C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	1
	ILLINOIS	CONTRACT NO. 99738		

09-20-2024 LETTING ITEM 078

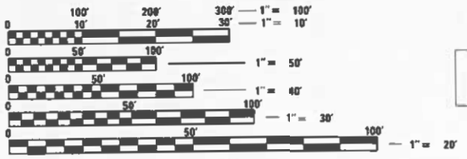
INDEX OF SHEETS

HIGHWAY STANDARDS

000001–08	STD SYMBOLS, ABBREVIATIONS, & PATTERNS
280001–07	TEMPORARY EROSION CONTROL SYSTEMS
420701–03	PAVEMENT WELDED WIRE REINFORCEMENT
442101–09	CLASS B PATCHES
515001–04	NAME PLATE FOR BRIDGES
630001–13	STEEL PLATE BEAM GUARDRAIL
701901–09	TRAFFIC CONTROL DEVICES
BLR 21–9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
BLR 22–7	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS (2L2W – ROAD CLOSED TO THRU TRAFFIC
BLR 27–1	TRAFFIC BARRIER TERMINAL TYPE 5A

UTILITIES

FRONTIER COMMUNICATIONS
FORT MASSAC WATER DISTRICT
SOUTHERN ILLINOIS ELECTRIC COOP.
CLEARWAVE COMMUNICATIONS



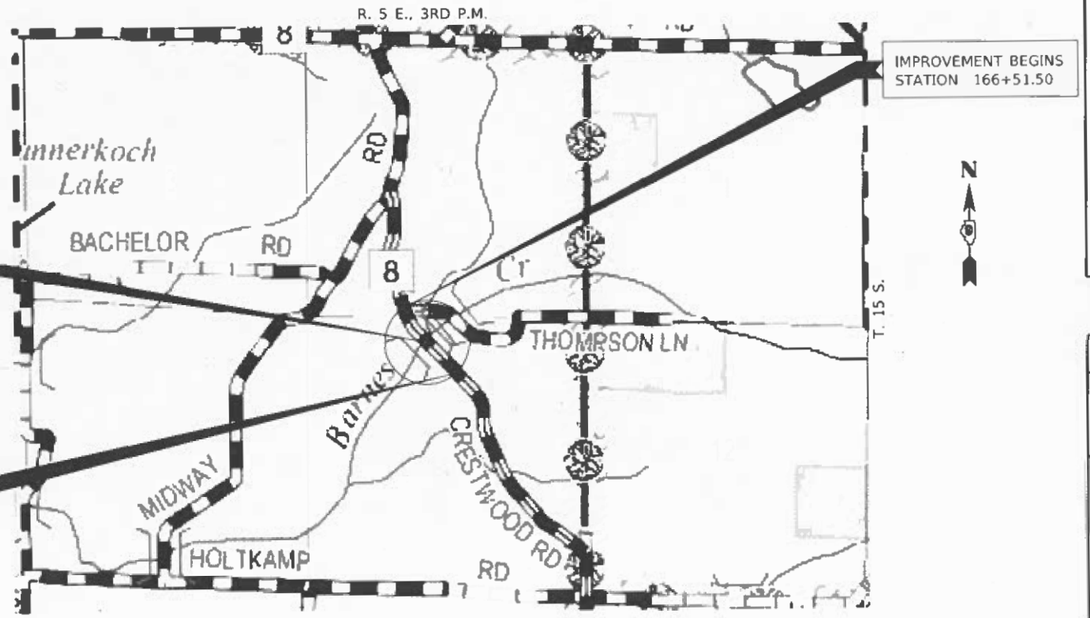
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

COUNTY ENGINEER: AMY FERRIS
2736 NORTH AVENUE
METROPOLIS, IL 62960
618–524–5227

CONTRACT NO.: 99738

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED
SURFACE TRANSPORTATION PROGRAM
OFF SYSTEM BRIDGE
PROJECT ZLEQ(688)
SECTION 21–00106–00–BR
MASSAC COUNTY
CH 8 (CRESTWOOD ROAD) OVER BARNES CREEK
PROPOSED STRUCTURE NO. 064–3157
C–99–016–22



LOCATION MAP

SCALE
0 1 2 MILE
NET LENGTH = 300 FT. = 0.568 MILES

Expires 11-30-25

FUNCTIONAL CLASSIFICATION: MINOR COLLECTOR
DESIGN SPEED: 55 MPH
DESIGN TRAFFIC: 270 (2043)

MASSAC COUNTY HIGHWAY DEPARTMENT

APPROVED May 28 20 24
COUNTY ENGINEER

6/10 20 24
DISTRICT NINE ENGINEER OF LOCAL ROADS & STREETS

6/10 20 24
DEPUTY DIRECTOR OF HIGHWAYS REGION FIVE ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

BFW
BACON | FARMER | WORKMAN
ENGINEERING & TESTING, INC.

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2022, (HERE IN AFTER REFERRED TO AS THEE STANDARD SPECIFICATIONS), THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", ADOPTED JANUARY 1, 2024, THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", THE DETAILS IN THE PLANS AND THE "SPECIAL PROVIONS" INCLUDED IN THE DOCUMENTS.
2. ANY REFERENCE TO A HIGHWAY STANDARD THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO BE THE LATEST STANDARD VERSION ISSUED BY THE DEPARTMENT.
3. FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

ALL HOT MIX ASPHALT	112 LBS./SQ. YD./INCH
GRANULAR MATERIALS	2.05 TONS/CU. YD.
RIP RAP	1.50 TONS/CU. YD.

4. ANY SURPLUS EXCAVATION SHALL BE DISPOSED OF BY THE CONTRACTOR AS PER ARTICLE 202.03 AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
5. THE AREAS TO BE SEEDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE EXISTING AND PROPOSED RIGHT OF WAY OR AS DIRECTED BY THE ENGINEER. SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION.
6. THE REMOVAL AND DISPOSAL OF ALL FENCING, DELINEATORS, SIGNS, DEBRIS, BRUSH, RIPRAP, STONE, CONCRETE SLABS, TILE, ETC. NOT PAID SPECIFICALLY IN THE PLANS SHALL BE INCLUDED IN THE COST OF FURNISHED EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
7. THE CONTRACTOR SHALL CONTACT JULIE AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.
8. MEMBERS OF JULIE KNOWN TO BE NEAR THE LIMITS OF THE IMPROVEMENT ARE:

SOUTHERN ILLINOIS ELECTRIC COOP	FORT MASSAC WATER DISTRICT
FRONTIER	CLEARWAVE COMMUNICATIONS

COMMITMENTS

1. NONE AT THIS TIME.

USER NAME = gsmothers	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 1/31/2024	DATE -	REVISED -	

STATE OF ILLINOIS
MASSAC COUNTY HIGHWAY DEPARTMENT

CRESTWOOD ROAD BRIDGE
GENERAL NOTES

SCALE: | SHEET 6 OF 14 SHEETS | STA. | TO STA.

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	2
		CONTRACT NO.: 99738		
	ILLINOIS	FED. AID PROJECT:		

				CONSTRUCTION CODE		
				FED 80% LOCAL 20%	FED 80% LOCAL 20%	FED 80% LOCAL 20%
				ROADWAY	BRIDGE	PAVEMENT MARKING
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0003	0003	0003
				RURAL	064-3157	RURAL
20300100	CHANNEL EXCAVATION	CU YD	425	425		
20400800	FURNISHED EXCAVATION	CU YD	225	225		
25000200	SEEDING, CLASS 2	ACRE	0.13	0.13		
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	11.76	11.76		
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	11.76	11.76		
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	11.76	11.76		
25100115	MULCH, METHOD 2	ACRE	0.13	0.13		
28000400	PERIMETER EROSION BARRIER	FOOT	490	490		
28100207	STONE RIPRAP, CLASS A4	TON	143		143	
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	390	390		
40602985	HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N70	TON	56	56		
40604052	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N70	TON	56	56		
42000060	WELDED WIRE REINFORCEMENT	SQ YD	98	98		
44000100	PAVEMENT REMOVAL	SQ YD	98	98		

* SPECIALTY ITEM

MODEL: Default
FILE NAME: pw:\\lsfwme-pw.bentley.com:lsfwme-pw-01\Documents\BFW\PROJECTS\2022 PROJECTS\22387 - Massac County - CH 8 (Crestwood Rd) Bridge Replacement\IDOT\CAD_Sheets\sht-SOQ.dgn

USER NAME = gsmothers	DESIGNED - _____	REVISED - _____	
	DRAWN - _____	REVISED - _____	
PLOT SCALE = 100.0000 ' / in.	CHECKED - _____	REVISED - _____	
PLOT DATE = 7/22/2024	DATE - _____	REVISED - _____	

STATE OF ILLINOIS
MASSAC COUNTY HIGHWAY DEPARTMENT

SUMMARY OF QUANTITIES

SCALE: _____ | SHEET __ OF __ SHEETS | STA. _____ | TO STA. _____

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	3
		CONTRACT NO. 99738		
	ILLINOIS	FED. AID PROJECT		

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE FED 80% LOCAL 20% ROADWAY 0003 RURAL	CONSTRUCTION CODE FED 80% LOCAL 20% BRIDGE 0003 064-3157	CONSTRUCTION CODE FED 80% LOCAL 20% PAVEMENT MARKING 0003 RURAL
	44000161	HOT-MIX ASPHALT SURFACE REMOVAL, 3"	SQ YD	526	526		
	44200974	CLASS B PATCHES, TYPE III, 10 INCH	SQ YD	98	98		
	44201299	DOWEL BARS 1 1/2"	EACH	40	40		
	44213200	SAW CUTS	FOOT	46	46		
	48101200	AGGREGATE SHOULDERS, TYPE B	TON	43	43		
	50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1	
	50200100	STRUCTURE EXCAVATION	CU YD	80		80	
	50300225	CONCRETE STRUCTURES	CU YD	25.1		25.1	
	50300280	CONCRETE ENCASEMENT	CU YD	3.7		3.7	
	50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	1528		1528	
	50800105	REINFORCEMENT BARS	POUND	3910		3910	
*	50900205	STEEL RAILING, TYPE S1	FOOT	132		132	
	51200957	FURNISHING METAL SHELL PILES 12" X 0.250"	FOOT	546		546	
	51202305	DRIVING PILES	FOOT	546		546	

* SPECIALTY ITEM

MODEL: Default
FILE NAME: pw:\\bfwnie-pw.bentley.com:bfwnie-pw-01\Documents\BFW\PROJECTS\2022 PROJECTS\22287 - Massac County - CH 8 (Crestwood Rd) Bridge Replacement\IDOT\CAD\Sheets\sht-SOQ.dgn

USER NAME = gsmothers	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = 100.0000 ' / in.	CHECKED - _____	REVISED - _____
PLOT DATE = 7/23/2024	DATE - _____	REVISED - _____

STATE OF ILLINOIS
MASSAC COUNTY HIGHWAY DEPARTMENT

SUMMARY OF QUANTITIES

SCALE: _____ | SHEET __ OF __ SHEETS | STA. _____ TO STA. _____

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	4
		CONTRACT NO. 99738		
	ILLINOIS	FED. AID PROJECT		

					CONSTRUCTION CODE		
					FED 80% LOCAL 20%	FED 80% LOCAL 20%	FED 80% LOCAL 20%
					ROADWAY	BRIDGE	PAVEMENT MARKING
	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0003	0003	0003
					RURAL	064-3157	RURAL
	51203200	TEST PILE METAL SHELLS	EACH	1		1	
	51204650	PILE SHOES	EACH	8		8	
	51500100	NAME PLATES	EACH	1		1	
	59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	19.4		19.4	
*	63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	400	400		
*	63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	4	4		
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4		
	67100100	MOBILIZATION	L SUM	1	1		
*	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4		
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	900			900
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	4			4
*	78200006	GUARDRAIL REFLECTORS, TYPE B	EACH	14	14		
	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1		

* SPECIALTY ITEM

MODEL: Default
FILE NAME: pw:\\bfwme-pw.bentley.com:bfwme-pw-01\Documents\BFW\PROJECTS\2022 PROJECTS\22287 - Massac County - CH 8 (Crestwood Rd) Bridge Replacement\\DOT\CAD_Sheets\sht-SQQ.dgn

USER NAME = gsmothers	DESIGNED - _____	REVISED - _____	**STATE OF ILLINOIS** **MASSAC COUNTY HIGHWAY DEPARTMENT**
	DRAWN - _____	REVISED - _____	
PLOT SCALE = 100.0000 ' / in.	CHECKED - _____	REVISED - _____	
PLOT DATE = 7/23/2024	DATE - _____	REVISED - _____	

SUMMARY OF QUANTITIES

SCALE: _____ | SHEET __ OF __ SHEETS | STA. _____ | TO STA. _____

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	5
		CONTRACT NO. 99738		
	ILLINOIS FED. AID PROJECT			

EARTHWORK

LOCATION STATION TO STATION	FURNISHED EXCAVATION 20400800
	CU YD
166+50.00 TO 170+00.00	225
TOTAL	**225**

EROSION CONTROL

LOCATION/ STATION	RT/LT	SEEDING, CLASS 2 25000200	MULCH METHOD 2 25100115	NITROGEN FERTILIZER NUTRIENT 25000400	PHOSPHORUS FERTILIZER NUTRIENT 25000500	POTASSIUM FERTILIZER NUTRIENT 25000600	PERMIMETER EROSION CONTROL BARRIER 28000400	STONE DUMPED RIP RAP CL A4 28100807
		ACRE	ACRE	POUND	POUND	POUND	FOOT	TON
MASSAC COUNTY								
C.H. 8								
166+50.56 TO 167+71.86	LT	0.02	0.02	1.65	1.65	1.65	126	
166+50.56 TO 167+71.86	RT	0.03	0.03	2.77	2.77	2.77	118	
167+71.86 TO 168+32.08								143
168+32.08 TO 169+50.54	LT	0.04	0.04	3.68	3.68	3.68	123	
168+32.08 TO 169+50.54	RT	0.04	0.04	3.66	3.66	3.66	124	
TOTALS		**0.13**	**0.13**	**11.76**	**11.76**	**11.76**	**490**	**143**

GUARDRAIL

LOCATION STATION TO STATION	SIDE	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS 63000001	TRAFFIC BARRIER TERMINAL, TYPE 5A 63100075	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT 63100167	GUARDRAIL REFLECTORS, TYPE B 78200006	TERMINAL MARKER - DIRECT APPLIED 72501000
		FOOT	EACH	EACH	EACH	EACH
MASSAC COUNTY						
C.H. 8						
165+44.98 TO 167+73.35		200.0	2	2	7	2
168+30.58 TO 170+58.70		200.0	2	2	7	2
TOTAL		**400.0**	**4.0**	**4.0**	**14.0**	**4.0**

USER NAME = gsmothers	DESIGNED - _____	REVISED - _____	**STATE OF ILLINOIS**
	DRAWN - _____	REVISED - _____	**MASSAC COUNTY HIGHWAY DEPARTMENT**
PLOT SCALE = 100.0000 ' / in.	CHECKED - _____	REVISED - _____	
PLOT DATE = 7/22/2024	DATE - _____	REVISED - _____	

CRESTWOOD ROAD
SCHEDULES

SCALE: _____ | SHEET __ OF __ SHEETS | STA. _____ | TO STA. _____

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	6
		CONTRACT NO. 99738		
	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKINGS

LOCATION STATION TO STATION	DESCRIPTION	PAINT PAVEMENT MARKING - LINE 4 WHITE 78001110	PAINT PAVEMENT MARKING - LINE 4 YELLOW 78001110	RAISED REFLECTIVE PAVEMENT MARKERS 78100100
		FOOT	FOOT	EACH
MASSAC COUNTY				
C.H. 8				
166+50.56 TO 169+50.54		600	300	4
TOTAL		**600**	**300**	**4**

PAVEMENT

LOCATION STATION TO STATION	HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N70 40602985	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N70 40604052	CLASS B PATCHES, TYPE III, 10 INCH 44200974	*BITUMINOUS MATERIALS (TACK COAT) 40600290	WELDED WIRE REINFORCEMENT 42000060	PAVEMENT REMOVAL 44000100	HOT-MIX ASPHALT SURFACE REMOVAL, 3" 44000161	DOWEL BARS 1 1/2" 44201299	SAW CUTS 44213200	AGGREGATE SHOULDERS, TYPE B 48101200
	TON	TON	SQ YD	POUND	SQ YD	SQ YD	SQ YD	EACH	FOOT	TON
166+50 TO 167+69.20	28	28		198			293		11.4	17
167+49.21 TO 167+69.20	0	0	49		49	49		20.0	11.4	5
BRIDGE										
168+34.78 TO 168+54.79	0	0	49		49	49		20.0	11.4	5
168+34.78 TO 169+50	28	28		192			233		11.4	16
TOTAL	**56**	**56**	**98**	**390**	**98**	**98**	**526**	**40**	**46**	**43**

MODEL: Default
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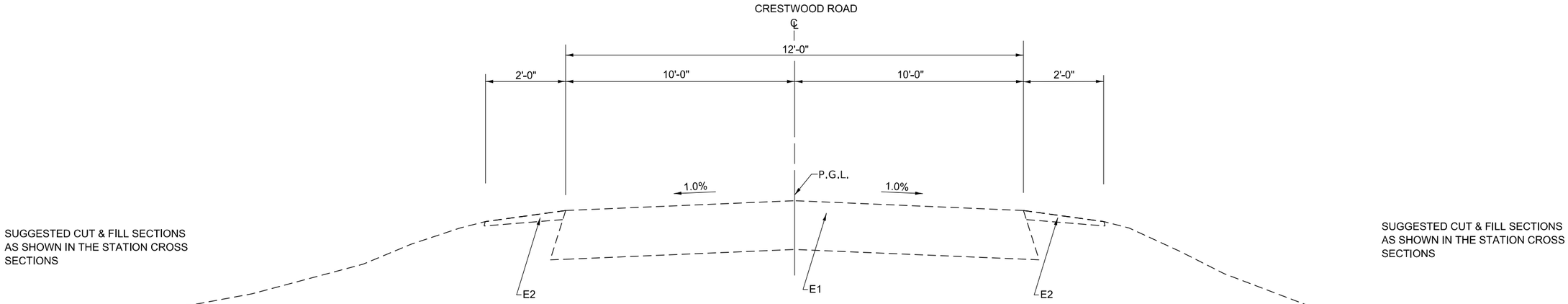
USER NAME = gsmothers	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = 100.0000 ' / in.	CHECKED - _____	REVISED - _____
PLOT DATE = 7/23/2024	DATE - _____	REVISED - _____

