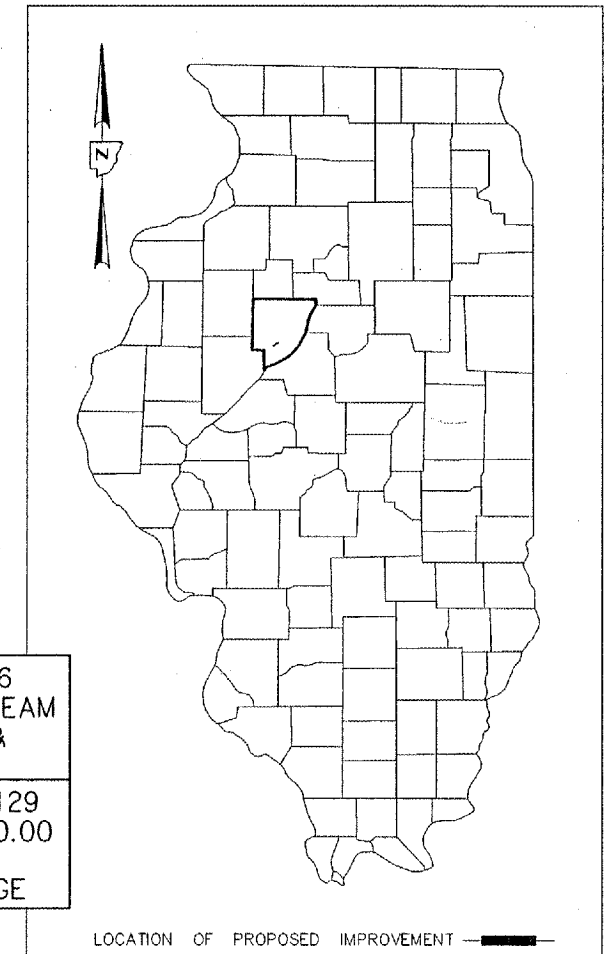


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1381	89-00005-00-BR	PEORIA	30	1
FED. ROAD DIST. NO.	ILLINOIS PROJECT	BR-S-1381 (105)		

CONTRACT: 89066

PLAN	0	50	100
PROFILE HOR.	0	50	100
PROFILE VERT.	0	5	10
CROSS SECTIONS	0	5	10 (VERT.)
CROSS SECTIONS	0	10	20 (HORIZ.)



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR
PROPOSED LOCAL AGENCY IMPROVEMENT
BRIDGE REPLACEMENT AND REHABILITATION PROGRAM

INDEX OF SHEETS

- 1 COVER SHEET
- 2 TYPICAL CROSS SECTIONS
- 3 SUMMARY OF QUANTITIES
- 4 PLAN AND PROFILE
- 5 RIGHT OF WAY STRIP MAP
- 6-18 BRIDGE PLANS
- 19-22 SOIL BORING LOGS
- 23-27 CROSS SECTIONS
- 28 PEORIA COUNTY BENCHMARK STANDARD
- 29 STORM WATER POLLUTION PREVENTION PLAN
- 30 **SLOPE BENCHING DETAIL**

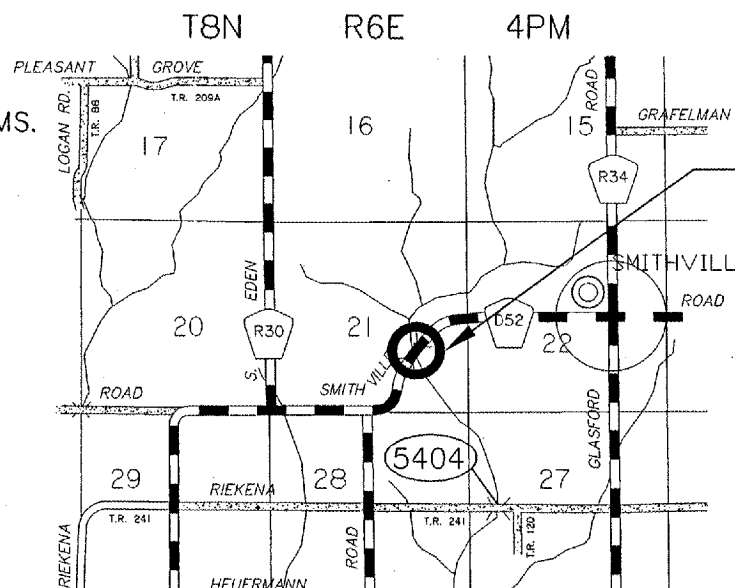
FAS ROUTE 1381
C.H. ROUTE D52 SECTION 89-00005-00-BR PEORIA COUNTY
PROJECT BR-S-1381 (105)

LIST OF STANDARDS

- 280001-02 TEMPORARY EROSION CONTROL SYSTEMS
- 285001-01 FABRIC FORMED CONCRETE REVETMENT MATS
- 630001-06 STEEL PLATE BEAM GUARDRAIL
- 630301-03 SHOULDER WIDENING FOR TY.1 (SPECIAL) GUARD. TERMS.
- 631026-02 TRAFFIC BARRIER TERMINAL, TY. 5 & 5A
- 635006-02 REFLECTOR AND TERMINAL MARKER PLACEMENT
- 635011-01 REFLECTOR MARKER AND MOUNTING DETAILS
- 665001-01 WOVEN WIRE FENCE
- 666031 RIGHT OF WAY MARKERS
- 701301-02 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 702001-06 TRAFFIC CONTROL DEVICES
- B.L.R. 21-6 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
- B.L.R. 22-4 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

CADD STANDARDS

- 205031-D4 SLOPE BENCHING DETAIL



PROJECT LOCATION
BEGIN STA. 217+66.07
END STA. 223+36.11

EXISTING STRUCTURE : 072-3056
47'-3 5/8" 1 SPAN STEEL I-BEAM
25 FT. WIDE WITH CONC. DECK &
CONC. ABUTS. ON STEEL PILES.
PROPOSED STRUCTURE : 072-3129
STA. 219+33.41 TO STA. 220+60.00
126'-7" 3 SPAN PRECAST
PRESTRESSED CONC. DECK BRIDGE

LOCATION MAP (NO SCALE)

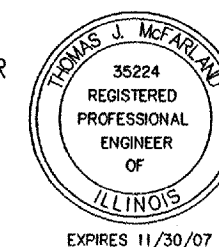
TOTAL AND NET LENGTH OF PROJECT = 570.04 FEET = 0.108 MILES
FUNCTIONAL CLASSIFICATION - MAJOR COLLECTOR, CURRENT ADT = 1400 (2002)
DESIGN SPEED - 50MPH
DESIGN GUIDELINES - 3R
VARIANCES GRANTED - NONE
COMMENTS -

QC/QA BITUMINOUS
SUPERPAVE PROJECT

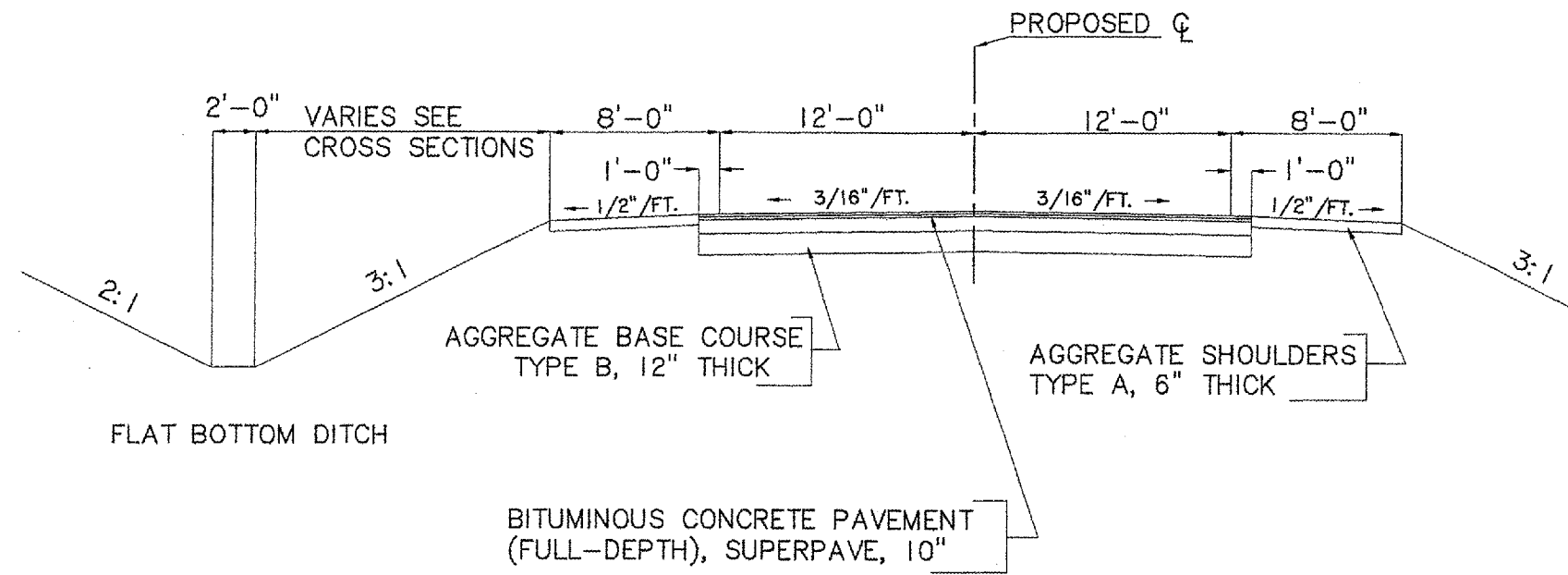
J.U.L.I.E.: 1-800-892-0123
JOB NO.: C-94-219-91
CONTRACT NO.: 89066

THESE PLANS WERE PREPARED BY A FULL TIME MEMBER
OF MY STAFF UNDER MY PERSONAL SUPERVISION.

Thomas J. McFarland
PEORIA COUNTY ENGINEER



APPROVED	<i>April 17 2006</i> <i>Thomas J. McFarland</i> COUNTY ENGINEER
PASSED	<i>April 19 2006</i> <i>John Laballe</i> DISTRICT #4 ENGINEER OF LOCAL ROADS & STREETS
Releasing For Bid Based on Limited Review	<i>April 19 2006</i> <i>John Laballe</i> DEPUTY DIRECTOR OF HIGHWAYS, REGION THREE ENGINEER STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION



BITUMINOUS MIX REQUIREMENTS

MIXTURE USES:	SURFACE COURSE	TOP BINDER COURSE	LOWER BINDER COURSES
AC/PG:	SBS PG 64-28	SBS PG 64-28	PG 64-22
RAP %: **	0%	0%	25%
DESIGN AIR VOIDS:	4.2% @ Ndes = 50	4.2% @ Ndes = 50	4.2% @ Ndes = 50
MIX. COMPOSITION:	IL-9.5 OR IL-12.5	IL-19.0	IL-19.0
FRICION AGGREGATE:	MIXTURE D	N/A	N/A

** IF > 15% RAP IS USED, THE CONTRACTOR MAY BE REQUIRED TO USE A SOFTER GRADE OF ASPHALT AS DETERMINED BY THE MATERIALS ENGINEER.

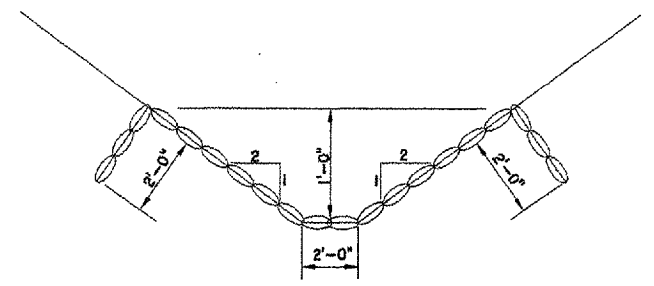
**FLEXIBLE PAVEMENT ANALYSIS
STRUCTURAL DESIGN TRAFFIC**

SDT: YEAR 2012 = 1962 (NO 80000# TRUCKS)
 PV = 1727 SU = 137 MU = 98
 CLASS III ROAD
 IBR = 3.0
 TF = 0.35

PROPOSED TYPICAL SECTION

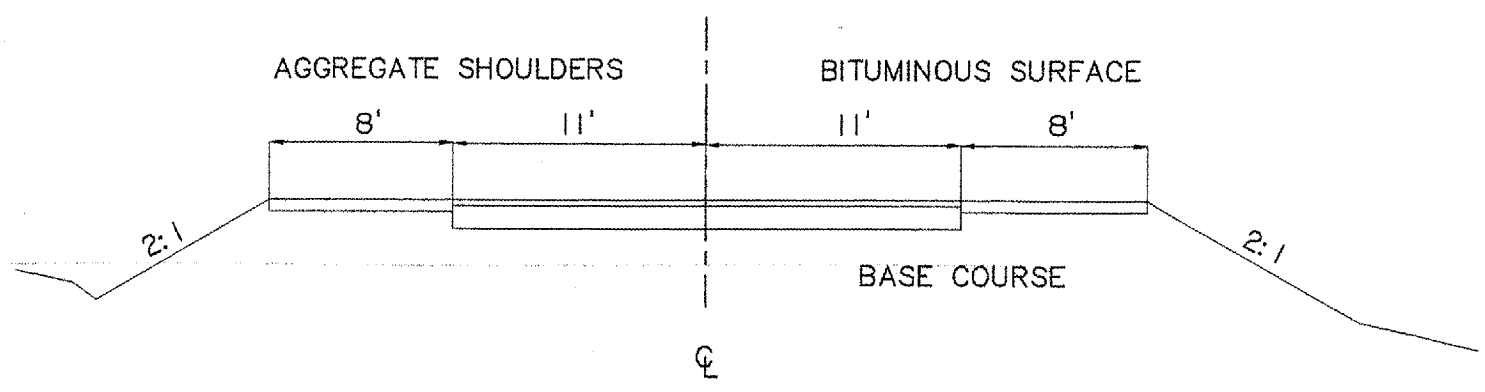
STA. 217+66.07 TO STA. 219+33.41
 STA. 220+60.00 TO STA. 223+36.11

NOTE: SEE CROSS SECTIONS FOR TAPER AT EACH END OF PROJECT.



TYPICAL FABRIC FORMED CONCRETE REVETMENT MATS DITCH

FABRIC FORMED CONCRETE REVETMENT MATS SHALL HAVE A 2' TOE AT THE UPSTREAM END AND A 3' TOE AT THE DOWNSTREAM END.



TYPICAL EXISTING SECTION

filename: Typical Cross-section

QUANTITIES NOT OTHERWISE SHOWN

TREE REMOVAL

LOCATION	6-15 IN.DIA.	OVER 15 IN.DIA.
42' RT. STA. 217+68	8	
28' RT. STA. 218+70		20
42' LT. STA. 219+05	6	
48' LT. STA. 219+12	6	
65' LT. STA. 219+15	14	
47' RT. STA. 219+15	12	
48' LT. STA. 219+35	10	
45' RT. STA. 220+90	14	
35' RT. STA. 221+08	10	
48' RT. STA. 221+50	8	
40' RT. STA. 221+75	10	
40' RT. STA. 222+15	8	
50' RT. STA. 222+40	8	
TOTAL	114	20

FURNISHING AND ERECTING R.O.W. MARKERS

LOCATION	OFFSET	QUANTITY
STA.218+00	80' RT.	1 EA.
STA.219+00	100' LT.	1 EA.
STA.221+00	80' RT.	1 EA.
STA.221+00	100' LT.	1 EA.
STA.223+00	55' RT.	1 EA.
TOTAL		5 EA.

PAINT PAVEMENT MARKING, LINE 4"

LOCATION	WHT. EDGE STRIPE	DBL. YELLOW C.
STA.217+66.07 TO STA.223+36.11	1,140 FT.	1,140 FT.
TOTAL		2,280 FT.

BARBED WIRE FENCE REMOVAL

LOCATION	LENGTH
STA.216+50 LT. TO STA.219+60 LT.	325 FT.
STA.216+40 RT. TO STA.219+45 RT.	330 FT.
STA.220+62 LT. TO STA.224+50 LT.	410 FT.
STA.220+48 RT. TO STA.225+00 RT.	480 FT.
TOTAL	1,545 FT.

SEEDING (CLASS 3), FERTILIZER

LOCATION	ACRE
STA.217+66.07 LT. TO STA.223+36.11 LT.	0.65
STA.217+66.07 RT. TO STA.223+36.11 RT.	0.62
TOTAL	1.27
115 LB. NITROGEN, 115 LB. PHOSPHORUS, 115 LB. POTASSIUM REQ'D	

EROSION CONTROL BLANKET

LOCATION	SQ. YD.
STA.217+66.07 LT. TO STA.223+36.11 LT.	3,146
STA.217+66.07 RT. TO STA.223+36.11 RT.	2,976
TOTAL	6,122

FURNISHING TREES (BALLED AND BURLAPPED)

TYPE	EACH
ACER RUBRUM RED SUNSET (RED MAPLE) 1-3/4" CALIPER	5
CERCIS CANADENSIS (EASTERN REDBUD) 1-3/4" CAL., TREE FORM	5
TOTAL	10

* LOCATION TO BE DETERMINED BY RESIDENT ENGINEER

BITUMINOUS MATERIALS (PRIME COAT)

LOCATION	LENGTH	SQ. YD.	GAL.
STA.217+66.07 TO STA.219+33.41	167.3	484	242
STA.220+60.00 TO STA.223+36.11	276.1	798	399
0.50 GAL./SQ.YD.		TOTAL	641

BIT.CONC.PAVT.CRSE, SUPERPAVE (FULL DEPTH), 10"

LOCATION	LENGTH	SQ. YD.	TON
STA.217+66.07 TO STA.219+33.41	167.3	484	271
STA.220+60.00 TO STA.223+36.11	276.1	798	447
112 LBS./SQ.YD./IN.		TOTAL	1,282

POLY. BIT. CONC. SURF. CRSE., SUPER "D", N50

LOCATION	LENGTH	SQ. YD.	TON
STA.219+33.41 TO STA.220+60 (BRIDGE DECK)	126.6	506	57
112 LBS./SQ.YD./IN.		TOTAL	57

AGGREGATE BASE COURSE, TYPE B, 12"

LOCATION	LENGTH	SQ. YD.	TON
STA.217+66.07 TO STA.219+33.41	167.3	484	334
STA.220+60.00 TO STA.223+36.11	276.1	798	551
115 LBS./SQ.YD./IN.		TOTAL	885

PAVEMENT REMOVAL

LOCATION	LENGTH	SQ. YD.
STA.217+66.07 TO STA.219+33.41	167.3	409
STA.220+60.00 TO STA.223+36.11	276.1	675
TOTAL		1,084

WOVEN WIRE FENCE, 4'

LOCATION	LENGTH
STA.216+50 - 39' LT. TO STA.219+00 - 100' LT.	260 FT.
STA.219+00 - 100' LT. TO STA.221+00 - 100' LT.	200 FT.
STA.221+00 - 100' LT. TO STA.224+50 - 50' LT.	360 FT.
STA.216+40 - 55' RT. TO STA.218+00 - 80' RT.	165 FT.
STA.218+00 - 80' RT. TO STA.221+00 - 80' RT.	300 FT.
STA.221+00 - 80' RT. TO STA.223+00 - 55' RT.	203 FT.
STA.223+00 - 55' RT. TO STA.225+00 - 65' RT.	200 FT.
TOTAL	1,688

STONE RIPRAP, CLASS A3 (DITCHES)

LOCATION	SQ. YD.
STA.217+66 LT. TO STA.218+37 LT. (LT. DITCH)	52
STA.220+24 RT. TO STA.220+64 RT. (RT. DITCH)	117
TOTAL	169

* QUANTITY DOES NOT INCLUDE SLOPEWALLS.
** CONSTRUCTION DETAILS SAME AS SLOPEWALLS.

TRAFFIC BARRIER TERMINALS, TYPE 5A

LOCATION	EACH
STA.219+20.16 LT. TO STA.219+33.41 LT.	1
STA.219+20.16 RT. TO STA.219+33.41 RT.	1
STA.220+60.00 LT. TO STA.220+73.25 LT.	1
STA.220+60.00 RT. TO STA.220+73.25 RT.	1
TOTAL	4

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1381	89-00005-00-BR	PEORIA	29	3
FED. ROAD DIST. NO.	ILLINOIS PROJECT	BR-S-1381 (105)	CONTRACT: 89066	

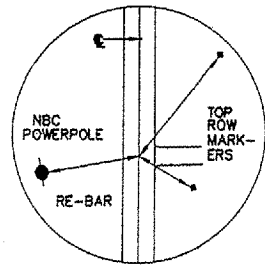
SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	QUANT.	LOCATION OF WORK	
				BRIDGE CONST.	ROADWAY TY. CODE
				X080	- 2A
20100110	TREE REMOVAL (6-15 INCH DIAMETER)	UNIT	114		114
20100210	TREE REMOVAL (OVER 15 INCH DIAMETER)	UNIT	20		20
20200100	EARTH EXCAVATION	CU.YD.	591		591
20300100	CHANNEL EXCAVATION	CU.YD.	1,500	1,500	
* 20400800	FURNISHED EXCAVATION	CU.YD.	3,966		3,966
* 25000300	SEEDING, CLASS 3	ACRE	1.27		1.27
* 25100630	EROSION CONTROL BLANKET	SQ.YD.	6,147		6,147
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	127		127
28000300	TEMPORARY DITCH CHECKS	EACH	64		64
28000400	PERIMETER EROSION BARRIER	FOOT	1110		1110
28100105	STONE RIPRAP, CLASS A3	SQ.YD.	462	293	169
28200200	FILTER FABRIC	SQ.YD.	462	293	169
28500100	FABRIC FORMED CONCRETE REVETMENT MAT	SQ.YD.	1,285	800	485
35101400	AGGREGATE BASE COURSE, TYPE B	TON	885		885
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	641		641
X4066514	POLYMER. BIT. CONC. SURFACE COURSE, SUPERPAVE, MIX "D", N50	TON	57	57	
X4073081	BIT. CONCRETE PAVEMENT, FULL-DEPTH SUPERPAVE, 10"	SQ.YD.	1,282		1,282
44000100	PAVEMENT REMOVAL	SQ.YD.	1,084		1,084
44004000	PAVED DITCH REMOVAL	FOOT	210		210
48100100	AGGREGATE SHOULDERS, TYPE A	TON	238		238
* 50100100	REMOVAL OF EXISTING STRUCTURE	EACH	1		1
50200100	STRUCTURE EXCAVATION	CU.YD.	152	152	
50300225	CONCRETE STRUCTURES	CU.YD.	163.4	163.4	
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAM (21" DEPTH)	SQ.FT.	4,479	4,479	
50800105	REINFORCEMENT BARS	POUND	14,720	14,720	
50901005	STEEL BRIDGE RAIL, TYPE SM	FOOT	253.2	253.2	
51201600	FURNISHING STEEL PILES HP 12 X 53	FOOT	694	694	
51202700	DRIVING STEEL PILES	FOOT	694	694	
51203600	TEST PILE STEEL HP 12 X 53	EACH	4	4	
51500100	NAME PLATES	EACH	1	1	
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ.YD.	506	506	
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	1,369	1,369	
△ 63000005	STEEL PLATE BEAM GUARD RAIL, TYPE B	FOOT	635		635
△ 63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	4		4
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)	EACH	4		4
66500105	WOVEN WIRE FENCE, 4'	FOOT	1,688		1,688
66503400	BARBED WIRE FENCE REMOVAL	FOOT	1,545		1,545
66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	5		5
* 67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL.MO.	5		5
67100100	MOBILIZATION	L.SUM.	1		1
70101700	TRAFFIC CONTROL AND PROTECTION	L.SUM.	1		1
70300200	TEMPORARY PAVEMENT MARKING	FOOT	570		570
△ 78001110	PAINT PAVEMENT MARKING, LINE 4"	FOOT	2,280		2,280
78200100	MONODIRECTIONAL PRISMATIC BARRIER REFLECTOR	EACH	40	10	30
Z0013798	CONSTRUCTION LAYOUT	L.SUM.	1	1	
△ A2001214	TREE, ACER RUBRUM RED SUNSET (RED SUNSET RED MAPLE), 1-3/4" CALIPER, BALLED AND BURLAPPED	EACH	5		5
△ B2001114	TREE, CERCIS CANADENSIS (EASTERN REDBUD), 1-3/4" CALIPER, TREE FORM, BALLED AND BURLAPPED	EACH	5		5
* Denotes Special Provisions △ SPECIALTY ITEMS					

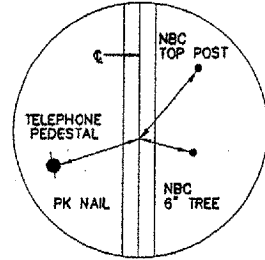
LOGAN TOWNSHIP T8N R6E 4PM

EXISTING STRUCTURE NO.072-3056
47'-3 5/8" 1-SPAN STEEL I-BEAM BRIDGE
25 FT. WIDE WITH CONCRETE DECK
TO BE REMOVED. (SEE SPECIAL PROVISIONS)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1381	89-00005-00-BR	PEORIA	29	4
FED. ROAD DIST. NO.	ILLINOIS PROJECT	BR-S-1381 (105)	CONTRACT: 89066	



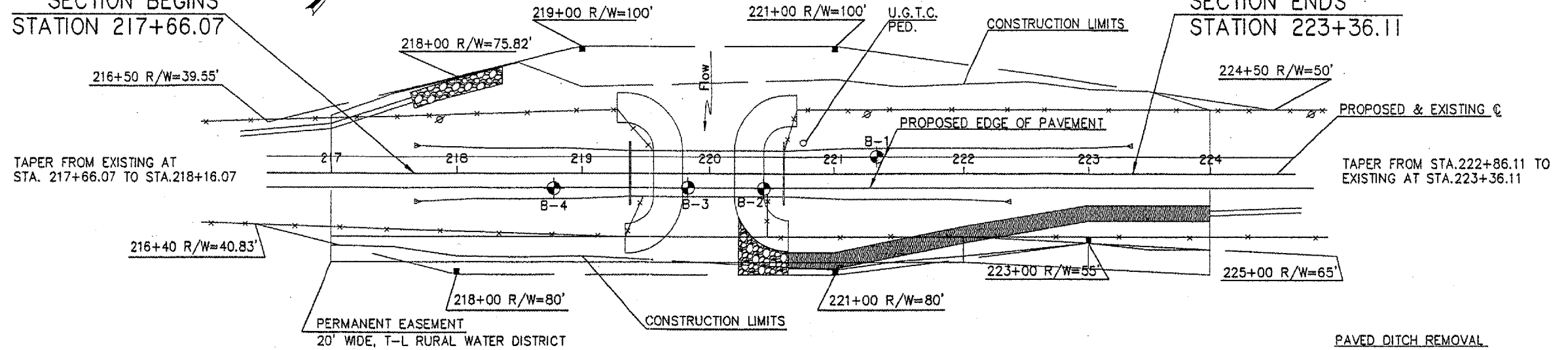
PC STA. 229+12.39



PT STA. 215+23.41

SECTION BEGINS
STATION 217+66.07

SECTION ENDS
STATION 223+36.11



EROSION CONTROL BLANKET TO BE PLACED ON ALL SEEDED AREAS

BARBED WIRE FENCE REMOVAL
STA.216+50 TO STA.224+50 LT. 735 FT.
STA.216+40 TO STA.225+00 RT. 810 FT.

