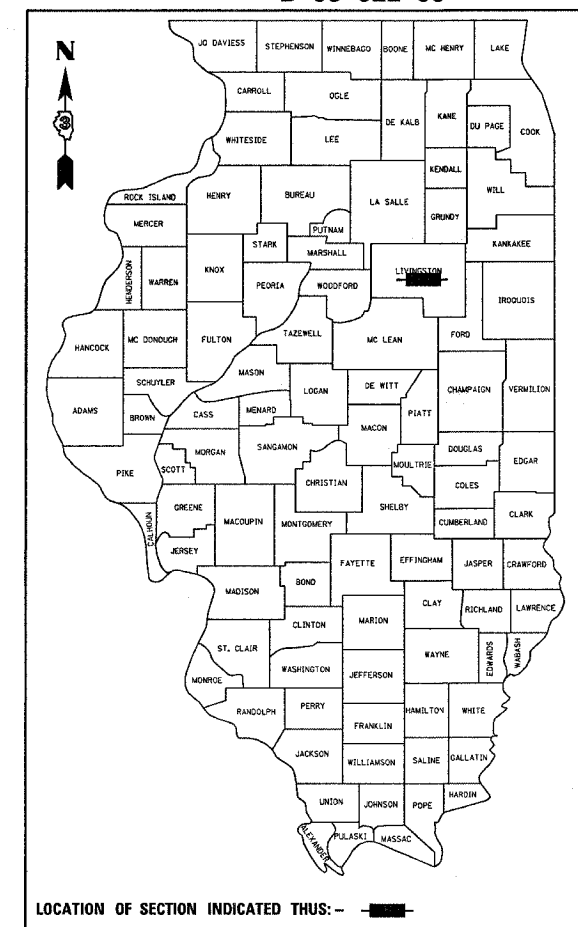


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEETS NO.
681	114 BR	LIVINGSTON	43	1
ILLINOIS PROJECT			44	

P-93-041-03
D-93-022-06



FUNCTION CLASSIFICATION
RURAL MINOR ARTERIAL (NON-URBAN)
2007 ADT = 1950
P.V. = 87.9% S.U. = 7.8% M.U. = 4.3%

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Aug. 27 2007

James Ryan
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

October 12, 2007
Eric E. Horak
ENGINEER OF DESIGN AND ENVIRONMENT

October 12, 2007
Milton R. Seay, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

F.A.P. ROUTE 681 (IL 116)

SECTION 114 BR

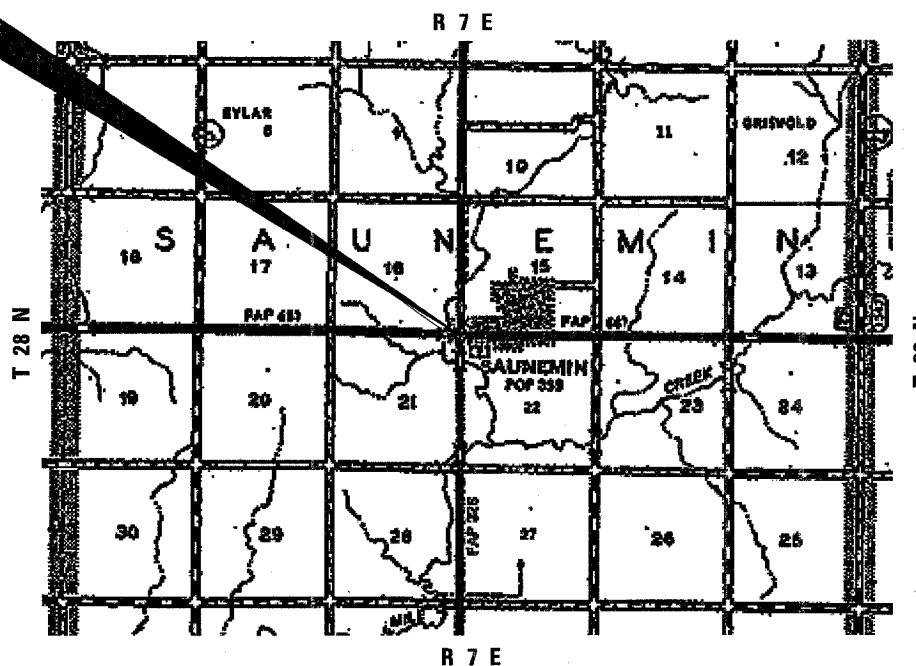
PROJECT ACBRF-0681(034)

LIVINGSTON COUNTY

C - 93 - 029 - 06

REMOVE AND REPLACE S.N. 053-0076 OVER FIVE MILE CREEK WITH
A 2-SPAN CONTINUOUS CONCRETE SLAB WITH INTEGRAL ABUTMENTS

PROJECT LIMITS
STA. 583+00 TO STA. 586+78
PROPOSED S.N. 053-0181



LOCATION MAP
NOT TO SCALE

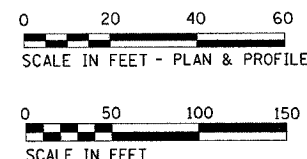
GROSS AND NET LENGTH = 380 FT. = .072 MI.

INDEX OF SHEETS

- 1 COVER SHEET
- 2 GENERAL NOTES & STANDARDS
- 3-4 SUMMARY OF QUANTITIES
- 5 TYPICAL SECTIONS
- 6-7 SCHEDULES OF QUANTITIES
- 8 ALIGNMENT SHEET
- 9 GENERAL PLAN
- 10 PLAN & PROFILE
- 11 INTERSECTION LAYOUT SHEET
- 12 REMOVAL PLAN
- 13 EROSION CONTROL & LANDSCAPING PLAN
- 14 TWO WAY TRAFFIC STAGE I PLAN
- 15 TWO WAY TRAFFIC STAGE II PLAN
- 16 FINAL PLAN AND PAVEMENT MARKING
- 17 LIGHTING PLAN
- 18-31 STRUCTURE PLANS
- 32-35 EXISTING BRIDGE PLANS
- 36-41 ROADWAY DETAIL SHEETS
- 42-43 ILL 116 CROSS SECTIONS

HIGHWAY STANDARDS

SEE PAGE 2



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.

MICROFILMED _____
REEL NUMBER _____
AWARDED _____
RESIDENT ENGINEER _____
AS BUILT CHANGES WERE MADE
ON THE FOLLOWING SHEETS _____

JULIE 1-800-892-0123

DISTRICT 3 NO. (815) 434-6131

PROJECT ENGINEER: DAVE BROVIK
UNIT CHIEF: SCOTT A. FERGUSON
TOWNSHIP: SAUNEMIN

CONTRACT NO. 66625

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F. A. P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114 BR	LIVINGSTON	43	2
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

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.

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.

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 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
BITUMINOUS MAT PRIME COAT	0.08	GAL / SQ YD OR
	0.375	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 CONTRACTOR'S ATTENTION IS DIRECTED TO THE PRESENCE OF DEPARTMENT-OWNED UNDERGROUND ELECTRICAL CABLE WITHIN THE LIMITS OF THE PROPOSED IMPROVEMENT. THE CONTRACTOR SHALL REQUEST THE ILLINOIS DEPARTMENT OF TRANSPORTATION IN OTTAWA (815-434-8417) TO LOCATE THE UNDERGROUND FACILITIES, PROVIDING A MINIMUM OF 72 HOURS NOTICE. THE DEPARTMENT IS NOT A MEMBER OF THE JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS (JULIE) SYSTEM.

ALL DAMAGE TO DEPARTMENT OWNED UNDERGROUND FACILITIES, CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTION OF THE DEPARTMENT AT THE CONTRACTOR'S EXPENSE. THIS SHALL INCLUDE ALL TEMPORARY REPAIRS REQUIRED TO KEEP THE FACILITY OPERATIONAL WHILE MATERIAL IS BEING OBTAINED TO MAKE PERMANENT REPAIRS. SPLICING OF ELECTRIC CABLE SHALL NOT BE ALLOWED. ELECTRIC CABLE SHALL BE REPLACED FROM POLE TO POLE OR CONTROLLER.

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

1. COMMONWEALTH EDISON COMPANY
2. FRONTIER COMMUNICATIONS
3. MEDIACOM

NON MEMBERS ARE:

STANDARDS

- 000001-04 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-01 AREAS OF REINFORCEMENT BARS
- 280001-03 TEMPORARY EROSION CONTROL SYSTEMS
- 420401-05 BRIDGE APPROACH PAVEMENT
- 482011-02 HMA SHOULDER STRIPS/SHOULDERS WITH RS OR WIDENING & RS PROJECTS
- 503001-02 CONCRETE PARAPET SLIP-FORMING OPTION
- 515001-02 NAME PLATE FOR BRIDGES
- 601101 CONCRETE HEADWALL FOR PIPE DRAINS
- 602301-01 INLET, TYPE A
- 604026-01 FRAME AND GRATE, TYPE 6
- 606001-03 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
- 630001-07 STEEL PLATE BEAM GUARDRAIL
- 630201-04 PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
- 630301-04 SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
- 631031-06 TRAFFIC BARRIER TERMINAL, TYPE 6
- 635006-02 REFLECTOR AND TERMINAL MARKER PLACEMENT
- 635011-01 REFLECTOR MARKER AND MOUNTING DETAILS
- 667101 PERMANENT SURVEY MARKERS
- 668001 U.S. GEOLOGIC SURVEY AND NATIONAL GEODETIC SURVEY BENCHMARKS, RESETTING METHOD
- 701006-02 OFF-ROAD OPERATIONS 2L, 2W, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
- 701311-02 LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
- 702001-06 TRAFFIC CONTROL DEVICES
- 704001-03 TEMPORARY CONCRETE BARRIER
- 781001-02 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

COMMITMENTS

NONE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

PREPARED BY: Rick Panell
DISTRICT STUDIES & PLANS ENGINEER

DATE: 8-27-07

EXAMINED BY: Herb J. Jones
DISTRICT CONSTRUCTION ENGINEER

[Signature]
DISTRICT MATERIALS ENGINEER

[Signature]
DISTRICT OPERATIONS ENGINEER

ILLINOIS DEPARTMENT OF TRANSPORTATION

REVISIONS	
NAME	DATE

GENERAL NOTES

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114 BR	LIVINGSTON	43	3
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE TYPE:	
				ROADWAY JO00	BRIDGE X020-2A
20300100	CHANNEL EXCAVATION	CU YD	1800		1800
20200100	EARTH EXCAVATION	CU YD	60	60	
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	92		92
25000210	SEEDING, CLASS 2A	ACRE	0.34	0.34	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	31	31	
25000500	PHOSPHOROUS FERTILIZER NUTRIENT	POUND	31	31	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	31	31	
25100115	MULCH, METHOD 2	ACRE	0.34	0.34	
25100630	EROSION CONTROL BLANKET	SQ YD	245	245.00	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	204	204	
28000300	TEMPORARY DITCH CHECKS	EACH	4	4	
28000400	PERIMETER EROSION BARRIER	FOOT	110	110	
28100107	STONE RIPRAP, CLASS A4	SQ YD	1205		1205
28200200	FILTER FABRIC	SQ YD	1205		1205
31100910	SUB-BASE GRANULAR MATERIAL, TYPE A 12"	SQ YD	335.5	335.5	
35400400	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 9"	SQ YD	61.7	61.7	
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	209	209	
40600300	AGGREGATE (PRIME COAT)	TON	5.2	5.2	
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	104.1	104.1	
40600990	TEMPORARY RAMP	SQ YD	42.8	42.8	
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	208.4	208.4	
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	153.3	153.3	
42001400	BRIDGE APPROACH PAVEMENT (SPECIAL)	SQ YD	167.2	167.2	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	64.6	64.6	
44000100	PAVEMENT REMOVAL	SQ YD	649	649	
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ YD	2481.2	2481.2	
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	250	250	
44000920	BITUMINOUS CONCRETE SHOULDER REMOVAL	SQ YD	392	392	
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	314	314	
50101500	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50200100	STRUCTURE EXCAVATION	CU YD	281		281
50300100	FLOOR DRAINS	EACH	8		8
50300225	CONCRETE STRUCTURES	CU YD	90.5		90.5
50300255	CONCRETE SUPERSTRUCTURE	CU YD	329.1		329.1
50300260	BRIDGE DECK GROOVING	SQ YD	440		440
50300300	PROTECTIVE COAT	SQ YD	535		535
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	65590		65590
50800515	BAR SPLICERS	EACH	227		227
51201800	FURNISHING STEEL PILES HP14x73	FOOT	1948		1948
51202305	DRIVING PILES	FOOT	1948		1948
51203800	TEST PILE STEEL HP14x73	EACH	3		3
51205200	TEMPORARY SHEET PILING	SQ FT	2126		2126
51500100	NAME PLATES	EACH	1		1
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	44		44
60100060	CONCRETE HEADWALL FOR PIPE DRAINS	EACH	4		4
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	150		150

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114 BR	LIVINGSTON	43	4
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE TYPE:	
				ROADWAY J000	BRIDGE X020-2A
60240240	INLETS, TYPE B, TYPE 6 FRAME AND GRATE	EACH	1		
60260100	INLETS TO BE ADJUSTED	EACH	1	1	
60500060	REMOVING INLETS	EACH	1	1	
* 63000000	STEEL PLATE GUARD RAIL, TYPE A	FOOT	275	275	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)	EACH	4	4	
63200305	STEEL PLATE GUARD RAIL REMOVAL	FOOT	686	686	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	4	
67100100	MOBILIZATION	L SUM	1	1	
70101800	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1	1	
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1	
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	4582	4582	
70300640	TEMPORARY PAINT PAVEMENT MARKING LINE 8"	FOOT	290	290	
70300645	TEMPORARY PAINT PAVEMENT MARKING LINE 12"	FOOT	160	160	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1527	1527	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	312.5	312.5	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	275	275	
78004100	PREFORMED PLASTIC PAVEMENT MARKING, TYPE C-LETTERS AND SYMBOLS	SQ FT	364	364	
78004180	PREFORMED PLASTIC PAVEMENT MARKING, TYPE C - LINE 24"	FOOT	183	183	
78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	5	5	
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	32	32	
78200300	PRISMATIC CURB REFLECTOR	EACH	18	18	
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	8	8	
* 78200520	BARRIER WALL MARKERS, TYPE B	EACH	6	6	
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
78300100	PAVEMENT MARKING REMOVAL	SQ FT	297	297	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	37	37	
81021550	CONDUIT, AUGERED 2" DIA., PVC	FOOT	150	150	
81603035	UNIT DUCT, 600V, 2-1C NO.6, 1/C NO.6 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE	FOOT	215	215	
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	55	55	
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	150	150	
XX002134	CONCRETE CURB AND GUTTER OUTLET SPECIAL	EACH	2	2	
78008250	POLYUREA PAVEMENT MARKING TYPE I - LINE 12"	FOOT	417	417	
78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	5016	5016	
78008240	POLYUREA PAVEMENT MARKING TYPE I - LINE 8"	FOOT	1145	1145	
X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1		1
X6063600	COMBINATION CONCRETE CURB AND GUTTER, TYPE M-4.24	FOOT	233	233	
X8430100	REMOVE EXISTING CONDUIT ATTACHED TO STRUCTURE	FOOT	150	150	
Z0005215	BITUMINOUS STABILIZATION 6" AT STEEL PLATE BEAM GUARDRAIL	SQ YD	38.4	38.4	
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
Z0038700	PERMANENT BENCH MARKS	EACH	1		1
Z0055300	RUMBLE STRIP	EACH	3	3	

* SPECIALTY ITEMS
 ** SFTY - 3N

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

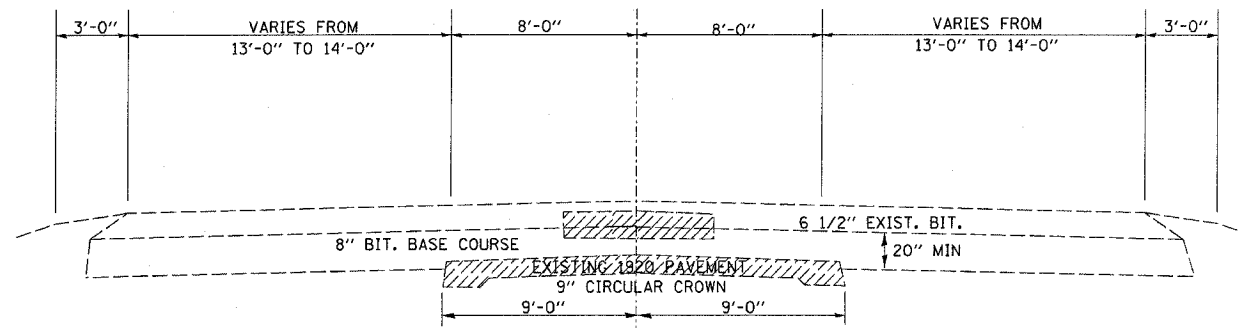
SUMMARY OF QUANTITIES

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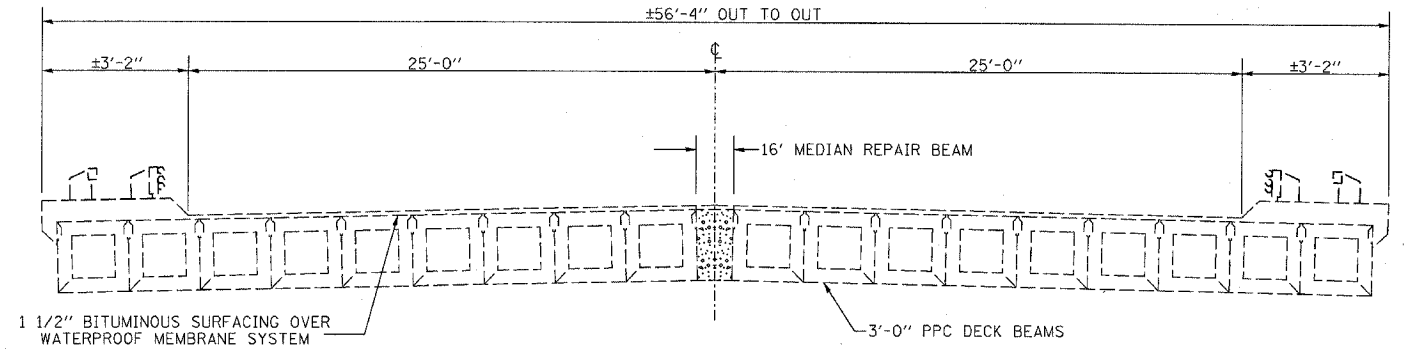
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114BR	LIVINGSTON	43	5
STA. 583+00		TO STA. 586+78		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



EXISTING TYPICAL SECTION
 STA. 581+00 TO STA. 584+39
 STA. 585+91 TO STA. 586+50

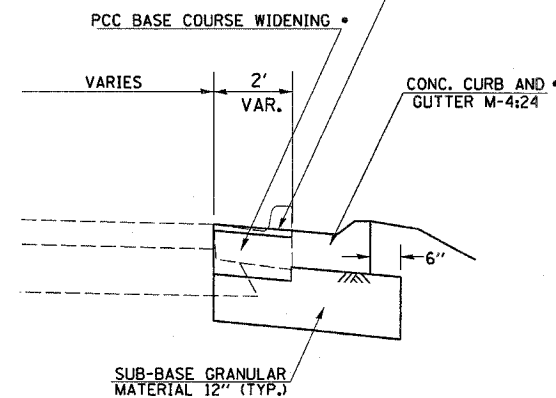


EXISTING TYPICAL SECTION
 S.N. 053-0076
 STA. 584+95 TO STA. 585+34

	HMA Base Course Widening 11"	HMA Level Binder	HMA Surface	HMA Shoulders
PG Grade	PG58-22	PG64-22	PG64-22	PG58-22
Max % RAP Allowable**	25%	15%	10%	50%
Design Air	4.0% @	4.0% @	4.0% @	3.0% @
Voids	N50	N70	N70	N50
Mixture Composition	IL 19.0	IL 9.5	IL 12.5 or IL 9.5	IL 19.0
Friction Aggregate			Mixture D	
Density Test Method	Nuclear/Cores	Satisfaction of Engineer	Nuclear/Cores	

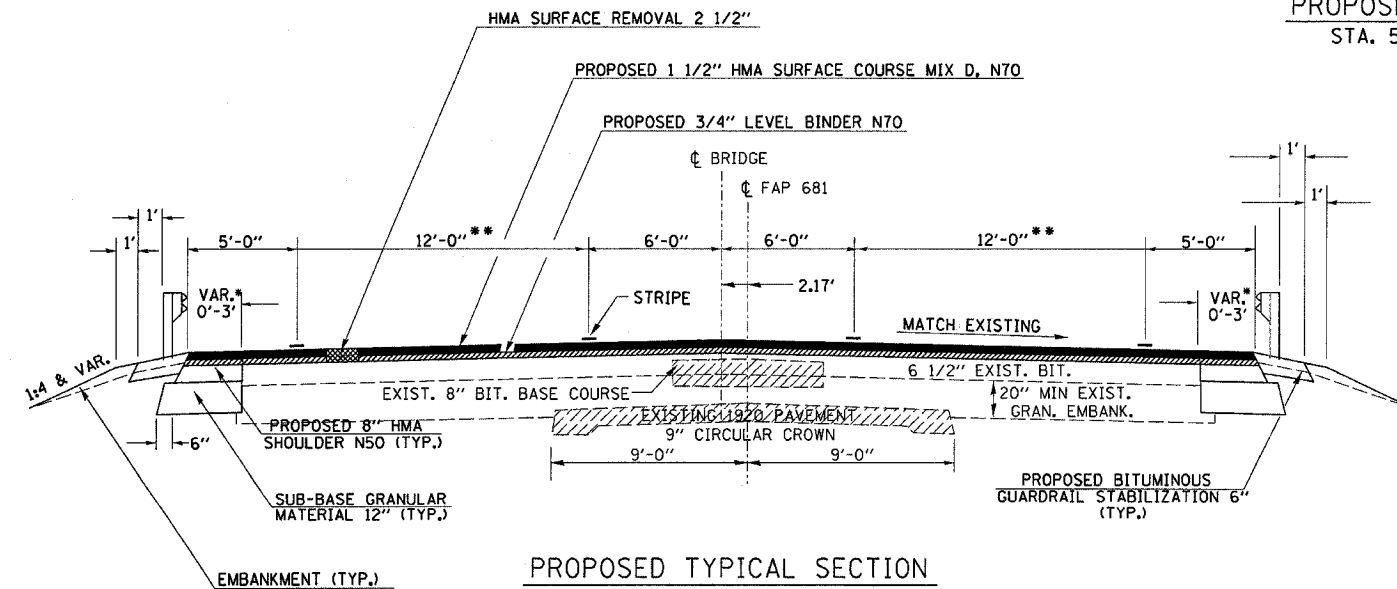
- Material shall be compacted to 93.0 - 97.4 percent of the maximum theoretical density except that when placed as first lift on an unimproved subgrade the minimum percent compaction shall be 92.0 percent. The maximum theoretical density shall be determined from the moving average as specified in the QC/QA Specification.
- If RAP option is selected, the asphalt cement grade may need to be adjusted. This will be determined by the Engineer

PROPOSED 1 1/2" HMA SURFACE COURSE MIX D, N70
 PROPOSED 3/4" LEVEL BINDER N70



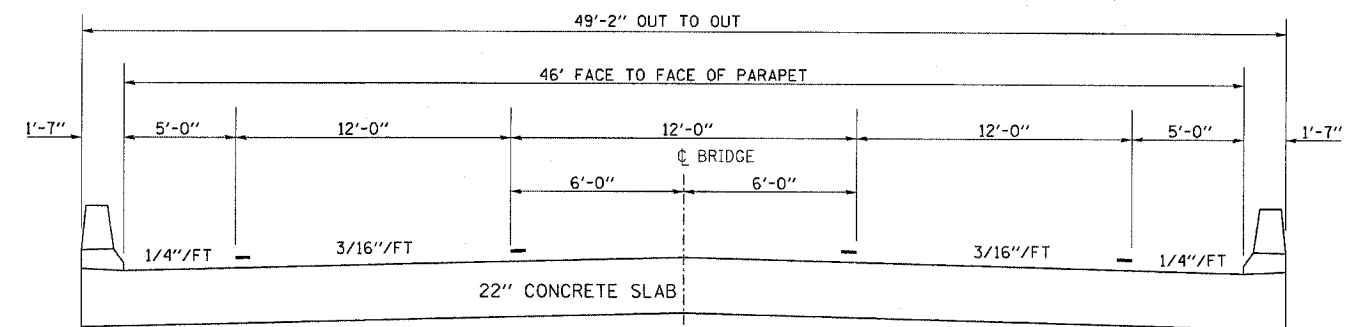
- PCC BASE COURSE WIDENING AND CONC CURB AND GUTTER TO BE POURED MONOLITHICALLY

PROPOSED TYPICAL SECTION
 STA. 585+96 TO STA. 586+50



PROPOSED TYPICAL SECTION
 STA. 581+00 TO STA. 584+39
 STA. 585+90 TO STA. 586+50**

- 133 FT - VARIABLE SHOULDER WIDENING RT & LT
- ** VARIABLE PAVEMENT WIDTH THROUGHOUT WITH RADIUS WIDENING TO BE PAID FOR AS PCC BASE CSE WIDENING (SEE WIDENING TYPICAL)



PROPOSED TYPICAL SECTION
 S.N. 053-0181
 STA. 584+69 TO STA. 585+60

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: VERT. HORIZ.
 DATE

DRAWN BY
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114 BR	LIVINGSTON	43	6
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

MAINLINE SCHEDULE												
LOCATION IL 116	LENGTH	WIDTH	AREA	HOT-MIX ASPHALT SURFACE COURSE MIX D, N70 1 1/2"	LEVELING BINDER (MACHINE) (METHOD) N70 3/4"	PCC BASE COURSE WIDENING 9"	HOT-MIX ASPHALT SHOULDERS 8"	SUB-BASE GRANULAR MATERIAL TYPE A 12"	BITUMINOUS PRIME COAT	HOT-MIX ASPHALT SURFACE REMOVAL 2 1/4"	AGG PRIME COAT	TEMP RAMP
	FT	FT	SQ YD	TONS	TONS	SQ YD	SQ YD	SQ YD	GALLONS	SQ YD	TONS	SQ YD
LIVINGSTON COUNTY												
581+00 TO 583+00	200.0	32.5	722.2	60.7	30.3				57.8	722.2	1.44	13.9
583+00 TO 584+33	133.0	36.0	532	58.1	29.0		160.0	177.0	55.4	692.0	1.38	
584+33 TO 584+39	6.0	46.0	30.7	BRIDGE APPROACH PAVEMENT CONNECTOR FLEXIBLE			4.0	4.5				
584+39 TO 584+69	30.0	46.0	153.3	BRIDGE APPROACH PAVEMENT			19.0	21.0				
584+69 TO 585+60	91.0	46.0	465.1	BRIDGE								
585+60 TO 585+90	30.0	46 & VAR.	164	BRIDGE APPROACH PAVEMENT								
585+90 TO 585+96	6.0	46.0	30.7	BRIDGE APPROACH PAVEMENT CONNECTOR FLEXIBLE								
585+96 TO 586+78	82.0	VAR.	1067	89.6	44.8	61.7	131.0	133.0	95.8	1067.0	2.39	28.9
LINE TOTAL			2442.8	208.4	104.1	61.7	314.0	335.5	209.0	2481.2	5.2	42.8

GUARDRAIL SCHEDULE								
LOCATION	STEEL PLATE BEAM GUARD RAIL REMOVAL	STEEL PLATE BEAM GUARD RAIL TYPE A	TRAFFIC BARRIER TERMINAL TY 6	TRAFFIC BARRIER TERMINAL TY 1 SPECIAL TANGENT	BIT. STABILIZ. FOR SPBGR	TERMINAL MARKER DIRECT APPLIED	GUARDRAIL MARKERS TYPE A	BARRIER WALL MARKER TYPE B
	FOOT	FOOT	EACH	EACH	SQ YD	EACH	EACH	EACH
582+00 TO 584+69	438	25	2	2		2	4	3
584+69 TO 585+60	182							
585+60 TO 586+78	66	250	2	2	38.4	2	4	3
TOTAL	686	275	4	4	38.4	4	8	6

CURB AND GUTTER SCHEDULE			
LOCATION	CONCRETE C & G TY. M-4.24	INLETS TO BE ADJUSTED	CCC&G OUTLET SPECIAL
	FOOT		EACH
STA 585+90 RT TO STA 586+78 RT	115	1	1
STA 585+90 LT TO STA 586+78 LT	118	1	1
TOTAL	233	2	2

SEEDING & EROSION CONTROL SCHEDULE										
LOCATION	AREA	SEEDING CL 2A	MULCH METHOD 2	TEMPORARY EROSION CONTROL SEEDING	NITROGEN FERTILIZER	PHOSPHORUS FERTILIZER	POTASSIUM FERTILIZER	PERIMETER EROSION BARRIER	EROSION CONTROL BLANKET	TEMPORARY DITCH CHECK
LOCATION	ACRE	ACRE	ACRE	POUNDS	POUNDS	POUNDS	POUNDS	FEET	SQ YD	EACH
LIVINGSTON										
NORTHEAST QUAD	0.12	0.12	0.12	72	11	11	11	60	50	1
NORTHWEST QUAD	0.07	0.07	0.07	42	6	6	6	50	45	1
SOUTHEAST QUAD	0.06	0.06	0.06	36	5	5	5		120	1
SOUTHWEST QUAD	0.09	0.09	0.09	54	8	8	8		30	1
LINE TOTAL		0.34	0.34	204	31	31	31	110	245	4

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULES

SCALE: VERT. _____
 HORIZ. _____

DATE _____ DRAWN BY _____
 CHECKED BY _____

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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114 BR	LIVINGSTON	43	7
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

LOCATION	PAVEMENT REMOVAL SQ YD	BITUMINOUS SHOULDER REMOVAL SQ YD	CONCRETE CURB & GUTTER REMOVAL FOOT
STA. 583+00 TO STA. 584+95.5	317	240	
STA. 584+95.5 TO STA. 586+78	332	152	250
TOTAL	649	392	250

LOCATION	LENGTH	WIDTH	AREA	BRIDGE APPROACH PAVEMENT	BRIDGE APPROACH PAVEMENT (SPECIAL)	BRIDGE APPR. PVMT. CONNECTOR FLEXIBLE
	FEET	FEET	SQ. YD.	SQ. YD.	SQ. YD.	SQ. YD.
STA. 584+33 TO STA. 584+39	6	46	30.67			30.67
STA. 584+39 TO STA. 584+69	30	46	153.33	153.33		
STA. 584+69 TO STA. 585+60	91	46	465.11			
STA. 585+60 TO STA. 585+90	30	VAR	167.22		167.22	
STA. 585+90 TO STA. 585+96	6	VAR	33.89			33.89
TOTAL				153.33	167.22	64.56

LOCATION	ONE WAY	TWO WAY		RAISED REF. MRK BRIDGE	PRISMATIC CURB REFLECTORS	REFLECTOR REMOVAL LIN FT
		CRYSTAL LIN FT	AMBER LIN FT			
LIVINGSTON COUNTY						
	EACH	EACH	EACH	EACH	EACH	EACH
STA. 580+00 TO STA. 583+30	285		15.0			15
STA. 583+30 TO STA. 585+10	180		8.0	2		10
STA. 585+10 TO STA. 586+78	168	3.0		3		12
NORTH WEST ISLAND					9	
SOUTH WEST ISLAND					9	
PROJECT TOTAL	3	23	6	5	18	37

LOCATION	LENGTH	POLYUREA PAVEMENT MARKING					PRE-FORMED PLASTIC		TEMPORARY		SHORT TERM PAVEMENT MARKING		PAVEMENT MARKING REMOVAL SQ FT	WORK ZONE PAVT' MK REMOVAL SQ FT	
		PAINT PVMT MARKING		PAINT PVMT MARKING		PAINT PVMT MARKING		PAVEMENT MARKING TY. C	PAVEMENT MARKING TY. C LETTERS & SYMBOLS	PAINT PVMT MARKING	PAINT PVMT MARKING	WHITE			YELLOW
		WHITE	YELLOW	WHITE	WHITE	YELLOW	WHITE	WHITE	8"	12"	FT	FT			FT
IL 116	FT	4"	4"	8"	12"	12"	24"								
PRE-STAGE CONSTRUCTION															
NORTH LEG		150	300	150			24	124.8							
SOUTH LEG		150	300	150			24	124.8							
EAST LEG		240	200	375	140		67	83.2							
WEST LEG									290	160					
STAGE I											1246	980	297	741.9	
STAGE II											1316	1040		785.3	
FINAL PAVEMENT MARKINGS															
STA 580+00 TO STA 580+45	45	90	90												
STA 580+45 TO STA 583+30	285	450	1140			75									
STA 583+30 TO STA 585+10	180	360	720	45		42									
STA 585+10 TO STA 586+78	168	566	260	425	160		68	31.2							
LINE TOTAL		2006	3010	1145	300	117	183	364	290	160	2562	2020	297	1527	

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NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

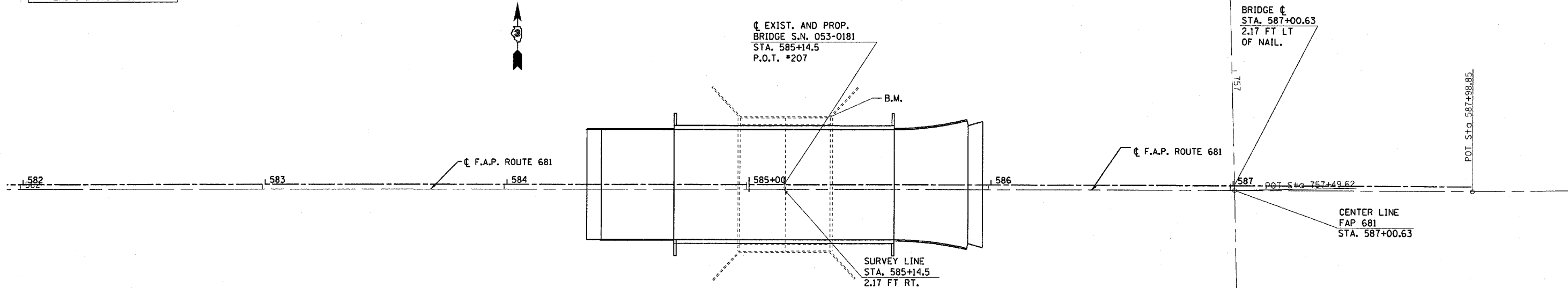
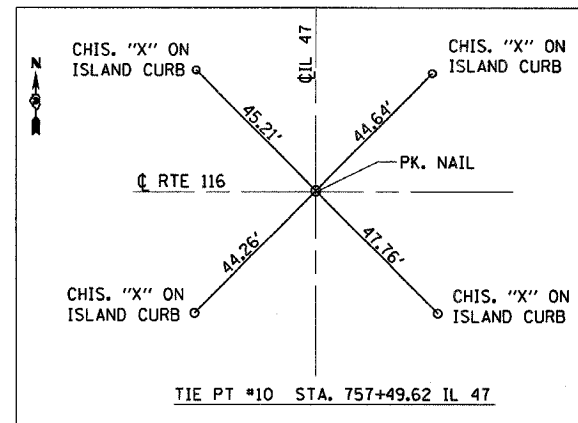
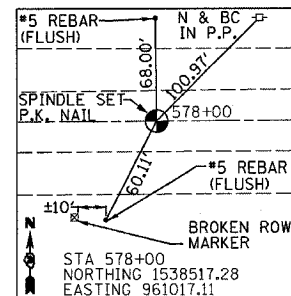
SCHEDULES

