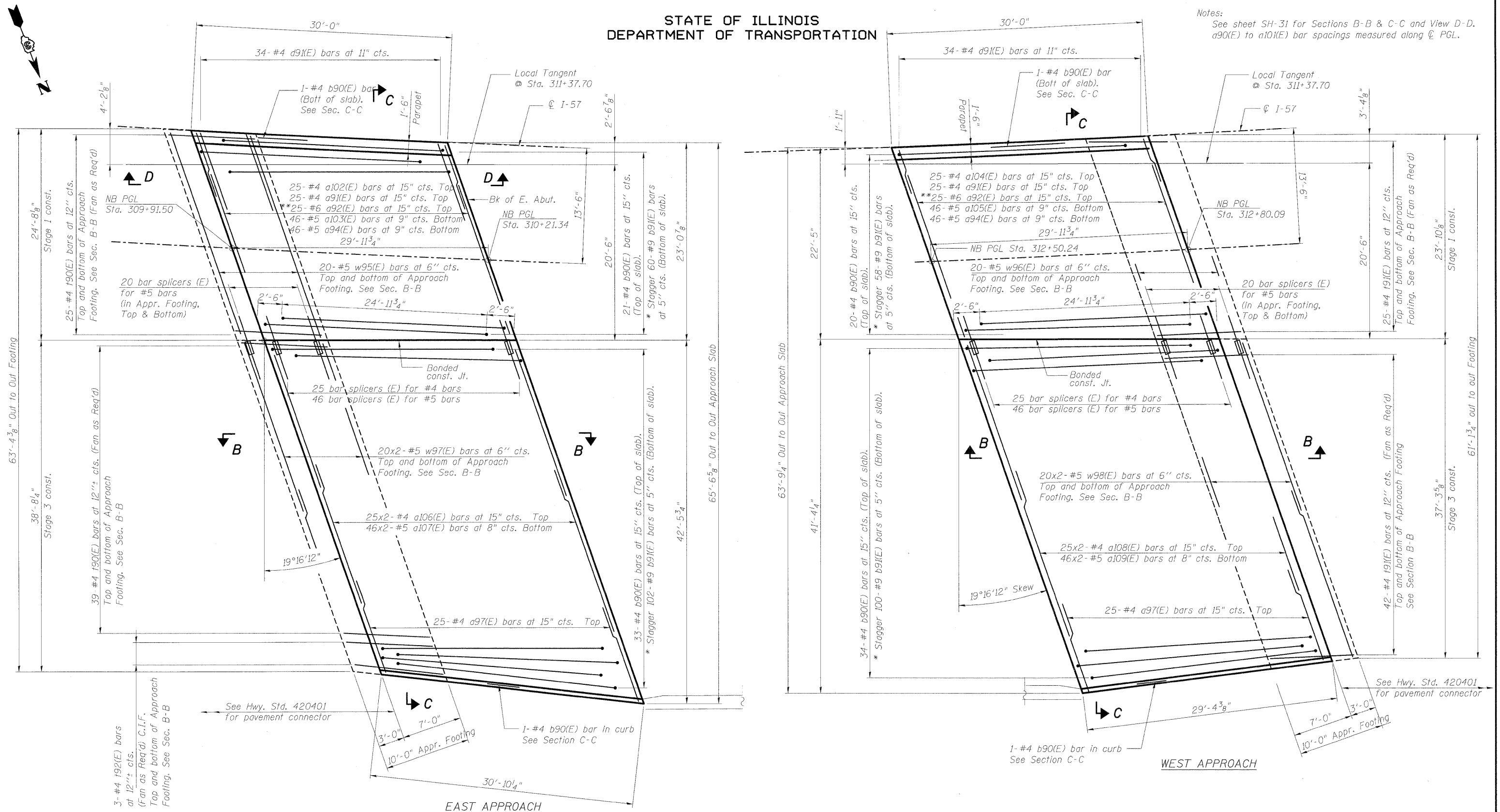


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes:
See sheet SH-31 for Sections B-B & C-C and View D-D.
a90(E) to a101(E) bar spacings measured along C PGL.



PLAN-(NB)

* Tilt #9 b91(E) bars as required to maintain clearance.
** Space a92(E) bars between a90(E) bars, typ. at parapet.

APPROACH SLAB PLAN (NB)
STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)

DESIGNED	RJ
CHECKED	MJL
DRAWN	RJ
CHECKED	MJL

MIN. BAR LAP

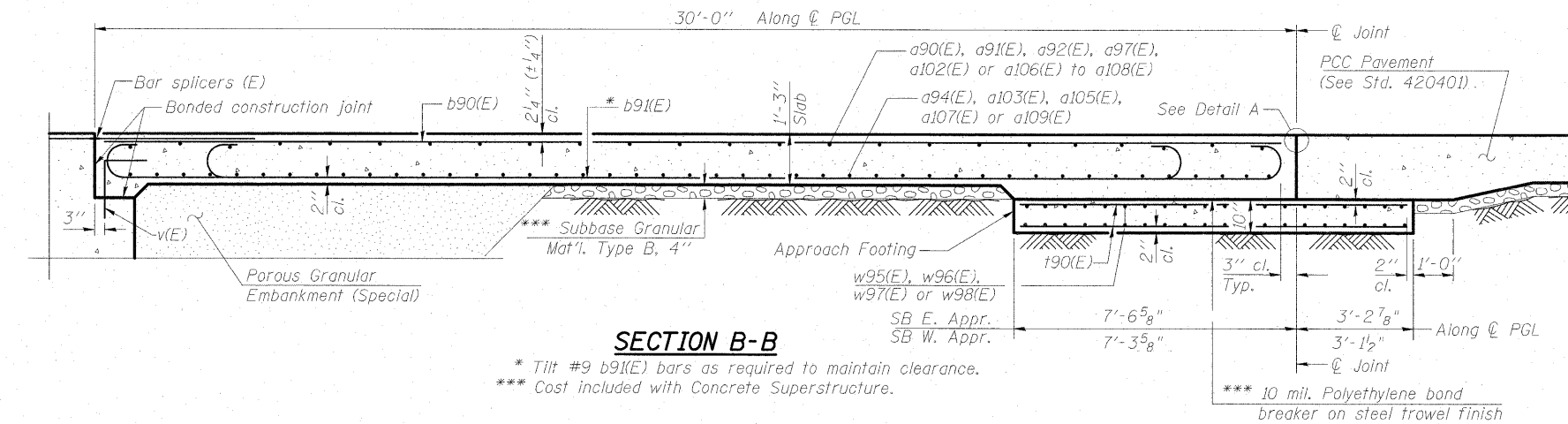
#4 Bar = 2'-4" (Top bars)
#5 Bar = 2'-7" (Bottom bars)



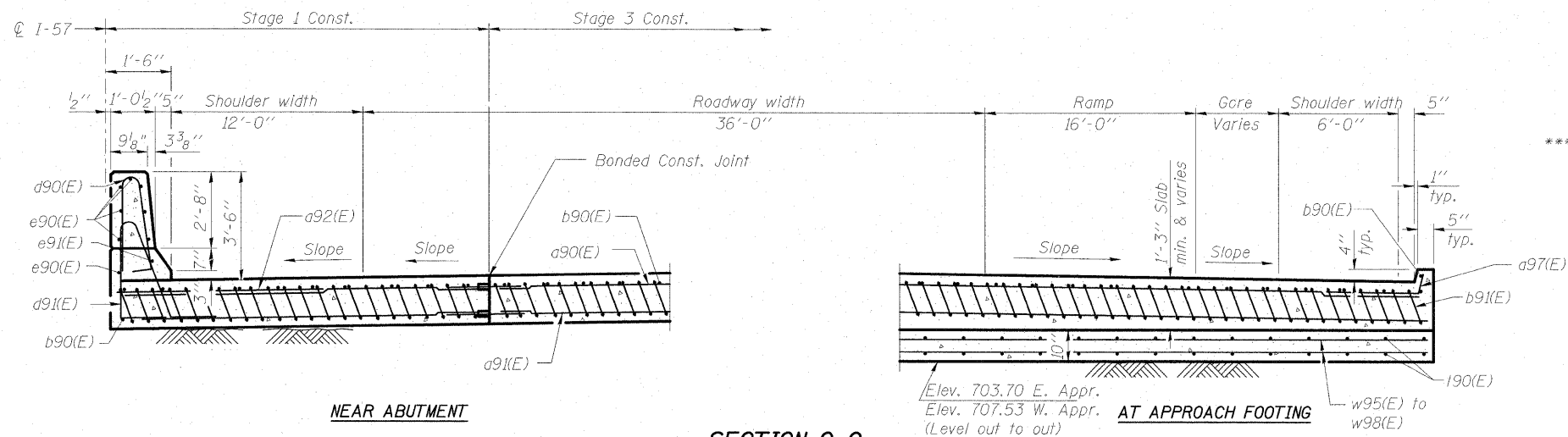
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SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SH-30	57	(46-2) HBR	KANKAKEE	558	301
SHEETS					
SH-56					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



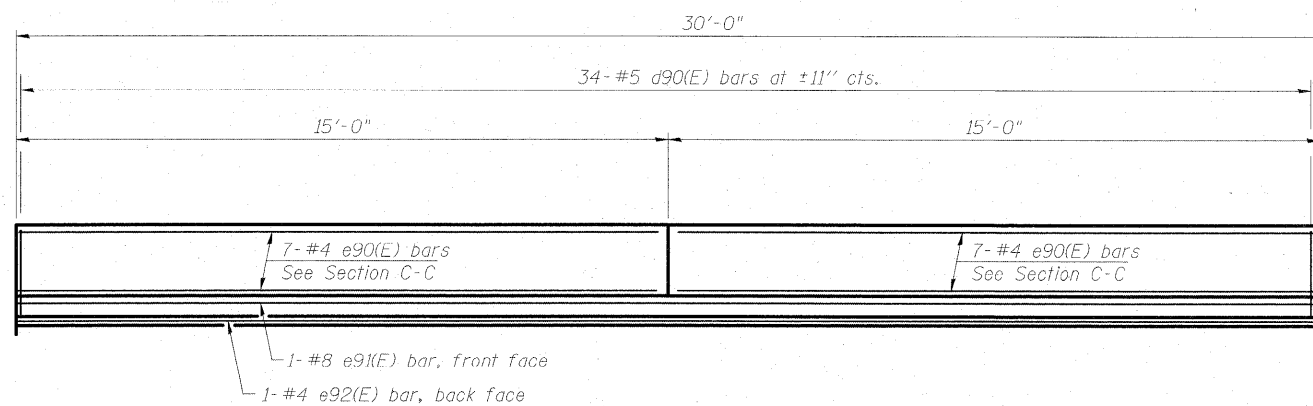
*** Cost included with Concrete Superstructure.



NEAR ABUTMENT

SECTION C-C

(See Plan for dimensions not shown)



VIEW D-D

East Approach shown, West Approach similar.

DESIGNED	RJ
CHECKED	MJL
DRAWN	RJ
CHECKED	MJL

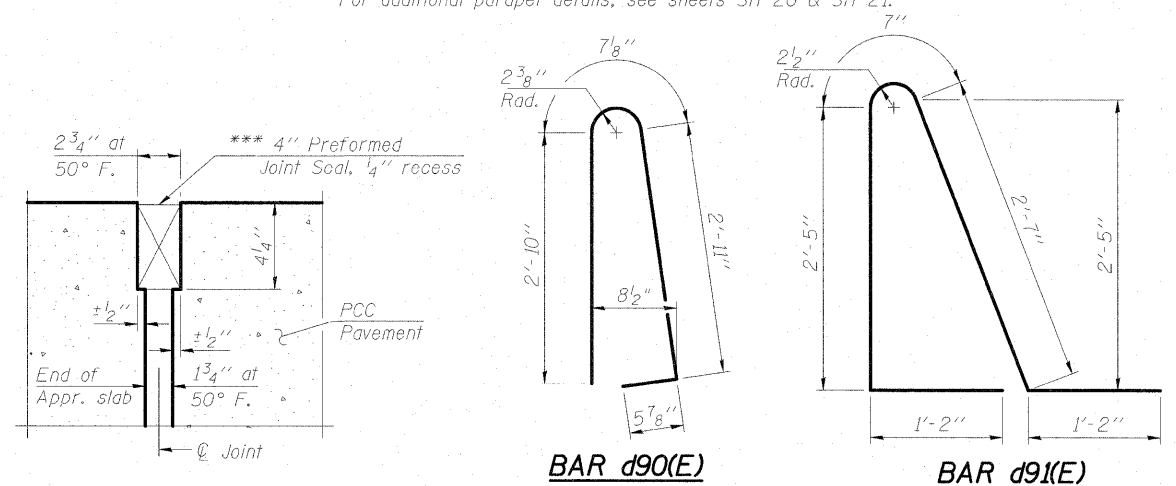


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SHEET NO. SH-31 SHEETS SH-56	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	(46-2) HBR	KANKAKEE	558	302
	CONTRACT NO. 66409				
	FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT		

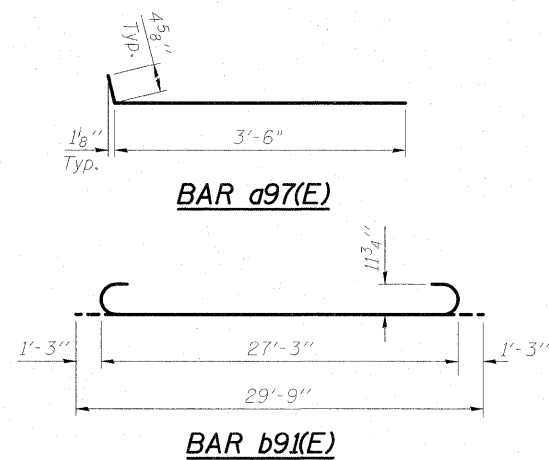
Notes:

Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v(E) bar details, see sheets SH-22.
The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
For bar splicer details, see sheet SH-51.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see sheet SH-2.
For additional parapet details, see sheets SH-20 & SH-21.



DETAIL A

*** Cost included with Concrete Superstructure.



BAR a97(E)

BAR b91(E)

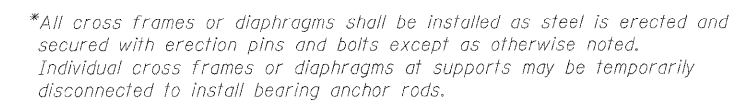
NORTHBOUND APPROACHES
BILL OF MATERIAL

	Stage 1	Stage 3			
Bar	No.	No.	Size	Length	Shape
a91(E)	50		#4	4'-0"	_____
a92(E)	50		#6	6'-6"	_____
a94(E)	92		#5	4'-3"	_____
a97(E)		50	#4	1'-1"	_____
a102(E)	25		#4	24'-0"	_____
a103(E)	46		#5	24'-0"	_____
a104(E)	25		#4	23'-4"	_____
a105(E)	46		#5	23'-4"	_____
a106(E)		50	#4	23'-1"	_____
a107(E)		92	#5	24'-2"	_____
a108(E)		50	#4	22'-6"	_____
a109(E)		92	#5	23'-7"	_____
b90(E)	43	71	#4	29'-8"	_____
b91(E)	118	202	#9	29'-9"	_____
d90(E)	68		#5	6'-10"	_____
d91(E)	68		#5	7'-11"	_____
e90(E)	28		#4	14'-8"	_____
e91(E)	2		#8	29'-8"	_____
e92(E)	2		#4	14'-8"	_____
f90(E)	50	78	#4	10'-4"	_____
f91(E)	50	84	#4	10'-1"	_____
f92(E)		6	#4	10'-8"	_____
w95(E)	40		#5	25'-3"	_____
w96(E)	40		#5	25'-0"	_____
w97(E)		80	#5	22'-6"	_____
w98(E)		80	#5	21'-9"	_____
Concrete Superstructure			Cu. Yd.	197	
Concrete Structures			Cu. Yd.	41	
* Reinforcement Bars, Epoxy Coated			Pound	54,080	

* Includes 7,620 lbs. for Approach Footing. Quantity included with substructure.

APPROACH SLAB DETAILS (NB)
STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)

* Includes 7,620 lbs. for Approach Footing. Quantity included with substructure.

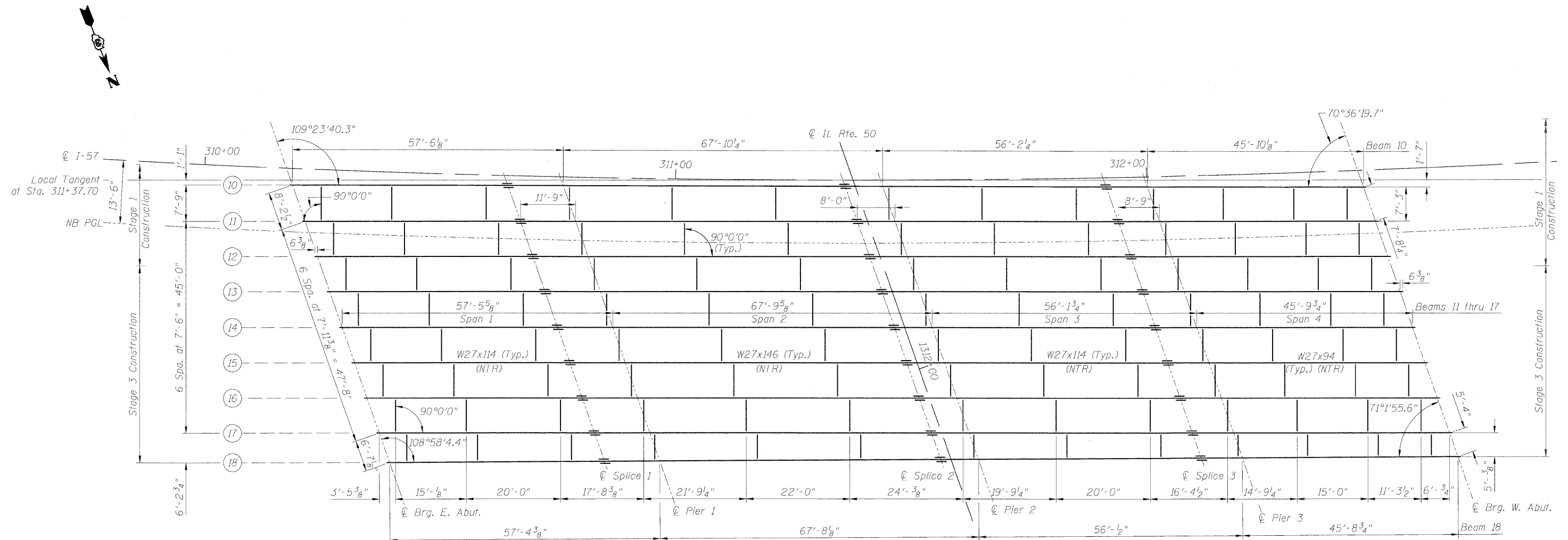


NTR denotes notch toughness requirements
See note sheet no. SH-35.
For notes see sheet no. SH-2.

