

04-28-2023 LETTING ITEM 099

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 694	19-00125-00-BR	LAWRENCE	21	1
CONTRACT 95932		ILLINOIS	PROJECT 8PVT(973)	

PLANS FOR PROPOSED
SURFACE TRANSPORTATION PROGRAM - BRIDGE

SECTION 19-00125-00-BR LAWRENCE COUNTY

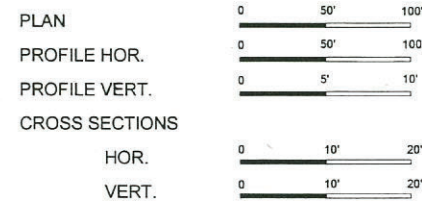
PROJECT 8PVT(973)

JOB NO. C-97-066-22

FAS 694

INDEX OF SHEETS

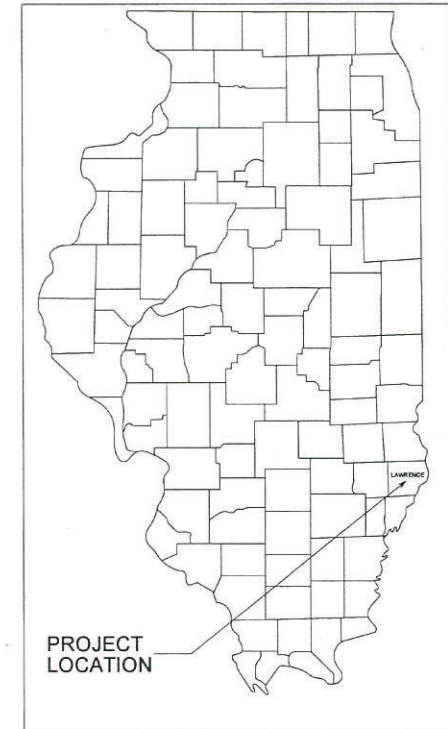
SHEET	ITEM
1	COVER SHEET
2	SUMMARY OF QUANTITIES AND GENERAL NOTES
3	SCHEDULE OF QUANTITIES AND HMA / AGGREGATE BASE COURSE ELEVATION TABLE
4	TYPICAL SECTIONS
5	PLAN AND PROFILE
6	BRIDGE APPROACH SHOULDER AND GUARDRAIL PLAN
7	GENERAL PLAN AND ELEVATION
8	27" X 33" PPC DECK BEAM
9	27" X 36" PPC DECK BEAM DETAILS
10	STEEL RAILING, TYPE SM
11	STEEL RAILING, TYPE SM DETAILS
12	ABUTMENT DETAILS
13	PILE DETAILS
14	BORING LOGS
15-21	CROSS SECTIONS OF ROADWAY



NOTE: SCALES VALID FOR 22" X 34" SHEETS

Joint Utility Locating Information for Excavators

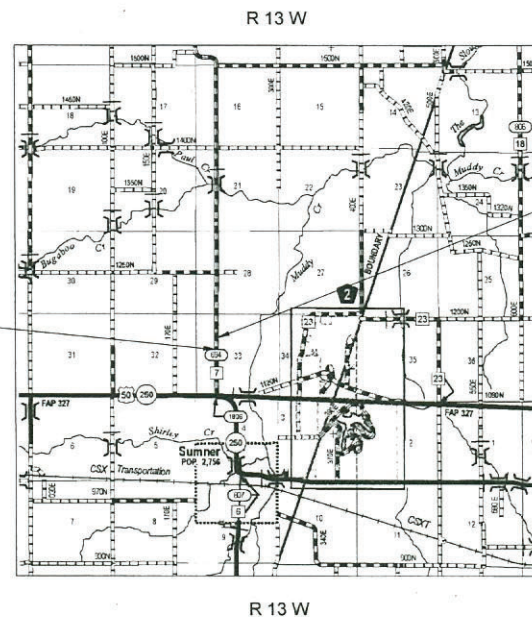
JULIE 1-800-892-0123



- STANDARD DRAWINGS
- STANDARD 000001-08
 - STANDARD 280001-07
 - STANDARD 515001-04
 - STANDARD 701901-08
 - STANDARD 720006-04
 - STANDARD 725001-01
 - STANDARD BLR 21-9
 - STANDARD BLR 23-4
 - STANDARD BLR 26-3
 - STANDARD BLR 27-1

SECTION 19-00125-00-BR BEGINS STA. 2+50.00

SINGLE SPAN PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE
 58'-10" BK.-BK. ABUTMENTS
 STEEL H PILE / SPILLTHROUGH ABUTMENTS
 30' WIDE DECK
 EXISTING STRUCTURE NO. 051-5050
 PROPOSED STRUCTURE NO. 051-3312



SECTION 19-00125-00-BR ENDS STA. 10+50.00

CONTRACT 95932
 FUNCTIONAL CLASSIFICATION - MAJOR COLLECTOR
 ADT = 1350
 DESIGN SPEED = 50 MPH

NET LENGTH SECTION 19-00125-00-BR = 800.00 Ft. = 0.152 Mi.



Brandon M. Brode
 2/22/2023
 LICENSE EXPIRES 11/30/2023

CHARLESTON ENGINEERING, INC.
 CONSULTING ENGINEERS
 105 NORTH KITCHELL
 P.O. BOX 397
 CLNEY, ILLINOIS 62450
 (618) 392-0736
 ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184 003513

APPROVED *February 22, 2023*
Adam M. Brode
 COUNTY ENGINEER

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PASSED *02/27/23*
Britt Wallis
 DISTRICT SEVEN ENGINEER OF
 LOCAL ROADS AND STREETS

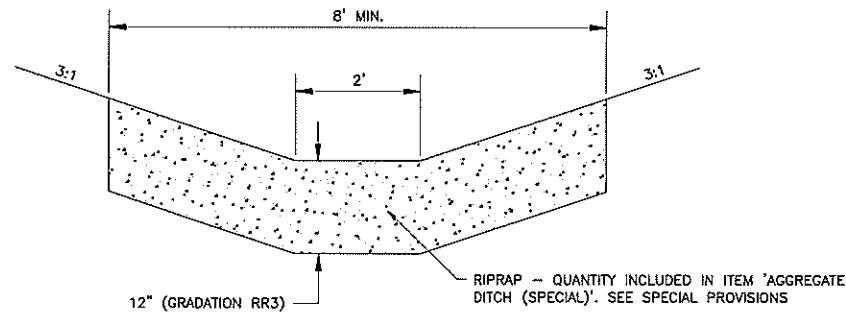
Releasing For
 Bid Based on
 Limited Review
02/27/23
Jeffrey M. ...
 REGION FOUR ENGINEER

PAVEMENT DESIGN DATA

ADT = 1,350 CLASS III
 MAJOR COLLECTOR
 DESIGN SPEED = 50 MPH
 PV = 88
 SU = 7
 MU = 5
 PAVEMENT TYPE: HOT-MIX ASPHALT, 5 1/2" TOTAL NOMINAL THICKNESS
 BASE TYPE: AGGREGATE BASE COURSE, TYPE B-10" THICK

PROPOSED PAVEMENT STRUCTURE MATERIALS:
 STA. 2+50 TO 10+50
 1 1/2" H.M.A. SURFACE COURSE - FINAL LIFT
 1 3/4" H.M.A. SURFACE COURSE - SECOND LIFT
 2 1/2" H.M.A. BINDER COURSE - FIRST LIFT
 5 1/2" TOTAL H.M.A. OVERLAY

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
LOCATION:	FAS 694 (CH 7)	FAS 694 (CH 7)
MIXTURE APPLICATION:	HOT-MIX ASPHALT BINDER COURSE	HOT-MIX ASPHALT SURFACE COURSE
PERFORMANCE GRADE:	PG 64-22	PG 64-22
DESIGN AIR VOIDS:	4% @ N=70 GYRATIONS	4% @ N=70 GYRATIONS
MIXTURE COMPOSITION:	IL-19.0	IL-9.5
FRICTION AGGREGATE:	N/A	MIXTURE "C"
MIXTURE UNIT WEIGHT:	112 LBS / SQ YD / INCH THICKNESS	112 LBS / SQ YD / INCH THICKNESS
QUALITY MANAGEMENT PROGRAM:	QC/QA	QC/QA



AGGREGATE DITCH (SPECIAL) DETAIL

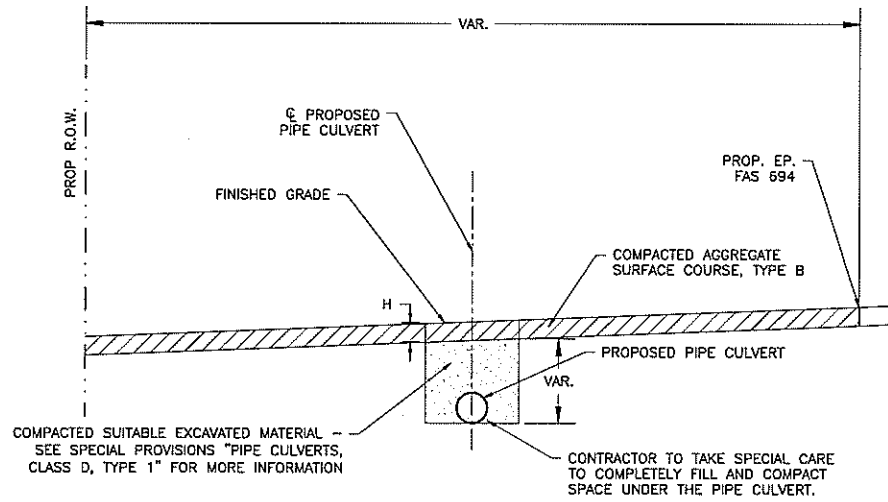
RT. STA. 4+25 TO 5+80
 LT. STA. 4+50 TO 5+80
 LT. STA. 6+18 TO 7+75
 RT. STA. 6+18 TO 7+50

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 ESTIMATED QUANTITY SHOWN IN THE SUMMARY OF QUANTITIES FOR HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N70 INCLUDES 205 TONS FOR THE FIRST LIFT AND 325 TONS FOR THE FINAL COURSE LIFT (FOR INFORMATION ONLY). THE HOT-MIX ASPHALT SHALL END AT THE BACK OF EACH ABUTMENT-NO H.M.A. OVERLAY ON THE BRIDGE STRUCTURE.

THE FOLLOWING RATES HAVE BEEN USED TO CALCULATE PLAN QUANTITIES:
 HOT-MIX ASPHALT 112 LBS/(SQ YD * INCH THICKNESS)
 BITUMINOUS MATERIALS (PRIME COAT) 0.25 LB/SQ FT
 BITUMINOUS MATERIALS (TACK COAT)-OVER HMA LIFTS 0.025 LB/SQ FT
 BITUMINOUS MATERIALS (TACK COAT)-OVER EX. HMA LIFTS 0.05 LB/SQ FT
 STONE DUMPED RIPRAP, CLASS A4 1.75 TONS/CU YD
 AGGREGATE BASE COURSE, TY-B 2.0 TONS/CU YD
 AGGREGATE SURFACE COURSE, TY-B 2.0 TONS/CU YD
 AGGREGATE SHOULDERS, TY-B 2.0 TONS/CU YD
 AGGREGATE DITCH (SPECIAL) 1.75 TONS/CU YD



TRENCH DETAIL

THROUGH AGGREGATE OR GRASS SURFACES

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

SCHEDULE OF KNOWN UTILITIES

DESIGN STAGE JULIE NO. A0440726

UTILITY COMPANY	TYPE	CONTACT NAME	PHONE NUMBER	E-MAIL ADDRESS	MAILING ADDRESS
NORRIS ELECTRIC CO-OP	ELECTRIC	TRISHA BECKMAN	618-783-8765 x163	tbeckman@norriselectric.com	8543 NORTH STATE HIGHWAY 130, NEWTON, IL 62448
FRONTIER COMMUNICATIONS	COMMUNICATIONS	BRIAN VANGUNDY	618-395-6189	brian.vangundy@ftr.com	225 E. CHESTNUT ST, OLNEY, IL 62450
METRO COMMUNICATIONS	FIBER OPTIC	TAYLOR RICH	217-728-3608	trich@metrocomm.com	B SOUTH WASHINGTON ST, SULLIVAN, IL 61951

COMMITMENTS

1. U.S. ARMY CORPS OF ENGINEERS SECTION 404 NATIONWIDE PERMIT.

SUMMARY OF QUANTITIES				
CODE NO.	ITEM	UNIT	QUANTITY	
* LR631020	TRAFFIC BARRIER TERMINAL, TYPE 1	EACH	4	
X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.95	
X2830495	AGGREGATE DITCH (SPECIAL)	TON	335	
X7240600	REMOVE AND RE-ERECT EXISTING SIGN	EACH	1	
20200100	EARTH EXCAVATION	CU YD	1155	
20300100	CHANNEL EXCAVATION	CU YD	500	
20400800	FURNISHED EXCAVATION	CU YD	370	
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	500	
35101400	AGGREGATE BASE COURSE, TYPE B	TON	1445	
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	135	
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	4635	
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	1735	
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	249	
40804052	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N70	TON	530	
44000100	PAVEMENT REMOVAL	SQ YD	1780	
48101200	AGGREGATE SHOULDERS, TYPE B	TON	380	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	
50300225	CONCRETE STRUCTURES	CU YD	35.0	
50300280	CONCRETE ENCASMENT	CU YD	3.5	
50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	1710	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	4400	
* 50901050	STEEL RAILING, TYPE SM	FOOT	118	
51201600	FURNISHING STEEL PILES HP12X53	FOOT	495	
51202305	DRIVING PILES	FOOT	495	
51203800	TEST PILE STEEL HP12X53	EACH	1	
51500100	NAME PLATES	EACH	1	
54200229	PIPE CULVERTS, CLASS D, TYPE 1 24"	FOOT	120	
54200235	PIPE CULVERTS, CLASS D, TYPE 1 30"	FOOT	60	
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	45	
* 63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	4	
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	200	
67100100	MOBILIZATION	L. SUM	1	
* 72501000	TERMINAL MARKER -- DIRECT APPLIED	EACH	4	

* SPECIALTY ITEMS

CHARLESTON ENGINEERING, INC.
 CONSULTING ENGINEERS - LAND SURVEYORS
 105 NORTH MITCHELL AVENUE
 P.O. BOX 397
 OLNEY, ILLINOIS 62450
 (618) 392-0730

DESIGNED - BMB	REVISED -
DRAWN - BMB	REVISED -
CHECKED - BMB	REVISED -
DATE - 7-2021	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES AND
 GENERAL NOTES

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 694	19-00125-00-BR	LAWRENCE	21	2
CONTRACT 95932		ILLINOIS	PROJECT BPVT(973)	

ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513

EARTHWORK SCHEDULE										
CODE NUMBER		20200100	20300100	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LOCATION	STATION	EARTH EXCAVATION (CU YD)	CHANNEL EXCAVATION (CU YD)	PERCENT USED (%)	ESTIMATED UNSUITABLE MATERIAL (CU YD)	ESTIMATED SUITABLE MATERIAL (CU YD)	SHRINKAGE FACTOR (%)	ESTIMATED SUITABLE MATERIAL ADJUSTED FOR SHRINKAGE (CU YD)	EMBANKMENT (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)
LT. & RT.	STA. 2+50 TO 5+70.58	320		100	0	320	25	240	530	-290
LT. & RT.	STA. 5+70.58 TO 6+29.42 (PROPOSED BRIDGE)		500	50	250	250	25	188		188
LT. & RT.	STA. 6+29.42 TO 10+50	525		100	0	525	25	394	770	-376
SUBTOTAL =		845	500		250	1095		822	1300	
VOLUMES NOT SHOWN ON CROSS SECTION SHEETS										
LT. & RT.	CONCRETE STRUCTURES & CLSM ABUTMENT BACKFILL VOID	115		100	0	115	25	86		86
LT. & RT.	AGGREGATE DITCH (SPECIAL)	195		100	0	195	25	146		146
LT.	STA. 8+50 (FIELD ENTRANCE)								50	-50
RT.	STA. 8+50 (FIELD ENTRANCE)								70	-70
TOTAL =		1155	500		250	1405	50	1054	1420	-366

- 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 = 370 C.Y.

ROADWAY SCHEDULE					
CODE NUMBER		35101400	40200800	44000100	48101200
LOCATION	STATION	AGGREGATE BASE COURSE, TYPE B (TON)	AGGREGATE SURFACE COURSE, TYPE B (TON)	PAVEMENT REMOVAL (SQ.YD)	AGGREGATE SHOULDERS, TYPE B (TON)
LT. & RT.	STA. 2+50 TO 5+70.58	480		713	170
LT. & RT.	STA. 5+70.58 TO 6+29.42			132	
LT. & RT.	STA. 6+29.42 TO 10+50	860		935	210
LT.	STA. 2+95 (F.E.)		40		
RT.	STA. 7+30 (EX. CULV. BEDDING BACKFILL)	40			
RT.	STA. 7+32 (EX. CULV. BEDDING BACKFILL)	45			
LT.	STA. 8+50 (F.E.)		45		
RT.	STA. 8+50 (F.E.)		50		
RT.	STA. 9+35 (EX. CULV. BEDDING BACKFILL)	20			
TOTAL =		1445	135	1780	380

NOTE: SEE PIPE CULVERT SCHEDULE FOR PRIVATE ENTRANCE PIPE CULVERT QUANTITIES

GUARDRAIL SCHEDULE					
CODE NUMBER		LR631020	63100075	63000001	72501000
LOCATION	STATION	TRAFFIC BARRIER TERMINAL, TYPE 1 (EACH)	TRAFFIC BARRIER TERMINAL, TYPE 5A (EACH)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS (FOOT)	TERMINAL MARKER - DIRECT APPLIED (EACH)
LT.	STA. 5+57 TO 5+70		1		
RT.	STA. 5+57 TO 5+70		1		
LT.	STA. 6+30 TO 6+43		1		
RT.	STA. 6+30 TO 6+43		1		
RT.	STA. 4+68 TO 4+95	1			
LT.	STA. 4+92 TO 5+20	1			
RT.	STA. 6+55 TO 6+83	1			
LT.	STA. 7+05 TO 7+33	1			
RT.	STA. 4+95 TO 5+57			62.5	
LT.	STA. 5+20 TO 5+57			37.5	
RT.	STA. 6+43 TO 6+80			37.5	
LT.	STA. 6+43 TO 7+05			62.5	
RT.	STA. 4+68 TO 4+95				1
LT.	STA. 4+29				1
RT.	STA. 6+83				1
LT.	STA. 7+33				1
TOTAL =		4	4	200	4

NOTE: SEE SHEET 6 FOR GUARDRAIL PLAN

SEEDING SCHEDULE						
CODE NUMBER		X2501000	FOR INFORMATION ONLY			
LOCATION	STATION	SEEDING, CLASS 2 (SPECIAL) (ACRE)	NITROGEN FERTILIZER NUTRIENT (100 LBS/ACRE) (POUND)	PHOSPHOROUS FERTILIZER NUTRIENT (100 LBS/ACRE) (POUND)	SUITABLE POTASSIUM FERTILIZER NUTRIENT (100 LBS/ACRE) (POUND)	MULCH METHOD 2 (2 TONS/ACRE) (TONS)
LT. & RT.	STA. 2+50 TO 5+70.58	0.45	45	45	45	0.90
LT. & RT.	STA. 6+29.42 TO 10+50	0.50	50	50	50	1.00
TOTAL =		0.95	95	95	95	1.90

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

DITCH SCHEDULE		
CODE NUMBER		X2830495
LOCATION	STATION	AGGREGATE DITCH (SPECIAL) (TON)
RT.	STA. 4+25 TO 5+80	90
LT.	STA. 4+50 TO 5+80	75
LT.	STA. 6+18 TO 7+75	95
RT.	STA. 6+18 TO 7+50	75
TOTAL =		335

PIPE CULVERT SCHEDULE				
CODE NUMBER		542D0229	542D0235	
LOCATION	STATION	PIPE CULVERTS, CLASS D, TYPE 1 24" (FOOT)	PIPE CULVERTS, CLASS D, TYPE 1 30" (FOOT)	
LT.	STA. 2+95		60	
LT.	STA. 8+50		60	
RT.	STA. 8+50		60	
TOTAL =		120	60	

NOTE: SEE ROADWAY SCHEDULE FOR AGGREGATE BASE COURSE QUANTITY FOR BACKFILLING TRENCH VOID FROM REMOVING EXISTING PIPE CULVERT

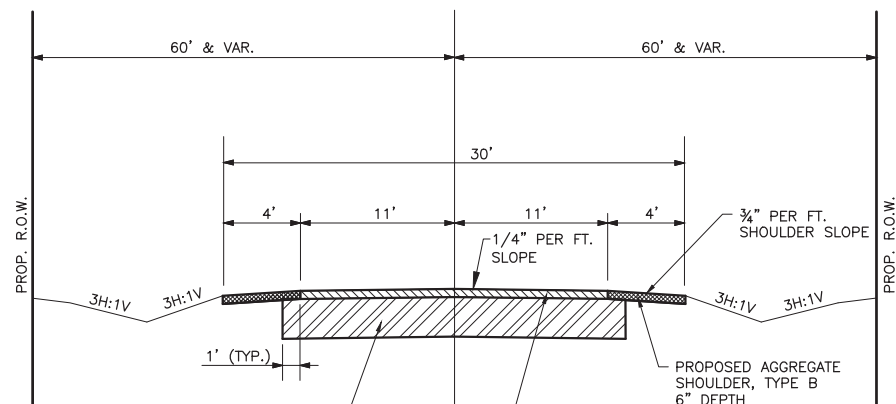
PIPE CULVERT REMOVAL SCHEDULE				
LOCATION	STATION	DIAMETER (IN)	TYPE	PIPE CULVERT REMOVAL (FOOT)
LT.	STA. 2+95	30	STEEL CASING	40
RT.	STA. 7+30	18	CMP	42
LT.	STA. 7+32	24	STEEL CASING	35
RT.	STA. 9+35	15	CMP	26
TOTAL =				143

- NOTES: 1. PIPE CULVERT REMOVAL WILL NOT BE PAID FOR SEPARATELY, BUT THE COST SHALL BE INCLUDED IN PIPE CULVERTS, CLASS D OF THE VARIOUS TYPES AND SIZES LISTED IN THE PLANS. SEE SPECIAL PROVISIONS.
2. ALL INFORMATION SHOWN IN THE PIPE CULVERT REMOVAL SCHEDULE IS "FOR INFORMATION ONLY"

SIGN SCHEDULE		
CODE NUMBER		X7240600
LOCATION	STATION	REMOVE AND RE-ERECT EXISTING SIGN (EACH)
RT.	STA. 5+01 (NO PASSING ZONE)	1
TOTAL =		1