WOVEN WIRE FENCE, 4'
STA.216+50 TO STA.224+50 LT. 820 FT.
STA.216+40 TO STA.225+00 RT. 868 FT.

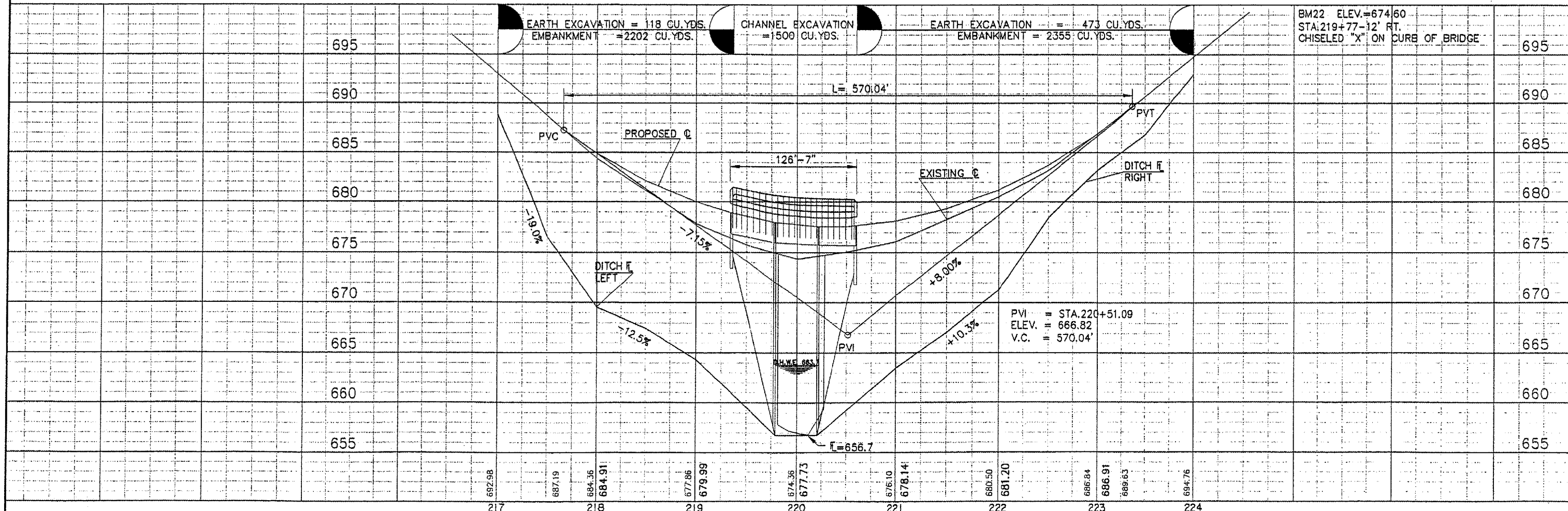
FABRIC FORMED CONCRETE REVETMENT MAT DITCH
STA.220+64 TO STA.224+00 RT.- 484.6 SQ.YD.

PROPOSED STRUCTURE
STA.219+33.41 TO STA.220+60.00
126'-7" 3-SPAN P.P.C. DECK BRIDGE
STRUCTURE NO.072-3129

STEEL PLATE BEAM GUARDRAIL, TYPE B
STA.217+91.07 TO STA.219+33.41 LT. - 142.3 FT.
STA.217+91.07 TO STA.219+33.41 RT. - 142.3 FT.
STA.220+60.00 TO STA.223+11.11 LT. - 251.1 FT.
STA.220+60.00 TO STA.222+12.50 RT. - 152.5 FT.
TAPER GUARDRAIL AT EACH BRIDGE CORNER TO EDGE OF SHOULDER 50 FEET FROM BRIDGE

PAVED DITCH REMOVAL
STA.221+92 TO STA.224+00 RT. - 210 FT.

TRAFFIC BARRIER TERM., TY.1 SPECIAL (TANGENT)
STA.217+66.07 TO STA.217+91.07 LT. - 1 EACH
STA.217+66.07 TO STA.217+91.07 RT. - 1 EACH
STA.223+11.11 TO STA.223+36.11 LT. - 1 EACH
STA.222+12.50 TO STA.222+37.50 RT. - 1 EACH



filename 'PLANPRO'

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1381	89-00005-00-BR	PEORIA	29	5
FED. ROAD DIST. NO.		ILLINOIS PROJECT	BR-5-1381 (105)	

CONTRACT: 89066

LOGAN TOWNSHIP
T 8 N - R 6 E - 4TH PM

RICHARD R. & JOAN E. SATHOFF
PT. S.E. 1/4, SECTION 21

2 DEDICATION = 0.561 ACRES

2-TE TEMP. EASEMENT = 0.303 ACRES

RONALD O. & SANDRA Y. WRIGHT
PT. S.E. 1/4, SECTION 21

1 DEDICATION = 0.347 ACRES

1-TE TEMP. EASEMENT = 0.662 ACRES

MARY TURBETT
PT. S.E. 1/4, SECTION 21

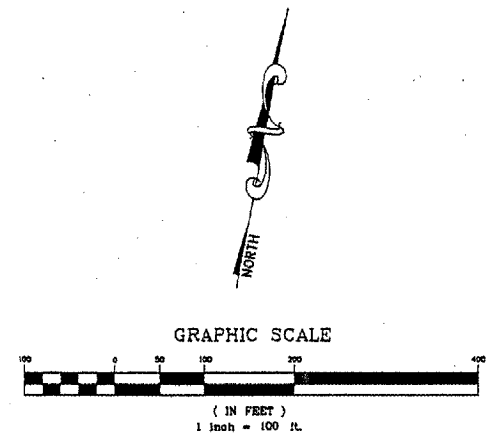
DEED LINE AS PER
DOC # 87-26530 AT
THE PEORIA COUNTY
RECORDERS OFFICE

MARY TURBETT
PT. S.E. 1/4, SECTION 21

PI=212+92.68 (212+93.0)
Δ=35°47'48"
D=07°29'41"
T=246.90
R=764.49'
L=477.83' (477.33')

PI=205+36.40 (205+37.7)
Δ=91°12'03"
D=13°57'55"
T=418.98'
R=410.27'
L=653.05'

FOUND IRON CROSS AT
THE SW COR. SE 1/4
SEC. 21 T.8N.-R.6E.
4TH P.M. PEORIA COUNTY, IL.



LEGEND

- (477.33') = DATA OF RECORD
- EXISTING RIGHT-OF-WAY
- - - PROPOSED RIGHT-OF-WAY
- 7/7 E 7/7 TEMPORARY EASEMENT

SURVEYED	JDS
CHECKED	PJL
DRAWN	MWM
CHECKED	

CONSTRUCTION SECTION 89-00005-00-BR
JOB NO. C-94-219-91

RIGHT OF WAY STRIP MAP

COUNTY HIGHWAY D52
SMITHVILLE ROAD
T-8-N, R-6-E, 4th. P.M. SECTION 21
PEORIA COUNTY

CLARK ENGINEERS MW, INC.
3425 North Dries Lane
Peoria, Illinois 61604 PH(309)685-8464

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1381	89-00005-00-BR	PEORIA	29	6
FED. ROAD DIST. NO.		ILLINOIS PROJECT	BR-5-1381 (105)	

CONTRACT: 89066

WATERWAY INFORMATION

Drainage Area	2,112	Acres
Design Discharge (20 Yr. Fl. Freq.)	1,612	C. F. S.
High Water Elevation (Below 20 Yr. Fl. Freq.)	663.7	(U.S.G.S.)
Existing Opening (Below 20 Yr. H. W. E.)	280	Sq. Ft.
Proposed Opening (Below 20 Yr. H. W. E.)	377	Sq. Ft.
Created Head for Design Flood	<.5	Fi.
100 Year Discharge	2,460	C. F. S.
100 Year High Water Elevation	665.1	(U.S.G.S.)
Created Head for 100 Year Flood	<1.0	Fi.
Flow Line Elevation	656.1	(U.S.G.S.)

DESIGN STRESSES

PRESTRESSED BEAMS

f'_c	= 5,000	PSI
f'_{ci}	= 4,000	PSI
f_s	= 270,000	PSI (1/2" ϕ Strands)
f_{si}	= 201,960	PSI (1/2" ϕ Strands)

CAST IN PLACE UNITS

f'_c	= 3,500	PSI
f_y	= 60,000	PSI (Reinfor.)

LOADING HS 20-44
DESIGN SPECIFICATIONS - AASHTO 2002
 Future Wearing Surface (50 PSF)

SEISMIC DATA:

Seismic Performance Category (SPC) = A
 Bed Rock Acceleration Coef. (A) = 4% g
 Site Coefficient (S) = 1.0

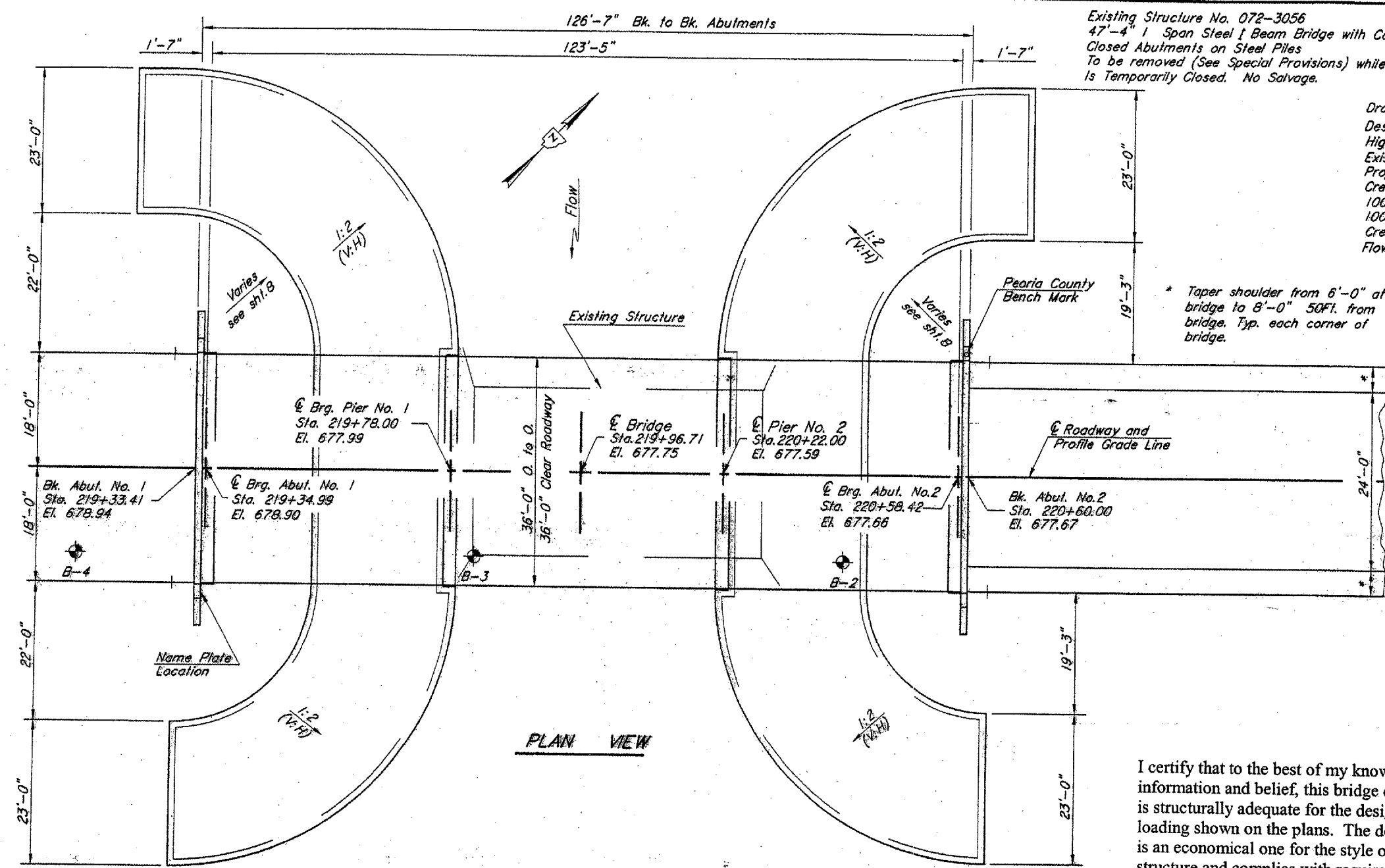
BRIDGE BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Structures	Cu. Yd.		163.4	163.4
Reinforcement Bars	Pound		14,720	14,720
P.P. Concrete Deck Beams 21" Dp.	Sq. Ft.	4,479		4,479
Driving Steel Piles	Foot		694	694
Test Pile HP 12 x 53	Each		4	4
Furnishing Steel Piles HP 12 x 53	Foot		694	694
Name Plates	Each		1	1
Steel Bridge Rail, Ty. SM	Foot	253.2		253.2
Traffic Barrier Terminal, Type 5A	Each	4		4
P. C. Mortar Fairing Course	Foot	1,369		1,369
Waterproofing Membrane System	Sq. Yd.	506		506
Fabric Formed Conc. Retention Mat	Sq. Yd.		800	800
Polymer BCSC, Superpave "C", N50	Ton	57		57
Mono. Prismatic Barrier Reflector	Each	10		10
Removal of Existing Structures	Each		1	1
Channel Excavation	Cu. Yd.		1,500	1,500
Stone Riprap, Class A3	Sq. Yd.		293	293
Structure Excavation	Cu. Yd.		152	152
Filter Fabric	Sq. Yd.		293	293

NOTE: See Sheet 7 for General Notes.
 Limits of Channel Excavation is from 50' either side of ϕ Roadway for a total of 100'.

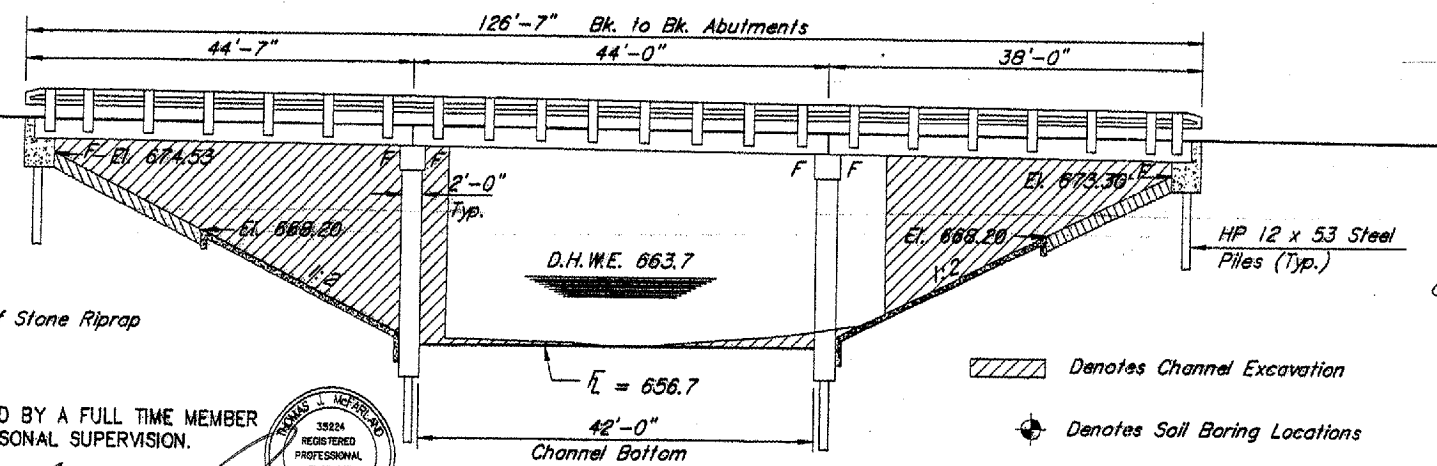
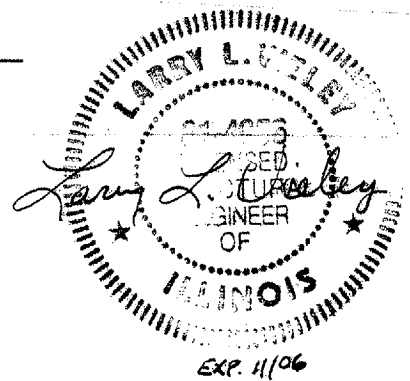
GENERAL PLAN & ELEVATION
STATION 219+96.71
PEORIA COUNTY
STRUCTURE NO. 072-3129

Existing Structure No. 072-3056
 47'-4" Span Steel I Beam Bridge with Conc. Deck
 Closed Abutments on Steel Piles
 To be removed (See Special Provisions) while the road
 is temporarily closed. No Salvage.



PLAN VIEW

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of the structure and complies with requirements of the current "A.A.S.H.T.O. Standard Specifications For Highway Bridges".



ELEVATION VIEW

THESE PLANS WERE PREPARED BY A FULL TIME MEMBER OF MY STAFF UNDER MY PERSONAL SUPERVISION.

Thomas J. McFarland
 PEORIA COUNTY ENGINEER



NOTE: Peoria County Bench Mark to be set in the Northwest Corner of the structure. See Abutment No. 2 Detail Sheet. (Cost incidental to Concrete Structures)

Filename 'PLANET'

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1381	89-00005-00-BR	PEORIA	29	7
FED. ROAD DIST. NO.	ILLINOIS PROJECT	BR-9-1381 (109)		

CONTRACT: 89066

GENERAL NOTES

The Standard Specifications adopted January 1, 2002 by the Illinois Department of Transportation shall apply to the work of this contract.

Layout of the slopewalls may be varied in the field to suit the ground conditions as directed by the Engineer.

The Contractor shall drive 4-HP 12x53 test piles in permanent locations, one at each abutment and one at each pier as directed by the Engineer before ordering the remainder of piles.

The top surface of the beams shall be finished in accordance with Article 504.06 of the Standard Specifications except that the surface shall not be roughened by brooming. The finished surface shall be free of depressions or high spots with sharp corners, and the top edge of keys shall be rounded or chamfered 1/4".

A Calcium Nitrite Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for the precast prestressed concrete deck beams.

Prestressing steel shall be non-galvanized 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.

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.

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

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.

The cost of reinforcement and accessories cast into the beams, bearing pads, furnishing and assembling transverse ties, drilling and grouting dowel rods, and grouting longitudinal shear keys, joint sealer, and miscellaneous hardware shall be included in the unit cost per square foot of Precast Prestressed Concrete Deck Beams.

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 beam and the bottom edge of the key.

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

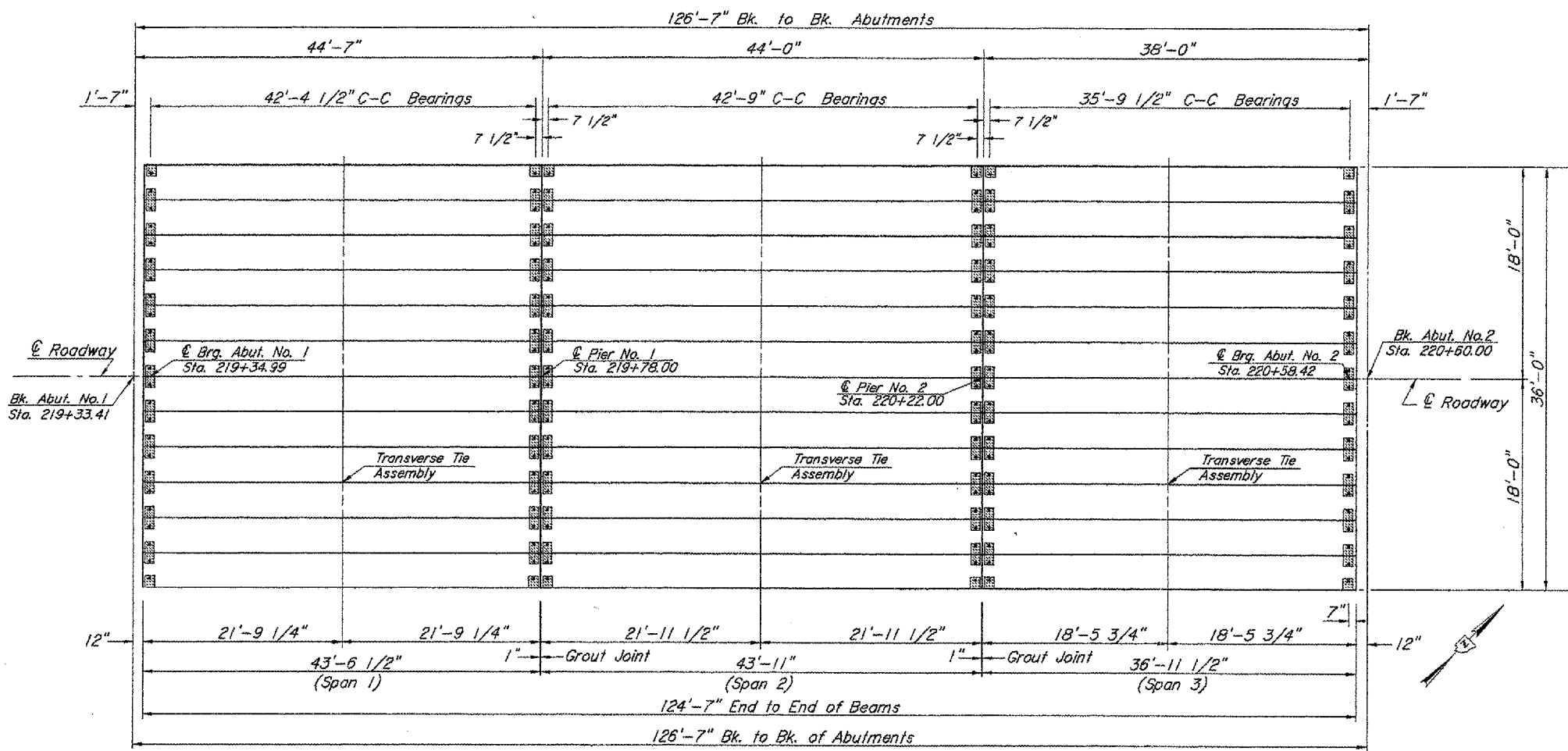
All excavation in the channel required to construct the bridge must not be replaced in the channel. The acceptable materials may be used as fill materials on the roadway as directed by the Engineer.

Backfill shall be placed behind the Abutment after the superstructure has been erected and the dowel rods grouted. See article 502.10 of the Standard Specifications. Cost included.

Required release strength, f'ci, shall be 4,000 psi.

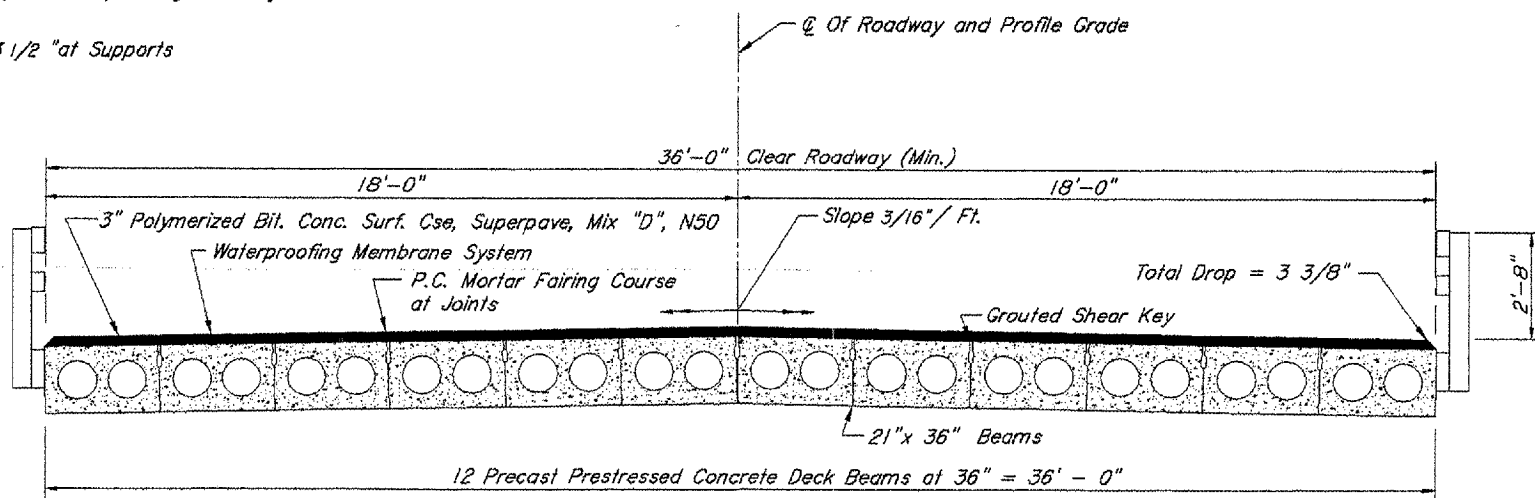
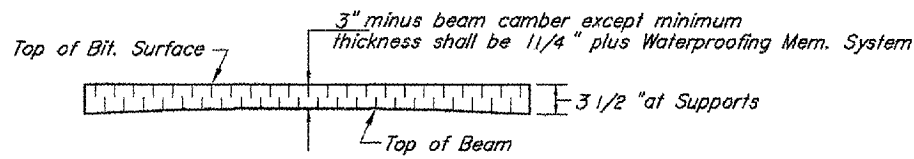
Reinforcement Bars shall conform to the requirements of AASHTO M-31 or M-322 Grade 60.

Rail Post anchor devices shall be cast into outside beam as elsewhere specified.

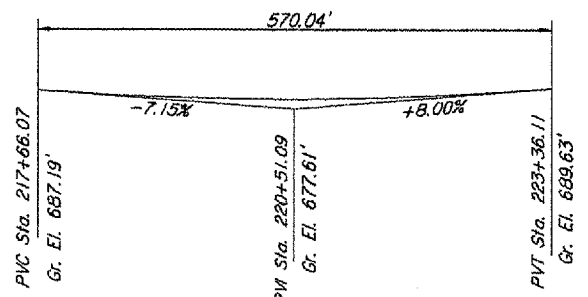


PLAN - DECK BEAMS

Span 1 = 12 - 21" x 43' - 6 1/2" Beams
 Span 2 = 12 - 21" x 43' - 11" Beams
 Span 3 = 12 - 21" x 36' - 11 1/2" Beams



TYPICAL CROSS SECTION



THEORETICAL PROFILE GRADE

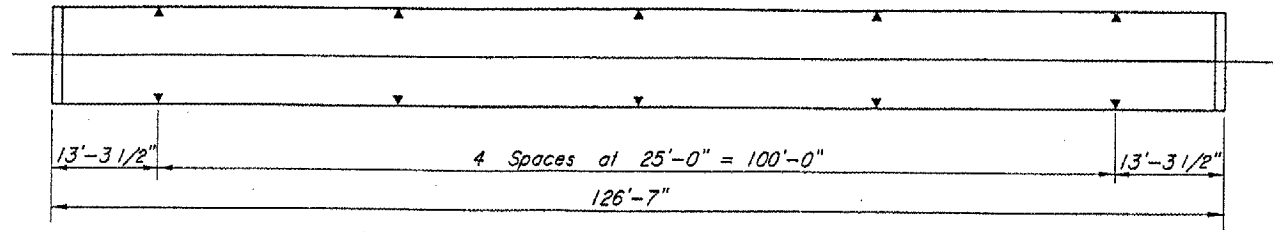
(Along Centerline Of Roadway)

GENERAL NOTES TYPICAL CROSS SECTION NAME PLATES

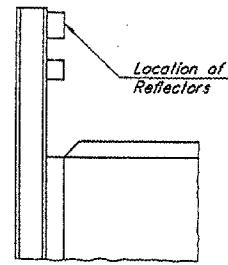
BR. COPPERAS CREEK
 BUILT 200
 PEORIA COUNTY
 SEC. 89-00005-00-BR
 LOADING HS 20
 STATION 219+96.71
 STR. NO. 072-3129

NAME PLATES

Filename: GENNOTES



Location	Spacing	No. Req'd
On Bridge	25'-0"	10
TOTAL		10



REVTMENT MAT (SQ. YD.)

