11-5-10 LETTING ITEM 054

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102) BR-1	LIVINGSTON	58	1
	ILLINOIS	CONTRACT NO. 66822		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

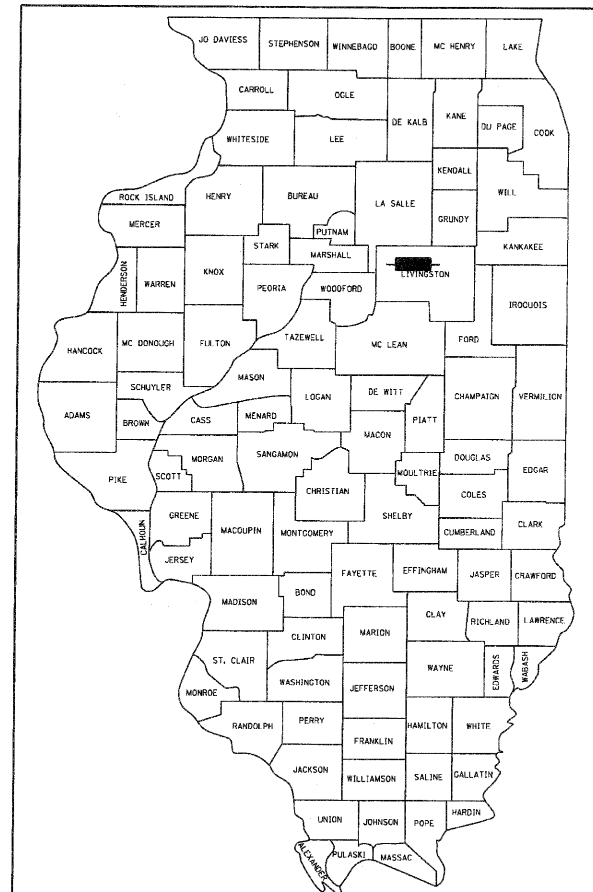
FAP ROUTE 68 (ILLINOIS 23)
SECTION (102) BR-1
PROJECT ACBRF-0068(107)
STRUCTURE REPLACEMENT OVER SHORT POINT CREEK.

LIVINGSTON COUNTY

C-93-150-10

INDEX OF SHEET

P-93-034-08
D-93-059-10



LOCATION OF SECTION INDICATED THUS:-

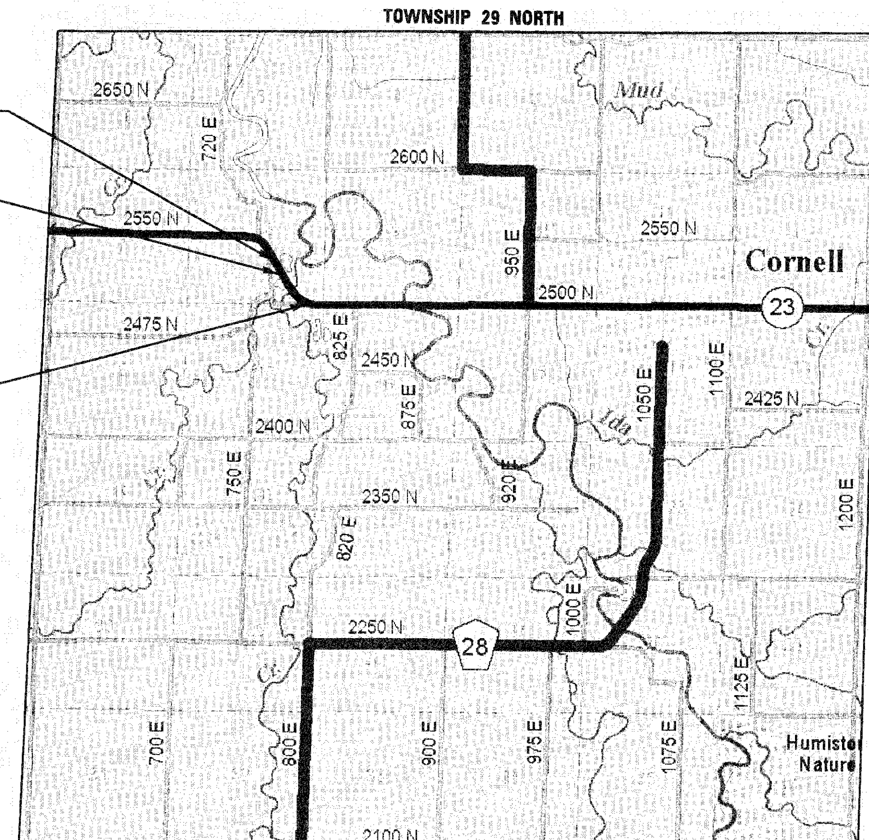
HIGHWAY CLASSIFCATION
RURAL MINOR ARTERIAL
CURRENT ADT (2007): ADT=1450
PC = 87.3% SU = 8.6% MU = 4.1%

TOWNSHIP 29 NORTH

BEGIN IMPROVEMENTS
STA. 618+00

STA. 625+84
STRUCTURE REPLACEMENT
FOR IL ROUTE 23 OVER
SHORT POINT CREEK
EXIST SN 053-0161
PROP. SN 053-0189

END IMPROVEMENTS
STA. 630+00



RANGE 4 EAST 3rd PM

N

LOCATION MAP
1" = 3/4 MILE
GROSS LENGTH = 1200 FT. = 0.227 MILE
NET LENGTH = 1200 FT. = 0.227 MILE

100' 200' 300' — 1" = 100'
10' 20' 30' — 1" = 10'
0 50' 100' — 1" = 50'
0 50' 100' — 1" = 40'
0 50' 100' — 1" = 30'
0 50' 100' — 1" = 20'

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

DISTRICT 3 NO. (815) 434-6131
PROJECT ENGINEER: CRAIG REED
UNIT CHIEF: MARK JONES
TOWNSHIP(S): AMITY
CONTRACT NO. 66822

STEVEN P. FESSENBECKER
51254
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

Steve Fessenbecker
08-05-2010

STEVEN P. FESSENBECKER, P.E.
LIC. NO. 062-051254
EXPIRES 11/30/2011

KUDRNA & ASSOCIATES, LTD.

KUDRNA & ASSOCIATES, LTD.
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000920
EXPIRES 04/30/2011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED August 18, 2010
George Ryan
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
October 1 2010
Scott E. Stitt P.E./BL
acting ENGINEER OF DESIGN AND ENVIRONMENT
October 1 2010
Christine M. Reed/a
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

GENERAL NOTES

THE THICKNESS OF HMA SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA IS PLACED.

EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.

BEFORE ORDERING PIPE CULVERTS OR PIPE DRAINS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR EXACT LENGTHS.

THE ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.

FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.

ONLY THOSE TREES DESIGNATED BY THE ENGINEER OR LISTED IN THE TREE REMOVAL SCHEDULE SHALL BE REMOVED. THE CONTRACTOR SHALL PROTECT ALL REMAINING TREES FROM DAMAGE DUE TO HIS OPERATIONS.

THE FINISHED EARTHWORK SHALL HAVE A VEGETATION SUSTAINING SOIL COVERING THE TOP FOUR INCHES IN AREAS TO BE SEEDED OR SODDED. THE VEGETATION SUSTAINING SOIL REQUIRED WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF FURNISHED EXCAVATION.

ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.

ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05	TONS / CU YD
BIT MATERIALS (PRIME COAT) ON AGGREGATE BASES	0.375	GAL / SQ YD
BITUMINOUS MATERIALS (PRIME COAT)	0.08	GAL / SQ YD
POLYMERIZED BIT MATERIALS (PRIME COAT)	0.10	GAL / SQ YD
FOR ADDITIONAL HMA LIFTS "FOG COAT"	0.08	GAL / SQ YD
FOR ADDITIONAL HMA LIFTS "FOG COAT"	0.05	GAL / SQ YD
AGGREGATE PRIME COAT	0.002	TONS / SQ YD
HMA RESURFACING	112	LBS / SQ YD / IN
SHORT TERM PAVEMENT MARKING	10	FT /100 FT OF APPLICATION
MIX FOR CRACKS, JTS & FLGWYS	0.0003	TONS / SQ YD
LEVEL BINDER (HAND METHOD)	0.0005	TONS / SQ YD
SUPPLEMENTAL WATERING	3	GAL / SQ YD / APPLICATION
CALCIUM CHLORIDE	2	LB / SQ YD / APPLICATION
TEMPORARY DITCH CHECKS	5	TONS AGGREGATE

THE WORK REQUIRED TO CONNECT ANY SEWER TO AN EXISTING DRAINAGE STRUCTURE OR PIPE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE BID FOR THE SEWER ITEMS.

MEMBERS OF JULIE KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE:

MEDIACOM

CORNELL-RANSOM TELEPHONE COMPANY

COMED, AN EXELON COMPANY

THE CONTRACTOR SHALL CONTACT JULIE AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.

HIGHWAY STANDARDS

000001-05 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02 AREAS OF REINFORCEMENT BARS
001006 DECIMAL OF AN INCH AND OF A FOOT
280001-05 TEMPORARY EROSION CONTROL SYSTEMS
420401-08 BRIDGE APPROACH PAVEMENT CONNECTOR
482001-02 HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
482011-03 HMA SHOULDER STRIPS/SHOULDERS WITH RESURFACING OR WIDENING AND RESURFACING PROJECTS
515001-03 NAME PLATE FOR BRIDGES
542401-01 METAL END SECTION FOR PIPE CULVERTS
601101-01 CONCRETE HEADWALL FOR PIPE DRAIN
610001-05 SHOULDER INLET WITH CURB
630001-08 STEEL PLATE BEAM GUARDRAIL
630201-06 PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-05 SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-08 TRAFFIC BARRIER TERMINAL, TYPE 6
635001-01 DELINEATORS
635006-03 REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02 REFLECTOR MARKER AND MOUNTING DETAILS
701001-02 OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-03 OFF-ROAD OPERATIONS, 2L, 2W, 4.5 M (15') TO 600 MM (24") FROM PAVEMENT EDGE
701301-03 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-02 LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS > 45 MPH
701311-03 LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-10 LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-03 LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS > 45 MPH
701901-01 TRAFFIC CONTROL DEVICES
704001-06 TEMPORARY CONCRETE BARRIER
781001-03 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

PREPARED BY: [signature]
ACTING DISTRICT STUDIES & PLANS ENGINEER

DATE: 8-18-2010

EXAMINED BY: Herbert K. [signature]
DISTRICT CONSTRUCTION ENGINEER

Wayne L. Phillips
DISTRICT MATERIALS ENGINEER

[signature]
DISTRICT OPERATIONS ENGINEER

FILE NAME = W:\2299-03 - IL Route 23 Roadway\DGN\CADD Sheets\D366822-sht-gennote.dgn	USER NAME = IDOTCAD	DESIGNED - SPF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HIGHWAY STANDARDS AND GENERAL NOTES	
	PLOT SCALE = 50.0000 ' / in.	DRAWN - AJP	REVISED -			
	PLOT DATE = 8/2/2010	CHECKED - JMS	REVISED -		SCALE: N/A	SHEET NO. 1 OF 1 SHEETS STA. TO STA.
		DATE - 08/05/10	REVISED -			

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102) BR-1	LIVINGSTON	58	2
CONTRACT NO. 66822				
ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES

80% FEDERAL
20% STATE

CODE NO.	ITEM	UNIT	TOTAL	ROADWAY 0004	STRUCTURE 0011
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	18	18	
20200100	EARTH EXCAVATION	CU YD	178	178	
20400800	FURNISHED EXCAVATION	CU YD	804	804	
X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	168		168
* 25000210	SEEDING, CLASS 2A	ACRE	1	1	
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	71	71	
* 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	71	71	
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	71	71	
* 25100115	MULCH, METHOD 2	ACRE	1	1	
* 25100630	EROSION CONTROL BLANKET	SQ YD	556	556	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	158	158	
28000400	PERIMETER EROSION BARRIER	FOOT	2237	2237	
28100107	STONE RIPRAP, CLASS A4	SQ YD	1312	25	1287
28200200	FILTER FABRIC	SQ YD	1287		1287
31101000	SUB-BASE GRANULAR MATERIAL, TYPE B	TON	863	863	
35600708	HOT-MIX ASPHALT BASE COURSE WIDENING, 8"	SQ YD	993	993	
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	230	230	
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	343	343	
40600300	AGGREGATE (PRIME COAT)	TON	11	11	
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	288	288	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	426	426	
40600990	TEMPORARY RAMP	SQ YD	42	42	
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	1635	1635	
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	302	302	
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	254	254	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	59	59	
Z0004552	APPROACH SLAB REMOVAL	SQ YD	283	283	
44200144	PAVEMENT PATCHING, TYPE II, 12 INCH	SQ YD	7	7	
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SQ YD	659	659	
48203023	HOT-MIX ASPHALT SHOULDERS, 6 1/2"	SQ YD	961	961	
28500100	FABRIC FORMED CONCRETE REVETMENT MAT	SQ YD	200	200	

80% FEDERAL
20% STATE

CODE NO.	ITEM	UNIT	TOTAL	ROADWAY 0004	STRUCTURE 0011
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50105220	PIPE CULVERT REMOVAL	FOOT	63	63	
50200100	STRUCTURE EXCAVATION	CU YD	210		210
50300225	CONCRETE STRUCTURES	CU YD	161.4		161.4
50300255	CONCRETE SUPERSTRUCTURE	CU YD	340.1		340.1
50300260	BRIDGE DECK GROOVING	SQ YD	839		839
50300280	CONCRETE ENCASEMENT	CU YD	4		4
50300300	PROTECTIVE COAT	SQ YD	1023		1023
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1
50500505	STUD SHEAR CONNECTORS	EACH	3402		3402
50800105	REINFORCEMENT BARS	POUND	11480		11480
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	110540		110540
50800515	BAR SPLICERS	EACH	1209		1209
51201610	FURNISHING STEEL PILES HP12X63	FOOT	231		231
51202305	DRIVING PILES	FOOT	231		231
51203610	TEST PILE STEEL HP12X63	EACH	1		1
51500100	NAME PLATES	EACH	1		1
51603000	DRILLED SHAFT IN SOIL	CU YD	9.2		9.2
51604000	DRILLED SHAFT IN ROCK	CU YD	44		44
52100510	ANCHOR BOLTS, 3/4"	EACH	24		24
52100520	ANCHOR BOLTS, 1"	EACH	24		24
542D0220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	59	59	
54213447	END SECTIONS 12"	EACH	1	1	
54213450	END SECTIONS 15"	EACH	2	2	
5422A012	PIPE CULVERTS, CLASS A, TYPE 2 12" (TEMPORARY)	FOOT	35	35	
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	64		64
60100945	PIPE DRAINS 12"	FOOT	27	27	
60107600	PIPE UNDERDRAINS 4"	FOOT	90	90	
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	125		125
61000115	TYPE E INLET BOX, STANDARD 610001	EACH	1	1	
* 63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	375	375	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	

80% FEDERAL
20% STATE

CODE NO.	ITEM	UNIT	TOTAL	ROADWAY 0004	STRUCTURE 0011
* 63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	4	4	
63200310	GUARDRAIL REMOVAL	FOOT	531	531	
66101150	HOT-MIX ASPHALT SHOULDER CURB	FOOT	6	6	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	7	7	
67100100	MOBILIZATION	L SUM	1	1	
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	2	2	
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1	
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	45	45	
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1	
70106700	TEMPORARY RUMBLE STRIP	EACH	12	12	
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	240	240	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	6778	6778	
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	48	48	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	2259	2259	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1514	1514	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1350	1350	
* 78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	4800	4800	
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	13	13	
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	3	3	
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	16	16	
* 78200520	BARRIER WALL MARKERS, TYPE B	EACH	61	61	
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
78300100	PAVEMENT MARKING REMOVAL	SQ FT	1600	1600	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	16	16	
X0323236	TEMPORARY INLET	EACH	1	1	
Z0073002	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	283		283
X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1		1
X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	EACH	1		1
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2	

* SPECIALTY ITEM

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	PLOT SCALE = 50.0000 ' / in.	DRAWN - AJP	REVISED -
	PLOT DATE = 8/17/2010	CHECKED - JMS	REVISED -
		DATE - 08/05/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

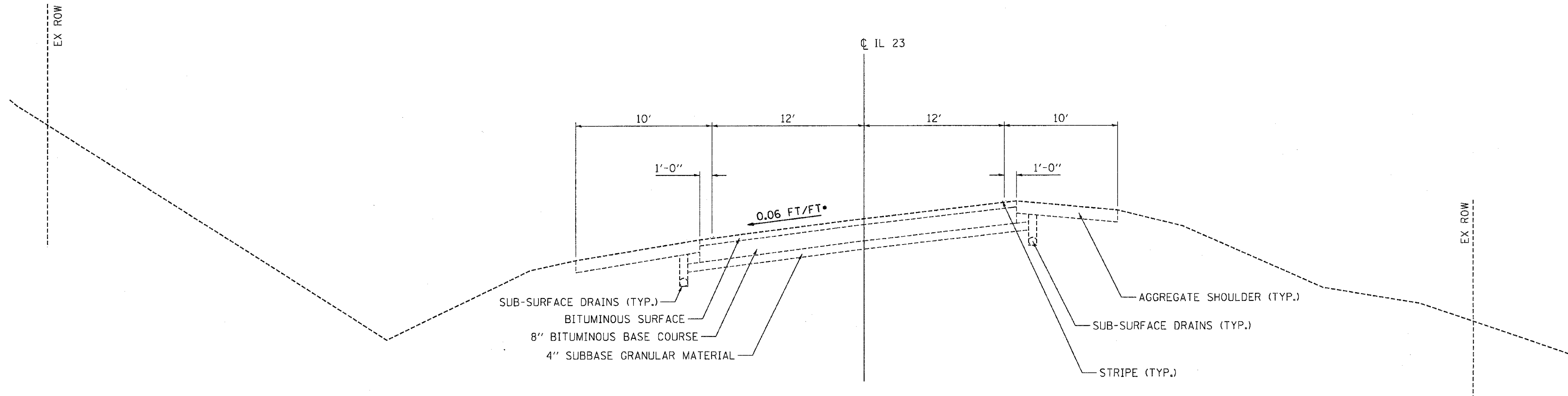
SUMMARY OF QUANTITIES

SCALE: N/A | SHEET NO. 1 OF 1 SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102) BR-1	LIVINGSTON	58	3

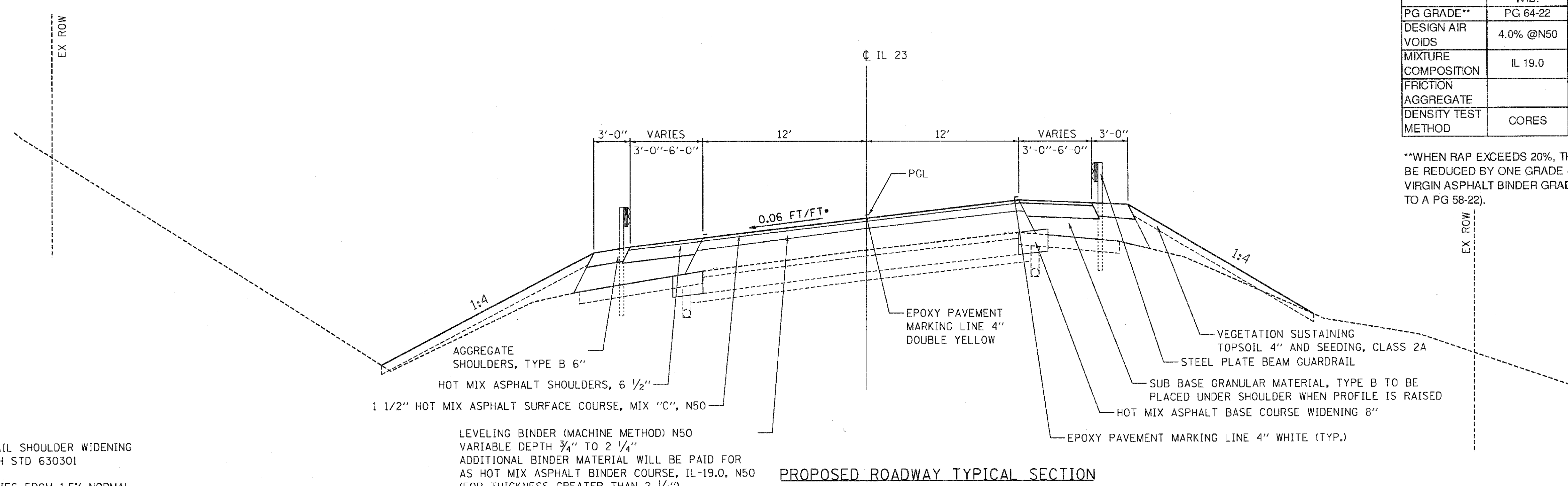
CONTRACT NO. 66822

ILLINOIS FED. AID PROJECT



EXISTING ROADWAY TYPICAL SECTION

STA. 618+00 TO STA. 624+78.21
APPROACH SLAB AND BRIDGE OMMISION STA. 624+78.21 TO STA. 626+89.80
STA. 626+89.80 TO STA. 630+00



	HMA BINDER & BASE CSE WID.	HMA SURFACE	HMA SHOULDERS
PG GRADE**	PG 64-22	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4.0% @N50	4.0% @N50	4.0% @N50
MIXTURE COMPOSITION	IL 19.0	IL 9.5	IL 19.0
FRICTION AGGREGATE		MIXTURE C	
DENSITY TEST METHOD	CORES	CORES	CORES

**WHEN RAP EXCEEDS 20%, THE VIRGIN ASPHALT BINDER SHALL BE REDUCED BY ONE GRADE (I.E. 25% RAP WOULD REQUIRE A VIRGIN ASPHALT BINDER GRADE OF PG 64-22 TO BE REDUCED TO A PG 58-22).

NOTES:

CONSTRUCT GUARDRAIL SHOULDER WIDENING IN ACCORDANCE WITH STD 630301

• CROSS SLOPE VARIES FROM 1.5% NORMAL CROWN TO 6% SUPERELEVATION
STA. 618+58.24 TO STA. 620.83.24

PROPOSED ROADWAY TYPICAL SECTION

STA. 618+00 TO STA. 624+78.21
APPROACH SLAB AND BRIDGE OMMISION STA. 624+78.21 TO STA. 626+89.80
STA. 626+89.80 TO STA. 630+00

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - SPF	REVISED -
		DRAWN - AJP	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JMS	REVISED -
	PLOT DATE = $DATE$	DATE - 08/05/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: N/A | SHEET NO. 01 OF 01 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102) BR-1	LIVINGSTON	58	4

CONTRACT NO. 66822

ILLINOIS FED. AID PROJECT

SCHEDULE OF QUANTITIES

~~20100110 TREE REMOVAL (6 TO 15 UNITS DIAMETER)~~

~~UNIT (IN)~~	~~LOCATION~~	
~~10~~	~~626+22~~	~~52 LT~~
~~8~~	~~626+24~~	~~55 LT~~
~~**18**~~	~~**TOTAL**~~	

25000210 SEEDING, CLASS 2A

ACRE	LOCATION
0.5	618+00 - 630+00 RT
0.5	618+00 - 630+00 LT
1	**TOTAL**

28000400 PERIMETER EROSION BARRIER

FOOT	LOCATION
1066	618+00 - 630+00 RT
1171	618+00 - 630+00 LT
2237	**TOTAL**

40600982 HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT

SQ YD	LOCATION
213	618+00
213	630+00
426	**TOTAL**

40600990 TEMPORARY RAMP

SQ YD	LOCATION
21	618+00
21	630+00
42	**TOTAL**

50105220 PIPE CULVERT REMOVAL

FOOT	LOCATION	
36	623+46 RT	15" CMP
27	625+03 LT	12" CMP
63	**TOTAL**	

542D0220 PIPE CULVERTS, CLASS D, TYPE 1 15"

FOOT	LOCATION
59	623+64 RT
59	**TOTAL**

54213450 END SECTIONS 15"

EACH	LOCATION
2	623+64 RT
2	**TOTAL**

63000001 STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS

FOOT	LOCATION		
100	623+65	624+65	LT
25	624+40	624+65	RT
150	627+03	628+53	LT
100	627+03	628+03	RT
375	**TOTAL**		

63100085 TRAFFIC BARRIER TERMINAL, TYPE 6

EACH	LOCATION		
1	624+65	625+08	LT
1	624+65	625+08	RT
1	626+60	627+03	LT
1	626+60	627+03	RT
4	**TOTAL**		

63100169 TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED

EACH	LOCATION		
1	623+15	623+65	LT
1	623+90	624+40	RT
1	628+53	629+03	LT
1	628+03	628+53	RT
4	**TOTAL**		

78005110 EPOXY PAVEMENT MARKING - LINE 4"

FOOT	LOCATION	
	EDGE OF ROADWAY	
1200	618+00 - 630+00 RT	WHITE
1200	618+00 - 630+00 LT	WHITE
	CENTERLINE	
1200	618+00 - 630+00 RT	DOUBLE YELLOW
1200	618+00 - 630+00 LT	DOUBLE YELLOW
4800	**TOTAL**	

78100100 RAISED REFLECTIVE PAVEMENT MARKER

EACH	LOCATION	
9	618+00 - 624+78	TWO WAY AMBER
4	626+90 - 630+00	TWO WAY AMBER
13	**TOTAL**	

28500100 FABRIC FORMED CONCRETE REVETMENT MAT

STA.	TO	STA.	WIDTH FOOT	SQ YD
626+47.00		627+97.00	12	200

28100107 STONE RIPRAP, CLASS A4

STA.	TO	STA.	WIDTH FOOT	SQ YD
626+32.00		626+47.00	15	25

20100110 TREE REMOVAL (6 TO 15 UNITS DIAMETER)

UNIT (IN)	LOCATION	
10	626+22	52′ LT
8	626+24	55′ LT
6	626+35	70′ LT
6	626+37	55′ RT
6	626+40	80′ LT
6	626+42	55′ RT
6	626+65	75′ LT
6	626+72	72′ LT
54	**TOTAL**	

EARTHWORK SCHEDULE

LOCATION	EARTH EXC (CUT)	EARTH EXC ADJ SHRINK 25% EARTH	EMBANK (FILL)	EARTH WORK BALANCE WASTE (+) SHORTAGE (-)
	CU YD	CU YD	CU YD	CU YD
Pre-Stage 1				
618+00 - 624+78	48	36	47	-11
626+90 - 630+00	2	2	4	-3
SUBTOTAL	50	38	51	-14
Stage 1				
618+00 - 624+78	24	18	394	-376
626+90 - 630+00	13	10	97	-87
SUBTOTAL	37	28	491	-463
Stage 2				
618+00 - 624+78	65	49	269	-220
626+90 - 630+00	26	20	126	-107
SUBTOTAL	91	68	395	-327
TOTAL	178	134	937	-804

BITUMINOUS SCHEDULE

	35600708	40600100	40600300	40600625	40603080	40603310	48203023
STATIONS	HOT-MIX ASPHALT BASE COURSE WIDENING, 8"	BITUMINOUS MATERIALS (PRIME COAT)	AGGREGATE (PRIME COAT)	LEVELING BINDER (MACHINE METHOD), N50	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	HOT-MIX ASPHALT SHOULDERS, 6-1/2"
	SQ.YD.	GALLON	TON	TON	TON	TON	SQ.YD.
618+00 - 624+78		236	7	212	1387	200	
626+90 - 630+00		107	4	76	248	102	
618+00 - 624+78 RT	112						289
626+90 - 630+00 RT	6						205
618+00 - 624+78 LT	60						296
626+90 - 630+00 LT	17						171
TEMPORARY PAVEMENT							
616+64 - 622+57	593						
629+14 - 631+24	205						
TOTAL	993	343	11	288	1635	302	961

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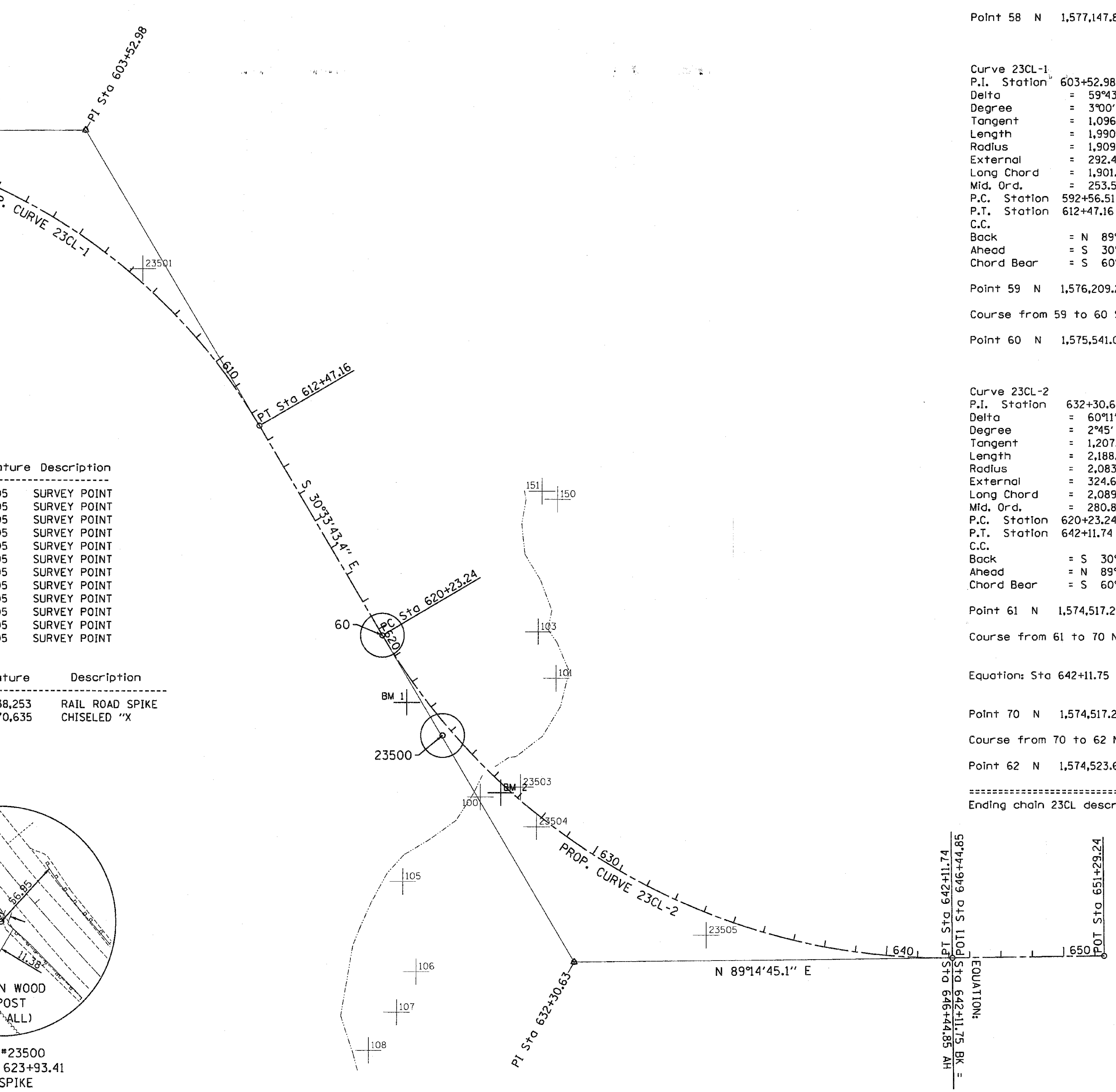
	PLOT SCALE = 50.0000 ' / IN.	DRAWN - AJP	REVISED -					CONTRACT NO. 66822		
	PLOT DATE = Aug 19, 2010 - 10:47:05 AM	CHECKED - JMS	REVISED -		SCALE: N/A	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT		
		DATE - 08/05/10	REVISED -							

ALIGNMENT, TIES, AND BENCHMARKS



ALIGNMENT COORDINATES IL 23

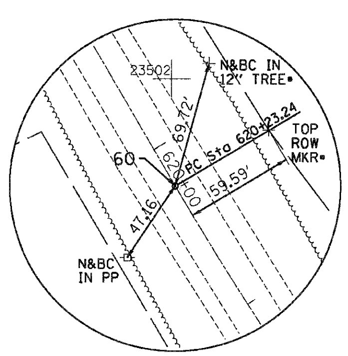
Point#	North(Y)	East(X)	Station	Description
57	1577147.8700	858225.1300	592+55.94	POT
58	1577147.8729	858225.6972	592+56.51	PC
PI	1577153.4461	859322.1530	603+52.98	PI
59	1576209.2987	859879.6765	612+47.16	PT
60	1575541.0291	860274.2929	620+23.24	PC
PI	1574501.3714	860888.2162	632+30.63	PI
61	1574517.2624	862095.5014	642+11.74	PT
70	1574517.2626	862095.5135	646+44.85	POT1
62	1574523.6380	862579.8595	651+29.24	POT

HORIZONTAL CONTROL POINTS

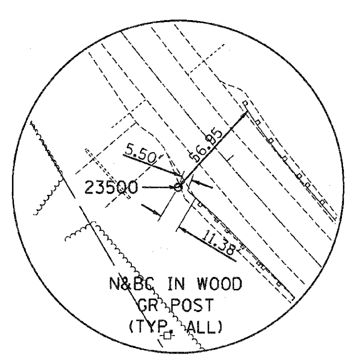
Point#	North(Y)	East(X)	Elev(Z)	Station	Offset	Feature	Description
100	1575026.3130	860588.3620	590.580	626+12.45	77.1162	105	SURVEY POINT
101	1575405.0380	860829.7620	588.310	625+11.31	-362.1366	105	SURVEY POINT
103	1575553.8260	860769.7020	588.521	623+25.22	-415.6037	105	SURVEY POINT
106	1574469.9200	860384.3560	590.916	627+91.02	632.1992	105	SURVEY POINT
107	1574339.0630	860322.8390	605.357	628+15.00	773.1967	105	SURVEY POINT
108	1574216.5050	860233.2690	605.726	628+17.75	924.9472	105	SURVEY POINT
150	1575976.9730	860832.1500	615.368	619+31.52	-702.0239	105	SURVEY POINT
151	1576002.0360	860782.9760	609.699	618+84.93	-672.4251	105	SURVEY POINT
23502	1575599.9810	860272.1230	598.500	619+71.38	-28.1069	105	SURVEY POINT
23503	1575057.4780	860715.6330	600.270	626+84.94	-31.5234	105	SURVEY POINT
23505	1574588.2000	861309.1660	616.230	634+32.95	67.2494	105	SURVEY POINT
23504	1574931.9370	860767.0930	603.980	628+04.60	32.4466	105	SURVEY POINT

BENCHMARK AND VERTICAL CONTROL POINTS

Point#	North(Y)	East(X)	Elev(Z)	Station	Offset	Feature	Description
BM1	1575326.6830	860353.1540	597.020	622+42.75	52.9309	838,253	RAIL ROAD SPIKE
BM2	1575039.5800	860652.9910	606.973	626+50.03	23.5246	770,635	CHISELED "X



POINT #60
PC STA. 620+23.24
MAG NAIL



POINT #23500
POT STA. 623+93.41
80d SPIKE

Chain 23CL contains:

57 58 CUR 23CL-1 59 60 CUR 23CL-2 61 70 62

Beginning chain 23CL description

==

Point 57 N 1,577,147.8700 E 858,225.1300 Sta 592+55.94

Course from 57 to 58 N 89°42' 31.6" E Dist 0.5672

Point 58 N 1,577,147.8729 E 858,225.6972 Sta 592+56.51

Curve Data

Curve 23CL-1
P.I. Station 603+52.98 N 1,577,153.4461 E 859,322.1530
Delta = 59°43' 45.03" (RT)
Degree = 3°00' 01.75"
Tangent = 1,096.4700
Length = 1,990.6500
Radius = 1,909.5500
External = 292.4100
Long Chord = 1,901.7279
Mid. Ord. = 253.5793
P.C. Station 592+56.51 N 1,577,147.8729 E 858,225.6972
P.T. Station 612+47.16 N 1,576,209.2987 E 859,879.6765
C.C. N 1,575,238.3475 E 858,235.4031
Back = N 89°42' 31.6" E
Ahead = S 30°33' 43.4" E
Chord Bear = S 60°25' 35.9" E

Point 59 N 1,576,209.2987 E 859,879.6765 Sta 612+47.16

Course from 59 to 60 S 30°33' 43.4" E Dist 776.0840

Point 60 N 1,575,541.0291 E 860,274.2929 Sta 620+23.24

Curve Data

Curve 23CL-2
P.I. Station 632+30.63 N 1,574,501.3714 E 860,888.2162
Delta = 60°11' 31.36" (LT)
Degree = 2°45' 01.39"
Tangent = 1,207.3898
Length = 2,188.4939
Radius = 2,083.1900
External = 324.6037
Long Chord = 2,089.2340
Mid. Ord. = 280.8427
P.C. Station 620+23.24 N 1,575,541.0291 E 860,274.2929
P.T. Station 642+11.74 N 1,574,517.2624 E 862,095.5014
C.C. N 1,576,600.2720 E 862,068.0836
Back = S 30°33' 43.4" E
Ahead = N 89°14' 45.1" E
Chord Bear = S 60°39' 29.2" E

Point 61 N 1,574,517.2624 E 862,095.5014 Sta 642+11.74

Course from 61 to 70 N 89°14' 45.1" E Dist 0.0121

End Region 1

Equation: Sta 642+11.75 (BK) = Sta 646+44.85 (AH)

Begin Region 2

Point 70 N 1,574,517.2626 E 862,095.5135 Sta 646+44.85

Course from 70 to 62 N 89°14' 45.1" E Dist 484.3879

Point 62 N 1,574,523.6380 E 862,579.8595 Sta 651+29.24

==

Ending chain 23CL description

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

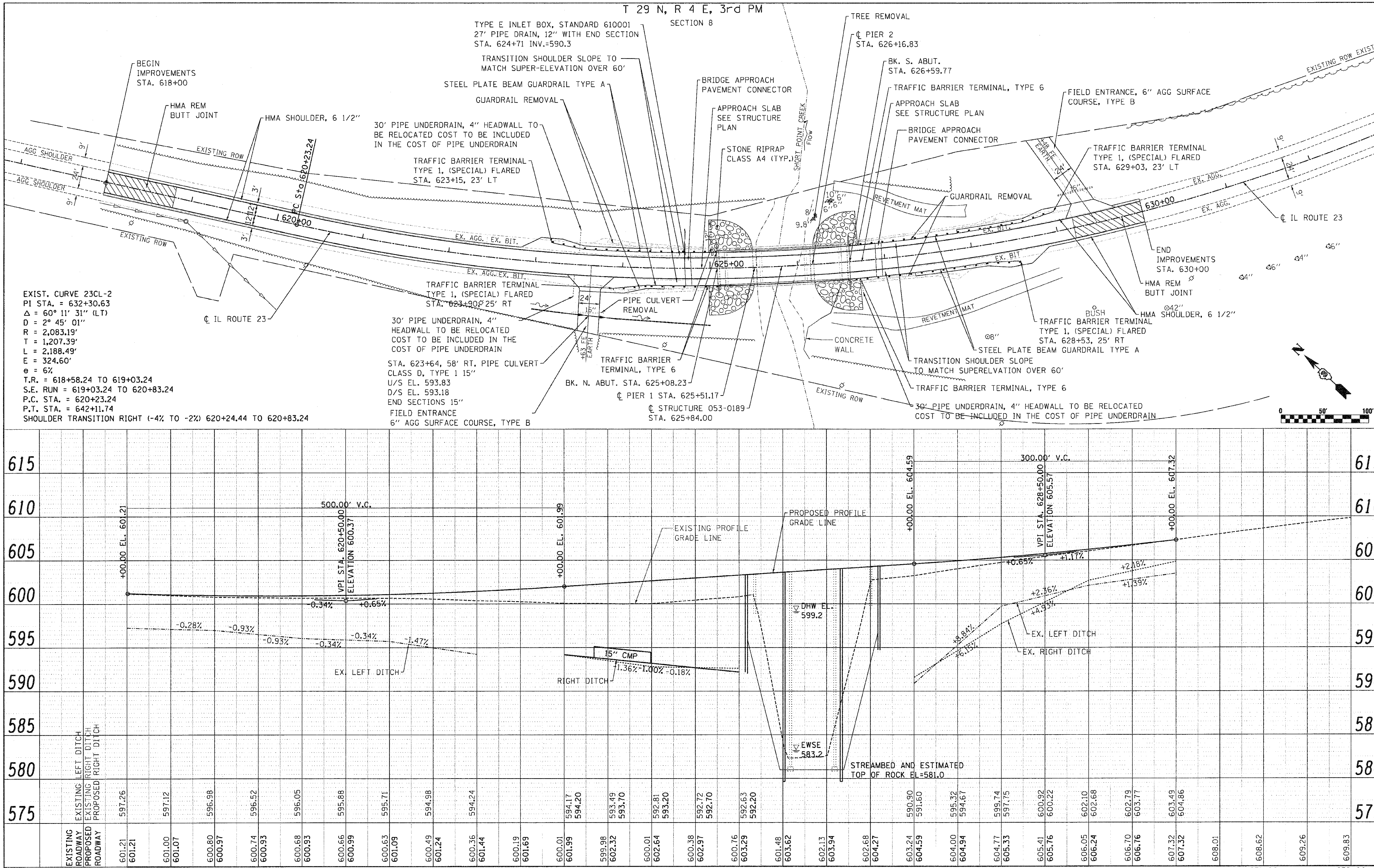
ALIGNMENT, TIES, AND BENCHMARKS

SCALE: N/A | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102) BR-1	LIVINGSTON	58	6