TABLE OF VOLUMES BY AVERAGE END AREA METHOD							
STATION	CROSS SECTION		AVE. END AREA		LENGTH (FT)	CUMULATIVE CUT VOLUME (C.Y.)	CUMULATIVE FILL VOLUME (C.Y.)
	CUT AREA (SF)	FILL AREA (SF)	CUT (C.Y.)	FILL (C.Y.)			
2+50.00	2.1	6.3					
			6.7	10.3	45.0	6.7	10.3
2+95.00	5.9	6.0					
			1.3	1.1	5.0	8.0	11.4
3+00.00	7.6	6.1					
			18.9	12.4	50.0	26.8	23.9
3+50.00	12.8	7.3					
			30.4	16.8	50.0	57.2	40.6
4+00.00	20.0	10.8					
			21.1	13.5	26.3	78.3	54.1
4+26.30	23.3	16.9					
			25.8	37.6	23.7	104.0	91.7
4+50.00	35.5	68.7					
			3.2	6.3	2.4	107.2	98.0
4+52.40	36.2	72.1					
			7.1	14.8	4.9	114.4	112.8
4+57.30	42.3	91.0					
			45.9	105.8	24.8	160.3	218.6
4+82.10	57.6	139.3					
			0.4	1.0	0.2	160.7	219.6
4+82.30	57.6	139.3					
			38.0	86.5	17.7	198.7	306.1
5+00.00	58.5	124.5					
			15.0	31.5	7.1	213.7	337.6
5+07.10	55.7	115.4					
			43.1	91.0	25.0	256.8	428.6
5+32.10	37.3	81.2					
			28.6	53.8	17.9	285.4	482.4
5+50.00	48.8	81.1					
			34.2	47.4	20.6	319.6	529.8
5+70.58	41.0	43.2					
			STA. 2+50 TO 5+70.58 =		320	530	
BREAK							
6+29.42	65.4	37.1					
			51.3	46.6	20.6	51.3	46.6
6+50.00	69.2	85.2					
			43.9	59.2	17.9	95.2	105.8
6+67.90	63.2	93.5					
			57.8	104.6	25.0	152.9	210.4
6+92.90	61.6	132.4					
			17.1	35.8	7.1	170.0	246.2
7+00.00	68.1	139.8					
			55.3	74.9	17.9	225.3	321.1
7+17.90	98.7	86.3					
			47.7	29.5	12.1	273.0	350.6
7+30.00	114.0	45.2					
			21.0	7.8	5.0	294.0	358.4
7+35.00	112.8	39.5					
			30.8	11.0	7.7	324.7	369.4
7+42.70	102.9	37.9					
			18.7	6.9	4.9	343.4	376.3
7+47.60	102.9	37.9					
			6.1	4.1	2.4	349.5	380.4
7+50.00	33.8	55.1					
			33.3	41.2	25.0	382.8	421.6
7+75.00	38.1	33.8					
			32.2	34.3	25.0	415.0	455.9
8+00.00	31.4	40.3					
			30.0	161.1	50.0	445.0	616.9
8+50.00	1.0	133.7					
			11.9	136.6	50.0	456.9	753.6
9+00.00	11.9	13.8					
			31.3	10.6	35.0	488.2	764.1
9+35.00	36.5	2.5					
			14.0	1.2	15.0	502.2	765.3
9+50.00	14.0	1.9					
			15.8	2.1	50.0	518.0	767.4
10+00.00	3.1	0.4					
			2.8	0.4	50.0	520.9	767.8
10+50.00	0.0	0.0					
			STA. 6+29.42 TO 10+50 =		525.0	770.0	
TOTAL =						845.0	1300.0

ROADWAY HOT-MIX ASPHALT AND AGGREGATE BASE COURSE ELEVATIONS								
STATION	HMA CENTERLINE PROFILE GRADE (FT)	TOTAL HMA DEPTH (FT)	PROPOSED			EXISTING		
			TOP OF AGGREGATE BASE COURSE, TYPE B @ CENTERLINE (FT)	EST. BOTTOM OF AGGREGATE BASE COURSE, TYPE B @ CENTERLINE (FT)	EST. DEPTH OF AGGREGATE BASE COURSE, TYPE B @ CENTERLINE (FT)	TOP OF AGGREGATE BASE COURSE, TYPE B @ EDGE OF B.C. (1' BEYOND HMA PAV'T) (FT)	APPROXIMATE HMA CENTERLINE PROFILE GRADE (FT)	EXISTING HMA + O&C ESTIMATED DEPTH @ CENTERLINE (FT)
2+50	452.75	0.46	452.29	452.07	0.22	452.04	452.75	0.68
2+75	452.35	0.46	451.89	451.66	0.23	451.89	452.34	0.68
3+00	452.01	0.46	451.55	451.25	0.30	451.55	451.93	0.68
3+25	451.73	0.46	451.27	451.01	0.26	451.27	451.69	0.68
3+50	451.52	0.46	451.06	450.77	0.29	451.06	451.45	0.68
3+75	451.37	0.46	450.91	450.54	0.37	450.91	451.22	0.68
4+00	451.28	0.46	450.82	450.31	0.51	450.82	450.99	0.68
4+25	451.26	0.46	450.80	450.13	0.67	450.80	450.81	0.68
4+50	451.26	0.46	450.80	449.95	0.85	450.80	450.63	0.68
4+75	451.26	0.46	450.80	449.78	1.02	450.80	450.46	0.68
5+00	451.26	0.46	450.80	449.60	1.20	450.80	450.28	0.68
5+25	451.26	0.46	450.80	449.44	1.36	450.80	450.12	0.68
5+50	451.							



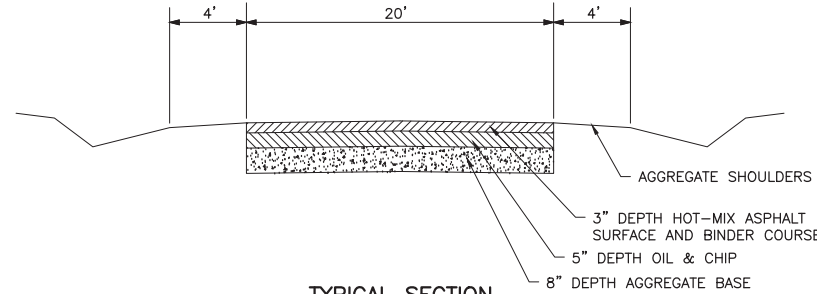
PROPOSED AGGREGATE BASE COURSE, TYPE B
VARIABLE DEPTH - SEE "ROADWAY TRANSITION DETAILS" THIS SHEET AND "ROADWAY HOT-MIX ASPHALT AND AGGREGATE BASE COURSE ELEVATIONS" TABLE ON SHEET 3
(MINIMUM FINAL DEPTH WITH EXISTING BASE COURSE TO BE 10" DEEP)

PROPOSED HOT MIX ASPHALT BINDER AND SURFACE COURSE
22 FEET WIDE
5 1/2" TOTAL NOMINAL THICKNESS
BINDER COURSE SHALL BE 2 1/4" NOMINAL THICKNESS
FIRST LIFT OF SURFACE COURSE SHALL BE 1 3/4" NOMINAL THICKNESS
FINAL LIFT OF SURFACE COURSE SHALL BE A MINIMUM OF 1 1/2" NOMINAL THICKNESS

TYPICAL SECTION

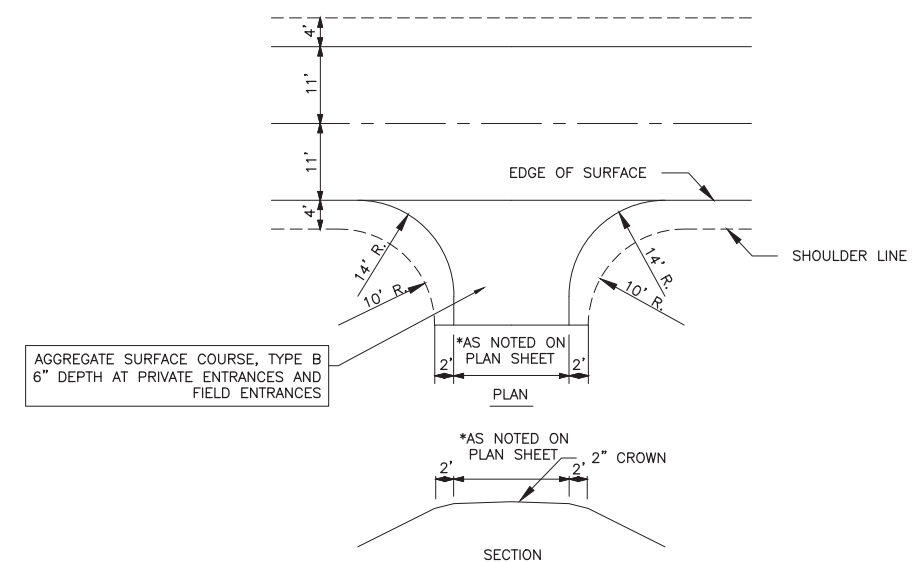
24' WIDTH

PROPOSED



TYPICAL SECTION

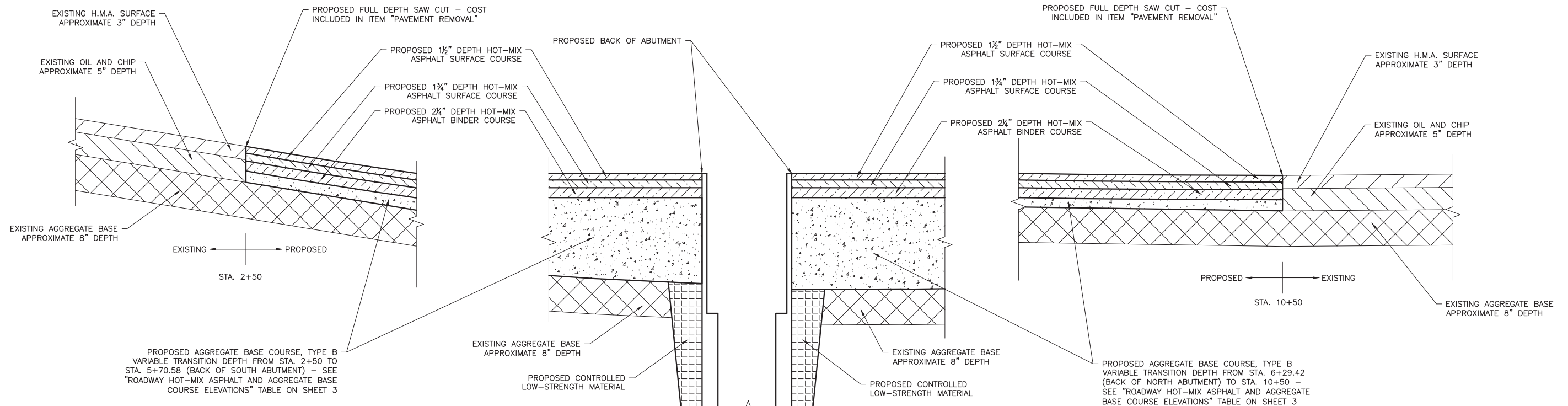
EXISTING



ENTRANCE DETAIL

LT. STA. 2+95 - FE
LT. STA. 8+50 - FE
RT. STA. 8+50 - FE

*SEE SHEET 4 FOR REQUIRED DIMENSION



ROADWAY TRANSITION DETAILS

ALONG PROPOSED CENTERLINE PROFILE GRADE

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

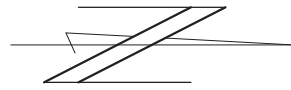
DESIGNED - BMB
DRAWN - BMB
CHECKED - BMB
DATE - 7-2021

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 694	19-00125-00-BR	LAWRENCE	21	4
CONTRACT 95932		ILLINOIS	PROJECT 8PVT(973)	

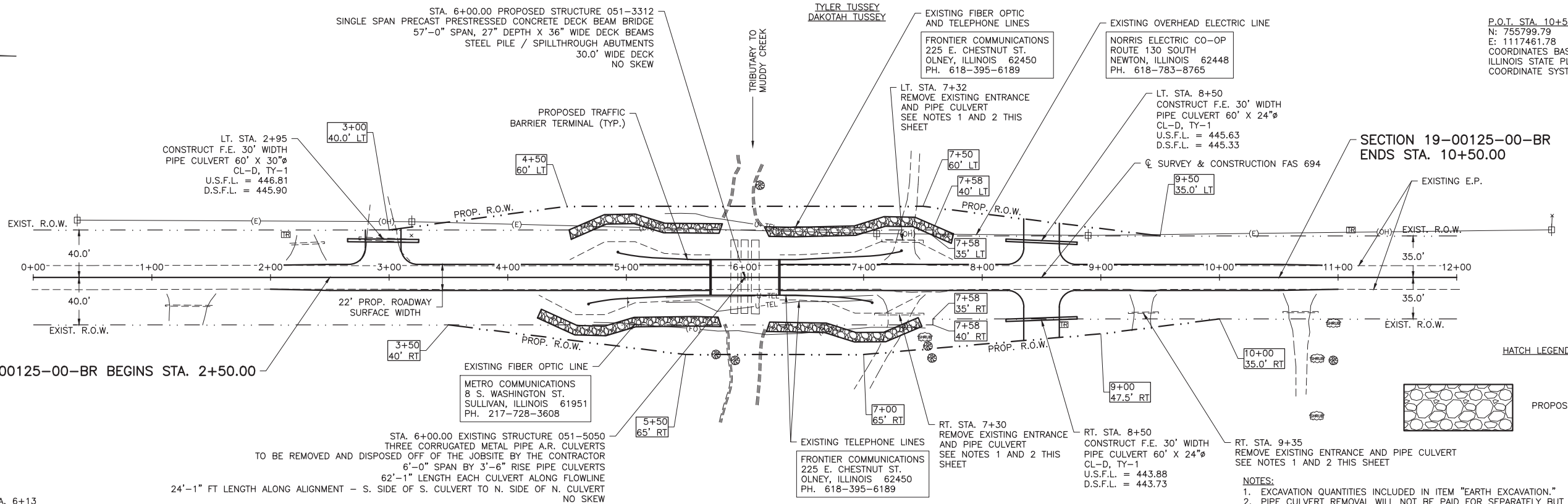


SCALES:
1" = 50' HOR
1" = 5' VER

P.O.T. STA. 2+50.00
N: 754999.79
E: 1117461.91
COORDINATES BASED ON NAD83
ILLINOIS STATE PLANE
COORDINATE SYSTEM

SECTION 19-00125-00-BR BEGINS STA. 2+50.00

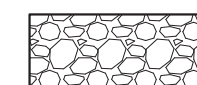
B.M. LT. STA. 6+13
78.2' LT. OF PROPOSED \bar{C} ALIGNMENT
SPIKE IN TREE
ELEV. 450.81



P.O.T. STA. 10+50.00
N: 755799.79
E: 1117461.78
COORDINATES BASED ON NAD83
ILLINOIS STATE PLANE
COORDINATE SYSTEM

SECTION 19-00125-00-BR
ENDS STA. 10+50.00

HATCH LEGEND

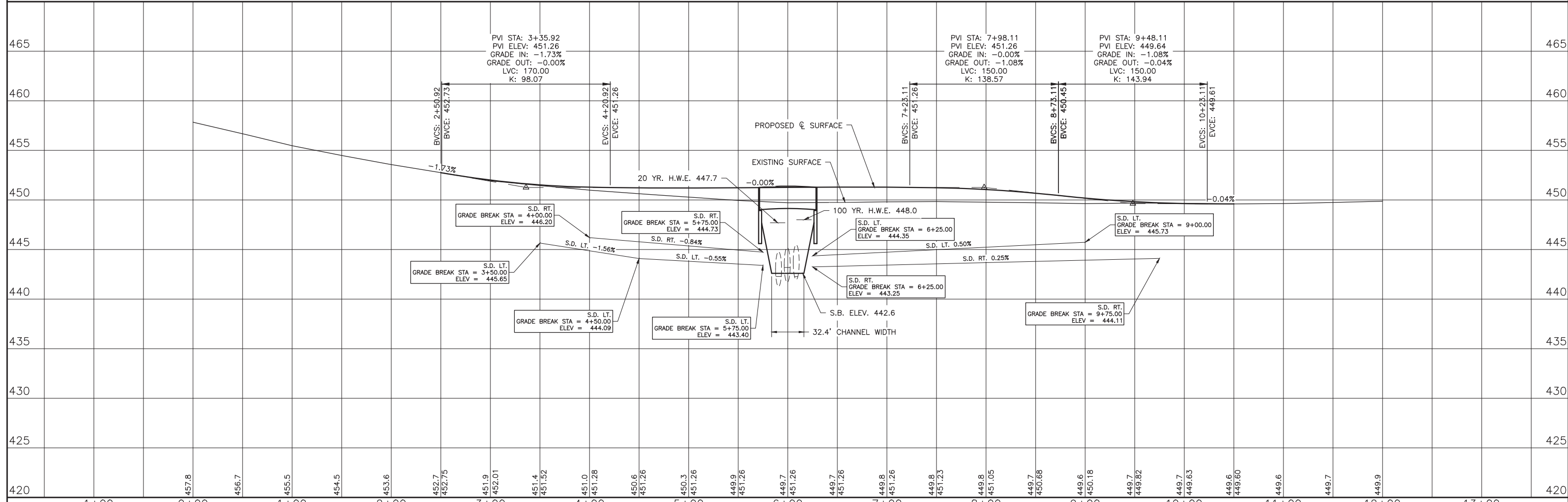


PROPOSED AGGREGATE DITCH

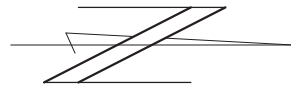
LONNIE D. MOAN, NOT INDIVIDUALLY BUT AS TRUSTEE OF THE LONNIE D. MOAN REVOCABLE TRUST CREATED BY TRUST AGREEMENT DATED DECEMBER 13, 2011, AS AMENDED, BY AND BETWEEN LONNIE D. MOAN AS GRANTOR, LONNIE D. MOAN AS TRUSTEE AND AMY M. MOAN AS FIRST SUCCESSOR TRUSTEE, AS TENANTS IN COMMON WITH AN UNDIVIDED ONE-HALF INTEREST

AMY M. MOAN, NOT INDIVIDUALLY BUT AS TRUSTEE OF THE AMY M. MOAN REVOCABLE TRUST CREATED BY TRUST AGREEMENT DATED DECEMBER 13, 2011, AS AMENDED, BY AND BETWEEN AMY M. MOAN AS GRANTOR, AMY M. MOAN AS TRUSTEE, AND LONNIE D. MOAN AS FIRST SUCCESSOR TRUSTEE, AS TENTANTS IN COMMON WITH AN UNDIVIDED ONE-HALF INTEREST

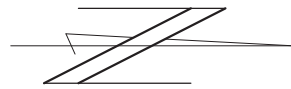
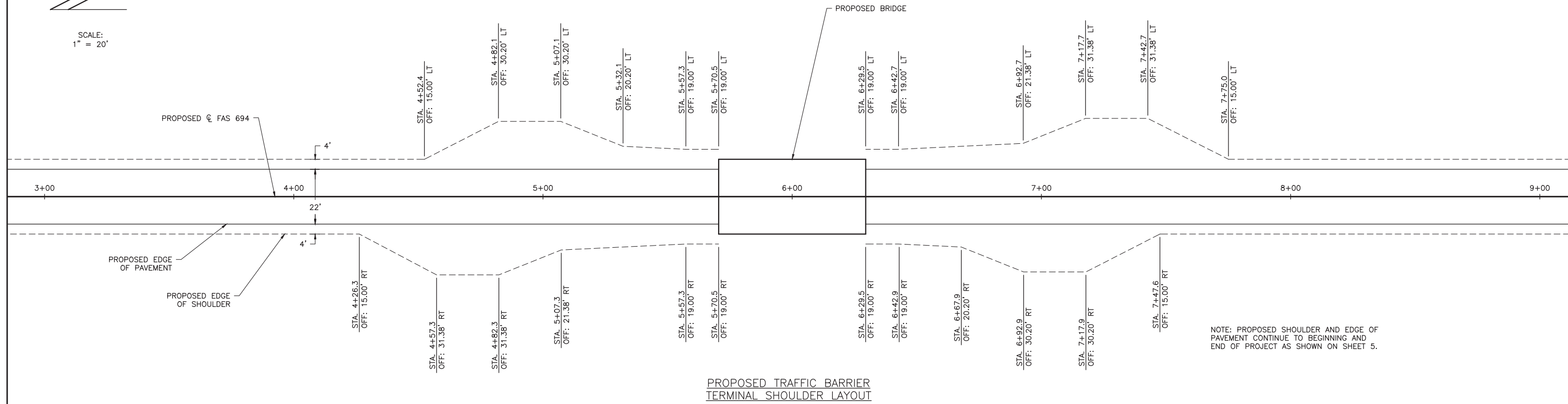
- NOTES:
- EXCAVATION QUANTITIES INCLUDED IN ITEM "EARTH EXCAVATION."
 - PIPE CULVERT REMOVAL WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF PIPE CULVERTS, CLASS D. SEE PIPE CULVERT REMOVAL SCHEDULE AND SPECIAL PROVISIONS FOR PIPE CULVERT REMOVAL.
 - BACKFILL AND COMPACT VOID WITH AGGREGATE BASE COURSE, TYPE B - SEE SCHEDULE OF QUANTITIES SHEET IN PLANS



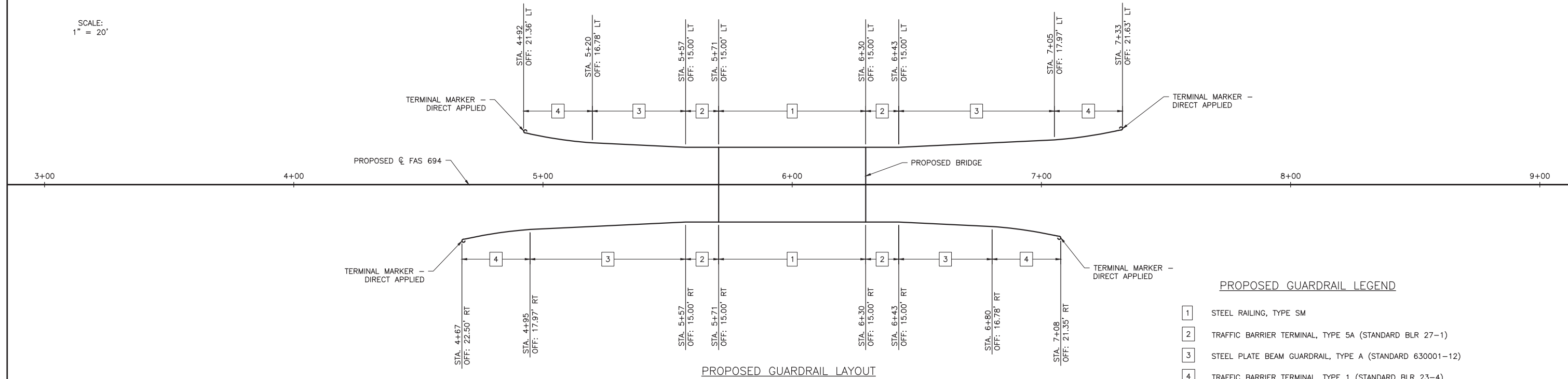
CHARLESTON ENGINEERING, INC. CONSULTING ENGINEERS - LAND SURVEYORS 105 NORTH KITCHELL AVENUE OLNEY, ILLINOIS 62450 P.O. BOX 387 (618) 392-0736 ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513		DESIGNED - BMB DRAWN - BMB CHECKED - BMB DATE - 9-2020	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE	ROUTE FAS 694 CONTRACT 95932	SECTION 19-00125-00-BR	COUNTY LAWRENCE	TOTAL SHEETS 21	SHEET NO. 5
---	--	---	--	---	------------------	------------------------------------	---------------------------	--------------------	--------------------	----------------



SCALE:
1" = 20'



SCALE:
1" = 20'



CHARLESTON ENGINEERING, INC.
CONSULTING ENGINEERS - LAND SURVEYORS
105 NORTH KITCHELL AVENUE OLNEY, ILLINOIS 62450
P.O. BOX 387 (618) 392-0736
ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513

DESIGNED - BMB	REVISED -
DRAWN - BMB	REVISED -
CHECKED - BMB	REVISED -
DATE - 9-2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

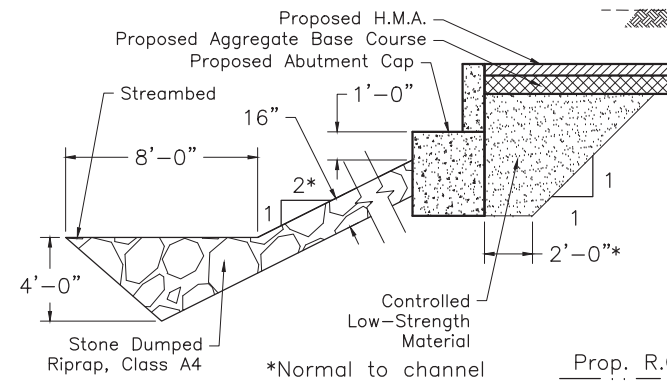
BRIDGE APPROACH SHOULDER
AND GUARDRAIL PLAN

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 694	19-00125-00-BR	LAWRENCE	21	6
CONTRACT 95932		ILLINOIS	PROJECT 8PVT(973)	

B.M.—Lt. Sta. 6+13, 78.2' Lt. of Proposed ϕ Alignment, Spike in Tree, Elev. 450.81.

