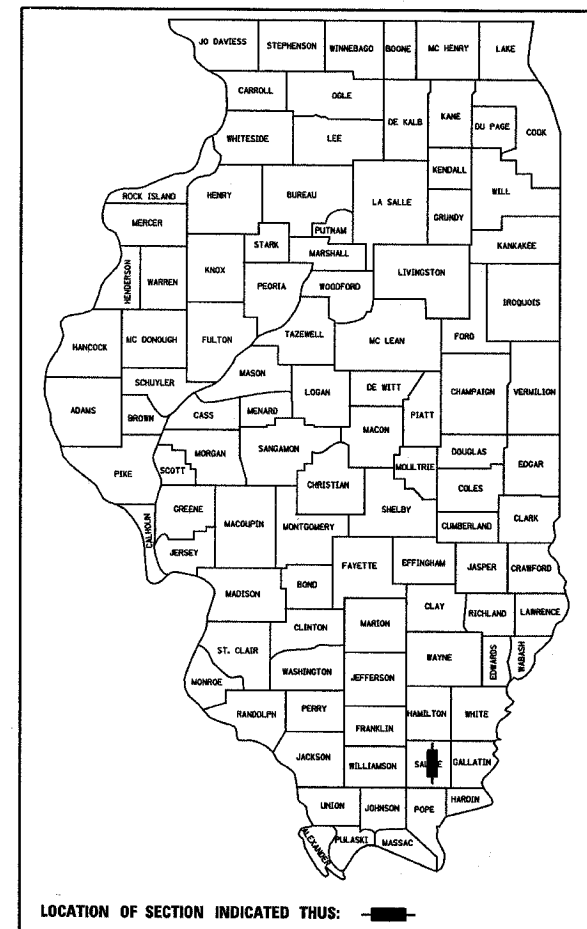


FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	(105A)BR-1	SALINE	44	1

P-99-003-06
D-99-007-07



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

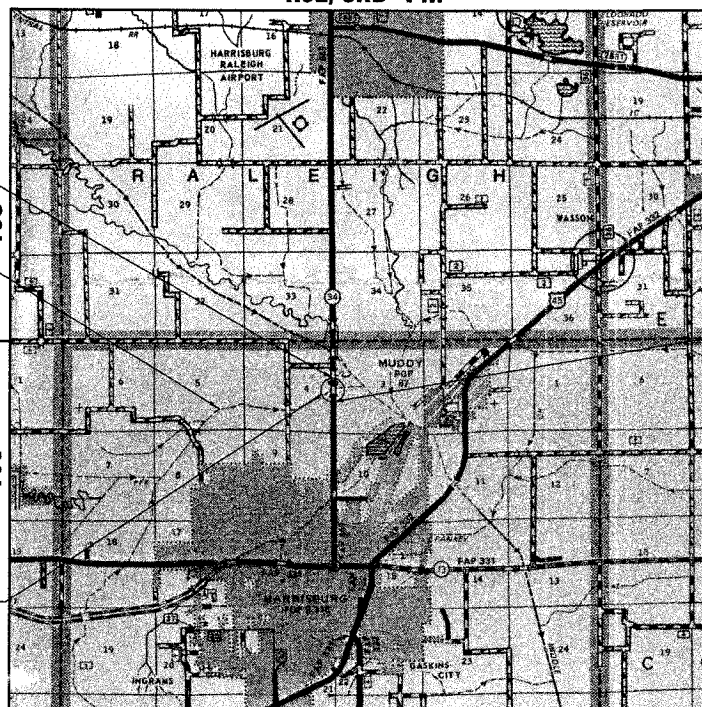
**PROPOSED
HIGHWAY PLANS**

FAP ROUTE 869 (IL 34)
SECTION (105A)BR-1
PROJECT: *BHF-0869(028)*
SALINE COUNTY

C-99-016-07

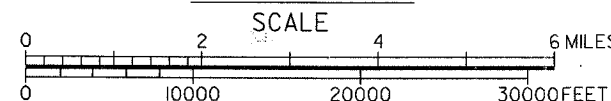
PCC DECK BEAM SUPERSTRUCTURE REPLACEMENT
OVER BANKSTON CREEK

R6E, 3RD PM



IMPROVEMENTS END
STA. 1584+40

LOCATION MAP



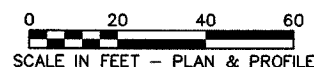
GROSS LENGTH = 365 FT. = 0.07 MI.
NET LENGTH = 365 FT. = 0.07 MI.



Richard D. Payne DATE: 04/12/07
ILLINOIS PROFESSIONAL LICENSE NO. 37421
(EXPIRATION DATE: 11-30-07)

INDEX OF SHEETS

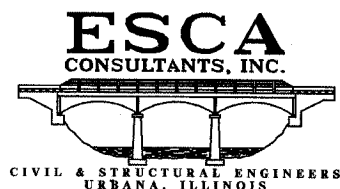
SHEET NO.	DESCRIPTION
ROADWAY PLANS	
1.	COVER SHEET
2.	GENERAL NOTES AND STANDARDS
3.	SUMMARY OF QUANTITIES
4.	TYPICAL SECTIONS
5.	SCHEDULES OF QUANTITIES
6.	FAP RTE 869 (IL 34) PLAN AND PROFILE
7.	STAGE I CONSTRUCTION
8.	STAGE II CONSTRUCTION
9.	WIDE LOAD DETOUR
10.	EROSION CONTROL AND DRAINAGE PLAN
11.	MISCELLANEOUS DETAILS
STRUCTURE PLANS	
12.	GENERAL PLAN
13.	GENERAL DATA
14.	STAGE CONSTRUCTION DETAILS
15.	STEEL RAILING (TEMPORARY)
16.	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
17.	SUPERSTRUCTURE
18.	SUPERSTRUCTURE DETAILS
19.	APPROACH DETAILS
20.	SUPERSTRUCTURE AND APPROACH DETAILS
21.	STEEL RAILING, TYPE SM WITH CONCRETE WEARING SURFACE
22.	STRIP SEAL EXPANSION JOINT
23.	NORTH ABUTMENT
24.	SOUTH ABUTMENT
25.	ABUTMENT DETAILS
26.	PIER
27.	PIER DETAILS
28.	BAR SPLICER ASSEMBLY DETAILS
EXISTING STRUCTURE PLANS	
29.-36.	EXISTING STRUCTURE PLANS
CROSS SECTIONS	
37.-44.	FAP RTE 869 (IL 34) CROSS SECTIONS



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 _____

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123



DISTRICT 9 NO. (618) 549-2171
PROJECT ENGINEER: DAVID PICHE
UNIT CHIEF:
TOWNSHIP: HARRISBURG
CONTRACT NO.: 98996

FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL (RURAL)
DESIGN SPEED: 55 mph
POSTED SPEED: 55 mph
ADT: 3850 (2006)
PV: 92%
TRUCKS: 8%

DESIGN DESIGNATION
N.A.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED *May 1 20 07*
May C. Romo
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

June 29 20 07
Eric E. Harrel
INTERIM ENGINEER OF DESIGN AND ENVIRONMENT

June 29 20 07
Milton R. Sees, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS



LIST OF ILLINOIS DOT HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001-04	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-01	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-03	TEMPORARY EROSION CONTROL SYSTEMS
420001-06	PAVEMENT JOINTS
515001-02	NAME PLATE FOR BRIDGES
630001-07	STEEL PLATE BEAM GUARDRAIL
631032-03	TRAFFIC BARRIER TERMINAL, TYPE 6A
631051-01	TRAFFIC BARRIER TERMINAL, TYPE 11
635001	DELINEATORS
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-01	REFLECTOR MARKER AND MOUNTING DETAILS
701001-01	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 4.5 m (15') AWAY
701006-02	OFF-RD OPERATIONS, 2L, 2W, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
701011-01	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-02	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701301-02	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-02	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-08	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-02	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS ≥ 45 MPH
702001-06	TRAFFIC CONTROL DEVICES
704001-03	TEMPORARY CONCRETE BARRIER
720001	SIGN PANEL MOUNTING DETAILS
720006-01	SIGN PANEL ERECTION DETAILS
720011	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
729001	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
780001-01	TYPICAL PAVEMENT MARKINGS
781001-02	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

GENERAL NOTES

- THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.
- EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.
- ALL SAWCUTTING OF EXISTING PAVEMENT SHALL BE CONSIDERED INCLUDED IN THE PAY ITEMS INVOLVED. THE MINIMUM SAW DEPTH IN THE PAVEMENT SHALL BE 1/2" UNLESS OTHERWISE NOTED.
- WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR REESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.
- THE THICKNESS OF HMA MIXTURES 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 MIXTURE IS PLACED.
- ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED ON THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.
- FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

ALL HOT-MIX ASPHALT	2.016 TONS/CU YD
ALL AGGREGATE	2.05 TONS/CU YD
BITUMINOUS MATERIALS:	
ON PAVEMENT	0.09 GAL/SQ YD
INTERMEDIATE LIFTS (FOG COAT)	0.04 GAL/SQ YD
ON AGGREGATE SURFACE	0.32 GAL/SQ YD
AGGREGATE (PRIME COAT)	0.0015 TONS/SQ YD
- 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.
- ALL DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS SHALL BE FERTILIZED AND SEEDED. SEEDING SHALL BE CLASS 2A ACCORDING TO THE APPLICABLE ARTICLES OF SECTION 250 OF THE STANDARD SPECIFICATIONS. SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDING WILL BE DETERMINED BY THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE JULIE NUMBER IS 800-892-0123. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED.
- EXISTING TRAFFIC BARRIER TERMINALS TO BE REMOVED SHALL BE PAID FOR AS GUARDRAIL REMOVAL.
- ~~FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SANDBAGS PER BARRICADE.~~
- ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.
- TREES SHALL BE PRESERVED THROUGHOUT THIS SECTION AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. GENERALLY, TREES OUTSIDE THE CLEAR ZONE, AND WHICH DO NOT INTERFERE WITH CONSTRUCTION, SHALL NOT BE DISTURBED.
- THE CONTRACTOR SHALL CONTACT J.U.L.I.E. AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.
- THE QUANTITY OF SHORT TERM PAVEMENT MARKING SHOWN IN THE PLANS IS BASED ON ONE APPLICATION EACH FOR THE INITIAL OPENING OF THE COMPLETED STRUCTURE TO TWO LANE TRAFFIC, THE PRIME COAT, BINDER COURSE, AND SURFACE COURSE.
- THE ADVANCE DETECTOR LOOPS ARE TYPICALLY LOCATED 300 FEET IN ADVANCE OF THE STOP BAR. THE BUREAU OF OPERATIONS SHOULD APPROVE THE LOOP LOCATIONS PRIOR TO INSTALLATION.
- THE CENTERLINE PAVEMENT MARKING SHOULD BE REMOVED FROM THE STOP BAR TO THE SAND ATTENUATORS OR DRUMS. EDGE LINE PAVEMENT MARKING SHOULD BE REMOVED IF A 10 FOOT LANE WIDTH CANNOT BE MAINTAINED. TEMPORARY EDGE LINES SHOULD BE INSTALLED WHEN THE EDGE LINES ARE REMOVED.
- VERTICAL PANELS SHOWN ON STANDARD 701321 WILL NOT BE REQUIRED ON THE STAGE II NEW BRIDGE RAILING. THE BARRIER WALL REFLECTORS SHALL BE INSTALLED PRIOR TO OPENING TO TRAFFIC.
- ANY TIME THE CONCRETE BARRIER IS NOT IN THE PROPER POSITION, FLAGGERS SHALL BE IN PLACE TO CONTROL TRAFFIC. THE TEMPORARY TRAFFIC SIGNALS SHALL BE ~~SET TO~~ ELASH-ALL-RED, TURNED OR COVERED.
- "NARROW BRIDGE" SIGNS WITH ADVISORY TAGS "12 FT 0 IN" (STAGE I) AND "11 FT 0 IN" (STAGE II) SHALL BE ERECTED BETWEEN THE ROAD CONSTRUCTION AHEAD AND THE SIGNAL AHEAD SIGNS. THIS WORK SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, STANDARD 701321.
- COMMITMENTS: NONE

CONTRACT NO. 98996			
FAP RTE	SECTION	COUNTY	TOTAL SHEET NO.
869	105A)BR-1	SALINE	44 2
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREPARED BY: Joe G. Rievers
DISTRICT STUDIES & PLANS ENGINEER

EXAMINED BY: James Travis Emery
DISTRICT LAND ACQUISITION ENGINEER

EXAMINED BY: Carrie Nelson
DISTRICT PROGRAM DEVELOPMENT ENGINEER

EXAMINED BY: Warren Stammers
DISTRICT OPERATIONS ENGINEER

EXAMINED BY: Joseph Lopez
DISTRICT CONSTRUCTION ENGINEER

EXAMINED BY: Chris D. Poulos
DISTRICT MATERIALS ENGINEER

EXAMINED BY: Jim Smother
DISTRICT PROJECT IMPLEMENTATION ENGINEER

EXAMINED BY: Dennis W. Danton
ASSISTANT REGIONAL ENGINEER

EXAMINED BY: May C. Sumi
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

DATE May 1 2007

GENERAL NOTES
FAP RTE 869 (IL 34)
SECTION 105A)BR-1
SALINE COUNTY

ESCA CONSULTANTS, INC.		
DESIGNED BY:	MTD	02/07
DRAWN BY:	DWH	02/07
CHECKED BY:	MTD	02/07
APPROVED BY:	RDP	04/07

PLOT DATE = DATE
FILE NAME = FILE#
PLOT SCALE = SCALE#
REFERENCE = REF#



SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	HBP FUNDING 80% FEDERAL 20% STATE CONSTRUCTION TYPE CODE X080-2A
20200500	EARTH EXCAVATION (WIDENING)	CU YD	40
25000210	SEEDING, CLASS 2A	ACRE	0.1
25000350	SEEDING, CLASS 7	ACRE	0.1
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	9
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	9
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	9
25000700	AGRICULTURAL GROUND LIMESTONE	TON	0.2
25100115	MULCH, METHOD 2	ACRE	0.2
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	20
28000400	PERIMETER EROSION BARRIER	FOOT	550
35300500	PORTLAND CEMENT CONCRETE BASE COURSE 10"	SQ YD	23
35650500	BASE COURSE WIDENING 10"	SQ YD	184
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	8
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	102
40600300	AGGREGATE (PRIME COAT)	TON	3
40600645	LEVELING BINDER (MACHINE METHOD), N90	TON	73
40600982	HOT-MIX ASPHALT SURFACE REMOVAL-BUTT JOINT	SQ YD	220
40600990	TEMPORARY RAMP	SQ YD	176
40603320	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N90	TON	65
44000100	PAVEMENT REMOVAL	SQ YD	23
44000164	HOT-MIX ASPHALT SURFACE REMOVAL, 3/4"	SQ YD	10
44001114	HOT-MIX ASPHALT SURFACE REMOVAL (ASBESTOS)	SQ YD	415
48203100	HOT-MIX ASPHALT SHOULDERS	TON	26
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1
50300260	BRIDGE DECK GROOVING	SQ YD	448
50300300	PROTECTIVE COAT	SQ YD	448
50400105	PRECAST CONCRETE BRIDGE SLAB	SQ FT	389
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	3342
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	5570
50800515	BAR SPLICERS	EACH	106
50901050	STEEL RAILING, TYPE SM	FOOT	307
50901125	STEEL RAILING (TEMPORARY)	FOOT	102
51500100	NAME PLATES	EACH	1
52000110	PREFORMED JOINT STRIP SEAL	FOOT	33
58700300	CONCRETE SEALER	SQ FT	45
59000200	EPOXY CRACK INJECTION	FOOT	91
* 63000000	STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	50
* 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	2
* 63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	4

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	HBP FUNDING 80% FEDERAL 20% STATE CONSTRUCTION TYPE CODE X080-2A
63200310	GUARDRAIL REMOVAL	FOOT	275
63301000	REMOVE AND RE-ERECT STEEL PLATE BEAM GUARDRAIL	FOOT	30
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3
67100100	MOBILIZATION	L SUM	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	10
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
70106700	TEMPORARY RUMBLE STRIP	EACH	6
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	6
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	184
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1000
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	395
70400100	TEMPORARY CONCRETE BARRIER	FOOT	400
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	300
70500690	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 11	EACH	2
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1000
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	4
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	1
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	4
* 78200520	BARRIER WALL MARKERS, TYPE B	EACH	4
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
78300100	PAVEMENT MARKING REMOVAL	SQ FT	208
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	5
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THEN 5 INCHES)	SQ FT	45
X0325326	TEMPORARY TRAFFIC CONTROL REMOVAL	L SUM	1
X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	448
XX006661	UNINTERRUPTIBLE POWER SUPPLY	EACH	1
Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	44
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2

* SPECIALTY ITEM

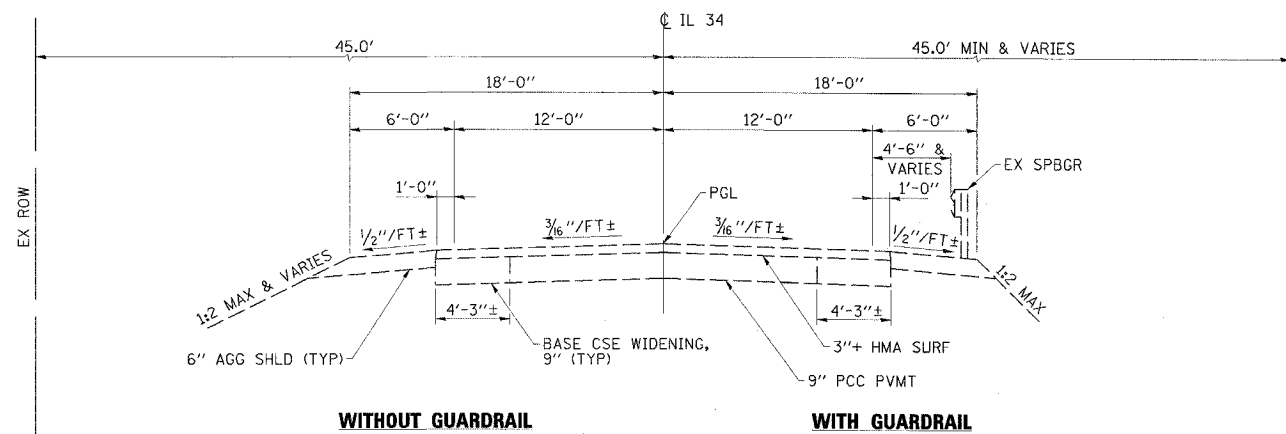
CONTRACT NO. 98996				
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	(105A)BR-1	SALINE	44	3
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ESCA
CONSULTANTS, INC.

DESIGNED BY:	MTD	02/07
DRAWN BY:	DWH	02/07
CHECKED BY:	MTD	02/07
APPROVED BY:	RDP	04/07

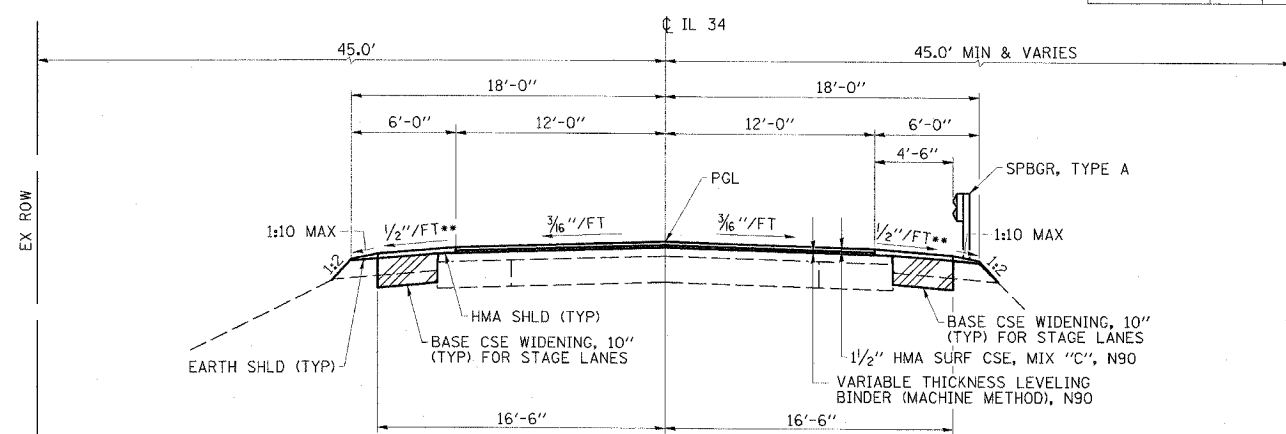
SUMMARY OF QUANTITIES
FAP RTE 869 (IL 34)
SECTION (105A)BR-1
SALINE COUNTY

PLUT DATE * WATER *
PLUT SCALE * BS/SCALE *
REFERENCE * REF *



EXISTING TYPICAL ROADWAY SECTION

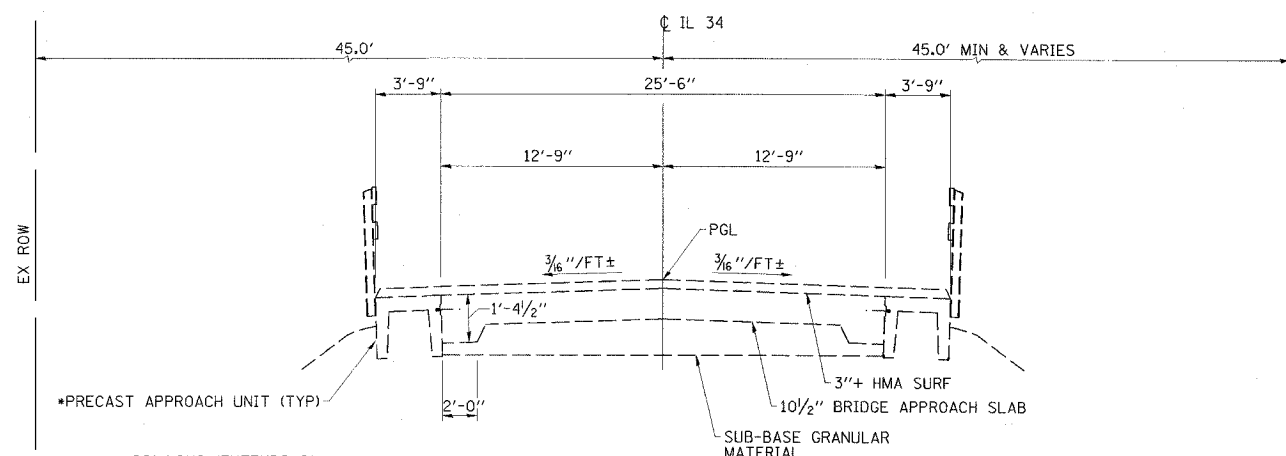
STA 1578+00 TO 1581+59.29
STA 1583+00.71 TO 1586+00



PROPOSED TYPICAL ROADWAY SECTION

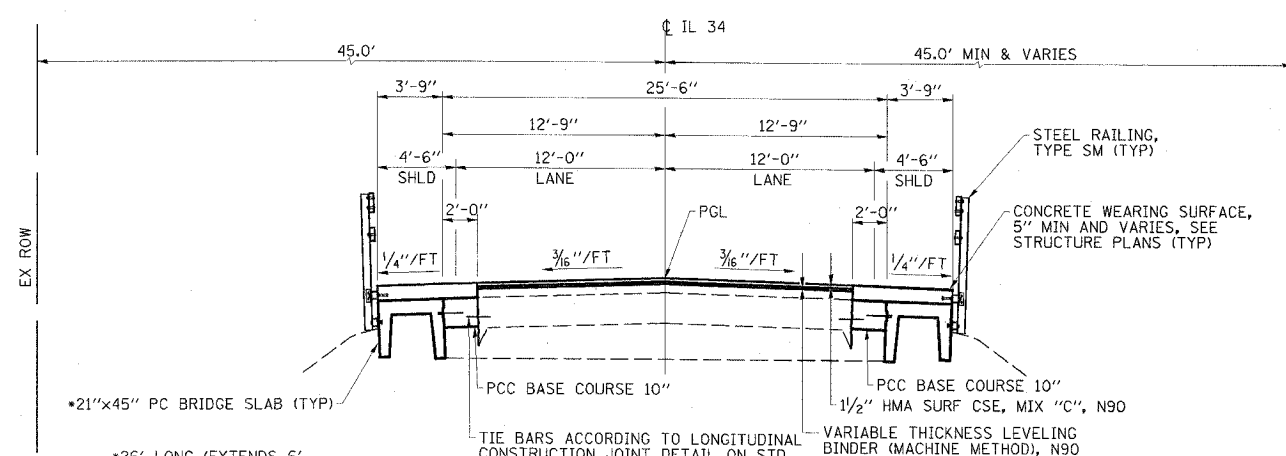
STA 1580+75 TO 1581+59.29
STA 1583+00.71 TO 1584+40

**TRANSITION TO 1/4" / FT NEAR APPROACH DECK BEAMS



EXISTING BRIDGE APPROACH SECTION

STA 1581+59.29 TO 1581+78.51
STA 1582+81.49 TO 1583+00.71



PROPOSED BRIDGE APPROACH SECTION

STA 1581+59.29 TO 1581+78.51
STA 1582+81.49 TO 1583+00.71

HMA MIXTURES REQUIREMENTS

LOCATION(S):	HOT MIX ASPHALT SURFACE COURSE AND LEVELING BINDER	BASE COURSE WIDENING	HOT MIX ASPHALT SHOULDERS
MIXTURE USE(S):	HOT MIX ASPHALT SURFACE COURSE, MIX C, N90	HOT MIX ASPHALT BINDER COURSE, N90, IL-19.0	HOT MIX ASPHALT SHOULDERS
AC/PG:	PG64-22	PG64-22	PG58-22
RAP % (MAX): ***	10	10	50
DESIGN AIR VOIDS:	4.0%, 90 GYRATION DESIGN	4.0%, 90 GYRATION DESIGN	2.0%, 30 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-9.5 mm OR IL 12.5 mm	IL-19.0 mm	HMA SHOULDERS
FRICTION AGGREGATE:	C SURFACE	NONE	NONE

*** IF RAP OPTION IS SELECTED, THE ASPHALT CEMENT GRADE MAY NEED TO BE ADJUSTED. THIS WILL BE DETERMINED BY THE ENGINEER.



FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	(105A)BR-1	SALINE	44	5
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

LOCATION	SUITABLE EARTH EXCAVATION (WIDENING)	SUITABLE EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	SUITABLE INCIDENTAL EXCAVATION MATERIAL	SUITABLE INCIDENTAL EXC. MATERIAL ADJUSTED FOR SHRINKAGE	EMBANKMENT (NOT A PAY ITEM)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD
NE QUADRANT CUTS & FILLS	10	7.5			3.5	+4
NW QUADRANT CUTS & FILLS	10	7.5			3.5	+4
SE QUADRANT CUTS & FILLS	10	7.5			3.5	+4
SW QUADRANT CUTS & FILLS	10	7.5			3.5	+4
TOTALS	40	30	-	-	14	+16

NOTES:

1. EXCAVATION USED AS EMBANKMENT = (SUITABLE EARTH EXCAVATION + SUITABLE INCIDENTAL EXCAVATION)*0.75

LOCATION	PERIMETER EROSION BARRIER	TEMPORARY EROSION CONTROL SEEDING (2 APPLICATIONS)
	FOOT	POUND
NE QUADRANT	120	5
NW QUADRANT	150	5
SE QUADRANT	130	5
SW QUADRANT	150	5
TOTALS	550	20

LOCATION	SEEDING, CLASS 2A	SEEDING, CLASS 7	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	AGRICULTURAL GROUND LIMESTONE	MULCH, METHOD 2
	ACRE	ACRE	POUND	POUND	POUND	TON	ACRE
NE QUADRANT	0.025	0.025	2.25	2.25	2.25	0.05	0.05
NW QUADRANT	0.025	0.025	2.25	2.25	2.25	0.05	0.05
SE QUADRANT	0.025	0.025	2.25	2.25	2.25	0.05	0.05
SW QUADRANT	0.025	0.025	2.25	2.25	2.25	0.05	0.05
TOTALS	0.10	0.10	9.0	9.0	9.0	0.20	0.20

LOCATION	TON
NE QUADRANT FE	3
SE QUADRANT FE	5
TOTAL	8

LOCATION	PAVEMENT REMOVAL SQ YD
NE QUADRANT	5.75
NW QUADRANT	5.75
SE QUADRANT	5.75
SW QUADRANT	5.75
TOTAL	23.0

LOCATION	DESCRIPTION	SHORT-TERM PAVEMENT MARKING	PAINT PAVEMENT MARKING - LINE	TEMP PAVEMENT MARKING - LINE
		FOOT	4"	4"
STA 1578+49 TO 1586+11, CENTERLINE	SKIP-DASH YELLOW CENTERLINE	184	190	190
STA 1580+35 TO 1584+40, LT	SOLID WHITE EDGE LINE		405	405
STA 1580+35 TO 1584+40, RT	SOLID WHITE EDGE LINE		405	405
TOTALS		184	1000	1000

① INCLUDES 3 ADDITIONAL APPLICATIONS FROM STA 1580+75 TO 1584+40

LOCATION	RRPM EACH	RRPM (BRIDGE) EACH	RRPM REMOVAL EACH
STA 1580+95	1		1
STA 1581+75	1		1
STA 1582+55		1	1
STA 1583+35	1		1
STA 1584+15	1		1
TOTALS	4	1	5

LOCATION	PAVEMENT MARKING DESCRIPTION	WORK ZONE PAVEMENT MARKING REMOVAL	PAVEMENT MARKING REMOVAL
		SQ FT	SQ FT
CENTERLINE	SHORT-TERM	61	28
EDGE LINES	TEMPORARY	270	
CENTERLINE	TEMPORARY	64	
STA 1580+50 TO 1584+10, LT	EDGE LINE		120
STA 1580+50 TO 1581+35, RT	EDGE LINE		30
STA 1583+25 TO 1584+10, RT	EDGE LINE		30
TOTALS		395	208

LOCATION	PCC BASE COURSE, 10"	BASE COURSE WIDENING, 10"
	SQ YD	SQ YD
NE QUADRANT	5.75	46
NW QUADRANT	5.75	46
SE QUADRANT	5.75	46
SW QUADRANT	5.75	46
TOTALS	23.0	184

LOCATION	BUTT JOINT	3 3/4"	(ASBESTOS)
	SQ YD	SQ YD	SQ YD
STA 1580+75	110		
STA 1584+40	110		
NORTH ABUTMENT		5	
SOUTH ABUTMENT		5	
BRIDGE AND APPROACH BEAMS			415
TOTALS	220	10	415

LOCATION	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	SPBGR, TYPE A	TRAFFIC BARRIER TERMINAL, TYPE 6A	GUARDRAIL MARKERS, TYPE A	BARRIER WALL MARKERS, TYPE B	TERMINAL MARKER-DIRECT APPLIED	STEEL RAILING, TYPE SM	REMOVE AND RE-ERECT SPBGR
	EACH	FOOT	EACH	EACH	EACH	EACH	FOOT	FOOT
STRUCTURE NO. 083-0040 - NE	1							15
STRUCTURE NO. 083-0040 - NW	1	25	1					15
STRUCTURE NO. 083-0040 - SE	1							
STRUCTURE NO. 083-0040 - SW	1	25	1					
STRUCTURE NO. 083-0040 - BRIDGE					4		307	
TOTALS	4	50	2	4	4	4	307	30

LOCATION	FOOT
STRUCTURE NO. 083-0040 - NE	37.5
STRUCTURE NO. 083-0040 - NW	100.0
STRUCTURE NO. 083-0040 - SE	37.5
STRUCTURE NO. 083-0040 - SW	100.0
TOTAL	275.0

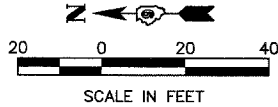
LOCATION	BITUMINOUS MATERIALS (PRIME COAT)	AGGREGATE (PRIME COAT)	HMA SURFACE COURSE, MIX "C", N90	LEVELING BINDER (MACHINE METHOD), N90	HMA SHOULDERS
	GALLON	TON	TON	TON	TON
NORTH APPROACH	38	1	26	15	7
SOUTH APPROACH	64	2	39	58	19
TOTALS	102	3	65	73	26

SCHEDULE OF QUANTITIES
 FAP RTE 869 (IL 34)
 SECTION (105A)BR-1
 SALINE COUNTY

ESCA
 CONSULTANTS, INC.

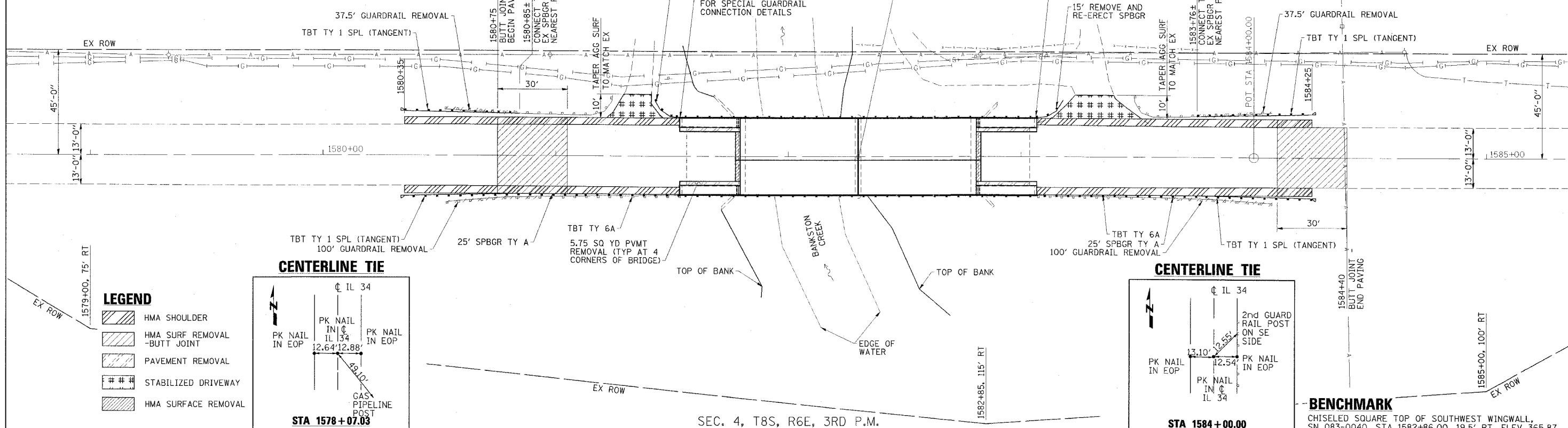
DESIGNED BY: MTD 02/07
 DRAWN BY: DWH 02/07
 CHECKED BY: MTD 02/07
 APPROVED BY: RDP 04/07

PLT DATE = DATE
 FILE NAME = TITLE
 PLT SCALE = SCALE
 REFERENCE = REF

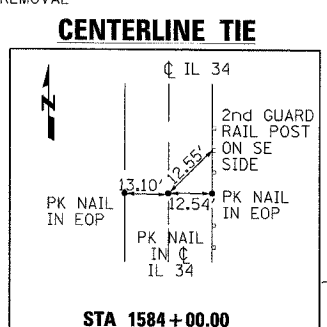
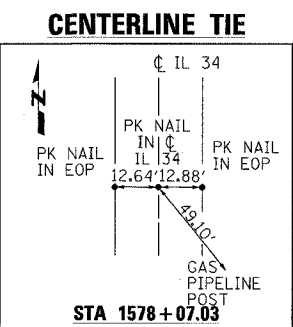


SEC. 3, T8S, R6E, 3RD P.M.

CONTRACT NO. 98996					
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
869	(105A)BR-1	SALINE	44	6	
STA. 1578+70		TO STA. 1585+30			
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

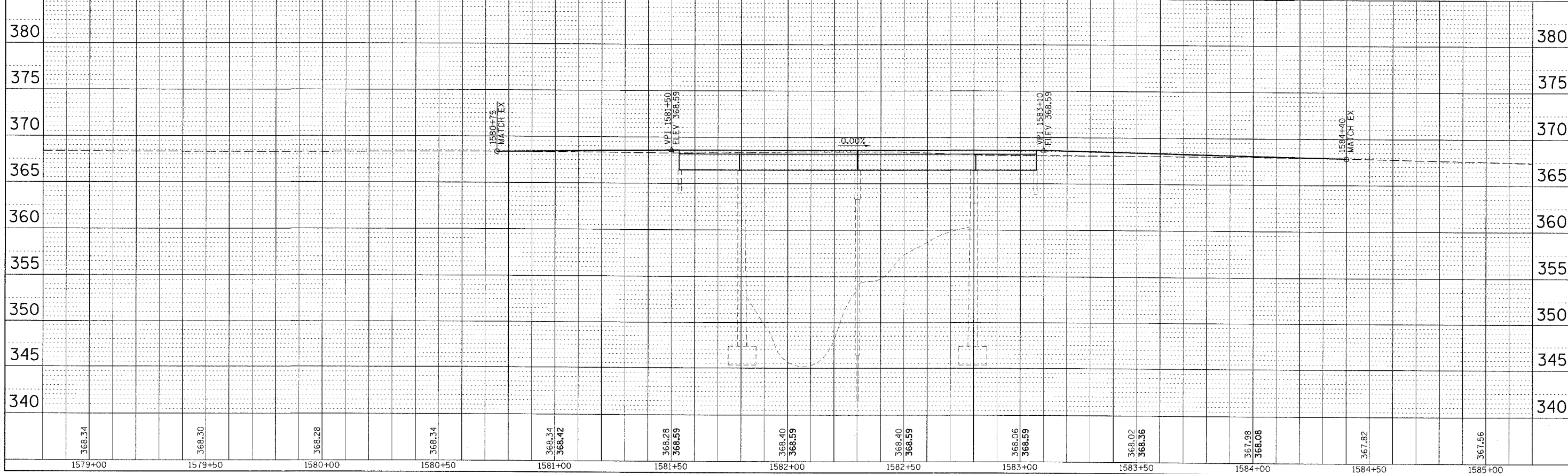


- LEGEND**
- HMA SHOULDER
 - HMA SURF REMOVAL - BUTT JOINT
 - PAVEMENT REMOVAL
 - STABILIZED DRIVEWAY
 - HMA SURFACE REMOVAL



BENCHMARK
CHISELED SQUARE TOP OF SOUTHWEST WINGWALL, SN 083-0040, STA 1582+86.00, 19.5' RT, ELEV 365.87

SEC. 4, T8S, R6E, 3RD P.M.



PLAN

DATE	BY

NO. _____

DATE _____

BY _____

PROFILE

DATE	BY

NO. _____

DATE _____

BY _____

PLOT DATE = #DATE#
FILE NAME = #FILE#
PLOT SCALE = #SCALE#
REFERENCE = #REF#



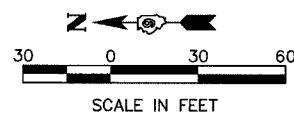
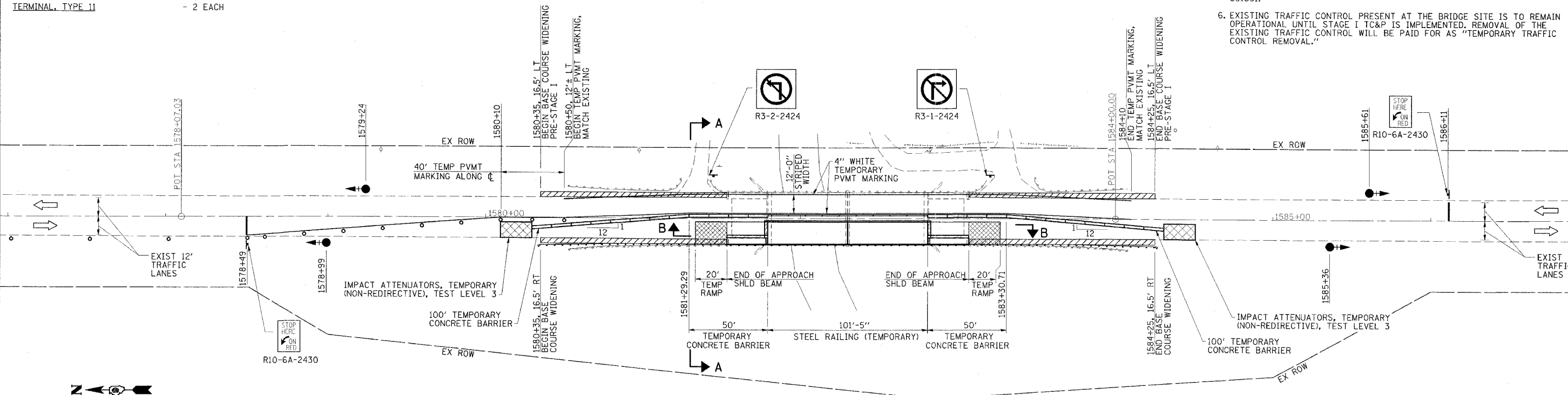
SCHEDULE OF QUANTITIES

STEEL RAILING (TEMPORARY)			
STATION TO	STATION	FEET	
1581+79.29	1582+80.71	102	
	TOTAL	102	
TEMPORARY CONCRETE BARRIER			
STATION TO	STATION	FEET	
1580+29	1581+79.29	150	
1582+80.71	1584+31	150	
	TOTAL	300	
TEMPORARY BRIDGE TRAFFIC SIGNALS - 1 EACH			
TEMPORARY RUMBLE STRIPS - 6 EACH			
IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 - 2 EACH			
TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 11 - 2 EACH			

CONTRACT NO. 98996			
FAP RTE	SECTION	COUNTY	TOTAL SHEETS NO.
869	(105A)BR-1	SALINE	44 7
STA. 1577+00		TO STA. 1587+00	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	

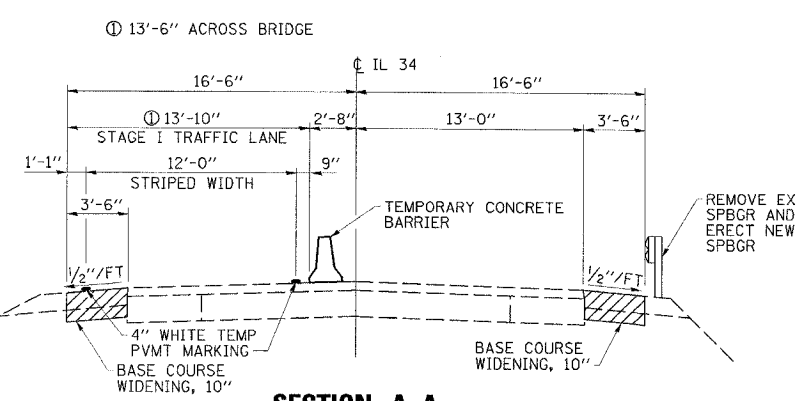
GENERAL NOTES

1. TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321."
2. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
3. COORDINATE LOCATION OF SIGNALS WITH FINAL WORK AS DIRECTED BY THE ENGINEER.
4. CONSTRUCT TEMPORARY RUMBLE STRIPS AT LOCATIONS SHOWN ON STANDARD 701321.
5. STEEL RAILING (TEMPORARY) AND TEMPORARY CONCRETE BARRIER SHALL BE CONNECTED ACCORDING TO "TRAFFIC BARRIER TERMINAL TYPE 11, STANDARD 631051."
6. EXISTING TRAFFIC CONTROL PRESENT AT THE BRIDGE SITE IS TO REMAIN OPERATIONAL UNTIL STAGE I TC&P IS IMPLEMENTED. REMOVAL OF THE EXISTING TRAFFIC CONTROL WILL BE PAID FOR AS "TEMPORARY TRAFFIC CONTROL REMOVAL."

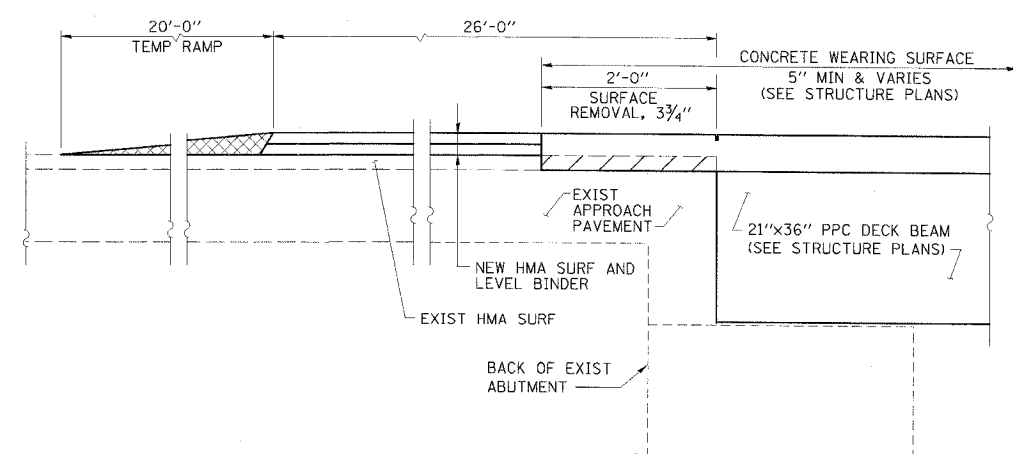


LEGEND

- TRAFFIC SIGNAL WITH BACKPLATE SIGNAL DIRECTION INDICATED
- BASE COURSE WIDENING 10"
- TEMPORARY RAMP
- PAVEMENT REMOVAL
- HMA SURFACE REMOVAL, 3 3/4"



SECTION A-A



SECTION B

ESCA
CONSULTANTS, INC.

DESIGNED BY:	JMS/MTD	01/07
DRAWN BY:	KAH/DWH	01/07
CHECKED BY:	MTD	02/07
APPROVED BY:	RDP	04/07

STAGE I CONSTRUCTION
FAP RTE 869 (IL 34)
SECTION (105A)BR-1
SALINE COUNTY



SCHEDULE OF QUANTITIES

TEMPORARY CONCRETE BARRIER		
STATION TO	STATION	FEET
1581+80	1582+80	100
		TOTAL 100

RELOCATE TEMPORARY CONCRETE BARRIER		
STATION TO	STATION	FEET
1580+30	1581+80	150
1582+80	1584+30	150
		TOTAL 300

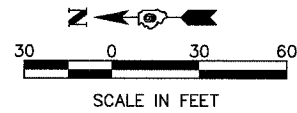
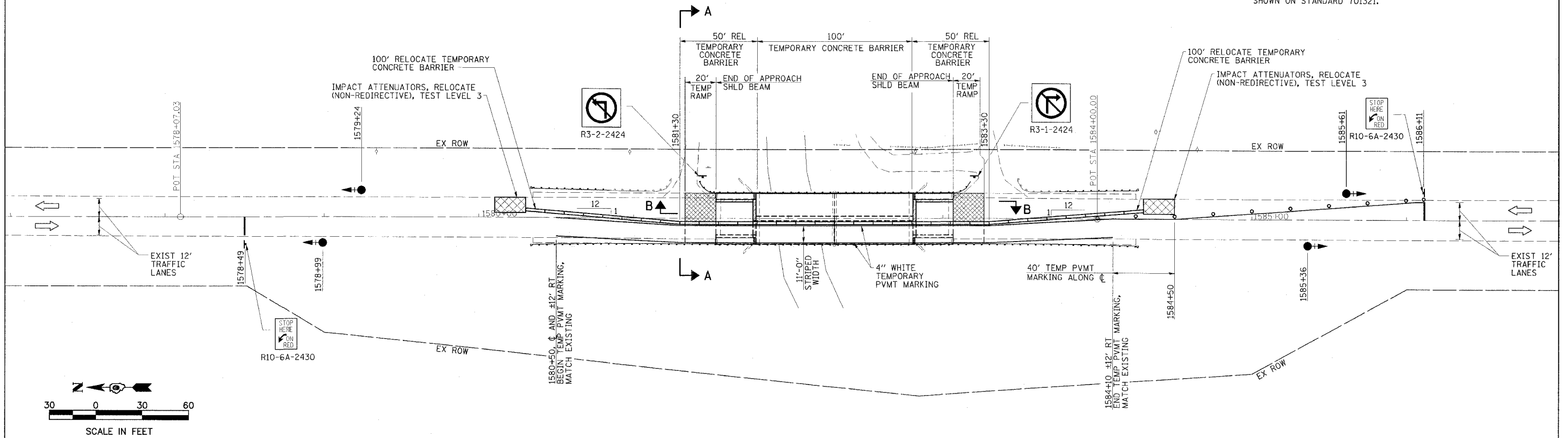
IMPACT ATTENUATORS, RELOCATE
(NON-REDIRECTIVE), TEST LEVEL 3 - 2 EACH

CONTRACT NO. 98996

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	(105A)BR-1	SALINE	44	8
STA. 1577+00		TO STA. 1587+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

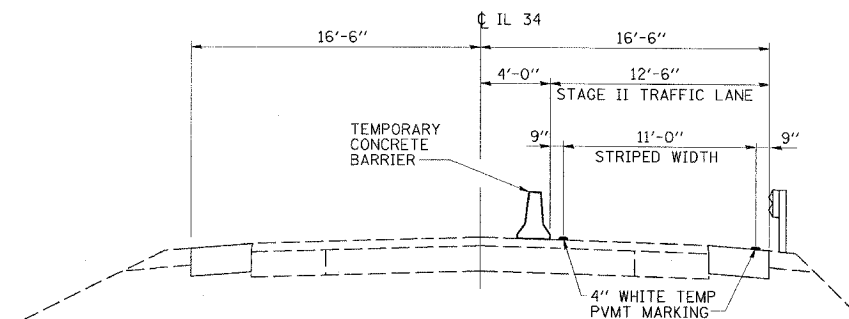
GENERAL NOTES

- TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321."
- SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
- COORDINATE LOCATION OF SIGNALS WITH FINAL WORK AS DIRECTED BY THE ENGINEER.
- CONSTRUCT TEMPORARY RUMBLE STRIPS AT LOCATIONS SHOWN ON STANDARD 701321.

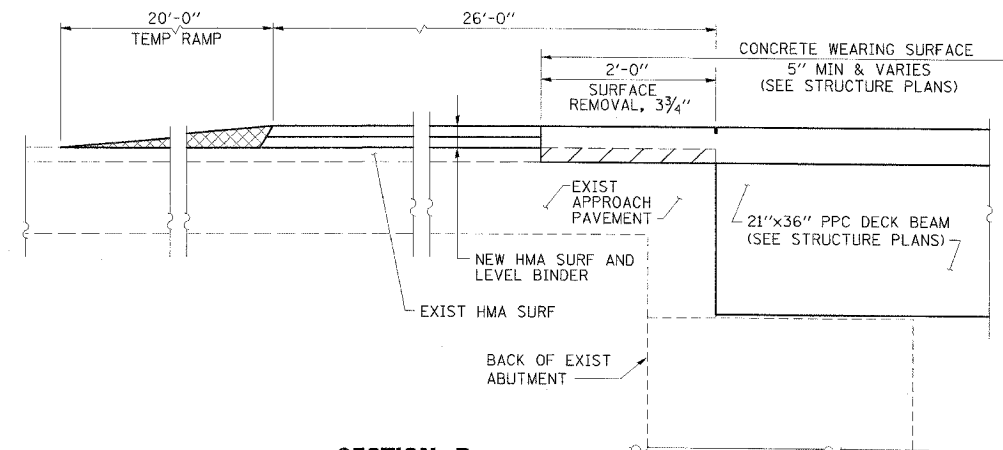


LEGEND

- TRAFFIC SIGNAL WITH BACKPLATE
SIGNAL DIRECTION INDICATED
- TEMPORARY RAMP
- PAVEMENT REMOVAL
- HMA SURFACE REMOVAL, 3 3/4"



SECTION A-A



SECTION B

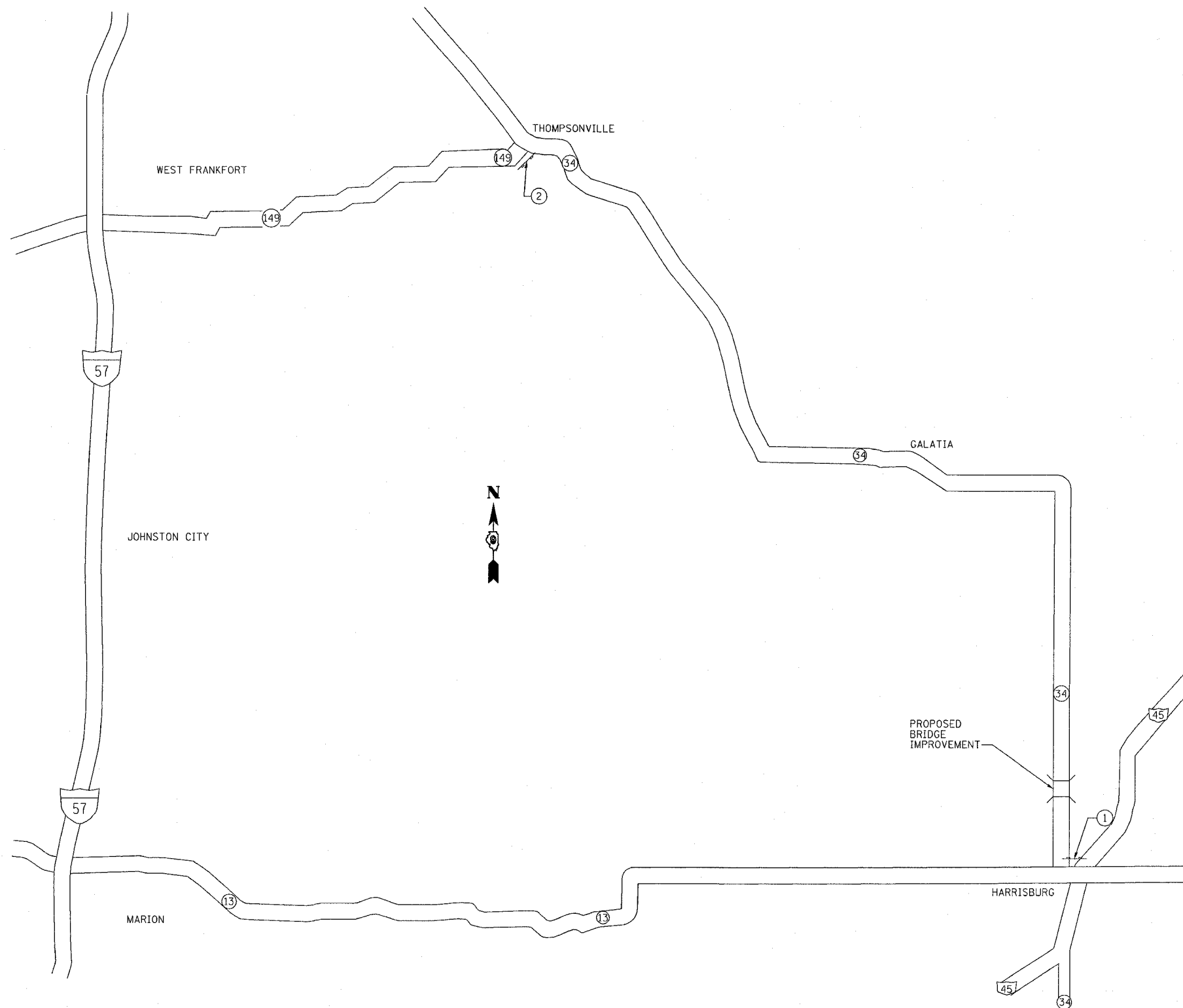
STAGE II CONSTRUCTION
FAP RTE 869 (IL 34)
SECTION (105A)BR-1
SALINE COUNTY

ESCA
CONSULTANTS, INC.

DESIGNED BY:	JMS/MTD	02/07
DRAWN BY:	KAH/DWH	02/07
CHECKED BY:	MTD	02/07
APPROVED BY:	RDP	04/07

PLOT DATE = 04/07
FILE NAME = 1578-1586
PLOT SCALE = 1/4" = 1'-0"
REFERENCE = 1578-1586

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	(105A)BR-1	SALINE	44	9
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



**SIGN LEGEND
STAGE I**

①

**WIDE LOADS
OVER 12'-0"**

DETOUR VIA

WEST ILLINOIS	NORTH INTERSTATE	EAST ILLINOIS
13	57	149

60"x90"

②

**WIDE LOADS
OVER 12'-0"**

DETOUR VIA

WEST ILLINOIS	SOUTH INTERSTATE	EAST ILLINOIS
149	57	13

60"x90"

**SIGN LEGEND
STAGE II**

①

**WIDE LOADS
OVER 11'-0"**

DETOUR VIA

WEST ILLINOIS	NORTH INTERSTATE	EAST ILLINOIS
13	57	149

60"x90"

②

**WIDE LOADS
OVER 11'-0"**

DETOUR VIA

WEST ILLINOIS	SOUTH INTERSTATE	EAST ILLINOIS
149	57	13

60"x90"

DETOUR NOTES

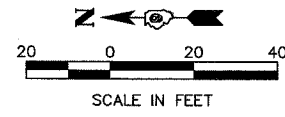
1. THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT THE SIGNS AT THE LOCATIONS DIRECTED BY THE ENGINEER. ALL SIGNS SHALL BE POST MOUNTED.
2. THE ABOVE NOTED WORK, INCLUDING SIGNS, POSTS, HARDWARE, AND LABOR SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE, EACH, FOR TRAFFIC CONTROL AND PROTECTION, STD. 701321 AND NO OTHER COMPENSATION WILL BE ALLOWED.