CONTRACT NO. 66822

ILLINOIS FED. AID PROJECT



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	PLOT DATE = 8/2/2010	DATE - 08/05/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

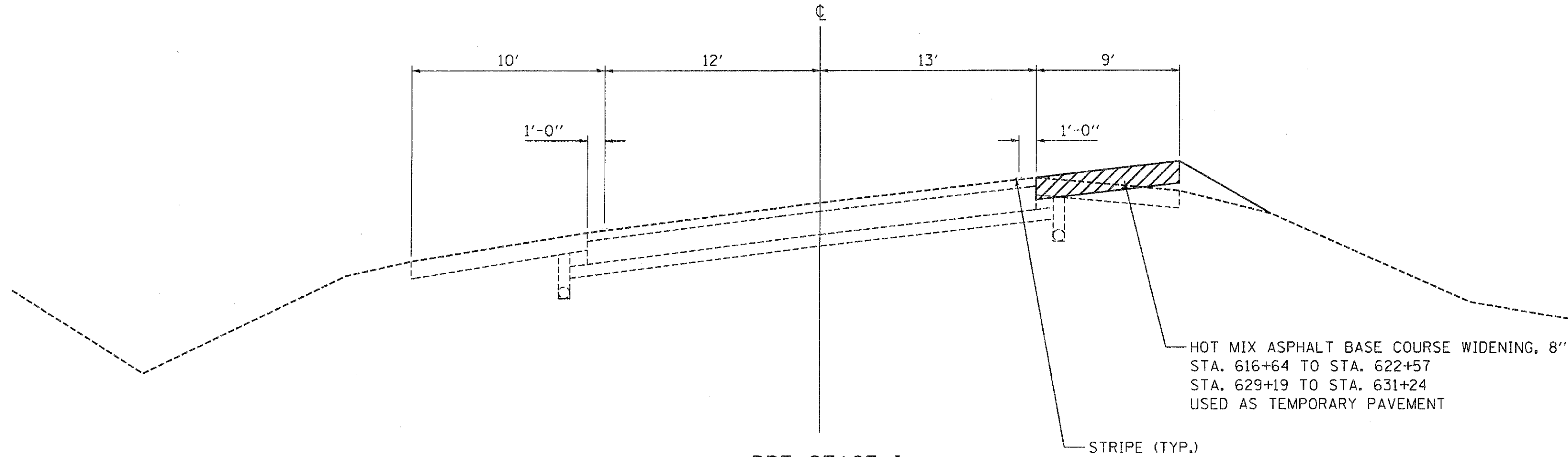
PLAN AND PROFILE

SCALE: 1"=50' | SHEET NO. 01 OF 01 SHEETS | STA. 618+00 TO STA. 630+00

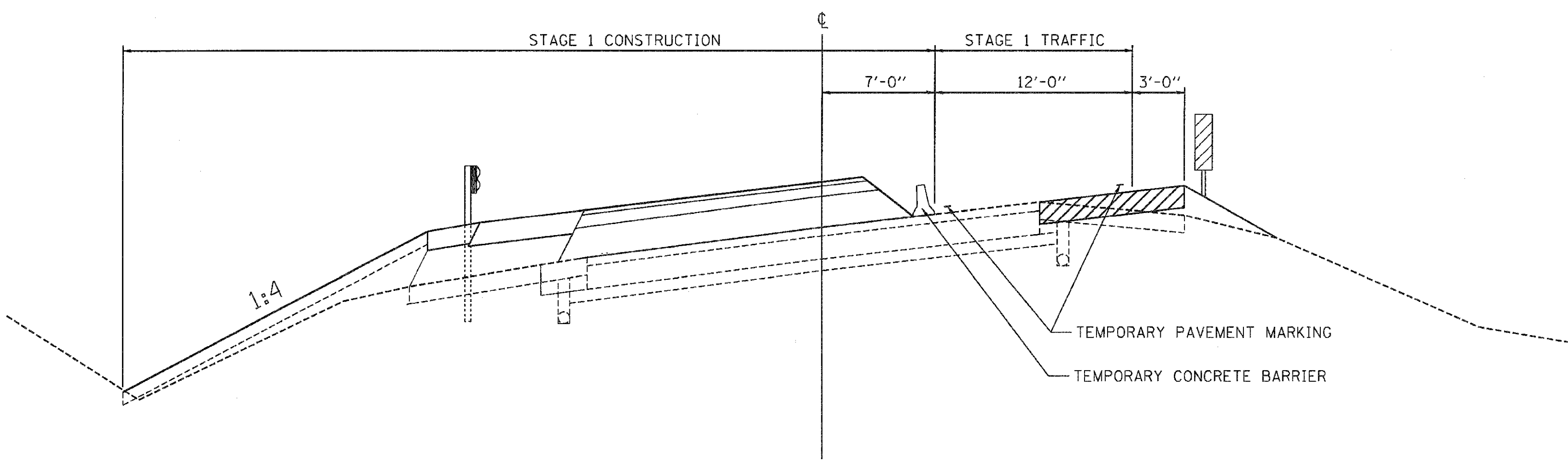
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102) BR-1	LIVINGSTON	58	7

CONTRACT NO. 66822

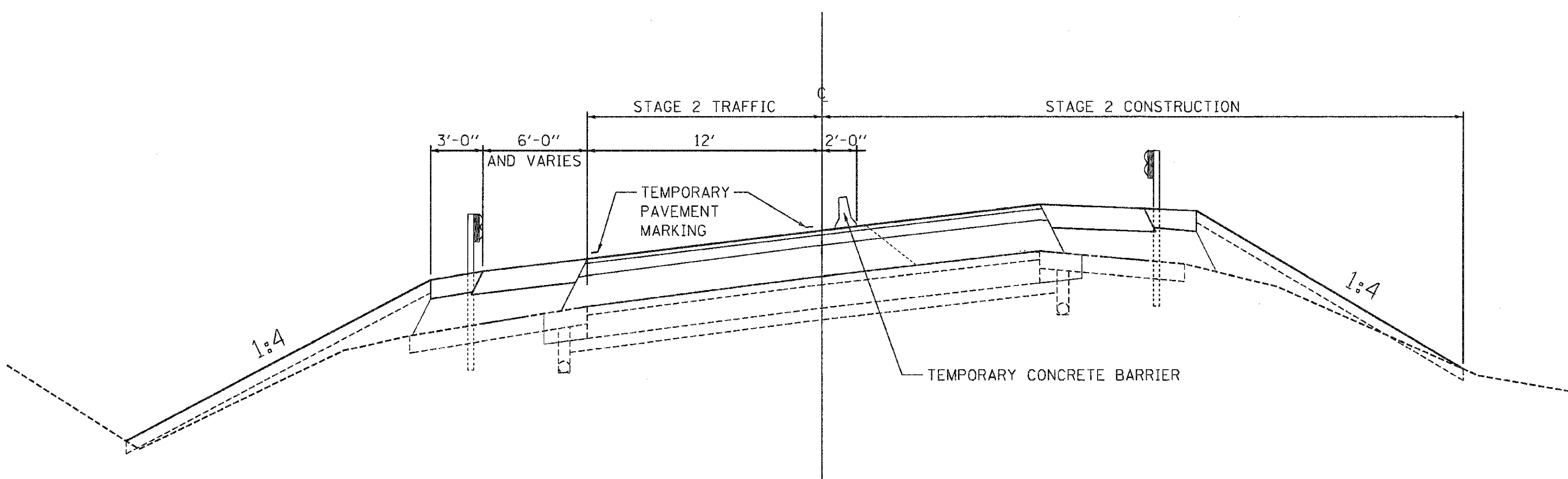
ILLINOIS FED. AID PROJECT



PRE STAGE I



STAGE 1



STAGE 2

PRE STAGE CONSTRUCTION

1 INSTALL TRAFFIC CONTROL PER STANDARD 701326.

2 CONSTRUCT TEMPORARY PAVEMENT.

STAGE 1 CONSTRUCTION

1 INSTALL TRAFFIC SIGNALS, TEMPORARY CONCRETE BARRIER, SIGNS AND ETC. ACCORDING TO DETAILS AND TRAFFIC CONTROL STANDARD 701321 MAINTAINING ALL TRAFFIC ON THE EASTBOUND LANE.

2 REMOVE STAGE ONE PORTION OF THE EXISTING BRIDGE STRUCTURE, GUARDRAIL AND PAVEMENT AS SHOWN ON THE PLANS.

3 CONSTRUCT THE STAGE ONE PORTION OF THE PROPOSED STRUCTURE, APPROACH PAVEMENT, HMA BINDER, HMA LEVELING BINDER, GUARDRAIL, PIPE CULVERT AND FIELD ENTRANCE LOCATED ON THE WESTBOUND LANE AS SHOWN IN THE PLANS.

STAGE 2 CONSTRUCTION

1 RELOCATE THE TRAFFIC CONTROL PER STANDARD 701321 AND AS DETAILED IN THESE PLANS.

2 REDIRECT TRAFFIC TO THE WESTBOUND LANE.

3 REMOVE THE STAGE TWO PORTION OF THE EXISTING BRIDGE STRUCTURE, GUARDRAIL AND PAVEMENT AS SHOWN ON THE PLANS.

4 CONSTRUCT THE STAGE TWO PORTION OF THE PROPOSED STRUCTURE, APPROACH PAVEMENT, HMA BINDER, HMA LEVELING BINDER, GUARDRAIL AND FIELD ENTRANCE LOCATED ON THE EASTBOUND LANE AS SHOWN IN THE PLANS.

5 REMOVE TRAFFIC SIGNALS AND ETC. CALLED FOR IN STANDARD 701321.

6 PLACE HMA SURFACE, PAVEMENT MARKINGS AND ALL REMAINING WORK USING STANDARD 701201.

NOTE:
SEE STRUCTURE PLANS FOR ADDITIONAL STAGE CONSTRUCTION DETAILS.

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - SPF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGES OF CONSTRUCTION AND TRAFFIC CONTROL NOTES AND DETAILS
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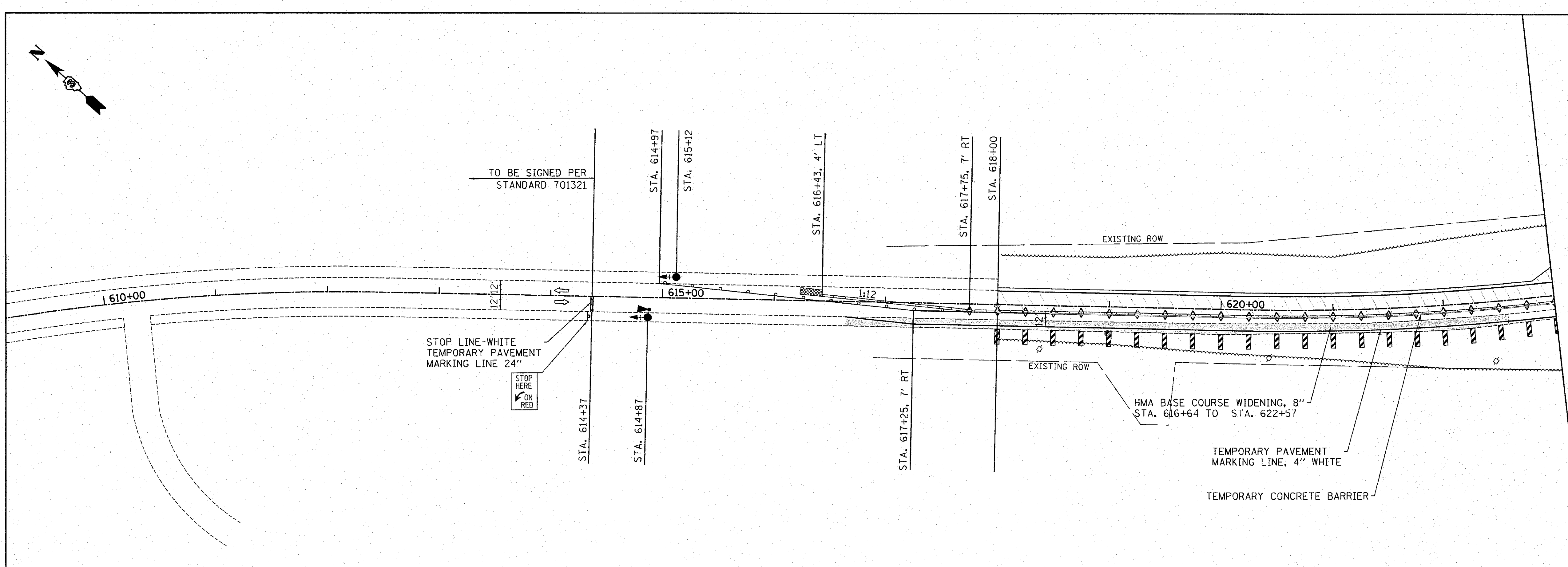
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102) BR-1	LIVINGSTON	58	8
		CONTRACT NO. 66822		
		ILLINOIS FED. AID PROJECT		



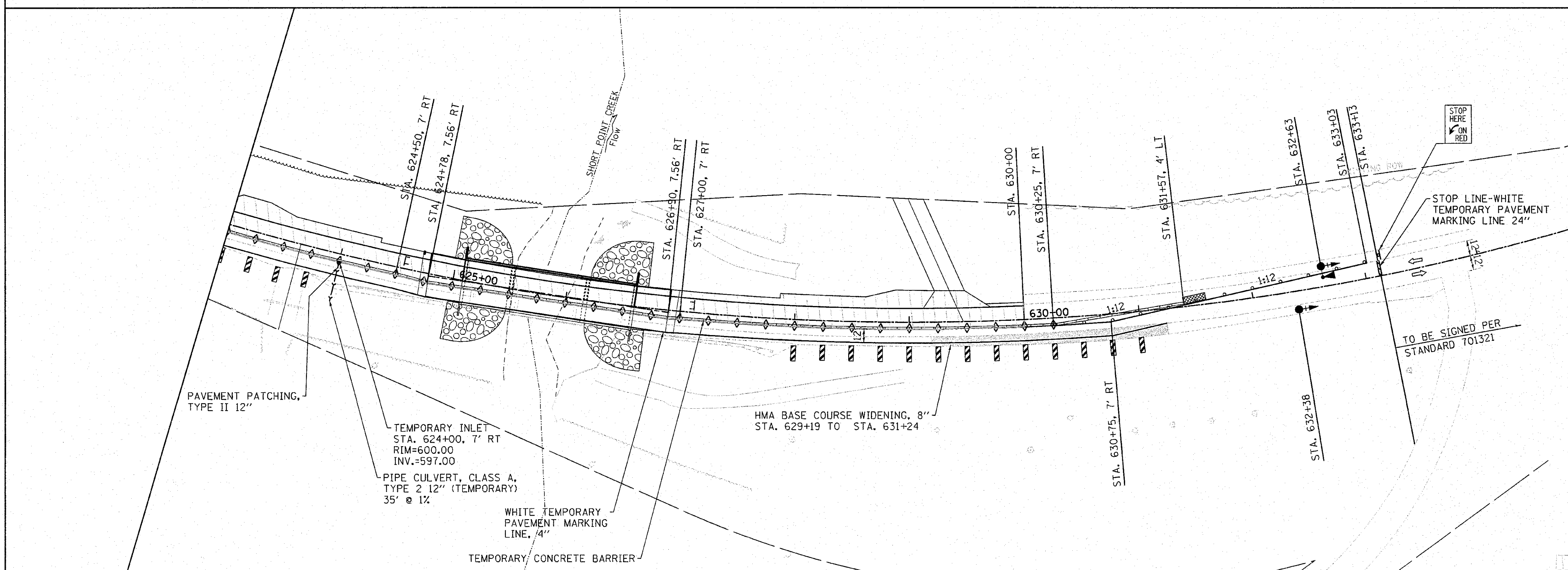
NOTES:
SEE STANDARD 701321 FOR DETAILS NOT SHOWN.

DOUBLE UP THE ADVANCED WARNING SIGNS ON EACH SIDE OF THE ROAD FOR BOTH APPROACHES. MOUNT THE "ROAD CONSTRUCTION AHEAD" SIGNS ON TYPE III BARRICADES WITH TWO FLASHING MONO-DIRECTIONAL LIGHTS FOR EACH SIGN.

ADD ONE FLASHING MONO-DIRECTIONAL LIGHT TO ALL OF THE REMAINING ADVANCE WARNING SIGNS.

THE COST FOR THE ADDITIONAL SIGNS AND LIGHTS WILL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION STANDARD 701321".

THE CONTRACTOR WILL BE RESPONSIBLE FOR TEMPORARY DRAINAGE DURING CONSTRUCTION OF THIS PROJECT.



LEGEND
- CRYSTAL BIDIRECTIONAL BARRIER WALL/GUARDRAIL MARKER
- MICROWAVE DETECTOR
- SIGN
- TEMPORARY CONCRETE BARRIER
- TEMPORARY TRAFFIC SIGNAL WITH BACKPLATE
- TYPE III BARRICADES
- DOUBLE VERTICAL PANEL
- IMPACT ATTENUATOR
- DRUM WITH STEADY BURNING LIGHT
- WORK AREA

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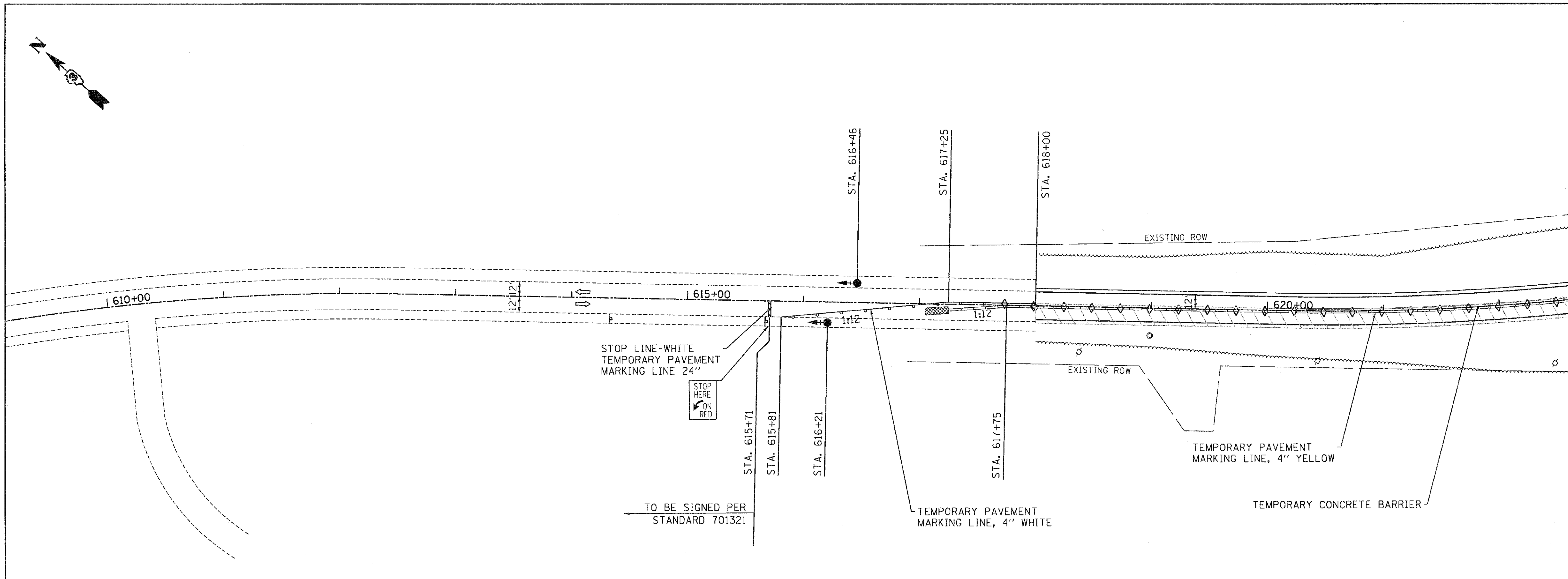
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGES OF CONSTRUCTION AND TRAFFIC CONTROL
STAGE 1 CONSTRUCTION

SCALE: 1"=50' | SHEET NO. 02 OF 03 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102) BR-1	LIVINGSTON	58	9
		CONTRACT NO. 66822		
		ILLINOIS FED. AID PROJECT		

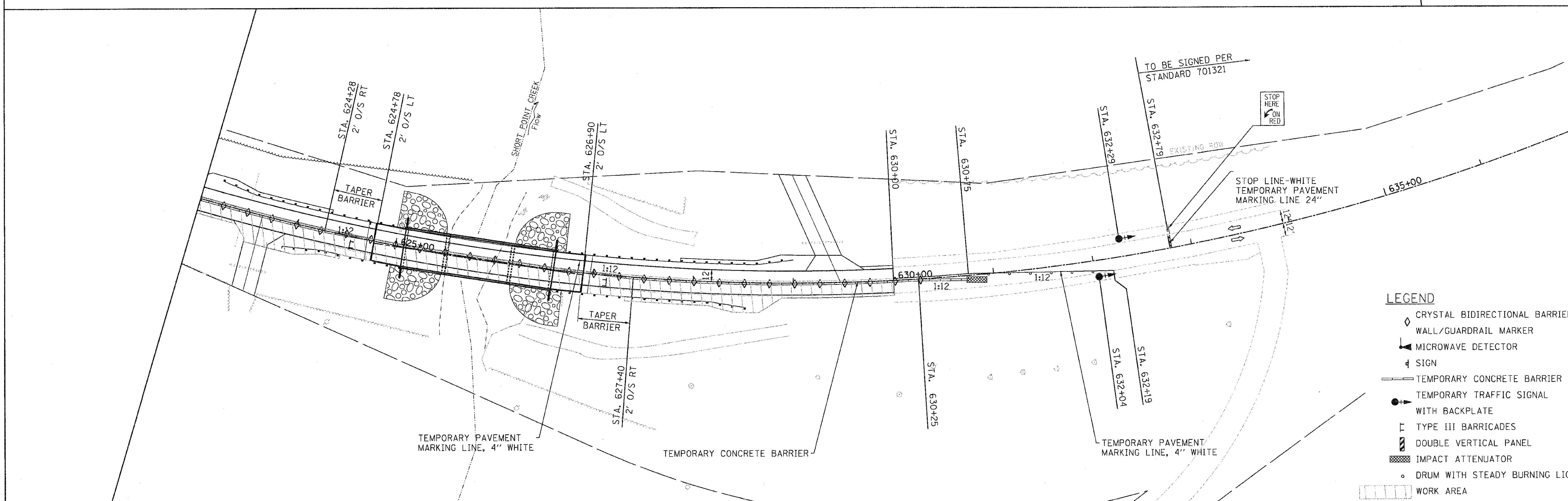


NOTES:
SEE STANDARD 701321 FOR DETAILS NOT SHOWN.

DOUBLE UP THE ADVANCED WARNING SIGNS ON EACH SIDE OF THE ROAD FOR BOTH APPROACHES. MOUNT THE "ROAD CONSTRUCTION AHEAD" SIGNS ON TYPE III BARRICADES WITH TWO FLASHING MONO-DIRECTIONAL LIGHTS FOR EACH SIGN.

ADD ONE FLASHING MONO-DIRECTIONAL LIGHT TO ALL OF THE REMAINING ADVANCE WARNING SIGNS.

THE COST FOR THE ADDITIONAL SIGNS AND LIGHTS WILL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION STANDARD 701321".



LEGEND
- CRYSTAL BIDIRECTIONAL BARRIER WALL/GUARDRAIL MARKER
- MICROWAVE DETECTOR
- SIGN
- TEMPORARY CONCRETE BARRIER
- TEMPORARY TRAFFIC SIGNAL WITH BACKPLATE
- TYPE III BARRICADES
- DOUBLE VERTICAL PANEL
- IMPACT ATTENUATOR
- DRUM WITH STEADY BURNING LIGHT
- WORK AREA

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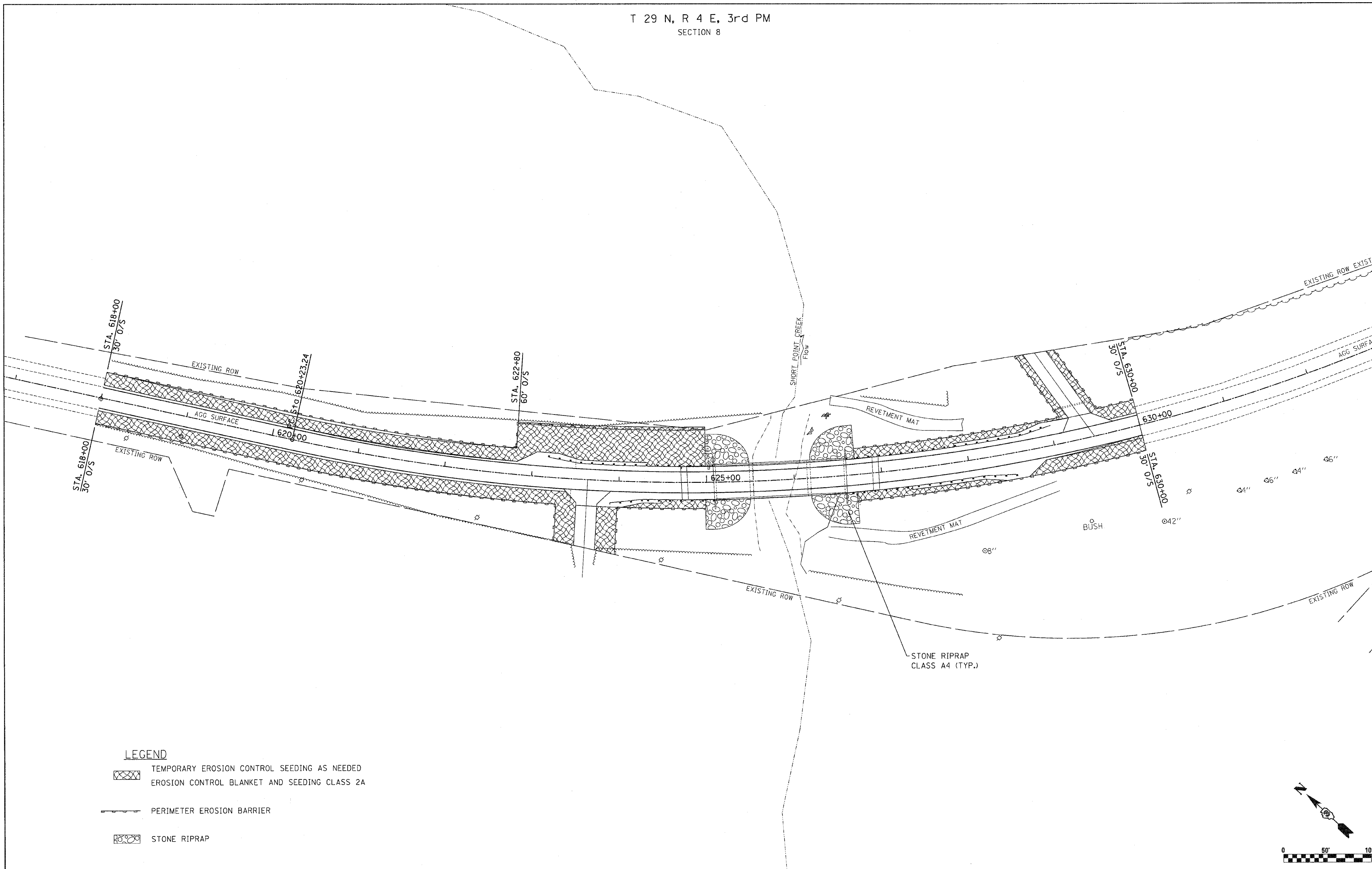
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102) BR-1	LIVINGSTON	58	10
		CONTRACT NO. 66822		
		ILLINOIS FED. AID PROJECT		



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	PLOT DATE = 8/2/2010	DATE - 08/05/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL DETAILS

SCALE: 1"=50'	SHEET NO. 01 OF 01 SHEETS	STA.	TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102) BR-1	LIVIINGSTON	58	11
		CONTRACT NO. 66822		
	ILLINOIS FED. AID PROJECT			

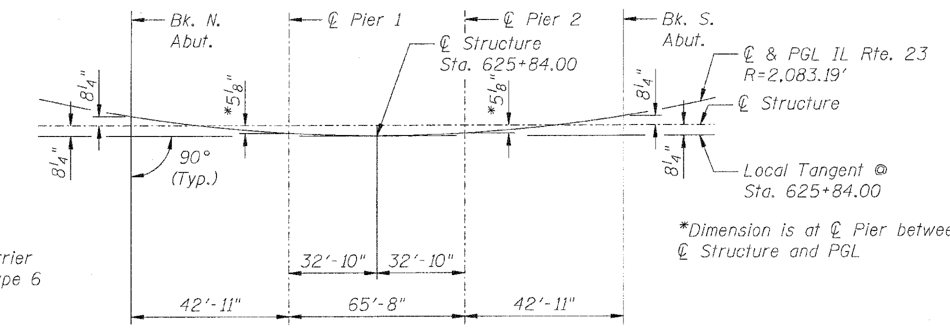
Bench Mark: Railroad Spike in Power Pole, Sta. 622+42.75, 52.9' Rt., Elev. 597.02

Existing Structure: S.N. 053-0161 originally constructed in 1987 as FAP 68 Section (102)B-1. Replacement of six PPC Deck Beams in 2009 as FAP 68 Section (102-B-1)I. Three simple span PPC Deck Beams superstructure supported on pile bent abutments and solid wall piers on footings. Bk. to Bk. abutments is 136'-4½" and Out to Out width is 46'-2".

Existing structure shall be removed and replaced using stage construction to maintain one lane of traffic.

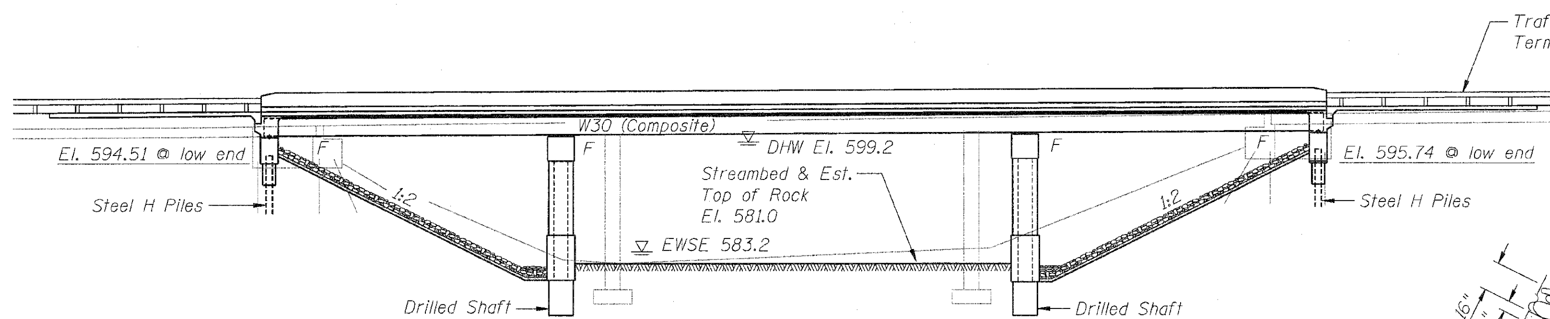
No Salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

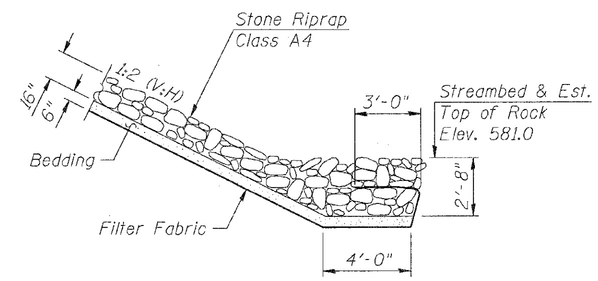


OFFSET SKETCH

*Dimension is at ℄ Pier between ℄ Structure and PGL

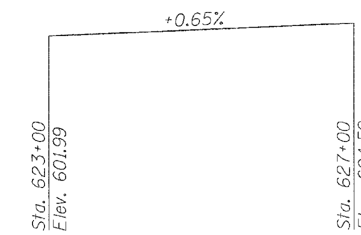


ELEVATION



SECTION A-A

Rock excavation required for installation of riprap is included in the cost of Stone Riprap Class A4.



PROFILE GRADE
(along ℄ IL Route 23)

LOADING HL-93

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

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 & 2009 Interims

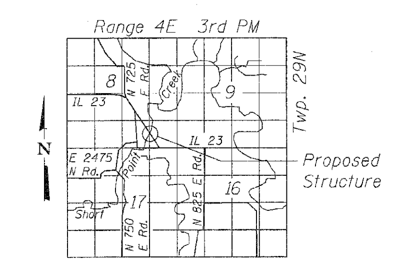
DESIGN STRESSES

FIELD UNITS

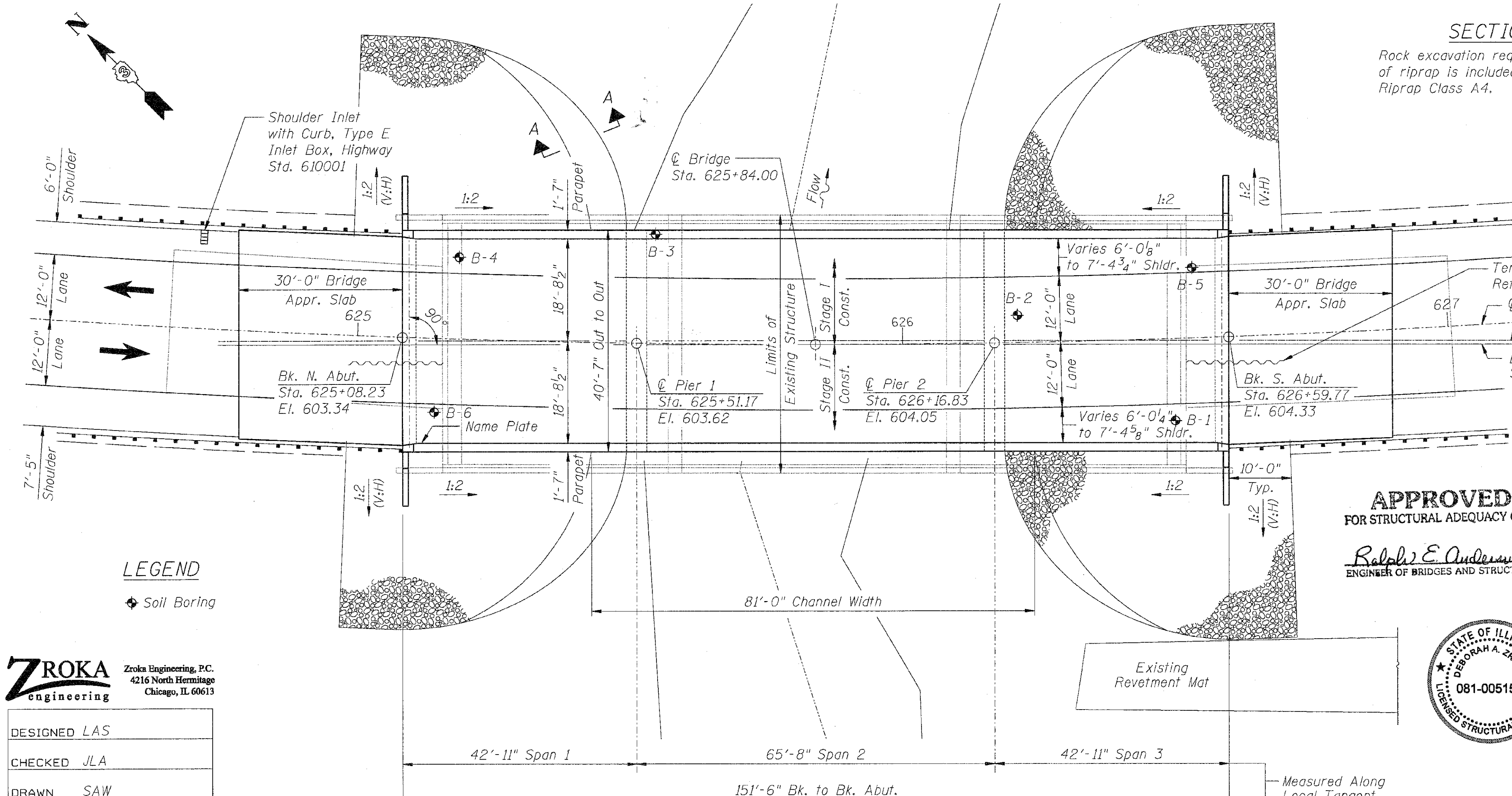
f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)
F_y = 50,000 psi (M270 Grade 50W)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration @ 1.0 sec (SD1) = 0.077g
Design Spectral Acceleration @ 0.2 sec (SDS) = 0.136g
Soil Site Class = C



LOCATION SKETCH



PLAN

LEGEND

◈ Soil Boring

CURVE DATA

Δ = 60° 11' 31" (Lt)
D = 2° 45' 01"
T = 1,207.39'
L = 2,188.49'
E = 324.60'
R = 2,083.19'
S.E. = 6.0%
P.C. = Sta. 620+23.24
P.T. = Sta. 642+11.74
P.I. = Sta. 632+30.63

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson (JJD)
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEBORAH A. ZROKA
081-005152
LICENSED STRUCTURAL ENGINEER

Deborah A. Zroka July 29, 2010
Signature Date
November 30, 2010
Expires

ZROKA engineering
Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

DESIGNED	LAS
CHECKED	JLA
DRAWN	SAW
CHECKED	LAS

GENERAL PLAN AND ELEVATION
IL RTE 23 OVER SHORT POINT CREEK
F.A.P. RTE. 68
SECTION (102)BR-1
LIVINGSTON COUNTY
STATION 625+84.00
STRUCTURE NO. 053-0189

SHEET NO. 1 OF 26 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	68	(102)BR-1	LIVINGSTON	58	12
	SN 053-0189		CONTRACT NO. 66822		
	FED. ROAD DIST. NO. _ ILLINOIS		FED. AID PROJECT		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

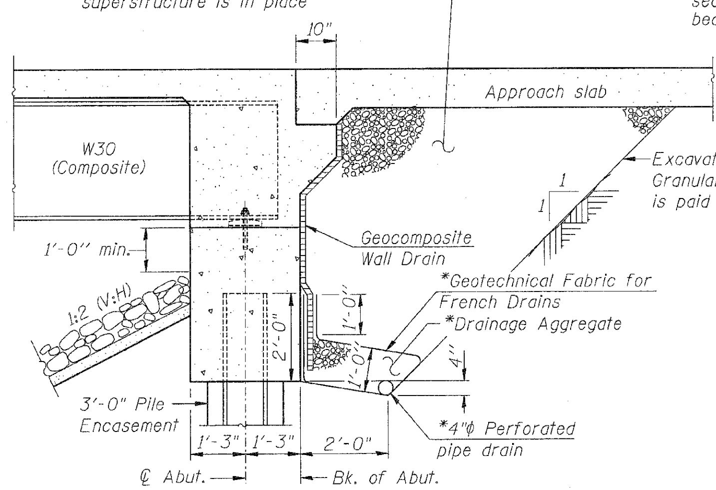
INDEX OF SHEETS

GENERAL NOTES

1. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts in painted areas and M164 Type 3 in unpainted areas. Bolts $\frac{7}{8}$ in. dia., holes $\frac{15}{16}$ in. dia., unless otherwise noted.
2. Calculated weight of Grade 50W structural steel = 150,630 pounds.
3. No field welding is permitted except as specified in the contract documents.
4. Reinforcement bars shall conform to the requirements of ASTM A706 Gr 60. See Special Provisions.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ in. (0.01 ft). Adjustment shall be made either by grinding the surface or by shimming the bearings.
7. Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 in. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.
8. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
9. Slipforming of the parapets is not allowed.
10. A cantilevered sheet piling system does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
11. All structural steel shall be AASHTO M 270 Grade 50W. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".
12. The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.
13. If the Contractor's procedures for existing deck beam removal or construction of the new superstructure involves placement of heavy equipment on the existing deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the deck beams for the proposed loads. Cost included with Removal of Existing Structures.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.		168	168
Stone Riprap Class A4	Sq. Yd.		1,287	1,287
Filter Fabric	Sq. Yd.		1,287	1,287
Removal of Existing Structures	Each		1	1
Structure Excavation	Cu. Yd.		210	210
Concrete Structures	Cu. Yd.		161.4	161.4
Concrete Superstructure	Cu. Yd.	340.1		340.1
Bridge Deck Grooving	Sq. Yd.	839		839
Concrete Encasement	Cu. Yd.		4.0	4.0
Protective Coat	Sq. Yd.	1,023		1,023
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	3,402		3,402
Reinforcement Bars	Pound		11,480	11,480
Reinforcement Bars, Epoxy Coated	Pound	79,720	30,820	110,540
Bar Splicers	Each	735	474	1,209
Furnishing Steel Pile HP 12x63	Foot		231	231
Driving Piles	Foot		231	231
Test Pile Steel HP 12x63	Each		1	1
Name Plates	Each	1		1
Drilled Shaft in Soil	Cu Yd		9.2	9.2
Drilled Shaft in Rock	Cu Yd		44.0	44.0
Anchor Bolts, $\frac{3}{4}$"	Each		24	24
Anchor Bolts, 1"	Each		24	24
Geocomposite Wall Drain	Sq. Yd.		64	64
Pipe Underdrains for Structures 4"	Foot		125	125
Temporary Soil Retention System	Sq. Ft.		283	283
Underwater Structure Excavation Protection - Location 1	Each		1	1
Underwater Structure Excavation Protection - Location 2	Each		1	1