STATE OF ILLINOIS
MASSAC COUNTY HIGHWAY DEPARTMENT

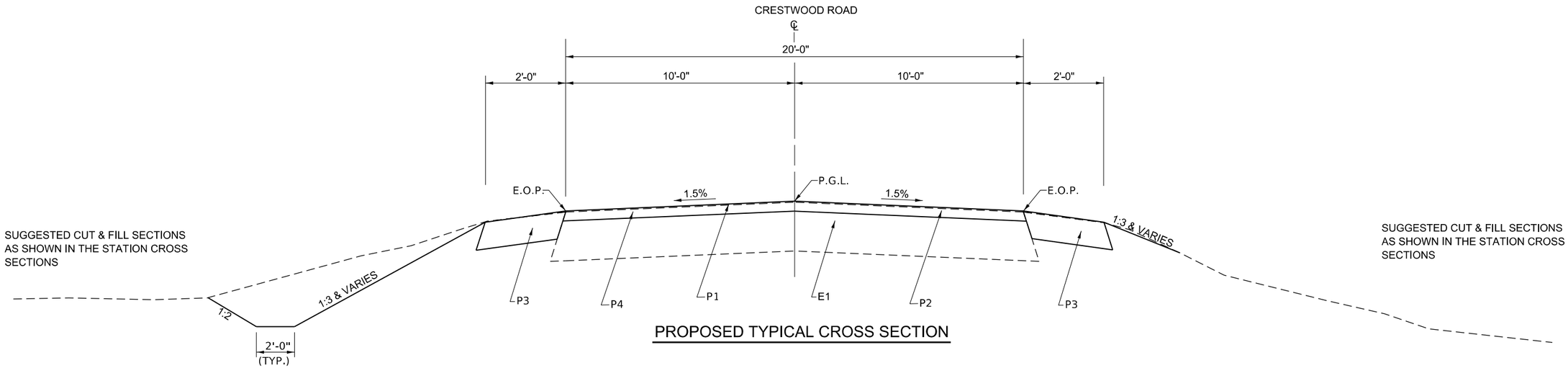
CRESTWOOD ROAD
SCHEDULES

SCALE: _____ | SHEET __ OF __ SHEETS | STA. _____ | TO STA. _____

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	7
		CONTRACT NO. 99738		
	ILLINOIS	FED. AID PROJECT		



EXISTING TYPICAL CROSS SECTION



PROPOSED TYPICAL CROSS SECTION

LEGEND

P1	PROPOSED HMA SURFACE COURSE, MIX C, IL-9.5, N70, 1.5"
P2	PROPOSED HMA BINDER COURSE, IL-9.5, N70, 1.5"
P3	PROPOSED AGGREGATE SHOULDER, 6"
P4	HMA SURFACE REMOVAL, 3"
E1	EXISTING HMA PAVEMENT
E2	EXISTING EARTH SHOULDER

MODEL: Default
FILE NAME: pw:\\bfwmc-pw.bentley.com:bfwmc-pw-01\Documents\BFV\PROJECTS\2022 PROJECTS\22287 - Massac County - CH 8 (Crestwood Rd) Bridge Replacement\IDOT\CAD\Sheets\sht-Typical.dgn

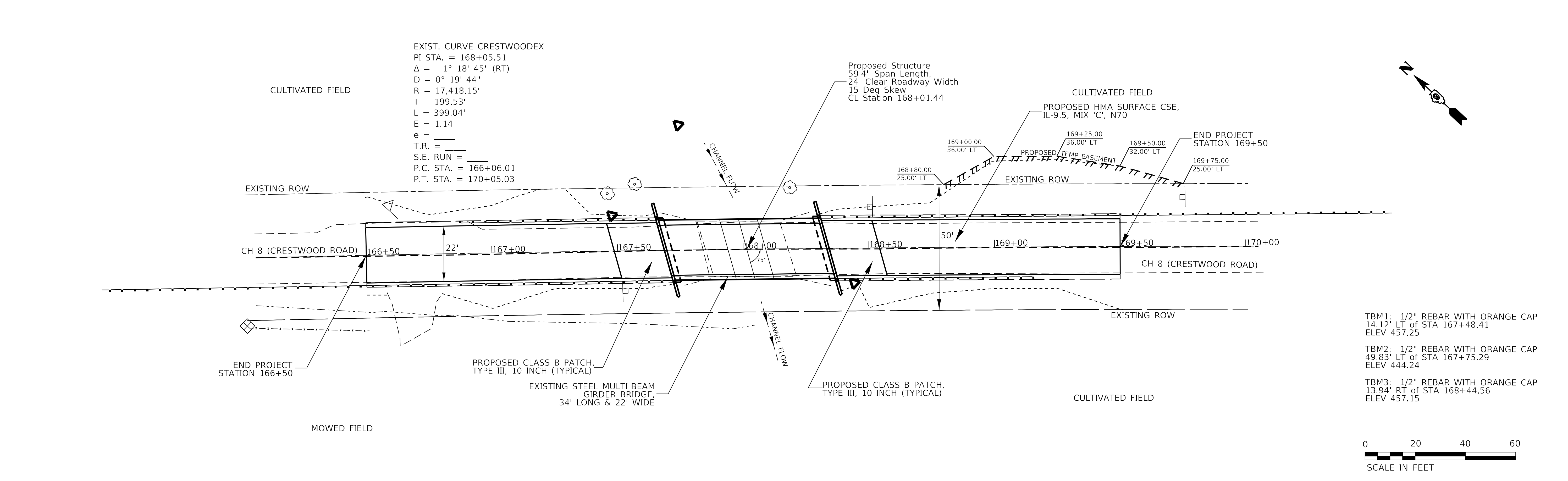
USER NAME = gsmothers	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 5/24/2024	DATE -	REVISED -

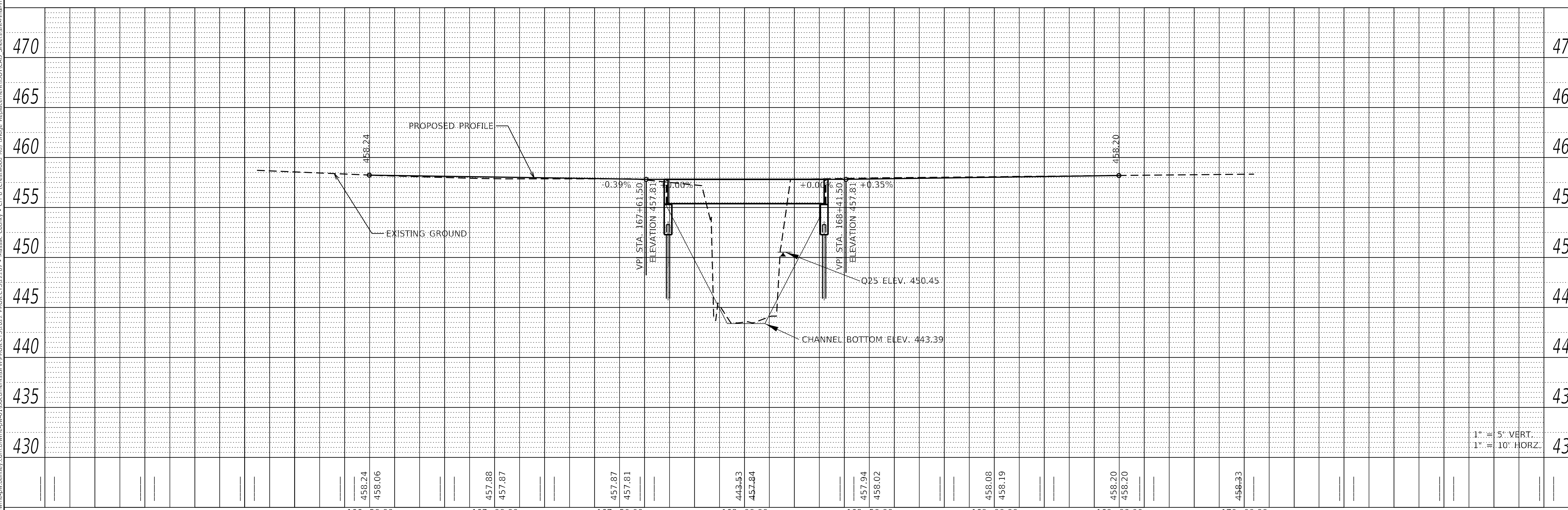
STATE OF ILLINOIS
MASSAC COUNTY HIGHWAY DEPARTMENT

CRESTWOOD ROAD
TYPICAL CROSS SECTIONS

SCALE: STA. TO STA.

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	8
		CONTRACT NO.: 99738		
	ILLINOIS	FED. AID PROJECT:		


EXIST. CURVE CRESTWOODEX
PI STA. = 168+05.51
Δ = 1° 18' 45" (RT)
D = 0° 19' 44"
R = 17,418.15'
T = 199.53'
L = 399.04'
E = 1.14'
e = ____
T.R. = ____
S.E. RUN = ____
P.C. STA. = 166+06.01
P.T. STA. = 170+05.03
CULTIVATED FIELD
Proposed Structure
59'4" Span Length,
24' Clear Roadway Width
15 Deg Skew
CL Station 168+01.44
CULTIVATED FIELD
PROPOSED HMA SURFACE CSE,
IL-9.5, MIX 'C', N70
END PROJECT
STATION 169+50
169+00.00
36.00' LT
169+25.00
36.00' LT
169+50.00
32.00' LT
169+75.00
25.00' LT
168+80.00
25.00' LT
PROPOSED TEMP. EASEMENT
CHANNEL FLOW
EXISTING ROW
EXISTING ROW
50'
22'
CH 8 (CRESTWOOD ROAD)
166+50
167+00
167+50
168+00
168+50
169+00
169+50
170+00
75°
CH 8 (CRESTWOOD ROAD)
EXISTING ROW
CHANNEL FLOW
END PROJECT
STATION 166+50
PROPOSED CLASS B PATCH,
TYPE III, 10 INCH (TYPICAL)
EXISTING STEEL MULTI-BEAM
GIRDER BRIDGE,
34' LONG & 22' WIDE
PROPOSED CLASS B PATCH,
TYPE III, 10 INCH (TYPICAL)
CULTIVATED FIELD
MOWED FIELD
TBM1: 1/2" REBAR WITH ORANGE CAP
14.12' LT of STA 167+48.41
ELEV 457.25
TBM2: 1/2" REBAR WITH ORANGE CAP
49.83' LT of STA 167+75.29
ELEV 444.24
TBM3: 1/2" REBAR WITH ORANGE CAP
13.94' RT of STA 168+44.56
ELEV 457.15
0 20 40 60
SCALE IN FEET
N


470
465
460
455
450
445
440
435
430
PROPOSED PROFILE
458.24
458.20
-0.39%
0.00%
+0.00%
+0.35%
VPI STA. 167+61.50
ELEVATION 457.81
VPI STA. 168+41.50
ELEVATION 457.81
EXISTING GROUND
Q25 ELEV. 450.45
CHANNEL BOTTOM ELEV. 443.39
1" = 5' VERT.
1" = 10' HORZ.
458.24
458.06
457.88
457.87
457.87
457.81
443.53
457.84
457.94
458.02
458.08
458.19
458.20
458.20
458.33
166+50.00
167+00.00
167+50.00
168+00.00
168+50.00
169+00.00
169+00.00
170+00.00

PLAN: SURVEYED / PLOTTED / ALIGNMENT CHECKED / R.O.W. CHECKED / CADD FILE NAME / NOTE BOOK NO. ____ / BY / DATE

PROFILE: SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATIONS CHK'D / NOTE BOOK NO. ____ / BY / DATE

FILE NAME: pw:\\bfwmo-pw.bentley.com:bfwmo-pw-01\Documents\BFW\PROJECTS\2022 PROJECTS\22287 - Massac County - CH 8 (Crestwood Rd) Bridge Replacement\IDOT\CAD Sheets\sht-Pln&Prf.dgn
MODEL: Default

USER NAME = gsmothers	DESIGNED - ________	REVISED - ________	STATE OF ILLINOIS
	DRAWN - ________	REVISED - ________	MASSAC COUNTY HIGHWAY DEPARTMENT
PLOT SCALE = 40.0000 ' / in.	CHECKED - ________	REVISED - ________	
PLOT DATE = 7/22/2024	DATE - ________	REVISED - ________	

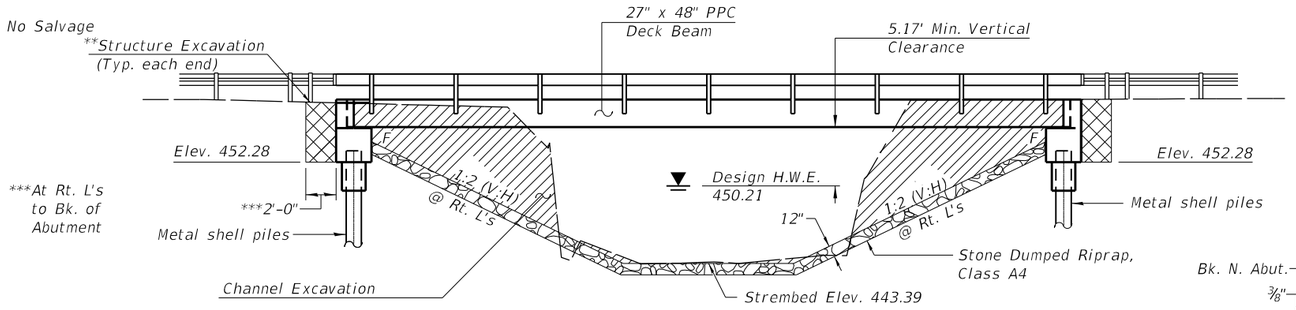
CRESTWOOD ROAD
PLAN AND PROFILE

SCALE: ________ SHEET __ OF __ SHEETS STA. ________ TO STA. ________

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	9
		CONTRACT NO. 99738		
		ILLINOIS FED. AID PROJECT		

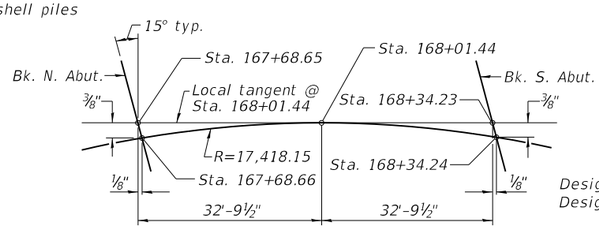
Bench Mark: TBM1: ½" rebar with orange cap located 14.12' LT. of Sta. 167+48.41, Elev. 457.25

Existing Structure: S.N. 064-3012 was originally built in 1939 as C.H. 8, Section 11B. The superstructure consists of a single-span, WF 21 steel beam with a 6½" non-composite reinforced concrete deck. A 3-inch bituminous ovelay was placed on top of the concrete deck. The substructure units consist of closed timber abutments on timber piling. The back to back of abutment length measures 33'-2" and the out-to-out deck width measures 23'-0". Traffic to be detoured during construction.



ELEVATION
(Existing structure not shown)

**Backfill with Controlled Low-Strength Material (CLSM). CLSM shall be provided the full depth of excavation the entire out-to-out width of deck. Typ. each end. See sheet 13 of 26 for additional details.



