

CONTRACT: 70344 D-95-054-03	F.A.P. RTE. 326	SECTION (129BR-3)BR	COUNTY CHAMPAIGN	TOTAL SHEETS 30	SHEET NO. 1
STA.		TO STA.			
FED. ROAD DIST. NO. 7 ILLINOIS F.A. PROJECT					

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
PLANS FOR PROPOSED  
FEDERAL AID HIGHWAY**

SCALES { PLAN 1 INCH = 20 FEET  
PROFILE HORIZ. 1 INCH = 20 FEET  
PROFILE VERT. 1 INCH = 5 FEET  
CROSS SECTIONS HORIZ. 1 INCH = 10 FEET  
CROSS SECTIONS VERT. 1 INCH = 5 FEET

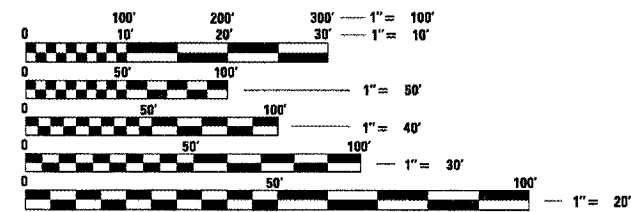
**CHAMPAIGN COUNTY, ILLINOIS  
SECTION NO. (129BR-3)BR  
PROJECT NO. BRF-0326(064)  
BRIDGE REPLACEMENT  
JOB NO. C-95-110-03  
IL 47  
F.A.P. ROUTE 326**

**INDEX OF SHEETS**

SHEET NO.	TITLE
1	COVER SHEET
2	GENERAL NOTES
3	SUMMARY OF QUANTITIES
4	SCHEDULE OF QUANTITIES
5	EXISTING & PROPOSED TYPICAL SECTIONS
6	ALIGNMENT, TIES, AND BENCHMARKS
7	EXISTING ROADWAY AND REMOVAL
8	PROPOSED PLAN AND PROFILE
9-10	DETOUR PLANS
11	MISCELLANEOUS DETAILS
12-28	BRIDGE PLANS
29-30	CROSS SECTIONS

**LIST OF IDOT STANDARD DRAWINGS**

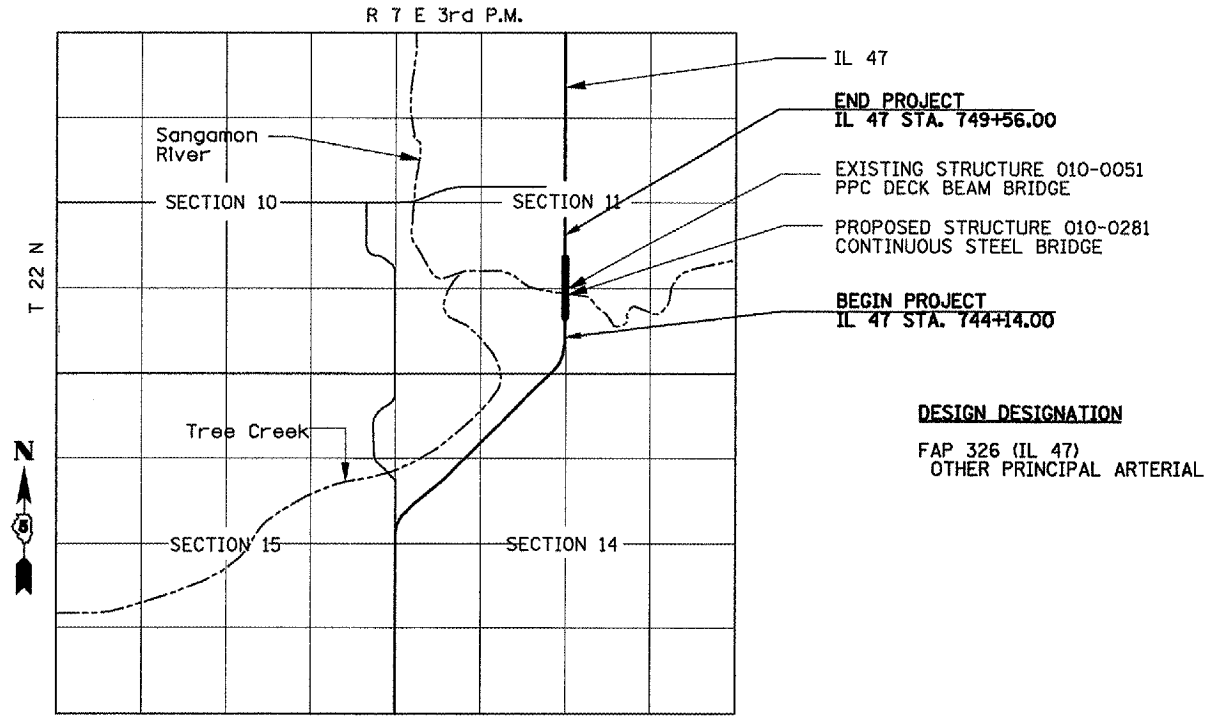
STD. NO.	TITLE
000001-04	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001	AREAS OF REINFORCEMENT REBARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-02	TEMPORARY EROSION CONTROL SYSTEMS
420001-06	PAVEMENT JOINTS
420401-05	BRIDGE APPROACH PAVEMENT
421001-01	BAR REINFORCEMENT FOR CRC PAVEMENT
482011-01	BIT. SHLD. STRIPS/SHLDS. WITH RESURFACING OR WIDENING AND RESURFACING PROJECTS
515001-02	NAME PLATE FOR BRIDGE
609001-02	BRIDGE APPROACH SHOULDER PAVEMENT AND DRAIN
630001-06	STEEL PLATE BEAM GUARDRAIL
631031-05	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-01	REFLECTOR MARKER AND MOUNTING DETAILS
667101	PERMANENT SURVEY MARKERS
701301-02	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-02	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS-DAY ONLY
702001-06	TRAFFIC CONTROL DEVICES
780001-01	TYPICAL PAVEMENT MARKINGS
781001-02	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS



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.

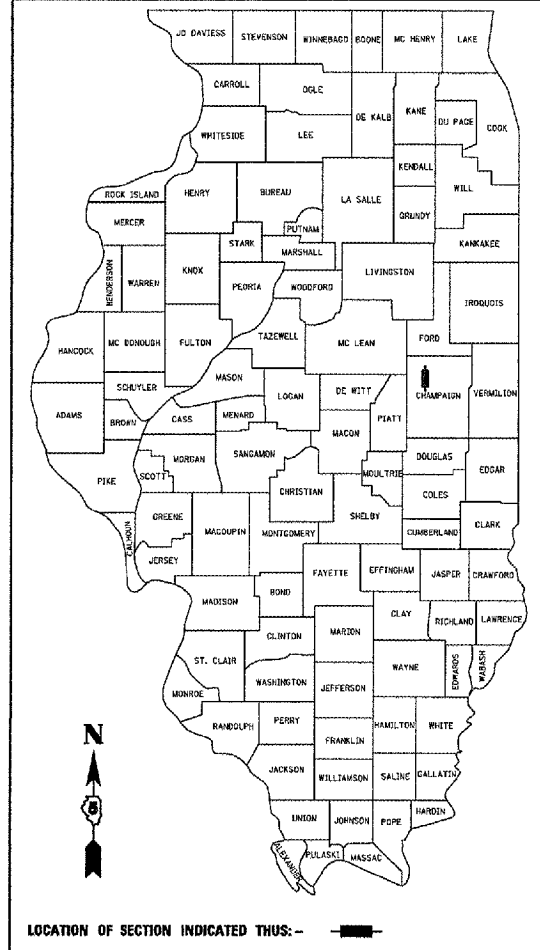
J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123

**CONTRACT NO. 70344**



LOCATION MAP  
SCALE: N.T.S.

TOTAL AND NET LENGTH OF PROJECT = 542.00 FEET = 0.103 MILES



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED Aug 29, 2006  
*[Signature]*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

October 13, 2006  
*[Signature]*  
ENGINEER OF DESIGN AND ENVIRONMENT

October 13, 2006  
*[Signature]*  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS**

*[Signature]*  
PROFESSIONAL ENGINEER  
CLARK DIETZ, INC.  
DATE: 18 AUG 06  
LICENSE EXPIRES 11-30-07



**Clark Dietz**  
ENGINEERS  
DESIGN FIRM REGISTRATION  
NO. 184-000450

1817 SOUTH NEIL STREET  
SUITE 100  
CHAMPAIGN, ILLINOIS 61820  
T: 217.373.8900  
F: 217.373.8923

PROJECT ENGINEER: KENSIL A. GARNETT (217) 465-4181  
CONSULTANT LIASON: NANCY J. FASIC

# GENERAL NOTES

CONTRACT NO. 70344

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	(129BR-3)BR	CHAMPAIGN	30	2
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

**G.N.-100**  
ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

**G.N.-105.09A**  
ALL ELEVATIONS SHOWN IN THE PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988. (NAVD 88)

**G.N.-107.31**  
UTILITY LINES WERE PLOTTED FROM INFORMATION FURNISHED BY THE VARIOUS UTILITY COMPANIES INVOLVED (QUALITY LEVEL C &/OR QUALITY LEVEL D) AND THE ACCURACY SHOULD BE CONSIDERED APPROXIMATE ONLY.

UTILITY COMPANIES MAY BE ADJUSTING THEIR FACILITIES DURING CONSTRUCTION. THE CONTRACTOR SHALL COOPERATE WITH THESE ORGANIZATIONS WHILE THESE ADJUSTMENTS ARE BEING PERFORMED. J.U.L.I.E. - JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS SYSTEM (800)892-0123.

**G.N.-205**  
BENCHING PROCEDURES SHALL BE USED IN AREAS WHERE EXISTING EMBANKMENTS ARE WIDENED FOR THE PROPOSED PAVEMENT. STEPS SHALL BE CUT INTO THE EXISTING EMBANKMENT SLOPES AND SHALL HAVE THE FOLLOWING DIMENSIONS:  
HORIZONTAL: 8 FT. (MIN.) - 12 FT. (MAX.)  
VERTICAL: 2 FT. (MAX.)

**G.N.-250C**  
SEEDING, CLASS 7 AND MULCH, METHOD 2 IS INCLUDED IN THIS CONTRACT TO SEED NEW EARTH SHOULDERS DURING TIME PERIODS WHEN PERMANENT SEEDING IS NOT ALLOWED. SOME OR ALL OF THE CLASS 7 SEEDING AND MULCH WILL BE DELETED IF IT IS POSSIBLE TO PLACE PERMANENT SEEDING ON EARTH SHOULDERS AT THE TIME OF THEIR COMPLETION.

**G.N.-281**  
THE RIPRAP GRADATION SHALL BE IN ACCORDANCE WITH THE GRADATION SPECIFIED IN THE PLANS OR, WITH APPROVAL OF THE ENGINEER, A RIPRAP GRADATION MEETING A D50 GREATER THAN OR EQUAL TO 0.8 FEET FOR A4 AND 1.0 FEET FOR A5. D50 IS DEFINED AS THE MEAN ROCK SIZE AS DESCRIBED IN THE FHWA HYDRAULIC ENGINEERING CIRCULARS (HEC 11, HEC 14 AND HEC 15).

IF GRAVEL IS USED FOR THE BEDDING MATERIAL UNDER RIPRAP, THE GRAVEL SHALL BE CRUSHED AS ALLOWED UNDER ARTICLE 1005.01.

**G.N.-406**  
THE QUANTITIES INCLUDED IN THE PLANS FOR BITUMINOUS CONCRETE RESURFACING ARE INTENDED TO GIVE THE COVERAGE SHOWN ON THE TYPICAL CROSS SECTIONS. IT IS NOT INTENDED TO INCREASE THE THICKNESS OF THE BITUMINOUS MIXTURE IN ORDER TO USE ALL OF THE QUANTITIES INCLUDED IN THE CONTRACT.

**G.N.-406D**  
ALL LEVELING BINDER OR BINDER SHALL BE GIVEN A FOG COAT OF PRIME BEFORE THE SURFACE COURSE IS PLACED WHEN DIRECTED BY THE ENGINEER.

THE FOG COAT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER GALLON FOR BITUMINOUS MATERIAL (PRIME COAT) AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

**G.N. -406H**  
MIXTURE REQUIREMENTS

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

LOCATION	IL 47	IL 47	IL 47
MIXTURE USE	SURFACE & TOP 1 1/2" of BIT SHLDRS	BINDER & FLEX CONN.	BOTTOM LIFT OF SHLDRS
AC/PG	PG 64-22	PG 64-22	PG 58-22
RAP% (MAX)	10	15	30
DESIGN AIR VOIDS	4.0% @ Ndes=70	4.0% @ Ndes=70	2.0% @ Ndes=30
MIX COMP (GRADATION)	IL 9.5	IL 19.0	B.A.M.
FRICION/AGGREGATE	MIX C	N.A.	N.A.

**G.N.-482**  
ALL MATERIAL PLACED AS BITUMINOUS SHOULDERS SUPERPAVE SHALL BE COMPACTED TO 94.0-98.4 PERCENT OF THE MAXIMUM THEORETICAL DENSITY. THIS REQUIREMENT SHALL APPLY TO BOTH B.A.M. AND IL 9.5L GRADATION SHOULDER MIXES. THIS MAXIMUM DENSITY SHALL BE DETERMINED FROM THE MOVING AVERAGE OF FOUR TESTS AS IN OTHER QC/QA TESTING. A NUCLEAR GAUGE DENSITY/CORE CORRELATION SHALL BE PERFORMED FOR BOTH THE B.A.M. AND IL 9.5L MIXES USING STANDARD CORRELATION PROCEDURES.

**G.N.-631**  
IF THE CONTRACTOR ELECTS TO USE THE ALTERNATE MOUNTING METHOD OF THRU DRILLING THE MOUNTING HOLES FOR THE TRAFFIC BARRIER TERMINALS, TYPE 6, THE HOLES SHALL BE DRILLED USING A CORE DRILL. A HAMMER DRILL WILL NOT BE ALLOWED.

**G.N.-781**  
RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH STANDARD 781001, AND THE DETAILS SHOWN IN THE PLANS. IF THERE IS ANY DISCREPANCY BETWEEN THE STANDARD AND THE DETAILS IN THE PLANS, THE DETAILS IN THE PLANS SHALL GOVERN. THE FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING THE RAISED REFLECTIVE PAVEMENT MARKERS AND THE RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED MIDWAY IN THE 30 FOOT (9 m) SPACE BETWEEN THE DASHED CENTERLINE STRIPES (WHEN APPLICABLE).

**G.N.-1004.01**  
COARSE AGGREGATE GRADATION CA-10 MAY BE USED WHENEVER COARSE AGGREGATE CA-6 IS SPECIFIED IN THE STANDARD SPECIFICATIONS.

**G.N.-1004.03**  
REVISE ARTICLE 1004.03 (c) NOTE 5/ OF THE STANDARD SPECIFICATIONS TO READ:

'5/ GRADATION CA-16 SHALL BE USED IN LIEU OF CA-13 WHEN THE SURFACE COURSE IS LESS THAN 1 3/4 INCHES IN THICKNESS. CA-13 OR CA-16 MAY BE USED WHEN THE SURFACE COURSE IS 1 3/4 INCHES OR MORE IN THICKNESS.'

**G.N.-Z0038**  
AN ALUMINUM TABLET OF THE TYPE SHOWN ON STANDARD 667101 SHALL BE PLACED ON THE PROPOSED STRUCTURE AS DIRECTED BY THE ENGINEER. THE BENCH MARK ELEVATION WILL BE ESTABLISHED AND MARKED BY THE DEPARTMENT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR PERMANENT BENCH MARKS.

THIS BRIDGE REPLACEMENT PROJECT IS LOCATED WITHIN AN ENVIRONMENTALLY SENSITIVE AREA. ENDANGERED SPECIES ARE LOCATED WITHIN THE CONSTRUCTION LIMITS, AREAS ADJACENT TO THE CONSTRUCTION LIMITS ARE CLASSIFIED AS WETLANDS, AND THE SANGAMON RIVER IS LISTED BY THE NATIONAL PARK SERVICE IN THE NATIONWIDE RIVER INVENTORY AS A WILD AND SCENIC AREA. THE ENDANGERED SPECIES, SLIPPERSHELL MUSSEL, WILL BE RELOCATED UPSTREAM BY INHS STAFF PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES. CONSTRUCTION ACTIVITIES SHALL BE PERFORMED IN A MANNER WHICH MINIMIZES SUBSTRATE DISTURBANCE AND SEDIMENTATION. EROSION CONTROL ITEMS ARE SPECIFIED WITHIN THE PLANS FOR THIS PURPOSE. INSTREAM WORK SHALL BE CONDUCTED DURING LOW FLOW PERIODS IN ORDER TO REDUCE ADVERSE IMPACTS TO BOTH THE STREAM AND THE SPECIES IT CONTAINS. IN GENERAL, CARE SHALL BE TAKEN TO MINIMIZE THE ENVIRONMENTAL IMPACT OF CONSTRUCTION ACTIVITIES IN THIS SENSITIVE AREA.

COMMITMENTS: NONE

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		GENERAL NOTES
SCALE: VERT. DATE		DRAWN BY CHECKED BY TMW

PLOT DATE = 8/29/2006  
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 PLOT SCALE = 21.765 / IN.

PLOT DATE = 8/29/2005  
 FILE NAME = c:\projects\0505-03\0505-03.dwg  
 PLOT SCALE = 42.3538 / 1"

CODE NUMBER	ITEMS	UNIT	TOTAL QUANTITY	ROADWAY RESURFACING AND WIDENING X071-2A	X071-2A BRIDGE
20300100	CHANNEL EXCAVATION	CU. YD.	801	801	
20400800	FURNISHED EXCAVATION	CU. YD.	1026	1026	
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU. YD.	153		153
25000210	SEEDING, CLASS 2A	ACRE	0.25	0.25	
25000350	SEEDING, CLASS 7	ACRE	0.25	0.25	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	22	22	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	22	22	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	22	22	
25100115	MULCH, METHOD 2	ACRE	0.25	0.25	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	25	25	
28000400	PERIMETER EROSION BARRIER	FOOT	720	720	
28100109	STONE RIPRAP, CLASS A5	SO. YD.	1,002		1,002
28101300	DUMPED RIPRAP, SPECIAL	TON	345		345
28200200	FILTER FABRIC	SO. YD.	1,002		1,002
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	91	91	
40600980	BITUMINOUS SURFACE REMOVAL - BUTT JOINT	SO. YD.	109	109	
42001300	PROTECTIVE COAT	SO. YD.	240	240	
42001400	BRIDGE APPROACH PAVEMENT (SPECIAL)	SO. YD.	240	240	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SO. YD.	48	48	
44000100	PAVEMENT REMOVAL	SO. YD.	370	370	
44000700	APPROACH SLAB REMOVAL	SO. YD.	152	152	
48101200	AGGREGATE SHOULDERS, TYPE B	TON	118	118	
48202900	BITUMINOUS SHOULDERS SUPERPAVE (VARIABLE DEPTH)	SO. YD.	170	170	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50200100	STRUCTURE EXCAVATION	CU. YD.	243		243
50300100	FLOOR DRAINS	EACH	20		20
50300225	CONCRETE STRUCTURES	CU. YD.	164.3		164.3
50300255	CONCRETE SUPERSTRUCTURE	CU. YD.	286		286
50300260	BRIDGE DECK GROOVING	SO. YD.	812		812
50300300	PROTECTIVE COAT	SO. YD.	1,040		1,040
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L. SUM	1		1
50500505	STUD SHEAR CONNECTORS	EACH	3,384		3,384
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	73,780		73,780
51201400	FURNISHED STEEL PILES HP10x42	FOOT	1,589		1,589
51202700	DRIVING STEEL PILES	FOOT	1,589		1,589

CONTRACT NO. 70344

F.A.P. RTE. 326	SECTION 129BR-31BR	COUNTY CHAMPAIGN	TOTAL SHEETS 30	SHEET NO. 3
STA. N/A		TO STA. N/A		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

80% FED  
20% ST

CODE NUMBER	ITEMS	UNIT	TOTAL QUANTITY	ROADWAY RESURFACING AND WIDENING X071-2A	X071-2A BRIDGE
51203400	TEST PILE STEEL HP10x42	EACH	4		4
51500100	NAME PLATES	EACH	1		1
59100100	GEOCOMPOSITE WALL DRAIN	SO. YD.	75		75
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	141		141
63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	537.5	537.5	
63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
63200310	GUARDRAIL REMOVAL	FOOT	798	798	
67000400	ENGINEER'S FIELD OFFICE TYPE A	CAL MO	6	6	
67100100	MOBILIZATION	L. SUM	1	1	
70101800	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L. SUM	1	1	
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	136	136	
70300625	TEMPORARY PAINT PAVEMENT MARKING LINE 4"	FOOT	1762	1762	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO. FT.	46	46	
78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1762	1762	
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	4	4	
78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	3	3	
78200405	GUARDRAIL MARKERS	EACH	9	9	
78200500	BARRIER WALL MARKERS	EACH	5	5	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	4	4	
X0324865	DIAMOND GRINDING (BRIDGE SECTION)	SO. YD.	1,020		1,020
X4066416	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE. MIX "C", N70	TON	62	62	
X4066616	BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE. IL-19.0, N70	TON	92	92	
X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION LOCATION 1	EACH	1		1
X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION LOCATION 2	EACH	1		1
Z0002600	BAR SPLICERS	EACH	76		76
Z0037300	PAVEMENT GROOVING	SO. YD.	240	240	
Z0038700	PERMANENT BENCHMARKS	EACH	1		1

\* SPECIALTY ITEM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: VERT.  
DATE:           HORIZ.

