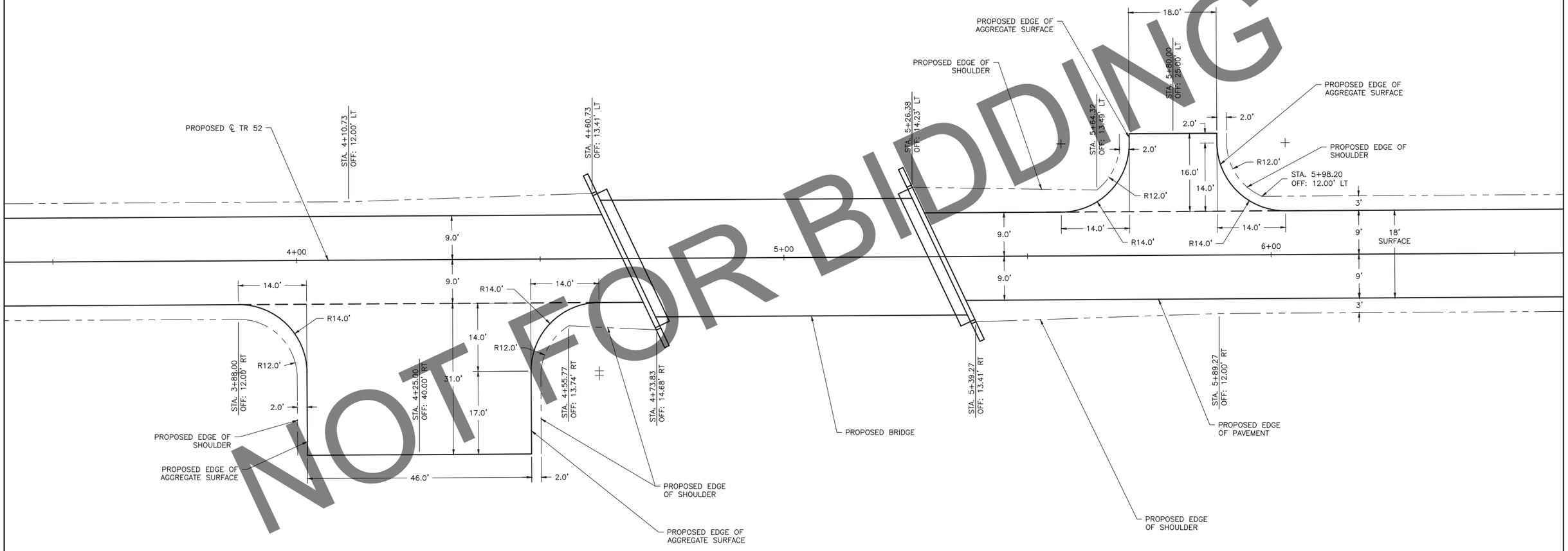
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 52	23-04132-00-BR	RICHLAND	20	6
DENVER ROAD DISTRICT		ILLINOIS		

SCALE:
1" = 10'

NOTE: PROPOSED SHOULDER AND EDGE OF PAVEMENT CONTINUE TO BEGINNING AND END OF PROJECT AS SHOWN ON PLAN AND PROFILE SHEET.



PROPOSED SHOULDER LAYOUT

CHARLESTON ENGINEERING, INC.
CONSULTING ENGINEERS - LAND SURVEYORS
105 NORTH KITCHELL AVENUE OLNEY, ILLINOIS 62450
P.O. BOX 397 (618) 392-0736
ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513

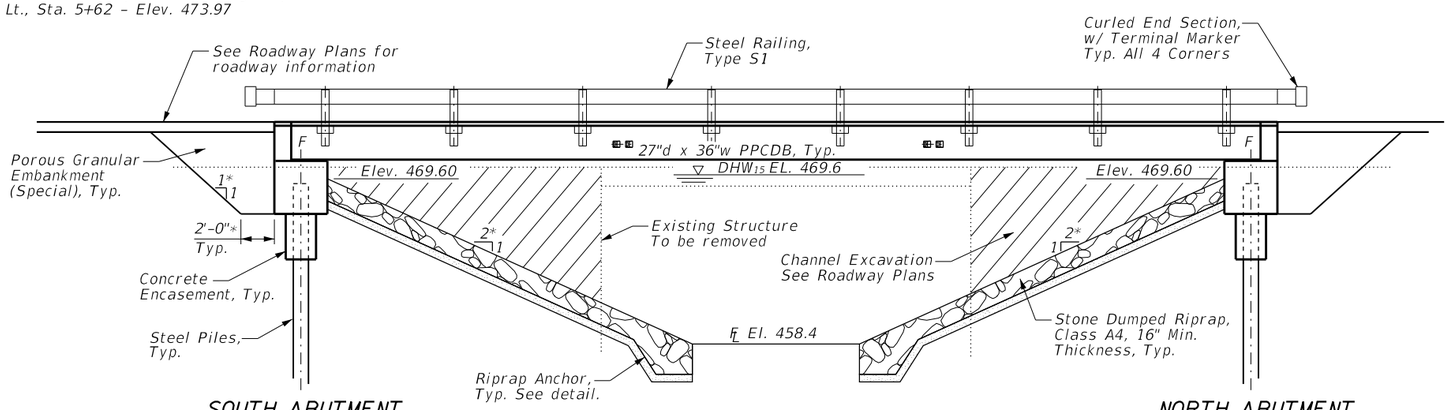
DESIGNED – BMB	REVISED –
DRAWN – BMB	REVISED –
CHECKED – BMB	REVISED –
DATE – 7-16-2025	REVISED –

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

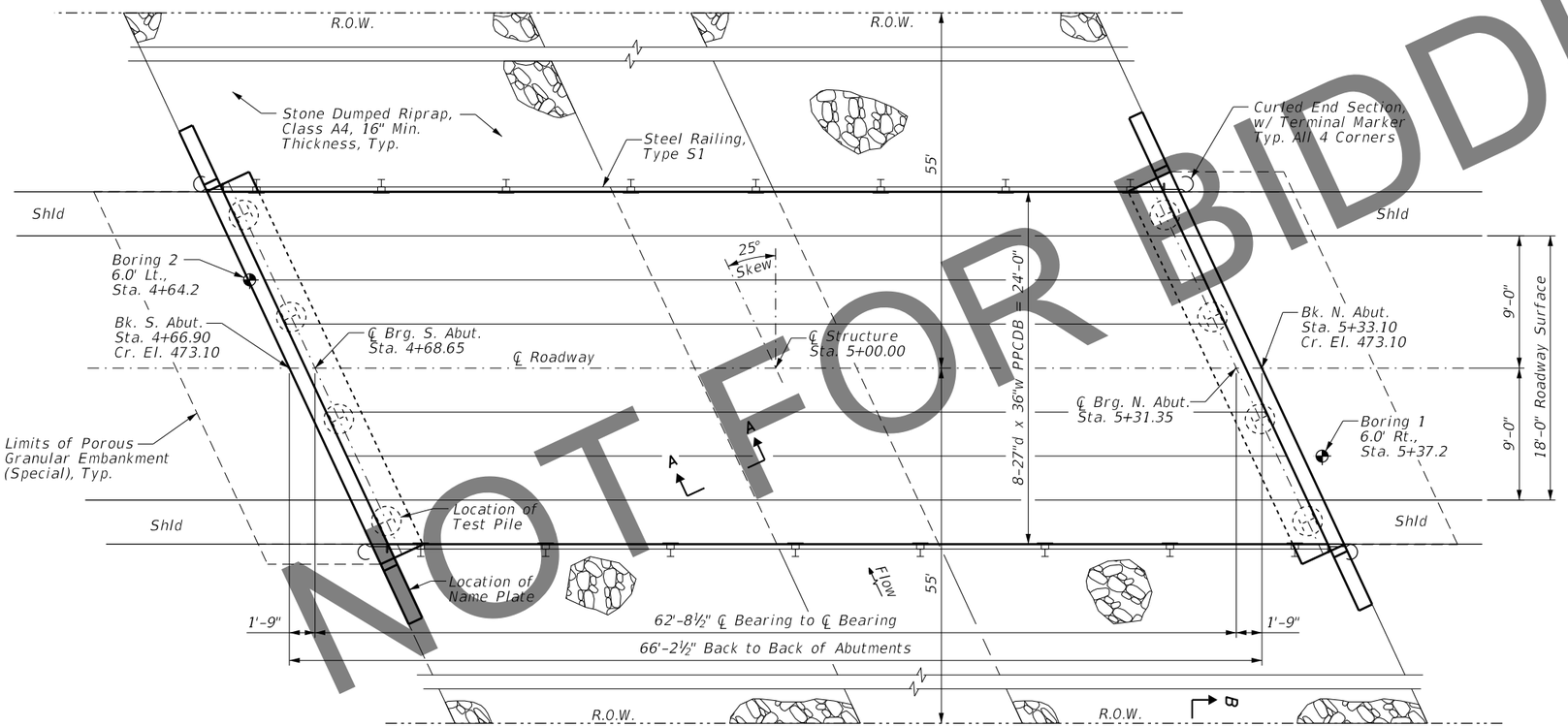
BRIDGE SHOULDER WIDENING PLAN AND FIELD ENTRANCE DETAIL

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 52	23-04132-00-BR	RICHLAND	20	7
DENVER ROAD DISTRICT		ILLINOIS		

BM – Chiseled "X" top of concrete gate post
21.8' Lt., Sta. 5+62 – Elev. 473.97



ELEVATION
(* Normal to Channel)



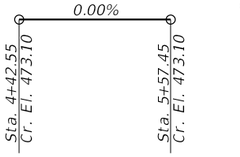
PLAN

WATERWAY INFORMATION

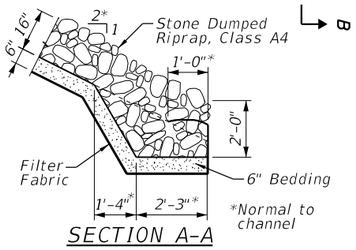
(Hydraulic information furnished by Charleston Engineering, Inc.)

Drainage Area = 4.4 sq. mi.
Exist. Low Grade Elev. 469.2 @ Sta. 2+75
Prop. Low Grade Elev. 470.04 @ Sta. 0+97.62

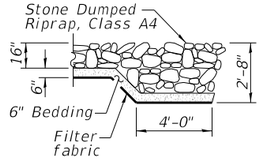
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head – Ft. Exist.	Head – Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	15	1475	198	352	469.6	0.6	0.2	470.2	469.8
Base	100	2410	199	411	470.7	1.2	0.3	471.9	471.0
-	-	-	-	-	-	-	-	-	-
Max. Calc.	500	3290	199	411	471.4	0.8	0.8	472.2	472.2



GRADE ON STRUCTURE
(along ℄ TR 52)



SECTION A–A
*Normal to channel



SECTION B-B

LOADING HL-93

50#/sq. ft. included for future wearing surface.

DESIGN SPECIFICATIONS

AASHTO LRFD Bridge Design Specifications 2020 (9th Ed.)

DESIGN STRESSES

FIELD UNITS

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

PRECAST PRESTRESSED UNITS

f'_c = 6,000 psi
f'_{ci} = 5,000 psi
f_{pu} = 270,000 psi (½"Ø low lax. strands)
f_{pbt} = 201,960 psi (½"Ø low lax. strands)
f_y = 60,000 psi (reinforcement)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Soil Site Classification = D
S_{D1} = 0.242 S_{DS} = 0.564

Existing Structure: Existing Structure No. None. Single span steel girder bridge with C.I.P. concrete deck on closed concrete abutments and wingwalls. 24.4' L. x 20.1' W. No skew. To be removed.

