CONTRACT NO. 98997

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	1

P-99-003-06
D-99-008-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

FAP ROUTE 328 (US 45)
SECTION (105X)BR
PROJECT: F-0328(022)
WHITE COUNTY

C-99-017-07

PPC DECK BEAM SUPERSTRUCTURE REPLACEMENT OVER OVERFLOW TO SKILLET FORK

INDEX OF SHEETS

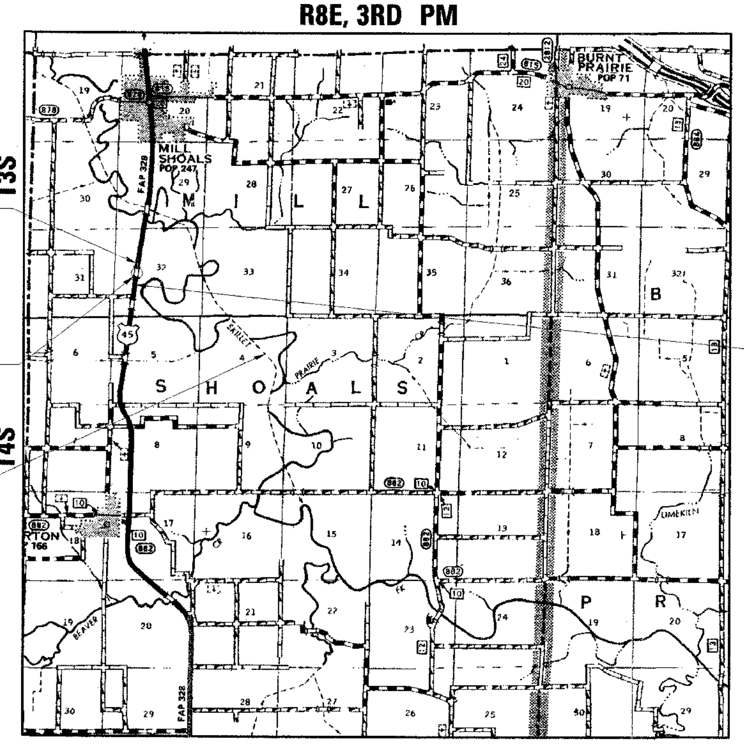
SHEET NO.	DESCRIPTION
	ROADWAY PLANS
1.	COVER SHEET
2.	GENERAL NOTES AND STANDARDS
3.	SUMMARY OF QUANTITIES
4.	TYPICAL SECTIONS
5.	SCHEDULES OF QUANTITIES
6.	FAP RTE 328 (US 45) PLAN AND PROFILE
7.	STAGE I CONSTRUCTION
8.	STAGE II CONSTRUCTION
9.	WIDE LOAD DETOUR
10.	EROSION CONTROL AND DRAINAGE PLAN
11.	MISCELLANEOUS DETAILS
	STRUCTURE PLANS
12.	GENERAL PLAN
13.	GENERAL DATA
14.	STAGE CONSTRUCTION DETAILS
15.	STEEL RAILING (TEMPORARY)
16.	SUPERSTRUCTURE
17.	SUPERSTRUCTURE DETAILS
18.	APPROACH DETAILS
19.	SUPERSTRUCTURE AND APPROACH DETAILS
20.	STEEL RAILING, TYPE SM WITH CONCRETE WEARING SURFACE
21.	NORTH ABUTMENT
22.	SOUTH ABUTMENT
23.	ABUTMENT DETAILS
24.	PIER 1
25.	PIER 2
26.	PIER 3
27.	PIER DETAILS
28.	BAR SPLICER ASSEMBLY DETAILS
	EXISTING STRUCTURE PLANS
29.-36.	EXISTING STRUCTURE PLANS
	CROSS SECTIONS
37.-42.	FAP RTE 328 (US 45) CROSS SECTIONS

R8E, 3RD PM

IMPROVEMENTS BEGIN STA 597+50

STATION 598+76
S.N. 097-0019
FOUR SPAN PPC DECK BEAMS
88'-0" BK TO BK ABUTMENTS

SKILLET FORK

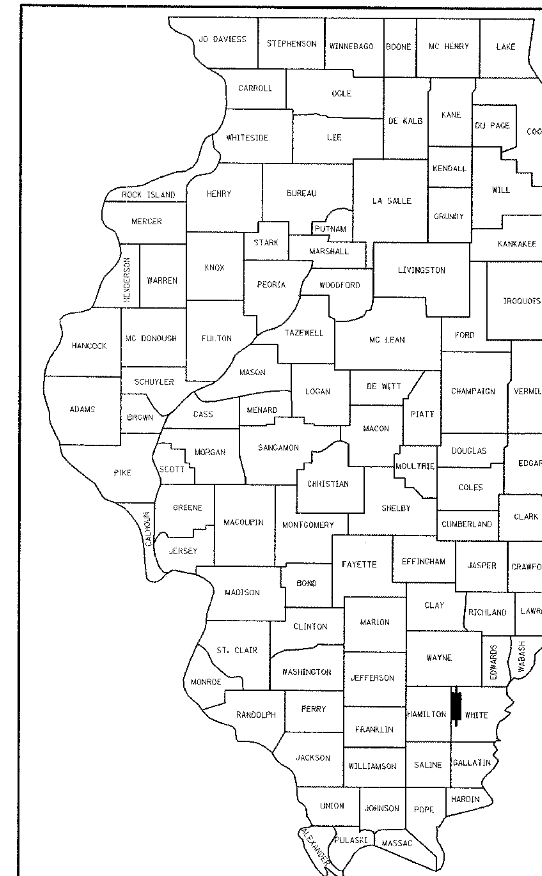


IMPROVEMENTS END STA 600+00

LOCATION MAP

SCALE 0 2 4 6 MILES
0 10000 20000 30000 FEET

GROSS LENGTH = 250 FT. = 0.05 MI.
NET LENGTH = 250 FT. = 0.05 MI.



LOCATION OF SECTION INDICATED THUS:

FUNCTIONAL CLASSIFICATION: OTHER PRINCIPAL ARTERIAL
DESIGN SPEED: 55 mph
POSTED SPEED: 55 mph
ADT: 2080 (2006)
PV: 67%
TRUCKS: 33%

0 20 40 60
SCALE IN FEET – PLAN & PROFILE

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: MILL SHOALS
CONTRACT NO.: 98997

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS
URBANA, ILLINOIS

DESIGN DESIGNATION N.A.

RICHARD D. PAYNE 37421 LICENSED PROFESSIONAL ENGINEER OF STATE OF ILLINOIS

Richard D. Payne DATE: 04/05/07
ILLINOIS PROFESSIONAL LICENSE NO. 37421
(EXPIRATION DATE: 11-30-07)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED May 1 20 07
Mary C Lamie
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

June 29, 20 07
Eric E. Harm PD
Interim **ENGINEER OF DESIGN AND ENVIRONMENT**

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

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONTRACT NO. 98997

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	2
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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
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
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

1. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.
2. EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.
3. ALL SAWCUTTING OF EXISTING PAVEMENT SHALL BE CONSIDERED INCLUDED IN THE PAY ITEMS INVOLVED. THE MINIMUM SAW DEPTH IN THE PAVEMENT SHALL BE 1½" UNLESS OTHERWISE NOTED.
4. 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.
5. 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.
6. 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.
7. 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

8. 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 PAVEMENT REMOVAL.
9. 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 SEEDED WILL BE DETERMINED BY THE ENGINEER.
10. 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.
11. EXISTING TRAFFIC BARRIER TERMINALS TO BE REMOVED SHALL BE PAID FOR AS GUARDRAIL REMOVAL.
12. FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SANDBAGS PER BARRICADE.
13. ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.
14. 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 DISTRUBED.
15. ~~THE CONTRACTOR SHALL CONTACT J.U.L.I.E. AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.~~
16. 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 AND THE SURFACE COURSE.
17. 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.
18. 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.
19. VERTICAL PANELS SHOWN ON STANDARD 701321 WILL NOT BE REQUIRED ON THIE STAGE II NEW BRIDGE RAILING. THE BARRIER WALL REFLECTORS SHALL BE INSTALLED PRIOR TO OPENING TO TRAFFIC.
20. 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 FLASH ALL RED.~~ **TURNED OR COVERED.**
21. "NARROW BRIDGE" SIGNS WITH ADVISORY TAGS "10 FT 4 IN" SHALL BE ERECTED BETWEEN THE ROAD CONSTRUCTION AHEAD AND THE SIGNAL AHEAD SIGNS DURING STAGE II CONSTRUCTION ONLY. THIS WORK SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, STANDARD 701321.
22. COMMITMENTS:
NONE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREPARED BY: Joe Zdanowicz
DISTRICT STUDIES & PLANS ENGINEER

EXAMINED BY: James Travis Emery
DISTRICT LAND ACQUISITION ENGINEER

EXAMINED BY: Carrie Nelson
DISTRICT PROGRAM DEVELOPMENT ENGINEER

EXAMINED BY: Kevin Hammer
DISTRICT OPERATIONS ENGINEER

EXAMINED BY: Gregory Lyons
DISTRICT CONSTRUCTION ENGINEER

EXAMINED BY: Bruce W. Dobbs
DISTRICT MATERIALS ENGINEER

EXAMINED BY: Jay Smithers
DISTRICT PROJECT IMPLEMENTATION ENGINEER

EXAMINED BY: Danny L. Paxton
ASSISTANT REGIONAL ENGINEER

EXAMINED BY: Mary C. Ramos
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 1 20 07
DATE

ESCA CONSULTANTS, INC.

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

GENERAL NOTES
AND STANDARDS
FAP RTE 328 (US 45)
SECTION (105X)BR
WHITE COUNTY

CONTRACT NO. 98997

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	3
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	HBP FUNDING 80% FEDERAL 20% STATE CONSTRUCTION TYPE CODE X080-2A
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	300
35300500	PORTLAND CEMENT CONCRETE BASE COURSE 10"	SQ YD	12
40600100	BITUMINOUS MATERIAL (PRIME COAT)	GALLON	50
40600300	AGGREGATE (PRIME COAT)	TON	0.8
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	290
40600990	TEMPORARY RAMP	SQ YD	88
40603320	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N90	TON	39
44000100	PAVEMENT REMOVAL	SQ YD	12
44000198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	115
48101200	AGGREGATE SHOULDERS, TYPE B	TON	8
48203100	HOT-MIX ASPHALT SHOULDERS	TON	12
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1
50300260	BRIDGE DECK GROOVING	SQ YD	383
50300300	PROTECTIVE COAT	SQ YD	383
50400105	PRECAST CONCRETE BRIDGE SLAB	SQ FT	194
50400205	PRECAST PRESTRESSED CONCRETE DECK BEAMS (11" DEPTH)	SQ FT	3039
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	4740
50800515	BAR SPLICERS	EACH	92
* 50901050	STEEL RAILING, TYPE SM	FOOT	228
* 50901125	STEEL RAILING (TEMPORARY)	FOOT	176
51500100	NAME PLATES	EACH	1
58700300	CONCRETE SEALER	SQ FT	80
59000200	EPOXY CRACK INJECTION	FOOT	114
* 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4
63200310	GUARDRAIL REMOVAL	FOOT	176
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
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	124

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	HBP FUNDING 80% FEDERAL 20% STATE CONSTRUCTION TYPE CODE X080-2A
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	786
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	304
70400100	TEMPORARY CONCRETE BARRIER	FOOT	300
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	300
70500690	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 11	EACH	4
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	786
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	2
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	1
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	4
* 78200520	BARRIER WALL MARKERS, TYPE B	EACH	2
78300100	PAVEMENT MARKING REMOVAL	SQ FT	190
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	2
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	231
X0325326	TEMPORARY TRAFFIC CONTROL REMOVAL	L SUM	1
X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	383
XX006661	UNINTERRUPTABLE POWER SUPPLY	EACH	1
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2

* SPECIALTY ITEM

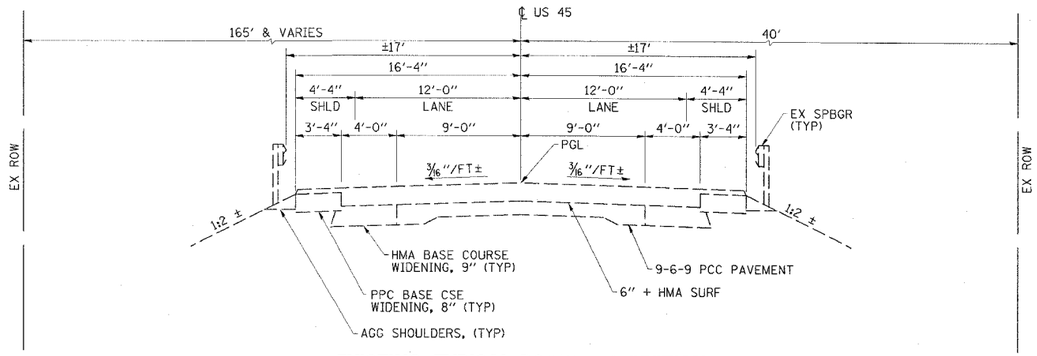
ESCA CONSULTANTS, INC.

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

SUMMARY OF QUANTITIES
FAP RTE 328 (US 45)
SECTION (105X)BR
WHITE COUNTY

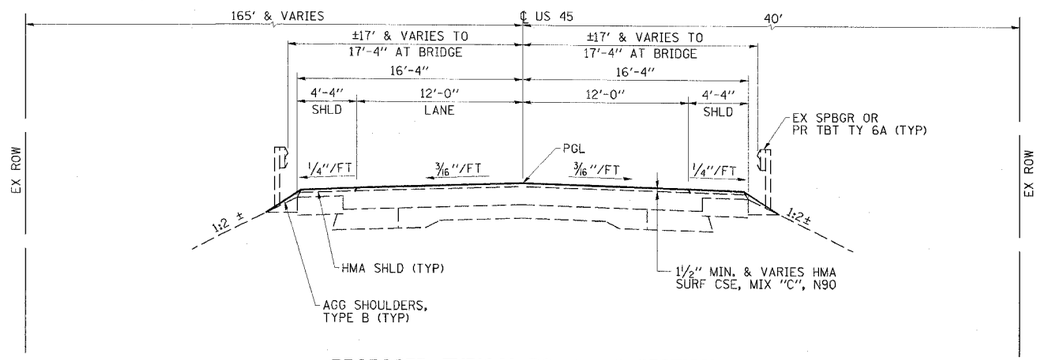
CONTRACT NO. 98997

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	4
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



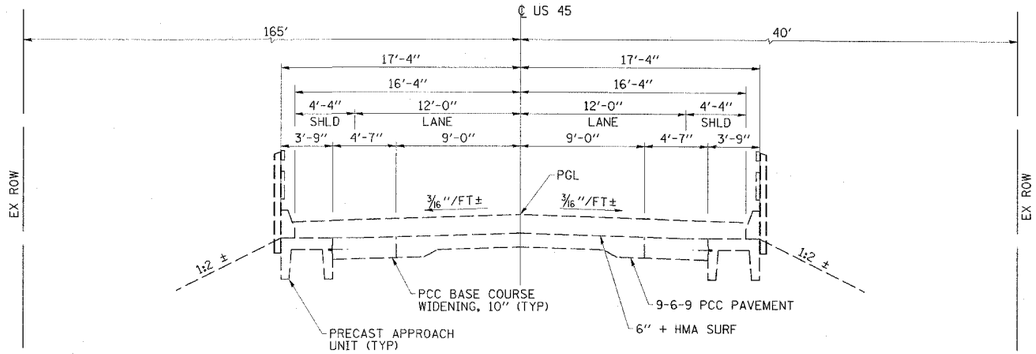
EXISTING TYPICAL ROADWAY SECTION

STA 597+19 TO 598+19.04
STA 599+32.96 TO 600+00



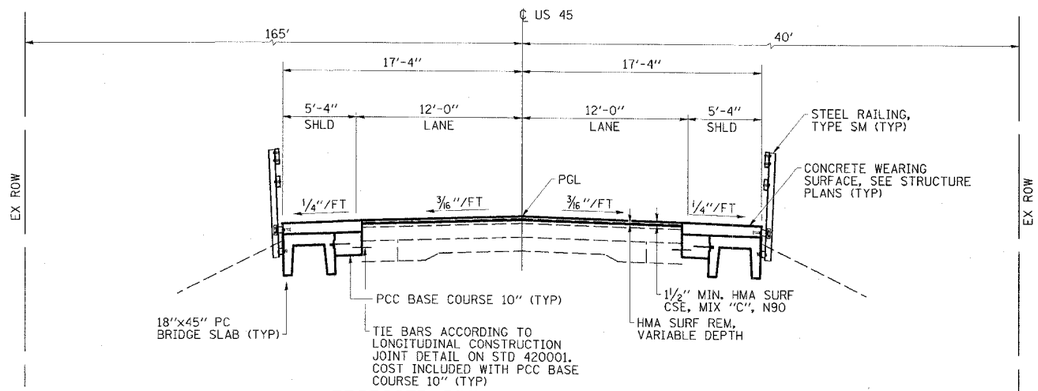
PROPOSED TYPICAL ROADWAY SECTION

STA 597+50 TO 598+19.04
STA 599+32.96 TO 600+00



EXISTING BRIDGE APPROACH SECTION

STA 598+19.04 TO 598+32
STA 599+20 TO 599+32.96



PROPOSED BRIDGE APPROACH SECTION

STA 598+19.04 TO 598+32
STA 599+20 TO 599+32.96

HMA MIXTURES REQUIREMENTS

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

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

ESCA
CONSULTANTS, INC.

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

TYPICAL SECTIONS
FAP RTE 328 (US 45)
SECTION (105X)BR
WHITE COUNTY

CONTRACT NO. 98997

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	5
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EROSION CONTROL SCHEDULE

LOCATION	PERIMETER EROSION BARRIER	TEMPORARY EROSION CONTROL SEEDING (2 APPLICATIONS)
	FOOT	POUND
NE QUADRANT	75	5
NW QUADRANT	75	5
SE QUADRANT	75	5
SW QUADRANT	75	5
TOTALS	300	20

SEEDING SCHEDULE

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

AGGREGATE SHOULDERS, TYPE B SCHEDULE

LOCATION	TON
NE QUADRANT	2
NW QUADRANT	2
SE QUADRANT	2
SW QUADRANT	2
TOTAL	8

REMOVAL SCHEDULE

LOCATION	PAVEMENT REMOVAL
	SQ YD
NE QUADRANT	3
NW QUADRANT	3
SE QUADRANT	3
SW QUADRANT	3
TOTAL	12

PAVING SCHEDULE

LOCATION	BITUMINOUS MATERIALS (PRIME COAT)	AGGREGATE (PRIME COAT)	HMA SURFACE COURSE, MIX "C", N90	HMA SHOULDERS
	GALLON	TON	TON	TON
NORTH APPROACH	25	0.4	20	6
SOUTH APPROACH	25	0.4	19	6
TOTALS	50	0.8	39	12

PAVEMENT MARKING SCHEDULE

LOCATION	DESCRIPTION	SHORT-TERM PAVEMENT MARKING ①	PAINT PAVEMENT MARKING - LINE	TEMP PAVEMENT MARKING - LINE
		FOOT	4" FOOT	4" FOOT
STA 595+02 TO 602+50, CENTERLINE	SKIP-DASH YELLOW CENTERLINE	124	190	190
STA 597+27 TO 600+25, LT	SOLID WHITE EDGE LINE		298	298
STA 597+27 TO 600+25, RT	SOLID WHITE EDGE LINE		298	298
TOTALS		124	786	786

① INCLUDES 2 ADDITIONAL APPLICATIONS FROM STA 597+50 TO STA 600+00

PAVEMENT MARKERS AND REMOVAL SCHEDULE

LOCATION	RRPM	RRPM (BRIDGE)	RRPM REMOVAL
	EACH	EACH	EACH
STA 597+85	1		1
STA 598+65		1	
STA 599+45	1		1
TOTALS	2	1	2

WORK ZONE AND PAVEMENT MARKING REMOVAL SCHEDULE

LOCATION	PAVEMENT MARKING DESCRIPTION	WORK ZONE PAVEMENT MARKING REMOVAL	PAVEMENT MARKING REMOVAL
		SQ FT	SQ FT
CENTERLINE	SHORT-TERM	42	28
EDGELINES	TEMPORARY	199	
CENTERLINE	TEMPORARY	63	
STA 597+27 TO 600+25, LT	EDGELINE		100
STA 597+27 TO 598+20, RT	EDGELINE		31
STA 599+32 TO 600+25, RT	EDGELINE		31
TOTALS		304	198

BASE COURSE SCHEDULE

LOCATION	PCC BASE COURSE, 10"
	SQ YD
NE QUADRANT	3
NW QUADRANT	3
SE QUADRANT	3
SW QUADRANT	3
TOTAL	12

HMA SURF REMOVAL SCHEDULE

LOCATION	BUTT JOINT	VARIABLE DEPTH
	SQ YD	SQ YD
STA 597+50	145	
STA 600+00	145	
NEAR NORTH ABUTMENT		61
NEAR SOUTH ABUTMENT		54
TOTALS	290	115

GUARDRAIL SCHEDULE

LOCATION	TRAFFIC BARRIER TERMINAL, TYPE 6A	GUARDRAIL MARKERS, TYPE A	BARRIER WALL MARKERS, TYPE B	STEEL RAILING, TYPE SM
	EACH	EACH	EACH	FOOT
STRUCTURE NO. 097-0019 - NE	1	1		
STRUCTURE NO. 097-0019 - NW	1	1		
STRUCTURE NO. 097-0019 - SE	1	1		
STRUCTURE NO. 097-0019 - SW	1	1		
STRUCTURE NO. 097-0019 - BRIDGE			2	228
TOTALS	4	4	2	228

GUARDRAIL REMOVAL SCHEDULE

LOCATION	FOOT
STRUCTURE NO. 097-0019 - NE	44
STRUCTURE NO. 097-0019 - NW	44
STRUCTURE NO. 097-0019 - SE	44
STRUCTURE NO. 097-0019 - SW	44
TOTAL	176

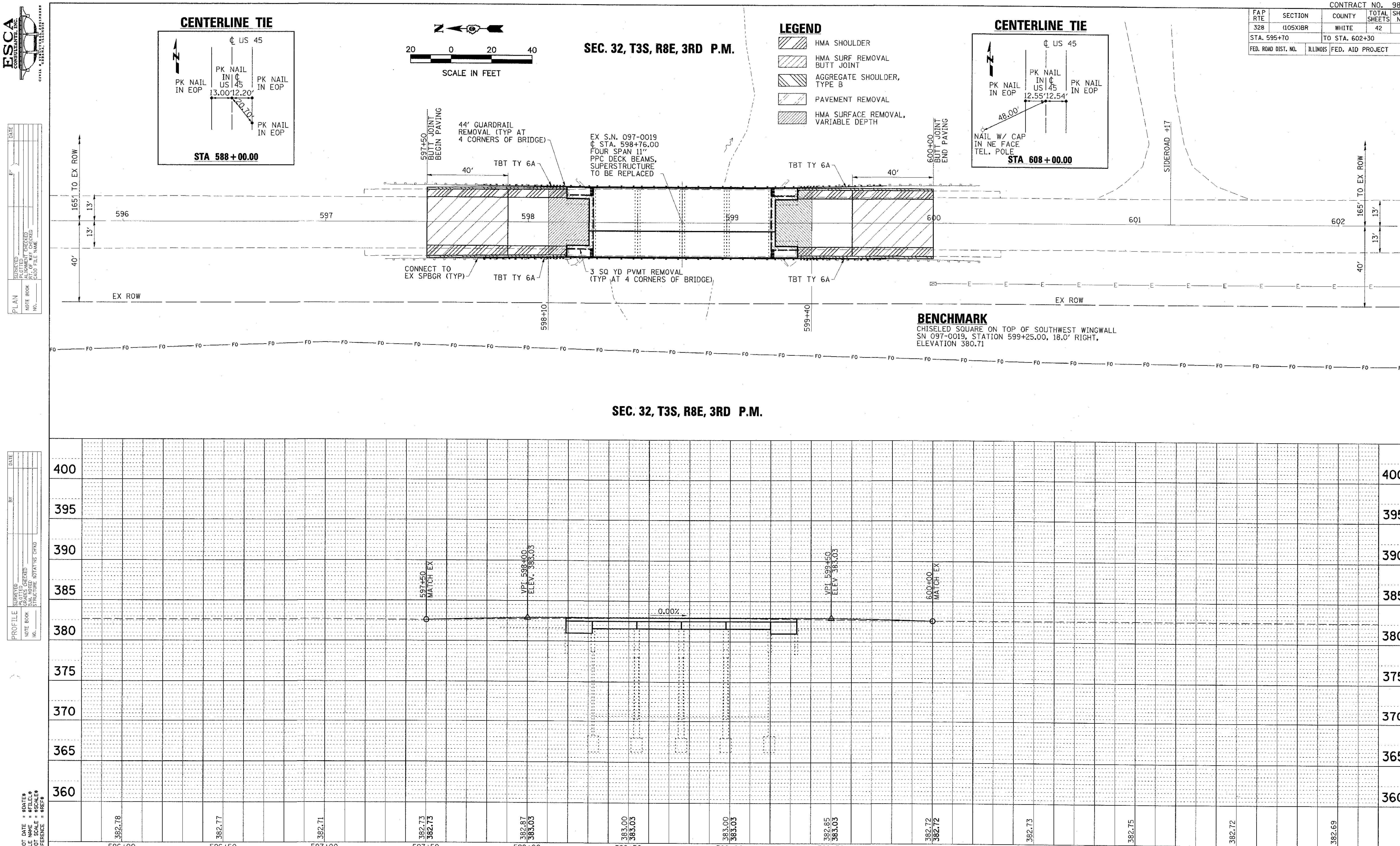
ESCA CONSULTANTS, INC.