DRAWN BY  
CHECKED BY TMW









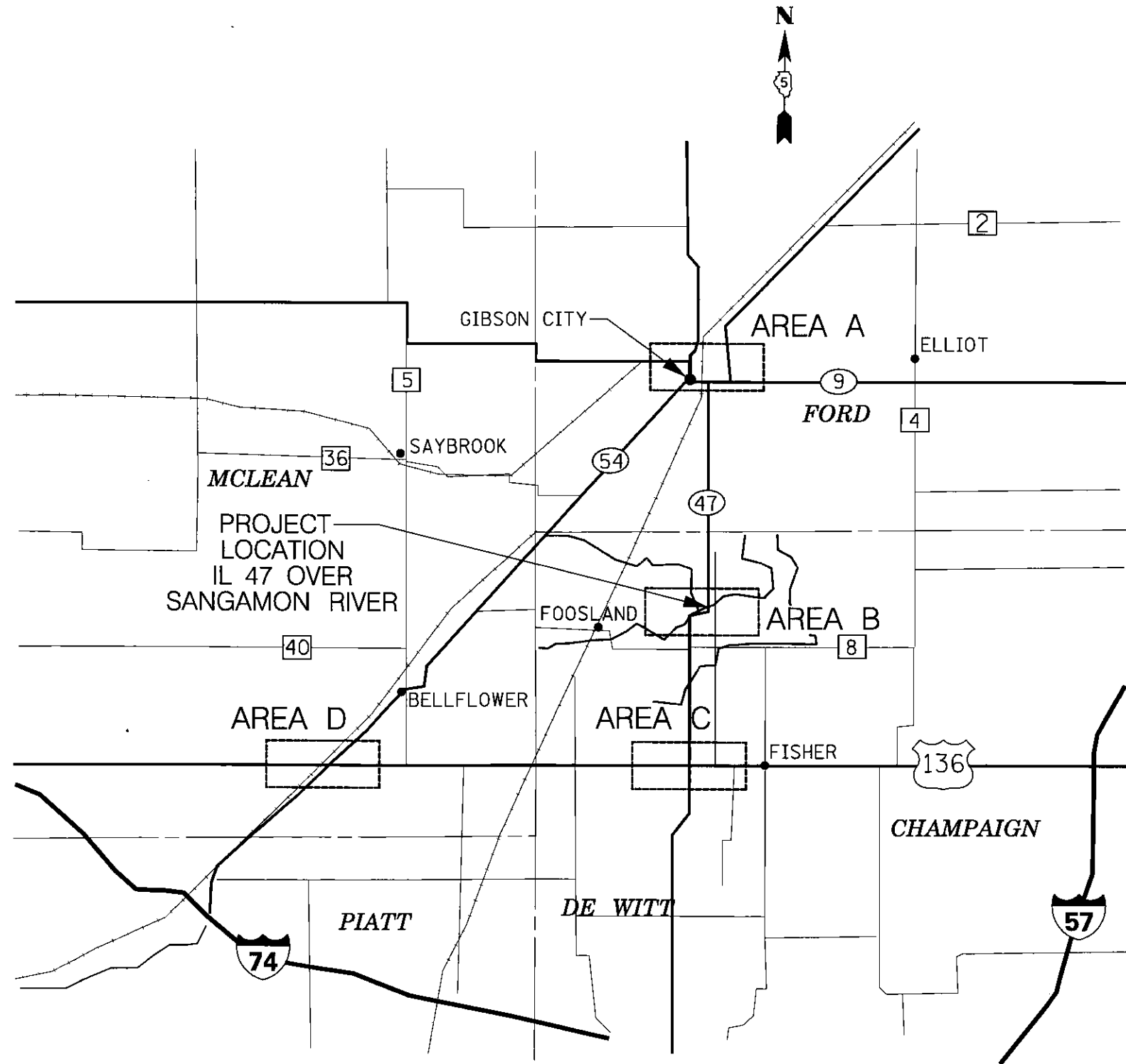






CONTRACT NO.: 70344

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	1129BR-31BR	CHAMPAIGN	32	9
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



OVERALL DETOUR ROUTE  
(SEE SHEET 10 FOR SIGNING DETAILS AT AREAS NOTED)

REVISIONS	
NAME	DATE

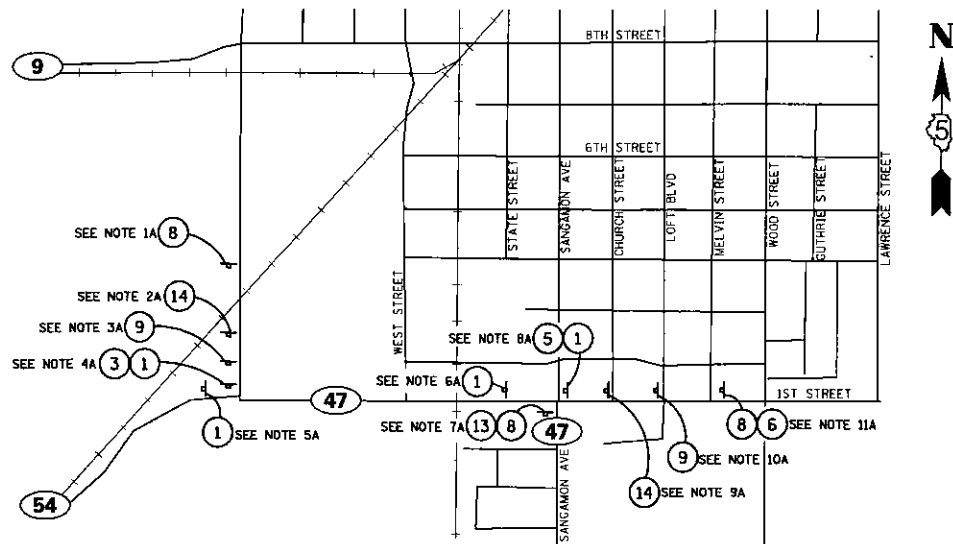
ILLINOIS DEPARTMENT OF TRANSPORTATION

IL 47  
DETOUR PLAN AND  
SIGNAGE LEGEND

SCALE: VERT. = N.T.S.  
HORIZ. = N.T.S.  
DATE 7/21/2006

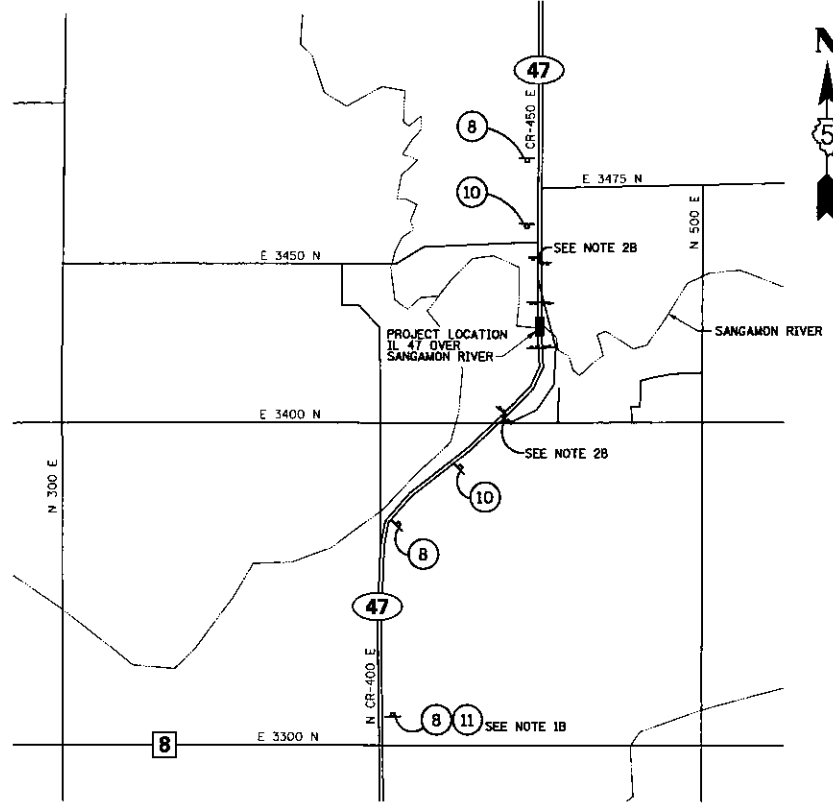
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\$TIME\$



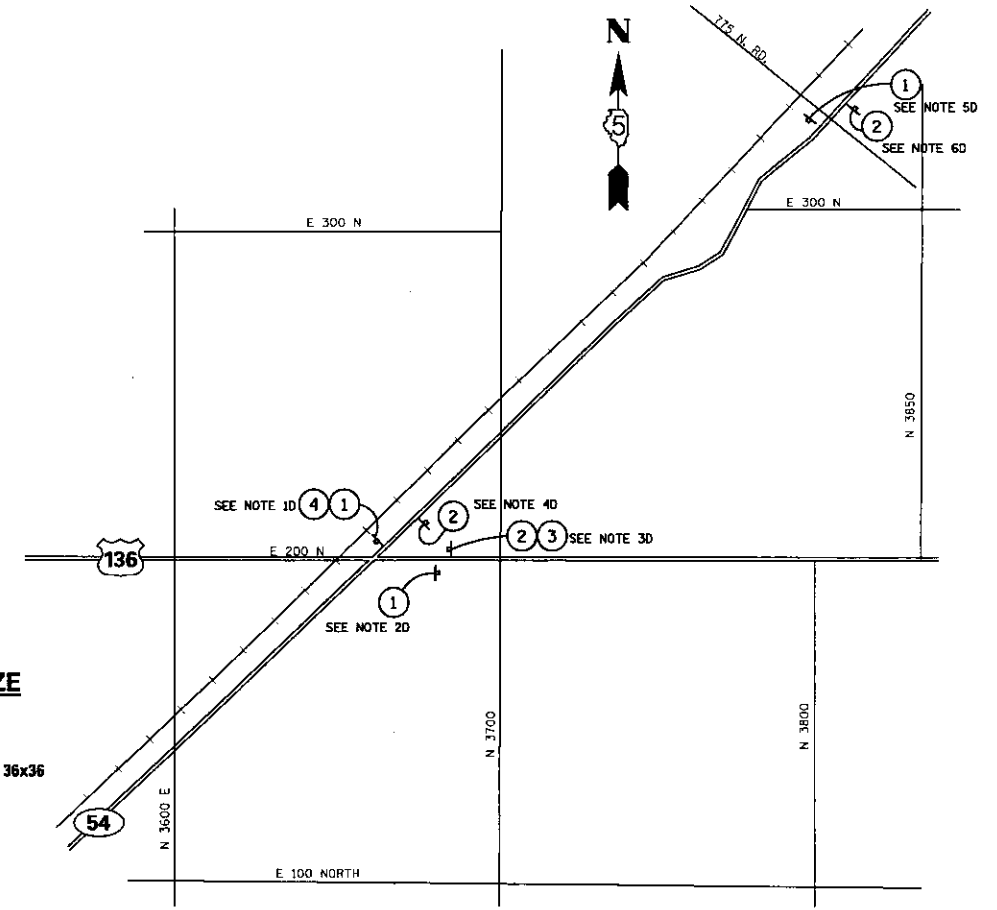
**AREA A**

- NOTES:**
- 1A. ERECT BESIDE JCT. IL. 54 SIGN.
  - 2A. ERECT ACROSS FROM ADOPT A HIGHWAY SIGN.
  - 3A. ERECT BESIDE MAHOMET, PAXTON FARMER CITY SIGN.
  - 4A. ERECT AT MIDDLE OF RADIUS 50 FT NORTH OF INTERSECTION.
  - 5A. ERECT BESIDE WEST IL. 54 SIGN.
  - 6A. ERECT 100 FT WEST OF IL. 47.
  - 7A. ERECT BESIDE ADOPT A HIGHWAY SIGN.
  - 8A. ERECT BESIDE FARMER CITY BLOOMINGTON MAHOMET SIGN.
  - 9A. ERECT IN FRONT OF THE SAND TRAP BAR.
  - 10A. ERECT BESIDE JCT. IL. 47 SIGN.
  - 11A. ERECT BESIDE SPEED LIMIT 40 SIGN.
- COVER ALL CONFLICTING SIGNS.



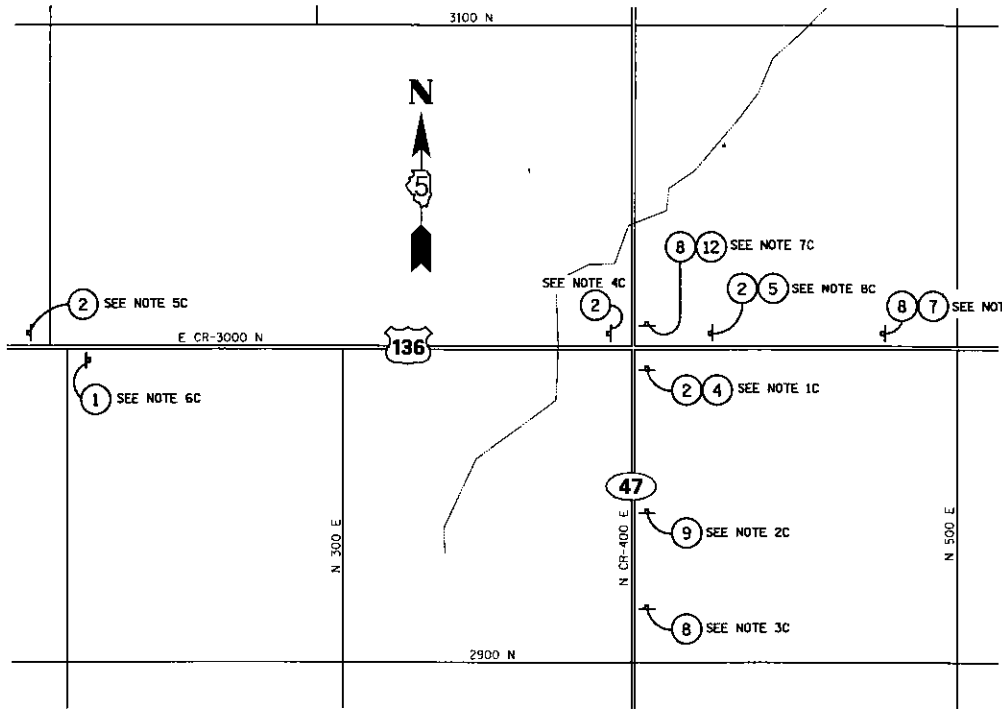
**AREA B**

- NOTES:**
- 1B. ERECT BESIDE NORTH IL. 47 SIGN @ 3300 N RD. / FOOSLAND RD.
  - 2B. SET STAGGERED TYPE 3 BARRICADE AT RDS. 3400 N & 3450 N
  - 3B. FOR BARRICADE PLACEMENT ONLY - FOLLOW TYPICAL APPLICATION OF ROAD CLOSURES FOR ALL REQUIREMENTS FOR CLOSING IL. 47.
- ONE ADDITIONAL SIGN SHOWN SOUTH OF CLOSURE.
  - COVER ALL CONFLICTING SIGNS



**AREA D**

- NOTES:**
- 1D. ERECT IN FRONT OF WOOD POWER LIGHT POLE AT INTERSECTION.
  - 2D. ERECT BESIDE EAST US. 136 SIGN.
  - 3D. ERECT 50 FT FROM ILL. 54 INTERSECTION.
  - 4D. ERECT ACROSS FROM RANTOUL McLEAN SIGN
  - 5D. ERECT BESIDE McLEAN COUNTY SIGN AT RD. 775 N.
  - 6D. ERECT BESIDE CHAMPAIGN COUNTY SIGN AT RD. 775 N.
- COVER ALL CONFLICTING SIGNS



**AREA C**

- NOTES:**
- 1C. ERECT BESIDE ILL. 47 US. 136 SIGN.
  - 2C. ERECT BESIDE BLOOM HAVANA FISHER SIGN.
  - 3C. ERECT BESIDE JCT. US. 136 SIGN.
  - 4C. ERECT BESIDE WEST US. 136 SIGN.
  - 5C. ERECT BESIDE WEST US. 136 SIGN AT RD. 100 E.
  - 6C. ERECT BESIDE CHAMPAIGN COUNTY SIGN AT RD. 4200 E.
  - 7C. ERECT BESIDE NORTH ILL. 47 SIGN.
  - 8C. ERECT BESIDE US. 136 ILL. 47 SIGNS.
  - 9C. ERECT ACROSS FROM LEFT TURN LANE SIGN.
- COVER ALL CONFLICTING SIGNS.

**LEGEND:**

SIGN #	SIGN TYPE	SIZE	SIGN #	SIGN TYPE	SIZE
1	DETOUR SOUTH	M4-8 24x12	8	ROAD CLOSED AHEAD	W20-3 36x36
2	ILL 47	M3-3 24x12	9	DETOUR AHEAD	W20-20 36x36
3	DETOUR NORTH	M4-8 24x12	10	BARRICADE AHEAD	G20 30x24
4	ILL 47	M3-3 24x12	11	1 MILE	W16-3A 30x12
5	RIGHT TURN	M1-5 24x30	12	4 MILE	W16-3A 30x12
6	LEFT TURN	M4-8 24x12	13	5 MILE	W16-3A 30x12
7	RIGHT TURN	M3-3 24x12	14	ILL. 47 CLOSED 4 MILES SOUTH OF GIBSON CITY	R113A 60x30

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

IL 47  
DETOUR PLAN  
AREAS A, B, C, & D  
DETAILS

SCALE: VERT. = NTS.  
HORIZ. = NTS.  
DATE: 7/06

DRAWN BY  
CHECKED BY TMW



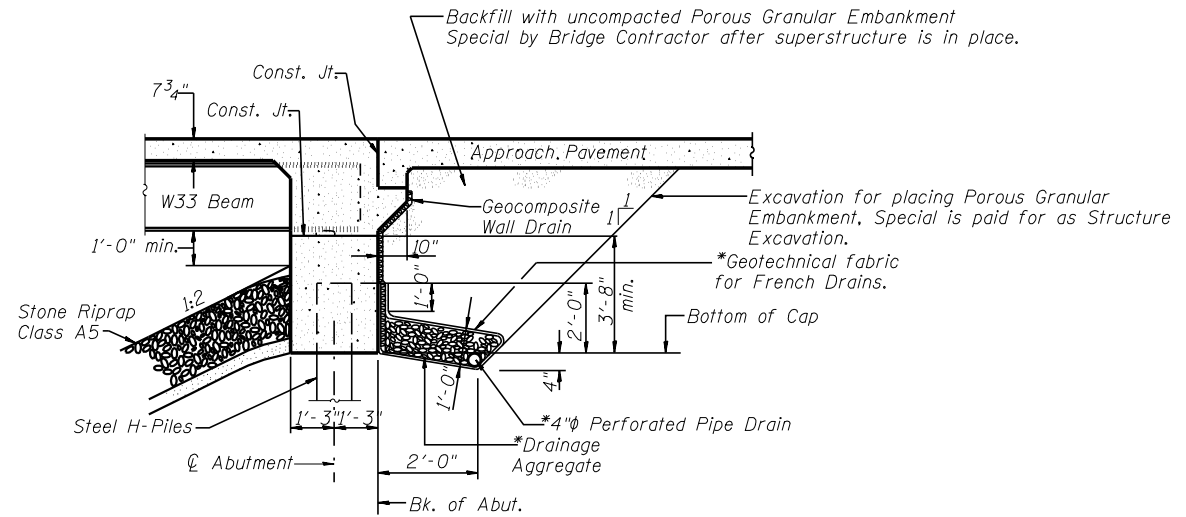


**GENERAL NOTES**

- Fasteners shall be high strength bolts AASHTO M 164, Type 3 in unpainted areas and mechanically galvanized AASHTO M 164, Type 1 or 2 in painted areas. Bolts  $\frac{7}{8}$ "  $\phi$ , open holes  $\frac{5}{16}$ "  $\phi$ , unless otherwise noted.
- Calculated weight of Structural Steel = 221,030 lbs.
- All structural steel shall be AASHTO M 270 Grade 50W.
- Field welding of construction accessories will not be permitted to beams.
- Anchor bolts shall be set before bolting diaphragms over supports.
- The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams and all splice plate material.
- Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.
- Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of  $\frac{1}{8}$  inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two  $\frac{1}{8}$ " adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.
- The Contractor shall drive 4 HP10x42 test piles in permanent locations: one at the South Abutment, one at the North Abutment, one at Pier 1, and one at Pier 2 as directed by the Engineer before ordering the remainder of the piles.
- AASHTO M 270 Grade 50W structural steel shall only be painted, at the ends of the beams, for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Those areas shall be primed in the shop with an inorganic zinc rich primer per AASHTO M 300, Type 1. No field painting shall be required. All structural steel shall be cleaned as specified in the special provision for "Surface Preparation and Painting Requirements for Weathering Steel".
- All Construction joints shall be bonded.
- Excavation behind existing abutment walls shall be done before removing the existing superstructure.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 326	129BR-3	CHAMPAIGN		17 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

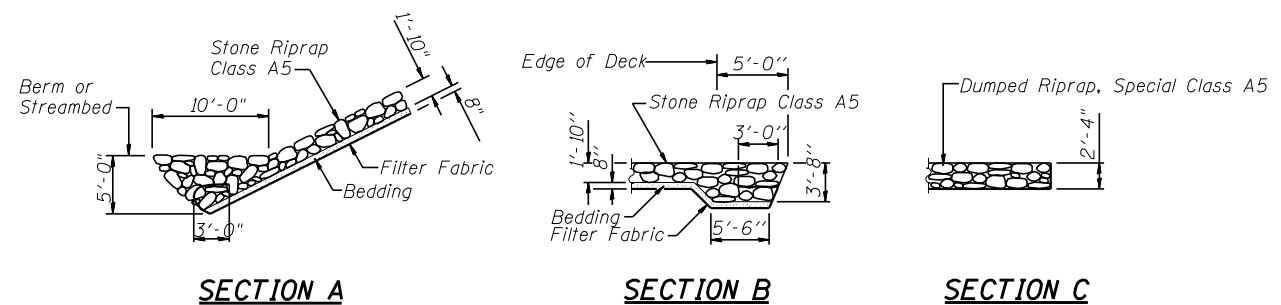
CONTRACT #70344



\*Included in the cost of Pipe Underdrains for Structures.