BILL OF MATERIALS (BRIDGE ONLY)

ITEM	UNIT	TOTAL
Stone Dumped Riprap, Class A4	Ton	812
Removal of Existing Structures	Each	1
Concrete Structures	Cu Yd	31.8
Concrete Encasement	Cu Yd	2.8
PPCDB (27" Depth)	Sq Ft	1536
Reinforcement Bars	Pound	4880
Steel Railing, Type S1	Foot	133
Furnishing Steel Piles HP12x53	Foot	280
Driving Piles	Foot	280
Test Pile Steel HP12x53	Each	1
Piles Shoes	Each	8
Name Plates	Each	1
Terminal Marker – Direct Applied	Each	4
Porous Granular Embankment (Special)	Ton	106

GENERAL NOTES

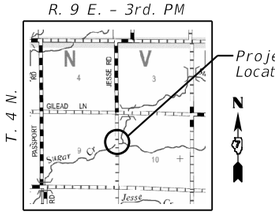
1. Do not scale these drawings.
2. See Section 502 of the Standard Specifications for Structural Excavation. An allowance for Structure Excavation has been included in the quantity for Earth Excavation. See note on Earthwork Schedule, Sheet 3.
3. Channel Excavation shall be excavated as shown within the limits of the proposed bridge, then tapered to the existing channel at the ROW line. See Roadway Plan and Profile sheet for Channel Excavation quantity. If the Engineer deems the material satisfactory, it may be used to construct the roadway embankment. See note on Earthwork Schedule, Sheet 3.
4. Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer. The cost of the bedding material and filter fabric shall be included in the cost of the Stone Dumped Riprap, Class A4 and no additional compensation will be allowed. The estimated quantity for the bedding material is 240 tons and the estimated quantity for filter fabric is 734 sq yd (for information only). The quantity shown for Stone Dumped Riprap, Class A4 includes the estimated quantity for the bedding material.
5. See Sheet 14 for Soil Borings.
6. The abutment bearing seat surfaces for the Precast Prestressed Concrete Deck Beams shall be adjusted by shimming to assure firm and even bearing. As required, ⅛" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

SUGAR CREEK
BUILT 20__ BY
RICHLAND COUNTY
SEC. 23–04132–00–BR
TR 52 STA. 5 + 00.00
LOADING HL–93
STRUCTURE NO. 080–3235

NAME PLATE

See Std. 515001

R. 9 E. - 3rd. PM



LOCATION SKETCH

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO Standard Specifications for Highway Bridges.

Signed: 07/21/2025

John S. Peradotti
Salem, Illinois
Illinois Licensed Structural Engineer
No. 081-005671
Lic. Expires Nov. 30, 2026

JOHN S. PERADOTTI 081-005671 LICENSED STRUCTURAL ENGINEER STATE OF ILLINOIS

GCL JOB NO. 24-6037

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GONZALEZ COMPANIES, LLC
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www.gonzalezcos.com
ILLINOIS PROFESSIONAL DESIGN FIRM 184.004564

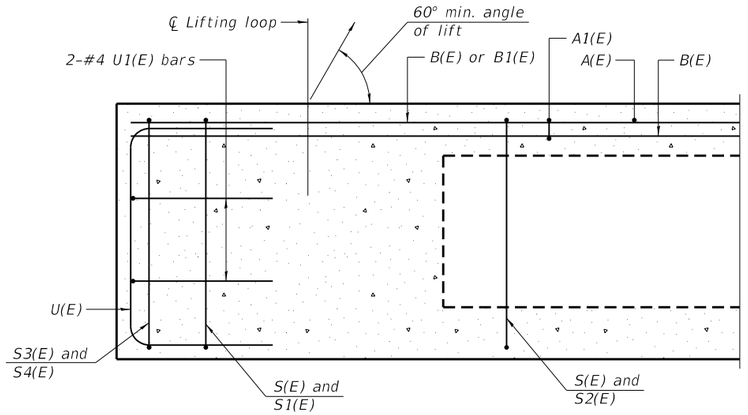
DESIGNED - JSP	REVISED -	
DRAWN - JN	REVISED -	
CHECKED - BLT	REVISED -	
DATE - 07/21/2025	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

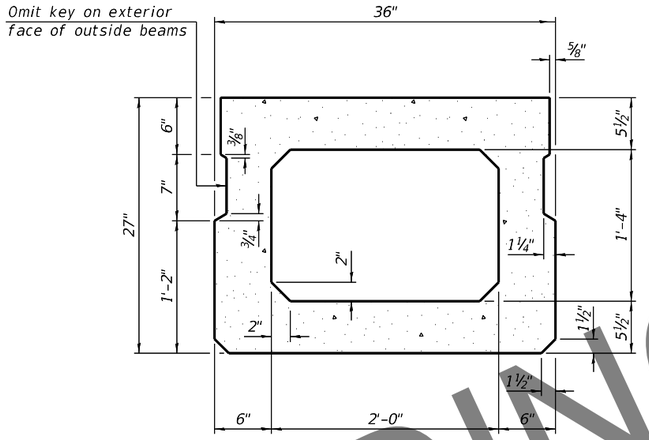
GENERAL PLAN AND ELEVATION

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 52	23-04132-00-BR	RICHLAND	20	8
DENVER ROAD DISTRICT		ILLINOIS		

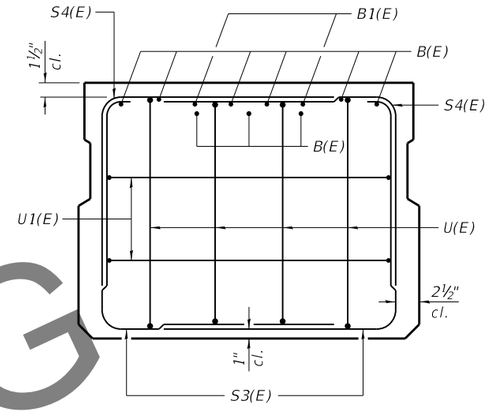
MODEL: Default
FILE NAME: S:\Projects\2024\24-6037.000 Charleston Engineering - TR 52 Richland Co Bridge\2D Design\CADD\008 GPE-24-6037.dgn



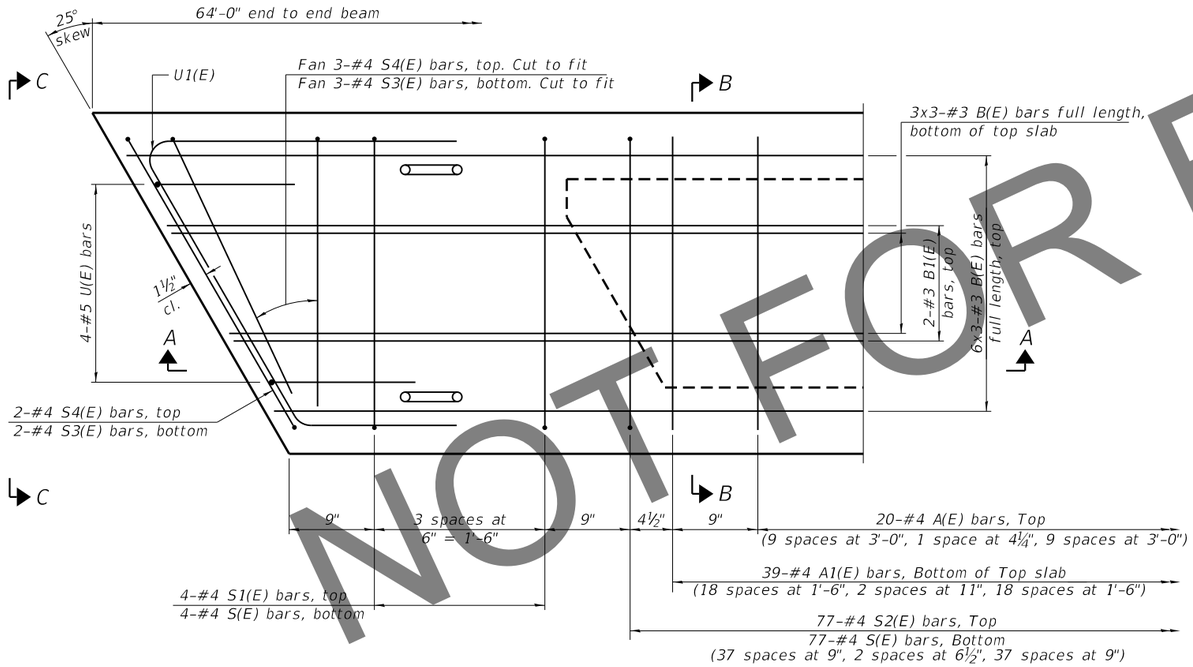
SECTION A-A



SECTION B-B
(Showing dimensions)



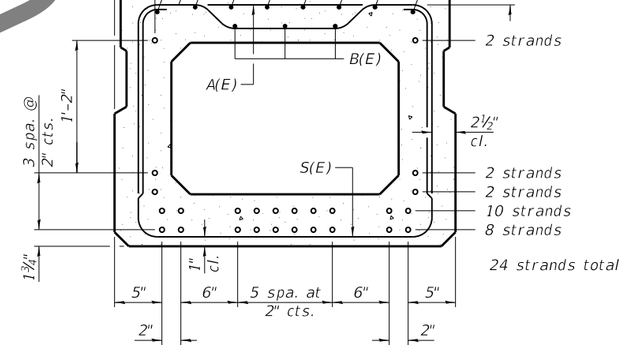
VIEW C-C



PLAN VIEW

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.
Bars indicated thus: 6x3-#3, etc. indicates 6 lines of bars with 3 lengths per line.

Similar about ℄



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)	20	#4	2'-7"	—
A1(E)	39	#4	2'-10"	~
B(E)	27	#3	22'-3"	—
B1(E)	4	#3	10'-0"	—
S(E)	85	#4	7'-5"	⊔
S1(E)	8	#4	5'-11"	⊓
S2(E)	77	#4	6'-2"	⊐
S3(E)	10	#4	4'-11"	⊔
S4(E)	10	#4	4'-2"	⊔
U(E)	8	#5	4'-6"	⊏
U1(E)	4	#4	6'-6"	⊂

Note:
See sheet 10 for additional details and Bill of Material.

MODEL: Default
FILE NAME: S:\Projects\2024\24-6037.000 Charleston Engineering - TR 52 Richland Co Bridges\20 Design\CADD\009-010 PPCDBs-24-6037.dgn

GCL JOB NO. 24-6037

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7 CARPENTER DRIVE
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PHONE (618) 222-2221
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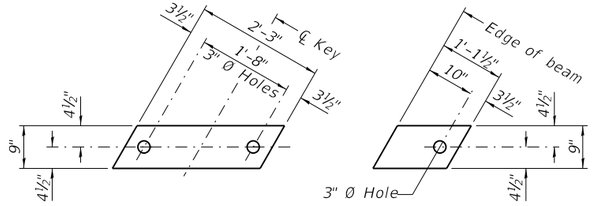
ILLINOIS PROFESSIONAL DESIGN FIRM 184.004564

DESIGNED - JSP	REVISED -	
DRAWN - JN	REVISED -	
CHECKED - BLT	REVISED -	
DATE - 07/21/2025	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST PRESTRESSED CONCRETE DECK BEAM DETAILS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 52	23-04132-00-BR	RICHLAND	20	9
DENVER ROAD DISTRICT		ILLINOIS		

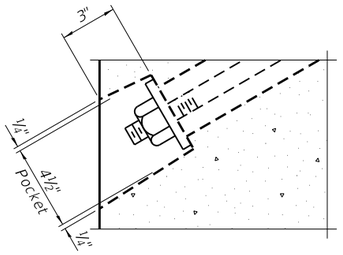


FABRIC BEARING PAD
(Interior)

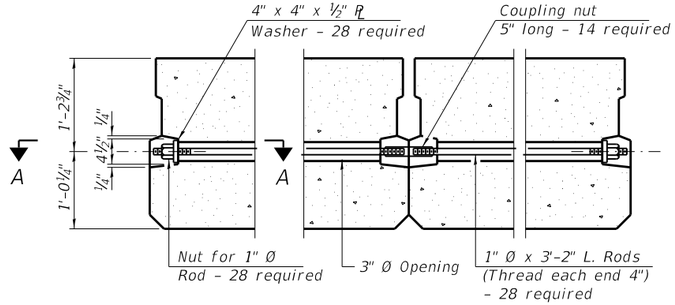
FABRIC BEARING PAD
(Exterior)

Notes:
All bearing pads shall be 1" thick.