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

SCHEDULES OF QUANTITIES
FAP RTE 328 (US 45)
SECTION (105X)BR
WHITE COUNTY

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	6
STA. 595+70		TO STA. 602+30		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 98997



FAP RTE 328 (US 45) PLAN & PROFILE

STA. 595+70 TO STA. 602+30

CONTRACT NO. 98997

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	7
STA. 594+00		TO STA. 603+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

STEEL RAILING (TEMPORARY)

STATION	TO	STATION	FEET
598+32		599+20	88
		TOTAL	88

TEMPORARY CONCRETE BARRIER

STATION	TO	STATION	FEET
596+82		598+32	150
599+20		600+70	150
		TOTAL	300

TEMPORARY BRIDGE TRAFFIC SIGNALS - 1 EACH

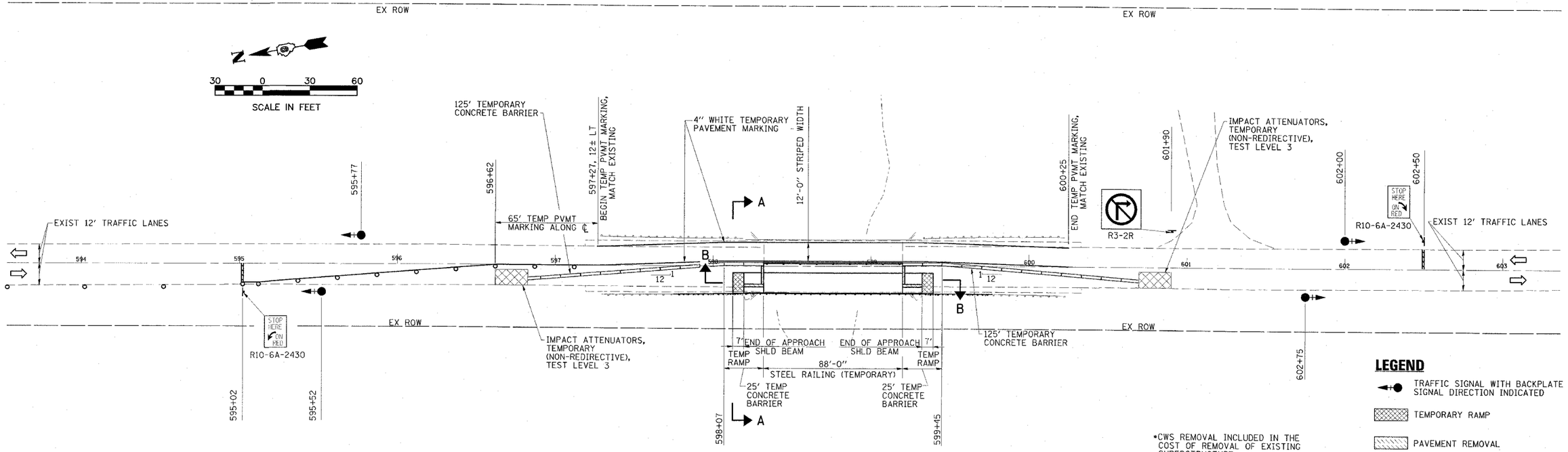
TEMPORARY RUMBLE STRIPS - 6 EACH

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

TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 11 - 2 EACH

GENERAL NOTES

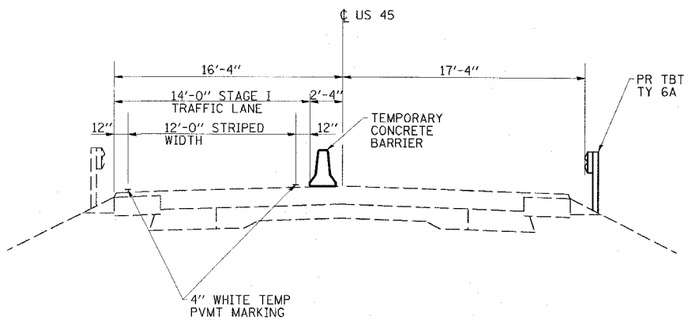
1. TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321."
2. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
3. COORDINATE LOCATION OF SIGNALS WITH FINAL WORK AS DIRECTED BY THE ENGINEER.
4. CONSTRUCT TEMPORARY RUMBLE STRIPS AT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



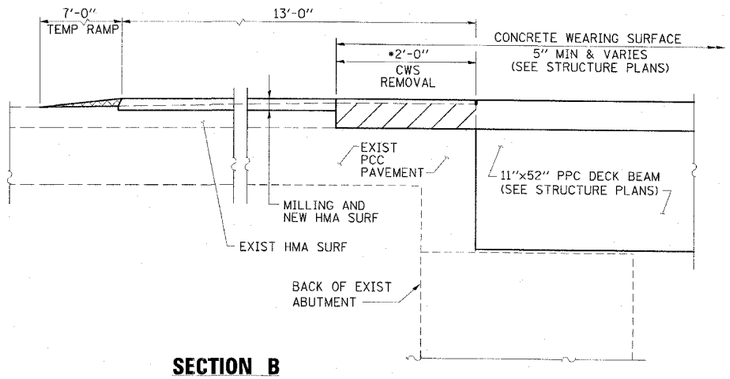
LEGEND

- TRAFFIC SIGNAL WITH BACKPLATE SIGNAL DIRECTION INDICATED
- TEMPORARY RAMP
- PAVEMENT REMOVAL
- CWS REMOVAL

*CWS REMOVAL INCLUDED IN THE COST OF REMOVAL OF EXISTING SUPERSTRUCTURE



SECTION A–A



SECTION B

STAGE I CONSTRUCTION
FAP RTE 328 (US 45)
SECTION (105X)BR
WHITE COUNTY

ESCA CONSULTANTS, INC.

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

PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
REFERENCE = REF

CONTRACT NO. 98997

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	8
STA. 594+00		TO STA. 603+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

STEEL RAILING (TEMPORARY)

STATION	TO	STATION	FEET
598+32		599+20	88
		TOTAL	88

RELOCATE TEMPORARY CONCRETE BARRIER

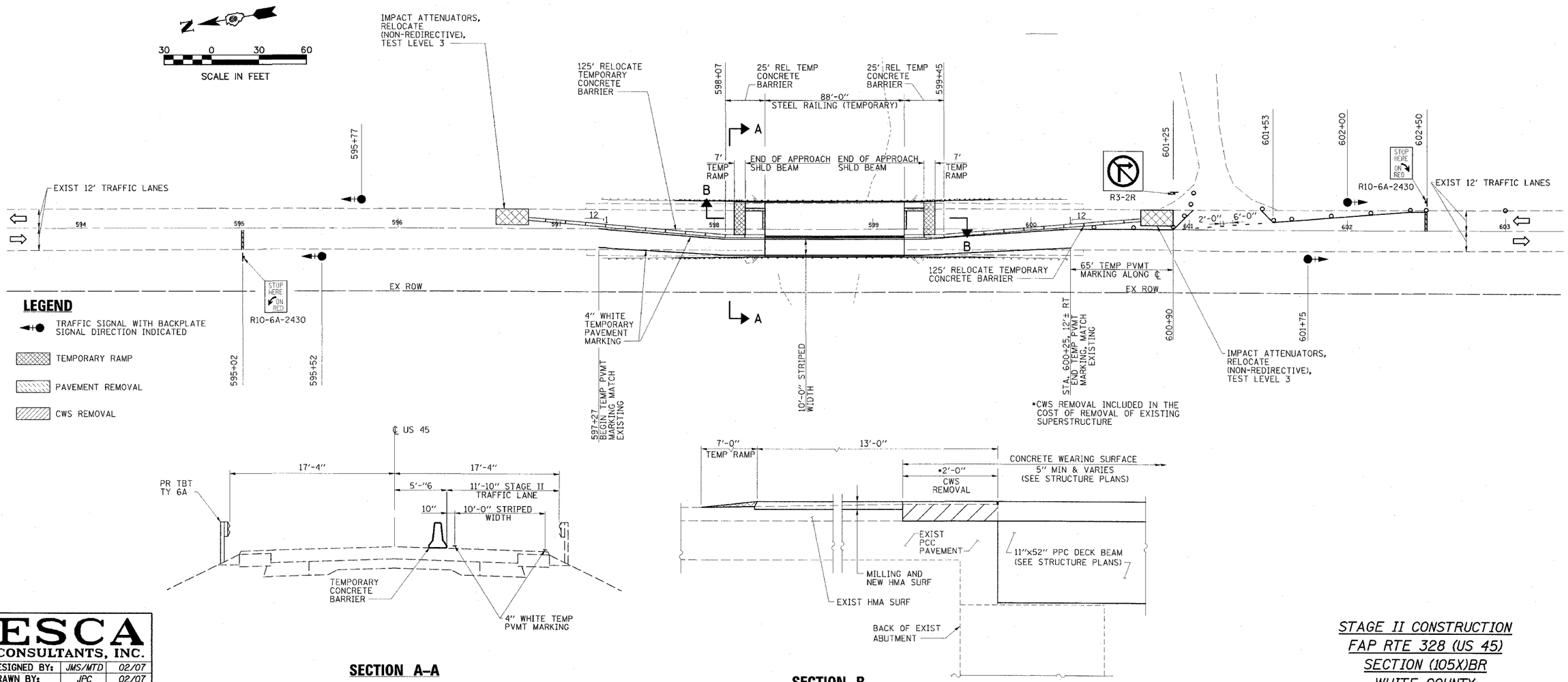
STATION	TO	STATION	FEET
596+82		598+32	150
599+20		600+70	150
		TOTAL	300

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

TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 11 - 2 EACH

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."



SECTION A-A

SECTION B

ESCA CONSULTANTS, INC.

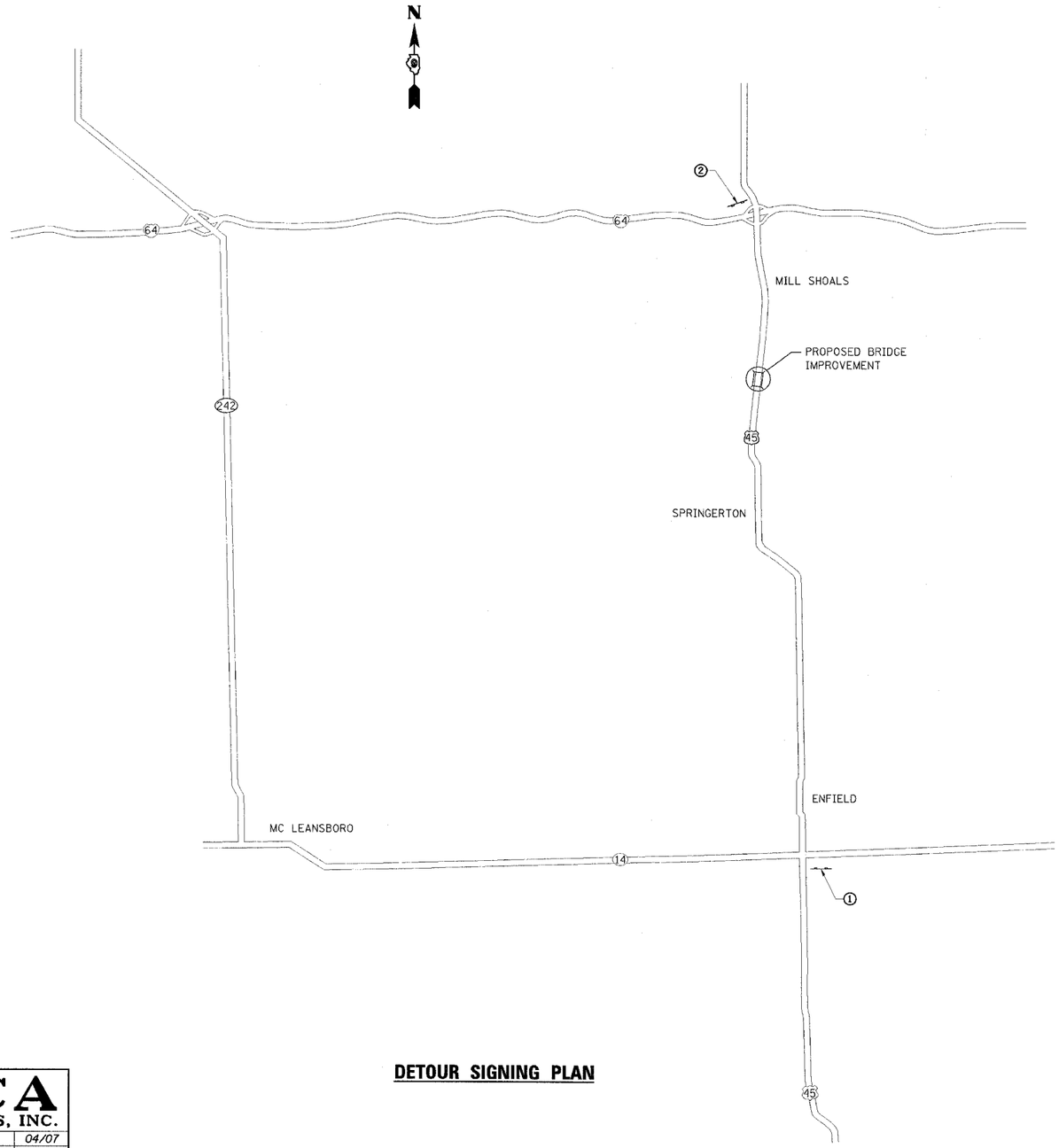
DESIGNED BY:	JMS/MTD	02/07
DRAWN BY:	JPC	02/07
CHECKED BY:	MTD	02/07
APPROVED BY:	RDP	04/07

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

STAGE II CONSTRUCTION
FAP RTE 328 (US 45)
SECTION (105X)BR
WHITE COUNTY

CONTRACT NO. 98997

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	9
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



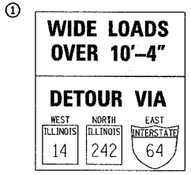
SIGN LEGEND STAGE I

① NOT REQUIRED

② NOT REQUIRED

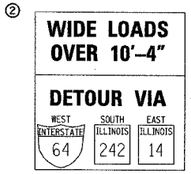
SIGN LEGEND STAGE II

①



60"x90"

②



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.
3. THE ENGINEER SHALL GIVE I.D.O.T. BUREAU OF OPERATIONS, PERMITS SECTION TWO WEEKS NOTICE BEFORE, IMPLEMENTING ANY LANE WIDTH RESTRICTIONS.

DETOUR SIGNING PLAN

ESCA CONSULTANTS, INC.

DESIGNED BY:	MTD	04/07
DRAWN BY:	HAS	04/07
CHECKED BY:	MTD	04/07
APPROVED BY:	RDP	04/07

WIDE LOAD DETOUR
FAP RTE 328 (US 45)
SECTION (105X)BR
WHITE COUNTY

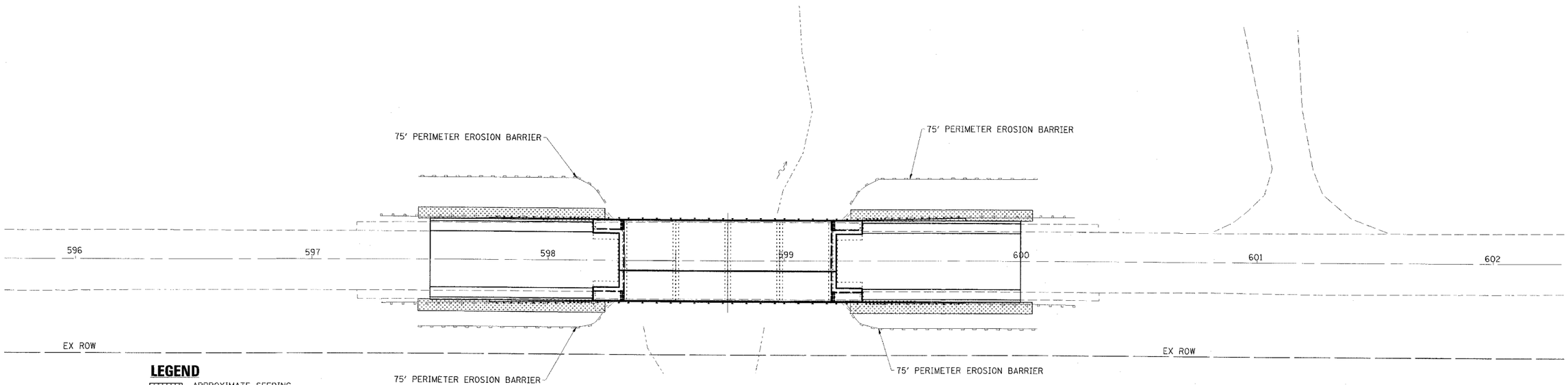
CONTRACT NO. 98997

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	10
STA. 595+70		TO STA. 602+30		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

N

20 0 20 40

SCALE IN FEET



LEGEND

APPROXIMATE SEEDING AND MULCH AREAS

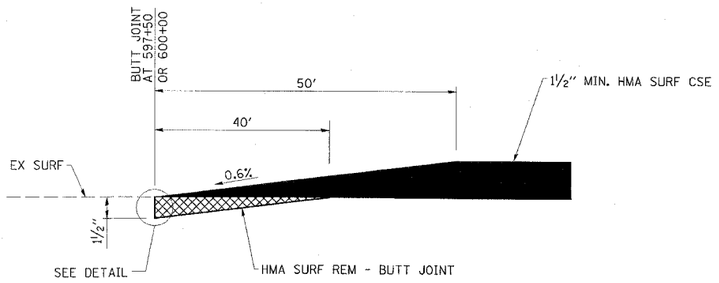
PERIMETER EROSION BARRIER

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

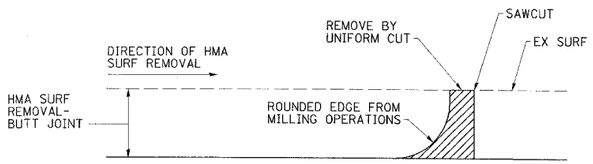
EROSION CONTROL AND DRAINAGE PLAN FAP RTE 328 (US 45) SECTION (105X)BR WHITE COUNTY

CONTRACT NO. 98997

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	11
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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.

ESCA
CONSULTANTS, INC.

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

MISCELLANEOUS DETAILS
FAP RTE 328 (US 45)
SECTION (105X)BR
WHITE COUNTY

BENCHMARK: Chiseled Square on top of Southwest wingwall, SN 097-0019, Sta. 599+25.00, 18.0' right, Elevation 380.71.

EXISTING STRUCTURE: SN 097-0019 was originally built in 1928 as S.B.I. Route 140, Section 105B. The superstructure was replaced in 1974, and precast concrete bridge slabs were utilized to widen the shoulders on the bridge approaches. In 2004, the shear keys were repaired and a 5" thick reinforced concrete wearing surface was added. The superstructure consists of 4 simple spans, 11" PPC deck beams. The substructure consists of two reinforced concrete closed abutments and three solid shaft reinforced concrete piers, all supported on timber piles. The back-to-back abutments length is 88'-0", and the out-to-out width is 34'-8". The existing superstructure and the existing approach shoulder bridge slabs shall be removed and replaced utilizing stage construction.

No salvage

STATION 598+76
REBUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RT. 328 SEC. 105 BR-2
LOADING HS20
STR. NO. 097-0019

NAME PLATE

See Std. 515001

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

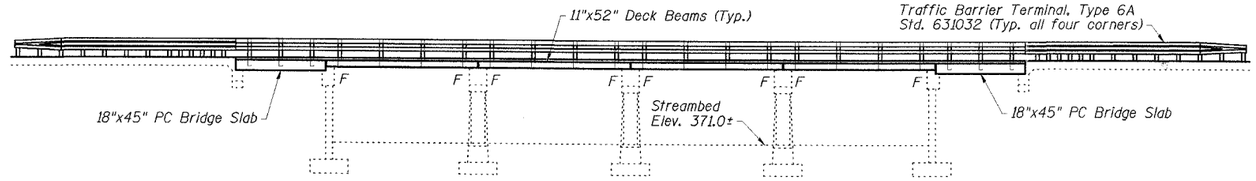
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	*	WHITE	42	12
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 1
17 SHEETS

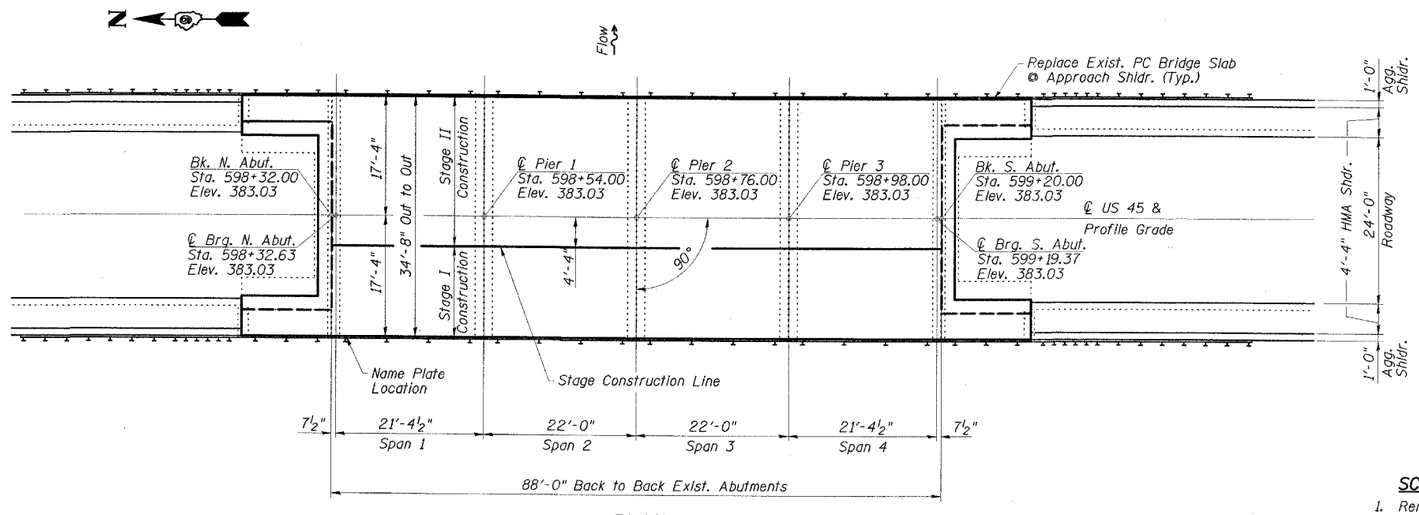
98997 *(105X)BR

STRUCTURE INDEX OF SHEETS

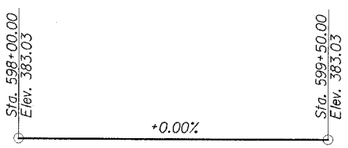
General Plan	Dwg. No. 1 of 17
General Data	Dwg. No. 2 of 17
Stage Construction Details	Dwg. No. 3 of 17
Steel Railing (Temporary)	Dwg. No. 4 of 17
Superstructure	Dwg. No. 5 of 17
Superstructure Details	Dwg. No. 6 of 17
Approach Details	Dwg. No. 7 of 17
Superstructure and Approach Details	Dwg. No. 8 of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



ELEVATION



PLAN



PROFILE GRADE

(Along ℄ Roadway)

SCOPE OF WORK

1. Remove existing concrete wearing surface, steel railing, deck beams and approach shoulder bridge slabs.
2. Repair beam bearing seats and perform other repairs at abutments and piers as required.
3. Reconstruct a four-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

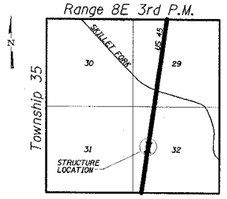
f'c = 5,000 psi (Concrete Wearing Surface)
f'c = 3,500 psi (All concrete except CWS)
fy = 60,000 psi (reinf.)