SHEET NO. SH-32 SHEETS SH-56	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	(46-2) HBR	KANKAKEE	558	303
				CONTRACT NO. 66409	
	FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT				

SB FRAMING PLAN
STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FRAMING PLAN

(NB Bridge)
NTR denotes notch toughness requirements
See note sheet SH-35.

*All cross frames or diaphragms shall be installed as steel is erected and secured with pins and bolts except as otherwise noted.
Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

**All structural steel shall be AASHTO M270 Grade 50 except diaphragms.

NB FRAMING PLAN
STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)

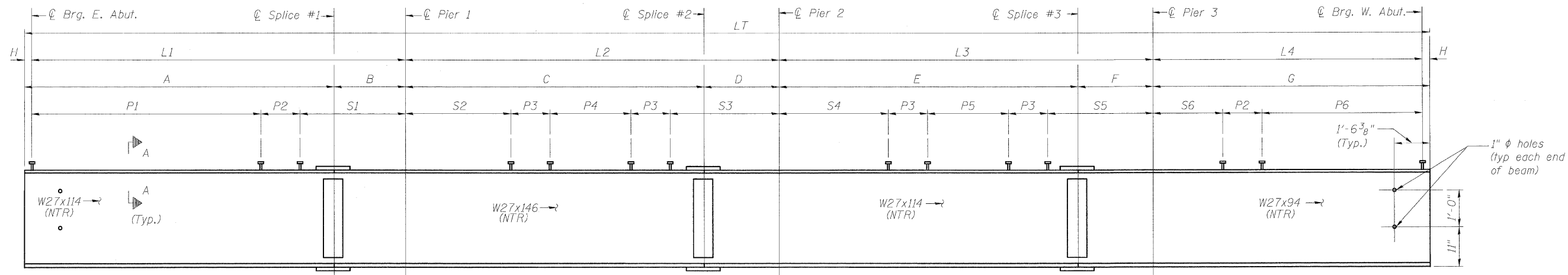
DESIGNED	PMH
CHECKED	MGB
DRAWN	PMH
CHECKED	BB



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SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SH-33	57	(46-2) HBR	KANKAKEE	558	304
SHEETS					
SH-56					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

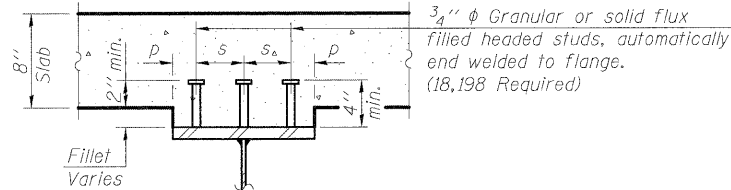


BEAM ELEVATION

Beams 1-18
All beam steel shall be AASHTO M270 Grade 50.

SHEAR STUD SPACING TABLE

BEAM	S1	S2	S3	S4	S5	S6	P1	P2	P3	P4	P5	P6
1	14'-5 1/8"	14'-2 1/2"	10'-7 1/8"	13'-5 3/8"	11'-3 1/8"	9'-2 3/4"	79 Spaces at 6" cts.	15 Spaces at 3" cts.	13 Spaces at 3" cts.	63 Spaces at 7" cts.	43 Spaces at 7" cts.	66 Spaces at 6" cts.
2-8, 11-17	14'-2 5/8"	14'-0"	10'-6 5/8"	13'-3 3/8"	11'-3 3/8"	9'-0 3/4"	79 Spaces at 6" cts.	15 Spaces at 3" cts.	13 Spaces at 3" cts.	63 Spaces at 7" cts.	43 Spaces at 7" cts.	66 Spaces at 6" cts.
9-10	14'-3 1/8"	14'-0 1/2"	10'-6 3/4"	13'-3 3/4"	11'-3 1/2"	9'-1 1/8"	79 Spaces at 6" cts.	15 Spaces at 3" cts.	13 Spaces at 3" cts.	63 Spaces at 7" cts.	43 Spaces at 7" cts.	66 Spaces at 6" cts.
18	14'-1 3/8"	13'-10 3/4"	10'-6 3/8"	13'-2 3/8"	11'-3 1/8"	8'-11 3/4"	79 Spaces at 6" cts.	15 Spaces at 3" cts.	13 Spaces at 3" cts.	63 Spaces at 7" cts.	43 Spaces at 7" cts.	66 Spaces at 6" cts.



SECTION A-A

Section	p	s
W27x94	1 1/2"	3 1/2"
W27x114	1 1/2"	3 9/16"
W27x146	2"	5"

DIMENSIONS ALONG C OF BEAM

BEAM	A	B	C	D	E	F	G	H	L1	L2	L3	L4	LT
1	46'-5"	11'-9 1/2"	60'-0 1/4"	8'-0 3/8"	47'-6 1/8"	8'-9 3/8"	46'-6 1/8"	6 3/8"	57'-8 1/8"	68'-0 5/8"	56'-4 1/4"	45'-11 3/4"	229'-1 1/2"
2-8, 11-17	46'-3"	11'-9"	59'-9 5/8"	8'-0"	47'-4 3/4"	8'-9"	46'-4 1/8"	6 3/8"	57'-5 5/8"	67'-9 5/8"	56'-1 1/4"	45'-9 3/4"	228'-3 1/2"
9-10	46'-3 3/8"	11'-9 1/8"	59'-10 1/8"	8'-0 1/8"	47'-5 1/8"	8'-9 1/8"	46'-4 1/2"	6 3/8"	57'-6 1/8"	67'-10 1/4"	56'-2 1/4"	45'-10 1/8"	228'-5 1/2"
18	46'-2"	11'-8 3/4"	59'-8 1/4"	7'-11 1/4"	47'-3 3/4"	8'-8 3/4"	46'-3 1/8"	6 3/8"	57'-4 3/8"	67'-8 1/8"	56'-0 1/2"	45'-8 3/4"	227'-10 1/2"

**TOP OF BEAM ELEVATIONS
FOR FABRICATION ONLY**

Beam No.	C Brg. E. Abut.	C Splice 1	C Pier 1	C Splice 2	C Pier 2	C Splice 3	C Pier 3	C Brg. W. Abut.
1	703.31	703.99	704.18	705.12	705.25	705.97	706.10	706.80
2	703.75	704.40	704.58	705.48	705.60	706.29	706.42	707.08
3	704.20	704.85	705.03	705.93	706.04	706.73	706.86	707.52
4	704.66	705.30	705.48	706.37	706.49	707.17	707.30	707.96
5	705.12	705.76	705.93	706.82	706.93	707.62	707.74	708.39
6	705.57	706.21	706.38	707.27	707.38	708.06	708.18	708.83
7	706.03	706.66	706.83	707.71	707.83	708.50	708.62	709.27
8	706.48	707.11	707.28	708.16	708.27	708.94	709.06	709.71
9	706.91	707.54	707.71	708.59	708.70	709.37	709.50	710.15
10	705.74	706.37	706.54	707.42	707.53	708.20	708.32	708.97
11	706.21	706.83	707.00	707.86	707.97	708.63	708.75	709.39
12	706.67	707.28	707.45	708.30	708.42	709.07	709.19	709.83
13	707.12	707.73	707.90	708.75	708.86	709.51	709.63	710.26
14	707.57	708.18	708.35	709.19	709.30	709.95	710.07	710.70
15	708.03	708.63	708.79	709.64	709.74	710.39	710.51	711.14
16	708.48	709.08	709.24	710.08	710.19	710.83	710.95	711.57
17	708.93	709.53	709.69	710.52	710.63	711.27	711.39	712.01
18	709.31	709.88	710.04	710.85	710.96	711.58	711.70	712.30

NOTES:

NTR denotes notch toughness requirements.
See note sheet no. SH-35.

DESIGNED	PMH
CHECKED	MGB
DRAWN	PMH
CHECKED	MJL

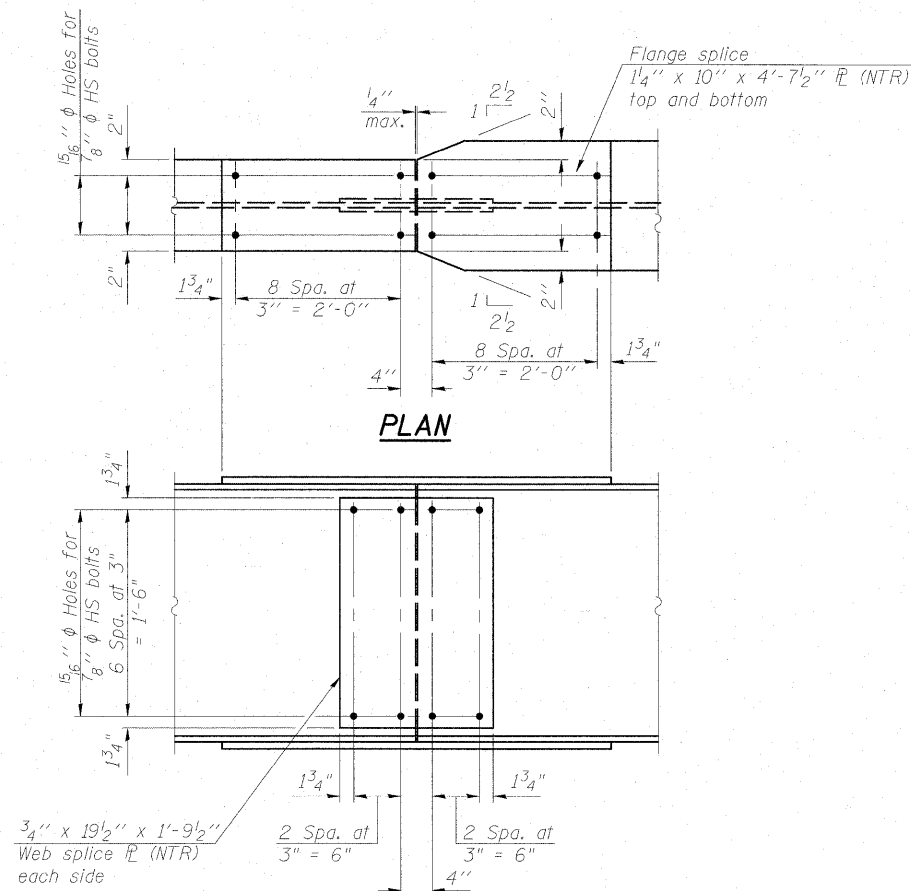


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SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SH-34	57	(46-2) HBR	KANKAKEE	558	305
SHEETS					
SH-56					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STEEL DETAILS 1 OF 2
STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)

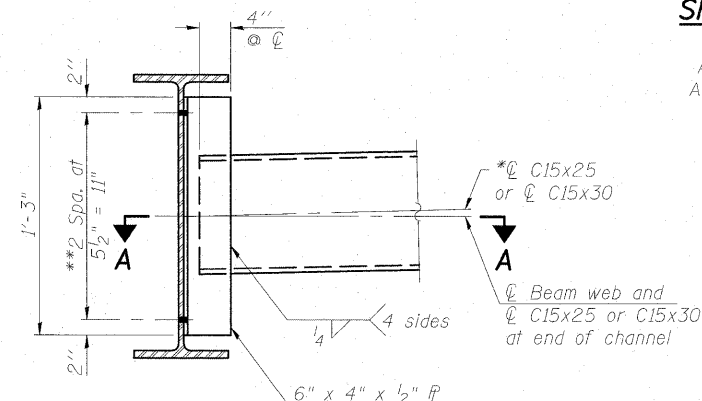
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DEPARTMENT OF TRANSPORTATION



ELEVATION

SPLICE #1 DETAIL

(Splice #2 Similar)
(36 required)
All splice steel shall be
AASHTO M270 Grade 50.

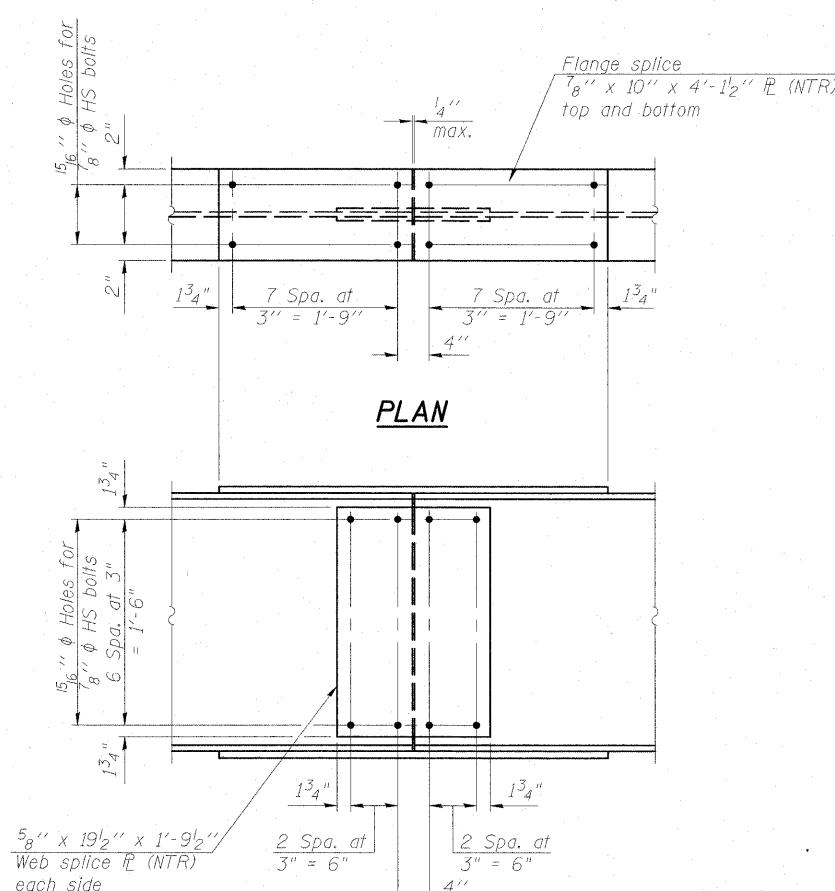


INTERIOR DIAPHRAGM

Two hardened washers required for each set of oversized holes.

* Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.

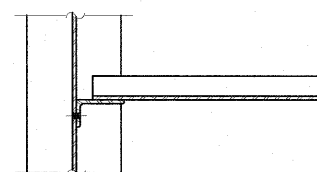
** $\frac{3}{4}$ " ϕ HS bolts, $\frac{15}{16}$ " ϕ holes



ELEVATION

SPLICE #3 DETAIL

(18 Required)
All splice steel shall be
AASHTO M270 Grade 50.



SECTION A-A

Note:
Load carrying components designated "NTR" shall conform to the supplemental requirements for notch toughness, zone 2.

	E. Abut.	Pier 1	Pier 2	Pier 3	W. Abut.
R _ℓ (k)	32.7	107.1	91.9	80.7	26.5
R _ℓ (k)	40.2	46.4	45.5	44.9	38.0
Imp. (k)	11.0	12.3	12.1	12.8	11.1
R _{Total} (k)	83.9	165.8	149.5	138.4	75.6

		0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.5 Sp. 3	Pier 3	0.6 Sp. 4
I_s	(in ⁴)	4036	5578	5578	4036	4036	3222	3222
$I_c(n)$	(in ⁴)	12627		15718		12620		10586
$I_c(3n)$	(in ⁴)	9324		11450		9317		7957
S_s	(in ³)	296	407	407	296	296	239	239
$S_c(n)$	(in ³)	471		607		471		389
$S_c(3n)$	(in ³)	425		548		425		353
Z	(in ³)							
R	(k/')	0.935	1.510	0.952	1.499	0.918	1.477	0.901
$M \bar{P}$	(k)	206	594	202	415	112	326	139
$s \bar{P}$	(k/')	0.569		0.563		0.564		0.569
$M_s \bar{P}$	(k)	152		164		101		101
$M \bar{L}$	(k)	444	258	478	214	353	173	326
M_{imp}	(k)	122	69	124	57	98	49	96
$S_3 [M \bar{L} + M_{imp}]$	(k)	943	545	1003	452	752	370	703
M_o	(k)	1692	1481	1780	1127	1255	905	1226
M_u	(k)	1781		2378		1860		1494
$f_s \bar{P}$ non-comp	(ksi)	8.4	17.5	6.0	16.8	4.6	16.3	7.0
$f_s \bar{P}$ (comp)	(ksi)	4.3		3.6		2.9		3.4
$f_s S_3 [M \bar{L} + M_{imp}]$	(ksi)	24.0	16.0	19.9	18.4	19.2	18.6	21.7
f_s (Overload)	(ksi)	36.7	33.5	29.5	35.2	26.7	34.9	32.1
f_s (Total)	(ksi)		43.6		45.8		45.4	
VR	(k)	50.3		51.8		51.1		47.7

* Compact section

** Braced non-compact and partially braced section

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in.⁴ and in.³).