ESCA
CONSULTANTS, INC.

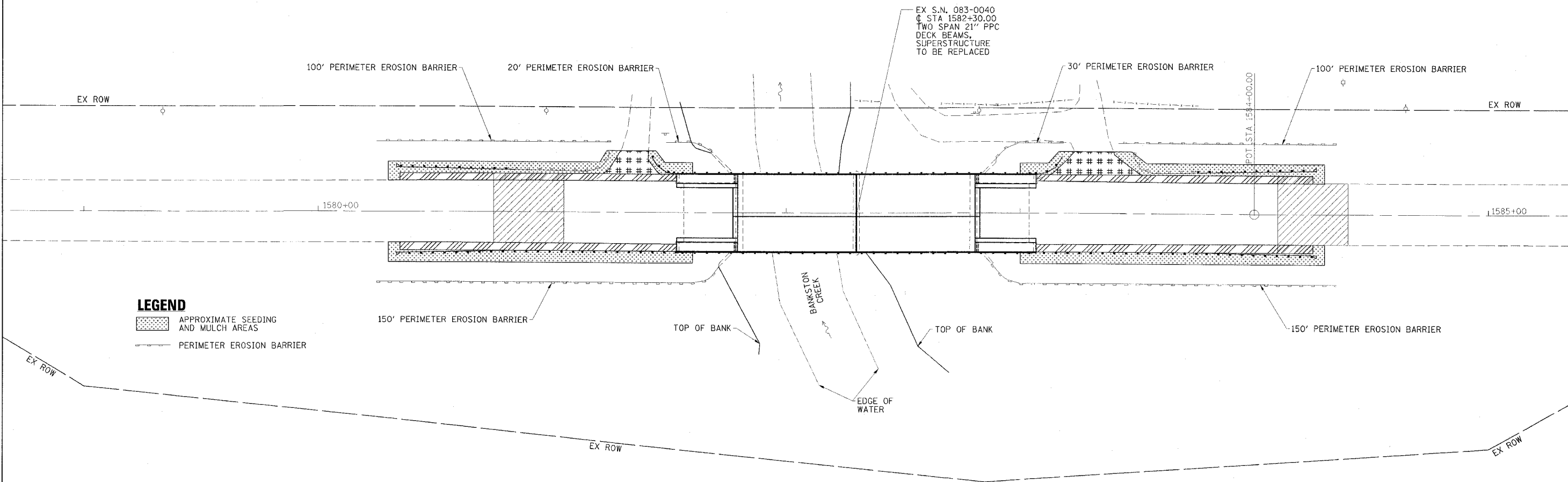
DESIGNED BY:	MTD	02/07
DRAWN BY:	KAH	02/07
CHECKED BY:	MTD	02/07
APPROVED BY:	RDP	04/07

DETOUR SIGNING PLAN

WIDE LOAD DETOUR
FAP RTE 869 (IL 34)
SECTION (105A)BR-1
SALINE COUNTY



CONTRACT NO. 98996				
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	(105A)BR-1	SALINE	44	10
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



LEGEND

APPROXIMATE SEEDING AND MULCH AREAS
 PERIMETER EROSION BARRIER

EX S.N. 083-0040
 C STA 1582+30.00
 TWO SPAN 21' PFC
 DECK BEAMS,
 SUPERSTRUCTURE
 TO BE REPLACED

ESCA CONSULTANTS, INC.			
DESIGNED BY:	MTD	02/07	
DRAWN BY:	DWH	02/07	
CHECKED BY:	MTD	02/07	
APPROVED BY:	RDP	04/07	

*EROSION CONTROL
 AND DRAINAGE PLAN
 FAP RTE 869 (IL 34)
 SECTION (105A)BR-1
 SALINE COUNTY*

PLOT DATE =
 FILE NAME =
 REFERENCE =

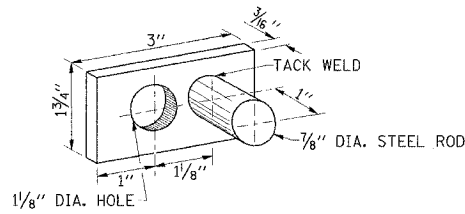
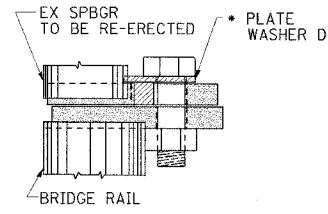


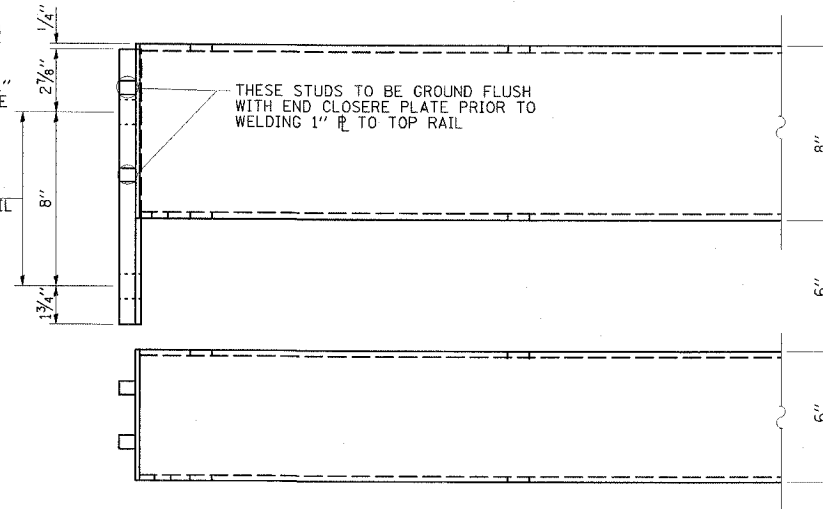
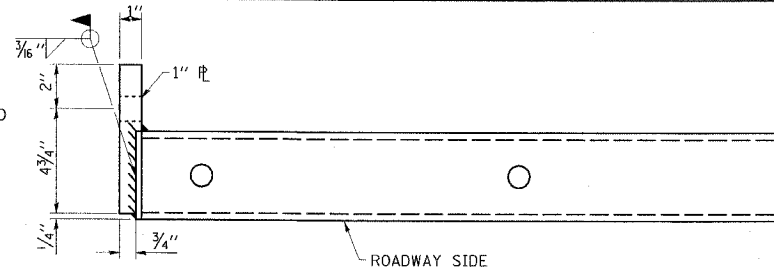
PLATE WASHER D



PLACEMENT OF PLATE WASHER D (PLAN)

* INSTALL PLATE WASHER D SO THAT THE 1" PROJECTION FILLS THE REMAINDER OF THE SLOTTED HOLES IN THE 1" END PLATE AFTER THE 1" DIA. BOLTS ARE IN PLACE

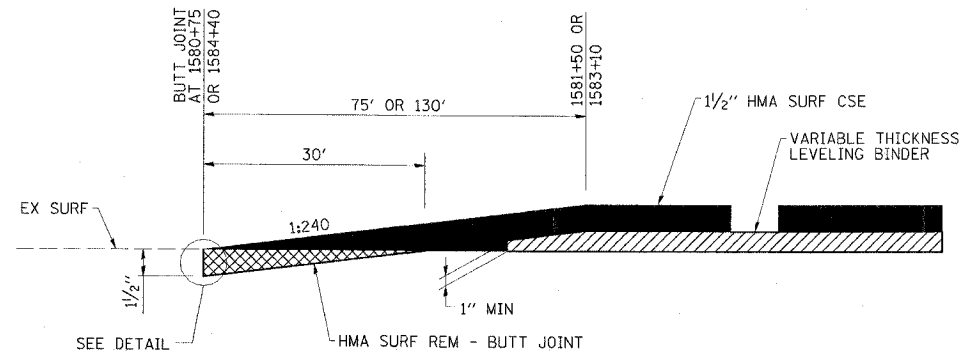
1/8" DIA. HOLES FOR 1" DIA. x 4" ROUND HEAD BOLTS PROVIDE 2 FLAT WASHERS & LOCKNUTS FOR GUARD RAIL CONNECTION



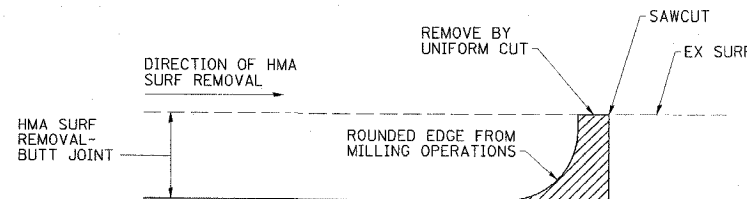
END OF RAIL DETAILS

SPECIAL GUARDRAIL CONNECTION DETAIL

COST OF WORK SHOWN TO BE INCLUDED IN REMOVE AND RE-ERECT SPBGR



TYPICAL BUTT JOINT SECTION



DETAIL AT BUTT JOINT

NOTE: WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE, THEN A SAWCUT SHALL BE USED TO MANUFACTURE A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL. THE COST OF ALL WORK SHOWN IN THE DETAIL IS INCLUDED IN HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL.

CONTRACT NO. 98996				
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	(105A)BR-1	SALINE	44	11
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

PLOT DATE = #DAYS
FILE NAME = #FILE#
PLOT SCALE = #SCALE#
REFERENCE = #REF#

ESCA
CONSULTANTS, INC.

DESIGNED BY:	MTD	02/07
DRAWN BY:	DWH	02/07
CHECKED BY:	MTD	02/07
APPROVED BY:	RDP	04/07

MISCELLANEOUS DETAILS
FAP RTE 869 (IL 34)
SECTION (105A)BR-1
SALINE COUNTY

BENCHMARK: Chiseled Square on top of Southwest Wingwall, SN 083-0040, Station 1582+86.00, 19.5' right, Elevation 365.87

EXISTING STRUCTURE: SN 083-0040 was originally built in 1932 as S.B.I. Route 143, Section 105C. The superstructure was replaced in 1976, a new center pier was added, and precast concrete bridge slabs were utilized to widen the approaches. The superstructure consists of two simple spans, 21" PPC deck beams. The substructure consists of two reinforced concrete closed abutments on timber piles, and a single solid concrete encased pile bent pier supported on H-piles. The back-to-back abutments length is 102'-11³/₄", the out-to-out width is 33'-0". The existing superstructure and the existing approach shoulder bridge slabs shall be removed and replaced utilizing stage construction.

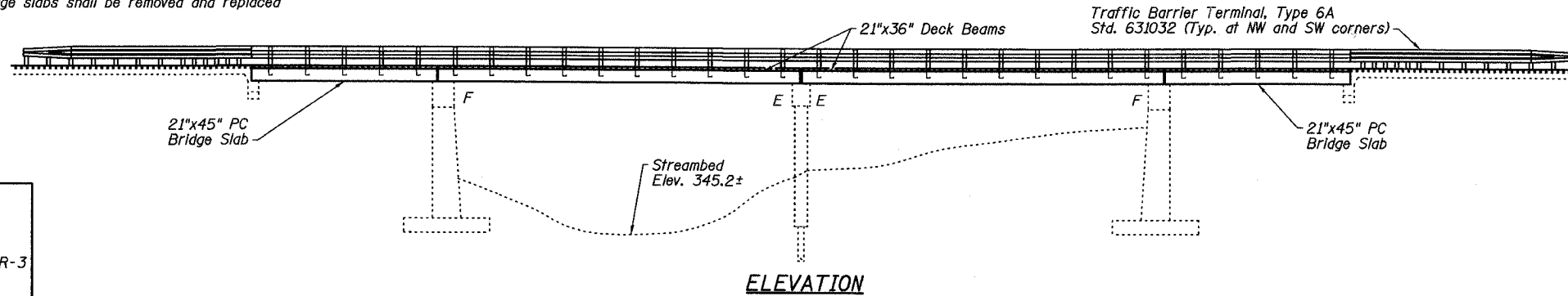
No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DATE	SHEET NO.
FAP 869	*	SALINE	44	12
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	
98996			*105A)BR-1	

STRUCTURE INDEX OF SHEETS

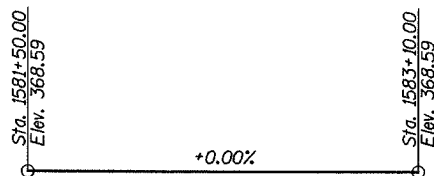
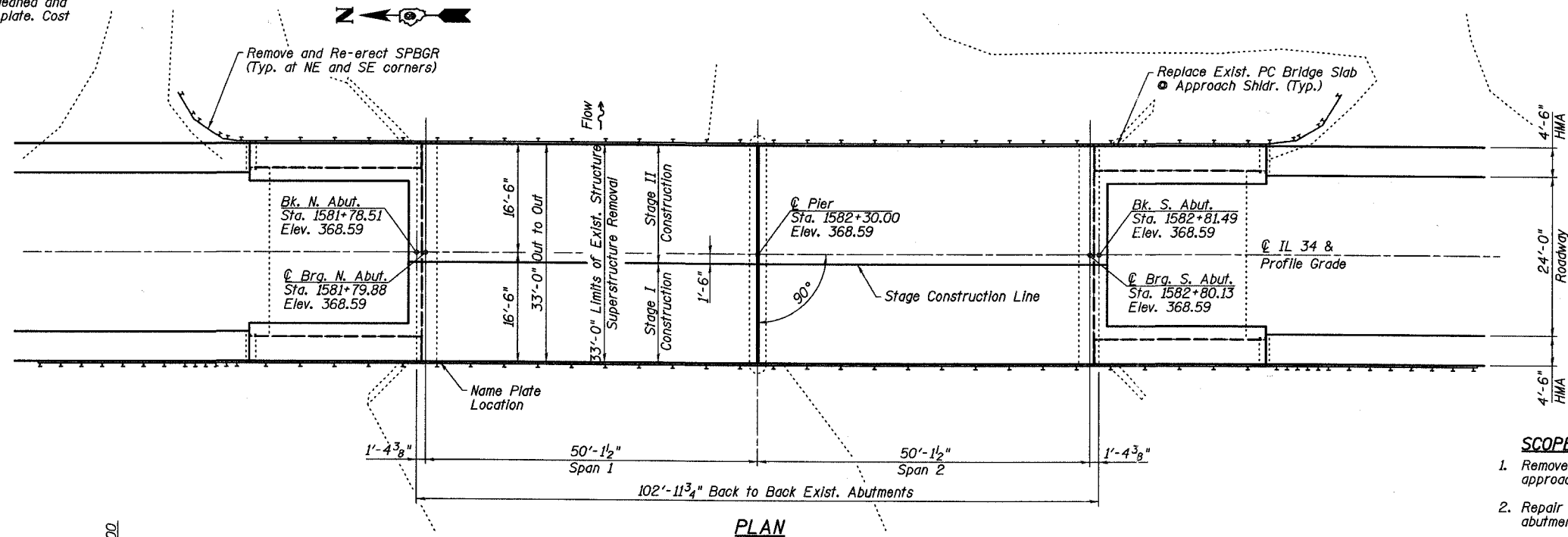
General Plan	Dwg. No. 1 of 17
General Data	Dwg. No. 2 of 17
Stage Construction Details	Dwg. No. 3 of 17
Steel Railing (Temporary)	Dwg. No. 4 of 17
Temporary Concrete Barrier	Dwg. No. 5 of 17
Superstructure	Dwg. No. 6 of 17
Superstructure Details	Dwg. No. 7 of 17
Approach Details	Dwg. No. 8 of 17
Superstructure and Approach Details	Dwg. No. 9 of 17
Steel Railing, Type SM	Dwg. No. 10 of 17
Strip Seal Expansion Joint	Dwg. No. 11 of 17
North Abutment	Dwg. No. 12 of 17
South Abutment	Dwg. No. 13 of 17
Abutment Details	Dwg. No. 14 of 17
Pier	Dwg. No. 15 of 17
Pier Details	Dwg. No. 16 of 17
Bar Splicer Assembly Details	Dwg. No. 17 of 17



STATION 1582+30
REBUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RT. 869 SEC. 105B-DR-3
LOADING HS20
STR. NO. 083-0040

NAME PLATE

Note:
See Std. 515001
Existing Name Plate shall be cleaned and relocated adjacent to the new plate. Cost included with Name Plates.



SCOPE OF WORK

1. Remove existing surfacing, steel railing, deck beams, and approach shoulder bridge slabs.
2. Repair beam bearing seats and perform other repairs at abutments and pier as required.
3. Reconstruct a two-span PPCD beam superstructure with concrete wearing surface and Steel Railing, Type SM. Reconstruct existing approach shoulders with Precast Concrete Bridge Slabs with concrete wearing surface.

DESIGN SPECIFICATION

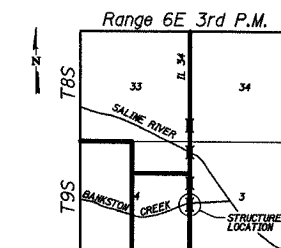
2002 AASHTO
LOADING HS20-44
No Allowance for future wearing surface
DESIGN STRESSES
FIELD UNITS
f_c = 5,000 psi (Concrete Wearing Surface)
f_c = 3,500 psi (All concrete except CWS)
f_y = 60,000 psi (reinf.)

PRECAST PRESTRESSED UNITS

f_c = 5,000 psi
f_{ci} = 4,000 psi
f_s = 270,000 psi (1/2" low lax strands)
f_{sl} = 201,960 psi (1/2" low lax strands)

PRECAST UNITS

f_c = 4,500 psi
f_y = 60,000 psi (reinf.)



LOCATION SKETCH

GENERAL PLAN
IL 34 OVER BANKSTON CREEK
FAP ROUTE 869 - SECTION (105A)BR-1
SALINE COUNTY
STATION 1582+30.00
STRUCTURE NO. 083-0040

ESCA
CONSULTANTS, INC.
DESIGNED BY: RDP 01/07
DRAWN BY: DWH 01/07
CHECKED BY: JMS/MTD 02/07
APPROVED BY: RDP 04/07

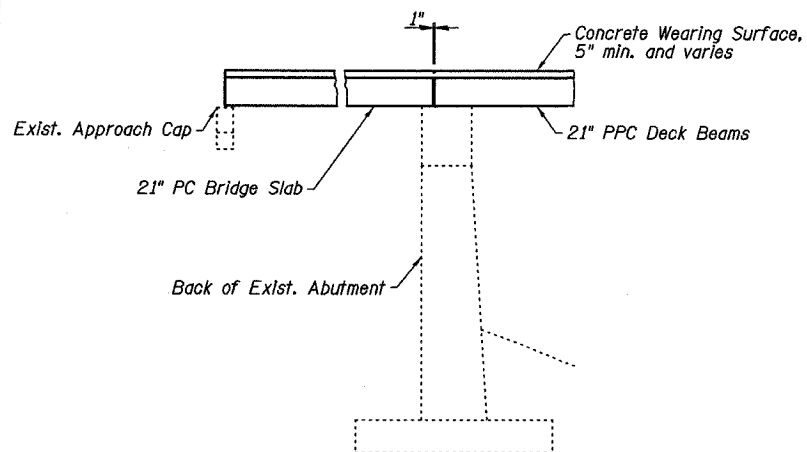
APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
BOARD OF PROFESSIONAL ENGINEERS
No. 4647
EXPIRES 11-30-08
Ralph E. Anderson
SIGNATURE
04-12-07
DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
FAP 869	#	SALINE	44	13
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		
98996				(105A)BR-1

17 SHEETS



SECTION THRU ABUTMENTS
● OUTSIDE BEAM

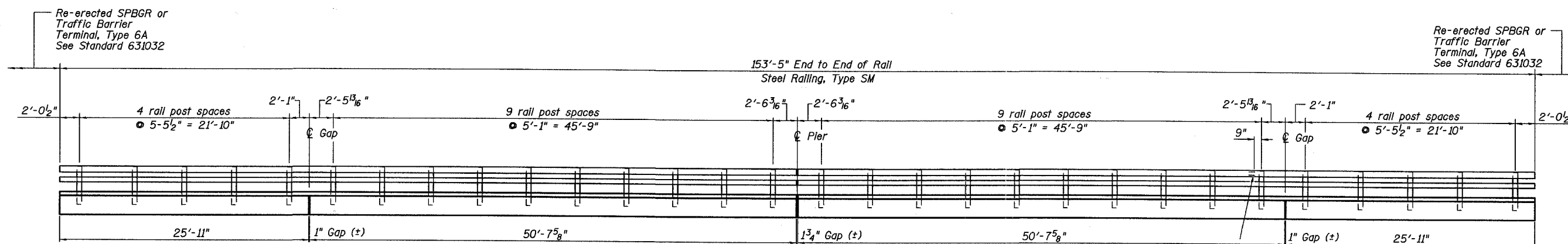
GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A706 Gr 60 (IL Modified). See Special Provisions.
2. Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.
3. All construction joints shall be bonded.
4. Concrete Sealer shall be applied to abutment bearing seats where formed concrete repairs are performed.
5. All new structural steel shall be shop painted with an inorganic zinc rich primer per AASHTO M300 Type 1 unless noted otherwise.
6. Side retainers shall be AASHTO M270 Grade 36 minimum.
7. No work will be allowed in the stream.
8. The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.
9. If the Contractor's procedure for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on new beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedure used will not overstress the new beams. To distribute load to multiple beams and protect the concrete, in all cases a double layer mat of heavy timbers shall be used at all times under the crane tracks or wheels and any outriggers in the down position. If necessary, shims shall be used under the crane mat to ensure uniform contact with the underlying beams. Prior to placement of the timber mats the following shall be done: placement and tightening of transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum and grouting and curing the shear keys. A temporary means of lateral restraint will be required for fascia beams at expansion ends of beams to prevent movement of the beams. This work shall be considered included in the cost of Precast Prestressed Concrete Deck Beams.

10. The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to the exterior face and 9" in on the underside of the fascia beams. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.
11. The minimum thickness of the concrete overlay shall be 5" and varies as required to adjust for the new profile grade and beam camber.
12. Repair of the substructure shall be completed prior to placement of the new deck beams.
13. Stage Construction of Precast Prestressed Concrete Deck Beams shall be according to Article 504.06(d) of the Standard Specifications.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructures	Each	1	-	1
Bridge Deck Grooving	Sq. Yd.	448	-	448
Protective Coat	Sq. Yd.	448	-	448
Precast Concrete Bridge Slab	Sq. Ft.	389	-	389
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	3342	-	3342
Reinforcement Bars, Epoxy Coated	Pound	5570	-	5570
Bar Splicers	Each	106	-	106
Steel Railing, Type SM	Foot	307	-	307
Steel Railing (Temporary)	Foot	102	-	102
Name Plates	Each	1	-	1
Preformed Joint Strip Seal	Foot	33	-	33
Concrete Sealer	Sq. Ft.	-	45	45
Epoxy Crack Injection	Foot	-	91	91
Asbestos Bearing Pad Removal	Each	-	44	44
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	-	45	45
Concrete Wearing Surface, 5"	Sq. Yd.	448	-	448



See Dwg. No. 10 of 17
for Railing Details.

Locate Name Plates at Outside
Face of Top Rail Tube at
Northwest Corner of Bridge

RAILING ELEVATION

(Showing Inside Face of East Railing;
West Railing Similar)

GENERAL DATA

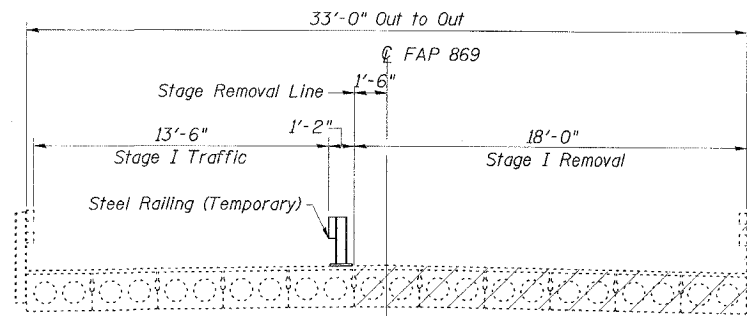
IL 34 OVER BANKSTON CREEK
FAP ROUTE 869 - SECTION (105A)BR-1
SALINE COUNTY
STATION 1582+30.00
STRUCTURE NO. 083-0040

ESCA
CONSULTANTS, INC.

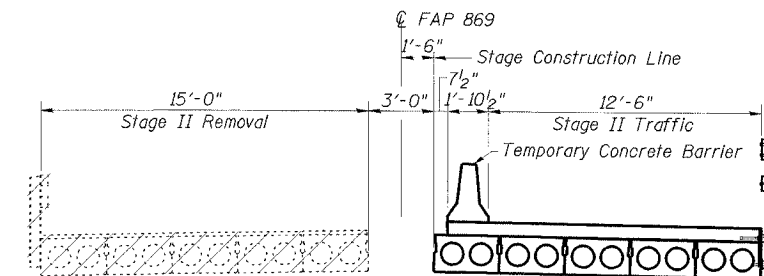
DESIGNED BY:	RDP	02/07
DRAWN BY:	DWH	02/07
CHECKED BY:	JMS/MTD	02/07
APPROVED BY:	RDP	04/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

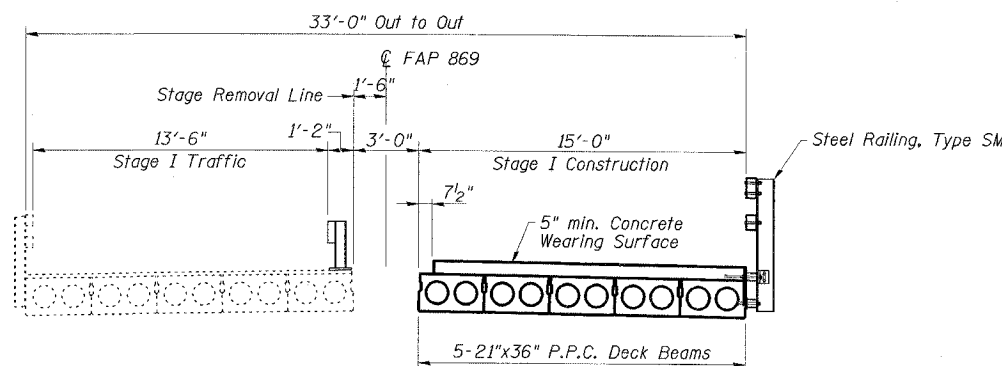
ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.	SHEET NO. 3 17 SHEETS
FAP 869	*	SALINE	44	14	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT			
98996			*(105A)BR-1		



STAGE I REMOVAL

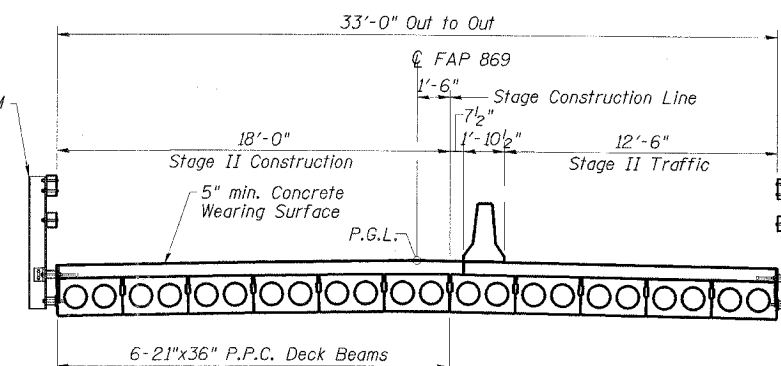


STAGE II REMOVAL



STAGE I CONSTRUCTION

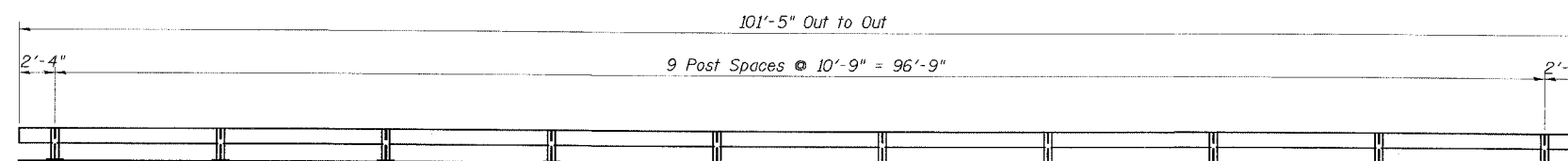
Steel Railing, Type SM



STAGE II CONSTRUCTION

STAGE CONSTRUCTION NOTES

1. All staging sections are looking South.
2. See Dwg. No. 6 of 17 for shear key clamping details.
3. For quantity of Temporary Concrete Barrier, see Roadway Plans.