OFFSET SKETCH

GENERAL NOTES

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

LOADING HL-93

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

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

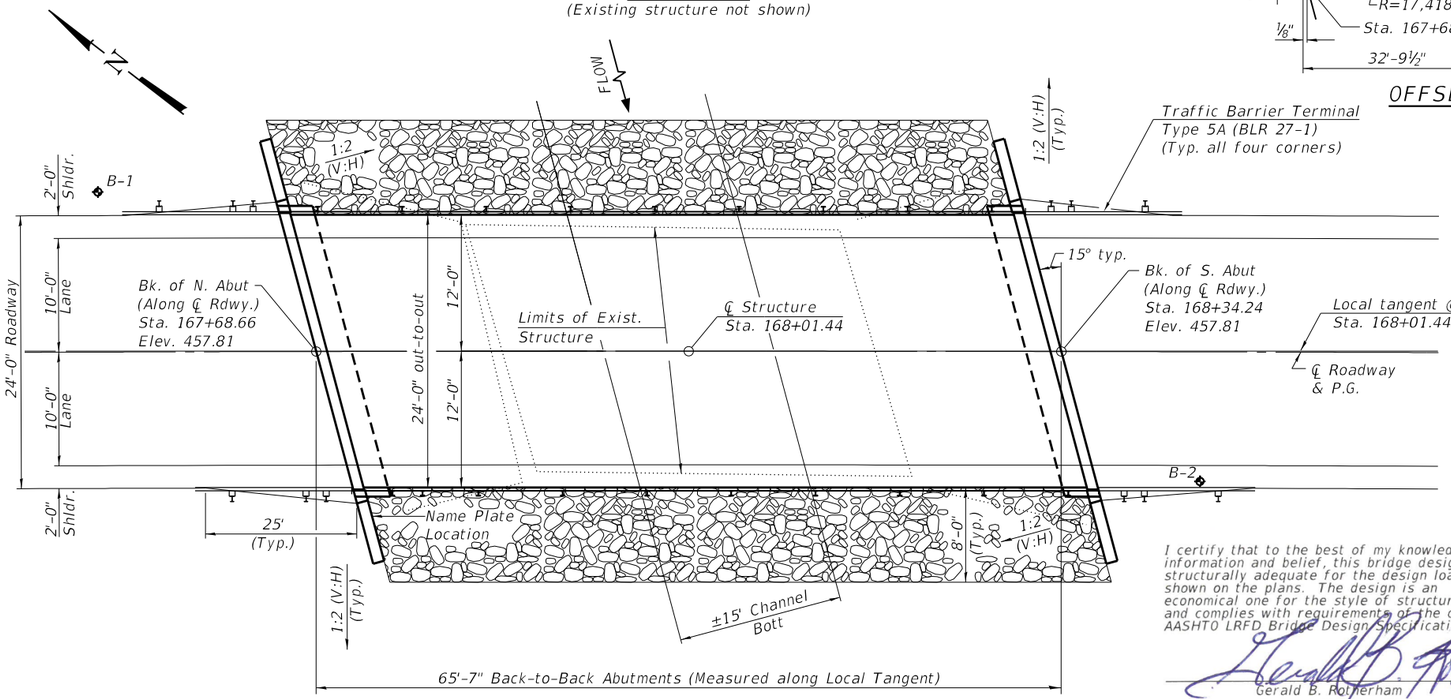
f'c = 6,000 psi
fci = 5,000 psi
fpu = 270,000 psi (½" Ø low lax. strands)
fpbt = 201,960 psi (½" Ø low lax. strands)
fy = 60,000 psi (Reinforcement)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 3
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.46
Design Spectral Acceleration at 0.2 sec. (SDS) = 1.07
Soil Site Class = D

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Dumped Riprap, Class A4	Ton		143	143
Removal of Existing Structures	Each		1	1
Structure Excavation	Cu. Yd.		80	80
Concrete Structures	Cu. Yd.		25.1	25.1
Concrete Encasement	Cu. Yd.		3.7	3.7
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1528		1528
Reinforcement Bars	Pound		3910	3910
Steel Railing, Type S-1	Foot	132		132
Furnishing Metal Shell Piles 12"X0.25"	Foot		546	546
Driving Piles	Foot		546	546
Test Pile Metal Shells	Each		1	1
Name Plates	Each		1	1
Controlled Low-Strength Material	Cu. Yd.		19.4	19.4
Pile Shoes	Each		8	8

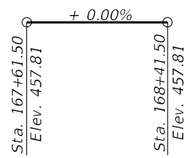


PLAN

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 LRFD Bridge Design Specifications.

Gerald B. Rotherham
Expires: Nov. 30, 2024

05/21/2024
LICENSED STRUCTURAL ENGINEER
GERALD B. ROTHERHAM
081-005673
STATE OF ILLINOIS



PROFILE GRADE
(Along ℄ Rdwy.)

DESIGN SCOUR ELEVATION TABLE

Event / Limit State	Design Scour Elev. (ft.) N. Abut.	S. Abut.	Item 113
Q100	452.28	452.28	8
Q200	452.28	452.28	
Design	452.28	452.28	
Check	452.28	452.28	

WATERWAY INFORMATION

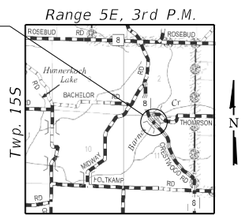
Drainage Area = 1.91 sq.mi Proposed Low Grade Elev. 457.81 @ Sta. 167+61.50

Flood	Freq. Yr.	Q C.F.S.	Opening Ft² Exist.	Prop.	Nat. H.W.E.	Head - Ft. Exist.	Prop.	Headwater El. Exist.	Prop.
Design	25	1430	167.38	202.03	450.21	1.31	1.14	451.52	451.35
	50	1700	185.10	229.45	450.79	1.48	1.25	452.27	452.04
Base	100	1970	201.30	255.05	451.32	1.64	1.36	452.96	452.68
Scour Check	200	2260	217.00	281.00	451.85	1.79	1.47	453.64	453.37
Max. Calc.	500	2660	238.69	321.76	452.55	2.04	1.61	454.59	454.16

BARNES CREEK
BUILT 20__ BY
MASSAC COUNTY
SEC. 21-00106-00-BR
STATION 168+01.44
STR. NO. 064-3157 LOADING HL93

NAME PLATE
See Std. 515001

Proposed Structure



LOCATION SKETCH

GENERAL PLAN & ELEVATION
CRESTWOOD ROAD OVER
BARNES CREEK
C.H. 8 - SEC. 21-00106-00-BR
MASSAC COUNTY
STATION 168+01.44
STRUCTURE NO. 064-3157

BACON | FARMER | WORKMAN
ENGINEERING & TESTING, INC.
403 NORTH COURT STREET
MARION, ILLINOIS 62959
PHONE - 618.997.9180

USER NAME = ____	DESIGNED - JMK	REVISED - ____	STATE OF ILLINOIS MASSAC COUNTY HIGHWAY DEPARTMENT	GENERAL PLAN & ELEVATION STRUCTURE NO. 064-3157	
	CHECKED - GBR	REVISED - ____			
PLOT SCALE = ____	DRAWN - JMK	REVISED - ____			
PLOT DATE = ____	CHECKED - GBR	REVISED - ____			

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	10
		CONTRACT NO. 99738		
	ILLINOIS FED. AID PROJECT			

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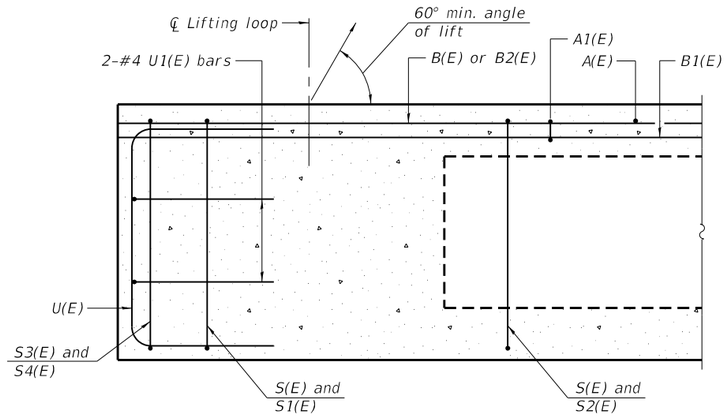
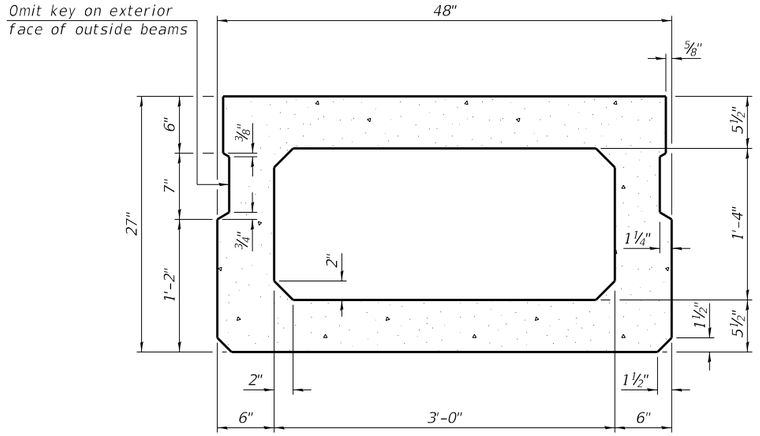
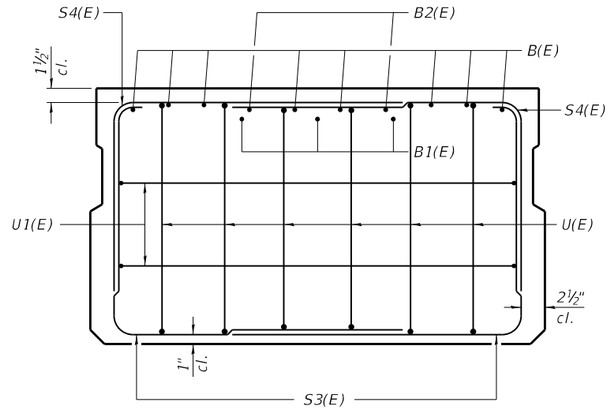


SECTION A-A

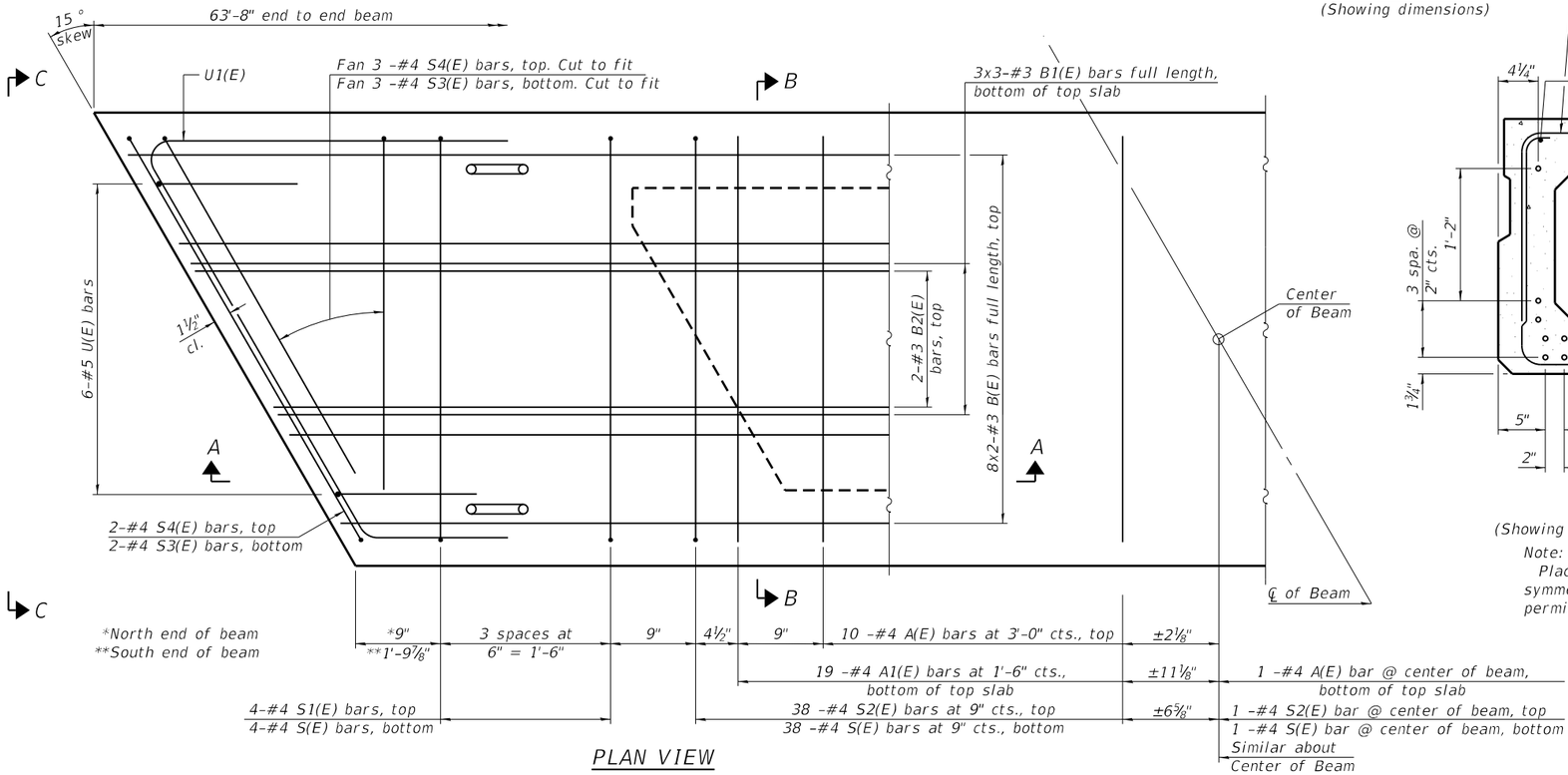


SECTION B-B

(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 8x2-#3 etc. indicates 8 lines of bars with 2 length per line.

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	3'-7"	—
A1(E)	38	#4	3'-10"	~
B(E)	16	#3	32'-5"	—
B1(E)	9	#3	22'-2"	—
B2(E)	4	#3	10'-0"	—
S(E)	85	#4	8'-5"	⊔
S1(E)	8	#4	6'-11"	⊓
S2(E)	79	#4	7'-2"	⊓
S3(E)	10	#4	5'-8"	⌟
S4(E)	10	#4	4'-11"	⌟
U(E)	12	#5	4'-6"	⊏
U1(E)	4	#4	7'-1"	⊏

Note:
See sheet 12 of 29 for additional details and Bill of Material.

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ENGINEERING & TESTING, INC.
403 NORTH COURT STREET
MARION, ILLINOIS 62959
PHONE - 618.997.9186

USER NAME = ____	DESIGNED - JMK	REVISED - ____	STATE OF ILLINOIS MASSAC COUNTY HIGHWAY DEPARTMENT	27" x 48" PPC DECK BEAM STRUCTURE NO. 064-3157	C.H. RTE. 8 | SECTION 21-00106-00-BR | COUNTY MASSAC | TOTAL SHEETS 29 | SHEET NO. 11
	CHECKED - GBR	REVISED - ____			CONTRACT NO. 99738
PLOT SCALE = ____	DRAWN - JMK	REVISED - ____			ILLINOIS | FED. AID PROJECT
PLOT DATE = ____	CHECKED - GBR	REVISED - ____			

MODEL: Default
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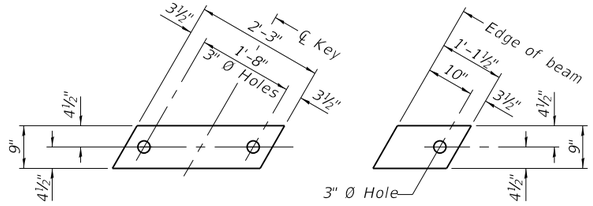
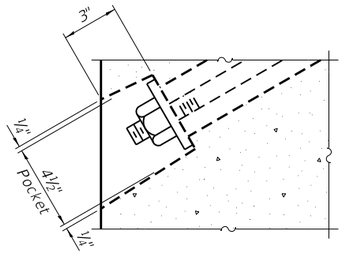


FABRIC BEARING PAD
(Interior)

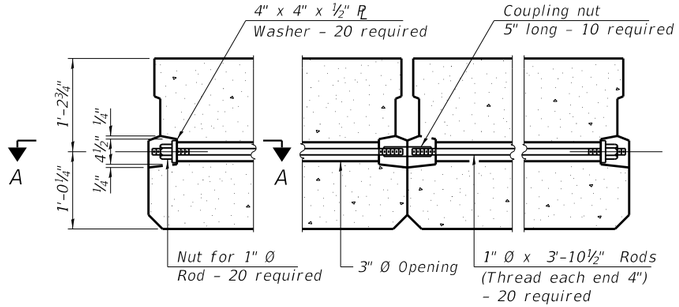
FABRIC BEARING PAD
(Exterior)

FIXED

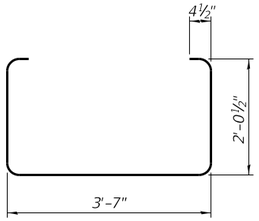
Notes:
All bearing pads shall be 1" thick.



