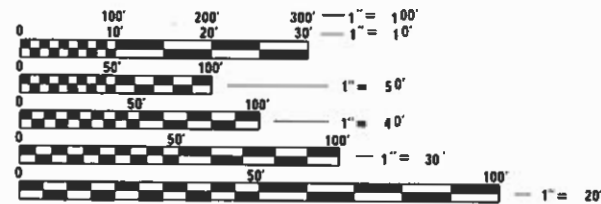


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- 3-4. SUMMARY OF QUANTITIES
5. TYPICAL ROADWAY SECTIONS
- 6-7. SCHEDULES
8. ALIGNMENT, TIES AND BENCHMARKS
9. PLAN REMOVALS
- 10-11. PLAN AND PROFILE EXISTING & PROPOSED ROADWAY
12. PAVEMENT MARKING
13. DETOUR MAP
14. EROSION CONTROL
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18. FOOTING PLAN
- 19-22. TOP OF SLAB ELEVATIONS
23. TOP OF WEST APPROACH SLAB ELEVATIONS
24. TOP OF EAST APPROACH SLAB ELEVATIONS
25. SUPERSTRUCTURE
26. SUPERSTRUCTURE DETAILS
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- 29-31. PRECAST BRIGE APPROACH SLAB
32. PREFORMED JOINT STRIP SEAL
33. DRAINAGE SCUPPER, DS-11
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36. 54" PPC I-BEAM - SPAN 2
37. 54" PPC I-BEAM DETAILS
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39. CONCRETE REMOVAL AND SLOPEWALL REPAIR
40. WEST ABUTMENT
41. EAST ABUTMENT
42. PIER 1
43. PIER 2
44. HP PILE DETAILS
45. BAR SPLICER ASSEMBLY AND MECHANICAL SPICER DETAILS
- 46-49. SOIL BORING LOGS
- 50-54. CROSS SECTIONS
- 55-56. WATER MAIN REPLACEMENT

DESIGN CLASSIFICATION

MAJOR COLLECTOR (NON-URBAN)	ADT = 400-750
EXISTING ADT	= 550 (2018)
DESIGN ADT	= 725 (2041)
DESIGN SPEED	= 50 MPH



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 EXCAVATION
1-800-892-0123
OR 811

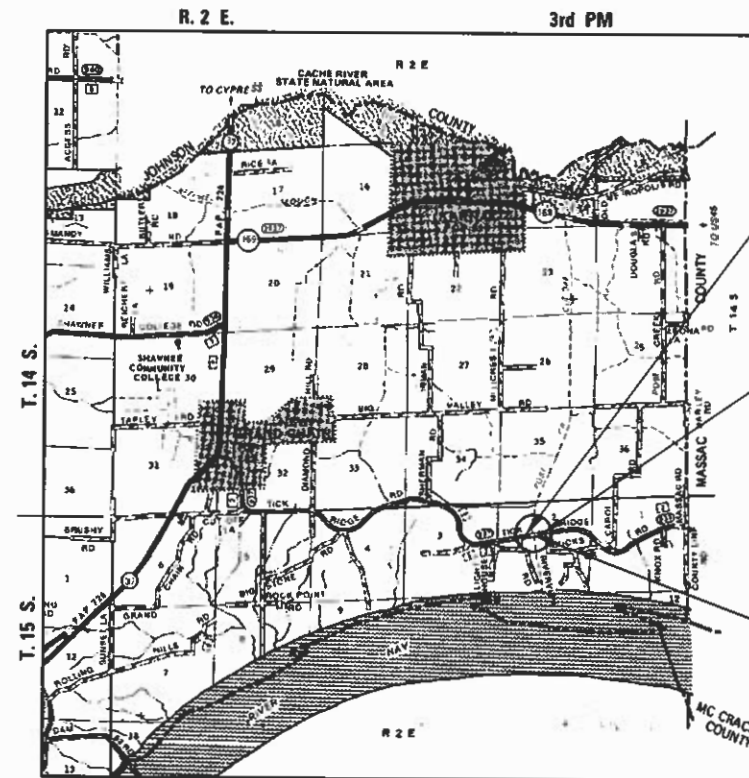
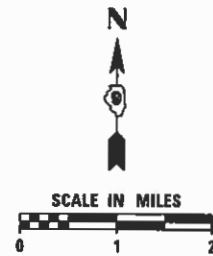
HMG ENGINEERS
HMG ENGINEERS, INC.
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR
IL PROF. DESIGN FIRM NO. 184.000899
EXPIRES 04/30/2023

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OF THE STATE OF ILLINOIS**

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
ILLINOIS SPECIAL
BRIDGE PROGRAM**

**DETAIL PLANS FOR
FAS 937 (CH 2 / TICK RIDGE ROAD)
OVER POST CREEK CUTOFF
SECTION 12-00071-00-BR
PROJECT 1 FDA (058)
PULASKI COUNTY**

JOB NO. C-99-528-13



SECTION 12-00071-00-BR
BEGINS STA 28+90

SECTION 12-00071-00-BR
ENDS STA 37+90

PROJECT LOCATION

EXISTING STRUCTURE NO. 077.3000
PROPOSED STRUCTURE NO. 077.3145
STATION 33+06.00
THREE SPAN, PRECAST PRESTRESSED
CONCRETE I-BEAMS (54" DEPTH) ON
SPILL THRU PILE BENT INTEGRAL
ABUTMENTS & PIERS SUPPORTED ON
DRILLED CONCRETE SHAFTS. THE
PROPOSED STRUCTURE MEASURES
274'-0" BACK TO BACK OF ABUTMENTS
WITH A 28'-0" CLEAR ROADWAY WIDTH.

FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	1
		ILLINOIS	CONTRACT NO. 99678	

CONTRACT NO. 99678



LOCATION OF SECTION INDICATED THUS: —

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	
APPROVED	10/28/2021 <i>Brad W...</i> PULASKI COUNTY ENGINEER
PASSED	12-28-2021 <i>[Signature]</i> DISTRICT 9 ENGINEER OF LOCAL ROADS AND STREETS
RELEASING FOR BID BASED UPON LIMITED REVIEW	12-28-2021 <i>[Signature]</i> DEPUTY DIRECTOR OF HIGHWAYS REGION 5 ENGINEER

LOCATION MAP

GROSS LENGTH = 900 FT. = 0.170 MILE
NET LENGTH = 900 FT. = 0.170 MILE

Larry D. Gowler Jr. DATE: 1/3/22
LARRY D. GOWLER JR., P.E.
REGISTERED PROFESSIONAL
ENGINEER IN ILLINOIS, NO. 062-52900



GENERAL NOTES

- ALL ELEVATIONS IN THE PLANS ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY HAVE BEEN CAUSED BY THE CONTRACTOR'S FAILURE TO LOCATE AND PRESERVE ANY AND ALL EXISTING UNDERGROUND UTILITIES. THE APPROXIMATE LOCATIONS OF THE KNOWN UTILITIES SHOWN ON THE PLANS REPRESENTS THE BEST INFORMATION AVAILABLE AT THE TIME OF DESIGN.
- THE CONTRACTOR SHALL GIVE AT LEAST TWO WEEKS NOTICE BEFORE BEGINNING CONSTRUCTION SO THE ENGINEER MAY GIVE ADEQUATE NOTICE TO ALL EMERGENCY, SCHOOL AND POSTAL SERVICES.
- THE PRIME CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL AND PROTECTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING POSITIVE DRAINAGE IN THE DISTURBED AREAS, TO THE SATISFACTION OF THE ENGINEER. ANY GRADING SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- IF ASH TREES ARE REMOVED ON THE PROJECT, THE CONTRACTOR SHALL BECOME FAMILIAR WITH AND COMPLY WITH MEASURES SPECIFIED BY THE ILLINOIS DEPARTMENT OF AGRICULTURE (IDOA) TO PREVENT THE SPREAD OF THE EMERALD ASH BORER. THE IDOA INFORMATION FOR ASH TREE REMOVAL CAN BE FOUND ON THE IDOA WEBSITE AT WWW.AGR.STATE.IL.US/EAB.
- GRADING SHALL BE DONE BY HAND AROUND LIGHT POLES, UTILITY POLES, SIGN POSTS, SHRUBS, TREES OR OTHER NATURAL OR MAN-MADE OBJECTS WHERE FILLS OR CUTS ARE ADJACENT TO THESE ITEMS. IT IS THE INTENT THAT THE LIMITS OF CONSTRUCTION BE SUCH AS TO PRESERVE, IN THE ORIGINAL STATE, AS MUCH AREA AS POSSIBLE. THE DECISION AS TO ITEMS TO REMAIN IN PLACE SHALL BE DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- THE FOLLOWING APPLICATION RATES HAVE BEEN USED IN THE CALCULATION OF THE PLAN QUANTITIES:

AGGREGATE BASE/SUBBASE GRANULAR MATERIAL	2.05 TONS/CY
RIPRAP	1.6 TONS/CY
TEMPORARY DITCH CHECKS	11 FT/DITCH CHECK
TEMPORARY EROSION CONTROL SEEDING	2 APPLICATIONS OVER SEEDING AREA
HOT-MIX ASPHALT	2.016 TONS/CY = 112 LBS/SY/IN

COMMITMENTS

THE COUNTY HAS MADE THE FOLLOWING COMMITMENTS FOR THE PROJECT. COMMITMENTS ARE NOT TO BE ALTERED WITHOUT THE WRITTEN APPROVAL OF ALL PARTIES TO WHICH THE COMMITMENT WAS MADE. THE FOLLOWING IS A GENERAL SUMMARY AND DOES NOT CONTAIN FULL DETAILS. THE CONTRACTOR SHALL ADHERE TO THESE CONDITIONS.

- A TREE CLEARING RESTRICTION FOR ANY TREE THREE (3) INCHES OR GREATER IN DIAMETER MEASURED AT BREAST HEIGHT IS PRESENT BETWEEN APRIL 1 AND SEPTEMBER 30 DUE TO POTENTIAL ENDANGERED BAT HABITATS.
- FORT MASSAC WATER DISTRICT HAS AN AGREEMENT WITH PULASKI COUNTY TO REIMBURSE THE COUNTY FOR COSTS ASSOCIATED WITH THE WATERLINE REPLACEMENT IN ASSOCIATION WITH THE COUNTY'S BRIDGE REPLACEMENT PROJECT.
- WETLAND AND INAI SITES ARE SHOWN ON THE PLANS AND SHALL BE CLEARLY MARKED TO AVOID DISTURBANCE. THE CONTRACTOR SHALL NOTE THESE AREAS AND ADVISE ALL WORKERS AND SUBCONTRACTORS ON THIS PROJECT TO AVOID THESE AREAS.
- ANY DISTURBED WETLAND AREAS ARE TO BE RE-SEEDED UTILIZING AN IDOT CLASS 4 AND CLASS 5B WETLAND SEED MIX.
- EROSION CONTROL BLANKET SHALL BE WILDLIFE-FRIENDLY AND PLASTIC FREE TO PREVENT THE ENTANGLEMENT OF NATIVE WILDLIFE. IF THIS REQUIREMENT CANNOT BE ADHERED TO, THEN THE EROSION CONTROL BLANKET SHALL BE REMOVED ONCE VEGETATION IS ESTABLISHED

HIGHWAY STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420001-10	PAVEMENT JOINTS
420401-13	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB
515001-04	NAME PLATE FOR BRIDGES
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
601101-02	CONCRETE HEADWALL FOR PIPE UNDERDRAIN
606401-02	PAVED DITCH
630001-12	STEEL PLATE BEAM GUARDRAIL
630201-07	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-17	TRAFFIC BARRIER TERMINAL, TYPE 6
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 M) AWAY
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701901-08	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
725001-01	OBJECT AND TERMINAL MARKERS
728001-01	TELESCOPING STEEL SIGN SUPPORT
780001-05	TYPICAL PAVEMENT MARKINGS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
BLR 22-7	TYP. APPL. OF T.C.D. FOR RURAL LOC. HWYS. (2-LANE 2 WAY RURAL TRAFF.) (RD. CLOSED TO THRU TRAFF.)

KNOWN UTILITY COMPANIES

COMMUNICATIONS

FRONTIER COMMUNICATIONS (SOUTH)
MARION, IL. 62959
(815) 895-1515
ATTN: KALIN HINSHAW

ELECTRIC

SOUTHERN ILLINOIS ELECTRIC CO-OP
DONGOLA, IL. 62926
(618) 827-3555
ATTN: MICHAEL LOGEMAN

WATER

FORT MASSAC WATER DISTRICT
METROPOLIS, IL. 62960
(618) 543-7475
ATTN: DAVID TRAVIS

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES, HIGHWAY STANDARDS
AND COMMITMENTS**

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	2
CONTRACT NO. 99678				
		ILLINOIS	FED. AID PROJECT	

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HMG ENGINEERS
 HMG ENGINEERS, INC.
 9360 HOLY CROSS LANE
 BREESE, ILLINOIS 62230
 888.HMG.ENGR
 IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = kjones	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2,0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/4/2022	DATE -	REVISED -

SPEC. PROV. SPECIALTY ITEM	CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	FUNDING: 80% State, 20% Local	FUNDING: 0% State, 100% Local
*	20200100	EARTH EXCAVATION	CU YD	1,230	1,230	
*	20400800	FURNISHED EXCAVATION	CU YD	775	775	
*	20800150	TRENCH BACKFILL	CU YD	26	26	
	25000210	SEEDING, CLASS 2A	ACRE	0.75	0.75	
	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	68	68	
	25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	68	68	
	25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	68	68	
	25100115	MULCH, METHOD 2	ACRE	0.50	0.50	
*	25100635	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	555	555	
	28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	150	150	
	28000305	TEMPORARY DITCH CHECKS	FOOT	407	407	
	28000400	PERIMETER EROSION BARRIER	FOOT	286	286	
	28000500	INLET AND PIPE PROTECTION	EACH	1	1	
	28100205	STONE RIPRAP, CLASS A3	TON	41	41	
	28200200	FILTER FABRIC	SQ YD	76	76	
	31100100	SUBBASE GRANULAR MATERIAL, TYPE A	TON	29	29	
	35100100	AGGREGATE BASE COURSE, TYPE A	TON	776	776	
	40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	3,830	3,830	
	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	346	346	
	40603085	HOT-MIX ASPHALT BINDER COURSE, 1L-19.0, N70	TON	388	388	

SPEC. PROV. SPECIALTY ITEM	CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	FUNDING: 80% State, 20% Local	FUNDING: 0% State, 100% Local
	40604052	HOT-MIX ASPHALT SURFACE COURSE, 1L-9.5, MIX "C", N70	TON	130	130	
	42000060	WELDED WIRE REINFORCEMENT	SQ YD	74	74	
	42000080	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	SQ YD	97	97	
	42001300	PROTECTIVE COAT	SQ YD	765	765	
	44000100	PAVEMENT REMOVAL	SQ YD	1,261	1,261	
	44004000	PAVED DITCH REMOVAL	FOOT	496	496	
	44004250	PAVED SHOULDER REMOVAL	SQ YD	275	275	
	48100100	AGGREGATE SHOULDERS, TYPE A	TON	45	45	
	48203100	HOT-MIX ASPHALT SHOULDERS	TON	118	118	
	50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1	
	50104650	SLOPE WALL REMOVAL	SQ YD	303	303	
	50105220	PIPE CULVERT REMOVAL	FOOT	50	50	
	50200100	STRUCTURE EXCAVATION	CU YD	162	162	
	50300100	FLOOR DRAINS	EACH	10	10	
	50300225	CONCRETE STRUCTURES	CU YD	349.9	349.9	
	50300255	CONCRETE SUPERSTRUCTURE	CU YD	302.8	302.8	
	50300260	BRIDGE DECK GROOVING	SQ YD	960	960	
	50300300	PROTECTIVE COAT	SQ YD	1,314	1,314	
	50401105	F & E PRECAST PRESTRESSED CONCRETE I-BEAMS, 54 IN.	FOOT	1,077	1,077	
	50800105	REINFORCEMENT BARS	POUND	50,530	50,530	
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	187,890	187,890	

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 HMG ENGINEERS, INC. 9360 HOLY CROSS LANE BREESE, ILLINOIS 62230 888.HMG.ENGR IL PROF. DESIGN FIRM NO. 184.000899	USER NAME = k1aux DESIGNED - DRAWN - CHECKED - PLOT DATE = 5/10/2022	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES		F.A.S. RTE. 937 SECTION 12-00071-00-BR COUNTY PULASKI ILLINOIS FED. AID PROJECT	TOTAL SHEETS 56 SHEET NO. 3 CONTRACT NO. 99678
	SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.						

SPEC. PROV. SPECIALTY ITEM	CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	FUNDING:	
					80% State, 20% Local	0% State, 100% Local
	50800530	MECHANICAL SPLICERS	EACH	348	348	
	51100300	SLOPE WALL 6 INCH	SQ YD	189	189	
	51201900	FURNISHING STEEL PILES HP14X89	FOOT	564	564	
	51202305	DRIVING PILES	FOOT	564	564	
	51203900	TEST PILE STEEL HP14X89	EACH	2	2	
	51204650	PILE SHOES	EACH	14	14	
	51500100	NAME PLATES	EACH	1	1	
	51602000	PERMANENT CASING	FOOT	126	126	
	51603000	DRILLED SHAFT IN SOIL	CU YD	125.1	125.1	
	51604000	DRILLED SHAFT IN ROCK	CU YD	49.6	49.6	
	52000110	PREFORMED JOINT STRIP SEAL	FOOT	58	58	
	54213675	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 30"	EACH	2	2	
	542A0235	PIPE CULVERTS, CLASS A, TYPE 1 30"	FOOT	69	69	
*	56103100	DUCTILE IRON WATER MAIN 8"	FOOT	1,120		1,120
	58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	110	110	
	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	79	79	
	60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	4	4	
	60146304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	96	96	
	60617510	PAVED DITCH, TYPE B-30	FOOT	602	602	
*	63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	100	100	

SPEC. PROV. SPECIALTY ITEM	CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	FUNDING:	
					80% State, 20% Local	0% State, 100% Local
*	63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4	
	63200310	GUARDRAIL REMOVAL	FOOT	291	291	
	67100100	MOBILIZATION	L SUM	1	1	
*	72000100	SIGN PANEL - TYPE 1	SQ FT	12	12	
*	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
*	72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	32	32	
*	78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	3,600	3,600	
*	78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	6	6	
*	78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	10	10	
*	X0320050	CONSTRUCTION LAYOUT (SPECIAL)	L SUM	1	1	
*	X0327759	DRILLED SHAFT TEST HOLES	EACH	2	2	
*	X1200136	WATER MAIN INSULATION	FOOT	270		270
*	X2010510	CLEARING AND GRUBBING	L SUM	1	1	
*	X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	200	200	
*	X5040100	PRECAST BRIDGE APPROACH SLAB	SQ FT	1,690	1,690	
*	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
*	Z0018002	DRAINAGE SCUPPERS, DS-11	EACH	4	4	
Δ	Z0076600	TRAINEES	HR	500		
*	Z0004552	APPROACH SLAB REMOVAL	SQ YD	84	84	
Δ	Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HR	500		

Δ=0042

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PROPOSED TYPICAL SECTION NOTES:

THE PROPOSED PAVEMENT WIDTH WILL VARY FROM THE EXISTING WIDTH (10'-0" ±) TO THE PROPOSED WIDTH (13'-0") WITHIN THE 50'-0" TRANSITIONS AT THE ENDS OF THE PROJECT.

WITHIN THE 50'-0" TRANSITIONS AT THE ENDS OF THE PROJECT, THE PROPOSED HMA SHOULDER WILL TRANSITION FROM THE EXISTING WIDTH (0'-0") TO THE PROPOSED WIDTH (2'-0"). THE PROPOSED AGG SHOULDER (2'-0") SHALL BE CONSTRUCTED TO THE ENDS OF THE PROJECT EXCEPT ON THE NORTH SIDE OF THE ROAD, EAST SIDE OF THE BRIDGE.

NEAR THE PROPOSED GUARDRAIL, THE PROPOSED AGG SHOULDER WILL BE ELIMINATED AND REPLACED WITH A FULLY PAVED HMA SHOULDER. SEE PLAN AND PROFILE SHEETS FOR LIMITS.

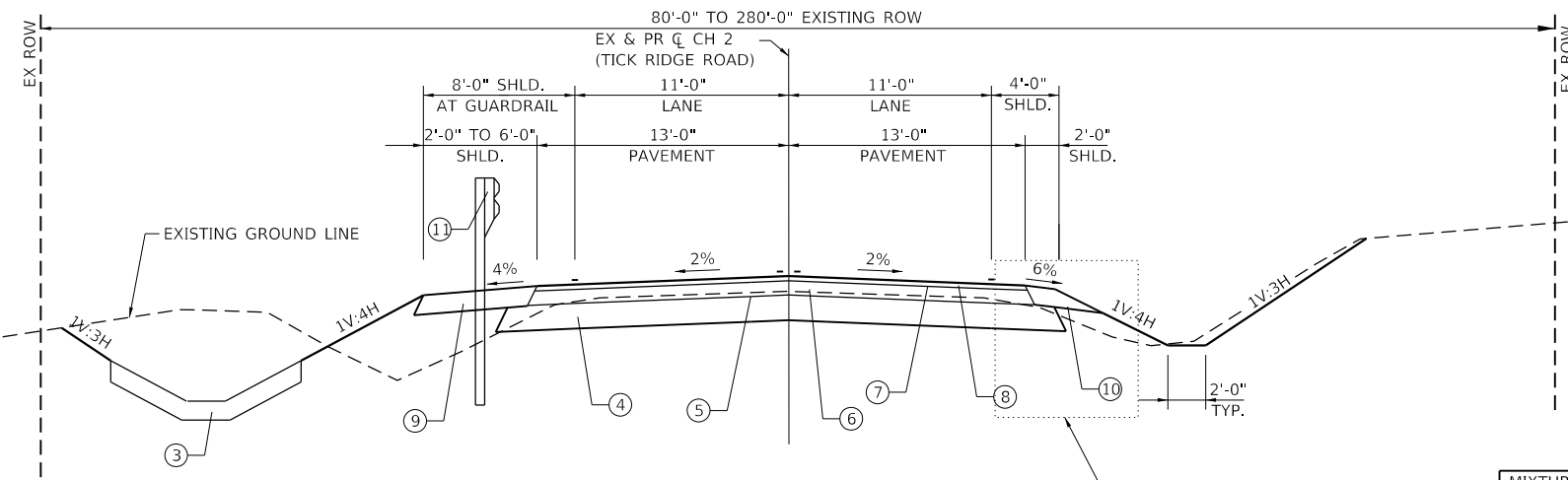
PROPOSED GUARDRAIL MAY BE LOCATED ON ONE SIDE, BOTH SIDES OR NEITHER SIDE.

PROPOSED FORESLOPES TRANSITION FROM 1V:4H AT THE END OF THE APPROACH SLAB TO 1V:2H AT THE BACK OF THE ABUTMENT.

PROPOSED PAVED DITCHES ARE LOCATED FROM STA 34+41.00 TO STA 37+40.00 LEFT AND RIGHT.

PROPOSED STRUCTURE OMISSION STA 31+69.00 TO STA 34+43.00.

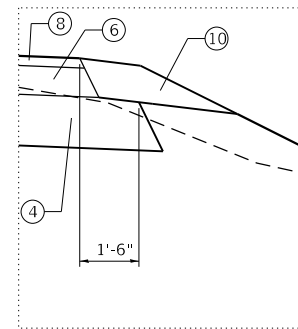
SEE STRUCTURE PLANS FOR CONSTRUCTION OF THE BRIDGE APPROACH SLABS TERMINATING AT STA 31+40.00 AND STA 34+72.00.



PROPOSED ROADWAY TYPICAL SECTION

STA 28+90.00 TO STA 31+25.00
STA 34+87.00 TO STA 37+90.00

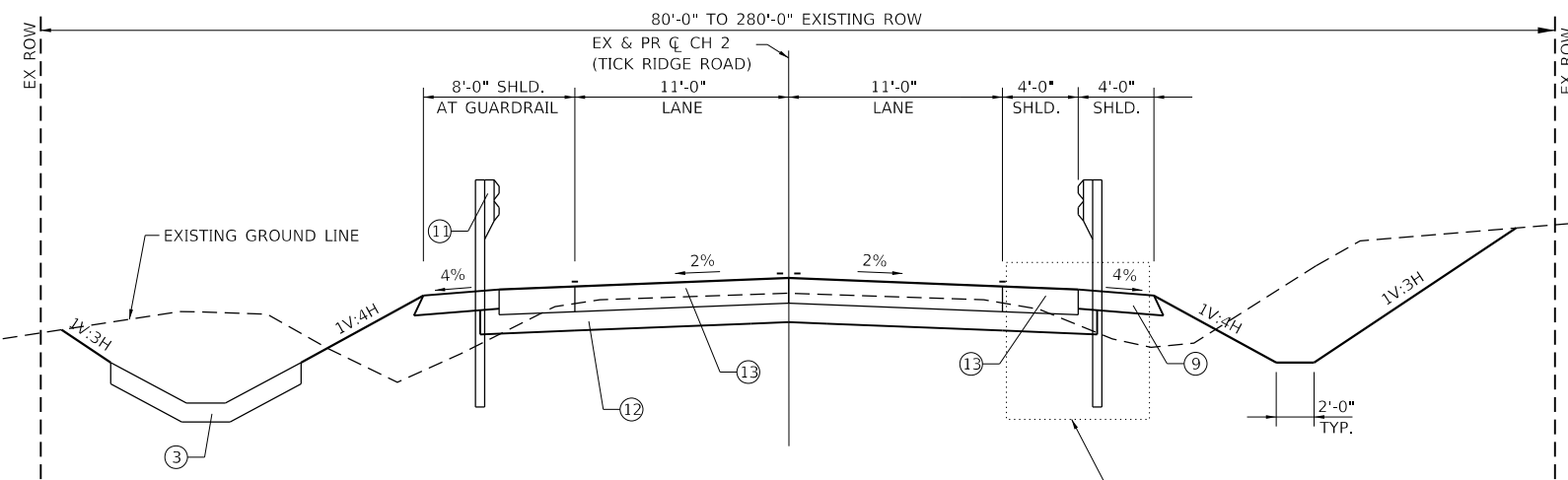
SEE AGG BASE DETAIL



AGG BASE DETAIL

MIXTURE USE	SURFACE	BINDER	SHOULDERS
APPLICATION	HMA SC, IL-9.5, "C", N70	HMA BC, IL-19.0, N70	HMA SHOULDERS
AC/PG	PG 64-22	PG 64-22	PG 64-22
RAP % (MAX)	SEE SPECIF	SEE SPECIF	SEE SPECIF
DESIGN AIR VOIDS	4.0% @ Ndes=70	4.0% @ Ndes=70	4.0% @ Ndes=70
MIX COMPOSITION	IL 9.5	IL 19.0	IL 19.0
FRICITION AGG	MIXTURE "C"		
QUALITY MGMT PROG.	QC/QA	QC/QA	QC/QA

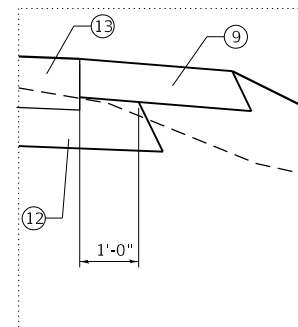
HMA MIXTURE COMPOSITION



PROPOSED ROADWAY TYPICAL SECTION

STA 31+25.00 TO STA 31+40.00
STA 34+72.00 TO STA 34+87.00

SEE SUBBASE GRAN MATERIAL DETAIL



SUBBASE GRAN MATERIAL DETAIL

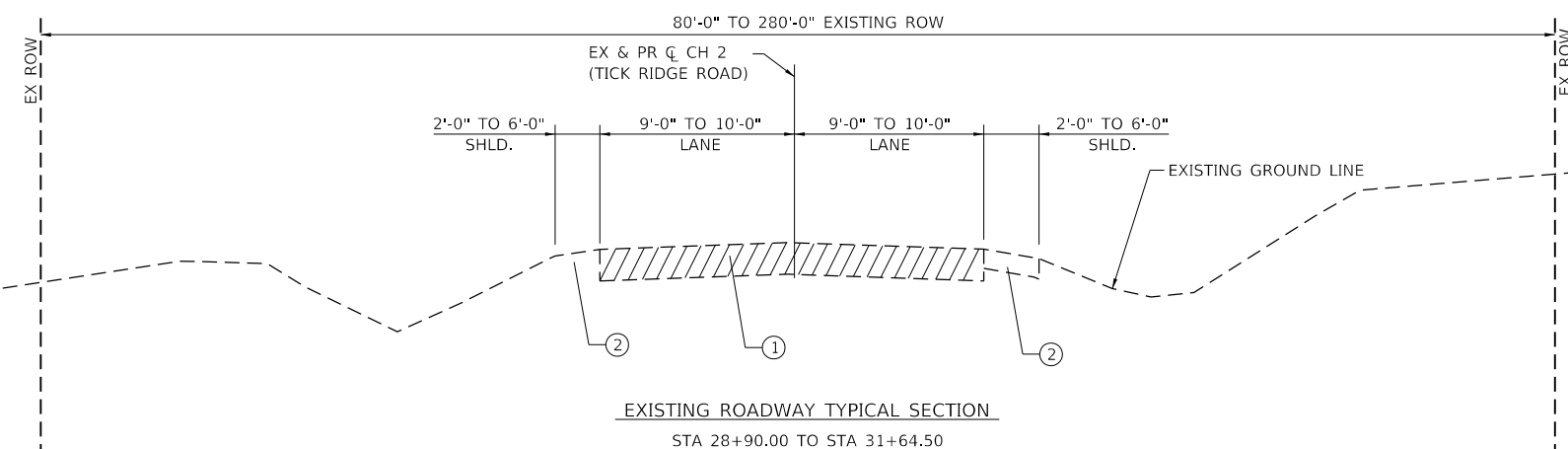
LEGEND

- ① EX ROADWAY (8" TO 15" HMA PAVEMENT)
- ② EX SHOULDER (EARTH AND PCC)
- ③ PR PAVED DITCH, TY B-30
- ④ PR AGG BASE CSE, TY A (8")
- ⑤ PR BIT MAT (PRIME COAT)
- ⑥ PR HMA BIND CSE, IL-19.0, N70 (4.5")
- ⑦ PR BIT MAT (TACK COAT)
- ⑧ PR HMA SURF CSE, IL-9.5, MIX "C", N70 (1.5")
- ⑨ PR HMA SHLD (6")
- ⑩ PR AGG SHLD, TY A (6")
- ⑪ PR SPBGR AND TBT
- ⑫ PR SUBBASE GRAN MATERIAL, TY A (6")
- ⑬ PR PAVT CONNECTOR (PCC) FOR BRIDGE APPR SLAB (8" MIN)

EXISTING TYPICAL SECTION NOTES:

EXISTING PAVEMENT VARIES IN THICKNESS FROM 0'-8" (WEST OF BRIDGE) TO 1'-3" (EAST OF BRIDGE).

EXISTING SHOULDER (PCC) AND EXISTING PAVED DITCH ARE APPROXIMATELY 0'-6" THICK.



EXISTING ROADWAY TYPICAL SECTION

STA 28+90.00 TO STA 31+64.50
STA 34+47.50 TO STA 37+90.00

MODEL: Default
FILE NAME: 10/2023_PubstatCo_C13/2023_1_DocAppCAD_Sheets/072000_05_TypRdwSec_7073.dgn

HMG ENGINEERS
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR
IL PROF. DESIGN FIRM NO. 184.000899

USER NAME	= kjonas
PLOT SCALE	= 10,000' / in.
PLOT DATE	= 1/4/2022

DESIGNED	-
DRAWN	-
CHECKED	-
DATE	-

REVISED	-
REVISED	-
REVISED	-
REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TYPICAL ROADWAY SECTIONS

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	5
ILLINOIS FED. AID PROJECT			CONTRACT NO. 99678	

EARTHWORK SCHEDULE

LOCATION	A	B	C = 0.75 x B	D	E = C - D
	PAVEMENT, PAVED SHOULDER AND PAVED DITCH CU YD	EARTH EXCAVATION CU YD	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE/LOSSES CU YD	REQUIRED FILL CU YD	BALANCE: WASTE (+) OR SHORTAGE (-) CU YD
STA 28+90.00 TO STA 30+00.00	103.2	191.1	143.3	138.6	4.7
STA 30+00.00 TO STA 31+69.00	140.7	97.0	72.8	768.3	-695.6
STA 31+69.00 TO STA 34+43.00 BRIDGE	-----	-----	-----	-----	-----
STA 34+43.00 TO STA 36+75.00	192.3	717.3	538.0	703.0	-165.0
STA 36+75.00 TO STA 37+90.00	57.3	223.2	167.4	84.3	83.1
TOTAL	493.5	1,228.6	921.5	1,694.2	-772.8
USE	495	1,230	925	1,695	-775

NOTES:

SCHEDULE ASSUMES A 25% SHRINKAGE/LOSS FACTOR FOR EARTH EXCAVATION.
 COLUMN "A" - ESTIMATED VOLUME OF MATERIAL PRODUCED BY THE REMOVAL OF THE EXISTING PAVEMENT, THE EXISTING PAVED SHOULDER AND THE EXISTING PAVED DITCH. THIS VOLUME HAS BEEN CALCULATED USING THE PAVEMENT THICKNESSES DEFINED IN THE TYPICAL SECTIONS AND A THICKNESS OF 0'-6" FOR THE PAVED SHOULDER AND PAVED DITCH (BASED ON OLD PLANS). THIS VOLUME ALSO HAS BEEN INCLUDED IN COLUMN "D" SUCH THAT THE SITE IS BACK TO THE ORIGINAL ELEVATION AFTER THE REMOVAL OF THE AFOREMENTIONED ITEMS.
 COLUMN "B" - ESTIMATED VOLUME OF CUT MATERIAL PRODUCED BY CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. THIS VOLUME HAS BEEN CALCULATED USING CROSS-SECTION END AREAS.
 COLUMN "C" - ESTIMATED VOLUME OF CUT MATERIAL ADJUSTED FOR SHRINKAGE/LOSS AND SUITABLE FOR EMBANKMENT.
 COLUMN "D" - ESTIMATED VOLUME OF FILL MATERIAL REQUIRED TO CONSTRUCT THE PROPOSED IMPROVEMENTS. THIS VOLUME HAS BEEN CALCULATED USING CROSS-SECTION END AREAS.
 COLUMN "E" - BALANCE OF ADJUSTED CUT MATERIAL AND FILL MATERIAL.

REMOVAL SCHEDULE

LOCATION	CLEARING AND GRUBBING	PAVEMENT REMOVAL	GUARDRAIL REMOVAL	PIPE CULVERT REMOVAL	PAVED SHOULDER REMOVAL	PAVED DITCH REMOVAL	APPROACH SLAB REMOVAL
	L SUM	SQ YD	FOOT	FOOT	SQ YD	FOOT	SQ YD
STA 29+15.50 RT TO STA 31+69.00 RT	0.08 ACRES						
STA 30+90.00 LT TO STA 31+69.00 LT	0.03 ACRES						
STA 34+43.00 RT TO STA 36+20.00 RT	0.08 ACRES						
STA 34+54.5 43.0' LT	6 UNITS						
STA 34+57.5 35.9' LT	10 UNITS						
STA 34+57.6 36.8' LT	6 UNITS						
STA 35+60.2 36.6' LT	8 UNITS						
STA 35+65.5 38.9' LT	6 UNITS						
STA 35+66.8 34.8' LT	12 UNITS						
STA 35+67.8 36.9' LT	6 UNITS						
STA 35+69.7 35.9' LT	6 UNITS						
STA 35+71.2 35.1' LT	10 UNITS						
STA 31+42.7 17.8' LT (NO PASSING ZONE)							
STA 34+66.7 21.8' RT (NO PASSING ZONE)							
STA 28+90.00 TO STA 31+64.00		573.8	208.2	49.6		40.1	43.4
STA 34+47.00 TO STA 37+90.00		686.5	81.9		274.2	455.1	40.2
TOTAL	1	1260.3	290.1	49.6	274.2	495.2	83.7
USE	1	1261	291	50	275	496	84

NOTES:

CLEARING AND GRUBBING CONSISTS OF CLEANING UP THE DEBRIS (STUMPS, TREES, ETC.). INFORMATION SHOWN (ACRES, UNITS) ON THE SCHEDULE IS FOR INFORMATION ONLY.

EROSION CONTROL AND SEEDING SCHEDULE

LOCATION	SEEDING, CLASS 2A	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	MULCH, METHOD 2	HEAVY DUTY EROSION CONTROL BLANKET	TEMPORARY EROSION CONTROL SEEDING	TEMPORARY DITCH CHECKS	PERIMETER EROSION BARRIER	INLET AND PIPE PROTECTION	STONE RIPRAP, CLASS A3	FILTER FABRIC
	ACRE	POUND	POUND	POUND	ACRE	SQ YD	POUND	FOOT	FOOT	EACH	TON	SQ YD
STA 28+90.00 LT TO STA 31+69.00 LT	0.16	14.3	14.3	14.3	0.11	232.4	31.8	88.0			16.6	31.1
STA 28+90.00 RT TO STA 31+69.00 RT	0.13	11.8	11.8	11.8	0.09	232.0	26.3	77.0	285.7	1	15.3	28.8
STA 34+43.00 LT TO STA 37+90.00 LT	0.13	12.0	12.0	12.0	0.12	44.7	26.7	121.0			4.1	7.6
STA 34+43.00 RT TO STA 37+90.00 RT	0.12	10.5	10.5	10.5	0.11	44.6	23.3	121.0			4.2	7.8
TOTAL	0.54	48.7	48.7	48.7	0.43	553.7	108.1	407.0	285.7	1	40.2	75.3
USE	0.75	67.5	67.5	67.5	0.50	555	150	407	286	1	41	76

MODEL: Default; FILE NAME: 10/2023_PulaskiCo_CAD_Sheets/0773000_06-07_Schedule_7073.dgn

HMG ENGINEERS
 9360 HOLY CROSS LANE
 BREESE, ILLINOIS 62230
 888.HMG.ENGR
 IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = kjones	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 1/4/2022	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCHEDULE OF QUANTITIES

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	6
ILLINOIS FED. AID PROJECT			CONTRACT NO. 99678	

PAVING SCHEDULE

LOCATION	SUBBASE GRANULAR MATERIAL, TYPE A	AGGREGATE BASE COURSE, TYPE A	BITUMINOUS MATERIALS (PRIME COAT)	BITUMINOUS MATERIALS (TACK COAT)	HMA BINDER COURSE IL-19.0, N70	HMA SURFACE COURSE, IL-9.5, MIX "C", N70	WELDED WIRE REINFORCEMENT	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	PROTECTIVE COAT
	TON	TON	POUND	POUND	TON	TON	SQ YD	SQ YD	SQ YD
STA 28+90.00 TO STA 31+25.00		337.8	1668.3	150.6	168.7	56.2			
STA 31+25.00 TO STA 31+69.00	14.1						36.7	48.3	48.3
BRIDGE OMISSION									
STA 34+43.00 TO STA 34+87.00	14.1						36.7	48.3	48.3
STA 34+87.00 TO STA 37+90.00		437.6	2161.3	195.3	218.7	72.9			
TOTAL	28.2	775.4	3829.6	345.9	387.4	129.1	73.3	96.7	96.7
USE	29	776	3,830	346	388	130	74	97	97

SHOULDER SCHEDULE

LOCATION	AGGREGATE SHOULDERS, TYPE A	HOT-MIX ASPHALT SHOULDERS
	TON	TON
STA 28+90.00 LT TO STA 30+33.00 LT	10.9	
STA 30+33.00 LT TO STA 31+69.00 LT		23.7
STA 28+90.00 RT TO STA 29+83.00 RT	7.1	
STA 29+83.00 RT TO STA 31+69.00 RT		34.9
BRIDGE OMISSION		
STA 34+43.00 LT TO STA 36+29.00 LT		34.9
STA 36+29.00 LT TO STA 37+90.00 LT	10.3	
STA 34+43.00 RT TO STA 35+79.00 RT		23.7
STA 35+79.00 RT TO STA 37+90.00 RT	16.0	
TOTAL	44.3	117.2
USE	45	118

GUARDRAIL SCHEDULE

LOCATION	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	TRAFFIC BARRIER TERMINAL, TYPE 6	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	TERMINAL MARKER - DIRECT APPLIED	GUARDRAIL REFLECTORS, TYPE A	BARRIER WALL REFLECTORS, TYPE C
	FOOT	EACH	EACH	EACH	CRYSTAL EACH	CRYSTAL EACH
STA 30+67.2 LT TO STA 31+56.5 LT		1	1	1	1	
STA 30+17.2 RT TO STA 31+56.5 RT	50.0	1	1	1	2	
STA 31+55.0 TO STA 34+57.0 BRIDGE						10
STA 34+55.5 LT TO STA 35+94.8 LT	50.0	1	1	1	2	
STA 34+55.5 RT TO STA 35+44.8 RT		1	1	1	1	
TOTAL	100.0	4	4	4	6	10
USE	100.0	4	4	4	6	10

THE SPACING OF THE REFLECTORS (GUARDRAIL AND BARRIER) IS 61'-0" STARTING 50'-0" FROM THE END OF THE PROPOSED GUARDRAIL.

DRAINAGE SCHEDULE

LOCATION	PIPE CULVERT, CLASS A, TYPE 1 30"	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 30"	TRENCH BACKFILL	PAVED DITCH, TYPE B-30	PROTECTIVE COAT
	FOOT	EACH	CU YD	FOOT	SQ YD
STA 31+00.00 42.7' LT TO STA 31+00.00 37.9' RT	68.3	2	25.9		
STA 34+41.00 30.4' LT TO STA 37+40.00 20.3' LT				300.8	333.7
STA 34+41.00 30.5' RT TO STA 37+40.00 20.4' RT				300.6	333.6
TOTAL	68.3	2	25.9	601.4	667.3
USE	69	2	26	602	668

PAVEMENT MARKING AND SIGNING SCHEDULE

LOCATION	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"		SIGN PANEL - TYPE 1	TELESCOPING STEEL SIGN SUPPORT
	WHITE FOOT	YELLOW FOOT		
STA 28+90.00 TO STA 31+25.00	470.0	470.0	6.0	16.0
STA 31+25.00 TO STA 31+69.00	88.0	88.0		
STA 31+69.00 TO STA 34+43.00	548.0	548.0		
STA 34+43.00 TO STA 34+87.00	88.0	88.0		
STA 34+87.00 TO STA 37+90.00	606.0	606.0	6.0	16.0
TOTAL	1800.0	1800.0	12.0	32.0
USE	3,600		12	32

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HMG ENGINEERS
 9360 HOLY CROSS LANE
 BREESE, ILLINOIS 62230
 888.HMG.ENGR
 IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = kjonas	DESIGNED -	REVISD -
PLOT SCALE = 2,0000' / in.	DRAWN -	REVISD -
PLOT DATE = 1/4/2022	CHECKED -	REVISD -
	DATE -	REVISD -

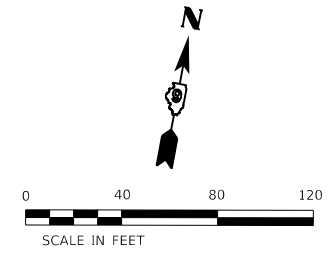
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DRAWN -	REVISD -
CHECKED -	REVISD -
DATE -	REVISD -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCHEDULE OF QUANTITIES

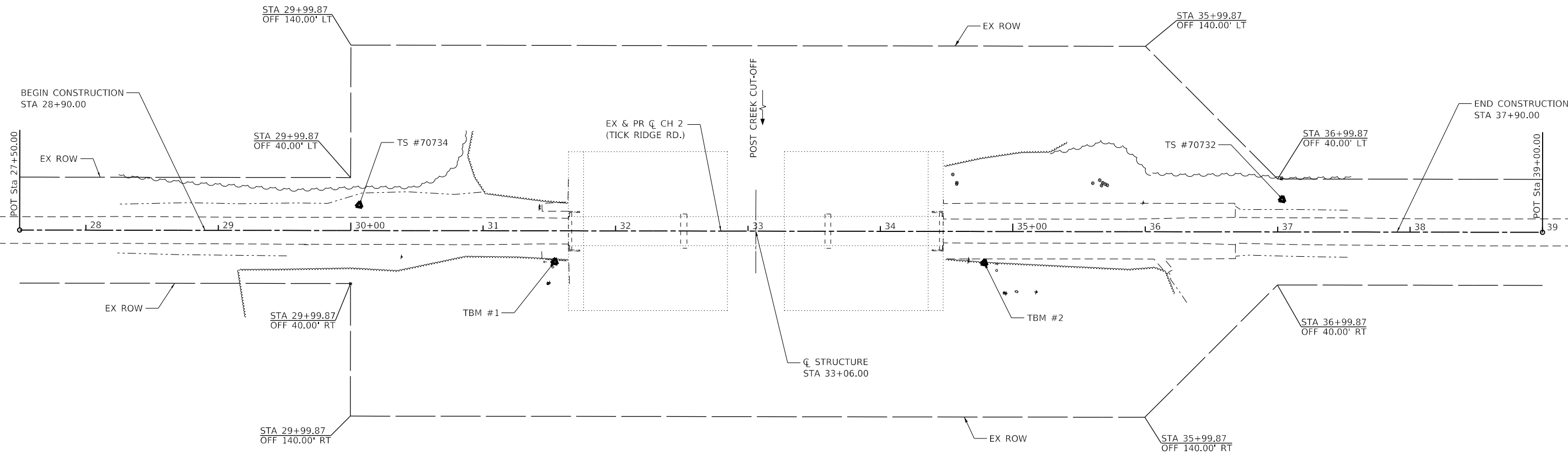
SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	7
CONTRACT NO. 99678				
ILLINOIS FED. AID PROJECT				



TRaverse STATION #70734
 EL 364.46
 STA 30+06.32, OFF 19.25' LT
 N=211025.196, E=2647726.265

TRaverse STATION #70732
 EL 369.34
 STA 37+03.35, OFF 24.56' LT
 N=211156.840, E=2648410.766



TBM #1 (RR SPIKE IN PP)
 EL 364.03
 STA 31+53.97, OFF 23.26' RT
 N=211010.169, E=2647879.172

TBM #2 (RR SPIKE IN PP)
 EL 365.19
 STA 34+78.42, OFF 23.64' RT
 N=211068.645, E=2648198.305

CENTERLINE SUMMARY		
STATION	NORTHING	EASTING
27+50.00 (POT)	210959.771	2647477.684
39+00.00 (POT)	211168.358	2648608.609

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HMG ENGINEERS
 HMG ENGINEERS, INC.
 9360 HOLY CROSS LANE
 BREESE, ILLINOIS 62230
 888.HMG.ENGR
 IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = kjones
 PLOT SCALE = 80,0000' / in.
 PLOT DATE = 1/4/2022

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

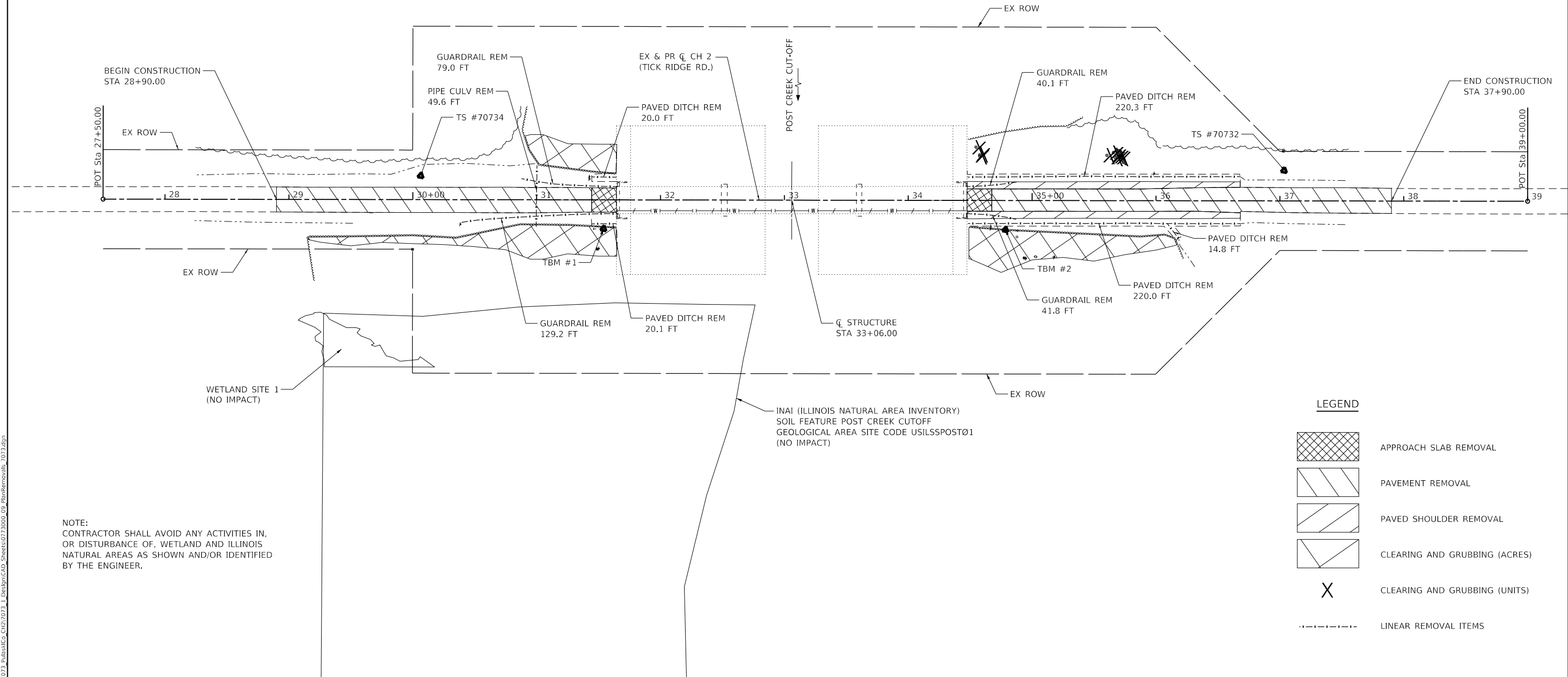
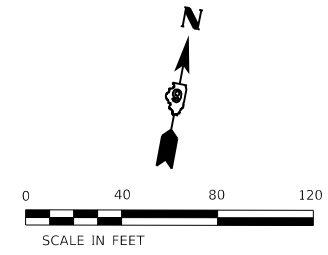
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

ALIGNMENT, TIES AND BENCHMARKS

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	8
CONTRACT NO. 99678			ILLINOIS FED. AID PROJECT	



NOTE:
CONTRACTOR SHALL AVOID ANY ACTIVITIES IN,
OR DISTURBANCE OF, WETLAND AND ILLINOIS
NATURAL AREAS AS SHOWN AND/OR IDENTIFIED
BY THE ENGINEER.