PRECAST PRESTRESSED UNITS

f'c = 5,000 psi
f'ci = 4,000 psi
f's = 270,000 psi (½"ϕ low lax strands)
fsi = 201,960 psi (½"ϕ low lax strands)

PRECAST UNITS

f'c = 4,500 psi
fy = 60,000 psi (reinf.)



LOCATION SKETCH

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

STATE OF ILLINOIS
RICHARD D. PAYNE
No. 4647
LICENSED STRUCTURAL ENGINEER
EXPIRES 11-30-08
Richard D. Payne
SIGNATURE
04-05-07
DATE

ESCA CONSULTANTS, INC.

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

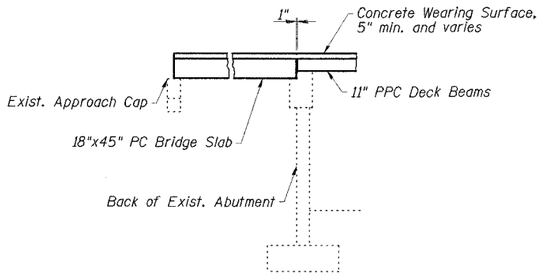
GENERAL PLAN
US 45 OVER SKILLET FORK OVERFLOW
FAP ROUTE 328 - SECTION (105X)BR
WHITE COUNTY
STATION 598+76.00
STRUCTURE NO. 097-0019

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	*	WHITE	42	13
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 2
17 SHEETS

98997 *(105X)BR

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



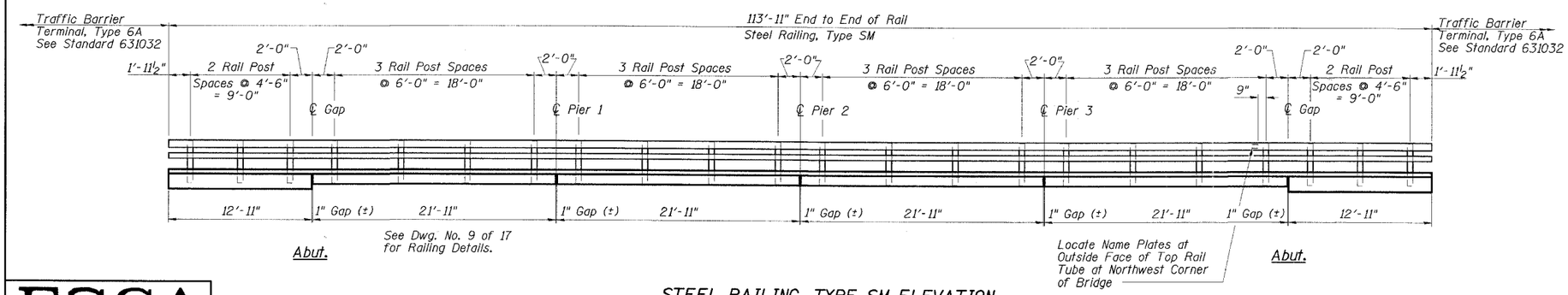
SECTION THRU ABUTMENTS @ OUTSIDE BEAM

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. No work will be allowed in the stream.
7. 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.
8. 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.
9. 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.
10. The minimum thickness of the concrete overlay shall be 5" and varies as required to adjust for the new profile grade and beam camber.
11. Repair of the substructure shall be completed prior to placement of the new deck beams.
12. 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.	383	-	383
Protective Coat	Sq. Yd.	383	-	383
Precast Concrete Bridge Slab	Sq. Ft.	194	-	194
Precast Prestressed Concrete Deck Beams (11" Depth)	Sq. Ft.	3039	-	3039
Reinforcement Bars, Epoxy Coated	Pound	4740	-	4740
Bar Splicers	Each	92	-	92
Steel Railing, Type SM	Foot	228	-	228
Steel Railing (Temporary)	Foot	176	-	176
Name Plates	Each	1	-	1
Concrete Sealer	Sq. Ft.	-	80	80
Epoxy Crack Injection	Foot	-	114	114
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	-	231	231
Concrete Wearing Surface, 5"	Sq. Yd.	383	-	383



STEEL RAILING, TYPE SM ELEVATION

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

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

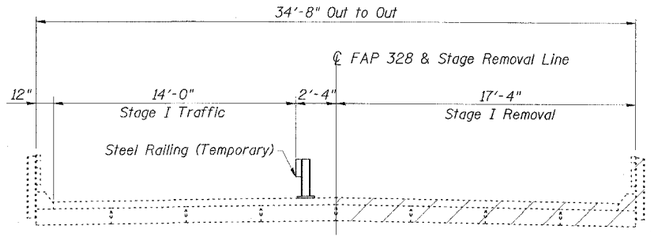
GENERAL DATA
US 45 OVER SKILLET FORK OVERFLOW
FAP ROUTE 328 - SECTION (105X)BR
WHITE COUNTY
STATION 598+76.00
STRUCTURE NO. 097-0019

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

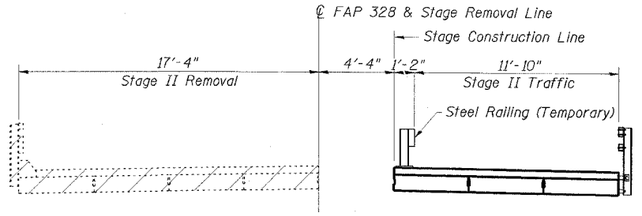
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	*	WHITE	42	14
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 3
17 SHEETS

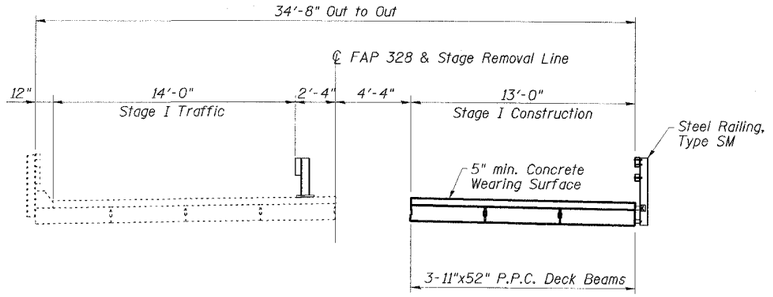
98997 *(105X)BR



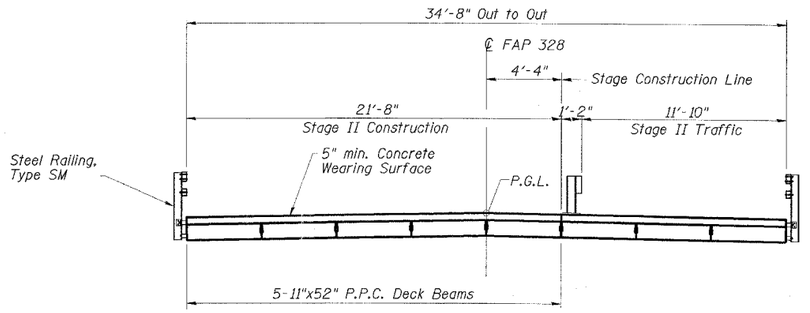
STAGE I REMOVAL



STAGE II REMOVAL



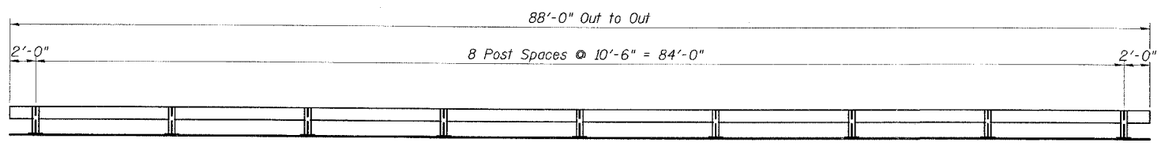
STAGE I CONSTRUCTION



STAGE II CONSTRUCTION

STAGE CONSTRUCTION NOTES

1. All staging sections are looking South.
2. See Dwg. No. 5 of 17 for shear key clamping details.



STEEL RAILING (TEMPORARY) POST SPACING

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

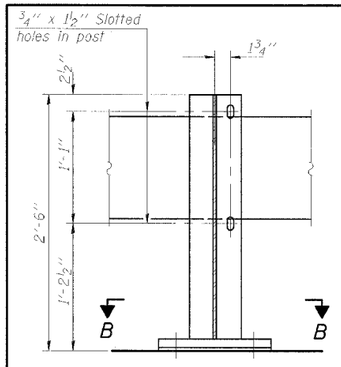
STAGE CONSTRUCTION DETAILS
US 45 OVER SKILLET FORK OVERFLOW
FAP ROUTE 328 - SECTION (105X)BR
WHITE COUNTY
STATION 598+76.00
STRUCTURE NO. 097-0019

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

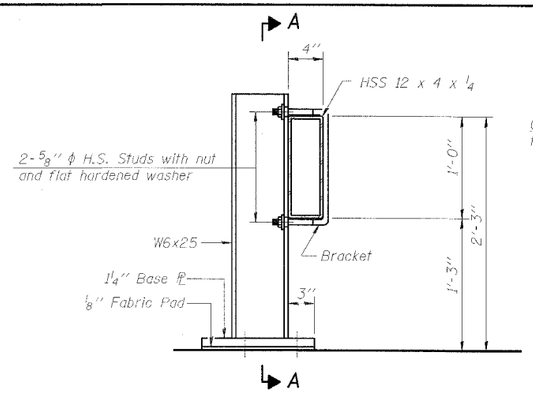
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	*	WHITE	42	15
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 4
17 SHEETS

98997 *(105X)BR



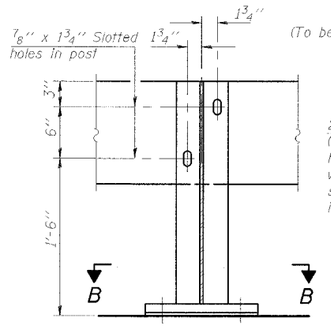
SECTION A-A



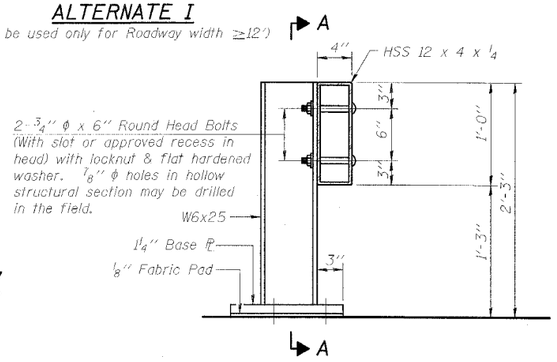
SECTION AT RAIL POST

ALTERNATE I

(To be used only for Roadway width ≥ 12')

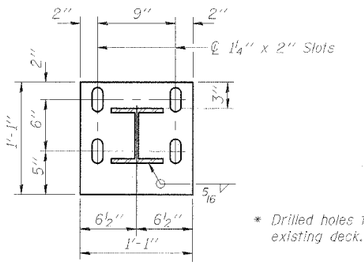


SECTION A-A



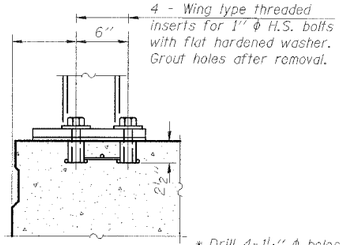
SECTION AT RAIL POST

ALTERNATE II

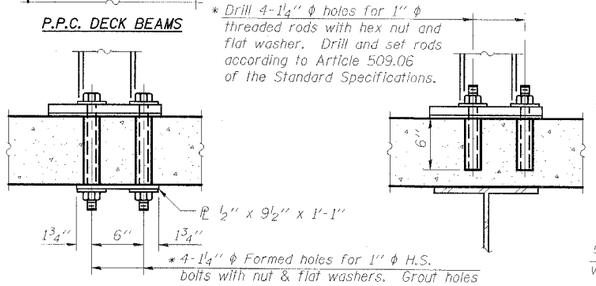


* Drilled holes for existing deck.

SECTION B-B



P.P.C. DECK BEAMS

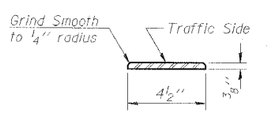


* Drill 4-1 1/4" ϕ holes for 1" ϕ threaded rods with hex nut and flat washer. Drill and set rods according to Article 509.06 of the Standard Specifications.

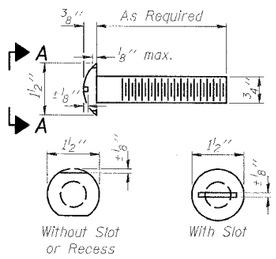
* 4-1 1/4" ϕ Formed holes for 1" ϕ H.S. bolts with nut & flat washers. Grout holes in deck after bolt removal.

NEW & EXISTING DECKS

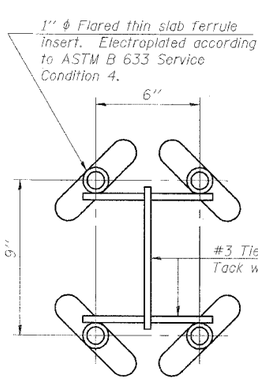
ANCHORAGE DETAILS



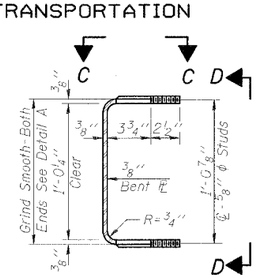
DETAIL A



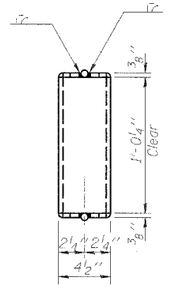
VIEW A-A
ROUND HEAD BOLT



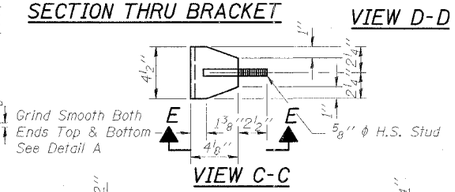
INSERT DETAIL



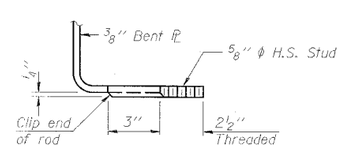
SECTION THRU BRACKET



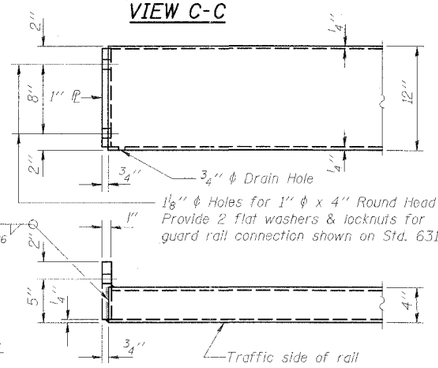
VIEW D-D



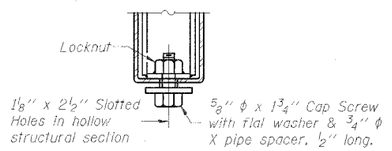
VIEW C-C



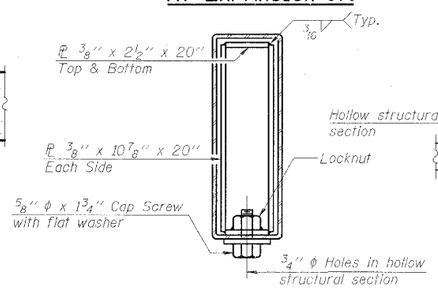
VIEW E-E



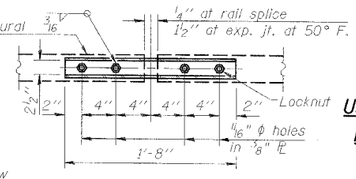
END OF RAIL DETAILS



RAIL SPLICE CONNECTION
AT EXPANSION JT.



SECTION AT RAIL SPLICE



PLAN-BOTT. SPLICE PL
TYPICAL

Notes:
See sheet 3 of 17 for Rail Post spacing.
The contact surfaces between post flange, rail and inside face of bracket for Alternate I shall be free of all lubricants.
The nut for 5/8" ϕ high strength studs used in Alternate I to connect bracket to post shall be tightened to a snug fit and given an additional one half turn.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing (Temporary)	Foot	176

STEEL RAILING (TEMPORARY)
US 45 OVER SKILLET FORK OVERFLOW
FAP ROUTE 328 - SECTION (105X)BR
WHITE COUNTY
STATION 598+76.00
STRUCTURE NO. 097-0019

ESCA
CONSULTANTS, INC.

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

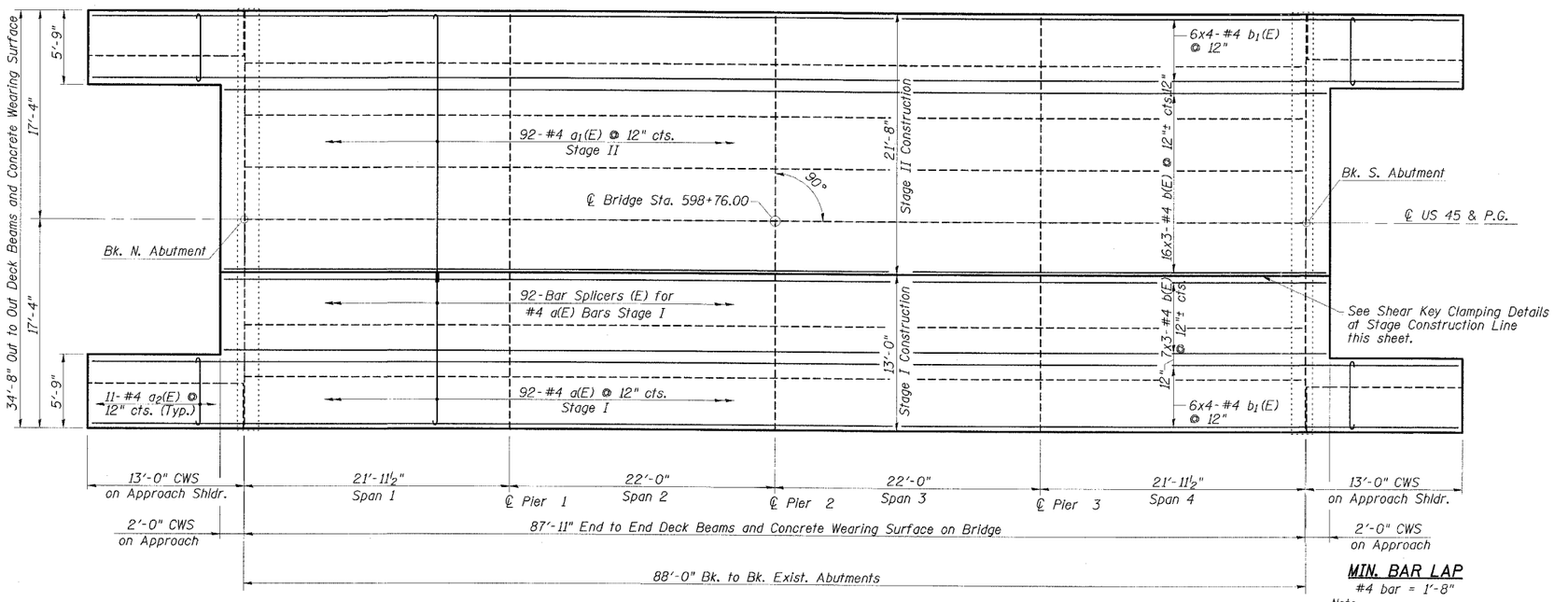
R-25 11-1-06 (10'-9" Maximum Post Spacing)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	*	WHITE	42	16
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 5
17 SHEETS

98997 *(105X)BR



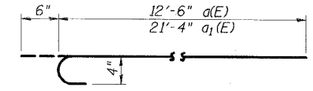
PLAN - WEARING SURFACE

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

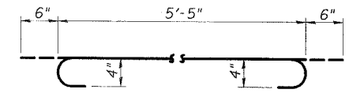
Note:
Reinforcement bars designated (E) shall be epoxy coated. Bars indicated thus 16x3-#4 etc. indicates 16 lines of bars with 3 lengths per line. For remainder of superstructure details, see drawings 6 and 8 of 17.

CONCRETE WEARING SURFACE BILL OF MATERIAL

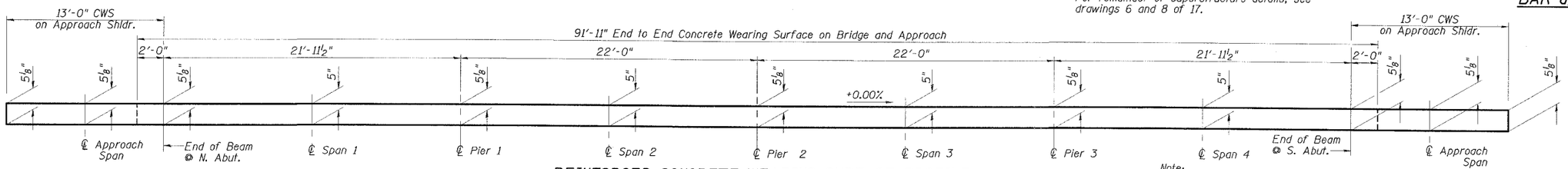
Bar	No.	Size	Length	Shape
a(E)	92	#4	13'-0"	
a1(E)	92	#4	21'-10"	
a2(E)	44	#4	6'-5"	
b(E)	69	#4	31'-8"	
b1(E)	48	#4	29'-8"	
Reinforcement Bars, Epoxy Coated		Pound	4740	
Concrete Wearing Surface, 5"		Sq. Yd.	383	
Bridge Deck Grooving		Sq. Yd.	383	
Bar Splicers		Each	92	
Protective Coat		Sq. Yd.	383	



BARS a(E) & a1(E)



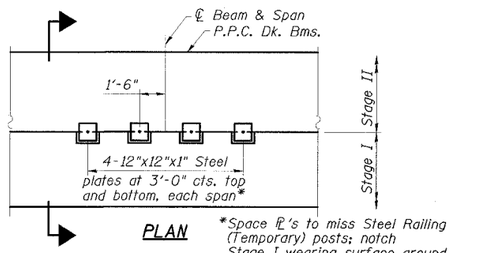
BAR a2(E)



REINFORCED CONCRETE WEARING SURFACE PROFILE

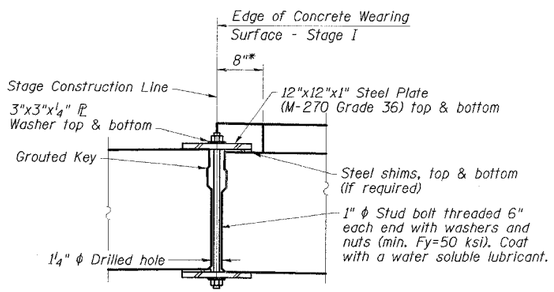
(At edge of bridge deck)

Note:
Greater thickness is required at centerline of superstructure to conform to cross section slopes shown on Dwg. 6 of 17.



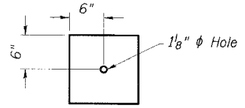
PLAN

*Space ℄'s to miss Steel Railing (Temporary) posts; notch Stage I wearing surface around ℄'s and space reinf. to miss notches.



