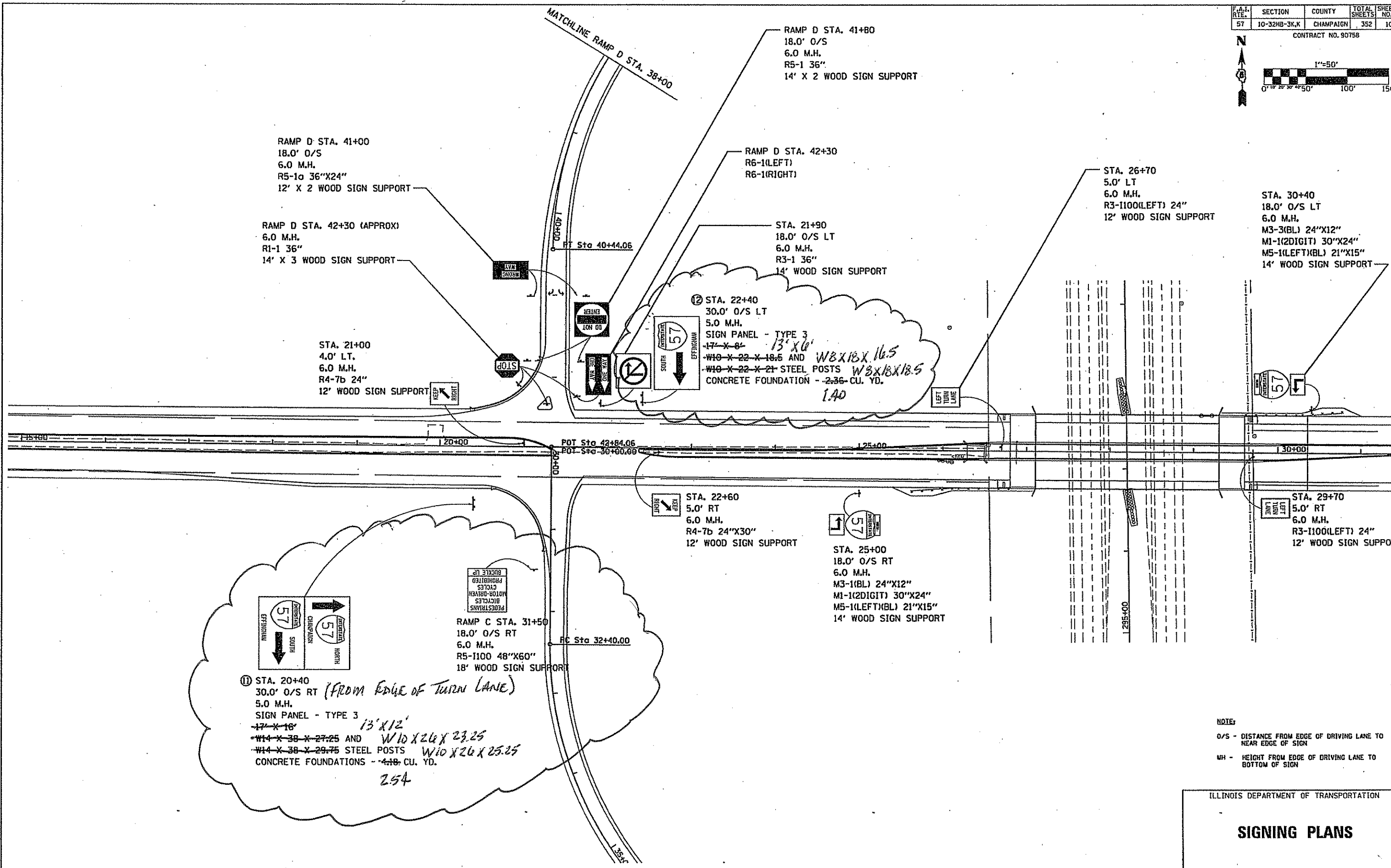
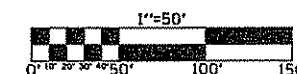


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3K,K	CHAMPAIGN	352	101

CONTRACT NO. 90758



RAMP D STA. 41+00  
18.0' O/S  
6.0 M.H.  
R5-1a 36"X24"  
12' X 2 WOOD SIGN SUPPORT

RAMP D STA. 42+30 (APPROX)  
6.0 M.H.  
R1-1 36"  
14' X 3 WOOD SIGN SUPPORT

STA. 21+00  
4.0' LT.  
6.0 M.H.  
R4-7b 24"  
12' WOOD SIGN SUPPORT

RAMP D STA. 41+80  
18.0' O/S  
6.0 M.H.  
R5-1 36"  
14' X 2 WOOD SIGN SUPPORT

RAMP D STA. 42+30  
R6-1(LEFT)  
R6-1(RIGHT)

STA. 21+90  
18.0' O/S LT  
6.0 M.H.  
R3-1 36"  
14' WOOD SIGN SUPPORT

② STA. 22+40  
30.0' O/S LT  
5.0 M.H.  
SIGN PANEL - TYPE 3  
17' X 8' 13' X 6'  
W10 X 22 X 18.5 AND W8 X 18 X 16.5  
W10 X 22 X 21 STEEL POSTS W8 X 18 X 18.5  
CONCRETE FOUNDATION - 2.36 CU. YD.  
1.40

STA. 26+70  
5.0' LT  
6.0 M.H.  
R3-1100(LEFT) 24"  
12' WOOD SIGN SUPPORT

STA. 30+40  
18.0' O/S LT  
6.0 M.H.  
M3-3(BL) 24"X12"  
M1-1(2DIGIT) 30"X24"  
M5-1(LEFT)(BL) 21"X15"  
14' WOOD SIGN SUPPORT

STA. 22+60  
5.0' RT  
6.0 M.H.  
R4-7b 24"X30"  
12' WOOD SIGN SUPPORT

STA. 25+00  
18.0' O/S RT  
6.0 M.H.  
M3-1(BL) 24"X12"  
M1-1(2DIGIT) 30"X24"  
M5-1(LEFT)(BL) 21"X15"  
14' WOOD SIGN SUPPORT

STA. 29+70  
5.0' RT  
6.0 M.H.  
R3-1100(LEFT) 24"  
12' WOOD SIGN SUPPORT

RAMP C STA. 31+50  
18.0' O/S RT  
6.0 M.H.  
R5-1100 48"X60"  
18' WOOD SIGN SUPPORT

① STA. 20+40  
30.0' O/S RT (FROM EDGE OF TURN LANE)  
5.0 M.H.  
SIGN PANEL - TYPE 3  
17' X 18' 13' X 12'  
W14 X 38 X 27.25 AND W10 X 26 X 23.25  
W14 X 38 X 29.75 STEEL POSTS W10 X 26 X 25.25  
CONCRETE FOUNDATIONS - 4.18 CU. YD.  
2.54

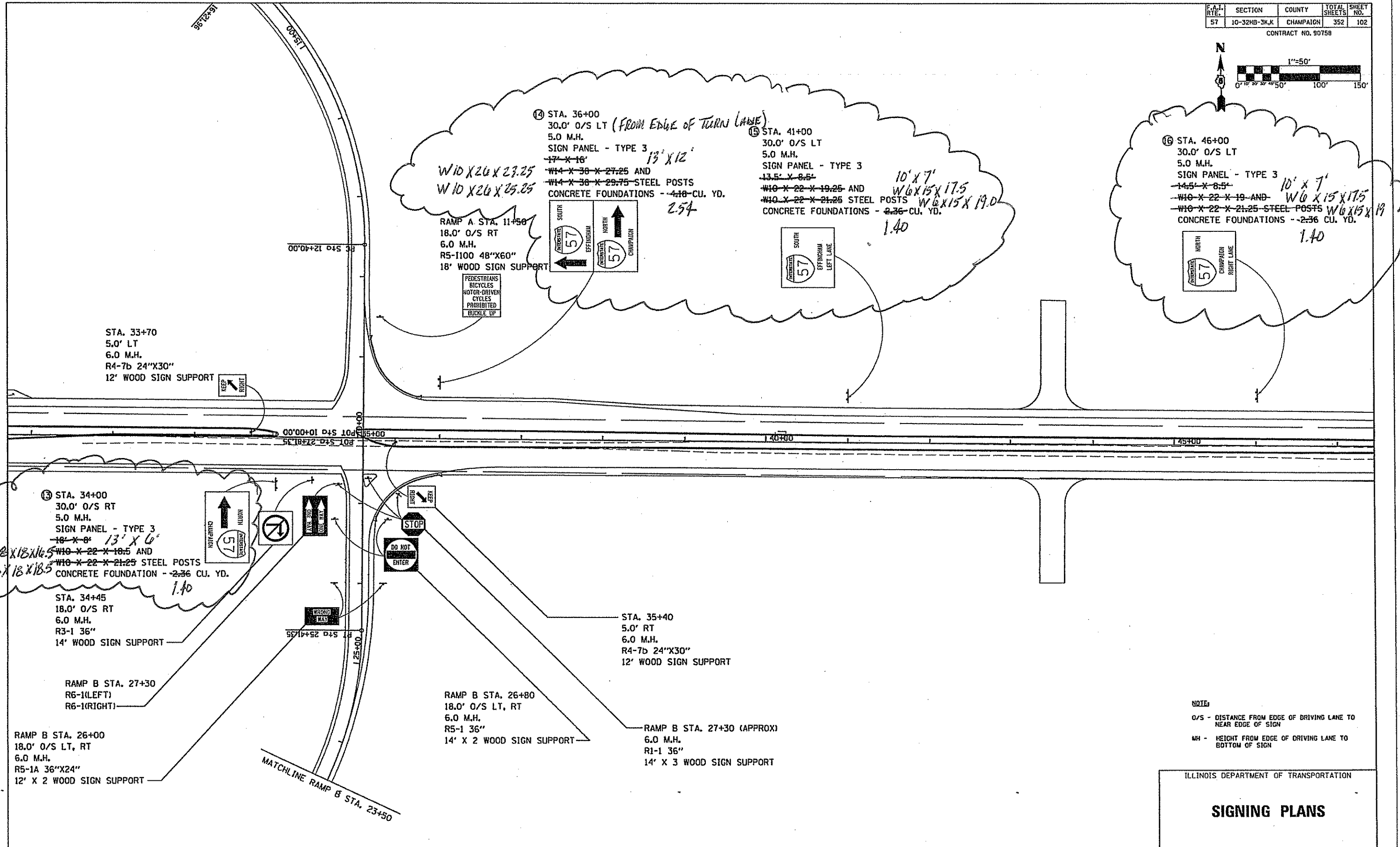
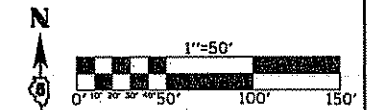
NOTE:  
O/S - DISTANCE FROM EDGE OF DRIVING LANE TO NEAR EDGE OF SIGN  
M.H. - HEIGHT FROM EDGE OF DRIVING LANE TO BOTTOM OF SIGN

ILLINOIS DEPARTMENT OF TRANSPORTATION

### SIGNING PLANS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3K,K	CHAMPAIGN	352	102

CONTRACT NO. 90758

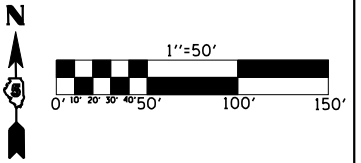


**NOTES**  
O/S - DISTANCE FROM EDGE OF DRIVING LANE TO NEAR EDGE OF SIGN  
MH - HEIGHT FROM EDGE OF DRIVING LANE TO BOTTOM OF SIGN

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SIGNING PLANS**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3K,K	CHAMPAIGN	352	103

CONTRACT NO. 90758



STA. 48+20  
 2.5' LT  
 6.0 M.H.  
 R4-7 24"X30"  
 12' WOOD SIGN SUPPORT

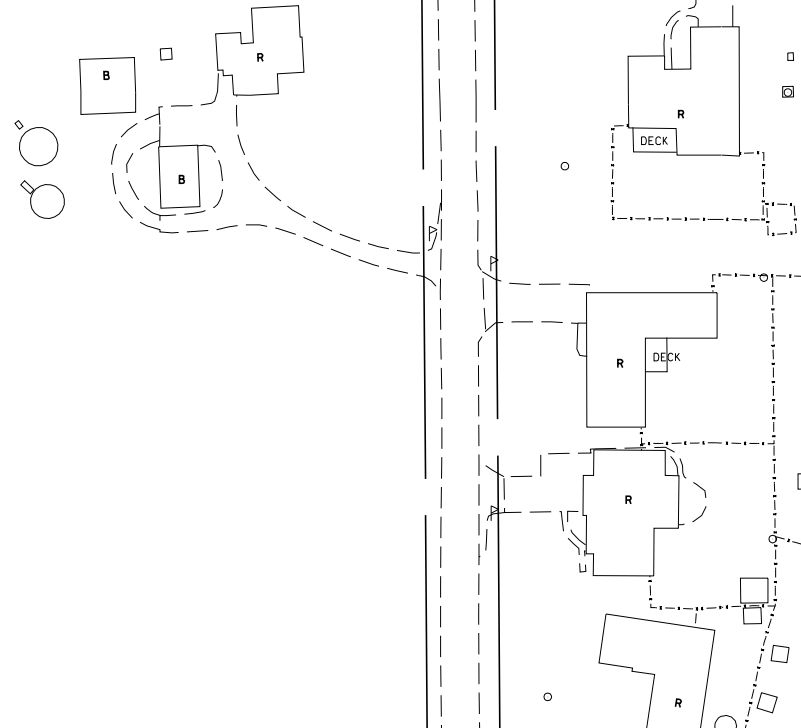


STA. 51+00  
 18.0' O/S LT  
 6.0 M.H.  
 M2-1(BL) 30"X15"  
 M1-1(2DIGIT) 36"  
 16' WOOD SIGN SUPPORT



50+00

Q SIGN



**NOTE:**

O/S - DISTANCE FROM EDGE OF DRIVING LANE TO NEAR EDGE OF SIGN

MH - HEIGHT FROM EDGE OF DRIVING LANE TO BOTTOM OF SIGN

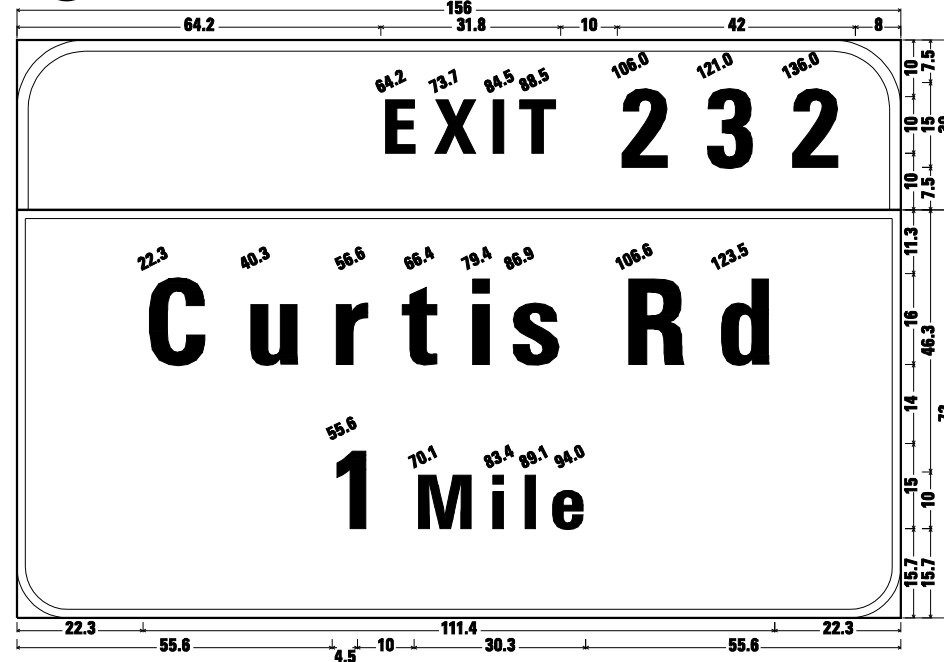
ILLINOIS DEPARTMENT OF TRANSPORTATION

**SIGNING PLANS**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	104
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

1 NB I-57 - STA. 229+45

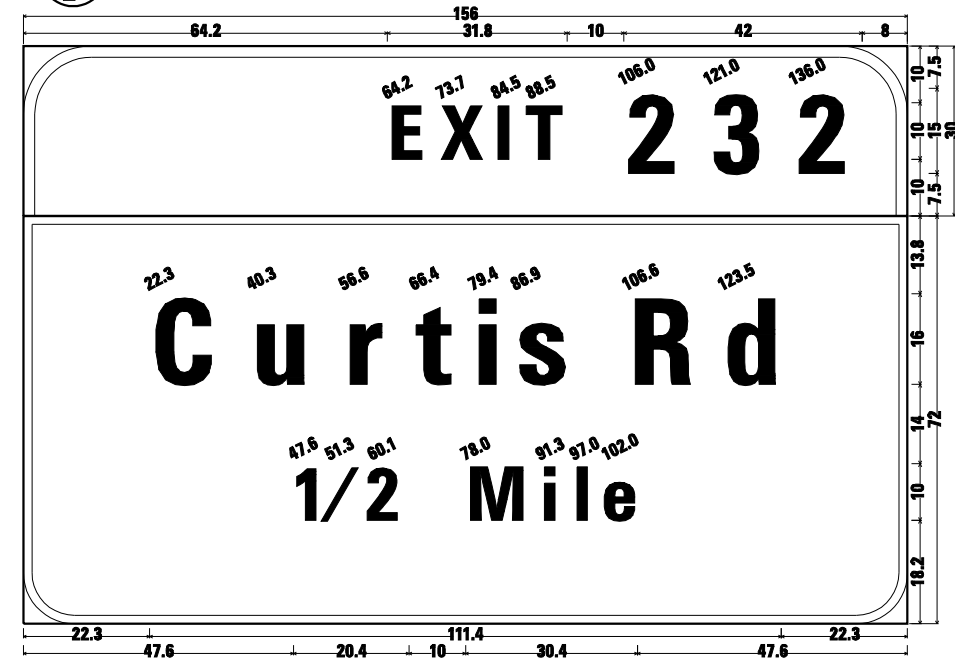
8 SB I-57 - STA. 365+05



12.0" Radius, 2.0" Border, White on Green;  
[EXIT 232] E Mod;  
9.0" Radius, 1.5" Border, White on Green;  
[CurtisRd] E Mod; [1 Mile] E Mod;

2 NB I-57 - STA. 255+85

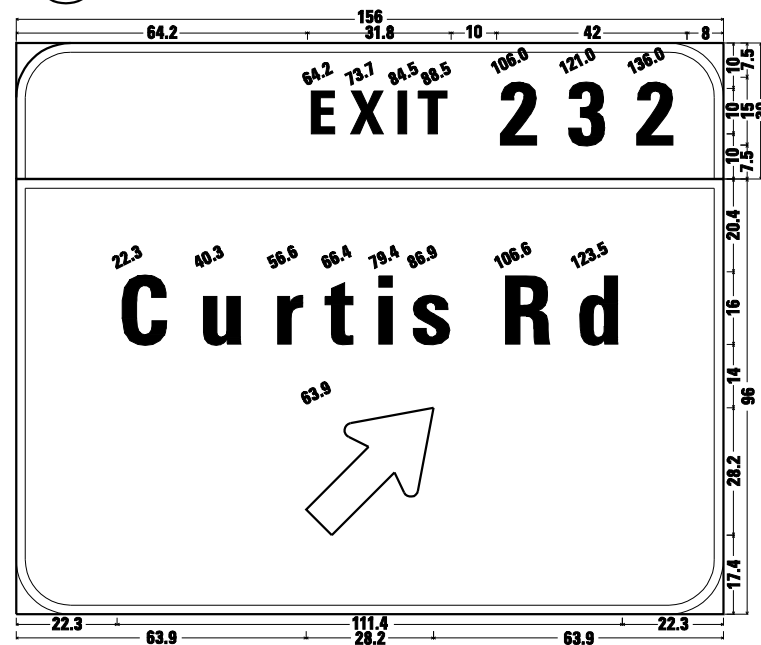
7 SB I-57 - STA. 338+65



12.0" Radius, 2.0" Border, White on Green;  
[EXIT 232] E Mod;  
9.0" Radius, 1.5" Border, White on Green;  
[CurtisRd] E Mod; [1/2 Mile] E Mod;

3 NB I-57 - STA. 276+00

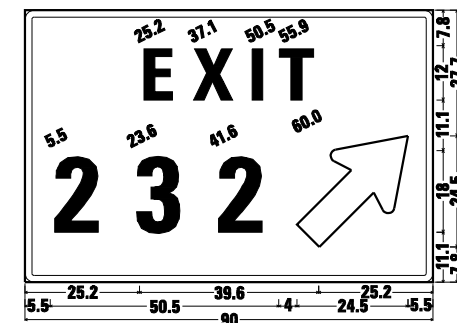
6 SB I-57 - STA. 318+20



12.0" Radius, 2.0" Border, White on Green;  
[EXIT 232] E Mod;  
12.0" Radius, 2.0" Border, White on Green;  
[CurtisRd] E Mod; Standard Arrow Custom 35.8" X 21.6" 45{;

4 NB I-57 - STA. 283+00

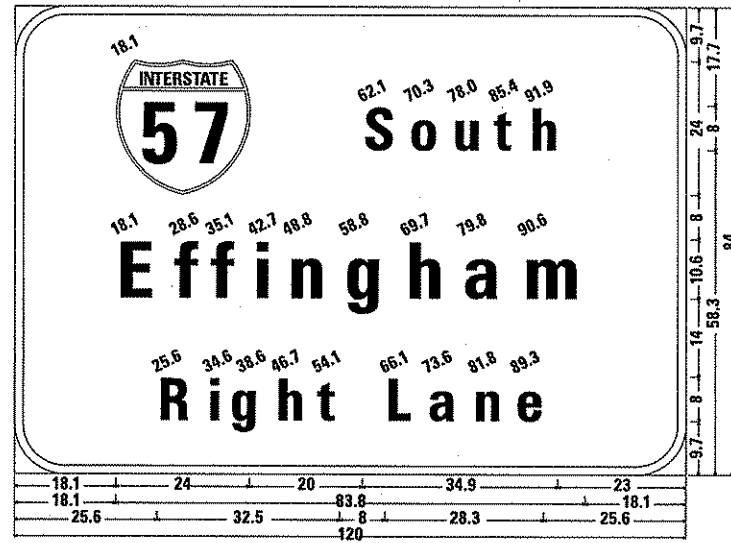
5 SB I-57 - STA. 311+20



2.0" Radius, 1.5" Border, White on Green;  
[EXIT] E Mod 120; spacing; [232] E Mod; Standard Arrow Custom 31.1" X 18.8" 45{;

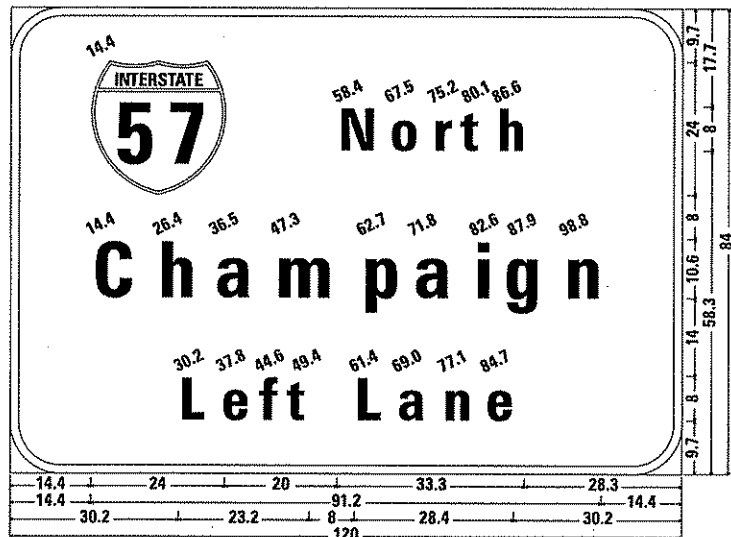
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	105
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

**9** CURTIS ROAD - STA. 8+40



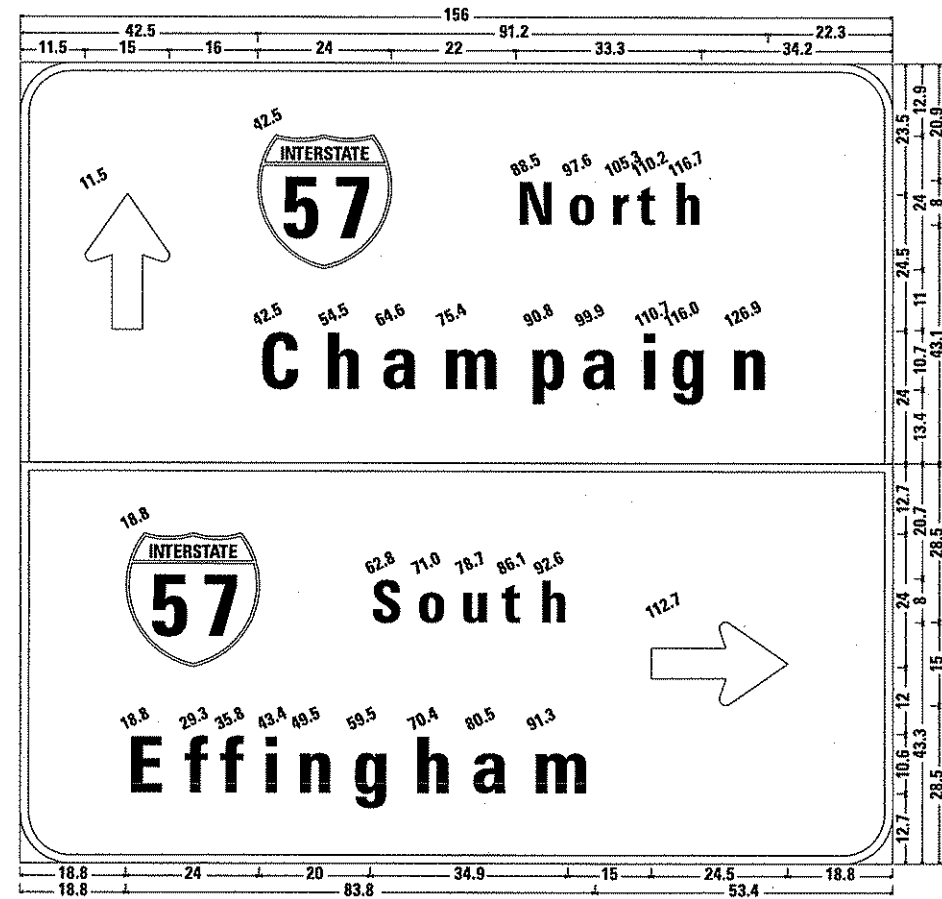
9.0" Radius, 1.5" Border, White on Green;  
 [South] E Mod; [Effingham] E Mod; [Right Lane] E Mod;

**10** CURTIS ROAD - STA. 14+40



9.0" Radius, 1.5" Border, White on Green;  
 [North] E Mod; [Champaign] E Mod; [Left Lane] E Mod;

**11** CURTIS ROAD - STA. 20+20

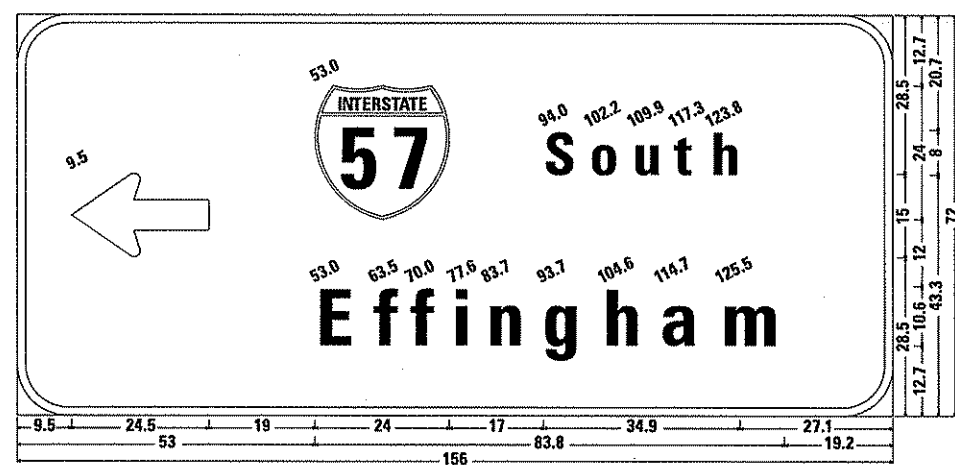


9.0" Radius, 1.5" Border, White on Green;  
 Standard Arrow Custom 24.5" X 15.0" 90°; [North] E Mod; [Champaign] E Mod;  
 9.0" Radius, 1.5" Border, White on Green;  
 [South] E Mod; [Effingham] E Mod; Standard Arrow Custom 24.5" X 15.0" 0°;

PLOT DATE : 5/22/2006  
 FILE NAME : c:\projects\90758\sign\90758\_105.dgn  
 PLOT SCALE : 1/8" = 1'-0"  
 USER NAME : craige

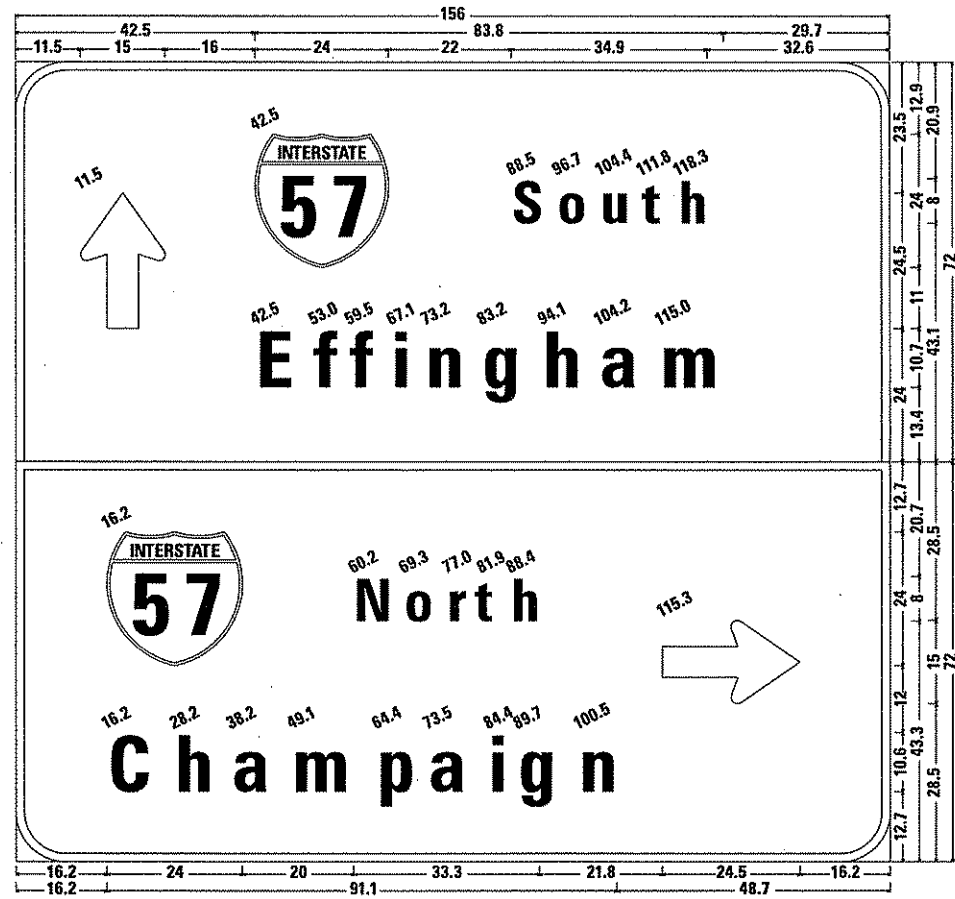
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	106
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

**12** CURTIS ROAD - STA. 22+40



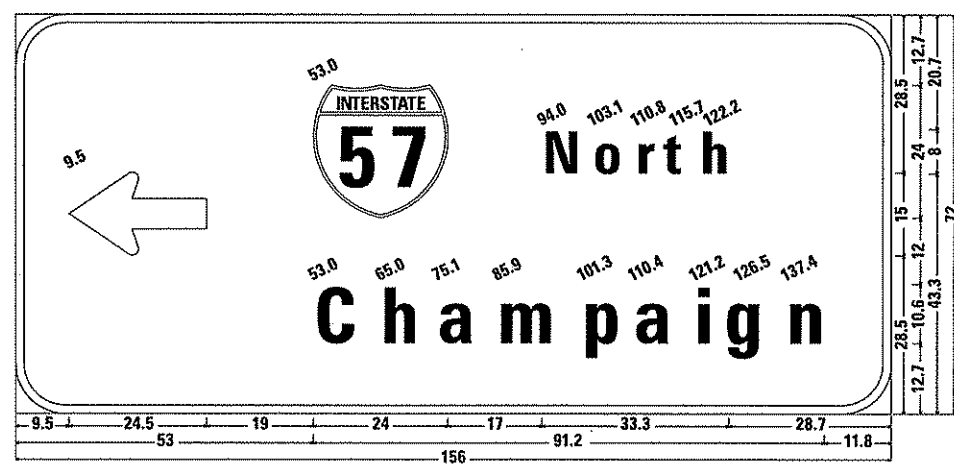
9.0" Radius, 1.5" Border, White on Green;  
Standard Arrow Custom 24.5" X 15.0" 180°; [South] E Mod; [Effingham] E Mod;

**14** CURTIS ROAD - STA. 36+00



9.0" Radius, 1.5" Border, White on Green;  
Standard Arrow Custom 24.5" X 15.0" 90°; [South] E Mod; [Effingham] E Mod;  
9.0" Radius, 1.5" Border, White on Green;  
[North] E Mod; [Champaign] E Mod; Standard Arrow Custom 24.5" X 15.0" 0°;

**13** CURTIS ROAD - STA. 34+00



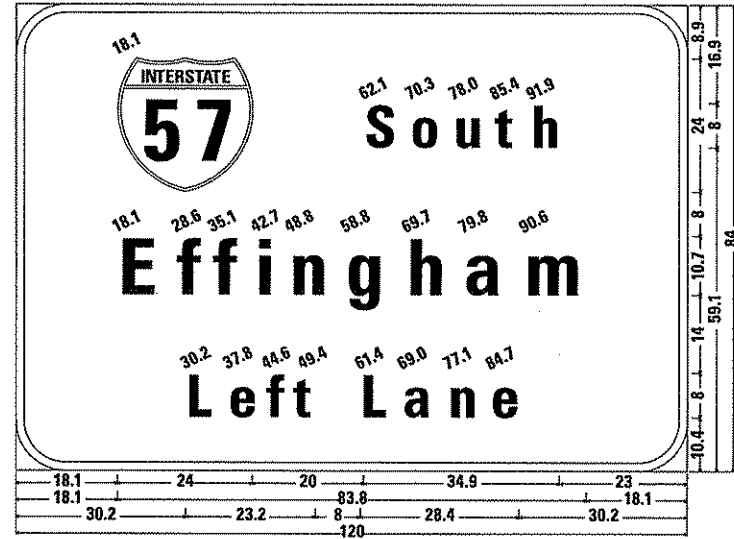
9.0" Radius, 1.5" Border, White on Green;  
Standard Arrow Custom 24.5" X 15.0" 180°; [North] E Mod; [Champaign] E Mod;

PLOT DATE : 5/22/2008  
FILE NAME : C:\projects\9075B\signs.dgn  
PLOT SCALE : 4:1  
USER NAME : craige

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SIGNING DETAILS**

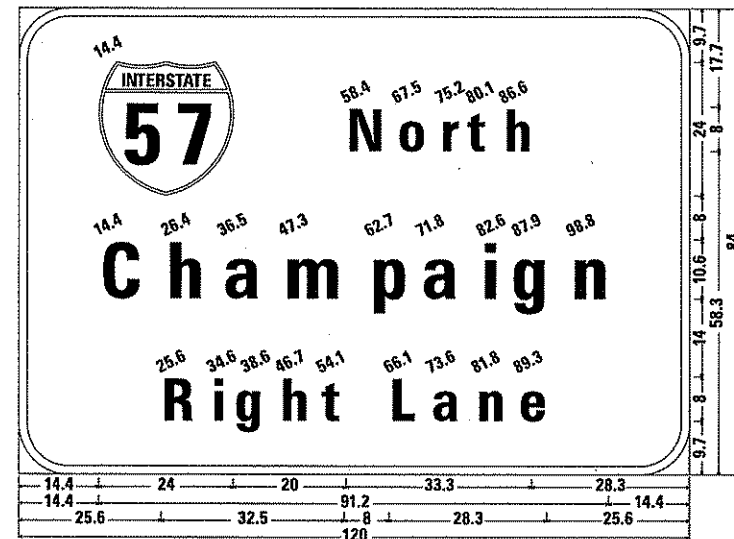
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	107
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

**15** CURTIS ROAD - STA. 41+00



9.0" Radius, 1.5" Border, White on Green;  
 [South] E Mod; [Effingham] E Mod; [Left Lane] E Mod;

**16** CURTIS ROAD - STA. 46+00

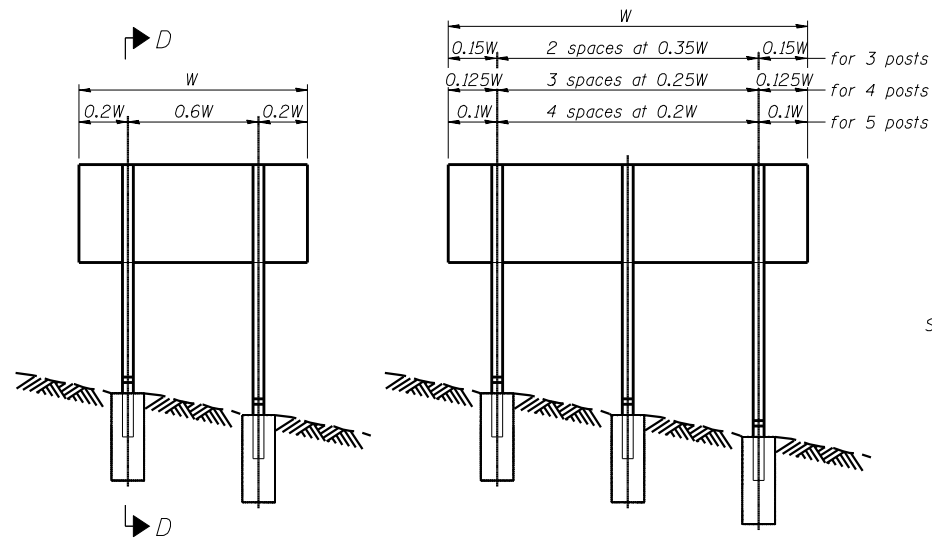


9.0" Radius, 1.5" Border, White on Green;  
 [North] E Mod; [Champaign] E Mod; [Right Lane] E Mod;

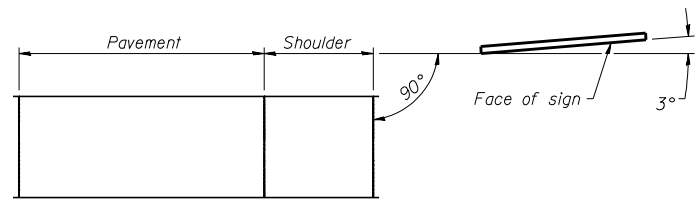
PLOT DATE : 5/22/2006  
 FILE NAME : c:\projects\432385\sign\15.dgn  
 PLOT SCALE : 1/4" = 1'-0"  
 USER NAME : craig

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	108

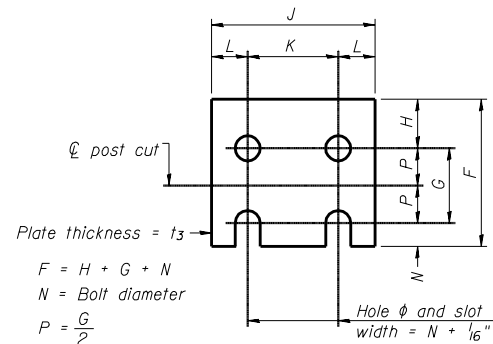
CONTRACT NO. 90758



ELEVATION

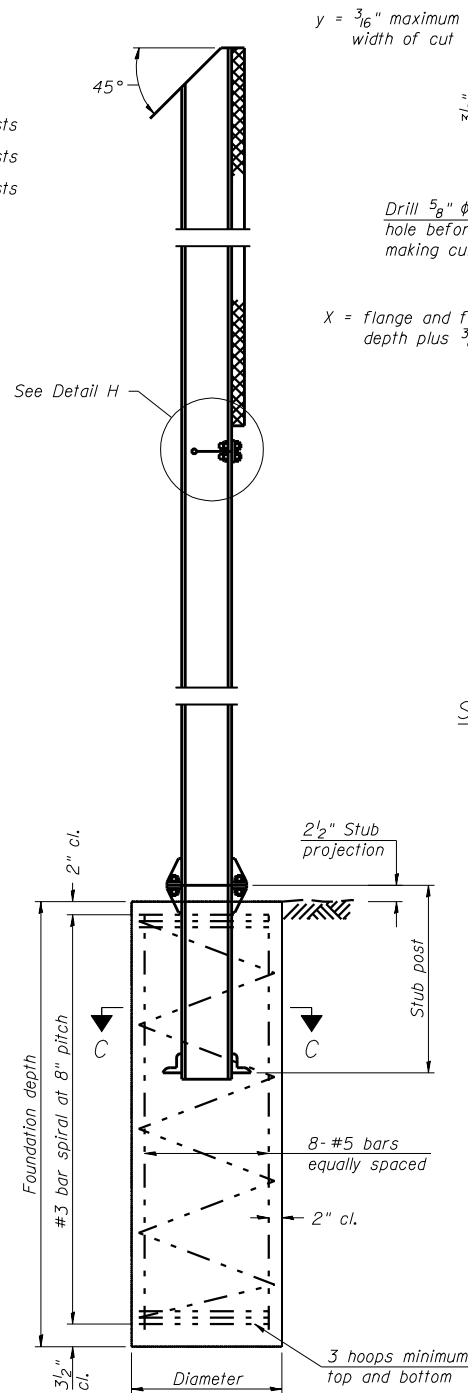


LOCATION SKETCH

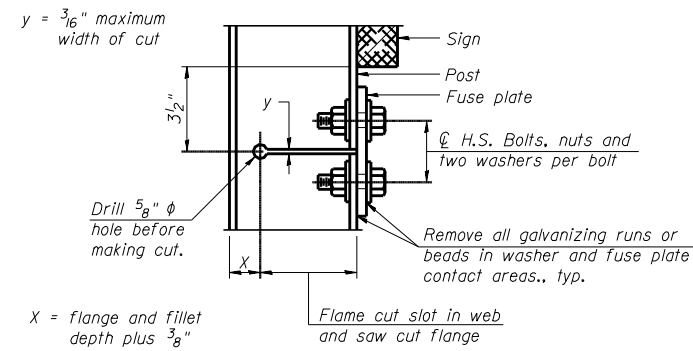


FUSE PLATE DETAIL  
(Install with notches down.)

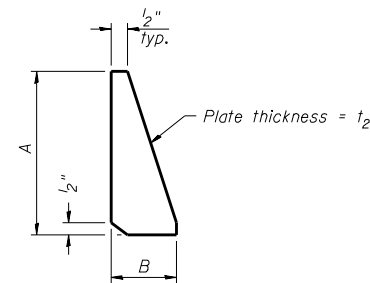
N = Bolt Diameter	G	H
1/2"	2"	1 1/8"
5/8"	2 1/4"	1 1/4"
3/4"	2 1/2"	1 3/8"
7/8"	2 3/4"	1 1/2"
1"	3"	1 5/8"
1 1/8"	3 1/4"	1 3/4"



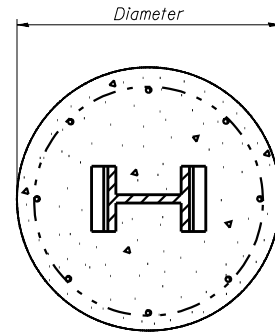
SECTION D-D



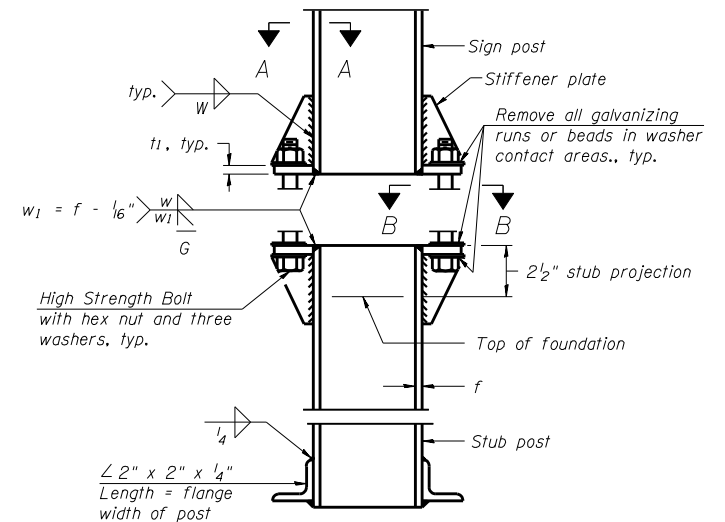
DETAIL H



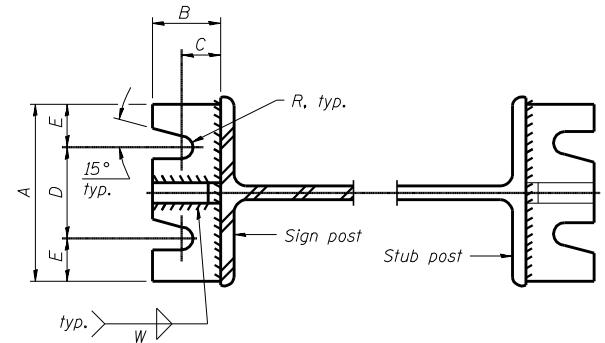
STIFFENER PLATE DETAIL  
(See table for dimensions.)



SECTION C-C

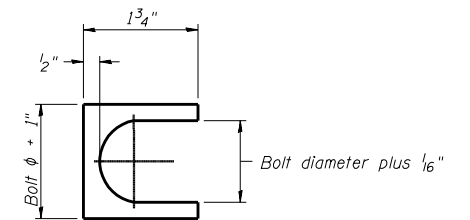


ELEVATION  
SIGN POST & STUB POST



SECTION A-A

SECTION B-B



SHIM DETAIL

Furnish two 0.01" thick and two 0.03" thick stainless steel or brass (ASTM B36) shims per post.

GENERAL NOTES

Posts shall be plumbed by using shims with post-to-stub post connection bolts snug tight only. Final tightening of all High Strength Bolts shall be in accordance with Article 505.04(f)(3), and threads at the junction of the bolt and nut shall be burred or center punched to prevent the nut from loosening.

LOADING: 80 m.p.h. wind with 30% gust factor, normal to sign.

DESIGN STRESSES:

Structural steel - 20,000 p.s.i.  
Reinforcing steel - 20,000 p.s.i.  
Concrete - 1,400 p.s.i.  
Footing soil pressure - 2,000 p.s.f.

After fabrication, the post, fuse plate and upper 6", min. of the stub post shall be hot-dip galvanized in accordance with AASHTO M111. All bolts, nuts and washers shall be hot-dip galvanized in accordance with AASHTO M232.

Work this sheet with Base Sheet BAW-A-2.

BREAK-AWAY WIDE FLANGE  
STEEL SIGN POST DETAILS

DETAIL SHEET  
F.A.I. ROUTE. 57  
SECTION 10-32HB-3,K  
CHAMPAIGN COUNTY  
CONTRACT NO. 90758

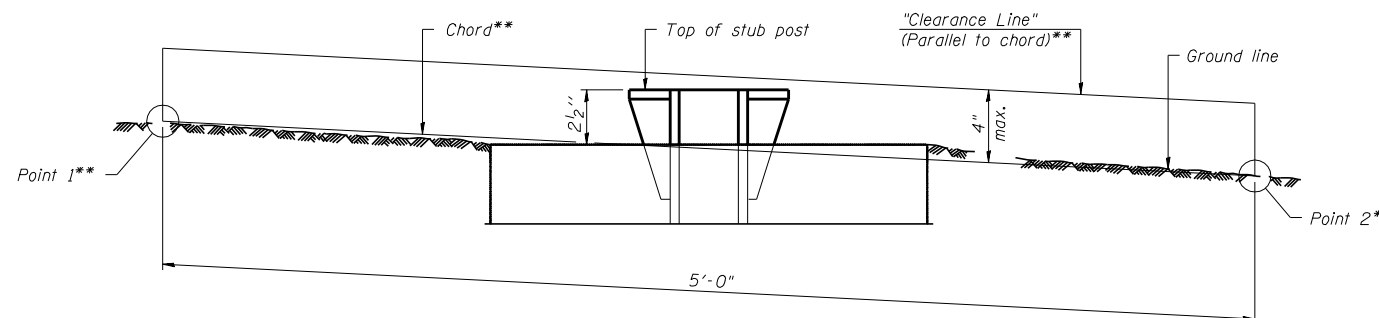
NUMBER	REVISION	DATE



POST	CONCRETE FOUNDATION TABLE							POST TO STUB POST CONNECTION DATA										FUSE PLATE DATA				
	Foundation			Reinforcement				Stub Post Length	Bolt Size	A	B	C	D	E	t <sub>1</sub>	t <sub>2</sub>	R	W	J	K	L	t <sub>3</sub>
	Diameter	* Minimum Depth	Concrete (1) cu. yds.)	Vertical Bars Length	Bar Spirals Diameter	Length	lbs. (2)															
W6x9	2'-0"	6'-0"	0.70	5'-9"	1'-8 1/2"	79'-0"	78	2'-3"	5/8" x 3/4"	6"	2 1/4"	1 1/4"	3 1/2"	1 1/4"	3/4"	1/2"	1 1/2"	1 1/4"	4"	2 1/4"	7/8"	1/4"
W6x15	2'-0"	6'-0"	0.70	5'-9"	1'-8 1/2"	79'-0"	78	2'-6"	5/8" x 3/4"	6"	2 1/4"	1 1/4"	3 1/2"	1 1/4"	3/4"	1/2"	1 1/2"	1 1/4"	6"	3 1/2"	1 1/4"	3/8"
W8x18	2'-0"	6'-0"	0.70	5'-9"	1'-8 1/2"	79'-0"	78	2'-6"	3/4" x 3 3/4"	6"	2 1/2"	1 3/8"	3 1/4"	1 3/8"	1"	1/2"	1 3/2"	5 1/6"	5 1/4"	2 3/4"	1 1/4"	3/8"
W10x22	2'-6"	6'-6"	1.18	6'-3"	2'-2 1/2"	105'-0"	92	3'-0"	3/4" x 3 3/4"	6"	2 1/2"	1 3/8"	3 1/4"	1 3/8"	1"	1/2"	1 3/2"	5 1/6"	5 3/4"	2 3/4"	1 1/2"	1/2"
W10x26	2'-6"	7'-0"	1.27	6'-9"	2'-2 1/2"	112'-0"	98	3'-0"	7/8" x 4"	7"	2 3/4"	1 1/2"	4"	1 1/2"	1"	3/4"	1 5/32"	3/8"	5 3/4"	2 3/4"	1 1/2"	5/8"
W12x26	2'-6"	7'-9"	1.41	7'-6"	2'-2 1/2"	119'-0"	107	3'-0"	7/8" x 4"	7"	2 3/4"	1 1/2"	4"	1 1/2"	1"	3/4"	1 5/32"	3/8"	6 1/2"	3 1/2"	1 1/2"	5/8"
W14x30	3'-0"	7'-3"	1.90	7'-0"	2'-8 1/2"	145'-0"	113	3'-0"	7/8" x 4"	7"	2 3/4"	1 1/2"	4"	1 1/2"	1"	3/4"	1 5/32"	3/8"	6 3/4"	3 1/2"	1 5/8"	1/2"
W14x38	3'-0"	8'-0"	2.09	7'-9"	2'-8 1/2"	153'-0"	122	3'-6"	1" x 4 1/2"	7 1/2"	3"	1 3/4"	4"	1 3/4"	1 1/4"	3/4"	1 1/2"	3/8"	6 3/4"	3 1/2"	1 5/8"	1/2"
W16x45	3'-0"	8'-6"	2.23	8'-3"	2'-8 1/2"	162'-0"	130	3'-6"	1" x 4 1/2"	7 1/2"	3"	1 3/4"	4"	1 3/4"	1 1/4"	3/4"	1 1/2"	3/8"	7"	3 1/2"	1 3/4"	1/2"

\*Dimensional changes required for varying site conditions shall be approved by the Engineer.

POST	FUSE PLATE BOLT SIZE													
	Sign Depth													
	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	
W6x9	1/2" x 1 1/2"	1/2" x 1 1/2"	1/2" x 1 1/2"	5/8" x 1 3/4"	5/8" x 1 3/4"	5/8" x 1 3/4"	---	---	---	---	---	---	---	
W6x15	1/2" x 1 3/4"	1/2" x 1 3/4"	5/8" x 2"	5/8" x 2"	3/4" x 2"	3/4" x 2"	3/4" x 2"	3/4" x 2"	7/8" x 2"	7/8" x 2"	---	---	---	
W8x18	1/2" x 1 3/4"	1/2" x 1 3/4"	1/2" x 1 3/4"	5/8" x 2"	5/8" x 2"	3/4" x 2"	3/4" x 2"	7/8" x 2 1/4"	7/8" x 2 1/4"	7/8" x 2 1/4"	7/8" x 2 1/4"	7/8" x 2 1/4"	7/8" x 2 1/4"	
W10x22	1/2" x 2"	1/2" x 2"	1/2" x 2"	5/8" x 2"	5/8" x 2"	3/4" x 2 1/4"	3/4" x 2 1/4"	7/8" x 2 1/4"	7/8" x 2 1/4"	7/8" x 2 1/2"	1" x 2 1/2"	1" x 2 3/4"	1" x 2 3/4"	
W10x26	1/2" x 2"	1/2" x 2"	1/2" x 2"	5/8" x 2 1/4"	5/8" x 2 1/4"	3/4" x 2 1/2"	3/4" x 2 1/2"	7/8" x 2 1/2"	7/8" x 2 1/2"	1" x 2 3/4"	1" x 2 3/4"	1" x 2 3/4"	1 1/8" x 3"	
W12x26	---	---	---	---	---	5/8" x 2 1/4"	---	---	7/8" x 2 1/2"	7/8" x 2 1/2"	1" x 2 1/2"	1" x 2 3/4"	1" x 2 3/4"	
W14x30	1/2" x 2"	1/2" x 2"	1/2" x 2"	1/2" x 2"	1/2" x 2"	5/8" x 2"	3/4" x 2 1/4"	3/4" x 2 1/4"	3/4" x 2 1/4"	7/8" x 2 1/2"	1" x 2 1/2"	1" x 2 3/4"	1" x 2 3/4"	
W14x38	---	1/2" x 2"	1/2" x 2"	1/2" x 2"	1/2" x 2"	5/8" x 2 1/4"	3/4" x 2 1/4"	3/4" x 2 1/4"	3/4" x 2 1/4"	7/8" x 2 1/2"	7/8" x 2 1/2"	1" x 2 1/2"	1" x 2 3/4"	
W16x45	---	---	---	1/2" x 2"	1/2" x 2"	5/8" x 2 1/4"	5/8" x 2 1/4"	3/4" x 2 1/4"	3/4" x 2 1/4"	3/4" x 2 1/2"	3/4" x 2 1/2"	7/8" x 2 1/2"	1" x 2 3/4"	



ELEVATION  
GROUND LINE & STUB POST

\*\* For all "Point 1" and "Point 2" locations, "Clearance Line" must be at or above top of stub post.

- ① Quantity includes all concrete necessary for one foundation.
- ② Includes reinforcement bars and spiral hooping for one foundation.

BREAK-AWAY WIDE FLANGE  
STEEL SIGN POST TABLES

DETAIL SHEET  
F.A.I. ROUTE. 57  
SECTION 10-32HB-3,K  
CHAMPAIGN COUNTY  
CONTRACT NO. 90758

NUMBER	REVISION	DATE

Bench Mark: Chiseled "x" N.E. wingwall of abandoned bridge west of I-57 @ approximate Sta. 26+50, Elev. 698.12

Existing Structure: None

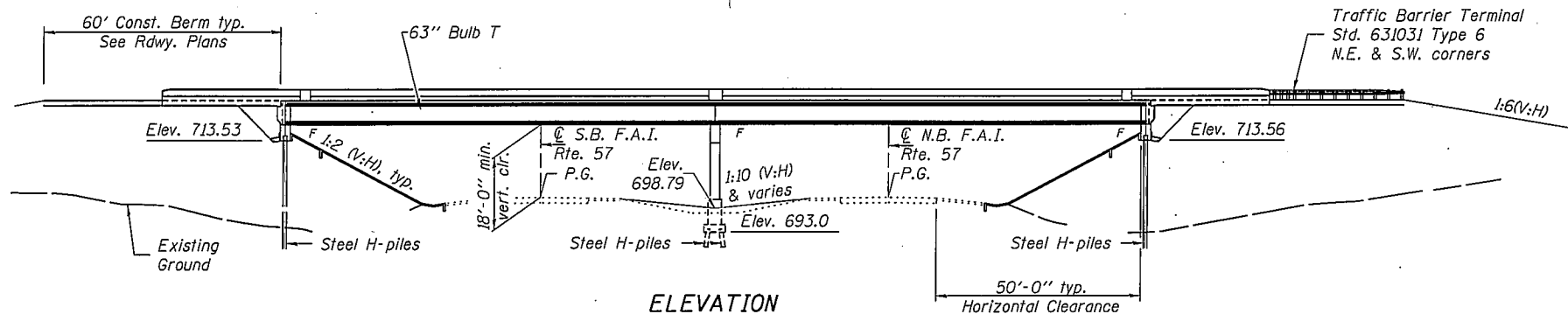
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
F.A.I. 57	10-32HB-3,K	CHAMPAIGN	352	110
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

Contract #90758

GENERAL NOTES

Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60.  
Slope wall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.  
The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.  
The Contractor shall drive two (2) HP 12x74 test piles in a permanent location, one at West abut. and one at pier as directed by the Engineer before ordering the remainder of piles.  
All Construction joints shall be bonded.



INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 General Data
- 3-8 Top of Slab Elevations
- 9 Superstructure
- 10-11 Superstructure Details
- 12-13 Diaphragm Details
- 14 Framing Plan
- 15-16 63" PPC Bulb T-Beam
- 17 Anchor Bolt Details
- 18-20 Abutments
- 21-22 Pier
- 23 Bar Splicer Assembly Details
- 24 Bridge Approach Pavement (Special) Parapet Details
- 25-27 Soil Boring Logs

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		551	551
Structure Excavation	Cu. Yd.		696	696
Driving Steel Piles	Foot		5070	5070
Concrete Structures	Cu. Yd.		367.6	367.6
Concrete Superstructure	Cu. Yd.	785.9		785.9
Bridge Deck Grooving	Sq. Yd.	1662		1662
Protective Coat	Sq. Yd.	2405		2405
Furnishing and Erecting Precast Prestressed Concrete Bulb T-Beams 63"	Foot	3050		3050
Reinforcement Bars, Epoxy Coated	Pound	159250	51780	211030
Slopedwall 4 Inch	Sq. Yd.		928	928
Furnishing Steel Piles HP 12x74	Foot		5070	5070
Test Pile Steel HP 12x74	Each		2	2
Name Plates	Each		1	1
Geocomposite Wall Drain	Sq. Yd.		220	220
Pipe Underdrains for Structures, 4"	Foot		278	278
Conduit Embedded in Structure, 2" φ PVC	Foot		1070	1070
Diamond Grinding (Bridge Section)	Sq. Yd.		2076	2076
Form Liner Textured Surface	Sq. Yd.		169	169
Bar Splicers	Each	180		180

STATION 297+20.45  
BUILT 200 BY  
STATE OF ILLINOIS  
F.A.I. RT. 57 SEC. 10-32HB-3,K  
LOADING HS20-44  
STR. NO. 010-0272

NAME PLATE  
See Std. 515001

LOADING HS20-44  
Allow 50#/sq. ft. for Future Wearing Surface.

DESIGN SPECIFICATIONS  
2002 AASHTO

DESIGN STRESSES

FIELD UNITS

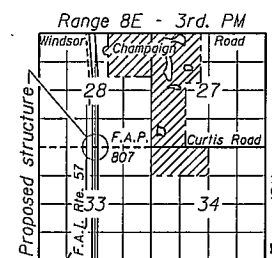
$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (reinforcement)

PRECAST PRESTRESSED UNITS

$f'_c = 6,000$  psi  
 $f'_{ci} = 5,000$  psi  
 $f'_s = 270,000$  psi ( $\frac{1}{2}$ "  $\phi$  low lax. strands)  
 $f_{si} = 201,960$  psi ( $\frac{1}{2}$ "  $\phi$  low lax strands)

SEISMIC DATA

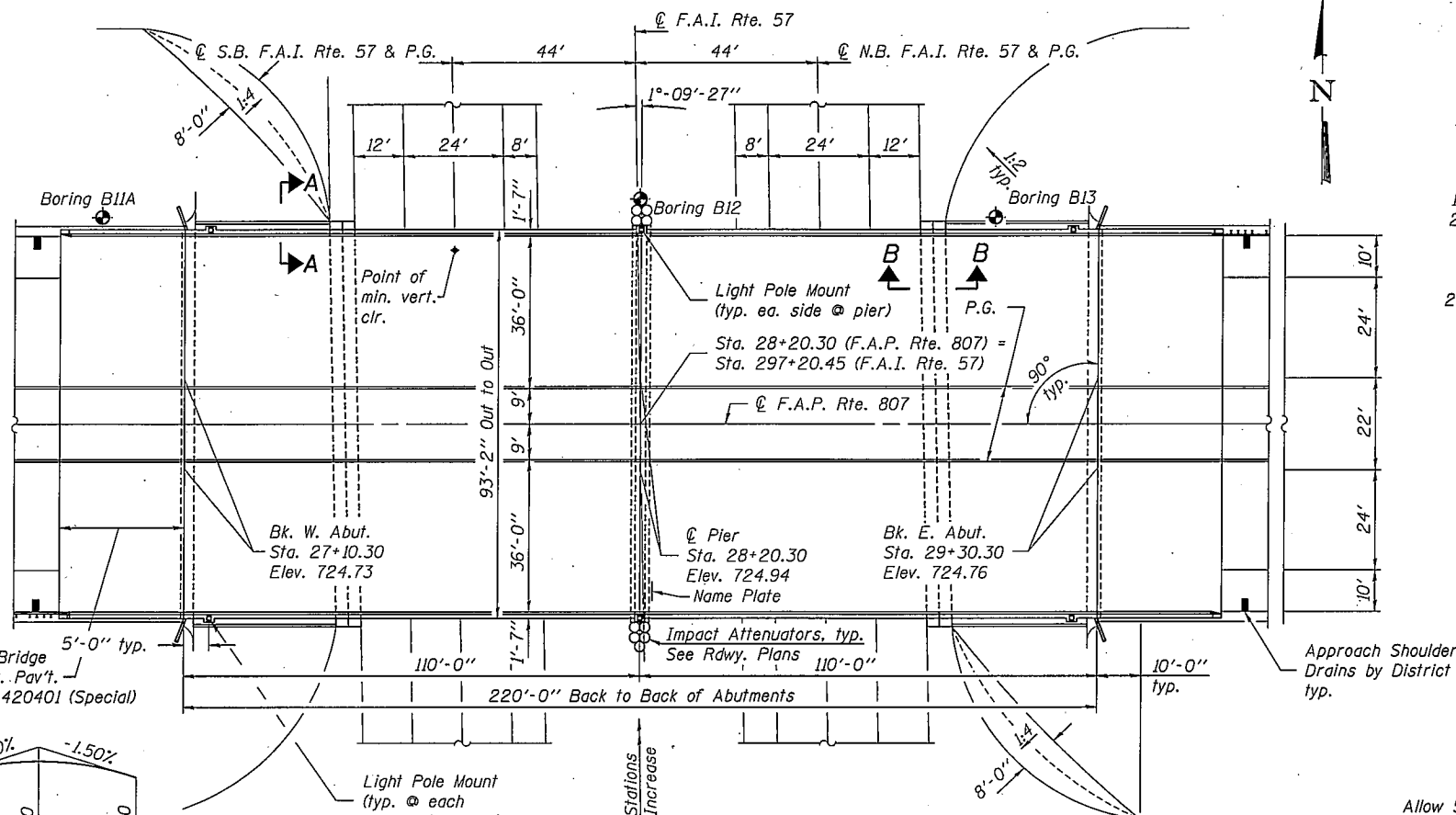
Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 4.8%  
Site Coefficient (S) = 1.2



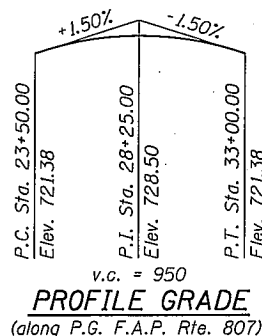
LOCATION SKETCH

GENERAL PLAN & ELEVATION  
CURTIS ROAD (F.A.P. ROUTE 807)  
OVER I-57

F.A.I. ROUTE 57 SEC. 10-32HB-3,K  
CHAMPAIGN COUNTY  
STATION 297+20.45  
STRUCTURE NO. 010-0272



PLAN



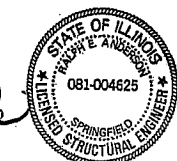
PROFILE GRADE  
(along P.G. F.A.P. Rte. 807)

Notes:

For Sections A-A and B-B, see sheet 2 of 27.  
The profile grade shows the final elevations after grinding.  
Up to  $\frac{1}{4}$ " will be ground off the bridge slab and approach pavement.

DESIGNED	<i>R. R. Schuch</i>
CHECKED	<i>Richard J. Hays</i>
DRAWN	W.D.C. / M.B.M.
CHECKED	<i>SPR/RZ7</i>

EXAMINED *Thomas J. Domydek*  
PASSED *Ralph J. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES



EXPIRES 11-30-2006

Sta. 294+00 Elev. 699.58(NB) 699.67(SB)	Sta. 295+00 Elev. 699.55(NB) 699.66(SB)	Sta. 296+00 Elev. 699.80(NB) 699.91(SB)	Sta. 297+00 Elev. 700.07(NB) 700.13(SB)	Sta. 298+00 Elev. 700.29(NB) 700.34(SB)	Sta. 299+00 Elev. 700.49(NB) 700.53(SB)	Sta. 300+00 Elev. 700.69(NB) 700.72(SB)
--	--	--	--	--	--	--

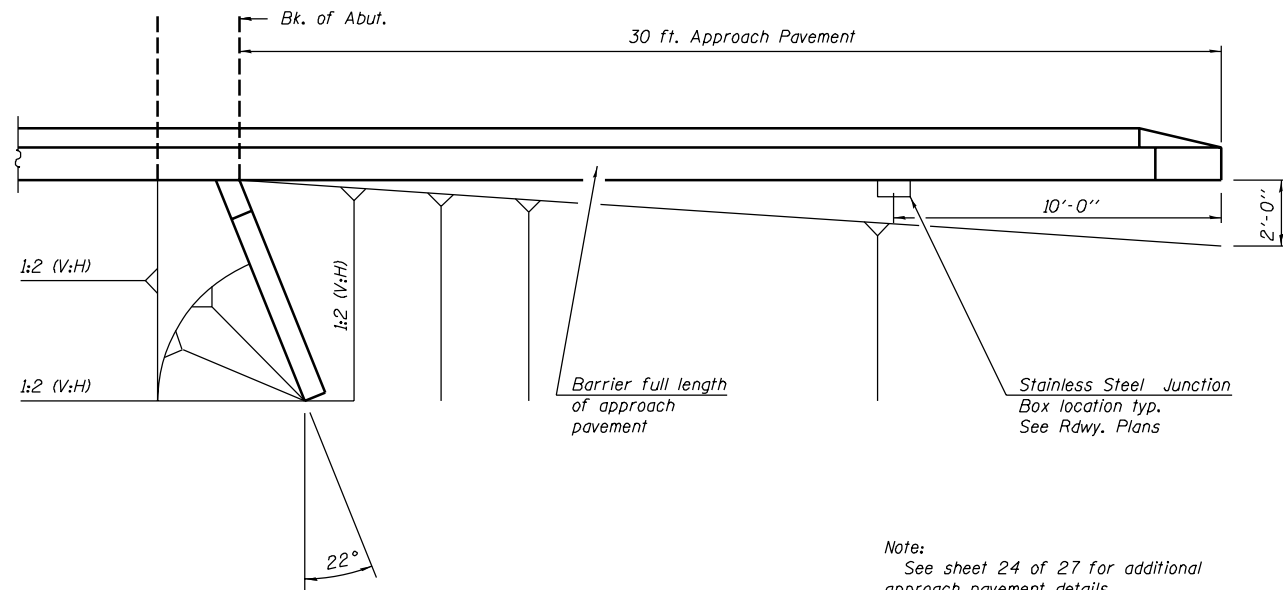
PROFILE GRADE  
(along  $\phi$  Rdwy. F.A.I. Rte. 57)

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	10-32HB-3,K	CHAMPAIGN	352	111
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

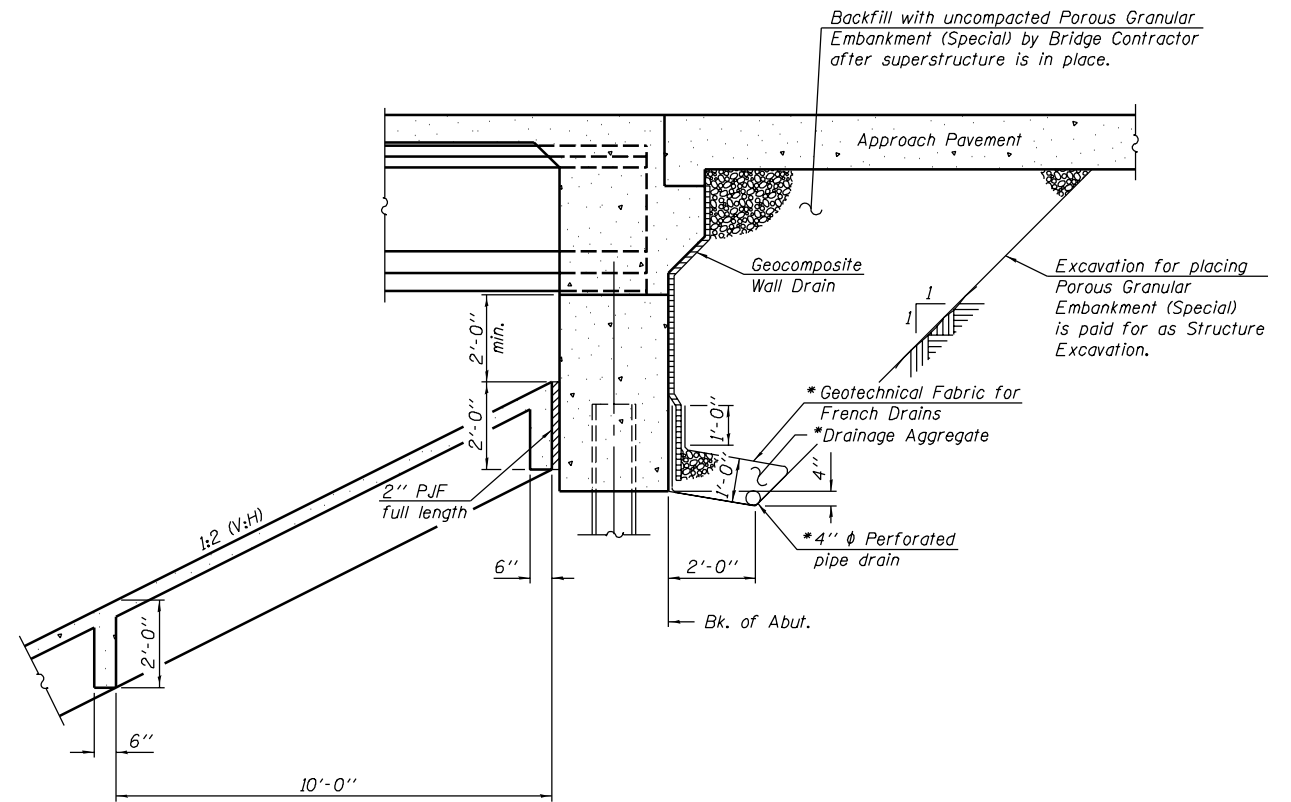
SHEET NO. 2  
27 SHEETS

Contract #90758



Note:  
See sheet 24 of 27 for additional approach pavement details.

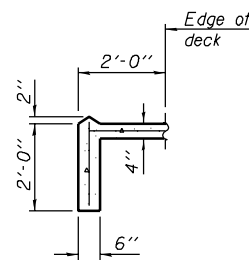
**APPROACH PAVEMENT AND TRAFFIC BARRIER DETAILS**  
(Typical all four corners)



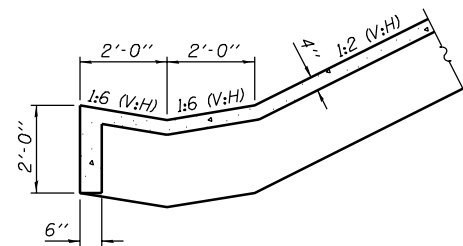
**SECTION THRU INTEGRAL ABUTMENT**

\* Included in the cost of Pipe Underdrains for Structures, 4".

Note:  
All drainage system 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 60110).



**SECTION A-A**



**SECTION B-B**

DESIGNED	Gholam R. Ahanchi
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	G.R.A. / R.L.T.

April 28, 2006  
EXAMINED *Thomas J. Domagalaki*  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGE DESIGN  
ENGINEER OF BRIDGES AND STRUCTURES

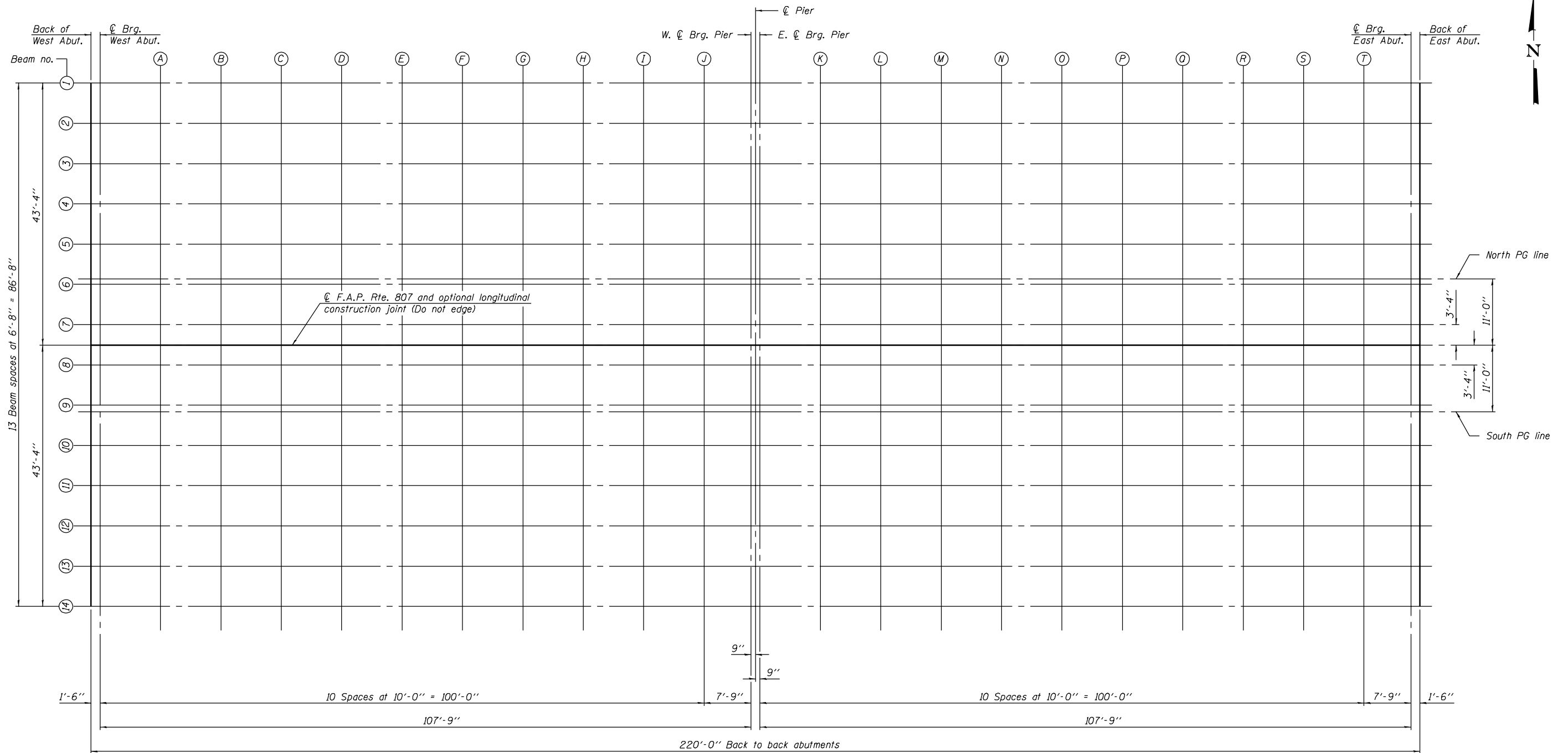
**GENERAL DATA**  
F.A.I. ROUTE 57 SEC. 10-32HB-3,K  
CHAMPAIGN COUNTY  
STATION 297+20.45  
STRUCTURE NO. 010-0272

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	10-32HB-3,K	CHAMPAIGN	352	112
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 3  
27 SHEETS

Contract #90758



PLAN

DESIGNED	Gholam R. Ahanchi
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	G.R.A. / R.L.T.

April 28, 2006  
EXAMINED *Thomas J. Domagala*  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGE DESIGN  
ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SLAB ELEVATIONS  
F.A.I. ROUTE 57 SEC. 10-32HB-3,K  
CHAMPAIGN COUNTY  
STATION 297+20.45  
STRUCTURE NO. 010-0272



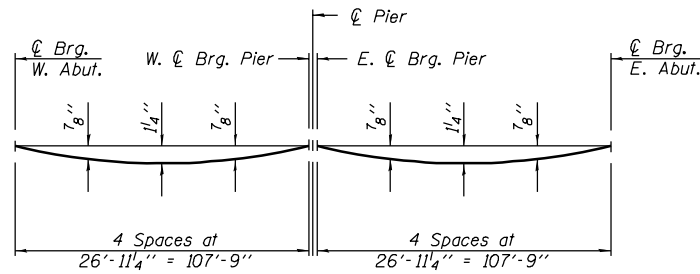


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	10-32HB-3,K	CHAMPAIGN	352	115
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 6  
27 SHEETS

Contract #90758

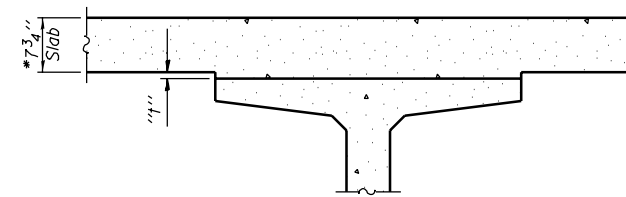


**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete, excluding beams).

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 and grinding as shown below and on sheets 4 and 5 of 27.



To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown on sheet 3 of 27. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections and Grinding" show below and on sheets 4 and 5 of 27, minus 7 3/4" deck thickness, equals the fillet heights "t" above top flanges 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 below and on sheets 4 and 5 of 27. For grinding the deck, see Special Provisions.

**FILLET HEIGHTS**

\*Prior to grinding

**BEAM 14**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding
BK. W. ABUT.	27+10.300	43.333	724.051	724.072
CL. BRG. W. ABUT.	27+11.800	43.333	724.056	724.077
A	27+21.800	43.333	724.090	724.139
B	27+31.800	43.333	724.121	724.198
C	27+41.800	43.333	724.149	724.249
D	27+51.800	43.333	724.174	724.284
E	27+61.800	43.333	724.195	724.316
F	27+71.800	43.333	724.214	724.332
G	27+81.800	43.333	724.229	724.335
H	27+91.800	43.333	724.241	724.336
I	28+01.800	43.333	724.250	724.319
J	28+11.800	43.333	724.256	724.298
W. CL. BRG. PIER	28+19.550	43.333	724.258	724.279
CL. PIER	28+20.300	43.333	724.258	724.279
E. CL. BRG. PIER	28+21.050	43.333	724.258	724.279
K	28+31.050	43.333	724.258	724.306
L	28+41.050	43.333	724.254	724.329
M	28+51.050	43.333	724.248	724.345
N	28+61.050	43.333	724.238	724.347
O	28+71.050	43.333	724.225	724.346
P	28+81.050	43.333	724.209	724.327
Q	28+91.050	43.333	724.190	724.297
R	29+01.050	43.333	724.167	724.264
S	29+11.050	43.333	724.142	724.212
T	29+21.050	43.333	724.113	724.155
CL. BRG. E. ABUT.	29+28.800	43.333	724.088	724.109
BK. E. ABUT.	29+30.300	43.333	724.083	724.104

DESIGNED	Gholam R. Ahanchi
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	G.R.A. / R.L.T.