SCALE: VERT. _____
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 DATE _____

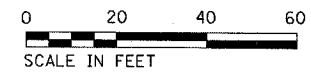
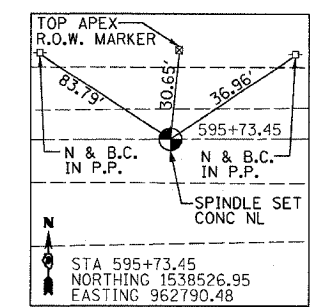
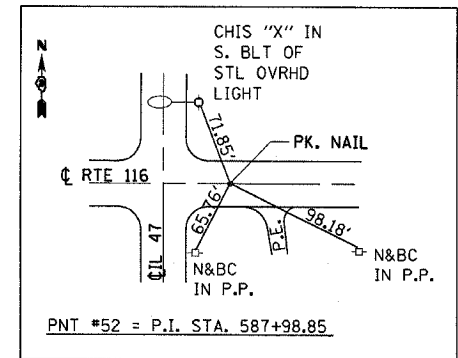
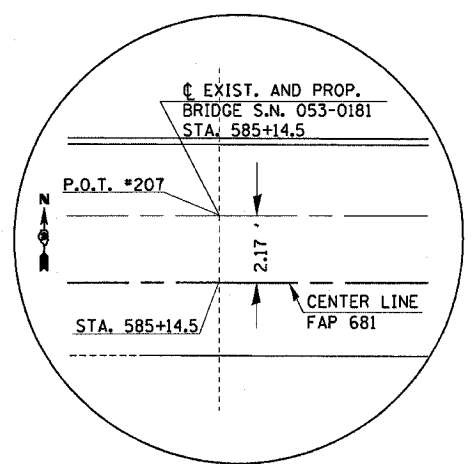
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 CHECKED BY _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114 BR	LIVINGSTON	43	8
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

BENCHMARK:
U.S.G.S. BRASS DISK
TOP OF NORTHEAST WINGWALL
28.50' LT ELEVATION = 677.70



BM - RR SPIKE IN POWER
POLE IN NW QUAD
STA. 586+18, 148' LT.
ELEVATION = 673.54



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

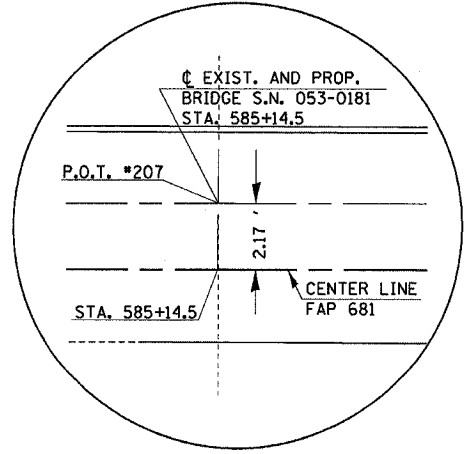
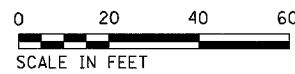
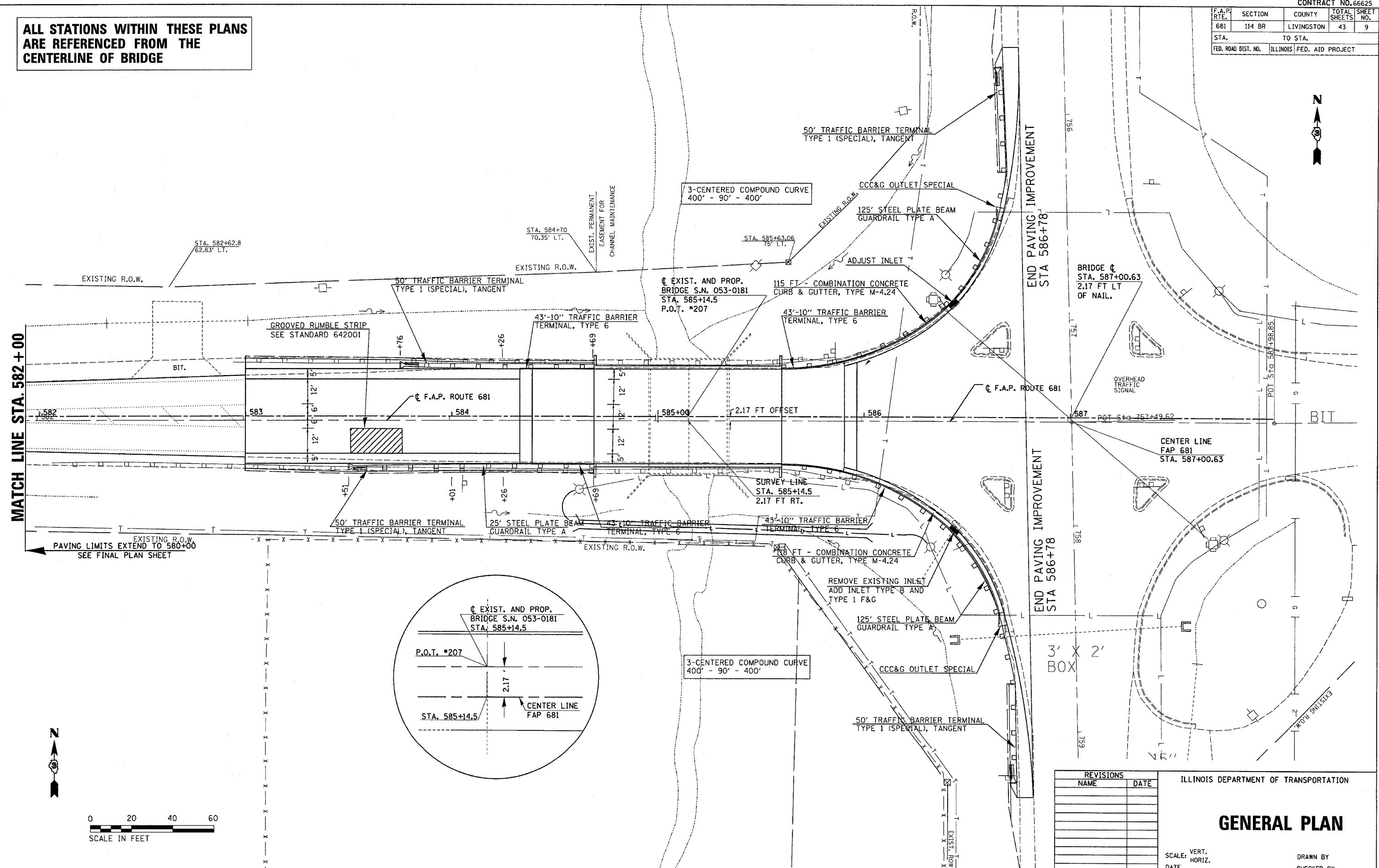
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DATE _____ DRAWN BY _____
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114 BR	LIVINGSTON	43	9
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

ALL STATIONS WITHIN THESE PLANS ARE REFERENCED FROM THE CENTERLINE OF BRIDGE



REVISIONS	
NAME	DATE

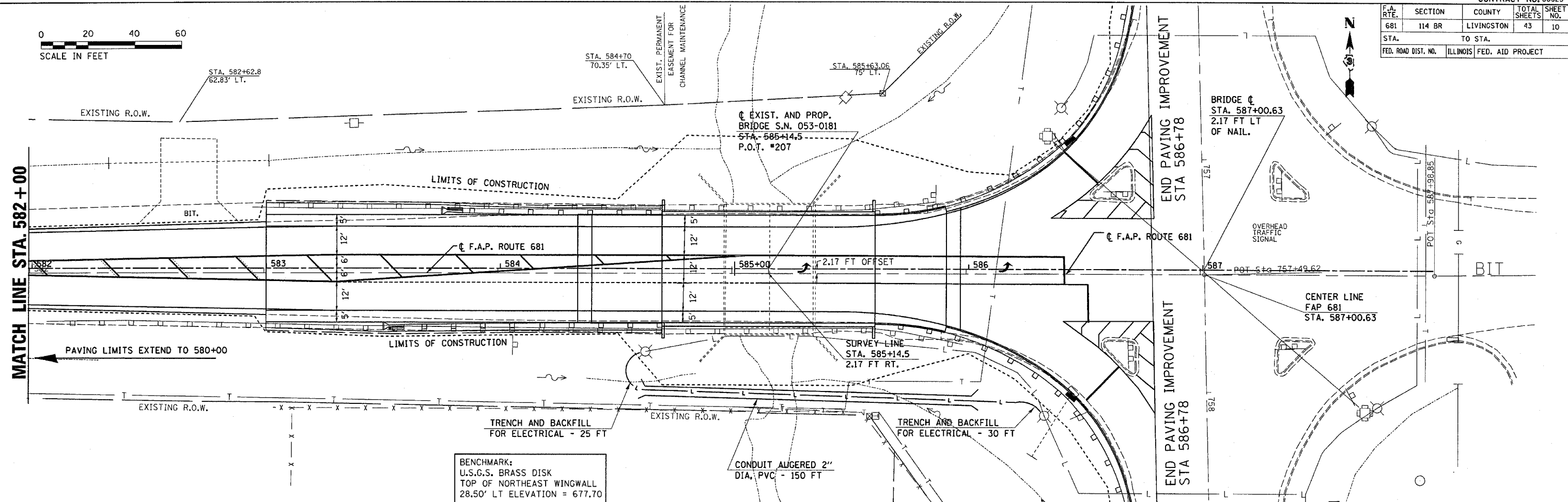
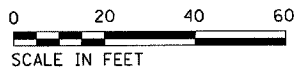
ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

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 DATE _____
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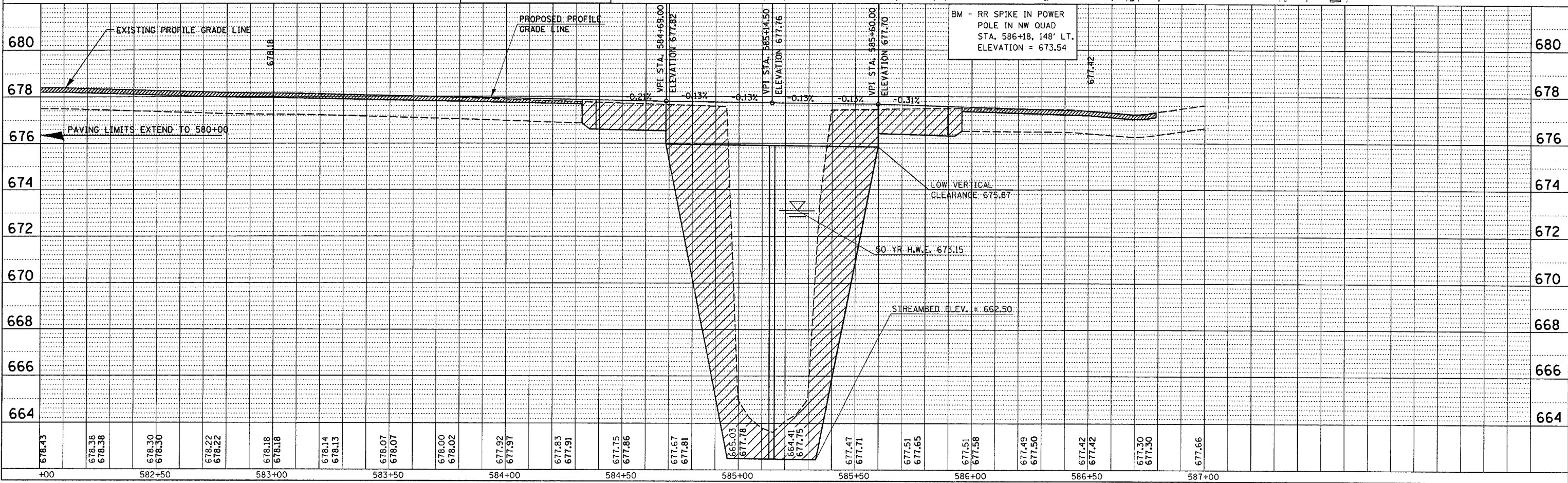
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STA. 681		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



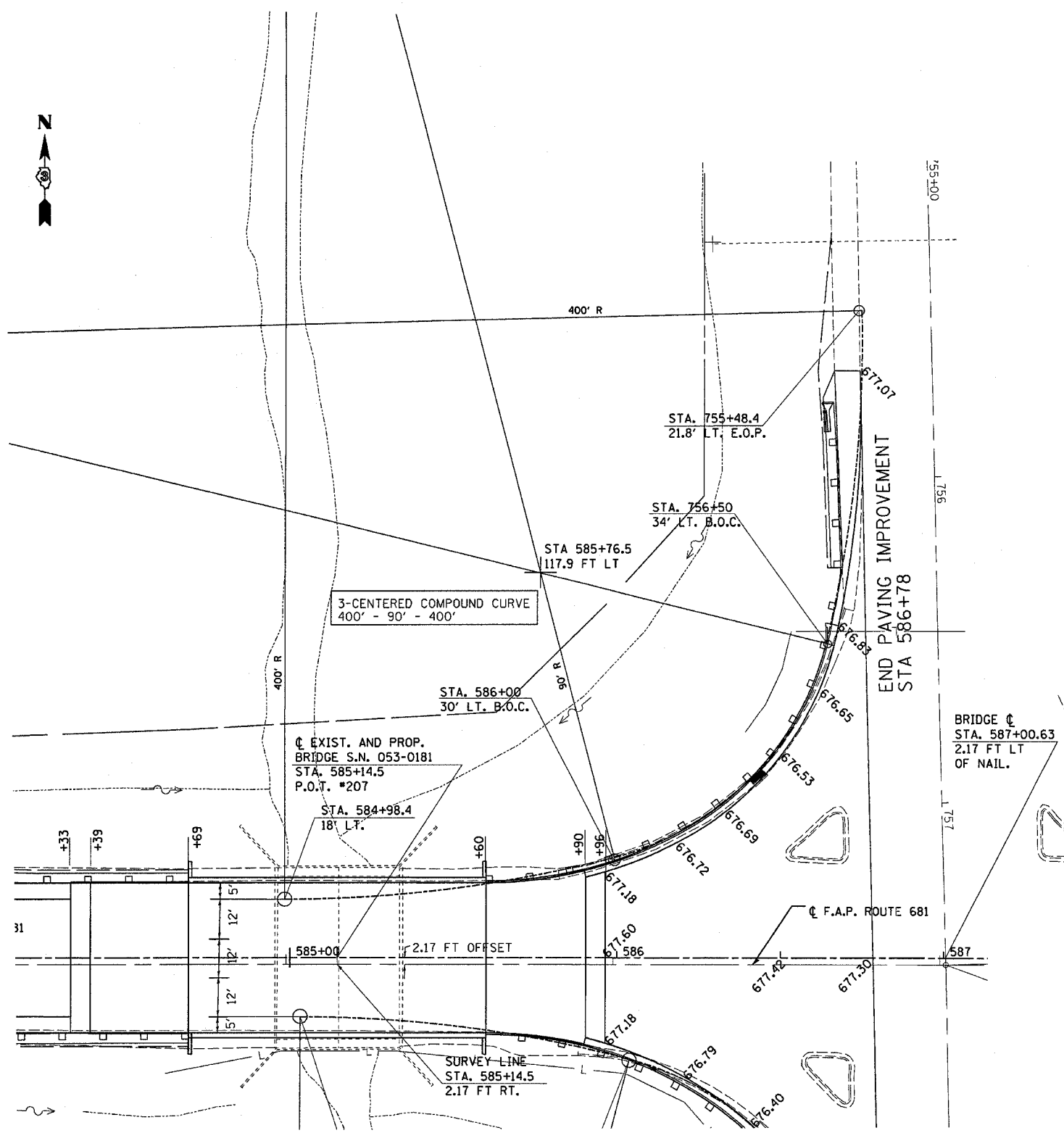
DATE	BY

DATE	BY

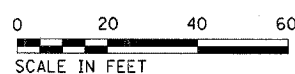
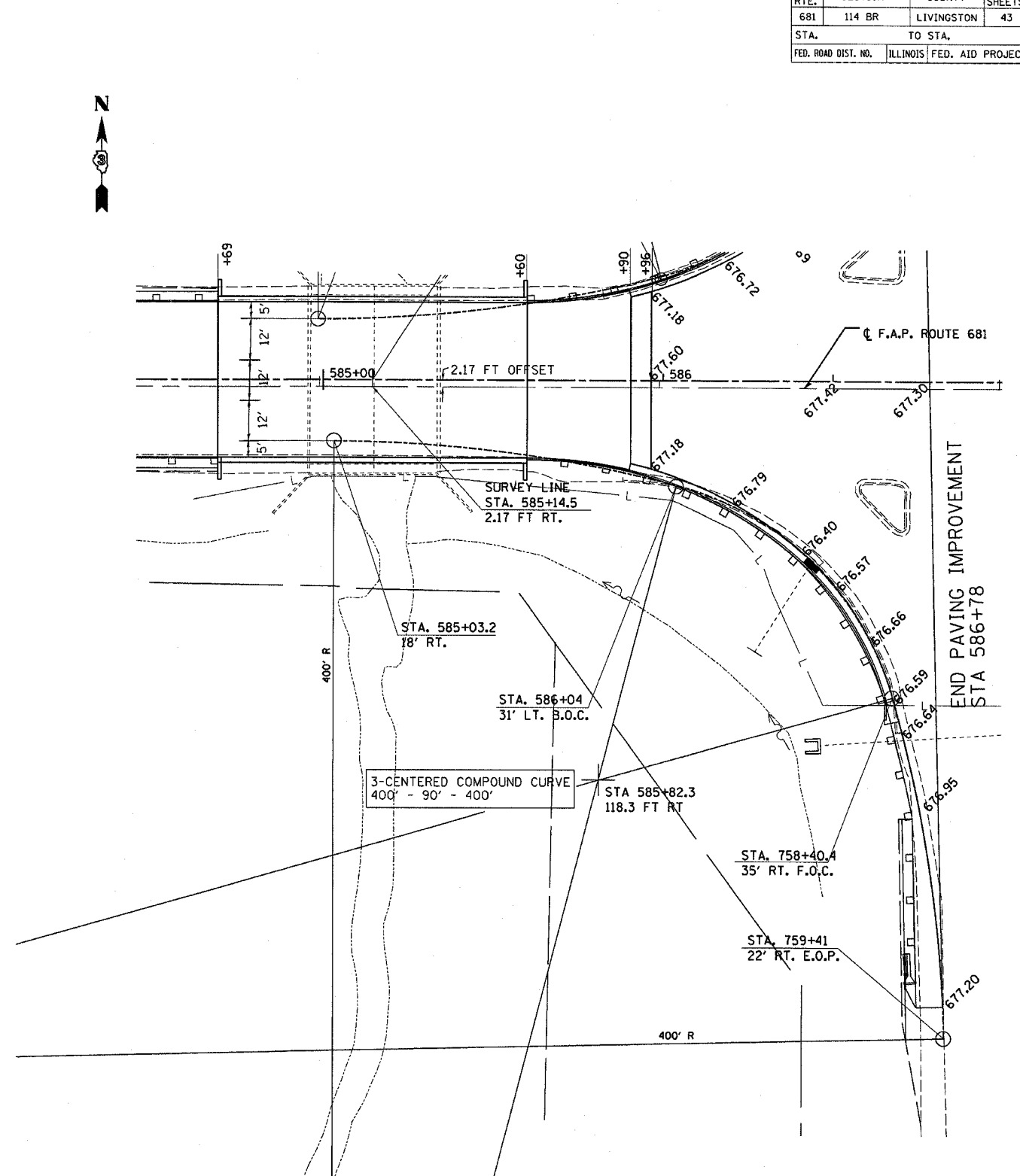
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114 BR	LIVINGSTON	43	11
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



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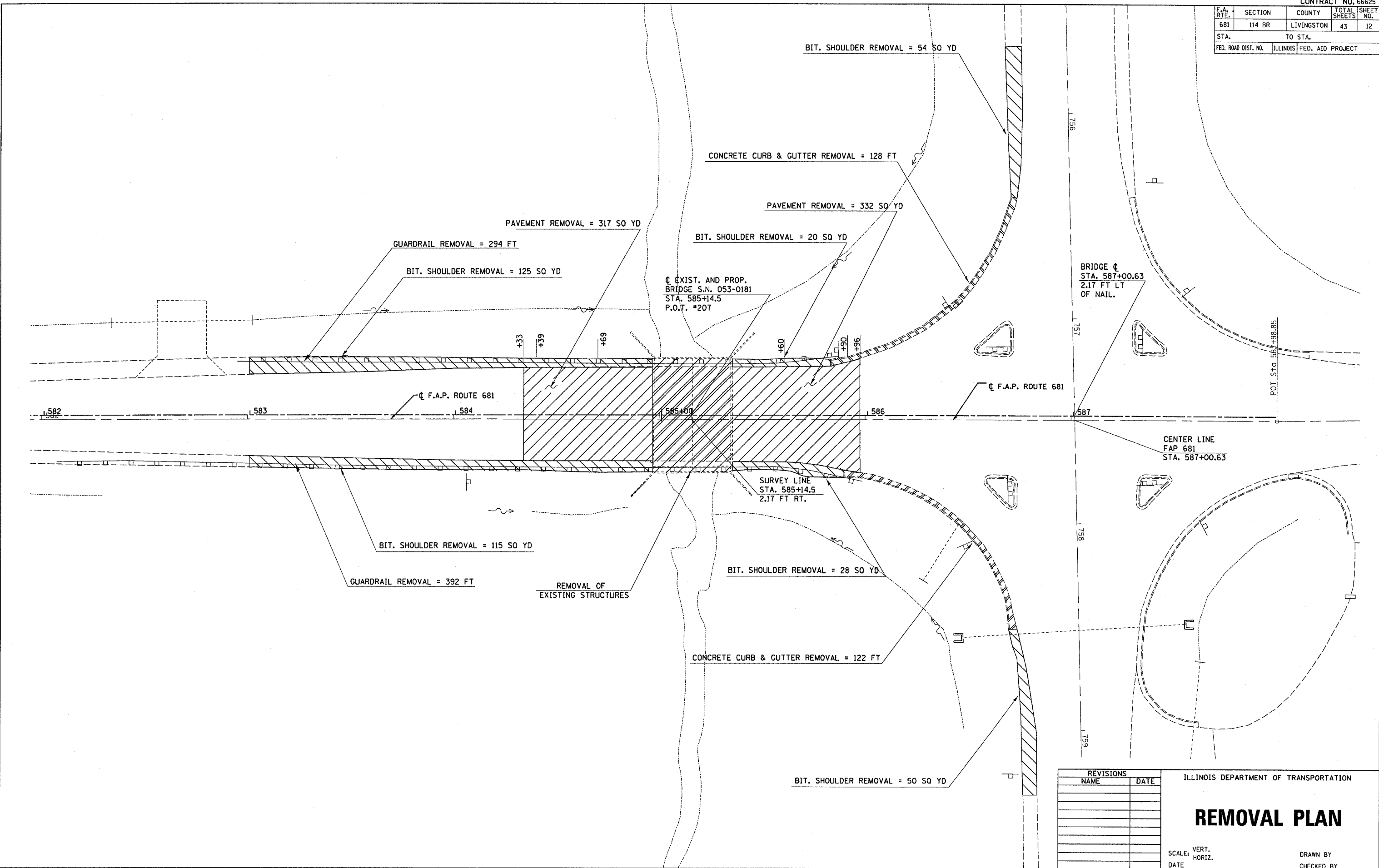
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

INTERSECTION LAYOUT SHEET

SCALE: VERT. DATE
 HORIZ. DRAWN BY
 CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114 BR	LIVINGSTON	43	12
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

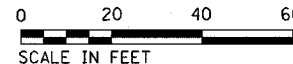
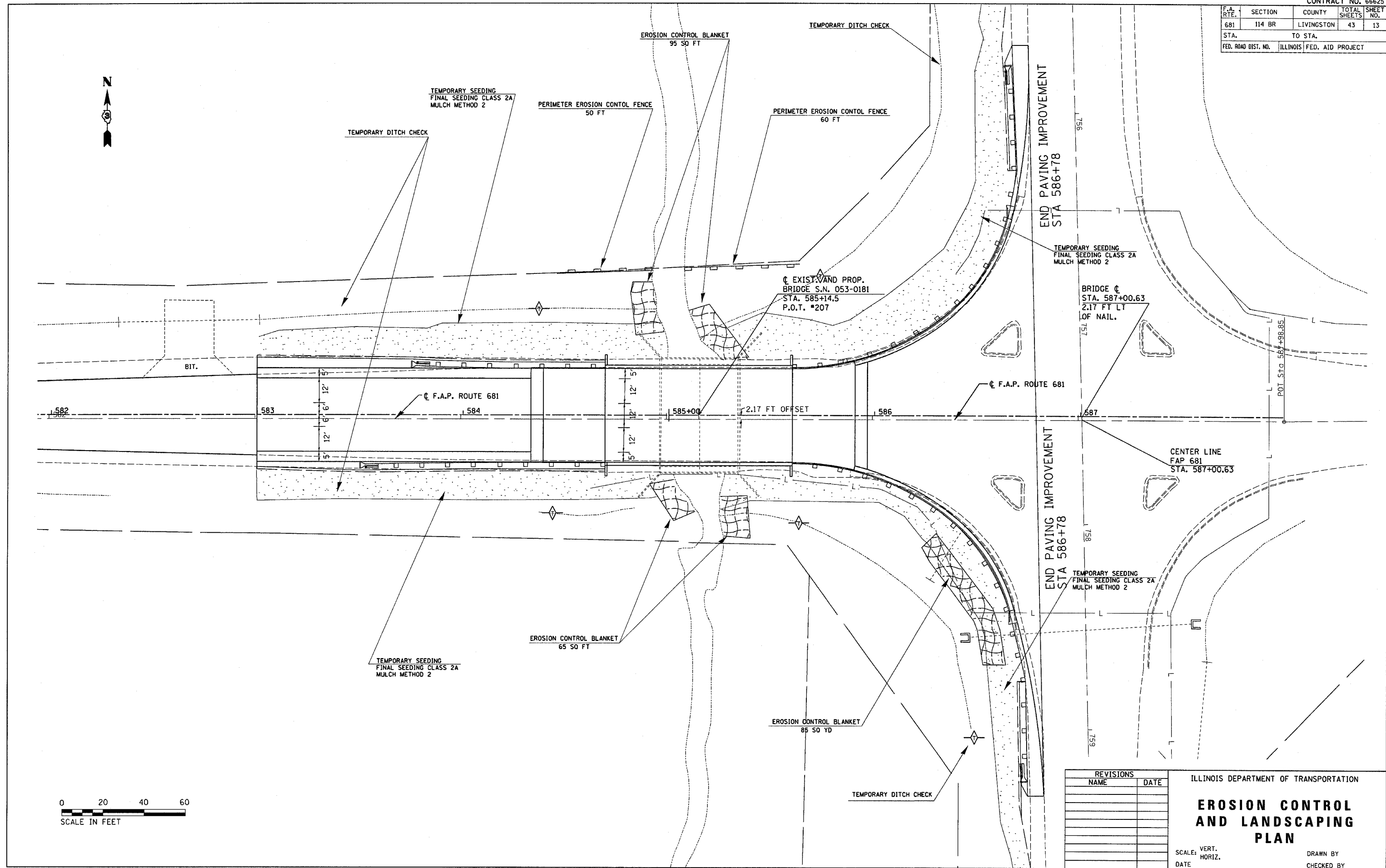
REMOVAL PLAN

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DRAWN BY / CHECKED BY

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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	I14 BR	LIVINGSTON	43	13
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



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REVISIONS	
NAME	DATE

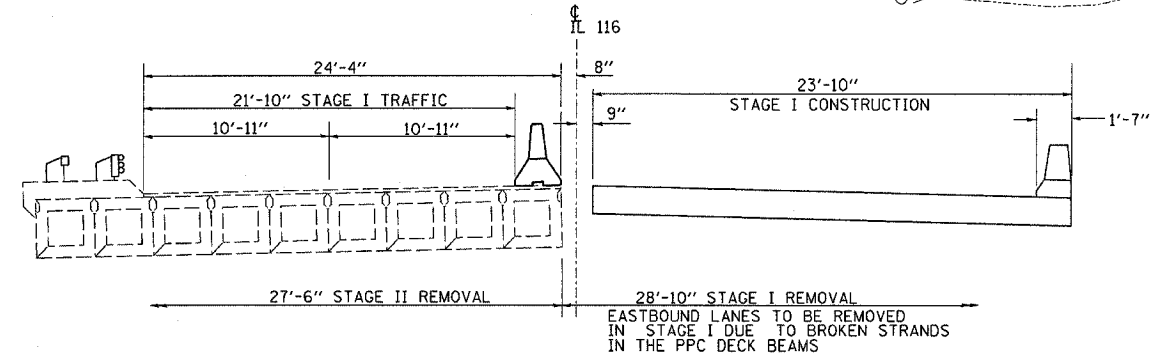
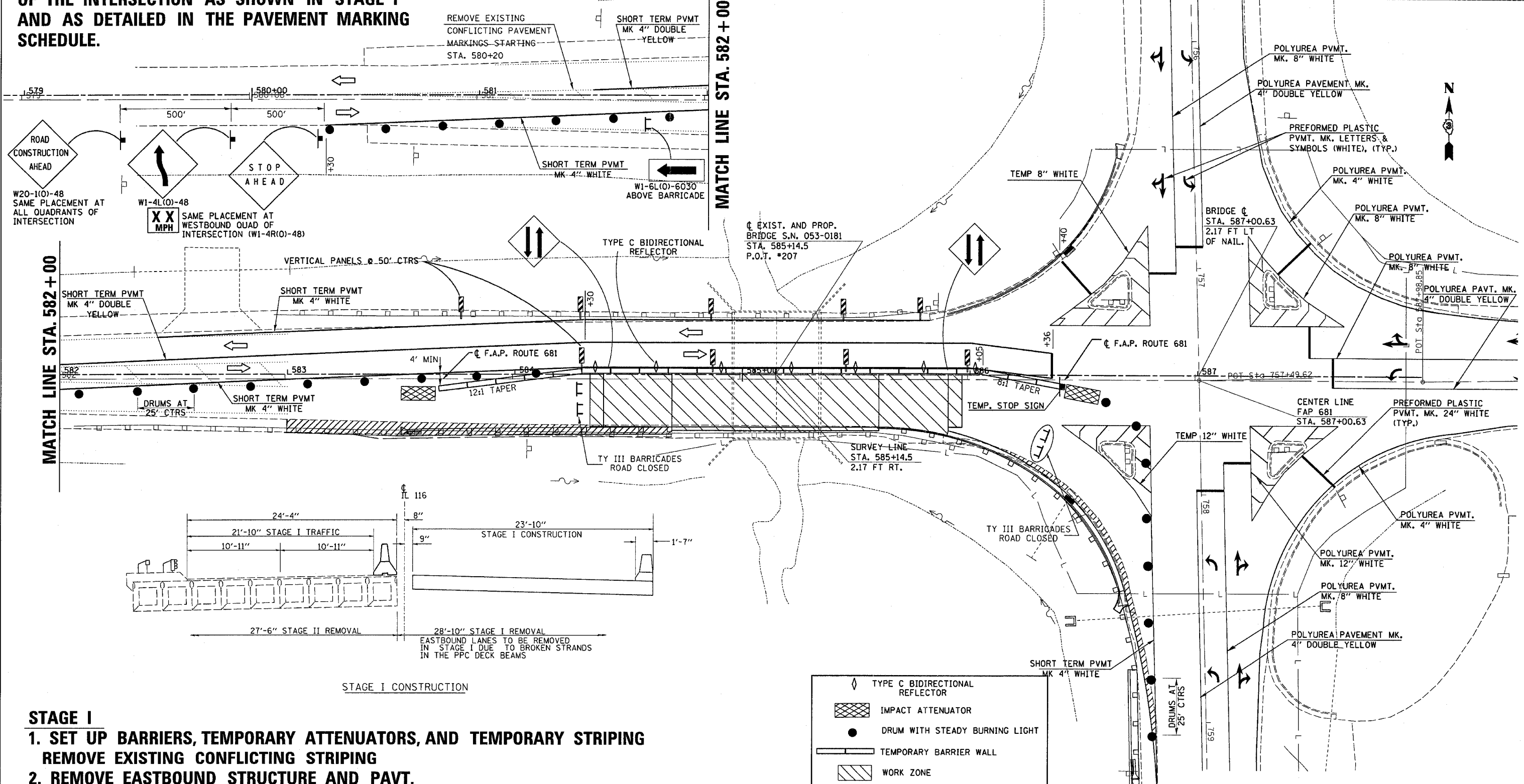
ILLINOIS DEPARTMENT OF TRANSPORTATION

EROSION CONTROL AND LANDSCAPING PLAN

SCALE: VERT. DRAWN BY
 HORIZ. CHECKED BY
 DATE

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114 BR	LIVINGSTON	43	14
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

PRESTAGE I
1. RESTRIPE THE NORTH, SOUTH AND EAST LEGS OF THE INTERSECTION AS SHOWN IN STAGE I AND AS DETAILED IN THE PAVEMENT MARKING SCHEDULE.