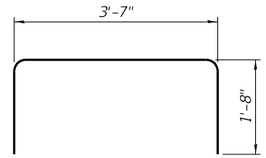
SECTION A-A



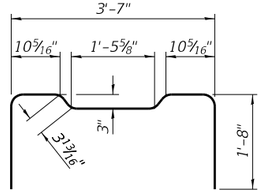
TYPICAL TRANSVERSE TIE ASSEMBLY



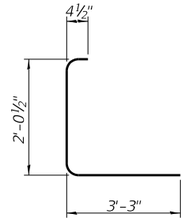
BAR S(E)



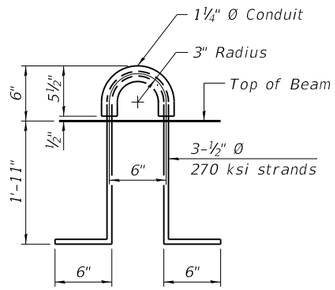
BAR S1(E)



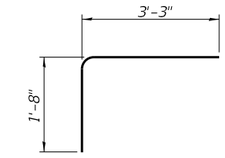
BAR S2(E)



BAR S3(E)



LIFTING LOOP DETAIL



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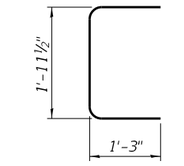
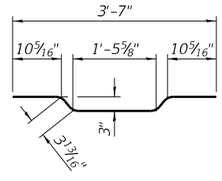
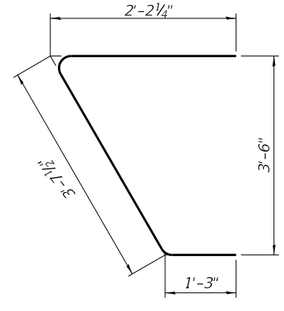


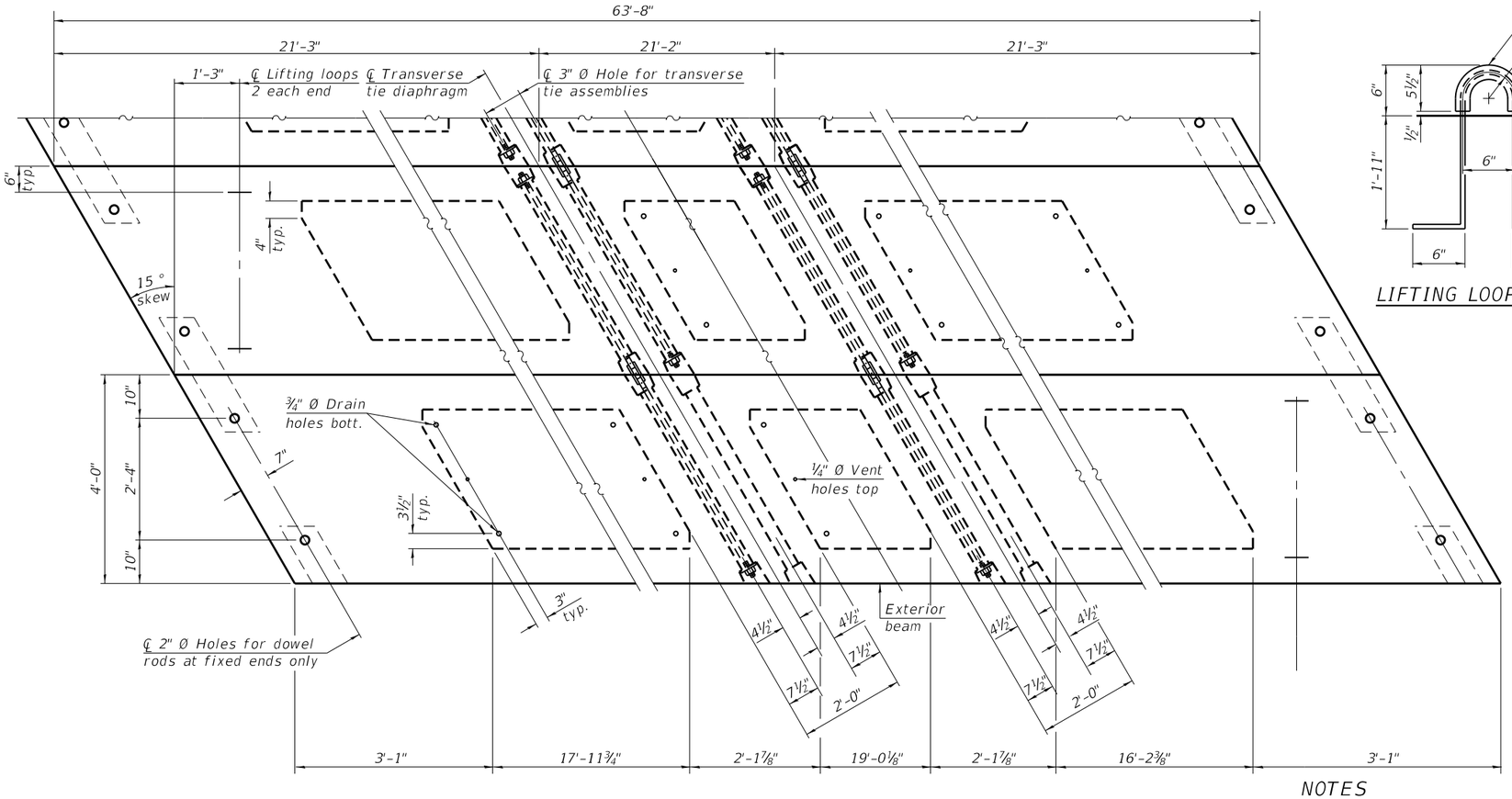
BAR U(E)



BAR A1(E)



BAR U1(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 ½" and the nominal cross-sectional area shall be 0.153 sq. in.

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.	1528

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ENGINEERING & TESTING, INC.
403 NORTH COURT STREET
MARION, ILLINOIS 62959
PHONE - 618.997.3100

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		CHECKED	- GBR	REVISED	-
PLOT SCALE	=	DRAWN	- JMK	REVISED	-
PLOT DATE	=	CHECKED	- GBR	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

27" x 48" PPC DECK BEAM DETAILS
STRUCTURE NO. 064-3157

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	12
		CONTRACT NO. 99738		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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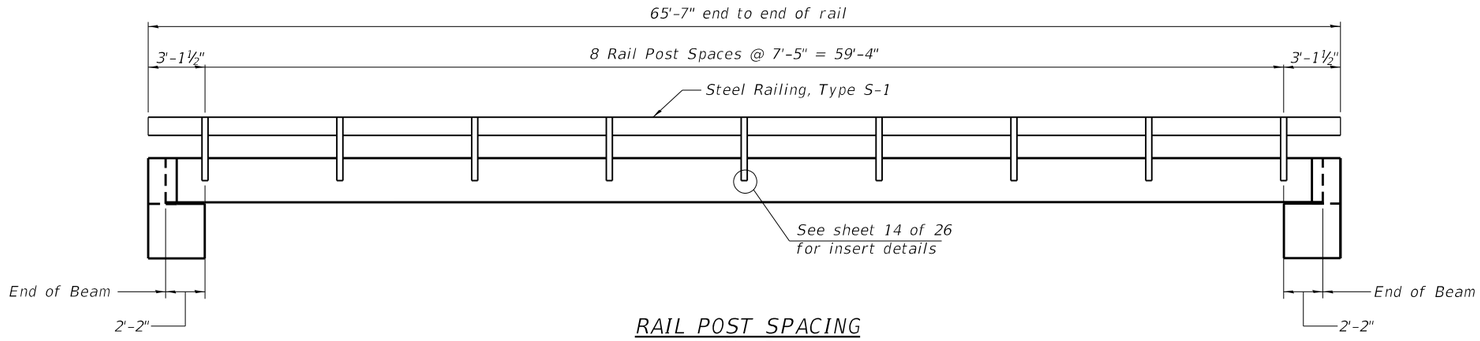
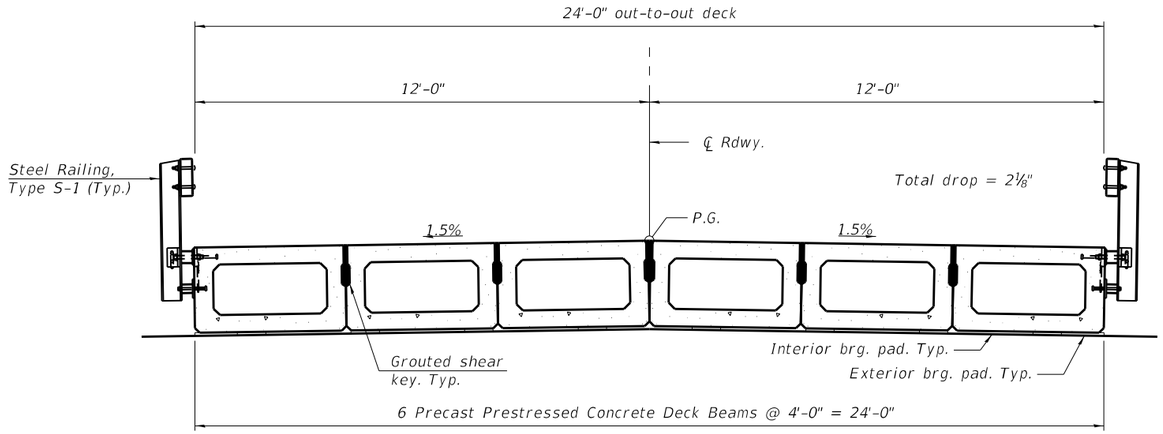
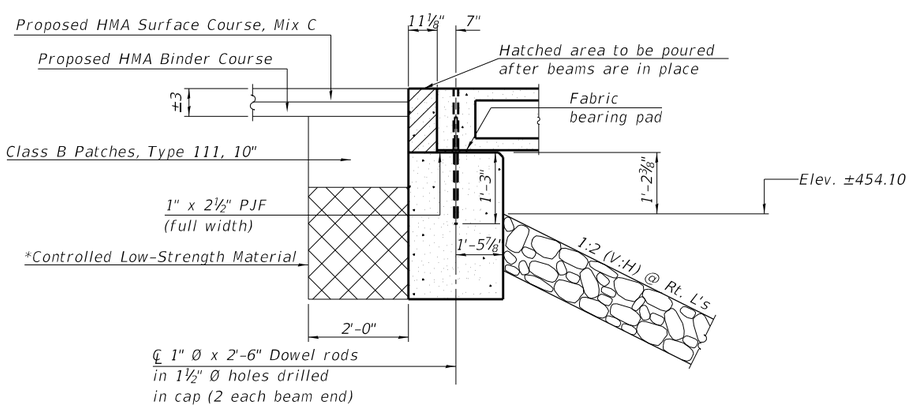


RAIL POST SPACING
(Looking East)



CROSS SECTION
(Looking South)



*Controlled Low-Strength Material shall be provided the full depth of excavation the entire out-to-out width of deck, Typ. each end.

SECTION AT ABUTMENTS
(Horiz. dim. at Rt. L's)

Notes:
See sheet 12 of 29 for fabric bearing pad details.
See sheet 14 of 29 for Steel Railing, Type S-1.

MODEL: Default
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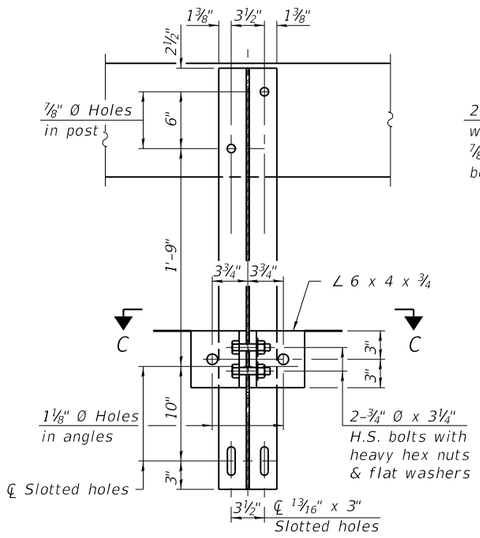
ENGINEERING & TESTING, INC.
403 NORTH COURT STREET
MARION, ILLINOIS 62959
PHONE • 618.997.9190

USER NAME = ____	DESIGNED - JMK	REVISED - ____	
	CHECKED - GBR	REVISED - ____	
PLOT SCALE = ____	DRAWN - JMK	REVISED - ____	
PLOT DATE = ____	CHECKED - GBR	REVISED - ____	

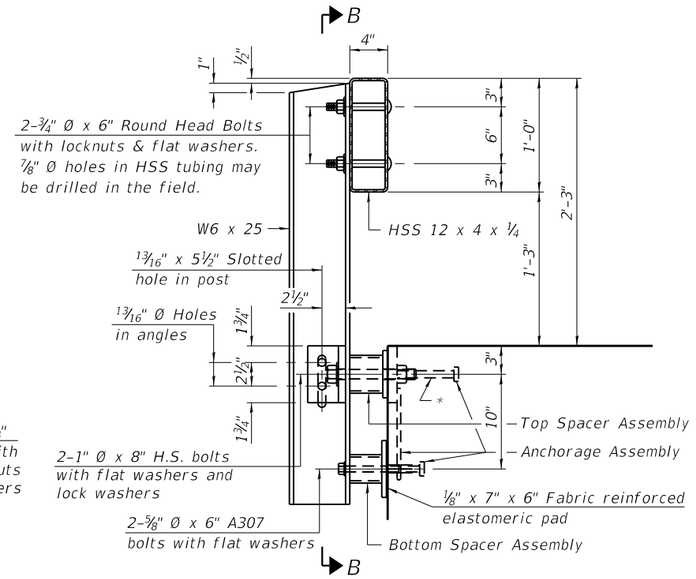
STATE OF ILLINOIS
MASSAC COUNTY HIGHWAY DEPARTMENT

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 064-3157

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	13
		CONTRACT NO. 99738		
	ILLINOIS FED. AID PROJECT			

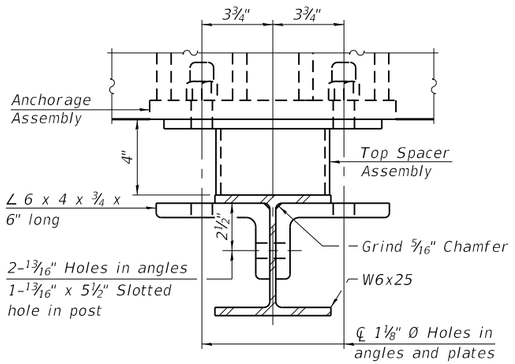


SECTION B-B

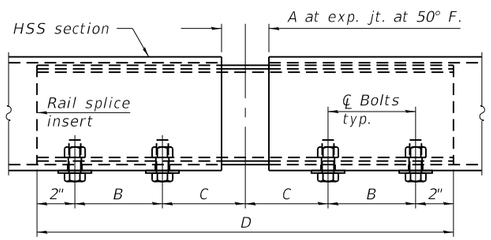


SECTION AT RAILING POST

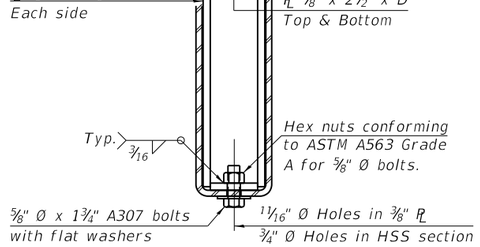
* The outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchorage assembly. The anchorage studs may be bent down ½" to accommodate the top reinforcement bar placement.



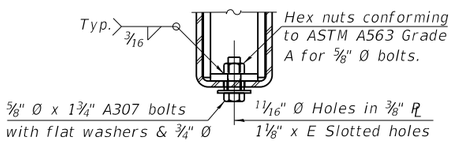
SECTION C-C



RAIL SPLICE ELEVATION



SECTION AT RAIL SPLICE



RAIL SPLICE CONNECTION AT EXPANSION JT.

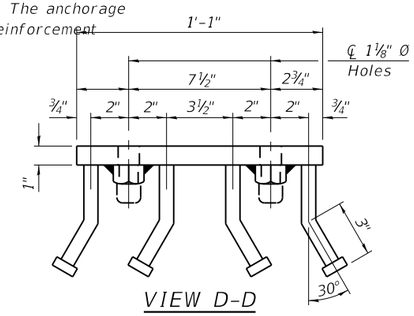
RAILING CRITERIA

NCHRP 350 Test Level	2
Railing Weight (plf)	50
Max Post Spacing	10'-9"
HMA thickness range (in)	1¼ - 3⅛

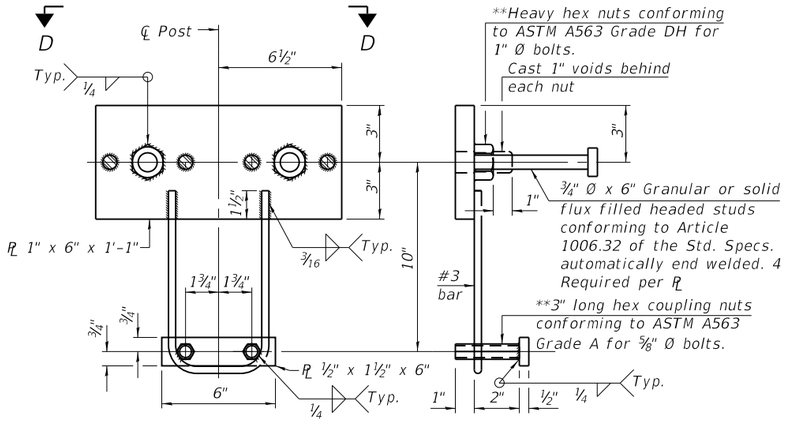
SPLICE DIMENSIONS

Location	T	A	B	C	D	E
All locs. not over exp. jts.	0	¼"	4"	4"	1'-8"	-

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

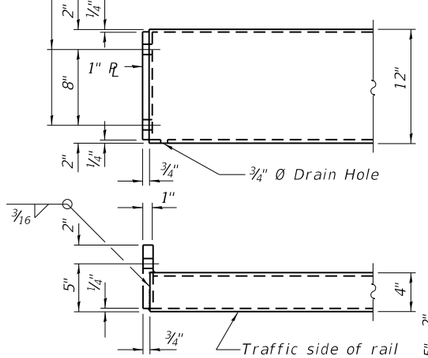


VIEW D-D

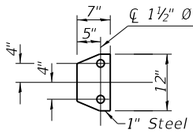


ANCHORAGE ASSEMBLY

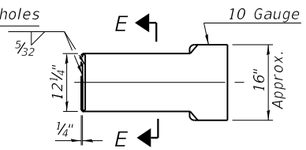
** Threaded areas shall be plugged or blocked off during casting of concrete.



END OF RAIL DETAILS

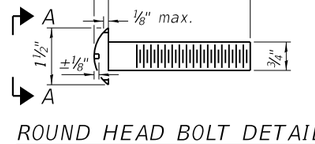


SECTION E-E



CURLED END SECTION DETAILS

Note: Cost of Curled End Section shall be included with Steel Railing, Type S-1. (4 Required)



ROUND HEAD BOLT DETAIL

Notes:

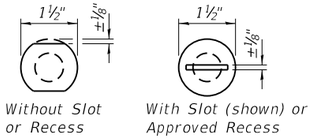
A sufficient number of shims of various thicknesses, sized to fit behind the top spacer assembly, 5" x 11½", and bottom spacer assembly, 6" x 7", shall be provided to adjust posts for proper alignment. If the summation of shims is greater than ¼" (top) or ½" (bottom), longer bolts are required. Cost included with Steel Railing, Type S-1.

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

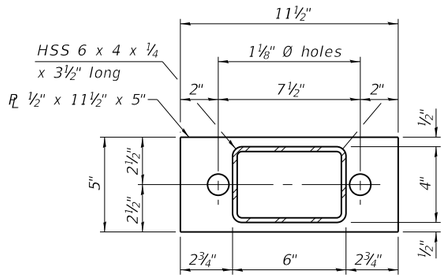
All HSS tubing serving as railing shall be CVN tested according to Article 1006.34(b) of the Standard Specifications.