April 28, 2006  
EXAMINED *Thomas J. Domagala*  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGE DESIGN  
ENGINEER OF BRIDGES AND STRUCTURES

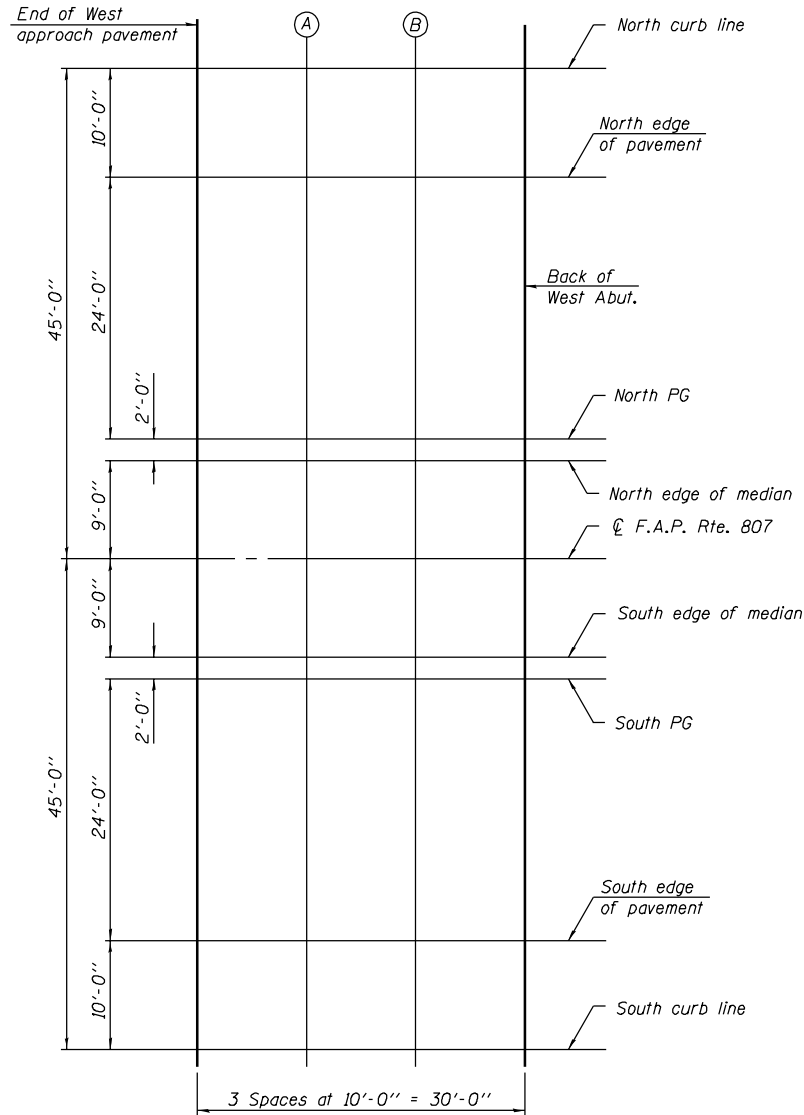
TOP OF SLAB ELEVATIONS  
F.A.I. ROUTE 57 SEC. 10-32HB-3,K  
CHAMPAIGN COUNTY  
STATION 297+20.45  
STRUCTURE NO. 010-0272

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	10-32HB-3.K	CHAMPAIGN	352	116
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 7  
27 SHEETS

Contract #90758



PLAN

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
END W. APPR. PAV'T.	26+80.300	-45.000	723.900	723.921
A	26+90.300	-45.000	723.944	723.965
B	27+00.300	-45.000	723.985	724.006
BK. W. ABUT.	27+10.300	-45.000	724.023	724.044

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
END W. APPR. PAV'T.	26+80.300	-35.000	724.108	724.129
A	26+90.300	-35.000	724.152	724.173
B	27+00.300	-35.000	724.193	724.214
BK. W. ABUT.	27+10.300	-35.000	724.231	724.252

NORTH PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
END W. APPR. PAV'T.	26+80.300	-11.000	724.607	724.628
A	26+90.300	-11.000	724.651	724.672
B	27+00.300	-11.000	724.692	724.713
BK. W. ABUT.	27+10.300	-11.000	724.730	724.751

NORTH EDGE OF MEDIAN

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
END W. APPR. PAV'T.	26+80.300	-9.000	724.648	724.669
A	26+90.300	-9.000	724.693	724.714
B	27+00.300	-9.000	724.734	724.755
BK. W. ABUT.	27+10.300	-9.000	724.771	724.792

CL F.A.P. RTE. 807

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
END W. APPR. PAV'T.	26+80.300	0.000	724.836	724.857
A	26+90.300	0.000	724.880	724.901
B	27+00.300	0.000	724.921	724.942
BK. W. ABUT.	27+10.300	0.000	724.959	724.980

SOUTH EDGE OF MEDIAN

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
END W. APPR. PAV'T.	26+80.300	9.000	724.648	724.669
A	26+90.300	9.000	724.693	724.714
B	27+00.300	9.000	724.734	724.755
BK. W. ABUT.	27+10.300	9.000	724.771	724.792

SOUTH PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
END W. APPR. PAV'T.	26+80.300	11.000	724.607	724.628
A	26+90.300	11.000	724.651	724.672
B	27+00.300	11.000	724.692	724.713
BK. W. ABUT.	27+10.300	11.000	724.730	724.751

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
END W. APPR. PAV'T.	26+80.300	35.000	724.108	724.129
A	26+90.300	35.000	724.152	724.173
B	27+00.300	35.000	724.193	724.214
BK. W. ABUT.	27+10.300	35.000	724.231	724.252

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
END W. APPR. PAV'T.	26+80.300	45.000	723.900	723.921
A	26+90.300	45.000	723.944	723.965
B	27+00.300	45.000	723.985	724.006
BK. W. ABUT.	27+10.300	45.000	724.023	724.044

DESIGNED	Gholam R. Ahanchi
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	G.R.A. / R.L.T.

April 28, 2006  
 EXAMINED *Thomas J. Domagala*  
 ENGINEER OF BRIDGE DESIGN  
 PASSED *Ralph E. Anderson*  
 ENGINEER OF BRIDGES AND STRUCTURES

TOP OF WEST APPROACH  
SLAB ELEVATIONS  
F.A.I. ROUTE 57 SEC. 10-32HB-3.K  
CHAMPAIGN COUNTY  
STATION 297+20.45  
STRUCTURE NO. 010-0272

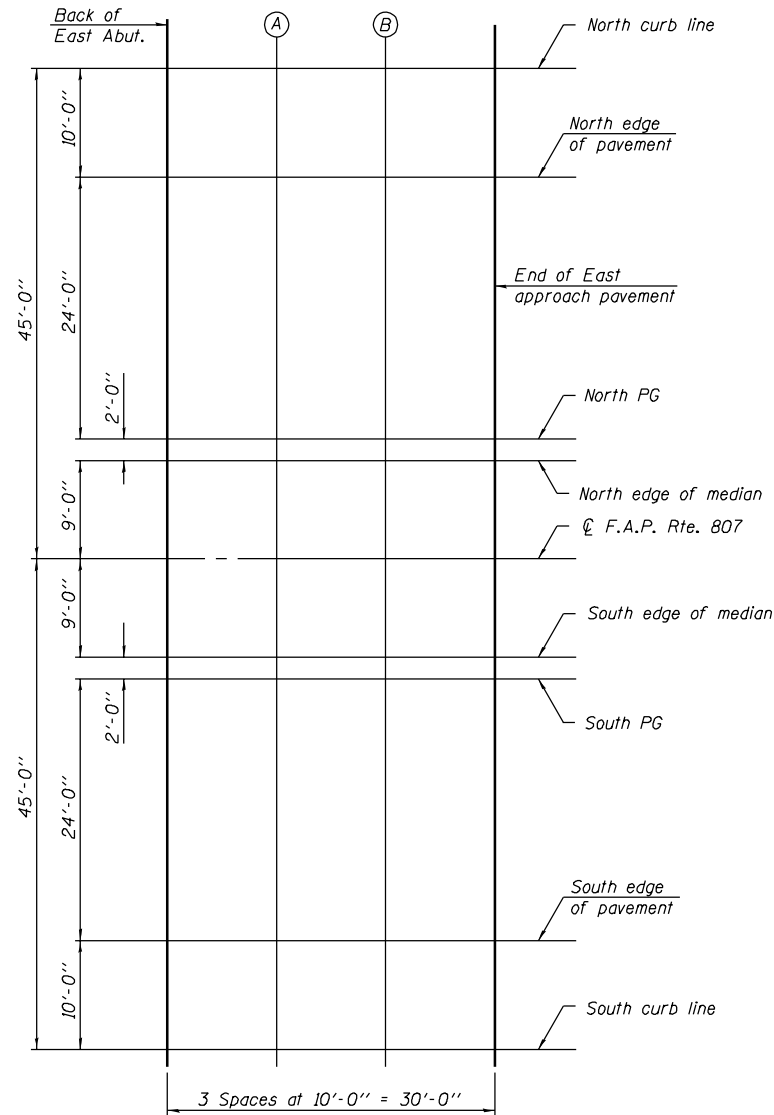


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 57	SECTION 10-32HB -3.K	COUNTY CHAMPAIGN	TOTAL SHEETS 352	SHEET NO. 117
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 8  
27 SHEETS

Contract #90758



PLAN

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
BK. E. ABUT.	29+30.300	-45.000	724.055	724.076
A	29+40.300	-45.000	724.020	724.041
B	29+50.300	-45.000	723.982	724.003
END E. APPR. PAV'T.	29+60.300	-45.000	723.941	723.962

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
BK. E. ABUT.	29+30.300	-35.000	724.263	724.284
A	29+40.300	-35.000	724.228	724.249
B	29+50.300	-35.000	724.190	724.211
END E. APPR. PAV'T.	29+60.300	-35.000	724.149	724.170

NORTH PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
BK. E. ABUT.	29+30.300	-11.000	724.762	724.783
A	29+40.300	-11.000	724.728	724.749
B	29+50.300	-11.000	724.690	724.711
END E. APPR. PAV'T.	29+60.300	-11.000	724.648	724.669

NORTH EDGE OF MEDIAN

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
BK. E. ABUT.	29+30.300	-9.000	724.804	724.825
A	29+40.300	-9.000	724.769	724.790
B	29+50.300	-9.000	724.731	724.752
END E. APPR. PAV'T.	29+60.300	-9.000	724.690	724.711

CL F.A.P. RTE. 807

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
BK. E. ABUT.	29+30.300	0.000	724.991	725.012
A	29+40.300	0.000	724.956	724.977
B	29+50.300	0.000	724.918	724.939
END E. APPR. PAV'T.	29+60.300	0.000	724.877	724.898

SOUTH EDGE OF MEDIAN

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
BK. E. ABUT.	29+30.300	9.000	724.804	724.825
A	29+40.300	9.000	724.769	724.790
B	29+50.300	9.000	724.731	724.752
END E. APPR. PAV'T.	29+60.300	9.000	724.690	724.711

SOUTH PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
BK. E. ABUT.	29+30.300	11.000	724.762	724.783
A	29+40.300	11.000	724.728	724.749
B	29+50.300	11.000	724.690	724.711
END E. APPR. PAV'T.	29+60.300	11.000	724.648	724.669

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
BK. E. ABUT.	29+30.300	35.000	724.263	724.284
A	29+40.300	35.000	724.228	724.249
B	29+50.300	35.000	724.190	724.211
END E. APPR. PAV'T.	29+60.300	35.000	724.149	724.170

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
BK. E. ABUT.	29+30.300	45.000	724.055	724.076
A	29+40.300	45.000	724.020	724.041
B	29+50.300	45.000	723.982	724.003
END E. APPR. PAV'T.	29+60.300	45.000	723.941	723.962

DESIGNED	Gholam R. Ahanchi
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	G.R.A. / R.L.T.

April 28, 2006  
 EXAMINED *Thomas J. Domagala*  
 ENGINEER OF BRIDGE DESIGN  
 PASSED *Ralph E. Anderson*  
 ENGINEER OF BRIDGES AND STRUCTURES

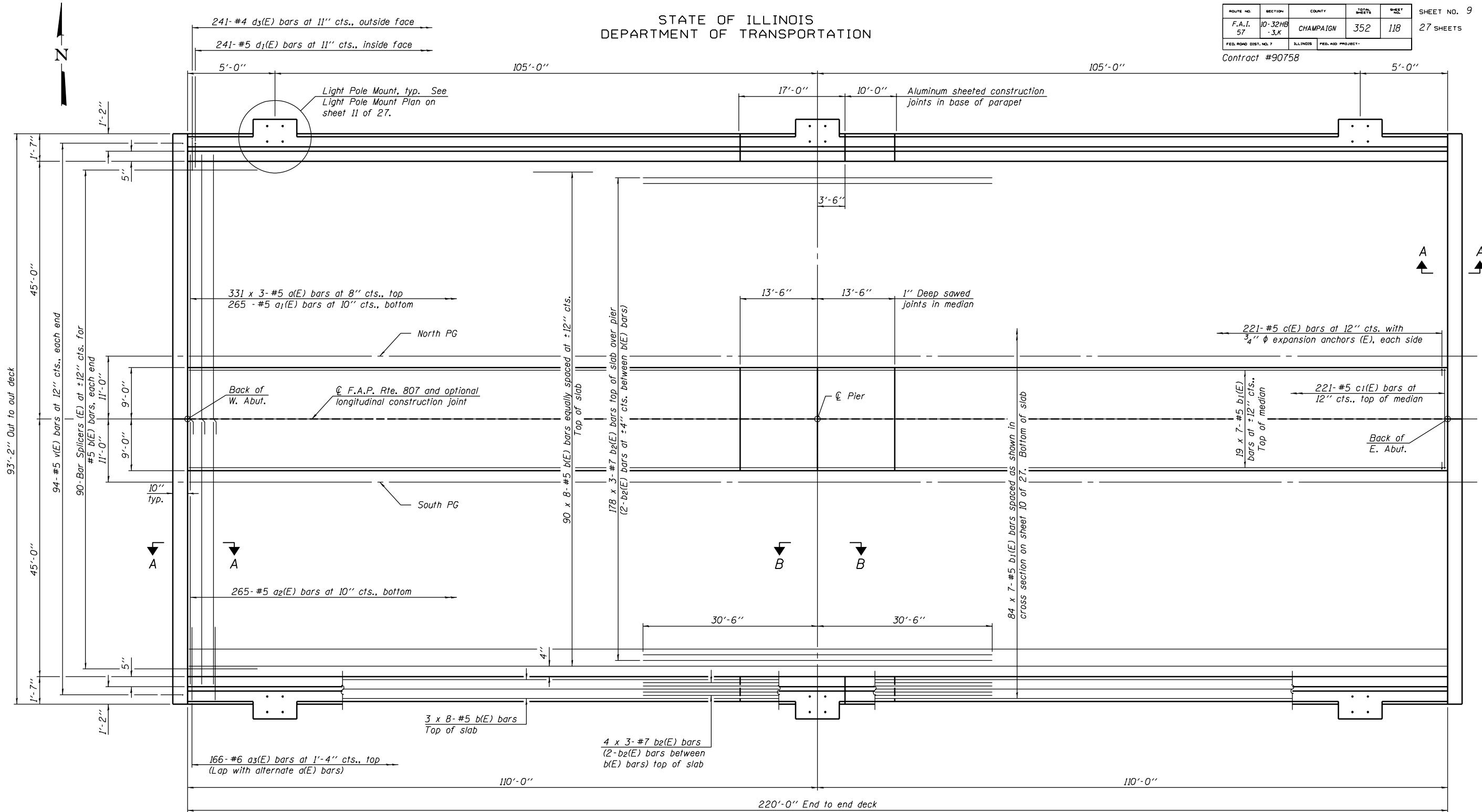
TOP OF EAST APPROACH  
SLAB ELEVATIONS  
F.A.I. ROUTE 57 SEC. 10-32HB-3.K  
CHAMPAIGN COUNTY  
STATION 297+20.45  
STRUCTURE NO. 010-0272

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	10-32HB-3,K	CHAMPAIGN	352	118
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 9  
27 SHEETS

Contract #90758



PLAN

DESIGNED	Gholam R. Ahanchi
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	G.R.A. / R.L.T.

April 28, 2006  
EXAMINED *Thomas J. Domagala*  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGE DESIGN  
ENGINEER OF BRIDGES AND STRUCTURES

MINIMUM BAR LAP

(Slab)  
#5 bar = 2'-2"  
#7 bar = 3'-5"

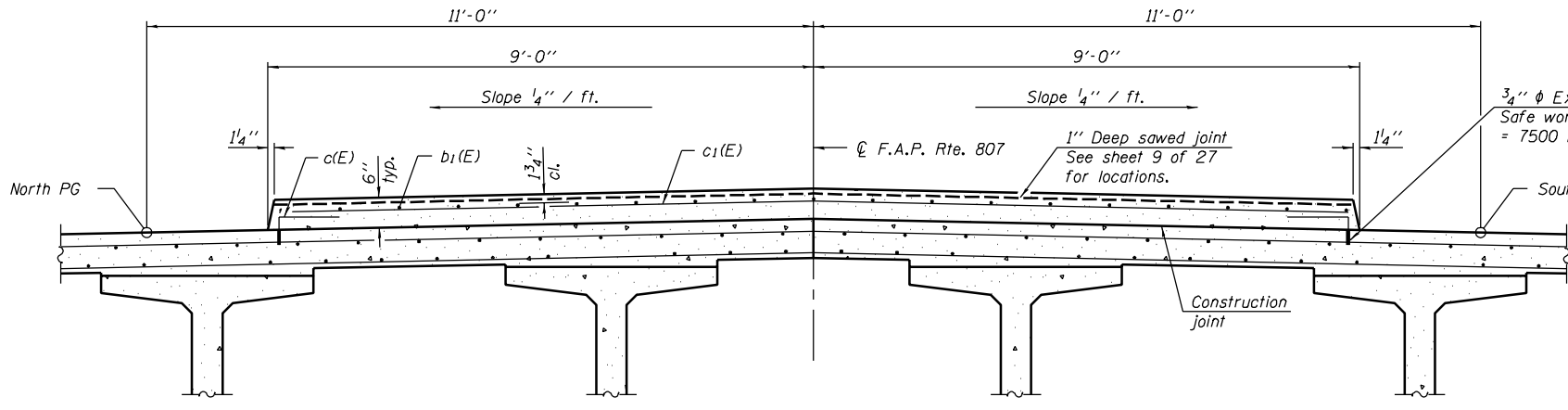
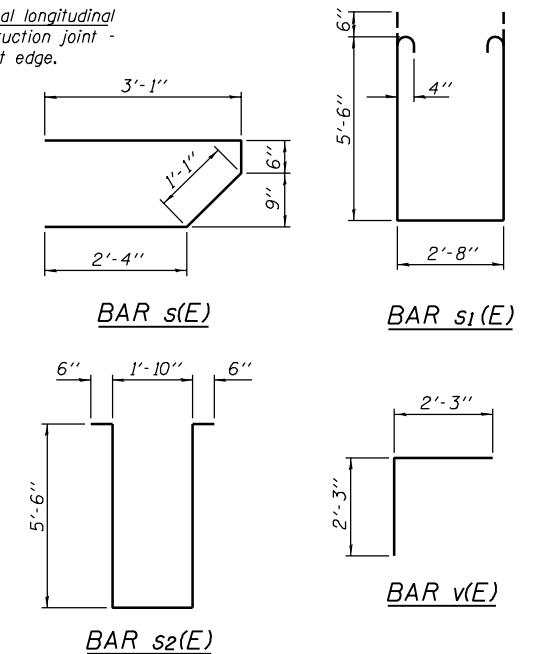
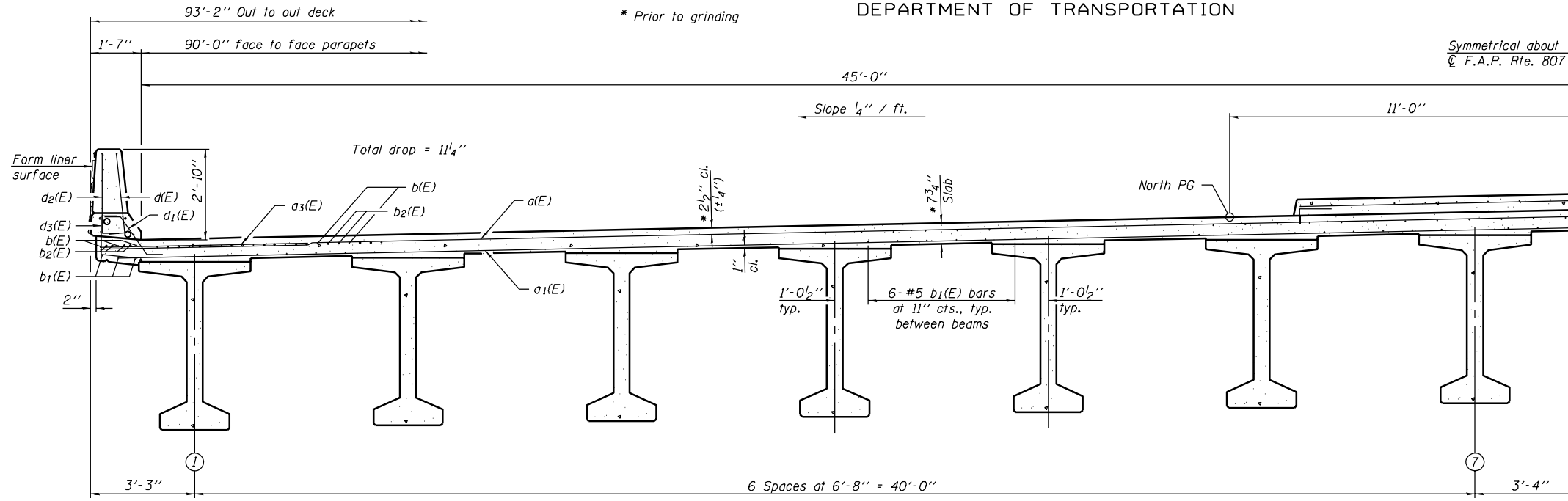
Note:  
See sheet 13 of 27 for Sections A-A and B-B.

SUPERSTRUCTURE  
F.A.I. ROUTE 57 SEC. 10-32HB-3,K  
CHAMPAIGN COUNTY  
STATION 297+20.45  
STRUCTURE NO. 010-0272

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

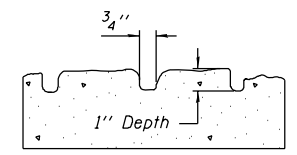
ROUTE NO. F.A.I. 57	SECTION 10-32HB-3,K	COUNTY CHAMPAIGN	TOTAL SHEETS 352	SHEET NO. 119	SHEET NO. 10 27 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

Contract #90758

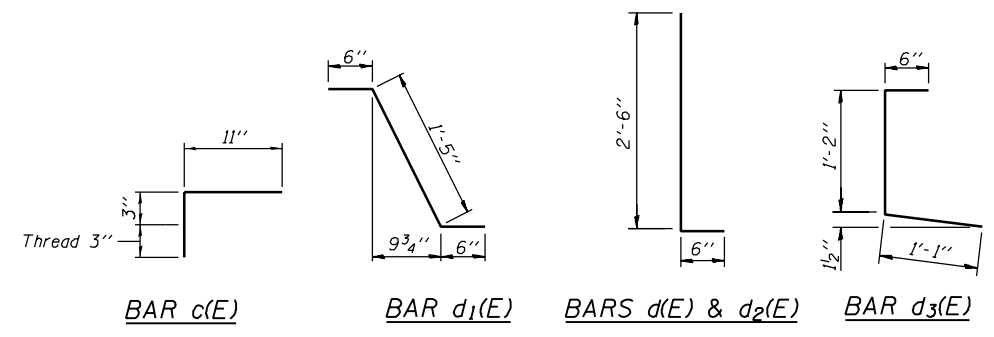


SECTION THRU MEDIAN  
(Looking East)

Notes:  
See sheet 11 of 27 for additional superstructure details and Bill of Material.  
For diaphragm details, see sheets 12 and 13 of 27.  
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 sheet 11 of 27 for parapet reinforcement.  
Limestone Form Liner Textured Surface to be used on outside face of parapet. Utilize Teton Dry Stack (Scott system #189) or equivalent.  
The depth of relief of the Form Liner Textured Surface is limited to 1". The relief should not compromise the reinforcement clearance in the parapet.  
Cost of expansion anchors (E) included in the cost of Reinforcement Bars, Epoxy Coated.



FORM LINER  
TEXTURE DETAIL  
See Special Provisions.



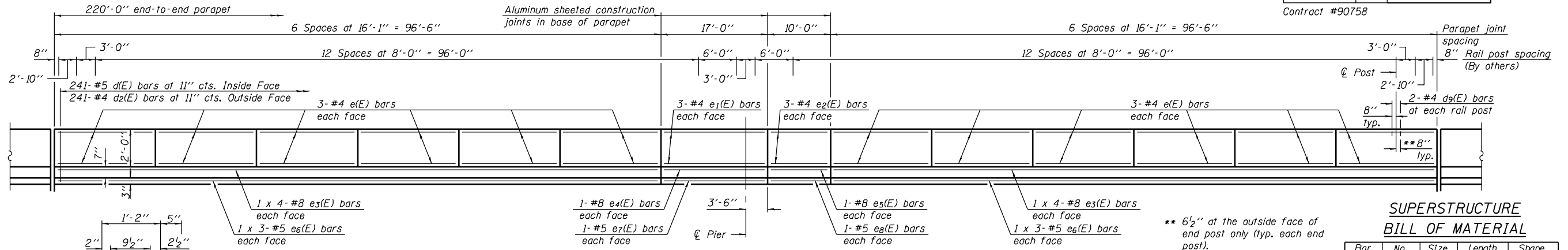
DESIGNED	Gholam R. Ahanchi
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	G.R.A. / R.L.T.

April 28, 2006  
EXAMINED *Thomas J. Domagalak*  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGE DESIGN  
ENGINEER OF BRIDGES AND STRUCTURES

SUPERSTRUCTURE DETAILS  
F.A.I. ROUTE 57 SEC. 10-32HB-3,K  
CHAMPAIGN COUNTY  
STATION 297+20.45  
STRUCTURE NO. 010-0272

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 57	SECTION 10-32HB-3.K	COUNTY CHAMPAIGN	TOTAL SHEETS 352	SHEET NO. 120	SHEET NO. 11 27 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract #90758		



**SUPERSTRUCTURE  
BILL OF MATERIAL**

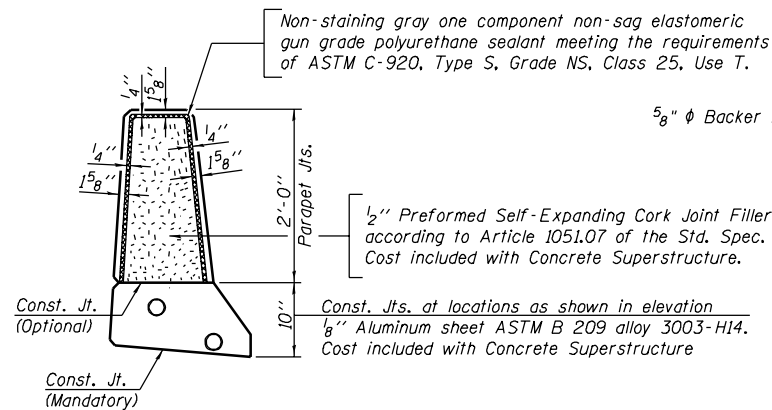
Bar	No.	Size	Length	Shape
a(E)	993	#5	32'-4"	—
a1(E)	265	#5	47'-9"	—
a2(E)	265	#5	45'-4"	—
a3(E)	332	#6	6'-6"	—
b(E)	768	#5	29'-5"	—
b1(E)	721	#5	33'-3"	—
b2(E)	558	#7	22'-8"	—
c(E)	442	#5	1'-5"	Γ
c1(E)	221	#5	17'-6"	—
d(E)	482	#5	3'-0"	—
d1(E)	482	#5	2'-5"	—
d2(E)	482	#4	3'-0"	—
d3(E)	482	#4	2'-9"	—
d4(E)	18	#6	4'-6"	—
d5(E)	30	#6	9'-1"	—
d9(E)	128	#4	1'-11 1/2"	—
e(E)	144	#4	15'-10"	—
e1(E)	12	#4	16'-9"	—
e2(E)	12	#4	9'-9"	—
e3(E)	32	#8	26'-8"	—
e4(E)	4	#8	16'-9"	—
e5(E)	4	#8	9'-9"	—
e6(E)	24	#5	33'-4"	—
e7(E)	4	#5	16'-9"	—
e8(E)	4	#5	9'-9"	—
m(E)	36	#6	32'-10"	—
m1(E)	84	#6	9'-3"	—
m2(E)	52	#6	4'-3"	—
m3(E)	4	#6	1'-11"	—
m4(E)	78	#4	5'-11"	—
m5(E)	14	#8	6'-2"	—
s(E)	168	#5	7'-0"	—
s1(E)	90	#4	14'-8"	—
s2(E)	39	#4	13'-10"	—
v(E)	188	#5	4'-6"	Γ
Reinforcement Bars, Epoxy Coated		Lbs.	159250	
Concrete Superstructure		Cu. Yds.	785.9	

Reinforcement bars designated (E) shall be epoxy coated.  
Bars indicated thus 1 x 4-#8 etc. indicates 1 line of bars with 4 lengths per line.

**SUPERSTRUCTURE DETAILS**  
F.A.I. ROUTE 57 SEC. 10-32HB-3.K  
CHAMPAIGN COUNTY  
STATION 297+20.45  
STRUCTURE NO. 010-0272

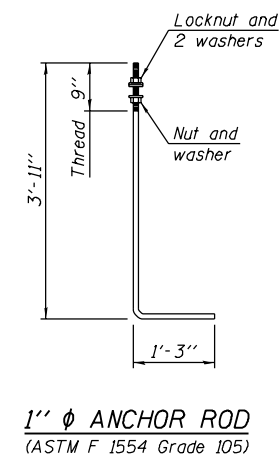
**MINIMUM BAR LAP**  
(Parapet)  
#5 bar = 1'-8"  
#8 bar = 3'-5"

**INSIDE ELEVATION OF PARAPET**  
(Looking North)

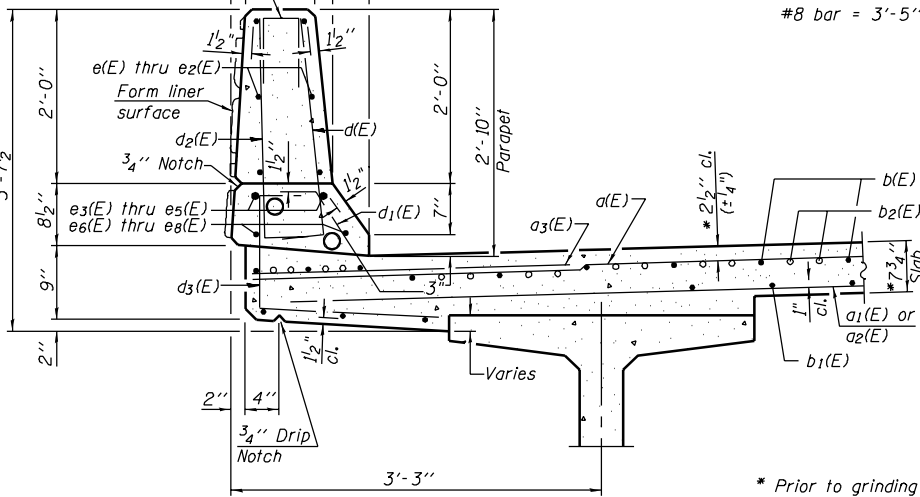


**PARAPET JOINT DETAILS**

\*\* 6 1/2" at the outside face of end post only (typ. each end post).



**SECTION THRU PARAPET**

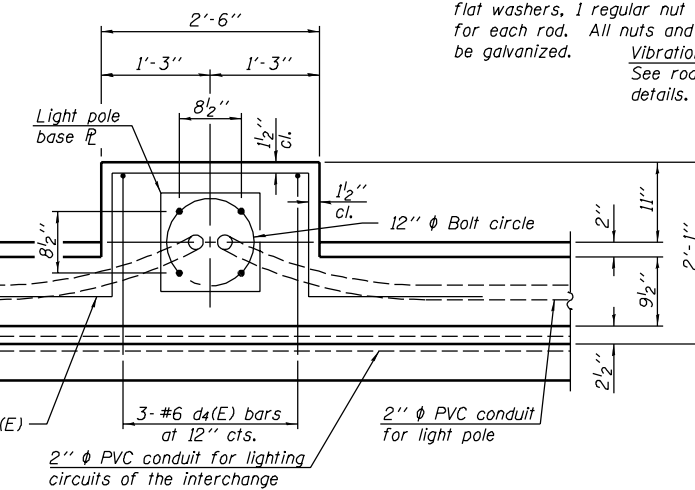


BAR d4(E)

BAR d5(E)

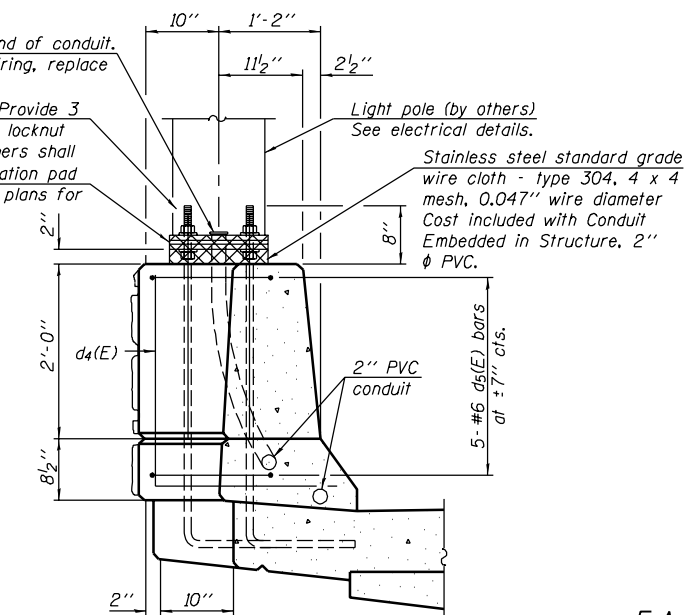
BAR d9(E)

Thread and cap end of conduit. When ready for wiring, replace cap with bushing.  
1" x 5'-2" HS anchor rods. Provide 3 flat washers, 1 regular nut and 1 locknut for each rod. All nuts and washers shall be galvanized.  
Vibration isolation pad. See roadway plans for details.



**LIGHT POLE MOUNT PLAN**

Cost of anchor rods is included with Conduit Embedded in Structure, 2" φ PVC.



**SECTION A-A**

DESIGNED	Gholam R. Ahanchi
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	G.R.A. / R.L.T.

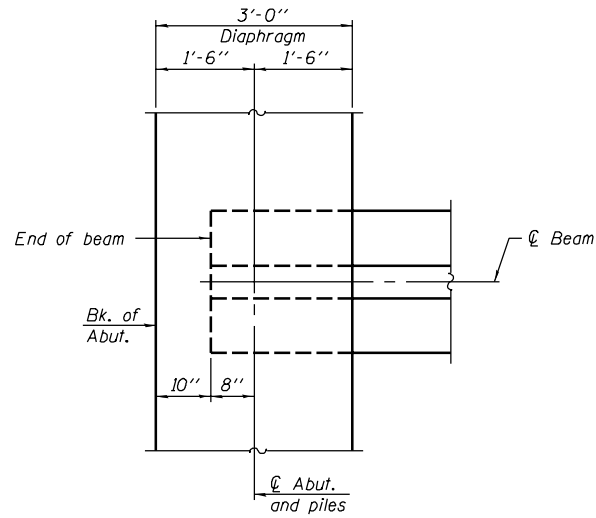
EXAMINED	Thomas J. Domagalak	April 28, 2006
PASSED	Ralph E. Anderson	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

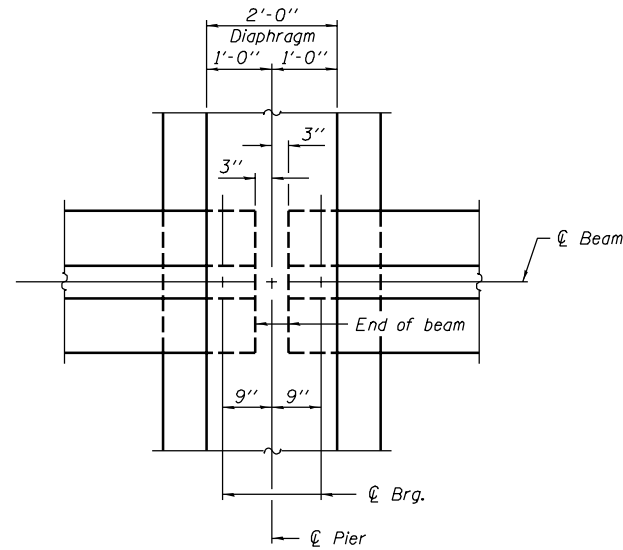
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	10-32HB-3,K	CHAMPAIGN	352	121
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 12  
27 SHEETS

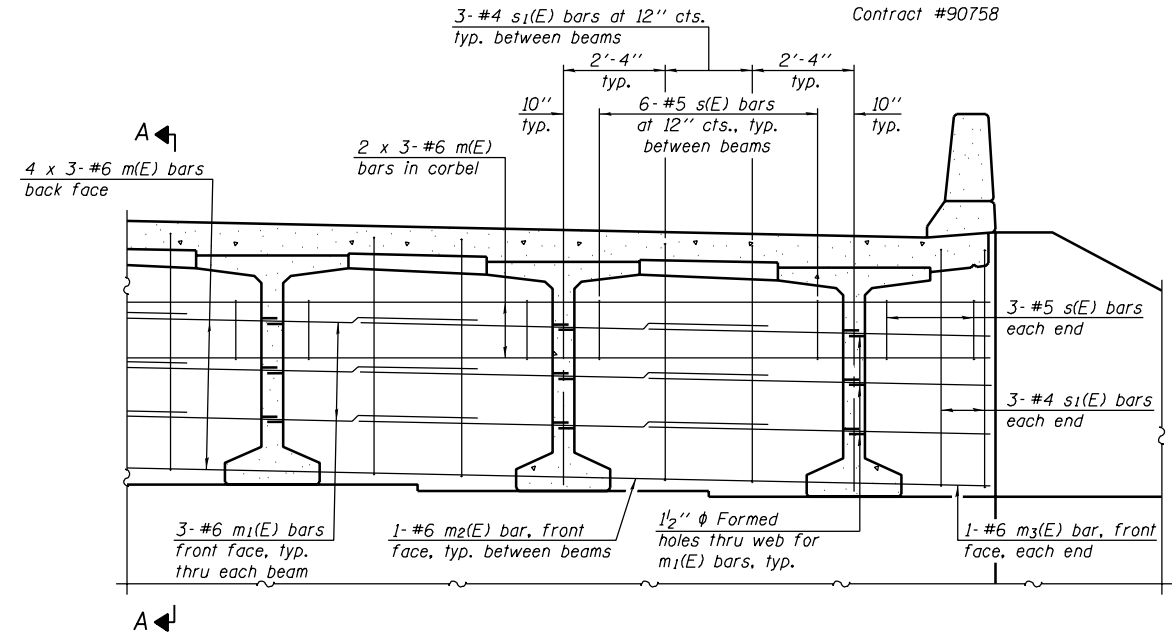
Contract #90758



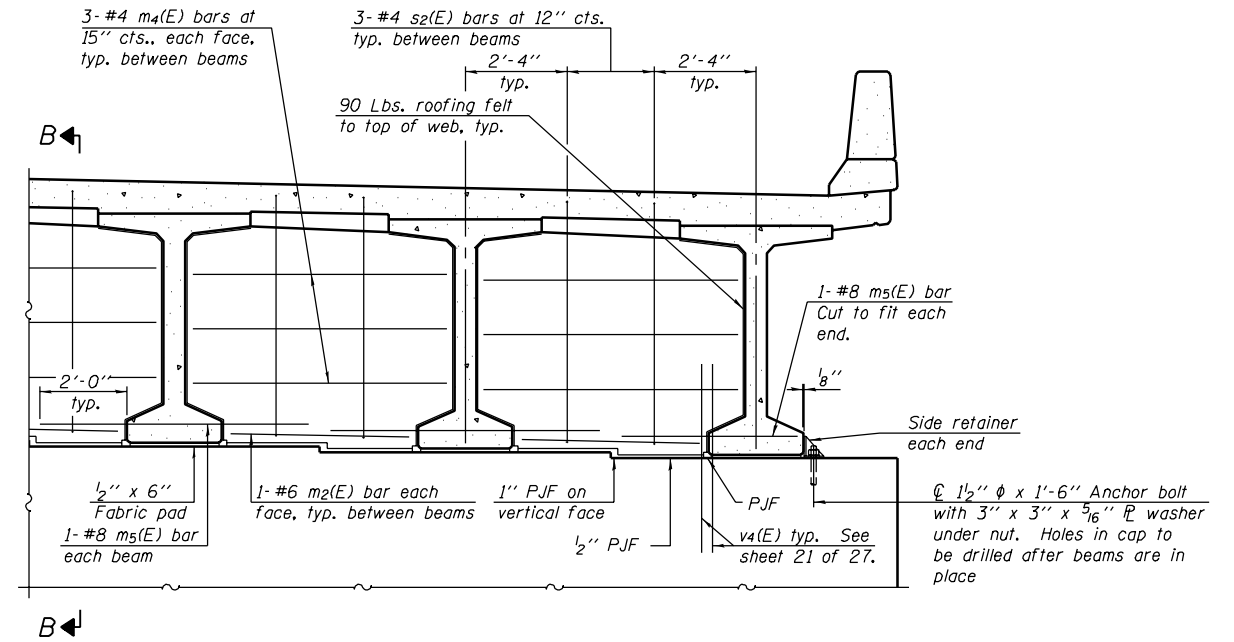
DETAIL A



DETAIL B

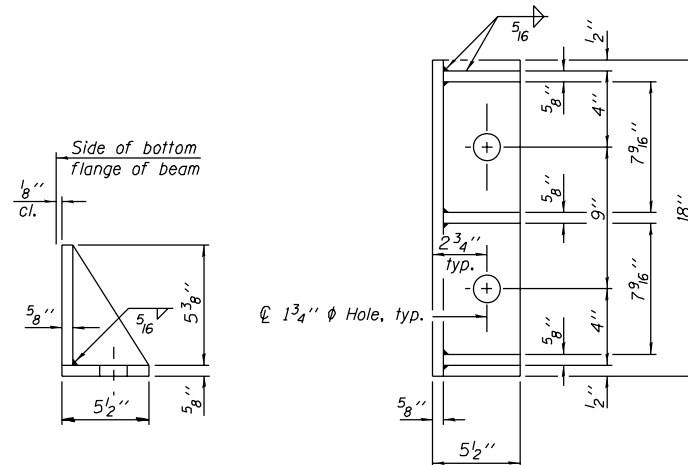


DIAPHRAGM ELEVATION AT ABUTMENT



DIAPHRAGM AT PIER

Notes:  
Reinforcement bars in diaphragm are billed with superstructure on sheet 11 of 27.  
Concrete in diaphragm is included with Concrete Superstructure on sheet 11 of 27.  
For details of bars s(E), s<sub>1</sub>(E) and s<sub>2</sub>(E) see sheet 10 of 27.  
See sheet 13 of 27 for Sections A-A and B-B.  
Cost of 90 Lb. roofing felt, PJF and fabric bearing pads is included with Concrete Superstructure.  
The side retainer shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Cost of side retainer and anchor bolts shall be included with Concrete Structures.  
See sheet 17 of 27 for anchor bolt details.  
For location of Details A and B, see sheet 14 of 27.  
Bars indicated thus 4 x 3- #6 etc. indicates 4 lines of bars with 3 lengths per line.  
See sheet 15 of 27 for holes thru web for m<sub>1</sub>(E) bars.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

MIN. BAR LAP  
#6 bar = 2'-7"

DESIGNED	Gholam R. Ahanchi
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	G.R.A. / R.L.T.

April 28, 2006  
EXAMINED *Thomas J. Domagalak*  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGE DESIGN  
ENGINEER OF BRIDGES AND STRUCTURES

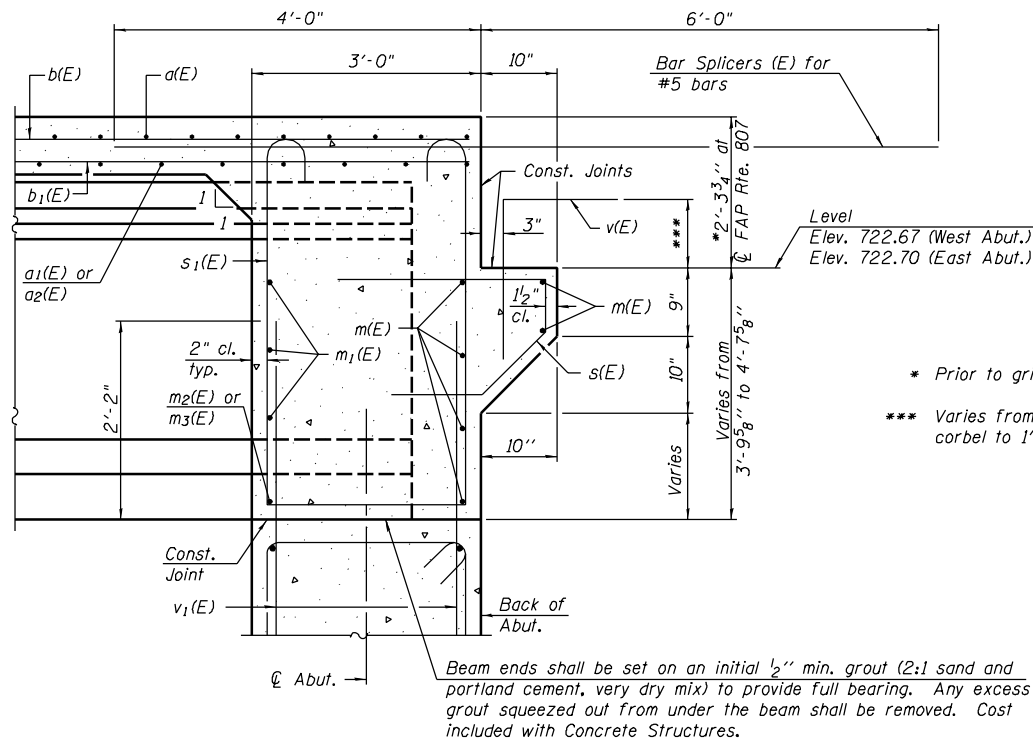
DIAPHRAGM DETAILS  
F.A.I. ROUTE 57 SEC. 10-32HB-3,K  
CHAMPAIGN COUNTY  
STATION 297+20.45  
STRUCTURE NO. 010-0272

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	10-32HB-3,K	CHAMPAIGN	352	122
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 13  
27 SHEETS

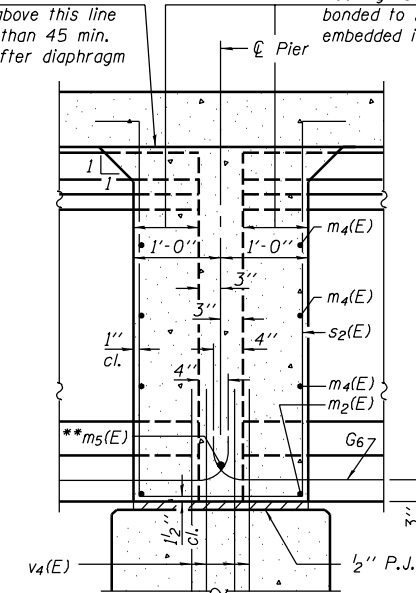
Contract #90758



SECTION A-A

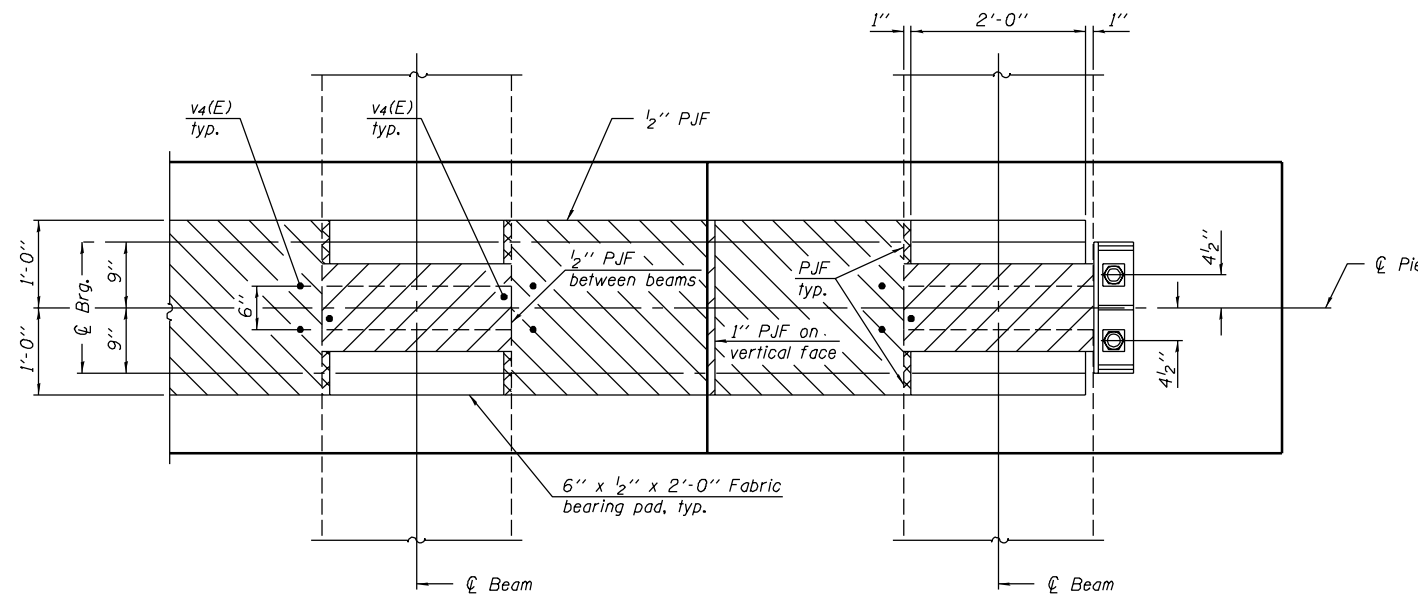
Pour diaphragm flush with batt. of slab. Concrete in slab above this line shall be placed not less than 45 min. nor more than 90 min. after diaphragm has been poured.

Roofing felt shall be bonded to side of beam embedded into diaphragm.



SECTION B-B

\*\* Tightly fasten the #8 bars together with No. 9 wire ties.



PLAN AT PIER  
(Showing bearing pad and P.J.F. details)

Note:  
See sheet 12 of 27 for location of Sections A-A and B-B.

DESIGNED	Gholam R. Ahanchi
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	G.R.A. / R.L.T.

April 28, 2006

EXAMINED *Thomas J. Domagala*  
ENGINEER OF BRIDGE DESIGN

PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

PBT-2DDI

10-22-04

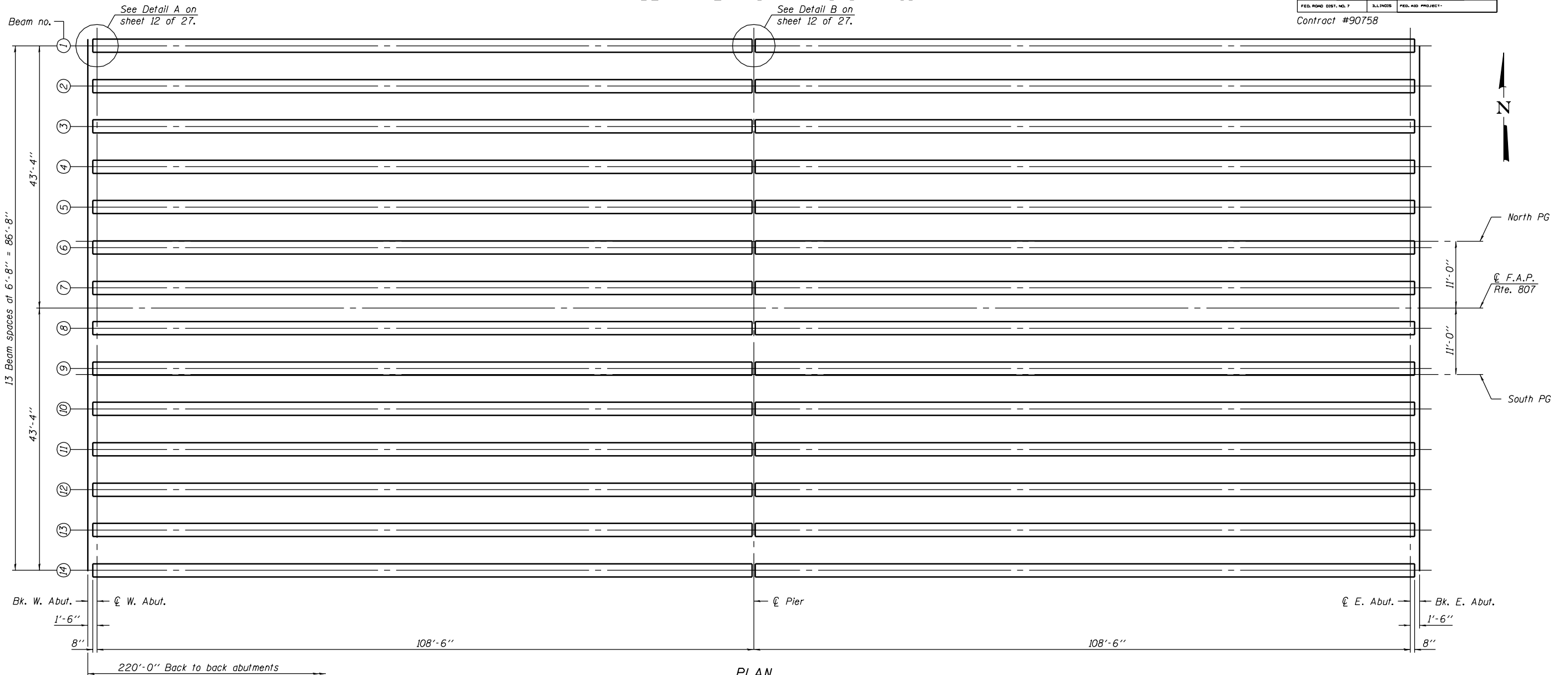
DIAPHRAGM DETAILS  
F.A.I. ROUTE 57 SEC. 10-32HB-3,K  
CHAMPAIGN COUNTY  
STATION 297+20.45  
STRUCTURE NO. 010-0272

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	10-32HB-3,K	CHAMPAIGN	352	123
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 14  
27 SHEETS

Contract #90758



PLAN

	0.4 Span 1 0.6 Span 2	Pier	
$I$	(in <sup>4</sup> ) 392638		
$I'$	(in <sup>4</sup> ) 728314		
$S_b$	(in <sup>3</sup> ) 12224		
$S_b'$	(in <sup>3</sup> ) 15961		
$S_t$	(in <sup>3</sup> ) 12715		
$S_t'$	(in <sup>3</sup> ) 41929		
$\bar{D}$	(k/')	1.434	
$M \bar{D}$	(k)	2081	
$s \bar{D}$	(k/')	0.558	0.558
$M_s \bar{D}$	(k)	460	821
$M \bar{L}$	(k)	826	801
$M (Imp)$	(k)	173	168

	Abuts.	Pier Span 1 or 2
$R \bar{D}$	(k) 77.8	77.8
$R_s \bar{D}$	(k) 22.7	37.8
$R \bar{L}$	(k) 39.0	34.2
Imp.	(k) 8.2	7.2
$R (Total)$	(k) 147.7	157.0

$I$  and  $I'$  are the moment of inertia and composite moment of inertia of the beam section.  
 $S_b$  and  $S_b'$  are the non-composite and composite section modulus for the bottom fiber of the prestressed beam.  
 $S_t$  and  $S_t'$  are the non-composite and composite section modulus for the top fiber of the prestressed beam.  
 $M \bar{D}$  is the moment due to dead loads on the non-composite prestressed beam. It is conservatively calculated at 0.5 of the span.  
 $M_s \bar{D}$  is the moment due to dead loads on the composite section.  
 $M \bar{L}$  is the moment due to live load on the composite section.  
 $M (Imp)$  is the moment due to live load impact on the composite section.

DESIGNED	Gholam R. Ahanchi
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	G.R.A. / R.L.T.

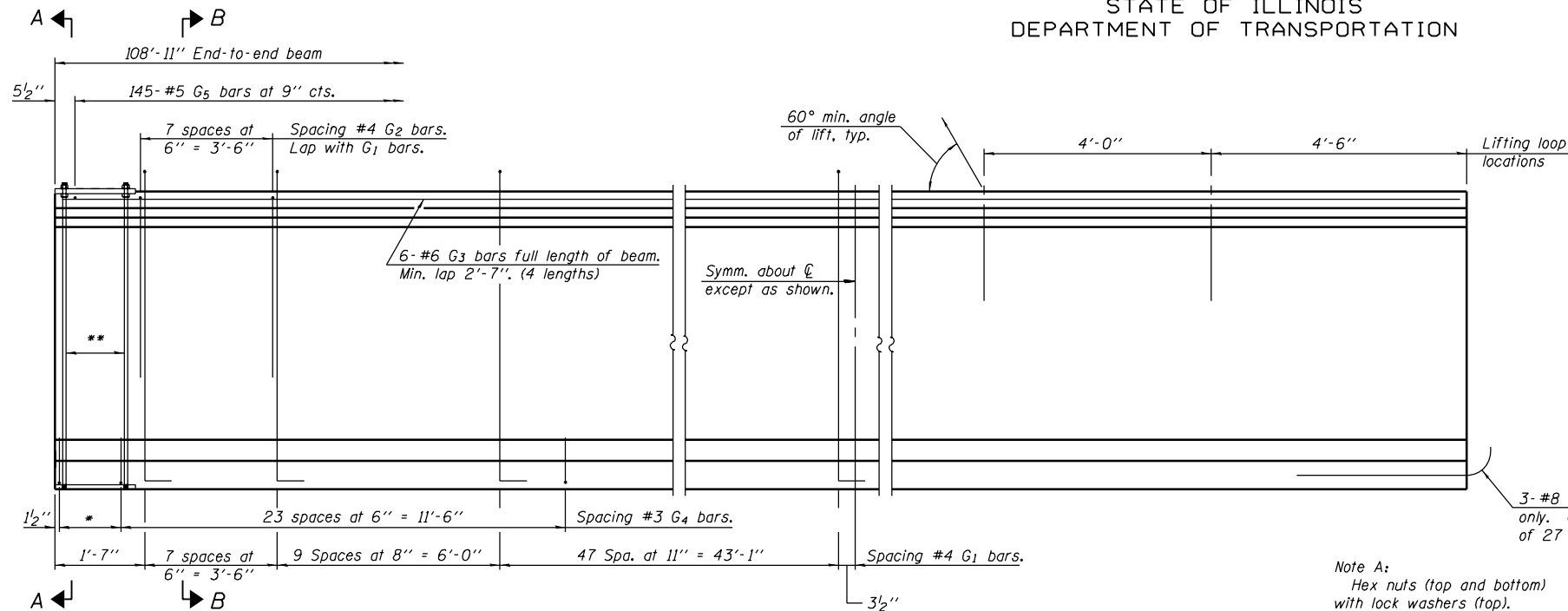
April 28, 2006  
 EXAMINED *Thomas J. Domagala*  
 ENGINEER OF BRIDGE DESIGN  
 PASSED *Ralph E. Anderson*  
 ENGINEER OF BRIDGES AND STRUCTURES

FRAMING PLAN  
 F.A.I. ROUTE 57 SEC. 10-32HB-3,K  
 CHAMPAIGN COUNTY  
 STATION 297+20.45  
 STRUCTURE NO. 010-0272

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 15
F.A.I. 57	10-32HB-3,K	CHAMPAIGN	352	124	27 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #90758



\* 4 spaces at 3 1/4" = 1'-1".  
\*\* 5-3/4"  $\phi$  threaded dowel rods at 3 1/4" cts., each face.

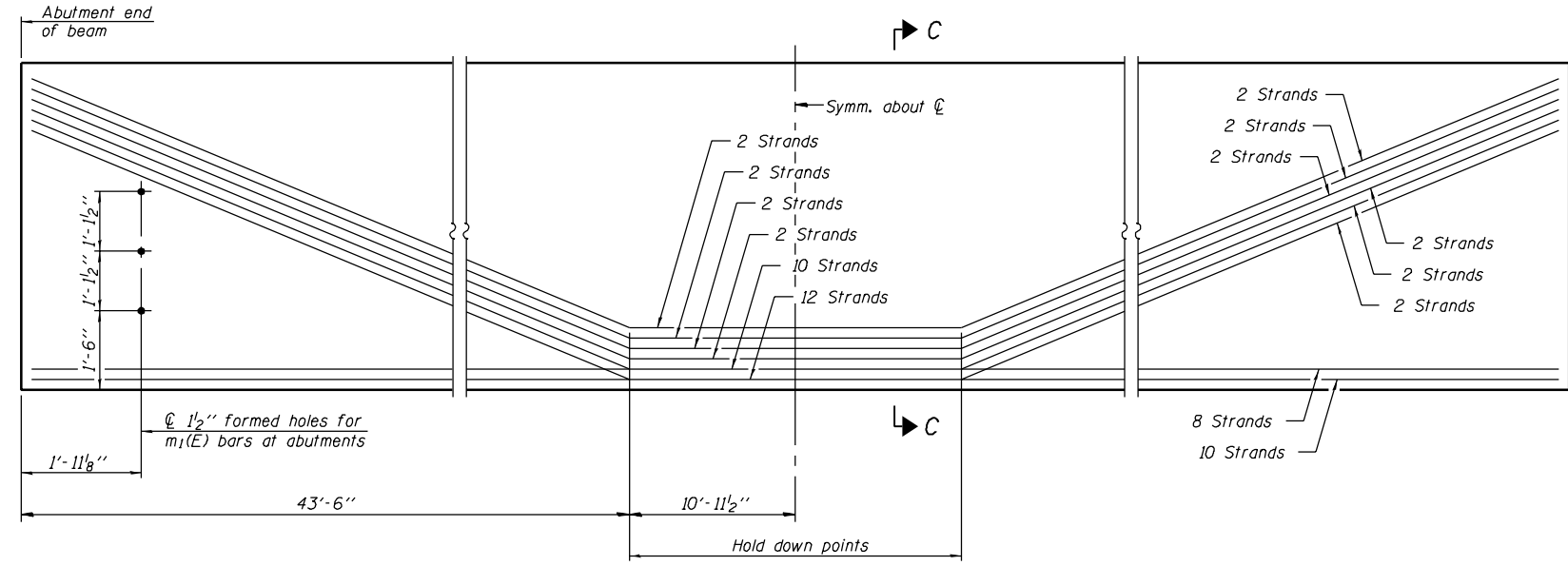
**ELEVATION OF BEAM**  
(Showing reinforcement & dimensions)

Note A:  
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.

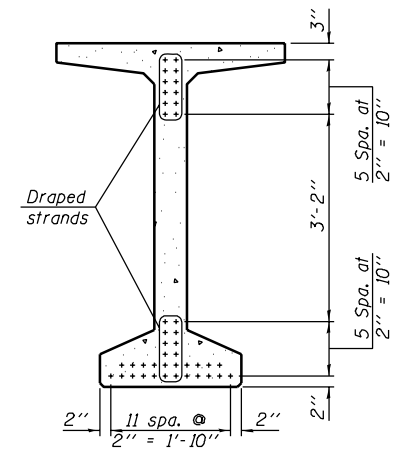
3-#8 G6 bars at pier only. (See sheet 16 of 27 for details).  
P 1" x 1'-5" x 2'-2" (Bevel to match chamfer).  
3/4"  $\phi$  Threaded rods. Thread flush with bottom plate.  
Hex nuts. See Note A.  
P 3/4" x 10" x 1'-5" (Recess P 3/8" into beam)  
G5, G3, G4, G2, G1  
1" cl.  
1'-4" 10" 1'-4"  
2 1/2"  
1" cl.  
3/4"  $\phi$  Formed holes  
3'-6"  
2"  
2"  
3 1/2"  
1'-6"  
1" cl.  
10" 6"  
3'-9"  
5'-3"  
4 1/2"  
2'-2"  
3/4" chamfer full length of beam. Typ.

**SECTION A-A**

**SECTION B-B**



**ELEVATION OF BEAM**  
(Showing prestressing steel)



**SECTION C-C**

**BAR LIST**  
**ONE BEAM ONLY**

Bar	No.	Size	Length	Shape
G1	128	#4	11'-11"	∩ L
G2	16	#4	6'-2"	∩
G3	24	#6	29'-2"	—
G4	56	#3	4'-11"	∩
G5	145	#5	3'-4"	—
G6	3	#8	3'-9"	U

Notes:  
See sheet 16 of 27 for additional details and Bill of Material.  
Required release strength,  $f'ci$ , shall be 5,000 psi.

DESIGNED Gholam R. Ahanchi	April 28, 2006
CHECKED Rebecca L. Tharp	EXAMINED <i>Thomas J. Domagala</i>
DRAWN Michael B. Mossman	PASSED <i>Ralph E. Anderson</i>
CHECKED G.R.A. / R.L.T.	ENGINEER OF BRIDGES AND STRUCTURES

PBT-4-63 7-15-05

63" PPC BULB T-BEAM  
F.A.I. ROUTE 57 SEC. 10-32HB-3,K  
CHAMPAIGN COUNTY  
STATION 297+20.45  
STRUCTURE NO. 010-0272

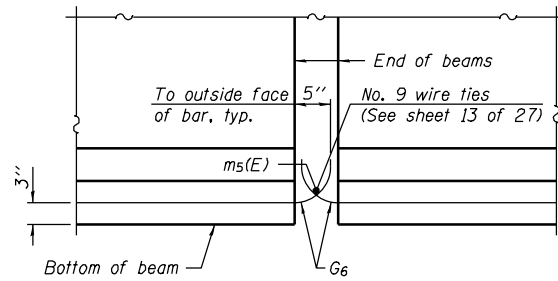


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

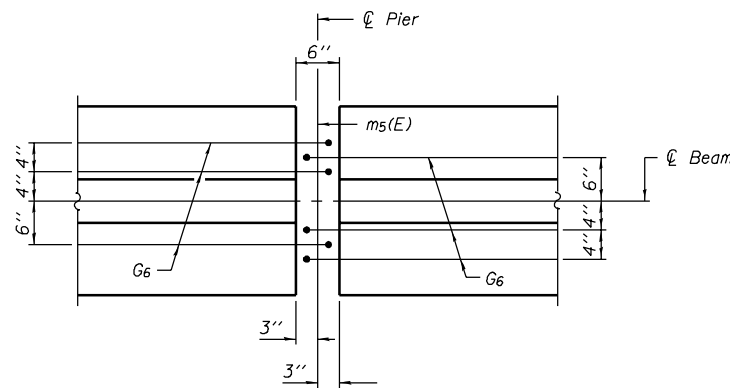
ROUTE NO. F.A.I. 57	SECTION 10-32HB-3,K	COUNTY CHAMPAIGN	TOTAL SHEETS 352	SHEET NO. 125
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT-

SHEET NO. 16  
27 SHEETS

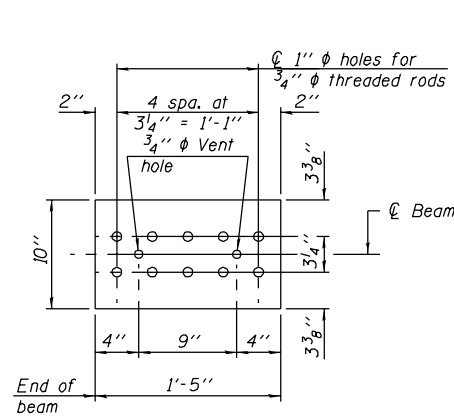
Contract #90758



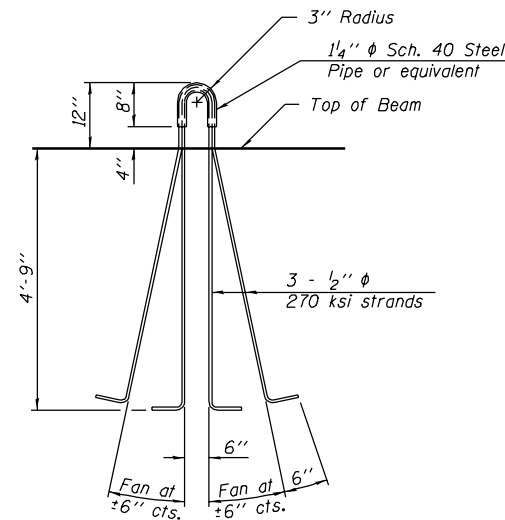
ELEVATION OF BEAM AT PIER



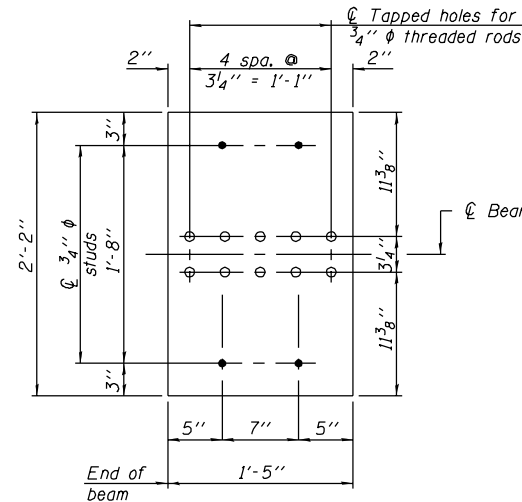
PLAN OF BEAM AT PIER



TOP PLATE



LIFTING LOOP DETAIL

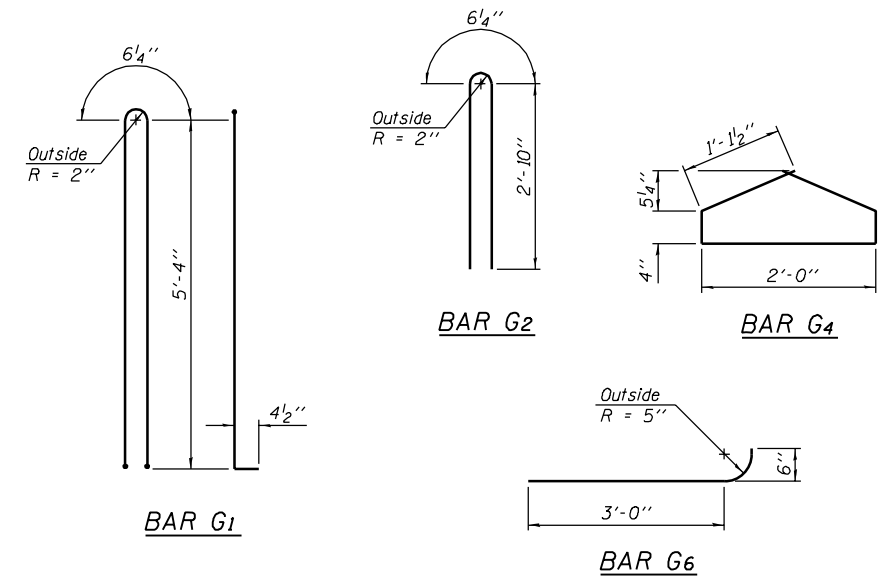


BOTTOM PLATE

See bearing details for pintle hole locations when required.

NOTES

Inserts for  $\frac{3}{4}$ "  $\phi$  threaded dowel rods, when specified, are to be two strut, coil type for interior beams and single coil, flared loop type for exterior beams.  
 Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.  
 The nominal diameter shall be  $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in.  
 Non-prestressing steel shall conform to AASHTO designation M31 or M 322, Grade 60.  
 A minimum  $2\frac{1}{2}$ "  $\phi$  lifting pin shall be used to engage the lifting loops during handling.  
 Reinforcement bars designated (E) shall be epoxy coated.  
 Cut  $G_6$  bars when necessary to maintain  $\frac{1}{2}$ " clearance.  
 The bottom plates and studs shall be galvanized according to AASHTO M111 and ASTM A385.  
 Threaded rods shall be ASTM F 1554 Grade 55.  
 The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A 780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to all portions of the I-beam or Bulb-T beam, except the top surface of the top flange and the bottom surface of the bottom flange, starting at each beam end and extending out a distance of 63 inches. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.



BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Bulb T-Beams, 63"	Ft.	3050

63" PPC BULB T-BEAM DETAILS  
F.A.I. ROUTE 57 SEC. 10-32HB-3,K  
CHAMPAIGN COUNTY  
STATION 297+20.45  
STRUCTURE NO. 010-0272

DESIGNED	Gholam R. Ahanchi
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	G.R.A. / R.L.T.

April 28, 2006  
 EXAMINED *Thomas J. Domagala*  
 ENGINEER OF BRIDGE DESIGN  
 PASSED *Ralph E. Anderson*  
 ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

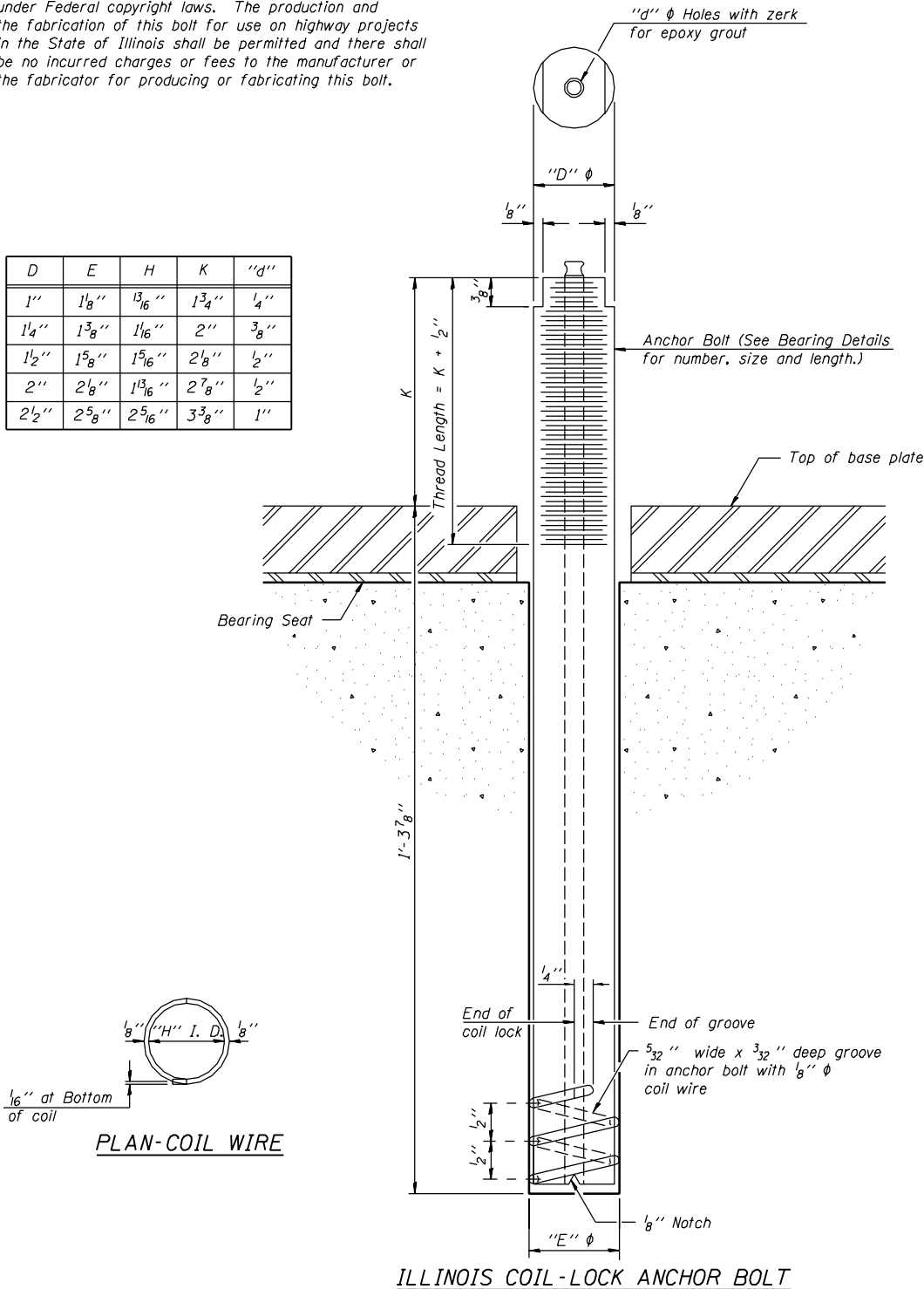
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	10-32HB-3,K	CHAMPAIGN	352	126
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 17  
27 SHEETS

Contract #90758

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
Pier	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 Concrete Structures.

DESIGNED	Gholam R. Ahanchi
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	G.R.A. / R.L.T.

April 28, 2006  
EXAMINED *Thomas J. Domagalak*  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGE DESIGN  
ENGINEER OF BRIDGES AND STRUCTURES

ABB-1 10-22-04

ANCHOR BOLT DETAILS  
F.A.I. ROUTE 57 SEC. 10-32HB-3,K  
CHAMPAIGN COUNTY  
STATION 297+20.45  
STRUCTURE NO. 010-0272

Notes:

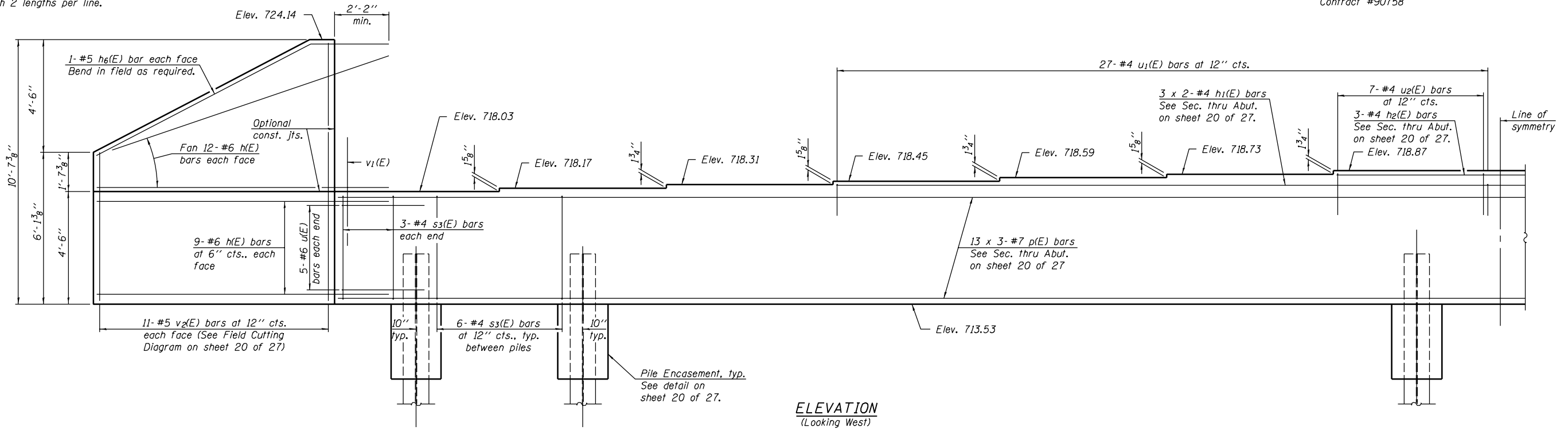
Pour steps monolithically with cap.  
 Reinforcement bars designated (E) shall be epoxy coated.  
 See sheet 20 of 27 for additional abutment details.  
 Bars indicated thus 3 x 2-#4 etc. indicates 3 lines of bars with 2 lengths per line.

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

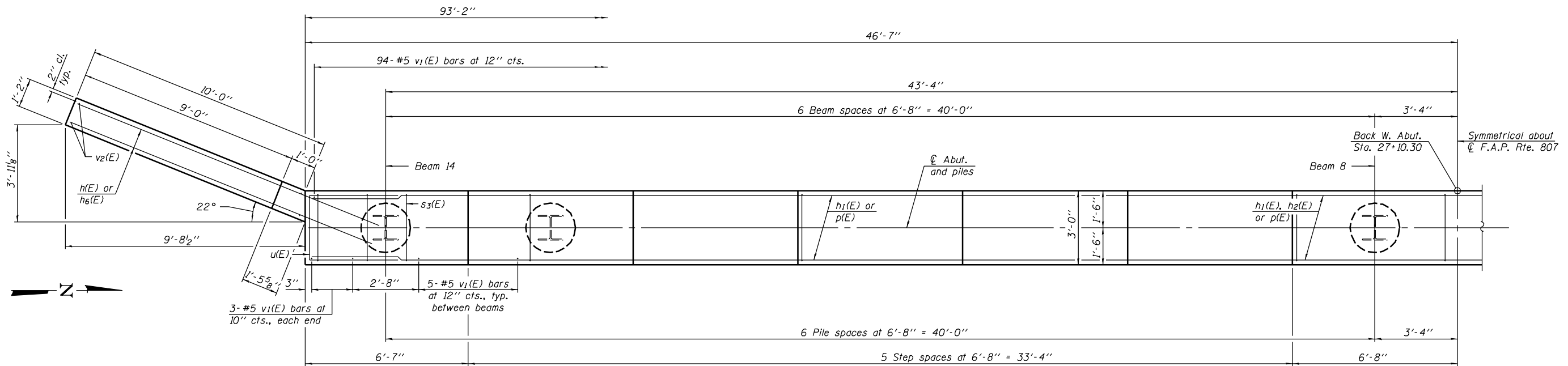
ROUTE NO. F.A.I. 57	SECTION 10-32HB-3.K	COUNTY CHAMPAIGN	TOTAL SHEETS 352	SHEET NO. 127
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT-		

SHEET NO. 18  
 27 SHEETS

Contract #90758



**ELEVATION**  
 (Looking West)



**PLAN**

DESIGNED	Gholam R. Ahanchi
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	G.R.A. / R.L.T.

