

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1, 4BR-1	HARDIN	69	1

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

**PROPOSED
 HIGHWAY PLANS**

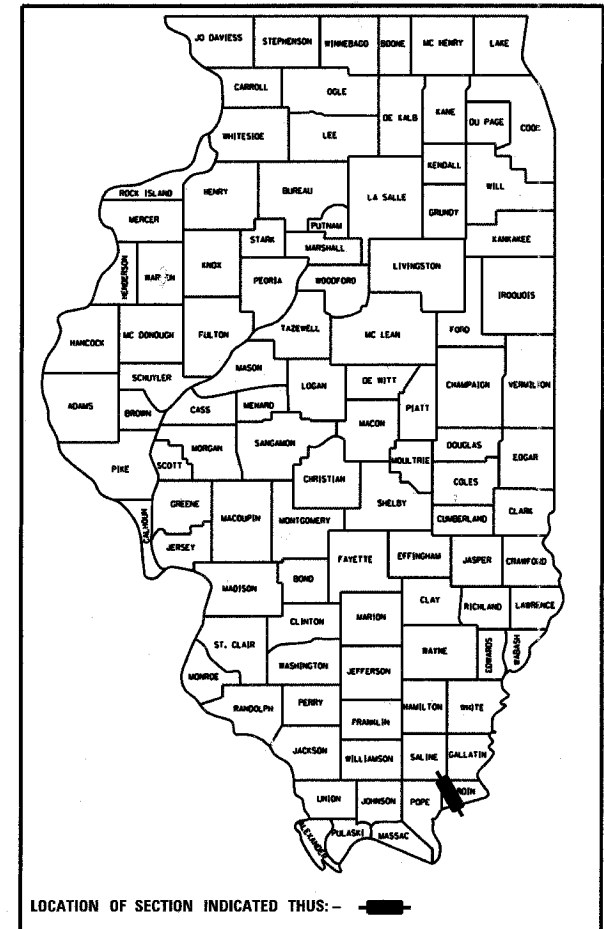
FAP ROUTE 778 (IL ROUTE 34)
 SECTION 3BR-1, 4BR-1
 PROJECT: BHF-0778(006)
 HARDIN COUNTY

C-99-003-08

PPC DECK BEAM SUPERSTRUCTURE REPLACEMENTS
 OVER PINHOOK CREEK AND HOBBS CREEK

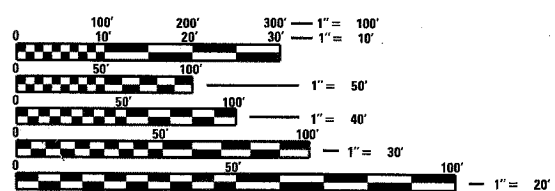
FOR INDEX OF SHEETS, SEE SHEET NO. 2
 FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 3

D-99-003-08



FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL (NON-URBAN)
 DESIGN SPEED: 55 MPH
 POSTED SPEED: 55 MPH
 ADT: 2000 (2007)
 PV: 85%
 TRUCKS: 15%

**DESIGN DESIGNATION
 N.A.**



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

DISTRICT 9 NO. (618) 549-2171
 PROJECT ENGINEER: DAVID PICHE

TOWNSHIPS: WEST MONROE AND STONE CHURCH

CONTRACT NO. 78023

SECTION 3BR-1 BEGINS
 STATION 804+55

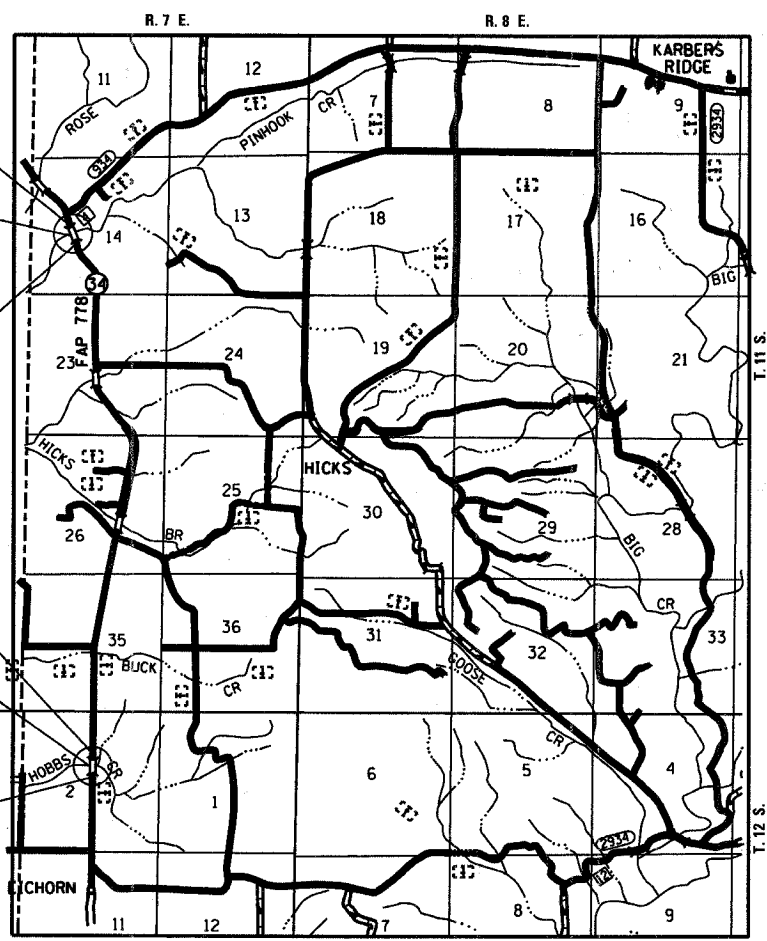
SECTION 3BR-1
 S.N. 035-0005
 STATION 806+15
 REMOVAL AND REPLACEMENT OF EXISTING SUPERSTRUCTURE OF A TWO SPAN BRIDGE
 76'-10" BK. TO BK. ABUTMENT CAPS

SECTION 3BR-1 ENDS
 STATION 807+80

SECTION 4BR-1 BEGINS
 STATION 1020+40

SECTION 4BR-1
 S.N. 035-0008
 STATION 1021+80
 REMOVAL AND REPLACEMENT OF EXISTING SUPERSTRUCTURE OF A SINGLE SPAN BRIDGE
 38'-10" BK. TO BK. ABUTMENT CAPS

SECTION 4BR-1 ENDS
 STATION 1023+20



LOCATION MAP

TOTAL LENGTH OF SECTION & PROJECT = 605.00 FEET = 0.115 MILES
 NET LENGTH OF SECTION & PROJECT = 605.00 FEET = 0.115 MILES



DAVID W. PETERMEIER
 EDWARDSVILLE, ILLINOIS
 ENGINEER NO. 062-052553
 EXPIRES: NOV. 30, 2007



STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED: Oct 11, 20 07
 Man C. Krami
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

December 7, 20 07
 Eric E. Krami
 INTERIM ENGINEER OF DESIGN AND ENVIRONMENT

December 7, 20 07
 Christie M. Reed
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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 OF THE STATE OF ILLINOIS**

OCTOBER 2007

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1, 4BR-1	HARDIN	69	2
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

LIST OF ILLINOIS DOT HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-01	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
420001-07	PAVEMENT JOINTS
515001-02	NAME PLATE FOR BRIDGES
630001-07	STEEL PLATE BEAM GUARDRAIL
631032-03	TRAFFIC BARRIER TERMINAL, TYPE 6A
631051-01	TRAFFIC BARRIER TERMINAL, TYPE 11
635001	DELINEATORS
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-01	REFLECTOR MARKER AND MOUNTING DETAILS
701001-01	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 4.5 m (15') AWAY
701006-02	OFF-RD OPERATIONS, 2L, 2W, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
701011-01	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-02	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701301-02	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-02	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-09	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-02	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS ≥ 45 MPH
701901	TRAFFIC CONTROL DEVICES
704001-04	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
862001	UNINTERRUPTIBLE POWER SUPPLY (UPS)

GENERAL NOTES:

- EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.
- ALL SAWCUTTING OF EXISTING PAVEMENT SHALL BE CONSIDERED INCLUDED IN THE PAY ITEMS INVOLVED. THE MINIMUM SAW DEPTH IN THE PAVEMENT SHALL BE 1 1/2" UNLESS OTHERWISE NOTED.
- WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR RE-ESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.
- 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.
- 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.
- 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 1-800-892-0123. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED.
- ALL ELEVATIONS REFER TO U.S.G.S. MEAN SEA LEVEL DATUM.
- TREES SHALL BE PRESERVED THROUGHOUT THIS SECTION AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. GENERALLY, TREES OUTSIDE THE CLEAR ZONE, AND WHICH DO NOT INTERFERE WITH CONSTRUCTION, SHALL NOT BE DISTURBED.
- THE ADVANCE DETECTOR LOOPS ARE TYPICALLY LOCATED 275 FEET IN ADVANCE OF THE STOP BAR. THE BUREAU OF OPERATIONS SHALL APPROVE THE LOOP LOCATIONS PRIOR TO INSTALLATION.
- WHILE SIGNAL HEADS ARE MOUNTED IN PLACE, BUT NOT YET IN OPERATION, THEY SHALL BE SECURELY COVERED IN WHITE PLASTIC.
- THE CENTERLINE PAVEMENT MARKING SHALL BE REMOVED FROM THE STOP BAR TO THE SAND ATTENUATORS OR DRUMS. EDGE LINE PAVEMENT MARKING SHALL BE REMOVED IF A 10 FOOT LANE WIDTH CANNOT BE MAINTAINED OR AS NOTED IN THE PLANS. TEMPORARY EDGE LINES SHALL BE INSTALLED WHEN THE EDGE LINES ARE REMOVED.
- VERTICAL PANELS SHOWN ON STANDARD 701321 WILL NOT BE REQUIRED ON THE STAGE II NEW BRIDGE RAILING. THE BARRIER WALL REFLECTORS SHALL BE INSTALLED PRIOR TO OPENING TO TRAFFIC.
- ANY TIME THE CONCRETE BARRIER IS NOT IN THE PROPER POSITION, FLAGGERS SHALL BE IN PLACE TO CONTROL TRAFFIC. THE TEMPORARY TRAFFIC SIGNALS SHALL BE SET TO FLASH ALL RED.
- "NARROW BRIDGE" SIGNS WITH ADVISORY TAGS "12 FT 0 IN" (STAGE I) AND "11 FT 0 IN" (STAGE II) SHALL BE ERECTED BETWEEN THE ROAD CONSTRUCTION AHEAD AND THE SIGNAL AHEAD SIGNS. THIS WORK SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, STANDARD 701321.
- THE QUANTITY OF SHORT TERM PAVEMENT MARKING SHOWN IN THE PLANS IS BASED ON ONE APPLICATION FOR THE INITIAL OPENING OF THE COMPLETED STRUCTURE TO TWO LANE TRAFFIC.
- PRIOR TO PLACEMENT OF THE FINAL PAVEMENT MARKINGS, THE ENGINEER SHALL CONTACT THE BUREAU OF OPERATIONS AND ARRANGE FOR INSPECTION AND APPROVAL OF THE PAVEMENT MARKING LAYOUT.
- COMMITMENTS:
NONE AS OF OCTOBER 19, 2007.

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5	SCHEDULE OF QUANTITIES
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7	FAP RTE 778 (IL 34) CONSTRUCTION STAGING
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREPARED BY: Joe Johnson
DISTRICT STUDIES & PLANS ENGINEER

EXAMINED BY: James Davis Emery
DISTRICT LAND ACQUISITION ENGINEER

EXAMINED BY: Carrie Nelson
DISTRICT PROGRAM DEVELOPMENT ENGINEER

EXAMINED BY: Warren Krammer
DISTRICT OPERATIONS ENGINEER

EXAMINED BY: Joseph Lewis
DISTRICT CONSTRUCTION ENGINEER

EXAMINED BY: Bruce W. Peltier
DISTRICT MATERIALS ENGINEER

EXAMINED BY: Shane Smithless
DISTRICT PROJECT IMPLEMENTATION ENGINEER

EXAMINED BY: Danny L. Clayton
ASSISTANT REGIONAL ENGINEER

EXAMINED BY: Man C. Harris
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

DATE: Oct 11 20 07

**INDEX OF SHEETS AND
GENERAL NOTES
F.A.P. ROUTE 778 (IL ROUTE 34)
SECTION 3BR-1, 4BR-1
HARDIN COUNTY**



DATE
SCALE
USER

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1, 4BR-1	HARDIN	69	3

STA.	TO STA.
FED. ROAD DIST. NO. 7 ILLINOIS	FED. AID PROJECT

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	HARDIN COUNTY	
				F.A.P. 778 (IL RTE. 34)	
				SEC. 3BR-1	SEC. 4BR-1
				S.N. 035-0005	S.N. 035-0008
				HBP FUNDING 80% FEDERAL 20% STATE	HBP FUNDING 80% FEDERAL 20% STATE
				CONSTRUCTION TYPE CODE	CONSTRUCTION TYPE CODE
				X080-2A	X080-2A
25000210	SEEDING, CLASS 2A	ACRE	0.2	0.1	0.1
25000350	SEEDING, CLASS 7	ACRE	0.2	0.1	0.1
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	18	9	9
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	18	9	9
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	18	9	9
25000700	AGRICULTURAL GROUND LIMESTONE	TON	0.4	0.2	0.2
25100115	MULCH, METHOD 2	ACRE	0.4	0.2	0.2
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	40	20	20
28000400	PERIMETER EROSION BARRIER	FOOT	1,090	530	560
35650500	BASE COURSE WIDENING 10"	SQ YD	332	168	164
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	2	1	1
50300260	BRIDGE DECK GROOVING	SO YD	411	271	140
50300300	PROTECTIVE COAT	SO YD	411	271	140
50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SO FT	3,491	2,333	1,158
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	5,270	3,470	1,800
50800515	BAR SPLICERS	EACH	126	82	44
50901050	STEEL RAILING, TYPE SM	FOOT	226	151	75
50901125	STEEL RAILING (TEMPORARY)	FOOT	114	76	38
51500100	NAME PLATES	EACH	2	1	1
58700300	CONCRETE SEALER	SO FT	97	6	91
59000200	EPOXY CRACK INJECTION	FOOT	36	36	0
* 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	8	4	4
63200310	GUARDRAIL REMOVAL	FOOT	360	180	180
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	3	3
67100100	MOBILIZATION	L SUM	1	0.5	0.5

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	HARDIN COUNTY	
				F.A.P. 778 (IL RTE. 34)	
				SEC. 3BR-1	SEC. 4BR-1
				S.N. 035-0005	S.N. 035-0008
				HBP FUNDING 80% FEDERAL 20% STATE	HBP FUNDING 80% FEDERAL 20% STATE
				CONSTRUCTION TYPE CODE	CONSTRUCTION TYPE CODE
				X080-2A	X080-2A
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	2	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	0.5	0.5
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	0.5	0.5
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	20	10	10
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	2	1	1
70106700	TEMPORARY RUMBLE STRIP	EACH	12	6	6
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	12	6	6
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	84	44	40
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	2,146	1,156	990
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	1,003	512	491
70400100	TEMPORARY CONCRETE BARRIER	FOOT	570	300	270
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	400	200	200
70500690	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 11	EACH	4	2	2
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	2	1	1
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	2,146	1,156	990
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	8	4	4
* 78200520	BARRIER WALL MARKERS, TYPE B	EACH	6	4	2
78300100	PAVEMENT MARKING REMOVAL	SO FT	608	308	300
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	1	1	0
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SO FT	97	6	91
X0325326	TEMPORARY TRAFFIC CONTROL REMOVAL	L SUM	1	1	0
X5030305	CONCRETE WEARING SURFACE, 5"	SO YD	411	271	140
XX006661	UNINTERRUPTIBLE POWER SUPPLY	EACH	2	1	1
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	4	2	2
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	4	2	2
Z0073500	TEMPORARY SUPPORT SYSTEM	L SUM	1	1	0

* SPECIALTY ITEM

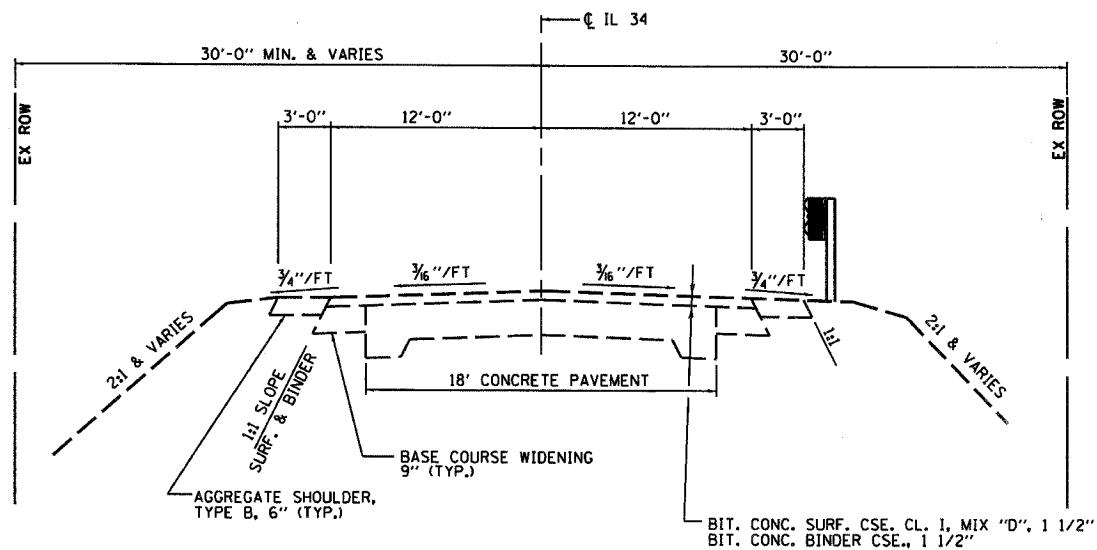


10/04/07

SUMMARY OF QUANTITIES
F.A.P. ROUTE 778 (IL ROUTE 34)
SECTION 3BR-1, 4BR-1
HARDIN COUNTY

PLOT DATE * DATE
 FILE NAME * FILE#
 PLOT SCALE * SCALE
 USER NAME * USER

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1	HARDIN	69	4
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

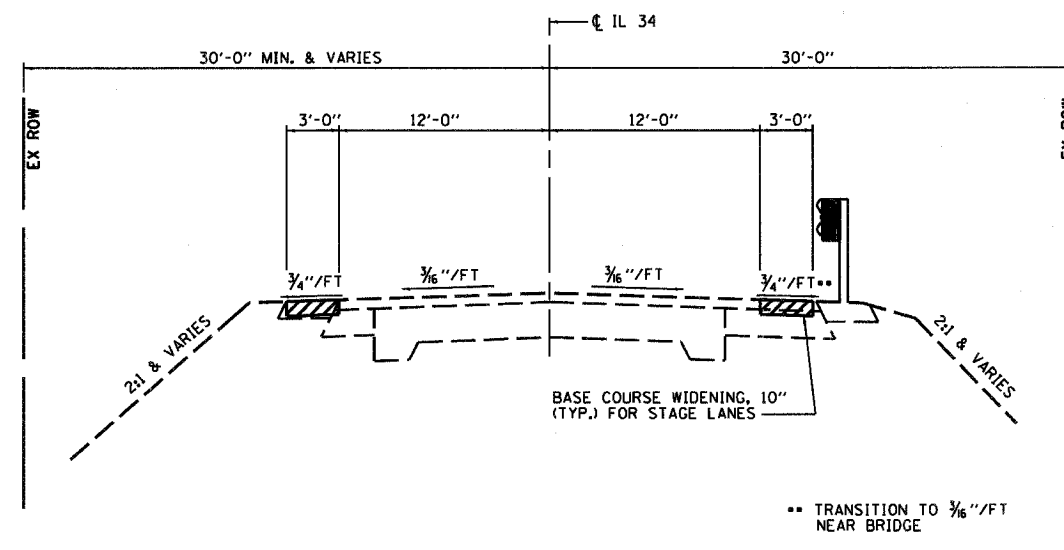


WITHOUT GUARDRAIL

WITH GUARDRAIL

EXISTING TYPICAL ROADWAY SECTION

STA. 804 + 55.00 TO STA. 805 + 77.33
 STA. 806 + 52.67 TO STA. 807 + 80.00



WITHOUT GUARDRAIL

WITH GUARDRAIL

PROPOSED TYPICAL ROADWAY SECTION

STA. 804 + 55.00 TO STA. 805 + 77.33
 STA. 806 + 52.67 TO STA. 807 + 80.00

NOTE: SEE THE STRUCTURAL PLANS FOR DETAILS OF BRIDGE WEARING SURFACE 2'-0" EXTENSION. COST FOR THIS WORK IS INCLUDED WITH THE COST FOR THE BRIDGE WEARING SURFACE.

HMA MIXTURE REQUIREMENTS

LOCATION(S):	BASE COURSE WIDENING
MIXTURE USE(S):	HOT MIX ASPHALT BINDER COURSE, N90, IL-19.0
AC/PG:	PG64-22
RAP % (MAX)	10
DESIGN AIR VOIDS:	4.0%, 90 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-19.00 mm
FRICTION AGGREGATE:	NONE

TYPICAL SECTION
F.A.P. ROUTE 778 (IL ROUTE 34)
SECTION 3BR-1
HARDIN COUNTY

PLOT DATE: 10/04/07
 FILE NAME: 78023-3BR-1-4.dwg
 PLOT SCALE: AS SHOWN
 USER NAME: JSM



10/04/07

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1	HARDIN	69	5
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

PAVEMENT MARKING SCHEDULE				
LOCATION	DESCRIPTION	SHORT-TERM PAVEMENT MARKING	PAINT PAVEMENT MARKING - LINE	TEMP PAVEMENT MARKING - LINE
		FOOT	4"	4"
STA. 802+94 TO STA. 804+77, CENTERLINE	SKIP DASH YELLOW CENTERLINE	18		
STA. 805+75.33 TO STA. 806+54.67, CENTERLINE	SKIP DASH YELLOW CENTERLINE	8		
STA. 807+53 TO STA. 809+30, CENTERLINE	SKIP DASH YELLOW CENTERLINE	18		
STA. 802+94 TO STA. 804+77, CENTERLINE	SKIP DASH AND SOLID YELLOW CENTERLINE		229	229
STA. 805+75.33 TO STA. 806+54.67, CENTERLINE	DOUBLE SOLID YELLOW CENTERLINE		159	159
STA. 807+53 TO STA. 809+30, CENTERLINE	SKIP DASH AND SOLID YELLOW CENTERLINE		221	221
STA. 804+84 TO STA. 807+46, LT	SOLID WHITE EDGE LINE		262	262
STA. 804+72.50 TO STA. 807+57.50, RT	SOLID WHITE EDGE LINE		285	285
TOTALS		44	1156	1156

GUARDRAIL REMOVAL SCHEDULE		
LOCATION	FOOT	
STRUCTURE NO. 035-0005 - NE	45*	
STRUCTURE NO. 035-0005 - NW	45*	
STRUCTURE NO. 035-0005 - SE	45*	
STRUCTURE NO. 035-0005 - SW	45*	
TOTALS		180.0

* QUANTITY MAY VARY DEPENDING ON LAYOUT PROPOSED BY THE CONTRACTOR. SEE SHEET NO. 10 FOR DETAILS.

BASE COURSE SCHEDULE		
LOCATION	BASE COURSE WIDENING, 10"	
	50 YD	
NE QUADRANT	43	
NW QUADRANT	41	
SE QUADRANT	43	
SW QUADRANT	41	
TOTALS		168

PAVEMENT MARKERS AND REMOVAL SCHEDULE				
LOCATION	RRPM (BRIDGE)	RRPM REMOVAL		
	EACH	EACH		
STA. 806+10	1	1		
TOTAL			1	1

WORK ZONE AND PAVEMENT MARKING REMOVAL SCHEDULE			
LOCATION	PAVEMENT MARKING DESCRIPTION	WORK ZONE PAVEMENT MARKING REMOVAL	PAVEMENT MARKING REMOVAL
		SO. FT	SO. FT
CENTERLINE	SHORT-TERM	15	150
EDGELINES	TEMPORARY	497	
STA. 804+84 TO STA. 807+46, LT	EDGELINES		88
STA. 804+72.50 TO STA. 805+75.33, RT	EDGELINES		35
STA. 806+54.67 TO STA. 807+57.50, RT	EDGELINES		35
TOTALS		512	308

EROSION CONTROL SCHEDULE		
LOCATION	PERIMETER EROSION BARRIER	TEMPORARY EROSION CONTROL SEEDING (2 APPLICATIONS)
	FOOT	POUND
NE QUADRANT	130	5
NW QUADRANT	140	5
SE QUADRANT	120	5
SW QUADRANT	140	5
TOTAL		20

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. 035-0005 - NE	1	1		
STRUCTURE NO. 035-0005 - NW	1	1		
STRUCTURE NO. 035-0005 - SE	1	1		
STRUCTURE NO. 035-0005 - SW	1	1		
STRUCTURE NO. 035-0005 - BRIDGE			4	151
TOTALS		4	4	151

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

HMA SURF REMOVAL SCHEDULE		
LOCATION	5"	
	SO. YD	
WEST ABUTMENT	6	
EAST ABUTMENT	6	
TOTALS		12

NOTE: HMA SURFACE REMOVAL IS INCLUDED IN THE COST OF REMOVAL OF EXISTING SUPERSTRUCTURE.

SCHEDULE OF QUANTITIES
F.A.P. ROUTE 778 (IL ROUTE 34)
SECTION 3BR-1
HARDIN COUNTY

PLT DATE
 FILE NAME
 PLT SCALE
 USER NAME

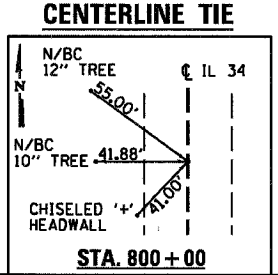
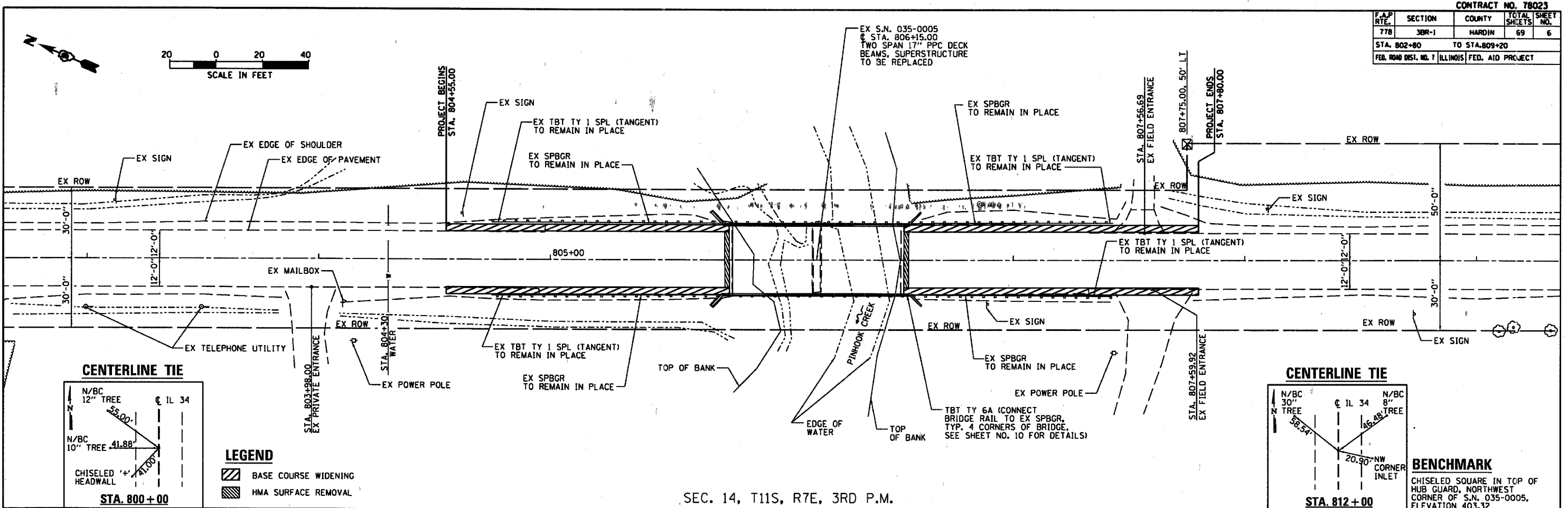


PLAN	DATE
BY	
REVISIONS	
1. DATE	
2. BY	
3. DESCRIPTION	

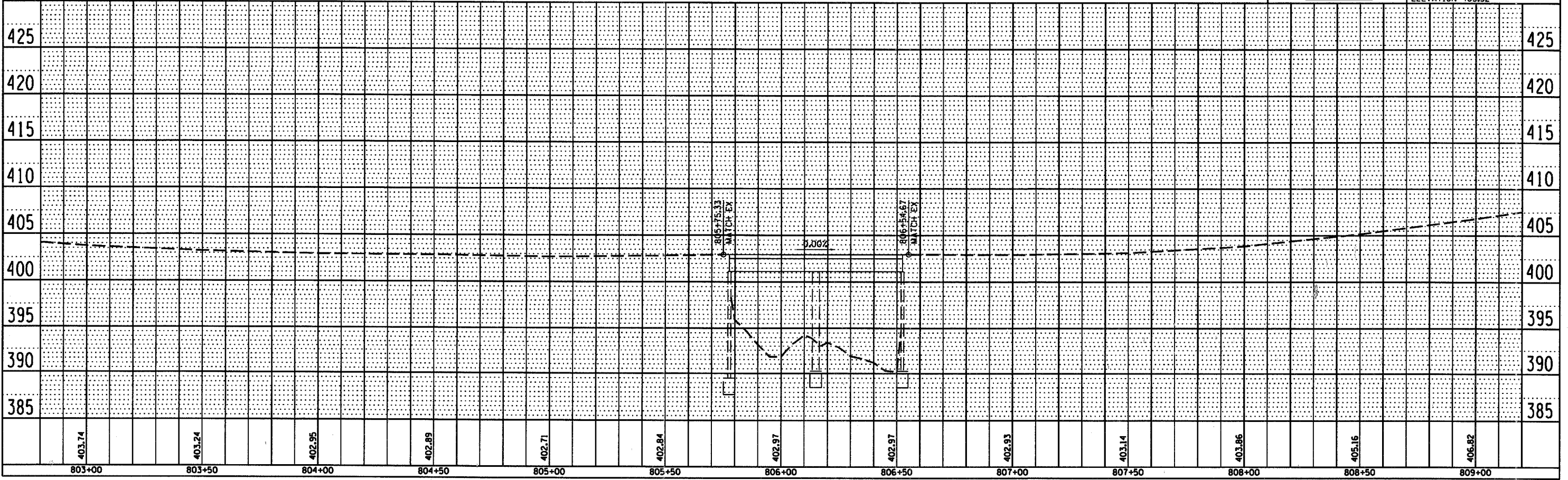
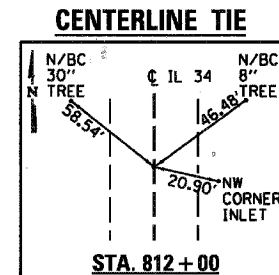
PROFILE	DATE
BY	
REVISIONS	
1. DATE	
2. BY	
3. DESCRIPTION	

PLOT DATE : 04/25/14
PLOT SCALE : 1"=40'
USER NAME : MASTERS

CONTRACT NO. 78023					
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
778	3BR-1	HARDIN	69	6	
STA. 802+80 TO STA. 809+20					
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					



LEGEND
 BASE COURSE WIDENING
 HMA SURFACE REMOVAL



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1	HARDIN	69	7
STA. 802+70 TO STA. 809+40				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

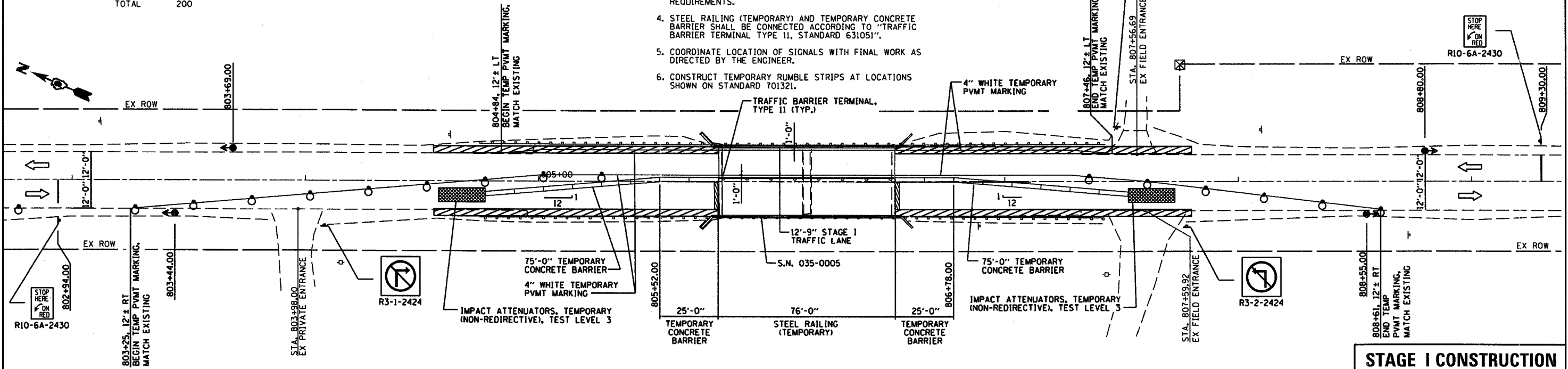
SCHEDULE OF QUANTITIES

STEEL RAILING (TEMPORARY)		
STATION TO	STATION	FEET
805+77.00	806+53.00	76
TOTAL		76
TEMPORARY CONCRETE BARRIER		
STATION TO	STATION	FEET
804+77.00	805+77.00	100
806+53.00	807+53.00	100
TOTAL		200

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 II	- 2 EACH

NOTES

- EXISTING TRAFFIC CONTROL PRESENT AT THE BRIDGE SITE IS TO REMAIN OPERATIONAL UNTIL THE PRE-STAGE I SHORING IS INSTALLED (SEE SHEET NO. 13) AND THE STAGE I TC&P IS IMPLEMENTED. REMOVAL OF THE EXISTING TRAFFIC CONTROL WILL BE PAID FOR AS TEMPORARY TRAFFIC CONTROL REMOVAL.
- TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321."
- SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
- STEEL RAILING (TEMPORARY) AND TEMPORARY CONCRETE BARRIER SHALL BE CONNECTED ACCORDING TO "TRAFFIC BARRIER TERMINAL TYPE II, STANDARD 631051".
- COORDINATE LOCATION OF SIGNALS WITH FINAL WORK AS DIRECTED BY THE ENGINEER.
- CONSTRUCT TEMPORARY RUMBLE STRIPS AT LOCATIONS SHOWN ON STANDARD 701321.



STAGE I CONSTRUCTION

SCHEDULE OF QUANTITIES

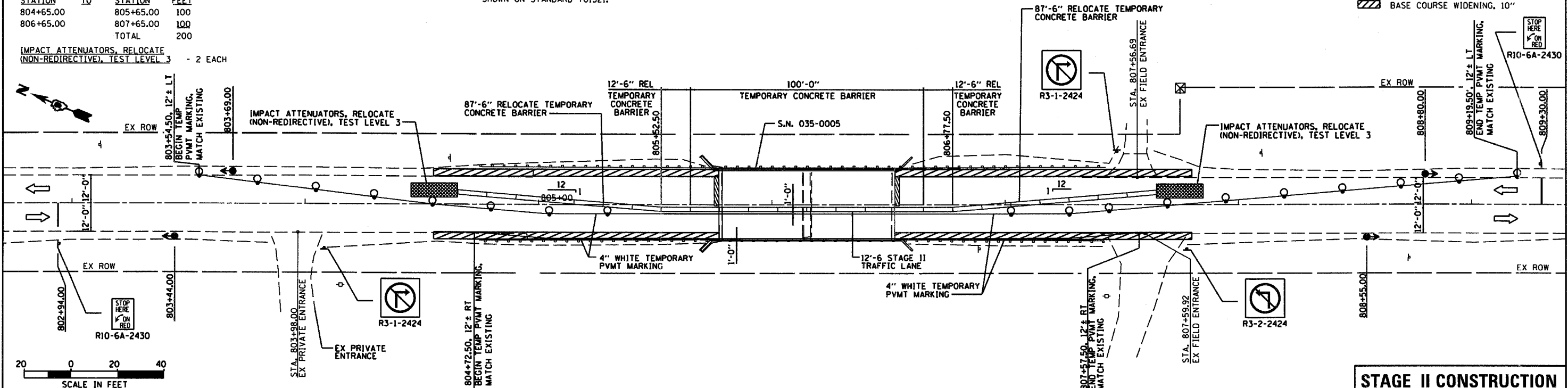
TEMPORARY CONCRETE BARRIER		
STATION TO	STATION	FEET
805+65.00	806+65.00	100.00
TOTAL		100.00
RELOCATE TEMPORARY CONCRETE BARRIER		
STATION TO	STATION	FEET
804+65.00	805+65.00	100
806+65.00	807+65.00	100
TOTAL		200

NOTES

- TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321."
- SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
- MAINTAIN TEMPORARY RUMBLE STRIPS AT LOCATIONS SHOWN ON STANDARD 701321.

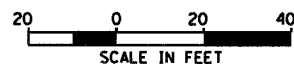
LEGEND

- TRAFFIC SIGNAL
- DRUM WITH STEADY BURNING LIGHT
- HMA SURFACE REMOVAL, 5"
- BASE COURSE WIDENING, 10"

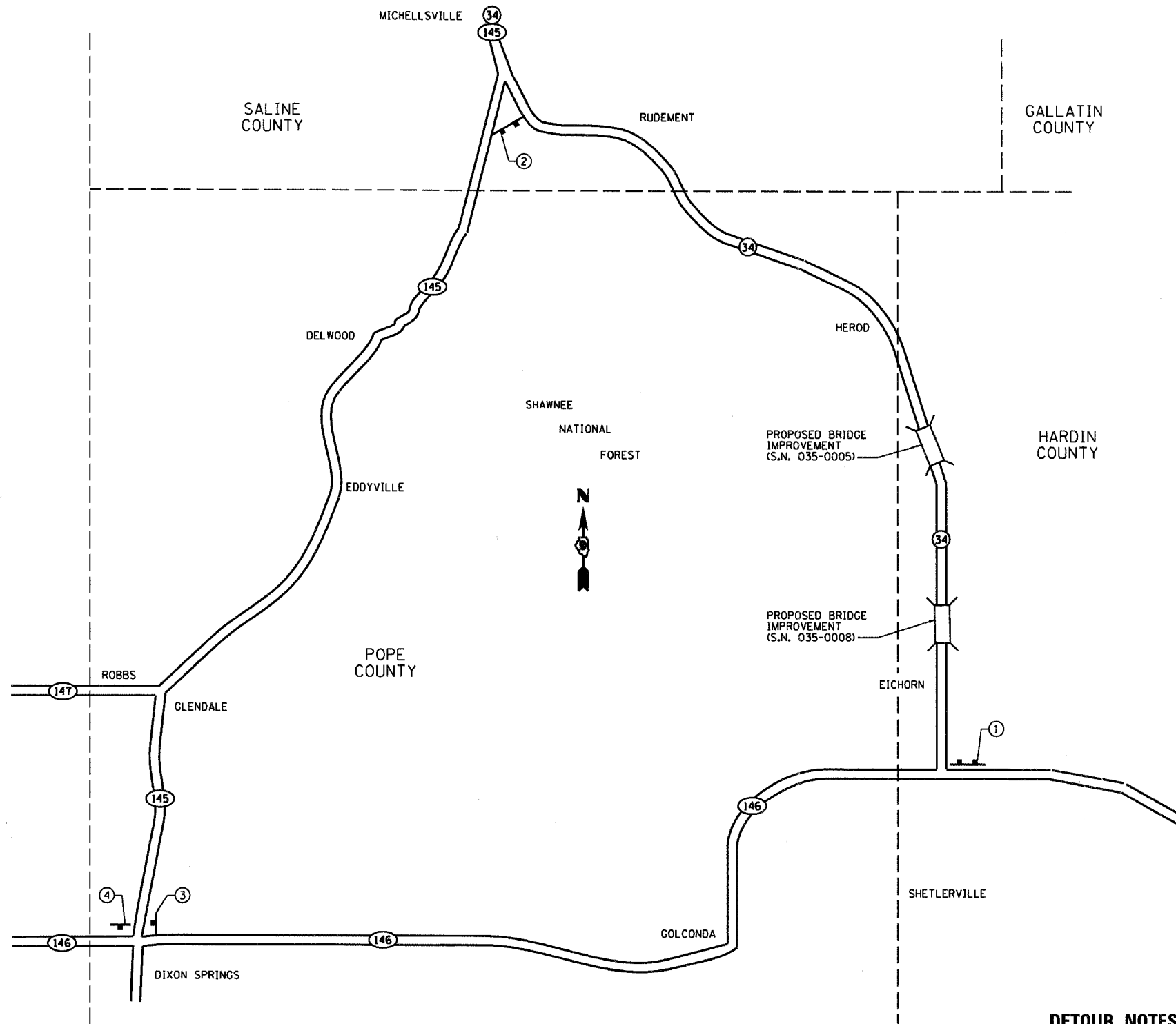


STAGE II CONSTRUCTION

PLOT DATE: 11/04/14
 FILE NAME: 78023-13-11-14
 PLOT SCALE: 1"=40'
 USER: JMB



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1	HARDIN	69	8
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	



**SIGN LEGEND
STAGE I**

①

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

DETOUR VIA

WEST ILLINOIS 146	NORTH ILLINOIS 145
-------------------------	--------------------------

60"x90"

②

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

DETOUR VIA

SOUTH ILLINOIS 145	EAST ILLINOIS 146
--------------------------	-------------------------

60"x90"

**SIGN LEGEND
STAGE II**

①

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

DETOUR VIA

WEST ILLINOIS 146	NORTH ILLINOIS 145
-------------------------	--------------------------

60"x90"

②

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

DETOUR VIA

SOUTH ILLINOIS 145	EAST ILLINOIS 146
--------------------------	-------------------------

60"x90"

**SIGN LEGEND
STAGE I AND II**

③

NORTH	30"x15"
ILLINOIS	30"x24"
145	30"x24"
WIDE LOAD	21"x15"
DETOUR	30"x24"

④

EAST	30"x15"
ILLINOIS	30"x24"
146	30"x24"
WIDE LOAD	21"x15"
DETOUR	30"x24"

DETOUR SIGNING PLAN

DETOUR NOTES:

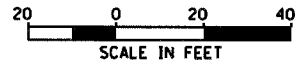
1. THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT THE SIGNS AT THE LOCATION DIRECTED BY THE ENGINEER. ALL SIGNS SHALL BE POST MOUNTED.
2. THE ABOVE NOTED WORK, INCLUDING SIGNS, POSTS, HARDWARE, AND LABOR SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE, EACH, FOR TRAFFIC CONTROL AND PROTECTION, STD. 701321 AND NO OTHER COMPENSATION WILL BE ALLOWED.
3. COORDINATE WIDE LOAD DETOUR WITH TRAFFIC CONTROL FOR S.N. 035-0008. IF STAGING SEQUENCE BETWEEN STRUCTURES DOES NOT CORRESPOND, THE MINIMUM LANE WIDTH SHALL BE POSTED. SEE SHEET NO. 43 FOR S.N. 035-0008 WIDE LOAD DETOUR DETAILS.

WIDE LOAD DETOUR
F.A.P. ROUTE 778 (IL ROUTE 34)
SECTION 3BR-1
HARDIN COUNTY

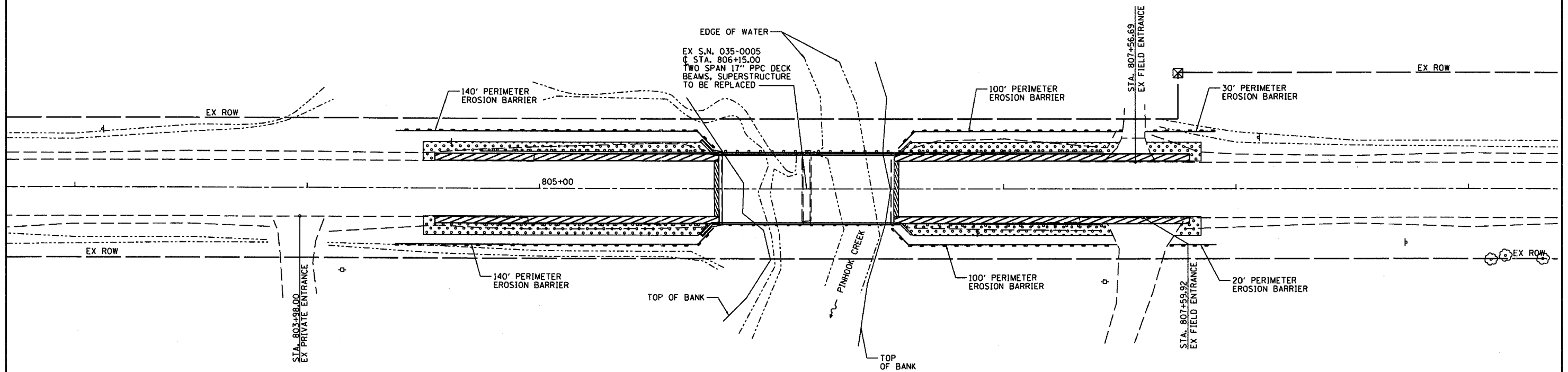
PLOT DATE
 FILE NAME
 PLOT SCALE
 USER NAME



10/04/07



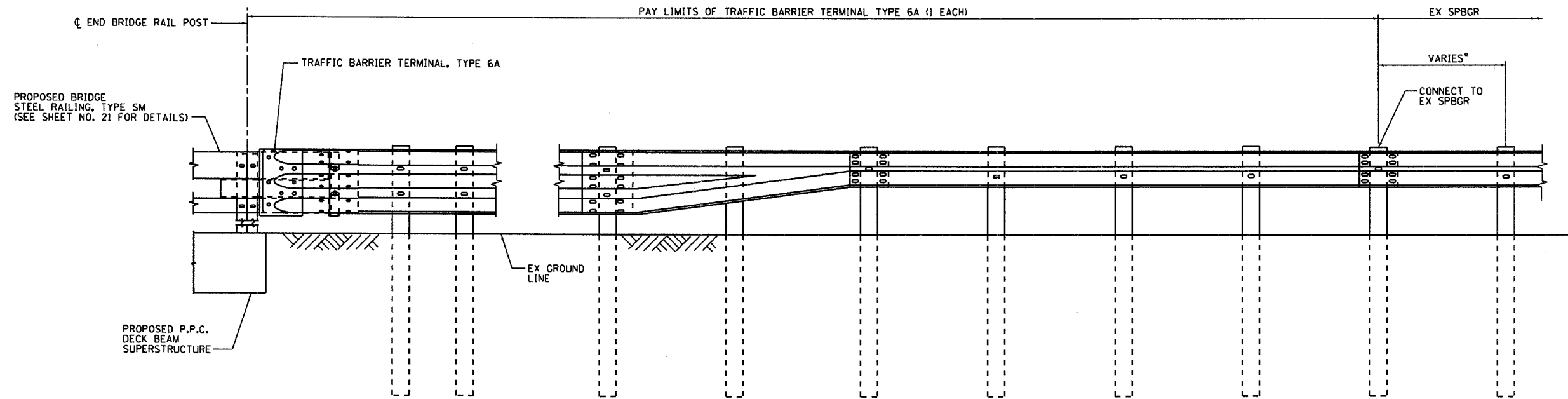
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1	HARDIN	69	9
STA. 802+70		TO STA. 809+40		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		



LEGEND

- APPROXIMATE SEEDING AND MULCH AREAS
- PERIMETER EROSION BARRIER

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1	HARDIN	69	10
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		



GUARDRAIL CONNECTION DETAIL

• POST SPACING AS REQUIRED TO MATCH TBT TYPE 6A TO EX SPBGR (6'-3" MAX.)

NOTES:

1. REMOVE AND REPLACE EX SPBGR WITH TBT TYPE 6A TO CONNECT PROPOSED BRIDGE STEEL RAILING, TYPE SM, TO EX SPBGR.
2. CONTRACTOR MAY USE EXISTING STEEL POSTS OR INSTALL NEW/ADDITIONAL POSTS AS REQUIRED. THE ENGINEER SHALL APPROVE TBT TYPE 6A LAYOUT PRIOR TO INSTALLATION.
3. UNLESS OTHERWISE NOTED, DETAILS SHALL BE AS SHOWN ON "TRAFFIC BARRIER TERMINAL, TYPE 6A, STANDARD 631032".
4. COST OF WORK SHOWN TO BE INCLUDED IN TRAFFIC BARRIER TERMINAL, TYPE 6A.

MISCELLANEOUS DETAILS
F.A.P. ROUTE 778 (IL ROUTE 34)
SECTION 3BR-1
HARDIN COUNTY

PLOT DATE • NOTES
 FILE NAME • FILES
 PLOT SCALE • SCALES
 USER NAME • USERS



Bench Mark 3507528: Chiseled square in top of hub guard, northwest corner of SN 035-0005. Elevation 403.32

Existing Structure: The original two-span structure was built in 1924 with a reinforced concrete through girder on reinforced concrete closed abutments and pier with a length of 76'-0" back-to-back of abutments. The structure was widened in 1979. The superstructure was replaced with P.P.C. deck beams with a total width of 31'-0" out-to-out of superstructure and the substructure was modified accordingly.