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.

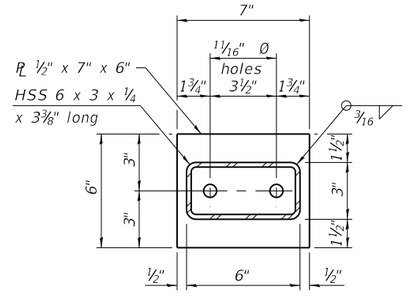
All round head bolts shall be ASTM A307 with locknuts according to ASTM A563 grade A.



VIEW A-A



TOP SPACER ASSEMBLY



BOTTOM SPACER ASSEMBLY

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	132

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403 NORTH COURT STREET
MARION, ILLINOIS 62959
PHONE - 618.997.9180

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL RAILING, TYPE S-1
STRUCTURE NO. 064-3157

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	14
		CONTRACT NO. 99738		
		ILLINOIS	FED. AID PROJECT	

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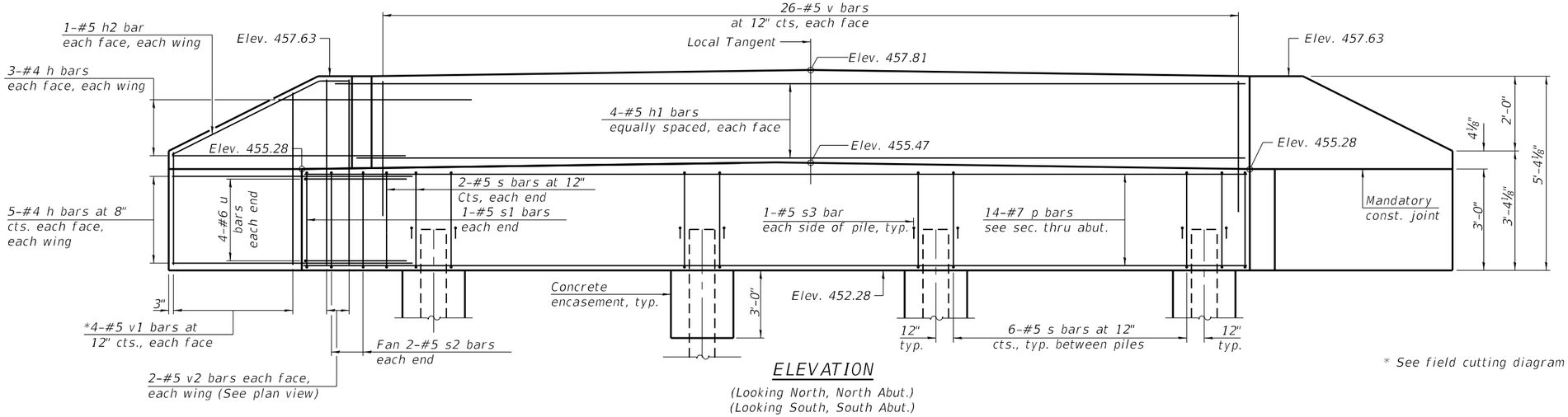
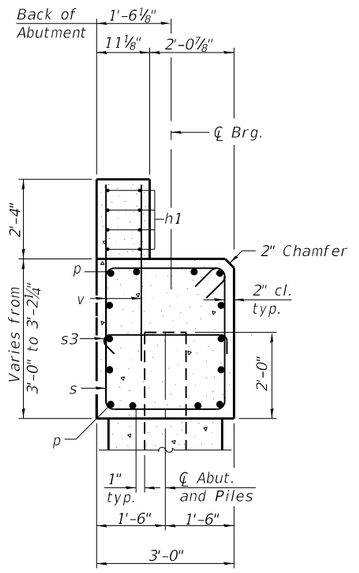


ELEVATION

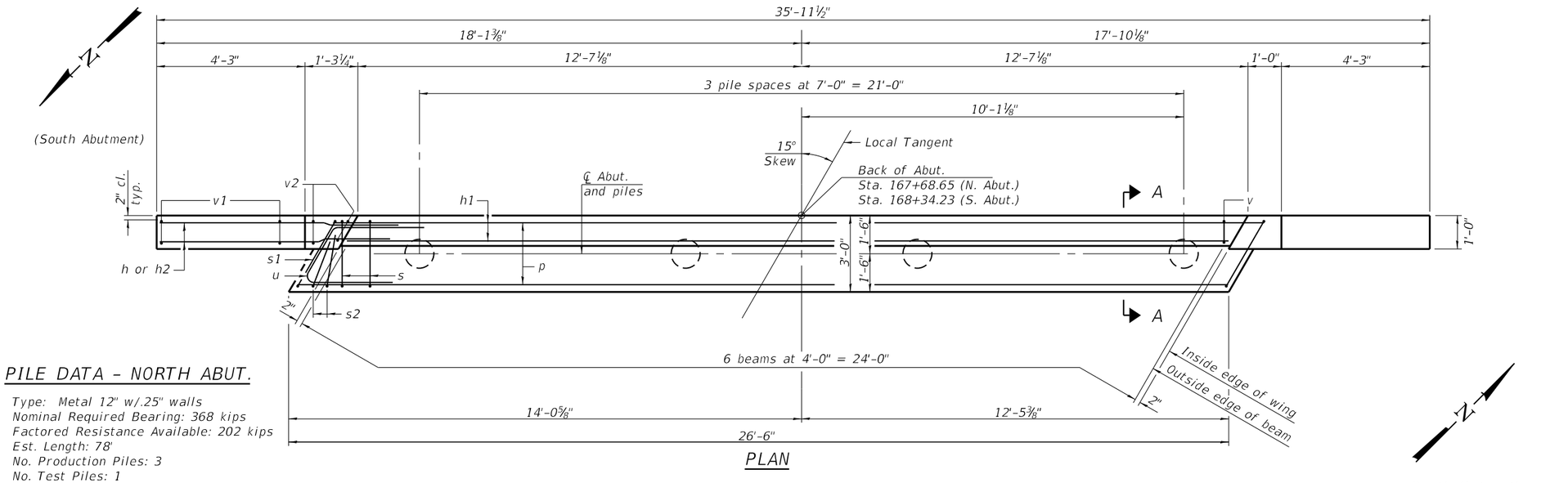
(Looking North, North Abut.)
(Looking South, South Abut.)

* See field cutting diagram



SECTION A-A

(Dimensions are at right angles to abutment)



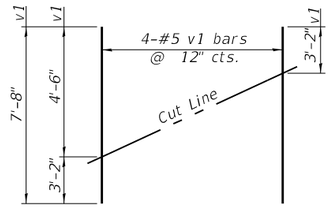
PLAN

PILE DATA - NORTH ABUT.

Type: Metal 12" w/.25" walls
Nominal Required Bearing: 368 kips
Factored Resistance Available: 202 kips
Est. Length: 78'
No. Production Piles: 3
No. Test Piles: 1

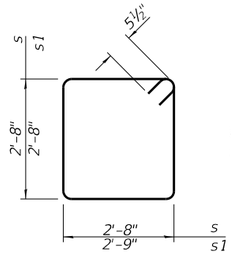
PILE DATA - SOUTH ABUT.

Type: Metal 12" w/.25" walls
Nominal Required Bearing: 335 kips
Factored Resistance Available: 185 kips
Est. Length: 78'
No. Production Piles: 4
No. Test Piles: 0

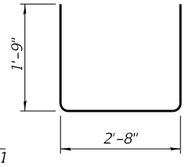


FIELD CUTTING DIAGRAM

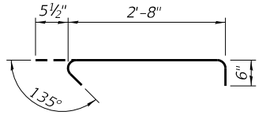
Order v1 bars full length. Cut as shown and use remainder of bars in opposite wing.



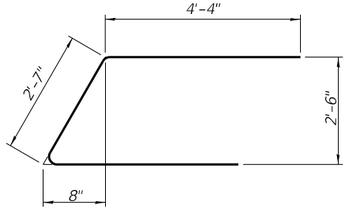
BARS s & s1



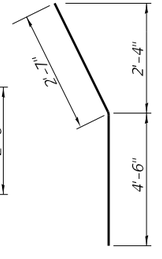
BAR s2



BAR s3



BAR u



BAR h2

BILL OF MATERIAL - TWO ABUTS.

Bar	No.	Size	Length	Shape
h	64	#4	6'-8"	
h1	16	#5	27'-0"	
h2	8	#5	7'-1"	
p	28	#7	26'-2"	
s	44	#5	11'-7"	
s1	4	#5	11'-9"	
s2	8	#5	6'-2"	
s3	16	#5	3'-8"	
u	16	#6	11'-3"	
v	104	#5	4'-0"	
v1	16	#5	7'-8"	
v2	16	#5	5'-0"	
Structure Excavation		Cu. Yd.	80	
Concrete Structures		Cu. Yd.	25.1	
Reinforcement Bars		Pound	3910	
Furnishing Metal Shell Piles 12"x0.25"		Foot	546	
Driving Piles		Foot	546	
Test Pile Metal Shell		Each	1	
Concrete Encasement		Cu. Yd.	3.7	

Notes:
For details of piles and Concrete Encasement, see sheet 16 of 29.
Cast backwall and tops of wingwalls after beams have been erected.

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PLOT DATE = ____	CHECKED - GBR	REVISED - ____	

STATE OF ILLINOIS
MASSAC COUNTY HIGHWAY DEPARTMENT

ABUTMENTS
STRUCTURE NO. 064-3157

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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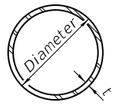
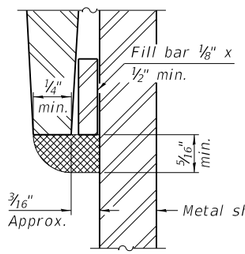
		CONTRACT NO. 99738		
	ILLINOIS	FED. AID PROJECT		

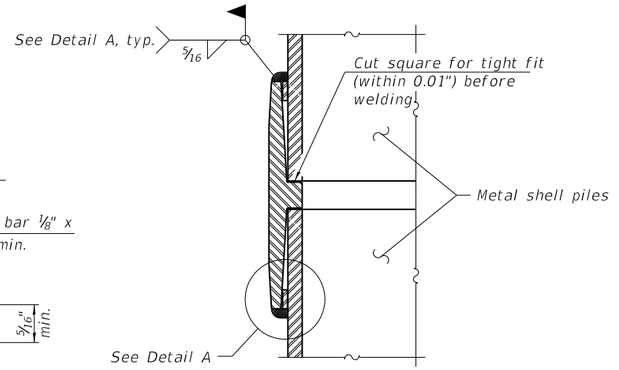


METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd.³/ft.)
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361
PP16	0.312"	52.32	0.0478
PP16	0.375"	62.64	0.0470

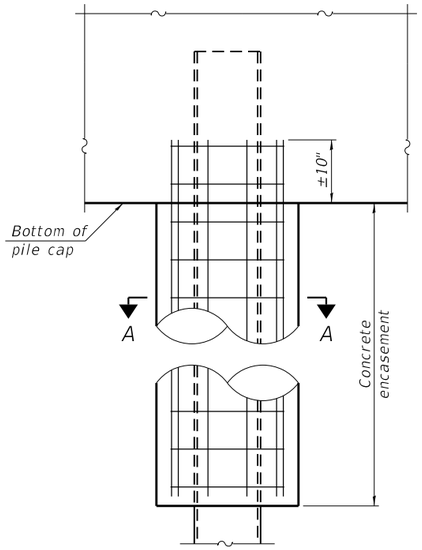


DETAIL A

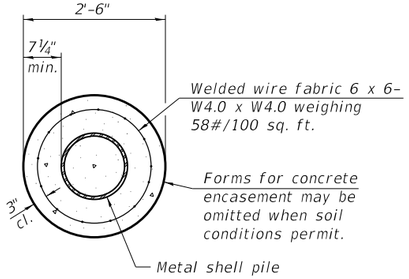


WELDED COMMERCIAL SPLICE

Notes:
The ⅛" x ½" min. fill bar may be constructed of 2 bars with a ⅛" max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.



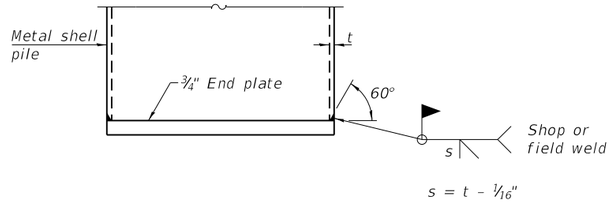
ELEVATION



SECTION A–A

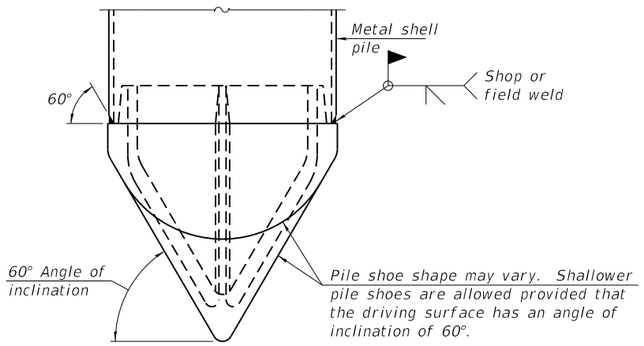
INDIVIDUAL PILE CONCRETE ENCASEMENT

(When specified)



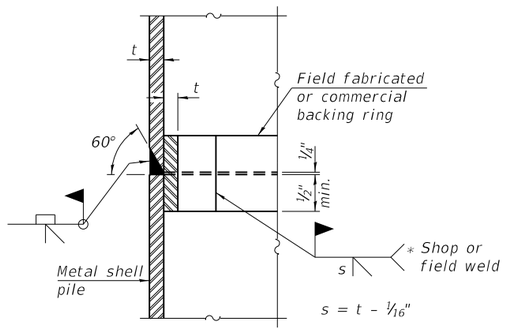
s = t – 1/16"

END PLATE ATTACHMENT



PILE SHOE ATTACHMENT

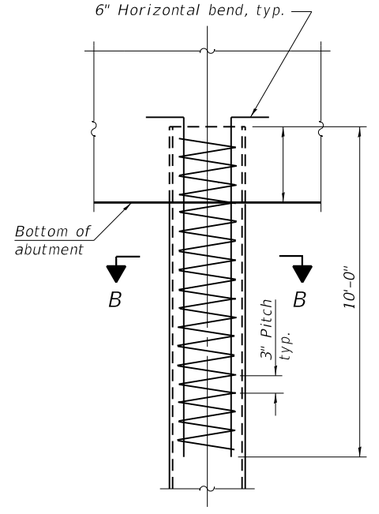
(When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 80–50 or AASHTO M 103 Grade 65–35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld).



s = t – 1/16"

COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



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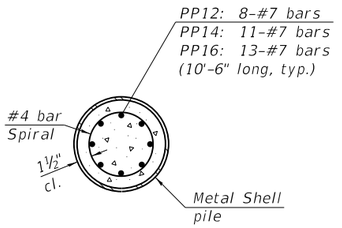

SECTION B–B

REINFORCEMENT AT ABUTMENTS

(Omit when concrete encasement is specified)

Note:
The metal shell piles shall be according to Article 1006.05 of the Standard Specifications.