STAGE I CONSTRUCTION

- STAGE I**
1. SET UP BARRIERS, TEMPORARY ATTENUATORS, AND TEMPORARY STRIPING
REMOVE EXISTING CONFLICTING STRIPING
 2. REMOVE EASTBOUND STRUCTURE AND PAVT.
 3. CONSTRUCT STRUCTURE AND APPROACHES
 4. CONSTRUCT PROPOSED SHOULDER AND GUARDRAIL STABILIZATION
 5. CONSTRUCT RADIUS WIDENING, CURB AND GUTTER, AND GUARDRAIL

	TYPE C BIDIRECTIONAL REFLECTOR
	IMPACT ATTENUATOR
	DRUM WITH STEADY BURNING LIGHT
	TEMPORARY BARRIER WALL
	WORK ZONE
	DIRECTION OF TRAFFIC
	PROPOSED SHOULDER, GUARDRAIL STABILIZATION AND BASE COURSE WIDENING

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TWO WAY TRAFFIC STAGE I PLAN

SCALE: VERT. _____
 HORIZ. _____

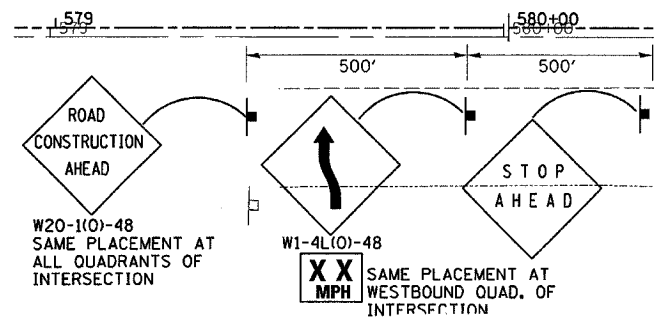
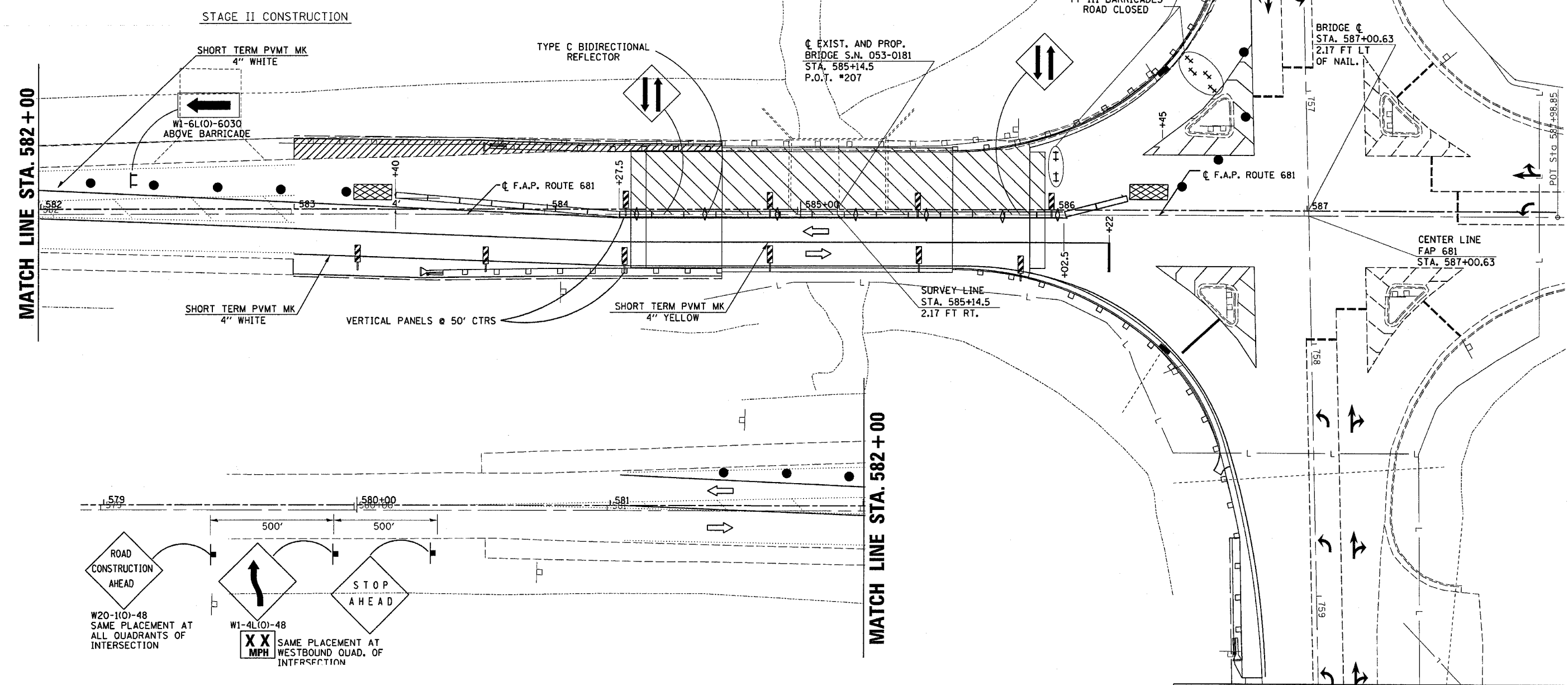
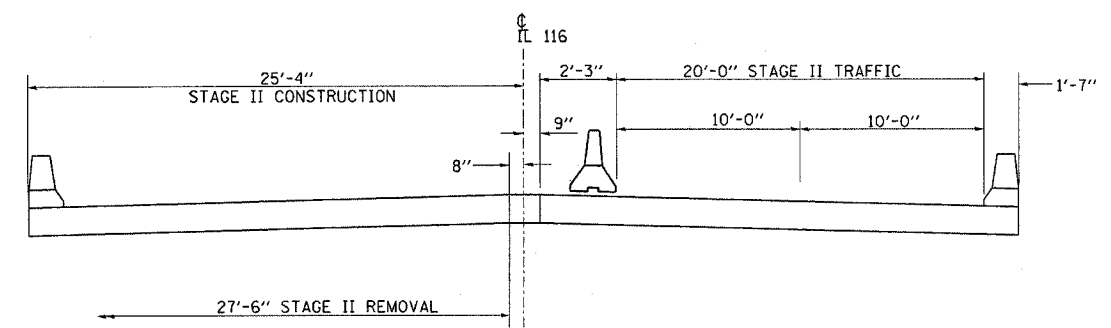
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681	114 BR	LIVINGSTON	43	15
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

TYPE C BIDIRECTIONAL REFLECTOR
 IMPACT ATTENUATOR
 DRUM WITH STEADY BURNING LIGHT
 TEMPORARY BARRIER WALL
 WORK ZONE
 DIRECTION OF TRAFFIC
 PROPOSED SHOULDER, GUARDRAIL STABILIZATION AND BASE COURSE WIDENING



STAGE II

1. RELOCATE BARRIERS AND ATTENUATORS AND RESTRIPE FOR STAGE II.
2. REMOVE WESTBOUND STRUCTURE, PAV'T AND STAGE I TEMPORARY STRIPING.
3. CONSTRUCT STRUCTURE AND APPROACHES.
4. CONSTRUCT SHOULDERS, STABILIZATION, RADIUS WIDENING, CURB AND GUTTER AND INSTALL GUARDRAIL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TWO WAY TRAFFIC STAGE II PLAN

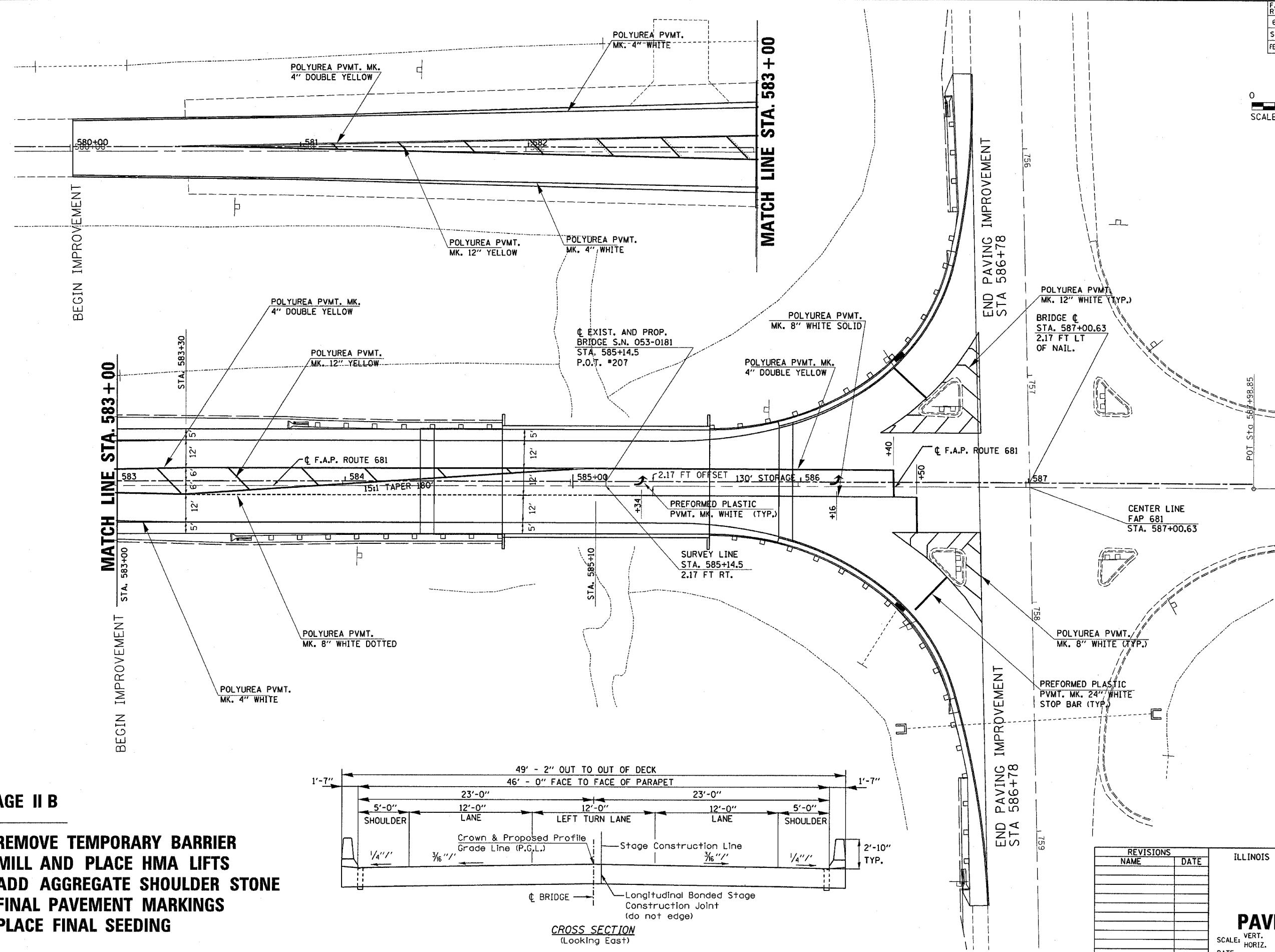
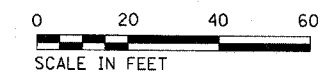
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DATE _____

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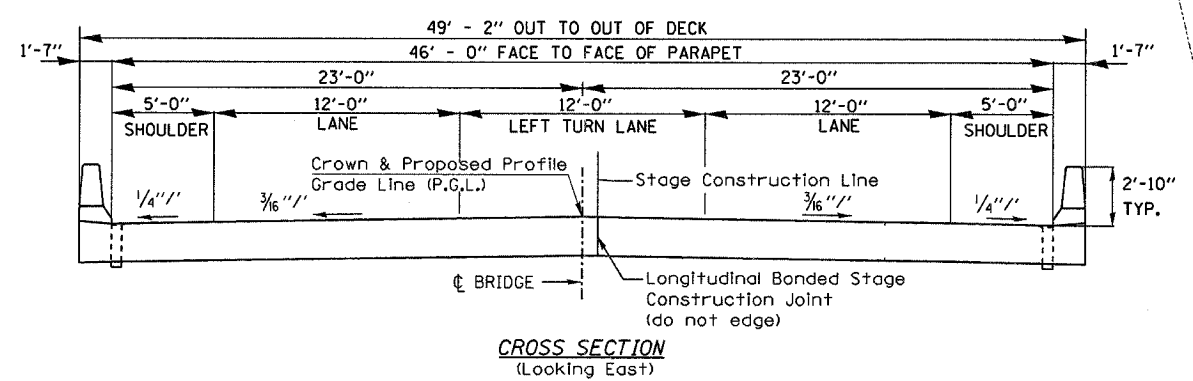
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114 BR	LIVINGSTON	43	16
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



STAGE II B

1. REMOVE TEMPORARY BARRIER
2. MILL AND PLACE HMA LIFTS
3. ADD AGGREGATE SHOULDER STONE
4. FINAL PAVEMENT MARKINGS
5. PLACE FINAL SEEDING



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FINAL PLAN AND PAVEMENT MARKING

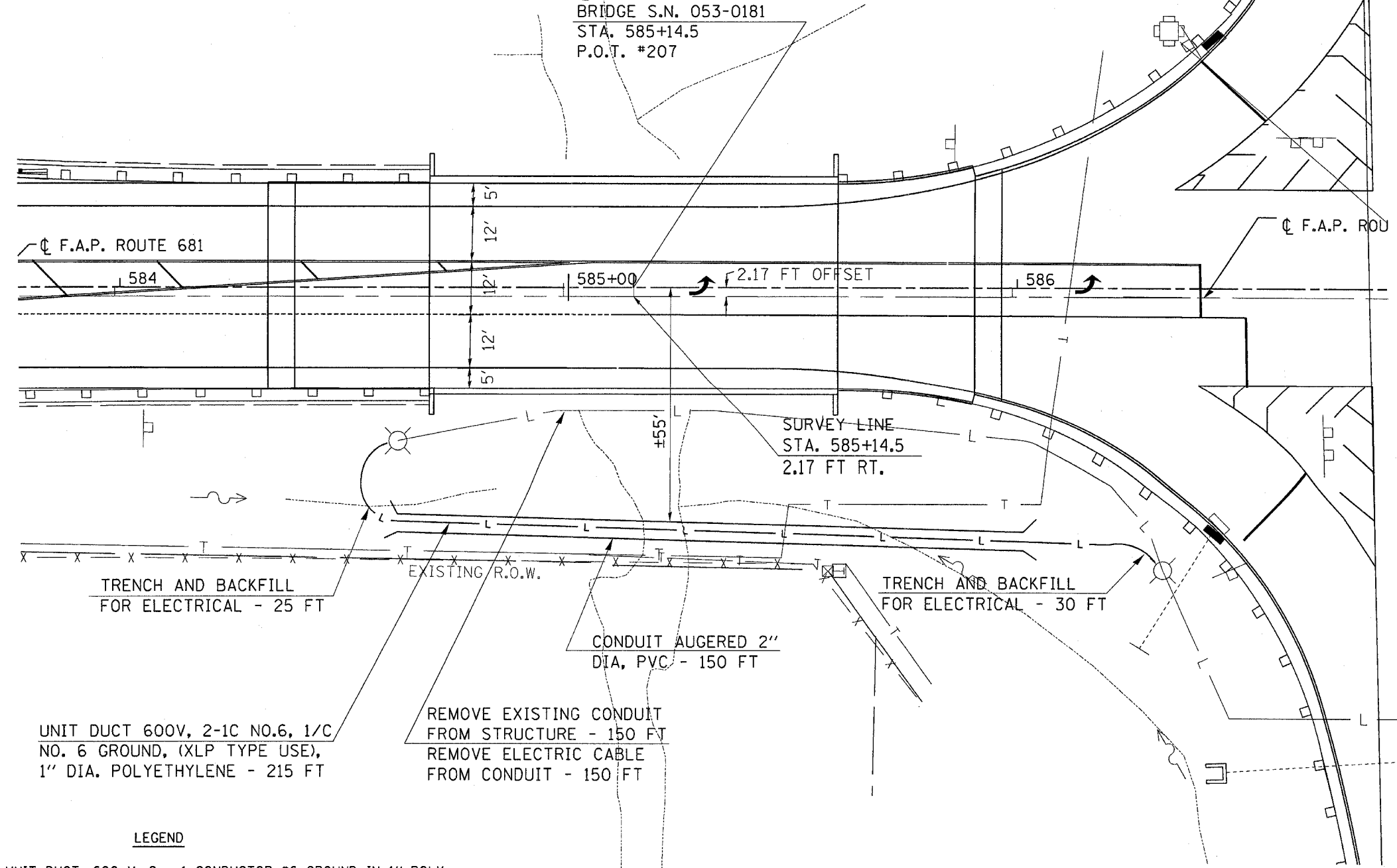
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		


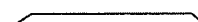

☐ EXIST. AND PROP.
BRIDGE S.N. 053-0181
STA. 585+14.5
P.O.T. #207



UNIT DUCT 600V, 2-1C NO.6, 1/C
NO. 6 GROUND, (XLP TYPE USE),
1" DIA. POLYETHYLENE - 215 FT

REMOVE EXISTING CONDUIT
FROM STRUCTURE - 150 FT
REMOVE ELECTRIC CABLE
FROM CONDUIT - 150 FT

LEGEND

-  UNIT DUCT, 600 V, 2 - 1 CONDUCTOR #6 GROUND IN 1" POLY
-  CONDUIT, AUGERED, 2" DIA. PVC, LENGTH AS SHOWN
-  EXISTING LIGHT POLE

NOTES

- 1) REMOVE CONDUIT ATTACHED TO STRUCTURE & ELECTRIC CABLE IN CONDUIT AND DISPOSE OF ACCORDINGLY
- 2) INSTALL PVC CONDUIT AUGERED A MINIMUM OF 5' BELOW STREAM BED.
- 3) BRING NEW UNIT DUCT UP INTO EXISTING POLES AND RESPLICE NEW CABLE TO EXISTING CABLE IN EXISTING POLE HANDHOLE AT EACH END(COST INCIDENTAL TO UNIT DUCT.
- 4) ALL CONDUCTORS SHALL BE REMOVED FROM THE EXISTING CONDUIT ATTACHED TO STRUCTURE. REMOVAL SHALL BE PAID FOR ACCORDING TO LENGTH OF CONDUIT NOT THE LENGTH OF INDIVIDUAL CONDUCTORS.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

LIGHTING DETAIL

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

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 USER NAME = Ferguson

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Benchmarks: U.S.G.S. Brass disk, top of Northeast wingwall, Station 585+33.50/28.50' LT., Elevation = 677.70.
R.R. Spike in Power Pole, Northwest Quadrant of IL Rte. 47 & IL Rte. 116 @ ROW Corner, ±100' Northeast of Bridge,
Station 586+19/151' LT., Elevation = 673.54.

Existing Structure: SN 053-0076 was originally constructed in 1964 as SBI Rte. 116, Section 114BR. The structure consists of a single span precast prestressed concrete deck beam superstructure with closed concrete abutments supported on spread footings. The back-to-back abutment dimension measures 39'-0" while the out-to-out width measures 56'-4". The structure is to be replaced using stage construction.

No Salvage.

DESIGN SPECIFICATIONS
AASHTO 2002

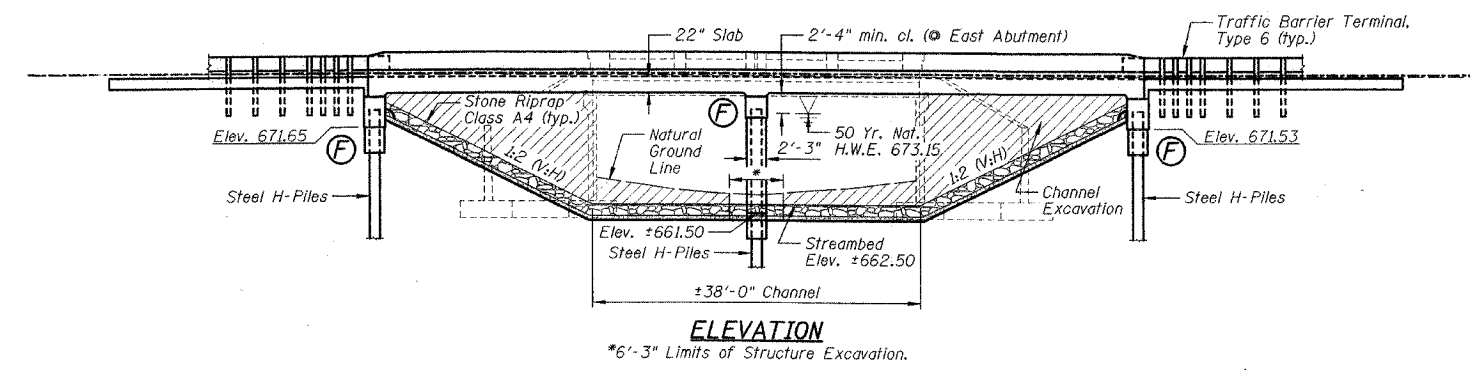
DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi (Cast-In-Place)
fy = 60,000 psi (Reinforcement)

LOADING HS20-44
Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.042
Site Coefficient (S) = 1.0

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114BR	LIVINGSTON	43	18
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. B1
OF 14 SHEETS



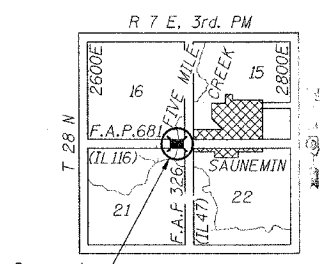
SCOUR INFORMATION

Design Scour Elevation	West Abutment	Pier	East Abutment
	671.65	656.50	671.53

WATERWAY INFORMATION

Drainage Area = 9.60 Sq. Mi. Low Grade Elev. 677.32 ft. @ Sta. 586+50.00

Flood Freq. Yr.	C.F.S.	Opening Sq. Ft.	Nat. Head - Ft.	Prop. Head - Ft.	Headwater El.	Prop. Headwater El.
10	1057	300	463	672.54	0.25	0.17
50	1579	323	504	673.15	0.61	0.33
100	1793	331	518	673.35	0.80	0.41
Design					672.80	672.70
Base					673.80	673.50
Overtopping					674.20	673.80
Max. Calc.	500	2294	347	547	673.77	1.44
					0.62	675.20
						674.40



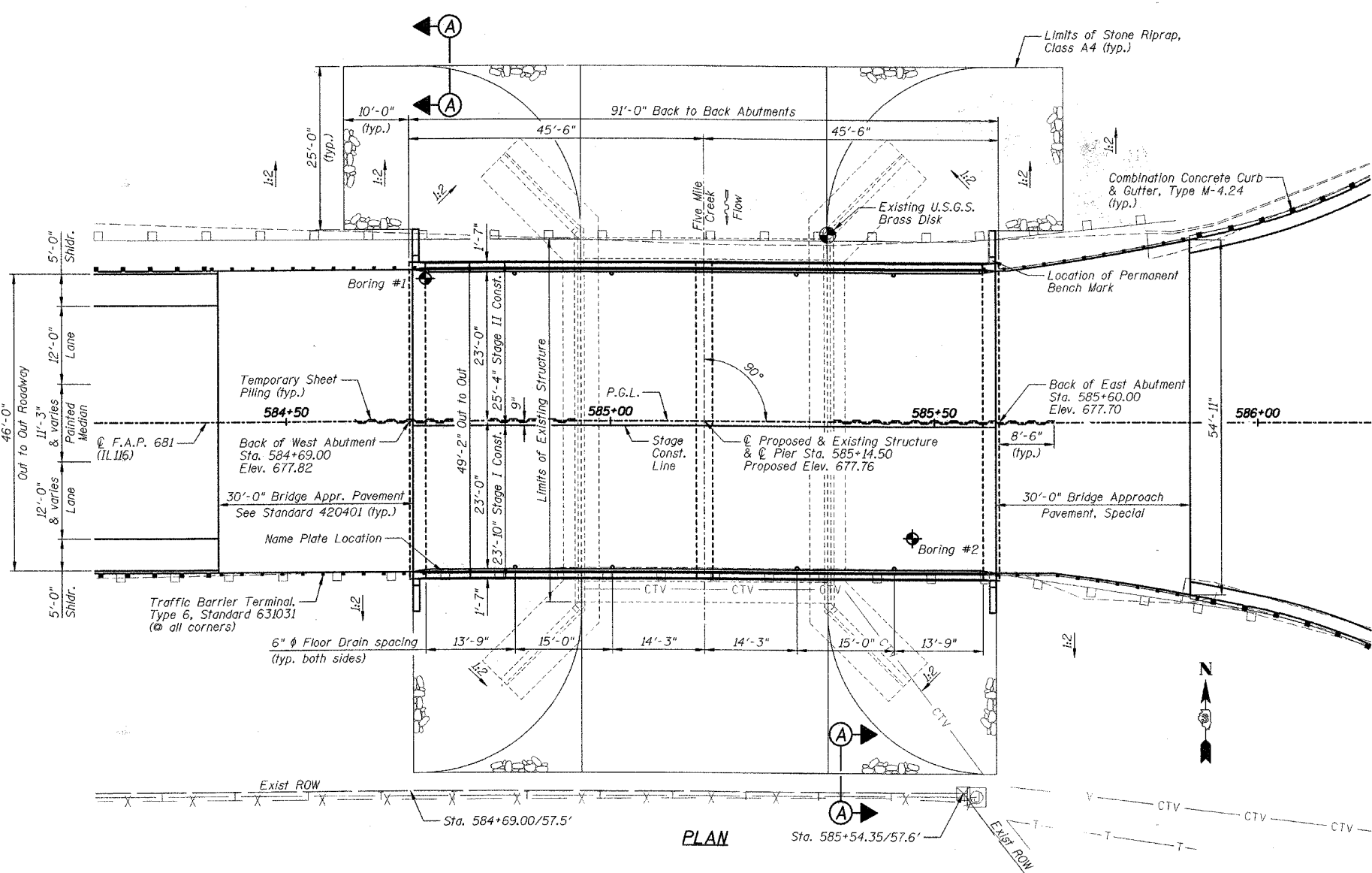
LOCATION SKETCH

INDEX TO SHEETS

SHEET NO.	TITLE
B1	GENERAL PLAN AND ELEVATION
B2	GENERAL NOTES, BILL OF MATERIAL, SECTION AND SUBSTRUCTURE LAYOUT PLAN
B3	STAGE CONSTRUCTION AND TEMPORARY SHEET PILING
B4	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
B5	BAR SPLICER ASSEMBLY DETAILS
B6	SUPERSTRUCTURE DECK (TOP OF SLAB)
B7	SUPERSTRUCTURE DECK (BOTTOM OF SLAB)
B8	SUPERSTRUCTURE CROSS SECTIONS
B9	SUPERSTRUCTURE DETAILS, PARAPET DETAILS AND BILL OF MATERIAL
B10	WEST ABUTMENT
B11	EAST ABUTMENT
B12	PIER
B12A	PILE DETAILS
B13-B14	SOIL BORING LOGS

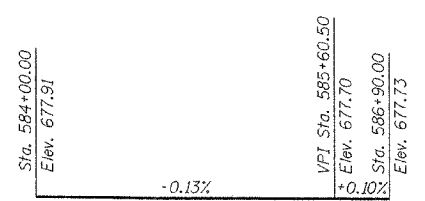
APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson (sm)
ENGINEER OF BRIDGES AND STRUCTURES

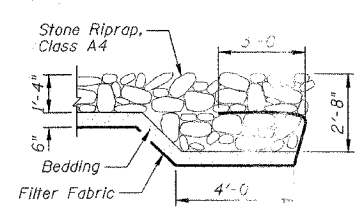


STATION 585+14.50
BUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RTE. 681 SECTION 114BR
LOADING HS20
STR. NO. 053-0181

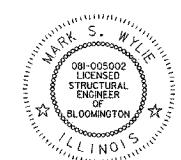
NAME PLATE
See Standard 515001



PROFILE GRADE
(Along & Roadway)



SECTION A-A



Mark S. Wylie Date 9/21/07
MARK S. WYLIE
ILLINOIS STRUCTURAL ENGINEER
NO. 081-005002
Exp. Date 11/30/08

REVISIONS

NAME	DATE
DJM	9/21/07

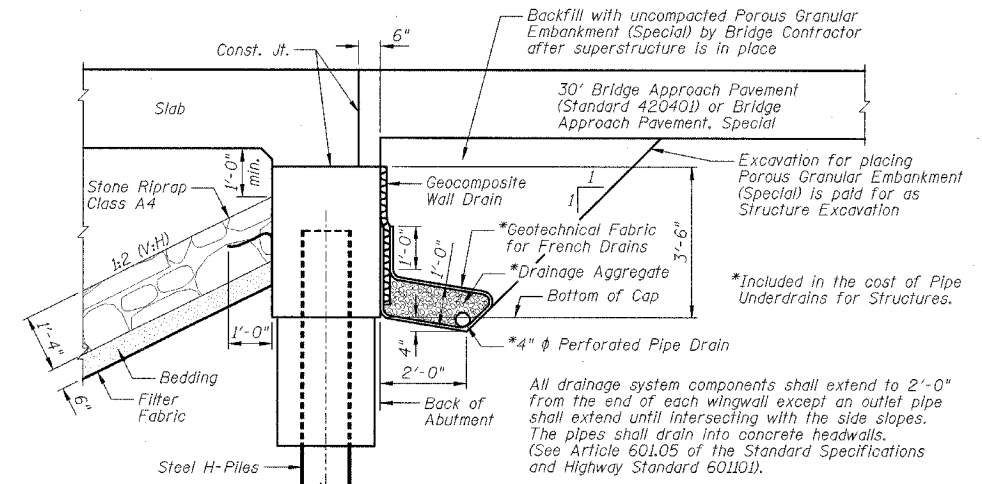
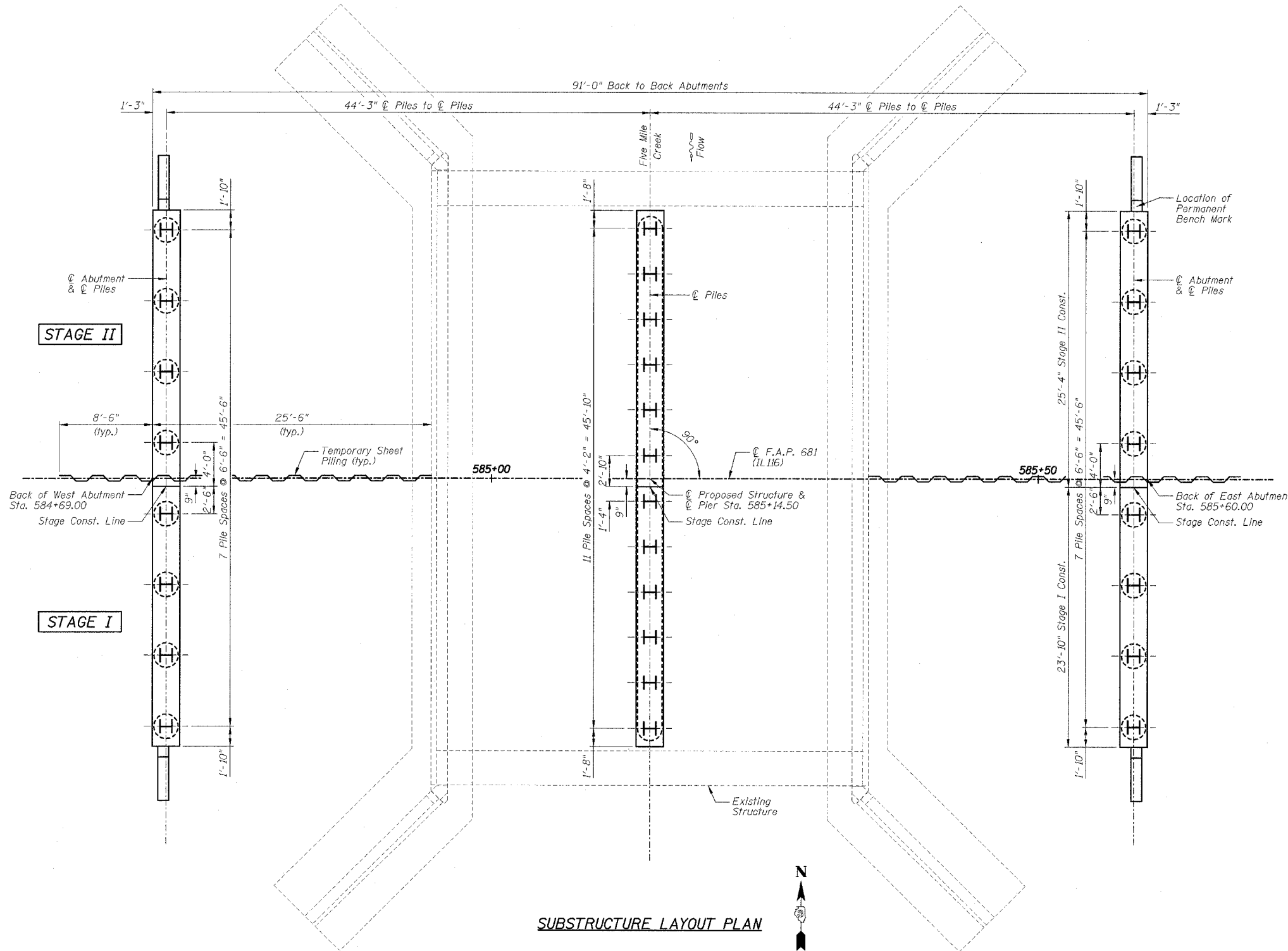
ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN AND ELEVATION
F.A.P. 681 (IL116) OVER FIVE MILE CREEK
SECTION 114BR
LIVINGSTON COUNTY
STATION 585+14.50
STRUCTURE NO. 053-0181

DESIGNED BY: JML
DATE: 02/05/07

DRAWN BY: DJM
CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

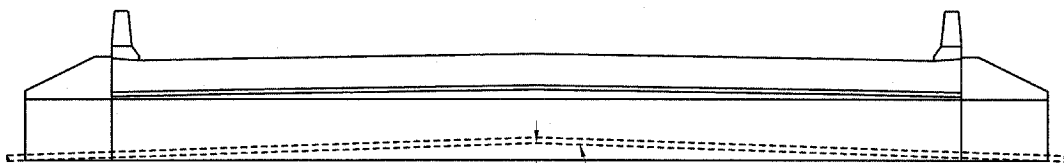
CONTRACT NO. 66625				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114BR	LIVINGSTON	43	19
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
SHEET NO. B2				
OF 14 SHEETS				



SECTION THRU INTEGRAL ABUTMENT

TOTAL BILL OF MATERIAL

ITEMS	UNITS	SUPER	SUB	TOTAL
Channel Excavation	Cu Yd		1800	1800
Porous Granular Embankment, Special	Cu Yd		92	92
Stone Riprap, Class A4	Sq Yd		1205	1205
Filter Fabric	Sq Yd		1205	1205
Removal of Existing Structures	Each	1		1
Structure Excavation	Cu Yd		281	281
Floor Drains	Each	8		8
Concrete Structures	Cu Yd		90.5	90.5
Concrete Superstructure	Cu Yd	329.1		329.1
Bridge Deck Grooving	Sq Yd	440		440
Protective Coat	Sq Yd	535		535
Reinforcement Bars, Epoxy Coated	Pound	57,530	8060	65,590
Bar Splitters	Each	177	50	227
Furnishing Steel Piles HP14x73	Foot		1948	1948
Driving Piles	Foot		1948	1948
Test Pile Steel HP14x73	Each		3	3
Temporary Sheet Piling	Sq Ft		2126	2126
Name Plates	Each	1		1
Geocomposite Wall Drain	Sq Yd		44	44
Pipe Underdrains For Structures 4"	Foot		150	150
Permanent Bench Marks	Each		1	1
Underwater Structure Excavation Protection - Location 1	Each		1	1



ABUTMENT ELEVATION, TYPICAL DRAIN DETAIL

GENERAL NOTES:

- 1.) Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60 (IL Modified). See Special Provision.
- 2.) Reinforcement bars designated (E) shall be epoxy coated.
- 3.) Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- 4.) The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.
- 5.) The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework. In addition to allowance for dead load deflection. Forms for deck slab shall be removed prior to placement of bridge approach pavement.
- 6.) Limits of Channel Excavation are within the limits of the existing R.O.W.
- 7.) The cost of removing the existing bituminous overlay shall be included in the cost of "Removal of Existing Structures".