April 28, 2006  
 EXAMINED *Thomas J. Domagala*  
 ENGINEER OF BRIDGE DESIGN  
 PASSED *Ralph E. Anderson*  
 ENGINEER OF BRIDGES AND STRUCTURES

**MINIMUM BAR LAP**

#4 bar = 1'-8"  
 #7 bar = 3'-5"

**WEST ABUTMENT**  
 F.A.I. ROUTE 57 SEC. 10-32HB-3.K  
 CHAMPAIGN COUNTY  
 STATION 297+20.45  
 STRUCTURE NO. 010-0272

Notes:

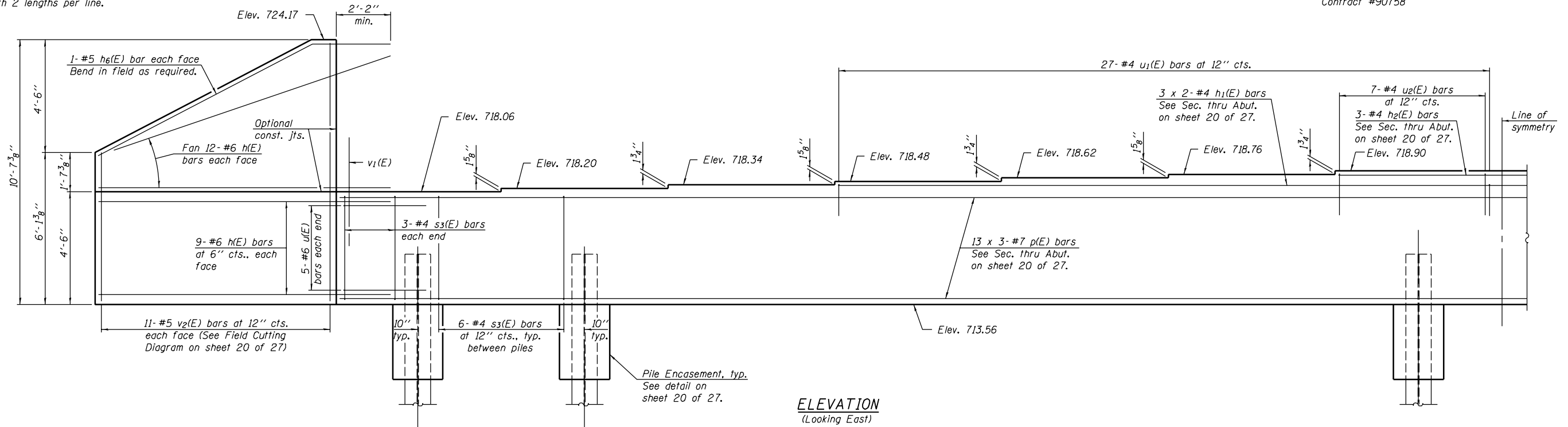
Pour steps monolithically with cap.  
 Reinforcement bars designated (E) shall be epoxy coated.  
 See sheet 20 of 27 for additional abutment details.  
 Bars indicated thus 3 x 2-#4 etc. indicates 3 lines of bars with 2 lengths per line.

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

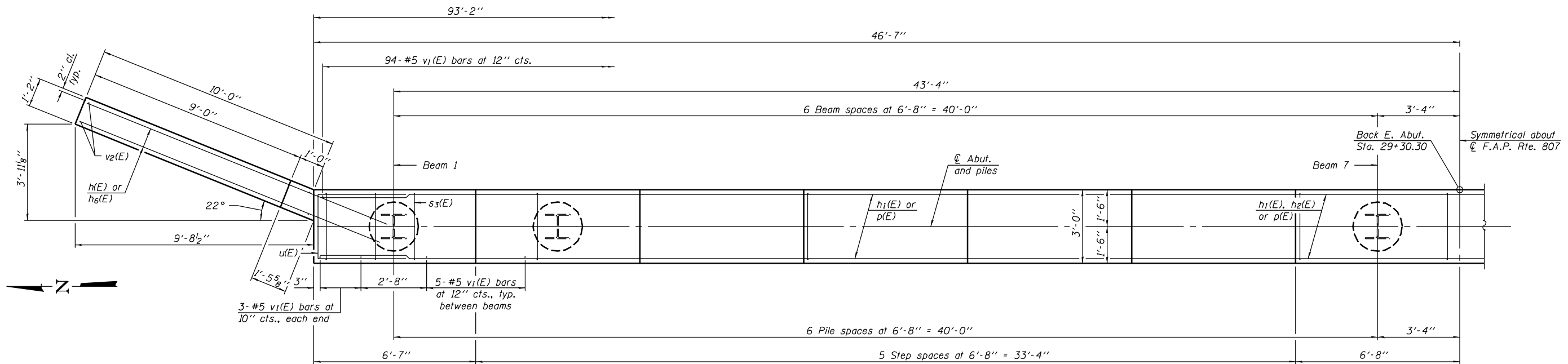
ROUTE NO. F.A.I. 57	SECTION 10-32HB-3.K	COUNTY CHAMPAIGN	TOTAL SHEETS 352	SHEET NO. 128
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 19  
 27 SHEETS

Contract #90758



ELEVATION  
 (Looking East)



PLAN

DESIGNED	Gholam R. Ahanchi
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	G.R.A. / R.L.T.

April 28, 2006  
 EXAMINED *Thomas J. Domagala*  
 ENGINEER OF BRIDGE DESIGN  
 PASSED *Ralph E. Anderson*  
 ENGINEER OF BRIDGES AND STRUCTURES

MINIMUM BAR LAP  
 #4 bar = 1'-8"  
 #7 bar = 3'-5"

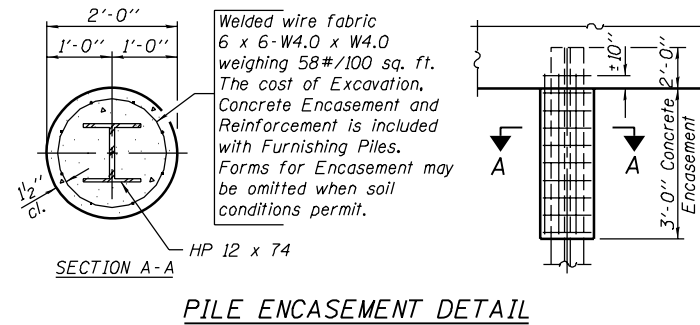
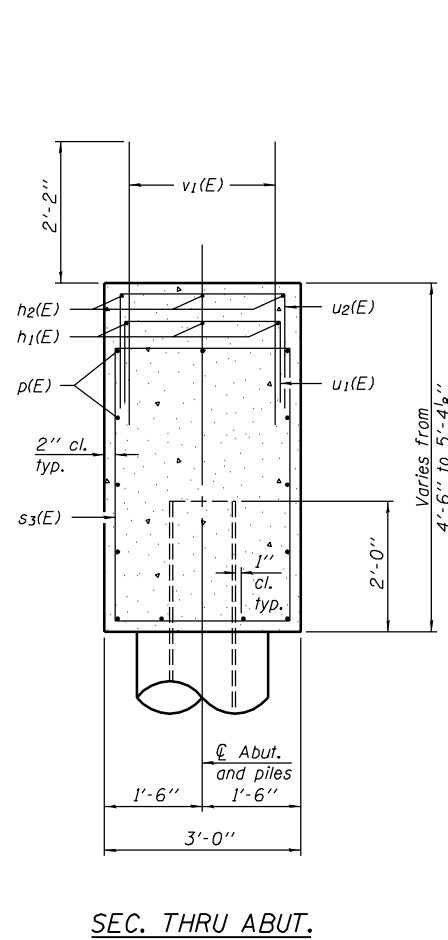
EAST ABUTMENT  
 F.A.I. ROUTE 57 SEC. 10-32HB-3.K  
 CHAMPAIGN COUNTY  
 STATION 297+20.45  
 STRUCTURE NO. 010-0272

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	10-32HB-3,K	CHAMPAIGN	352	129
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 20  
27 SHEETS

Contract #90758



WEST ABUTMENT  
PILE DATA

Type: HP 12 x 74  
Design Capacity: 95 Tons driven to 143 Tons Brg.  
Est. Length: 98 ft.  
No. Required: 13 + 1 Test pile

EAST ABUTMENT  
PILE DATA

Type: HP 12 x 74  
Design Capacity: 95 Tons driven to 143 Tons Brg.  
Est. Length: 102 ft.  
No. Required: 14

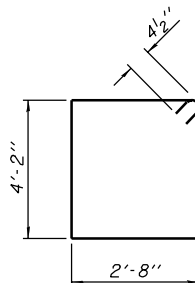
Note:  
Piles shall be driven through 18 inch diameter pre-cored holes extending to Elev. 696.5 at the West Abutment and to Elev. 698.0 at the East Abutment. After piles are driven, the void space outside of the pile shall be filled with dry loose sand. Cost of pre-coring and sand backfill is included in the cost of Furnishing Steel Piles HP 12x74.

WEST ABUTMENT  
BILL OF MATERIAL

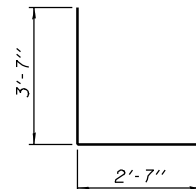
Bar	No.	Size	Length	Shape
h(E)	84	#6	13'-2"	—
h1(E)	6	#4	27'-5"	—
h2(E)	3	#4	13'-0"	—
h6(E)	4	#5	13'-5"	—
p(E)	39	#7	33'-3"	—
s3(E)	84	#4	14'-5"	□
u(E)	10	#6	9'-9"	□
u1(E)	54	#4	5'-2"	□
u2(E)	14	#4	6'-0"	□
v1(E)	165	#5	4'-4"	—
v2(E)	22	#5	16'-1"	—
Concrete Structures		Cu. Yd.	58.6	
Reinforcement Bars, Epoxy Coated		Pound	6820	
Structure Excavation		Cu. Yd.	233	
Furnishing Steel Piles HP 12x74		Foot	1274	
Driving Steel Piles HP 12x74		Foot	1274	
Test Pile Steel HP 12x74		Each	1	

EAST ABUTMENT  
BILL OF MATERIAL

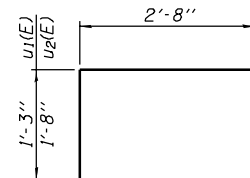
Bar	No.	Size	Length	Shape
h(E)	84	#6	13'-2"	—
h1(E)	6	#4	27'-5"	—
h2(E)	3	#4	13'-0"	—
h6(E)	4	#5	13'-5"	—
p(E)	39	#7	33'-3"	—
s3(E)	84	#4	14'-5"	□
u(E)	10	#6	9'-9"	□
u1(E)	54	#4	5'-2"	□
u2(E)	14	#4	6'-0"	□
v1(E)	165	#5	4'-4"	—
v2(E)	22	#5	16'-1"	—
Concrete Structures		Cu. Yd.	58.6	
Reinforcement Bars, Epoxy Coated		Pound	6820	
Structure Excavation		Cu. Yd.	233	
Furnishing Steel Piles HP 12x74		Foot	1428	
Driving Steel Piles HP 12x74		Foot	1428	



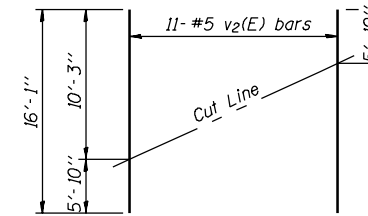
BAR s3(E)



BAR u(E)



BAR u1(E) or u2(E)



FIELD CUTTING DIAGRAM

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

ABUTMENT DETAILS

F.A.I. ROUTE 57 SEC. 10-32HB-3,K  
CHAMPAIGN COUNTY  
STATION 297+20.45  
STRUCTURE NO. 010-0272

DESIGNED	Gholam R. Ahanchi
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	G.R.A. / R.L.T.

April 28, 2006  
EXAMINED *Thomas J. Domagala*  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGE DESIGN  
ENGINEER OF BRIDGES AND STRUCTURES

Notes:  
 Space Reinforcement in cap to miss anchor bolts.  
 Pour steps monolithically with cap.  
 See sheet 22 of 27 for Sections A-A and B-B.  
 Bars indicated thus 6 x 2-#8 etc. indicates 6 lines of bars with 2 lengths per line.  
 See sheet 17 of 27 for anchor bolt details.

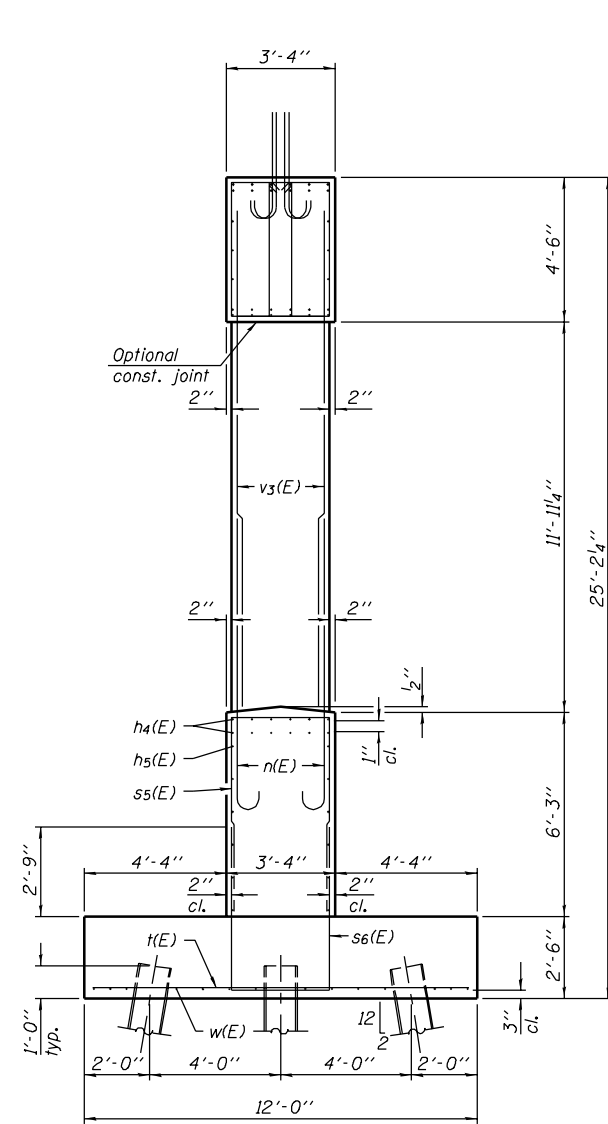
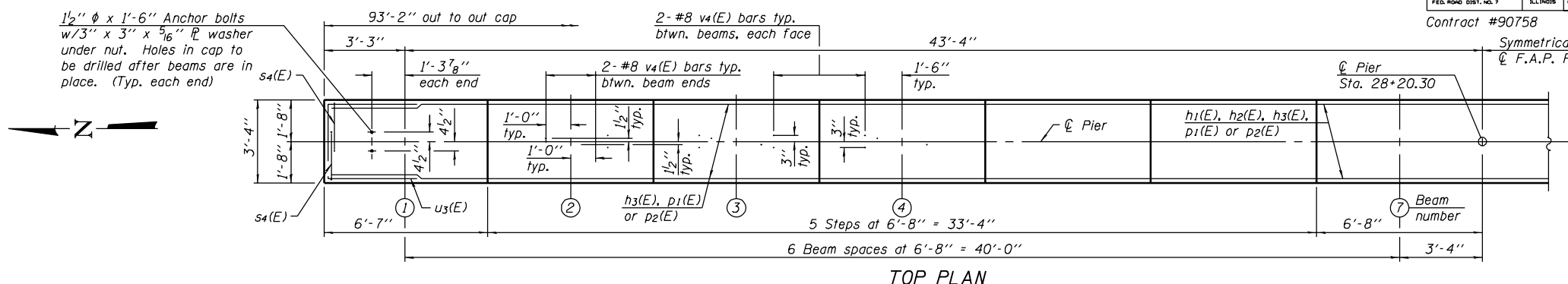
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 57	SECTION 10-32HB-3,K	COUNTY CHAMPAIGN	TOTAL SHEETS 352	SHEET NO. 130
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 21  
 27 SHEETS

Contract #90758

Symmetrical about  
 C F.A.P. Rte. 807



END VIEW

DESIGNED	Gholam R. Ahanchi
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	G.R.A. / R.L.T.

April 28, 2006  
 EXAMINED *Thomas J. Domagala*  
 ENGINEER OF BRIDGE DESIGN  
 PASSED *Ralph E. Anderson*  
 ENGINEER OF BRIDGES AND STRUCTURES

ELEVATION  
 (Looking East)

MINIMUM BAR LAP

- #4 bar = 1'-8"
- #5 bar = 2'-2"
- #6 bar = 2'-7"
- #7 bar = 3'-5"
- #8 bar = 4'-6"
- #10 bar = 7'-3"

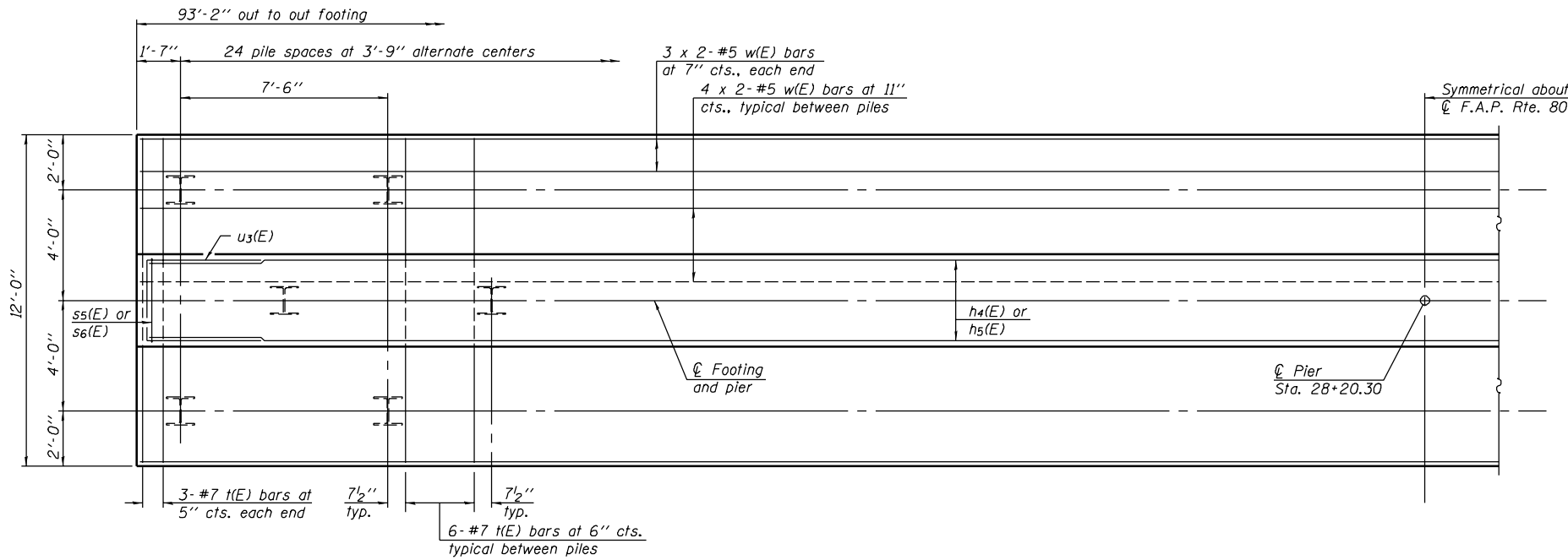
PIER  
 F.A.I. ROUTE 57 SEC. 10-32HB-3,K  
 CHAMPAIGN COUNTY  
 STATION 297+20.45  
 STRUCTURE NO. 010-0272

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 57	SECTION 10-32HB-3,K	COUNTY CHAMPAIGN	SHEET NO. 352	SHEET NO. 131
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 22  
27 SHEETS

Contract #90758



FOOTING PLAN

MINIMUM BAR LAP  
#5 bar = 2'-2"

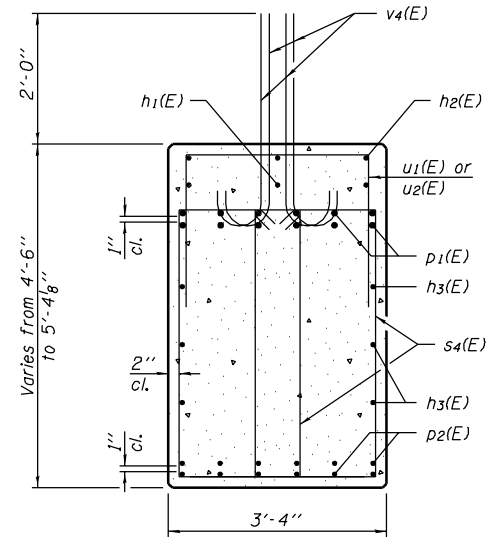
PILE DATA

Type: HP 12x74  
Design Capacity: 75 Tons driven to 113 Tons Brg.  
Est. Length: 64 ft.  
No. Req'd: 37 + 1 Test pile

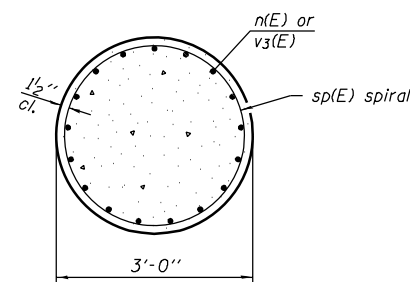
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	6	#4	27'-5"	—
h2(E)	3	#4	13'-0"	—
h3(E)	12	#6	47'-9"	—
h4(E)	24	#7	48'-2"	—
h5(E)	24	#5	47'-6"	—
n(E)	102	#9	9'-6"	U
p1(E)	24	#10	50'-0"	—
p2(E)	24	#8	48'-8"	—
s4(E)	320	#5	12'-11"	□
s5(E)	94	#6	14'-10"	U
s6(E)	94	#6	13'-0"	U
sp(E)	6	#4	12'-4"	ΛΛΛ
t(E)	150	#7	11'-8"	—
u1(E)	54	#4	5'-2"	□
u2(E)	14	#4	6'-0"	□
u3(E)	24	#6	10'-1"	□
v3(E)	102	#9	15'-2"	—
v4(E)	78	#8	4'-2"	U
w(E)	28	#5	47'-6"	—
Concrete Structures		Cu. Yd.	250.4	
* Reinforcement Bars, Epoxy Coated		Pound	38140	
Structure Excavation		Cu. Yd.	230	
Furnishing Steel Piles HP 12x74		Foot	2368	
Driving Steel Piles		Foot	2368	
Test Pile Steel HP 12x74		Each	1	

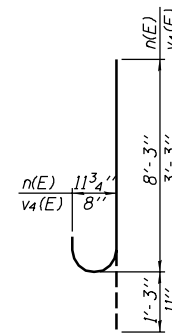
\*\*



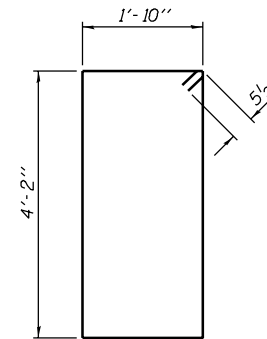
SECTION A-A



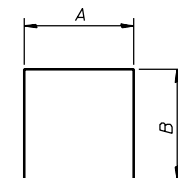
SECTION B-B



BAR n(E)  
or v4(E)



BAR s4(E)



BARS s5(E), s6(E), u1(E),  
u2(E) and u3(E)

A & B DIMENSIONS

Bar	A	B
s5(E)	3'-0"	5'-11"
s6(E)	3'-0"	5'-0"
u1(E)	2'-8"	1'-3"
u2(E)	2'-8"	1'-8"
u3(E)	2'-11"	3'-7"

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.  
Minimum lap for sp(E) = 48 bar diameters.

\* Weight includes spacers for spirals.  
\*\* Length is height of spiral.

PIER DETAILS

F.A.I. ROUTE 57 SEC. 10-32HB-3,K  
CHAMPAIGN COUNTY  
STATION 297+20.45  
STRUCTURE NO. 010-0272

DESIGNED	Gholam R. Ahanchi
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	G.R.A. / R.L.T.

EXAMINED	Thomas J. Domagala	April 28, 2006
PASSED	Ralph E. Anderson	

Contract #90758

**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:

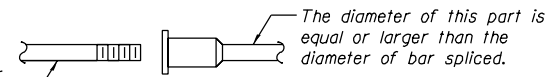
- ① Minimum Capacity =  $1.25 \times f_y \times A_l$   
(Tension in kips)
- ② Minimum \*Pull-out Strength =  $1.25 \times f_{s,allow} \times A_l$   
(Tension in kips)

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 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.

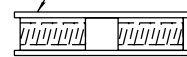


ROLLED THREAD DOWEL BAR



\*\* ONE PIECE

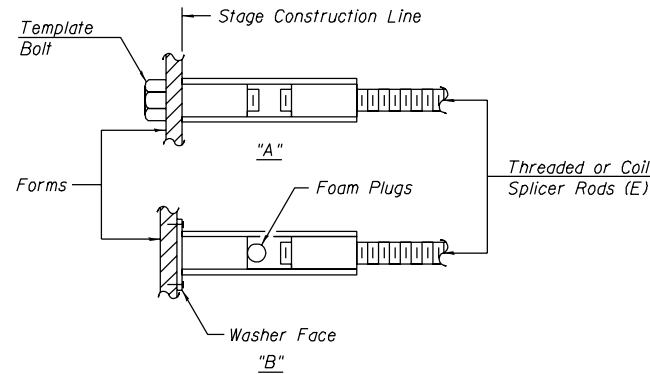
Wire Connector



WELDED SECTIONS

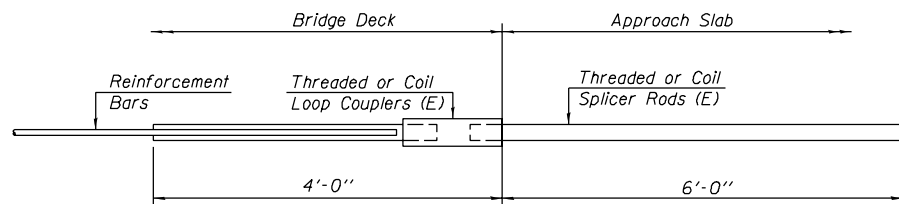
**BAR SPLICER ASSEMBLY ALTERNATIVES**

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



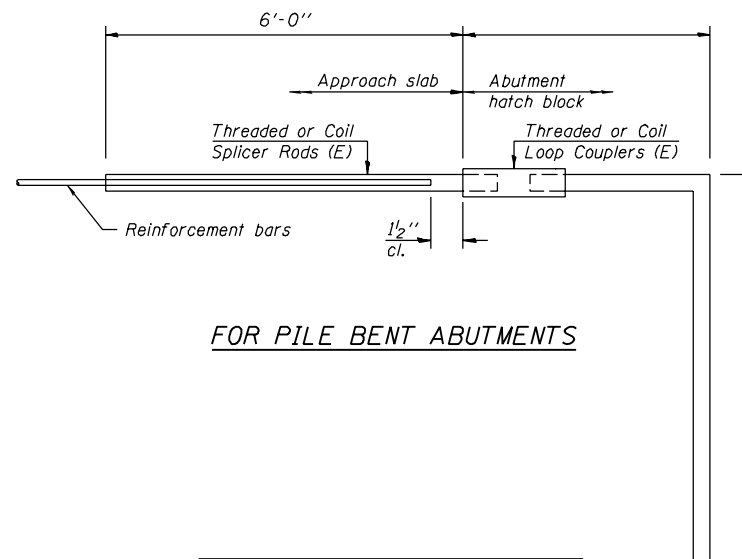
**INSTALLATION AND SETTING METHODS**

"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.



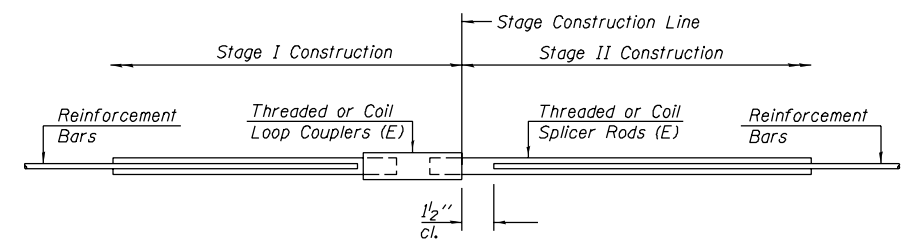
**FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = 180



**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 Size	No. Assemblies Required	Location

**BAR SPLICER ASSEMBLY DETAILS**  
F.A.I. ROUTE 57 SEC. 10-32HB-3,K  
CHAMPAIGN COUNTY  
STATION 297+20.45  
STRUCTURE NO. 010-0272

DESIGNED Gholam R. Ahanchi  
CHECKED Rebecca L. Tharp  
DRAWN Michael B. Mossman  
CHECKED G.R.A. / R.L.T.

April 28, 2006  
EXAMINED Thomas J. Domagala  
PASSED Ralph E. Anderson  
ENGINEER OF BRIDGE DESIGN  
ENGINEER OF BRIDGES AND STRUCTURES

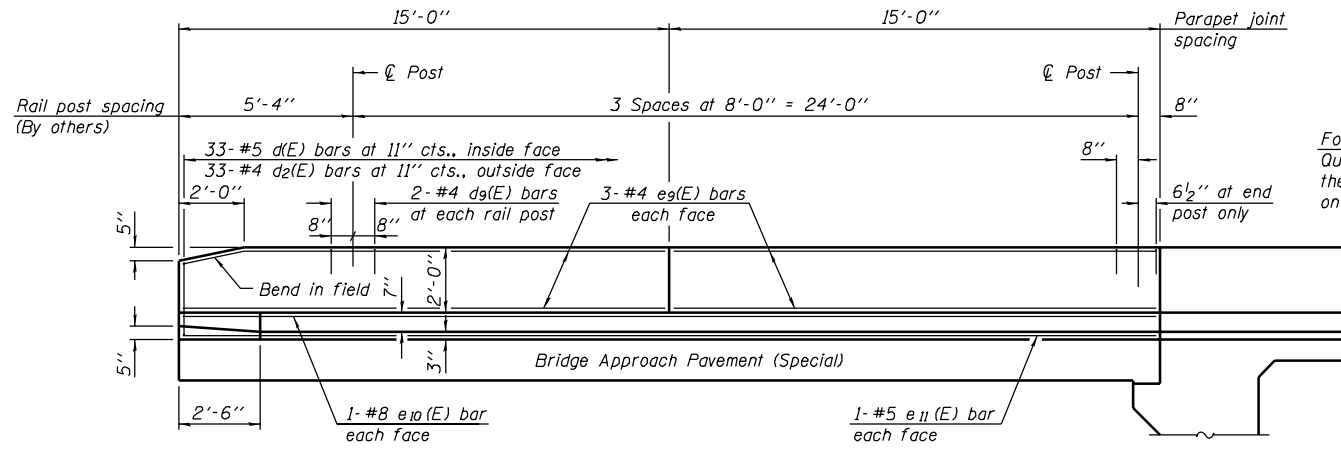


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

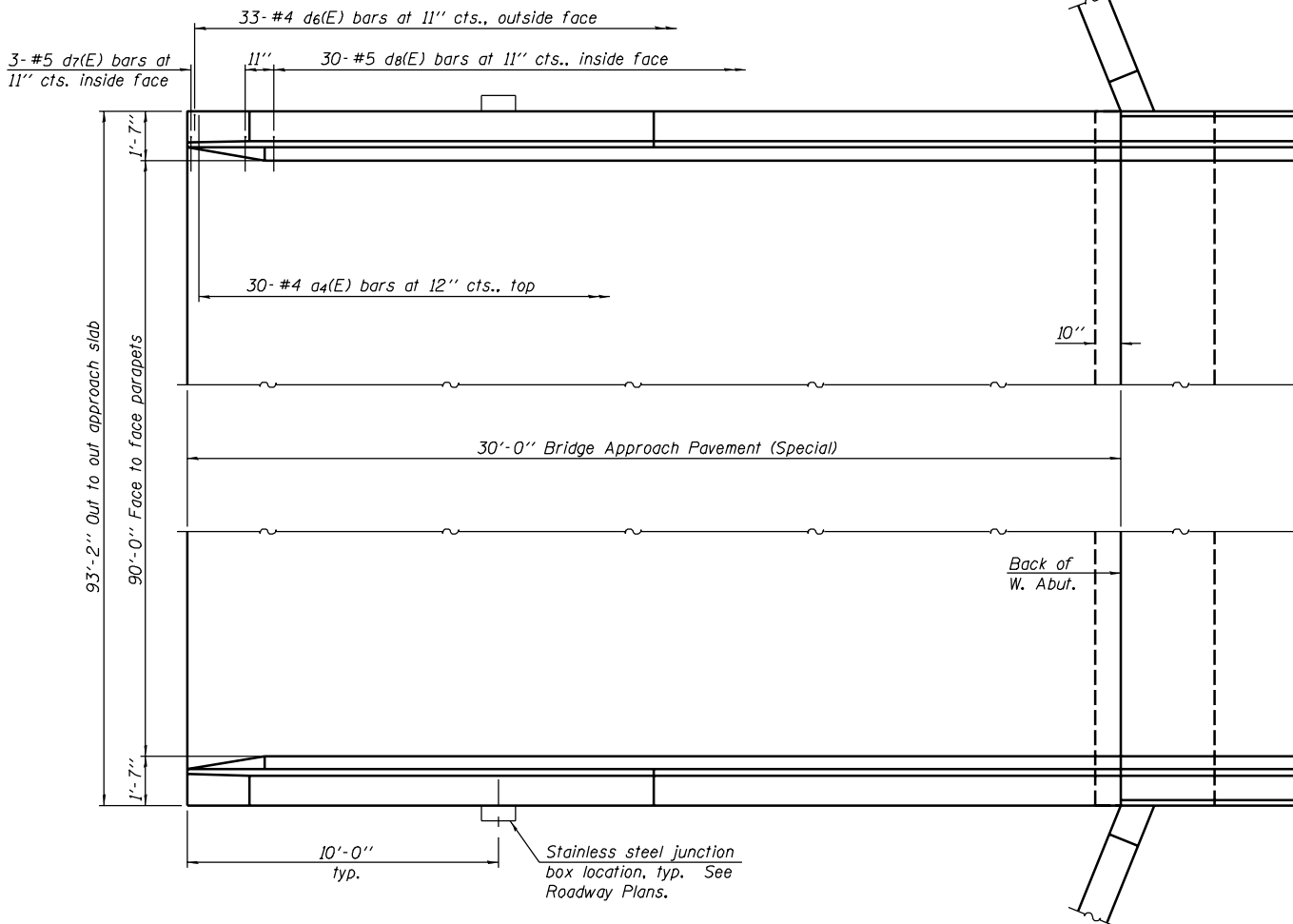
ROUTE NO. F.A.I. 57	SECTION 10-32HB -3.K	COUNTY CHAMPAIGN	TOTAL SHEETS 352	SHEET NO. 133
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 24  
27 SHEETS

Contract #90758



**INSIDE ELEVATION OF PARAPET**  
North parapet shown

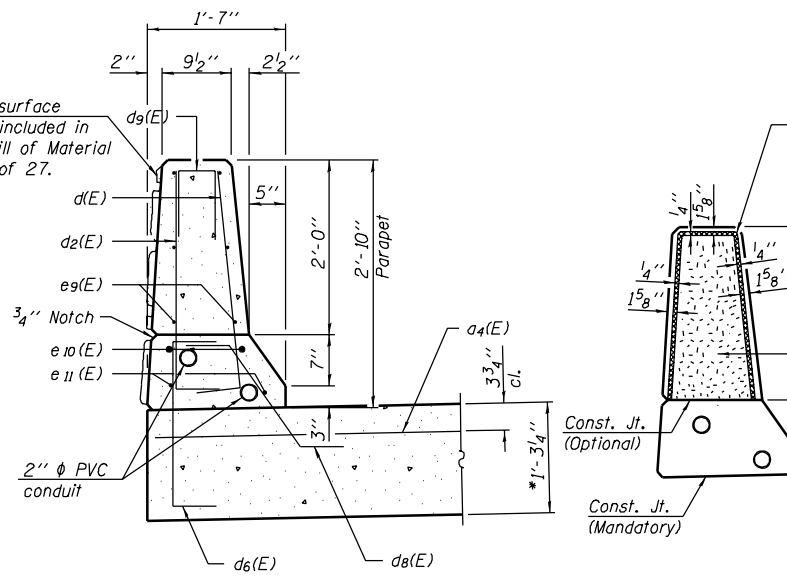


**PLAN - WEST APPROACH**  
East approach similar

DESIGNED	Gholam R. Ahanchi
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	G.R.A. / R.L.T.

April 28, 2006  
EXAMINED *Thomas J. Domagalak*  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGE DESIGN  
ENGINEER OF BRIDGES AND STRUCTURES

Form liner surface  
Quantity is included in  
the Total Bill of Material  
on sheet 1 of 27.



**SECTION THRU  
APPROACH PARAPET**  
\* Prior to grinding.

Non-staining gray one component  
non-sag elastomeric gun grade  
polyurethane sealant meeting the  
requirements of ASTM C-920,  
Type S, Grade NS, Class 25,  
Use T.

1/2" Preformed Self-  
Expanding Cork Joint Filler  
according to Article 1051.07  
of the Std. Spec. Cost  
included with Concrete  
Superstructure.

**PARAPET JOINT DETAILS**

**TWO APPROACH  
PAVEMENT PARAPETS  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a4(E)	120	#4	6'-0"	—
d(E)	132	#5	3'-0"	—
d2(E)	132	#4	3'-0"	—
d6(E)	132	#4	3'-3"	L
d7(E)	12	#5	2'-8"	L
d8(E)	120	#5	3'-1"	\
d9(E)	32	#4	1'-11 1/2"	Π
e9(E)	48	#4	14'-9"	—
e10(E)	8	#8	29'-9"	—
e11(E)	8	#5	29'-9"	—
** Concrete Superstructure		Cu. Yds.	13.2	
Reinforcement Bars, Epoxy Coated		Lbs.	3260	

\*\* Concrete Superstructure on this sheet includes parapet only.

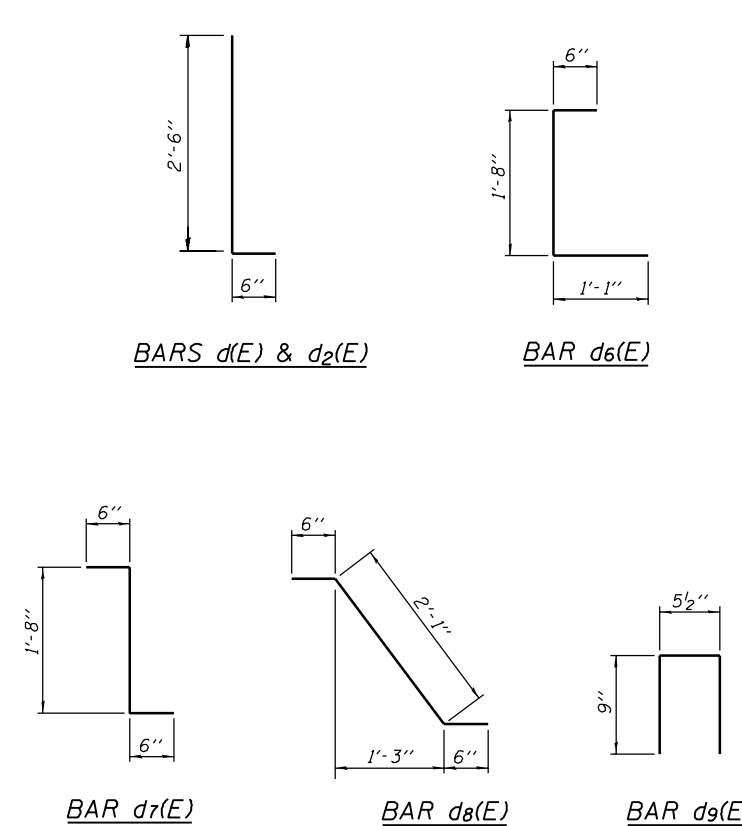
Notes:  
Cost of Concrete Superstructure and reinforcement bars on this sheet is included with Bridge Approach Pavement (Special). Quantities are shown for information only.

For quantity of Bridge Approach Pavement (Special), see roadway plans.

Reinforcement bars designated (E) shall be epoxy coated.

For additional approach pavement details, see roadway plans.

See sheet 10 of 27 for form liner texture details.



**BRIDGE APPROACH PAVEMENT  
(SPECIAL) PARAPET DETAILS**  
F.A.I. ROUTE 57 SEC. 10-32HB-3.K  
CHAMPAIGN COUNTY  
STATION 297+20.45  
STRUCTURE NO. 010-0272

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 25 27 SHEETS
F.A.I. 57	10-32HB-3.K	CHAMPAIGN	352	134	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #90758

Illinois Department of Transportation  
Division of Highways  
District 5 Materials

**SOIL BORING LOG** Page 1 of 2 Date 6/8/02

ROUTE F.A.I. 57 DESCRIPTION L-57 Curtis Road Interchange LOGGED BY CNA

SECTION 10-32HB-3.K LOCATION SW, SEC. 33, TWP. 19N, RNG. 8E, 3rd PM

COUNTY Champaign DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 010-0272 (Prop.)  
Station \_\_\_\_\_

BORING NO. B11A W. Abut.  
Station 297+70  
Offset 130.0 ft Lt.  
Ground Surface Elev. 686.5 ft

DEPTH (ft)	DIAMETER (in)	SOIL TYPE	WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	UNIT WEIGHT (pcf)	WATER ELEV. (ft)	STRENGTH (psi)	REMARKS
0		Black Silty Clay (Top Soil)							
1		Gray Brown Mottled Silty Clay Loam	1	1.3	27				
2			2	1.3	21				
3		Gray Brown Mixed Medium Sand	1	1.3	21				
4		Gray Clay Loam Till	1						
5		Brown Medium Sand	5	1.4	12				
6		Gray Clay Loam Till	1						
7			5	5.0	11				
8			8						
9			1						
10			6	5.2	11				
11			8						
12			3						
13			7	5.2	10				
14			11						
15			1						
16			5	4.7	10				
17			8						
18			12						

7/5/2008 8:06:28 AM S:\SOILS BORING LOGS\CHAMPAIGN CNTY\CURTIS RD MAY 2006.GPJ

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, form 137 (Rev. 8-99)

Illinois Department of Transportation  
Division of Highways  
District 5 Materials

**SOIL BORING LOG** Page 2 of 2 Date 6/8/02

ROUTE F.A.I. 57 DESCRIPTION L-57 Curtis Road Interchange LOGGED BY CNA

SECTION 10-32HB-3.K LOCATION SW, SEC. 33, TWP. 19N, RNG. 8E, 3rd PM

COUNTY Champaign DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 010-0272 (Prop.)  
Station \_\_\_\_\_

BORING NO. B11A W. Abut.  
Station 297+70  
Offset 130.0 ft Lt.  
Ground Surface Elev. 686.5 ft

DEPTH (ft)	DIAMETER (in)	SOIL TYPE	WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	UNIT WEIGHT (pcf)	WATER ELEV. (ft)	STRENGTH (psi)	REMARKS
19		Gray Clay Loam Till (continued)							
20			2						
21			5	6.1	12				
22			4						
23			4						
24			8	4.3	11				
25			10						
26			4						
27			8						
28			4						
29			7	4.3	14				
30			12						
31			4						
32			7	4.3	14				
33			12						
34			4						
35			7	4.3	14				
36			12						
37			4						
38			7	4.3	14				
39			12						
40			4						
41			7	4.3	14				
42			12						

7/5/2008 8:06:28 AM S:\SOILS BORING LOGS\CHAMPAIGN CNTY\CURTIS RD MAY 2006.GPJ

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, form 137 (Rev. 8-99)

SOIL BORING LOGS  
F.A.I. ROUTE 57 SEC. 10-32HB-3.K  
CHAMPAIGN COUNTY  
STATION 297+20.45  
STRUCTURE NO. 010-0272

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	10-32HB-3.K	CHAMPAIGN	352	135
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 26  
27 SHEETS

Contract #90758

<p><b>Illinois Department of Transportation</b> Division of Highways District 5 Materials</p>	<b>SOIL BORING LOG</b>		Page <u>1</u> of <u>3</u>
	ROUTE <u>FAI Rt. 57</u> DESCRIPTION <u>I-57 Curtis Road Interchange</u> LOGGED BY <u>CNA</u>		Date <u>6/30/02</u>
SECTION <u>10-32HB-3.K</u> LOCATION <u>SW, SEC. 33, TWP. 19N, RNG. 8E, 3rd PM</u>			
COUNTY <u>Champaign</u> DRILLING METHOD <u>Hollow Stem Auger</u> HAMMER TYPE <u>Automatic</u>			
STRUCT. NO. <u>010-0272 (Prop.)</u> Station _____	D E L U M F O S O I T W S O I H S Qu T	Surface Water Elev. _____ ft Stream Bed Elev. _____ ft	D E L U M F O S O I T W S O I H S Qu T
BORING NO. <u>B12 Mid_Pier</u> Station <u>297+70</u> Offset <u>0.0</u> ft Lt. Ground Surface Elev. <u>697.0</u> ft	(R) (6") (tsf) (%)	Groundwater Elev.: _____ ft First Encounter _____ ft Upon Completion _____ ft After _____ Hrs. _____ ft	(ft) (6") (tsf) (%)
Black Silty Clay (Topsoil-Soft)		Gray Clay Loam Till (continued)	
684.0 Brown Dirty Coarse Sand	1 1 0.6 29 1 B	1 3 3.3 13 5 B	
690.0 Brown Mottled Clay Loam (Weathered Till)		Sand Seam	
688.0 Gray Gravelly Clay Loam Till	2 5 1.0 13 6 E	5 8 3.3 10 10 B	
684.0 Gray Clay Loam Till	10 8 4.1 12 10 E	9 16 5.7 12 14 B	
1 7 3.7 11 9 B			
1 6 5.0 11 5 B		6 11 5.3 12 15 B	
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, form 137 (Rev. 8-99)			

<p><b>Illinois Department of Transportation</b> Division of Highways District 5 Materials</p>	<b>SOIL BORING LOG</b>		Page <u>2</u> of <u>3</u>
	ROUTE <u>FAI Rt. 57</u> DESCRIPTION <u>I-57 Curtis Road Interchange</u> LOGGED BY <u>CNA</u>		Date <u>6/30/02</u>
SECTION <u>10-32HB-3.K</u> LOCATION <u>SW, SEC. 33, TWP. 19N, RNG. 8E, 3rd PM</u>			
COUNTY <u>Champaign</u> DRILLING METHOD <u>Hollow Stem Auger</u> HAMMER TYPE <u>Automatic</u>			
STRUCT. NO. <u>010-0272 (Prop.)</u> Station _____	D E L U M F O S O I T W S O I H S Qu T	Surface Water Elev. _____ ft Stream Bed Elev. _____ ft	D E L U M F O S O I T W S O I H S Qu T
BORING NO. <u>B12 Mid_Pier</u> Station <u>297+70</u> Offset <u>0.0</u> ft Lt. Ground Surface Elev. <u>697.0</u> ft	(R) (6") (tsf) (%)	Groundwater Elev.: _____ ft First Encounter _____ ft Upon Completion _____ ft After _____ Hrs. _____ ft	(ft) (6") (tsf) (%)
Gray Clay Loam Till (continued)		Gray Clay Loam Till (continued)	
635.0 Gray Sand Loam Till	0 7 4.7 12 11 B	22 31 48	6
630.0 Gray Sand Loam Till	2 8 5.4 10 12 B	13 19 5.2 7 25 S	7
625.0 Gray Sand Loam Till	8 12 6.0 10 15 S	10 14 4.4 8 17 S	8
620.0 Gray Sand Loam Till	8 7 5.0 11 10 B	14 17 7.0 7 16 S	7
(Boring Extended Below 50' on May 6, 2003)			
(Trace of Free Water)			
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, form 137 (Rev. 8-99)			

<p><b>Illinois Department of Transportation</b> Division of Highways District 5 Materials</p>	<b>SOIL BORING LOG</b>		Page <u>3</u> of <u>3</u>
	ROUTE <u>FAI Rt. 57</u> DESCRIPTION <u>I-57 Curtis Road Interchange</u> LOGGED BY <u>CNA</u>		Date <u>6/30/02</u>
SECTION <u>10-32HB-3.K</u> LOCATION <u>SW, SEC. 33, TWP. 19N, RNG. 8E, 3rd PM</u>			
COUNTY <u>Champaign</u> DRILLING METHOD <u>Hollow Stem Auger</u> HAMMER TYPE <u>Automatic</u>			
STRUCT. NO. <u>010-0272 (Prop.)</u> Station _____	D E L U M F O S O I T W S O I H S Qu T	Surface Water Elev. _____ ft Stream Bed Elev. _____ ft	D E L U M F O S O I T W S O I H S Qu T
BORING NO. <u>B12 Mid_Pier</u> Station <u>297+70</u> Offset <u>0.0</u> ft Lt. Ground Surface Elev. <u>697.0</u> ft	(R) (6") (tsf) (%)	Groundwater Elev.: _____ ft First Encounter _____ ft Upon Completion _____ ft After _____ Hrs. _____ ft	(ft) (6") (tsf) (%)
Gray Sand Loam Till (continued)		Gray Sand Loam Till (continued)	
612.0 Gray Sand Loam Till	10 16 3.6 7 25 S	7 16 25	7
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, form 137 (Rev. 8-99)			

SOIL BORING LOGS  
F.A.I. ROUTE 57 SEC. 10-32HB-3.K  
CHAMPAIGN COUNTY  
STATION 297+20.45  
STRUCTURE NO. 010-0272

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	10-32HB-3.K	CHAMPAIGN	352	136
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 27  
27 SHEETS

Contract #90758

**Illinois Department of Transportation**  
Division of Highways  
District 5 Materials

**SOIL BORING LOG** Page 1 of 3  
Date 6/9/02

ROUTE FAIR, 57 DESCRIPTION I-57 Curtis Road Interchange LOGGED BY CNA  
SECTION 10-32HB-3.K LOCATION SE, SEC. 33, TWP. 19N, RNG. 08E, 3rd. PM  
COUNTY Champaign DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 010-0272 (Prop.)  
Station \_\_\_\_\_  
BORING NO. B13 E. Abut.  
Station 297+70  
Offset 85.0 ft Rt.  
Ground Surface Elev. 698.0 ft

DEPTH (ft)	SOIL DESCRIPTION	DRILLING METHOD	HAMMER TYPE	REMARKS
0	Black/Brown Silty Clay (Topsoil)			
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

7/5/2008 8:06:33 AM S:\SOILS BORING LOGS\CHAMPAIGN CNTY\CURTIS RD MAY 2005.GPJ

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, form 137 (Rev. 8-99)

**Illinois Department of Transportation**  
Division of Highways  
District 5 Materials

**SOIL BORING LOG** Page 2 of 3  
Date 6/9/02

ROUTE FAIR, 57 DESCRIPTION I-57 Curtis Road Interchange LOGGED BY CNA  
SECTION 10-32HB-3.K LOCATION SE, SEC. 33, TWP. 19N, RNG. 08E, 3rd. PM  
COUNTY Champaign DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 010-0272 (Prop.)  
Station \_\_\_\_\_  
BORING NO. B13 E. Abut.  
Station 297+70  
Offset 85.0 ft Rt.  
Ground Surface Elev. 698.0 ft

DEPTH (ft)	SOIL DESCRIPTION	DRILLING METHOD	HAMMER TYPE	REMARKS
0	Gray Silty Clay Loam Till (continued)			
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

7/5/2008 8:06:33 AM S:\SOILS BORING LOGS\CHAMPAIGN CNTY\CURTIS RD MAY 2005.GPJ

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, form 137 (Rev. 8-99)

**Illinois Department of Transportation**  
Division of Highways  
District 5 Materials

**SOIL BORING LOG** Page 3 of 3  
Date 6/9/02

ROUTE FAIR, 57 DESCRIPTION I-57 Curtis Road Interchange LOGGED BY CNA  
SECTION 10-32HB-3.K LOCATION SE, SEC. 33, TWP. 19N, RNG. 08E, 3rd. PM  
COUNTY Champaign DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 010-0272 (Prop.)  
Station \_\_\_\_\_  
BORING NO. B13 E. Abut.  
Station 297+70  
Offset 85.0 ft Rt.  
Ground Surface Elev. 698.0 ft

DEPTH (ft)	SOIL DESCRIPTION	DRILLING METHOD	HAMMER TYPE	REMARKS
0	Gray Sand Loam Till (continued)			
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

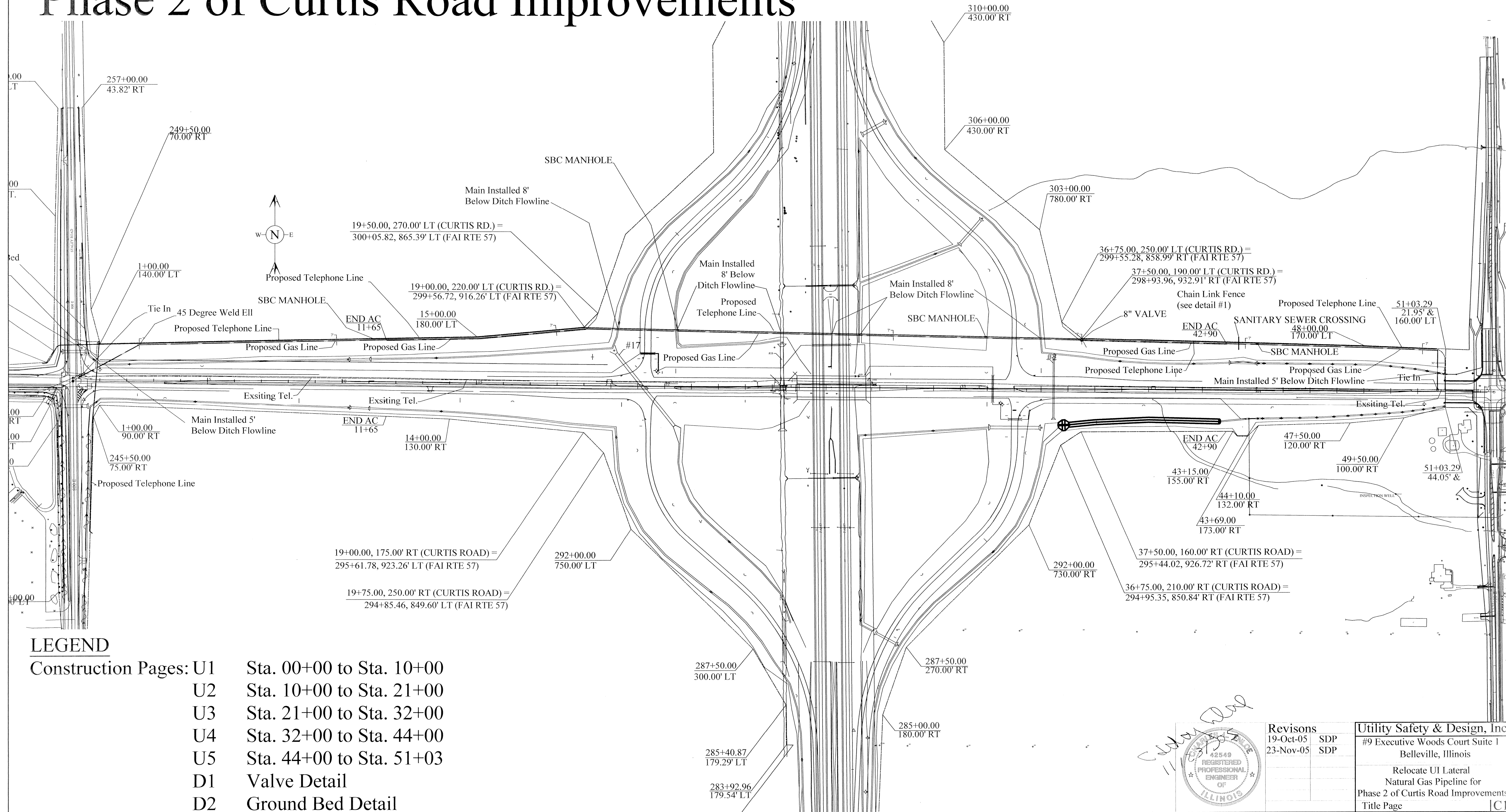
7/5/2008 8:06:34 AM S:\SOILS BORING LOGS\CHAMPAIGN CNTY\CURTIS RD MAY 2005.GPJ

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, form 137 (Rev. 8-99)

SOIL BORING LOGS  
F.A.I. ROUTE 57 SEC. 10-32HB-3.K  
CHAMPAIGN COUNTY  
STATION 297+20.45  
STRUCTURE NO. 010-0272

# Relocate UI Lateral Natural Gas Pipeline for Phase 2 of Curtis Road Improvements

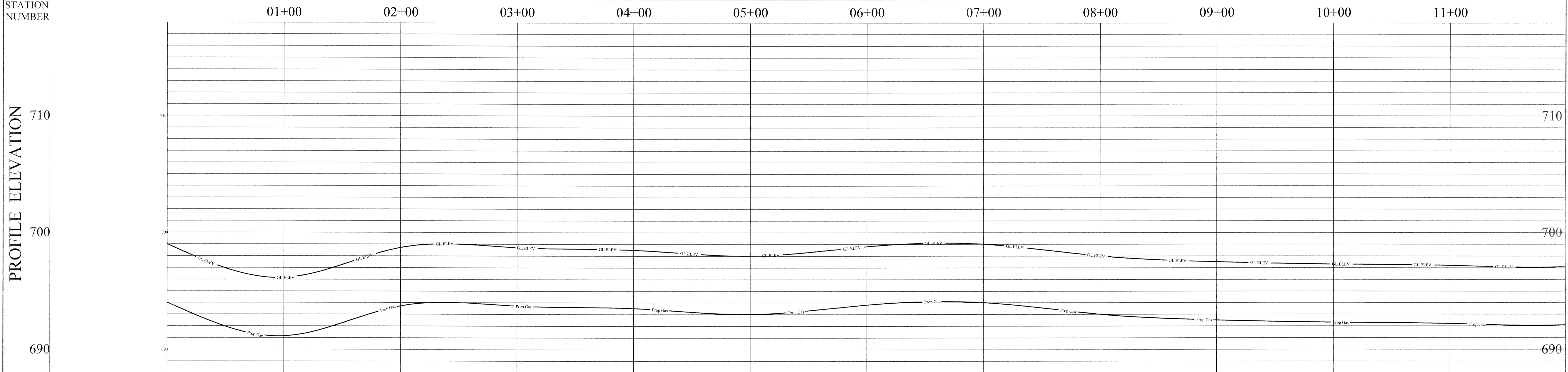
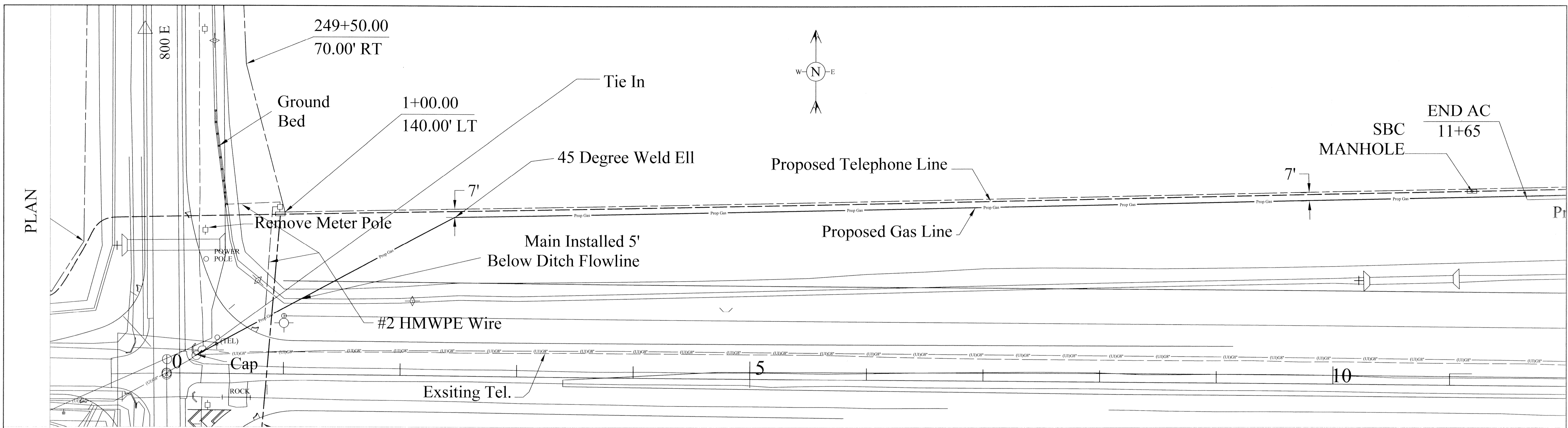


## LEGEND

Construction Pages: U1	Sta. 00+00 to Sta. 10+00
U2	Sta. 10+00 to Sta. 21+00
U3	Sta. 21+00 to Sta. 32+00
U4	Sta. 32+00 to Sta. 44+00
U5	Sta. 44+00 to Sta. 51+03
D1	Valve Detail
D2	Ground Bed Detail

*Curtis Road*

Revisions		Utility Safety & Design, Inc. #9 Executive Woods Court Suite 1 Belleville, Illinois Relocate UI Lateral Natural Gas Pipeline for Phase 2 of Curtis Road Improvements Title Page
Date	Description	
19-Oct-05	SDP	
23-Nov-05	SDP	



**CONSTRUCTION NOTES:**

Maintain 5' Minimum Depth (top of Pipe) → Sta. 00+25 - Tie to Exsiting H.P. Main

Sta. 02+46 - Start Maintaining 5' from R.O.W. →

Abandon Pipe Will Be Grouted

**LEGEND:**

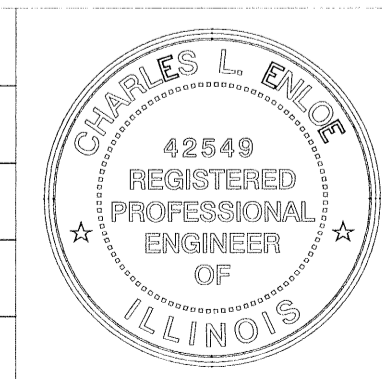
- UIUC 8" GAS LINE ———— (UIUC 8")
- GROUND LEVEL DEPTH (Surface) ———— GL ELEV
- PROPOSED GAS LINE (Top of Pipe) ———— Prop Gas

**MATERIALS:**

MKT NO.	QTY.	DESCRIPTION
1	1006'	8" Steel Pipe - 8.625" O.D., 250 wall, API 5L, Grade B Fusion Bonded Epoxy Coated
2	1	8.625 - 3R Weld 45 Ell

**MATERIALS:**

MKT NO.	QTY.	DESCRIPTION

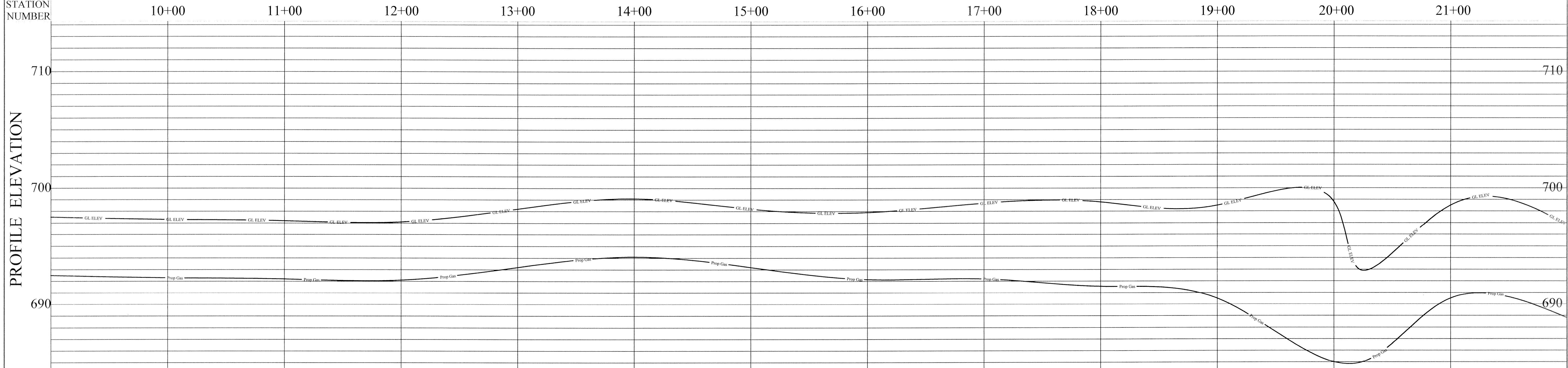
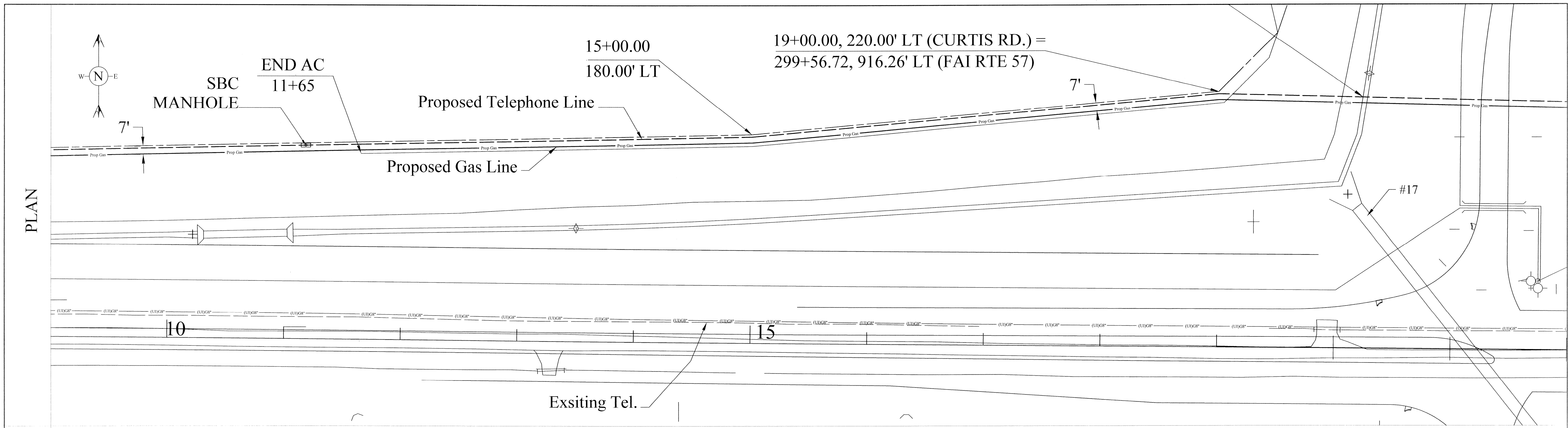


Revisions  
 19-Oct-05 SDP  
 23-Nov-05 SDP

Utility Safety & Design, Inc.  
 #9 Executive Woods Court Suite 1  
 Belleville, Illinois

Relocate UI Lateral  
 Natural Gas Pipeline for  
 Phase 2 of Curtis Road Improvements  
 Station 00+00 to Station 10+00 | U1

Scale: 1" = 40'



**CONSTRUCTION NOTES:**

Maintain 5' Minimum Depth (top of Pipe) Below G.L. →

Abandon Pipe Will Be Grouted

Begin Transition from 5' Minimum Depth to 8' Minimum Depth (top of Pipe) Below G.L. →

Sta. 19+00 - Begin 8' Minimum depth (top of pipe) Below G.L. →

**LEGEND:**

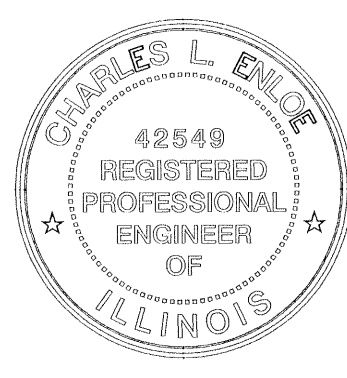
UIUC 8" GAS LINE	
GROUND LEVEL DEPTH (Surface)	
PROPOSED GAS LINE (Top of Pipe)	

**MATERIALS:**

MKT NO.	QTY.	DESCRIPTION
1	1102'	8" Steel Pipe - 8.625" O.D., 250 wall, API 5L, Grade B Fusion Bonded Epoxy Coated

**MATERIALS:**

MKT NO.	QTY.	DESCRIPTION

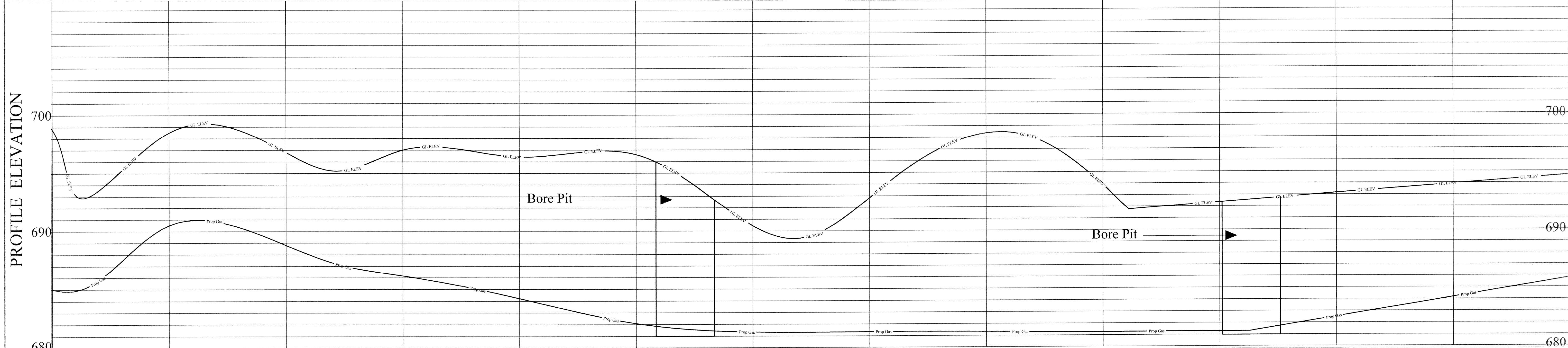
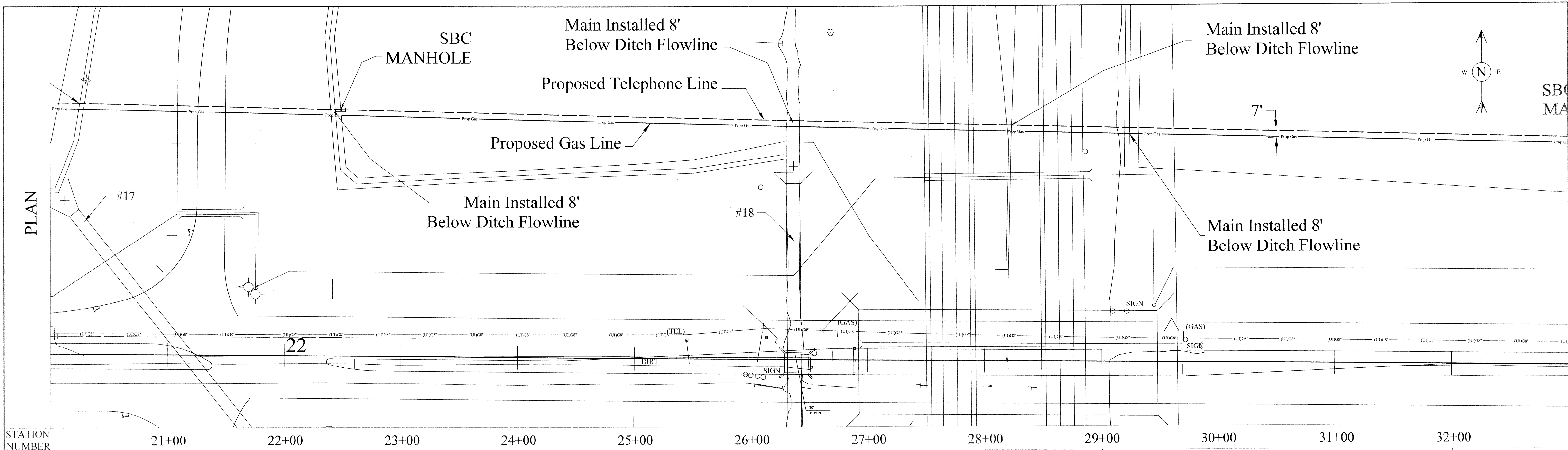


**Revisions**

19-Oct-05	SDP	
23-Nov-05	SDP	

Scale: 1" = 40'

Utility Safety & Design, Inc.  
 #9 Executive Woods Court Suite 1  
 Belleville, Illinois  
 Relocate UI Lateral  
 Natural Gas Pipeline for  
 Phase 2 of Curtis Road Improvements  
 Station 10+00 to Station 21+00 | U2



**CONSTRUCTION NOTES:**

Maintain 8' Minimum Depth (top of Pipe) Below G.L. →

Sta. 21+00 - Remove 25' of old main on each side of the Centerline of Culvert #17 Abandon Pipe Will Be Grouted

Sta. 26+34 - Remove 25' of old main on each side of the Centerline of Culvert #18

**LEGEND:**

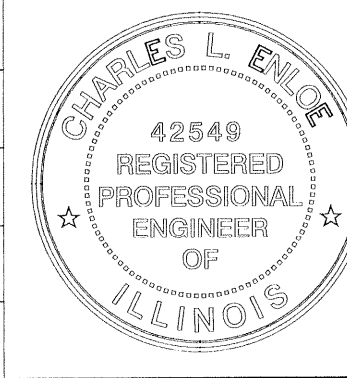
UIUC 8" GAS LINE	
GROUND LEVEL DEPTH (Surface)	
PROPOSED GAS LINE (Top of Pipe)	

**MATERIALS:**

MKT NO.	QTY.	DESCRIPTION
1	1100'	8" Steel Pipe - 8.625" O.D., 250 wall, API 5L, Grade B Fusion Bonded Epoxy Coated

**MATERIALS:**

MKT NO.	QTY.	DESCRIPTION



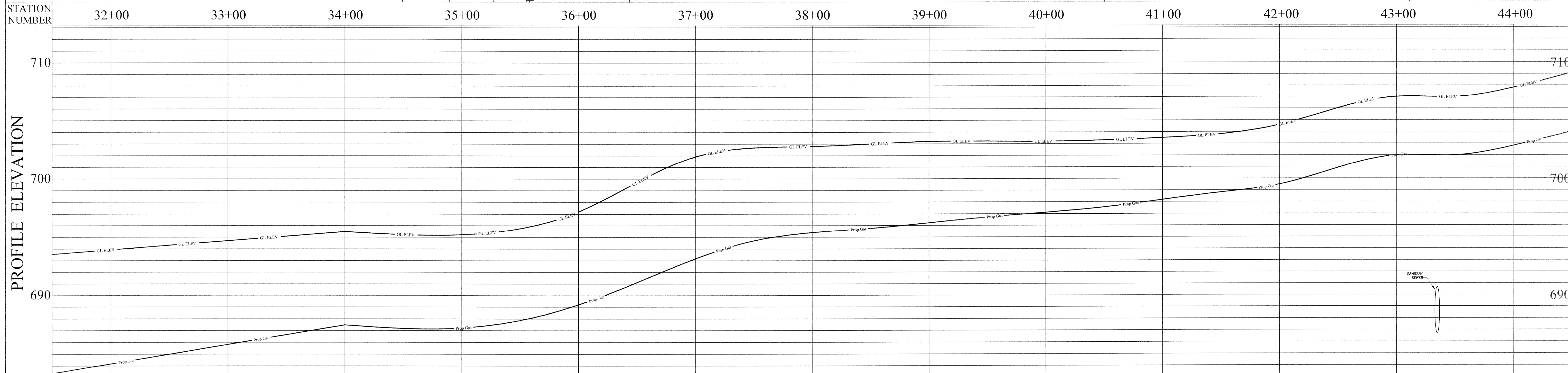
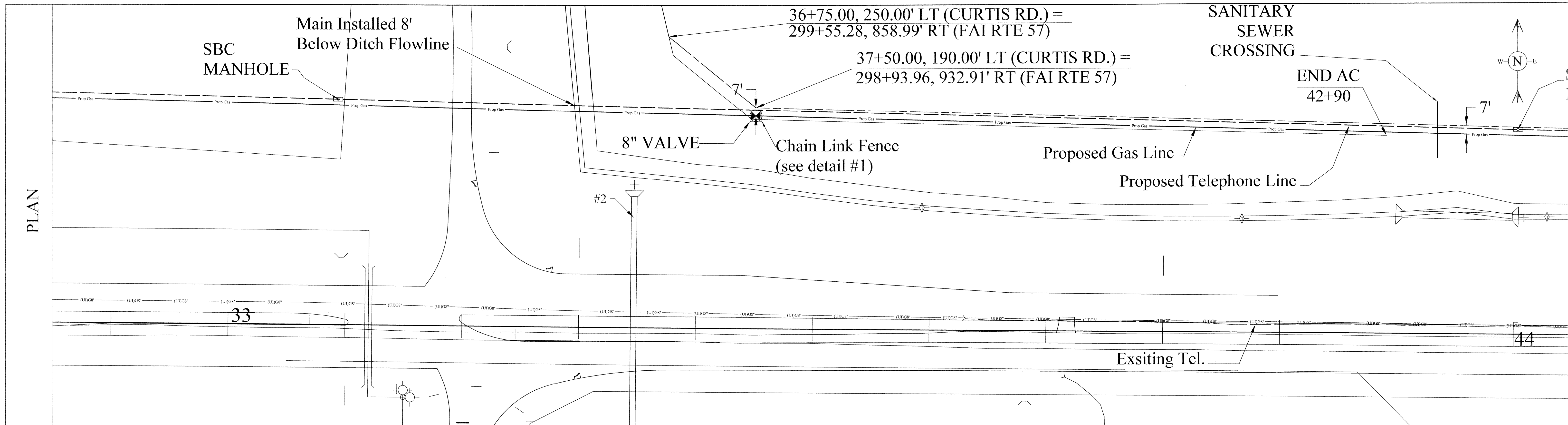
**Revisions**

19-Oct-05	SDP
23-Nov-05	SDP

Scale: 1" = 40'

Utility Safety & Design, Inc.  
 #9 Executive Woods Court Suite 1  
 Belleville, Illinois  
 Relocate UI Lateral  
 Natural Gas Pipeline for  
 Phase 2 of Curtis Road Improvements  
 Station 22+00 to Station 33+00 | U3





**CONSTRUCTION NOTES:**

- Maintain 8' Minimum Depth (top of Pipe) Below G.L. →
- Abandon Pipe Will Be Grouted
- Begin Transition from 8' Minimum Depth to 5' Minimum Depth (top of Pipe) Below G.L.
- Sta. 36+46 - Remove 25' of old main on each side of the Centerline of Culvert #2
- Sta. 41+50 - Maintain 5' Minimum Depth (top of Pipe) Below G.L. →

**LEGEND:**

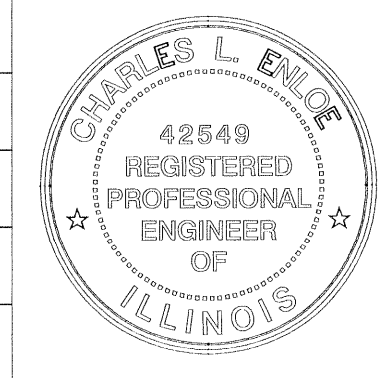
UIUC 8" GAS LINE	
GROUND LEVEL DEPTH (Surface)	
PROPOSED GAS LINE (Top of Pipe)	

**MATERIALS:**

MKT NO.	QTY.	DESCRIPTION
1	1200'	8" Steel Pipe - 8.625" O.D., 250 wall, API 5L, Grade B Fusion Bonded Epoxy Coated
1	1	8" Steel Valve