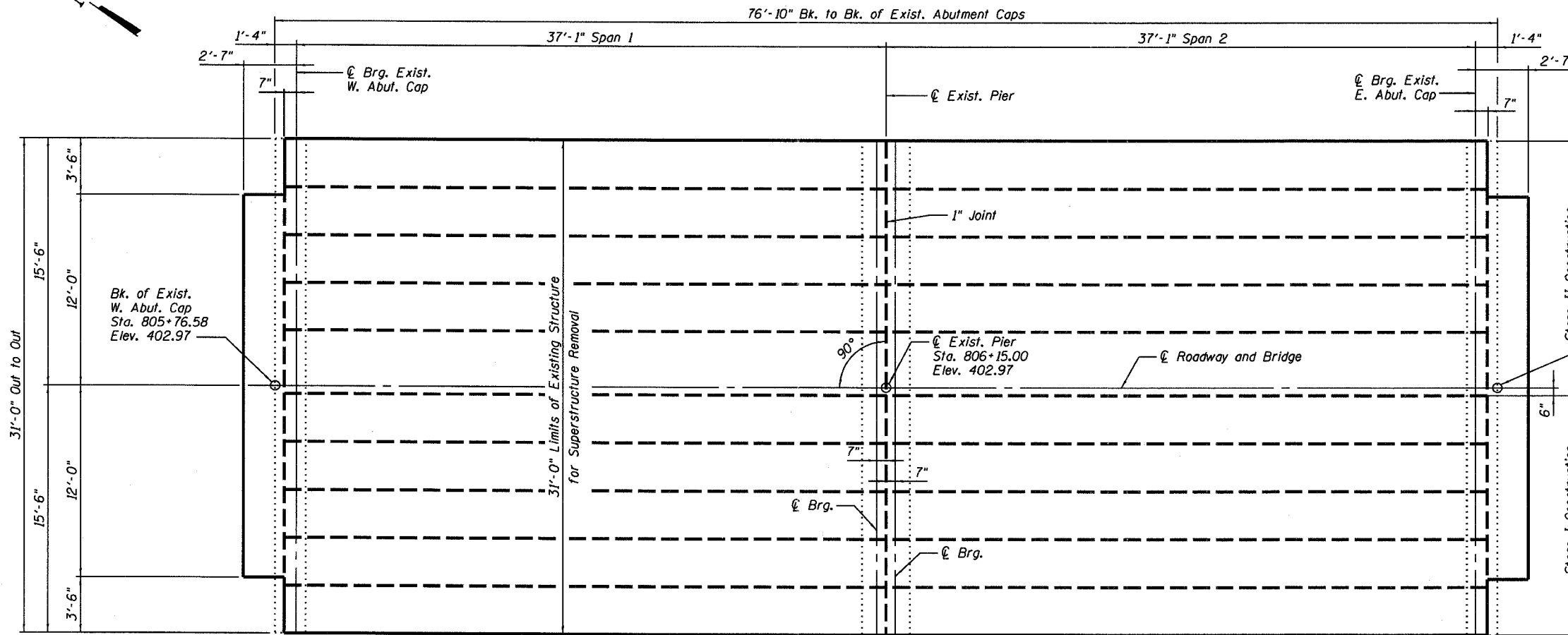
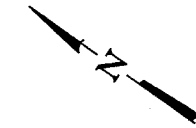
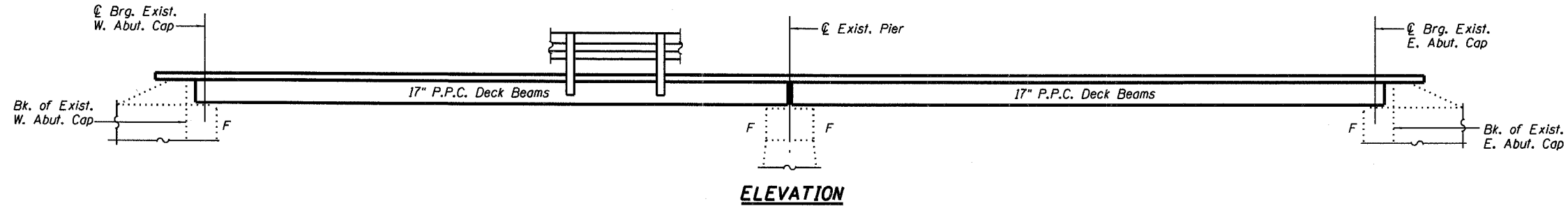
Proposed Improvements: The existing superstructure is to be replaced with P.P.C. deck beams and a 5" concrete overlay. Minor substructure repairs are required. Traffic to be maintained at all times utilizing stage construction.

Salvage: ~~Shoring material is to be stockpiled according to the Special Provisions after removal.~~
No Salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 778	SECTION 3BR-1	COUNTY HARDIN	STA. 69	SHEET 11	SHEET NO. 1 14 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

Contract #78023



DESIGN SPECIFICATIONS
2002 AASHTO Standard Specifications
for Highway Bridges

LOADING HS20-44
No allowance for Future Wearing Surface.

DESIGN STRESSES

FIELD UNITS

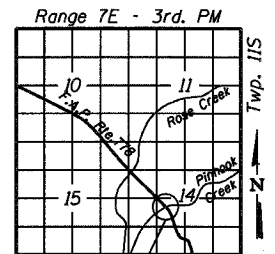
$f'_c = 5,000$ psi (Concrete Wearing Surface)
 $f'_c = 3,500$ psi (All concrete except CWS)
 $f_y = 60,000$ psi (reinforcement)

PRECAST PRESTRESSED UNITS

$f'_c = 5,000$ psi
 $f'_{ci} = 4,000$ psi
 $f'_s = 270,000$ psi ($1/2$ " ϕ low lax. strands)
 $f'_{si} = 201,960$ psi ($1/2$ " ϕ low lax. strands)

Bk. of Exist.
E. Abut. Cap
Sta. 806+53.42
Elev. 402.97

Stage
Construction
Line



BRIDGE
REHABILITATION

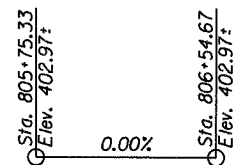
LOCATION SKETCH

GENERAL PLAN & ELEVATION
ILL. ROUTE 34 OVER PINHOOK CREEK
F.A.P. ROUTE 778 SECTION 3BR-1
HARDIN COUNTY
STATION 806+15.00
STRUCTURE NO. 035-0005



DESIGNED	RLM
CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

10/04/07



PROFILE GRADE
(Along ϕ Roadway)

PLAN

STATION 806+15
REBUILT 200 BY
STATE OF ILLINOIS
F.A.P. RT. 778 SEC. 3BR-1
LOADING HS20
STR. NO. 035-0005

NAME PLATE
See Std. 515001

Notes: Existing name plate shall be cleaned and relocated adjacent to the new name plate. Cost included with Name Plates.
Locate name plates at outside face of top steel railing tube at southwest corner of bridge.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



David W. Petermeier
DAVID W. PETERMEIER
EDWARDSVILLE, ILLINOIS
ILLINOIS LICENSED STRUCTURAL
ENGINEER NO. 081-005642
EXPIRES NOV. 30, 2008

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ROUTE NO.	SECTION	COUNTY	SHEETS	PAGE	SHEET NO.
F.A.P. 778	3BR-1	HARDIN	69	12	2
FED. ROAD DIST. NO. 7	ILL. PROJ.	FED. AID PROJECT			

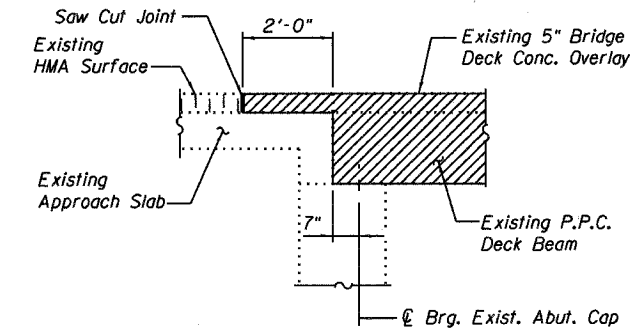
Contract #78023

SCOPE OF WORK

1. Install Pre-stage 1 Shoring as required.
2. Remove existing surface, steel railing, deck beams, and bearing pads.
3. Repair bearing seats and perform other repairs at abutments and pier as required.
4. Reconstruct a P.P.C. deck beam superstructure with concrete wearing surface and steel railing, Type SM.

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A 706 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. Concrete Sealer shall be applied to the abutments and pier where concrete repairs are performed.
4. 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.
5. If the Contractor's procedures for existing beam removal or placement of new beams involves placement of heavy equipment on the new deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Cost included with Precast Prestressed Concrete Deck Beams (17").
6. The minimum thickness of the concrete wearing surface shall be 5" and varies as required to adjust for the existing profile grade and beam camber.
7. Repair of the substructure shall be completed prior to placement of the new deck beams.



**LIMITS OF EXISTING STRUCTURE
FOR SUPERSTRUCTURE REMOVAL**

Notes:
HMA removal over approach slabs included in cost of Removal of Existing Superstructures.
Existing HMA surface at shoulders to be left in place.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructures	Each	1	-	1
Bridge Deck Grooving	Sq. Yd.	271	-	271
Protective Coat	Sq. Yd.	271	-	271
Precast Prestressed Concrete Deck Beams (17")	Sq. Ft.	2,333	-	2,333
Reinforcement Bars, Epoxy Coated	Pound	3,470	-	3,470
Bar Splicers	Each	82	-	82
Steel Railing, Type SM	Foot	151	-	151
Steel Railing (Temporary)	Foot	76	-	76
Name Plates	Each	1	-	1
Concrete Sealer	Sq. Ft.	-	6	6
Epoxy Crack Injection	Foot	-	36	36
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	-	6	6
Concrete Wearing Surface, 5"	Sq. Yd.	271	-	271
Temporary Support System	L. Sum	1	-	1



DESIGNED	RLM
CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

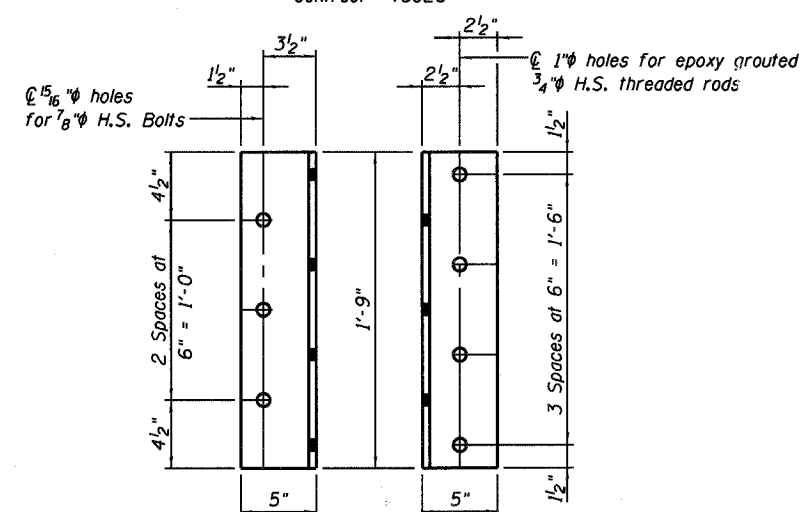
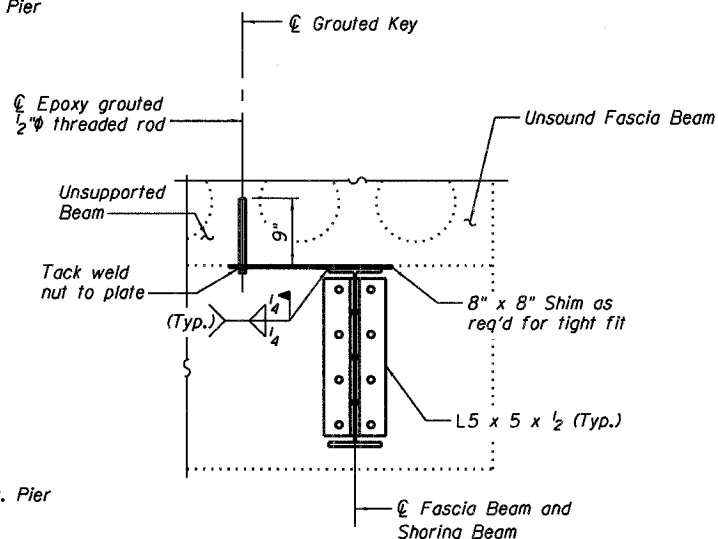
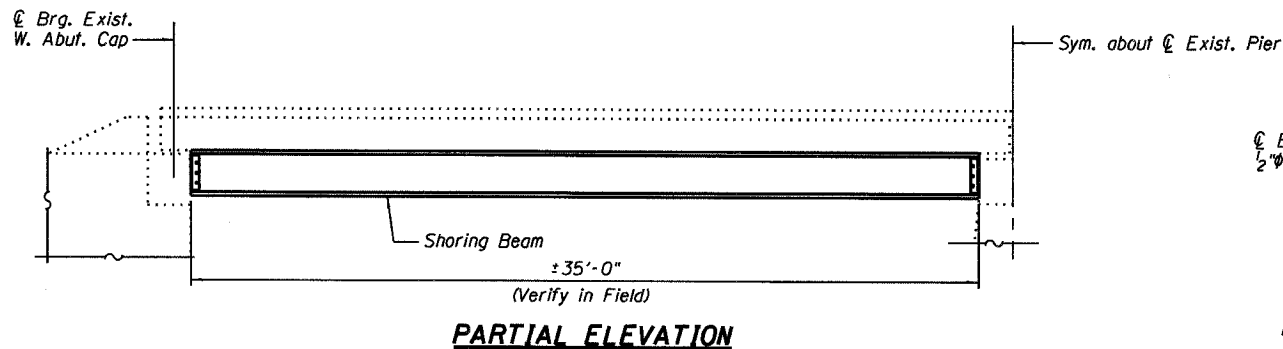
10/04/07

**GENERAL STRUCTURE DATA
ILL. ROUTE 34 OVER PINHOOK CREEK
F.A.P. ROUTE 778 SECTION 3BR-1
HARDIN COUNTY
STATION 806+15.00
STRUCTURE NO. 035-0005**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

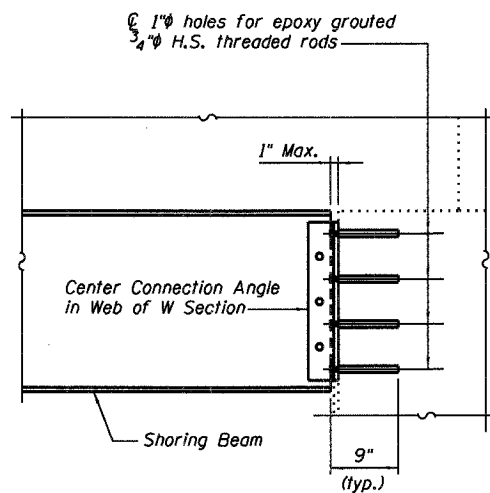
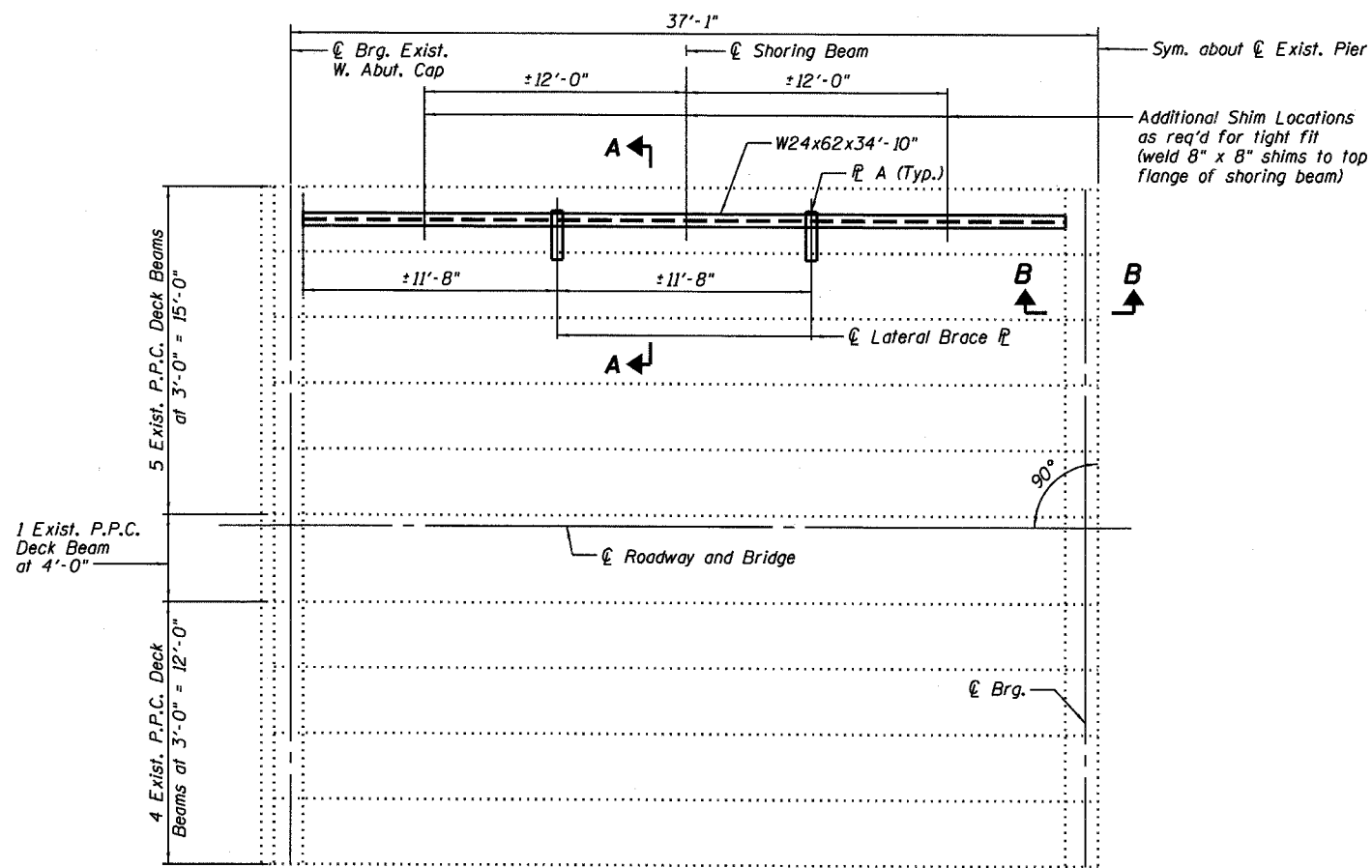
ROUTE NO.	SECTION	COUNTY	SHEETS	NO.	SHEET NO.
F.A.P. 778	3BR-1	HARDIN	69	13	3
FED. ROAD DIST. NO. 7					ILLINOIS
FED. AID PROJECT					14 SHEETS

Contract #78023



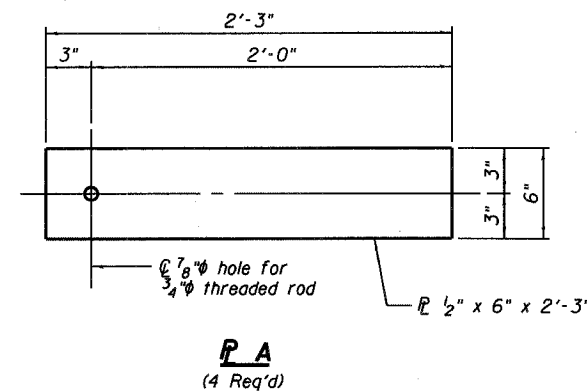
SECTION A-A

L5 x 5 x 1/2 x 1'-9"
(8 Req'd)



SECTION B-B

Note: Prior to drilling holes in cap for placement of connection angles, location of existing stirrups should be determined and, if necessary, location of holes adjusted slightly in order to avoid them.



P.A
(4 Req'd)

Notes:
If construction staging for SN-035-0005 and SN-035-0008 is such that shoring beams have been removed from SN-035-0008 prior to the construction of the Pre-stage 1 Shoring at SN-035-0005, existing shoring beams may be used instead of the W section shown with the approval of the Engineer.
See Section 584 of the Standard Specifications for Epoxy Grouting of Threaded Rods.
The cost of the grouting threaded rods shall be included with the cost of Temporary Support System.

PARTIAL PLAN
(2 Shoring Beams Req'd)

BILL OF MATERIAL

Item	Unit	Quantity
Temporary Support System	L Sum	1

Note: Estimated weight of structural steel = 4,710 lbs.

PRE-STAGE 1 SHORING DETAILS
ILL. ROUTE 34 OVER PINHOOK CREEK
F.A.P. ROUTE 778 SEC. 3BR-1
HARDIN COUNTY
STATION 806+15.00
STRUCTURE NO. 035-0005



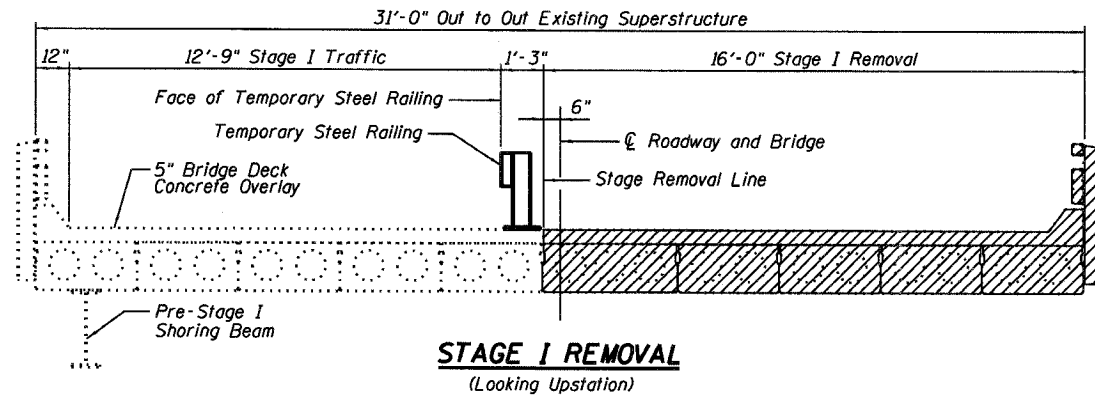
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CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

10/04/07

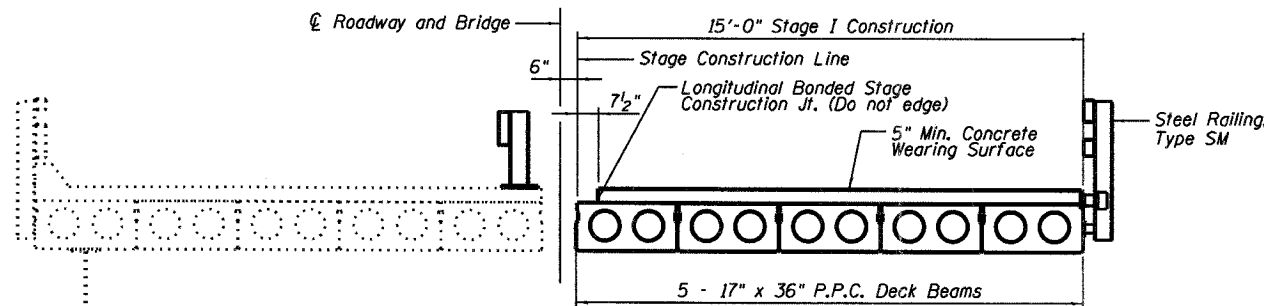
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	POST	SHEET NO. 4 14 SHEETS
F.A.P. 778	3BR-1	HARDIN	69	M	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

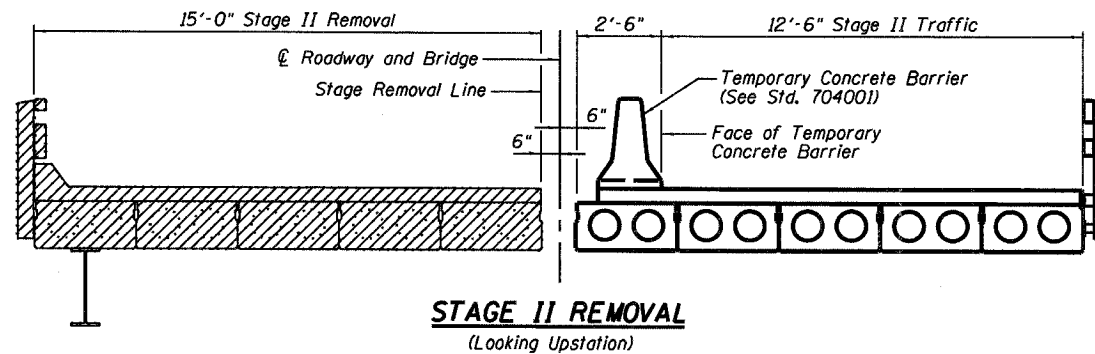
Contract #78023



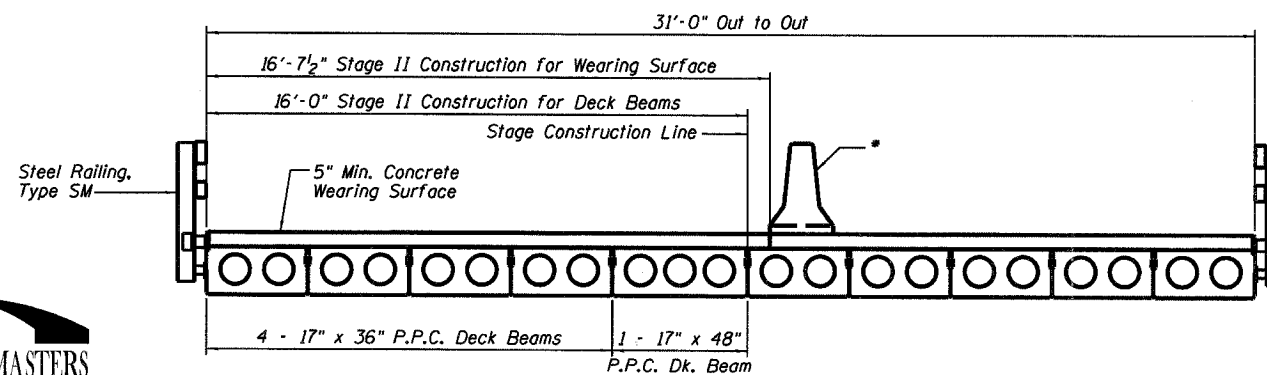
STAGE I REMOVAL
(Looking Upstation)



STAGE I CONSTRUCTION
(Looking Upstation)

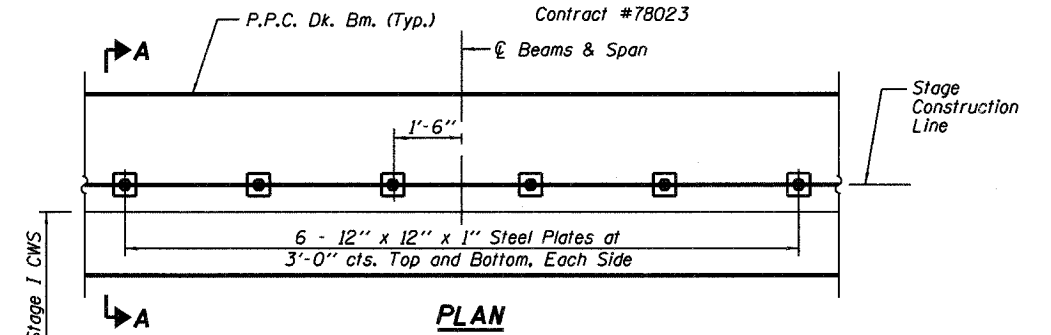


STAGE II REMOVAL
(Looking Upstation)

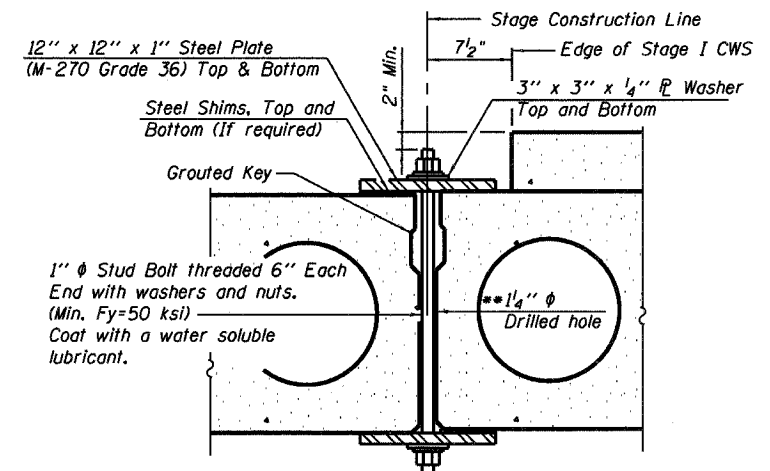


STAGE II CONSTRUCTION
(Looking Upstation)

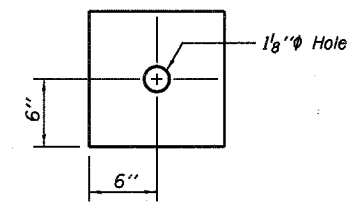
* Temporary Concrete Barrier to be removed with Stage II Traffic Control upon completion of Stage II construction.



PLAN



SECTION A-A



CLAMPING PLATE

SHEAR KEY CLAMPING DETAILS

See Article 504.06 of the Standard Specifications for Stage Construction of Precast Prestressed Concrete Deck Beams.
Cost included with Precast Prestressed Concrete Deck Beams (17").

** As an alternate to the drilled holes, the Contractor may request the Fabricator to cast 2" diameter semi-circular recesses in the sides of each beam adjacent to the stage construction line. These recesses should align to form a hole at the appropriate locations for the clamping device bolts. If the Contractor elects to use this alternate, the details shall be identified on the shop drawings.

STAGE CONSTRUCTION DETAILS
ILL. ROUTE 34 OVER PINHOOK CREEK
F.A.P. ROUTE 778 SECTION 3BR-1
HARDIN COUNTY
STATION 806+15.00
STRUCTURE NO. 035-0005



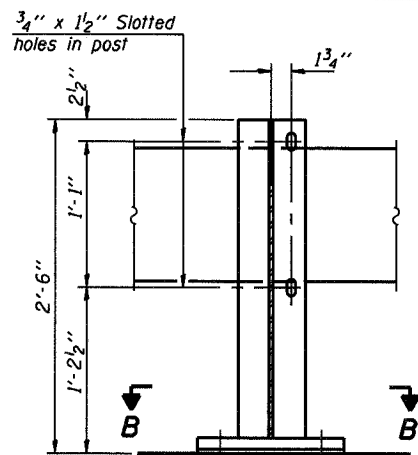
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CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

10/04/07

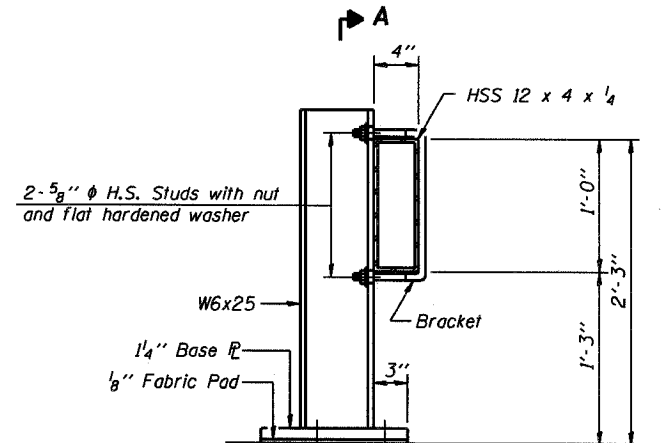
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DATE	SHEET	SHEET NO. 5 14 SHEETS
F.A.P. 778	3BR-1	HARDIN	69	15	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

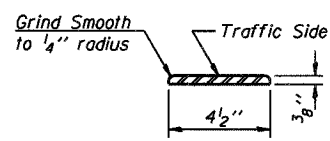
Contract #78023



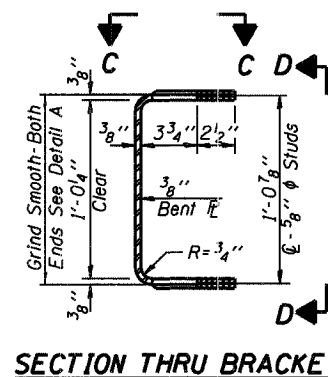
SECTION A-A



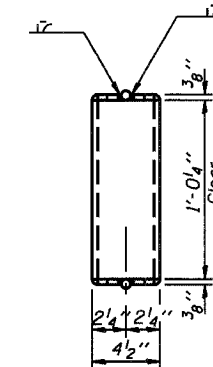
SECTION AT RAIL POST



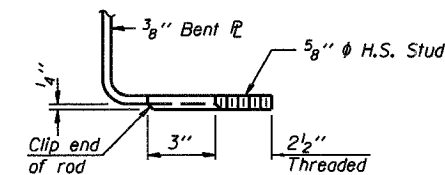
DETAIL A



SECTION THRU BRACKET



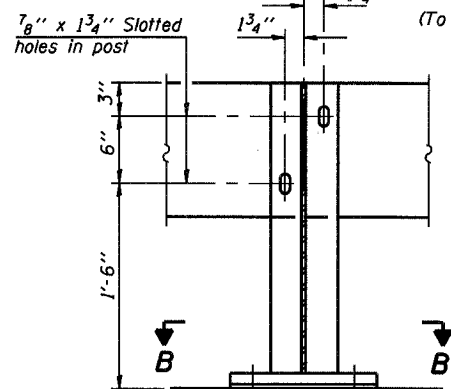
VIEW D-D



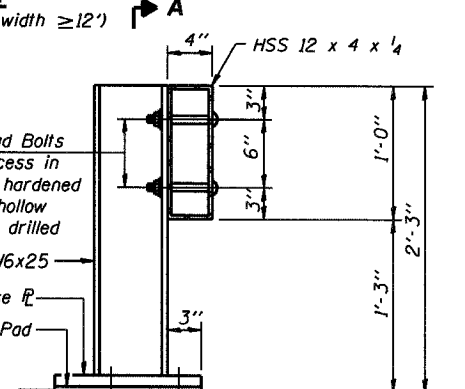
VIEW E-E

ALTERNATE I

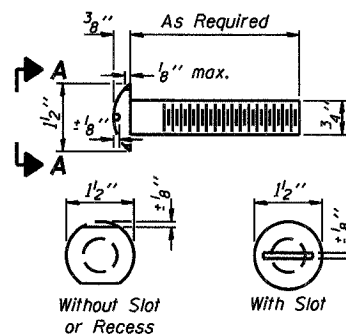
(To be used only for Roadway width ≥ 12')



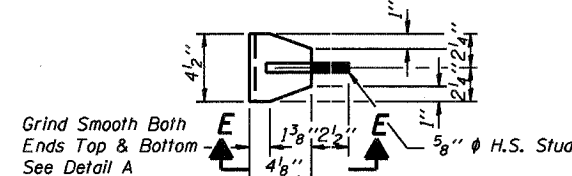
SECTION A-A



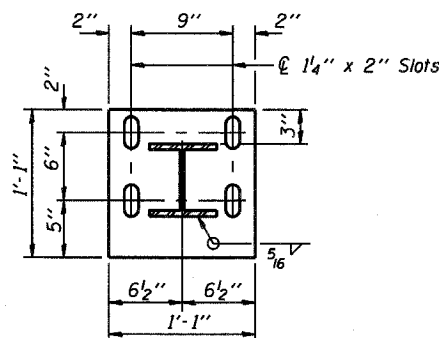
SECTION AT RAIL POST



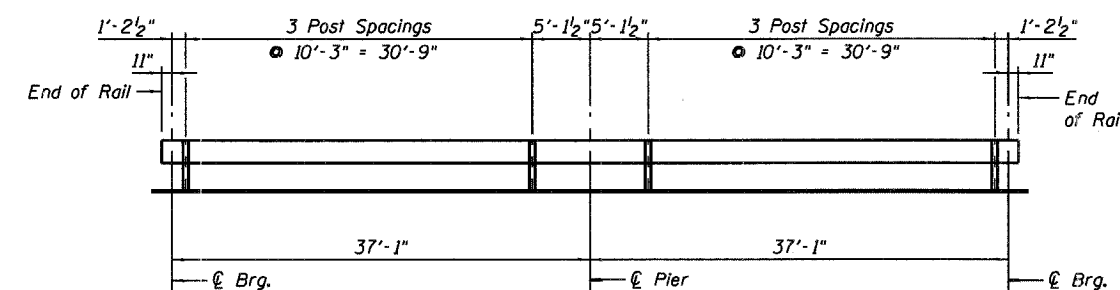
VIEW A-A
ROUND HEAD BOLT



VIEW C-C



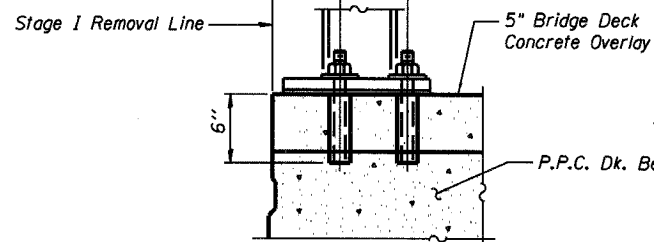
SECTION B-B



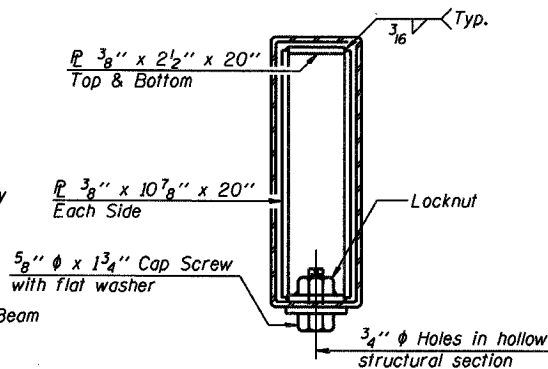
TEMPORARY BRIDGE RAIL POST SPACING
(10'-9" Maximum Post Spacing)

ALTERNATE II

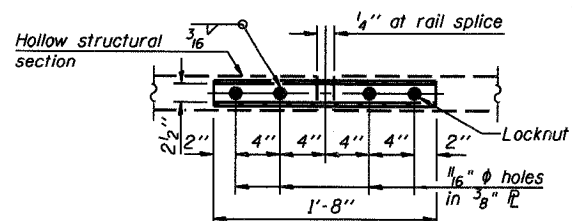
Drill 4-1 1/4 inch diameter holes for 1 inch diameter threaded rods with hex nut and flat washer. Drill and set rods according to Article 509.06 of the Standard Specifications.



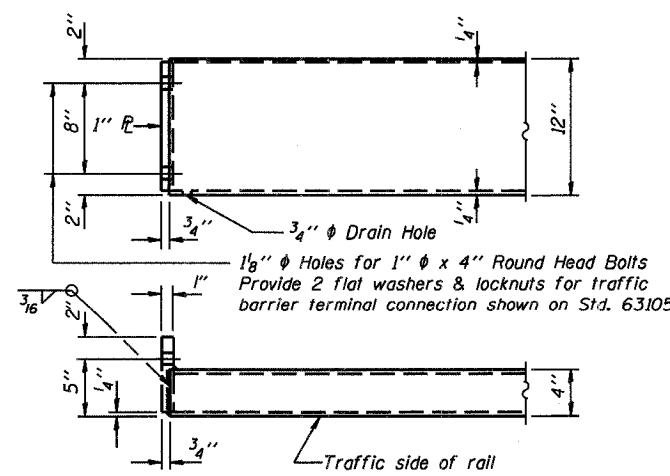
ANCHORAGE DETAILS



SECTION AT RAIL SPLICE



PLAN-BOTT. SPLICE TYPICAL



END OF RAIL DETAILS

Notes:
Temporary steel railing shall be according to Section 509 of the Standard Specifications and will be paid for at the contract unit price per foot for Steel Railing (Temporary).
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 inch 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	76

MODJESKI and MASTERS
Consulting Engineers
SINCE 1893

DESIGNED	RLM
CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

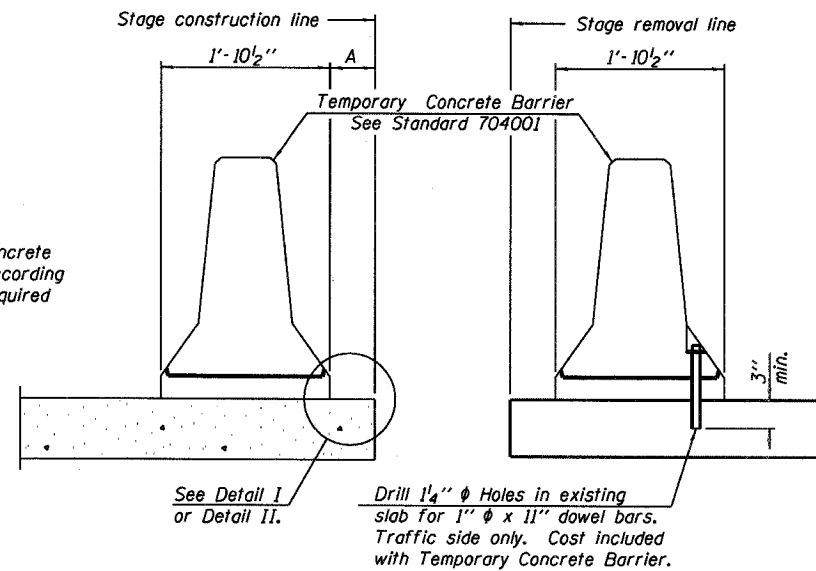
10/04/07

STEEL RAILING (TEMPORARY)
FOR STAGE CONSTRUCTION
ILL. ROUTE 34 OVER PINHOOK CREEK
F.A.P. ROUTE 778 SECTION 3BR-1
HARDIN COUNTY
STATION 806+15.00
STRUCTURE 035-0005

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. 778	SECTION 3BR-1	COUNTY HARDIN	SHEET NO. 69	SHEET 16	SHEET NO. 6 14 SHEETS
F.A.P.		ILLINOIS		FED. AID PROJECT	

Contract #78023

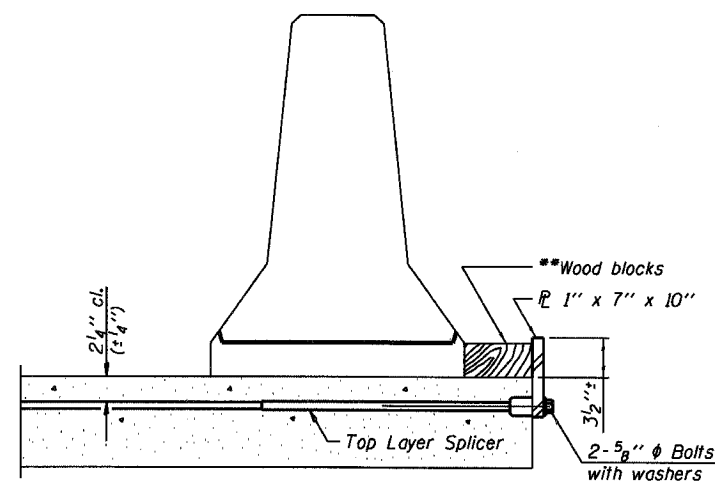


When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".

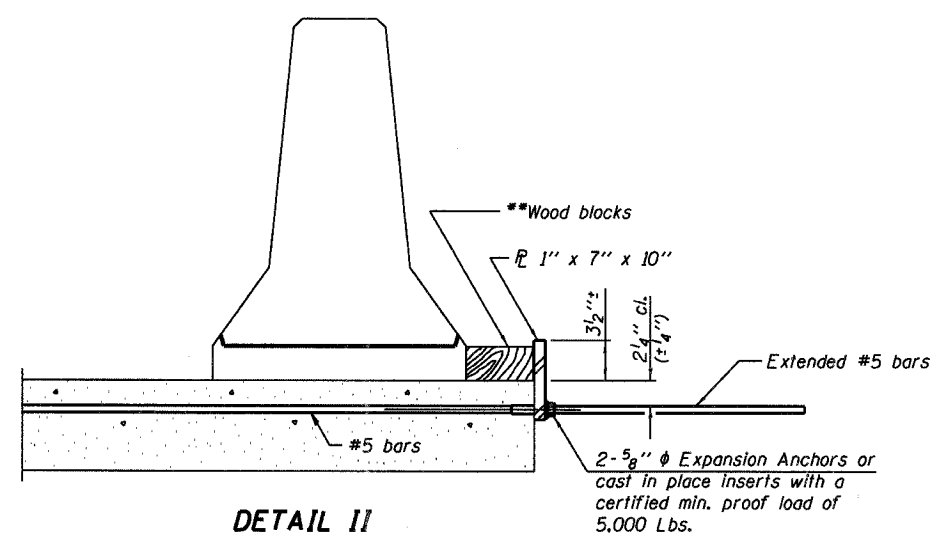
NEW SLAB

EXISTING SLAB

SECTIONS THRU SLAB



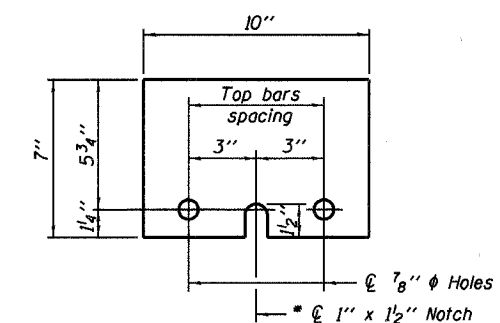
DETAIL I



DETAIL II

NOTES

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



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

* Required only with Detail II

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



DESIGNED	RLM
CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

R-27

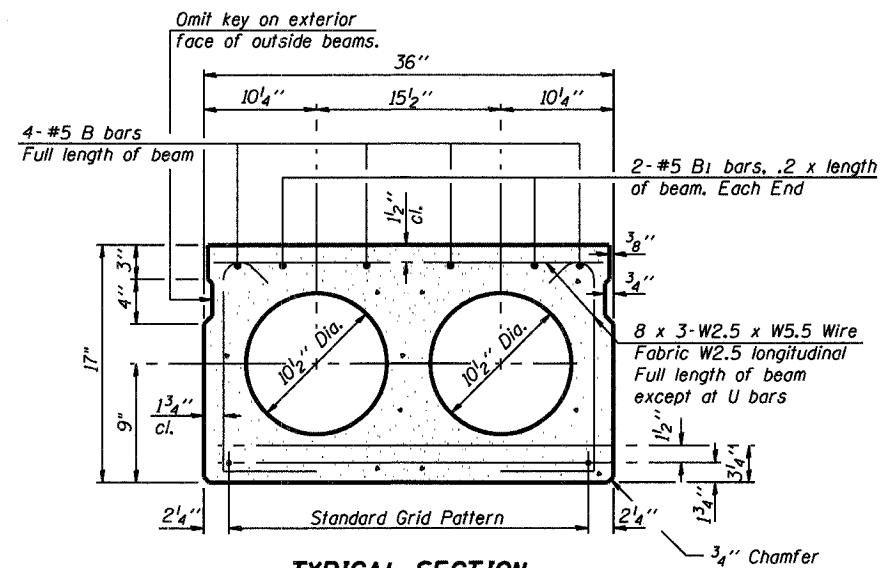
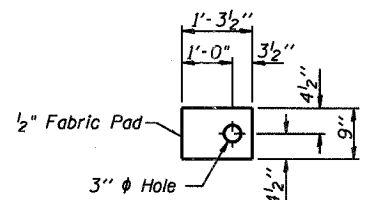
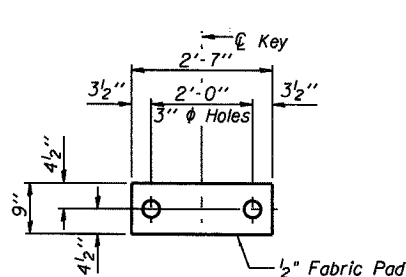
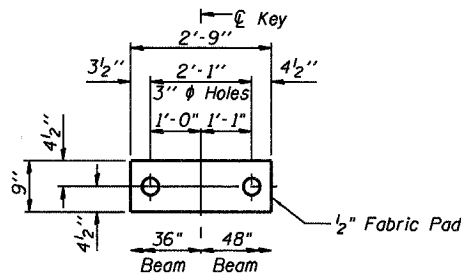
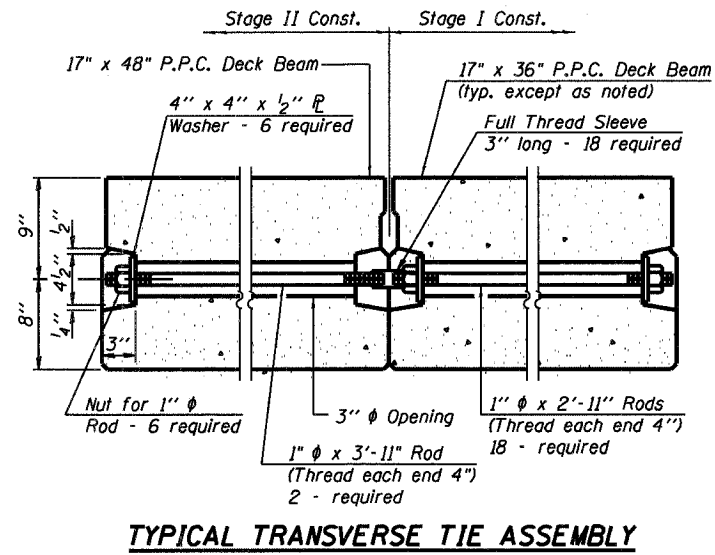
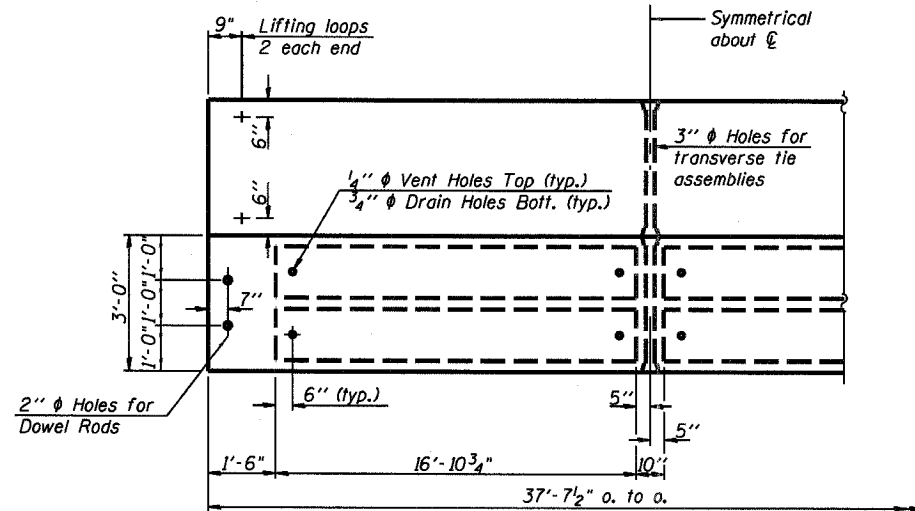
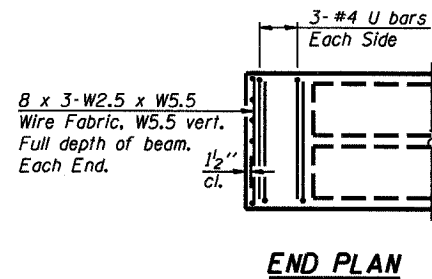
11-1-06

**TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
ILL. ROUTE 34 OVER PINHOOK CREEK
F.A.P. ROUTE 778 SECTION 3BR-1
HARDIN COUNTY
STATION 806+15.00
STRUCTURE NO. 035-0005**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SPRDS	SHEET	SHEET NO. 7
F.A.P. 778	3BR-1	HARDIN	69	17	14 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #78023



15-1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
9-Strands 1 3/4" up, 4-Strands 3/4" up, 2-Strands 12" up

Note: Place strands symmetrically about ϕ of beam.