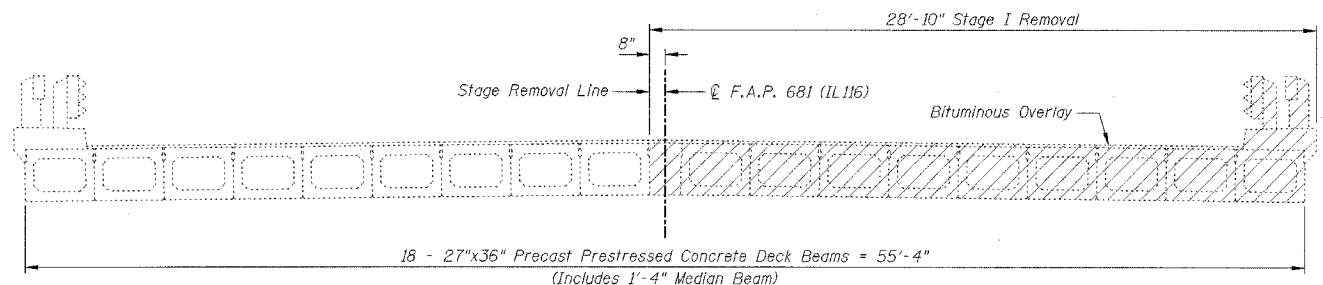
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL NOTES, BILL OF MATERIAL,
SECTION AND SUBSTRUCTURE LAYOUT PLAN
F.A.P. 681 (IL116) OVER FIVE MILE CREEK
SECTION 114BR
LIVINGSTON COUNTY
STATION 585+14.50
STRUCTURE NO. 053-0181
DESIGNED BY: JML DRAWN BY: DJM
DATE: 02/05/07 CHECKED BY: MSW

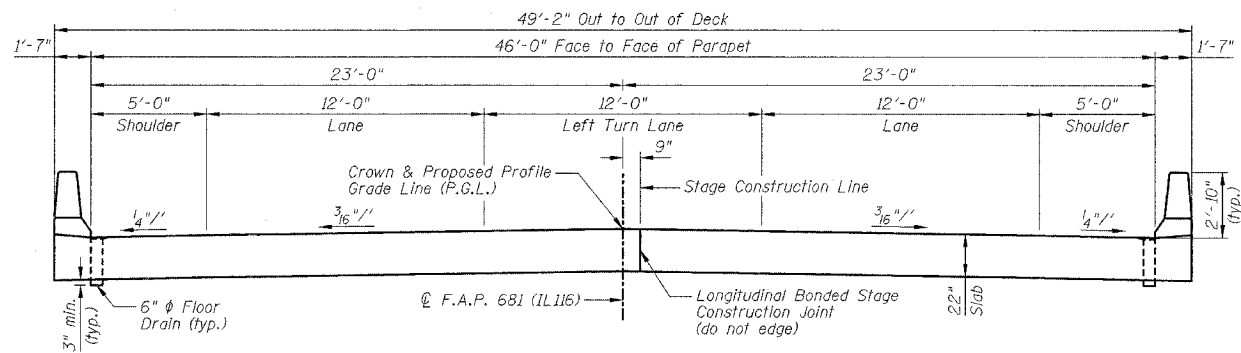
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114BR	LIVINGSTON	43	20
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

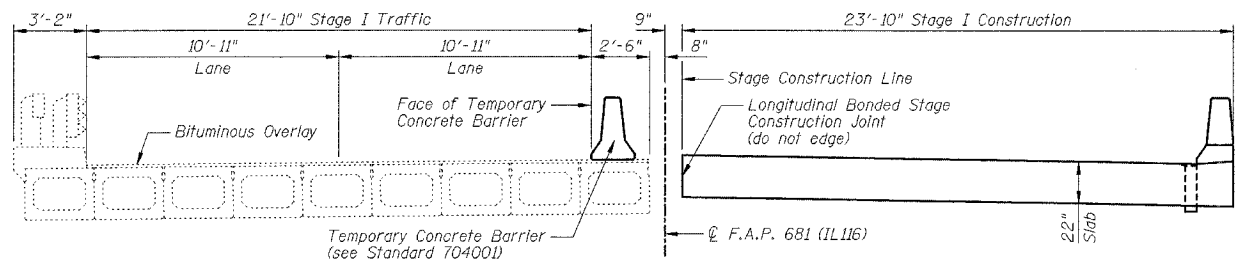
SHEET NO. B3
OF 14 SHEETS



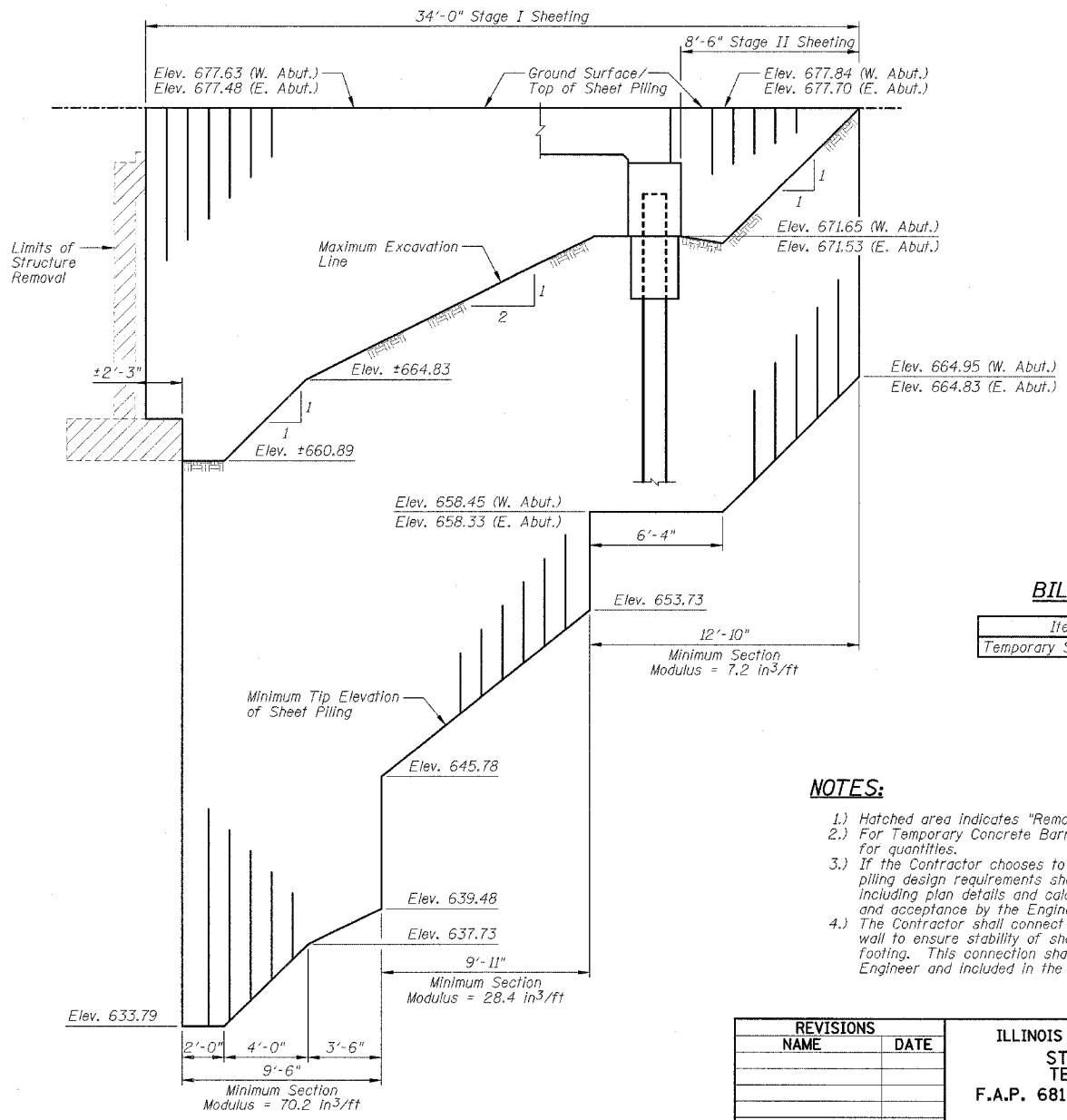
STAGE I REMOVAL
(Looking East)



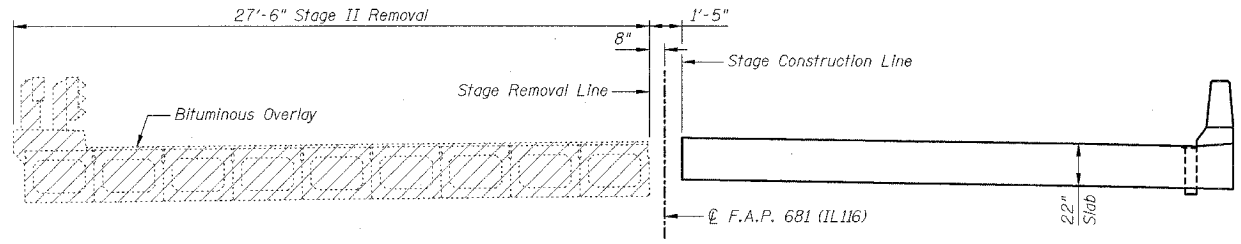
CROSS SECTION
(Looking East)



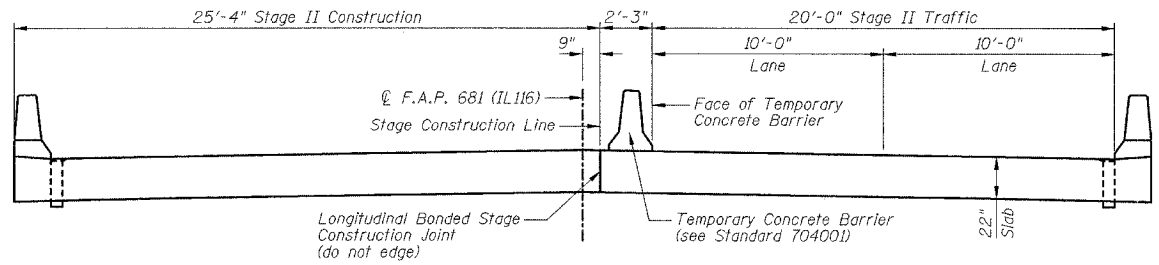
STAGE I CONSTRUCTION
(Looking East)



TEMPORARY SHEET PILING DETAIL



STAGE II REMOVAL
(Looking East)



STAGE II CONSTRUCTION
(Looking East)

BILL OF MATERIAL

Item	Unit	Quantity
Temporary Sheet Piling	Sq. Ft.	2126

NOTES:

- 1.) Hatched area indicates "Removal of Existing Structures".
- 2.) For Temporary Concrete Barrier, see Sheet B4. See Roadway Plans for quantities.
- 3.) If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
- 4.) The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for "Temporary Sheet Piling".

REVISIONS	
NAME	DATE

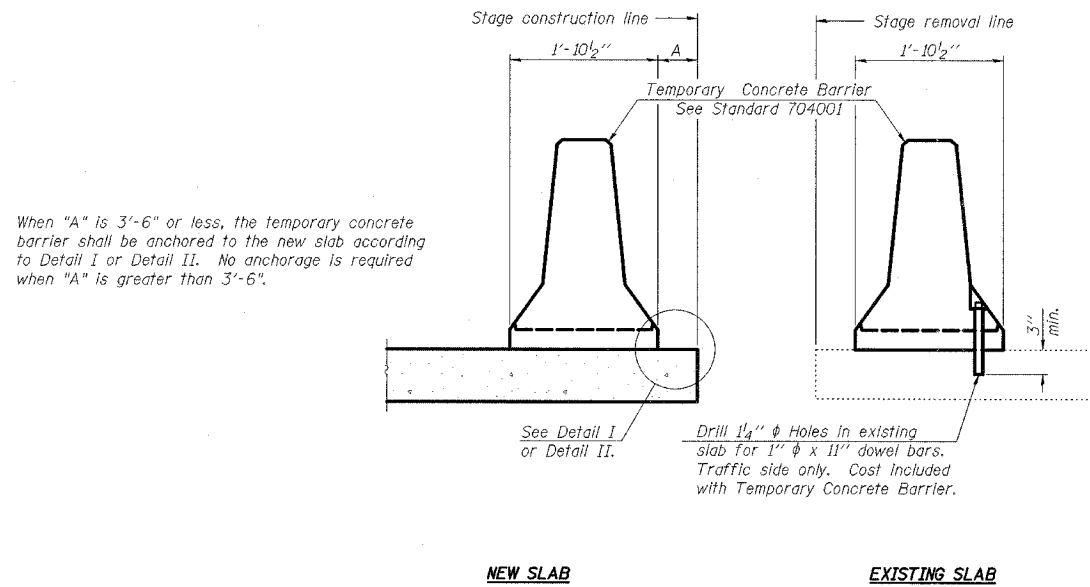
ILLINOIS DEPARTMENT OF TRANSPORTATION
STAGE CONSTRUCTION AND
TEMPORARY SHEET PILING
F.A.P. 681 (IL116) OVER FIVE MILE CREEK
SECTION 114BR
LIVINGSTON COUNTY
STATION 585+14.50
STRUCTURE NO. 053-0181

DESIGNED BY: JML
DATE: 02/05/07

DRAWN BY: DJM
CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

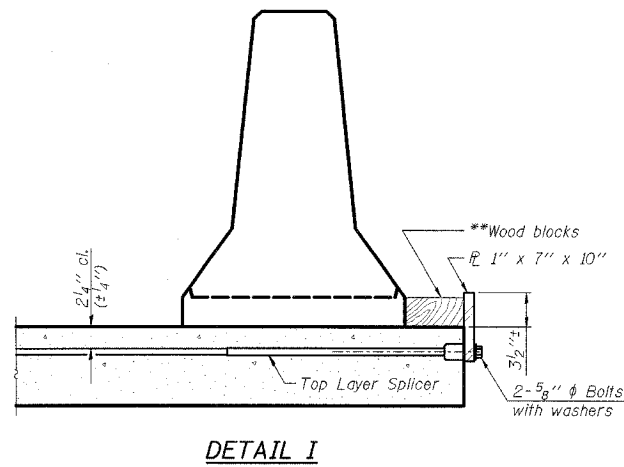
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114BR	LIVINGSTON	43	21
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
SHEET NO. B4				
OF 14 SHEETS				



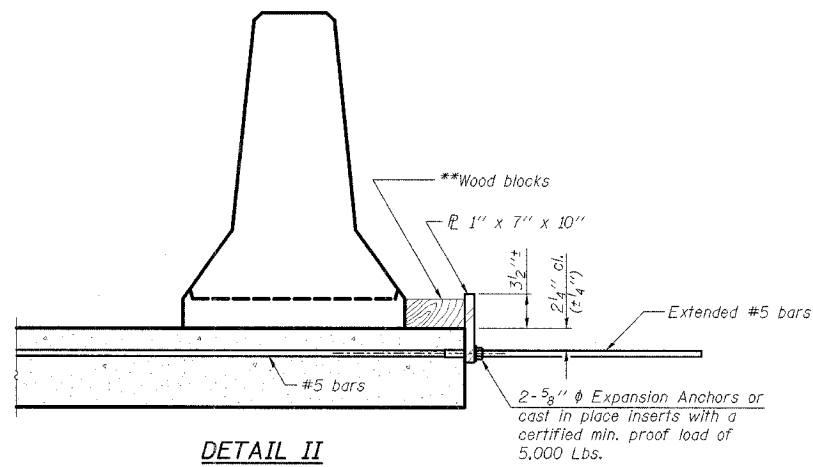
When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".

Drill 1/4" ϕ Holes in existing slab for 1" ϕ x 11" dowel bars. Traffic side only. Cost included with Temporary Concrete Barrier.

SECTIONS THRU SLAB



DETAIL I

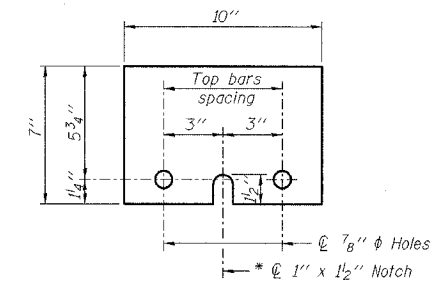


DETAIL II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

NOTES

- Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \bar{L} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.
 - Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel \bar{L} to the concrete slab with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.
- Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



STEEL RETAINER \bar{L} 1" x 7" x 10"

* Required only with Detail II

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
F.A.P. 681 (IL116) OVER FIVE MILE CREEK
SECTION 114BR
LIVINGSTON COUNTY
STATION 585+14.50
STRUCTURE NO. 053-0181

DESIGNED BY: JML DRAWN BY: DJM
DATE: 02/05/07 CHECKED BY: MSW

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114BR	LIVINGSTON	43	22
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

SHEET NO. B5
OF 14 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity = $1.25 \times f_y \times A_t$
(Tension in kips)
- ② Minimum *Pull-out Strength = $0.66 \times f_y \times A_t$
(Tension in kips)

Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8

The diameter of this part is the same as the diameter of the bar spliced.

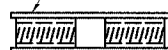
The diameter of this part is equal or larger than the diameter of bar spliced.

ROLLED THREAD DOWEL BAR



** ONE PIECE

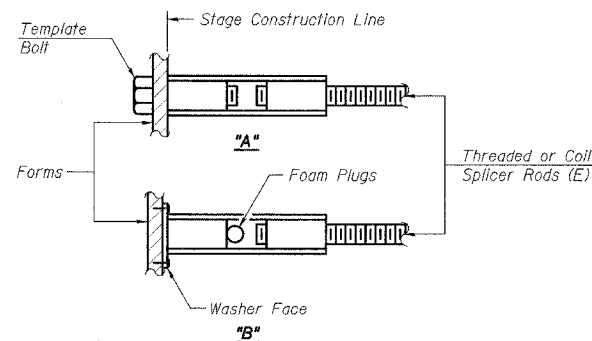
Wire Connector



WELDED SECTIONS

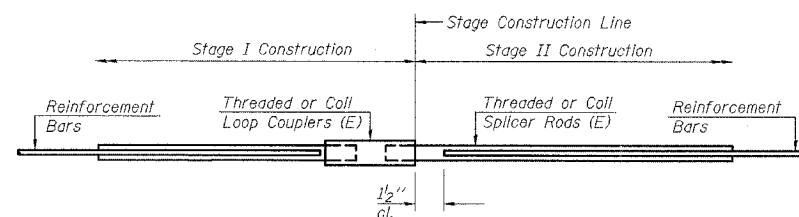
BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



STANDARD

Bar Size	No. Assemblies Required	Location
#5	177	Deck
#7	12	W. Abut.
#7	10	Pier
#4	16	Pier
#7	12	E. Abut.

BSD-1

11-1-06

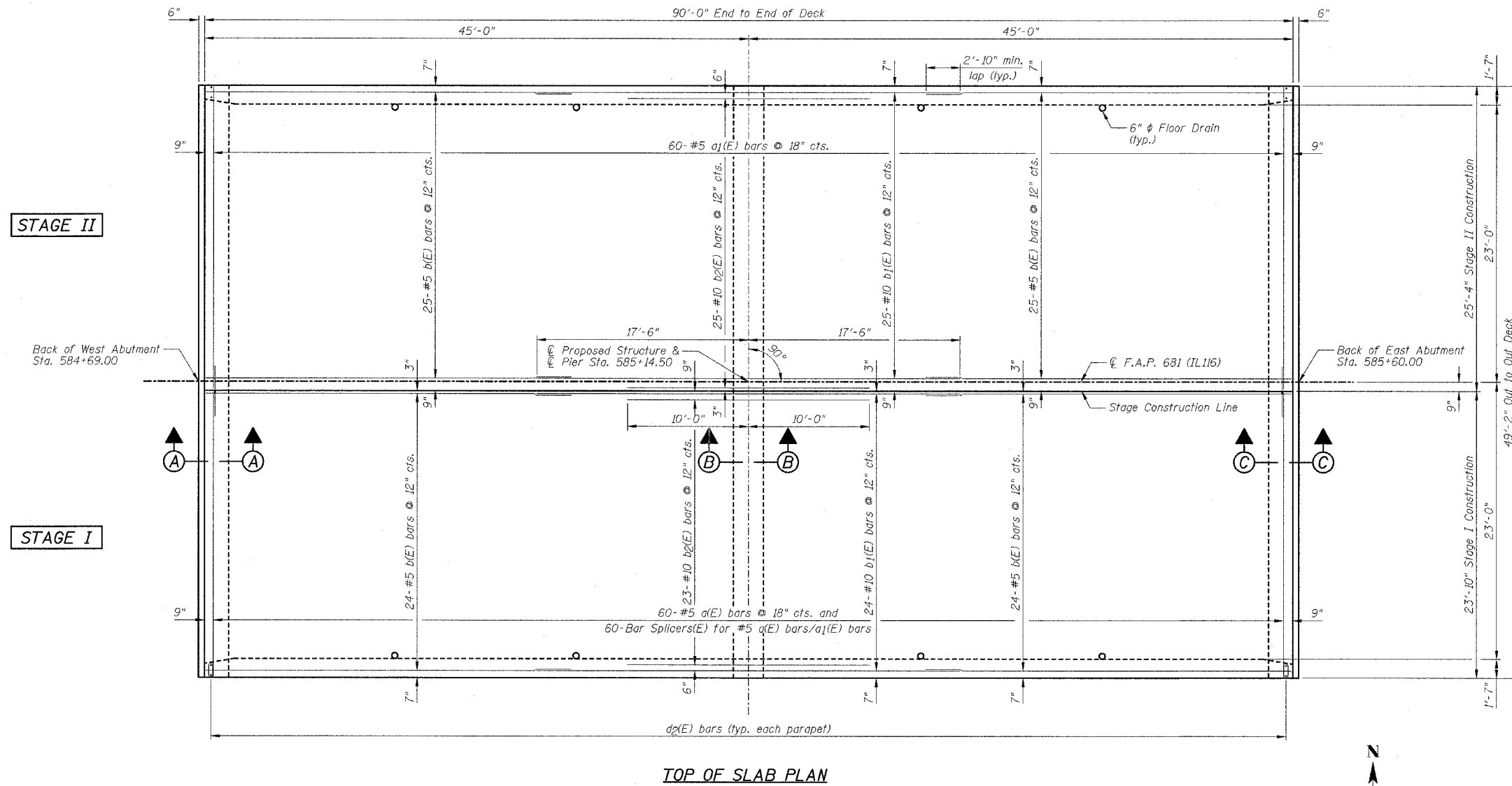
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
BAR SPLICER ASSEMBLY DETAILS
F.A.P. 681 (IL116) OVER FIVE MILE CREEK
SECTION 114BR
LIVINGSTON COUNTY
STATION 585+14.50
STRUCTURE NO. 053-0181
DESIGNED BY: JML DRAWN BY: DJM
DATE: 02/05/07 CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114BR	LIVINGSTON	43	23
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. B6
OF 14 SHEETS



TOP OF SLAB PLAN

NOTES:

- 1.) Work this sheet with Sheets B7 thru B9.
- 2.) See Sheet B9 for Superstructure Details and Bill of Material.
- 3.) See Sheet B8 for Section A-A thru Section C-C.
- 4.) See Sheet B5 for Bar Splicer Details.
- 5.) See Sheet B1 for the floor drain spacings.

REVISIONS	
NAME	DATE

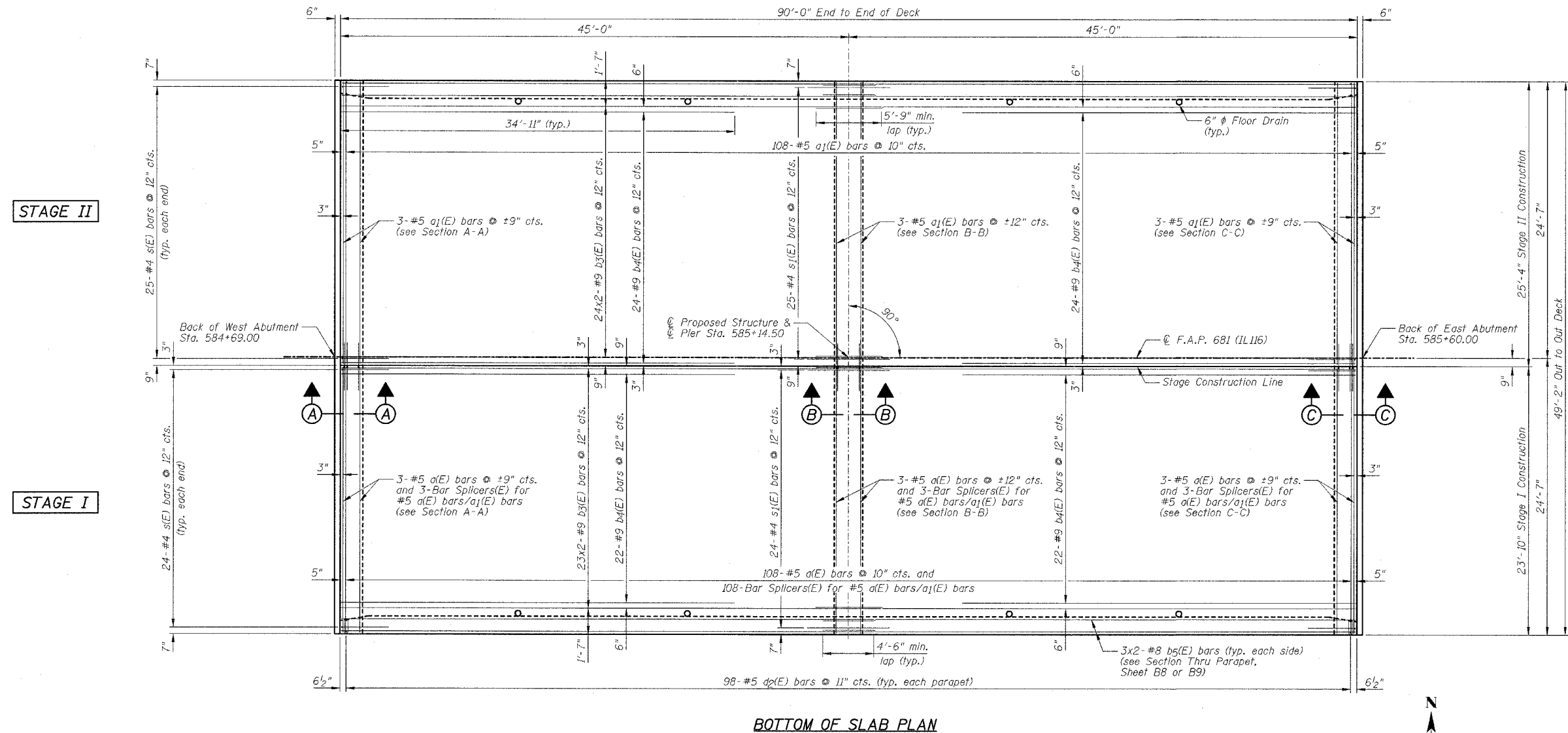
ILLINOIS DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE DECK (TOP OF SLAB)
F.A.P. 681 (IL116) OVER FIVE MILE CREEK
SECTION 114BR
LIVINGSTON COUNTY
STATION 585+14.50
STRUCTURE NO. 053-0181
DESIGNED BY: JML
DRAWN BY: DJM
DATE: 02/05/07
CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 66625

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114BR	LIVINGSTON	43	24
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SHEET NO. B7
OF 14 SHEETS



BOTTOM OF SLAB PLAN



NOTES:

- 1.) Work this sheet with Sheets B6, B8 & B9.
- 2.) See Sheet B9 for Superstructure Details and Bill of Material.
- 3.) See Sheet B8 for Section A-A thru Section C-C.
- 4.) Bars indicated thus 3x2-#8 etc. indicates 3 lines of bars with 2 lengths per line.
- 5.) See Sheet B5 for Bar Splicer Details.
- 6.) See Sheet B1 for the floor drain spacings.

REVISIONS	
NAME	DATE

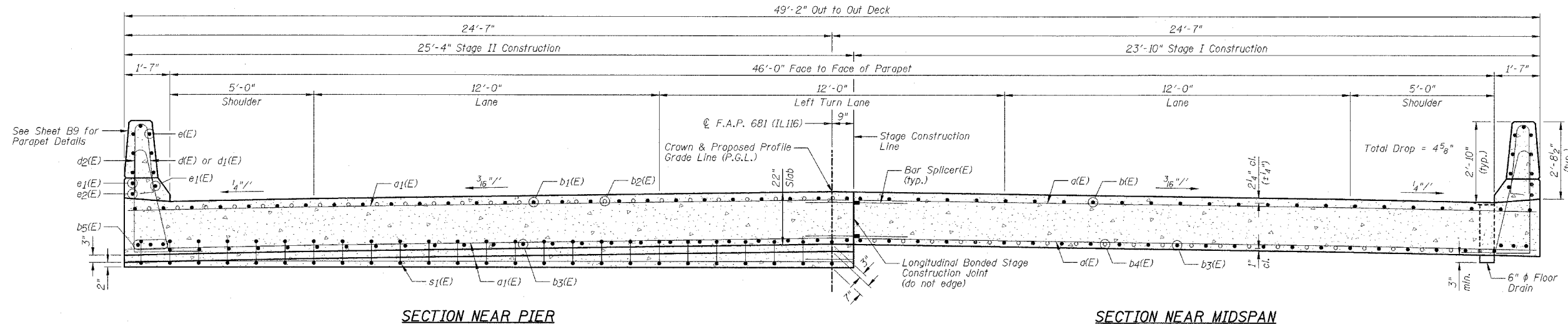
ILLINOIS DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE DECK (BOTTOM OF SLAB)
F.A.P. 681 (IL116) OVER FIVE MILE CREEK
SECTION 114BR
LIVINGSTON COUNTY
STATION 585+14.50
STRUCTURE NO. 053-0181
DESIGNED BY: JML
DATE: 02/05/07
DRAWN BY: DJM
CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 66625

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114BR	LIVINGSTON	43	25
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

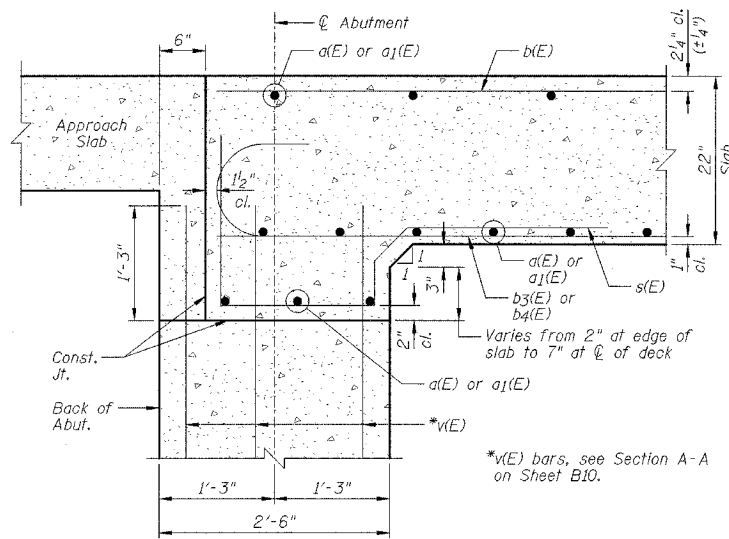
SHEET NO. B8
OF 14 SHEETS



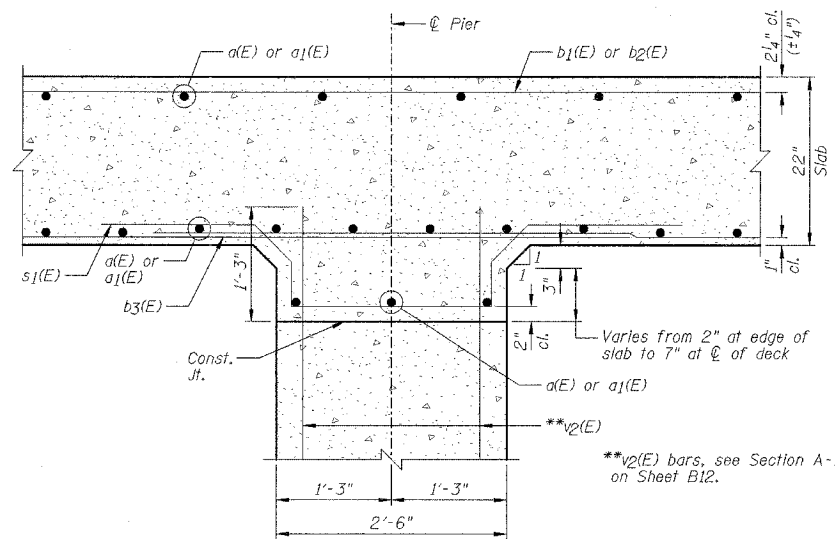
SECTION NEAR PIER

SECTION NEAR MIDSPAN

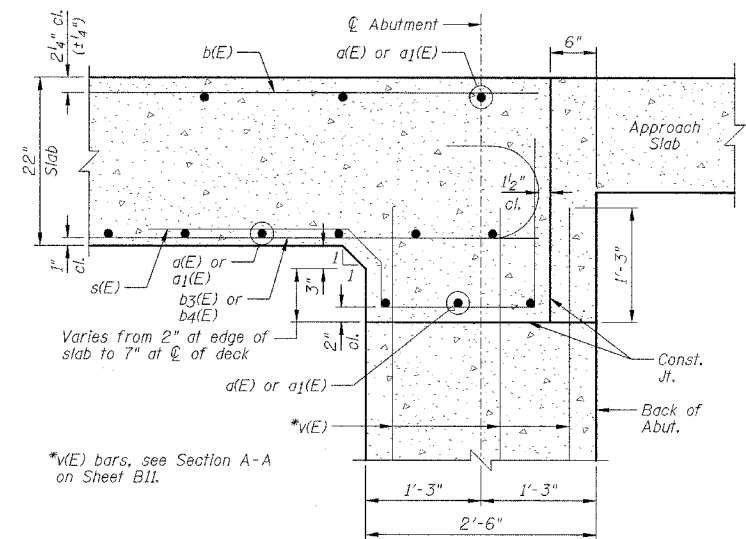
CROSS SECTION
(Looking East)



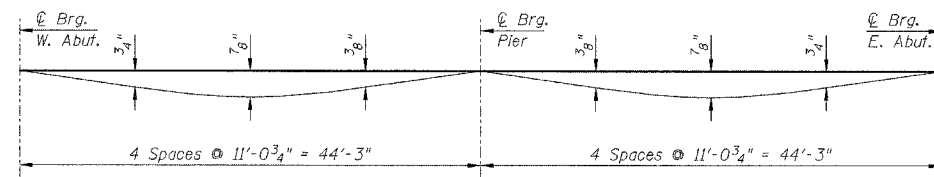
SECTION A-A



SECTION B-B



SECTION C-C



DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete only)

NOTES:

- 1.) Work this sheet with Sheets B6, B7 & B9.
- 2.) For Section Thru Parapet, see Sheet B9.
- 3.) For locations of Sections A-A, B-B & C-C, see Sheets B6 & B7.