F–MS 1–1–2020

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PLOT DATE =	CHECKED - GBR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

METAL SHELL PILE DETAILS
STRUCTURE NO. 064–3157

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	16
		CONTRACT NO. 99738		
	ILLINOIS	FED. AID PROJECT		

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6/29/2023 - 10:15:15 AM

DETOUR SIGNING DETAIL

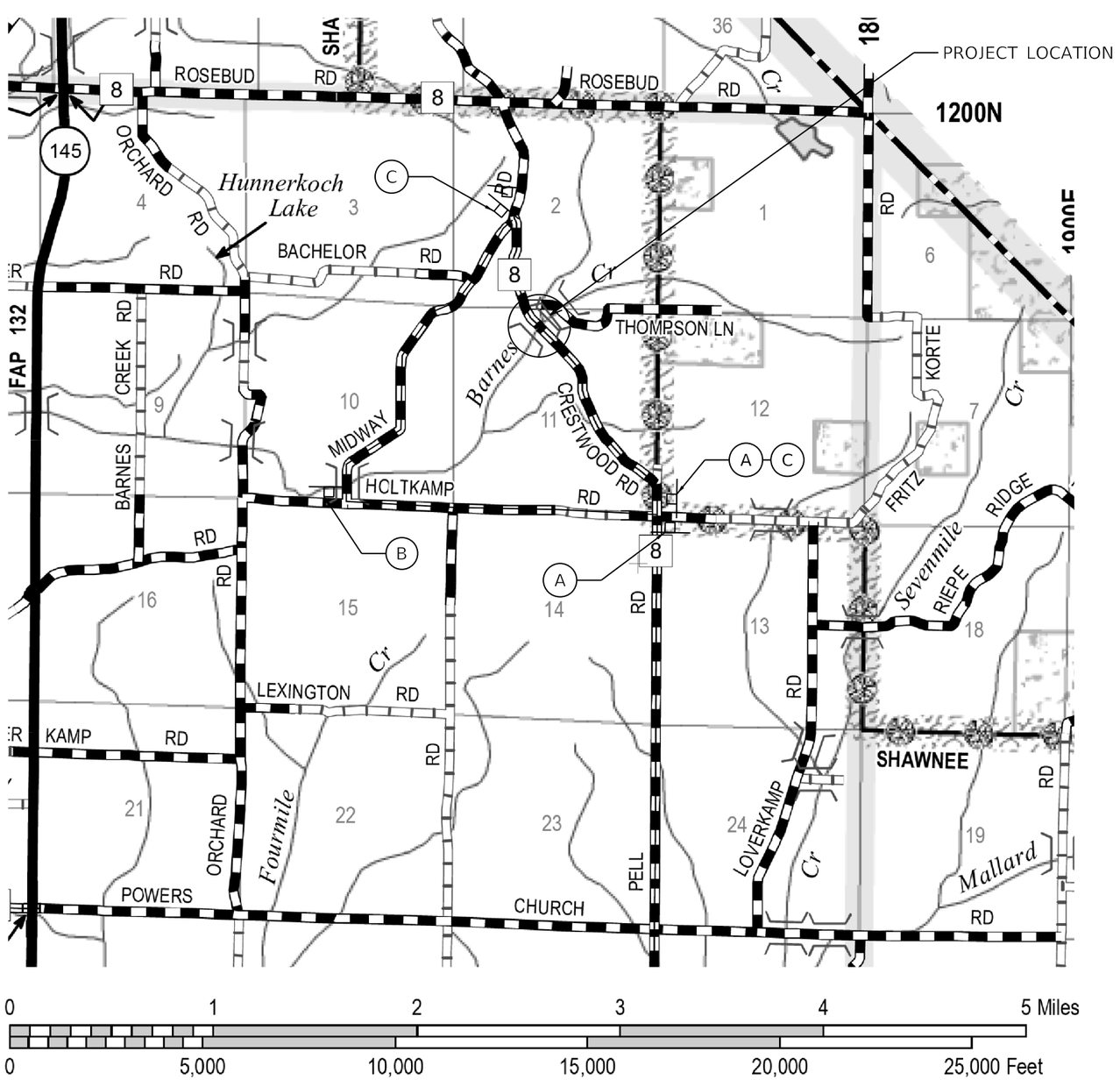
DETOUR SIGN LEGEND

(A) (B) (C) C.H. 8

(A) (B) DETOUR
M4-9L

(B) (C) DETOUR
M4-9R

(A) (C) DETOUR AHEAD
W20-2



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	DRAWN -	REVISED -	
PLOT SCALE = 0.1088 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/29/2023 - 10:50:00 AM	DATE -	REVISED -	

CRESTWOOD ROAD
DETOUR SIGNING DETAIL

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

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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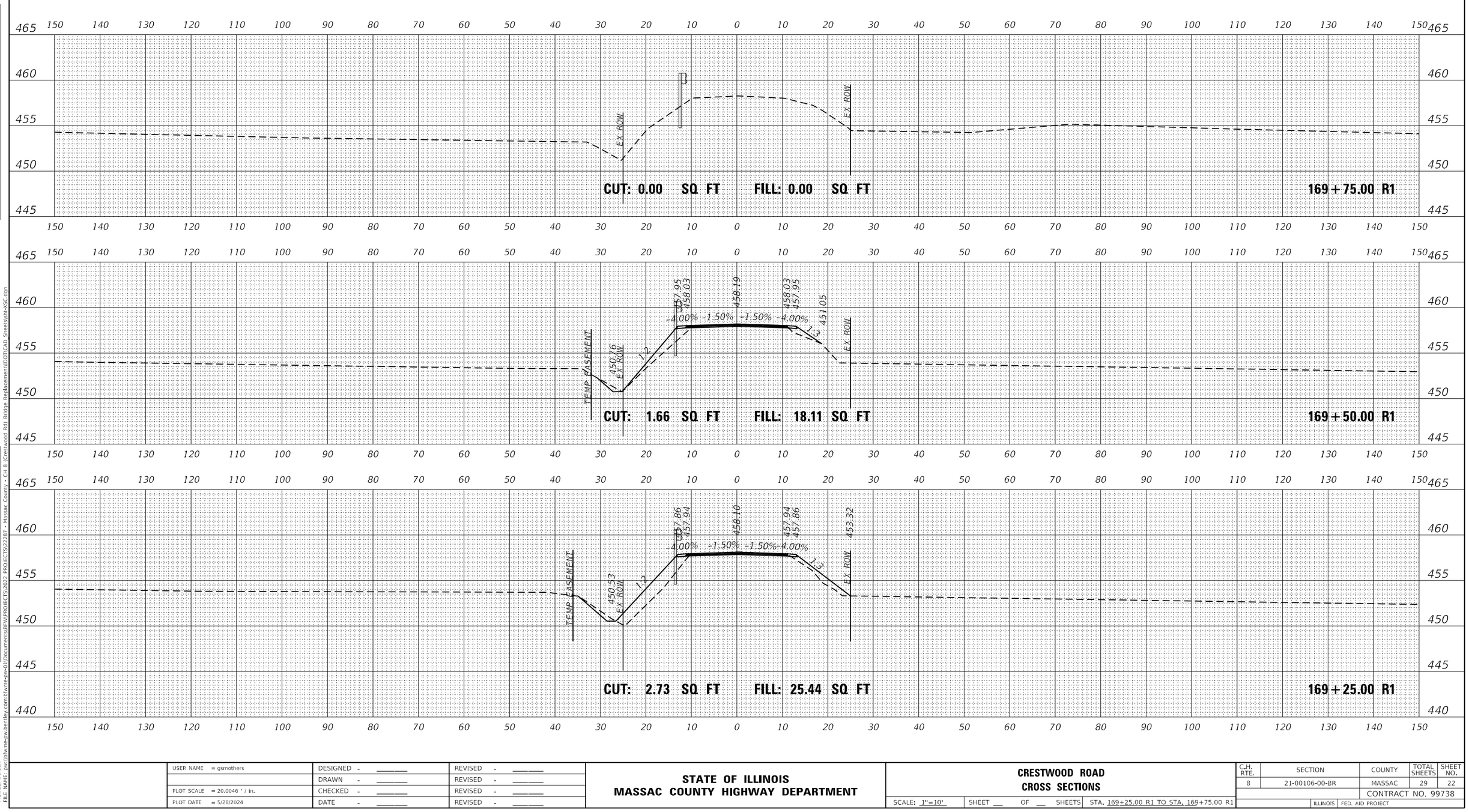
		CONTRACT NO. 99738		
	ILLINOIS FED. AID PROJECT			



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PLOT DATE = 5/28/2024	DATE - _____	REVISED - _____	

STATE OF ILLINOIS
MASSAC COUNTY HIGHWAY DEPARTMENT

CRESTWOOD ROAD
CROSS SECTIONS

SCALE: 1"=10' | SHEET __ OF __ SHEETS | STA. 169+25.00 R1 TO STA. 169+75.00 R1

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	22
		CONTRACT NO. 99738		
	ILLINOIS	FED. AID PROJECT		

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

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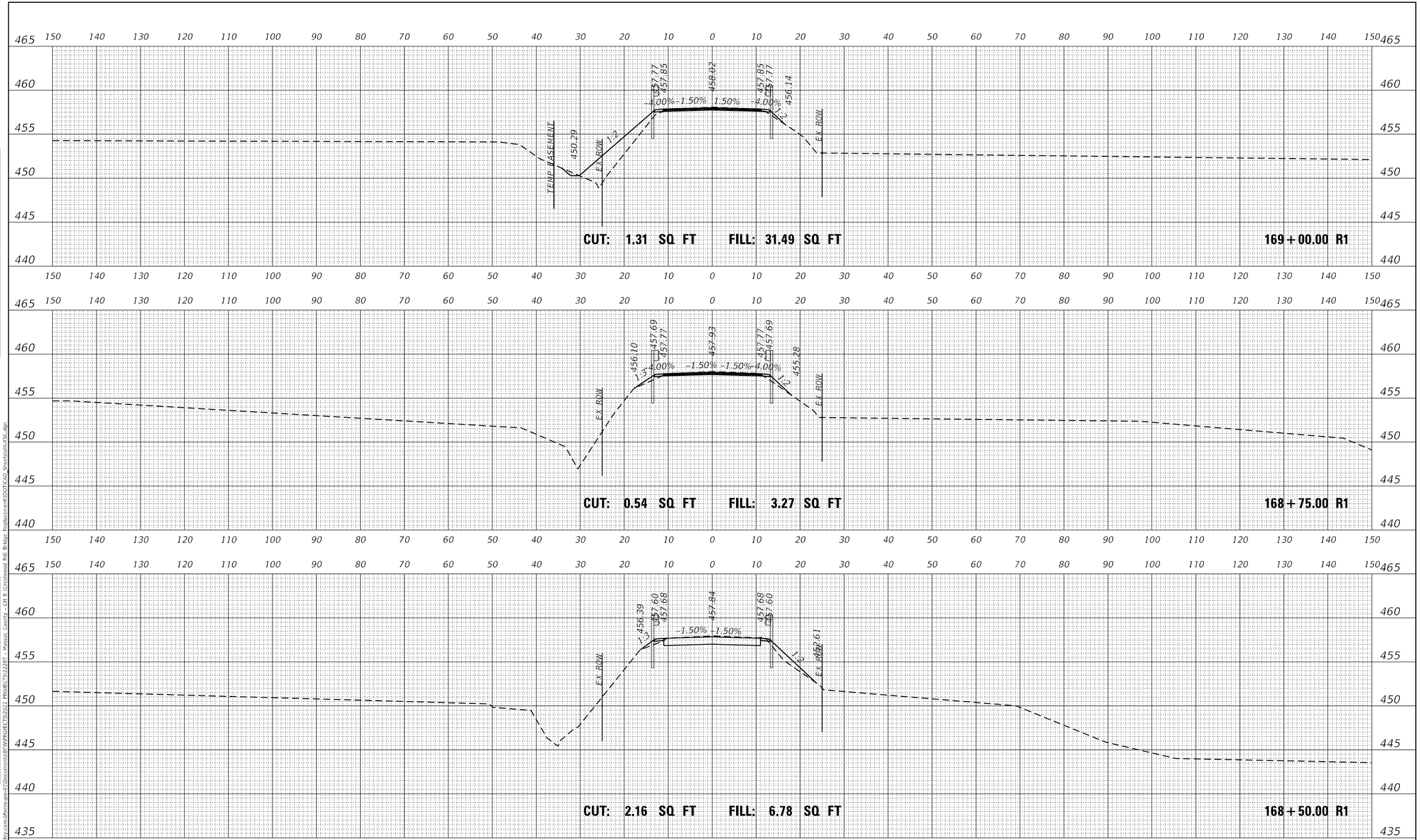

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SURVEYED — PLOTTED — TYPED — AREAS — AREAS CHECKED
BY — DATE

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PLOT DATE = 5/28/2024	DATE - _____	REVISED - _____	

CRESTWOOD ROAD
CROSS SECTIONS

SCALE: 1"=10' | SHEET __ OF __ SHEETS | STA. 168+50.00 R1 TO STA. 169+00.00 R1

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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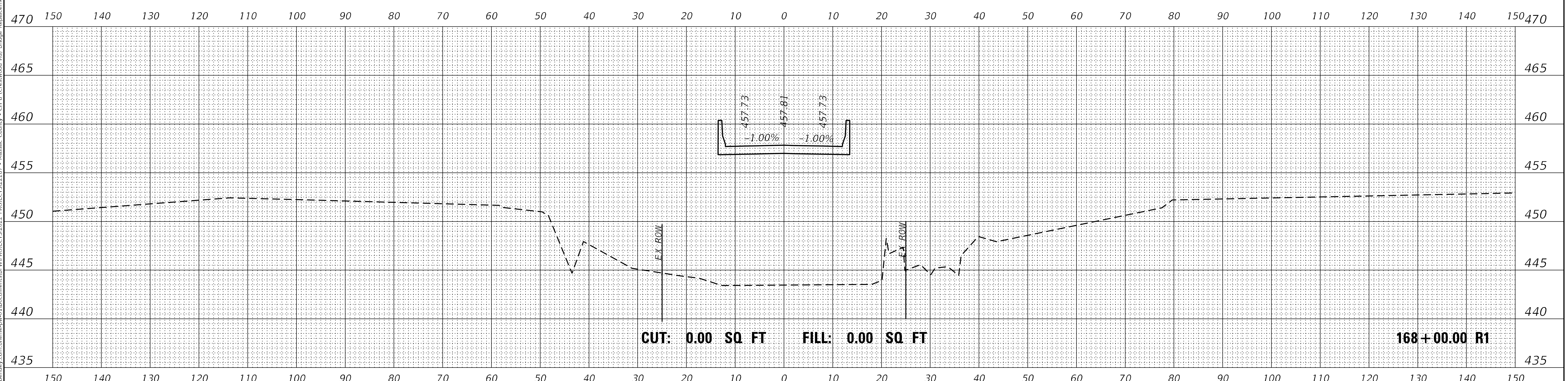

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PLOT DATE = 5/28/2024	DATE -	REVISED -	

STATE OF ILLINOIS
MASSAC COUNTY HIGHWAY DEPARTMENT

CRESTWOOD ROAD
CROSS SECTIONS

SCALE: 1"=10' SHEET ___ OF ___ SHEETS STA. 168+00.00 R1 TO STA. 168+25.00 R1

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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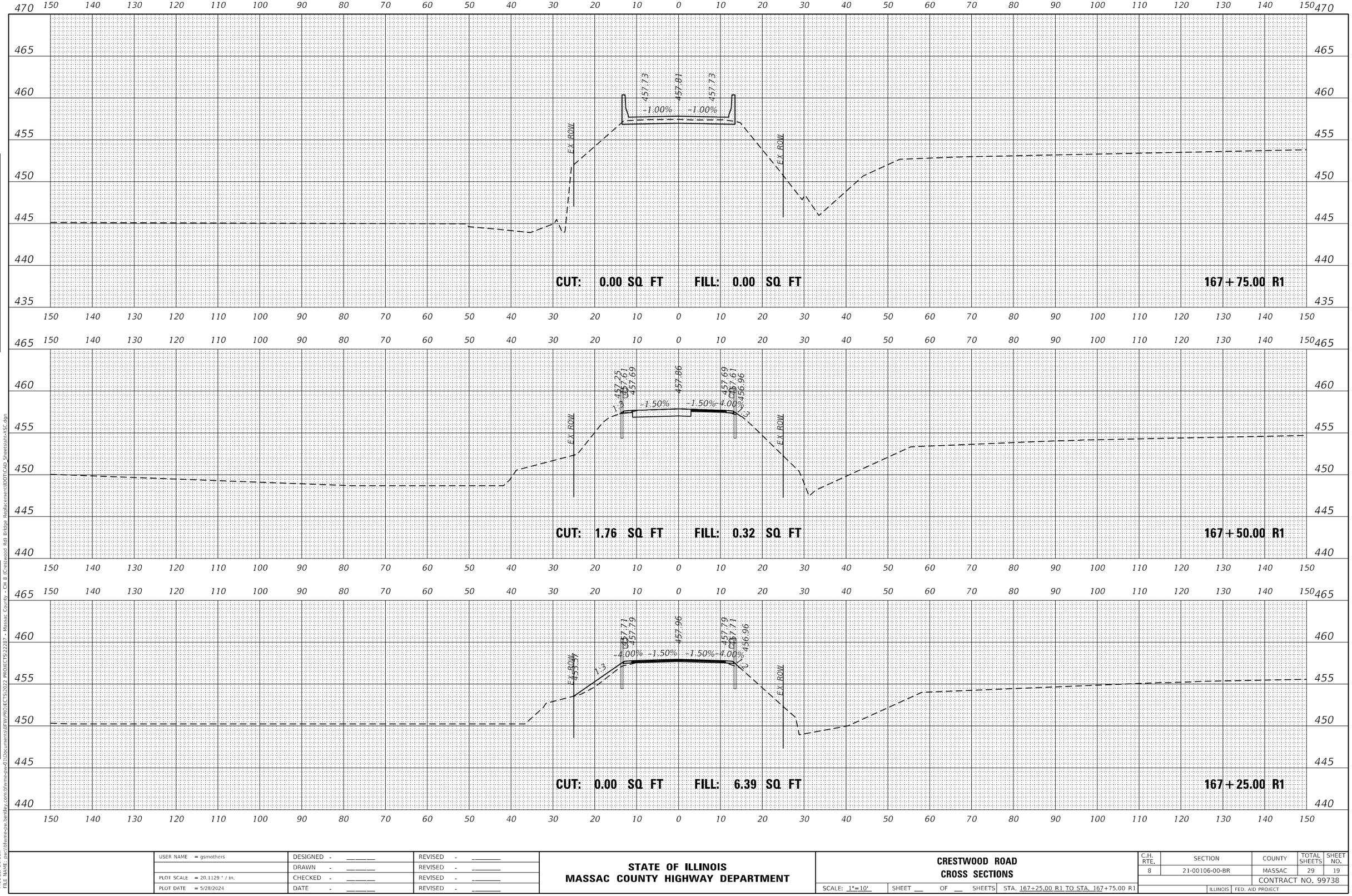
		CONTRACT NO. 99738		
		ILLINOIS FED. AID PROJECT		



FINAL SURVEY — NOTE BOOK — NO.
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PLOTTED
REVISED
TEMPLATE
AREAS
AREAS CHECKED