$I_o(n)$, $S_o(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in.⁴ and in.³).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in.⁴ and in.³).

Z: Plastic Section Modulus of the steel section in non-composite areas (in.³).

D : Un-factored non-composite dead load (kips/ft.).

MP: Un-factored moment due to non-composite dead load (kip-ft.).

$s\psi$: Un-factored long-term composite (superimposed) dead load (kips/ft.)

M_{sL} : Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).

M_L : Un-factored live load moment (kip-ft.).

M_{imp} : Un-factored moment due to impact (kip-ft.).

M_d : Factored design moment (kip-ft.).

$$1.3 [M_D + M_{SD} + \frac{5}{3} (M_L + M_{Imp})]$$

M_U : Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).

f_s (Overload): Sum of stresses as computed from the moments below (ksi).

$$M_L + M_{SL} + \frac{1}{2}(M_L + M_{Imp})$$

f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).

$$1.3 [M_Q + M_{SQ} + \frac{5}{3} (M_L + M_{Imp})]$$

VR: Maximum \pm impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).

STEEL DETAILS 2 OF 2
STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)

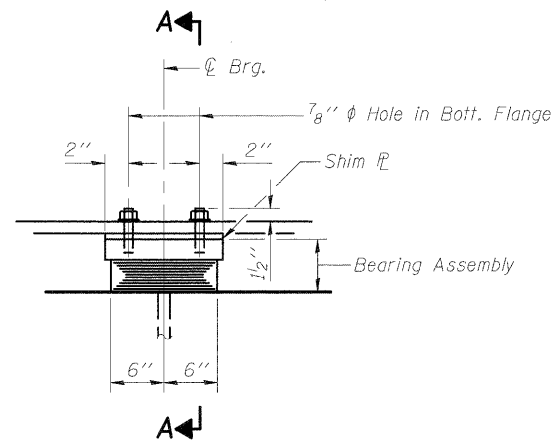
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DRAWN	PMH
CHECKED	RR



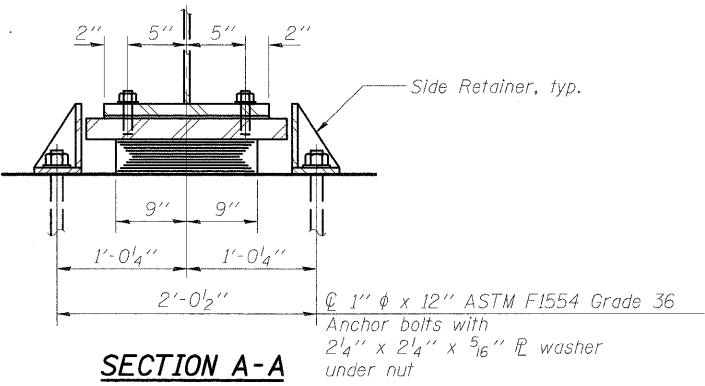
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SHEET NO. SH-35 SHEETS SH-56	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	(46-2) HBR	KANKAKEE	558	306
				CONTRACT NO. 66409	
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

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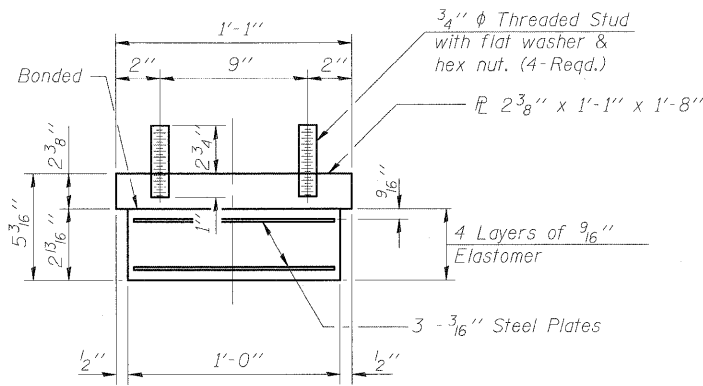
ELEVATION AT PIER 1



SECTION A-A

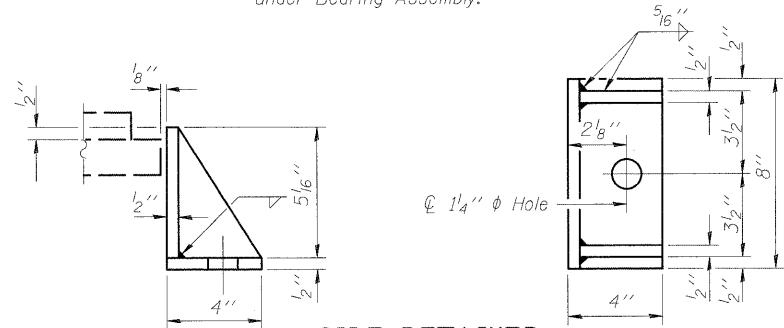
TYPE I ELASTOMERIC EXP. BRG.

At Pier 1
No. required = 18



BEARING ASSEMBLY

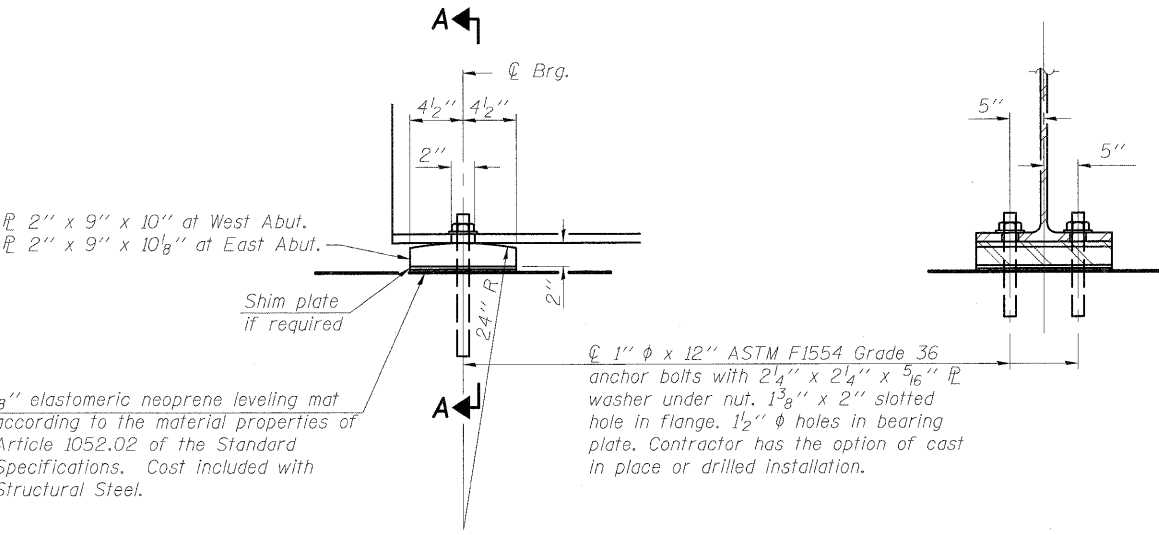
Note:
Shim plates shall not be placed
under Bearing Assembly.



SIDE RETAINER

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

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.



ELEVATION AT ABUTMENT

SECTION A-A

FIXED BEARING

At East and West Abutments
No. required = 36

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	18
Anchor Bolts 1"	Each	108

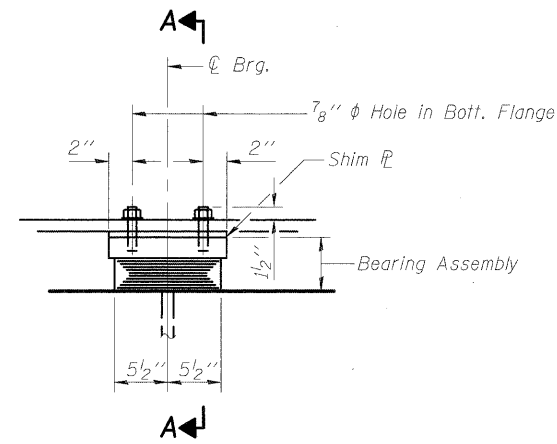
**BEARING DETAILS 1 OF 2
STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)**

DESIGNED	PMH
CHECKED	MJL
DRAWN	PMH
CHECKED	MJL

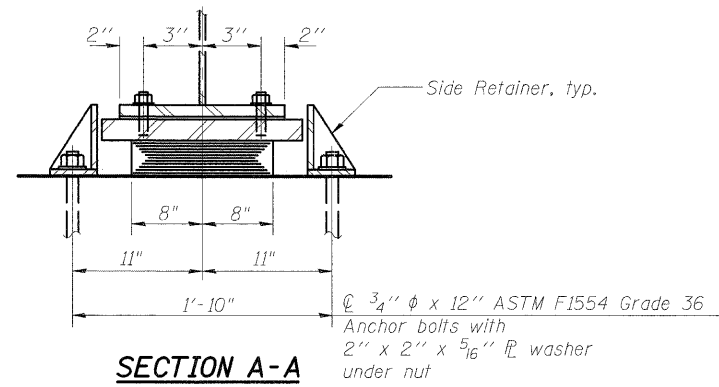
McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street
Chicago, Illinois 60601
(312) 946-8600

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SH-36	57	(46-2) HBR	KANKAKEE	558	307
SHEETS					
SH-56					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

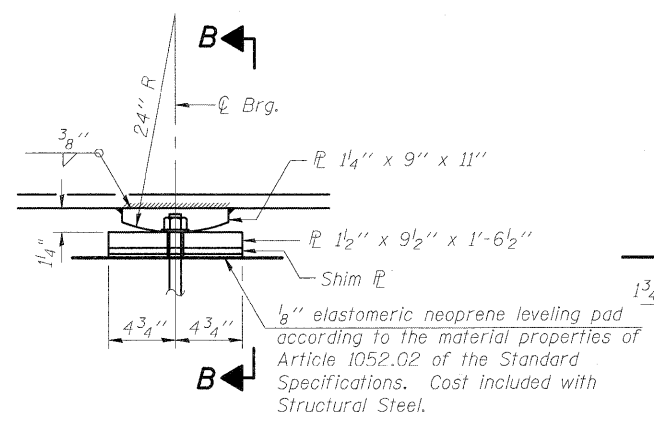
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



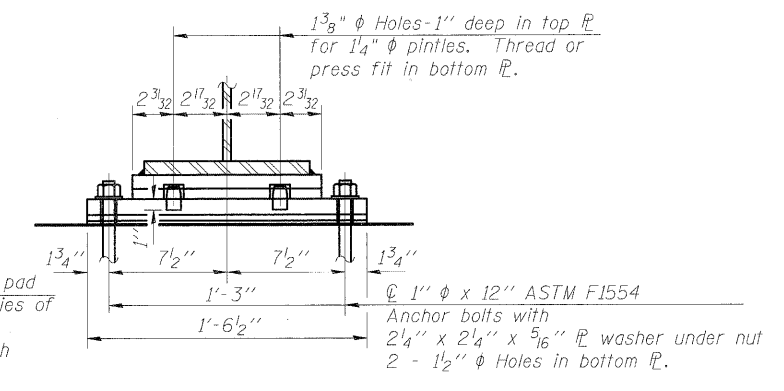
ELEVATION AT PIER 3



SECTION A-A



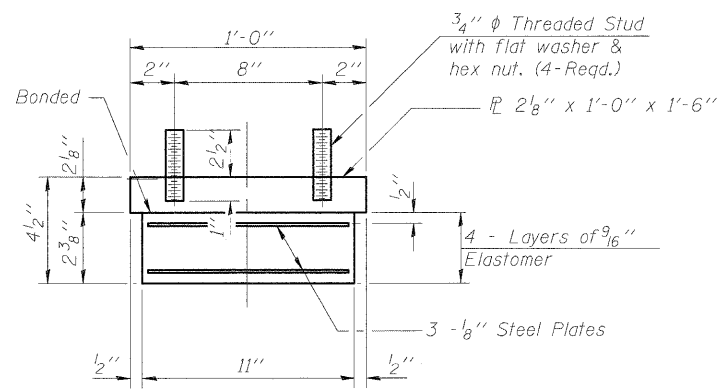
ELEVATION AT PIER



SECTION B-B

TYPE I ELASTOMERIC EXP. BRG.

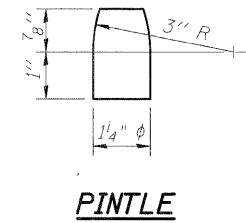
At Pier 3
No. required = 18



BEARING ASSEMBLY

Note:
Shim plates shall not be placed
under Bearing Assembly.

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.



FIXED BEARING

At Pier 2
No. required = 18

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	18
Anchor Bolts 3/4"	Each	36
Anchor Bolts 1"	Each	36

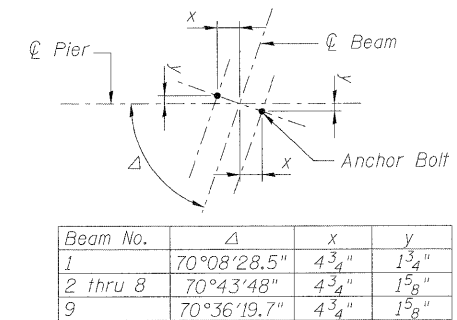
BEARING DETAILS 2 OF 2
STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)

DESIGNED	PMH
CHECKED	MJL
DRAWN	PMH
CHECKED	MJL

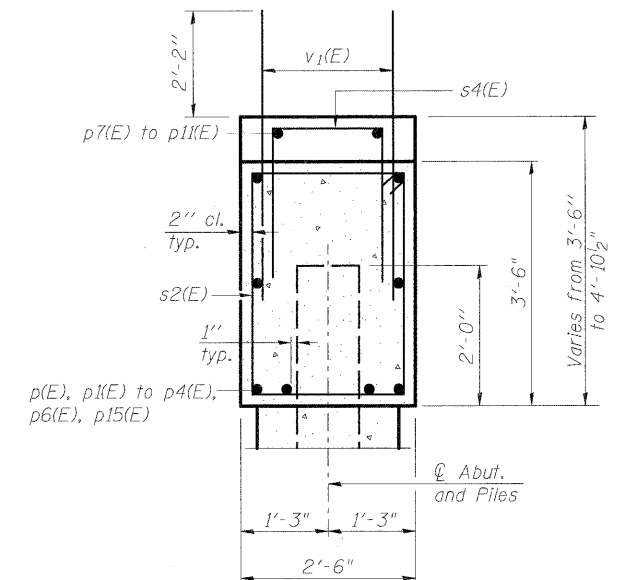
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Engineers / Architects
130 East Randolph Street
Chicago, Illinois 60601
(312) 946-8600

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SH-37	57	(46-2) HBR	KANKAKEE	558	308
SHEETS					
SH-56					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DETAIL "1"
ANCHOR BOLT LAYOUT



SECTION A-A

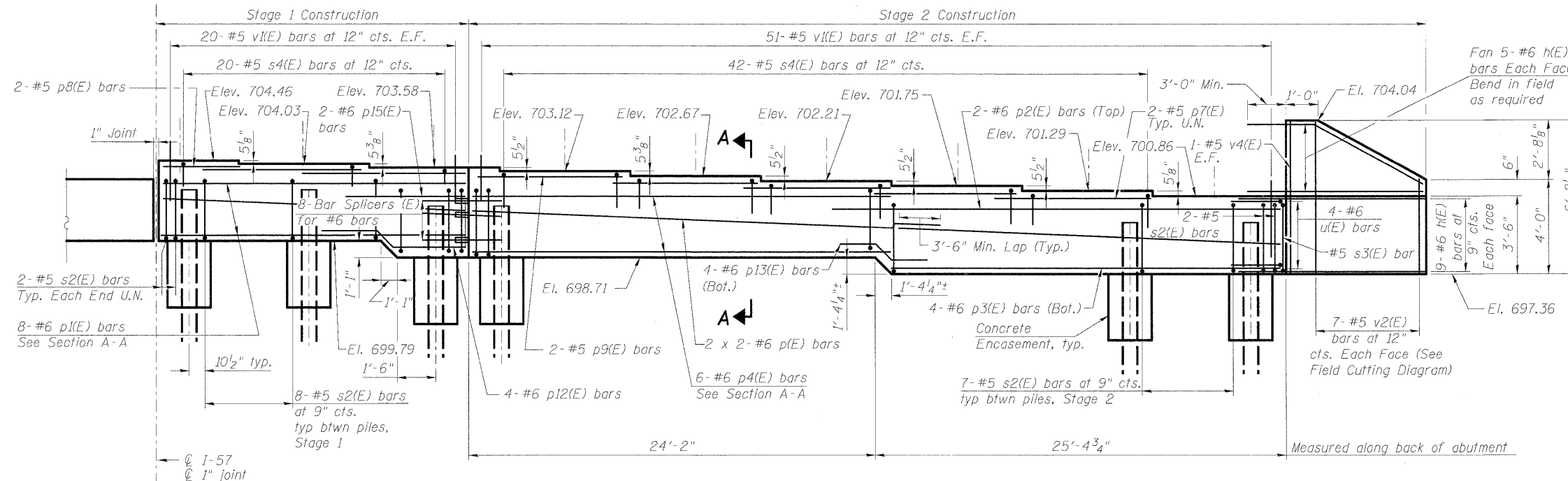
MINIMUM BAR LAP
(Abutment)

Top bars Other bars
#6 bar = 3'-6" #6 bar = 3'-1"

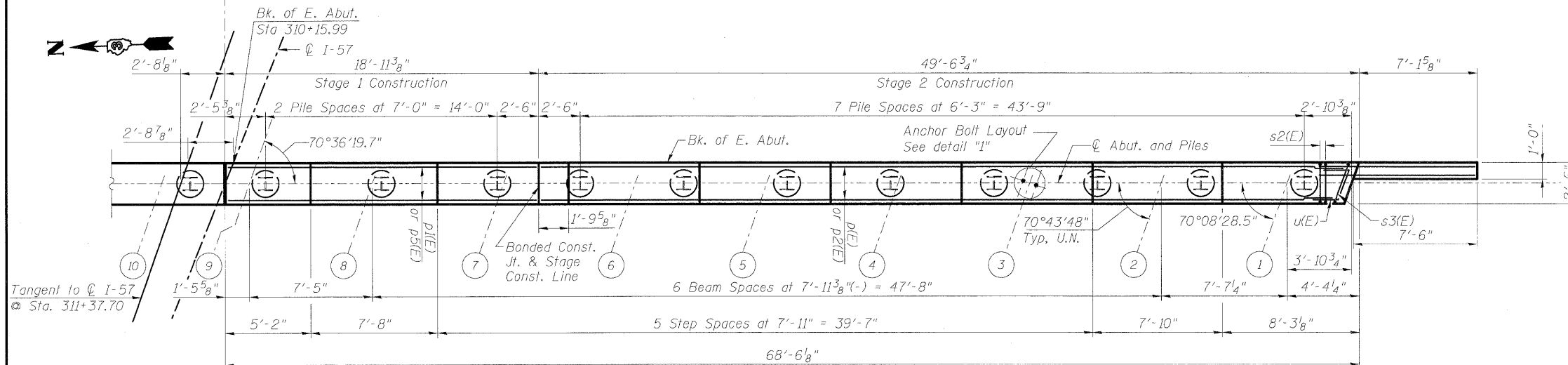
Notes:
Pour steps monolithically with cap.
For details of Bar Splicers, see Sht. SH-51.
For Bill of Material see Sht. SH-39.
For details of piles and Concrete Encasement, see Sht. SH-52.