REVISIONS	
NAME	DATE

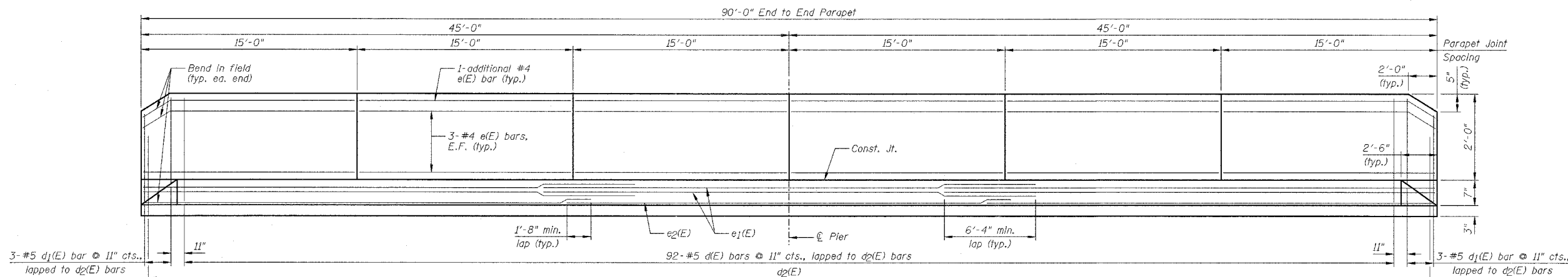
ILLINOIS DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE CROSS SECTIONS
F.A.P. 681 (IL116) OVER FIVE MILE CREEK
SECTION 114BR
LIVINGSTON COUNTY
STATION 585+14.50
STRUCTURE NO. 053-0181
DESIGNED BY: JML
DRAWN BY: DJM
DATE: 02/05/07
CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

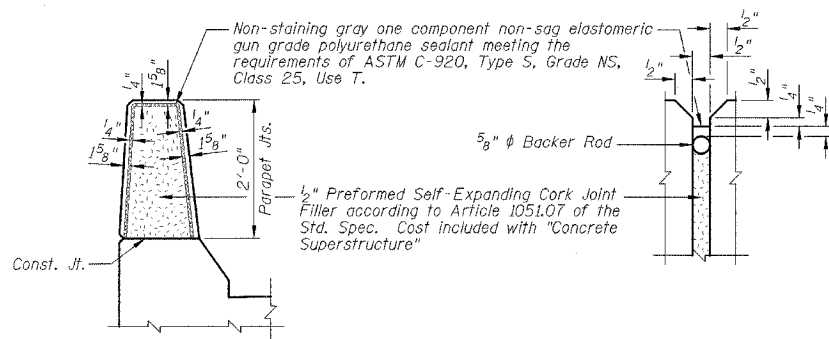
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114BR	LIVINGSTON	43	26
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SHEET NO. B9

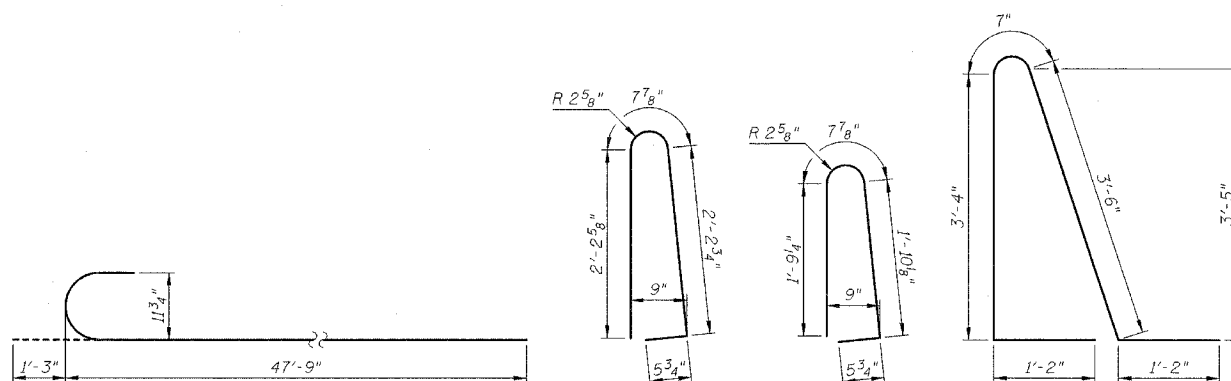
OF 14 SHEETS



INSIDE ELEVATION OF PARAPET
Elevation exaggerated vertically to show reinforcement.

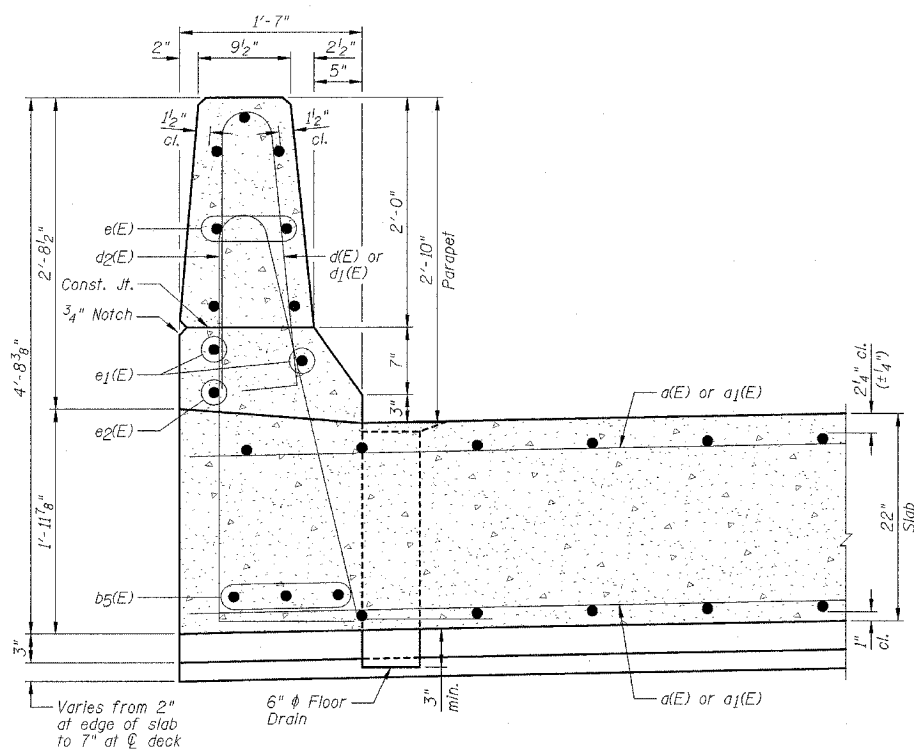


PARAPET JOINT DETAILS

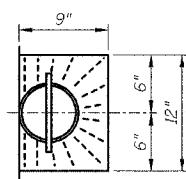


**SUPERSTRUCTURE
BILL OF MATERIAL**

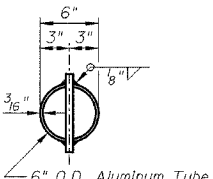
Bar	No.	Size	Length	Shape
a(E)	177	#5	23'-6"	—
a1(E)	177	#5	25'-0"	—
b(E)	98	#5	30'-3"	—
b1(E)	49	#10	35'-0"	—
b2(E)	48	#10	20'-0"	—
b3(E)	94	#9	49'-0"	C
b4(E)	92	#9	34'-11"	—
b5(E)	12	#8	47'-2"	—
d(E)	184	#5	5'-7"	
d1(E)	12	#5	4'-9"	
d2(E)	196	#5	9'-9"	L
e(E)	84	#4	14'-8"	—
e1(E)	12	#8	34'-2"	—
e2(E)	6	#4	31'-0"	—
s(E)	98	#4	6'-7 5/8"	L
s1(E)	49	#4	8'-5 1/4"	L
Item	Unit	Quantity		
Concrete Superstructure	Cu Yd	329.1		
Bridge Deck Grooving	Sq Yd	440		
Protective Coat	Sq Yd	535		
Reinforcement Bars, Epoxy Coated	Pound	57,530		
Bar Splacers	Each	177		



SECTION THRU PARAPET

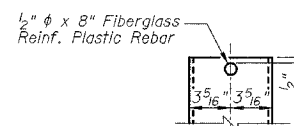


TOP PLAN

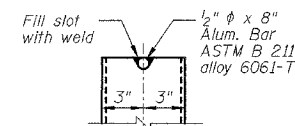


TOP PLAN

(Showing Aluminum Tube)



FIBERGLASS PIPE



ALUMINUM TUBE

NOTES:

- 1.) Work this sheet with Sheets B6 thru B8.
- 2.) E.F. denotes Each Face.
- 3.) Space 6" ϕ Floor Drain to miss reinforcing bars.

REVISIONS	
NAME	DATE

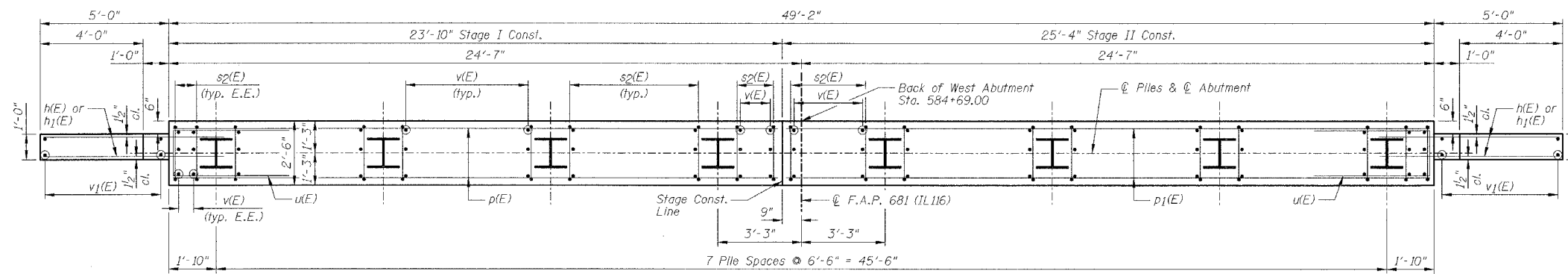
ILLINOIS DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE DETAILS, PARAPET
DETAILS AND BILL OF MATERIAL
F.A.P. 681 (IL116) OVER FIVE MILE CREEK
SECTION 114BR
LIVINGSTON COUNTY
STATION 585+14.50
STRUCTURE NO. 053-0181

DESIGNED BY: JML
DATE: 02/05/07
DRAWN BY: DJM
CHECKED BY: MSW

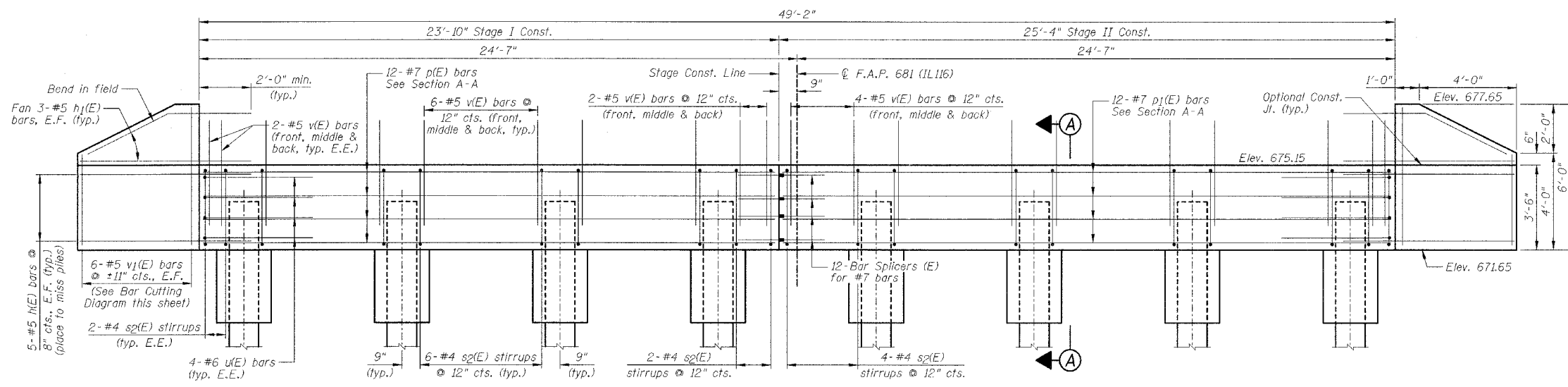
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114BR	LIVINGSTON	43	27
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. B10
OF 14 SHEETS



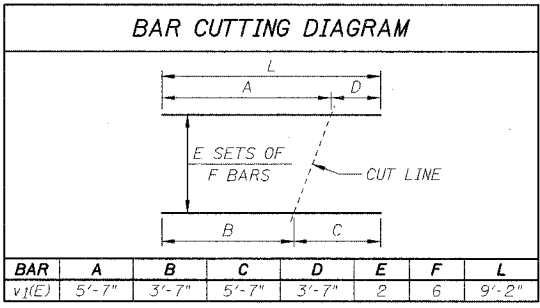
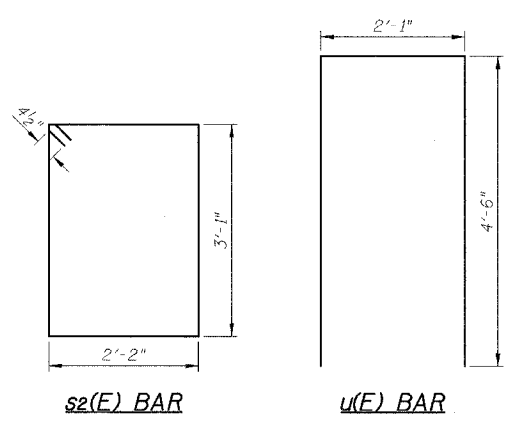
STAGE I PLAN STAGE II



ELEVATION
(Looking West)

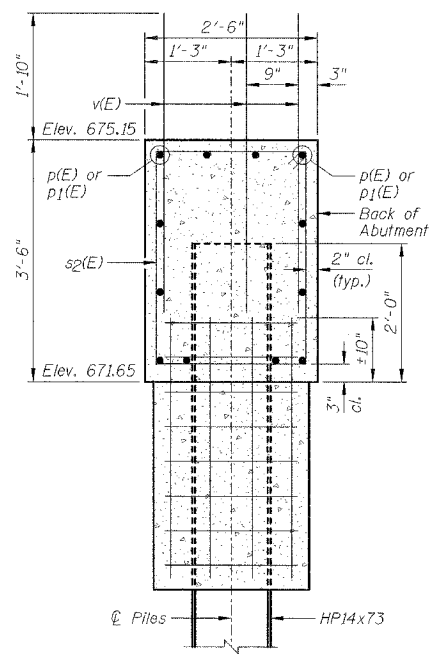
WEST ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	20	#5	7'-0"	—
h1(E)	12	#5	6'-10"	—
p(E)	12	#7	23'-6"	—
p1(E)	12	#7	25'-0"	—
s2(E)	46	#4	11'-3"	□
u(E)	8	#6	11'-1"	□
v(E)	138	#5	4'-4"	—
v1(E)	12	#5	9'-2"	—
Item	Unit	Quantity		
Porous Granular Embankment, Special	Cu Yd	46		
Structure Excavation	Cu Yd	122		
Concrete Structures	Cu Yd	17.9		
Reinforcement Bars, Epoxy Coated	Pound	2640		
Furnishing Steel				
Piles HP14x73	Foot	497		
Driving Piles	Foot	497		
Test Pile Steel HP14x73	Each	1		
Geocomposite Wall Drain	Sq Yd	22		
Pipe Underdrains For Structures 4"	Foot	75		
Bar Splicers	Each	12		



NOTES:

- 1.) Work this sheet with Sheets B2, B11 & B12A.
- 2.) E.E. denotes Each End & E.F. denotes Each Face.
- 3.) See Sheet B5 for Bar Splicer Details.
- 4.) Order v1(E) bars full length. Cut according to Bar Cutting Diagram. Use remainder of v1(E) bars in opposite face of wingwall.
- 5.) Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.



SECTION A-A

PILE DATA:

Type	HP14x73 Steel
No. Req'd.	7+1 Test Pile
Est. Length	71 feet
Nominal Required Bearing	115 kips
Allowable Resistance Available	345 kips

Note: Drive test pile under Stage I.

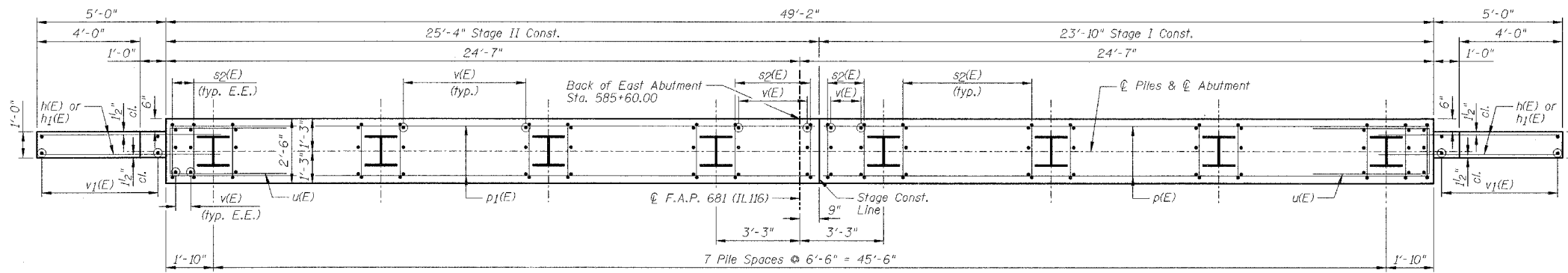
REVISIONS	
NAME	DATE
DJM	9/21/07

ILLINOIS DEPARTMENT OF TRANSPORTATION
WEST ABUTMENT
F.A.P. 681 (IL116) OVER FIVE MILE CREEK
SECTION 114BR
LIVINGSTON COUNTY
STATION 585+14.50
STRUCTURE NO. 053-0181
DESIGNED BY: JML
DATE: 02/05/07
DRAWN BY: DJM
CHECKED BY: MSW

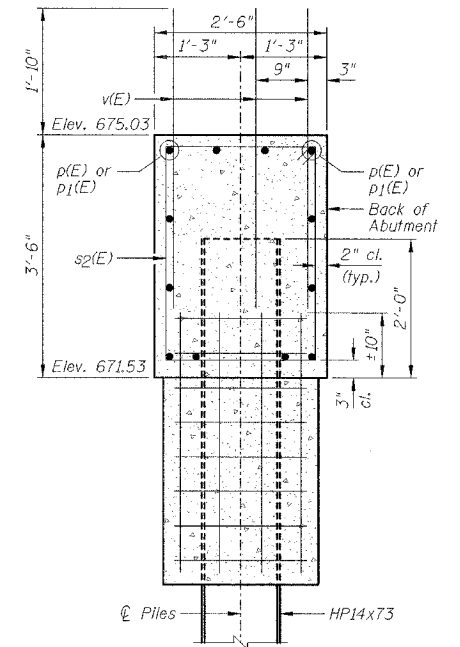
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114BR	LIVINGSTON	43	28
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

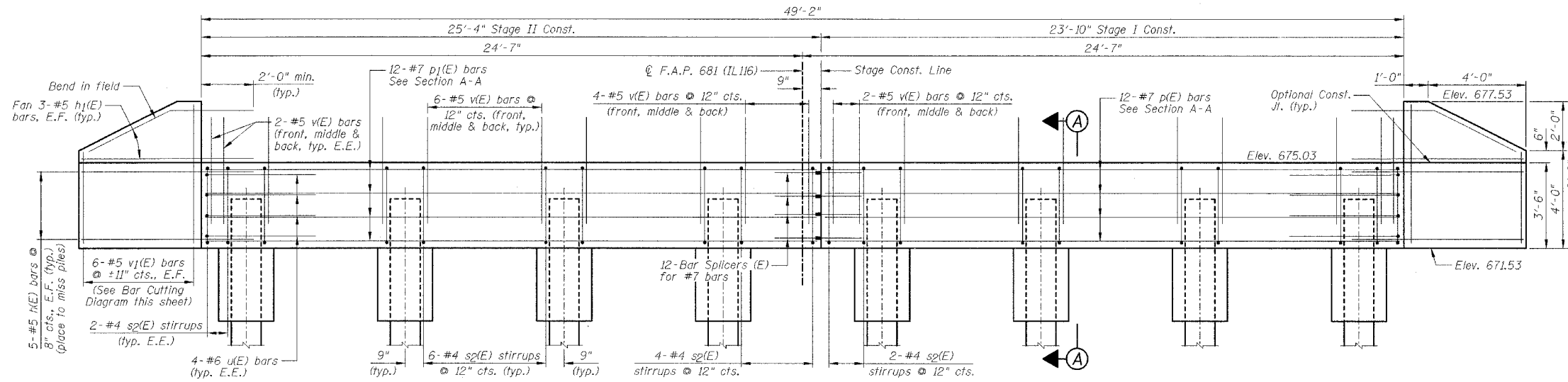
SHEET NO. B11
OF 14 SHEETS



STAGE II PLAN STAGE I



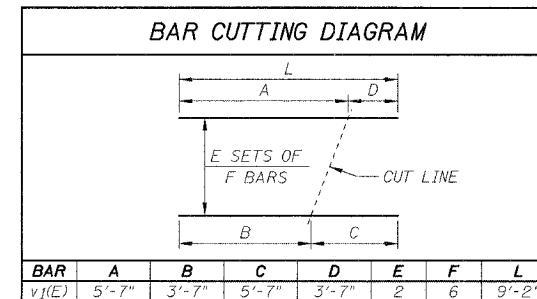
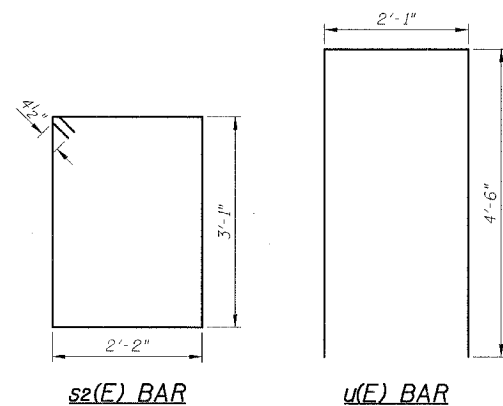
SECTION A-A



ELEVATION
(Looking West)

EAST ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	20	#5	7'-0"	
hj(E)	12	#5	6'-10"	
p(E)	12	#7	23'-6"	
p1(E)	12	#7	25'-0"	
sp(E)	46	#4	11'-3"	□
u(E)	8	#6	11'-1"	□
v(E)	138	#5	4'-4"	
vj(E)	12	#5	9'-2"	
Item	Unit	Quantity		
Porous Granular Embankment, Special	Cu Yd	46		
Structure Excavation	Cu Yd	122		
Concrete Structures	Cu Yd	17.9		
Reinforcement Bars, Epoxy Coated	Pound	2640		
Furnishing Steel Piles HP14x73	Foot	483		
Driving Piles	Foot	483		
Test Pile Steel HP14x73	Each	1		
Geocomposite Wall Drain	Sq Yd	22		
Pipe Underdrains For Structures 4"	Foot	75		
Bar Splicers	Each	12		



NOTES:

- 1.) Work this sheet with Sheets B2, B10 & B12A.
- 2.) E.E. denotes Each End & E.F. denotes Each Face.
- 3.) See Sheet B5 for Bar Splicer Details.
- 4.) Order vj(E) bars full length. Cut according to Bar Cutting Diagram. Use remainder of vj(E) bars in opposite face of wingwall.
- 5.) Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.

PILE DATA:

Type	HP14x73 Steel
No. Req'd.	7+1 Test Pile
Est. Length	69 Feet
Nominal Required Bearing	115 kips
Allowable Resistance Available	345 kips

Note: Drive test pile under Stage I.

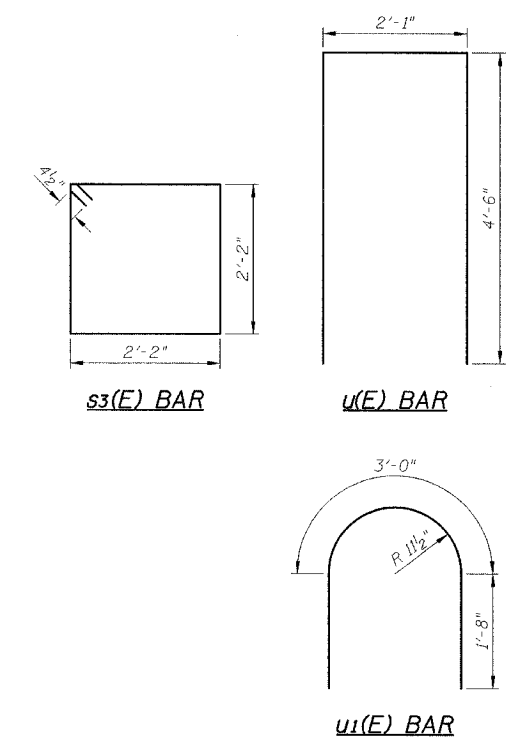
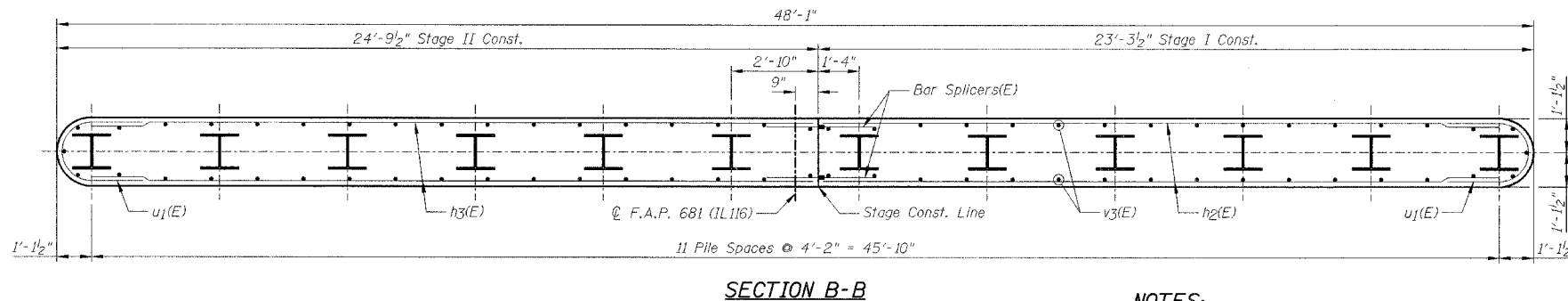
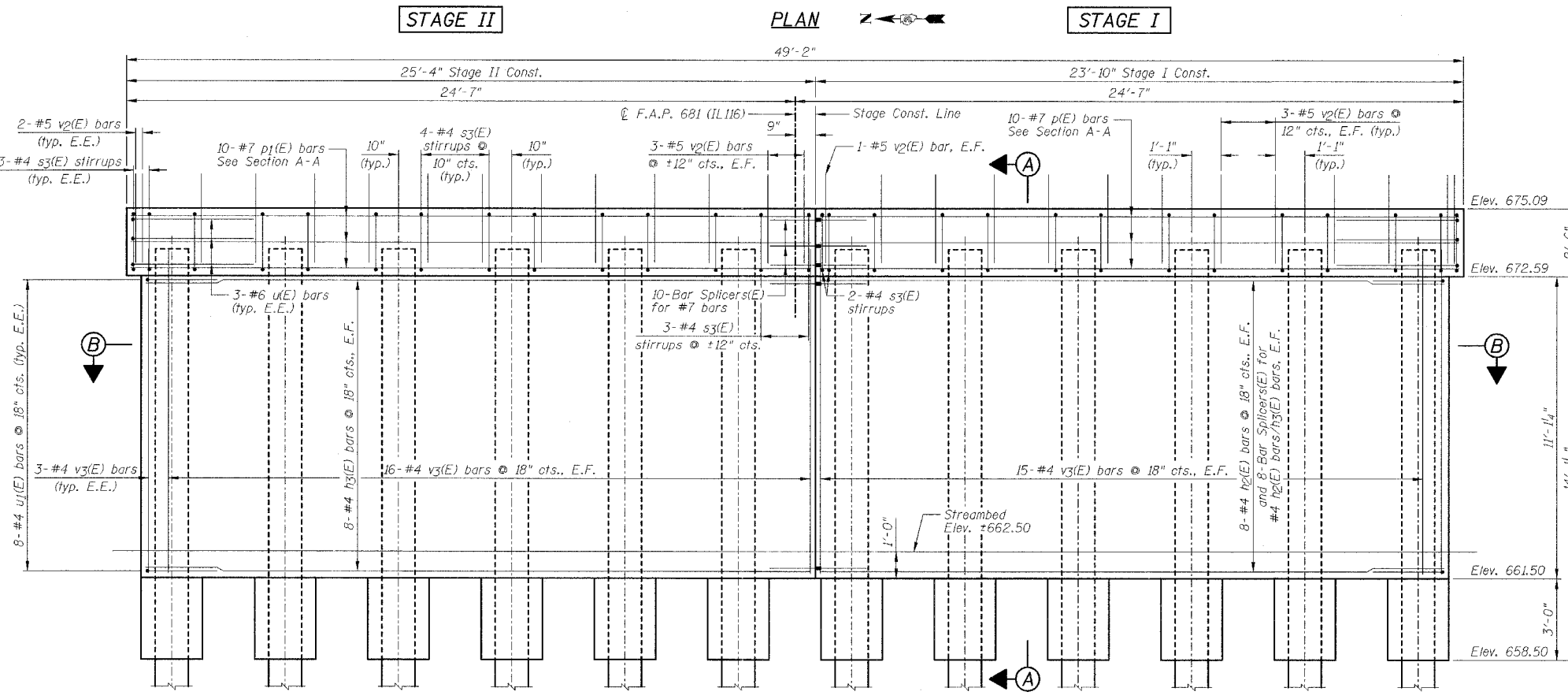
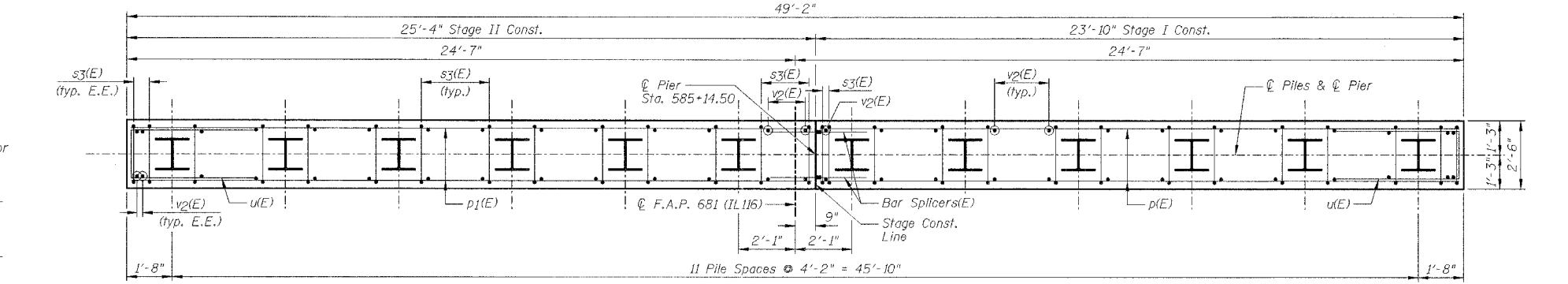
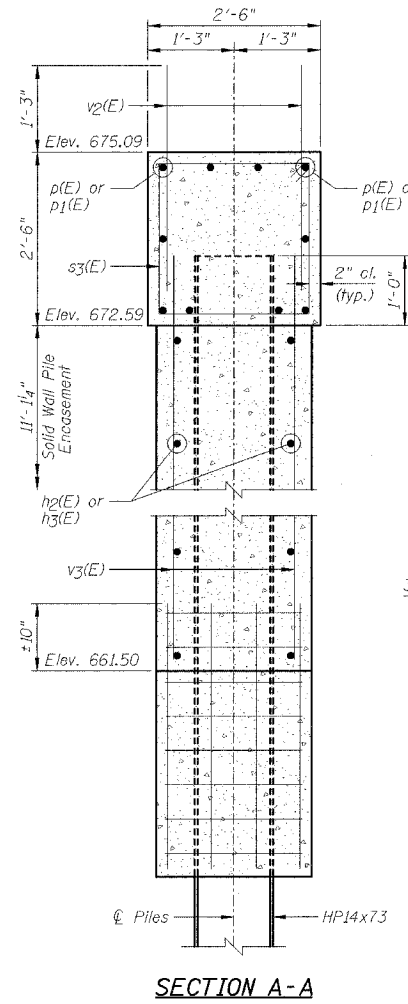
REVISIONS	
NAME	DATE
DJM	9/21/07

ILLINOIS DEPARTMENT OF TRANSPORTATION
EAST ABUTMENT
F.A.P. 681 (IL116) OVER FIVE MILE CREEK
SECTION 114BR
LIVINGSTON COUNTY
STATION 585+14.50
STRUCTURE NO. 053-0181
DESIGNED BY: JML
DATE: 02/05/07
DRAWN BY: DJM
CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
681	114BR	LIVINGSTON	43	29
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SHEET NO. B12
OF 14 SHEETS



PIER
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h2(E)	16	#4	22'-7"	—
h3(E)	16	#4	24'-1"	—
p1(E)	10	#7	23'-6"	—
p1(E)	10	#7	25'-0"	—
s3(E)	51	#4	9'-5"	□
u(E)	6	#6	11'-1"	□
u1(E)	16	#4	6'-4"	C
v2(E)	76	#5	3'-3"	—
v3(E)	68	#4	11'-11"	—
Item				
Structure Excavation		Unit	Quantity	
Concrete Structures		Cu Yd	37	
Reinforcement Bars, Epoxy Coated		Pound	2780	
Furnishing Steel Piles HP14x73		Foot	968	
Driving Piles HP14x73		Foot	968	
Test Pile Steel HP14x73		Each	1	
Bar Splicers		Each	26	

PILE DATA:

Type	HP14x73 Steel
No. Req'd.	11+1 Test Pile
Est. Length	88 feet
Nominal Required Bearing	136 kips
Allowable Resistance Available	408 kips

Note: Drive test pile under Stage I.