LEGEND

	APPROACH SLAB REMOVAL
	PAVEMENT REMOVAL
	PAVED SHOULDER REMOVAL
	CLEARING AND GRUBBING (ACRES)
	CLEARING AND GRUBBING (UNITS)
	LINEAR REMOVAL ITEMS

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 HMG ENGINEERS, INC. 9360 HOLY CROSS LANE BREESE, ILLINOIS 62230 888.HMG.ENGR IL PROF. DESIGN FIRM NO. 184.000899	USER NAME = kjones	DESIGNED -	REVISED -
	PLOT SCALE = 80,000' / in.	DRAWN -	REVISED -
	PLOT DATE = 1/4/2022	CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

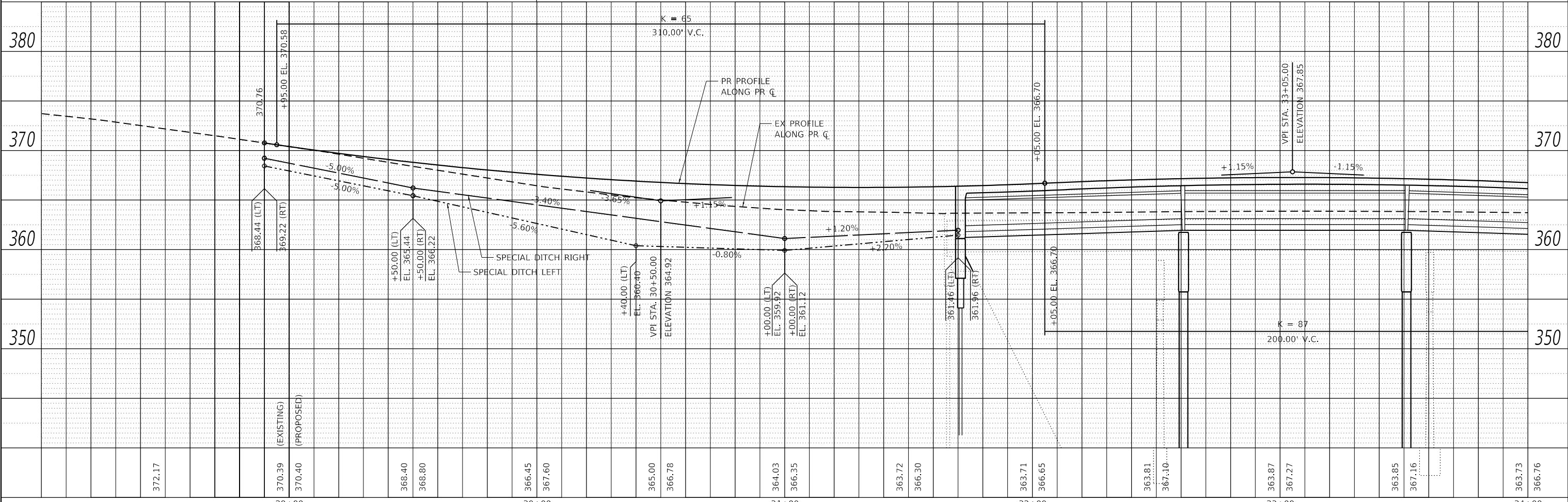
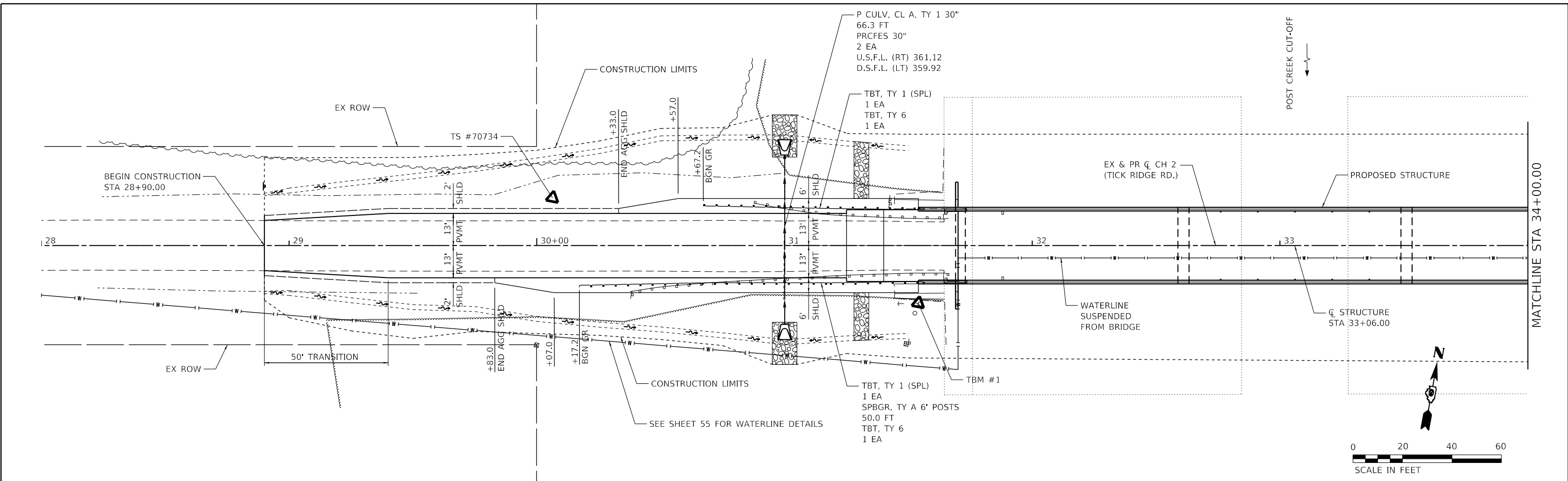
PLAN REMOVALS			
SCALE:	SHEET 1	OF 1	SHEETS
	STA.		TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	9
CONTRACT NO. 99678			ILLINOIS FED. AID PROJECT	

PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	FILED	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES	
	CHECKED	
	STRUCTURE	
	NOTATION	
	NO.	

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		29+00																													

HMG HMG ENGINEERS, INC.
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
ENGINEERS 888.HMG.ENGR
IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = kjones
PLOT SCALE = 40.0000" / 1"
PLOT DATE = 1/4/2022

DESIGNED	-	REVISED	-
DRAWN	-	REVISED	-
CHECKED	-	REVISED	-
DATE	-	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

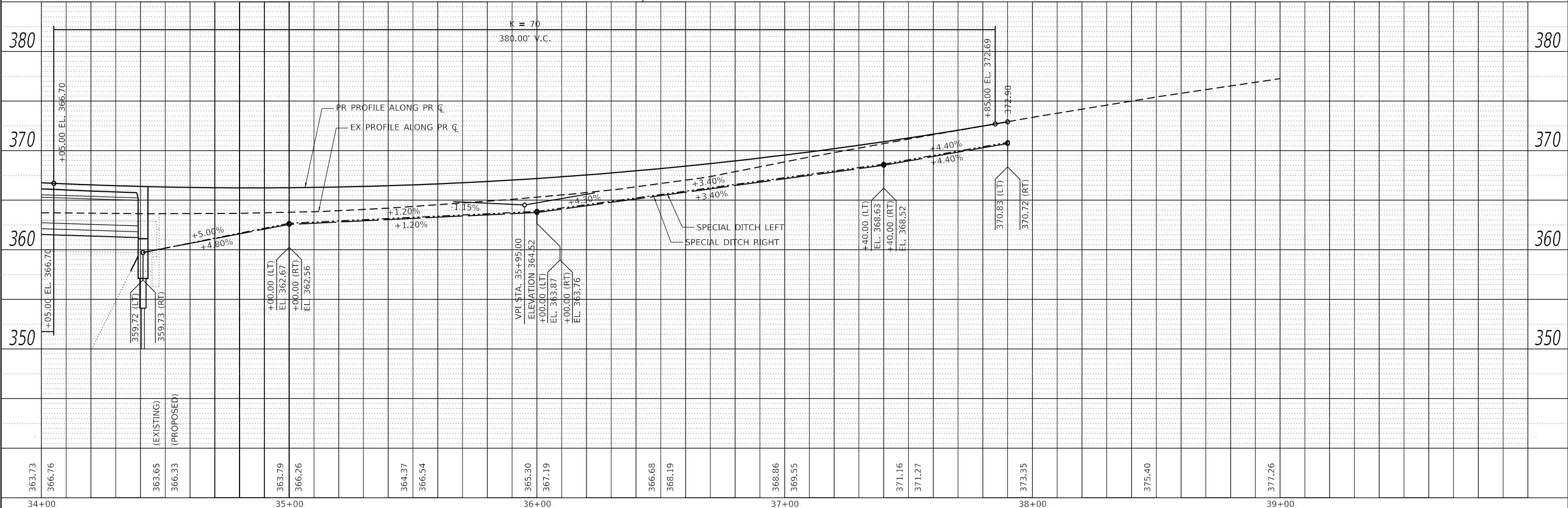
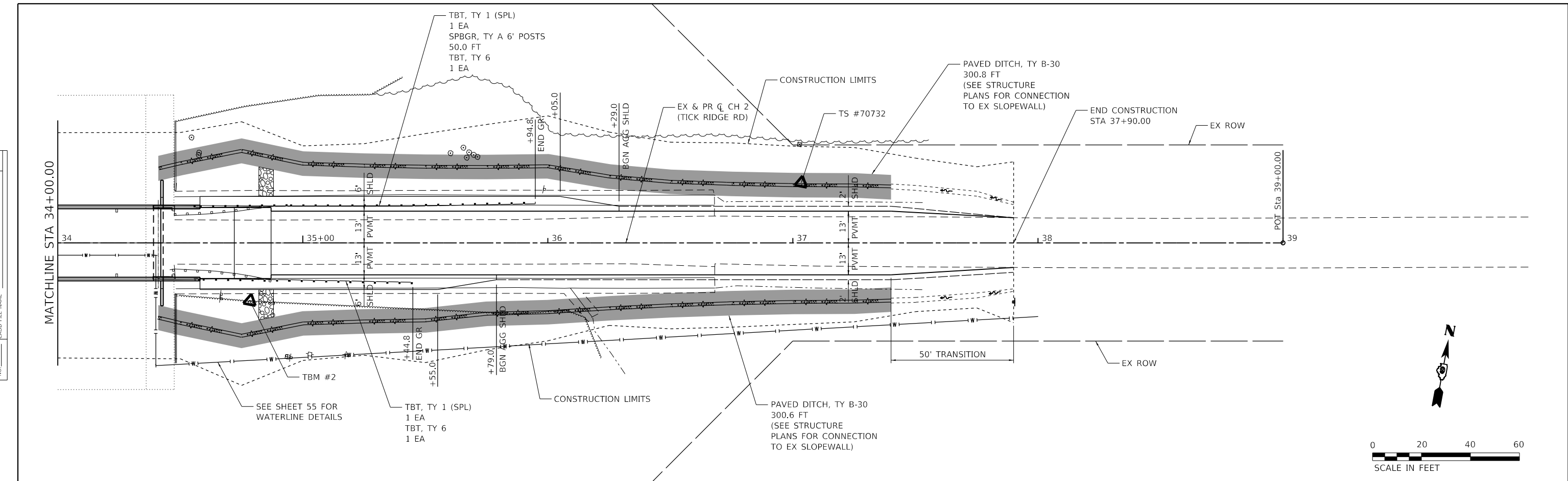
PLAN AND PROFILE

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	10
CONTRACT NO. 99678				
ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNMENT CHECKED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NOTE BOOK NO.	
	CADD FILE NAME	

PROFILE	SURVEYED	DATE
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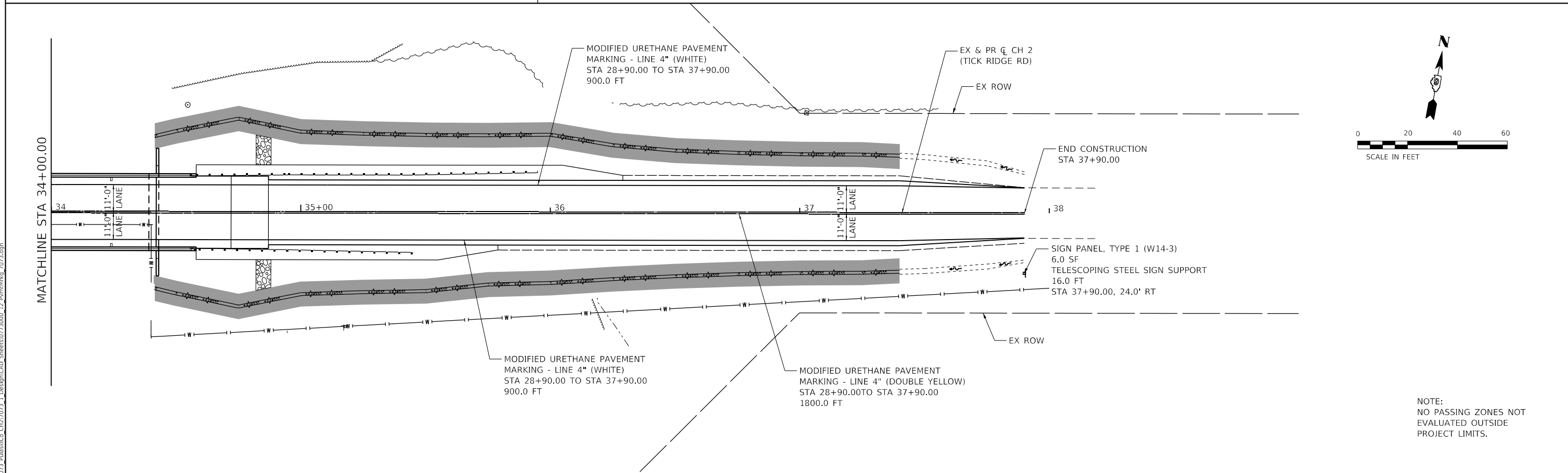
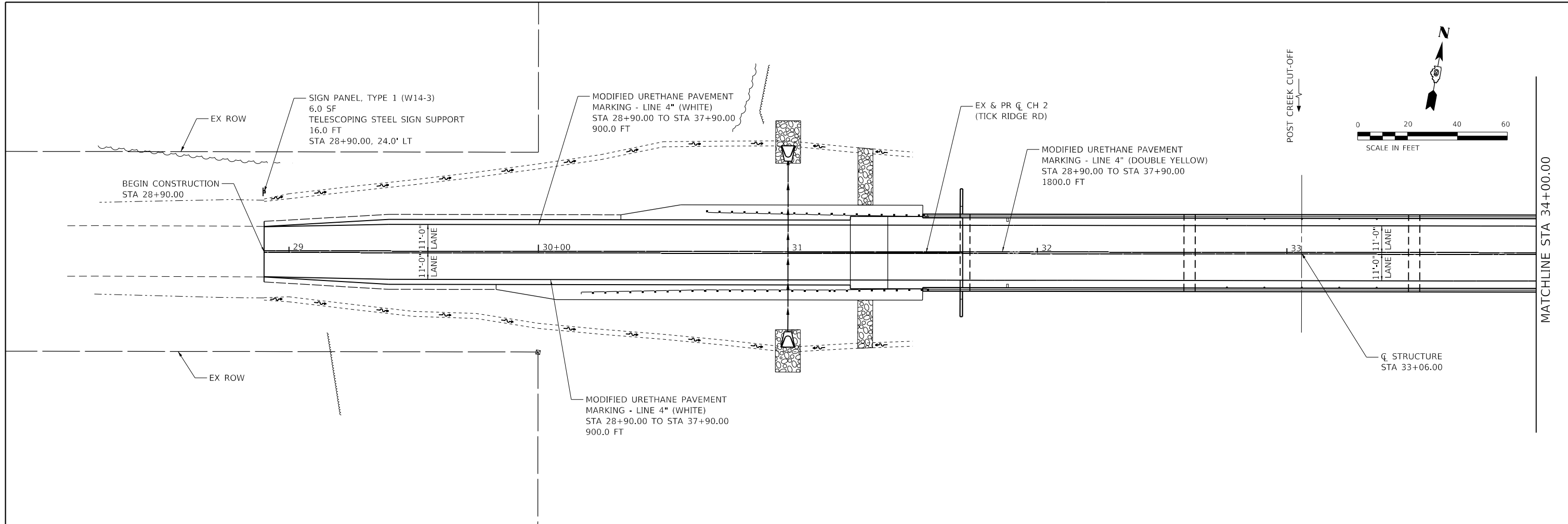
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USER NAME = kjonas	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

PLAN AND PROFILE			
SCALE:	SHEET 2	OF 2 SHEETS	STA. TO STA.

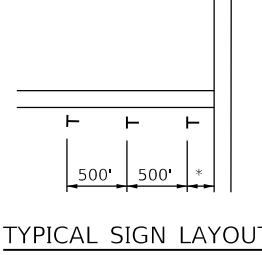
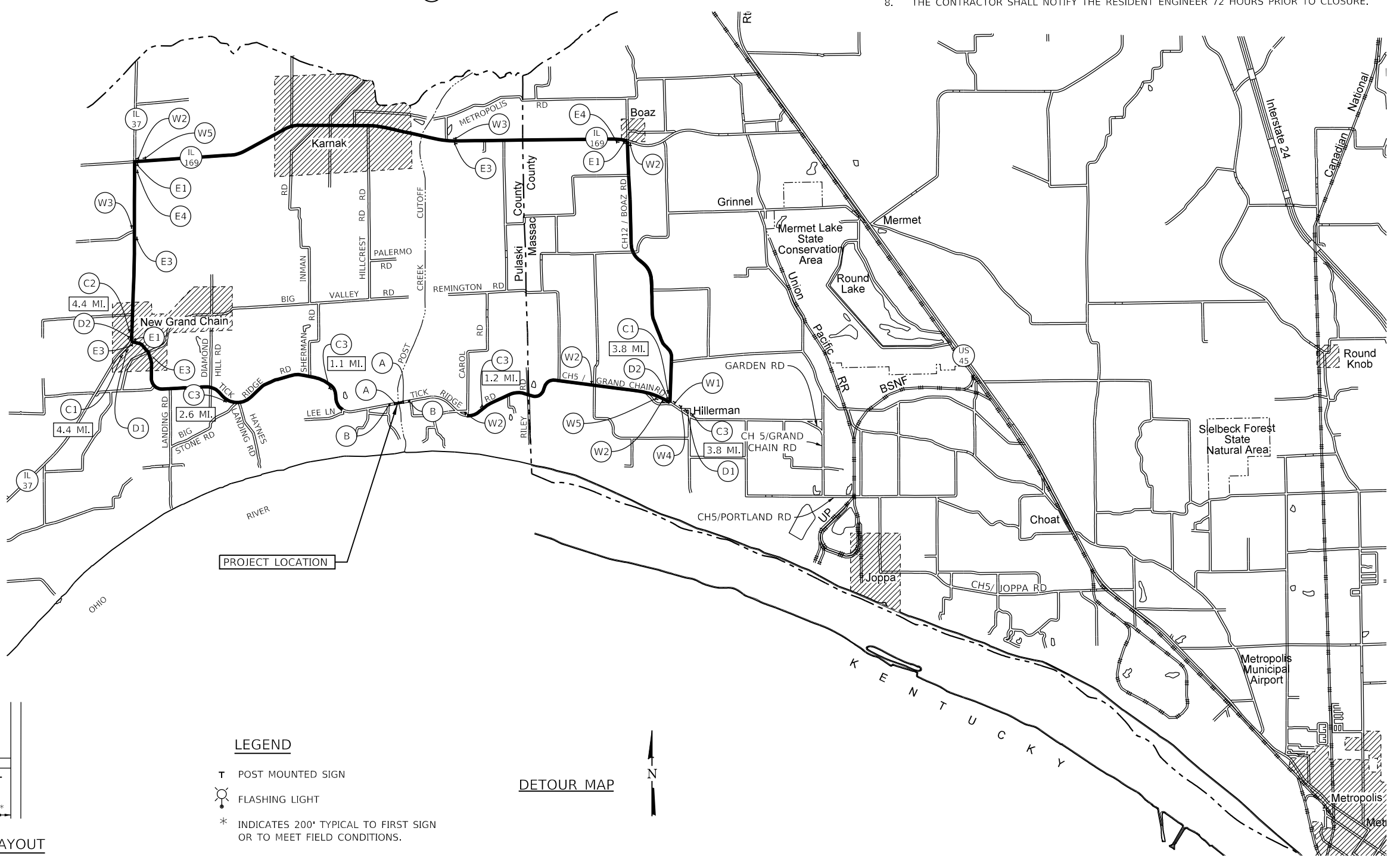
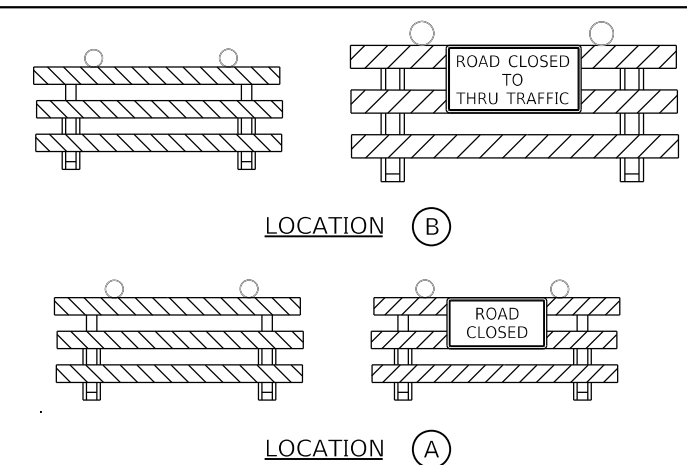
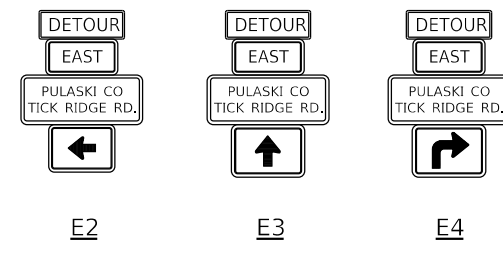
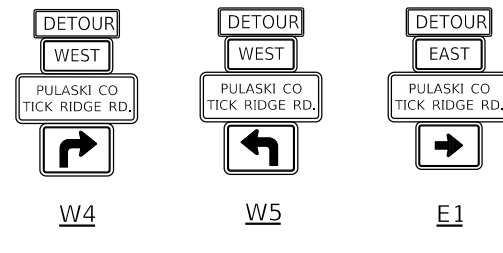
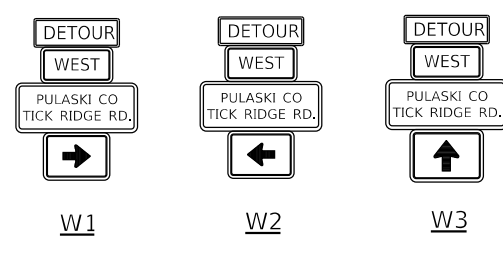
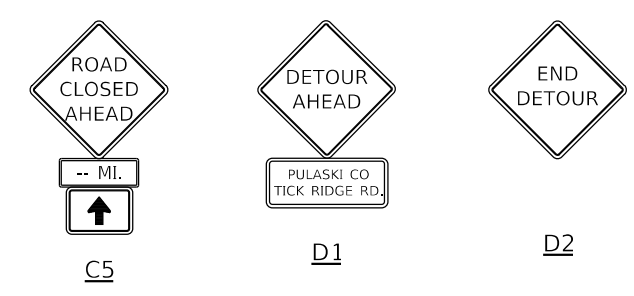
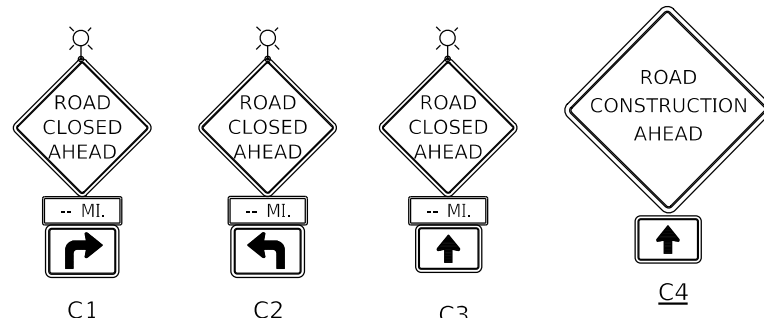
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	11
CONTRACT NO. 99678				
ILLINOIS FED. AID PROJECT				



NOTE:
NO PASSING ZONES NOT
EVALUATED OUTSIDE
PROJECT LIMITS.

MODEL: Default
FILE: Model: 10/2023_PulaskiCo_CH2_2023_1_DesignCAD_Sheets/0773000_12_PermitMark_2023.dgn

HMG ENGINEERS IL PROF. DESIGN FIRM NO. 184.000899	HMG ENGINEERS, INC. 9360 HOLY CROSS LANE BREESE, ILLINOIS 62230 888.HMG.ENGR	USER NAME = kjonas	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT MARKING		F.A.S. RTE. = 937	SECTION = 12-00071-00-BR	COUNTY = PULASKI	TOTAL SHEETS = 56	SHEET NO. = 12
		PLOT SCALE = 40,000' / in.	CHECKED -	REVISED -				CONTRACT NO. 99678	ILLINOIS	FED. AID PROJECT		
		PLOT DATE = 1/4/2022	DATE -	REVISED -	SCALE:	SHEET 1 OF 1 SHEETS	STA. TO STA.					



LEGEND

- T POST MOUNTED SIGN
- FLASHING LIGHT
- * INDICATES 200' TYPICAL TO FIRST SIGN OR TO MEET FIELD CONDITIONS.

- NOTES:**
1. ENGINEER MAY MODIFY SIGN PLACEMENT TO MEET FIELD CONDITIONS.
 2. ALL ADVANCED WARNING SIGNS SHALL BE 48" x 48" AND HAVE A BLACK LEGEND ON A FLUORESCENT ORANGE REFLECTORIZED BACKGROUND.
 3. ALL ADVANCED WARNING SIGNS SHALL INCLUDE LOW INTENSITY FLASHING LIGHTS.
 4. DETOUR SIGNING ASSEMBLY SHALL MAINTAIN THE HEIGHT TO THE BOTTOM OF THE LOWEST SIGN NO LESS THAN 5 FEET ABOVE THE EDGE OF PAVEMENT.
 5. ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SANDBAGS PER BARRICADE FOR STABILIZATION.
 6. AT LOCATIONS WHERE TYPE III BARRICADES ARE STAGGERED THE "ROAD CLOSED TO THRU TRAFFIC" SIGN SHALL BE PLACED ON THE FRONT BARRICADE.
 7. ALL ITEMS OF WORK INVOLVED WITH THE ROAD CLOSURE WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LUMP SUM FOR TRAFFIC CONTROL AND PROTECTION, (SPECIAL).
 8. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER 72 HOURS PRIOR TO CLOSURE.

MODEL: Default
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 HMG ENGINEERS
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 BREESE, ILLINOIS 62230
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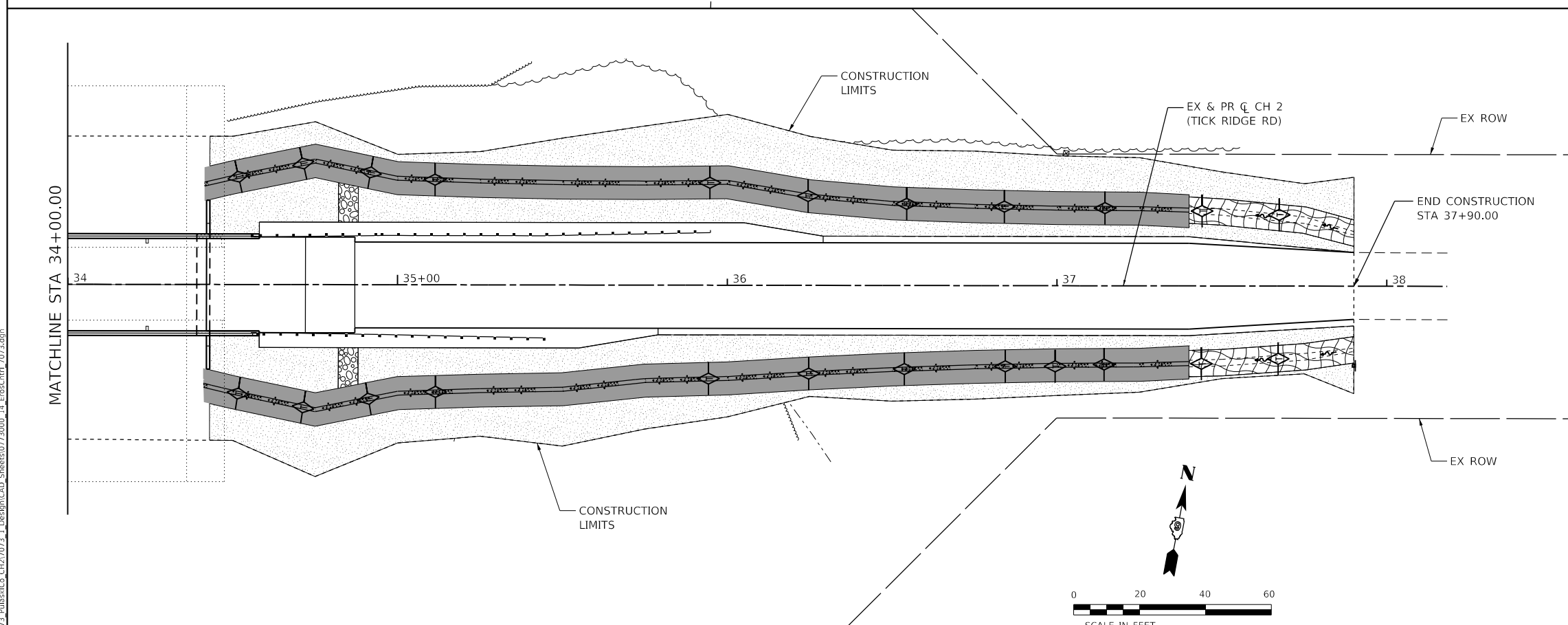
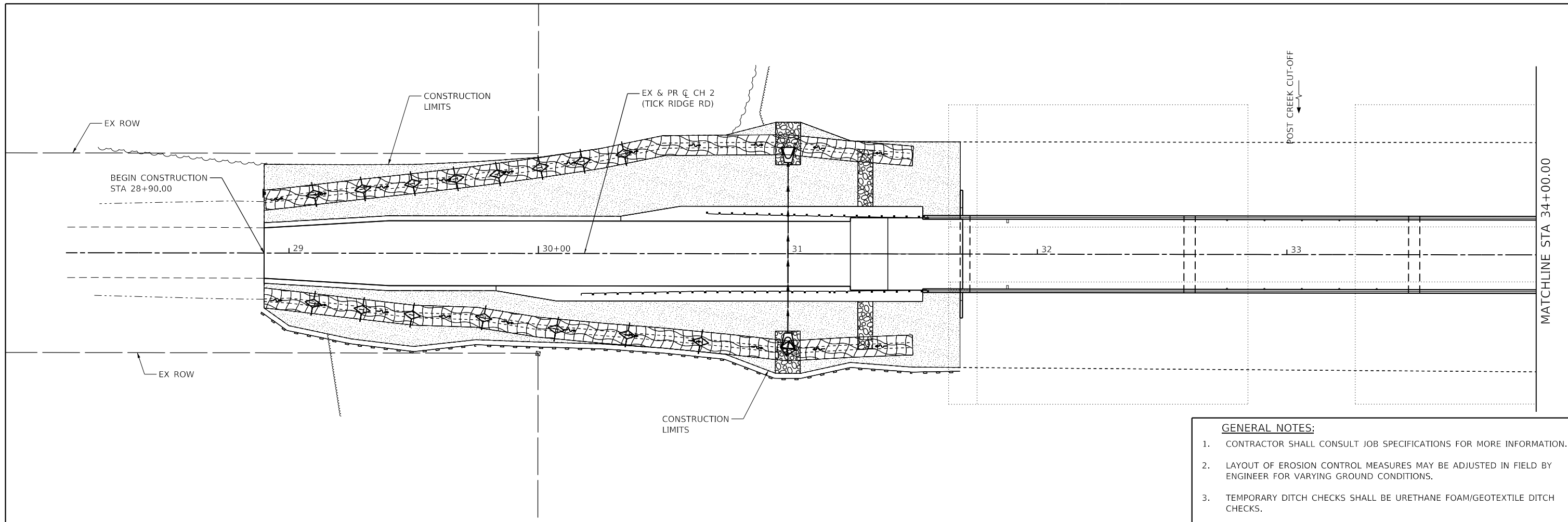
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REVISED -
 REVISED -
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 REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

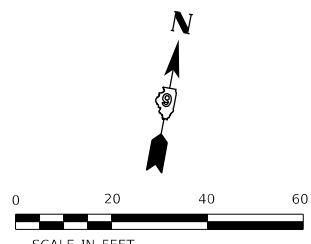
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	13
CONTRACT NO. 99678				
ILLINOIS FED. AID PROJECT				



- GENERAL NOTES:**
1. CONTRACTOR SHALL CONSULT JOB SPECIFICATIONS FOR MORE INFORMATION.
 2. LAYOUT OF EROSION CONTROL MEASURES MAY BE ADJUSTED IN FIELD BY ENGINEER FOR VARYING GROUND CONDITIONS.
 3. TEMPORARY DITCH CHECKS SHALL BE URETHANE FOAM/GEOTEXTILE DITCH CHECKS.
 4. HAY OR STRAW BALES SHALL NOT BE USED FOR DITCH CHECKS.
 5. AGGREGATE DITCH CHECKS SHALL BE PLACED ACCORDING TO THE DETAILS SHOWN IN THESE PLANS AND AS DIRECTED BY THE ENGINEER.
 6. ALL DISTURBED AREAS SHALL RECEIVE TEMPORARY EROSION CONTROL SEEDING AS DESCRIBED IN SPECS. UNTIL PERMANENT STABILIZATION CAN BE PERFORMED.
 7. EROSION CONTROL BLANKET SHALL BE WILDLIFE-FRIENDLY AND PLASTIC FREE TO PREVENT THE ENTANGLEMENT OF NATIVE WILDLIFE. IF THIS REQUIREMENT CANNOT BE ADHERED TO, THEN THE EROSION CONTROL BLANKET SHALL BE REMOVED ONCE VEGETATION IS ESTABLISHED.
 8. THE COUNTY WILL ASSUME RESPONSIBILITY FOR MAINTAINING EROSION CONTROL MEASURES THROUGH FINAL STABILIZATION AFTER IDOT ACCEPTANCE OF WORK BY CONTRACTOR.

LEGEND

- SEEDING, CLASS 2A AND HEAVY DUTY EROSION CONTROL BLANKET
- STONE RIPRAP, CLASS A3 AND FILTER FABRIC
- SEEDING, CLASS 2A AND MULCH, METHOD 2
- PERIMETER EROSION BARRIER
- DITCH FLOW ARROW
- TEMPORARY DITCH CHECK
- INLET AND PIPE PROTECTION
- PAVED DITCH



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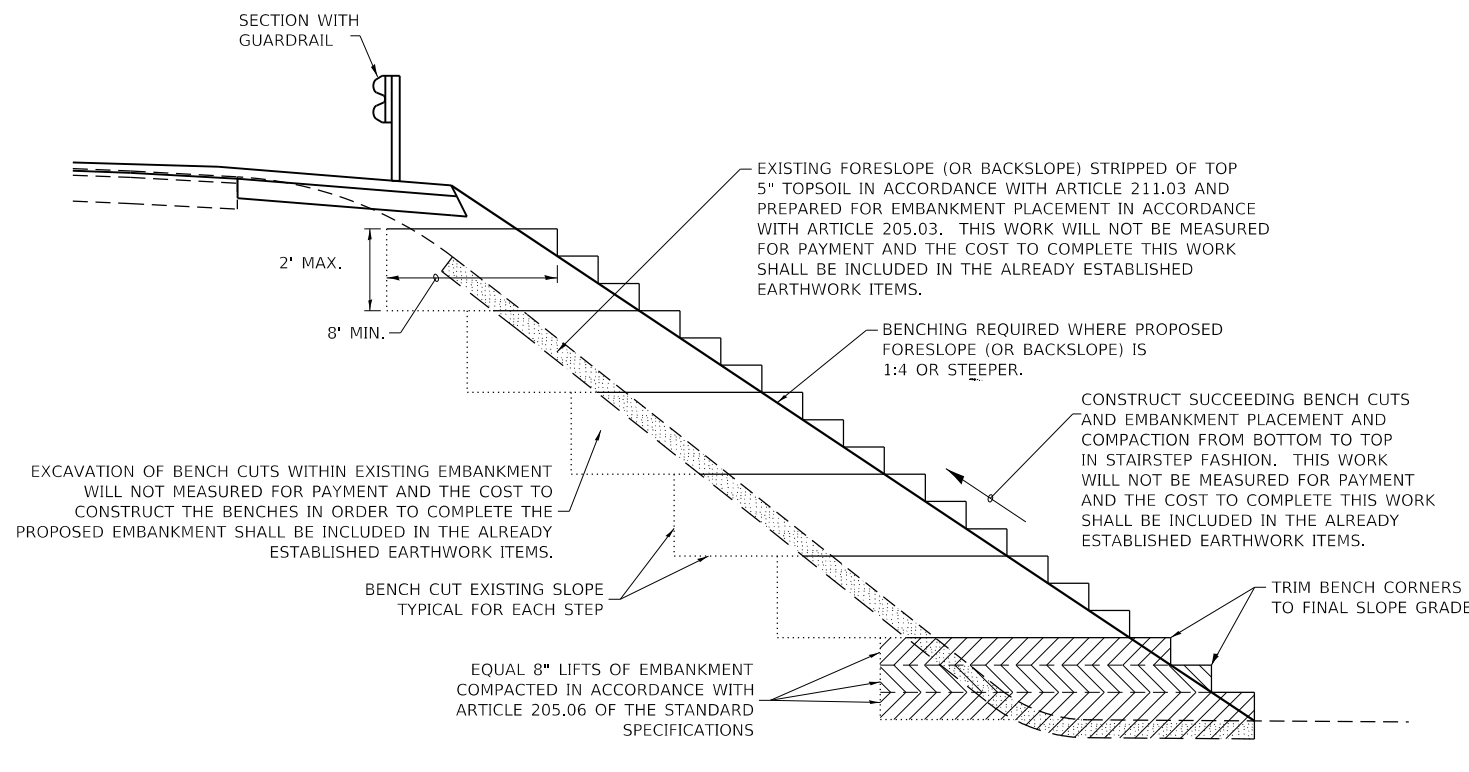
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	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EROSION CONTROL

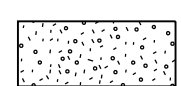
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	14
CONTRACT NO. 99678			ILLINOIS FED. AID PROJECT	

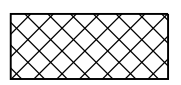


TYPICAL BENCHING FOR EMBANKMENTS DETAIL

(NOT TO SCALE)



FINAL BACKFILL - 1
 LOCATION - EDGE OF TRENCH LOCATED WITHIN 2.0 FT OF A PERMANENT SURFACE, INCLUDING ENTRANCES AND SIDEWALK
 PIPE MATERIAL - RIGID, FLEXIBLE
 BACKFILL MATERIAL - AGGREGATE
 PAYMENT - PAID FOR AS TRENCH BACKFILL



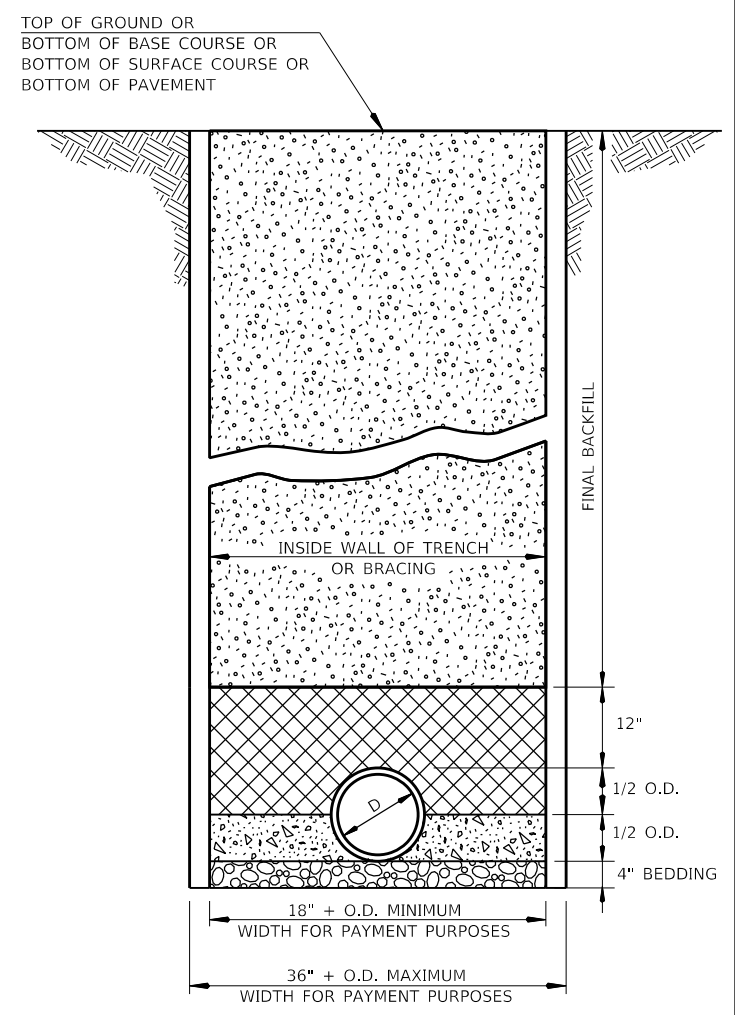
INITIAL BACKFILL - 1
 LOCATION - EDGE OF TRENCH LOCATED WITHIN 2.0 FT OF A PERMANENT SURFACE, INCLUDING ENTRANCES AND SIDEWALK
 PIPE MATERIAL - RIGID, FLEXIBLE
 BACKFILL MATERIAL - AGGREGATE
 PAYMENT - PAID FOR AS TRENCH BACKFILL



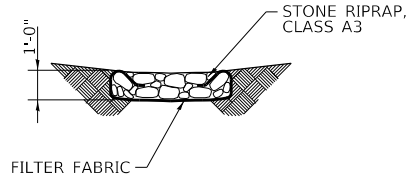
HAUNCHING
 LOCATION - ALL
 PIPE MATERIAL - RIGID, FLEXIBLE
 BACKFILL MATERIAL - AGGREGATE
 PAYMENT - INCLUDED IN THE COST OF PIPE



BEDDING
 LOCATION - ALL
 PIPE MATERIAL - RIGID, FLEXIBLE
 BACKFILL MATERIAL - AGGREGATE
 PAYMENT - INCLUDED IN THE COST OF PIPE

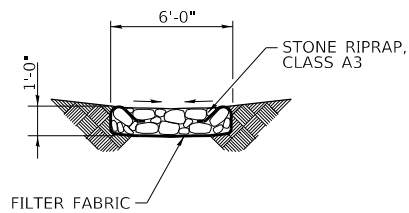


PIPE CULVERT TRENCHING AND BACKFILL DETAIL



STONE RIPRAP DETAIL

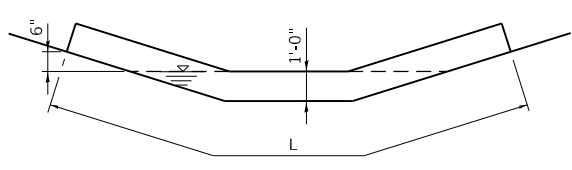
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BRIDGE APPROACH PAVEMENT DRAIN DETAIL

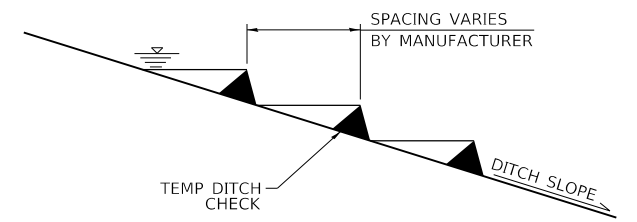
PROVIDES DRAINAGE DOWN EMBANKMENT FROM BRIDGE APPROACH PAVEMENT

(NOT TO SCALE)



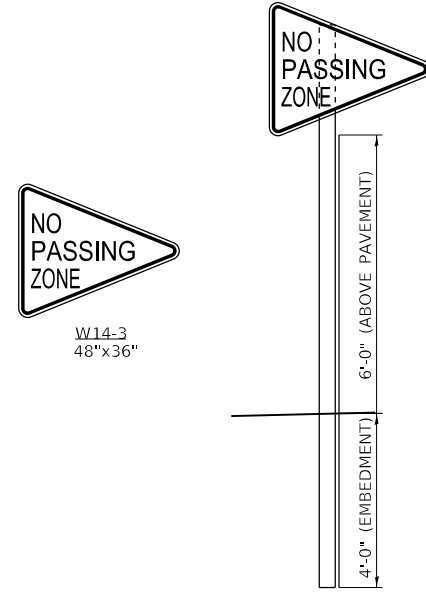
TYPICAL TEMPORARY DITCH CHECK SECTION

(NOT TO SCALE)



TYPICAL DITCH CHECK PROFILE

(NOT TO SCALE)



SIGN DETAILS

(NOT TO SCALE)

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 BREESE, ILLINOIS 62230
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USER NAME = kjones
 PLOT SCALE = 10,000' / in.
 PLOT DATE = 1/4/2022

DESIGNED -
 DRAWN -
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 DATE -
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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	13
CONTRACT NO. 99678			ILLINOIS FED. AID PROJECT	

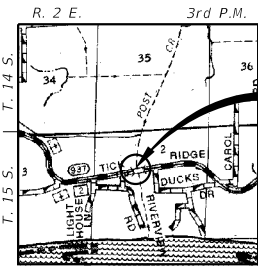
BENCHMARK: TBM #1: RR Spike in Power Pole
Sta 31+54.04, 23.14' Rt
El 364.03

TBM #2: RR Spike in Power Pole
Sta 34+78.49, 24.01' Rt
El 365.19

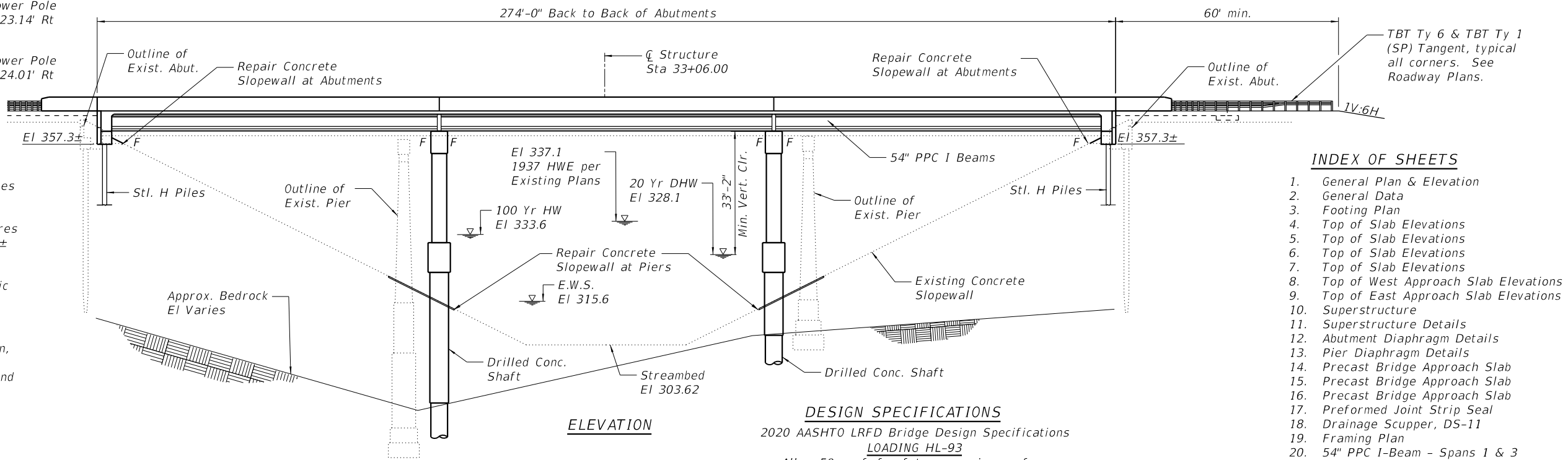
EXISTING STRUCTURE: SN 077-3000
Constructed in 1938, the existing structure consists of three span continuous steel superstructure with concrete deck spanning spill thru concrete abutments on concrete piles and two column concrete piers with tapered legs, one cross beam and spread footings without piles. The existing structure measures 283'-0" back to back of abutments and 25'-4"± out to out of the deck.