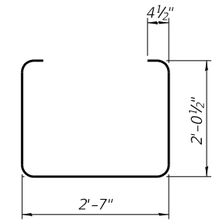
FIXED



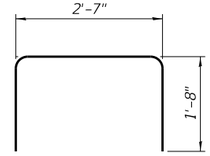
SECTION A-A



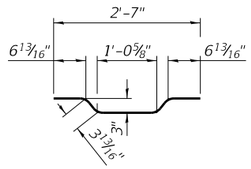
TYPICAL TRANSVERSE TIE ASSEMBLY



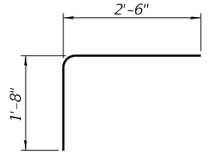
BAR S(E)



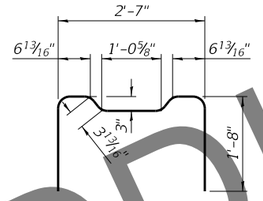
BAR S1(E)



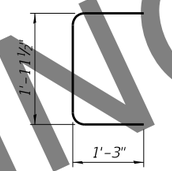
BAR A1(E)



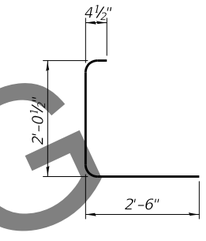
BAR S4(E)



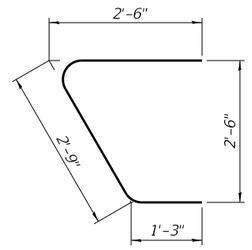
BAR S2(E)



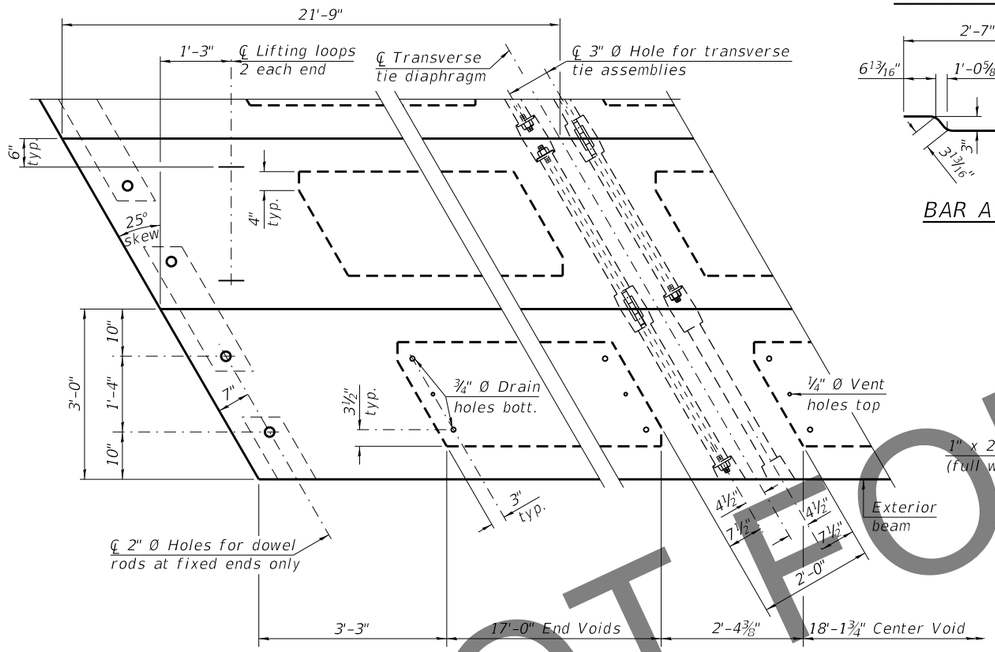
BAR U(E)



BAR S3(E)

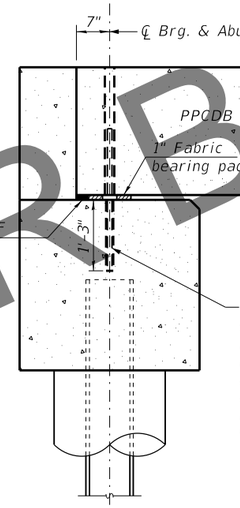


BAR U1(E)

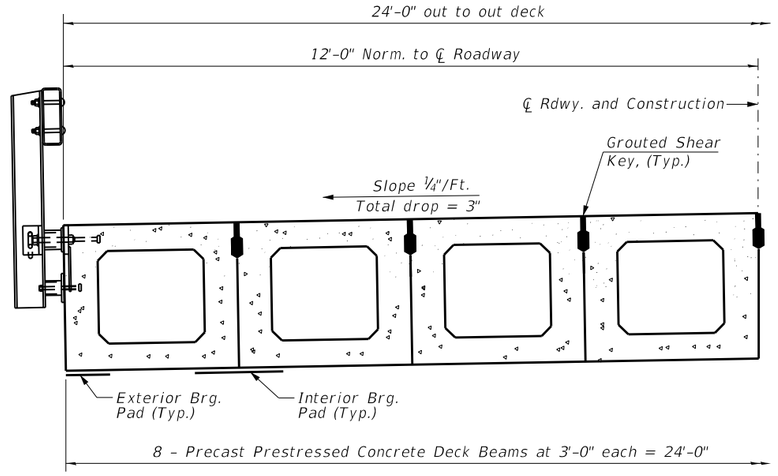


PLAN VIEW

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

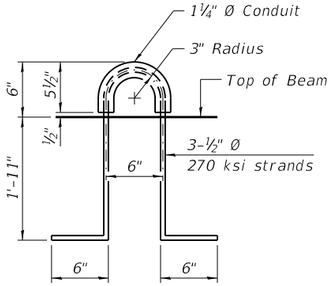


FIXED BEARING ABUTMENT
(Dimensions are Normal to Abutments)



CROSS SECTION

See sheet 11 for the details showing the spacing and mounting of poast and rails to the PPCDB.



LIFTING LOOP DETAIL

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.

Reinforcement bars shall conform to the requirements of ASTM A706, Grade 60 (IL Modified).

The 1" Ø 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 ⅛" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 2½" Ø 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.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (27" depth)	Sq. Ft.	1536

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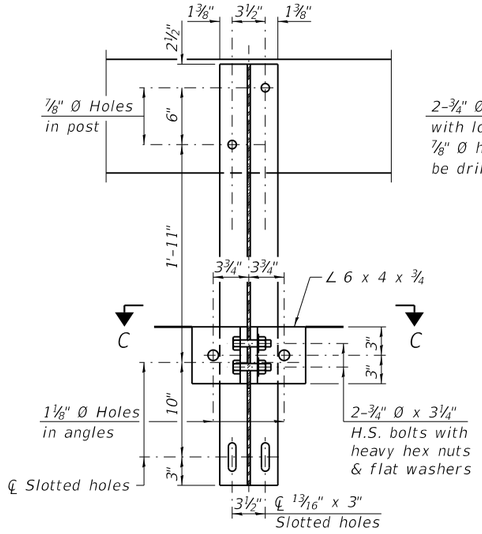
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST PRESTRESSED CONCRETE DECK BEAM DETAILS

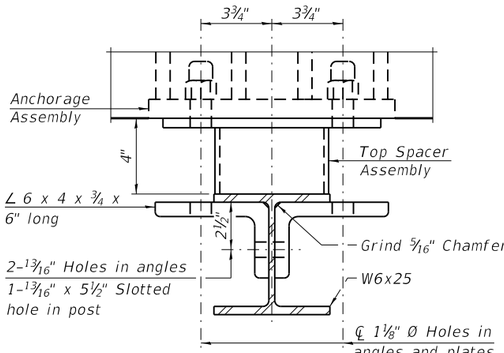
GCL JOB NO. 24-6037

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 52	23-04132-00-BR	RICHLAND	20	10
DENVER ROAD DISTRICT		ILLINOIS		

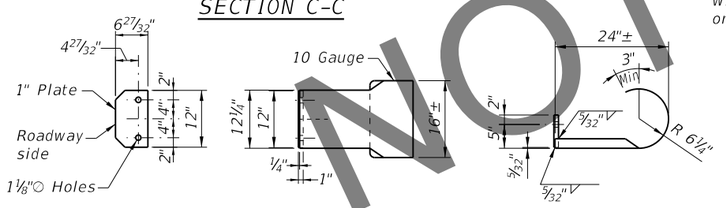
MODEL: Default
FILE NAME: S:\Projects\2024\24-6037.000 Charleston Engineering - TR 52 Richland Co Bridges\20 Design\CADD\0009-0.0_PPCDB-24-6037.dgn



SECTION B-B

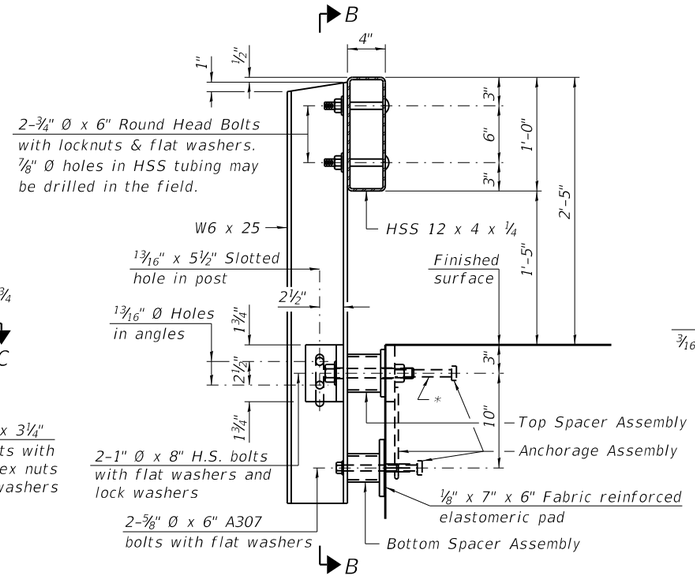


SECTION C-C



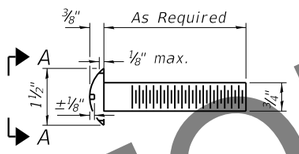
CURLED END SECTION DETAILS

4 Each Req'd

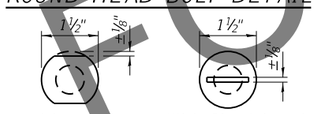


SECTION AT RAILING POST

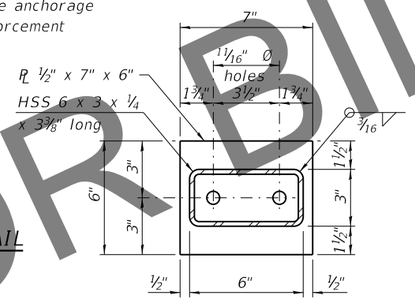
* The outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchorage assembly. The anchorage studs may be bent down ½" to accommodate the top reinforcement bar placement.