	Abut. No.1	Abut. No.2	Total
Exposed Area	412	388	800

▲ Denotes location of Reflectors (see detail on this sheet)

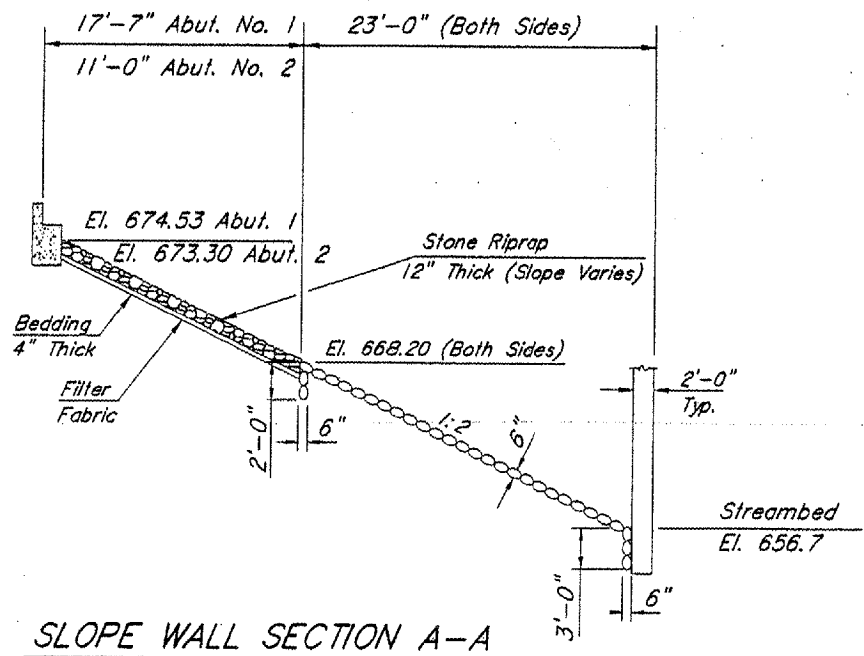
MONODIRECTIONAL PRISMATIC BARRIER REFLECTORS

STONE RIPRAP (SQ. YD.)

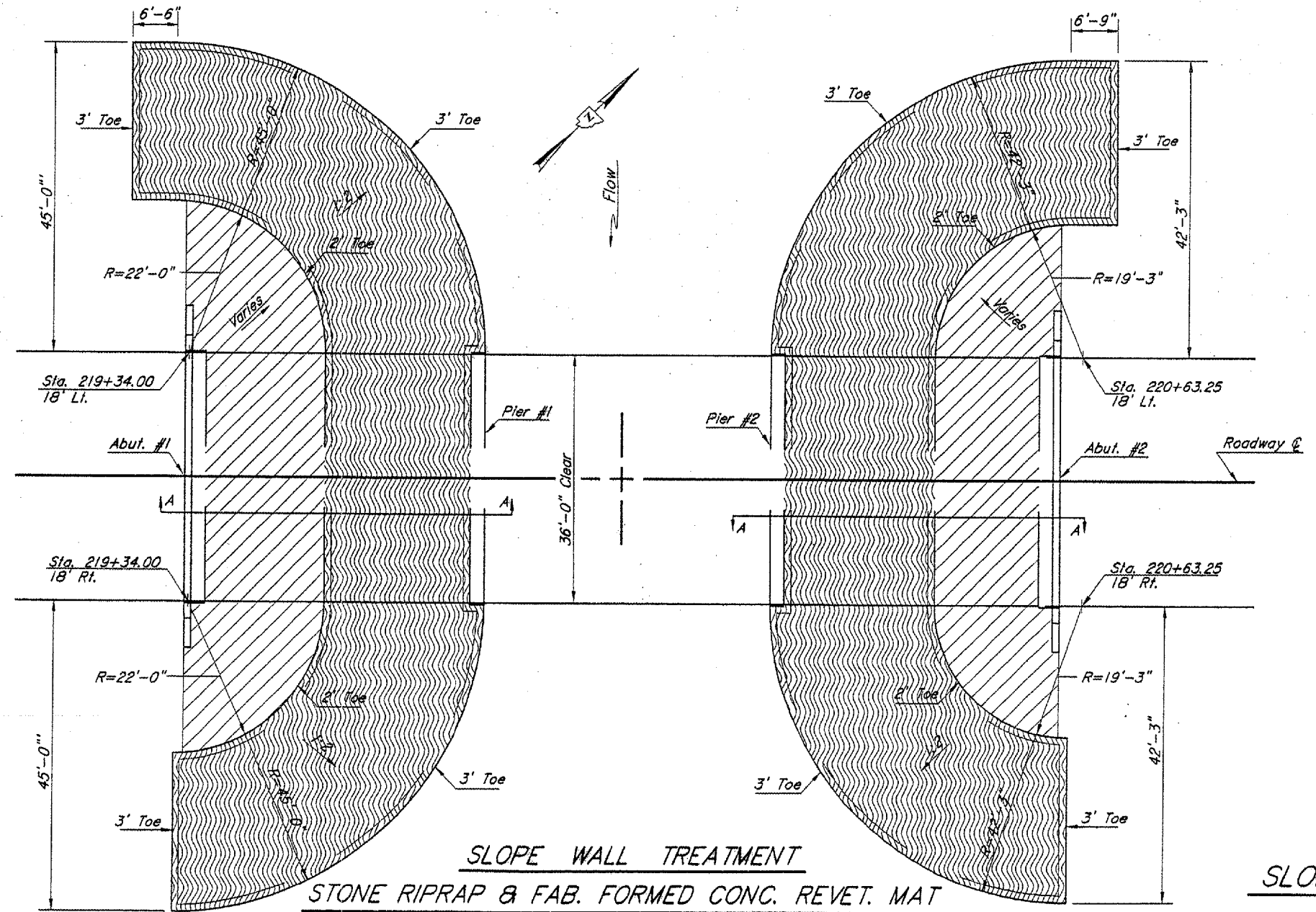
Abut. No. 1	Abut. No. 2	TOTAL
162	131	293

NOTE: Denotes Fabric Formed Conc. Revetment Mat
 NOTE: Hatched areas denote Stone Riprap.

Areas of toe walls will not be included in quantity for Revetment Mat. Exposed surfaces to be measured as the sloped distance.



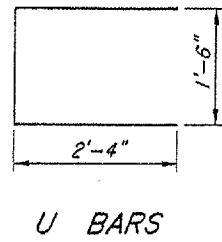
SLOPE WALL SECTION A-A



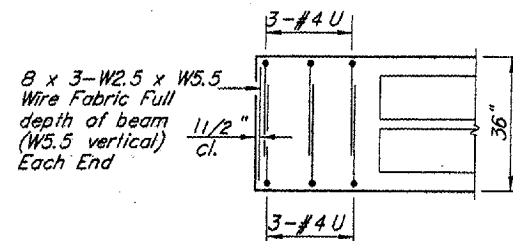
SLOPE WALL TREATMENT
STONE RIPRAP & FAB. FORMED CONC. REVET. MAT
 (UNIFORM CROSS SECTION)

SLOPE WALL REFLECTORS

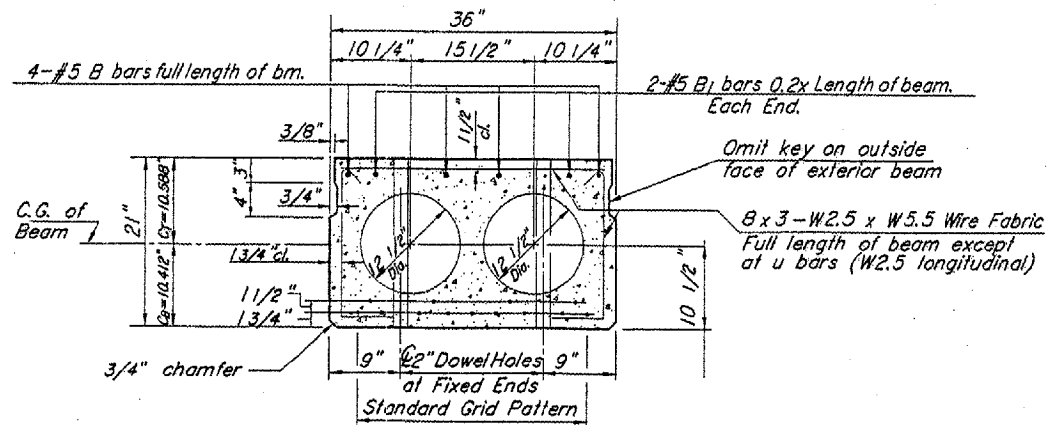
Filename: 'SLOPE WALL'



U BARS



FIXED END REINFORCEMENT
(21" x 36" BEAMS)



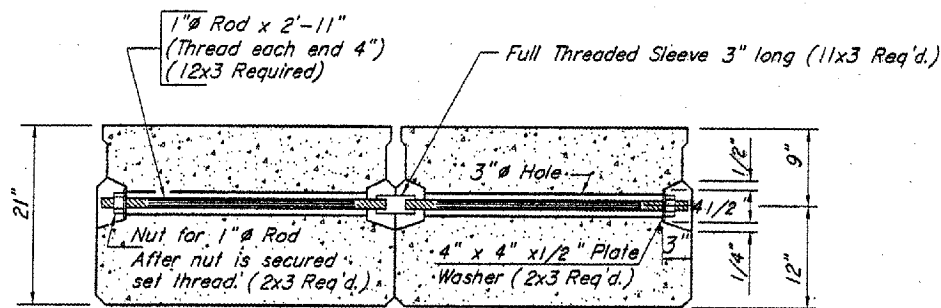
1/2" Ø 270 K. S. I. STRANDS
21" x 36" BEAMS

Span #1	Place 6 Strands	1 3/4" up	f'ci = 4,000
	4 Strands	3 1/4" up	f'ci = 4,000
Span #2	Place 6 Strands	1 3/4" up	f'ci = 4,000
	4 Strands	3 1/4" up	f'ci = 4,000
Span #3	Place 7 Strands	1 3/4" up	f'ci = 4,000

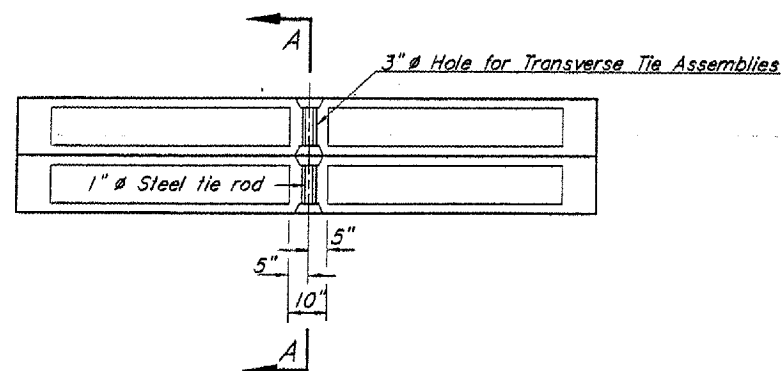
Place strands symmetrically about C.G. Beam
Each strand stressed to 30,900 Lbs.

BEAM PROPERTIES

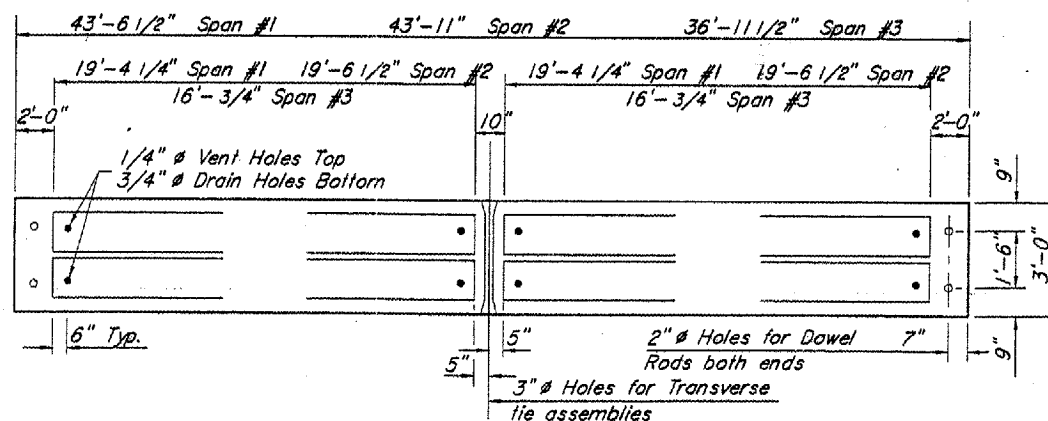
	21" X 36" Bm.
Cross Sectional Area	502.45 in ²
Weight per Lin. Foot	550 Lbs.
Moment of Inertia	24,965 in ⁴
Section Modulus S _B	2397.8 in ³
Section Modulus S _T	2357.8 in ³



SECTION A - A



PARTIAL PLAN



21" x 36" BEAM

(12 Req'd. Span 1)
(12 Req'd. Span 2)
(12 Req'd. Span 3)

SPAN #1, BILL OF MATERIAL
(For One P.P.C. Deck Beam Only)

Bar	No. Per Bm.	Size	Length (Span#1)	Shape
B	4	#5	43'-2"	—
B ₁	4	#5	8'-9"	—
U	12	#4	6'-2"	□

SPAN #2, BILL OF MATERIAL
(For One P.P.C. Deck Beam Only)

Bar	No. Per Bm.	Size	Length (Span#1)	Shape
B	4	#5	43'-7"	—
B ₁	4	#5	8'-10"	—
U	12	#4	6'-2"	□

SPAN #3, BILL OF MATERIAL
(For One P.P.C. Deck Beam Only)

Bar	No. Per Bm.	Size	Length (Span#1)	Shape
B	4	#5	36'-7"	—
B ₁	4	#5	7'-5"	—
U	12	#4	6'-2"	□

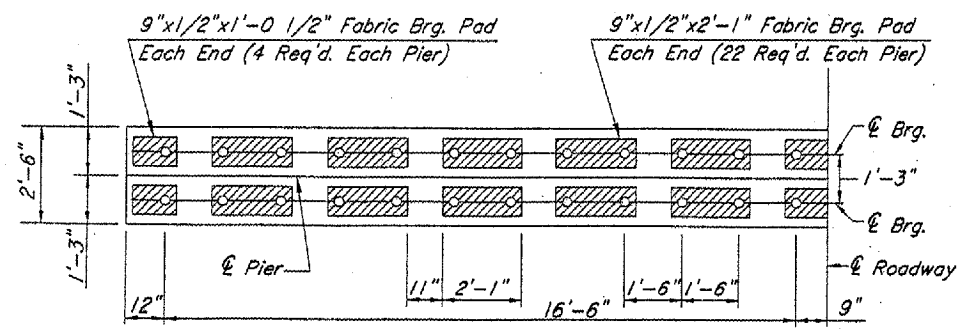
21" X 36" Beams

	No. Req'd	Length	Sq. Ft.
Span # 1	12	43'-6 1/2"	1567.5
Span # 2	12	43'-11"	1581.0
Span # 3	12	36'-11 1/2"	1330.5
		Total	4479.0

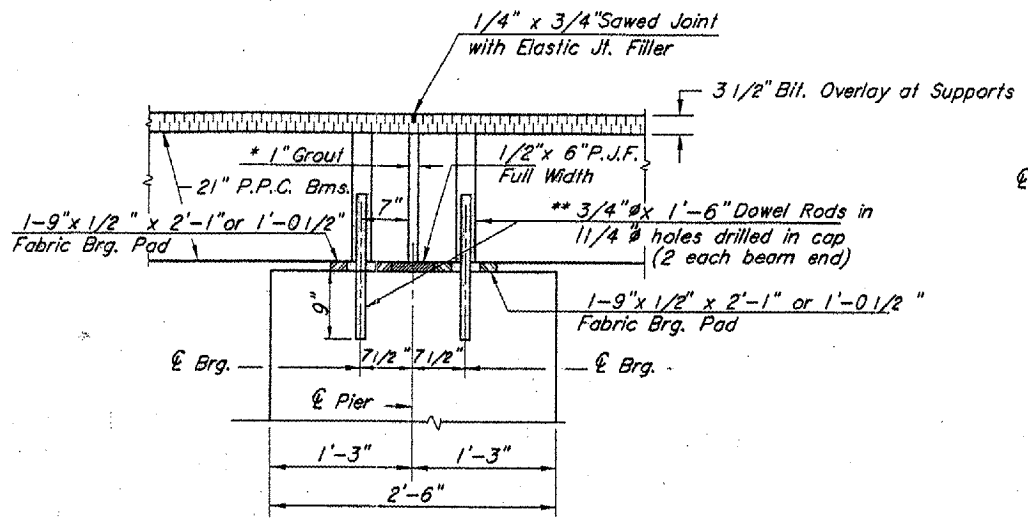
NOTES

- * See "GENERAL NOTES" Sheet 7 of 29
- * See sheet Sheet 16 for casting inserts for guardrail at exterior beams.
- * See Sheet 10 for Lifting Loops and Bearing Details.

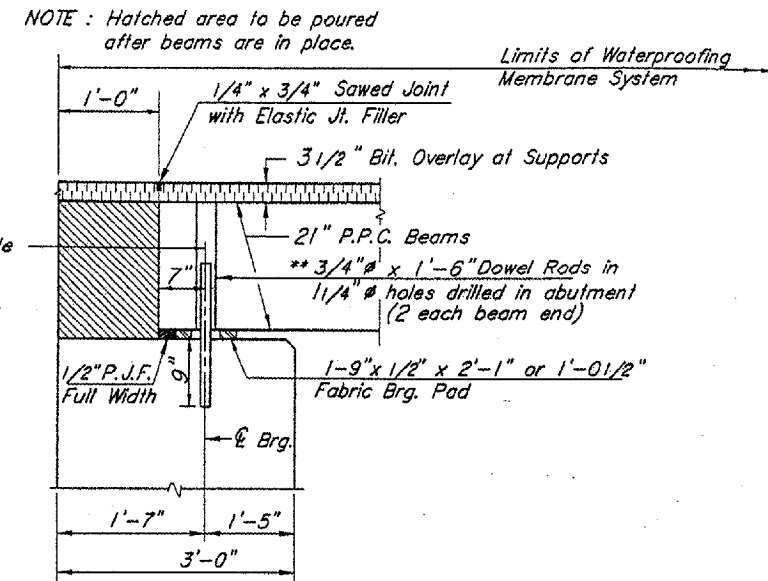
PRECAST BEAMS



TYPICAL BEARING PAD LAYOUT AT PIERS
(Symmetrical About The Centerline Of The Roadway)



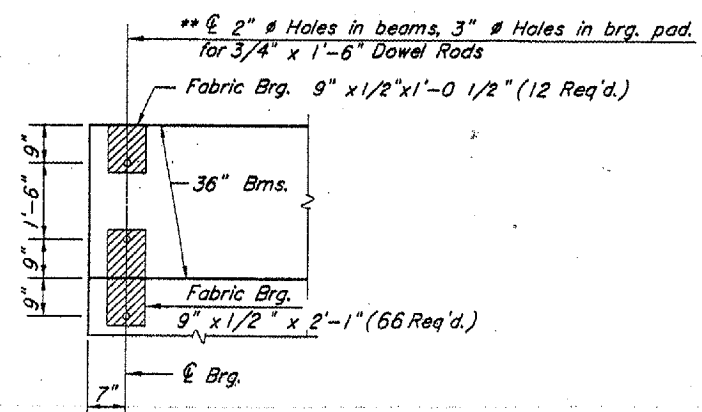
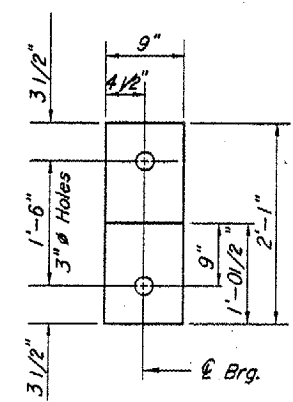
FIXED PIER



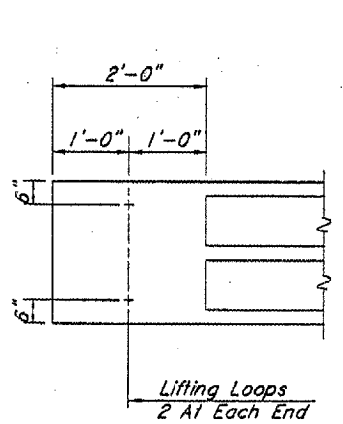
FIXED ABUT.

* 1" Joint shall be packed with a very dry mix of 2:1 sand and P.C. Mortar.
1" Dimension may vary plus or minus to accommodate tolerance in beam lengths.
** After beams are in place, holes shall be drilled into the bridge seat and the dowel rods grouted in place and allowed to cure (Min. 24 Hrs.) prior to grouting shear keys.

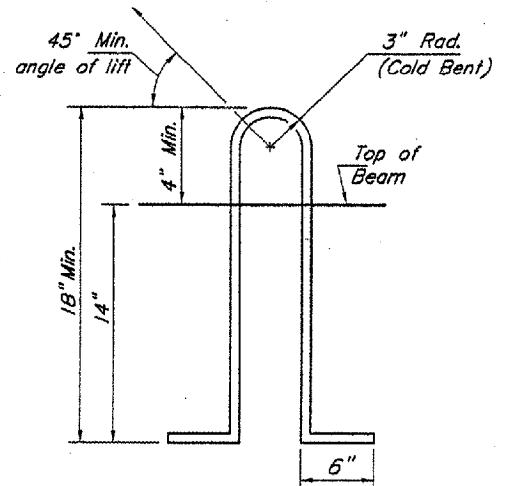
Provide Two (2) 1/8" Fabric Shim Pads (9" x 1'-0 1/2") as required for all bearings.



1/2" FABRIC BRG. PADS
FIXED BEARINGS



DETAIL OF LIFTING LOOP



DETAIL OF ALTERNATE LIFTING LOOP

Lifting loops shall be 6 x 25 class wire rope with fiber core. Each beam shall have four lifting loops, two cast in each end as shown above. Loops shall be burned off after beams have been erected. Min. ultimate tensile strength shall be as specified below.

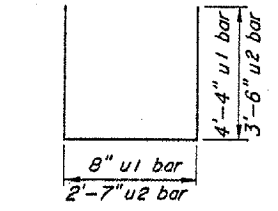
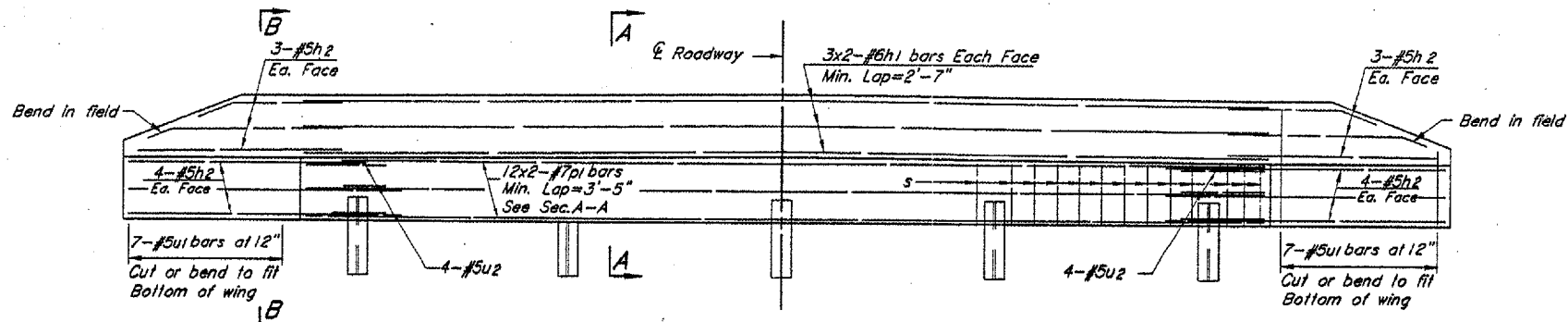
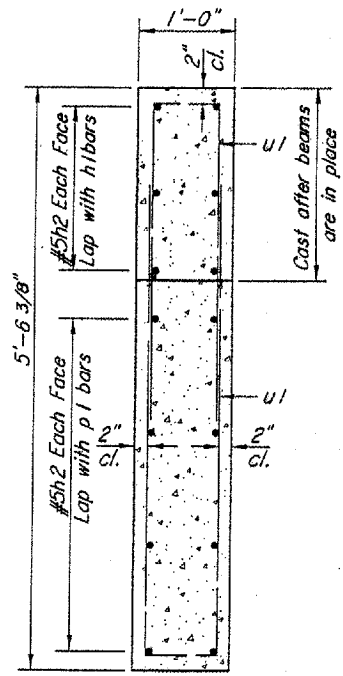
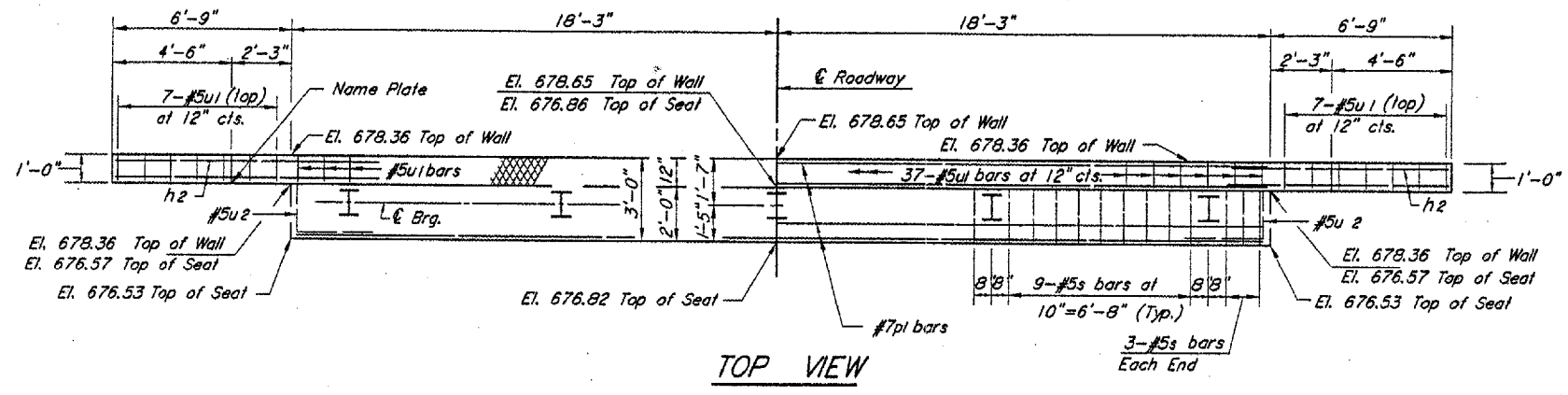
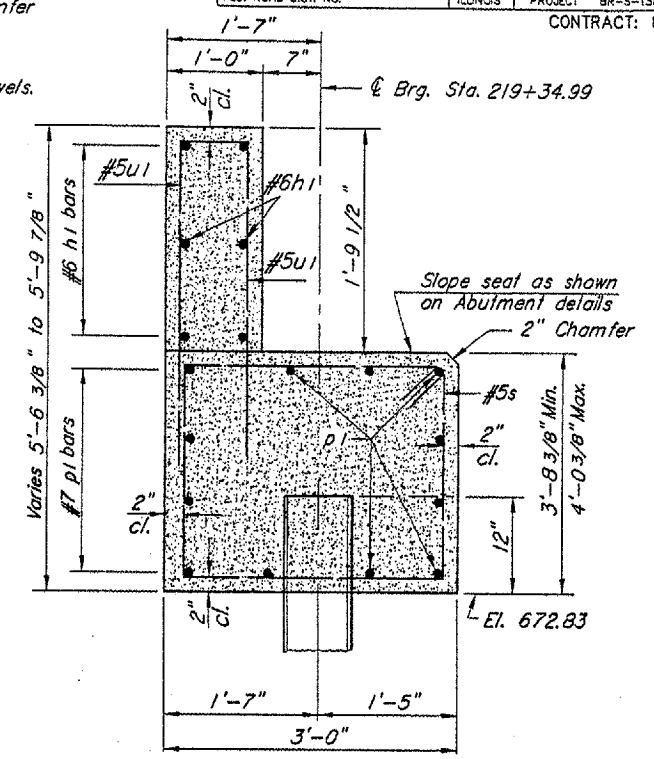
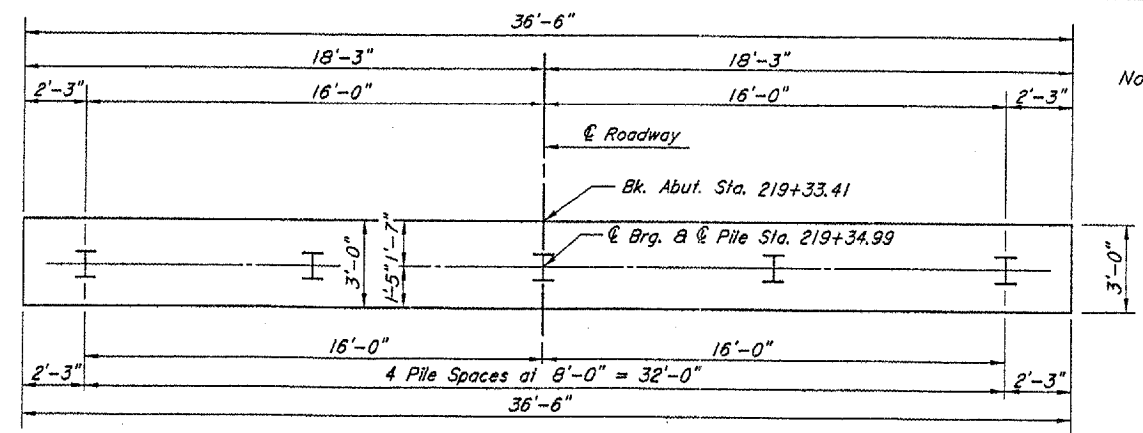
Lifting loops shall be 7 wire 1/2" # 270 ksi prestressing strands-(2 strands required at each point.) The loop shall be formed in such a manner that all strands are engaged during lifting.