Bars indicated thus 2 x 2-#6 etc. indicates 2 lines of bars with 2 lengths per line.

EAST ABUTMENT & DETAILS (SB)
STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)



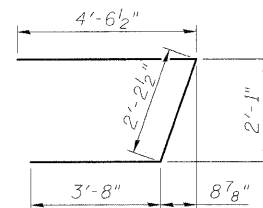
EAST ABUTMENT ELEVATION (SB)



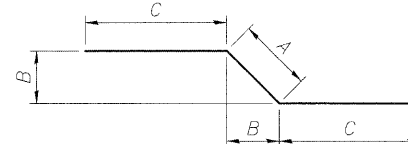
PLAN

PILE DATA (EAST ABUTMENT)

Type: HP 10 x 57 w/ Pile Shoes
Nominal Required Bearing: 453 kips
Allowable Resistance Available: 151 kips
Est. Length: 38 ft.
No. Production Piles: 22
No. Test Piles: 1

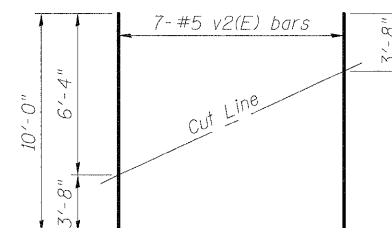


BAR u(E)



Bar	A	B	C
p12(E)	1'-7"	1'-1 3/8"	3'-10"
p13(E)	2'-0"	1'-5"	3'-10"
p14(E)	1'-4"	1'-3 1/8"	3'-10"

BARS p12(E),
p13(E) & p14(E)



FIELD CUTTING DIAGRAM

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

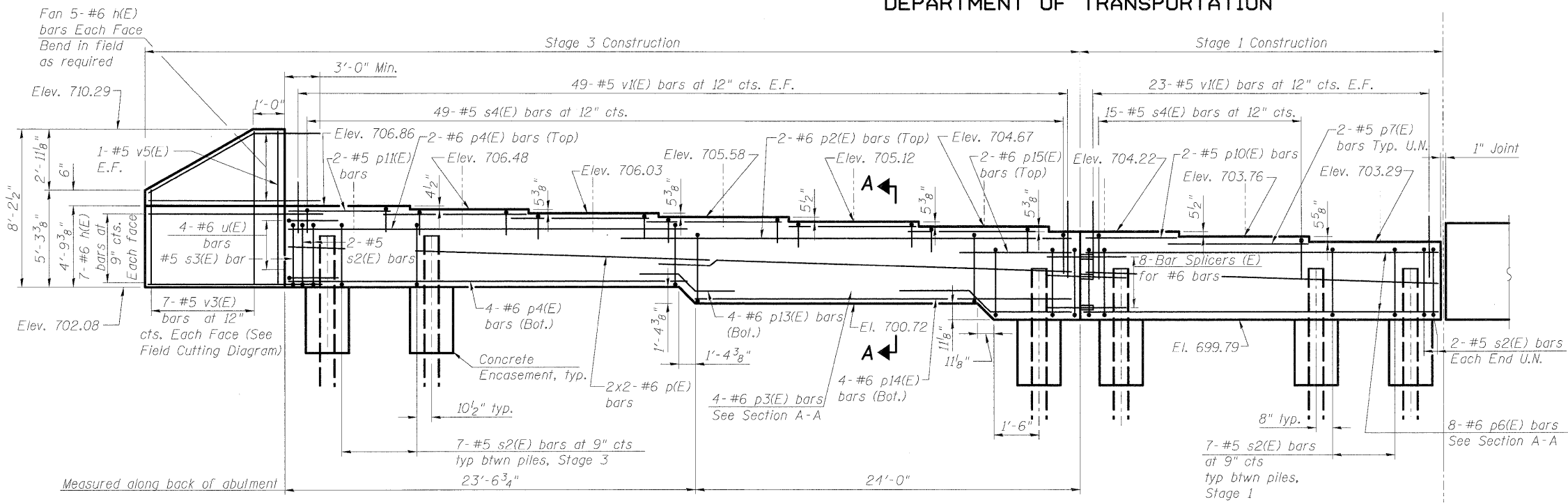
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CHECKED	MJL
DRAWN	PMH
CHECKED	MJL



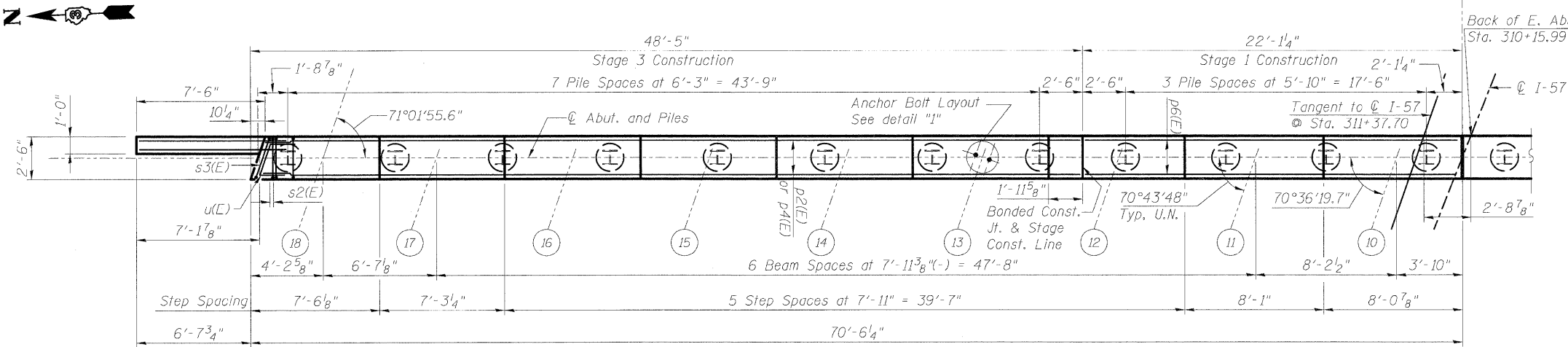
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SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SH-38	57	(46-2) HBR	KANKAKEE	558	309
SHEETS					
SH-56					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

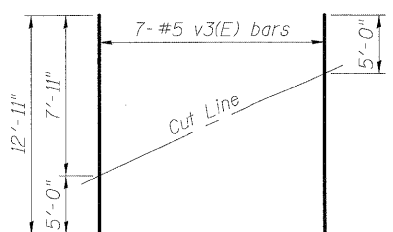
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



EAST ABUTMENT ELEVATION (NB)



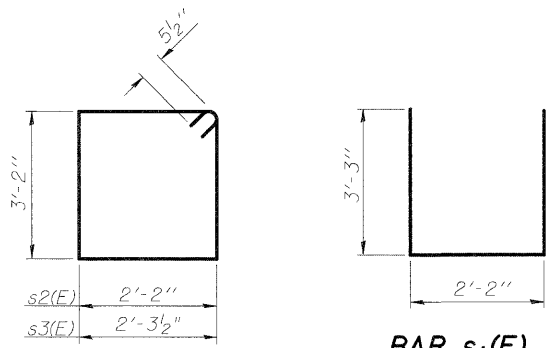
PLAN



FIELD CUTTING DIAGRAM

Order v3(E) full length. Cut as shown and use remainder of bars in opposite face.

Notes:
Pour steps monolithically with cap.
For details of Bar Splicers, see Sht. SH-51.
For details of piles and Concrete Encasement, see Sht. SH-52.
Bars indicated thus 2 x 2-#6 etc. indicates 2 lines of bars with 2 lengths per line.
For Section A-A see Sht. SH-38.

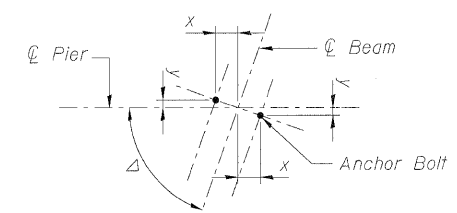


BARS s2(E) & s3(E)

BAR s4(E)

BILL OF MATERIAL

Bar	Stage 1	Stage 2	Stage 3	Size	Length	Shape
h(E)	No.	No.	No.			
p(E)		4	4	#6	26'-8"	
p1(E)	8			#6	18'-7"	
p2(E)		2	2	#6	29'-5"	
p3(E)		4	4	#6	22'-10"	
p4(E)		6	6	#6	24'-0"	
p6(E)	8			#6	21'-9"	
p7(E)	6	8	10	#5	10'-11"	
p8(E)	2			#5	4'-8"	
p9(E)		2		#5	9'-5"	
p10(E)	2			#5	5'-8"	
p11(E)			2	#5	6'-4"	
p12(E)	4			#6	9'-3"	
p13(E)		4	4	#6	9'-8"	
p14(E)			4	#6	9'-0"	
p15(E)	2		2	#6	7'-6"	
s2(E)	45	53	53	#5	11'-7"	
s3(E)		1	1	#5	11'-10"	
s4(E)	35	42	49	#5	8'-8"	
u(E)		4	4	#6	10'-5"	
v1(E)	86	102	98	#5	4'-4"	
v2(E)		7		#5	10'-0"	
v3(E)			7	#5	12'-11"	
v4(E)		2		#5	6'-4"	
v5(E)			2	#5	7'-10"	
Structure Excavation				Cu. Yd.	360	
Reinforcement Bars, Epoxy Coated				Pound	7,860	
Concrete Structures				Cu. Yd.	57	
Concrete Encasement				Cu. Yd.	8	
Furnishing Steel Piles, HP 10x57				Foot	836	
Driving Piles				Foot	836	
Test Pile Steel HP 10 x 57				Each	1	
Pile Shoes				Each	23	



DETAIL "1"
ANCHOR BOLT LAYOUT

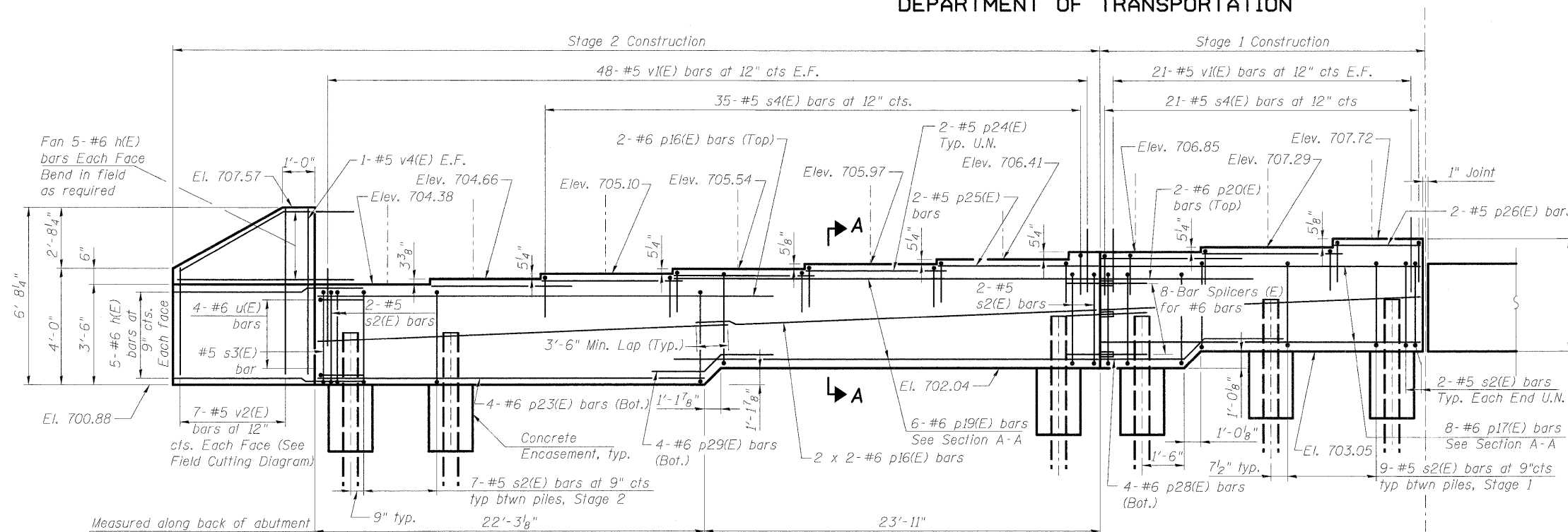
EAST ABUTMENT & DETAILS (NB)
STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)

DESIGNED	PMH
CHECKED	MJL
DRAWN	PMH
CHECKED	MJL

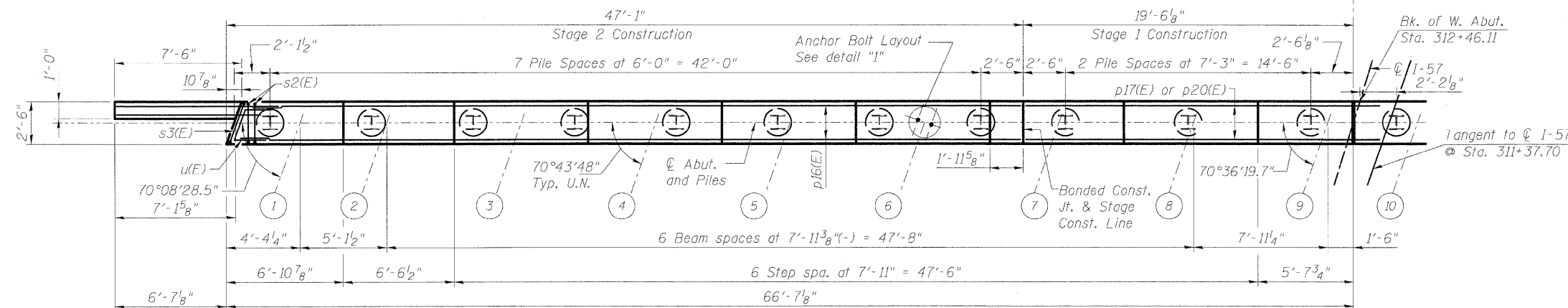
McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street
Chicago, Illinois 60601
(312) 946-8600

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SH-39	57	(46-2) HBR	KANKAKEE	558	310
SHEETS					
SH-56					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



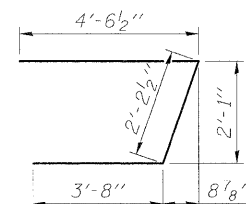
WEST ABUTMENT ELEVATION (SB)
(Looking East)



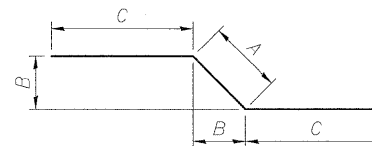
PLAN

PILE DATA

Type: HP 10 x 57 w/ Pile Shoes
Nominal Required Bearing: 453 kips
Allowable Resistance Available: 151 kips
Est. Length: 49 ft.
No. Production Piles: 22
No. Test Piles: 1

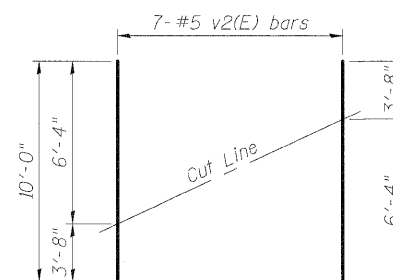


BAR u(E)



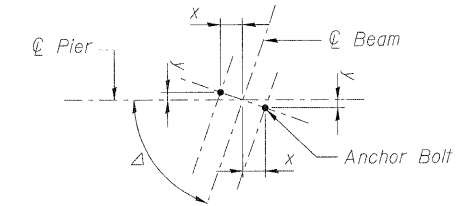
Bar	A	B	C
p28(E)	1'-6"	1'-0 3/4"	3'-10"
p29(E)	1'-8"	1'-2 1/8"	4'-2"
p30(E)	1'-10"	1'-3 1/2"	3'-10"
p31(E)	1'-3"	10 5/8"	3'-3"

**BARS p28(E), p29(E),
p30(E) & p31(E)**



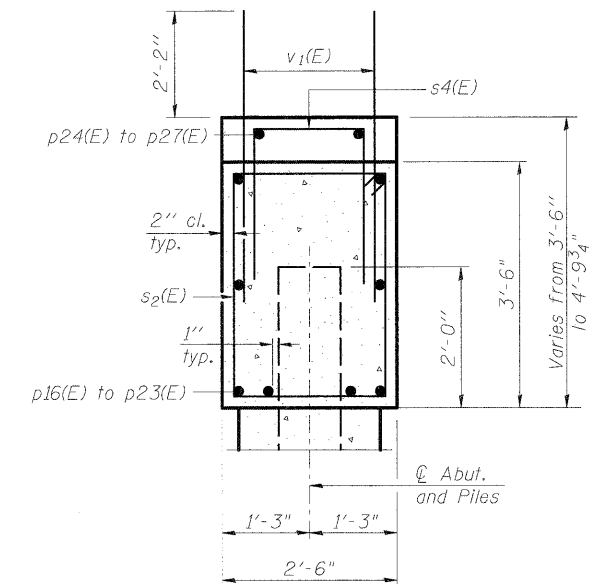
FIELD CUTTING DIAGRAM

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



Beam No.	Δ	x	y
1	70°08'28.5"	4 3/4"	1 3/4"
2 thru 8	70°43'48"	4 3/4"	1 5/8"
9	70°36'19.7"	4 3/4"	1 5/8"

DETAIL "1"
ANCHOR BOLT LAYOUT



SECTION A-A

MINIMUM BAR LAP
(Abutment)

Top Bars: #6 bar = 3'-6"
Other Bars: #6 bar = 3'-1"

Notes:
Pour steps monolithically with cap.
For details of Bar Splicers, see Sht. SH-51.
For Bill of Material see Sht. SH-41.
For details of piles and Concrete Encasement, see Sht. SH-52.