- NOTES:**
- 1.) Work this sheet with Sheets B2 & B12A.
 - 2.) E.E. denotes Each End & E.F. denotes Each Face.
 - 3.) See Sheet B5 for Bar Splicer Details.

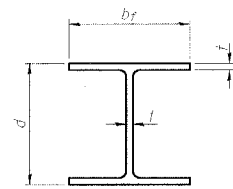
REVISIONS	NAME	DATE
	DJM	9/21/07

ILLINOIS DEPARTMENT OF TRANSPORTATION
PIER
F.A.P. 681 (IL116) OVER FIVE MILE CREEK
SECTION 114BR
LIVINGSTON COUNTY
STATION 585+14.50
STRUCTURE NO. 053-0181
DESIGNED BY: JML
DATE: 02/05/07
DRAWN BY: DJM
CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

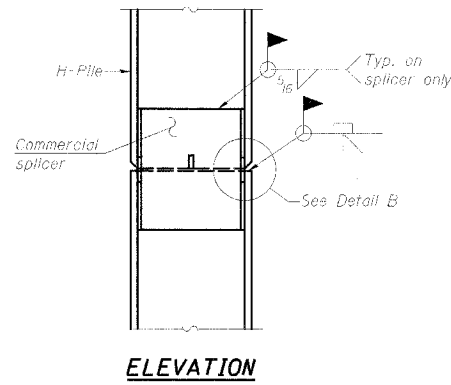
CONTRACT NO. 66625			
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
681	114BR	LIVINGSTON	43 29A
STA.		TO STA.	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	

SHEET NO. B12A
OF 14 SHEETS

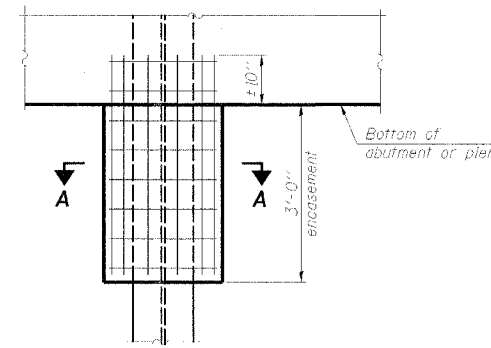


STEEL PILE TABLE

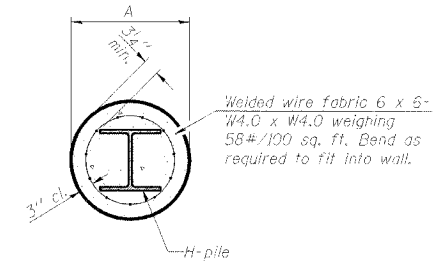
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 1/8"	15/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 5/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	1/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/2"	7/16"	24"
HP 8x36	8"	8 1/2"	7/16"	18"



ELEVATION



ELEVATION

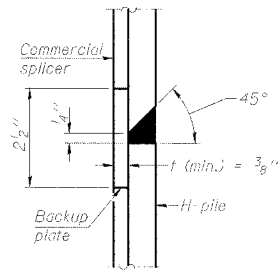


SECTION A-A

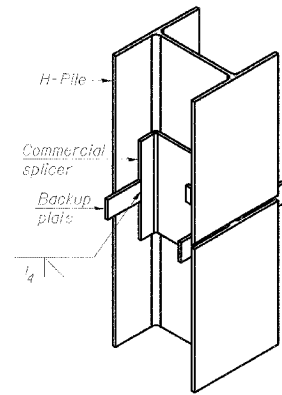
Note:
The cost of excavation, Class SI Concrete Encasement and reinforcement is included with "Furnishing Piles". Form for encasement may be omitted when soil conditions will permit.

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

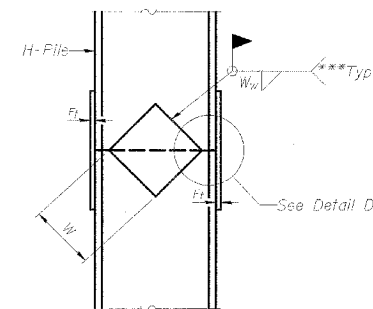
PILE ENCASEMENT



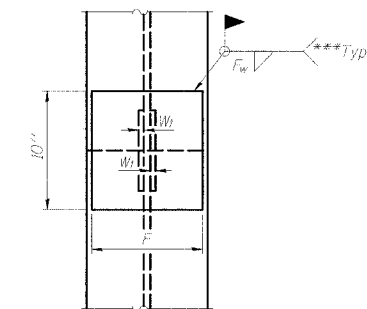
DETAIL "B"



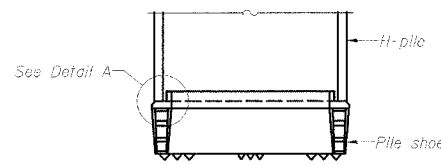
ISOMETRIC VIEW



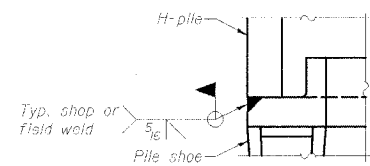
ELEVATION



END VIEW

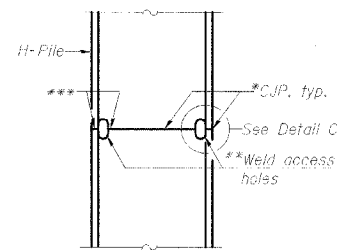


ELEVATION

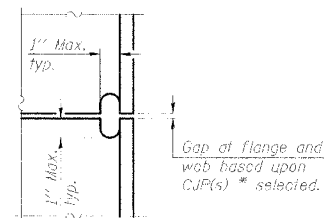


DETAIL A

H-PILE SHOE ATTACHMENT

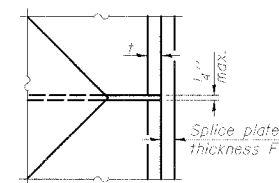


ELEVATION



DETAIL C

COMPLETE PENETRATION WELD SPLICE



DETAIL D

WELDED PLATE FIELD SPLICE

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

- *Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.
- **Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.
- ***Interrupt welds 1/4" from end of each pile.

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

REVISIONS	
NAME	DATE
DJM	9/21/07

ILLINOIS DEPARTMENT OF TRANSPORTATION
PILE DETAILS
F.A.P. 681 (IL116) OVER FIVE MILE CREEK
SECTION 114BR
LIVINGSTON COUNTY
STATION 585+14.50
STRUCTURE NO. 053-0181
DESIGNED BY: JML
DATE: 02/05/07
DRAWN BY: DJM
CHECKED BY: MSW

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114BR	LIVINGSTON	43	30
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



SOIL BORING LOG

Date 3/21/05

ROUTE SBI 315 (Ill. 116) DESCRIPTION Bridge over 5 mile Creek west of Ill 47 LOGGED BY LM

SECTION 114BR LOCATION SE 1/4, SEC. 16, TWP. 28, RNG. 7E, 3rd PM

COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	STATION	BORING NO.	STATION	OFFSET	GROUND SURFACE ELEV.	DEPTH (ft)	BLOW COUNT	UNCONF. COMPRESSIVE STRENGTH (tsf)	PENETROMETER TYPE	MOISTURE (%)	DESCRIPTION	DEPTH (ft)	BLOW COUNT	UNCONF. COMPRESSIVE STRENGTH (tsf)	PENETROMETER TYPE	MOISTURE (%)		
																	D	B
053-0076	585+14.5	1 West Abutment	584+71.5	22.00R.LT	677.48						Surface Water Elev. 685.91 ft Stream Bed Elev. _____ ft							
Groundwater Elev.:																		
First Encounter																		
Upon Completion																		
After																		
Cored Bituminous Pavement, Concrete & Auger with CA6 & White Rock																		
Stiff Black Silty Clay Fill																		
Stiff Black Clay Loam Till Fill																		
Medium Gray/Brown Silty Clay Loam Till																		
Hard to Stiff Gray Silty Clay Loam Till w/ layers Fine Sand/ Fine Gravel Starting @ 20"																		
Hard to Stiff Gray Silty Clay Loam Till w/ layers Fine Sand/ Fine Gravel Starting @ 20"																		
Hard to Stiff Gray Silty Clay Loam Till w/ layers Fine Sand/ Fine Gravel Starting @ 20"																		

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 LOG

Date 3/21/05

ROUTE SBI 315 (Ill. 116) DESCRIPTION Bridge over 5 mile Creek west of Ill 47 LOGGED BY LM

SECTION 114BR LOCATION SE 1/4, SEC. 16, TWP. 28, RNG. 7E, 3rd PM

COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	STATION	BORING NO.	STATION	OFFSET	GROUND SURFACE ELEV.	DEPTH (ft)	BLOW COUNT	UNCONF. COMPRESSIVE STRENGTH (tsf)	PENETROMETER TYPE	MOISTURE (%)	DESCRIPTION	DEPTH (ft)	BLOW COUNT	UNCONF. COMPRESSIVE STRENGTH (tsf)	PENETROMETER TYPE	MOISTURE (%)		
																	D	B
053-0076	585+14.5	1 West Abutment	584+71.5	22.00R.LT	677.48						Surface Water Elev. 685.91 ft Stream Bed Elev. _____ ft							
Groundwater Elev.:																		
First Encounter																		
Upon Completion																		
After																		
Stiff Gray Sandy Loam w/ layers Gray Fine Sand/medium Gravel (About 50%) (continued)																		
Very Stiff To Stiff Gray Silty Clay Loam w/ layers Sandy Loam (continued)																		
Very Stiff To Stiff Gray Silty Clay Loam w/ layers Sandy Loam (continued)																		
Very Stiff To Stiff Gray Silty Clay Loam w/ layers Sandy Loam (continued)																		
Hard Gray Silty Clay Loam Till w/ Silt Layers up to 6"																		
Hard Gray Silty Clay Loam Till																		

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 LOG

Date 3/21/05

ROUTE SBI 315 (Ill. 116) DESCRIPTION Bridge over 5 mile Creek west of Ill 47 LOGGED BY LM

SECTION 114BR LOCATION SE 1/4, SEC. 16, TWP. 28, RNG. 7E, 3rd PM

COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	STATION	BORING NO.	STATION	OFFSET	GROUND SURFACE ELEV.	DEPTH (ft)	BLOW COUNT	UNCONF. COMPRESSIVE STRENGTH (tsf)	PENETROMETER TYPE	MOISTURE (%)	DESCRIPTION	DEPTH (ft)	BLOW COUNT	UNCONF. COMPRESSIVE STRENGTH (tsf)	PENETROMETER TYPE	MOISTURE (%)		
																	D	B
053-0076	585+14.5	1 West Abutment	584+71.5	22.00R.LT	677.48						Surface Water Elev. 685.91 ft Stream Bed Elev. _____ ft							
Groundwater Elev.:																		
First Encounter																		
Upon Completion																		
After																		
Hard Gray Silty Clay Loam Till (continued)																		
End of Boring																		

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)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL BORING LOGS
F.A.P. 681 (IL116) OVER FIVE MILE CREEK
SECTION 114BR
LIVINGSTON COUNTY
STATION 585+14.50
STRUCTURE NO. 053-0181

DESIGNED BY: JML DRAWN BY: DJM
DATE: 02/05/07 CHECKED BY: MSW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114BR	LIVINGSTON	43	31
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

Page 1 of 3
SHEET NO. B14
OF 14 SHEETS



SOIL BORING LOG

Page 1 of 3

Date 3/22/05

ROUTE SBI 315 (Ill. 116) DESCRIPTION Bridge over 5 mile Creek west of Ill 47 LOGGED BY LM
SECTION 114BR LOCATION SE 1/4, SEC. 16, TWP. 28, RNG. 7E, 3rd PM
COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	D	B	U	M	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	Hrs.	(ft)	(/ft)	(tsf)	(%)
053-0076	585+14.5	2 East Abutment	585+46.5	18.00R RT	677.24					665.91										
Cored Bituminous Concrete & Augered White CA6																				
Very Stiff Gray Silty Clay Loam Till (continued)																				
855.74																				
Stiff Gray Silty Clay Loam till w/ Silt & Fine Sand/ Fine Gravel layers @ 23'																				
672.74																				
Very Stiff Black, Gray, Brown Silty Clay/ Silty Clay Loam Fill																				
645.74																				
Very Stiff Gray Silty Clay Loam Till w/ hard Silt Layers @ 61'																				
662.74																				
Very Stiff Gray Silty Clay Loam Till																				

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 LOG

Page 2 of 3

Date 3/22/05

ROUTE SBI 315 (Ill. 116) DESCRIPTION Bridge over 5 mile Creek west of Ill 47 LOGGED BY LM
SECTION 114BR LOCATION SE 1/4, SEC. 16, TWP. 28, RNG. 7E, 3rd PM
COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	D	B	U	M	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	Hrs.	(ft)	(/ft)	(tsf)	(%)
053-0076	585+14.5	2 East Abutment	585+46.5	18.00R RT	677.24					665.91										
Very Stiff Gray Silty Clay Loam Till w/ hard Silt Layers @ 61' (continued)																				
800.24																				
Hard Gray Silty Clay Loam Till																				

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 LOG

Page 3 of 3

Date 3/22/05

ROUTE SBI 315 (Ill. 116) DESCRIPTION Bridge over 5 mile Creek west of Ill 47 LOGGED BY LM
SECTION 114BR LOCATION SE 1/4, SEC. 16, TWP. 28, RNG. 7E, 3rd PM
COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	D	B	U	M	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	Hrs.	(ft)	(/ft)	(tsf)	(%)
053-0076	585+14.5	2 East Abutment	585+46.5	18.00R RT	677.24					665.91										
Hard Gray Silty Clay Loam Till (continued)																				
596.24																				
End of Boring																				

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)

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION SOIL BORING LOGS F.A.P. 681 (IL116) OVER FIVE MILE CREEK SECTION 114BR LIVINGSTON COUNTY STATION 585+14.50 STRUCTURE NO. 053-0181
NAME	DATE	
		DESIGNED BY: JML DRAWN BY: DJM DATE: 02/05/07 CHECKED BY: MSW

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114 BR	LIVINGSTON	43	32
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

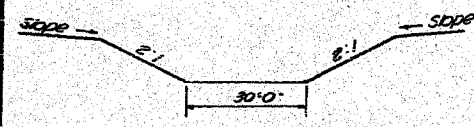
NO.	DESCRIPTION	QUANTITY	UNIT	PRICE	TOTAL
1	CLASS A CONCRETE	207.7	CU YDS		
2	HANDRAIL CONCRETE	20	CU YDS		
3	REINFORCEMENT BARS	13,920	LB		
4	PRECAST PRESTRESSED CONCRETE BRIDGE DECK	2102	SQ FT		
5	CLASS A EXCAVATION FOR STR.	175	CU YDS		
6	CLASS B EXCAVATION FOR STR.	305	CU YDS		
7	BRIDGE DECK SEALANT	167	SQ YDS		
8	NAME PLATES	1	EACH		
9	REMOVAL OF EXIST. STRUCT.	1	EACH		
10	TEMPORARY BRIDGE CONG.	1	EACH		
11	PROTECTIVE COAT	89	SQ YDS		

GENERAL NOTES

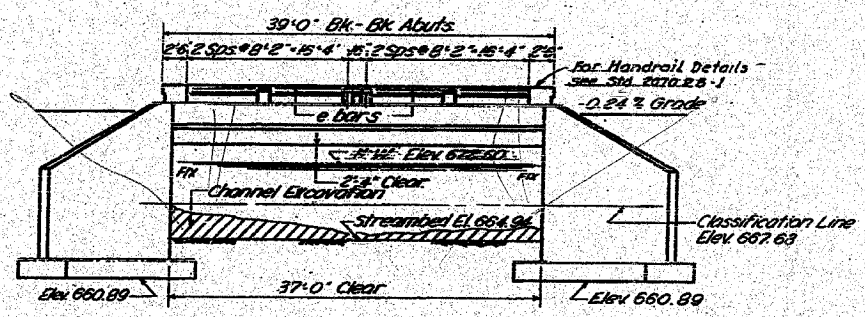
Class A Concrete shall be used throughout except in handrails.
 Handrail concrete in the rail posts and railing shall be poured in separate operations.
 Handrail concrete shall be used in handrails.
 For backfill behind abutments held in place by Superstructure, see Article 50.10 of the Standard Specifications.
 The following surfaces of the abutments shall be waterproofed: the backs of the exterior walls above the lower construction joints and the backs of the wings above the tops of the footings. Waterproofing shall be done in accordance with Article 51.01 of the Standard Specifications.
 Protective coat to be applied to face top of curbs and median.
 Bridge deck sealant to be applied to top of prestressed beams between face of curb and median.

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

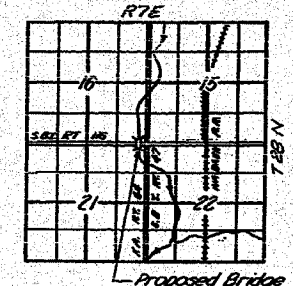
B.M. Spike and Washer in Telephone Pole 40' RT Sta 583+17 Elev 675.59
 Existing Structure: R.C. Through Girder, 40' cl. opening, 24' x 5' Roadway, Built 1921 R.C. Abutments to be removed by Bridge Contractor before starting new construction.
 Salvage - None
 Temporary Structure will be required.



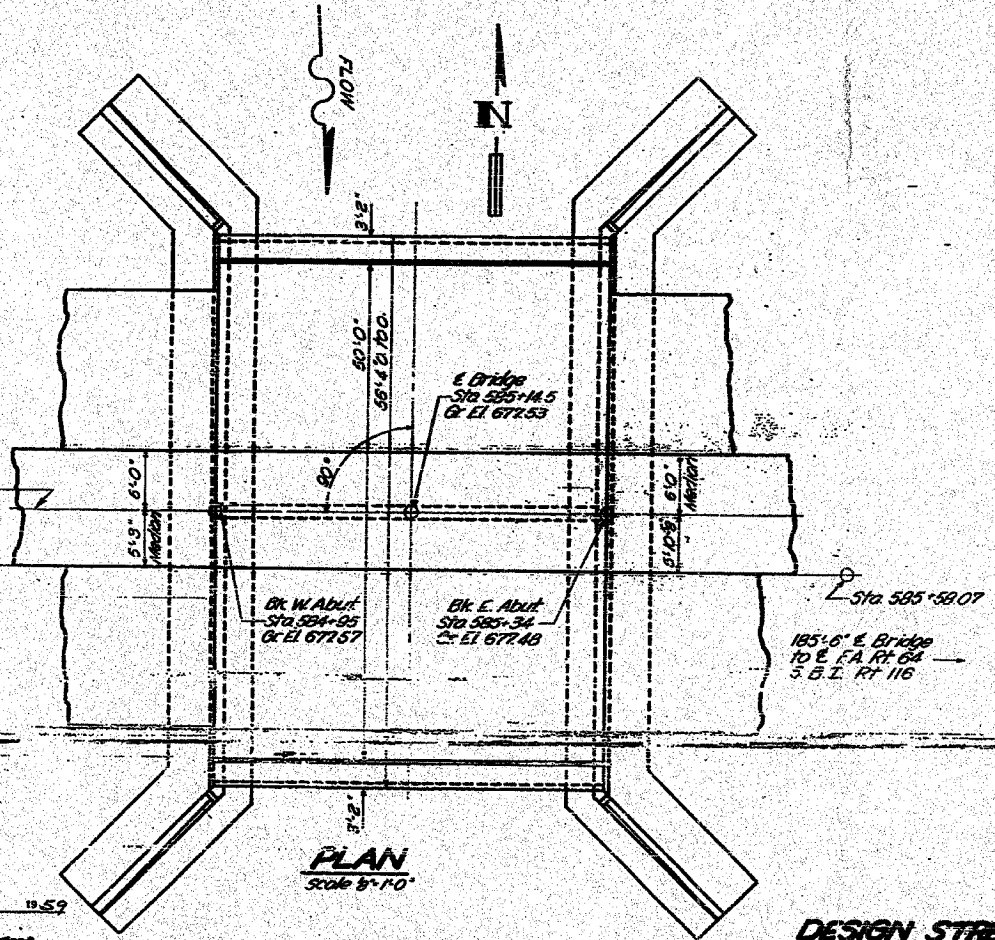
TYPICAL CROSS SECTION OF PROPOSED NEW CHANNEL



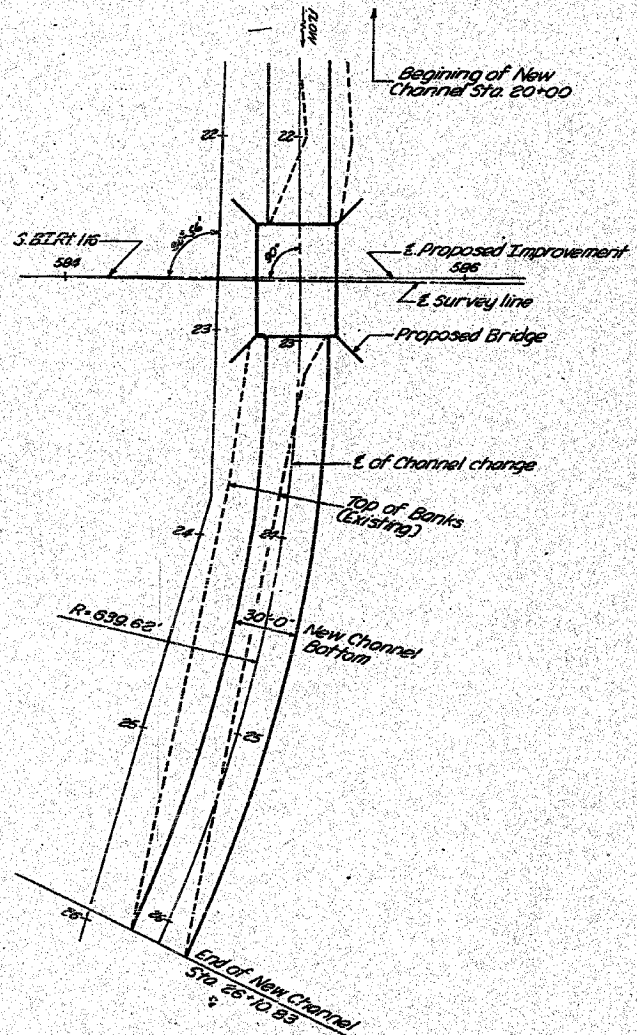
ELEVATION
Scale 8"=10'



LOCATION SKETCH



PLAN
Scale 8"=10'



PLAN OF PROPOSED CHANNEL RELOCATION

TOTAL BILL OF MATERIAL

Item	Unit	Super	Subst	Total
Class A Concrete	Cu Yds	207.7	163.0	207.7
Handrail Concrete	Cu Yds	20		20
Reinforcement Bars	Lbs	13,920	11,960	13,920
Precast Prestressed Concrete Bridge Deck	Sq Ft	2102		2102
Class A Excavation for Str.	Cu Yds		175	175
Class B Excavation for Str.	Cu Yds		305	305
Bridge Deck Sealant	Sq Yds	167		167
Name Plates	Each	1		1
Removal of Exist. Struct.	Each		1	1
Temporary Bridge Cong.	Each		1	1
Protective Coat	Sq Yds	89		89

STATION 585+14.5
 BUILT 19 BY
 STATE OF ILLINOIS
 S.B.E. RT 116 SEC 114 BR

LETTERING FOR NAME
 PLATE SEE STD. 2113-1

DESIGNED	D. J. Cooper	NOV. 2 1959
CHECKED	Alvin R. Jones	
DRAWN	J. Putnam	
CHECKED	D. J. Cooper	
APPROVED	R. H. Butcher	

PRESTRESSED DESIGN STRESSES

- f_c = 5000 p.s.i.
- f_{si} = 180,000 p.s.i. (Prestressing Steel)
- f_{ci} = 4000 p.s.i.
- f_s = 250,000 p.s.i. (Cables)

DESIGN STRESSES

- f_c = 1400 p.s.i. Superstructure
- f_c = 1000 p.s.i. Substructure
- f_s = 20,000 p.s.i. Reinforcement
- f_s = 18,000 p.s.i. Structures
- Maximum Friction Angle = 2.71%

LOADING H20-S16-44

WATERWAY INFORMATION

- Drainage Area = 6300 Acres
- Character = Level Rolling Clay (Estimated)
- Required Opening (25 Yr. Flood) = 230 Sq. Ft.
- Present Opening = 229 Sq. Ft.
- Proposed Opening = 280 Sq. Ft.
- Low Water Elev. 655.68

GENERAL PLAN & ELEVATION
 S.B.E. RT. 116 SEC 114 BR
 LIVINGSTON COUNTY
 STATION 585+14.5

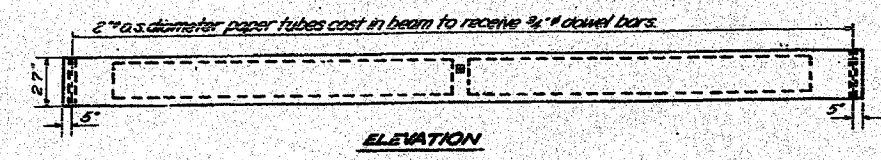
PLOT DATE = Aug 24, 2007 - 11:06:08 AM
 PLOT SCALE = 20.0000
 USER NAME = Ferguson

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114 BR	LIVINGSTON	43	33
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

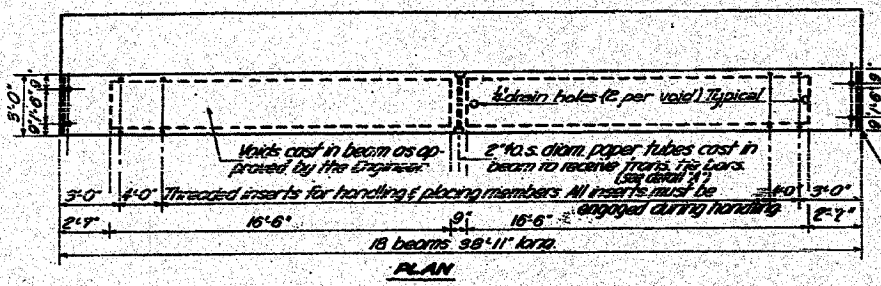
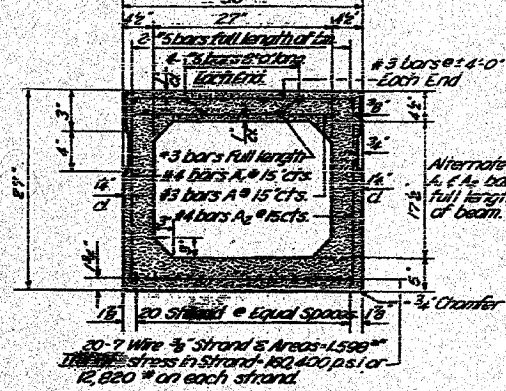
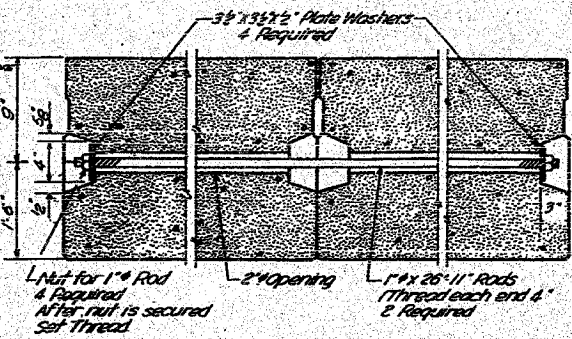
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

DATE	REVISION	BY	NO.
11/2/59	1	D. J. Cooper	1

SHEET NO. 2
4 SHEETS

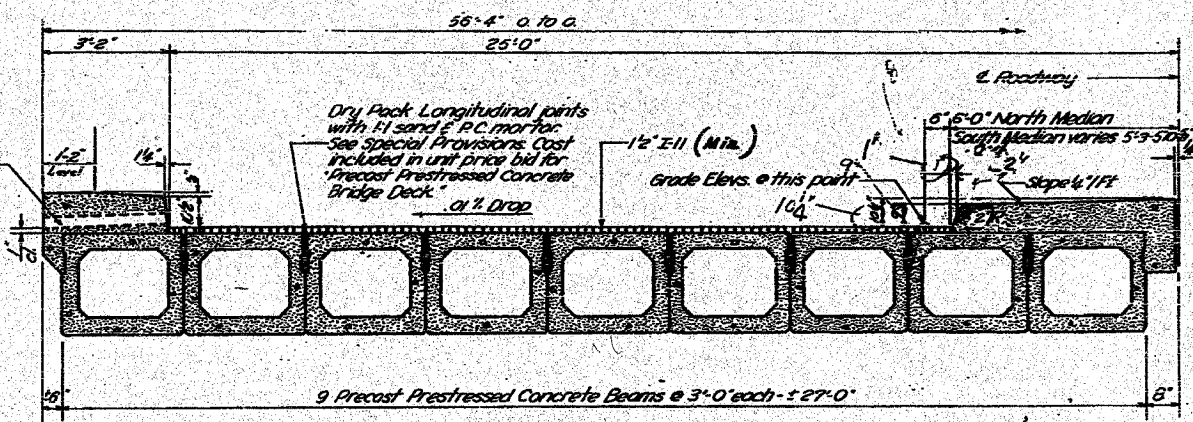
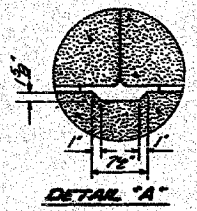
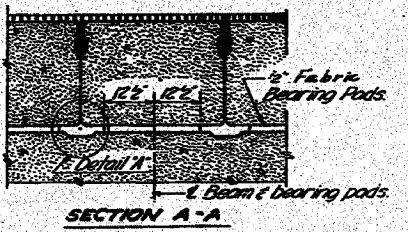
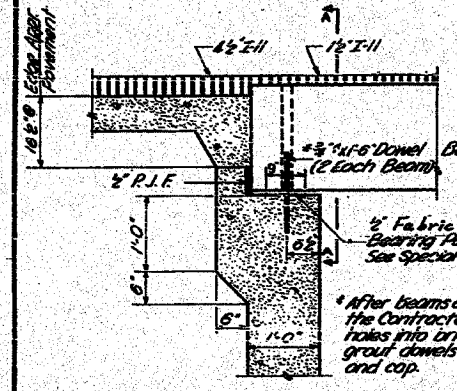


GENERAL NOTES
For item "Precast Prestressed Concrete Bridge Deck" See Specifications, Specifications
Strand used as prestressing element shall be non-polymerized, high strength stress-relieved 7 wire strand. The nominal diameter of the strand shall not exceed 3/8" the nominal cross-sectional area shall be 0.99 sq. inches.
Pockets that receive transverse tie bar on outside beams shall be filled with grout after transverse tie assembly is in place.
The 1" Rods in the transverse tie assembly shall be tightened to a snug fit and the threads set.



TYPICAL TRANSVERSE TIE ASSEMBLY
Cost and assembly of Transverse tie is included in unit price bid for Precast Prestressed Concrete Bridge Deck.

TYPICAL SECTION THRU BEAM



HALF CROSS SECTION (Looking East)

SECTION THRU ABUTMENTS

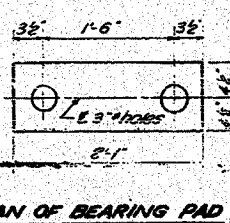
SECTION A-A

DETAIL "A"

BILL OF MATERIAL

Bar	No	Size	Length	Shape
a	40	# 4	4'-3"	
a ₁	40	# 4	4'-9"	
a ₂	40	# 4	4'-3"	
b	40	# 4	28'-0"	
d	52	# 5	2'-9"	
e	16	# 5	16'-5"	
f	24	# 4	2'-0"	

Precast Prestressed Concrete Bridge Deck Sq. Ft. 2127
Class Y Concrete Cu. Yds. 24.7
Handrail Concrete Cu. Yds. 2.0
Reinforcement Bars Lbs. 1860
Name Plates Each 1



PLAN OF BEARING PAD

BAR - c

BAR - a

LIFTING INSERT DETAIL
Required as shown or approved equal.

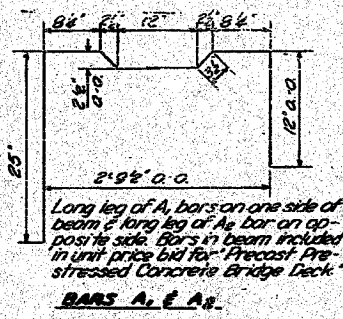
CURB DETAIL

DETAIL OF BARS EMBEDDED IN BEAM
Space @ 2'-0" cts. Full length of curb.