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

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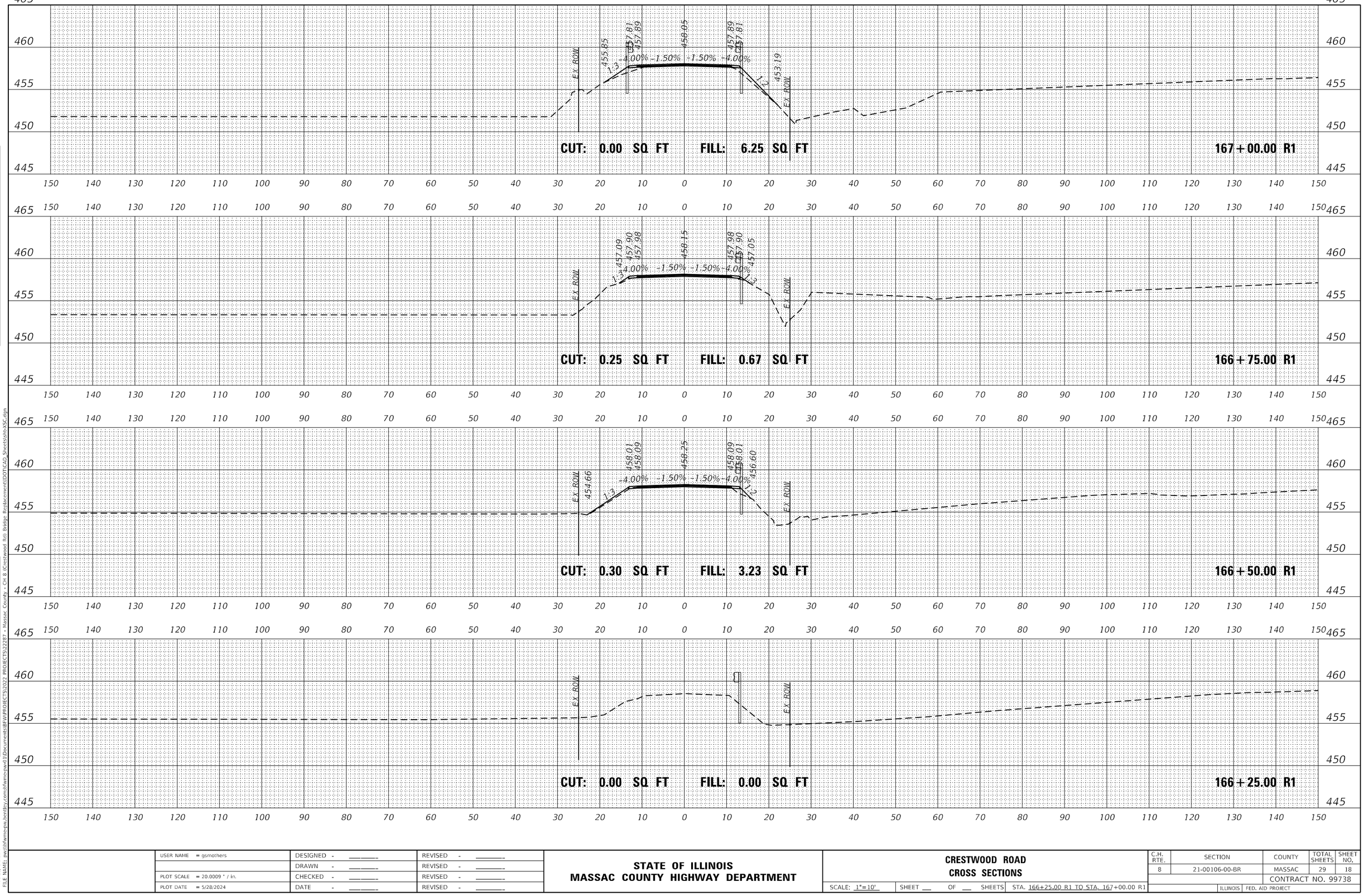
	DRAWN - _____	REVISED - _____	
PLOT SCALE = 20.1129 ' / in.	CHECKED - _____	REVISED - _____	
PLOT DATE = 5/28/2024	DATE - _____	REVISED - _____	

STATE OF ILLINOIS
MASSAC COUNTY HIGHWAY DEPARTMENT

CRESTWOOD ROAD
CROSS SECTIONS

SCALE: 1"=10' | SHEET __ OF __ SHEETS | STA. 167+25.00 R1 TO STA. 167+75.00 R1

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	19
		CONTRACT NO. 99738		
	ILLINOIS	FED. AID PROJECT		



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

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

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	DRAWN - _____	REVISED - _____	
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PLOT DATE = 5/28/2024	DATE - _____	REVISED - _____	

STATE OF ILLINOIS
MASSAC COUNTY HIGHWAY DEPARTMENT

CRESTWOOD ROAD
CROSS SECTIONS

SCALE: 1"=10' | SHEET ___ OF ___ SHEETS | STA. 166+25.00 R1 TO STA. 167+00.00 R1

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	18
		CONTRACT NO. 99738		
		ILLINOIS	FED. AID PROJECT	

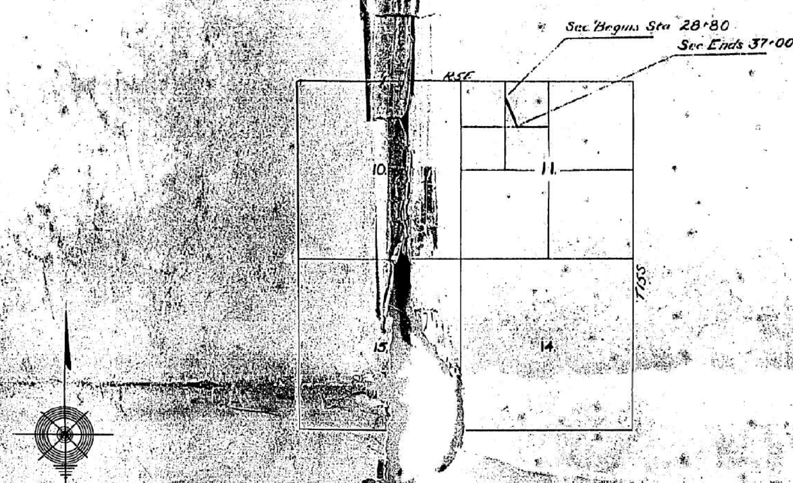
STATE OF ILLINOIS - COUNTY OF MASSAC
DIVISION OF HIGHWAYS
PLANS OF PROPOSED BRIDGE AND ROAD
SEC. NO. 11 B.M.F.T. AND S.A.R. NO. 8

1938

INDEX OF SHEETS

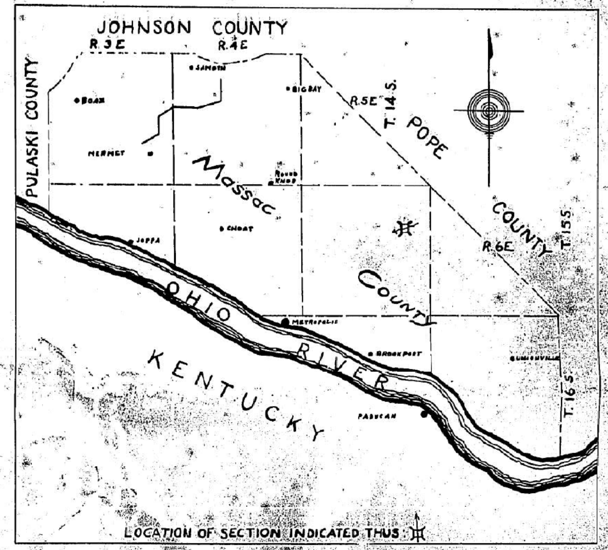
SUMMARY OF QUANTITIES

18.5	CU. YD.	CLASS X CONCRETE
4710	LBS.	REINFORCEMENT BARS
17140	"	STRUCTURAL STEEL
480	"	RODS
290	"	HARDWARE
3870	FT. B.M.	CREOSOTED LUMBER
125	"	UNTREATED
358	LIN. FT.	FURNISHING CREO. PILES UP TO 20' LONG
22	EACH	SETTING TIMBER PILES
8	"	FLOOR DRAIN
1	"	NAME PLATE
30	BBLS.	PORTLAND CEMENT
2776	CU. YDS.	BORROW EXCAVATION
3294	"	CHANNEL
20	LIN. FT.	15" DIA. PIPE CULVERT
264	CU. YDS.	GRAVEL OR CRUSHED SURFACE COURSE TYPE B.



OUT
Sc... " = 2000'
NET LENGTH ... LAYOUT = 820 FT. = .155 Miles

Section begins at Sta. 28+8... ...r center of west line of NE¼ NW¼ Sec. 11, T.15S, R3E 3rd P.M. and extends Southeasterly ... 37+00 in Sec. 11 T.15S R3E 3rd P.M.



SUMMARY OF LENGTH

STATION TO STATION	WIDTH OF PAVEMENT	GROSS LENGTH ALONG TRANSIT	NET LENGTH OF LAYOUT ALONG FINAL CENTER LINE	OMISSION (in Surfacing)		NET LENGTH TO BE IMPROVED IN FEET SURFACED			OMISSION IN PAVEMENT OVER BRIDGES		SQ. YDS. OF PAVEMENT GRAVELED		
	FEET	FEET	FEET	STA. TO STA.	FEET	EARTH RD. GRAVEL SURFACED	BRIDGES	TOTAL	STA.	FEET	GRAVEL SURFACE	18'	TOTAL
28+80 TO 37+00	—	820	820	31+05 TO 31+35	30	—	—	790	—	—	—	—	—
	—	820	820		30		—	790	—	—	—	—	—

SUBMITTED Sep 10th 1938
[signature]
CO. SUPT. HIGHWAYS - MASSAC CO.
PASSED ________ 1938
APPROVED ________ 1938

USER NAME = rneiheisel	DESIGNED -	REVISED -	STATE OF ILLINOIS MASSAC COUNTY HIGHWAY DEPARTMENT	CRESTWOOD ROAD BRIDGE EXISTING BRIDGE PLANS
	DRAWN -	REVISED -		
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -		
PLOT DATE = 6/29/2023 - 10:51:19 AM	DATE -	REVISED -		SCALE: SHEET 6 OF 14 SHEETS STA. TO STA.

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	23
		CONTRACT NO.: 99738		
	ILLINOIS	FED. AID PROJECT:		

MODEL: Default
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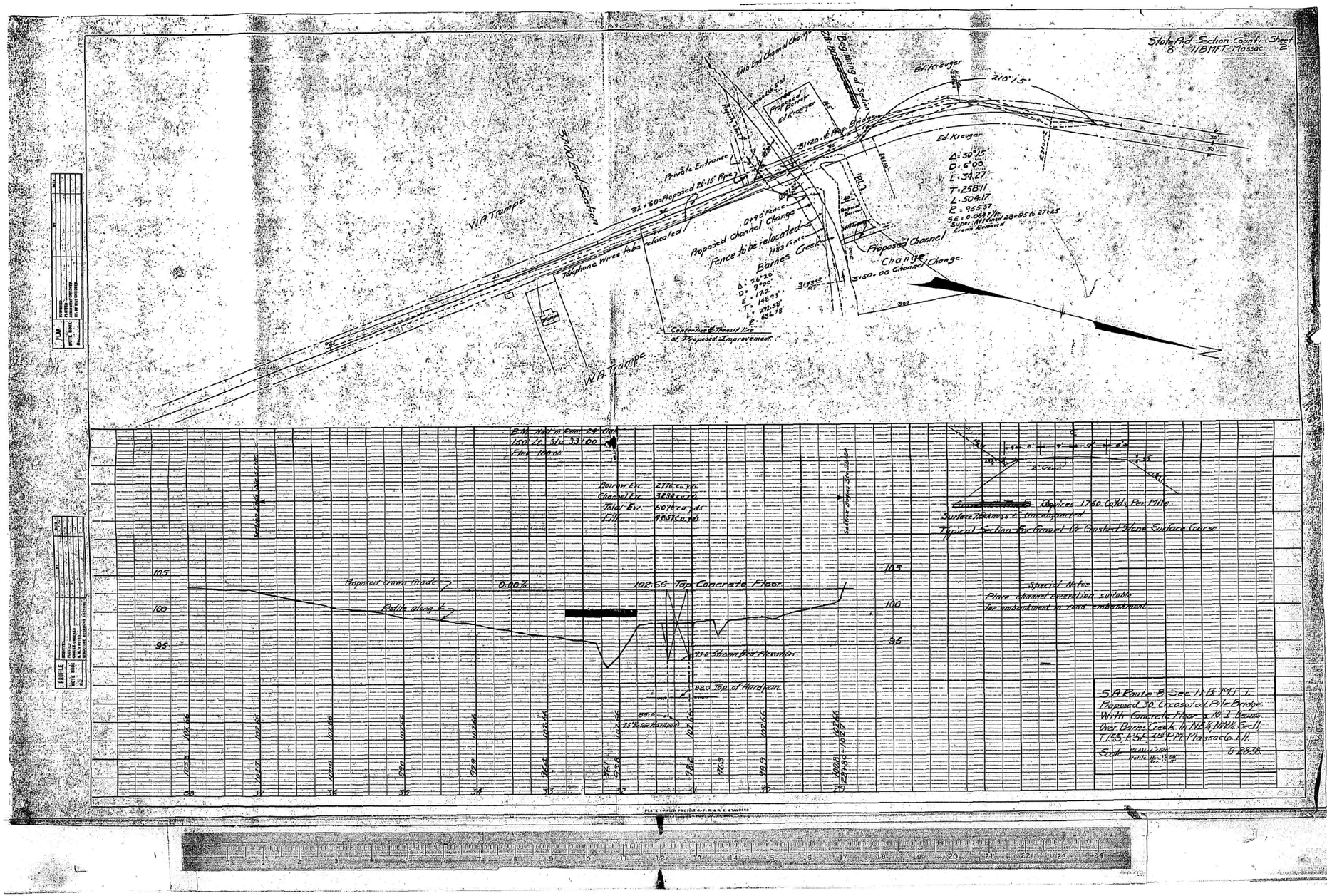

USER NAME = rneiheisel	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
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PLOT DATE = 6/29/2023 - 10:51:25 AM	DATE -	REVISED -	

STATE OF ILLINOIS
MASSAC COUNTY HIGHWAY DEPARTMENT

CRESTWOOD ROAD BRIDGE
EXISTING BRIDGE PLANS

SCALE: | SHEET 6 OF 14 SHEETS | STA. | TO STA.

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	24
		CONTRACT NO.: 99738		
	ILLINOIS	FED. AID PROJECT:		

MODEL: Default
FILE NAME: ...\CAD Sheets\Existing Plans.dgn

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

Note: Parapet walls outside of floor slab shall be built up to same height as wing backing.

3"x10" x 14'-8" S4S (Untr.) to be given two coats of white lead paint.

Set all piles into 3'-0" ⌀ Holes - 2'-6" deep as shown. Fill space with concrete. See Special Provisions

GENERAL NOTES Field conns. See Spec. Provisions — SHEET NO. 1 — 1 SHEETS.

Class X Concrete shall be used throughout.

Rivets 3/4" - Holes 13/16". All con's riveted except as noted. Ribbed bolts may be used for

Assemble handrail to beams in shop; align, matchmark and leave assembled for inspection. Inspection of structural steel by Ill. Div. of Highways before painting.

Structural steel shall receive one shop coat of blue lead paint and two field coats of white lead paint. All paint to be furnished by the Contractor.

Steel in contact with steel or concrete shall not be painted

See Specifications for inaccessible surfaces.

All Rods, bolts, nuts and cut washers for timber connections shall be 0.2% copper bearing steel. All rods shall be threaded 6" each end except as noted. Steel Pl.

All spikes, turnbuckles and lag screws shall be galvanized steel. O.G. or ~~malleable iron~~ washers shall be used on rods thru piles. Contractor shall cut off at his own expense all rods which project more than one inch beyond nut.

All piles in structure shall be treated. and shall have metal caps

~~Drive Test piles as directed by the Engineer before ordering Piling. Piles in wings to be driven to a minimum penetration of 10 feet below undisturbed earth and have a minimum capacity of 10 tons. Piles in abutments to be driven to a minimum penetration of 15 feet below bed of stream and have a minimum capacity of tons.~~

All lumber shall be treated except 3"x10" guard rail. All lumber shall be structural square edge and sound long leaf (1600#) or dense structural square edge and sound short leaf (1600#) Yellow Pine, or select structural (1600#) Douglas Fir. Caps and guardrails shall be S4S. All other lumber shall be full sawn rough. Plank backing shall be fastened to each pile with two 60d Spikes. Backing, bracing and caps may be furnished full length or spliced. Quantities of lumber and hardware based on sizes and lengths shown and do not include any splice material. No extra compensation will be allowed for splices or waste.

Steel Pl. washers shall be 0.2% Copper bearing Steel, and are included as Hardware.

BILL OF LUMBER

No	Size	Length
2	12"x12"	26'-0"
20	3"x10	26'-0"
12	"	15'-0"
12	"	12'-0"
18	"	10'-0"
14	"	8'-0"
2	"	14'-0"
2	"	11'-0"
4	"	24'-6"
2	8"x10"	14'-0"
2	4"x6"	12'-0"
2	3"x6"	3'-0"
8	3"x10	1'-0"

Untr.