STEEL RAILING (TEMPORARY) POST SPACING

ESCA CONSULTANTS, INC.		
DESIGNED BY:	RDP	02/07
DRAWN BY:	DWH	02/07
CHECKED BY:	JMS/MTD	02/07
APPROVED BY:	RDP	04/07

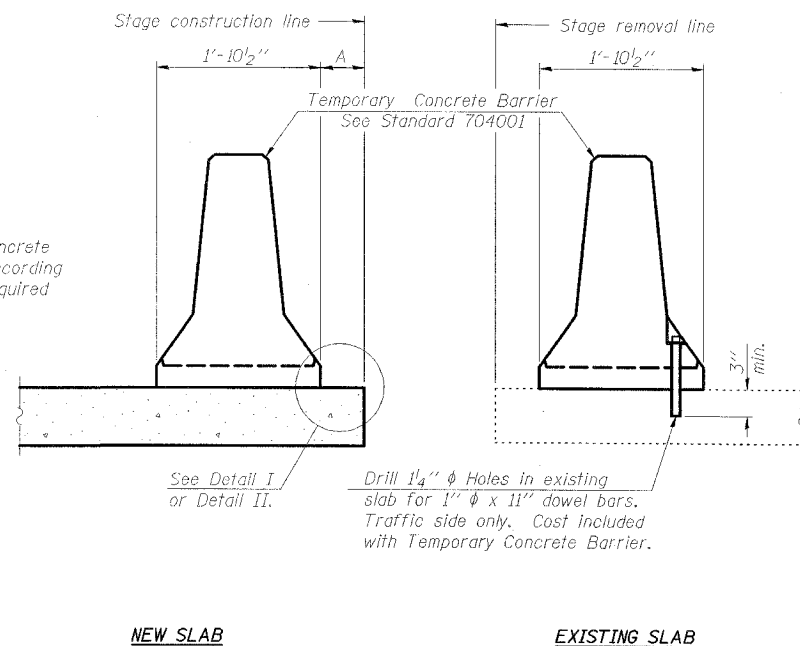
STAGE CONSTRUCTION DETAILS
IL 34 OVER BANKSTON CREEK
FAP ROUTE 869 - SECTION (105A)BR-1
SALINE COUNTY
STATION 1582+30.00
STRUCTURE NO. 083-0040

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	STATION	SHEET NO.
FAP 869	*	SALINE	44	16
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

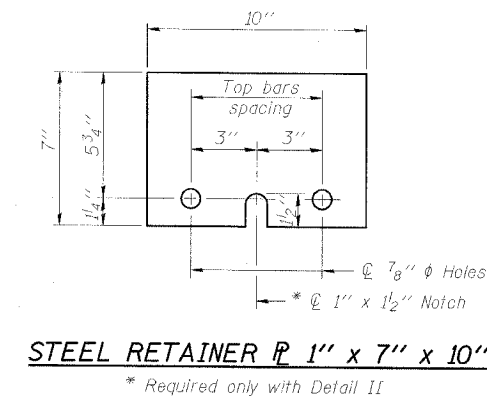
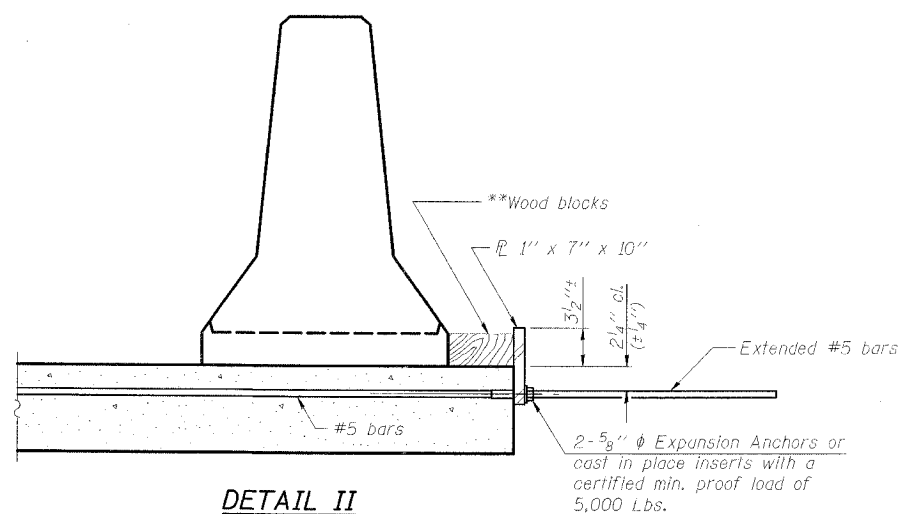
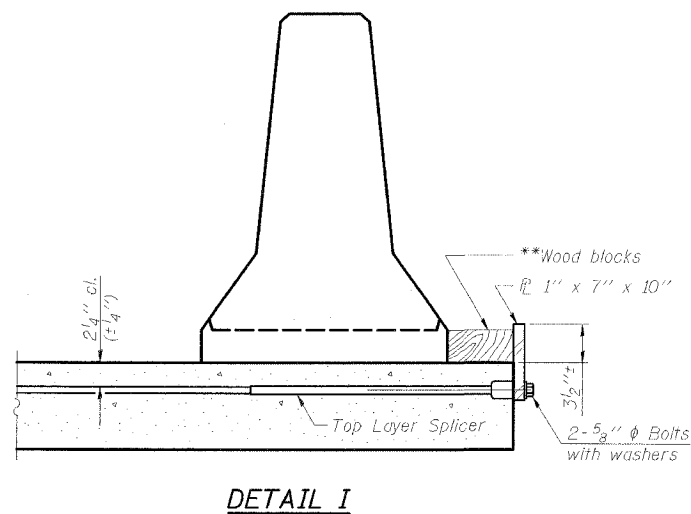
98996 *105A)BR-1

SHEET NO. 5
17 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".

SECTIONS THRU SLAB



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.

** 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.

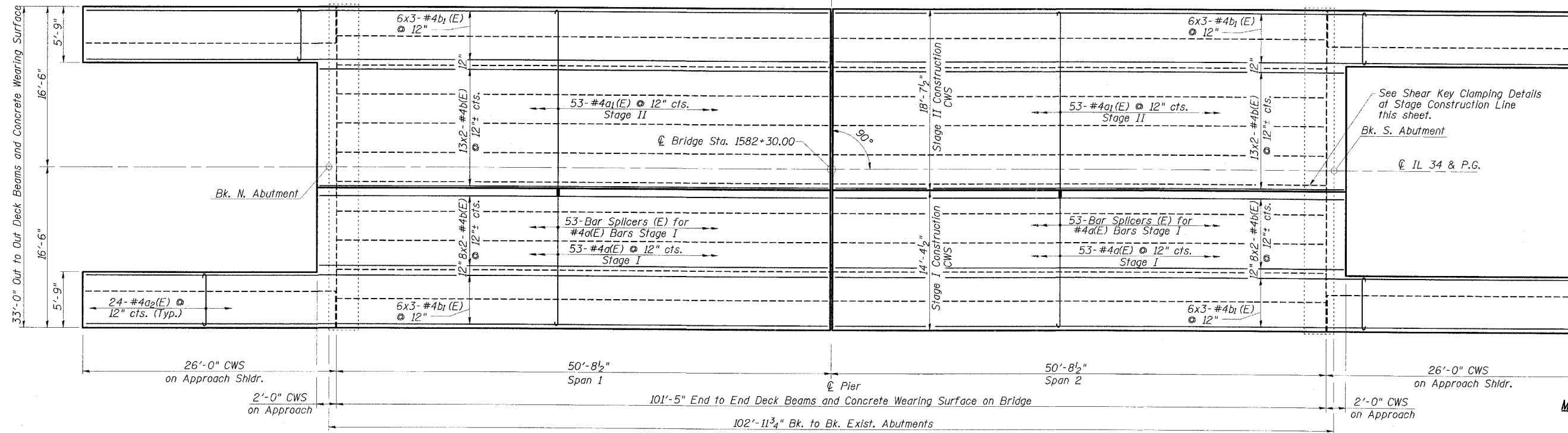
ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	02/07
DRAWN BY:	DWH	02/07
CHECKED BY:	JMS/MTD	02/07
APPROVED BY:	RDP	04/07

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
IL 34 OVER BANKSTON CREEK
FAP ROUTE 869 - SECTION 105A)BR-1
SALINE COUNTY
STATION 1582+30.00
STRUCTURE NO. 083-0040

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

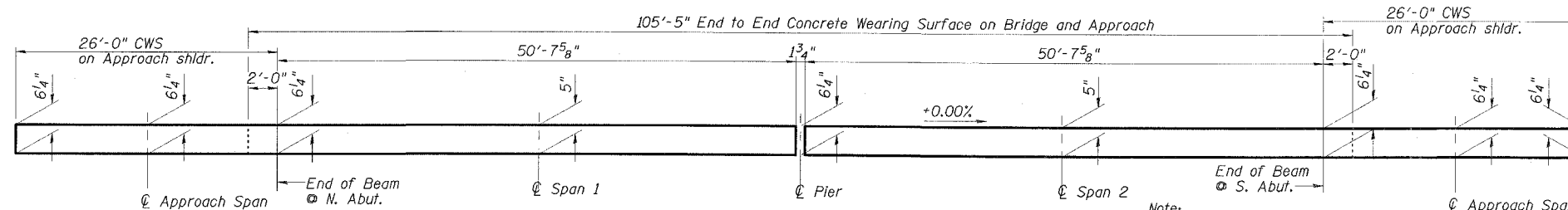
ROUTE NO.	SECTION	COUNTY	STATION	SHEET NO.
FAP 869	*	SALINE	44	17
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
98996			*(105A)BR-1	



PLAN - WEARING SURFACE

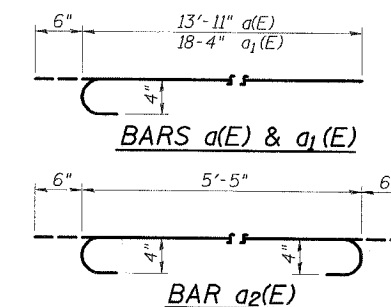
MIN. BAR LAP
#4 bar = 1'-8"

Note:
Reinforcement bars designated (E) shall be epoxy coated. Bars indicated thus 13x2-#4 etc. indicates 13 lines of bars with 2 lengths per line. For remainder of superstructure details, see drawings 7 and 9 of 17.



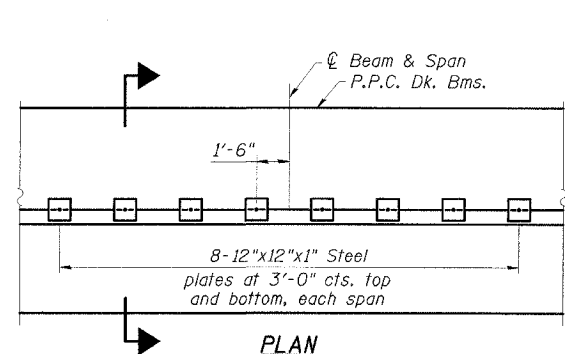
REINFORCED CONCRETE WEARING SURFACE PROFILE
(At edge of bridge deck)

Note:
Greater thickness is required at centerline of superstructure to conform to cross section slopes shown on Dwg. 7 of 17.

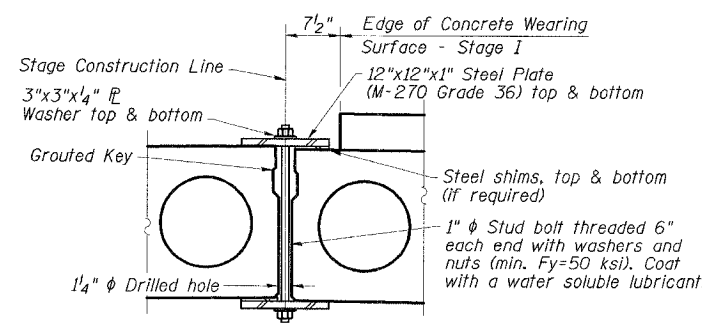


CONCRETE WEARING SURFACE
BILL OF MATERIAL

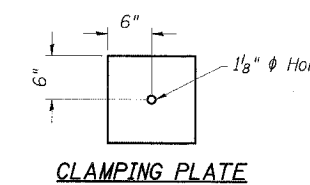
Bar	No.	Size	Length	Shape	
a(E)	106	#4	14'-5"	┌	
a1(E)	106	#4	18'-10"	┌	
a2(E)	96	#4	6'-5"	┌	
b(E)	84	#4	27'-0"	—	
b1(E)	72	#4	26'-8"	—	
Reinforcement Bars, Epoxy Coated				Pound	5570
Concrete Wearing Surface, 5"				Sq. Yd.	448
Bridge Deck Grooving				Sq. Yd.	448
Bar Splicers				Each	106
Protective Coat				Sq. Yd.	448



PLAN



SECTION
SHEAR KEY CLAMPING DETAILS



CLAMPING PLATE

Notes:
See Stage Construction Details for traffic lanes. Cost is included with Precast Prestressed Concrete Deck Beams.

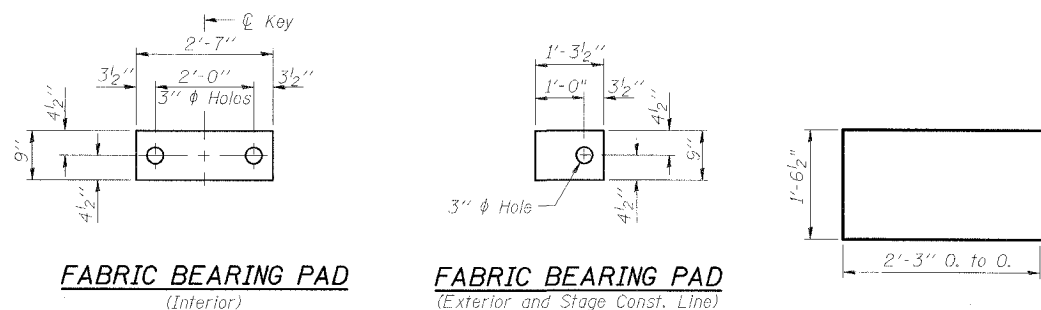
SUPERSTRUCTURE
IL 34 OVER BANKSTON CREEK
FAP ROUTE 869 - SECTION (105A)BR-1
SALINE COUNTY
STATION 1582+30.00
STRUCTURE NO. 083-0040

ESCA
CONSULTANTS, INC.

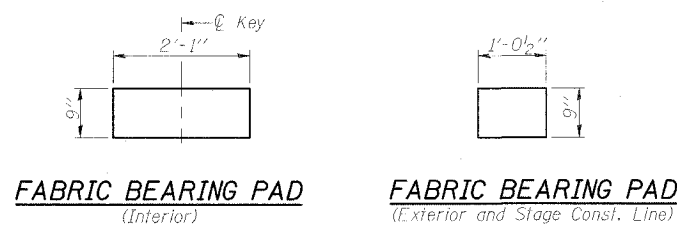
DESIGNED BY:	RDP	02/07
DRAWN BY:	DWH	02/07
CHECKED BY:	JMS/MTD	02/07
APPROVED BY:	RDP	04/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

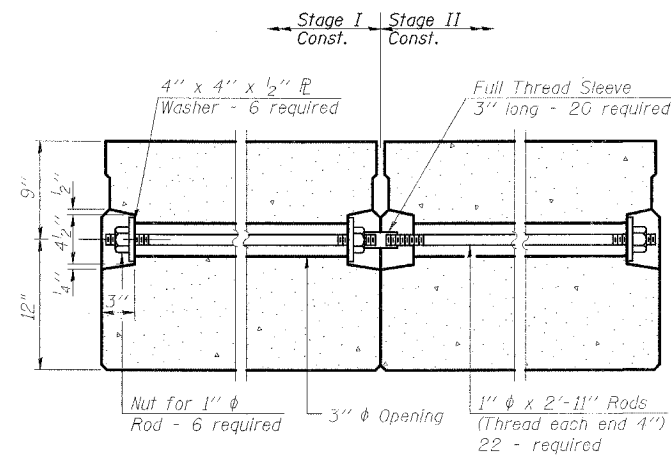
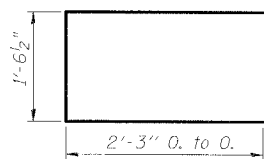
ROUTE NO.	SECTION	COUNTY	LENG.	SHEET	SHEET NO. 7 17 SHEETS
FAP 869	*	SALINE	44	18	
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		
98996		*(105A)BR-1			



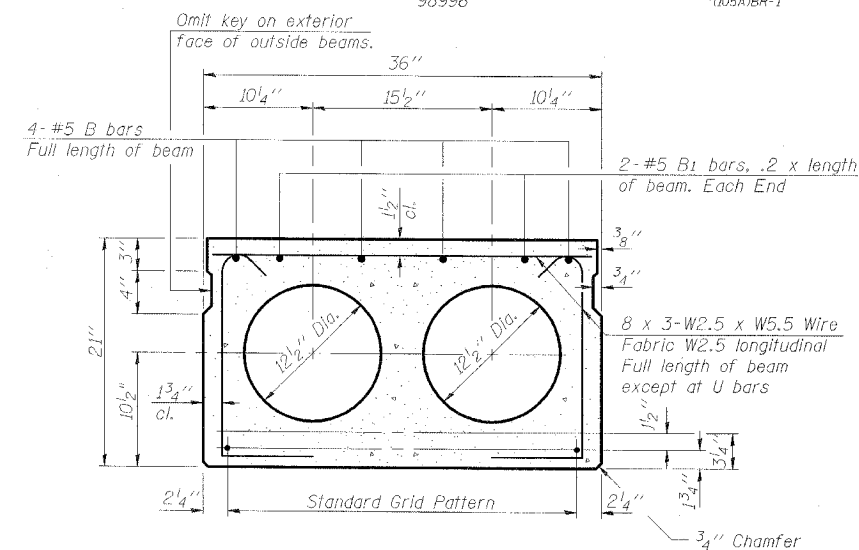
FIXED



EXPANSION



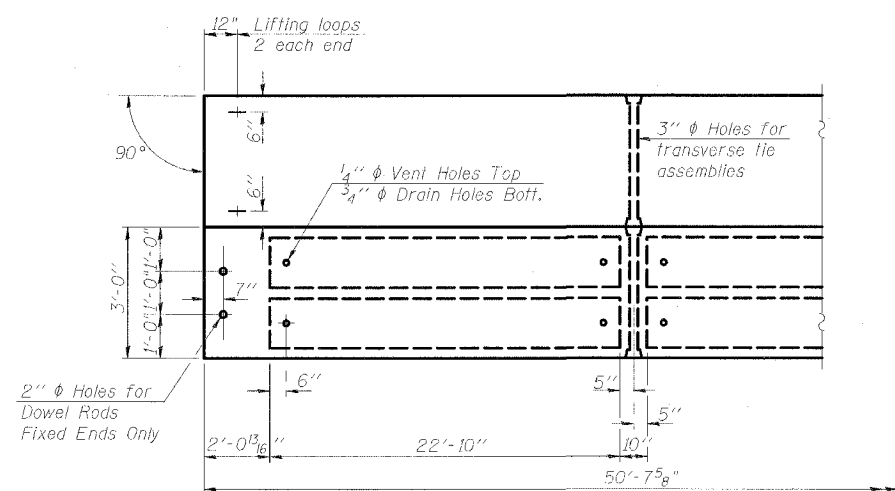
TYPICAL TRANSVERSE TIE ASSEMBLY



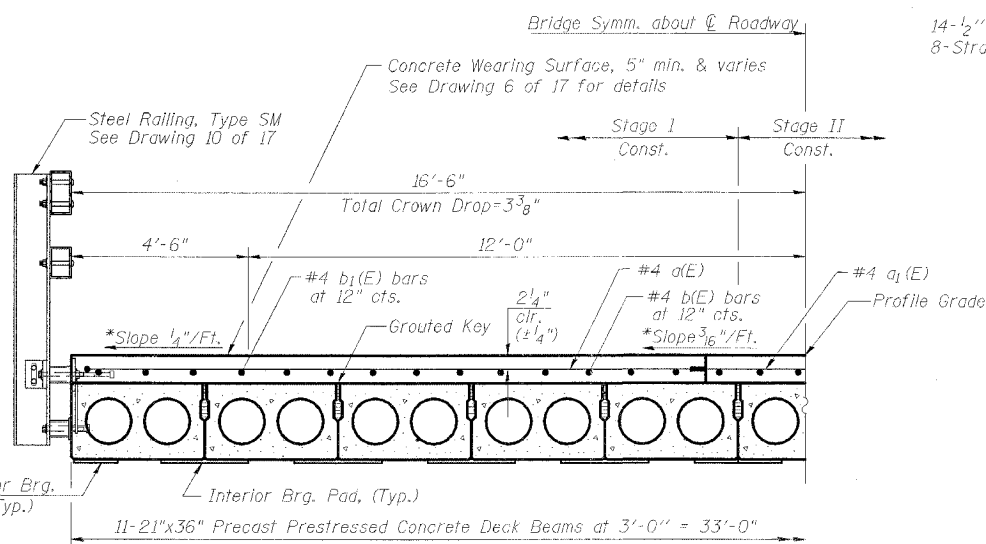
Notes:
1. Place strands symmetrically about centerline of beam.
2. See Dwg. 9 of 17 for add'l. details applicable to fascia beams.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21")	Sq. Ft.	3342



PLAN



HALF CROSS SECTION (Looking North)

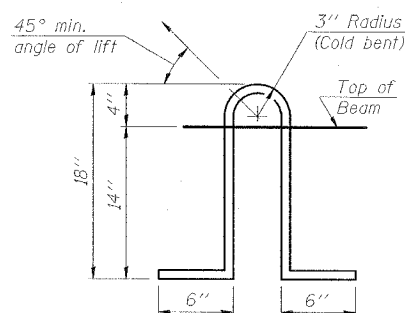
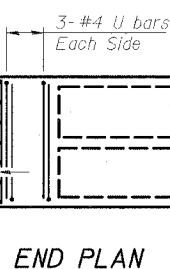
*Cross slopes shown are applicable to Concrete Wearing Surface.

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 2-1/2" phi-270 ksi strands, as shown. The 1" phi rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place. Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Corrosion Inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength, f'ci, shall be 4000 p.s.i. See Dwg. No. 2 of 17 for location of rail anchors and additional notes.

ESCA CONSULTANTS, INC.

DESIGNED BY:	RDP	02/07
DRAWN BY:	DWH	02/07
CHECKED BY:	JMS/MTD	02/07
APPROVED BY:	RDP	04/07



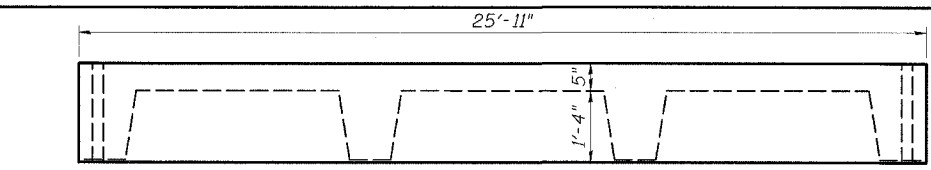
LIFTING LOOP DETAIL

**SUPERSTRUCTURE DETAILS
IL 34 OVER BANKSTON CREEK
FAP ROUTE 869 - SECTION (105A)BR-1
SALINE COUNTY
STATION 1582+30.00
STRUCTURE NO. 083-0040**

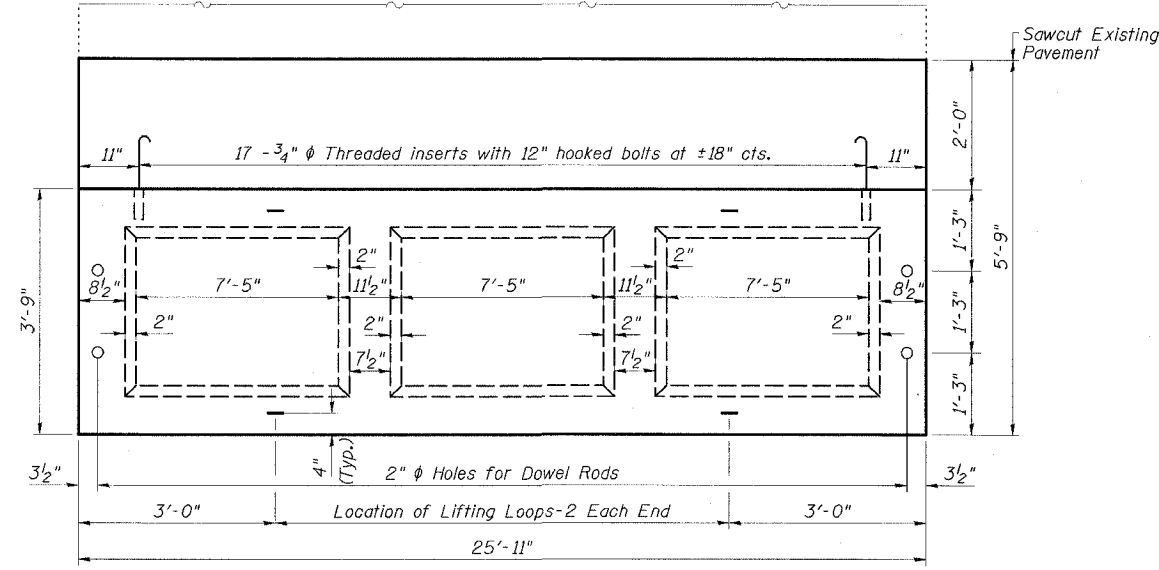
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 869	*	SALINE	44	19
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		
98996				(105A)BR-1

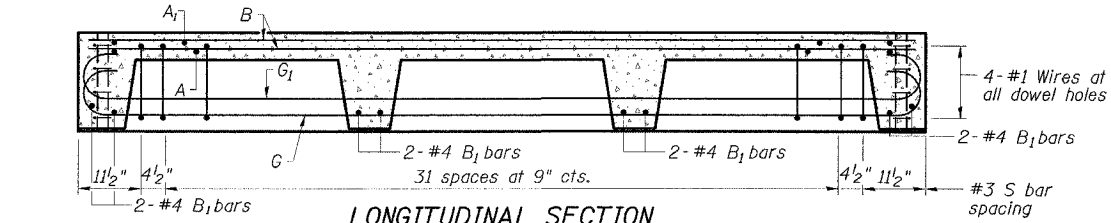
SHEET NO. 8
17 SHEETS



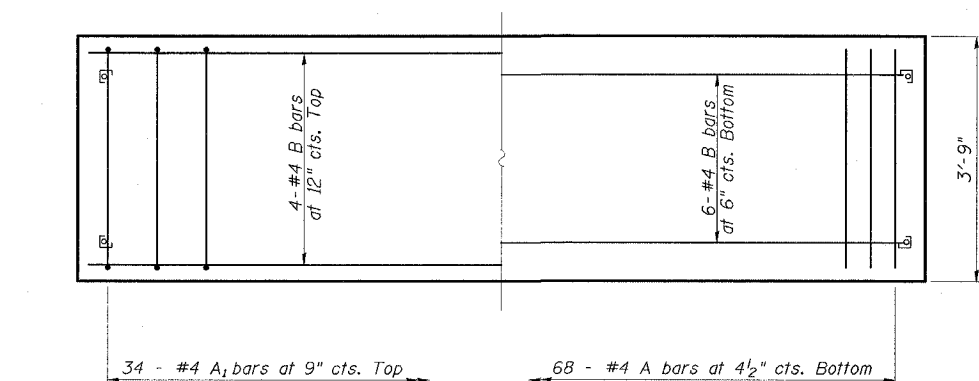
ELEVATION



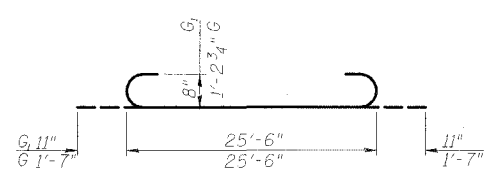
PARTIAL PLAN OF APPROACH



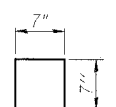
LONGITUDINAL SECTION



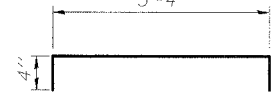
SLAB REINFORCEMENT



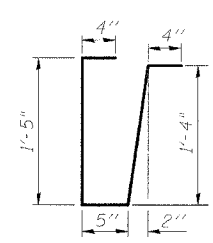
BARS G & G1



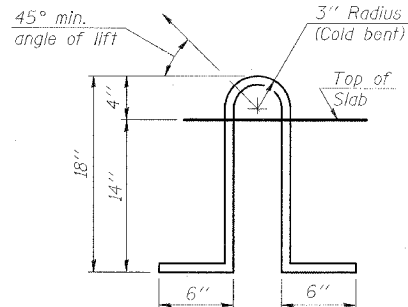
FABRIC BEARING PAD



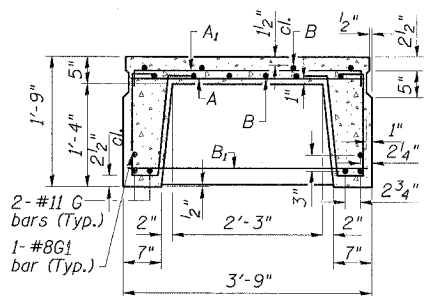
BAR A1



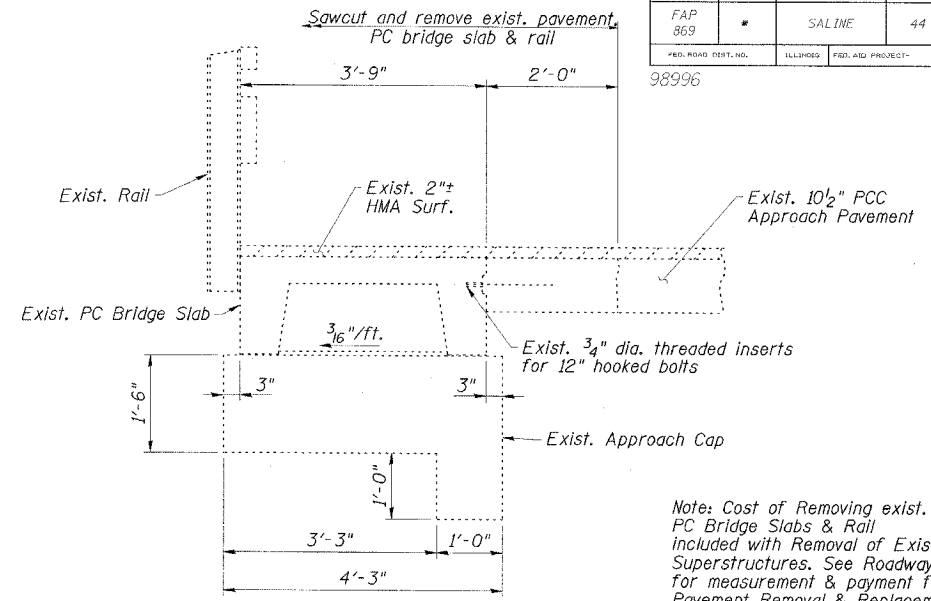
BAR S



LIFTING LOOP DETAIL

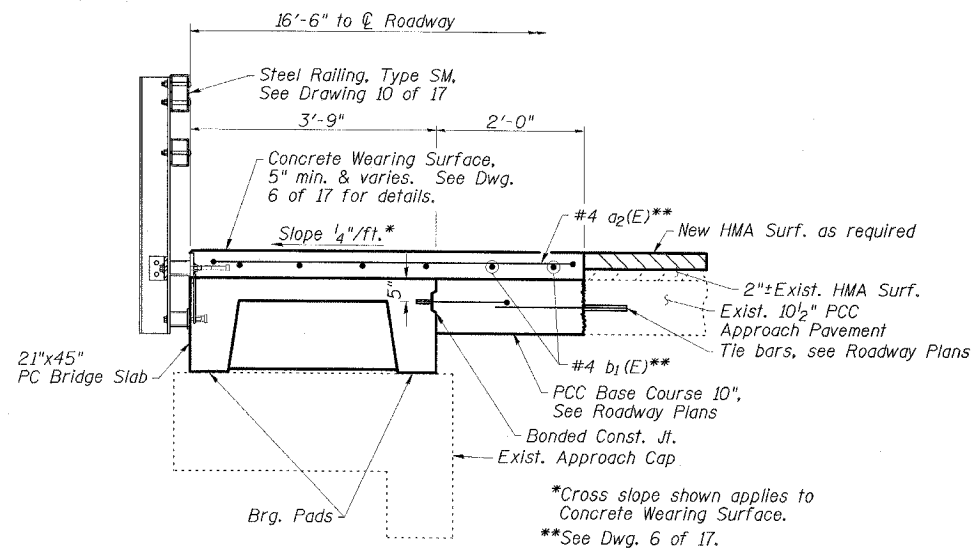


SECTION THRU PRECAST UNIT



EXISTING CROSS SECTION

Note: Cost of Removing exist. PC Bridge Slabs & Rail included with Removal of Exist. Superstructures. See Roadway Plans for measurement & payment for Pavement Removal & Replacement.