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

**SECTION THRU INTEGRAL ABUTMENT**  
(Dimensions at Right Angles)



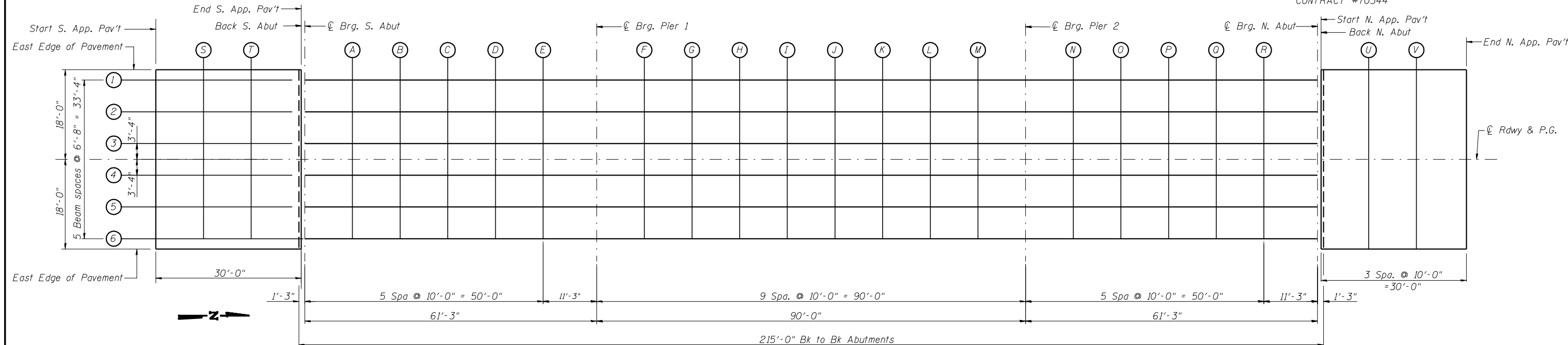
**GENERAL NOTES**

IL. ROUTE 47  
OVER SANGAMON RIVER  
F.A.P. ROUTE 326 SEC. (129BR-3) BR  
CHAMPAIGN COUNTY  
STATION 746+65.00  
STRUCTURE NO. 010-0281

CHAMPAIGN, ILLINOIS  
CHICAGO, ILLINOIS  
EVANSVILLE, INDIANA  
INDIANAPOLIS, INDIANA  
KENOSHA, WISCONSIN  
SPRING GREEN, WISCONSIN

REVISIONS		DATE	
NAME			

DESIGNED BY: SMM	PROJECT NO. 102287
CHECKED BY: MEW	DATE: 5/05
APPROVED BY: SMM	
ACTIVITY	INITIALS



**WEST EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
Start S. App. Pav't	745+27.500	-18.000	722.558	722.574
S	745+37.500	-18.000	722.637	722.658
T	745+47.500	-18.000	722.717	722.738
End S. App. Pav't	745+57.500	-18.000	722.796	722.816
Start N. App. Pav't	747+72.500	-18.000	722.891	722.912
U	747+82.500	-18.000	722.821	722.842
V	747+92.500	-18.000	722.745	722.766
End N. App. Pav't	748+02.500	-18.000	722.663	722.683

**PLAN**

**BEAM 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back of S. Abut.	745+57.500	-16.667	722.823	722.844
☉ Brg. S. Abut	745+58.750	-16.667	722.833	722.854
A	745+68.750	-16.667	722.904	722.942
B	745+78.750	-16.667	722.968	723.016
C	745+88.750	-16.667	723.026	723.071
D	745+98.750	-16.667	723.077	723.110
E	746+08.750	-16.667	723.122	723.141
☉ Brg. Pier 1	746+20.000	-16.667	723.164	723.185
F	746+30.000	-16.667	723.195	723.248
G	746+40.000	-16.667	723.219	723.316
H	746+50.000	-16.667	723.237	723.372
I	746+60.000	-16.667	723.248	723.405
J	746+70.000	-16.667	723.252	723.409
K	746+80.000	-16.667	723.250	723.385
L	746+90.000	-16.667	723.241	723.338
M	747+00.000	-16.667	723.226	723.279
☉ Brg. Pier 2	747+10.000	-16.667	723.204	723.225
N	747+20.000	-16.667	723.176	723.195
O	747+30.000	-16.667	723.141	723.172
P	747+40.000	-16.667	723.099	723.143
Q	747+50.000	-16.667	723.051	723.099
R	747+60.000	-16.667	722.996	723.037
☉ Brg. N. Abut.	747+71.250	-16.667	722.927	722.948
Back of N. Abut.	747+72.500	-16.667	722.919	722.939

**BEAM 2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back of S. Abut.	745+57.500	-10.000	722.952	722.973
☉ Brg. S. Abut	745+58.750	-10.000	722.961	722.982
A	745+68.750	-10.000	723.032	723.071
B	745+78.750	-10.000	723.097	723.144
C	745+88.750	-10.000	723.154	723.200
D	745+98.750	-10.000	723.206	723.239
E	746+08.750	-10.000	723.250	723.270
☉ Brg. Pier 1	746+20.000	-10.000	723.293	723.314
F	746+30.000	-10.000	723.323	723.376
G	746+40.000	-10.000	723.348	723.444
H	746+50.000	-10.000	723.365	723.500
I	746+60.000	-10.000	723.376	723.533
J	746+70.000	-10.000	723.381	723.538
K	746+80.000	-10.000	723.378	723.514
L	746+90.000	-10.000	723.370	723.467
M	747+00.000	-10.000	723.354	723.407
☉ Brg. Pier 2	747+10.000	-10.000	723.333	723.353
N	747+20.000	-10.000	723.304	723.323
O	747+30.000	-10.000	723.269	723.300
P	747+40.000	-10.000	723.228	723.272
Q	747+50.000	-10.000	723.179	723.227
R	747+60.000	-10.000	723.125	723.165
☉ Brg. N. Abut.	747+71.250	-10.000	723.055	723.076
Back of N. Abut.	747+72.500	-10.000	723.047	723.068

**PROFILE GRADE LINE**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
Start S. App. Pav't	745+27.500	0.000	722.870	722.890
S	745+37.500	0.000	722.950	722.971
T	745+47.500	0.000	723.030	723.051
End S. App. Pav't	745+57.500	0.000	723.108	723.129
Start N. App. Pav't	747+72.500	0.000	723.203	723.224
U	747+82.500	0.000	723.134	723.155
V	747+92.500	0.000	723.058	723.079
End N. App. Pav't	748+02.500	0.000	722.975	722.996

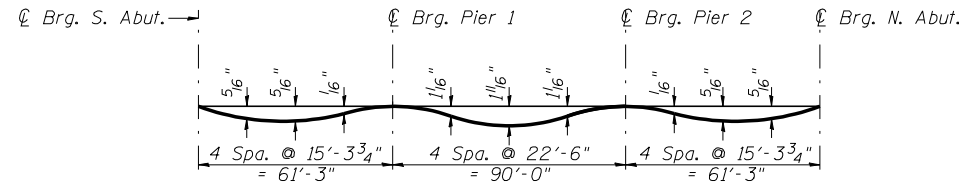
**EAST EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
Start S. App. Pav't	745+27.500	18.000	722.558	722.579
S	745+37.500	18.000	722.637	722.658
T	745+47.500	18.000	722.717	722.738
End S. App. Pav't	745+57.500	18.000	722.796	722.816
Start N. App. Pav't	747+72.500	18.000	722.891	722.912
U	747+82.500	18.000	722.821	722.842
V	747+92.500	18.000	722.745	722.766
End N. App. Pav't	748+02.500	18.000	722.663	722.683

**TOP OF DECK ELEVATIONS I**

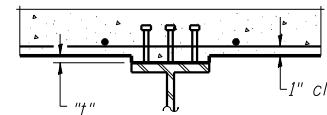
IL. ROUTE 47  
OVER SANGAMON RIVER  
F.A.P. ROUTE 326 SEC. (129BR-3) BR  
CHAMPAIGN COUNTY  
STATION 746+65.00  
STRUCTURE NO. 010-0281

		CHAMPAIGN, ILLINOIS CHICAGO, ILLINOIS EVANSVILLE, INDIANA INDIANAPOLIS, INDIANA KENOSHA, WISCONSIN SPRING GREEN, WISCONSIN
<b>REVISIONS</b> NAME DATE _____ _____ _____	DRAWN BY: SMM CHECKED BY: MEW APPROVED BY: SMM	PROJECT NO: 182287 DATE: 5/05 ACTIVITY: INITIALS

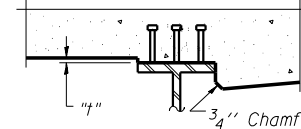


**DEAD LOAD DEFLECTION DIAGRAM**  
(Includes weight of concrete only.)

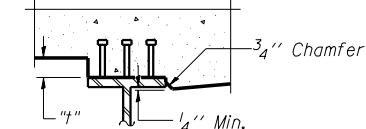
Note:  
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on S-3 and S-4.



At Interior Beam



At Minimum Fillet



At Maximum Fillet

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding" shown on S-3 and S-4, minus the 7/8" deck thickness, equals the fillet heights "t" above top flange of beams. The slab is to be ground after curing to achieve smoothness, but the slab is not to be ground to elevations below the "Theoretical Grade Elevations" shown on S-3 and S-4. For grinding the deck, see Special Provisions

**FILLET HEIGHTS**

**BEAM 3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back of S. Abut.	745+57.500	-3.333	723.056	723.077
☉ Brg. S. Abut	745+58.750	-3.333	723.065	723.086
A	745+68.750	-3.333	723.136	723.175
B	745+78.750	-3.333	723.201	723.248
C	745+88.750	-3.333	723.259	723.304
D	745+98.750	-3.333	723.310	723.343
E	746+08.750	-3.333	723.355	723.374
☉ Brg. Pier 1	746+20.000	-3.333	723.397	723.418
F	746+30.000	-3.333	723.428	723.481
G	746+40.000	-3.333	723.452	723.549
H	746+50.000	-3.333	723.469	723.604
I	746+60.000	-3.333	723.480	723.637
J	746+70.000	-3.333	723.485	723.642
K	746+80.000	-3.333	723.483	723.618
L	746+90.000	-3.333	723.474	723.571
M	747+00.000	-3.333	723.459	723.512
☉ Brg. Pier 2	747+10.000	-3.333	723.437	723.458
N	747+20.000	-3.333	723.408	723.427
O	747+30.000	-3.333	723.373	723.404
P	747+40.000	-3.333	723.332	723.376
Q	747+50.000	-3.333	723.284	723.331
R	747+60.000	-3.333	723.229	723.269
☉ Brg. N. Abut.	747+71.250	-3.333	723.160	723.180
Back of N. Abut.	747+72.500	-3.333	723.151	723.172

**☉ ROADWAY & P.G.**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back of S. Abut.	745+57.500	0.000	723.108	723.129
☉ Brg. S. Abut	745+58.750	0.000	723.117	723.138
A	745+68.750	0.000	723.188	723.227
B	745+78.750	0.000	723.253	723.300
C	745+88.750	0.000	723.311	723.356
D	745+98.750	0.000	723.362	723.395
E	746+08.750	0.000	723.407	723.426
☉ Brg. Pier 1	746+20.000	0.000	723.449	723.470
F	746+30.000	0.000	723.480	723.533
G	746+40.000	0.000	723.504	723.601
H	746+50.000	0.000	723.521	723.657
I	746+60.000	0.000	723.532	723.689
J	746+70.000	0.000	723.537	723.694
K	746+80.000	0.000	723.535	723.670
L	746+90.000	0.000	723.526	723.623
M	747+00.000	0.000	723.511	723.564
☉ Brg. Pier 2	747+10.000	0.000	723.489	723.510
N	747+20.000	0.000	723.460	723.479
O	747+30.000	0.000	723.425	723.456
P	747+40.000	0.000	723.384	723.428
Q	747+50.000	0.000	723.336	723.384
R	747+60.000	0.000	723.281	723.321
☉ Brg. N. Abut.	747+71.250	0.000	723.212	723.232
Back of N. Abut.	747+72.500	0.000	723.203	723.224

**BEAM 4**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back of S. Abut.	745+57.500	3.333	723.056	723.077
☉ Brg. S. Abut	745+58.750	3.333	723.065	723.086
A	745+68.750	3.333	723.136	723.175
B	745+78.750	3.333	723.201	723.248
C	745+88.750	3.333	723.259	723.304
D	745+98.750	3.333	723.310	723.343
E	746+08.750	3.333	723.355	723.374
☉ Brg. Pier 1	746+20.000	3.333	723.397	723.418
F	746+30.000	3.333	723.428	723.481
G	746+40.000	3.333	723.452	723.549
H	746+50.000	3.333	723.469	723.604
I	746+60.000	3.333	723.480	723.637
J	746+70.000	3.333	723.485	723.642
K	746+80.000	3.333	723.483	723.618
L	746+90.000	3.333	723.474	723.571
M	747+00.000	3.333	723.459	723.512
☉ Brg. Pier 2	747+10.000	3.333	723.437	723.458
N	747+20.000	3.333	723.408	723.427
O	747+30.000	3.333	723.373	723.404
P	747+40.000	3.333	723.332	723.376
Q	747+50.000	3.333	723.284	723.331
R	747+60.000	3.333	723.229	723.269
☉ Brg. N. Abut.	747+71.250	3.333	723.160	723.180
Back of N. Abut.	747+72.500	3.333	723.151	723.172

**BEAM 5**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back of S. Abut.	745+57.500	10.000	722.952	722.973
☉ Brg. S. Abut	745+58.750	10.000	722.961	722.982
A	745+68.750	10.000	723.032	723.071
B	745+78.750	10.000	723.097	723.144
C	745+88.750	10.000	723.154	723.200
D	745+98.750	10.000	723.206	723.239
E	746+08.750	10.000	723.250	723.270
☉ Brg. Pier 1	746+20.000	10.000	723.293	723.314
F	746+30.000	10.000	723.323	723.376
G	746+40.000	10.000	723.348	723.444
H	746+50.000	10.000	723.365	723.500
I	746+60.000	10.000	723.376	723.533
J	746+70.000	10.000	723.381	723.538
K	746+80.000	10.000	723.378	723.514
L	746+90.000	10.000	723.370	723.467
M	747+00.000	10.000	723.354	723.407
☉ Brg. Pier 2	747+10.000	10.000	723.333	723.353
N	747+20.000	10.000	723.304	723.323
O	747+30.000	10.000	723.269	723.300
P	747+40.000	10.000	723.228	723.272
Q	747+50.000	10.000	723.179	723.227
R	747+60.000	10.000	723.125	723.165
☉ Brg. N. Abut.	747+71.250	10.000	723.055	723.076
Back of N. Abut.	747+72.500	10.000	723.047	723.068

**BEAM 6**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Back of S. Abut.	745+57.500	16.667	722.823	722.844
CL Brg. S. Abut	745+58.750	16.667	722.833	722.854
A	745+68.750	16.667	722.904	722.942
B	745+78.750	16.667	722.968	723.016
C	745+88.750	16.667	723.026	723.071
D	745+98.750	16.667	723.077	723.110
E	746+08.750	16.667	723.122	723.142
CL Brg. Pier 1	746+20.000	16.667	723.164	723.185
F	746+30.000	16.667	723.195	723.248
G	746+40.000	16.667	723.219	723.316
H	746+50.000	16.667	723.237	723.372
I	746+60.000	16.667	723.248	723.405
J	746+70.000	16.667	723.252	723.409
K	746+80.000	16.667	723.250	723.385
L	746+90.000	16.667	723.241	723.338
M	747+00.000	16.667	723.226	723.279
CL Brg. Pier 2	747+10.000	16.667	723.204	723.225
N	747+20.000	16.667	723.176	723.195
O	747+30.000	16.667	723.141	723.172
P	747+40.000	16.667	723.099	723.143
Q	747+50.000	16.667	723.051	723.099
R	747+60.000	16.667	722.996	723.037
CL Brg. N. Abut.	747+71.250	16.667	722.927	722.948
Back of N. Abut.	747+72.500	16.667	722.919	722.939

**TOP OF DECK ELEVATIONS II**

**IL. ROUTE 47  
OVER SANGAMON RIVER  
F.A.P. ROUTE 326 SEC. (129BR-3) BR  
CHAMPAIGN COUNTY  
STATION 746+65.00  
STRUCTURE NO. 010-0281**

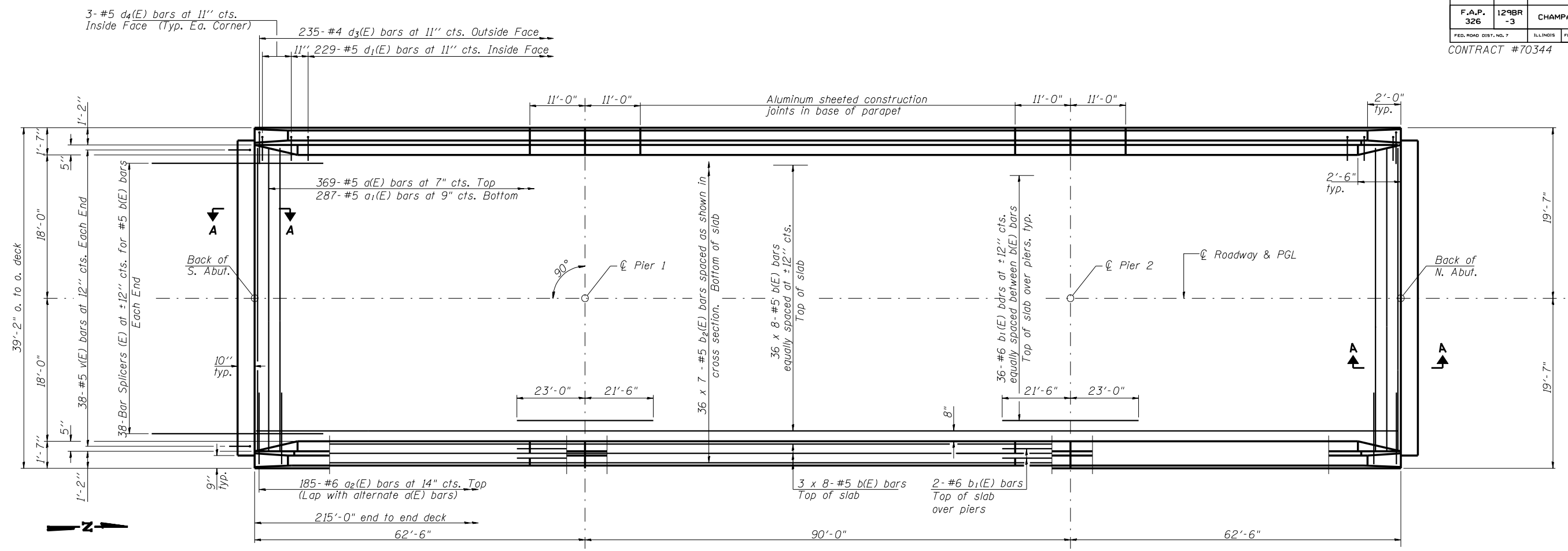
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CHICAGO, ILLINOIS  
EVANSVILLE, INDIANA  
INDIANAPOLIS, INDIANA  
KENOSHA, WISCONSIN  
SPRING GREEN, WISCONSIN