Span #	Req'd. Dia. Of Wire Rope	Min. Ultimate Tensile Strength (lbs.)
Span #3	1/2"	21,000
Span #1 & #2	5/8"	33,000

BEARING DETAILS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1381	89-00005-00-BR	PEORIA	29	11
FED. ROAD DIST. NO.	ILLINOIS PROJECT	BR-5-1381 (105)	CONTRACT: 89066	

Notes: All edges shall have standard 3/4" chamfer except as noted.
See Standard CX-1 for Piling Details.
Space Reinf. in cap to miss anchor dowels.

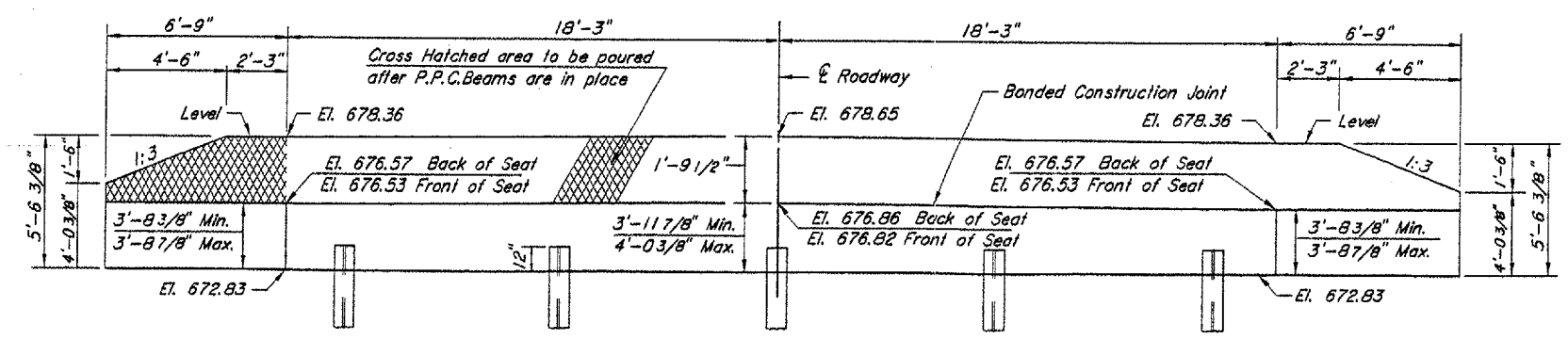
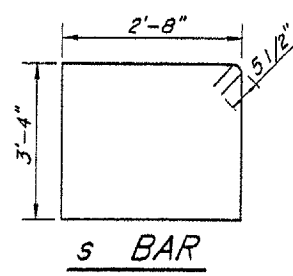


PILE DATA

Type	HP 12 x 53
Capacity	Drive to Refusal
Est. Length	32 Feet
No. Required	4+1 Test Pile
Total Length	128 Feet

BILL OF MATERIAL

BAR NO.	SIZE	LENGTH	SHAPE
h1	12 #6	19'-10"	—
h2	28 #5	10'-3"	—
p1	24 #7	20'-5"	—
s	42 #5	12'-11"	□
u1	65 #5	9'-4"	—
u2	8 #5	9'-7"	—
Concrete Structures		Cu. Yd.	20.6
Reinforcement Bars		Pound	2,940
Steel Piles HP 12 x 53		Foot	128
Test Pile HP 12 x 53		Each	1
Structure Excavation		Cu. Yd.	45



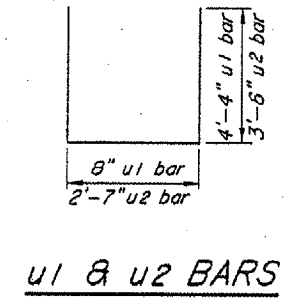
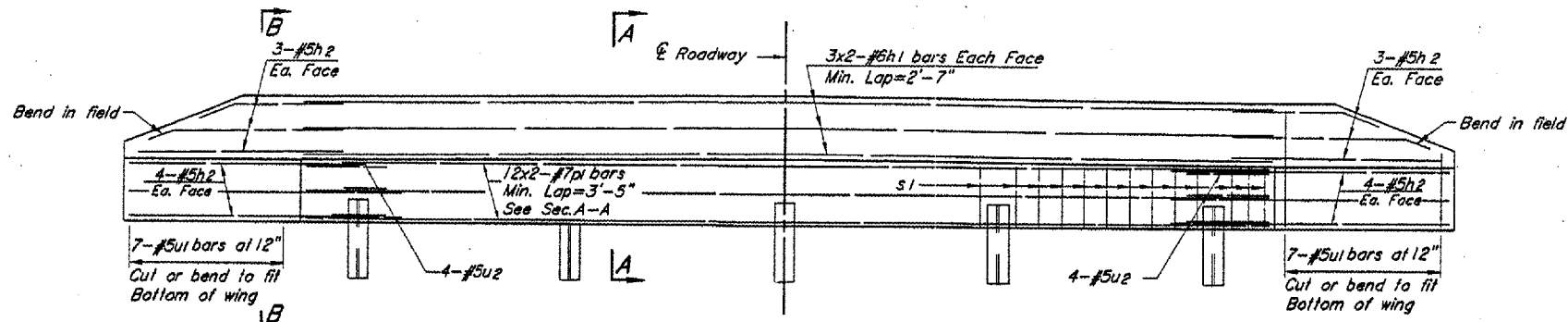
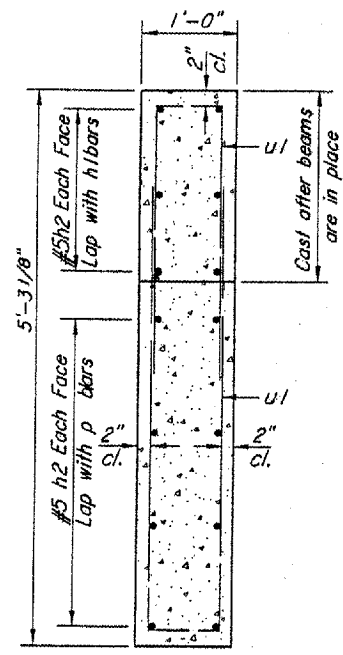
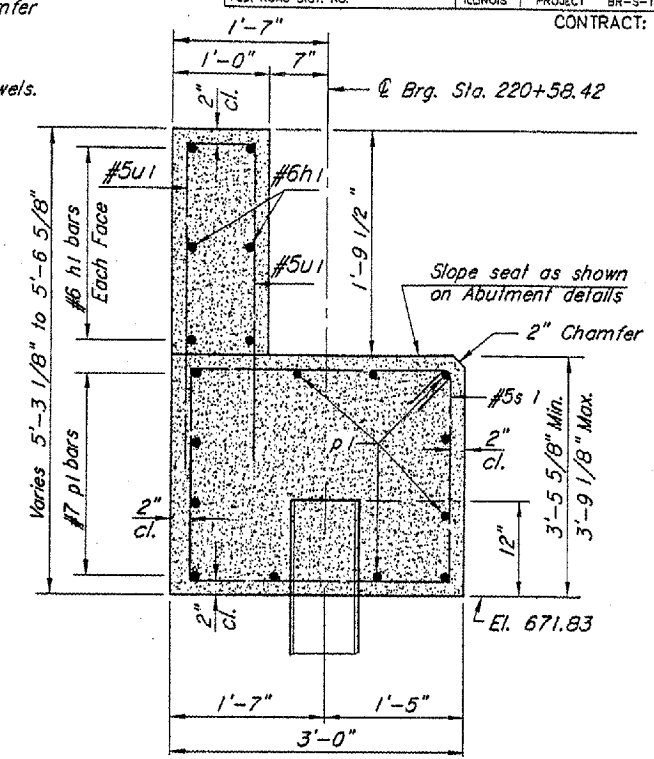
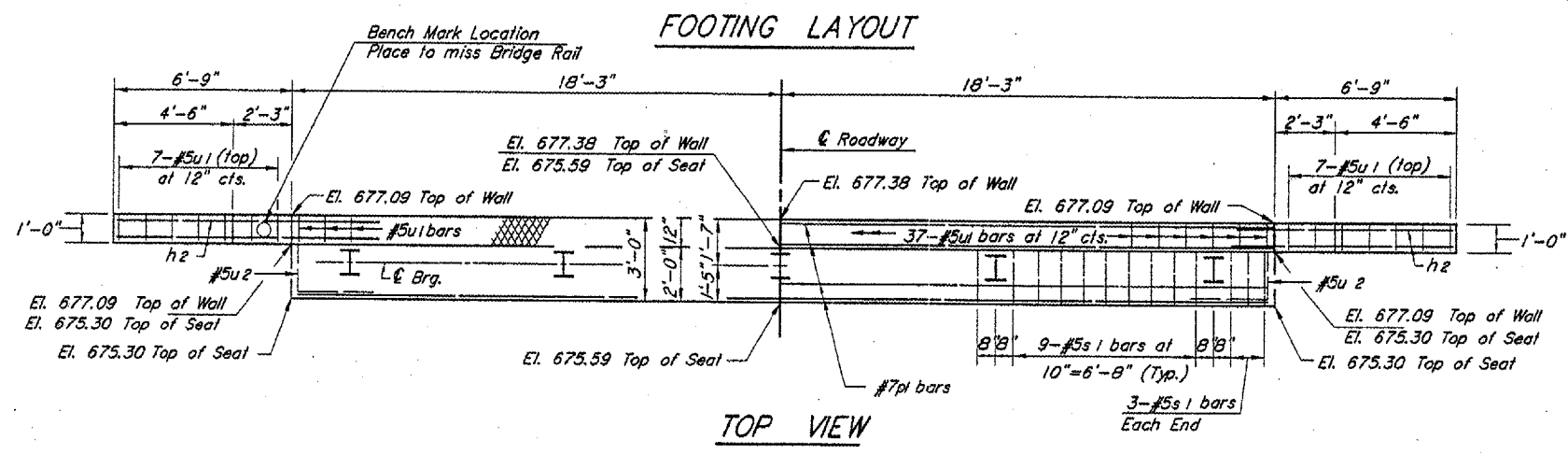
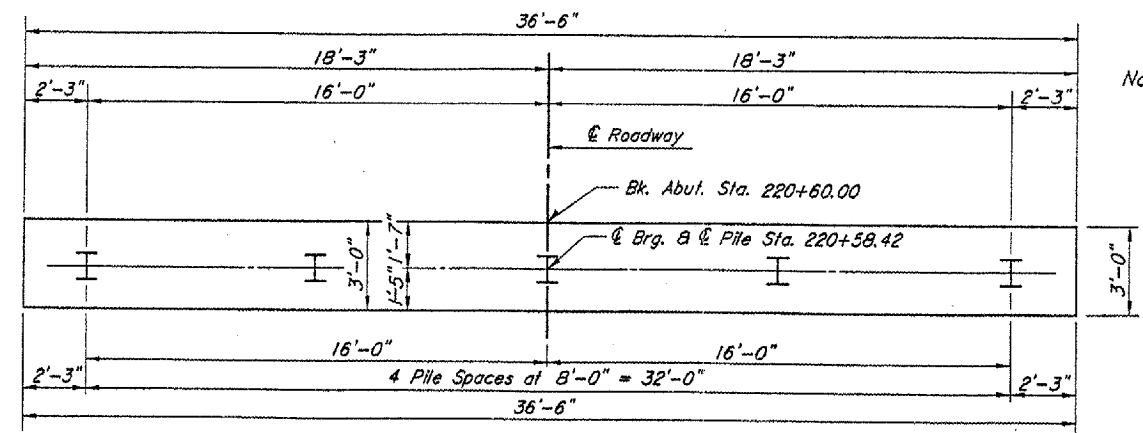
ELEVATION

*See Standard CX-1, Sheet #17, for Pile Encasement Details

ABUTMENT NO. 1
WEST ABUTMENT

Bk. Abut. Sta. 219+33.41
Brg. Sta. 219+34.99

Notes: All edges shall have standard 3/4" chamfer except as noted.
See Standard CX-1 for Piling Details.
Space Reinf. in cap to miss anchor dowels.



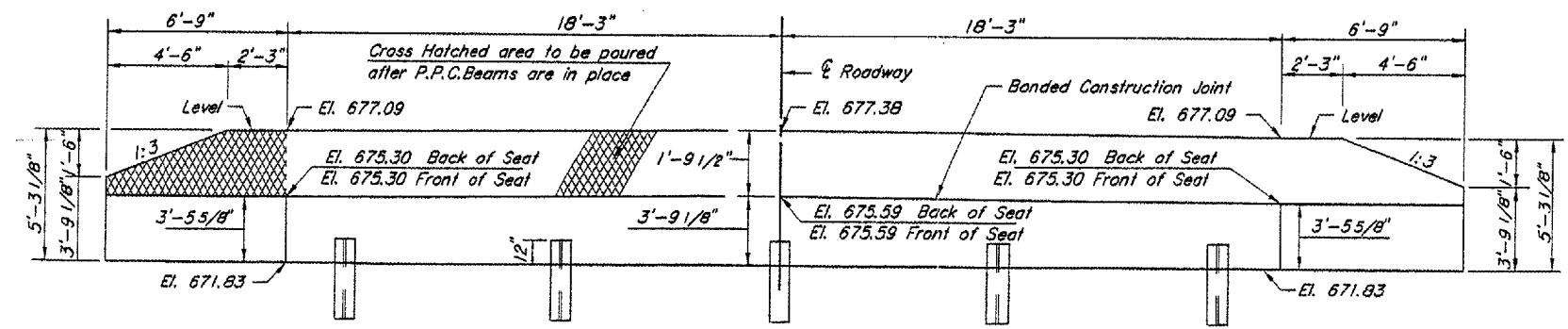
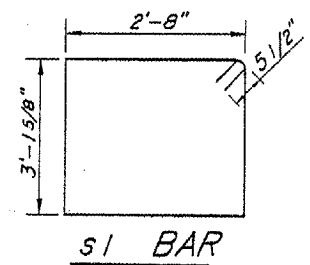
PILE DATA

Type	HP 12 x 53
Capacity	Drive to Refusal
Est. Length	33 Feet
No. Required	4+1 Test Pile
Total Length	132 Feet

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h1	12	#6	19'-10"	—
h2	28	#5	10'-3"	—
p1	24	#7	20'-5"	—
s1	42	#5	12'-6"	□
u1	65	#5	9'-4"	—
u2	8	#5	9'-7"	—

Concrete Structures	Cu. Yd.	19.5
Reinforcement Bars	Pound	2,920
Steel Piles HP 12 x 53	Foot	132
Test Pile HP 12 x 53	Each	1
Structure Excavation	Cu. Yd.	45



Bk. Abut. Sta. 220+60.00
C. Brg. Sta. 220+58.42

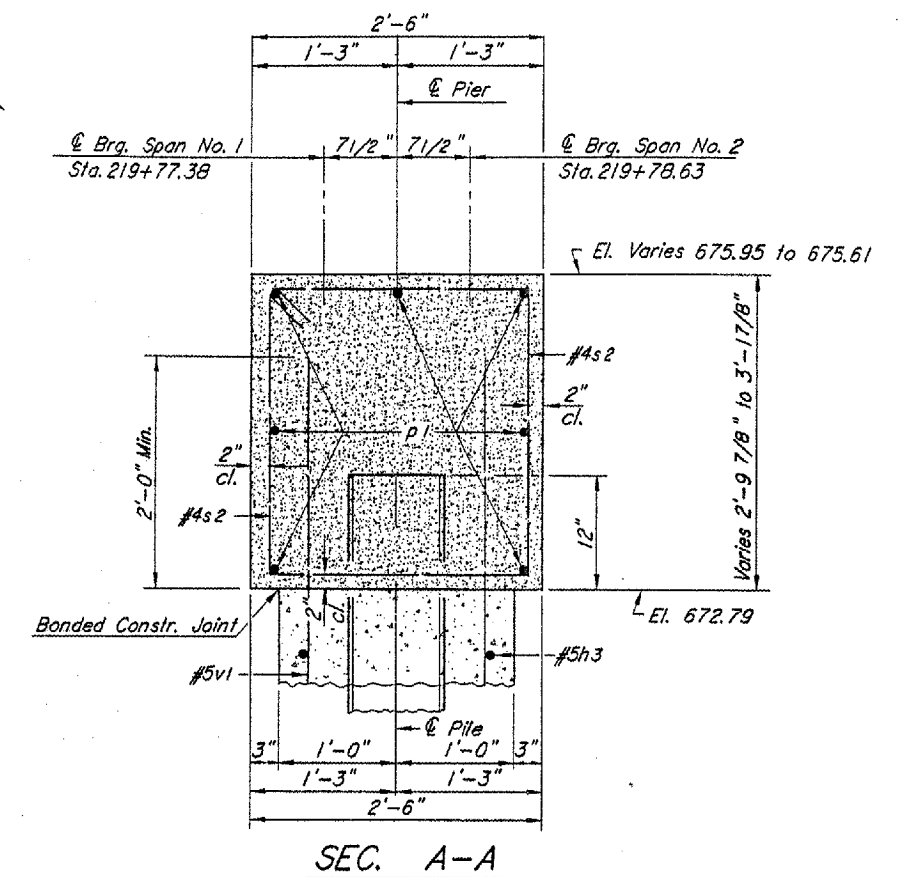
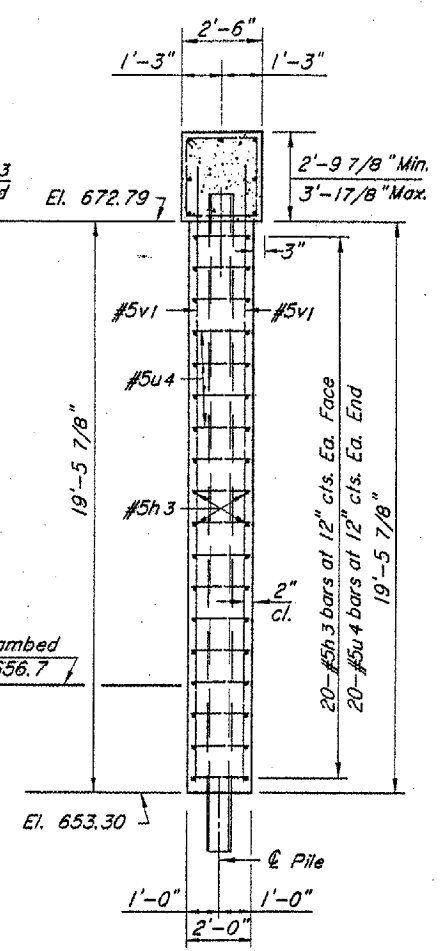
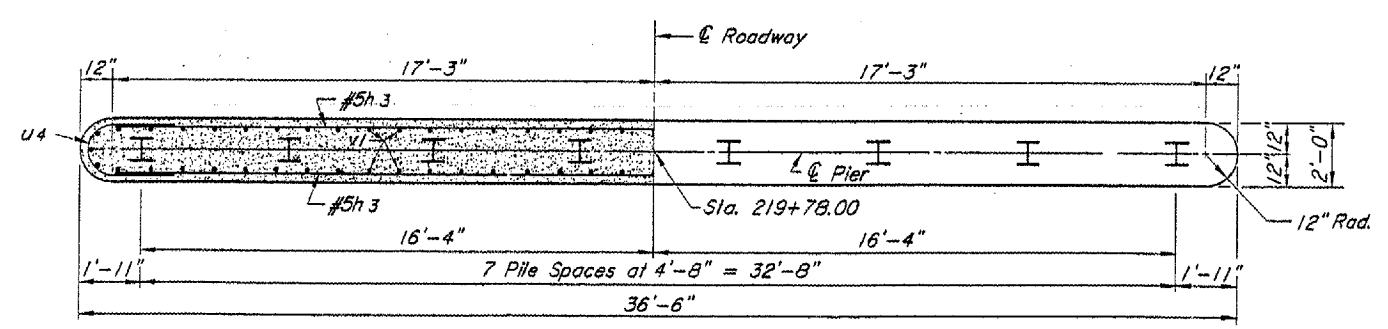
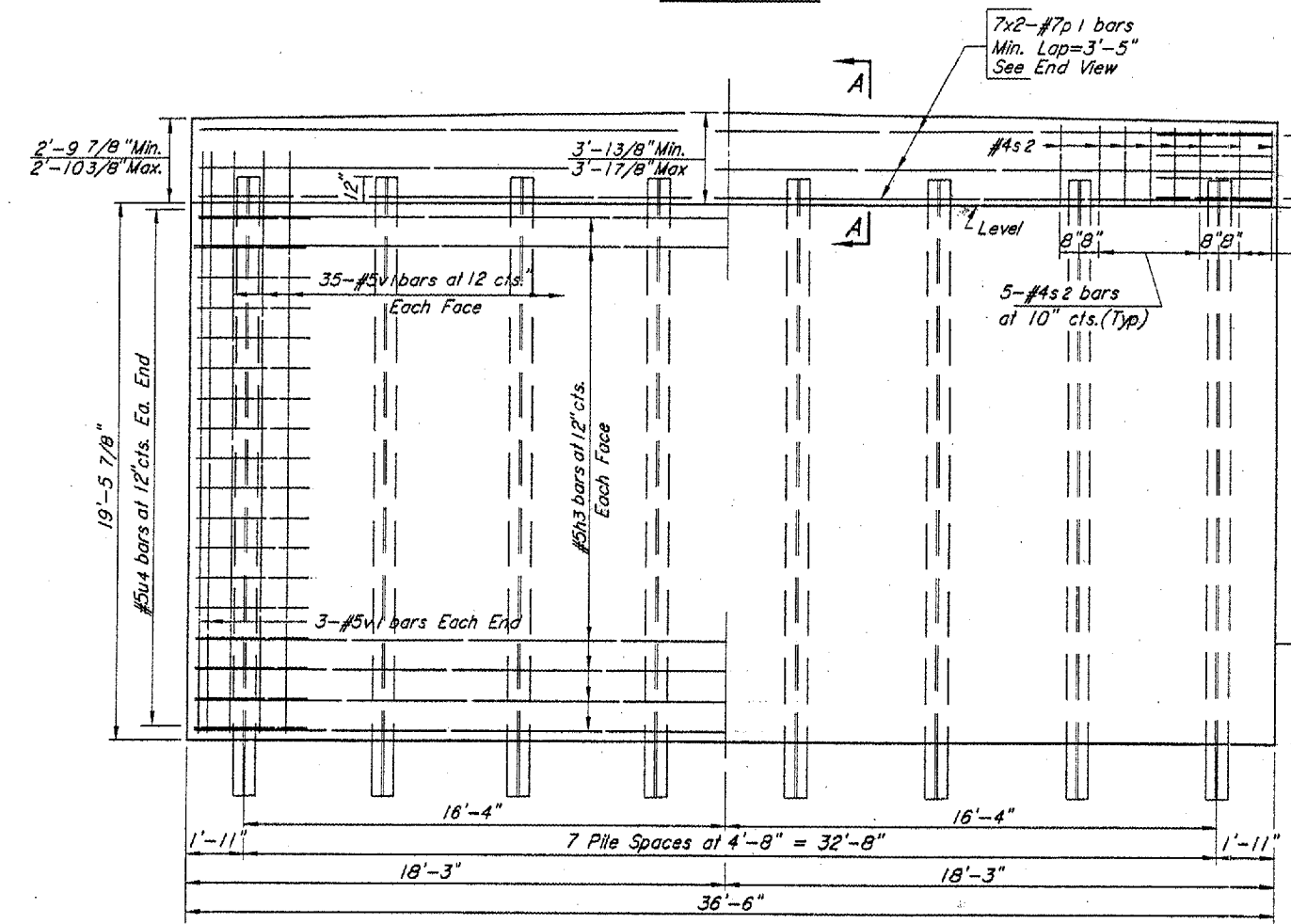
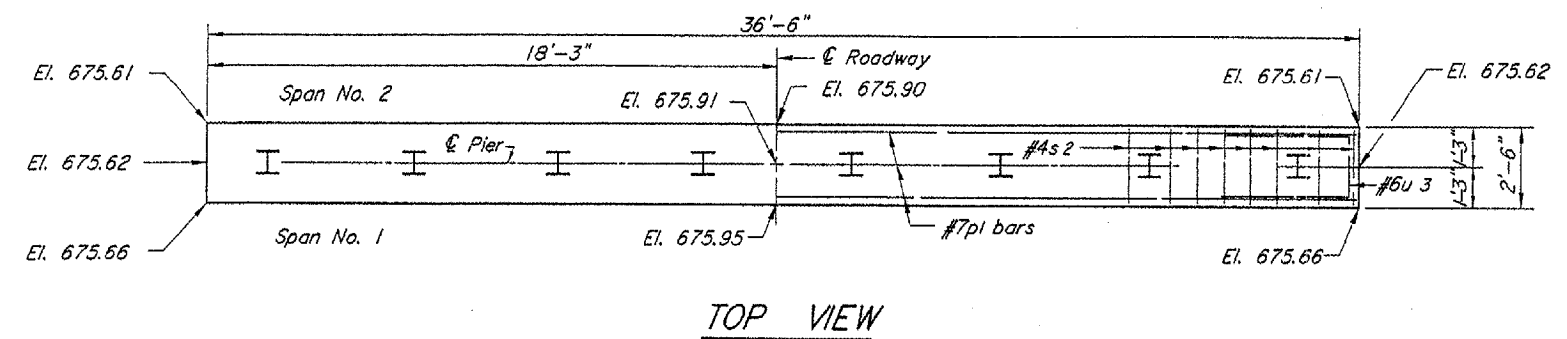
ABUTMENT NO. 2
EAST ABUTMENT

*See Standard CX-1, Sheet #17, for Pile Encasement Details

Filename: 'ABUTMENT1'

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1381	89-00005-00-BR	PEORIA	29	13
FED. ROAD DIST. NO.	ILLINOIS PROJECT	BR-S-1381 (105)		
CONTRACT: 89066				

NOTE: View looking up station.