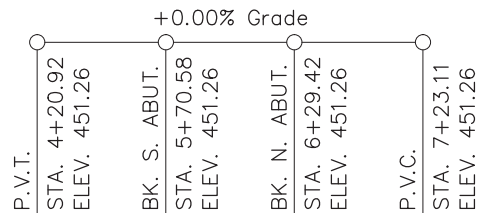
Existing Structure — Existing structure No. 051-5050 consists of three corrugated metal pipe culverts with no headwalls or wingwalls. The barrel length along the stream flowline is 62'-1" and the length from the South side of the South culvert to the North side of the North culvert is 24'-1" along the roadway. The existing structure shall be completely removed and disposed off the jobsite. Road closure shall be used during construction.

No Salvage — See Special Provisions; "Removal of Existing Structures."



SECTION B-B

Note: See Special Provisions for Stone Dumped Riprap, Class A4



PROFILE GRADE

(along ϕ roadway)

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $F_y = 60,000$ psi (reinforcement)

PRECAST PRESTRESSED UNITS

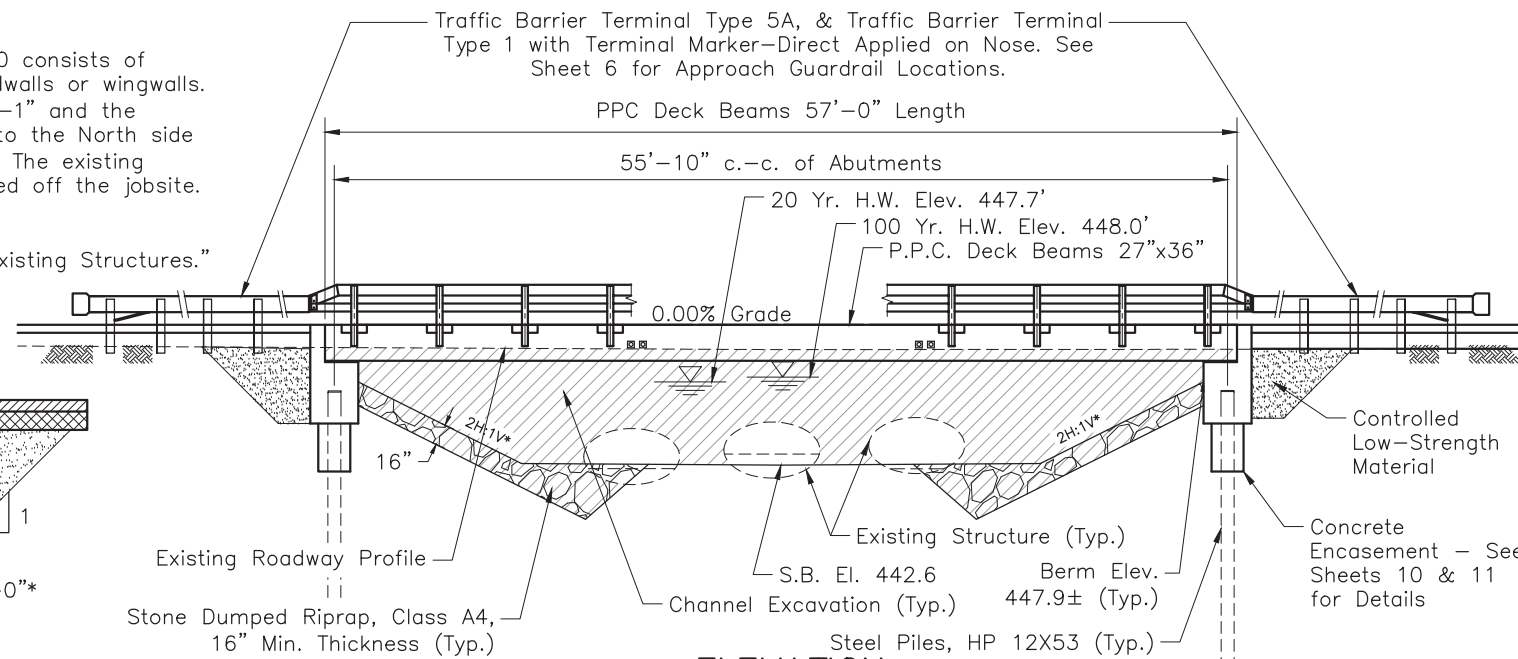
$f'_c = 6,000$ psi
 $f'_{ci} = 5,000$ psi
 $F'_s = 270,000$ psi ($\frac{1}{2}$ " low relax. strands)
 $F_{si} = 201,960$ psi ($\frac{1}{2}$ " low relax. strands)

DESIGN SPECIFICATIONS

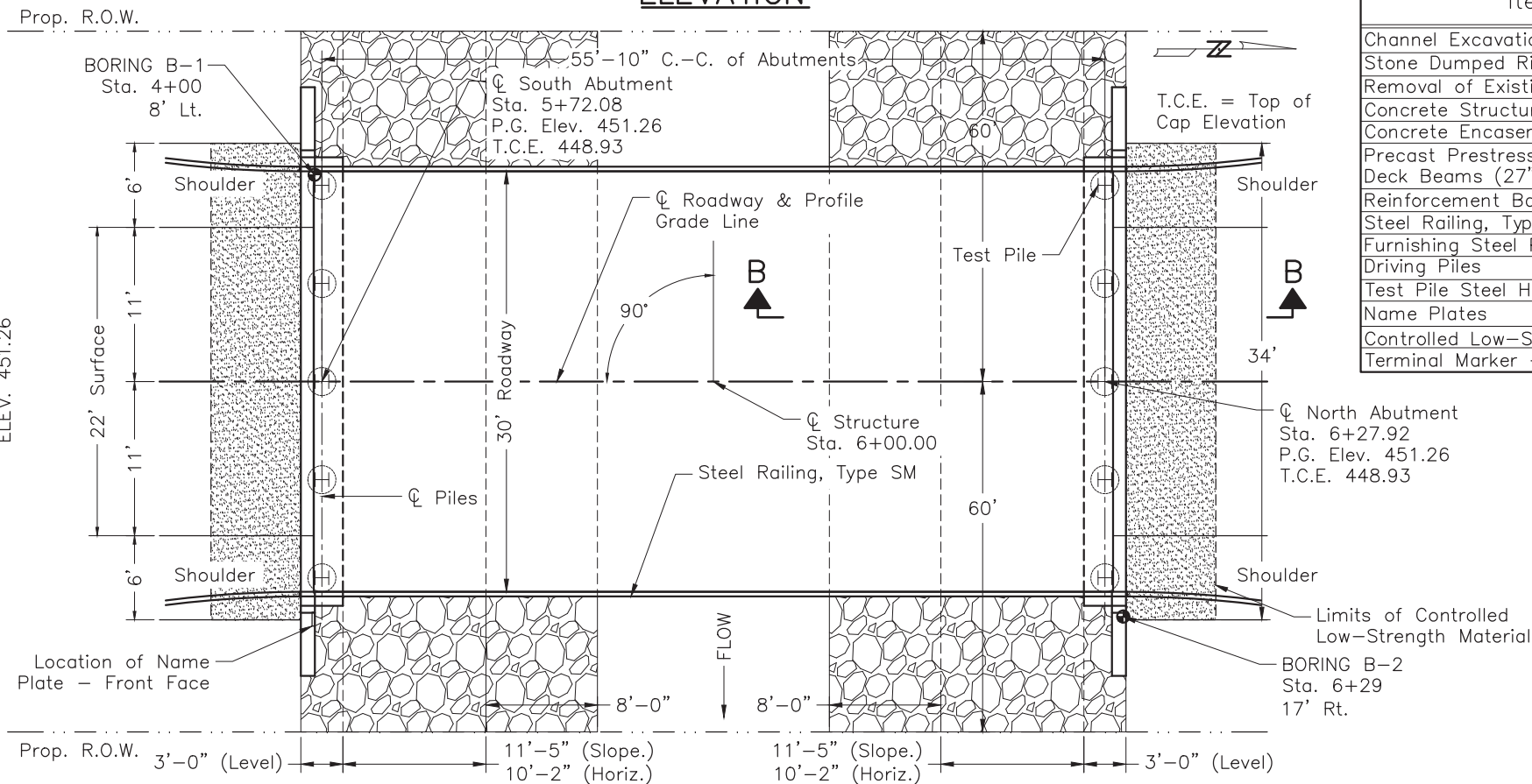
AASHTO LRFD Bridge Design Specifications — 9th edition

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.166g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.431g
Soil Site Class = C



ELEVATION



PLAN

No Skew

LOADING HL-93

50#/sq. ft. included in dead load for future wearing surface.

WATERWAY INFORMATION

Drainage Area=0.8 Sq.Mi. Low Grade Elev = 449.6 Sta. 10+50.00									
Flood	Freq. Yr.	Q. C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head — Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	20	815	38.1	195.2	447.7	1.8'	0.0'	449.5'	447.7'
Base	100	1240	38.1	206.7	448.0	1.7'	0.1'	449.7'	448.1'

GENERAL NOTES

- Do not scale sheets 7-14.
- The Contractor shall drive the test pile to 110% of the nominal required bearing specified in production locations at the North Abutment or as approved by the Engineer before ordering the remainder of piles.
- See Sheet 14 for boring logs.
- Excavation required to construct the Abutments shall be included in the cost of Earth Excavation. No additional compensation will be allowed for Structure Excavation.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- Toe stone riprap treatment as shown in Section B-B shall extend entire channel length from proposed R.O.W. west to proposed R.O.W. east.
- All proposed construction activities shall be in accordance with Nationwide Permit Number 13 and 14 of the Department of the Army authorized under Section 404 of the Clean Water Act. The IEPA has issued Section 401 Water Quality Certification for this activity.
- Reinforcement bars designated (E) shall be epoxy coated.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.		Total
			Piers	Abuts.	
Channel Excavation	Cu. Yd.	—	—	500	500
Stone Dumped Riprap, Class A4	Ton	—	—	500	500
Removal of Existing Structures	Each	—	—	—	1
Concrete Structures	Cu. Yd.	—	—	35.0	35.0
Concrete Encasement	Cu. Yd.	—	—	3.5	3.5
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1710	—	—	1710
Reinforcement Bars, Epoxy Coated	Pound	—	—	4400	4400
Steel Railing, Type SM	Foot	118	—	—	118
Furnishing Steel Piles HP 12 X 53	Foot	—	—	495	495
Driving Piles	Foot	—	—	495	495
Test Pile Steel HP 12 X 53	Each	—	—	1	1
Name Plates	Each	—	—	1	1
Controlled Low-Strength Material	Cu. Yd.	—	—	45	45
Terminal Marker — Direct Applied	Each	4	—	—	4

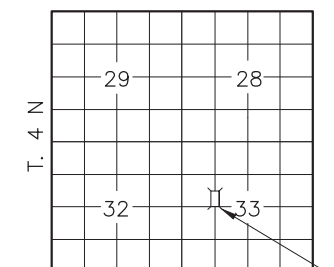
I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO Standard Specifications for Highway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



Nabi R. Fakroddin 3/29/22

Lic Exp 11-30-22

2 ND P.M.



PROPOSED BRIDGE

CHARLESTON ENGINEERING, INC.
CONSULTING ENGINEERS - LAND SURVEYORS
105 NORTH KITCHELL AVENUE OLNEY, ILLINOIS 62450
P.O. BOX 387 (618) 392-0736
ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513

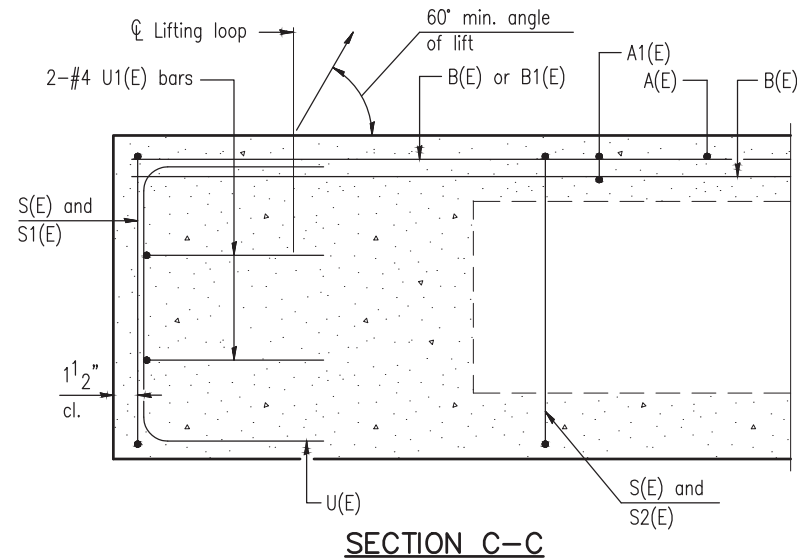
DESIGNED — NRF/BMB
DRAWN — BMB
CHECKED — NRF
DATE — 8-2021

REVISED —
REVISED —
REVISED —
REVISED —

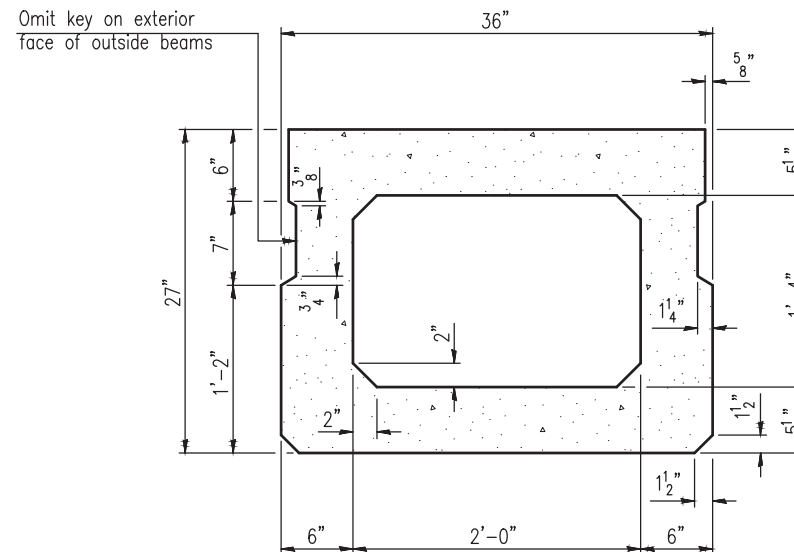
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NUMBER 051-3312

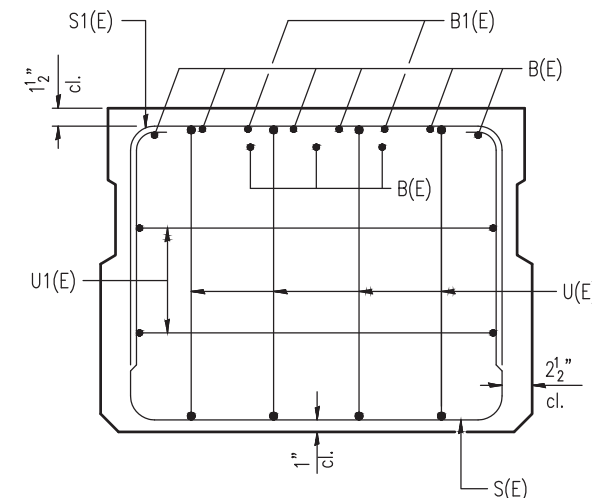
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 694	19-00125-00-BR	LAWRENCE	21	7
CONTRACT 95932		ILLINOIS	PROJECT 8PVT(973)	



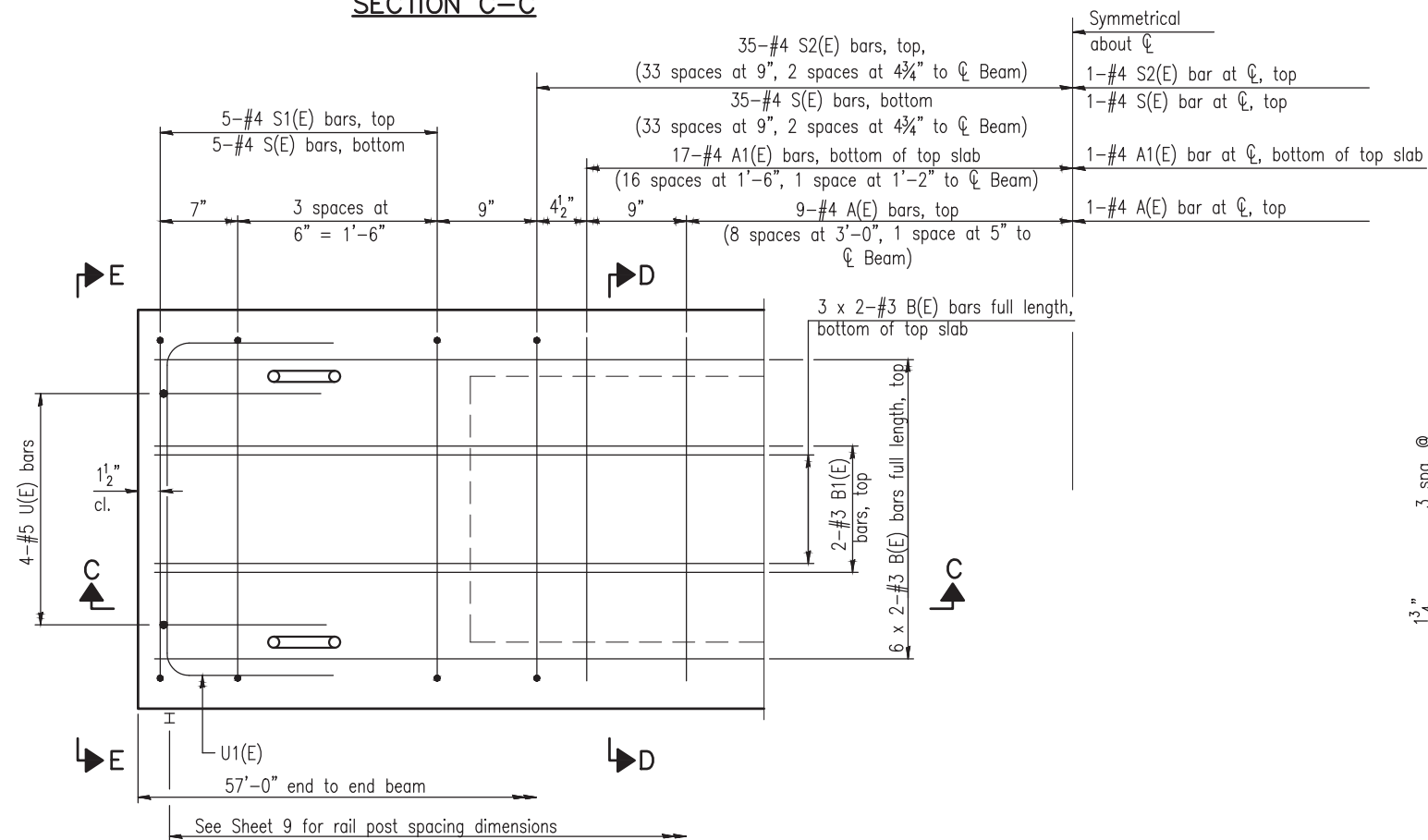
SECTION C-C



SECTION D-D
(Showing dimensions)

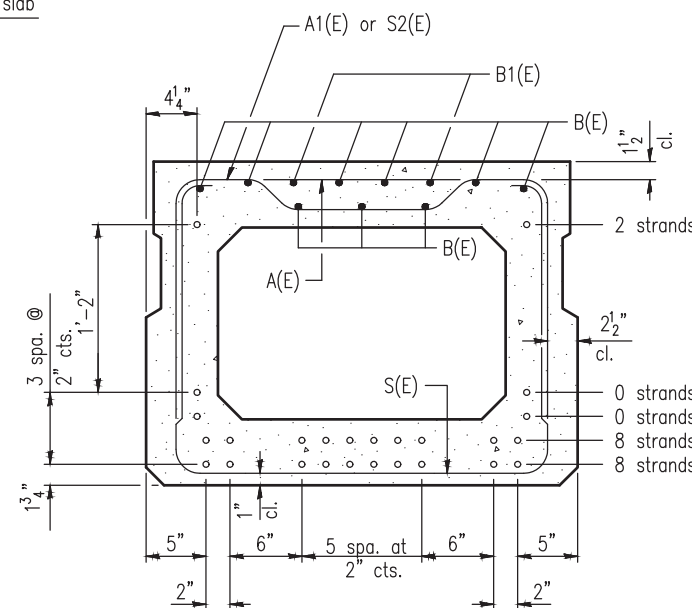


VIEW E-E



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.