SECTION

SHEAR KEY CLAMPING DETAILS



CLAMPING PLATE

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

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

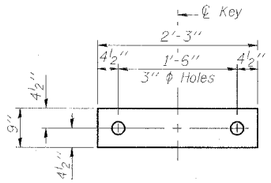
SUPERSTRUCTURE
US 45 OVER SKILLET FORK OVERFLOW
FAP ROUTE 328 - SECTION (105X)BR
WHITE COUNTY
STATION 598+76.00
STRUCTURE NO. 097-0019

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

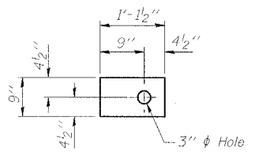
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	*	WHITE	42	11
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 6
17 SHEETS

98997 *(105X)BR

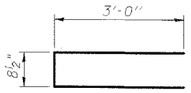


FABRIC BEARING PAD
(Interior)

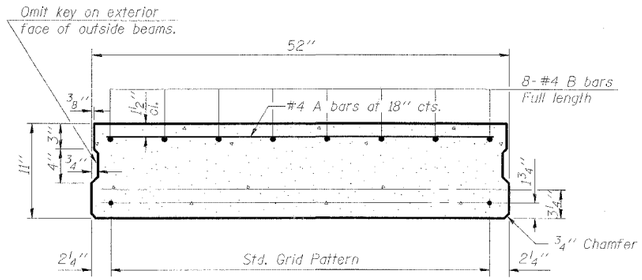


FABRIC BEARING PAD
(Exterior and Stage Const. Line)

FIXED

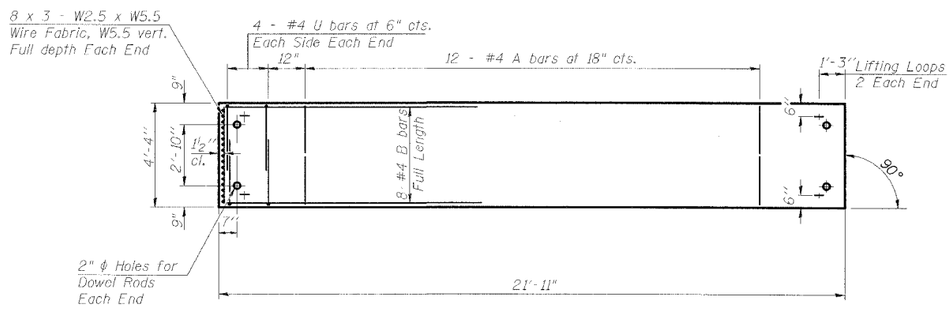


U BAR

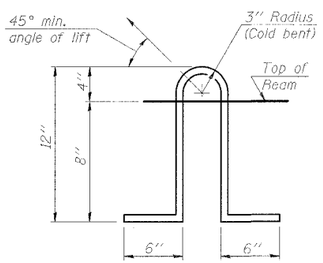


TYPICAL SECTION - INTERIOR BEAMS
12-½" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
6-Strands 1¾" up, 6-Strands 3¼" up.

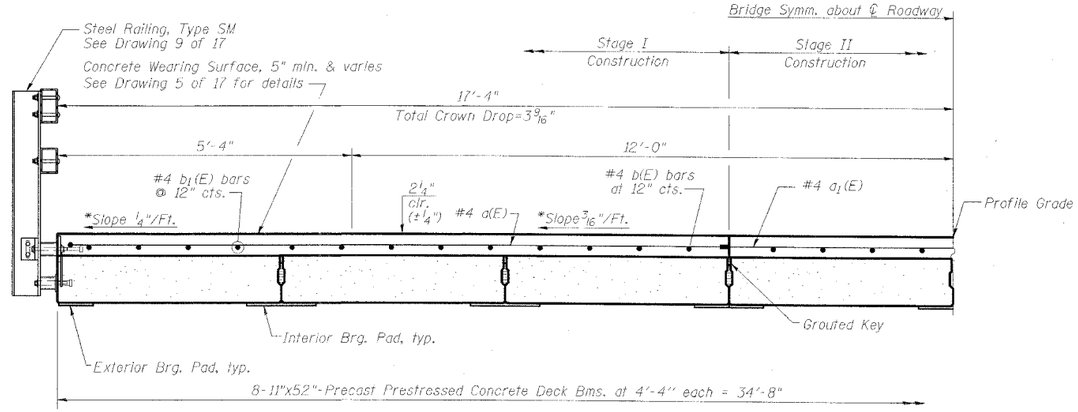
Notes:
1. Place strands symmetrically about ℄ beam.
2. See Dwg. 8 of 17 for add'l. details applicable to fascia beams.



PLAN



LIFTING LOOP DETAIL



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 ½" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 2 - ½" ϕ-270 ksi strands, as shown. Non prestressing steel shall conform to AASHTO M-31, M-42 or M-53 Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two ⅛" 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, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength, f'ci, shall be 4,000 p.s.i. See Dwg. 2 of 17 for location of rail anchors and additional notes.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (11")	Sq. Ft.	3039

SUPERSTRUCTURE DETAILS
US 45 OVER SKILLET FORK OVERFLOW
FAP ROUTE 328 - SECTION (105X)BR
WHITE COUNTY
STATION 598+76.00
STRUCTURE NO. 097-0019

ESCA CONSULTANTS, INC.

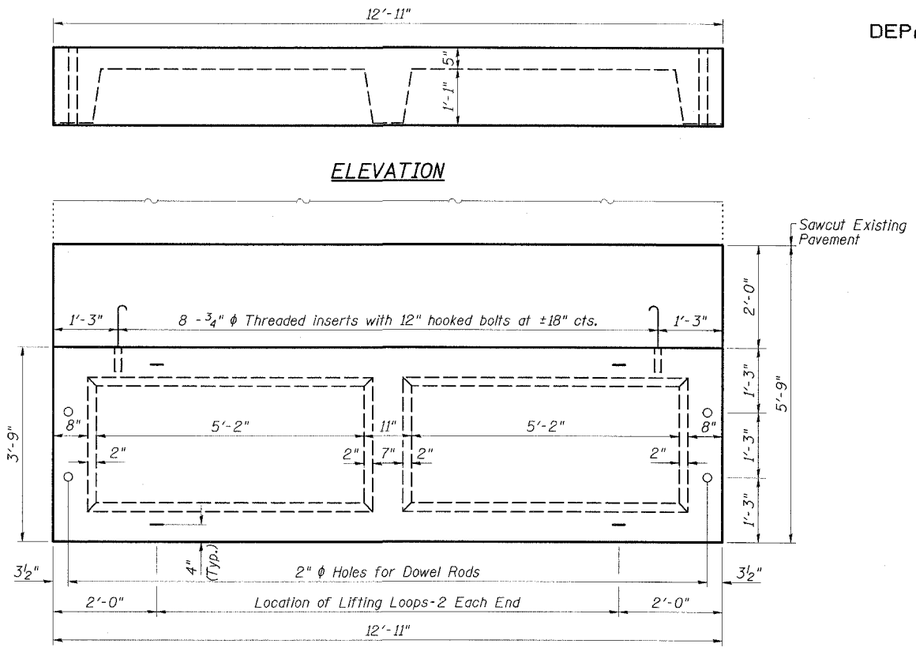
DESIGNED BY:	RDP	01/07
DRAWN BY:	DWH	01/07
CHECKED BY:	JMS/MTD	01/07
APPROVED BY:	RDP	04/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

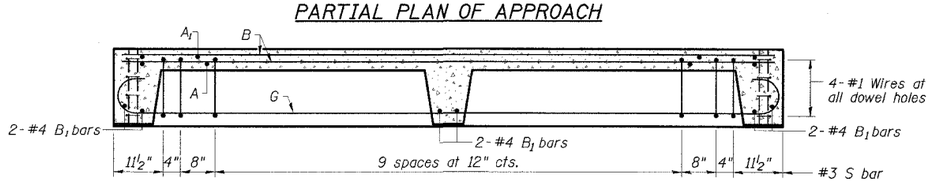
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	*	WHITE	42	18
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

98997 *(105X)BR

SHEET NO. 7
17 SHEETS

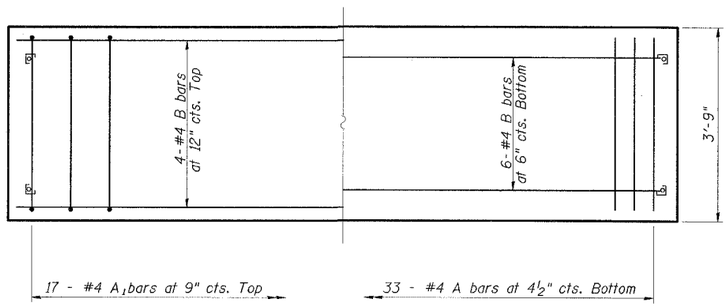


ELEVATION

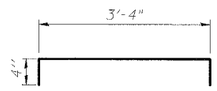


PARTIAL PLAN OF APPROACH

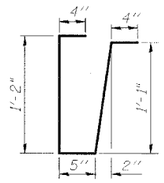
LONGITUDINAL SECTION



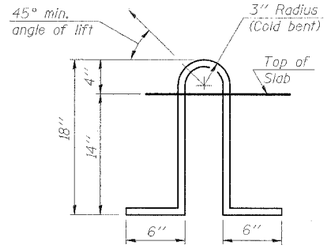
SLAB REINFORCEMENT



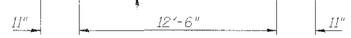
BAR A1



BAR S

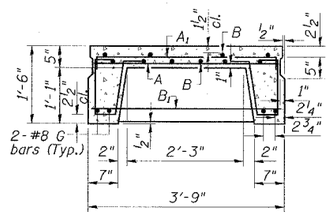


LIFTING LOOP DETAIL

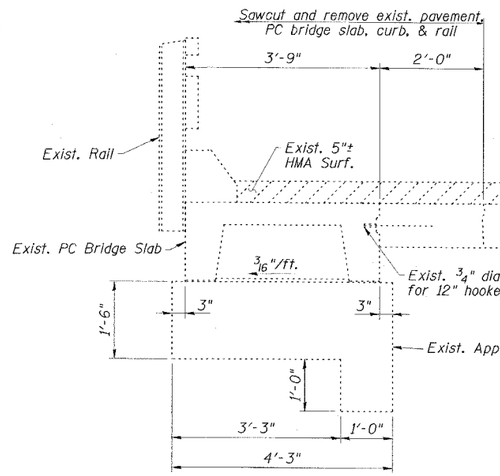


BAR G

FABRIC BEARING PAD

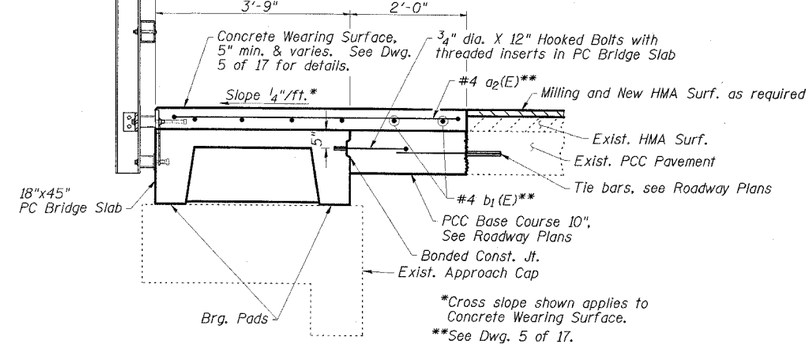


SECTION THRU PRECAST UNIT



EXISTING CROSS SECTION

Note: Cost of Removing exist. PC Bridge Slabs, Curb, & 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.	194

NOTES

Lifting loops shall be 2-½" 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 ⅛" 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 ¾" 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.

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

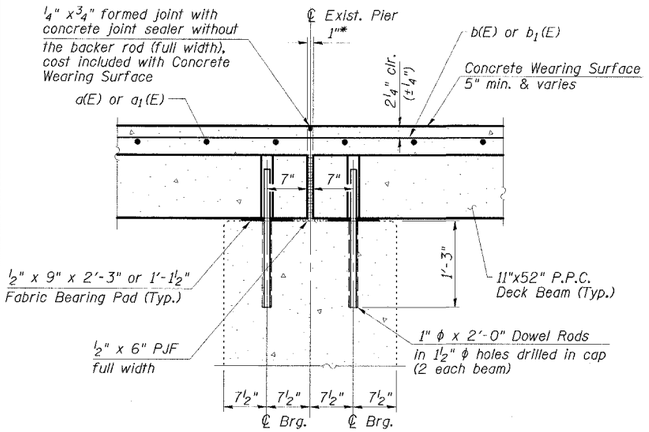
APPROACH DETAILS
US 45 OVER SKILLET FORK OVERFLOW
FAP ROUTE 328 - SECTION (105X)BR
WHITE COUNTY
STATION 598+76.00
STRUCTURE NO. 097-0019

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

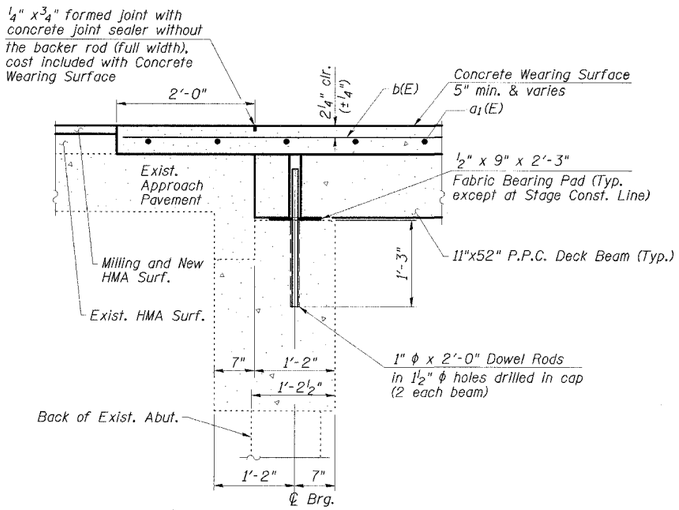
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	*	WHITE	42	19
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 8
17 SHEETS

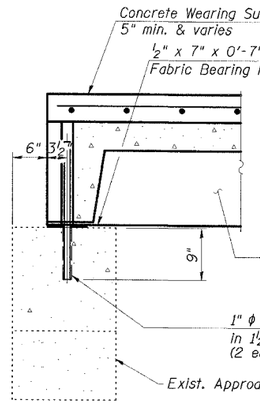
93997 *(105X)BR



SECTION THRU PIER

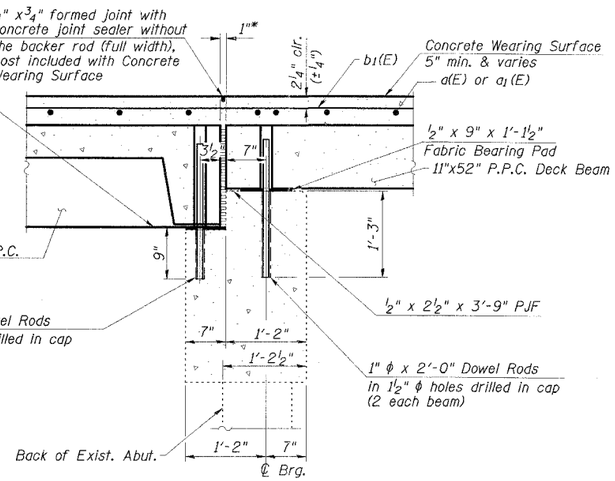


SECTION THRU ABUTMENT @ ℄ RDWY.



SECTION THRU APPROACH CAP

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



SECTION THRU ABUTMENT @ OUTSIDE BEAM

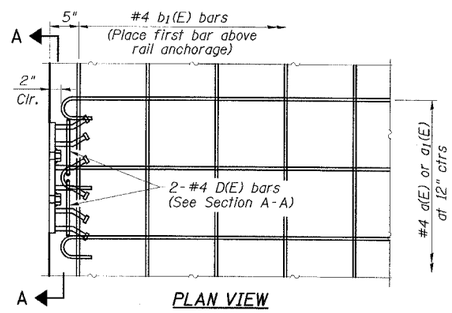
NOTES

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.

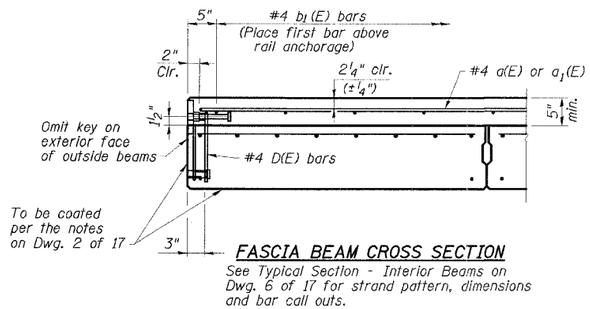
Concrete wearing surface to be poured after grouting the shear keys.

Dowel rods drilled in cap are included in the cost of Precast Prestressed Concrete Deck Beams (11" 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.

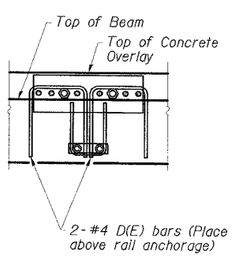


PLAN VIEW

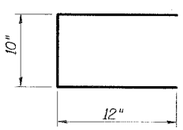


FASCIA BEAM CROSS SECTION

See Typical Section - Interior Beams on Dwg. 6 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)

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

SUPERSTRUCTURE AND APPROACH DETAILS
US 45 OVER SKILLET FORK OVERFLOW
FAP ROUTE 328 - SECTION (105X)BR
WHITE COUNTY
STATION 598+76.00
STRUCTURE NO. 097-0019

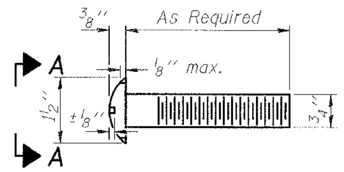
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	*	WHITE	42	20

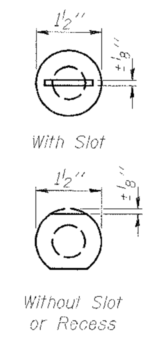
FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

98997 *(105X)BR

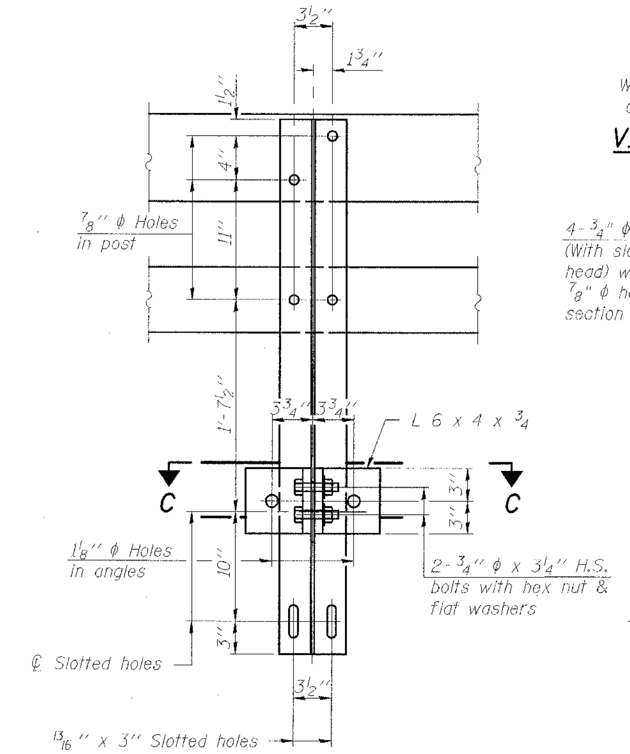
SHEET NO. 9
17 SHEETS



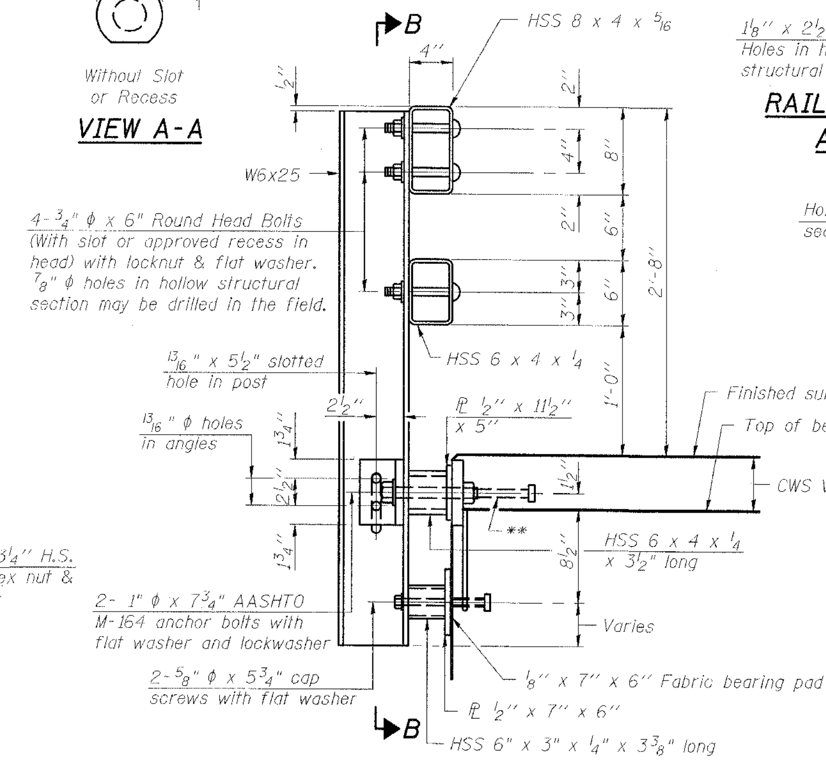
DETAIL OF 3/4" ϕ ROUND HEAD BOLT



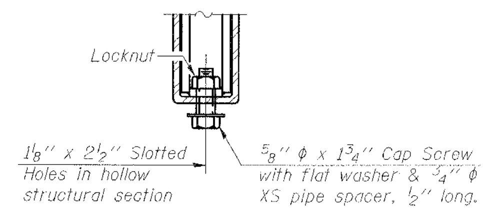
VIEW A-A



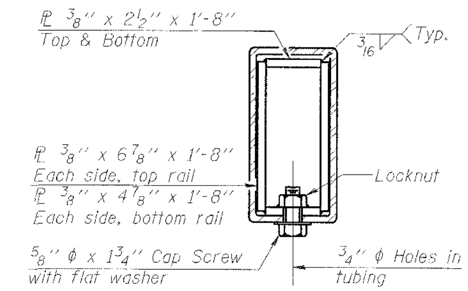
SECTION B-B



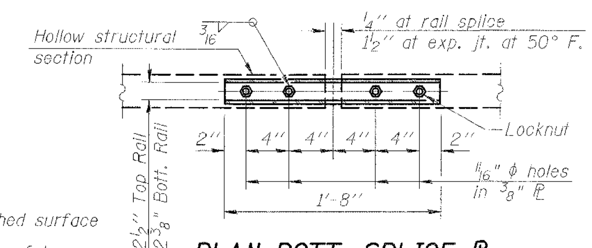
SECTION AT RAIL POST



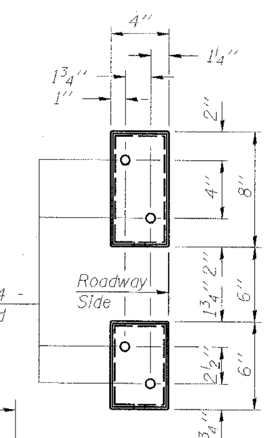
RAIL SPLICE CONNECTION AT EXPANSION JT.