Bars indicated thus 2 x 2 - #6 etc. indicates 2 lines of bars with 2 lengths per line.

WEST ABUTMENT & DETAILS (SB)
STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)

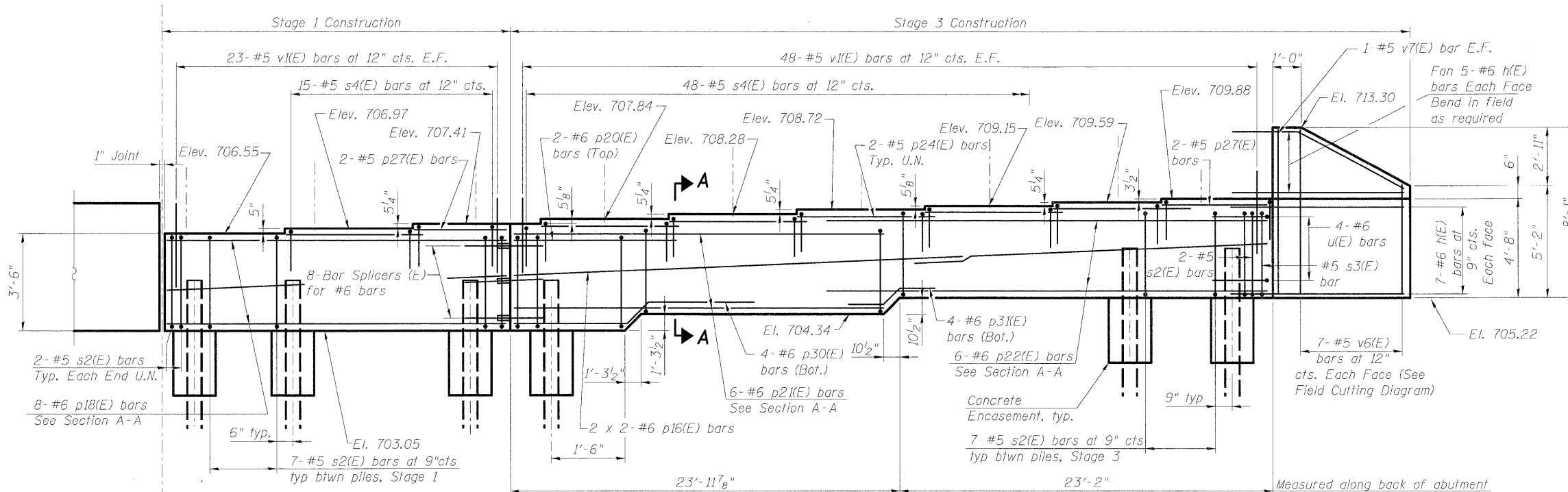
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CHECKED	MJL
DRAWN	PMH
CHECKED	MJL



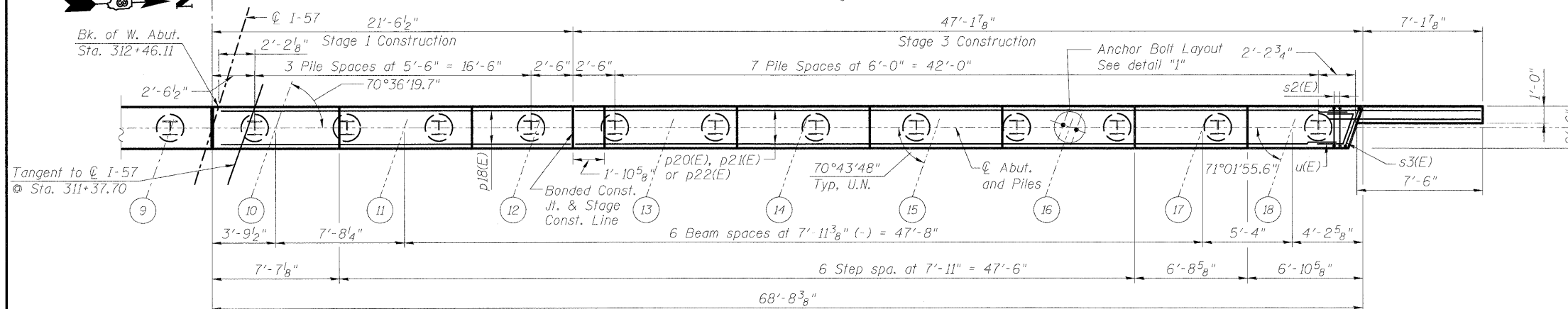
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Engineers / Architects
130 East Randolph Street
Chicago, Illinois 60601
(312) 946-8600

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SH-40	57	(46-2) HBR	KANKAKEE	558	311
SHEETS					
SH-56					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

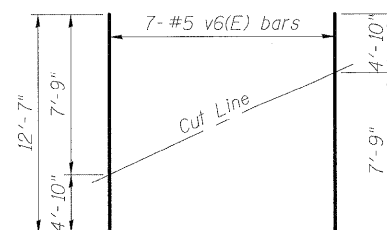
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



WEST ABUTMENT ELEVATION (NB)
(Looking East)



PLAN

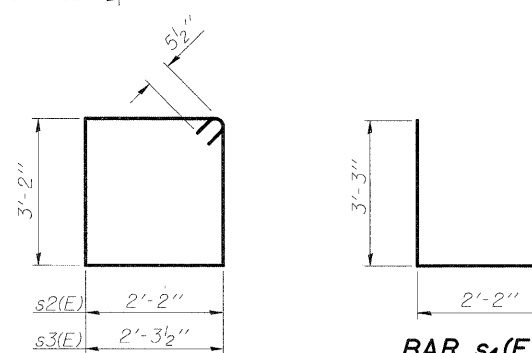


FIELD CUTTING DIAGRAM

Order v6(E) full length. Cut as shown and use remainder of bars in opposite face.

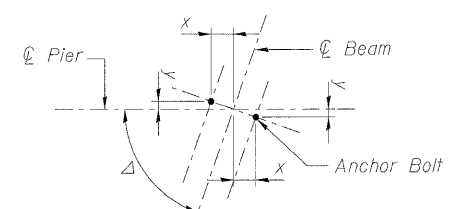
Notes:
Pour steps monolithically with cap.
For details of Bar Splicers, see Sht. SH-51.
For details of piles and Concrete Encasement, see Sht. SH-52.
Bars indicated thus 2 x 2-#6 etc. indicates 2 lines of bars with 2 lengths per line.

For Section A-A see Sht. SH-40.



BARS s2(E) & s3(E)

BAR s4(E)



Beam No.	Δ	x	y
10	70°36'19.7"	4 3/4"	1 5/8"
11 thru 17	70°43'48"	4 3/4"	1 5/8"
18	71°01'55.6"	4 3/4"	1 5/8"

DETAIL "1"
ANCHOR BOLT LAYOUT

WEST ABUTMENT & DETAILS (NB)
STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)

BILL OF MATERIAL						
Bar	Stage 1 No.	Stage 2 No.	Stage 3 No.	Size	Length	Shape
h(E)		20	24	#6	12'-4"	
p16(E)		6	4	#6	25'-5"	
p17(E)	8			#6	19'-2"	
p18(E)	8			#6	21'-2"	
p19(E)		6		#6	25'-4"	
p20(E)	2		2	#6	7'-7"	
p21(E)		6		#6	23'-8"	
p22(E)		6		#6	27'-5"	
p23(E)		4		#6	22'-0"	
p24(E)	6	8	10	#5	10'-11"	
p25(E)		2		#5	9'-7"	
p26(E)	2			#5	5'-3"	
p27(E)	2		2	#5	5'-7"	
p28(E)	4			#6	9'-2"	
p29(E)		4		#6	10'-0"	
p30(E)			4	#6	9'-6"	
p31(E)			4	#6	7'-9"	
s2(E)	47	53	53	#5	11'-7"	
s3(E)		1	1	#5	11'-10"	
s4(E)	36	35	48	#5	8'-8"	
u(E)		4	4	#6	10'-5"	
v1(E)	88	96	96	#5	4'-4"	
v2(E)		7		#5	10'-0"	
v4(E)		2		#5	6'-4"	
v6(E)			7	#5	12'-7"	
v7(E)			2	#5	7'-9"	
Structure Excavation				Cu. Yd.	346	
Reinforcement Bars, Epoxy Coated				Pound	7,630	
Concrete Structures				Cu. Yd.	54	
Concrete Encasement				Cu. Yd.	8	
Furnishing Steel Piles, HP 10x57				Foot	1,078	
Driving Piles				Foot	1,078	
Test Pile Steel HP 10 x 57				Each	1	
Pile Shoes				Each	23	

DESIGNED	PMH
CHECKED	MJL
DRAWN	PMH
CHECKED	MJL

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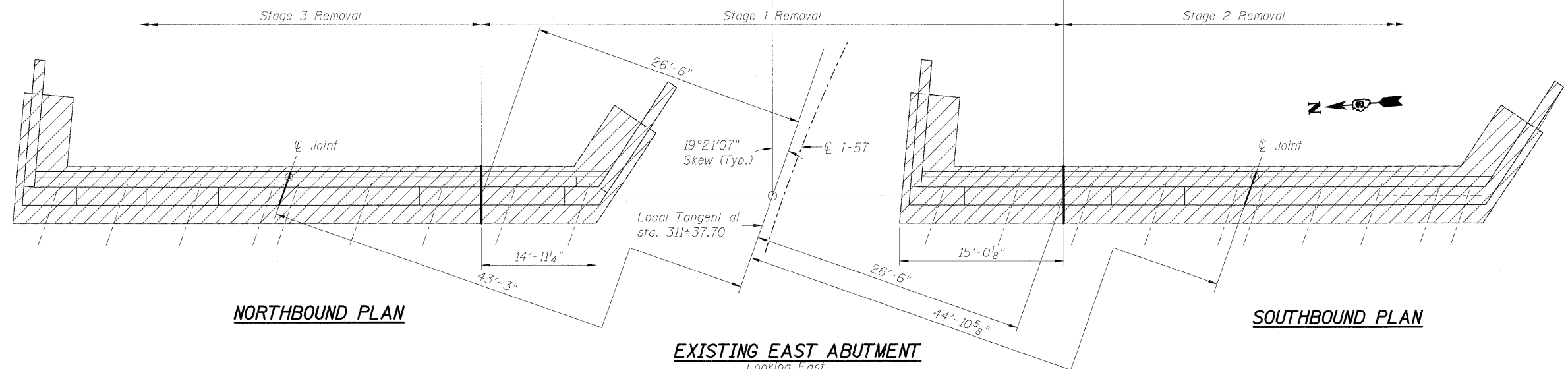
SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SH-41 SHEETS SH-56	57	(46-2) HBR	KANKAKEE	558	312
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



NORTHBOUND ELEVATION

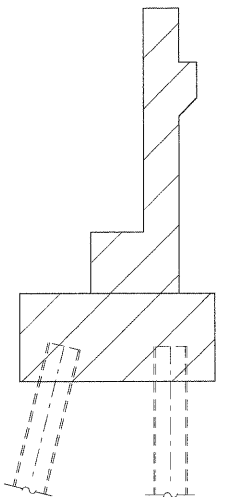
SOUTHBOUND ELEVATION



NORTHBOUND PLAN

SOUTHBOUND PLAN

EXISTING EAST ABUTMENT
Looking East

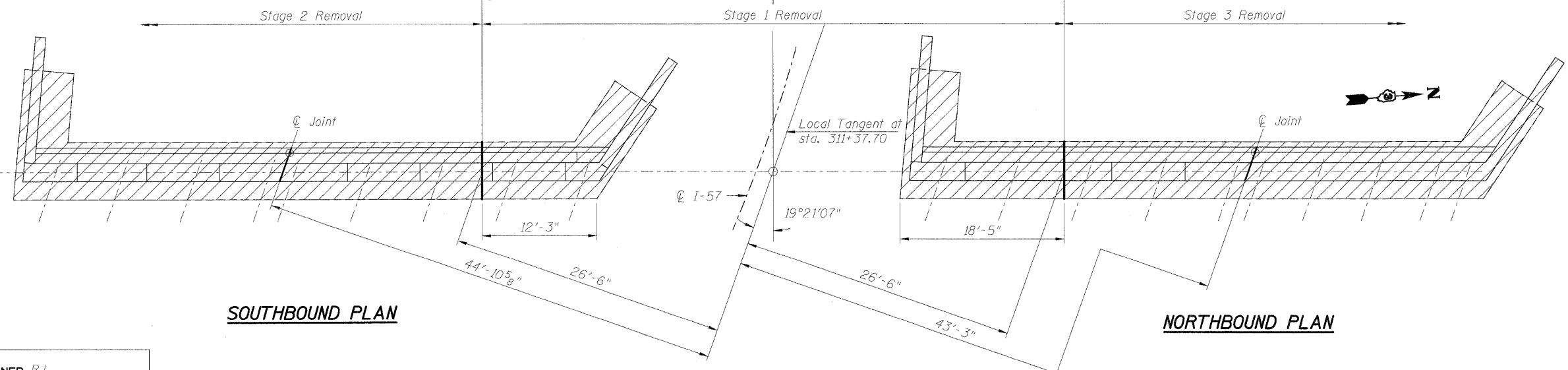


SECTION THRU ABUTMENT



SOUTHBOUND ELEVATION

NORTHBOUND ELEVATION



SOUTHBOUND PLAN

NORTHBOUND PLAN

EXISTING WEST ABUTMENT
Looking West

LEGEND

 Concrete Removal

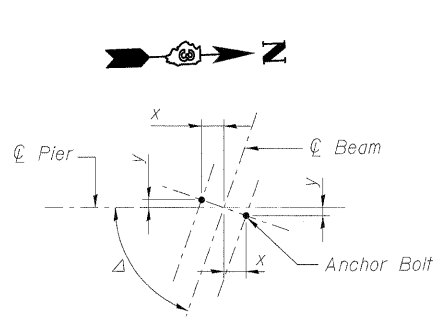
DESIGNED	RJ
CHECKED	PMH
DRAWN	RJ
CHECKED	PMH



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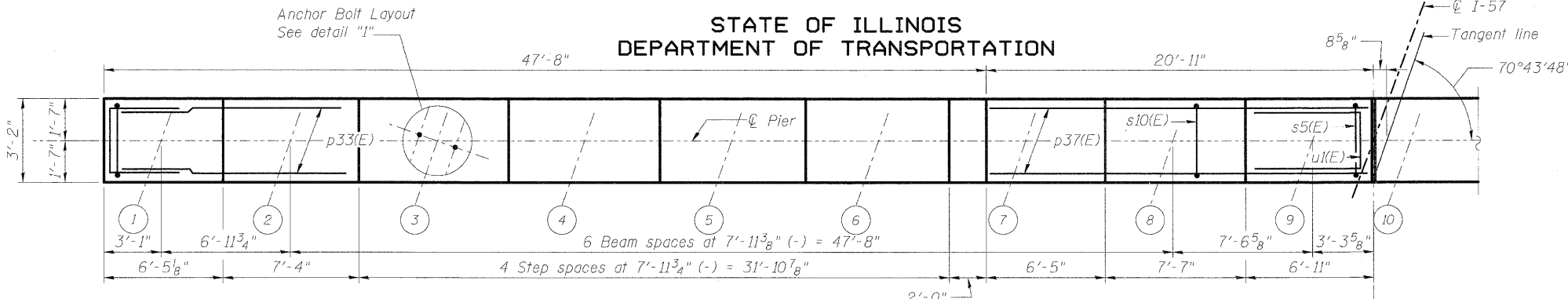
SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SH-42	57	(46-2) HBR	KANKAKEE	558	313
SH-56					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

EAST AND WEST ABUTMENT REMOVAL
STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)