PROPOSED CROSS SECTION

BILL OF MATERIAL

Precast Concrete Bridge Slab	Sq. Ft.	389
------------------------------	---------	-----

NOTES

Lifting loops shall be 2-1/2" φ-270 ksi strands, as shown.
Reinforcing steel shall conform to ASTM A 706 (IL MOD), Grade 60.
The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Bearing Pad shall be provided for each bearing.
Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the slabs. Cleaning shall be done by sandblasting the keyway areas between top of the slab and the bottom edge of the key.
Corrosion Inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast concrete bridge slabs.
Required Strength, f'c, shall be 4500 p.s.i.
See Dwg. No. 2 of 17 for location of rail anchors and additional notes.
Cost of reinforcement and accessories cast into the slab unit, bearing pads, furnishing, drilling for, placing and grouting anchor rods and 3/4" φ hooked bolts is included in contract Unit Price for "Precast Concrete Bridge Slab."
The Precast Concrete Bridge Slab shall be erected and aligned with the exterior face of the exterior Deck Beam after Deck Beams are in final position.

APPROACH DETAILS
IL 34 OVER BANKSTON CREEK
FAP ROUTE 869 - SECTION (105A)BR-1
SALINE COUNTY
STATION 1582+30.00
STRUCTURE NO. 083-0040

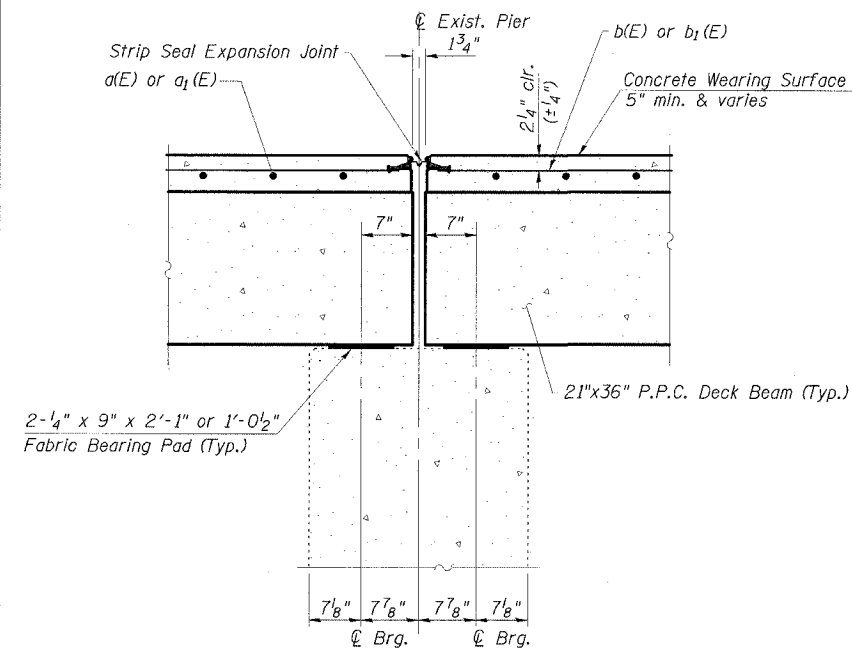
ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	02/07
DRAWN BY:	DWH	02/07
CHECKED BY:	JMS/MTD	02/07
APPROVED BY:	RDP	04/07

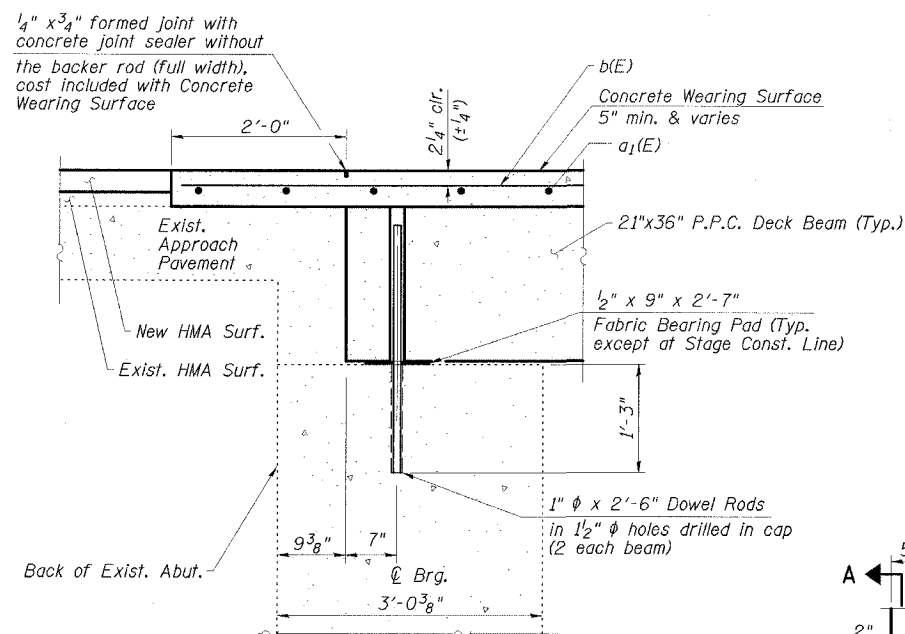
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MILE NO.	SECTION	COUNTY	DATE	SHEET NO.
FAP 869	*	SALINE	44	20
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		
98996		(105A)BR-1		

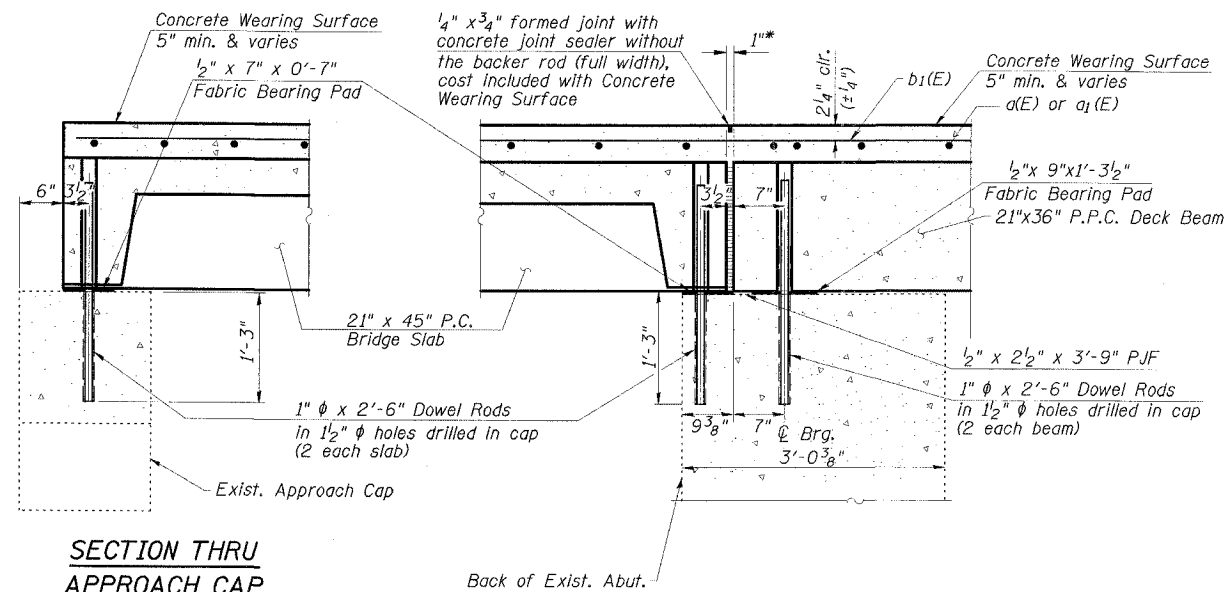
SHEET NO. 9
17 SHEETS



SECTION THRU PIER



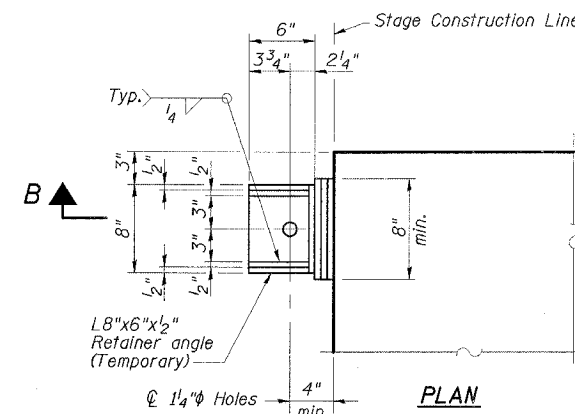
SECTION THRU ABUTMENT @ RDWY.



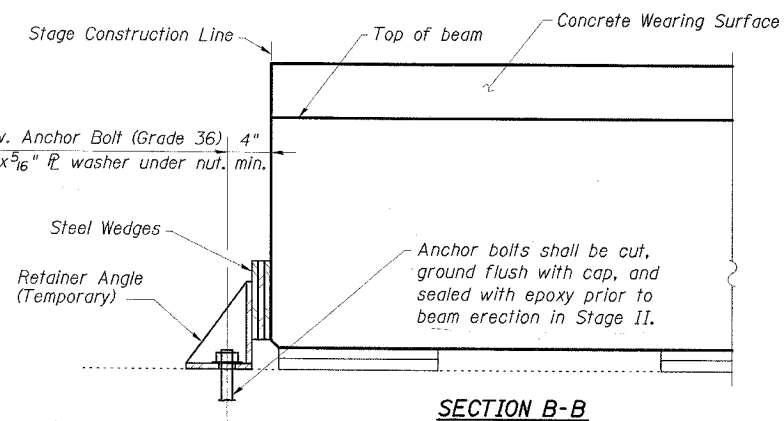
SECTION THRU APPROACH CAP

SECTION THRU ABUTMENT @ OUTSIDE BEAM

* 1" joint shall be filled w/non-shrink grout, 1" dimension may vary to accommodate variation in beam lengths

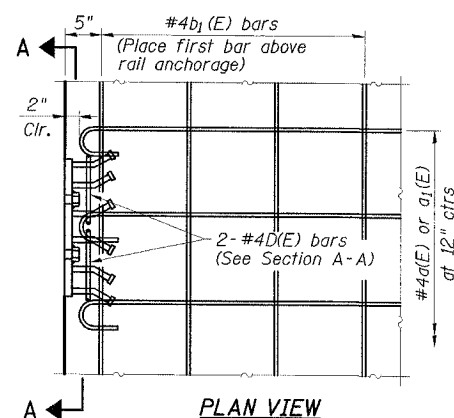


BEAM RETAINER DETAILS AT STAGE CONSTRUCTION LINE (2 Required)

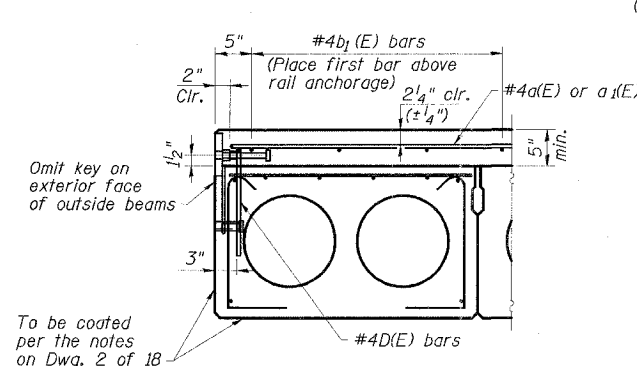


SECTION B-B

Cost of Retainer Angles, Anchor Bolts & accessories is included with Precast Prestressed Concrete Deck Beams.

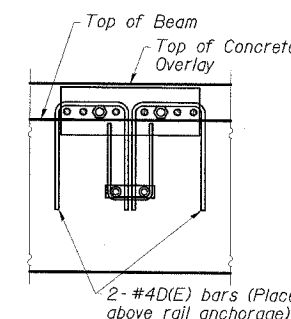


PLAN VIEW

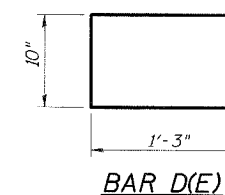


FASCIA BEAM CROSS SECTION

See Typical Section on Dwg. 7 of 17 for strand pattern, dimensions and bar call outs.



SECTION A-A



BAR D(E)

CONCRETE OVERLAY MODIFICATIONS FOR RAIL ANCHORAGE (Bridge shown, Approach similar)

NOTES

After beams have been erected, holes shall be drilled into substructure and dowels rods placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.

Concrete wearing surface to be poured after grouting the shear keys.

Dowel rods drilled in cap are included in the cost of Precast Prestressed Concrete Deck Beams (21" depth) or Precast Concrete Bridge Slabs.

The rail anchorage shall be cast with the beam or slab and the wearing surface shall be cast in the field. Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam or slab. Drilling into the beam or slab will not be permitted.

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

Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.

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

ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	02/07
DRAWN BY:	DWH	02/07
CHECKED BY:	JMS/MTD	02/07
APPROVED BY:	RDP	04/07

SUPERSTRUCTURE AND APPROACH DETAILS
IL 34 OVER BANKSTON CREEK
FAP ROUTE 869 - SECTION (105A)BR-1
SALINE COUNTY
STATION 1582+30.00
STRUCTURE NO. 083-0040

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	STATION	SHEET NO.	SHEET NO. 11
FAP 869	#	SALINE	44	22	17 SHEETS
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT			
98996					(105A)BR-1

GENERAL NOTES

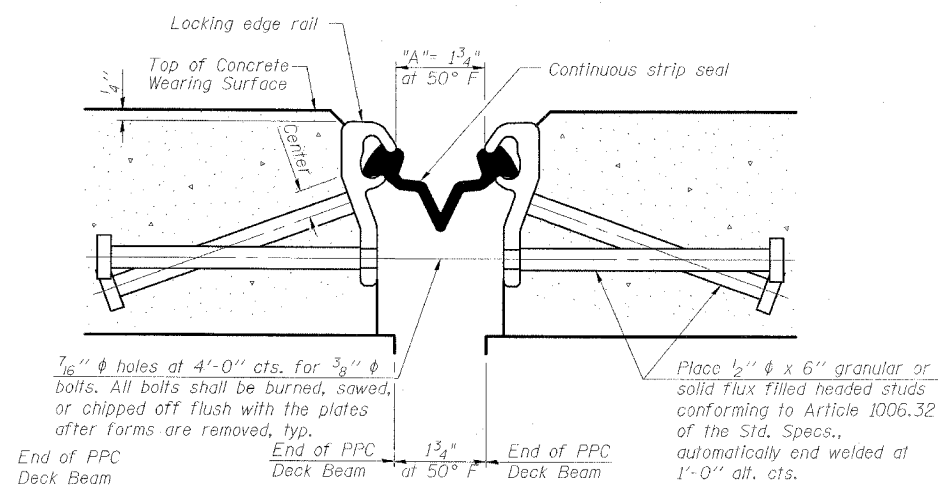
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.

Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

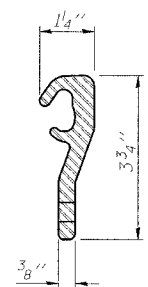
The manufacturer's recommended installation methods shall be followed.

* Omit weld at seal opening.

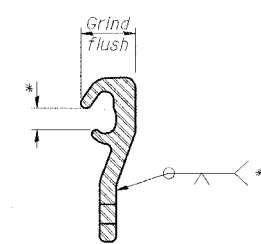


**SECTION THRU STRIP SEAL JOINT
FOR OVERLAY OVER DECK BEAMS**

Required Strip Seal rated movement	"A"
1"	1 1/8"
2"	1 3/4"



LOCKING EDGE RAIL



LOCKING EDGE RAIL SPLICE

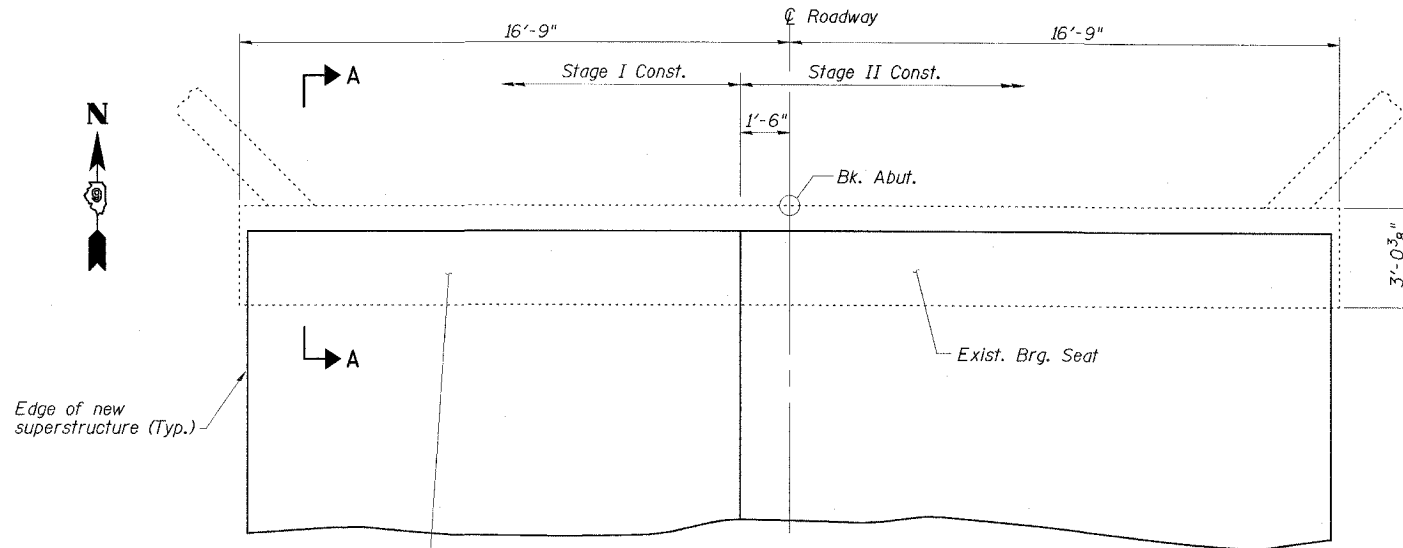
ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	02/07
DRAWN BY:	DWH	02/07
CHECKED BY:	JMS/MTD	02/07
APPROVED BY:	RDP	04/07

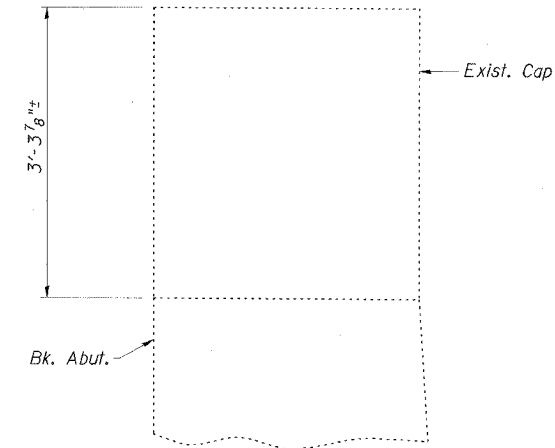
**STRIP SEAL EXPANSION JOINT
IL 34 OVER BANKSTON CREEK
FAP ROUTE 869 - SECTION (105A)BR-1
SALINE COUNTY
STATION 1582+30.00
STRUCTURE NO. 083-0040**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DATE	SHEET NO.	SHEET NO. 12
FAP 869	*	SALINE	44	23	17 SHEETS
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-			
98996					(105A)BR-1



PLAN



SECTION A-A

**NORTH ABUTMENT
BILL OF MATERIAL**

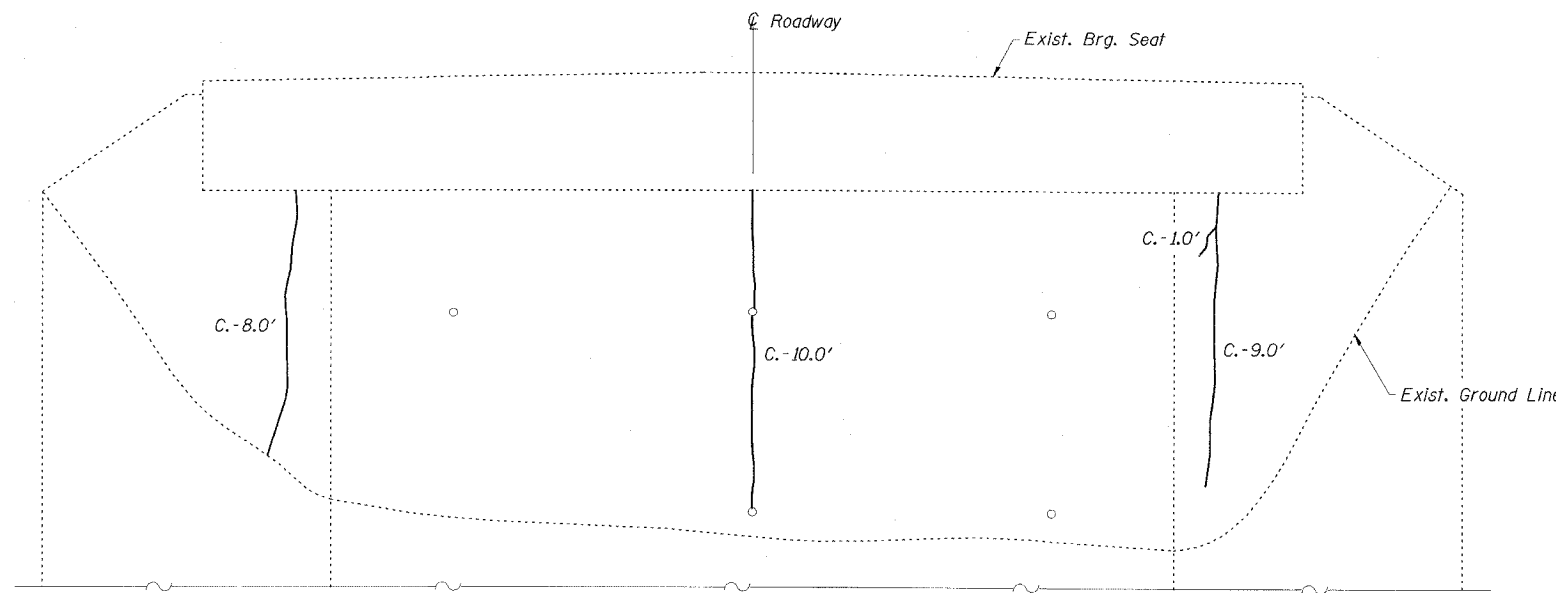
Concrete Sealer	Sq. Ft.	15
Epoxy Crack Injection	Foot	48
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	15

REPAIR LEGEND

Inspection Date: 12/14/06

- C.-6' Crack to be epoxy injected
- S.F. Delaminated or Spalled Area - Use Structural Repair of Concrete

EXISTING BEARING SEAT TO BE INSPECTED BY THE ENGINEER AFTER DECK BEAM REMOVAL. DETERIORATED CONCRETE AREAS SHALL BE REPAIRED (ESTIMATED 15 S.F. STRUCTURAL REPAIR OF CONCRETE DEPTH < 5") AND CRACKS SHALL BE SEALED (ESTIMATED 20' EPOXY CRACK INJECTION) IF FOUND. CONCRETE SEALER SHALL BE APPLIED TO CONCRETE REPAIR AREAS.



ELEVATION

NOTE: ABUTMENT CRACK REPAIR LENGTHS AND STRUCTURAL REPAIR OF CONCRETE AREAS ARE ESTIMATED FROM 12-14-06 SURVEY WORK. ACTUAL LOCATIONS AND QUANTITIES OF REPAIRS SHALL BE SHOWN BY THE ENGINEER ON THE AS-BUILT PLANS FOR THIS SECTION.