The existing roadway will be closed to traffic during the construction.

SALVAGE:
The existing concrete slopewall should remain, as much as practical. Slopewall removed by Contractor for access shall be replaced in-kind as part of the associated work.



LOCATION SKETCH



ELEVATION

DESIGN SPECIFICATIONS
2020 AASHTO LRFD Bridge Design Specifications
LOADING HL-93
Allow 50 p.s.f. for future wearing surface

DESIGN STRESSES

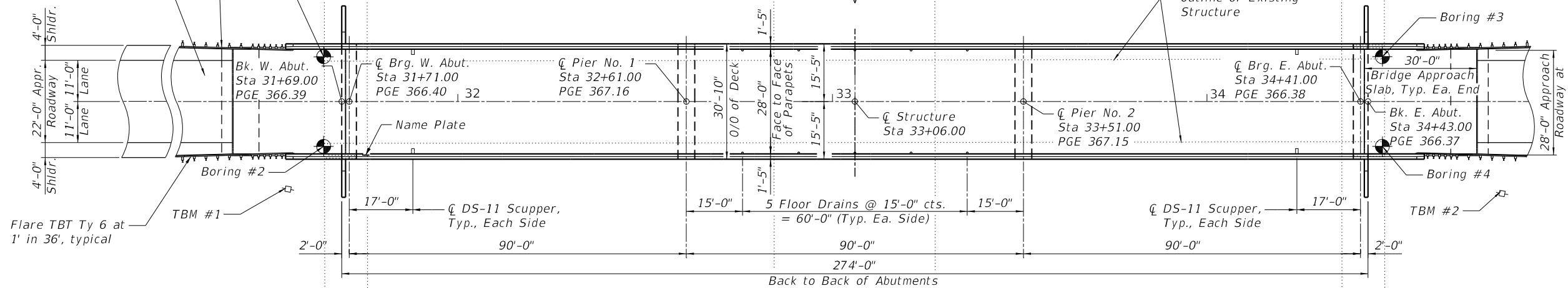
PRECAST PRESTRESSED UNITS	FIELD UNITS
$f'_c = 7,000$ psi	$f'_c = 3,500$ psi
$f'_{ci} = 6,000$ psi	$f'_c = 4,000$ psi (Superstructure Concrete)
$f'_s = 270,000$ psi ($1/2$ " \varnothing Strands)	$f_y = 60,000$ psi (reinf.)
$f'_{si} = 201,960$ psi ($1/2$ " \varnothing Strands)	$f_y = 50,000$ psi (M270 Gr. 50)

SEISMIC DATA
Seismic Performance Zone (SPZ): 4
Design Spectral Acceleration at 1.0 sec. (S_{D1}): = 0.575 g
Design Spectral Acceleration at 0.2 sec. (S_{D5}): = 1.571 g
Soil Site Class = C

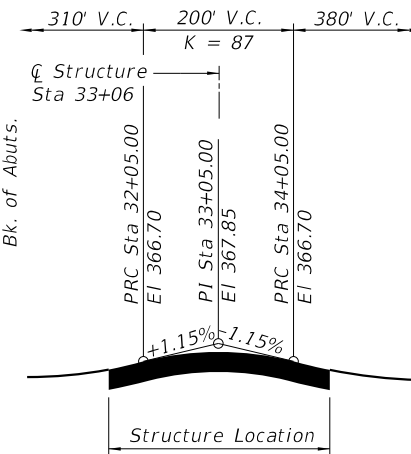
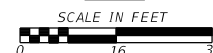
- INDEX OF SHEETS**
1. General Plan & Elevation
 2. General Data
 3. Footing Plan
 4. Top of Slab Elevations
 5. Top of Slab Elevations
 6. Top of Slab Elevations
 7. Top of Slab Elevations
 8. Top of West Approach Slab Elevations
 9. Top of East Approach Slab Elevations
 10. Superstructure
 11. Superstructure Details
 12. Abutment Diaphragm Details
 13. Pier Diaphragm Details
 14. Precast Bridge Approach Slab
 15. Precast Bridge Approach Slab
 16. Precast Bridge Approach Slab
 17. Preformed Joint Strip Seal
 18. Drainage Scupper, DS-11
 19. Framing Plan
 20. 54" PPC I-Beam - Spans 1 & 3
 21. 54" PPC I-Beam - Span 2
 22. 54" PPC I-Beam Details
 23. Concrete Removal
 24. Concrete Removal and Slopewall Repair
 25. West Abutment
 26. East Abutment
 27. Pier 1
 28. Pier 2
 29. HP Pile Details
 30. Bar Splicer Assembly and Mechanical Splicer Details
 31. Soil Boring Logs
 32. Soil Boring Logs
 33. Soil Boring Logs
 34. Soil Boring Logs

TBT Ty 6 & TBT Ty 1 (SP) Tangent, Typ. all corners. See Roadway Plans.

See Hwy. Std. 420401



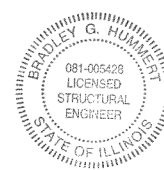
PLAN



PROFILE GRADE
(Along C FAS 937)

"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' including Seismic Design."

Bradley G. Hummert Date: 5/10/22
Bradley G. Hummert
Licensed Structural Engineer
in Illinois No. 081-005428



Expires: November 30, 2022

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION

SCALE: SHEET 1 OF 34 SHEETS STA. TO STA.

GENERAL PLAN & ELEVATION
FAS 937 (CH 2 / TICK RIDGE RD.)
OVER POST CREEK CUT-OFF
SECTION 12-00071-00-BR
PULASKI COUNTY
STATION 33+06.00
STRUCTURE NO. 077-3145

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	16
CONTRACT NO. 99678				

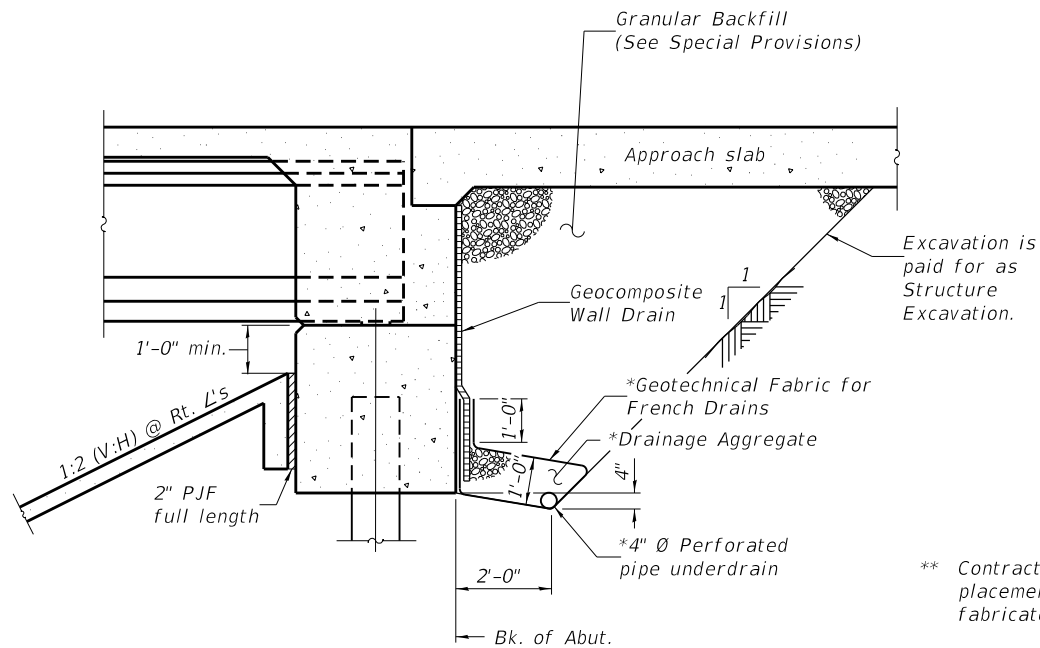
ILLINOIS FED. AID PROJECT

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HMG ENGINEERS
HMG ENGINEERS, INC.
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR

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DRAWN -
PLOT SCALE = 32,0000' / in.
CHECKED -
DATE -
PLOT DATE = 5/10/2022

REVISIONS
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SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

*Included in the cost of Pipe Underdrains for Structures.
(See Special Provisions)

Note:

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

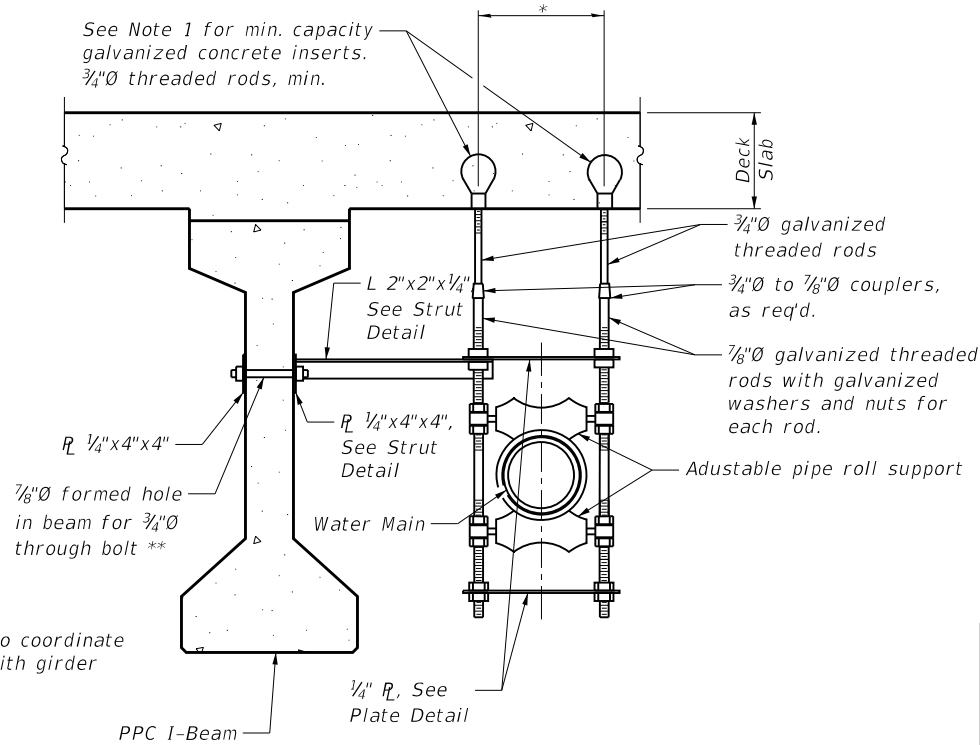
DESIGN SCOUR ELEVATION TABLE

Event/Limit State	Design Scour Elevations (ft.)				Item 113
	W. Abut.	Pier 1	Pier 2	E. Abut.	
Q100	-----	302.61	306.0±	-----	5
Q200	-----	302.42	306.0±	-----	
Design	357.3	302.61	306.0±	357.3	
Check	357.3	302.42	306.0±	357.3	

WATERWAY INFORMATION

Flood Event		Freq. Yr.	Q C.F.S.	Opening Sq Ft		Nat. H.W.E.	Head - Ft		Headwater El	
				Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design		10	14,300	1912	1847	325.4	0	0.1	325.4	325.5
Base		20	16,370	2253	2180	328.1	0.1	0.1	328.2	328.2
Scour Design Check		100	22,000	3070	2980	333.6	0.1	0.1	333.7	333.7
Overtopping		200	23,430	3200	3106	334.4	0.1	0.1	334.5	334.5
Max. Calc.		500	27,700	3412	3312	335.5	0.1	0.1	335.6	335.6

Note:
Elevations include an assumed backwater from the Ohio River.



PIPE HANGER DETAIL

*Dimension as required by pipe clamp manufacturer.

Notes:

- Concrete Anchors for 8" D.I. water main shall be cast-in-place galvanized ferrule loops on not more than 10'-0" spacing. Ferrule loops shall be flared, not straight, with a 4" max. height. Pipe hangers shall have a load capacity of not less than 1,000 pounds for 8" pipe. Mechanical inserts or adhesive anchor systems are not permitted.
- Contractor shall submit shop drawings of the complete hanger system to the engineer for review and approval prior to fabrication.

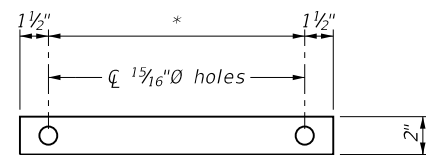
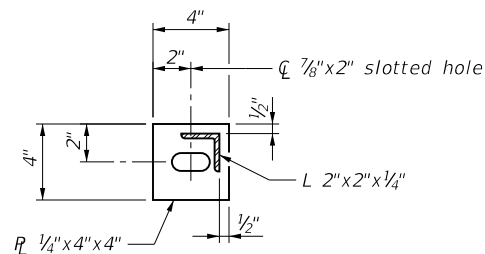


PLATE DETAIL



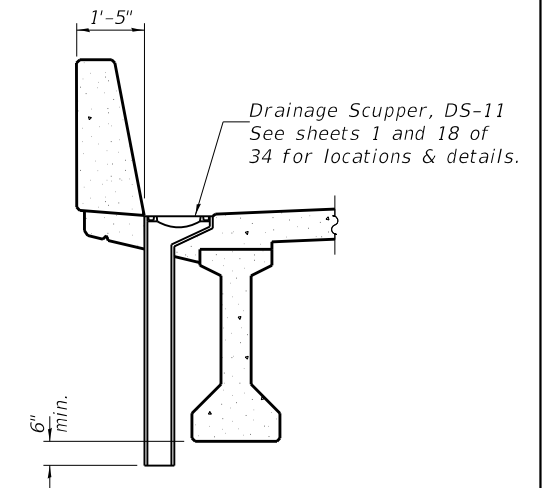
STRUT DETAIL

GENERAL NOTES

- Reinforcement bars designated (E) shall be epoxy coated.
- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Drilled Shaft Test Holes shall be completed at least one (1) week prior to pier construction, as described in the Special Provisions. Cutting reinforcement bars may be necessitated. See Special Provisions and Footing Plan for further details.
- The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
- Slipforming of the parapets is not allowed.

POST CREEK CUT-OFF
BUILT 202 BY
PULASKI COUNTY
SEC. 12-00071-00-BR
PROJ. NO. 1 FDA (058)
FAS RTE 937 STA 33+06
S.N. 077-3145 LOADING HL93

NAME PLATE
See Std. 515001



DRAINAGE SCUPPER SECTION

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures	Each	---	---	1
Slope Wall Removal	Cu Yd	---	---	303
Structure Excavation	Cu Yd	---	162	162
Floor Drains	Each	10	---	10
Concrete Structures	Cu Yd	---	349.9	349.9
Concrete Superstructure	Cu Yd	302.8	---	302.8
Bridge Deck Grooving	Sq Yd	960	---	960
Protective Coat	Sq Yd	1,314	---	1,314
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 54 In.	Foot	1,077	---	1,077
Reinforcement Bars	Pound	---	50,530	50,530
Reinforcement Bars, Epoxy Coated	Pound	106,530	81,360	187,890
Mechanical Splicers	Each	---	348	348
Slope Wall 6 Inch	Sq Yd	---	---	189
Furnishing Steel Piles HP14x89	Foot	---	564	564
Driving Piles	Foot	---	564	564
Test Pile Steel HP14x89	Each	---	2	2
Pile Shoes	Each	---	14	14
Name Plates	Each	---	---	1
Permanent Casing	Foot	---	126	126
Drilled Shaft in Soil	Cu Yd	---	125.1	125.1
Drilled Shaft in Rock	Cu Yd	---	49.6	49.6
Preformed Joint Strip Seal	Foot	58	---	58
Granular Backfill for Structures	Cu Yd	---	110	110
Geocomposite Wall Drain	Sq Yd	---	79	79
Drilled Shaft Test Holes	Each	---	2	2
Concrete Wearing Surface, 5"	Sq Yd	200	---	200
Precast Bridge Approach Slab	Sq Ft	1,690	---	1,690
Drainage Scuppers, DS-11	Each	4	---	4
Pipe Underdrains for Structures 4"	Foot	---	96	96

** Quantity includes top of concrete surface of bridge deck and approach slabs end to end and the top and inside vertical faces of the parapets and curbs.

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BREESE, ILLINOIS 62230
888.HMG.ENGR
IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = klaux
DESIGNED -
DRAWN -
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REVISOR -
REVISIONS -
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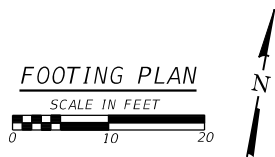
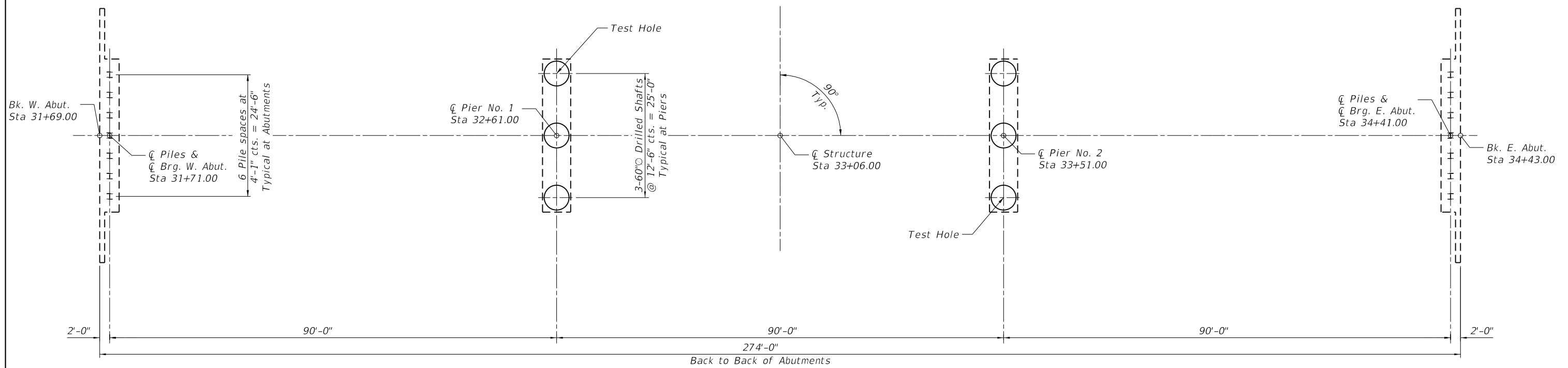
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 077-3145
SCALE: SHEET 2 OF 34 SHEETS STA. TO STA.

F.A.S. RTE. 937 SECTION 12-00071-00-BR COUNTY PULASKI TOTAL SHEETS 56 SHEET NO. 17 CONTRACT NO. 99678 ILLINOIS FED. AID PROJECT

Note:

Drilled Shaft Test Holes should be at least 20' deep to confirm rock quality.



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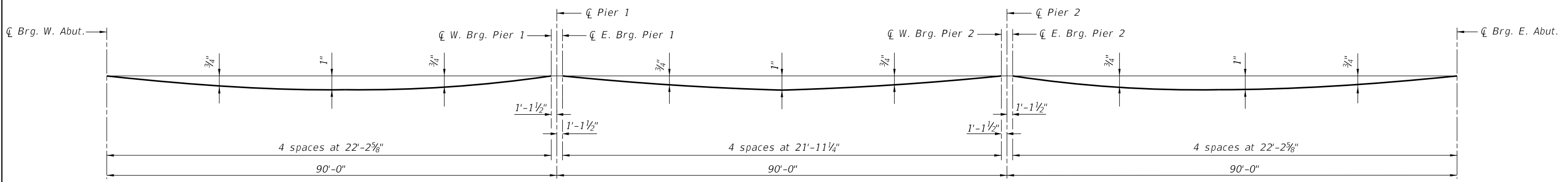
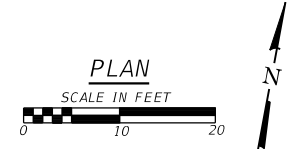
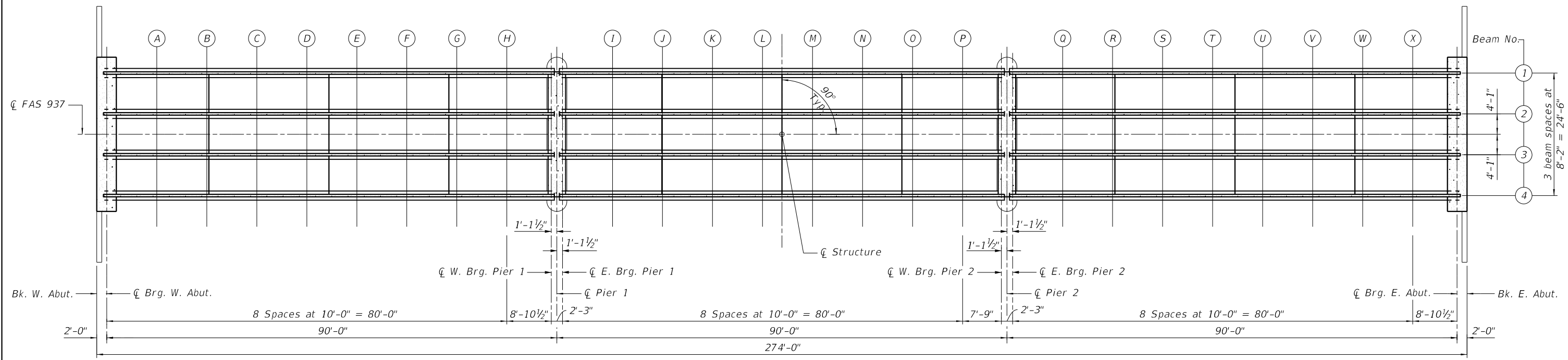
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOOTING PLAN
STRUCTURE NO. 077-3145
SCALE: SHEET 3 OF 34 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	18
CONTRACT NO. 99678			ILLINOIS FED. AID PROJECT	



DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete only, exclusive of beam weight.)

Note:
 The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections shown on sheets 5 thru 7.

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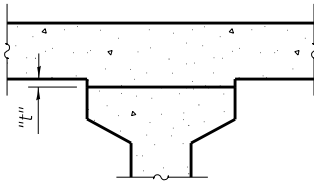
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 077-3145

SCALE: SHEET 4 OF 34 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	19
CONTRACT NO. 99678			ILLINOIS FED. AID PROJECT	



To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown below, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS

NORTH GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk West Abut	31+69.00	-14.00	366.15	366.15
CL Brg West Abut	31+71.00	-14.00	366.17	366.17
A	31+81.00	-14.00	366.24	366.26
B	31+91.00	-14.00	366.32	366.37
C	32+01.00	-14.00	366.42	366.49
D	32+11.00	-14.00	366.53	366.62
E	32+21.00	-14.00	366.64	366.72
F	32+31.00	-14.00	366.73	366.80
G	32+41.00	-14.00	366.81	366.86
H	32+51.00	-14.00	366.87	366.90
CL W. Brg Pier 1	32+59.88	-14.00	366.92	366.92
CL Pier 1	32+61.00	-14.00	366.93	366.93
CL E. Brg Pier 1	32+62.13	-14.00	366.94	366.94
I	32+72.13	-14.00	366.98	367.01
J	32+82.13	-14.00	367.01	367.07
K	32+92.13	-14.00	367.03	367.10
L	33+02.13	-14.00	367.04	367.12
M	33+12.13	-14.00	367.04	367.12
N	33+22.13	-14.00	367.02	367.10
O	33+32.13	-14.00	367.00	367.05
P	33+42.13	-14.00	366.96	366.99
CL W. Brg Pier 2	33+49.88	-14.00	366.93	366.93
CL Pier 2	33+51.00	-14.00	366.92	366.92
CL E. Brg Pier 2	33+52.13	-14.00	366.91	366.91
Q	33+62.13	-14.00	366.85	366.88
R	33+72.13	-14.00	366.78	366.84
S	33+82.13	-14.00	366.70	366.77
T	33+92.13	-14.00	366.61	366.69
U	34+02.13	-14.00	366.50	366.58
V	34+12.13	-14.00	366.39	366.46
W	34+22.13	-14.00	366.29	366.35
X	34+32.13	-14.00	366.21	366.24
CL Brg East Abut	34+41.00	-14.00	366.15	366.15
Bk East Abut	34+43.00	-14.00	366.13	366.13

BEAM NO. 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk West Abut	31+69.00	-12.25	366.19	366.19
CL Brg West Abut	31+71.00	-12.25	366.20	366.20
A	31+81.00	-12.25	366.27	366.30
B	31+91.00	-12.25	366.36	366.41
C	32+01.00	-12.25	366.46	366.53
D	32+11.00	-12.25	366.57	366.65
E	32+21.00	-12.25	366.67	366.75
F	32+31.00	-12.25	366.76	366.84
G	32+41.00	-12.25	366.84	366.90
H	32+51.00	-12.25	366.91	366.94
CL W. Brg Pier 1	32+59.88	-12.25	366.96	366.96
CL Pier 1	32+61.00	-12.25	366.97	366.97
CL E. Brg Pier 1	32+62.13	-12.25	366.97	366.97
I	32+72.13	-12.25	367.02	367.04
J	32+82.13	-12.25	367.05	367.10
K	32+92.13	-12.25	367.07	367.14
L	33+02.13	-12.25	367.08	367.16
M	33+12.13	-12.25	367.07	367.16
N	33+22.13	-12.25	367.06	367.13
O	33+32.13	-12.25	367.04	367.09
P	33+42.13	-12.25	367.00	367.03
CL W. Brg Pier 2	33+49.88	-12.25	366.96	366.96
CL Pier 2	33+51.00	-12.25	366.96	366.96
CL E. Brg Pier 2	33+52.13	-12.25	366.95	366.95
Q	33+62.13	-12.25	366.89	366.92
R	33+72.13	-12.25	366.82	366.87
S	33+82.13	-12.25	366.74	366.81
T	33+92.13	-12.25	366.64	366.72
U	34+02.13	-12.25	366.54	366.62
V	34+12.13	-12.25	366.43	366.50
W	34+22.13	-12.25	366.33	366.38
X	34+32.13	-12.25	366.25	366.27
CL Brg East Abut	34+41.00	-12.25	366.18	366.18
Bk East Abut	34+43.00	-12.25	366.17	366.17

BEAM NO. 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk West Abut	31+69.00	-4.08	366.32	366.32
CL Brg West Abut	31+71.00	-4.08	366.34	366.34
A	31+81.00	-4.08	366.41	366.43
B	31+91.00	-4.08	366.49	366.55
C	32+01.00	-4.08	366.59	366.66
D	32+11.00	-4.08	366.70	366.79
E	32+21.00	-4.08	366.81	366.89
F	32+31.00	-4.08	366.90	366.97
G	32+41.00	-4.08	366.98	367.03
H	32+51.00	-4.08	367.04	367.07
CL W. Brg Pier 1	32+59.88	-4.08	367.09	367.09
CL Pier 1	32+61.00	-4.08	367.10	367.10
CL E. Brg Pier 1	32+62.13	-4.08	367.11	367.11
I	32+72.13	-4.08	367.15	367.18
J	32+82.13	-4.08	367.18	367.24
K	32+92.13	-4.08	367.20	367.27
L	33+02.13	-4.08	367.21	367.29
M	33+12.13	-4.08	367.21	367.29
N	33+22.13	-4.08	367.20	367.27
O	33+32.13	-4.08	367.17	367.22
P	33+42.13	-4.08	367.13	367.16
CL W. Brg Pier 2	33+49.88	-4.08	367.10	367.10
CL Pier 2	33+51.00	-4.08	367.09	367.09
CL E. Brg Pier 2	33+52.13	-4.08	367.08	367.08
Q	33+62.13	-4.08	367.02	367.05
R	33+72.13	-4.08	366.95	367.01
S	33+82.13	-4.08	366.87	366.94
T	33+92.13	-4.08	366.78	366.86
U	34+02.13	-4.08	366.67	366.75
V	34+12.13	-4.08	366.56	366.63
W	34+22.13	-4.08	366.46	366.52
X	34+32.13	-4.08	366.38	366.41
CL Brg East Abut	34+41.00	-4.08	366.32	366.32
Bk East Abut	34+43.00	-4.08	366.31	366.31

Notes:
 1. Elevations are at Top of Concrete.
 2. See Sheet 4 for elevation locations.

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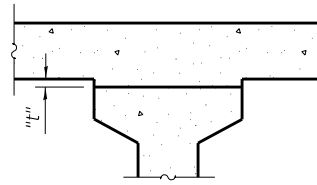
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS
 STRUCTURE NO. 077-3145**

SCALE: SHEET 5 OF 34 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	20
CONTRACT NO. 99678				
ILLINOIS FED. AID PROJECT				



To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted For Dead Load Deflections" shown below, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS

☉ ROADWAY & PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk West Abut	31+69.00	0.00	366.39	366.39
CL Brg West Abut	31+71.00	0.00	366.40	366.40
A	31+81.00	0.00	366.47	366.50
B	31+91.00	0.00	366.56	366.61
C	32+01.00	0.00	366.66	366.73
D	32+11.00	0.00	366.77	366.85
E	32+21.00	0.00	366.87	366.95
F	32+31.00	0.00	366.96	367.03
G	32+41.00	0.00	367.04	367.09
H	32+51.00	0.00	367.11	367.14
CL W. Brg Pier 1	32+59.88	0.00	367.16	367.16
CL Pier 1	32+61.00	0.00	367.16	367.16
CL E. Brg Pier 1	32+62.13	0.00	367.17	367.17
I	32+72.13	0.00	367.21	367.24
J	32+82.13	0.00	367.25	367.30
K	32+92.13	0.00	367.27	367.34
L	33+02.13	0.00	367.28	367.36
M	33+12.13	0.00	367.27	367.35
N	33+22.13	0.00	367.26	367.33
O	33+32.13	0.00	367.23	367.29
P	33+42.13	0.00	367.20	367.23
CL W. Brg Pier 2	33+49.88	0.00	367.16	367.16
CL Pier 2	33+51.00	0.00	367.15	367.15
CL E. Brg Pier 2	33+52.13	0.00	367.15	367.15
Q	33+62.13	0.00	367.09	367.12
R	33+72.13	0.00	367.02	367.07
S	33+82.13	0.00	366.93	367.01
T	33+92.13	0.00	366.84	366.92
U	34+02.13	0.00	366.73	366.82
V	34+12.13	0.00	366.62	366.70
W	34+22.13	0.00	366.53	366.58
X	34+32.13	0.00	366.44	366.47
CL Brg East Abut	34+41.00	0.00	366.38	366.38
Bk East Abut	34+43.00	0.00	366.37	366.37

BEAM NO. 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk West Abut	31+69.00	4.08	366.32	366.32
CL Brg West Abut	31+71.00	4.08	366.34	366.34
A	31+81.00	4.08	366.41	366.43
B	31+91.00	4.08	366.49	366.55
C	32+01.00	4.08	366.59	366.66
D	32+11.00	4.08	366.70	366.79
E	32+21.00	4.08	366.81	366.89
F	32+31.00	4.08	366.90	366.97
G	32+41.00	4.08	366.98	367.03
H	32+51.00	4.08	367.04	367.07
CL W. Brg Pier 1	32+59.88	4.08	367.09	367.09
CL Pier 1	32+61.00	4.08	367.10	367.10
CL E. Brg Pier 1	32+62.13	4.08	367.11	367.11
I	32+72.13	4.08	367.15	367.18
J	32+82.13	4.08	367.18	367.24
K	32+92.13	4.08	367.20	367.27
L	33+02.13	4.08	367.21	367.29
M	33+12.13	4.08	367.21	367.29
N	33+22.13	4.08	367.20	367.27
O	33+32.13	4.08	367.17	367.22
P	33+42.13	4.08	367.13	367.16
CL W. Brg Pier 2	33+49.88	4.08	367.10	367.10
CL Pier 2	33+51.00	4.08	367.09	367.09
CL E. Brg Pier 2	33+52.13	4.08	367.08	367.08
Q	33+62.13	4.08	367.02	367.05
R	33+72.13	4.08	366.95	367.01
S	33+82.13	4.08	366.87	366.94
T	33+92.13	4.08	366.78	366.86
U	34+02.13	4.08	366.67	366.75
V	34+12.13	4.08	366.56	366.63
W	34+22.13	4.08	366.46	366.52
X	34+32.13	4.08	366.38	366.41
CL Brg East Abut	34+41.00	4.08	366.32	366.32
Bk East Abut	34+43.00	4.08	366.31	366.31

Notes:
 1. Elevations are at Top of Concrete.
 2. See Sheet 4 for elevation locations.

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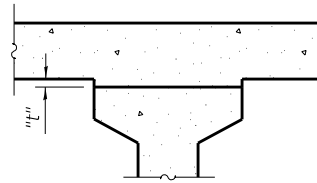
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
 STRUCTURE NO. 077-3145

SCALE: SHEET 6 OF 34 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	21
CONTRACT NO. 99678			ILLINOIS FED. AID PROJECT	



To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted For Dead Load Deflections" shown below, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS

BEAM NO. 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk West Abut	31+69.00	12.25	366.19	366.19
CL Brg West Abut	31+71.00	12.25	366.20	366.20
A	31+81.00	12.25	366.27	366.30
B	31+91.00	12.25	366.36	366.41
C	32+01.00	12.25	366.46	366.53
D	32+11.00	12.25	366.57	366.65
E	32+21.00	12.25	366.67	366.75
F	32+31.00	12.25	366.76	366.84
G	32+41.00	12.25	366.84	366.90
H	32+51.00	12.25	366.91	366.94
CL W. Brg Pier 1	32+59.88	12.25	366.96	366.96
CL Pier 1	32+61.00	12.25	366.97	366.97
CL E. Brg Pier 1	32+62.13	12.25	366.97	366.97
I	32+72.13	12.25	367.02	367.04
J	32+82.13	12.25	367.05	367.10
K	32+92.13	12.25	367.07	367.14
L	33+02.13	12.25	367.08	367.16
M	33+12.13	12.25	367.07	367.16
N	33+22.13	12.25	367.06	367.13
O	33+32.13	12.25	367.04	367.09
P	33+42.13	12.25	367.00	367.03
CL W. Brg Pier 2	33+49.88	12.25	366.96	366.96
CL Pier 2	33+51.00	12.25	366.96	366.96
CL E. Brg Pier 2	33+52.13	12.25	366.95	366.95
Q	33+62.13	12.25	366.89	366.92
R	33+72.13	12.25	366.82	366.87
S	33+82.13	12.25	366.74	366.81
T	33+92.13	12.25	366.64	366.72
U	34+02.13	12.25	366.54	366.62
V	34+12.13	12.25	366.43	366.50
W	34+22.13	12.25	366.33	366.38
X	34+32.13	12.25	366.25	366.27
CL Brg East Abut	34+41.00	12.25	366.18	366.18
Bk East Abut	34+43.00	12.25	366.17	366.17

SOUTH GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk West Abut	31+69.00	14.00	366.15	366.15
CL Brg West Abut	31+71.00	14.00	366.17	366.17
A	31+81.00	14.00	366.24	366.26
B	31+91.00	14.00	366.32	366.37
C	32+01.00	14.00	366.42	366.49
D	32+11.00	14.00	366.53	366.62
E	32+21.00	14.00	366.64	366.72
F	32+31.00	14.00	366.73	366.80
G	32+41.00	14.00	366.81	366.86
H	32+51.00	14.00	366.87	366.90
CL W. Brg Pier 1	32+59.88	14.00	366.92	366.92
CL Pier 1	32+61.00	14.00	366.93	366.93
CL E. Brg Pier 1	32+62.13	14.00	366.94	366.94
I	32+72.13	14.00	366.98	367.01
J	32+82.13	14.00	367.01	367.07
K	32+92.13	14.00	367.03	367.10
L	33+02.13	14.00	367.04	367.12
M	33+12.13	14.00	367.04	367.12
N	33+22.13	14.00	367.02	367.10
O	33+32.13	14.00	367.00	367.05
P	33+42.13	14.00	366.96	366.99
CL W. Brg Pier 2	33+49.88	14.00	366.93	366.93
CL Pier 2	33+51.00	14.00	366.92	366.92
CL E. Brg Pier 2	33+52.13	14.00	366.91	366.91
Q	33+62.13	14.00	366.85	366.88
R	33+72.13	14.00	366.78	366.84
S	33+82.13	14.00	366.70	366.77
T	33+92.13	14.00	366.61	366.69
U	34+02.13	14.00	366.50	366.58
V	34+12.13	14.00	366.39	366.46
W	34+22.13	14.00	366.29	366.35
X	34+32.13	14.00	366.21	366.24
CL Brg East Abut	34+41.00	14.00	366.15	366.15
Bk East Abut	34+43.00	14.00	366.13	366.13

- Notes:
 1. Elevations are at Top of Concrete.
 2. See Sheet 4 for elevation locations.

E-S 2-17-2017

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 9360 HOLY CROSS LANE
 BREESE, ILLINOIS 62230
 888.HMG.ENGR
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS
 STRUCTURE NO. 077-3145**

SCALE: SHEET 7 OF 34 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	22
CONTRACT NO. 99678				
ILLINOIS FED. AID PROJECT				

NORTH CURB LINE

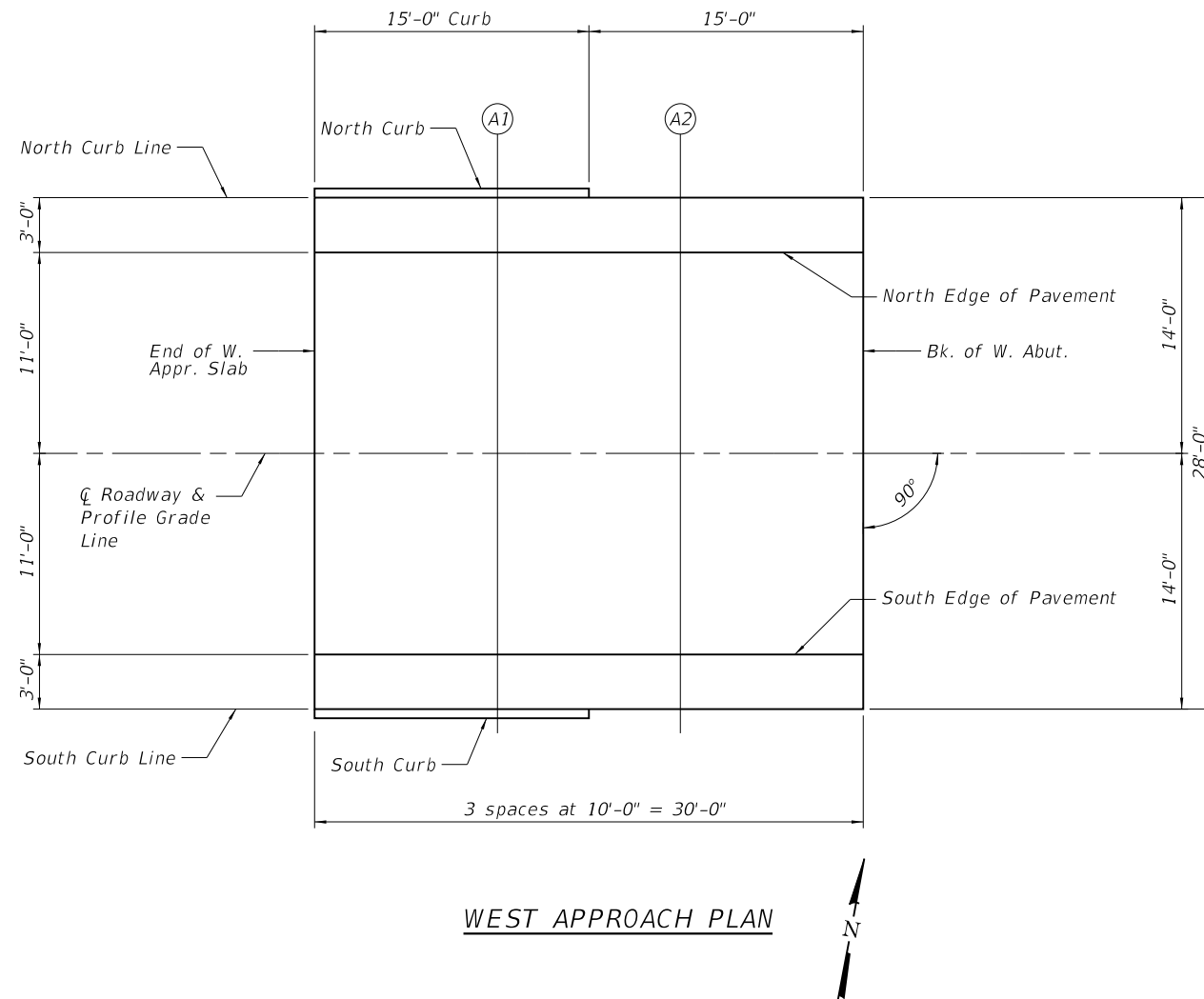
Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr. Pav't.	31+40.00	-14.00	366.05
A1	31+50.00	-14.00	366.07
A2	31+60.00	-14.00	366.11
E. End of West Appr. Pav't.	31+70.00	-14.00	366.16

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr. Pav't.	31+40.00	-11.00	366.11
A1	31+50.00	-11.00	366.13
A2	31+60.00	-11.00	366.17
E. End of West Appr. Pav't.	31+70.00	-11.00	366.22

CL ROADWAY & PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr. Pav't.	31+40.00	0.00	366.28
A1	31+50.00	0.00	366.30
A2	31+60.00	0.00	366.34
E. End of West Appr. Pav't.	31+70.00	0.00	366.39



WEST APPROACH PLAN

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr. Pav't.	31+40.00	-11.00	366.11
A1	31+50.00	-11.00	366.13
A2	31+60.00	-11.00	366.17
E. End of West Appr. Pav't.	31+70.00	-11.00	366.22

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr. Pav't.	31+40.00	-14.00	366.05
A1	31+50.00	-14.00	366.07
A2	31+60.00	-14.00	366.11
E. End of West Appr. Pav't.	31+70.00	-14.00	366.16

E-AS

2-17-2017

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	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF WEST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 077-3145

SCALE: SHEET 8 OF 34 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	23
ILLINOIS FED. AID PROJECT			CONTRACT NO. 99678	

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr. Pav't.	34+42.00	-14.00	366.14
A3	34+52.00	-14.00	366.09
A4	34+62.00	-14.00	366.05
E. End of East Appr. Pav't.	34+72.00	-14.00	366.02

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr. Pav't.	34+42.00	-11.00	366.20
A3	34+52.00	-11.00	366.15
A4	34+62.00	-11.00	366.11
E. End of East Appr. Pav't.	34+72.00	-11.00	366.08