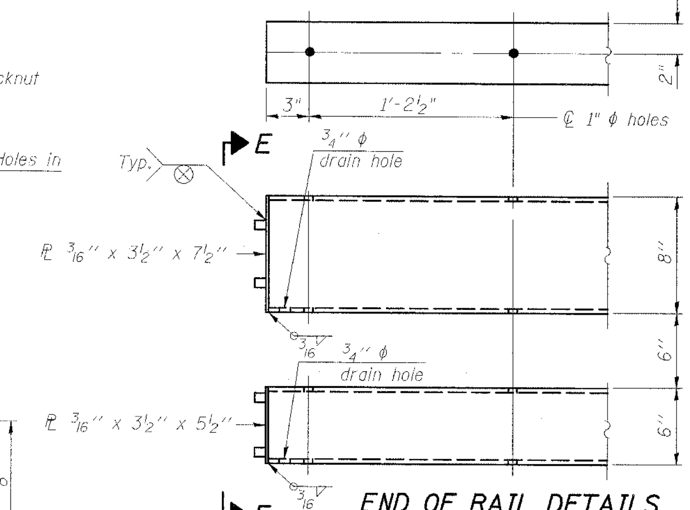
SECTION AT RAIL SPLICE



PLAN-BOTT. SPLICE ℗ TYPICAL

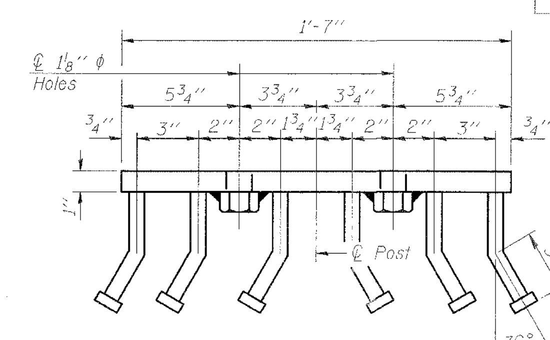


VIEW E-E



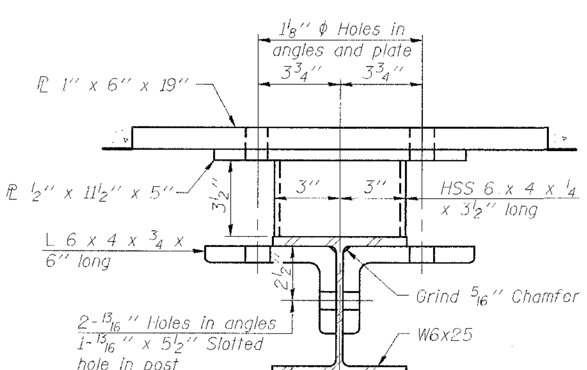
END OF RAIL DETAILS

℄ - 5/8" reduced base welded studs. Provide 4 - 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032

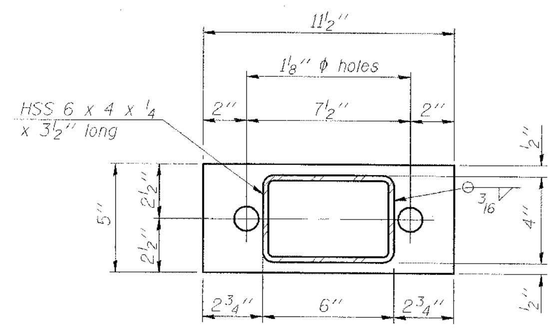


VIEW D-D

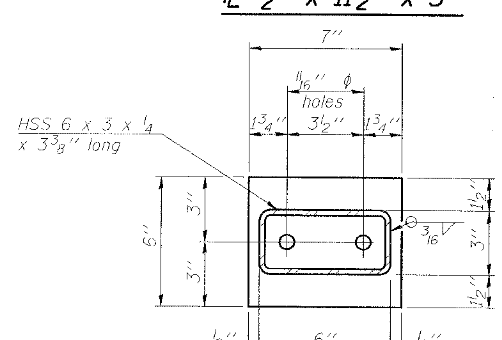
Notes:
All field drilled holes shall be coated with an approved zinc rich paint before erection.
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM.
Steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



SECTION C-C

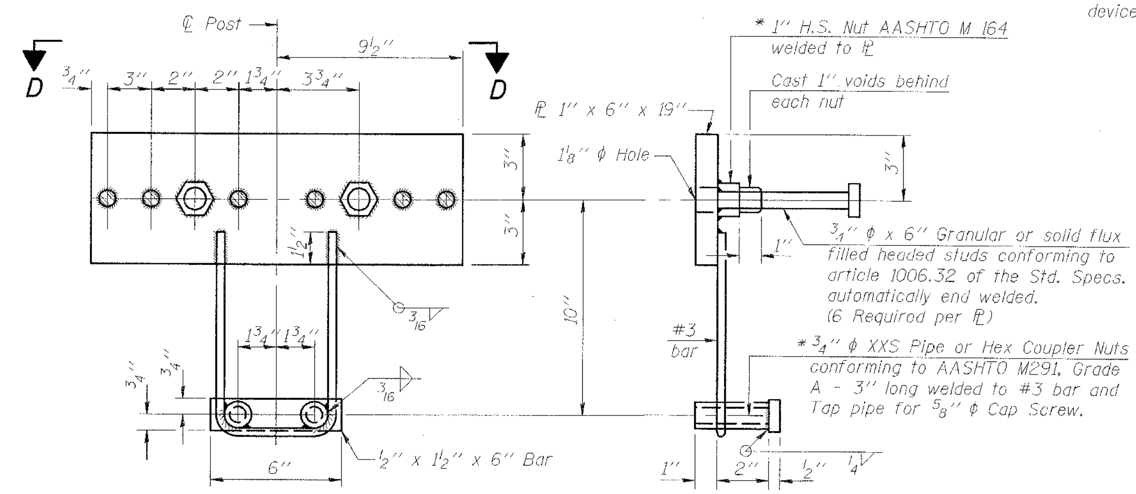


℗ 1/2" x 11 1/2" x 5"



℗ 1/2" x 7" x 6"

(6'-3" Maximum Post Spacing) (5" minimum to 7 1/8" maximum CWS thickness)



ANCHOR DEVICE

* Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	228

STEEL RAILING, TYPE SM
WITH CONCRETE WEARING SURFACE
US 45 OVER SKILLET FORK OVERFLOW
FAP ROUTE 328 - SECTION (105X)BR
WHITE COUNTY
STATION 598+76.00
STRUCTURE NO. 097-0019

ESCA CONSULTANTS, INC.

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

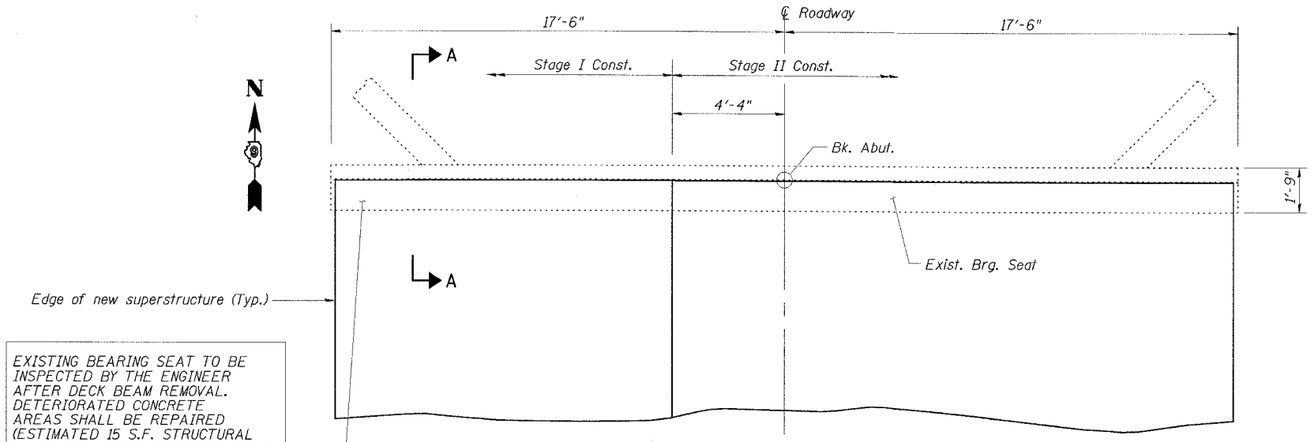
R-34CWS 11-1-06

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	*	WHITE	42	21
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	

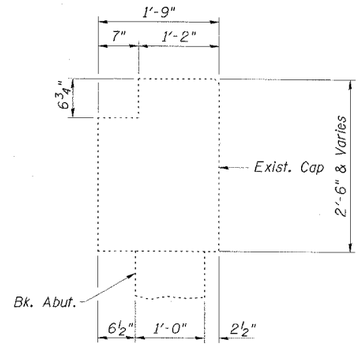
SHEET NO. 10
17 SHEETS

98997 *(105X)BR



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 19.5' EPOXY CRACK INJECTION) IF FOUND. CONCRETE SEALER SHALL BE APPLIED TO CONCRETE REPAIR AREAS.

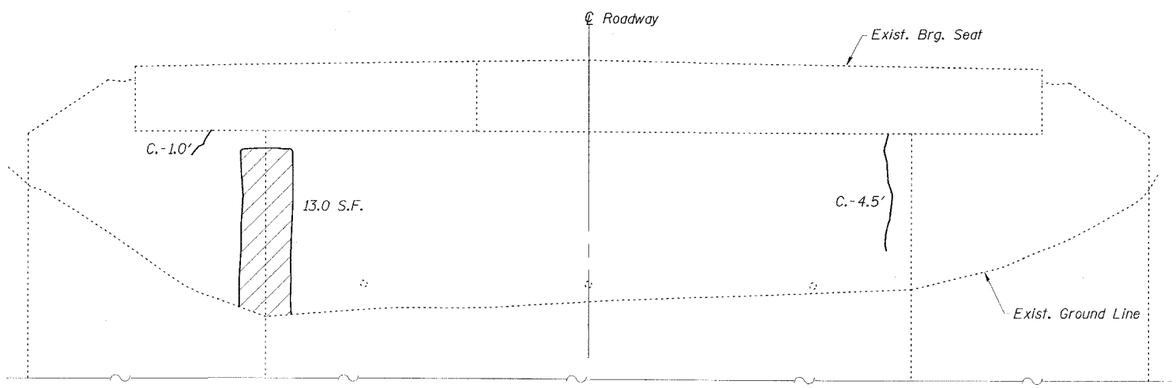
PLAN



SECTION A-A

NORTH ABUTMENT BILL OF MATERIAL

Concrete Sealer	Sq. Ft.	15
Epoxy Crack Injection	Foot	25
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	28



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.

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

ESCA CONSULTANTS, INC.

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

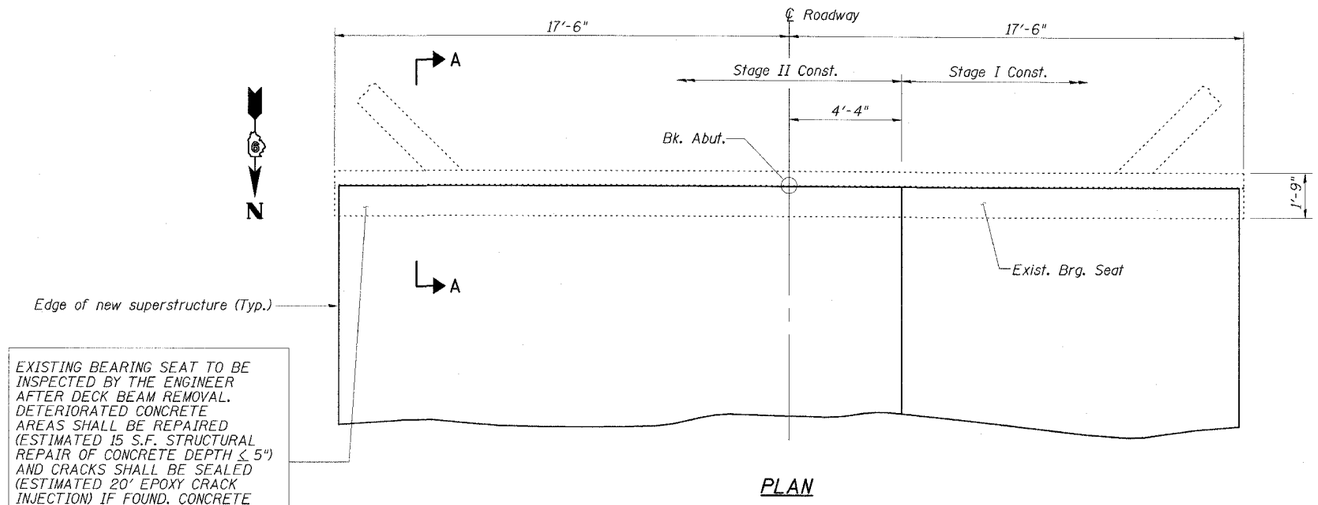
NORTH ABUTMENT
US 45 OVER SKILLET FORK OVERFLOW
FAP ROUTE 328 - SECTION (105X)BR
WHITE COUNTY
STATION 598+76.00
STRUCTURE NO. 097-0019

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	*	WHITE	42	22
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	

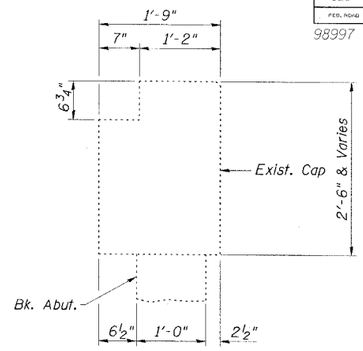
SHEET NO. 11
17 SHEETS

98997 *(105X)BR



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.

PLAN



SECTION A-A

SOUTH ABUTMENT BILL OF MATERIAL

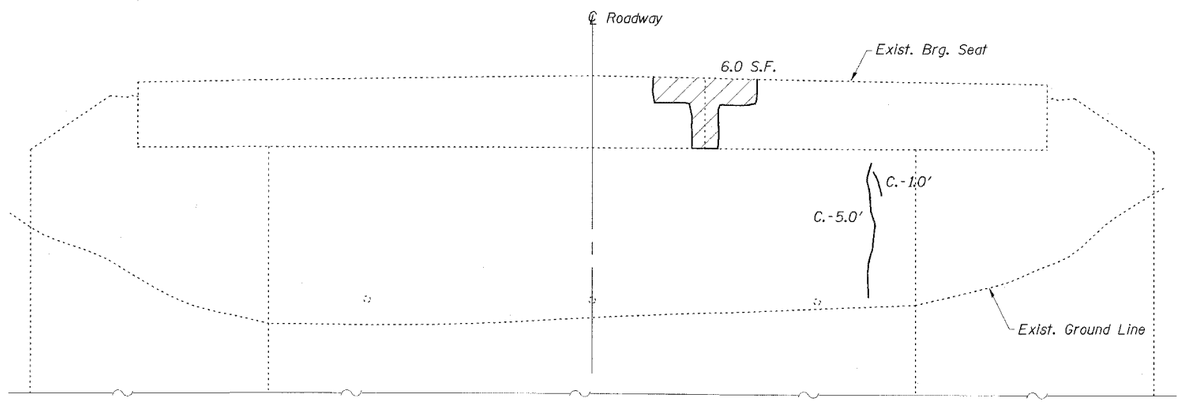
Concrete Sealer	Sq. Ft.	15
Epoxy Crack Injection	Foot	26
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	21

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



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

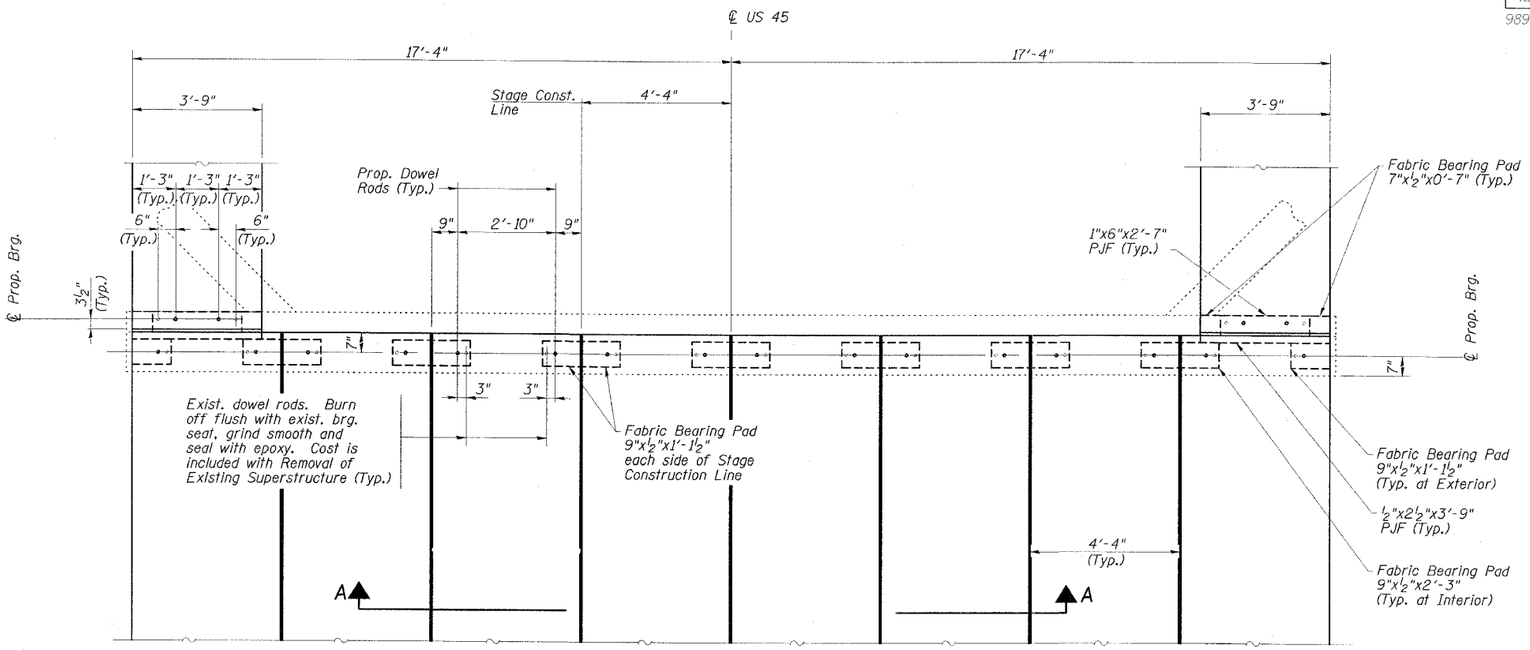
SOUTH ABUTMENT
US 45 OVER SKILLET FORK OVERFLOW
FAP ROUTE 328 - SECTION (105X)BR
WHITE COUNTY
STATION 598+76.00
STRUCTURE NO. 097-0019

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	*	WHITE	42	23
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 12
17 SHEETS

98997 *(105X)BR

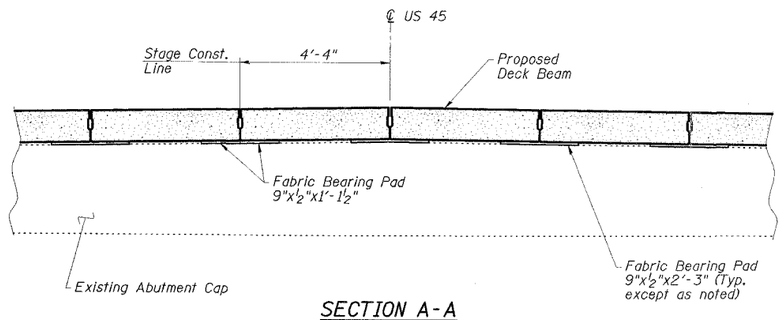
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



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)

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

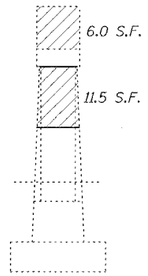
ABUTMENT DETAILS
US 45 OVER SKILLET FORK OVERFLOW
FAP ROUTE 328 - SECTION (105X)BR
WHITE COUNTY
STATION 598+76.00
STRUCTURE NO. 097-0019

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

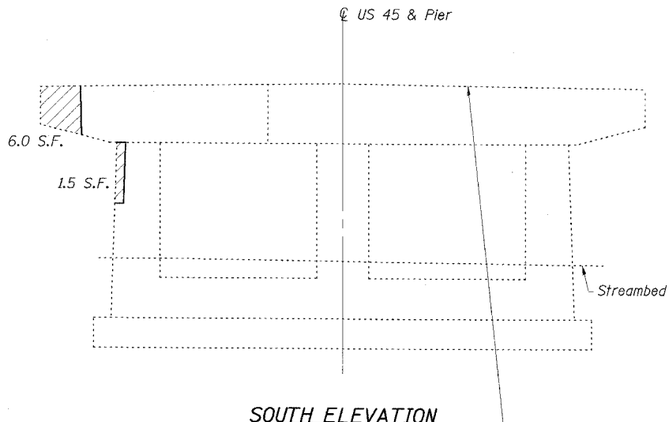
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	*	WHITE	42	24
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 13
17 SHEETS

98997 *(105X)BR

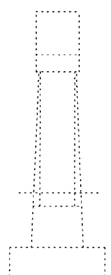


WEST END

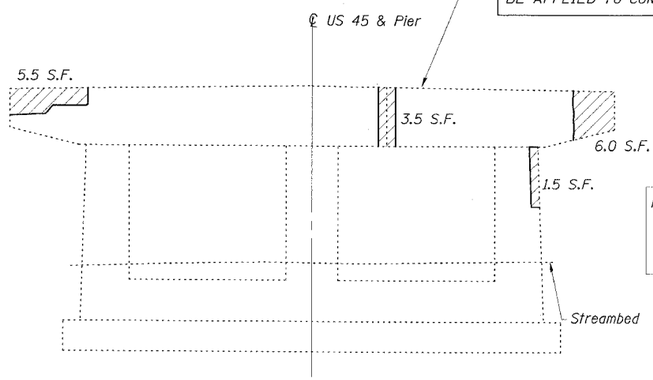


SOUTH ELEVATION

EXISTING BEARING SEAT TO BE INSPECTED BY THE ENGINEER AFTER DECK BEAM REMOVAL. DETERIORATED CONCRETE AREAS SHALL BE REPAIRED (ESTIMATED 18.5 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.



EAST END



NORTH ELEVATION

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 1
BILL OF MATERIAL

ITEM	UNIT	TOTAL
Epoxy Crack Injection	Foot	20
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	60
Concrete Sealer	Sq. Ft.	19

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

ESCA CONSULTANTS, INC.

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

PIER 1
US 45 OVER SKILLET FORK OVERFLOW
FAP ROUTE 328 - SECTION (105X)BR
WHITE COUNTY
STATION 598+76.00
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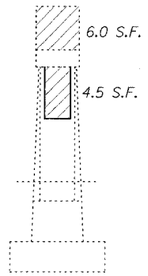
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

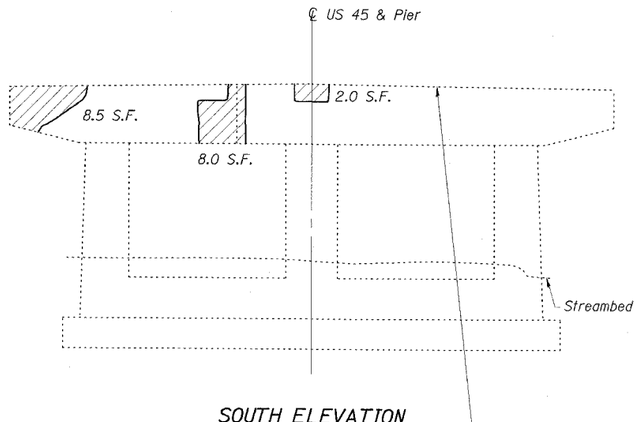
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	*	WHITE	42	25
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 14
17 SHEETS

98997 *(105X)BR

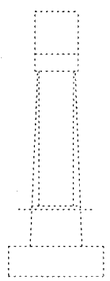


WEST END



SOUTH ELEVATION

EXISTING BEARING SEAT TO BE INSPECTED BY THE ENGINEER AFTER DECK BEAM REMOVAL. DETERIORATED CONCRETE AREAS SHALL BE REPAIRED (ESTIMATED 16 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



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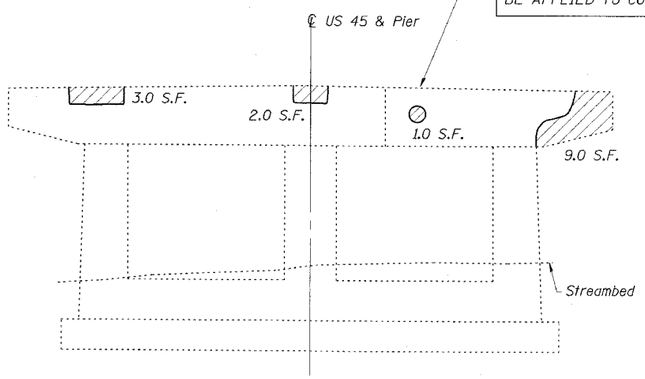


NORTH ELEVATION

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 2
BILL OF MATERIAL

ITEM	UNIT	TOTAL
Epoxy Crack Injection	Foot	20
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	60
Concrete Sealer	Sq. Ft.	16

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

ESCA CONSULTANTS, INC.