BILL OF MATERIAL

Item	Unit	Quantity
Precast Prestressed Conc. Deck Bms. (17")	Sq. Ft.	2,032

NOTES

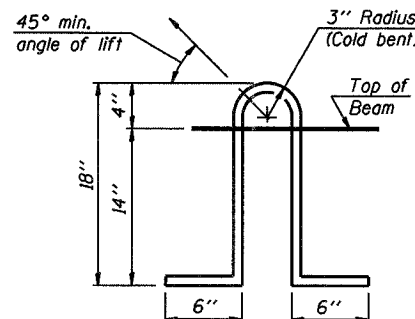
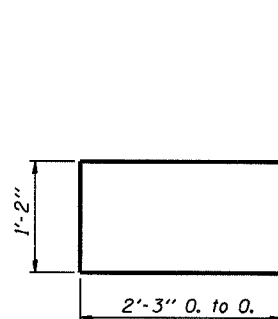
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
- Lifting loops shall be 2-1/2" ϕ - 270 ksi strands, as shown.
- Lifting loops shall be burned off after beams have been erected.
- The 1" ϕ rods in the transverse assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.
- Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60.
- The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing.
- Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.
- Corrosion Inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Required Release Strength, f'ci, shall be 4,000 p.s.i.
- See Sheet No. 9 of 14 for required fascia beam modifications for rail anchorage.

SUPERSTRUCTURE DETAILS
17" X 36" DECK BEAMS
ILL. ROUTE 34 OVER PINHOOK CREEK
F.A.P. ROUTE 778 SECTION 3BR-1
HARDIN COUNTY
STATION 806+15.00
STRUCTURE NO. 035-0005



DESIGNED	RLM
CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

10/04/07



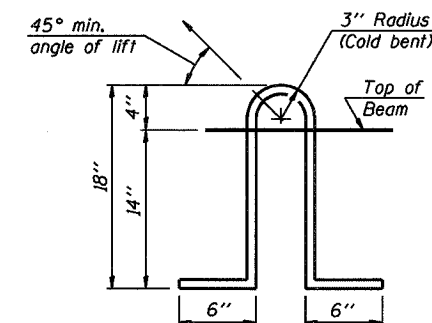
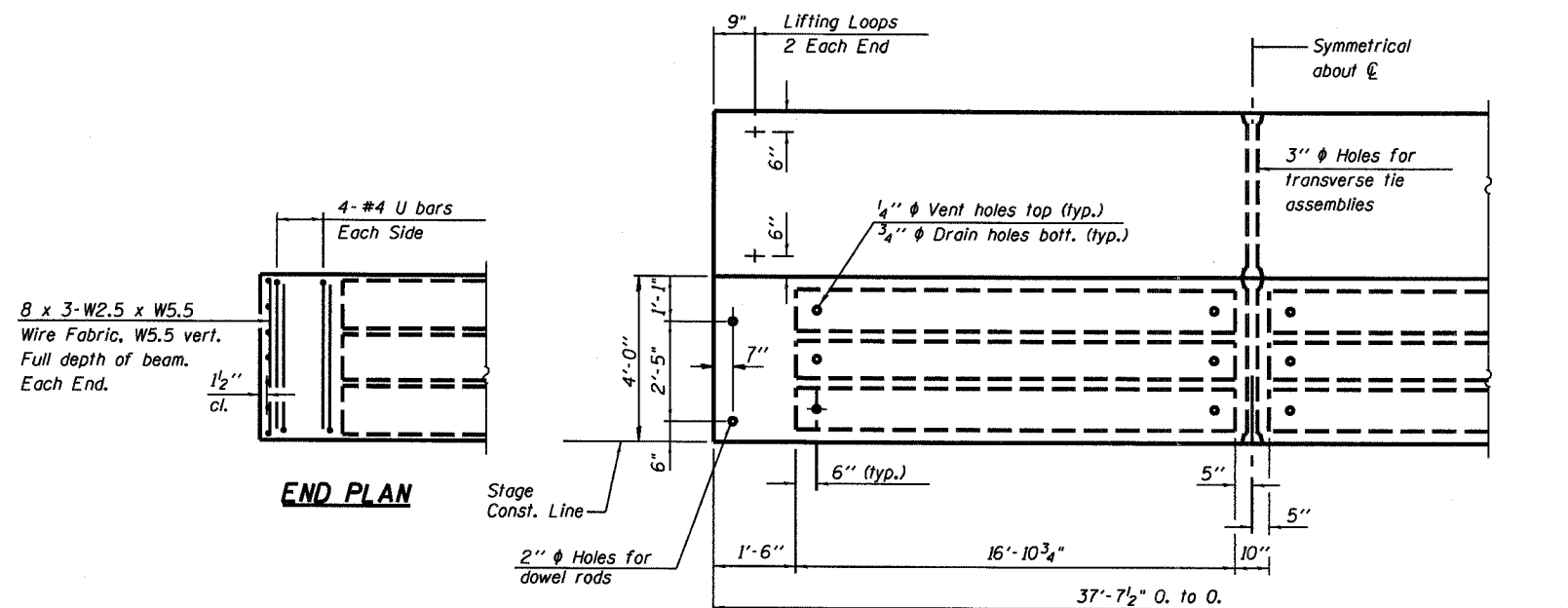
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SQ. FT.	FEET	SHEET NO. 8
F.A.P. 778	3BR-1	HARDIN	69	18	14 SHEETS
FED. ROAD DIST. NO. 7	ILL. ROAD	FED. AID PROJECT			

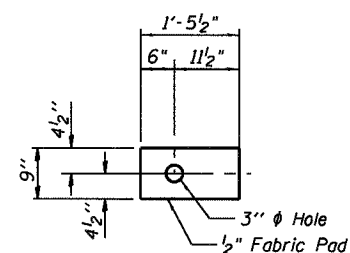
Contract #78023

NOTES

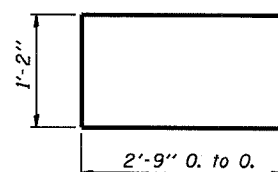
1. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
2. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
3. Lifting loops shall be 2-1/2" φ - 270 ksi strands, as shown.
4. Lifting loops shall be burned off after beams have been erected.
5. The 1" φ rods in the transverse assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.
6. Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60.
7. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing.
8. 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.
9. Corrosion Inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
10. Required Release Strength, f'ci, shall be 4,000 p.s.i.
11. See Sheet No. 7 of 14 for required fascia beam modifications for rail anchorage.
12. Cost to furnish and erect Tapered Steel Shims included with Precast Prestressed Concrete Deck Beams (17").



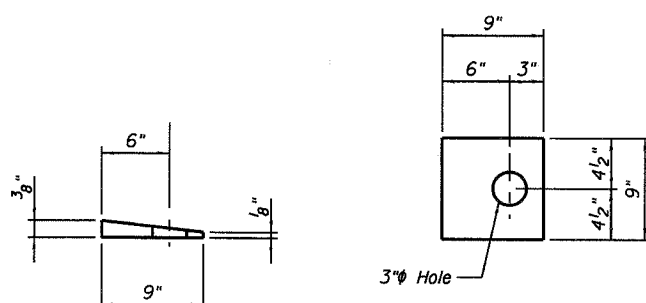
LIFTING LOOP DETAIL



FABRIC BEARING PAD
(Stage Construction Line)
(4 Required)



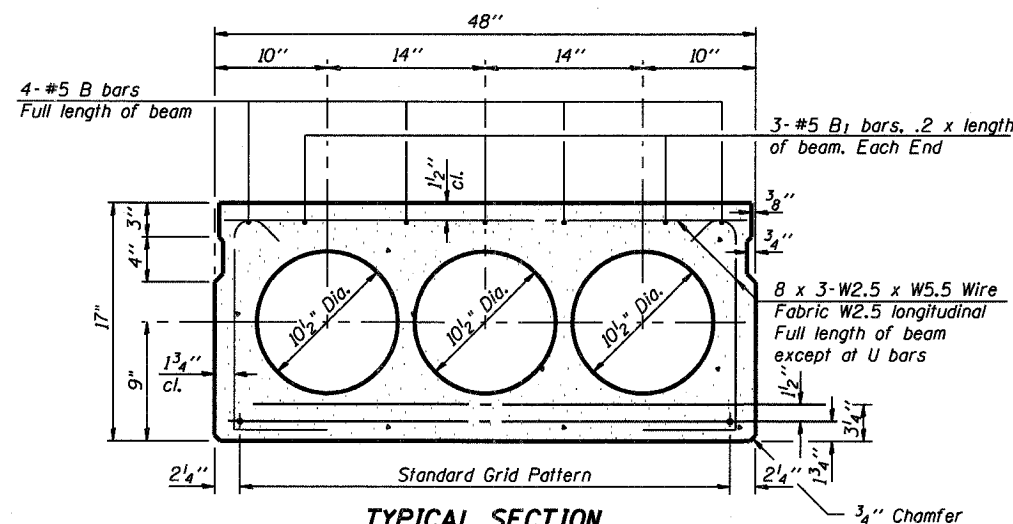
BAR U



TAPERED STEEL SHIM
(Stage Construction Line)
(2 Required)

Note: Steel shims shall be AASHTO Classification M270 Gr. 36 minimum and shall be galvanized according to AASHTO M111.

PLAN
(1 Required)



TYPICAL SECTION

13-1/2" φ Strands, Each Strand Stressed to 30,900 Lbs.
7-Strands 1 3/4" up, 6-Strands 3/4" up

Note: Place strands symmetrically about C of beam.

BILL OF MATERIAL

Item	Unit	Quantity
Precast Prestressed Conc. Deck Bms. (17")	Sq. Ft.	301



DESIGNED	RLM
CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

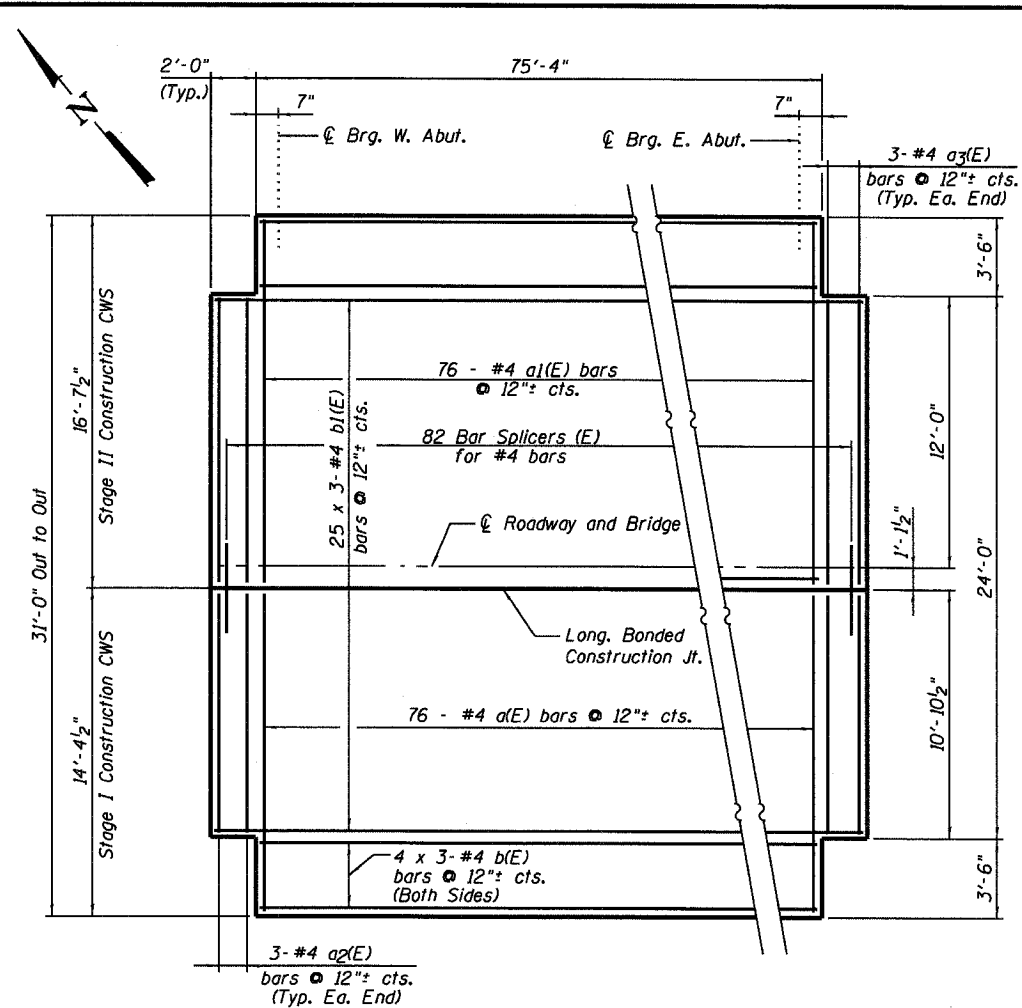
10/04/07

SUPERSTRUCTURE DETAILS
17" X 48" DECK BEAMS
ILL. ROUTE 34 OVER PINHOOK CREEK
F.A.P. ROUTE 778 SECTION 3BR-1
HARDIN COUNTY
STATION 806+15.00
STRUCTURE NO. 035-0005

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

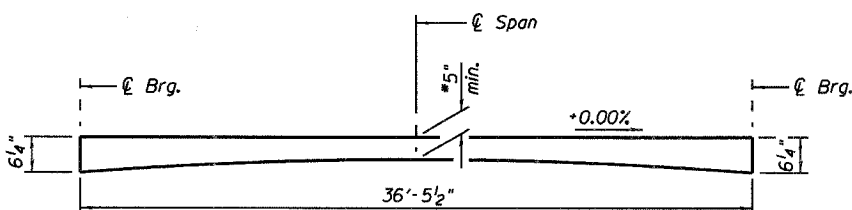
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F.A.P. 778	3BR-1	HARDIN	69	19
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract #78023



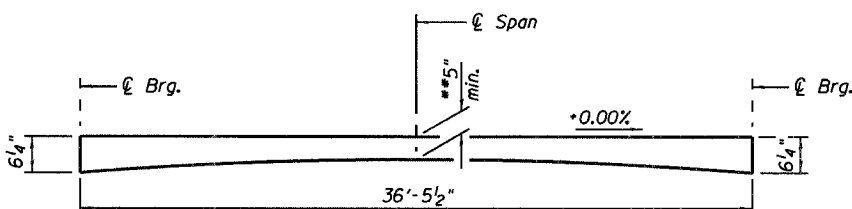
PARTIAL PLAN - CONCRETE WEARING SURFACE

Min. Bar Lap: #4 Bars - 1'-4"



CONCRETE WEARING SURFACE PROFILE - 36" BEAMS

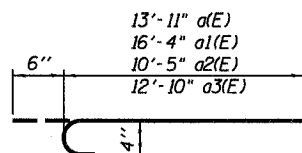
* 5/8" Theoretical



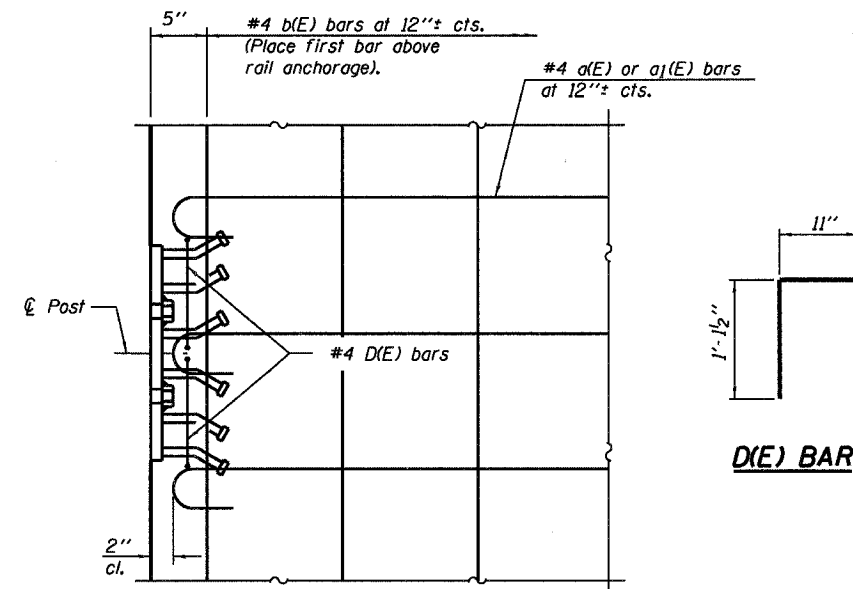
CONCRETE WEARING SURFACE PROFILE - 48" BEAM

** 5/8" Theoretical

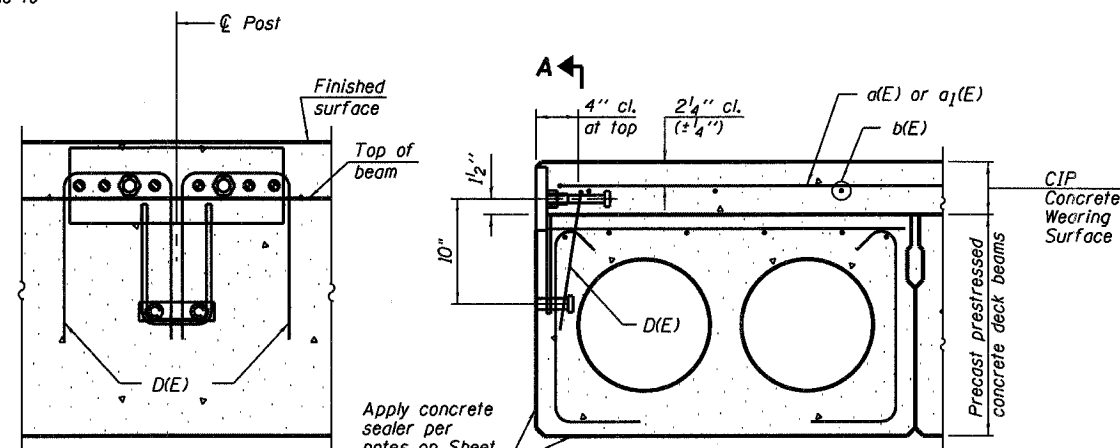
Note:
Thickness on 48" beam will vary from those shown above at profile grade to 3/8" less at stage construction line.



**a1(E), a1(E), a2(E),
and a3(E) BARS**



PLAN

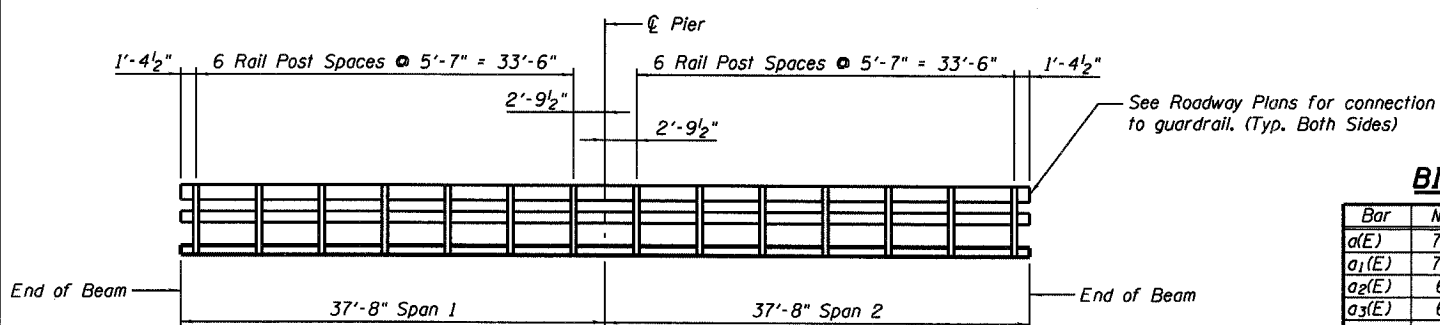


SECTION A-A

FASCIA BEAM CROSS SECTION

**CONCRETE WEARING SURFACE AND FASCIA BEAM
MODIFICATIONS FOR RAIL ANCHORAGE**

Notes:
See Sheet No. 11 of 14 for rail anchorage details.
The rail anchorage shall be cast with the beam 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. Drilling into the beam or slab will not be permitted.
Concrete wearing surface to be poured after grouting the shear keys.



RAIL POST SPACING DETAIL

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1(E)	76	#4	14'-5"	U
a1(E)	76	#4	16'-10"	U
a2(E)	6	#4	10'-11"	U
a3(E)	6	#4	13'-4"	U
b(E)	24	#4	25'-11"	U
b1(E)	75	#4	27'-3"	U
Reinforcement Bars, Epoxy Coated		Pound		3,470
Concrete Wearing Surface, 5"		Sq. Yd.		271
Bridge Deck Grooving		Sq. Yd.		271
Bar Splicers		Each		82
Protective Coat		Sq. Yd.		271

Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.

**SUPERSTRUCTURE DETAILS
CONCRETE WEARING SURFACE
ILL. ROUTE 34 OVER PINHOOK CREEK
F.A.P. ROUTE 778 SECTION 3BR-1
HARDIN COUNTY
STATION 806+15.00
STRUCTURE NO. 035-0005**



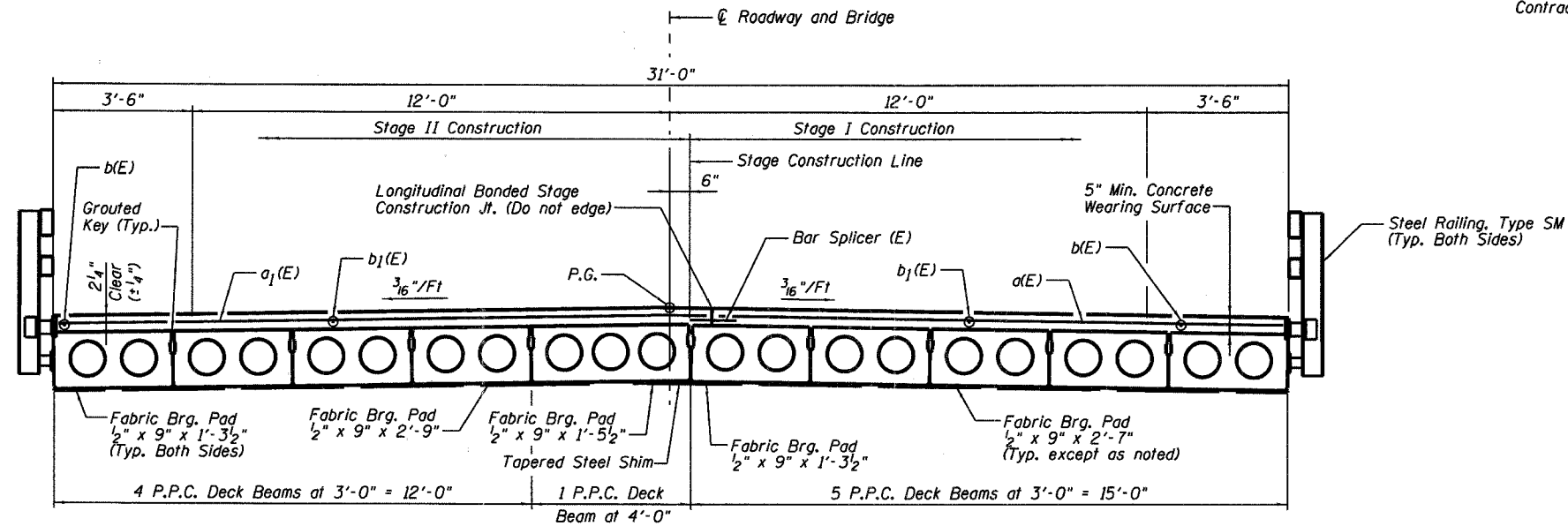
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DRAWN	AEC
CHECKED	RLM

10/04/07

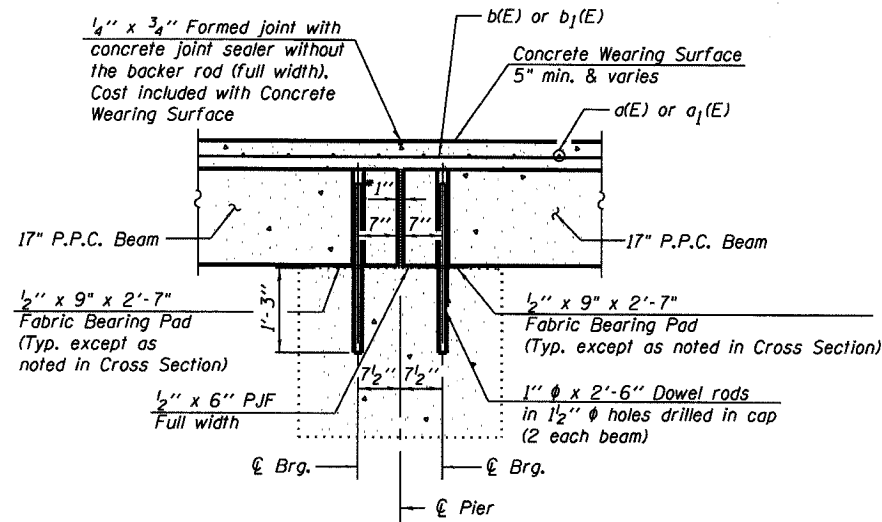
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DATE	SHEET NO.	SHEET NO.
F.A.P. 778	3BR-1	HARDIN	69	20	14 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #78023

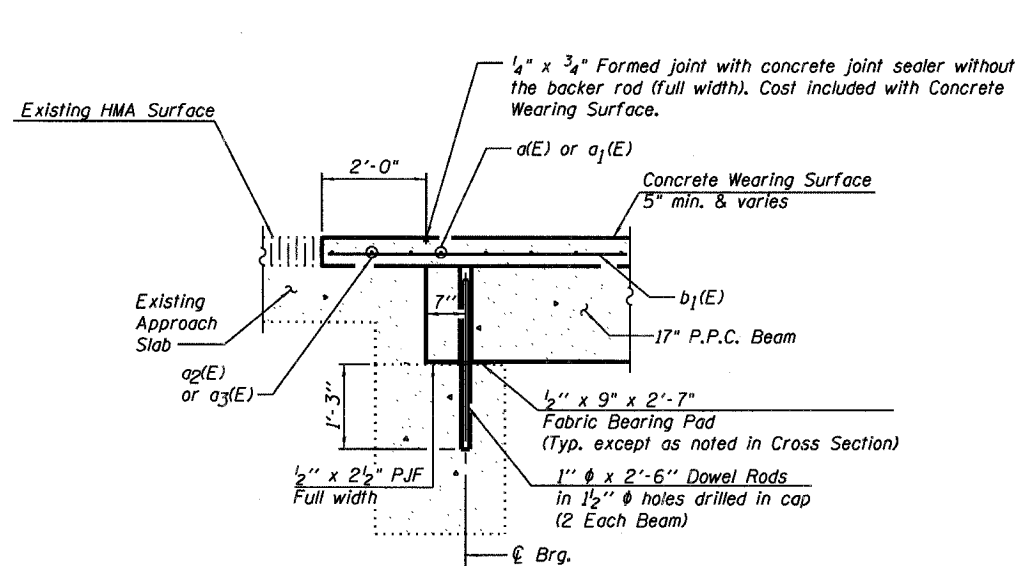


CROSS SECTION
(Looking Upstation)



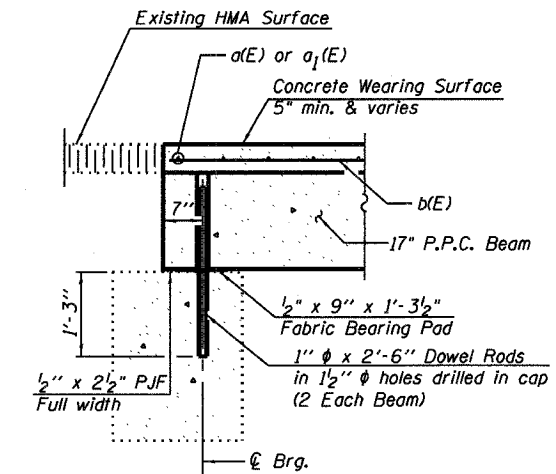
SECTION THRU FIXED PIER

* 1" Jt. shall be filled with non-shrink grout. 1" dimension may vary to accommodate tolerance in beam lengths.



SECTION THRU FIXED ABUTMENT AT APPROACH SLAB

Notes:
After beams have been erected, holes shall be drilled into substructure and anchor dowels 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.
Dowel rods drilled in cap are included in the cost of Precast Prestressed Conc. Deck Beams (17").



SECTION THRU FIXED ABUTMENT AT SHOULDERS

**SUPERSTRUCTURE DETAILS
SECTIONS AND JOINT DETAILS
ILL. ROUTE 34 OVER PINHOOK CREEK
F.A.P. ROUTE 778 SECTION 3BR-1
HARDIN COUNTY
STATION 806+15.00
STRUCTURE NO. 035-0005**



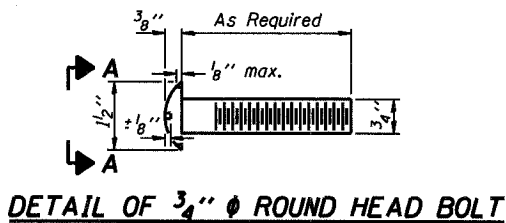
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DRAWN	AEC
CHECKED	RLM

10/04/07

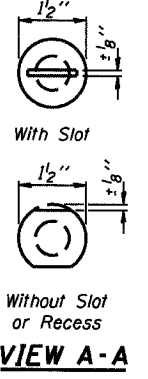
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	STA. POSTS	SHEET NO.	SHEET NO. 11
F.A.P. 778	3BR-1	HARDIN	69 21	14 SHEETS	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

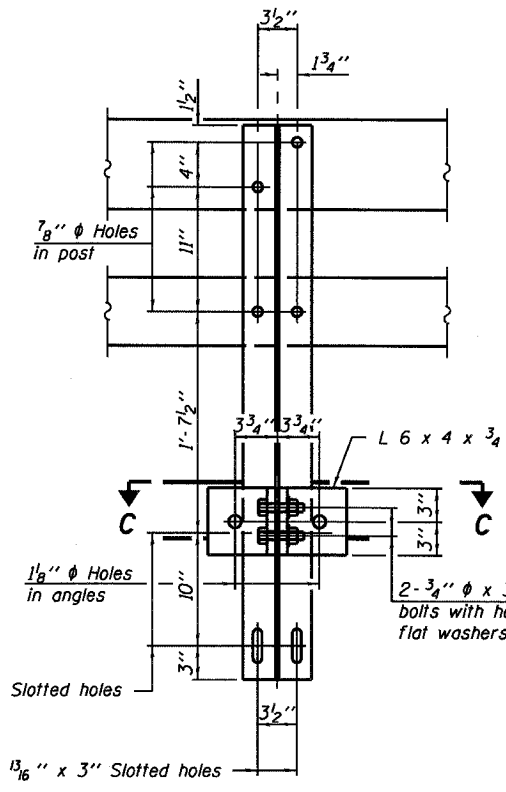
Contract #78023



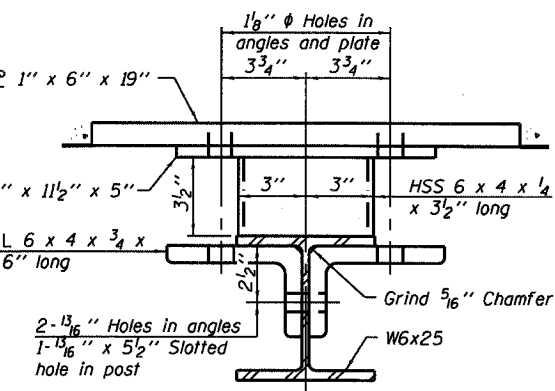
DETAIL OF 3/4" ϕ ROUND HEAD BOLT



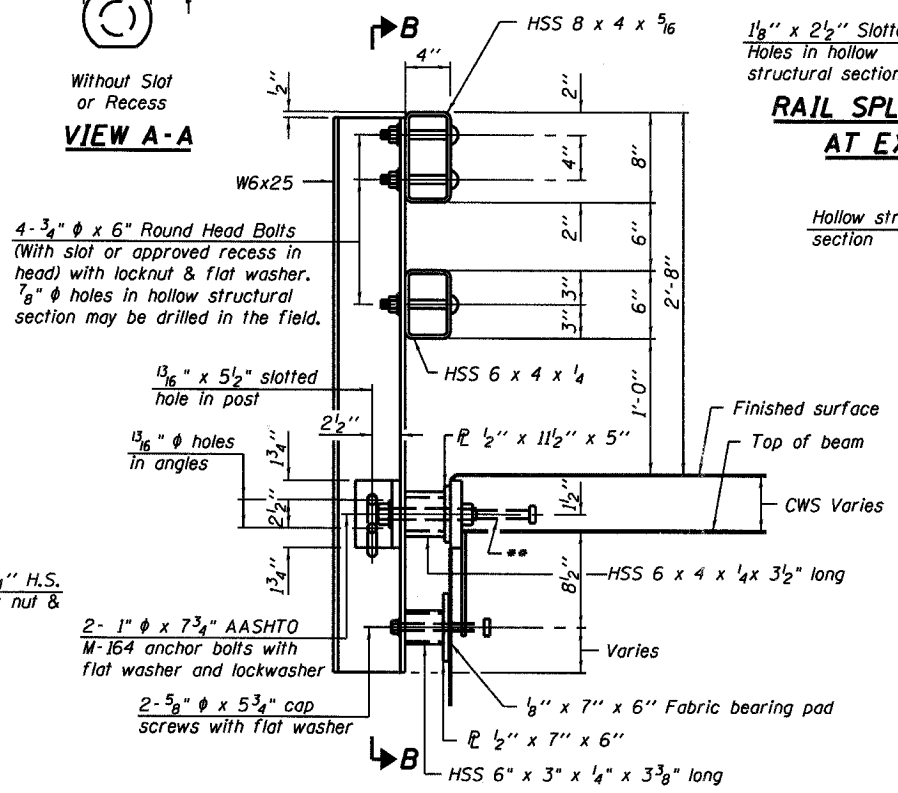
VIEW A-A



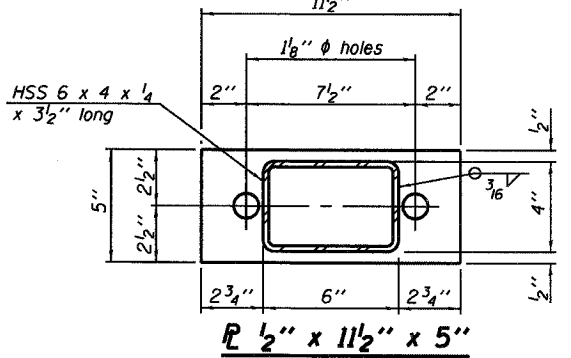
SECTION B-B



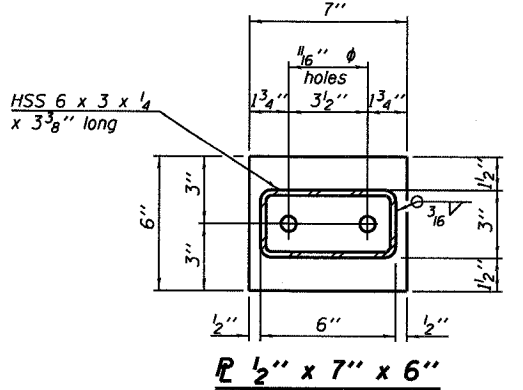
SECTION C-C



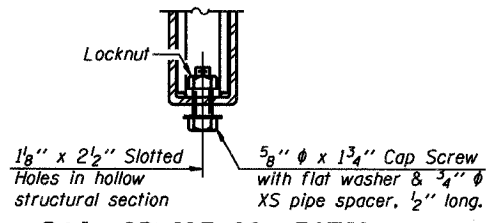
SECTION AT RAIL POST



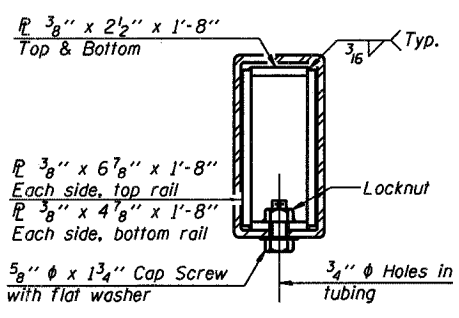
PLAN-BOTT. SPLICE P TYPICAL



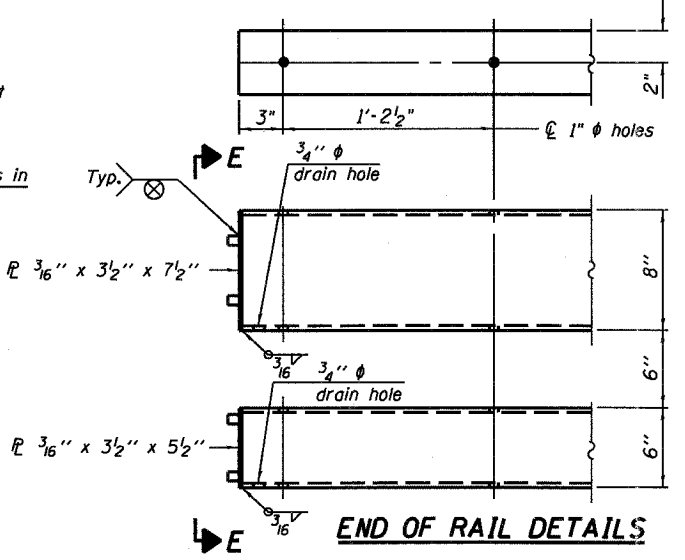
VIEW D-D



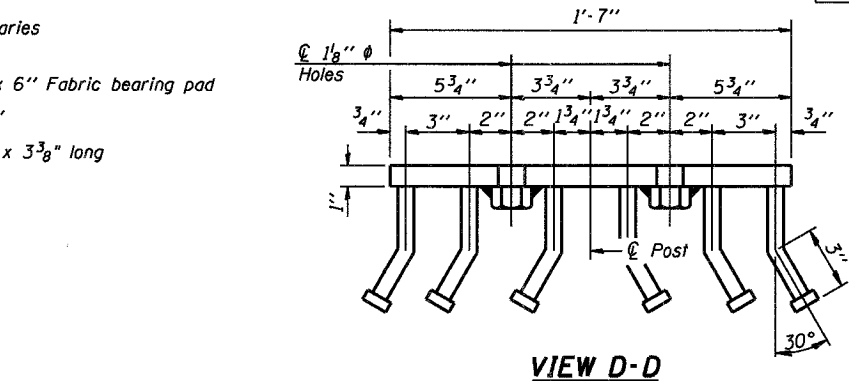
RAIL SPLICE CONNECTION AT EXPANSION JT.



SECTION AT RAIL SPLICE



END OF RAIL DETAILS



ANCHOR DEVICE

Notes:
Hollow structural sections shall conform to the requirements of ASTM designation A 500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0° F.
All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts and angles shall conform to AASHTO M 270, Grade 50.
Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A 307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M 164.
All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 232.
All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Galvanized rail shall not be painted.
Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for Steel Railing, Type SM.
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.
The 3/4" high strength bolts used to connect the 6" x 4" x 3/4" angles to the post shall be tightened according to the Article 505.04(F)(2) of the Standard Specifications. The 1" high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/2 turn. The 5/8" cap screws in bottom of the post shall be tightened to snug fit only.
See Sheet No. 9 of 14 for rail post spacing.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	151

STEEL RAILING, TYPE SM
WITH CONCRETE WEARING SURFACE
ILL. ROUTE 34 OVER PINHOOK CREEK
F.A.P. ROUTE 778 SECTION 3BR-1
HARDIN COUNTY
STATION 806+15.00
STRUCTURE NO. 035-0005



DESIGNED	RLM
CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

R-34CWS

11-1-06

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

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

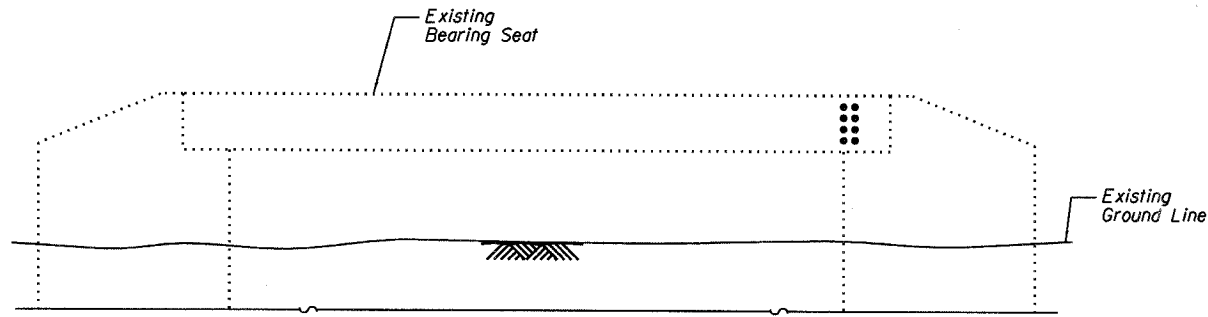
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	POST MILE	SHEET NO.
F.A.P. 778	3BR-1	HARDIN	69	22
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

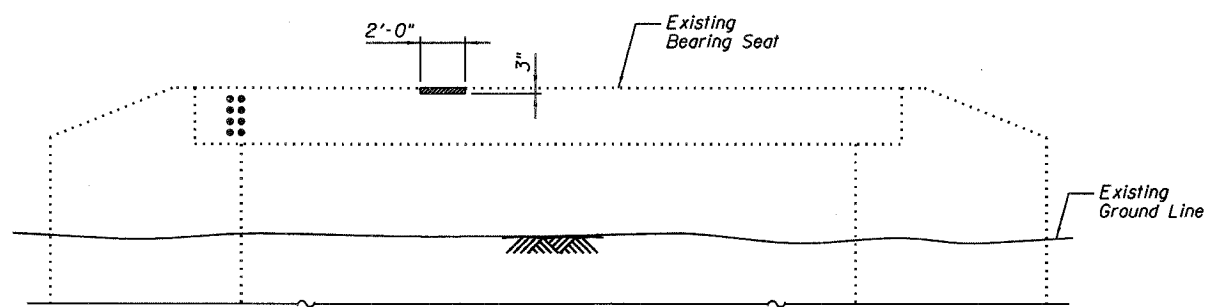
SHEET NO. 12

14 SHEETS

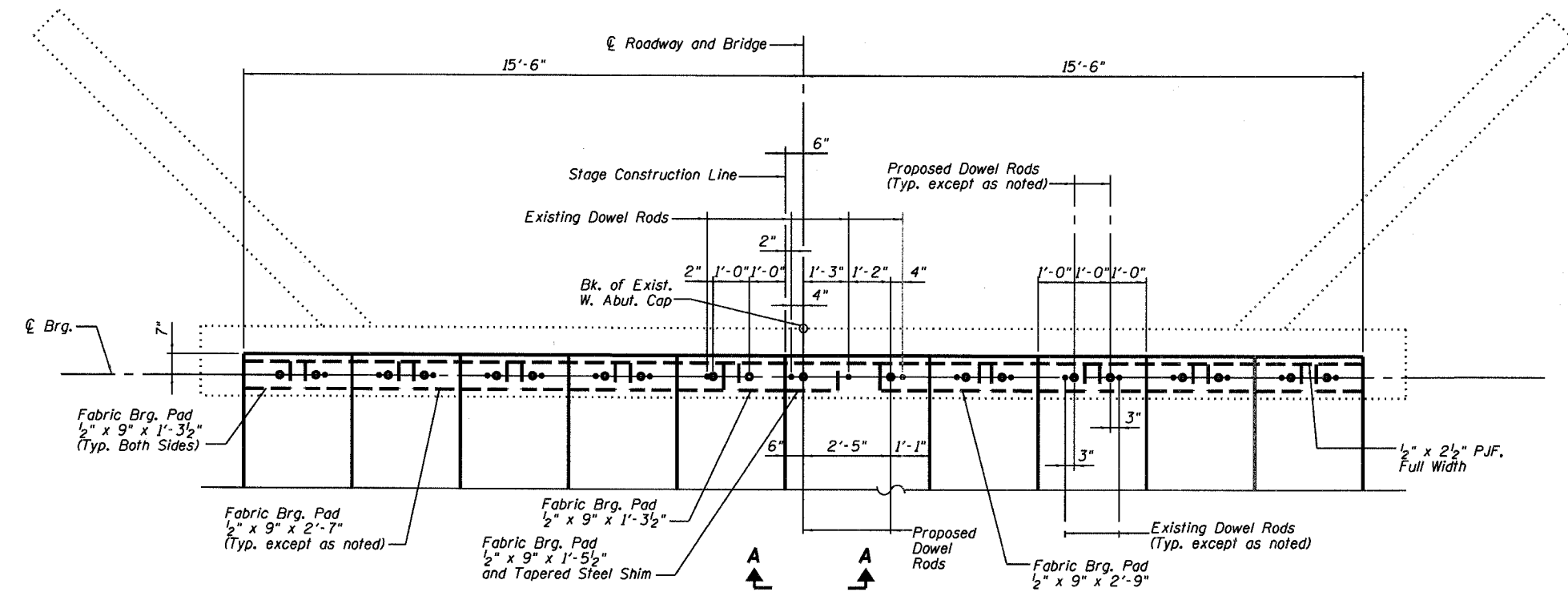
Contract #78023



ELEVATION - WEST ABUTMENT
(Looking Northwest)

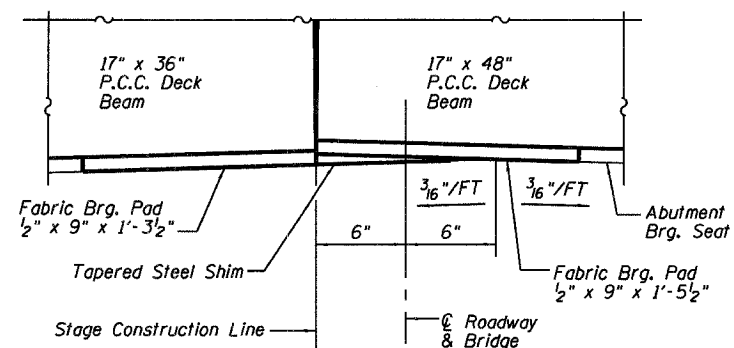


ELEVATION - EAST ABUTMENT
(Looking Southeast)



PLAN - WEST ABUTMENT BEARING SEAT
(West Abutment shown, East Abutment similar)

Concrete wearing surface and existing approach pavement not shown for clarity.



SECTION A-A

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- Existing Dowel Rod/Pre-stage I Shoring Dowel Rods
- Proposed Dowel Rod

Notes:
Existing and Pre-stage I dowel bars shall be burned off flush with the existing concrete face, ground smooth, and sealed with epoxy. Cost is included with Removal of Existing Superstructures. Concrete sealer shall be applied to concrete repair areas. See Sheet No. 13 of 14 for Substructure Repair Bill of Material.