REVISIONS	NAME	DATE

DESIGNED BY: SMM      PROJECT NO: 102287  
DRAWN BY: MEW      DATE: 5/05  
CHECKED BY: MM  
APPROVED BY: SMM  
ACTIVITY      INITIALS

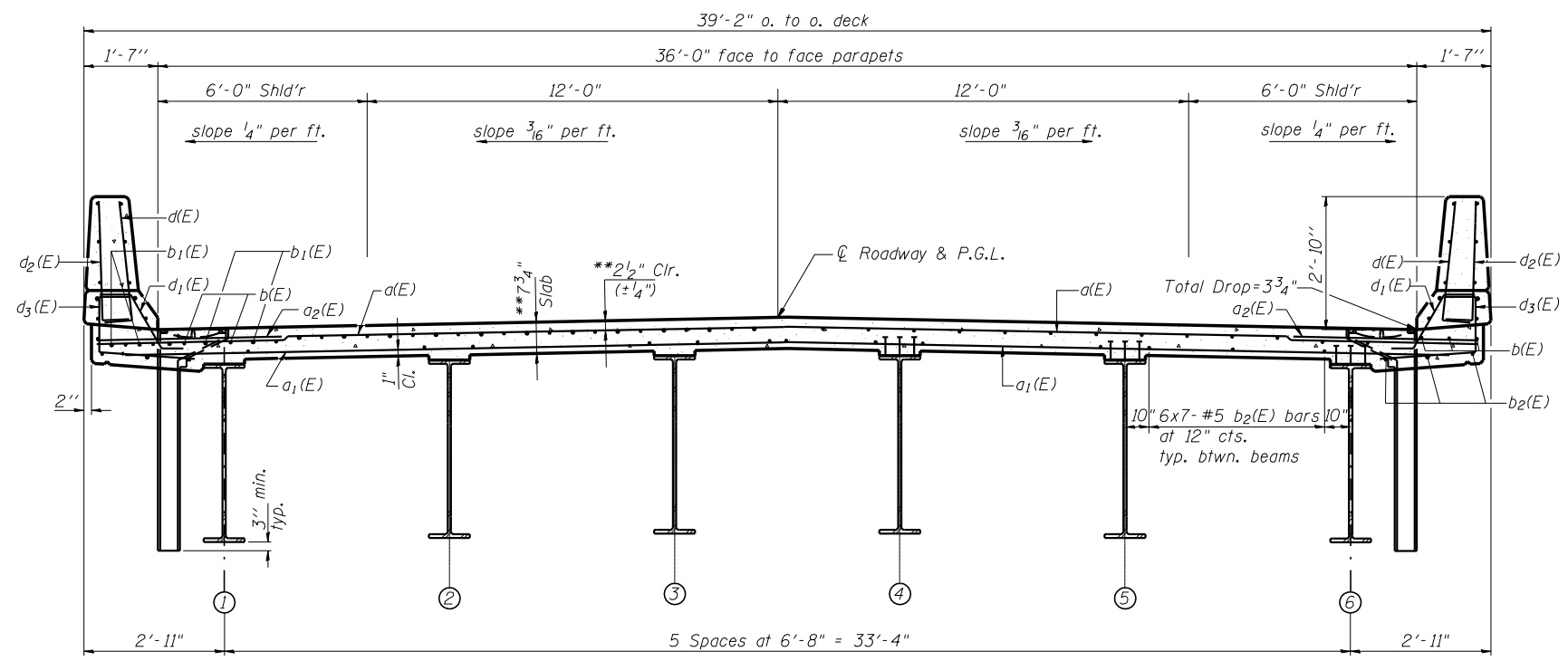
**S-4**





**PLAN**

MIN BAR LAP	
#5	2'-2"
#6	2'-7"



**NEAR PIER**

\*\*Prior to grinding.

**NEAR MIDSPAN**

**CROSS SECTION**  
(Looking North)

Notes:  
 See Dwg. S-6 for superstructure details and Bill of Material.  
 Reinforcement bars designated (E) shall be epoxy coated.  
 Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.  
 See Dwg. S-6 for parapet reinforcement.  
 See Dwg. S-14 for Bar Splicer Detail.  
 See Dwg. S-7 for Section A-A.  
 See Dwg. S-1 for drainage locations.

**DECK PLAN AND CROSS SECTION**

IL. ROUTE 47  
 OVER SANGAMON RIVER  
 F.A.P. ROUTE 326 SEC. (129BR-3) BR  
 CHAMPAIGN COUNTY  
 STATION 746+65.00  
 STRUCTURE NO. 010-0281

CHAMPAIGN, ILLINOIS  
 CHICAGO, ILLINOIS  
 EVANSVILLE, INDIANA  
 INDIANAPOLIS, INDIANA  
 KENOSHA, WISCONSIN  
 SPRING GREEN, WISCONSIN

REVISIONS	NAME	DATE

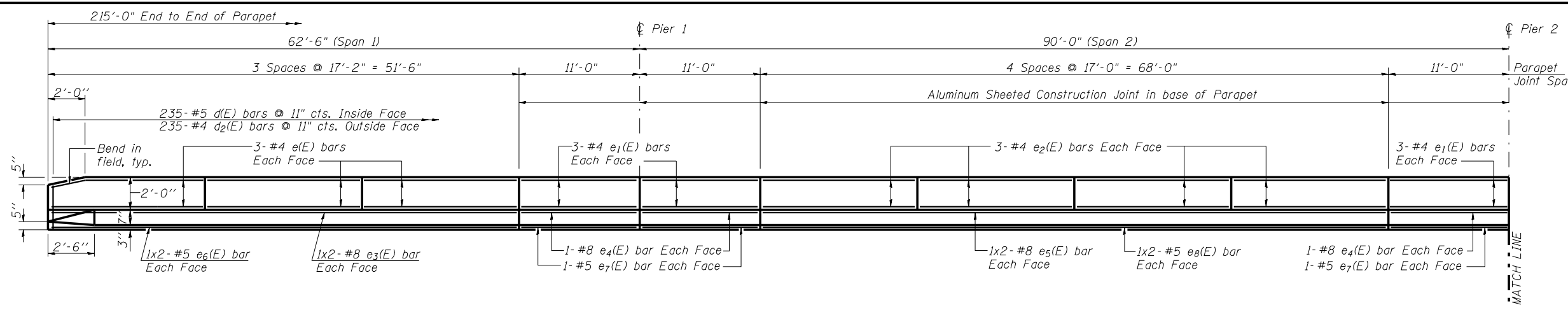
DESIGNED BY: SMM PROJECT NO: 182287  
 DRAWN BY: MEW DATE: 5/05  
 CHECKED BY: MM  
 APPROVED BY: SMM  
 ACTIVITY INITIALS

**S-5**

### SUPERSTRUCTURE BILL OF MATERIAL

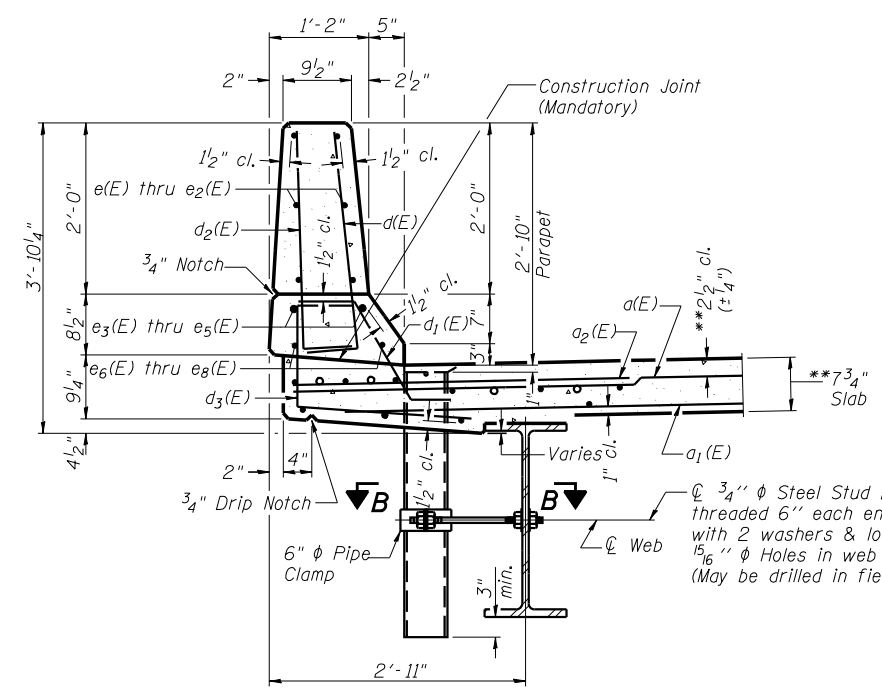
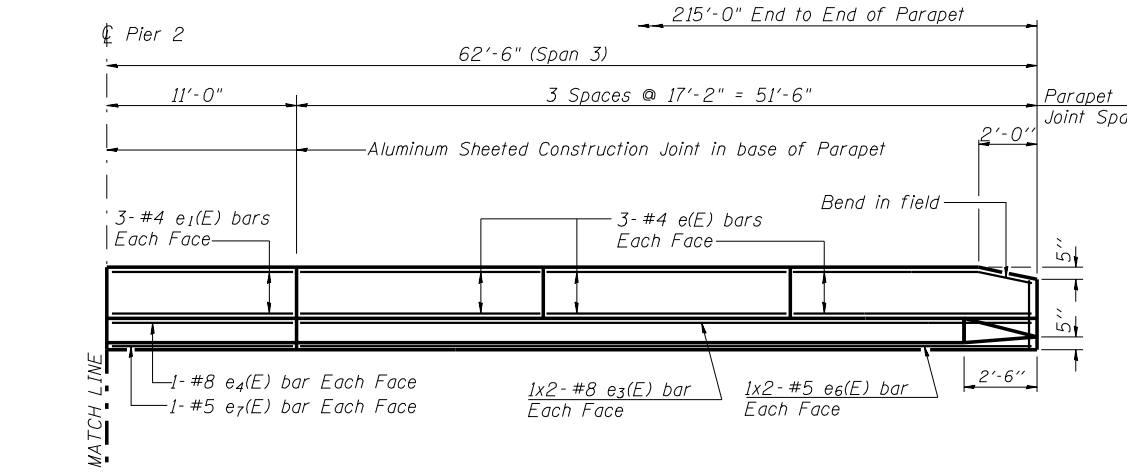
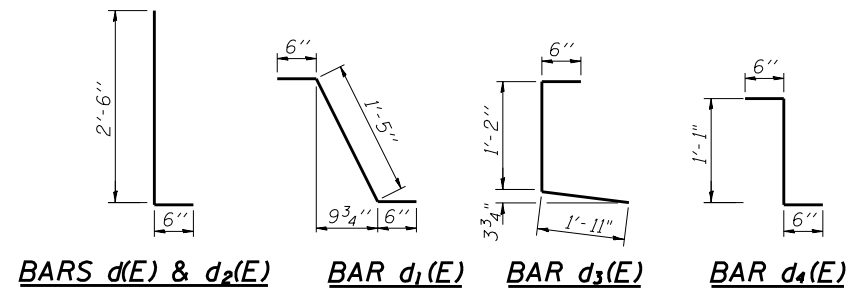
Bar	No.	Size	Length	Shape
a(E)	738	#5	19'-1"	—
a <sub>1</sub> (E)	574	#5	18'-3"	—
a <sub>2</sub> (E)	370	#6	4'-6"	—
b(E)	336	#5	28'-9"	—
b <sub>1</sub> (E)	80	#6	44'-6"	—
b <sub>2</sub> (E)	252	#5	32'-7"	—
d(E)	470	#5	3'-0"	—
d <sub>1</sub> (E)	458	#5	2'-5"	—
d <sub>2</sub> (E)	470	#4	3'-0"	—
d <sub>3</sub> (E)	470	#4	3'-7"	—
d <sub>4</sub> (E)	12	#5	2'-1"	—
e(E)	72	#4	16'-10"	—
e <sub>1</sub> (E)	48	#4	10'-8"	—
e <sub>2</sub> (E)	48	#4	16'-8"	—
e <sub>3</sub> (E)	16	#8	27'-4"	—
e <sub>4</sub> (E)	16	#8	10'-8"	—
e <sub>5</sub> (E)	8	#8	35'-7"	—
e <sub>6</sub> (E)	16	#5	26'-5"	—
e <sub>7</sub> (E)	16	#5	10'-8"	—
e <sub>8</sub> (E)	8	#5	34'-8"	—
m(E)	8	#6	18'-6"	—
m <sub>1</sub> (E)	12	#6	19'-3"	—
m <sub>2</sub> (E)	24	#6	8'-3"	—
m <sub>3</sub> (E)	8	#6	6'-4"	—
m <sub>4</sub> (E)	4	#6	2'-7"	—
m <sub>5</sub> (E)	4	#6	3'-0"	—
s(E)	84	#5	6'-9"	—
s <sub>1</sub> (E)	72	#4	9'-4"	—
v(E)	76	#5	3'-10"	—
Reinforcement Bars, Epoxy Coated	Pound		62,960	
Concrete Superstructure	Cu. Yds.		286.0	
Bar Splicer	Each		76	

Reinforcement bars designated (E) shall be epoxy coated.  
 Bars indicated thus 2 x 3 - #5 etc. indicates 2 lines of bars with 3 lengths per line.



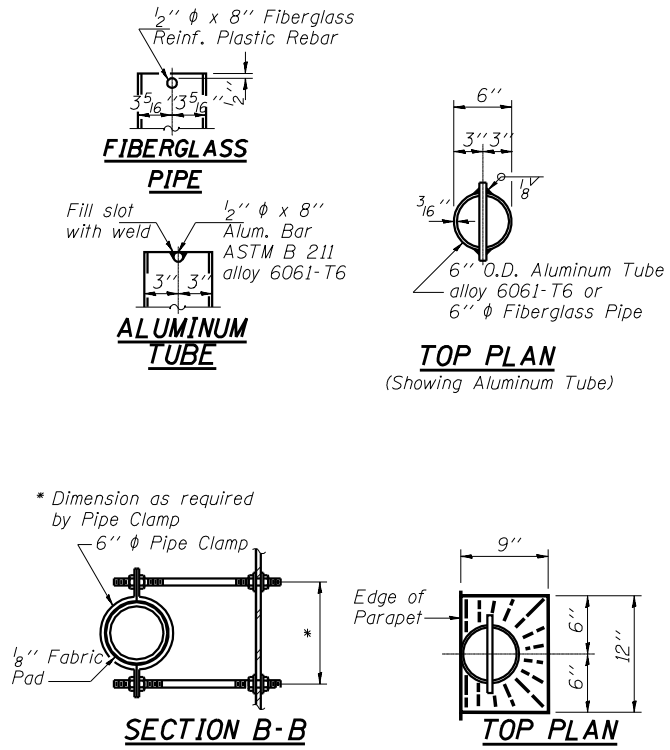
#5	1'-8"
#8	3'-5"

### INSIDE ELEVATION OF PARAPET



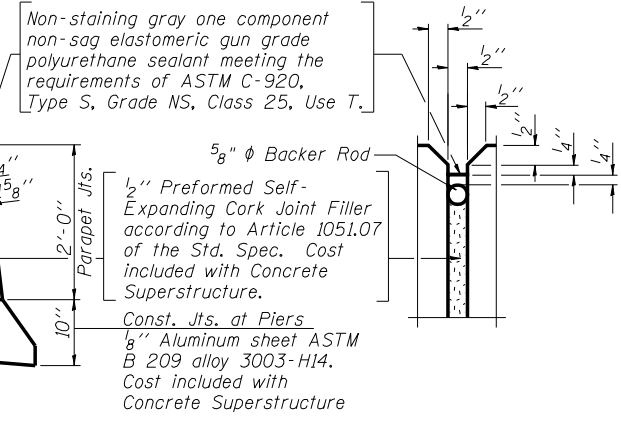
### SECTION THRU PARAPET

\*\*Prior to grinding.



### SECTION B-B

### TOP PLAN



### PARAPET JOINT DETAILS

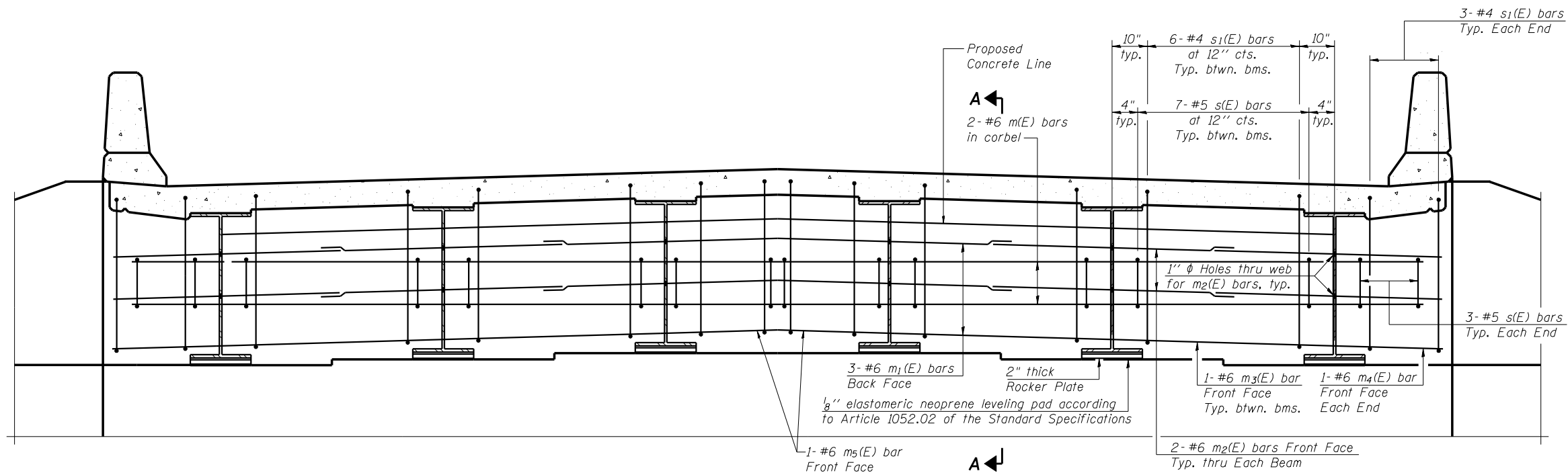
- Notes:
- Floor drains need not be painted.
  - Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 psi minimum.

**PARAPET DETAILS**

IL. ROUTE 47  
 OVER SANGAMON RIVER  
 F.A.P. ROUTE 326 SEC. (129BR-3) BR  
 CHAMPAIGN COUNTY  
 STATION 746+65.00  
 STRUCTURE NO. 010-0281

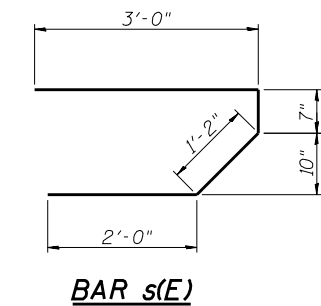
REVISIONS	NAME	DATE

DESIGNED BY	SMH	PERMIT NO.	182287
DRAWN BY	MEW	DATE	5/95
CHECKED BY	MM		
APPROVED BY	SMH		
ACTIVITY	INITIALS		

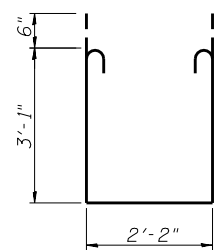


Notes:  
 Reinforcement bars in diaphragm are billed with superstructure on Dwg. S-6.  
 Concrete in diaphragm is included with Concrete Superstructure on Dwg. S-6.  
 For details of bars s(E) & s1(E) see this dwg.  
 The s(E) and s1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.  
 For anchor bolt details see Dwg. S-14.