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

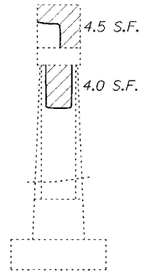
PIER 2
US 45 OVER SKILLET FORK OVERFLOW
FAP ROUTE 328 - SECTION (105X)BR
WHITE COUNTY
STATION 598+76.00
STRUCTURE NO. 097-0019

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

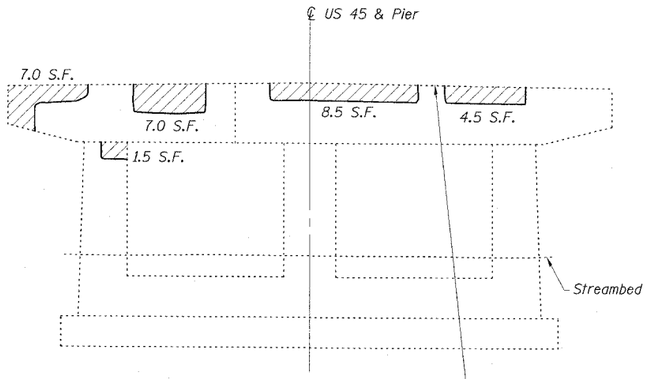
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	*	WHITE	42	26
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT -	

SHEET NO. 15
17 SHEETS

98997 *(105X)BR

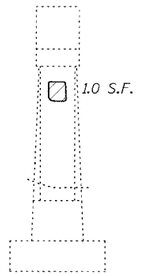


WEST END

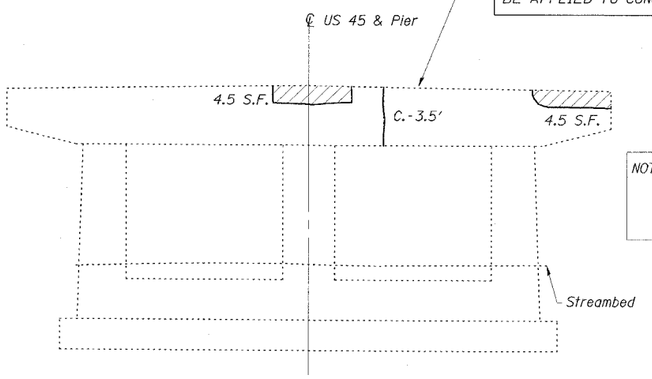


SOUTH ELEVATION

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 19.5' EPOXY CRACK INJECTION) IF FOUND. CONCRETE SEALER SHALL BE APPLIED TO CONCRETE REPAIR AREAS



EAST END



NORTH ELEVATION

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 3
BILL OF MATERIAL

ITEM	UNIT	TOTAL
Epoxy Crack Injection	Foot	23
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	62
Concrete Sealer	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

ESCA CONSULTANTS, INC.

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

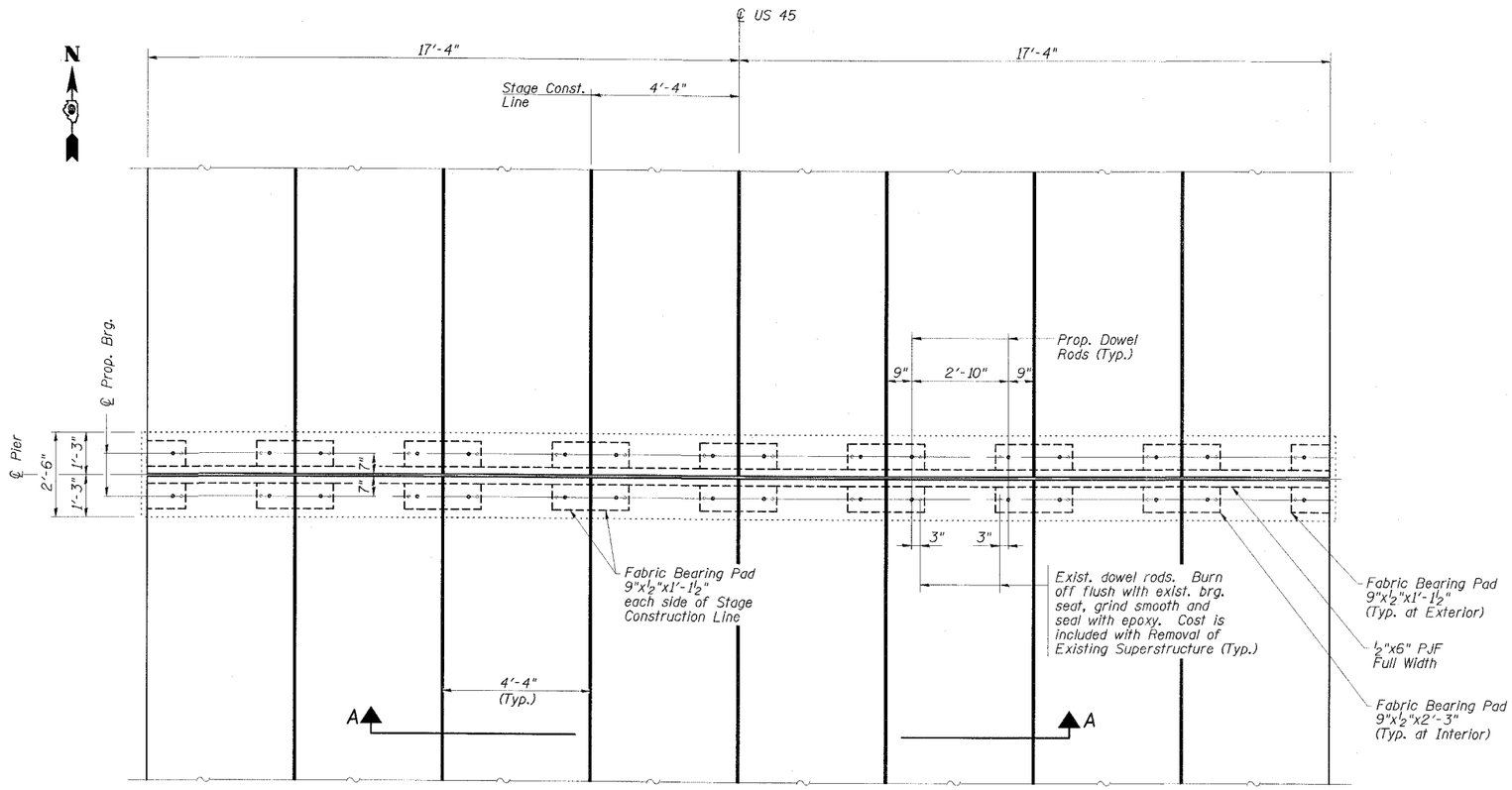
PIER 3
US 45 OVER SKILLET FORK OVERFLOW
FAP ROUTE 328 - SECTION (105X)BR
WHITE COUNTY
STATION 598+76.00
STRUCTURE NO. 097-0019

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	*	WHITE	42	27
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT:	

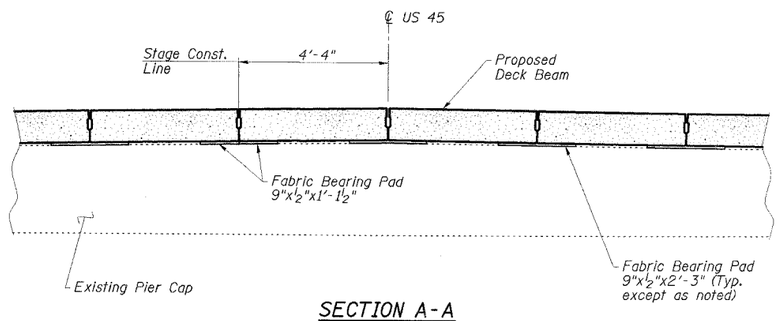
SHEET NO. 16
17 SHEETS

98997 *(105X)BR

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



TYPICAL PIER BEARING SEAT PLAN
(Concrete wearing surface not shown)



SECTION A-A
(Concrete wearing surface not shown)

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

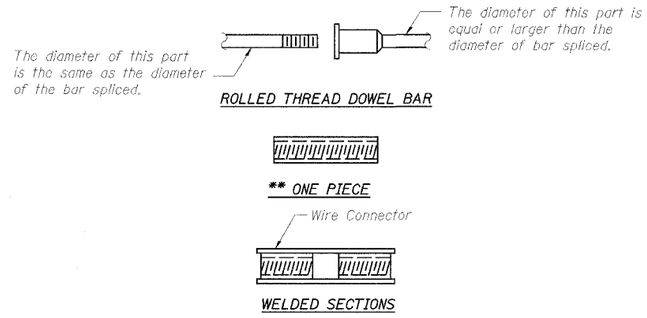
PIER DETAILS
US 45 OVER SKILLET FORK OVERFLOW
FAP ROUTE 328 - SECTION (105X)BR
WHITE COUNTY
STATION 598+76.00
STRUCTURE NO. 097-0019

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	*	WHITE	42	28
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

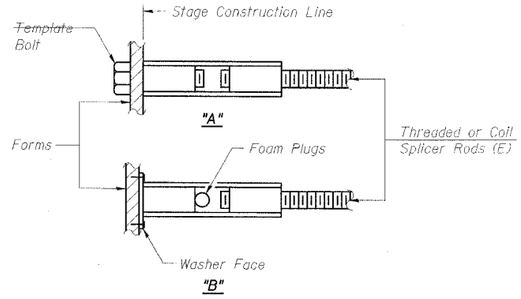
SHEET NO. 17
17 SHEETS

98997 *(105X)BR



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:

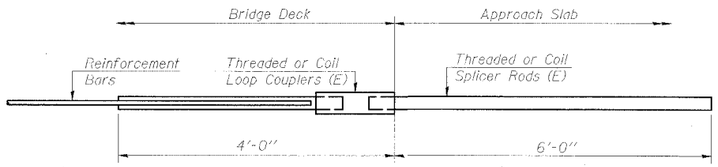
① Minimum Capacity (Tension in kips) = 1.25 x fy x A_t

② Minimum *Pull-out Strength (Tension in kips) = 0.66 x fy x A_t

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

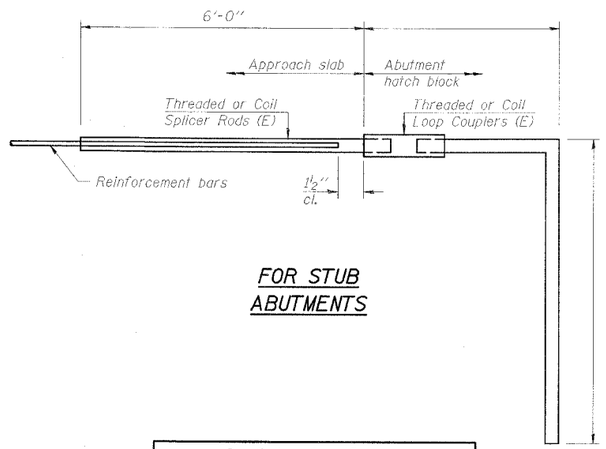
BAR SPLICER ASSEMBLIES

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



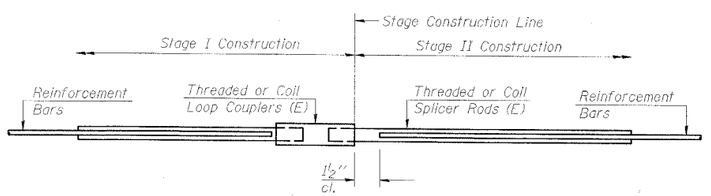
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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	92	Concrete Wearing Surface

BAR SPLICER ASSEMBLY DETAILS
US 45 OVER SKILLET FORK OVERFLOW
FAP ROUTE 328 - SECTION (105X)BR
WHITE COUNTY
STATION 598+76.00
STRUCTURE NO. 097-0019

ESCA CONSULTANTS, INC.

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

BSD-1 11-1-06

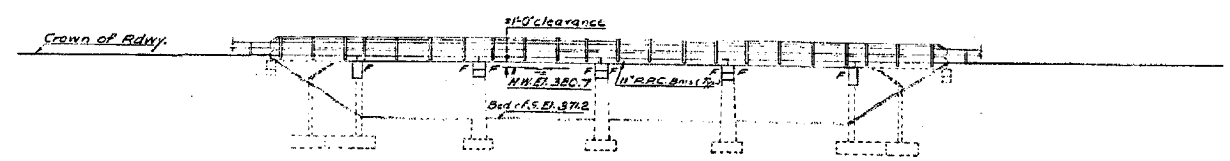
CONTRACT NO. 98997

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	29
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

B.M.#1 – Top of bolt E. end of S. Pier R.R. Trestle 80' Rt. Sta. 599+10 Elev. 378.76.

Existing structure: Built as S.B.I. Route 140, Sec. 105B, at Sta. 596+76 in the year 1928. The existing R.C. slab superstructure to be removed and replaced with P.P.C. Deck Bms. using stage construction. The existing substructure to be rebuilt as required to accommodate the new widened superstructure.

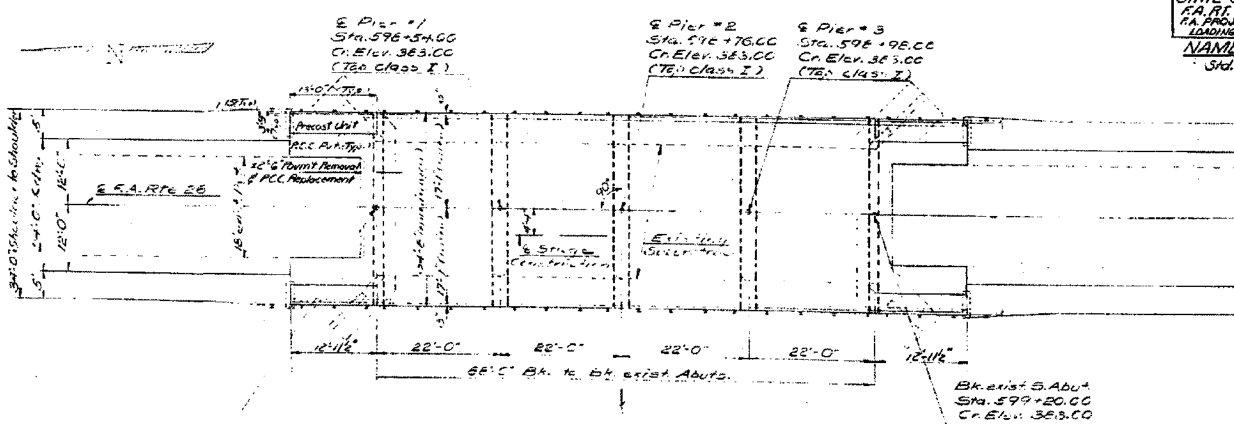
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION

STATION 598+76.00
BUILT 19 BY
STATE OF ILLINOIS
F.A. RT. 68 SEC. 105BR-2
F.A. PROJ. F-88(4)
LOADING HS 20

NAME PLATE
Std. 2113



PLAN

0.00%

PROPOSED PROFILE F.A.R.T.

DESIGNED	John A. Morris
CHECKED	
DRAWN	V. H. 7th
CHECKED	

September 17, 1974

WATERWAY INFORMATION

Drainage area	915 sq. miles
Present opening	750 sq. ft.
Required opening	685 sq. ft.
Proposed opening	750 sq. ft.

PRECAST PRESTRESSED UNITS

$f'c$ = 5,000 psi
$f'ci$ = 4,000 psi
$f's$ = 270,000 psi (7/16 Strands)
fsi = 189,000 psi (7/16 Strands)

FIELD UNITS

$f'c$ = 1400 psi
fs = 20000 psi (Reinf.)
n = 10

Loading HS 20-44
Design Specifications: AASHO 1973
Allow 25#/Sq. Ft. for future w.s.

GENERAL NOTES

All reinforcement bars shall be lapped 24 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.

Protective Coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.

Expansion bolts shall consist of self drilling expansion anchors and ¾"ϕ hooked bolts. Hooked bolts shall extend a minimum of 12" into new concrete unless otherwise shown.

Shoulder transistion to wingwall shall be shaped with broken concrete. Cost Incidental.

Limits of Waterproofing Membrane System shall be two feet beyond end of deck beams and out to out of deck.

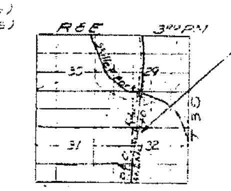
The top surface of the beams shall be finished in accordance with Artical 505.06 of Standard Specifications except that the surface shall not be roughened by brooming. The finished surface shall be free of depressions or of high spots with sharp corners.

The existing guardrail on the bridge shall be removed in accordance with the applicable portions of the special provisions for "Steel Plate Beam Guardrail, Removal, & Salvage"

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Bituminous Concrete Surface Course Class I	Ton	30		30
Portland Cement Concrete Pavement (10")	Sq. Yd.	26		26
Pavement Fabric	Sq. Yd.	26		26
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu. Yd.		26	26
Expansion Bolts ¾"ϕ	Each	32	160	192
Class X Concrete	Cu. Yd.	8.5	73.9	82.4
Precast Concrete Bridge Slab	Sq. Ft.	194		194
Precast Prestressed Concrete Deck Beams (11" Depth)	Sq. Ft.	3039		3039
Reinforcement Bars	Pound	300	5540	5840
* Waterproofing Membrane System	Sq. Yd.	390		390
Pavement Removal & Portland Cement Concrete Replacement Type II (10")	Sq. Yd.	10		10
Steel Railing Type T	Lin. Ft.	228		228
Temporary Guardrail	Lin. Ft.	88		88
Protective Coat	Sq. Yd.	38		38
* Portland Cement Mortar Fairing Course	Lin. Ft.	615		615
Name Plates	Each	1		1

* See Special Provisions



LOCATION SKETCH

PROJECT F-88(4)
GENERAL PLAN & ELEVATION
F.A. RTE. 68 OVER SKILLET FORK
OVERFLOW
F.A. RTE. 68 - SECTION 105 BR-2
WHITE COUNTY
STA. 596+76.00

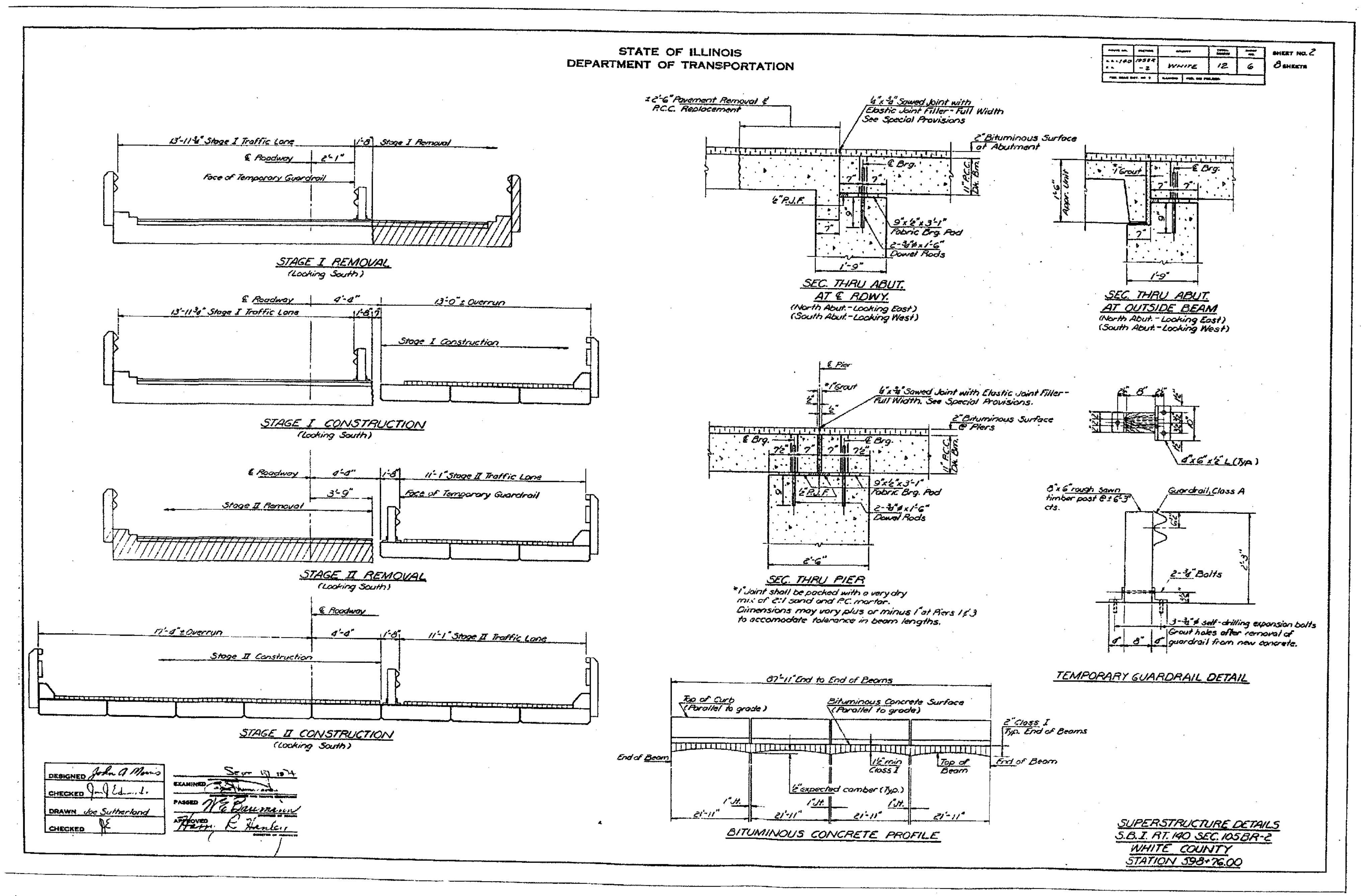
ESCA CONSULTANTS, INC.		
DESIGNED BY:	MTD	02/07
DRAWN BY:	HAG	02/07
CHECKED BY:	MTD	02/07
APPROVED BY:	RDP	04/07

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 328 (US 45)
SECTION (105X)BR
WHITE COUNTY

CONTRACT NO. 98997

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	30
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ESCA CONSULTANTS, INC.

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

FOR INFORMATION ONLY

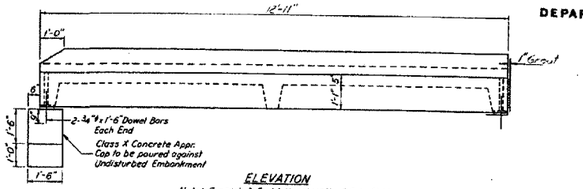
EXISTING STRUCTURE PLANS
FAP RTE 328 (US 45)
SECTION (105X)BR
WHITE COUNTY

CONTRACT NO. 98997

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	31
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

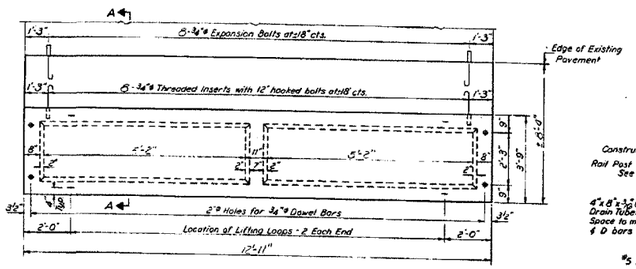
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

				SHEET NO. 3
S.B.I. 140	105B	WHITE	12	7
	-2			8 SHEETS

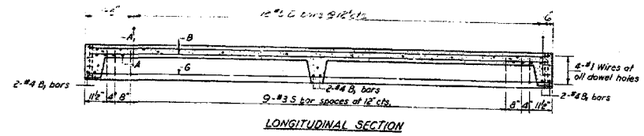


ELEVATION

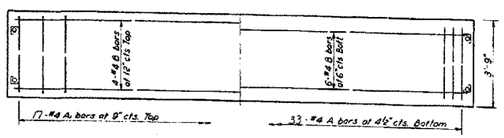
Note: Furnish 2 Right Hand Units & 2 Left Hand Units



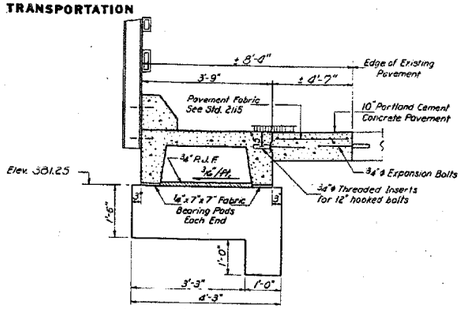
PARTIAL PLAN OF APPROACH



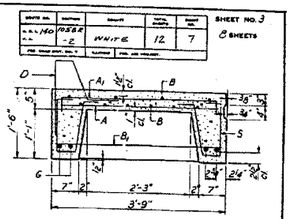
LONGITUDINAL SECTION



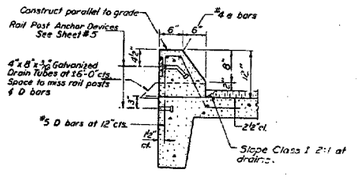
SLAB REINFORCEMENT



SECTION A-A

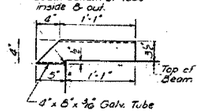


SECTION THRU PRECAST UNIT



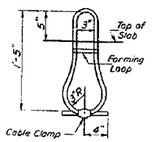
SECTION THRU CURB

Curbs shall be poured in the field. Class X Concrete & ø bars in curbs are billed on Sheet #5

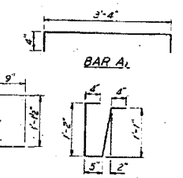


DRAIN DETAIL

Cost Incidental



LIFTING LOOP DETAIL



BAR LIST - ONE UNIT

Reinforcement to be cast into slab

Bar	No	Size	Length	Shape
A	33	#4	3'-3"	
A_1	17	#4	4'-0"	
B	10	#4	12'-0"	
B_1	6	#4	3'-6"	
D	12	#5	3'-2"	
G	4	#9	12'-5"	
S	20	#3	3'-4"	

NOTES

Unless otherwise approved by the Engineer, lifting loops shall be ⅝", 6x19 class wire rope with fiber core and shall have a minimum ultimate strength of 18,700 lbs. Loops shall be burned off after slab has been erected.