Q ROADWAY & PROFILE GRADE LINE

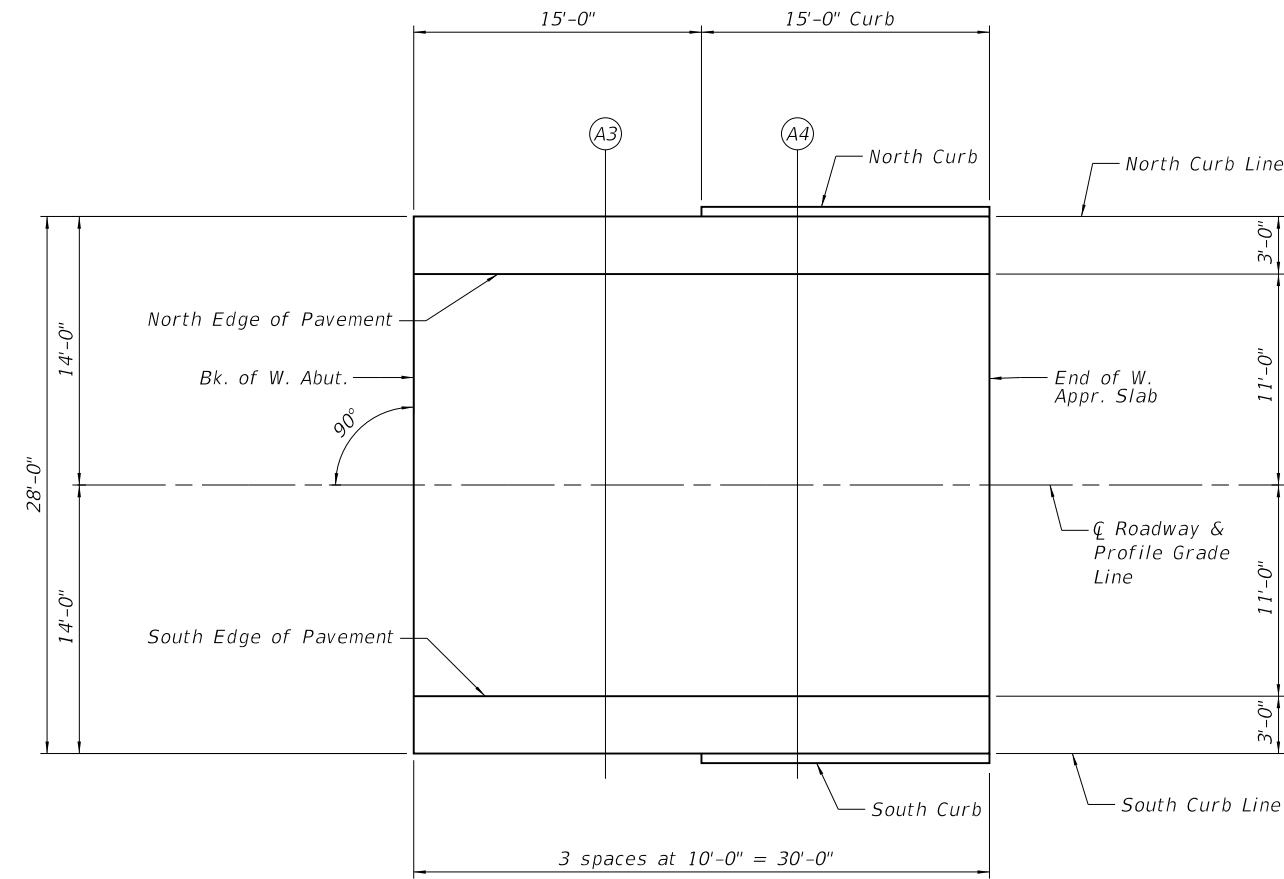
Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr. Pav't.	34+42.00	0.00	366.37
A3	34+52.00	0.00	366.32
A4	34+62.00	0.00	366.28
E. End of East Appr. Pav't.	34+72.00	0.00	366.25

SOUTH EDGE OF PAVEMENT

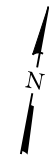
Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr. Pav't.	34+42.00	-11.00	366.20
A3	34+52.00	-11.00	366.15
A4	34+62.00	-11.00	366.11
E. End of East Appr. Pav't.	34+72.00	-11.00	366.08

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr. Pav't.	34+42.00	-14.00	366.14
A3	34+52.00	-14.00	366.09
A4	34+62.00	-14.00	366.05
E. End of East Appr. Pav't.	34+72.00	-14.00	366.02



EAST APPROACH PLAN



E-AS

2-17-2017

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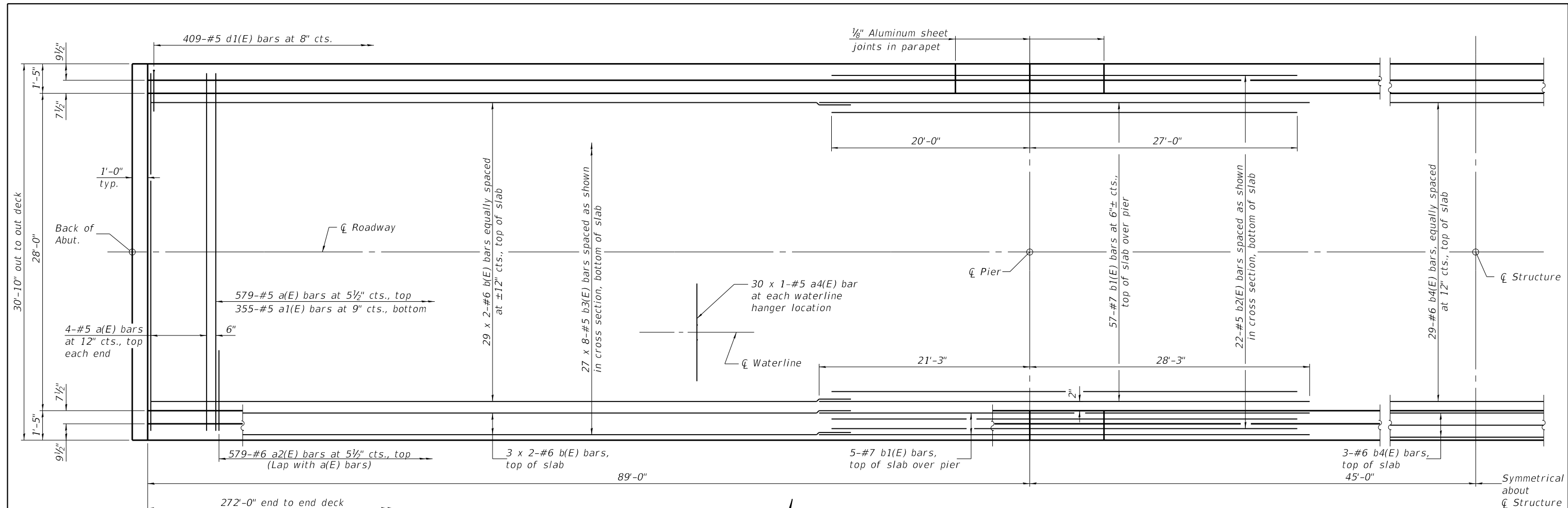
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REVISIED -
REVISIED -
REVISIED -

STATE OF ILLINOIS
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TOP OF EAST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 077-3145

SCALE: SHEET 9 OF 34 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS FED. AID PROJECT			CONTRACT NO. 99678	

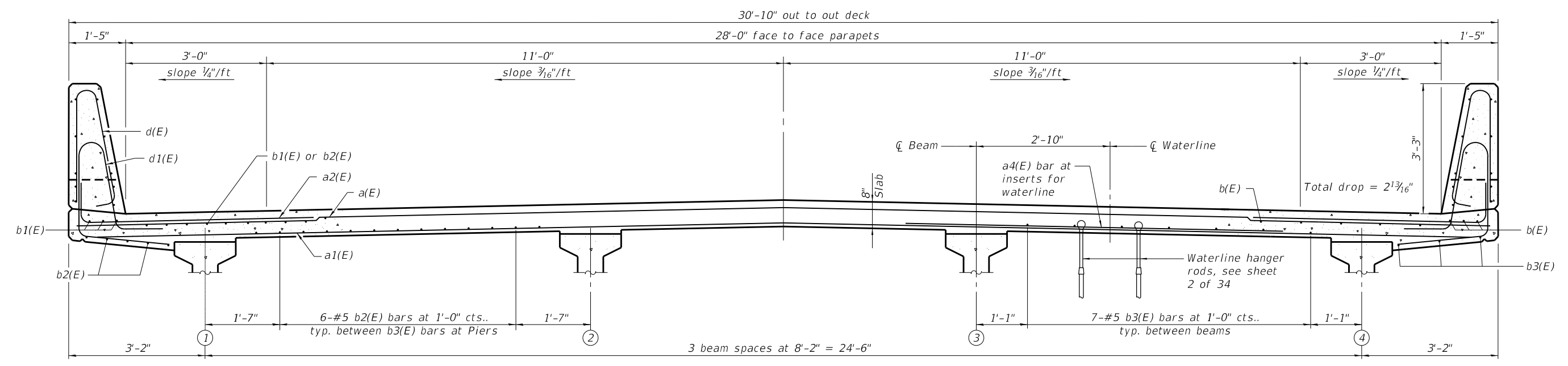


PARTIAL PLAN

MINIMUM BAR LAP

- #5 bar = 3'-6"
- #6 bar = 4'-0"
- #7 bar = 4'-6"

Notes:
 See sheet 11 of 34 for superstructure details and Bill of Material.
 Bars indicated thus 29 x 2-#6 etc. indicates 29 lines of bars with 2 lengths per line.



CROSS SECTION
(Looking East)

SI-13654-2-0 6-15-2019

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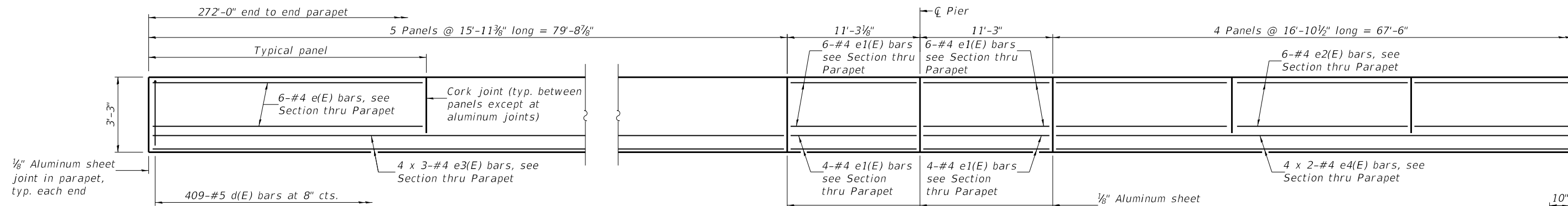
STATE OF ILLINOIS
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SUPERSTRUCTURE
STRUCTURE NO. 077-3145

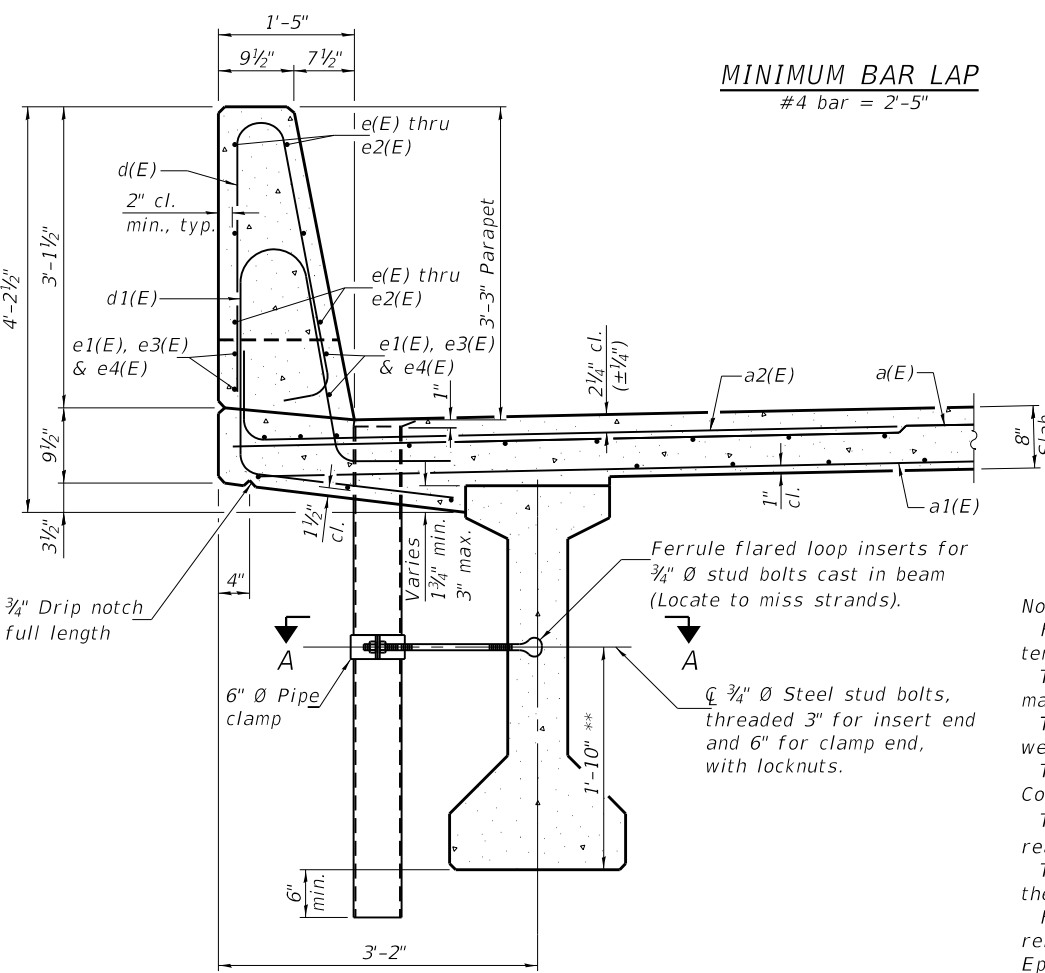
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F.A.S. RTE. 937	SECTION 12-00071-00-BR	COUNTY PULASKI	TOTAL SHEETS 56	SHEET NO. 25
CONTRACT NO. 99678				
ILLINOIS FED. AID PROJECT				

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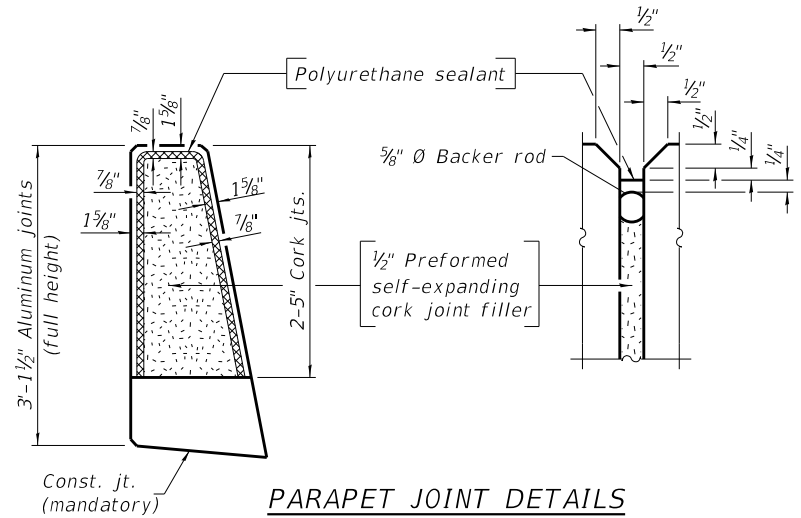


INSIDE ELEVATION OF PARAPET

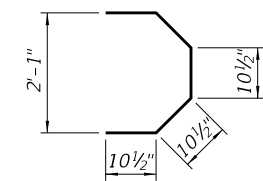


SECTION THRU PARAPET

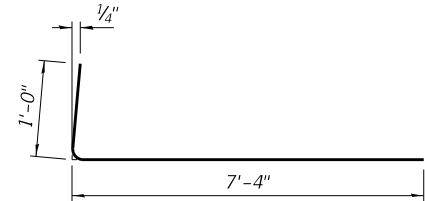
**For insert locations, see sheet 21 of 34.



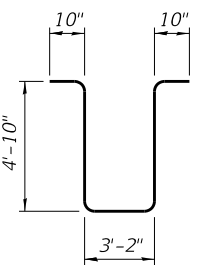
PARAPET JOINT DETAILS



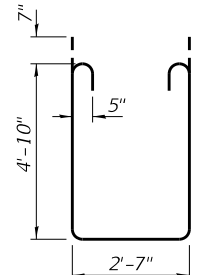
BAR m23(E)



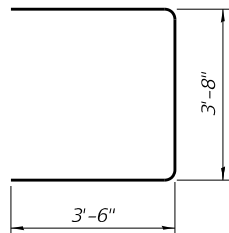
BAR a2(E)



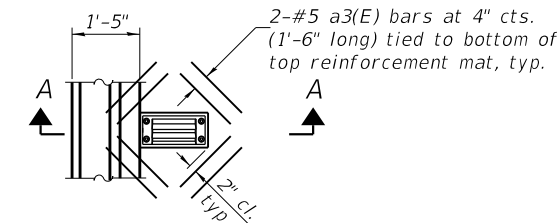
BARS s20(E)



BAR s11(E)

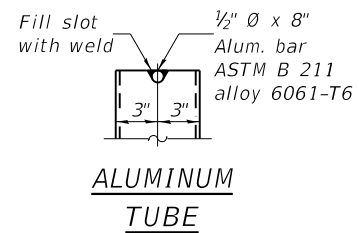


BARS s10(E)

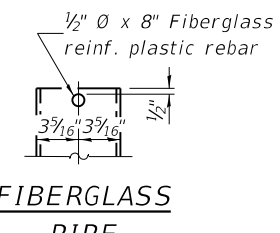


DRAINAGE SCUPPER PLAN

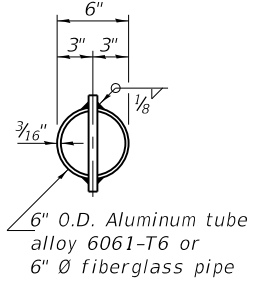
Note: Cut longitudinal reinforcement to clear drainage scuppers.



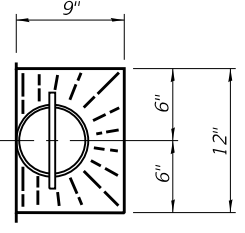
ALUMINUM TUBE



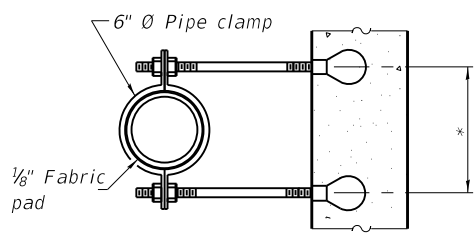
FIBERGLASS PIPE



TOP PLAN (Showing aluminum tube)

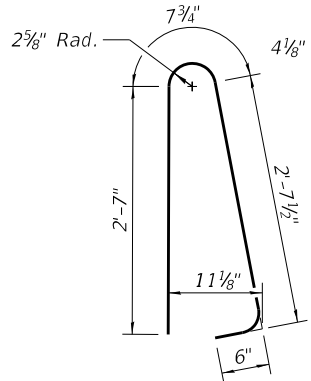


TOP PLAN

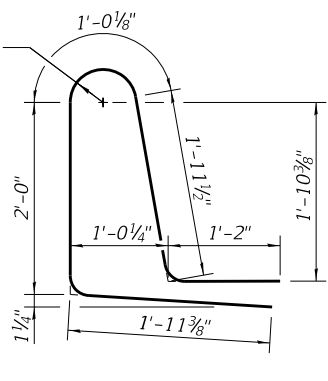


SECTION A-A

*Dimension as required by pipe clamp



BAR d(E)



BAR d1(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	587	#5	30'-6"	—
a1(E)	355	#5	28'-10"	—
a2(E)	1,158	#6	8'-4"	└
a3(E)	32	#5	1'-6"	—
a4(E)	30	#5	8'-0"	—
b(E)	140	#6	37'-11"	—
b1(E)	134	#7	49'-6"	—
b2(E)	44	#5	47'-0"	—
b3(E)	216	#5	37'-1"	—
b4(E)	35	#6	41'-6"	—
d(E)	818	#5	6'-5"	└
d1(E)	818	#5	8'-1"	└
e(E)	120	#4	15'-7"	—
e1(E)	80	#4	10'-11"	—
e2(E)	48	#4	16'-6"	—
e3(E)	48	#4	28'-2"	—
e4(E)	16	#4	35'-0"	—
m10(E)	12	#6	30'-6"	—
m11(E)	24	#6	7'-4"	—
m12(E)	16	#6	2'-7"	—
m13(E)	6	#6	6'-0"	—
m14(E)	4	#6	1'-11"	—
m15(E)	16	#5	4'-0"	—
m20(E)	12	#6	6'-0"	—
m21(E)	48	#6	7'-4"	—
m22(E)	16	#5	4'-0"	—
m23(E)	8	#6	4'-5"	└
s10(E)	50	#5	10'-8"	└
s11(E)	50	#5	13'-5"	└
s20(E)	42	#5	14'-6"	└
Reinforcement Bars, Epoxy Coated		Lbs.		98,050
Concrete Superstructure		Cu. Yds.		295.0
Floor Drains		Each		10

Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.

SDI-I4854-2 6-15-2019

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PLOT DATE = 1/4/2022

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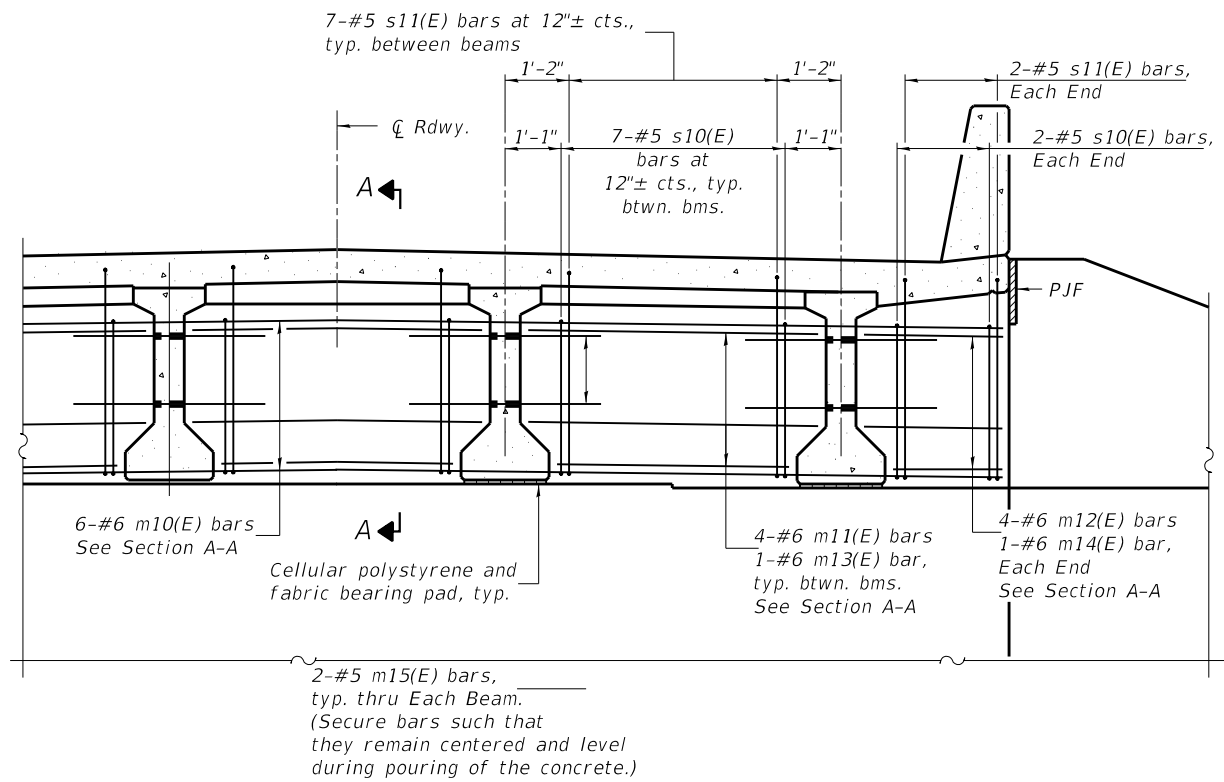
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 077-3145

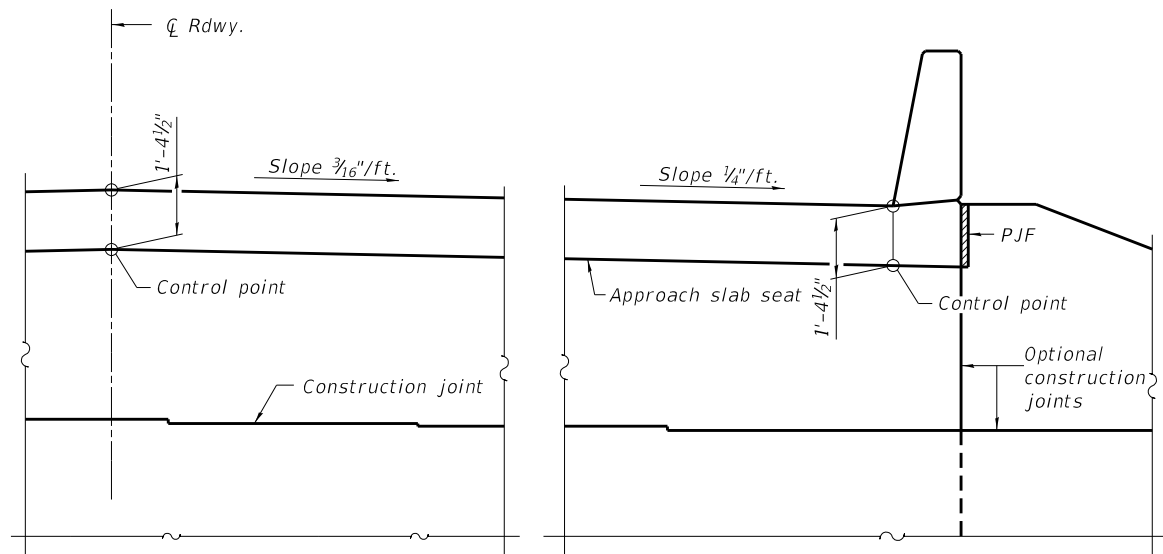
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				CONTRACT NO. 99678
		ILLINOIS	FED. AID PROJECT	

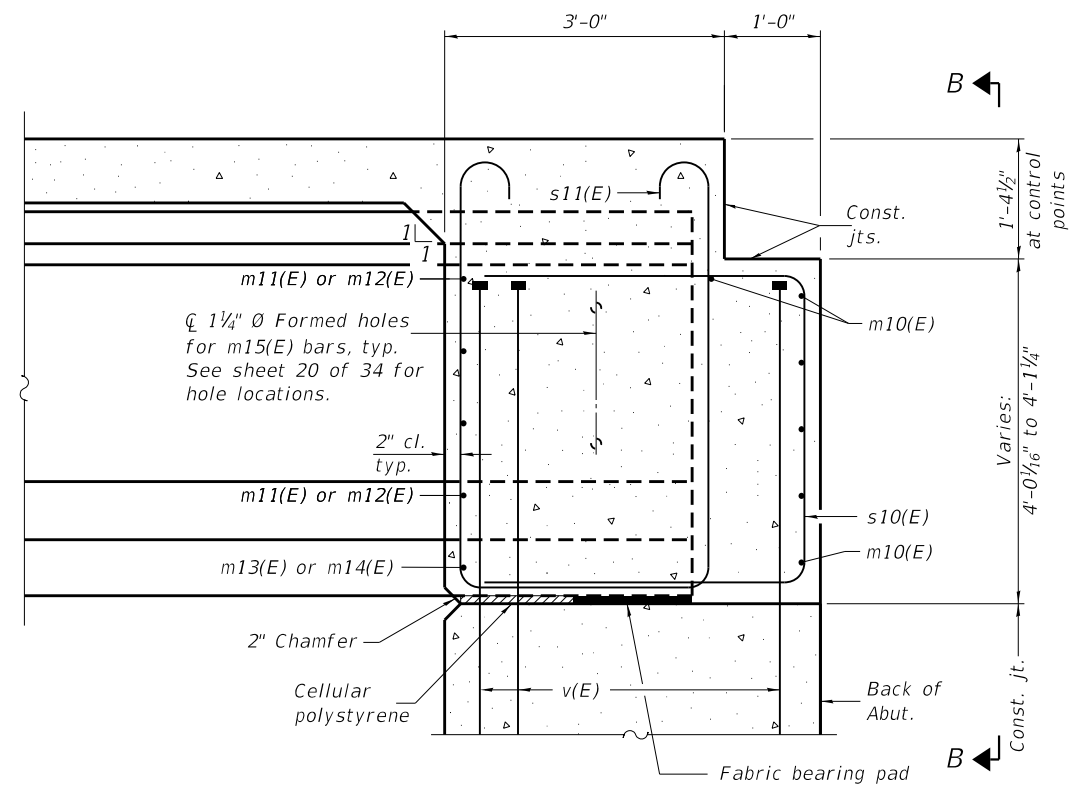
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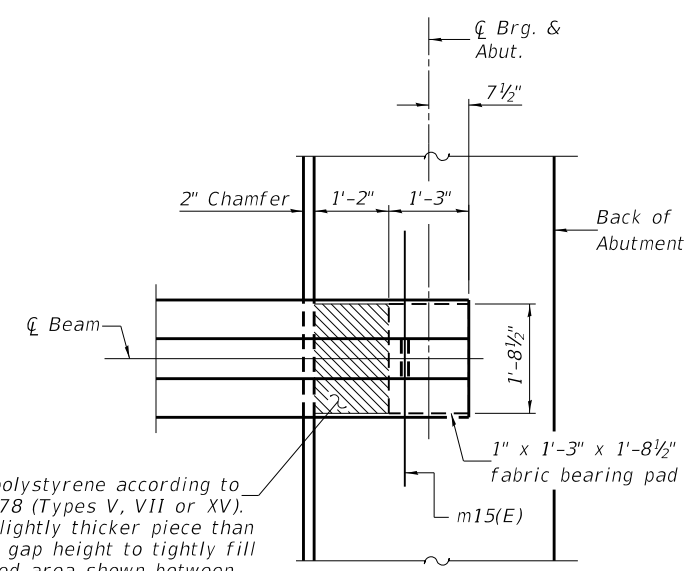
DIAPHRAGM AT ABUTMENT



VIEW B-B



SECTION A-A



PLAN AT ABUTMENT
(Showing bottom flange of beam)

Notes:

See sheet 11 of 34 for superstructure details and Bill of Material.

See sheet 14 of 34 for P.J.F. details.

The approach slab seat shall have a constant slope determined from the control points shown.

Cost of cellular polystyrene is included with Concrete Superstructure.

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DIA-I4854-0 6-15-2019

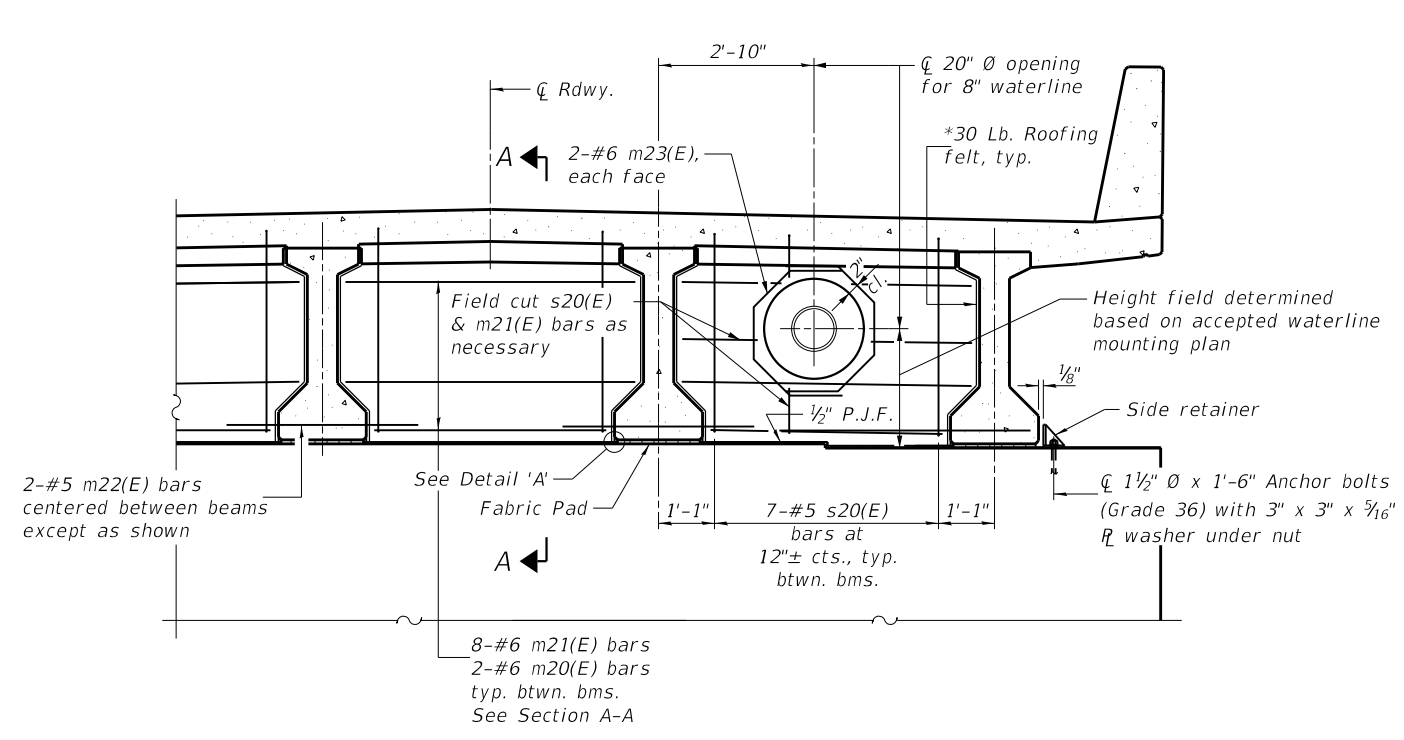
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ABUTMENT DIAPHRAGM DETAILS
STRUCTURE NO. 077-3145

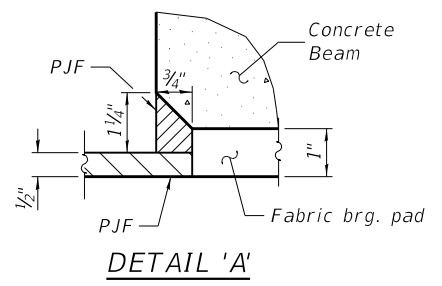
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS FED. AID PROJECT			CONTRACT NO. 99678	

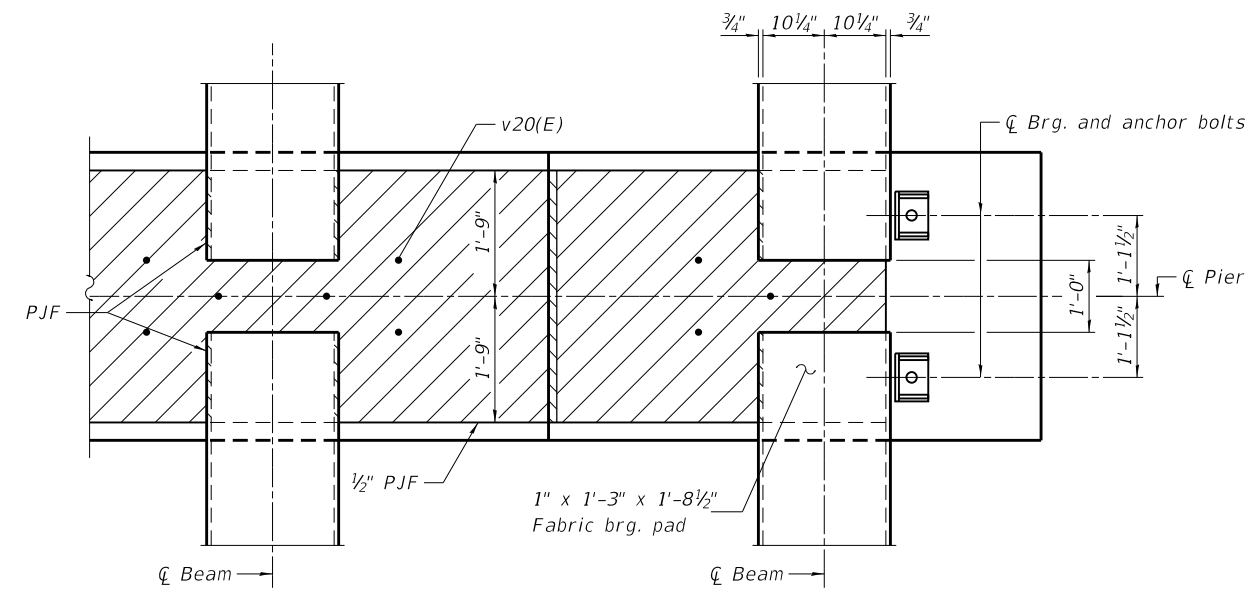


DIAPHRAGM AT PIER
(Looking East)

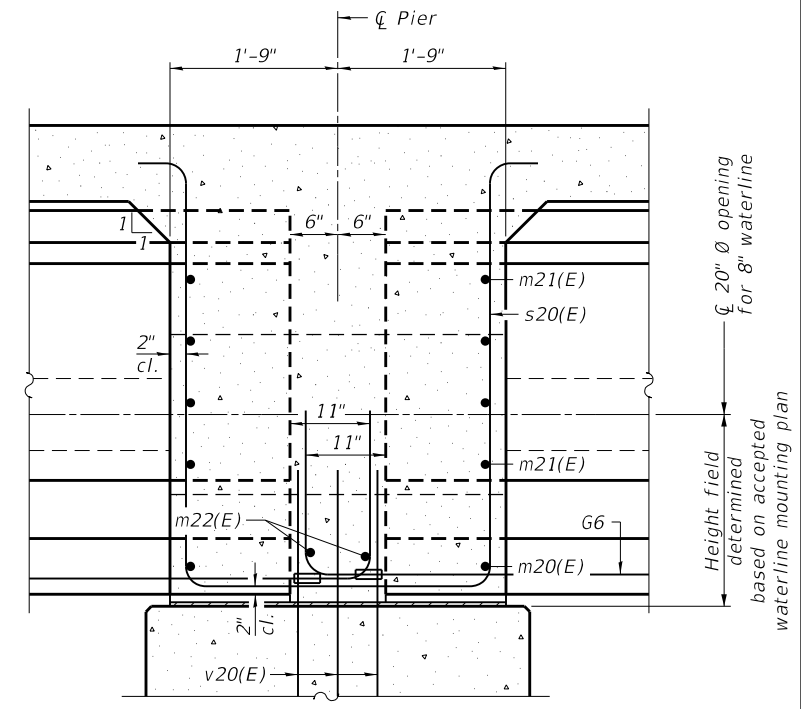
*Bonded to sides of beams embedded into diaphragm.



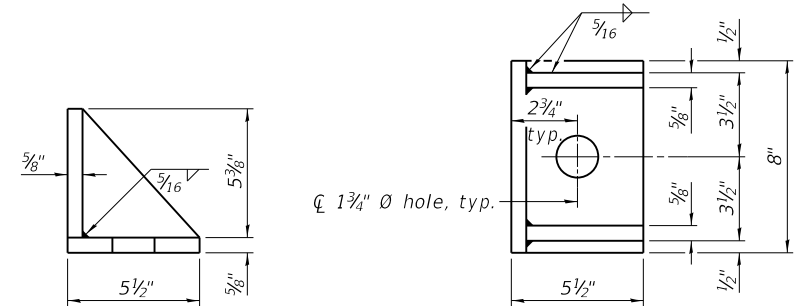
DETAIL 'A'



PLAN AT PIER
(Showing bearing pads and P.J.F. details)



SECTION A-A



SIDE RETAINER

(2 required each side of pier).
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

Notes:
See sheet 11 of 34 for superstructure details and Bill of Material.
Cost of 30 Lb. roofing felt is included with Concrete Superstructure.
Cost of side retainer and anchor bolts shall be included with Concrete Structures.
Anchor bolts and side retainers shall be according to Article 521.06 of the Standard Specifications. Side retainers shall be hot dip galvanized.
Anchor bolts and side retainers shall be installed as each exterior beam is erected unless an equivalent temporary means of lateral restraint is used.

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DFP-14854-0 6-15-2019

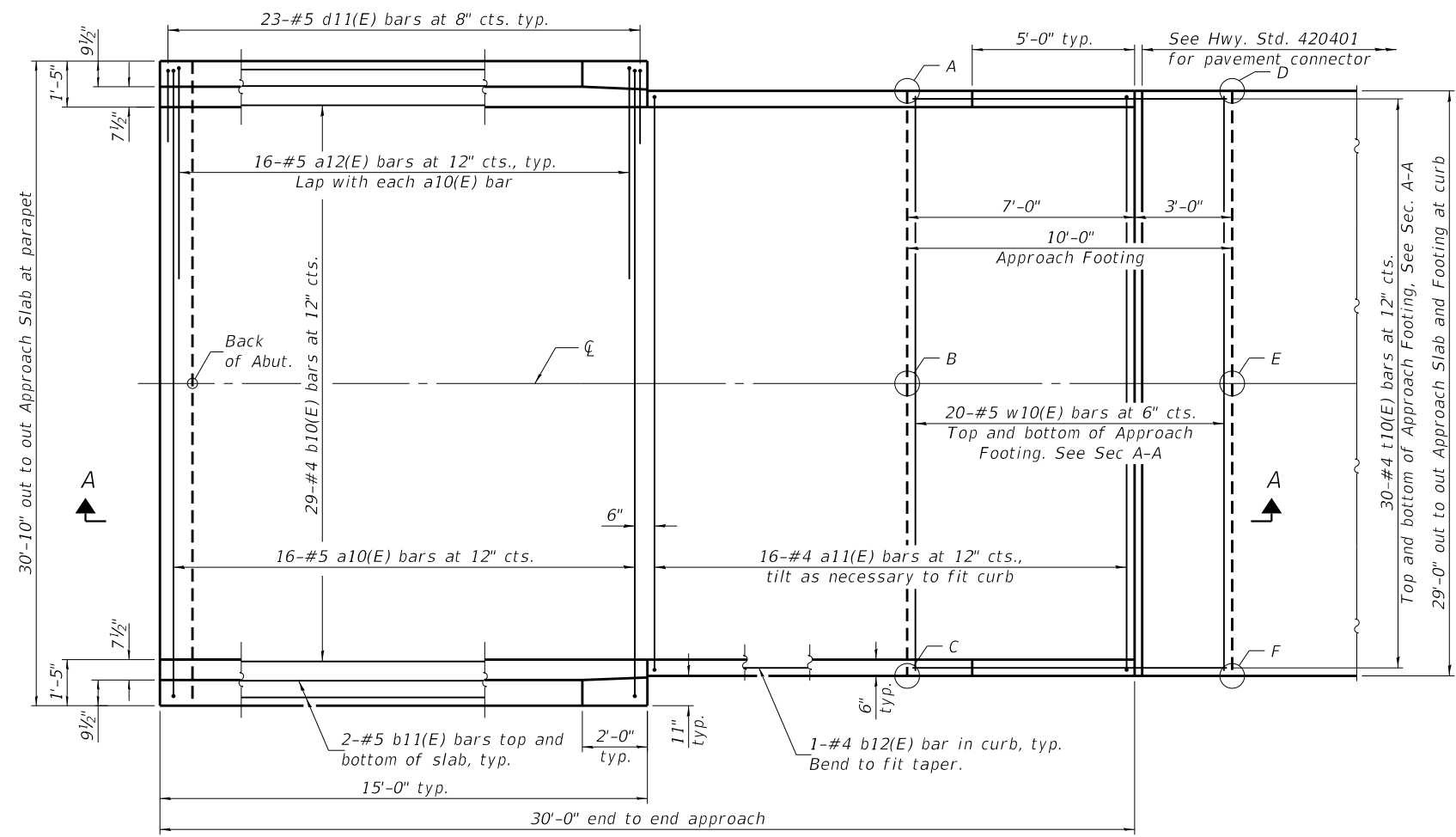
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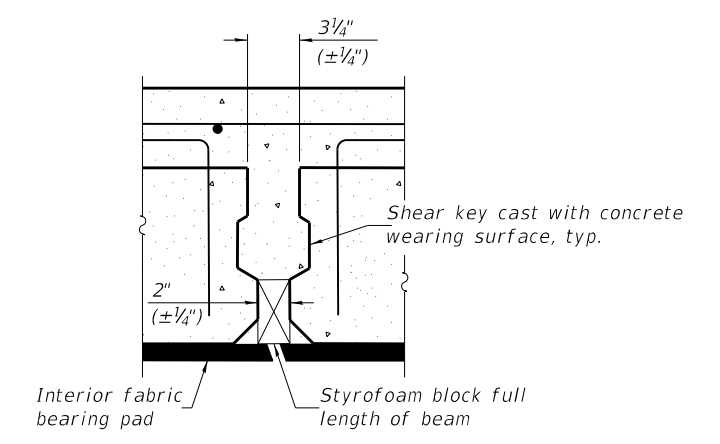
PIER DIAPHRAGM DETAILS
STRUCTURE NO. 077-3145

SCALE: SHEET 13 OF 34 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	28
CONTRACT NO. 99678				
ILLINOIS		FED. AID PROJECT		



PLAN
(East approach slab shown; West approach slab similar by 180° rotation)

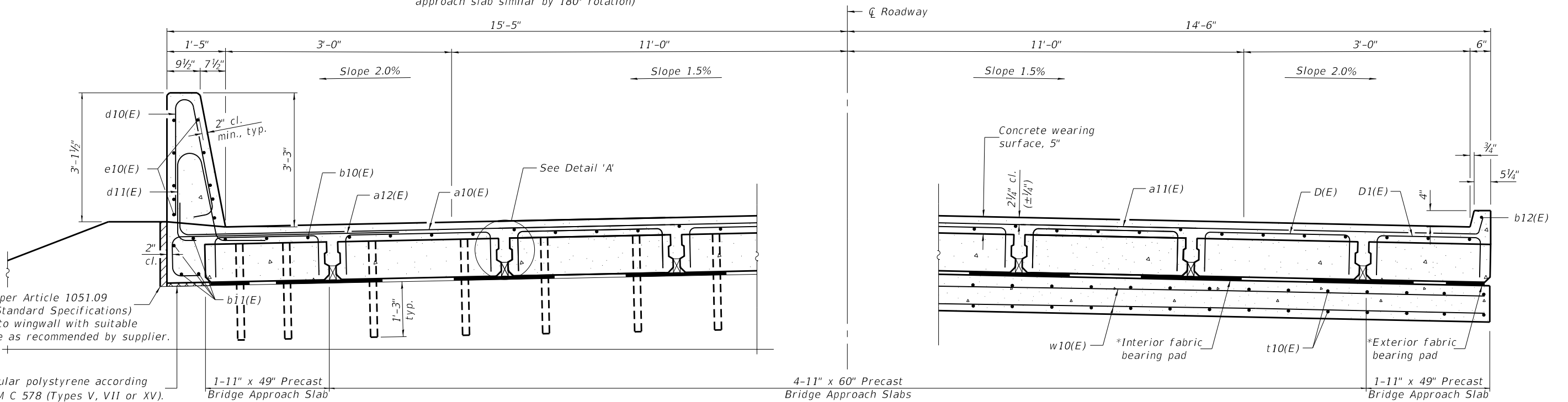


DETAIL 'A'

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

Point/Location	West Approach		East Approach		
	Top	Bottom	Top	Bottom	
A -	364.68	363.85	A -	364.65	363.82
B -	364.93	364.09	B -	364.90	364.06
C -	364.68	363.85	C -	364.65	363.82
D -	364.66	363.83	D -	364.63	363.80
E -	364.91	364.07	E -	364.88	364.04
F -	364.66	363.83	F -	364.63	363.80

* Fabric bearing pads at the expansion end shall be recessed 1/4" into the approach footing and bonded. Adjusting shims, when required, shall be bonded to the top of the fabric bearing pads.