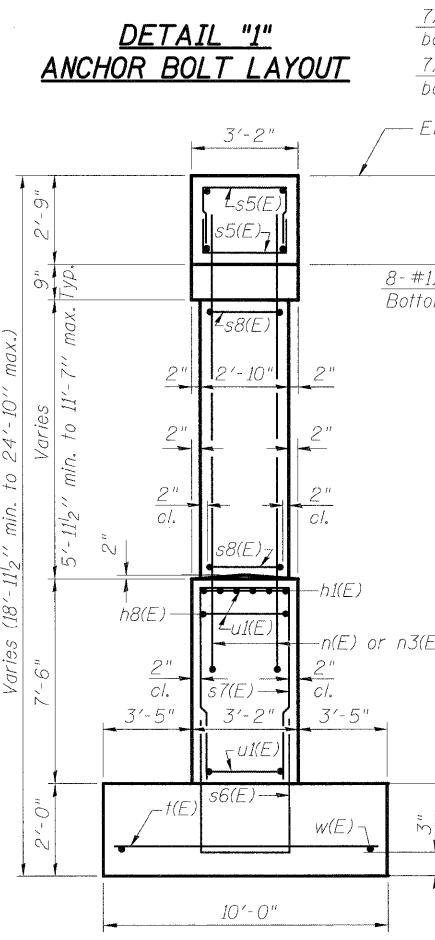
Beam No.	Δ	x	y
1	70°8'28.5"	11 1/2"	4 1/8"
2 thru 8	70°43'48"	11 5/8"	4"
9	70°36'19.7"	11 1/2"	4 1/8"

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

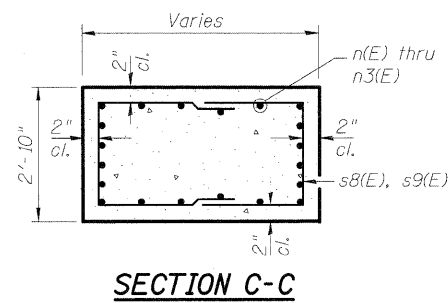


TOP PLAN

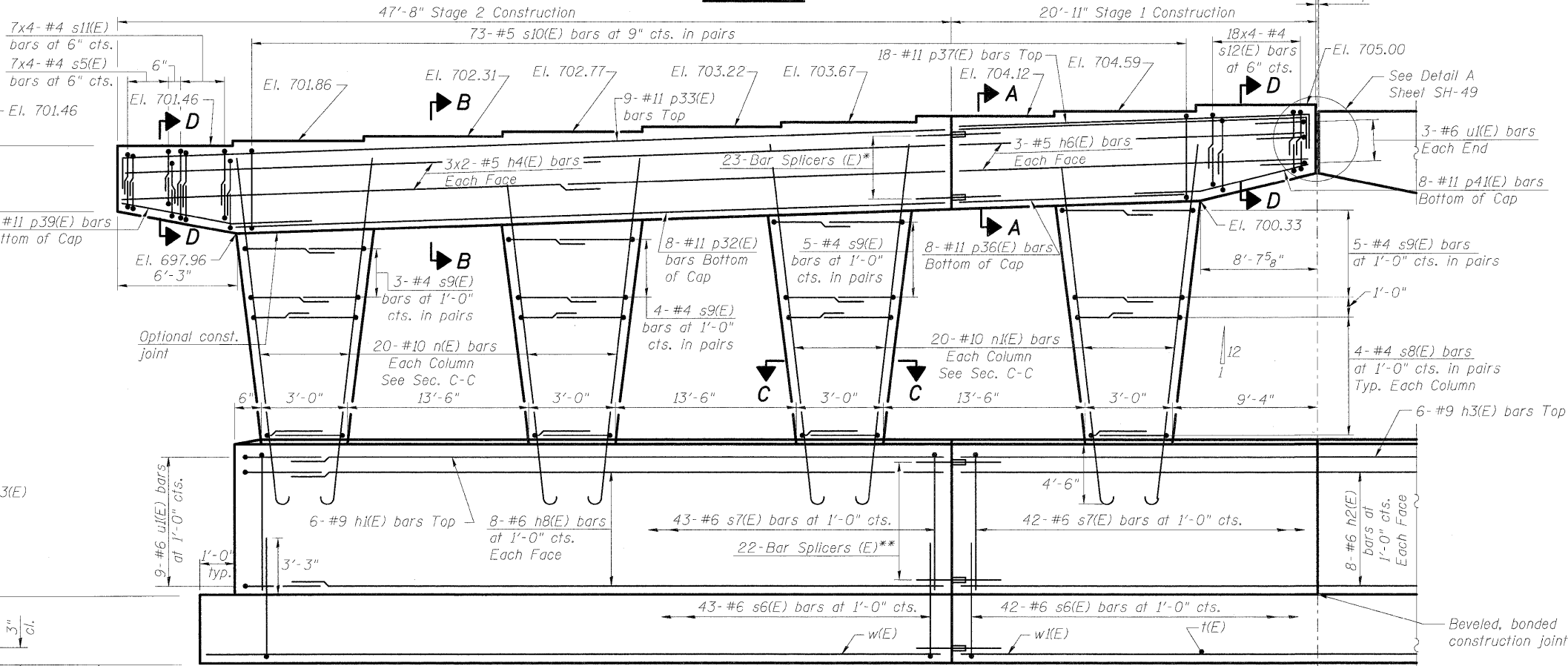
**DETAIL "1"
ANCHOR BOLT LAYOUT**



END VIEW



SECTION C-C



**ELEVATION
(Looking West)**

*9 for #11 bars (Top)
8 for #11 bars (Bot.)
6 for #5 bars

**6 for #9 bars (Top)
16 for #6 bars

MINIMUM BAR LAP

Top bars (Pier)
#5 bar = 2'-11"

Other bars
#4 bar = 2'-1"
#6 bar = 3'-1"

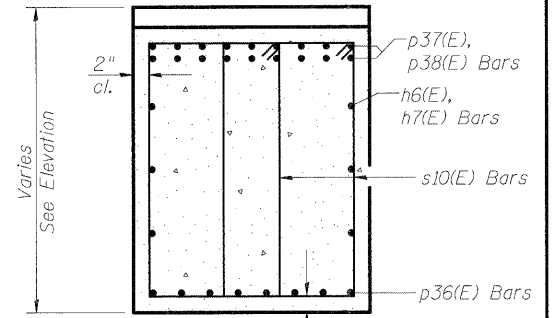
FOOTING PLAN

Maximum Applied Service Bearing Pressure = 3.71 ksf

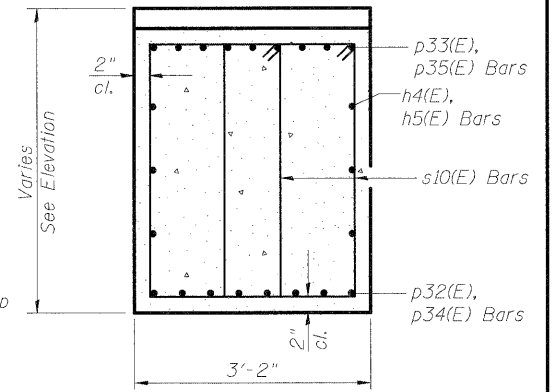
Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For Bill of Material, see Sheet SH-44.



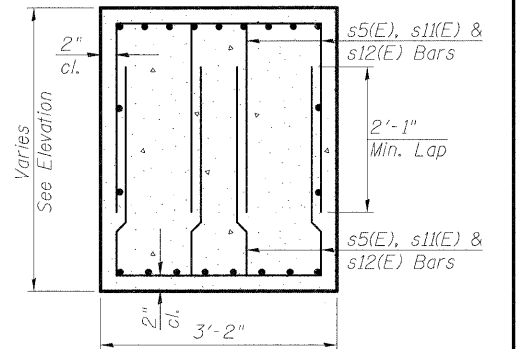
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(312) 946-8600



SECTION A-A



SECTION B-B



**SECTION D-D
Typ. Each End**

PIER 1 (SB)

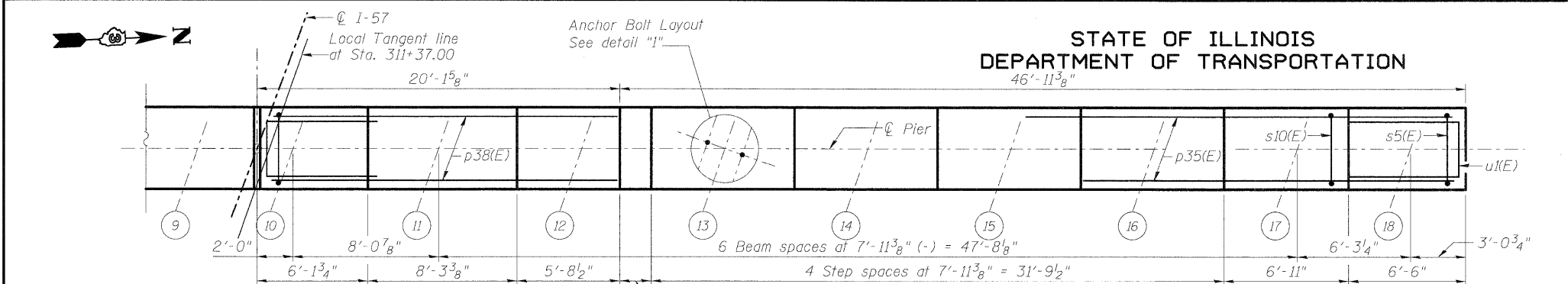
**STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)**

DESIGNED	PMH
CHECKED	MGB
DRAWN	PMH
CHECKED	MJL

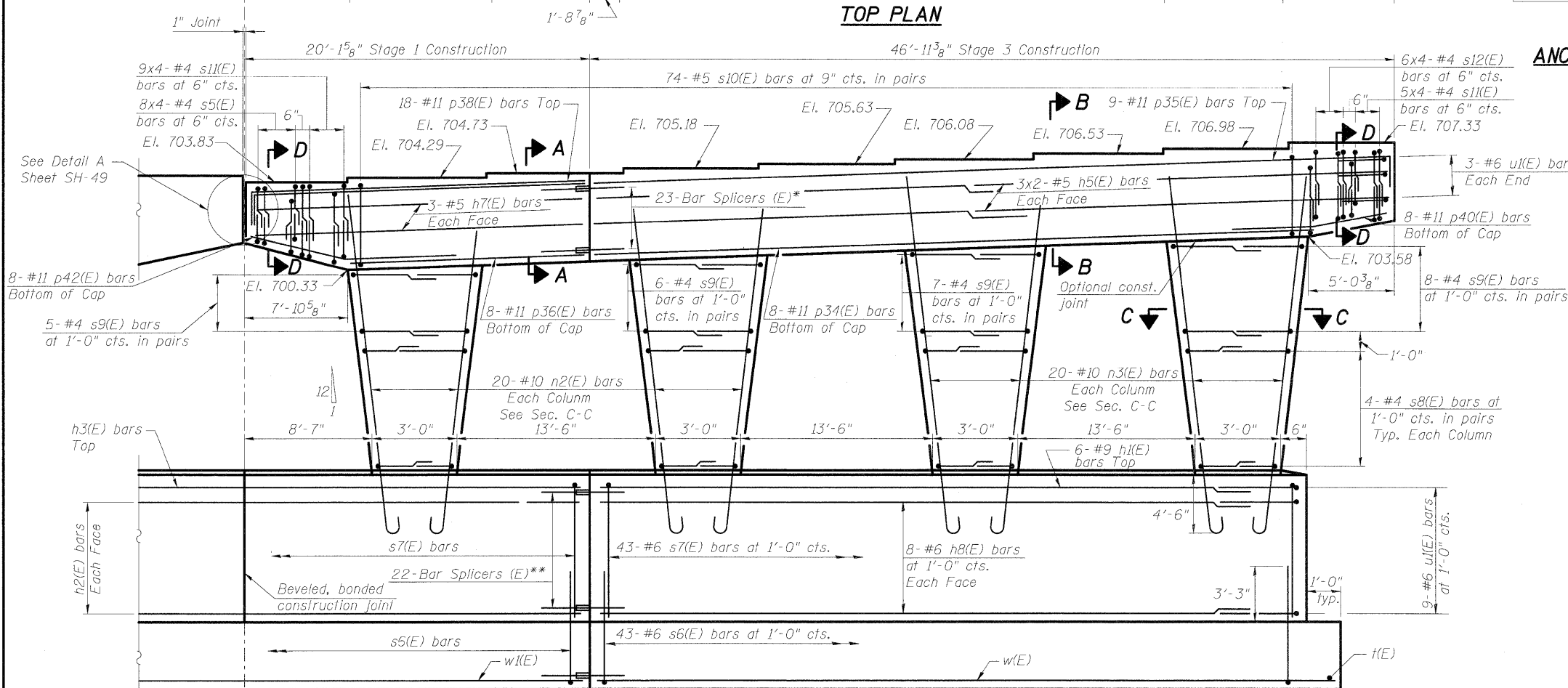
SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SH-43	57	(46-2) HBR	KANKAKEE	558	314
SHEETS					
SH-56					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

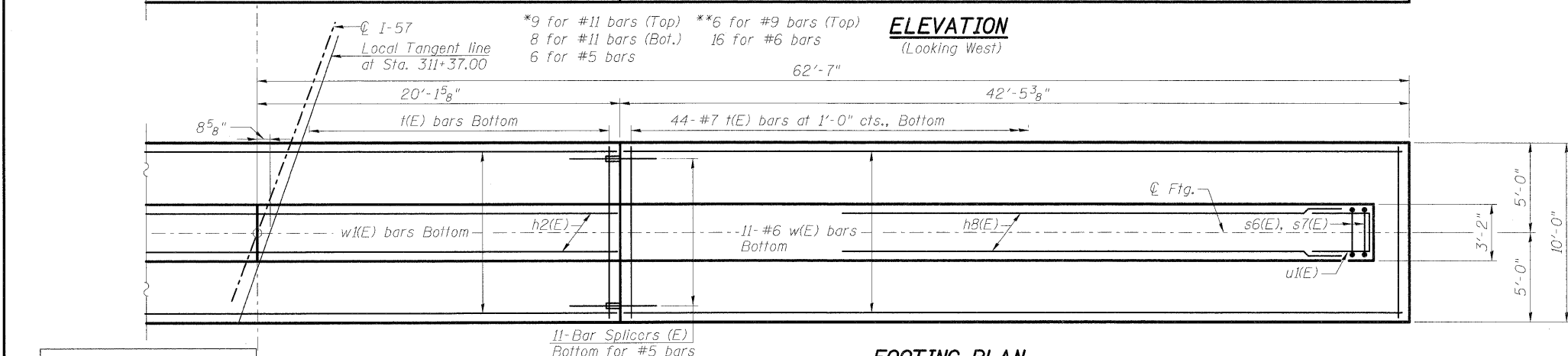


TOP PLAN



ELEVATION

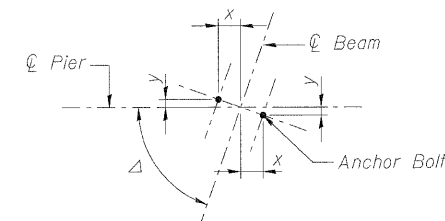
(Looking West)



FOOTING PLAN

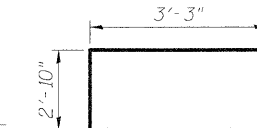
Maximum Applied Service Bearing Pressure = 3.71 ksf

Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For Sections A-A, B-B, C-C and D-D and End
View see Sheet SH-43.

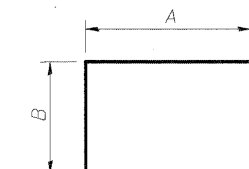


DETAIL "I"
ANCHOR BOLT LAYOUT

Beam No.	Δ	x	y
10	70°36'19.7"	11 1/2"	4 1/8"
11 thru 17	70°43'48"	11 5/8"	4"
18	70°1'55.6"	11 1/2"	4 1/8"



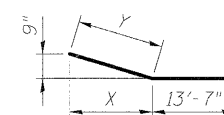
BAR u1(E)



BARS s5(E), s6(E),
s7(E), s8(E) & s9(E)

A & B DIMENSIONS

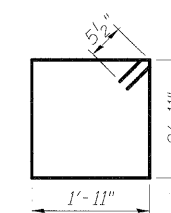
Bar	A	B
s5(E)	2'-10"	2'-5"
s6(E)	2'-10"	5'-0"
s7(E)	2'-10"	7'-2"
s8(E)	2'-6"	2'-8"
s9(E)	2'-6"	3'-4"
s11(E)	2'-10"	2'-8"
s12(E)	2'-10"	3'-0"



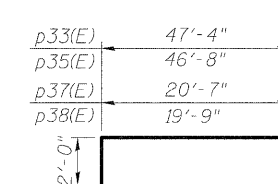
BARS p39(E), p40(E),
p41(E) & p42(E)

X & Y DIMENSIONS

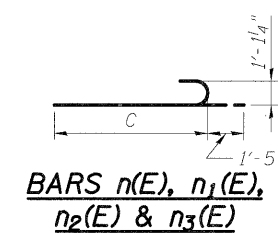
Bar	X	Y
p39(E)	6'-0 1/2"	6'-1"
p40(E)	4'-10 1/4"	4'-11"
p41(E)	8'-4 3/8"	8'-5"
p42(E)	7'-7 1/2"	7'-8"



BAR s10(E)



BARS p33(E), p35(E),
p37(E) & p38(E)



C DIMENSIONS

Bar	C
n(E)	13'-5"
n1(E)	15'-8"
n2(E)	16'-3"
n3(E)	17'-7"

PIER 1 (NB)

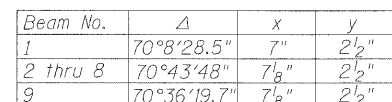
STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)

DESIGNED	PMH
CHECKED	MGB
DRAWN	PMH
CHECKED	MJL

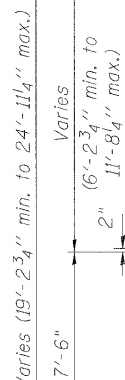


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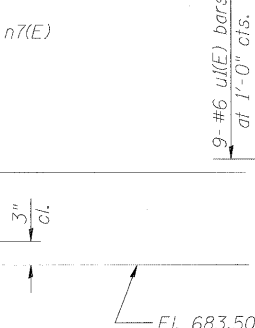
SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SH-44	57	(46-2) HBR	KANKAKEE	558	315
SHEETS					
SH-56					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					



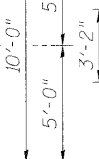
6x4- #4 s11(E)
bars at 6" cts.
6x4- #4 s5(E)
bars at 6" cts.