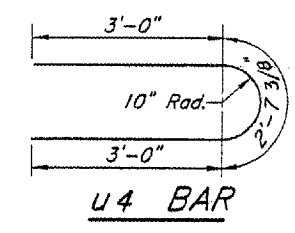
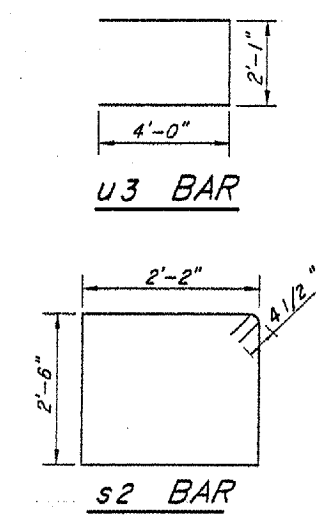
PILE DATA

Type	HP 12 x 53
Capacity	Drive to Refusal
Est. Length	30 Feet
No. Required	7+1 Test Pile
Total Length	210 Feet

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h3	40	#5	34'-6"	—
p1	14	#7	20'-5"	—
s2	39	#4	10'-1"	□
u3	8	#6	10'-1"	⊏
u4	40	#5	8'-8"	⊏
v1	76	#5	21'-2"	—
Concrete Structures		Cu. Yd.	62.2	
Reinforcement Bars		Pound	4,450	
Steel Piles HP 12 x 53		Foot	210	
Test Pile HP 12 x 53		Each	1	
Structure Excavation		Cu. Yd.	31	

NOTE: All edges shall have standard 3/4" chamfer. Space reinforcement in cap to miss anchor dowels.

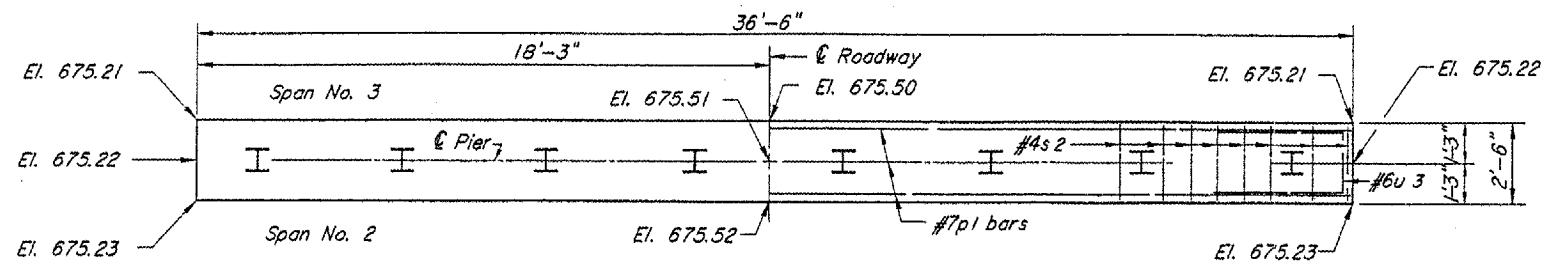


NOTE: See Standard CX-1 for HP Pile Encasement details.

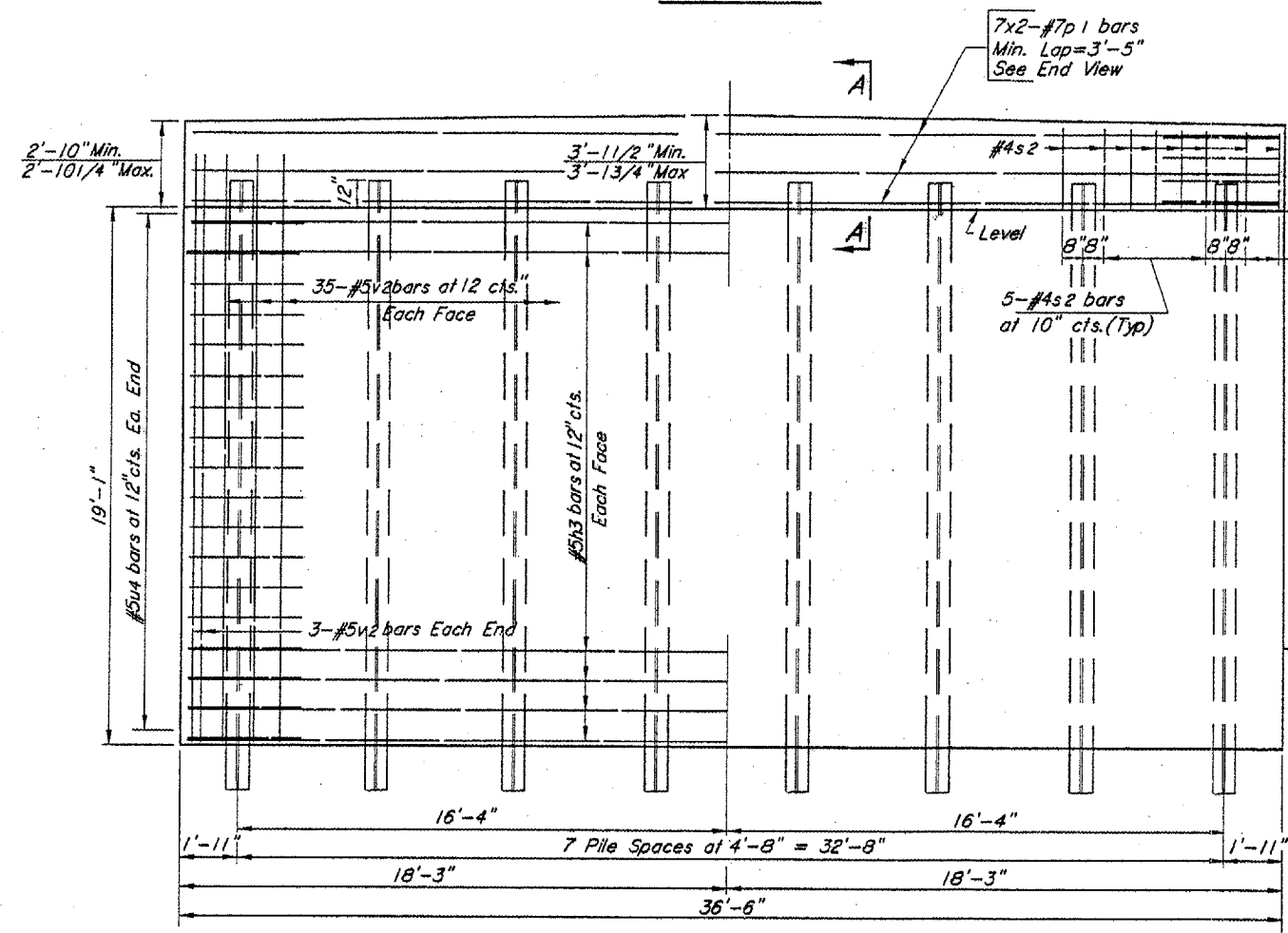
⊕ Pier No. 1 Sta. 219+78.00
⊕ Finished Roadway El. 677.99

PIER NO. 1
WEST PIER

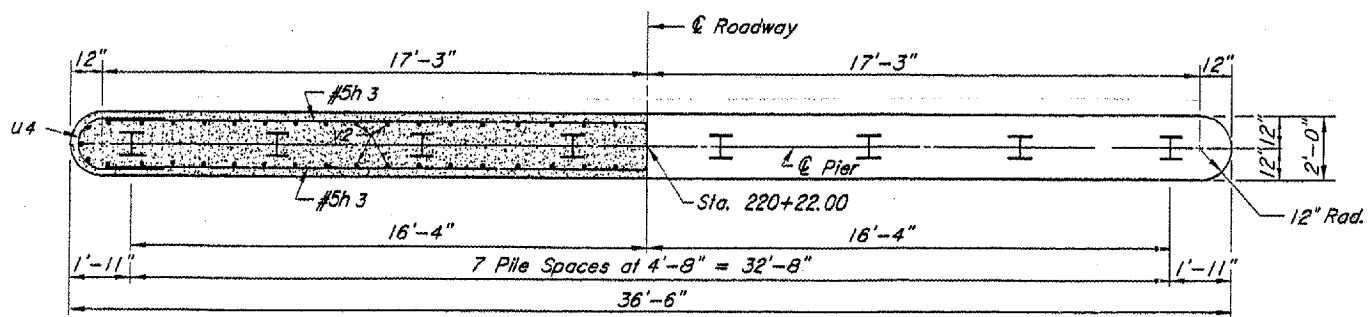
NOTE: View looking up station.



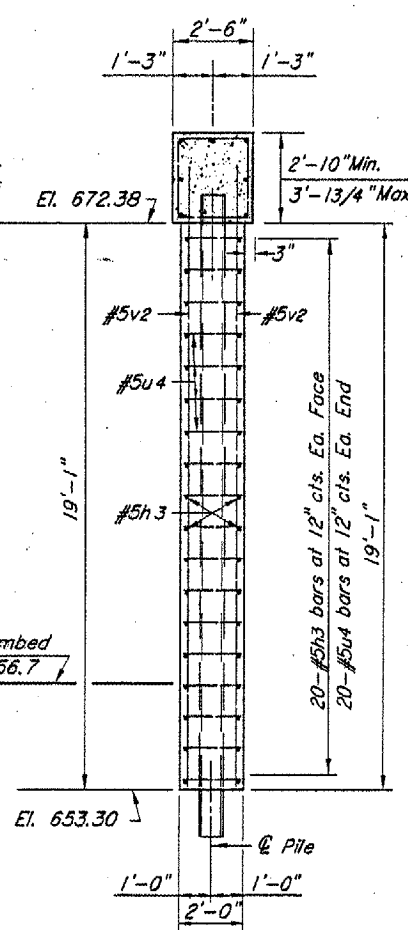
TOP VIEW



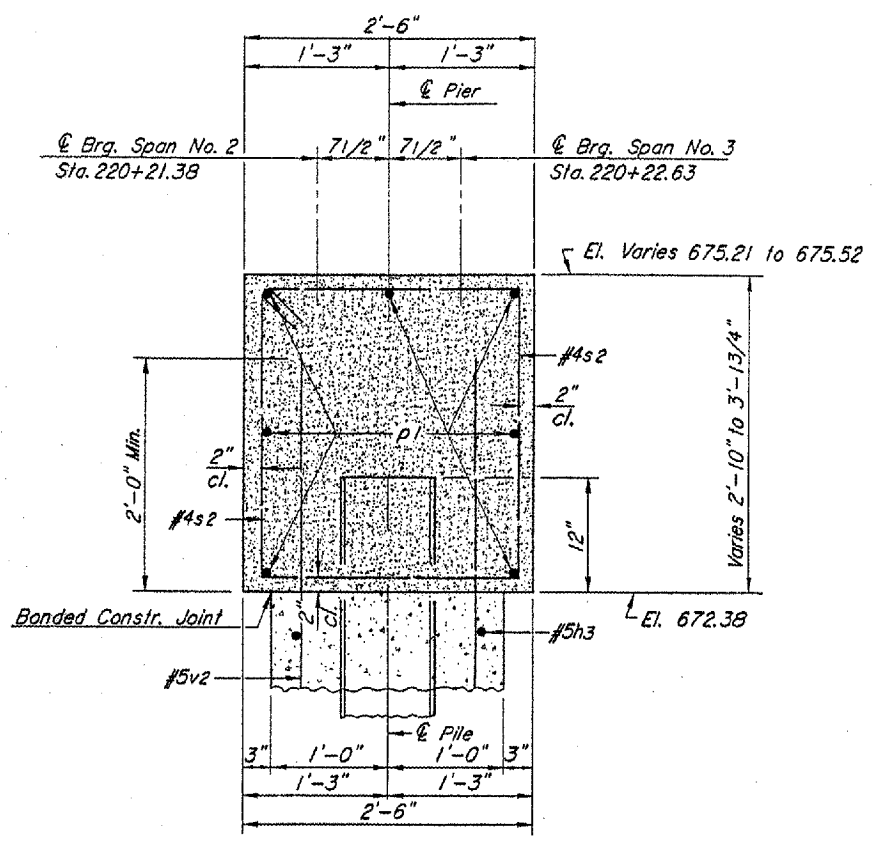
ELEVATION



FOOTING LAYOUT



END VIEW



SEC. A-A

PILE DATA

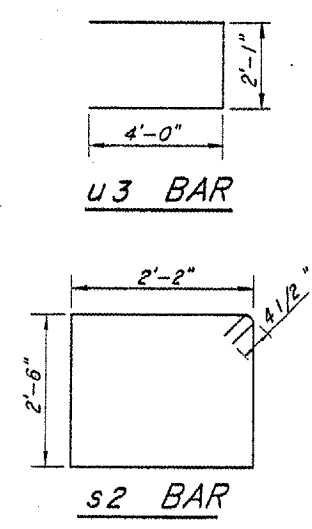
Type	HP 12 x 53
Capacity	Drive to Refusal
Est. Length	32 Feet
No. Required	7+1 Test Pile
Total Length	224 Feet

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h3	40	#5	34'-6"	—
p1	14	#7	20'-5"	—
s2	39	#4	10'-1"	□
u3	8	#6	10'-1"	≡
u4	40	#5	8'-8"	≡
v2	76	#5	20'-9"	—

Concrete Structures	Cu. Yd.	61.1
Reinforcement Bars	Pound	4,410
Steel Piles HP 12 x 53	Foot	224
Test Pile HP 12 x 53	Each	1
Structure Excavation	Cu. Yd.	31

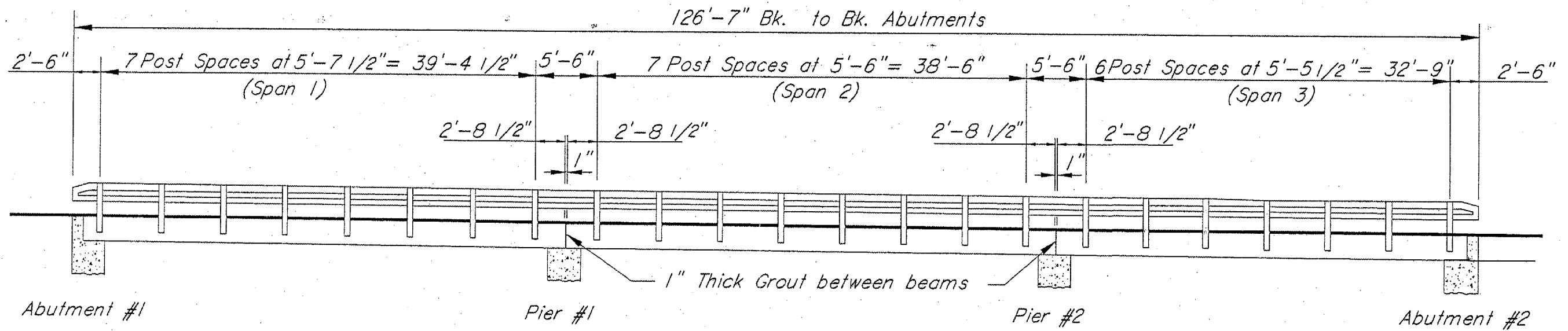
NOTE: All edges shall have standard 3/4" chamfer. Space reinforcement in cap to miss anchor dowels.



NOTE: See Standard CX-1 for HP Pile Encasement details.

Centerline of Pier No. 1 Sta. 220+22.00
Finished Roadway El. 677.59

PIER NO. 2
EAST PIER



GUARD RAIL ELEVATION

Looking North
(See Sheet #16 for Post and Rail Details)

BILL OF MATERIAL

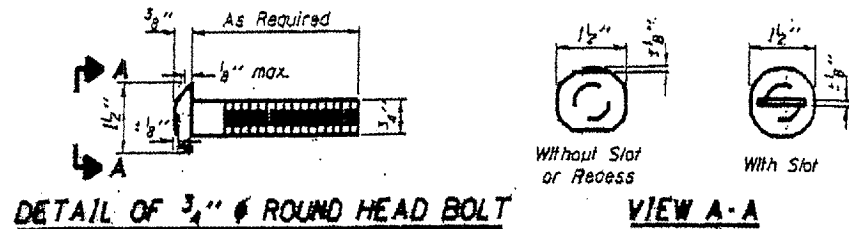
ITEM	UNIT	QUAN.
Steel Railing	Lin. Ft.	253.2

STEEL BRIDGE RAIL
TYPE SM

filename 'SM RAIL'

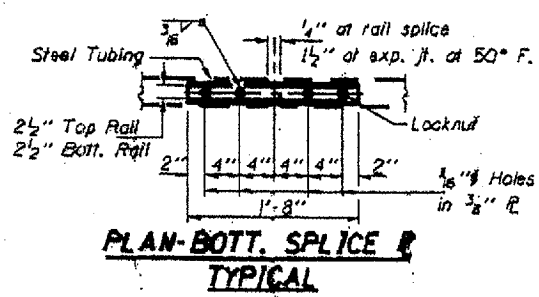
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1381	89-00005-CO-BR	PEORIA	30	16
FED. ROAD DIST. NO.	ILLINOIS PROJECT		BR-S-1381 (105)	

CONTRACT: 89066

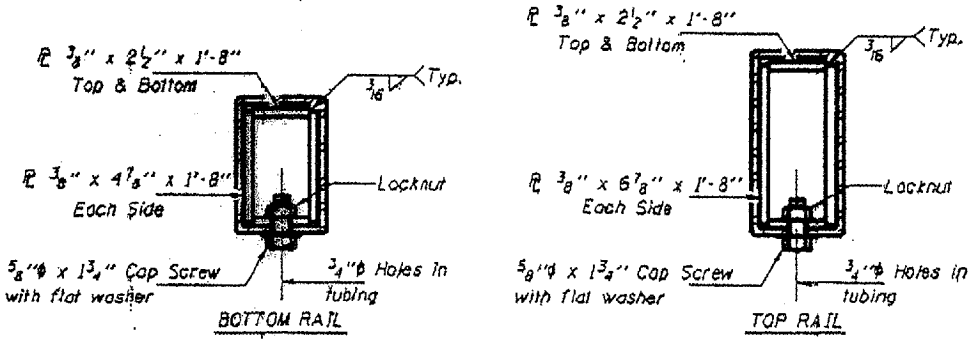


DETAIL OF 3/4" ϕ ROUND HEAD BOLT

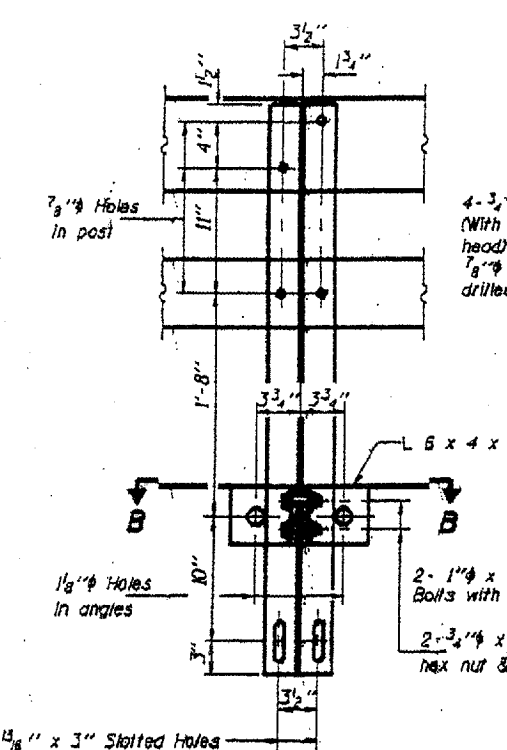
VIEW A-A



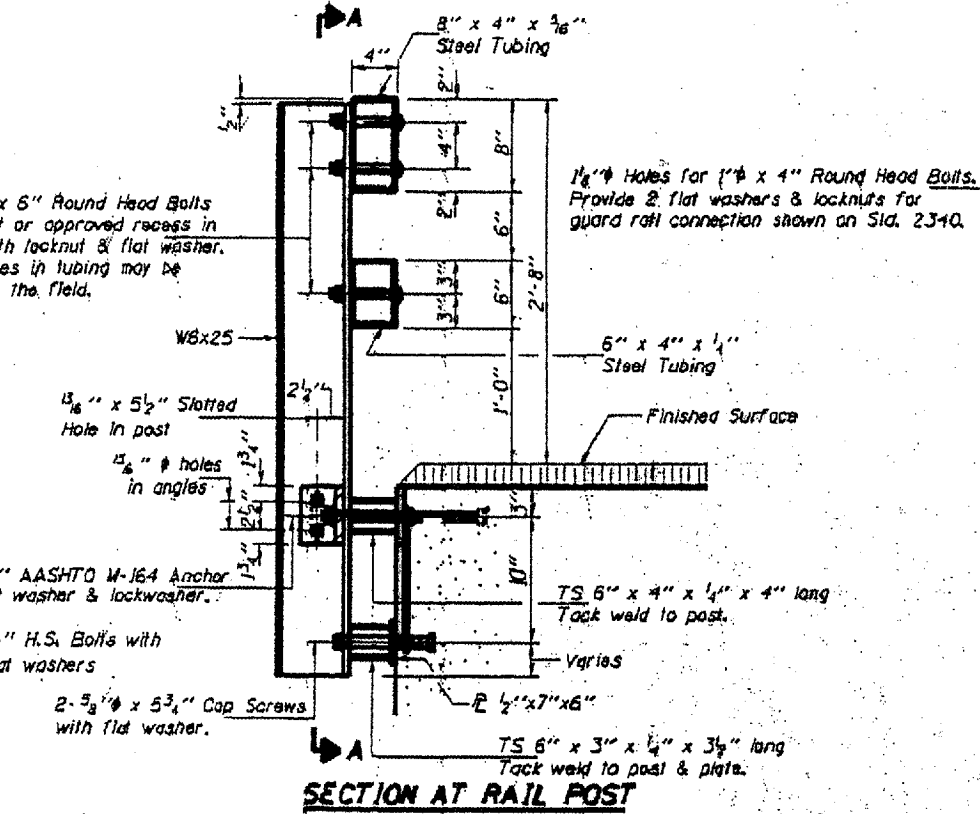
PLAN-BOTT. SPLICE TYPICAL



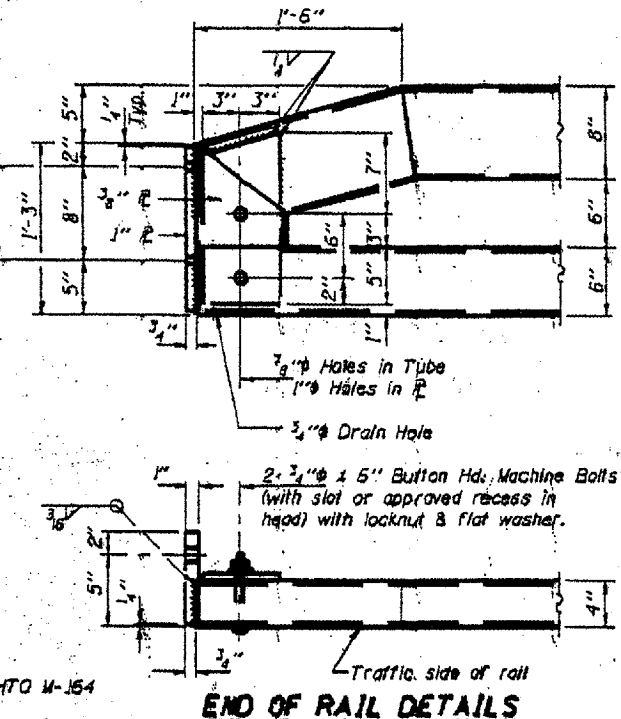
SECTIONS AT RAIL SPLICE



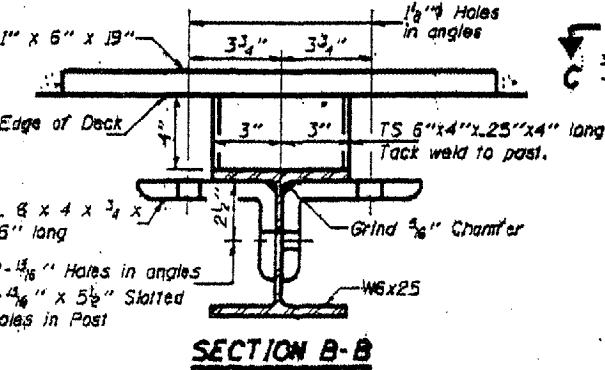
SECTION A-A



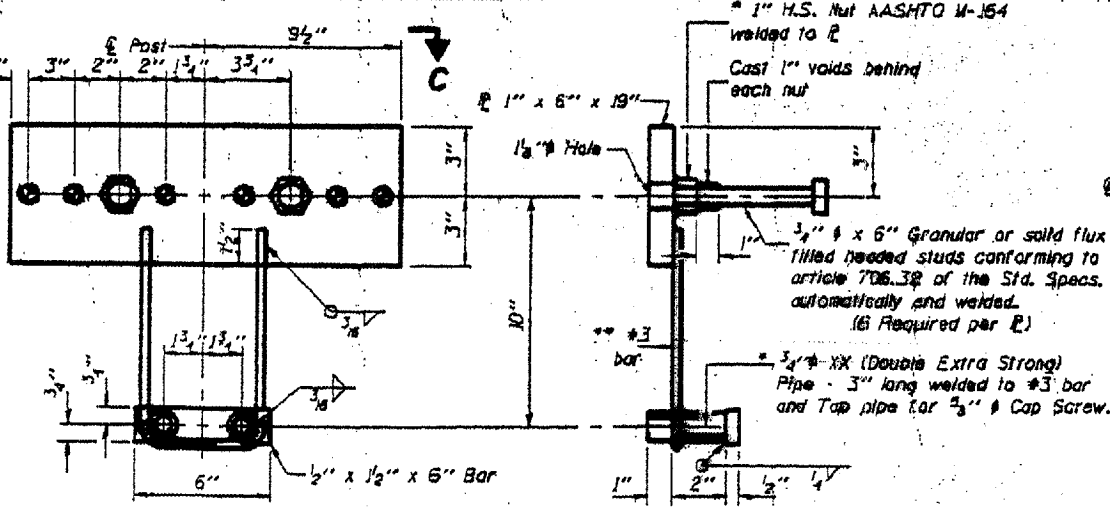
SECTION AT RAIL POST



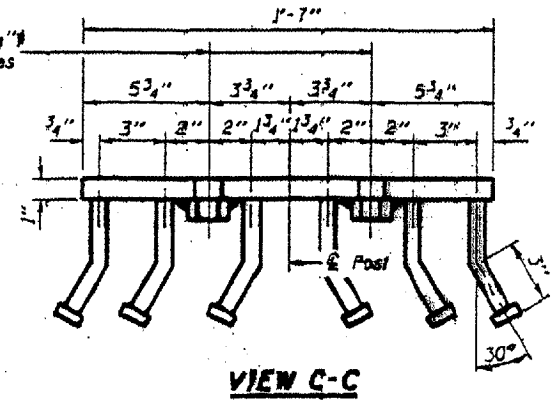
END OF RAIL DETAILS



SECTION B-B



ANCHOR DEVICE



VIEW C-C

NOTES

Hollow structural steel tubing 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 requirement 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 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-385. Galvanized rail shall not be painted.