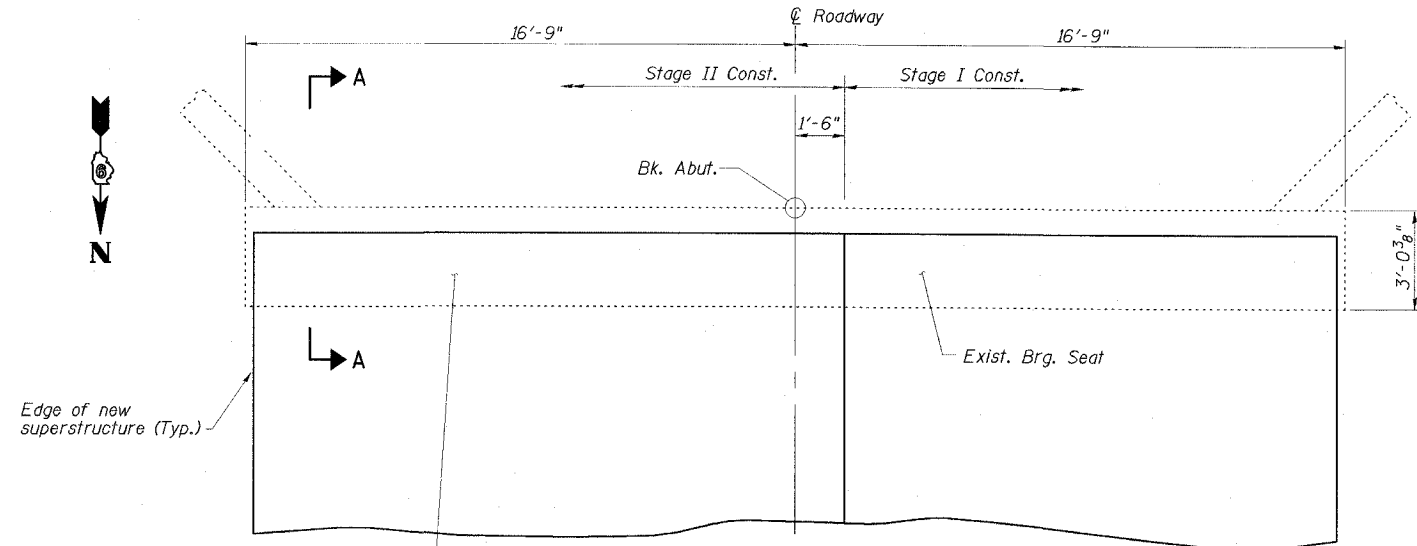
ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	02/07
DRAWN BY:	DWH	02/07
CHECKED BY:	JMS/MTD	02/07
APPROVED BY:	RDP	04/07

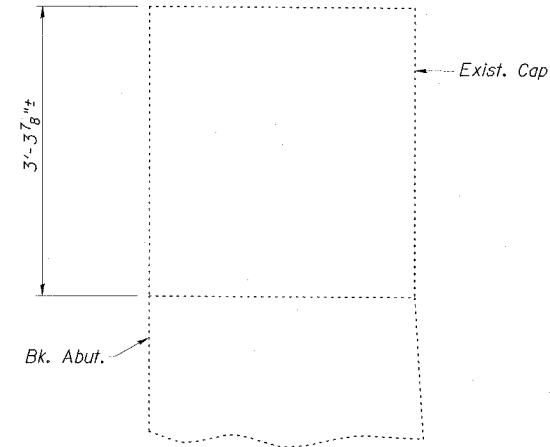
**NORTH ABUTMENT
IL 34 OVER BANKSTON CREEK
FAP ROUTE 869 - SECTION (105A)BR-1
SALINE COUNTY
STATION 1582+30.00
STRUCTURE NO. 083-0040**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	STATION	SHEET NO.	SHEET NO. 13 17 SHEETS
FAP 869	*	SALINE	44	24	
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		
98996				*(105A)BR-1	



PLAN



SECTION A-A

**NORTH ABUTMENT
BILL OF MATERIAL**

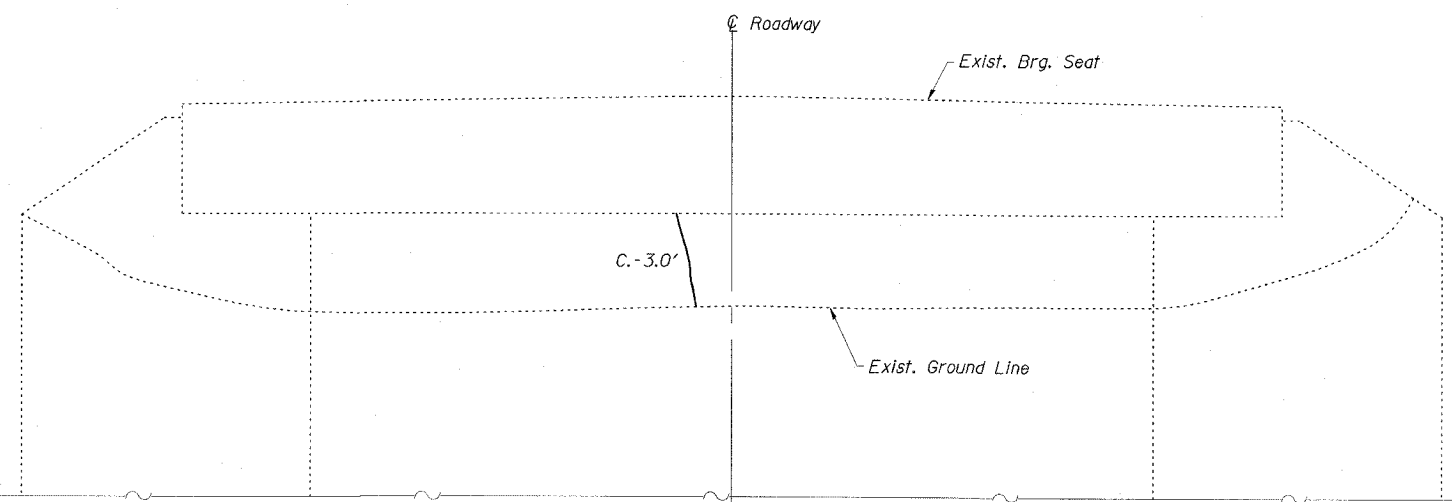
Concrete Sealer	Sq. Ft.	15
Epoxy Crack Injection	Foot	23
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	15

REPAIR LEGEND

Inspection Date: 12/14/06

- C.-6' Crack to be epoxy injected
- S.F. Delaminated or Spalled Area - Use Structural Repair of Concrete

EXISTING BEARING SEAT TO BE INSPECTED BY THE ENGINEER AFTER DECK BEAM REMOVAL. DETERIORATED CONCRETE AREAS SHALL BE REPAIRED (ESTIMATED 15 S.F. STRUCTURAL REPAIR OF CONCRETE DEPTH < 5") AND CRACKS SHALL BE SEALED (ESTIMATED 20' EPOXY CRACK INJECTION) IF FOUND. CONCRETE SEALER SHALL BE APPLIED TO CONCRETE REPAIR AREAS.



ELEVATION

NOTE: ABUTMENT CRACK REPAIR LENGTHS AND STRUCTURAL REPAIR OF CONCRETE AREAS ARE ESTIMATED FROM 12-14-06 SURVEY WORK. ACTUAL LOCATIONS AND QUANTITIES OF REPAIRS SHALL BE SHOWN BY THE ENGINEER ON THE AS-BUILT PLANS FOR THIS SECTION.

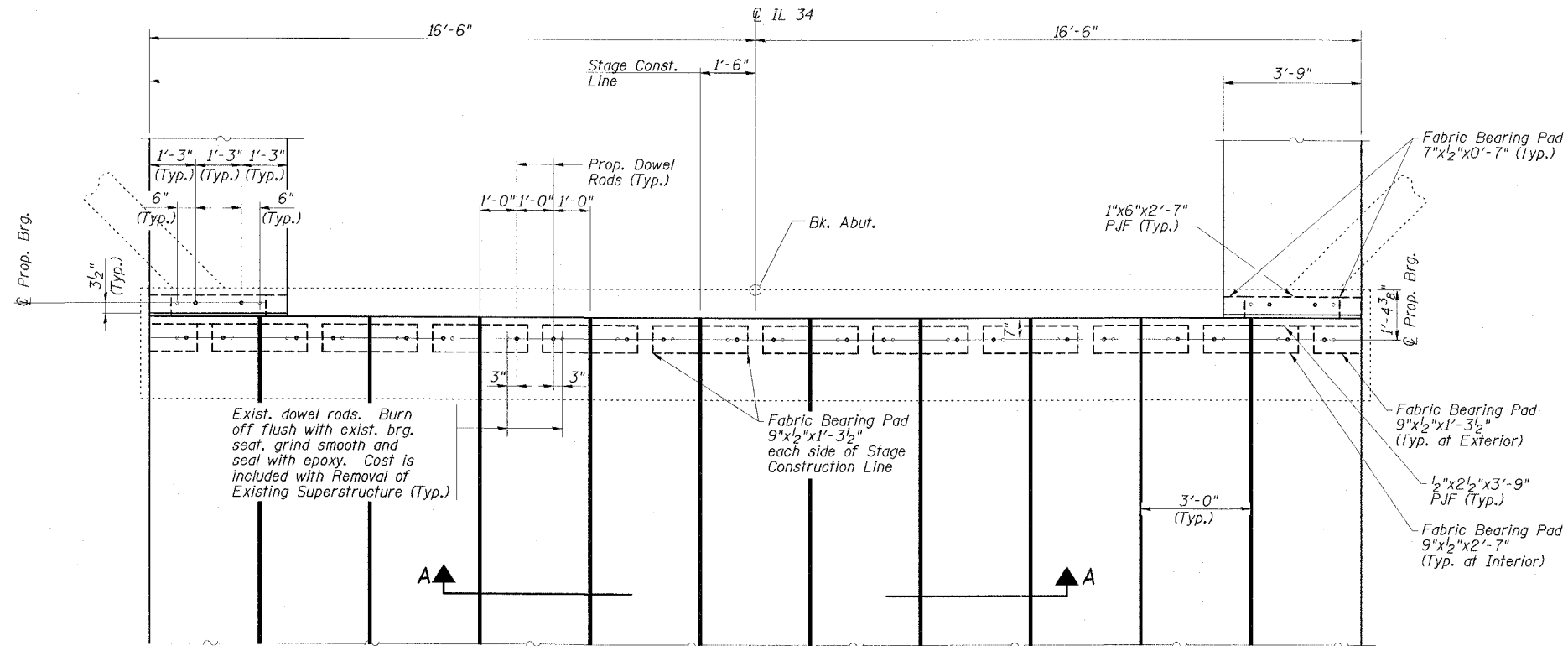
ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	02/07
DRAWN BY:	DWH	02/07
CHECKED BY:	JMS/MTD	02/07
APPROVED BY:	RDP	04/07

**SOUTH ABUTMENT
IL 34 OVER BANKSTON CREEK
FAP ROUTE 869 - SECTION (105A)BR-1
SALINE COUNTY
STATION 1582+30.00
STRUCTURE NO. 083-0040**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

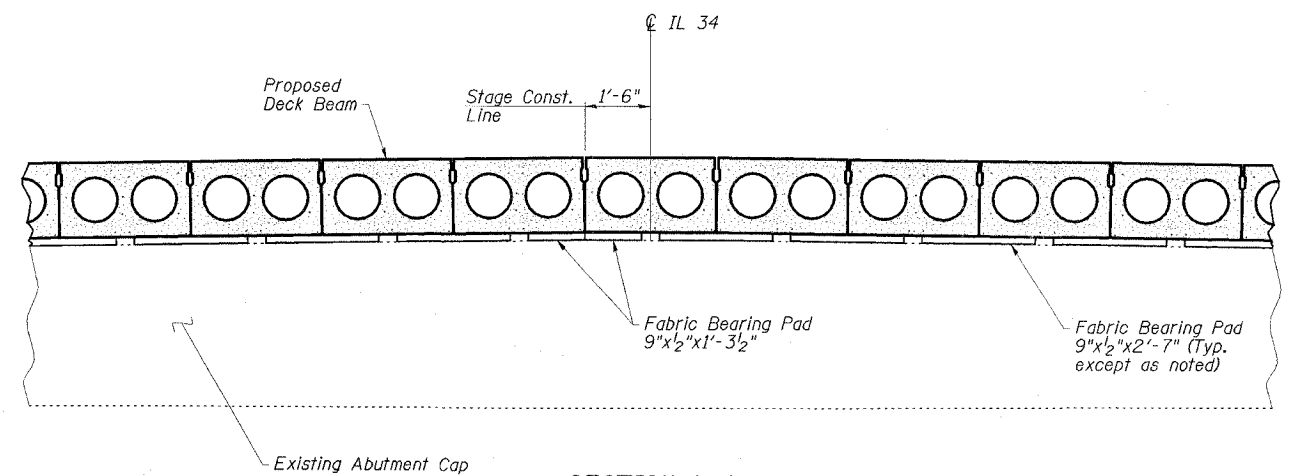
ROUTE NO.	SECTION	COUNTY	POST MILE	SHEET NO.	SHEET NO. 14 17 SHEETS
FAP 869	*	SALINE	44	25	
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-		
98996			*(105A)BR-1		



N. Abut. shown; S. Abut. similar

ABUTMENT BEARING SEAT PLAN

(Concrete wearing surface and approach pavement not shown)



SECTION A-A

(Concrete wearing surface not shown)

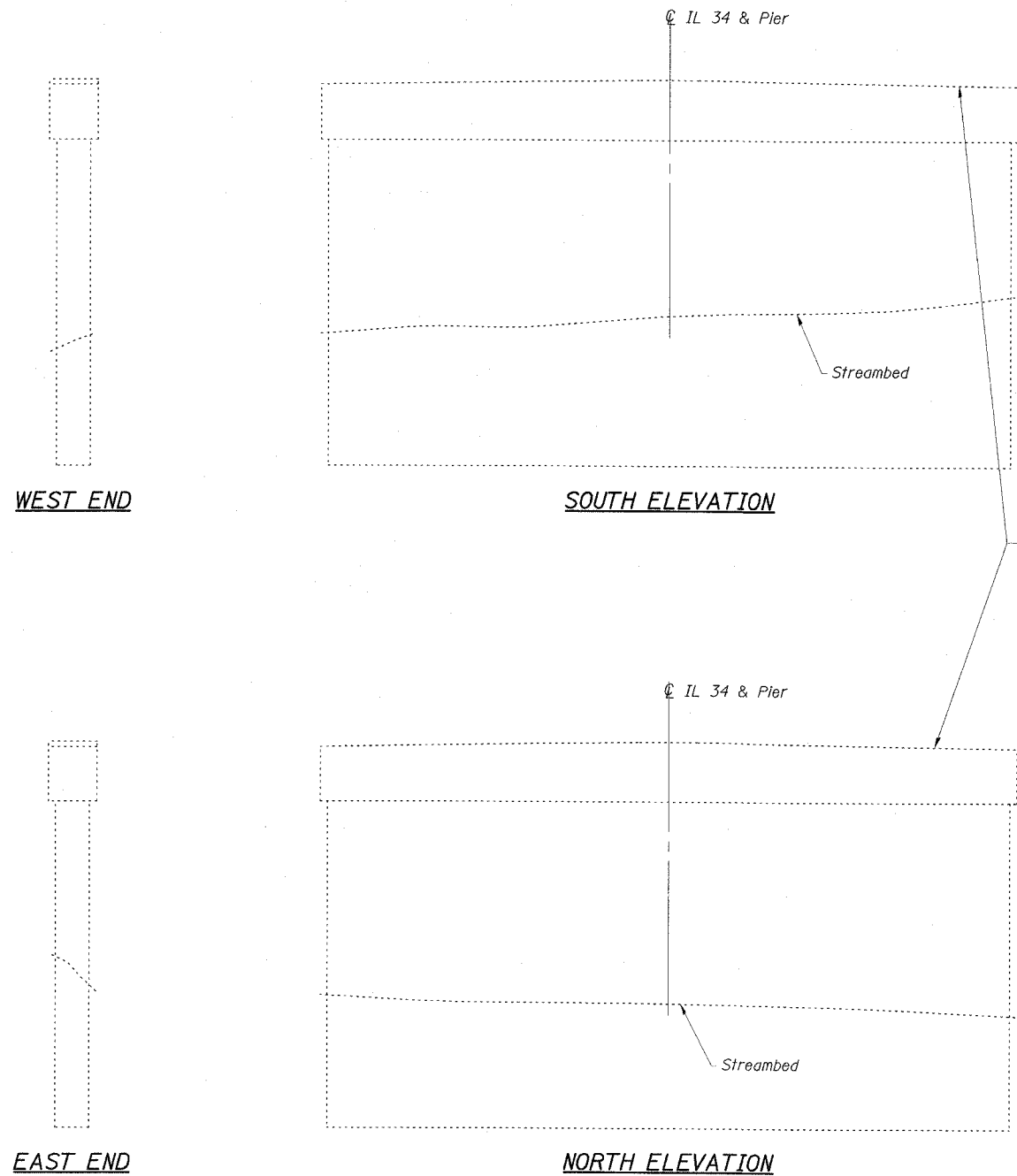
ABUTMENT DETAILS
IL 34 OVER BANKSTON CREEK
FAP ROUTE 869 - SECTION (105A)BR-1
SALINE COUNTY
STATION 1582+30.00
STRUCTURE NO. 083-0040

ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	02/07
DRAWN BY:	DWH	02/07
CHECKED BY:	JMS/MTD	02/07
APPROVED BY:	RDP	04/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 15
FAP 869	*	SALINE	44	26	17 SHEETS
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-			
98996			*(105A)BR-1		



EXISTING BEARING SEAT TO BE INSPECTED BY THE ENGINEER AFTER DECK BEAM REMOVAL. DETERIORATED CONCRETE AREAS SHALL BE REPAIRED (ESTIMATED 15 S.F. STRUCTURAL REPAIR OF CONCRETE DEPTH < 5") AND CRACKS SHALL BE SEALED (ESTIMATED 20' EPOXY CRACK INJECTION) IF FOUND. CONCRETE SEALER SHALL BE APPLIED TO CONCRETE REPAIR AREAS.

NOTE: PIER CRACK REPAIR LENGTHS AND STRUCTURAL REPAIR OF CONCRETE AREAS ARE ESTIMATED FROM 12-14-06 SURVEY WORK. ACTUAL LOCATIONS AND QUANTITIES OF REPAIRS SHALL BE SHOWN BY THE ENGINEER ON THE AS-BUILT PLANS FOR THIS SECTION.

**PIER
BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Epoxy Crack Injection	Foot	20
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	15
Concrete Sealer	Sq. Ft.	15

REPAIR LEGEND

- C.-6' Crack to be epoxy injected
- S.F. Delaminated or Spalled Area - Use Structural Repair of Concrete

ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	02/07
DRAWN BY:	DWH	02/07
CHECKED BY:	JMS/MTD	02/07
APPROVED BY:	RDP	04/07

PIER
IL 34 OVER BANKSTON CREEK
FAP ROUTE 869 - SECTION (105A)BR-1
SALINE COUNTY
STATION 1582+30.00
STRUCTURE NO. 083-0040

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	STATES	SHEET NO.	SHEET NO. 17 17 SHEETS
FAP 869	*	SALINE	44	28	
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		
98996				*(105A)BR-1	

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**

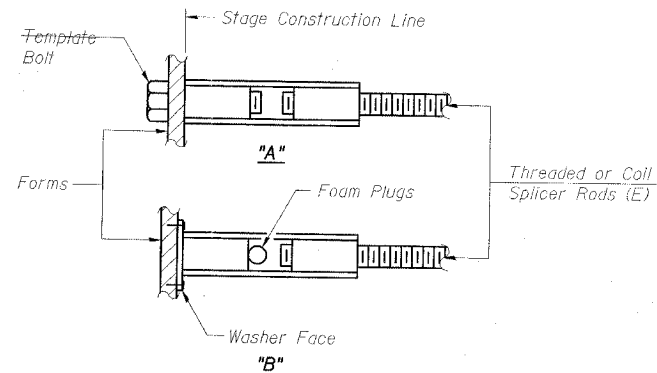
Wire Connector



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

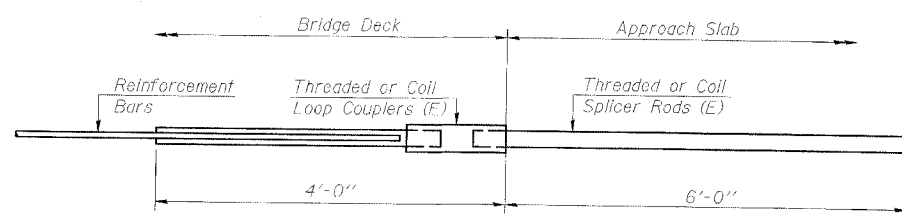
"A": Set bar splicer assembly by means of a template bolt.
"B": Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E): Indicates epoxy coating.

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:

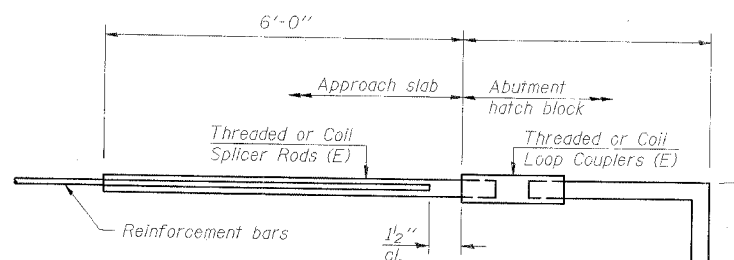
- Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
 - Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

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



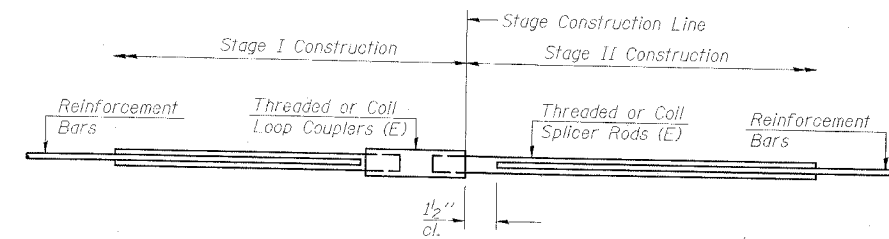
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar	
Min. Capacity = 23.0 kips - tension	
Min. Pull-out Strength = 12.3 kips - tension	
No. Required = 0	



FOR STUB ABUTMENTS

Bar Splicer for #5 bar	
Min. Capacity = 23.0 kips - tension	
Min. Pull-out Strength = 12.3 kips - tension	
No. Required = 0	



STANDARD

Bar Size	No. Assemblies Required	Location
#4	106	Concrete Wearing Surface

BAR SPLICER ASSEMBLY DETAILS
IL 34 OVER BANKSTON CREEK
FAP ROUTE 869 - SECTION (105A)BR-1
SALINE COUNTY
STATION 1582+30.00
STRUCTURE NO. 083-0040

ESCA
CONSULTANTS, INC.

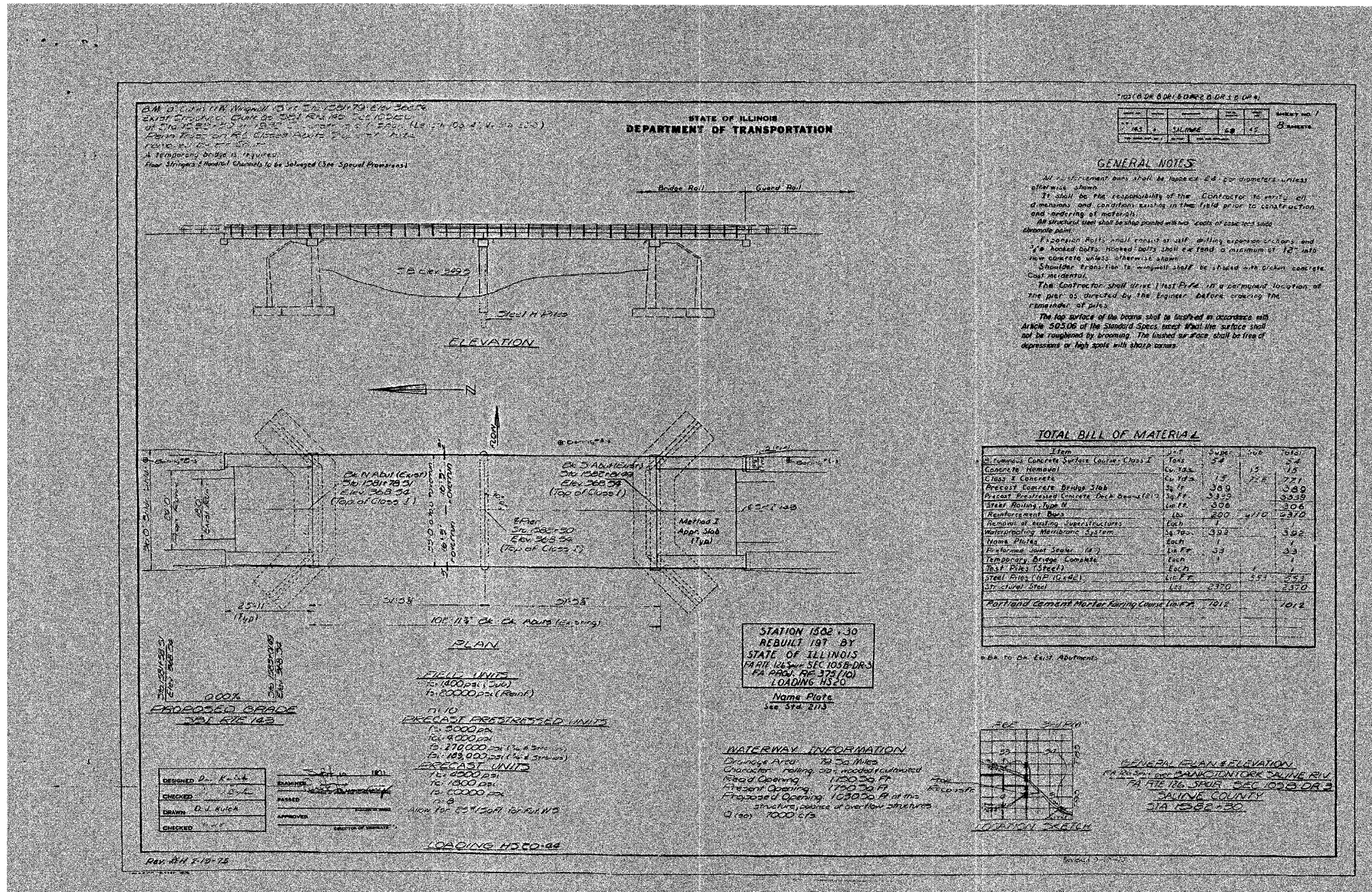
DESIGNED BY:	RDP	02/07
DRAWN BY:	DWH	02/07
CHECKED BY:	JMS/MTD	02/07
APPROVED BY:	RDP	04/07

BSD-1

11-1-06



FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	(105A)BR-1	SALINE	44	29
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



GENERAL NOTES

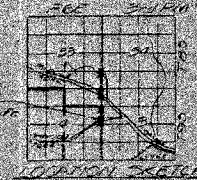
All reinforcement bars shall be tapered to 20 diameters unless otherwise shown.
 It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.
 All structural steel shall be shop primed with two coats of zinc rich paint.
 Expansion joints shall consist of self-drilling expansion anchors and 1/2" hooked bolts. Hooked bolts shall extend a maximum of 12" into new concrete unless otherwise shown.
 Shoulder cross-ties to support shall be placed into broken concrete. Care incidental.
 The Contractor shall direct test pits in a permanent location at the pier as directed by the Engineer before crossing the remainder of piers.
 The top surface of the beams shall be finished in accordance with Article 505.06 of the Standard Specs. used. The surface shall not be roughened by brooming. The finished surface shall be free of depressions or high spots with sharp corners.