DESIGNED: D. J. Cooper
CHECKED: Charles R. Lunn
DRAWN: C. E. Koser, J. Putnam
CHECKED: D. J. Cooper

EXAMINED: [Signature]
PASSED: [Signature]
APPROVED: [Signature]

Nov. 2, 1959



MEDIAN DETAIL

SUPERSTRUCTURE
S.B.I. RT. 116 SEC. 114 BR
LIVINGSTON COUNTY
STATION 585 + 14.5

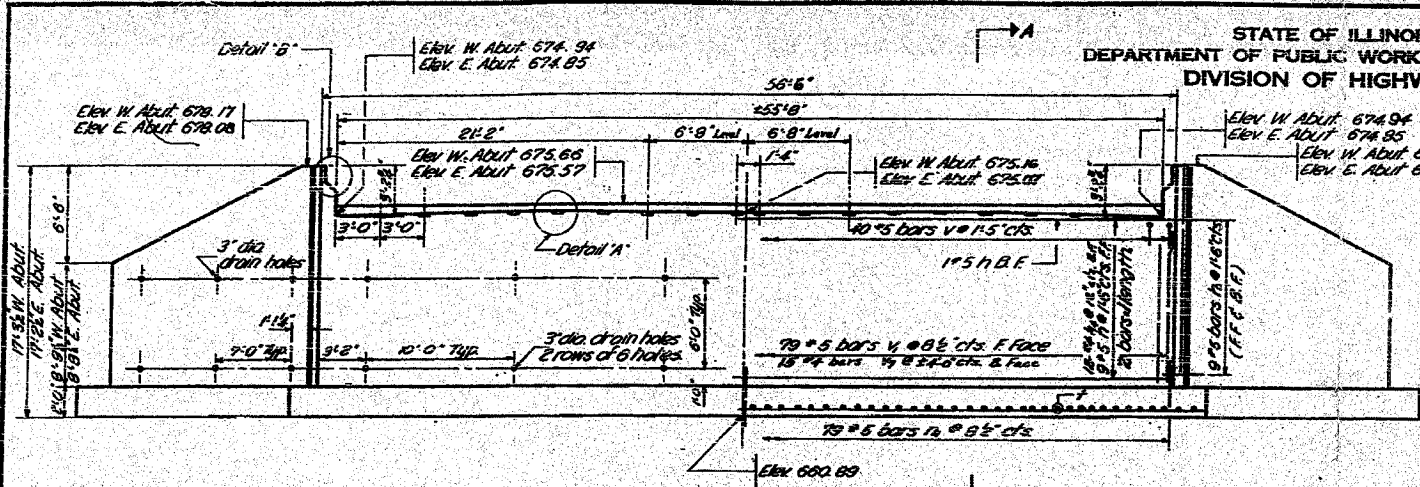
Reinforcement Bars rev. from 1330 Lbs. to 1360 Lbs. H.R.P.
Rev. 2-6-64 Median curb rev. to match Type B 9.05 Class Y Concrete rev. from 20.6 Cu. Yds. to 24.7 Cu. Yds.

Aug 24, 2007 - 11:05:25 AM
PLOT NAME: [unclear]
PLOT SCALE: 20,000%
USER NAME: [unclear]

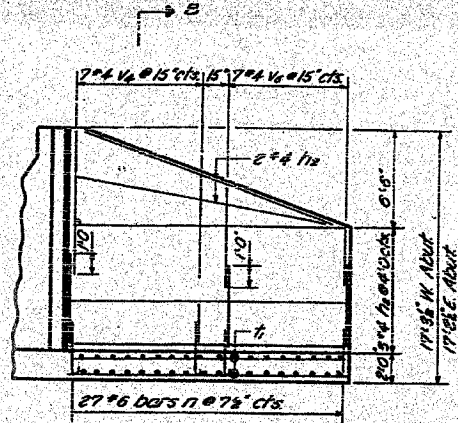
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114 BR	LIVINGSTON	43	34
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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

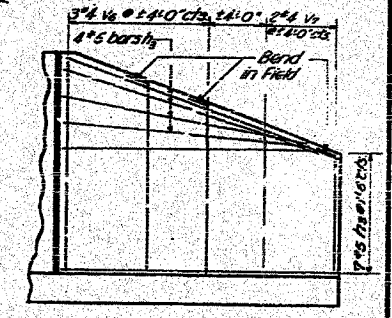
DATE	SECTION	PROJECT	SCALE	SHEET NO.
11/22/59	114 BR	LIVINGSTON	1/4" = 1'-0"	4 OF 43



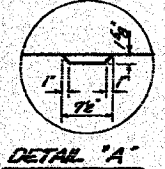
ELEVATION - EAST & WEST ABUTMENTS



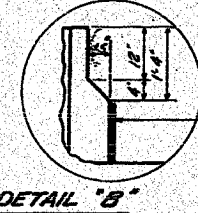
ELEVATION - WING WALL
Showing Steel in Back Face



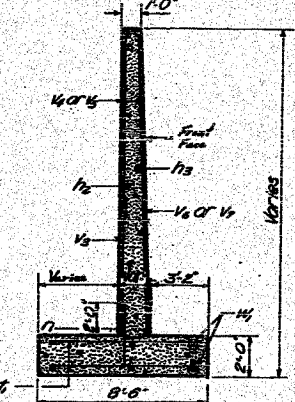
ELEVATION - WING WALL
Showing Steel in Front Face



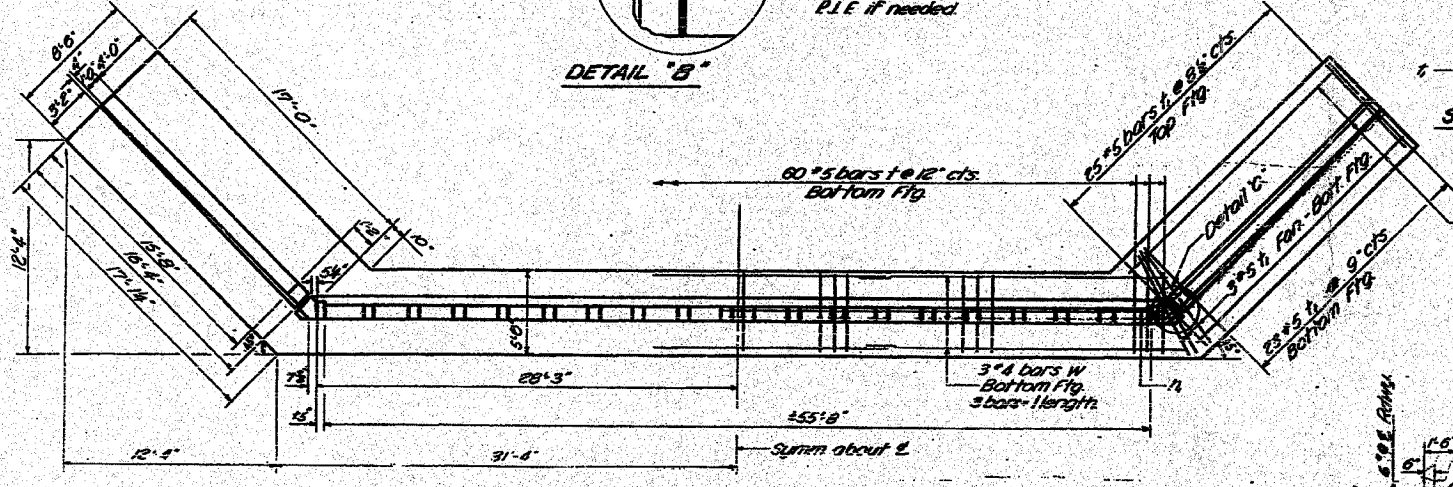
DETAIL 'A'



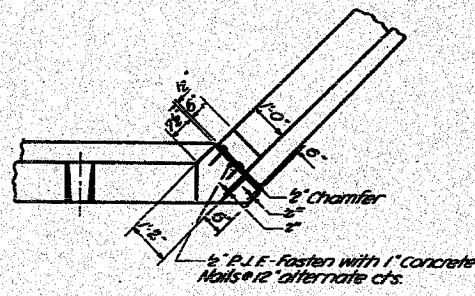
DETAIL 'B'



SECTION B-B



PLAN - EAST & WEST ABUTMENTS



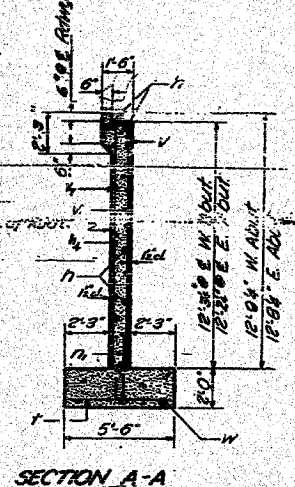
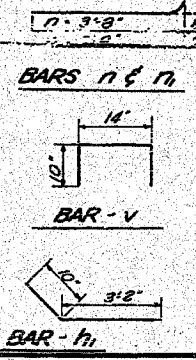
DETAIL 'C' TYPICAL CORNER

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
n	40	# 5	30'-0"	—
n	72	# 5	4'-0"	—
n	20	# 4	16'-0"	—
n	44	# 5	15'-0"	—
n	48	# 4	30'-0"	—
n	108	# 6	4'-4"	—
n	158	# 5	4'-3"	—
f	120	# 5	5'-3"	—
f	204	# 5	8'-3"	—
v	80	# 5	2'-10"	—
v	158	# 5	11'-6"	—
v	16	# 5	15'-0"	—
v	108	# 5	6'-0"	—
v	28	# 4	9'-3"	—
v	28	# 4	6'-0"	—
v	12	# 4	15'-0"	—
v	38	# 4	11'-6"	—
w	18	# 4	21'-6"	—
w	24	# 4	17'-0"	—
Class V Concrete				Cu Yds 1820
Reinforcement Bars				Lbs. 16560
Class A Excavation Re-St. Cu Yds				176
Class B Excavation Re-St. Cu Yds				395

DESIGNED: *Art. Cooper*
CHECKED: *Charles R. Turner*
DRAWN: *D.L. Carter, J. Puttman*
CHECKED: *Charles R. Turner*

EXAMINED: *Nov. 2, 1959*
PASSED: *McDonnell*
APPROVED: *R.H. Bartholomew*



SECTION A-A

ABUTMENT DETAILS
S.B.I. RT. 116 SEC. 114 BR
LIVINGSTON COUNTY
STATION 595 + 14.5

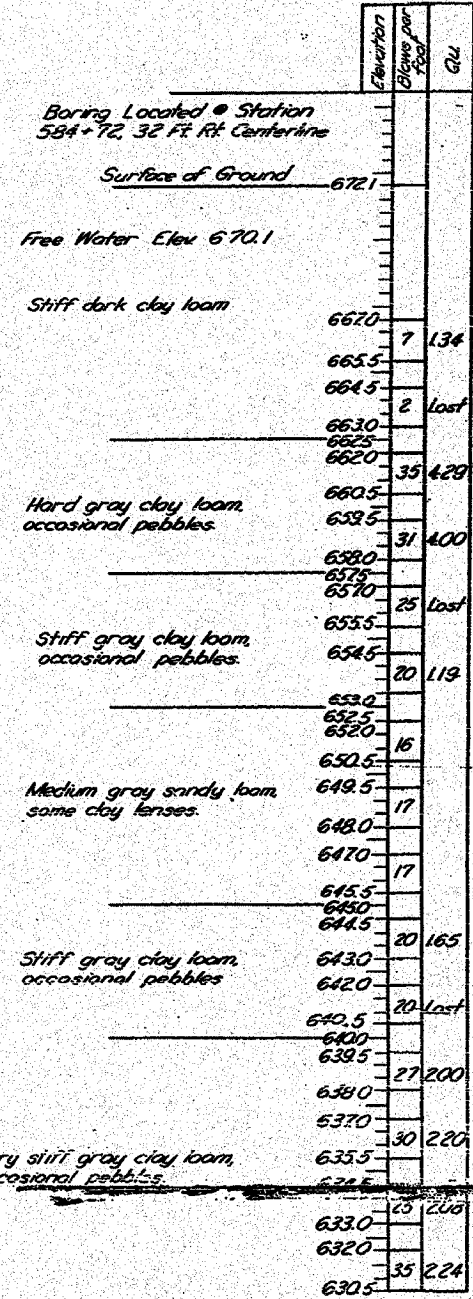
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PLOT SCALE = 3/4" = 1'-0"
USER NAME = ferguson

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114 BR	LIVINGSTON	43	35
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

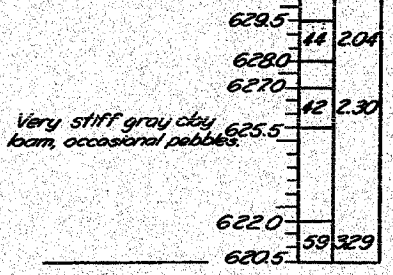
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

DATE	NO.	BY	NO.	BY
11/16/57	66	J.A.P.	73	J.A.P.
SHEET NO. 4 4 SHEETS				

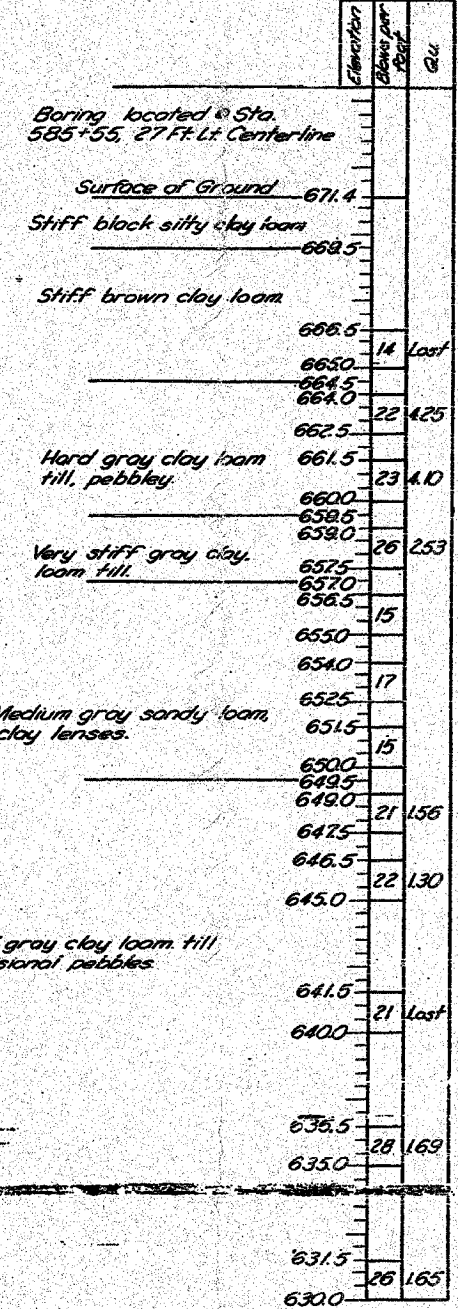
BORING NO 1



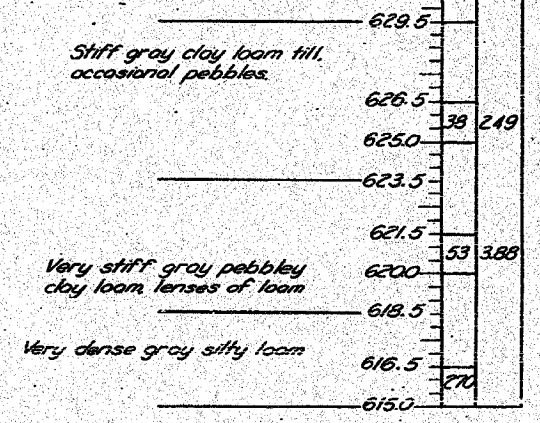
Boring No 1 Cont.



BORING NO 2



Boring No 2 Cont.



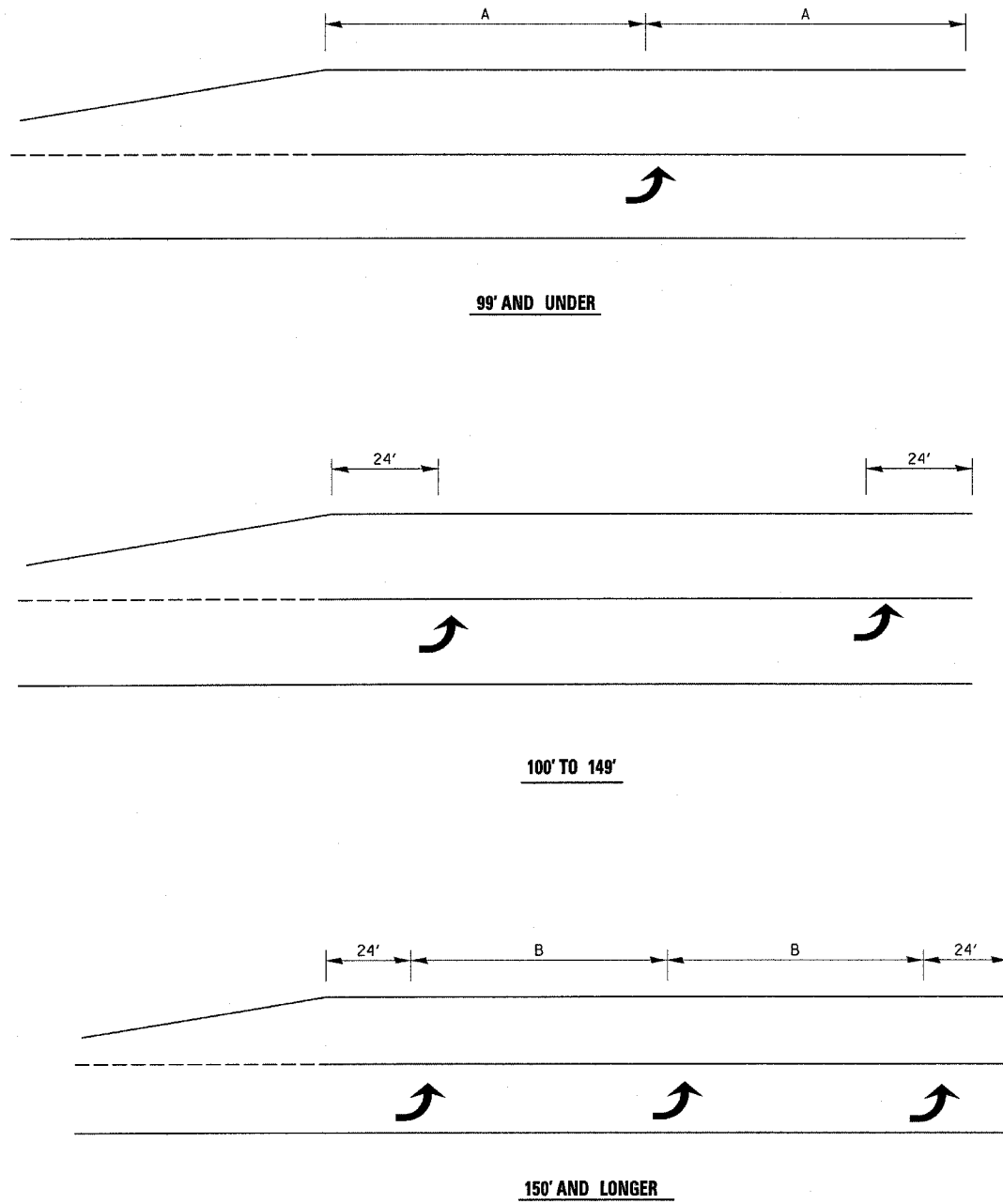
Blows per foot of penetration of
Sampling spoon. Hammer Weight - 350 Lbs.
Drop - 12 inches.
Qu - Unconfined compressive strength
in tons per square foot.

DESIGNED *J.A.P.*
CHECKED *Charles R. ...*
DRAWN *J.A. Putnam*
CHECKED *G.F.X.*
NOV. 2 1957
EXAMINED *...*
APPROVED *...*

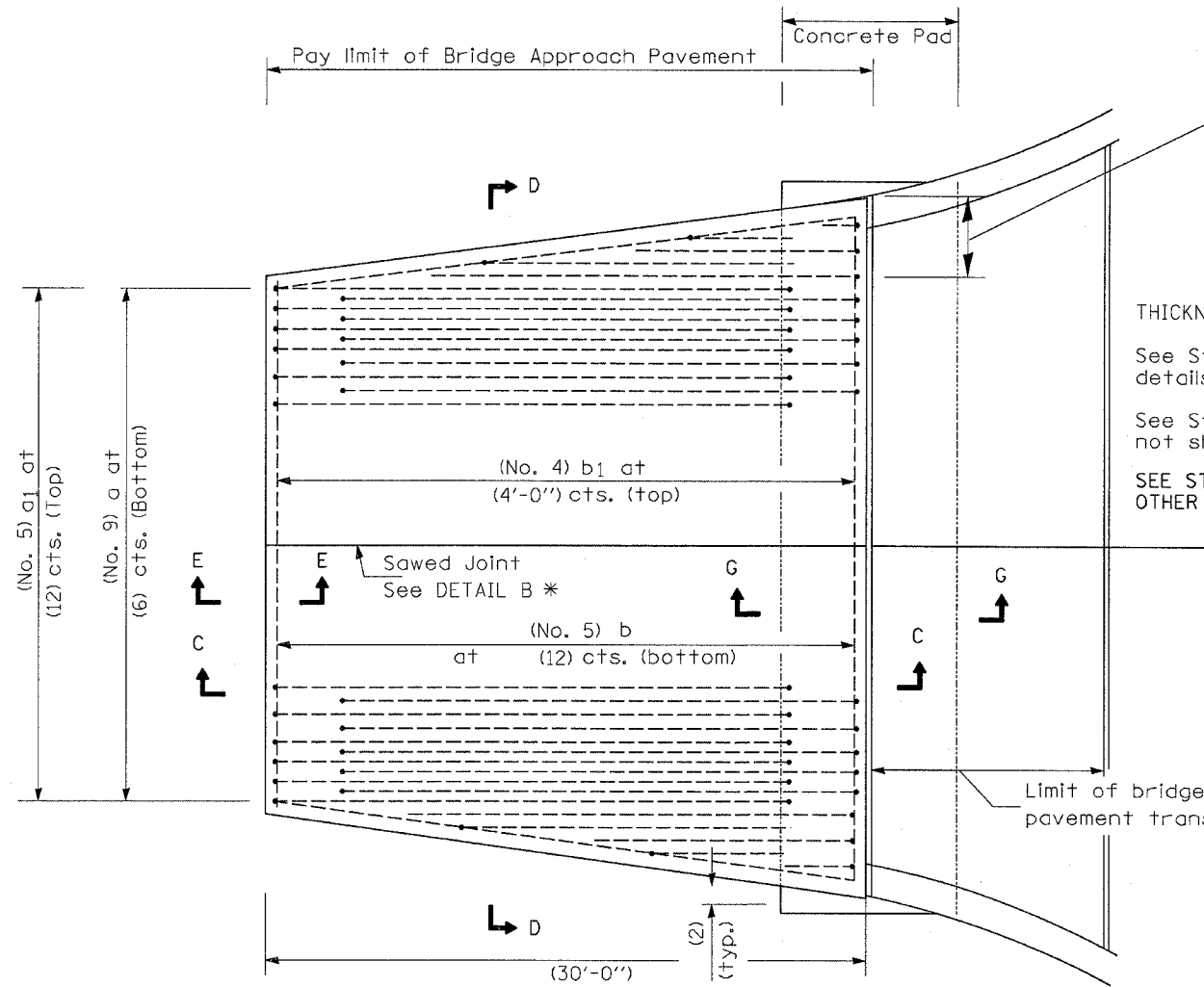
BORING DATA
S. B. I. RT. 116 SEC. 114 BR
LIVINGSTON COUNTY
STATION 585 + 14.5

PLOT DATE = Aug 24, 1957 - 11:16:37 AM
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USER NAME = jputnam

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114 BR	LIVINGSTON	43	36
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



**TYPICAL PLACEMENT OF ARROWS
IN TURN LANES**



PLAN

* Saw \perp or lane edge if poured two or more lane widths at a time.
All dimensions in Inches unless otherwise noted

**BRIDGE APPROACH PAVEMENT
SPECIAL
REINFORCEMENT DETAIL**

MEASURE AND CUT
REINFORCEMENT TO FIT
IN FIELD (TYP.)

GENERAL NOTES

THICKNESS-"t"=Thickness of Pavement.
See Standard 421001 for reinforcement details not shown.
See Standard 420001 for joint details not shown.
SEE STANDARD 420401 FOR ALL OTHER SECTION VIEWS AND DETAILS

DESIGN STRESSES

$f_y = 400 \text{ MPa (60,000 p.s.i.)}$
 $f'_c = 24 \text{ MPa (3,500 p.s.i.)}$
 $n = 8.5$

PLOT DATE : Aug 23, 2007 - 8:48:58 PM
PLOT SCALE : 20.0000 / IN
USER NAME : Ferguson

REVISIONS	
NAME	DATE

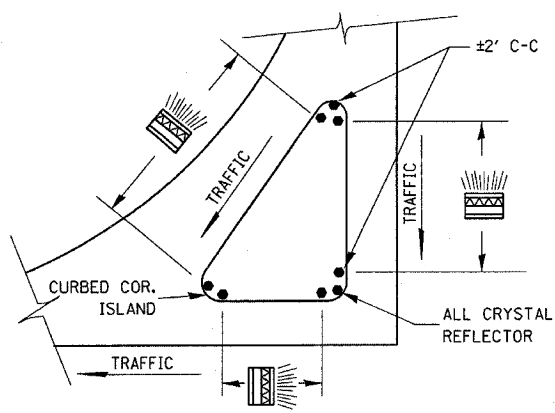
ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAILS

SCALE: VERT.
HORIZ.
DATE

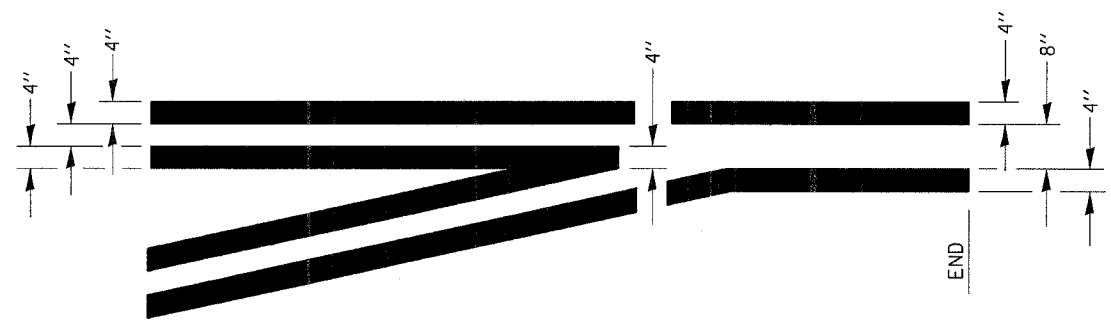
DRAWN BY
CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114 BR	LIVINGSTON	43	37
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

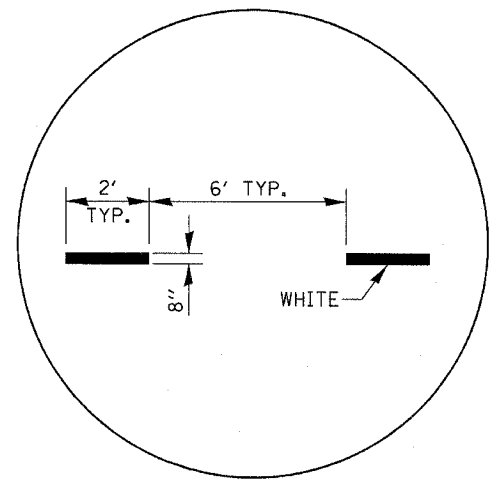


PRISMATIC REFLECTORS

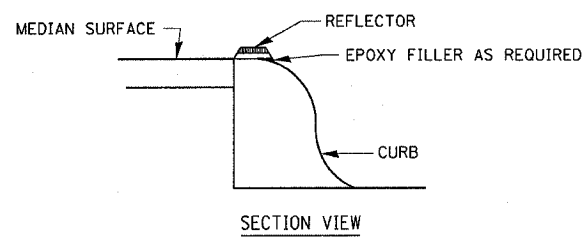
782-2



TYPICAL APPLICATION @ LEFT TURN LANES



780-5

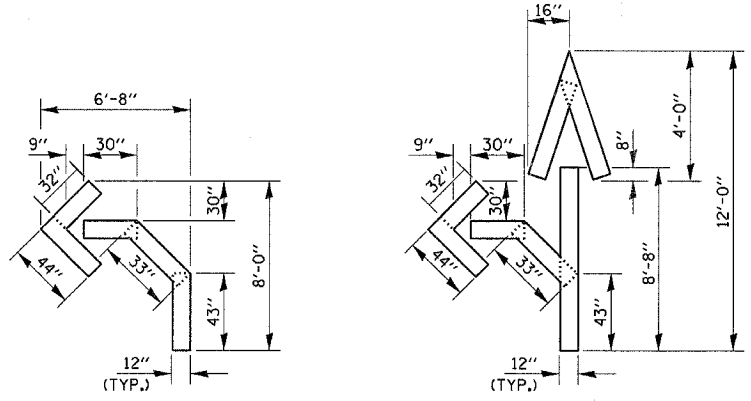


SECTION VIEW

NOTES

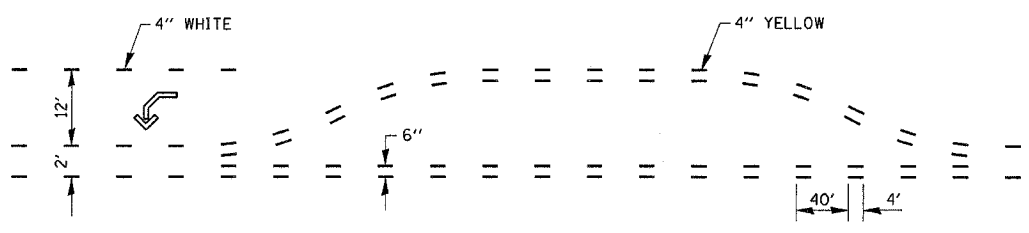
1. PRISMATIC REFLECTORS SHALL BE MONO-DIRECTIONAL AND POSITIONED SO THAT THE REFLECTIVE FACE IS FACING THE APPROACHING TRAFFIC.
2. PRISMATIC REFLECTORS SHALL BE SECURED IN PLACE WITH AN EPOXY ADHESIVE.
3. PRISMATIC REFLECTORS SHALL BE EITHER AMBER OR CRYSTAL IN COLOR.

OPTION 1

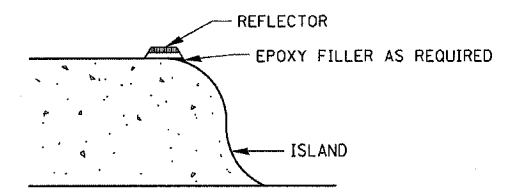


QUANTITY
12" LINE = 16 LIN. FT.
OR 4" LINE = 48 LIN. FT.

QUANTITY
12" LINE = 29 LIN. FT.
OR 4" LINE = 87 LIN. FT.



SHORT-TERM PAVEMENT MARKING FOR MEDIANS AND ARROWS



SECTION VIEW

NOTES

1. PRISMATIC REFLECTORS SHALL BE MONO-DIRECTIONAL AND POSITIONED SO THAT THE REFLECTIVE FACE IS FACING THE APPROACHING TRAFFIC.
2. PRISMATIC REFLECTORS SHALL BE SECURED IN PLACE WITH AN EPOXY ADHESIVE.
3. PRISMATIC REFLECTORS SHALL BE EITHER AMBER OR CRYSTAL IN COLOR.

OPTION 2

703-1

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

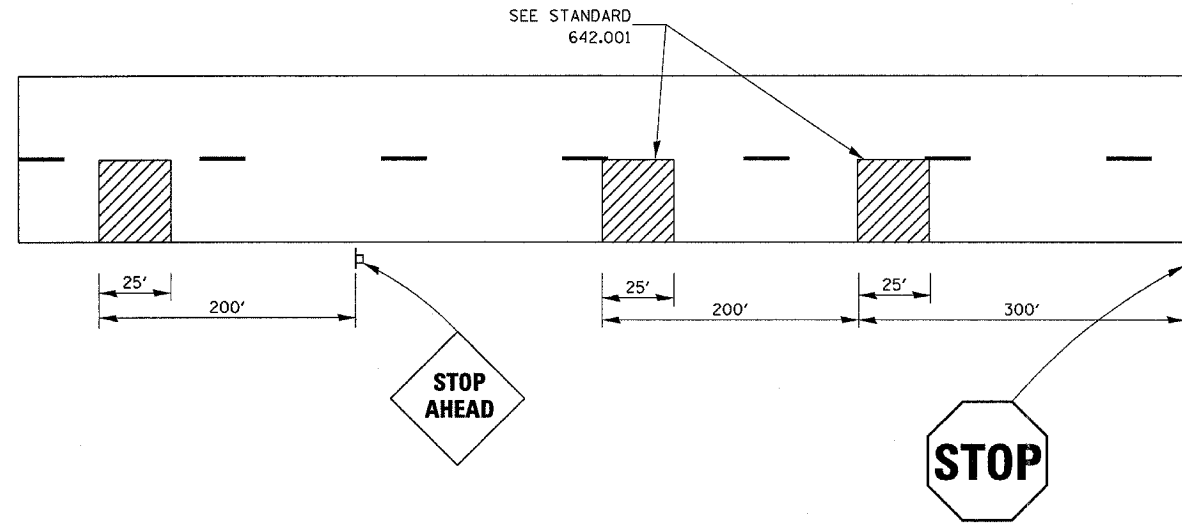
DETAILS

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

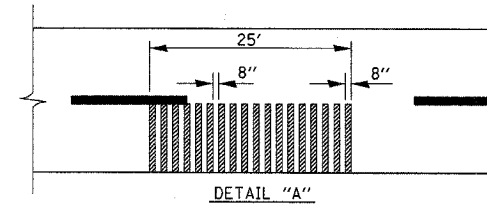
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USER NAME = Ferguson

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114 BR	LIVINGSTON	43	38
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

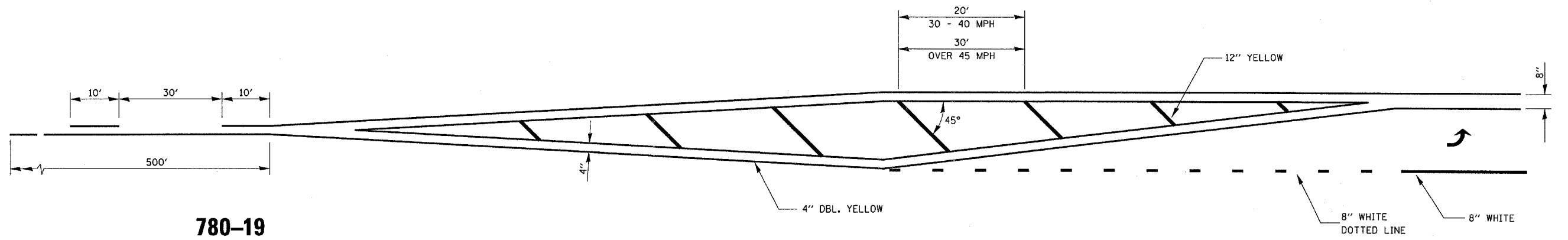
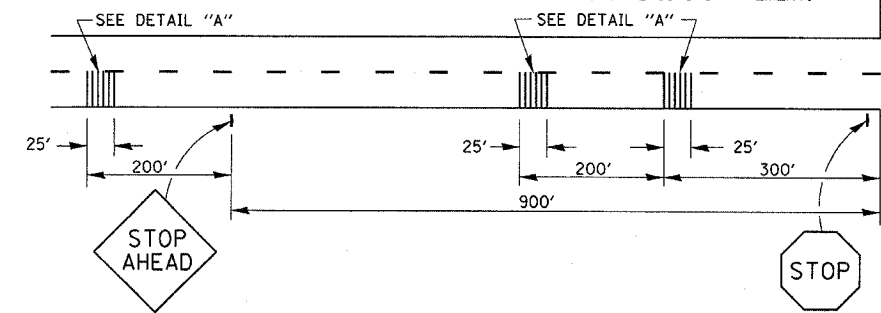


TYPICAL GROOVED RUMBLE STRIP APPLICATION IN ADVANCE OF AN INTERSECTION

RUMBLE STRIP APPLICATION



NOTE: THE 25-FOOT RUMBLE AREA HAS 8-INCH LENGTHS OF TREATED SURFACE STRETCHED ACROSS THE WIDTH OF APPROACH LANE, EACH SEPARATED BY 8 INCHES OF EXISTING PAVEMENT.