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 incidental to STEEL BRIDGE RAIL, 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 in accordance with Article 505.04(TX3) 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 3/8" cap screws in bottom of posts shall be tightened to a snug fit only.

The 1/2" x 7" x 6" plates that come in contact with concrete shall receive two coats of asphalt paint conforming to Section 760.07 Type II or place 1/2" fabric bearing pads between the plates and concrete. The maximum allowable rail post spacing shall be 5'-3".

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

** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".

Illinois Department of Transportation

PASSED November 1, 1995

APPROVED November 1, 1995

Engineer of Bridges and Structures

STEEL BRIDGE RAIL, TYPE SM

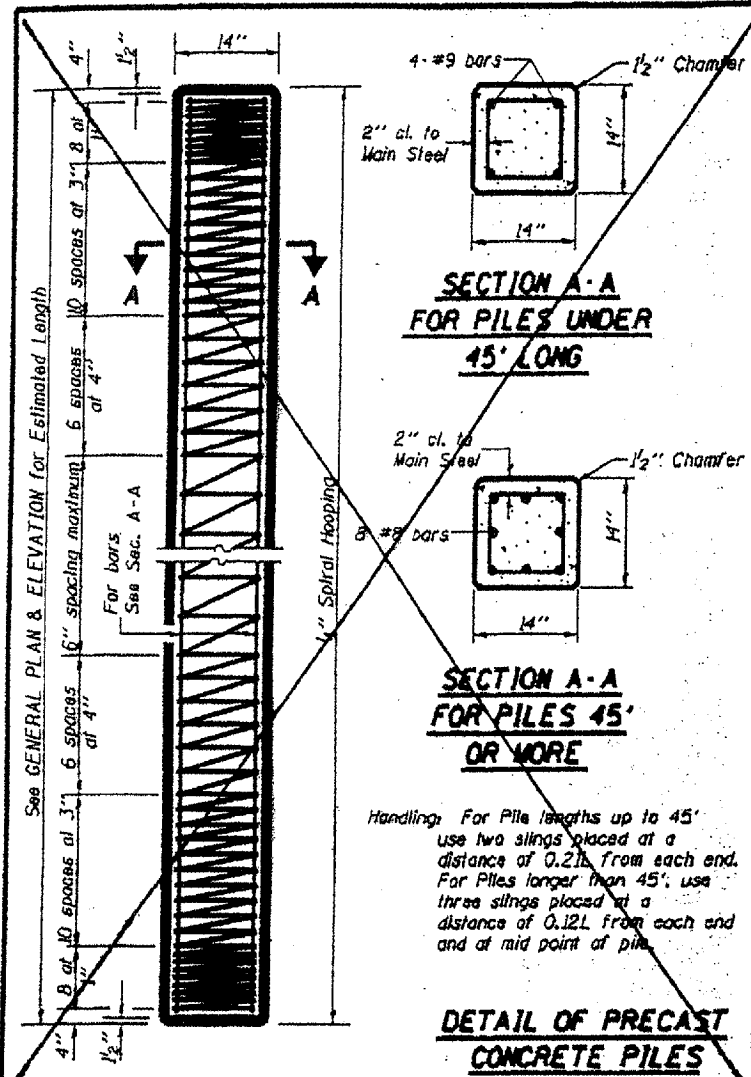
STANDARD CR-TSM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1381	89-00005-00-BR	PEORIA	30	17
FED. ROAD DIST. NO.		ILLINOIS PROJECT BR-9-1381 (105)		

CONTRACT: 89066

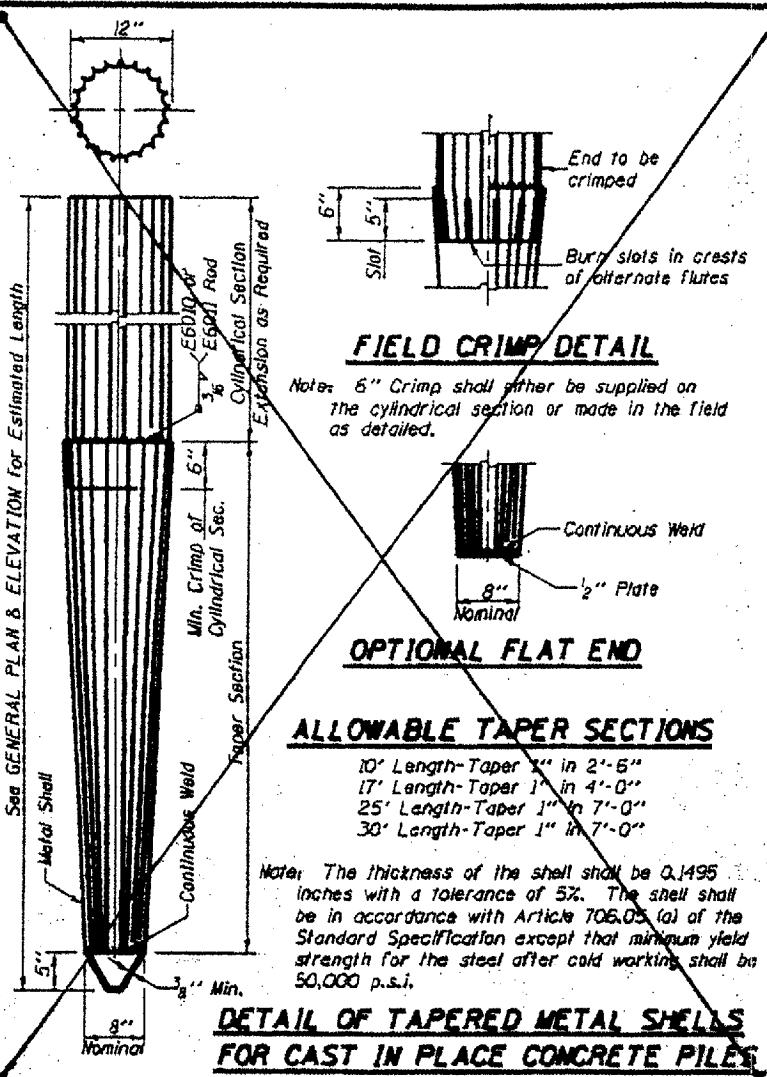
when Class S1 Concrete Encasement is provided.

The cost of Reinforcement is incidental to the Cost of Furnishing Piles.

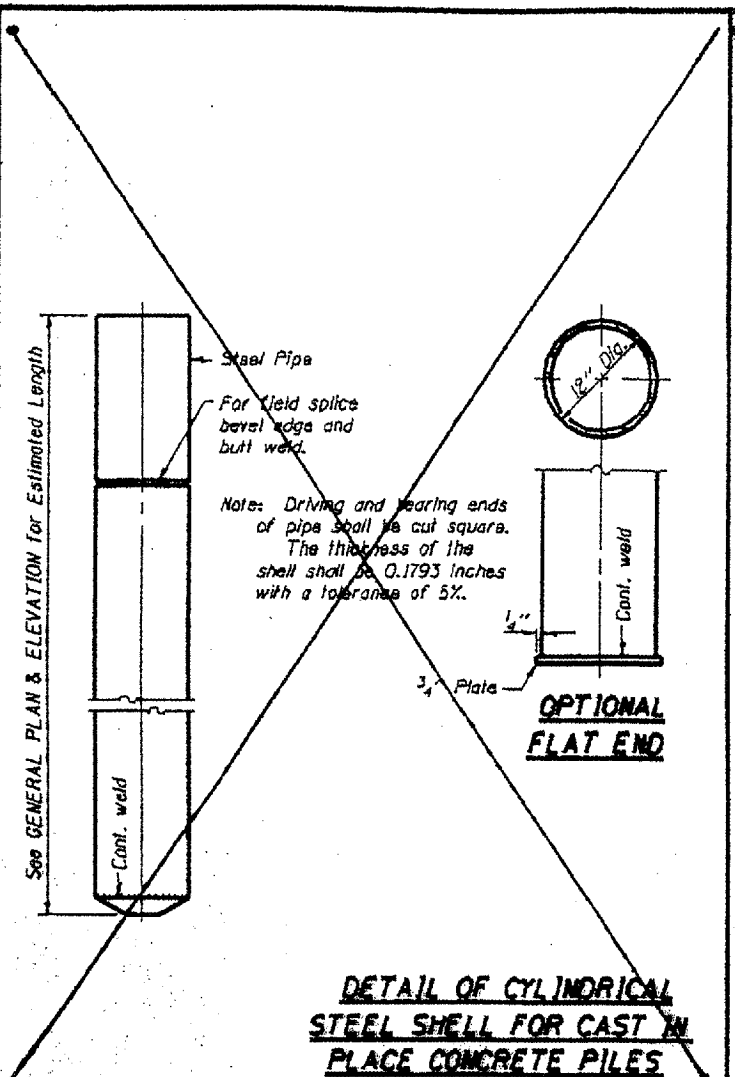


Handling: For Pile lengths up to 45' use two slings placed at a distance of 0.2L from each end. For Piles longer than 45', use three slings placed at a distance of 0.12L from each end and at mid point of pile.

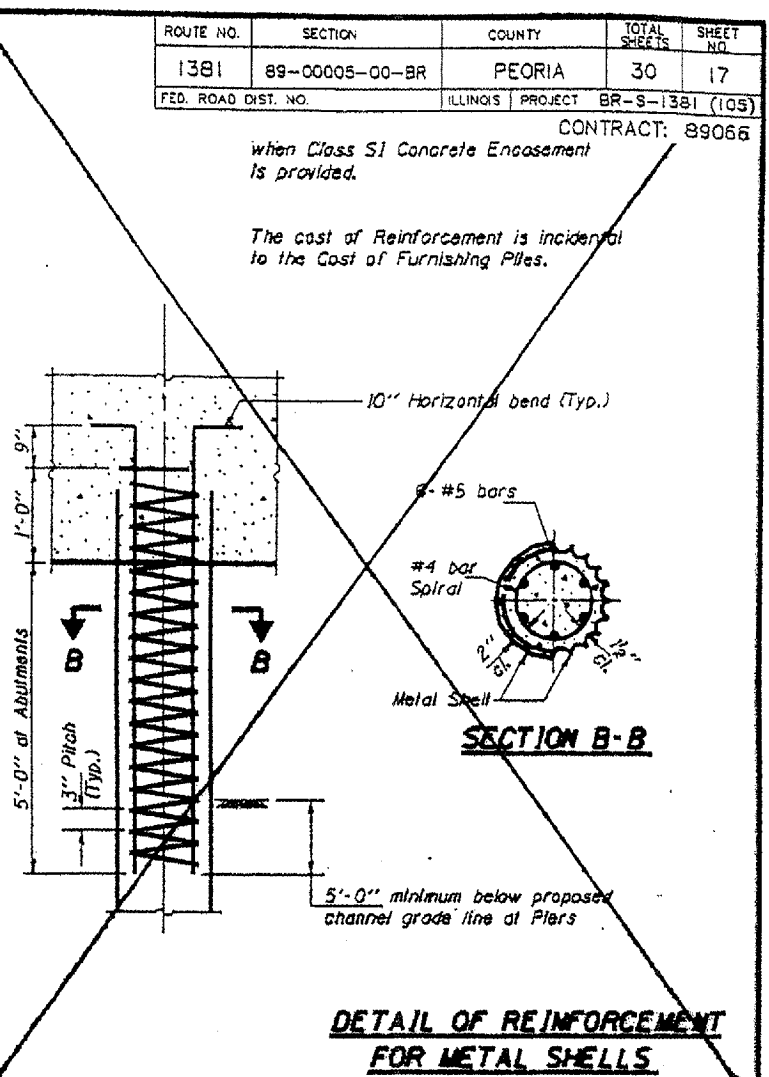
DETAIL OF PRECAST CONCRETE PILES



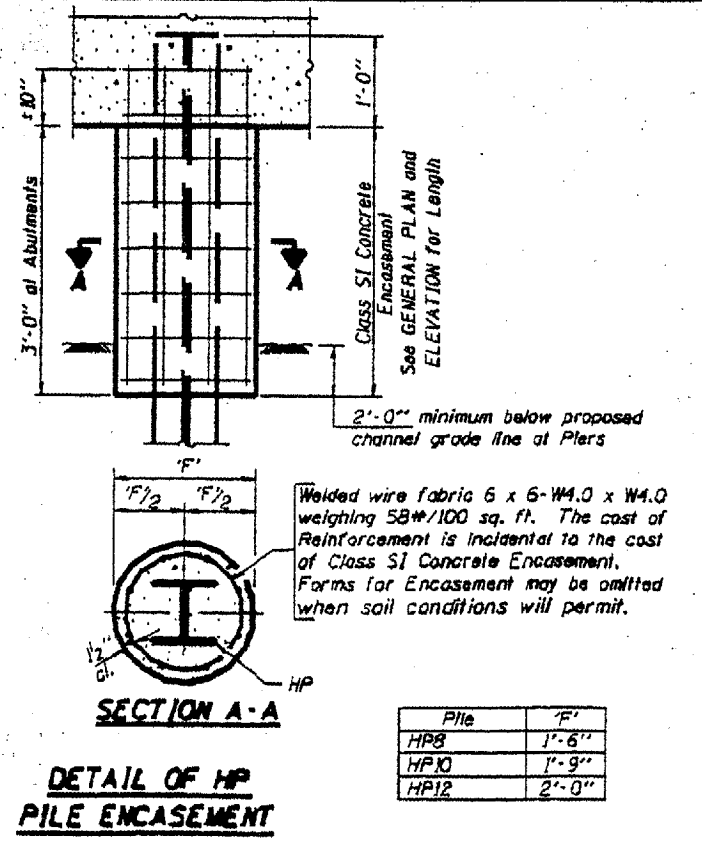
DETAIL OF TAPERED METAL SHELLS FOR CAST IN PLACE CONCRETE PILES



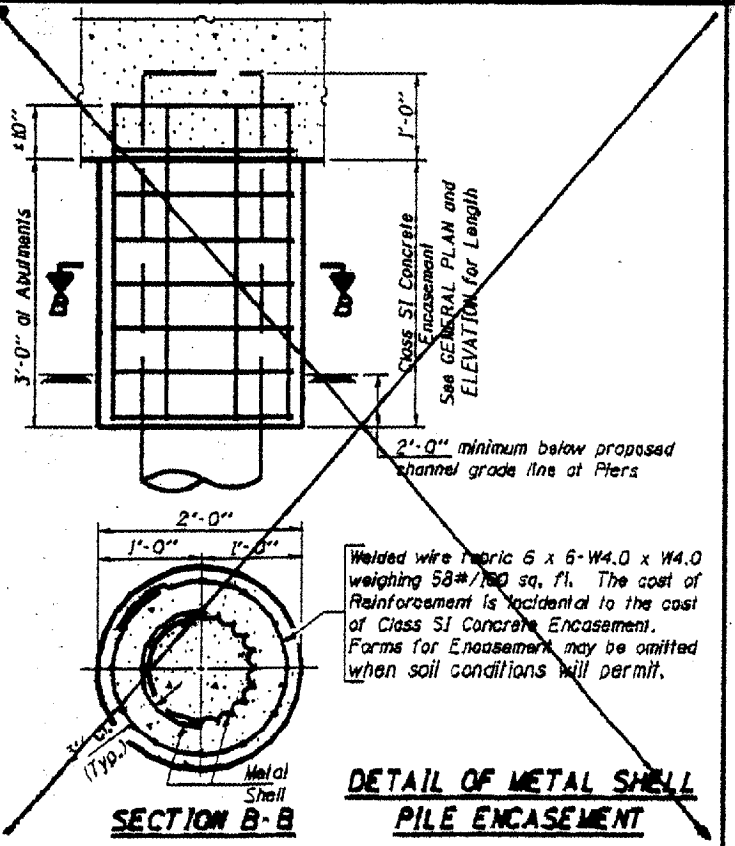
DETAIL OF CYLINDRICAL STEEL SHELL FOR CAST IN PLACE CONCRETE PILES



DETAIL OF REINFORCEMENT FOR METAL SHELLS



DETAIL OF HP PILE ENCASEMENT



DETAIL OF METAL SHELL PILE ENCASEMENT

QUANTITIES/LIN. FT. OF ENCASEMENT (STEEL PILES)

Pile Size	Item	Quantity
HP8	Class S1 Concrete Encasement	0.063 C.Y.
HP10	Class S1 Concrete Encasement	0.086 C.Y.
HP12	Class S1 Concrete Encasement	0.112 C.Y.

(METAL SHELL PILES)

Pile Size	Item	Quantity
12" Dia.	Class S1 Concrete Encasement	0.087 C.Y.

PILE DETAILS

STANDARD CX-1

Illinois Department of Transportation

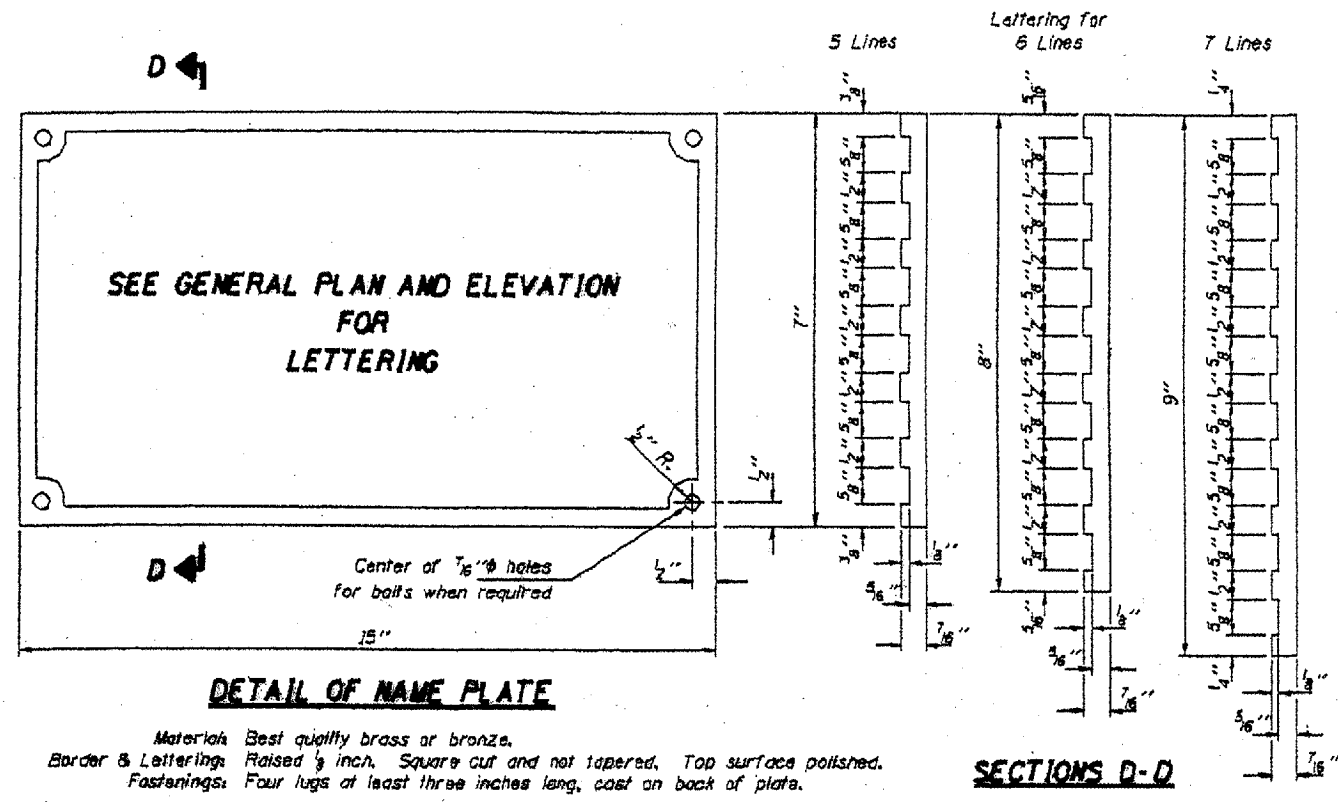
PASSED November 1, 1995

APPROVED November 1, 1995

Engineer of Bridge Design

Engineer of Bridges and Structures

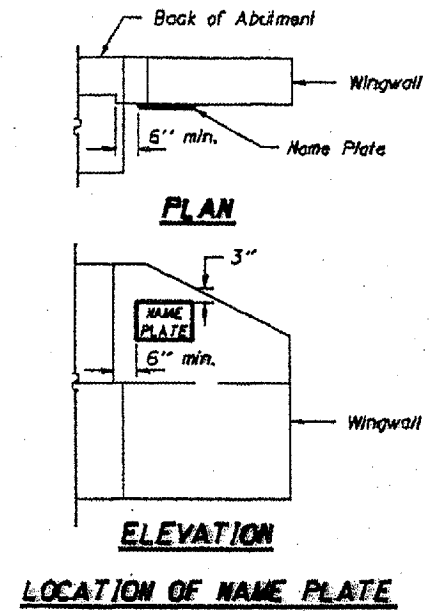
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1381	89-00005-00-BR	PEORIA	30	18
FED. ROAD DIST. NO.		ILLINOIS PROJECT	BR-S-1381 (105)	
CONTRACT: 89066				



DETAIL OF NAME PLATE

Material: Best quality brass or bronze.
 Border & Lettering: Raised 1/8 inch. Square cut and not tapered. Top surface polished.
 Fastenings: Four lugs at least three inches long, cast on back of plate.