DESIGNED	RLM
CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

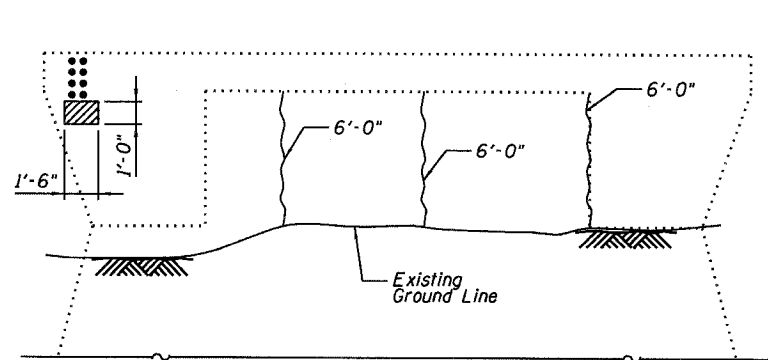
10/04/07

ABUTMENT REPAIRS
ILL. ROUTE 34 OVER PINHOOK CREEK
F.A.P. ROUTE 778 SECTION 3BR-1
HARDIN COUNTY
STATION 806+15.00
STRUCTURE NO. 035-0005

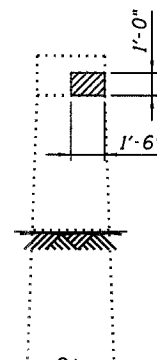
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SQ. FEET	POST	SHEET NO. 13
F.A.P. 778	3BR-1	HARDIN	69	23	14 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

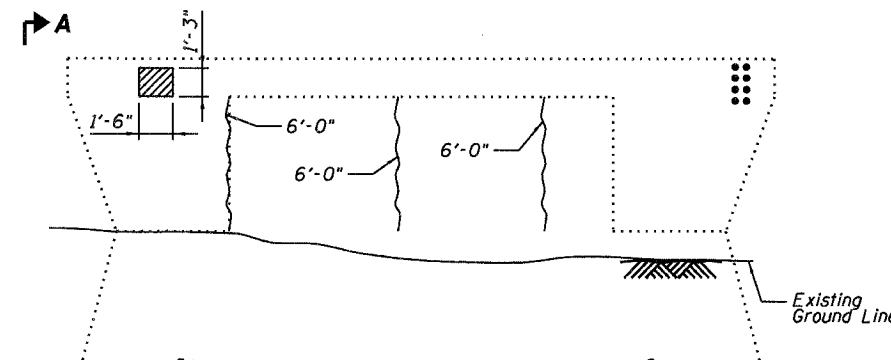
Contract #78023



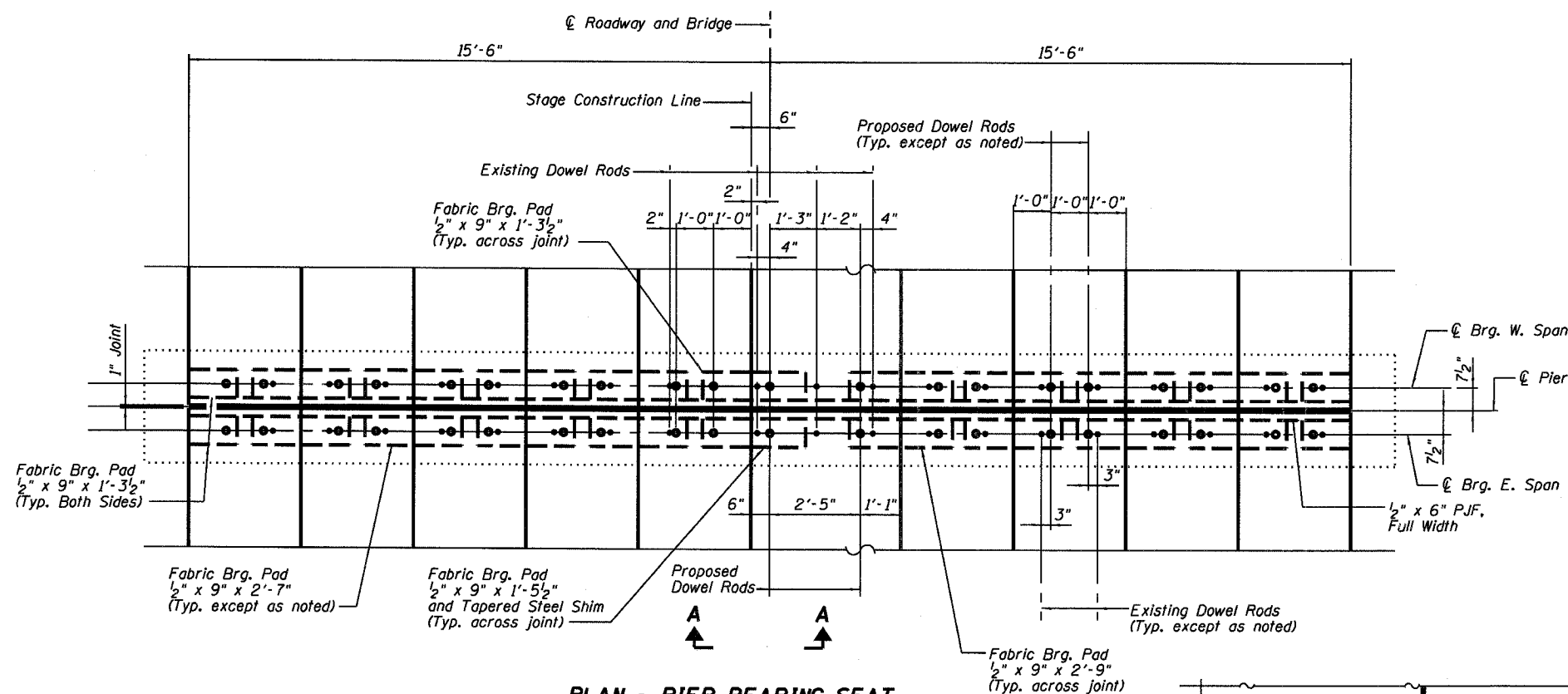
ELEVATION - PIER - WEST FACE
(Looking Southeast)



VIEW A-A

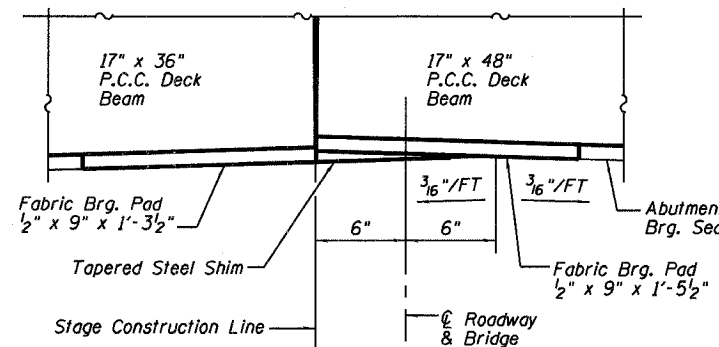


ELEVATION - PIER - EAST FACE
(Looking Northwest)



PLAN - PIER BEARING SEAT

(Looking Downstation)
Concrete wearing surface not shown for clarity.



SECTION A-A

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth Equal to or less than 5 inches)	Sq. Ft.	6
Concrete Sealer	Sq. Ft.	6
Epoxy Crack Injection	Foot	36

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- Epoxy Crack Injection
- Existing Dowel Rod/Pre-stage I Shoring Dowel Rod
- Proposed Dowel Rod

Notes:
Existing and Pre-stage I dowel rods shall be burned off flush with the existing concrete face, ground smooth, and sealed with epoxy. Cost is included with Removal of Existing Superstructures.
Concrete sealer shall be applied to concrete repair areas.
Cracks $\geq \frac{1}{16}$ " shall be repaired by epoxy crack sealing according to Section 590 of the Standard Specifications.

PIER REPAIRS
ILL. ROUTE 34 OVER PINHOOK CREEK
F.A.P. ROUTE 778 SECTION 3BR-1
HARDIN COUNTY
STATION 806+15.00
STRUCTURE NO. 035-0005



DESIGNED	RLM
CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

10/04/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. 14
F.A.P. 778	3BR-1	HARDIN	69	24	14 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #78023

NOTES

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

- ① Minimum Capacity = $1.25 \times f_y \times A_1$
(Tension in kips)
- ② Minimum Pull-out Strength = $0.66 \times f_y \times A_1$
(Tension in kips)

Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_1 = 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

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

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

ROLLED THREAD DOWEL BAR



**** ONE PIECE**

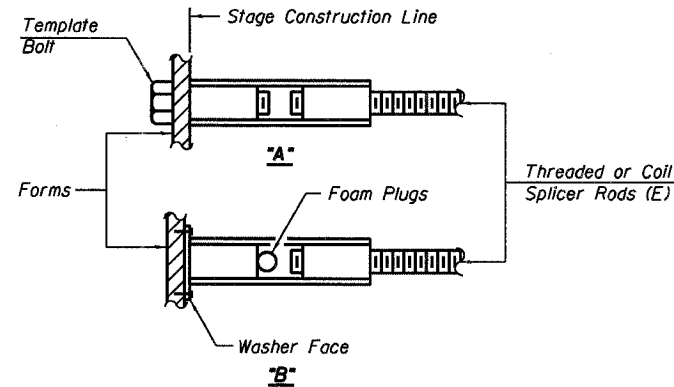
Wire Connector



WELDED SECTIONS

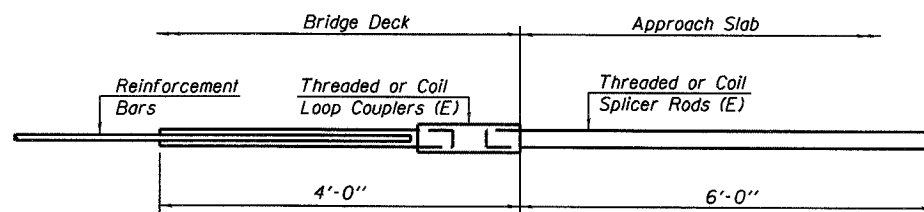
BAR SPLICER ASSEMBLY ALTERNATIVES

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



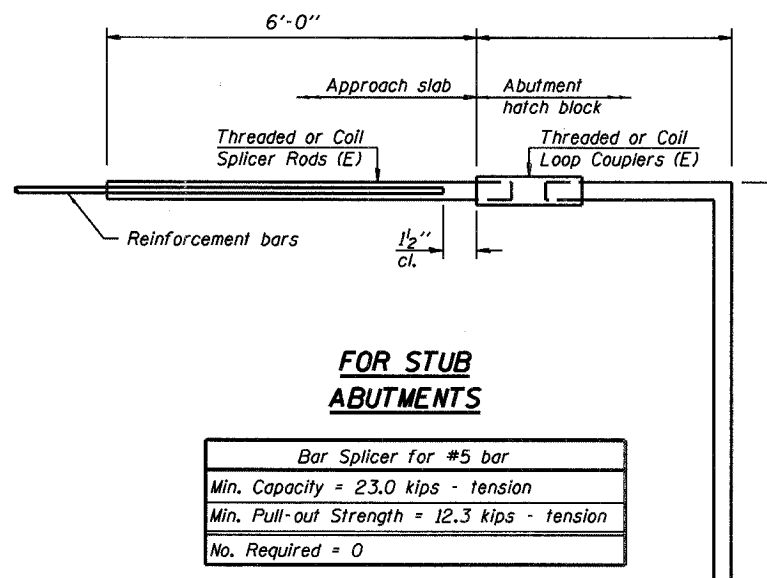
INSTALLATION AND SETTING METHODS

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



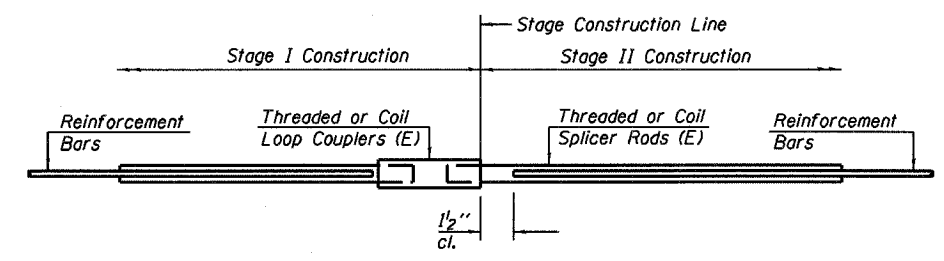
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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	82	Wearing Surface

BAR SPLICER ASSEMBLY DETAILS
ILL. ROUTE 34 OVER PINHOOK CREEK
F.A.P. ROUTE 778 SECTION 3BR-1
HARDIN COUNTY
STATION 806+15.00
STRUCTURE NO. 035-0005



DESIGNED	RLM
CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

BSD-1

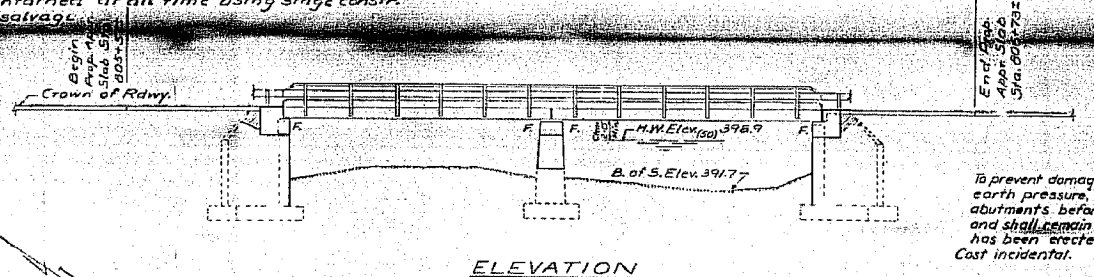
11-1-06

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1	HARDIN	69	25
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		

3 M. A.R. Spike in power pole Rt. Sta. 806+54.00 - Elev. 402.16.
Existing structure No 035-0005, built as S.B.T. Rte. 34, Sec. 3B in 1927 spans R.C. thru girder on R.C. closed abutments & pier. The contractor shall remove the existing superstructure in stages and provide a new wider superstructure with R.C. Deck Slabs. Widen the substructure. Repair the pier as required. Traffic shall be maintained at all time using stage constr. No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

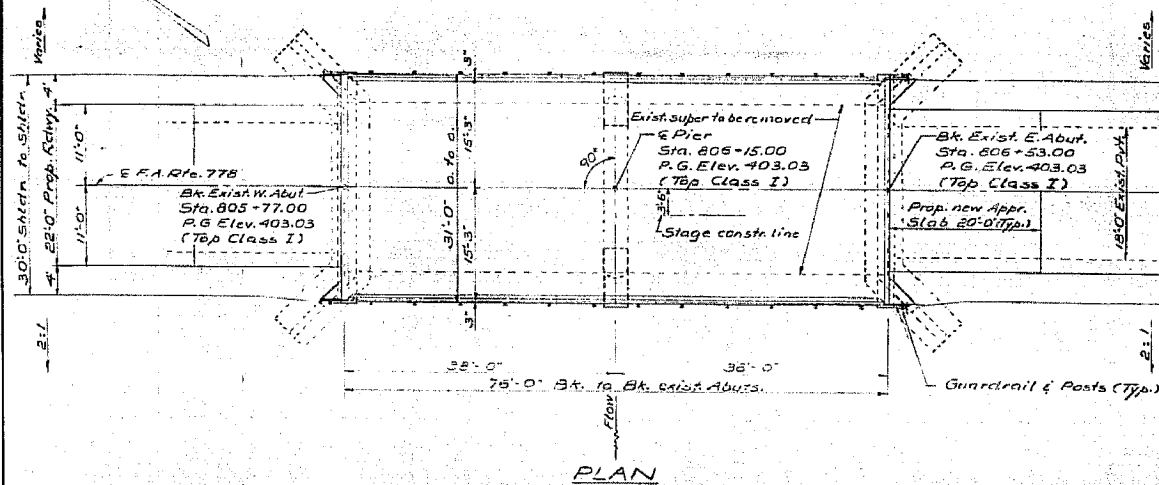
778	3BR-1	HARDIN	18	6	G SHEETS
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ELEVATION

GENERAL NOTES
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.
The top surfaces of the beams shall be finished in accordance with Article 206.06 of the Standard Specifications and the surface shall not be finished to the required surface until the surface is at least 1/4" below the required surface.
Expansion bolts shall consist of self drilling expansion anchors and 3/4" x 12" hooked bolts.
Reinforcement bars shall conform to the requirements of AASHTO M 31 Grade 60.
Protective coat shall not be applied to surfaces to which waterproofing membrane system is applied.

To prevent damage to the abutments from unrestrained earth pressure, adequate struts shall be placed at the abutments before the existing superstructure is removed and shall remain in place until the new superstructure has been erected.
Cost incidental.

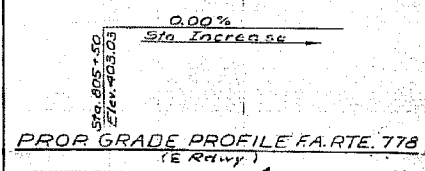


PLAN

TOTAL BILL OF MATERIALS

Item	Units	Super	Sub	Total
Class X Concrete	Cu Yds.	47	28.6	75.6
Reinforcement Bars	Lbs.		2560	2560
Name Plate	Ea.		1	1
P.P.C. Deck Beams (17)	Sq Ft.	2333		2333
P.C. Mortar Facing Crs.	Lin Ft.	673		673
Bit Concr. Surf. Coe. C.I.I.	Tons	23		23
Rem of Exst. Super Struct.	Ea.	1		1
Waterproofing Mem. Syst.	Sq Yds.	259		259
Temporary Support Sys	L. Sum.		1	1
Temporary Guardrail	Lin Ft.	76		76
Protective Coat	Sq Yds.	25		25
Concrete Removal	Cu Yds.		18.3	18.3
Steel Rolling Type "T"	Lin Ft.	151		151
Expansion Bolts 3/4"	Ea.	90		90

See Special Provisions
STATION 806+15.00
REBUILT 1977 BY
STATE OF ILLINOIS
EA. RTE. 778 SEC. 3B-DR-1
LOADING HS-20
STRUCTURE NO. 035-0005
NAME PLATE
See Std. 2113



PROP. GRADE PROFILE F.A. RTE. 778 (E. Rdwy.)

DESIGNED DR. Gathard	DATE January 17, 1978
CHECKED D. J. Peltier	APPROVED [Signature]
DRAWN V.H.	DATE
CHECKED HB	APPROVED

WATERWAY INFORMATION
Drainage Area 5.4 Sq. Miles
Existing Opening 360 Sq. Ft.
Required Opening 360 Sq. Ft.
Proposed Opening (Below 50' H.W.E.) 360 Sq. Ft.

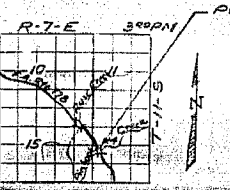
H.W.E. (50) = 398.9'
Q (50) = 2168 cfs
Created Head = 0.63'

H.W.E. (100) = 399.3'
Q (100) = 2555 cfs
Created Head = 0.83'

DESIGN STRESSES
PRECAST PRESTRESSED UNITS
fc = 5000 psi
fci = 4000 psi
fs = 270,000 psi (2" # Strands)
fsi = 189,000 psi (2" # Strands)

FIELD UNITS
fc = 3500 psi
fy = 60,000 psi (Reinf.)
fs = 20,000 psi (Struct.)

LOADING HS20-44
Design Specifications 1973 AASHTO 1974
1975, 1976 and 1977 Interim Specifications.
Allow 25' for future wearing surface



LOCATION SKETCH

GENERAL PLAN & ELEVATION
F.A. RTE. 778 OVER PINHOOK CREEK
F.A. RTE. 778 SECTION 3B-DR-1
HARDIN COUNTY
STA. 806+15.00

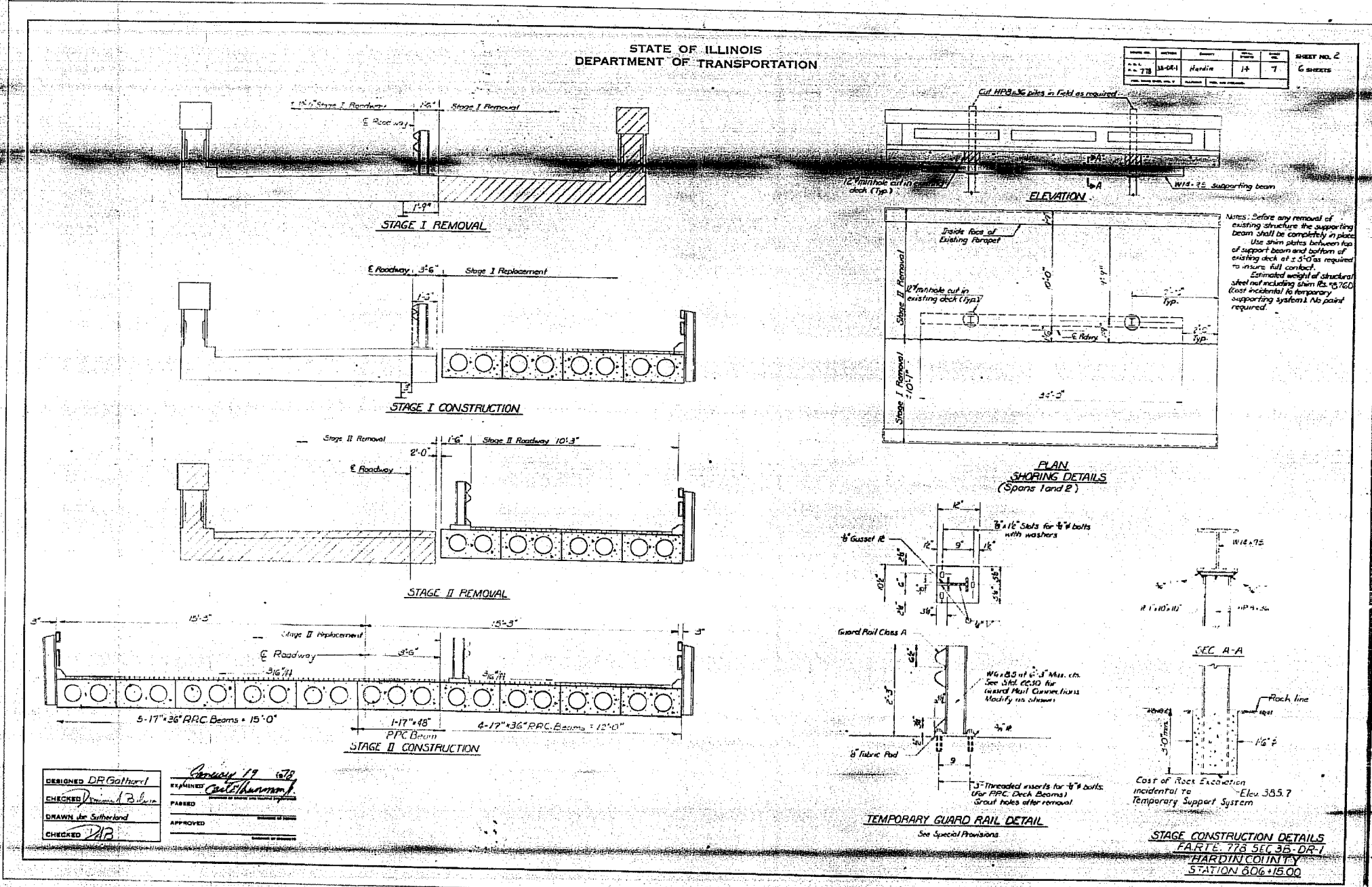
DATE
NAME
SCALE
USER



FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
F.A.P. ROUTE 778 (IL ROUTE 34)
SECTION 3BR-1
HARDIN COUNTY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1	HARDIN	69	26
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		



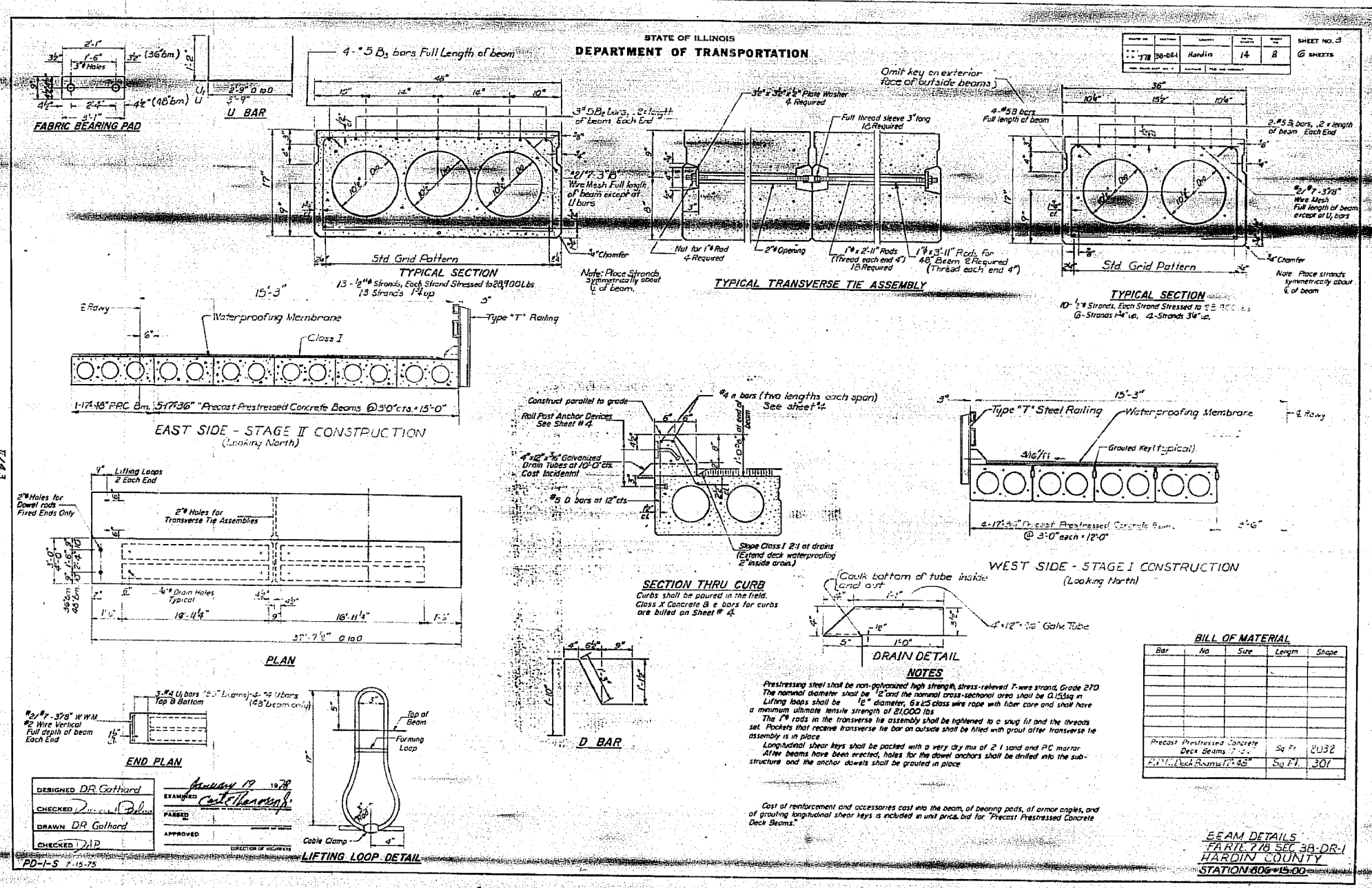
PLOT DATE
 FILE NAME
 PLOT SCALE
 USER NAME



FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
 F.A.P. ROUTE 778 (IL ROUTE 34)
 SECTION 3BR-1
 HARDIN COUNTY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1	HARDIN	69	27
STA.		TO STA.		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				



DESIGNED DR Gathard
CHECKED [Signature]
DRAWN DR Gathard
CHECKED [Signature]

EXAMINED [Signature]
APPROVED [Signature]
DIRECTOR OF HIGHWAYS

January 17, 1978

PLOT DATE
FILE NAME
PLOT SCALE
USER NAME



10/04/07

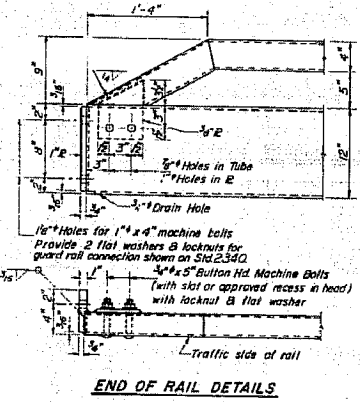
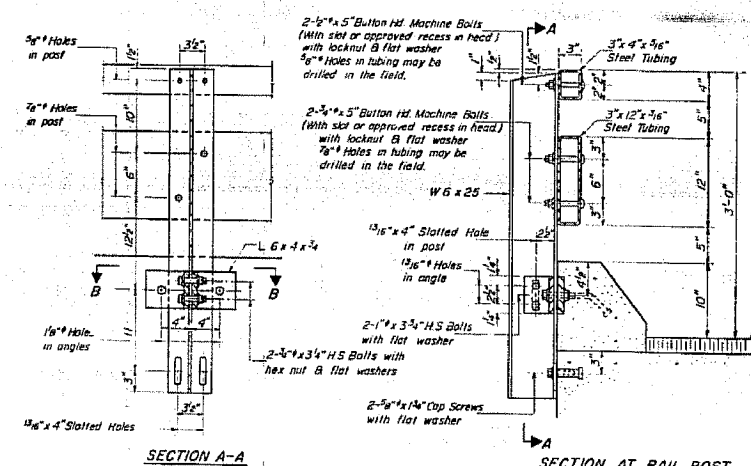
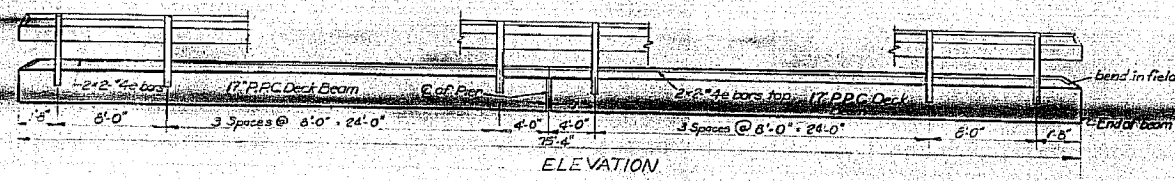
FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
F.A.P. ROUTE 778 (IL ROUTE 34)
SECTION 3BR-1
HARDIN COUNTY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1	HARDIN	69	28
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

778	3BR-1	Hardin	14	9
SHEET NO. 2				
SHEETS				



NOTES

1. Hollow structural steel tubing shall conform to the requirements of ASTM designation A-500 Grade B or A-501 Structural Steel Tubing.

2. All other steel shapes and plates shall conform to the requirements of AASHTO M-83 except posts shall conform to AASHTO M-188.

3. Bolts, cap screws, and nuts shall conform to the requirement of ASTM designation A-307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M-404.

4. All bolts, nuts, cap screws, washers and lock washers shall be galvanized in accordance with AASHTO M-232.

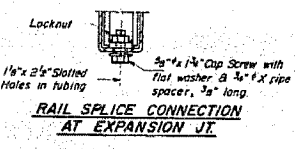
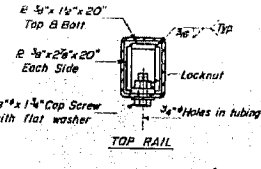
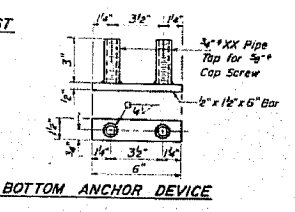
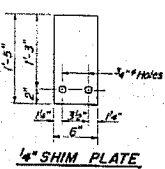
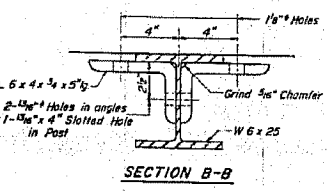
5. All posts, railings, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with AASHTO M-11 and ASTM A-305. Galvanized rail shall not be painted.

6. Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per lined foot for STEEL RAILING, TYPE T.

7. All field drilled holes shall be coated with an approved zinc rich paint before erection.

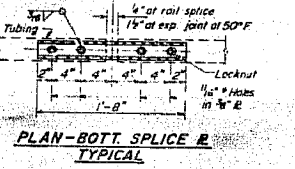
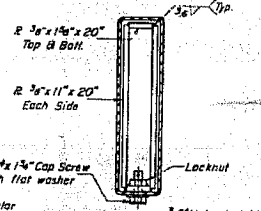
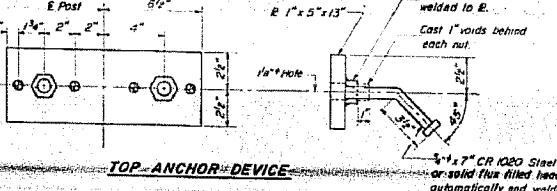
8. The lower portion of the post flange in contact with concrete shall receive two coats of asphalt paint conforming to Section 714.08 Type B or place a fabric bearing pad between the post and concrete.

9. The 4\"/>



CURB & RAIL
BILL OF MATERIAL

Bar	No	Size	Length	Shape
1	15	1/2"	19'-5"	
Reinforcement Bars				
Class X Concrete				
Steel Railing, Type T				



TYPE T
STEEL RAILING
F.A.P. 778 SEC 3BR-1
HARDIN COUNTY
STATION 806+15.00

DESIGNED DR Goffard
CHECKED [Signature]
DRAWN DR Goffard
CHECKED [Signature]

APPROVED [Signature]
DIRECTOR OF HIGHWAYS

R-24 8-1-76 (9'-0" Maximum Post Spacing)

PLOT DATE
FILE NAME
PLOT SCALE
USER NAME



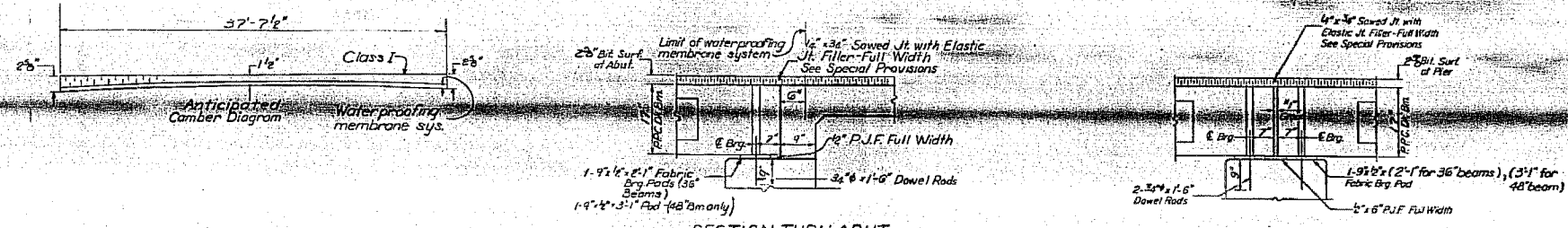
FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
F.A.P. ROUTE 778 (IL ROUTE 34)
SECTION 3BR-1
HARDIN COUNTY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1	HARDIN	69	29
STA.		TO STA.		
FED. RDW DIST. NO. 7		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

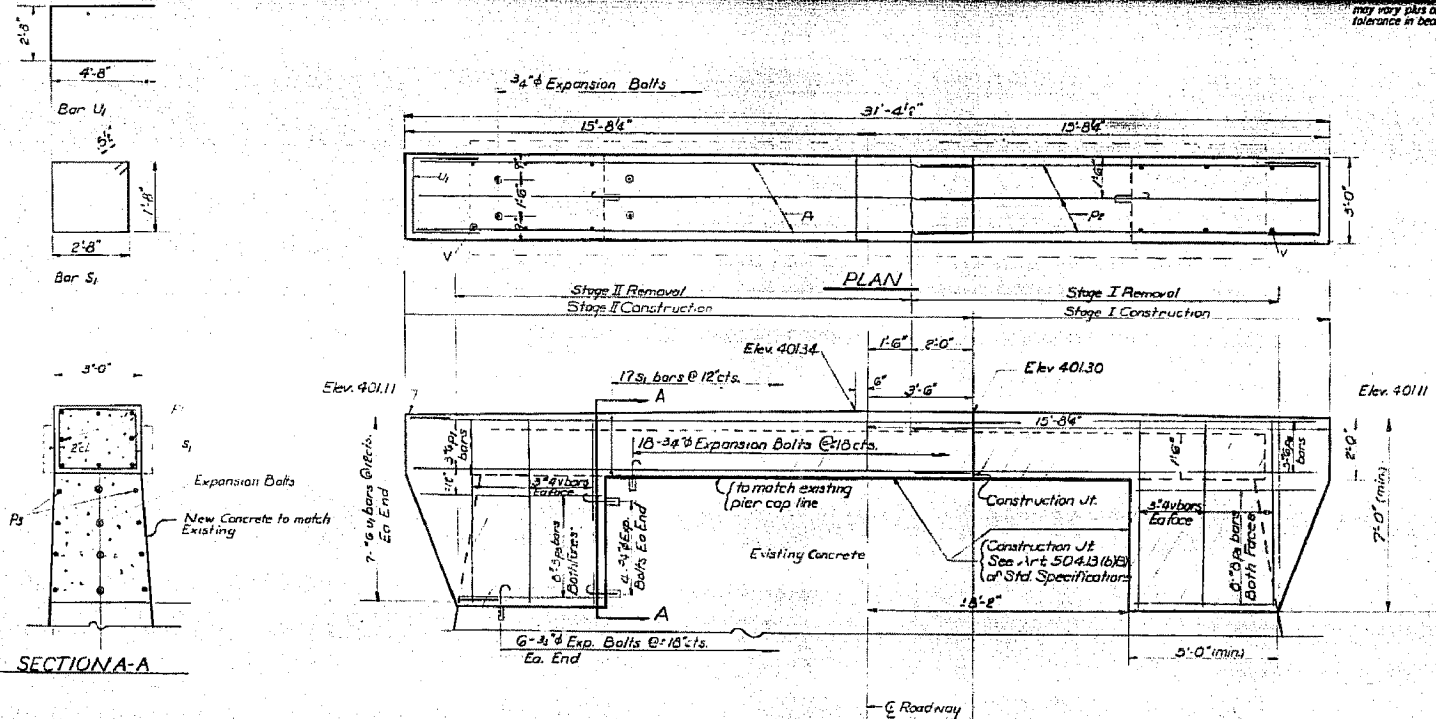
PROJECT NO.	778-061	SHEET NO.	14	OF	15
SECTION	3BR-1	COUNTY	HARDIN	DATE	10/04/07



SECTION THRU ABUT

SECTION THRU PIER

*1" Joint shall be packed with a very dry mix of concrete. Tolerances in beam lengths may vary plus or minus to accommodate tolerance in beam lengths.



PIER ELEVATION
(Looking South)

PIER
BILL OF MATERIALS

Bar	No.	Size	Length	Shape
V	12	#4	6'-3"	
H	8	#6	16'-6"	
E	8	#6	17'-6"	
D	18	#6	6'-0"	
S	17	#5	9'-7"	
U	14	#6	12'-0"	
Class K Concrete Cu Wts. 7.0				
Reinforcement Bars Lbs. 900				
Expansion Bolts 3/8" Each 36				
Concrete Removal Cu Wts. 7.0				

DESIGNED: D.R. Gathard
CHECKED: D. R. Gathard
DRAWN: D.R. Gathard
CHECKED: D.R. Gathard

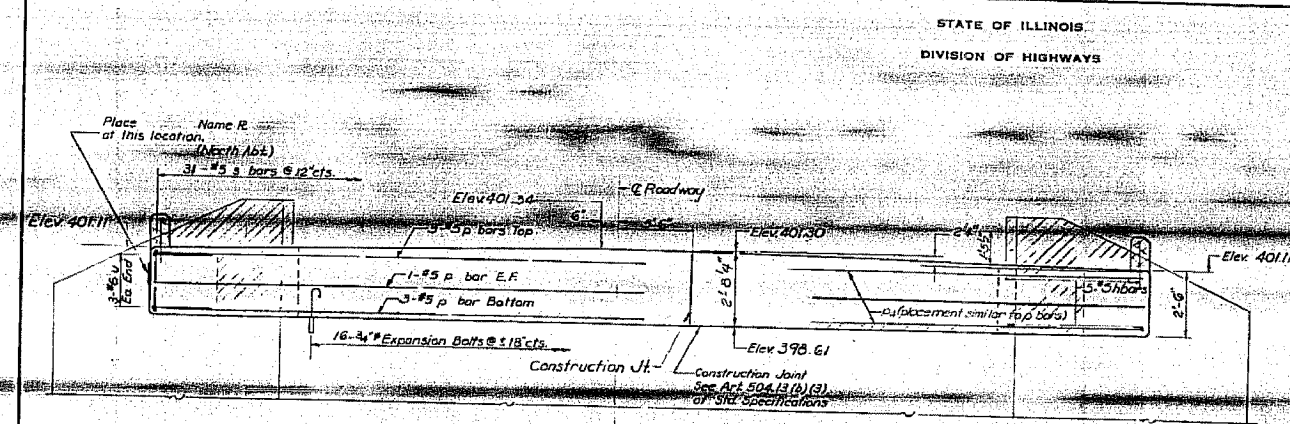
DATE: January 19, 1978
EXAMINED: [Signature]
PASSED: [Signature]
APPROVED: [Signature]

Note: Hatched Area indicates Concrete Removal. Reinforcement extending into removed area shall be cleaned and incorporated into new construction. Expansion bolts shall be anchored in sound concrete. All edges shall have standard 3/4" chamfer except as noted.

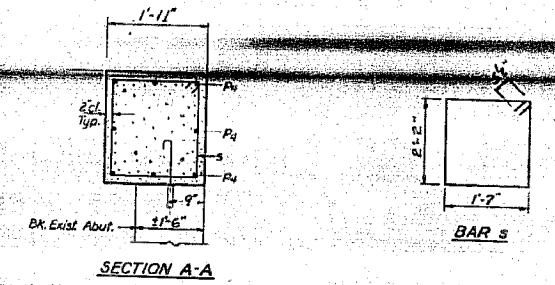
DETAILS & PIER
PART 778-061-DR1
HARDIN COUNTY
STATION 806+15.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1	HARDIN	69	30
STA.		TO STA.		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

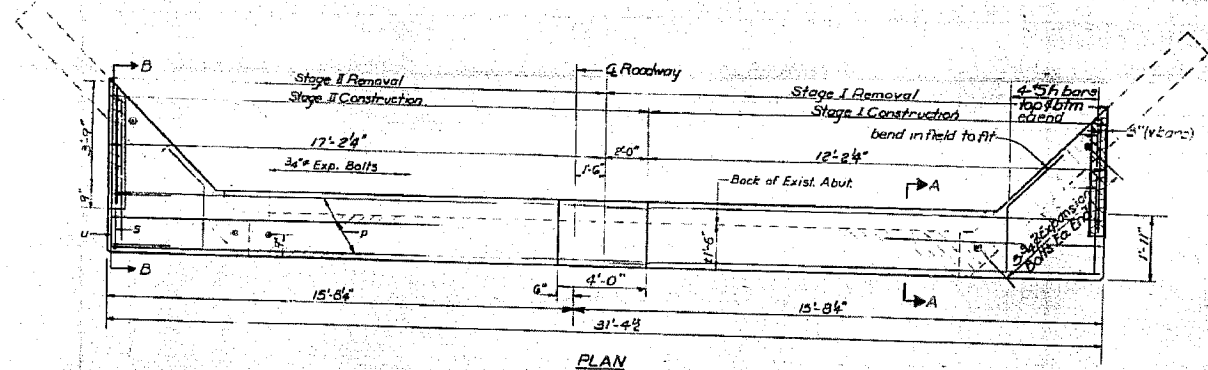
778	3B-02-1	Hardin	14	11	SHEET NO. 6
6 SHEETS					



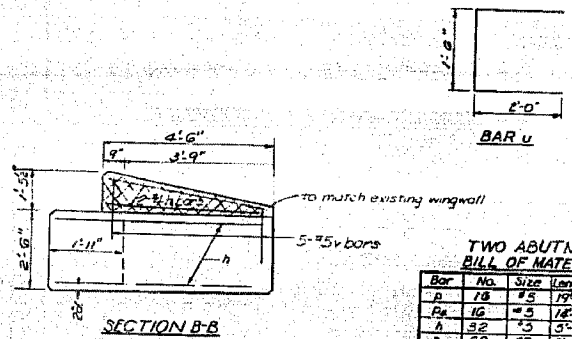
ELEVATION
(South Abt. looking South)
North Abt. looking North
similar by 180° rotation



SECTION A-A



PLAN



SECTION B-B

TWO ABUTMENTS
BILL OF MATERIAL

Bar No.	Size	Length	Shape
A	#5	19'-0"	
P4	#5	18'-0"	
H	#5	5'-5"	
S	#5	8'-5"	
U	#5	4'-5"	
V	#5	2'-5"	
Class X Concrete		Cu Yds	12.4
Reinforcement Bars		Lbs	1450
Expansion Bolts 3/4"		Each	52
Concrete Removal		Cu Yds	7.0

ABUTMENTS
F.A. RTE. 778 SEC 3B-DR-1
HARDIN COUNTY
STATION: 806+15.00

NOTE
Hatched area indicates Concrete Removal. Reinforcement extending into removed area shall be cleaned and incorporated into the new construction.
Expansion bolts shall be anchored in sound concrete.
All edges shall have standard 3/4" chamfers except as noted.
Cross hatched area to be poured after all R.P.C. beams are in place.

DESIGNED DRGothard
CHECKED J. Palmer
DRAWN DRGothard
CHECKED JAB

January 19 1978
ESTIMATED
PASSED
APPROVED

A-1 (15-15-77) Fixed

DATE
FILE NAME
PLOT SCALE
USER NAME



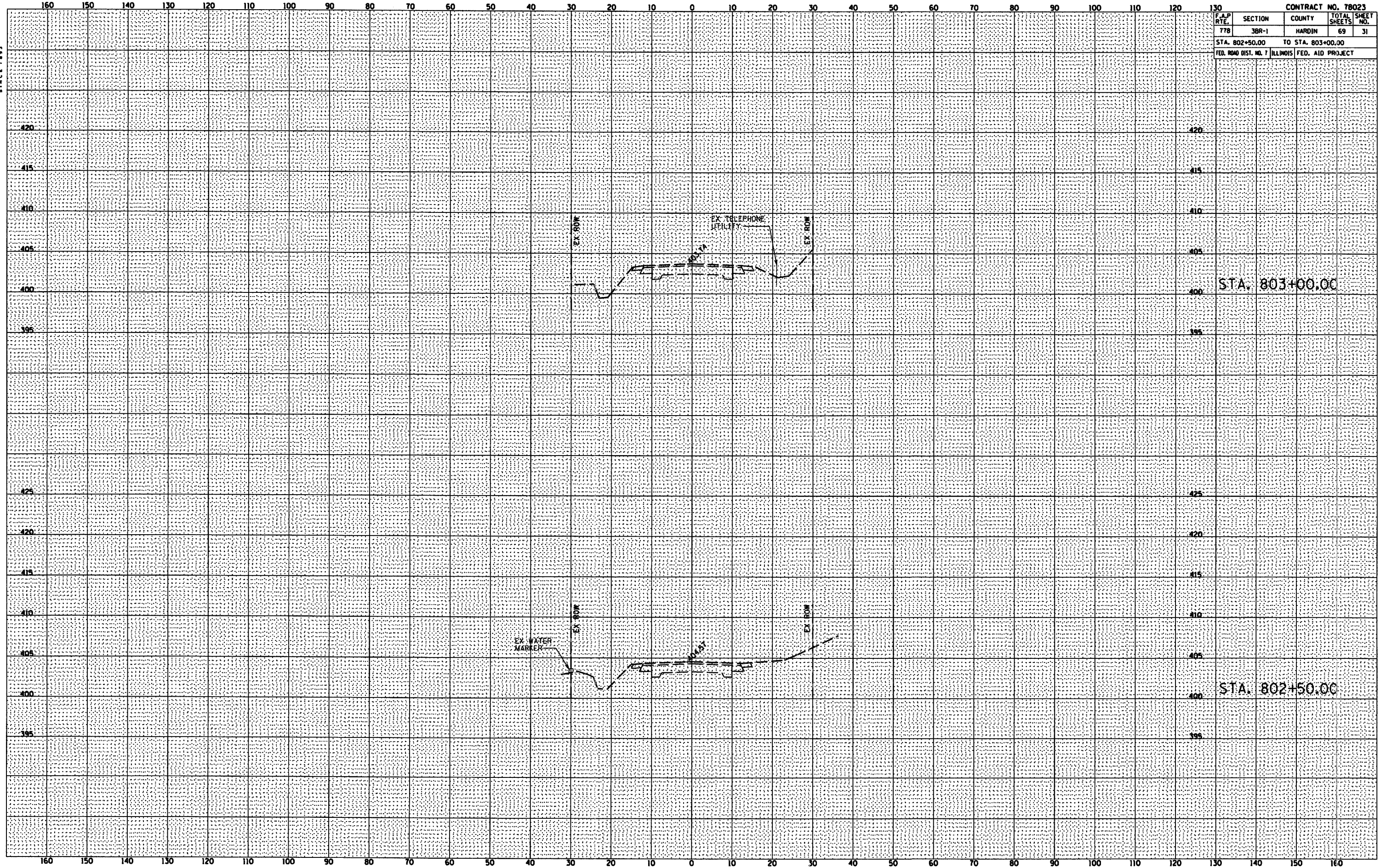
FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
F.A.P. ROUTE 778 (IL ROUTE 34)
SECTION 3BR-1
HARDIN COUNTY

FINAL	SURVEY	DATE
BY		
SURVEYED	PLOTTED	
NOTE BOOK	TEMP. DATE	
NO.	NO.	

ORIGINAL	SURVEY	DATE
BY		
SURVEYED	PLOTTED	
NOTE BOOK	TEMP. DATE	
NO.	NO.	