DESIGNED	PMH
CHECKED	MGB
DRAWN	PMH
CHECKED	MJI



*9 for #11 bars (Top) **6 for #9 bars (Top)
8 for #11 bars (Bot.) 16 for #6 bars
6 for #5 bars

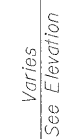


<u>Top bars</u>	(Pier)	<u>Other bars</u>
#5 bar = 2'-11"		#4 bar = 2'-1"
		#6 bar = 3'-1"

Maximum Applied Service Bearing Pressure = 3.53 ksf



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Varies
See Elevation

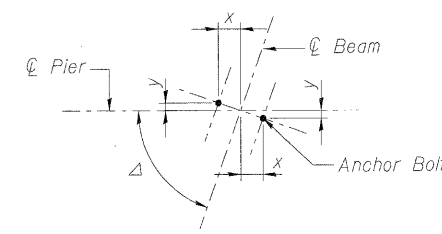
Varia

Notes:
 Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 For Bill of Material, see Sheet SH-46.

STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)

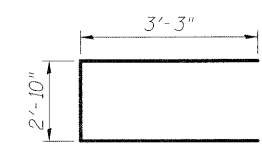
SHEET NO. SH-45 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	(46-2) HBR	KANKAKEE	558	316
				CONTRACT NO. 66409	
SH-56	FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT		

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DEPARTMENT OF TRANSPORTATION

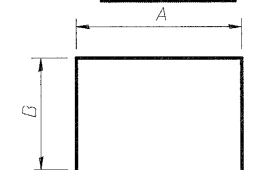


Beam No.	Δ	X	Y
10	70°36'19.7"	7'8"	2'2"
11 thru 17	70°43'48"	7'8"	2'2"
18	70°1'55.6"	7'8"	2'2"

DETAIL "I"
ANCHOR BOLT LAYOUT



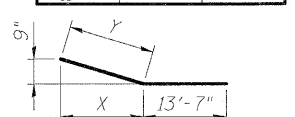
BAR u1(E)



BARS s5(E), s6(E),
s7(E), s8(E) & s9(E)

A & B DIMENSIONS

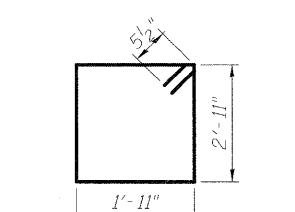
Bar	A	B
s5(E)	2'-10"	2'-5"
s6(E)	2'-10"	5'-0"
s7(E)	2'-10"	7'-2"
s8(E)	2'-6"	2'-8"
s9(E)	2'-6"	3'-4"
s10(E)	2'-10"	2'-8"
s11(E)	2'-10"	3'-0"
s12(E)	2'-6"	4'-7"
s13(E)	2'-6"	4'-7"



BARS p49(E), p50(E),
p51(E) & p52(E)

X & Y DIMENSIONS

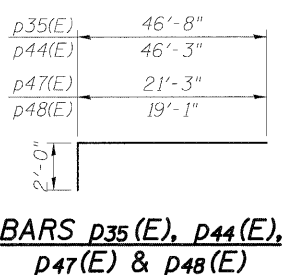
Bar	X	Y
p49(E)	5'-3'8"	5'-4"
p50(E)	4'-5'4"	4'-6"
p51(E)	9'-1'8"	9'-2"
p52(E)	6'-10'2"	6'-11"



BAR s10(E)

PIER 2 BILL OF MATERIAL

Bar	Stage 1 No.	Stage 2 No.	Stage 3 No.	Size	Length	Shape
h1(E)		6	6	#9	41'-1"	
h2(E)	16			#6	40'-9"	
h3(E)	6			#9	40'-9"	
h4(E)		16	16	#6	41'-1"	
h5(E)		12	12	#5	25'-1"	
h6(E)	6			#5	21'-3"	
h7(E)	6			#5	19'-1"	
p35(E)		40		#10	15'-1"	
p43(E)	20	20		#10	17'-3"	
p44(E)	20		20	#10	17'-10"	
p45(E)			40	#10	19'-7"	
p46(E)		9		#11	18'-8"	
p47(E)		8		#11	41'-4"	
p48(E)			9	#11	48'-3"	
p49(E)			8	#11	41'-9"	
p50(E)	16			#11	12'-1"	
p51(E)	18			#11	23'-3"	
p52(E)	18			#11	21'-1"	
p53(E)		8		#11	18'-11"	
p54(E)			8	#11	18'-1"	
p55(E)	8			#11	22'-9"	
p56(E)	8			#11	20'-6"	
s5(E)	28	24		#4	7'-8"	
s6(E)	42	43	43	#6	12'-10"	
s7(E)	42	43	43	#6	17'-2"	
s8(E)	16	24	24	#4	7'-10"	
s9(E)	22	24	46	#4	9'-2"	
s10(E)	68	112	114	#5	10'-7"	
s11(E)	32	24	20	#4	8'-2"	
s12(E)	80		24	#4	8'-10"	
s13(E)			2	#4	11'-8"	
t(E)	42	44	44	#7	9'-8"	
u1(E)	6	12	12	#6	9'-4"	
w(F)		11	11	#6	42'-1"	
w1(E)	11			#7	40'-9"	
Braced Excavation				Cu. Yd.	868	
Reinforcement Bars, Epoxy Coated				Pound	51,710	
Concrete Structures				Cu. Yd.	291	



BARS p35(E), p44(E),
p47(E) & p48(E)

BARS n4(E), n5(E),
n6(E) & n7(E)

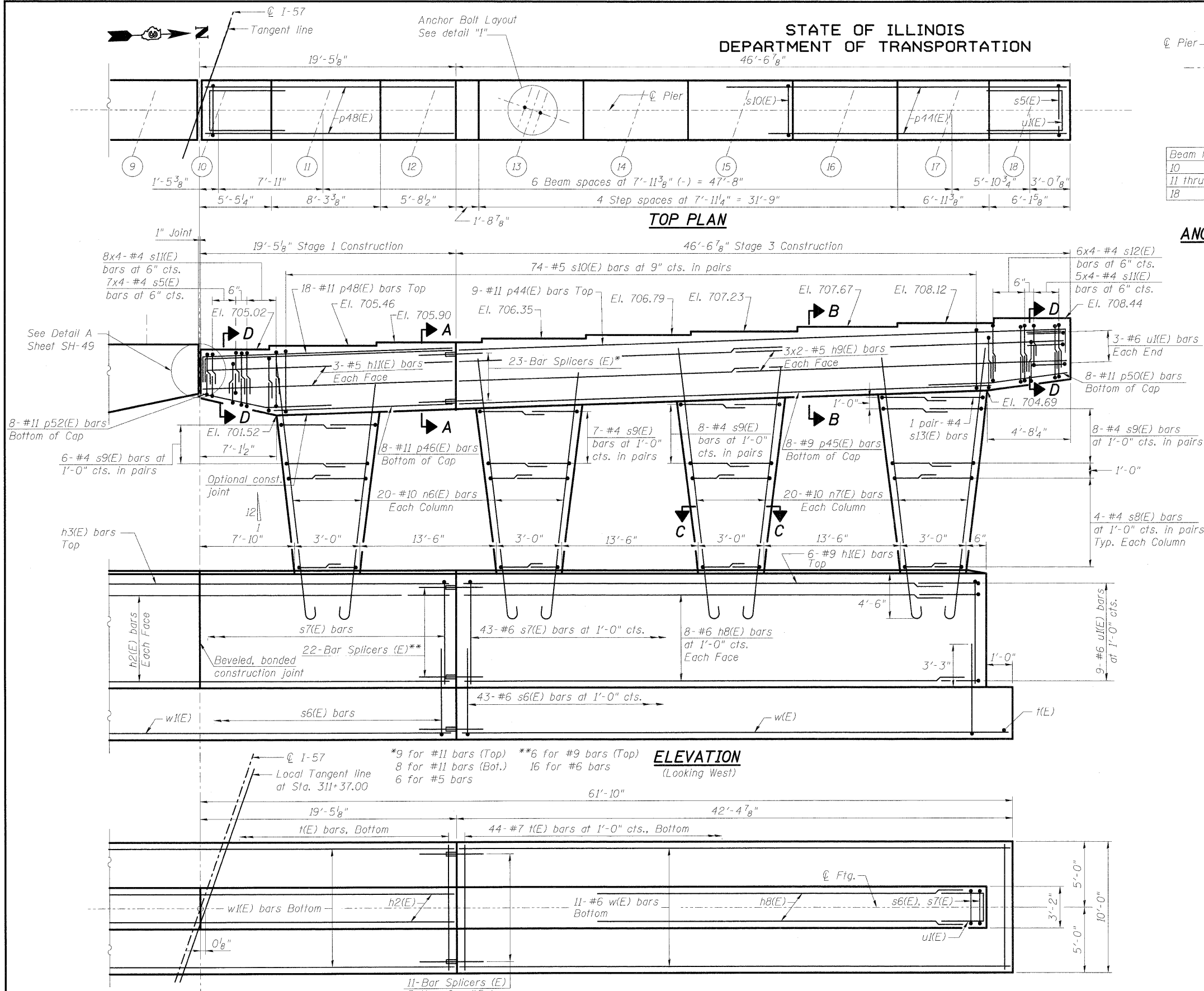
C DIMENSIONS

Bar	C
n4(E)	13'-8"
n5(E)	15'-10"
n6(E)	16'-5"
n7(E)	18'-2"

PIER 2 (NB)

STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SH-46	57	(46-2) HBR	KANKAKEE	558	317
SHEETS					
SH-56					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					



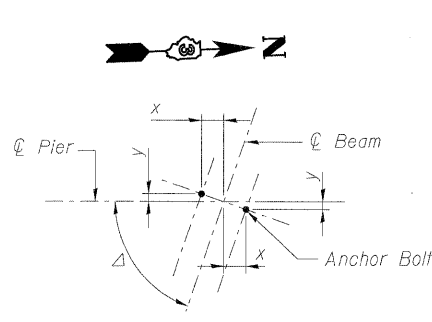
FOOTING PLAN

Maximum Applied Service Bearing Pressure = 3.53 ksf

Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For Sections A-A, B-B, C-C and D-D and End
View see sheet SH-45.

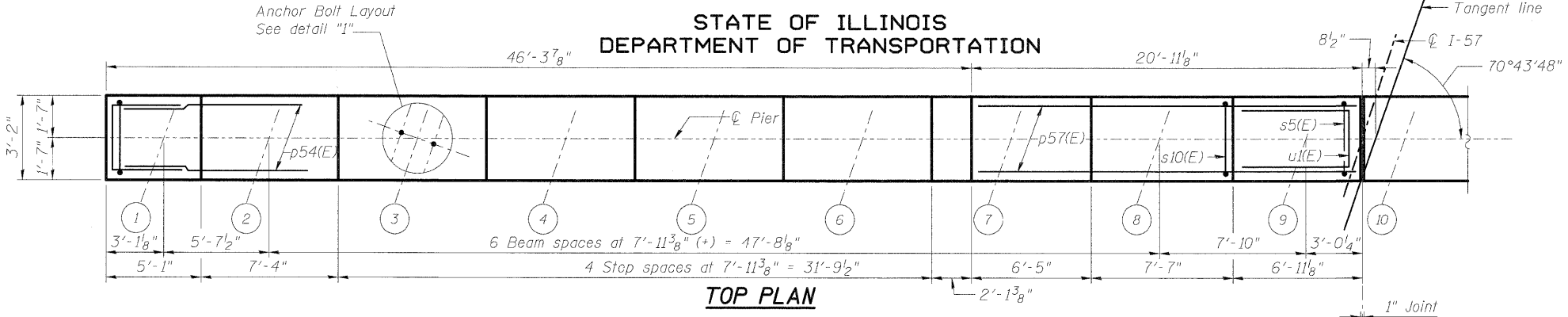
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(312) 946-8600

DESIGNED	PMH
CHECKED	MGB
DRAWN	PMH
CHECKED	MJL



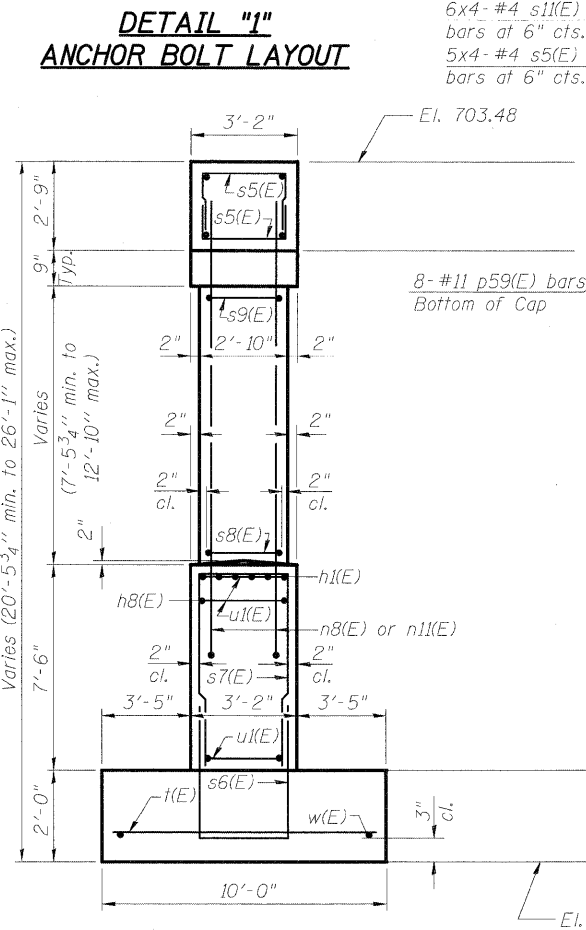
Beam No.	Δ	X	Y
1	70°8'28.5"	10 ³ / ₈ "	3 ³ / ₄ "
2 thru 8	70°43'48"	10 ³ / ₈ "	3 ⁵ / ₈ "
9	70°36'19.7"	10 ³ / ₈ "	3 ⁵ / ₈ "