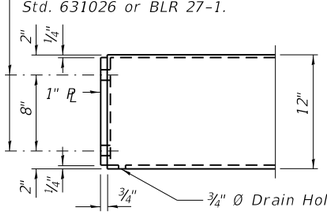
ROUND HEAD BOLT DETAIL

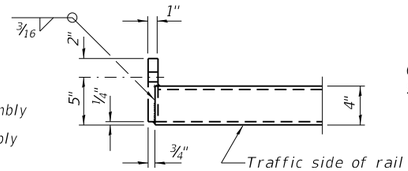


VIEW A-A



BOTTOM SPACER ASSEMBLY





END OF RAIL DETAILS

Notes:

A sufficient number of shims of various thicknesses, sized to fit behind the top spacer assembly, 5" x 11½", and bottom spacer assembly, 6" x 7", shall be provided to adjust posts for proper alignment. If the summation of shims is greater than ¼" (top) or ½" (bottom), longer bolts are required. Cost included with Steel Railing, Type S1.

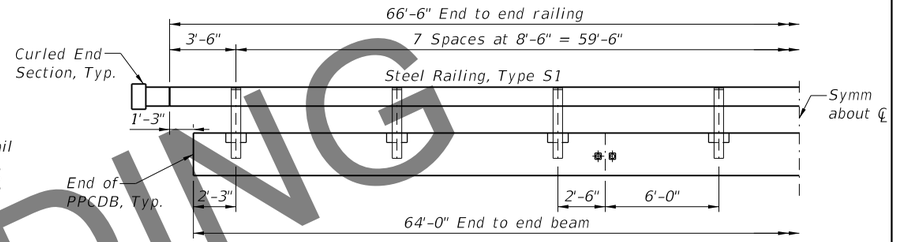
All steel rail elements including shims shall be galvanized according to Article 509.05 of the Standard Specifications.

All HSS tubing serving as railing shall be CVN tested according to Article 1006.34(b) of the Standard Specifications.

Rail splice inserts may be built out of 2 -⅜" bent plates in lieu of the 4 plate rail splice inserts shown, provided the outside dimensions are matched.

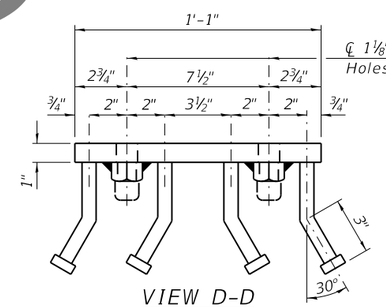
All round head bolts shall be ASTM A307 with locknuts according to ASTM A563 grade A.

All field drilled holes shall be coated with an approved zinc-rich paint before erection.

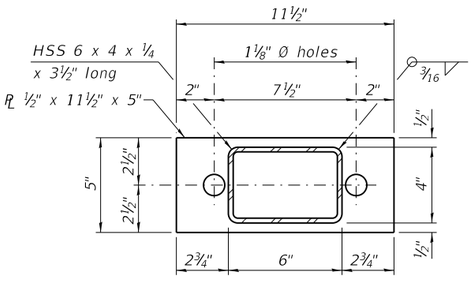


HALF ELEVATION

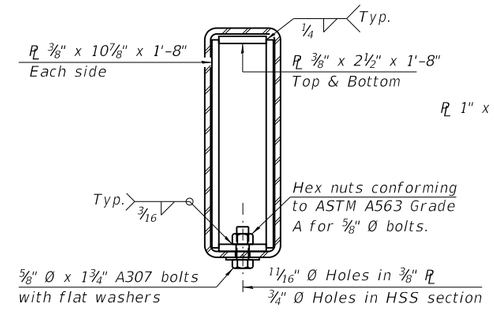
Note: The cost of the Curled End Sections shall be included in the contract unit price per foot for "STEEL RAILING, TYPE S1", and no additional compensation will be allowed.



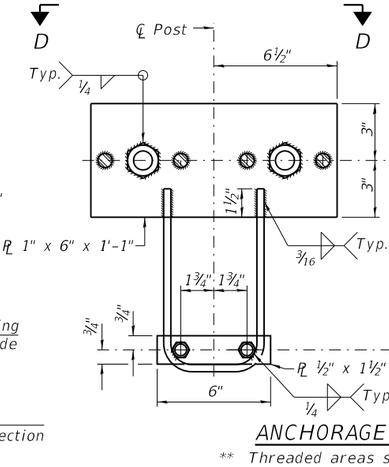
VIEW D-D



TOP SPACER ASSEMBLY

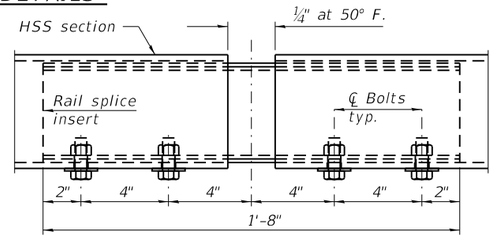


SECTION AT RAIL SPLICE



ANCHORAGE ASSEMBLY

** Threaded areas shall be plugged or blocked off during casting of concrete.



RAIL SPLICE ELEVATION

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S1	Foot	133

GCL JOB NO. 24-6037

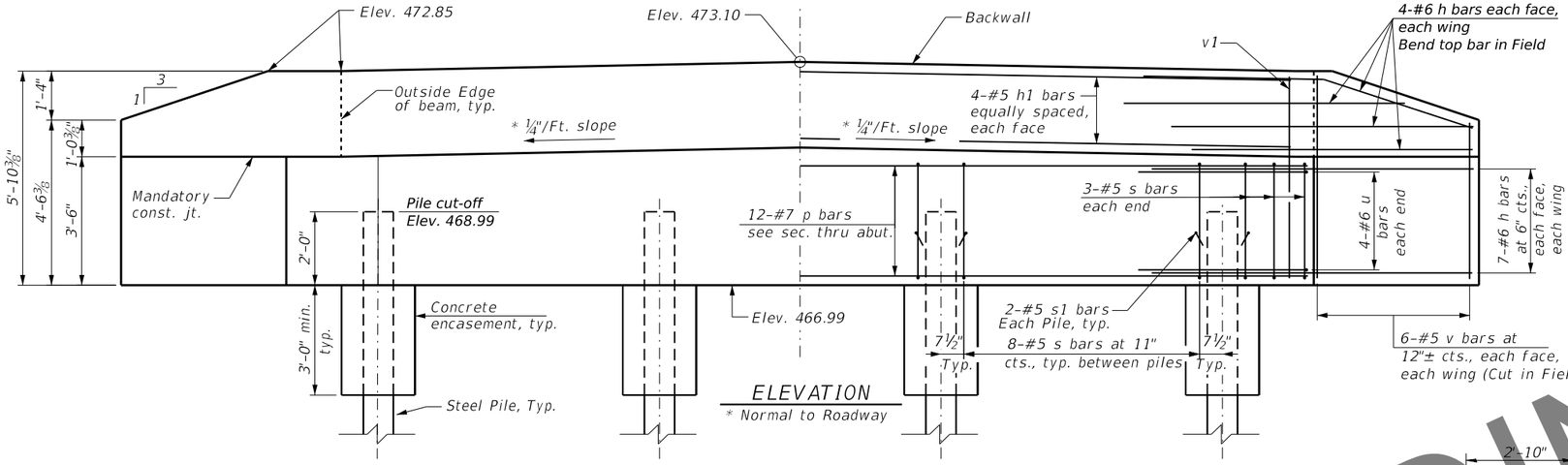
gonzalez
GONZALEZ COMPANIES, LLC
7 CARPENTER DRIVE
SALEM, IL 62881
PHONE (618) 222-2221
www.gonzalezcos.com
ILLINOIS PROFESSIONAL DESIGN FIRM 184.004564

DESIGNED - JSP	REVISED -	
DRAWN - JN	REVISED -	
CHECKED - BLT	REVISED -	
DATE - 07/21/2025	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

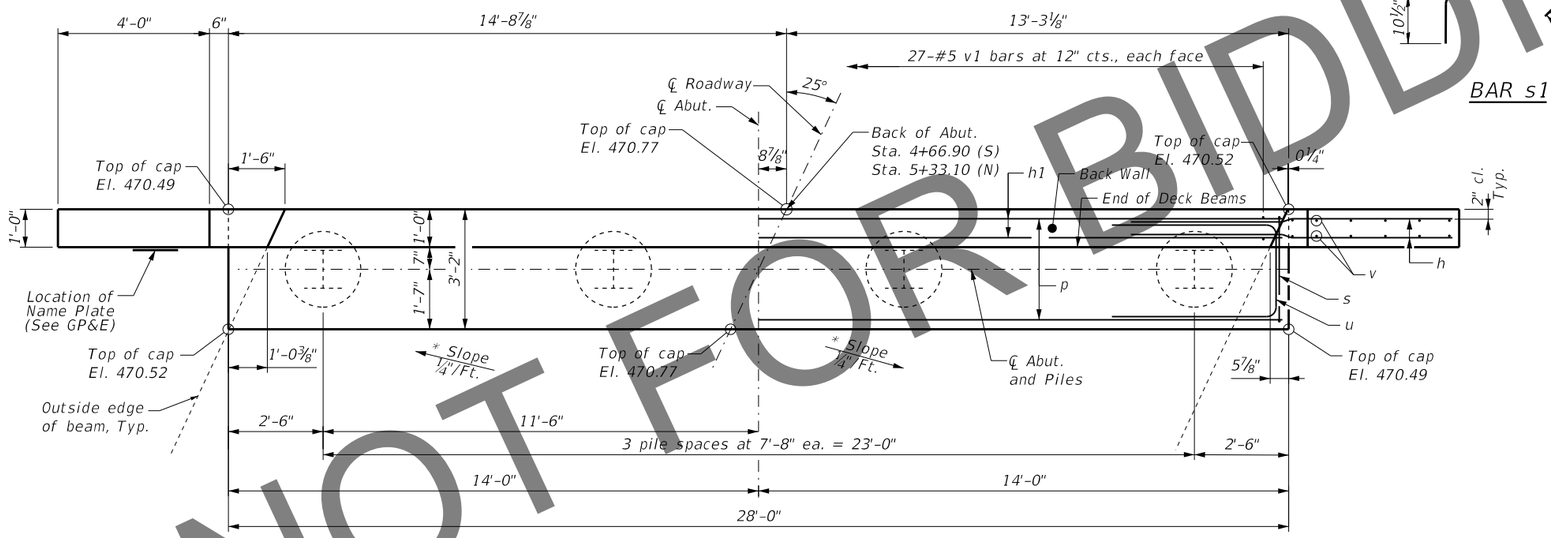
STEEL RAILING, TYPE S1

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 52	23-04132-00-BR	RICHLAND	20	11
DENVER ROAD DISTRICT		ILLINOIS		

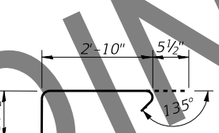


ELEVATION

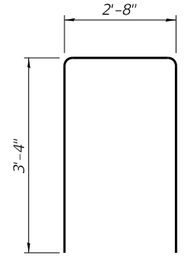
* Normal to Roadway

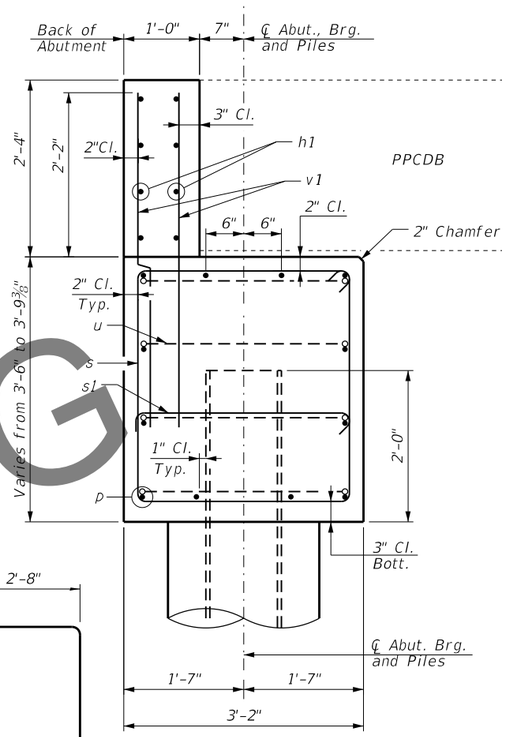


PLAN



BAR s1

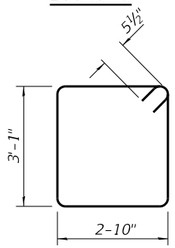




SEC. THRU ABUT.