PLOT DATE • DATES
 FILE NAME • SHEETS
 USER NAME • NUMBER



CONTRACT NO. T8023				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1	HARDIN	69	31
STA. 802+50.00		TO STA. 803+00.00		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

STA. 803+00.00

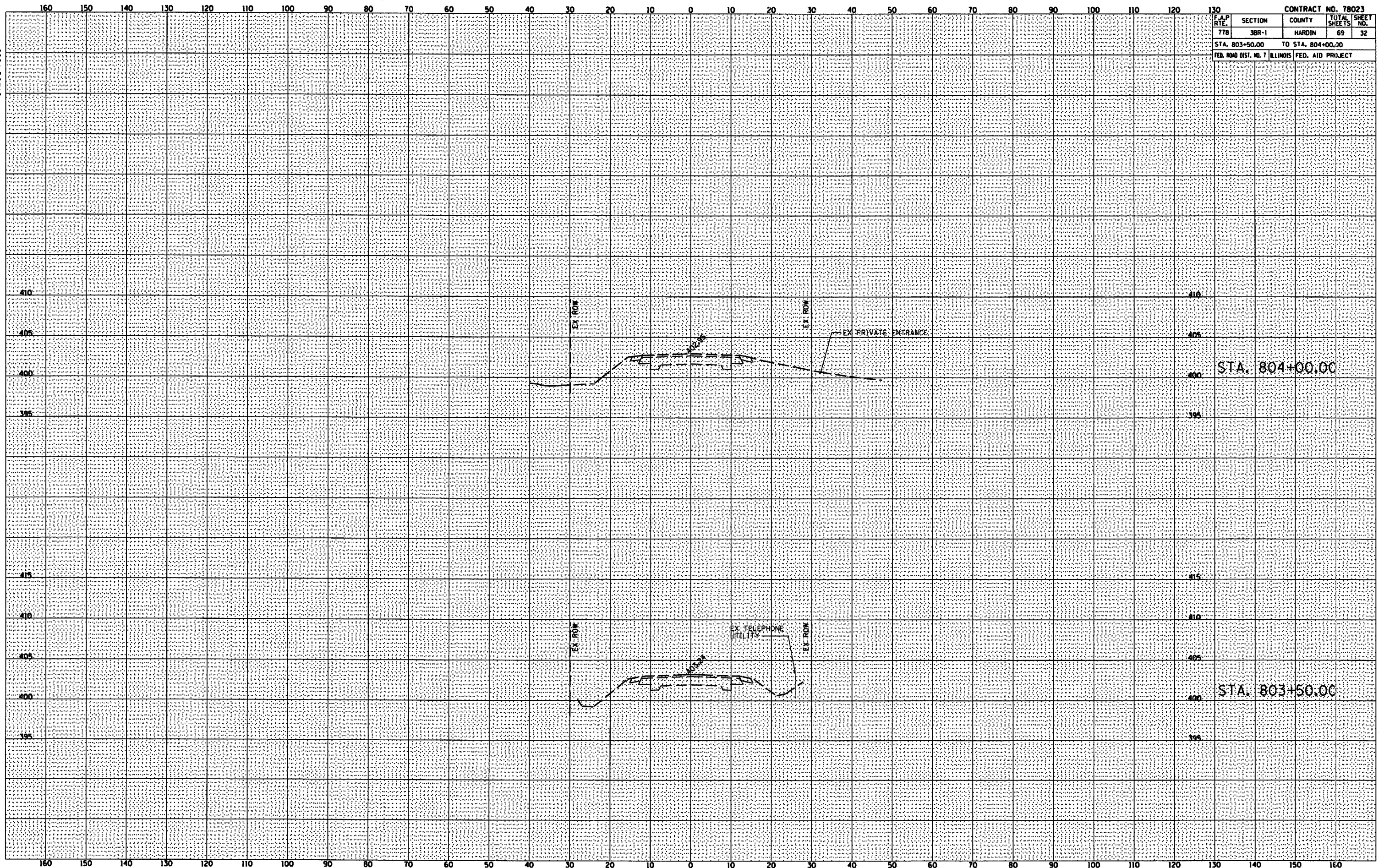
STA. 802+50.00



DATE	
BY	
FINAL SURVEY	
NOTED BOOK	
AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
NOTED BOOK	
AREAS CHECKED	

PLOT DATE : 08/25/14
FILE NAME : 081414
PLOT SCALE : 1"=40'
USER NAME : RUSSELL



CONTRACT NO. 78023				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1	HARDIN	69	32
STA. 803+50.00		TO STA. 804+00.00		
FEB. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

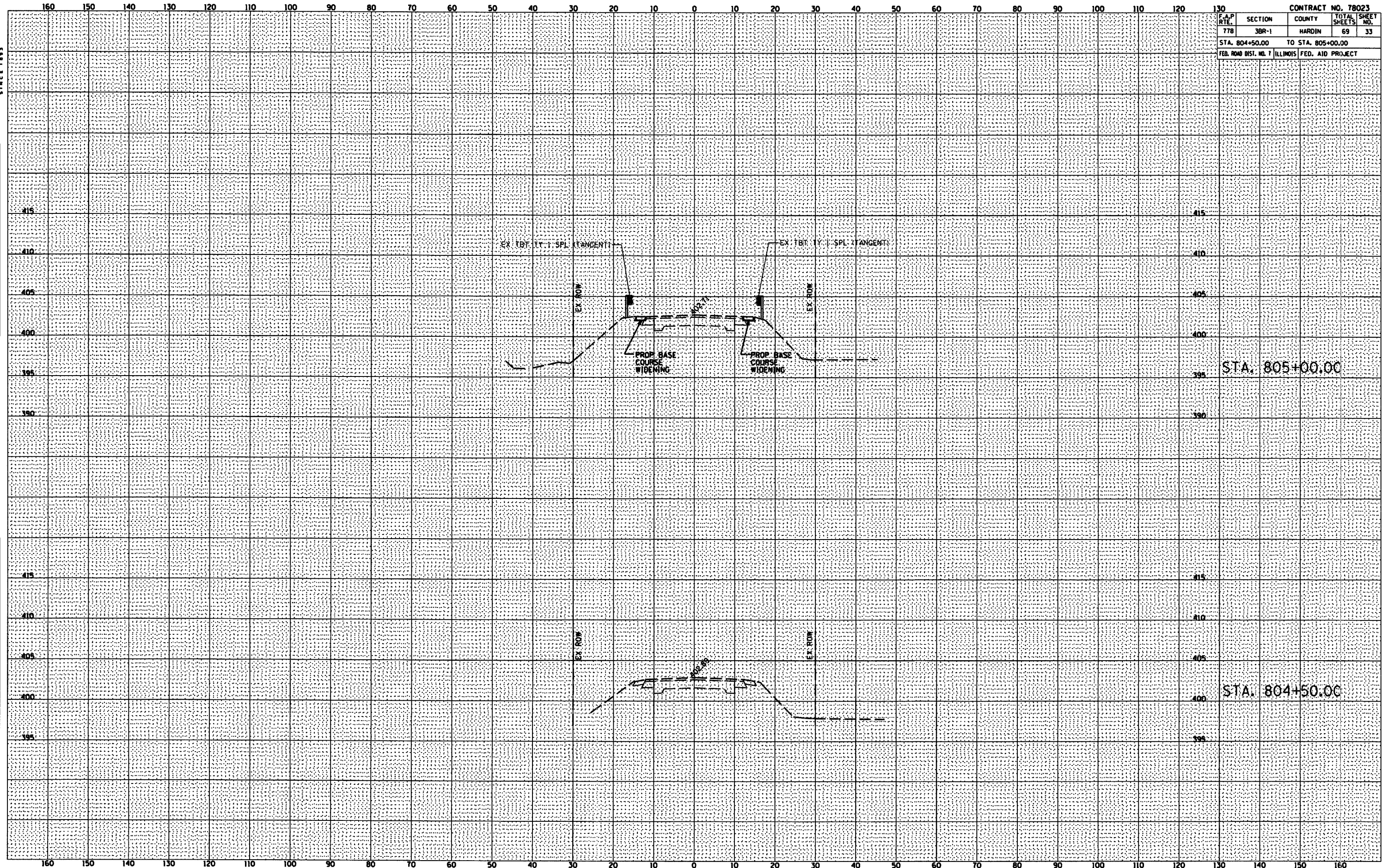


DATE	
BY	
FINAL SURVEY	
NOTE BOOK	
AREA CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
NOTE BOOK	
AREA CHECKED	

PLOT DATE:
 FILE NAME:
 PLOT SCALE:
 USER NAME:
 DWGNO:

CONTRACT NO. 78023				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1	HARDIN	69	33
STA. 804+50.00		TO STA. 805+00.00		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				



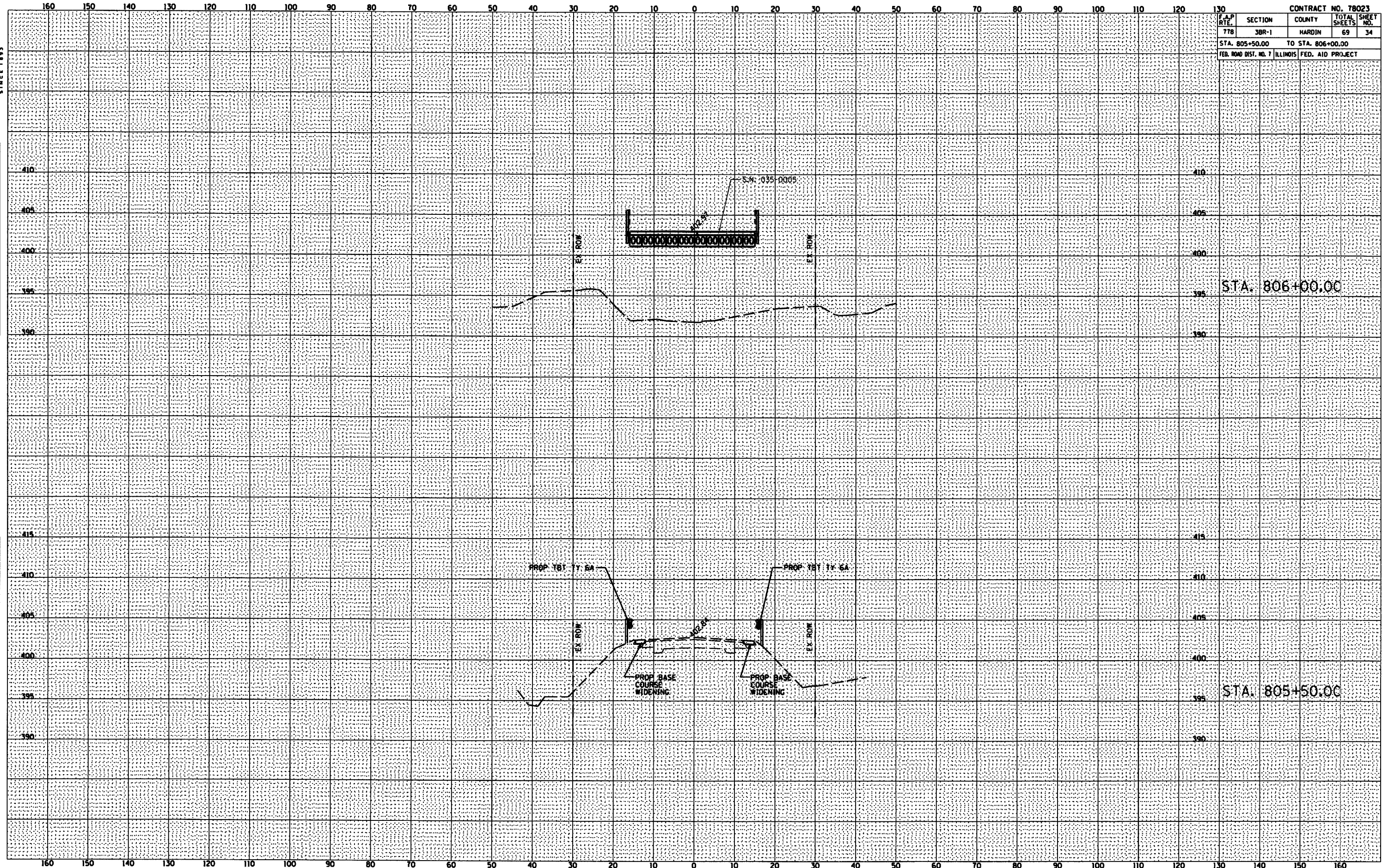


DATE	
BY	
REVISIONS	
NO.	
DATE	
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REVISIONS	
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REVISIONS	
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DATE	
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REVISIONS	
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DATE	
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REVISIONS	
NO.	
DATE	
BY	
REVISIONS	
NO.	

PLOT DATE : 04/28/15
 FILE NAME : 778-1-34-34.dwg
 PLOT SCALE : 1"=40'
 USER NAME : JHARRIS

CONTRACT NO. 78023				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1	HARDIN	69	34
STA. 805+50.00		TO STA. 806+00.00		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		



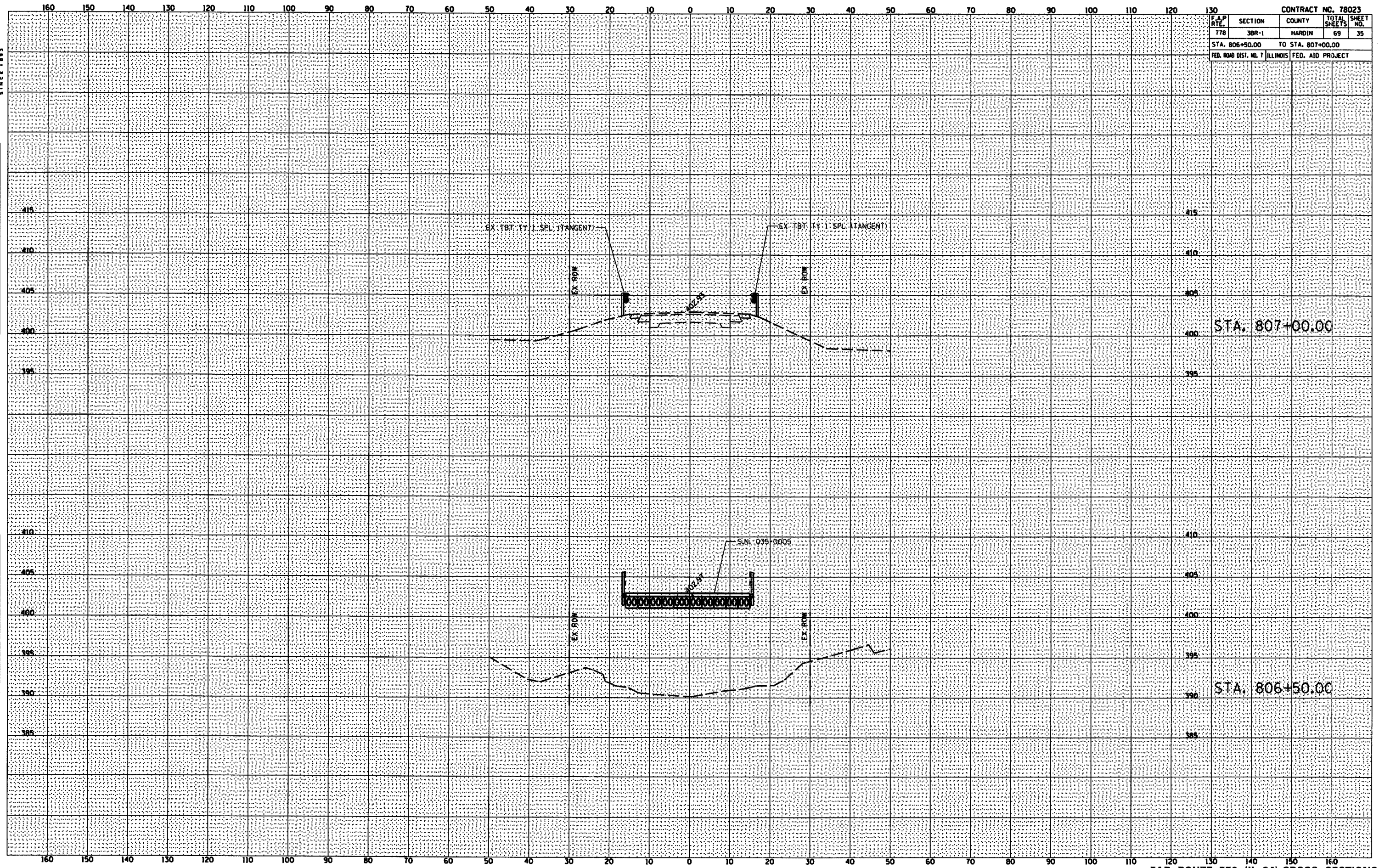


DATE	
BY	
FINAL SURVEY	
NOTE BOOK	
AREA'S CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
NOTE BOOK	
AREA'S CHECKED	

PLOT DATE = DATES
 FILE NAME = FILES
 PLOT SCALE = SCALES
 USER NAME = ROBERTS

CONTRACT NO. 78023				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1	HARDIN	69	35
STA. 806+50.00		TO STA. 807+00.00		
FED. RDW DIS. NO. 1		ILLINOIS FED. AID PROJECT		

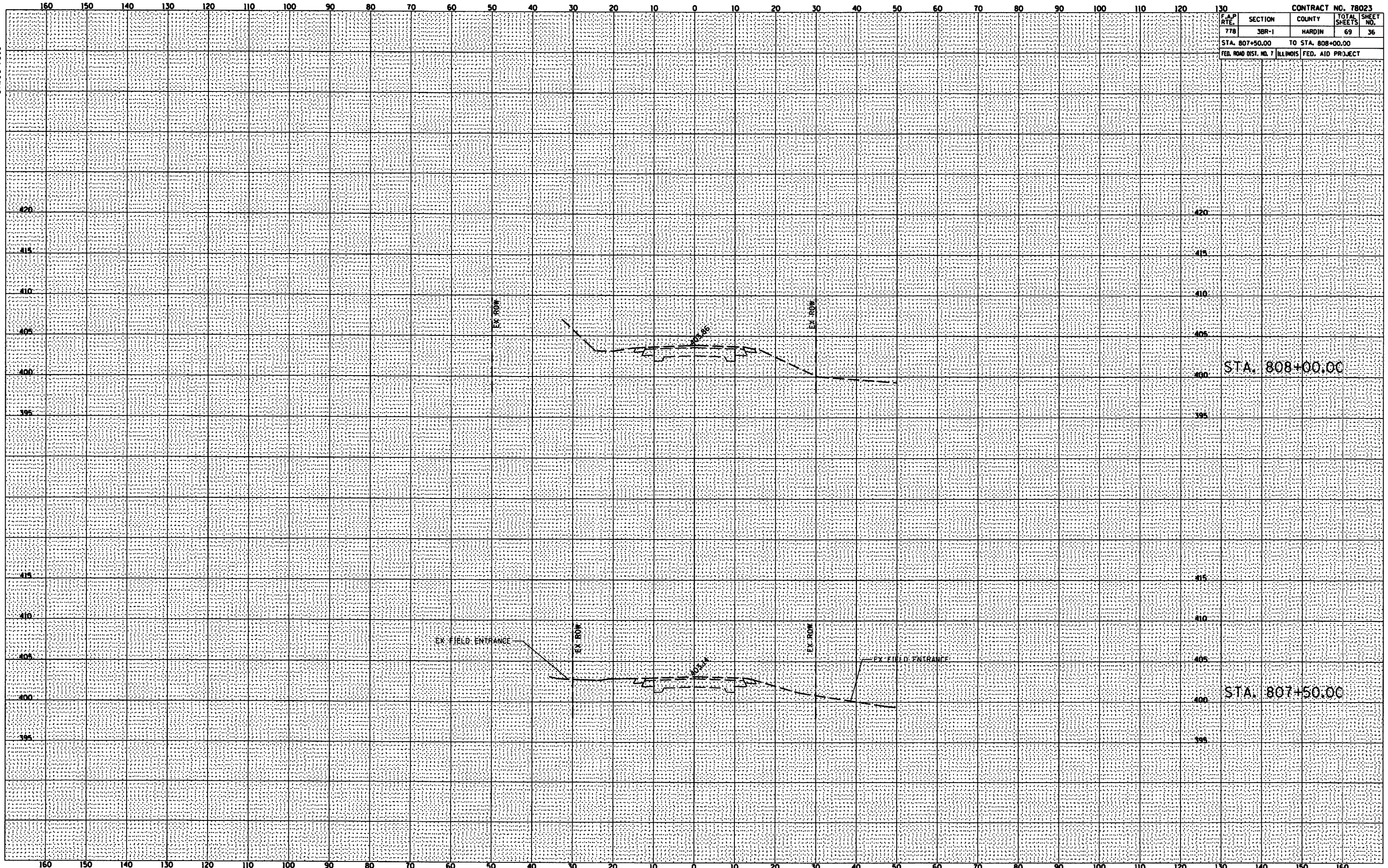




FINAL SHEET	DATE
BY	
NO.	
DATE	
BY	
NO.	
DATE	
BY	
NO.	

ORIGINAL SHEET	DATE
BY	
NO.	
DATE	
BY	
NO.	
DATE	
BY	
NO.	

PLOT DATE: _____
 FILE NAME: _____
 USER NAME: _____
 USER NO.: _____



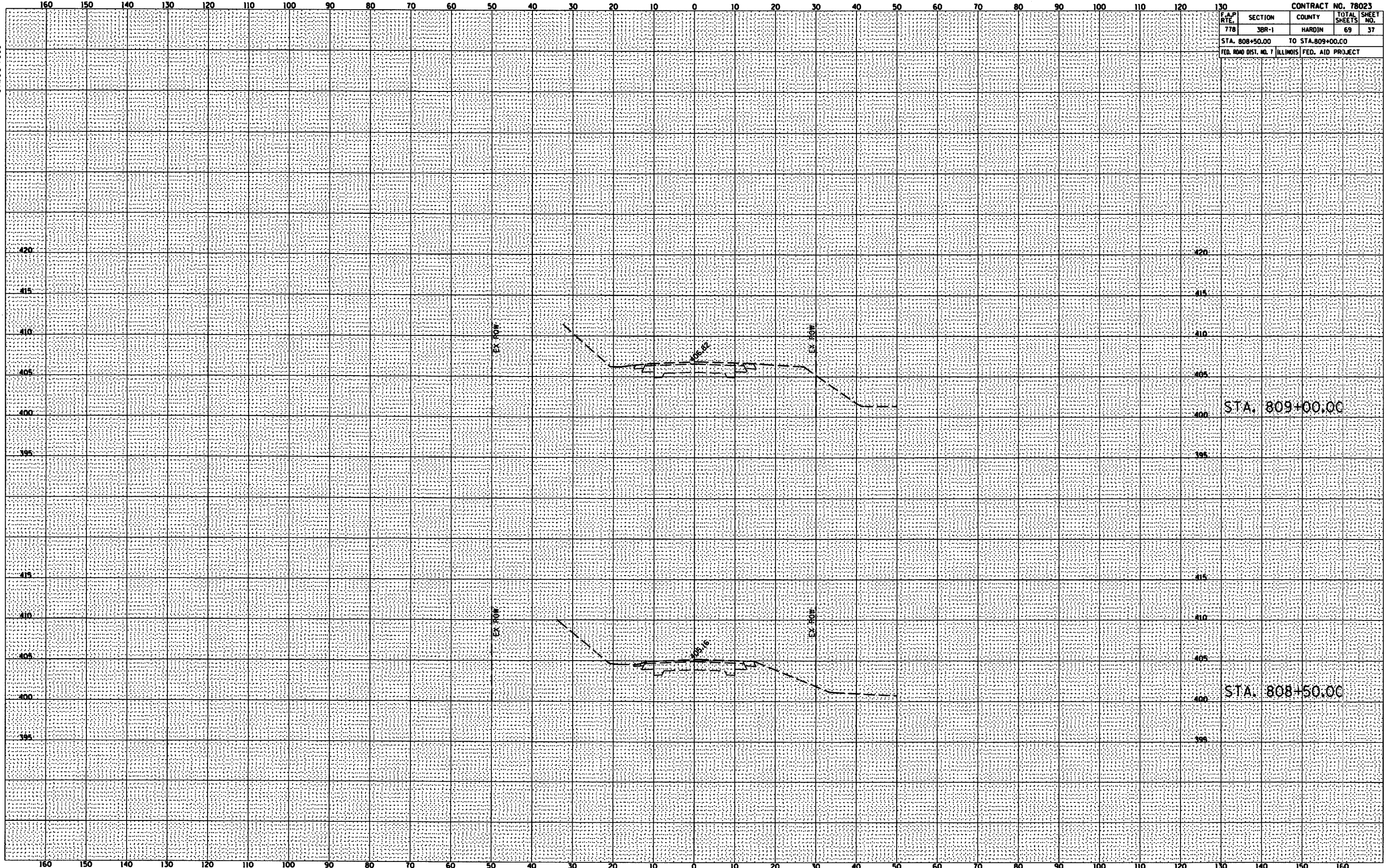
CONTRACT NO. 78023				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1	HARDIN	69	36
STA. 807+50.00		TO STA. 808+00.00		
FEB. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				



FINAL SHEET	DATE
SURVEYED	BY
PLOTTED	
TEMPLATE	
NOTE BOOK	
MEAS. CHECKED	
NO.	

ORIGINAL SHEET	DATE
SURVEYED	BY
PLOTTED	
TEMPLATE	
NOTE BOOK	
MEAS. CHECKED	
NO.	

PLOT DATE • DAVES
 FILE NAME • BFLLEL
 USER NAME • BUSERN



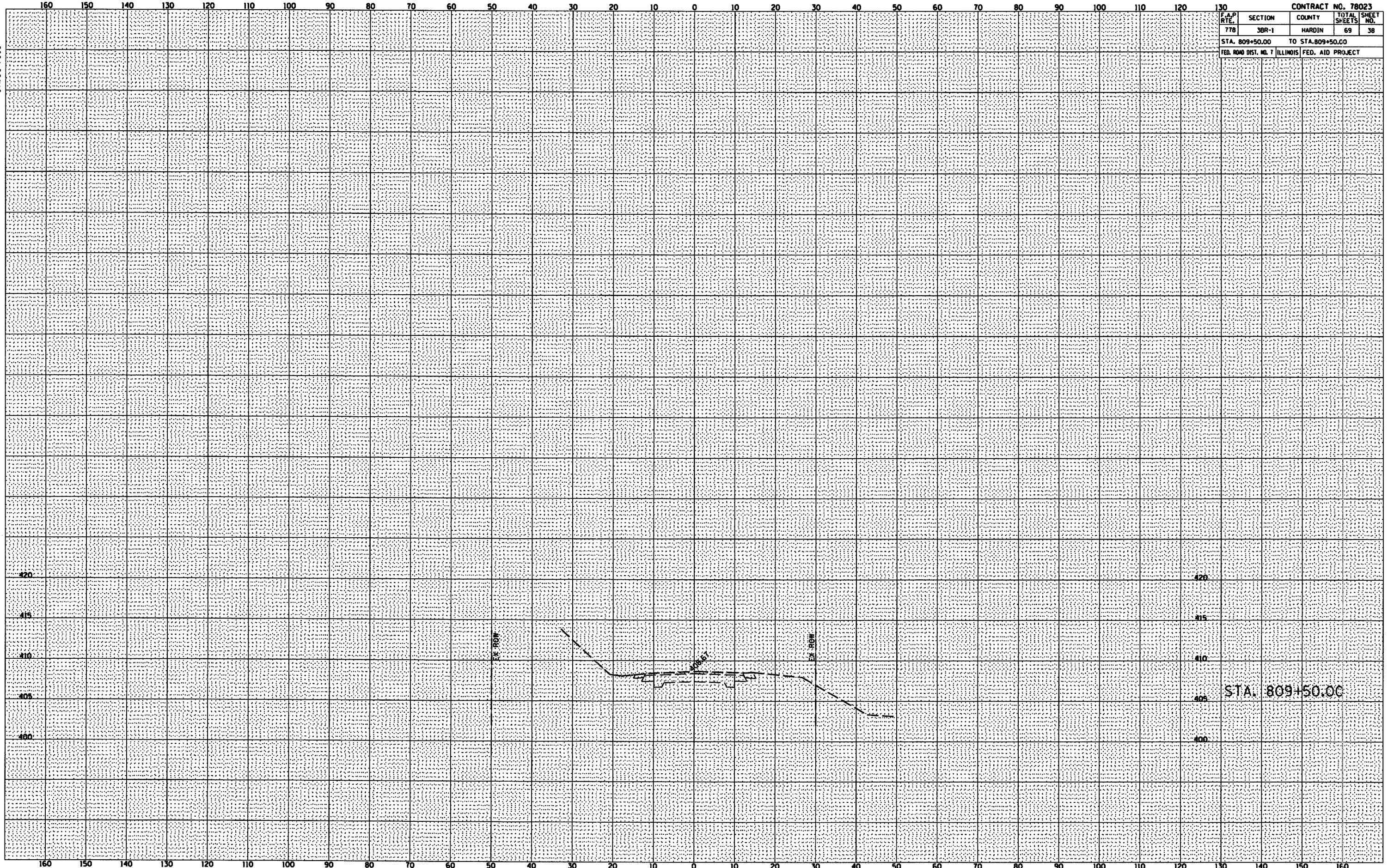
CONTRACT NO. 78023				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1	HARDIN	69	37
STA. 808+50.00		TO STA. 809+00.00		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		



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

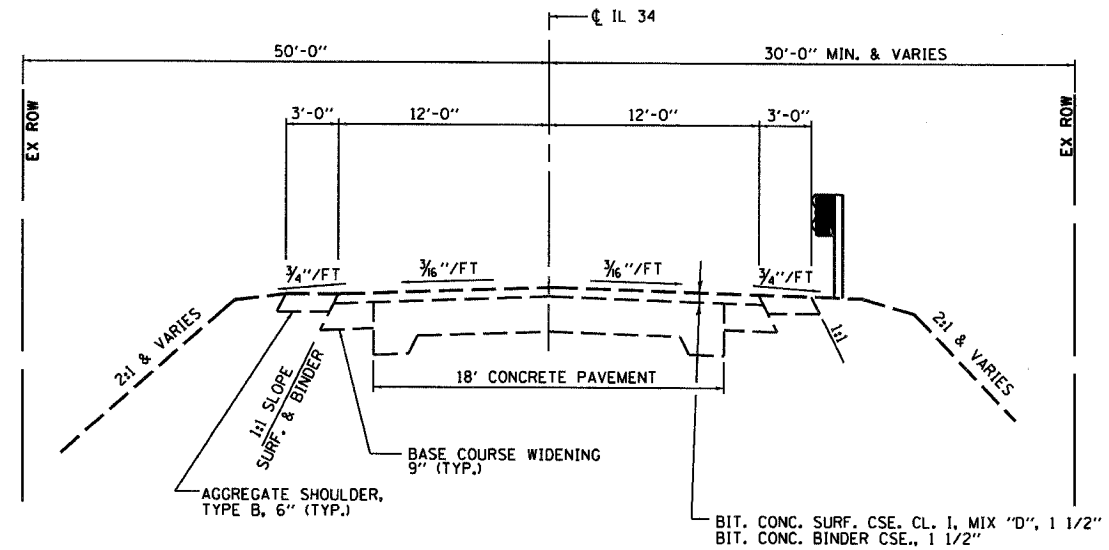
ORIGINAL SHEET	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	TEMPLATE	
	AREAS CHECKED	
	AREAS CHECKED	

PLOT DATE:
 FILE NAME:
 USER NAME:
 SHEETS:
 NUMBER:



CONTRACT NO. 78023				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	3BR-1	HARDIN	69	38
STA. 809+50.00		TO STA. 809+50.00		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	4BR-1	HARDIN	69	39
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

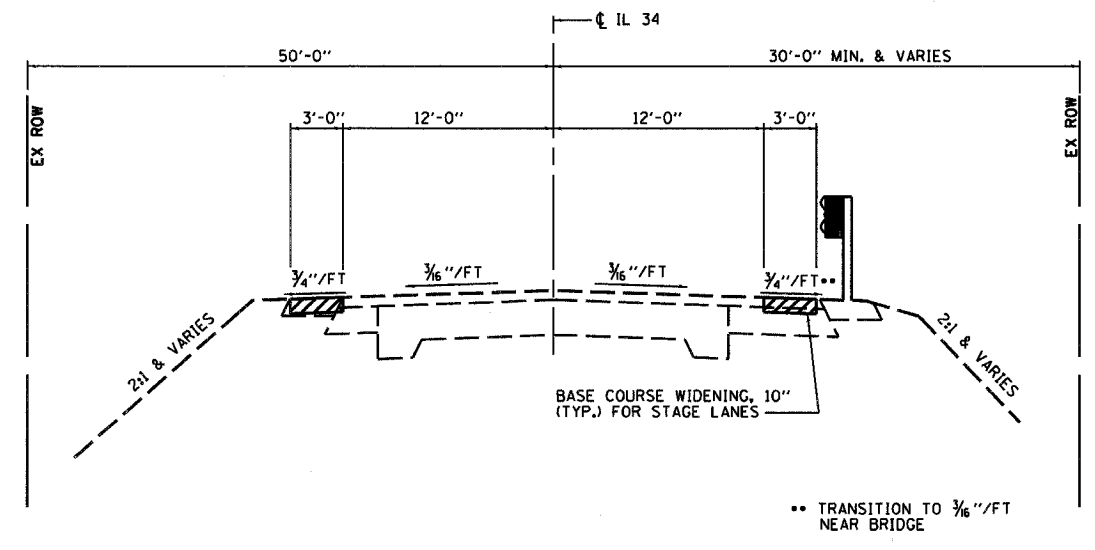


WITHOUT GUARDRAIL

WITH GUARDRAIL

EXISTING TYPICAL ROADWAY SECTION

STA. 1020+40.00 TO STA. 1021+61.33
 STA. 1021+98.67 TO STA. 1023+20.00



WITHOUT GUARDRAIL

WITH GUARDRAIL

PROPOSED TYPICAL ROADWAY SECTION

STA. 1020+40.00 TO STA. 1021+61.33
 STA. 1021+98.67 TO STA. 1023+20.00

NOTE: SEE THE STRUCTURAL PLANS FOR DETAILS OF BRIDGE WEARING SURFACE 2'-0" EXTENSION. COST FOR THIS WORK IS INCLUDED WITH THE COST FOR THE BRIDGE WEARING SURFACE.

HMA MIXTURE REQUIREMENTS

LOCATION(S):	BASE COURSE WIDENING
MIXTURE USE(S):	HOT MIX ASPHALT BINDER COURSE, N90, IL-19.0
AC/PG:	PG64-22
RAP % (MAX):	10
DESIGN AIR VOIDS:	4.0%, 90 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE):	IL-19.00 mm
FRICTION AGGREGATE:	NONE

TYPICAL SECTION
F.A.P. ROUTE 778 (IL ROUTE 34)
SECTION 4BR-1
HARDIN COUNTY

PLOT DATE: 10/04/07
 FILE NAME: 78023-4BR-1
 PLOT SCALE: 1/8"=1'-0"
 USER NAME: JRM



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	4BR-1	HARDIN	69	40
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

PAVEMENT MARKING SCHEDULE				
LOCATION	DESCRIPTION	SHORT-TERM PAVEMENT MARKING	PAINT PAVEMENT MARKING - LINE	TEMP PAVEMENT MARKING - LINE
			4"	4"
		FOOT	FOOT	FOOT
STA. 1018+84 TO STA. 1020+61, CENTERLINE	SKIP DASH YELLOW CENTERLINE	18		
STA. 1021+59.33 TO STA. 1022+00.67, CENTERLINE	SKIP DASH YELLOW CENTERLINE	4		
STA. 1022+99 TO STA. 1024+82, CENTERLINE	SKIP DASH YELLOW CENTERLINE	18		
STA. 1018+84 TO STA. 1020+61, CENTERLINE	SKIP DASH AND SOLID YELLOW CENTERLINE		221	221
STA. 1021+59.33 TO STA. 1022+00.67, CENTERLINE	SKIP DASH AND SOLID YELLOW CENTERLINE		52	52
STA. 1022+99 TO STA. 1024+82, CENTERLINE	SKIP DASH AND SOLID YELLOW CENTERLINE		229	229
STA. 1020+60 TO STA. 1023+00, RT	SOLID WHITE EDGE LINE		240	240
STA. 1020+56.25 TO STA. 1023+03.75, LT	SOLID WHITE EDGE LINE		248	248
TOTALS		40	990	990

GUARDRAIL REMOVAL SCHEDULE	
LOCATION	FOOT
STRUCTURE NO. 035-0008 - NE	45*
STRUCTURE NO. 035-0008 - NW	45*
STRUCTURE NO. 035-0008 - SE	45*
STRUCTURE NO. 035-0008 - SW	45*
TOTALS	180.0

* QUANTITY MAY VARY DEPENDING ON LAYOUT PROPOSED BY THE CONTRACTOR. SEE SHEET NO. 45 FOR DETAILS.

BASE COURSE SCHEDULE	
LOCATION	BASE COURSE WIDENING, 10"
SQ YD	
NE QUADRANT	41
NW QUADRANT	41
SE QUADRANT	41
SW QUADRANT	41
TOTALS	164

PAVEMENT MARKERS AND REMOVAL SCHEDULE	
LOCATION	RRPM (BRIDGE)
EACH	
STA. 1021+80	1
TOTAL	1

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	14	150
EDGELINES	TEMPORARY	477	
STA. 1020+60 TO STA. 1023+00, RT	EDGELINES		80
STA. 1020+56.25 TO STA. 1021+59.33, LT	EDGELINES		35
STA. 1022+00.67 TO STA. 1023+03.75, LT	EDGELINES		35
TOTALS		491	300

EROSION CONTROL SCHEDULE		
LOCATION	PERIMETER EROSION BARRIER	TEMPORARY EROSION CONTROL SEEDING (2 APPLICATIONS)
	FOOT	POUND
NE QUADRANT	140	5
NW QUADRANT	140	5
SE QUADRANT	140	5
SW QUADRANT	140	5
TOTAL	560	20

GUARDRAIL SCHEDULE				
LOCATION	TRAFFIC BARRIER TERMINAL TYPE 6A	GUARDRAIL MARKERS TYPE A	BARRIER WALL MARKERS, TYPE B	STEEL RAILING, TYPE SM
	EACH			
STRUCTURE NO. 035-0008 - NE	1	1		
STRUCTURE NO. 035-0008 - NW	1	1		
STRUCTURE NO. 035-0008 - SE	1	1		
STRUCTURE NO. 035-0008 - SW	1	1		
STRUCTURE NO. 035-0008 - BRIDGE			2	75
TOTALS	4	4	2	75

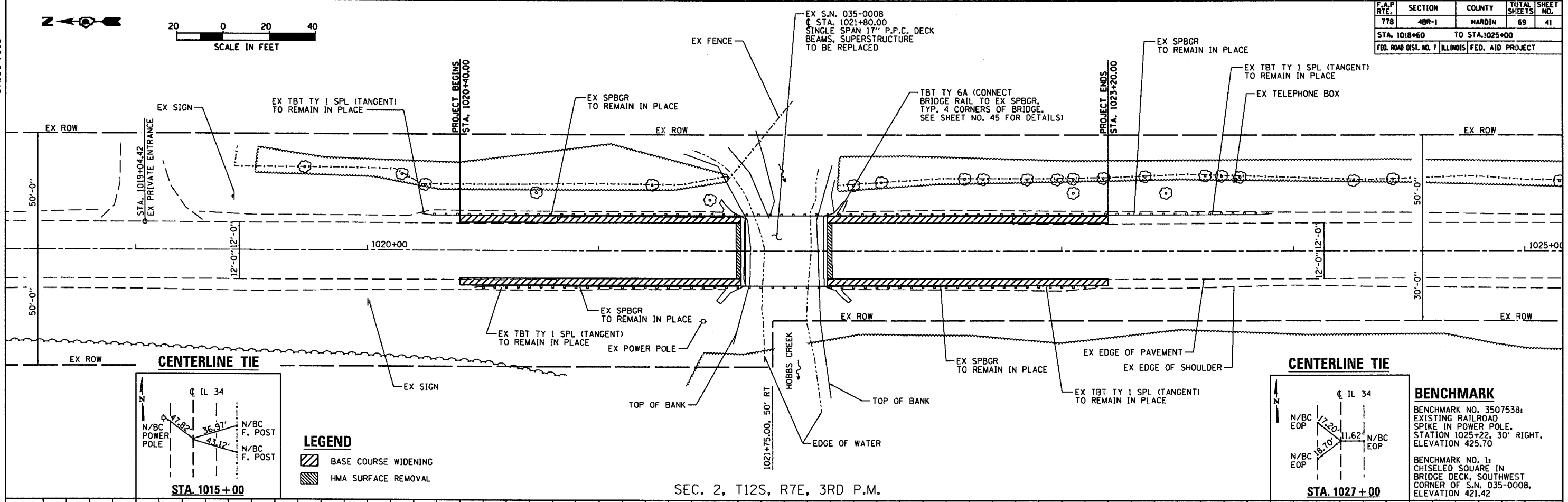
SEEDING SCHEDULE							
LOCATION	SEEDING, CLASS 2A	SEEDING, CLASS 7	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	AGRICULTURAL GROUND LIMESTONE	MULCH, METHOD 2
	ACRE		POUND		POUND		TON
NE QUADRANT	0.025	0.025	2.25	2.25	2.25	0.05	0.05
NW QUADRANT	0.025	0.025	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

HMA SURF REMOVAL SCHEDULE	
LOCATION	5"
SQ. YD	
NORTH ABUTMENT	6
SOUTH ABUTMENT	6
TOTALS	12

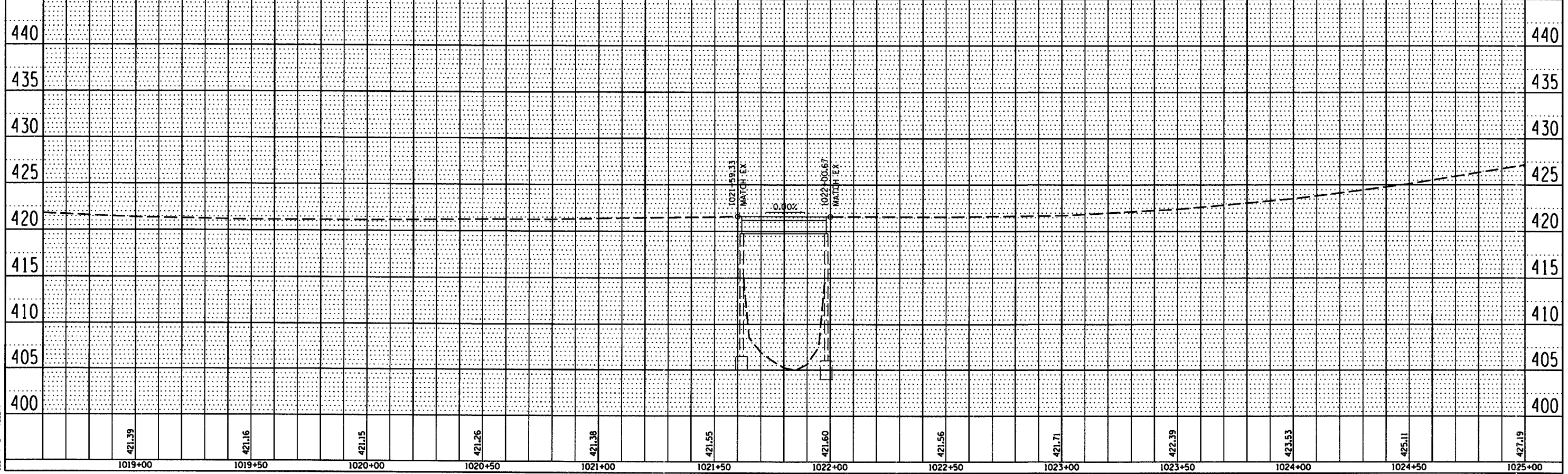
NOTE: HMA SURFACE REMOVAL IS INCLUDED IN THE COST OF REMOVAL OF EXISTING SUPERSTRUCTURE.

SCHEDULE OF QUANTITIES
F.A.P. ROUTE 778 (IL ROUTE 34)
SECTION 4BR-1
HARDIN COUNTY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	4BR-1	HARDIN	69	41
STA. 1018+60 TO STA. 1025+00		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT		



SEC. 2, T12S, RTE, 3RD P.M.



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	48R-1	HARDIN	69	42

STA. 1018+50 TO STA. 1025+20
 FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT

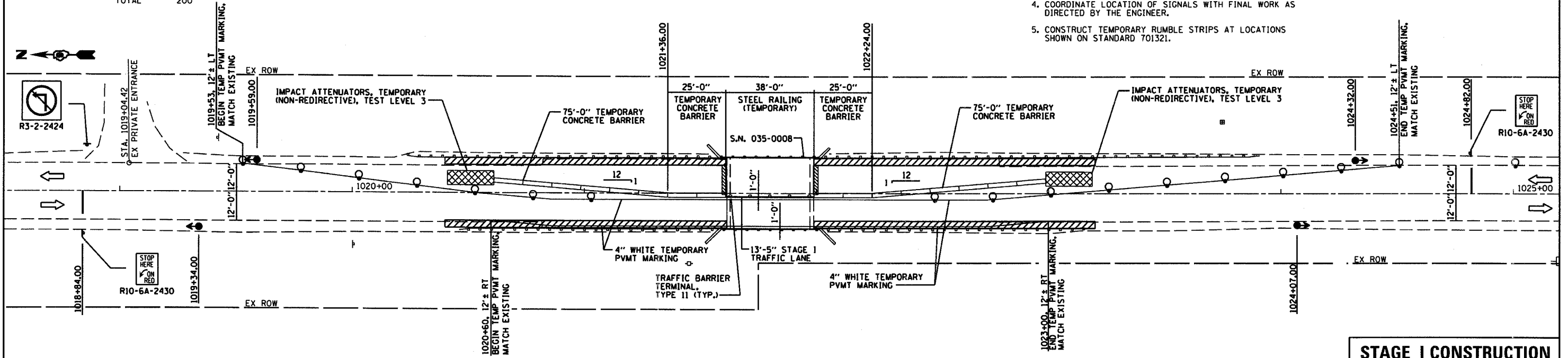


SCHEDULE OF QUANTITIES

STATION TO	STATION	FEET	DESCRIPTION	QUANTITY
1021+61.00	1021+99.00	38	STEEL RAILING (TEMPORARY)	1 EACH
	TOTAL	38	TEMPORARY RUMBLE STRIPS	6 EACH
1020+61.00	1021+61.00	100	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	2 EACH
1021+99.00	1022+99.00	100	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE II	2 EACH
	TOTAL	200		

NOTES

- TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321."
- SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
- STEEL RAILING (TEMPORARY) AND TEMPORARY CONCRETE BARRIER SHALL BE CONNECTED ACCORDING TO "TRAFFIC BARRIER TERMINAL TYPE II, STANDARD 631051".
- COORDINATE LOCATION OF SIGNALS WITH FINAL WORK AS DIRECTED BY THE ENGINEER.
- CONSTRUCT TEMPORARY RUMBLE STRIPS AT LOCATIONS SHOWN ON STANDARD 701321.



STAGE I CONSTRUCTION

SCHEDULE OF QUANTITIES

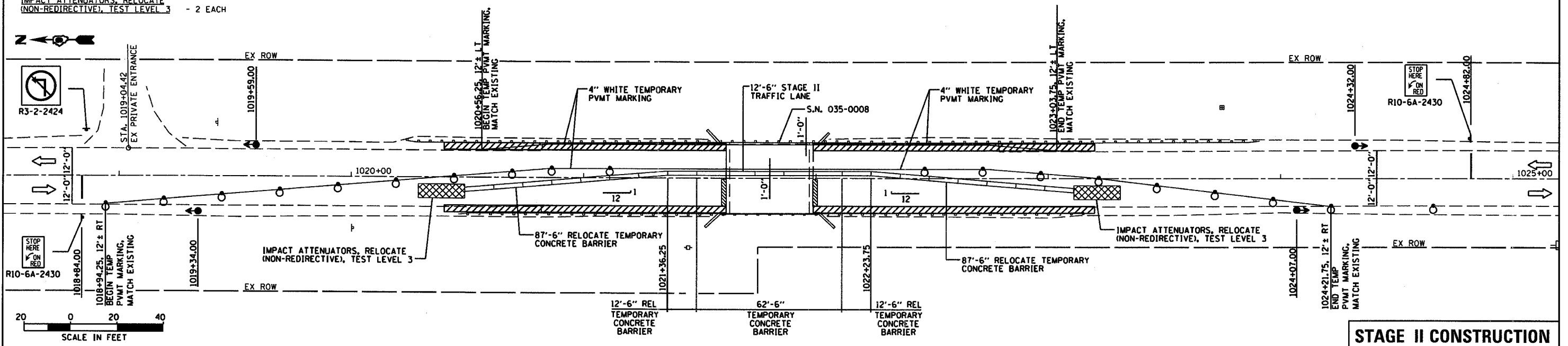
STATION TO	STATION	FEET	DESCRIPTION	QUANTITY
1021+48.75	1022+11.25	62.50	TEMPORARY CONCRETE BARRIER	1 EACH
	TOTAL	62.50	RELOCATE TEMPORARY CONCRETE BARRIER	100
1020+48.75	1021+48.75	100		100
1022+11.25	1023+11.25	100		100
	TOTAL	200	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	2 EACH

NOTES

- TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321."
- SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
- MAINTAIN TEMPORARY RUMBLE STRIPS AT LOCATIONS SHOWN ON STANDARD 701321.