**MATERIALS:**

MKT NO.	QTY.	DESCRIPTION



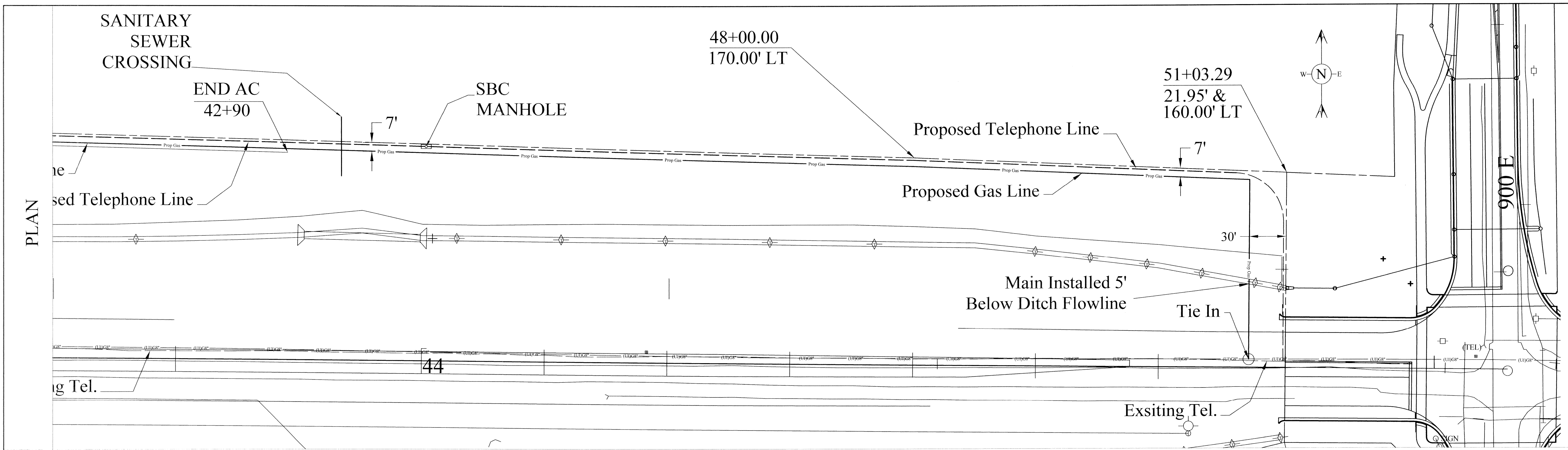
**Revisions**

19-Oct-05	SDP
23-Nov-05	SDP

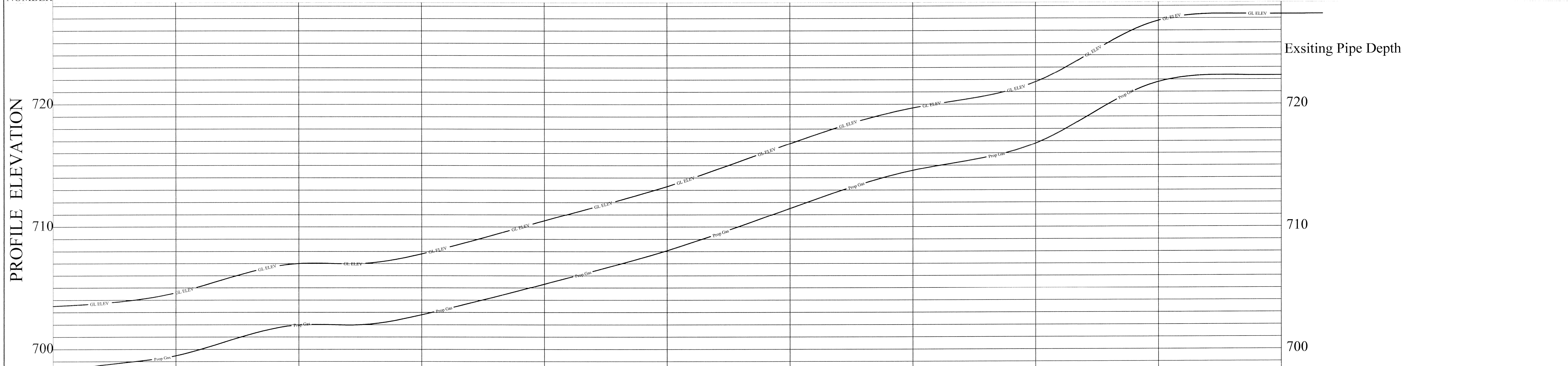
Utility Safety & Design, Inc.  
 #9 Executive Woods Court Suite 1  
 Belleville, Illinois

Relocate UI Lateral  
 Natural Gas Pipeline for  
 Phase 2 of Curtis Road Improvements  
 Station 32+00 to Station 44+00 | U4

Scale: 1" = 40'



STATION NUMBER 42+00 43+00 44+00 45+00 46+00 47+00 48+00 49+00 50+00 51+00 52+00 53+00



**CONSTRUCTION NOTES:**

Maintain 5' Minimum Depth (top of Pipe) →

Abandon Pipe Will Be Grouted

Sta. 50+73 - Tie In (End of Job)

**LEGEND:**

- UIUC 8" GAS LINE
- GROUND LEVEL DEPTH (Surface)
- PROPOSED GAS LINE (Top of Pipe)

**MATERIALS:**

MKT NO.	QTY.	DESCRIPTION
1	846'	8" Steel Pipe - 8.625" O.D., 250 wall, API 5L, Grade B Fusion Bonded Epoxy Coated
2	2	3R Weld Ell

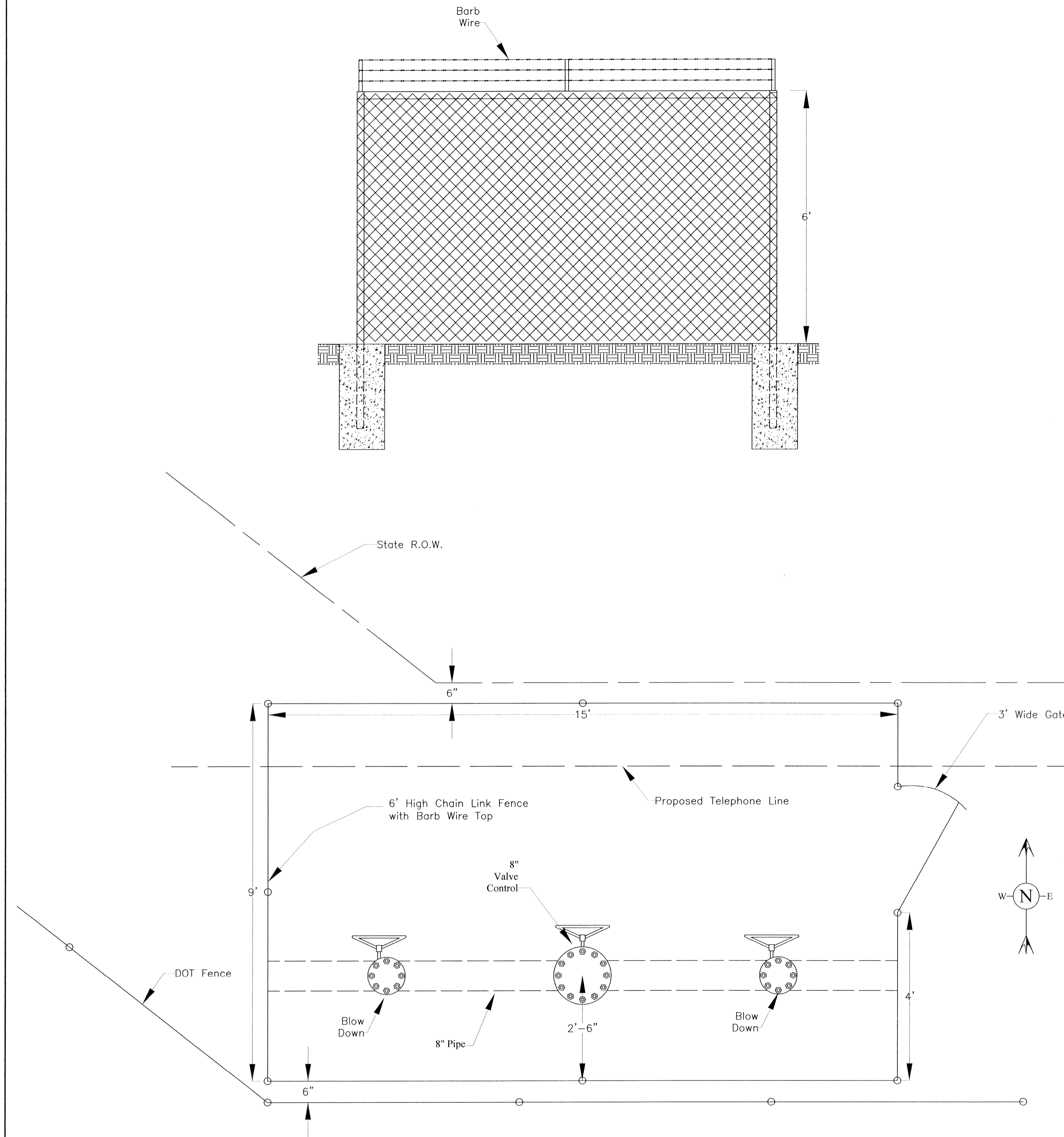
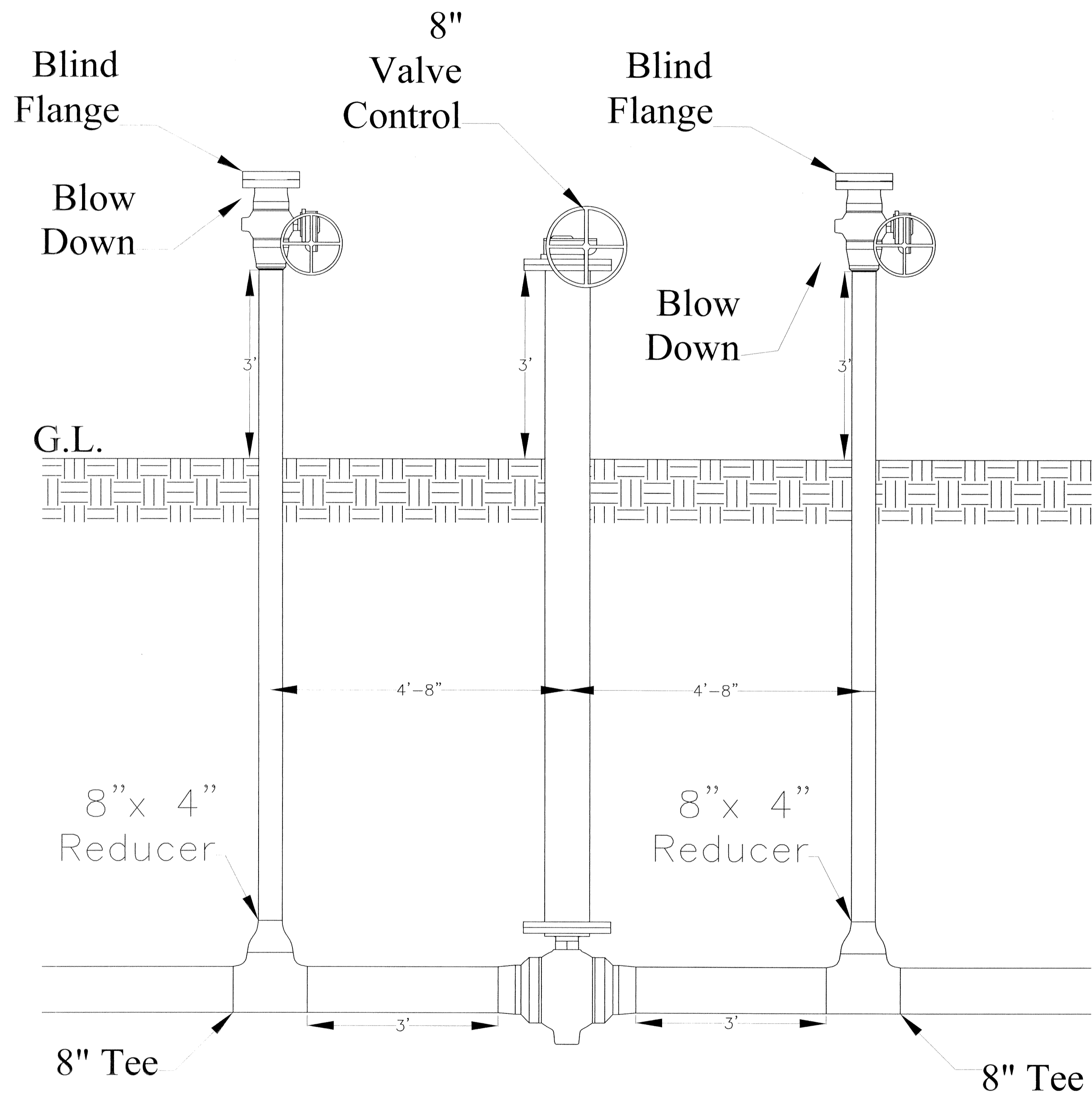
**MATERIALS:**

MKT NO.	QTY.	DESCRIPTION

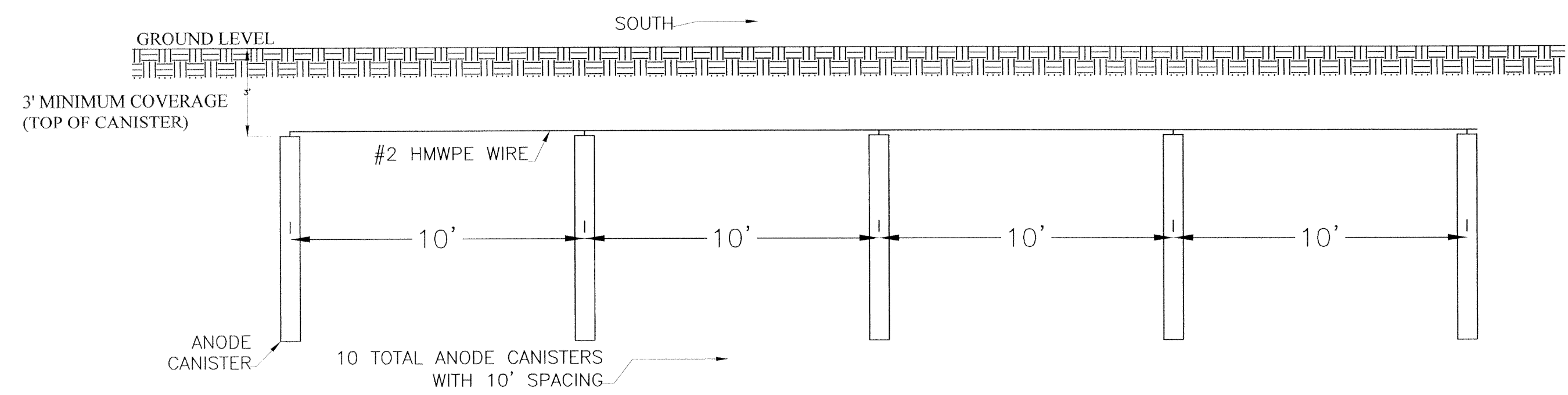


Revisions  
 19-Oct-05 SDP  
 23-Nov-05 SDP  
 Scale: 1" = 40'

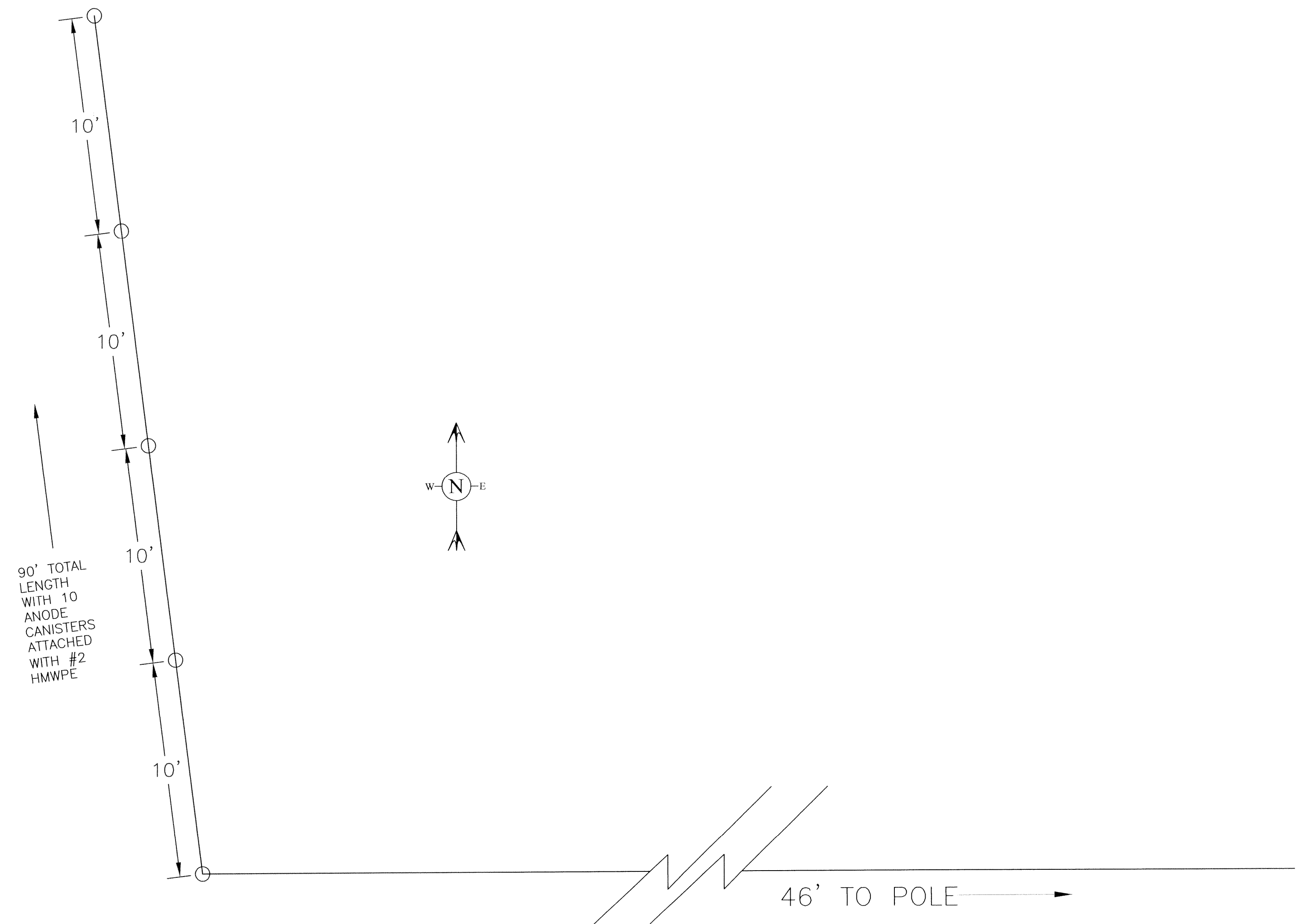
Utility Safety & Design, Inc.  
 #9 Executive Woods Court Suite 1  
 Belleville, Illinois  
 Relocate UI Lateral  
 Natural Gas Pipeline for  
 Phase 2 of Curtis Road Improvements  
 Station 44+00 to Station 51+03 U5



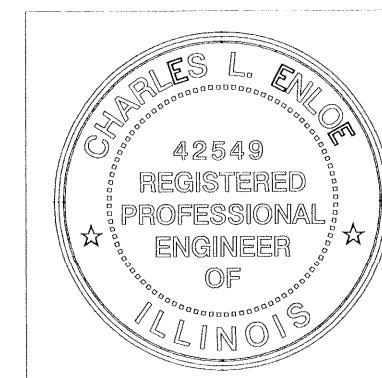
Revisions		Utility Safety & Design, Inc. #9 Executive Woods Court Suite 1 Belleville, Illinois
19-Oct-05	SDP	
23-Nov-05	SDP	
NONE		Relocate UI Lateral Natural Gas Pipeline for Phase 2 of Curtis Road Improvements VALVE DETAIL #1  D1



SIDE VIEW



TOP VIEW



Revisions	
19-Oct-05	SDP
23-Nov-05	SDP
NONE	

Utility Safety & Design, Inc.  
 #9 Executive Woods Court Suite 1  
 Belleville, Illinois  
 Relocate UI Lateral  
 Natural Gas Pipeline for  
 Phase 2 of Curtis Road Improvements  
 Ground Bed Detail

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	145

CONTRACT NO. 90758  
1"=20'  
0' 5' 10' 15' 20' 40' 60'

PROPOSED CULVERT #25  
 PRECAST CONCRETE BOX CULVERT, 8' x 2' - 76.5 FEET  
 BOX CULVERT END SECTION - 2 EACH  
 CONTROLLED LOW-STRENGTH MATERIAL - 194.0 CU YD  
 STA. 247+96.17, 33.00' LT., U.S.F.L. = 696.57  
 STA. 247+96.17, 46.36' RT., D.S.F.L. = 696.33  
 NO SKEW

REMOVE EXISTING STRUCTURE NO. 25 - 1 EACH  
 4' x 1.5' BOX CULVERT WITH HEADWALLS  
 CONTROLLED LOW-STRENGTH MATERIAL - 61.0 CU YD

OUTLET SPECIAL - 1 EACH  
 STA. 247+33.81, 40.21' LT.

STA. 0+00.00 (CURTIS ROAD) =  
 STA. 49+99.33 (CURTIS ROAD WEST) =  
 STA. 246+85.57 (STALEY ROAD)

PERIMETER EROSION BARRIER  
 EXPLORATION TRENCH

PERIMETER EROSION BARRIER  
 EXPLORATION TRENCH

SEE DETAIL "LOCATION & DESIGN  
 OF BLOCKOUTS FOR SIGN POSTS"

ABANDONED

CURTIS ROAD

ROCK

TO BE ABANDONED

ABANDONED

PERIMETER EROSION BARRIER

OUTLET SPECIAL - 1 EACH  
 STA. 246+46.98, 46.63' LT.



PIPE CULVERT REMOVAL - 24 FEET

SEE DETAIL "LOCATION & DESIGN  
 OF BLOCKOUTS FOR SIGN POSTS"

PERIMETER EROSION BARRIER  
 EXPLORATION TRENCH

PROPOSED CULVERT #26  
 PRECAST CONCRETE BOX CULVERT, 10' x 2' - 92.2 FEET  
 BOX CULVERT END SECTION - 2 EACH  
 CONTROLLED LOW-STRENGTH MATERIAL - 268.0 CU YD  
 STA. 245+91.59, 40.83' LT., U.S.F.L. = 696.73  
 STA. 245+91.59, 51.36' RT., D.S.F.L. = 696.03  
 NO SKEW

REMOVE EXISTING STRUCTURE NO. 26 - 1 EACH  
 4' x 1.5' BOX CULVERT WITH HEADWALLS  
 CONTROLLED LOW-STRENGTH MATERIAL - 61.0 CU YD

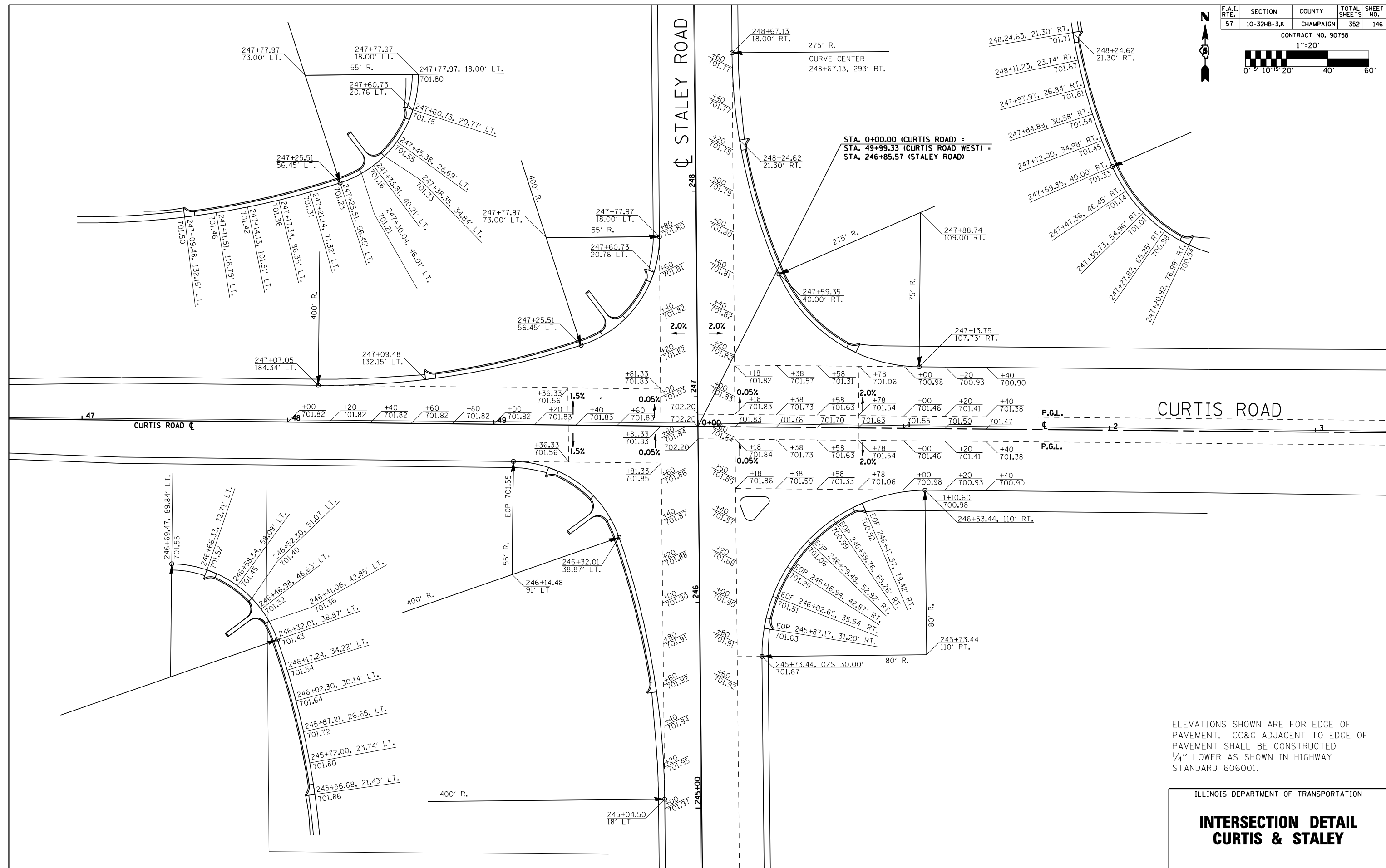
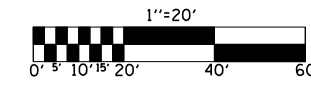
-  CLASS D PATCH, TYPE 4, 10"
-  PAVEMENT REMOVAL

ILLINOIS DEPARTMENT OF TRANSPORTATION

**INTERSECTION DETAIL  
 CURTIS & STALEY**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	146

CONTRACT NO. 90758



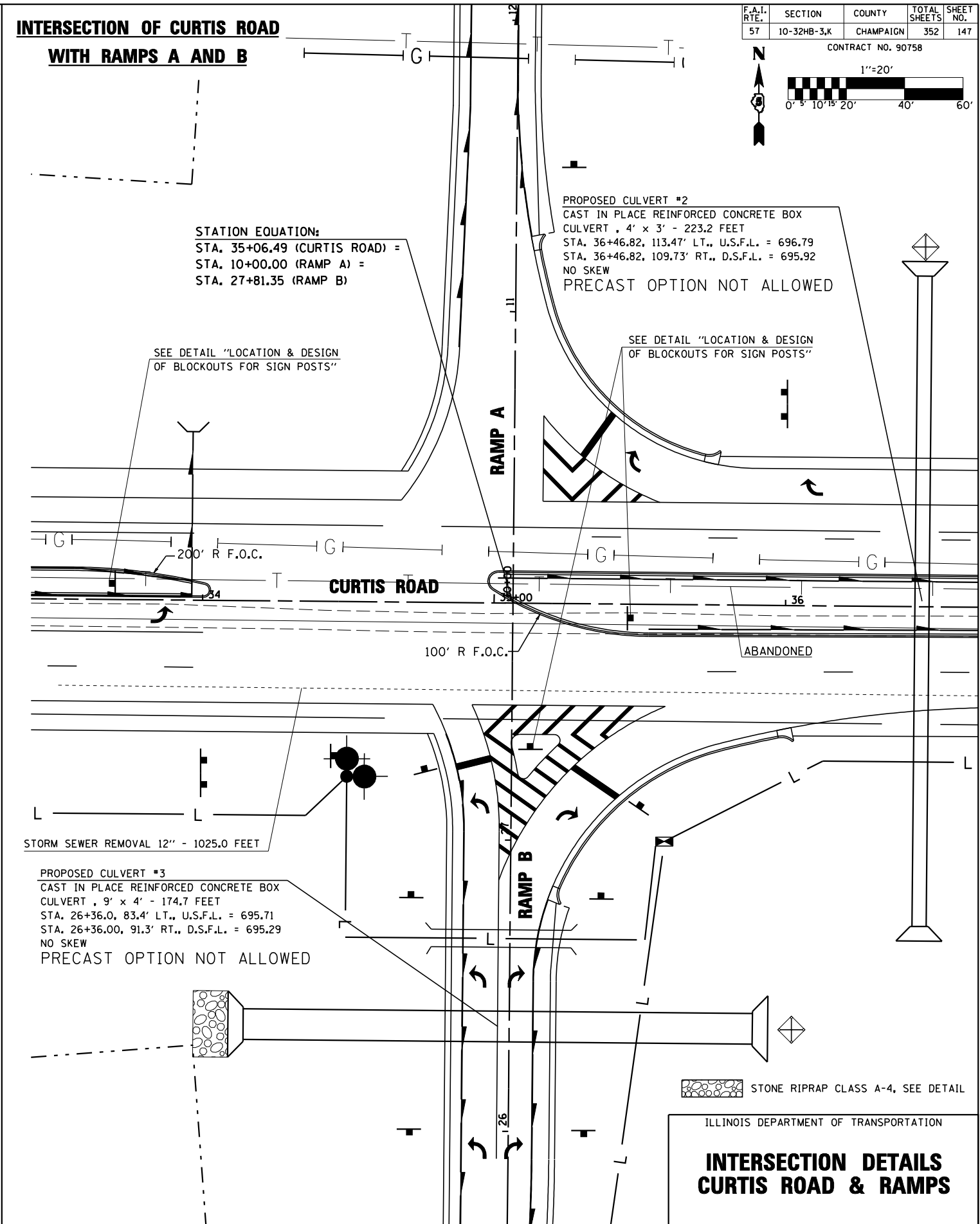
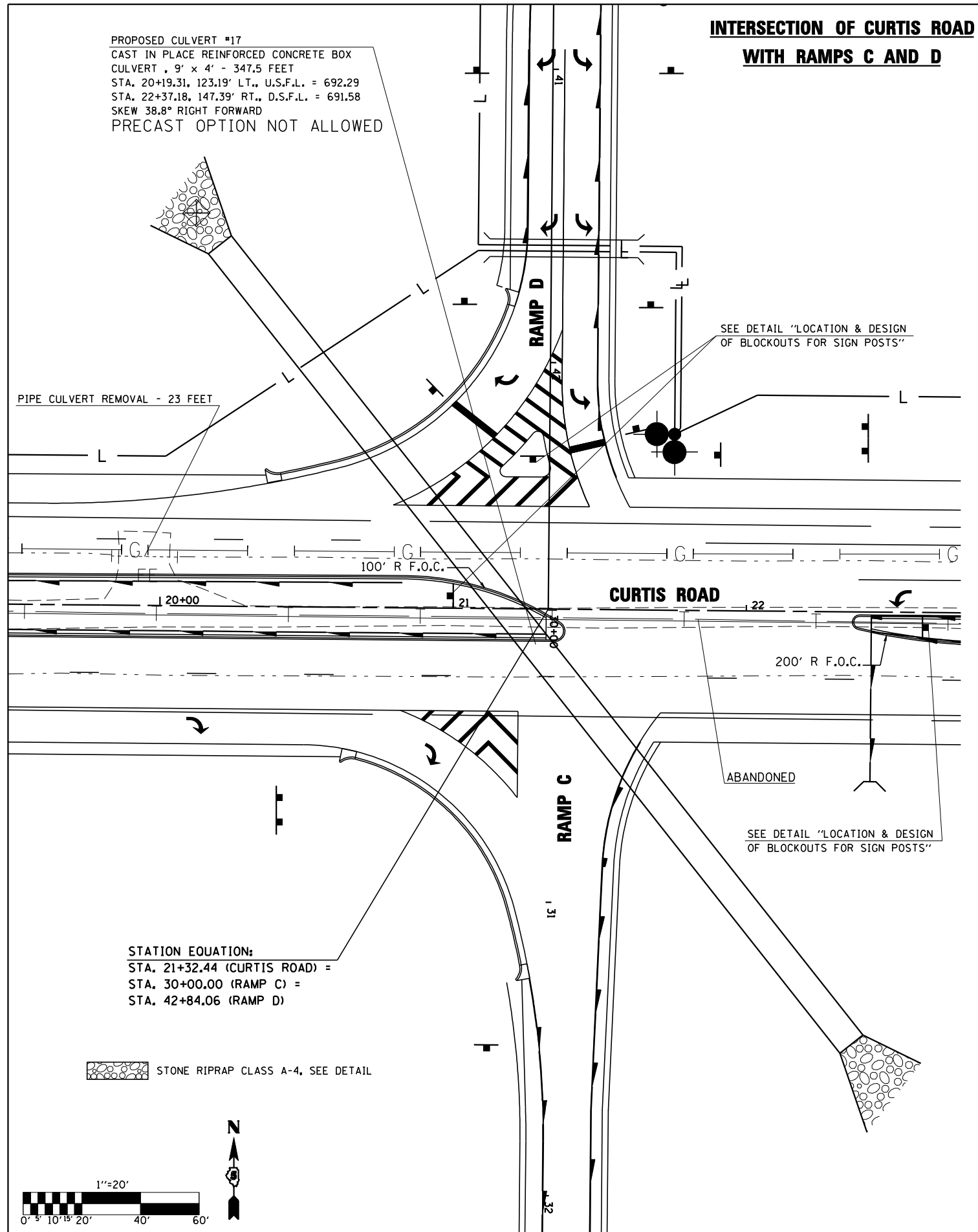
CURTIS ROAD

STALEY ROAD

ELEVATIONS SHOWN ARE FOR EDGE OF PAVEMENT. CC&G ADJACENT TO EDGE OF PAVEMENT SHALL BE CONSTRUCTED 1/4" LOWER AS SHOWN IN HIGHWAY STANDARD 606001.

ILLINOIS DEPARTMENT OF TRANSPORTATION

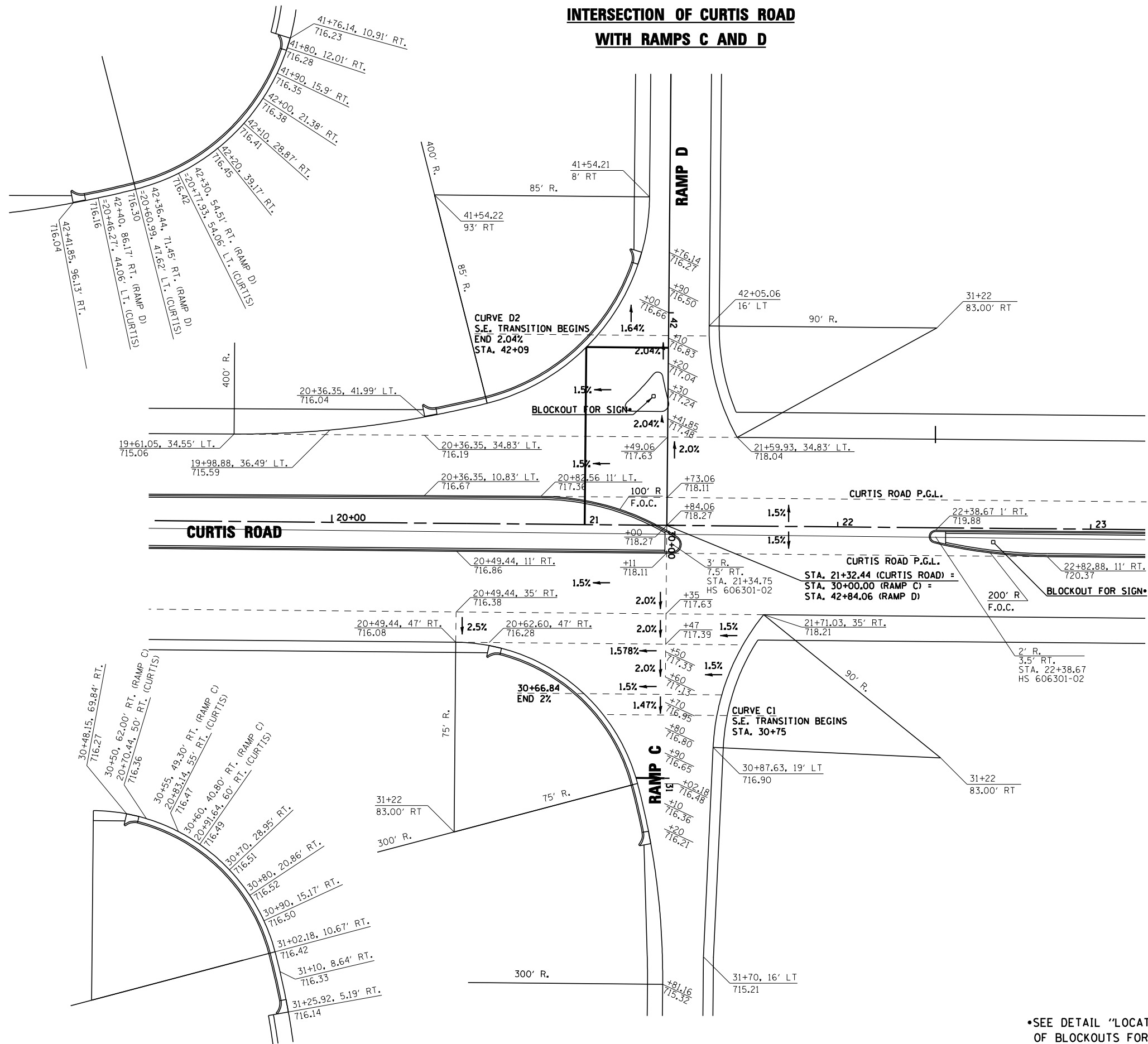
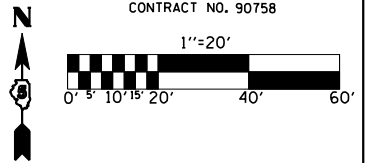
**INTERSECTION DETAIL  
CURTIS & STALEY**



### INTERSECTION OF CURTIS ROAD WITH RAMPS C AND D

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	148

CONTRACT NO. 90758



PROP. CURVE D2  
 PI STA. = 38+76.09  
 $\Delta = 45^\circ 52' 20''$  (LT)  
 $D = 12^\circ 52' 32''$   
 $R = 445.00'$   
 $T = 188.31'$   
 $L = 356.28'$   
 $E = 38.20'$   
 $\theta = 6\%$   
 $T.R. = 45'$   
 $S.E. RUN = 180'$   
 $P.C. STA. = 36+87.78$   
 $P.T. STA. = 40+44.06$

PROP. CURVE C1  
 PI STA. = 34+44.08  
 $\Delta = 49^\circ 16' 22''$  (LT)  
 $D = 12^\circ 52' 32''$   
 $R = 445.00'$   
 $T = 204.08'$   
 $L = 382.69'$   
 $E = 44.56'$   
 $\theta = 6\%$   
 $T.R. = 45'$   
 $S.E. RUN = 180'$   
 $P.C. STA. = 32+40.00$   
 $P.T. STA. = 36+22.69$

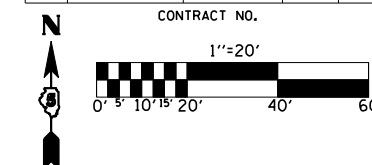
ILLINOIS DEPARTMENT OF TRANSPORTATION

### INTERSECTION DETAIL RAMPS C AND D

•SEE DETAIL "LOCATION & DESIGN OF BLOCKOUTS FOR SIGN POSTS"

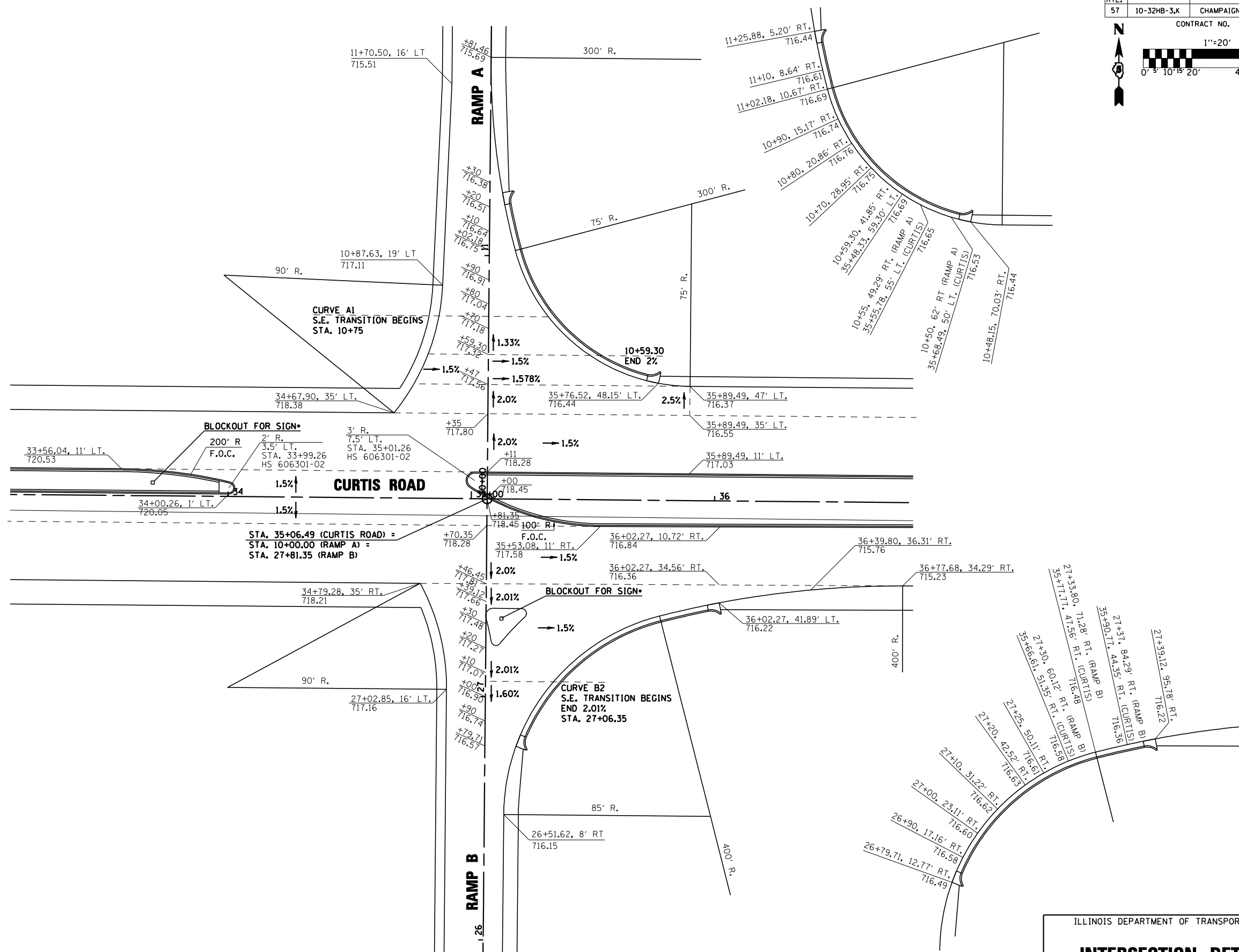


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	149



PROP. CURVE A1  
 PI STA. = 14+43.64  
 $\Delta = 49^\circ 10' 46''$  (LT)  
 $D = 12^\circ 52' 32''$   
 $R = 445.00'$   
 $T = 203.64'$   
 $L = 381.96'$   
 $E = 44.38'$   
 $e = 6\%$   
 $T.R. = 45'$   
 $S.E. RUN = 180'$   
 $P.C. STA. = 12+40.00$   
 $P.T. STA. = 16+21.96$

PROP. CURVE B2  
 PI STA. = 23+73.78  
 $\Delta = 45^\circ 44' 57''$  (LT)  
 $D = 12^\circ 52' 32''$   
 $R = 445.00'$   
 $T = 187.74'$   
 $L = 355.32'$   
 $E = 37.98'$   
 $e = 6\%$   
 $T.R. = 45'$   
 $S.E. RUN = 180'$   
 $P.C. STA. = 21+86.03$   
 $P.T. STA. = 25+41.35$



ILLINOIS DEPARTMENT OF TRANSPORTATION

**INTERSECTION DETAIL  
 RAMPS A AND B**

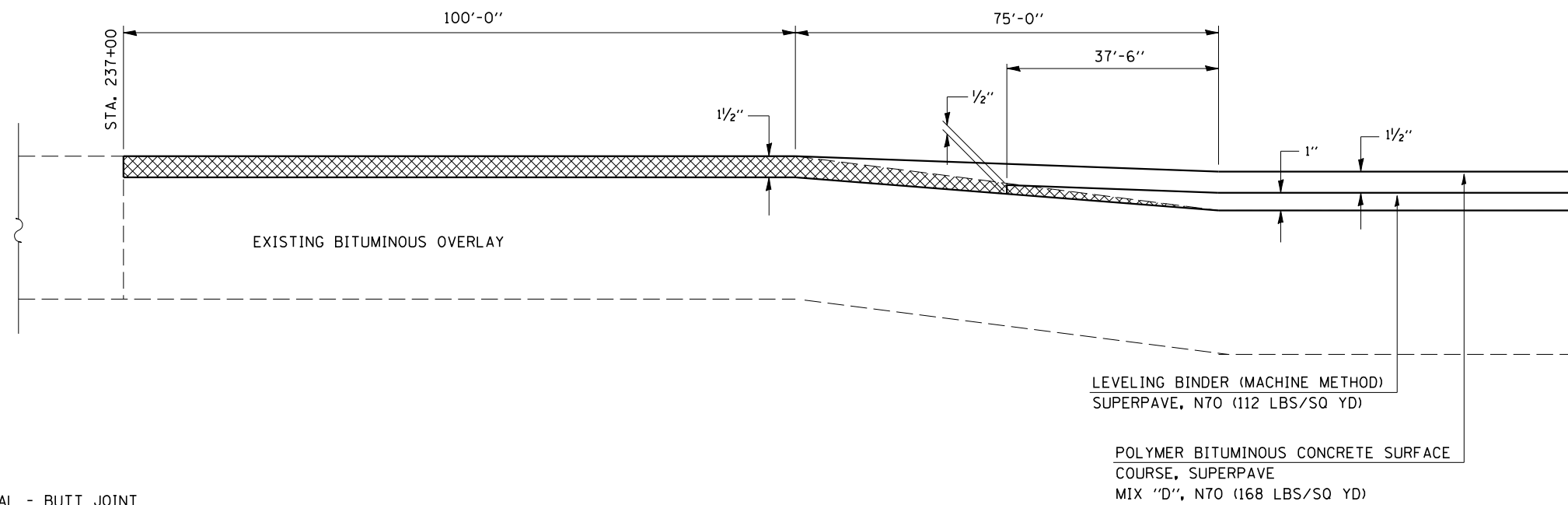
•SEE DETAIL "LOCATION & DESIGN  
 OF BLOCKOUTS FOR SIGN POSTS"

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	150

CONTRACT NO. 90758

### DETAIL OF BITUMINOUS SURFACE REMOVAL - BUTT JOINT

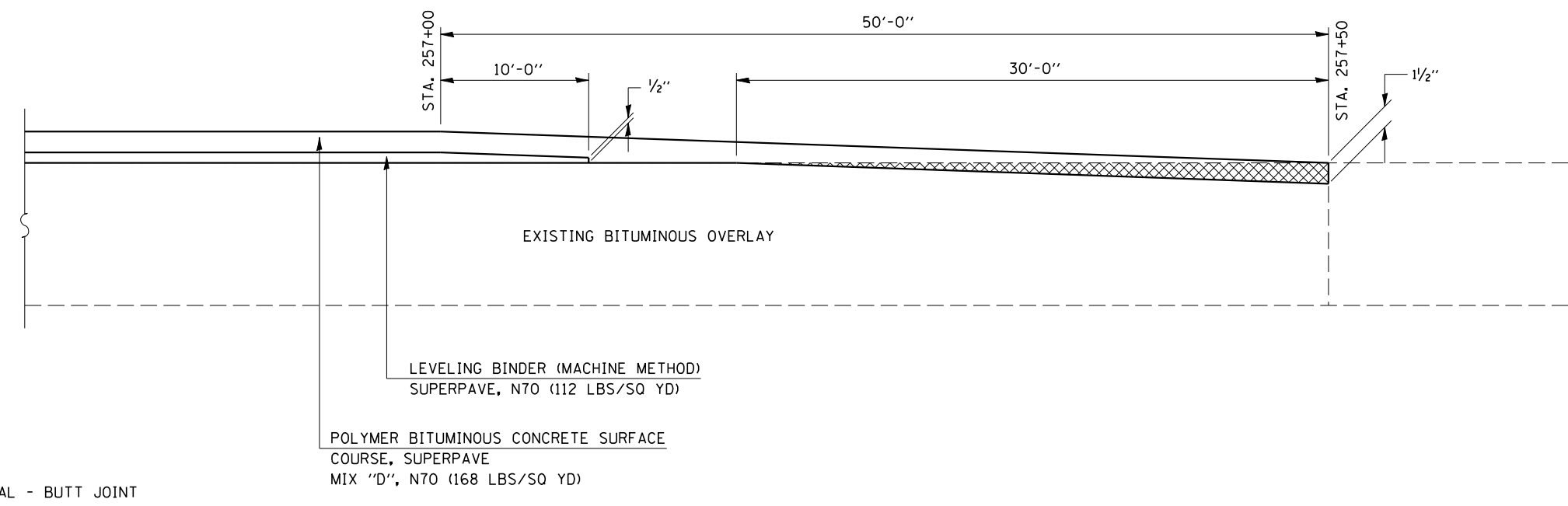
STALEY ROAD STA. 237+00.00



NOTE: MILL THICKNESS AS SPECIFIED AT CENTERLINE AND USE 2% CROSS-SLOPE FROM CENTER LINE TO EDGE OF PAVEMENT.

### DETAIL OF BITUMINOUS SURFACE REMOVAL - BUTT JOINT

STALEY ROAD STA. 257+00.00



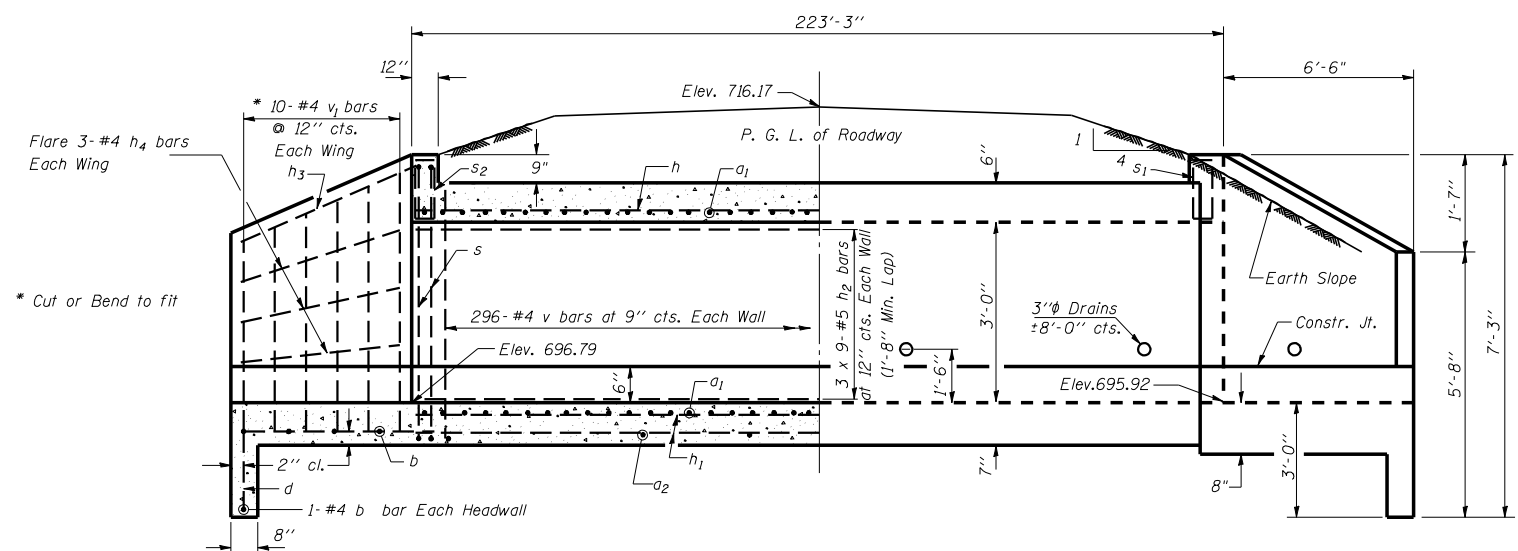
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	151
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 90758				

**PRECAST OPTION NOT ALLOWED**

# DETAIL OF CAST IN PLACE BOX CULVERT & END SECTION

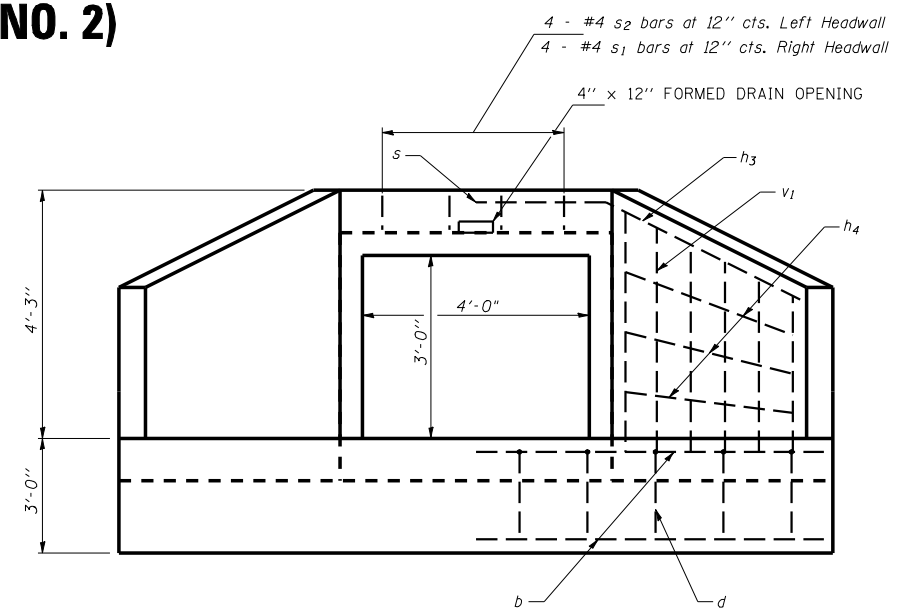
## A.R. BOX CULVERT 1 @ 4.0' X 3.0'

STA. 36 + 46.82 (CULVERT NO. 2)



**HALF LONG SECTION**

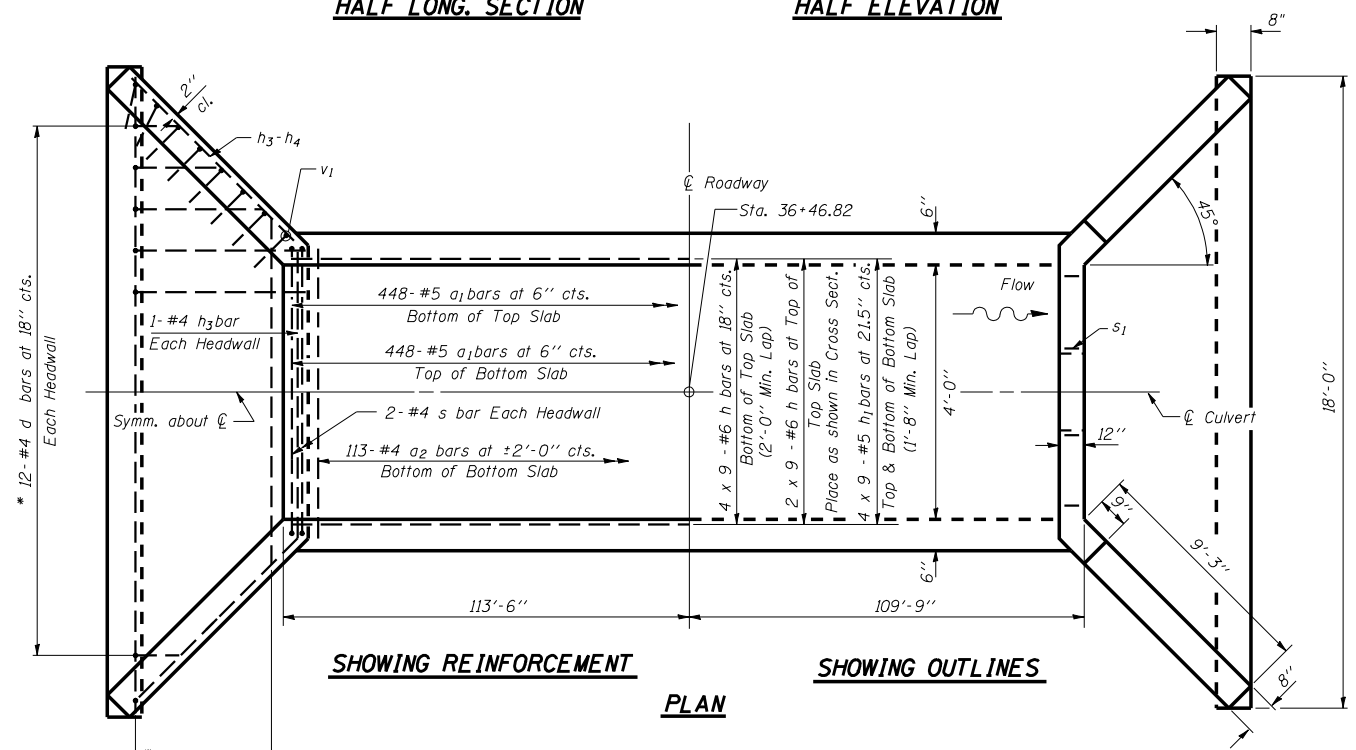
**HALF ELEVATION**



**END VIEW**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a1	896	#5	5'-10"	U
a2	113	#4	4'-8"	U
b	12	#4	17'-8"	—
d	24	#4	10'-5"	L
h	54	#6	26'-7"	—
h1	72	#5	26'-4"	—
h2	54	#5	26'-4"	—
h3	2	#4	23'-3"	—
h4	12	#4	9'-4"	—
s	4	#4	18'-8"	U
s1	4	#4	3'-4"	U
s2	4	#4	3'-4"	U
v	592	#4	3'-9"	—
v1	40	#4	6'-11"	L
Concrete Box Culverts			Cu. Yd.	78.7
Reinforcement Bars			Pound	13,572



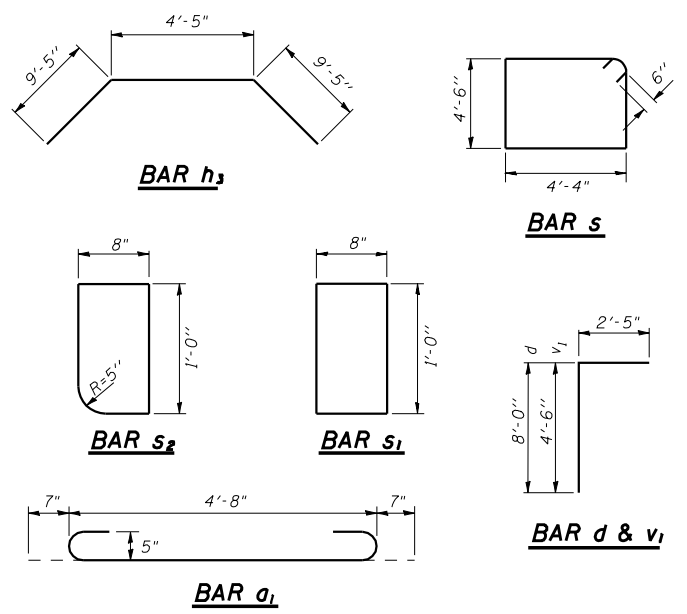
**SHOWING REINFORCEMENT**

**SHOWING OUTLINES**

**PLAN**

**NOTES**

A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.  
 Reinforcement Bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 60.  
 Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.  
 All construction joints shall be bonded.  
 Any excavation required for box culvert construction shall be included in the contract unit price for concrete, per Art. 502.15.



**BAR h3**

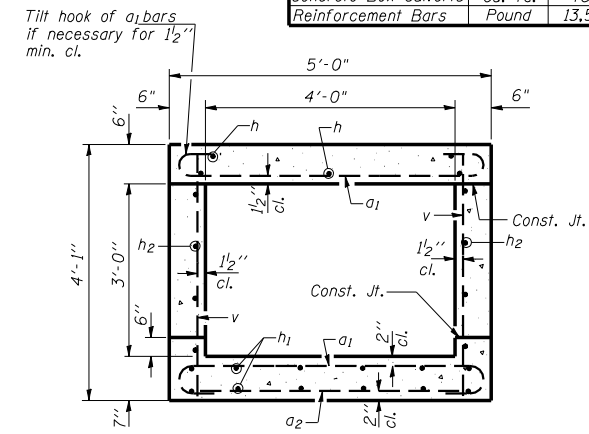
**BAR s**

**BAR s2**

**BAR s1**

**BAR d & v**

**BAR a1**

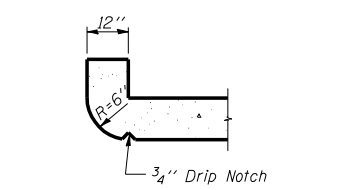


**SECTION THRU BARREL**

**DESIGN STRESSES**

fy = 60,000 psi  
 f'c = 3,500 psi

**LOADING HS 20-44 & ALT.**



**SECTION THRU HEADWALL**

(Up Stream End Only)

BOX CULVERT & END SECTIONS (CAST IN PLACE)  
 1 @ 4.0' X 3.0'  
 STA. 36+46.82 NO SKEW

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>CULVERT DETAILS</b>
SCALE:	VERT. 1"=10'	DRAWN BY JDC
DATE	HORIZ. 1"=10'	















F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	152
STA. TO STA.				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
<b>CONTRACT NO. 90758</b>				

F.A.I. RT. 57  
 SEC. 10-32HB-3,K  
 LOADING HS 20-44 & ALT.  
 STR. NO. 010-8354

**NAME PLATE**

- See Highway Standard 515001-02 for dimensions and placement.
- Name Plate will be paid for at the contract unit price per "EACH" for "NAME PLATES".

**BILL OF MATERIAL**

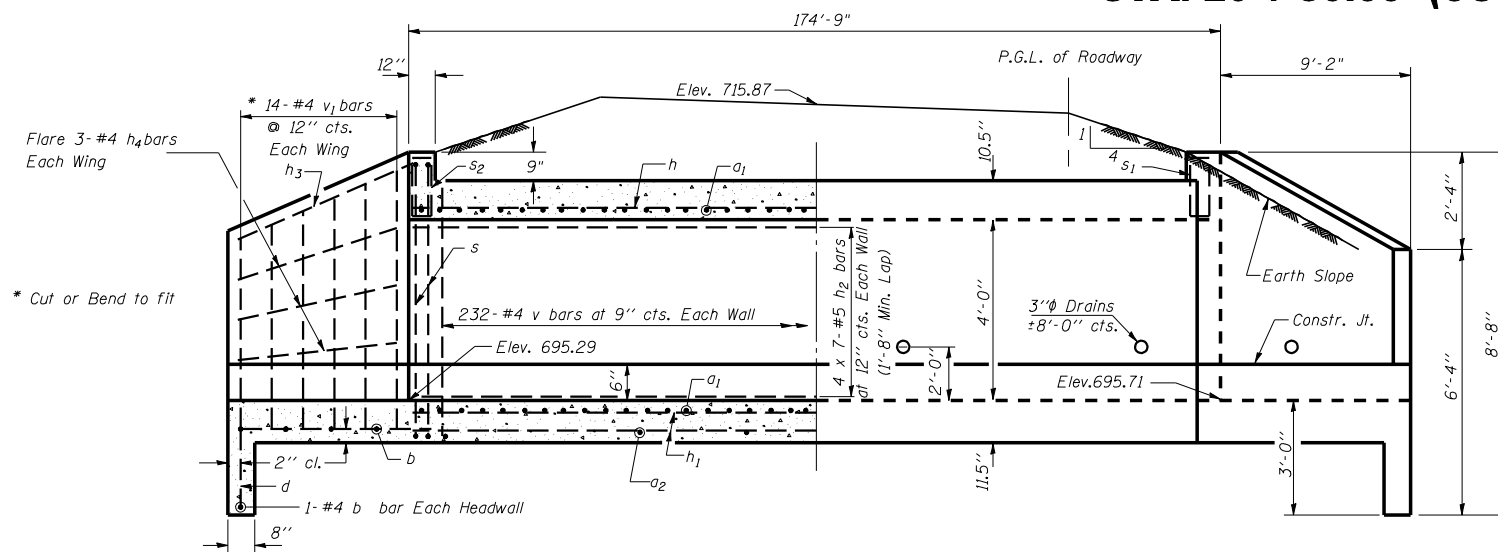
Bar	No.	Size	Length	Shape
a <sub>1</sub>	702	#8	11'-6"	
a <sub>2</sub>	89	#4	9'-8"	
b	16	#4	28'-0"	
d	36	#4	13'-3"	
h	70	#8	28'-1"	
h <sub>1</sub>	112	#6	26'-8"	
h <sub>2</sub>	56	#5	26'-5"	
h <sub>3</sub>	2	#4	35'-11"	
h <sub>4</sub>	12	#4	13'-1"	
s	4	#4	32'-2"	
s <sub>1</sub>	10	#4	4'-0"	
s <sub>2</sub>	10	#4	4'-0"	
v	464	#4	5'-6"	
v <sub>1</sub>	56	#4	8'-4"	
Concrete Box Culverts Cu. Yd.				166.1
Reinforcement Bars Pound				36,339

# DETAIL OF CAST IN PLACE BOX CULVERT & END SECTION

## A.R. BOX CULVERT 1 @ 9.0' X 4.0'

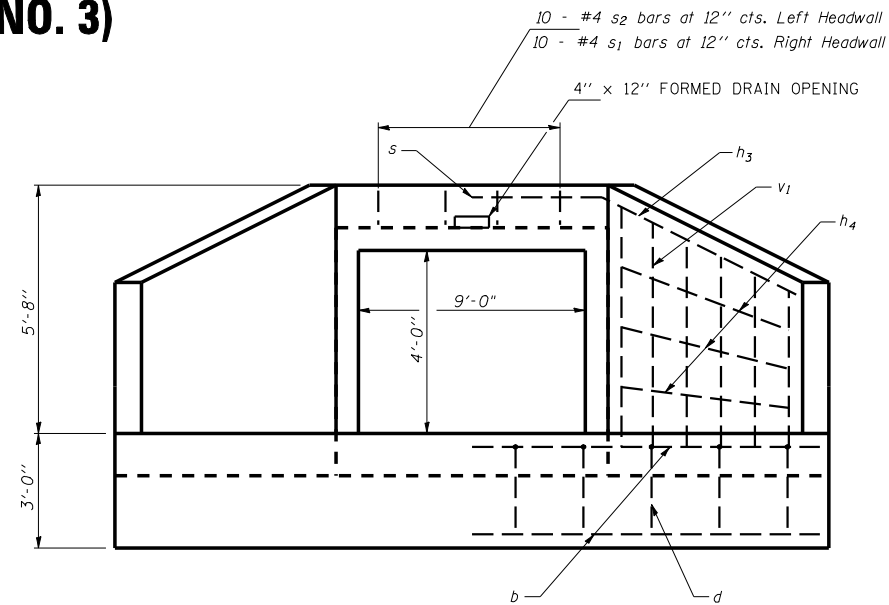
STA. 26 + 36.00 (CULVERT NO. 3)

**PRECAST OPTION NOT ALLOWED**

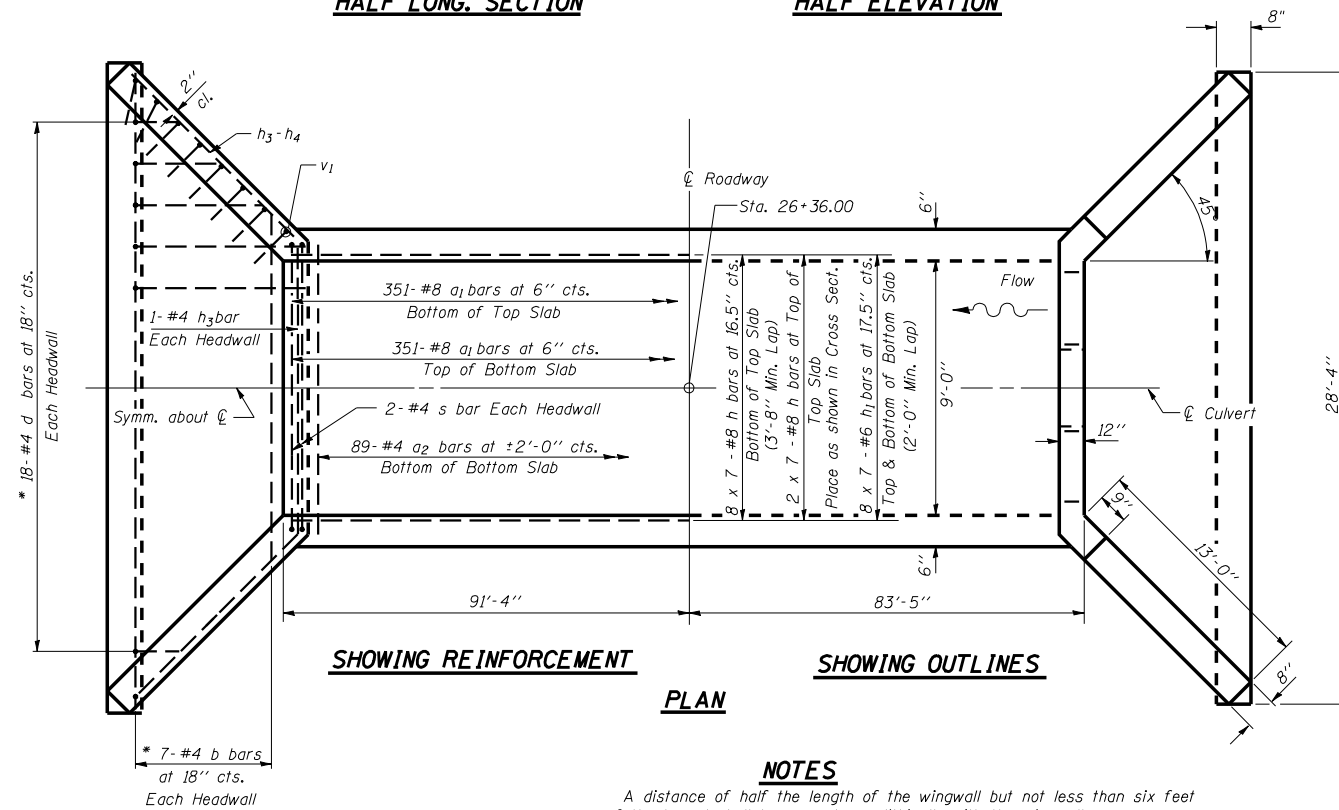


HALF LONG SECTION

HALF ELEVATION



END VIEW



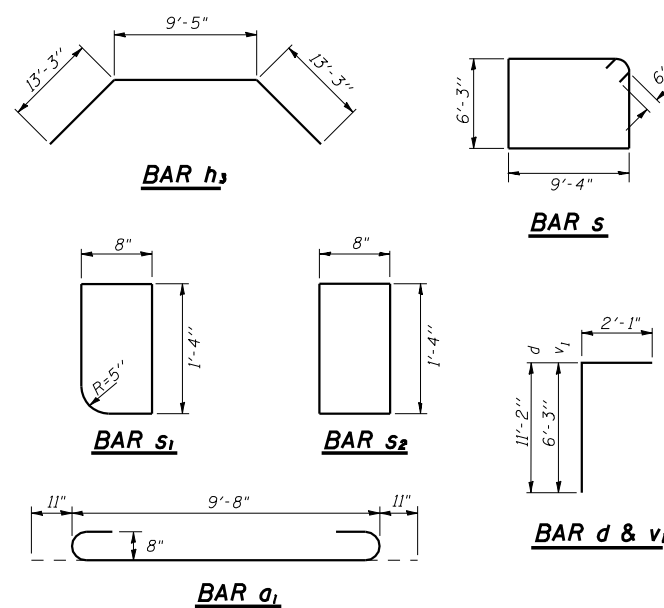
SHOWING REINFORCEMENT

SHOWING OUTLINES

PLAN

**NOTES**

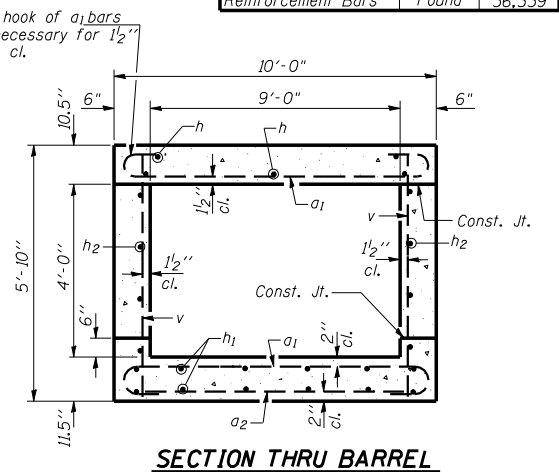
- A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.
- Reinforcement Bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 60.
- Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.
- All construction joints shall be bonded.
- Any excavation required for box culvert construction shall be included in the contract unit price for concrete, per Art. 502.15.



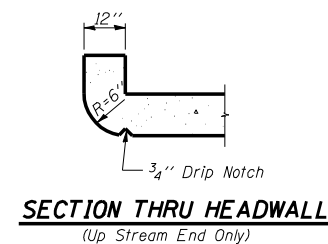
**DESIGN STRESSES**

f<sub>y</sub> = 60,000 psi  
 f'c = 3,500 psi

LOADING HS 20-44 & ALT.



SECTION THRU BARREL



SECTION THRU HEADWALL  
 (Up Stream End Only)

BOX CULVERT & END SECTIONS (CAST IN PLACE)  
 1 @ 9.0' X 4.0'  
 STA. 26+36.00 NO SKEW

REVISIONS		DATE	ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME			

**CULVERT DETAILS**

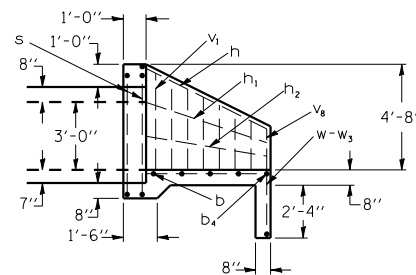
SCALE: VERT. DATE: HORIZ. 061705  
 DRAWN BY JDC  
 CHECKED BY JDE

# DETAIL OF BOX CULVERT END SECTION

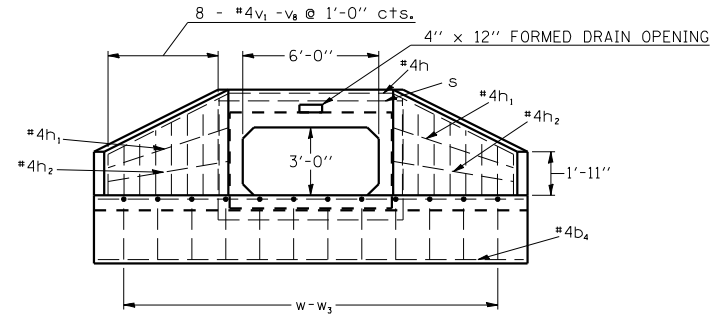
## A.R. BOX CULVERT 1 @ 6.0' X 3.0'

### STA. 16 + 79.62 (CULVERT NO. 4)

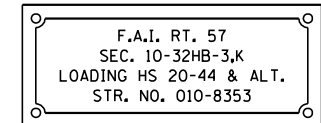
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	153
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 90758				



**SECTION A - A**



**END VIEW**



**NAME PLATE**

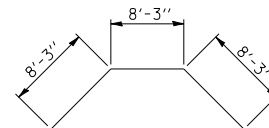
• See Highway Standard 515001-02 for dimensions and placement.

• Name Plate will be paid for at the contract unit price per "EACH" for "NAME PLATES".

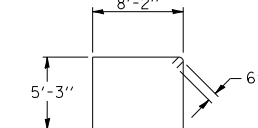
**BILL OF MATERIAL (ONE HEADWALL)**

Bar	No.	Size	Length (ft)	Shape
b	1	#4	9'-3"	—
b <sub>1</sub>	1	#4	11'-9"	—
b <sub>2</sub>	1	#4	14'-3"	—
b <sub>3</sub>	1	#4	16'-9"	—
b <sub>4</sub>	2	#4	18'-9"	—
h	1	#4	24'-9"	—
h <sub>1</sub>	2	#4	7'-11"	—
h <sub>2</sub>	2	#4	7'-9"	—
s	2	#4	27'-10"	□
v <sub>1</sub>	2	#4	6'-3"	J
v <sub>2</sub>	2	#4	5'-11"	J
v <sub>3</sub>	2	#4	5'-6"	J
v <sub>4</sub>	2	#4	5'-2"	J
v <sub>5</sub>	2	#4	4'-10"	J
v <sub>6</sub>	2	#4	4'-6"	J
v <sub>7</sub>	2	#4	4'-2"	J
v <sub>8</sub>	2	#4	3'-10"	J
w	6	#4	8'-0"	⌋
w <sub>1</sub>	2	#4	7'-0"	⌋
w <sub>2</sub>	2	#4	5'-7"	⌋
w <sub>3</sub>	2	#4	4'-1"	⌋
Reinforcement Bars			LB.	243
Class SI Conc. Hdwall			CU. YD.	5.3

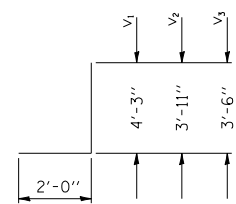
ITEM	UNIT	QUANT.
Box Culvert End Sec. Culvert No. 4	EACH	2



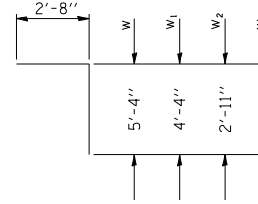
**BAR h**



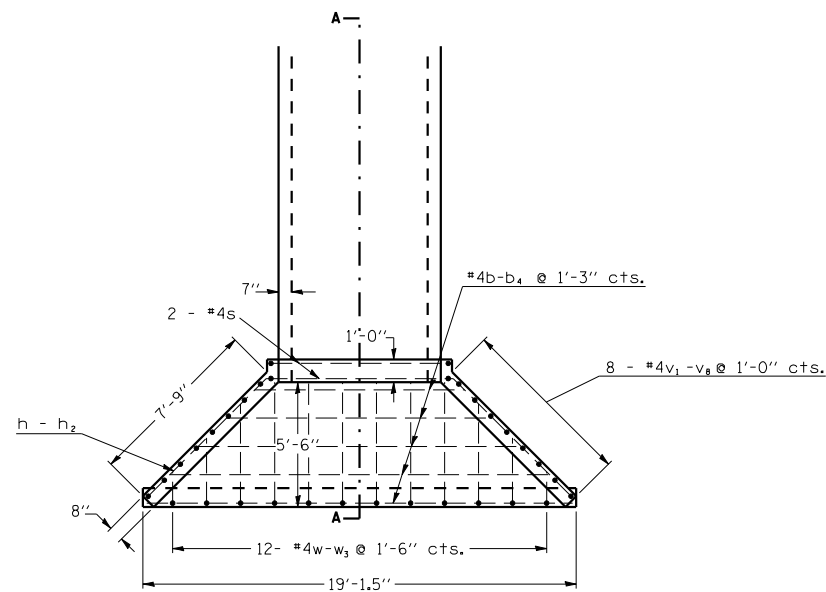
**BAR s**



**v BARS**



**w BARS**



**PLAN**

**NOTES**

- All bars should be rounded and shall conform to the requirements of Art. 1006.10 of Standard Specs.
- Class SI Concrete shall be used throughout.
- The Precast Concrete Box Culvert Sections shall conform to the requirements of AASHTO M259.
- All dimensions are in FEET (")-INCHES (") unless otherwise noted.
- Concrete and Rebar quantities and lengths calculated for the cast-in-place End Sections will vary based on the precast box culverts supplied.
- End Sections will be paid for at the contract unit price each for BOX CULVERT END SECTION CULVERT NO. 4, as outlined in Art. 540.08, which prices shall include all concrete, rebar, and all other items necessary to complete the proposed work.
- Drain holes shall be provided in accordance with Art. 503.12.
- Drawings not to scale.