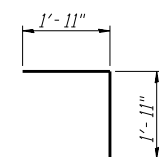
**DIAPHRAGM ELEVATION AT NORTH ABUTMENT**  
 (South Abutment similar)



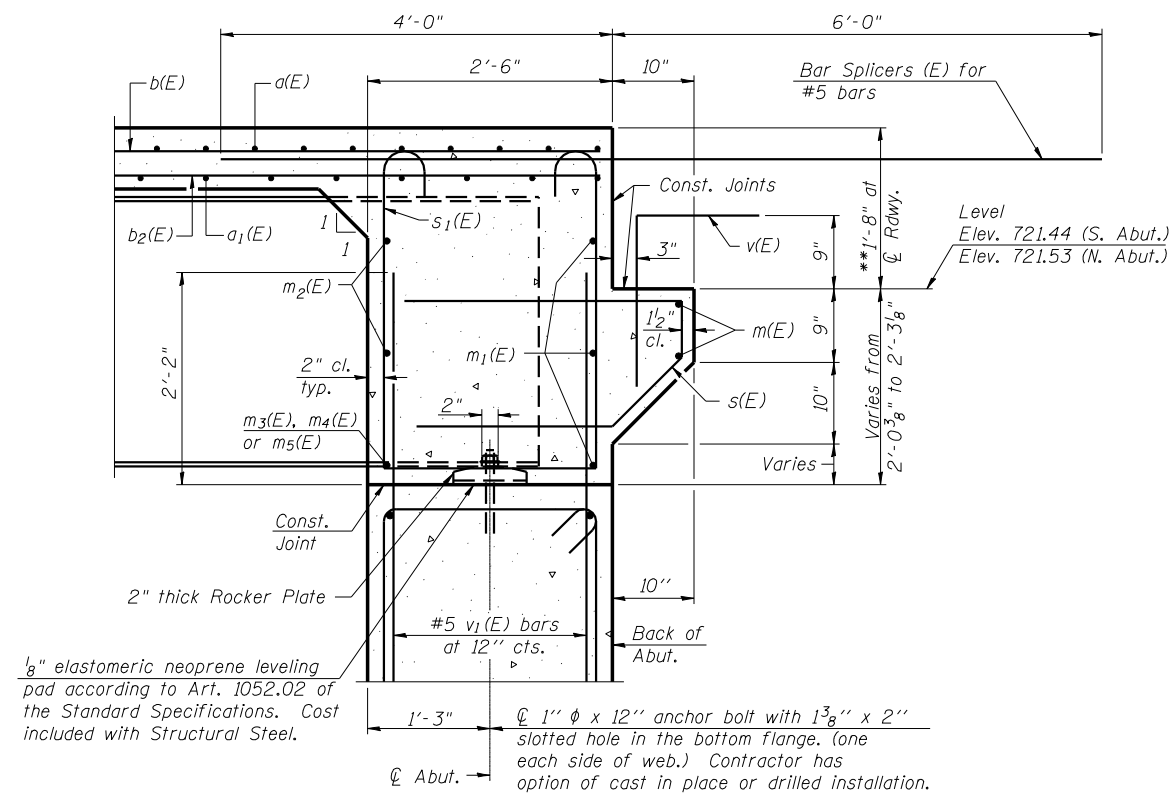
**BAR s(E)**



**BAR s1(E)**



**BAR v(E)**



**SECTION A-A**

\* Cast included with Concrete Superstructure.

\*\*Prior to grinding.

**MIN. BAR LAP**  
 #6 bar = 2'-9"

**SUPERSTRUCTURE DETAILS**

IL. ROUTE 47  
 OVER SANGAMON RIVER  
 F.A.P. ROUTE 326 SEC. (129BR-3) BR  
 CHAMPAIGN COUNTY  
 STATION 746+65.00  
 STRUCTURE NO. 010-0281

CHAMPAIGN, ILLINOIS  
 CHICAGO, ILLINOIS  
 EVANSVILLE, INDIANA  
 INDIANAPOLIS, INDIANA  
 KENOSHA, WISCONSIN  
 SPRING GREEN, WISCONSIN

Clark Ditzel

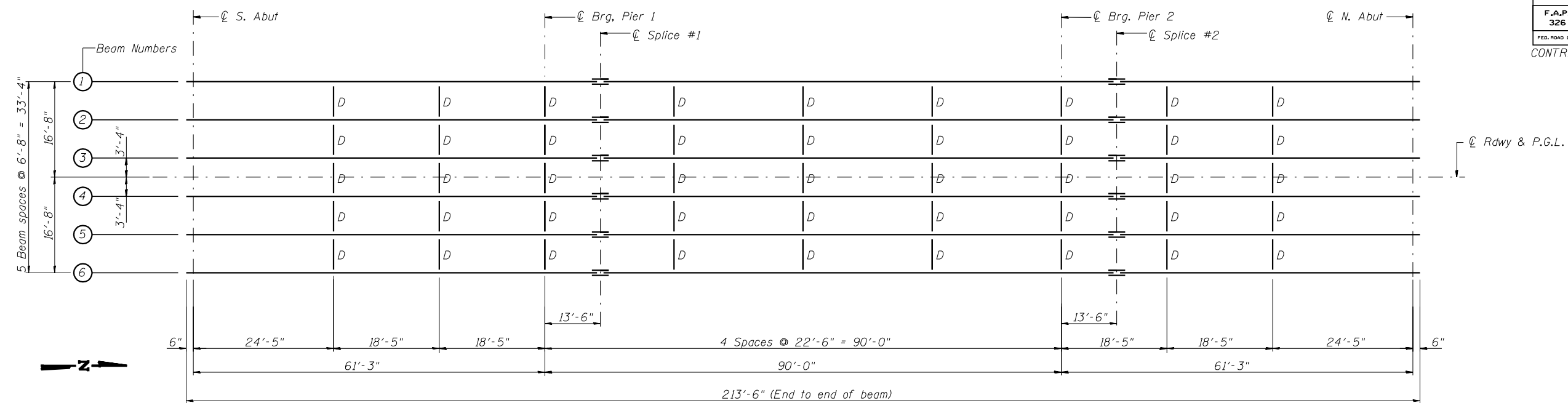
REVISIONS	NAME	DATE

PROJECT NO. 182287  
 DATE: 5/05

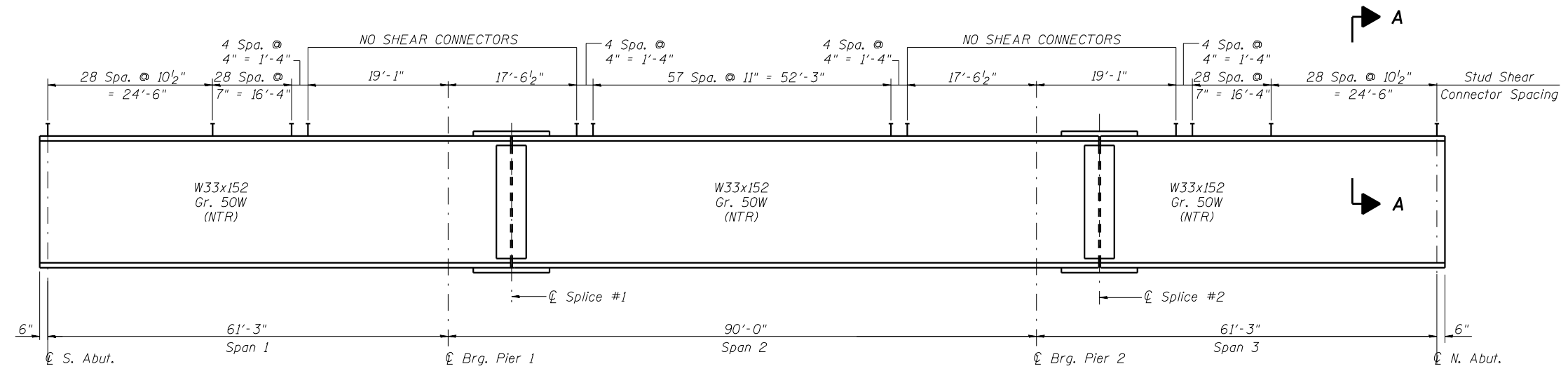
DESIGNED BY: SMM  
 CHECKED BY: MMH  
 APPROVED BY: SMM

DRAWING NUMBER: **S-7**

1. N.T.R. designates members subject to the supplemental requirements for notch toughness (Zone 2).



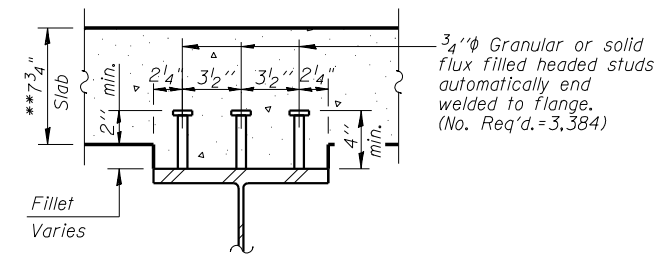
**FRAMING PLAN**



**BEAM ELEVATION**

**TOP OF BEAM ELEVATIONS-BEFORE DEFLECTION**  
(For Fabrication use only)

LOCATION	BEAM 1	BEAM 2	BEAM 3	BEAM 4	BEAM 5	BEAM 6
℄ Brg. S. Abut.	722.14	722.27	722.38	722.38	722.27	722.14
℄ Brg. Pier 1	722.42	722.42	722.65	722.65	722.54	722.42
℄ Splice #1	722.48	722.60	722.71	722.71	722.60	722.48
℄ Brg. Pier 2	722.40	722.52	722.63	722.63	722.52	722.40
℄ Splice #2	722.39	722.52	722.62	722.62	722.52	722.39
℄ Brg. N. Abut.	722.24	722.37	722.47	722.47	722.37	722.24



**SECTION A-A**

\*\*Prior to grinding.

**FRAMING PLAN AND DETAILS**

IL. ROUTE 47  
OVER SANGAMON RIVER  
F.A.P. ROUTE 326 SEC. (129BR-3) BR  
CHAMPAIGN COUNTY  
STATION 746+65.00  
STRUCTURE NO. 010-0281

CHAMPAIGN, ILLINOIS  
CHICAGO, ILLINOIS  
EVANSVILLE, INDIANA  
INDIANAPOLIS, INDIANA  
KENOSHA, WISCONSIN  
SPRING GREEN, WISCONSIN

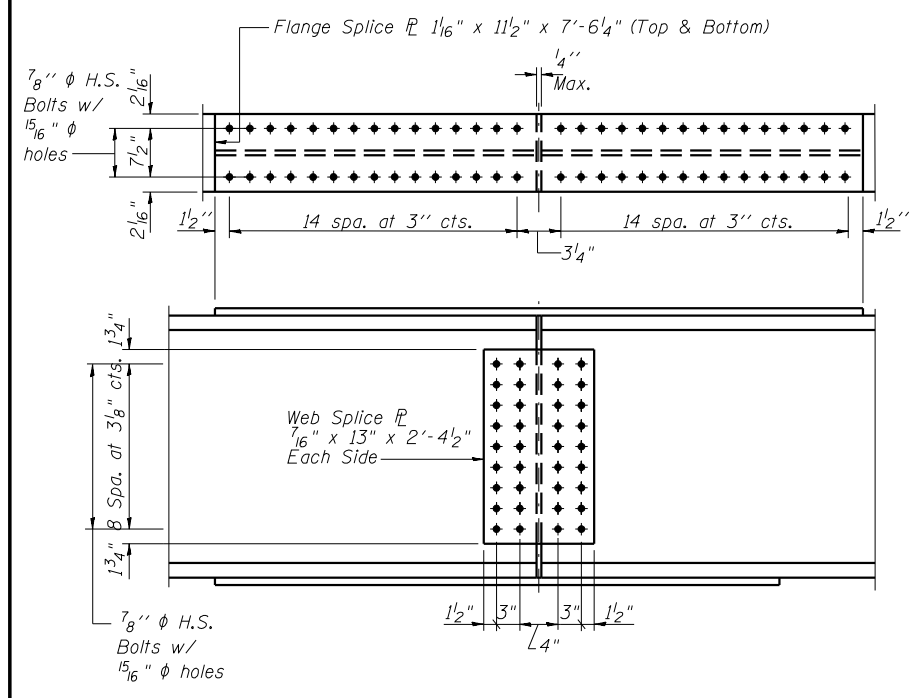
REVISIONS	NAME	DATE

PROJECT NO. 182287  
DATE: 5/05

DESIGNED BY: SMM  
CHECKED BY: MM  
APPROVED BY: SMM

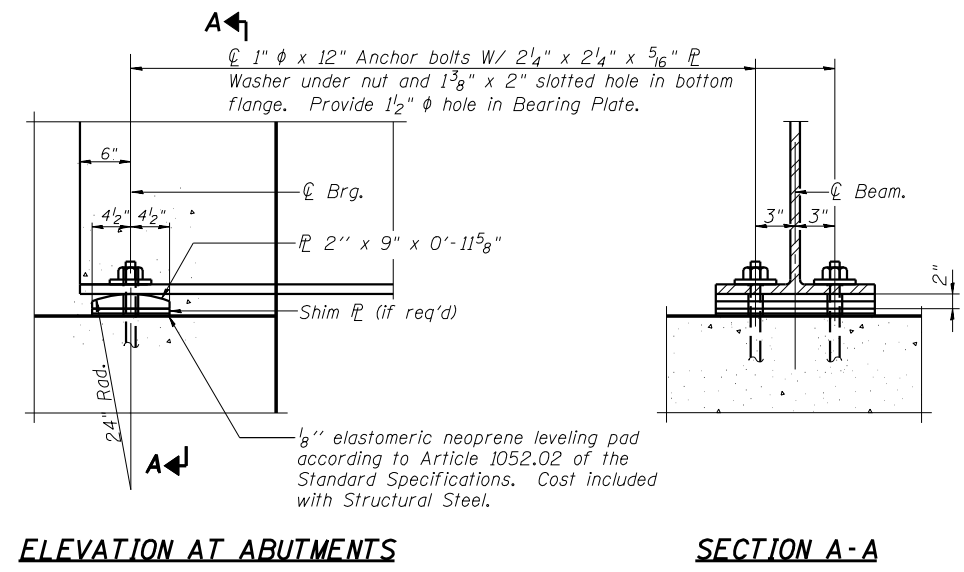
ACTIVITY: INITIALS

**S-8**

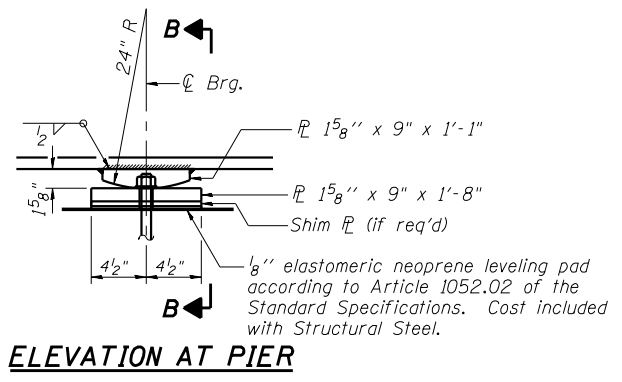


**SPLICES 1 & 2**

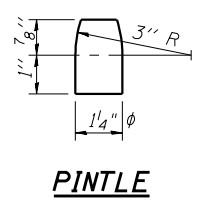
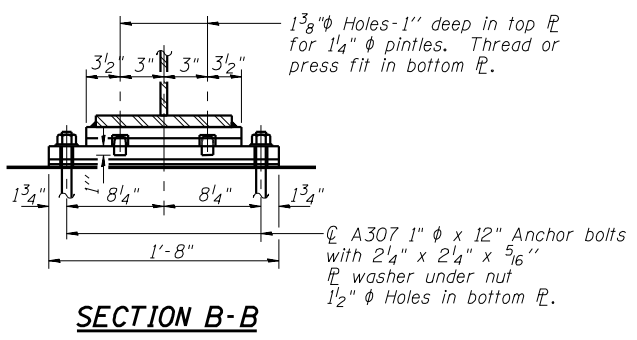
Note:  
All beams and splice material shall be AASHTO M270 Gr. 50W and shall meet Notch Toughness Requirements (N.T.R.)



**FIXED BEARING AT NORTH & SOUTH ABUTMENT**  
(12 Required)



**FIXED BEARING AT PIERS 1 & 2**  
(12 Required)



**INTERIOR GIRDER MOMENT TABLE**

	0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or Pier 2	0.5 Sp. 2
$I_s$ (in <sup>4</sup> )	8160	8160	8160
$I_c$ (in <sup>4</sup> )	19700		19700
$I_c$ (3n) (in <sup>4</sup> )	14465		14465
$S_s$ (in <sup>3</sup> )	487	487	487
$S_c$ (n) (in <sup>3</sup> )	680		680
$S_c$ (3n) (in <sup>3</sup> )	616		616
$Z$ (in <sup>3</sup> )			
$\bar{P}$ (k/ft.)	0.840	1.340	0.840
$M\bar{P}$ (k)	172	775	336
$s\bar{P}$ (k/ft.)	0.500		0.500
$M_s\bar{P}$ (k)	120		242
$M\bar{L}$ (k)	428	315	581
$M$ (Imp) (k)	115	79	135
$s_3[M\bar{L} + M(\text{Imp})]$ (k)	906	657	1194
$M_a$ (k)	1558	1862	2305
$M_u$ (k)	2900		3001
$f_s\bar{P}$ non-comp (k.s.i.)	4.2	19.1	8.3
$f_s\bar{P}$ (comp) (k.s.i.)	2.3		4.7
$f_s^{5/3}$ (4+Imp) (k.s.i.)	16	16.2	21.1
$f_s$ (Overload) (k.s.i.)	22.5	35.3	34.1
$f_s$ (Total) (k.s.i.)		45.9	
VR (k)	56		58

\* Non-Compact Section \* Compact, Braced Section

**INTERIOR GIRDER REACTION TABLE**

	Abut.	Pier
$R\bar{P}$ (k)	28.3	113.8
$R\bar{L}$ (k)	40.6	49.3
Imp. (k)	10.9	12.4
$R$ (Total) (k)	79.8	175.5

$I_s$  and  $S_s$  are the moment of inertia and section modulus of the steel section used in computing  $f_s$  (Total & Overload).

$I_c(n)$  and  $S_c(n)$  are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.

$I_c(3n)$  and  $S_c(3n)$  are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)

VR is the maximum Live Load + Impact shear range within the composite portion of the span.

Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.

$M_a$  (Applied Moment) =  $1.3[M\bar{P} + M_s\bar{P} + s_3(M\bar{L} + M(\text{Imp}))]$ .

The Plastic Moment capacity ( $M_u$ ) is computed according to AASHTO 10.48.1 and 10.50.1.1.

$M\bar{P}$  Moment due to dead loads on non-composite section.

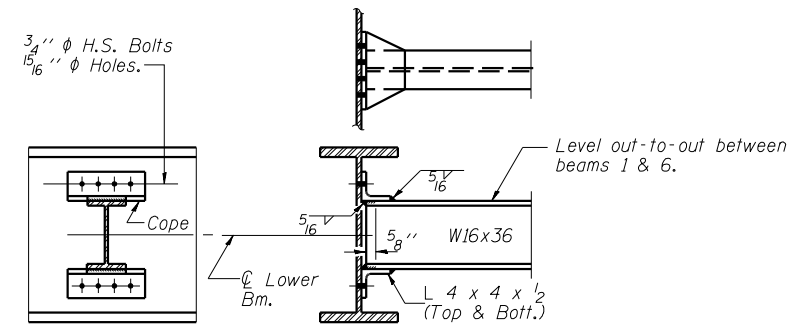
$M_s\bar{P}$  Moment due to dead loads on composite section.

$M\bar{L}$  Moment due to live load on non-composite or composite section.

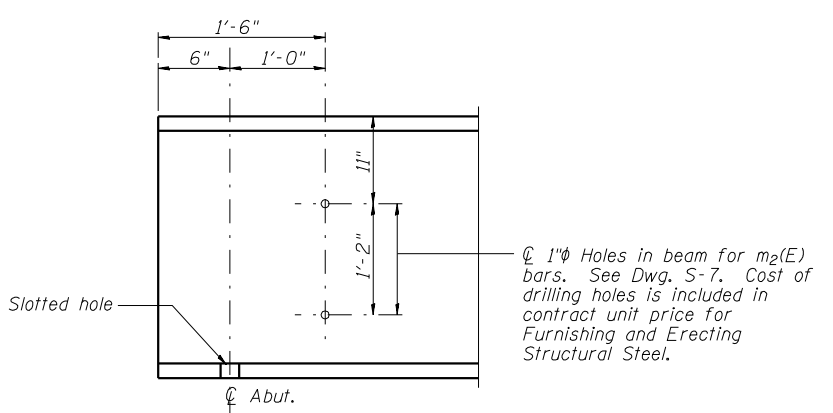
$M$  (Imp) Moment due to live load impact on non-composite or composite section

$f_s$  (Overload) is the sum of the stresses due to  $M\bar{P} + M_s\bar{P} + s_3(M\bar{L} + M(\text{Imp}))$ .

$f_s$  (Total) (Non-compact section) is the sum of the stresses due to  $1.3[M\bar{P} + M_s\bar{P} + s_3(M\bar{L} + M(\text{Imp}))]$ .



Note:  
Two hardened washers shall be required over all oversize holes for diaphragms.



Notes:  
1. See Dwg. S-14 for Anchor Bolt installation.