SECTION D-D
(Showing reinforcement and permissible strand locations)
Note: 18 total strands

Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

**BAR LIST
ONE BEAM
ONLY**

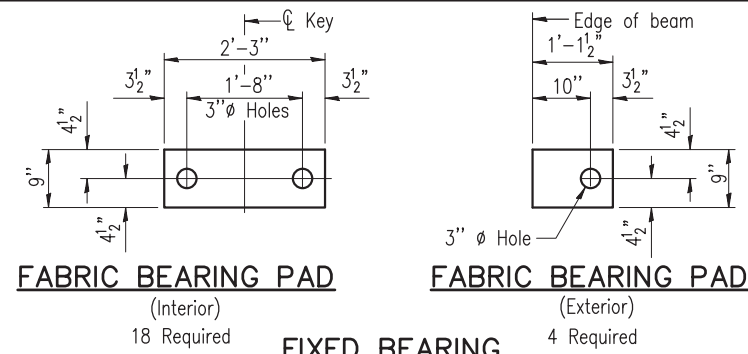
(For information only)

Bar	No.	Size	Length	Shape
A(E)	19	#4	2'-7"	—
A1(E)	35	#4	2'-10"	~
B(E)	18	#3	29'-2"	—
B1(E)	4	#3	10'-0"	—
S(E)	81	#4	7'-5"	⌈
S1(E)	10	#4	5'-11"	⌈
S2(E)	71	#4	6'-2"	⌈
U(E)	8	#5	4'-6"	⌈
U1(E)	4	#4	5'-0"	⌈

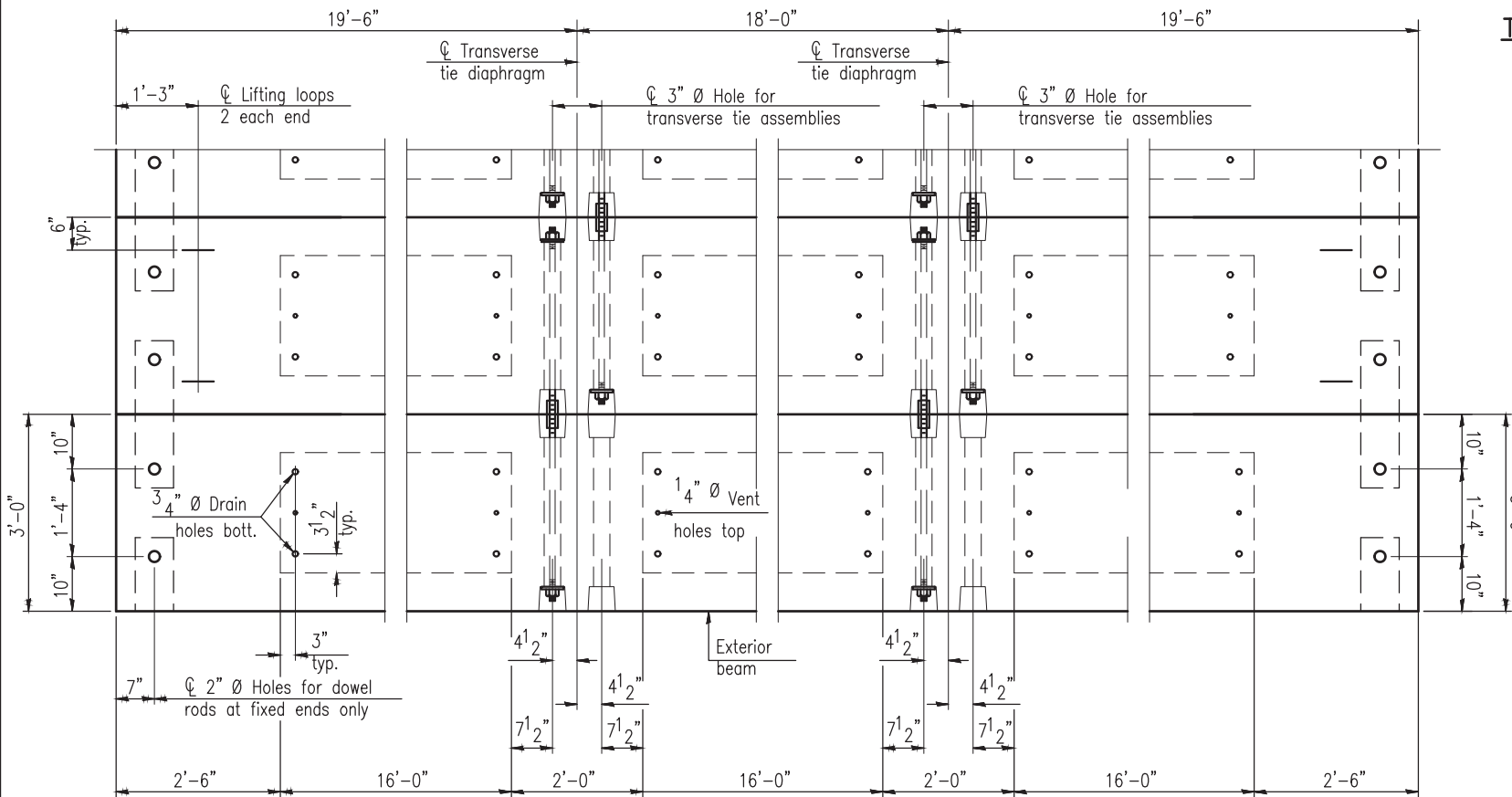
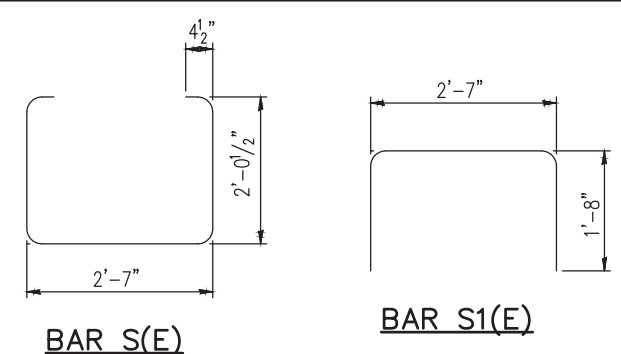
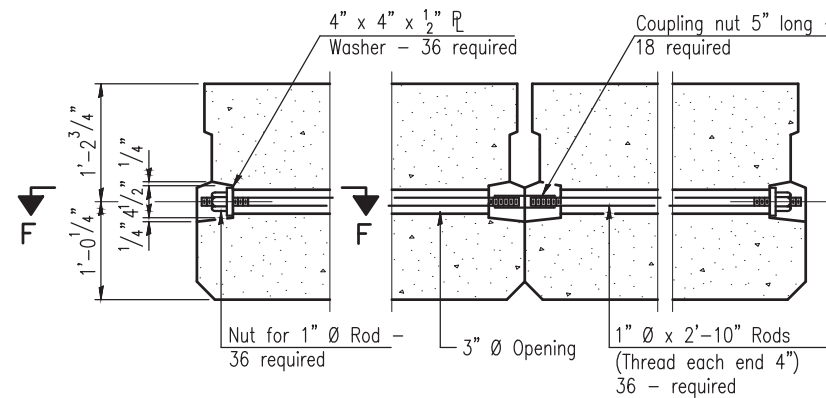
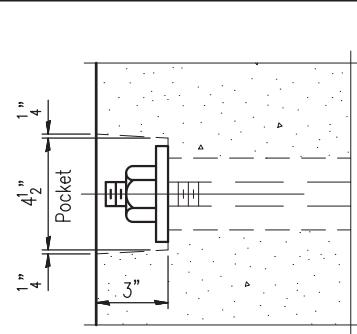
Note:
See sheet 9 of 21 for additional details and Bill of Material.

MINIMUM BAR LAP

#3 bar = 1'-6"



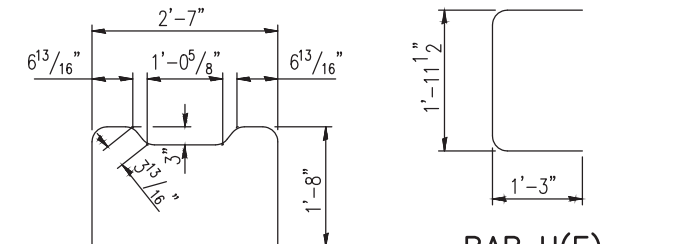
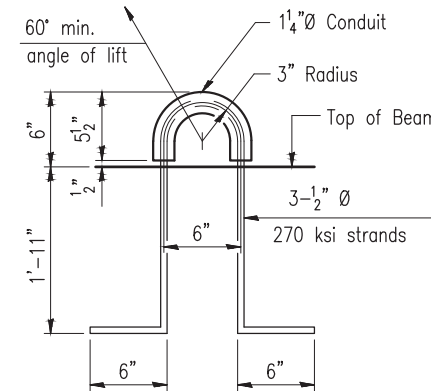
FIXED BEARING
Notes:
All bearing pads shall be 1" thick.



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

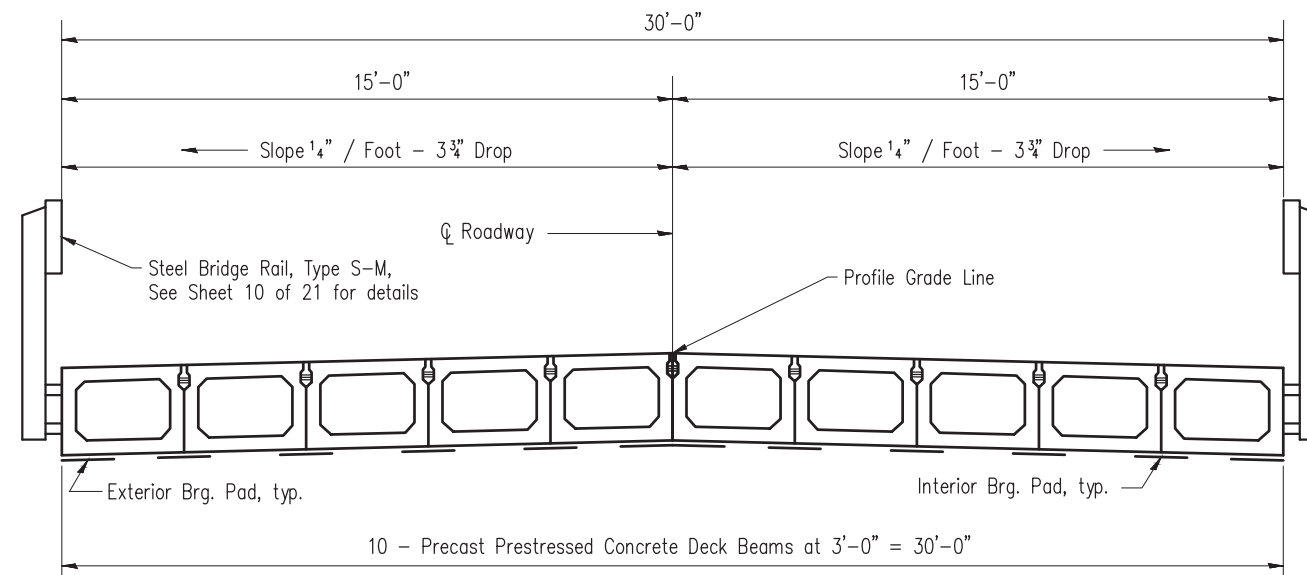
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place. Reinforcement bars shall conform to ASTM A 706, Grade 60. See Standard Specifications. Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location. A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling. Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Compressive strength of prestressed concrete, f'c, shall be 6000 psi. Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

LIFTING LOOP DETAIL

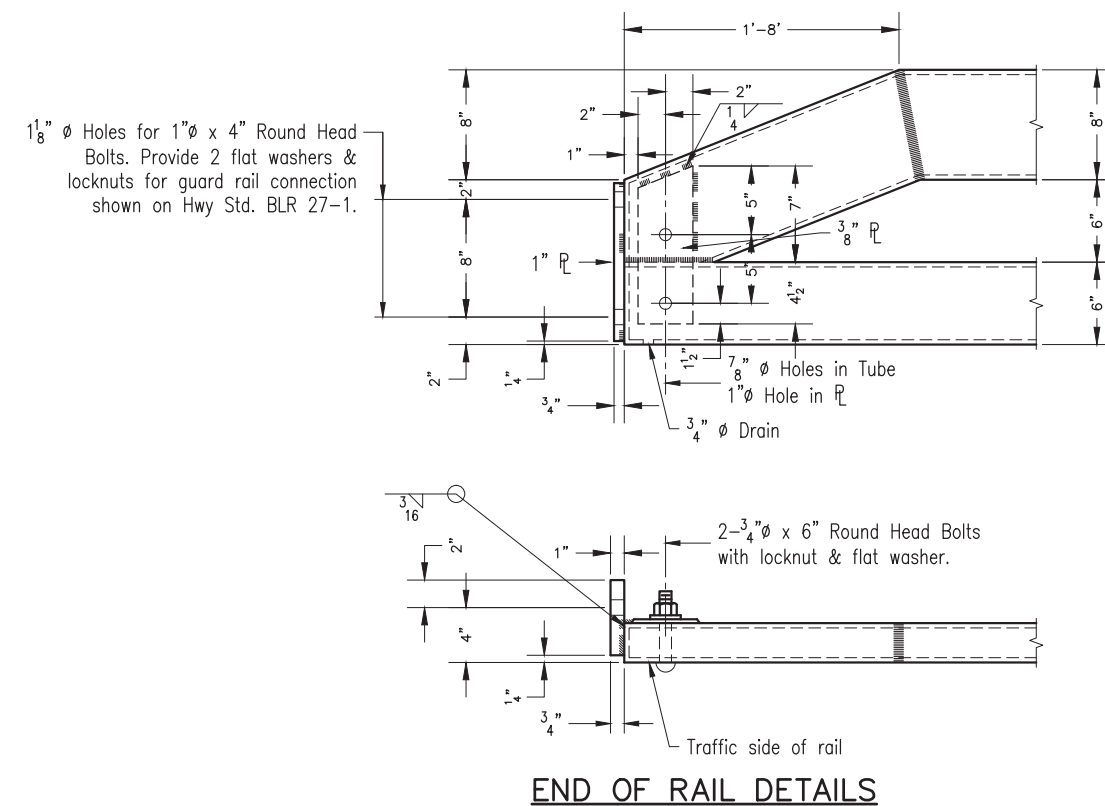
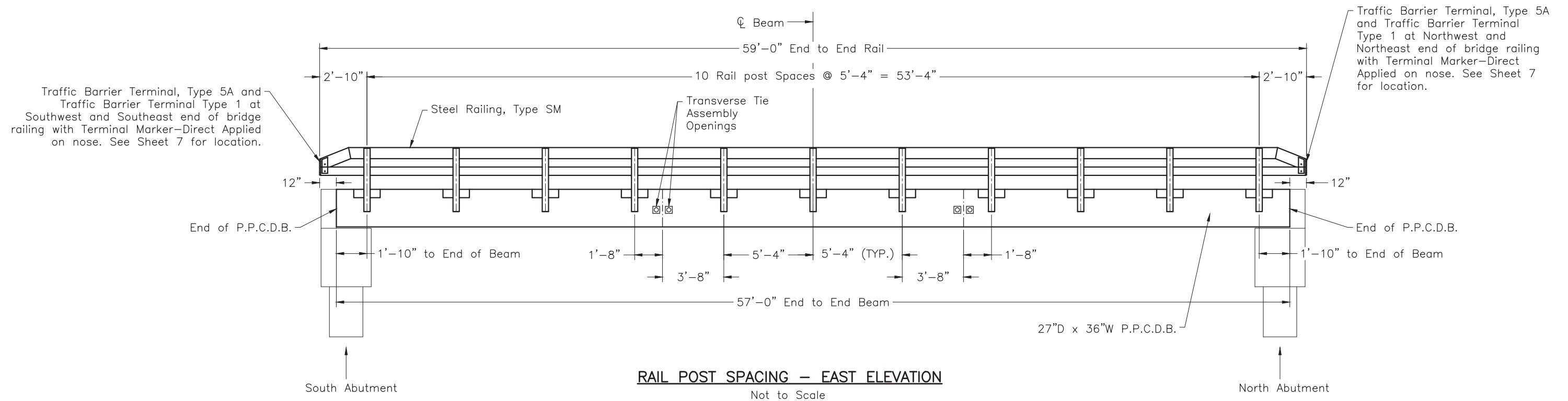


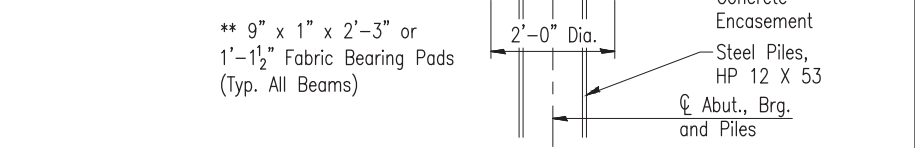
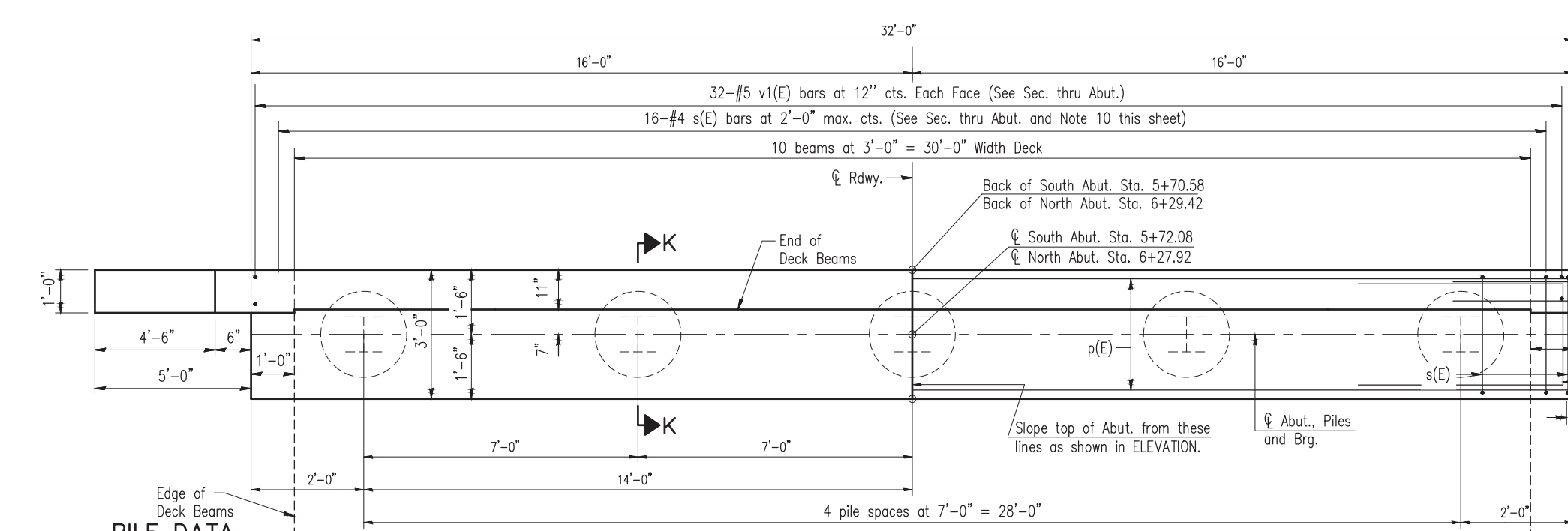
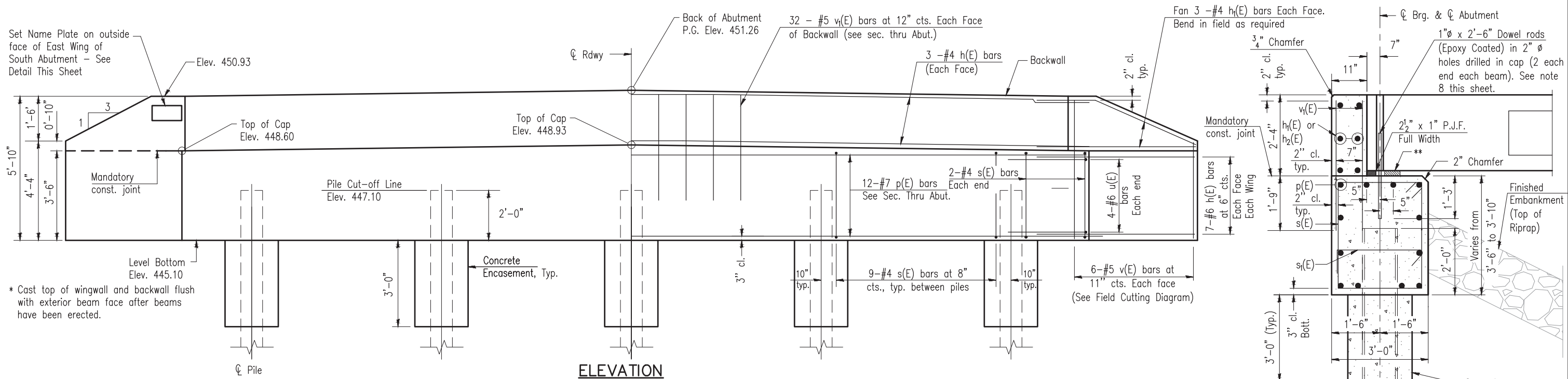
BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (27" depth)	Sq. Ft.	1710
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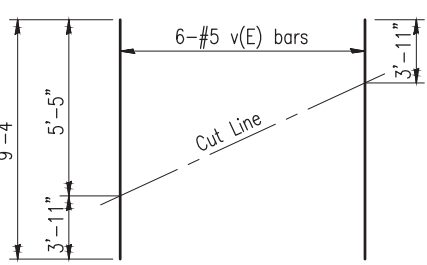
CROSS SECTION



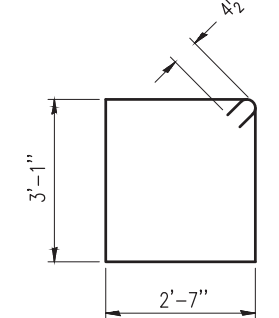


PILE DATA SOUTH ABUTMENT
 Type: Steel HP 12 X 53
 Nominal Required Bearing: 418 kips
 Factored Resistance Available: 230 kips
 Est. Length: 55 Feet/Pile
 No. Production Piles: 5
 No. Test Piles: 0

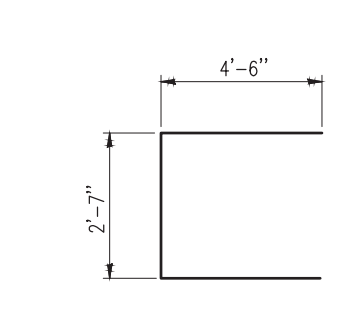
PILE DATA NORTH ABUTMENT
 Type: Steel HP 12 X 53
 Nominal Required Bearing: 418 kips
 Factored Resistance Available: 230 kips
 Est. Length: 55 Feet/Pile
 No. Production Piles: 4
 No. Test Piles: 1



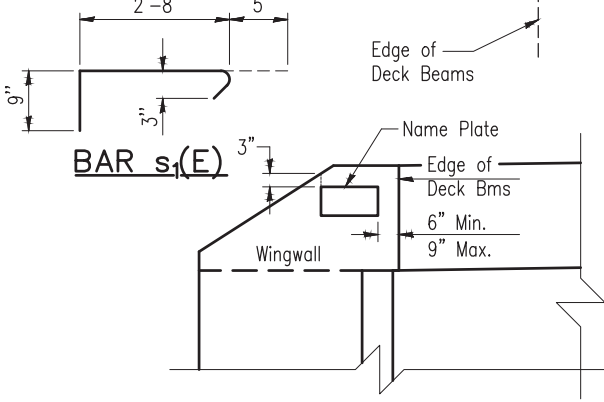
FIELD CUTTING DIAGRAM
 Order v(E) bars full length. Cut as shown and use remainder of bars in opposite face.



BAR s(E)



BAR u(E)



NAME PLATE PLACEMENT

SECTION K-K
(At Right Angles)

BILL OF MATERIAL FOR ONE ABUTMENT

Bar	No.	Size	Length	Shape
h(E)	28	#6	8'-4"	—
h ₁ (E)	12	#4	7'-2"	—
h ₂ (E)	6	#4	31'-8"	—
p(E)	12	#7	31'-8"	—
s(E)	40	#4	12'-1"	□
s ₁ (E)	16	#4	3'-10"	□
u(E)	8	#6	11'-7"	—
v(E)	12	#5	9'-4"	CUT IN FIELD
v ₁ (E)	64	#5	3'-11"	—
Concrete Structures			Cu. Yd.	17.5
Concrete Encasement			Cu. Yd.	1.75
Reinforcement Bars, Epoxy Coated			Pound	2200
Furnishing Steel Piles HP 12 X 53	Foot	S Abut.		275
		N Abut.		220
Driving Piles	Foot	S Abut.		275
		N Abut.		220
Test Pile Steel HP 12 X 53	Each	S Abut.		0
		N Abut.		1

- General Notes:**
- Cast backwalls and top of Wingwalls after beams have been erected.
 - The backwalls and the portion of the Wingwalls above the mandatory construction joint shall be cast against the in-place beam.
 - Extend "h(E)" bars into the abutment cap.
 - For details of piles and Concrete Encasement, see sheet 13 of 21.
 - Drawings not to scale.
 - All clearances between rebar and form surface shall be 2" unless otherwise noted.
 - Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60 (Illinois Modified).
 - Space reinforcement in cap to miss PPCDB dowel rods.
 - All exposed edges shall have a standard 3/4" chamfer unless otherwise noted or as directed by the Engineer.
 - s₁(E) bars: Alternate the position of the 90° and 135° hooked ends between adjacent s₁(E) bars.