NEAR ABUTMENT

CROSS SECTION
(Looking East)

AT APPROACH FOOTING

BA-P-39CS-0 10-12-2021 (Beams: 36" min. width; 72" max. width)

(Sheet 1 of 3)

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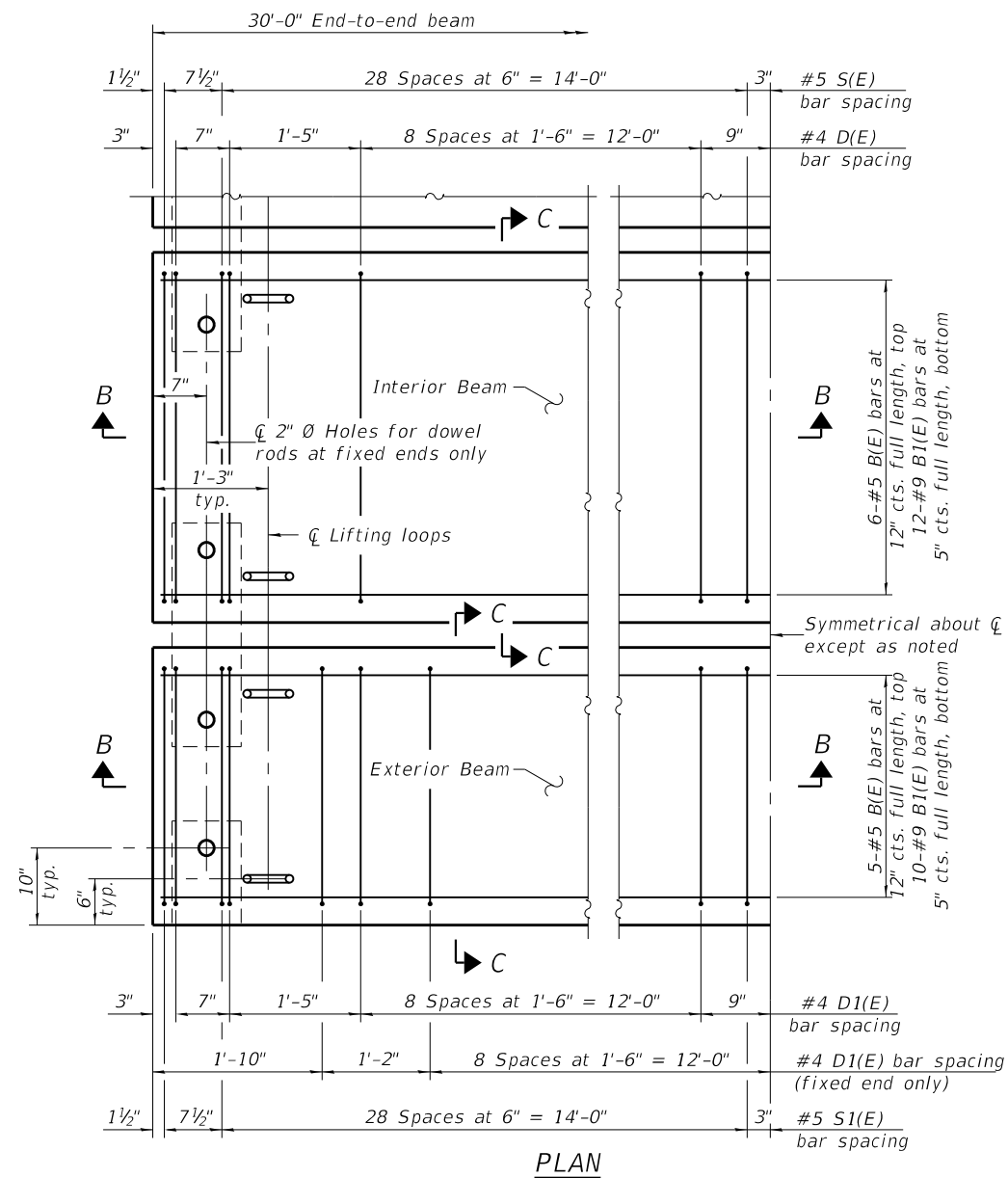
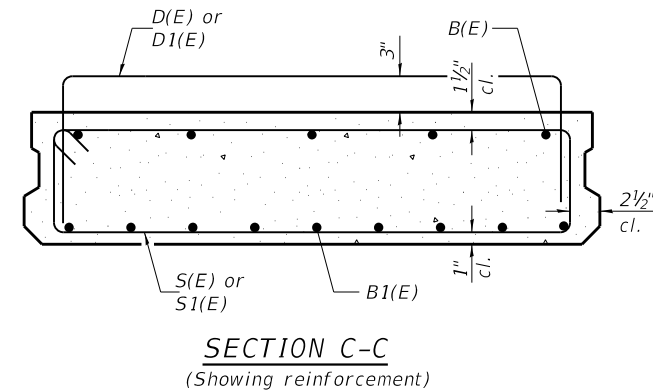
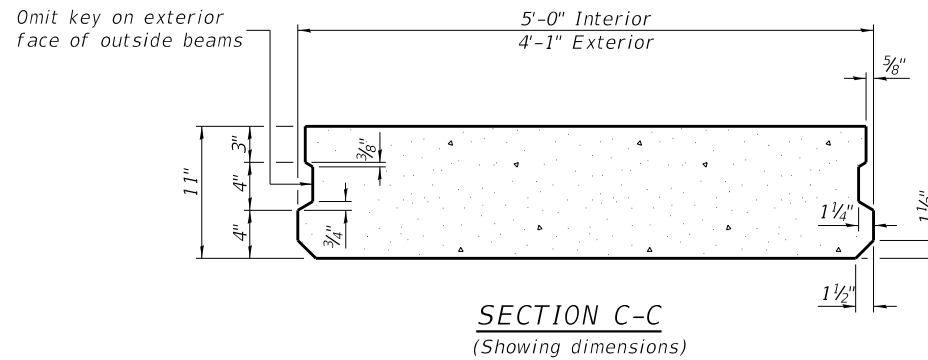
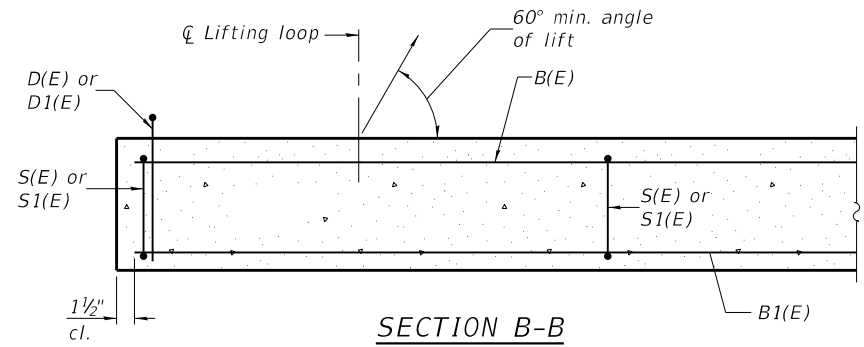
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REVISED -

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PRECAST BRIDGE APPROACH SLAB
STRUCTURE NO. 077-3145

SCALE: SHEET 14 OF 34 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	29
CONTRACT NO. 99678				
ILLINOIS FED. AID PROJECT				



Notes:

The precast bridge approach slab shall be according to Section 504 of the Standard Specifications and shall be paid for at the contract unit price per square foot for Precast Bridge Approach Slab.

Cast-in-place substitution of Precast Bridge Approach Slab is not allowed.

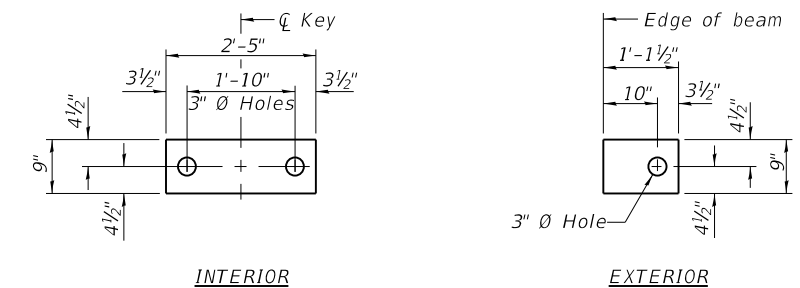
The top surface of precast bridge approach slabs shall be finished similar to precast prestressed deck beams with concrete wearing surface as specified in the IDOT "Manual for Fabrication of Precast Prestressed Concrete Products."

Two 1/8 inch fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location. Cost included with Precast Bridge Approach Slab.

A minimum 2 1/2 inch diameter lifting pins shall be used to engage the lifting loops during handling.

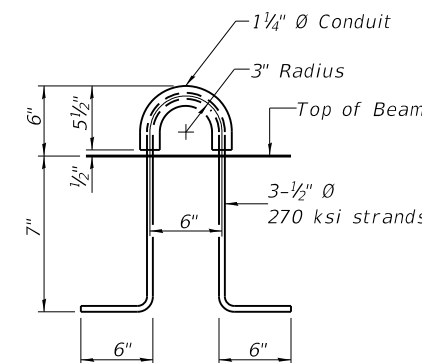
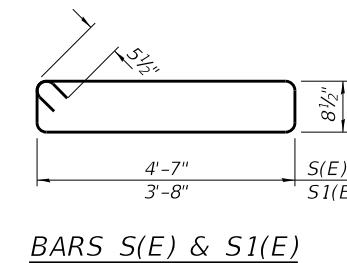
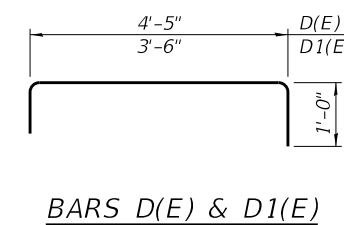
Compressive strength of precast concrete, $f'c$ shall be 6,000 psi.

Compressive strength of precast concrete during initial lifting, $f'ci$ shall be 5,000 psi.



Notes:

Bearing pads at fixed end shall be 1/2 inch thick and bearing pads at expansion end shall be 3/4 inch thick. Omit holes for fabric bearing pads at approach slab footing end of beams.



BAR LIST
EACH INTERIOR BEAM
(For information only)

Bar	No.	Size	Length	Shape
B(E)	6	#5	29'-8"	—
B1(E)	12	#9	29'-8"	—
D(E)	22	#4	6'-5"	□
S(E)	58	#5	11'-6"	▭

BAR LIST
EACH EXTERIOR BEAM
(For information only)

Bar	No.	Size	Length	Shape
B(E)	5	#5	29'-8"	—
B1(E)	10	#9	29'-8"	—
D1(E)	32	#4	5'-6"	□
S1(E)	58	#5	9'-8"	▭

LIFTING LOOP DETAIL
(An alternate lifting loop with a proof load of 25,000 lbs. and utilized according to the manufacturer's recommendations may be used)

(Sheet 2 of 3)

BA-P-39CS-0

10-12-2021

(Beams: 36" min. width; 72" max. width)

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HMG ENGINEERS, INC.
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BREESE, ILLINOIS 62230
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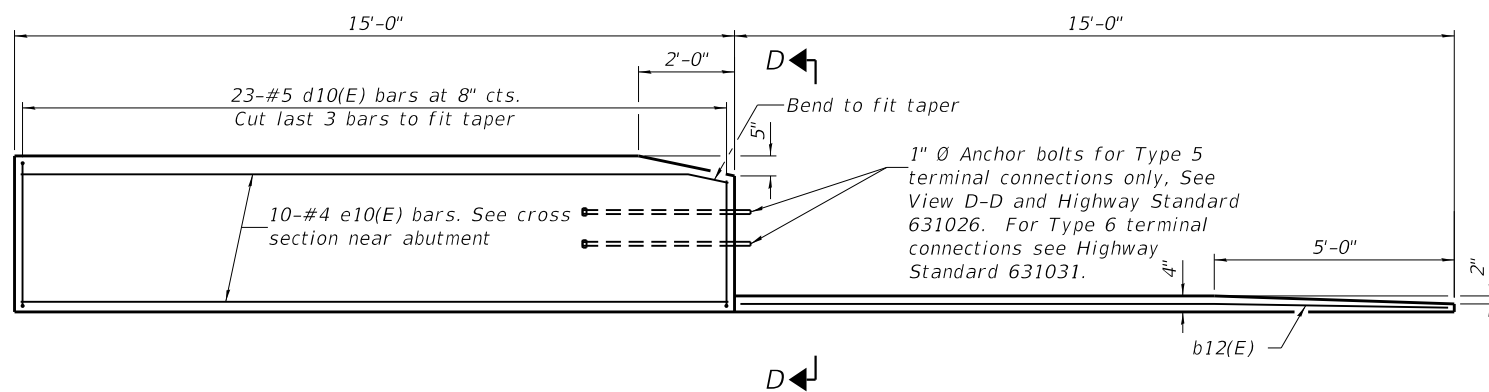
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

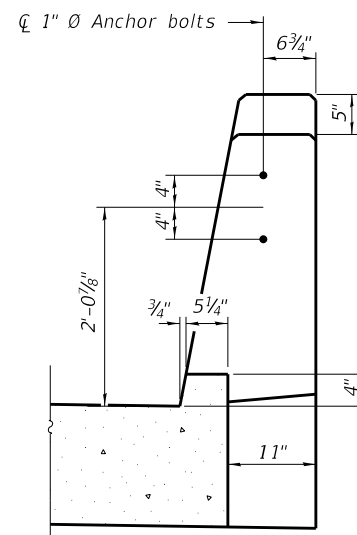
PRECAST BRIDGE APPROACH SLAB
STRUCTURE NO. 077-3145

SCALE: SHEET 15 OF 34 SHEETS STA. TO STA.

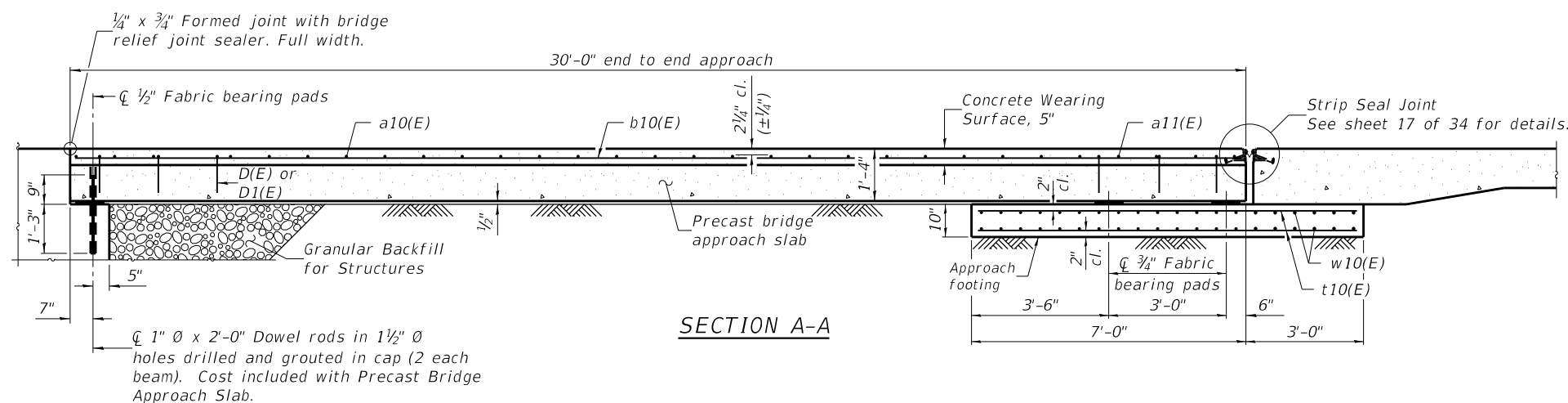
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	30
CONTRACT NO. 99678				
ILLINOIS FED. AID PROJECT				



INSIDE ELEVATION OF PARAPET AND CURB



VIEW D-D



SECTION A-A

Notes:

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.

After precast bridge approach slabs have been erected, holes shall be drilled into abutment and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of precast slab and cured according to Article 1020.13(a)(3) or 1020.13(a)(5) of the Standard Specifications for a minimum of 24 hours before casting the shear keys and wearing surface.

Any concrete poured monolithically with the wearing surface, such as curbs, shall not be paid for separately, but will be included in the cost of Concrete Wearing Surface, 5".

The strip seal shall extend 6" beyond the edge of the approach slab on each end.

Parapet concrete shall be paid for as Concrete Superstructure.

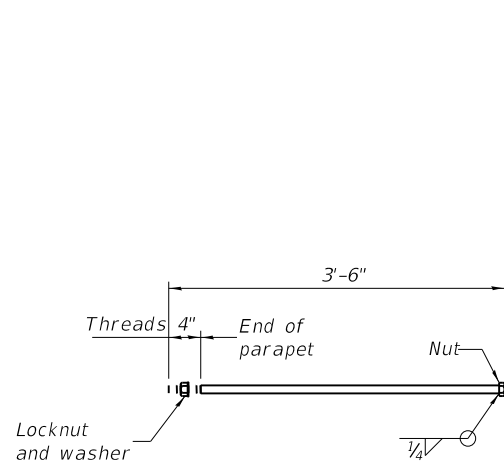
Approach footing concrete shall be paid for as Concrete Structures.

The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

Cost of excavation for approach footing included with Concrete Structures.

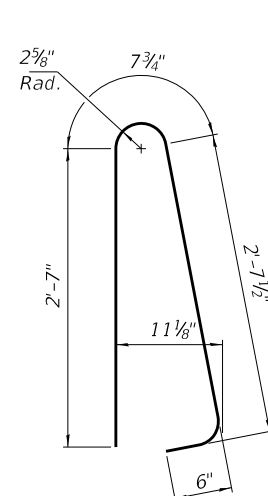
For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 34.

Cost of cellular polystyrene is included with Concrete Superstructure.

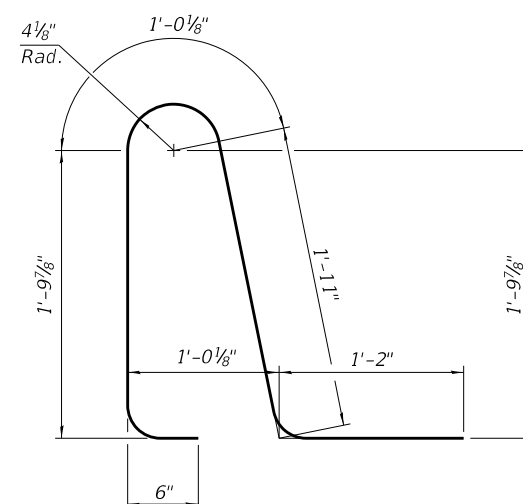


1" diameter ANCHOR BOLT

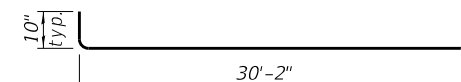
(Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications. Cost of anchor bolt assemblies included with Concrete Superstructure)



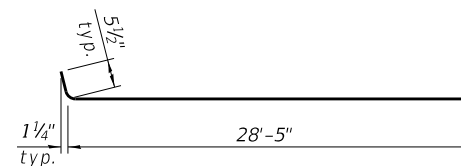
BAR d10(E)



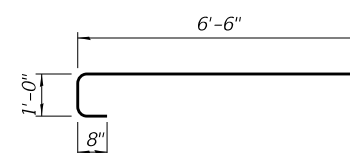
BAR d11(E)



BAR a10(E)



BAR a11(E)



BAR a12(E)

**TWO APPROACHES
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a10(E)	32	#5	31'-10"	┌───┐
a11(E)	32	#4	29'-4"	┌───┐
a12(E)	64	#5	8'-2"	┌───┐
b10(E)	58	#4	29'-8"	───
b11(E)	16	#5	14'-8"	───
b12(E)	4	#5	14'-8"	───
d10(E)	92	#5	6'-5"	┌───┐
d11(E)	92	#5	6'-5"	┌───┐
e10(E)	40	#4	14'-8"	───
t10(E)	120	#4	9'-8"	───
w10(E)	80	#5	28'-8"	───
Concrete Superstructure			Cu. Yd.	7.8
Concrete Structures			Cu. Yd.	17.9
Reinforcement Bars, Epoxy Coated			Pound	8,480
Precast Bridge Approach Slab			Sq. Ft.	1,690
Concrete Wearing Surface, 5"			Sq. Yd.	200

BA-P-39CS-0

10-12-2021

(Beams: 36" min. width; 72" max. width)

(Sheet 3 of 3)

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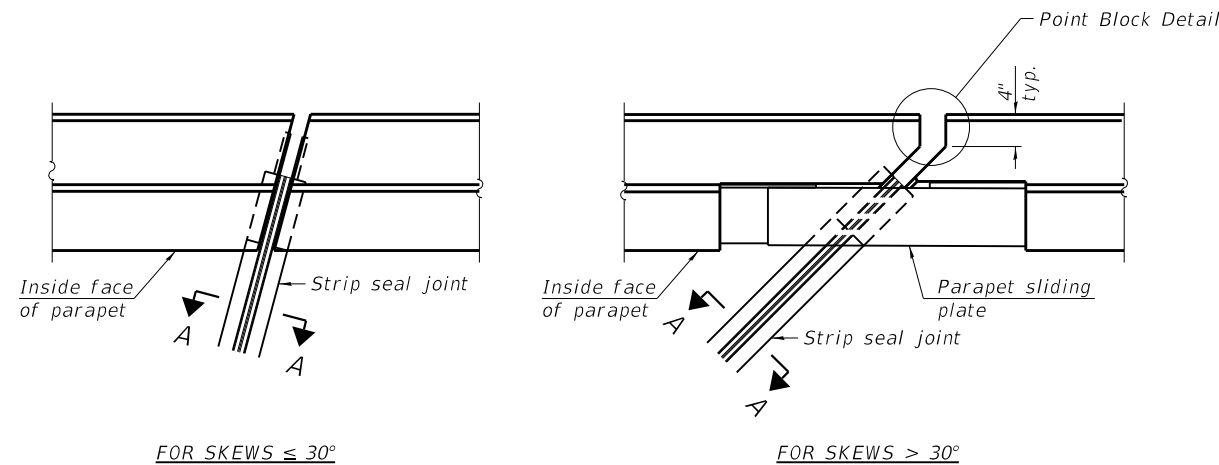
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DEPARTMENT OF TRANSPORTATION**

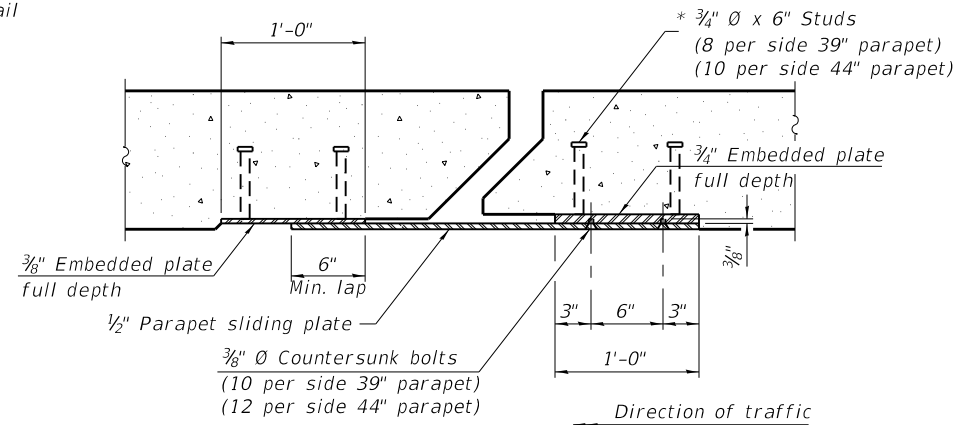
**PRECAST BRIDGE APPROACH SLAB
STRUCTURE NO. 077-3145**

SCALE: SHEET 16 OF 34 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	31
CONTRACT NO. 99678				
ILLINOIS FED. AID PROJECT				



PLAN AT PARAPET



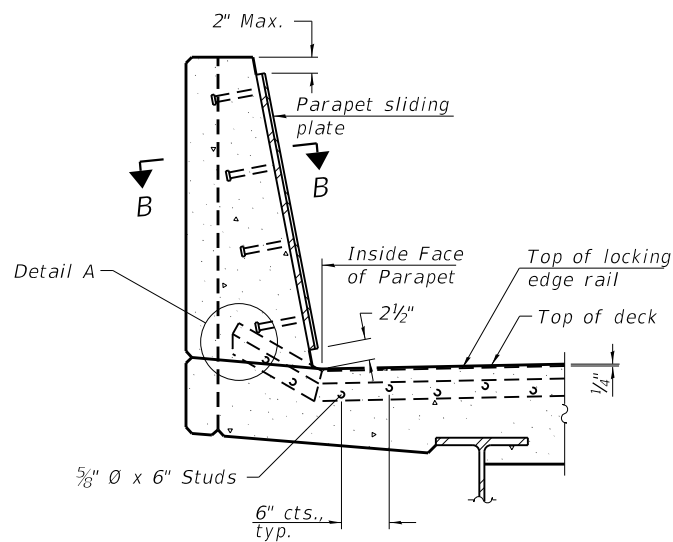
SECTION B-B

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

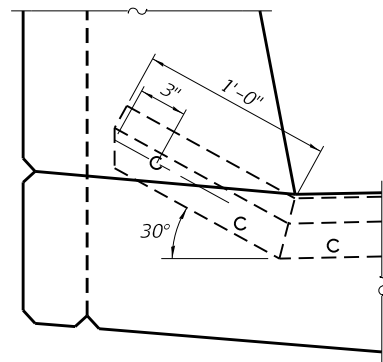
The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4 1/2" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

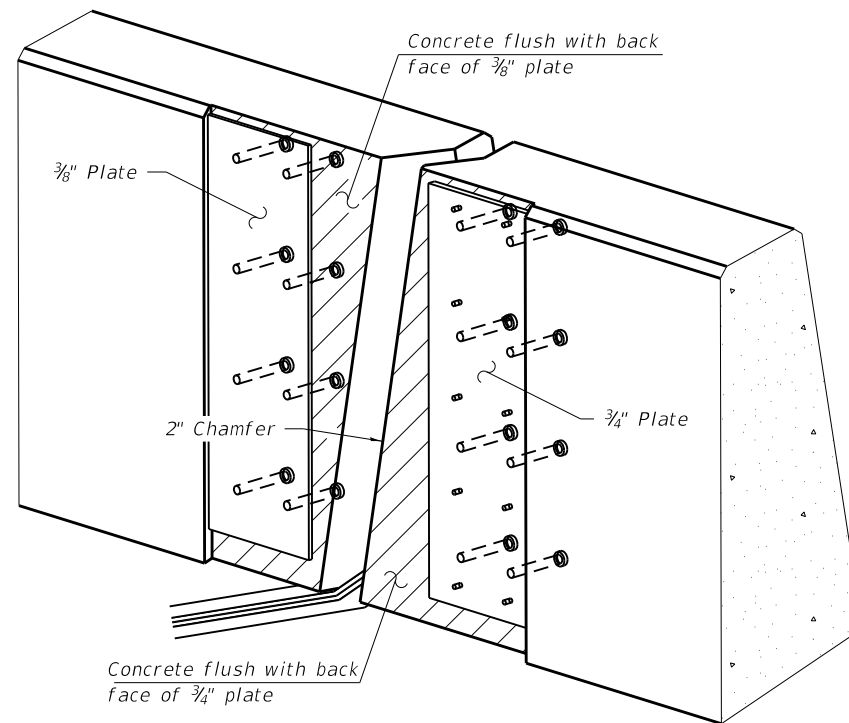


SECTION AT PARAPET

(Skews $> 30^\circ$ shown. Skews $\leq 30^\circ$ similar except as shown in plan view.)

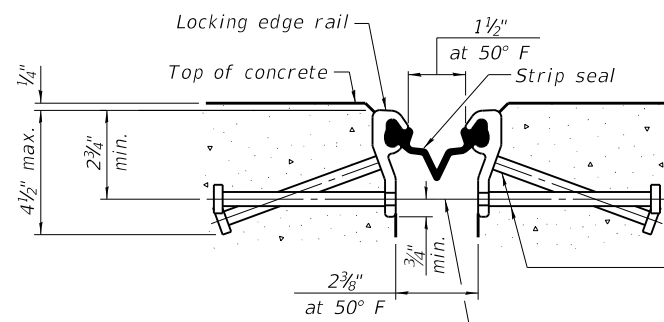


DETAIL A



TRIMETRIC VIEW

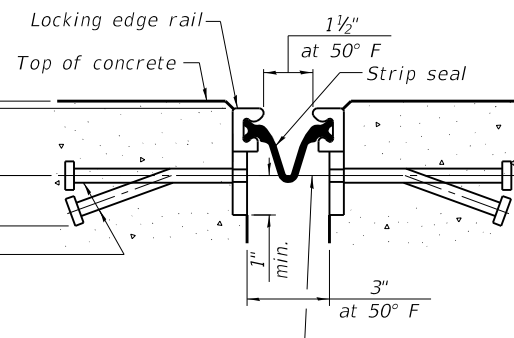
(Showing embedded plates only)



SHOWING ROLLED RAIL JOINT

* 3/8" ϕ x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

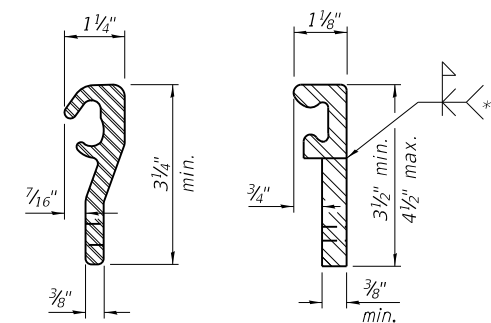
3/8" ϕ threaded rods in 7/16" ϕ holes at ± 4 -0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.



SHOWING WELDED RAIL JOINT

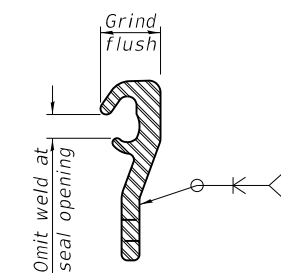
SECTION A-A

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



LOCKING EDGE RAILS

** Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	58

EJ-SS

1-1-2020

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 9360 HOLY CROSS LANE
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USER NAME = kjones
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 DRAWN -
 CHECKED -
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 PLOT SCALE = 2.0000' / in.
 PLOT DATE = 1/4/2022

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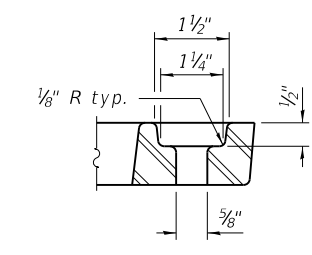
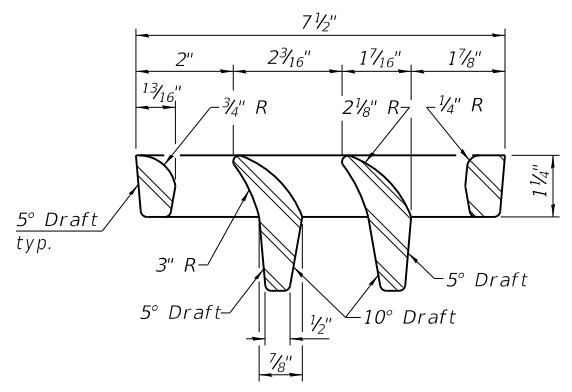
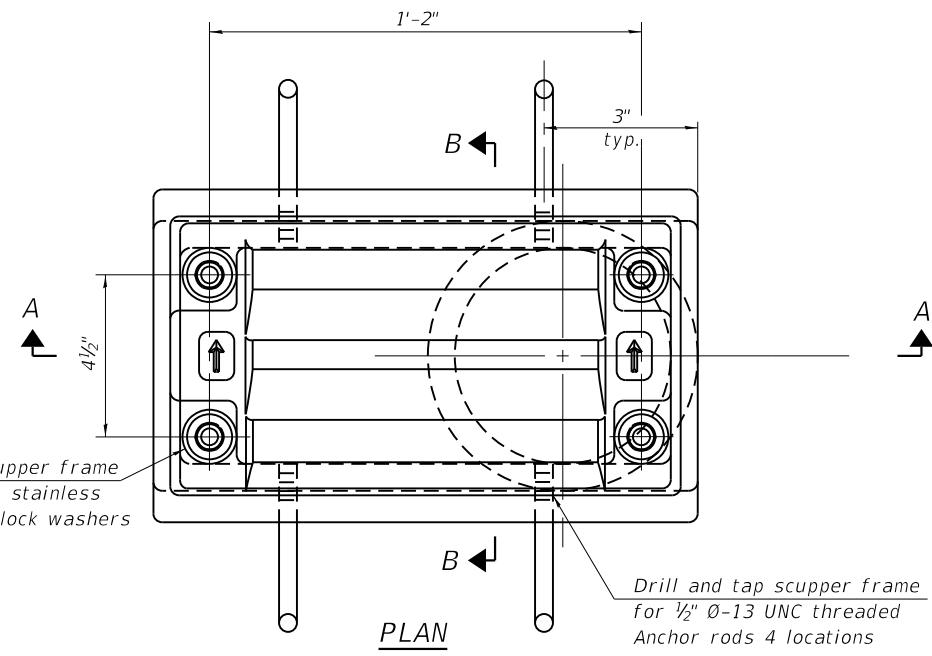
STATE OF ILLINOIS
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PREFORMED JOINT STRIP SEAL
 STRUCTURE NO. 077-3145

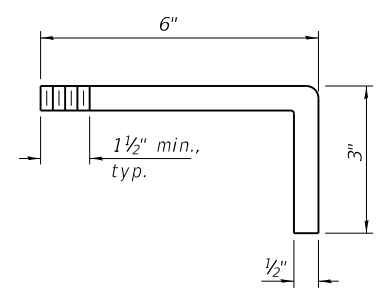
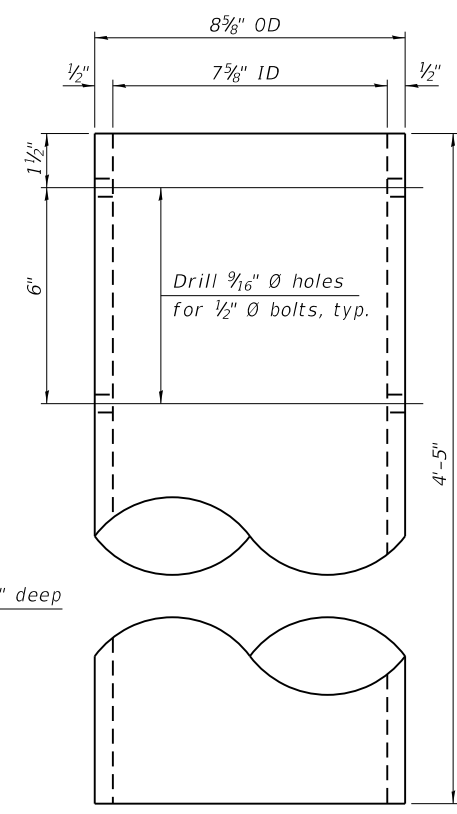
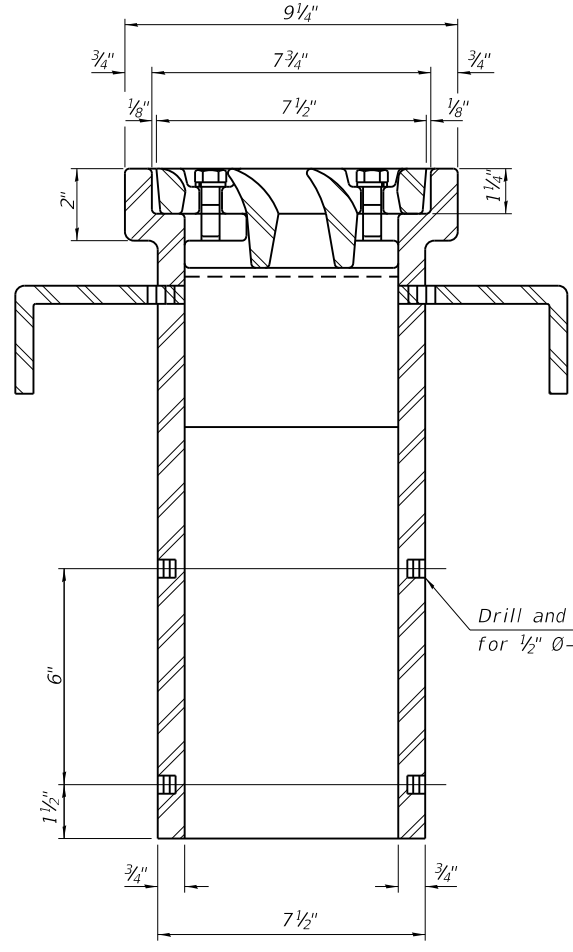
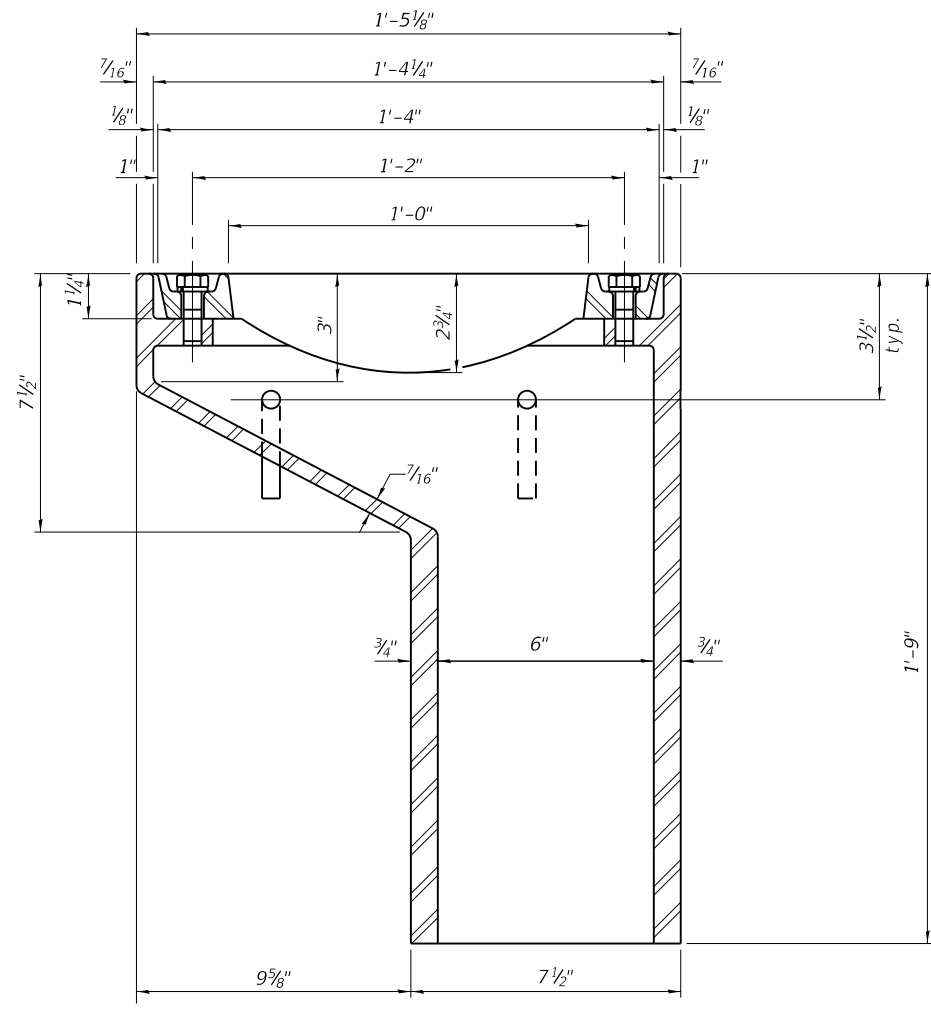
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CONTRACT NO. 99678				
ILLINOIS FED. AID PROJECT				

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Notes:
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M105, Class 35B and AASHTO M306.
 Bolts, anchor rods, nuts and washers shall be according to ASTM A307 and shall be galvanized according to AASHTO M232. As an alternate stainless steel may be used.
 Stainless steel hardware shall be according to Article 1006.29(d) of the Standard Specifications.
 Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frames and downspouts; however, the scupper grates shall remain cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.
 Structural steel scupper frames and downspouts, when utilized, shall be galvanized according to AASHTO M111.
 As an alternate, fiberglass may be used for downspouts according to ASTM D2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. in lieu of the cast iron or structural steel.
 Exterior surfaces of downspouts and exterior exposed surfaces of the scupper frame below deck shall be treated as specified on sheet of .
 The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.
 Cost of the grate, frame, downspout, anchor rods, nuts and washers including complete installation of the scupper shall be paid for at the contract unit price for Drainage Scupper, DS-11.



BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	4

DS-11

1-1-2020

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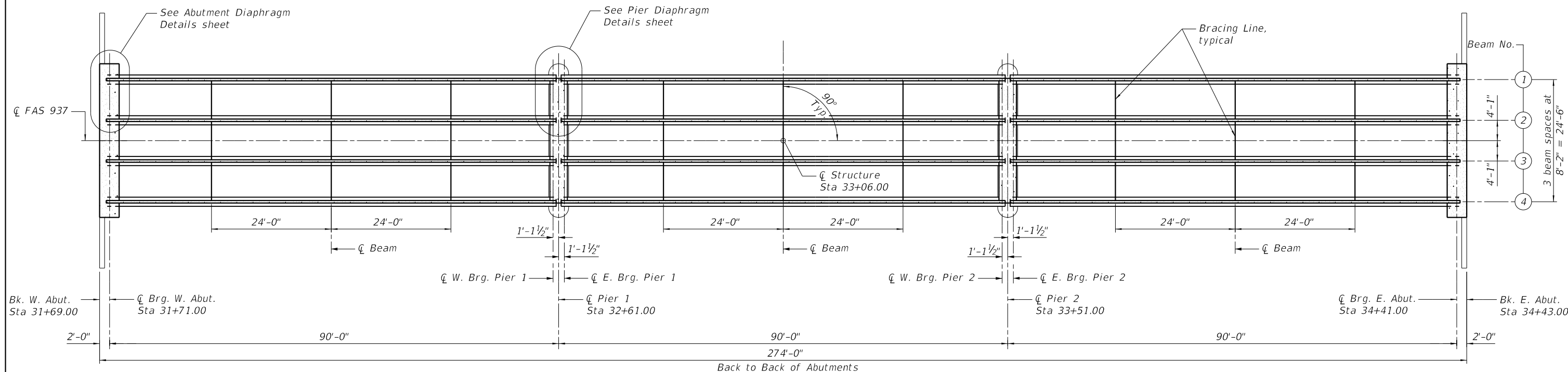
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DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER, DS-11
STRUCTURE NO. 077-3145

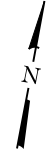
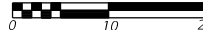
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				CONTRACT NO. 99678
ILLINOIS FED. AID PROJECT				



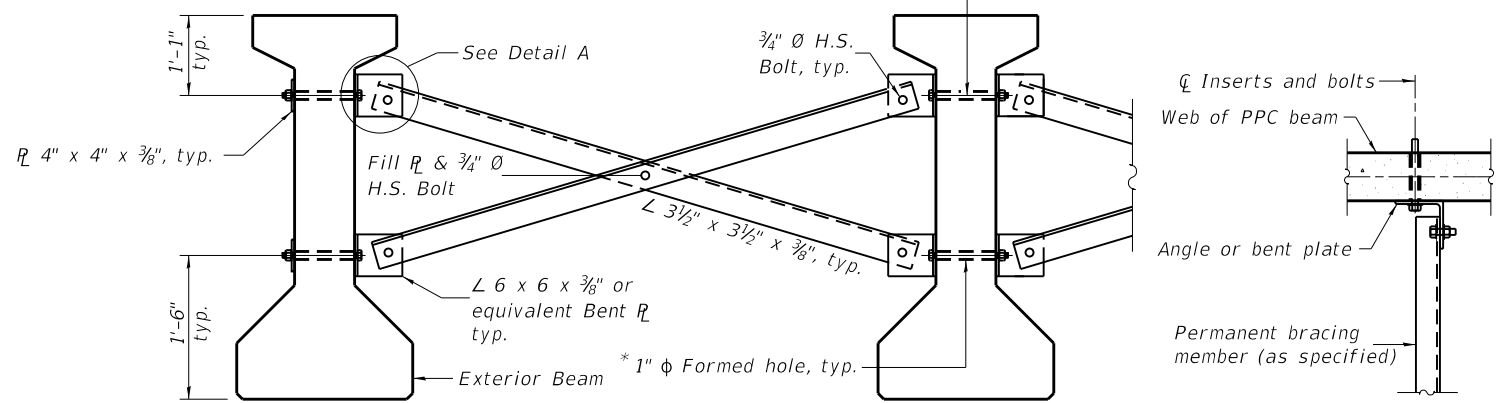
FRAMING PLAN

SCALE IN FEET

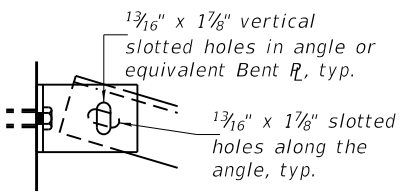


*Fabricator shall locate to miss strands within permissible tolerances.

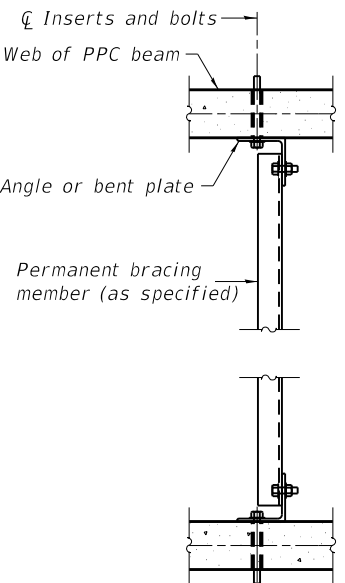
$\frac{3}{4}$ " \varnothing Threaded rods with lock nuts, typ. Tightened to snug tight only.



Notes:
 All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.
 Two hardened washers are required for each set of oversized holes.
 All holes shall be $\frac{15}{16}$ " \varnothing unless otherwise noted.
 $\frac{5}{16}$ " x 3" x 3" plate washers are required over all slotted holes.
 All bolts, threaded rods, and hardware shall be galvanized according to AASHTO M232.
 Threaded rods shall be ASTM F 1554 Grade 55.
 Bracing shall be installed as beams are erected and tightened as soon as possible during erection.
 Permanent bracing shall not be paid for separately, but shall be included in the cost of Furnishing and Erecting Precast Prestressed Concrete Beams.



DETAIL A



PLAN
(When 90° bracing is specified)

	0.4 Sp. 1 0.6 Sp. 3	Pier 1 or 2	0.5 Sp. 2
<i>I</i>	(in ⁴) 213,715		213,715
<i>I'</i>	(in ⁴) 541,883		541,883
<i>S_b</i>	(in ³) 8,559		8,559
<i>S_b'</i>	(in ³) 13,090		13,090
<i>S_t</i>	(in ³) 7,362		7,362
<i>S_t'</i>	(in ³) 42,996		42,996
<i>DC1</i>	(k/ft) 1.472		1.472
<i>MDC1</i>	(k) 1,475		1,438
<i>DC2</i>	(k/ft) 0.525	0.525	0.525
<i>MDC2</i>	(k) 186.0	232.5	58.1
<i>DW</i>	(k/ft) 0.408	0.408	0.408
<i>MDW</i>	(k) 226.8	283.3	70.9
<i>M_L + IM</i>	(k) 1,943	1,876	1,564

	Abut.	Pier 1 Span 1 Pier 2 Span 3	Pier 1 Span 2 Pier 2 Span 2
<i>RDC1</i>	(k) 70.8	70.8	70.8
* <i>RDC2</i>	(k) 10.5	14.2	14.2
* <i>RDW</i>	(k) 12.6	17.1	17.1
* <i>R_L + IM</i>	(k) 109.3	98.2	98.2
<i>RTotal</i>	(k) 203.2	200.3	200.3

* At continuous piers, reactions from composite loads are assumed to be equally distributed to each bearing line.