BOX CULVERT END SECTIONS (CAST IN PLACE)  
1 @ 6.0' X 3.0'  
STA. 16+79.62 NO SKEW

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>CULVERT DETAILS</b>
SCALE:	VERT. DATE	HORIZ. 092804
DRAWN BY		JDC
CHECKED BY		

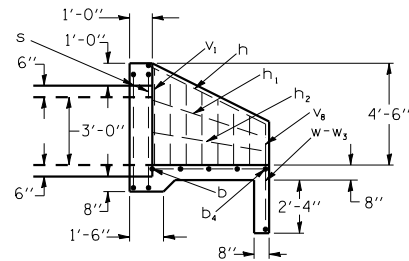
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	154
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
<b>CONTRACT NO. 90758</b>				

# DETAIL OF BOX CULVERT END SECTION

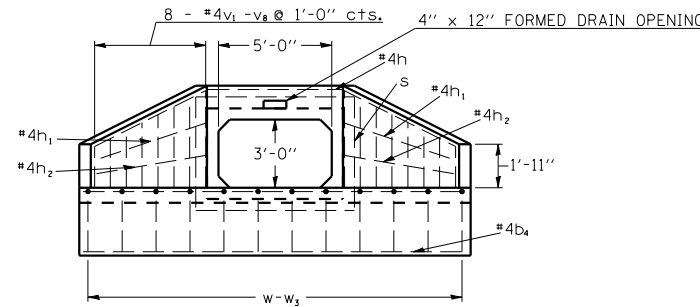
## BOX CULVERT 1 @ 5.0' X 3.0'

STA. 43 + 51.00 Lt. (CULVERT NO. 5)

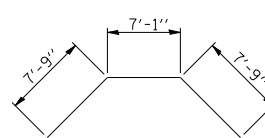
Down Stream End



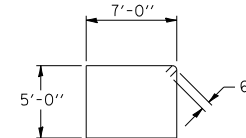
**SECTION A - A**



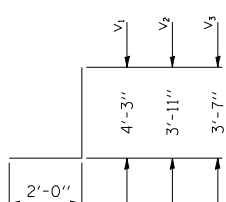
**END VIEW**



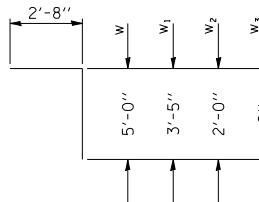
**BAR h**



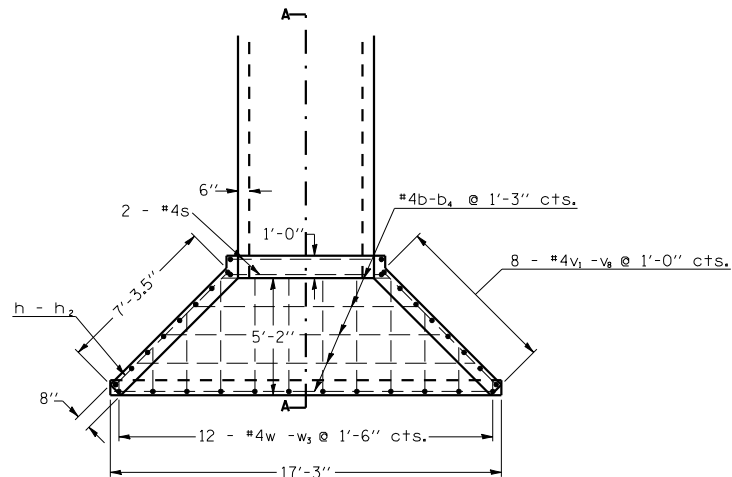
**BAR s**



**v BARS**



**w BARS**



**PLAN**

**BILL OF MATERIAL (ONE HEADWALL)**

Bar	No.	Size	Length (ft)	Shape
b	1	#4	7'-5"	—
b <sub>1</sub>	1	#4	9'-11"	—
b <sub>2</sub>	1	#4	12'-5"	—
b <sub>3</sub>	1	#4	14'-11"	—
b <sub>4</sub>	2	#4	16'-11"	—
h	1	#4	22'-7"	∩
h <sub>1</sub>	2	#4	7'-5"	—
h <sub>2</sub>	2	#4	7'-4"	—
s	2	#4	25'-0"	□
v <sub>1</sub>	2	#4	6'-3"	∩
v <sub>2</sub>	2	#4	5'-11"	∩
v <sub>3</sub>	2	#4	5'-7"	∩
v <sub>4</sub>	2	#4	5'-3"	∩
v <sub>5</sub>	2	#4	4'-10"	∩
v <sub>6</sub>	2	#4	4'-6"	∩
v <sub>7</sub>	2	#4	4'-2"	∩
v <sub>8</sub>	2	#4	3'-10"	∩
w	6	#4	7'-8"	∩
w <sub>1</sub>	2	#4	6'-1"	∩
w <sub>2</sub>	2	#4	4'-8"	∩
w <sub>3</sub>	2	#4	3'-2"	∩

Reinforcement Bars	LB.	211
Class SI Conc. Hdwall.	CU. YD.	4.6

ITEM	UNIT	QUANT.
Box Culvert End Sec. Culvert No. 5	EACH	1

**NOTES**

- All bars should be rounded and shall conform to the requirements of Art. 1006.10 of Standard Specs.
- Class SI Concrete shall be used throughout.
- The Precast Concrete Box Culvert Sections shall conform to the requirements of AASHTO M259.
- All dimensions are in FEET (-) INCHES (") unless otherwise noted.
- Concrete and Rebar quantities and lengths calculated for the cast-in-place End Sections will vary based on the precast box culverts supplied.
- End Sections will be paid for at the contract unit price each for BOX CULVERT END SECTION CULVERT NO., as outlined in Art. 540.08, which prices shall include all concrete, rebar, and all other items necessary to complete the proposed work.
- Drain holes shall be provided in accordance with Art. 503.12.
- Drawings not to scale.

BOX CULVERT END SECTIONS (CAST IN PLACE)  
1 @ 5.0' X 3.0'  
STA. 43+51.00 NO SKEW

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>CULVERT DETAILS</b>

SCALE: VERT.      DRAWN BY JDC  
HORIZ.              CHECKED BY  
DATE 10/27/04

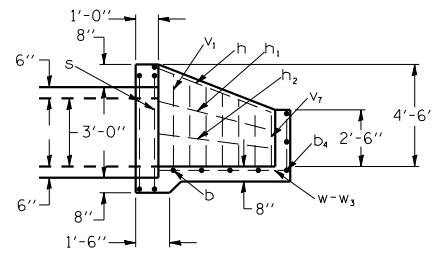
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	155
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
<b>CONTRACT NO. 90758</b>				

# DETAIL OF DROP STRUCTURE

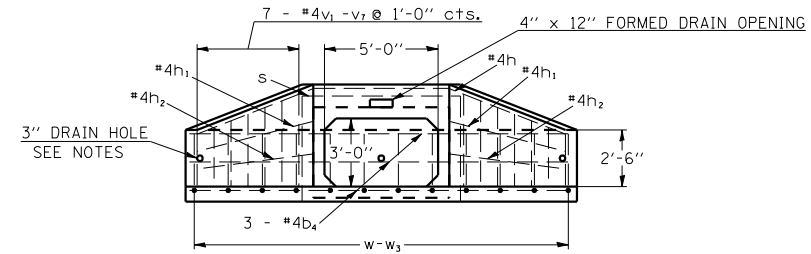
## BOX CULVERT 1 @ 5.0' X 3.0'

### STA. 43 + 51.00 LT. (CULVERT NO. 5)

#### Up Stream End



**SECTION A - A**

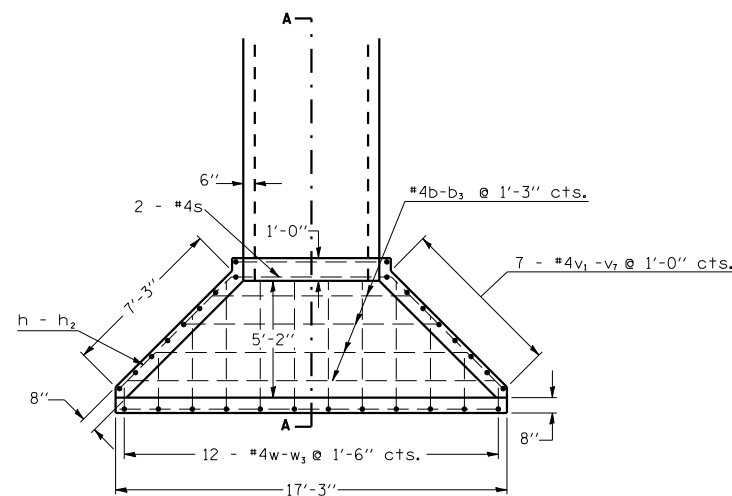
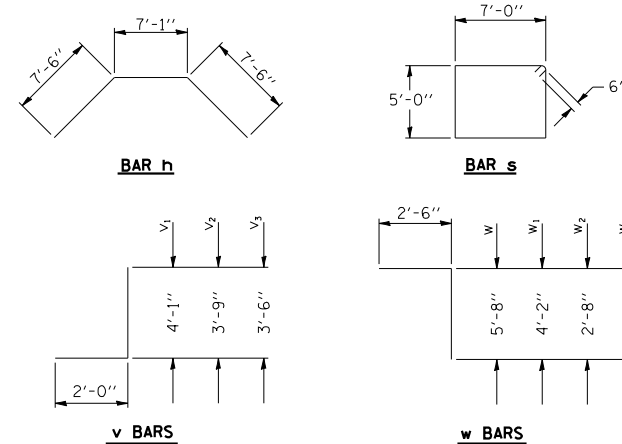


**END VIEW**

**BILL OF MATERIAL (ONE HEADWALL)**

Bar	No.	Size	Length (ft)	Shape
b	1	#4	8'-9"	—
b <sub>1</sub>	1	#4	11'-3"	—
b <sub>2</sub>	1	#4	13'-9"	—
b <sub>3</sub>	1	#4	16'-3"	—
b <sub>4</sub>	3	#4	16'-11"	—
h	1	#4	22'-1"	—
h <sub>1</sub>	2	#4	7'-4"	—
h <sub>2</sub>	2	#4	7'-3"	—
s	2	#4	25'-0"	—
v <sub>1</sub>	2	#4	6'-1"	J
v <sub>2</sub>	2	#4	5'-9"	J
v <sub>3</sub>	2	#4	5'-6"	J
v <sub>4</sub>	2	#4	5'-3"	J
v <sub>5</sub>	2	#4	4'-11"	J
v <sub>6</sub>	2	#4	4'-8"	J
v <sub>7</sub>	2	#4	4'-5"	J
w	6	#4	8'-2"	J
w <sub>1</sub>	2	#4	6'-8"	J
w <sub>2</sub>	2	#4	5'-2"	J
w <sub>3</sub>	2	#4	3'-8"	J
Reinforcement Bars				LB. 238
Class SI Conc. Hdwall				CU. YD. 5.4

ITEM	UNIT	QUANT.
Drop Structure Culvert No. 5.	EACH	1



**PLAN**

**NOTES**

- All bars should be rounded and shall conform to the requirements of Art. 1006.10 of Standard Specs.
- Class SI Concrete shall be used throughout.
- The Precast Concrete Box Culvert Sections shall conform to the requirements of AASHTO M259.
- All dimensions are in FEET (')-INCHES (") unless otherwise noted.
- Concrete and Rebar quantities and lengths calculated for the cast-in-place End Sections will vary based on the precast box culverts supplied.
- End Sections will be paid for at the contract unit price each for BOX CULVERT END SECTION CULVERT NO., as outlined in Art. 540.08, which prices shall include all concrete, rebar, and all other items necessary to complete the proposed work.
- Drain holes shall be provided in accordance with Art. 503.12.
- Drawings not to scale.

BOX CULVERT END SECTIONS (CAST IN PLACE)  
1 @ 5.0' X 3.0'  
STA. 43+51.00 NO SKEW

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>CULVERT DETAILS</b>

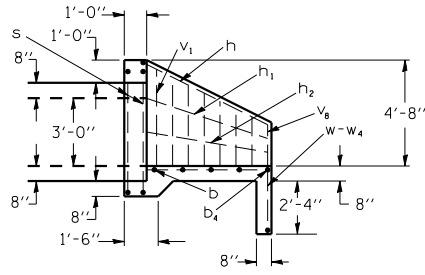
SCALE: VERT. 1/2"=1'-0"  
HORIZ. 1/4"=1'-0"  
DATE 11/23/04  
DRAWN BY JDC  
CHECKED BY

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	156
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 90758				

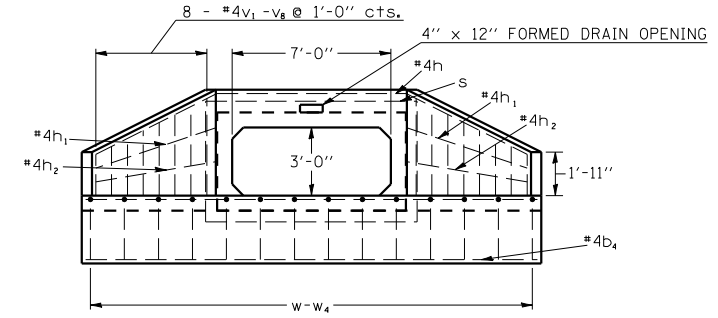
# DETAIL OF BOX CULVERT END SECTION

## A.R. BOX CULVERT 1 @ 7.0' X 3.0'

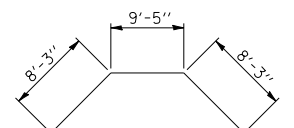
### STA. 16+40.91 (CULVERT NO. 7) Down Stream End



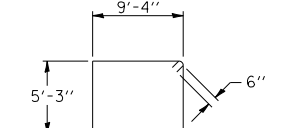
SECTION A - A



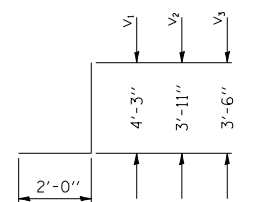
END VIEW



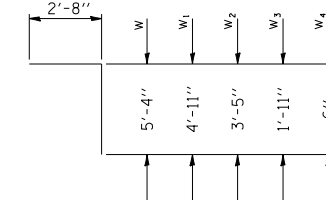
BAR h



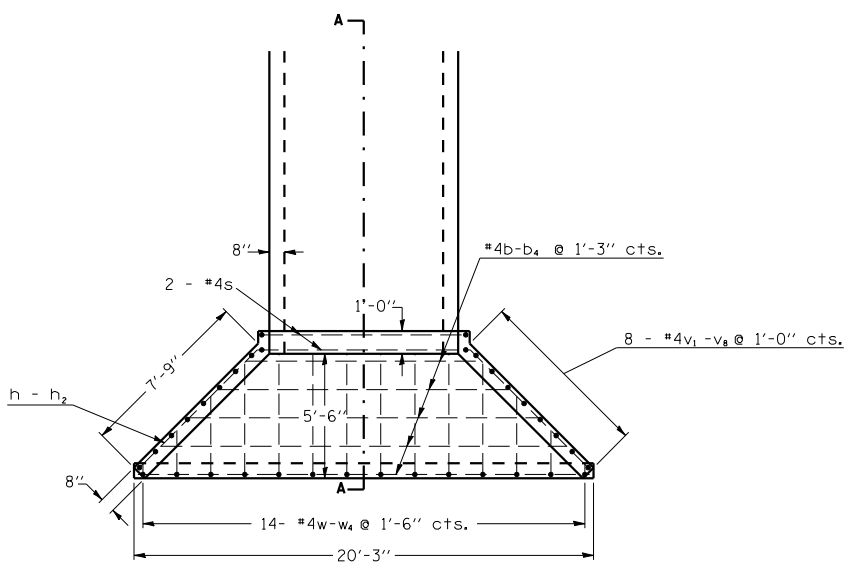
BAR s



v BARS



w BARS



PLAN

#### BILL OF MATERIAL (ONE HEADWALL)

Bar	No.	Size	Length (ft)	Shape
b	1	#4	10'-5"	—
b1	1	#4	12'-11"	—
b2	1	#4	15'-5"	—
b3	1	#4	17'-11"	—
b4	2	#4	19'-11"	—
h	1	#4	25'-11"	↙ ↘
h1	2	#4	7'-11"	—
h2	2	#4	7'-9"	—
s	2	#4	30'-2"	□
v1	2	#4	6'-3"	┘
v2	2	#4	5'-11"	┘
v3	2	#4	5'-6"	┘
v4	2	#4	5'-2"	┘
v5	2	#4	4'-10"	┘
v6	2	#4	4'-6"	┘
v7	2	#4	4'-2"	┘
v8	2	#4	3'-10"	┘
w	6	#4	8'-0"	┘
w1	2	#4	7'-7"	┘
w2	2	#4	6'-1"	┘
w3	2	#4	4'-7"	┘
w4	2	#4	3'-2"	┘

Reinforcement Bars	LB.	258
Class SI Conc. Hdwall,	CU. YD.	5.6

ITEM	UNIT	QUANT.
Box Culvert End Sec. Culvert No. 7	EACH	1

#### NOTES

- All bars should be rounded and shall conform to the requirements of Art. 1006.10 of Standard Specs.
- Class SI Concrete shall be used throughout.
- The Precast Concrete Box Culvert Sections shall conform to the requirements of AASHTO M259.
- All dimensions are in FEET (')-INCHES (") unless otherwise noted.
- Concrete and Rebar quantities and lengths calculated for the cast-in-place End Sections will vary based on the precast box culverts supplied.
- End Sections will be paid for at the contract unit price each for BOX CULVERT END SECTION CULVERT NO., as outlined in Art. 540.08, which prices shall include all concrete, rebar, and all other items necessary to complete the proposed work.
- Drain holes shall be provided in accordance with Art. 503.12.
- Drawings not to scale.

BOX CULVERT END SECTIONS (CAST IN PLACE)  
1 @ 7.0' X 3.0'  
STA. 16+40.91 NO SKEW

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<h3>CULVERT DETAILS</h3>

SCALE: VERT. \_\_\_\_\_  
HORIZ. \_\_\_\_\_  
DATE 092904

DRAWN BY JDC  
CHECKED BY \_\_\_\_\_



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	157
STA. TO STA.			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	
CONTRACT NO. 90758				

# DETAIL OF DROP STRUCTURE

## BOX CULVERT 1 @ 7.0' X 3.0'

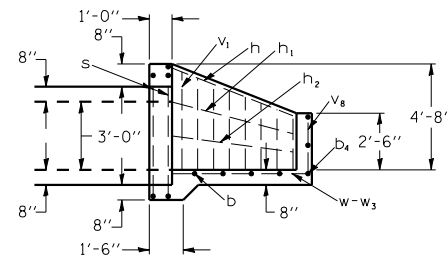
### STA. 16 + 40.91 LT. (CULVERT NO. 7)

#### Up Stream End

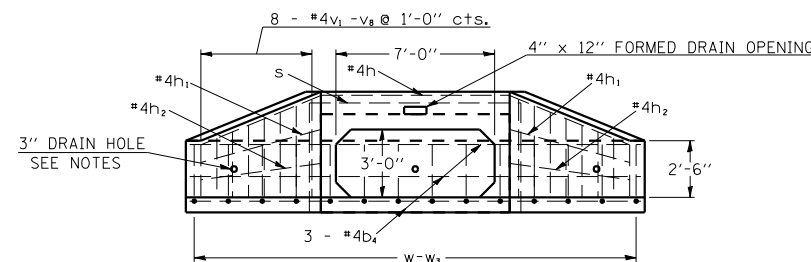
F.A.I. RT. 57  
SEC. 10-32HB-3,K  
LOADING HS 20-44 & ALT.  
STR. NO. 010-8355

**NAME PLATE**

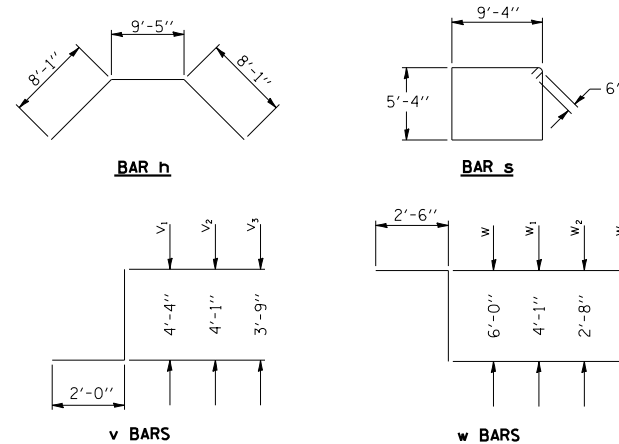
- See Highway Standard 515001-02 for dimensions and placement.
- Name Plate will be paid for at the contract unit price per "EACH" for "NAME PLATES".



**SECTION A - A**

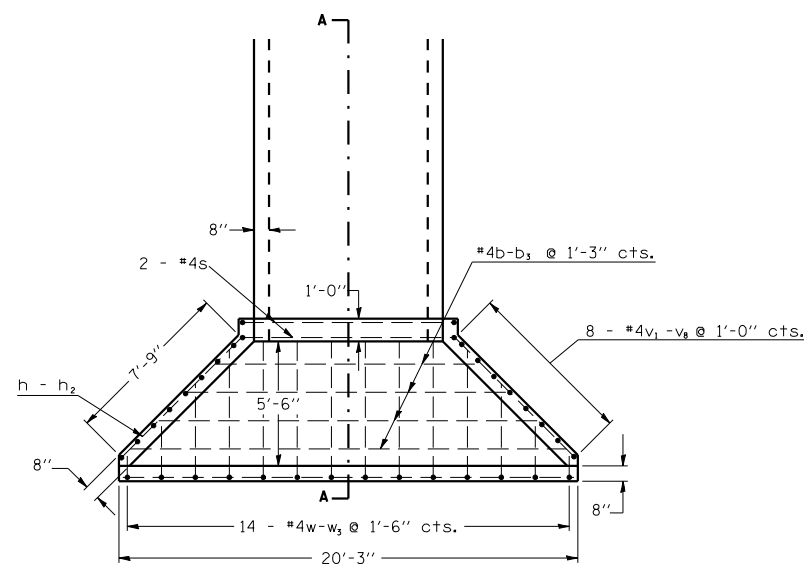


**END VIEW**



**BILL OF MATERIAL (ONE HEADWALL)**

Bar	No.	Size	Length (ft)	Shape
b	1	#4	11'-9"	—
b <sub>1</sub>	1	#4	14'-3"	—
b <sub>2</sub>	1	#4	16'-9"	—
b <sub>3</sub>	1	#4	19'-3"	—
b <sub>4</sub>	3	#4	19'-11"	—
h	1	#4	25'-7"	▾
h <sub>1</sub>	2	#4	7'-10"	—
h <sub>2</sub>	2	#4	7'-9"	—
s	2	#4	29'-4"	□
v <sub>1</sub>	2	#4	6'-4"	┘
v <sub>2</sub>	2	#4	6'-1"	┘
v <sub>3</sub>	2	#4	5'-9"	┘
v <sub>4</sub>	2	#4	5'-6"	┘
v <sub>5</sub>	2	#4	5'-3"	┘
v <sub>6</sub>	2	#4	4'-11"	┘
v <sub>7</sub>	2	#4	4'-8"	┘
v <sub>8</sub>	2	#4	4'-5"	┘
w	8	#4	8'-6"	┘
w <sub>1</sub>	2	#4	6'-7"	┘
w <sub>2</sub>	2	#4	5'-2"	┘
w <sub>3</sub>	2	#4	3'-8"	┘
Reinforcement Bars			LB.	282
Class SI Conc. Hdwall			CU. YD.	6.6



**PLAN**

**NOTES**

- All bars should be rounded and shall conform to the requirements of Art. 1006.10 of Standard Specs.
- Class SI Concrete shall be used throughout.
- The Precast Concrete Box Culvert Sections shall conform to the requirements of AASHTO M259.
- All dimensions are in FEET (')-INCHES (") unless otherwise noted.
- Concrete and Rebar quantities and lengths calculated for the cast-in-place End Sections will vary based on the precast box culverts supplied.
- End Sections will be paid for at the contract unit price each for BOX CULVERT END SECTION CULVERT NO., as outlined in Art. 540.08, which prices shall include all concrete, rebar, and all other items necessary to complete the proposed work.
- Drain holes shall be provided in accordance with Art. 503.12.
- Drawings not to scale.

BOX CULVERT END SECTIONS (CAST IN PLACE)  
1 @ 7.0' X 3.0'  
STA. 16+40.91 NO SKEW

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE	<h2 style="margin: 0;">CULVERT DETAILS</h2>	
SCALE:	VERT. DATE	DRAWN BY JDC CHECKED BY	

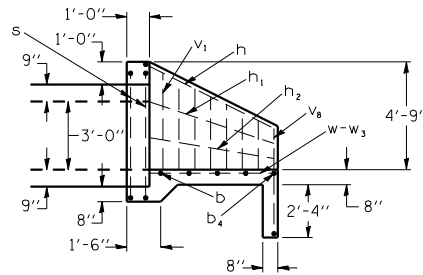
# DETAIL OF BOX CULVERT END SECTION

## A.R. BOX CULVERT 1 @ 9.0' X 3.0'

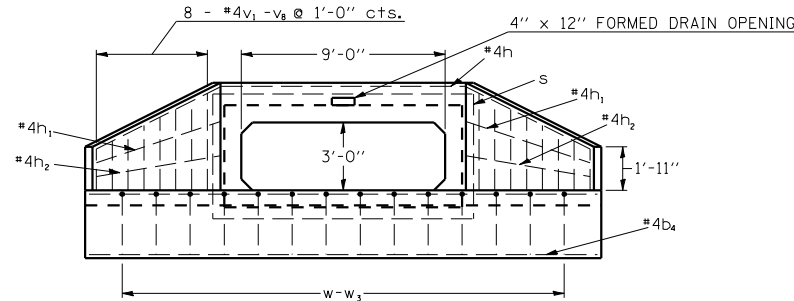
STA. 21 + 70.00 (CULVERT NO. 8)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	158
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

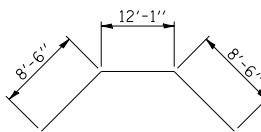
**CONTRACT NO. 90758**



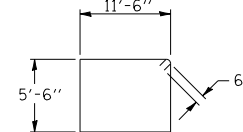
**SECTION A - A**



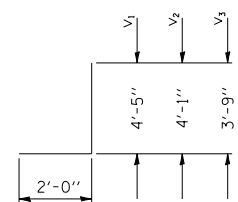
**END VIEW**



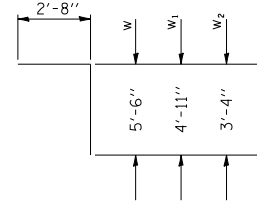
**BAR h**



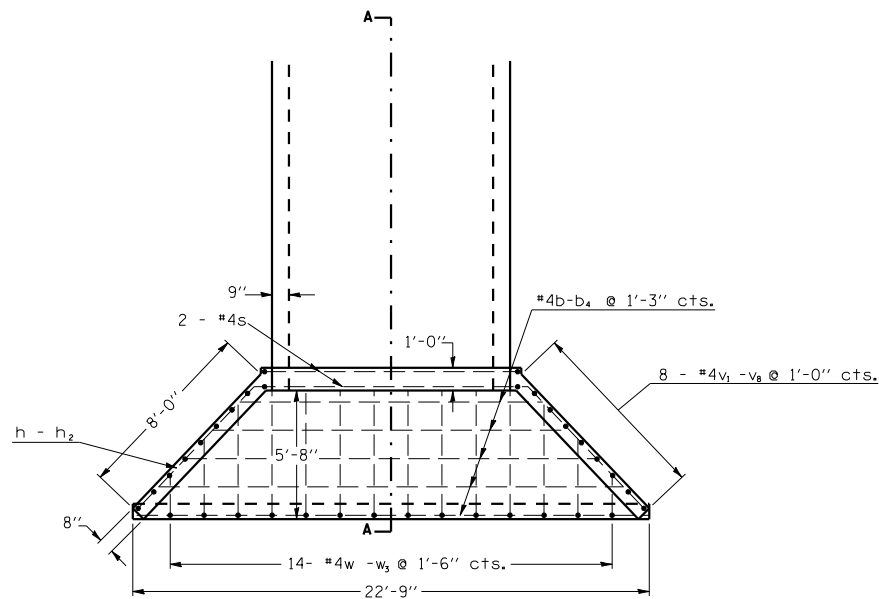
**BAR s**



**v BARS**



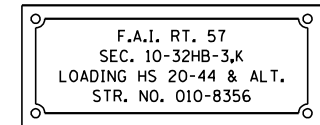
**w BARS**



**PLAN**

**NOTES**

- All bars should be rounded and shall conform to the requirements of Art. 1006.10 of Standard Specs.
- Class SI Concrete shall be used throughout.
- The Precast Concrete Box Culvert Sections shall conform to the requirements of AASHTO M259.
- All dimensions are in FEET (')-INCHES (") unless otherwise noted.
- Concrete and Rebar quantities and lengths calculated for the cast-in-place End Sections will vary based on the precast box culverts supplied.
- End Sections will be paid for at the contract unit price each for BOX CULVERT END SECTION CULVERT NO., as outlined in Art. 540.08, which prices shall include all concrete, rebar, and all other items necessary to complete the proposed work.
- Drain holes shall be provided in accordance with Art. 503.12.
- Drawings not to scale.



**NAME PLATE**

- See Highway Standard 515001-02 for dimensions and placement.
- Name Plate will be paid for at the contract unit price per "EACH" for "NAME PLATES".

**BILL OF MATERIAL (ONE HEADWALL)**

Bar	No.	Size	Length (ft)	Shape
b	1	#4	13'-4"	
b <sub>1</sub>	1	#4	15'-9"	
b <sub>2</sub>	1	#4	18'-2"	
b <sub>3</sub>	1	#4	20'-6"	
b <sub>4</sub>	2	#4	22'-8"	
h	1	#4	29'-1"	
h <sub>1</sub>	2	#4	8'-3"	
h <sub>2</sub>	2	#4	8'-1"	
s	2	#4	35'-0"	
v <sub>1</sub>	2	#4	6'-5"	J
v <sub>2</sub>	2	#4	6'-1"	J
v <sub>3</sub>	2	#4	5'-9"	J
v <sub>4</sub>	2	#4	5'-4"	J
v <sub>5</sub>	2	#4	5'-0"	J
v <sub>6</sub>	2	#4	4'-8"	J
v <sub>7</sub>	2	#4	4'-4"	J
v <sub>8</sub>	2	#4	4'-0"	J
w	8	#4	8'-2"	∟
w <sub>1</sub>	2	#4	7'-7"	∟
w <sub>2</sub>	2	#4	6'-0"	∟
w <sub>3</sub>	2	#4	4'-5"	∟

Reinforcement Bars	LB.	287
Class SI Conc. Hdwall	CU. YD.	6.5

ITEM	UNIT	QUANT.
Box Culvert End	EACH	2
Sec. Culvert No. 8		

BOX CULVERT END SECTIONS (CAST IN PLACE)  
1 @ 9.0' X 3.0'  
STA. 21+70.00 NO SKEW

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>CULVERT DETAILS</b>

SCALE: VERT. HORIZ. DATE 092904 DRAWN BY JDC CHECKED BY

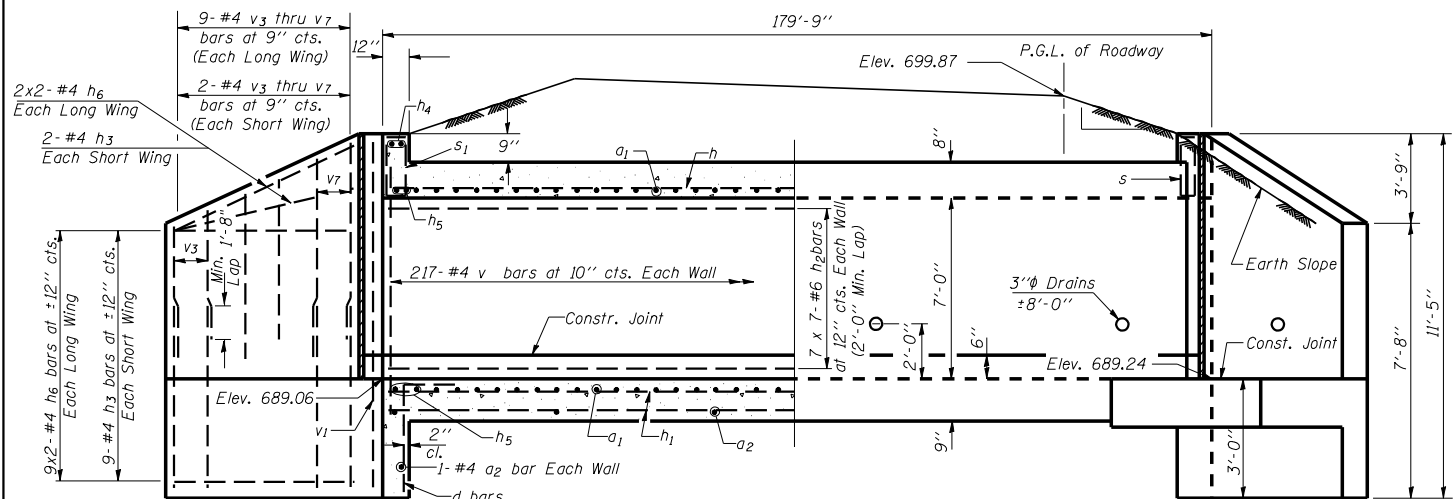
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	159
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 90758				

# DETAIL OF CAST IN PLACE BOX CULVERT & END SECTION

## A.R. BOX CULVERT 1 @ 8.0' X 7.0'

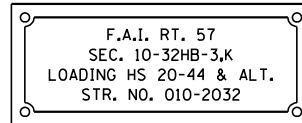
STA. 31 + 31.92 (CULVERT NO. 16)

**PRECAST OPTION NOT ALLOWED**



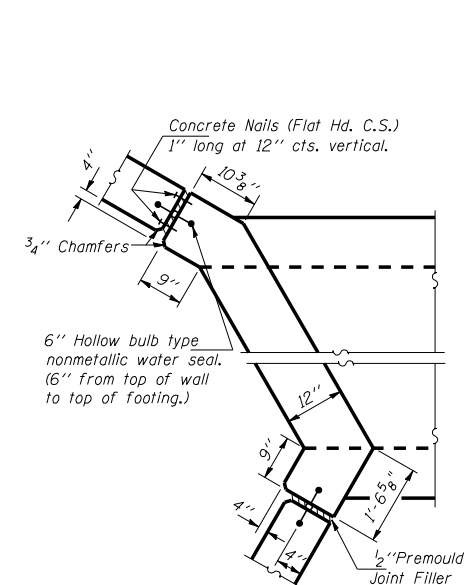
**HALF LONG. SECT. HALF ELEVATION**

Dimensions at Rt. L's to  $\phi$  Roadway

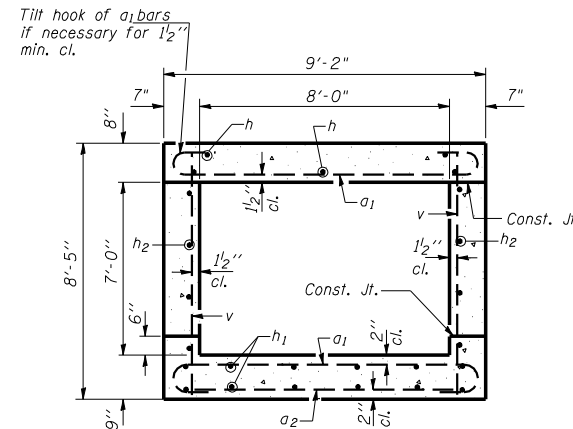


**NAME PLATE**

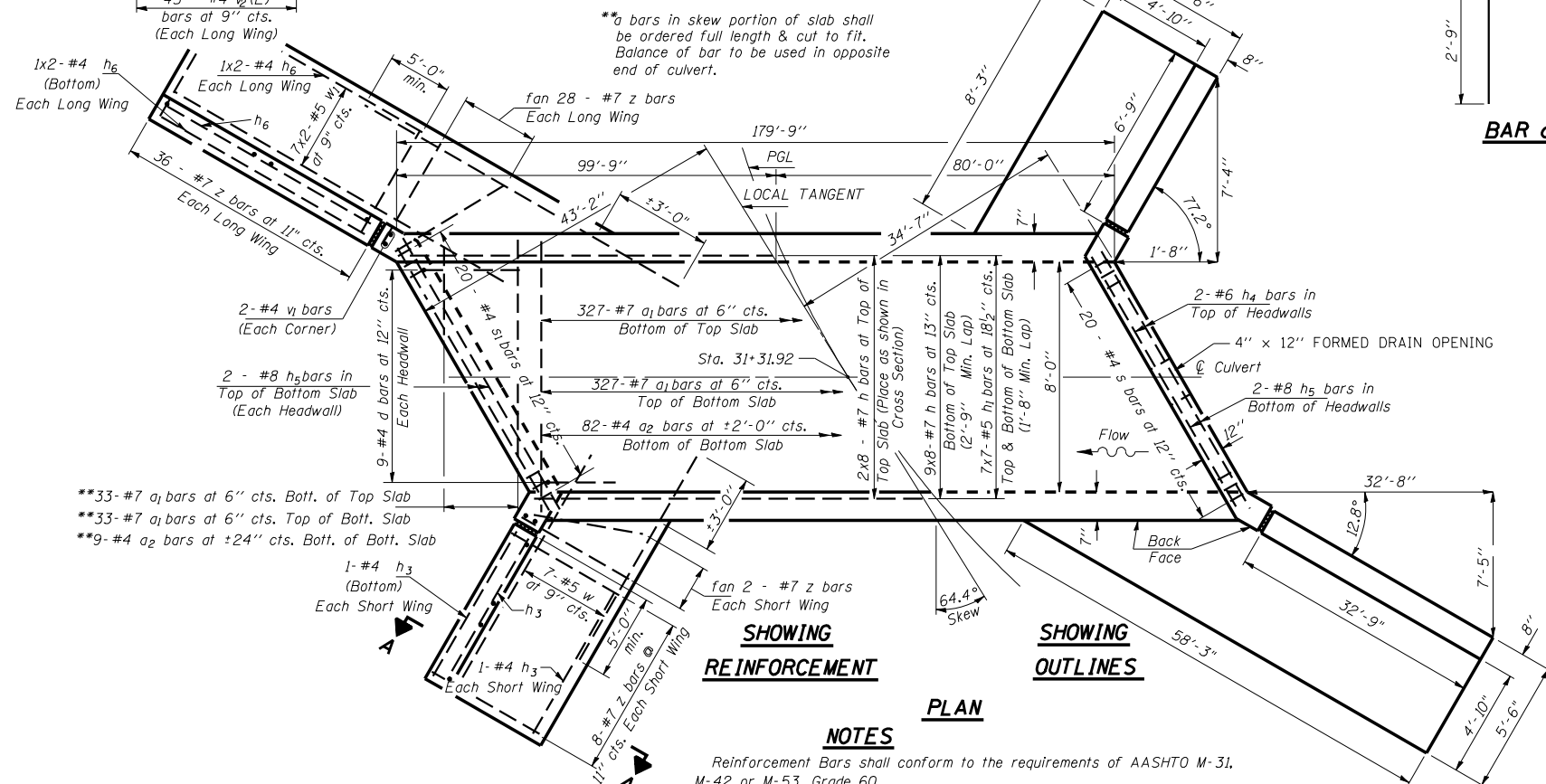
- See Highway Standard 515001-02 for dimensions and placement.
- Name Plate will be paid for at the contract unit price per "EACH" for "NAME PLATES".



**CORNER DETAIL**



**SECTION THRU BARREL**

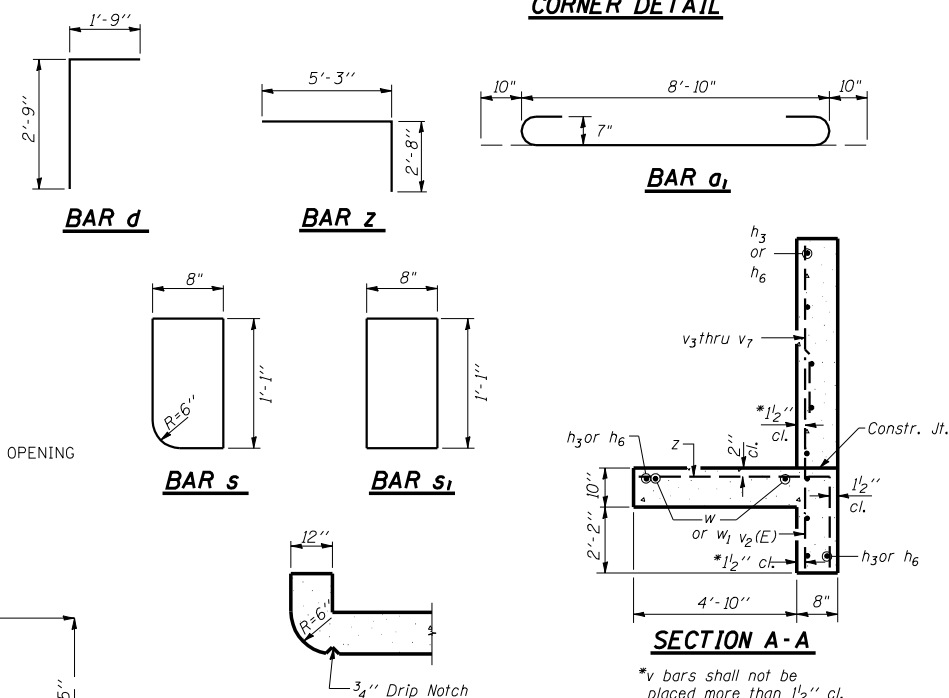


**SHOWING REINFORCEMENT**

**SHOWING OUTLINES**

**NOTES**

Reinforcement Bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 60.  
 Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.  
 Reinforcement bars designated (E) shall be epoxy coated.  
 All construction joints shall be bonded.  
 Any excavation required for box culvert construction shall be included in the contract unit price for concrete, per Art. 502.15.



**SECTION THRU HEADWALL (Up Stream End Only)**

**DESIGN STRESSES**

$f_y = 60,000$  psi  
 $f'_c = 3,500$  psi

Max. Soil Pressure under footing = 2778 psf

**LOADING HS 20-44 & ALT.**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a1	720	#7	10'-6"	[U]
a2	93	#4	8'-10"	[U]
d	18	#4	4'-6"	[J]
h	88	#7	24'-10"	[—]
h1	98	#5	27'-2"	[—]
h2	98	#6	27'-4"	[—]
h3	26	#4	6'-5"	[—]
h4	4	#6	20'-10"	[—]
h5	8	#8	20'-10"	[—]
h6	52	#4	17'-1"	[—]
s	20	#4	3'-6"	[U]
s1	20	#4	3'-6"	[U]
v	434	#4	8'-1"	[—]
v1	8	#4	11'-1"	[—]
v2(E)	110	#4	4'-9"	[—]
v3	22	#4	4'-8"	[—]
v4	22	#4	5'-6"	[—]
v5	22	#4	6'-4"	[—]
v6	22	#4	7'-2"	[—]
v7	22	#4	8'-0"	[—]
w	14	#5	9'-5"	[—]
w1	28	#5	17'-10"	[—]
z	148	#7	7'-11"	[—]
Concrete Box Culverts	Cu. Yd.		180	
Reinforcement Bars, Epoxy Coated	Pound		349	
Reinforcement Bars	Pound		34,618	

BOX CULVERT & END SECTIONS (CAST IN PLACE)  
 1 @ 8.0' X 7.0'  
 STA. 31+31.92 64.4° SKEW

**REINFORCED CONCRETE CULVERT DETAILS**

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	

**CULVERT DETAILS**

SCALE: VERT. HORIZ. DATE: 062205 DRAWN BY: JDC CHECKED BY: JDE

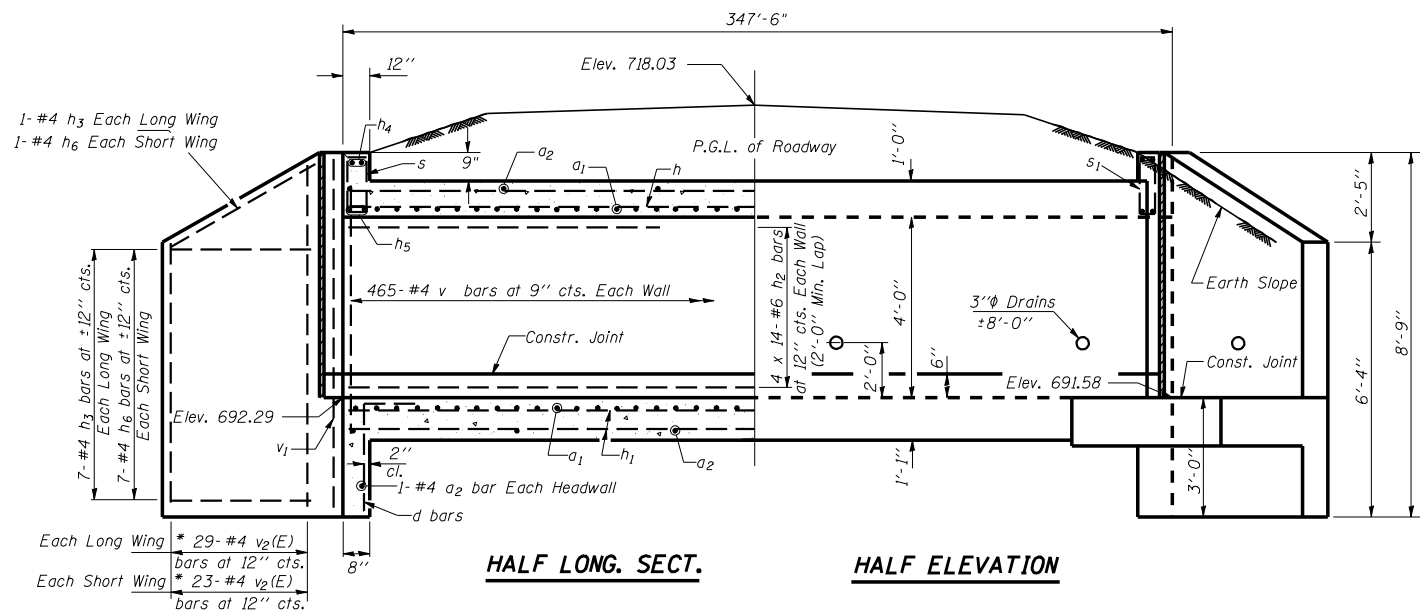
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	160
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 90758				

# DETAIL OF CAST IN PLACE BOX CULVERT & END SECTION

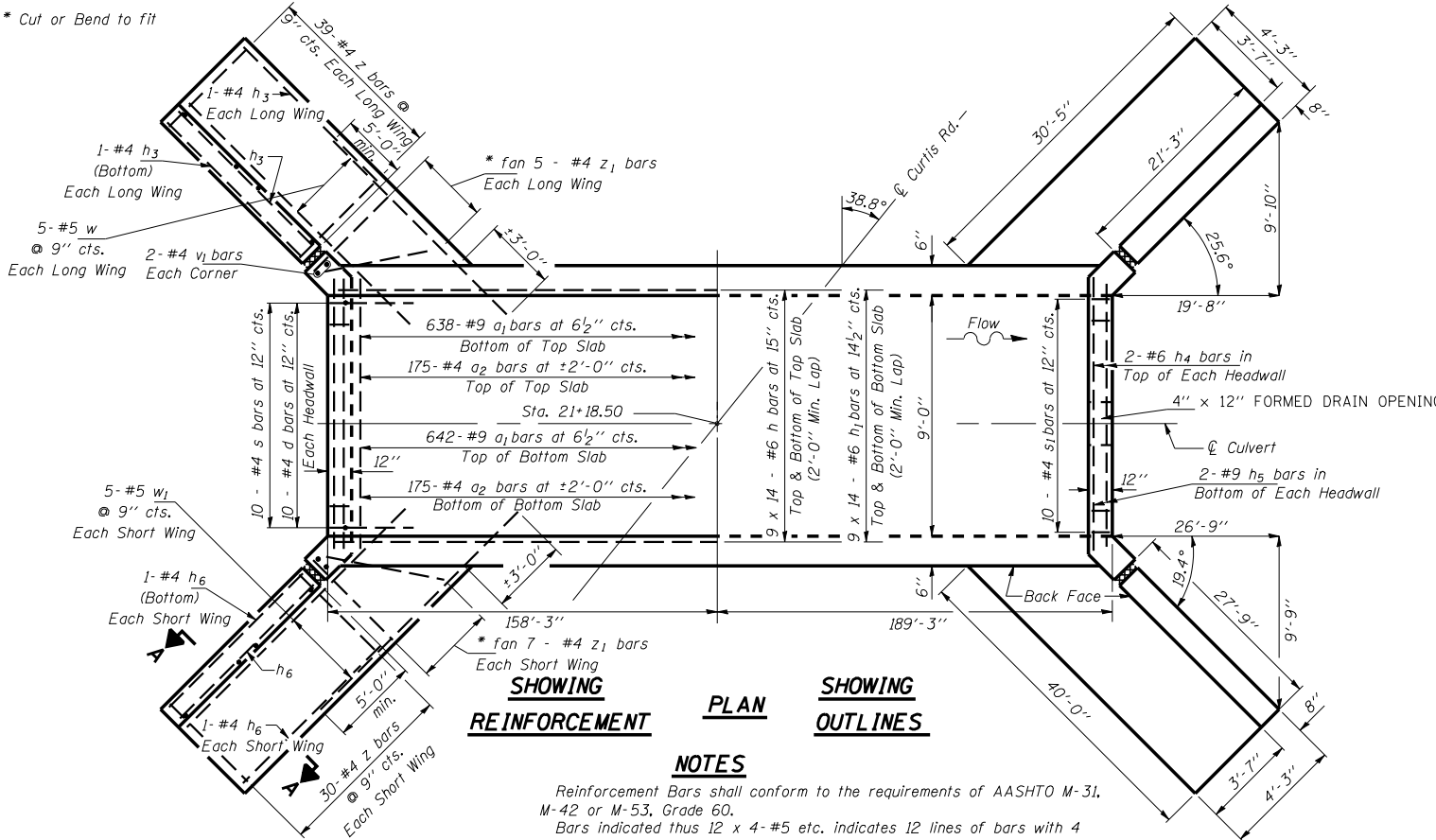
## A.R. BOX CULVERT 1 @ 9.0' X 4.0'

**STA. 21+18.5 (CULVERT NO. 17)**

PRECAST OPTION  
NOT ALLOWED



**HALF LONG. SECT.      HALF ELEVATION**



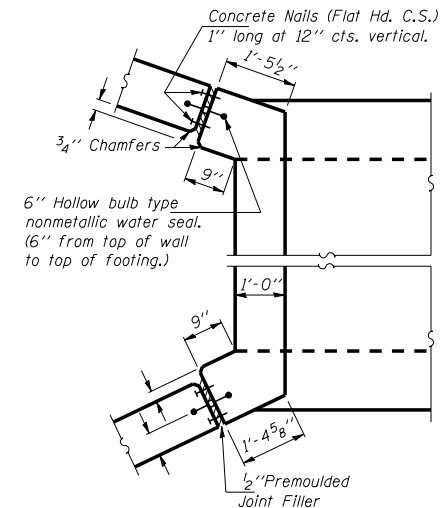
**SHOWING REINFORCEMENT      PLAN      SHOWING OUTLINES**

**NOTES**  
 Reinforcement Bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 60.  
 Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.  
 Reinforcement bars designated (E) shall be epoxy coated.  
 All construction joints shall be bonded.  
 Any excavation required for box culvert construction shall be included in the contract unit price for concrete, per Art. 502.15.

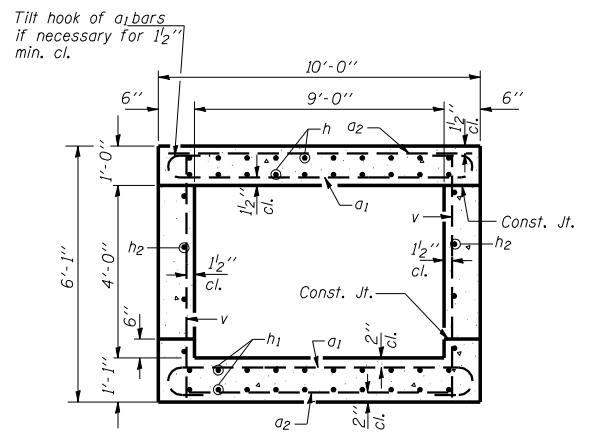
F.A.I. RT. 57  
 SEC. 10-32HB-3,K  
 LOADING HS 20-44 & ALT.  
 STR. NO. 010-8351

**NAME PLATE**

- See Highway Standard 515001-02 for dimensions and placement.
- Name Plate will be paid for at the contract unit price per "EACH" for "NAME PLATES".



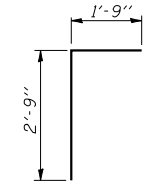
**CORNER DETAIL**



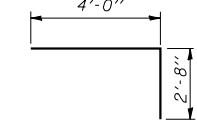
**SECTION THRU BARREL**

**BILL OF MATERIAL**

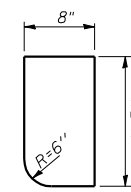
Bar	No.	Size	Length	Shape
a1	1280	#9	12'-2"	U
a2	352	#4	9'-8"	U
d	20	#4	4'-6"	L
h	252	#6	26'-8"	—
h1	252	#6	26'-8"	—
h2	112	#6	26'-8"	—
h3	20	#4	27'-5"	—
h4	4	#6	9'-8"	—
h5	4	#9	9'-8"	—
h6	20	#4	20'-11"	—
s	10	#4	4'-2"	U
s1	10	#4	4'-2"	U
v	930	#4	5'-9"	—
v1	8	#4	8'-5"	—
v2(E)	104	#4	8'-5"	—
w	10	#5	33'-0"	—
w1	10	#5	26'-0"	—
z	138	#4	6'-8"	—
z1	24	#4	10'-0"	—
Concrete Box Culverts			Cu. Yd.	353.2
Reinforcement Bars			Pound	585
Epoxy Coated Reinforcement Bars			Pound	85,880



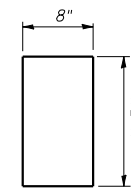
**BAR d**



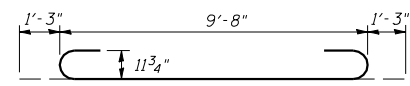
**BAR z**



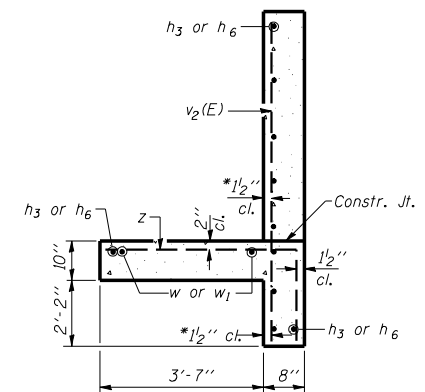
**BAR s**



**BAR s1**

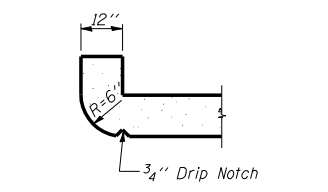


**BAR a1**



**SECTION A-A**

\*v bars shall not be placed more than 1 1/2" cl. from back face of wingwall.



**SECTION THRU HEADWALL  
(Up Stream End Only)**

**DESIGN STRESSES**

fy = 60,000 psi  
 f'c = 3,500 psi  
 Max. Soil Pressure under footing = 2278 psf

**LOADING HS 20-44 & ALT.**

BOX CULVERT & END SECTIONS (CAST IN PLACE)  
 1 @ 9.0' X 4.0'  
 STA. 21+18.50    38.8° SKEW

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE		

CULVERT DETAILS

SCALE: VERT. HORIZ. DATE 062205 DRAWN BY JDC CHECKED BY JDE

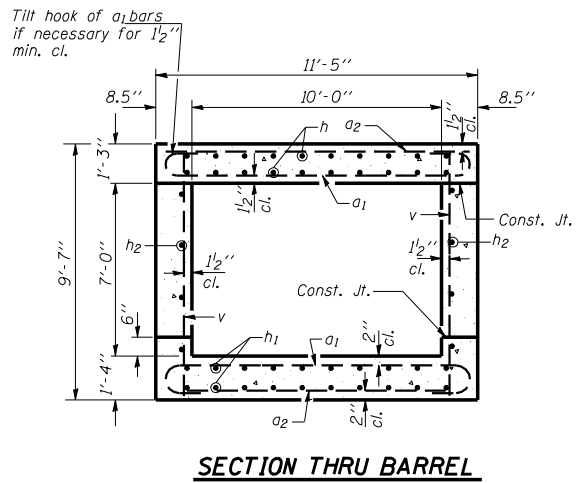
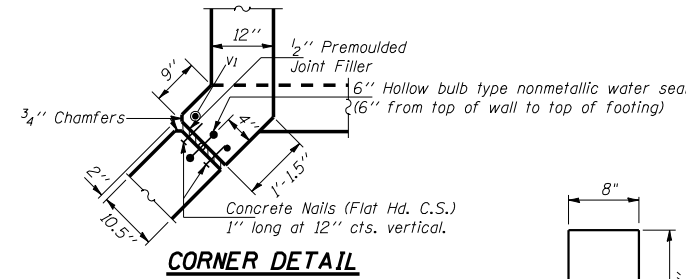
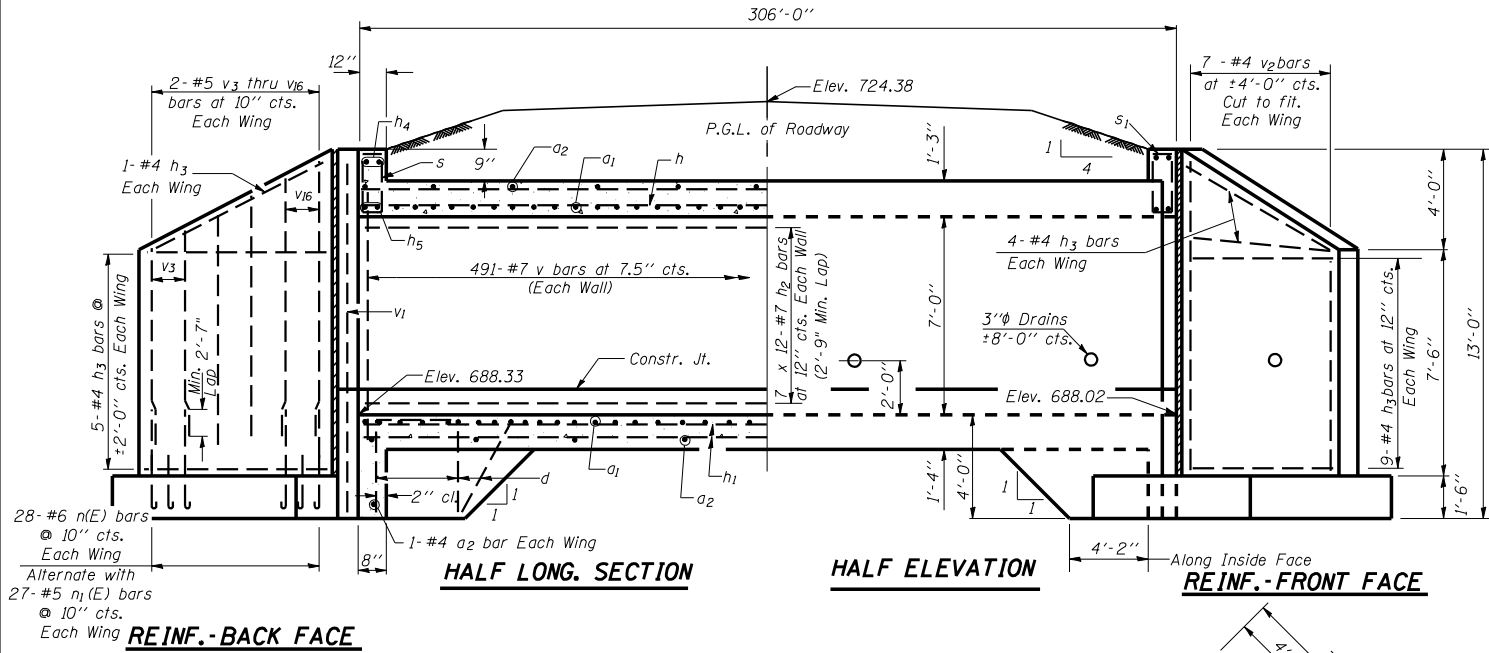
**PRECAST OPTION  
NOT ALLOWED**

# DETAIL OF CAST IN PLACE BOX CULVERT & END SECTION

## A.R. BOX CULVERT 1 @ 10.0' X 7.0'

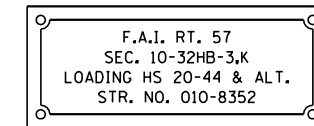
STA. 26 + 37.14 (CULVERT NO. 18)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	161
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
<b>CONTRACT NO. 90758</b>				



### BILL OF MATERIAL

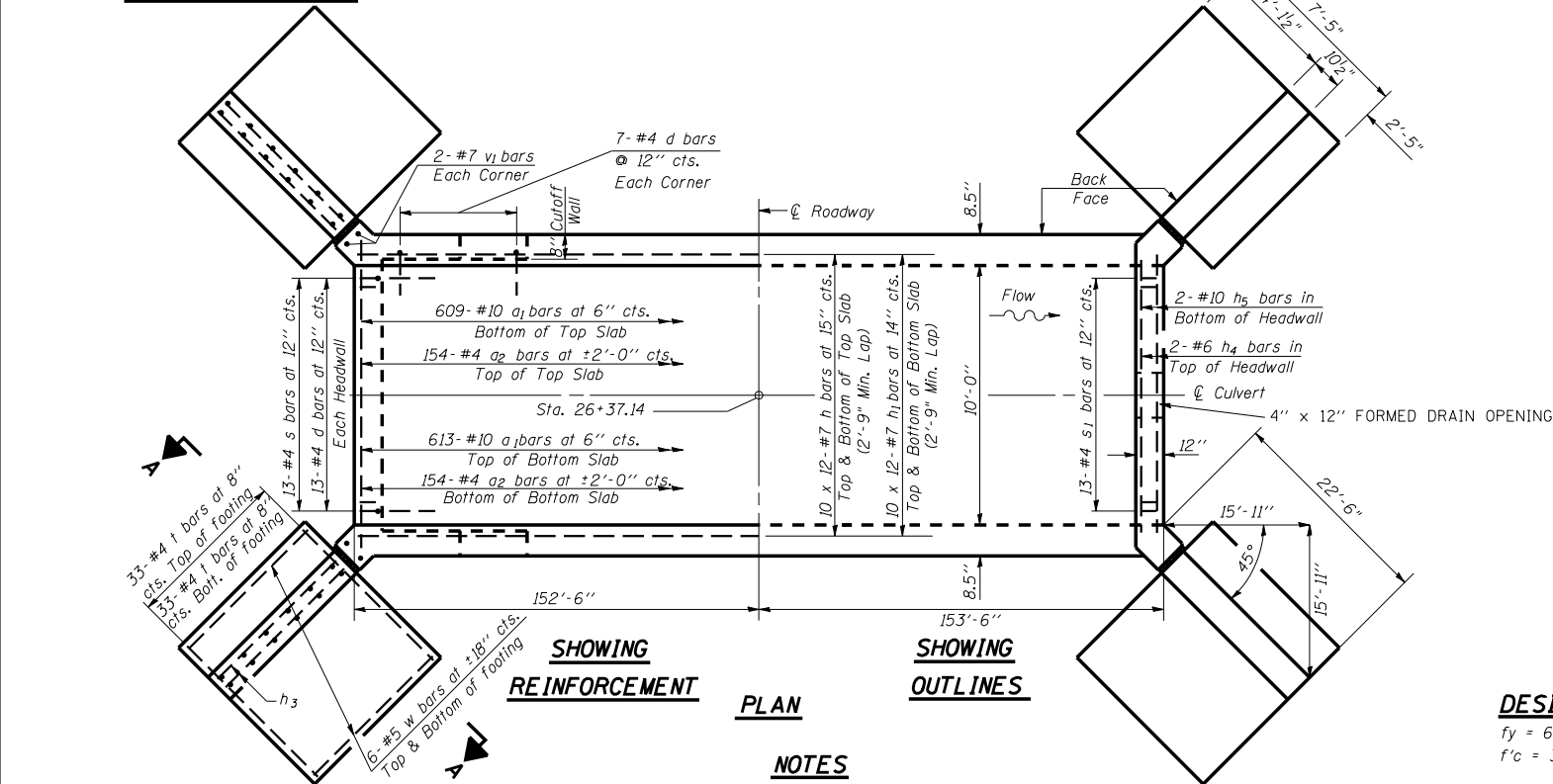
Bar	No.	Size	Length	Shape	
a1	1222	#10	13'-11"	U	
a2	310	#4	11'-1"	U	
d	54	#4	5'-6"	L	
h	240	#7	28'-0"	L	
h1	240	#7	28'-0"	L	
h2	168	#7	28'-0"	L	
h3	76	#4	21'-5"	L	
h4	4	#6	11'-1"	L	
h5	4	#10	11'-1"	L	
n(E)	112	#6	6'-1"	L	
n1(E)	108	#5	4'-3"	L	
s	13	#4	4'-8"	L	
s1	13	#4	4'-8"	L	
t	264	#4	7'-1"	L	
v	982	#7	9'-3"	L	
v1	8	#7	12'-8"	L	
v2	28	#4	11'-2"	L	
v3	8	#5	5'-10"	L	
v4	8	#5	6'-2"	L	
v5	8	#5	6'-6"	L	
v6	8	#5	6'-9"	L	
v7	8	#5	7'-1"	L	
v8	8	#5	7'-4"	L	
v9	8	#5	7'-8"	L	
v10	8	#5	7'-11"	L	
v11	8	#5	8'-3"	L	
v12	8	#5	8'-6"	L	
v13	8	#5	8'-10"	L	
v14	8	#5	9'-2"	L	
v15	8	#5	9'-5"	L	
v16	8	#5	9'-8"	L	
w	48	#5	21'-5"	L	
Concrete Box Culverts				Cu. Yd.	515.1
Reinforcement Bars, Epoxy Coated				Pound	1,502
Reinforcement Bars				Pound	136,480



### NAME PLATE

• See Highway Standard 515001-02 for dimensions and placement.

• Name Plate will be paid for at the contract unit price per "EACH" for "NAME PLATES".



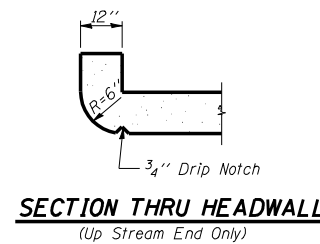
### NOTES

Reinforcement Bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 60.  
Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.  
Reinforcement bars designated (E) shall be epoxy coated.  
All construction joints shall be bonded.  
Any excavation required for box culvert construction shall be included in the contract unit price for concrete, per Art. 502.15.

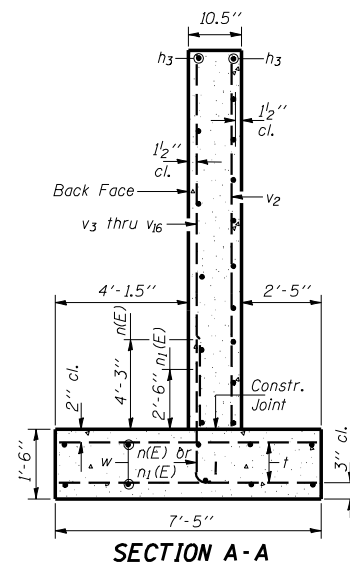
### DESIGN STRESSES

$f_y = 60,000 \text{ psi}$   
 $f'_c = 3,500 \text{ psi}$   
Max. Soil Pressure  
under footing = 3,382 psf

**LOADING HS 20-44 & ALT.**



SECTION THRU HEADWALL  
(Up Stream End Only)



SECTION A-A

BOX CULVERT & END SECTIONS (CAST IN PLACE)  
1 @ 10.0' X 7.0'  
STA. 26+37.14 NO SKEW

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE		

## CULVERT DETAILS

SCALE: VERT.  
HORIZ.  
DATE 053105

DRAWN BY JDC  
CHECKED BY JDE

# DETAIL OF CAST IN PLACE BOX CULVERT & END SECTION

## A.R. BOX CULVERT 1 @ 11.0' X 9.0'

### STA. 41+52.28 (CULVERT NO. 19)

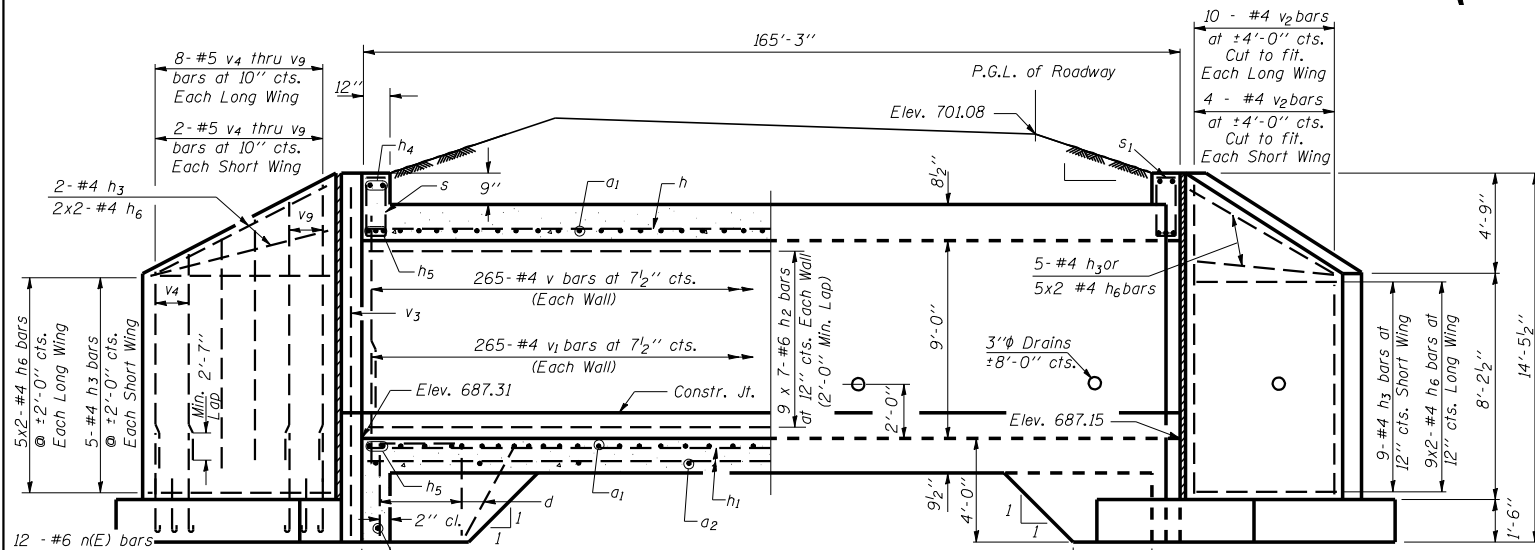
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	162

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

**CONTRACT NO. 90758**

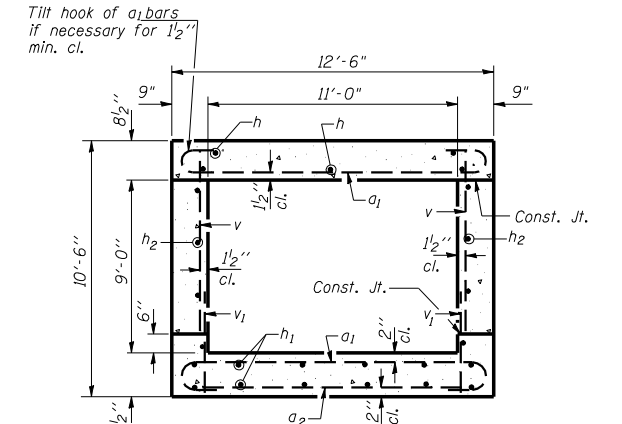
**PRECAST OPTION NOT ALLOWED**



**F.A.I. RT. 57  
SEC. 10-32HB-3,K  
LOADING HS 20-44 & ALT.  
STR. NO. 010-2033**

**NAME PLATE**

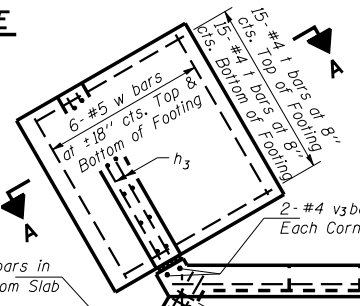
- See Highway Standard 515001-02 for dimensions and placement.
- Name Plate will be paid for at the contract unit price per "EACH" for "NAME PLATES".



**SECTION THRU BARREL**

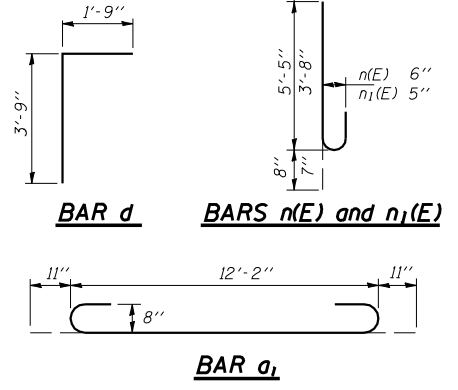
**REINF.-BACK FACE**

- 12 - #6 n(E) bars @ 10" cts. Each Short Wing
- Alternate with 11-#5 n1(E) bars @ 10" cts. Each Short Wing
- 46 - #6 n(E) bars @ 10" cts. Each Long Wing
- Alternate with 45-#5 n1(E) bars @ 10" cts. Each Long Wing



**REINF.-FRONT FACE**

\* a bars in skew portion of slab shall be ordered full length & cut to fit. Balance of bar to be used in opposite end of culvert.

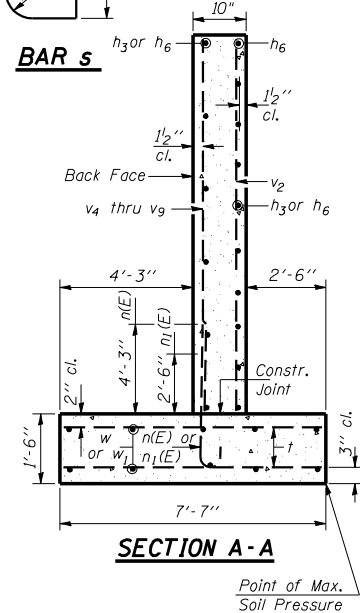


**DESIGN STRESSES**

$f_y = 60,000 \text{ psi}$   
 $f'_c = 3,500 \text{ psi}$   
 Max. Soil Pressure under footing = 2,912 psf

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a1	604	#8	14'-0"	[hook]
a2	84	#4	12'-2"	[hook]
d	72	#4	5'-6"	[hook]
h	77	#7	25'-11"	[hook]
h1	140	#5	25'-0"	[hook]
h2	126	#6	25'-4"	[hook]
h3	42	#4	9'-0"	[hook]
h4	6	#6	20'-6"	[hook]
h5	12	#8	20'-6"	[hook]
h6	84	#4	19'-7"	[hook]
n(E)	116	#6	6'-1"	[hook]
n1(E)	112	#5	4'-3"	[hook]
s	20	#4	3'-8"	[hook]
s1	20	#4	3'-8"	[hook]
t	288	#4	7'-4"	[hook]
v	530	#4	9'-0"	[hook]
v1	530	#4	2'-3"	[hook]
v2	28	#4	12'-7"	[hook]
v3	8	#4	14'-1"	[hook]
v4	20	#5	6'-11"	[hook]
v5	20	#5	7'-10"	[hook]
v6	20	#5	8'-8"	[hook]
v7	20	#5	9'-6"	[hook]
v8	20	#5	10'-4"	[hook]
v9	20	#5	11'-2"	[hook]
w	24	#5	9'-0"	[hook]
w1	48	#5	19'-10"	[hook]
Concrete Box Culverts			Cu. Yd.	276
Reinforcement Bars, Epoxy Coated			Pound	1,556
Reinforcement Bars			Pound	46,110



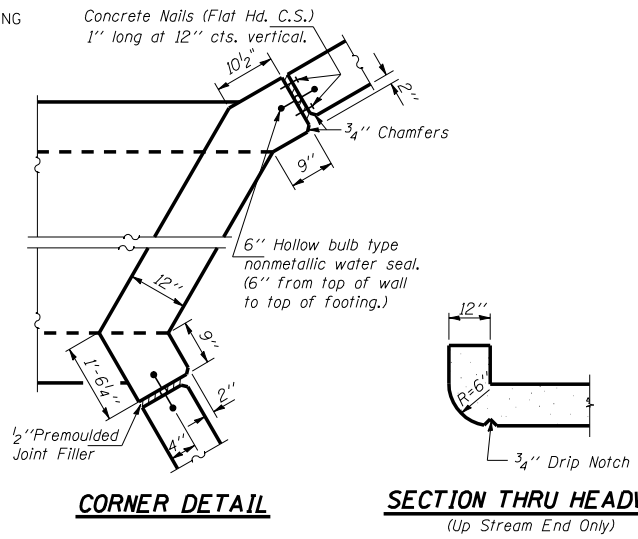
**SECTION A-A**

**BOX CULVERT & END SECTIONS (CAST IN PLACE)  
1 @ 11.0' X 9.0'  
STA. 41+52.28 61.6° SKEW**

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	

**CULVERT DETAILS**

SCALE: VERT. HORIZ. DATE: 062805 DRAWN BY: JDC CHECKED BY: JDE



**CORNER DETAIL**

**SECTION THRU HEADWALL (Up Stream End Only)**

**SHOWING REINFORCEMENT**

**PLAN**

**SHOWING OUTLINES**

**NOTES**

Reinforcement Bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 60.  
 Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.  
 Reinforcement bars designated (E) shall be epoxy coated.  
 All construction joints shall be bonded.  
 Any excavation required for box culvert construction shall be included in the contract unit price for concrete, per Art. 502.15.

**LOADING HS 20-44 & ALT.**

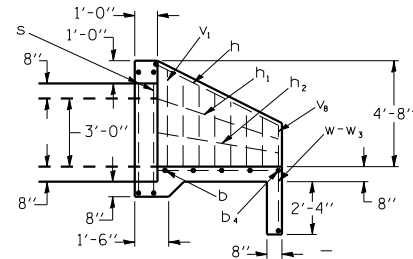
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	163
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
<b>CONTRACT NO. 90758</b>				

# DETAIL OF BOX CULVERT END SECTION

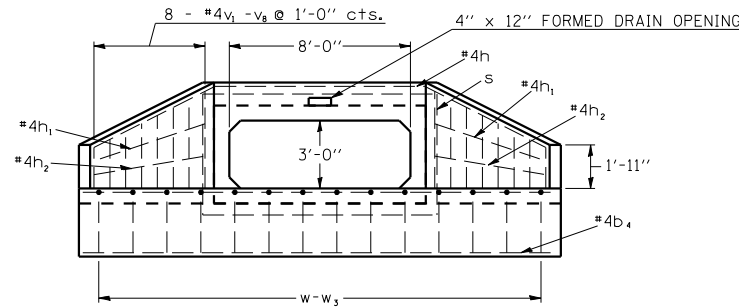
## A.R. BOX CULVERT 1 @ 8.0' X 3.0'

**STA. 10 + 66.44 Lt. (CULVERT NO. 20)**

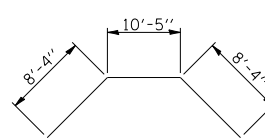
**STA. 10 + 66.44 Rt. (CULVERT NO. 21)**



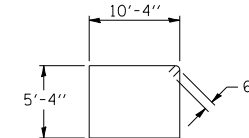
**SECTION A - A**



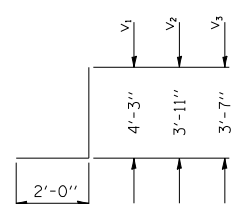
**END VIEW**



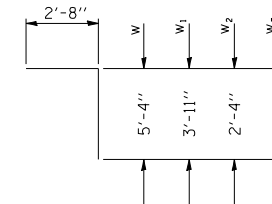
**BAR h**



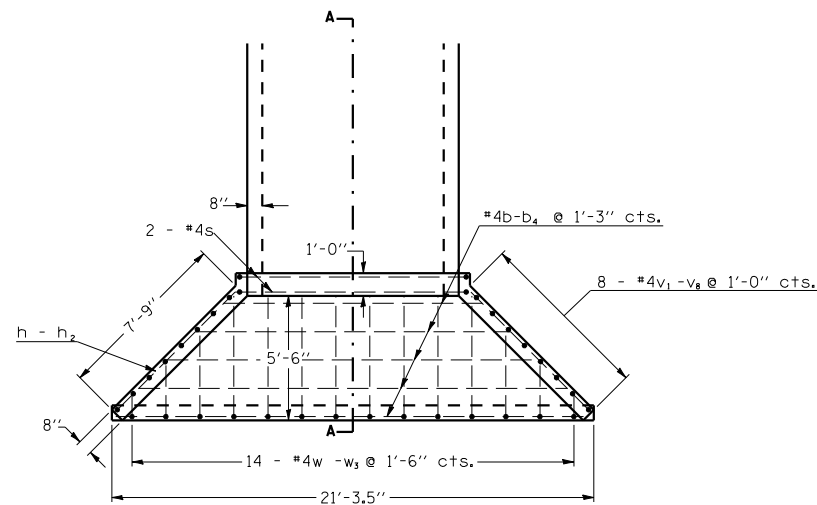
**BAR s**



**v BARS**



**w BARS**



**PLAN**

**BILL OF MATERIAL (ONE HEADWALL)**

Bar	No.	Size	Length (ft)	Shape
b	1	#4	11'-5"	—
b <sub>1</sub>	1	#4	13'-11"	—
b <sub>2</sub>	1	#4	16'-5"	—
b <sub>3</sub>	1	#4	18'-11"	—
b <sub>4</sub>	2	#4	20'-11"	—
h	1	#4	27'-1"	∩
h <sub>1</sub>	2	#4	8'-0"	—
h <sub>2</sub>	2	#4	7'-10"	—
s	2	#4	32'-4"	□
v <sub>1</sub>	2	#4	6'-3"	∩
v <sub>2</sub>	2	#4	5'-11"	∩
v <sub>3</sub>	2	#4	5'-7"	∩
v <sub>4</sub>	2	#4	5'-3"	∩
v <sub>5</sub>	2	#4	4'-10"	∩
v <sub>6</sub>	2	#4	4'-6"	∩
v <sub>7</sub>	2	#4	4'-2"	∩
v <sub>8</sub>	2	#4	3'-10"	∩
w	8	#4	8'-0"	∩
w <sub>1</sub>	2	#4	6'-7"	∩
w <sub>2</sub>	2	#4	5'-0"	∩
w <sub>3</sub>	2	#4	3'-8"	∩

Reinforcement Bars	LB.	269
Class SI Conc. Hdwall.	CU. YD.	5.9

ITEM	UNIT	QUANT.
Box Culvert End Sec. Culvert No. 20	EACH	2

ITEM	UNIT	QUANT.
Box Culvert End Sec. Culvert No. 21	EACH	2

**NOTES**

- All bars should be rounded and shall conform to the requirements of Art. 1006.10 of Standard Specs.
- Class SI Concrete shall be used throughout.
- The Precast Concrete Box Culvert Sections shall conform to the requirements of AASHTO M259.
- All dimensions are in FEET (')-INCHES (") unless otherwise noted.
- Concrete and Rebar quantities and lengths calculated for the cast-in-place End Sections will vary based on the precast box culverts supplied.
- End Sections will be paid for at the contract unit price each for BOX CULVERT END SECTION CULVERT NO., as outlined in Art. 540.08, which prices shall include all concrete, rebar, and all other items necessary to complete the proposed work.
- Drain holes shall be provided in accordance with Art. 503.12.
- Drawings not to scale.