**STEEL DETAILS**

IL. ROUTE 47  
OVER SANGAMON RIVER  
F.A.P. ROUTE 326 SEC. (129BR-3) BR  
CHAMPAIGN COUNTY  
STATION 746+65.00  
STRUCTURE NO. 010-0281

CHAMPAIGN, ILLINOIS  
CHICAGO, ILLINOIS  
EVANSVILLE, INDIANA  
INDIANAPOLIS, INDIANA  
KENOSHA, WISCONSIN  
SPRING GREEN, WISCONSIN

**REVISIONS**

NAME	DATE

NOVA ENGINEERING, INC. IS NOT TO BE CONSIDERED BY HOLDING ANY PORTION OF THIS DRAWING

PROJECT NO. 182287

DRAWN BY: MEM DATE: 5/05

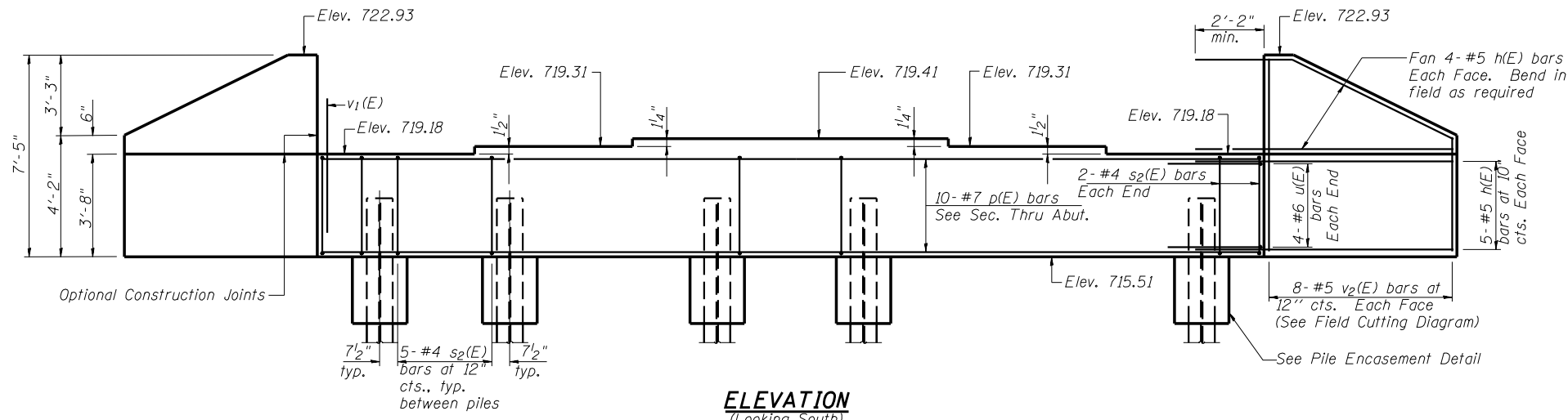
CHECKED BY: MMH

APPROVED BY: SMM

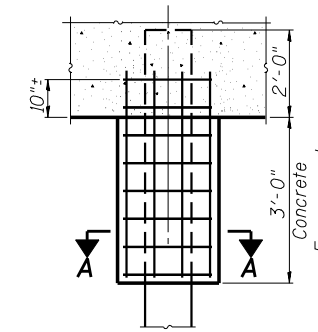
ACTIVITY INITIALS

DRAWING NUMBER: S-9

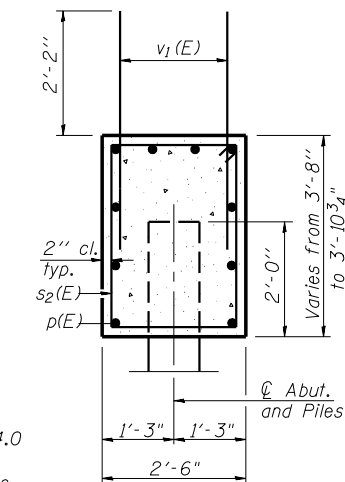
Note: Pour steps monolithically with cap. Space reinforcement in cap to miss anchor bolts. Portion of wingwall below construction joint shall be cast monolithically with cap.



**ELEVATION**  
(Looking South)



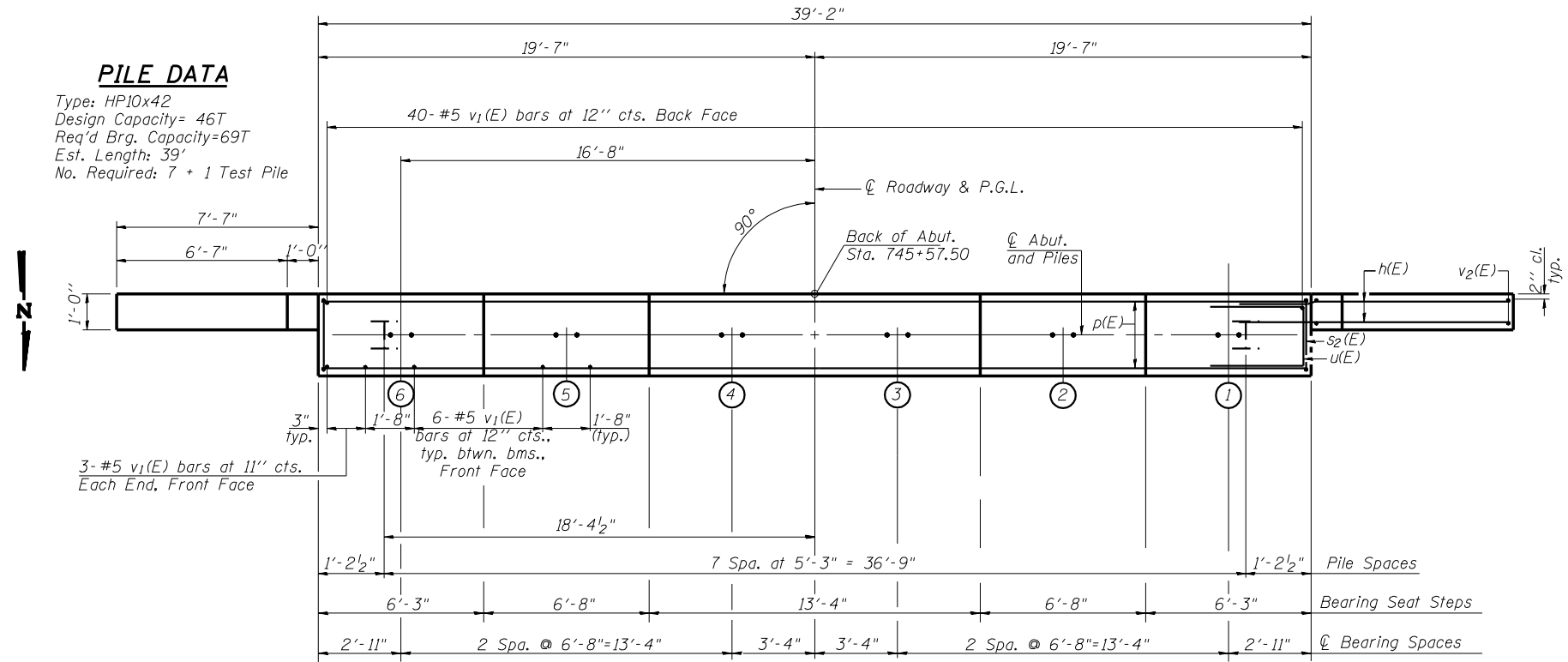
**SECTION A-A**  
**PILE ENCASEMENT DETAIL**



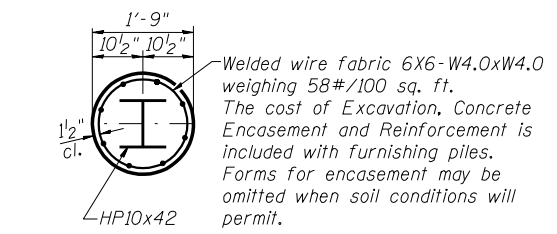
**SEC. THRU ABUT.**

**PILE DATA**

Type: HP10x42  
Design Capacity= 46T  
Req'd Brg. Capacity=69T  
Est. Length: 39'  
No. Required: 7 + 1 Test Pile



**PLAN**

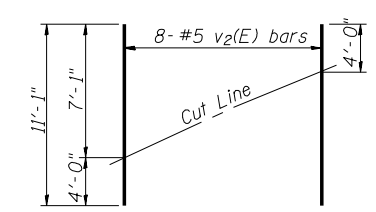


**ANCHOR BOLT LAYOUT**

**BILL OF MATERIAL**

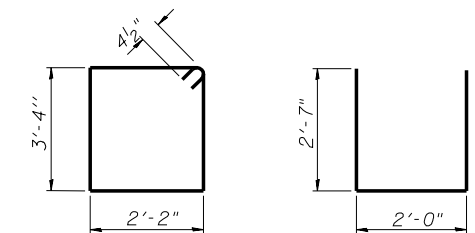
Bar	No.	Size	Length	Shape
h(E)	36	#5	9'-7"	
p(E)	20	#7	38'-10"	
s2(E)	40	#4	11'-9"	
u(E)	8	#6	7'-2"	
v1(E)	76	#5	4'-4"	
v2(E)	16	#5	11'-1"	
Concrete Structures		Cu. Yd.	17.2	
Reinforcement Bars, Epoxy Coated		Pound	2,080	
Structure Excavation		Cu. Yd.	92	
Furnishing Steel Piles HP10x42		Foot	273	
Driving Steel Piles HP10x42		Foot	273	
Test Pile Steel HP10x42		Each	1	

Reinforcement bars designated (E) shall be epoxy coated.



**FIELD CUTTING DIAGRAM**

Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.



**BAR s2(E)**

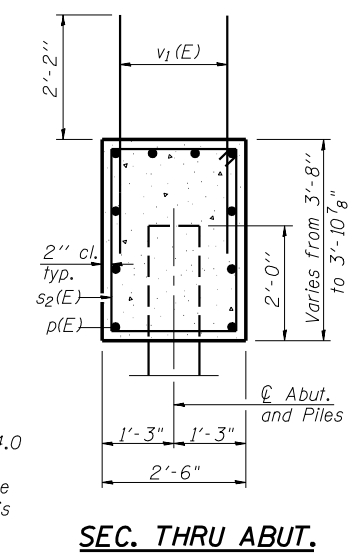
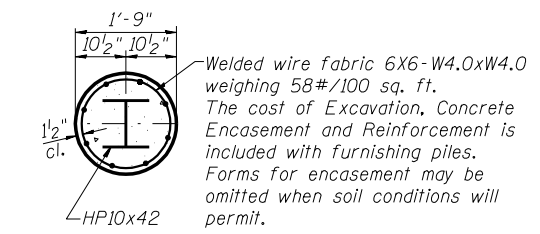
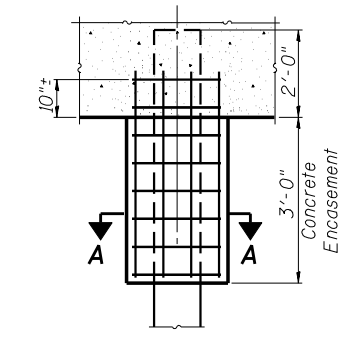
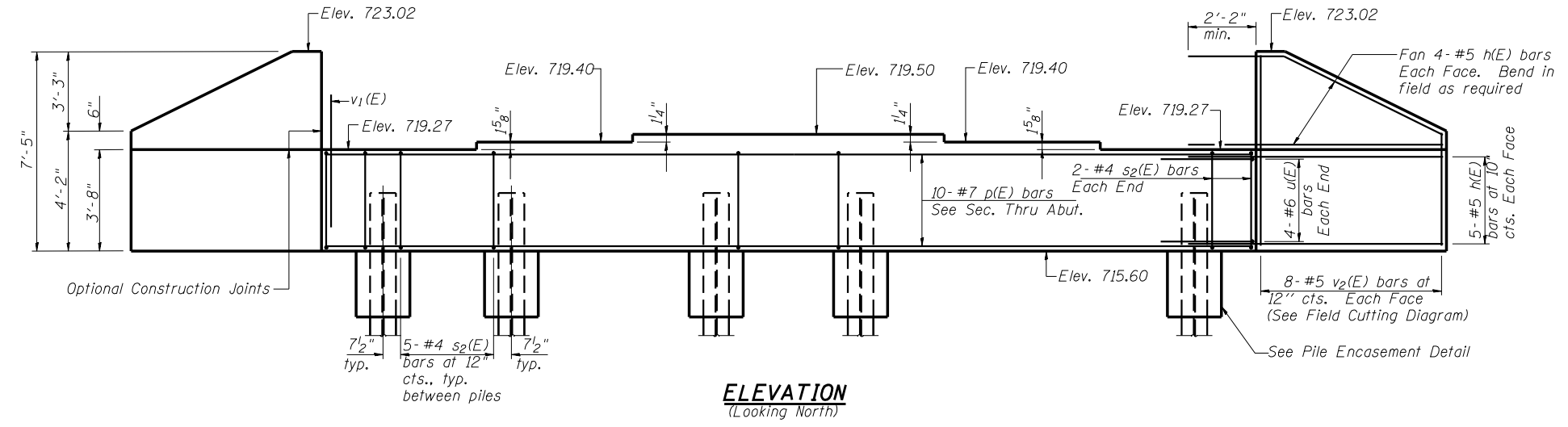
**BAR u(E)**

**SOUTH ABUTMENT**  
IL. ROUTE 47  
OVER SANGAMON RIVER  
F.A.P. ROUTE 326 SEC. (129BR-3) BR  
CHAMPAIGN COUNTY  
STATION 746+65.00  
STRUCTURE NO. 010-0281

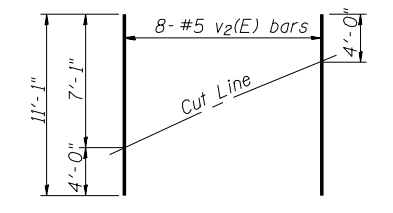
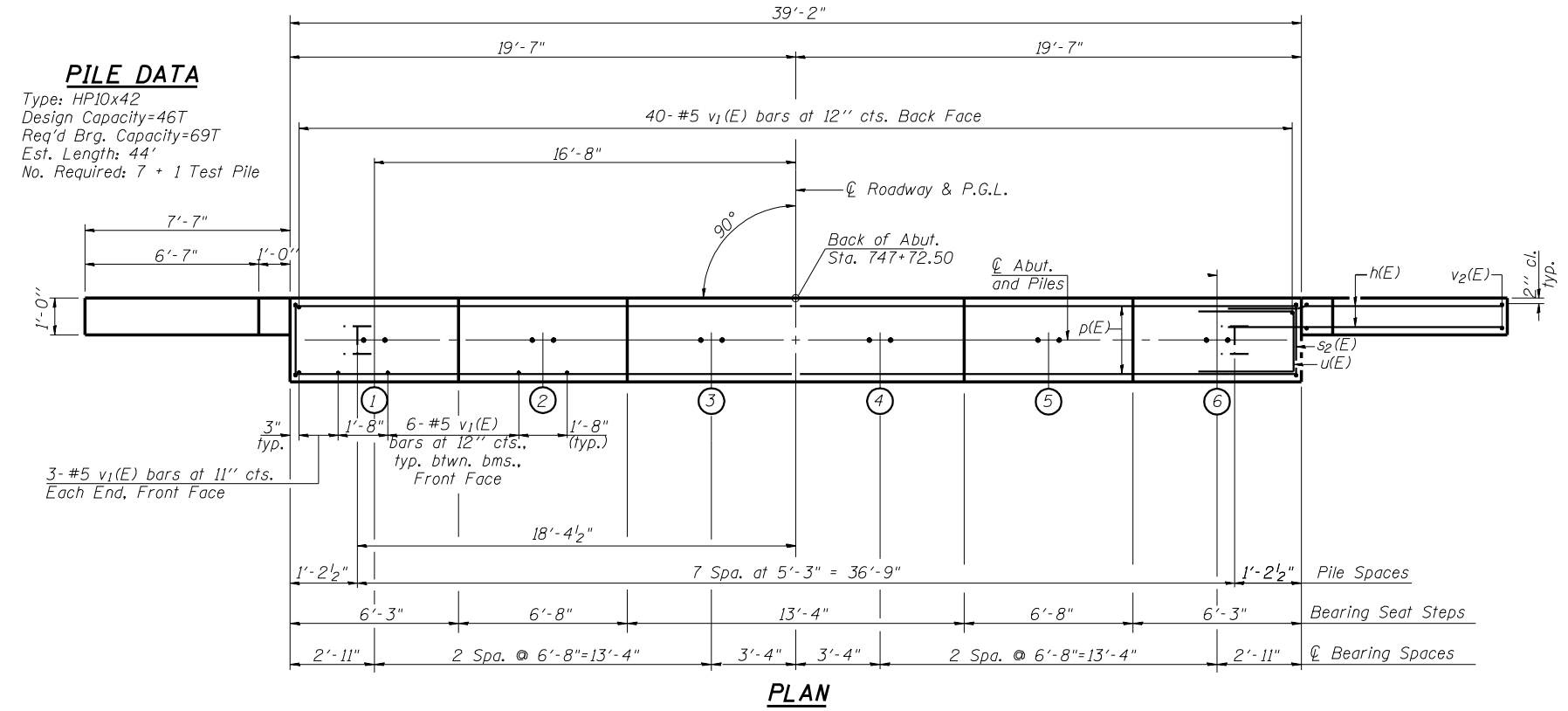


REVISIONS	DATE	BY	DATE

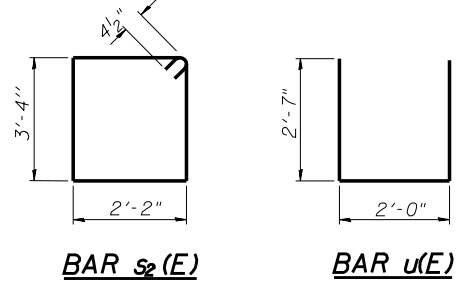
Note: Pour steps monolithically with cap. Space reinforcement in cap to miss anchor bolts. Portion of wingwall below construction joint shall be cast monolithically with cap.



**PILE DATA**  
Type: HP10x42  
Design Capacity=46T  
Req'd Brg. Capacity=69T  
Est. Length: 44'  
No. Required: 7 + 1 Test Pile



Order v<sub>2</sub>(E) full length. Cut as shown and use remainder of bars in opposite face.



**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	36	#5	9'-7"	
p(E)	20	#7	38'-10"	
s <sub>2</sub> (E)	40	#4	11'-4"	□
u(E)	8	#6	7'-2"	▭
v <sub>1</sub> (E)	76	#5	4'-4"	
v <sub>2</sub> (E)	16	#5	11'-1"	
Concrete Structures		Cu. Yd.	17.2	
Reinforcement Bars, Epoxy Coated		Pound	2,080	
Structure Excavation		Cu. Yd.	92	
Furnishing Steel Piles HP10x42		Foot	308	
Driving Steel Piles HP10x42		Foot	308	
Test Pile Steel HP10x42		Each	1	

Reinforcement bars designated (E) shall be epoxy coated.

**NORTH ABUTMENT**  
IL. ROUTE 47  
OVER SANGAMON RIVER  
F.A.P. ROUTE 326 SEC. (129BR-3) BR  
CHAMPAIGN COUNTY  
STATION 746+65.00  
STRUCTURE NO. 010-0281



REVISIONS	DATE	BY	DATE

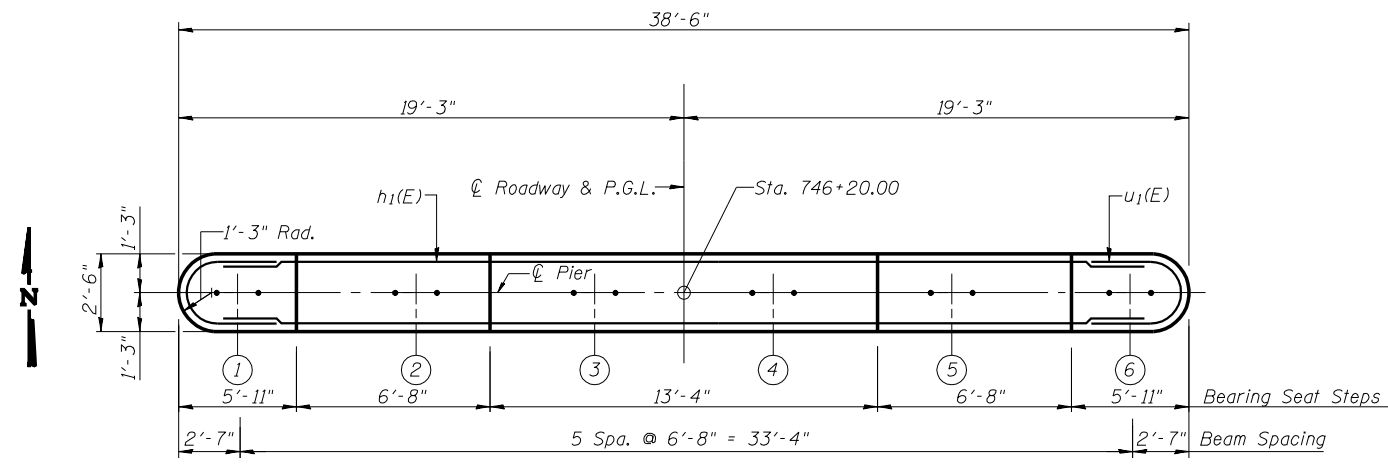
PROJECT NO. 102287  
DATE: 5/05  
DRAWING NUMBER: S-11



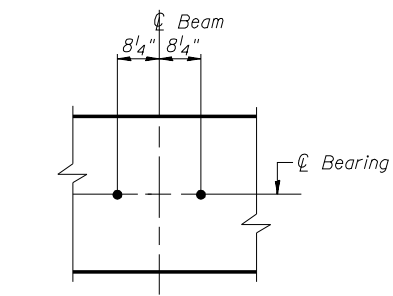
Notes: Space reinforcement in cap to miss anchor bolts.  
Pour steps monolithically with cap.