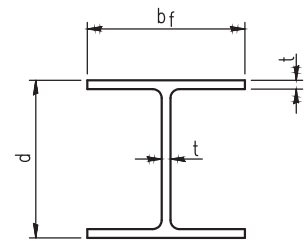
CHARLESTON ENGINEERING, INC.
 CONSULTING ENGINEERS - LAND SURVEYORS
 105 NORTH KITCHELL AVENUE OLNEY, ILLINOIS 62450
 P.O. BOX 387 (618) 392-0736
 ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513

DESIGNED - NRF/BMB
 DRAWN - BMB
 CHECKED - NRF
 DATE - 8-2021

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

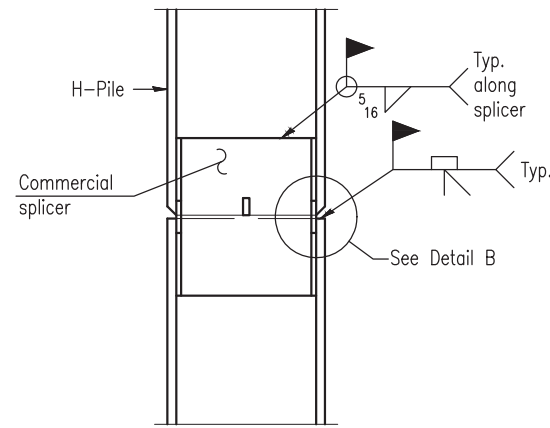
ABUTMENT DETAILS
 STRUCTURE NUMBER 051-3312

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT 95932		ILLINOIS	PROJECT 8PVT(973)	

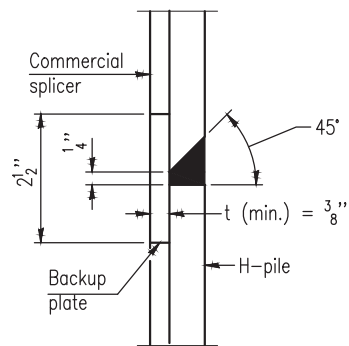


STEEL PILE TABLE

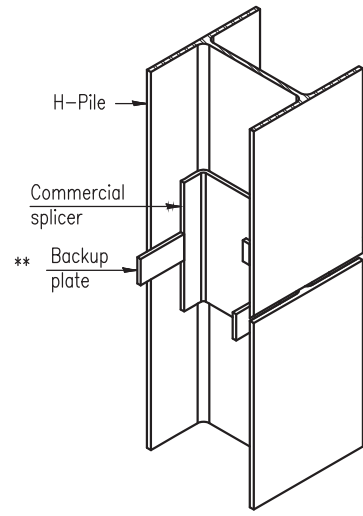
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 12x53	11 ³ / ₄ "	12"	7 ¹ / ₁₆ "	24"



ELEVATION

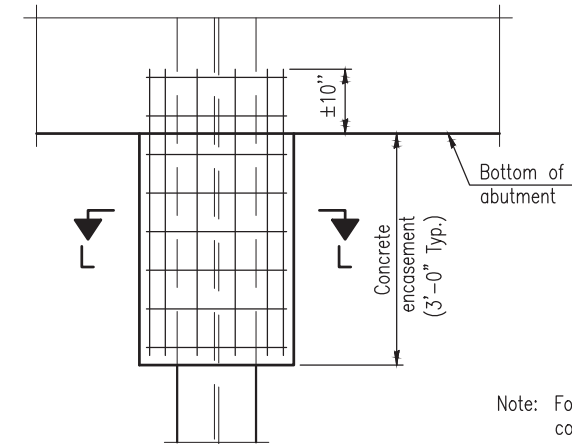


DETAIL "B"



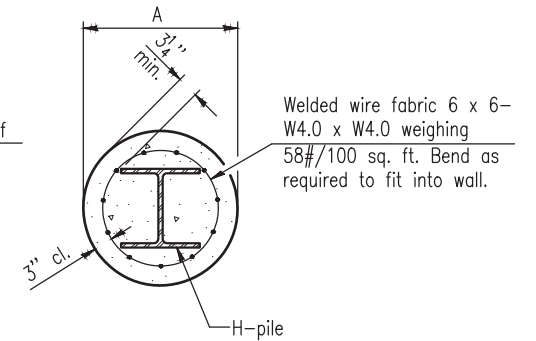
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



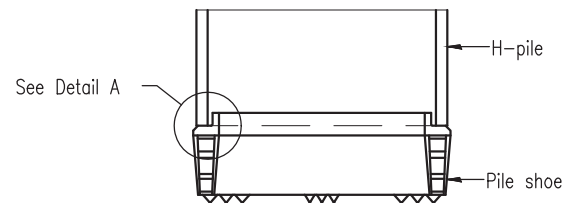
ELEVATION DRIVEN PILES

PILE ENCASEMENT

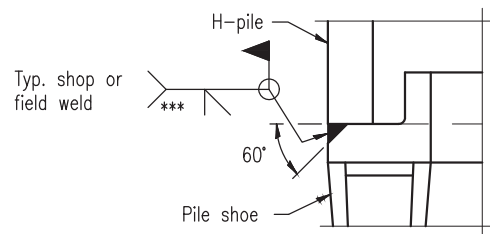


Note: Forms for encasement may be omitted when soil conditions permit. If soil conditions are not favorable to use the soil as forms, the Contractor shall provide forms; the cost for the forms and all labor to install forms shall be included in item "Concrete Encasement."

SECTION L-L

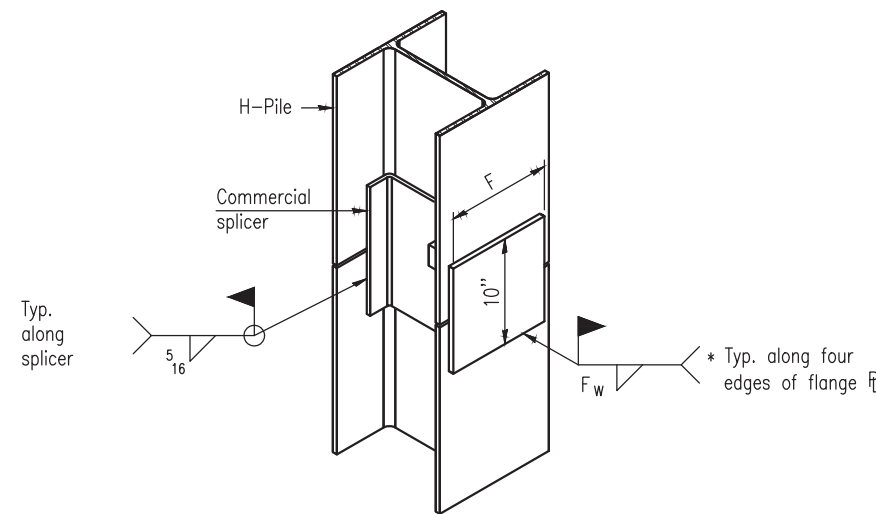


ELEVATION



DETAIL A

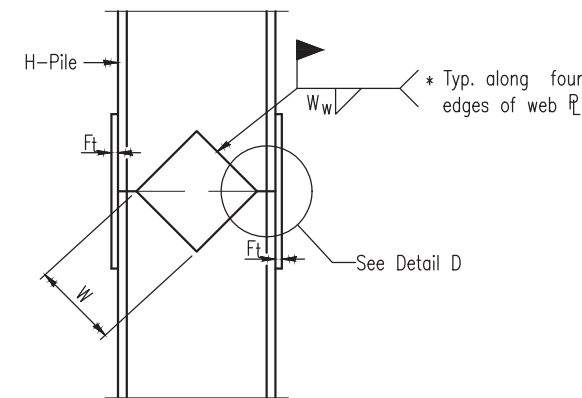
H-PILE SHOE ATTACHMENT



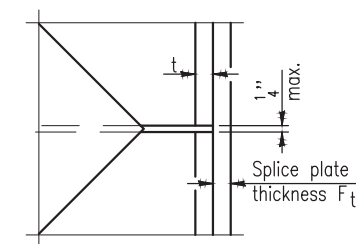
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

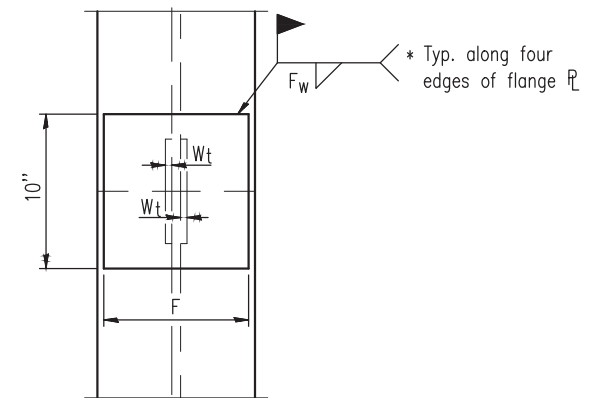
- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- ***Weld size per pile shoe manufacturer (5/16" min.).



ELEVATION



DETAIL D



END VIEW

Designation	F	F _t	F _w	W	W _t	W _w
HP 12x53	10"	5 ¹ / ₈ "	1 ¹ / ₂ "	6 ¹ / ₂ "	1 ¹ / ₂ "	3 ³ / ₈ "

WELDED PLATE FIELD SPLICE

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

NOBLE		BORING No. B-1		water level reading						
ENGINEERING CONSULTANTS		County: Lawrence, IL	Sheet No. 1 of 2	1st encounter: 24'						
Client: Charleston Engineering		Weather: Sunny	Temperature: 40's	water level reading						
Driller: Noble Engineering Consultants		Date Start: 12-7-19	Surface Elevation: 449.0	@completion 24'						
Location: Sec. #19-00125-00-BR		Date Finished: 12-7-19	Driller: Tony Schocker	Backfill: Soil cuttings						
Depth	Sample No.	Sample Depth	N-Value	Blow Count	Recovery (%)	Qp (tsf)*	Soil Description	w%	USC Class.	Elev.
1							0.0'-0.3' crushed rock FILL			448.0
2	SS-1	1.0'-2.5'	8	2-3-5	20		0.3'-6.0' Silty, Clay, Etc. FILL	19.7	FLL	447.0
3										446.0
4	SS-2	3.5'-5.0'	9	3-6-3	100			24.5	FLL	445.0
5										444.0
6	SS-3	6.0'-7.5'	10	4-5-5	20			27.1	FLL	443.0
7										442.0
8										441.0
9	SS-4	8.5'-10.0'	11	4-5-6	100	1.2	6.0'-14.0' SILTY CLAY, trace to some sand, trace gravel, stiff, brown mottled gray	22.1	CL	440.0
10										439.0
11										438.0
12										437.0
13										436.0
14	SS-5	13.5'-15.0'	7	4-5-2	100	0.8		23.2	CL	435.0
15										434.0
16										433.0
17										432.0
18										431.0
19	SS-6	18.5'-20.0'	4	2-2-2	100	0.7	14.0'-37.0' CLAY, trace sand, medium stiff to stiff, gray	29.2	CH	430.0
20										429.0
21										428.0
22										427.0
23										426.0
24	SS-7	23.5'-25.0'	8	3-3-5	100	0.9		24.7	CH	425.0
25										424.0
26										423.0
27										422.0
28										421.0
29										420.0
30	SS-8	28.5'-30.0'	9	3-4-5	100	1.0		19.6	CH	419.0
Drilling Method: HSA (2-1/4" id)		comments		*Qp test is an estimate of the unconfined compressive strength performed by a compact calibrated spring loaded cylinder						
Depth: 0' to 50'										
Drill Rig: Mobile B-47				** Elevation estimated from provided bridge deck elevation and is not surveyed						
Sampling: split- spoon (SS)										

NOBLE		BORING No. B-2		water level reading						
ENGINEERING CONSULTANTS		County: Lawrence, IL	Sheet No. 1 of 2	1st encounter: 27'						
Client: Charleston Engineering		Weather: Sunny	Temperature: 40's	water level reading						
Driller: Noble Engineering Consultants		Date Start: 12-7-19	Surface Elevation: 448.7	@completion 24'						
Location: Sec. #19-00125-00-BR		Date Finished: 12-7-19	Driller: Tony Schocker	Backfill: Soil cuttings						
Depth	Sample No.	Sample Depth	N-Value	Blow Count	Recovery (%)	Qp (tsf)*	Soil Description	w%	USC Class.	Elev.
1							0.0'-0.3' crushed rock FILL			447.7
2	SS-1	1.0'-2.5'	6	4-2-4	20		0.3'-4.0' Silty, Clay, Etc. FILL	23.1	FLL	446.7
3										445.7
4	SS-2	3.5'-5.0'	9	3-4-5	100			19.5	FLL	444.7
5										443.7
6	SS-3	6.0'-7.5'	10	3-4-6	25		4.0'-7.5' SILTY CLAY, trace to some sand, trace gravel, stiff, brown mottled gray	23.0	CL	442.7
7										441.7
8										440.7
9	SS-4	8.5'-10.0'	10	4-5-5	100	0.9		23.2	CH	439.7
10										438.7
11										437.7
12										436.7
13										435.7
14	SS-5	13.5'-15.0'	7	3-3-4	100	0.8		22.4	CH	434.7
15										433.7
16										432.7
17										431.7
18										430.7
19	SS-6	18.5'-20.0'	4	1-2-2	100	0.7	7.5'-37.0' CLAY, trace sand, medium stiff to stiff, gray	26.8	CH	429.7
20										428.7
21										427.7
22										426.7
23										425.7
24	SS-7	23.5'-25.0'	8	3-3-4	100	0.8		26.1	CH	424.7
25										423.7
26										422.7
27										421.7
28										420.7
29										419.7
30	SS-8	28.5'-30.0'	10	3-5-5	100	1.0		20.8	CH	418.7
Drilling Method: HSA (2-1/4" id)		comments		*Qp test is an estimate of the unconfined compressive strength performed by a compact calibrated spring loaded cylinder						
Depth: 0' to 50'										
Drill Rig: Mobile B-47				** Elevation estimated from provided bridge deck elevation and is not surveyed						
Sampling: split- spoon (SS)										

NOBLE		BORING No. B-1		water level reading						
ENGINEERING CONSULTANTS		County: Lawrence, IL	Sheet No. 2 of 2	1st encounter: 24'						
Client: Charleston Engineering		Weather: Sunny	Temperature: 40's	water level reading						
Driller: Noble Engineering Consultants		Date Start: 12-7-19	Surface Elevation: 449.0	@completion 24'						
Location: Sec. #19-00125-00-BR		Date Finished: 12-7-19	Driller: Tony Schocker	Backfill: Soil cuttings						
Depth	Sample No.	Sample Depth	N-Value	Blow Count	Recovery (%)	Qp (tsf)*	Soil Description	w%	USC Class.	Elev.
31										418.0
32										417.0
33										416.0
34	SS-9	33.5'-35.0'	10	4-5-5	100	1.0	14.0'-37.0' CLAY, trace sand, medium stiff to stiff, gray	21.9		415.0
35										414.0
36										413.0
37										412.0
38										411.0
39	SS-10	38.5'-40.0'	51	19-24-27	100	-		13.1		410.0
40										409.0
41										408.0
42										407.0
43										406.0
44	SS-11	43.5'-45.0'	66	11-29-37	100	-	37.0'-50' HIGHLY WEATHERED SHALE, gray	12.5		405.0
45										404.0
46										403.0
47										402.0
48										401.0
49	SS-12	48.5'-50.0'	100+	29-38-100's	100	-		11.2		400.0
50										
51										
52										
53										
54										
55										
56										
57										
58										
59										
60										
Drilling Method: HSA (2-1/4" id)		comments		*Qp test is an estimate of the unconfined compressive strength performed by a compact calibrated spring loaded cylinder						
Depth: 0' to 50'										
Drill Rig: Mobile B-47				** Elevation estimated from provided bridge deck elevation and is not surveyed						
Sampling: split- spoon (SS)										

NOBLE		BORING No. B-2		water level reading						
ENGINEERING CONSULTANTS		County: Lawrence, IL	Sheet No. 2 of 2	1st encounter: 27'						
Client: Charleston Engineering		Weather: Sunny	Temperature: 40's	water level reading						
Driller: Noble Engineering Consultants		Date Start: 12-7-19	Surface Elevation: 448.7	@completion 24'						
Location: Sec. #19-00125-00-BR		Date Finished: 12-7-19	Driller: Tony Schocker	Backfill: Soil cuttings						
Depth	Sample No.	Sample Depth	N-Value	Blow Count	Recovery (%)	Qp (tsf)*	Soil Description	w%	USC Class.	Elev.
31										417.7
32										416.7
33										415.7
34	SS-9	33.5'-35.0'	11	3-6-5	100	1.0	7.5'-37.0' CLAY, trace sand, medium stiff to stiff, gray	23.7		414.7
35										413.7
36										412.7
37										411.7
38										410.7
39	SS-10	38.5'-40.0'	59	17-29-30	100	-		12.4		409.7
40										408.7
41										407.7
42										406.7
43										405.7
44	SS-11	43.5'-45.0'	64	19-31-33	100	-	37.0'-50' HIGHLY WEATHERED SHALE, gray	16.5		404.7
45										403.7
46										402.7
47										401.7
48										400.7
49	SS-12	48.5'-50.0'	74	21-34-40	100	-		8.8		399.7
50										
51										
52										
53										
54										
55										
56										
57										
58										
59										
60										
Drilling Method: HSA (2-1/4" id)		comments		*Qp test is an estimate of the unconfined compressive strength performed by a compact calibrated spring loaded cylinder						
Depth: 0' to 50'										
Drill Rig: Mobile B-47				** Elevation estimated from provided bridge deck elevation and is not surveyed						
Sampling: split- spoon (SS)										

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105 NORTH KITCHELL AVENUE OLNEY, ILLINOIS 62450
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ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513

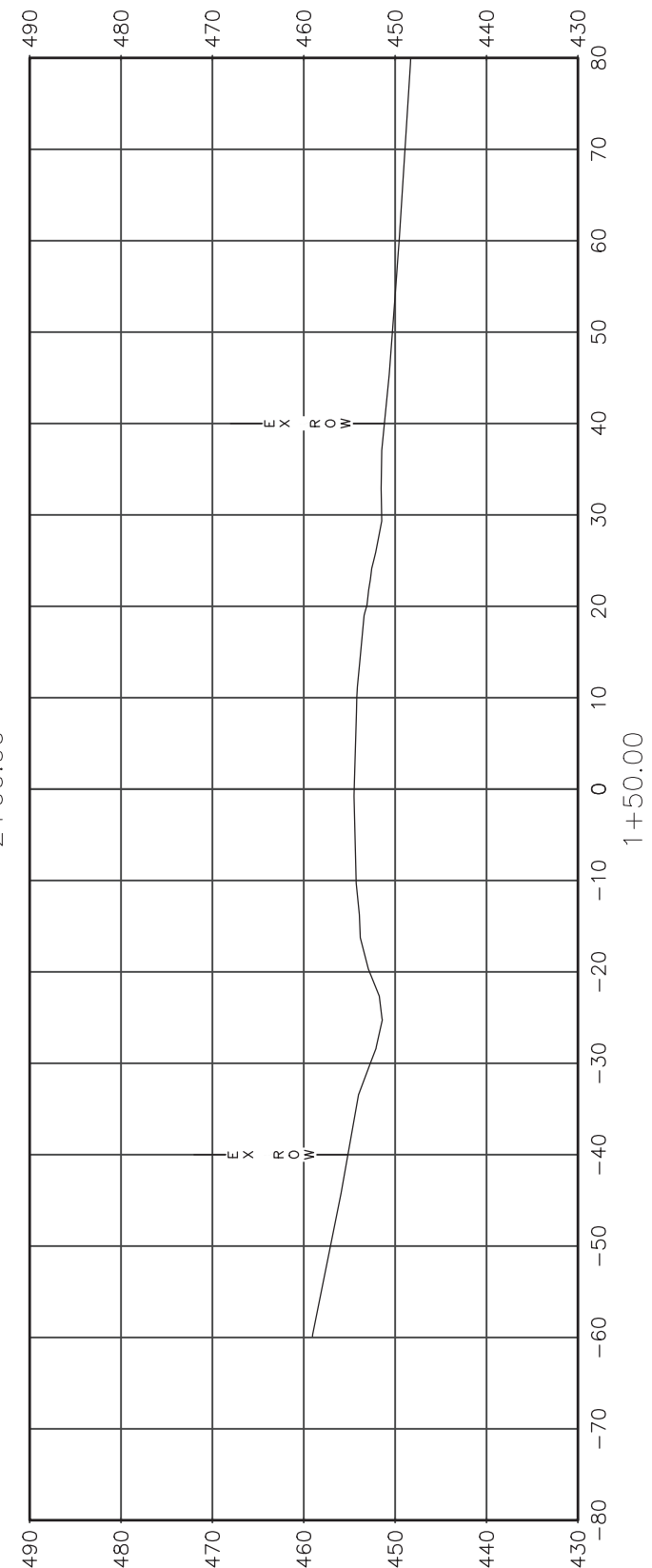
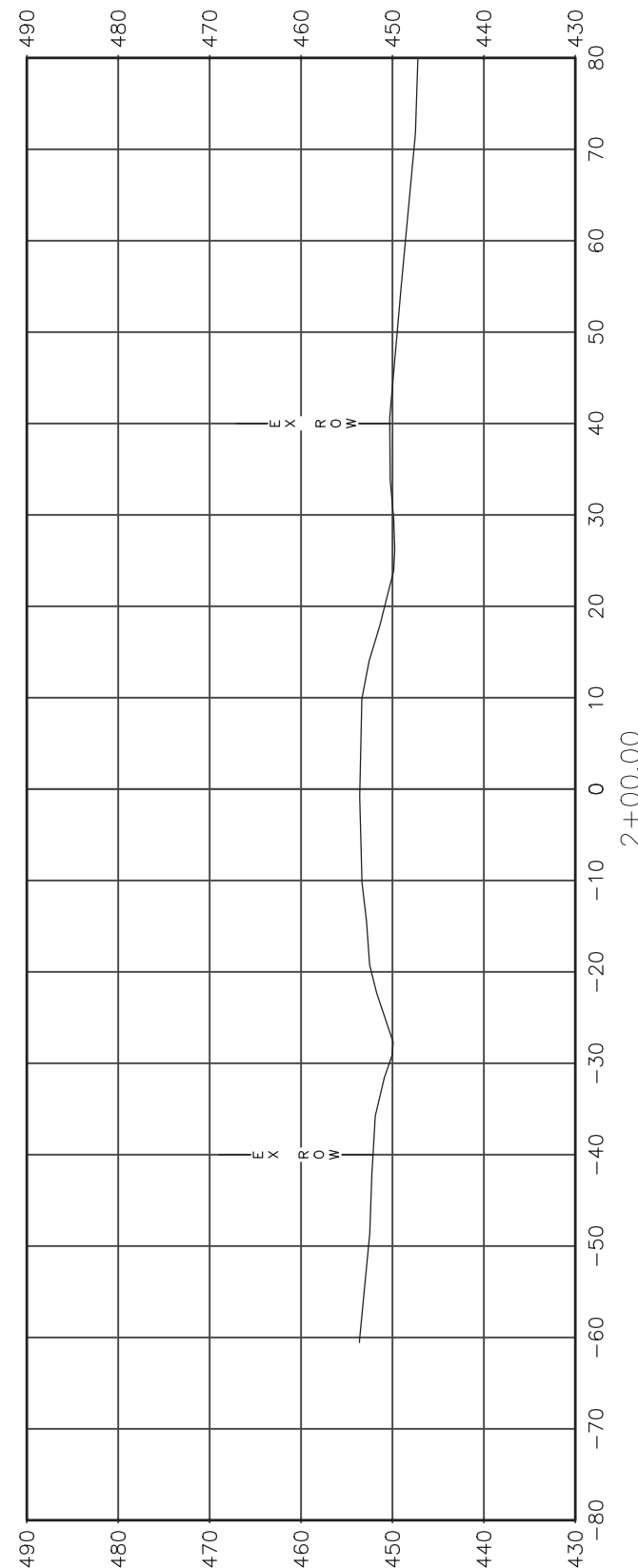
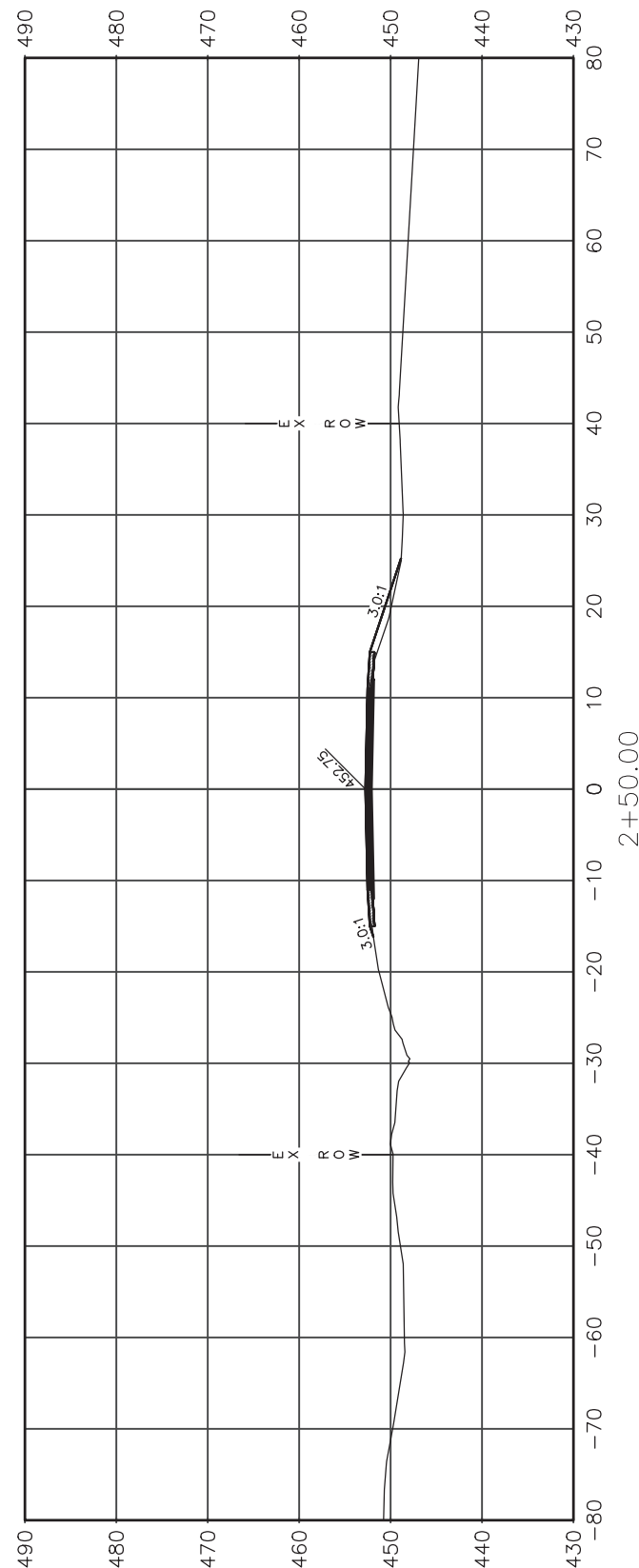
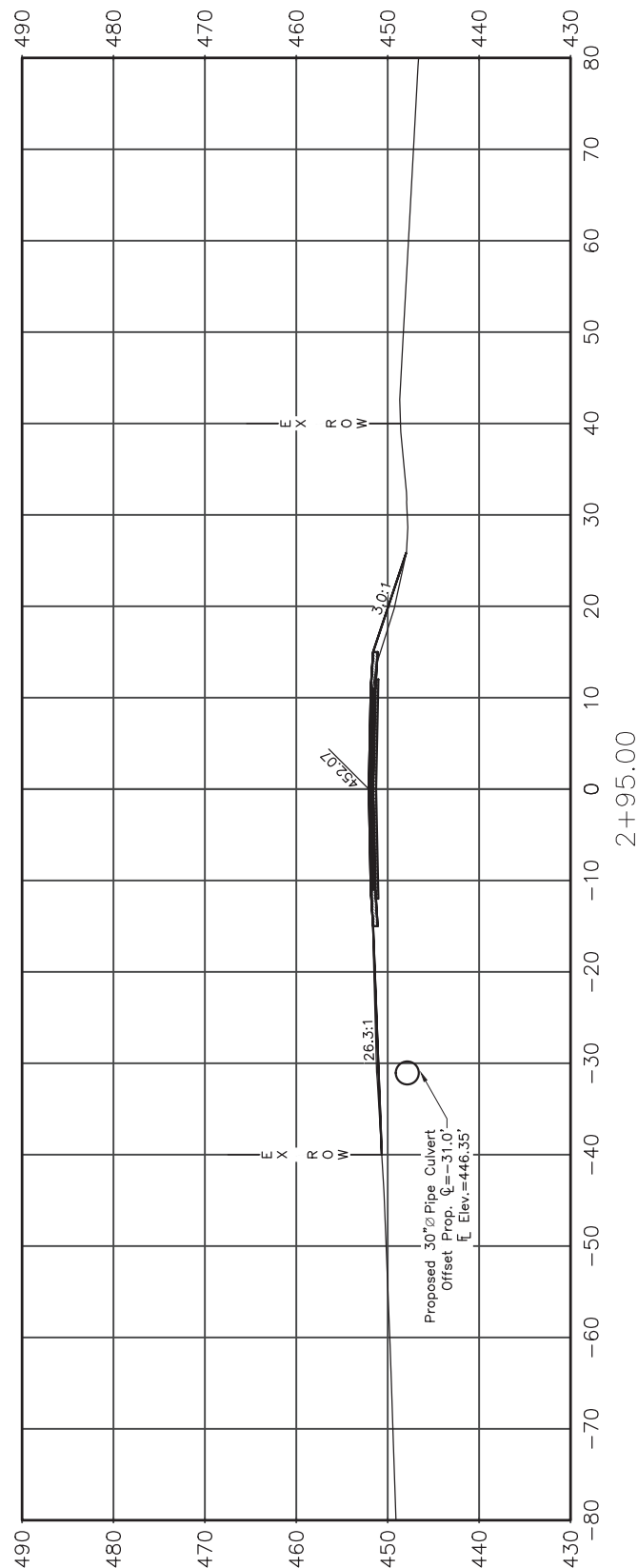
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DRAWN -- BMB
CHECKED -- NRF
DATE -- 8-2021