SECTION THRU ABUTMENT

*Included in the cost of Pipe Underdrain for Structures 4"

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

STATION 625+84.00
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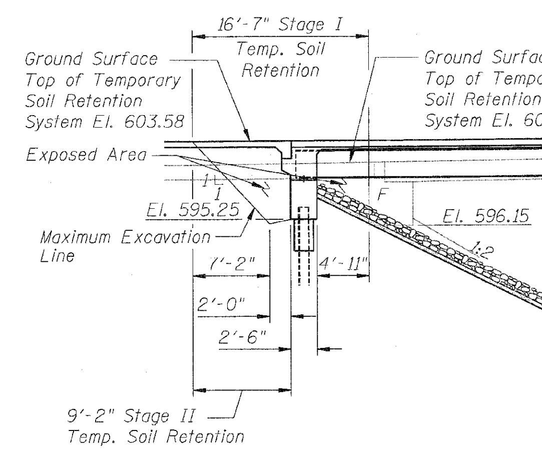
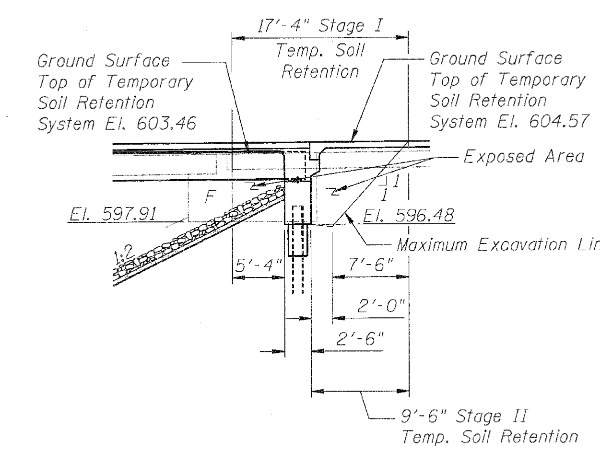
STATE OF ILLINOIS
F.A.P. RTE. 68 SEC. (102)BR-1
LOADING HL-93
STRUCTURE NO. 053-0189

NAME PLATE

See Std. 515001



NORTH ABUTMENT



SOUTH ABUTMENT

TEMPORARY SOIL RETENTION SYSTEM

WATERWAY INFORMATION

Drainage Area = 79.39 sq. mi.
Exist. Low Grade Elev. = 600.00 @ Sta. 624+00
Prop. Low Grade Elev. = 600.92 @ Sta. 619+70

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	4790	1403	1729	598.6	0.7	0.1	599.3	598.7
Design	50	7550	1479	1819	599.2	0.5	0.2	599.7	599.5
Base	100	8750	1520	1867	599.6	0.6	0.3	600.2	599.9
Overtopping	75	8220	1501	NA	599.4	0.6	NA	600.0	NA
Max. Calc.	500	11700	1631	2016	600.6	1.1	0.6	601.7	601.2

10-Year Velocity through Existing Bridge = 3.3 fps
10-Year Velocity through Proposed Bridge = 2.6 fps

DESIGN SCOUR ELEVATION TABLE

N. Abut.	Pier 1	Pier 2	S. Abut.
594.51	580.3	580.3	595.74

ZROKA engineering
Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

DESIGNED	LAS
CHECKED	JLA
DRAWN	SAW
CHECKED	LAS

GENERAL DATA
STRUCTURE NO. 053-0189

SHEET NO. 2	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	68	(102)BR-1	LIVINGSTON	58	13
OF 26 SHEETS	SN 053-0189		CONTRACT NO. 66822		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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STATE OF ILLINOIS
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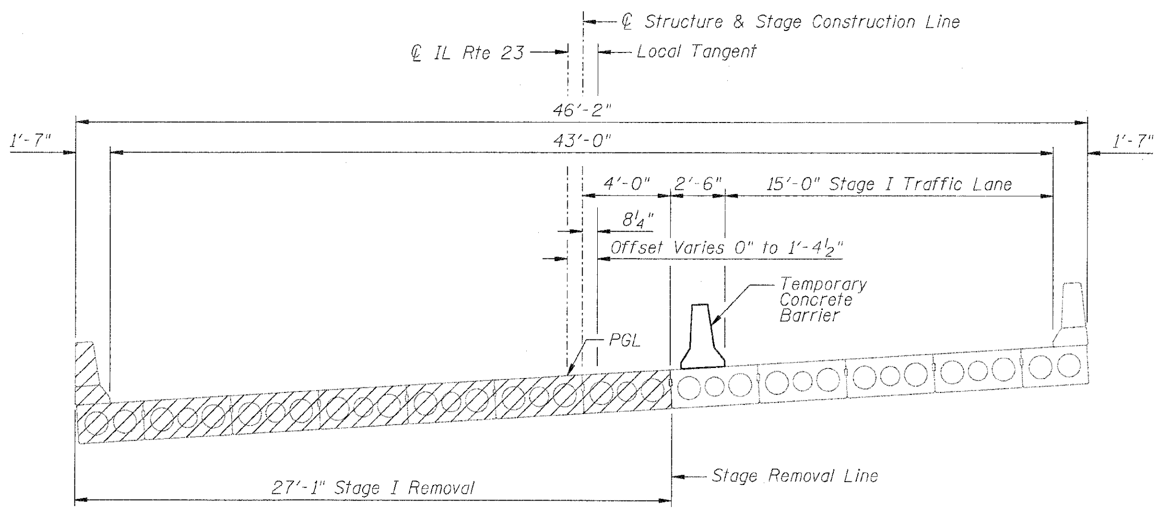
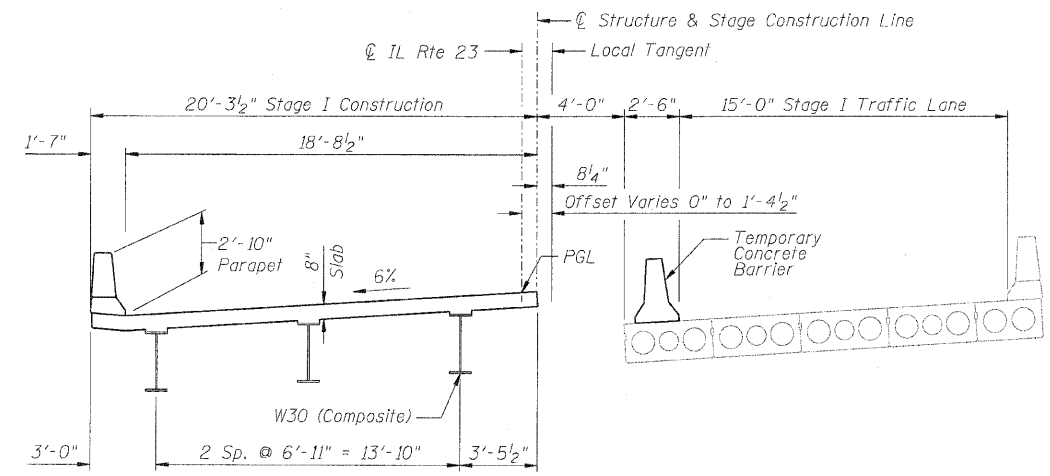
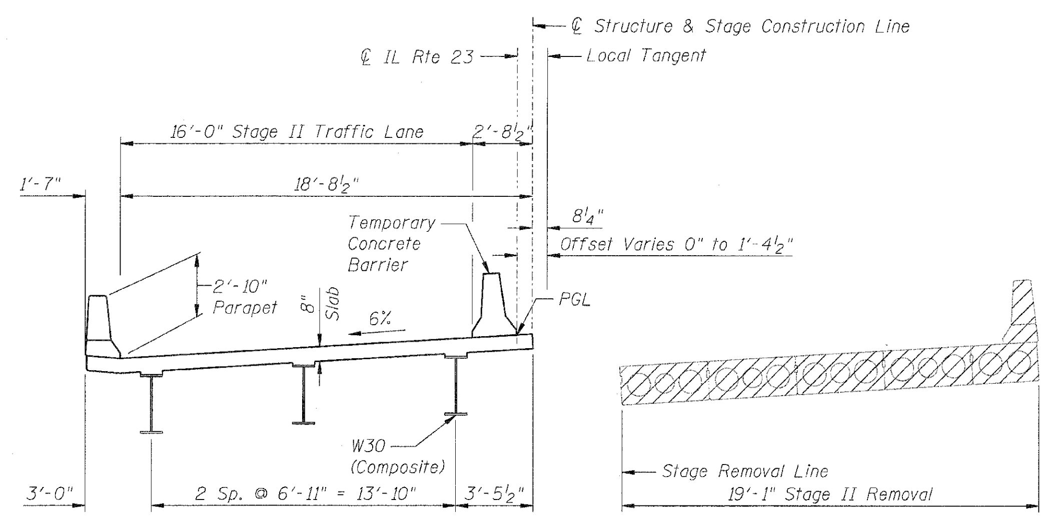


STAGE I REMOVAL
(Looking South)



STAGE I CONSTRUCTION
(Looking South)



STAGE II REMOVAL
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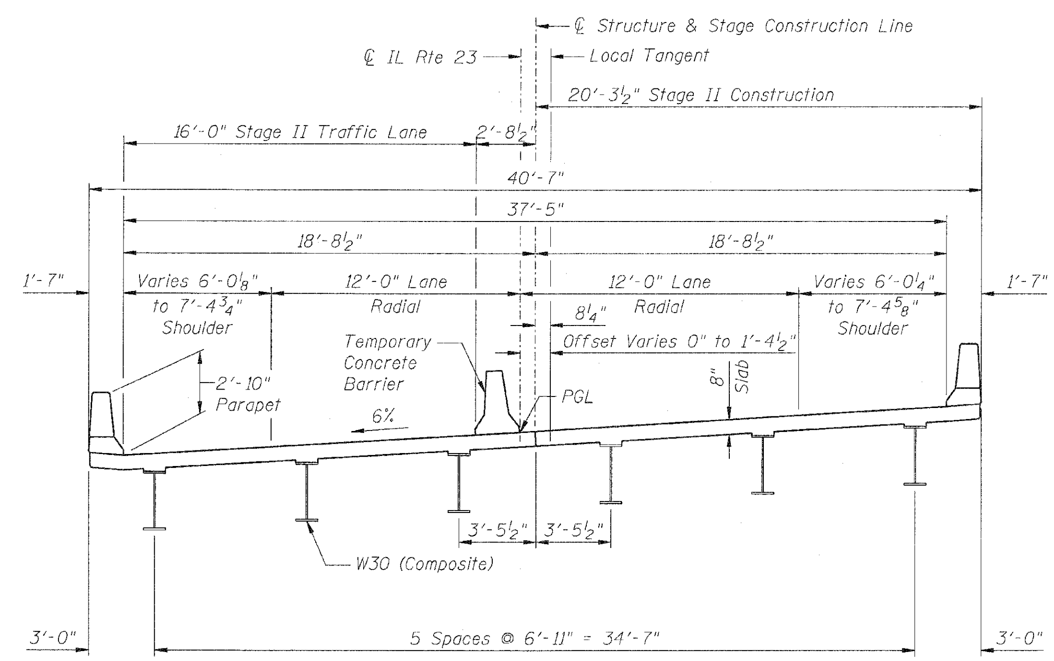

STAGE II CONSTRUCTION
(Looking South)

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CHECKED	LAS

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 053-0189

SHEET NO. 3	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	68	(102)BR-1	LIVINGSTON	58	14
OF 26 SHEETS	SN 053-0189		CONTRACT NO. 66822		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

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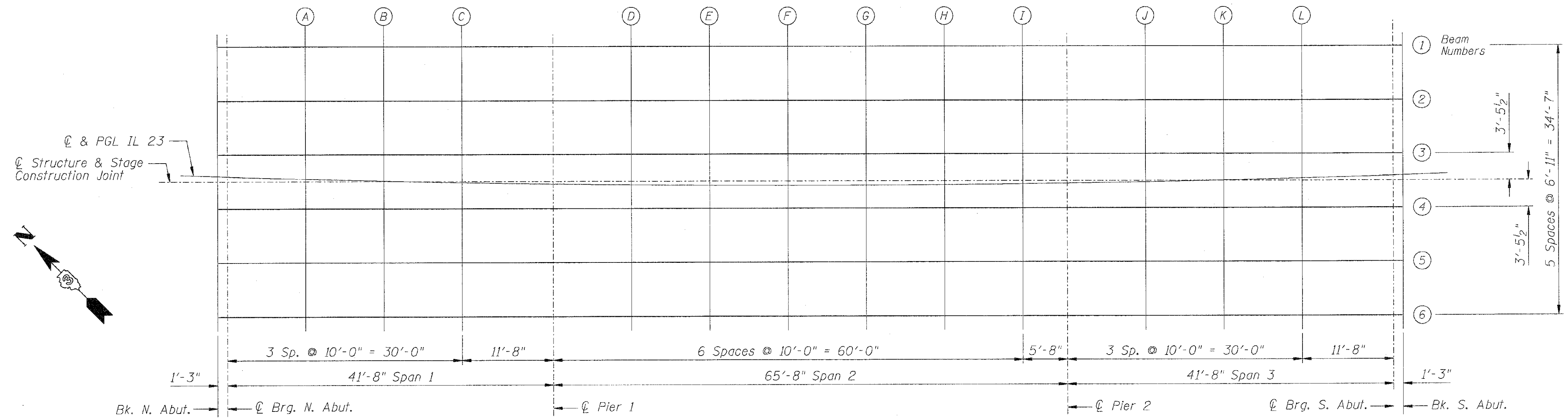
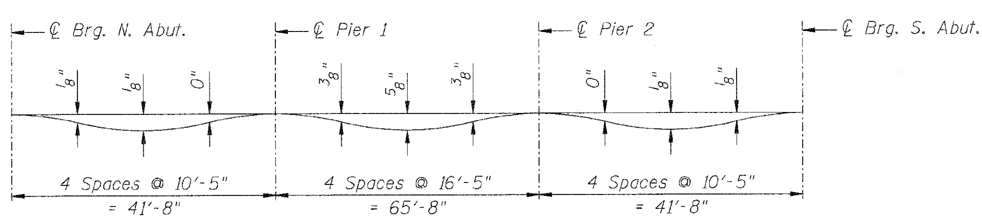
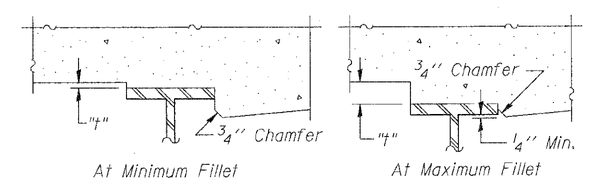


PLAN FOR TOP OF SLAB ELEVATIONS



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

Note:
The above deflections are not to be used in the field if the Engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection".



To determine "t": After all structural steel has been erected, elevations of the top flanges of the girders shall be taken at intervals shown on this sheet. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets 5 and 6, minus slab thickness, equals the fillet heights "t" above top flange of girders.

FILLET HEIGHTS

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Chicago, IL 60613

DESIGNED	LAS
CHECKED	JLA
DRAWN	SAW
CHECKED	LAS

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TOP OF SLAB ELEVATIONS 1
STRUCTURE NO. 053-0189

SHEET NO. 4	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	68	(102)BR-1	LIVINGSTON	58	15
OF 26 SHEETS		SN 053-0189	CONTRACT NO. 66822		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	625+07.63	-16.59	602.34	602.34
℄ Brg. N. Abut.	625+08.88	-16.64	602.35	602.35
A	625+18.96	-16.97	602.39	602.40
B	625+29.04	-17.26	602.44	602.45
C	625+39.12	-17.50	602.49	602.49
℄ Pier 1	625+50.88	-17.72	602.56	602.56
D	625+60.97	-17.85	602.62	602.63
E	625+71.06	-17.94	602.68	602.71
F	625+81.14	-17.98	602.74	602.79
G	625+91.23	-17.97	602.80	602.85
H	626+01.32	-17.91	602.87	602.90
I	626+11.40	-17.80	602.95	602.95
℄ Pier 2	626+17.12	-17.72	602.99	602.99
J	626+27.20	-17.54	603.06	603.06
K	626+37.28	-17.30	603.14	603.15
L	626+47.36	-17.02	603.23	603.23
℄ Brg. S. Abut.	626+59.12	-16.64	603.33	603.33
Bk. S. Abut.	626+60.38	-16.59	603.34	603.34

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	625+07.88	-9.68	602.76	602.76
℄ Brg. N. Abut.	625+09.13	-9.72	602.77	602.77
A	625+19.18	-10.06	602.81	602.82
B	625+29.22	-10.35	602.86	602.86
C	625+39.27	-10.59	602.91	602.91
℄ Pier 1	625+50.99	-10.80	602.97	602.97
D	625+61.05	-10.94	603.03	603.05
E	625+71.10	-11.02	603.09	603.13
F	625+81.15	-11.06	603.15	603.20
G	625+91.21	-11.05	603.22	603.26
H	626+01.26	-10.99	603.29	603.32
I	626+11.31	-10.88	603.36	603.37
℄ Pier 2	626+17.01	-10.80	603.40	603.40
J	626+27.06	-10.62	603.48	603.48
K	626+37.10	-10.39	603.56	603.56
L	626+47.15	-10.11	603.64	603.65
℄ Brg. S. Abut.	626+58.87	-9.72	603.74	603.74
Bk. S. Abut.	626+60.12	-9.68	603.75	603.75

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	625+08.13	-2.77	603.18	603.18
℄ Brg. N. Abut.	625+09.38	-2.81	603.18	603.18
A	625+19.39	-3.15	603.23	603.23
B	625+29.40	-3.43	603.28	603.28
C	625+39.42	-3.67	603.33	603.33
℄ Pier 1	625+51.10	-3.89	603.39	603.39
D	625+61.12	-4.02	603.45	603.46
E	625+71.14	-4.11	603.51	603.54
F	625+81.16	-4.14	603.57	603.62
G	625+91.18	-4.13	603.63	603.68
H	626+01.20	-4.08	603.70	603.73
I	626+11.22	-3.97	603.77	603.78
℄ Pier 2	626+16.90	-3.89	603.82	603.82
J	626+26.91	-3.71	603.89	603.89
K	626+36.93	-3.48	603.97	603.98
L	626+46.94	-3.20	604.05	604.06
℄ Brg. S. Abut.	626+58.62	-2.81	604.15	604.15
Bk. S. Abut.	626+59.87	-2.77	604.16	604.16

℄ & PGL IL 23

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	625+08.23	0.00	603.34	603.34
℄ Brg. N. Abut.	625+09.48	0.00	603.35	603.35
A	625+19.49	0.00	603.42	603.42
B	625+29.49	0.00	603.48	603.49
C	625+39.50	0.00	603.55	603.55
℄ Pier 1	625+51.17	0.00	603.62	603.62
D	625+61.17	0.00	603.69	603.70
E	625+71.17	0.00	603.75	603.79
F	625+81.17	0.00	603.82	603.86
G	625+91.17	0.00	603.88	603.93
H	626+01.17	0.00	603.95	603.98
I	626+11.17	0.00	604.01	604.02
℄ Pier 2	626+16.83	0.00	604.05	604.05
J	626+26.84	0.00	604.11	604.11
K	626+36.84	0.00	604.18	604.18
L	626+46.84	0.00	604.24	604.25
℄ Brg. S. Abut.	626+58.52	0.00	604.32	604.32
Bk. S. Abut.	626+59.77	0.00	604.33	604.33

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DESIGNED	LAS
CHECKED	JLA
DRAWN	SAW
CHECKED	LAS

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TOP OF SLAB ELEVATIONS 2
STRUCTURE NO. 053-0189

SHEET NO. 5 OF 26 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	68	(102)BR-1	LIVINGSTON	58	16
	SN 053-0189		CONTRACT NO. 66822		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

℄ STRUCTURE & STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	625+08.26	0.69	603.39	603.39
℄ Brg. N. Abut.	625+09.51	0.64	603.39	603.39
A	625+19.50	0.31	603.44	603.44
B	625+29.49	0.02	603.48	603.49
C	625+39.49	-0.21	603.53	603.53
℄ Pier 1	625+51.16	-0.43	603.60	603.60
D	625+61.16	-0.56	603.65	603.67
E	625+71.16	-0.65	603.71	603.75
F	625+81.17	-0.69	603.78	603.82
G	625+91.17	-0.68	603.84	603.89
H	626+01.17	-0.62	603.91	603.94
I	626+11.17	-0.51	603.98	603.99
℄ Pier 2	626+16.84	-0.43	604.02	604.02
J	626+26.84	-0.25	604.10	604.10
K	626+36.84	-0.02	604.18	604.18
L	626+46.84	0.26	604.26	604.27
℄ Brg. S. Abut.	626+58.49	0.64	604.36	604.36
Bk. S. Abut.	626+59.74	0.69	604.37	604.37

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	625+08.38	4.15	603.59	603.59
℄ Brg. N. Abut.	625+09.63	4.10	603.60	603.60
A	625+19.61	3.77	603.64	603.65
B	625+29.59	3.48	603.69	603.70
C	625+39.57	3.24	603.74	603.74
℄ Pier 1	625+51.21	3.03	603.80	603.80
D	625+61.20	2.90	603.86	603.88
E	625+71.18	2.81	603.92	603.96
F	625+81.17	2.77	603.98	604.03
G	625+91.16	2.78	604.05	604.09
H	626+01.14	2.84	604.12	604.15
I	626+11.13	2.95	604.19	604.20
℄ Pier 2	626+16.79	3.03	604.23	604.23
J	626+26.77	3.21	604.31	604.31
K	626+36.75	3.44	604.39	604.39
L	626+46.73	3.72	604.47	604.47
℄ Brg. S. Abut.	626+58.37	4.10	604.57	604.57
Bk. S. Abut.	626+59.62	4.15	604.58	604.58

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	625+08.63	11.06	604.01	604.01
℄ Brg. N. Abut.	625+09.88	11.01	604.01	604.01
A	625+19.82	10.68	604.06	604.07
B	625+29.77	10.40	604.11	604.11
C	625+39.71	10.16	604.16	604.16
℄ Pier 1	625+51.32	9.94	604.22	604.22
D	625+61.27	9.81	604.28	604.29
E	625+71.23	9.73	604.34	604.37
F	625+81.18	9.69	604.40	604.45
G	625+91.13	9.70	604.46	604.51
H	626+01.09	9.76	604.53	604.56
I	626+11.04	9.86	604.60	604.61
℄ Pier 2	626+16.68	9.94	604.65	604.65
J	626+26.63	10.13	604.72	604.72
K	626+36.58	10.35	604.80	604.80
L	626+46.52	10.63	604.88	604.89
℄ Brg. S. Abut.	626+58.12	11.01	604.98	604.98
Bk. S. Abut.	626+59.37	11.06	604.99	604.99

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	625+08.88	17.97	604.43	604.43
℄ Brg. N. Abut.	625+10.12	17.92	604.43	604.43
A	625+20.03	17.59	604.48	604.48
B	625+29.94	17.31	604.52	604.53
C	625+39.86	17.08	604.57	604.57
℄ Pier 1	625+51.43	16.86	604.64	604.64
D	625+61.35	16.73	604.69	604.71
E	625+71.27	16.64	604.75	604.79
F	625+81.19	16.61	604.81	604.86
G	625+91.11	16.62	604.88	604.92
H	626+01.03	16.67	604.95	604.98
I	626+10.95	16.78	605.02	605.03
℄ Pier 2	626+16.57	16.86	605.06	605.06
J	626+26.49	17.04	605.13	605.13
K	626+36.40	17.27	605.21	605.22
L	626+46.32	17.54	605.29	605.30
℄ Brg. S. Abut.	626+57.88	17.92	605.39	605.39
Bk. S. Abut.	626+59.12	17.97	605.40	605.40

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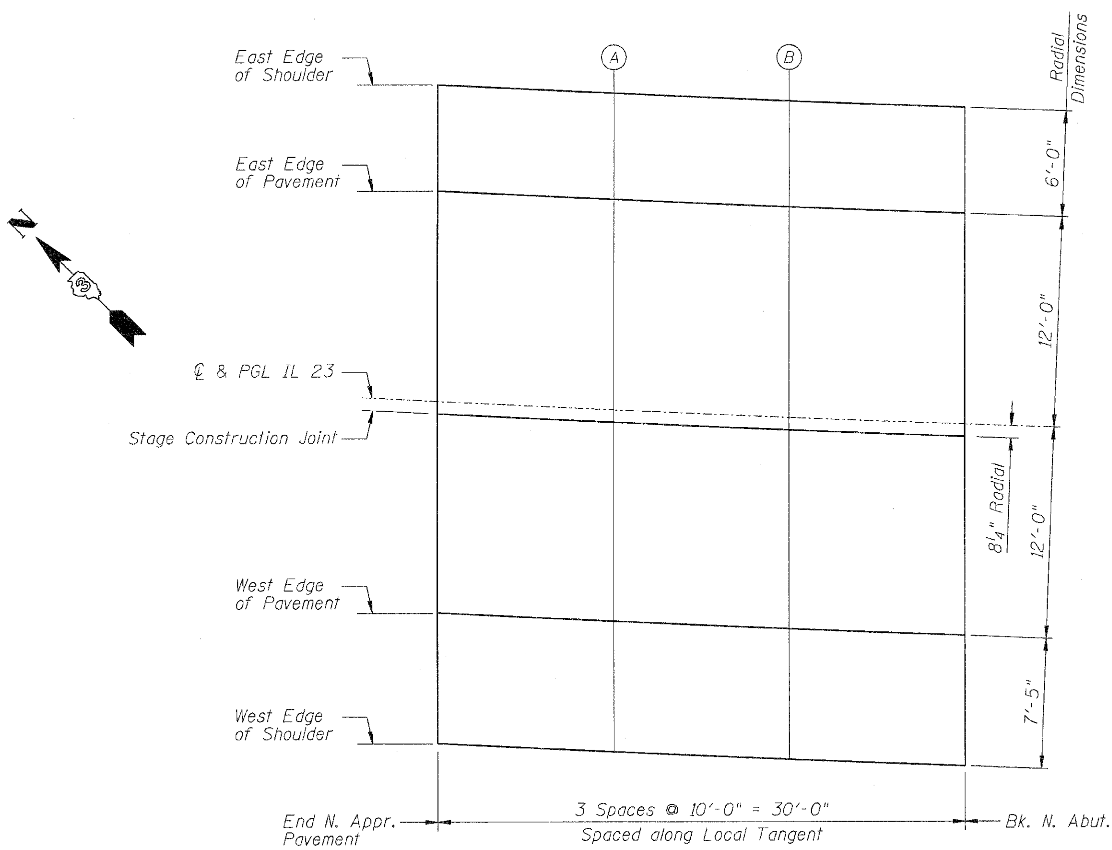
Chicago, IL 60613

DESIGNED	LAS
CHECKED	JLA
DRAWN	SAW
CHECKED	LAS

TOP OF SLAB ELEVATIONS 3
STRUCTURE NO. 053-0189

	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SHEET NO. 6	68	(102)BR-1	LIVINGSTON	58	17
OF 26 SHEETS	SN 053-0189		CONTRACT NO. 66822		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN FOR TOP OF SLAB ELEVATIONS

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Pvmt.	624+77.28	-18.00	602.06
A	624+87.38	-18.00	602.13
B	624+97.48	-18.00	602.19
Bk. N. Abut.	625+07.57	-18.00	602.26

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Pvmt.	624+77.59	-12.00	602.42
A	624+87.66	-12.00	602.49
B	624+97.73	-12.00	602.56
Bk. N. Abut.	625+07.79	-12.00	602.62

℄ & PGL IL 23

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Pvmt.	624+78.21	0.00	603.15
A	624+88.22	0.00	603.21
B	624+98.23	0.00	603.28
Bk. N. Abut.	625+08.23	0.00	603.34

STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Pvmt.	624+78.24	0.69	603.19
A	624+88.25	0.69	603.25
B	624+98.25	0.69	603.32
Bk. N. Abut.	625+08.26	0.69	603.39

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Pvmt.	624+78.81	12.00	603.87
A	624+88.77	12.00	603.94
B	624+98.72	12.00	604.00
Bk. N. Abut.	625+08.67	12.00	604.07

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Pvmt.	624+79.18	19.42	604.32
A	624+89.10	19.42	604.38
B	624+99.01	19.42	604.45
Bk. N. Abut.	625+08.93	19.42	604.51

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DRAWN	SAW
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NORTH APPROACH
TOP OF SLAB ELEVATIONS
STRUCTURE NO. 053-0189

	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SHEET NO. 7	68	(102)BR-1	LIVINGSTON	58	18
OF 26 SHEETS	SN 053-0189		CONTRACT NO. 66822		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
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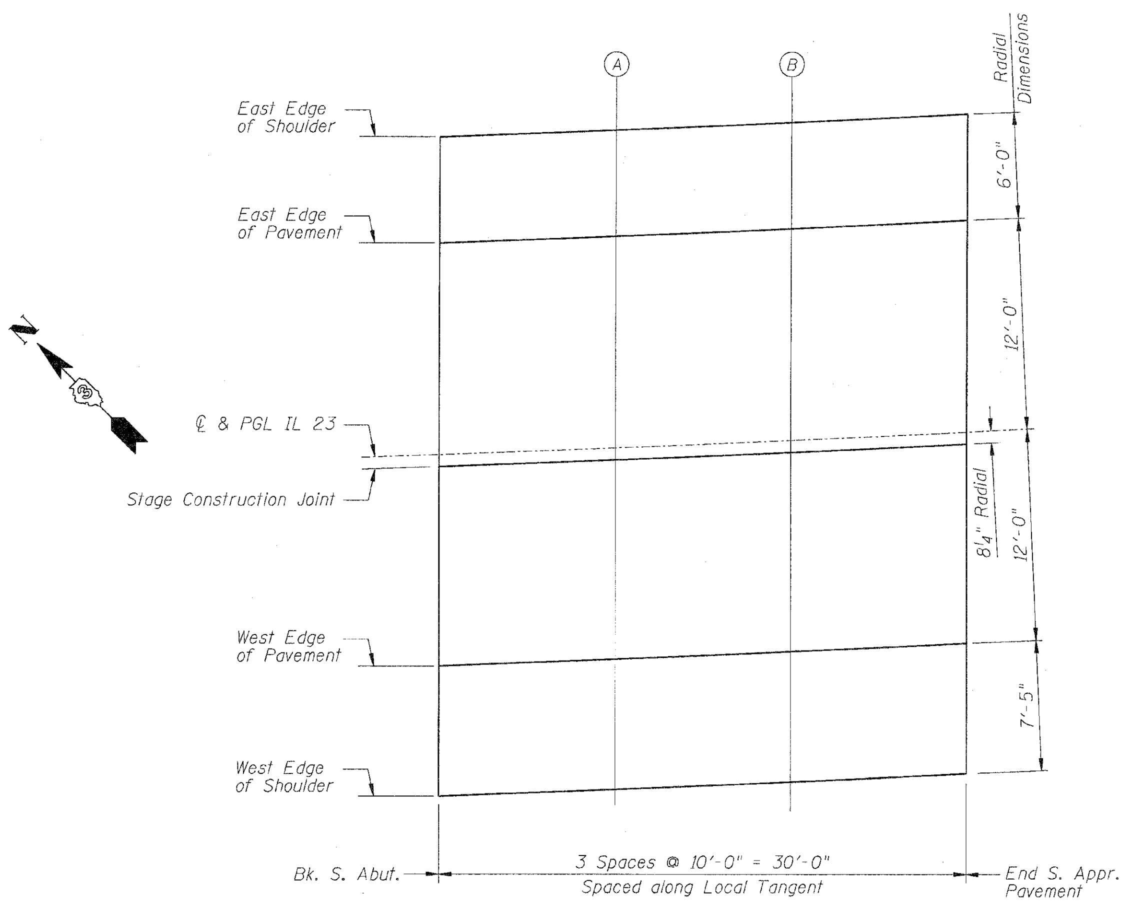

PLAN FOR TOP OF SLAB ELEVATIONS

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
Bk. S. Abut.	626+60.43	-18.00	603.25
A	626+70.53	-18.00	603.32
B	626+80.62	-18.00	603.38
End S. Appr. Pvmt.	626+90.72	-18.00	603.45

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Bk. S. Abut.	626+60.21	-12.00	603.61
A	626+70.27	-12.00	603.68
B	626+80.34	-12.00	603.74
End S. Appr. Pvmt.	626+90.41	-12.00	603.81

℄ & PGL IL 23

Location	Station	Offset	Theoretical Grade Elevations
Bk. S. Abut.	626+59.77	0.00	604.33
A	626+69.77	0.00	604.39
B	626+79.78	0.00	604.46
End S. Appr. Pvmt.	626+89.80	0.00	604.52

STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
Bk. S. Abut.	626+59.74	0.69	604.37
A	626+69.75	0.69	604.43
B	626+79.75	0.69	604.50
End S. Appr. Pvmt.	626+89.76	0.69	604.56

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Bk. S. Abut.	626+59.33	12.00	605.05
A	626+69.28	12.00	605.11
B	626+79.24	12.00	605.18
End S. Appr. Pvmt.	626+89.19	12.00	605.24

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
Bk. S. Abut.	626+59.07	19.42	605.49
A	626+68.99	19.42	605.55
B	626+78.90	19.42	605.62
End S. Appr. Pvmt.	626+88.82	19.42	605.68

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SOUTH APPROACH
TOP OF SLAB ELEVATIONS
STRUCTURE NO. 053-0189

	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SHEET NO. 8	68	(102)BR-1	LIVINGSTON	58	19
OF 26 SHEETS	SN 053-0189		CONTRACT NO. 66822		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

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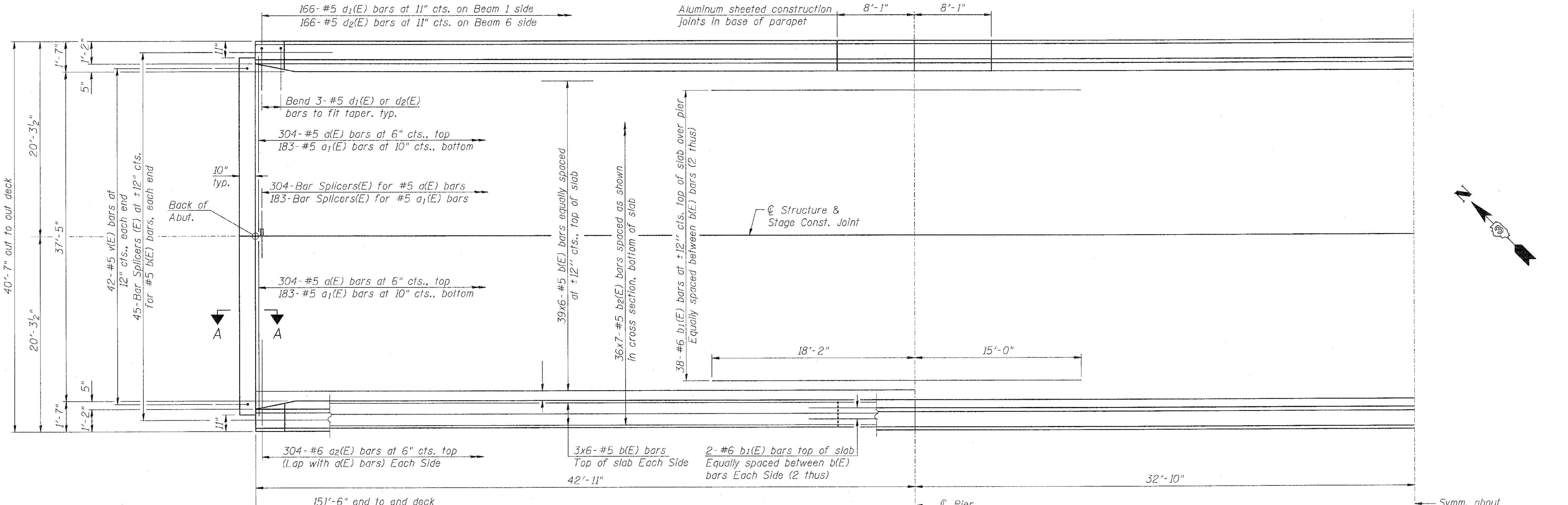
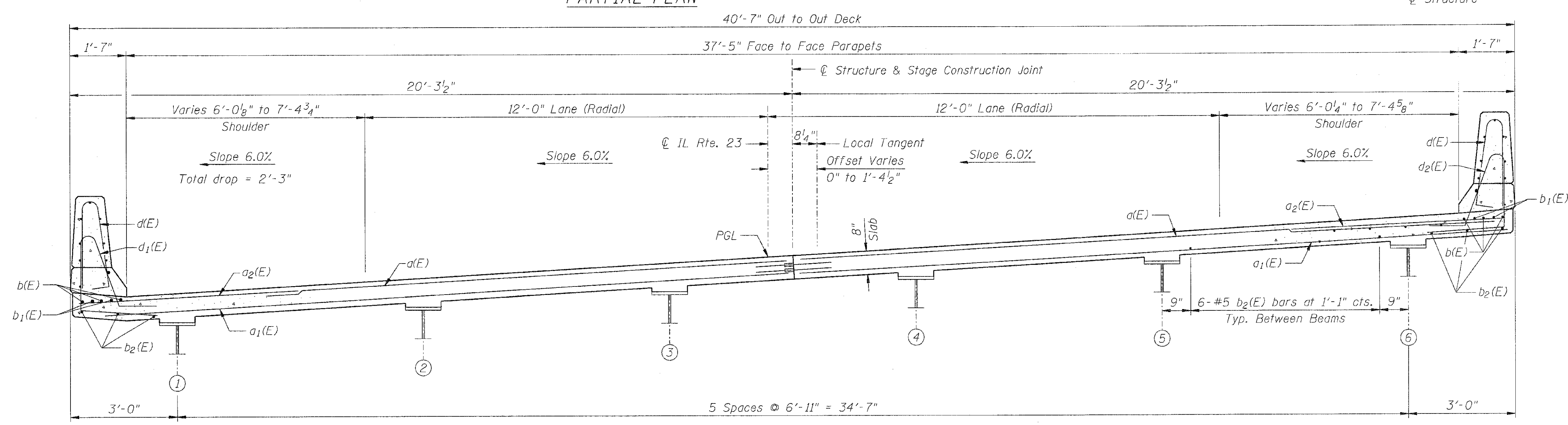


PARTIAL PLAN



CROSS SECTION
(Looking South)

Notes:
See Sheet 10 of 26 for superstructure details and Bill of Material.
Bars indicated thus 39x6-#5 etc. indicates 39 lines of bars with 6 lengths per line.
See Sheet 10 of 26 for parapet reinforcement.
See Sheet 11 of 26 for Section A-A.