**PILE DATA**

Type: HP10x42  
Design Capacity: 50T  
Req'd Brg. Capacity: 75 T  
Est. Length: 38'  
No. Req'd: 12 + 1 Test Pile



**TOP PLAN**

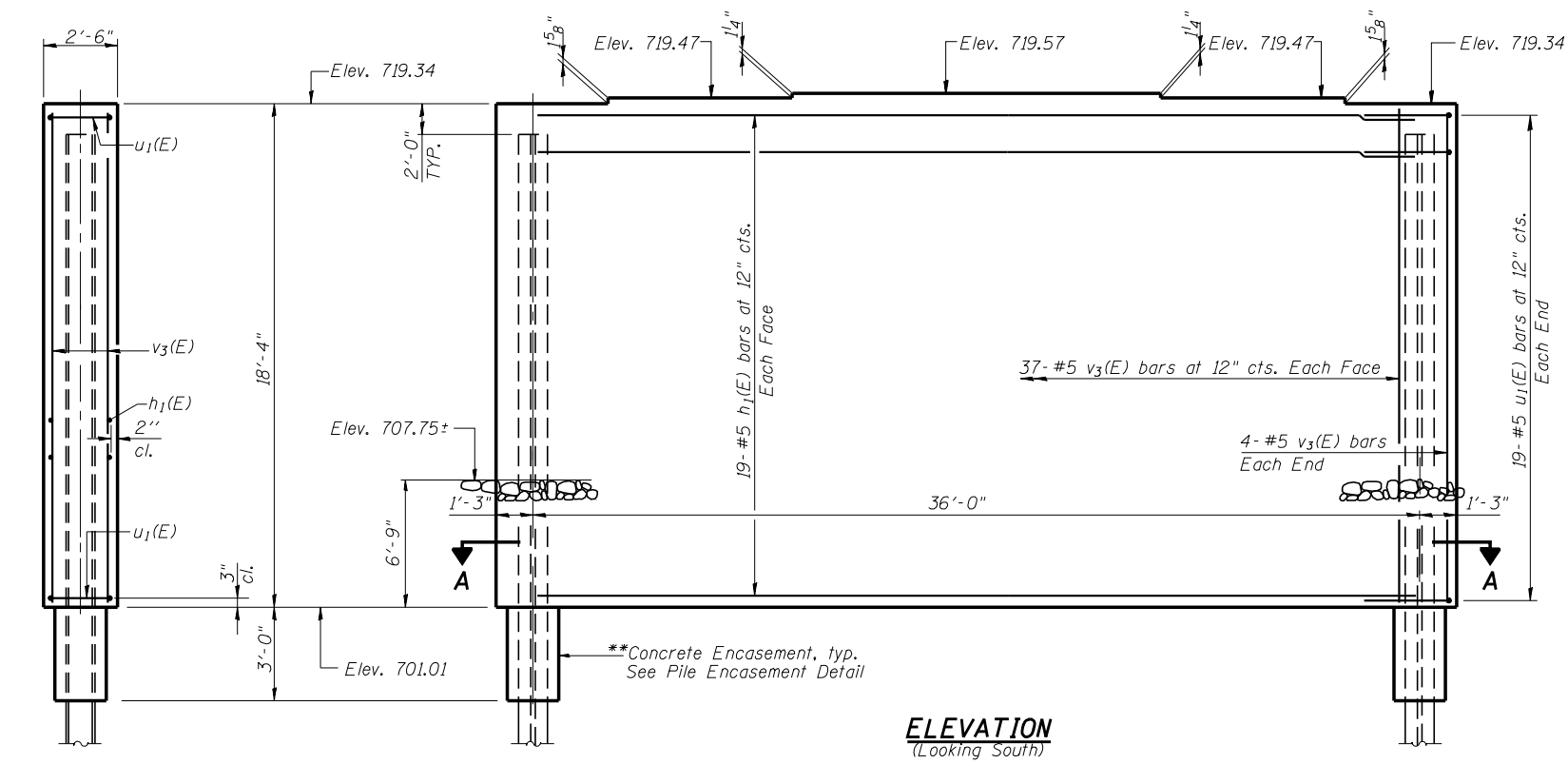


**ANCHOR BOLT LAYOUT**

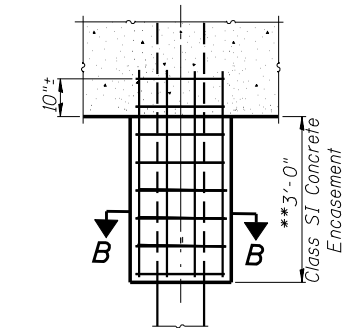
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h <sub>1</sub> (E)	38	#5	36'-0"	—
u <sub>1</sub> (E)	38	#5	9'-5"	U
v <sub>3</sub> (E)	82	#5	17'-11"	—
Concrete Structures		Cu. Yd.	64.9	
Reinforcement Bars, Epoxy Coated		Pound	3,330	
Structure Excavation		Cu. Yd.	67	
Furnishing Steel		Foot	456	
Piles HP10x42		Foot	456	
Driving Steel Piles HP10x42		Each	1	
Underwater Structure Excavation Protection		Each	1	
Location 1				
Bar Splicer		Each	38	

Reinforcement Bars designated (E) shall be epoxy coated.



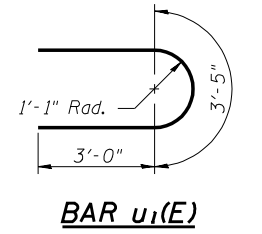
**ELEVATION**  
(Looking South)



**SECTION B-B**

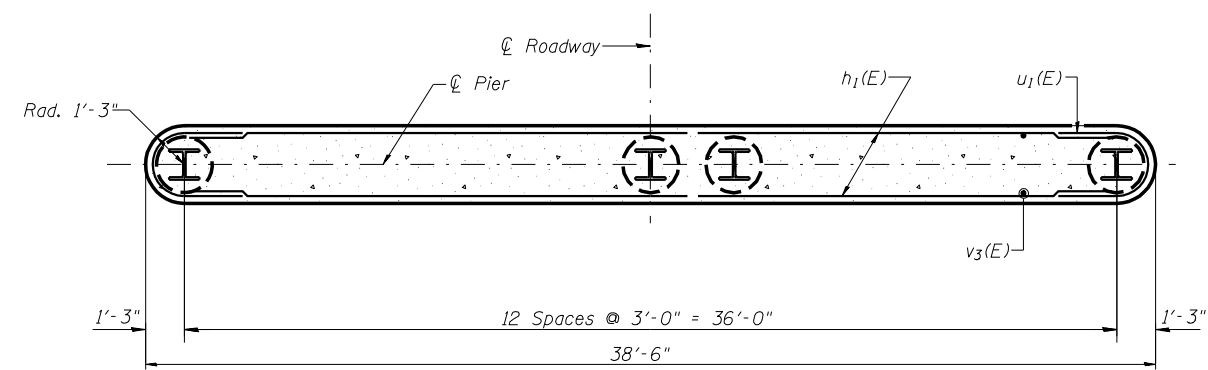
**PILE ENCASEMENT DETAIL**

\*\*Forms shall be placed below Elevation 701.00 after excavation for Pier walls. Reinforcement and Concrete Encasement shall be poured underwater into forms. The cost of Concrete Encasement, Reinforcement, form excavation, and furnishing and placing forms is included with furnishing piles. If a portion of the pier wall is under water, concrete shall be trimmed under water into forms according to Article 503.08 of the Standard Specifications. Concrete shall be trimmed to an Elevation 1'-0" above the water level at the time of Construction.



**BAR u<sub>1</sub>(E)**

**END VIEW**



**SECTION A-A**

**PIER 1**  
IL. ROUTE 47  
OVER SANGAMON RIVER  
F.A.P. ROUTE 326 SEC. (129BR-3) BR  
CHAMPAIGN COUNTY  
STATION 746+65.00  
STRUCTURE NO. 010-0281

CHAMPAIGN, ILLINOIS  
CHICAGO, ILLINOIS  
EVANSVILLE, INDIANA  
INDIANAPOLIS, INDIANA  
KENOSHA, WISCONSIN  
SPRING GREEN, WISCONSIN

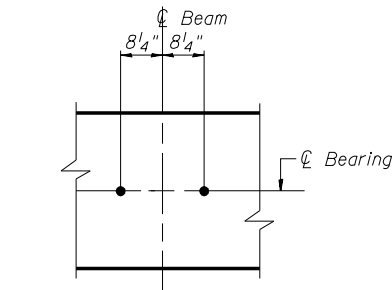
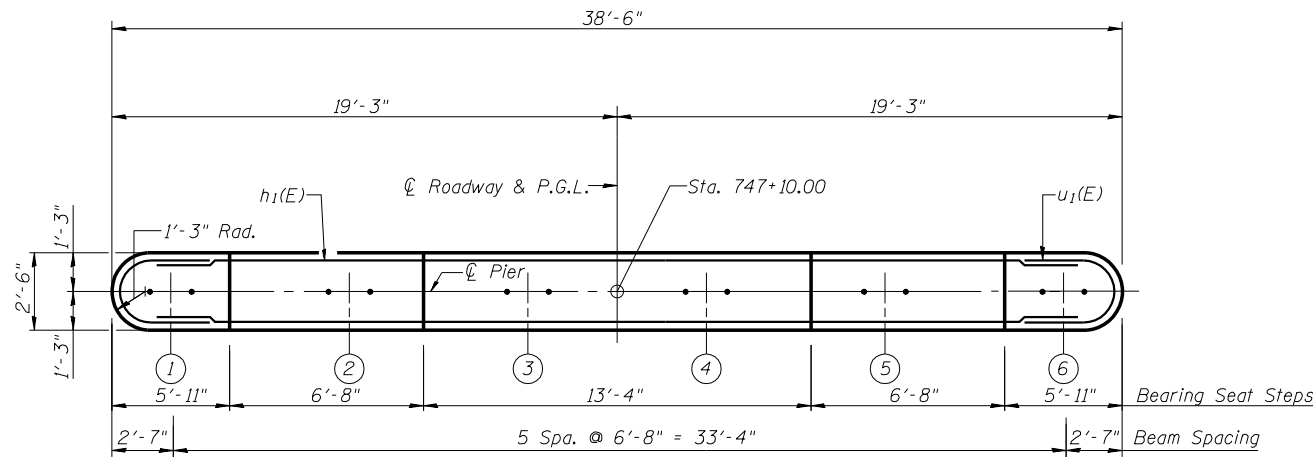
REVISIONS	NAME	DATE

DESIGNED BY: SMM	PROJECT NO: 102287
DRAWN BY: MEW	DATE: 5/05
CHECKED BY: MM	
APPROVED BY: SMM	
ACTIVITY	INITIALS

Notes: Space reinforcement in cap to miss anchor bolts.  
Four steps monolithically with cap.

**PILE DATA**

Type: HP10x42  
Design Capacity: 50T  
Req'd Brg. Capacity: 75T  
Est. Length: 46'  
No. Req'd: 12 + 1 Test Pile

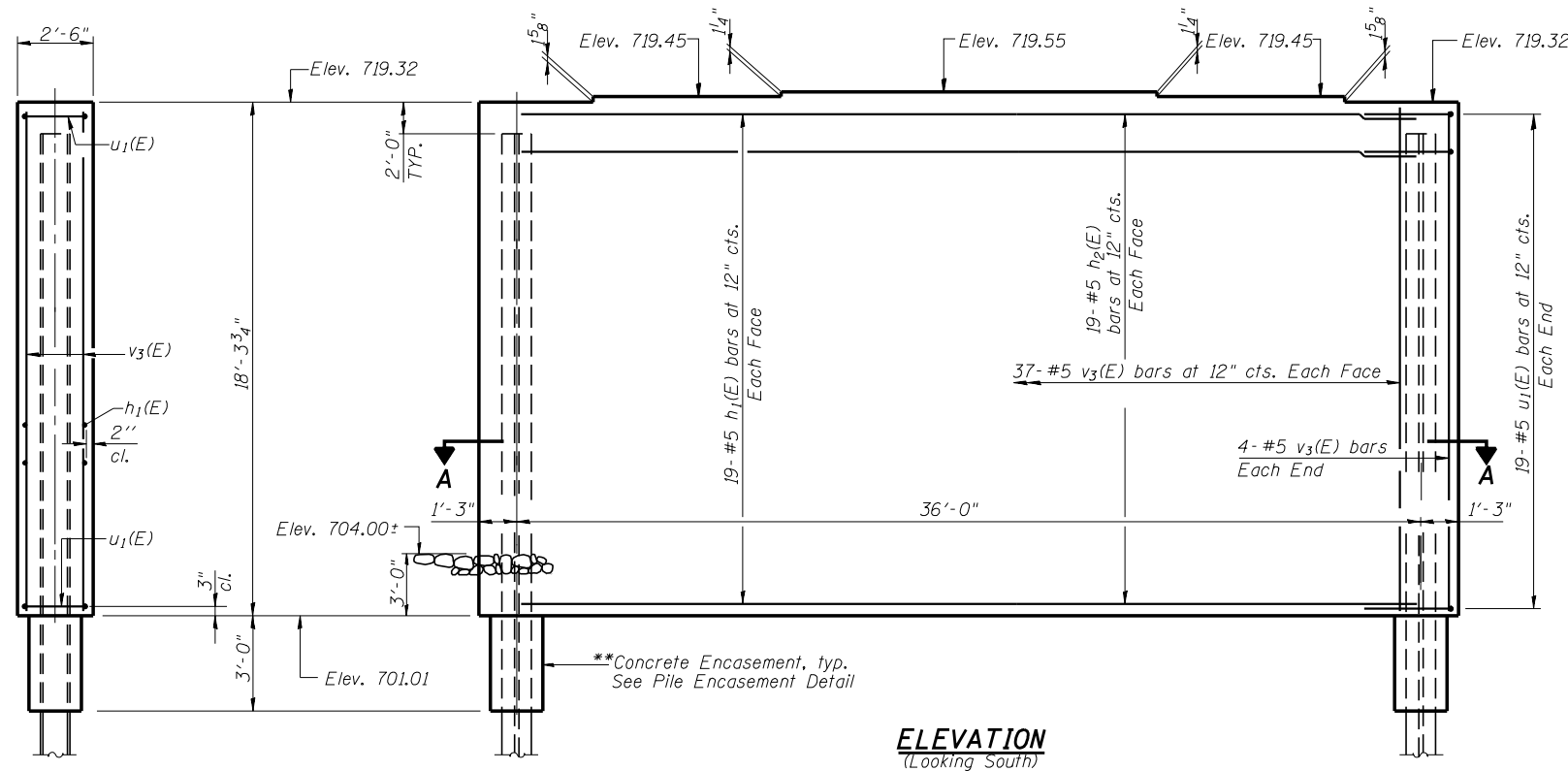


**ANCHOR BOLT LAYOUT**

**BILL OF MATERIAL**

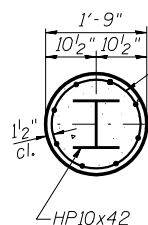
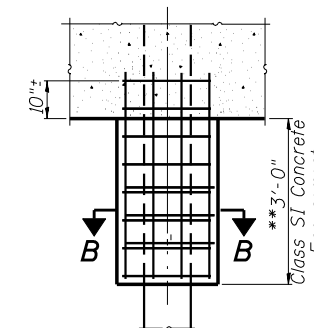
Bar	No.	Size	Length	Shape
$h_1(E)$	38	#5	36'-0"	—
$u_1(E)$	38	#5	9'-5"	U
$v_3(E)$	82	#5	17'-11"	—
Concrete Structures		Cu. Yd.	64.8	
Reinforcement Bars, Epoxy Coated		Pound	3,330	
Structure Excavation		Cu. Yd.	30	
Furnishing Steel Piles HP10x42		Foot	552	
Driving Steel Piles HP10x42		Foot	552	
Test Pile Steel HP10x42		Each	1	
Underwater Structure Excavation Protection Location 2		Each	1	

Reinforcement Bars designated (E) shall be epoxy coated.



**ELEVATION**  
(Looking South)

**END VIEW**

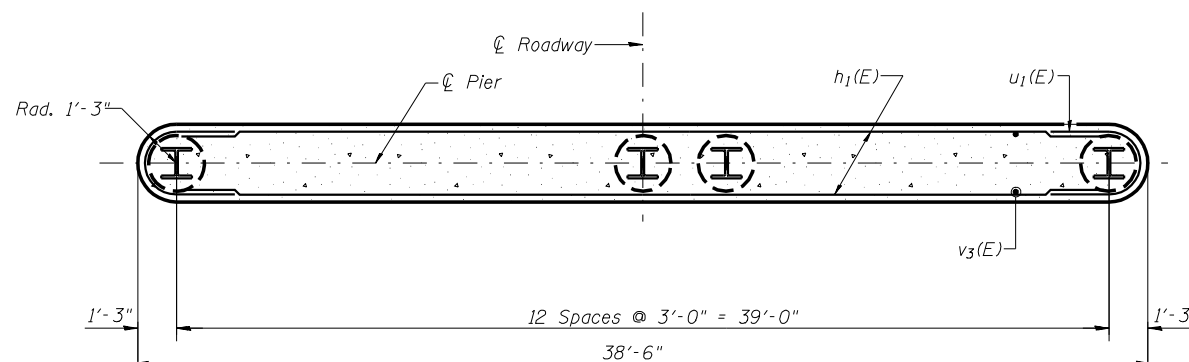


Welded wire fabric 6X6-W4.0xW4.0 weighing 58#/100 sq. ft.  
The cost of Excavation, Concrete Encasement and Reinforcement is included with furnishing piles.  
Forms for encasement may be omitted when soil conditions will permit.

**SECTION B-B**

**PILE ENCASEMENT DETAIL**

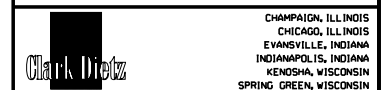
\*\*Forms shall be placed below Elevation 701.00 after excavation for Pier walls. Reinforcement and Concrete Encasement shall be poured underwater into forms. The cost of Concrete Encasement, Reinforcement, form excavation, and furnishing and placing forms is included with furnishing piles. If a portion of the pier wall is under water, concrete shall be trimmed under water into forms according to Article 503.08 of the Standard Specifications. Concrete shall be trimmed to an Elevation 1'-0" above the water level at the time of Construction.



**SECTION A-A**

**PIER 2 DETAILS**

IL. ROUTE 47  
OVER SANGAMON RIVER  
F.A.P. ROUTE 326 SEC. (129BR-3) BR  
CHAMPAIGN COUNTY  
STATION 746+65.00  
STRUCTURE NO. 010-0281



REVISIONS	DATE	BY	DATE	INITIALS

**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 =  $1.25 \times f_y \times A_l$   
(Tension in kips)
- ② Minimum \*Pull-out Strength =  $1.25 \times f_{s_{allow}} \times A_l$   
(Tension in kips)

Where  $f_y$  = Yield strength of lapped reinforcement bars in ksi.  
 $f_{s_{allow}}$  = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)  
 $A_l$  = 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	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."

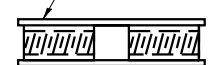
The diameter of this part is the same as the diameter of the bar spliced.

**ROLLED THREAD DOWEL BAR**



**\*\* ONE PIECE**

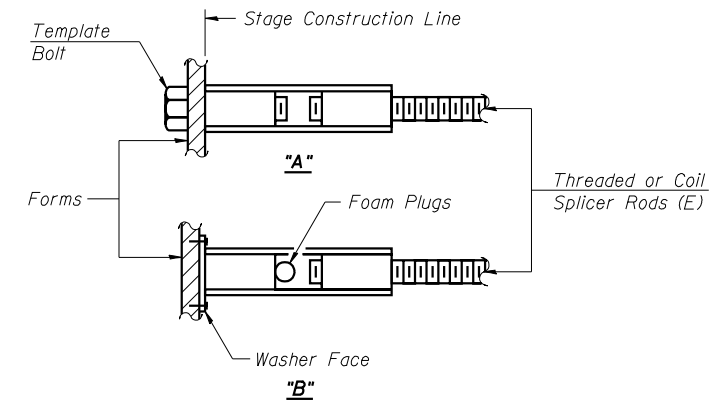
Wire Connector



**WELDED SECTIONS**

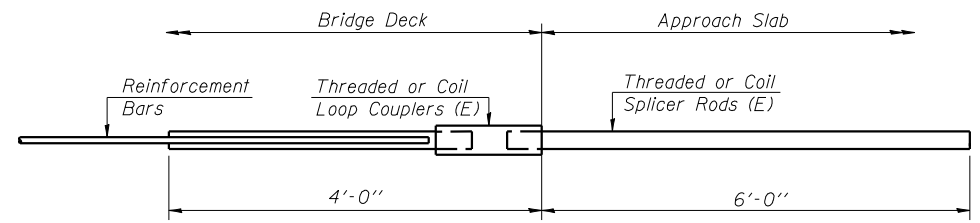
**BAR SPLICER ASSEMBLY ALTERNATIVES**

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



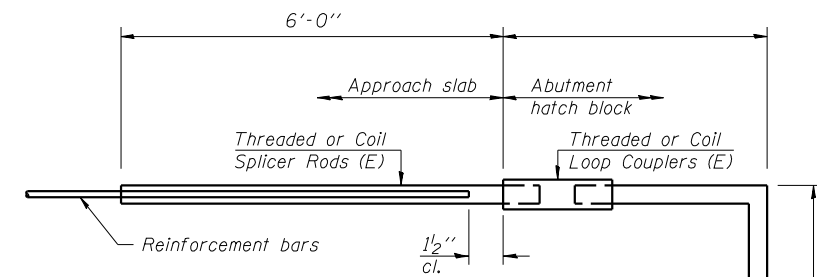
**INSTALLATION AND SETTING METHODS**

"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.