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS
STRUCTURE NUMBER 051-3312

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 694	19-00125-00-BR	LAWRENCE	21	14
CONTRACT 95932		ILLINOIS	PROJECT 8PVT(973)	



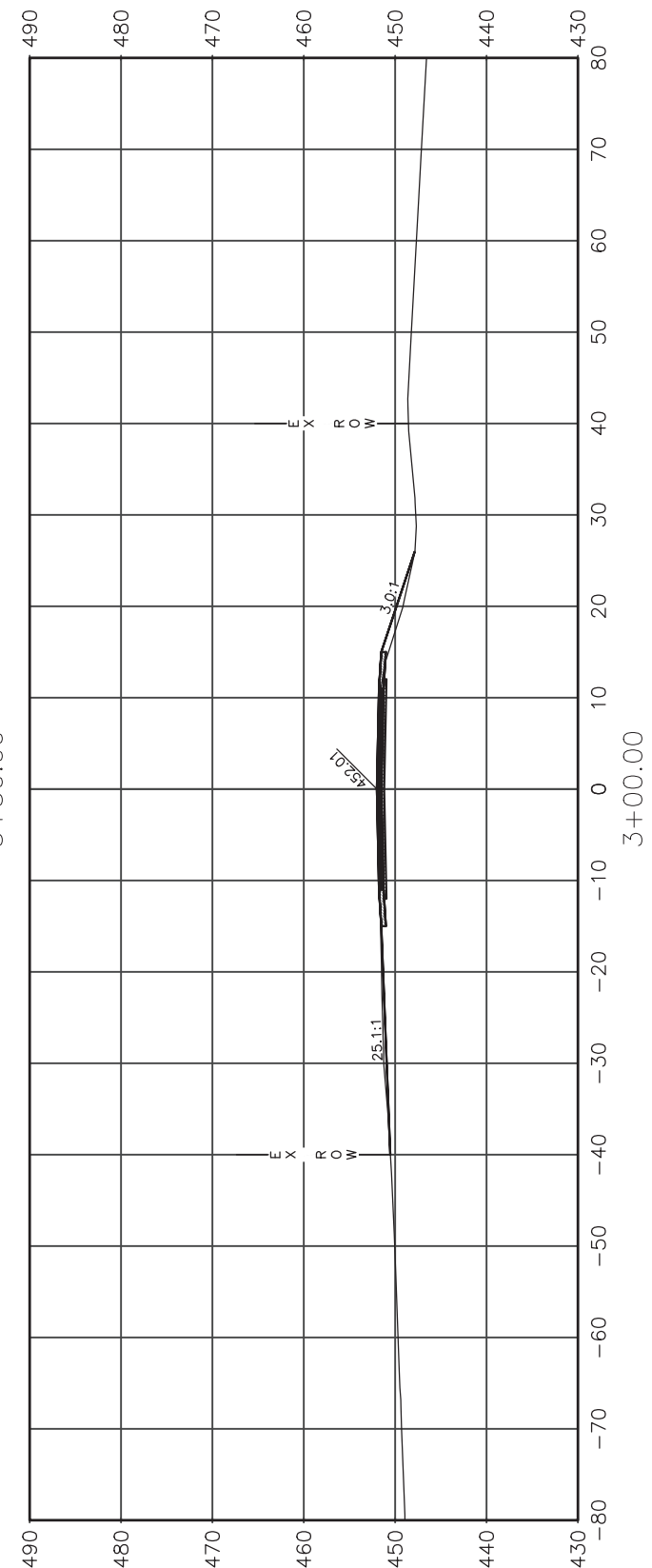
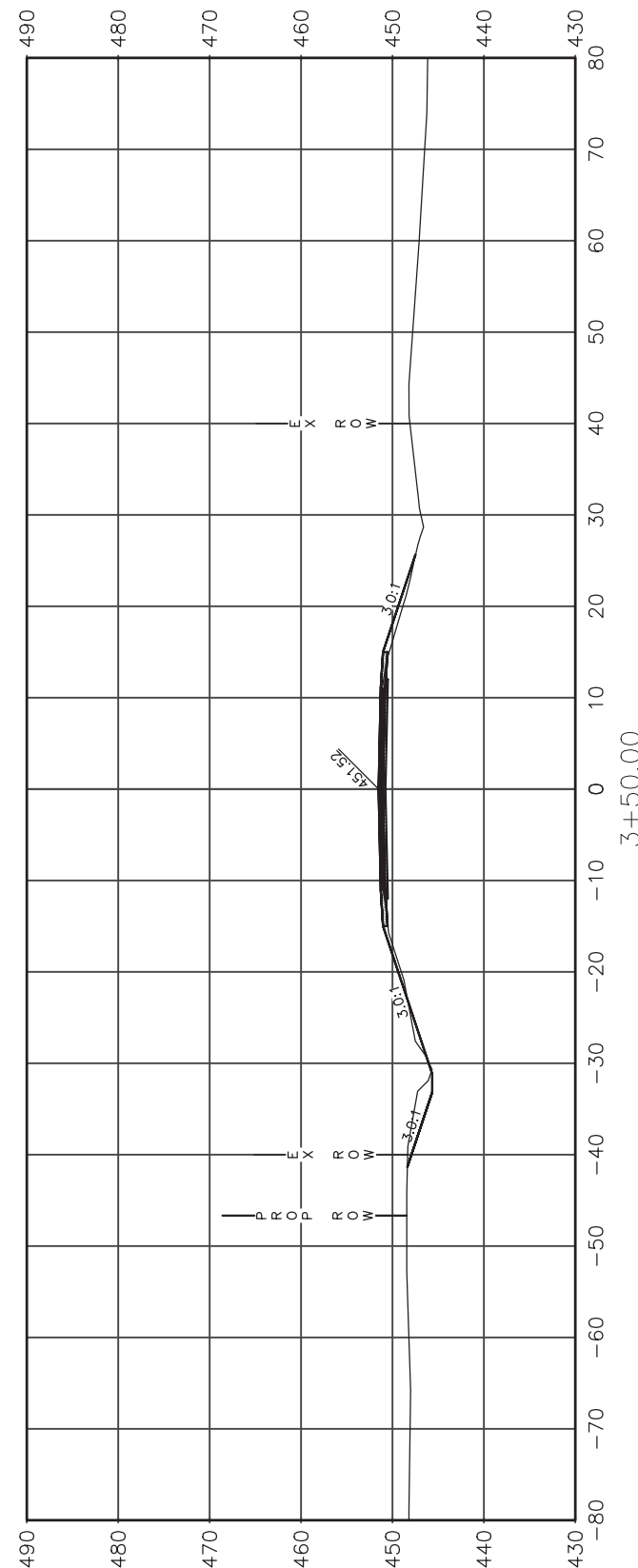
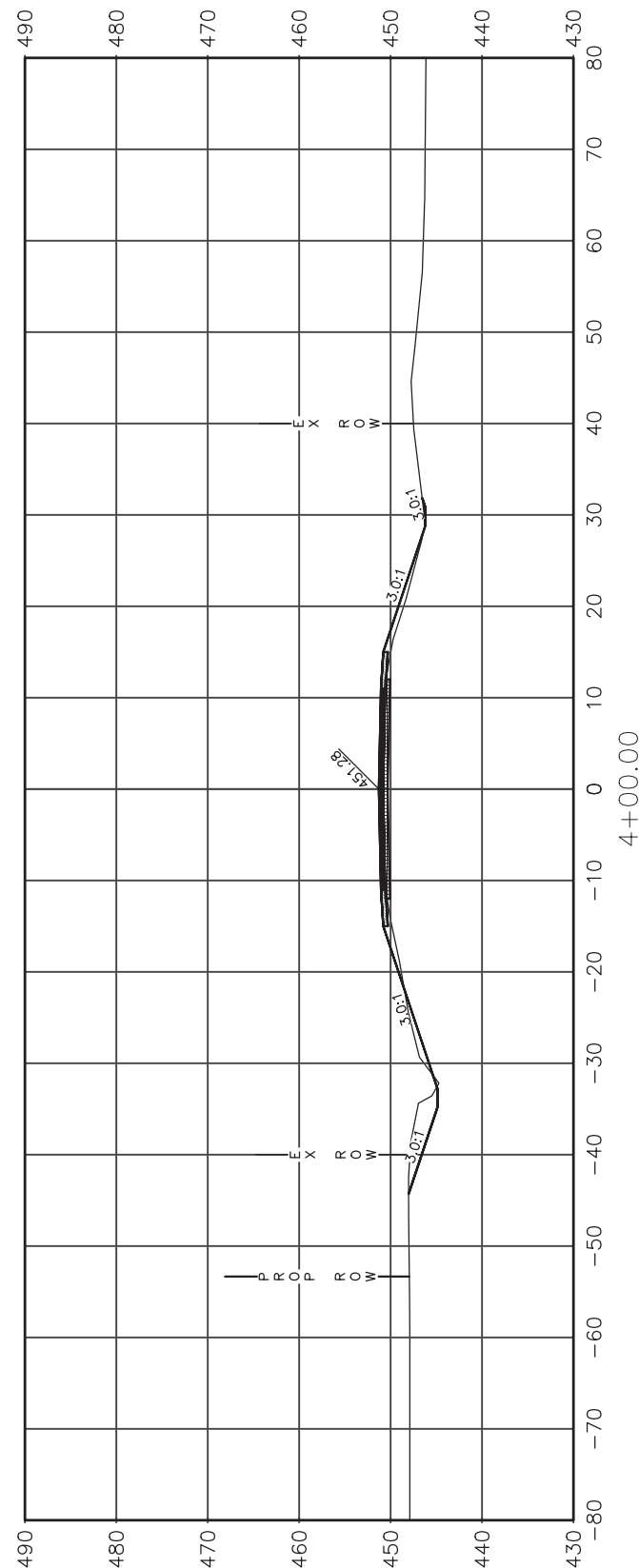
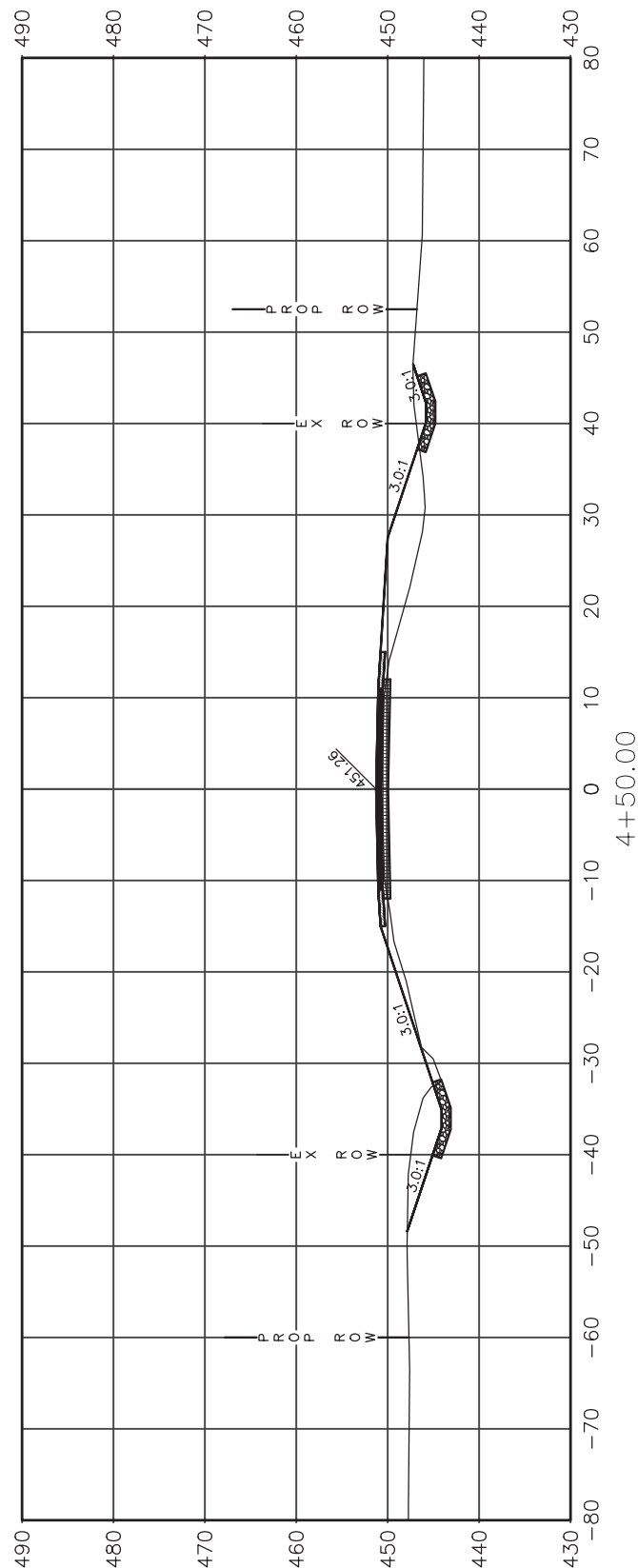
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CROSS SECTIONS OF ROADWAY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 694	19-00125-00-BR	LAWRENCE	21	15
CONTRACT 95932		ILLINOIS	PROJECT 8PVT(973)	



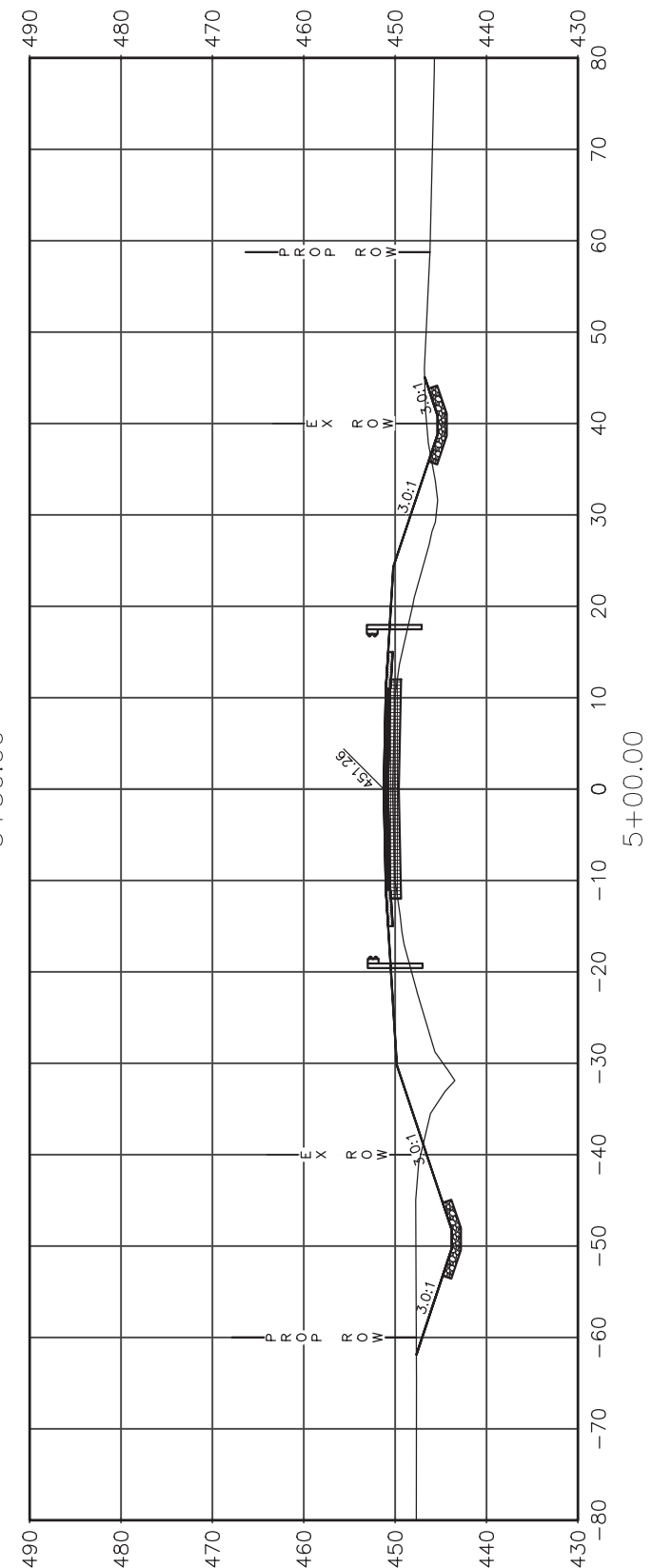
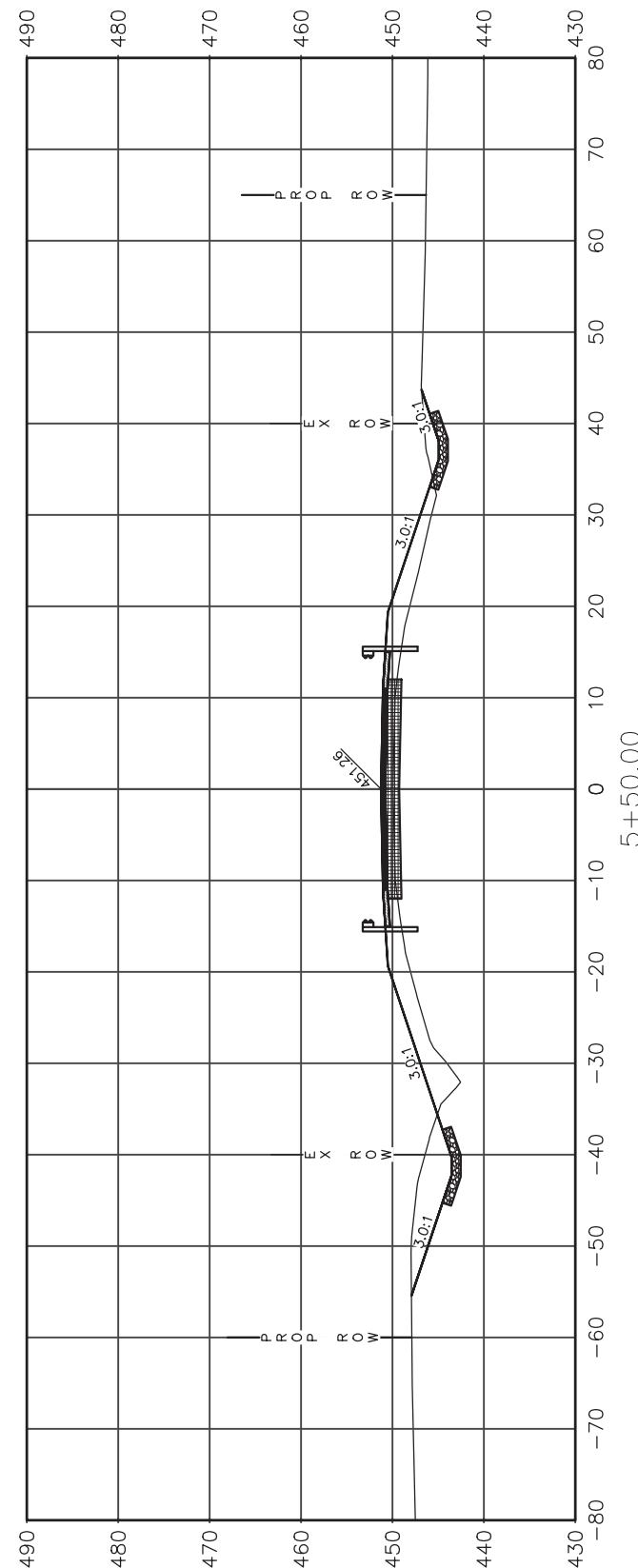
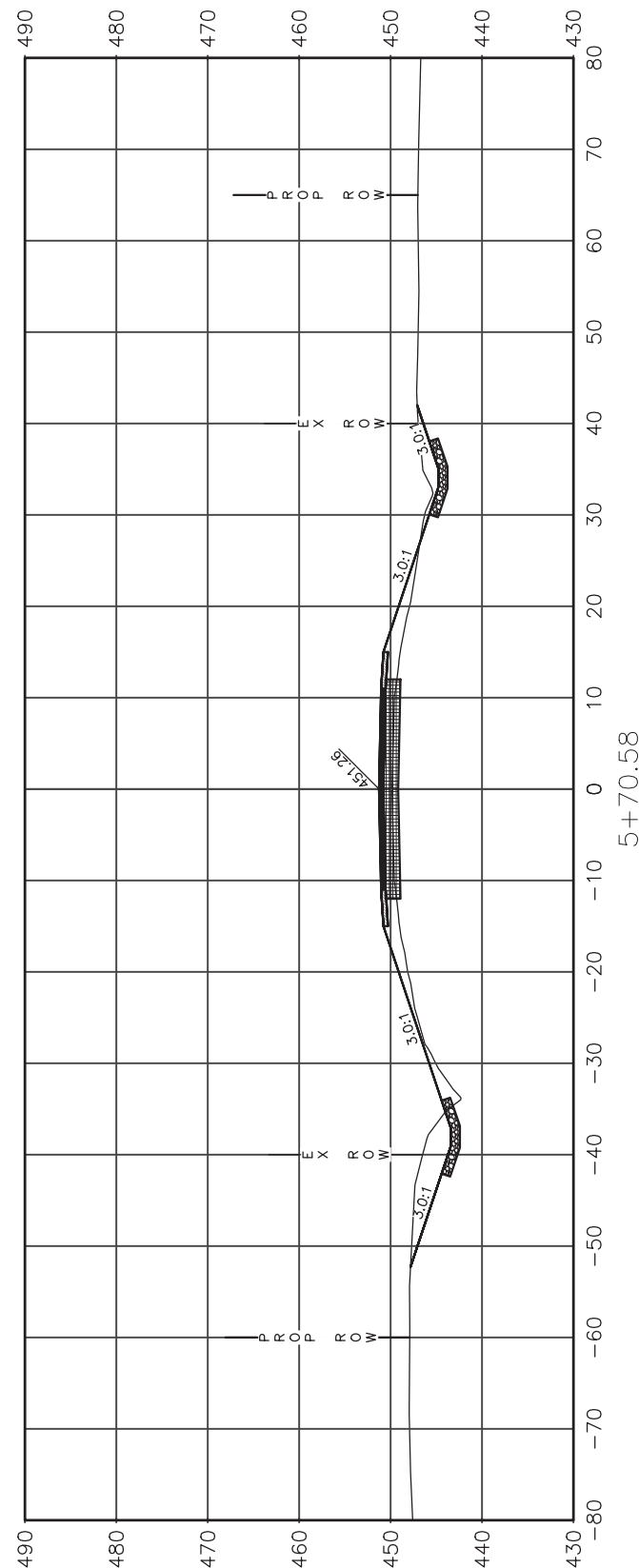
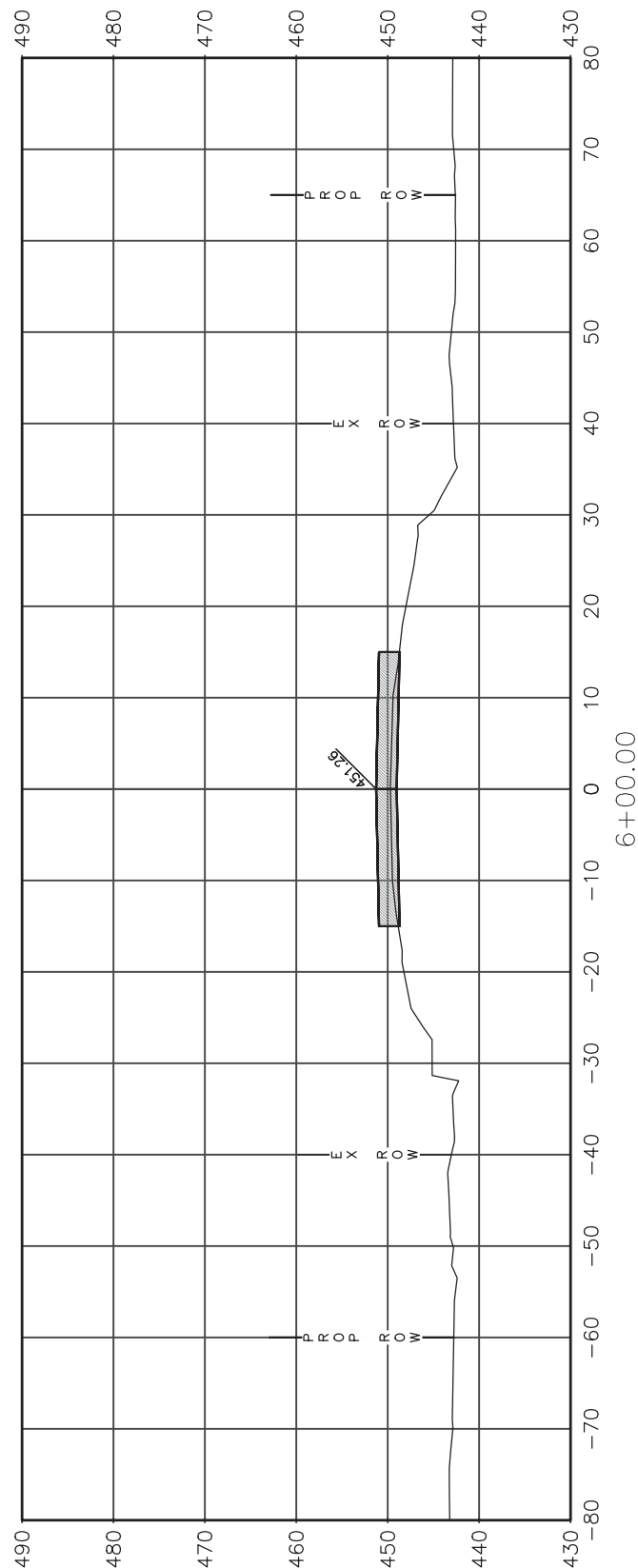
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CROSS SECTIONS OF ROADWAY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 694	19-00125-00-BR	LAWRENCE	21	16
CONTRACT 95932		ILLINOIS	PROJECT 8PVT(973)	