I: Non-composite moment of inertia of beam section (in⁴).
I': Composite moment of inertia of beam section (in⁴).
S_b: Non-composite section modulus for the bottom fiber of the prestressed beam (in³).
S_b': Composite section modulus for the bottom fiber of the prestressed beam (in³).
S_t: Non-composite section modulus for the top fiber of the prestressed beam (in³).
S_t': Composite section modulus for the top fiber of the prestressed beam (in³).
DC1: Un-factored non-composite dead load (kips/ft.).
MDC1: Un-factored moment due to non-composite dead load (kip-ft.).
DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
MDC2: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
M_L + IM: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

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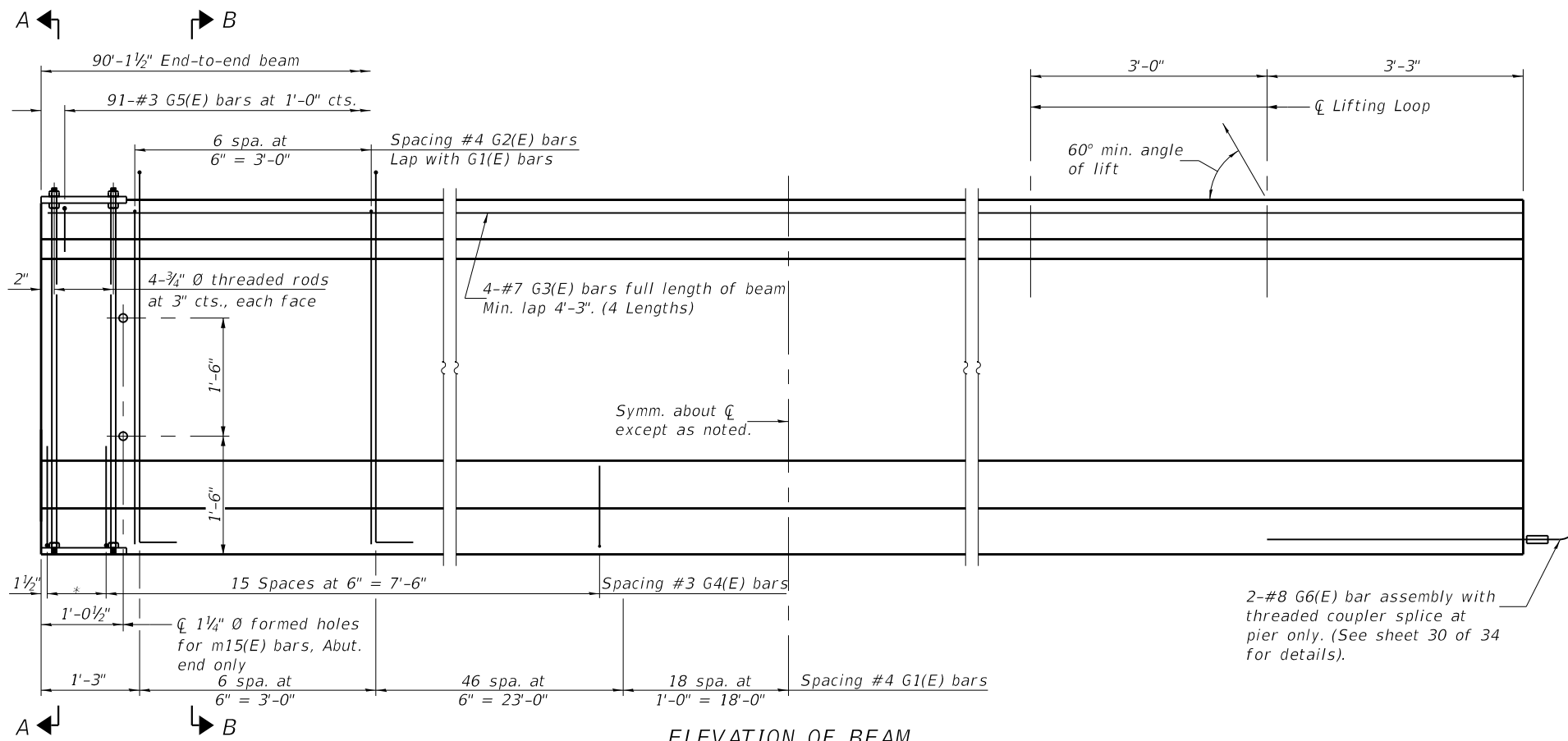
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

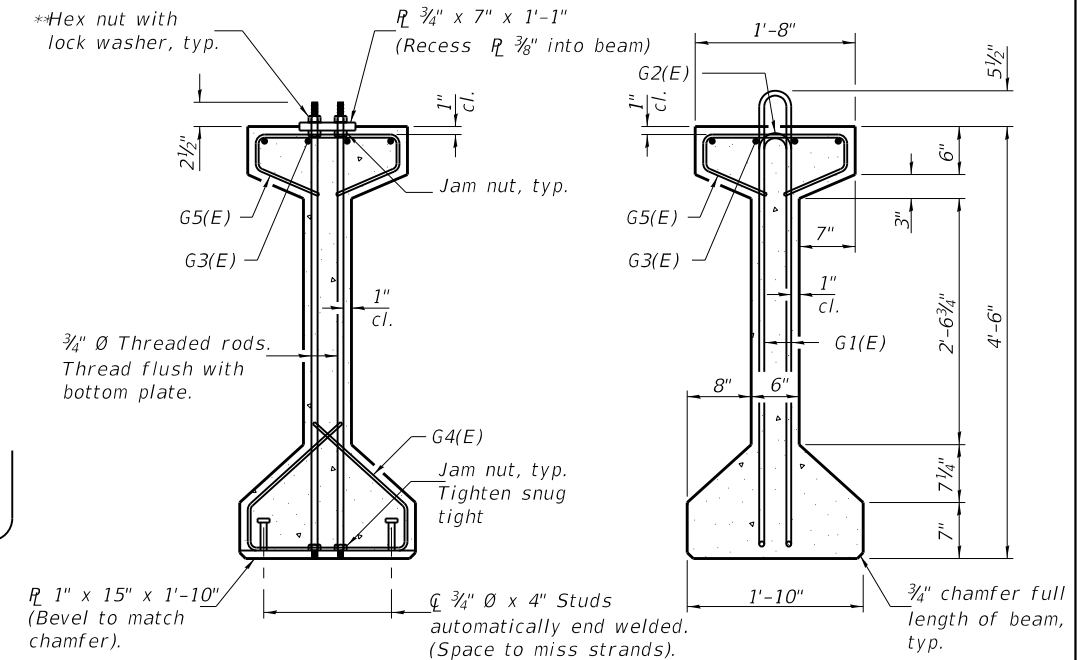
**FRAMING PLAN
 STRUCTURE NO. 077-3145**

SCALE: SHEET 19 OF 34 SHEETS STA. TO STA.

F.A.S. RTE. 937	SECTION 12-00071-00-BR	COUNTY PULASKI	TOTAL SHEETS 56	SHEET NO. 34
CONTRACT NO. 99678				
ILLINOIS FED. AID PROJECT				



ELEVATION OF BEAM
(Showing reinforcement & dimensions)



SECTION A-A

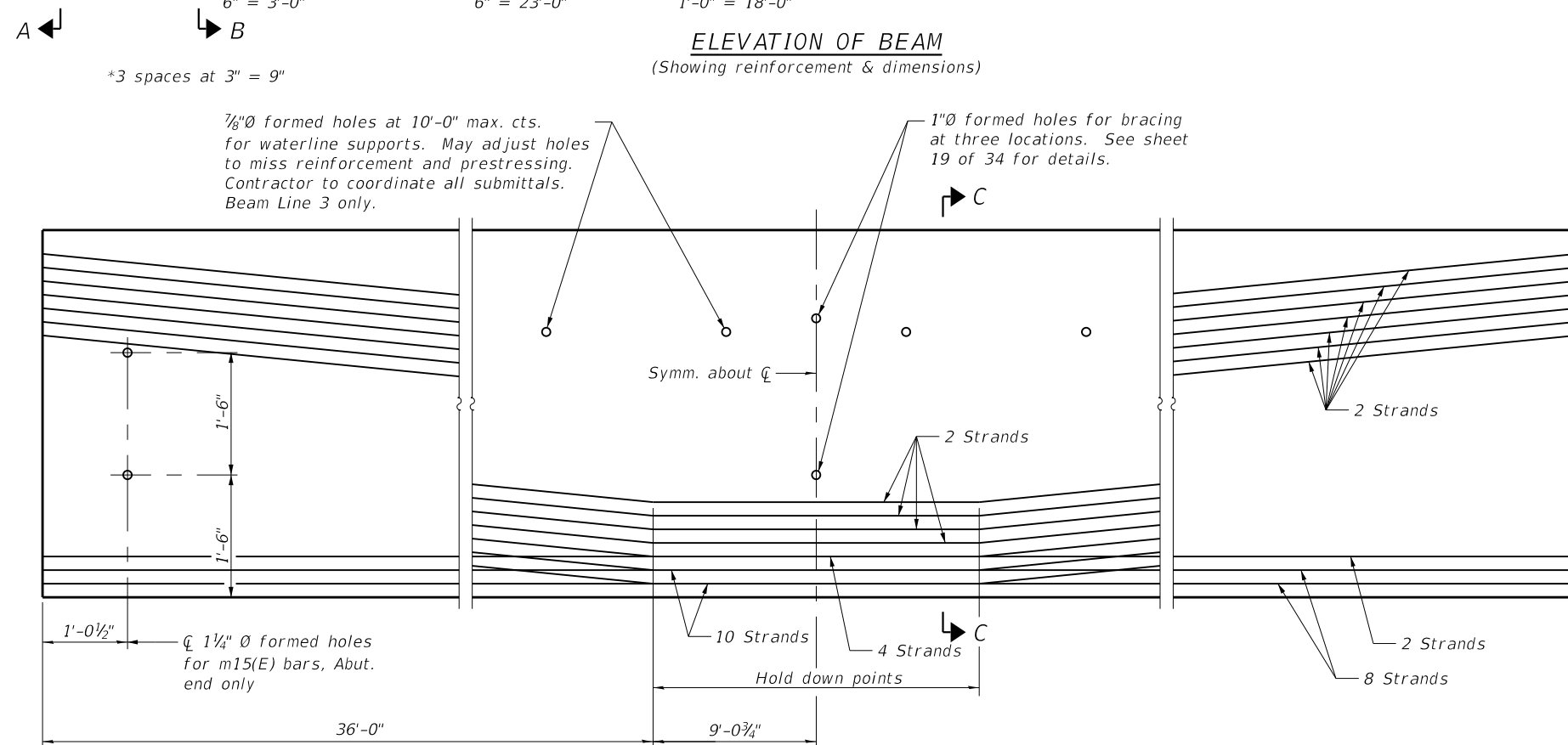
SECTION B-B

** Only tighten sufficiently to compress lock washers

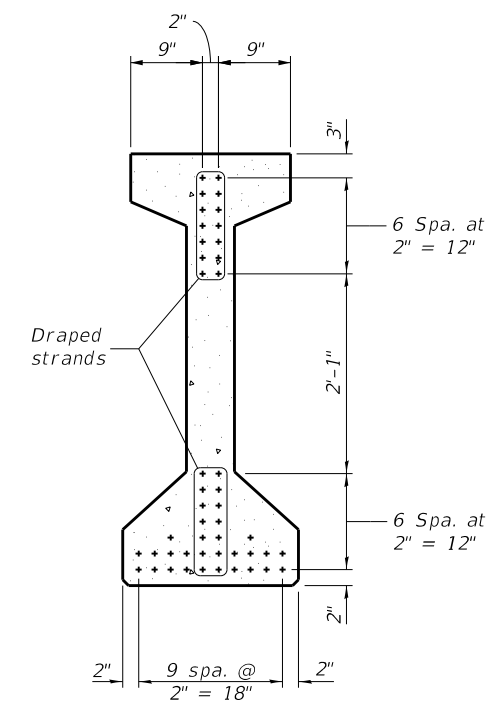
BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
G1(E)	139	#4	10'-7"	U
G2(E)	14	#4	8'-8"	U
G3(E)	16	#7	25'-9"	—
G4(E)	38	#3	4'-11"	U
G5(E)	91	#3	3'-5"	U
G6(E)	2	#8	6'-6"	U

Notes:
See sheet 22 of 34 for additional details and Bill of Material.



ELEVATION OF BEAM
(Showing prestressing steel)



SECTION C-C
(32 - 1/2" Ø 270 ksi strands)

PI-4-54

2-17-2017

HMG ENGINEERS
HMG ENGINEERS, INC.
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR
IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = klaux
DESIGNED -
DRAWN -
CHECKED -
DATE -
PLOT SCALE = 2,0000' / in.
PLOT DATE = 5/6/2022

DESIGNED -
DRAWN -
CHECKED -
DATE -
REVISED -
REVISED -
REVISED -
REVISED -

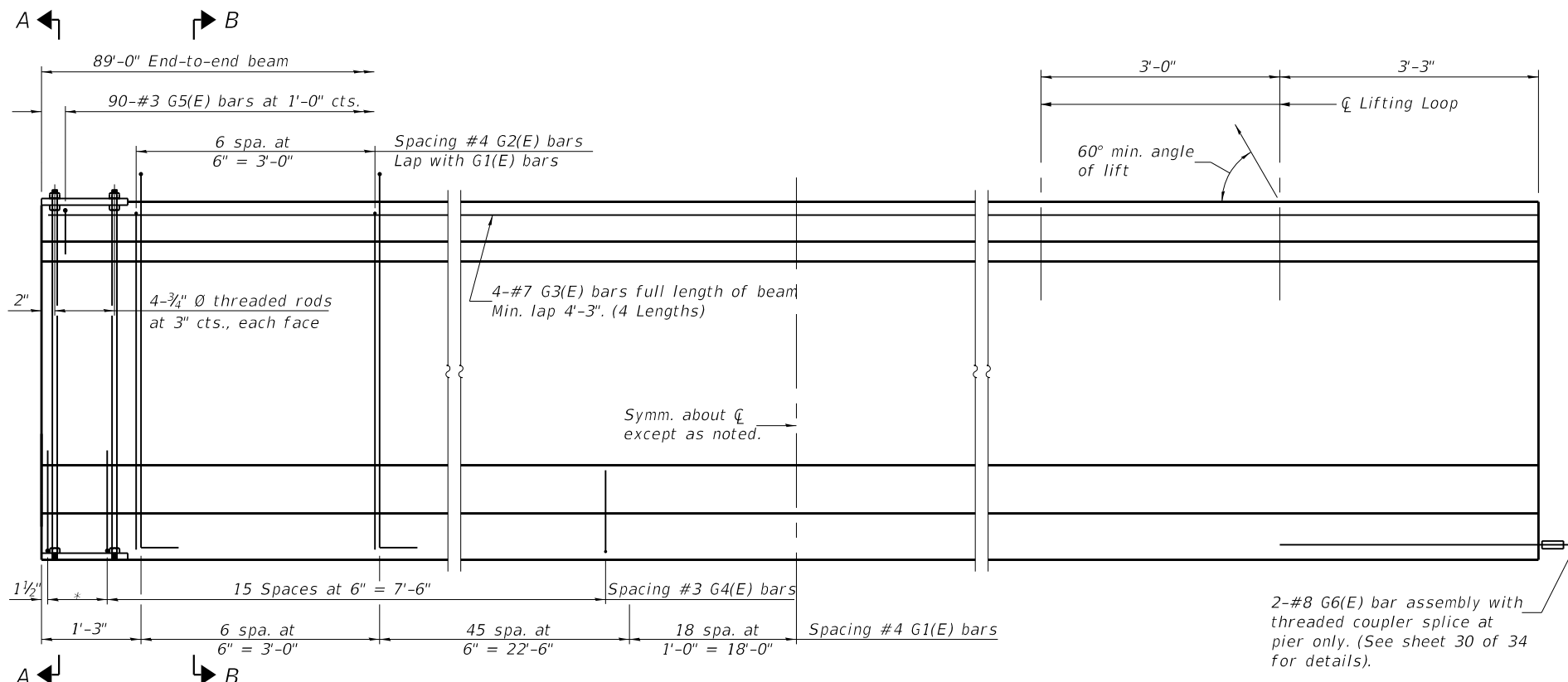
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

54" PPC I-BEAM - SPANS 1 & 3
STRUCTURE NO. 077-3145

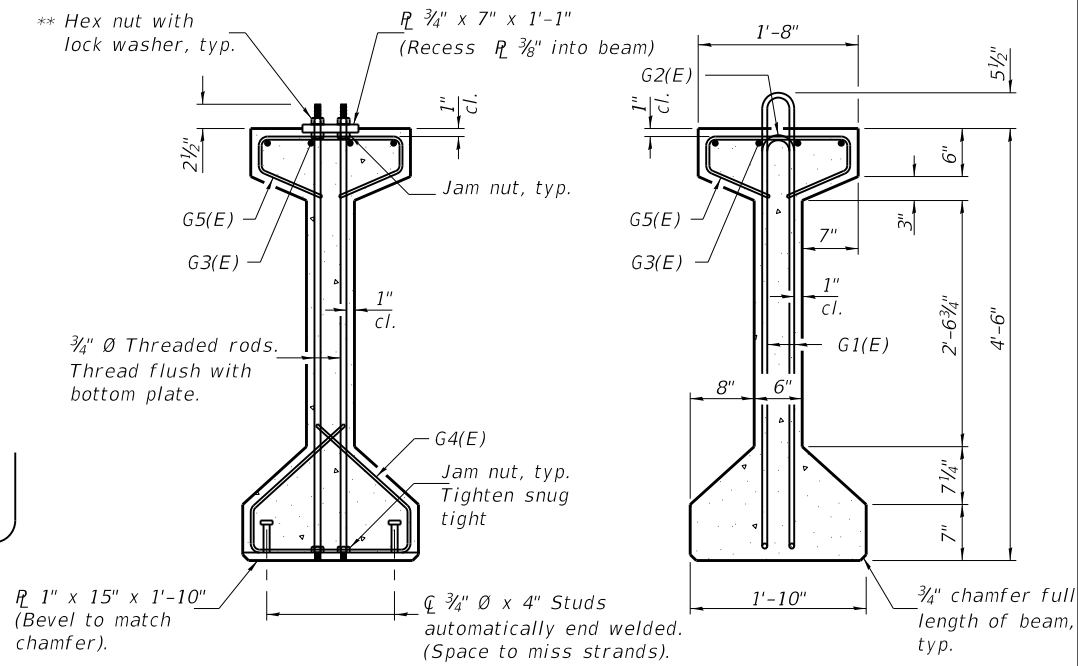
SCALE: SHEET 20 OF 34 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	35
CONTRACT NO. 99678				
ILLINOIS FED. AID PROJECT				

MODEL: Default
FILE: Model: 1012073_PulaskiCo_C13.2017_1_Documents\CAD_Sheets\0773000_35_bmx0103_20_7073.dgn



ELEVATION OF BEAM
(Showing reinforcement & dimensions)



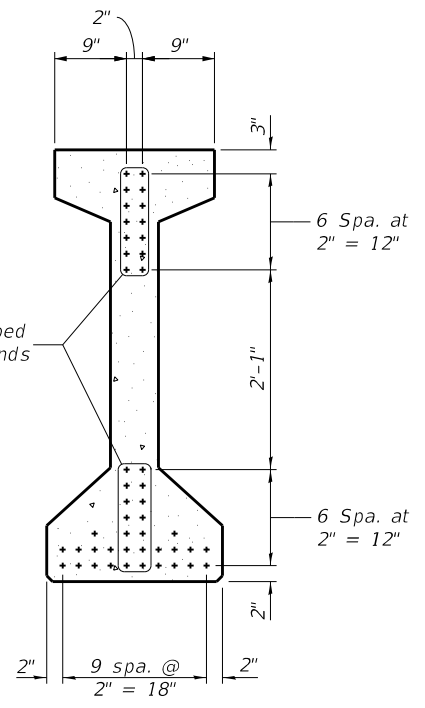
SECTION A-A
** Only tighten sufficiently to compress lock washers

SECTION B-B

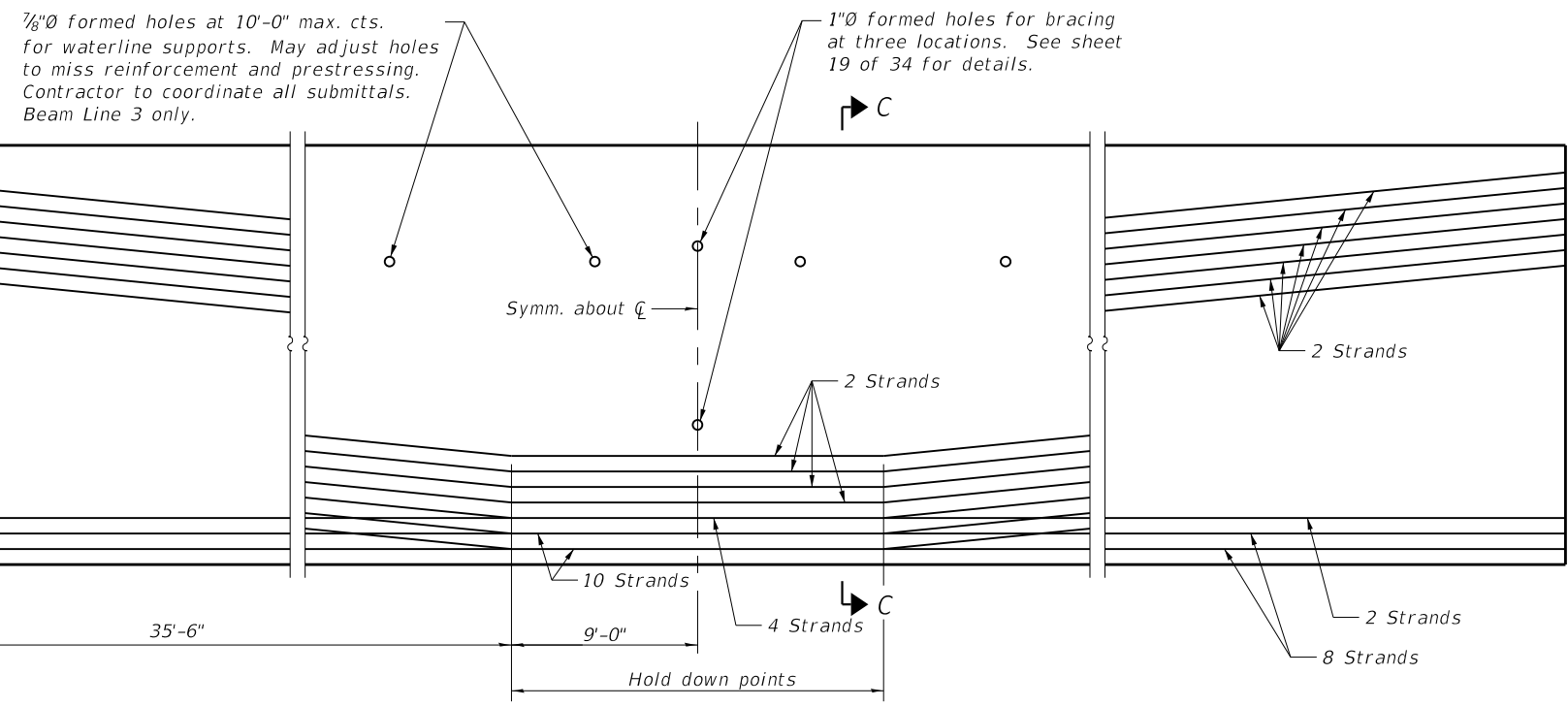
BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
G1(E)	138	#4	10'-7"	U
G2(E)	14	#4	8'-8"	U
G3(E)	16	#7	25'-6"	—
G4(E)	38	#3	4'-11"	U
G5(E)	90	#3	3'-5"	U
G6(E)	4	#8	6'-6"	U

Notes:
See sheet 22 of 34 for additional details and Bill of Material.



SECTION C-C
(32 - 1/2" Ø 270 ksi strands)



ELEVATION OF BEAM
(Showing prestressing steel)

PI-4-54 2-17-2017

HMG ENGINEERS
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR
IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = klaux	DESIGNED -	REVISED -
PLOT SCALE = 2,0000 ' / in.	DRAWN -	REVISED -
PLOT DATE = 5/6/2022	CHECKED -	REVISED -
	DATE -	REVISED -

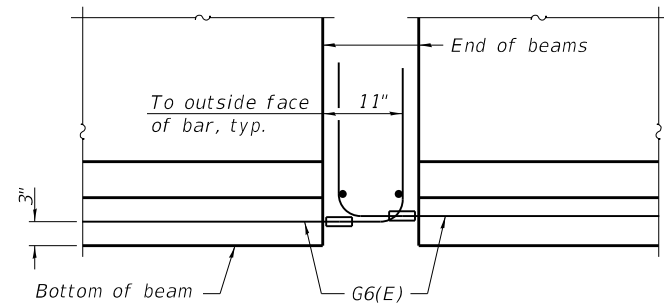
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

54" PPC I-BEAM - SPAN 2
STRUCTURE NO. 077-3145

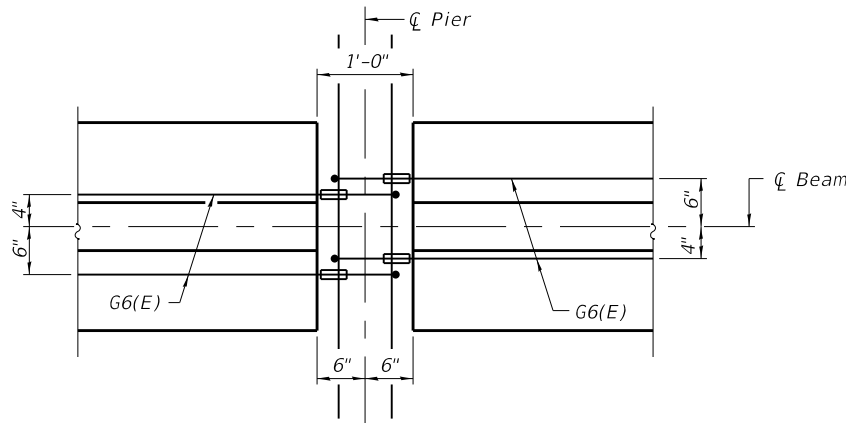
SCALE: SHEET 21 OF 34 SHEETS STA. TO STA.

F.A.S. RTE. 937	SECTION 12-00071-00-BR	COUNTY PULASKI	TOTAL SHEETS 56	SHEET NO. 36
CONTRACT NO. 99678				
ILLINOIS FED. AID PROJECT				

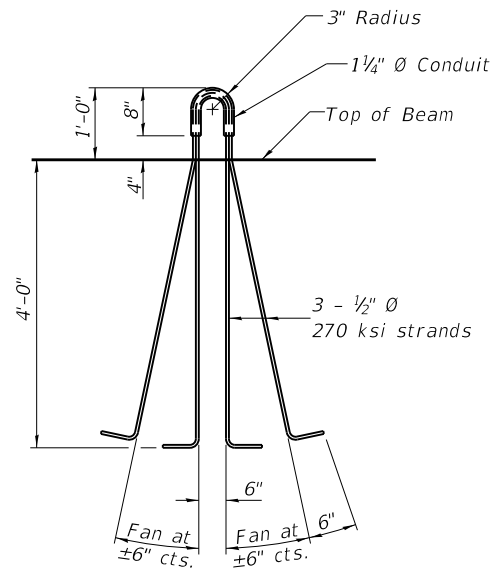
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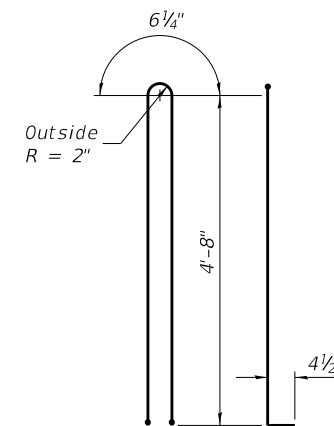
ELEVATION OF BEAM AT PIER



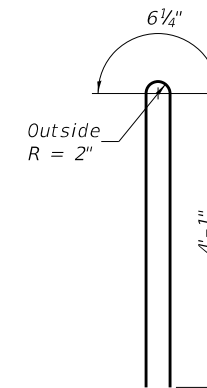
PLAN OF BEAM AT PIER



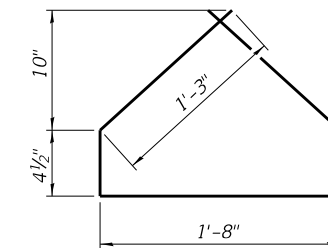
LIFTING LOOP DETAIL



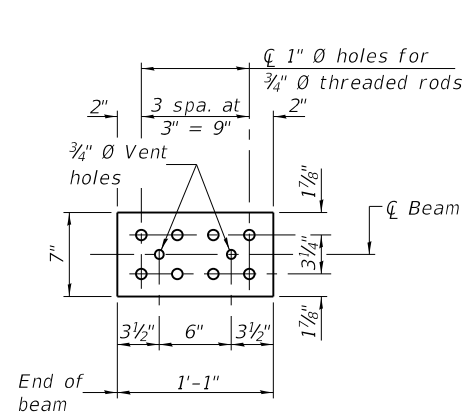
BAR G1(E)



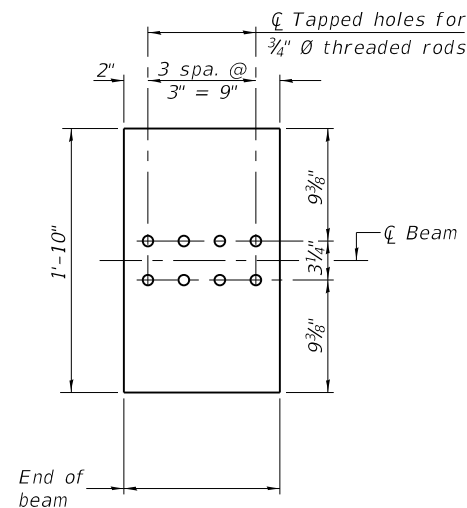
BAR G2(E)



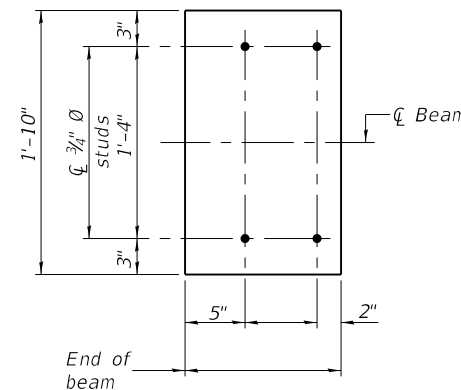
BAR G4(E)



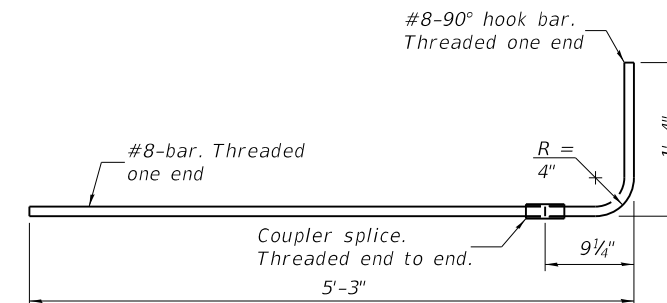
TOP PLATE



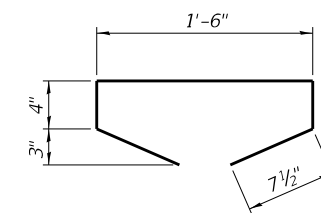
BOTTOM PLATE
(Showing threaded rods)



BOTTOM PLATE
(Showing studs)



G6(E) BAR ASSEMBLY



BAR G5(E)

NOTES

Inserts for 3/4" Ø threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. 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 beams shall have a final concrete compressive strength, f'c, of 7,000 psi and a release concrete compressive strength, f'ci, of 6,000 psi.

A minimum 2 1/2" Ø lifting pin shall be used to engage the lifting loops during handling.

Tilt G6(E) bars when necessary to maintain 1 1/2" clearance.

The top and bottom plates shall be AASHTO M270 Grade 50.

The top and bottom plates shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232.

Threaded rods shall be ASTM F 1554 Grade 55.

The G6(E) bar assembly shall develop, in tension, at least 125 percent of the yield strength of a grade 60 reinforcement bar times the nominal cross-sectional area of a #8 bar. The assembly shall allow completion of the splice without turning of the hook bar. The hook bar shall be threaded such that the entire coupler can be threaded onto the hook bar.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 54"	Ft.	1,077

PI-4-54D

2-25-2019

HMG ENGINEERS
 HMG ENGINEERS, INC.
 9360 HOLY CROSS LANE
 BREESE, ILLINOIS 62230
 888.HMG.ENGR
 IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = kjonas
 PLOT SCALE = 2.0000 "/ in.
 PLOT DATE = 1/4/2022

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -
 REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

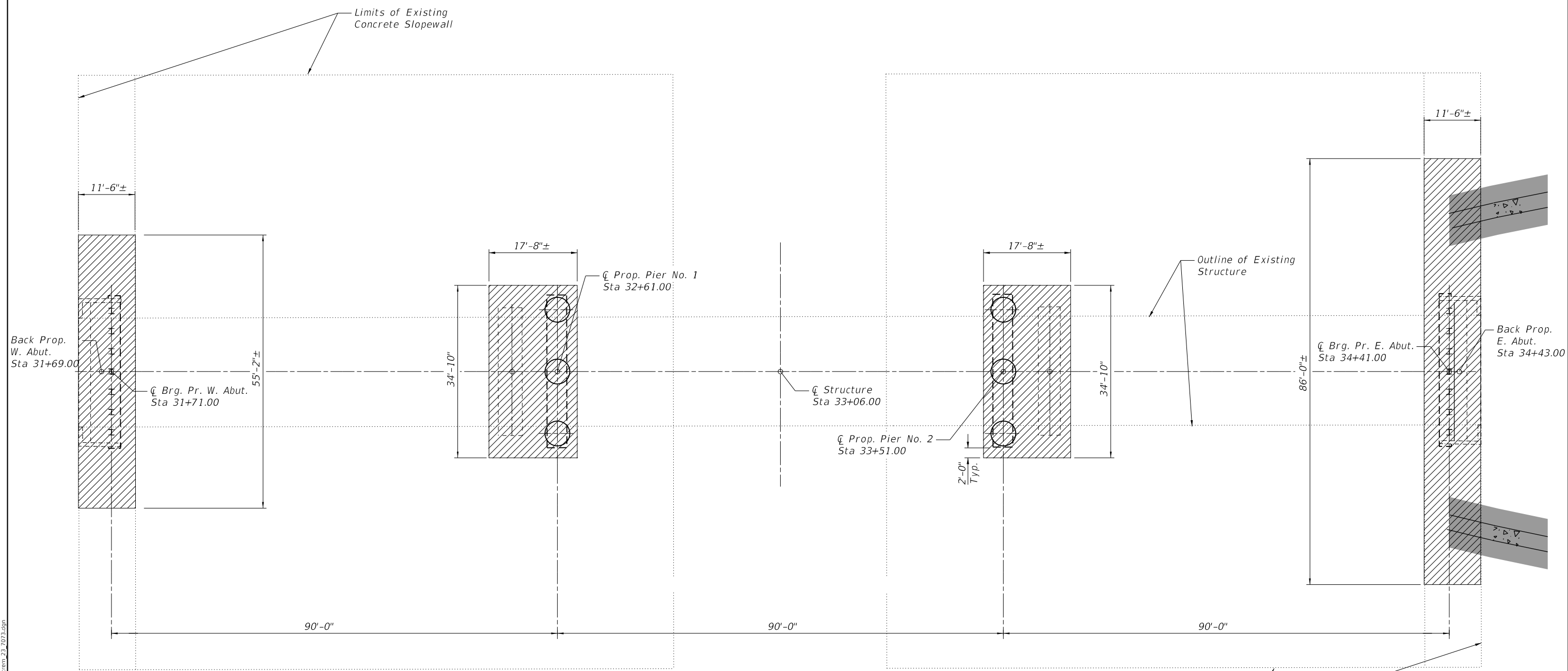
54" PPC I-BEAM DETAILS
 STRUCTURE NO. 077-3145

SCALE: SHEET 22 OF 34 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	37
ILLINOIS FED. AID PROJECT			CONTRACT NO. 99678	

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MODEL: Default
 FILE NAME: I:\2023_Publish\Co_CAD\2023_1_Doc\pdm\CAD_Sheets\0773000_38_concrete\23_7073.dgn



Note:
 The intent of the Plans is to salvage as much slopewall as possible. However, the Contractor may remove and replace the slopewall in-kind beyond the limits shown for required access as part of their means and methods; costs shall be included in the associated work without a change in quantities.
 Hatching indicates concrete slopewall removal.

CONCRETE REMOVAL PLAN



Limits of Existing Concrete Slopewall

HMG ENGINEERS
 HMG ENGINEERS, INC.
 9360 HOLY CROSS LANE
 BREESE, ILLINOIS 62230
 888.HMG.ENGR
 IL PROF. DESIGN FIRM NO. 184.000899

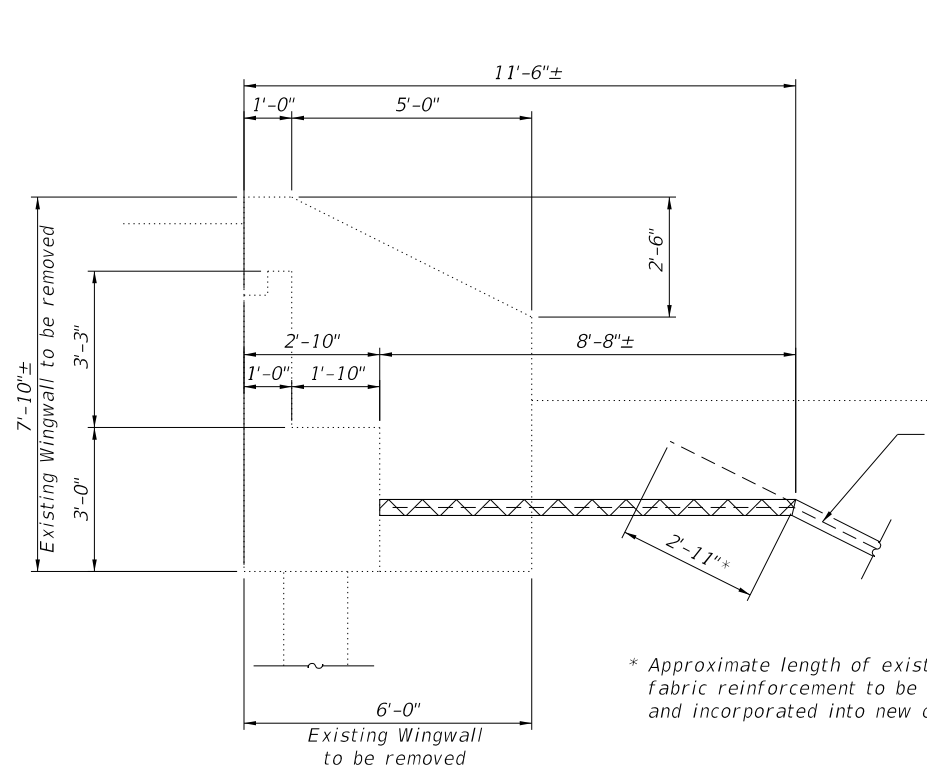
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PLOT DATE = 5/10/2022	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CONCRETE REMOVAL
 STRUCTURE NO. 077-3145**

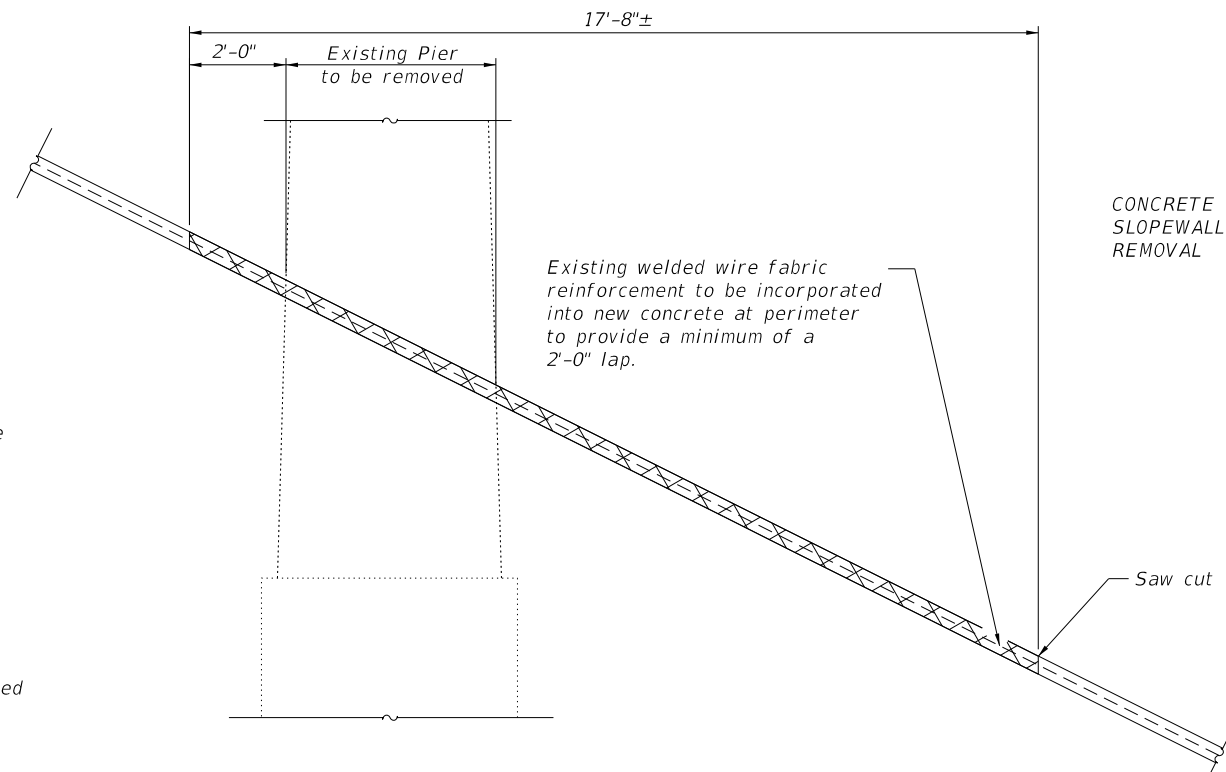
SCALE: SHEET 23 OF 34 SHEETS STA. TO STA.

F.A.S. RTE. 937	SECTION 12-00071-00-BR	COUNTY PULASKI	TOTAL SHEETS 56	SHEET NO. 38
CONTRACT NO. 99678				
ILLINOIS FED. AID PROJECT				



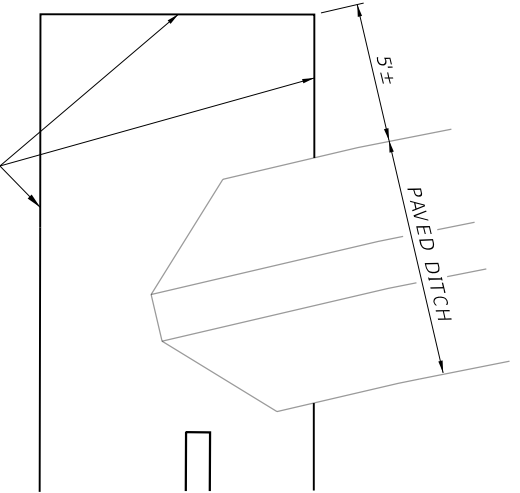
SLOPEWALL REMOVAL AT ABUTMENT

* Approximate length of existing welded wire fabric reinforcement to be cleaned & straightened and incorporated into new concrete.

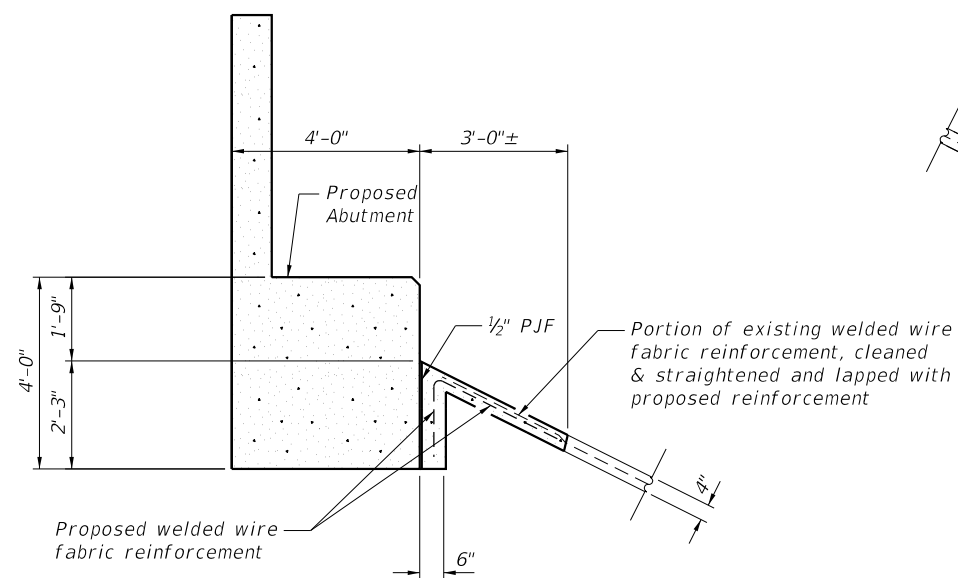


SLOPEWALL REMOVAL AT PIER

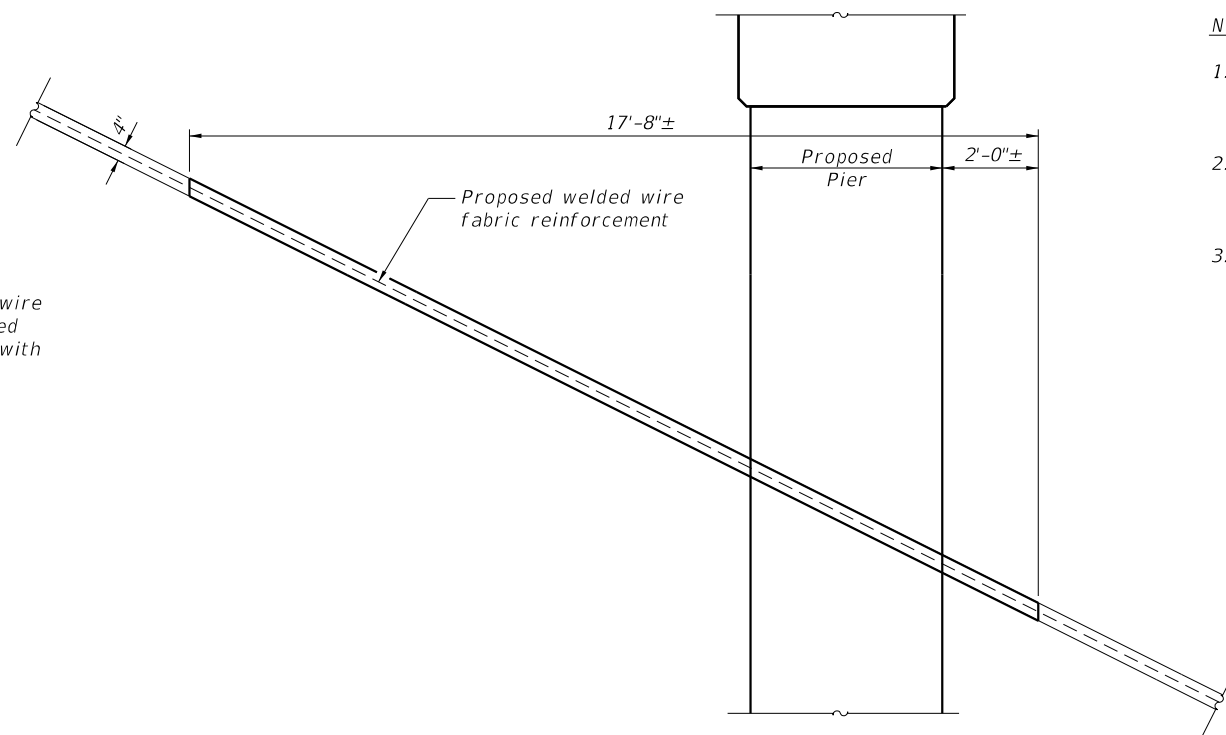
Hatching indicates concrete to be removed.



PAVED DITCH AND SLOPEWALL



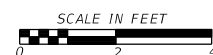
SLOPEWALL REPAIR AT ABUTMENT



SLOPEWALL REPAIR AT PIER

Notes:

- Slopewall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.
- Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
- Perimeter of removal area shall be saw cut.