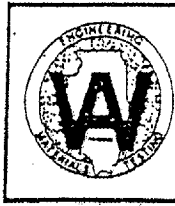
SECTIONS D-D



LOCATION OF NAME PLATE

Illinois Department of Transportation
 PASSED November 1, 1995
 [Signature]
 Engineer of Bridge Design
 APPROVED November 1, 1995
 [Signature]
 Engineer of Bridges and Structures

NAME PLATE
STANDARD CN



WHITNEY & ASSOCIATES
INCORPORATED
2406 West Nebraska Avenue
PEORIA, ILLINOIS 61604

BORING LOG

BORING NO. B-1
DATE 12-04-89
W. & A. FILE NO. 3358
SHEET 1 OF 8

PROJECT SMITHVILLE ROAD BRIDGE-SEC. 89-00005-00-BR LOCATION Peoria County, Illinois
BORING LOCATION Station 221+30; 13' Left of Centerline DRILLED BY Fehl

BORING TYPE Hollow-Stem Auger WEATHER CONDITIONS Clear & Mild
SOIL CLASSIFICATION SYSTEM U.S.B.S.C. SEEPAGE WATER ENCOUNTERED AT ELEVATION None
GROUND SURFACE ELEVATION 676.8 GROUND WATER ELEVATION AT - HRS. -
BORING DISCONTINUED AT ELEVATION 648.1 GROUND WATER ELEVATION AT COMPLETION None

DESCRIPTION	DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Dd	Mc
STIFF TO VERY STIFF, BROWN SANDY CLAY							
	4	SS	2 ₂₃	1.1	1.0	119	15
		SS	2 ₄₅	2.6	2.5	112	22
	8	SS	3 ₆₇	3.8	3.7	119	20
		SS	3 ₆₆	2.6	2.6	123	17
MEDIUM TO STIFF, DARK GRAY SILTY CLAY	12						
		SS	2 ₂₄	0.6	0.6	99	31
	16	SS	2 ₃₅	1.0	1.0	104	23
LOOSE, GRAY, FINE- TO MEDIUM-GRAINED SAND WITH TRACE OF SILTY CLAY		SS	2 ₄₄	-	-	-	22
	20						
		SS	3 ₄₆	1.8	1.8	118	20
STIFF, DARK GRAY CLAY							
	24	SS	5 ₇₇	2.0	1.9	109	21
		SS	0 ₁₀₁₅	4.0	3.9	-	13

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
SS - SPLIT SPOON SAMPLE
ST - SHELBY TUBE SAMPLE

Qp - CALIBRATED PENETROMETER READING - T.S.F.
Qu - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
Dd - NATURAL DRY DENSITY - P.C.F.
Mc - NATURAL MOISTURE CONTENT - %

BORING NO. B-1 BORING LOG (CONTINUATION) DATE 12-04-89
PROJECT SMITHVILLE ROAD BRIDGE-SEC. 89-00005-00-BR SHEET 2 OF 8
LOCATION Peoria County, Illinois W. & A. FILE NO. 3358

DESCRIPTION	DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Dd	Mc
STIFF TO VERY STIFF, DARK GRAY NEAR CLAY SHALE							
VERY STIFF, LIGHT GRAY CLAY SHALE		SS	48 59	3.5	3.5	131	11
EXPLORATORY BORING DISCONTINUED	30						
	34						
	38						
	42						
	46						
	50						
	54						

DESIGNED MGO
CHECKED PJL
DRAWN DMF
CHECKED MGO

WHITNEY & ASSOCIATES
PEORIA, ILLINOIS

CLARK ENGINEERS MW, INC.
3485 North Drive Lane
Peoria, Illinois 61604

SOIL BORING LOGS
COUNTY HIGHWAY 052
SMITHVILLE ROAD
T-8-N, R-6-E, 4th. P.M. SECTION 21
PEORIA COUNTY



WHITNEY & ASSOCIATES
 INCORPORATED
 2406 West Nebraska Avenue
 PEORIA, ILLINOIS 61604

BORING LOG

BORING NO. B-2
 DATE 12-04-89
 W. & A. FILE NO. 3358
 SHEET 3 OF 8

PROJECT SMITHVILLE ROAD BRIDGE-SEC. 89-00005-00-BR LOCATION Peoria County, Illinois

BORING LOCATION Station 220+40, 13' Right of Centerline DRILLED BY Fehl
 BORING TYPE Hollow-Stem Auger WEATHER CONDITIONS Clear & Mild
 SOIL CLASSIFICATION SYSTEM U.S.B.S.C. SEEPAGE WATER ENCOUNTERED AT ELEVATION None
 GROUND SURFACE ELEVATION 673.8 GROUND WATER ELEVATION AT - HRS. -
 BORING DISCONTINUED AT ELEVATION 644.8 GROUND WATER ELEVATION AT COMPLETION None

DESCRIPTION	DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Dd	Mc
VERY STIFF, BROWN AND GRAY SILTY CLAY							
	4	SS	1 ₂ 2	3.2	3.2	121	18
STIFF, BROWN SANDY CLAY							
		SS	2 ₄ 6	1.7	1.7	131	18
STIFF, DARK GRAY SILT LOAM	8	SS	3 ₄ 6	1.9	1.8	109	23
STIFF TO VERY STIFF, DARK BROWN SILTY CLAY							
		SS	4 ₄ 6	1.8	1.6	110	22
	12						
		SS	4 ₉ 9	3.4	3.2	117	26
STIFF, GRAY AND ORANGE-BROWN SILTY CLAY	16	SS	3 ₅ 7	1.6	1.6	94	23
		SS	2 ₂ 5	0.4	0.4	89	32
	20						
		SS	2 ₃ 5	0.9	0.9	100	33
	24	SS	3 ₄ 7	0.7	0.7	102	26
SOFT TO MEDIUM, GRAY AND BROWN CLAY							
		SS	5 ₁₀ 11	2.9	2.8	119	20

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
 SS - SPLIT SPOON SAMPLE
 ST - SHELBY TUBE SAMPLE

DESIGNED MGO
 CHECKED P.J.L.
 DRAWN DMF
 CHECKED MGO

BORING NO. B-2 BORING LOG (CONTINUATION) DATE 12-04-89
 PROJECT SMITHVILLE ROAD BRIDGE-SEC. 89-00005-00-BR SHEET 4 OF 8
 LOCATION Peoria County, Illinois W. & A. FILE NO. 3358

DESCRIPTION	DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Dd	Mc
VERY STIFF, GRAY NEAR CLAY SHALE							
HARD, LIGHT GRAY CLAY SHALE		SS	94 130	4.5+	4.8	-	10
EXPLORATORY BORING DISCONTINUED	30						
	34						
	38						
	42						
	46						
	50						
	54						

Qp - CALIBRATED PENETROMETER READING - T.S.F.
 Qu - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
 Dd - NATURAL DRY DENSITY - P.C.F.
 Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
 PEORIA, ILLINOIS

CLARK ENGINEERS MW, INC.
 3488 North Drive Lane
 Peoria, Illinois 61604

SOIL BORING LOGS
 COUNTY HIGHWAY 052
 SMITHVILLE ROAD
 T-8-N, R-6-E, 4th. P.M. SECTION 21
 PEORIA COUNTY



WHITNEY & ASSOCIATES
INCORPORATED
2406 West Nebraska Avenue
PEORIA, ILLINOIS 61604

BORING LOG

BORING NO. B-3
DATE 12-04-89
W. & A. FILE NO. 3358
SHEET 5 OF 8

PROJECT SMITHVILLE ROAD BRIDGE-SEC. 89-00005-00-BR LOCATION Peoria County, Illinois
BORING LOCATION Station 219+80; 13' Right of Centerline DRILLED BY Fehl
BORING TYPE Hollow-Stem Auger WEATHER CONDITIONS Clear & Mild
SOIL CLASSIFICATION SYSTEM U.S.B.S.C. SEEPAGE WATER ENCOUNTERED AT ELEVATION None
GROUND SURFACE ELEVATION 673.9 GROUND WATER ELEVATION AT - HRS. -
BORING DISCONTINUED AT ELEVATION 646.7 GROUND WATER ELEVATION AT COMPLETION None

DESCRIPTION	DEPTH IN FEET	SAMPLE TYPE	N	Q _p	Q _u	D _d	M _c
VERY STIFF TO STIFF, BROWN SANDY CLAY WITH TRACE OF MEDIUM-GRAINED GRAVEL	-						
	4	SS	2 ₂ 3	2.3	2.0	116	18
	-	SS	2 ₂ 3	1.1	1.1	114	21
VERY STIFF, BROWN SANDY CLAY WITH TRACE OF MEDIUM-GRAINED GRAVEL	8	SS	4 ₃ 4	1.0	1.0	110	23
	-	SS	2 ₃ 2	2.7	2.6	118	22
VERY STIFF, DARK BROWN SILTY CLAY	12						
	-	SS	2 ₂ 4	2.4	2.2	115	27
	16	SS	2 ₂ 3	1.2	1.2	104	25
LOOSE, BROWN, MEDIUM- TO COARSE-GRAINED SAND WITH TRACE SILTY CLAY	-	SS	3 ₄ 4	-	-	-	13
	20						
STIFF TO VERY STIFF, GRAY NEAR CLAY SHALE	-	SS	2 ₃ 3	1.7	1.7	122	20
	24	SS	5 ₈ 13	4.3	3.9	128	17
HARD, LIGHT GRAY CLAY SHALE	-	SS	5 ₉ 11/5"	-	-	-	12

BORING NO. B-3

BORING LOG
(CONTINUATION)

DATE 12-04-89


PROJECT SMITHVILLE ROAD BRIDGE-SEC. 89-00005-00-BR SHEET 6 OF 8
LOCATION Peoria County, Illinois W. & A. FILE NO. 3358

DESCRIPTION	DEPTH IN FEET	SAMPLE TYPE	N	Q _p	Q _u	D _d	M _c
EXPLORATORY BORING DISCONTINUED	30						
	34						
	38						
	42						
	46						
	50						
	54						

DESIGNED MGO
CHECKED PJL
DRAWN DMF
CHECKED MGO

CLARK ENGINEERS MW, INC.
3425 North Drive Lane
Peoria, Illinois 61604

SOIL BORING LOGS
COUNTY HIGHWAY 052
SMITHVILLE ROAD
T-8-N, R-6-E, 4th. P.M. SECTION. 21
PEORIA COUNTY



WHITNEY & ASSOCIATES
INCORPORATED
2406 West Nebraska Avenue
PEORIA, ILLINOIS 61604

BORING NO. B-4
DATE 12-04-89
W. & A. FILE NO. 3358
SHEET 7 OF 8

BORING LOG

PROJECT SMITHVILLE ROAD BRIDGE-SEC. 89-00005-00-BR LOCATION Peoria County, Illinois
BORING LOCATION Station 218+80; 13' Right of Centerline DRILLED BY Fehl
BORING TYPE Hollow-Stem Auger WEATHER CONDITIONS Clear & Mild
SOIL CLASSIFICATION SYSTEM U.S.B.S.C. SEEPAGE WATER ENCOUNTERED AT ELEVATION None
GROUND SURFACE ELEVATION 677.8 GROUND WATER ELEVATION AT - HRS. -
BORING DISCONTINUED AT ELEVATION 648.6 GROUND WATER ELEVATION AT COMPLETION None

DESCRIPTION	DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Dd	Mc
STIFF TO VERY STIFF, BROWN SANDY CLAY							
	4	SS	2 ₂₃	1.2	1.2	112	19
		SS	2 ₃₅	2.5	2.5	118	20
STIFF, BROWN SILTY CLAY	8						
	12	SS	4 ₅₆	1.5	1.5	106	19
STIFF, DARK GRAY CLAY	16	SS	3 ₃₅	1.6	1.6	101	22
	20						
		SS	3 ₅₅	1.3	1.4	83	32
VERY STIFF, GRAY NEAR CLAY SHALE	24						
		SS	7 _{10,14}	2.0	2.0	112	20

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
SS - SPLIT SPOON SAMPLE
ST - SHELBY TUBE SAMPLE

BORING NO. B-4

BORING LOG
(CONTINUATION)

DATE 12-04-89

PROJECT SMITHVILLE ROAD BRIDGE-SEC. 89-00005-00-BR SHEET 8 OF 8
LOCATION Peoria County, Illinois W. & A. FILE NO. 3358


DESCRIPTION	DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Dd	Mc
HARD, LIGHT GRAY CLAY SHALE							
		SS	38 63	4.5+	-	-	10
EXPLORATORY BORING DISCONTINUED	30						
	34						
	38						
	42						
	46						
	50						
54							

Qp - CALIBRATED PENETROMETER READING - T.S.F.
Qu - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
Dd - NATURAL DRY DENSITY - P.C.F.
Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
PEORIA, ILLINOIS

DESIGNED	MGO
CHECKED	PJL
DRAWN	DMF
CHECKED	MGO

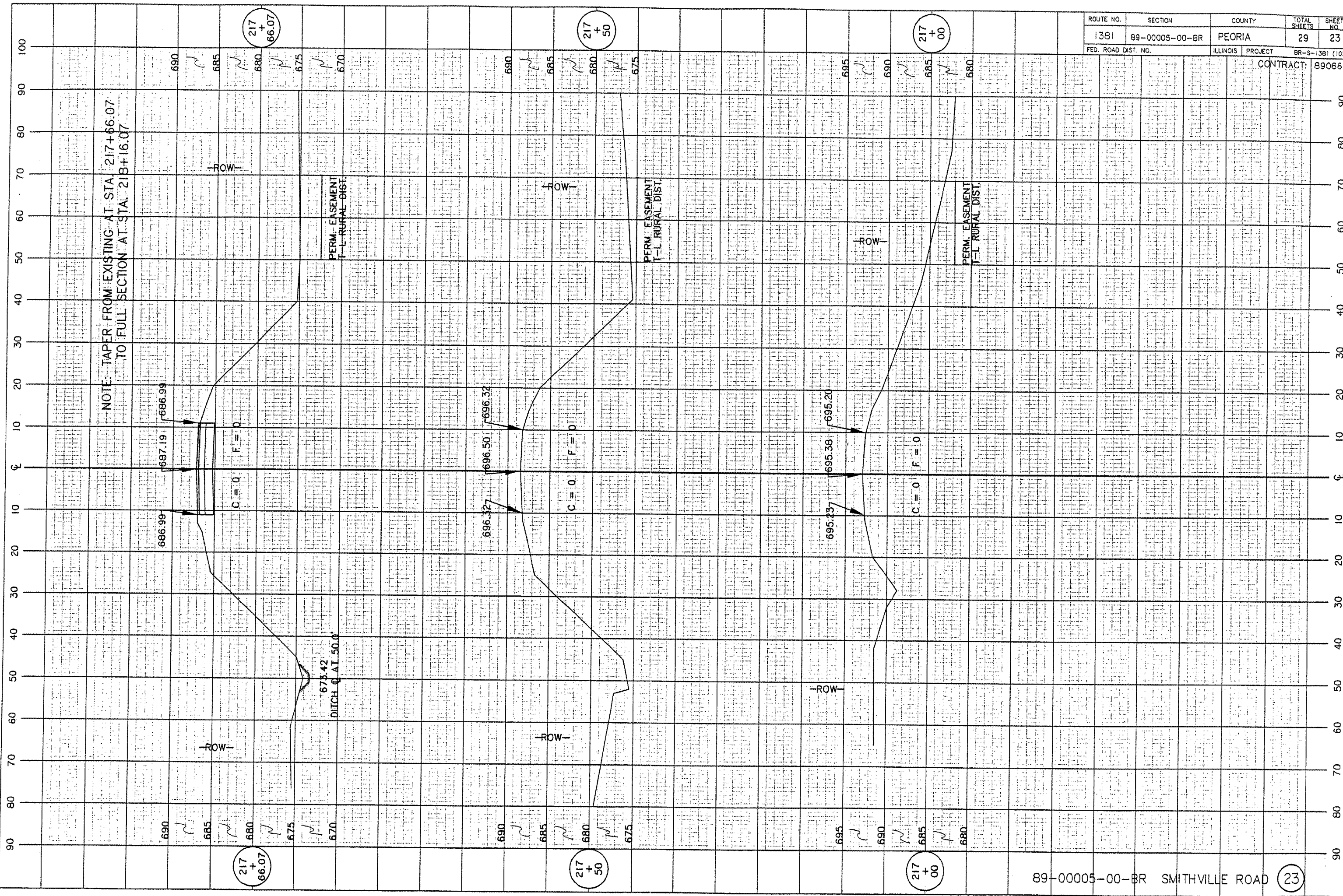
SOIL BORING LOGS
COUNTY HIGHWAY 052
SMITHVILLE ROAD
T-8-N, R-6-E, 4th. P.M. SECTION 21
PEORIA COUNTY



CLARK ENGINEERS MW, INC.
3425 North Orion Lane
Peoria, Illinois 61604

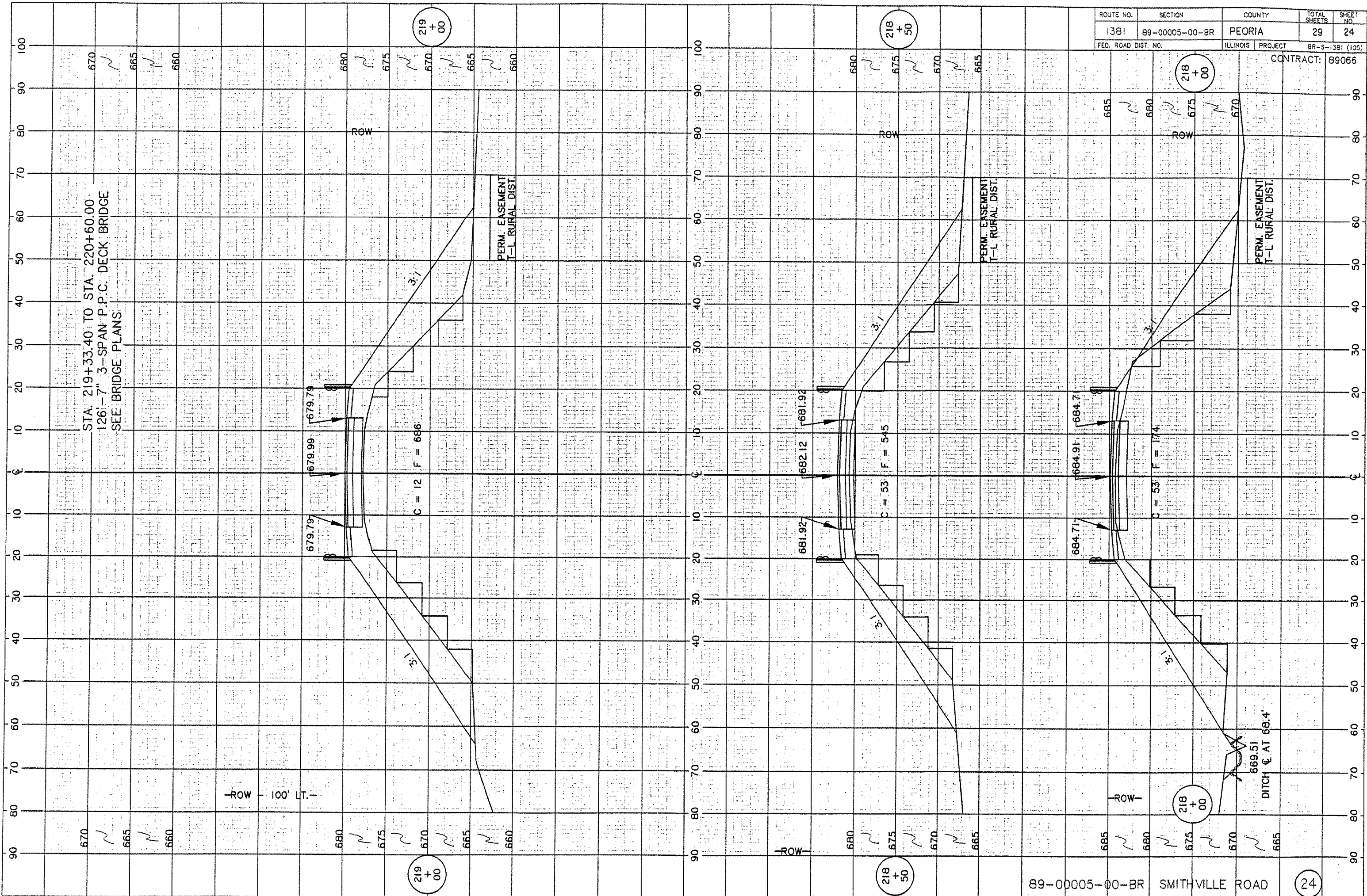
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1381	89-00005-00-BR	PEORIA	29	23
FED. ROAD DIST. NO.		ILLINOIS PROJECT	BR-S-1381 (105)	

CONTRACT: 89066



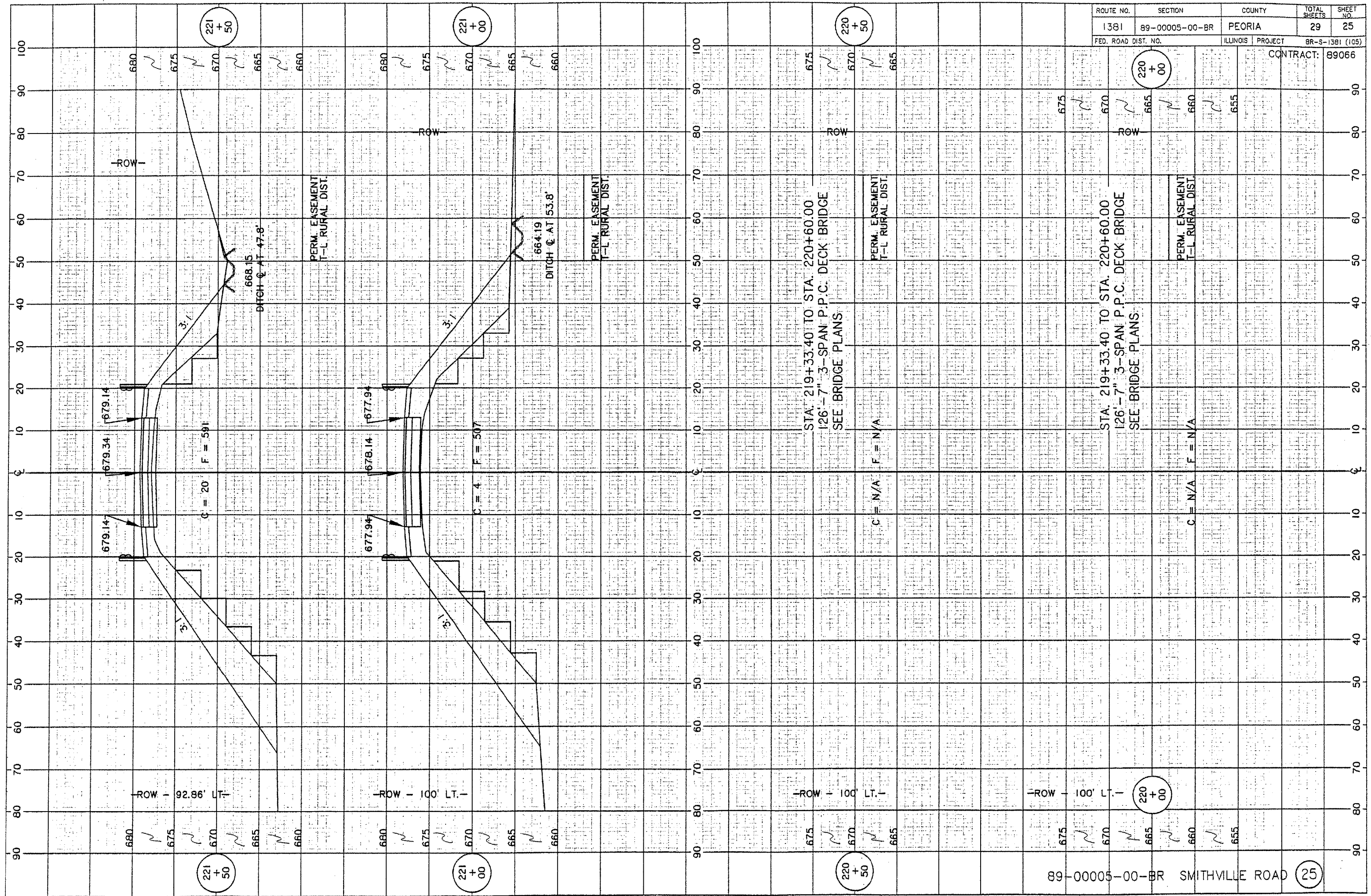
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1381	89-00005-00-BR	PEORIA	29	24
FED. ROAD DIST. NO.	ILLINOIS PROJECT	BR-S-1381 (105)		

CONTRACT: 89086



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1381	89-00005-00-BR	PEORIA	29	25
FED. ROAD DIST. NO.		ILLINOIS PROJECT	BR-S-1381 (105)	

CONTRACT: 89066

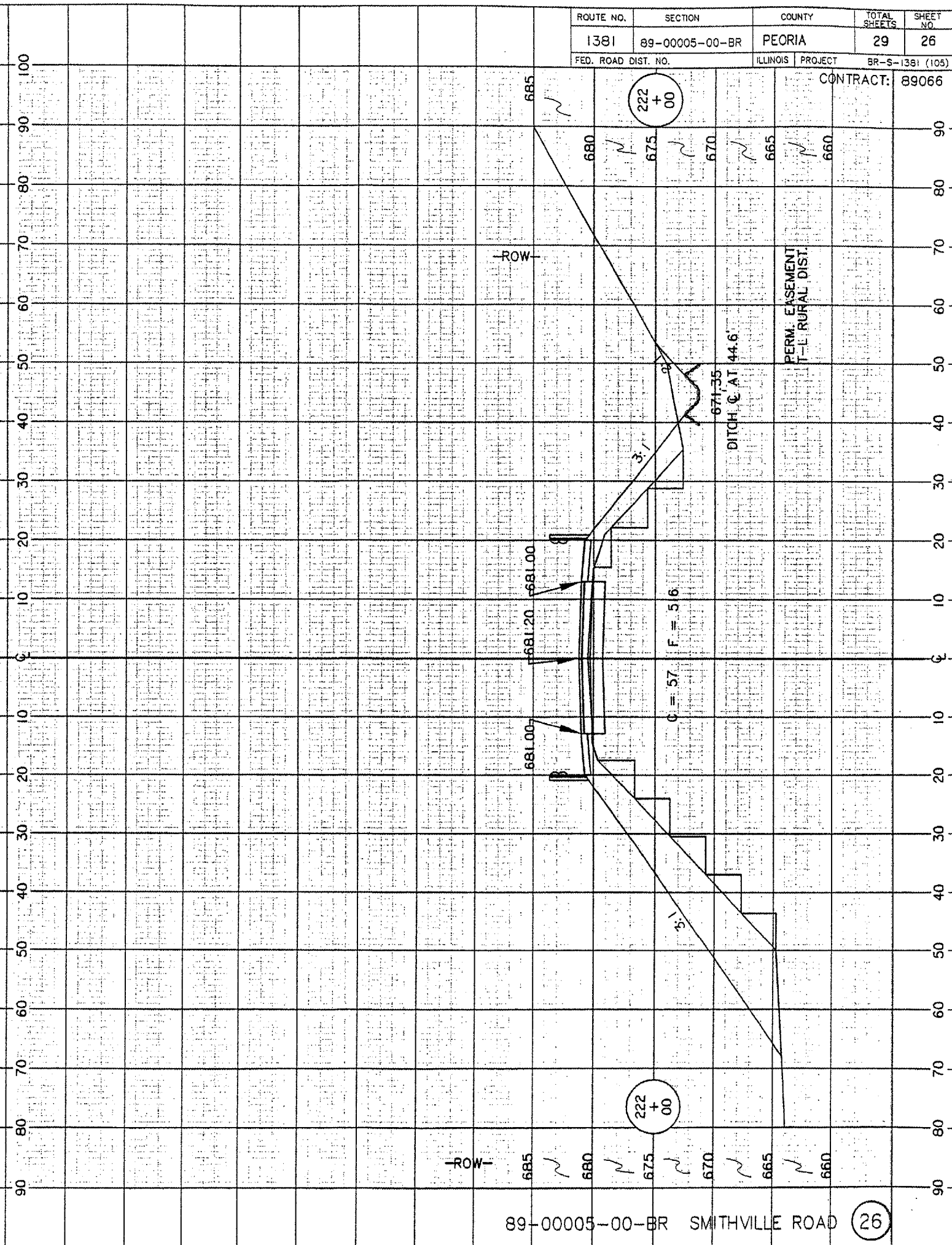
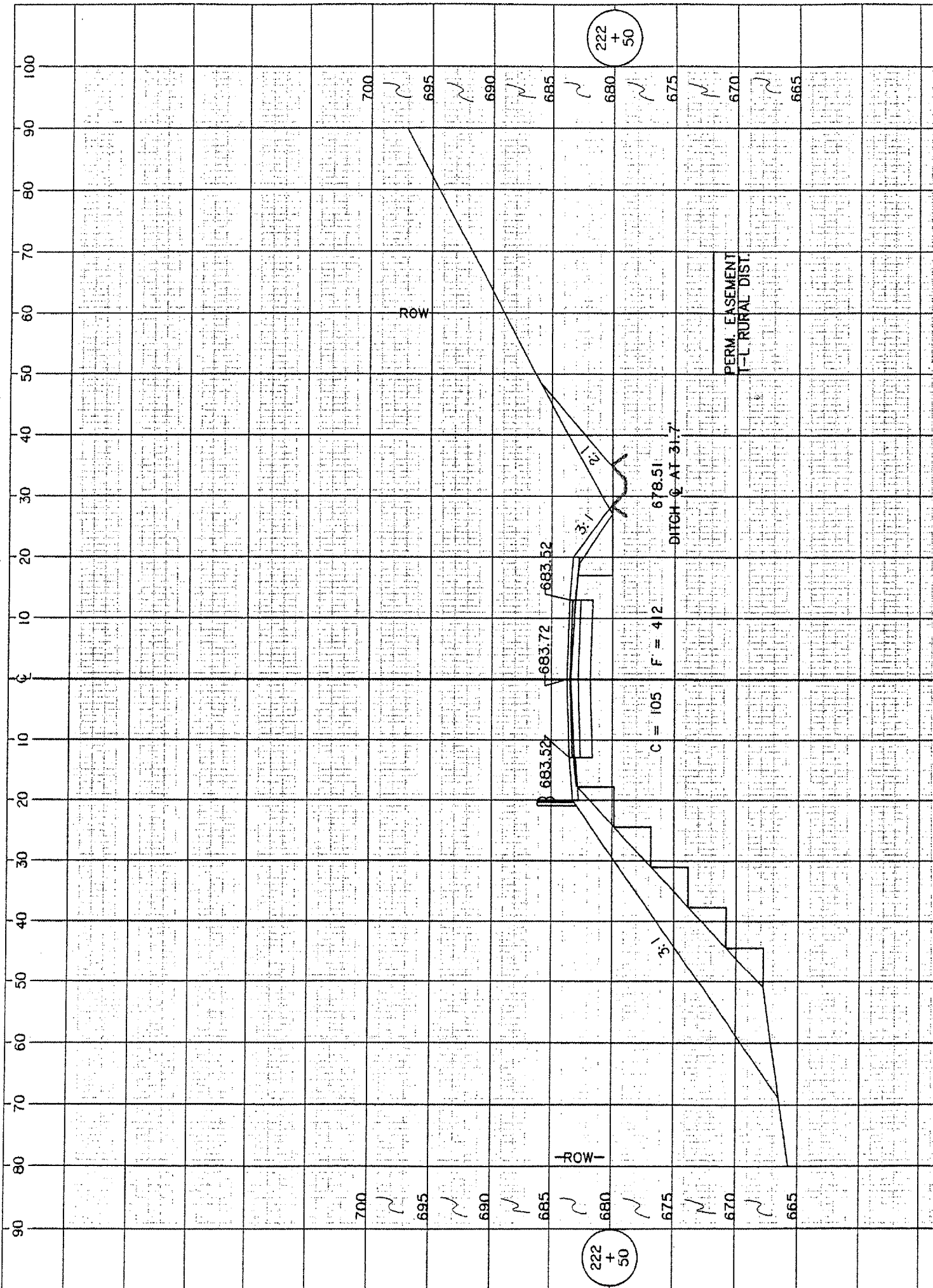