TOTAL BILL OF MATERIALS

Item	Unit	Supp.	Qty	Total
Class II Concrete Surface Course, Class I	Sq Yds	2.4	15	3.6
Concrete, Homoval	Cu Yds	1.8	15	2.7
Class II Concrete	Cu Yds	1.8	7.8	14.1
Precast Concrete Bridge Joints	Sq Ft	380	1	380
Precast Prestressed Concrete Deck Beams	Sq Ft	3325	1	3325
Steel Rolling Type M	Lbs	306	1	306
Reinforcement Bars	Lbs	200	110	2370
Removal of Existing Superstructures	Each	1	1	1
Waterproofing Membrane System	Sq Yds	300	1	300
Name Plates	Each	1	1	1
Reinforcement Steel (1/2")	Lbs	33	1	33
Temporary Bridge Components	Each	1	1	1
Test Pits (Steel)	Each	1	1	1
Steel Piles (HP 10x42)	Lbs	551	1	551
Structural Steel	Lbs	2370	1	2370
Portland Cement Mortar Facing Course	Sq Yds	10.2	1	10.2

STATION 1502+30
 REBUILT 197 BY
 STATE OF ILLINOIS
 FILE 124 SEC 105B-DR3
 FA PROJ. R# 375(10)
 LOADING HS-20

WATERWAY INFORMATION
 Drainage Area: 74.50 Miles
 Character: Rolling, 20% wooded, cultivated
 Flood Opening: 1150.50 SF
 Present Opening: 1150.50 SF
 Proposed Opening: 1030.50 SF at this structure, balance of over flow structure @ 150' 7000 CFS



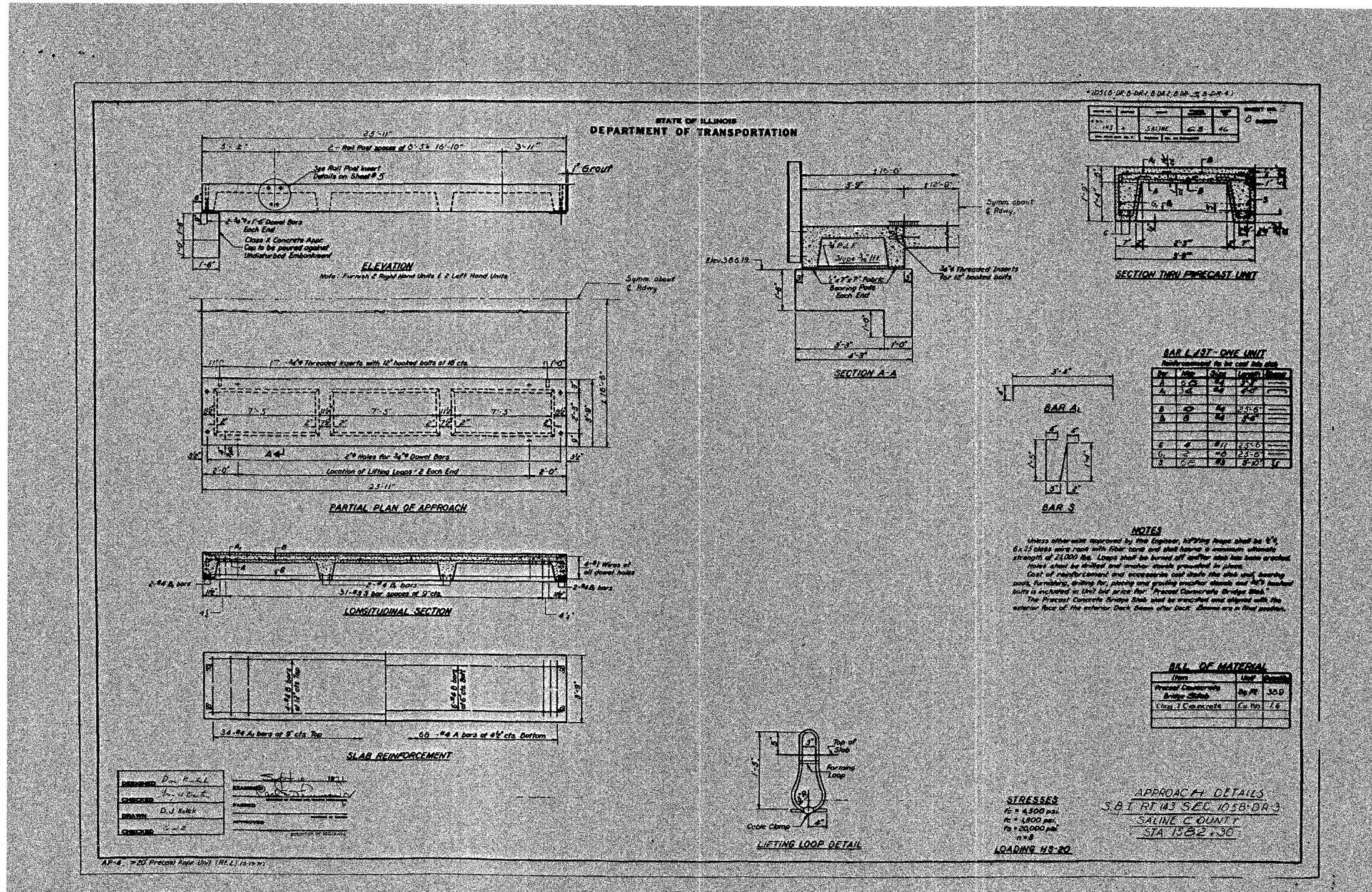
GENERAL PLAN & ELEVATION
 FA PROJ. R# 375(10) SALINE RIV
 FA FILE 124 SEC 105B-DR3
 SALINE COUNTY
 STA 1502+30

ESCA
 CONSULTANTS, INC.

DESIGNED BY:	MTD	02/07
DRAWN BY:	DWH	02/07
CHECKED BY:	MTD	02/07
APPROVED BY:	RDP	04/07

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
 FAP RTE 869 (IL 34)
 SECTION (105A)BR-1
 SALINE COUNTY



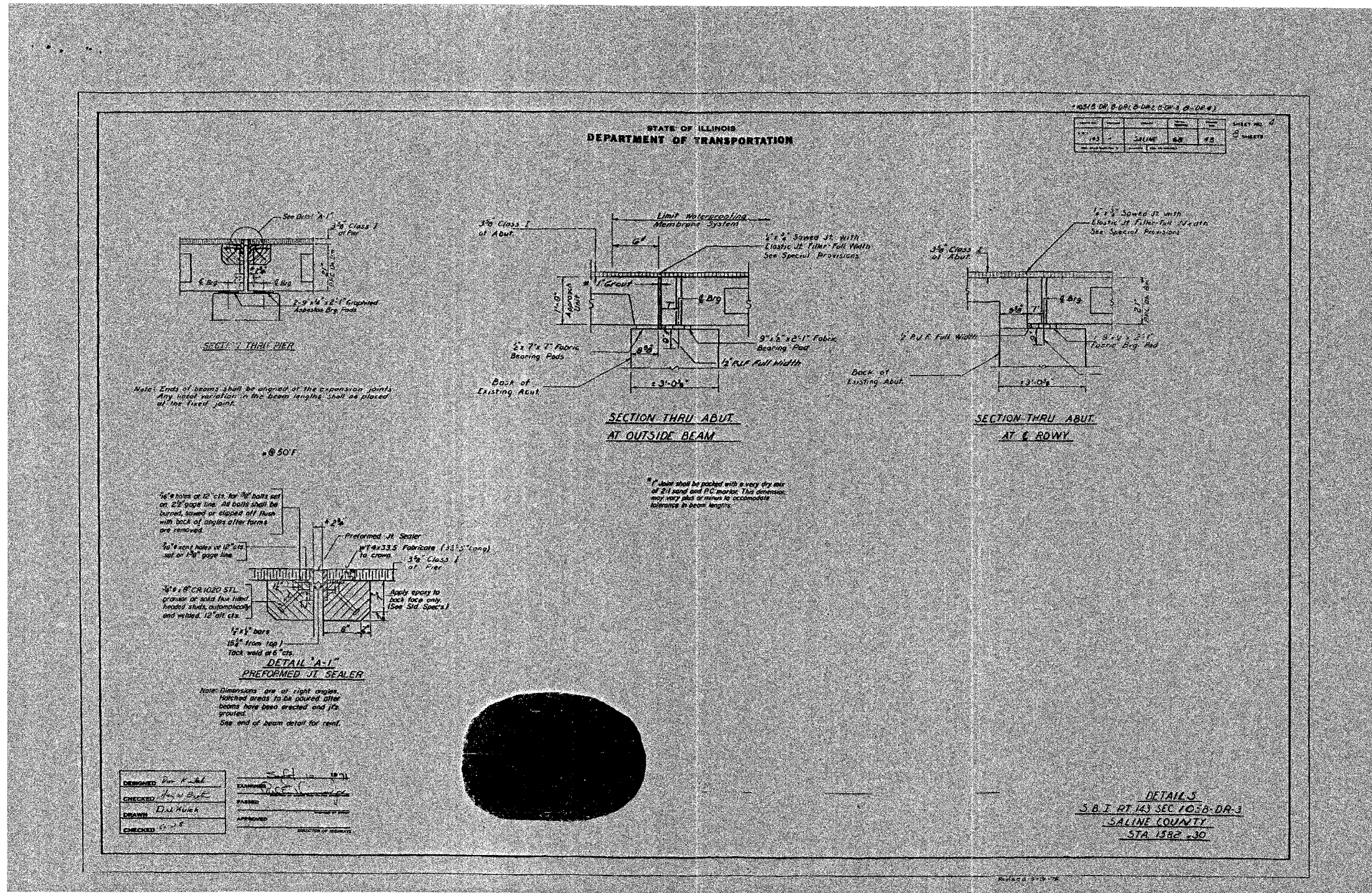
ESCA
CONSULTANTS, INC.

DESIGNED BY: MTD 02/07
 DRAWN BY: DWH 02/07
 CHECKED BY: MTD 02/07
 APPROVED BY: RDP 04/07

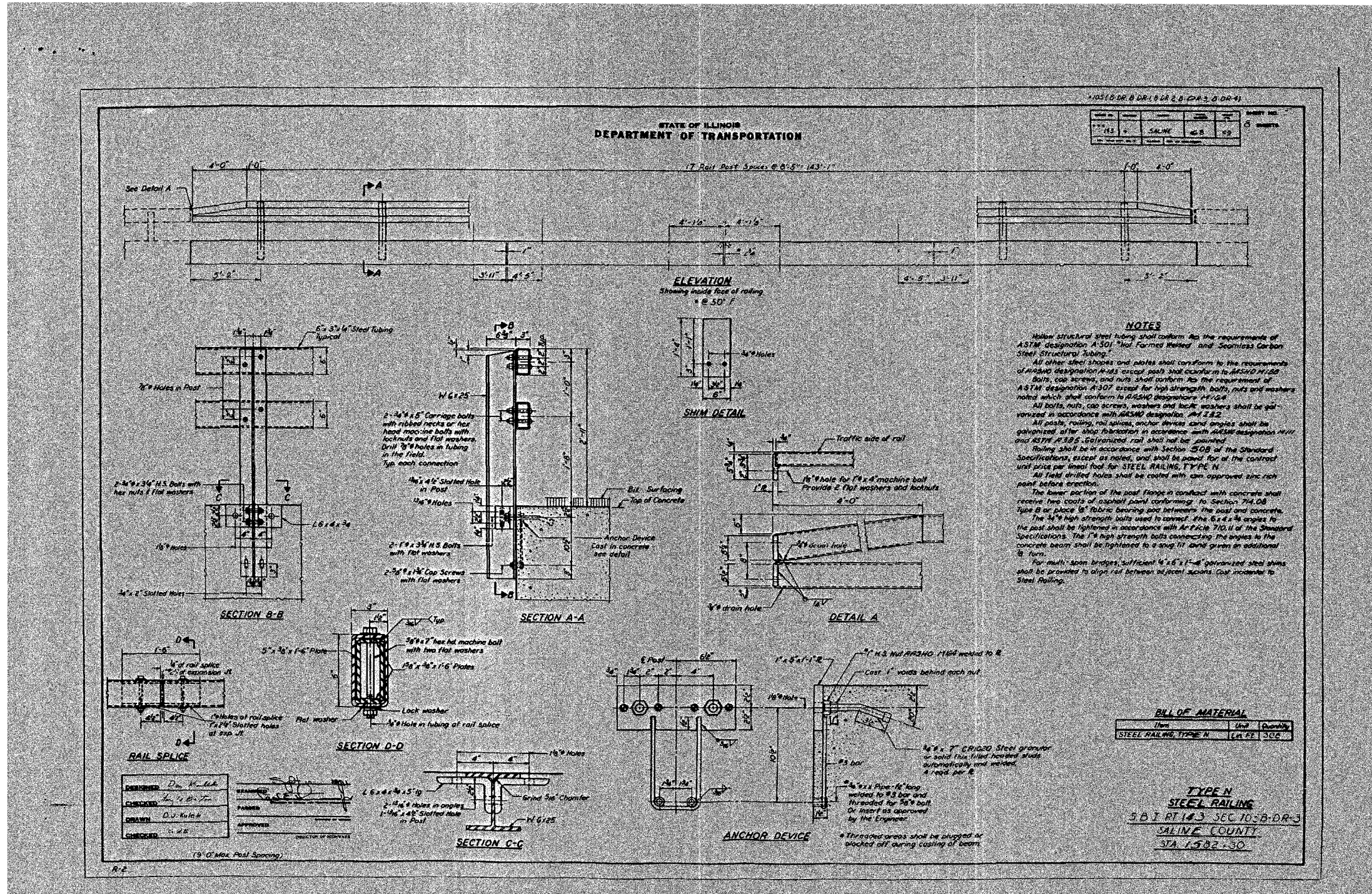
FOR INFORMATION ONLY

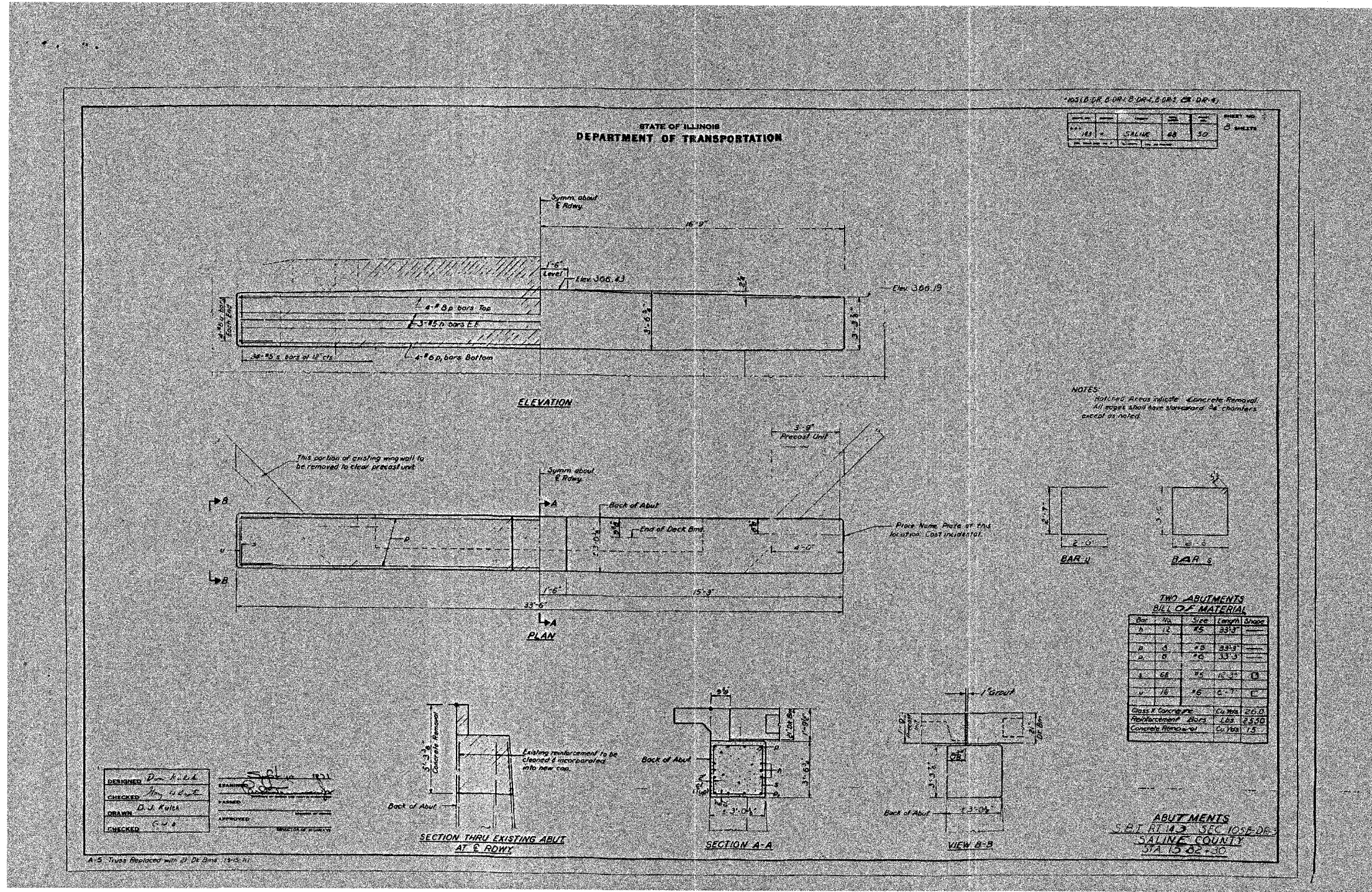
EXISTING STRUCTURE PLANS
 FAP RTE 869 (IL 34)
 SECTION (105A)BR-1
 SALINE COUNTY

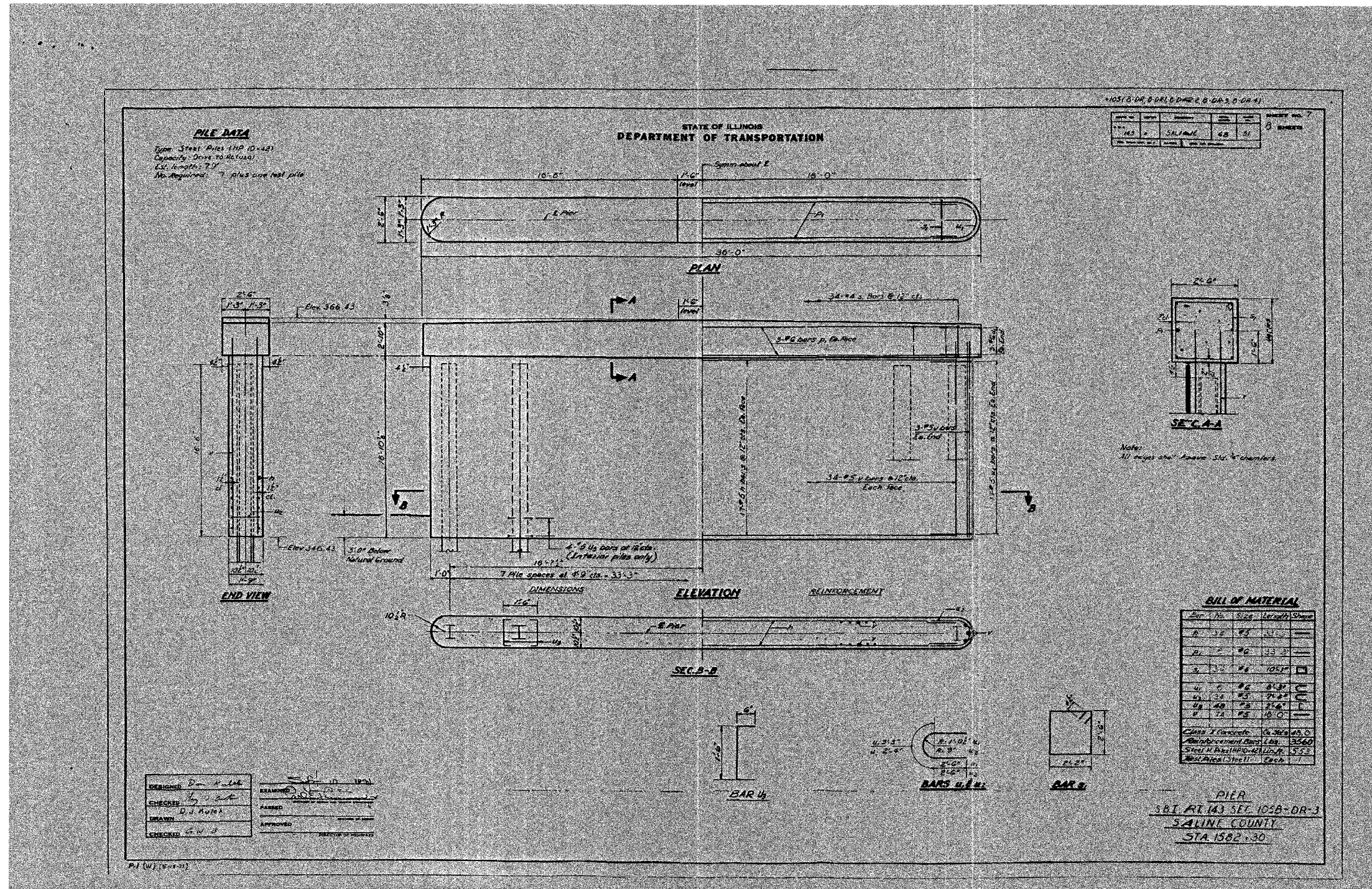
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	(105A)BR-1	SALINE	44	32
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



DESIGNED BY:	MTD	02/07
DRAWN BY:	DWH	02/07
CHECKED BY:	MTD	02/07
APPROVED BY:	RDP	04/07

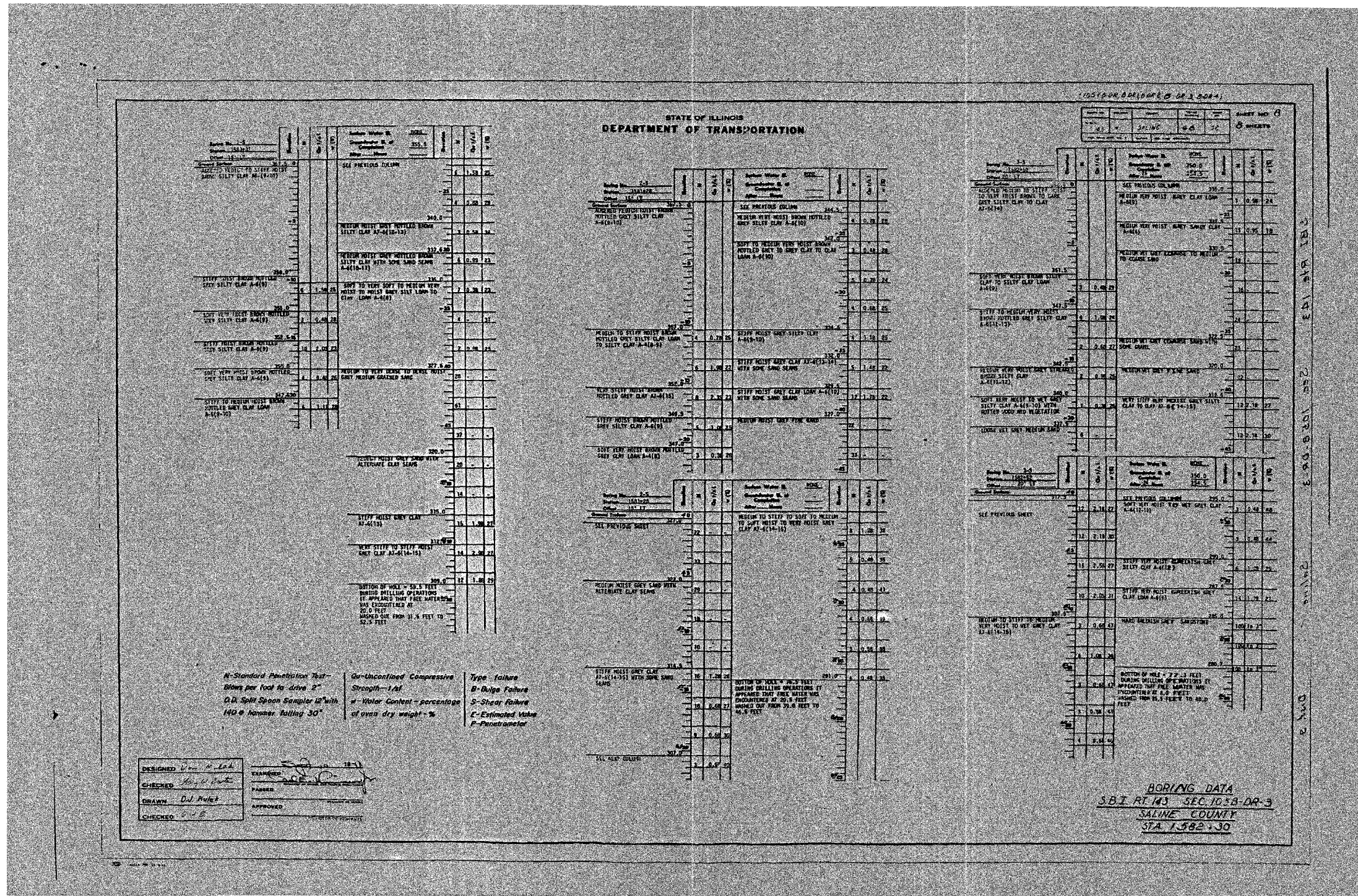








CONTRACT NO. 98996			
FAP RTE	SECTION	COUNTY	TOTAL SHEET NO.
869	(105A)BR-1	SALINE	44 36
STA.		TO STA.	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	



ESCA
CONSULTANTS, INC.

DESIGNED BY:	MTD	02/07
DRAWN BY:	DWH	02/07
CHECKED BY:	MTD	02/07
APPROVED BY:	RDP	04/07

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 869 (IL 34)
SECTION (105A)BR-1
SALINE COUNTY

PLOT DATE * \$DATE*
FILE NAME * \$FILEL*
REFERENCE * \$REF*
REVISION * \$REV*

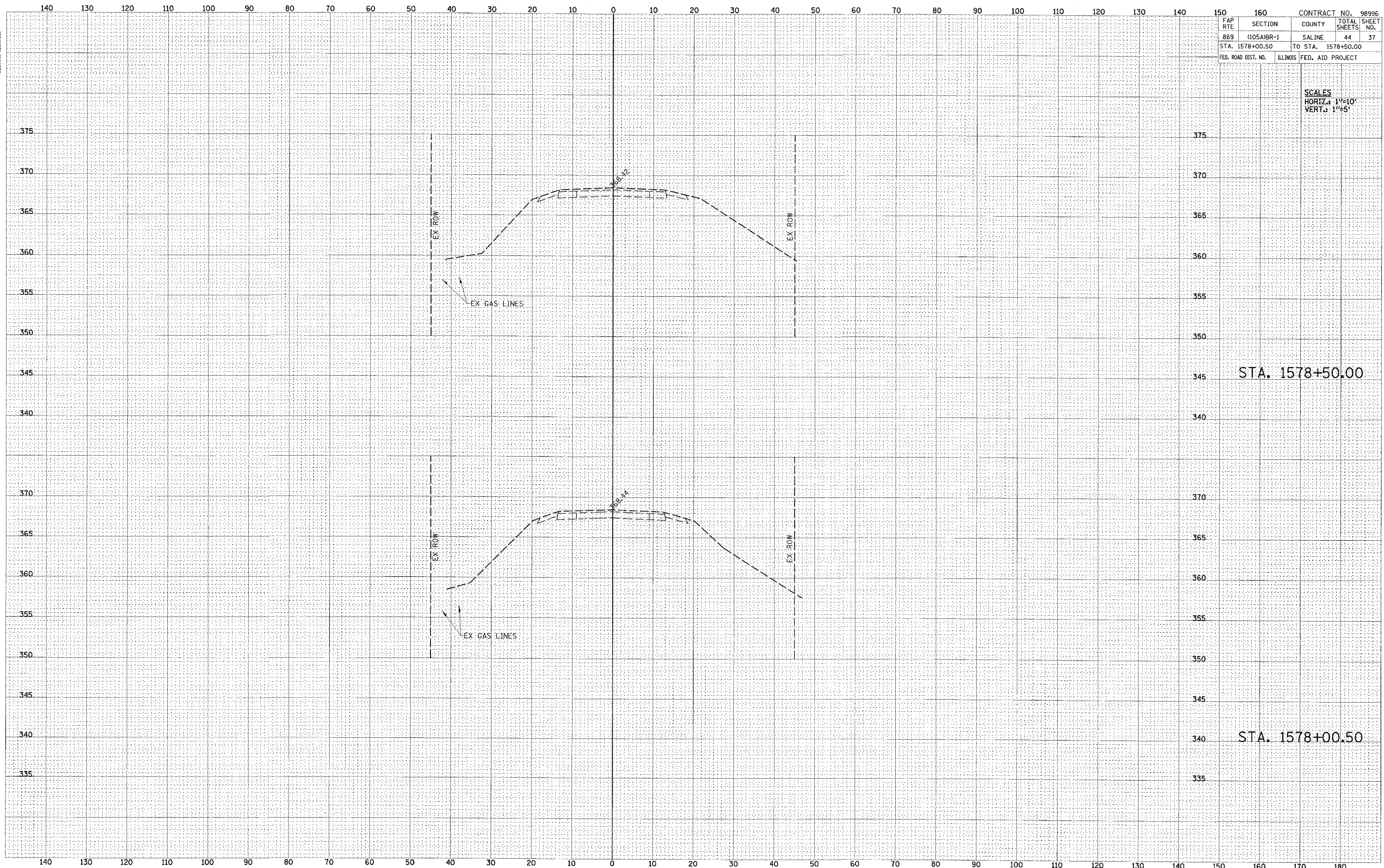


FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	AREAS CHECKED		

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

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	(105)BR-1	SALINE	44	37
STA. 1578+00.50		TO STA. 1578+50.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SCALES:
HORIZ.: 1"=10'
VERT.: 1"=5'