REVISIONS	
NAME	DATE

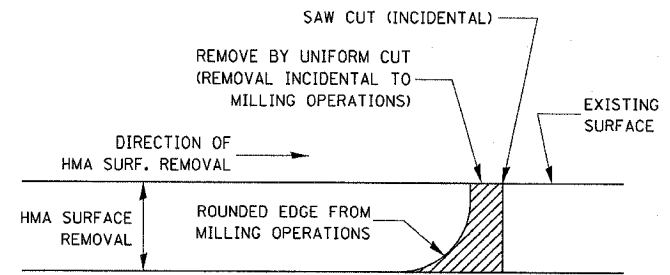
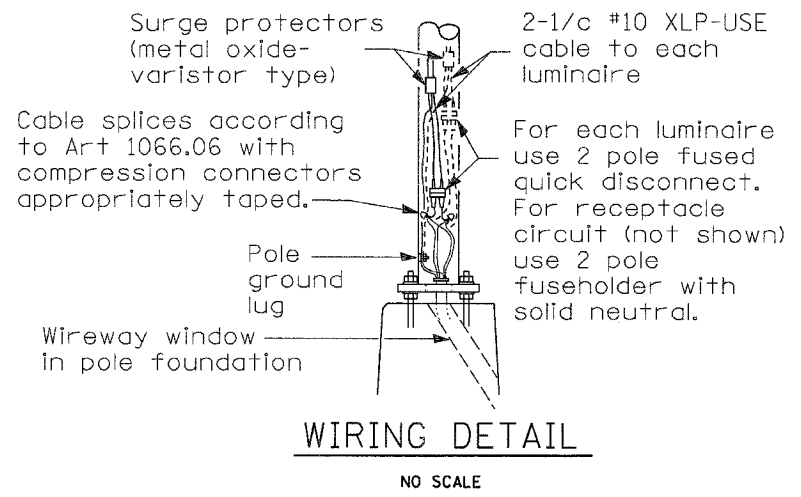
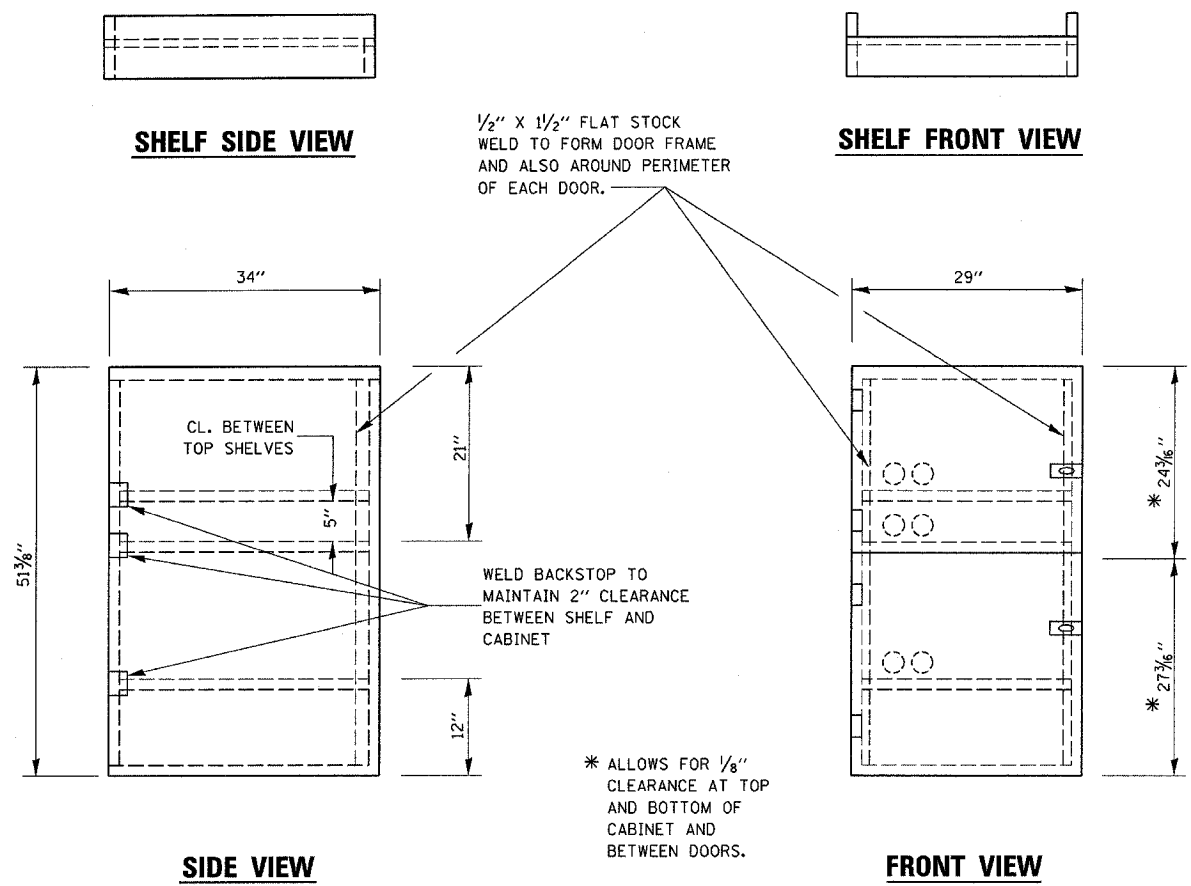
ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAILS

SCALE: VERT. HORIZ. DATE

DRAWN BY CHECKED BY

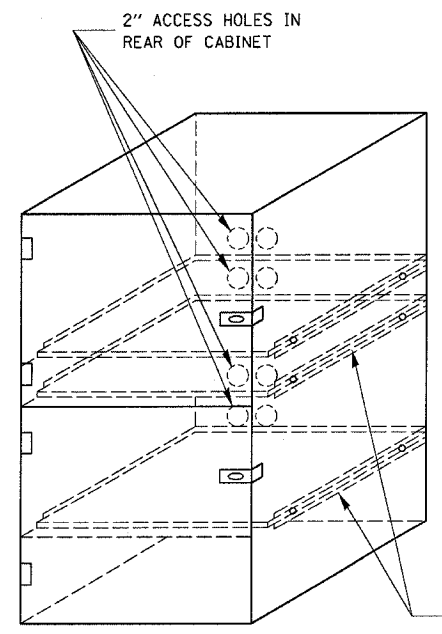
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



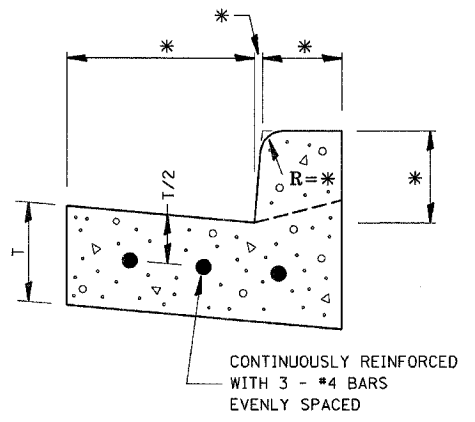
NOTE:
WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE, THEN A SAW CUT SHALL BE USED TO MANUFACTURE A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL

HMA DETAIL AT BUTT JOINTS

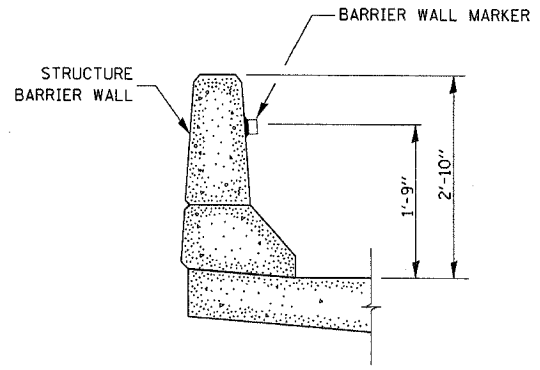
* VARIES - SEE STANDARD 606001



- NOTES:
1. USE 16 GAUGE STEEL FOR CABINET.
 2. THE TOP SHELF SHALL SLIDE IN OR OUT WITH THE TOP DOOR OPEN.
 3. ALL HINGES AND HASPS WILL BE WELDED TO THE CABINET.
 4. ALL EDGES SHALL BE GROUND SMOOTH.
 5. TWO (2" DIA.) ACCESS HOLES WILL BE REQUIRED FOR EACH SHELF.
 6. CABINET SHALL BE PAINTED WITH TWO COATS OF FLAT PAINT.
 7. 2 EACH MATCHING KEY PADLOCKS, WITH 3 KEYS PROVIDED, MASTER MODEL 3 T OR EQUIVALENT.
 8. 4 EACH PLAIN STEEL, NON-REMOVABLE PIN, NO HOLE 4" x 4" SQUARE CORNER HINGES TO BE WELDED ON.
 9. 2 EACH EXTRA HEAVY, PLAIN STEEL, FIXED STAPLE, NO HOLE, 7/4" HASPS TO BE WELDED ON.



REINFORCEMENT DETAIL FOR COMBINATION CONCRETE CURB AND GUTTER



BARRIER WALL MARKER

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USER NAME = Ferguson

LOCKABLE COMPUTER CABINET

REVISIONS	
NAME	DATE

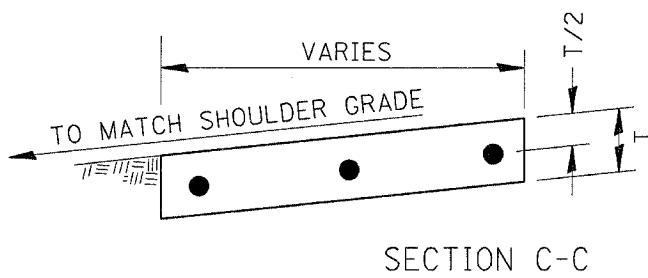
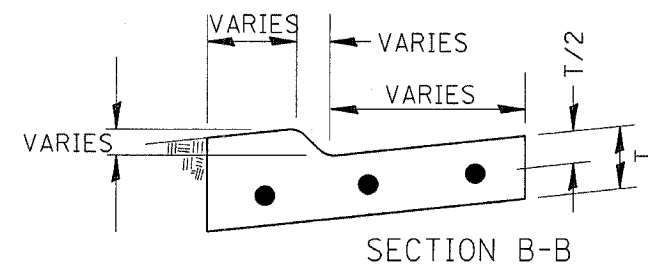
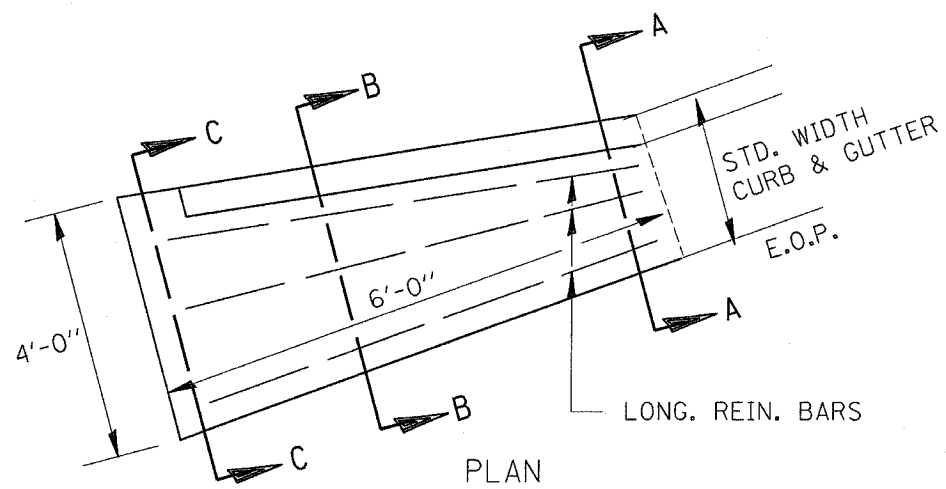
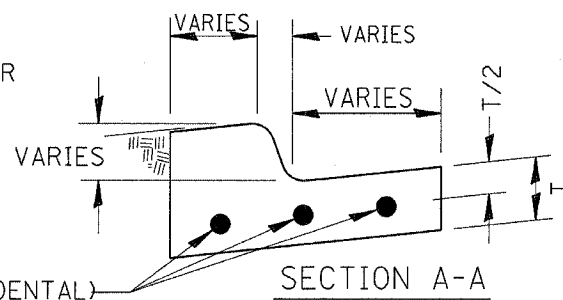
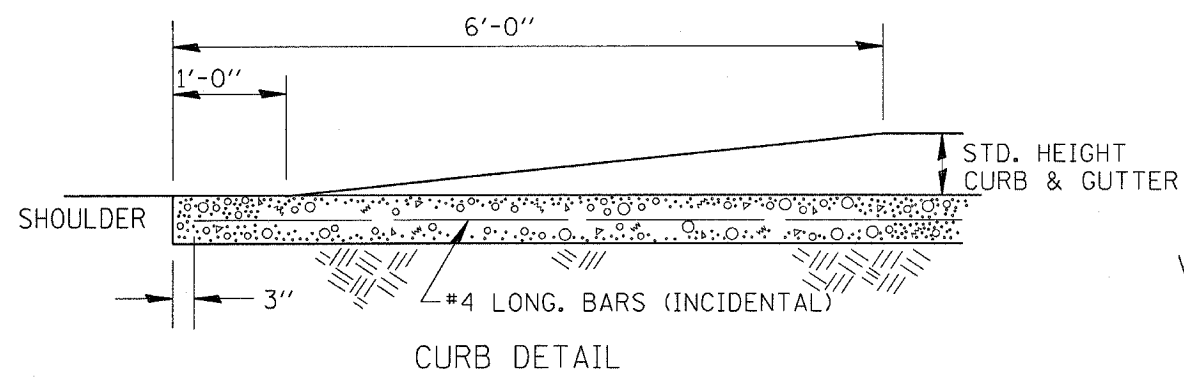
ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAILS

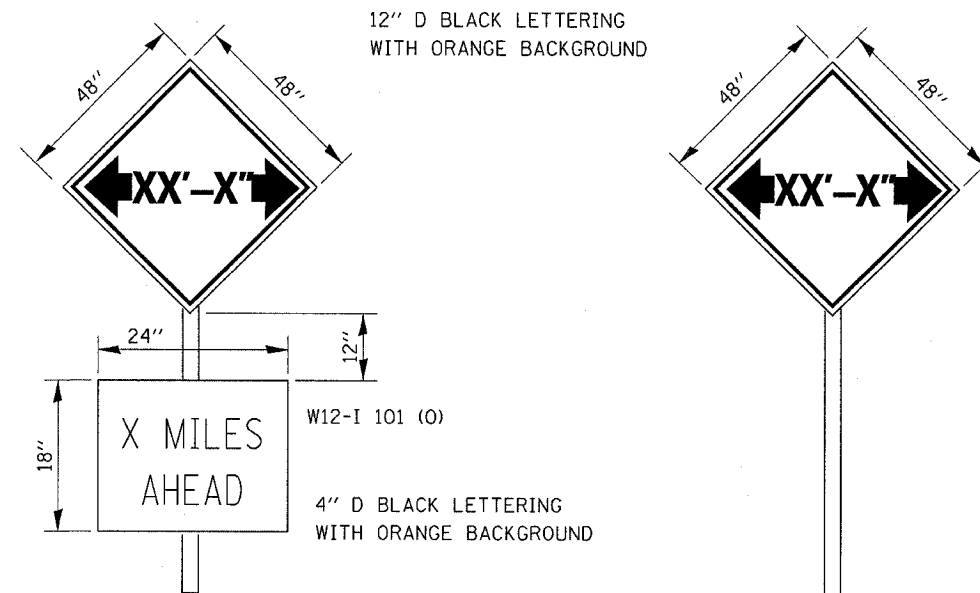
SCALE: VERT. DATE
HORIZ. DATE

DRAWN BY
CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	114 BR	LIVINGSTON	43	40
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



CURB & GUTTER OUTLET, SPECIAL



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

STAGE I 9' - 6" WIDTH RESTRICTION STAGE II 8' - 6" WIDTH RESTRICTION

SIGNS SHALL BE LOCATED AT THE NORTH, SOUTH, AND WESTBOUND LEGS OF THE IL 47 & IL 116 INTERSECTION AND ONE SIGN AT THE EASTBOUND LEG OF THE IL 116 AND IL 23 INTERSECTION

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REVISIONS	
NAME	DATE

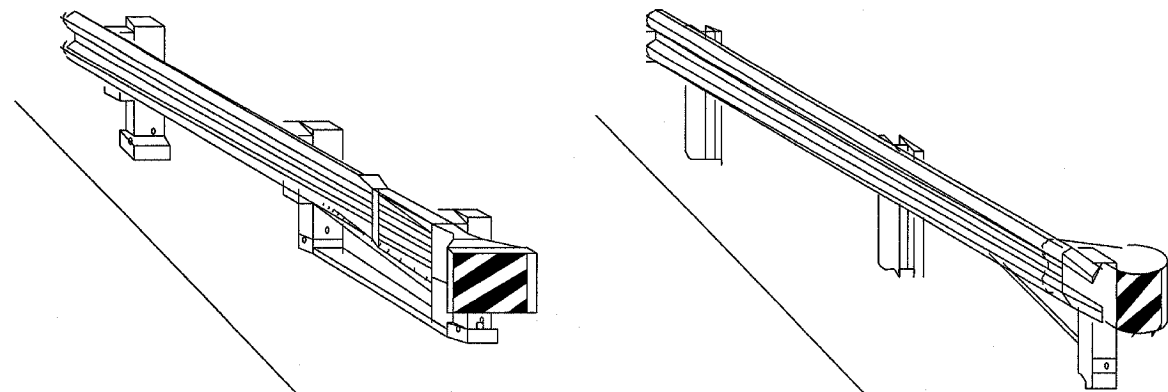
ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAILS

SCALE: VERT.
HORIZ.
DATE

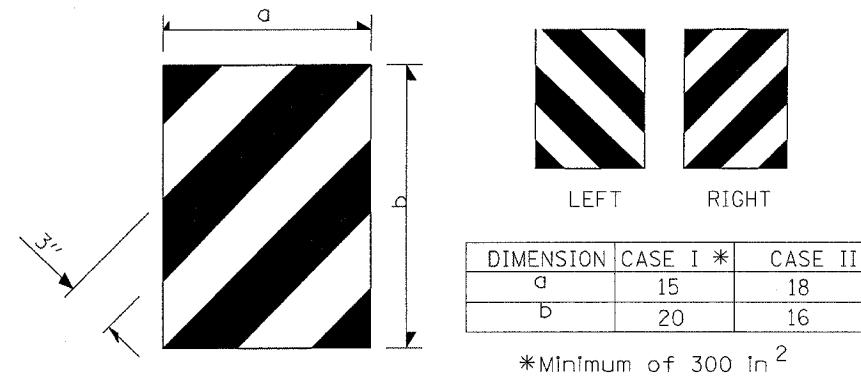
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CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



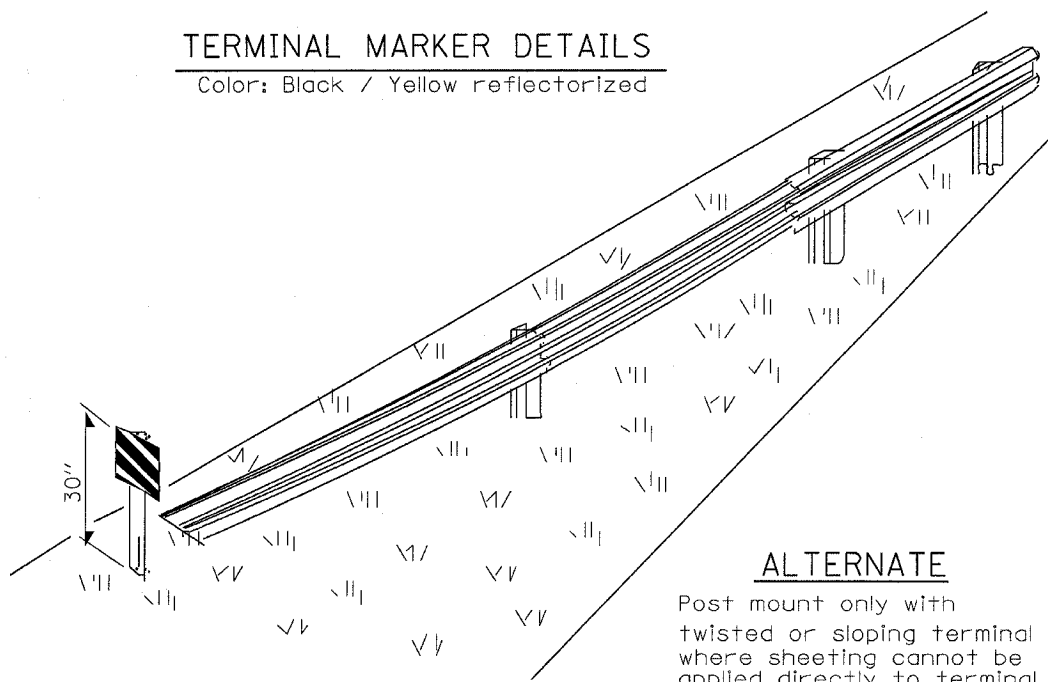
CASE I

CASE II



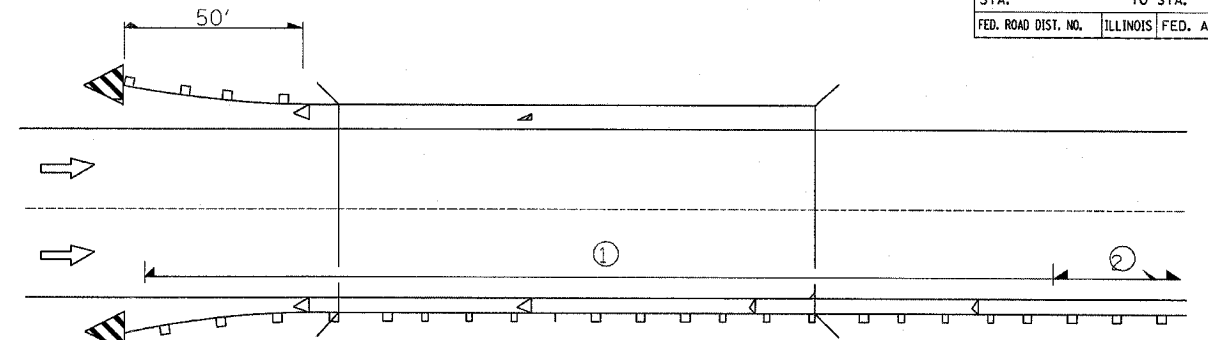
TERMINAL MARKER DETAILS

Color: Black / Yellow reflectorized



ALTERNATE

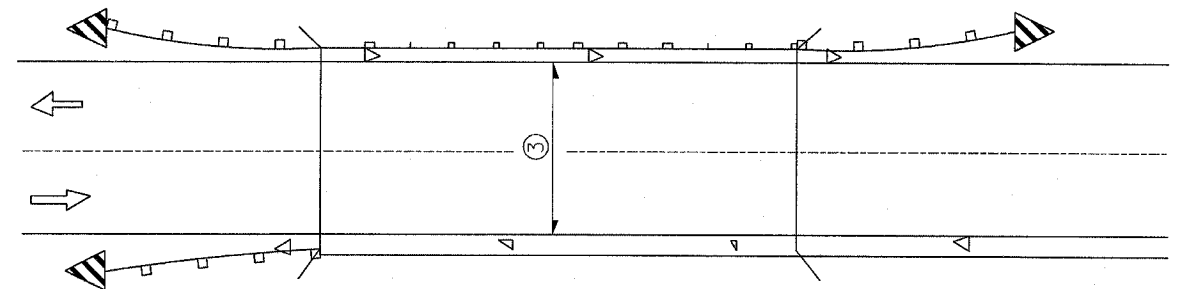
Post mount only with twisted or sloping terminal where sheeting cannot be applied directly to terminal.



① Spacing 80 ft max. for first 400 ft or curve spacing shown in Standard 635001, whichever is less (min. 4 reflectors regardless of length).

② After 400 ft, transition to normal delineator spacing shown in Standard 635001, and continue as required.

ONE-WAY TRAFFIC

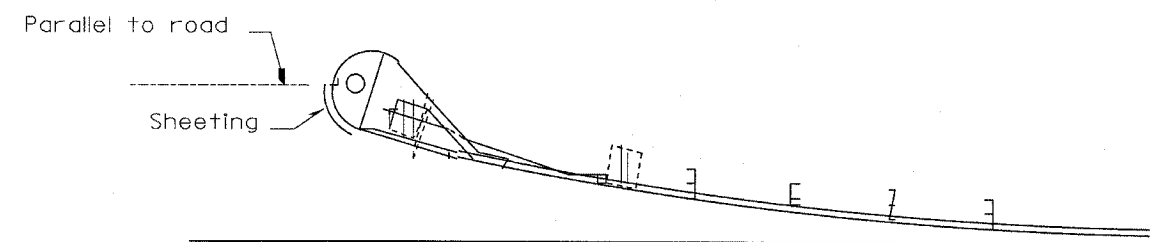


③ Bidirectional silver/silver should be used in lieu of monodirectional silver on both sides of two-lane bridges where the pavement is less than 24" wider than the pavement approaching the bridge.

- ◁ Monodirectional silver
- ◄ Monodirectional amber
- ▤ Terminal Marker - Black/Yellow Left or Right as appropriate

TWO-WAY TRAFFIC

GUARDRAIL / BARRIER WALL / BRIDGE RAIL REFLECTORS



SHEETING POSITION: CASE II

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

REFLECTOR AND TERMINAL MARKER PLACEMENT

SCALE: VERT. DATE

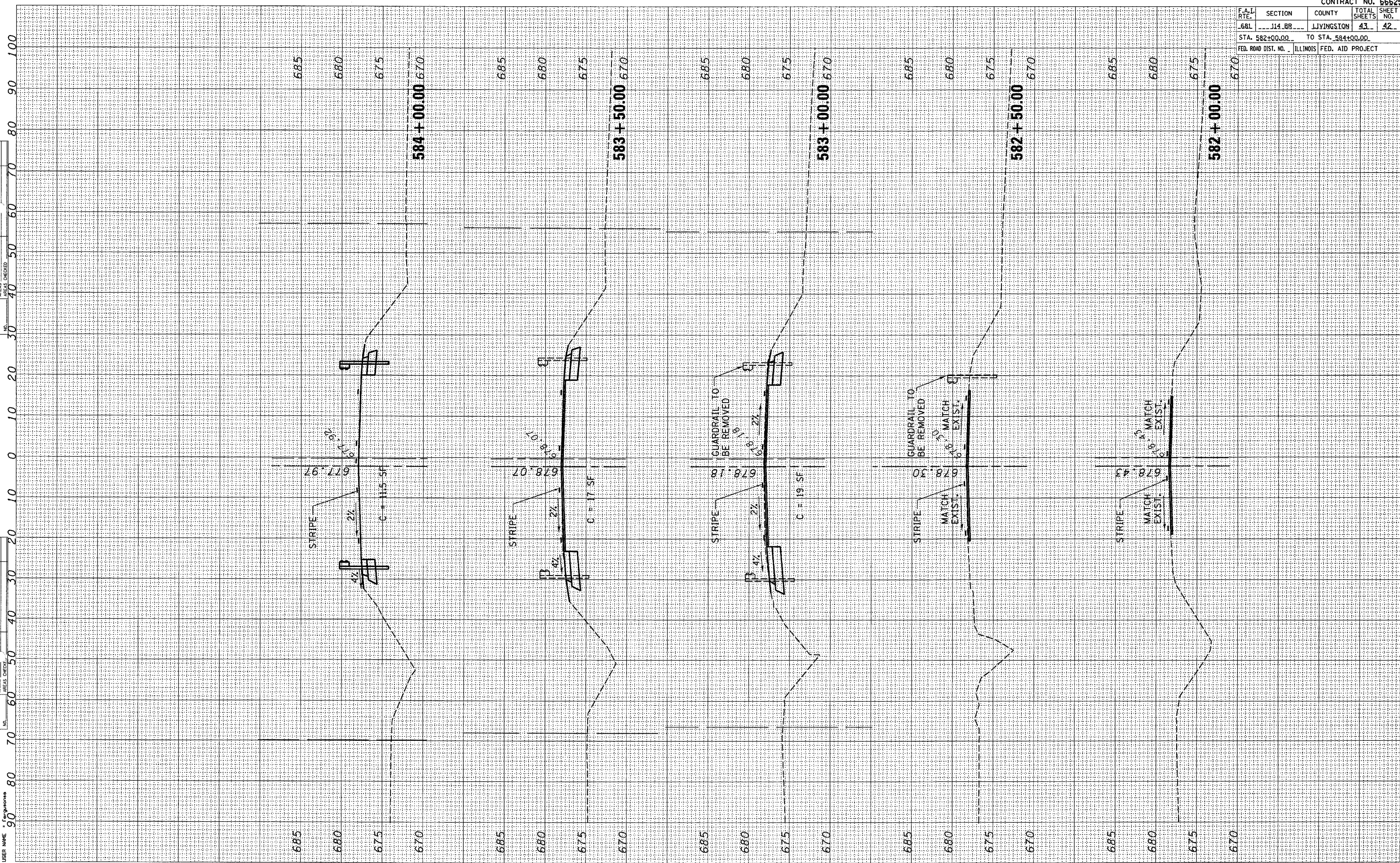
DRAWN BY CHECKED BY

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68L	J14 BR	LIVINGSTON	43	42
STA. 582+00.00 TO STA. 584+00.00				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

DATE	BY

DATE	BY

PLOT DATE = Aug 23, 2007 - 04:24:18 PM
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 PLOT SCALE = 1/8" = 1' IN.
 USER NAME = jrgalano



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68L	J14 BR	JJYINGSTON	43	43
STA. 584+50.00 TO STA. 586+50.00			ILLINOIS FED. AID PROJECT	

FINAL SURVEY

NO.	DATE

BY: _____

REVIEWED: _____

DATE: _____

FILED: _____

DATE: _____

NOTE BOOK: _____

AREAS CHECKED: _____

ORIGINAL SURVEY

NO.	DATE

BY: _____

REVIEWED: _____

DATE: _____

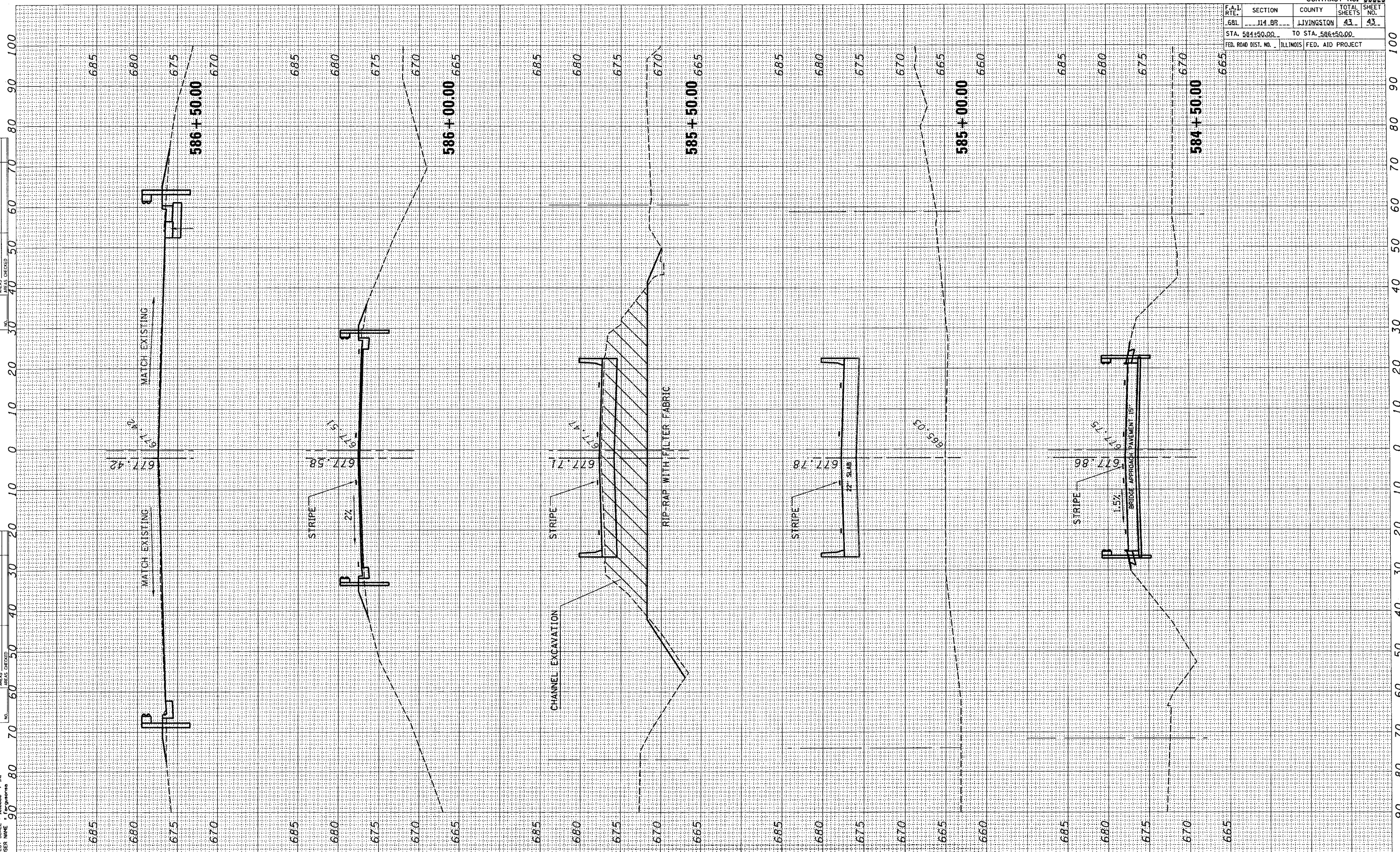
FILED: _____

DATE: _____

NOTE BOOK: _____

AREAS CHECKED: _____

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 FILE NAME: c:\pvc\mca\app\811\116\116.dgn
 PLOT SCALE: 1/8" = 1'-0"
 USER NAME: jrguerra



ILL. 116 CROSS SECTION