STA. 219+33.40 TO STA. 220+60.00
126'-7" 3-SPAN P.P.C. DECK BRIDGE
SEE BRIDGE PLANS

STA. 219+33.40 TO STA. 220+60.00
126'-7" 3-SPAN P.P.C. DECK BRIDGE
SEE BRIDGE PLANS

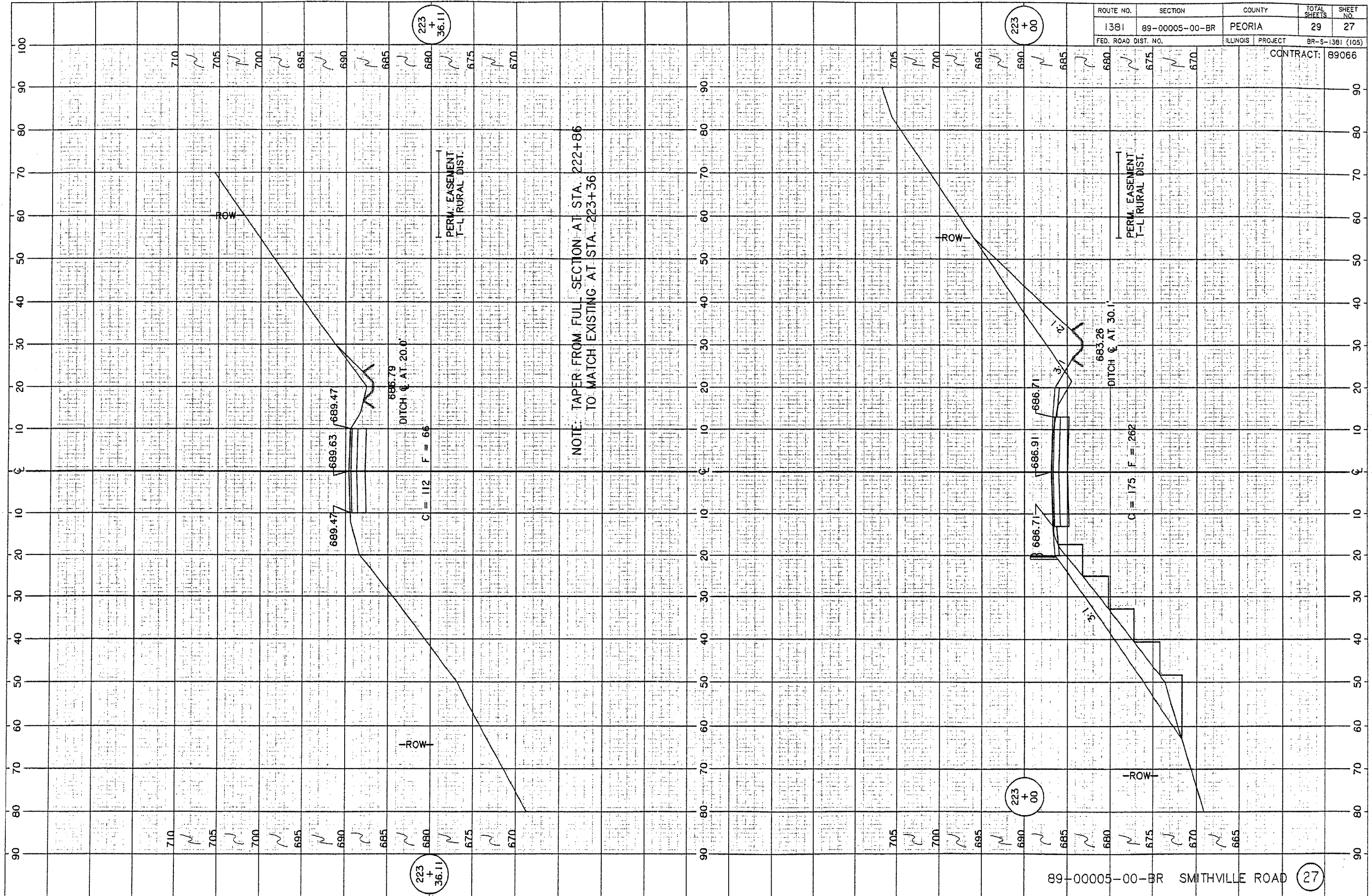
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1381	89-00005-00-BR	PEORIA	29	26
FED. ROAD DIST. NO.		ILLINOIS PROJECT	BR-S-1381 (105)	

CONTRACT: 89066



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1381	89-00005-00-BR	PEORIA	29	27
FED. ROAD DIST. NO.	ILLINOIS PROJECT		BR-5-1381 (105)	

CONTRACT: 89066



NOTE: TAPER FROM FULL SECTION AT STA. 222+86 TO MATCH EXISTING AT STA. 223+36

223 + 36.11

223 + 00

223 + 36.11

223 + 00

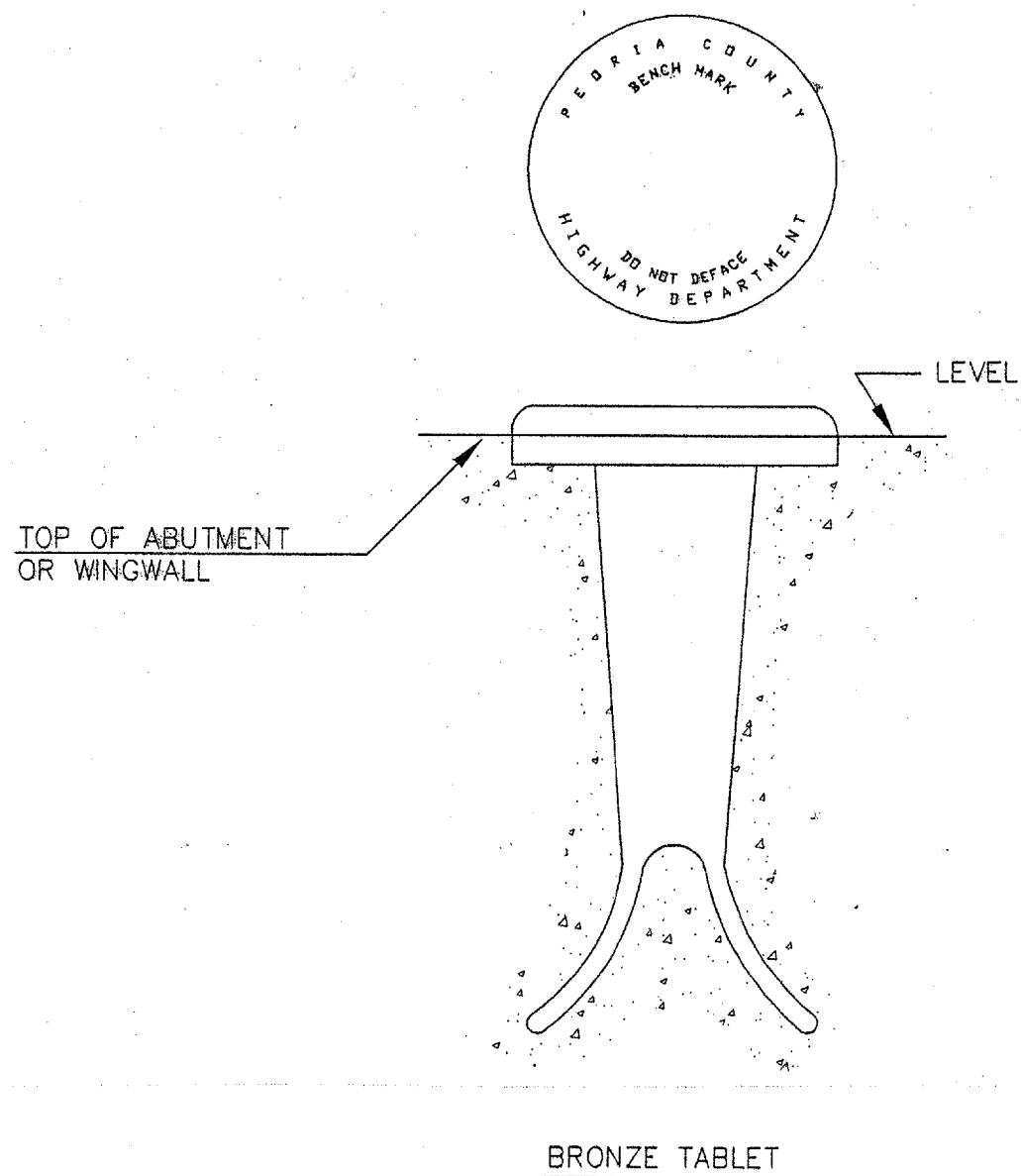
PEORIA COUNTY HIGHWAY DEPARTMENT BENCH MARK

The Bench Mark shall be installed at the Northwest corner of the proposed bridge or box culvert in accordance with the details shown below. In general, the bench mark will be placed in a level area in the abutment of the bridge or wingwall of the box culvert so as to be readily accessible.

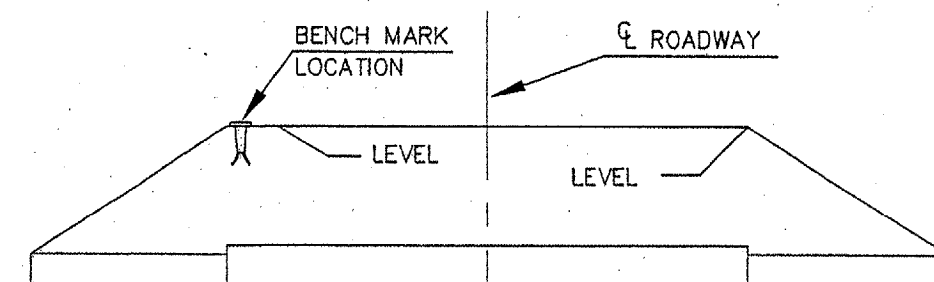
The bench mark shall be placed under the direction of the Engineer and shall be installed in a workmanlike manner.

The elevation shall be permanently marked by the use of metal dies after the bench mark has been installed. The elevation will be based on U.S.G.S. datum.

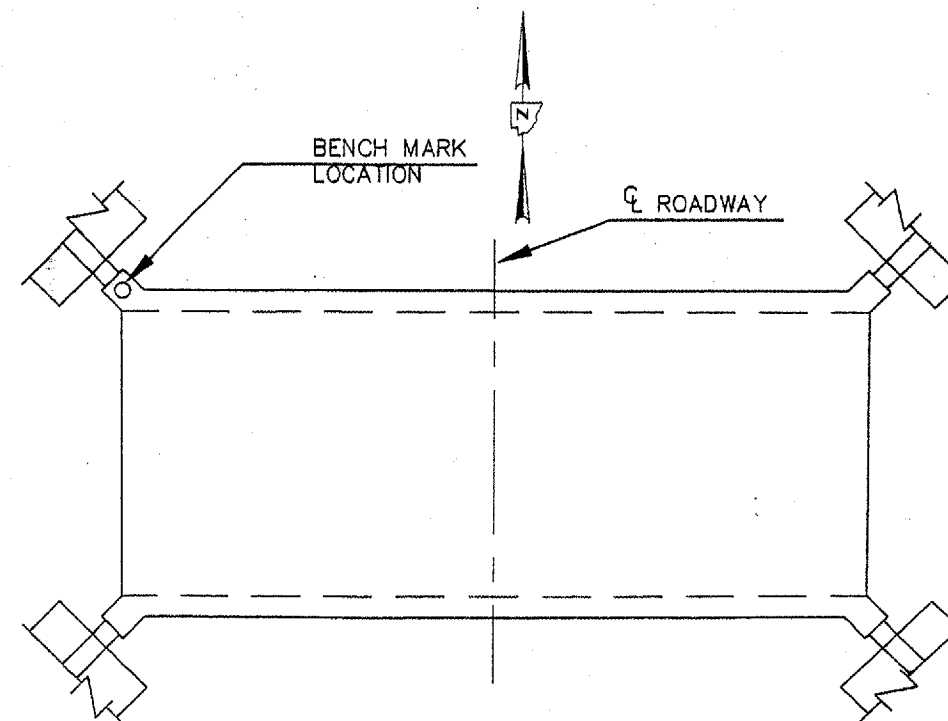
The bronze tablet, to be installed as the bench mark, shall be furnished by the Peoria County Highway Department.



BRONZE TABLET

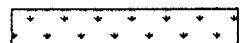




TYPICAL BRIDGE LOCATION



TYPICAL BOX CULVERT LOCATION

EROSION CONTROL LEGEND

-  TEMPORARY EROSION CONTROL SEEDING AND TEMPORARY MULCH
-  TEMPORARY DITCH CHECK
-  PERIMETER EROSION BARRIER

NOTES:

1. THE CONSTRUCTION LIMITS WILL BE STAKED BY THE CONTRACTOR PRIOR TO COMMENCING CONSTRUCTION. THE CONSTRUCTION LIMITS MAY BE ADJUSTED BY THE ENGINEER TO PRESERVE TREES AND NO ADDITIONAL COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR CHANGED CONSTRUCTION LIMITS.
2. TEMPORARY EROSION CONTROLS SHALL BE INSTALLED BEFORE ANY SOIL-DISTURBING ACTIVITIES.
3. THIS EROSION CONTROL PLAN MAY BE CHANGED AND UPDATED ACCORDING TO OBSERVED FIELD PERFORMANCE OF THE OF THE EROSION CONTROL MEASURES. IF CHANGES ARE MADE, AN UPDATED EROSION CONTROL PLAN SHALL BE COMPILED.
4. TEMPORARY EROSION CONTROLS SHALL NOT BE PAID FOR UNLESS THEY ARE PROPERLY INSTALLED AND MAINTAINED.
5. TEMPORARY EROSION CONTROL SEEDING SHALL BE APPLIED EVERY SEVEN (7) DAYS, AT A RATE OF 100 LB. PER ACRE, ACCORDING TO ARTICLE 280.04(F) OF THE STANDARD SPECIFICATIONS FOR BRIDGE AND ROAD CONSTRUCTION (ADOPTED JANUARY 1, 2002).
6. ONCE PERMANENT EROSION CONTROLS AS PROPOSED IN THE PLANS ARE FUNCTIONAL AND ESTABLISHED, TEMPORARY EROSION CONTROL ITEMS SHALL BE REMOVED, THE AREA CLEANED UP AND DISTURBED TURF RESEDED. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE VARIOUS TEMPORARY EROSION CONTROL PAY ITEMS.

PERIMETER EROSION BARRIER

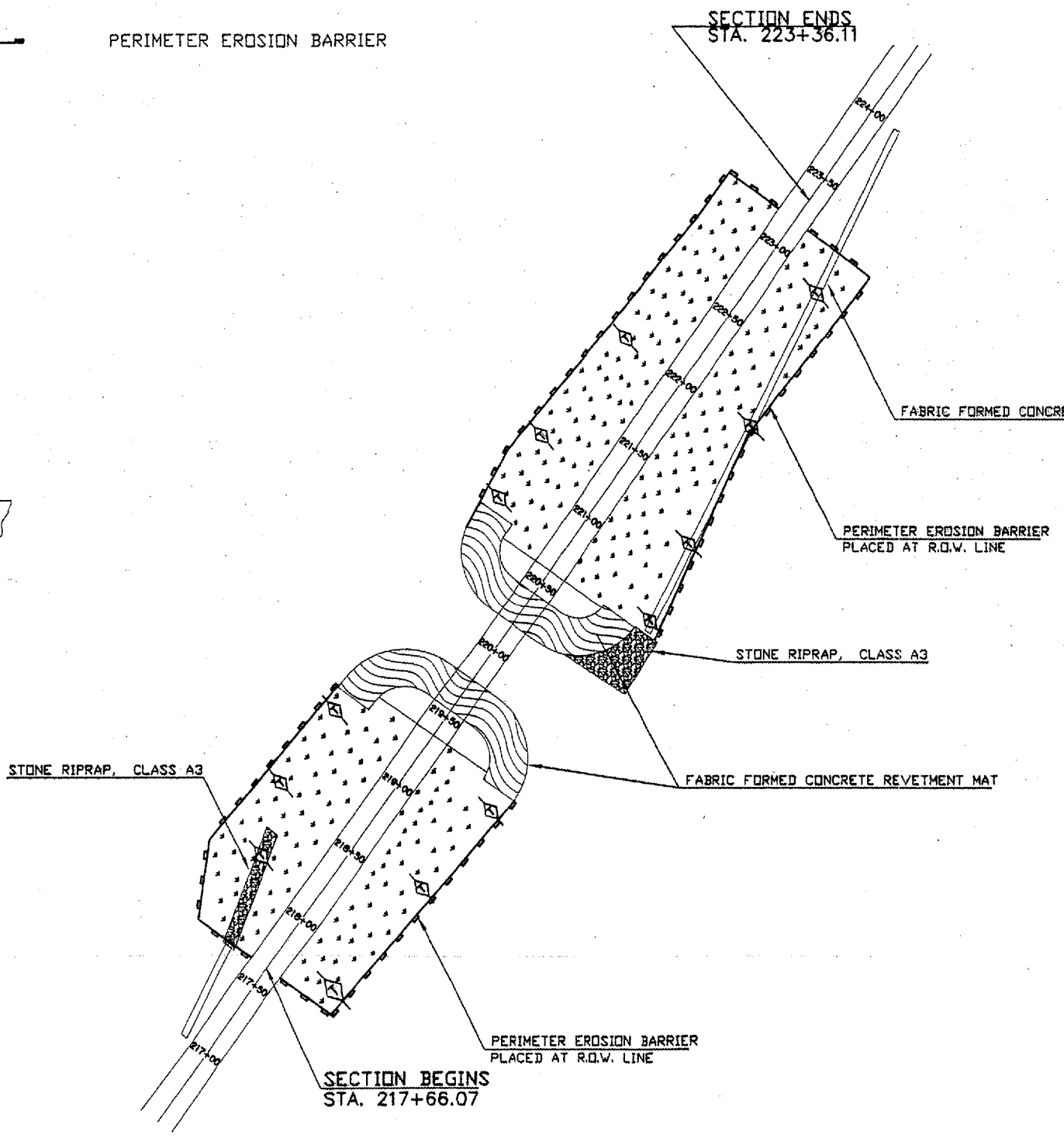
LOCATION	FEET
STA. 217+66.07 LT. TO 219+27.50 LT.	240
STA. 217+66.07 RT. TO 219+34.00 RT.	210
STA. 220+70.00 LT. TO 223+36.11 LT.	330
STA. 220+63.25 RT. TO 223+36.11 RT.	330
TOTAL	1110

TEMPORARY DITCH CHECKS

LOCATION	EACH
STA. 217+72 LT.& RT.	1,1
STA. 217+80 LT.& RT.	1,1
STA. 217+88 LT.& RT.	1,1
STA. 217+96 LT.& RT.	1,1
STA. 218+09 LT.& RT.	1,1
STA. 218+22 LT.& RT.	1,1
STA. 218+35 LT.& RT.	1,1
STA. 218+48 LT.& RT.	1,1
STA. 218+61 LT.& RT.	1,1
STA. 218+74 LT.& RT.	1,1
STA. 218+87 LT.& RT.	1,1
STA. 219+00 LT.& RT.	1,1
STA. 219+13 LT.& RT.	1,1
STA. 219+26 LT.& RT.	1,1
STA. 220+70 LT.& RT.	1,1
STA. 220+85 LT.& RT.	1,1
STA. 221+00 LT.& RT.	1,1
STA. 221+15 LT.& RT.	1,1
STA. 221+30 LT.& RT.	1,1
STA. 221+45 LT.& RT.	1,1
STA. 221+60 LT.& RT.	1,1
STA. 221+75 LT.& RT.	1,1
SUBTOTAL	44

TEMPORARY DITCH CHECKS

LOCATION	EACH
STA. 221+90 LT.& RT.	1,1
STA. 222+05 LT.& RT.	1,1
STA. 222+20 LT.& RT.	1,1
STA. 222+35 LT.& RT.	1,1
STA. 222+50 LT.& RT.	1,1
STA. 222+65 LT.& RT.	1,1
STA. 222+80 LT.& RT.	1,1
STA. 222+95 LT.& RT.	1,1
STA. 223+10 LT.& RT.	1,1
STA. 223+25 LT.& RT.	1,1
SUBTOTAL	20
TOTAL	64



EROSION CONTROL PLAN

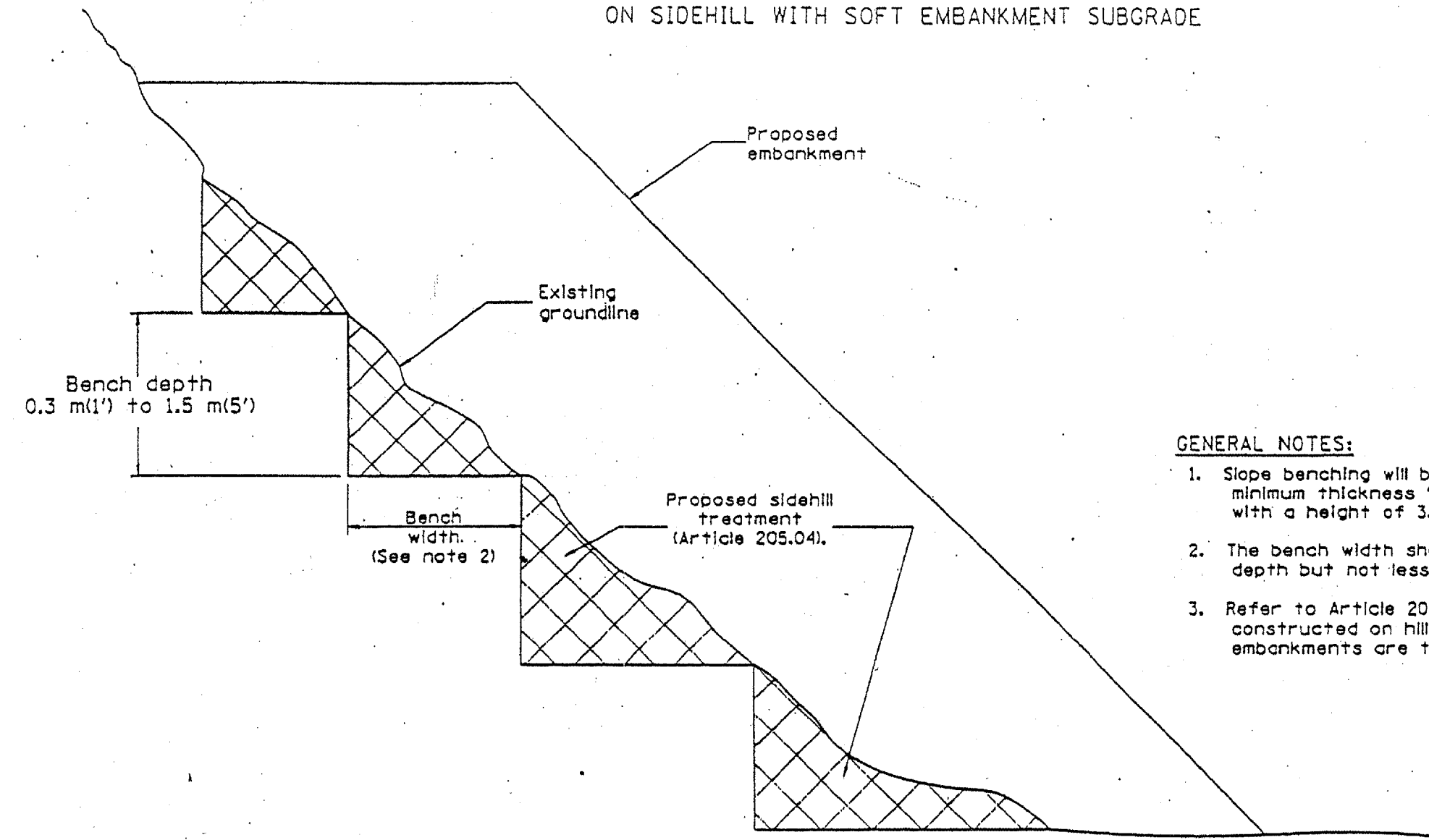
filename:swppp

SECTION	COUNTY	TOTAL SHEETS
PEORIA		30
STA.	TO STA.	
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	

CONTRACT 89066

SLOPE BENCHING DETAIL

TYPICAL CROSS-SECTION EMBANKMENT CONSTRUCTION
ON SIDEHILL WITH SOFT EMBANKMENT SUBGRADE



GENERAL NOTES:

1. Slope benching will be required for all 300(12) minimum thickness "silver fills" and on all fills with a height of 3.0 m(10') or greater.
2. The bench width shall be twice the bench depth but not less than 1 m(3').
3. Refer to Article 205.04 for embankment to be constructed on hillside or slopes, or if existing embankments are to be widened.

DESIGNER NOTE:
1. EACH PROJECT SHOULD BE REVIEWED INDEPENDENTLY FOR TREATMENT REQUIRED.
2. REFER TO THIS DETAIL WITH NOTE ON APPLICABLE TYPICAL SECTIONS.

REPLACEMENT MATERIAL:

Standard embankment (in accordance with 205 of the Standard Specifications).

All dimensions are in millimeters (inches) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

DATE	REVISIONS	BY
1-1-97	REVISION 1-5.03, NEW REVISION BOX, REVISED TITLE BOX, REVISED GENERAL NOTES.	T.P.

**SLOPE BENCHING
DETAIL**

CADD STD. NO. 205001-04
SCALE: NOT DRAWN TO SCALE
DATE 10/27/96
DRAWN BY CMB
CHECKED BY

10/27/96

205001-D4