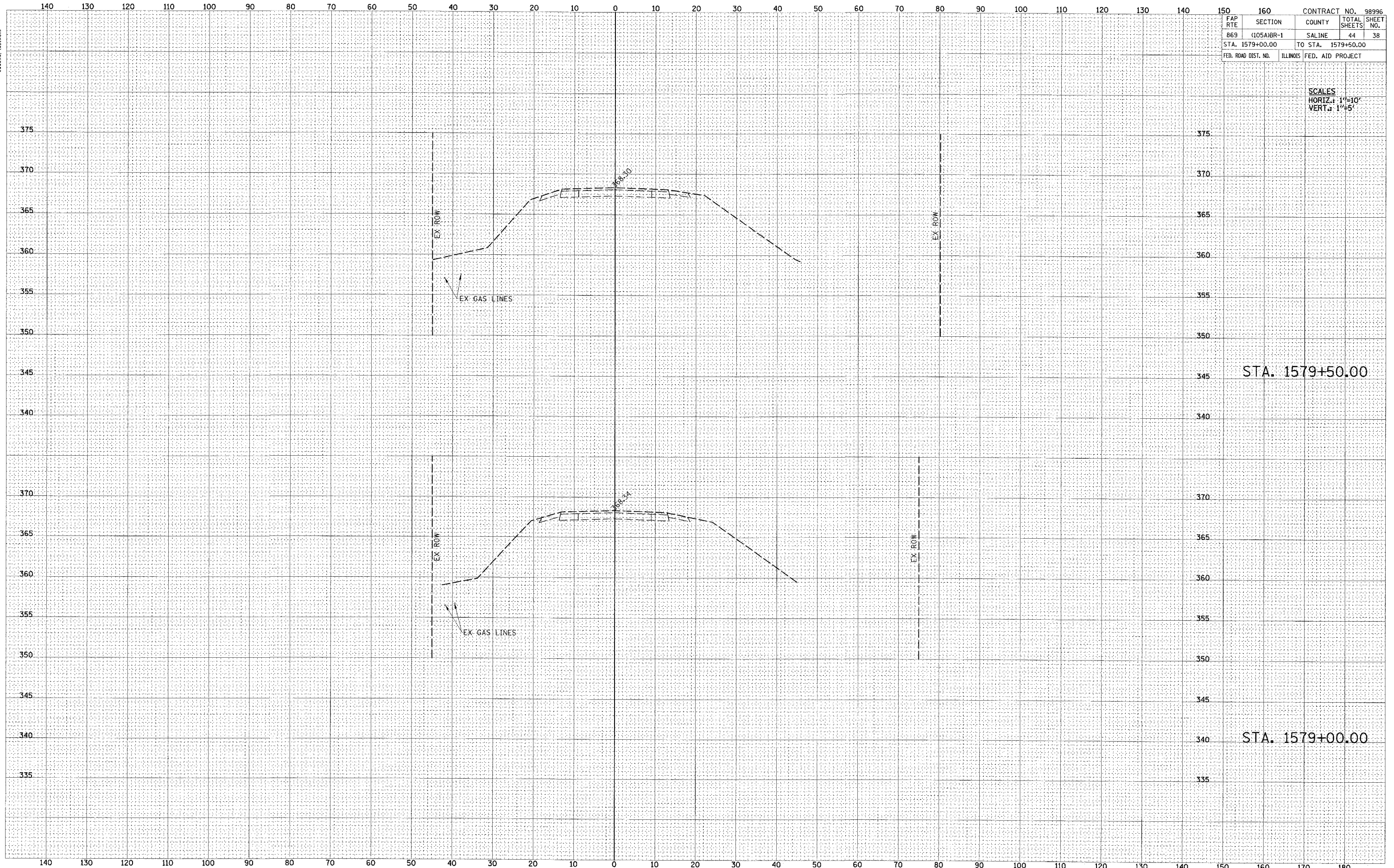
STA. 1578+50.00

STA. 1578+00.50



FINAL SURVEY	DATE
SURVEYED	BY
PLOTTED	
NOTED	
AREAS	
CHECKED	

ORIGINAL SURVEY	DATE
SURVEYED	BY
PLOTTED	
NOTED	
AREAS	
CHECKED	



FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	105A/BR-1	SALINE	44	38
STA. 1579+00.00		TO STA. 1579+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCALES
HORIZ.: 1"=10'
VERT.: 1"=5'

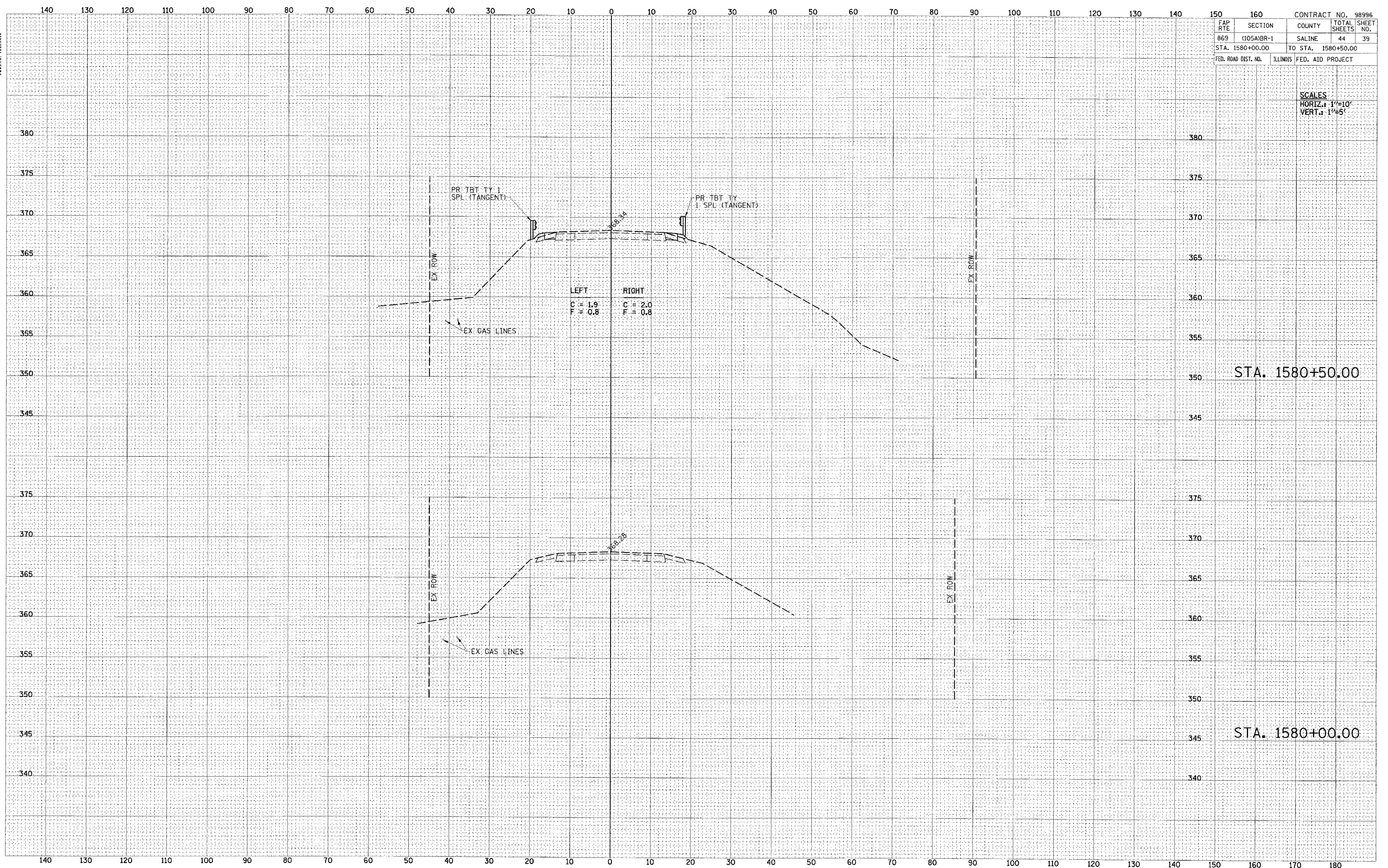
STA. 1579+50.00

STA. 1579+00.00



FINAL SURVEY	DATE
REVISIONS	BY
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	
NO.	

ORIGINAL SURVEY	DATE
REVISIONS	BY
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	
NO.	



CONTRACT NO. 98996			
FAP RTE	SECTION	COUNTY	TOTAL SHEET NO.
869	(105)BR-1	SALINE	44 39
STA. 1580+00.00 TO STA. 1580+50.00		FED. AID PROJECT	
FED. ROAD DIST. NO.		ILLINOIS	

SCALES
HORIZ.: 1"=10'
VERT.: 1"=5'

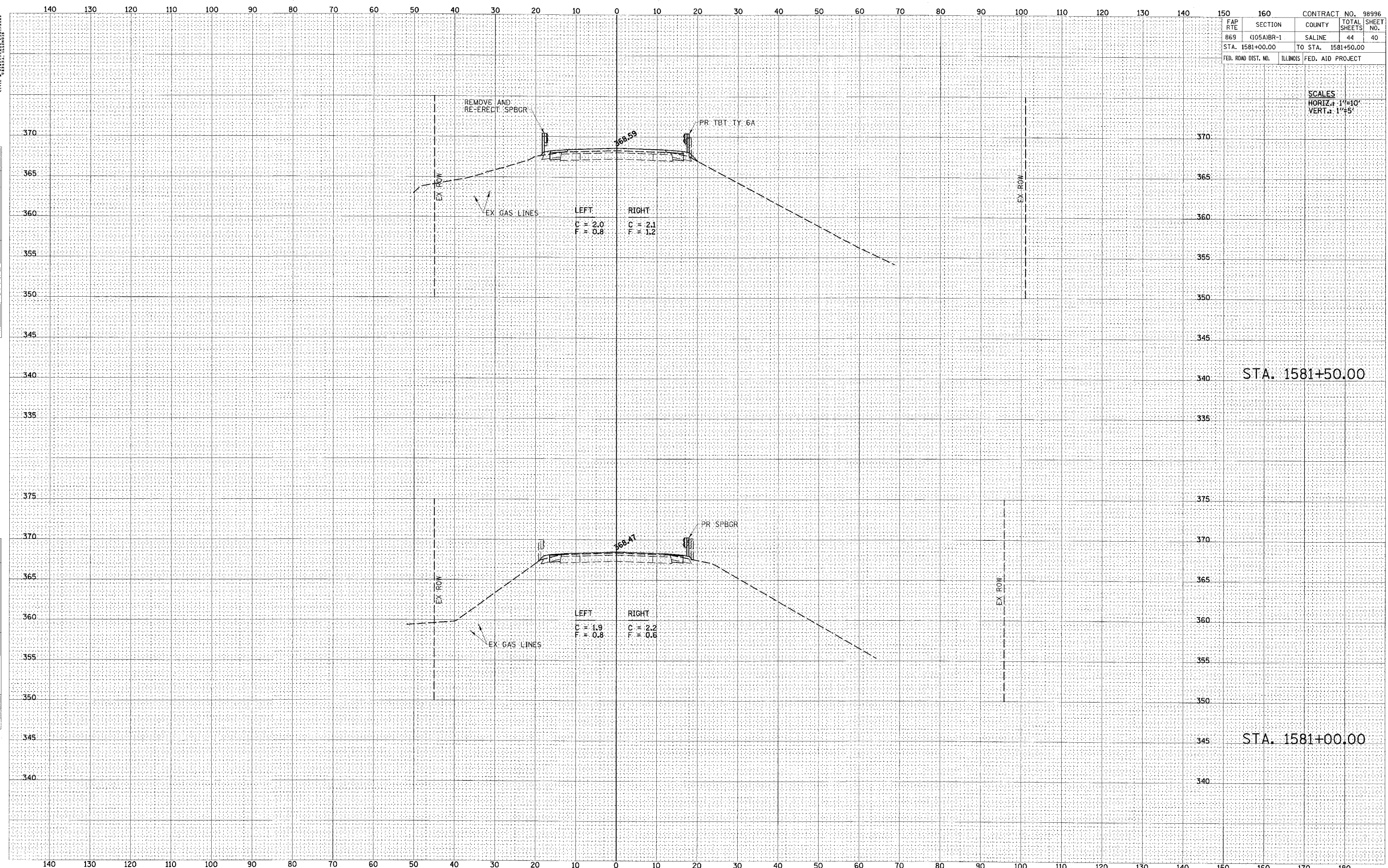


DATE	BY
SURVEYED	PLOTTED
NO. _____	NO. _____
AREAS CHECKED	AREAS CHECKED

DATE	BY
SURVEYED	PLOTTED
NO. _____	NO. _____
AREAS CHECKED	AREAS CHECKED

FAP RTE		SECTION		COUNTY		TOTAL SHEETS	
869	(105A)BR-1	SALINE		44	40		
STA. 1581+00.00		TO STA. 1581+50.00					
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT			

SCALES
HORIZ. 1"=10'
VERT. 1"=5'



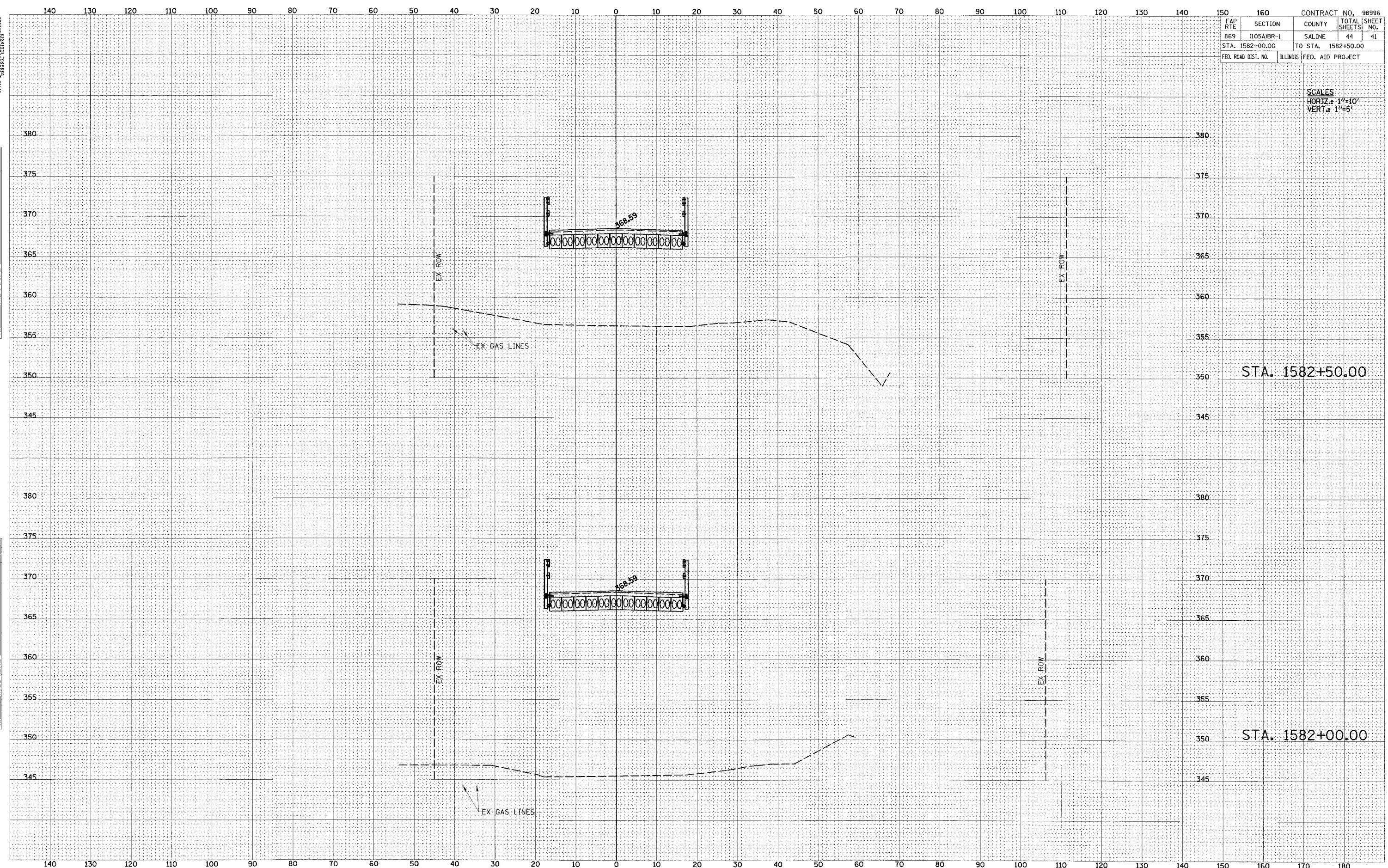


FINAL SURVEY	DATE
SURVEYED	BY
PLOTTED	
NOTED	
NO. 1000	
AREAS CHECKED	

ORIGINAL SURVEY	DATE
SURVEYED	BY
PLOTTED	
NOTED	
NO. 1000	
AREAS CHECKED	

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	1105A/BR-1	SALINE	44	41
STA. 1582+00.00	TO STA. 1582+50.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCALES:
HORIZ.: 1"=10'
VERT.: 1"=5'



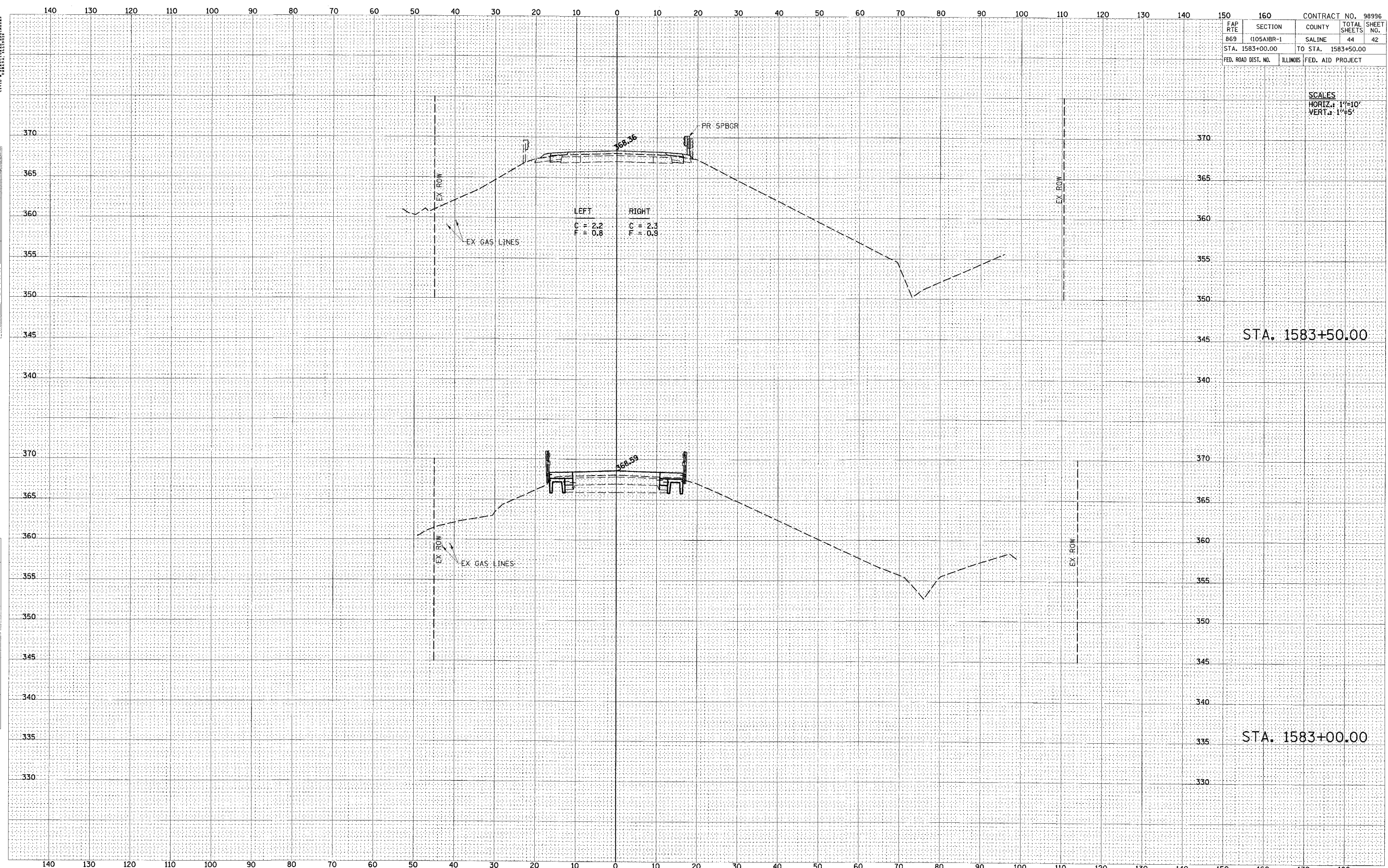


FINAL	SURVEYED	BY	DATE
CHECKED	PLOTTED		
NOTED	BOOK		
NO.	AREAS CHECKED		

ORIGINAL	SURVEYED	BY	DATE
CHECKED	PLOTTED		
NOTED	BOOK		
NO.	AREAS CHECKED		

FAP RTE		CONTRACT NO. 98996	
869	SECTION (105A)BR-1	COUNTY SALINE	TOTAL SHEETS 44
STA. 1583+00.00		TO STA. 1583+50.00	
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT

SCALES
HORIZ. 1"=10'
VERT. 1"=5'



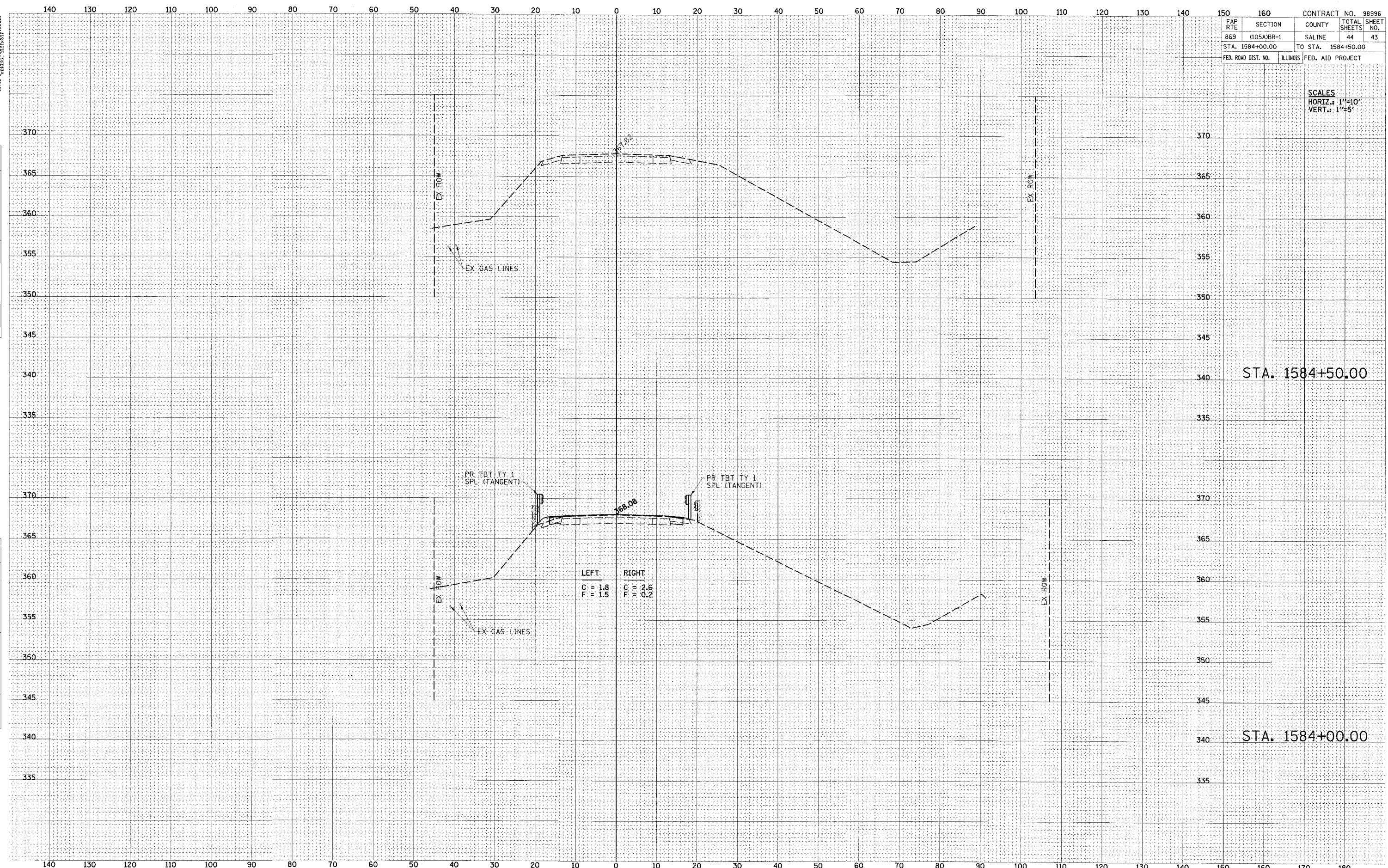


DATE	BY
SURVEYED	PLOTTED
NOTE BOOK	AREAS CHECKED
NO.	

DATE	BY
SURVEYED	PLOTTED
NOTE BOOK	AREAS CHECKED
NO.	

CONTRACT NO. 98996				
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	(105A)BR-1	SALINE	44	43
STA. 1584+00.00		TO STA. 1584+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

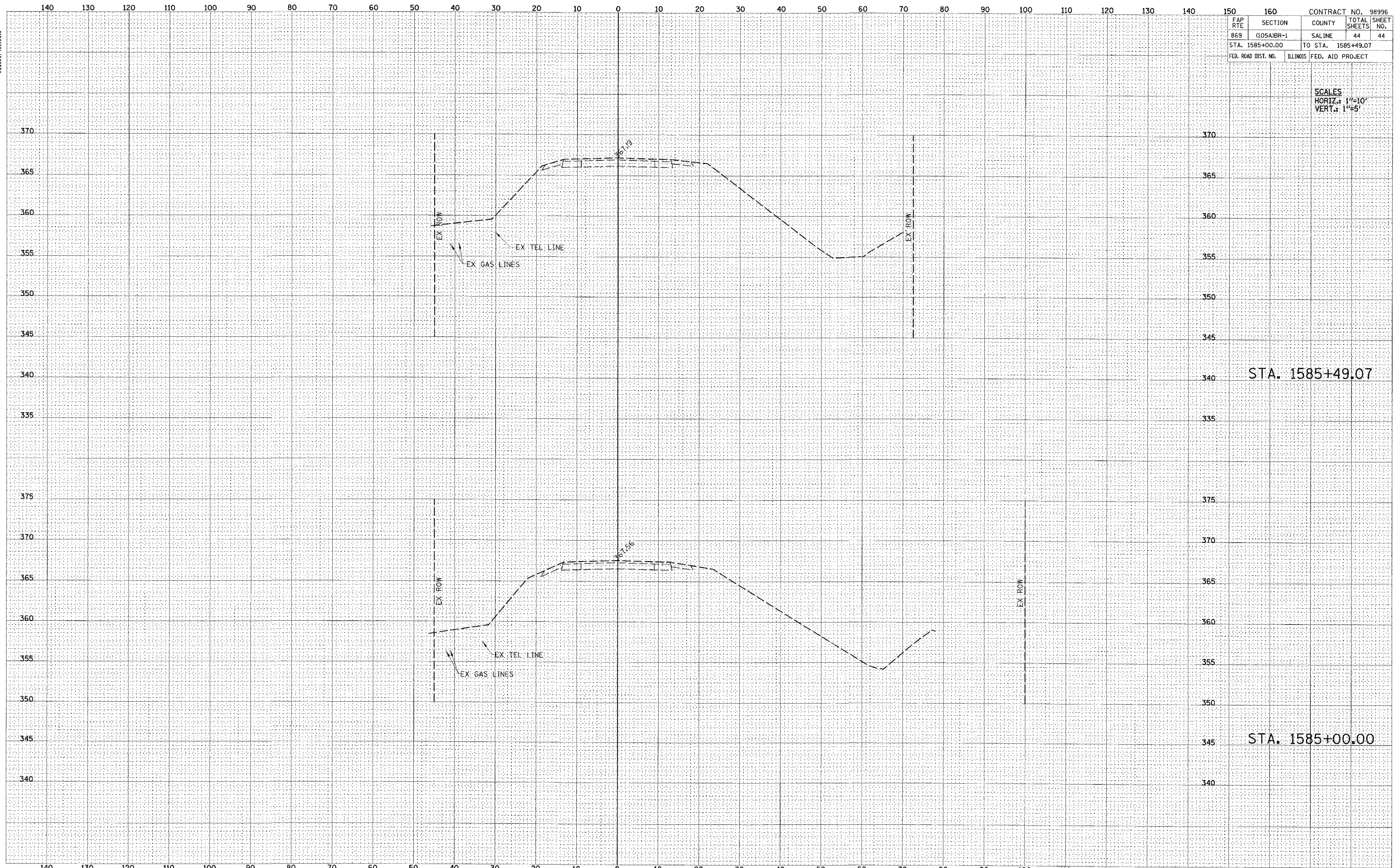
SCALES
HORIZ.: 1"=10'
VERT.: 1"=5'





DATE	
BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	



CONTRACT NO. 98996				
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	(105A)BR-1	SALINE	44	44
STA. 1585+00.00		TO STA. 1585+49.07		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SCALES
 HORIZ.: 1"=10'
 VERT.: 1"=5'

STA. 1585+49.07

STA. 1585+00.00