MIN. BAR LAP
#5 Bar = 3'-3"

SUPERSTRUCTURE PLAN
STRUCTURE NO. 053-0189

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SHEET NO. 9 OF 26 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	68	(102)BR-1	LIVINGSTON	58	20
	SN 053-0189		CONTRACT NO. 66822		
	FED. ROAD DIST. NO. _		ILLINOIS FED. AID PROJECT		

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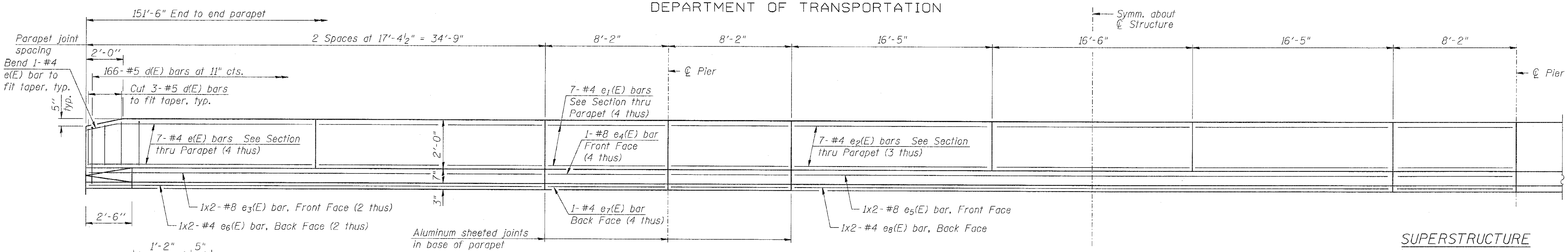
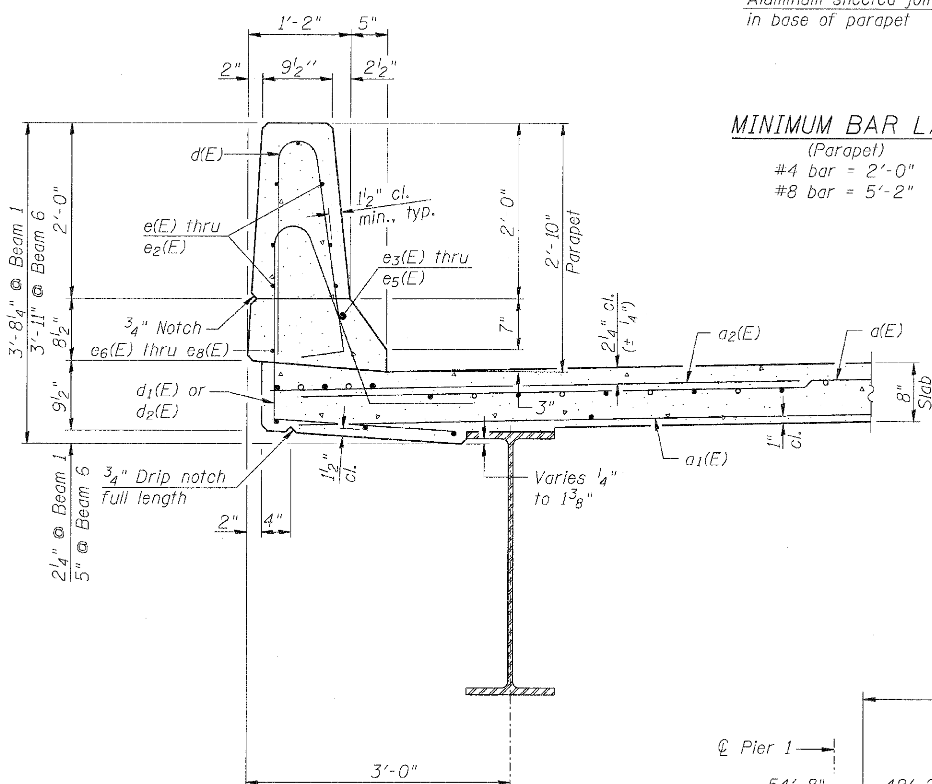
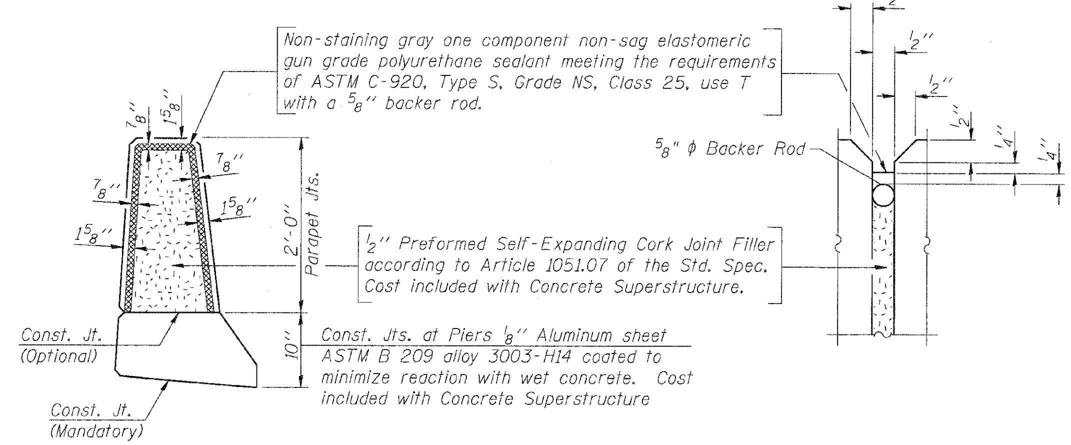


INSIDE ELEVATION OF PARAPET

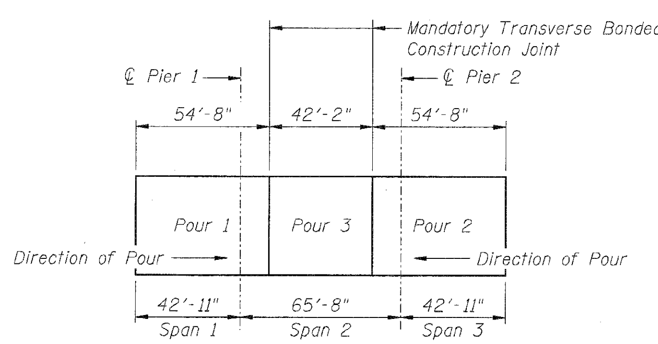


SECTION THRU PARAPET

MINIMUM BAR LAP
(Parapet)
#4 bar = 2'-0"
#8 bar = 5'-2"



PARAPET JOINT DETAILS

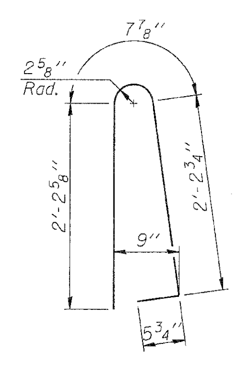


DECK POURING SEQUENCE

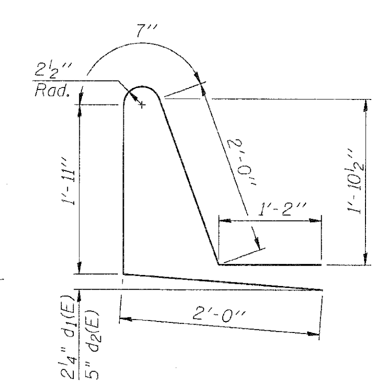
When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:

1. At least 72 hours shall have elapsed from the end of the previous pour.

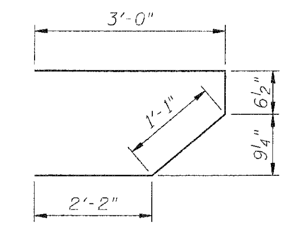
2. The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.



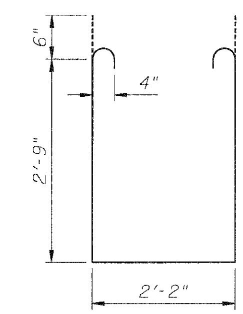
BAR d(E)



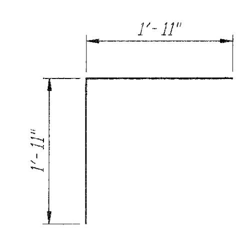
BAR d1(E) & d2(E)



BAR s(E)



BAR s1(E)



BAR v(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	608	#5	20'-0"	—
a_1(E)	366	#5	20'-0"	—
a_2(E)	608	#6	6'-6"	—
b(E)	270	#5	28'-0"	—
b_1(E)	84	#6	33'-2"	—
b_2(E)	252	#5	24'-5"	—
d(E)	332	#5	5'-7"	
d_1(E)	166	#5	7'-8"	
d_2(E)	166	#5	7'-8"	
e(E)	56	#4	17'-1"	—
e_1(E)	56	#4	7'-9"	—
e_2(E)	42	#4	16'-2"	—
e_3(E)	8	#8	19'-10"	—
e_4(E)	8	#8	7'-9"	—
e_5(E)	4	#8	27'-1"	—
e_6(E)	8	#4	18'-3"	—
e_7(E)	8	#4	7'-9"	—
e_8(E)	4	#4	25'-8"	—
m(E)	20	#6	20'-0"	—
m_1(E)	24	#6	8'-11"	—
m_2(E)	8	#6	6'-9"	—
m_3(E)	4	#6	2'-9"	—
m_4(E)	4	#6	3'-1"	—
s(E)	84	#5	6'-10"	
s_1(E)	84	#4	8'-8"	
v(E)	84	#5	3'-10"	
Reinforcement Bars, Epoxy Coated			Pound	54,260
Concrete Superstructure			Cu. Yd.	227.7

Bars indicated thus: 1x2-#8 etc. indicates 1 line of bars with 2 lengths per line.

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 053-0189

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CHECKED	LAS

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SHEET NO. 10 OF 26 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	68	(102)BR-1	LIVINGSTON	58	21
	SN 053-0189		CONTRACT NO. 66822		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
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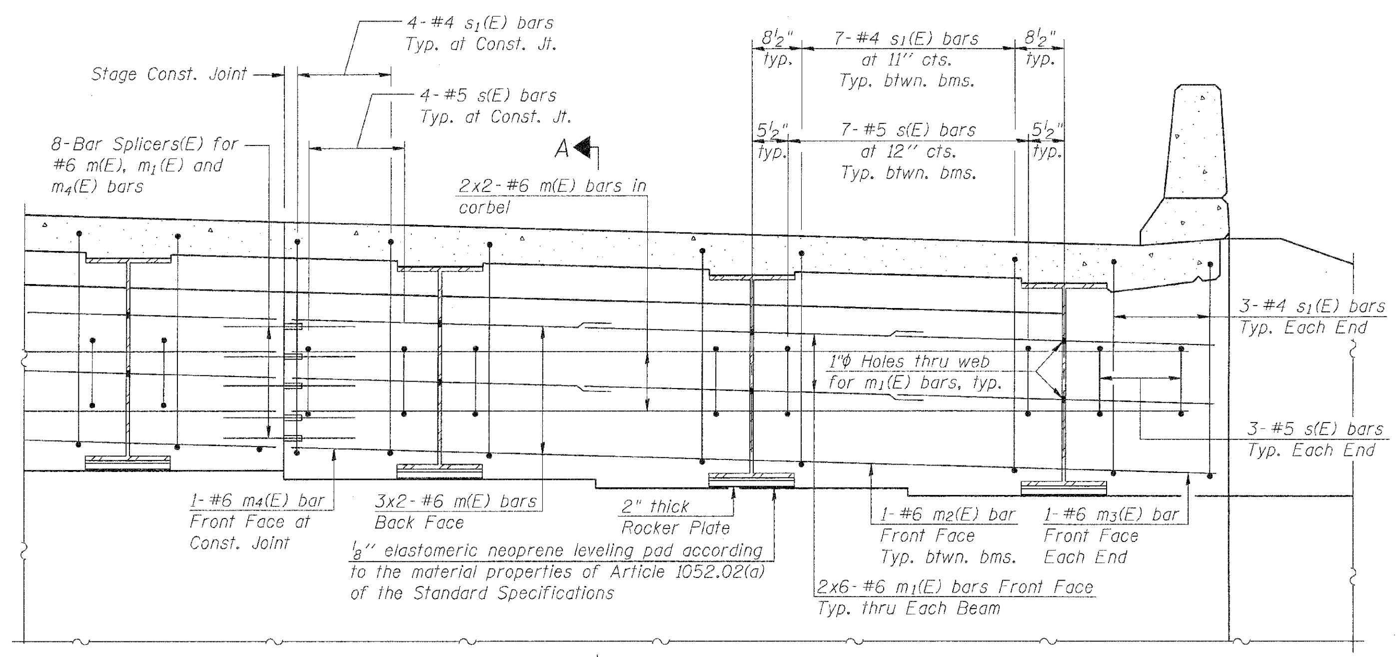
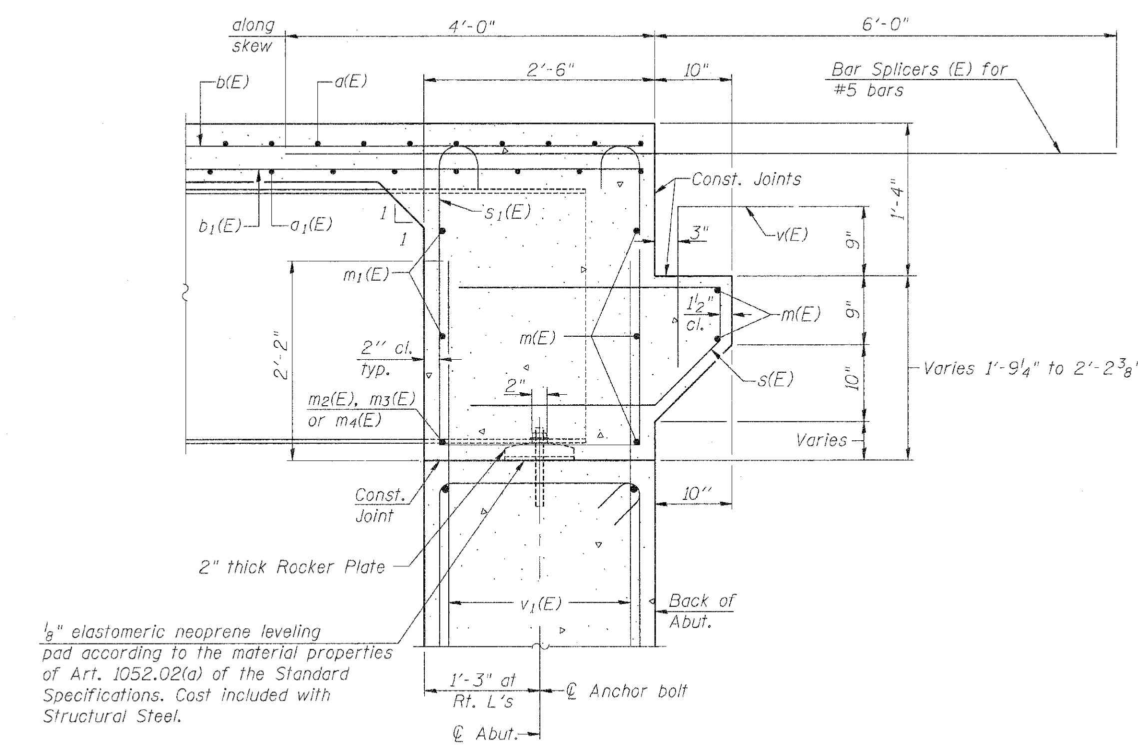


DIAPHRAGM ELEVATION AT ABUTMENT

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 10 of 26.
Concrete in diaphragm is included with Concrete Superstructure on sheet 10 of 26.
For details of bars s(E), s_1(E) & v(E) see sheet 10 of 26.
The s(E) and s_1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

MIN. BAR LAP
#6 bar = 3'-4"



SECTION A-A
Dimensions at right angles to abutment, except as shown.

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ABUTMENT DIAPHRAGM DETAILS
STRUCTURE NO. 053-0189

	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SHEET NO. 11	68	(102)BR-1	LIVINGSTON	58	22
OF 26 SHEETS		SN 053-0189	CONTRACT NO. 66822		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

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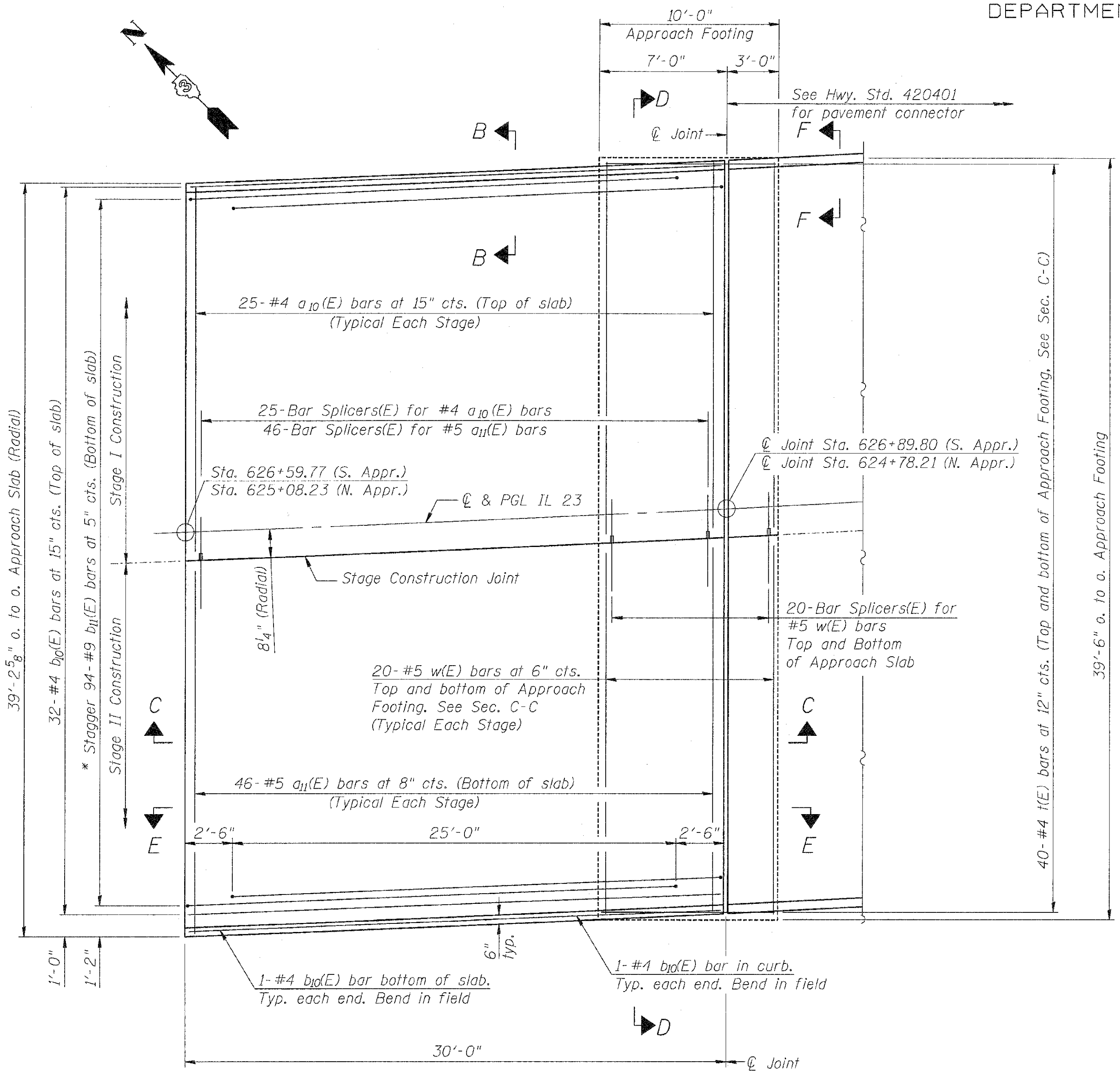
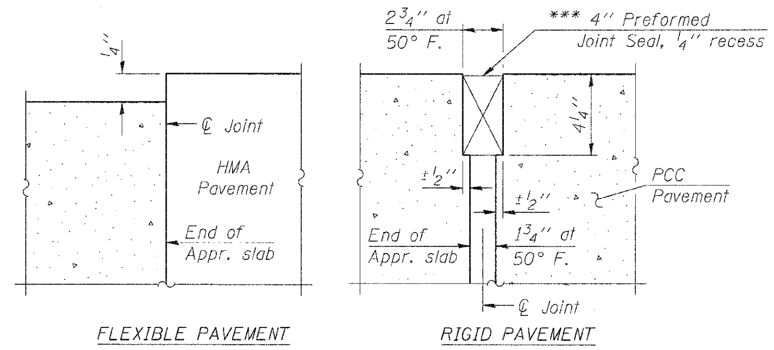
Notes:
See sheet 13 of 26 for Sections C-C & D-D and View E-E.
a_{10}(E) and a_{11}(E) bar spacings measured along ℄ Rdwy.

*** Cost included with Concrete Superstructure.

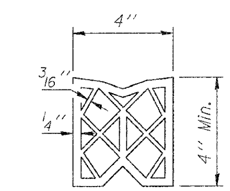


PLAN
(South Approach shown, North Approach similar)

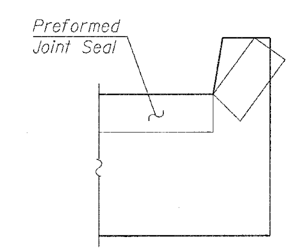
*Tilt #9 b_{11}(E) bars as required to maintain clearance.



DETAIL A

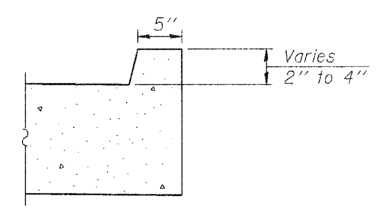


PREFORMED JOINT SEAL



VIEW F-F

Angle Preformed Joint Seal at 45° at curbs when req'd for drainage.



VIEW B-B

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(Sheet 1 of 2)
BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 053-0189

SHEET NO. 12	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	68	(102)BR-1	LIVINGSTON	58	23
OF 26 SHEETS	SN 053-0189		CONTRACT NO. 66822		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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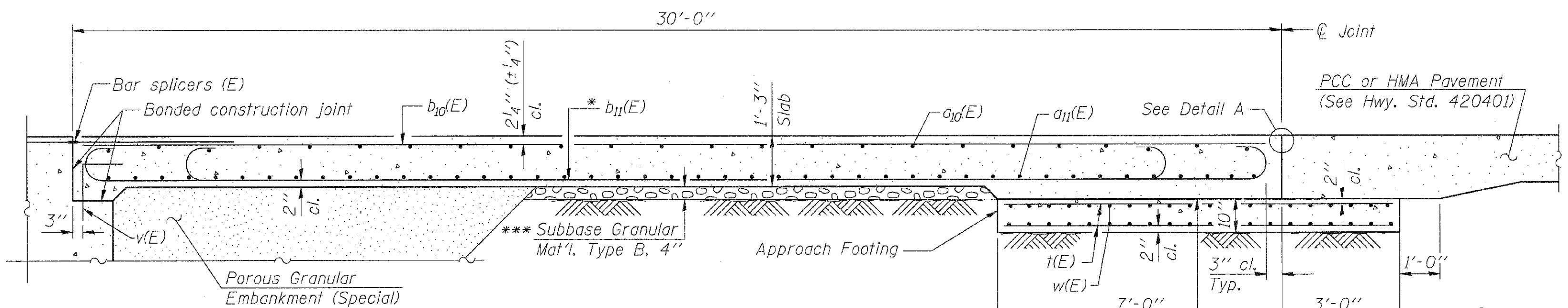
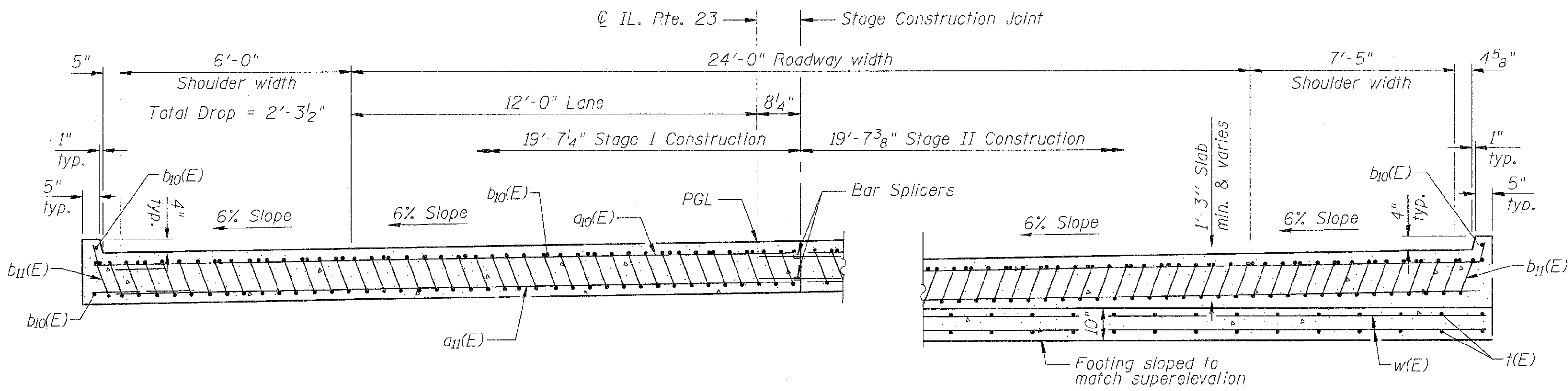
Notes:
See sheet 12 of 26 for Detail A.
Approach slab shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v(E) bar details, see sheets 10 & 11 of 26.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet 21 of 26.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 26.



SECTION C-C



* Tilt #9 $b_{11}(E)$ bars as required to maintain clearance.

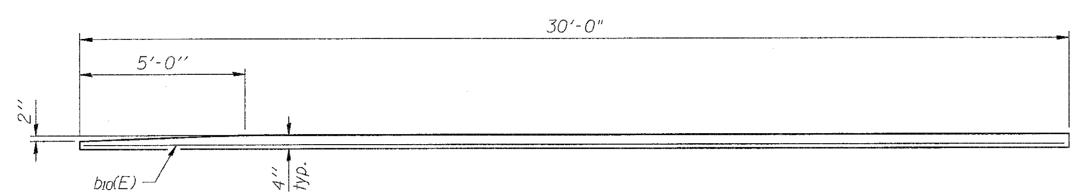
*** Cost included with Concrete Superstructure.

SECTION D-D
Horizontal dimensions are radial
(See Plan for dimensions not shown)

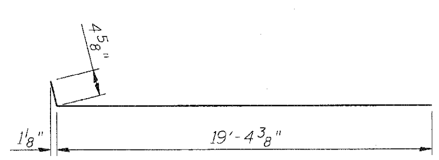
TWO APPROACHES BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$a_{10}(E)$	100	#4	19'-9"	
$a_{11}(E)$	184	#5	19'-3"	
$b_{10}(E)$	72	#4	29'-8"	
$b_{11}(E)$	188	#9	29'-9"	
f(E)	160	#4	9'-8"	
w(E)	160	#5	19'-4"	

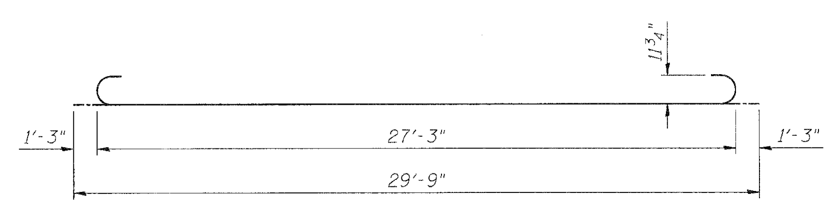
Concrete Superstructure	Cu. Yd.	112.4
Concrete Structures	Cu. Yd.	23.7
Reinforcement Bars, Epoxy Coated	Pound	29,720



VIEW E-E



BAR $a_{10}(E)$



BAR $b_{11}(E)$

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(Sheet 2 of 2)
BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 053-0189

SHEET NO. 13 OF 26 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	68	(102)BR-1	LIVINGSTON	58	24
	SN 053-0189		CONTRACT NO. 66822		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
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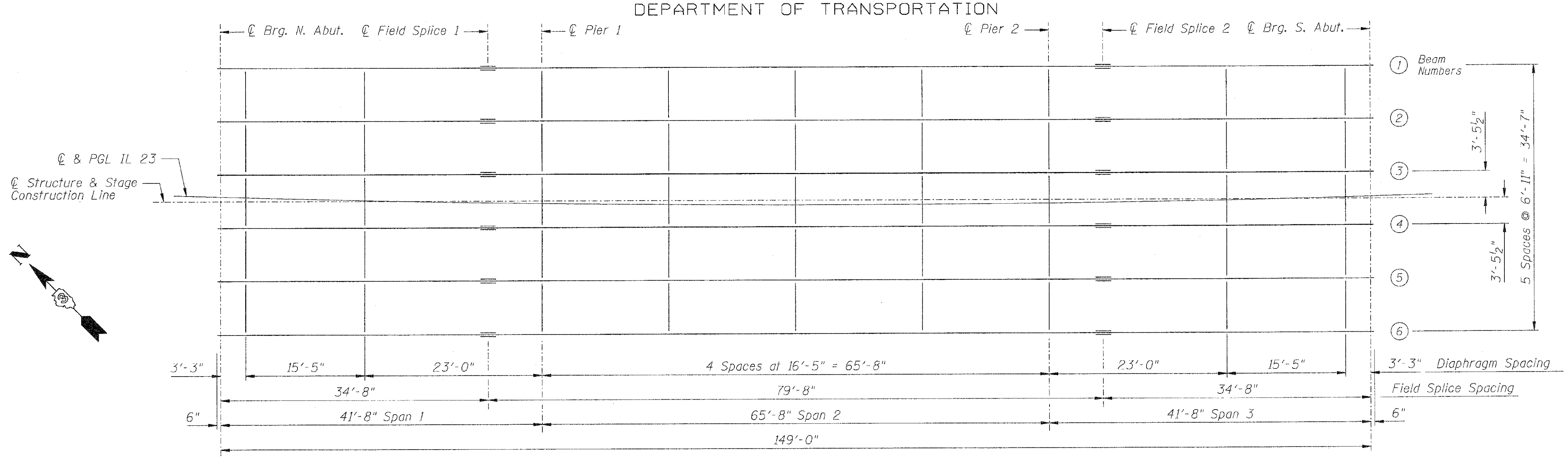
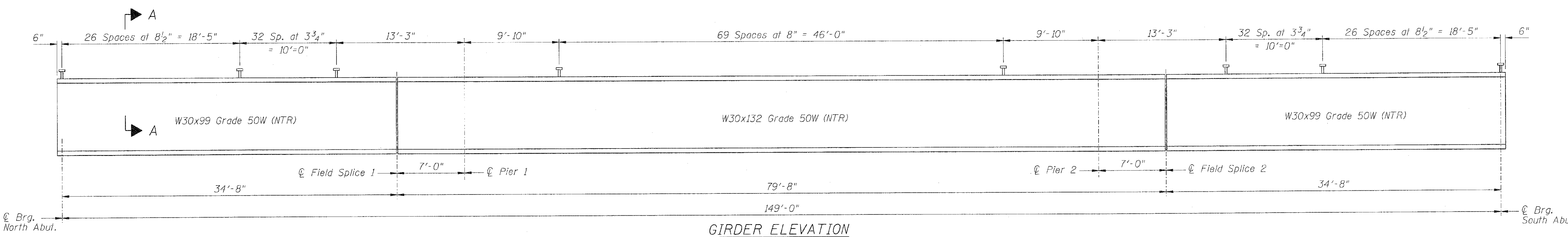


FRAMING PLAN



GIRDER ELEVATION

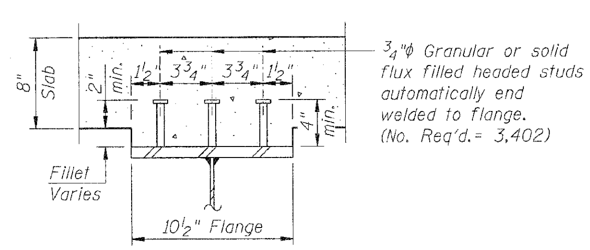
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

Notes:

All dimensions are horizontal.

End of girders, bearing stiffeners and connection plates shall be vertical.

Work this sheet with Sheets 15 & 16 of 26.



SECTION A-A

TOP OF BEAM ELEVATIONS

(For Fabrication Only)

Beam	℄ Brg. N. Abut.	℄ Field Splice 1	℄ Pier 1	℄ Pier 2	℄ Field Splice 2	℄ Brg. S. Abut.
1	601.642	601.748	601.794	602.224	602.270	602.618
2	602.058	602.164	602.210	602.638	602.684	603.031
3	602.474	602.580	602.626	603.054	603.099	603.444
4	602.891	602.995	603.041	603.468	603.513	603.857
5	603.307	603.411	603.457	603.882	603.927	604.271
6	603.723	603.827	603.872	604.296	604.341	604.684

The elevation shown at the ℄ Field Splice 1 and ℄ Field Splice 2 is the Top of Beam Elevation for the W30x132.

BILL OF MATERIAL

Item	Unit	Total
Stud Shear Connectors	Each	3,402

Note:

All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

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FRAMING PLAN
STRUCTURE NO. 053-0189

SHEET NO. 14 OF 26 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	68	(102)BR-1	LIVINGSTON	58	25
	SN 053-0189		CONTRACT NO. 66822		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

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INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1 or 0.6 Sp. 3	Pier	0.5 Sp. 2
I_s	(in⁴)	3990	5770	5770
$I_c(n)$	(in⁴)	12443		16364
$I_c(3n)$	(in⁴)	9262		11921
S_s	(in³)	269	380	380
$S_c(n)$	(in³)	428		576
$S_c(3n)$	(in³)	386		518
Z	(in³)		432	
DC1	(k/')	0.856	0.883	0.883
M_{DC1}	('k)	68.1	275.7	200.5
DC2	(k/')	0.15	0.15	0.15
M_{DC2}	('k)	16.6	34.6	44.4
DW	(k/')	0.311	0.311	0.311
M_{DW}	('k)	35.5	73.6	94.5
M_{LL+IM}	('k)	428.1	315.9	695.7
M_u (Strength I)	('k)	908.3	1051.1	1665.4
* $\phi_f M_n$, $\phi_f M_{nc}$	('k)	2238		2918
f_s DC1	(ksi)	3.08	8.80	6.40
f_s DC2	(ksi)	0.52	1.10	1.03
f_s DW	(ksi)	1.11	2.35	2.18
f_s 1.3(LL+IM)	(ksi)	15.61	13.11	18.83
f_s (Service II)	(ksi)	20.32	25.36	28.44
** f_s (Total)(Strength I)	(ksi)		38.84	
V_f	(k)	19.3		19.3

* Compact sections
** Non-Compact and slender sections

INTERIOR GIRDER REACTION TABLE			
		Abut.	Pier
R_{DC1}	(k)	11.2	53.4
R_{DC2}	(k)	2.2	8.7
R_{DW}	(k)	4.7	18.5
R_{LL+IM}	(k)	62.6	118.8
R_{Total}	(k)	80.7	199.4

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in.⁴ and in.³).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) due to short-term composite live loads (in.⁴ and in.³).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads (in.⁴ and in.³).

Z: Plastic Section Modulus of the steel section in non-composite areas. Omit line in Moment Table if not used in design calculations (in.³).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1}: 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.).

M_{DC2}: 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.).

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{LL+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
$1.25\,(M_{DC1} + M_{DC2}) + 1.5\,M_{DW} + 1.75\,M_{LL+IM}$

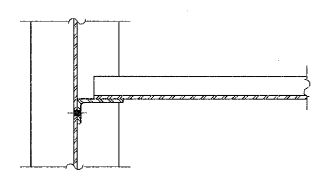
$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

$\phi_f M_{nc}$: Compact non-composite negative moment capacity computed according to Article A6.1.1 (kip-ft.).

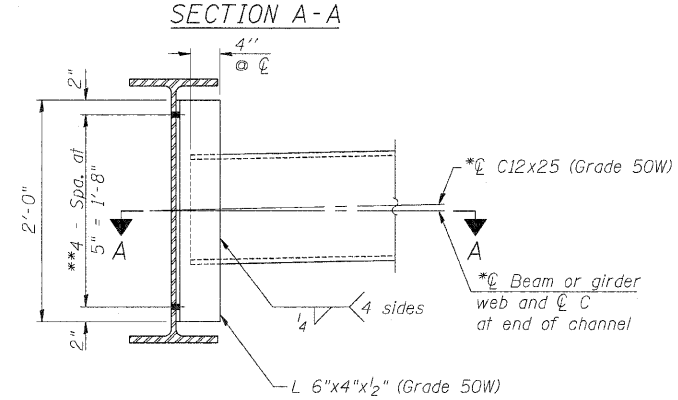
f_s (Service II): Sum of stresses as computed from the moments below (ksi).
$M_{DC1} + M_{DC2} + M_{DW} + 1.3\,M_{LL+IM}$

f_s (Total)(Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).
$1.25\,(M_{DC1} + M_{DC2}) + 1.5\,M_{DW} + 1.75\,M_{LL+IM}$

V_f: Maximum factored shear range in composite portion of span computed according to Article 6.10.10.

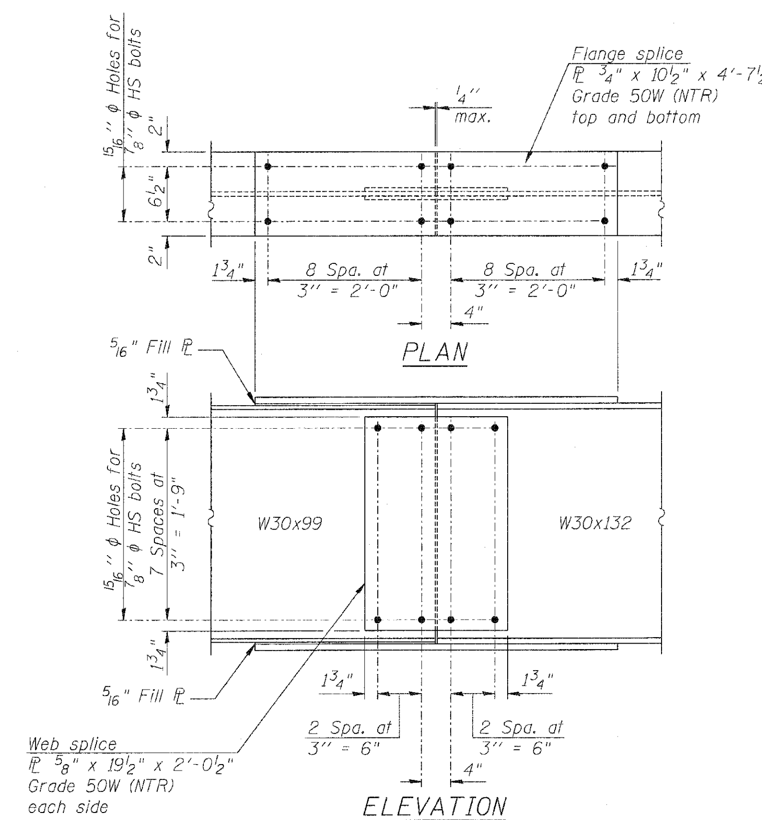


SECTION A-A



INTERIOR DIAPHRAGM

Note:
Two hardened washers required for each set of oversized holes.
*Alternate channels C12X30 are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.
The alternate, if utilized, shall be provided at no additional cost to the Department.
**3/4" ϕ HS bolts, 15/16" ϕ holes



SPLICE DETAIL
(12 Required)

Fasteners shall be AASHTO M164 Type 3 bolts.
Bolts 7/8" dia., holes 15/16" dia.

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

ZROKA engineering
Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

DESIGNED	LAS
CHECKED	JLA
DRAWN	SAW
CHECKED	LAS

STRUCTURAL STEEL DETAILS
STRUCTURE NO. 053-0189

SHEET NO. 15 OF 26 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	68	(102)BR-1	LIVINGSTON	58	26
	SN 053-0189		CONTRACT NO. 66822		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

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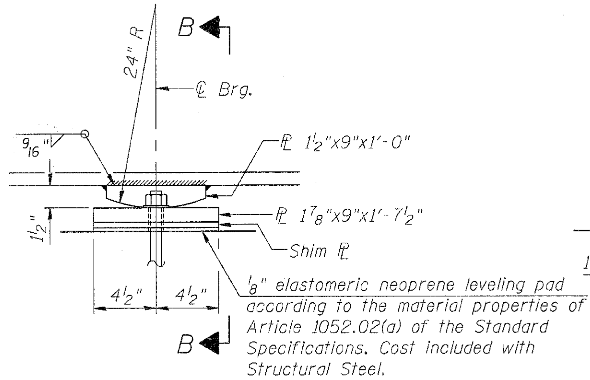
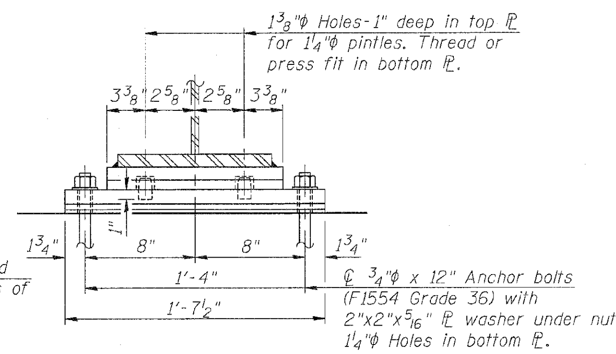
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

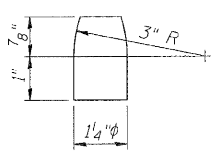


ELEVATION AT PIER



SECTION B-B

PIER BEARING DETAILS



PINTLE

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

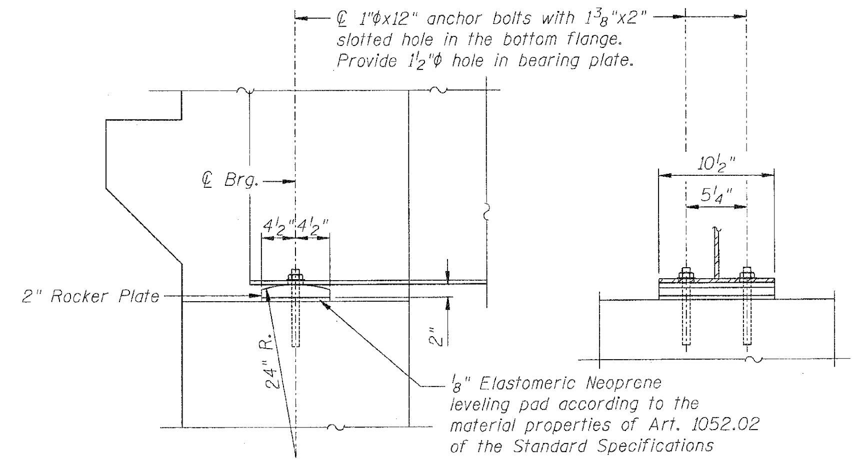
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50W.