Holes shall be drilled and anchor dowels grouted in place.

Cost of reinforcement and accessories cast into the slab unit, bearing pads, furnishing, drilling for, placing and grouting anchor dowels and ¾"ø hooked bolts is included in Unit bid 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.

BILL OF MATERIAL

Item	Unit	Quantity
Precast Concrete Bridge Slab	Sq Ft	96
Portland Cement Concrete Pavement (id)	Sq Yds.	26
Pavement Fabric	Sq Yds.	26
Expansion Bolts ¾"ø	Each	32
Class X Concrete	Cu Yds.	1.6

STRESSES

f_c = 4,500 psi.
f_c = 1,800 psi.
f_s = 20,000 psi.
n = 8

LOADING H-S 20

APPROACH DETAILS
S.B.I. RT. 140 SEC. 105B-2
WHITE COUNTY
STATION 593+76.00

DESIGNED	John G. Morris	
CHECKED		
DRAWN	Joe Sutterfield	
CHECKED		

EXAMINED _____ 19

PASSED _____
ENGINEER OF BRIDGES AND TRAFFIC STRUCTURES

APPROVED _____
DIRECTOR OF HIGHWAYS

W-AP-1 20' Precast Appr Unit (Rt L) 11-15-91

ESCA CONSULTANTS, INC.

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

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 328 (US 45)
SECTION (105X)BR
WHITE COUNTY

CONTRACT NO. 98997

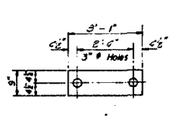
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	32
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

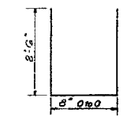
SHEET NO. 4 OF 8 SHEETS

STRUCTURE NO.	HIGHWAY	COUNTY	TOTAL SHEETS	SHEET NO.
105BR-2		WHITE	12	8

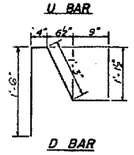
FABRIC BEARING PAD



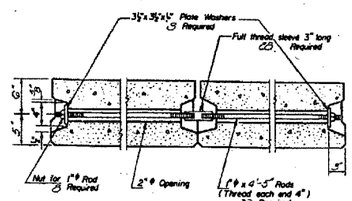
U BAR

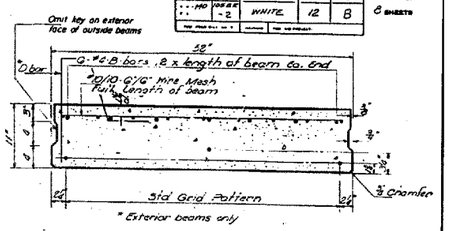


D BAR



TYPICAL TRANSVERSE TIE ASSEMBLY

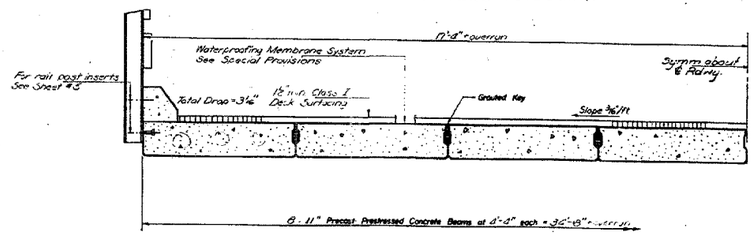




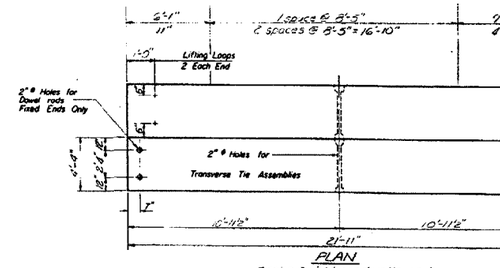
Note: Place Strands Symmetricaly about ℄ of beam.

TYPICAL SECTION

½" ø Strands Each Strand Stressed to 21,700 lbs.
12 Strands 1½" up . 1 Strand 3½" up

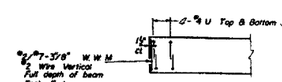


HALF CROSS SECTION

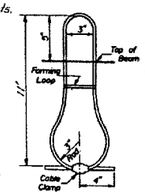


PLAN

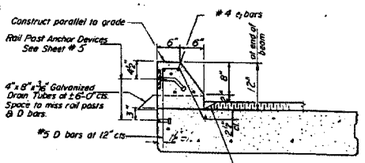
Furnish 2 right hand units and 2 left hand units for each rail post spacing given above.



END PLAN

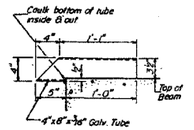


LIFTING LOOP DETAIL



SECTION THRU CURB

Curbs shall be poured in the field. Class X Concrete @ ⇆ bars for curbs are billed on Sheet # 5



DRAIN DETAIL

(Deck Thickness)

GENERAL NOTES

Prestressing steel shall be non-galvanized high strength, stress-relieved 7-wire strand. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.115 sq. in.. Lifting loops shall be ¾" diameter, 6x25 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 21,000 lbs.

The 1" ø 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 beam shall be filled with grout after transverse tie assembly is in place.

Longitudinal shear keys shall be packed with a very dry mix of 2:1 sand and P.C. mortar. After beams have been erected, holes for the dowel anchors shall be drilled into the sub-structure and the anchor dowels shall be grouted in place.

Dowel rods shall be A.S.T.M. A-306 or A.S.T.M. A-615. Transverse tie rods shall be A.S.T.M. A-306, Grade 70-80.

After fabrication the transverse tie assemblies (tie rods, nuts, washers and sleeves) shall be hot-dipped galvanized in accordance with A.S.T.M. Designation: A153.

Cost of reinforcement and accessories cast into the beam, of bearing pads, of dowel rods and of grouting longitudinal shear keys is included in unit price bid for "Precast Prestressed Concrete Deck Beams"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
Precast Prestressed Concrete Deck Beams (11")			Sq. Ft.	3039

SUPERSTRUCTURE
S.B.I. RT. 140 SEC. 105 BR-2
WHITE COUNTY
STATION 398+76.00

DESIGNED	John A. Morin	
CHECKED		
DRAWN	J. Sutherland	
CHECKED		

EXAMINED _____ 19__
PASSED _____
APPROVED _____
DIRECTOR OF HIGHWAYS

W-SR-1 (11-15-71)

ESCA CONSULTANTS, INC.

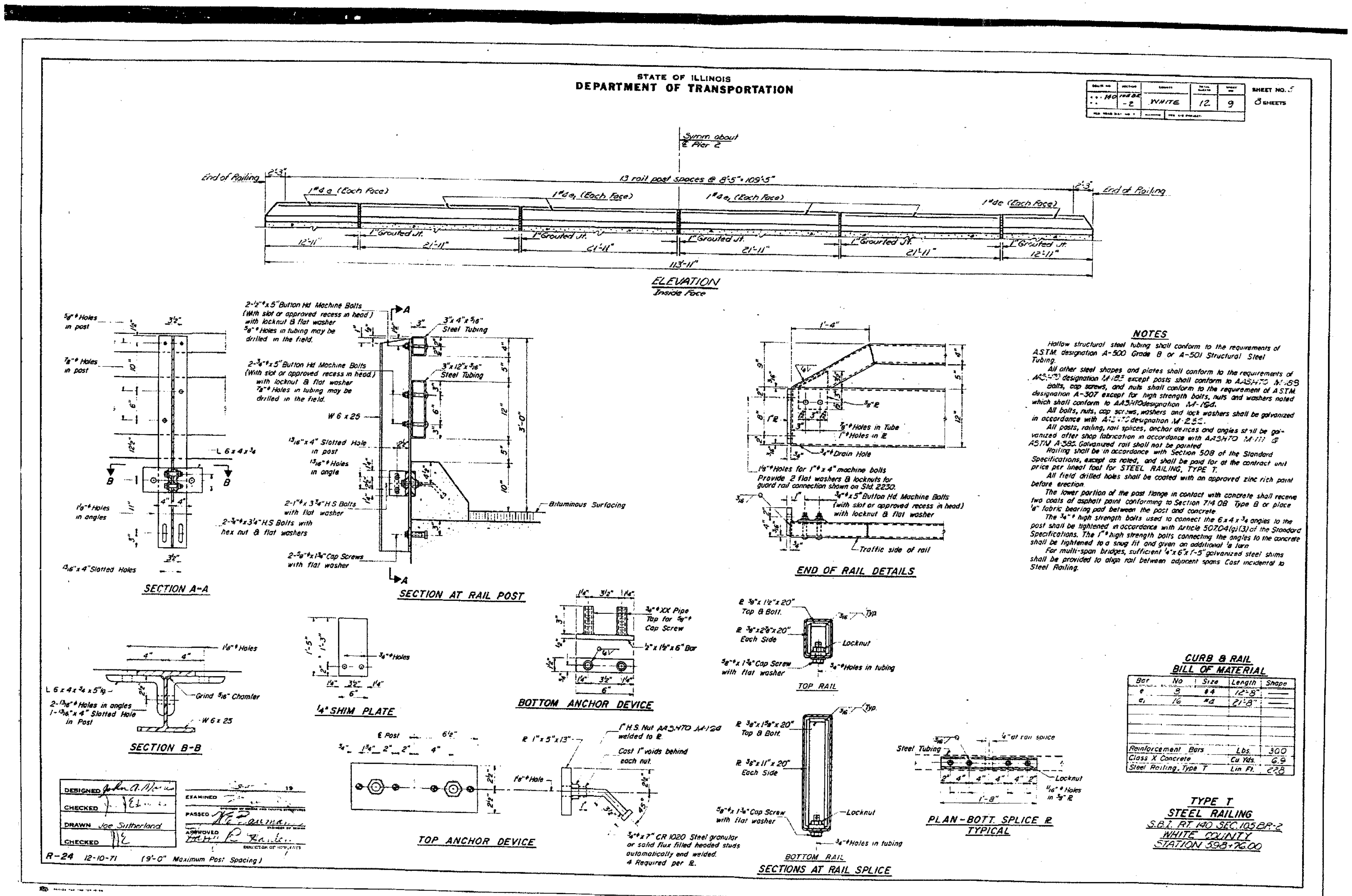
DESIGNED BY:	MTD	02/07
DRAWN BY:	HAG	02/07
CHECKED BY:	MTD	02/07
APPROVED BY:	RDP	04/07

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 328 (US 45)
SECTION (105X)BR
WHITE COUNTY

CONTRACT NO. 98997

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	33
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FOR INFORMATION ONLY

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

EXISTING STRUCTURE PLANS
FAP RTE 328 (US 45)
SECTION (105X)BR
WHITE COUNTY

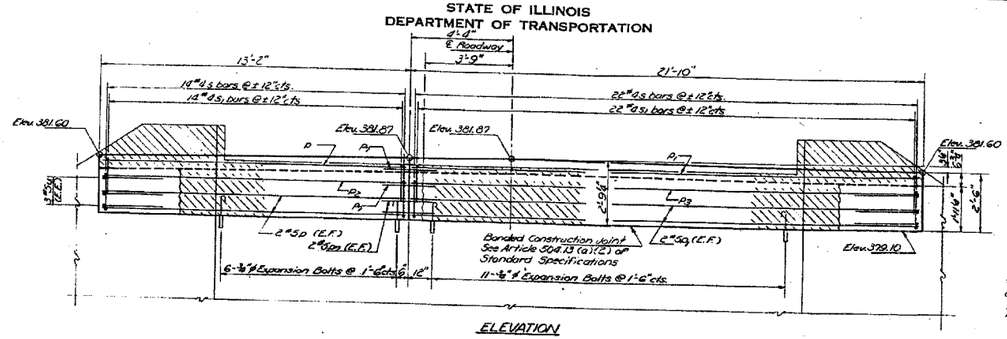
CONTRACT NO. 98997

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	34
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

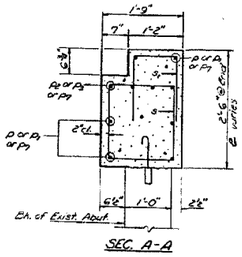
		WHITE	12	10

SHEET NO. 6 OF 8 SHEETS

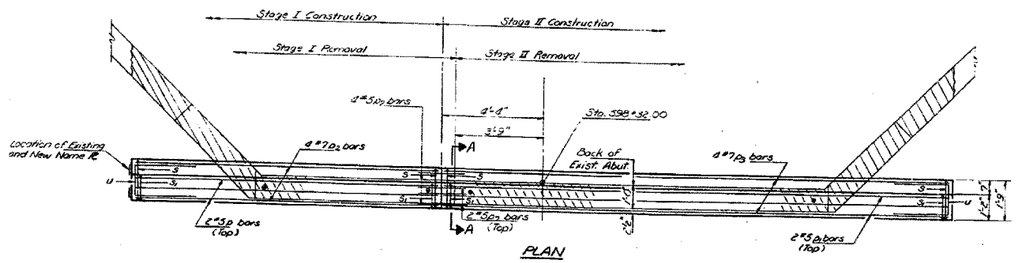


ELEVATION

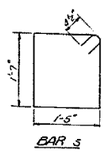
Note: Hatched area indicates concrete removal. Reinforcement extending into removed area shall be cleaned and incorporated into new construction.



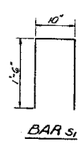
SEC. A-A



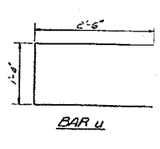
PLAN



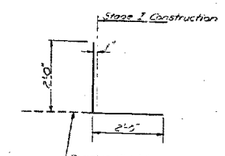
BAR S



BAR S1



BAR U



BAR P3

* P1, P3 bars shall conform to the requirements of AASHTO M 31 or M 53 except the minimum yield strength shall not be less than 33,000 psi nor more than 45,000 psi.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
D	6	#5	13'-0"	
D1	6	#5	21'-2"	
D2	8	#7	13'-0"	
P1	8	#7	21'-2"	
P3	10	#5	8'-0"	
S	36	#4	6'-9"	
S1	36	#4	3'-10"	
U	6	#5	6'-6"	
Class X Concrete		Cu Yd.	5.5	
Reinforcement Bars		Pound	880	
Expansion Bolts ⅞" ϕ		Each	17	
Concrete Removal		Cu Yd.	3.0	

DESIGNED	John A. Morris	
CHECKED		
DRAWN	Joe Sutherland	
CHECKED		

EXAMINED
PASSED
APPROVED
DIRECTOR OF HIGHWAYS

NORTH ABUTMENT
S.B.I. RT. 140 SEC. 105 BR-2
WHITE COUNTY
STATION 598+76.00

ESCA CONSULTANTS, INC.

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

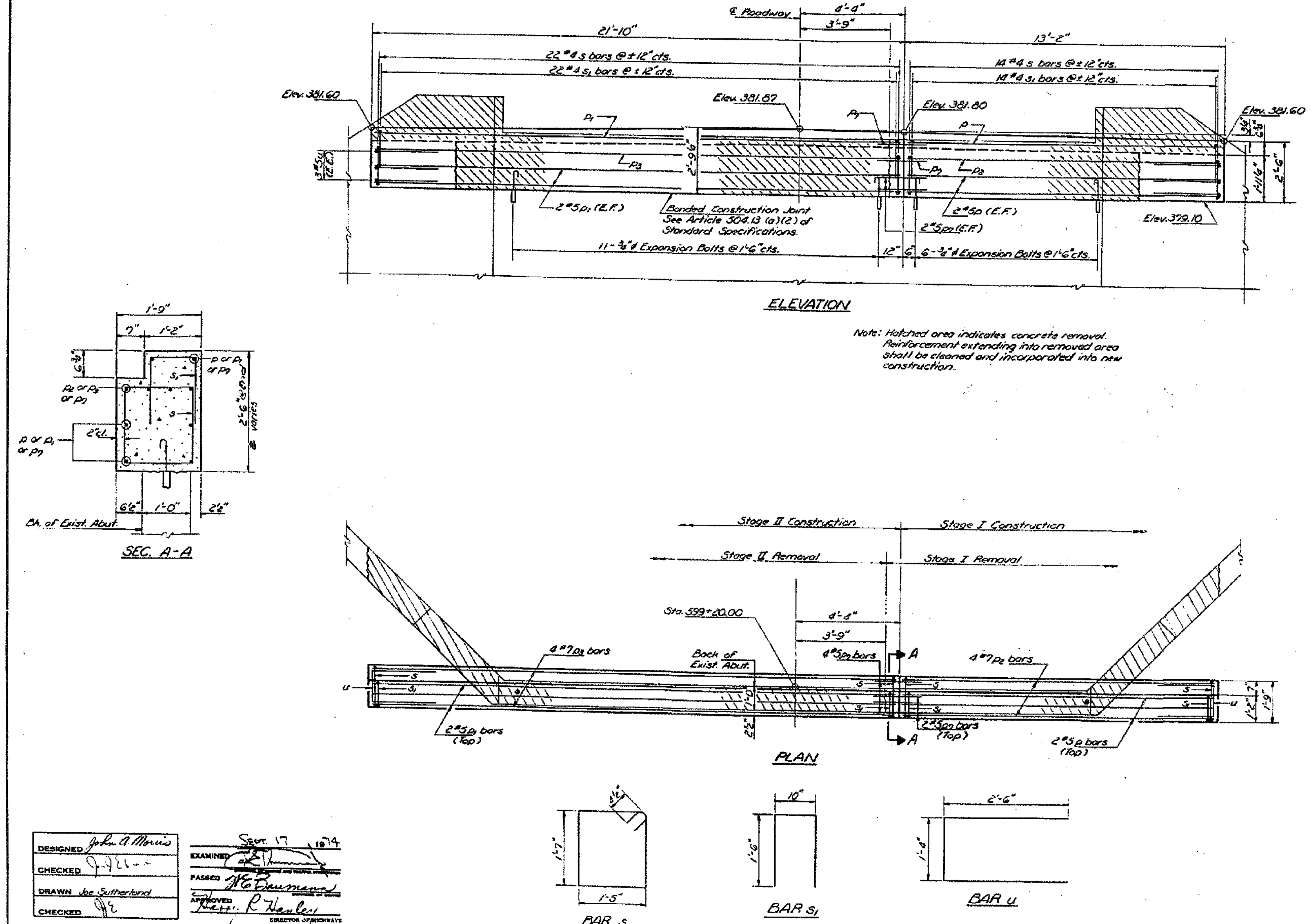
FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 328 (US 45)
SECTION (105X)BR
WHITE COUNTY

CONTRACT NO. 98997

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	35
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
p	6	#5	13'-0"	—
p1	6	#5	21'-8"	—
p2	4	#7	13'-0"	—
p3	4	#7	21'-8"	—
* p7	10	#5	4'-0"	L
s	36	#4	6'-9"	⊐
s1	36	#4	3'-10"	⊓
u	6	#5	6'-8"	⊏
Class X Concrete			Cu. Yd.	5.5
Reinforcement Bars			Pound	880
Expansion Bolts 3/4"Ø			Each	17
Concrete Removal			Cu. Yd.	3.0

* For detail of p7 bars see sheet #6

SOUTH ABUTMENT
S.B.I. RT. 140 SEC. 105 BR-2
WHITE COUNTY
STATION 598+76.00

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

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 328 (US 45)
SECTION (105X)BR
WHITE COUNTY

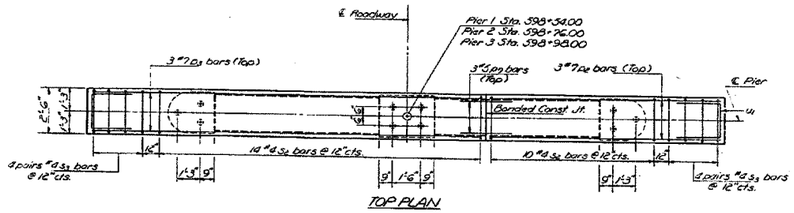
CONTRACT NO. 98997

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	36
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

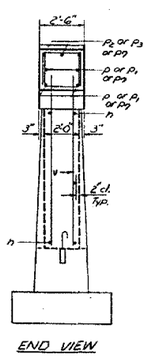
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. NO. 328	(105X)BR-2	WHITE	12	12

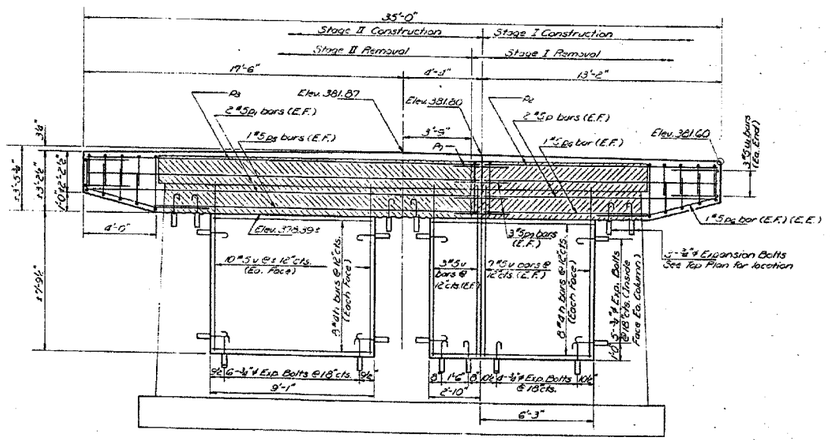
SHEET NO. 8
8 SHEETS



TOP PLAN

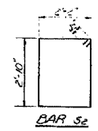


END VIEW



ELEVATION
Looking South

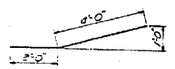
Note: Hatched area indicates concrete removal. Reinforcement extending into removed area shall be cleaned and incorporated into new construction.



BAR S2

BAR S3

BAR U1



BAR P6

PIERS 1, 2 & 3
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
n	36	#5	6'-10"	
C	12	#5	13'-0"	
P1	12	#5	21'-0"	
P2	9	#7	13'-0"	
P3	9	#7	21'-8"	
P4	6	#5	9'-6"	
P5	9	#5	17'-9"	
P6	12	#5	6'-0"	
P9	27	#5	6'-0"	L
S2	72	#4	10'-5"	
S3	48	#4	5'-8"	
U1	18	#5	7'-4"	
V	120	#5	8'-3"	
Class X Concrete			Cu. Yd.	62.9
Reinforcement Bars			Pound	3860
Expansion Bolts 3/4"ø			Each	126
Concrete Removal			Cu. Yd.	20

*For detail of P9 bars see sheet #6

PIERS 1, 2 & 3
S.B.I. RT. 140 SEC. 105 BR-2
WHITE COUNTY
STATION 398+76.00

DESIGNED	John A. Morris	
CHECKED	[illegible]	
DRAWN	Joe Sutherland	
CHECKED	[illegible]	

Sept 17 19 94

EXAMINED [illegible]
PASSED [illegible]
APPROVED [illegible]
DIRECTOR OF HIGHWAYS

ESCA CONSULTANTS, INC.