LEGEND

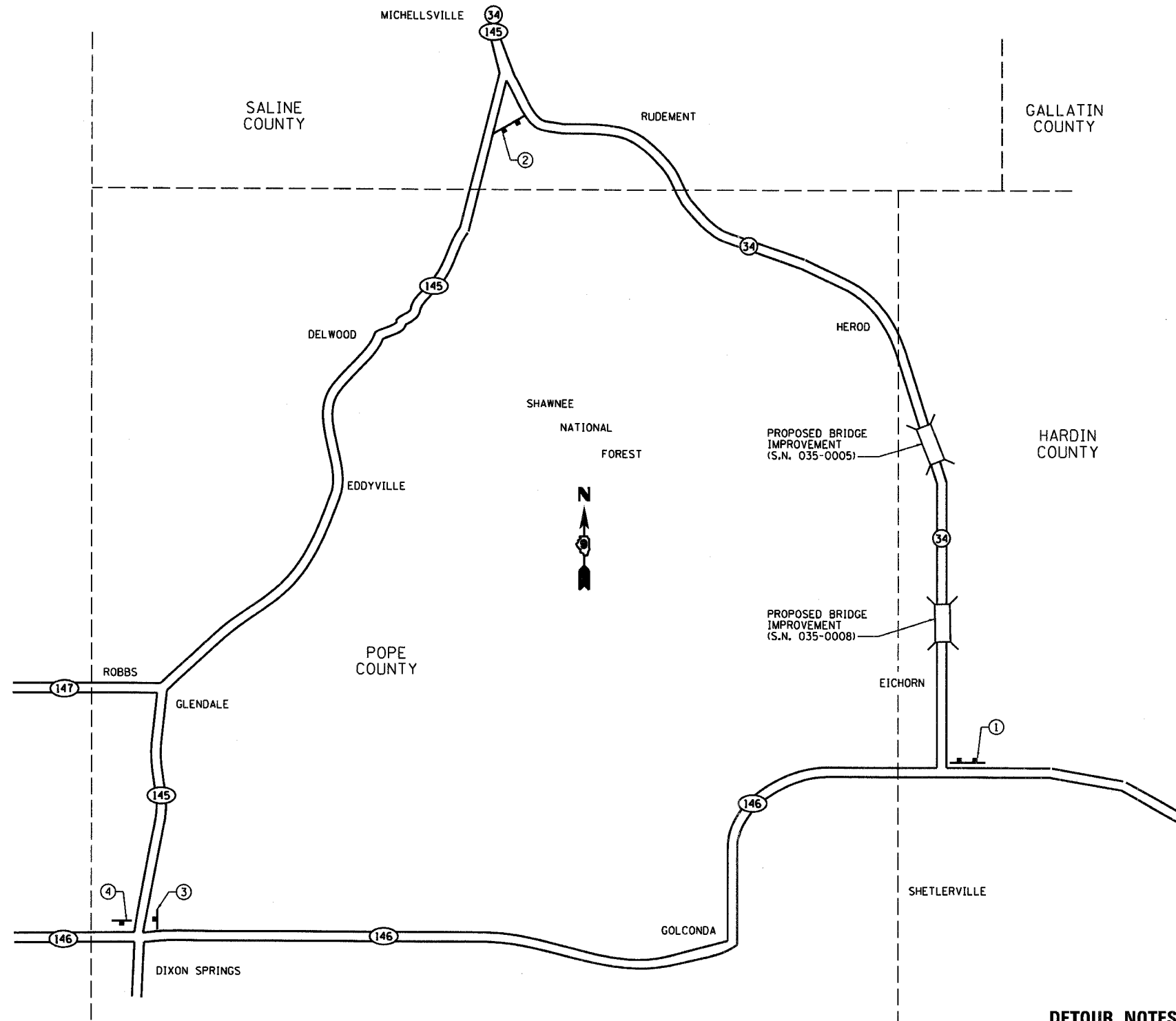
- TRAFFIC SIGNAL
- DRUM WITH STEADY BURNING LIGHT
- ▨ HMA SURFACE REMOVAL, 5"
- ▩ BASE COURSE WIDENING, 10"



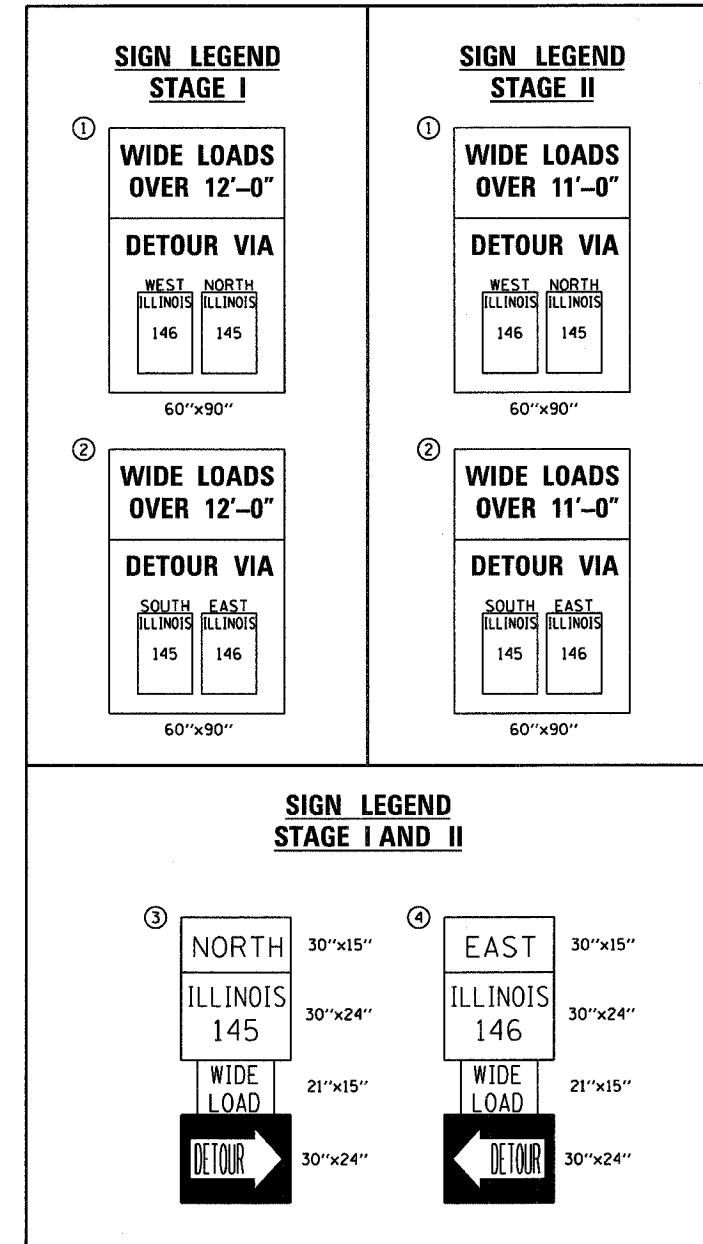
STAGE II CONSTRUCTION

DATE: 10/15/18
 FILE NAME: 778-48R-1-42.dwg
 PLOT SCALE: 1/8"=1'-0"
 USER: MASTERS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	4BR-1	HARDIN	69	43
STA.		TO STA.		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				



DETOUR SIGNING PLAN



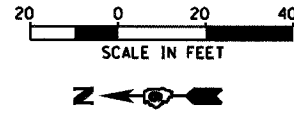
DETOUR NOTES:

1. THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT THE SIGNS AT THE LOCATION 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. COORDINATE WIDE LOAD DETOUR WITH TRAFFIC CONTROL FOR S.N. 035-0005. IF STAGING SEQUENCE BETWEEN STRUCTURES DOES NOT CORRESPOND, THE MINIMUM LANE WIDTH SHALL BE POSTED. SEE SHEET NO. 8 FOR S.N. 035-0005 WIDE LOAD DETOUR DETAILS.

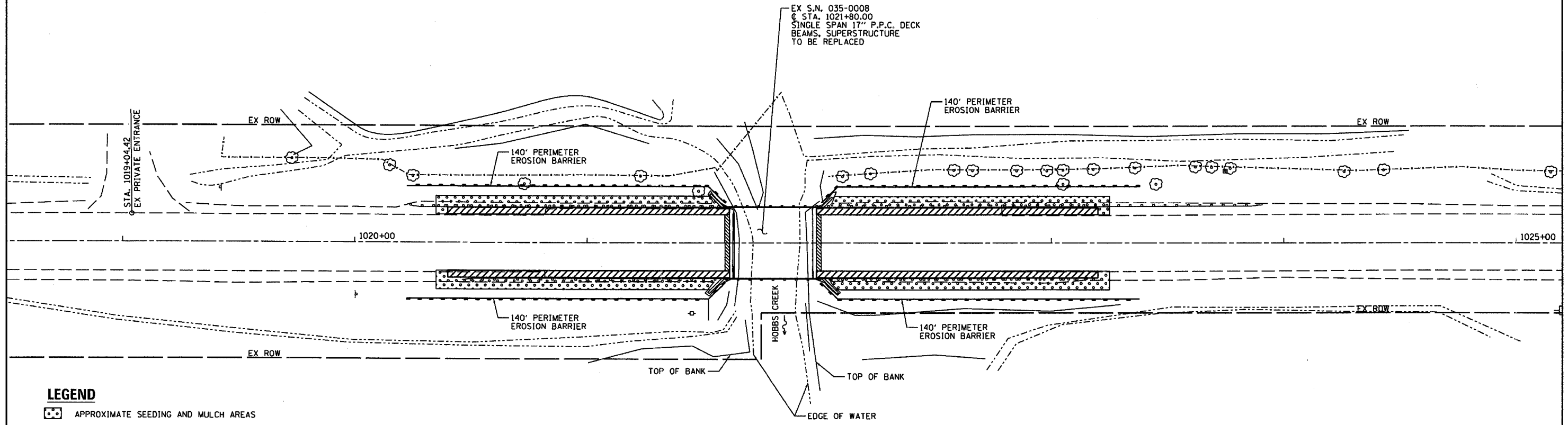
WIDE LOAD DETOUR
F.A.P. ROUTE 778 (IL ROUTE 34)
SECTION 4BR-1
HARDIN COUNTY

DATE
 FILE NAME
 PLOT SCALE
 USER NAME



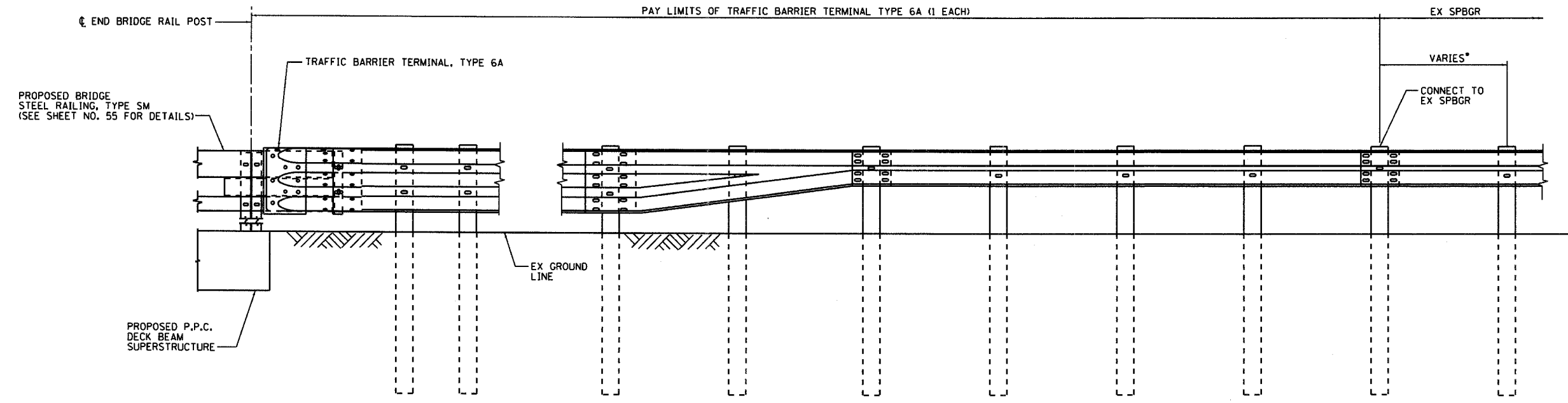


CONTRACT NO. 78023				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	4BR-1	HARDIN	69	44
STA. 1018+50 TO STA. 1025+20				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				



PLOT DATE : 10/04/07
FILE NAME : 4BR-1
PLOT SCALE : 1/8"=1'-0"
USER NAME : MUGER

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	4BR-1	HARDIN	69	45
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	



GUARDRAIL CONNECTION DETAIL

• POST SPACING AS REQUIRED TO MATCH TBT TYPE 6A TO EX SPBGR (6'-3" MAX.)

NOTES:

1. REMOVE AND REPLACE EX SPBGR WITH TBT TYPE 6A TO CONNECT PROPOSED BRIDGE STEEL RAILING, TYPE SM, TO EX SPBGR.
2. CONTRACTOR MAY USE EXISTING STEEL POSTS OR INSTALL NEW/ADDITIONAL POSTS AS REQUIRED. THE ENGINEER SHALL APPROVE TBT TYPE 6A LAYOUT PRIOR TO INSTALLATION.
3. UNLESS OTHERWISE NOTED, DETAILS SHALL BE AS SHOWN ON "TRAFFIC BARRIER TERMINAL, TYPE 6A, STANDARD 631032".
4. COST OF WORK SHOWN TO BE INCLUDED IN TRAFFIC BARRIER TERMINAL, TYPE 6A.

MISCELLANEOUS DETAILS
F.A.P. ROUTE 778 (IL ROUTE 34)
SECTION 4BR-1
HARDIN COUNTY

PLOT DATE * NUMBER
 FILE NAME * NUMBER
 PLOT SCALE * NUMBER
 USER NAME * NUMBER

Bench Mark 3507538: Existing railroad spike in power pole. Station 1025+22, right of centerline. Elevation 425.70

Bench Mark #1: Chiseled square in bridge deck, southwest corner of SN 035-0008. Elevation 421.42

Existing Structure: The original single span structure was built in 1923 with a reinforced concrete through girder on reinforced concrete closed abutments with a length of 38'-0" back-to-back of abutments. The structure was widened in 1978. The superstructure was replaced with P.P.C. deck beams with a total width of 31'-0" out-to-out of superstructure and the substructure was modified accordingly.

Proposed Improvements: The existing superstructure is to be replaced with P.P.C. deck beams and a 5" concrete overlay. Minor substructure repairs are required. Traffic to be maintained at all times utilizing stage construction.

Salvage: Shoring material is to be stockpiled according to the Special Provisions after removal.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

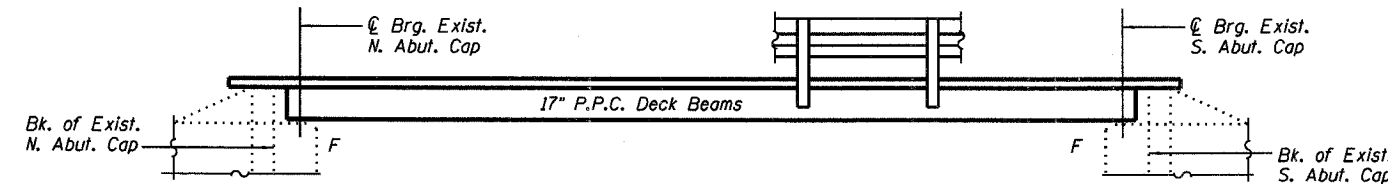
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
F.A.P. 778	4BR-1	HARDIN	69	46	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #78023

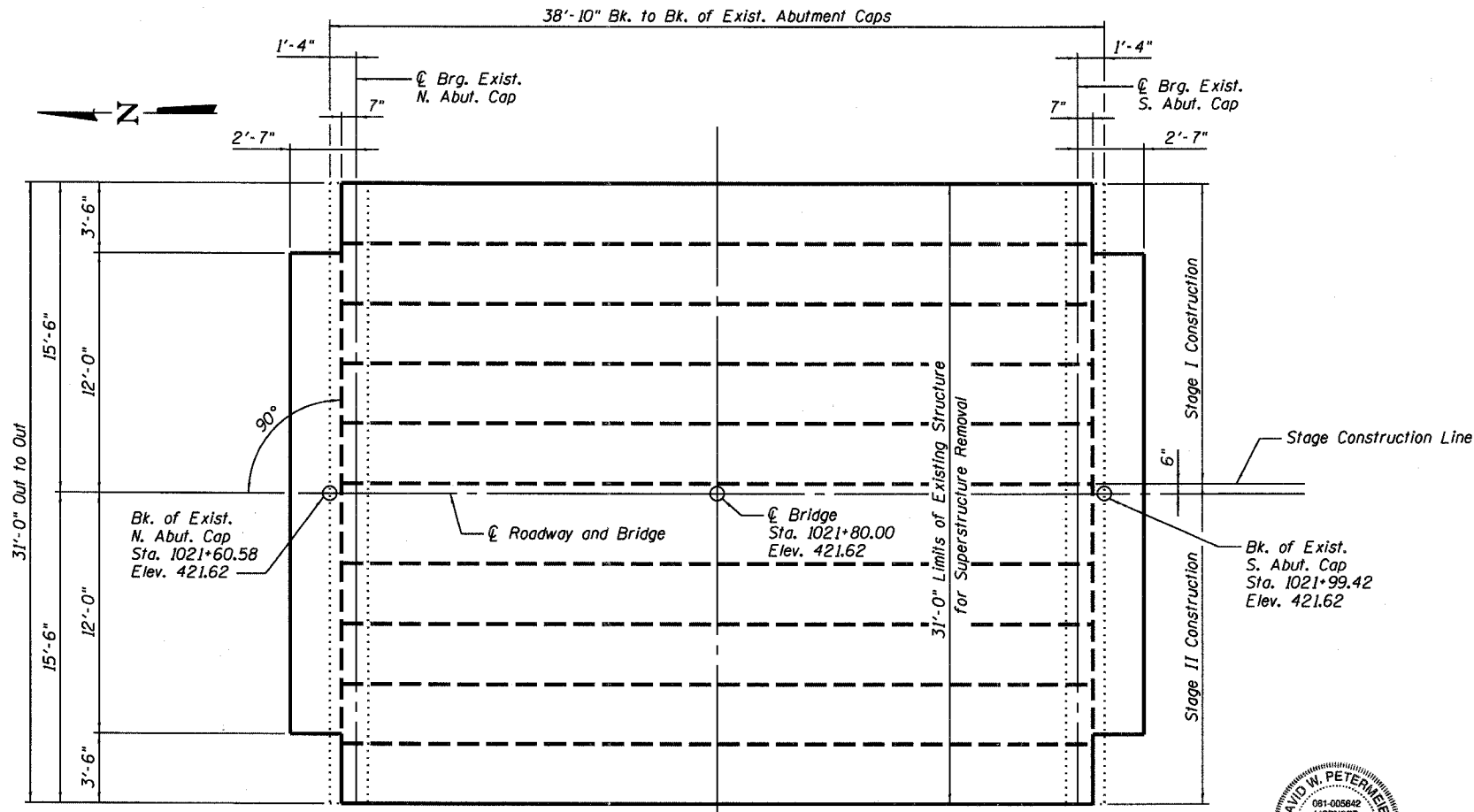
STATION 1021+80.00
REBUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RT. 778 SEC. 4BR-1
LOADING HS20
STR. NO. 035-0008

NAME PLATE
See Std. 515001

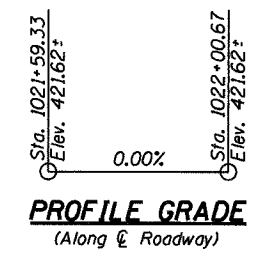
Note: Locate name plate at outside face of top steel railing tube at northwest corner of bridge.



ELEVATION



PLAN



PROFILE GRADE
(Along ϕ Roadway)

DESIGN SPECIFICATIONS
2002 AASHTO Standard Specifications
for Highway Bridges

LOADING HS20-44
No allowance for Future Wearing Surface.

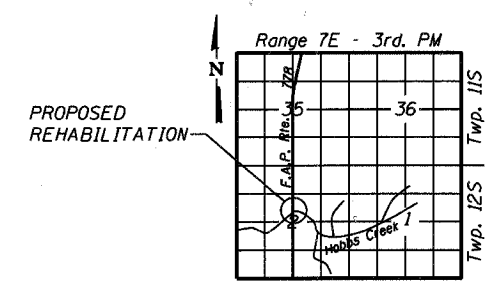
DESIGN STRESSES

FIELD UNITS

$f'_c = 5,000$ psi (Concrete Wearing Surface)
 $f'_c = 3,500$ psi (All concrete except CWS)
 $f_y = 60,000$ psi (reinforcement)

PRECAST PRESTRESSED UNITS

$f'_c = 5,000$ psi
 $f'_{ci} = 4,000$ psi
 $f'_s = 270,000$ psi ($\frac{1}{2}$ " ϕ low lax strands)
 $f_{si} = 201,960$ psi ($\frac{1}{2}$ " ϕ low lax strands)



LOCATION SKETCH



DESIGNED	RLM
CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

10/04/07

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



David W. Petermeier
DAVID W. PETERMEIER
EDWARDSVILLE, ILLINOIS
ILLINOIS LICENSED STRUCTURAL
ENGINEER NO. 081-005642
EXPIRES NOV. 30, 2008

GENERAL PLAN & ELEVATION
ILL. ROUTE 34 OVER HOBBS CREEK
F.A.P. ROUTE 778 SECTION 4BR-1
HARDIN COUNTY
STATION 1021+80.00
STRUCTURE NO. 035-0008

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 778	4BR-1	HARDIN	69	47
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 2

12 SHEETS

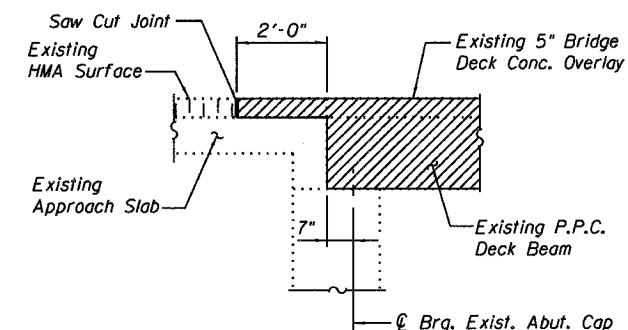
Contract #78023

SCOPE OF WORK

1. Remove existing surface, steel railing, deck beams, and bearing pads.
2. Repair bearing seats and perform other repairs at abutments as required.
3. Reconstruct a P.P.C. deck beam superstructure with concrete wearing surface and steel railing, Type SM.

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A 706 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. Concrete Sealer shall be applied to the abutments where concrete repairs are performed.
4. No in-stream work will be allowed at this structure.
5. 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.
6. If the Contractor's procedures for existing beam removal or placement of new beams involves placement of heavy equipment on the new deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Cost included with Precast Prestressed Concrete Deck Beams (17").
7. Repair of the substructure shall be completed prior to placement of the new deck beams.



**LIMITS OF EXISTING STRUCTURE
FOR SUPERSTRUCTURE REMOVAL**

Notes:
HMA removal over approach slabs included in cost of Removal of Existing Superstructures.
Existing HMA surface at shoulders to be left in place.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructures	Each	1	-	1
Bridge Deck Grooving	Sq. Yd.	140	-	140
Protective Coat	Sq. Yd.	140	-	140
Precast Prestressed Concrete Deck Beams (17")	Sq. Ft.	1,158	-	1,158
Reinforcement Bars, Epoxy Coated	Pound	1,800	-	1,800
Bar Splicers	Each	44	-	44
Steel Railing, Type SM	Foot	75	-	75
Steel Railing (Temporary)	Foot	38	-	38
Name Plates	Each	1	-	1
Concrete Sealer	Sq. Ft.	-	91	91
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	-	91	91
Concrete Wearing Surface, 5"	Sq. Yd.	140	-	140



DESIGNED	RLM
CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

10/04/07

GENERAL STRUCTURE DATA
ILL. ROUTE 34 OVER HOBBS CREEK
F.A.P. ROUTE 778 SECTION 4BR-1
HARDIN COUNTY
STATION 1021+80.00
STRUCTURE NO. 035-0008

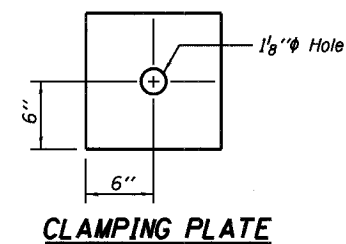
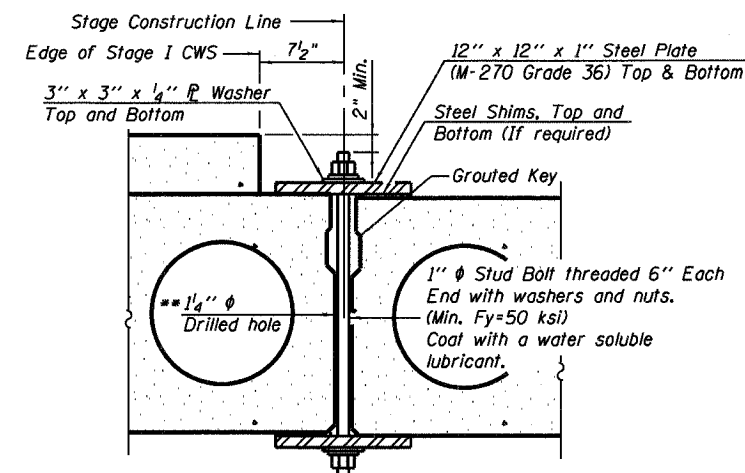
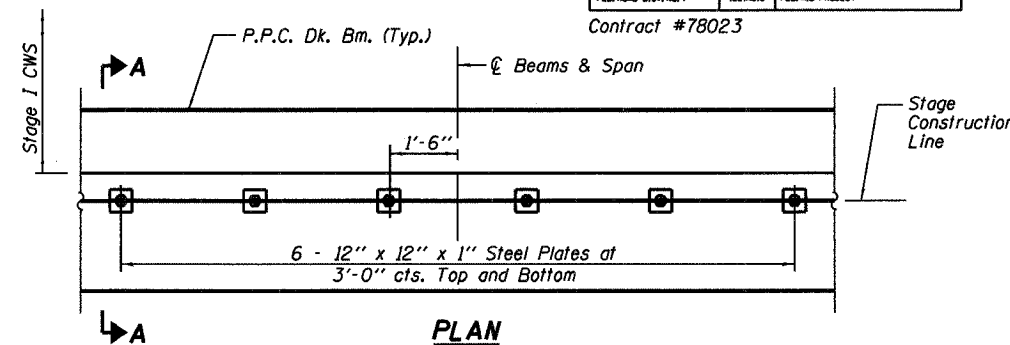
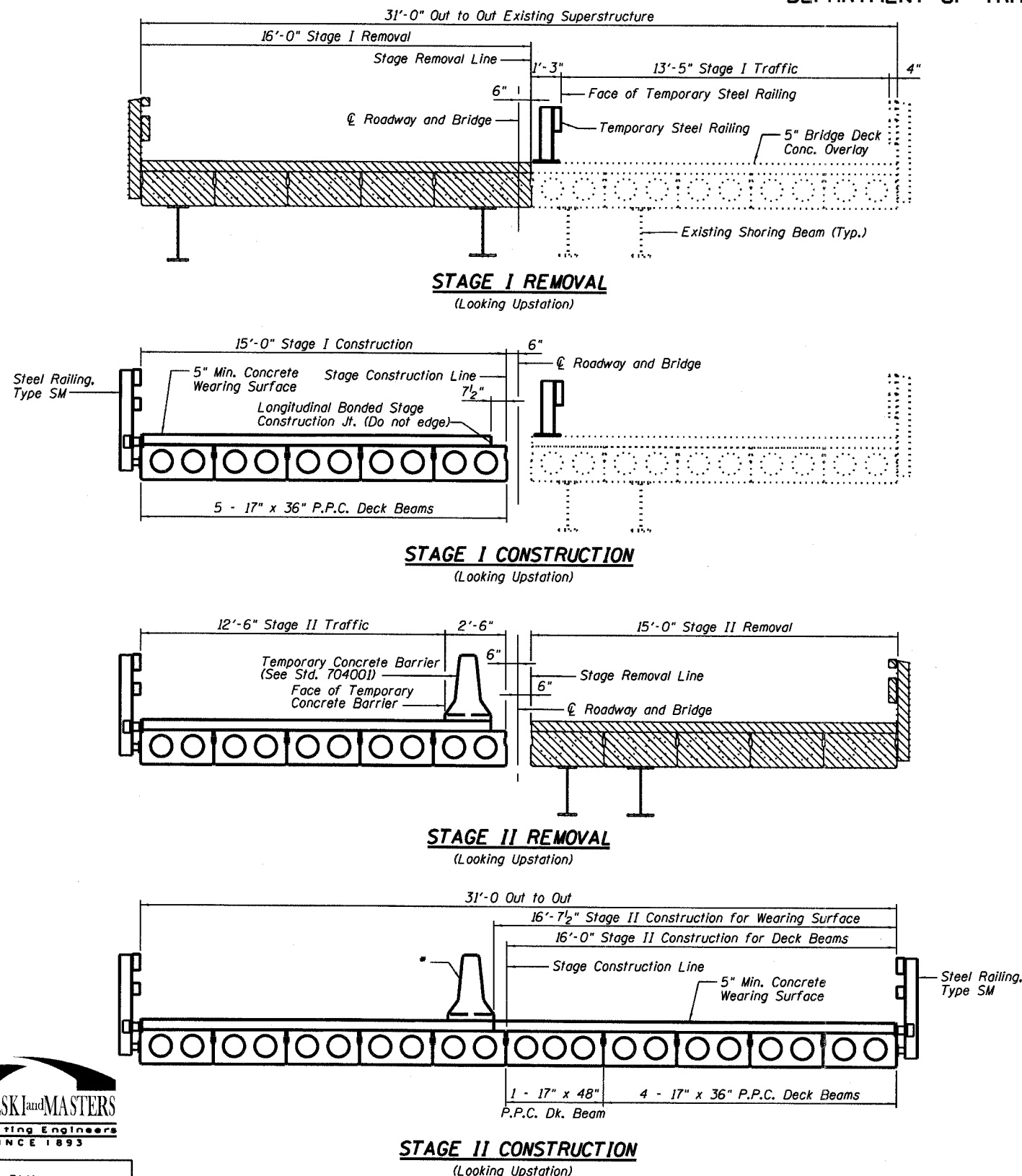
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DATE	SHEET
F.A.P. 778	4BR-1	HARDIN	69	48
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 3

12 SHEETS

Contract #78023



SHEAR KEY CLAMPING DETAILS

See Article 504.06 of the Standard Specifications for Stage Construction of Precast Prestressed Concrete Deck Beams.
Cost included with Precast Prestressed Concrete Deck Beams (17").

** As an alternate to the drilled holes, the Contractor may request the Fabricator to cast 2" diameter semi-circular recesses in the sides of each beam adjacent to the stage construction line. These recesses should align to form a hole at the appropriate locations for the clamping device bolts. If the Contractor elects to use this alternate, the details shall be identified on the shop drawings.

STAGE CONSTRUCTION DETAILS
ILL. ROUTE 34 OVER HOBBS CREEK
F.A.P. ROUTE 778 SECTION 4BR-1
HARDIN COUNTY
STATION 1021+80.00
STRUCTURE NO. 035-0008



DESIGNED	RLM
CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

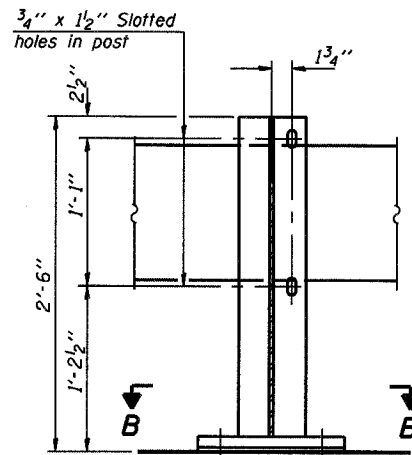
10/04/07

* Temporary Concrete Barrier to be removed with Stage II Traffic Control upon completion of Stage II construction.

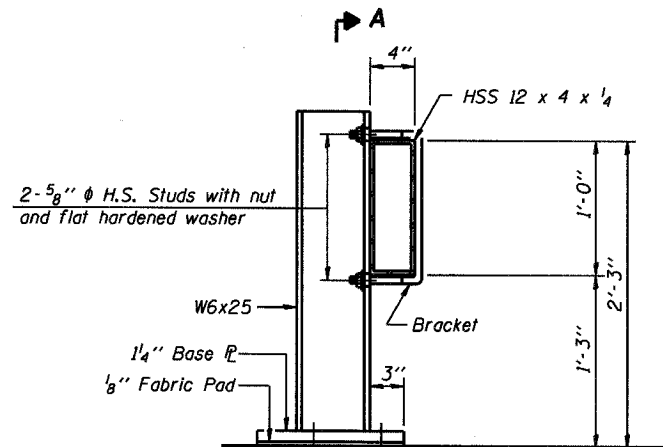
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DATE	SHEET	SHEET NO. 4 12 SHEETS
F.A.P. 778	4BR-1	HARDIN	69	49	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

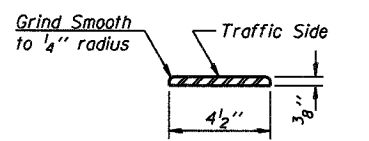
Contract #78023



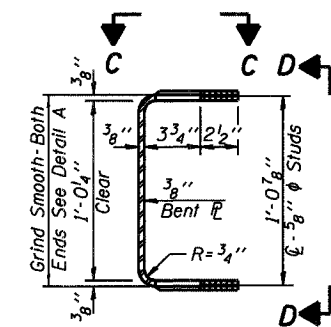
SECTION A-A



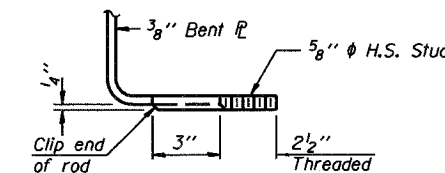
SECTION AT RAIL POST



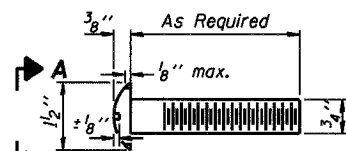
DETAIL A



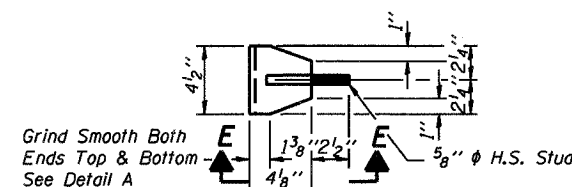
SECTION THRU BRACKET



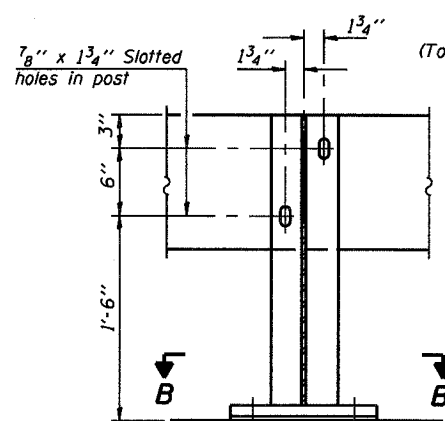
VIEW E-E



VIEW A-A
ROUND HEAD BOLT



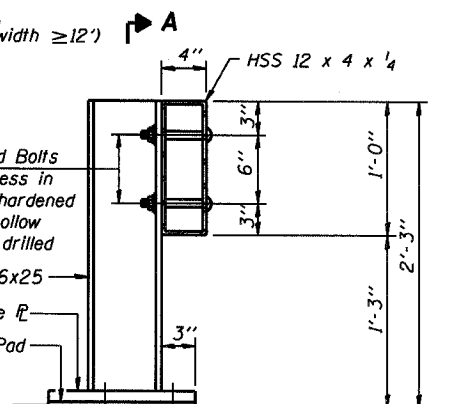
VIEW C-C



SECTION A-A

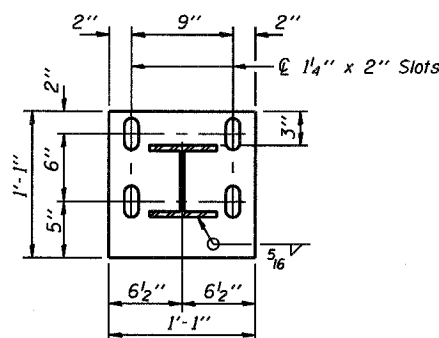
ALTERNATE I

(To be used only for Roadway width $\geq 12'$)

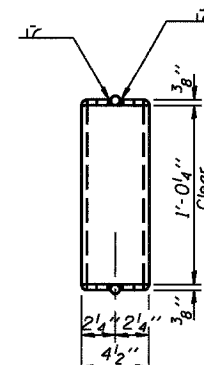


SECTION AT RAIL POST

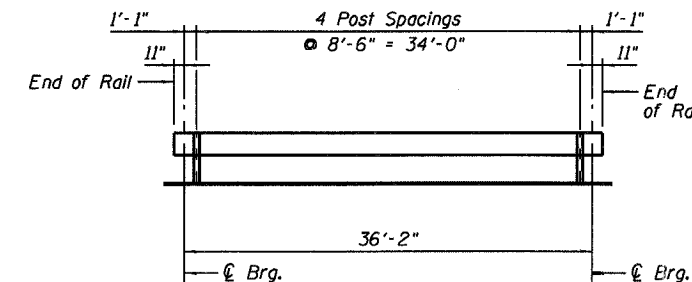
2-3/4" ϕ x 6" Round Head Bolts (With slot or approved recess in head) with locknut & flat hardened washer. 7/8" ϕ holes in hollow structural section may be drilled in the field.



SECTION B-B



VIEW D-D



TEMPORARY BRIDGE RAIL POST SPACING

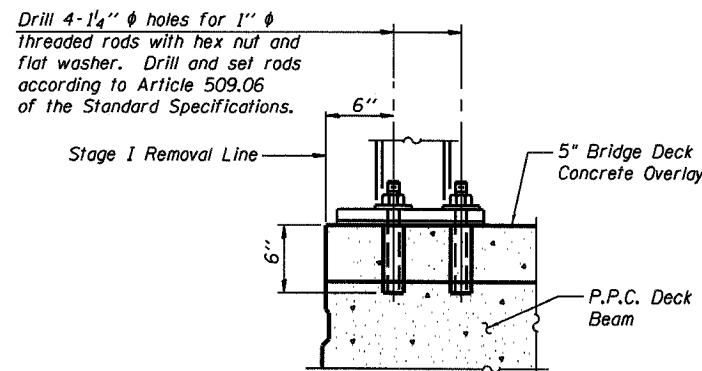
(10'-9" Maximum Post Spacing)

BILL OF MATERIAL

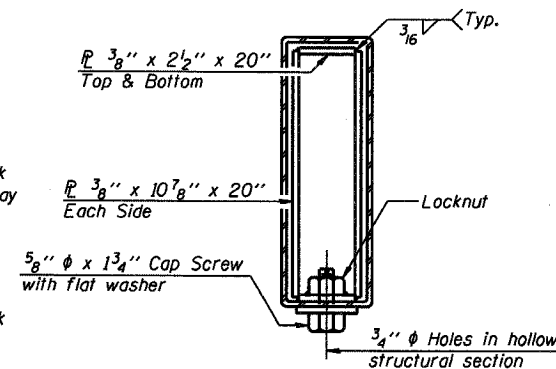
Item	Unit	Quantity
Steel Railing (Temporary)	Foot	38

Notes:
Temporary steel railing shall be according to Section 509 of the Standard Specifications and will be paid for at the contract unit price per foot for Steel Railing (Temporary).
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.

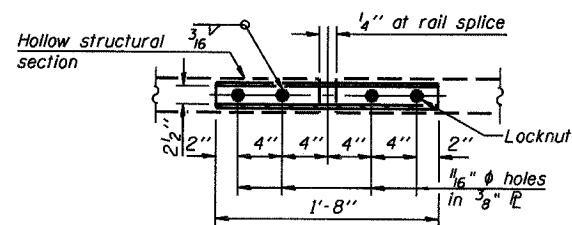
**STEEL RAILING (TEMPORARY)
FOR STAGE CONSTRUCTION**
ILL. ROUTE 34 OVER HOBBS CREEK
F.A.P. ROUTE 778 SECTION 4BR-1
HARDIN COUNTY
STATION 1021+80.00
STRUCTURE 035-0008



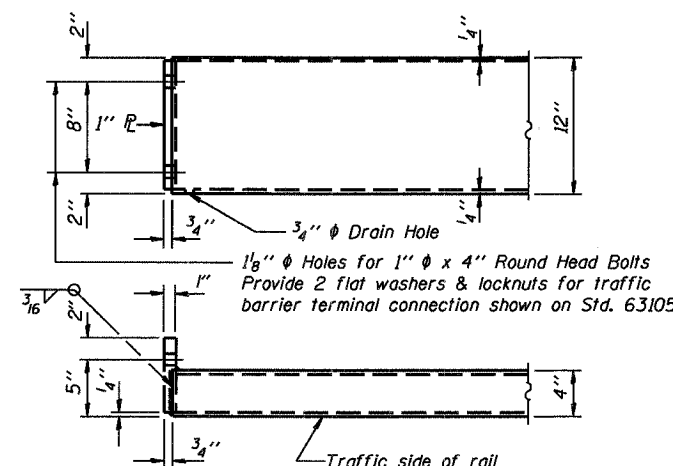
ANCHORAGE DETAILS



SECTION AT RAIL SPLICE



PLAN-BOTT. SPLICE TYPICAL



END OF RAIL DETAILS



DESIGNED	RLM
CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

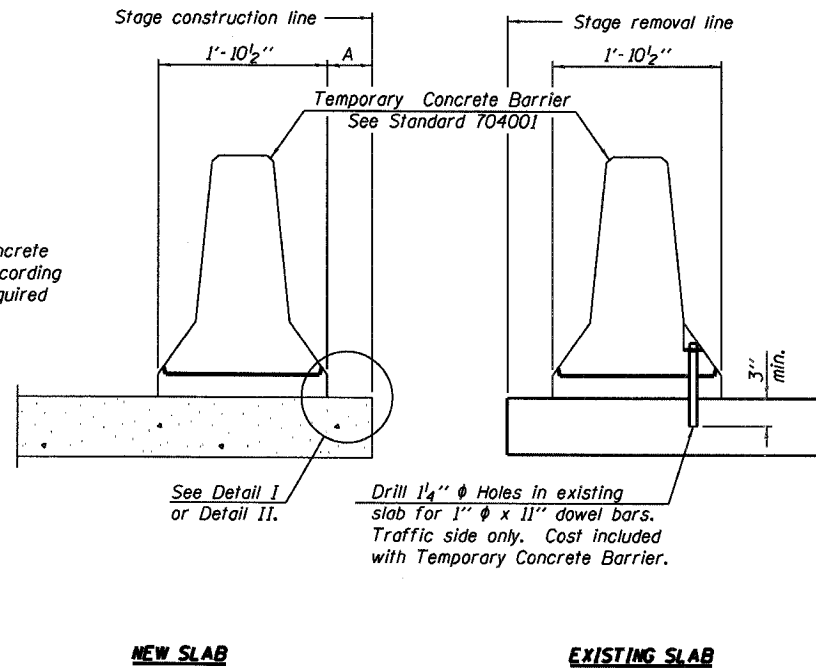
10/04/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

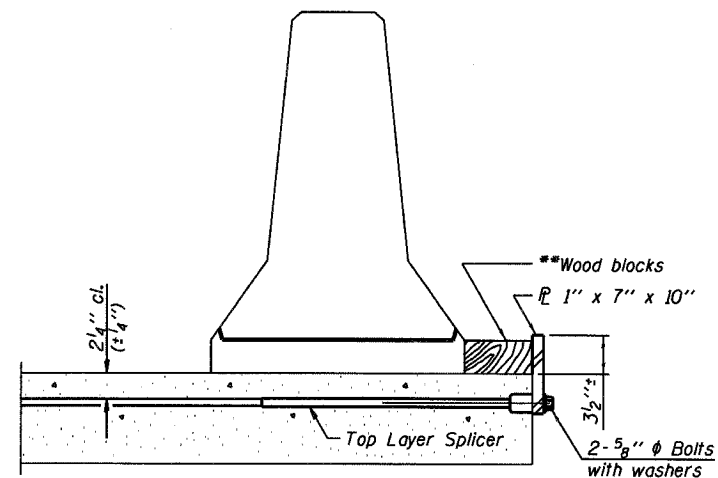
ROUTE NO.	SECTION	COUNTY	STA. SHEETS	SHEET NO.	SHEET NO. 5 12 SHEETS
F.A.P. 778	4BR-1	HARDIN	69	50	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #78023

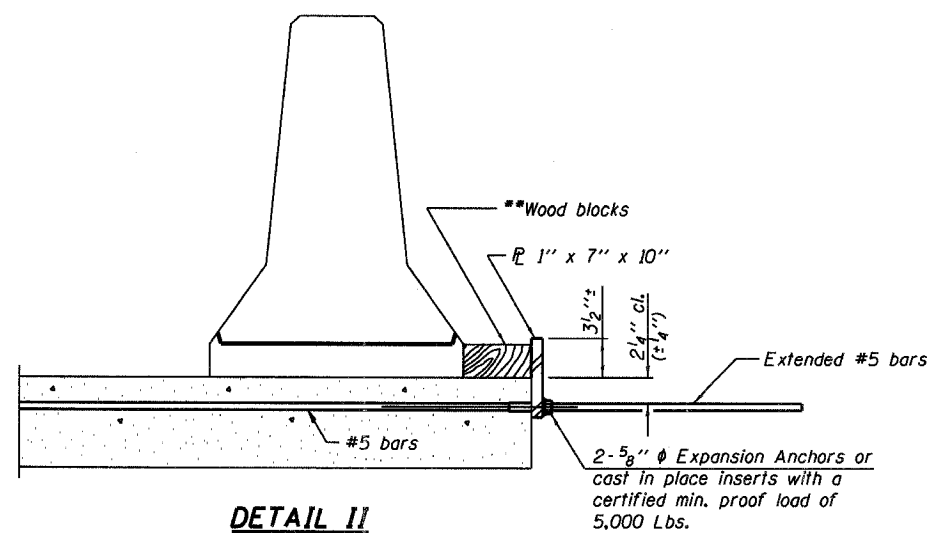
When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



SECTIONS THRU SLAB



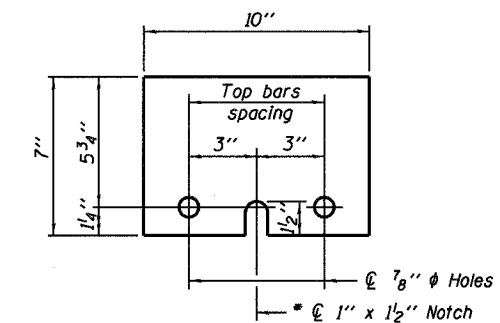
DETAIL I



DETAIL II

NOTES

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



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

* Required only with Detail II

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



DESIGNED	RLM
CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

R-27

11-1-06

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
ILL. ROUTE 34 OVER HOBBS CREEK
F.A.P. ROUTE 778 SECTION 4BR-1
HARDIN COUNTY
STATION 1021+80.00
STRUCTURE NO. 035-0008

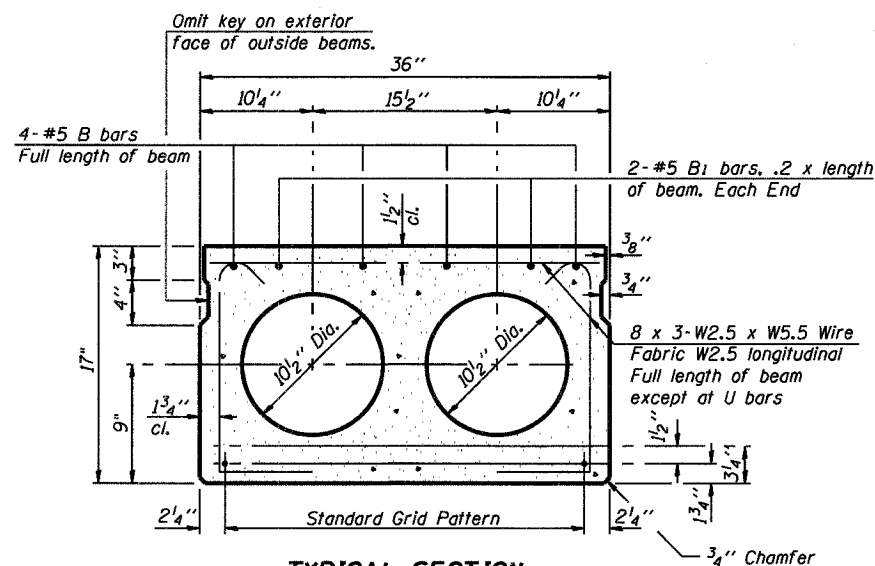
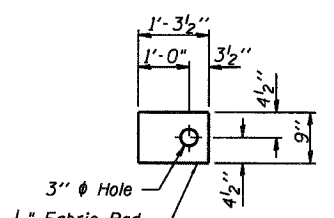
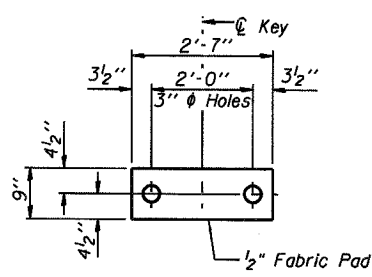
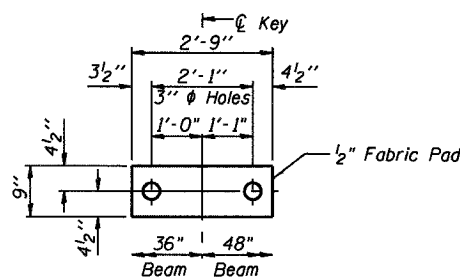
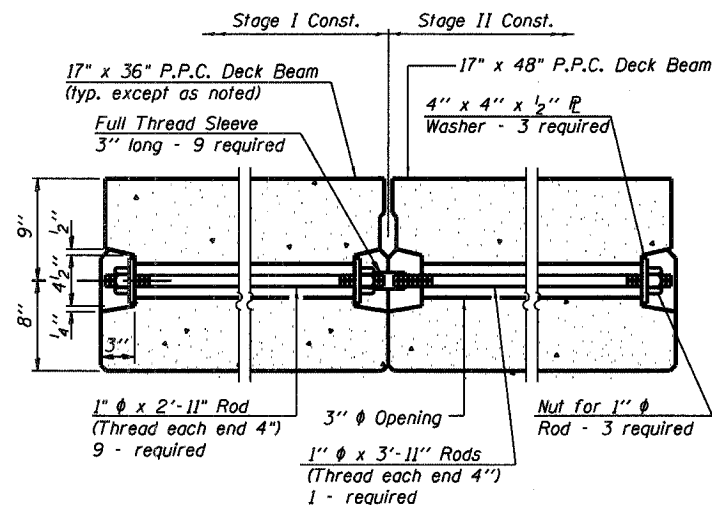
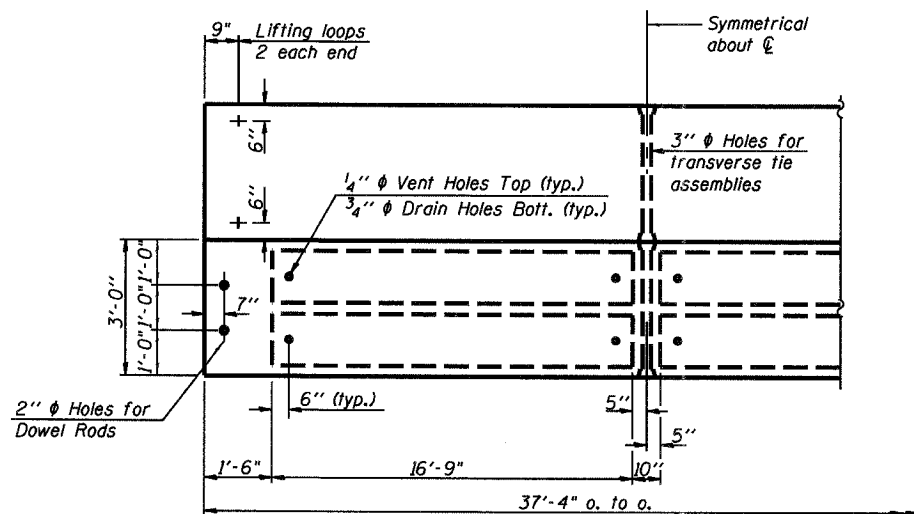
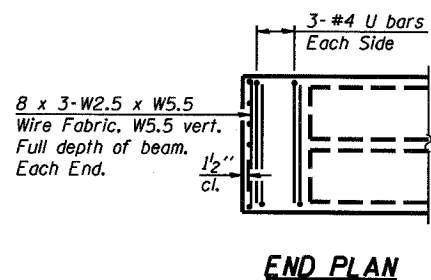
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	NO.	SHEET NO. 6
F.A.P. 778	4BR-1	HARDIN	69	51	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #78023

NOTES

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in.
- Lifting loops shall be 2- $\frac{1}{2}$ " ϕ - 270 ksi strands, as shown.
- Lifting loops shall be burned off after beams have been erected.
- The 1" ϕ rods in the transverse assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.
- Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60.
- The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two $\frac{1}{8}$ " fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing.
- Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.
- Corrosion Inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Required Release Strength, f'ci, shall be 4,000 p.s.i.
- See Sheet No. 8 of 12 for required fascia beam modifications for rail anchorage.