ABUTMENT BEARING DETAILS

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 3/4"	Each	24
Anchor Bolts, 1"	Each	24

BEARING DETAILS
STRUCTURE NO. 053-0189

ZROKA engineering
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4216 North Hermitage
Chicago, IL 60613

DESIGNED	LAS
CHECKED	JLA
DRAWN	SAW
CHECKED	LAS

	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SHEET NO. 16	68	(102)BR-1	LIVINGSTON	58	27
OF 26 SHEETS		SN 053-0189	CONTRACT NO. 66822		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

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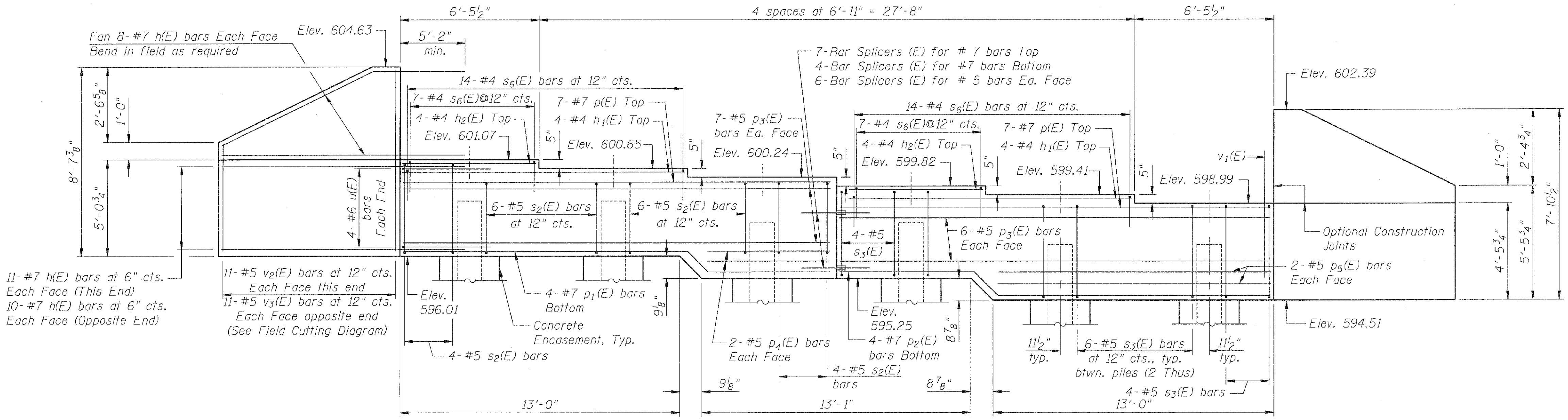
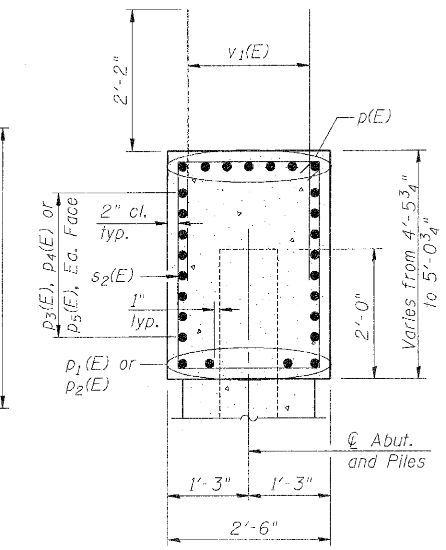
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes:
Pour steps monolithically with cap.



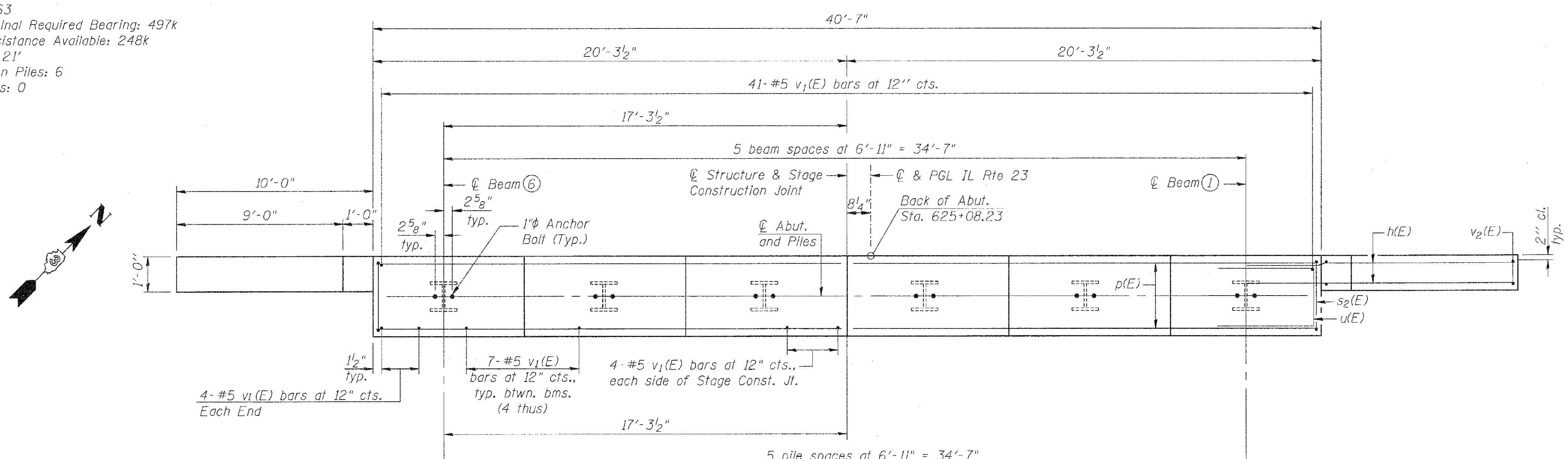
ELEVATION



SEC. THRU ABUT.

PILE DATA

Type: HP12x63
Nominal Required Bearing: 497k
Factored Resistance Available: 248k
Est. Length: 21'
No. Production Piles: 6
No. Test Piles: 0

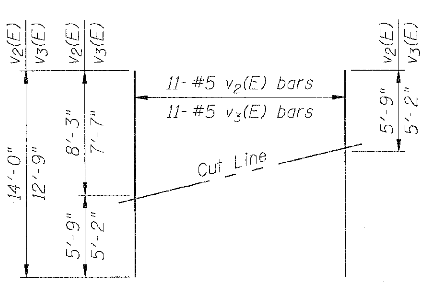


PLAN

BILL OF MATERIAL

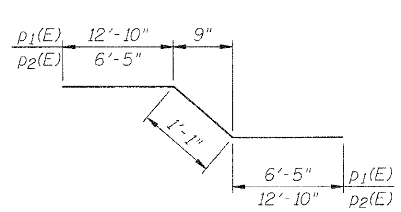
Bar	No.	Size	Length	Shape
h(E)	74	#7	15'-5"	
h_1(E)	8	#4	13'-1"	
h_2(E)	8	#4	6'-1"	
p(E)	14	#7	20'-0"	
p_1(E)	4	#7	20'-4"	
p_2(E)	4	#7	20'-4"	
p_3(E)	26	#5	20'-0"	
p_4(E)	4	#5	6'-9"	
p_5(E)	4	#5	13'-2"	
s_2(E)	20	#5	12'-11"	
s_3(E)	20	#5	11'-11"	
s_6(E)	42	#4	5'-8"	
v_1(E)	85	#5	4'-4"	
v_2(E)	11	#5	14'-0"	
v_3(E)	11	#5	12'-9"	
u(E)	8	#6	8'-7"	
Structure Excavation			Cu. Yd.	99
Concrete Structures			Cu. Yd.	23.2
Reinforcement Bars, Epoxy Coated			Pound	5,440
Furnishing Steel Piles, HP12x63			Foot	126
Driving Piles			Foot	126
Concrete Encasement			Cu. Yd.	2.0

For details of Bar Splicers, see sheet 21 of 26.
For details of piles and Concrete Encasement, see sheet 22 of 26.
Space reinforcement in cap to miss anchor bolts.

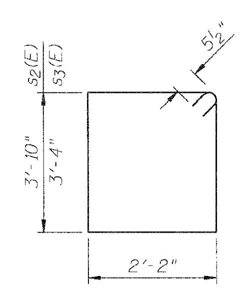


FIELD CUTTING DIAGRAM

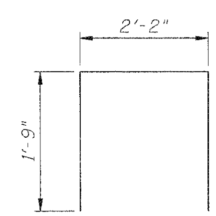
Order v_2(E) & v_3(E) full length. Cut as shown and use remainder of bars in opposite face.



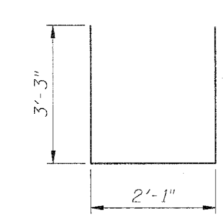
BAR p_1(E) & p_2(E)



BAR s_2(E) & s_3(E)



BAR s_6(E)



BAR u(E)

NORTH ABUTMENT
STRUCTURE NO. 053-0189

ZROKA engineering
Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

DESIGNED	LAS
CHECKED	JLA
DRAWN	SAW
CHECKED	LAS

AI-0 11-1-09

SHEET NO. 17 OF 26 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	68	(102)BR-1	LIVINGSTON	58	28
		SN 053-0189	CONTRACT NO. 66822		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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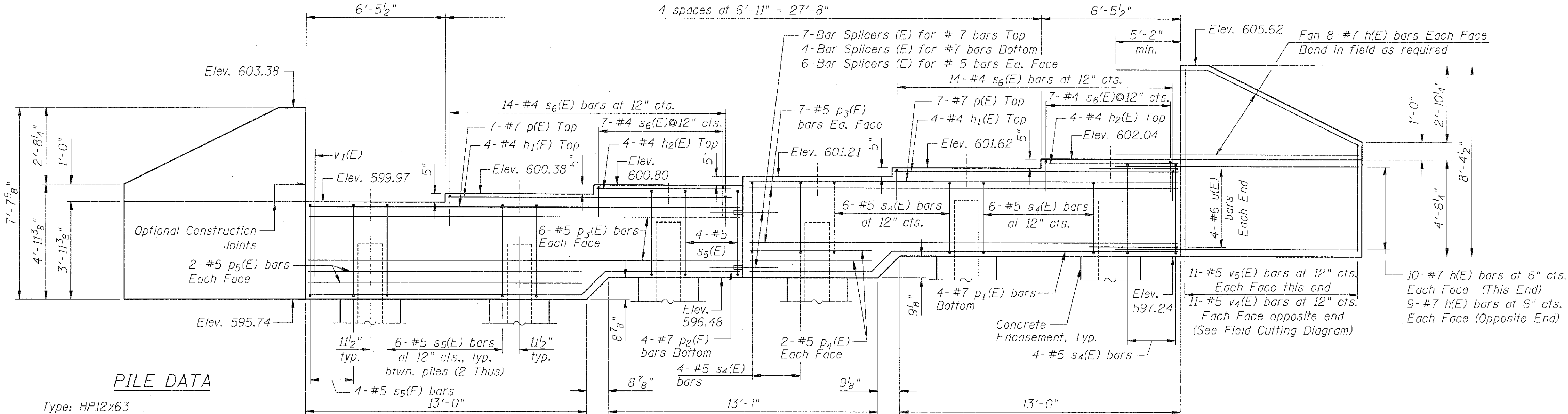
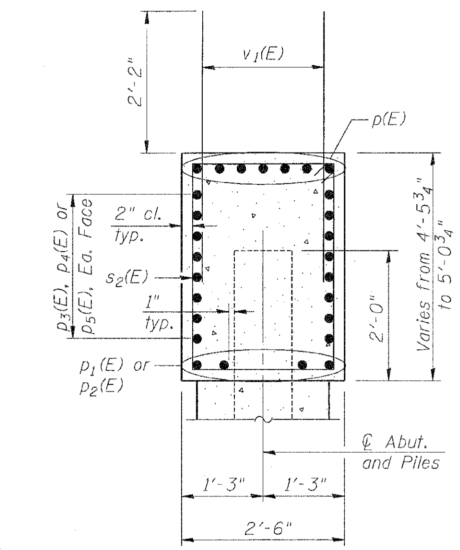
Notes:
Pour steps monolithically with cap.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



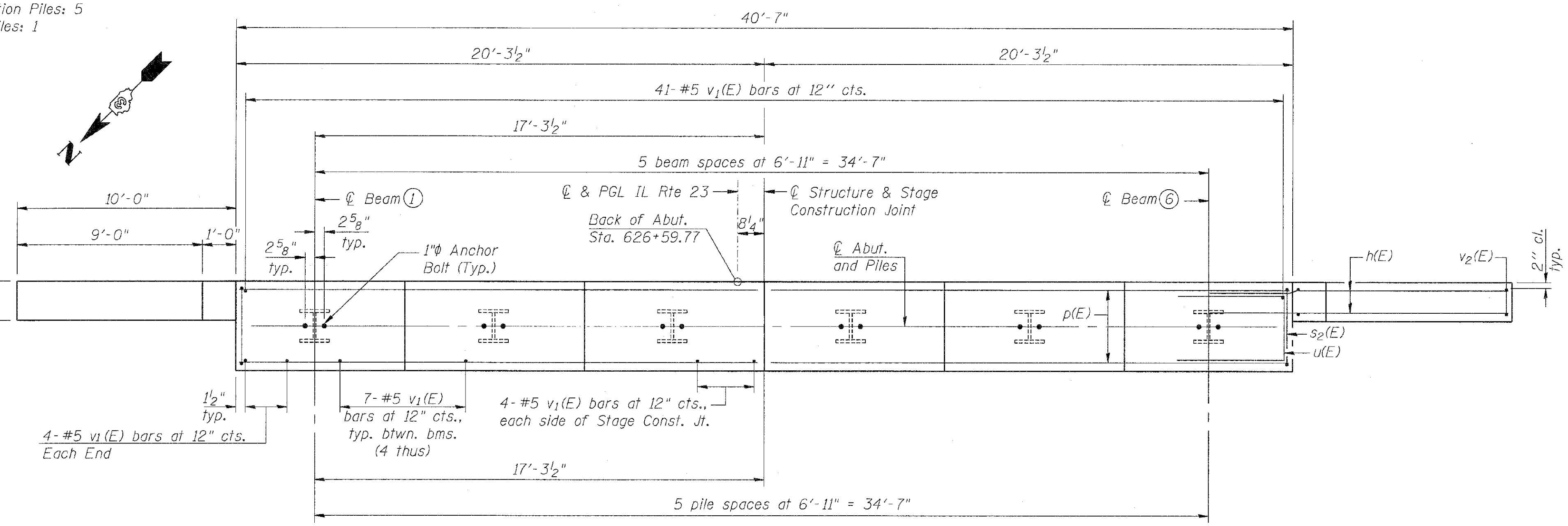
ELEVATION



SEC. THRU ABUT.

PILE DATA

Type: HP12x63
Nominal Required Bearing: 497k
Factored Resistance Available: 248k
Est. Length: 21'
No. Production Piles: 5
No. Test Piles: 1



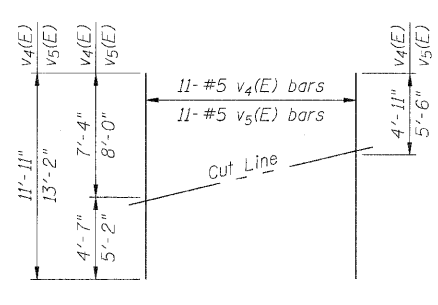
PLAN

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	70	#7	15'-5"	
h_1(E)	8	#4	13'-1"	
h_2(E)	8	#4	6'-1"	
p(E)	14	#7	20'-0"	
p_1(E)	4	#7	20'-4"	
p_2(E)	4	#7	20'-4"	
p_3(E)	26	#5	20'-0"	
p_4(E)	4	#5	6'-9"	
p_5(E)	4	#5	13'-2"	
s_4(E)	20	#5	12'-5"	
s_5(E)	20	#5	11'-5"	
s_6(E)	42	#4	5'-8"	
v_1(E)	85	#5	4'-4"	
v_4(E)	11	#5	11'-11"	
v_5(E)	11	#5	13'-2"	
u(E)	8	#6	8'-7"	

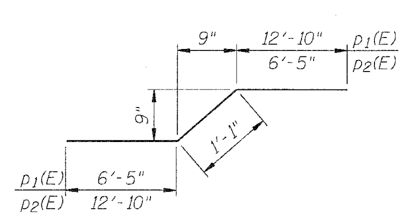
Structure Excavation	Cu. Yd.	107
Concrete Structures	Cu. Yd.	21.8
Reinforcement Bars, Epoxy Coated	Pound	5,270
Furnishing Steel Piles, HP12x63	Foot	105
Driving Piles	Foot	105
Test Pile, HP12x63	Each	1
Concrete Encasement	Cu. Yd.	2.0

For details of Bar Splicers, see sheet 21 of 26.
For details of piles and Concrete Encasement, see sheet 22 of 26.
Space reinforcement in cap to miss anchor bolts.

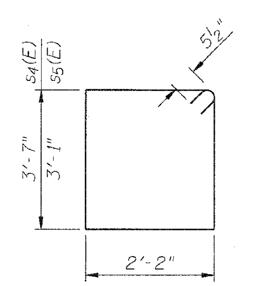


FIELD CUTTING DIAGRAM

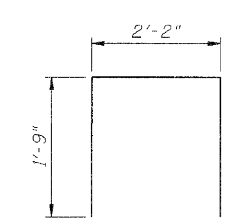
Order v_4(E) & v_5(E) full length. Cut as shown and use remainder of bars in opposite face.



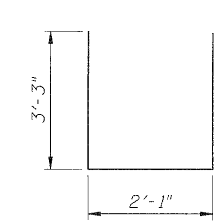
BAR p_1(E) & p_2(E)



BAR s_4(E) & s_5(E)



BAR s_6(E)



BAR u(E)

SOUTH ABUTMENT
STRUCTURE NO. 053-0189

ZROKA engineering
Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

DESIGNED	LAS
CHECKED	JLA
DRAWN	SAW
CHECKED	LAS
AI-0	11-1-09

SHEET NO. 18 OF 26 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	68	(102)BR-1	LIVINGSTON	58	29
	SN 053-0189		CONTRACT NO. 66822		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

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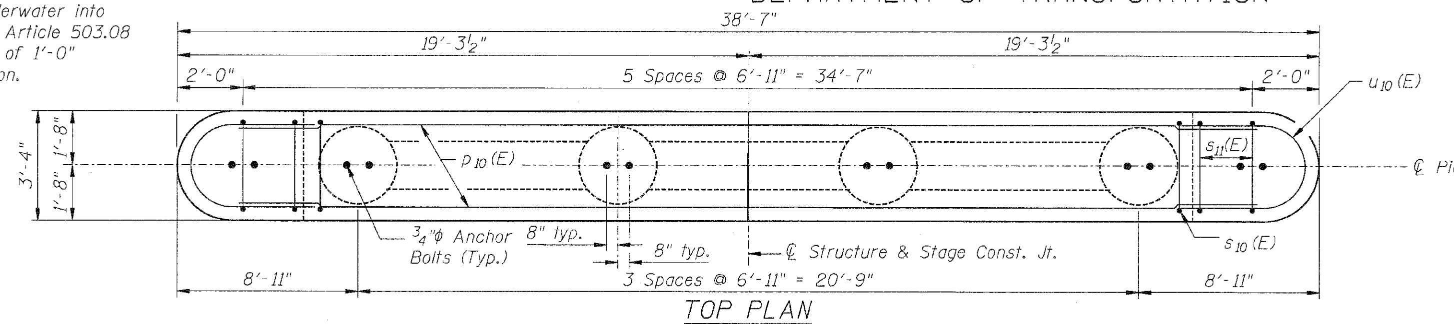
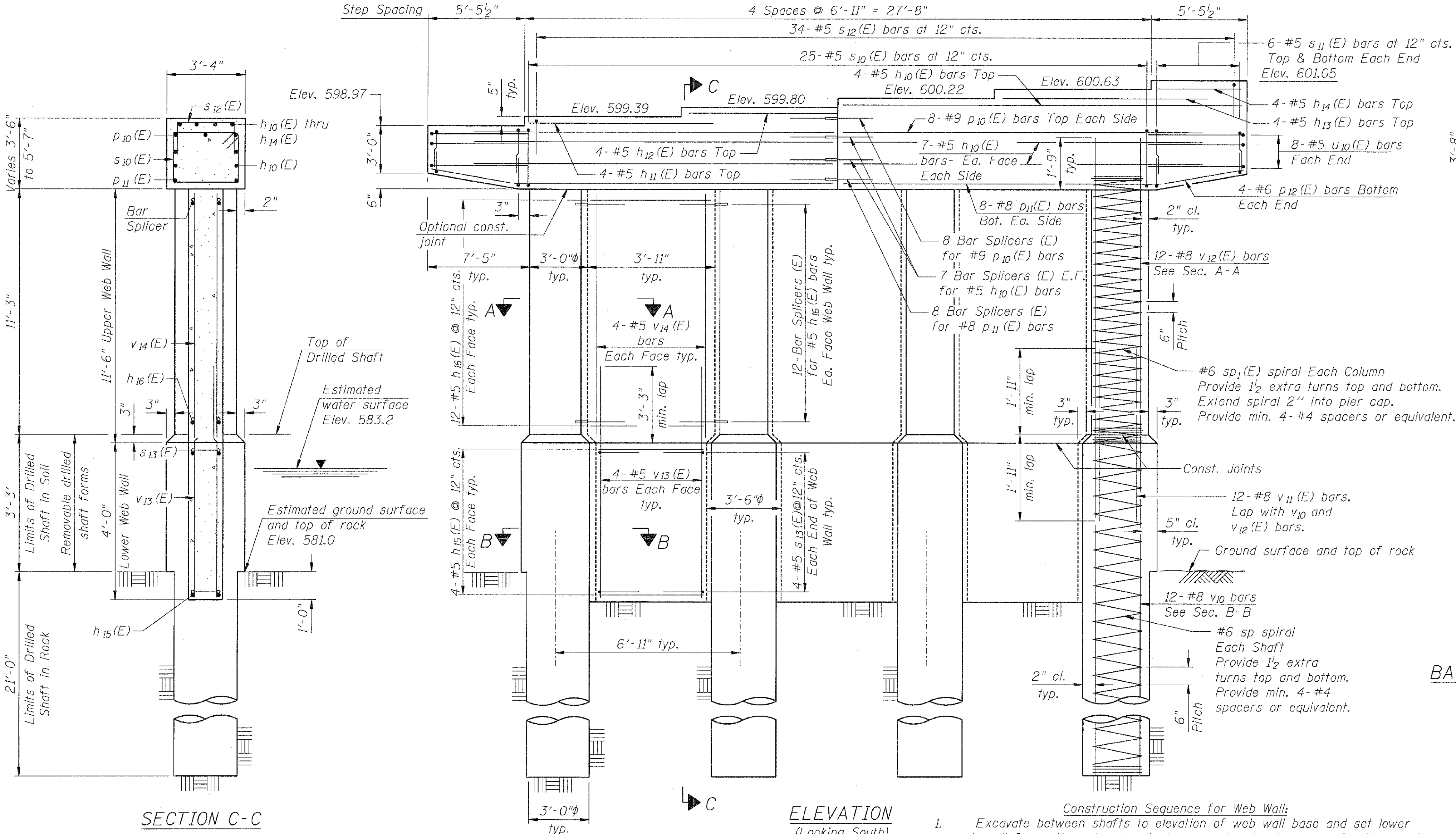
Note:
If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.

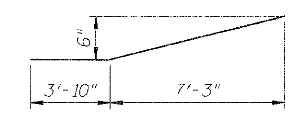


TOP PLAN

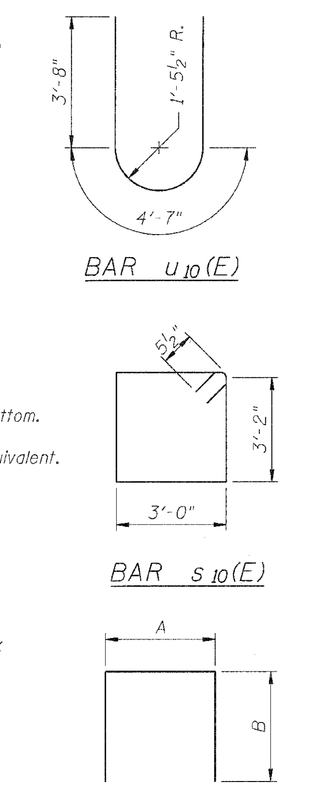


SECTION C-C

ELEVATION
(Looking South)

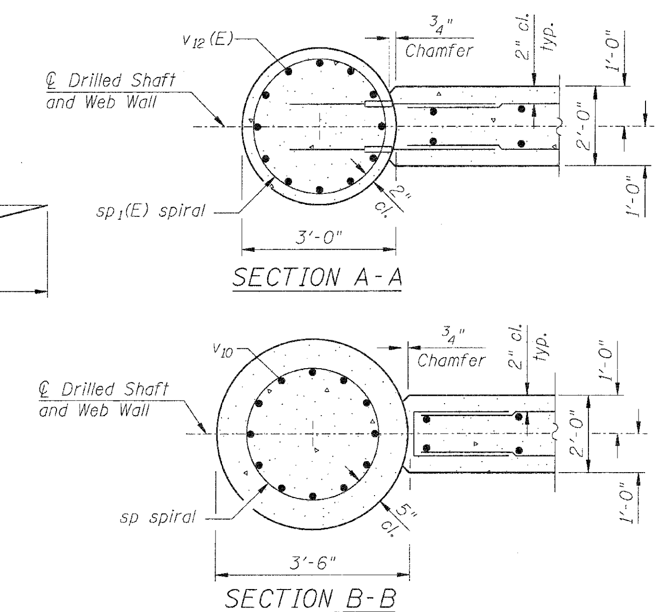


BAR p_{12}(E)



BARS s_{11}(E) thru s_{13}(E)

Bar	A	B
s_{11}(E)	3'-0"	2'-9"
s_{12}(E)	3'-0"	1'-9"
s_{13}(E)	1'-8"	2'-2"



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_{10}(E)	32	#5	19'-0"	——
h_{11}(E)	4	#5	13'-6"	——
h_{12}(E)	4	#5	6'-7"	——
h_{13}(E)	4	#5	12'-1"	——
h_{14}(E)	4	#5	5'-2"	——
h_{15}(E)	24	#5	3'-1"	——
h_{16}(E)	72	#5	3'-7"	——
p_{10}(E)	16	#9	19'-0"	——
p_{11}(E)	16	#8	11'-9"	——
p_{12}(E)	8	#6	11'-1"	
s_{10}(E)	25	#5	13'-3"	
s_{11}(E)	24	#5	8'-6"	⊔
s_{12}(E)	34	#5	6'-6"	⊔
s_{13}(E)	24	#5	6'-0"	⊔
** sp	4	#6	24'-3"	/\/\/\/\
** sp_1(E)	4	#6	11'-5"	/\/\/\/\
u_{10}(E)	16	#5	11'-11"	
v_{10}	48	#8	24'-3"	——
v_{11}(E)	48	#8	3'-10"	——
v_{12}(E)	48	#8	13'-0"	——
v_{13}(E)	24	#5	7'-3"	——
v_{14}(E)	24	#5	11'-0"	——
Concrete Structures			Cu. Yd.	46.0
Reinforcement Bars			Pound	5,740
Reinforcement Bars, Epoxy Coated			Pound	7,880
Underwater Structure Excavation Protection Location 1			Each	1
Structure Excavation			Cu. Yd.	2
Drilled Shaft in Soil			Cu. Yd.	4.6
Drilled Shaft in Rock			Cu. Yd.	22.0

Cast steps monolithically with cap.
Space cap reinforcement to miss anchor bolts.
Minimum lap for spirals = 3'-10"
** Length is height of spiral.

Construction Sequence for Web Wall:

1. Excavate between shafts to elevation of web wall base and set lower web wall forms through water to bear on the circular edge of drilled shafts. Secure in place with fill, struts or tie forms together as required.
2. Place the lower web wall reinforcement cage into the forms using spacers to maintain proper clearances.
3. If the forms can be sealed against the shafts and streambed to allow dewatering, the reinforcement and the concrete placement may be completed in the dry. Alternatively, the rebar cage can be lowered into position through water and the concrete discharged at the base of the excavation through a tremie pipe or pump hose, displacing water, sediment, and tainted concrete out the top of the forms.
4. Construct Columns.
5. Construct upper web walls.
6. Center web wall shall be constructed in Stage II.

* 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.

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Chicago, IL 60613

DESIGNED	LAS
CHECKED	JLA
DRAWN	SAW
CHECKED	LAS

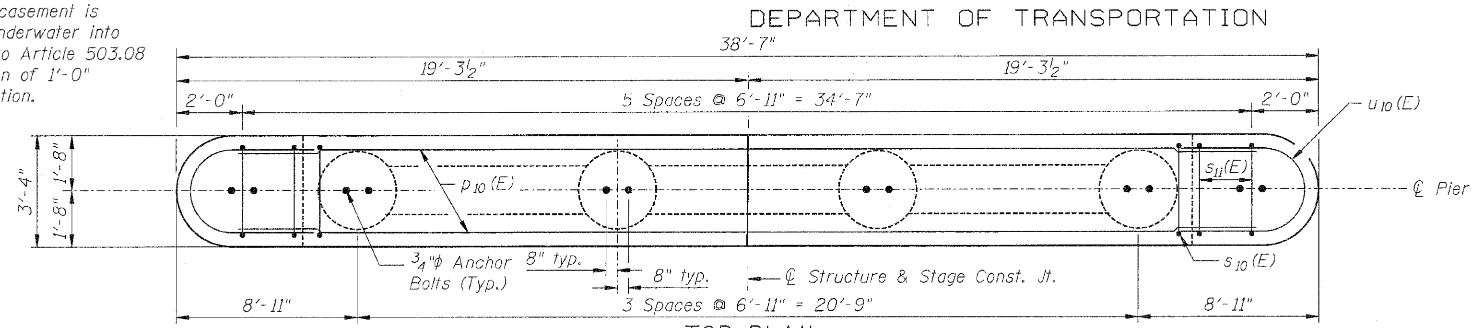
P-DSWW 11-1-09

PIER 1 DETAILS
STRUCTURE NO. 053-0189

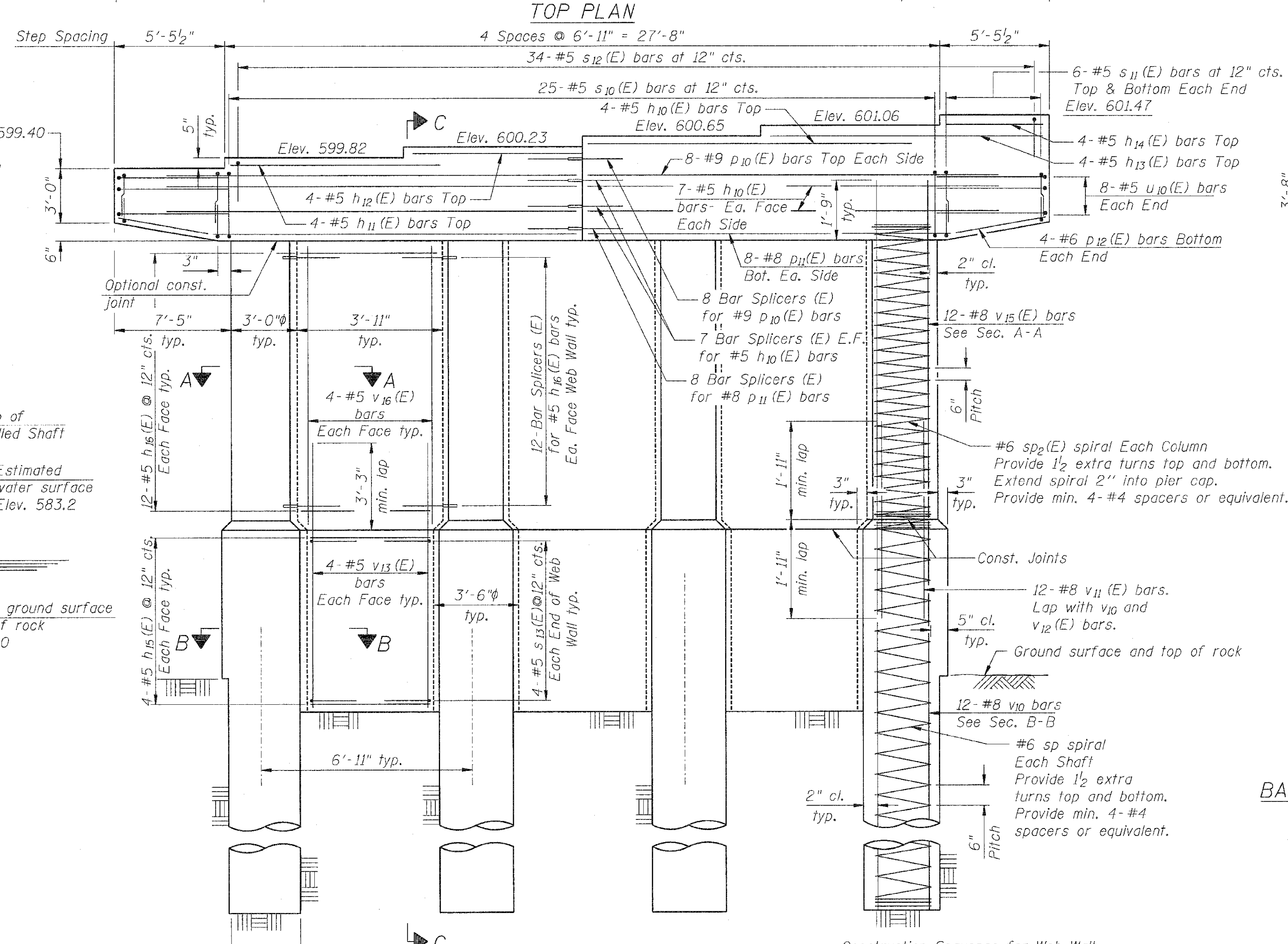
SHEET NO. 19 OF 26 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	68	(102)BR-1	LIVINGSTON	58	30
		SN 053-0189	CONTRACT NO. 66822		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

Note:
If a portion of the pier wall 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.

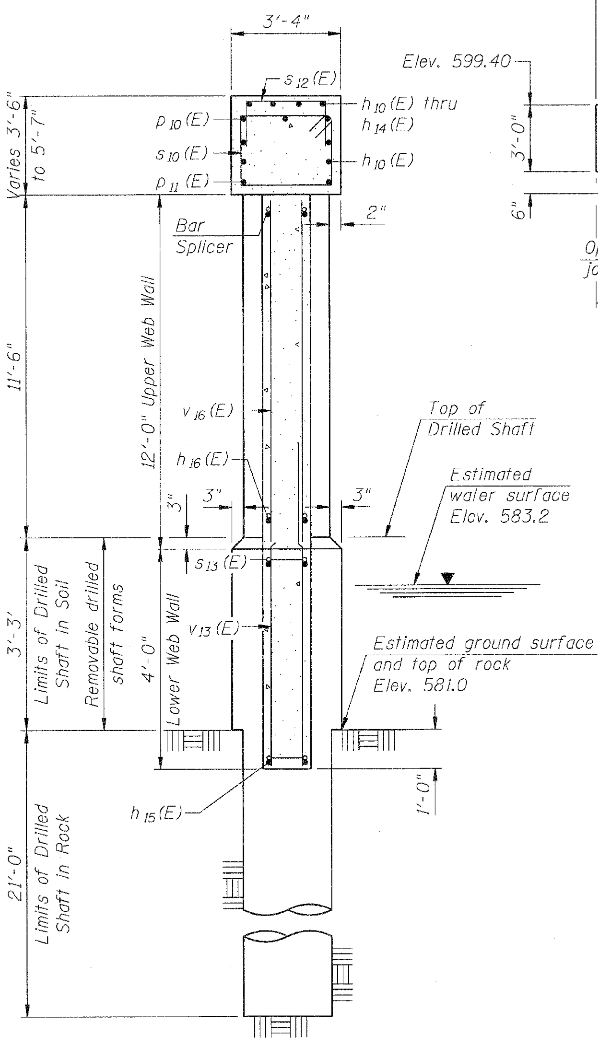
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



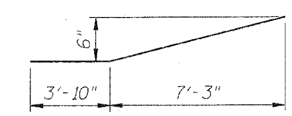
TOP PLAN



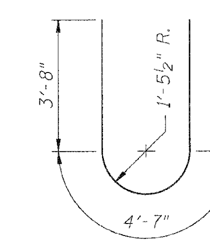
ELEVATION
(Looking South)



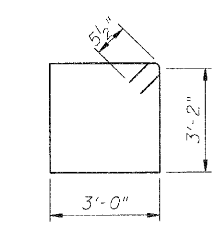
SECTION C-C



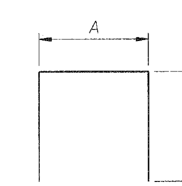
BAR p_{12}(E)



BAR u_{10}(E)

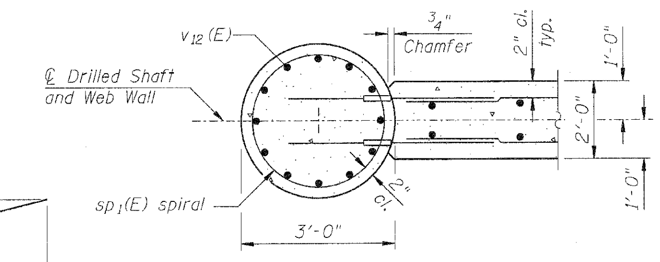


BAR s_{10}(E)

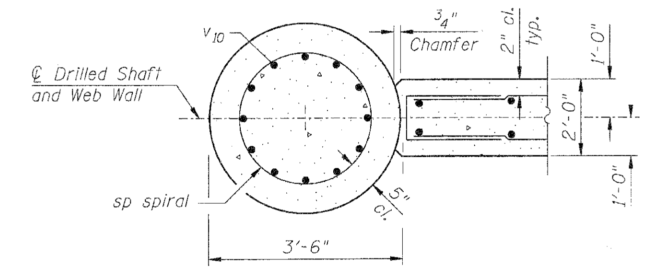


BARS s_{11}(E) thru s_{13}(E)

Bar	A	B
s_{11}(E)	3'-0"	2'-9"
s_{12}(E)	3'-0"	1'-9"
s_{13}(E)	1'-8"	2'-2"



SECTION A-A



SECTION B-B

BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
	h_{10}(E)	32	#5	19'-0"	——
	h_{11}(E)	4	#5	13'-6"	——
	h_{12}(E)	4	#5	6'-7"	——
	h_{13}(E)	4	#5	12'-1"	——
	h_{14}(E)	4	#5	5'-2"	——
	h_{15}(E)	24	#5	3'-1"	——
	h_{16}(E)	72	#5	3'-7"	——
	p_{10}(E)	16	#9	19'-0"	——
	p_{11}(E)	16	#8	11'-9"	——
	p_{12}(E)	8	#6	11'-1"	——/
	s_{10}(E)	25	#5	13'-3"	◻
	s_{11}(E)	24	#5	8'-6"	⊔
	s_{12}(E)	34	#5	6'-6"	⊔
	s_{13}(E)	24	#5	6'-0"	⊔
**	sp	4	#6	24'-3"	/\/\/\/\
**	sp_2(E)	4	#6	11'-8"	/\/\/\/\
	u_{10}(E)	16	#5	11'-11"	⊃
	v_{10}	48	#8	24'-3"	——
	v_{11}(E)	48	#8	3'-10"	——
	v_{13}(E)	24	#5	7'-3"	——
	v_{15}(E)	48	#8	13'-3"	——
	v_{16}(E)	24	#5	11'-3"	——
	Concrete Structures			Cu. Yd.	46.7
	Reinforcement Bars			Pound	5,740
	Reinforcement Bars, Epoxy Coated			Pound	7,970
	Underwater Structure Excavation Protection Location 2			Each	1
	Structure Excavation			Cu. Yd.	2
	Drilled Shaft in Soil			Cu. Yd.	4.6
	Drilled Shaft in Rock			Cu. Yd.	22.0

Cast steps monolithically with cap.
Space cap reinforcement to miss anchor bolts.
Minimum lap for spirals = 3'-10"
** Length is height of spiral.

* 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.

Construction Sequence for Web Wall:

1. Excavate between shafts to elevation of web wall base and set lower web wall forms through water to bear on the circular edge of drilled shafts. Secure in place with fill, struts or tie forms together as required.
2. Place the lower web wall reinforcement cage into the forms using spacers to maintain proper clearances.
3. If the forms can be sealed against the shafts and streambed to allow dewatering, the reinforcement and the concrete placement may be completed in the dry. Alternatively, the rebar cage can be lowered into position through water and the concrete discharged at the base of the excavation through a tremie pipe or pump hose, displacing water, sediment, and tainted concrete out the top of the forms.
4. Construct Columns.
5. Construct upper web walls.
6. Center web wall shall be constructed in Stage II.