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

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 328 (US 45)
SECTION (105X)BR
WHITE COUNTY

CONTRACT NO. 98997

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)8R	WHITE	42	37

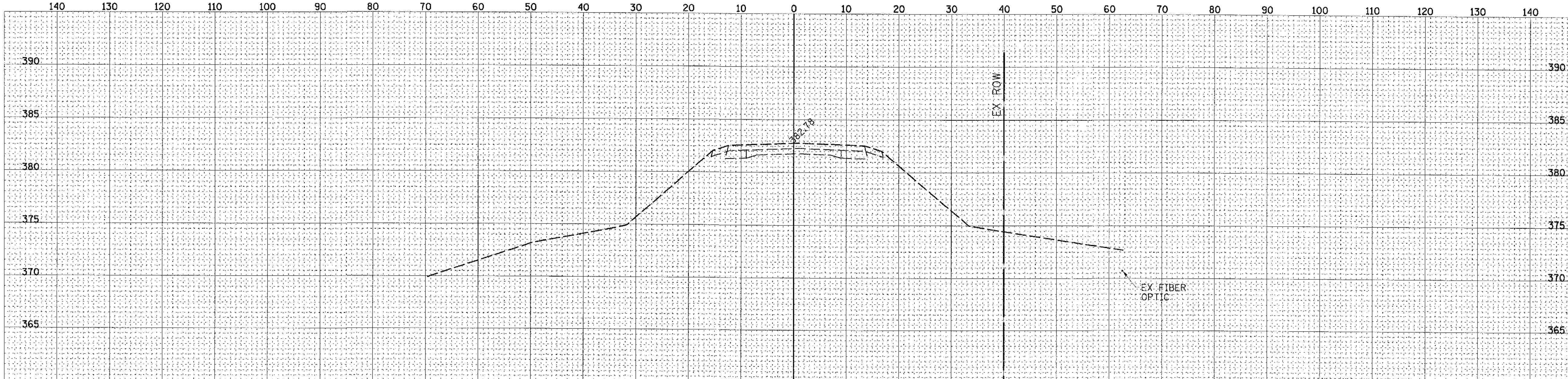
STA. 595+00.00 TO STA. 596+00.00

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

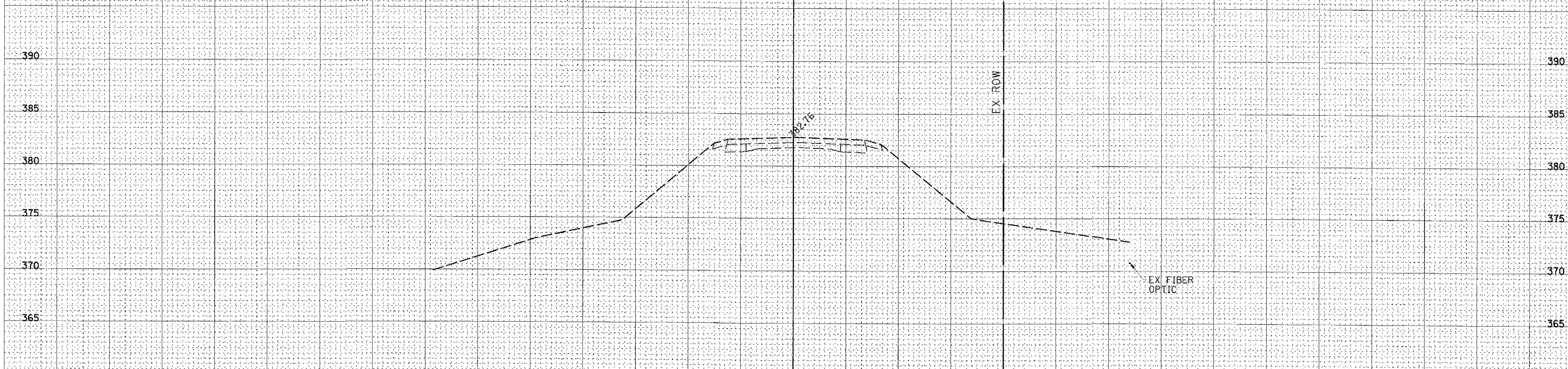
SCALES

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

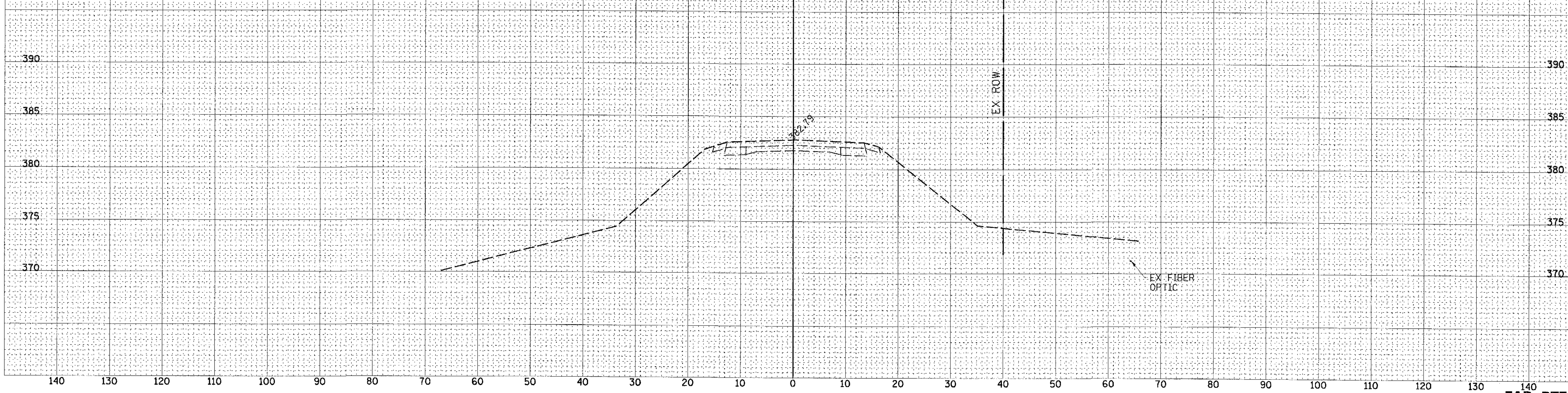
ESCA CONSULTANTS, INC.



STA. 596+00.00



STA. 595+50.00



STA. 595+00.00

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

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

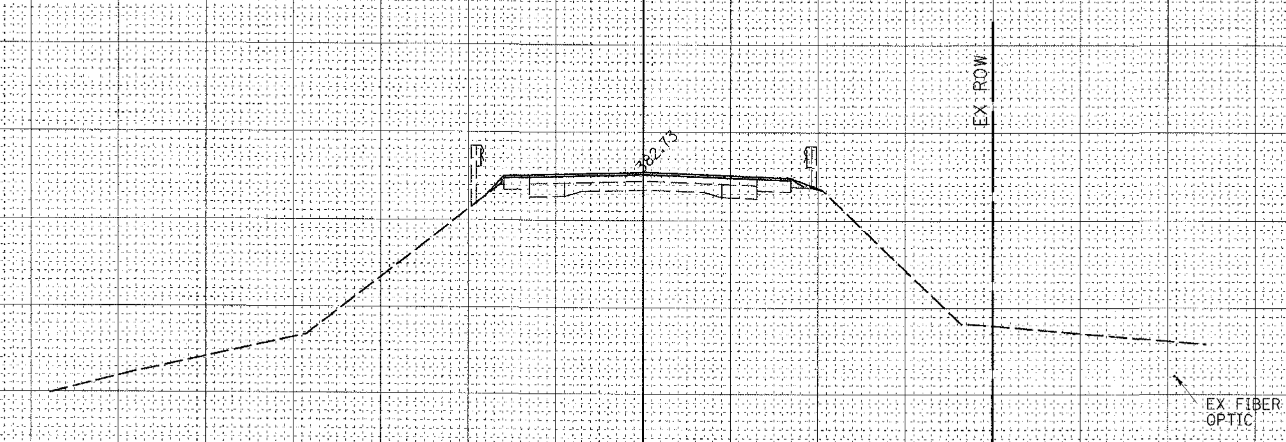
FAP RTE 328 (US 45) CROSS SECTIONS

CONTRACT NO. 98997

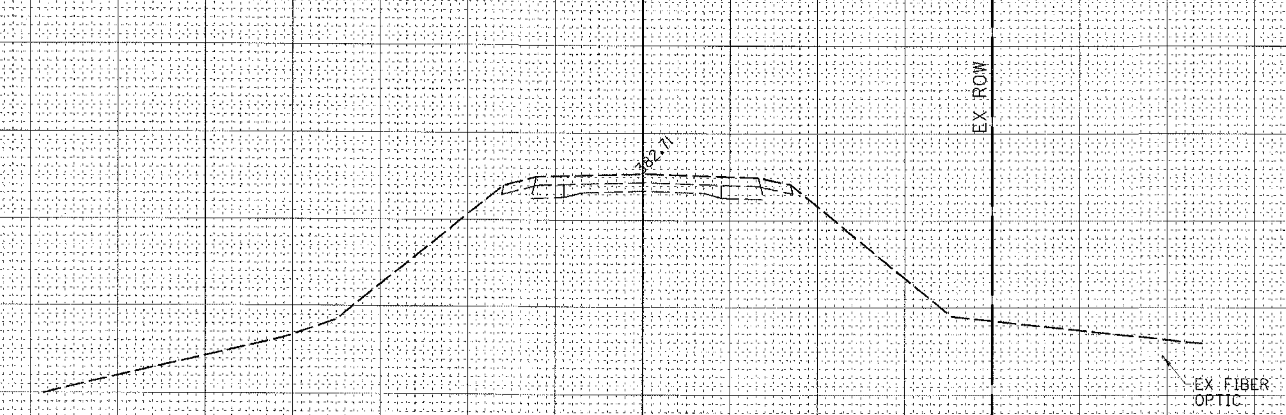
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	38
STA. 596+50.00		TO STA. 597+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCALES

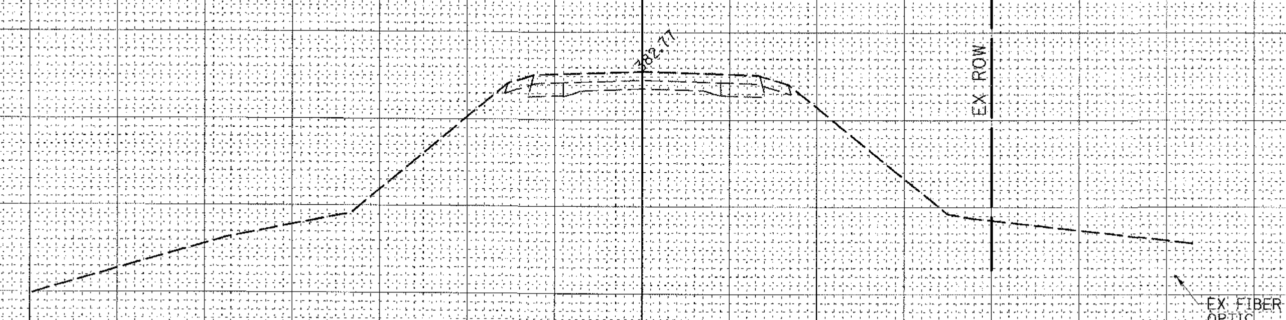
HORIZ: 1"=10'
VERT: 1"=5'



STA. 597+50.00



STA. 597+00.00



STA. 596+50.00

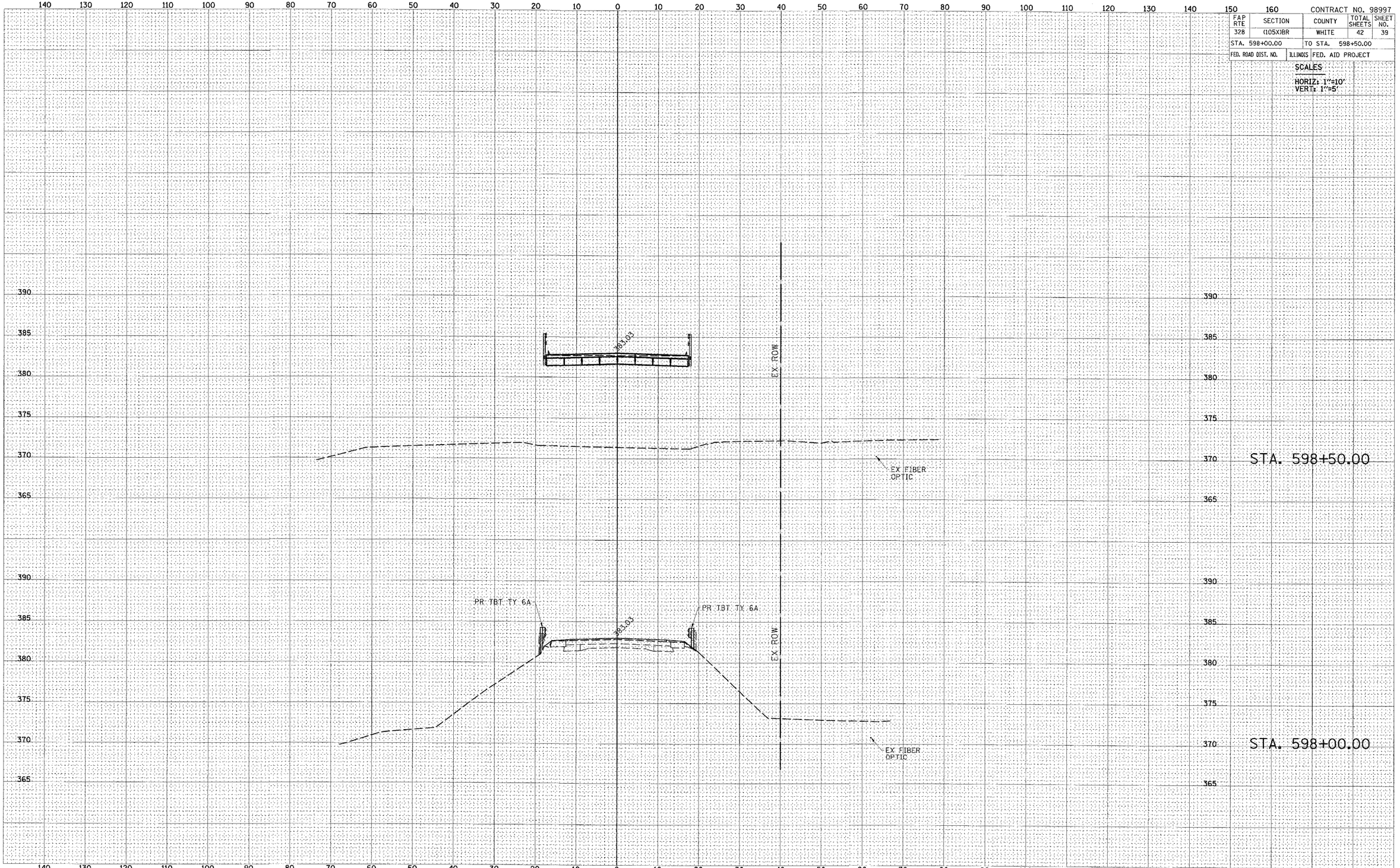
FAP RTE 328 (US 45) CROSS SECTIONS

CONTRACT NO. 98997

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	39
STA. 598+00.00		TO STA. 598+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCALES

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



FAP RTE 328 (US 45) CROSS SECTIONS

ESCA CONSULTANTS, INC.
CIVIL • STRUCTURAL • ENVIRONMENTAL
GENEVA, ILLINOIS

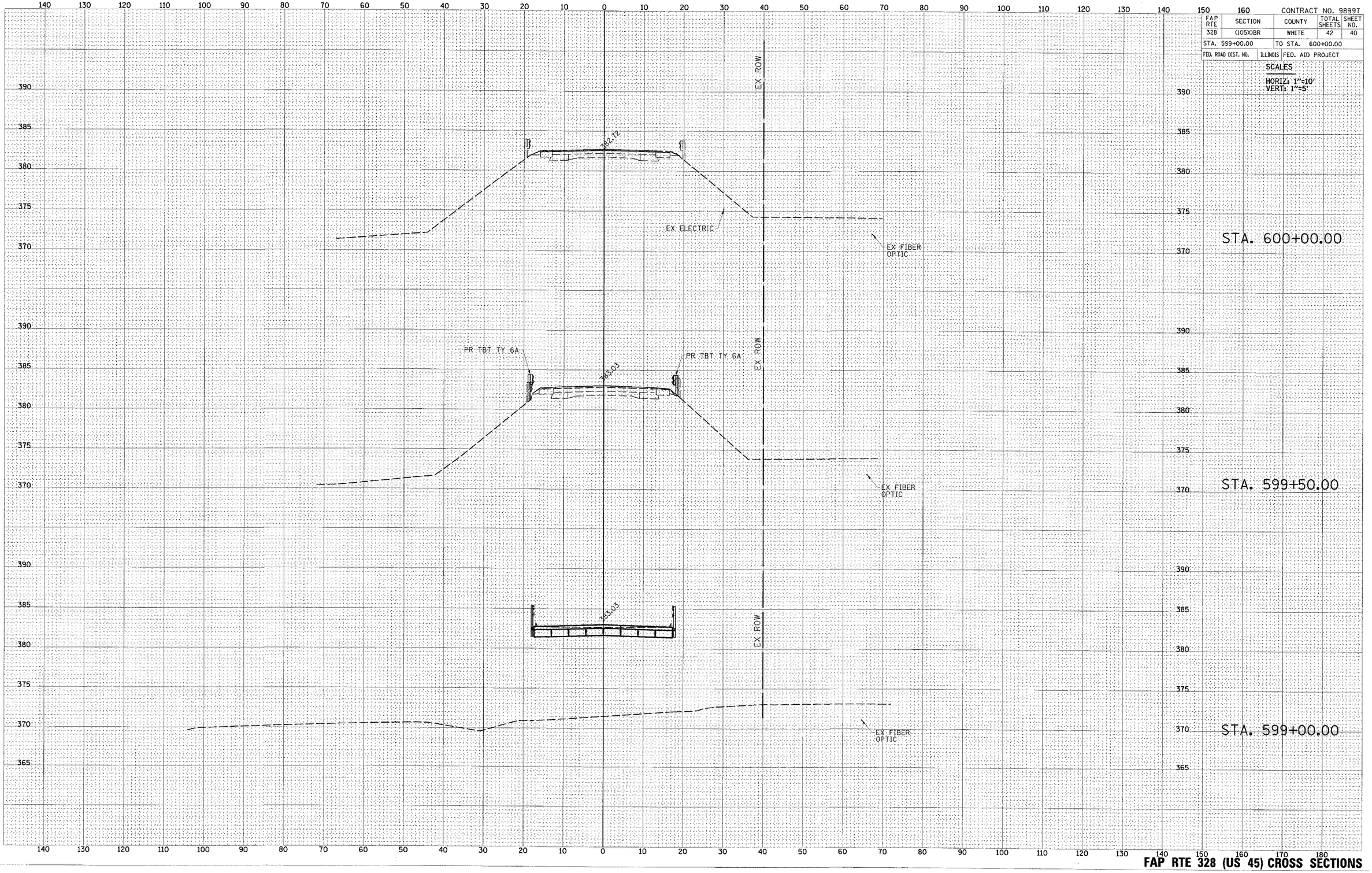
FINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

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

CONTRACT NO. 98997

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	40
STA. 599+00.00		TO STA. 600+00.00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

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



FAP RTE 328 (US 45) CROSS SECTIONS

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS

CONTRACT NO. 98997

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	41
STA. 600+50.00		TO STA. 601+17.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

FINAL SURVEY
NOTE BOOK
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTE BOOK
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

STA. 601+17.00

STA. 601+00.00

STA. 600+50.00

EX ROW

EX ELECTRIC

EX FIBER OPTIC

382.75

382.73

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

390 385 380 375 370

FAP RTE 328 (US 45) CROSS SECTIONS

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS
CARBONDALE, ILLINOIS

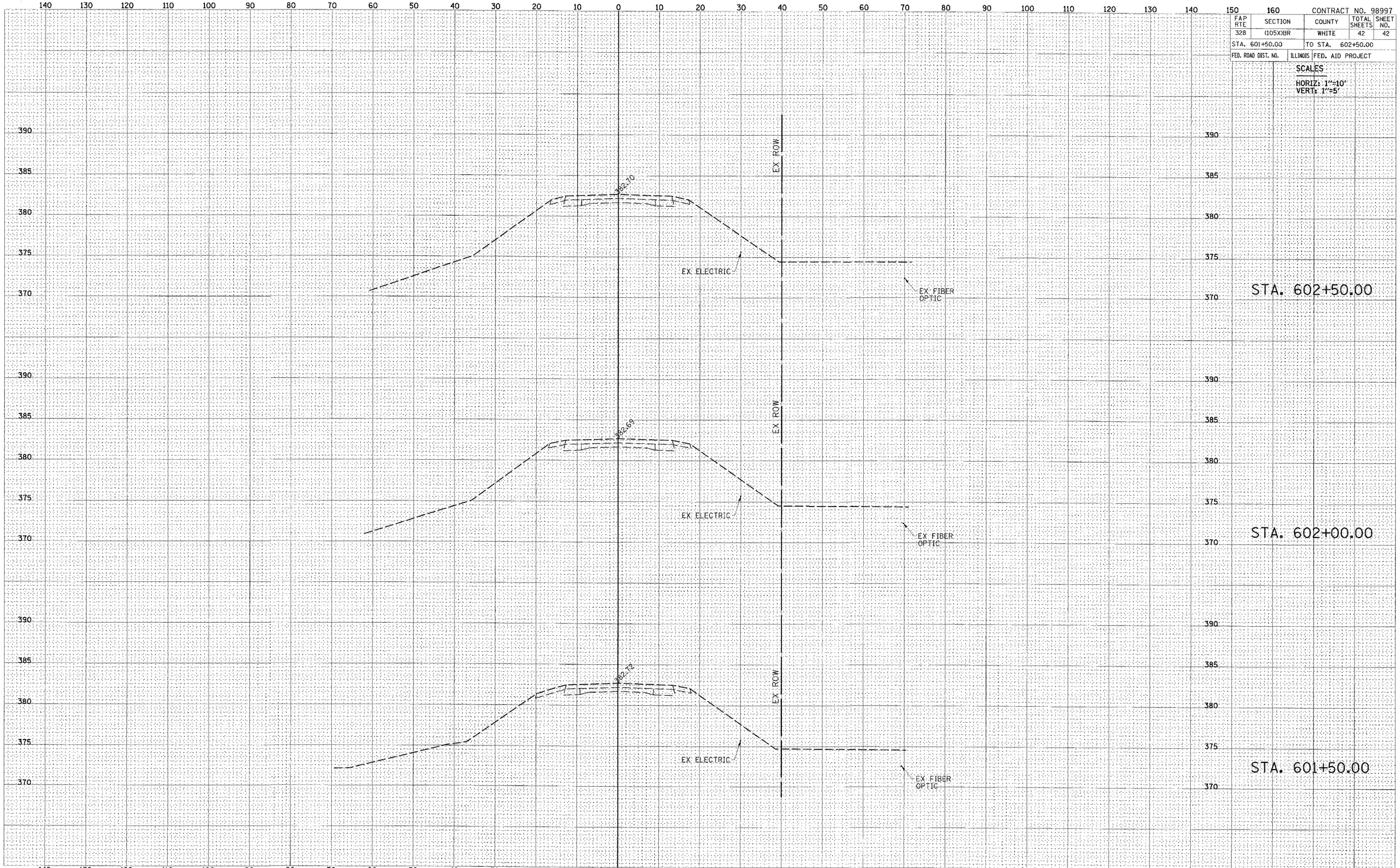
CONTRACT NO. 98997

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(105X)BR	WHITE	42	42
STA. 601+50.00		TO STA. 602+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

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



FAP RTE 328 (US 45) CROSS SECTIONS