MODEL: Default
FILE NAME: 10/2023_PulaskiCo_C13.2023_1_Documents\CAD_Sheets\0773000_39_dipwall_24_7073.dgn

HMG ENGINEERS
HMG ENGINEERS, INC.
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR
IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = kjones
DESIGNED -
DRAWN -
CHECKED -
DATE -
PLOT SCALE = 4,0000 ' / in.
PLOT DATE = 1/4/2022

DESIGNED -
DRAWN -
CHECKED -
DATE -
REVISED -
REVISED -
REVISED -
REVISED -

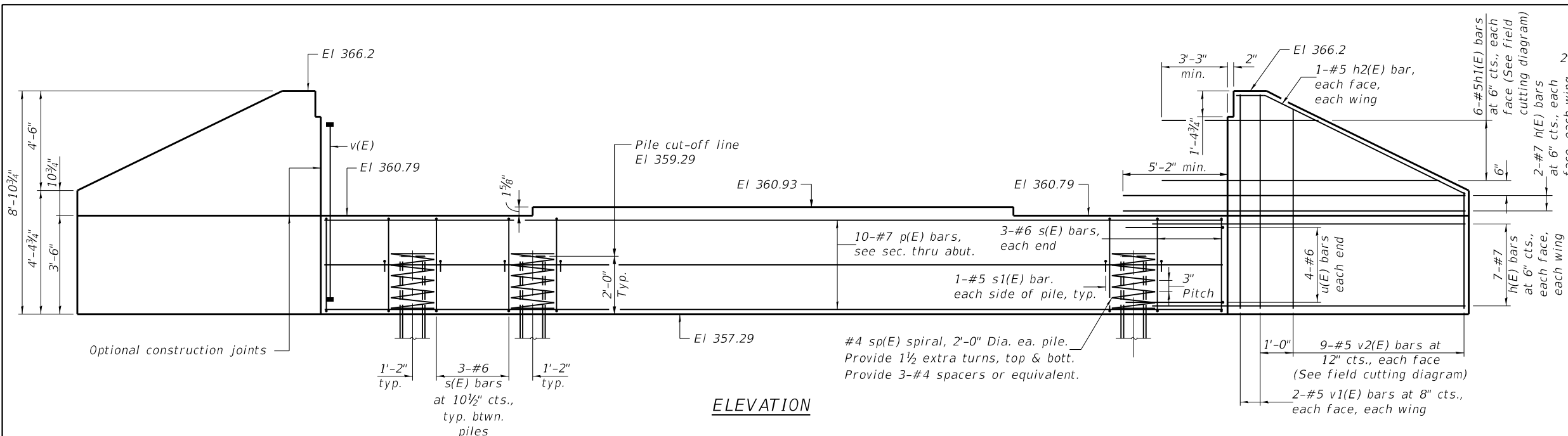
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

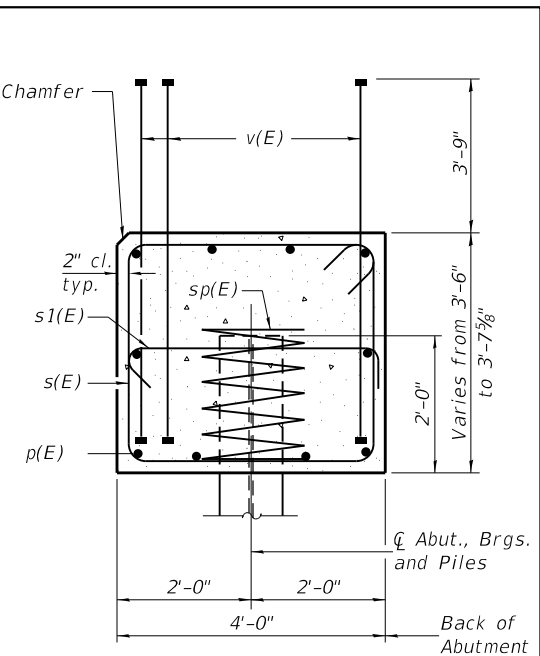
CONCRETE REMOVAL AND SLOPEWALL REPAIR
STRUCTURE NO. 077-3145

SCALE: SHEET 24 OF 34 SHEETS STA. TO STA.

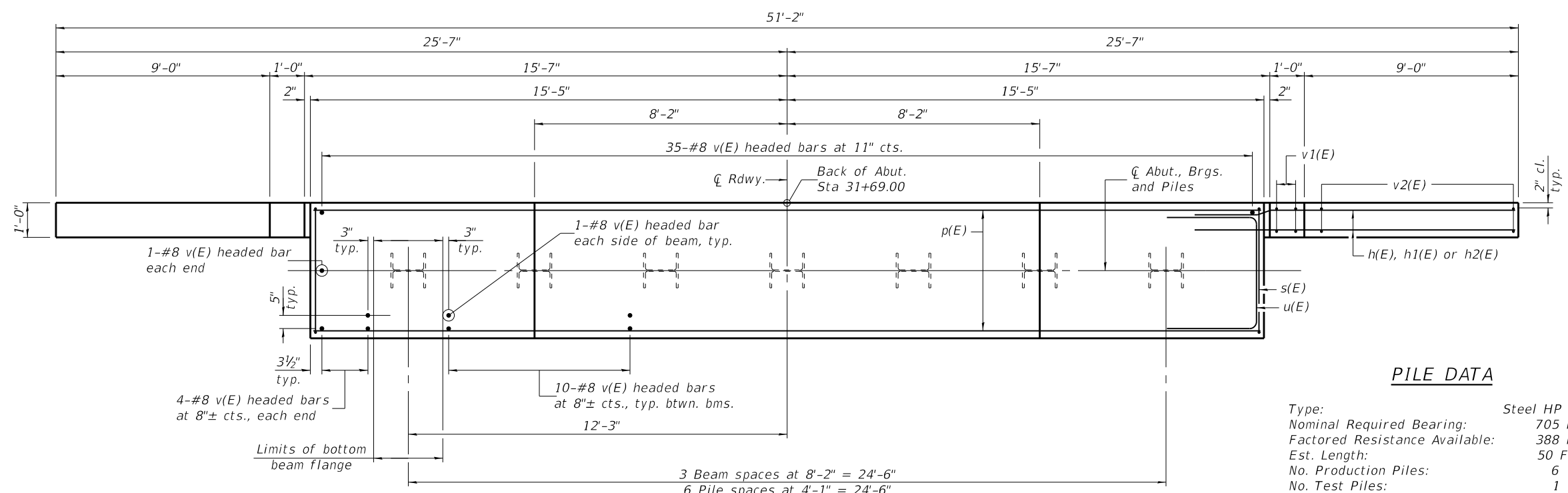
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	39
ILLINOIS FED. AID PROJECT			CONTRACT NO. 99678	



ELEVATION



SEC. THRU ABUT.



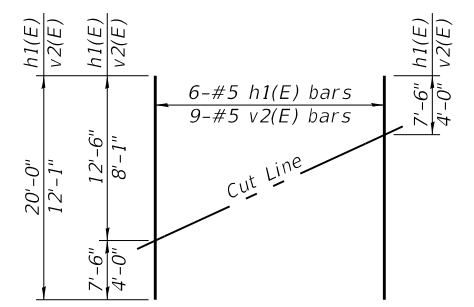
PLAN

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	36	#7	15'-2"	—
h1(E)	12	#5	20'-0"	—
h2(E)	4	#5	10'-8"	—
p(E)	10	#7	30'-6"	—
s(E)	24	#6	15'-0"	⊠
s1(E)	14	#5	4'-8"	⊠
sp(E)	7	#4	2'-0"	⊠
u(E)	8	#6	12'-2"	⊠
v(E)	83	#8	7'-0"	—
v1(E)	8	#5	8'-6"	—
v2(E)	18	#5	12'-1"	—
Structure Excavation		Cu. Yd.	81	
Concrete Structures		Cu. Yd.	36.8	
Reinforcement Bars, Epoxy Coated		Pound	5,000	
Furnishing Steel Piles, HP 14x89		Foot	300	
Driving Piles		Foot	300	
Test Pile Steel, HP 14x89		Each	1	
Pile Shoes		Each	7	

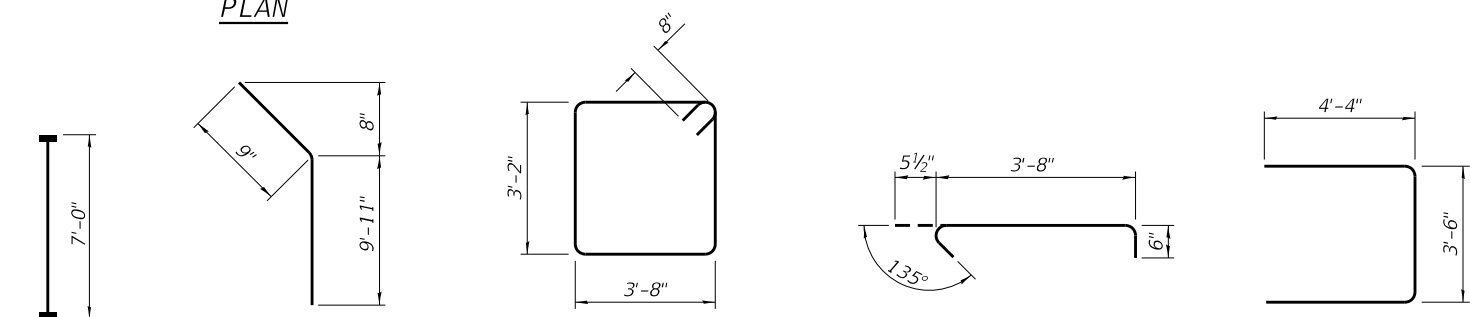
PILE DATA

Type: Steel HP 14x89
 Nominal Required Bearing: 705 K
 Factored Resistance Available: 388 K
 Est. Length: 50 Ft
 No. Production Piles: 6
 No. Test Piles: 1



FIELD CUTTING DIAGRAM

Order h1(E) and v2(E) full length. Cut as shown and use remainder of bars in opposite wing.



BAR v(E) BAR h2(E) BAR s(E) BAR s1(E) BAR u(E)

Notes:
 Pour steps monolithically with cap.
 Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.
 For details of piles see sheet 29 of 34.

MODEL: Default
 FILE NAME: 101203_PubSubCo_C1312023_1_DocInpCAD_Sheets0773000_40_wabst_25_7073.dgn

AI-CBS-0

6-15-2019 (Modified)

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 ENGINEERS
 IL PROF. DESIGN FIRM NO. 184.000899

HMG ENGINEERS, INC.
 9360 HOLY CROSS LANE
 BREESE, ILLINOIS 62230
 888.HMG.ENGR

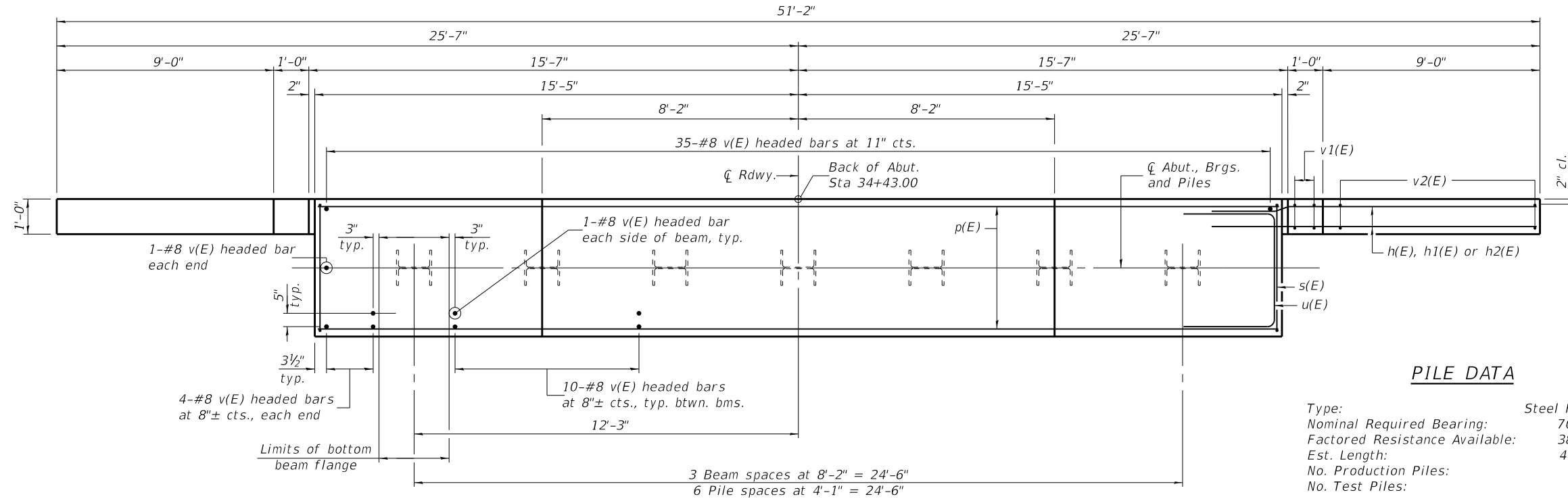
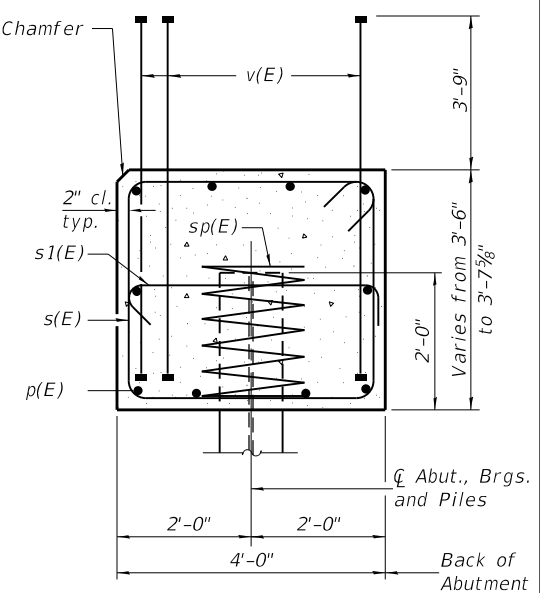
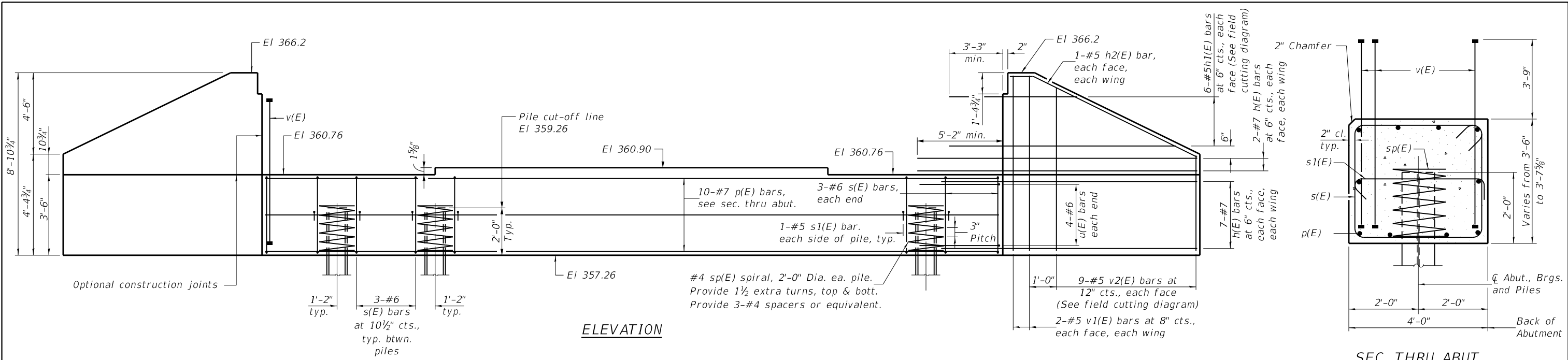
DESIGNED -	REVISIONS -
DRAWN -	REVISIONS -
CHECKED -	REVISIONS -
DATE -	REVISIONS -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT
 STRUCTURE NO. 077-3145

SCALE: SHEET 25 OF 34 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	40
CONTRACT NO. 99678			ILLINOIS FED. AID PROJECT	



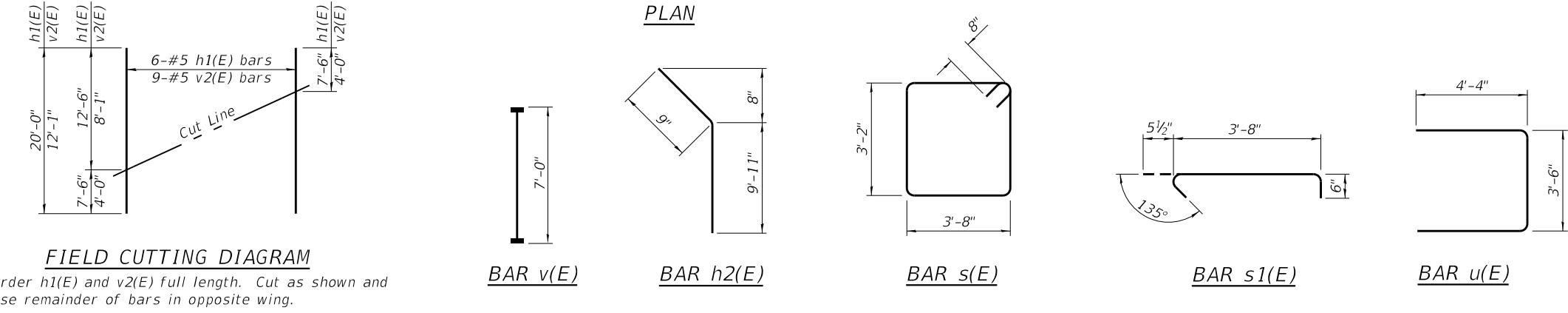
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	36	#7	15'-2"	—
h1(E)	12	#5	20'-0"	—
h2(E)	4	#5	10'-8"	—
p(E)	10	#7	30'-6"	—
s(E)	24	#6	15'-0"	□
s1(E)	14	#5	4'-8"	□
sp(E)	7	#4	2'-0"	≡≡≡
u(E)	8	#6	12'-2"	□
v(E)	83	#8	7'-0"	—
v1(E)	8	#5	8'-6"	—
v2(E)	18	#5	12'-1"	—
Structure Excavation		Cu. Yd.	81	
Concrete Structures		Cu. Yd.	36.8	
Reinforcement Bars, Epoxy Coated		Pound	5,000	
Furnishing Steel Piles, HP 14x89		Foot	264	
Driving Piles		Foot	264	
Test Pile Steel, HP 14x89		Each	1	
Pile Shoes		Each	7	

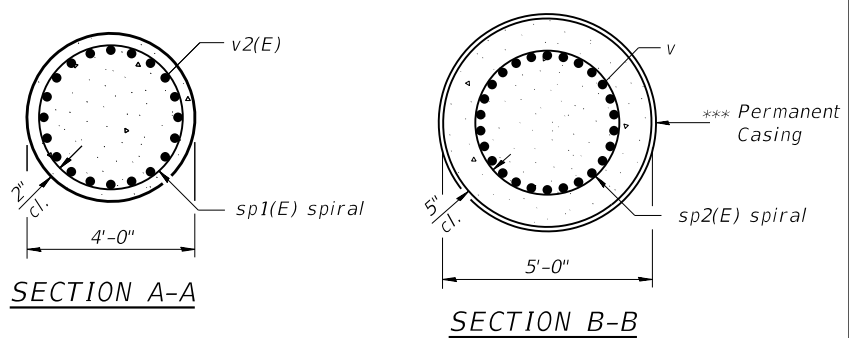
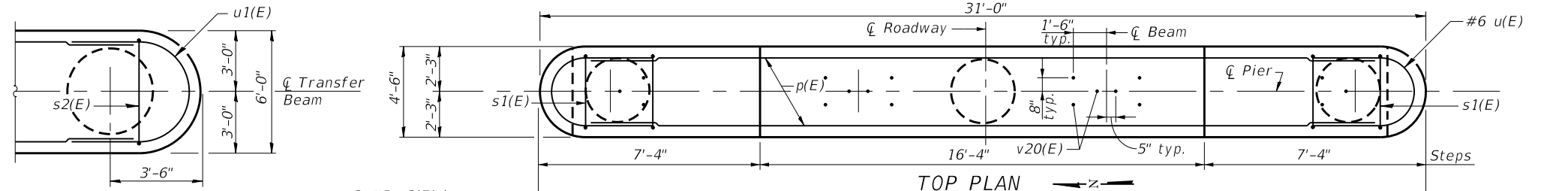
* Length is height of spiral.

PILE DATA

Type: Steel HP 14x89
 Nominal Required Bearing: 705 K
 Factored Resistance Available: 388 K
 Est. Length: 44 Ft
 No. Production Piles: 6
 No. Test Piles: 1

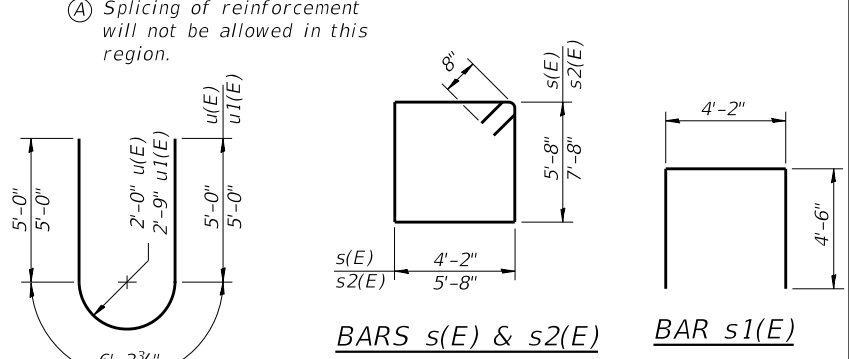


Notes:
 Pour steps monolithically with cap.
 Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.
 For details of piles see sheet 29 of 34.



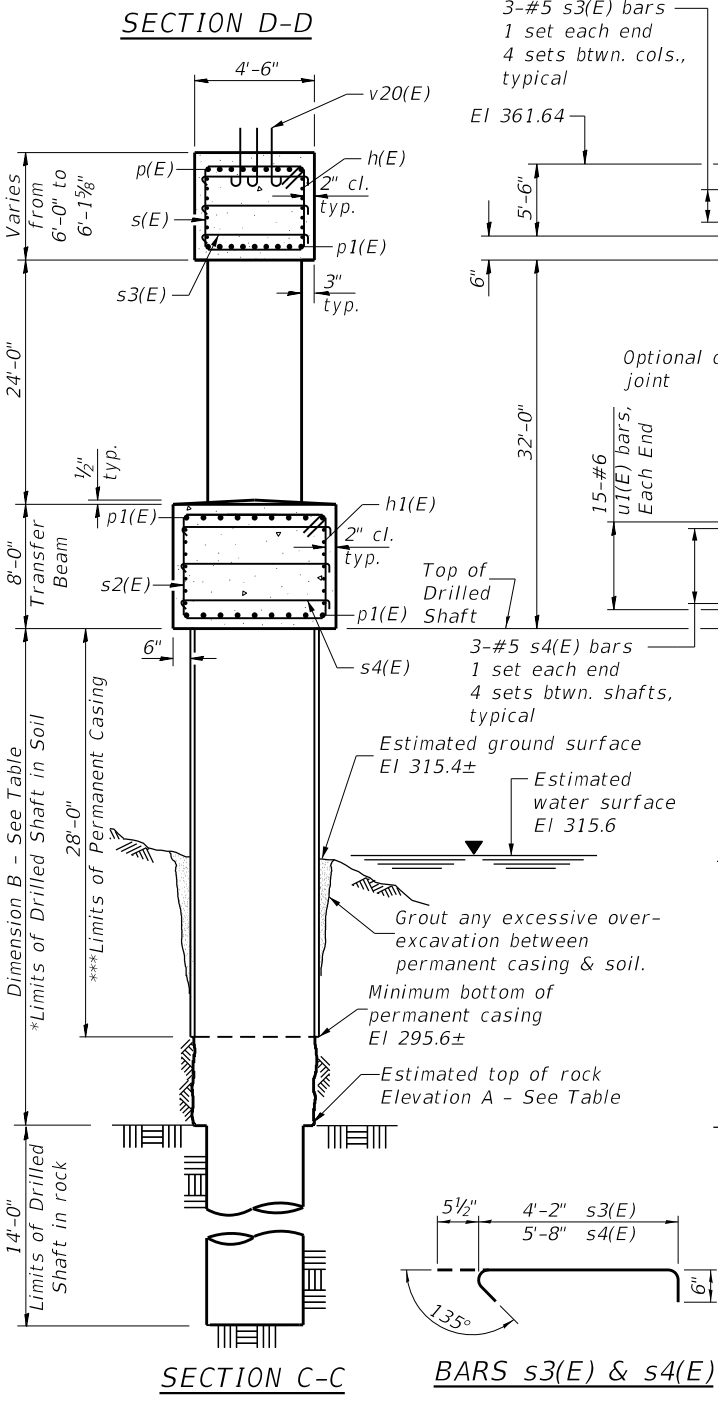
Note: When splicing of spiral reinforcement is necessary, the spirals shall be provided with 1 1/2 extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.

(A) Splicing of reinforcement will not be allowed in this region.



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	14	#5	27'-0"	—
h1(E)	14	#6	26'-6"	—
p(E)	9	#10	27'-0"	—
p1(E)	27	#8	26'-6"	—
p2(E)	16	#6	0'-10"	—
s(E)	28	#6	21'-0"	□
s1(E)	16	#6	13'-2"	□
s2(E)	28	#6	28'-0"	□
s3(E)	30	#5	5'-2"	┌┐
s4(E)	42	#5	6'-8"	┌┐
sp1(E)	3	#5	28'-0"	⋈
sp2(E)	3	#6	24'-0"	⋈
sp11	1	#6	44'-6"	⋈
sp12	1	#6	33'-6"	⋈
sp13	1	#6	26'-6"	⋈
u(E)	24	#6	16'-4"	U
u1(E)	30	#6	18'-8"	U
v1(E)	72	#11	9'-1"	J
v2(E)	72	#11	23'-1"	J
v3(E)	102	#11	10'-1"	J
v11	34	#11	60'-0"	J
v12	34	#11	49'-0"	J
v13	34	#11	42'-0"	J
v20(E)	18	#8	4'-2"	J
Concrete Structures			Cu. Yd.	129.2
Reinforcement Bars			Pound	31,830
Reinforcement Bars, Epoxy Coated			Pound	35,680
Drilled Shaft in Soil			Cu. Yd.	84.0
Drilled Shaft in Rock			Cu. Yd.	24.8
Permanent Casing			Foot	84
Mechanical Splicers			Each	174



SHAFT TABLE

Table	Description	S1	S2	S3
A	Estimated Top of Rock Elevation	275.5±	286.5±	293.5±
B	Limits of Drilled Shaft in Soil	48'-2"	37'-2"	30'-2"

* If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shafts within a substructure unit shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown and may change based on the actual elevations encountered at each shaft and the final top of shaft elevation.

*** Contractor is responsible for determining the casing thickness and the actual tip elevation to be used. See Article 516.06(d) of the Standard Specifications. Pay limits for the Permanent Casing shall be based on the minimum length shown.

If a portion of the drilled shaft web walls or concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.

Cast steps monolithically with cap. Space cap reinforcement to miss anchor bolts.

** Length is height of spiral.

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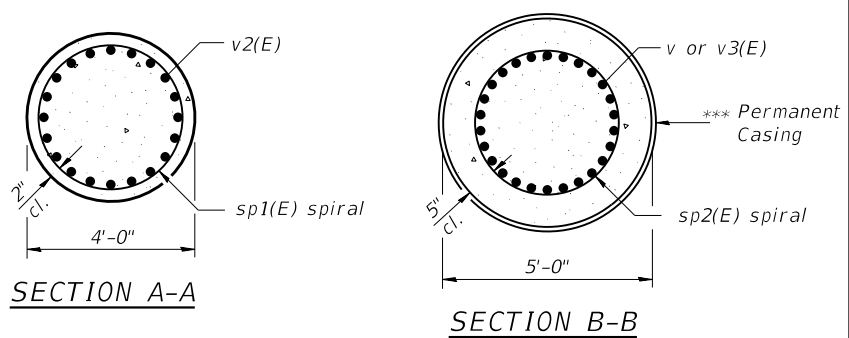
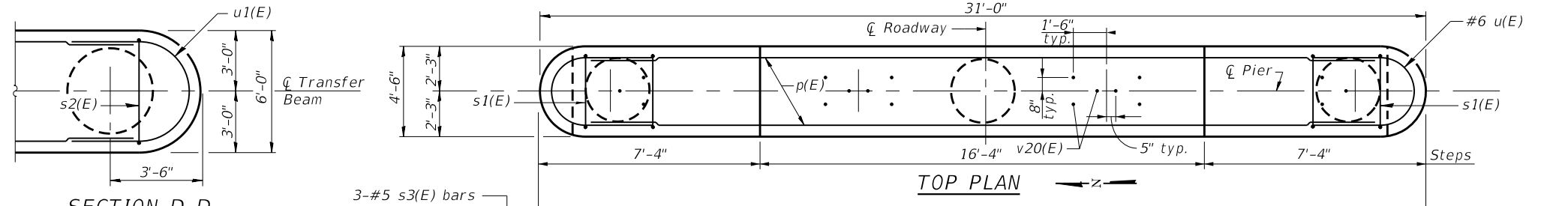
P-DSTB 2-17-2017 (Modified)

HMG ENGINEERS IL PROF. DESIGN FIRM NO. 184.000899	HMG ENGINEERS, INC. 9360 HOLY CROSS LANE BREESE, ILLINOIS 62230 888.HMG.ENGR	USER NAME = kjones PLOT SCALE = 2.0000' / in. PLOT DATE = 1/4/2022	DESIGNED - DRAWN - CHECKED - DATE -	REVISED - REVISED - REVISED - REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

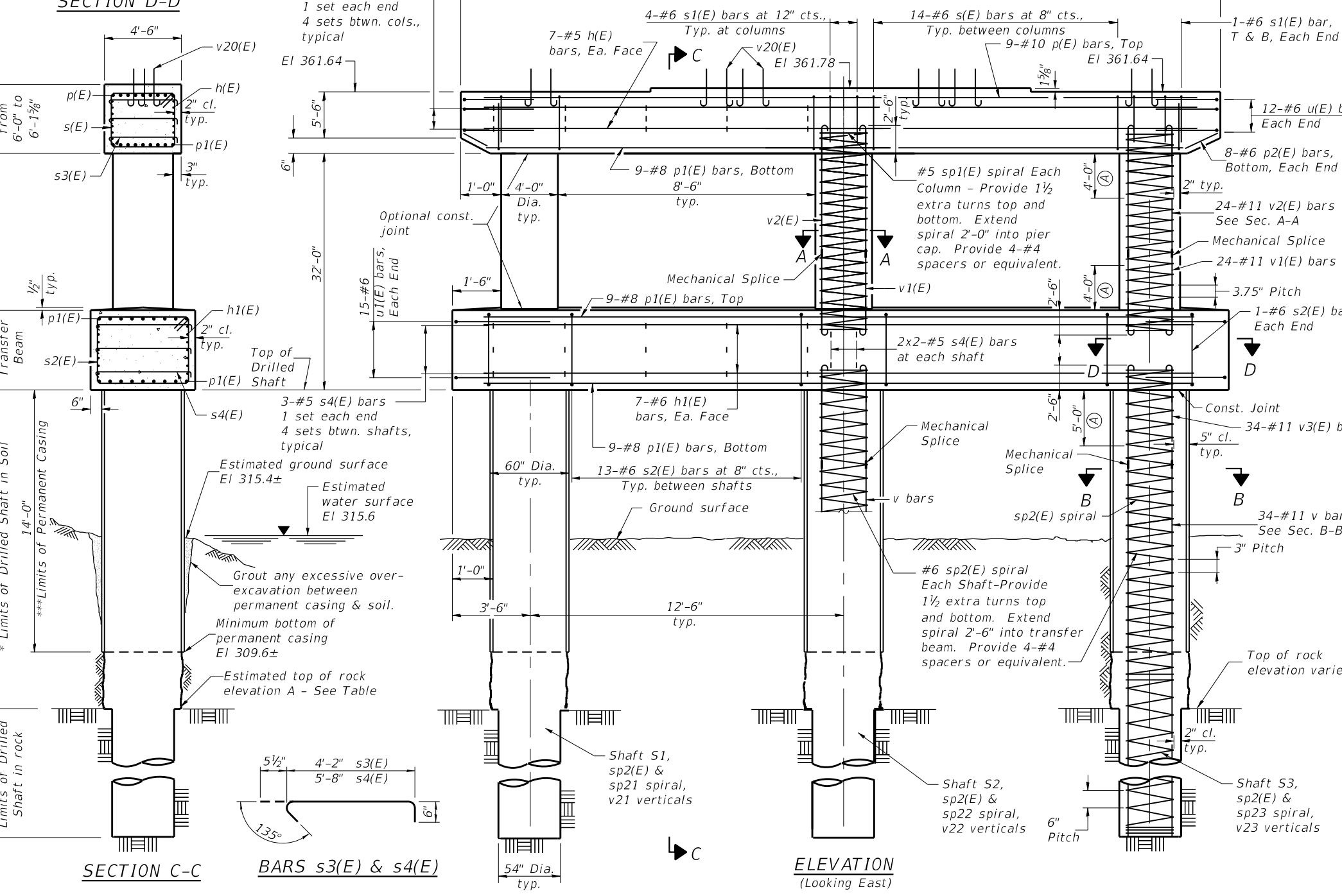
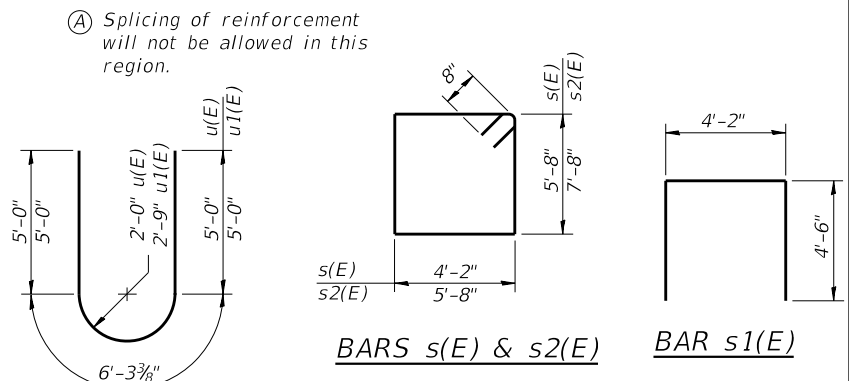
PIER 1
STRUCTURE NO. 077-3145
SCALE: SHEET 27 OF 34 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	42
CONTRACT NO. 99678				
ILLINOIS FED. AID PROJECT				



Note: When splicing of spiral reinforcement is necessary, the spirals shall be provided with 1½ extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.

(A) Splicing of reinforcement will not be allowed in this region.



SHAFT TABLE

Table	Description	S1	S2	S3
A	Estimated Top of Rock Elevation	308.5±	305.5±	304.5±
B	Limits of Drilled Shaft in Soil	21'-2"	18'-2"	17'-2"

* If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shafts within a substructure unit shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown and may change based on the actual elevations encountered at each shaft and the final top of shaft elevation.

*** Contractor is responsible for determining the casing thickness and the actual tip elevation to be used. See Article 516.06(d) of the Standard Specifications. Pay limits for the Permanent Casing shall be based on the minimum length shown.

If a portion of the drilled shaft web walls or concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	18	#5	27'-0"	—
h1(E)	24	#5	26'-6"	—
p(E)	9	#10	27'-0"	—
p1(E)	27	#8	26'-6"	—
p2(E)	16	#6	0'-10"	—
s(E)	28	#5	21'-0"	□
s1(E)	16	#5	13'-2"	□
s2(E)	28	#5	28'-0"	□
s3(E)	30	#5	5'-2"	┌┐
s4(E)	42	#5	6'-8"	┌┐
sp1(E)	3	#5	28'-0"	⋈
sp2(E)	3	#6	24'-0"	⋈
sp21	1	#6	17'-6"	⋈
sp22	1	#6	14'-6"	⋈
sp23	1	#6	13'-6"	⋈
u(E)	24	#6	16'-4"	U
u1(E)	30	#6	18'-8"	U
v1(E)	72	#11	9'-1"	┌┐
v2(E)	72	#11	23'-1"	┌┐
v3(E)	102	#11	10'-1"	┌┐
v21	34	#11	33'-0"	┌┐
v22	34	#11	30'-0"	┌┐
v23	34	#11	29'-0"	┌┐
v20(E)	18	#8	4'-2"	┌┐
Concrete Structures		Cu. Yd.	129.2	
Reinforcement Bars		Pound	18,700	
Reinforcement Bars, Epoxy Coated		Pound	35,680	
Drilled Shaft in Soil		Cu. Yd.	41.1	
Drilled Shaft in Rock		Cu. Yd.	24.8	
Permanent Casing		Foot	42	
Mechanical Splicers		Each	174	

Cast steps monolithically with cap. Space cap reinforcement to miss anchor bolts.

** Length is height of spiral.

P-DSTB 2-17-2017 (Modified)

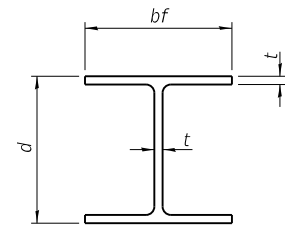
HMG ENGINEERS IL PROF. DESIGN FIRM NO. 184.000899	HMG ENGINEERS, INC. 9360 HOLY CROSS LANE BREESE, ILLINOIS 62230 888.HMG.ENGR	USER NAME = kjones	DESIGNED -	REVISED -
		PLOT SCALE = 2.0000' / in.	DRAWN -	REVISED -
		PLOT DATE = 1/4/2022	CHECKED -	REVISED -
			DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PIER 2
STRUCTURE NO. 077-3145**

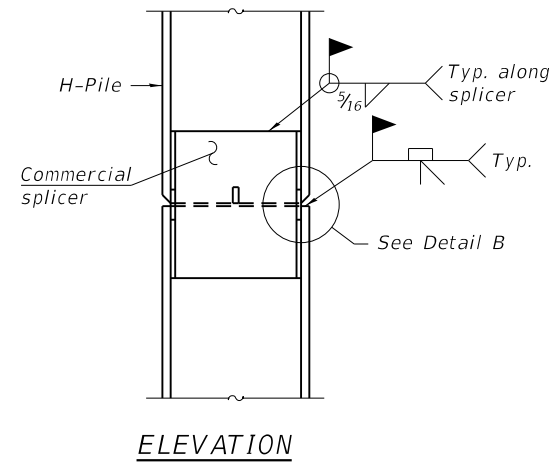
SCALE: SHEET 28 OF 34 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	43
CONTRACT NO. 99678			ILLINOIS FED. AID PROJECT	

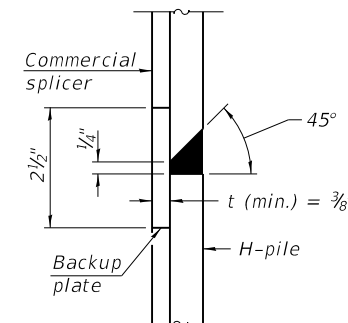


STEEL PILE TABLE

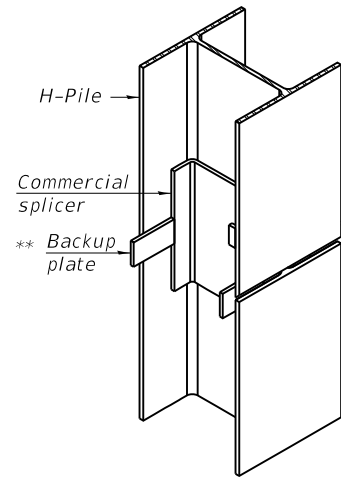
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION

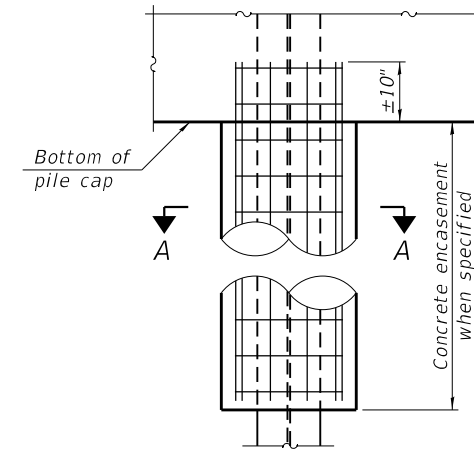


DETAIL "B"

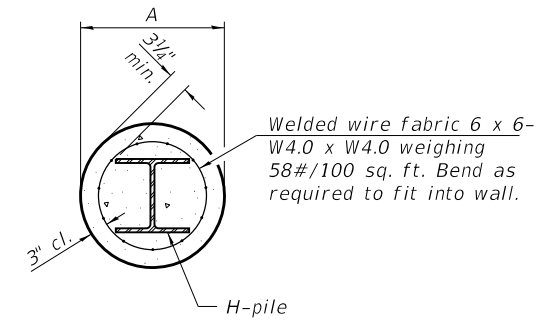


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE

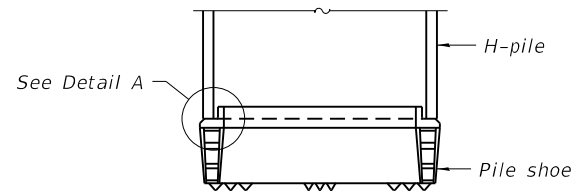


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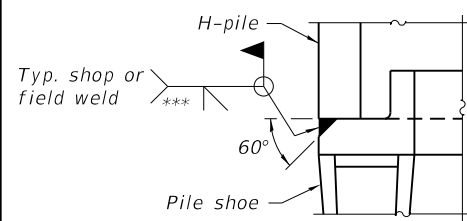


SECTION A-A

INDIVIDUAL PILE CONCRETE ENCASUREMENT
(Forms for encasement may be omitted when soil conditions permit).



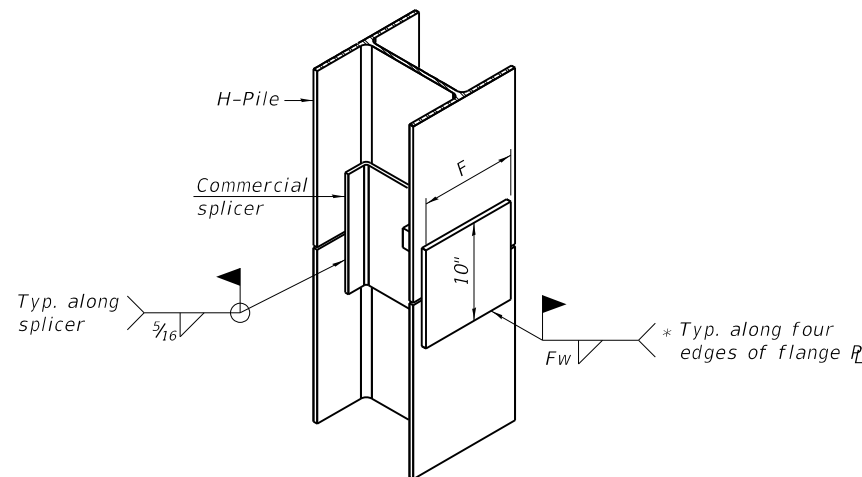
ELEVATION



DETAIL A

SHOE ATTACHMENT

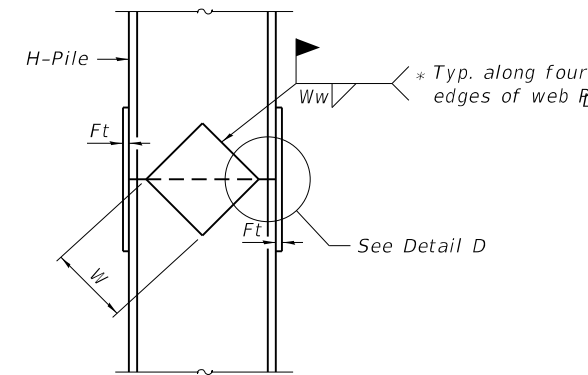
Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.



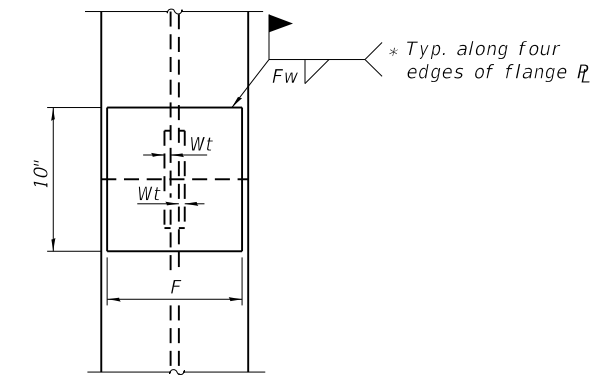
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

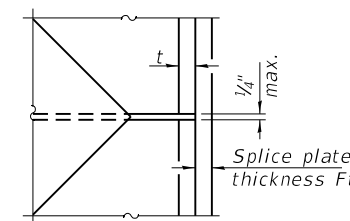
- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (5/16" min.).



ELEVATION



END VIEW



DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1 1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1 1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1 1/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

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F-HP 8-11-2017

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 HMG ENGINEERS, INC.
 9360 HOLY CROSS LANE
 BREESE, ILLINOIS 62230
 888.HMG.ENGR
 IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = kjones
 DESIGNED -
 DRAWN -
 PLOT SCALE = 2.0000 ' / in.
 CHECKED -
 PLOT DATE = 1/4/2022
 DATE -

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

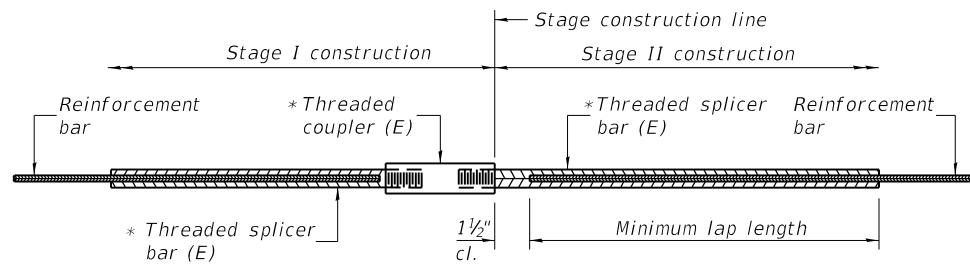
REVISED -
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 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS
 STRUCTURE NO. 077-3145

SCALE: SHEET 29 OF 34 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	44
CONTRACT NO. 99678			ILLINOIS FED. AID PROJECT	

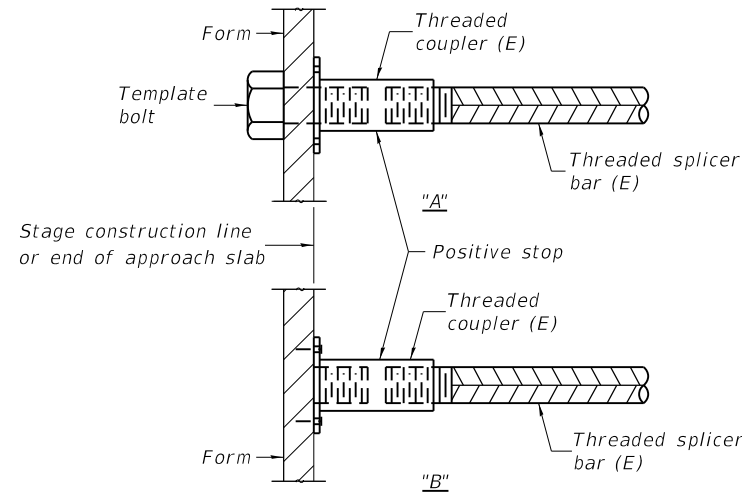


STANDARD BAR SPLICER ASSEMBLY

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

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

Location	Bar size	No. assemblies required	Minimum lap length

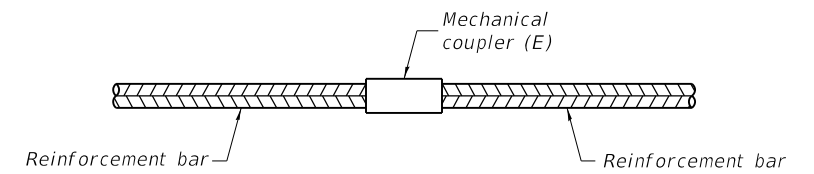


INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.