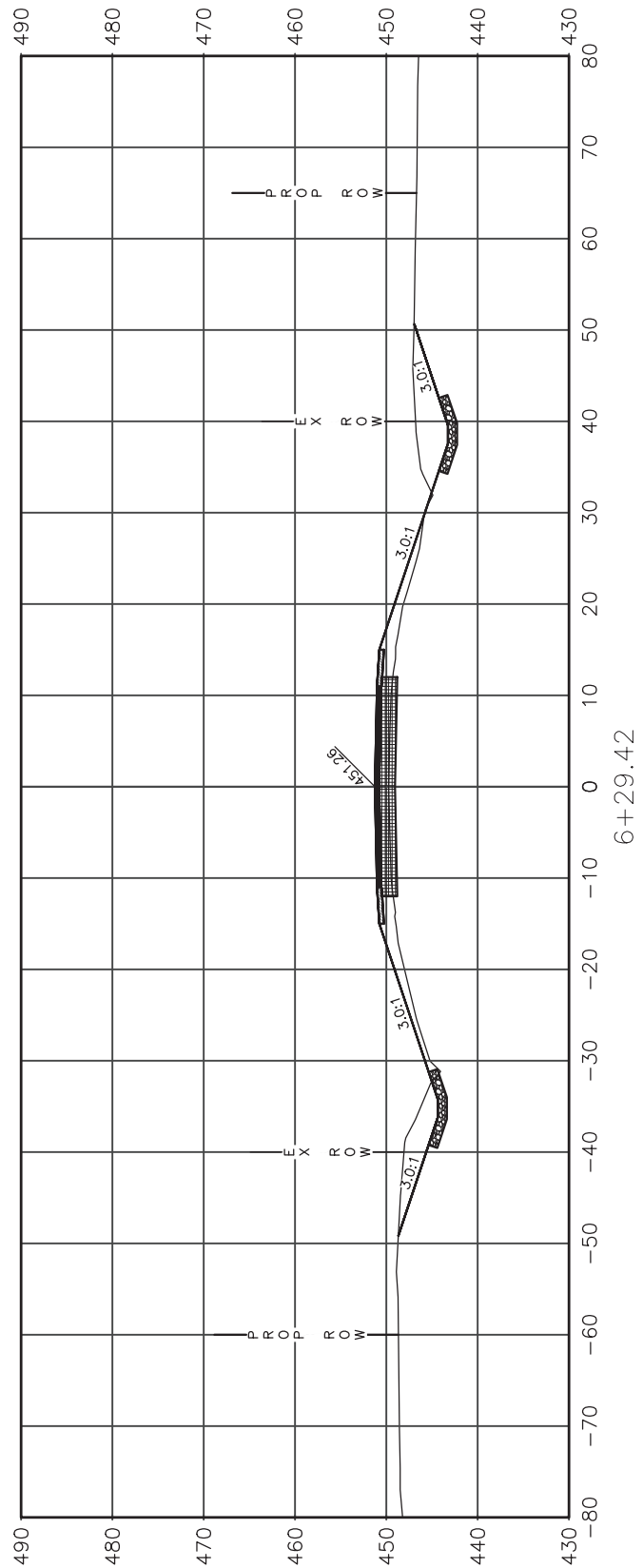
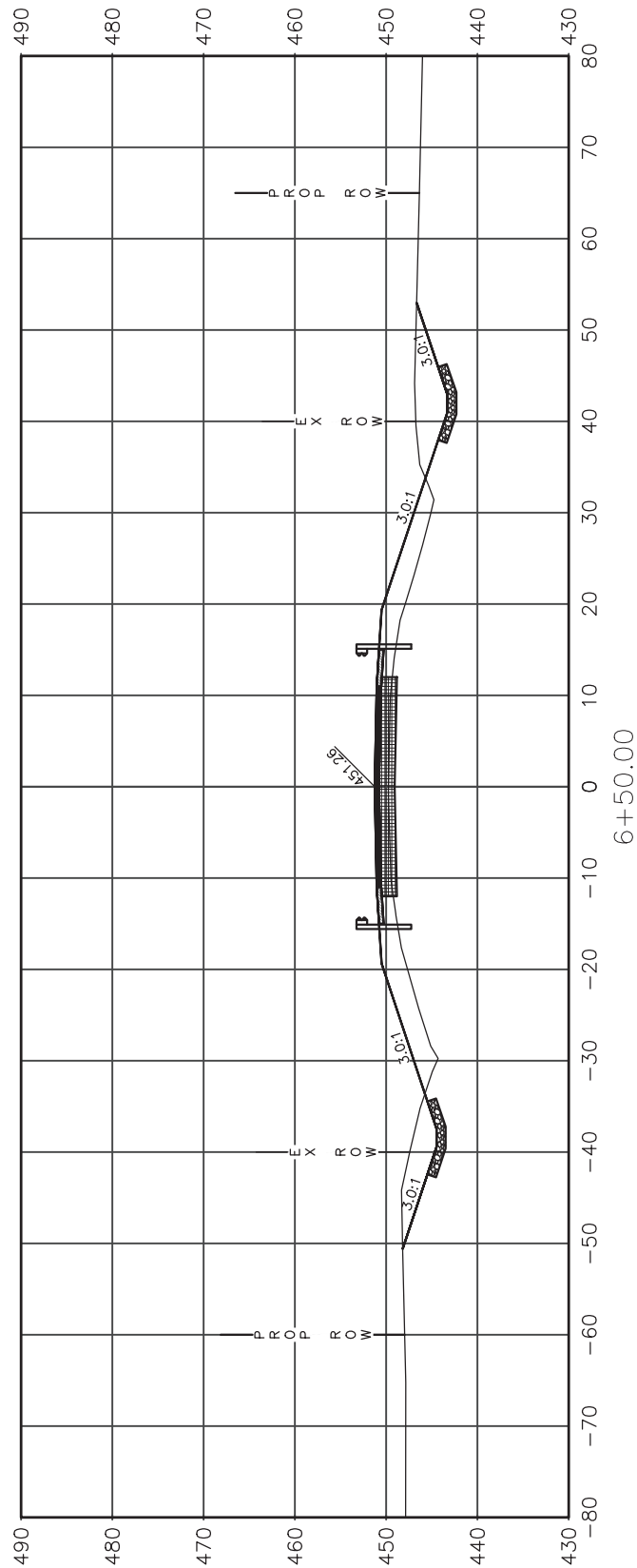
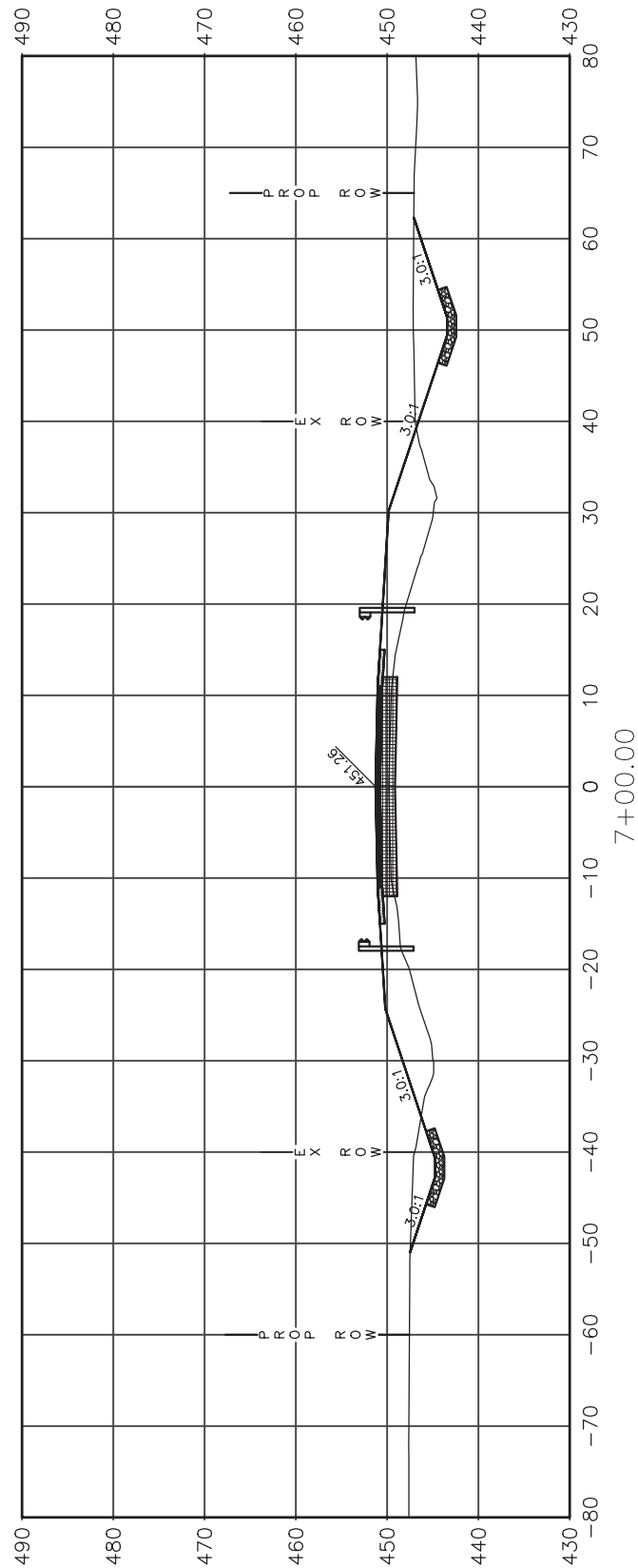
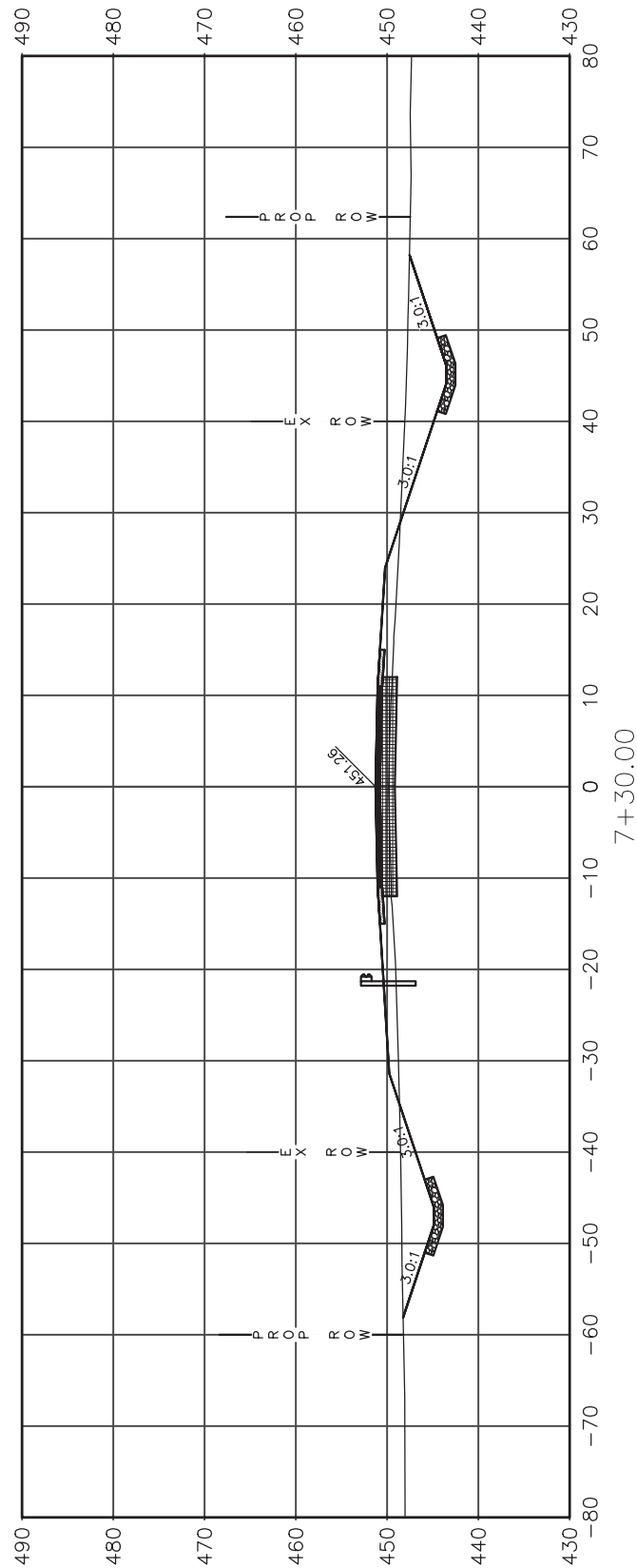
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STATE OF ILLINOIS
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CROSS SECTIONS OF ROADWAY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 694	19-00125-00-BR	LAWRENCE	21	17
CONTRACT 95932		ILLINOIS	PROJECT 8PVT(973)	