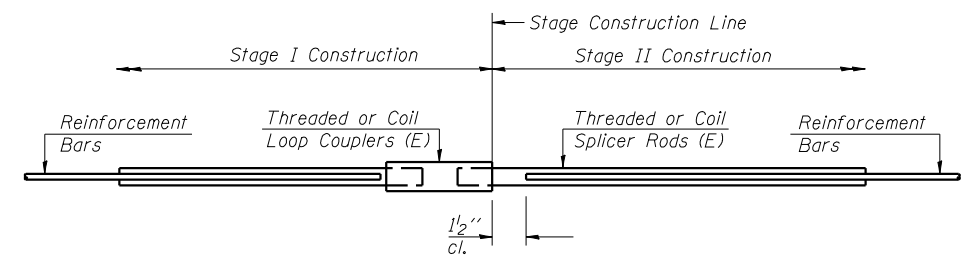
**FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = 76



**FOR PILE BENT ABUTMENTS**

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required =



**STANDARD**

**BAR SPLICER DETAILS**

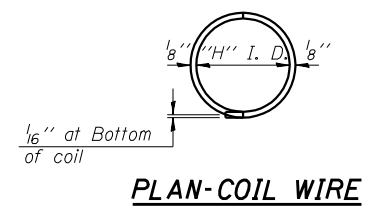
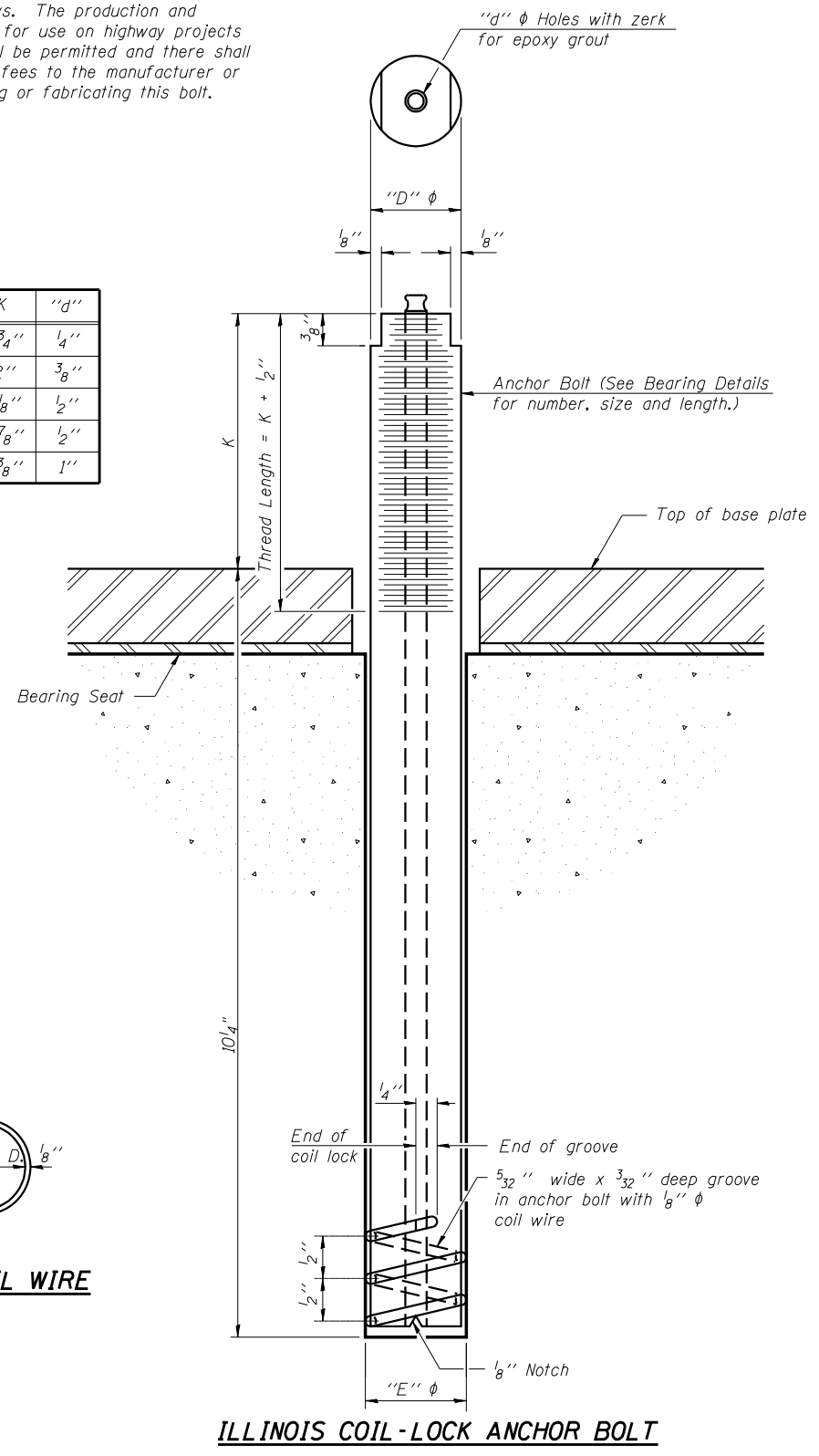
IL. ROUTE 47  
 OVER SANGAMON RIVER  
 F.A.P. ROUTE 326 SEC. (129BR-3) BR  
 CHAMPAIGN COUNTY  
 STATION 746+65.00  
 STRUCTURE NO. 010-0281



REVISIONS		DATE	

The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

D	E	H	K	"d"
1"	1 1/8"	1 3/16"	1 3/4"	1/4"
1 1/4"	1 3/8"	1 1/16"	2"	3/8"
1 1/2"	1 5/8"	1 5/16"	2 1/8"	1/2"
2"	2 1/8"	1 13/16"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/16"	3 3/8"	1"



### MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.  
 The coil wire shall be made of any suitable soft steel wire.  
 The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.  
 The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

### INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

### ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.  
 The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

1. A threaded rod stud with nut and washer of the type specified.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Location	Type
S. Abut.	1" $\phi$ A307
Pier 1	1" $\phi$ A307
Pier 2	1" $\phi$ A307
N. Abut.	1" $\phi$ A307

ASTM F 1554 Grade 105, ASTM A 449 and AASHTO M 314 Grade 105 anchor bolts may be substituted for the anchor bolts shown above.

### GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.  
 Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.  
 The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for Furnishing and Erecting Structural Steel.

**ANCHOR BOLT DETAILS**  
 IL. ROUTE 47  
 OVER SANGAMON RIVER  
 F.A.P. ROUTE 326 SEC. (129BR-3) BR  
 CHAMPAIGN COUNTY  
 STATION 746+65.00  
 STRUCTURE NO. 010-0281

CHAMPAIGN, ILLINOIS  
 CHICAGO, ILLINOIS  
 EVANSVILLE, INDIANA  
 INDIANAPOLIS, INDIANA  
 KENOSHA, WISCONSIN  
 SPRING GREEN, WISCONSIN

REVISIONS		DATE	
NAME			

NOVA DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SOLID AND PORTION OF THE DRAWING

DESIGNED BY	SMM	PROJECT NO.	102287
DRAWN BY	MEW	DATE	5/05
CHECKED BY	MM		
APPROVED BY	SMM		
ACTIVITY	INITIALS		



### SOIL BORING LOG

Page 1 of 1  
Date 8/16/04

ROUTE FAP 326 (IL 47) DESCRIPTION IL Rt. 47 over the Sangamon River LOGGED BY CNA  
SECTION (129BR-3)BR LOCATION SE. SEC. 11, TWP. 22N, RNG. 7E, 3<sup>rd</sup> PM  
COUNTY Champaign DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	DEPT	BLWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.	First Encounter	Upon Completion	Wash Bored	After	Hrs.		
010-0281	746+54	1 N Abut	747+72	9.0 ft Lt	722.5	(ft)	(/6")	(tsf)	(%)	704.6	702.2	704.5	704.5	704.5	ft	(ft)	(/6")	(tsf)	(%)
Pavement																			
Dark Gray Dirty Coarse Sand (continued) 701.5																			
Gray Sand Loam Till with Intermittent Coarse Sand Seams																			
Black Slightly Organic Silty Clay Loam (Embankment) 720.5																			
1																			
2																			
2																			
1																			
2																			
3																			
2																			
2																			
4																			
712.5 -10																			
Black Slightly Organic Silty Clay Loam (Alluvium)																			
2																			
3																			
6																			
709.5																			
Dark Gray to Green Loam (Alluvium)																			
1																			
3																			
4																			
1																			
1																			
2																			
704.5																			
Dark Gray Dirty Coarse Sand																			
1																			
3																			
3																			
-20																			
End of Boring																			

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.  
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N Value) is the sum of the last two blow values in each sampling zone (AASHTO T206)  
BBS, from 137 (Rev. 8-99)



### SOIL BORING LOG

Page 1 of 2  
Date 8/16/04

ROUTE FAP 326 (IL 47) DESCRIPTION IL Rt. 47 over the Sangamon River LOGGED BY CNA  
SECTION (129BR-3)BR LOCATION SE. SEC. 11, TWP. 22N, RNG. 7E, 3<sup>rd</sup> PM  
COUNTY Champaign DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	DEPT	BLWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.	First Encounter	Upon Completion	Wash Bored	After	Hrs.		
010-0281	746+54	2 S Abut	745+55	8.0 ft Rt	722.5	(ft)	(/6")	(tsf)	(%)	704.6	702.2	703.5	703.5	703.5	ft	(ft)	(/6")	(tsf)	(%)
Pavement																			
Gray Poorly Sorted Coarse Sand & Gravel (continued) 700.5																			
Brown Mottled Silty Clay Loam (Embankment) 720.5																			
2																			
2																			
2																			
1																			
2																			
5																			
1																			
2																			
4																			
710.5																			
Black Silty Clay Loam (Trace of Organics) 709.5																			
1																			
3																			
4																			
708.5																			
Green & Blue/Gray Silty Clay Loam to Loam (Alluvium)																			
1																			
2																			
704.5																			
Gray Poorly Sorted Coarse Sand & Gravel																			
3																			
4																			
7																			
-20																			

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.  
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N Value) is the sum of the last two blow values in each sampling zone (AASHTO T206)  
BBS, from 137 (Rev. 8-99)



### SOIL BORING LOG

Page 2 of 2  
Date 8/16/04

ROUTE FAP 326 (IL 47) DESCRIPTION IL Rt. 47 over the Sangamon River LOGGED BY CNA  
SECTION (129BR-3)BR LOCATION SE. SEC. 11, TWP. 22N, RNG. 7E, 3<sup>rd</sup> PM  
COUNTY Champaign DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	DEPT	BLWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.	First Encounter	Upon Completion	Wash Bored	After	Hrs.		
010-0281	746+54	2 S Abut	745+55	8.0 ft Rt	722.5	(ft)	(/6")	(tsf)	(%)	704.6	702.2	703.5	703.5	703.5	ft	(ft)	(/6")	(tsf)	(%)
Gray Moderately Sorted Coarse Sand (continued) 681.5																			
Gray Sand Loam Till with Intermittent Coarse Sand Seams																			
13																			
10																			
25																			
33																			
677.5 -48																			
End of Boring																			

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.  
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N Value) is the sum of the last two blow values in each sampling zone (AASHTO T206)  
BBS, from 137 (Rev. 8-99)

**BORING LOGS**

**IL. ROUTE 47  
OVER SANGAMON RIVER  
F.A.P. ROUTE 326 SEC. (129BR-3) BR  
CHAMPAIGN COUNTY  
STATION 746+65.00  
STRUCTURE NO. 010-0281**

CHAMPAIGN, ILLINOIS  
CHICAGO, ILLINOIS  
EVANSVILLE, INDIANA  
INDIANAPOLIS, INDIANA  
KENOSHA, WISCONSIN  
SPRING GREEN, WISCONSIN

**Clark Dietz**

REVISIONS	NAME	DATE

NOTES: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY BORING AND PORTION OF THE DRAWING

PROJECT NO. 182287  
DATE: 5/05

DRAWN BY: MEM  
CHECKED BY: MMH  
APPROVED BY: SMM

ACTIVITY: INITIALS

**S-16**



Illinois Department of Transportation  
Division of Highways  
IDOT - Dist 5

### SOIL BORING LOG

Page 1 of 1

Date 7/2/79

ROUTE FAP 326 (IL 47) DESCRIPTION IL Rt. 47 over the Sangamon River LOGGED BY BAKER  
SECTION (129BR-3)BR LOCATION SE. SEC. 11, TWP. 22N, RNG. 7E, 3<sup>rd</sup> PM  
COUNTY Champaign DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. Station	BORING NO. Station Offset Ground Surface Elev.	DEPTH (ft)	BULGE (ft)	UCS (tsf)	MOISTURE (%)	Description	DEPTH (ft)	BULGE (ft)	UCS (tsf)	MOISTURE (%)	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	Wash Bored	After	
											ft	ft	ft	ft	ft	ft	ft	ft
010-0281 746+54	3 N. Abut 747+28 35.0 ft Rt. 711.2					STIFF-VERY STIFF BLACK SILTY CLAY TO CLAY LOAM ALLUVIUM												
						VERY STIFF GRAY SAND LOAM TILL (continued)												
						MEDIUM GRAY SAND	689.2		12									
						DENSE GRAY SAND WITH FINE GRAVEL	687.2		38									
						MEDIUM GRAY SAND WITH FINE GRAVEL	682.2		25									
						MEDIUM GRAY SAND & GRAVEL	689.7		14									
						MEDIUM SAND LOAM TILL WITH SAND SEAMS	687.2		26									
						DENSE GRAY SAND WITH TILL LENS	694.7		35									
						VERY STIFF GRAY SAND LOAM TILL	692.2		9									
						HARD GRAY SANDY CLAY LOAM TILL	676.2		56	6.0								
						MEDIUM GRAY SAND WITH FINE GRAVEL	702.2		8									
						LOOSE FINE GRAY SAND LOAM SAND	702.2		22									
						LOOSE GRAY SAND LOAM - SAND	706.9		5									
						MEDIUM GRAY SAND & GRAVEL	704.4		12									
						HARD GRAY SAND LOAM TILL WITH SAND LENS	699.4		31	4.4	9							
						DENSE GRAY SAND WITH FINE GRAVEL	694.4		47									

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.  
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N Value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)



Illinois Department of Transportation  
Division of Highways  
IDOT - Dist 5

### SOIL BORING LOG

Page 1 of 1

Date 7/2/79

ROUTE FAP 326 (IL 47) DESCRIPTION IL Rt. 47 over the Sangamon River LOGGED BY BAKER  
SECTION (129BR-3)BR LOCATION SE. SEC. 11, TWP. 22N, RNG. 7E, 3<sup>rd</sup> PM  
COUNTY Champaign DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. Station	BORING NO. Station Offset Ground Surface Elev.	DEPTH (ft)	BULGE (ft)	UCS (tsf)	MOISTURE (%)	Description	DEPTH (ft)	BULGE (ft)	UCS (tsf)	MOISTURE (%)	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	Wash Bored	After	
											ft	ft	ft	ft	ft	ft	ft	ft
010-0281 746+54	4 S. Abut 745+99 22.0 ft Lt. 713.4					MEDIUM TO SOFT BLACK SANDY CLAY LOAM & SILTY CLAY ALLUVIUM												
						DENSE GRAY SAND WITH FINE GRAVEL (continued)												
						DENSE GRAY SAND LOAM TILL WITH SAND LENS	690.9		53									
						DENSE GRAY SAND & GRAVEL LENSED WITH DRY SAND LOAM TILL	685.9		22									
						DENSE GRAY SAND WITH FINE GRAVEL	699.4		11									
						MEDIUM GRAY SAND & GRAVEL	704.4		46									
						LOOSE GRAY SAND LOAM - SAND	706.9		5									
						DENSE GRAY SAND WITH FINE GRAVEL	694.4		47									

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.  
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N Value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

**BORING LOGS**

**IL. ROUTE 47  
OVER SANGAMON RIVER  
F.A.P. ROUTE 326 SEC. (129BR-3) BR  
CHAMPAIGN COUNTY  
STATION 746+65.00  
STRUCTURE NO. 010-0281**

CHAMPAIGN, ILLINOIS  
CHICAGO, ILLINOIS  
EVANSVILLE, INDIANA  
INDIANAPOLIS, INDIANA  
KENOSHA, WISCONSIN  
SPRING GREEN, WISCONSIN

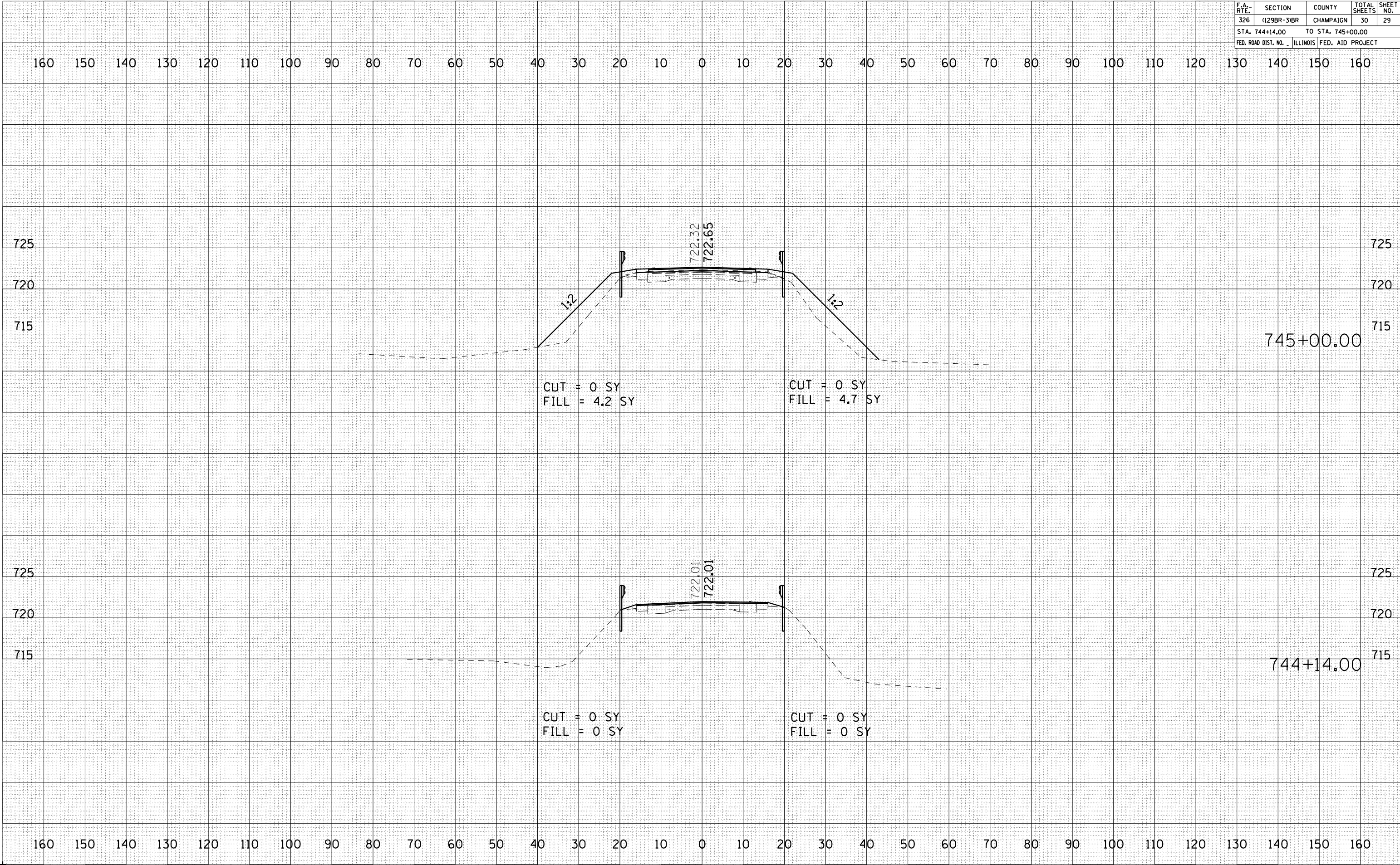
REVISIONS	NAME	DATE

NOVA DIMENSIONAL SCAN IS NOT TO BE OBTAINED BY BORING AND RECORD OF THIS BORING

ISSUED BY: SMM PROJECT NO: 182287  
DRAWN BY: MEW DATE: 5/05  
CHECKED BY: MM  
APPROVED BY: SMM  
ACTIVITY INITIALS

**S-17**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	(129BR-3)BR	CHAMPAIGN	30	29
STA. 744+14.00		TO STA. 745+00.00		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				



BY	DATE

BY	DATE