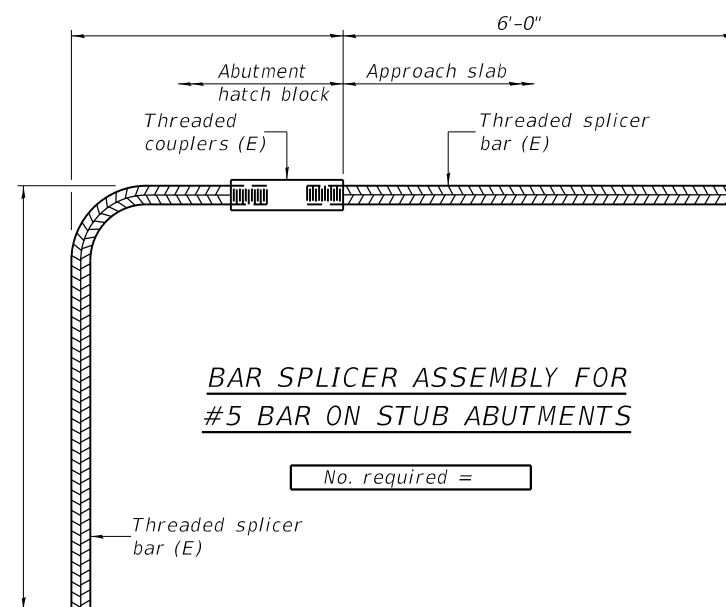
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
Pier 1	#11	174
Pier 2	#11	174



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars. Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

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BSD-1

2-17-2017

HMG
ENGINEERS
IL PROF. DESIGN FIRM NO. 184.000899

HMG ENGINEERS, INC.
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR

USER NAME = kjones
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CHECKED -
DATE -

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 077-3145

SCALE: SHEET 30 OF 34 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	45
CONTRACT NO. 99678			ILLINOIS FED. AID PROJECT	

Bridge Foundation Boring Log

Project: H-19049 Bridge Post Creek Cut Off Bridge Date: 6/3/2019
 Section: 12-00071-00-BR Station _____ Bored by: J. Carter
 Structure: _____ Checked By: T. Holcomb
 County: Pulaski

Boring No: 2 Surface Water Elev. _____
 Station: 31+64.17 Ground Water Elev. _____
 Offset: _____ During Drilling 325.30
 Plugged @ _____
 Upon Completion 360.80

Elevation	N	Qu	tsf	w	%	Surface Water Elev.	Elevation	N	Qu	tsf	w	%
363.80	0					silty clay (continued)						
						16" Asphalt	340.30					
	4	--	24			Brown Mottled Gray CLAY with organics (A-6)	-25	11	1.25	17		
						337.80						
	6	--	-			Brown Mottled Gray SAND (A-2-4)		19	1.95	16		
						-5						
	5	--	-				-30	19	1.15	21		
						355.30						
	6	0.85	23			Brown Mottled Gray CLAY (A-6)						
						-10						
	6	0.75	26			Gray SAND (A-2-4)		25	1.55	17		
						330.30						
	9	1.45	26				-35					
						325.30						
	9	2.05	22			Gray Mottled Brown SAND (A-2-4)		22	0.75	16		
						-40						
	8	1.95	23			Brown Silty CLAY (A-6)						
						345.30						
	9	2.15	21			Gray Sandy CLAY (A-6)		24	1.15	17		
						320.30						

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

Bridge Foundation Boring Log

Project: H-19049 Bridge Post Creek Cut Off Bridge Date: 6/3/2019
 Section: 12-00071-00-BR Station _____ Bored by: J. Carter
 Structure: _____ Checked By: T. Holcomb
 County: Pulaski

Boring No: 2 Surface Water Elev. _____
 Station: 31+64.17 Ground Water Elev. _____
 Offset: _____ During Drilling 326.30
 Plugged @ _____
 Upon Completion 360.80

Elevation	N	Qu	tsf	w	%	Surface Water Elev.	Elevation	N	Qu	tsf	w	%
						sandy clay (continued)						
						45						
						-70						
						315.30						
						Brown Sandy CLAY (A-6)						
	22	2.45	29			-50						
						-75						
						308.30						
						-55						
	100					Gray LIMESTONE						
						307.80		71	--	B		
						End of Boring @ -56.0'						
						-80						
						-60						
						-85						
						-65						

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

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 IL PROF. DESIGN FIRM NO. 184.000899

HOLCOMB FOUNDATION ENGINEERING INC. 393 Wood Road 618-529-5262 Carbondale, Il. 62901 618-457-8991 fax												Page 1 of 2									
Bridge Foundation Boring Log																					
Project: <u>H-19049</u> Bridge <u>Post Creek Cut Off Bridge</u> Date: <u>6/4/2019</u>												Section: <u>12-00071-00-BR</u> Station _____		Bored by: <u>J. Carter</u>		Checked By: <u>T. Holcomb</u>		Structure: _____		County: <u>Pulaski</u>	
Boring No: <u>3</u>		Elevation		N		Qu tsf		w %		Surface Water Elev. _____		Elevation		N		Qu tsf		w %			
Station: <u>34+46.83</u>		Ground Water Elev. _____		During Drilling <u>306.66</u>		Upon Completion <u>343.66</u>		_____		_____		_____		_____		_____		_____			
Offset: _____		363.66		0		silty clay (continued)		_____		_____		_____		_____		_____		_____			
8" Asphalt		_____		_____		_____		_____		_____		_____		_____		_____		_____			
Brown Mottled Gray Silty CLAY to Sandy CLAY (A-6)		_____		9		--		--		_____		-25		12		2.55		17			
_____		337.66		_____		_____		_____		_____		_____		_____		_____		_____			
Brown Mottled Gray Silty CLAY to Sandy CLAY (A-6)		_____		6		1.45		22		_____		16		0.95		18		_____			
_____		357.66		_____		_____		_____		_____		_____		_____		_____		_____			
Gray Mottled Brown Silty CLAY (A-6)		_____		8		--		22		_____		-30		17		--		10			
_____		355.16		_____		_____		_____		_____		_____		_____		_____		_____			
Brown Mottled Gray Silty CLAY (A-6)		_____		9		1.85		25		_____		_____		_____		_____		_____			
_____		_____		6		1.75		25		_____		-35		16		--		13			
_____		_____		6		1.95		21		_____		_____		_____		_____		_____			
_____		325.16		_____		_____		_____		_____		_____		_____		_____		_____			
Gray Mottled Brown Silty SAND (A-2-4)		_____		7		1.85		19		_____		-40		15		0.55		25			
_____		_____		6		1.45		19		_____		_____		_____		_____		_____			
_____		320.16		_____		_____		_____		_____		_____		_____		_____		_____			
Gray Weathered LIMESTONE		_____		19		1.45		17		_____		-3		--		19		_____			

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

HOLCOMB FOUNDATION ENGINEERING INC. 393 Wood Road 618-529-5262 Carbondale, Il. 62901 618-457-8991 fax												Page 2 of 2									
Bridge Foundation Boring Log																					
Project: <u>H-19049</u> Bridge <u>Post Creek Cut Off Bridge</u> Date: <u>6/4/2019</u>												Section: <u>12-00071-00-BR</u> Station _____		Bored by: <u>J. Carter</u>		Checked By: <u>T. Holcomb</u>		Structure: _____		County: <u>Pulaski</u>	
Boring No: <u>3</u>		Elevation		N		Qu tsf		w %		Surface Water Elev. _____		Elevation		N		Qu tsf		w %			
Station: <u>34+46.83</u>		Ground Water Elev. _____		During Drilling <u>306.66</u>		Upon Completion <u>343.66</u>		_____		_____		_____		_____		_____		_____			
Offset: _____		45		_____		_____		_____		_____		_____		_____		_____		_____			
weathered limestone (continued)		_____		_____		_____		_____		_____		_____		_____		_____		_____			
_____		315.16		_____		_____		_____		_____		_____		_____		_____		_____			
Gray Sandy CLAY with limestone (A-6)		_____		21		0.45		25		_____		-70		_____		_____		_____			
_____		_____		_____		_____		_____		_____		_____		_____		_____		_____			
_____		357.66		_____		_____		_____		_____		_____		_____		_____		_____			
_____		355.16		_____		_____		_____		_____		_____		_____		_____		_____			
_____		_____		19		--		19		_____		-75		_____		_____		_____			
_____		_____		6		1.75		25		_____		-80		16		--		13			
_____		_____		6		1.95		21		_____		_____		_____		_____		_____			
_____		306.16		100		7		6		_____		-85		_____		_____		_____			
Gray LIMESTONE		_____		_____		_____		_____		_____		_____		_____		_____		_____			
Recovery = 79% RQD = 77%		_____		_____		_____		_____		_____		_____		_____		_____		_____			
_____		300.66		_____		_____		_____		_____		_____		_____		_____		_____			
End of Boring @ -63.0'		_____		_____		_____		_____		_____		_____		_____		_____		_____			

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

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HMG ENGINEERS
HMG ENGINEERS, INC.
 9360 HOLY CROSS LANE
 BREESE, ILLINOIS 62230
 888.HMG.ENGR
 IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = kjones
 PLOT SCALE = 2.0000' / in.
 PLOT DATE = 1/4/2022

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
STRUCTURE NO. 077-3145

SCALE: SHEET 33 OF 34 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	48
CONTRACT NO. 99678				
ILLINOIS FED. AID PROJECT				

Bridge Foundation Boring Log

Project: H-19049 Bridge Post Creek Cut Off Bridge Date: 6/4/2019
 Section: 12-00071-00-BR Station _____ Bored by: J. Carter
 Structure: _____ Checked By: T. Holcomb
 County: Pulaski

Boring No: 4 Surface Water Elev. _____
 Station: 34+46.83 Ground Water Elev. _____
 Offset: _____ During Drilling Dry
 Upon Completion Plugged @ 360.68

	Elevation	N	Qu	% w	Surface Water Elev.	Elevation	N	Qu	% w
Ground Surface	363.68	0							
18" Asphalt									
Brown CLAY with sand (A-6)		6	1.4S	20		-25	14	3.4S	19
						337.68			
		3	1.0B	22			25	--	18
						335.18			
Gray Mottled Brown SAND (A-2-4)									
Gray Mottled Brown CLAY (A-6)	357.68	6	1.8S	22		-30	19	--	18
						325.18			
White Mottled Brown SAND (A-2-4)									
Brown Mottled Gray CLAY (A-6)	355.18	6	1.6S	27					
						-35	20	--	11
		5	1.2B	28					
						-60			
		5	0.3B	29					
						325.18			
Gray Sandy Clay (A-6)		5	1.7S	20		-40	16	0.7S	27
Brown Mottled Gray Sandy CLAY (A-6)	345.18	6	1.2S	20					
						320.18			
						100			
		10	3.7S	18					

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

Bridge Foundation Boring Log

Project: H-19049 Bridge Post Creek Cut Off Bridge Date: 6/4/2019
 Section: 12-00071-00-BR Station _____ Bored by: J. Carter
 Structure: _____ Checked By: T. Holcomb
 County: Pulaski

Boring No: 4 Surface Water Elev. _____
 Station: 34+46.83 Ground Water Elev. _____
 Offset: _____ During Drilling Dry
 Upon Completion Plugged @ 360.68

	Elevation	N	Qu	% w	Surface Water Elev.	Elevation	N	Qu	% w
limestone (continued)	45								
Recovery = 52% RQD = 0%									
						-70			
						313.68-50			
Gray SANDSTONE with LIMESTONE and clay mix									
Recovery = 22% RQD = 0%									
						-75			
						309.68			
End of Boring @ -54.0'						-55			
						-80			
						-85			
						-65			

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

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NO.	NO.		

ORIGINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE
NO.	NO.		

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HMG ENGINEERS, INC.
 9360 HOLY CROSS LANE
 BREESE, ILLINOIS 62230
 888.HMG.ENGR
 IL PROF. DESIGN FIRM NO. 184.000899

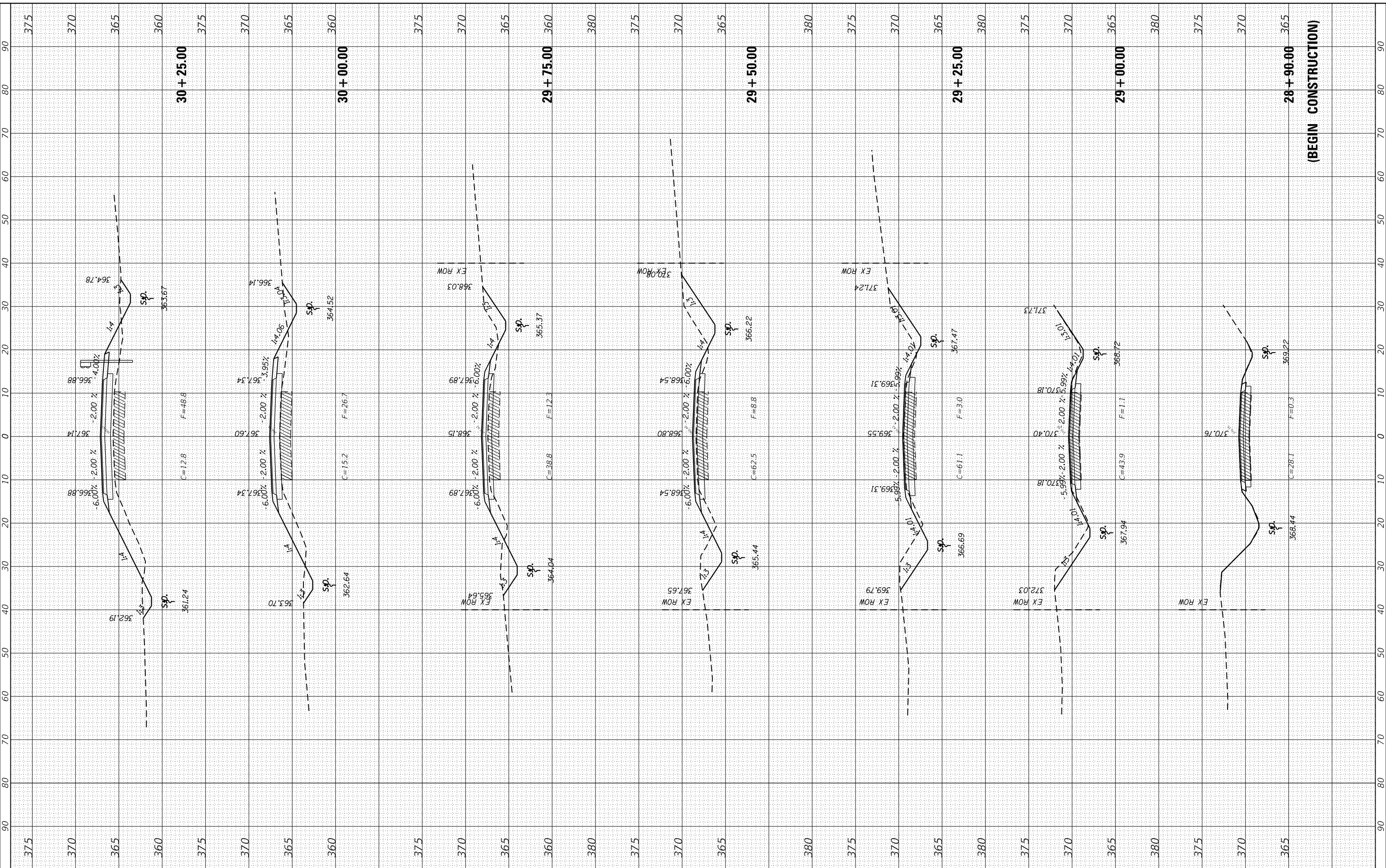
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DESIGNED	-
DRAWN	-
CHECKED	-
DATE	-
PLOT SCALE	= 20.0000" / in.
PLOT DATE	= 1/4/2022

REVISION	-
REVISION	-
REVISION	-
REVISION	-

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SCALE: SHEET 1 OF 5 SHEETS STA. 28+90.00 TO STA. 30+25.00

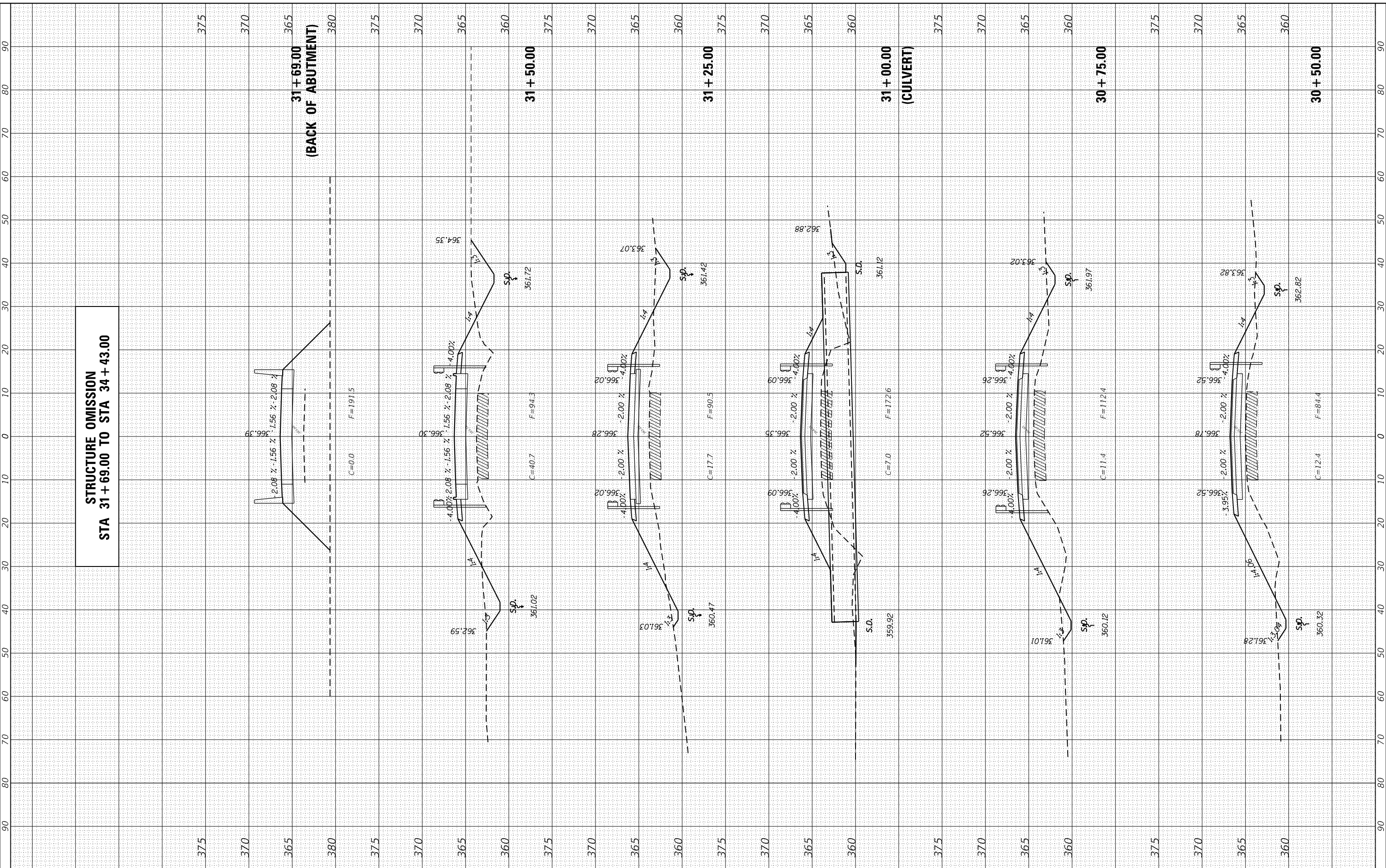
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	50
			CONTRACT NO. 99678	
ILLINOIS		FED. AID PROJECT		



FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

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**STRUCTURE OMISSION
 STA 31 + 69.00 TO STA 34 + 43.00**

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 IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = kjonas
PLOT SCALE = 20.0000' / in.
PLOT DATE = 1/4/2022

DESIGNED -
DRAWN -
CHECKED -
DATE -

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

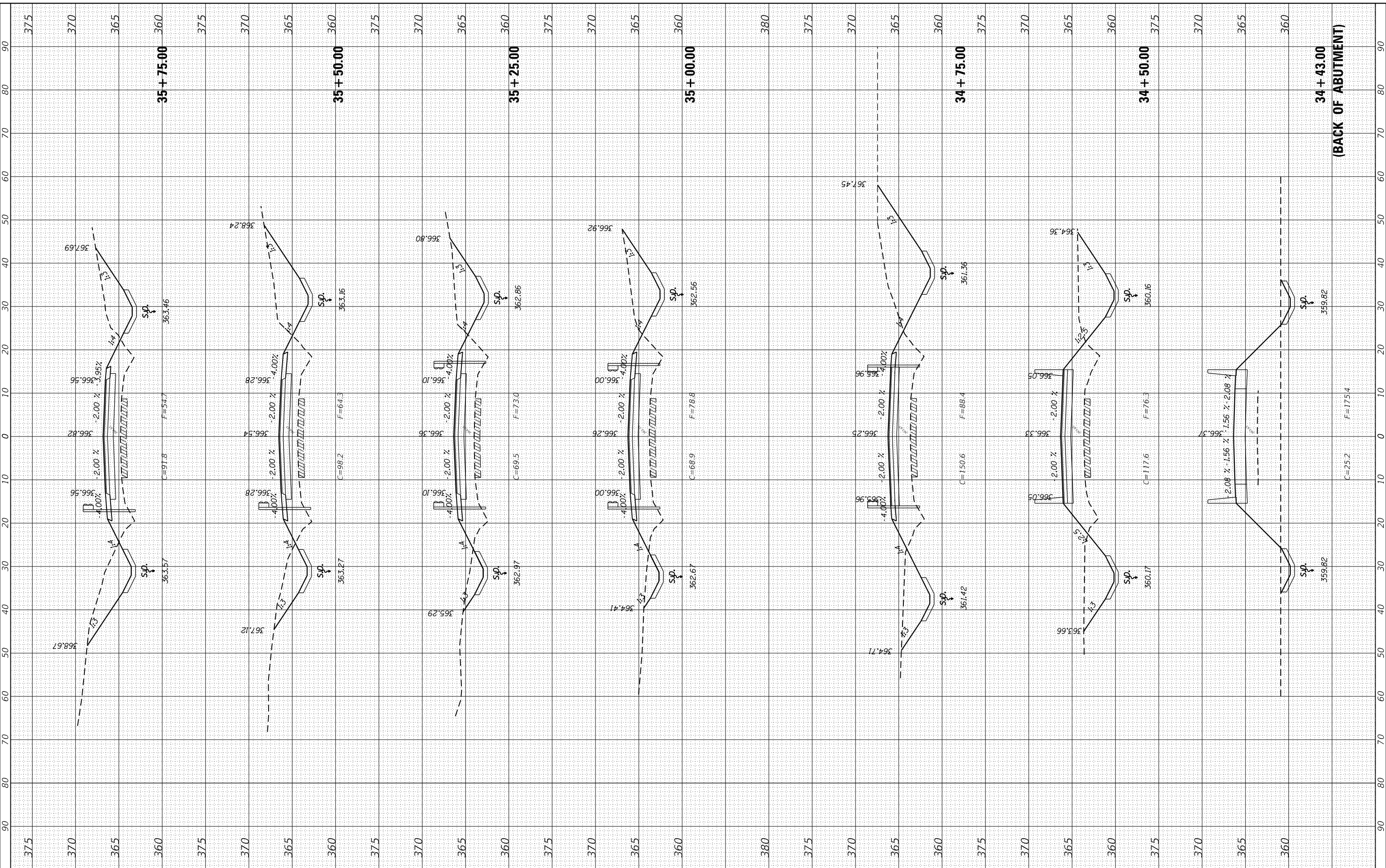
SCALE: SHEET 2 OF 5 SHEETS STA. 30+50.00 TO STA. 31+69.00

F.A.S. RTE. 937	SECTION 12-00071-00-BR	COUNTY PULASKI	TOTAL SHEETS 56	SHEET NO. 51
CONTRACT NO. 99678				
ILLINOIS FED. AID PROJECT				

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

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

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 888.HMG.ENGR
 IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = kjones
 DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

REVISIONS
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 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SCALE: SHEET 3 OF 5 SHEETS STA. 34+43.00 TO STA. 35+75.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	52
ILLINOIS FED. AID PROJECT			CONTRACT NO. 99678	

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

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

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HMG HMG ENGINEERS, INC.
 9360 HOLY CROSS LANE
 BREESE, ILLINOIS 62230
 888.HMG.ENGR
 IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = kjones
 PLOT SCALE = 20.0000' / in.
 PLOT DATE = 1/4/2022

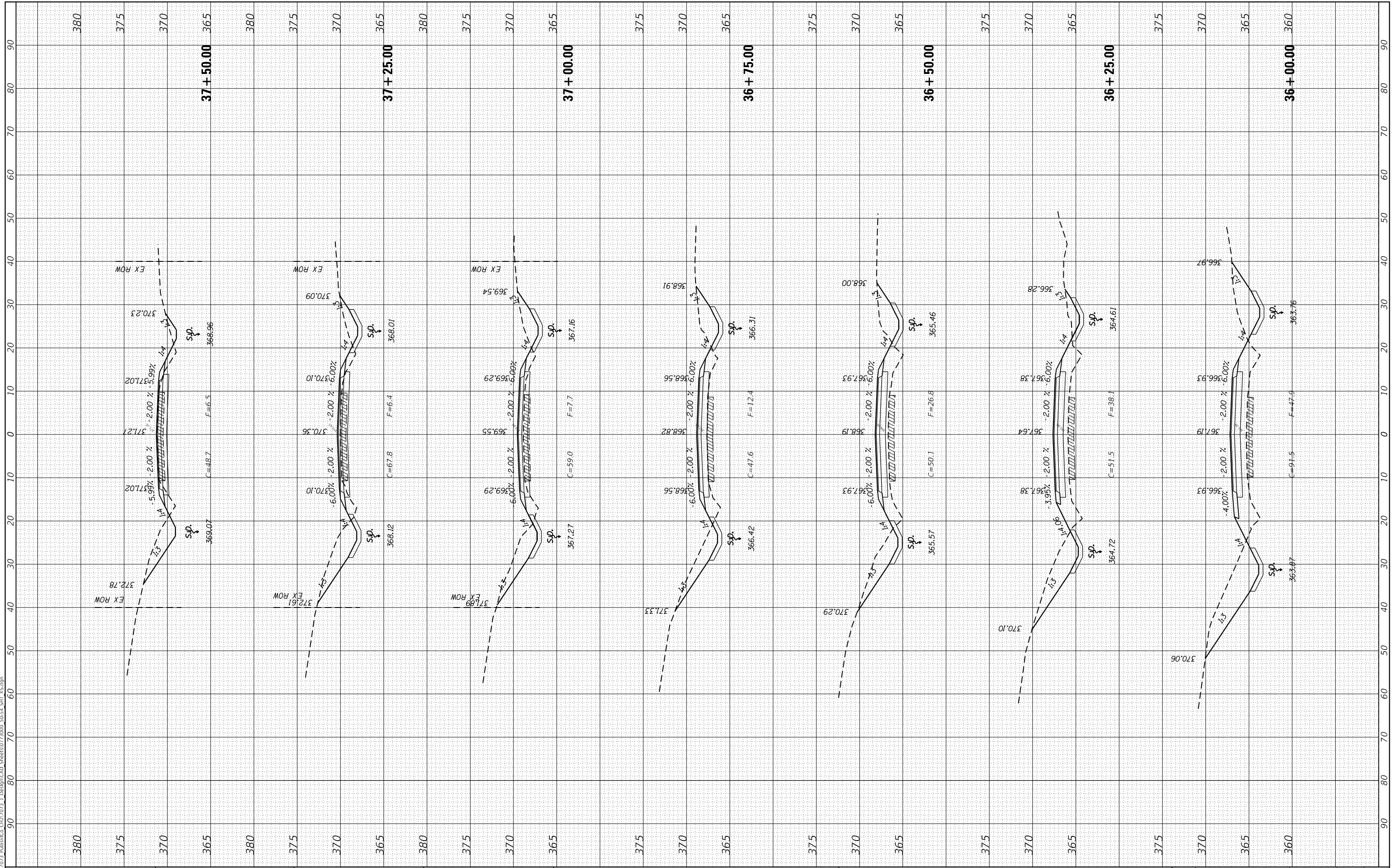
DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

REVISED -
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 REVISED -

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 DEPARTMENT OF TRANSPORTATION

SCALE: SHEET 4 OF 5 SHEETS STA. 36+00.00 TO STA. 37+50.00

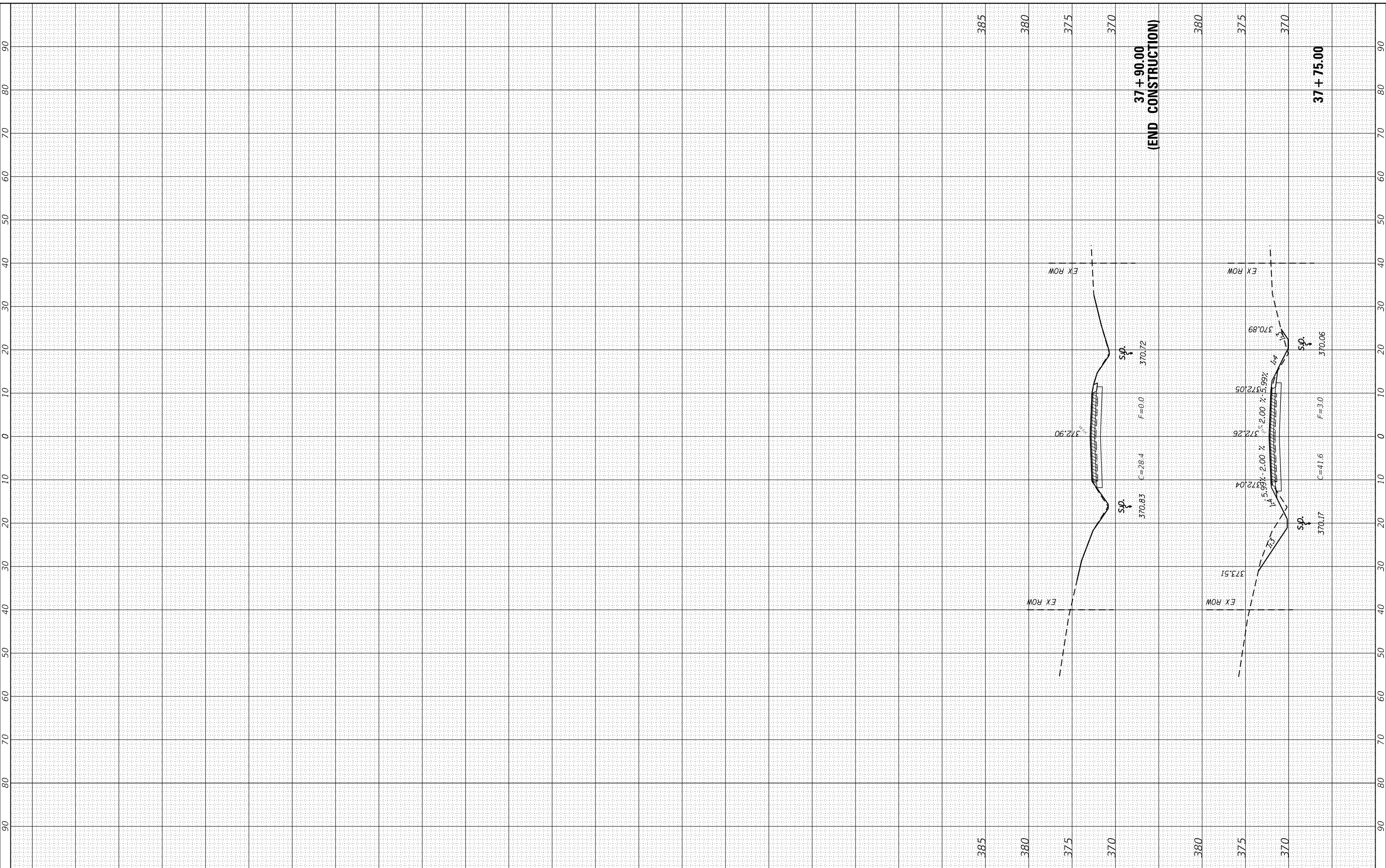
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	53
CONTRACT NO. 99678				
ILLINOIS FED. AID PROJECT				



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

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

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 888.HMG.ENGR
 IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = k.jones
PLOT SCALE = 20.0000' / in.
PLOT DATE = 1/4/2022

DESIGNED -
DRAWN -
CHECKED -
DATE -

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

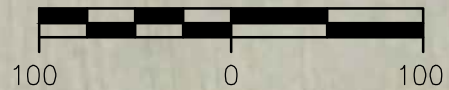
SCALE: SHEET 5 OF 5 SHEETS STA. 37+75.00 TO STA. 37+90.00

F.A.S. RTE. 937	SECTION 12-00071-00-BR	COUNTY PULASKI	TOTAL SHEETS 56	SHEET NO. 54
ILLINOIS FED. AID PROJECT			CONTRACT NO. 99678	

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	55
		CONTRACT NO. 99678		
ILLINOIS		FED. AID PROJECT		



SCALE: 1" = 100'



NOTES:

1. SEE BRIDGE PLANS FOR CONNECTION TO BRIDGE
2. FT MASSAC WATER DISTRICT WILL SHUT DOWN WATER SERVICE DURING THE CONSTRUCTION PERIOD UNTIL THE NEW LINE BECOMES OPERATIONAL. CONTRACTOR SHALL COORDINATE THE SHUTDOWN WITH FORT MASSAC WATER DISTRICT



EXISTING 6" WATER MAIN

DUCTILE IRON WATER MAIN 8" ~1,120 L.F.

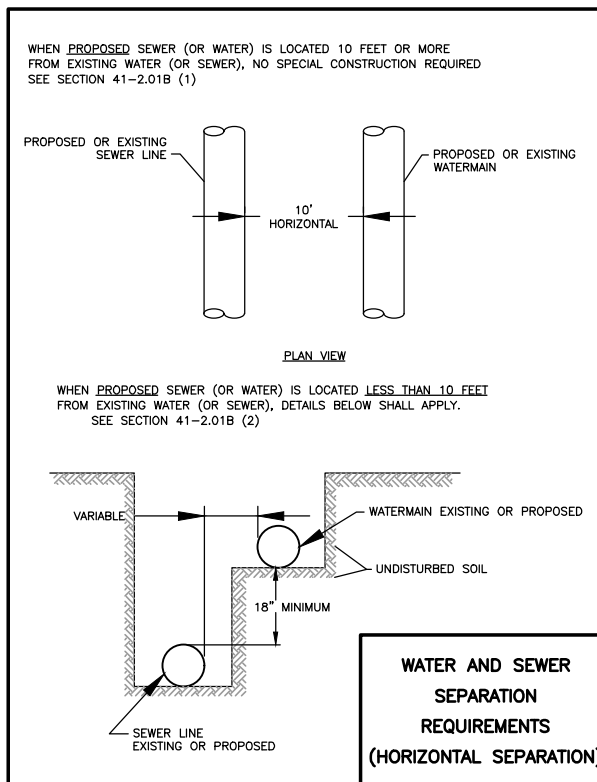
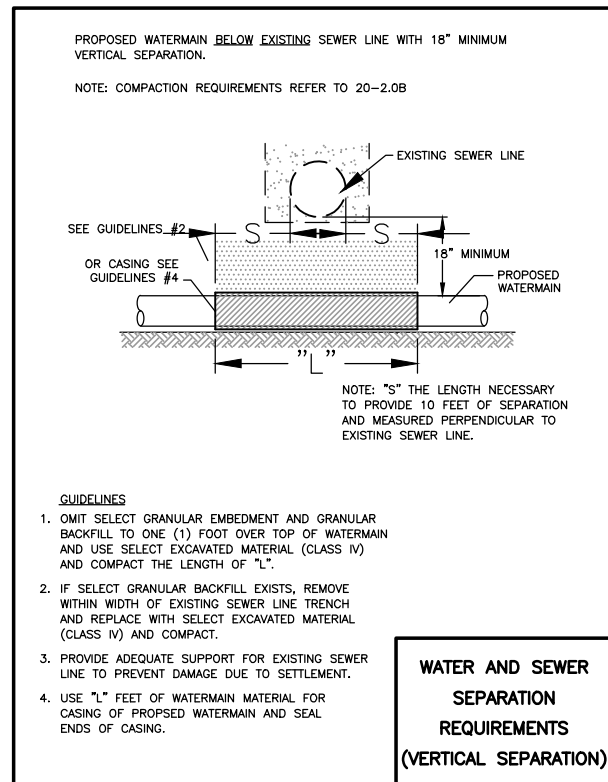
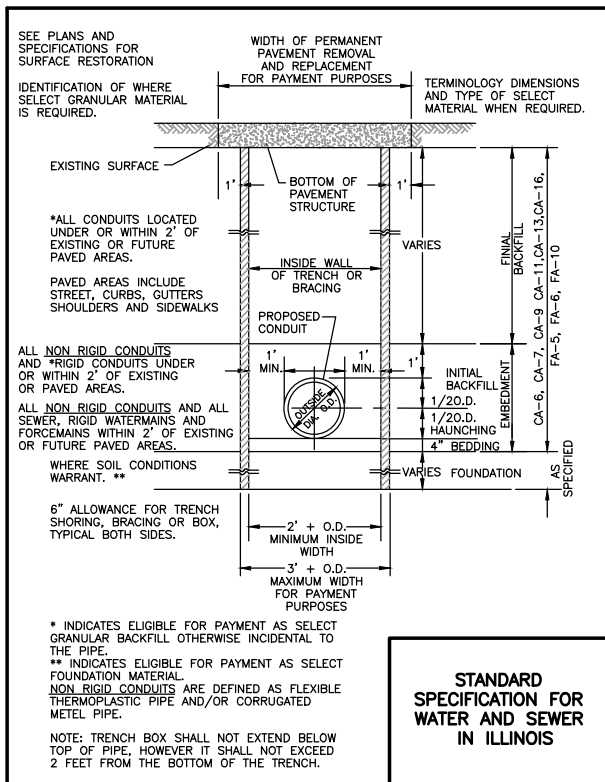
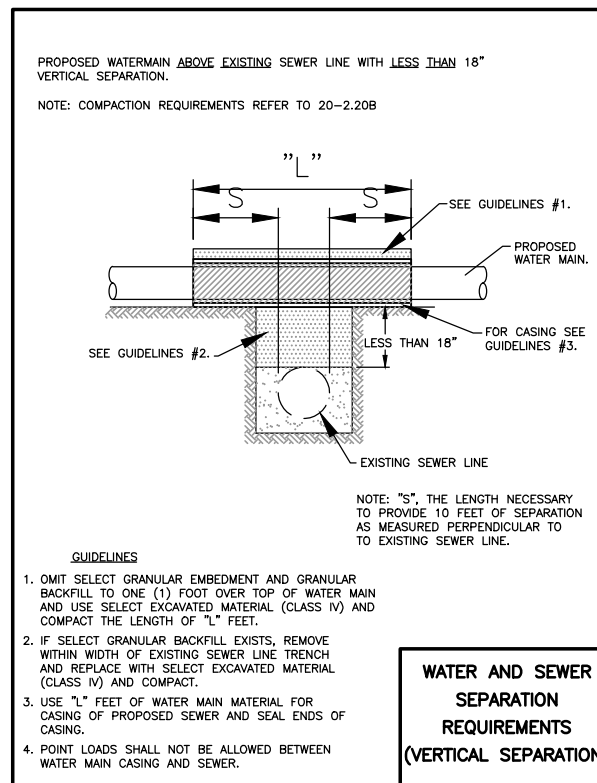
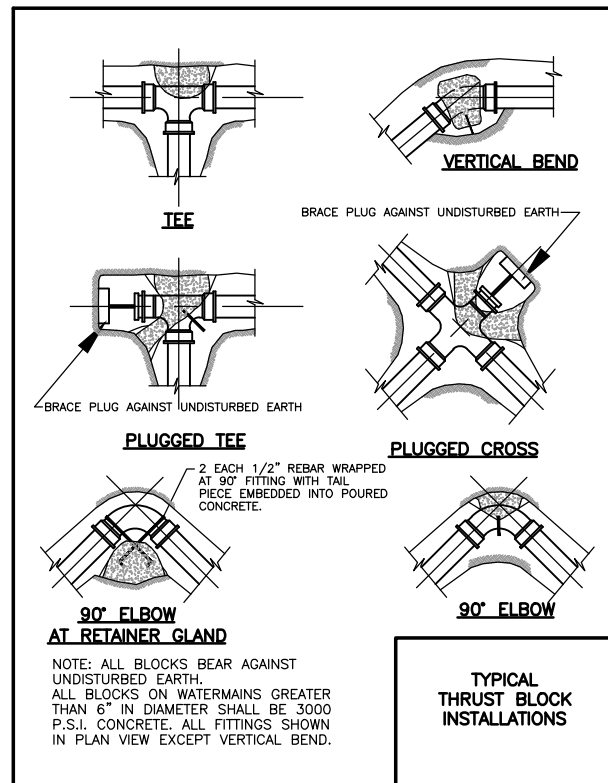
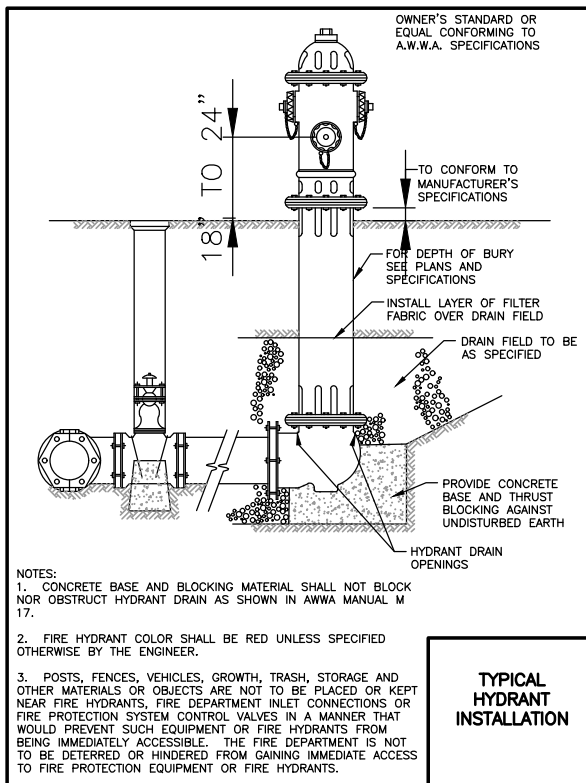
WATER MAIN INSULATION ~270 L.F.

EXISTING FIRE HYDRANT AND SAMPLE POINT #1 (NOT SHOWN)



Andy Rainwater

P.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	56	56
CONTRACT NO. 99678			ILLINOIS	
FED. AID PROJECT				



NOTES

WATER NOTES

- ALL PVC PIPE SHALL BE SDR 17 OR 21, AND BEAR THE SEAL OF APPROVAL AND CONFORM TO ASTM D-2241. ALL JOINTS SHALL MEET THE REQUIREMENTS OF ASTM F477 AND ASTM D-3139.
- ALL DUCTILE IRON PIPE SHALL BE 250 P.S.I., CONFORMING TO ANSI/AWWA C151/A21.51. DUCTILE IRON FITTINGS SHALL COMPLY WITH ANSI/AWWA C110/A21.20.
- ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL COMPLY WITH THE "STANDARD SPECIFICATIONS FOR WATER & SEWER MAIN CONSTRUCTION IN ILLINOIS," LATEST EDITION.
- DEPTH OF COVER SHALL BE A MINIMUM OF 36" UNLESS OTHERWISE NOTED.
- UNDERGROUND LOCATION WIRE TO BE INSTALLED IN THE SAME TRENCH AS WATER MAINS & SERVICE LINES.
- WATER MAINS SHALL BE SEPARATED FROM SEPTIC TANKS, DISPOSAL FIELDS, AND SEEPAGE BEDS A MINIMUM OF 25 FEET.
- ALL PIPE FITTINGS SHALL BE DUCTILE IRON AND SHALL USE STAINLESS STEEL NUTS AND BOLTS. WHERE A CHANGE IN DIRECTION OF THE PIPE OCCURS, RESTRAINT DEVICES EQUAL TO EBAA IRON'S MEGA LUGS SHALL BE INSTALLED. THE RESTRAINT DEVICE SHALL BE THAT RECOMMENDED FOR THE PROPER PVC CLASSIFICATION OF PIPE.
- WATER MAINS SHALL BE SEPARATED FROM SANITARY SEWER MAINS A MINIMUM OF 10' HORIZONTAL AND 18" VERTICAL AND SHALL BE INSTALLED AS DETAILED IN STANDARD DRAWINGS 18-24 IN THE "STANDARD SPECIFICATIONS FOR WATER & SEWER MAIN CONSTRUCTION IN ILLINOIS," LATEST EDITION. LOCATIONS AND ELEVATIONS OF SEWER LATERALS IS NOT PRESENTLY KNOWN. CONTRACTOR SHALL CHANGE LOCATION, ELEVATION, AND/OR CASE WATER MAIN PER THE STANDARD DRAWINGS WHEN LATERALS ARE ENCOUNTERED.
- INTERCONNECTIONS SHALL CONSIST OF MAKING A PRESSURE TAP ON THE EXISTING WATER MAIN WITH A TAPPING SLEEVE AND A TAPPING VALVE. TAPPING SLEEVE, FLANGE, AND ALL BOLTS AND NUTS SHALL BE STAINLESS STEEL.
- GATE VALVES SHALL HAVE A NON-RISING STEM AND A 2 INCH SQUARE WRENCH NUT. VALVE BOXES SHALL BE TWO OR THREE PIECE AND HEIGHT ADJUSTABLE AND SHALL BE MADE BY KENNEDY.
- FLUSH HYDRANTS SHALL BE 2-WAY KENNEDY GUARDIAN K-81D OR APPROVED EQUAL WITH AUXILIARY VALVE AND A MINIMUM OF 3.5 FEET BURY. ALL FLUSH HYDRANT LEADS SHALL BE A MINIMUM OF 6" IN DIAMETER FOR WATER MAINS 6" IN DIAMETER OR GREATER.
- ALL NUTS AND BOLTS FOR GATE VALVES & FIRE HYDRANTS SHALL BE STAINLESS STEEL.
- SECTIONS OF SEWER LATERALS TO BE REMOVED AND REPLACED SHALL BE 4" DIA. SDR 26, MEETING ASTM D-2241 AND ASTM F-477 JOINTS.

GENERAL NOTES

- UNDERGROUND STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS AND, THEREFORE, THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF THE LOCATION OF ALL UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- WATER AND SEWER CROSSINGS UNDER STREET AREAS AND DRIVEWAYS SHALL BE BACKFILLED WITH CA-6 GRANULAR MATERIAL AND COMPACTED TO 95% DENSITY.
- CONTRACTOR SHALL CONTACT J.U.L.I.E. OPERATOR AT 1-800-892-0123 FOR MARKING OF EXISTING UNDERGROUND UTILITIES. J.U.L.I.E. SHOULD BE CONTACTED A MINIMUM OF 96 HOURS IN ADVANCE OF CONSTRUCTION. CONTRACTOR SHALL MEET ALL REQUIREMENTS FOR CROSSING OF ANY EXISTING UTILITIES.



Andy Rainwater