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH
a	66	5/8⌀	23'-3"
a1	73	1/2"□	23'-3"
b	51	1/2"□	32'-6"
c	8	1/2"□	24'-9"
d	32	1/2"□	3'-6"

Item	Unit	Quantity
Treated Lumber	F.B.M.	3870
Untreated Lumber	F.B.M.	129
Treated Piling 13' lg.	Lin. ft.	130
" Piling 19' lg.	Lin. ft.	228
Setting Piles	Each	22
Test Piles	Each	None
~~Removal of Exist. Struct.~~	~~Each~~	~~None~~
Class X Concrete	Cu. Yds.	18.5
Reinforcing Steel	Lbs.	4710
Structural Steel	Lbs.	17140
Hardware	Lbs.	290
Rods	Lbs.	480
C.I. Floor Drains	Each	8
Name Plate	Each	1

S.A. Rt. 8 - Sec. 118-MFT
Massac Co.
Sta. 31+20

STANDARD	COMPUTED	H.J. Brickner, Jr.
	CHECKED	
	DRAWN	H.L. FISCHER
	CHECKED	
SPECIAL	ASSEMBLED	M. Schlesinger
	CHECKED	P. Minniear

EXAMINED 7-13-1938
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
Ernst Lieberman
CHIEF HIGHWAY ENGINEER

MODEL: Default
FILE NAME: ...\CAD Sheets\Existing Plans.dgn

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	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 6/29/2023 - 10:51:32 AM	DATE -	REVISED -	

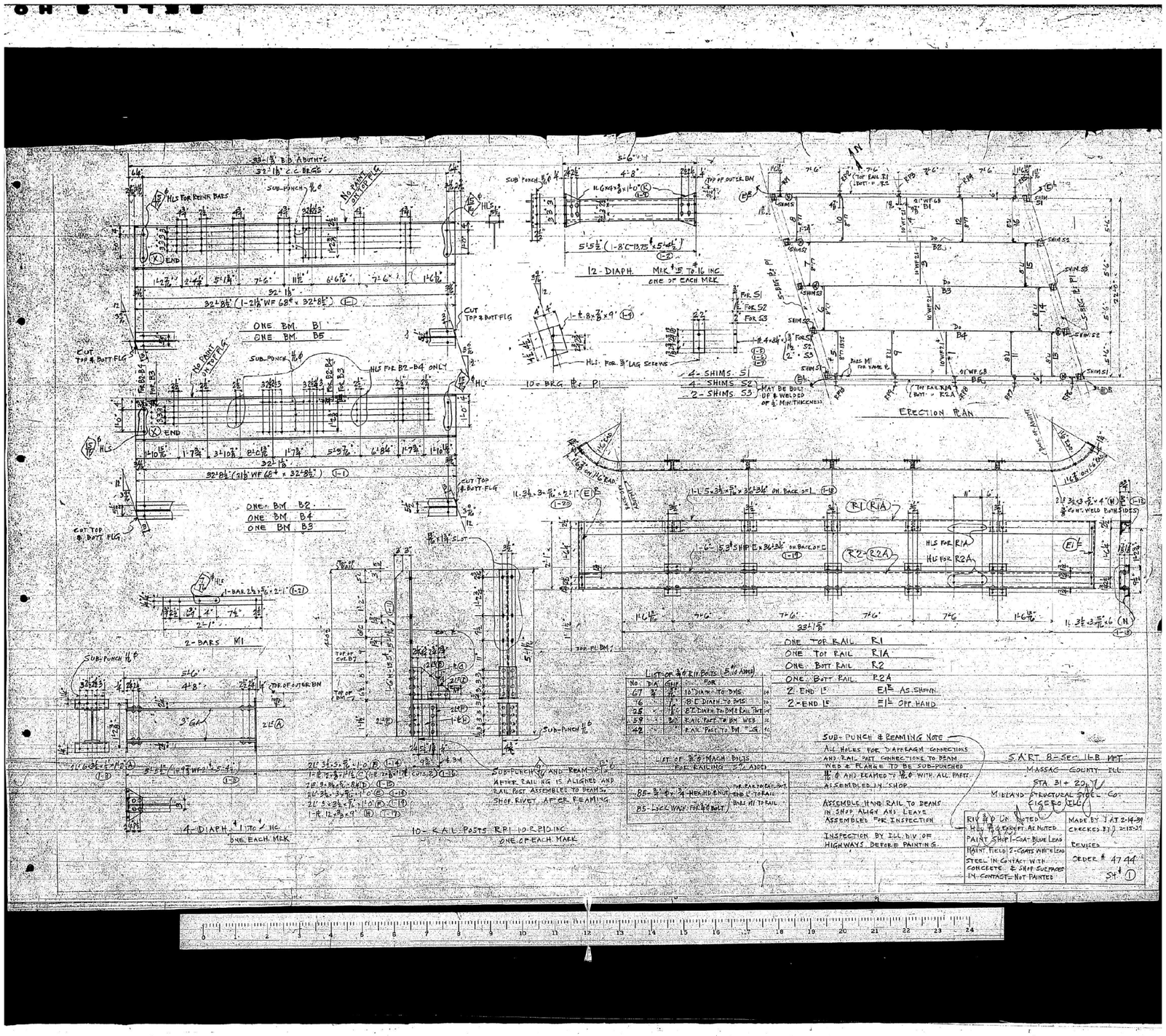
STATE OF ILLINOIS
MASSAC COUNTY HIGHWAY DEPARTMENT

CRESTWOOD ROAD BRIDGE
EXISTING BRIDGE PLANS

SCALE: SHEET 6 OF 14 SHEETS STA. TO STA.

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	25

CONTRACT NO.: 99738
ILLINOIS FED. AID PROJECT:



SUB-PUNCH 9/16" AND REAM TO 13/16" φ AFTER RAILING IS ALIGNED AND RAIL POST ASSEMBLED TO BEAMS. SHOP RIVET AFTER REAMING.

ONE TOP RAIL R1
ONE TOP RAIL R1A
ONE BOTT RAIL R2
ONE BOTT RAIL R2A
2 END L'S E1R AS SHOWN
2-END L'S E1L OPP. HAND

LIST OF 3/4" φ RIV. BOLTS (5% ADDED)

No.	DIA.	GRIP	FOR	
67	3/4"	5/16"	10 DIAPH. TO BMS	64
76	"	3/4"	8 C DIAPH. TO BMS	72
25	"	1 1/8"	8 C DIAPH. TO BM & RAIL POST	24
59	"	2 1/4"	RAIL POST TO BM WEB	56
42	"		RAIL POST TO BM FLG	40

LIST OF 3/4" φ MACH. BOLTS FOR RAILING 5% ADDED

85-3/4" φ x 1 3/4" HEX. HD. & NUT } FOR RAIL TO RAIL POST, END L' TO RAIL, BARS M1 TO RAIL
85-LOCK WASH. FOR 3/4" φ BOLT

SUB-PUNCH & REAMING NOTE –
ALL HOLES FOR DIAPHRAGM CONNECTIONS AND RAIL POST CONNECTIONS TO BEAM WEB & FLANGE TO BE SUB-PUNCHED 11/16" φ AND REAMED TO 13/16" φ WITH ALL PARTS ASSEMBLED IN SHOP.

ASSEMBLE HAND RAIL TO BEAMS IN SHOP, ALIGN AND LEAVE ASSEMBLED FOR INSPECTION.

INSPECTION BY ILL. DIV. OF HIGHWAYS BEFORE PAINTING.

S.A. RT. 8 – SEC. 11-B MFT
MASSAC COUNTY ILL.
STA. 31 + 20
MIDLAND STRUCTURAL STEEL CO.
CICERO ILL.

RIV. 3/4" φ UN. NOTED HLS 13/16" φ EXCEPT AS NOTED	MADE BY J.A.T. 2-14-39
PAINT SHOP 1-COAT BLUE LEAD	CHECKED BY J. 2-15-39
PAINT FIELD 2-COATS WHITE LEAD	REVISED
STEEL IN CONTACT WITH CONCRETE & SHOP SURFACES IN CONTACT – NOT PAINTED	ORDER # 4744 SH. # ①

MODEL: Default
FILE NAME: ...\CAD Sheets\Existing Plans.dgn

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	DRAWN -	REVISED -	
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PLOT DATE = 6/29/2023 - 10:51:37 AM	DATE -	REVISED -	

STATE OF ILLINOIS
MASSAC COUNTY HIGHWAY DEPARTMENT

CRESTWOOD ROAD BRIDGE
EXISTING BRIDGE PLANS

SCALE: SHEET 6 OF 14 SHEETS STA. TO STA.

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	26
		CONTRACT NO.: 99738		
	ILLINOIS	FED. AID PROJECT:		

Illinois Department of Transportation
Division of Highways
Bacon Farmer Workman Engineering & Testing Inc.

SOIL BORING LOG

Date 9/13/22

ROUTE CH 8 DESCRIPTION Crestwood Road Bridge LOGGED BY M. Kaufman

SECTION 21-00106-00-BR LOCATION , SEC. 11, TWP. 14S, RNG. 6E,
Latitude 37.232600, Longitude -88.631510

COUNTY Massac DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 064-3157 (prop)
Station --

BORING NO. B-1
Station 9+48
Offset 14.0 ft LT
Ground Surface Elev. 456.00 ft

Surface Water Elev. -- ft
Stream Bed Elev. -- ft

Groundwater Elev.:
First Encounter 395.0 ft ▼
Upon Completion -- ft
After -- Hrs. -- ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CRUSHED ROCK - 3 INCHES 455.75		5		
LOAM: Brown, moist, stiff [A-6]		6 7	--	5
		5		
		7 7	--	7
451.00	-5			
SILTY CLAY LOAM: Brown, moist, stiff to very stiff [A-6]		4		
		6 6	--	6
		6		
		9 9	--	6
Shelby tube pushed from 10 to 10.6 feet, low recovery	-10			
445.40				
LOAM: Dark yellowish brown, moist, hard [A-6]		13		
		18 24	--	10
443.50				
SILTY CLAY LOAM: Light brownish gray, moist, medium stiff to hard [A-6]		3		
		3 3	1.3 B	19
	-15			
		3		
		3 4	1.0 B	19
		2		
		16 19	--	18
436.00	-20			

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
LOAM: Dark yellowish brown, moist, very stiff [A-6]		7		
		11 11	--	11
433.50				
SANDY CLAY: Light yellowish brown to light brownish gray, moist, stiff to hard [A-6]		2		
		3 9	0.8 S	14
	-25			
		5		
		8 8	0.9 S	14
		8		
		19 16	--	15
426.00	-30			
LOAM: Light brownish gray, moist, very stiff to hard [A-6]		8		
		19 17	--	10
	-35			
		4		
		7 13	--	14
	-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Bacon Farmer Workman Engineering & Testing Inc.

SOIL BORING LOG

Date 9/13/22

ROUTE CH 8 DESCRIPTION Crestwood Road Bridge LOGGED BY M. Kaufman

SECTION 21-00106-00-BR LOCATION , SEC. 11, TWP. 14S, RNG. 6E,
Latitude 37.232600, Longitude -88.631510

COUNTY Massac DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 064-3157 (prop)
Station --

BORING NO. B-1
Station 9+48
Offset 14.0 ft LT
Ground Surface Elev. 456.00 ft

Surface Water Elev. -- ft
Stream Bed Elev. -- ft

Groundwater Elev.:
First Encounter 395.0 ft ▼
Upon Completion -- ft
After -- Hrs. -- ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
LOAM: Light brownish gray, moist, very stiff to hard [A-6] *(continued)*		4		
		9 9	--	10
411.00	-45			
SANDY LOAM: Light brownish gray, moist, stiff [A-6]		3		
		5 6	--	22
406.00	-50			
LOAMY SAND: Light brownish gray to gray, moist, medioum dense to dense [A-2]		5		
		21 22	--	15
	-55			
		3		
		5 10	--	25
	-60			

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
LOAMY SAND: Light brownish gray to gray, moist, medioum dense to dense [A-2] *(continued)* ▼		3		
		9 6	--	24
391.00	-65			
SAND: Light gray, wet, loose to medium dense [A-2]		3		
		9 12	--	26
	-70			
		2		
		3 4	--	22
	-75			
		0		
		2 5	--	30
376.00	-80			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

MODEL: Default
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	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 5/24/2024	DATE -	REVISED -

STATE OF ILLINOIS
MASSAC COUNTY HIGHWAY DEPARTMENT

CRESTWOOD ROAD
SOIL BORINGS

SCALE: _____ STA. _____ TO STA. _____

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	27
		CONTRACT NO.: 99738		
	ILLINOIS	FED. AID PROJECT:		

Illinois Department of Transportation
Division of Highways
Bacon Farmer Workman Engineering & Testing Inc.

SOIL BORING LOG

Date 9/13/22

ROUTE CH 8 DESCRIPTION Crestwood Road Bridge LOGGED BY M. Kaufman

SECTION 21-00106-00-BR LOCATION , SEC. 11, TWP. 14S, RNG. 6E,
Latitude 37.232600, Longitude -88.631510

COUNTY Massac DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 064-3157 (prop)
Station --

BORING NO. B-1
Station 9+48
Offset 14.0 ft LT
Ground Surface Elev. 456.00 ft

Surface Water Elev. -- ft
Stream Bed Elev. -- ft

Groundwater Elev.:
First Encounter 395.0 ft ▼
Upon Completion -- ft
After -- Hrs. -- ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY LOAM: Light gray, wet, stiff [A-2]		3 4 6	--	25
	371.00 -85			
SAND: Lighty gray, wet, dense [A-2]		3 4 6	--	25
	-90	3 12 28	--	21
	-95			
	359.50			
End of Boring	-100			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Bacon Farmer Workman Engineering & Testing Inc.

SOIL BORING LOG

Date 9/14/22

ROUTE CH 8 DESCRIPTION Crestwood Road Bridge LOGGED BY M. Kaufman

SECTION 21-00106-00-BR LOCATION , SEC. 11, TWP. 14S, RNG. 6E,
Latitude 37.232350, Longitude -88.631340

COUNTY Massac DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 064-3157 (prop)
Station --

BORING NO. B-2
Station 10+45
Offset 12.0 ft RT
Ground Surface Elev. 456.00 ft

Surface Water Elev. -- ft
Stream Bed Elev. -- ft

Groundwater Elev.:
First Encounter 406.0 ft ▼
Upon Completion -- ft
After -- Hrs. -- ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CRUSHED ROCK - 2 INCHES 455.83		3		
EXISTING FILL: Dark brown to gray, clay loam with crushed rock, moist, medium stiff		3 3	--	7
		2		
		2 4	--	4
	451.00 -5			
SILTY CLAY LOAM: Yellowish brown, medium stiff to hard [A-6]		2		
		3 4	--	13
		6		
		20 22	--	11
	446.00 -10			
LOAM: Light brownish gray to brownish yellow, moist, very stiff [A-6]		6		
		7 14	--	13
		4		
		14 16	--	12
	441.00 -15			
SANDY CLAY LOAM: Brownish yellow, moist, very stiff [A-6]		8		
		15 6	--	14
	438.50			
SILTY CLAY LOAM: Light brownish gray, moist, medium stiff to stiff [A-6]		2		
		3 4	0.7 S	19 17
	-20			
SILTY CLAY LOAM: Light brownish gray, moist, medium stiff to stiff [A-6] *(continued)*		1		
		3 8	0.9 S	20
	433.50			
SANDY CLAY LOAM: Dark yellowish brown to light brownish gray, moist, very stiff to hard [A-6]		3		
		16 26	--	12
	-25			
		2		
		4 13	0.7 S	14
		11		
		25 26	--	11
	426.00 -30			
SANDY CLAY: Light brownish gray, moist, soft [A-6]		1		
		2 1	0.4 S	20
	421.00 -35			
SANDY CLAY LOAM: Light brownish gray to gray, moist, medium stiff to hard [A-6]		6		
		17 24	--	9
	-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

MODEL: Default
FILE NAME: pw:\\bfwmo-pw.bentley.com:bfwmo-pw-01\Documents\BFW\PROJECTS\2022 PROJECTS\22287 - Massac County - CH 8 (Crestwood Rd) Bridge Replacement\IDOT\CAD Sheets\Boring Logs.dgn

USER NAME = qsmothers	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 5/24/2024	DATE -	REVISED -	

STATE OF ILLINOIS
MASSAC COUNTY HIGHWAY DEPARTMENT

CRESTWOOD ROAD
SOIL BORINGS

SCALE: _____ STA. _____ TO STA. _____

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	28
		CONTRACT NO.: 99738		
	ILLINOIS	FED. AID PROJECT:		

Illinois Department of Transportation
Division of Highways
Bacon Farmer Workman Engineering & Testing Inc.

SOIL BORING LOG

Date 9/14/22

ROUTE CH 8 DESCRIPTION Crestwood Road Bridge LOGGED BY M. Kaufman

SECTION 21-00106-00-BR LOCATION , SEC. 11, TWP. 14S, RNG. 6E,
Latitude 37.232350, Longitude -88.631340

COUNTY Massac DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 064-3157 (prop)
Station --

BORING NO. B-2
Station 10+45
Offset 12.0 ft RT
Ground Surface Elev. 456.00 ft

Surface Water Elev. -- ft
Stream Bed Elev. -- ft

Groundwater Elev.:
First Encounter 406.0 ft ▼
Upon Completion -- ft
After -- Hrs. -- ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY CLAY LOAM: Light brownish gray to gray, moist, medium stiff to hard [A-6] *(continued)*	2		
	2	--	24
	4		
411.00 -45			
SANDY LOAM: Light brownish gray to light yellowish brown, moist to wet, loose to medium dense [A-2]	4		
	9	--	24
	8		
▼-50	5		
	6	--	26
	11		
-55	2		
	4	--	21
	6		
-60			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY LOAM: Light brownish gray to light yellowish brown, moist to wet, loose to medium dense [A-2] *(continued)*	4		
	6	--	25
	9		
-65	2		
	5	--	28
	4		
-70	2		
	6	--	24
	6		
-75	6		
	6	--	23
	14		
-80			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Bacon Farmer Workman Engineering & Testing Inc.

SOIL BORING LOG

Date 9/14/22

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Stream Bed Elev. -- ft

Groundwater Elev.:
First Encounter 406.0 ft ▼
Upon Completion -- ft
After -- Hrs. -- ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY LOAM: Light brownish gray to light yellowish brown, moist to wet, loose to medium dense [A-2] *(continued)*	1		
	6	--	22
	11		
-85	0		
	2	--	23
369.50	3		
End of Boring			
-90			
-95			
-100			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

MODEL: Default
FILE NAME: pw:\\bfwmo-pw.bentley.com:bfwmo-pw-01\Documents\BFW PROJECTS\2022 PROJECTS\22287 - Massac County - CH 8 (Crestwood Rd) Bridge Replacement\IDOT CAD Sheets\Boring Logs.dgn

USER NAME = qsmothers	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 5/24/2024	DATE -	REVISED -	

STATE OF ILLINOIS
MASSAC COUNTY HIGHWAY DEPARTMENT

CRESTWOOD ROAD
SOIL BORINGS

SCALE: _____ STA. _____ TO STA. _____

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8	21-00106-00-BR	MASSAC	29	29
		CONTRACT NO.: 99738		
	ILLINOIS	FED. AID PROJECT:		