BOX CULVERT END SECTIONS (CAST IN PLACE)  
1 @ 8.0' X 3.0'  
STA. 10+66.44 LT. & RT. NO SKEW

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>CULVERT DETAILS</b>

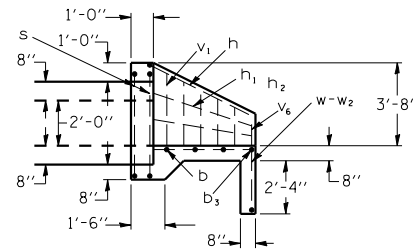
SCALE: VERT. 102704  
HORIZ. DATE  
DRAWN BY JDC  
CHECKED BY

# DETAIL OF BOX CULVERT END SECTION

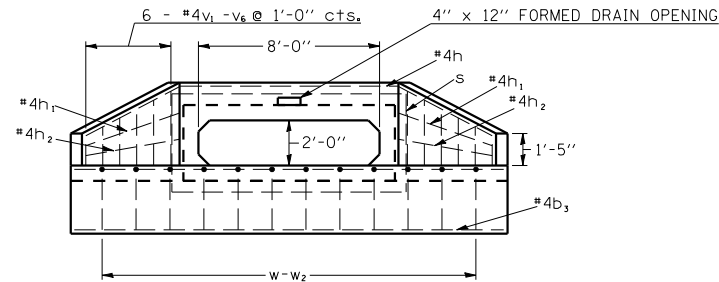
## A.R. BOX CULVERT 1 @ 8.0' X 2.0'

STA. 247 + 96.17 (CULVERT NO. 25)

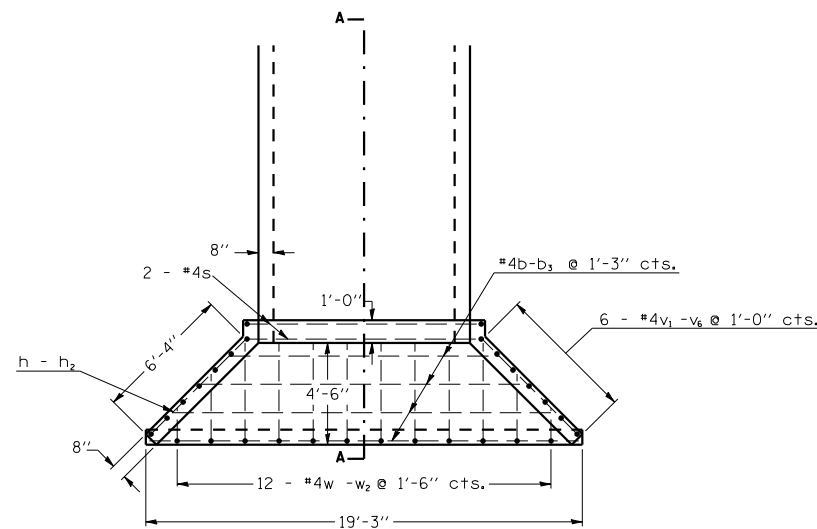
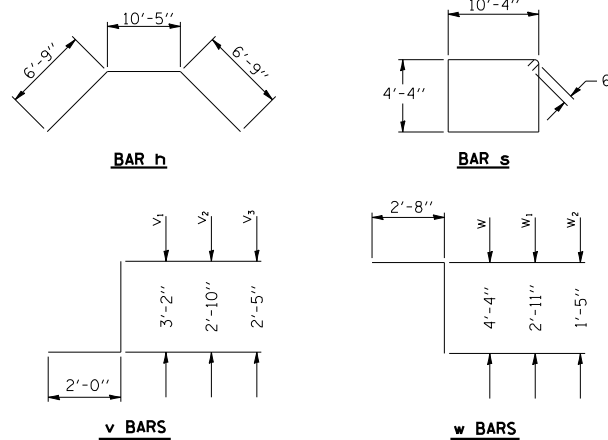
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	3352	164
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 90758				



**SECTION A - A**



**END VIEW**



**PLAN**

**NOTES**

- All bars should be rounded and shall conform to the requirements of Art. 1006.10 of Standard Specs.
- Class SI Concrete shall be used throughout.
- The Precast Concrete Box Culvert Sections shall conform to the requirements of AASHTO M259.
- All dimensions are in FEET (-) INCHES (") unless otherwise noted.
- Concrete and Rebar quantities and lengths calculated for the cast-in-place End Sections will vary based on the precast box culverts supplied.
- End Sections will be paid for at the contract unit price each for BOX CULVERT END SECTION CULVERT NO., as outlined in Art. 540.08, which prices shall include all concrete, rebar, and all other items necessary to complete the proposed work.
- Drain holes shall be provided in accordance with Art. 503.12.
- Drawings not to scale.

**BILL OF MATERIAL (ONE HEADWALL)**

Bar	No.	Size	Length (ft)	Shape
b	1	#4	11'-11"	—
b <sub>1</sub>	1	#4	14'-5"	—
b <sub>2</sub>	1	#4	16'-11"	—
b <sub>3</sub>	2	#4	18'-11"	—
h	1	#4	23'-11"	—
h <sub>1</sub>	2	#4	6'-6"	—
h <sub>2</sub>	2	#4	6'-5"	—
s	2	#4	30'-4"	—
v <sub>1</sub>	2	#4	5'-2"	┘
v <sub>2</sub>	2	#4	4'-10"	┘
v <sub>3</sub>	2	#4	4'-5"	┘
v <sub>4</sub>	2	#4	4'-1"	┘
v <sub>5</sub>	2	#4	3'-8"	┘
v <sub>6</sub>	2	#4	3'-4"	┘
w	8	#4	7'-0"	┘
w <sub>1</sub>	2	#4	5'-7"	┘
w <sub>2</sub>	2	#4	4'-1"	┘

Reinforcement Bars	LB.	196
Class SI Conc. Hdwall, CU.	YD.	4.5

ITEM	UNIT	QUANT.
Box Culvert End Sec. Culvert No. 25	EACH	2

BOX CULVERT END SECTIONS (CAST IN PLACE)  
1 @ 8.0' X 2.0'  
STA. 247+96.17 NO SKEW

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>CULVERT DETAILS</b>

SCALE: VERT. 1"=1'-0"  
HORIZ. 1"=10'-0"  
DATE 110804  
DRAWN BY JDC  
CHECKED BY

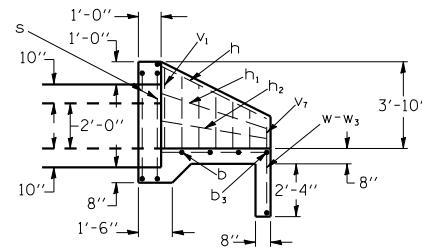


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	165
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
<b>CONTRACT NO. 90758</b>				

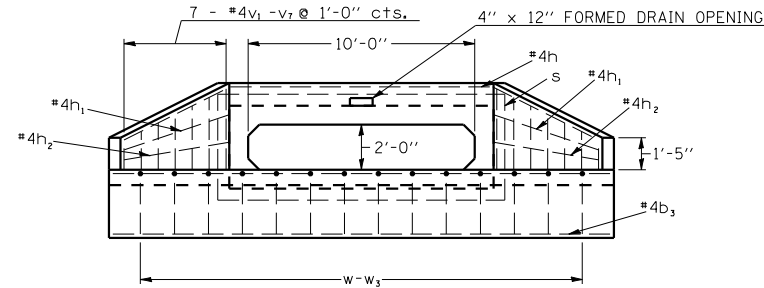
# DETAIL OF BOX CULVERT END SECTION

## A.R. BOX CULVERT 1 @ 10.0' X 2'

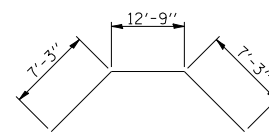
**STA. 245 + 91.59 (CULVERT NO. 26)**



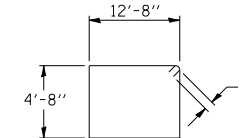
**SECTION A - A**



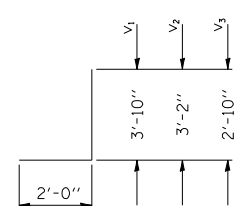
**END VIEW**



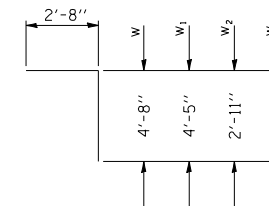
**BAR h**



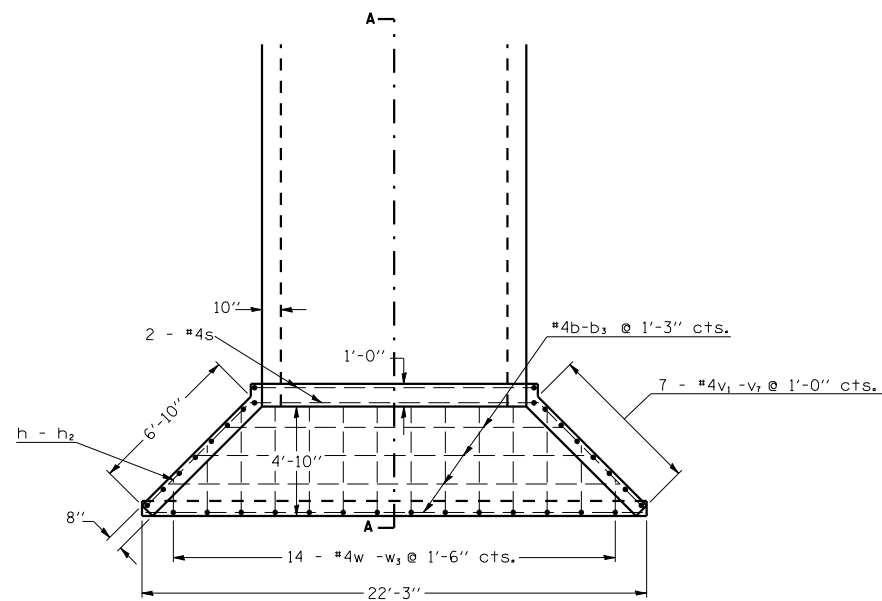
**BAR s**



**v BARS**



**w BARS**



**PLAN**

**BILL OF MATERIAL (ONE HEADWALL)**

Bar	No.	Size	Length (ft)	Shape
b	1	#4	14'-11"	—
b1	1	#4	17'-5"	—
b2	1	#4	19'-11"	—
b3	2	#4	21'-11"	—
h	1	#4	27'-3"	—
h1	2	#4	7'-0"	—
h2	2	#4	6'-10"	—
s	2	#4	34'-8"	—
v1	2	#4	5'-10"	┘
v2	2	#4	5'-2"	┘
v3	2	#4	4'-10"	┘
v4	2	#4	4'-5"	┘
v5	2	#4	4'-1"	┘
v6	2	#4	3'-8"	┘
v7	2	#4	3'-4"	┘
w	8	#4	7'-4"	┘
w1	2	#4	7'-1"	┘
w2	2	#4	5'-7"	┘
w3	2	#4	4'-1"	┘

Reinforcement Bars	LB.	252
Class SI Conc. Hdwall, CU. YD.		5.8

ITEM	UNIT	QUANT.
Box Culvert End Sec. Culvert No. 26	EACH	2

**NOTES**

- All bars should be rounded and shall conform to the requirements of Art. 1006.10 of Standard Specs.
- Class SI Concrete shall be used throughout.
- The Precast Concrete Box Culvert Sections shall conform to the requirements of AASHTO M259.
- All dimensions are in FEET (')-INCHES (") unless otherwise noted.
- Concrete and Rebar quantities and lengths calculated for the cast-in-place End Sections will vary based on the precast box culverts supplied.
- End Sections will be paid for at the contract unit price each for BOX CULVERT END SECTION CULVERT NO., as outlined in Art. 540.08, which prices shall include all concrete, rebar, and all other items necessary to complete the proposed work.
- Drain holes shall be provided in accordance with Art. 503.12.
- Drawings not to scale.

BOX CULVERT END SECTIONS (CAST IN PLACE)  
1 @ 10.0' X 2'  
STA. 245+91.59 NO SKEW

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>CULVERT DETAILS</b>

SCALE: VERT. 1"=4'-0"  
HORIZ. 1"=10'-0"  
DATE 11/09/04  
DRAWN BY JDC  
CHECKED BY



Illinois Department of Transportation  
Division of Highways  
IDOT - Dist 6

# SOIL BORING LOG

Page 1 of 1

Date 6/14/02

ROUTE \_\_\_\_\_ DESCRIPTION I-57Curtis Road Interchange LOGGED BY CNA

SECTION 10-32HB-3,K LOCATION SW, SEC. 26, TWP. 19N, RNG. 8E, 3rd PM

COUNTY Champaign DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. <u>010-0272 (Prop.)</u>	D E P T H	B L O W S	U C S	M O I S T U R E	Surface Water Elev. _____ ft	D E P T H	B L O W S	U C S	M O I S T U R E
Station _____	(ft)	(6")	(tsf)	(%)	Stream Bed Elev. _____ ft	(ft)	(6")	(tsf)	(%)
BORING NO. <u>1 I-57SB Box Culvert</u>					Groundwater Elev.: _____ ft				
Station <u>301+00</u>					First Encounter <u>689.0</u> ft ▼				
Offset <u>55.0</u> ft Lt.					Upon Completion _____ ft				
Ground Surface Elev. <u>700.0</u> ft					After _____ Hrs. _____ ft				

Black Silty Clay	695.0	-5	8	3.3	27	Gray Silt (continued)	678.0			
			4	B		Gray Clay Loam Till			2	
			1						6	5.3
			3						12	B
Gray/Gray Mottled Silty Clay	692.5		1			End of Boring				
			3	1.9	27					
No Sample - Gray/Green Mottled Silty Clay	690.0	-10	1							
			2							
Gray Dirty Course Sand	687.5		1							
			2							
			2							
Gray Silt - Silty Loam	683.0		4	4.9	11					
			8							
Gray Clay Loam Till	681.5		7	B						
			5							
Gray Silt			7		17					
			8							

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)



Illinois Department of Transportation  
Division of Highways  
IDOT - Dist 6

# SOIL BORING LOG

Page 1 of 1

Date 6/14/02

ROUTE \_\_\_\_\_ DESCRIPTION I-57Curtis Road Interchange LOGGED BY CNA

SECTION 10-32HB-3,K LOCATION SE, SEC. 26, TWP. 19N, RNG. 8E, 3rd PM

COUNTY Champaign DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. <u>010-0272 (Prop.)</u>	D E P T H	B L O W S	U C S	M O I S T U R E	Surface Water Elev. _____ ft	D E P T H	B L O W S	U C S	M O I S T U R E
Station _____	(ft)	(6")	(tsf)	(%)	Stream Bed Elev. _____ ft	(ft)	(6")	(tsf)	(%)
BORING NO. <u>2 I-57NB Box Culvert</u>					Groundwater Elev.: _____ ft				
Station <u>301+00</u>					First Encounter <u>693.0</u> ft ▼				
Offset <u>55.0</u> ft Rt.					Upon Completion _____ ft				
Ground Surface Elev. <u>700.0</u> ft					After _____ Hrs. _____ ft				

Black Silty Clay	695.0	-5	1	2.3	27	Gray Clay Till (continued)				
			3	B					3	
			2						4	4.5
			3						7	B
Brown/Gray Mottled Silty Clay	692.5		1			End of Boring				
			2	1.2	29					
Gray Silt Course Sand	690.0	-10	0							
			1							
Gray Silt	683.5		2							
			4		22					
			4							
Gray Silt Sand	682.0		2		23					
			4							
Gray Silty Loam Till to Clay Till	680.5		2							
			4	4.0	10					
Gray Clay Till			7	B						

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)



Illinois Department of Transportation  
Division of Highways  
DOT - Dist 6

SOIL BORING LOG

Page 1 of 1

Date 6/14/02

ROUTE DESCRIPTION I-57/Curtis Road Interchange LOGGED BY CNA  
SECTION 10-32HB-3,K LOCATION NW, SEC. 33, TWP. 19N, RNG. 8E, 3rd PM  
COUNTY Champaign DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

Table with columns for SOI (D, B, U, M), P, O, S, I, S, T, H, W, S, Qu, T and SOE (Surface Water Elev., Stream Bed Elev., Groundwater Elev., First Encounter, Upon Completion, After Hrs.). Rows include soil types like Black Silty Clay, GrayBrown Mottled Silty Clay, Gray Course Sand, Brown/Red Oxidized Course Dirty Sand, and Gray Clay Till.

2/26/2006 2:10:06 PM S:\SOILS\BORING LOGS\CHAMPAIGN CNTY\CURTIS RD\CURTIS.RCV

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)

Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO.

CONTRACT NO. 90758



Illinois Department of Transportation  
Division of Highways  
DOT - Dist 6

SOIL BORING LOG

Page 1 of 1

Date 6/14/02

ROUTE DESCRIPTION I-57/Curtis Road Interchange LOGGED BY CNA  
SECTION 10-32HB-3,K LOCATION NE, SEC. 33, TWP. 19N, RNG. 8E, 3rd PM  
COUNTY Champaign DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

Table with columns for SOI (D, B, U, M), P, O, S, I, S, T, H, W, S, Qu, T and SOE (Surface Water Elev., Stream Bed Elev., Groundwater Elev., First Encounter, Upon Completion, After Hrs.). Rows include soil types like Brown Mottled Silty Clay, Brown Clay Loam Till, and Gray Clay Till.

2/26/2006 2:10:06 PM S:\SOILS\BORING LOGS\CHAMPAIGN CNTY\CURTIS RD\CURTIS.RCV

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)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	168

CONTRACT NO. 90758



# SOIL BORING LOG

Page 1 of 1

Date 5/22/02

ROUTE \_\_\_\_\_ DESCRIPTION Box Culvert Just West of I-57/Curtis Mainline LOGGED BY CNA  
 SECTION 10-32HB-3,K LOCATION NW, SEC. 33, TWP. 19N, RNG. 8E, 3rd PM  
 COUNTY Champaign DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. _____	D	B	U	M	Surface Water Elev. _____ ft	D	B	U	M
Station _____	E	L	C	O	Stream Bed Elev. _____ ft	E	L	C	O
BORING NO. <u>B11B Box Culvert</u>	P	O	S	I	Groundwater Elev.: _____ ft	P	O	S	I
Station <u>296+50</u>	H	S	Qu	T	First Encounter <u>689.5</u> ft ▼	H	S	Qu	T
Offset <u>189.0</u> ft Lt.					Upon Completion _____ ft				
Ground Surface Elev. <u>697.5</u> ft	(ft)	(6")	(tsf)	(%)	After _____ Hrs. _____ ft	(ft)	(6")	(tsf)	(%)

<b>Black Mottled Silty Clay Loam</b>					<b>Gray Clay Loam Till (continued)</b>				
693.5	0						3		
<b>Gray/Brown Mottled Silty Clay to Silty Clay Loam</b>		2	1.4	30			6	4.1	12
	-5	3	B				9	B	
					<b>End of Boring</b>				
689.5 ▼			0.6	26					
<b>Gray Coarse Sand</b>									
688.0									
<b>Gray Clay Loam Till with Silt Lenses</b>	-10	4							
		3							
		4	2.9	12					
		7	B						
683.5		1							
<b>Gray Clay Loam Till</b>		2	1.7	12					
	-15	4	B						
		3							
		5	4.5	11					
		11	B						
		3							
		6	3.9	11					
		9	B						
	-20								

256206 2:25:09 PM S:\SOILS\BORING LOGS\CHAMPAIGN CNTY\CURTIS RD\CURTIS.CPJ

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)



Illinois Department  
of Transportation  
Division of Highways  
DOT - Dist 6

SOIL BORING LOG

Page 1 of 1

Date 6/20/02

ROUTE \_\_\_\_\_ DESCRIPTION Box Culvert Under Ramp C LOGGED BY CNA  
SECTION 10-32HB-3,K LOCATION NW, SEC. 33, TWP. 19N, RNG. 8E, 3rd PM  
COUNTY Champaign DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. Station	D E P T H (ft)	B L O S S (6")	U C S Qu (tsf)	M O I S T (%)	Surface Water Elev. _____ ft	Stream Bed Elev. _____ ft	Groundwater Elev.: First Encounter _____ ft	Upon Completion _____ ft	After _____ Hrs. _____ ft	D E P T H (ft)	B L O S S (6")	U C S Qu (tsf)	M O I S T (%)
B39A Box Culvert 287+00 195.0 ft Lt. 700.0 ft	Brown Silty Clay				Gray Clay Loam Till (continued)	3							
						4							
						5							
			1				2						
			1			18	3						17
696.0													
			2	B									
			1										
			2	1.4	28								
688.0	Brown Mottled Silty Clay to Brown/Gray Mottled Silty Clay				End of Boring	1							
			4	B									
			1			16							
			1	2.3		14	1					1.2	14
685.5	Brown Mottled Clay Loam				End of Boring								
			3	1.6		13							
			6	B									
			1			14							
687.2	Gray Clay Loam Till				End of Boring								
			8	1.2		14							
			6	B									
			2										
682.2	Brown Mottled Silty Clay				End of Boring								
			3	2.1		12							
			6	B									
			1			13							
678.2	Brown Dirty Coarse Sand (continued)				End of Boring								
			3	2.7		13							
			7	B									
			1										

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)



Illinois Department  
of Transportation  
Division of Highways  
DOT - Dist 6

SOIL BORING LOG

Page 1 of 1

Date 6/20/02

ROUTE \_\_\_\_\_ DESCRIPTION Box Culvert Under Ramp C LOGGED BY CNA  
SECTION 10-32HB-3,K LOCATION NW, SEC. 33, TWP. 19N, RNG. 8E, 3rd PM  
COUNTY Champaign DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. Station	D E P T H (ft)	B L O S S (6")	U C S Qu (tsf)	M O I S T (%)	Surface Water Elev. _____ ft	Stream Bed Elev. _____ ft	Groundwater Elev.: First Encounter _____ ft	Upon Completion _____ ft	After _____ Hrs. _____ ft	D E P T H (ft)	B L O S S (6")	U C S Qu (tsf)	M O I S T (%)
B39B Box Culvert 289+50 195.0 ft Lt. 700.2 ft	Black Silty Clay				Brown Dirty Coarse Sand (continued)								
696.2	Brown Mottled Silty Clay				End of Boring								
692.2	Brown Dirty Coarse Sand				End of Boring								
687.2	Gray Varved Clay				End of Boring								
682.2	Brown Dirty Coarse Sand				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)



Illinois Department of Transportation  
Division of Highways  
DOT - Dist 6

# SOIL BORING LOG

Page 1 of 1

Date 6/20/02

ROUTE \_\_\_\_\_ DESCRIPTION Box Culvert Under Ramp D LOGGED BY CNA

SECTION 10-32HB-3,K LOCATION SW, SEC. 26, TWP. 19N, RNG. 8E, 3rd PM

COUNTY Champaign DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. Station	D E P T H  ft	B L O S S  (ft)	U C S Q u T  (tsf)	M O I S T  (%)	Surface Water Elev. _____ ft	Stream Bed Elev. _____ ft	Groundwater Elev.: First Encounter _____ ft	Upon Completion _____ ft	After _____ Hrs. _____ ft	D E P T H  ft	B L O S S  (ft)	U C S Q u T  (tsf)	M O I S T  (%)
B41A Box Culvert 306+00 195.0 ft Lt. 700.0 ft	696.0	1			696.0					2			
	696.0	3	1.8	25	696.0					4	3.7	16	
	695.5	4	B		695.5					6	B		
	693.5	1			693.5								
	693.5	2		21	693.5								
	691.5	2			691.5								
	691.5	2	2.2	15	691.5								
	689.0	3	B		689.0								
	689.0	1			689.0								
	689.0	2	2.3	13	689.0								
	5	B											
	1												
	2	3.0	12										
	7	B											
	2												
	5	4.3	12										
	6	B											
	1												
	5	4.4	12										
	6	B											

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)



Illinois Department of Transportation  
Division of Highways  
DOT - Dist 6

# SOIL BORING LOG

Page 1 of 1

Date 6/20/02

ROUTE \_\_\_\_\_ DESCRIPTION Box Culvert Under Ramp D LOGGED BY CNA

SECTION 10-32HB-3,K LOCATION SW, SEC. 26, TWP. 19N, RNG. 8E, 3rd PM

COUNTY Champaign DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. Station	D E P T H  ft	B L O S S  (ft)	U C S Q u T  (tsf)	M O I S T  (%)	Surface Water Elev. _____ ft	Stream Bed Elev. _____ ft	Groundwater Elev.: First Encounter _____ ft	Upon Completion _____ ft	After _____ Hrs. _____ ft	D E P T H  ft	B L O S S  (ft)	U C S Q u T  (tsf)	M O I S T  (%)
B41B Box Culvert 308+00 195.0 ft Lt. 700.0 ft	696.0	1			696.0					2			
	696.0	2	2.5	21	696.0					4	3.7	12	
	695.5	5	B		695.5					6	B		
	693.5	1			693.5								
	693.5	1			693.5								
	691.5	3			691.5								
	691.5	4	2.9	12	691.5								
	689.0	4	B		689.0								
	689.0	1			689.0								
	689.0	4	3.0	13	689.0								
	5	B											
	1												
	4	3.2	12										
	6	B											
	1												
	4	3.7	12										
	8	B											
	1												
	4	4.0	12										
	7	B											

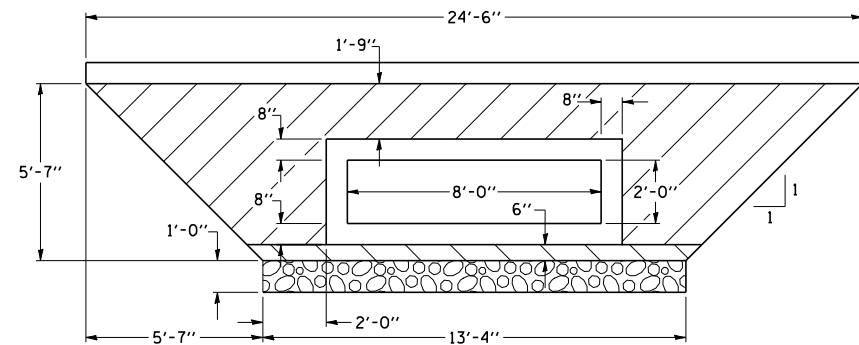
An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.  
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N Value) is the sum of the last two blow values in each sampling zone (AASHTO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

# CONTROLLED LOW STRENGTH MATERIAL (CLSM) AT A.R. CULVERTS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	171

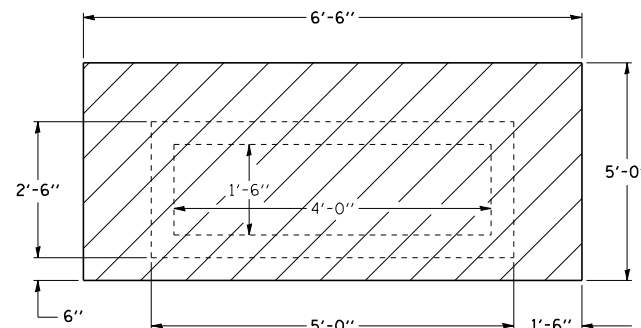
CONTRACT NO. 90758

**BOX CULVERT NO. 25**  
STALEY ROAD STA. 247+96



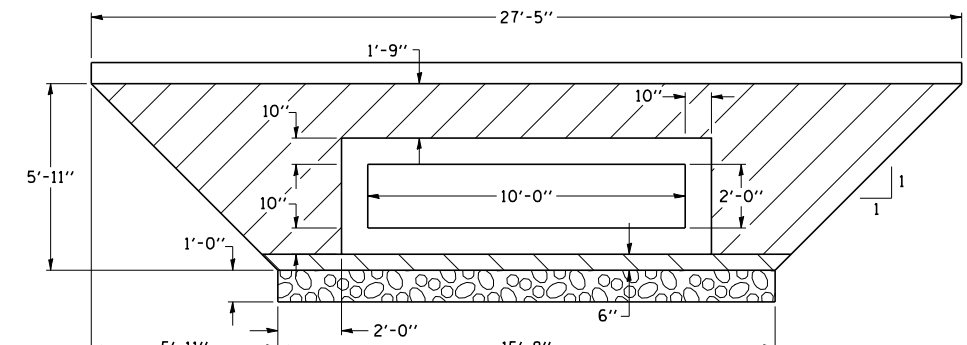
- PAY LIMITS OF CLSM = 68.3 SO. FT.
- POROUS GRANULAR MATERIAL INCLUDED IN PAY ITEM FOR BOX CULVERT
- RIPRAP (SPECIAL)
- CLASS D PATCH

**EXISTING CULVERT REMOVAL**  
ON STALEY ROAD  
STA. 246+66 & STA. 247+07



- PAY LIMITS OF CLSM = 32.5 SO. FT.

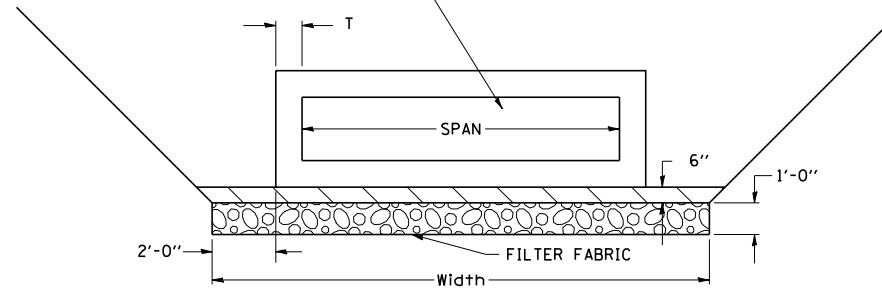
**BOX CULVERT NO. 26**  
STALEY ROAD STA. 245+91.5



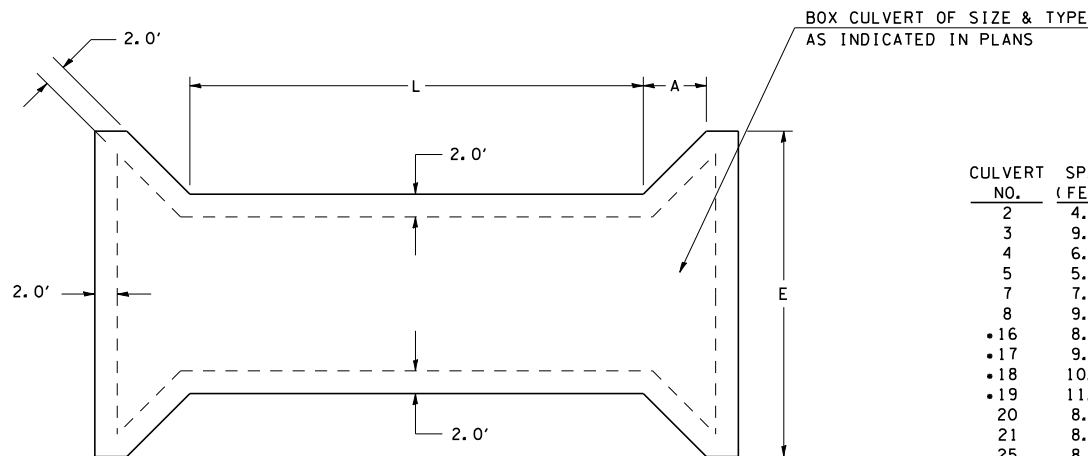
- PAY LIMITS OF CLSM = 78.3 SO. FT.
- POROUS GRANULAR MATERIAL INCLUDED IN PAY ITEM FOR BOX CULVERT
- RIPRAP (SPECIAL)
- CLASS D PATCH

## GENERAL RIPRAP (SPECIAL) DETAIL

BOX CULVERT OF SIZE & TYPE AS INDICATED IN PLANS



- POROUS GRANULAR MATERIAL INCLUDED IN PAY ITEM FOR BOX CULVERT
- RIPRAP (SPECIAL)



CULVERT NO.	SPAN (FEET)	T (INCHES)	W (FEET)	L (FEET)	E (FEET)	A (FEET)	INCIDENTAL		RIPRAP (SPECIAL) TON		
							POR. GRAN. BACKFILL CU YD	FILTER FABRIC SO YD			
2	4.0	6	9.0	223.2	22.0	6.5	44.6	255.4	85.1	127.7	
3	9.0	6	14.0	174.7	32.3	9.2	57.2	333.4	111.1	166.7	
4	6.0	7	11.2	80.2	23.1	5.5	22.6	131.0	43.7	65.6	
5	5.0	6	10.0	95.0	21.3	5.2	23.1	133.1	44.4	66.6	
7	7.0	8	12.3	134.4	24.3	5.5	37.4	216.8	72.3	108.5	
8	9.0	9	14.5	86.4	26.8	5.7	30.4	177.3	59.1	88.7	
•16	8.0	7	13.2	179.8	---	---	50.0	289.8	96.6	144.9	
•17	9.0	6	14.0	347.5	---	---	113.8	663.6	221.2	331.8	
•18	10.0	9	15.4	306.0	---	---	110.6	646.6	215.5	323.3	
•19	11.0	9	16.5	166.3	---	---	58.0	338.9	113.0	169.5	
20	8.0	8	13.3	71.5	25.3	5.5	24.1	140.5	46.8	70.2	
21	8.0	8	13.3	65.0	25.3	5.5	22.4	130.9	43.6	65.4	
25	8.0	8	13.3	76.5	23.3	4.5	24.3	141.7	47.2	70.8	
26	10.0	10	15.7	92.2	26.3	4.8	33.3	194.9	65.0	97.5	
TOTAL =							651.8	3,793.9	1,264.6	1,897.2	
											USE = 1,898 TONS

**NOTES**

• CULVERT DOES NOT HAVE AN APRON END SECTION, THEREFORE RIPRAP (SPECIAL) SHALL BE EXTENDED 2' BEYOND THE PERIMETER OF BARREL AND ANY VERTICAL CANTILEVER WINGWALL.

THIS WORK IS PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR RIPRAP (SPECIAL), WHICH SHALL INCLUDE THE EXCAVATION, EQUIPMENT, LABOR, AND MATERIALS REQUIRED.

IF SOFT OR QUESTIONABLE MATERIALS ARE FOUND IN THE FIELD, CONTACT THE ENGINEER OR THE GEOTECHNICAL UNIT FOR ADDITIONAL INVESTIGATION.

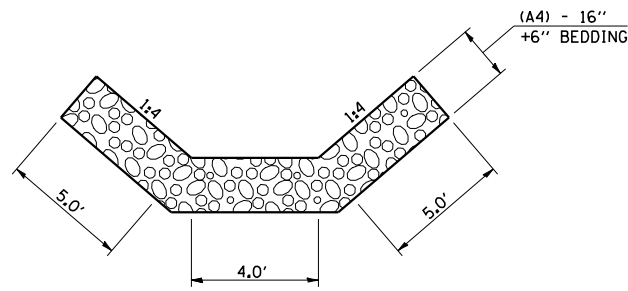
# STONE RIPRAP CLASS A 4 DETAILS, PAY LIMITS AND QUANTITIES

SHEET 1 OF 2

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	172
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 90758				

### CULVERT NO. 3

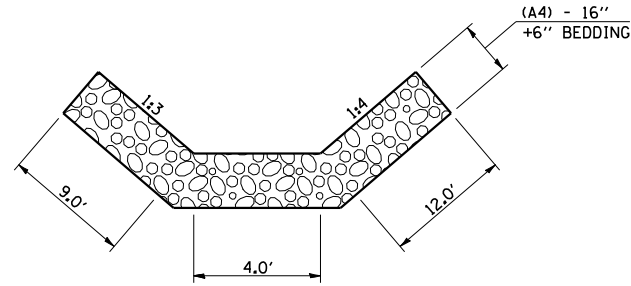
CURTIS ROAD RIGHT DITCH  
STA. 33+98 TO STA. 34+10



TOTAL AREA: 18.7 SQ YD  
DIMENSIONS WILL VARY AROUND A.R. CULVERT

### CULVERT NO. 5

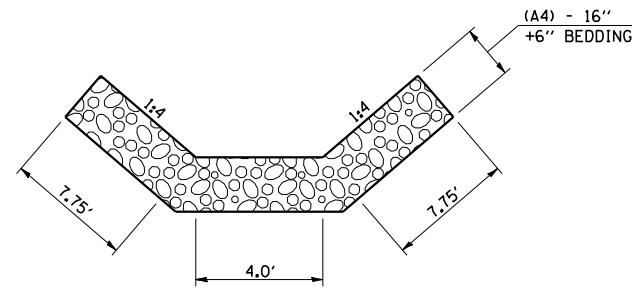
CURTIS ROAD LEFT DITCH  
STA. 42+86.5 TO STA. 42+98.5



TOTAL AREA: 33.3 SQ YD  
DIMENSIONS WILL VARY AROUND A.R. CULVERT

### CULVERT NO. 7

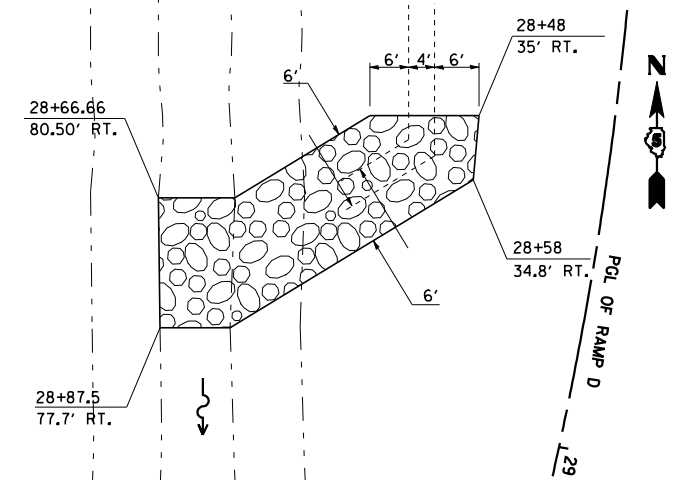
DOWN STREAM CHANNEL  
RAMP A, STA. 16+41 LT.



TOTAL AREA: 35.8 SQ YD  
DIMENSIONS WILL VARY AROUND A.R. CULVERT

### OUTFALL FOR RAMP D RIGHT DITCH

STA. 28+48 TO 28+87.5

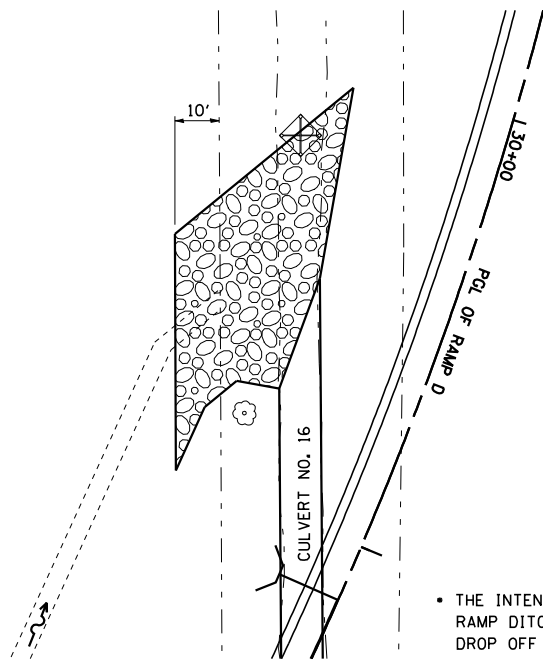


ESTIMATED AREA: 89.3 SQ YD

• INTENT IS TO LINE THE RAMP DITCH 10' BACK OF DROP OFF THRU THE BOTTOM OF DRAINAGE DITCH.

### CULVERT NO. 16

UP STREAM END SECTION

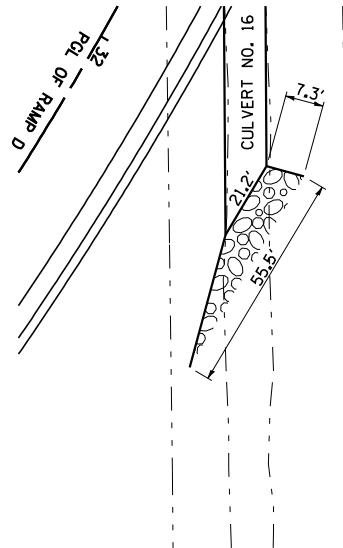


• THE INTENT IS TO LINE THE RAMP DITCH 10' BACK OF DROP OFF TO END OF WINGWALL

ESTIMATED AREA: 156.3 SQ YD

### CULVERT NO. 16

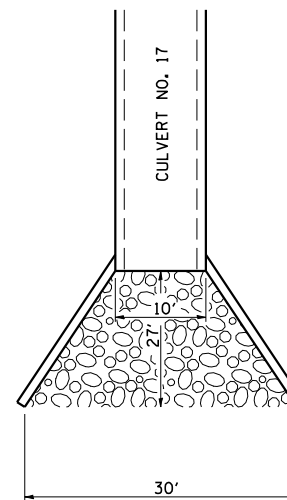
DOWN STREAM END SECTION



TOTAL AREA = 31.2 SQ YD

### CULVERT NO. 17

STA. 20+19 LT. UP SPREAM END  
STA. 22+37 RT. DOWN STEAM END



AREA = 30.0 SQ YD EACH  
TOTAL AREA = 60.0 SQ YD

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**RIPRAP DETAILS, PAY LIMITS AND QUANTITIES**

SCALE: NOT TO SCALE  
DATE: 02/27/06

DRAWN BY: BBP  
CHECKED BY: JDC

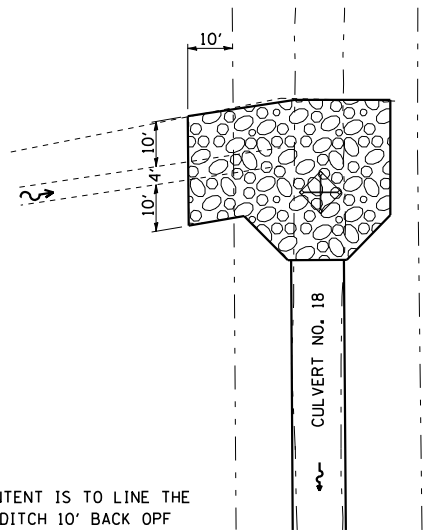


# STONE RIPRAP CLASS A 4 DETAILS, PAY LIMITS AND QUANTITIES

SHEET 2 OF 2

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	173
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 90758				

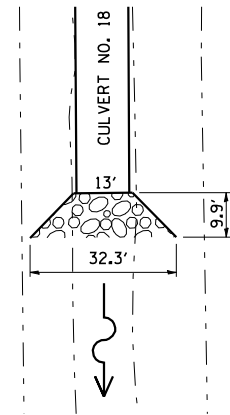
**CULVERT NO. 18**  
UPSTREAM END



TOTAL AREA: 148.0 SQ YD

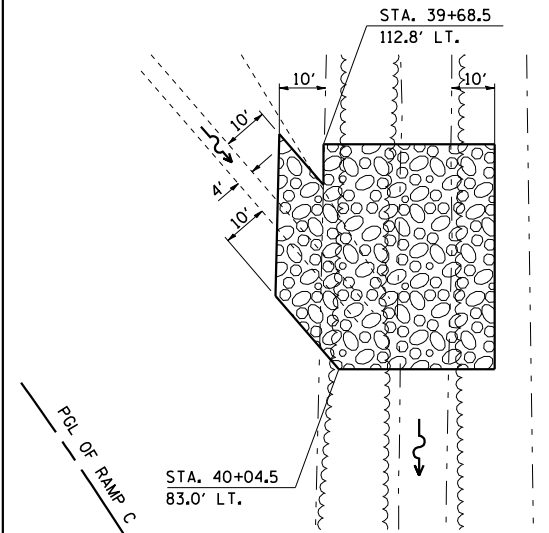
• THE INTENT IS TO LINE THE RAMP DITCH 10' BACK OFF DROP OFF THRU DRAINAGE DITCH.

**CULVERT NO. 18**  
DOWN STREAM END SECTION



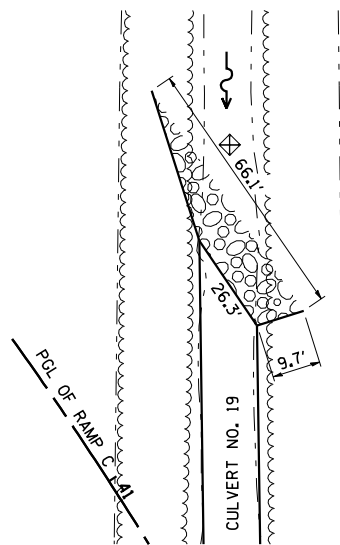
TOTAL AREA: 25.0 SQ YD

**OUTFALL FOR RAMP C - LEFT DITCH**



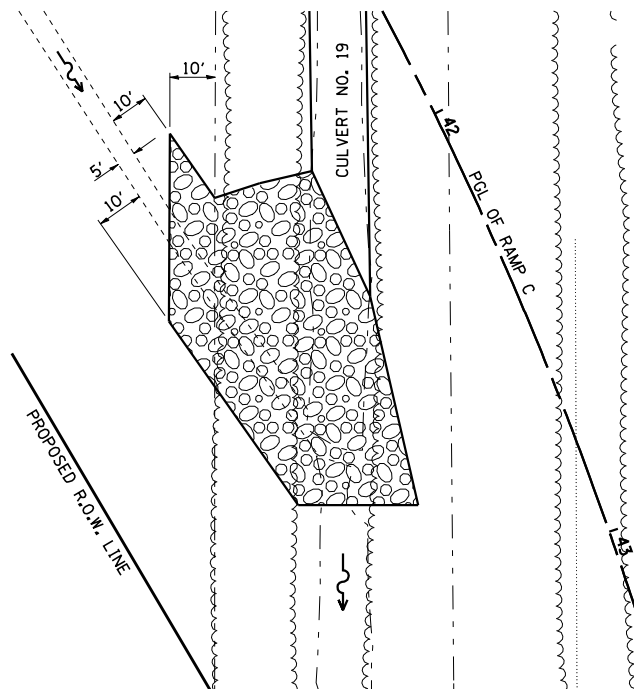
ESTIMATED AREA: 248.7 SQ YD

**CULVERT NO. 19**  
UP STREAM END SECTION



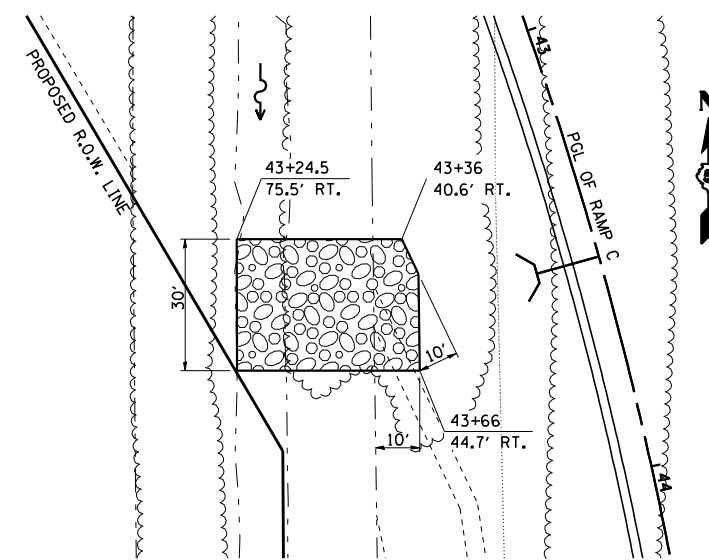
TOTAL AREA: 49.8 SQ YD

**CULVERT NO. 19**  
DOWN STREAM END SECTION



ESTIMATED AREA: 262.1 SQ YD

**OUT FALL FOR RAMP C - RIGHT DITCH**  
STA. 43+36 TO STA. 43+66



ESTIMATED AREA: 128.0 SQ YD

• INTENT IS TO LINE THE RAMP DITCH 10' BACK OF DROP OFF THRU THE BOTTOM OF DRAINAGE DITCH.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**RIPRAP DETAILS, PAY LIMITS AND QUANTITIES**

SCALE: NOT TO SCALE  
DATE: 02/27/06

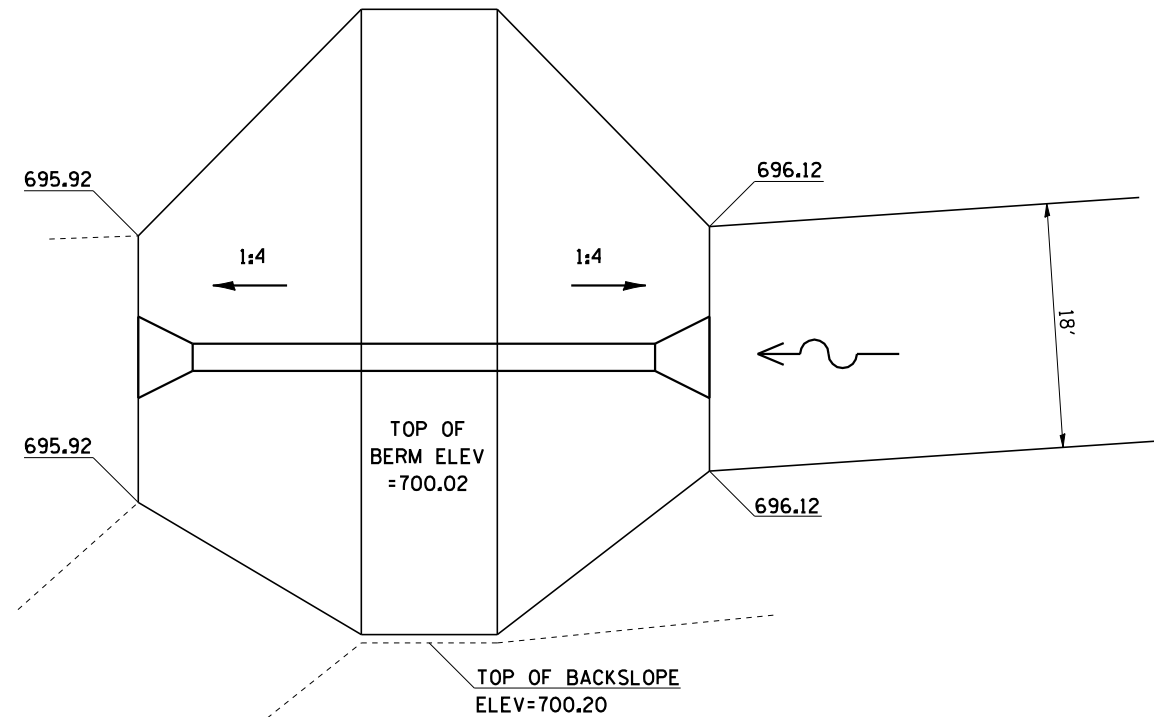
DRAWN BY: BBP  
CHECKED BY: JDC

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	174

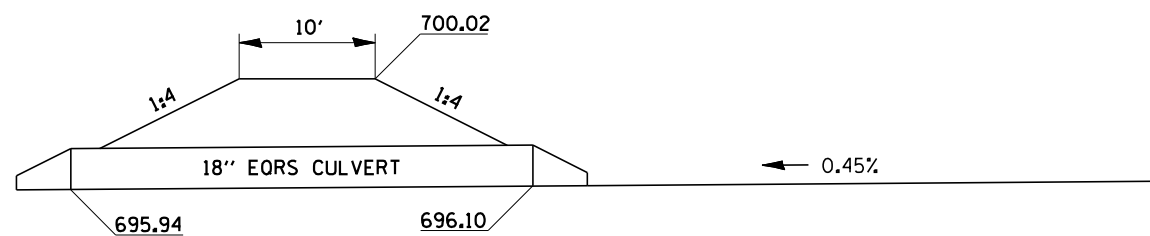
CONTRACT NO. 90758

# ROADSIDE DITCH IN-LINE DETENTION BASIN

**EARTH BERM CURTIS ROAD**  
STA. 36+85.00 RT.

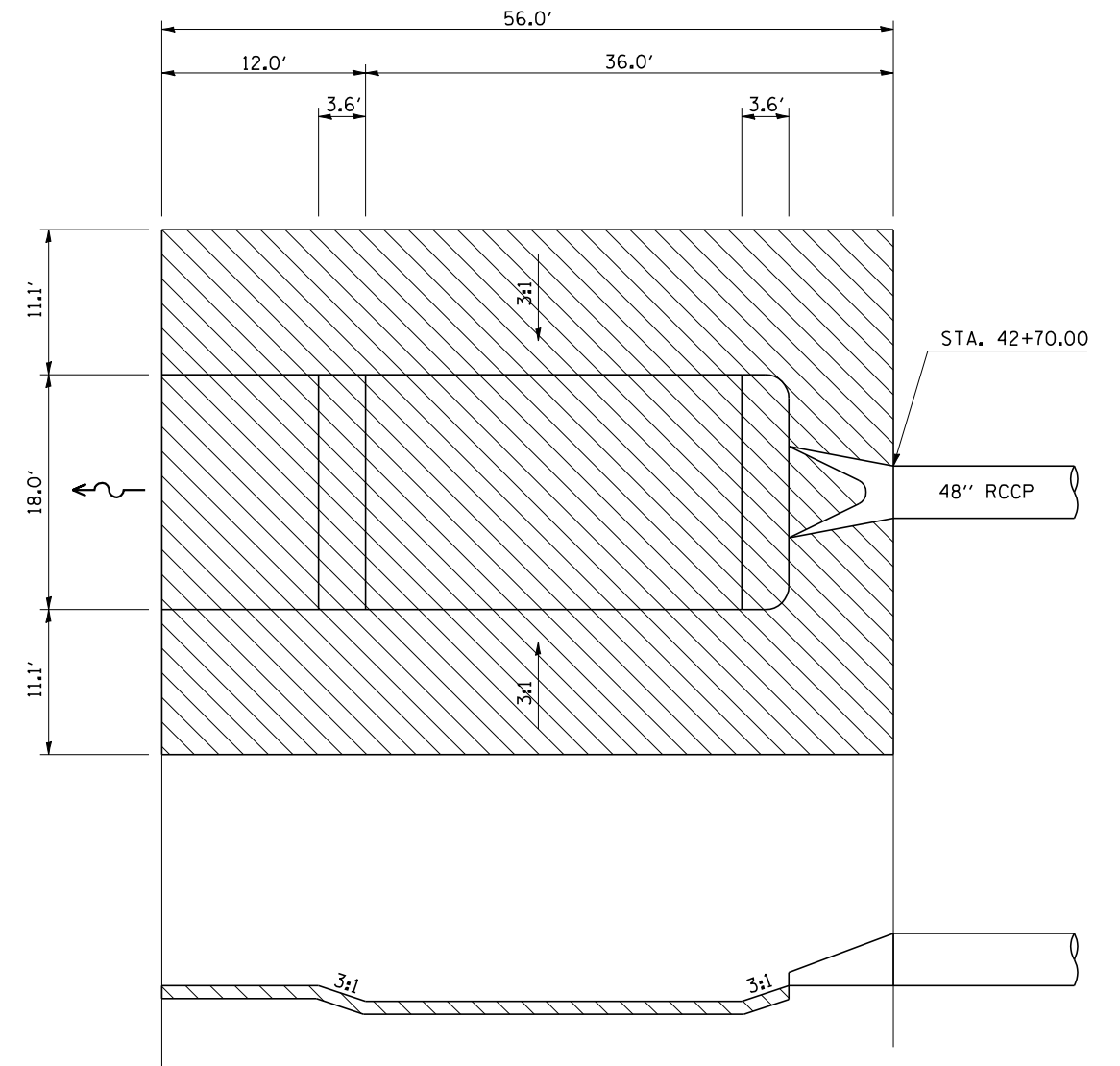


PLAN



ELEVATION

**STILLING BASIN CURTIS ROAD**  
STA. 43+15.00 RT.



 PRECAST BLOCK REVETMENT MAT

ILLINOIS DEPARTMENT OF TRANSPORTATION

**DETAILS**

NOTE: DESIGN PROVIDED BY THE CITY OF CHAMPAIGN

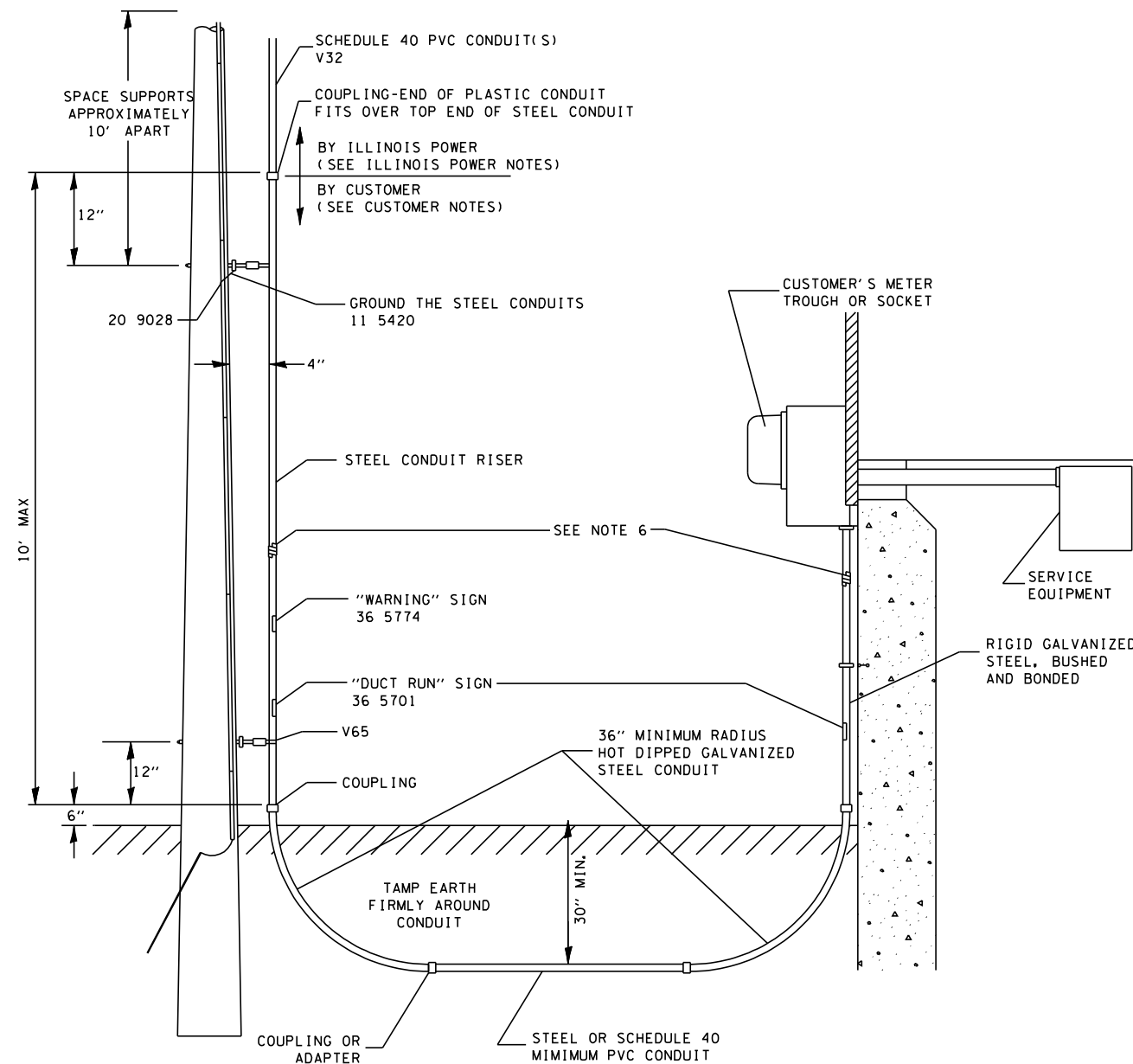
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	175

CONTRACT NO. 90758

### AMEREN-IP DETAIL

ELECTRIC DISTRIBUTION STANDARDS 37-2.3  
 ELECTRIC METER STANDARDS 12-4.101  
 "UNDERGROUND RISER DIRECT-BURIED CONDUIT SYSTEM"

NOTE: FOR ADDITIONAL INFORMATION, REFER TO SPECIAL PROVISION FOR ELECTRIC SERVICE INSTALLATION LOCATION NO. 1. DETAIL WAS REPRODUCED FROM A DRAWING PROVIDED BY AMEREN-IP POWER COMPANY. ALL PARTS OF DRAWING DO NOT NECESSARILY APPLY TO THIS CONTRACT. POLE IS TO BE INSTALLED BY AMEREN-IP.



**CUSTOMER NOTES:**

- 1) CONSULT LOCAL ILLINOIS POWER OFFICE FOR REQUIRED NUMBER AND SIZE OF CONDUITS.
- 2) POLE SHOULD BE IN PLACE BEFORE INSTALLING CONDUIT BEND(S) AND RISER(S) AT THE POLE END.
- 3) CUSTOMER TO INSTALL RISER(S) AT METER SOCKET, ALL UNDERGROUND CONDUIT(S) AND FIRST LENGTH OF CONDUIT(S) UP RISER POLE.
- 4) LEAVE PULL WIRE IN CONDUIT AND INSTALL A TEMPORARY SEAL ON THE CONDUIT AT THE POLE END.

**ILLINOIS POWER NOTES:**

- 5) ILLINOIS POWER TO INSTALL ALL POLE ATTACHMENT HARDWARE, GROUNDING EQUIPMENT AND SIGNAGE ON RISER POLE. ILLINOIS POWER TO INSTALL SIGNAGE ON METER RISER.
- 6) ILLINOIS POWER TO INSTALL COLORED TAPE AS PER EDS 33-4.1 THROUGH 33-4.4.
- 7) SEE EDS 31-11.1 FOR CONDUIT STOCK CODES.
- 8) SEE EDS 37-2.1 FOR CONDUIT SUPPORT DETAILS.
- 9) SEE EDS 35-12.3 FOR PULLING COMPOUNDS.
- 10) SEAL CONDUIT(S) AS PER EDS 37-1.4 AND 37-1.5.
- 11) SEE EDS 24-31.2 FOR GROUNDING DETAILS.

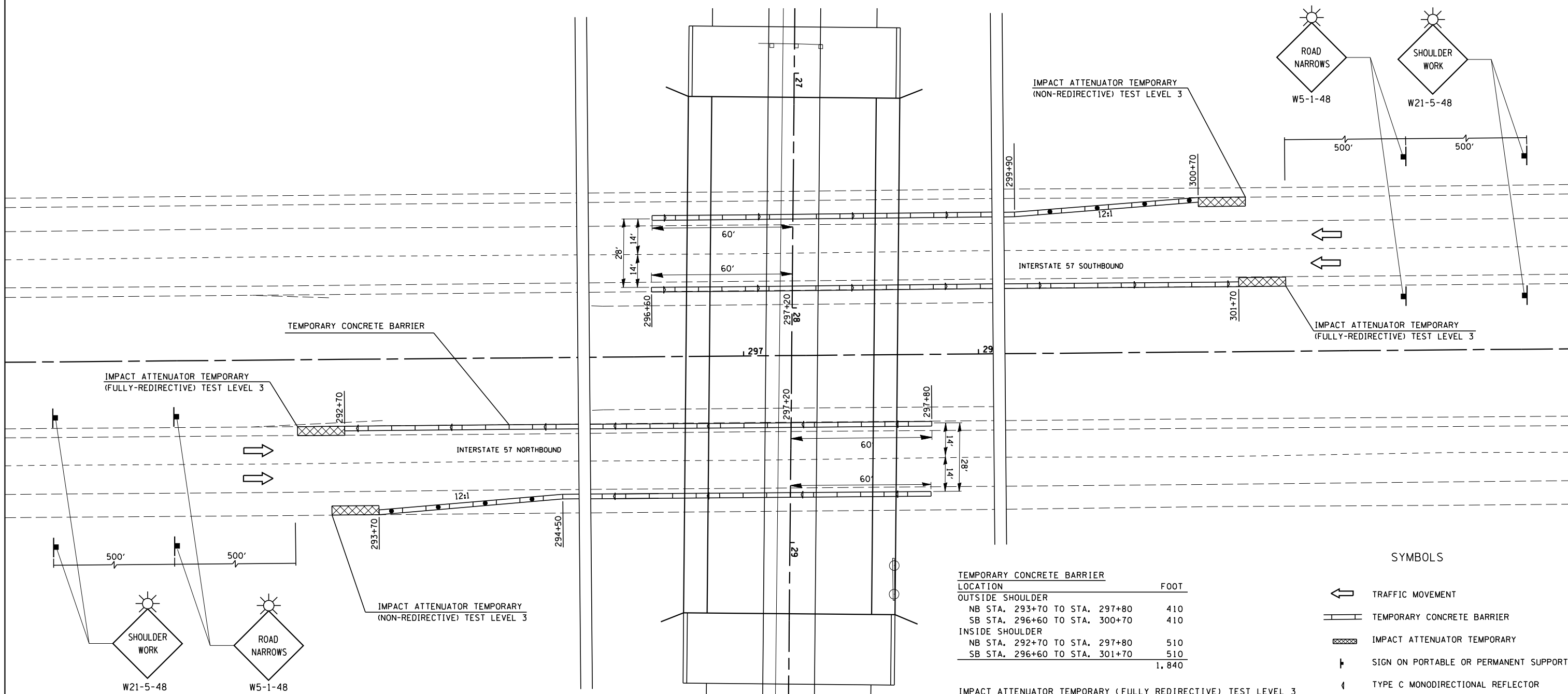
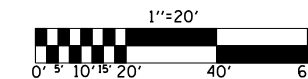
ILLINOIS DEPARTMENT OF TRANSPORTATION

**DETAILS**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	176

# TRAFFIC CONTROL AND PROTECTION FOR BRIDGE CONSTRUCTION

CONTRACT NO. 90758



TEMPORARY CONCRETE BARRIER	
LOCATION	FOOT
OUTSIDE SHOULDER	
NB STA. 293+70 TO STA. 297+80	410
SB STA. 296+60 TO STA. 300+70	410
INSIDE SHOULDER	
NB STA. 292+70 TO STA. 297+80	510
SB STA. 296+60 TO STA. 301+70	510
	1,840

IMPACT ATTENUATOR TEMPORARY (FULLY REDIRECTIVE) TEST LEVEL 3	
LOCATION	EACH
INSIDE SHOULDER	
NB STA. 292+70	1
SB STA. 301+70	1
	2

IMPACT ATTENUATOR TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3	
LOCATION	EACH
OUTSIDE SHOULDER	
NB STA. 293+70	1
SB STA. 300+70	1
	2

### SYMBOLS

- TRAFFIC MOVEMENT
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR TEMPORARY
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TYPE C MONODIRECTIONAL REFLECTOR
- VERTICAL PANEL WITH STEADY BURN MONODIRECTIONAL LIGHT

- NOTES**
- SEE SPECIAL PROVISION "TRAFFIC CONTROL AND PROTECTION, SPECIAL" FOR ADDITIONAL INFORMATION.
  - USE HIGHWAY STANDARD 704001 FOR TEMPORARY CONCRETE BARRIER.
  - USE HIGHWAY STANDARD 701402 FOR PLACEMENT OF VERTICAL PANELS ON TAPER AND TYPE C MONODIRECTIONAL REFLECTORS.

ILLINOIS DEPARTMENT OF TRANSPORTATION

## TRAFFIC CONTROL DETAIL

DRAWN BY JDE  
CHECKED BY

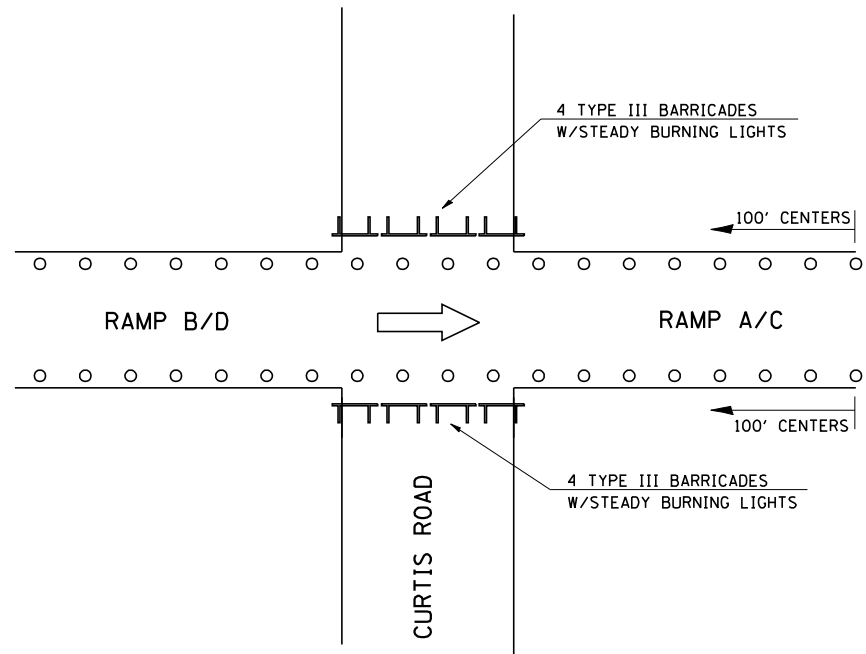
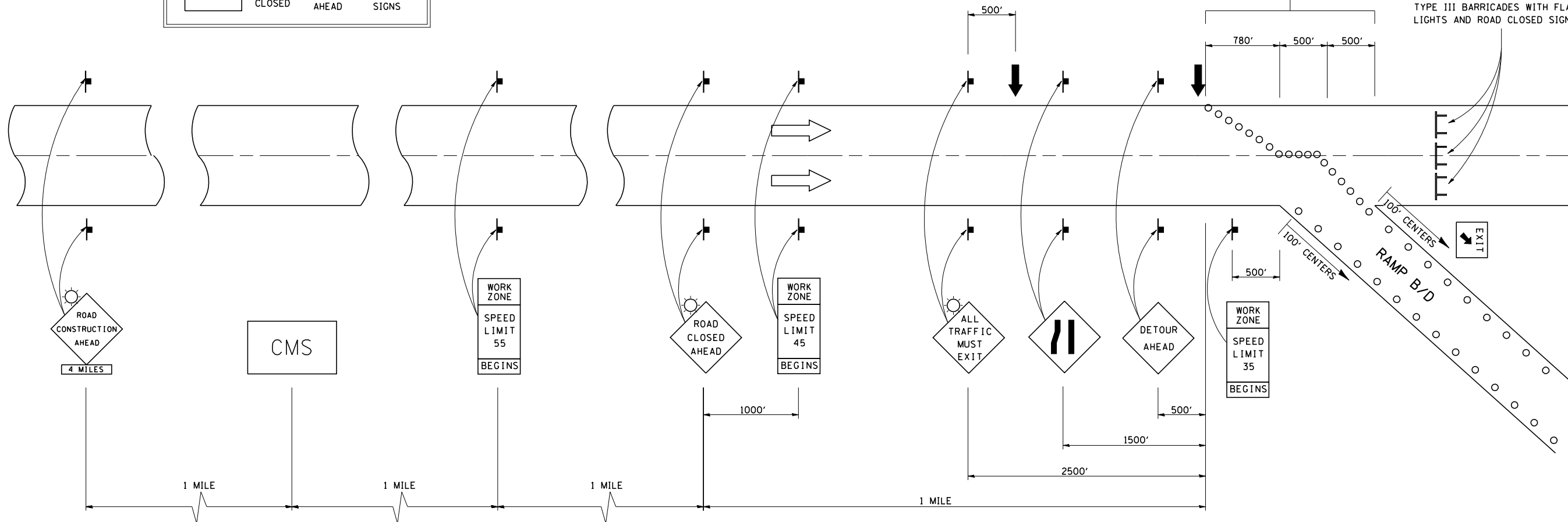
# INTERSTATE DETOUR USING ENTRANCE AND EXIT RAMP

A CHANGEABLE MESSAGE SIGN SHALL BE USED IN ADVANCE OF SIGNING TO WARN OF CLOSURE

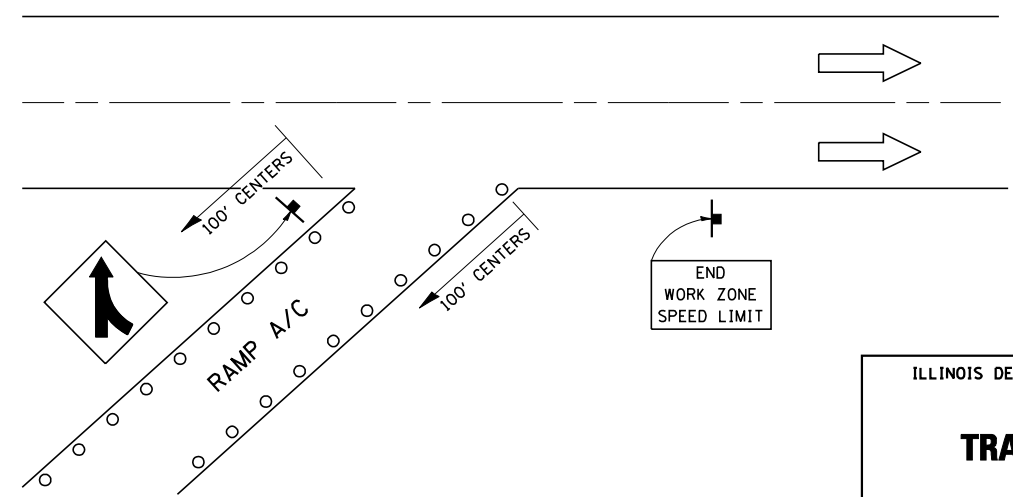
CMS	ROAD CLOSED	3 MILES AHEAD	FOLLOW DETOUR SIGNS
-----	-------------	---------------	---------------------

DRUMS OR DIRECTIONAL BARRICADES WITH STEADY BURNING LIGHTS AT 50' (15 m) CTS. IN TAPER.  
 DRUMS WITH STEADY BURNING LIGHTS IN TANGENT (BETWEEN TAPERS) AT 100' (30 m) CTS.

TYPE III BARRICADES WITH FLASHING LIGHTS AND ROAD CLOSED SIGNS



SYMBOLS	
	ARROW BOARD
	SIGN
	DRUM W/STEADY BURNING LIGHT
	TYPE III BARRICADE

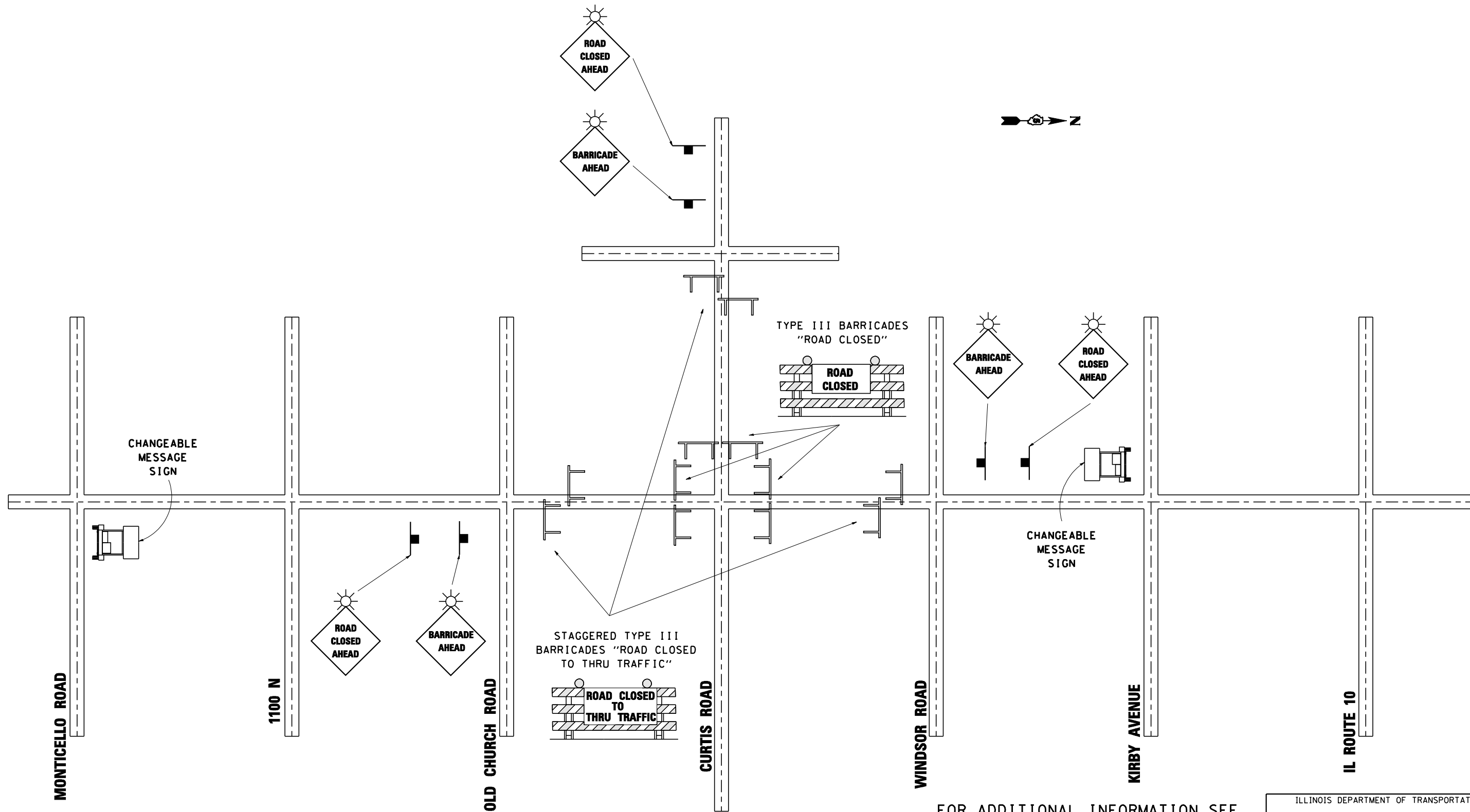


ILLINOIS DEPARTMENT OF TRANSPORTATION

## TRAFFIC CONTROL DETAIL

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	178

# DETAIL OF STALEY ROAD CLOSURE



FOR ADDITIONAL INFORMATION SEE  
 "TYPICAL APPLICATION OF TRAFFIC  
 CONTROL DEVICES FOR ROAD CLOSURE"

ILLINOIS DEPARTMENT OF TRANSPORTATION

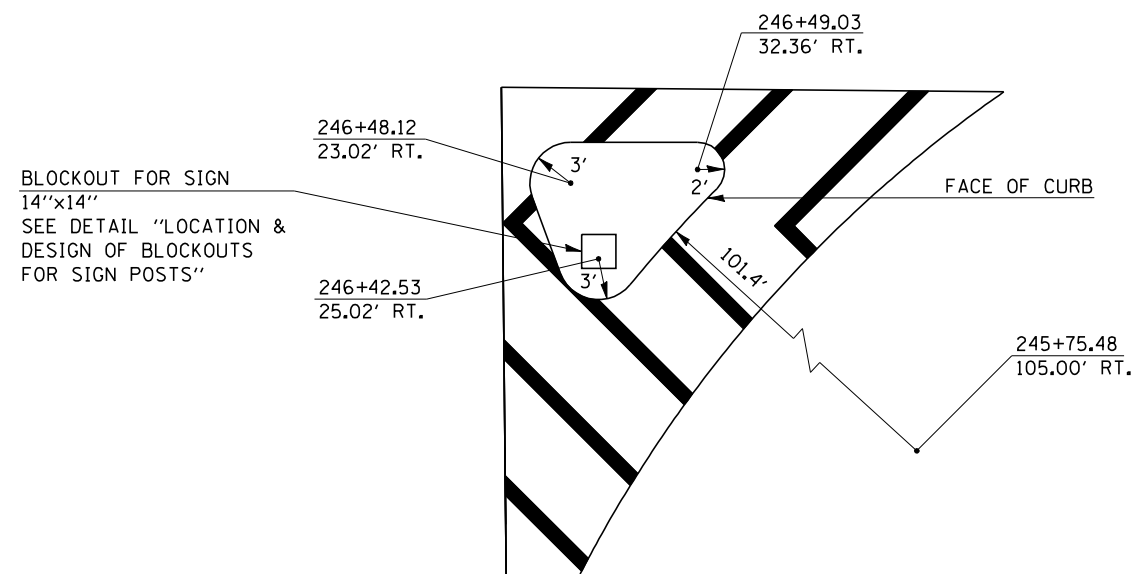
**TRAFFIC CONTROL  
 DETAIL**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	179

CONTRACT NO. 90758

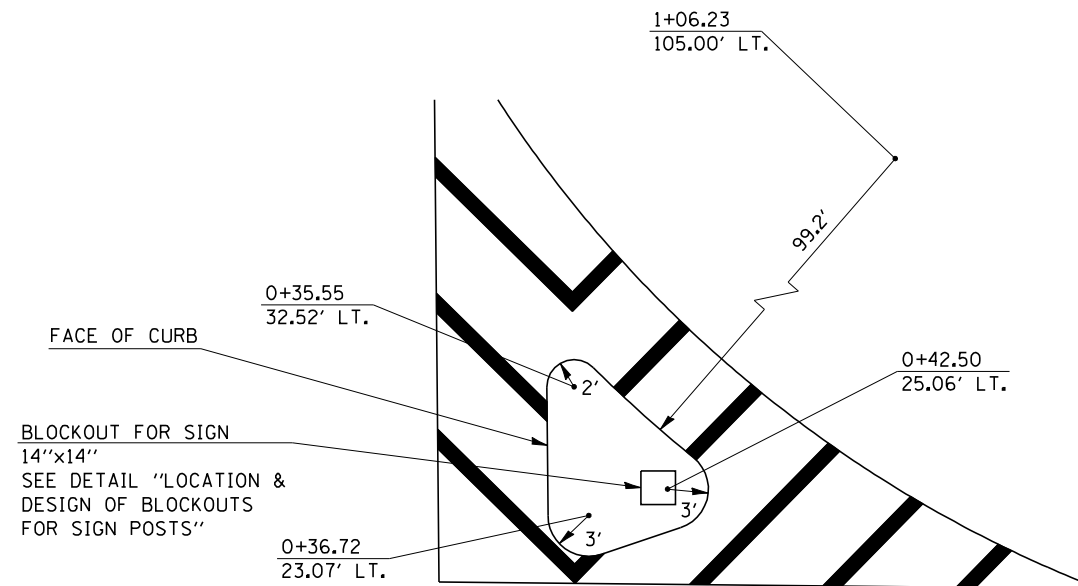
### LAYOUT DETAIL FOR CONCRETE MEDIANS, TYPE SM

SEE HIGHWAY STANDARD 606301-02



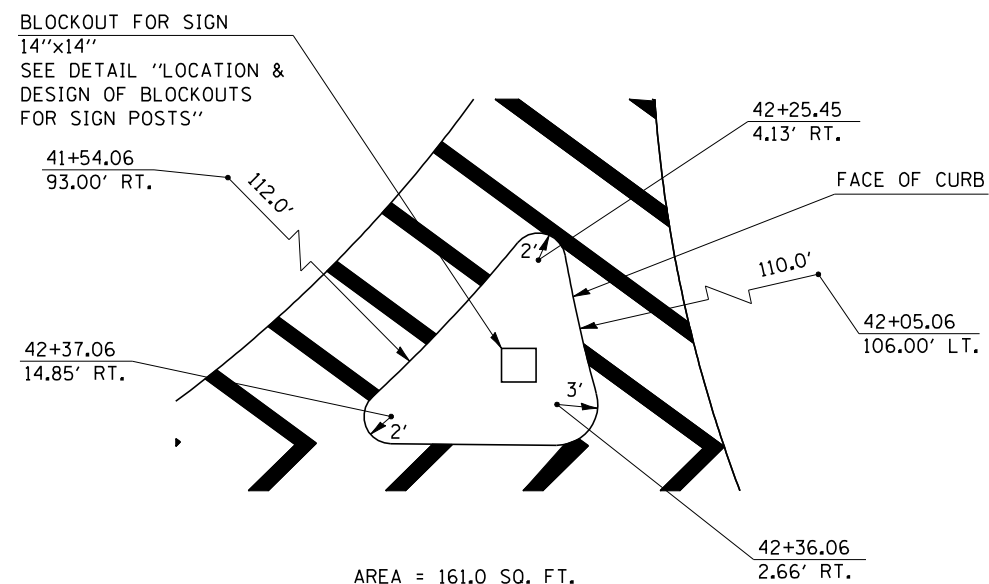
AREA = 114.5 SQ. FT.