Note: Place strands symmetrically about ϕ of beam.

BILL OF MATERIAL

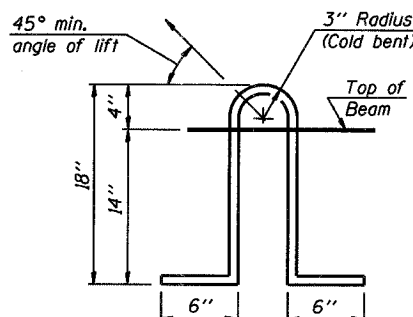
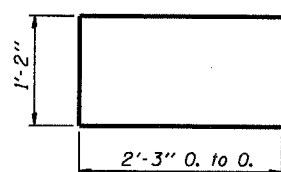
Item	Unit	Quantity
Precast Prestressed Conc. Deck Bms. (17")	Sq. Ft.	1,008

SUPERSTRUCTURE DETAILS
17" X 36" DECK BEAMS
ILL. ROUTE 34 OVER HOBBS CREEK
F.A.P. ROUTE 778 SECTION 4BR-1
HARDIN COUNTY
STATION 1021+80.00
STRUCTURE NO. 035-0008



DESIGNED	RLM
CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

10/04/07



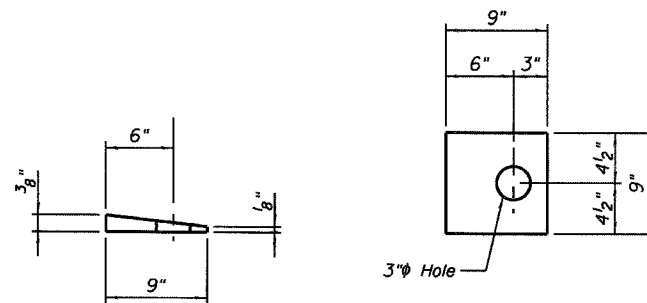
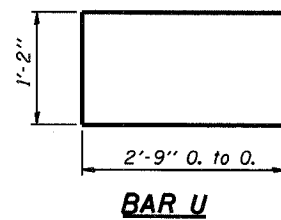
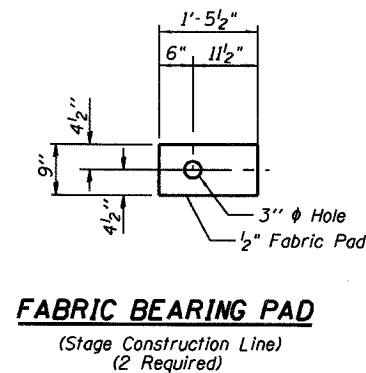
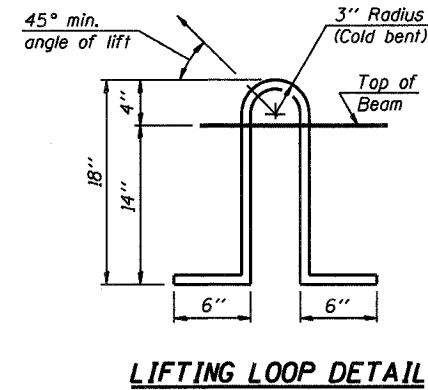
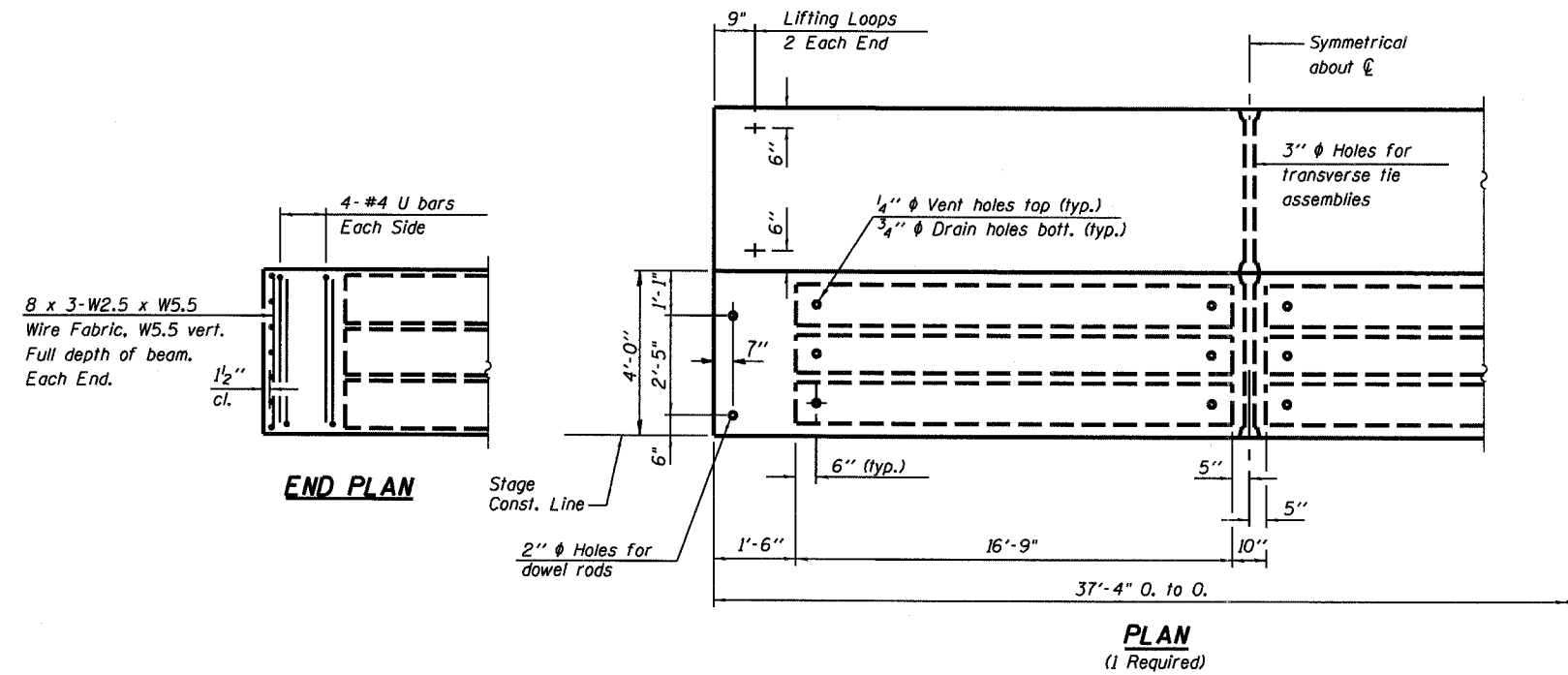
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	POST	SHEET NO. 7
F.A.P. 778	4BR-1	HARDIN	69	52	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

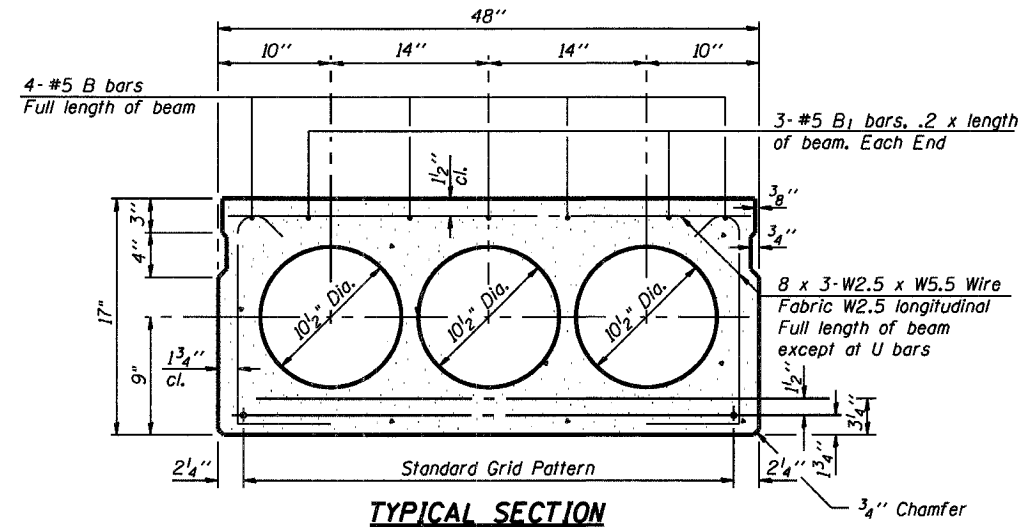
Contract #78023

NOTES

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- The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in.
- Lifting loops shall be $2\text{-}\frac{1}{2}$ " ϕ - 270 ksi strands, as shown.
- Lifting loops shall be burned off after beams have been erected.
- The 1' ϕ rods in the transverse assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.
- Non prestressing steel shall conform to ASTM A 706 (1L MOD), Grade 60.
- The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two $\frac{1}{8}$ " fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing.
- Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.
- Corrosion Inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Required Release Strength, f'_{ci} , shall be 4,000 p.s.i.
- See Sheet No. 6 of 12 for required fascia beam modifications for rail anchorage.
- Cast to furnish and erect Tapered Steel Shims included with Precast Prestressed Concrete Deck Beams (17").



Note: Steel shims shall be AASHTO Classification M270 Gr. 36 minimum and shall be galvanized according to AASHTO M111.



13-1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
7-Strands 1 3/4" up, 6-Strands 3/4" up

Note: Place strands symmetrically about ϕ of beam.

BILL OF MATERIAL

Item	Unit	Quantity
Precast Prestressed Conc. Deck Bms. (17")	Sq. Ft.	150

SUPERSTRUCTURE DETAILS
17" X 48" DECK BEAMS
ILL. ROUTE 34 OVER HOBBS CREEK
F.A.P. ROUTE 778 SECTION 4BR-1
HARDIN COUNTY
STATION 1021+80.00
STRUCTURE NO. 035-0008



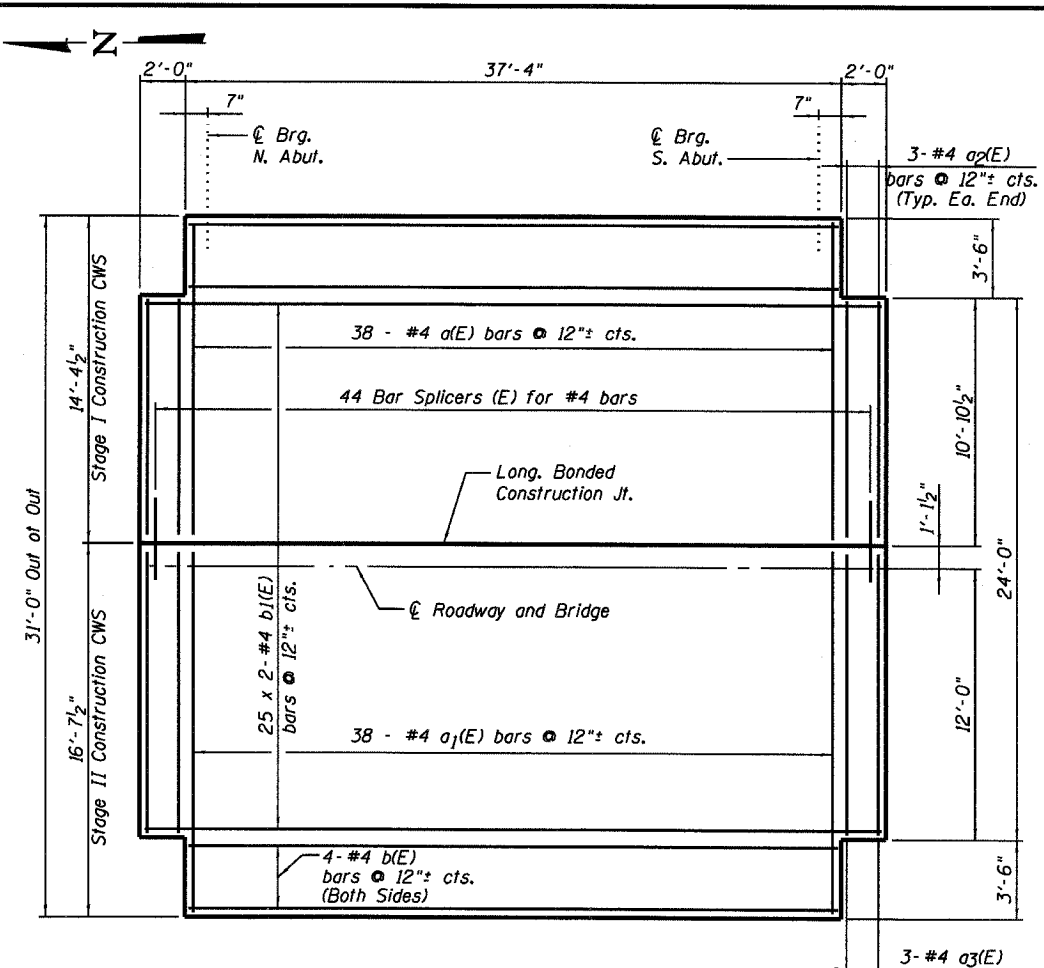
DESIGNED	RLM
CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

10/04/07

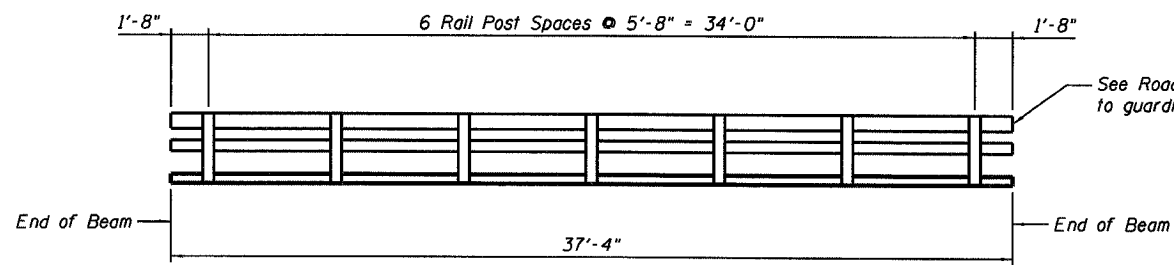
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	POST	SHEET NO. 8
F.A.P. 778	4BR-1	HARDIN	69	53	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

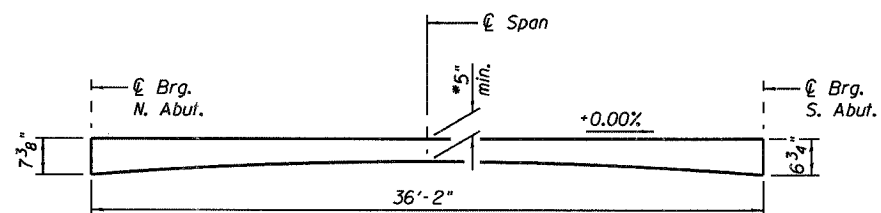
Contract #78023



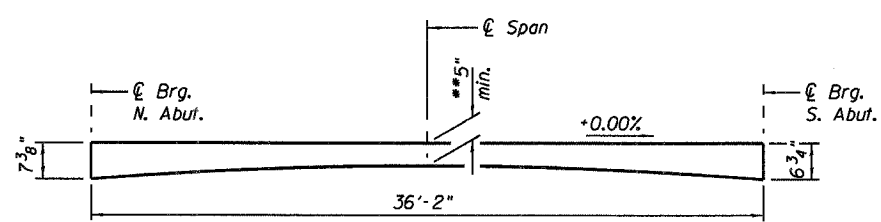
PARTIAL PLAN - CONCRETE WEARING SURFACE
Min. Bar Lap: #4 Bars - 1'-4"



RAIL POST SPACING DETAILS

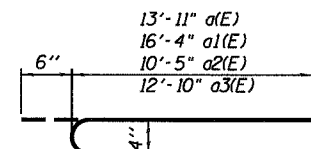


CONCRETE WEARING SURFACE PROFILE - 36" BEAMS
* 6" Theoretical

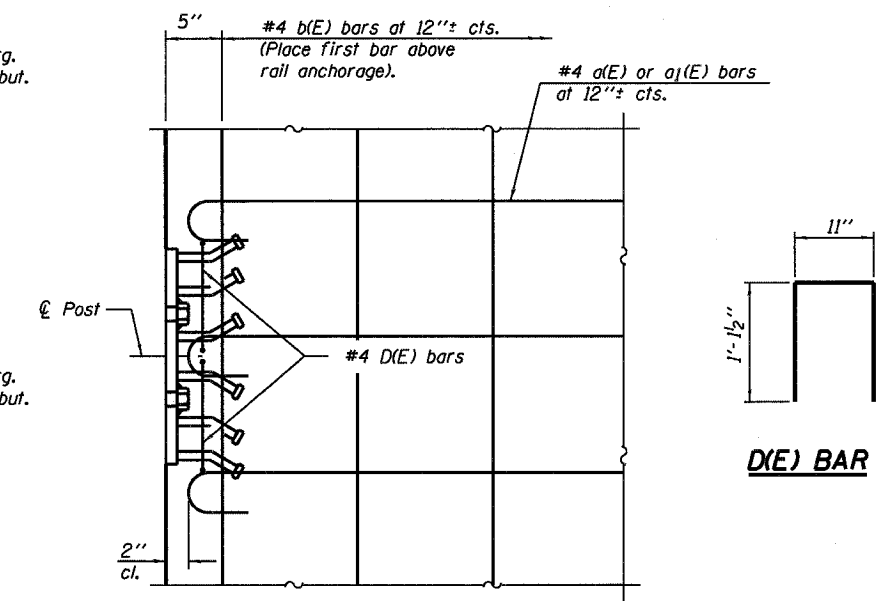


CONCRETE WEARING SURFACE PROFILE - 48" BEAM
** 6 1/4" Theoretical

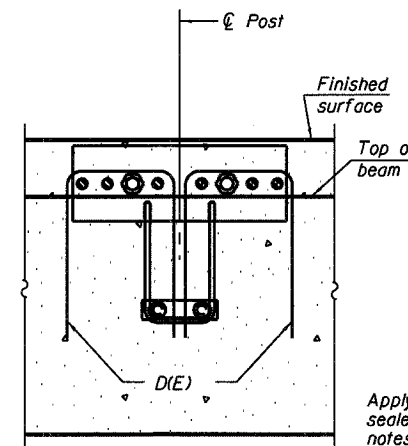
Note:
Thickness on 48" beam will vary from those shown above at profile grade to 3/8" less at stage construction line.



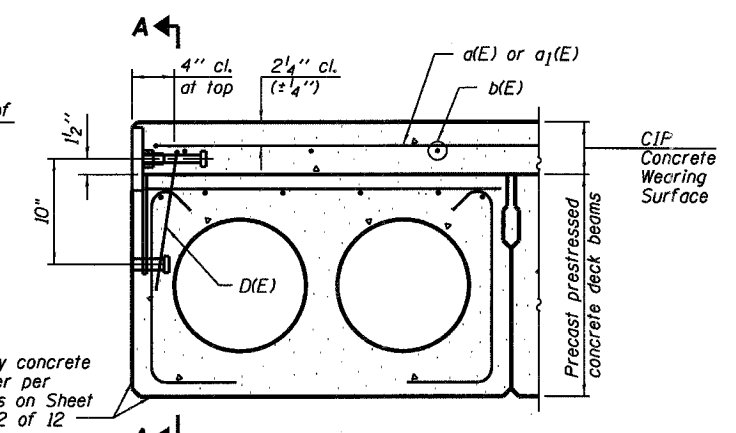
**a(E), a1(E), a2(E),
and a3(E) BARS**



PLAN



SECTION A-A



FASCIA BEAM CROSS SECTION

**CONCRETE WEARING SURFACE AND FASCIA BEAM
MODIFICATIONS FOR RAIL ANCHORAGE**

Notes:
See Sheet No. 10 of 12 for rail anchorage details.
The rail anchorage shall be cast with the beam 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. Drilling into the beam or slab will not be permitted.
Concrete wearing surface to be poured after grouting the shear keys.

**SUPERSTRUCTURE DETAILS
CONCRETE WEARING SURFACE
ILL. ROUTE 34 OVER HOBBS CREEK
F.A.P. ROUTE 778 SECTION 4BR-1
HARDIN COUNTY
STATION 1021+80.00
STRUCTURE NO. 035-0008**

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	38	#4	14'-5"	
a1(E)	38	#4	16'-10"	
a2(E)	6	#4	10'-11"	
a3(E)	6	#4	13'-4"	
b(E)	8	#4	37'-1"	
b1(E)	50	#4	21'-3"	
Reinforcement Bars, Epoxy Coated		Pound	1,800	
Concrete Wearing Surface, 5"		Sq. Yd.	140	
Bridge Deck Grooving		Sq. Yd.	140	
Bar Splicers		Each	44	
Protective Coat		Sq. Yd.	140	

Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.



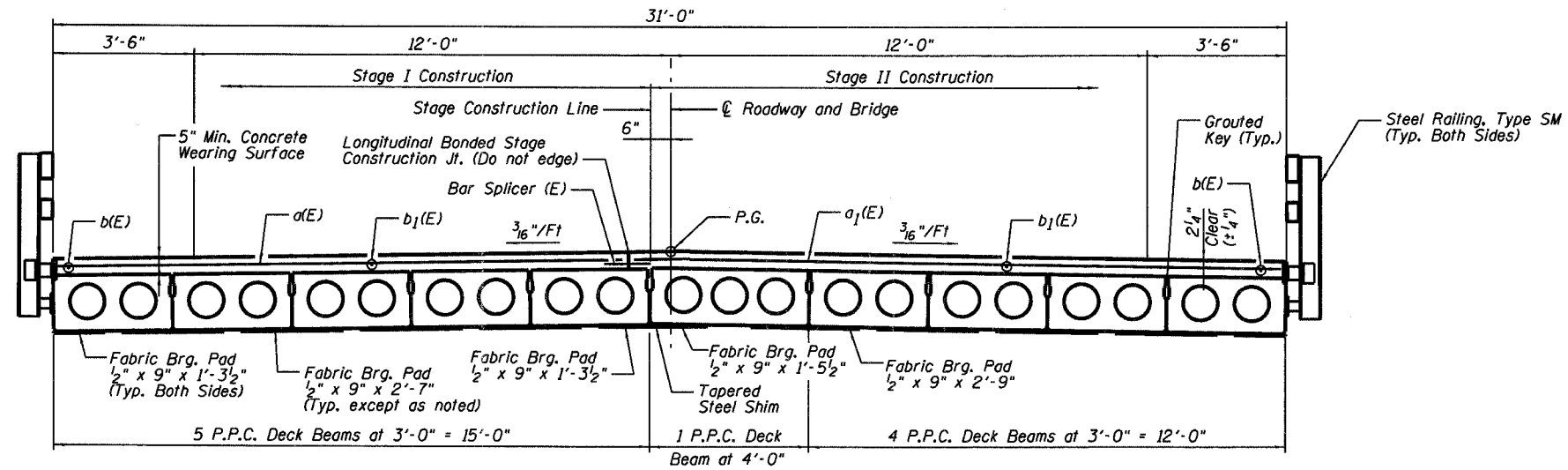
DESIGNED	RLM
CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

10/04/07

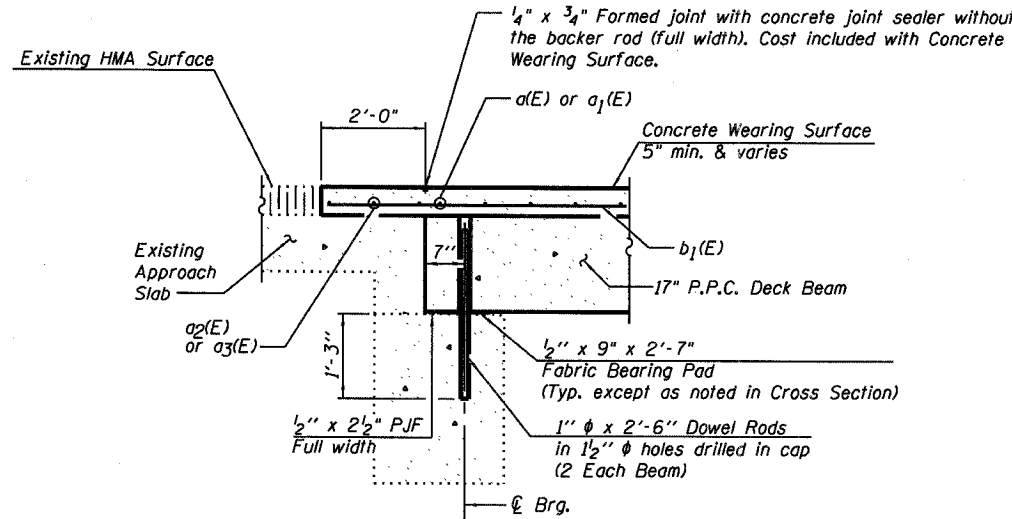
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 778	SECTION 4BR-1	COUNTY HARDIN	SHEETS 69	POST 54	SHEET NO. 9 12 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract #78023

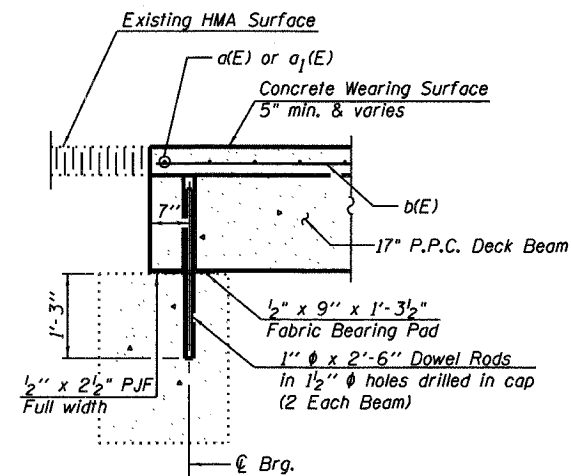


CROSS SECTION
(Looking Upstation)



**SECTION THRU FIXED ABUTMENT
AT APPROACH SLAB**

Notes:
After beams have been erected, holes shall be drilled into substructure and anchor dowels 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.
Dowel rods drilled in caps are included in the cost of Precast Prestressed Conc. Deck Beams (17").



**SECTION THRU FIXED ABUTMENT
AT SHOULDERS**



DESIGNED	RLM
CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

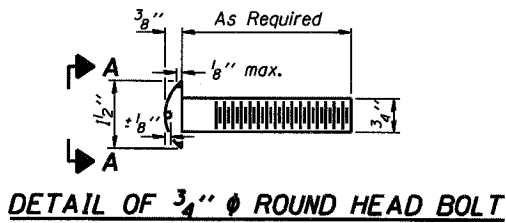
10/04/07

**SUPERSTRUCTURE DETAILS
SECTIONS AND JOINT DETAILS
ILL. ROUTE 34 OVER HOBBS CREEK
F.A.P. ROUTE 778 SECTION 4BR-1
HARDIN COUNTY
STATION 1021+80.00
STRUCTURE NO. 035-0008**

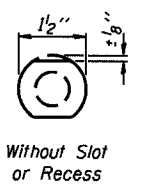
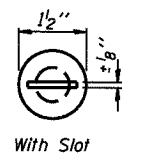
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	POST	SHEET NO. 10
F.A.P. 778	4BR-1	HARDIN	69	55	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

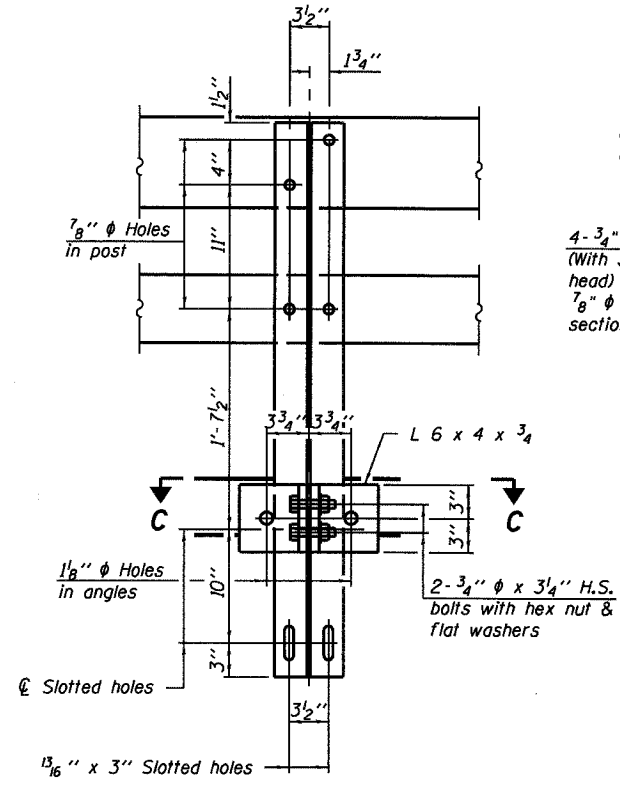
Contract #78023



DETAIL OF 3/4" ϕ ROUND HEAD BOLT



VIEW A-A



SECTION B-B

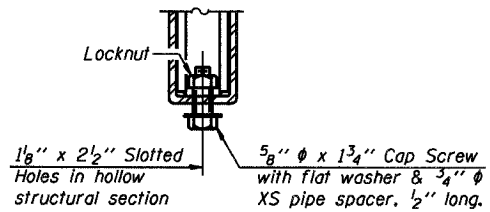
SECTION C-C

4-3/4" ϕ x 6" Round Head Bolts (With slot or approved recess in head) with locknut & flat washer. 7/8" ϕ holes in hollow structural section may be drilled in the field.

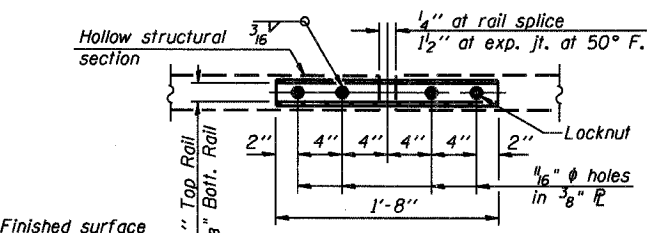
1 1/8" x 5 1/2" slotted hole in post

2-1" ϕ x 7 3/4" AASHTO M-164 anchor bolts with flat washer and lockwasher

2-5/8" ϕ x 5 3/4" cap screws with flat washer



RAIL SPLICE CONNECTION AT EXPANSION JT.



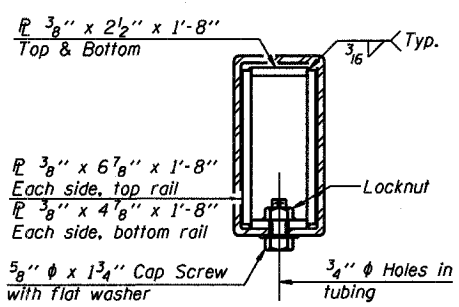
PLAN-BOTT. SPLICE R TYPICAL

1/8" x 2 1/2" Slotted Holes in hollow structural section

5/8" ϕ x 1 3/4" Cap Screw with flat washer & 3/4" ϕ XS pipe spacer, 1/2" long.

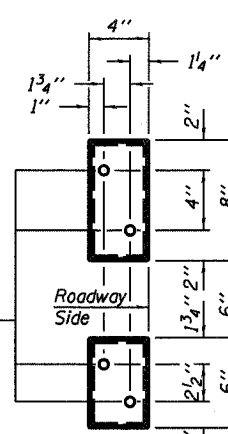
1/2" at rail splice, 1 1/2" at exp. jt. at 50° F.

1/8" 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

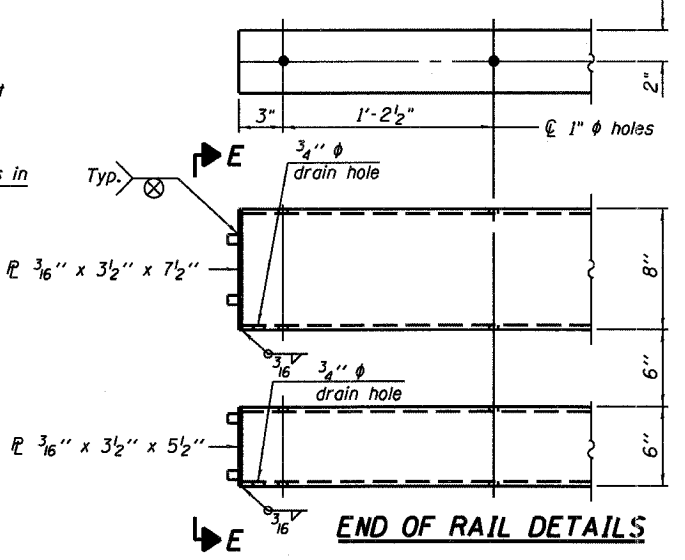


SECTION AT RAIL SPLICE

SECTION AT RAIL SPLICE

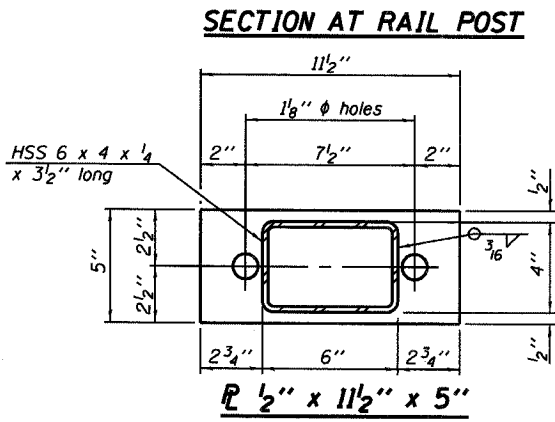


VIEW E-E

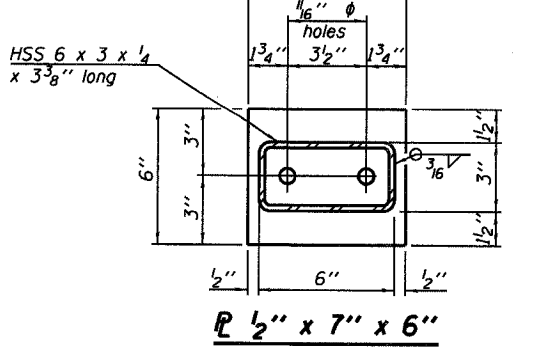


END OF RAIL DETAILS

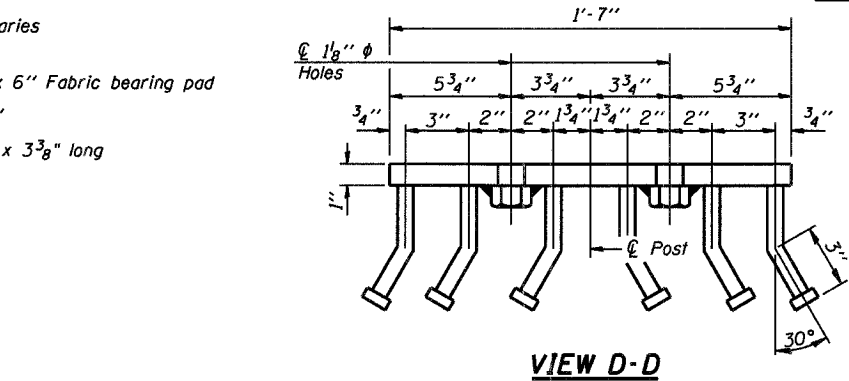
Notes:
Hollow structural sections shall conform to the requirements of ASTM designation A 500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0° F.
All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts and angles shall conform to AASHTO M 270, Grade 50.
Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A 307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M 164.
All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 232.
All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Galvanized rail shall not be painted.
Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for Steel Railing, Type SM.
All field drilled holes shall be coated with an approved zinc rich paint before erection.
The 1" ϕ high strength bolts used to connect the 6" x 4" x " angles to the post shall be tightened according to the Article 505.04(f)(X2) of the Standard Specifications. The 1" ϕ high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional turn. The 5/8" ϕ cap screws in bottom of the post shall be tightened to snug fit only.
See Sheet No. 8 of 12 for rail post spacing.



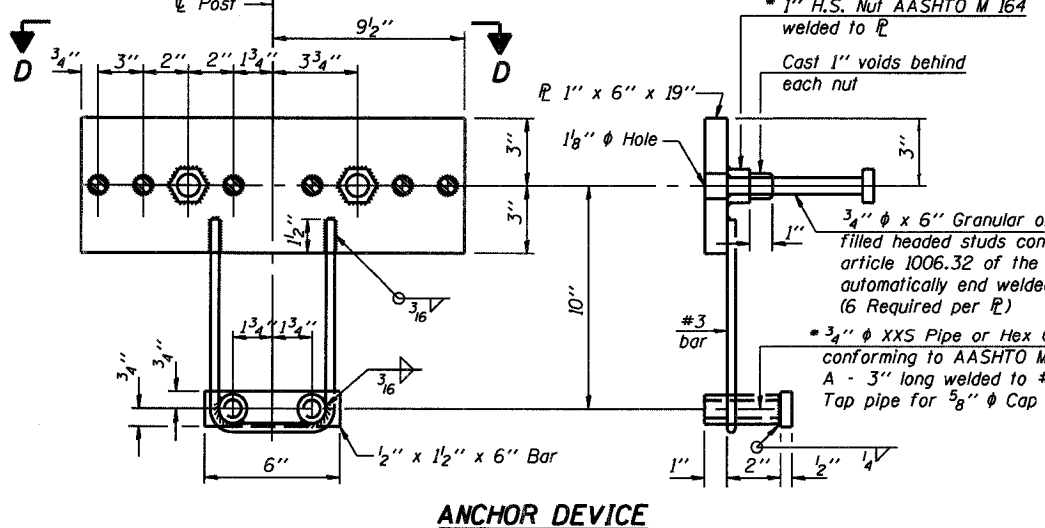
SECTION AT RAIL POST



SECTION AT RAIL POST



VIEW D-D



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	75

STEEL RAILING, TYPE SM
WITH CONCRETE WEARING SURFACE
ILL. ROUTE 34 OVER HOBBS CREEK
F.A.P. ROUTE 778 SECTION 4BR-1
HARDIN COUNTY
STATION 1021+80.00
STRUCTURE NO. 035-0008



DESIGNED	RLM
CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

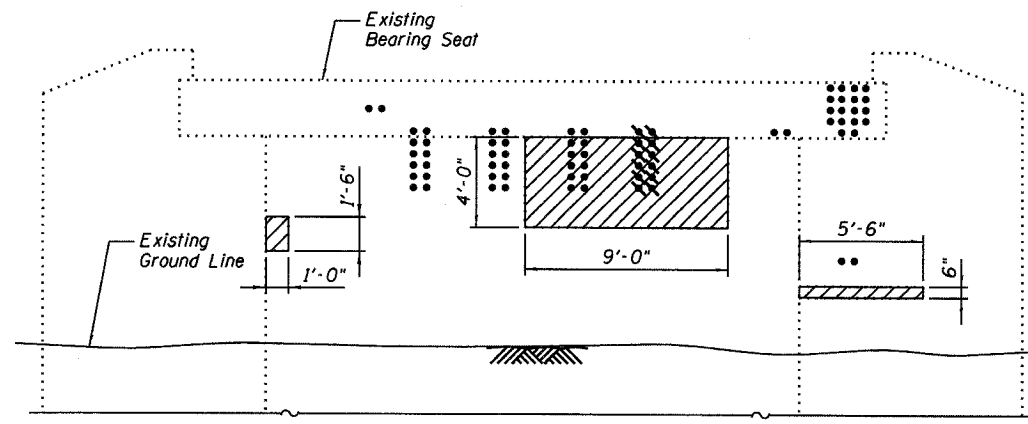
R-34CWS

11-1-06 (6'-3" Maximum Post Spacing) (5" minimum to 7 1/8" maximum CWS thickness)

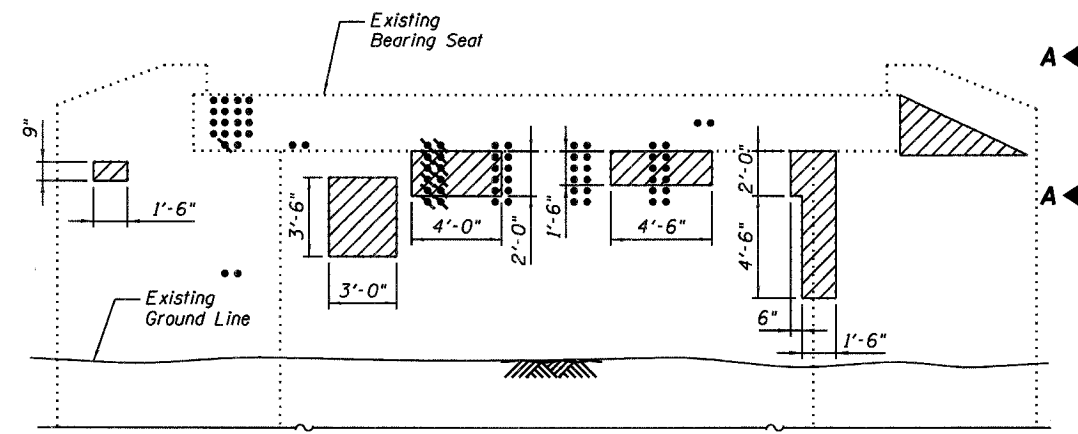
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 778	SECTION 4BR-1	COUNTY HARDIN	SHEET 69	TOTAL SHEETS 56	SHEET NO. 11 12 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

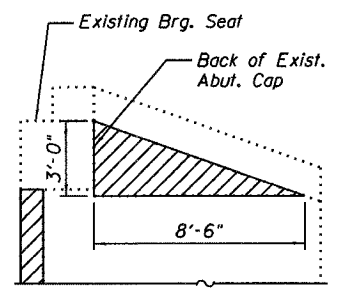
Contract #78023



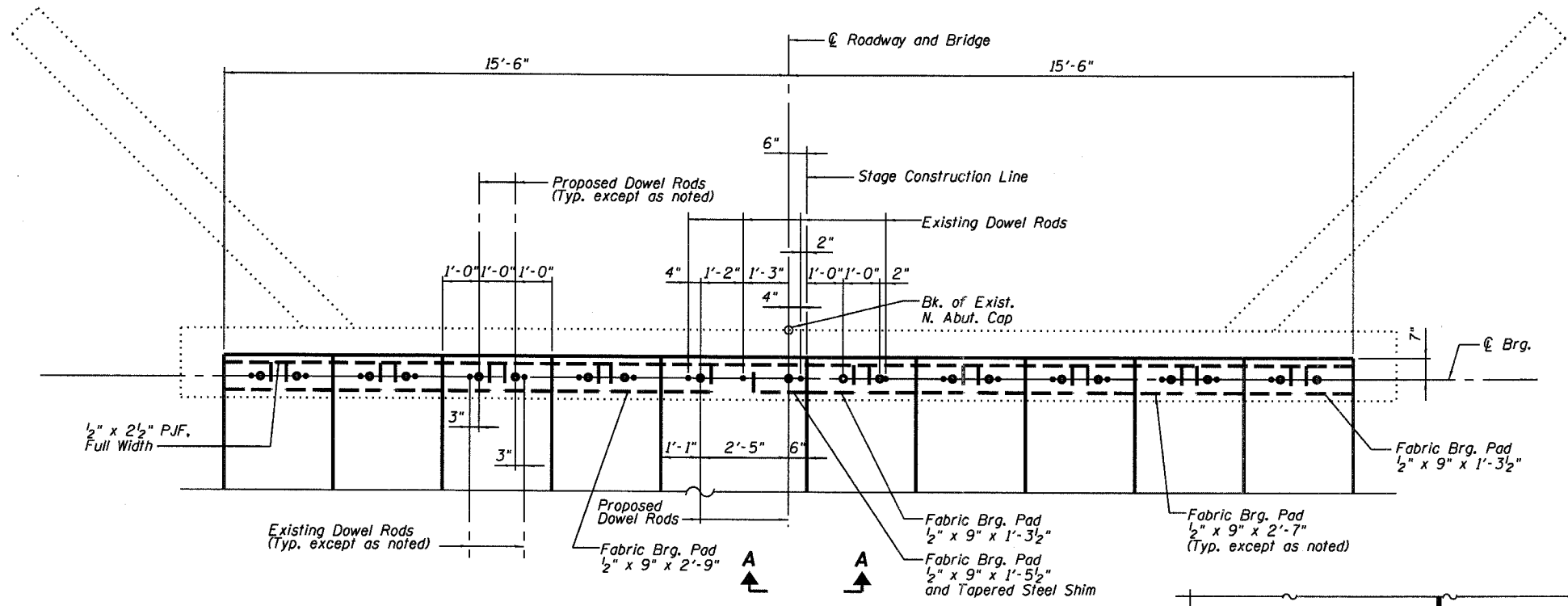
ELEVATION - NORTH ABUTMENT
(Looking North)



ELEVATION - SOUTH ABUTMENT
(Looking South)

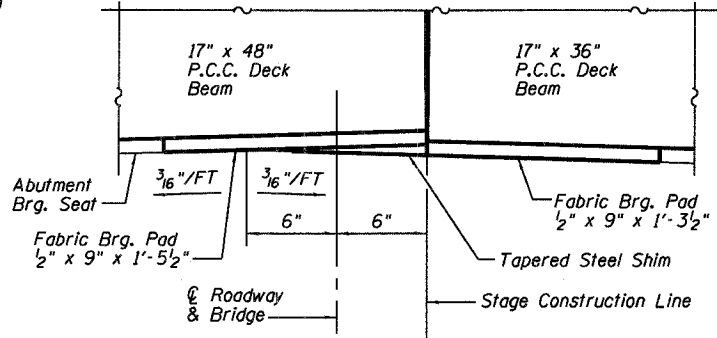


VIEW A-A



PLAN - NORTH ABUTMENT BEARING SEAT
(North Abutment shown, South Abutment similar)

Concrete wearing surface and existing approach pavement not shown for clarity.



SECTION A-A

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth Equal to or less than 5 inches)	Sq. Ft.	91
Concrete Sealer	Sq. Ft.	91

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- Existing Dowel Rod
- Existing 1" ϕ Drilled Hole, 9" Deep
- Proposed Dowel Rod

Notes:
Existing dowel bars shall be burned off flush with the existing concrete face, ground smooth, and sealed with epoxy. Existing dowel bars located within areas of structural concrete repair shall be burned off at the depth to sound concrete and encased by the concrete repair. Cost is included with Removal of Existing Superstructures.
Existing drilled holes shall be filled with an epoxy grout per Article 1027 of the Standard Specifications. Prior to grouting existing drilled holes located within areas of structural concrete repair, all unsound concrete shall be removed. Existing drilled holes shall be grouted to the surface of sound concrete and allowed to cure a minimum of 24 hours prior to placing the structural concrete repair. Cost for grouting existing drilled holes is included with Removal of Existing Superstructures.
Concrete sealer shall be applied to concrete repair areas.



DESIGNED	RLM
CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

10/04/07

SUBSTRUCTURE REPAIRS
ILL. ROUTE 34 OVER HOBBS CREEK
F.A.P. ROUTE 778 SECTION 4BR-1
HARDIN COUNTY
STATION 1021+80.00
STRUCTURE NO. 035-0008

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
F.A.P. 778	4BR-1	HARDIN	69	57
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 12

12 SHEETS

Contract #78023

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length. All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

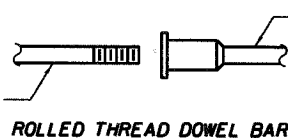
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

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

Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_s = Tensile stress area of lapped reinforcement bars.

* = 28 day concrete

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



ROLLED THREAD DOWEL BAR



** ONE PIECE

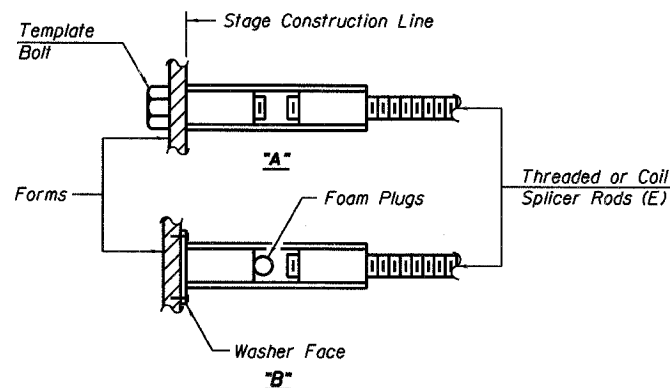
Wire Connector



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

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



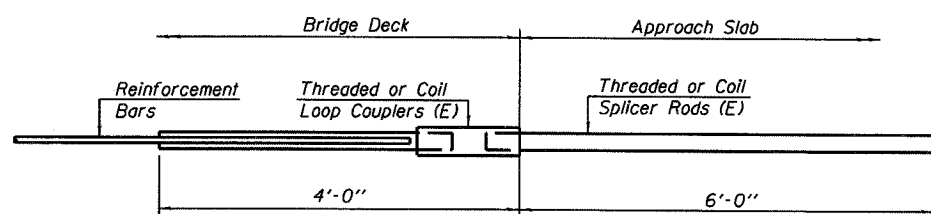
INSTALLATION AND SETTING METHODS

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

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

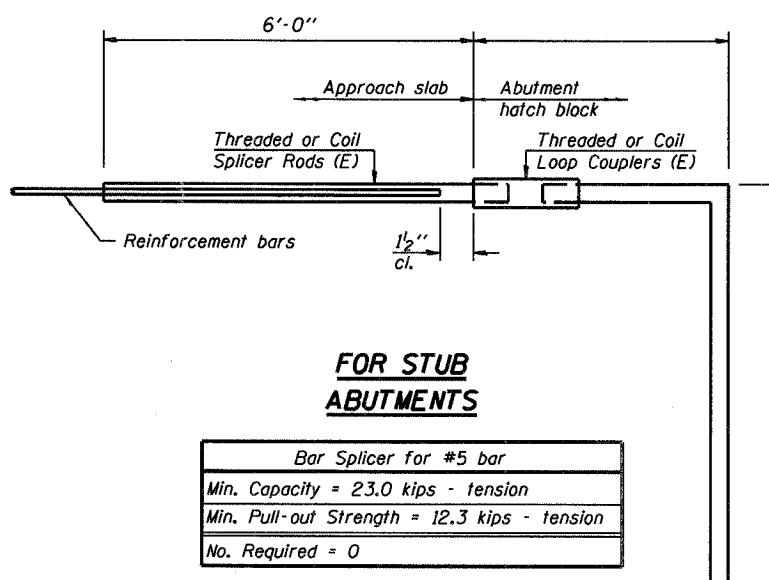
(E) : Indicates epoxy coating.