(Normal to ℄ Abut.)

BARS u



BAR s

BILL OF MATERIAL FOR ONE ABUTMENT

Bar	No.	Size	Length	Shape
h	44	#6	9'-3"	
h1	8	#5	26'-2"	
p	12	#7	27'-8"	
s	30	#5	12'-9"	
s1	8	#5	4'-2"	
u	8	#6	9'-4"	
v	24	#5	5'-6"	CUT IN FIELD
v1	54	#5	4'-4"	
Concrete Structures			Cu. Yd.	15.9
Concrete Encasement			Cu. Yd.	1.4
Reinforcement Bars			Pound	2440
Furnishing Steel Piles, HP12x53	Foot	S. Abut.		120
		N. Abut.		160
Driving Piles	Foot	S. Abut.		120
		N. Abut.		160
Test Pile, Steel HP12x53	Each	S. Abut.		1
		N. Abut.		0
Pile Shoes	Each	S. Abut.		4
		N. Abut.		4

PILE DATA SOUTH ABUTMENT

Type:	HP12x53
Nominal Required Bearing:	418
Factored Resistance Available:	230
Est. Length:	40
No. Production Piles W/ Pile Shoes:	3
No. Test Piles W/ Pile Shoes:	1

PILE DATA NORTH ABUTMENT

Type:	HP12x53
Nominal Required Bearing:	418
Factored Resistance Available:	230
Est. Length:	40
No. Production Piles W/ Pile Shoes:	4
No. Test Piles W/ Pile Shoes:	0

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60 (IL Modified).

All exposed edges shall have standard ¾" chamfer, unless otherwise noted or as directed by the Engineer.

All clearances between rebar and form surface shall be 2", unless otherwise noted.

Space reinforcement in cap to miss PPCDB dowel rods.

The Steel H-piles shall be according to AASHTO M270 Grade 50.

The Contractor shall drive one (1) Test Pile of the size indicated in a permanent location as shown on the plans or as directed by the Engineer before ordering the remainder of the piles.

The Test Pile shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.

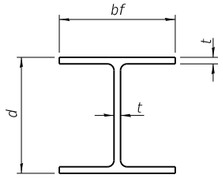
The back wall and portion of the wingwalls above the construction joint shall be cast against the in-place deck beams.

The position of the 90° & 135° hooked ends of the s1 bar shall be alternated between adjacent bars.

MODEL: Default
FILE NAME: S:\Projects\2024\24-6037.000 Charleston Engineering - TR 52 Richland Co Bridges\20 Design\CADD\012 Abutments\24-6037.dgn

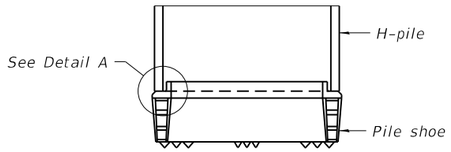
GCL JOB NO. 24-6037

gonzalez	GONZALEZ COMPANIES, LLC 7 CARPENTER DRIVE SALEM, IL 62881 PHONE (618) 222-2221 www.gonzalezcos.com ILLINOIS PROFESSIONAL DESIGN FIRM 184.004564	DESIGNED - JSP DRAWN - JN CHECKED - BLT DATE - 07/21/2025	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ABUTMENT DETAILS	ROUTE: TR 52	SECTION: 23-04132-00-BR
						COUNTY: RICHLAND	TOTAL SHEETS: 20
						DENVER ROAD DISTRICT	ILLINOIS
							SHEET NO. 12

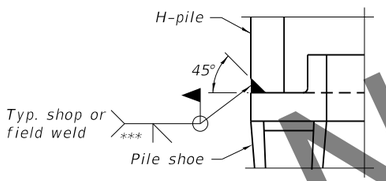


STEEL PILE TABLE

Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14¼"	14⅞"	13/16"	30"
x102	14"	14¾"	1 1/16"	30"
x89	13⅞"	14¾"	⅝"	30"
x73	13⅜"	14⅝"	½"	30"
HP 12x84	12¼"	12¼"	1 1/16"	24"
x74	12⅛"	12¼"	⅝"	24"
x63	12"	12⅛"	½"	24"
x53	11¾"	12"	7/16"	24"
HP 10x57	10"	10¼"	9/16"	24"
x42	9¾"	10⅛"	7/16"	24"
HP 8x36	8"	8⅛"	7/16"	18"



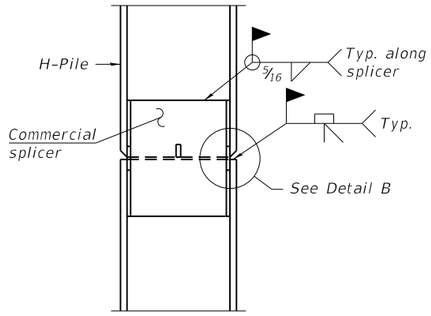
ELEVATION



DETAIL A

SHOE ATTACHMENT

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.



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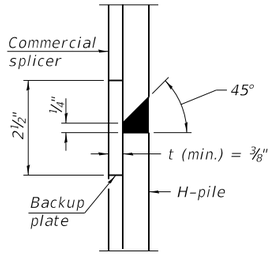
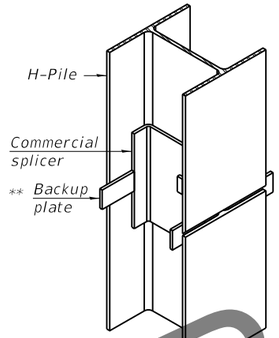
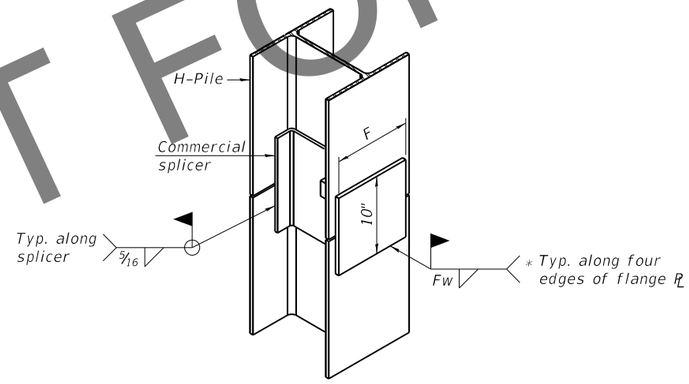


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



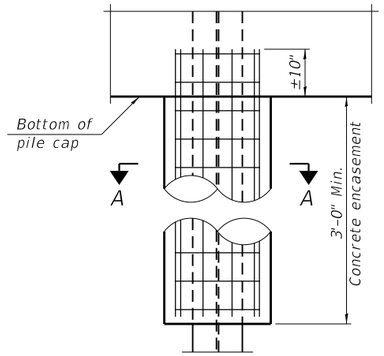
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

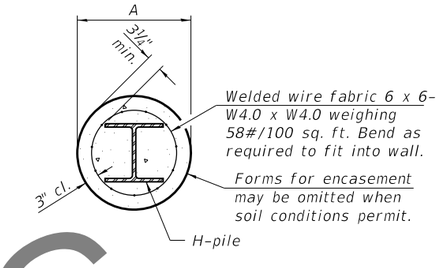
* Interrupt welds ¼" from end of web and/or each flange.

** Remove portions of backup plates that extend outside the flanges.

*** Weld size per pile shoe manufacturer (5/16" min.).

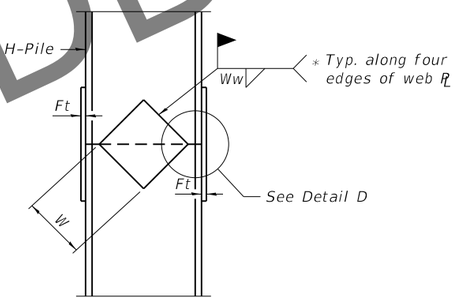


ELEVATION

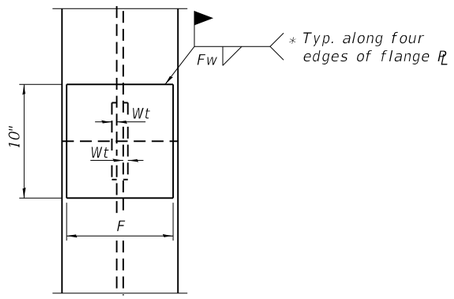


SECTION A-A

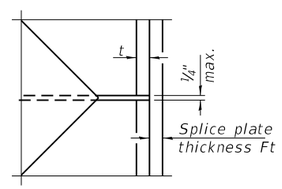
INDIVIDUAL PILE CONCRETE ENCASEMENT



ELEVATION



END VIEW



DETAIL D

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12½"	1"	⅞"	7¾"	⅝"	½"
x102	12½"	⅞"	¾"	7¾"	⅝"	½"
x89	12½"	¾"	1 1/16"	7¾"	⅝"	½"
x73	12½"	⅝"	9/16"	7¾"	⅝"	½"
HP 12x84	10"	⅞"	1 1/16"	6½"	⅝"	½"
x74	10"	⅞"	1 1/16"	6½"	⅝"	½"
x63	10"	⅝"	½"	6½"	½"	⅜"
x53	10"	⅜"	½"	6½"	½"	⅜"
HP 10x57	8"	¾"	9/16"	5¼"	½"	⅜"
x42	8"	⅝"	9/16"	5¼"	½"	⅜"
HP 8x36	7"	⅝"	7/16"	4¼"	½"	⅜"

WELDED PLATE FIELD SPLICE

gonzalez
GONZALEZ COMPANIES, LLC
7 CARPENTER DRIVE
SALEM, IL 62881
PHONE (618) 222-2221
www.gonzalezcos.com
ILLINOIS PROFESSIONAL DESIGN FIRM 184.004564

DESIGNED - JSP	REVISED -	
DRAWN - JN	REVISED -	
CHECKED - BLT	REVISED -	
DATE - 07/21/2025	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PILE DETAILS

GCL JOB NO. 24-6037

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 52	23-04132-00-BR	RICHLAND	20	13
DENVER ROAD DISTRICT		ILLINOIS		

HOLCOMB FOUNDATION ENGINEERING INC.
393 Wood Road 618-529-5262
Carbondale, Il. 62901 618-457-8991 fax

Bridge Foundation Boring Log

Project: H-23238 Bridge TR 52 over Sugar Creek Date: 1/30/2024
Section: 23-04132-00-BR Station
Structure: Bored by: D. Russell
County: Richland Checked By: T. Hudgens