PIER 2 DETAILS
STRUCTURE NO. 053-0189

ZROKA engineering
Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

DESIGNED	LAS
CHECKED	JLA
DRAWN	SAW
CHECKED	LAS

P-DSWW 11-1-09

SHEET NO. 20 OF 26 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	68	(102)BR-1	LIVINGSTON	58	31
	SN 053-0189		CONTRACT NO. 66822		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

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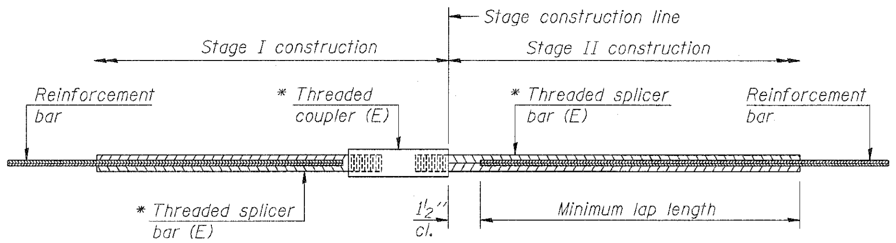
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STANDARD BAR SPLICER ASSEMBLY

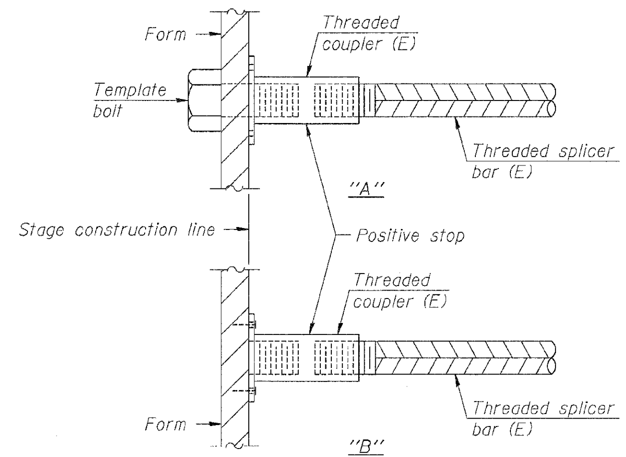
Minimum Lap Lengths				
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C

Threaded splicer bar length = min. lap length + 1½" + thread length

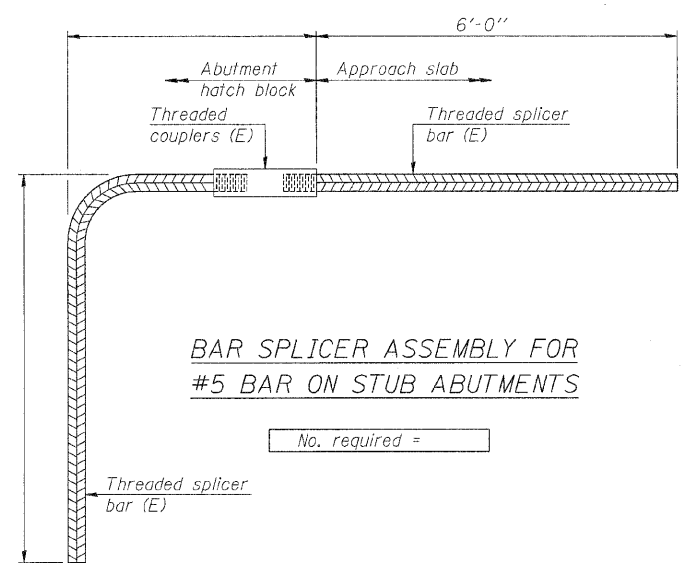
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Deck a(E) bars	5	304	3
Deck a_1(E) bars	5	183	3
2-Approach slabs a_{10}(E) bars	4	50	4
2-Approach slabs a_{11}(E) bars	5	92	3
2-Approach footings w(E) bars	5	80	3
2-Abutments Top p(E) bars	7	14	4
2-Abutments Bottom p(E) or p_1(E) bars	7	8	3
2-Abutments Each Face p_3(E) bars	5	24	4
2-Abutment Diaphragms m(E) bars	6	16	4
2-Piers p_{10}(E) bars	9	16	4
2-Piers h_{10}(E) bars	5	28	4
2-Piers p_{11}(E) bars	8	16	3
2-Piers h_{16}(E) bars	5	288	4



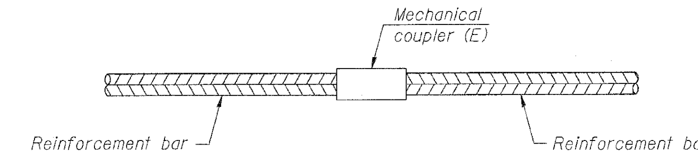
INSTALLATION AND SETTING METHODS

"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.



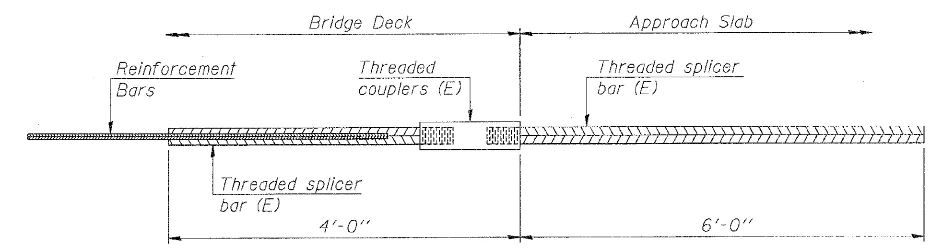
BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required = 90

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 special provision for Mechanical Splicers.

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

ZROKA engineering — Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613

DESIGNED	LAS
CHECKED	JLA
DRAWN	SAW
CHECKED	LAS

BSD-1 11-1-09

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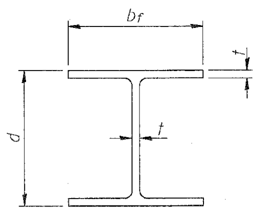
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS STRUCTURE NO. 053-0189

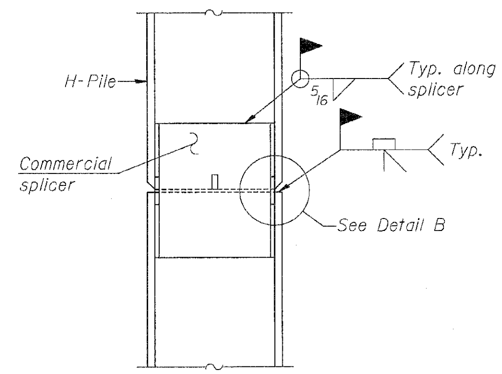
SHEET NO. 21 OF 26 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	68	(102)BR-1	LIVINGSTON	58	32
		SN 053-0189	CONTRACT NO. 66822		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

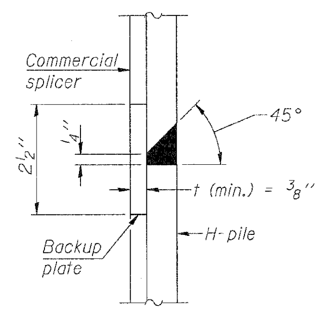


STEEL PILE TABLE

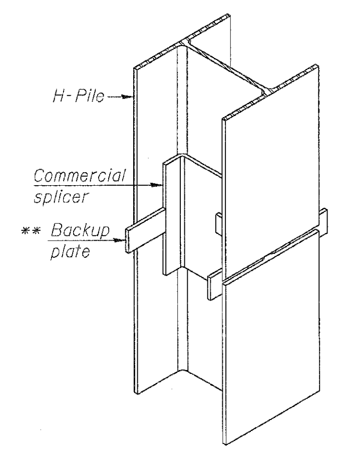
Designation	Depth d	Flange width b_f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53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

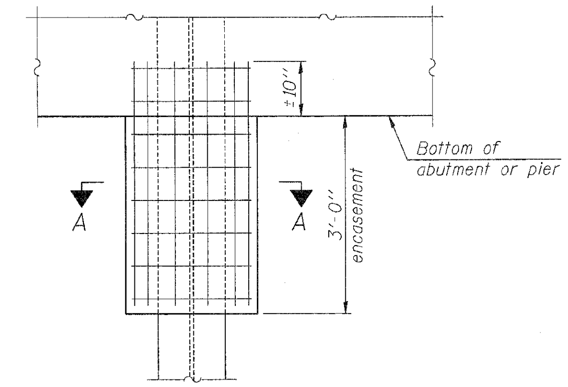


DETAIL "B"

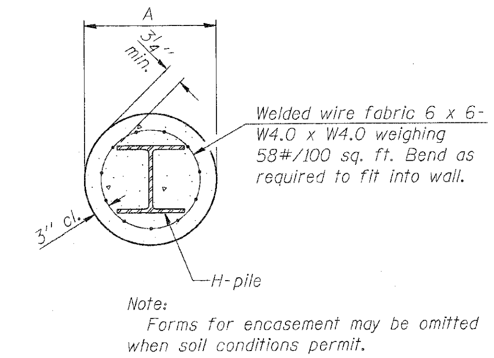


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



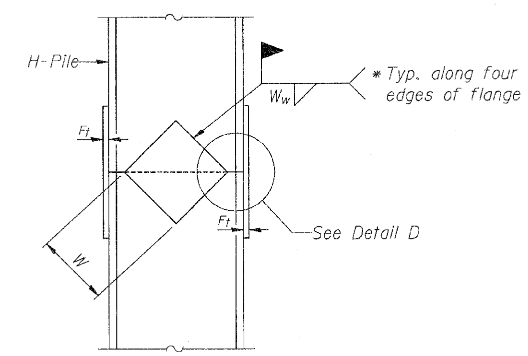
ELEVATION



Note:
Forms for encasement may be omitted when soil conditions permit.

SECTION A-A

PILE ENCASEMENT



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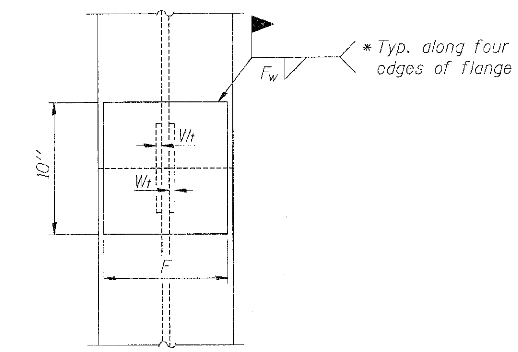
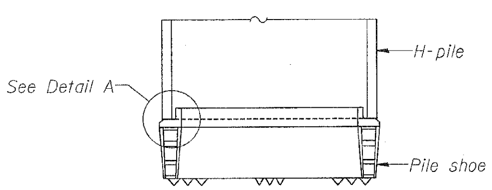


END VIEW



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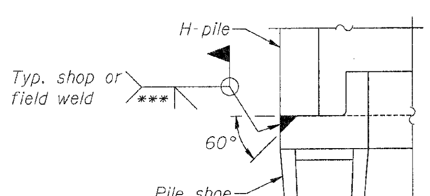
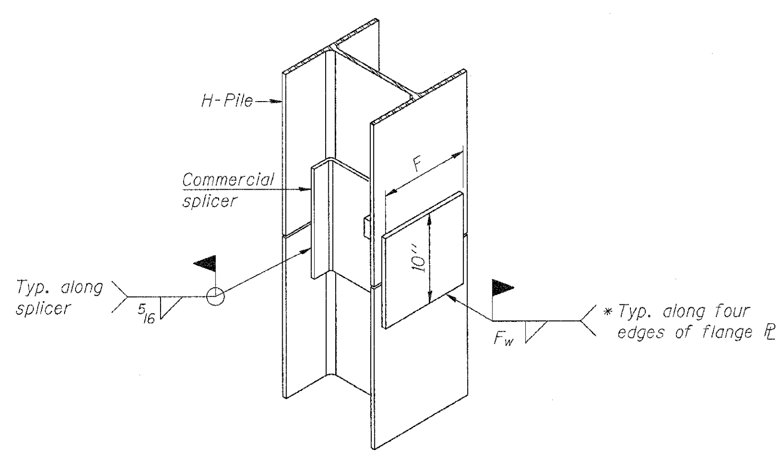


DETAIL A

H-PILE SHOE ATTACHMENT

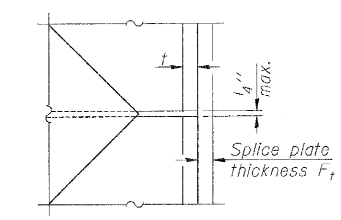


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

Designation	F	F_t	F_w	W	W_t	W_w
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"	11/16"	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"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	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"

WELDED PLATE FIELD SPLICE



DETAIL D

* 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.)

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

HP PILE DETAILS
STRUCTURE NO. 053-0189

ZROKA engineering
Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

DESIGNED	LAS
CHECKED	JLA
DRAWN	SAW
CHECKED	LAS

F-HP 11-1-09

SHEET NO. 22 OF 26 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	68	(102)BR-1	LIVINGSTON	58	33
	SN 053-0189		CONTRACT NO. 66822		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING B-1

Illinois Department of Transportation
Division of Highways
District #3, Ottawa

SOIL BORING LOG

Page 1 of 1

Date 9/4/73

ROUTE FA 24 (IL 23) DESCRIPTION IL 23 over Short Point Creek LOGGED BY W. Beck

SECTION 102 B-1 LOCATION SE 1/4, SE 1/4, SEC. 8, TWP. 29N, RNG.4E

COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 053-0161
Station 625+82

BORING NO. 1 (S. Abut.)
Station 626+50
Offset 15.00ft Rt.
Ground Surface Elev. 590.80 ft

Surface Water Elev. 582.50 ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter ft
Upon Completion 570.8 ft ▽
After 24 Hrs. 581.8 ft ▼

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Stiff, Dark Brown, Silty Clay			2		
			2	2.8	19.0
	586.80		3	P	
Medium, Yellow/Brown, Clay Loam to Silty Clay Loam		-5	4		
			6	0.3	20.0
			5	S	
	582.80		5	0.6	18.0
Dense, Light Gray, Shale			31	S	
		▽	61		10.0
		-10	100/		
			8"		9.0
			100/		
			8"		
		-15	100/		
			10"		
	570.80 ▽	-20			
Coal and Underclay			15		
			20		12.0
	569.30		32		
End of Boring		-25			
		-30			
		-35			
		-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

SOIL BORING B-2

Illinois Department of Transportation
Division of Highways
District #3, Ottawa

SOIL BORING LOG

Page 1 of 1

Date 9/4/73

ROUTE FA 24 (IL 23) DESCRIPTION IL 23 over Short Point Creek LOGGED BY W. Beck

SECTION 102 B-1 LOCATION SE 1/4, SE 1/4, SEC. 8, TWP. 29N, RNG.4E

COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 053-0161
Station 625+82

BORING NO. 2
Station 626+21
Offset 4.00ft Lt.
Ground Surface Elev. 589.70 ft

Surface Water Elev. 582.50 ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter ft
Upon Completion 579.7 ft ▽
After 24 Hrs. 581.7 ft ▼

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Stiff, Light Brown, Silty Clay		-5	2		
			3	2.3	24.0
			6	P	
	582.70				
Medium, Dark Brown, Clay Loam			10		
	581.70 ▼				
Dense, Light Gray, Shale			20	0.8	18.0
			27	P	12.0
		▽ -10	50/		
			8"		10.0
			56/		
			6"		
		-15	30		
			40/6"		15.0
	571.70		18		
Hard, Tan, Clay			30	5.0	15.0
			30	S	
		-20			
Hard, Tan, Clay *(continued)*			20		
			25	4.2	15.0
			48	S	
	566.70				
Dense, Greenish/Gray, Shale	566.20		--	--	--
End of Boring		-25	100/		
			3"		15.0
		-30			
		-35			
		-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

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ZROKA engineering
Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

DESIGNED	LAS
CHECKED	JLA
DRAWN	SAW
CHECKED	LAS

BORING LOGS 1
STRUCTURE NO. 053-0189

SHEET NO. 23 OF 26 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	68	(102)BR-1	LIVINGSTON	58	34
	SN 053-0189		CONTRACT NO. 66822		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING B-3

Illinois Department of Transportation
Division of Highways
District #3, Ottawa

SOIL BORING LOG

Page 1 of 1

Date 9/5/73

ROUTE FA 24 (IL 23) DESCRIPTION IL 23 over Short Point Creek LOGGED BY W. Beck

SECTION 102 B-1 LOCATION SE 1/4, SE 1/4, SEC. 8, TWP. 29N, RNG. 4E

COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 053-0161
Station 625+82

BORING NO. 3
Station 625+53
Offset 20.00ft Lt.
Ground Surface Elev. 587.80 ft

Surface Water Elev. 582.50 ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter ft
Upon Completion Dry ft
After 3 Hrs. 581.8 ft ▽

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Stiff, Brown, Sandy Clay					
			3		
			4	1.5	22.0
			5	P	
	583.30				
Medium, Yellow/Brown, Sandy Gravel		-5	6		
	581.80 ▽		6		13.0
Dense, Gray, Thin Bedded Shale			14		12.0
			100/ 8"		10.0
		-10	50/4"		
			21		
			50/5"		
	573.30				
Medium to Dense, Black, Coal		-15	31		27.0
	572.30				
Very Stiff, Light Gray/Brown, Clay			50/6"		
				2.4	13.0
				S	
	570.80				
Dense, Light Green/Gray, Shale			15		
			26		12.0
			33		
		-20			
Dense, Light Green/Gray, Shale *(continued)*			50/8"		
					8.0
			--	--	--
		-25	50/1"		
	562.30				
End of Boring					
		-30			
		-35			
		-40			

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

BBS, from 137 (Rev. 8-99)

SOIL BORING B-4

Illinois Department of Transportation
Division of Highways
District #3, Ottawa

SOIL BORING LOG

Page 1 of 1

Date 9/5/73

ROUTE FA 24 (IL 23) DESCRIPTION IL 23 over Short Point Creek LOGGED BY W. Beck

SECTION 102 B-1 LOCATION SE 1/4, SE 1/4, SEC. 8, TWP. 29N, RNG. 4E

COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 053-0161
Station 625+82

BORING NO. 4
Station 625+18
Offset 15.00ft Lt.
Ground Surface Elev. 588.50 ft

Surface Water Elev. 582.50 ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter ft
Upon Completion Dry ft
After Hrs. ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Stiff, Brown, Sandy Clay					
			4		
			2	1.5	16.0
			3	P	
	584.00				
Medium, Yellow/Brown, Clay Loam		-5	5		
	582.50		5		11.0
Dense, Gray, Shale			29		12.0
			50/5"		
		-10	50/5"		
					9.0
			32		
			50/6"		
	574.00				
Dense, Dark Brown, Coal		-15	50/5"		
	572.50				10.0
Hard, Very Light Gray, Clay			20		
			28	4.5	11.0
			49	P	
	569.00				
Dense, Greenish Gray, Shale		-20			
Dense, Greenish Gray, Shale *(continued)*			18		
	567.50		52/5"		
End of Boring					
		-25			
		-30			
		-35			
		-40			

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

BBS, from 137 (Rev. 8-99)

ZROKA engineering
Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

DESIGNED	LAS
CHECKED	JLA
DRAWN	SAW
CHECKED	LAS

BORING LOGS 2
STRUCTURE NO. 053-0189

	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SHEET NO. 24	68	(102)BR-1	LIVINGSTON	58	35
OF 26 SHEETS	SN 053-0189		CONTRACT NO. 66822		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROCK CORE LOG B-5 (Page 1 of 2)

Illinois Department of Transportation
Division of Highways
District #3, Ottawa

ROCK CORE LOG

Page 1 of 2

Date 3/19/10

ROUTE FA 24 (IL 23) DESCRIPTION IL 23 over Short Point Creek LOGGED BY Larry Myers

SECTION 102 B-1 LOCATION SE 1/4, SE 1/4, SEC. 8, TWP. 29N, RNG. 4E

COUNTY Livingston CORING METHOD Split Barrel Wire Line

STRUCT. NO. 053-0161
Station 625+82

BORING NO. 5 (SE Quad)
Station 626+53
Offset 14.00ft Lt
Ground Surface Elev. 601.98 ft

CORING BARREL TYPE & SIZE N W/L 2
Core Diameter 1.9 in
Top of Rock Elev. 579.48 ft
Begin Core Elev. 577.48 ft

Description	Elev.	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Gray Shale, Blocky to Laminated		-25	1	93	63	4.4	37.4
							3.9
	572.48						
Gray Shale Black Coal from 30' to 31.5' Gray Under Clay to 34'		-30	2	100	82	5.6	4.3
	567.48						
Greenish Gray Shale, Blocky & Laminated with Limestone Pieces @ 37' to 49.5'		-35	3	100	85	6	8.5
	562.48						
Greenish Gray Shale, Blocky with Limestone Pieces		-40	4	88	77	4.8	
	557.48						

Color pictures of the cores Yes
Cores will be stored for examination until Construction Complete
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

ROCK CORE LOG B-5 (Page 2 of 2)

Illinois Department of Transportation
Division of Highways
District #3, Ottawa

ROCK CORE LOG

Page 2 of 2

Date 3/19/10

ROUTE FA 24 (IL 23) DESCRIPTION IL 23 over Short Point Creek LOGGED BY Larry Myers

SECTION 102 B-1 LOCATION SE 1/4, SE 1/4, SEC. 8, TWP. 29N, RNG. 4E

COUNTY Livingston CORING METHOD Split Barrel Wire Line

STRUCT. NO. 053-0161
Station 625+82

BORING NO. 5 (SE Quad)
Station 626+53
Offset 14.00ft Lt
Ground Surface Elev. 601.98 ft

CORING BARREL TYPE & SIZE N W/L 2
Core Diameter 1.9 in
Top of Rock Elev. 579.48 ft
Begin Core Elev. 577.48 ft

Description	Elev.	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Greenish Gray Shale, Blocky with Limestone Pieces		-45	5	100	75	5.2	21.4
							51.1
	552.48						
End of Boring		-50					
		-55					
		-60					

Color pictures of the cores Yes
Cores will be stored for examination until Construction Complete
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

ZROKA engineering
Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

DESIGNED	LAS
CHECKED	JLA
DRAWN	SAW
CHECKED	LAS

BORING LOGS 3
STRUCTURE NO. 053-0189

SHEET NO. 25 OF 26 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	68	(102)BR-1	LIVINGSTON	58	36
	SN 053-0189		CONTRACT NO. 66822		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROCK CORE LOG B-6 (Page 1 of 2)

Illinois Department of Transportation
Division of Highways
District #3, Ottawa

ROCK CORE LOG

Page 1 of 2

Date 4/5/10

ROUTE FA 24 (IL 23) DESCRIPTION IL 23 over Short Point Creek LOGGED BY Larry Myers

SECTION 102 B-1 LOCATION SE 1/4, SE 1/4, SEC. 8, TWP. 29N, RNG. 4E

COUNTY Livingston CORING METHOD Split Barrel Wire Line

STRUCT. NO. 053-0161
Station 625+82

CORING BARREL TYPE & SIZE N W/L 2
Core Diameter 1.9 in
Top of Rock Elev. 579.74 ft
Begin Core Elev. 578.24 ft

BORING NO. 6 (SW Quad)
Station 625+14
Offset 14.00ft Rt.
Ground Surface Elev. 601.74 ft

Description	Elev.	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Gray Shale, Blocky to Laminated	573.24	-25	1	80	77	5.6	13.0
Gray Blocky Shale Black Coal from 29' to 30.5' Gray Under Clay 30.5' to 33.5'	568.24	-30	2	83	64	4.4	2.3
Greenish Gray Blocky Shale with Heavy Limestone Pieces at 35.5'	563.24	-35	3	97	78	4.2	6.0 6.9
Continuation of Blocky Shale & Limestone to 41' Then Greenish Gray Blocky Shale, Dense Does Not React with Acid	558.24	-40	4	97	84	2.2	41.0

Color pictures of the cores Yes
Cores will be stored for examination until Construction Complete
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

ROCK CORE LOG B-6 (Page 2 of 2)

Illinois Department of Transportation
Division of Highways
District #3, Ottawa

ROCK CORE LOG

Page 2 of 2

Date 4/5/10

ROUTE FA 24 (IL 23) DESCRIPTION IL 23 over Short Point Creek LOGGED BY Larry Myers

SECTION 102 B-1 LOCATION SE 1/4, SE 1/4, SEC. 8, TWP. 29N, RNG. 4E

COUNTY Livingston CORING METHOD Split Barrel Wire Line

STRUCT. NO. 053-0161
Station 625+82

CORING BARREL TYPE & SIZE N W/L 2
Core Diameter 1.9 in
Top of Rock Elev. 579.74 ft
Begin Core Elev. 578.24 ft

BORING NO. 6 (SW Quad)
Station 625+14
Offset 14.00ft Rt.
Ground Surface Elev. 601.74 ft

Description	Elev.	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Greenish Gray Blocky Shale, Dense No Acid Reaction	553.24	-45	5	92	71	4	22.8 25.1
End of Boring		-50 -55 -60					

Color pictures of the cores Yes
Cores will be stored for examination until Construction Complete
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

ZROKA engineering
Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

DESIGNED	LAS
CHECKED	JLA
DRAWN	SAW
CHECKED	LAS

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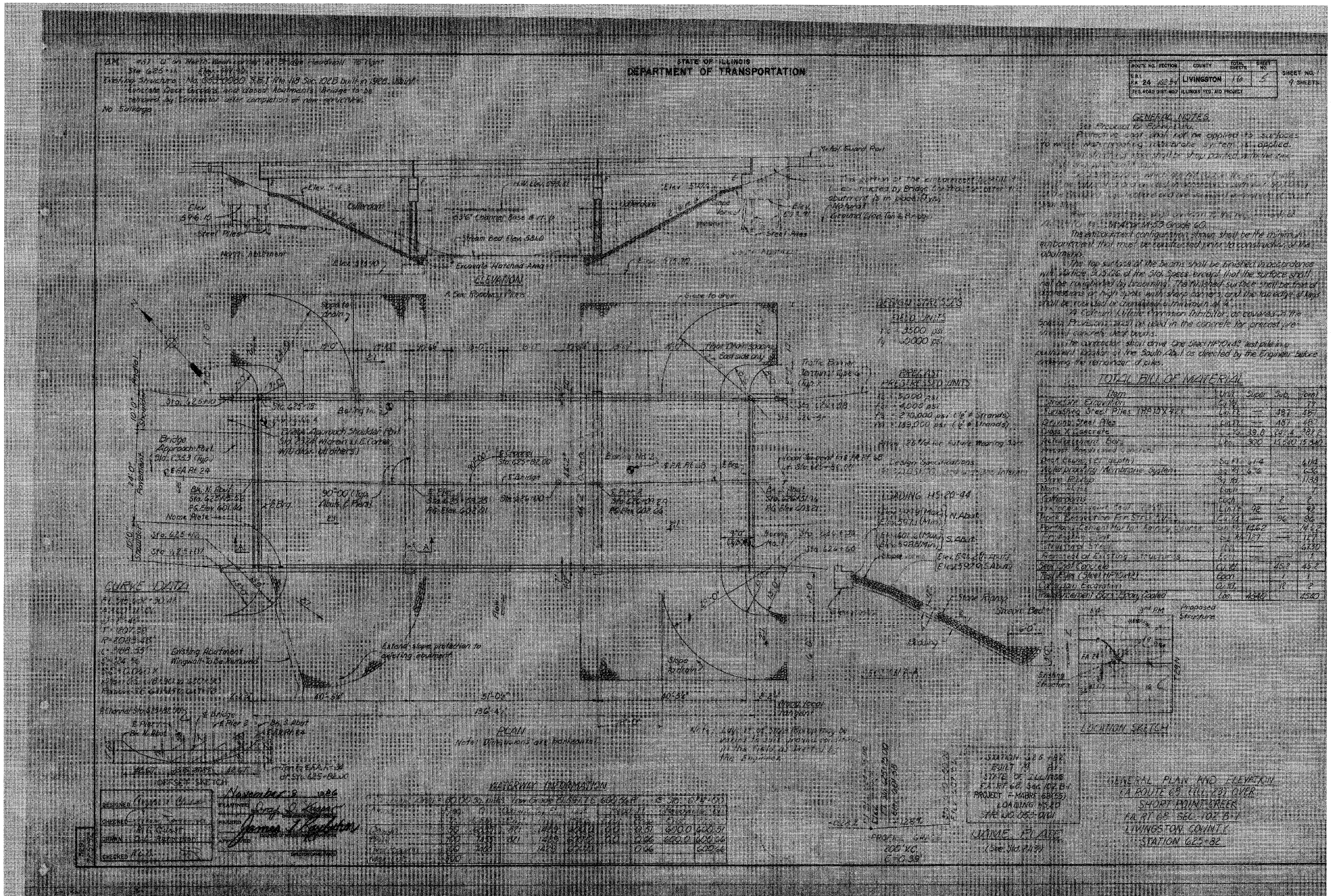
BORING LOGS 4
STRUCTURE NO. 053-0189



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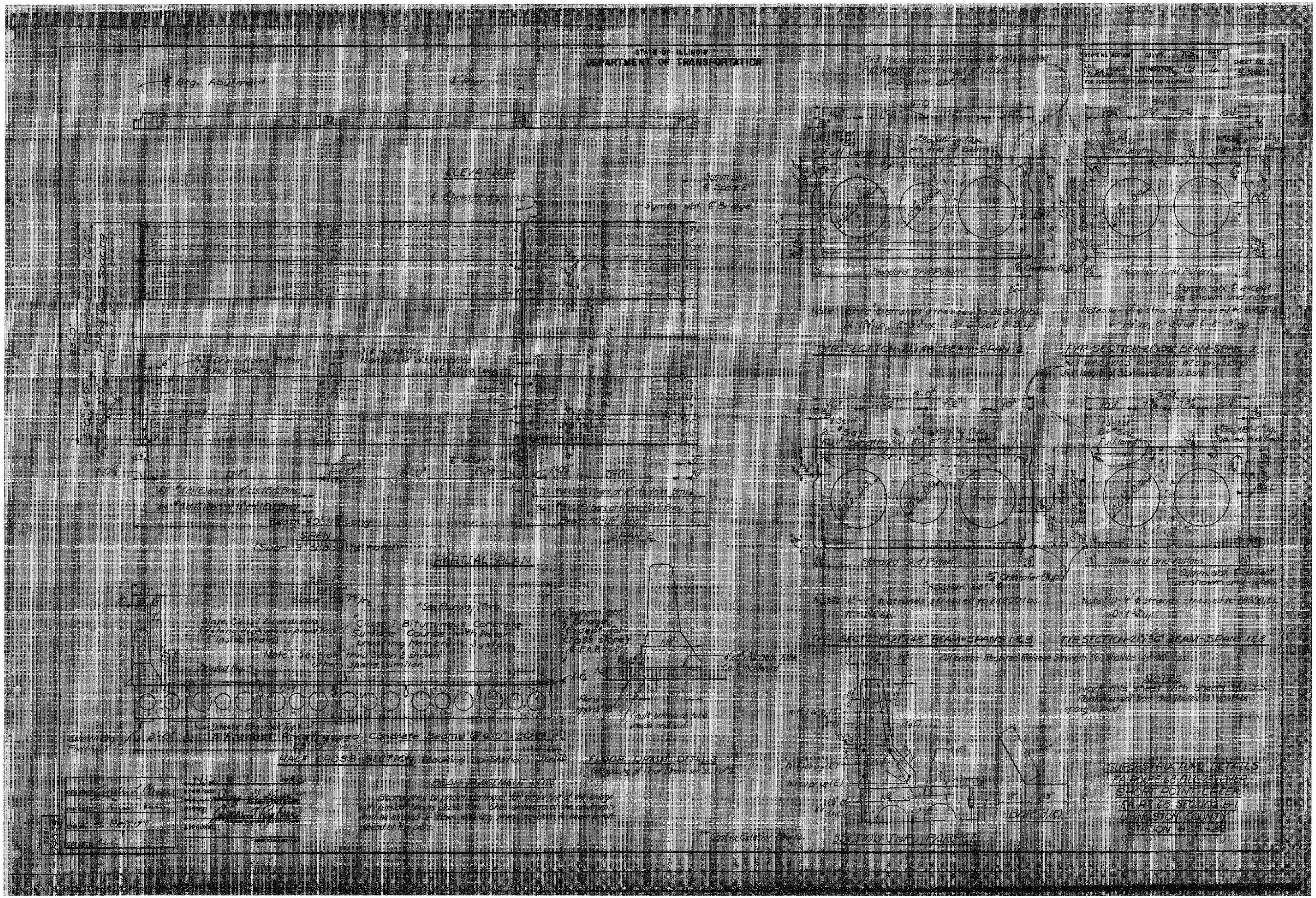
		DATE - 08/05/10	REVISED -		STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102) BR-1	LIVINGSTON	58	38

CONTRACT NO. 66822

ILLINOIS FED. AID PROJECT



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	PLOT SCALE = 0.2100 ' / in.	DRAWN - AJP	REVISED -			68	(102) BR-1	LIVINGSTON	58	39
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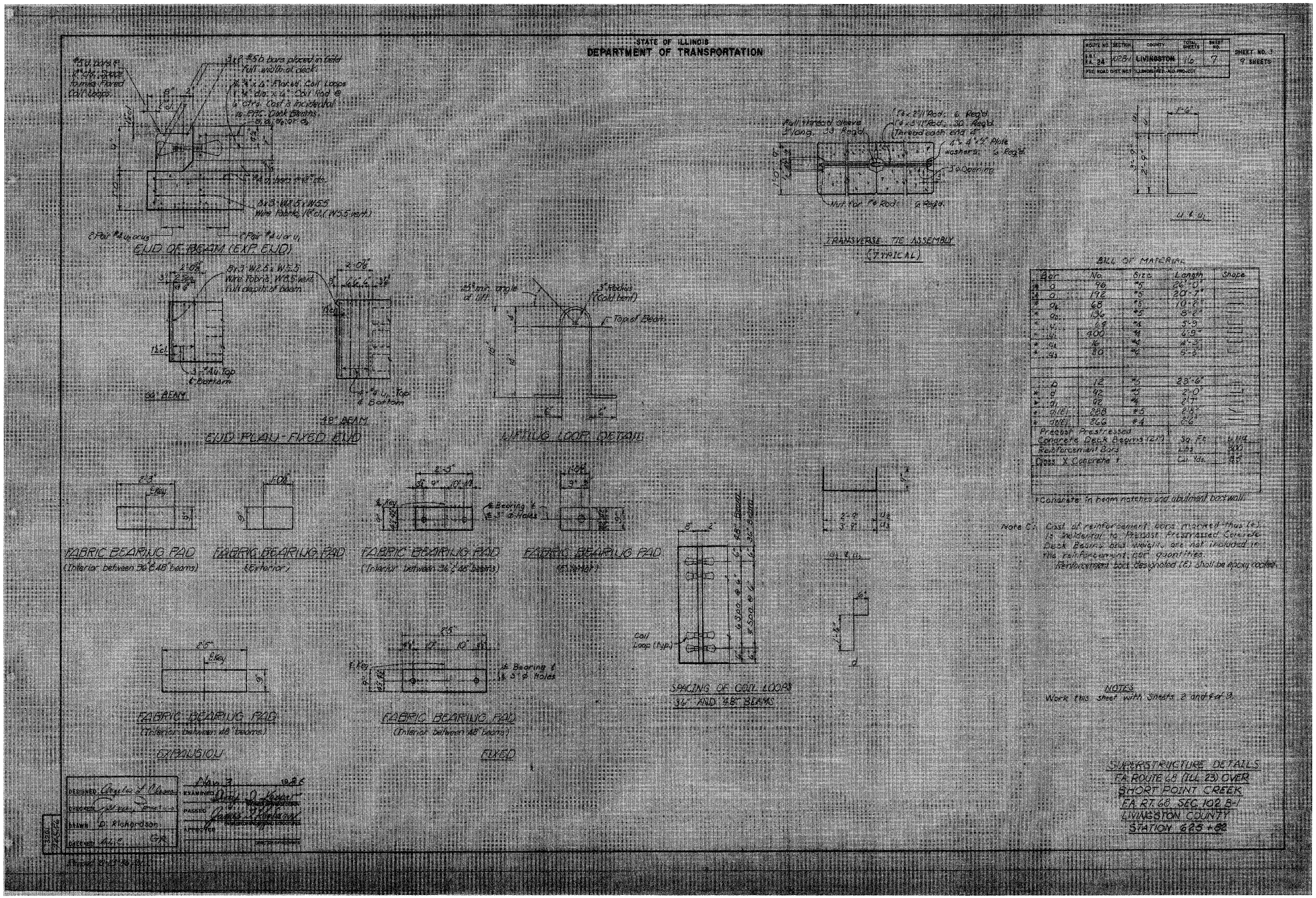
		DATE - 08/05/10	REVISED -			ILLINOIS FED. AID PROJECT				



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
* a	96	#5	26'-0"	
* a	192	#5	20'-7"	
* a₁	68	#5	10'-2"	
* a₂	136	#5	8'-2"	
* u	64	#4	5'-9"	
* u₁	400	#4	6'-9"	
* u₂	16	#4	4'-3"	
* u₃	80	#4	5'-3"	
b	12	#5	23'-6"	
* d	92	#5	2'-0"	
* d₁	92	#4	2'-7"	
* d(E)	288	#5	2'-8"	
* d2(E)	266	#4	2'-6"	
Precast Prestressed Concrete Deck Beams (21")		Sq. Ft.	6114	
Reinforcement Bars		Lbs.	300	
Class X Concrete †		Cu. Yds.	8.5	

† Concrete in beam notches and abutment backwall.

Note C: Cost of reinforcement bars marked thus (*) is incidental to Precast Prestressed Concrete Deck Beams and weights are not included in the reinforcement bar quantities.
Reinforcement bars designated (E) shall be epoxy coated.