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



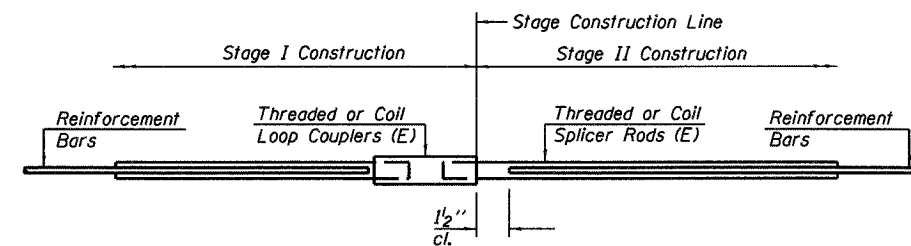
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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	44	Wearing Surface

BAR SPLICER ASSEMBLY DETAILS
ILL. ROUTE 34 OVER HOBBS CREEK
F.A.P. ROUTE 778 SECTION 4BR-1
HARDIN COUNTY
STATION 1021+80.00
STRUCTURE NO. 035-0008



DESIGNED	RLM
CHECKED	MEL
DRAWN	AEC
CHECKED	RLM

BSD-1

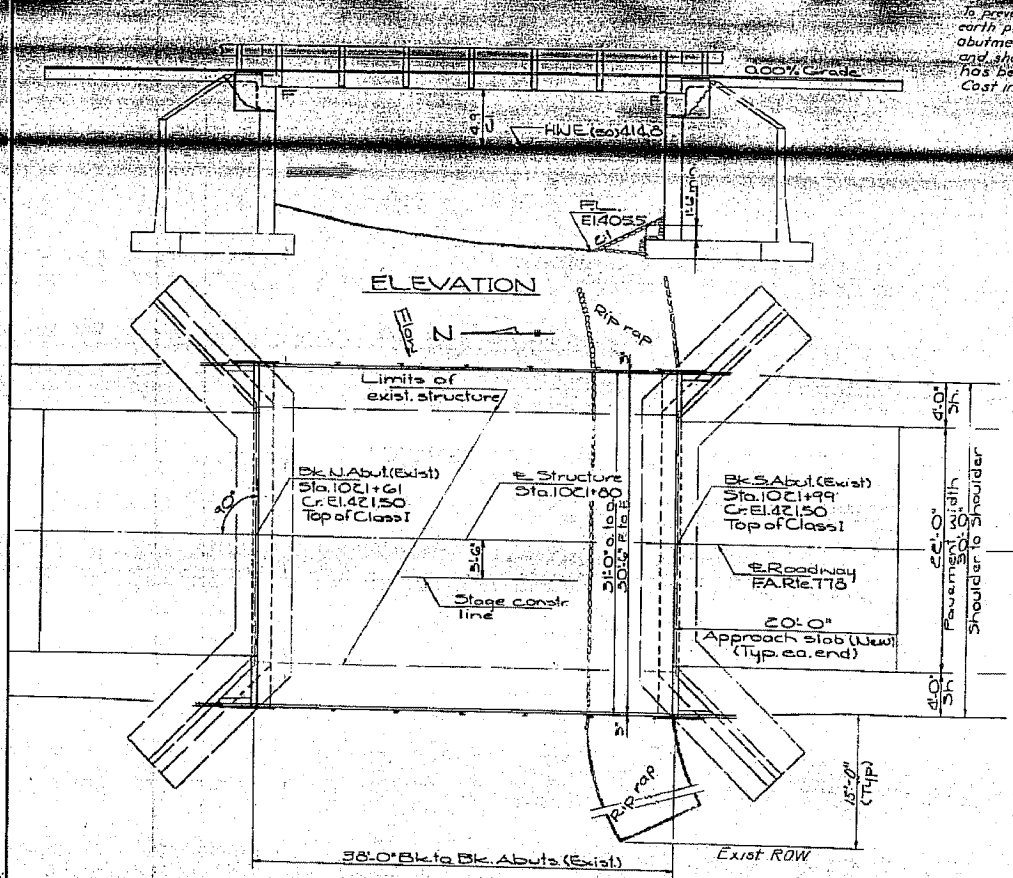
11-1-06

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	4BR-1	HARDIN	69	58
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

Bench Mark: RR spike in PP Rt. of E. 75' back of Wn 554 E14218
 Exist. Structure: No. 035-0008 built as DBI Rte. 34, Sec. 4B in 1923
 RC thru girder span, RC closed abutments.
 The Contractor shall remove the existing superstructure in place and provide a new wider superstructure with RRC deck beams and widen the substructure.
 Traffic shall be maintained at all times utilizing stage construction.
 No salvage.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

778	4BR-1	HARDIN	78	58
-----	-------	--------	----	----



To prevent damage to the abutments from unbalanced earth pressure, adequate struts shall be placed of the abutments before the existing superstructure is removed and shall remain in place until the new superstructure has been erected.
 Cost incidental.

GENERAL NOTES
 The top surface of the beams shall be finished in accordance with Article 505.06 of the Standard Specifications except that the surface shall not be finished to a smooth finish. The bottom surface shall be free of deep corrugations and shall be finished with sharp corners.
 Expansion bolts shall consist of self-drilling expansion anchors and 3/8" x 12" hooked bolts.
 Reinforcement bars shall conform to the requirements of AASHTO M31 Grade 60.
 It shall be the responsibility of the contractor to verify all dimensions and conditions existing prior to construction and ordering of materials.

STATION 1021+80
 REBUILT 197 BY
 STATE OF ILLINOIS
 F.A.R. 778 SEC 4BR
 LOADING HS 20
 STR NO. 035-0008
 NAME PLATE
 See Std. 2113

TOTAL BILL OF MATERIALS

Item	Units	Super	Sub	Total
Class X Concrete	Cu Yds	14.4		14.4
Reinforcement bars	Lbs.	1450		1450
Name Plate	Ea.	1		1
P.P.C. Deck Beams (17)	Sq. Ft.	1157		1157
P.C. Mortar Facing Crs.	Lin. Ft.	336		336
Bit Concr. Surf. Cse. C.I.T.	Tons	11		11
Rem. of Exist. Super-Struct.	Ea.	1		1
Waterproofing Mem. Sys.	Sq. Yds	129		129
Temporary Guardrail	Lin. Ft.	36		36
Steel Railing Type S	Lin. Ft.	75		75
Concrete Removal	Cu. Yds		7	7
Temporary Support System	L. Sum		1	1
Expansion Bolts 3/8"	Ea.		52	52
Stone Riprap	Sq. Yds		60.0	60.0

*See Special Provision.

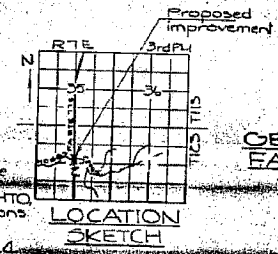
WATERWAY INFORMATION
 Drainage Area 2.83 Sq. Mile
 Design Discharge (50yr) 1530 cfs
 Existing Opening 299.52 FT
 Required Opening 299.52 FT
 Proposed Opening (below 50yr HWE) 299.52 FT
 Created Head for Design Flood (50yr) 0.17' @ 100 Year Discharge
 Created Head for 100 Year Flood 0.30' HWE (100yr)
 415.14

DESIGN STRESSES
 f_c = 5000 psi
 f_y = 60,000 psi - Reinf.

PRECAST PRESTRESSED UNITS
 f_c = 5000 psi
 f_c = 4000 psi
 f_s = 270,000 psi - 1/2" strands
 f_s = 189,000 psi - 1/2" strands
 Allow 25 lbs/sq ft for future wearing surface

Design Specifications - 1973 AASHTO
 1974, 1975, 1976 & 1977 Interim Specifications

DESIGN LOADING: HS20-44



GENERAL PLAN & ELEVATION
 F.A.R. 778 OVER HOBBS CREEK
 EA ROUTE 778
 SECTION 4BR-DR
 HARDIN COUNTY
 STATION 1021+80

DESIGNED: D.R. Gattard
 CHECKED: J. R. Babin
 DRAWN: DAG
 CHECKED: JLR
 February 19 1978
 EXP. ENG. Carl Chapman
 PASSED

PLOT DATE
 FILE NAME
 PLOT SCALE
 USER NAME



10/04/07

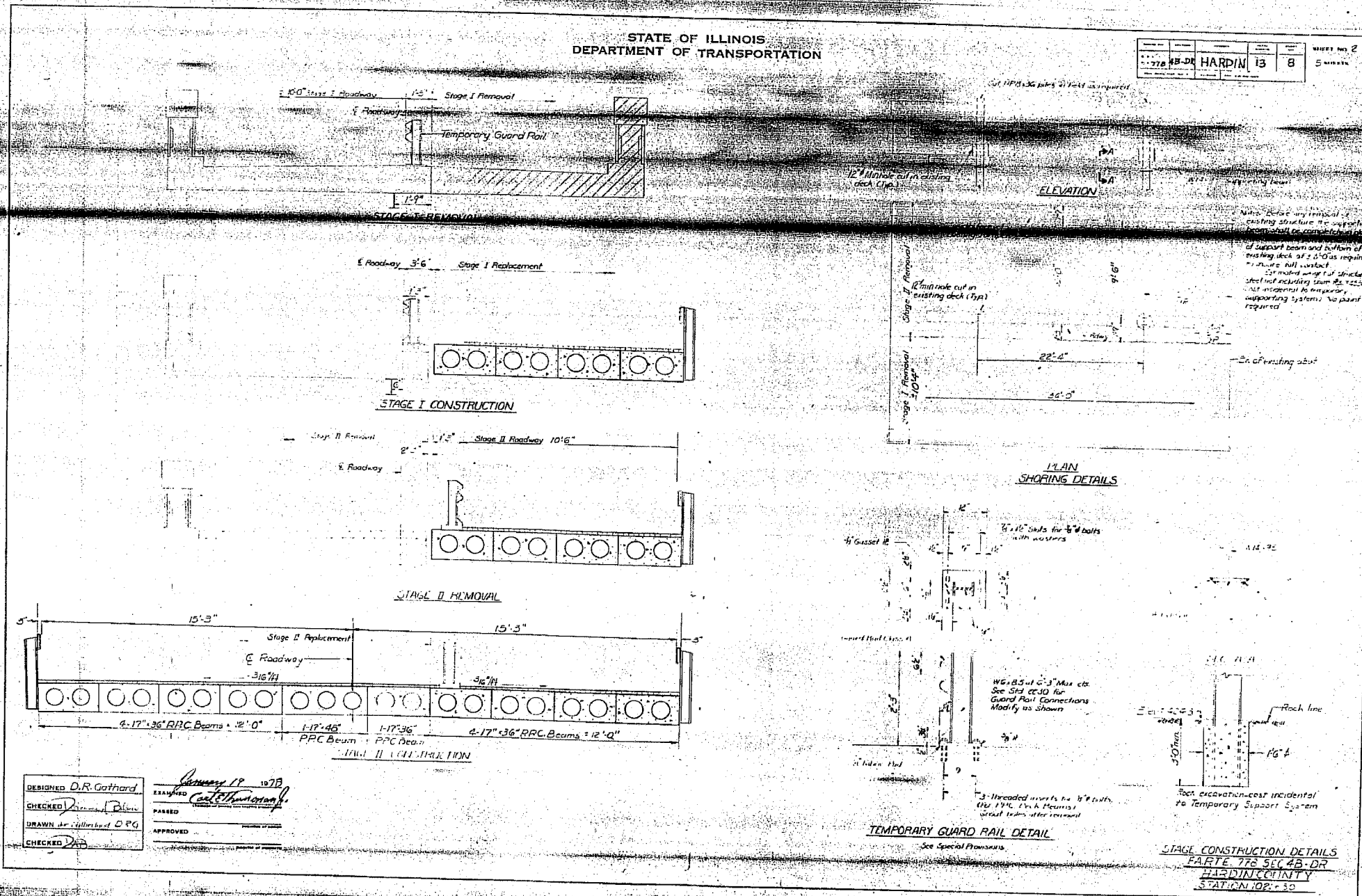
FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
 F.A.P. ROUTE 778 (IL ROUTE 34)
 SECTION 4BR-1
 HARDIN COUNTY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	4BR-1	HARDIN	69	59
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

778	4B-DR	HARDIN	13	8	SHEET NO. 2
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DESIGNED D.R. Gathard
 CHECKED Ronald J. Blinn
 DRAWN BY William O. PG
 CHECKED DAB

DESIGNED January 19, 1978
 CHECKED Carl Thompson
 PASSED
 APPROVED

PRINT DATE
 FILE NAME
 PLOT SCALE
 USER NAME



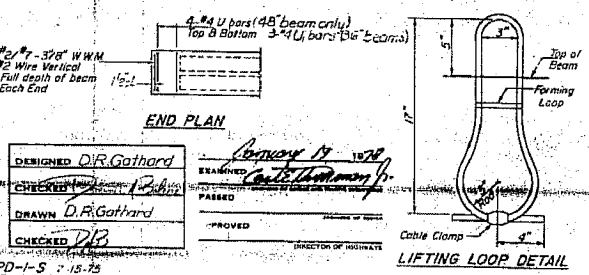
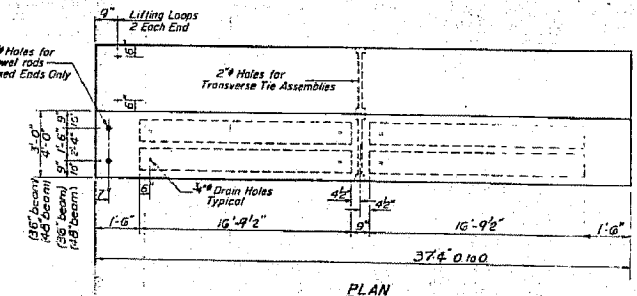
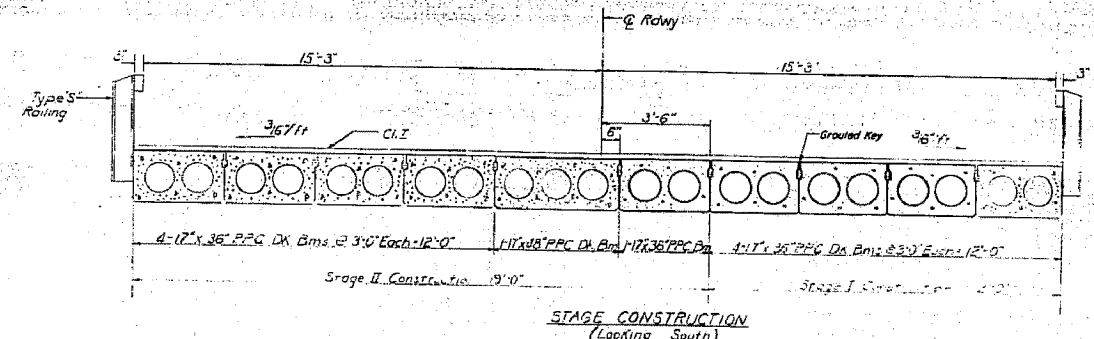
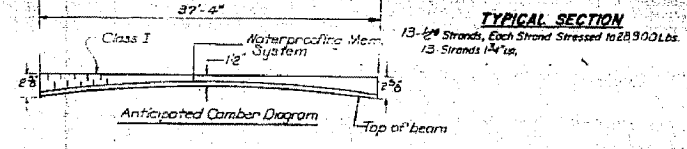
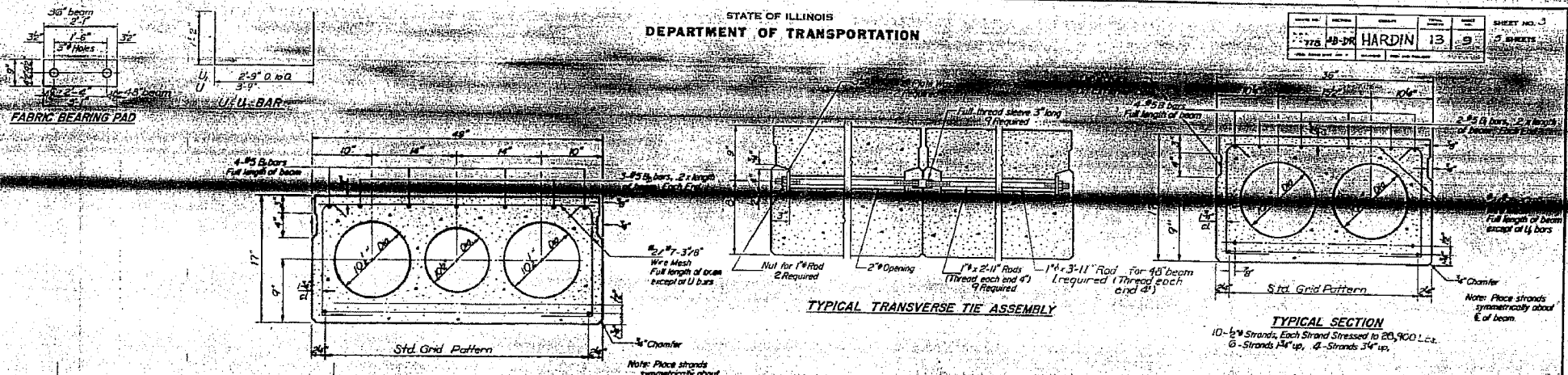
FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
 F.A.P. ROUTE 778 (IL ROUTE 34)
 SECTION 4BR-1
 HARDIN COUNTY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	4BR-1	HARDIN	69	60
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

778	4BR-1	HARDIN	13	9
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DESIGNED *D.R. Gathard*
CHECKED *D.P.B.*
DRAWN *D.R. Gathard*
CHECKED *D.P.B.*

EXAMINED *Carole Thompson*
PASSED

APPROVED

PD-1-S 11-15-75

NOTES

Pressing steel shall be non-polluted high strength, stress-relieved 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.033 sq in. Lifting loops shall be 1/2" diameter, 6x25 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 21,000 lbs.

The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

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.

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

BILL OF MATERIAL

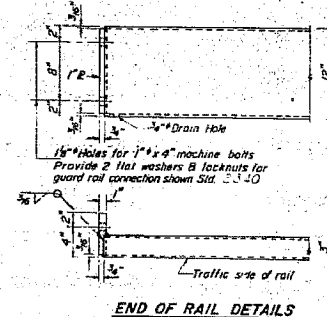
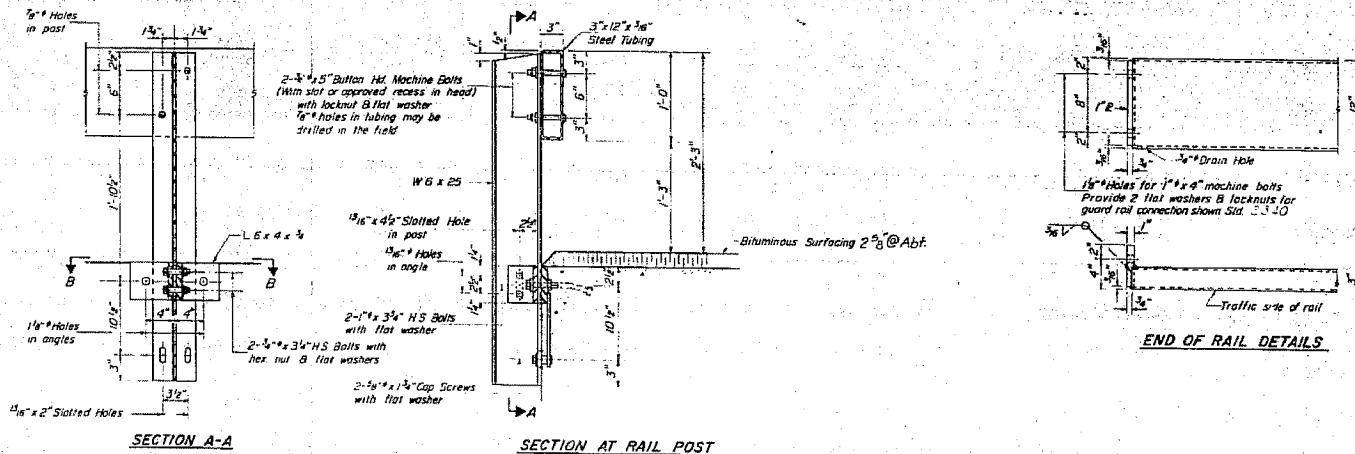
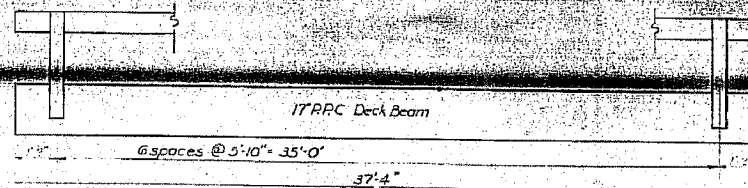
Bar	No.	Size	Length	Shape
Precast Prestressed Concrete Deck Beams	7-16	Sq Ft.	1008	
P.P.C. Deck Beams	7-48	Sq Ft.	169	

BEAM DETAILS
PART 778 SEC 4BR
HARDIN COUNTY
STATION 1021+80

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	4BR-1	HARDIN	69	61
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

778	4BR-DR	HARDIN	13	10
SHEET NO. 13 OF 13 SHEETS				



NOTES

Hollow structural steel tubing shall conform to the requirements of ASTM designation A-500 Grade B or A-501 Structural Steel Tubing.

All other steel shapes and plates shall conform to the requirements of AASHTO M-163 except posts shall conform to AASHTO M-188.

Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A-307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M-29.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized in accordance with AASHTO M-232.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with AASHTO M-111 and ASTM A-395.

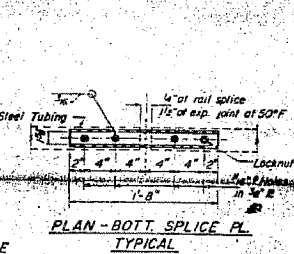
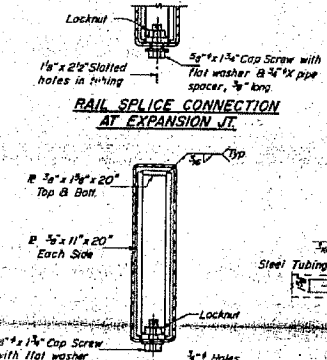
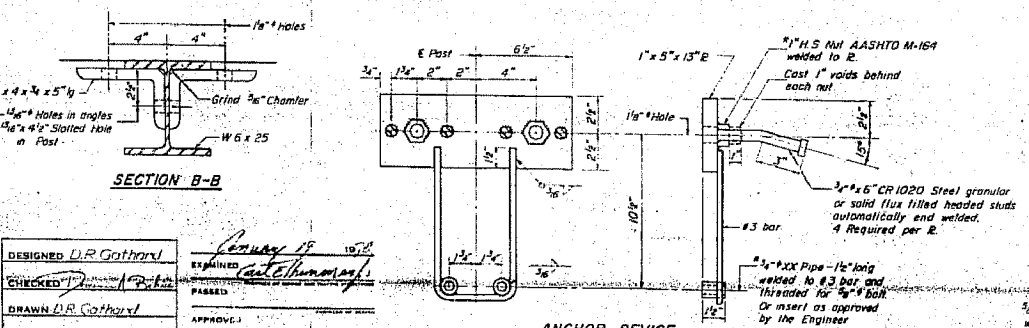
Galvanized metal shall not be painted.

Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per linear foot for STEEL RAILING, TYPE S.

All field drilled holes shall be coated with an approved zinc rich paint before erection.

The lower portion of the post flange in contact with concrete shall receive two coats of asphalt paint conforming to Section 714.02 Type B or twice 1/2" fabric bedding pad between the post and concrete.

The 1/2" high strength bolts used to connect the 6 x 4 x 1/2 angles to the post shall be tightened in accordance with Article 507.04(g)(3) of the Standard Specifications. The 1/2" high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/4 turn.



BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S	Lin Ft.	75

**TYPE S
STEEL RAILING**
FA RTE 778 SEC 4B-DR
HARDIN COUNTY
STATION 1021+80

PLAN - BOTT. SPLICE PL. TYPICAL

DESIGNED: D.R. Gathard
CHECKED: J.P. [Signature]
DRAWN: D.R. Gathard
APPROVED: [Signature]

R-23 8-1-76 (6'-3" Maximum Post Spacing)

ANCHOR DEVICE
* Threaded areas shall be plugged or blocked off during casting of beam

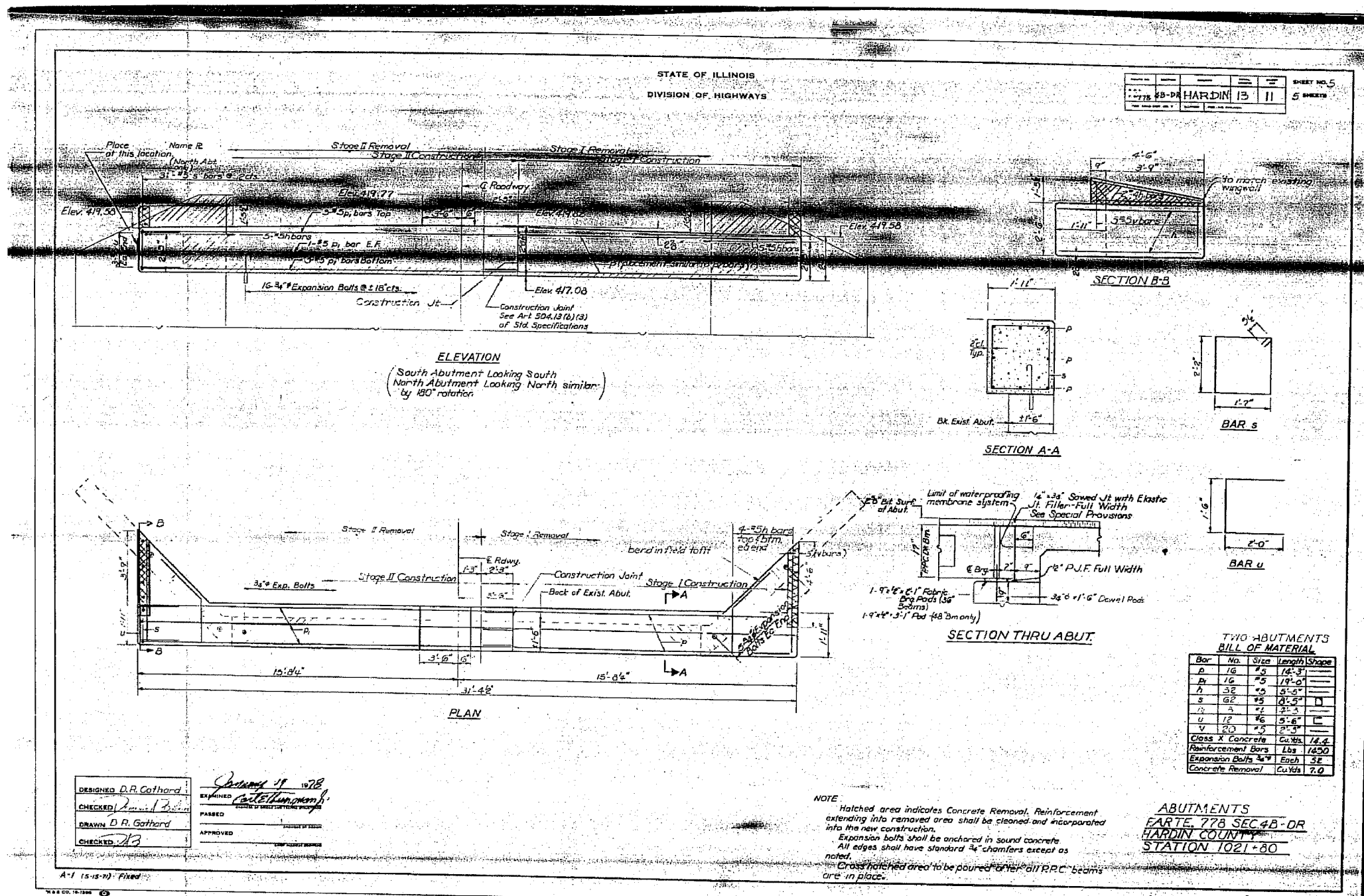
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FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
F.A.P. ROUTE 778 (IL ROUTE 34)
SECTION 4BR-1
HARDIN COUNTY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	4BR-1	HARDIN	69	62
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		



PLOT DATE
FILE NAME
PLOT SCALE
USER NAME



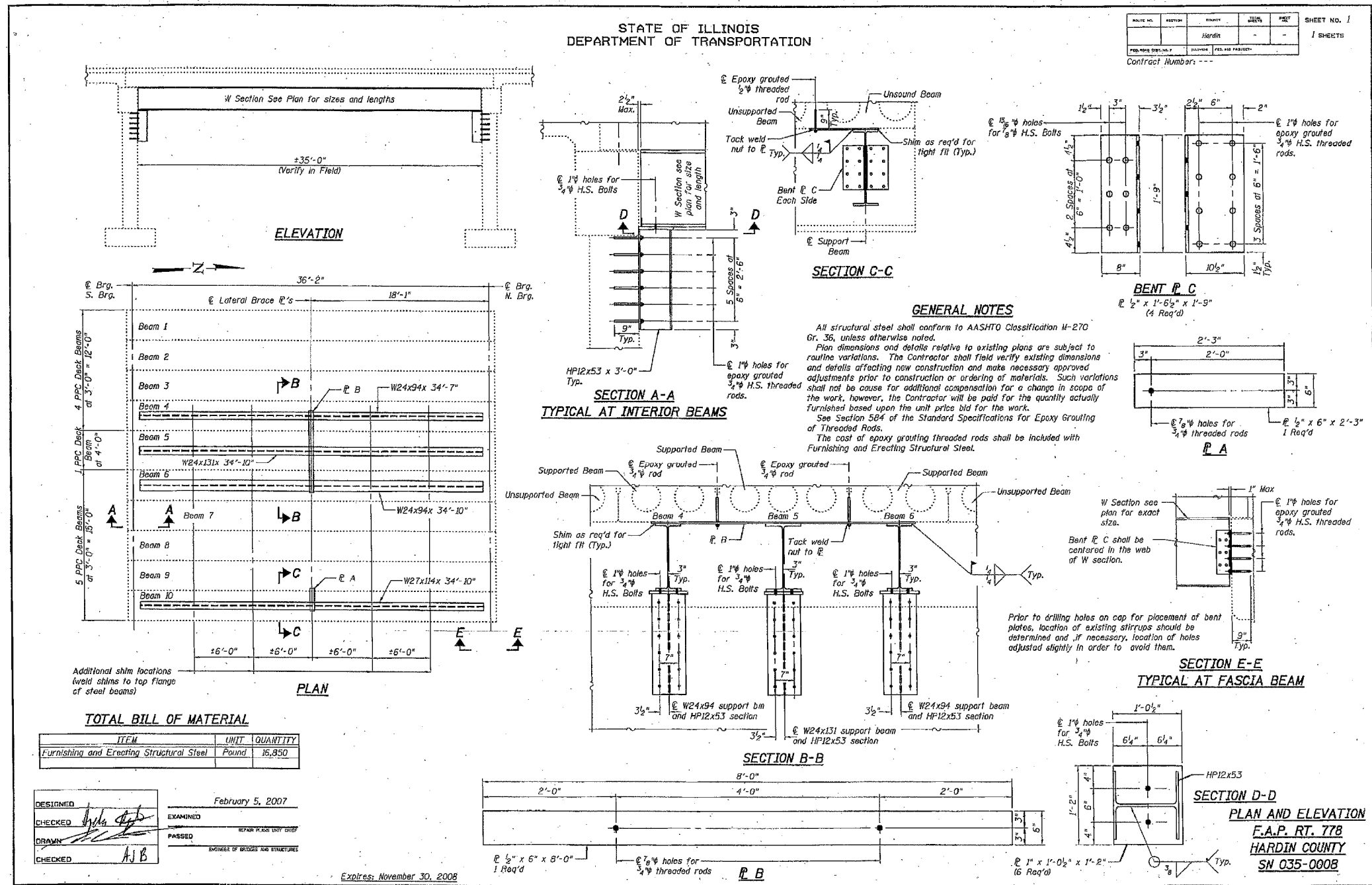
FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
F.A.P. ROUTE 778 (IL ROUTE 34)
SECTION 4BR-1
HARDIN COUNTY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	4BR-1	HARDIN	69	63
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

DATE	REVISION	BY	CHKD.	APP'D.	SHEET NO.
					1
1 SHEETS					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	Pound	16,950

DESIGNED	February 5, 2007
CHECKED	EXAMINED
DRAWN	PASSED
CHECKED	APPROVED

Expires November 30, 2008

SLT-99-001-07

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PLT NAME
PLT SCALE
USER NAME



10/04/07

FOR INFORMATION ONLY

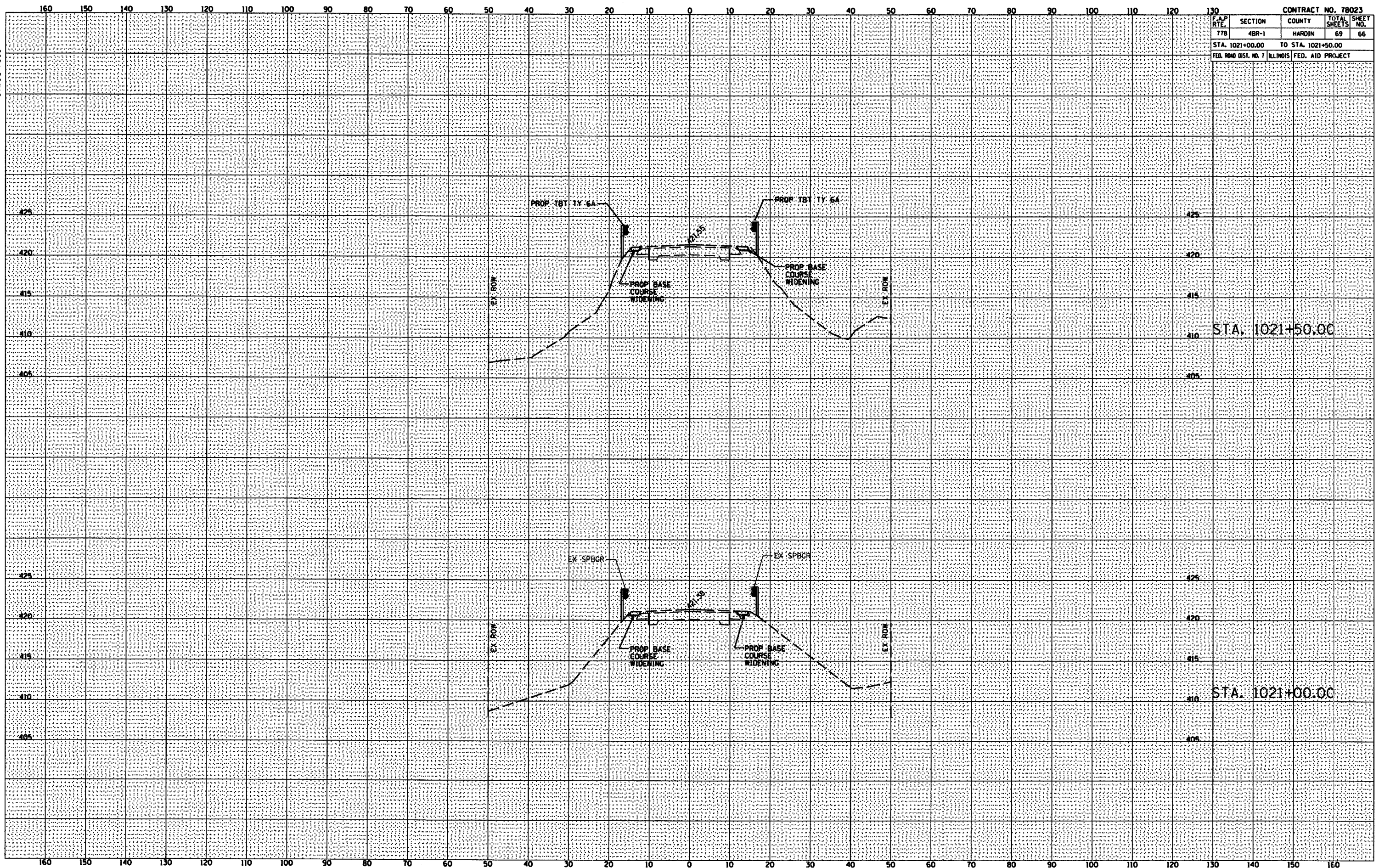
EXISTING STRUCTURE PLANS
F.A.P. ROUTE 778 (IL ROUTE 34)
SECTION 4BR-1
HARDIN COUNTY



DATE	
BY	
REVISIONS	
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DATE	
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REVISIONS	
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DATE	
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DATE	
BY	
REVISIONS	
NO.	

PLOT DATE: _____
 FILE NAME: _____
 USER NAME: _____



CONTRACT NO. 78023				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	4BR-1	HARDIN	69	66
STA. 1021+00.00		TO STA. 1021+50.00		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

STA. 1021+50.00

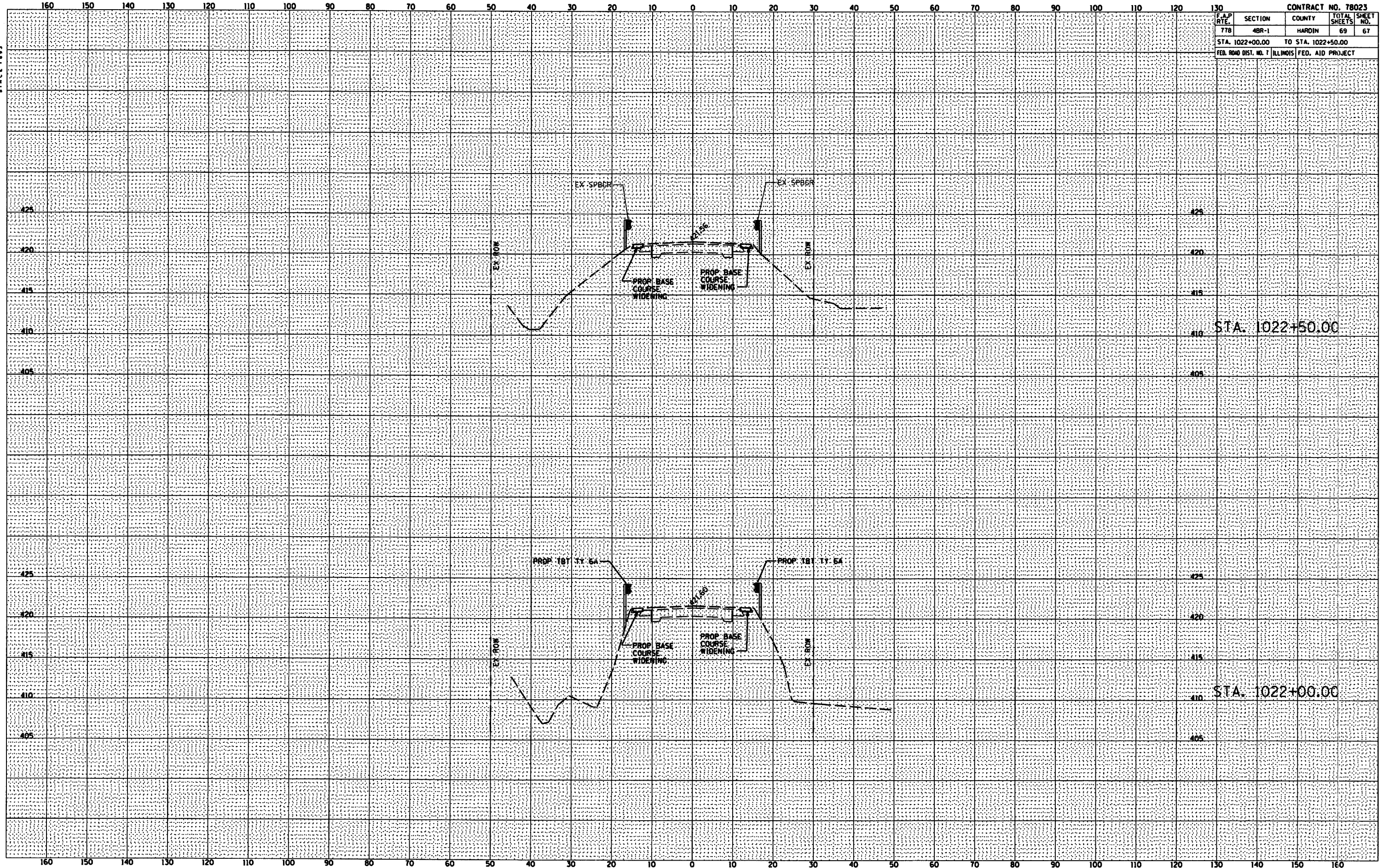
STA. 1021+00.00



FINAL	DATE
SURVEY	
PLOTTED	
TEMPLATE	
NOTES	
CHECKED	

ORIGINAL	DATE
SURVEY	
PLOTTED	
TEMPLATE	
NOTES	
CHECKED	

PLOT DATE: 04/01/04
FILE NAME: 1022+00.00
USER NAME: JMS



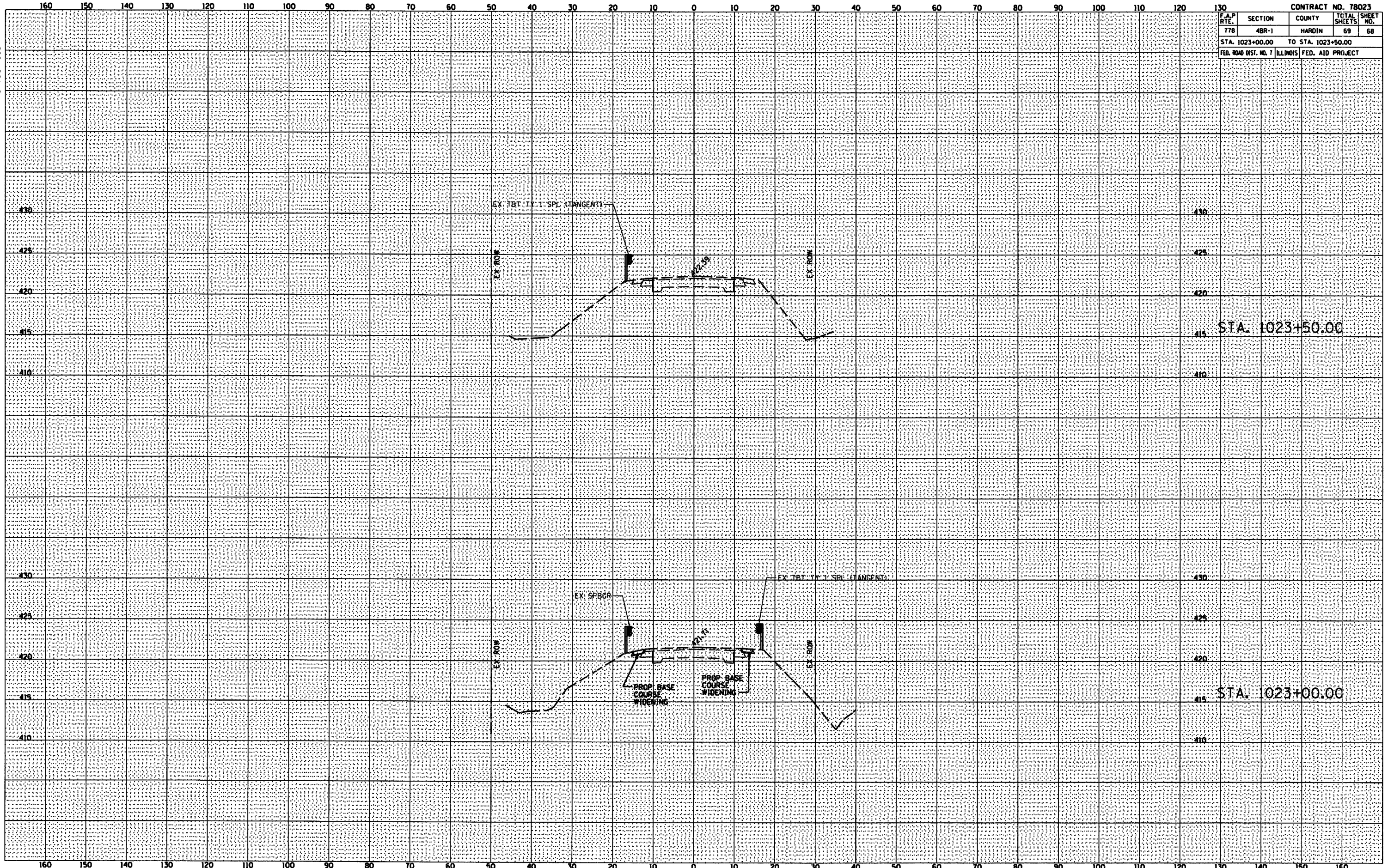
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778	4BR-1	HARDIN	69	67
STA. 1022+00.00		TO STA. 1022+50.00		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		



DATE	
BY	
FINAL SHEET	
REVISIONS	
NO.	

DATE	
BY	
ORIGINAL SHEET	
REVISIONS	
NO.	

PLOT DATE: _____
 PLOT SCALE: _____
 USER NAME: _____



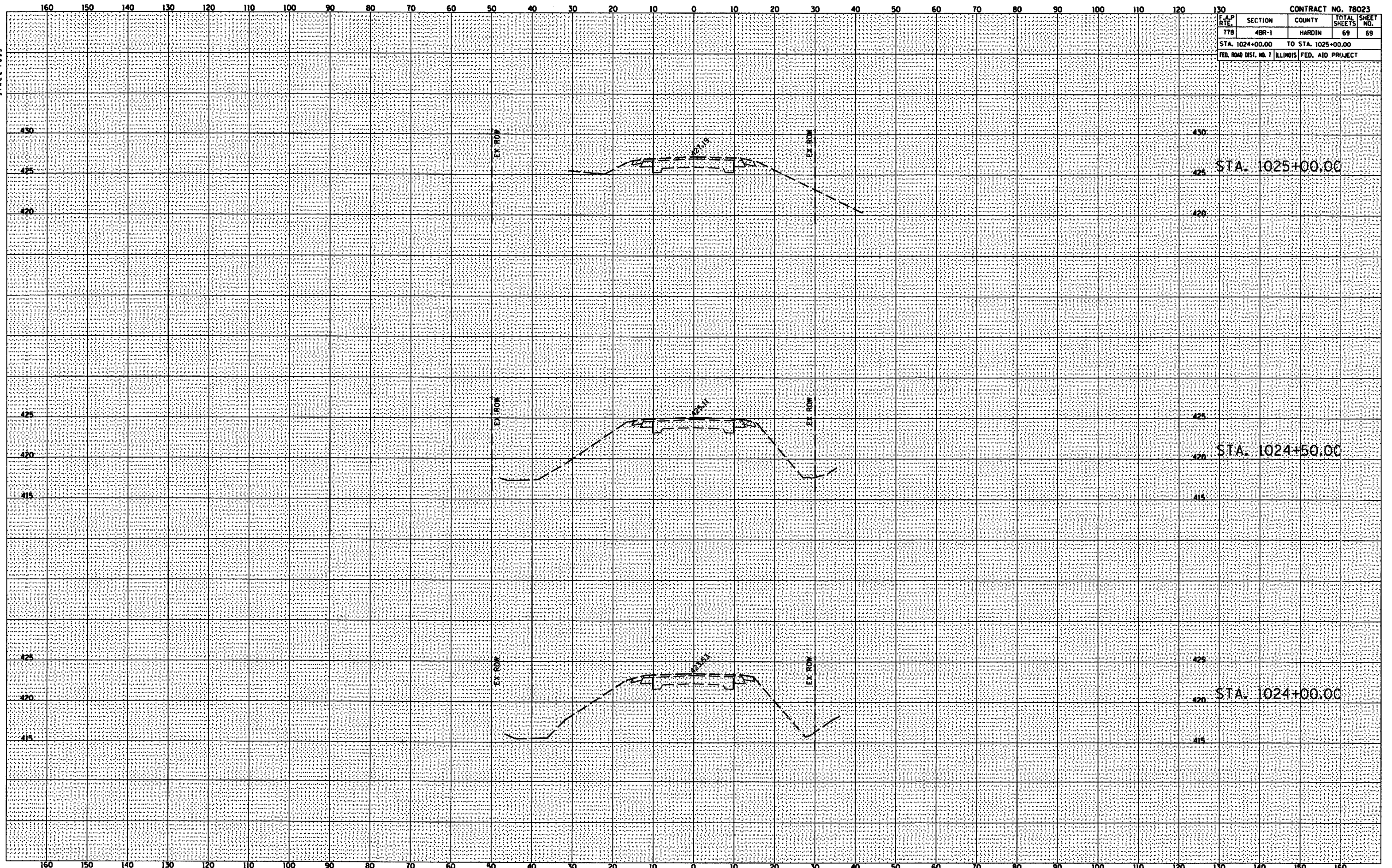
CONTRACT NO. 78023				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	4BR-1	HARDIN	69	68
STA. 1023+00.00 TO STA. 1023+50.00				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				



FINAL SURVEY	DATE
NO. _____	BY _____
NO. _____	DATE _____
NO. _____	DATE _____
NO. _____	DATE _____

ORIGINAL SURVEY	DATE
NO. _____	BY _____
NO. _____	DATE _____
NO. _____	DATE _____
NO. _____	DATE _____

PLOT DATE: _____
PLOT NAME: _____
PLOT NUMBER: _____
USER NAME: _____



CONTRACT NO. 78023				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
778	4BR-1	HARDIN	69	69
STA. 1024+00.00		TO STA. 1025+00.00		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		