Boring No: 1
Station:
Offset:

Surface Water Elev.
Ground Water Elev. During Drilling 453.8
Upon Completion 453.8

	Elevation	N	Qu tsf	w %
Ground Surface 469.8	0			
5" Gravel				
Brown Silty CLAY (A-6)		10	2.5B	21
	-5	2	0.1B	27
463.8				
Brown Mottled Gray Sandy CLAY (A-6)		3	--	22
461.3				
Brown Silty CLAY (A-6) with sandstone and gravel	-10	34	--	9
458.8				
Gray Silty CLAY (A-6) with sand and gravel		70	--	9
	-15	52	5.2S	9
453.8				
Gray SAND (A-2-4) with trace clay		54	--	22
451.3				
Gray SAND (A-2-4) with gravel	-20	104	0.8S	15
448.8				
Gray Silty CLAY (A-6) with sand and gravel		78	8.2S	8
	-25	66	3.0S	10
		47	7.3S	9
	-30	45	9.7S	10
436.3		100		
Gray SHALE		6"	--	9
	-35	100		
		/4"	--	9
		100		
		/4"	--	8
430.3	-40			
End of Boring @ -39.5'				

N = Standard Penetration Test Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with a 140 lbs. hammer falling 30"
Qu-Unconfined Compressive Strength in tons/sq.ft.
w-Water Content-percentage of oven dry weight-%
B = Bulge Failure
S = Shear Failure
E = Estimated Value
P = Penetrometer

HOLCOMB FOUNDATION ENGINEERING INC.
393 Wood Road 618-529-5262
Carbondale, Il. 62901 618-457-8991 fax

Bridge Foundation Boring Log

Project: H-23238 Bridge TR 52 over Sugar Creek Date: 1/31/2024
Section: 23-04132-00-BR Station
Structure: Bored by: D. Russell
County: Richland Checked By: T. Hudgens

Boring No: 2
Station:
Offset:

Surface Water Elev.
Ground Water Elev. During Drilling Dry
Upon Completion 454.8

	Elevation	N	Qu tsf	w %
Ground Surface 470.3	0			
5" Gravel				
Brown Silty CLAY (A-6)		9	3.8S	13
	-5	6	--	9
464.3				
Brown Sand and Gravel (A-2-4) with trace clay		4	--	20
461.8				
Gray Mottled Brown Sandy CLAY (A-6)	-10	2	--	23
459.3				
Gray Silty CLAY (A-6) with sand and gravel		42	--	8
	-15	56	10.1S	8
		44	9.9S	9
	-20	52	10.4S	9
		52	9.1S	8
	-25	73	--	8
		65	4.7S	8
	-30	46	10.5S	9
		35	4.6S	15
434.4	-35	100		
Gray SHALE		/5"	1.5S	14
		100		
	-40	/5"	--	12
428.8		100		
End of Boring @ -41.5'		/1"	--	11

N = Standard Penetration Test Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with a 140 lbs. hammer falling 30"
Qu-Unconfined Compressive Strength in tons/sq.ft.
w-Water Content-percentage of oven dry weight-%
B = Bulge Failure
S = Shear Failure
E = Estimated Value
P = Penetrometer

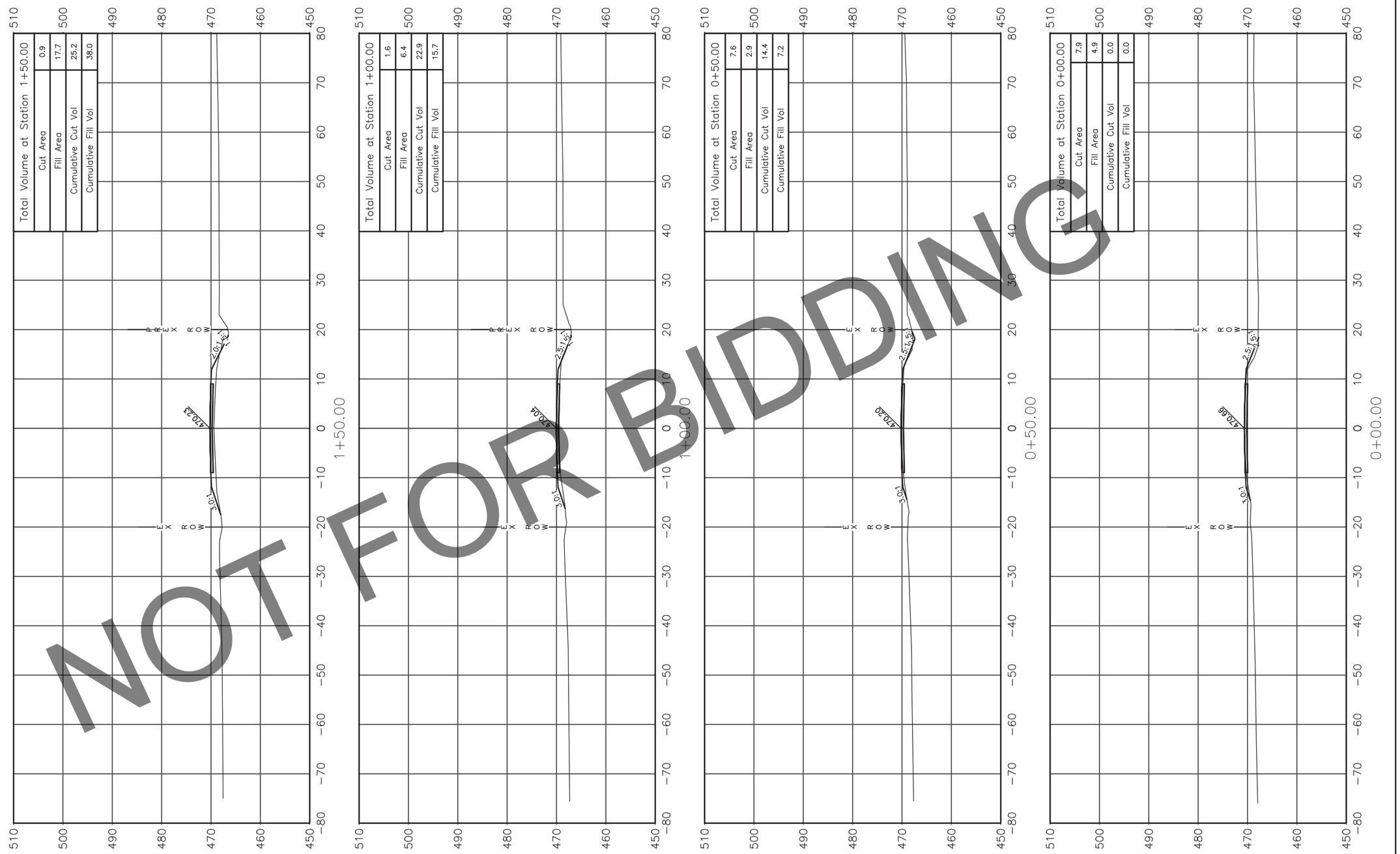
CHARLESTON ENGINEERING, INC.
CONSULTING ENGINEERS - LAND SURVEYORS
105 NORTH KITCHELL AVENUE OLNEY, ILLINOIS 62450
P.O. BOX 397 (618) 392-0736
ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513

DESIGNED - BMB	REVISED -
DRAWN - BMB	REVISED -
CHECKED - BMB	REVISED -
DATE - 7-16-2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 52	23-04132-00-BR	RICHLAND	20	14
DENVER ROAD DISTRICT		ILLINOIS		



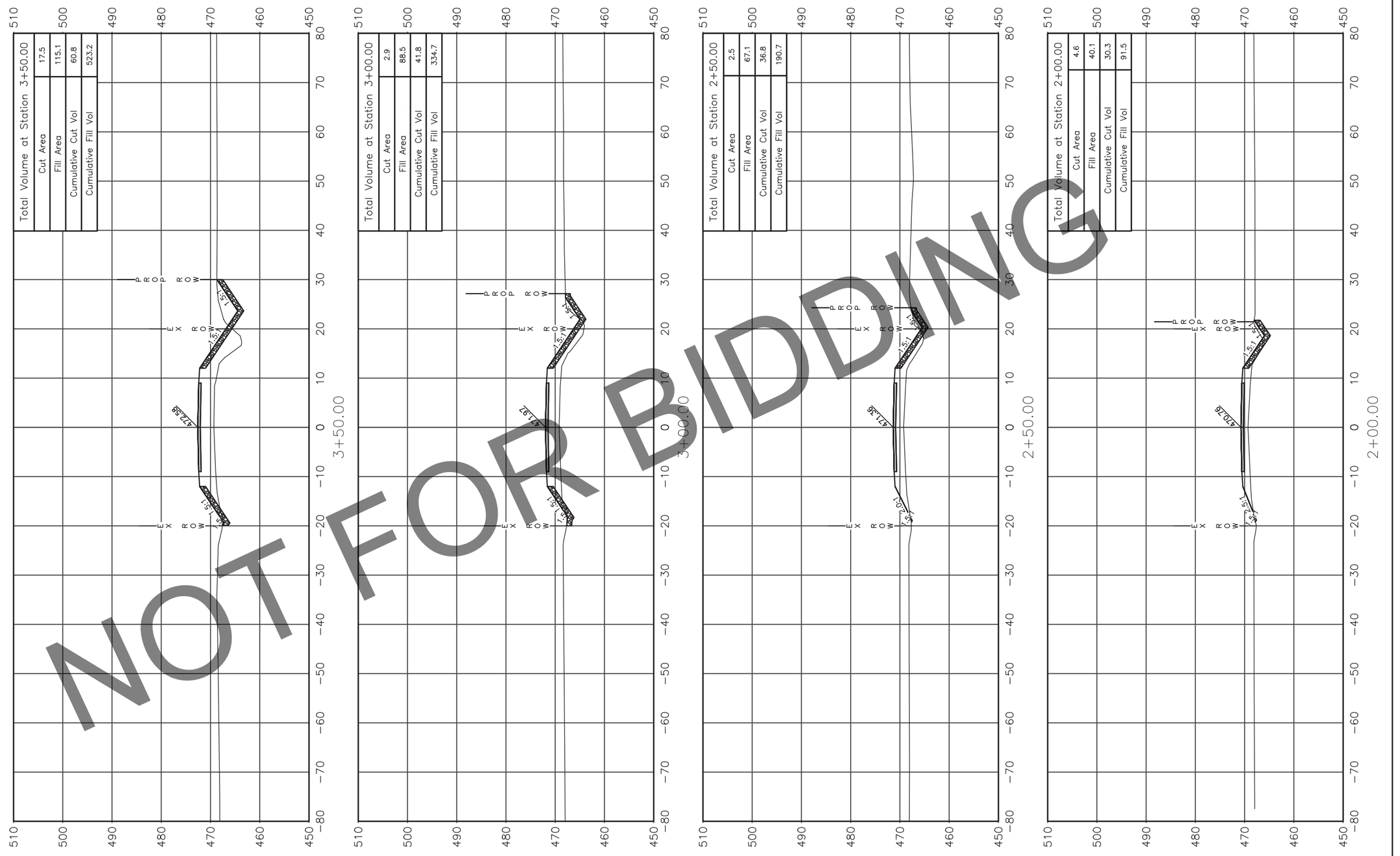
CHARLESTON ENGINEERING, INC.
CONSULTING ENGINEERS - LAND SURVEYORS
105 NORTH KITCHELL AVENUE OLNEY, ILLINOIS 62450
P.O. BOX 397 (618) 392-0736
ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513