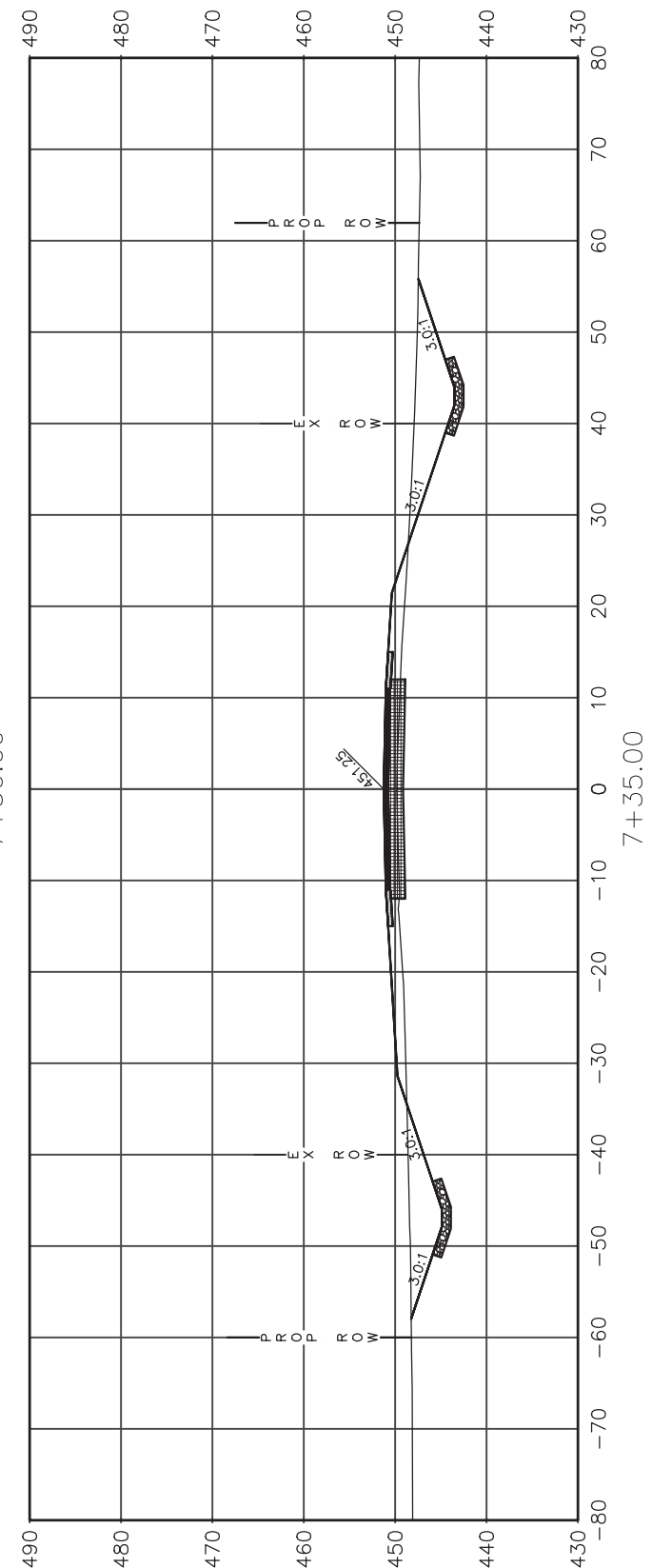
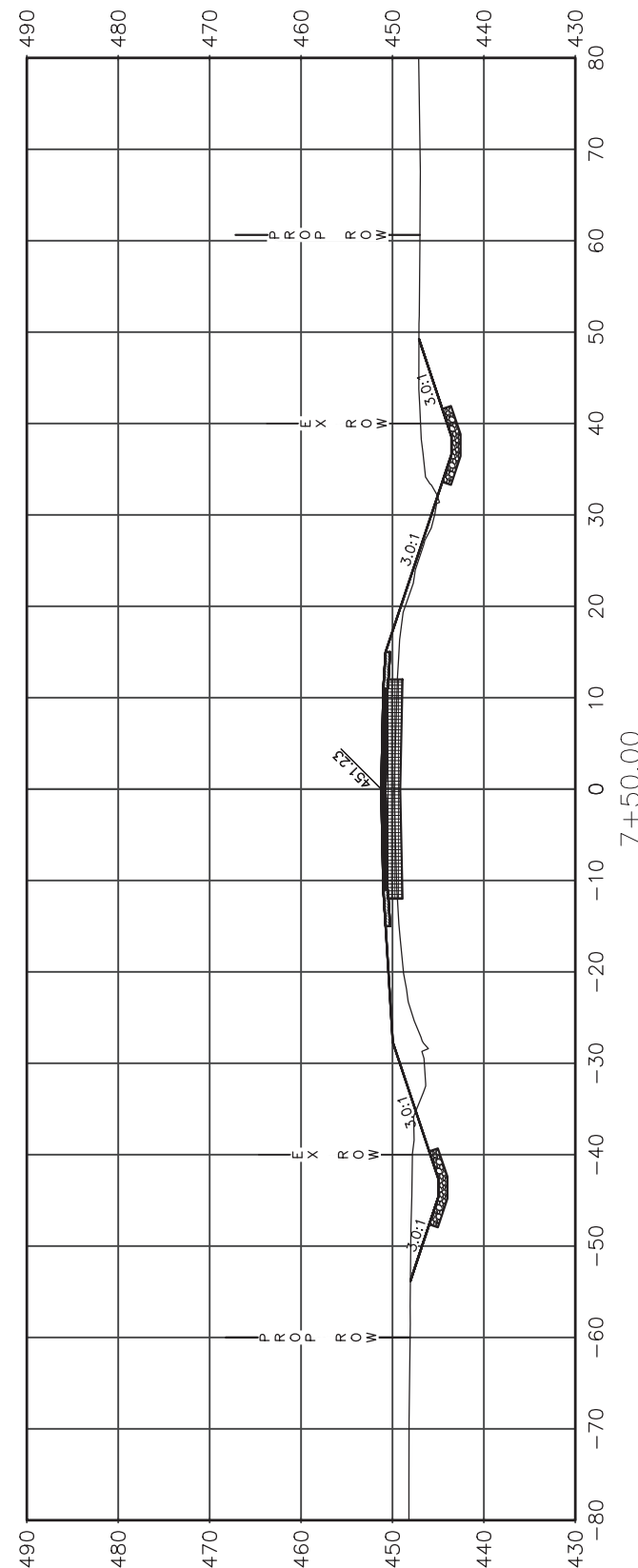
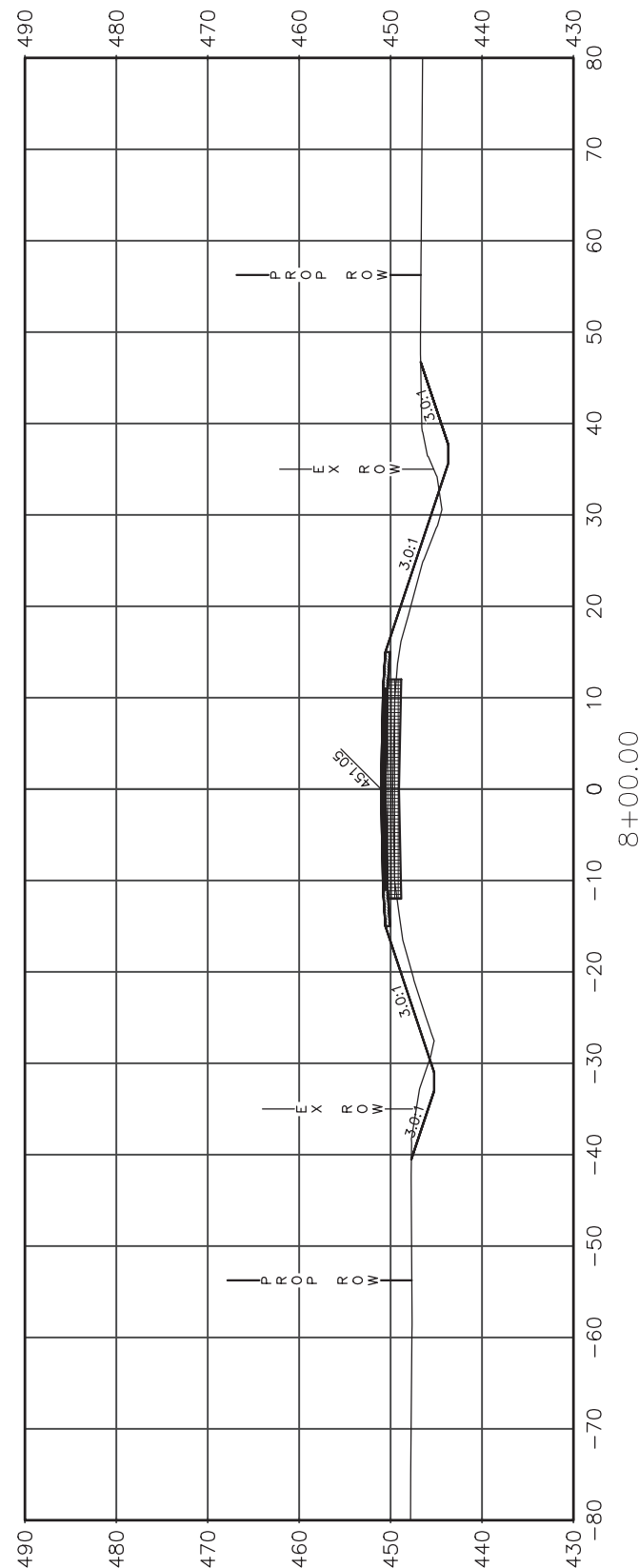
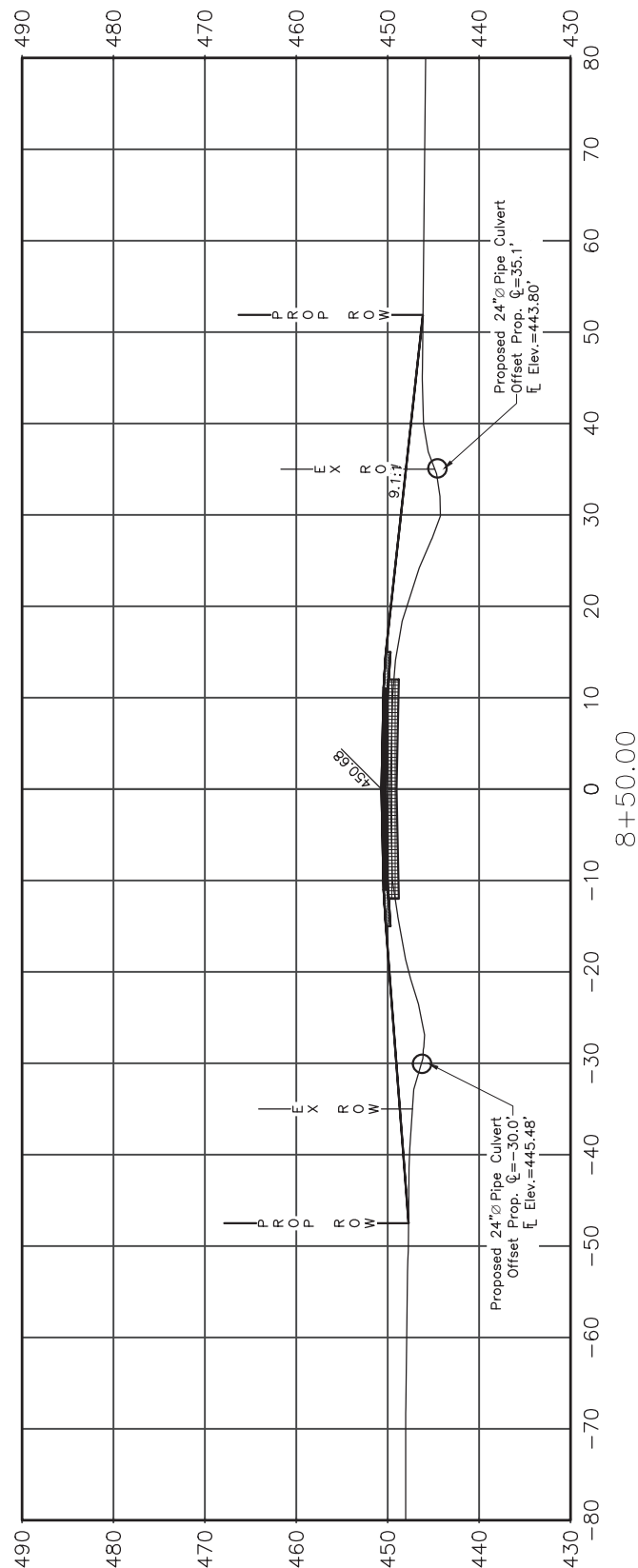
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CROSS SECTIONS OF ROADWAY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 694	19-00125-00-BR	LAWRENCE	21	18
CONTRACT 95932		ILLINOIS	PROJECT 8PVT(973)	



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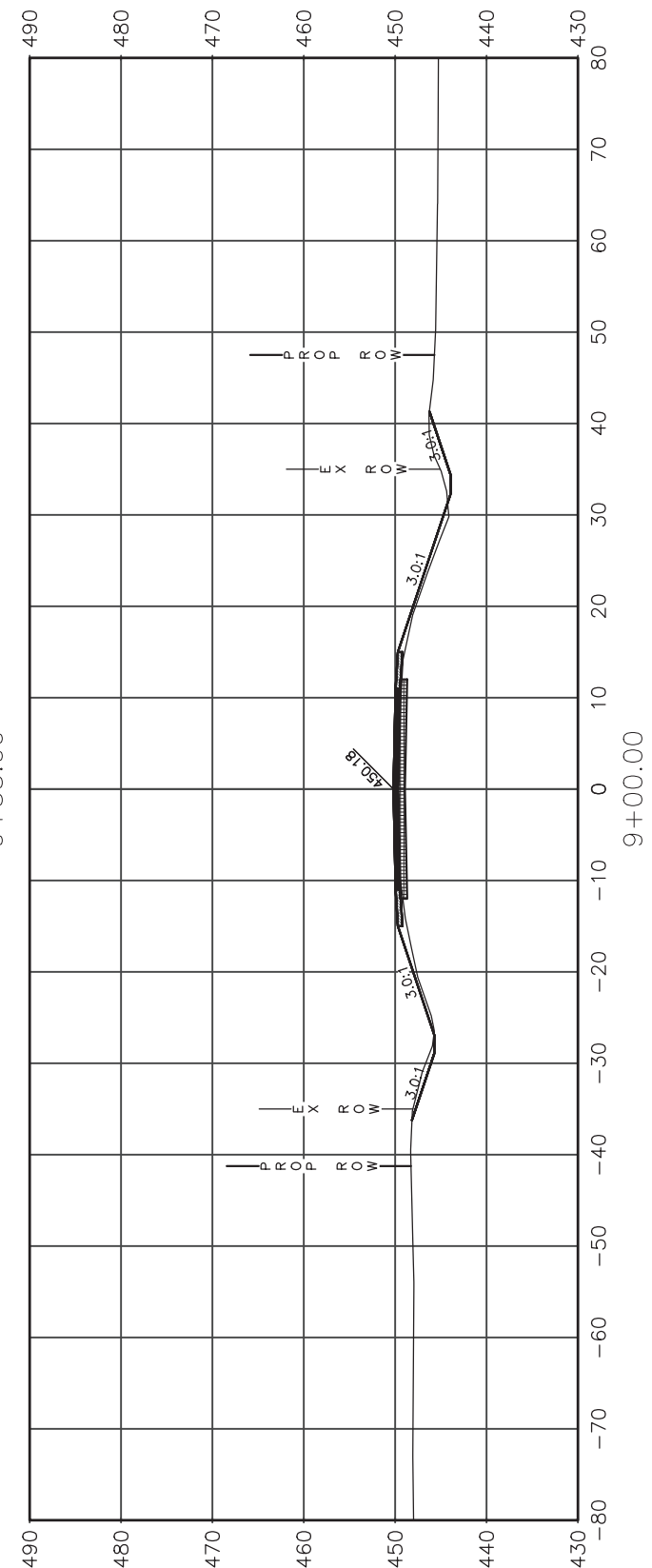
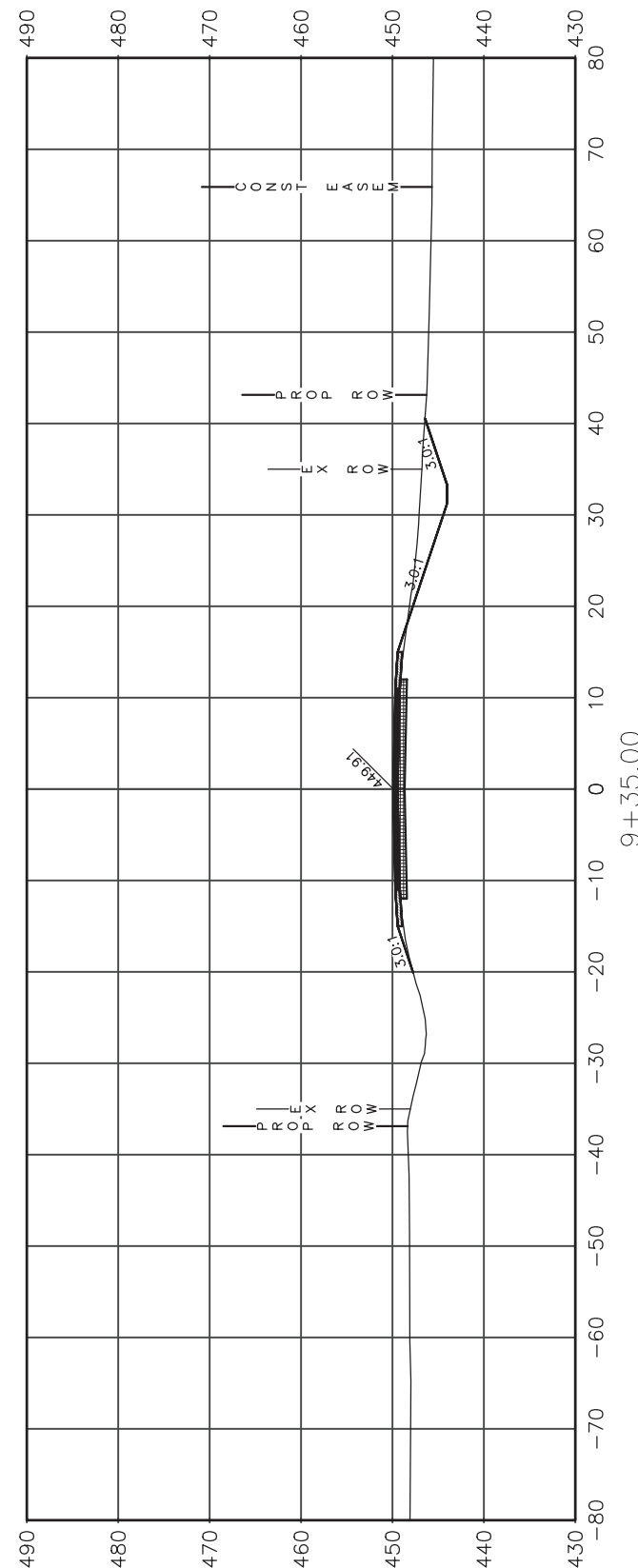
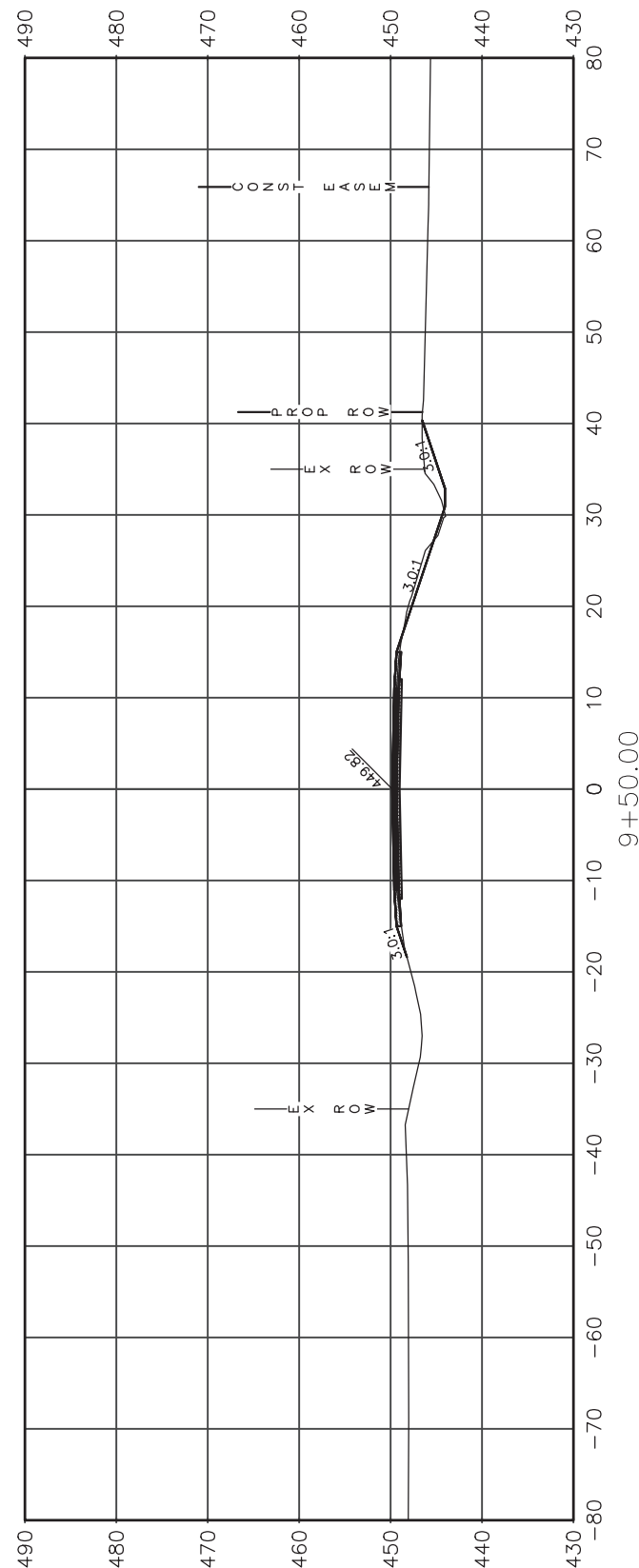
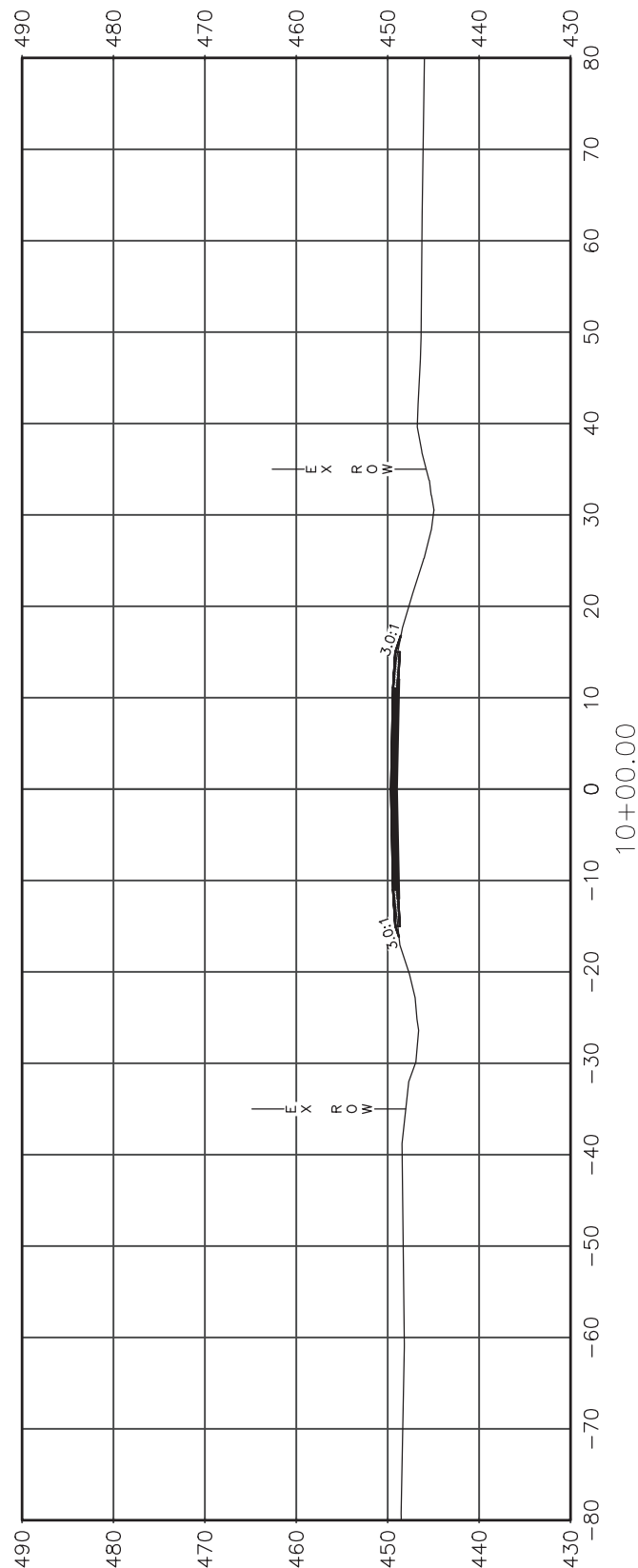
DESIGNED - BMB
 DRAWN - BMB
 CHECKED - BMB
 DATE - 9-2020

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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS OF ROADWAY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 694	19-00125-00-BR	LAWRENCE	21	19
CONTRACT 95932		ILLINOIS	PROJECT 8PVT(973)	



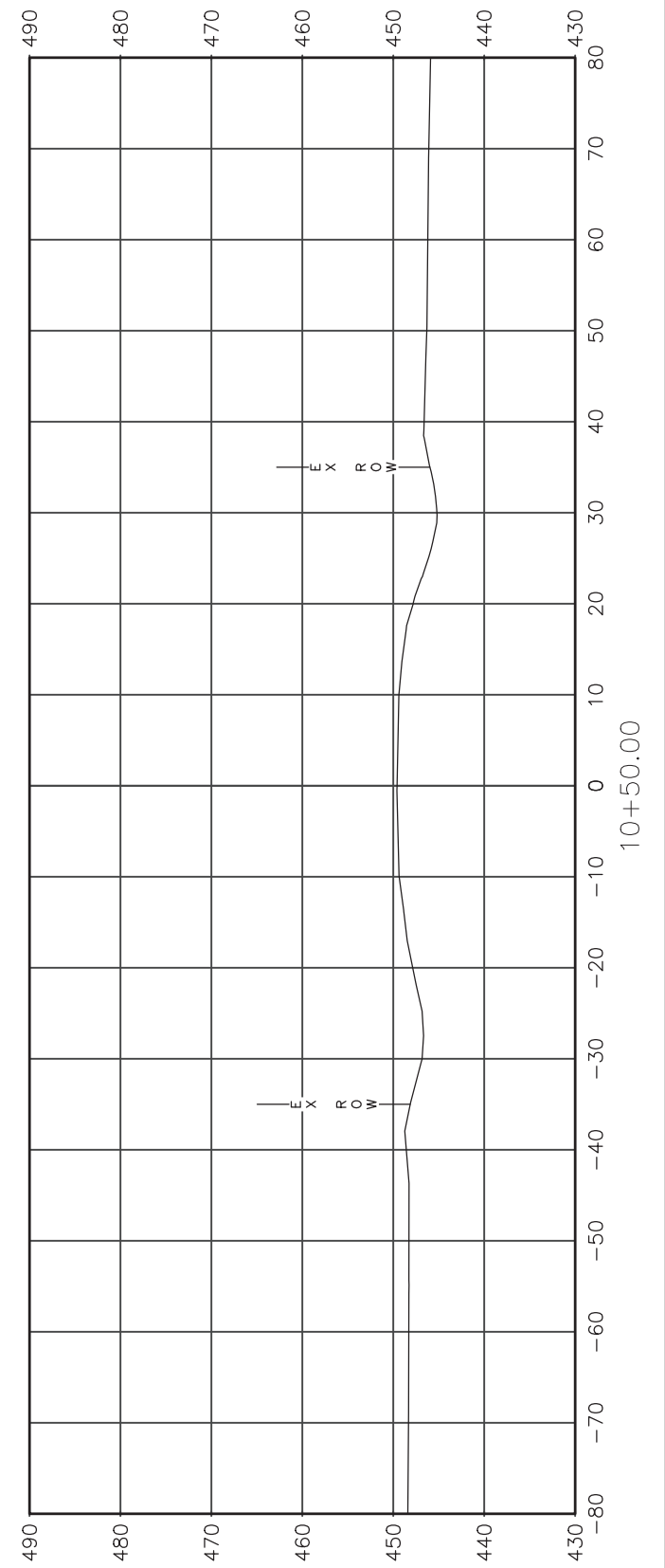
CHARLESTON ENGINEERING, INC.
 CONSULTING ENGINEERS - LAND SURVEYORS
 105 NORTH KITCHELL AVENUE OLNEY, ILLINOIS 62450
 P.O. BOX 397 (618) 392-0736
 ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513

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