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		DATE - 08/05/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

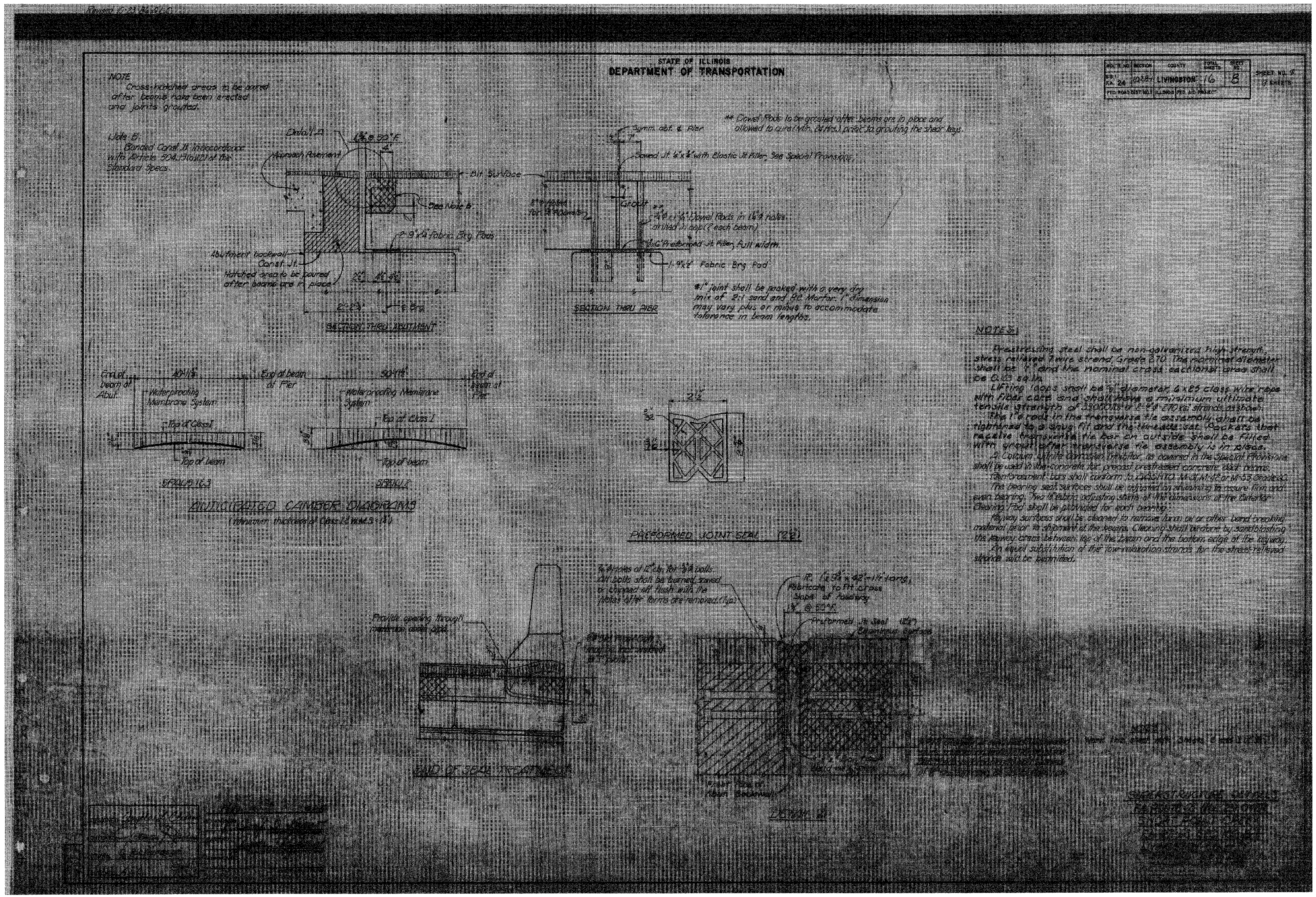
EXISTING BRIDGE PLANS
FOR INFORMATION ONLY

SCALE: NONE | SHEET NO. 3 OF 15 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102) BR-1	LIVINGSTON	58	40

CONTRACT NO. 66822

ILLINOIS FED. AID PROJECT



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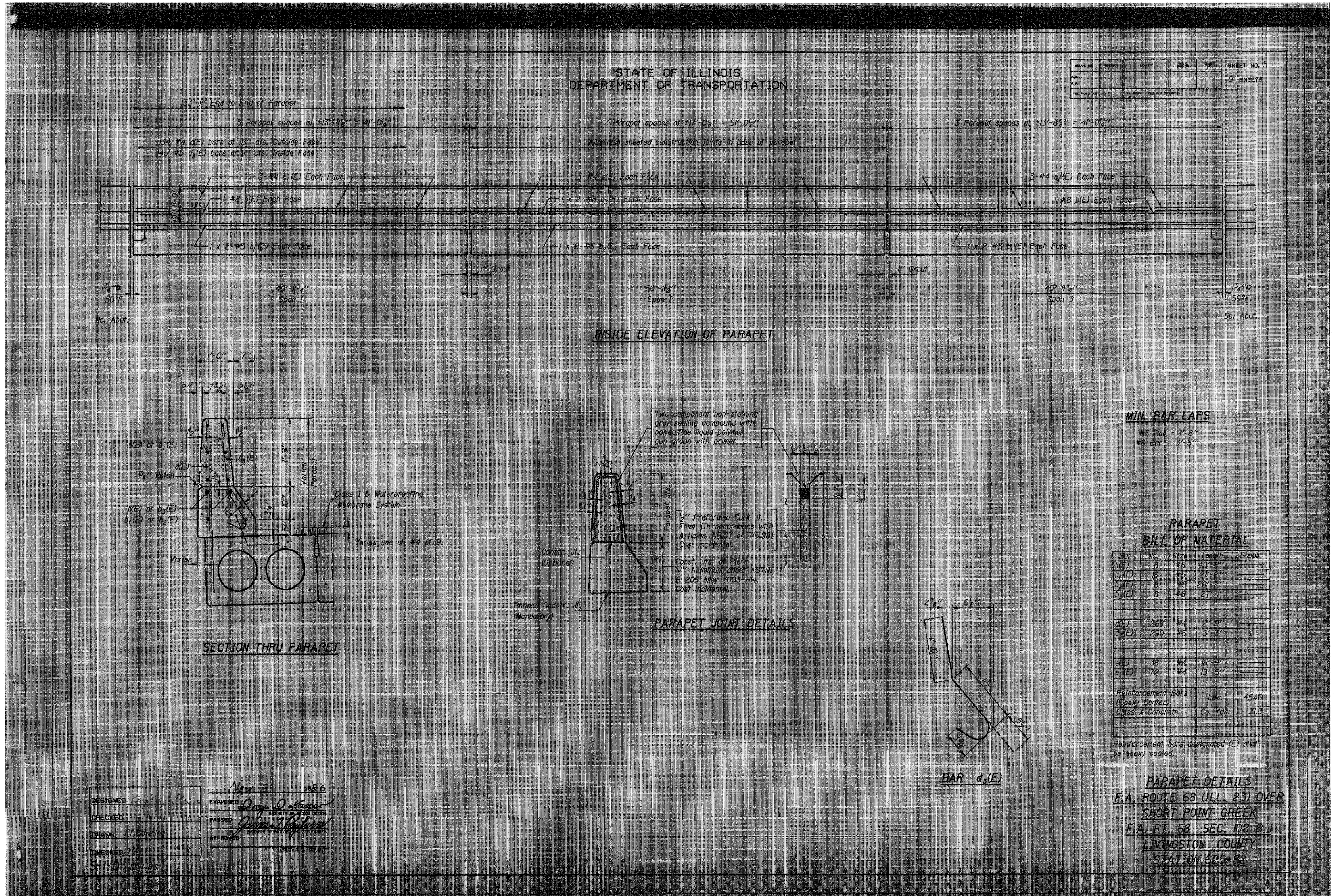
	PLOT DATE = 8/2/2010	DATE - 08/05/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS
FOR INFORMATION ONLY

SCALE: NONE | SHEET NO. 4 OF 15 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102) BR-1	LIVINGSTON	58	41
		CONTRACT NO. 66822		
		ILLINOIS FED. AID PROJECT		



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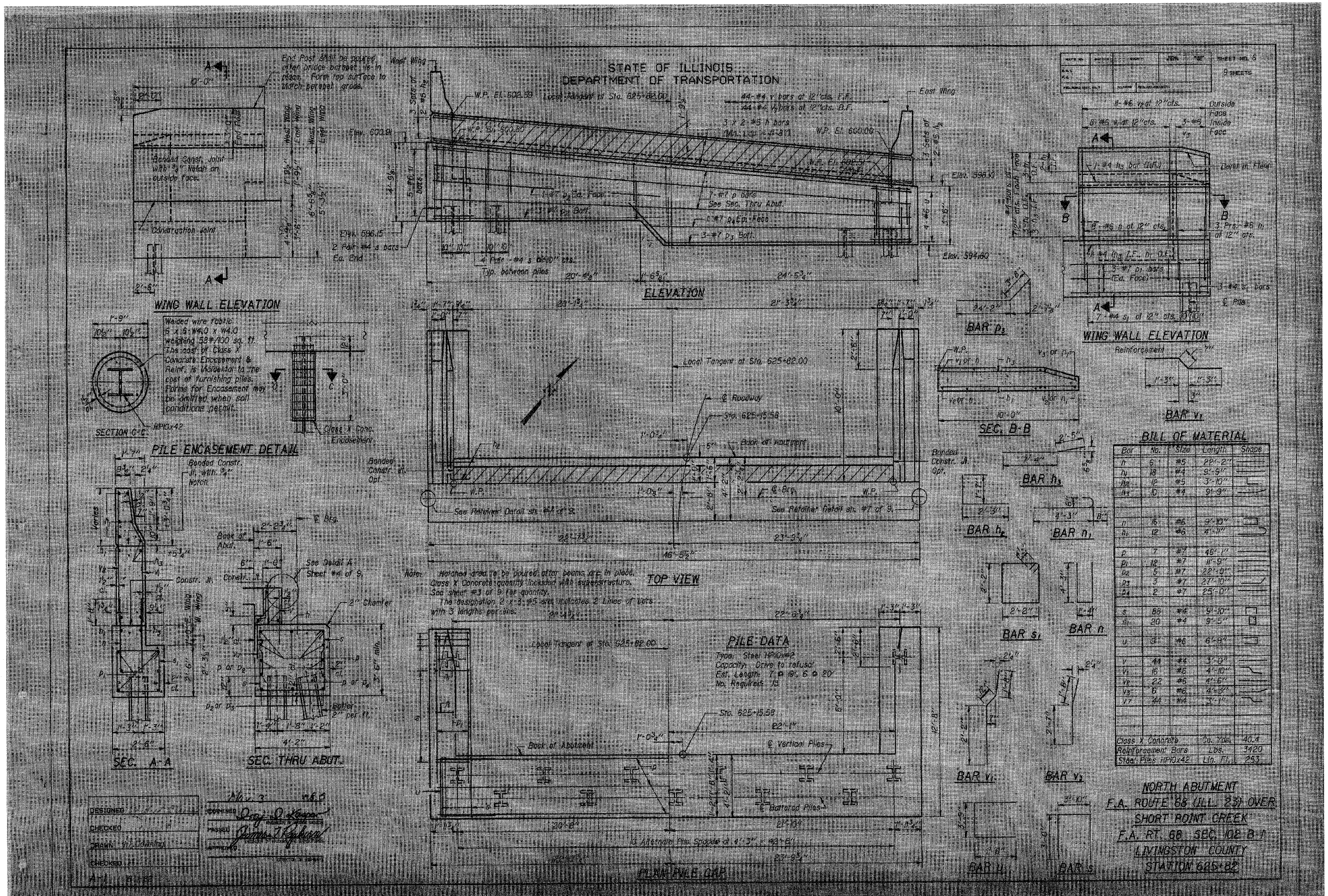
	PLOT DATE = 8/2/2010	CHECKED - JMS	REVISED -			TOTAL SHEETS 58	SHEET NO. 42	CONTRACT NO. 66822
		DATE - 08/05/10	REVISED -			ILLINOIS FED. AID PROJECT		



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	6	#5	22'-2"	
h_1	18	#4	9'-9"	
h_2	12	#5	3'-10"	
h_3	10	#4	9'-9"	
n	16	#6	9'-10"	
n_1	12	#6	4'-11"	
p	7	#7	46'-1"	
p_1	12	#7	11'-9"	
p_2	5	#7	22'-0"	
p_3	3	#7	27'-10"	
p_4	2	#7	25'-0"	
s	88	#4	9'-10"	
s_1	20	#4	9'-5"	
u	9	#6	6'-9"	
v	44	#4	3'-0"	
v_1	16	#6	4'-10"	
v_2	22	#6	4'-6"	
v_3	6	#6	4'-5"	
v_7	44	#4	3'-1"	
Class X Concrete			Cu. Yds.	40.4
Reinforcement Bars			Lbs.	3420
Steel Piles HP10x42			Lin. Ft.	253

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		DATE - 08/05/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

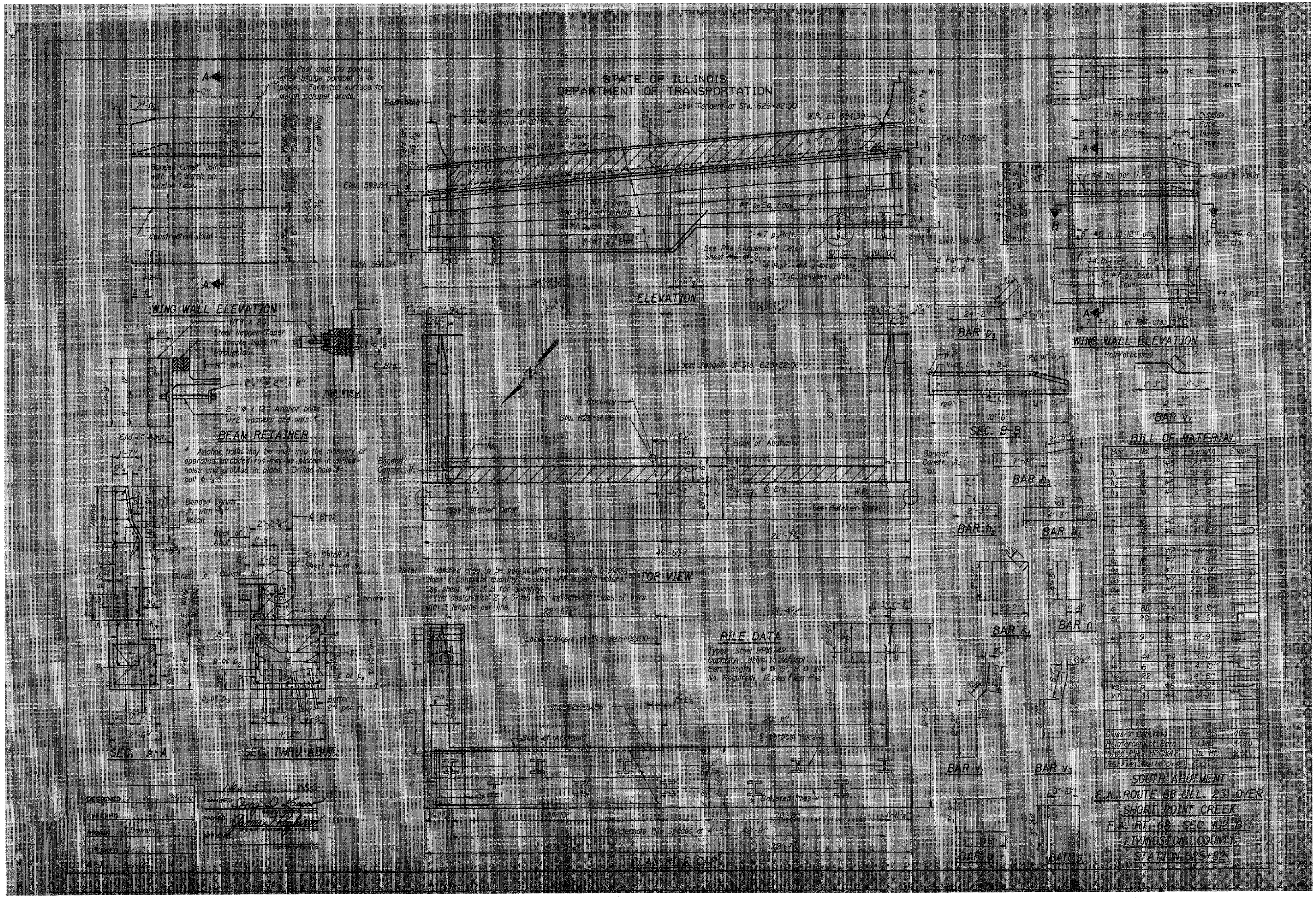
EXISTING BRIDGE PLANS
FOR INFORMATION ONLY

SCALE: NONE | SHEET NO. 6 OF 15 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102) BR-1	LIVINGSTON	58	43

CONTRACT NO. 66822

ILLINOIS FED. AID PROJECT



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		CHECKED - JMS	REVISED -
	PLOT DATE = 8/2/2010	DATE - 08/05/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

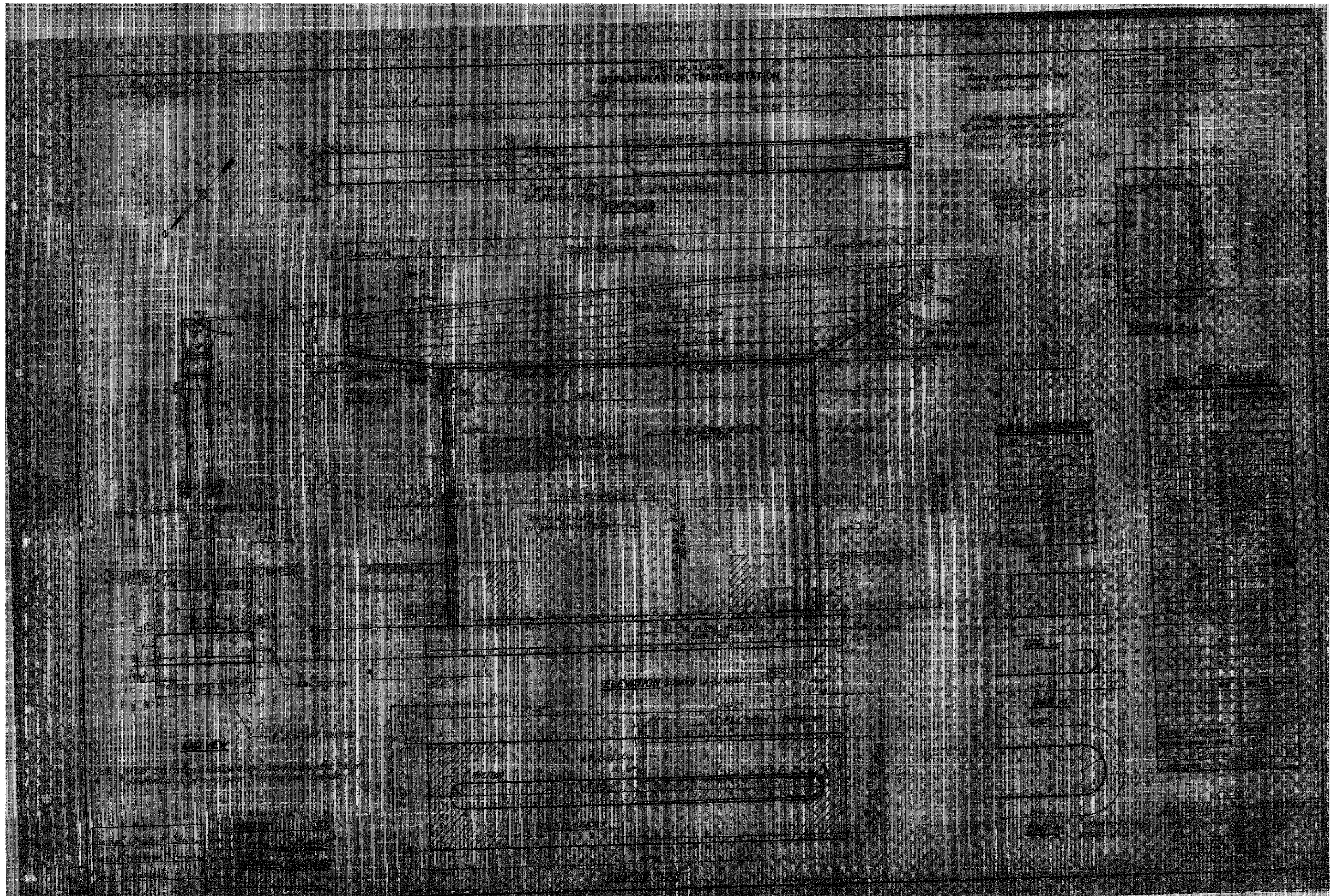
EXISTING BRIDGE PLANS
FOR INFORMATION ONLY

SCALE: NONE | SHEET NO. 7 OF 15 SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102) BR-1	LIVINGSTON	58	44

CONTRACT NO. 66822

ILLINOIS FED. AID PROJECT



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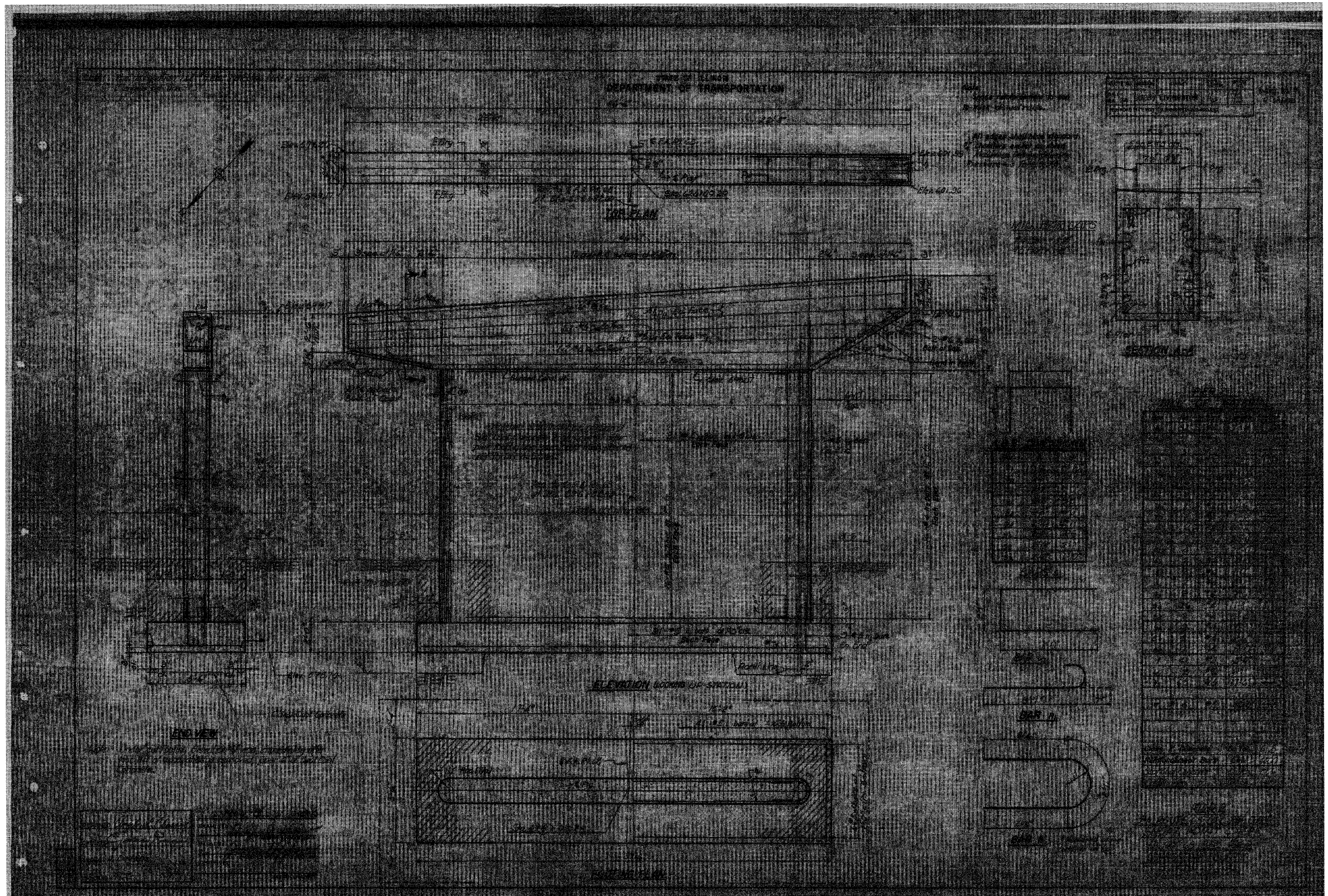
	PLOT SCALE = 0.2100 '/ in.	DRAWN - AJP	REVISED -					CONTRACT NO. 66822	
	PLOT DATE = 8/2/2010	CHECKED - JMS	REVISED -		SCALE: NONE / SHEET NO. 8 OF 15 SHEETS / STA. / TO STA.			ILLINOIS FED. AID PROJECT	
		DATE - 08/05/10	REVISED -						



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		DATE - 08/05/10	REVISED -		STA. TO STA.

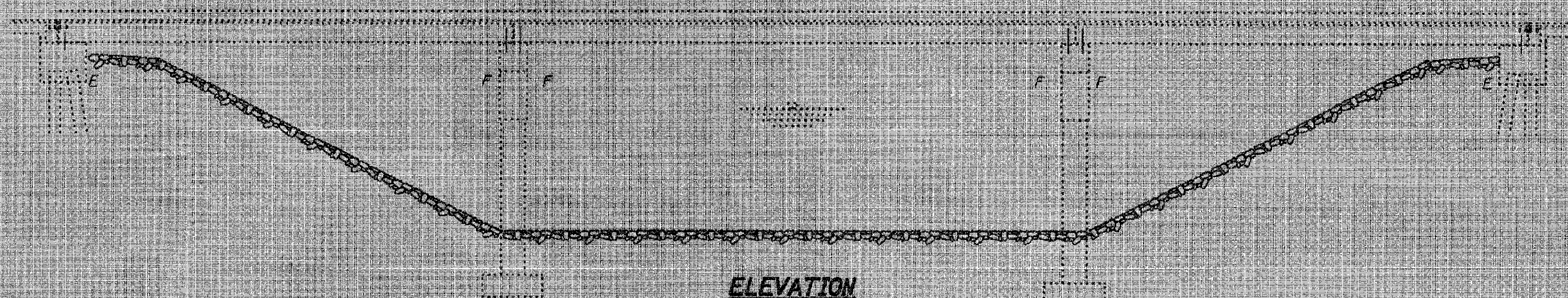
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102) BR-1	LIVINGSTON	58	46
		CONTRACT NO. 66822		
		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

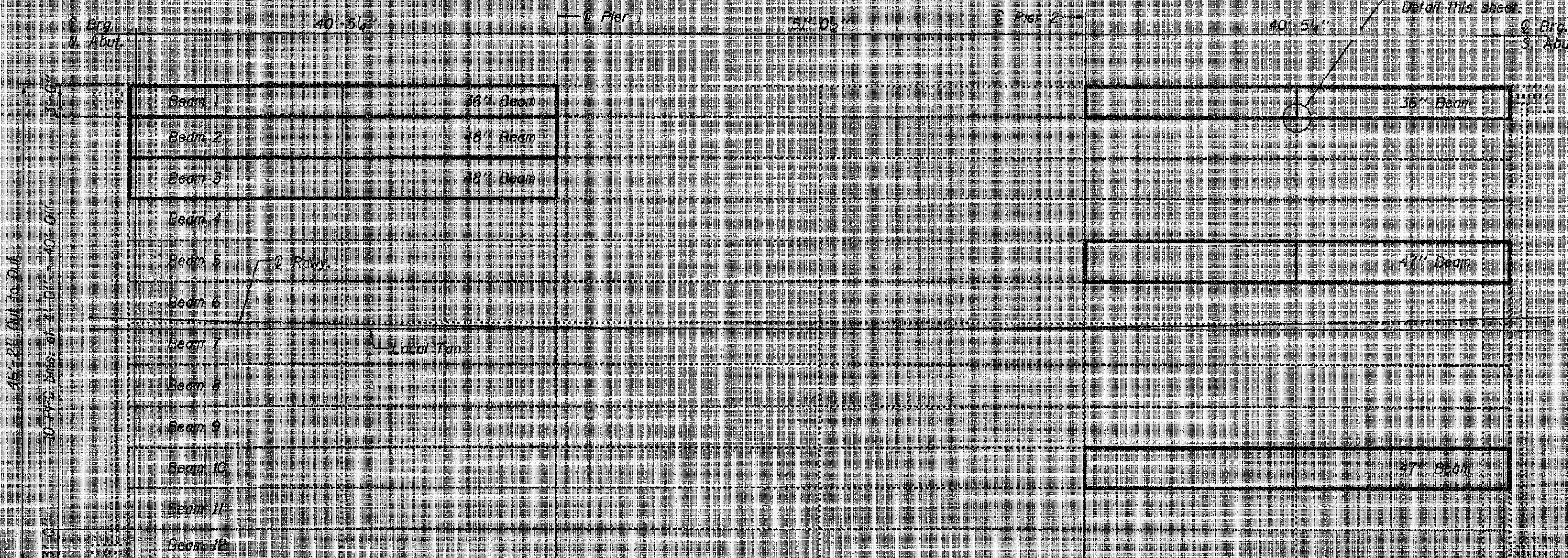
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 68	*	LIVINGSTON	16	11

* 002-B-01 SHEET NO. 1 5 SHEETS

Contract Number: 66810



ELEVATION



PLAN

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to routine 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 based upon the unit price bid for the work.

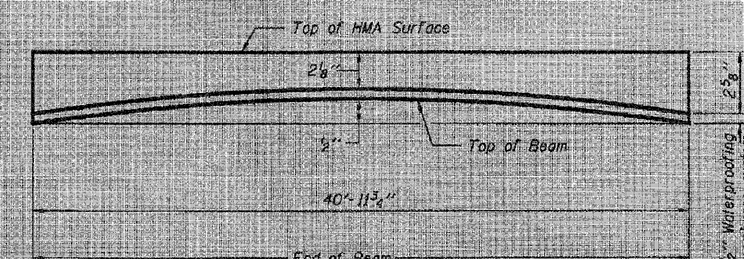
The contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the contractors responsibility to account for the condition of the beams when developing construction procedures.

If the contractor's procedure for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on the bridge, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedure used will not overstress the new or existing beams. To distribute load to multiple beams and protect the existing surface, in all cases a double layer mat of heavy timbers shall be used at all times under crane tracks or wheels and any outriggers in the down position. If necessary, shims shall be used under the crane mat to ensure uniform contact with the underlying beams. If heavy equipment will be placed on new PPC deck beams, the following shall be done prior to placement of the timber mats: placement and tightening of transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum and grouting and curing the shear keys.

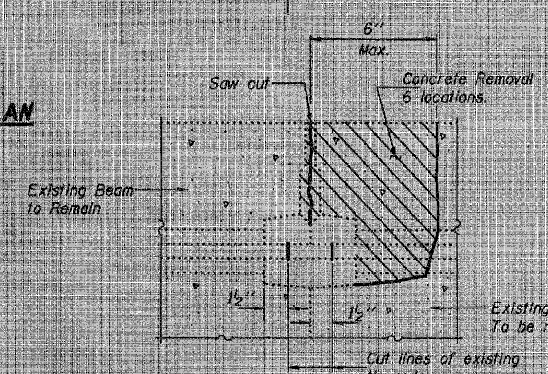
The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

Any damage done to the bridge during beam removal shall be repaird by the Contractor. Cost to be included in the cost of Removal of Existing PPC Deck Beams.

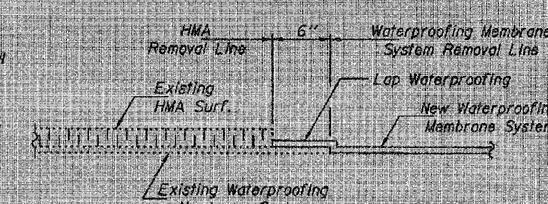
Temporary concrete barrier shall only be anchored into the overlay and not into the PPC Deck Beams.



ANTICIPATED INITIAL CAMBER DIAGRAM



BEAM REMOVAL DETAIL AT TRANSVERSE TIES



WATERPROOFING TREATMENT

DESIGN STRESSES

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi

f'ci = 5,000 psi

f's = 270,000 psi (½" Ø low lax strands)

f'si = 201,960 psi (½" Ø low lax strands)

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Removal of Existing PPC Deck Beams	Sq. Ft.	901.5
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	894.7
Hot-Mix Asphalt Surface Removal	Sq. Yd.	14.9
HMA Surface Course Mix "C" N50	Tons	13.9
Waterproofing Membrane System	Sq. Yd.	103.8
PC Mortar Fairing Course	Foot	328
Concrete Removal	Cu. Yd.	9.3
Concrete Superstructure	Cu. Yd.	9.3
Reinforcement Bars, Epoxy Coated	Pound	1420

PLAN AND ELEVATION
FA 68 OVER SHORT POINT CREEK
LIVINGSTON COUNTY
SN 053-0161

STATE OF ILLINOIS RALPH E. ANDERSON 081-004625 SPRINGFIELD LICENSED STRUCTURAL ENGINEER

Expires: November 30, 2008

MAY 2, 2008

DESIGNED
CHECKED Victor H. Veliz
DRAWN Steffen
CHECKED VHV AJB

EXAMINED
ENGINEER OF STRUCTURAL SERVICES
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

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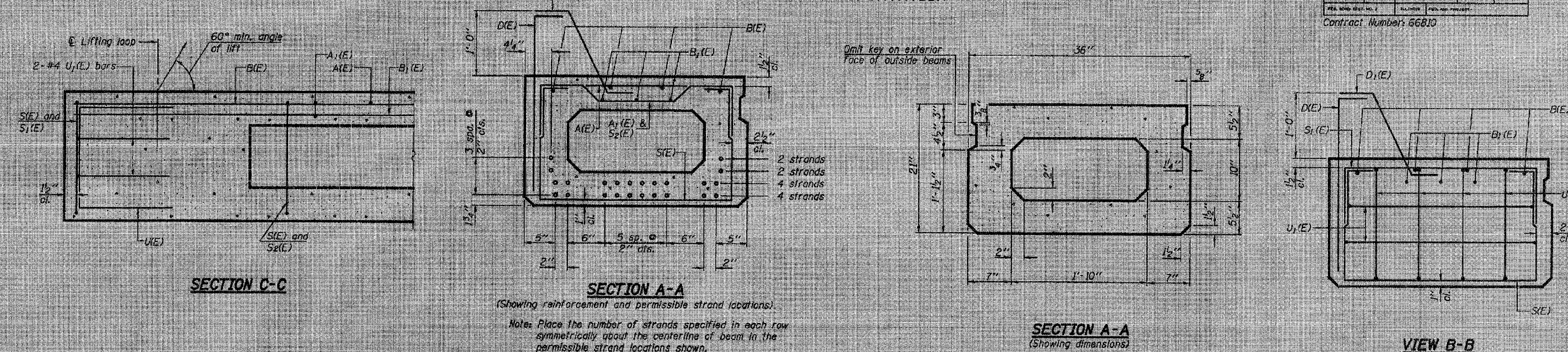
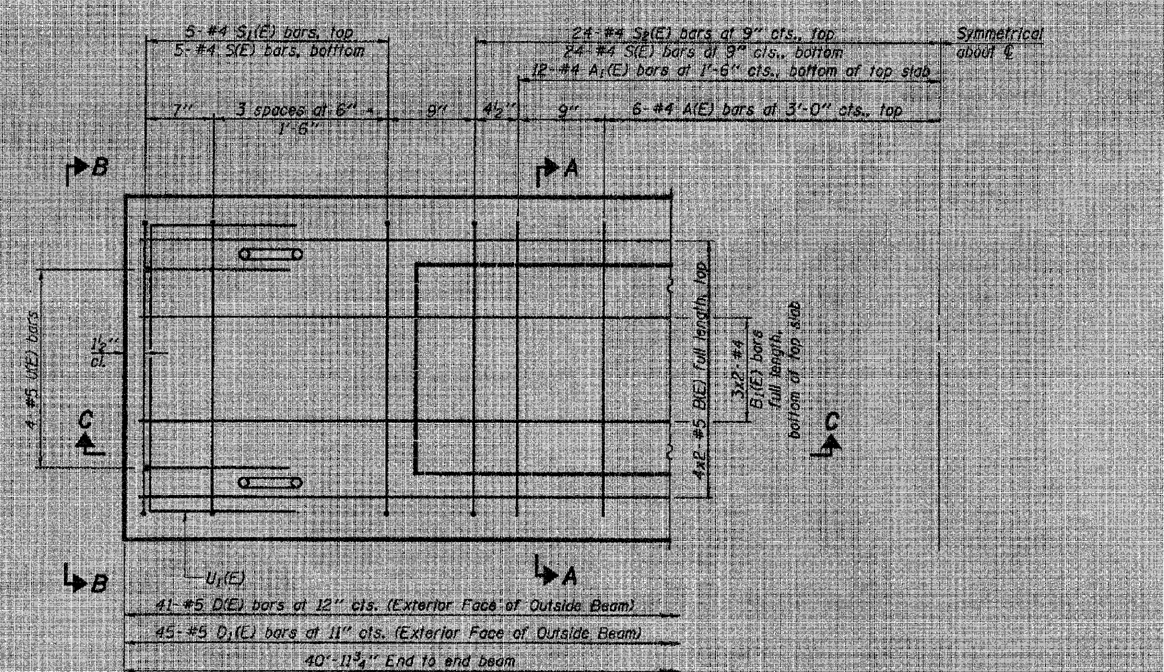
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

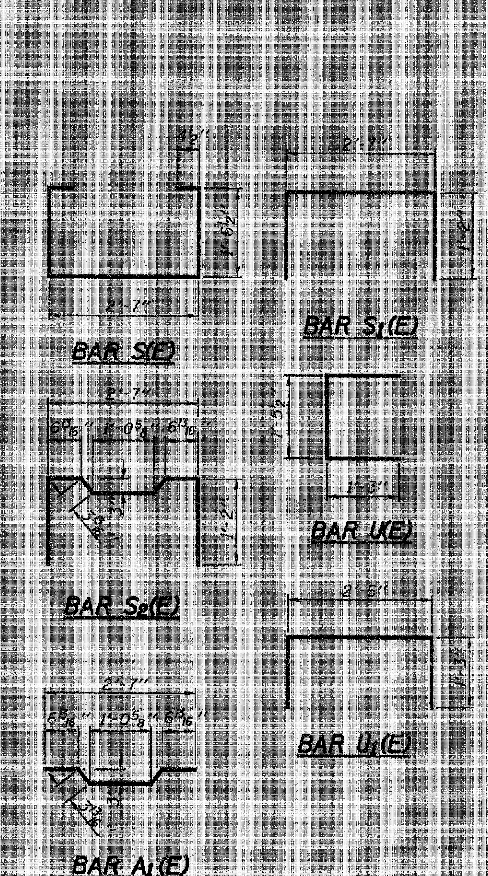
FA 68		LIVINGSTON	16	12	SHEET NO. 2
					6 SHEETS

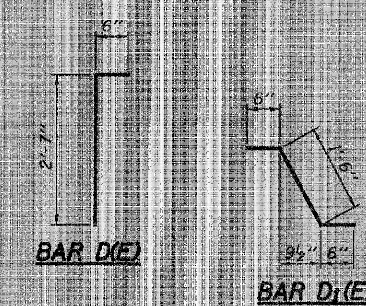
Contract Number: 66810





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





BAR LIST
ONE 36" BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	12	#4	2'-7"	
A_1(E)	24	#4	2'-11"	
B(E)	8	#5	21'-6"	
B_1(E)	6	#4	21'-3"	
D(E)	41	#5	3'-1"	
D_1(E)	45	#5	2'-6"	
S(E)	58	#4	6'-5"	
S_1(E)	10	#4	4'-11"	
S_2(E)	48	#4	5'-2"	
U(E)	8	#5	4'-0"	
U_1(E)	4	#4	5'-0"	

Bars indicated thus 4 x 2-#5 etc. indicates 4 line of bars with 2 lengths per line.

Note: See sheet 4 of 6 for additional details and Bill of Material.

DESIGNED	AJB
CHECKED	VHV
DRAWN	Steffen
CHECKED	AJB VHV

MAY 2, 2008
EXAMINED — ENGINEER OF STRUCTURAL SERVICES
PASSED — ENGINEER OF BRIDGES AND STRUCTURES

BEAM DETAILS
FA 68 OVER SHORT POINT CREEK
LIVINGSTON COUNTY
SN 053-0161

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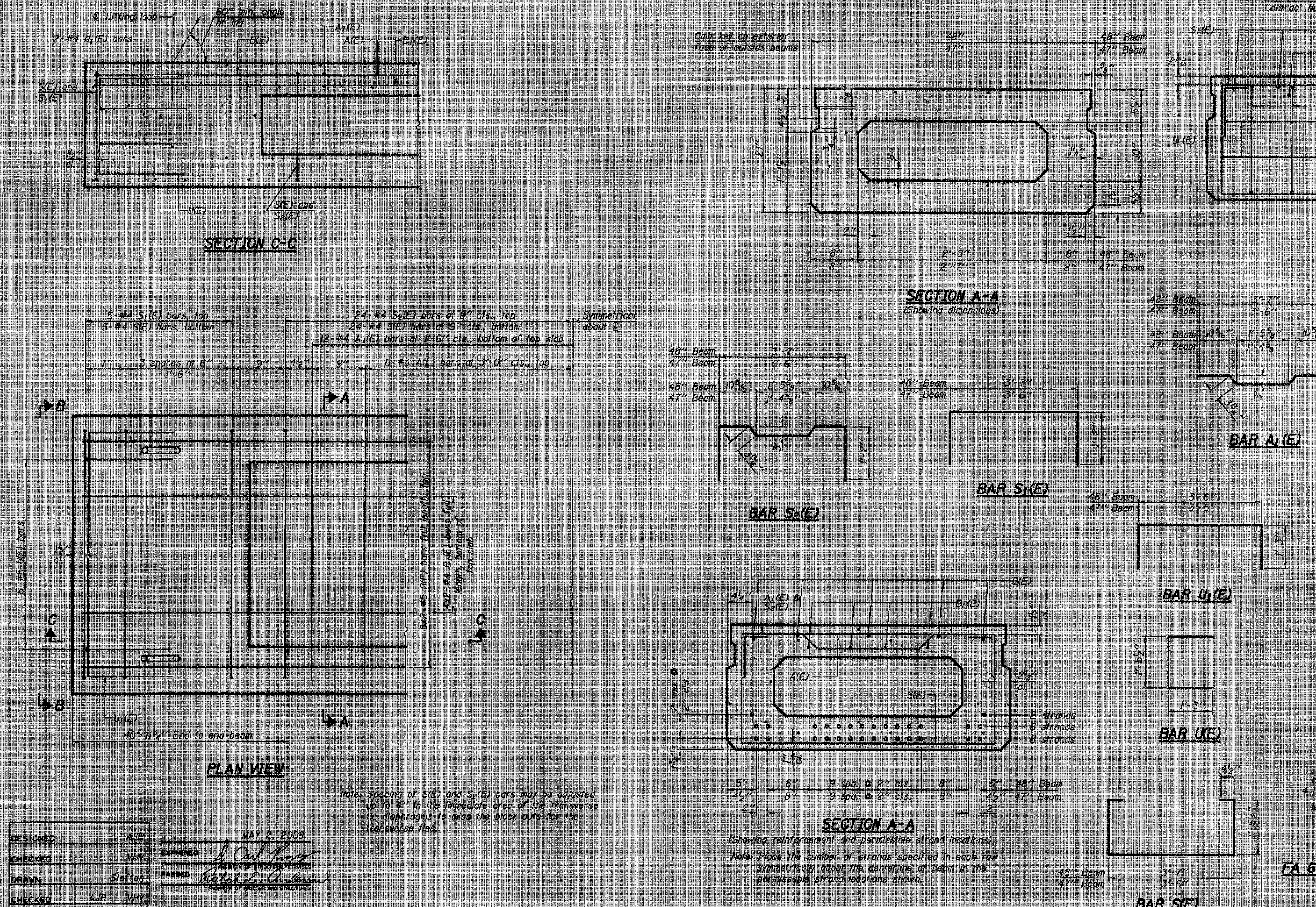
FILE NAME =	USER NAME = IDOTCAD	DESIGNED - SPF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING BRIDGE PLANS FOR INFORMATION ONLY	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
W:\2299-03 - IL Route 23 Roadway\DGN\CADD Sheets\D366822-Existing Structure Plans.dgn	PLOT SCALE = 0.2100 ' / in.	DRAWN - AJP	REVISED -			68	(102) BR-1	LIVINGSTON	58	48
	PLOT DATE = 8/2/2010	CHECKED - JMS	REVISED -		SCALE: NONE / SHEET NO. 11 OF 15 SHEETS / STA. / TO STA.	CONTRACT NO. 66822				
		DATE - 08/05/10	REVISED -			ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 68	* (102-B-81)	LIVINGSTON	15	13

SHEET NO. 3
6 SHEETS

Contract Number: 66810



BAR LIST
ONE 47″ BEAM ONLY
(For Information Only)

Bar	No.	Size	Length	Shape
A(E)	12	#4	3′-6″	
A_1(E)	24	#4	3′-9″	
B(E)	10	#5	21′-6″	
B_1(E)	8	#4	21′-3″	
S(E)	58	#4	7′-4″	
S_1(E)	10	#4	5′-10″	
S_2(E)	48	#4	6′-1″	
U(E)	12	#5	4′-0″	
U_1(E)	4	#4	5′-11″	

BAR LIST
ONE 48″ BEAM ONLY
(For Information Only)

Bar	No.	Size	Length	Shape
A(E)	12	#4	3′-7″	
A_1(E)	24	#4	3′-10″	
B(E)	10	#5	21′-6″	
B_1(E)	8	#4	21′-3″	
S(E)	58	#4	7′-5″	
S_1(E)	10	#4	5′-11″	
S_2(E)	48	#4	6′-2″	
U(E)	12	#5	4′-0″	
U_1(E)	4	#4	6′-0″	

Bars indicated thus 4 x 2-#5 etc. Indicates 4 line of bars with 2 lengths per line.