DESIGNED – BMB	REVISED –
DRAWN – BMB	REVISED –
CHECKED – BMB	REVISED –
DATE – 7-16-2025	REVISED –

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS OF ROADWAY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 52	23-04132-00-BR	RICHLAND	20	15
DENVER ROAD DISTRICT		ILLINOIS		



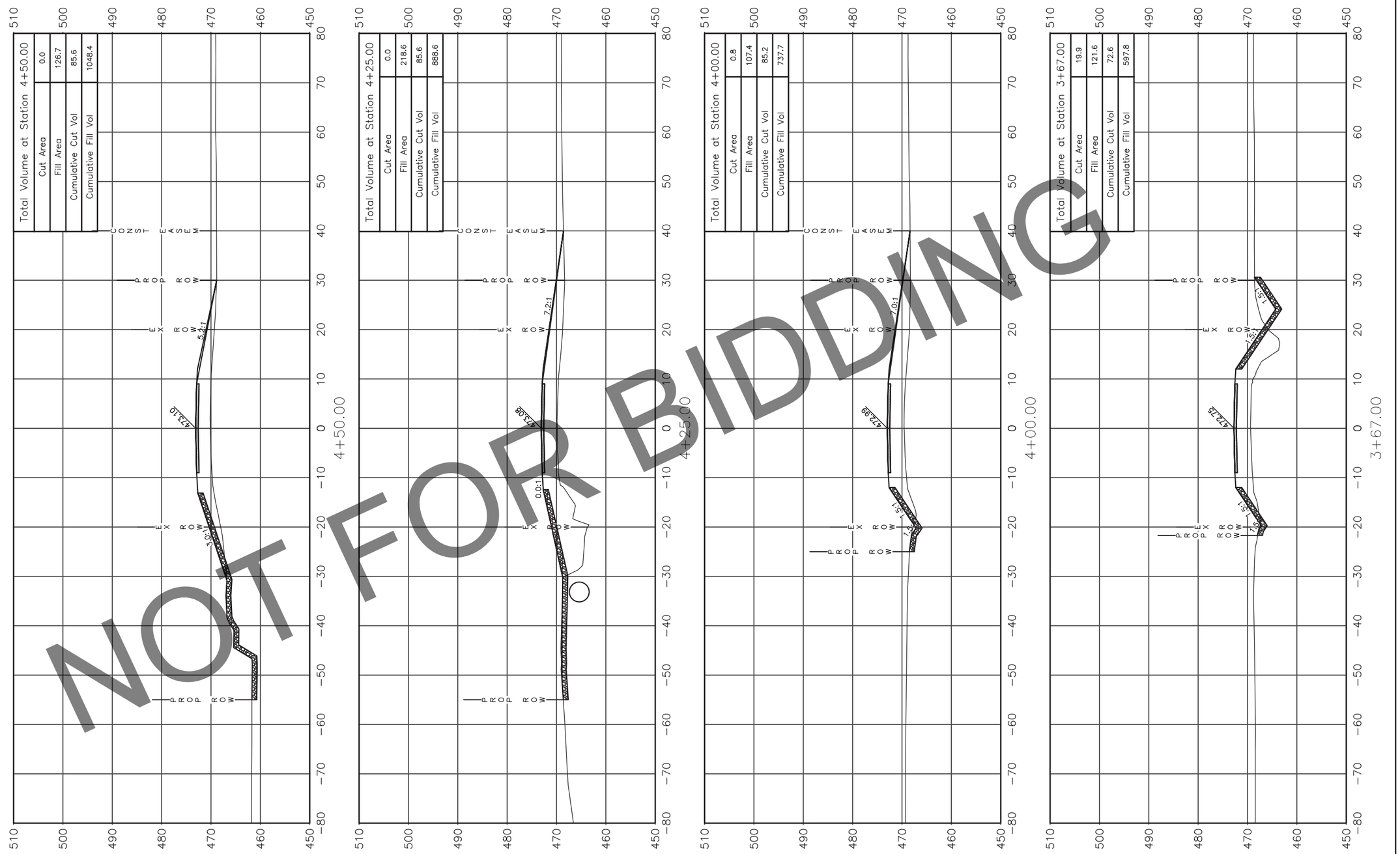
CHARLESTON ENGINEERING, INC.
CONSULTING ENGINEERS - LAND SURVEYORS
105 NORTH KITCHELL AVENUE OLNEY, ILLINOIS 62450
P.O. BOX 397 (618) 392-0736
ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513

DESIGNED – BMB	REVISED –
DRAWN – BMB	REVISED –
CHECKED – BMB	REVISED –
DATE – 7-16-2025	REVISED –

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS OF ROADWAY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 52	23-04132-00-BR	RICHLAND	20	16
DENVER ROAD DISTRICT		ILLINOIS		



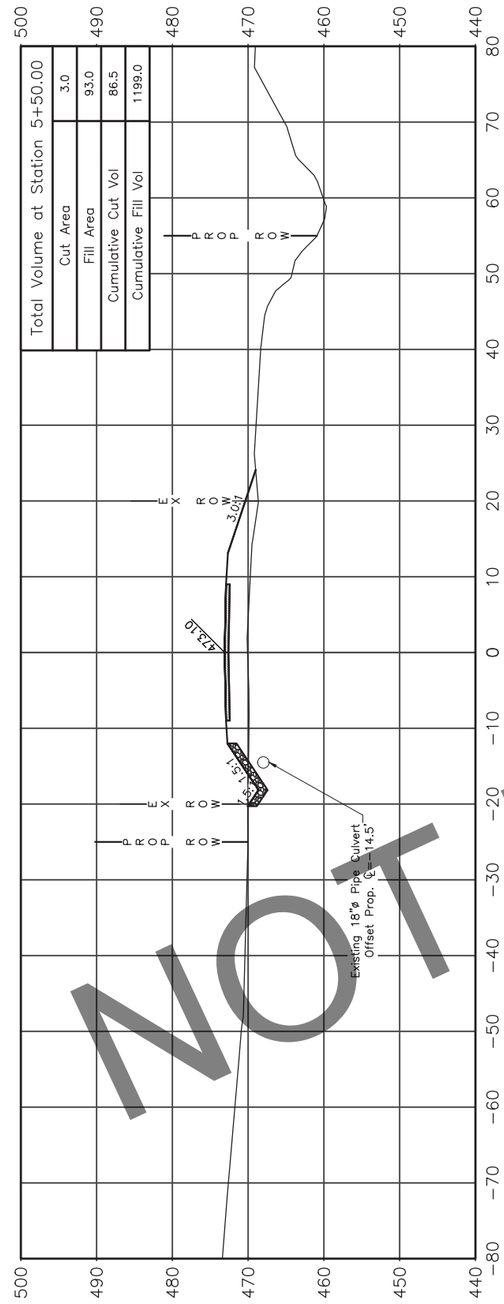
CHARLESTON ENGINEERING, INC.
CONSULTING ENGINEERS - LAND SURVEYORS
105 NORTH KITCHELL AVENUE OLNEY, ILLINOIS 62450
P.O. BOX 397 (618) 392-0736
ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513

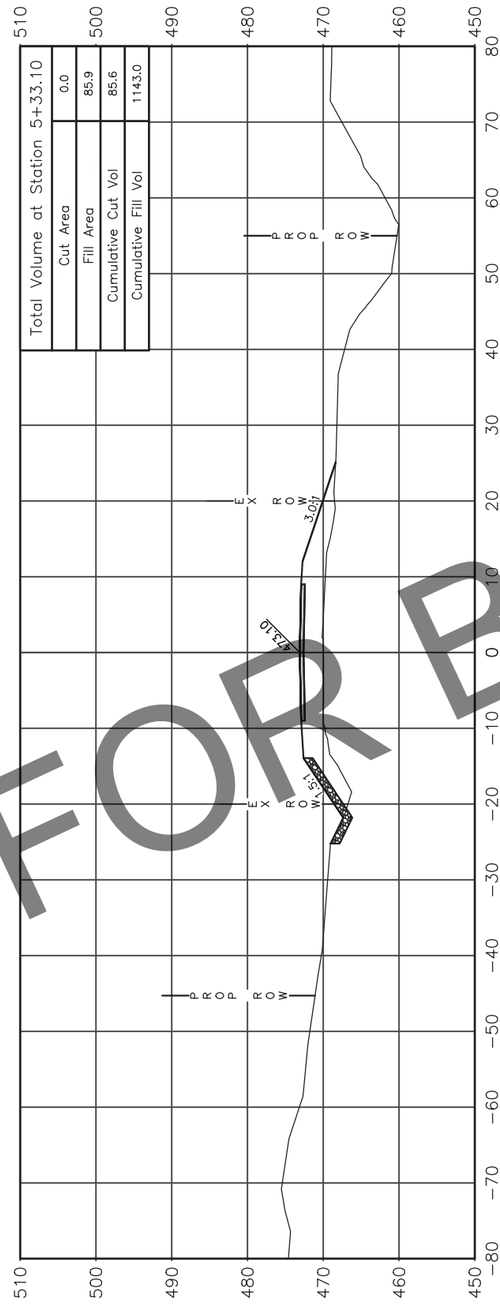
DESIGNED – BMB	REVISED –
DRAWN – BMB	REVISED –
CHECKED – BMB	REVISED –
DATE – 7-16-2025	REVISED –

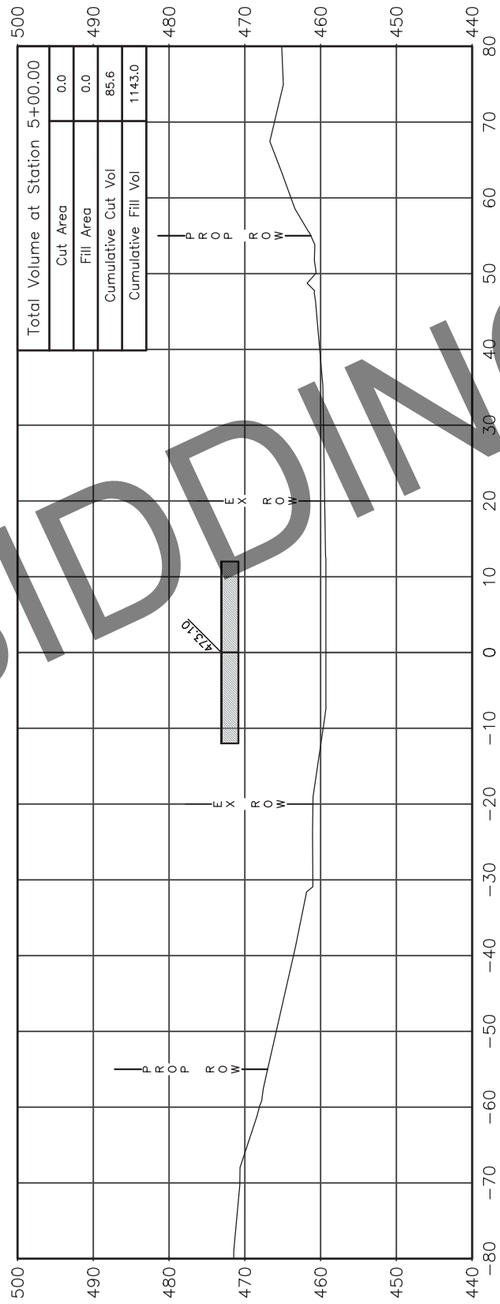
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