**NORTH BOUND STALEY ROAD**



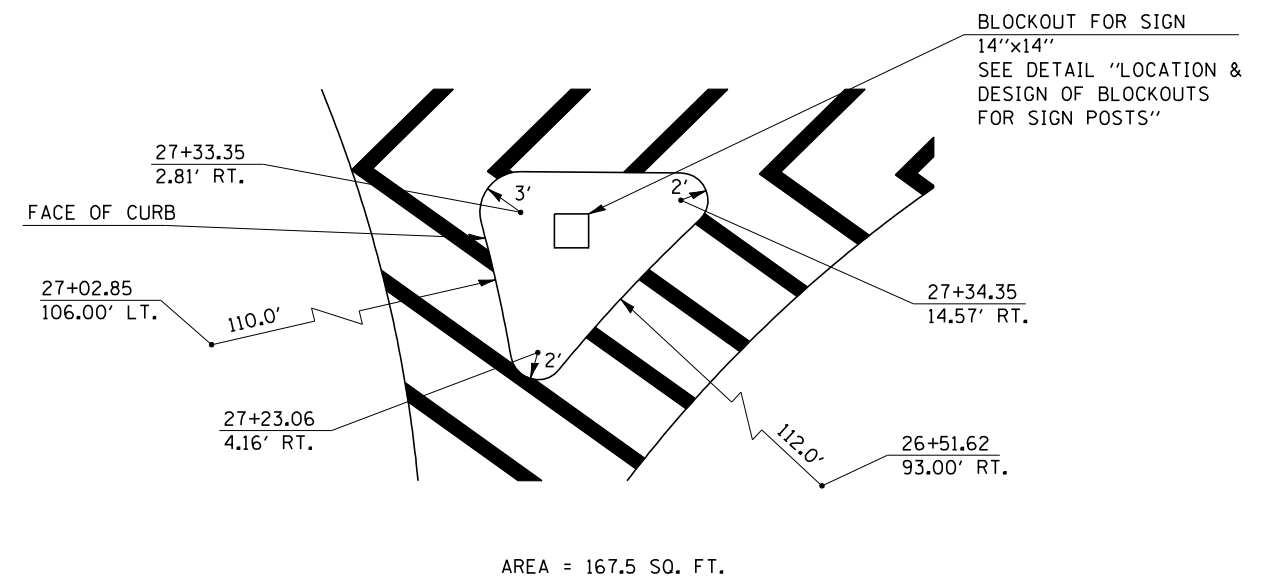
AREA = 117.5 SQ. FT.

**WEST BOUND CURTIS ROAD**



AREA = 161.0 SQ. FT.

**SOUTH BOUND RAMP D**



AREA = 167.5 SQ. FT.

**NORTH BOUND RAMP B**

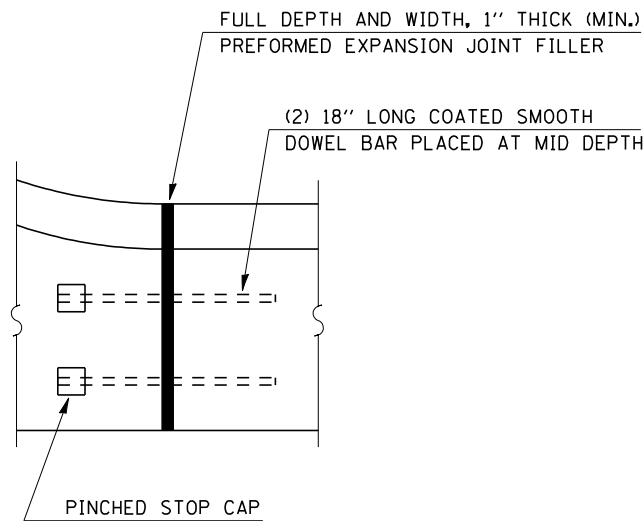
ILLINOIS DEPARTMENT OF TRANSPORTATION

**DETAILS**

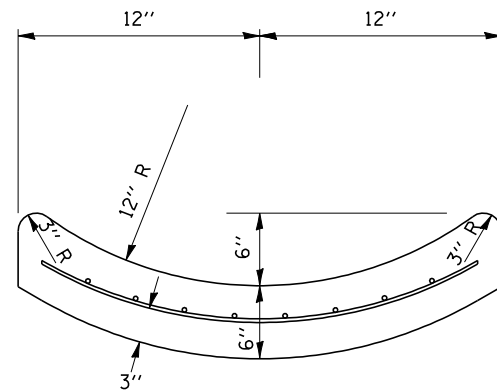
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	180

CONTRACT NO. 90758

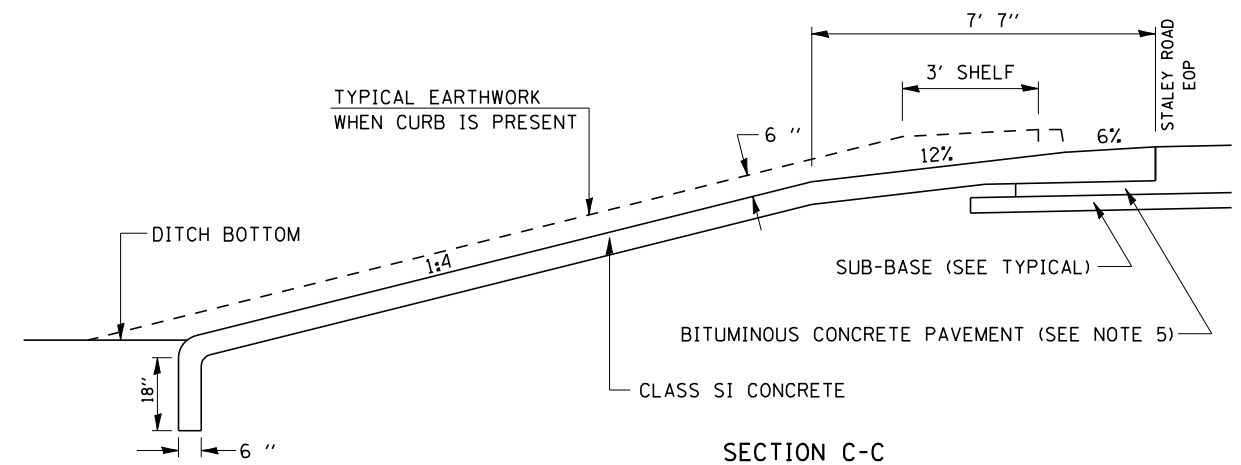
# DETAIL OF OUTLET SPECIAL



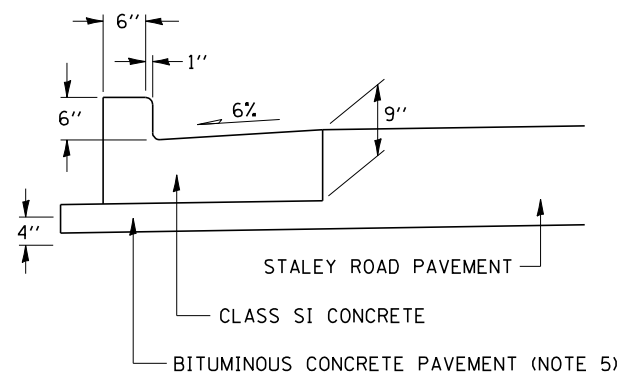
DETAIL OF EXPANSION JOINT



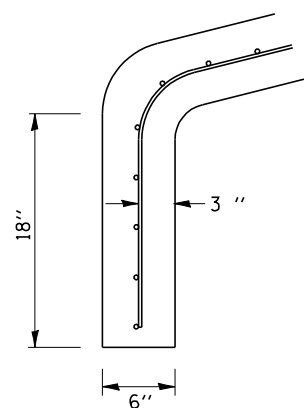
SECTION B-B



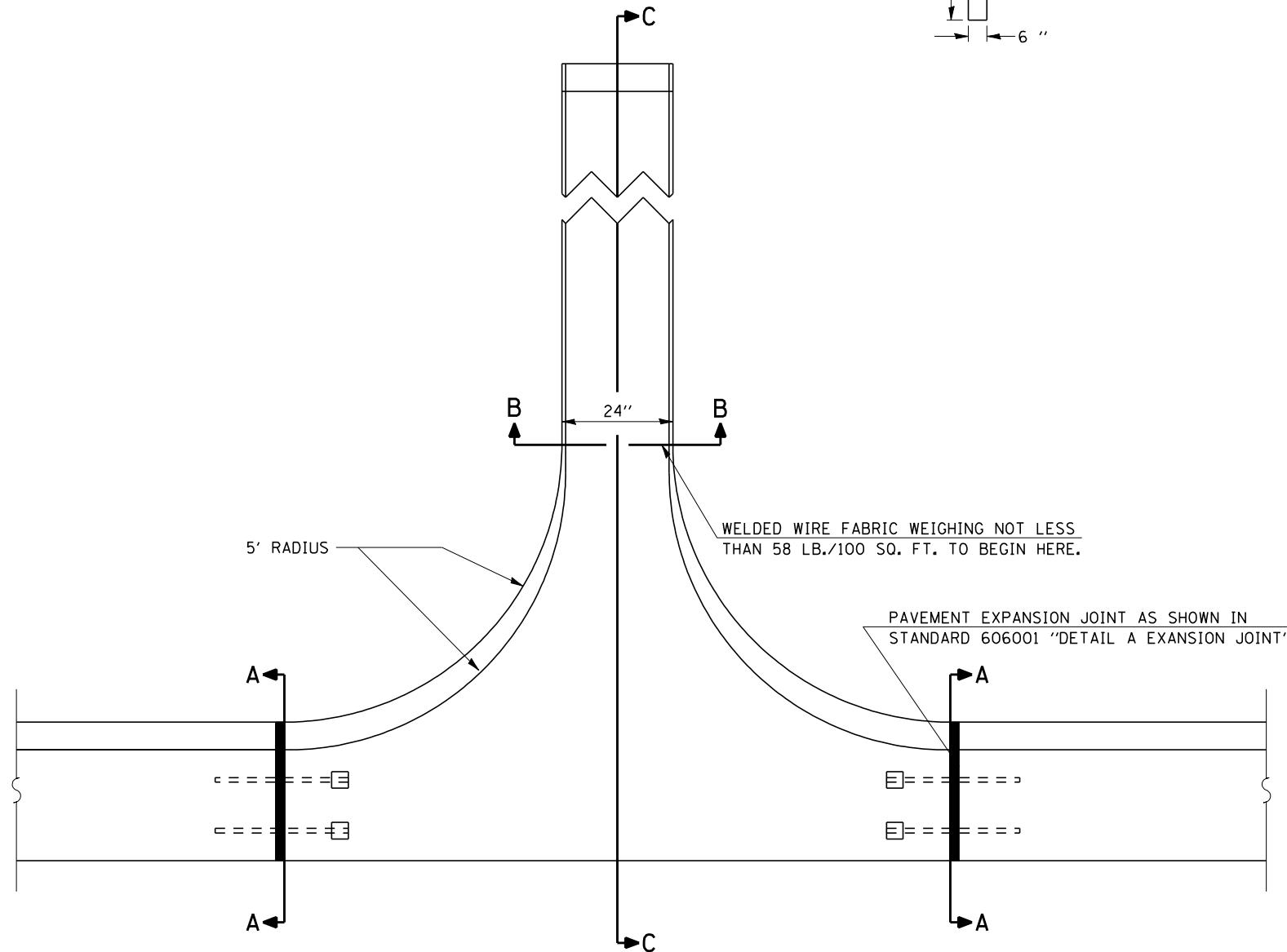
SECTION C-C



SECTION A-A



SECTION OF CURTAIN WALL



## GENERAL NOTES

1. CLASS SI CONCRETE SHALL BE USED THROUGHOUT.
2. TIE BARS SHALL BE NO. 6 UNLESS OTHERWISE SHOWN.
3. TIE BARS SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO OUTLET SPECIAL.
4. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR OUTLET SPECIAL WHICH PRICE SHALL INCLUDE ALL LABOR AND MATERIAL AS SPECIFIED AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
5. COST OF BITUMINOUS MATERIAL BENEATH THE B-6.24 CC&G AND EXTENDING 6" BEYOND THE BACK OF CURB SHALL BE INCLUDED IN THE COST OF THE BOTTOM LAYER OF ADJACENT BITUMINOUS PAVEMENT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
6. QUANTITY FOR OUTLET SPECIAL FROM SECTION A-A TO SECTION B-B AND CURTAIN WALL = 1.27 CU. YDS CLASS SI CONCRETE. QUANTITY FOR SECTION B-B = 0.042 CU. YDS. CLASS SI CONCRETE PER LIN. FT.

ILLINOIS DEPARTMENT OF TRANSPORTATION

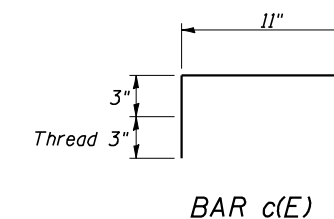
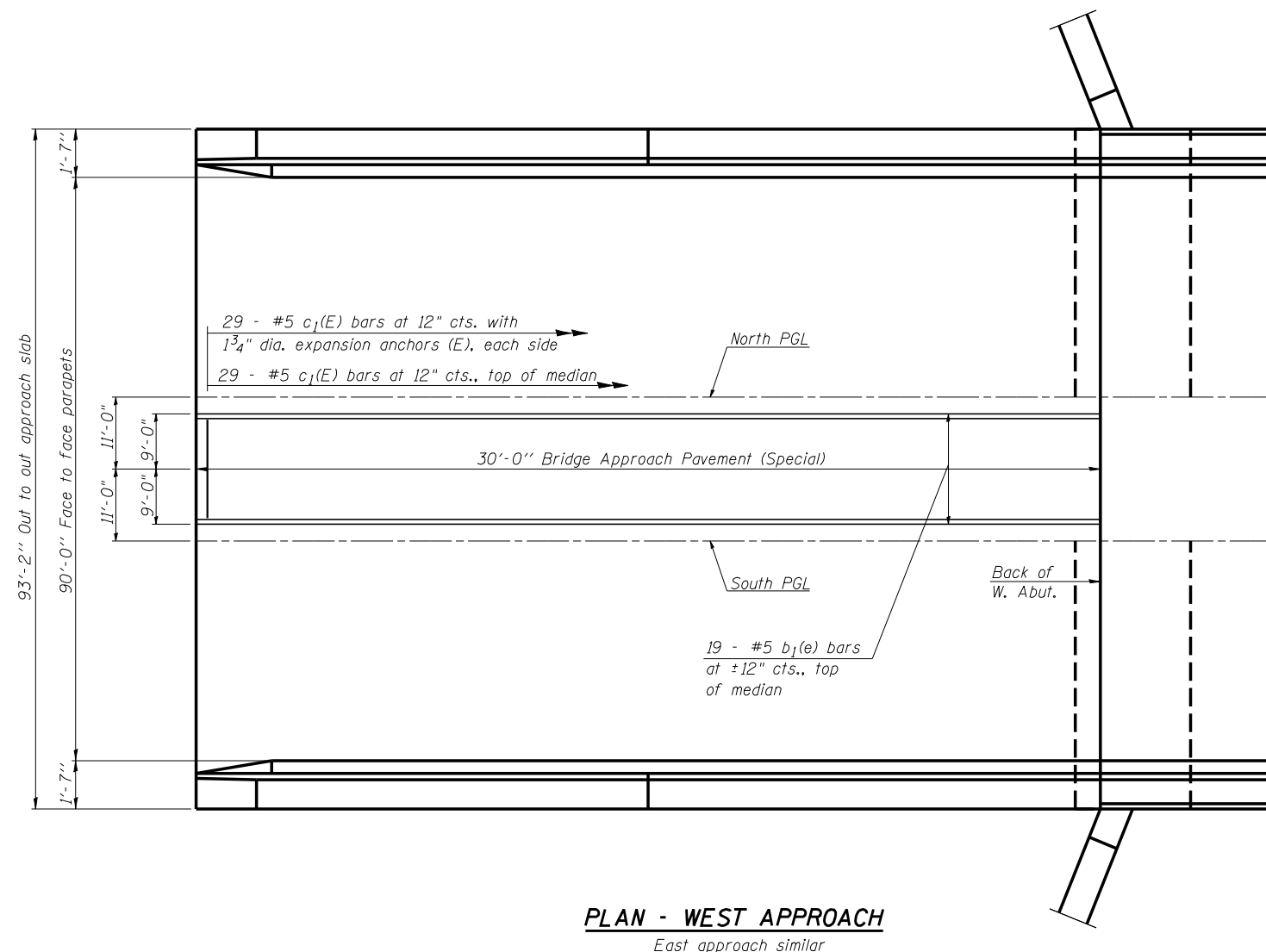
**DETAILS**



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	Champaign	352	181

CONTRACT NO. 90758

## DETAIL OF APPROACH PAVEMENT MEDIAN



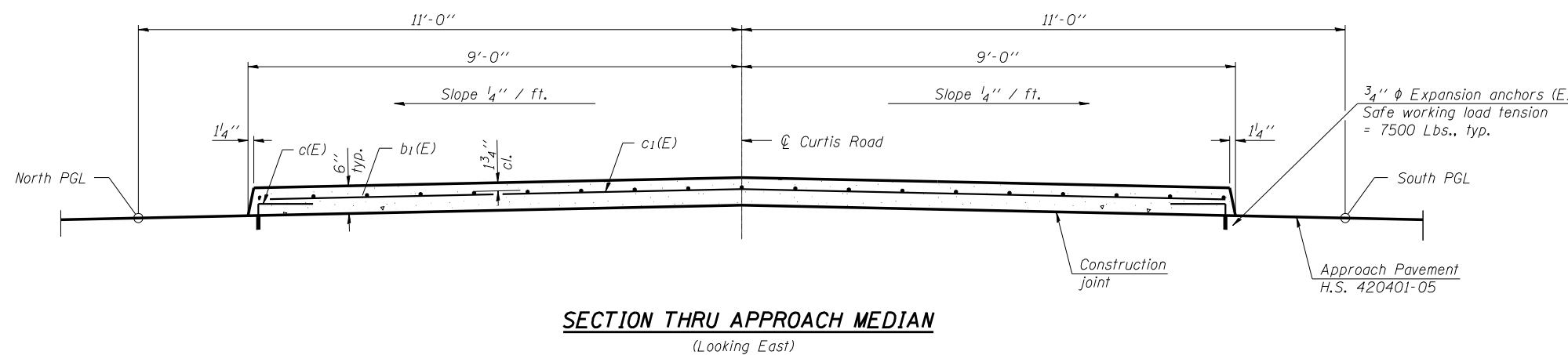
### TWO APPROACH PAVEMENT MEDIANS BILL OF MATERIAL

ITEM	QTY	TYPE	LENGTH	SHAPE
b <sub>1</sub> (E)	38	#5	29'-6"	—
c (E)	58	#5	1'-5"	Γ
c <sub>1</sub> (E)	116	#5	17'-6"	—
Reinforcement Bars, Epoxy Coated			Pound	3373
Concrete Superstructure			Cu. Yd.	19.9

**NOTES:**  
Quantities are shown for information only. Cost is included with Bridge Approach Pavement (Special).

Reinforcement bars designated (E) shall be epoxy coated.

Bars indicated thus 20 - #5 etc. indicates 20 lines of bars.

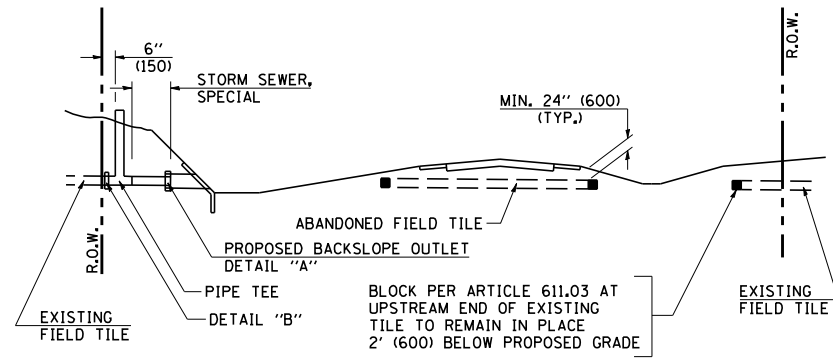


ILLINOIS DEPARTMENT OF TRANSPORTATION

## DETAIL OF APPROACH PAVEMENT MEDIAN

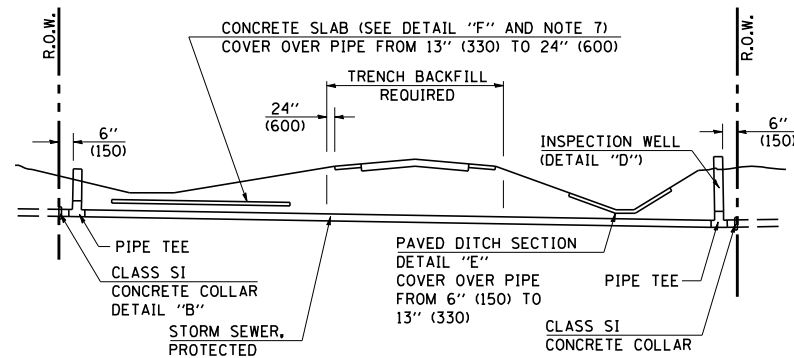
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	182

### DETAIL FOR TREATMENT OF EXISTING FIELD TILE SYSTEMS



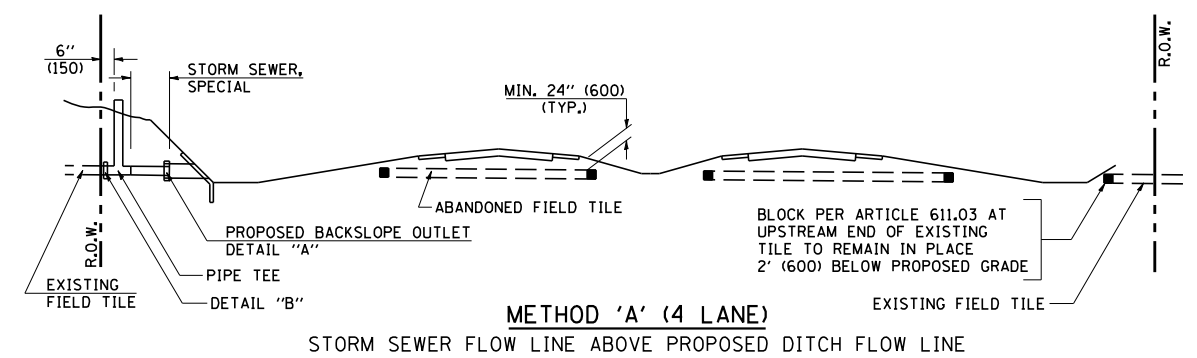
METHOD 'A' (2 LANE)

STORM SEWER FLOW LINE ABOVE PROPOSED DITCH FLOW LINE



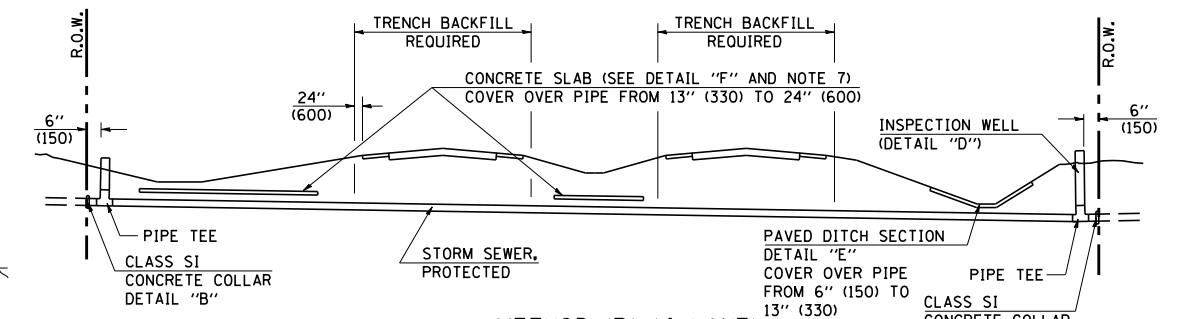
METHOD 'B' (2 LANE)

STORM SEWER LESS THAN 2' (600 mm) BELOW DITCH FLOW LINE AND STORM SEWERS CROSSING UNDER PAVEMENT AND PAVED DITCH



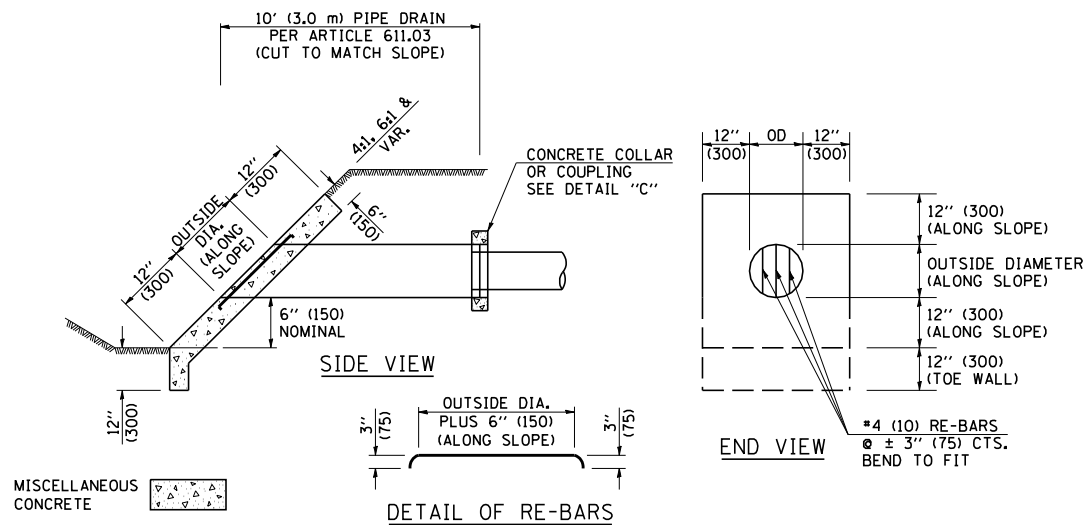
METHOD 'A' (4 LANE)

STORM SEWER FLOW LINE ABOVE PROPOSED DITCH FLOW LINE



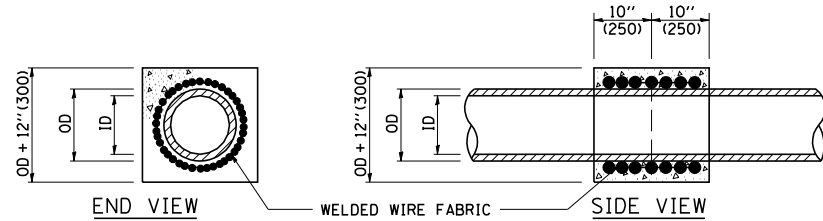
METHOD 'B' (4 LANE)

STORM SEWER LESS THAN 2' (600 mm) BELOW DITCH FLOW LINE AND STORM SEWERS CROSSING UNDER PAVEMENTS AND PAVED DITCHES



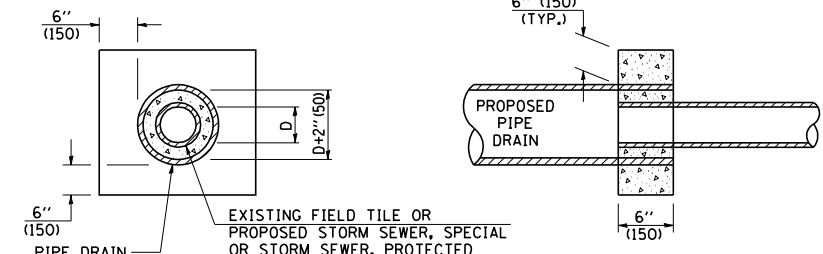
HEADWALL FOR BACKSLOPE OUTLET

DETAIL "A"



CONCRETE COLLAR

DETAIL "B"

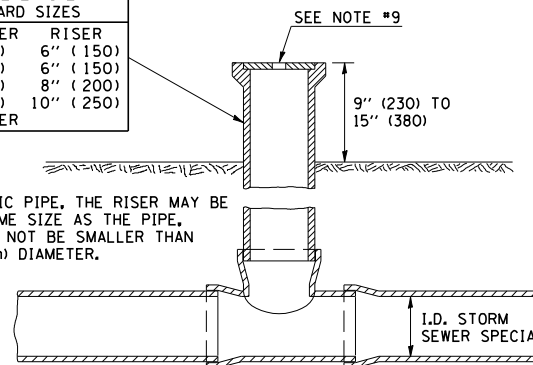


CLASS SI COLLAR

DETAIL "C"

CONCRETE PIPE STANDARD SIZES	
STORM SEWER	RISE
6" (150)	6" (150)
8" (200)	6" (150)
10" (250)	8" (200)
12" (300)	10" (250)
OR GREATER	

FOR PLASTIC PIPE, THE RISER MAY BE OF THE SAME SIZE AS THE PIPE, BUT SHALL NOT BE SMALLER THAN 4" (100 mm) DIAMETER.

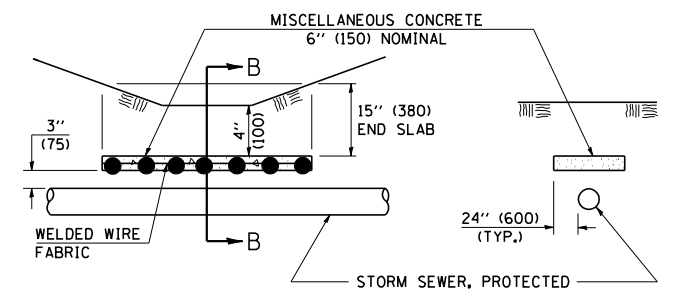


INSPECTION WELL

DETAIL "D"

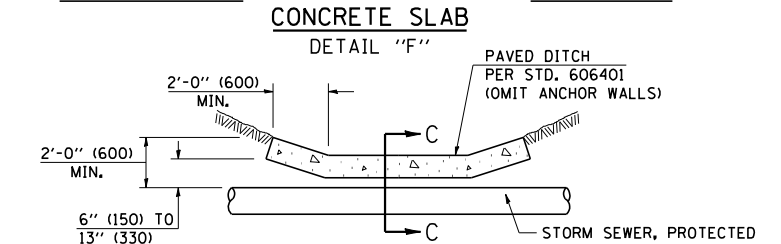
#### GENERAL NOTES

- EXISTING FIELD TILE ENCOUNTERED BY EXPLORATION TRENCH SHALL BE INSPECTED BY THE ENGINEER FOR UNOBSTRUCTED FLOW WITHIN THE LIMITS OF THE RIGHT-OF-WAY.
- ONLY FIELD TILE THAT DOES NOT HAVE SATISFACTORY FLOW AND OR HAS VISIBLE SIGNS OF DETERIORATION (SINK HOLES, ETC.) SHALL BE REPLACED WITHIN THE LIMITS OF THE RIGHT-OF-WAY IN ACCORDANCE WITH METHOD "B".
- INSPECTION WELLS SHALL BE CONSTRUCTED APPROXIMATELY 6" (150 mm) INSIDE OF BOTH RIGHT-OF-WAY LINES AT ALL FIELD TILE LOCATIONS.
- EXISTING FIELD TILE ABANDONED UNDER EXISTING PAVEMENTS OR PAVED SHOULDERS SHALL BE FILLED WITH FLOWABLE GROUT AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR ACCORDING TO ARTICLE 109.04.
- NON-CIRCULAR FIELD TILE SHALL BE REPLACED WITH STORM SEWER, SPECIAL OF AT LEAST THE SAME CROSS SECTIONAL AREA. ALL EXISTING FIELD TILE SHALL BE REPLACED WITH STORM SEWER OF THE TYPE REQUIRED FOR THE MINIMUM DEPTH OF COVER.
- THE 6" (150 mm) CONCRETE SLAB OR DITCH LINING SHALL BE POURED WITHIN THE LENGTH OF THE TRENCH AT ALL DITCH FLOW LINE LOCATIONS WITHIN THE RIGHT-OF-WAY WITH LESS THAN 2' (600 mm) OF EARTH COVER. MISCELLANEOUS CONCRETE SHALL BE USED ACCORDING TO SECTION 611.
- ALL MISCELLANEOUS SLABS, APRONS AND DITCH LININGS SHALL BE REINFORCED WITH WELDED WIRE FABRIC AS SHOWN FOR PAVED DITCH IN STANDARD 606401.
- HEADWALL FOR BACKSLOPE OUTLET MAY BE USED FOR PIPE DRAIN DIAMETERS UP TO 10" (250 mm). SPECIAL DESIGNS WILL BE REQUIRED FOR LARGER SIZES.
- THE INSPECTION WELL LID FOR P.C.C. PIPE SHALL BE CONSTRUCTED OF 3/8" (10 mm) CAST IRON AND PROVIDED WITH A 1" (25 mm) DIAMETER HOLE IN CENTER. THE LID FOR THE OTHER PIPE MATERIALS SHALL BE A GRATE ASSEMBLY PREFABRICATED FOR AND COMPATIBLE WITH THE PIPE SYSTEM.



SLAB ELEVATION

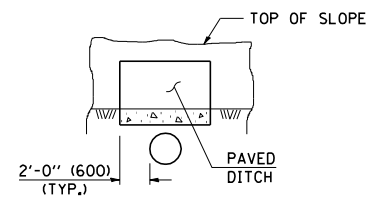
SECTION B-B



CONCRETE SLAB

DETAIL "F"

PAVED DITCH ELEVATION



PAVED DITCH

DETAIL "E"

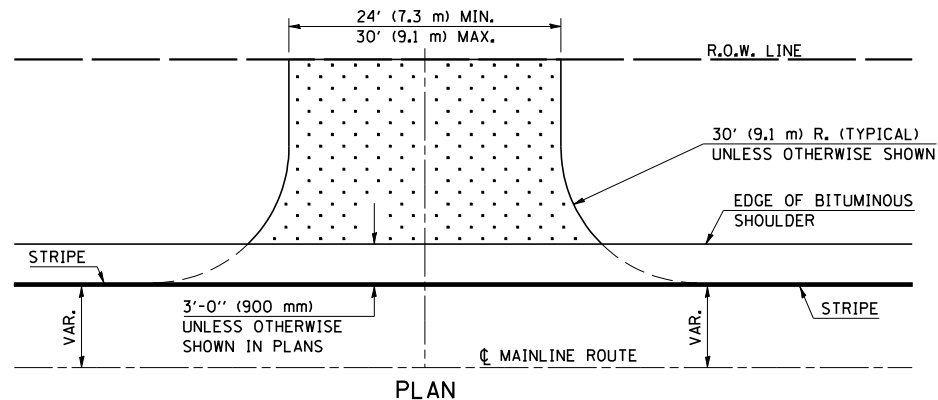
DESIGNED	NAME	DATE	REVISIONS
D.L.P.	12/98		
CHECKED	S.A.C.	12/98	
CADD NO.	A-18.02		

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

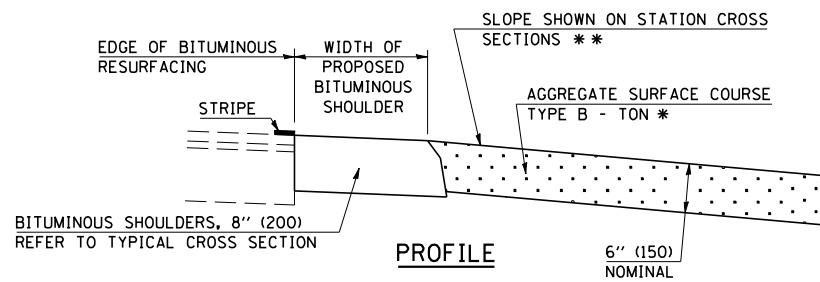
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	183

### TYPICAL DETAIL OF RURAL FIELD ENTRANCES

ADJACENT TO PROPOSED BITUMINOUS SHOULDERS  
(AGGREGATE OR EARTH)



PLAN



PROFILE

#### GENERAL NOTES

1. THE EXISTING SURFACE SHALL BE PREPARED IN ACCORDANCE WITH SECTION 408 OF THE STANDARD SPECIFICATIONS.
2. ANY NECESSARY WORK BEHIND THE BITUMINOUS SHOULDER SHALL BE AS SHOWN IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.
3. ENTRANCE SIDESLOPES SHALL BE CONSTRUCTED TO 4:1 SLOPES, UNLESS OTHERWISE SHOWN.

\*\* MIN. SLOPE = 1%  
MAX. SLOPE = 12%

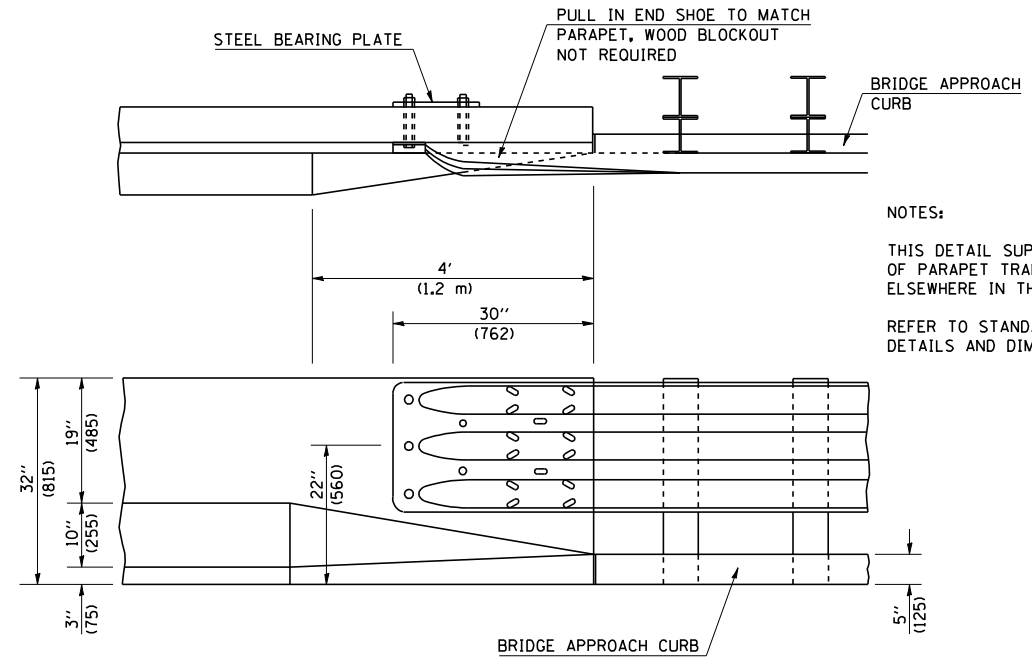
\* EARTH EXCAVATION REQUIRED FOR THE CONSTRUCTION OF THE AGGREGATE SURFACE COURSE SHALL BE INCLUDED IN THE COST OF AGGREGATE SURFACE COURSE.

	NAME	DATE	REVISIONS	
			NAME	DATE
DESIGNED	J.W.S.	11/18/99		
CHECKED	J.Y.B.	11/18/99	D.L.P.	1/25/02
CADD NO.	C-1.32		K.A.G.	06/03

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)  
UNLESS OTHERWISE SHOWN.

### PARAPET MODIFICATIONS FOR TYPE 6 TERMINAL

(NEW CONSTRUCTION)



#### NOTES:

THIS DETAIL SUPERSEDES THE END OF PARAPET TRANSITION SHOWN ELSEWHERE IN THE PLANS.

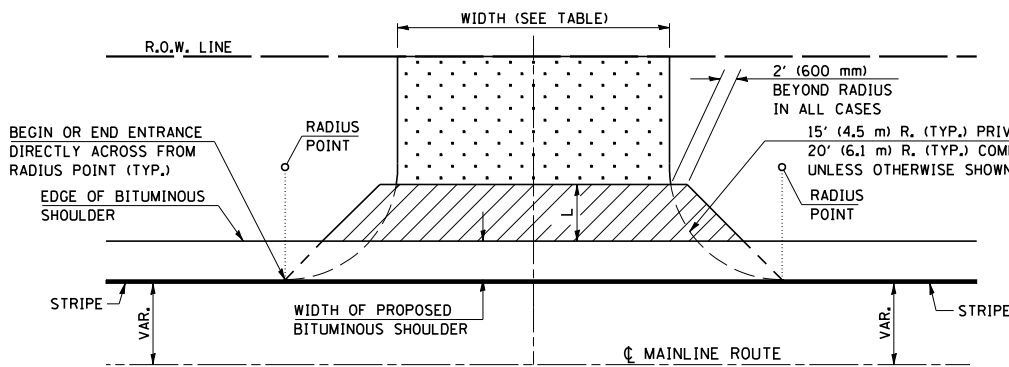
REFER TO STANDARD 631031 FOR DETAILS AND DIMENSIONS NOT SHOWN.

	NAME	DATE	REVISIONS	
			NAME	DATE
DESIGNED	D.L.P.	10-97		
CHECKED	B.K.T.	10-97	K.A.G.	08/03
CADD NO.	F-5.32			

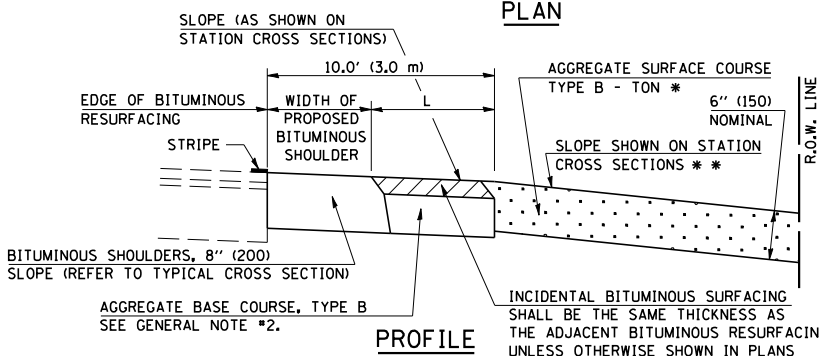
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)  
UNLESS OTHERWISE SHOWN.

### TYPICAL DETAIL OF RURAL PRIVATE AND COMMERCIAL ENTRANCES

ADJACENT TO PROPOSED BITUMINOUS SHOULDERS  
(AGGREGATE OR EARTH)



PLAN



PROFILE

#### ALLOWABLE ENTRANCE WIDTHS

	PRIVATE	COMMERCIAL
MIN.	12' (3.6 m)	24' (7.3 m)
MAX.	24' (7.3 m)	35' (10.7 m)

THE ALLOWABLE ENTRANCE WIDTHS SHALL BE INTERPRETED TO BE THE WIDTHS AT THE COMPLETED RADIUS, WHICH MAY BE LOCATED BEHIND THE EXISTING R.O.W. LINE.

\*\* MIN. SLOPE = 1%  
MAX. SLOPE = 12%

\* EARTH EXCAVATION REQUIRED FOR THE CONSTRUCTION OF THE AGGREGATE SURFACE COURSE SHALL BE INCLUDED IN THE COST OF AGGREGATE SURFACE COURSE.

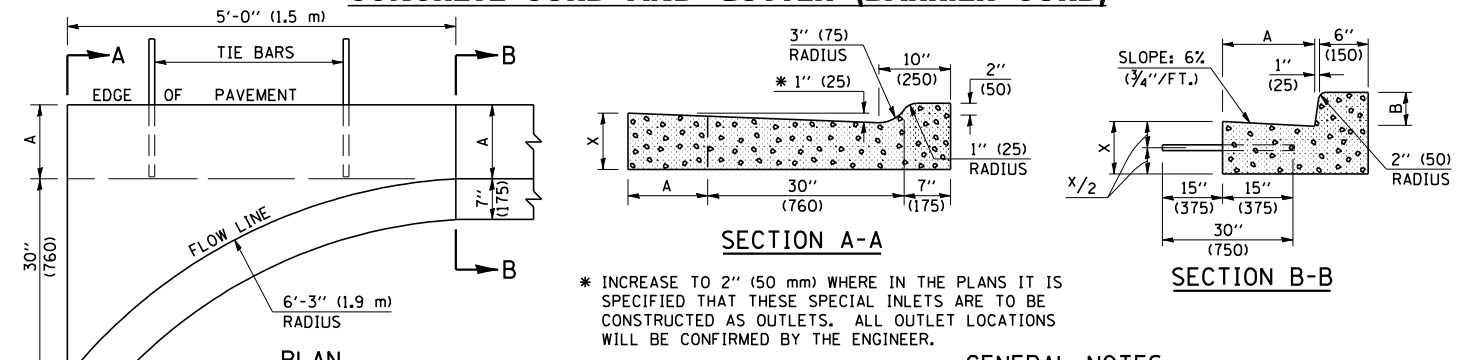
#### GENERAL NOTES

1. THE EXISTING SURFACE SHALL BE PREPARED IN ACCORDANCE WITH SECTION 408 OF THE STANDARD SPECIFICATIONS.
2. AGGREGATE BASE COURSE, TYPE B, 6" (150 mm) MIN. SHALL BE USED WHERE IN THE OPINION OF THE ENGINEER THERE IS NOT SUFFICIENT BASE MATERIAL FOR THE PROPOSED ENTRANCES. THIS MATERIAL SHALL GENERALLY BE USED TO WIDEN ANY EXISTING RETURN OR TO CONSTRUCT NEW ENTRANCES WHERE NONE NOW EXISTS.
3. THE AGGREGATE BASE COURSE SHALL BE CONSTRUCTED 1' (0.3 m) WIDER THAN THE SURFACE DIMENSIONS AS SHOWN ABOVE.
4. ANY NECESSARY WORK BEHIND THE INCIDENTAL BITUMINOUS SURFACING SHALL BE AS SHOWN IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.
5. ENTRANCE SIDESLOPES SHALL BE CONSTRUCTED TO 4:1 SLOPES UNLESS OTHERWISE SHOWN.

	NAME	DATE	REVISIONS	
			NAME	DATE
DESIGNED	JWS	11/18/99		
CHECKED	JYB	11/18/99	JYB	12/7/99
CADD NO.	C-1.33		KAG	06/03

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)  
UNLESS OTHERWISE SHOWN.

### DETAIL OF SPECIAL INLET FOR COMBINATION CONCRETE CURB AND GUTTER (BARRIER CURB)



\* INCREASE TO 2" (50 mm) WHERE IN THE PLANS IT IS SPECIFIED THAT THESE SPECIAL INLETS ARE TO BE CONSTRUCTED AS OUTLETS. ALL OUTLET LOCATIONS WILL BE CONFIRMED BY THE ENGINEER.

#### GENERAL NOTES

1. CLASS SI CONCRETE SHALL BE USED THROUGHOUT.
2. TIE BARS SHALL BE NO. 6 (NO. 20) AT 24" (600 mm) CENTERS UNLESS OTHERWISE SHOWN. SPECIAL INLETS AND OUTLETS SHALL BE TIED TO THE PAVEMENT IN ACCORDANCE WITH DETAILS FOR LONGITUDINAL CONSTRUCTION JOINT SHOWN ON STANDARD 420001.
3. TIE BARS SHOWN ABOVE WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCIDENTAL TO CLASS SI CONCRETE OUTLETS.
4. WHEN SPECIAL INLET IS CONSTRUCTED ADJACENT TO FLEXIBLE PAVEMENT, THE TIE BARS SHALL BE OMITTED AND ALL CONSTRUCTION JOINTS SHALL BE PROVIDED WITH A DOWEL BAR CONFORMING TO ARTICLE 1006.11(b).
5. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CU. YD. (m<sup>3</sup>) FOR CLASS SI CONCRETE (OUTLETS) WHICH PRICE SHALL INCLUDE ALL LABOR AND MATERIAL AS SPECIFIED AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

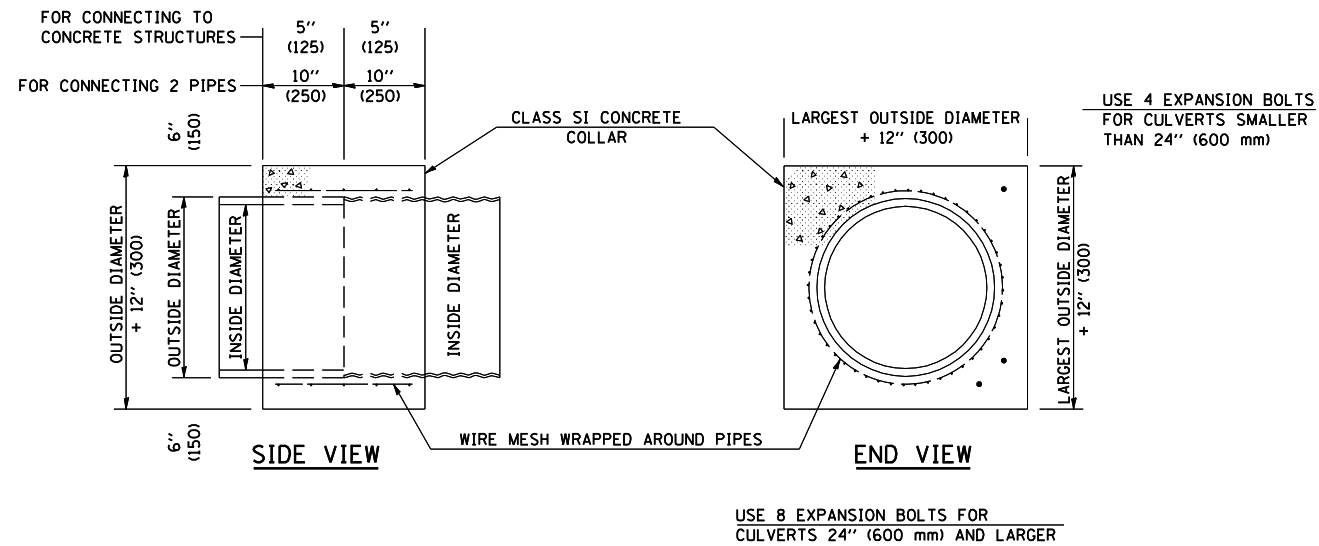
	B-6.12 (B-15.30)	B-9.12 (B-22.30)	B-6.18 (B-15.45)	B-9.18 (B-22.45)	B-6.24 (B-15.60)	B-9.24 (B-22.60)
A	12" (300)	12" (300)	12" (300)	12" (300)	18" (450)	18" (450)
B	6" (150)	6" (150)	9" (225)	9" (225)	6" (150)	6" (150)
X	9" (225)	10" (250)	9" (225)	10" (250)	9" (225)	10" (250)
CU. YD. (m <sup>3</sup> )	0.37 (0.28)	0.42 (0.32)	0.38 (0.29)	0.42 (0.32)	0.44 (0.34)	0.49 (0.37)
CLASS SI CONCRETE (OUTLETS)	0.51 (0.39)	0.50 (0.38)	0.51 (0.39)	0.51 (0.39)	0.56 (0.43)	0.57 (0.44)

	NAME	DATE	REVISIONS	
			NAME	DATE
DESIGNED	J.H.M.	6/88		
CHECKED	P.E.K.	6/88	D.L.P.	10/96
CADD NO.	A-2.01		K.A.G.	06/03

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)  
UNLESS OTHERWISE SHOWN.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	184

### DETAIL OF CONCRETE COLLARS



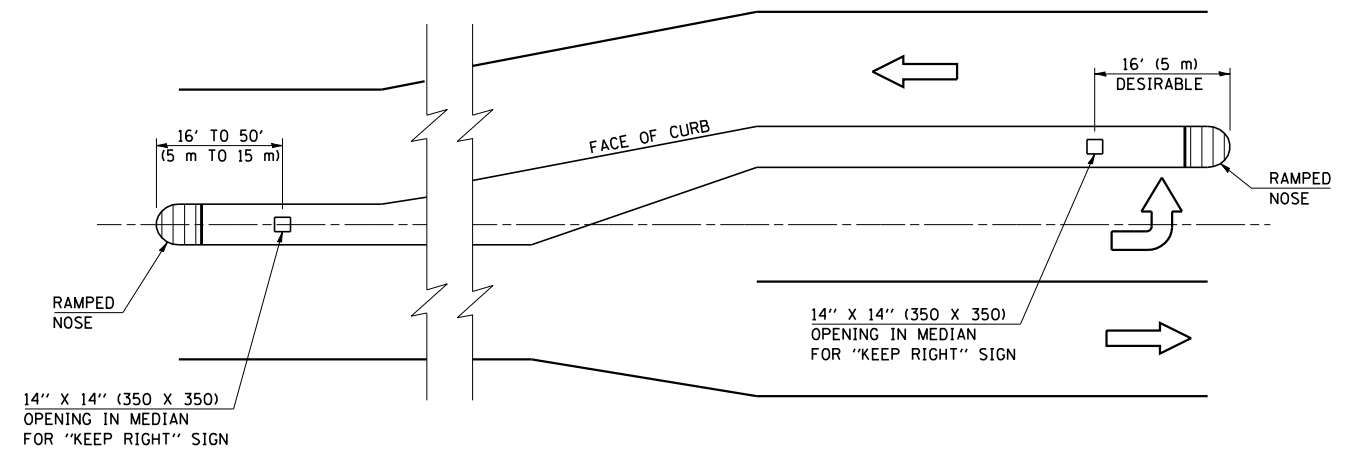
INSIDE DIAMETER OF PIPE INCH (mm)	ESTIMATED CLASS SI CONCRETE REQUIRED 20" (500 mm) WIDTH CU. YD. (m <sup>3</sup> )
4" (100)	0.14 (0.11)
6" (150)	0.16 (0.12)
8" (200)	0.19 (0.14)
10" (250)	0.22 (0.17)
12" (300)	0.25 (0.19)
15" (375)	0.30 (0.23)
18" (450)	0.35 (0.27)
24" (600)	0.45 (0.35)
30" (750)	0.57 (0.43)
36" (900)	0.69 (0.53)
42" (1050)	0.83 (0.63)
48" (1200)	0.97 (0.74)
54" (1350)	1.12 (0.86)
60" (1500)	1.28 (0.98)

INSIDE DIAMETER OF PIPE INCH (mm)	ESTIMATED CLASS SI CONCRETE REQUIRED 20" (500 mm) WIDTH CU. YD. (m <sup>3</sup> )
4" (100)	0.12 (0.09)
6" (150)	0.14 (0.11)
8" (200)	0.16 (0.12)
10" (250)	0.19 (0.14)
12" (300)	0.21 (0.16)
15" (375)	0.25 (0.19)
18" (450)	0.29 (0.22)
24" (600)	0.38 (0.29)
30" (750)	0.47 (0.36)
36" (900)	0.59 (0.45)
42" (1050)	0.69 (0.53)
48" (1200)	0.81 (0.62)
54" (1350)	0.93 (0.71)
60" (1500)	1.05 (0.81)

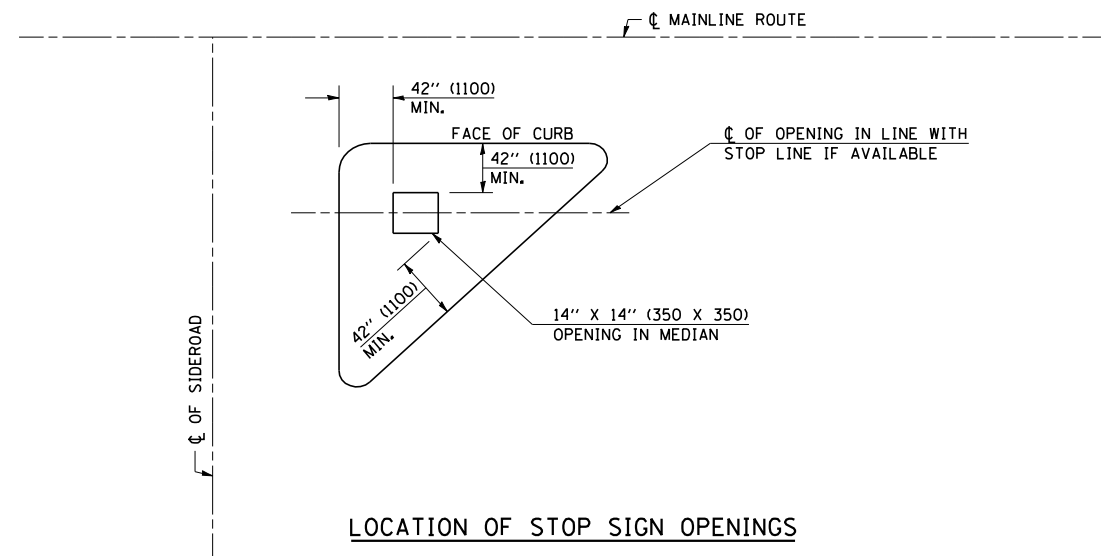
### GENERAL NOTES

- CLASS SI CONCRETE SHALL BE USED THROUGHOUT.
- WHEN CONCRETE COLLARS ARE USED TO CONNECT PIPES OF DIFFERENT OUTSIDE DIAMETERS, THE CONCRETE COLLAR SHALL BE FORMED USING THE LARGEST OUTSIDE DIAMETER (SEE END VIEW).
- THE WIRE MESH SHALL WEIGH NOT LESS THAN 54#/100 SQ. FT. (2.63 kg/m<sup>2</sup>).
- WHEN CONCRETE COLLARS ARE CONSTRUCTED ADJACENT TO AN EXISTING CONCRETE STRUCTURE (HEADWALLS, ETC.) EXPANSION BOLTS, SHALL BE USED AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE, EACH, FOR EXPANSION BOLTS OF THE SIZE SPECIFIED IN THE PLANS.
- CONCRETE COLLARS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE, PER CUBIC YARD (CUBIC METER), FOR CONCRETE COLLARS INCLUDING ALL MATERIAL AND LABOR SPECIFIED TO COMPLETE THE WORK IN PLACE.

### LOCATION & DESIGN OF BLOCKOUTS FOR SIGN POSTS



### LOCATION OF OPENINGS FOR "KEEP RIGHT" SIGNS



### LOCATION OF STOP SIGN OPENINGS

### GENERAL NOTES

- ALL SMALL ISLANDS SHALL BE CONSTRUCTED WITH THE STOP SIGN ISLANDS AS SHOWN, UNLESS OTHERWISE SPECIFIED.
- OPENINGS FOR SIGNS IN MEDIANS SHALL BE AS SHOWN OR AS DIRECTED BY THE ENGINEER.
- THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE TYPE OF MEDIAN SPECIFIED IN THE PLANS AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

NAME	DATE	REVISIONS
DESIGNED	J.M.H. 4-80	
CHECKED	P.E.K. 4-80	
CADD NO.	J-5,45	

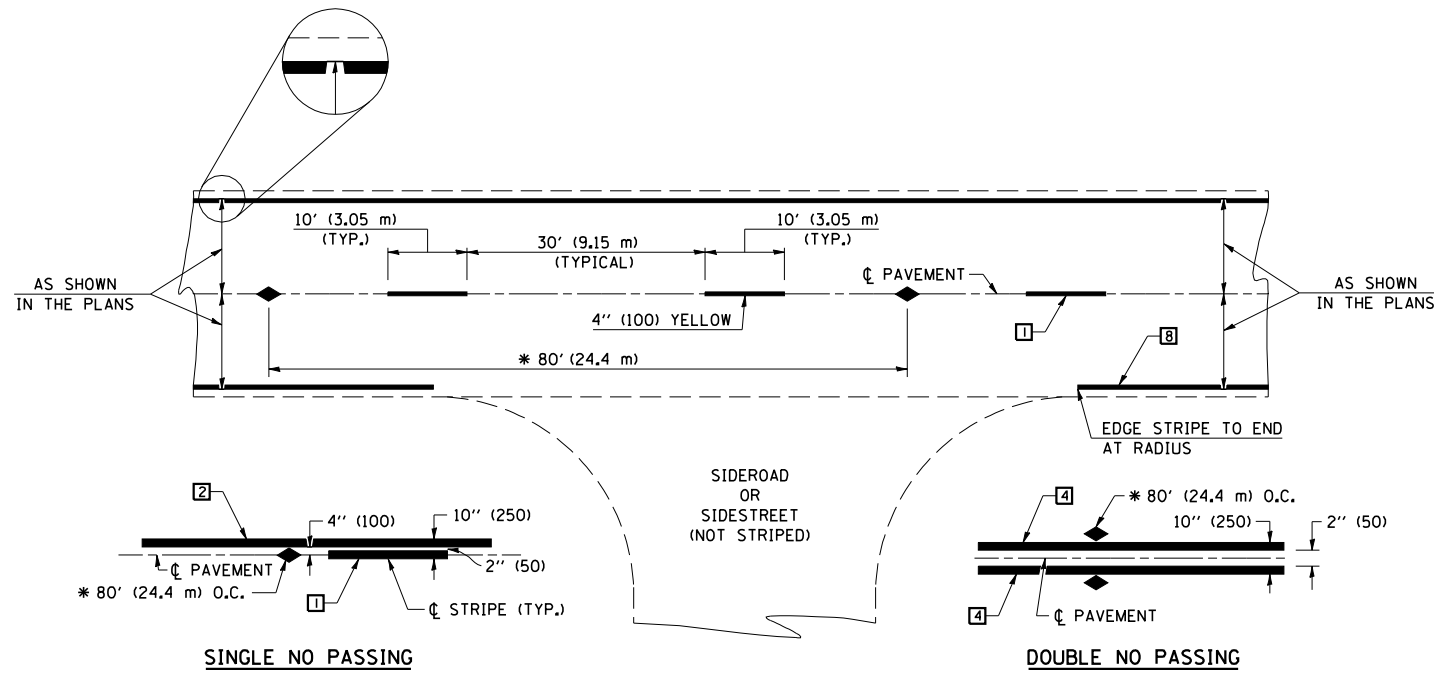
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

NAME	DATE	REVISIONS
DESIGNED	J.M.H. 8/25/87	
CHECKED	P.E.K. 8/25/87	
CADD NO.	A-5.03	

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	185

### TYPICAL APPLICATIONS OF PAVEMENT MARKINGS AND MARKERS



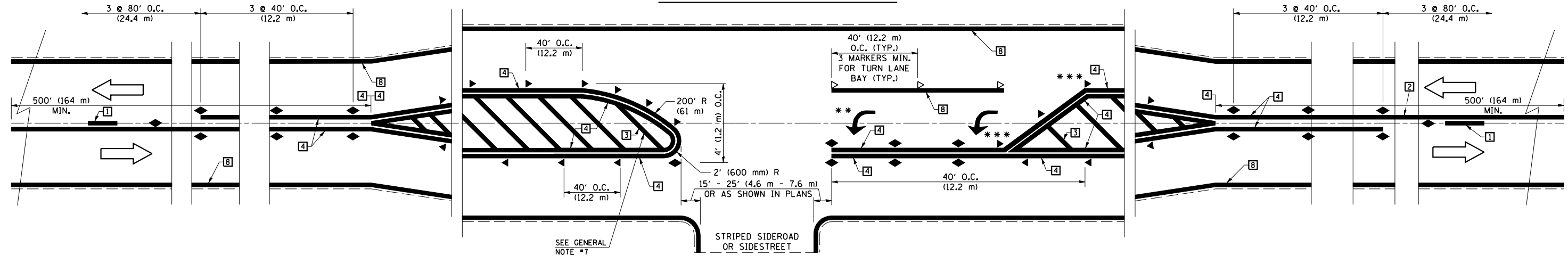
#### TYPICAL PAVEMENT MARKING LEGEND

- 1 4" (100) SKIP-DASH (YELLOW)
- 2 4" (100) SOLID (YELLOW)
- 3 12" (300) DIAGONAL (YELLOW)
- 4 4" (100) DOUBLE YELLOW (NARROW)
- 5 RESERVED
- 6 RESERVED
- 7 4" (100) SKIP-DASH (WHITE)
- 8 4" (100) SOLID (WHITE)
- 9 12" (300) DIAGONAL (WHITE)
- 10 6" (150) CROSS WALK (WHITE)
- 11 24" (600) STOP BAR (WHITE)
- 12 8" (200) SOLID (WHITE)
- 13 4" (100) LANE LINE EXTENSIONS (WHITE)
- 14 4" (100) PARKING WHITE

#### TYPICAL PAVEMENT MARKERS LEGEND

- ◆ TWO-WAY AMBER MARKER
- ▶ ONE-WAY AMBER MARKER
- ▷ ONE-WAY CRYSTAL MARKER

#### DETAIL OF RURAL LEFT TURN LANE



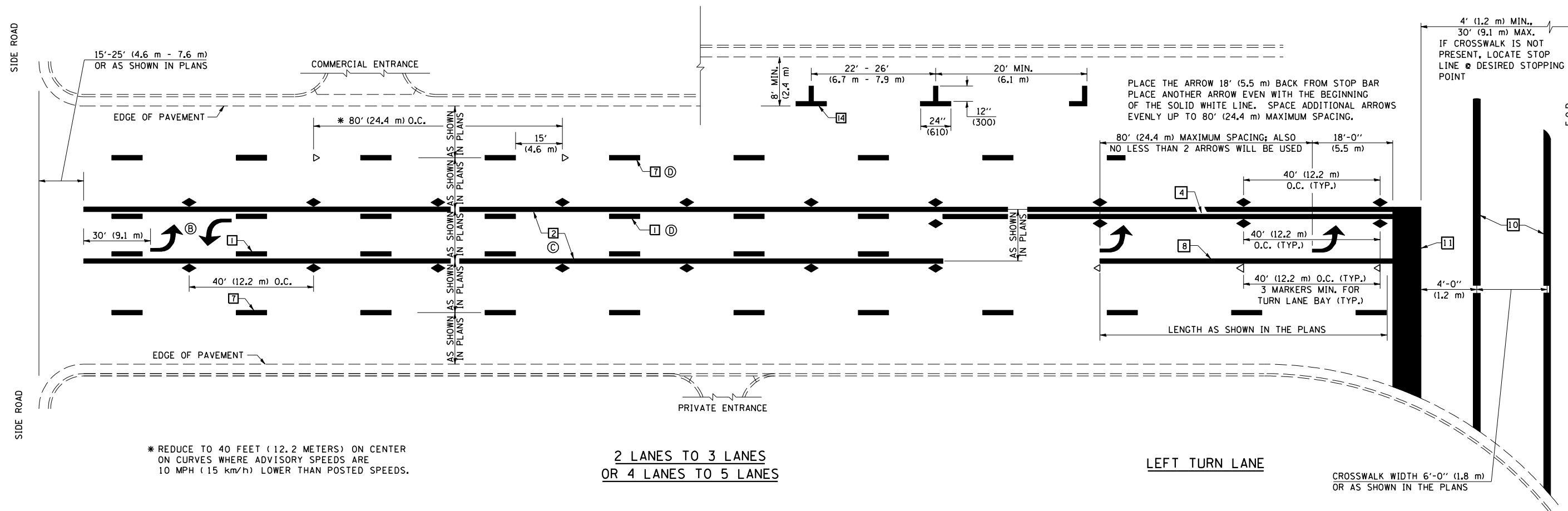
#### SHEET 1 OF 4

DESIGNED	NAME	DATE	REVISIONS
J.M.H.	5/85	6/88	NAME
FMS	6/85	6/88	DATE
CTD	6/85	6/88	GEOMETRICS/K.A.G.
CADD NO.	F-5,25		K.A.G.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	186

### TYPICAL APPLICATIONS OF PAVEMENT MARKINGS AND MARKERS



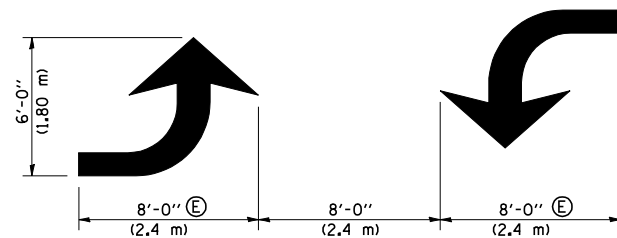
SHEET 2 OF 4

	NAME	DATE	REVISIONS
DESIGNED	J.M.H.	5/85	NAME
CHECKED	FMS	6/88	DATE
CADD NO.	CTD	6/88	GEOMETRICS/K.A.G.
	F-5,25		K.A.G.

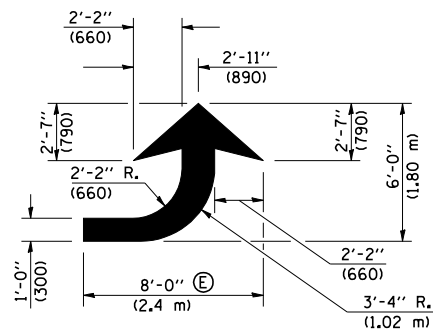
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	187

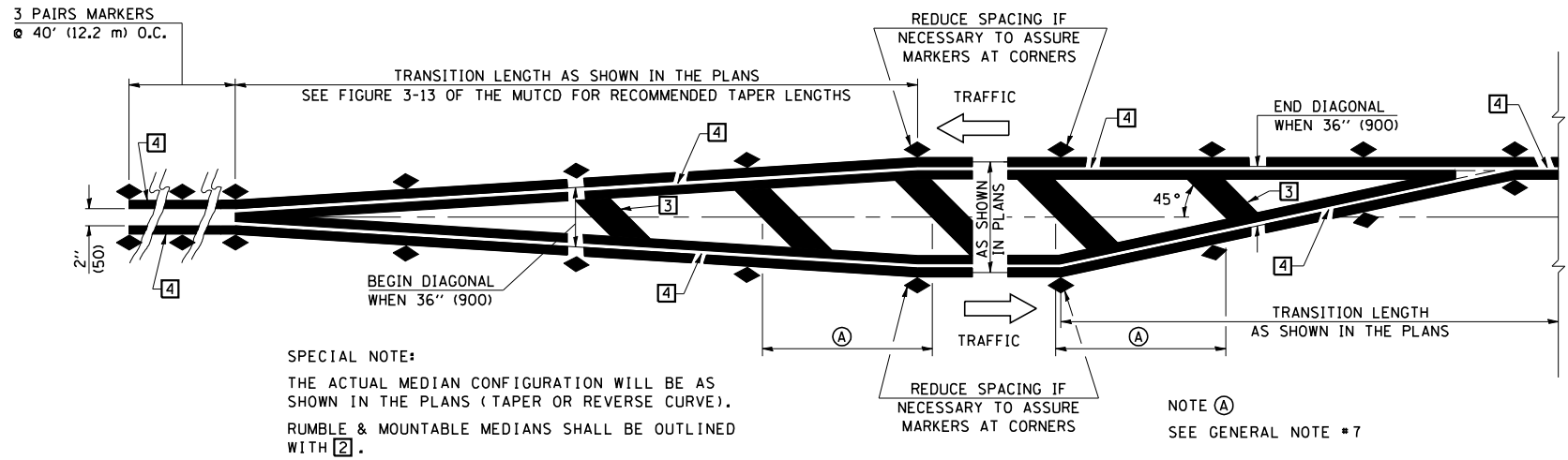
### TYPICAL APPLICATIONS OF PAVEMENT MARKINGS AND MARKERS



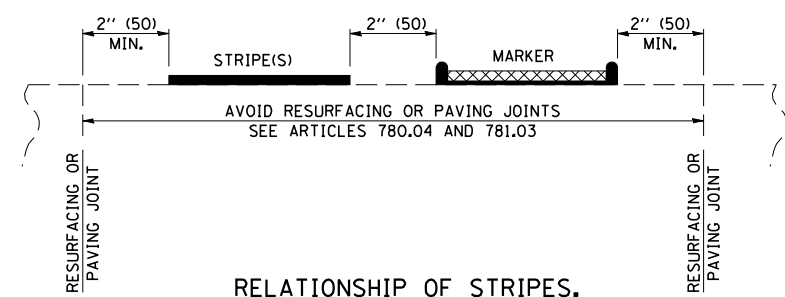
TYPICAL DOUBLE TURN ARROWS (WHITE)



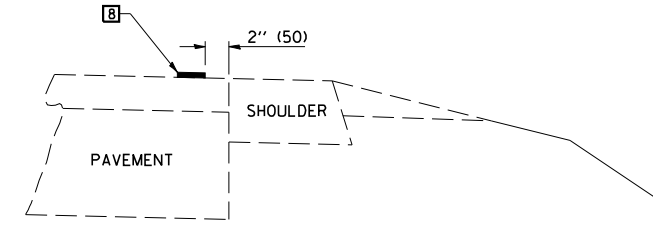
LEFT ARROW  
REVERSE FOR RIGHT ARROW  
AREA = 15.6 SQ. FT. (1.47 m<sup>2</sup>)  
(WHITE)



TYPICAL MEDIAN TRANSITIONS



RELATIONSHIP OF STRIPES, MARKERS AND JOINTS



RELATIONSHIP OF EDGE STRIPE TO SAFETY SHOULDER OR PAVED SURFACE

- SPECIAL NOTES:
- (B) TURN ARROW PAIRS SHALL BE PLACED AT 250' (75 m) INTERVALS AND SHALL BE EVENLY SPACED BETWEEN BOTH ENDS OF THE BIDIRECTIONAL LEFT TURN LANE.
  - (C) THE SOLID YELLOW PAVEMENT MARKINGS [2] SHOULD GENERALLY START OR END NEAR THE RADIUS POINT OF EACH STREET RETURN EXCEPT WHERE ONE OR BOTH ENDS WOULD INCLUDE STOP BARS.
  - (D) THE SKIP-DASH PAVEMENT MARKINGS [1] OR [7] SHOULD BE CENTERED BETWEEN BOTH ENDS OF EACH CITY BLOCK AND SHALL BE PLACED SO THEY LINE UP ACROSS FROM EACH OTHER. SEE EXAMPLE ON SHEET 2 OF 3.
  - (E) TURN ARROW SIZE DEPENDS ON THE LOCATION.  
RURAL LOCATION - LARGE ARROW SIZE  
URBAN LOCATION - SMALL ARROW SIZE

GENERAL NOTES

1. WHEN MEDIANS ARE PRESENT, PAVEMENT MARKINGS ARE TO BE PLACED ADJACENT TO MEDIANS.
2. SCALE: NONE
3. SOME OF THE INFORMATION INCLUDED WITH THIS DETAIL MAY NOT BE APPLICABLE TO THIS IMPROVEMENT.
4. PAVEMENT MARKINGS ARE TO BE EXTENDED THROUGH OMISSIONS WHEN APPLICABLE.
5. A STRIPING KEY IS AVAILABLE ELSEWHERE AND SHALL BE SHOWN WHERE THE QUANTITIES ARE LISTED.
6. FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING ANY RAISED REFLECTIVE PAVEMENT MARKERS.
7. THE FOLLOWING CRITERIA SHALL BE USED FOR SELECTING THE DIAGONAL PAVEMENT MARKING SPACING,  
< 30 MPH USE 15' (< 50 km/h USE 4.5 m)  
30-45 MPH USE 20' (50-75 km/h USE 6.0 m)  
> 45 MPH USE 30' (> 75 km/h USE 9.0 m)

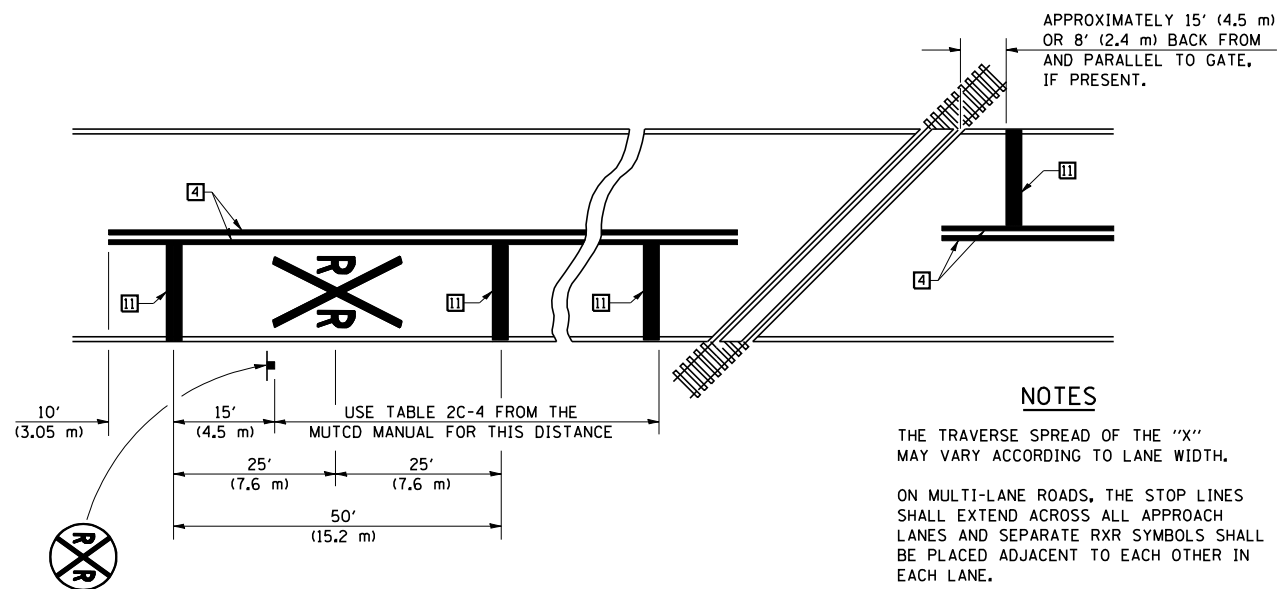
SHEET 3 OF 4

DESIGNED	NAME	DATE	REVISIONS	DATE
J.M.H.	J.M.H.	5/85	NAME	07/02
FMS	CTD	6/85	GEOMETRICS/K.A.G.	09/05
CADD NO.	F-5,25		K.A.G.	

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	188

### TYPICAL APPLICATIONS OF PAVEMENT MARKINGS AND MARKERS

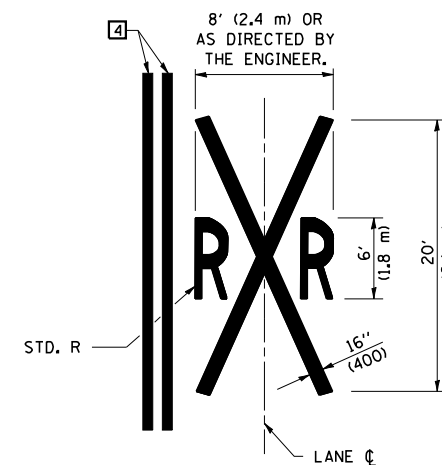


#### NOTES

THE TRAVERSE SPREAD OF THE "X" MAY VARY ACCORDING TO LANE WIDTH.

ON MULTI-LANE ROADS, THE STOP LINES SHALL EXTEND ACROSS ALL APPROACH LANES AND SEPARATE R XR SYMBOLS SHALL BE PLACED ADJACENT TO EACH OTHER IN EACH LANE.

WHEN THE PAVEMENT MARKING SYMBOL IS USED, A PORTION OF THE SYMBOL SHOULD BE LOCATED DIRECTLY ADJACENT TO THE ADVANCE WARNING SIGN (W10-1) AS PLACED BY TABLE II-1, CONDITION B OF THE MUTCD.



#### PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSING

#### SHEET 4 OF 4

	NAME	DATE	REVISIONS
DESIGNED	J.M.H.	5/85	NAME
CHECKED	FMS	6/88	DATE
	CTD	6/85	GEOMETRICS/K.A.G.
CADD NO.	F-5,25	6/88	K.A.G.
			09/05

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

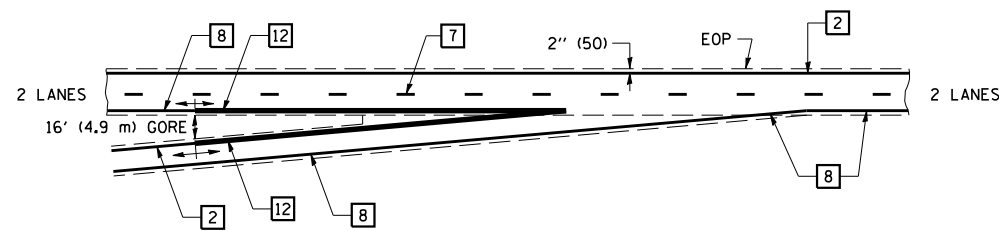


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	189

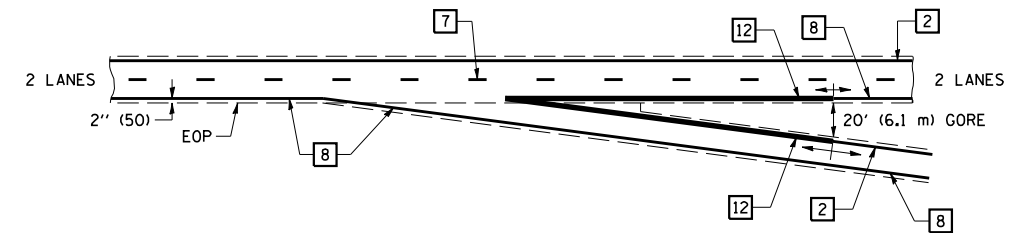
CONTRACT NO. 90758

## TYPICAL APPLICATION OF PAVEMENT MARKINGS FOR INTERSTATE AND MULTI-LANE DIVIDED HIGHWAYS

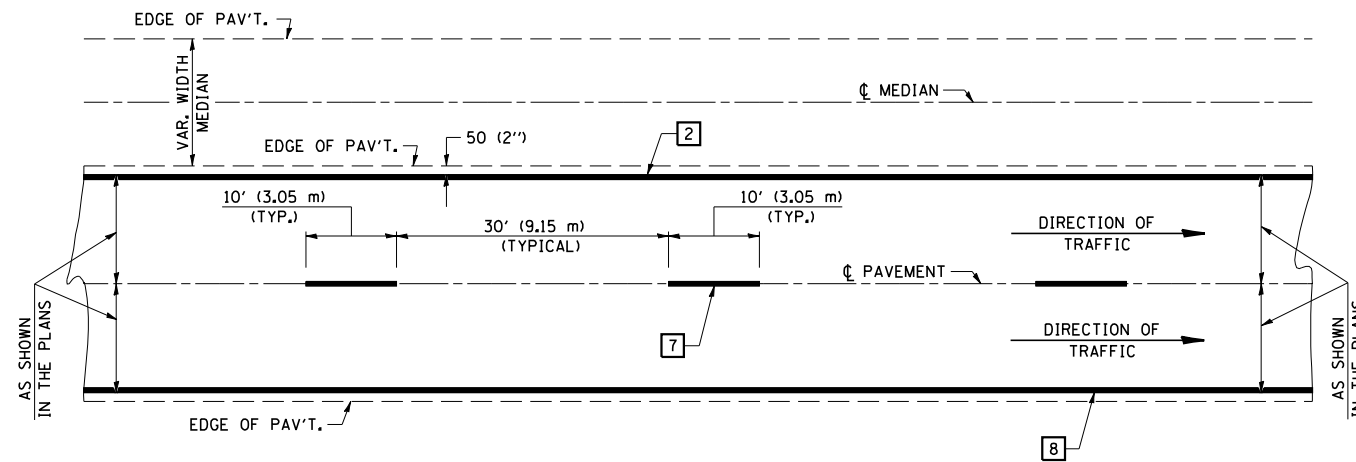
**TYPICAL ENTRANCE RAMP TERMINAL**



**TYPICAL EXIT RAMP TERMINAL**



**CENTERLINE INTERSTATE OR MULTI-LANE TWO WAY DIVIDED HIGHWAY**



NOTE: PAVEMENT MARKINGS ARE TO BE EXTENDED THROUGH OMISSIONS WHEN APPLICABLE.

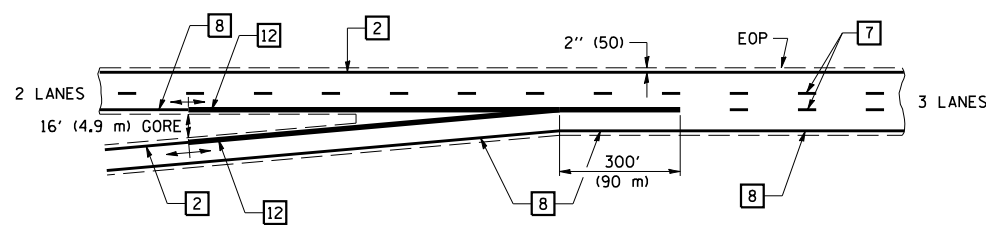
NOTE: SEE ARTICLES 780.04 & 781.03 FOR LOCATION OF STRIPES AND MARKERS RELATIVE TO EDGES OR JOINTS.

FOR RAISED REFLECTIVE PAVEMENT MARKERS, REFER TO STANDARD 781001.

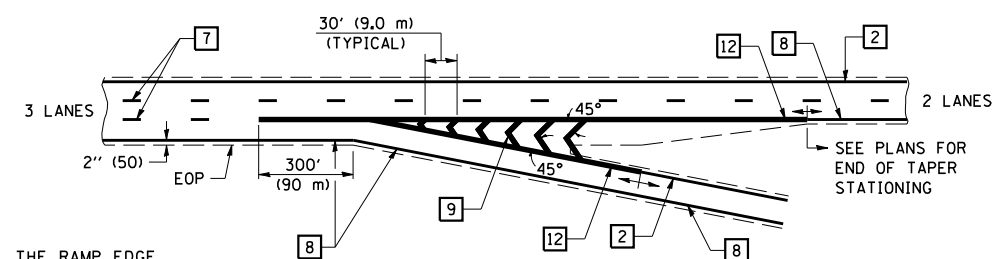
**TYPICAL PAVEMENT MARKING LEGEND**

- |    |                                       |  |
|----|---------------------------------------|--|
| 1  | 4" (100) SKIP-DASH (YELLOW)           |  |
| 2  | 4" (100) SOLID (YELLOW)               |  |
| 3  | 12" (300) DIAGONAL (YELLOW)           |  |
| 4  | 4" (100) DOUBLE YELLOW (NARROW)       |  |
| 5  | 4" (100) DOUBLE YELLOW (WIDE)         |  |
| 6  | RESERVED                              |  |
| 7  | 4" (100) SKIP-DASH (WHITE)            |  |
| 8  | 4" (100) SOLID (WHITE)                |  |
| 9  | 12" (300) DIAGONAL (WHITE)            |  |
| 10 | 6" (150) CROSS WALK (WHITE)           |  |
| 11 | 24" (600) STOP BAR (WHITE)            |  |
| 12 | 8" (200) SOLID (WHITE)                |  |
| 13 | 4" (100) LANE LINE EXTENSIONS (WHITE) |  |
| 14 | RESERVED                              |  |

**ENTRANCE RAMP TERMINAL with EXCLUSIVE LANE**



**EXIT RAMP TERMINAL with EXCLUSIVE (auxiliary) LANE**



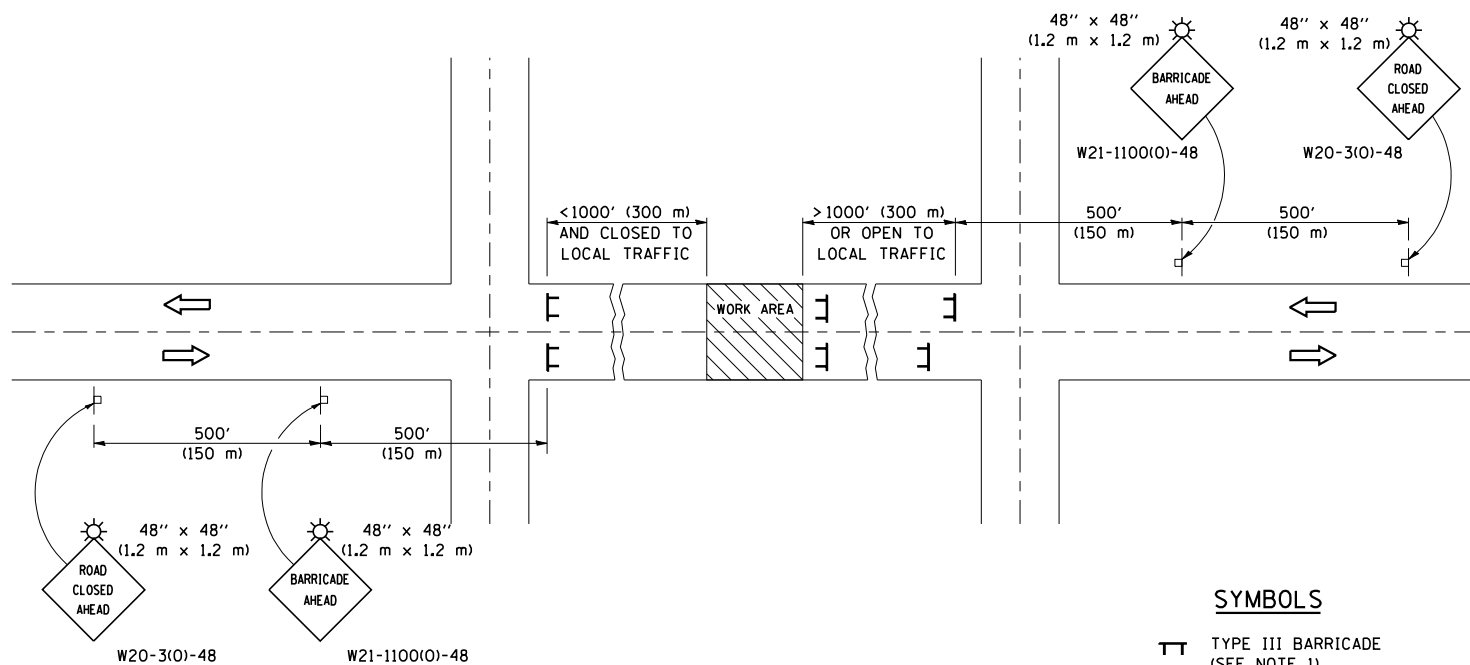
WHEN RAMPS ARE SURFACED, THE RAMP EDGE LINES SHALL BE AS SHOWN IN THE PLANS.

	NAME	DATE	REVISIONS	
DESIGNED	P.E.E.	03/89	NAME	DATE
CHECKED	C.T.D.	04/89	D.L.P.	08/97
CADD NO.	F-5.22		K.A.G.	08/04

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	190

## TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR ROAD CLOSURE



### SYMBOLS

- ▬ TYPE III BARRICADE (SEE NOTE 1)
- ⚡ FLASHING AMBER LIGHT (TYPE A)

### GENERAL NOTES

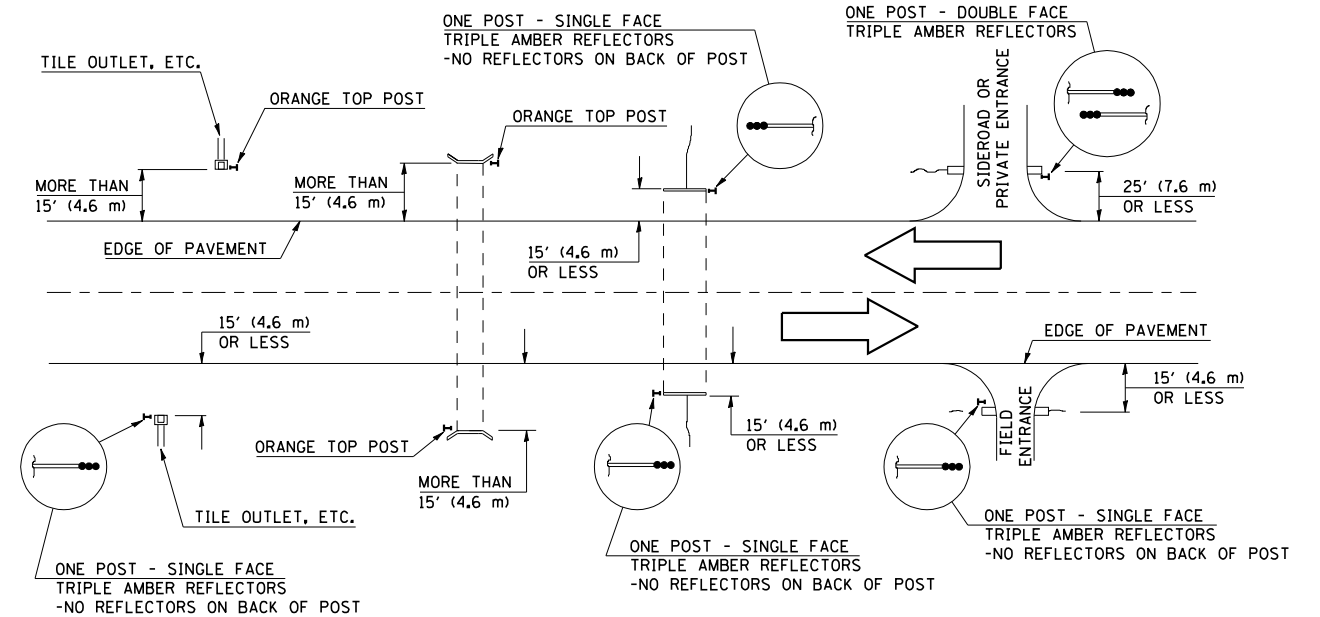
1. TYPE III BARRICADES SHALL BE AS SHOWN ON STANDARD 702001 "TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD". EACH TYPE III BARRICADE SHALL HAVE TWO FLASHING AMBER LIGHTS MOUNTED ABOVE IT.
2. IF THE ROAD IS OPEN TO LOCAL TRAFFIC OR EXCEEDS 1000' (300 m), ANOTHER SET OF TYPE III BARRICADES, EQUIPPED AS IN NOTE 1 ABOVE, SHALL BE PLACED AT EACH END OF THE WORK AREA.
3. WHEN A STOP CONDITION EXISTS, NO SIGNS ARE REQUIRED IN ADVANCE OF THE "STOP" SIGN WHEN THE ROAD IS CLOSED WITHIN 100' (30 m) OF THE INTERSECTION.
4. STANDARD 702001 SHALL APPLY FOR THE PLACEMENT & DESIGN OF TYPE III BARRICADES.
5. IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON AN NCHRP 350 TEMPORARY SIGN SUPPORT DIRECTLY IN FRONT OF THE BARRICADE.
6. REFLECTORIZED STRIPING SHALL APPEAR ON BOTH SIDES OF THE TYPE III BARRICADES IF ROAD IS OPEN TO LOCAL TRAFFIC.
7. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
8. A MINIMUM OF TWO FLASHING LIGHTS SHALL BE USED AT NIGHT ON EACH APPROACH IN ADVANCE OF THE WORK AREA. FLASHING LIGHTS SHALL BE INSTALLED ABOVE THE FIRST TWO SIGNS IN THE SERIES.
9. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
10. FORMS BT, 725 AND BT, 726 ARE REQUIRED.
11. WHEN A SIDEROAD INTERSECTS THE HIGHWAY ON WHICH WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC DEVICES SHALL BE ERCTED AND PROVIDED AS DIRECTED BY THE ENGINEER.
12. AN ADDITIONAL SIGN MAY BE REQUIRED AT A MAJOR INTERSECTING ROAD IN ADVANCE OF THE CLOSURE. THE ADDITIONAL SIGN SHALL GIVE THE DISTANCE TO THE BARRICADE IN MILES OR FRACTIONS OF A MILE.

NAME	DATE	REVISIONS
DESIGNED	J.H.M. 8-11-87	NAME DATE
CHECKED	P.E.K. 8-25-87	R.M.H.
CADD NO.	F-5.03	C.P./K.A.G. 01/05

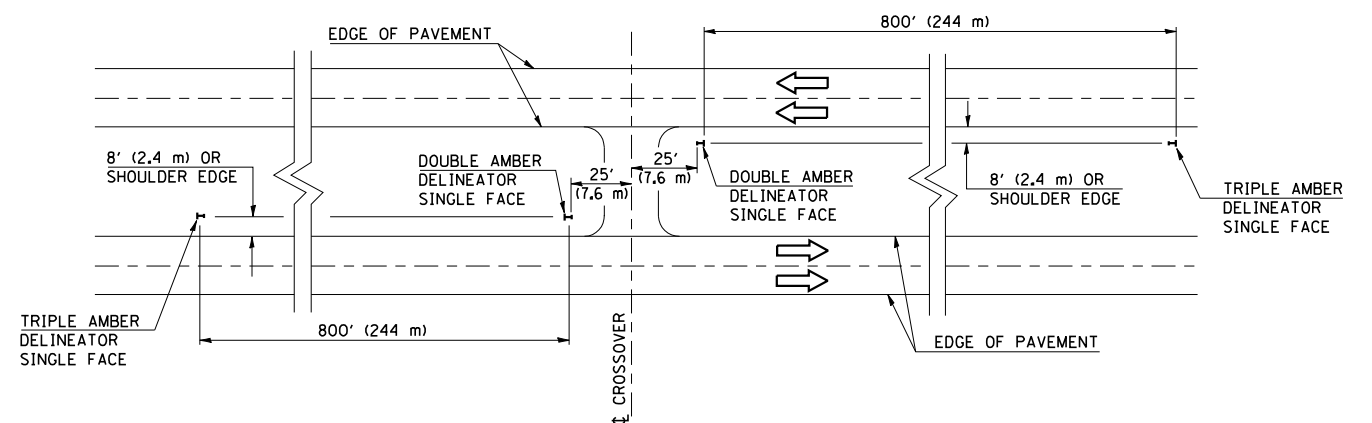
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

## DELINEATORS APPLICATIONS

### IDENTIFICATION OF ROADSIDE HAZARDS FOR TWO-LANE ROADWAYS



### MEDIAN DELINEATORS AT CROSSOVER (FOR INTERSTATES, EXPRESSWAYS, DUAL HIGHWAYS)



### NOTES

- DELINEATORS FOR ROADSIDE HAZARDS SHALL ONLY BE PLACED AT LOCATIONS WHERE THERE IS NO GUARDRAIL, OR OTHER PERMANENT BARRIER, ON THE SAME SIDE OF ROAD AS THE HAZARD.
- DELINEATORS FOR ROADSIDE HAZARDS SHALL ONLY BE PLACED AT LOCATIONS WHERE DELINEATORS ARE NOT IN PLACE ALONG THE EDGE OF SHOULDER.
- EACH POST SHALL BE CONSIDERED AS ONE DELINEATOR FOR PAYMENT, REGARDLESS OF THE NUMBER OF DELINEATORS ATTACHED TO IT.
- POSTS INDICATED AS "ORANGE TOP" SHALL HAVE NO REFLECTORS. THEY SHALL HAVE THE TOP 12" (300 mm) (MINIMUM) OF THE POST PAINTED A BRIGHT ORANGE COLOR SIMILAR TO CONSTRUCTION SIGNS, AND SHALL MEET THE APPROVAL OF THE ENGINEER. FLUORESCENT PAINT OR OTHER SPECIAL RETROREFLECTIVE COATINGS WILL NOT BE REQUIRED.
- FOR ONE-WAY ROADWAYS THE APPLICATION SHALL BE SIMILAR WITH DELINEATORS PLACED ON THE TRAFFIC APPROACH SIDE OF HAZARDS AND OBJECTS. ONLY SINGLE FACE DELINEATORS WILL BE REQUIRED ON ONE-WAY ROADWAYS.
- FOR OTHER DELINEATOR APPLICATIONS, REFER TO STANDARD 635001.

### BILL OF MATERIALS

DELINEATOR TYPE	SINGLE FACE	DOUBLE FACE	NO REFLECTOR	TOTAL DELINEATORS
SINGLE CRYSTAL		N/A	N/A	
DOUBLE CRYSTAL			N/A	
SINGLE AMBER			N/A	
DOUBLE AMBER		N/A	N/A	
TRIPLE AMBER			N/A	
ORANGE TOP	N/A	N/A		
			TOTAL	

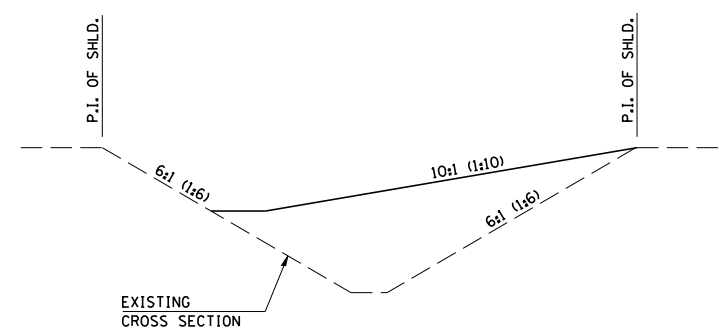
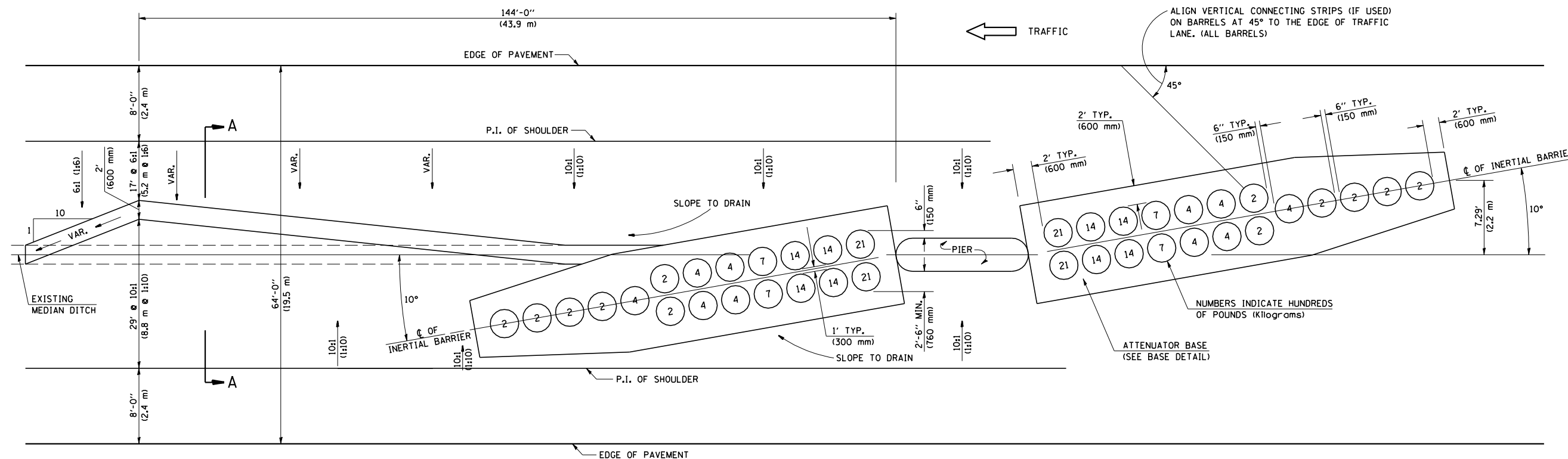
NAME	DATE	REVISIONS
DESIGNED	D.L.P. 12/99	NAME DATE
CHECKED		K.A.G. 08/03
CADD NO.	F-5.13	

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

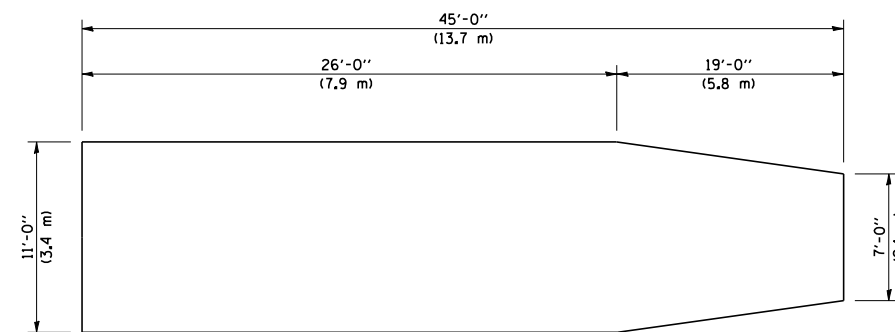
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	191

### DETAIL OF IMPACT ATTENUATORS (NON-REDIRECTIVE) TEST LEVEL 3

70 MPH (110 km/h) DESIGN - 64' (19.5 m) MEDIAN



SECTION A-A  
GRADING AND SHAPING DETAIL



BASE DETAIL

#### GENERAL NOTES

- ALL 10:1 (1:10) SLOPES SHOWN ON THIS DETAIL SHALL BE CONSTRUCTED 10:1 (1:10) OR FLATTER.
- THE SLOPES AS SHOWN ON THIS DETAIL SHALL APPLY TO BOTH ENDS OF THE BRIDGE PIERS.
- THE LENGTH X WIDTH OF MODULE LAYOUT IS 41.0' x 7.0' : 19 MODULES - 14,400 LBS. (12.5 m x 2.1 m : 19 MODULES - 6532 kg).
- IN AREAS OF 10:1 (1:10) SLOPES PRECEDING THE ATTENUATOR IN THE MEDIAN INSTALLATION, FOUR OR MORE WOOD POSTS SHALL BE PLACED AT 5' (1.5 m) INTERVALS IN THE MEDIAN  $\phi$ . SEE SPECIAL PROVISIONS AND SCHEDULES.

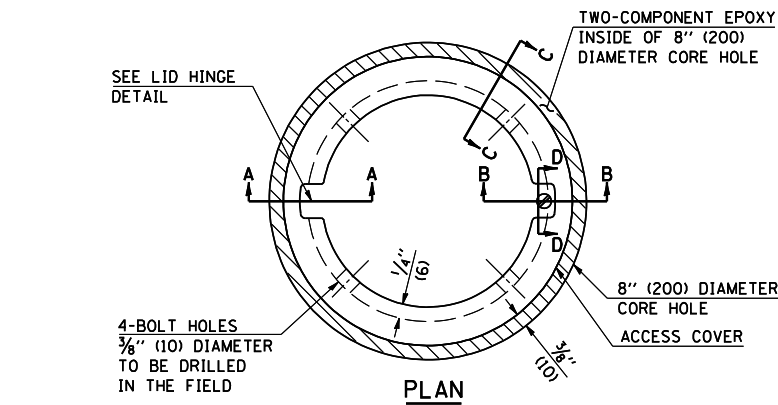
	NAME	DATE	REVISIONS	
DESIGNED	D.L.P.	3-91	NAME	DATE
CHECKED	F.M.S.	3-91	K.A.G.	04/03
CADD NO.	F-1,53A		K.A.G.	04/04

ALL DIMENSIONS ARE IN FEET (METERS) UNLESS OTHERWISE SHOWN.

F.A. I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	192

### Z0070100 - SURVEY MONUMENT COVER ASSEMBLY

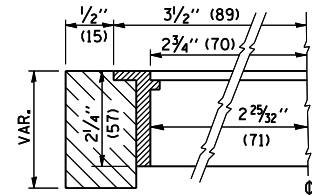
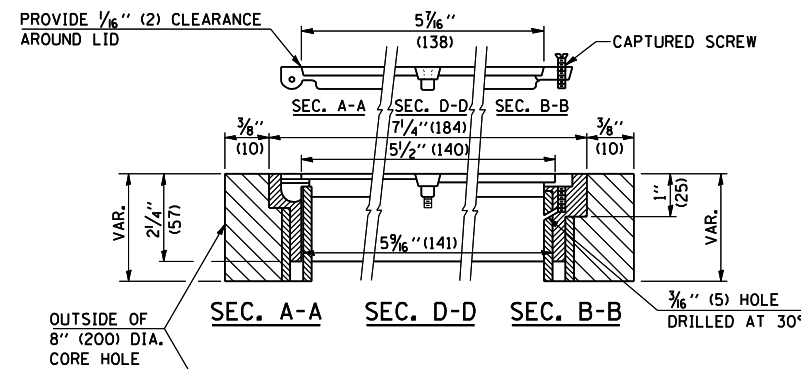
TO BE INSTALLED IN ALL PAVEMENT TYPES FOR PRESERVING PERMANENT SURVEY MARKERS (PI'S, PT'S, PC'S, POC'S, & POT'S) AND LAND SURVEY MONUMENTS (SECTION OR SUBSECTION CORNERS)



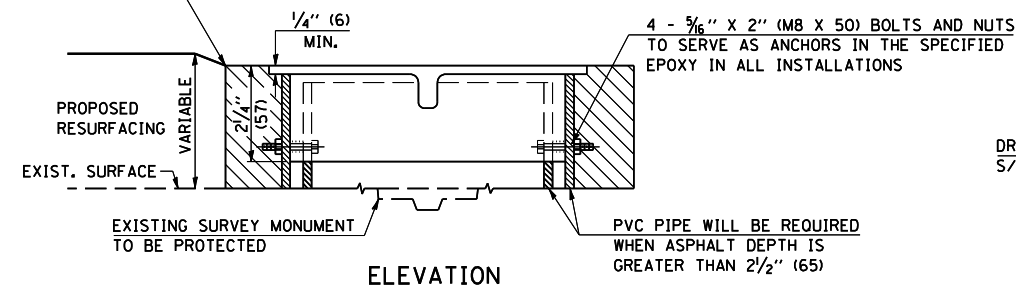
SPECIFICATIONS FOR ACCESS COVER FOR USE WITH SURVEY MARKER VAULT(S) AND SURVEY MARKER COVER ASSEMBLY(S): THE ACCESS COVER WILL BE CAST FROM A SPECIAL ALUMINUM ALLOY THAT IS COMPARABLE TO BRONZE IN HARDNESS. THE ACCESS COVER SHALL BE SPECIALLY ENGINEERED AND DESIGNED TO PROVIDE A SNUG FIT, INCORPORATING EQUIDISTANT LOCKING RIDGES, INSIDE A STANDARD 6" (150 mm) DIAMETER, OR OUTSIDE A STANDARD 5" (125 mm) DIAMETER, SCHEDULE 40 PVC PIPE. THE ACCESS COVER SHALL HAVE SPECIAL UNIFORM 1" (25 mm) THICK TOP SURFACE TO PERMIT INFORMATION TO BE EASILY MACHINE-STAMPED INTO IT. THE ACCESS COVER SHALL INCLUDE A STAINLESS CAPTURED SCREW AND AN OPPOSING RECESSED HINGE ASSEMBLY AS ITS LOCKING MECHANISM. THE ACCESS COVER SHALL INCORPORATE A SPECIAL ACCESS HOLE FOR CLEANING AND DRAINAGE, DRILLED AT 30° INSIDE THE RING OF THE ACCESS COVER, TO THE DRILLED AND TAPPED HOLE PROVIDED FOR THE STAINLESS CAPTURED SCREW. COMPOSITION: ALUMINUM 92-93% MAGNESIUM 6.5-7.5%. STRENGTH: YIELD - 19,000-21,000 PSI (131-145 MPa); TENSILE - 38,000-44,000 PSI (262-303 MPa); ELONGATION - 10-15% IN 2" (50 mm). SPECIFICATIONS: ALLOY 535.0; 00-A-601Es. NO EXCEPTIONS.

#### LEGEND

- ALUMINUM CASTING
- 5" (125) OR 6" (150) P.V.C. PIPE
- TWO-COMPONENT EPOXY



SECTION C-C



ELEVATION

#### GENERAL NOTES

- WORK SHALL NOT START ON THIS ITEM UNTIL THE FINAL LIFT OF SURFACE HAS BEEN COMPLETED.
- THE SURVEY MONUMENT COVER ASSEMBLY SHALL BE CENTERED ABOVE THE SURVEY MONUMENT TO BE PROTECTED.
- MODIFICATION OF THE ALUMINUM CASTING SHALL BE DONE BY GRINDING OR SAWING WHEN HEIGHT REDUCTION IS REQUIRED.
- ALL SURVEY MONUMENT COVER ASSEMBLIES SHALL BE PLACED 1/4" (6 mm) ± BELOW THE FINAL SURFACE.
- ALUMINUM CASTING SHALL BE PLACED OVER A 5" (125 mm) P.V.C. PIPE OR INSIDE OF A 6" (150 mm) P.V.C. PIPE WHEN AN INCREASE IN HEIGHT IS REQUIRED.
- THE CASTING SHALL BE ANCHORED IN THE 8" (200 mm) DIAMETER CORE HOLE WITH TWO-COMPONENT EPOXY CONFORMING TO APPLICABLE PORTIONS OF ARTICLE 1025.01 OF THE STANDARD SPECIFICATIONS.
- THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR SURVEY MONUMENT COVER ASSEMBLY WHICH PRICE SHALL INCLUDE ALL LABOR AND MATERIAL AS SPECIFIED INCLUDING CORING THE NEW PAVEMENT SURFACE AND EPOXY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- THE 8" (200 mm) DIAMETER CORE HOLE SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

#### BILL OF MATERIAL

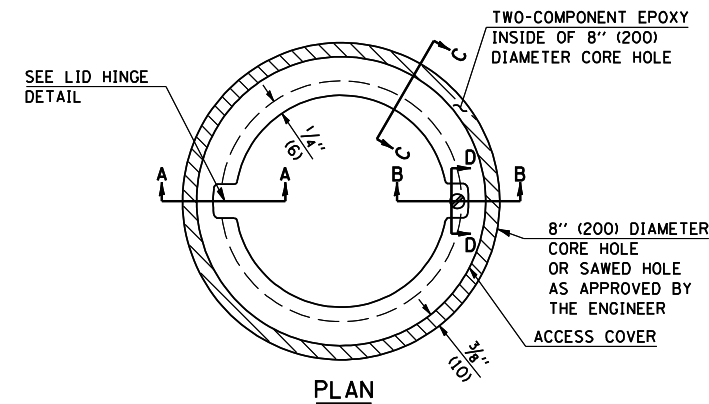
ALUMINUM CASTING OF THE DIMENSIONS AND SPECIFICATIONS SHOWN OR OTHER SUBJECT TO ENGINEER'S APPROVAL OF SHOP DRAWINGS, 4 EACH - 5/16" X 2" (M8 X 50) BOLTS WITH NUTS, EPOXY, 5" OR 6" (125 mm OR 150 mm) DIAMETER P.V.C. PIPE, SCHEDULE 40 (WHEN REQUIRED).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

NAME	DATE	REVISIONS
DESIGNED	A.W.H. 2-28-91	NAME DATE
CHECKED	J.H.M. 2-28-91	D.L.P. 10/96
CADD NO.	D-1.04	K.A.G. 08/04

### X0301232 - SURVEY MARKER VAULT

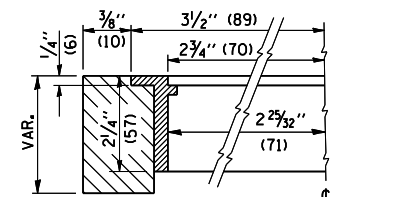
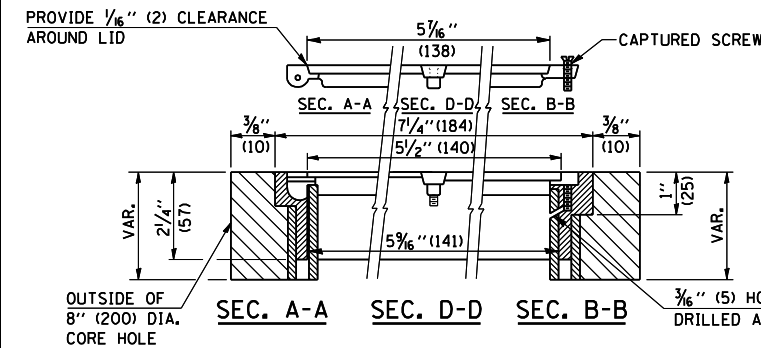
TO BE INSTALLED IN RIGID OR COMPOSITE PAVEMENT FOR PRESERVING LAND SURVEY MONUMENTS (SECTION OR SUBSECTION CORNERS)



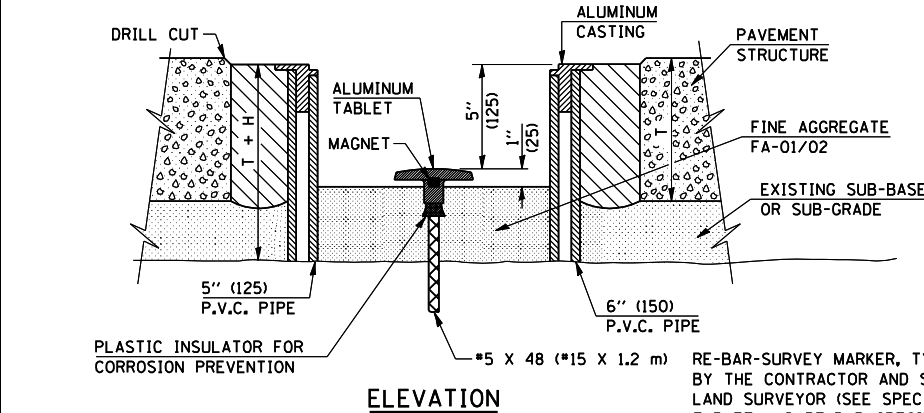
SPECIFICATIONS FOR ACCESS COVER FOR USE WITH SURVEY MARKER VAULT(S) AND SURVEY MARKER COVER ASSEMBLY(S): THE ACCESS COVER WILL BE CAST FROM A SPECIAL ALUMINUM ALLOY THAT IS COMPARABLE TO BRONZE IN HARDNESS. THE ACCESS COVER SHALL BE SPECIALLY ENGINEERED AND DESIGNED TO PROVIDE A SNUG FIT, INCORPORATING EQUIDISTANT LOCKING RIDGES, INSIDE A STANDARD 6" (150 mm) DIAMETER, OR OUTSIDE A STANDARD 5" (125 mm) DIAMETER, SCHEDULE 40 PVC PIPE. THE ACCESS COVER SHALL HAVE SPECIAL UNIFORM 1" (25 mm) THICK TOP SURFACE TO PERMIT INFORMATION TO BE EASILY MACHINE-STAMPED INTO IT. THE ACCESS COVER SHALL INCLUDE A STAINLESS CAPTURED SCREW AND AN OPPOSING RECESSED HINGE ASSEMBLY AS ITS LOCKING MECHANISM. THE ACCESS COVER SHALL INCORPORATE A SPECIAL ACCESS HOLE FOR CLEANING AND DRAINAGE, DRILLED AT 30° INSIDE THE RING OF THE ACCESS COVER, TO THE DRILLED AND TAPPED HOLE PROVIDED FOR THE STAINLESS CAPTURED SCREW. COMPOSITION: ALUMINUM 92-93% MAGNESIUM 6.5-7.5%. STRENGTH: YIELD - 19,000-21,000 PSI (131-145 MPa); TENSILE - 38,000-44,000 PSI (262-303 MPa); ELONGATION - 10-15% IN 2" (50 mm). SPECIFICATIONS: ALLOY 535.0; 00-A-601Es. NO EXCEPTIONS.

#### LEGEND

- ALUMINUM CASTING
- 5" (125) OR 6" (150) P.V.C. PIPE
- TWO-COMPONENT EPOXY
- T = THICKNESS OF PAVEMENT STRUCTURE
- H = THE THICKNESS OF THE SUB-BASE GRANULAR + 1" (25)



SECTION C-C



ELEVATION

#### GENERAL NOTES

- ALUMINUM CASTING SHALL BE EITHER PLACED OVER A 5" (125 mm) P.V.C. PIPE OR INSIDE OF A 6" (150 mm) P.V.C. PIPE.
- BACKFILL WITH FINE AGGREGATE - FA-01/02.
- WORK SHALL NOT START ON THIS ITEM UNTIL THE FINAL LIFT OF SURFACE HAS BEEN COMPLETED.
- THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR SURVEY MARKER VAULT WHICH PRICE SHALL INCLUDE ALL LABOR AND MATERIAL AS SPECIFIED INCLUDING CORING, EPOXY AND FA-01/02 AGGREGATE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- THE CASTING SHALL BE ANCHORED IN THE 8" (200 mm) DIAMETER CORE HOLE WITH TWO-COMPONENT EPOXY CONFORMING TO APPLICABLE PORTIONS OF ARTICLE 1025.01 OF THE STANDARD SPECIFICATIONS.
- ALL SURVEY MARKER (VAULTS) SHALL BE PLACED 1/4" (6 mm) ± BELOW THE FINAL SURFACE.
- THE 8" (200 mm) DIAMETER CORE HOLE SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

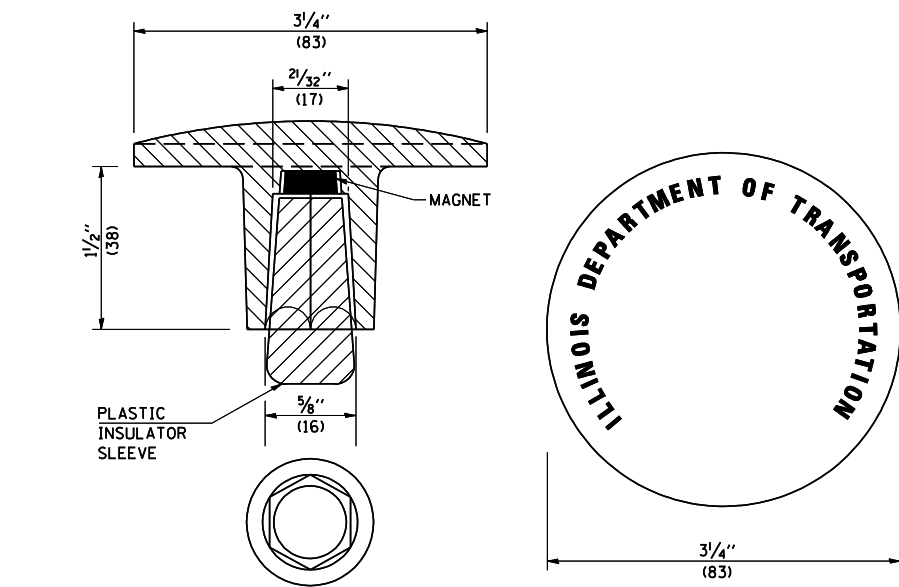
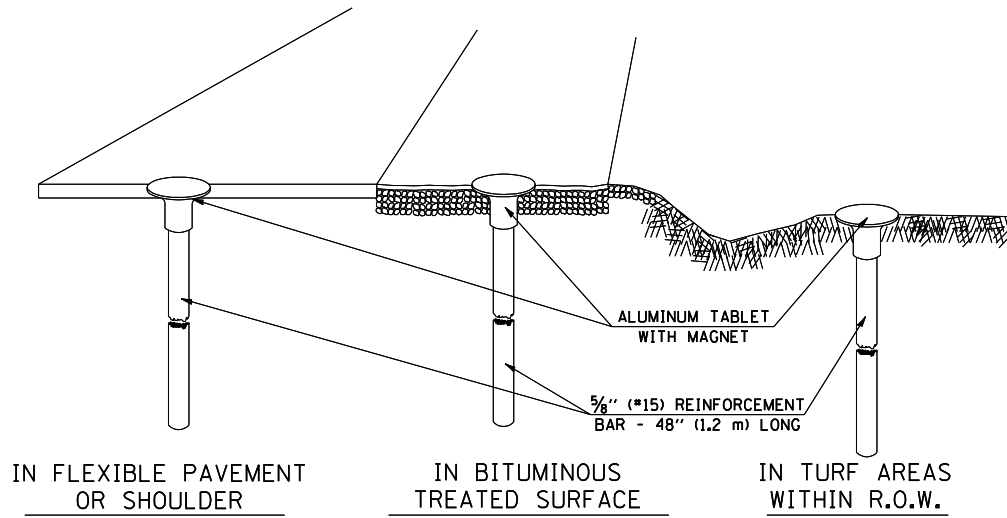
#### BILL OF MATERIAL

ALUMINUM CASTING OF THE DIMENSIONS AND SPECIFICATIONS SHOWN OR OTHER SUBJECT TO ENGINEER'S APPROVAL OF SHOP DRAWINGS, 5" OR 6" (125 mm OR 150 mm) DIAMETER P.V.C. PIPE, SCHEDULE 40, ALUMINUM TABLET, STAMPED IN ACCORDANCE WITH STANDARD 667101, 5/16" X 48" (#15 X 1.2 m) RE-BAR, EPOXY AND FA-01/02 AGGREGATE.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	193

### XZ193300 – SURVEY MARKER, TYPE 1 (SPECIAL)

TO BE INSTALLED IN FLEXIBLE PAVEMENT OR SHOULDER, BITUMINOUS TREATED SURFACE AND TURF AREAS WITHIN THE RIGHT-OF-WAY FOR PRESERVING PERMANENT SURVEY MARKERS (PI'S, PT'S, PC'S, POC'S, & POT'S)



THE DIMENSIONS SHOWN SHALL BE EXACT, OTHERS MAY VARY, BUT SHALL BE SHOWN ON SHOP DRAWINGS.

#### GENERAL NOTES

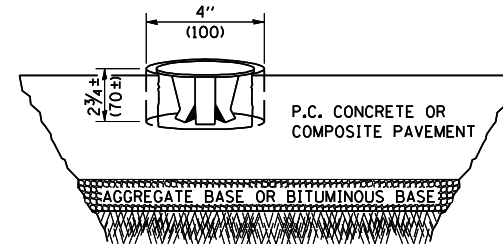
1. THE CONTRACT UNIT PRICE, EACH, FOR SURVEY MARKER, TYPE 1, (SPECIAL) SHALL BE PAYMENT IN FULL FOR FURNISHING THE SURVEY MARKER.
2. ALL SURVEY MARKERS, TYPE 1, (SPECIAL) SHALL BE PLACED ± 1/4" (6 mm) BELOW THE FINAL SURFACE.
3. WHEN THE TABLET AND REBAR ARE PLACED AS PART OF A SURVEY MARKER VAULT, THEY SHALL BE CONSIDERED AS INCLUDED IN THAT PAY ITEM AND THERE WILL BE NO PAYMENT FOR THE SURVEY MARKER, TYPE 1, (SPECIAL).

	NAME	DATE	REVISIONS	
DESIGNED	AWH	8/17/91	NAME	DATE
CHECKED	PEK	8/17/91	D.L.P.	10-96
CADD NO.	D-1.05		K.A.G.	08-04

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

### XZ193400 – SURVEY MARKER, TYPE 2 (SPECIAL)

TO BE INSTALLED IN RIGID OR COMPOSITE PAVEMENT FOR PRESERVING PERMANENT SURVEY MARKERS (PI'S, PT'S, PC'S, POC'S, & POT'S)



#### SPECIFICATIONS FOR ALUMINUM TABLET

SURVEY CAP FOR REBAR. 3/4" (83 mm) CONVEX SURVEY CAP FOR 5/8" (15 mm) REBAR WITH ILLINOIS DEPARTMENT OF TRANSPORTATION LOGO. THIS LOGO SHALL PROVIDE LETTERS RECESSED INTO THE SURFACE A MINIMUM OF 1/32" (0.8 mm) FOR EASY AND LONG-TERM LEGIBILITY. THE ALUMINUM CAP FOR REBAR SHALL BE PRODUCED BY THE PROCESS OF ORBITAL FORGING TO PRODUCE A HIGH-STRENGTH AND DURABLE MARKER CAP WHICH WILL NOT CHIP OR BREAK AND PROVIDE A SMOOTH FINISH FOR STAMPING OF DATA IN THE FIELD. THE ALUMINUM CAP FOR REBAR SHALL BE TAPERED FOR A PERFECT COMPRESSION FIT. A SPECIAL PLASTIC INSULATOR SHALL BE INSTALLED TO PREVENT DISSIMILAR METAL CONTACT AND CORROSION. THE PLASTIC INSULATOR SHALL FORM READILY TO THE OUTER SHAPE OF THE REBAR AND TO THE INNER SHAPE OF THE ALUMINUM CAP SOCKET. THE PLASTIC INSULATOR SHALL BE LOW DENSITY POLYETHYLENE, A MINIMUM 1/2" (38 mm) LONG AND CONFORM TO FEDERAL SPECIFICATION L-P 390.

COMPOSITION: ALUMINUM 98.3-98.7%; OTHER 1.3-1.7%; STRENGTH: YIELD 28 KSI (193 MPa), ULTIMATE 32 KSI (221 MPa), ELONGATION 15% [IN 2" (50 mm)]. SPECIFICATIONS: ALUMINUM ALLOY 6101-0; ASTM B317-83 (EXCEPT TEMPER) AS FORGED. NO EXCEPTIONS.

#### SPECIFICATIONS FOR REBAR

REBAR FOR ALUMINUM TABLET. REINFORCEMENT BAR SHALL BE 5/8" (#15) X 48" (1.2 m) (DEFORMED).

INSPECTION OF REINFORCEMENT BAR 5/8" (#15) SHALL BE DONE BY DISTRICT PERSONNEL OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS.

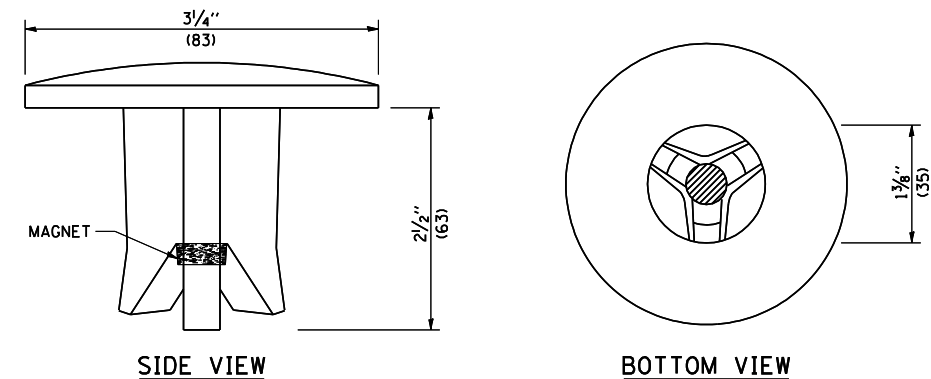
#### DESIGN NOTE

BDE 58-8.02 "PLACE MARKERS AT THE PT'S AND PC'S OF ALL HORIZONTAL CURVES AND SPACE THEM ALONG TANGENTS SO THAT TWO MARKERS ARE ALWAYS INTERVISIBLE."

#### SPECIFICATIONS FOR ALUMINUM TABLET (FORKED)

ALUMINUM TABLET (FORKED) FOR USE WITH "SURVEY MARKER, TYPE 2, (SPECIAL)" SHALL BE AS SHOWN ON THE DETAIL FOR THE 3/4" (83 mm) CONVEX SURVEY TABLET WITH ILLINOIS DEPARTMENT OF TRANSPORTATION LOGO. THIS LOGO SHALL PROVIDE FOR LETTERS RECESSED INTO THE SURFACE A MINIMUM OF 1/32" (0.8 mm) FOR EASY AND LONG-TERM LEGIBILITY. THE ALUMINUM TABLET SHALL BE PRODUCED BY THE PROCESS OF ORBITAL FORGING TO PRODUCE A HIGH-STRENGTH AND DURABLE MARKER CAP WHICH WILL NOT CHIP OR BREAK AND PROVIDE A SMOOTH FINISH FOR STAMPING OF DATA IN THE FIELD. THE ALUMINUM TABLET SHALL BE DESIGNED NOT TO TURN OR ROTATE. THREE PRONGS ON A 2 1/2" (63 mm) STEM SHALL BE SUCH THAT THE ALUMINUM TABLET CANNOT BE EASILY REMOVED.

COMPOSITION: ALUMINUM 92-93%; MAGNESIUM 6.5-7.5%. STRENGTH: YIELD 19,000-21,000 PSI (131-145 MPa); TENSILE 38,000-44,000 PSI (262-303 MPa); ELONGATION 10-15% [IN 2" (50 mm)]. SPECIFICATIONS: ALLOY 535.0; 00-A-601ES. NO EXCEPTIONS.



THE DIMENSIONS SHOWN SHALL BE EXACT, OTHERS MAY VARY, BUT SHALL BE SHOWN ON SHOP DRAWINGS.

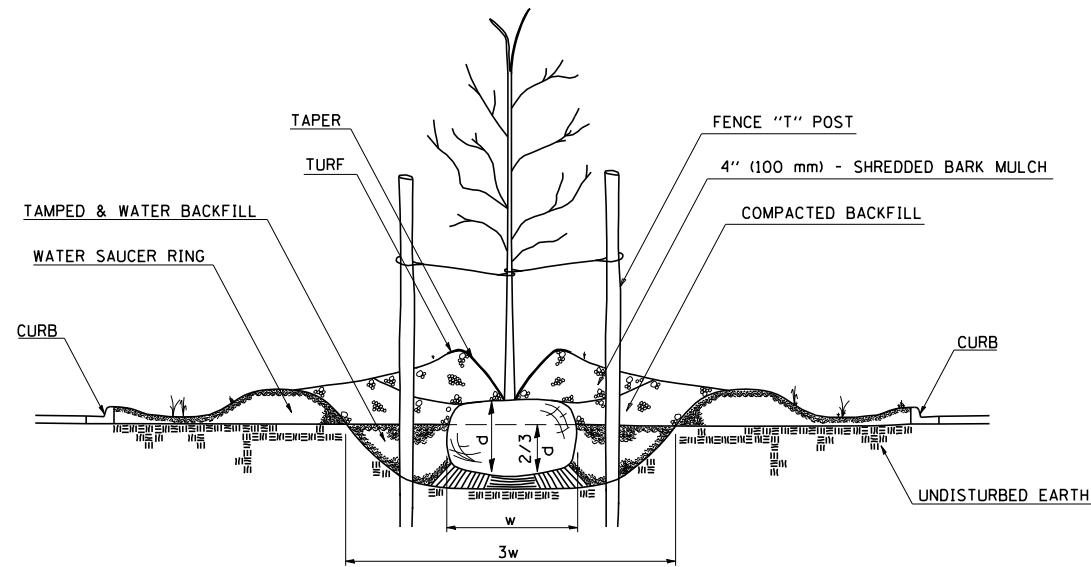
#### GENERAL NOTES

1. WORK ON THIS ITEM SHALL NOT START UNTIL THE FINAL SURFACE IS COMPLETED.
2. THE ALUMINUM TABLET (FORKED) SHALL REST UPON THE BOTTOM OF THE 4" (100 mm) CORE HOLE. IF THE HOLE IS TOO DEEP, EPOXY GROUT MUST BE USED TO DECREASE THE DEPTH AND ALLOWED TO HARDEN BEFORE PROCEEDING.
3. THE ALUMINUM TABLET SHALL BE ANCHORED IN THE 4" (100 mm) DIAMETER HOLE IN THE NEW PAVEMENT WITH TWO-COMPONENT EPOXY CONFORMING TO APPLICABLE PORTIONS OF ARTICLE 1025.01 OF THE STANDARD SPECIFICATIONS.
4. THE 4" (100 mm) CORE HOLE SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
5. THE CONTRACT PRICE, EACH, FOR SURVEY MARKER, TYPE 2 (SPECIAL) SHALL BE PAYMENT IN FULL FOR FURNISHING THE ALUMINUM TABLET AND ALL LABOR AND MATERIAL TO SET THE MARKER IN PLACE, AS SPECIFIED, INCLUDING CORING THE NEW PAVEMENT.
6. ALL SURVEY MARKERS, TYPE 2 (SPECIAL) SHALL BE PLACED ± 1/4" (6 mm) BELOW THE FINAL SURFACE.

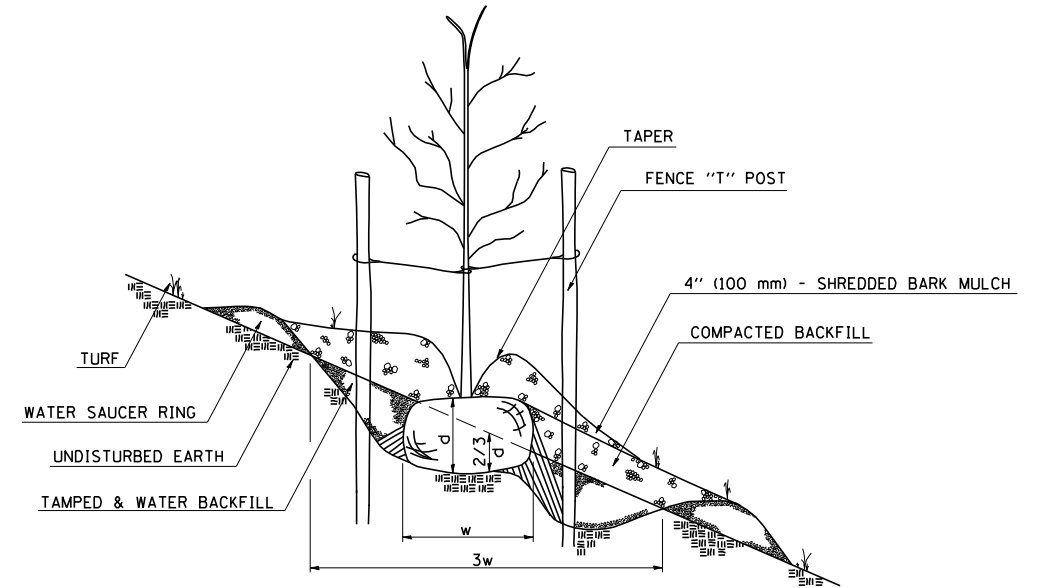
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	194

# PLANTING DETAILS

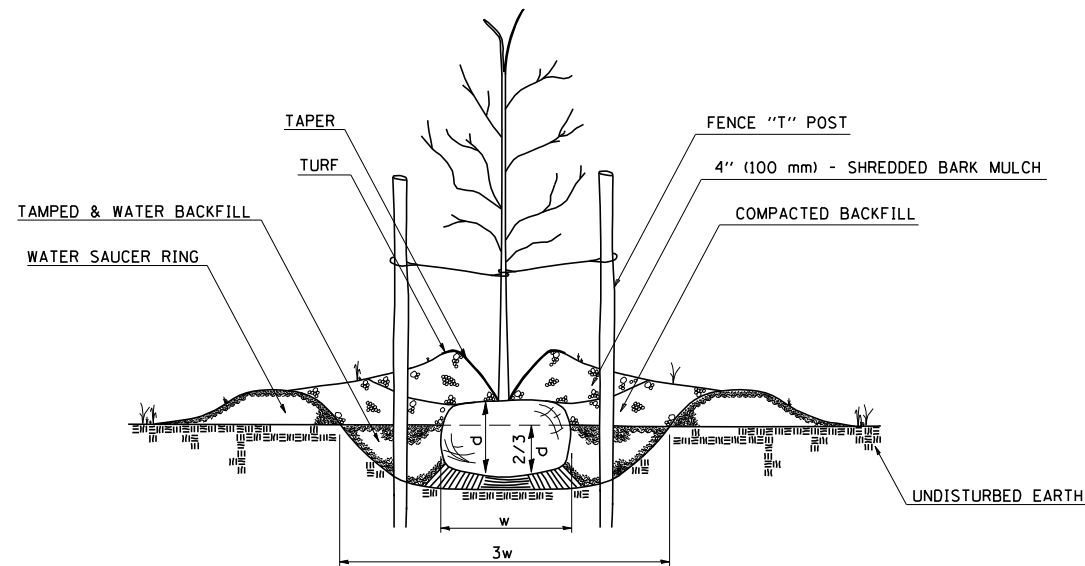
## PARKWAY PLANTING DETAIL



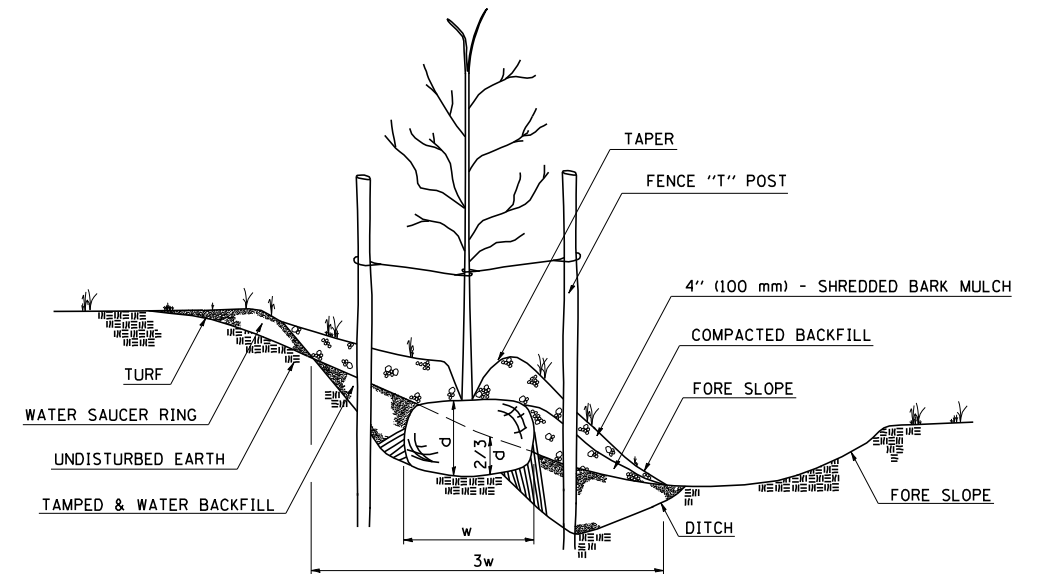
## HILL PLANTING DEPTH



## FLAT GROUND PLANTING DETAIL



## DITCH AREA PLANTING DETAIL



## HOLE DEPTH SCHEDULE

Tree Size (Caliper)		Shrub Tree Height		Evergreen Height		Min. Diameter Ball (w)		Min. Depth Ball (d)		Hole Depth (2/3d)		Hole Width (3w)	
6 mm	1/4 in	600 mm	2 ft	500 mm	1.5 ft	255 mm	10 in	190 mm	7 1/2 in	130 mm	5 in	760 mm	30 in
13	1/2	900	3	600	2	300	12	230	9	150	6	900	36
19	3/4	1250	4	900	3	355	14	270	10 1/2	180	7	1070	42
25	1	1500	5	1250	4	400	16	300	12	205	8	1220	48
30	1 1/4	1800	6	1375	4 1/2	460	18	345	13 1/2	230	9	1375	54
40	1 1/2	2000	7	1500	5	500	20	345	13 1/2	230	9	1525	60
45	1 3/4	2500	8	1800	6	560	22	370	14 1/2	255	10	1680	66
50	2	2700	9	2000	7	600	24	400	16	280	11	1830	72
60	2 1/2	3000	10	2500	8	700	28	470	18 1/2	300	12	2140	84
80	3	3500	11	2700	9	800	32	500	20	330	13	2440	96
90	3 1/2	3700 mm	12 ft	3700	12	960	38	585	23	380	15	2900	114
100	4			4300	14	1070	42	635	25	430	17	3200	126
110	4 1/2			4900	16	1220	48	740	29	485	19	3660	144
130	5			5400 mm	18 ft	1375	54	815	32	535	21	4115	162
140	5 1/2					1450	57	865	34	585	23	4315	171
150	6					1525	60	915	36	610	24	4575	180
180	7					1780	70	1070	42	700	28	5330	210
205 mm	8 in					2030 mm	80 in	1220 mm	48 in	815 mm	32 in	6070 mm	240 in

DESIGNED	NAME	DATE	REVISIONS	
CHECKED	K.A.G.	01-03	NAME	DATE
CADD NO.	X-3.01			

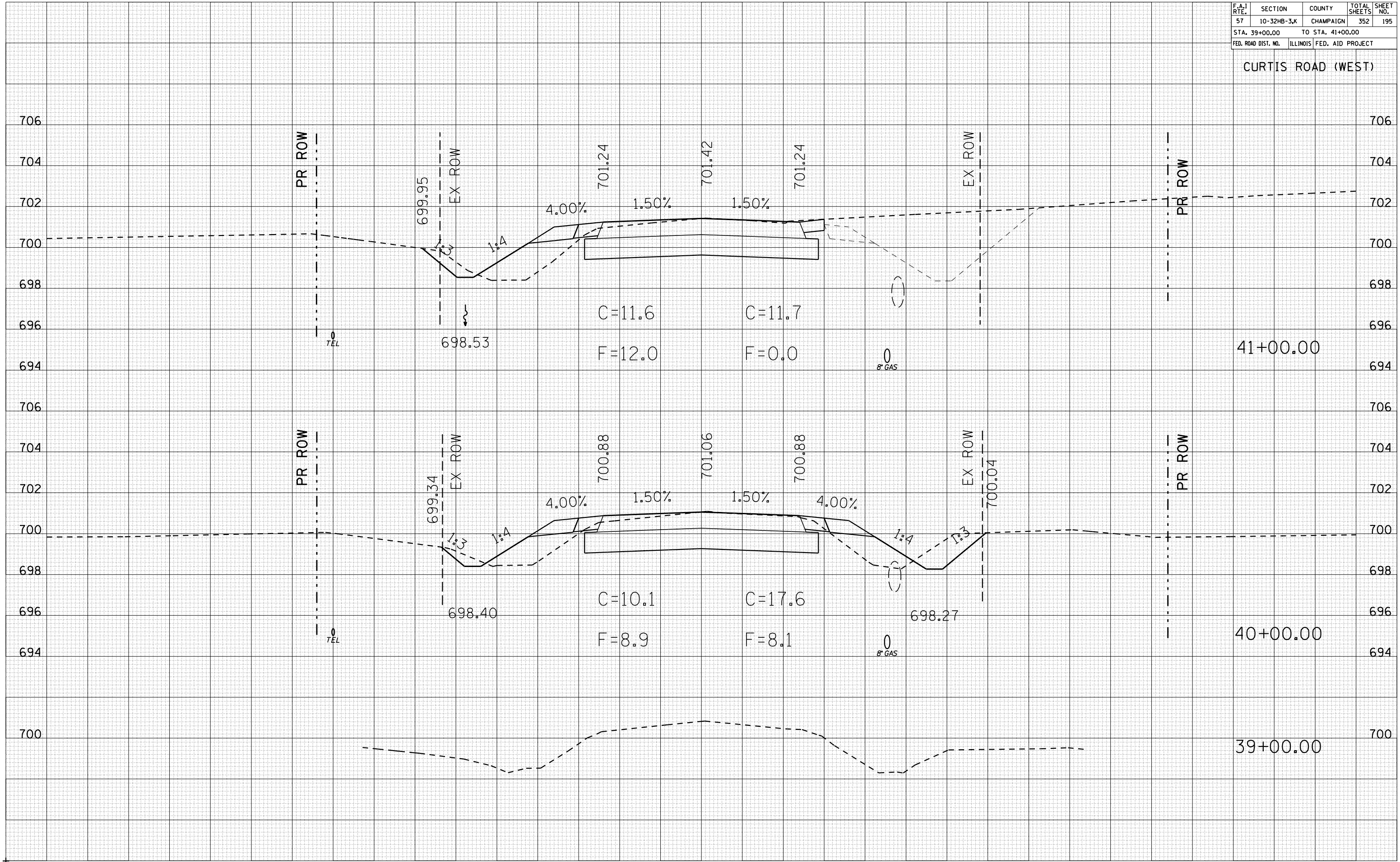
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	195
STA. 39+00.00		TO STA. 41+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CURTIS ROAD (WEST)

BY	DATE

BY	DATE

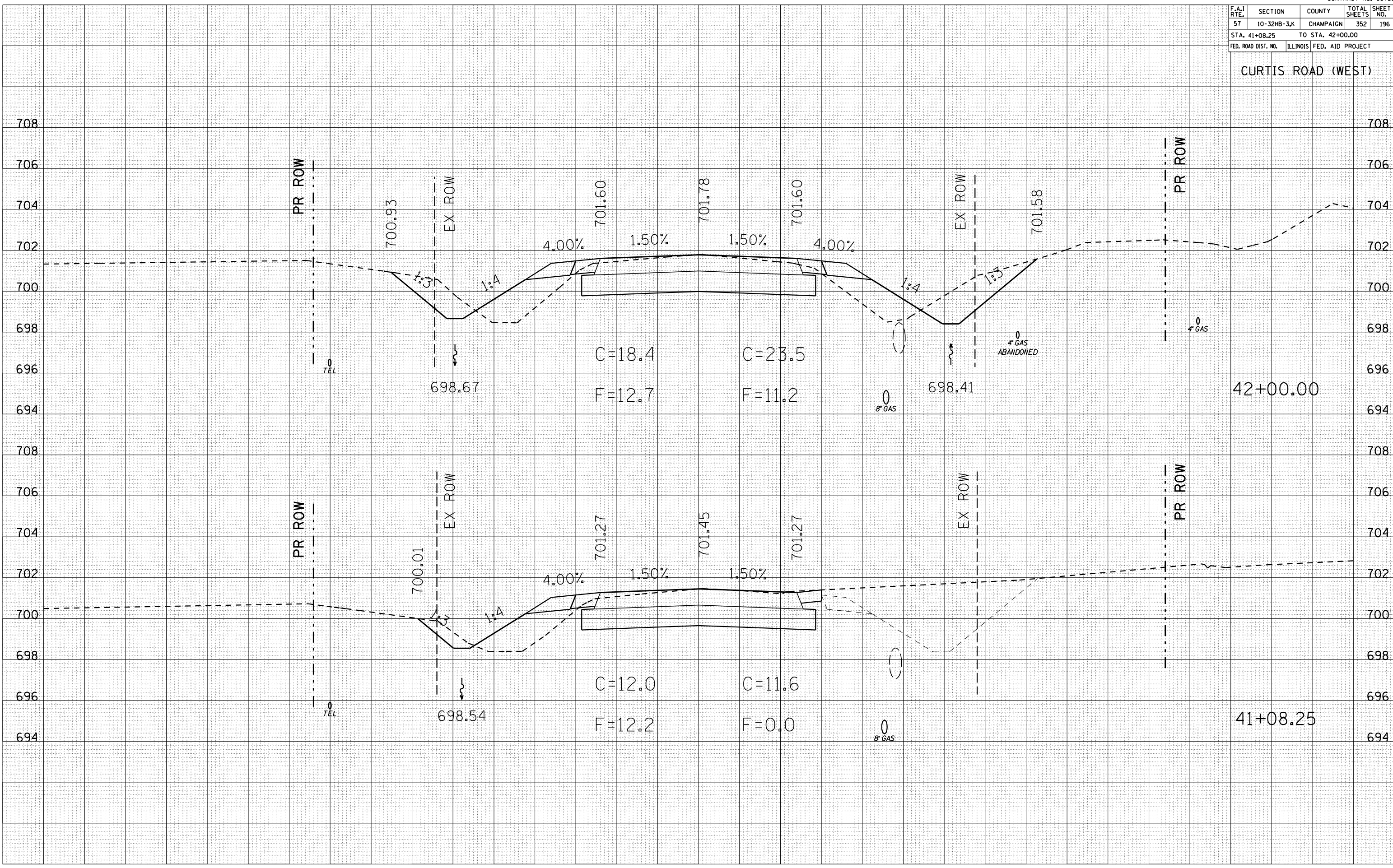


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	196
STA. 41+08.25		TO STA. 42+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CURTIS ROAD (WEST)

BY	DATE

BY	DATE



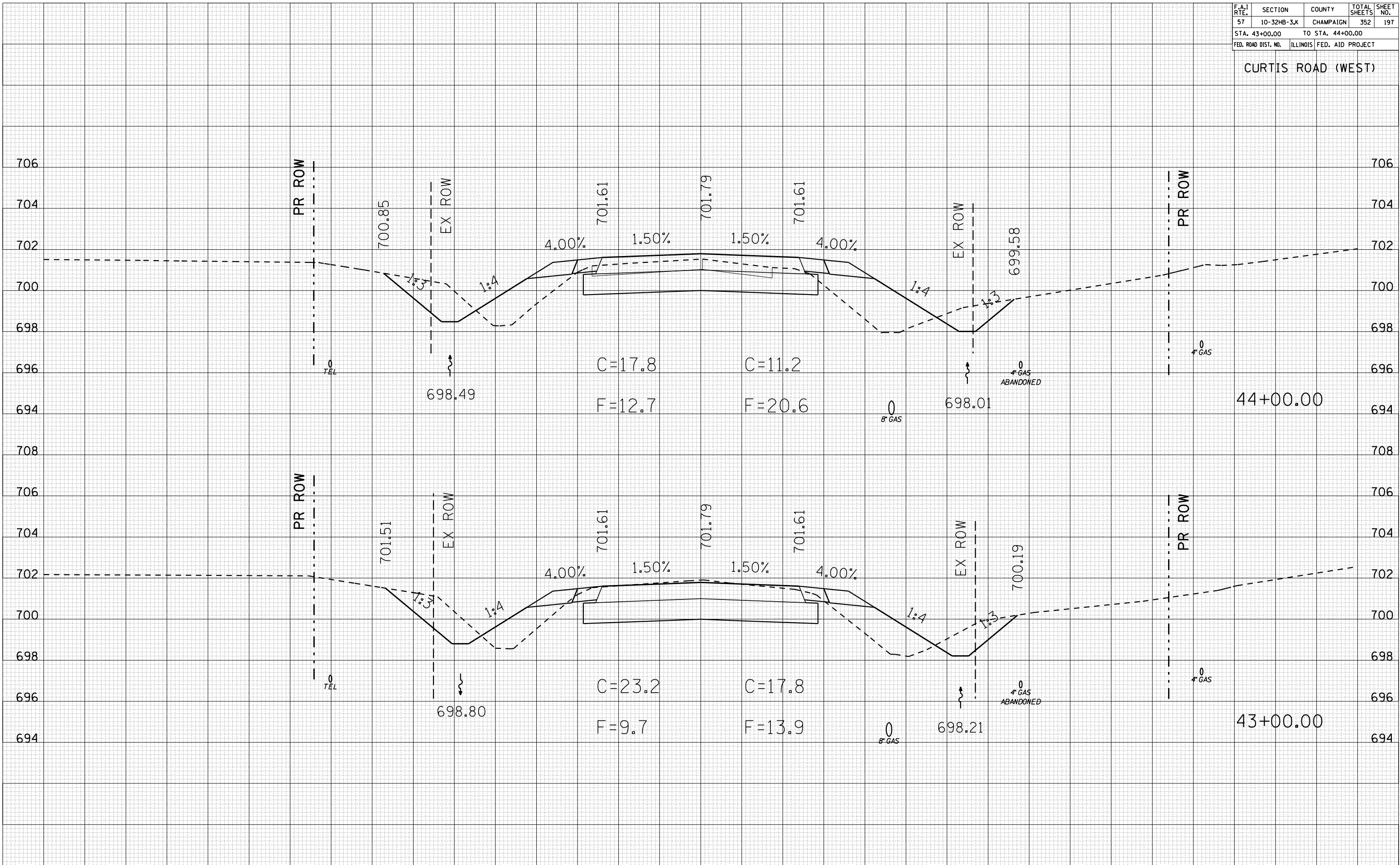


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	197
STA. 43+00.00		TO STA. 44+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CURTIS ROAD (WEST)

BY	DATE

BY	DATE

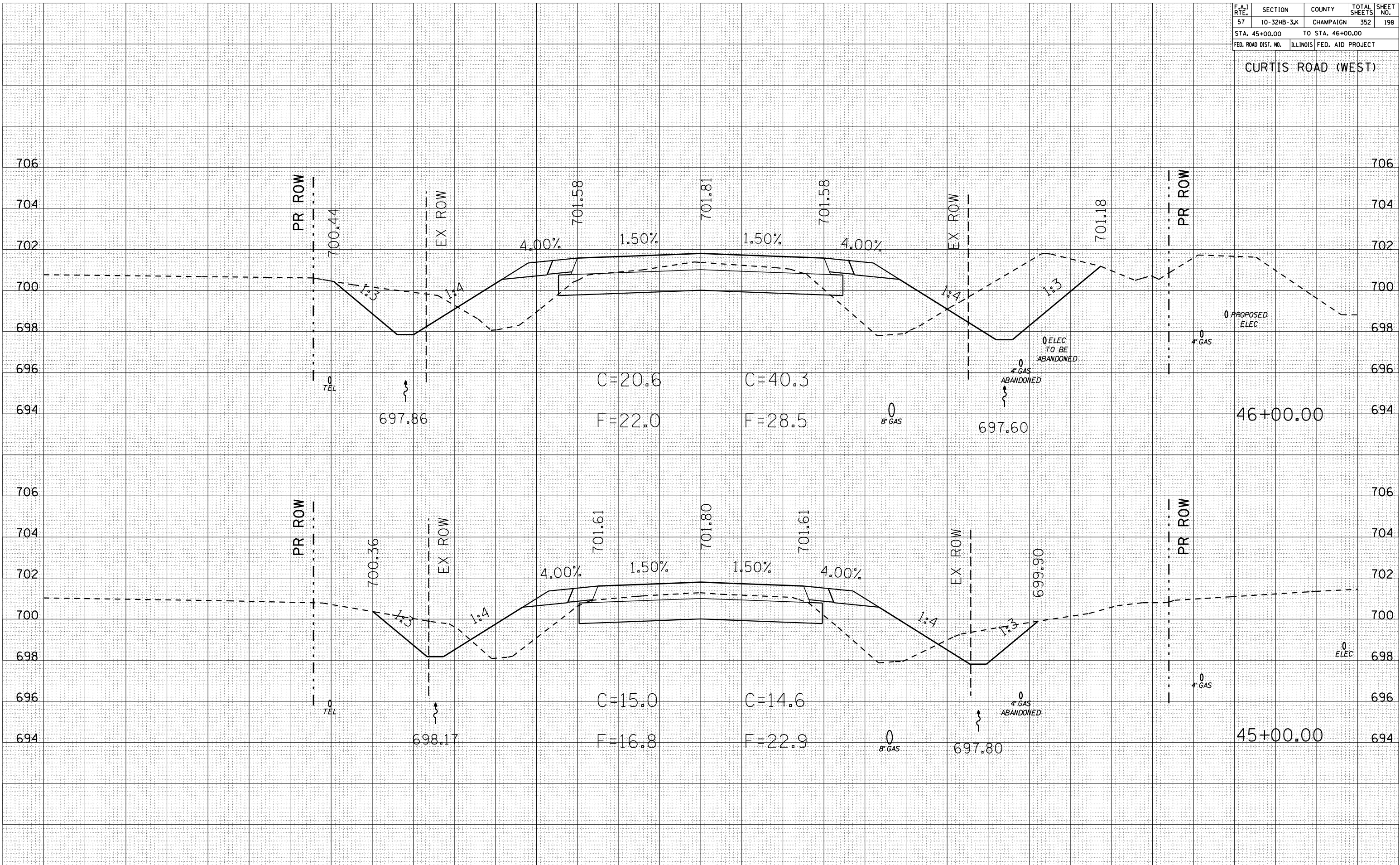


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	198
STA. 45+00.00		TO STA. 46+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CURTIS ROAD (WEST)

DATE	BY

DATE	BY

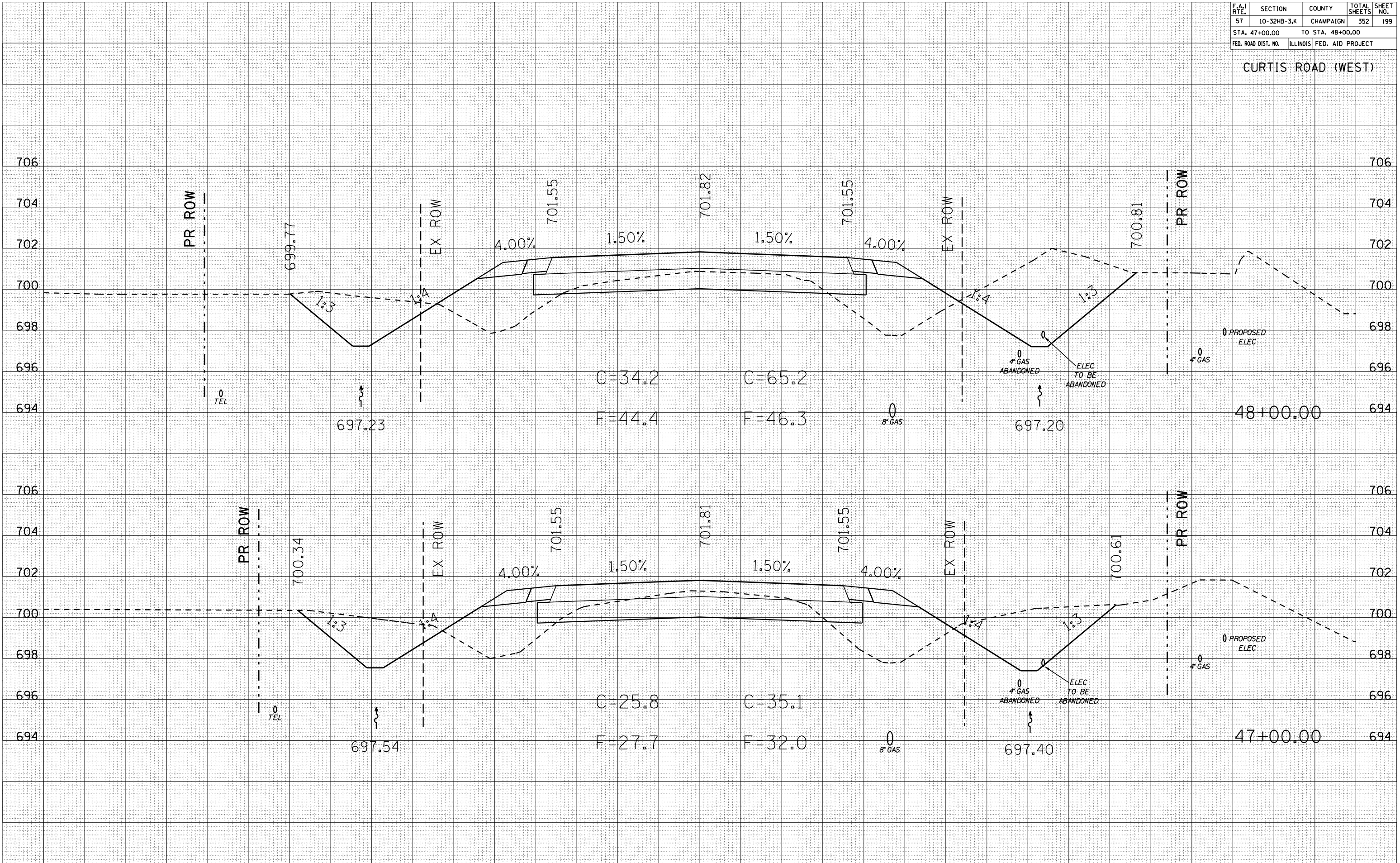


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	199
STA. 47+00.00		TO STA. 48+00.00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CURTIS ROAD (WEST)

DATE	BY

DATE	BY



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	10-32HB-3,K	CHAMPAIGN	352	200
STA. 49+00.00		TO STA. 49+00.00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CURTIS ROAD (WEST)

DATE	BY

DATE	BY