Note: See sheet 4 of 6 for additional details and Bill of Material.

BEAM DETAILS
FA 68 OVER SHORT POINT CREEK
LIVINGSTON COUNTY
SN 053-0161

DESIGNED	AJB
CHECKED	VHV
DRAWN	Steffen
CHECKED	AJB VHV

MAY 2, 2008
EXAMINED
PASSED

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	PLOT DATE = 8/2/2010	CHECKED - JMS	REVISED -
		DATE - 08/05/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS
FOR INFORMATION ONLY

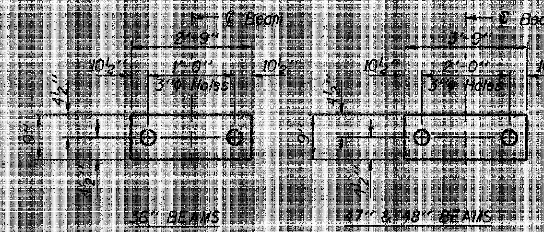
SCALE: NONE | SHEET NO. 12 OF 15 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102) BR-1	LIVINGSTON	58	49

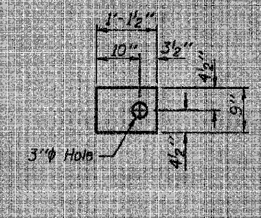
CONTRACT NO. 66822
ILLINOIS FED. AID PROJECT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

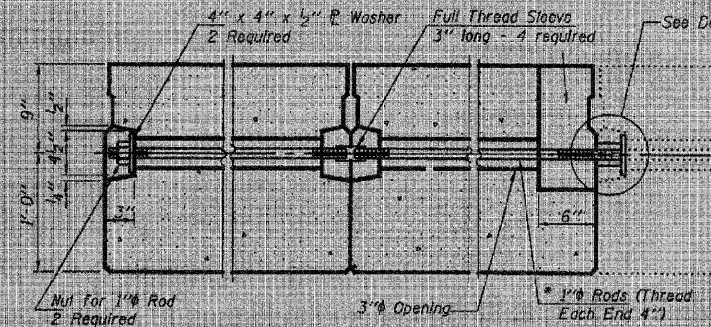
Contract Number: 66810



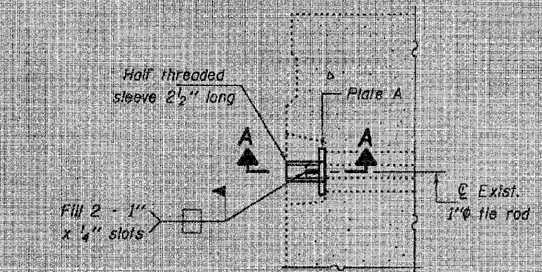
FABRIC BEARING PADS



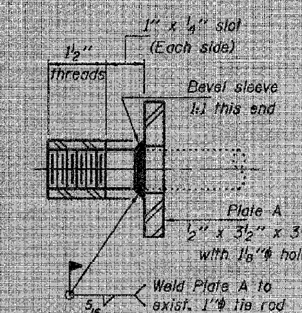
FABRIC ADJUSTING SHIM



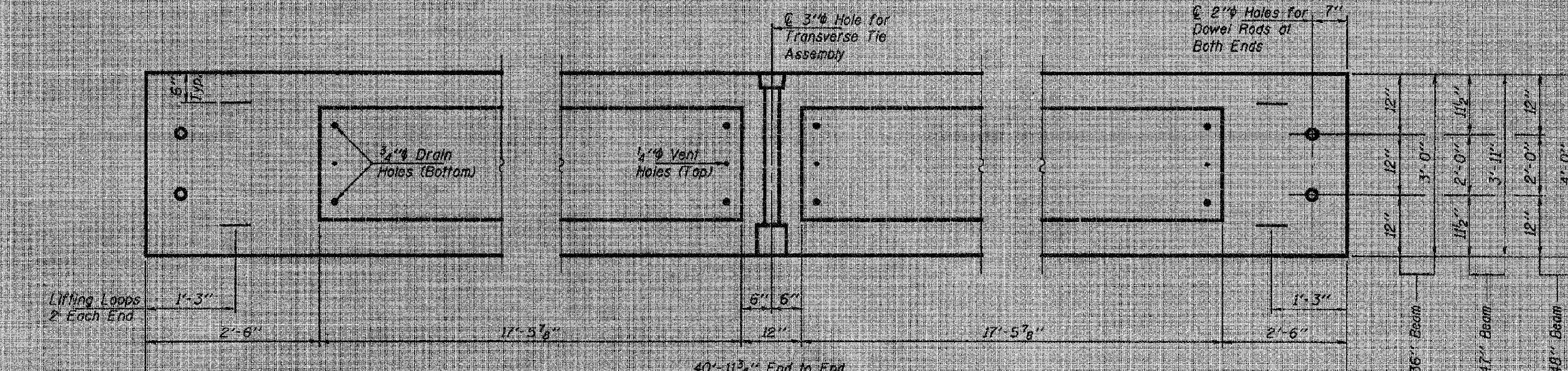
TYPICAL TRANSVERSE TIE ASSEMBLY



DETAIL A



SECTION A-A
(4 Required)



BEAM PLAN

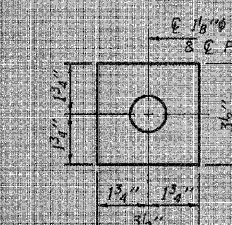
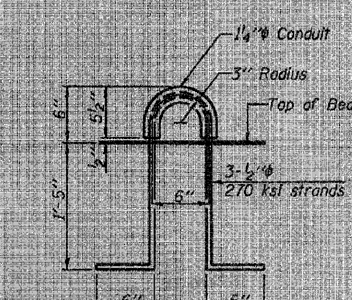


PLATE A
(4 Required)



LIFTING LOOP DETAIL

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft.	894.7

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$" and the nominal cross-sectional area shall be 0.153 sq. in.

The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

Reinforcement bars shall conform to ASTM A 706 (IL MOD), Grade 60. (See Special Provisions)

Two $\frac{1}{8}$" fabric adjusting shims of the dimensions shown shall be provided for each bearing pad location.

A minimum $2\frac{1}{2}$" ϕ lifting pin shall be used to engage the lifting loops during handling.

Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

DESIGNED	AJB
CHECKED	VHV
DRAWN	Steffen
CHECKED	AJB VHV

MAY 2, 2008

BEAM DETAILS
FA 68 OVER SHORT POINT CREEK
LIVINGSTON COUNTY
SN 053-0161

FILE NAME = W:\2299-03 - IL Route 23 Roadway\DGN\CADD Sheets\D366822-Existing Structure Plans.dgn	USER NAME = IDOTCAD	DESIGNED - SPF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING BRIDGE PLANS FOR INFORMATION ONLY	F.A. RTE. 68	SECTION (102) BR-1
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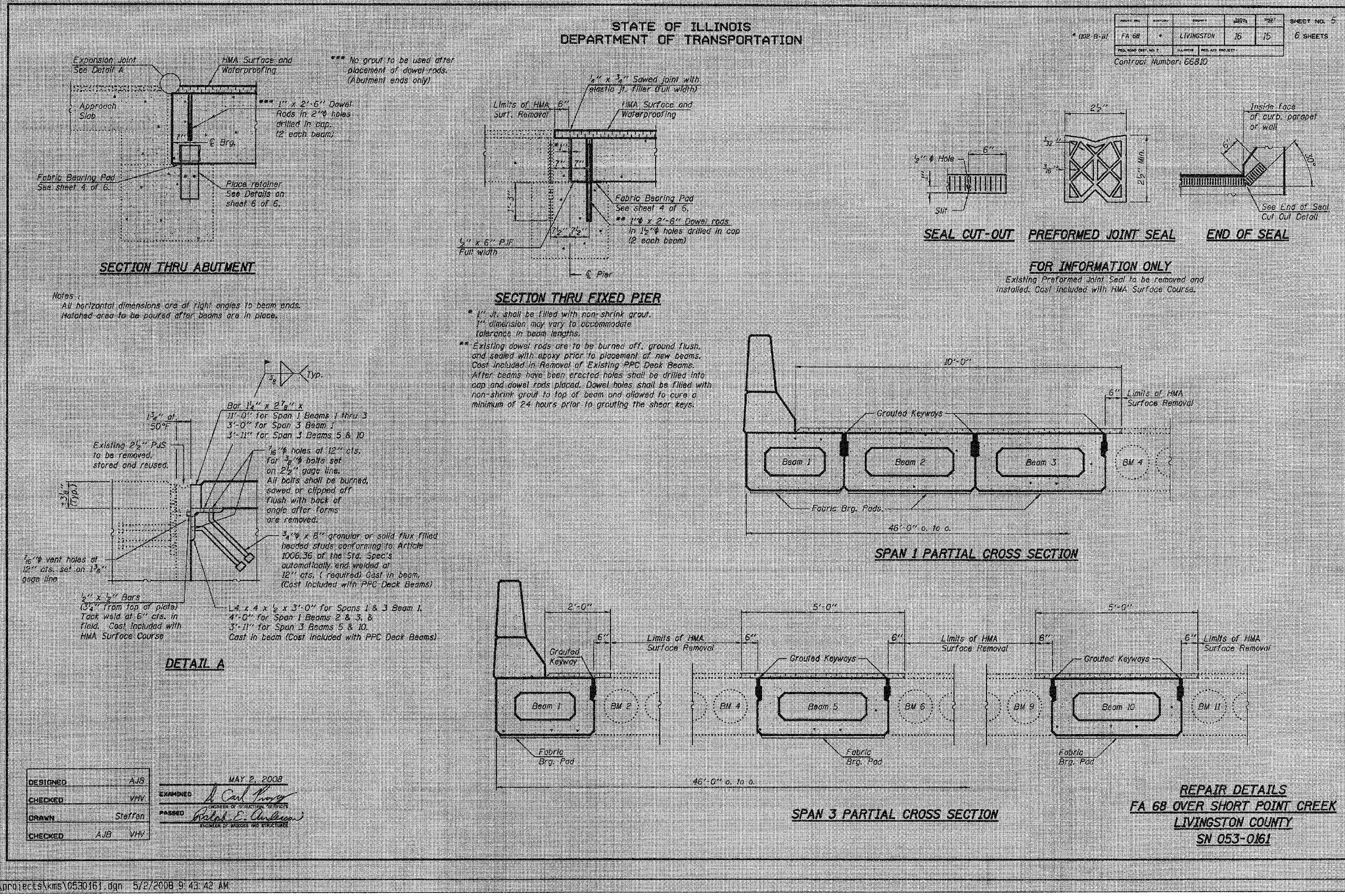
	PLOT DATE = 8/2/2010	CHECKED - JMS	REVISED -			COUNTY LIVINGSTON	TOTAL SHEETS 58, SHEET NO. 50
		DATE - 08/05/10	REVISED -			CONTRACT NO. 66822	ILLINOIS FED. AID PROJECT



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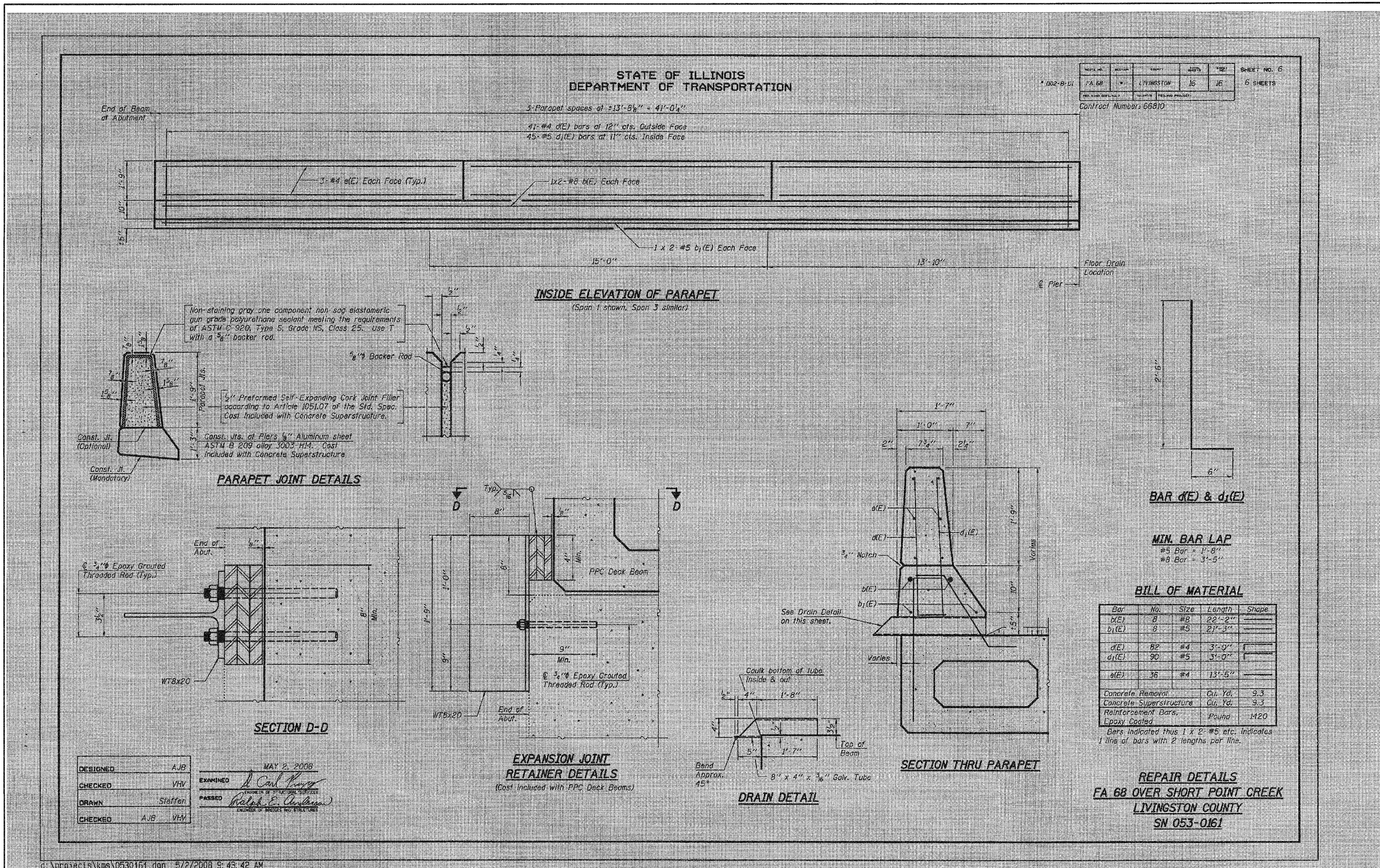
		DATE - 08/05/10	REVISED -							



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$b(E)$	8	#8	22'-2"	
$b_1(E)$	8	#5	21'-3"	
$d(E)$	82	#4	3'-0"	
$d_1(E)$	90	#5	3'-0"	
$e(E)$	36	#4	13'-5"	
Concrete Removal			Cu. Yd.	9.3
Concrete Superstructure			Cu. Yd.	9.3
Reinforcement Bars, Epoxy Coated			Pound	1420

Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.

FILE NAME = W:\2299-03 - IL Route 23 Roadway\DGN\CADD Sheets\D366822-Existing Structure Plans.dgn	USER NAME = IDOTCAD	DESIGNED - SPF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING BRIDGE PLANS FOR INFORMATION ONLY	F.A. RTE. 68	SECTION (102) BR-1
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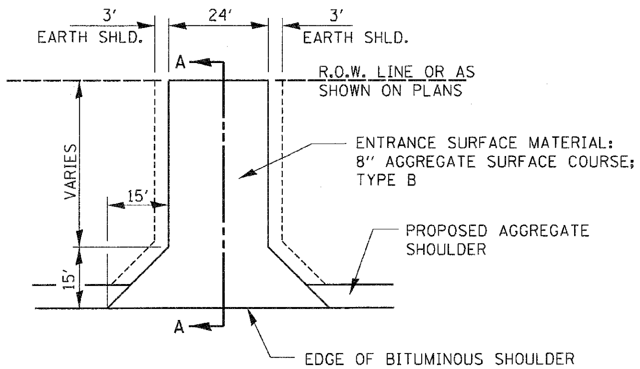
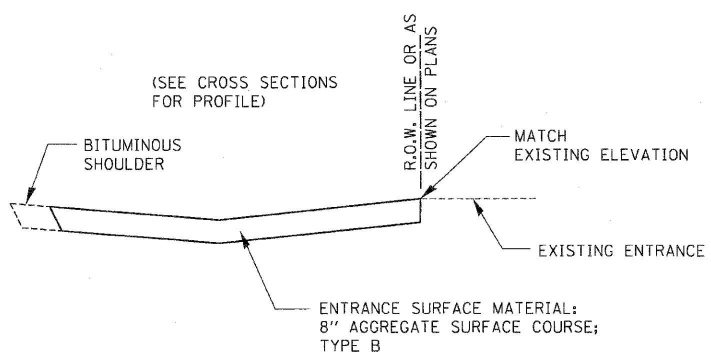
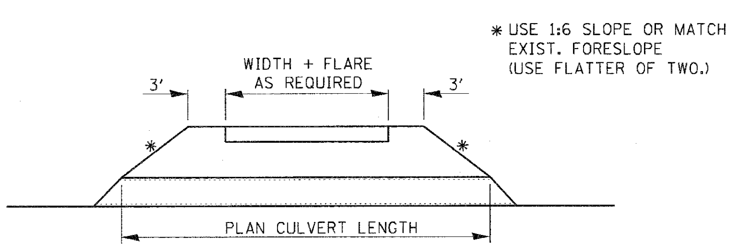
		DATE - 08/05/10	REVISED -			CONTRACT NO. 66822	ILLINOIS FED. AID PROJECT

DISTRICT DETAILS

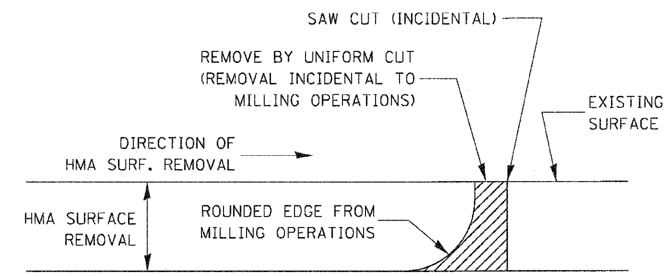




SECTION A-A



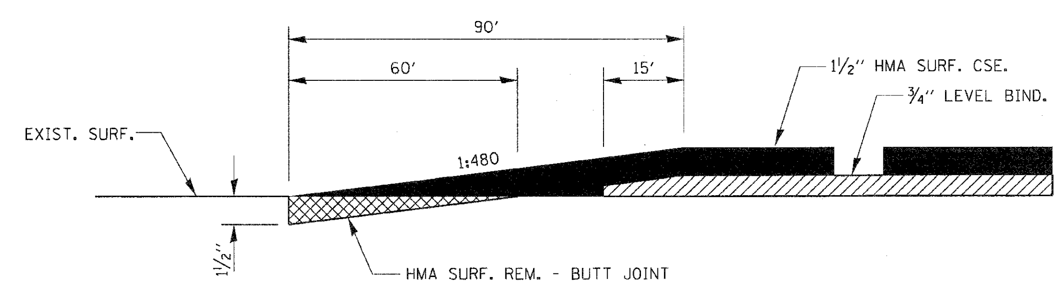
FIELD ENTRANCE DETAIL 402-1



NOTE:

WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE, THEN A SAW CUT SHALL BE USED TO MANUFACTURE A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL

HMA DETAIL AT BUTT JOINTS 406-8



BUTT JOINT DETAIL 406-9

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	PLOT DATE = 8/2/2010	DATE - 08/05/10	REVISED -

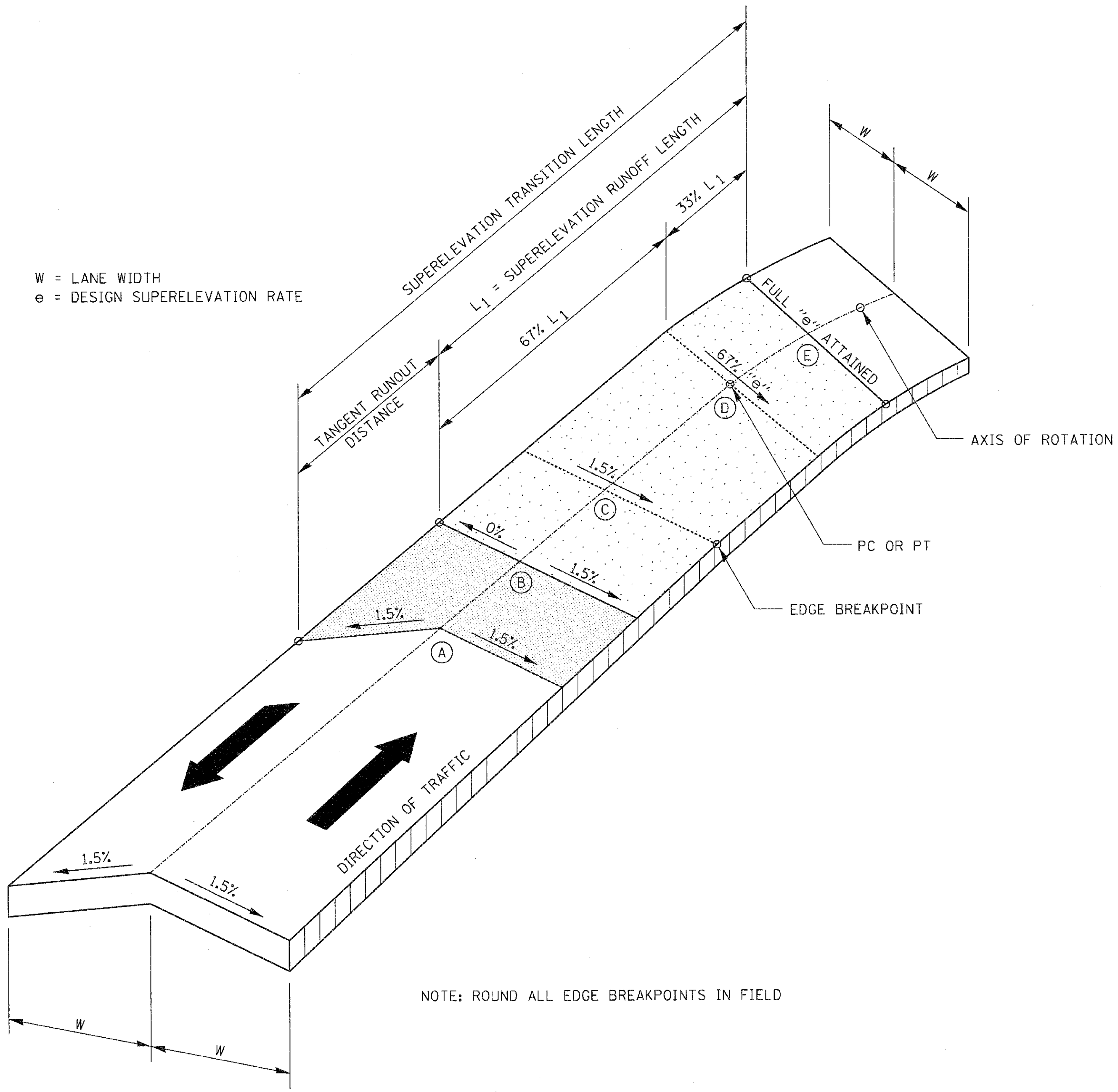
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT DETAILS

SCALE: N/A | SHEET NO. 1 OF 3 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102) BR-1	LIVINGSTON	58	53
		CONTRACT NO. 66822		
	ILLINOIS	FED. AID PROJECT		

W = LANE WIDTH
e = DESIGN SUPERELEVATION RATE



NOTE: ROUND ALL EDGE BREAKPOINTS IN FIELD

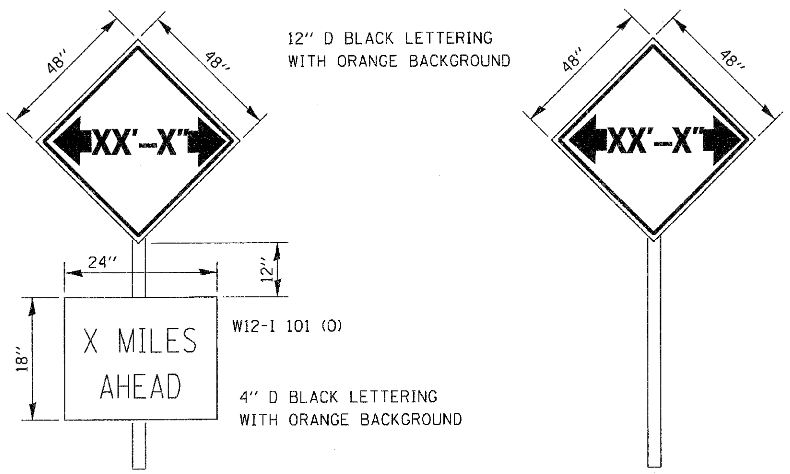
TRANSITION CURVE TABLE

CURVE PI STA.	SUPERELEVATION "e"	W	SUPERELEVATION TRANSITION LENGTH	TANGENT RUNOUT DISTANCE	SUPERELEVATION RUNOUT LENGTH
632+30.63	6%	12	225	45	180

SUPERELEVATION TRANSITION ON TWO-LANE HIGHWAY

420-4

FILE NAME = W:\2299-03 - IL Route 23 Roadway\DGN\CADD Sheets\D366822-sht-details.dgn	USER NAME = IDOTCAD	DESIGNED - SPF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT DETAILS	F.A.P RTE. 68 / SECTION (102) BR-1 / COUNTY LIVINGSTON / TOTAL SHEETS 58 / SHEET NO. 54
	PLOT SCALE = 50.0000 ' / in.	DRAWN - AJP	REVISED -		SCALE: N/A	CONTRACT NO. 66822
	PLOT DATE = 8/2/2010	CHECKED - JMS	REVISED -		SHEET NO. 2 OF 3 SHEETS	ILLINOIS FED. AID PROJECT
		DATE - 08/05/10	REVISED -		STA. TO STA.	



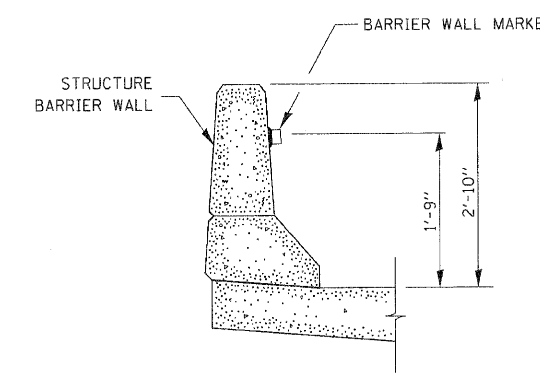
TO BE POST MOUNTED AS SHOWN ELSEWHERE IN THE PLANS.

THE ENGINEER WILL NOTIFY DISTRICT 3 BUREAU OF OPERATIONS 14 CALENDAR DAYS PRIOR TO INSTALLING ANY TRAFFIC CONTROL DEVICES THAT WILL RESTRICT THE PAVEMENT WIDTH.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE ENGINEER TO MEET THIS REQUIREMENT.

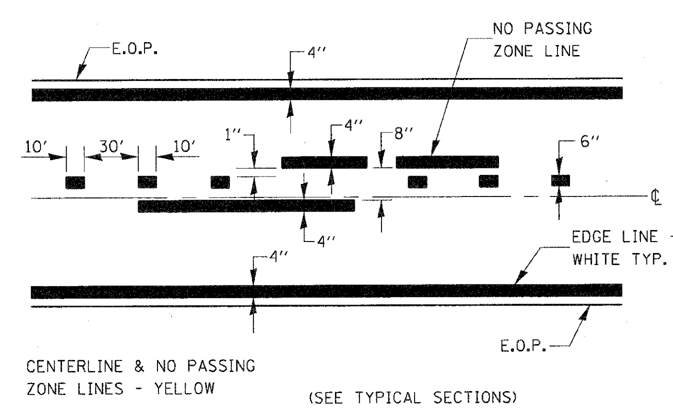
COST OF SUPPLYING, INSTALLING, MAINTAINING AND REMOVING WIDTH RESTRICTION SIGNS SHALL BE INCLUDED IN THE COST OF THE TRAFFIC CONTROL AND PROTECTION PAY ITEMS.

WIDTH RESTRICTION SIGNING DETAILS 701-6



782-4

BARRIER WALL MARKER



PAVEMENT MARKING 780-8

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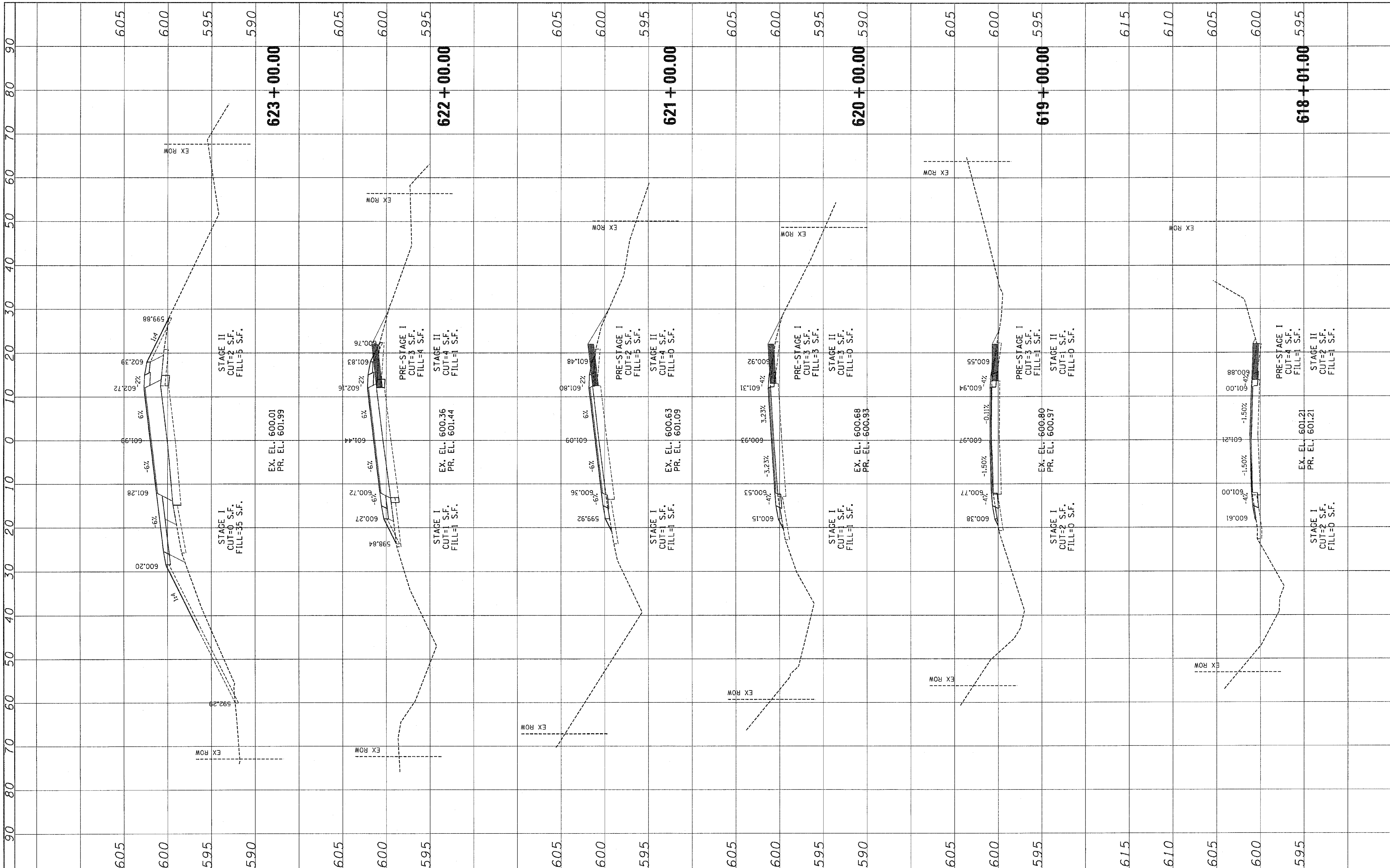
	PLOT DATE = 8/2/2010	CHECKED - JMS	REVISED -		SCALE: N/A · SHEET NO. 3 OF 3 SHEETS · STA. · TO STA.
		DATE - 08/05/10	REVISED -		

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102) BR-1	LIVINGSTON	58	55
		CONTRACT NO. 66822		
		ILLINOIS FED. AID PROJECT		



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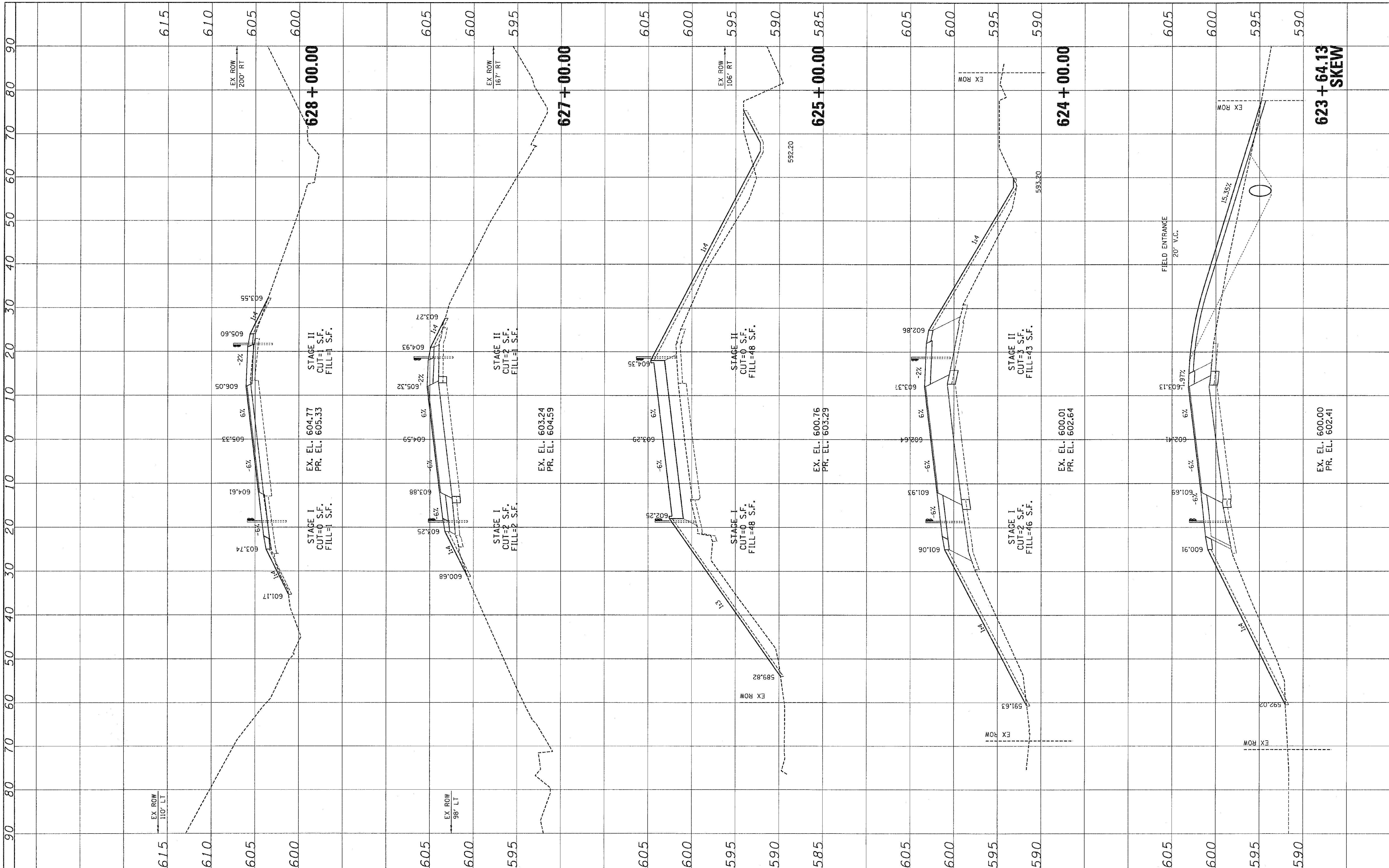
	PLOT SCALE = \$SCALE\$	DRAWN - AJP	REVISED -		SCALE:	SHEET NO. 03 OF 03 SHEETS	STA. 618+01.00 TO STA. 623+00.00	CONTRACT NO. 66822	
	PLOT DATE = \$DATE\$	CHECKED - JMS	REVISED -					ILLINOIS FED. AID PROJECT	
		DATE - 08/05/10	REVISED -						



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: | SHEET NO. 02 OF 03 SHEETS | STA. 623+64.13 TO STA. 628+00.00

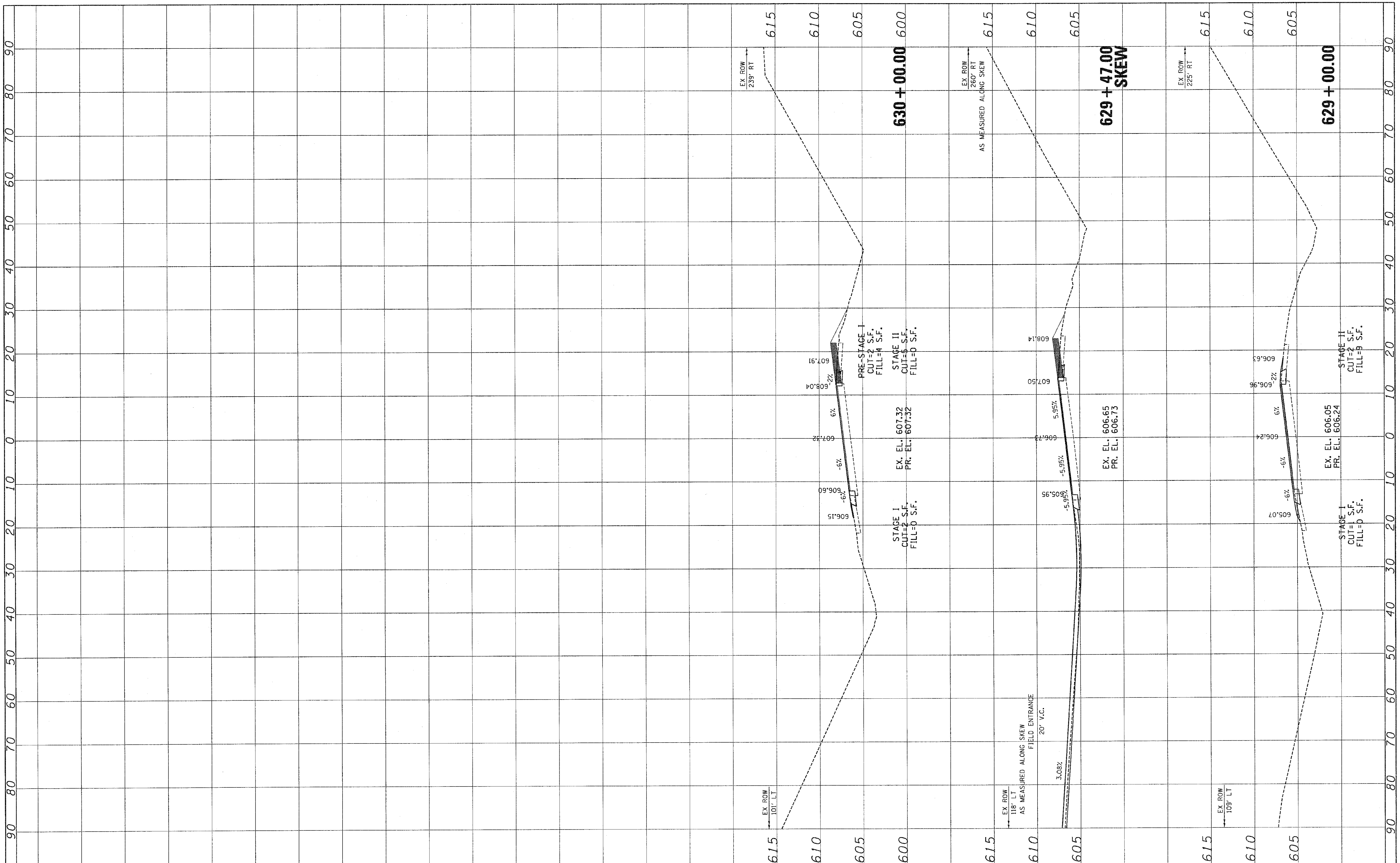
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102) BR-1	LIVINGSTON	58	57

CONTRACT NO. 66822

ILLINOIS FED. AID PROJECT

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

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



FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - SPF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - AJP	REVISED -	
	PLOT SCALE = $SCALE$	CHECKED - JMS	REVISED -	
	PLOT DATE = $DATE$	DATE - 08/05/10	REVISED -	

CROSS SECTIONS

SCALE: | SHEET NO. 01 OF 03 SHEETS | STA. 629+00.00 TO STA. 630+00.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(102) BR-1	LIVINGSTON	58	58
		CONTRACT NO. 66822		
		ILLINOIS FED. AID PROJECT		