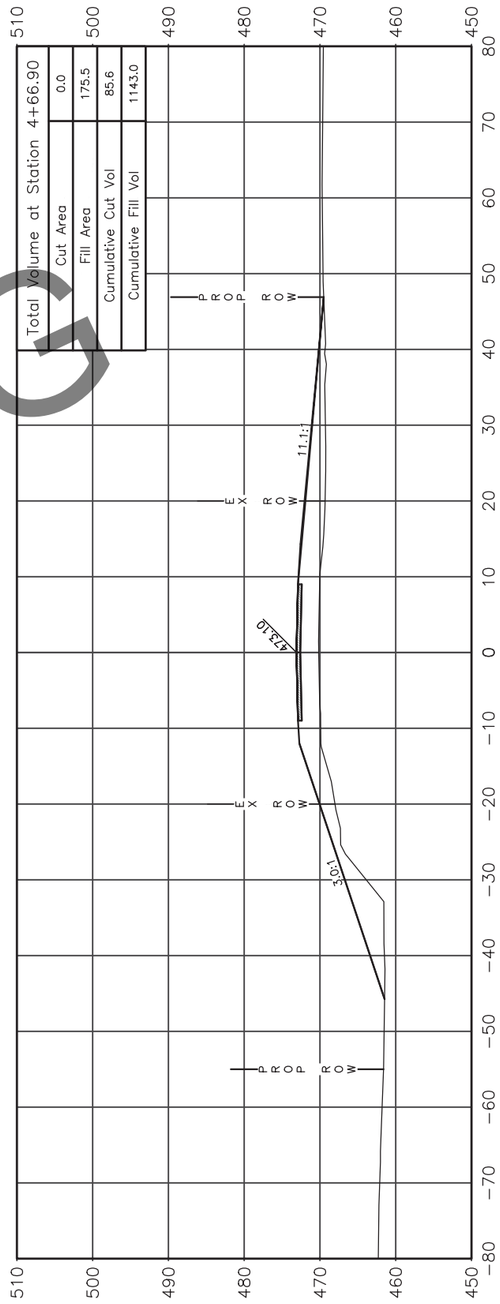
CROSS SECTIONS OF ROADWAY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 52	23-04132-00-BR	RICHLAND	20	17
DENVER ROAD DISTRICT		ILLINOIS		









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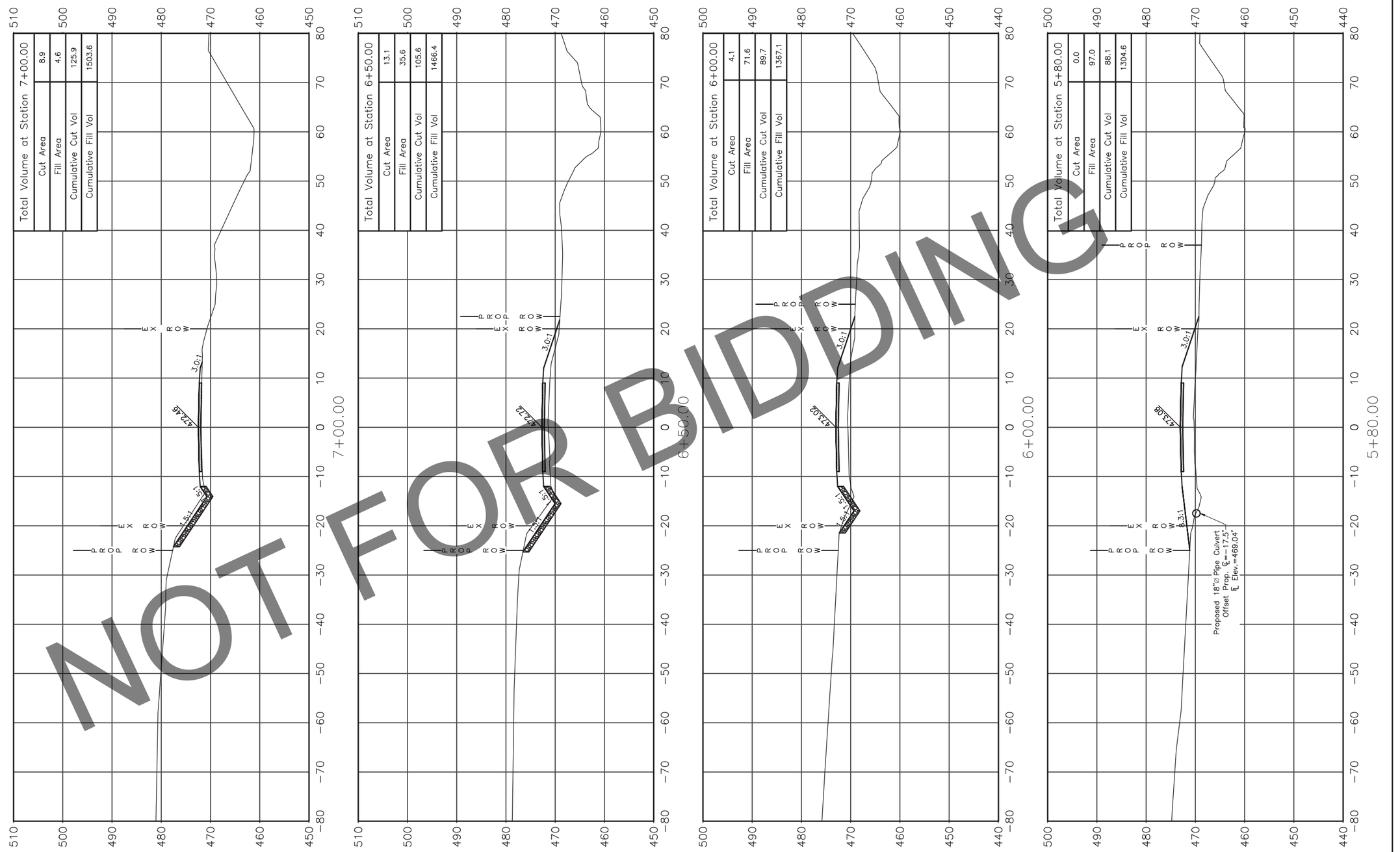
CHECKED – BMB	REVISED –
DATE – 7–16–2025	REVISED –

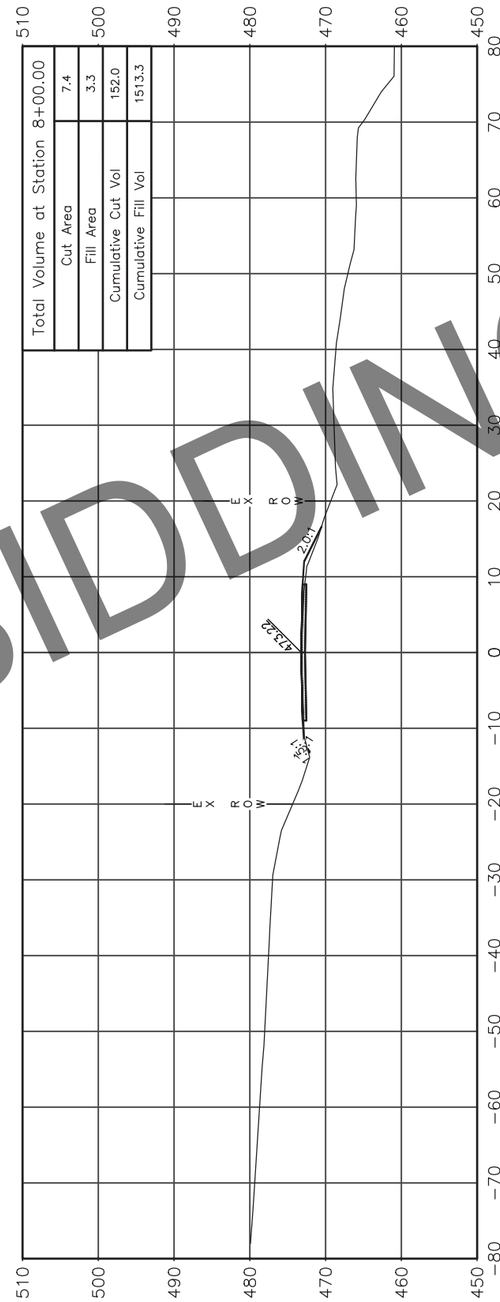
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

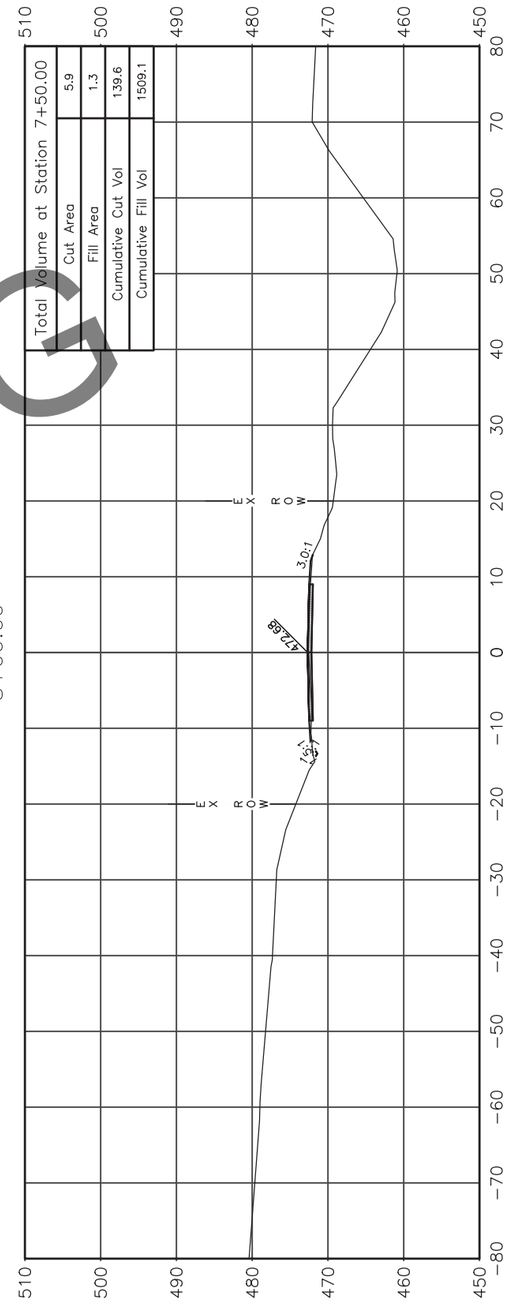
CROSS SECTIONS OF ROADWAY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 52	23–04132–00–BR	RICHLAND	20	18
DENVER ROAD DISTRICT		ILLINOIS		



CHARLESTON ENGINEERING, INC. CONSULTING ENGINEERS - LAND SURVEYORS 105 NORTH KITCHELL AVENUE OLNEY, ILLINOIS 62450 P.O. BOX 397 (618) 392-0736 ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513	DESIGNED – BMB DRAWN – BMB CHECKED – BMB DATE – 7-16-2025	REVISED – REVISED – REVISED – REVISED –	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS OF ROADWAY	ROUTE: TR 52 · SECTION: 23-04132-00-BR · COUNTY: RICHLAND · TOTAL SHEETS: 20 · SHEET NO.: 19 DENVER ROAD DISTRICT · ILLINOIS





CHARLESTON ENGINEERING, INC. CONSULTING ENGINEERS - LAND SURVEYORS 105 NORTH KITCHELL AVENUE OLNEY, ILLINOIS 62450 P.O. BOX 397 (618) 392-0736 ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513	DESIGNED – BMB DRAWN – BMB CHECKED – BMB DATE – 7-16-2025	REVISED – REVISED – REVISED – REVISED –	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS OF ROADWAY	ROUTE: TR 52 · SECTION: 23-04132-00-BR · COUNTY: RICHLAND · TOTAL SHEETS: 20 · SHEET NO.: 20 DENVER ROAD DISTRICT · ILLINOIS