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

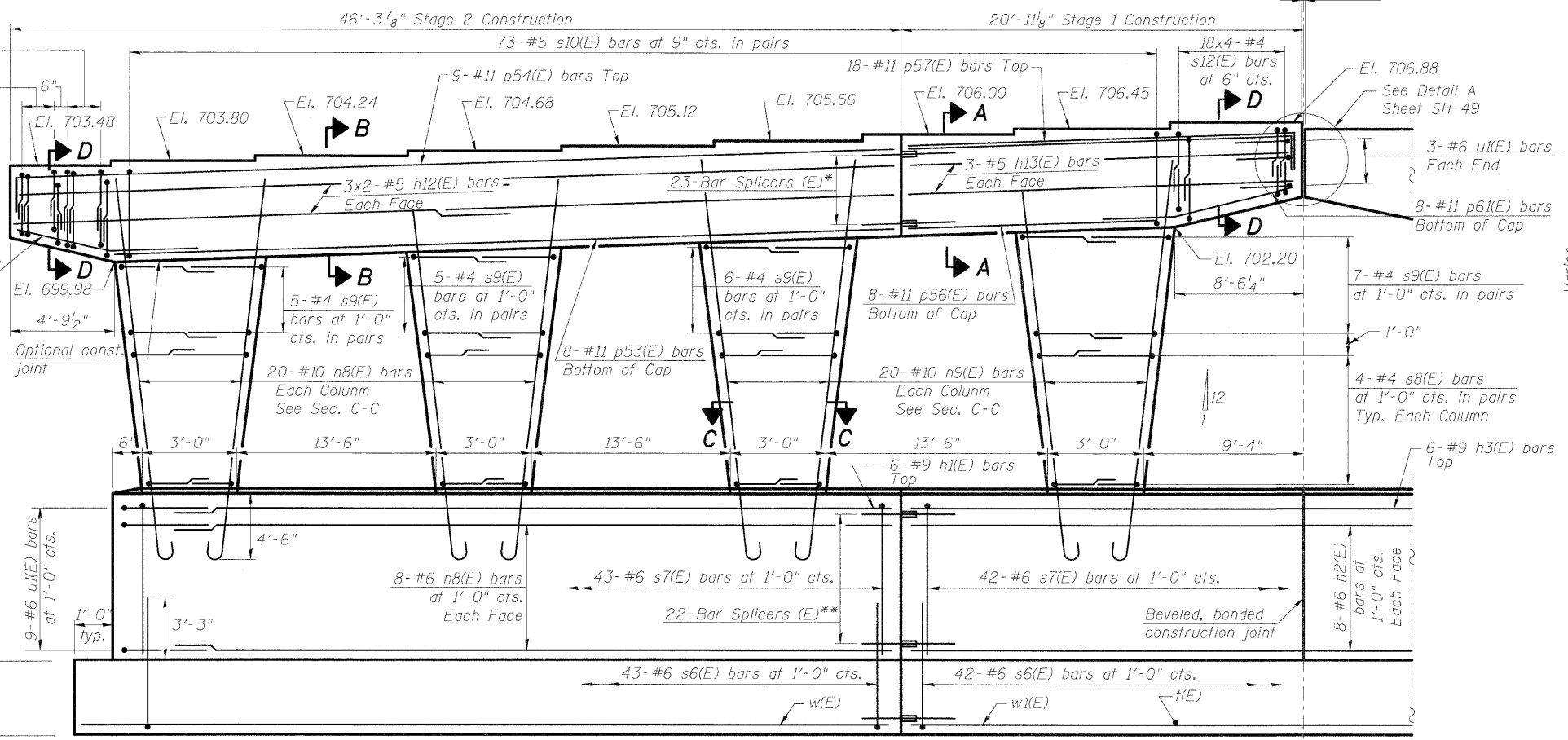


TOP PLAN

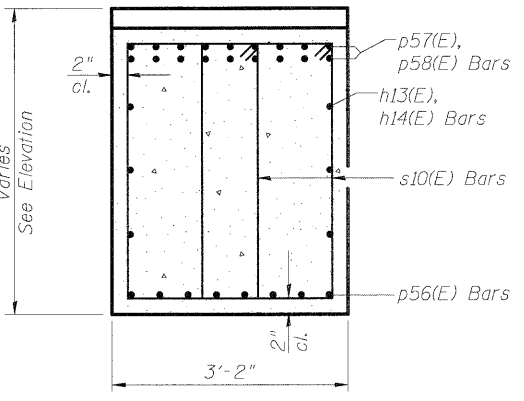
**DETAIL "1"
ANCHOR BOLT LAYOUT**



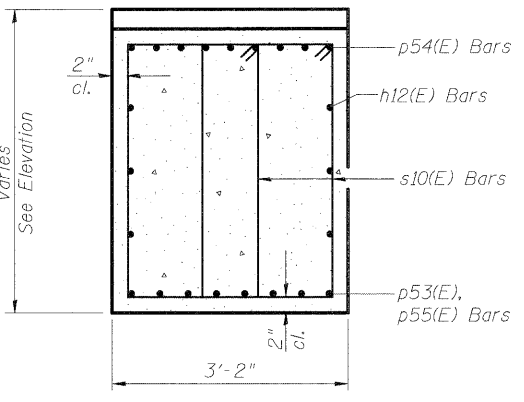
END VIEW



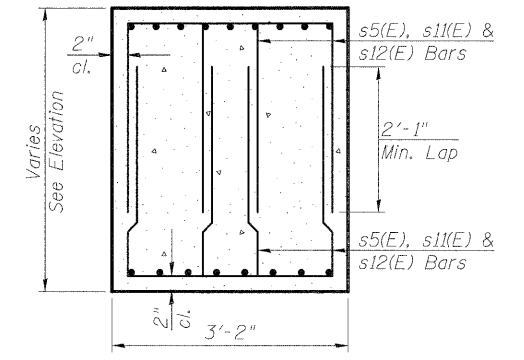
**ELEVATION
(Looking West)**



SECTION A-A



SECTION B-B



**SECTION D-D
Typ. Each End**

Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For Bill of Material, see Sheet SH-48.

**PIER 3 (SB)
STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)**

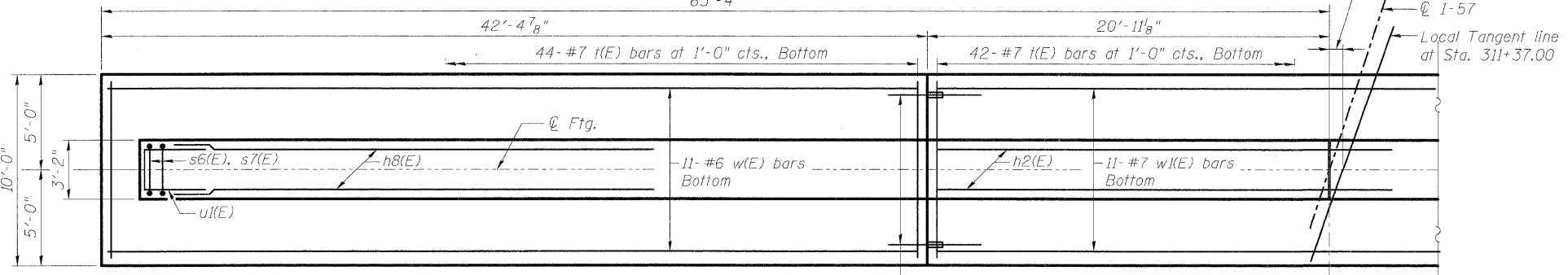
DESIGNED	PMH
CHECKED	MGB
DRAWN	PMH
CHECKED	MJL

MINIMUM BAR LAP

Top bars (Pier)
#5 bar = 2'-11"
Other bars
#4 bar = 2'-1"
#6 bar = 3'-1"

FOOTING PLAN

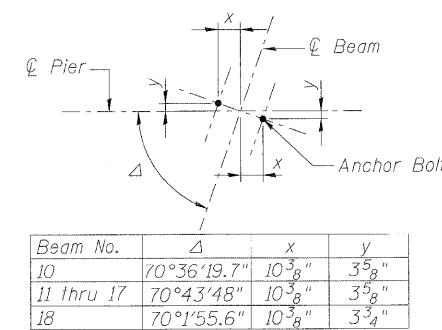
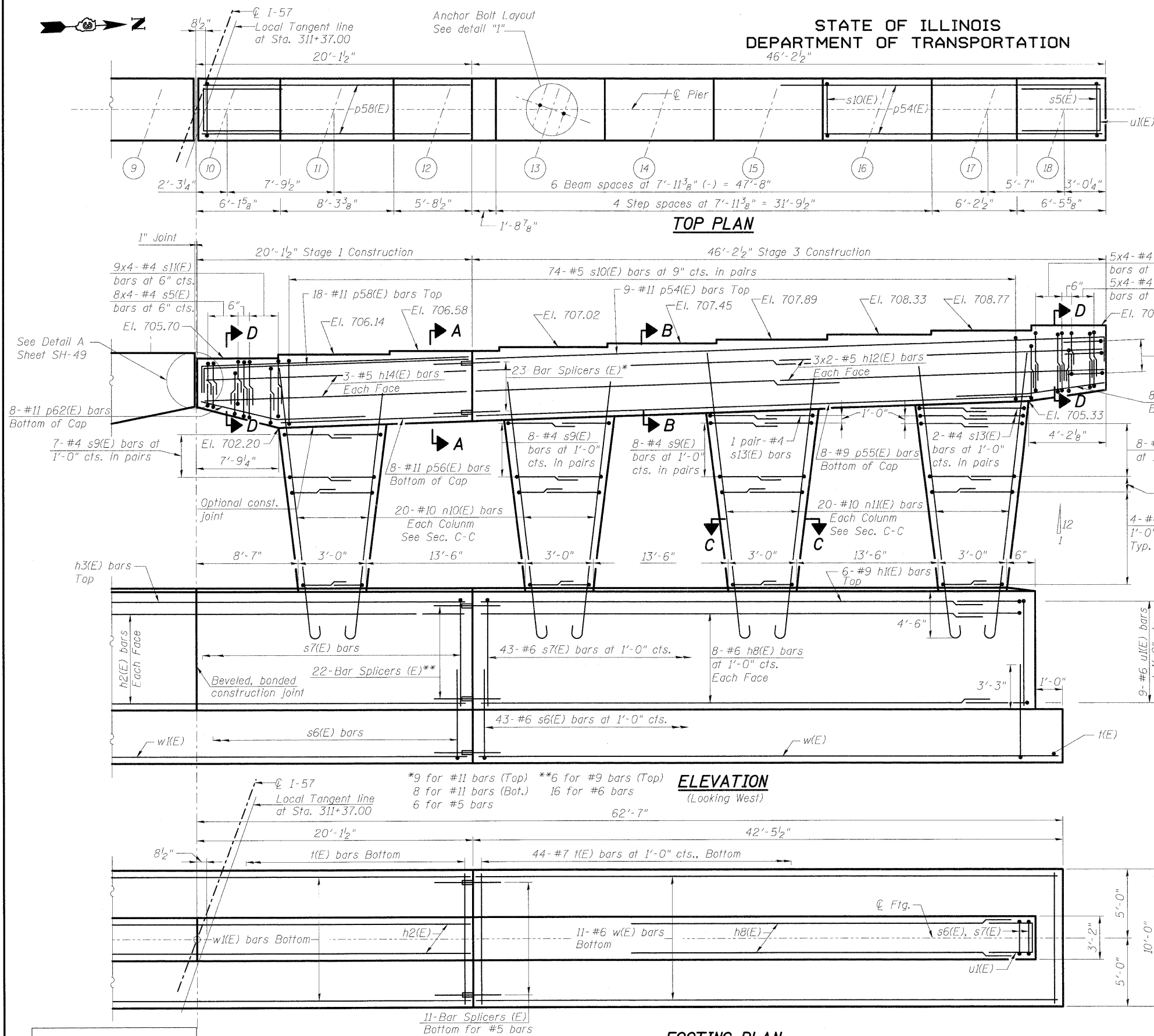
Maximum Applied Service Bearing Pressure = 3.71 ksf



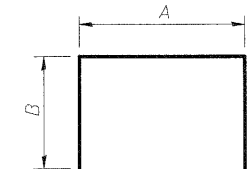
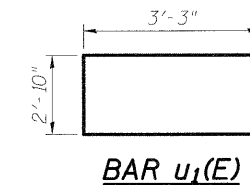
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Engineers / Architects
130 East Randolph Street
Chicago, Illinois 60601
(312) 946-8600

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SH-47	57	(46-2) HBR	KANKAKEE	558	318
SHEETS					
SH-56					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

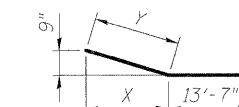


DETAIL "I"
ANCHOR BOLT LAYOUT



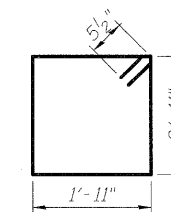
A & B DIMENSIONS

Bar	A	B
s ₅ (E)	2'-10"	2'-5"
s ₆ (E)	2'-10"	5'-0"
s ₇ (E)	2'-10"	7'-2"
s ₈ (E)	2'-6"	2'-8"
s ₉ (E)	2'-6"	3'-4"
s ₁₁ (E)	2'-10"	2'-8"
s ₁₂ (E)	2'-10"	3'-0"
s ₁₃ (E)	2'-6"	4'-7"



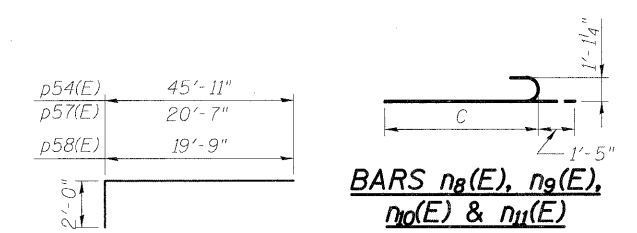
X & Y DIMENSIONS

Bar	X	Y
p ₅₉ (E)	4'-7 1/4"	4'-8"
p ₆₀ (E)	3'-11 1/8"	4'-0"
p ₆₁ (E)	8'-3 3/8"	8'-4"
p ₆₂ (E)	7'-6 1/2"	7'-7"



PIER 3 BILL OF MATERIAL

Bar	Stage 1 No.	Stage 2 No.	Stage 3 No.	Size	Length	Shape
h ₁ (E)		6	6	#9	41'-1"	
h ₂ (E)	16			#6	40'-9"	
h ₃ (E)	6			#9	40'-9"	
h ₄ (E)		16	16	#6	41'-1"	
h ₅ (E)		12	12	#5	24'-9"	
h ₆ (E)	6			#5	20'-7"	
h ₇ (E)	6			#5	19'-9"	
h ₈ (E)		40		#10	16'-4"	
h ₉ (E)	20	20		#10	18'-5"	
h ₁₀ (E)	20		20	#10	19'-0"	
h ₁₁ (E)			40	#10	20'-9"	
p ₅₃ (E)		8		#11	41'-5"	
p ₅₄ (E)		9	9	#11	47'-11"	
p ₅₅ (E)			8	#11	41'-11"	
p ₅₆ (E)	16			#11	12'-2"	
p ₅₇ (E)	18			#11	22'-7"	
p ₅₈ (E)	18			#11	21'-9"	
p ₅₉ (E)		8		#11	18'-3"	
p ₆₀ (E)			8	#11	17'-7"	
p ₆₁ (E)	8			#11	21'-11"	
p ₆₂ (E)	8			#11	21'-2"	
s ₅ (E)	32	20		#4	7'-8"	
s ₆ (E)	42	43	43	#6	12'-10"	
s ₇ (E)	42	43	43	#6	17'-2"	
s ₈ (E)	16	24	24	#4	7'-10"	
s ₉ (E)	28	32	48	#4	9'-2"	
s ₁₀ (E)	68	112	114	#5	10'-7"	
s ₁₁ (E)	36	24	20	#4	8'-2"	
s ₁₂ (E)	72		20	#4	8'-10"	
s ₁₃ (E)			6	#4	11'-8"	
t(E)	42	44	44	#7	9'-8"	
u ₁ (E)	6	12	12	#6	9'-4"	
w(E)		11	11	#6	42'-1"	
w ₁ (E)	11			#7	40'-9"	
Braced Excavation				Cu. Yd.	982	
Reinforcement Bars, Epoxy Coated				Pound	52,510	
Concrete Structures				Cu. Yd.	295	



BARS p₅₄(E), p₅₇(E) & p₅₈(E)

C DIMENSIONS

Bar	C
n ₈ (E)	14'-11"
n ₉ (E)	17'-0"
n ₁₀ (E)	17'-7"
n ₁₁ (E)	19'-4"

PIER 3 (NB)
STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)

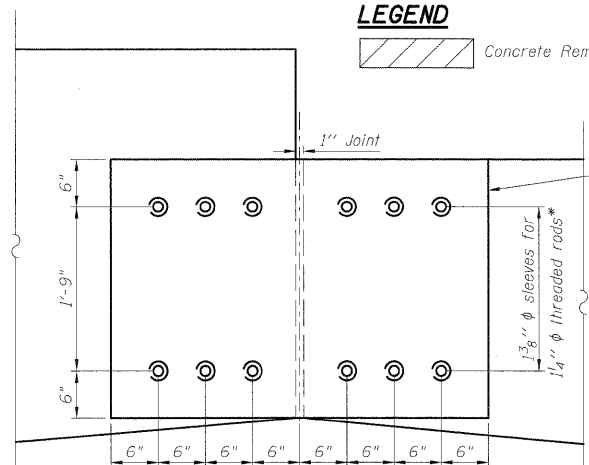
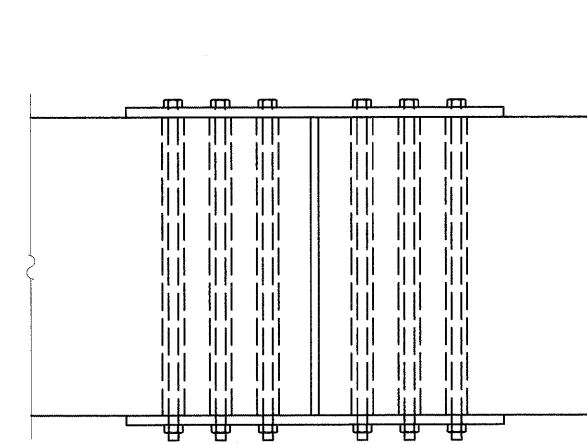
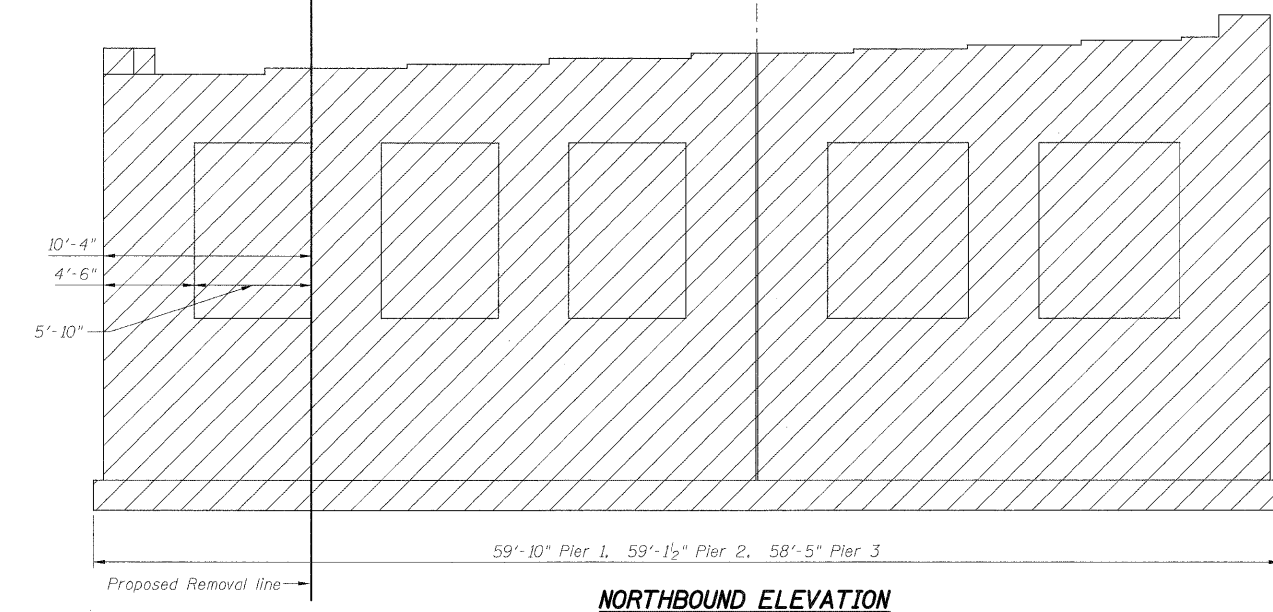
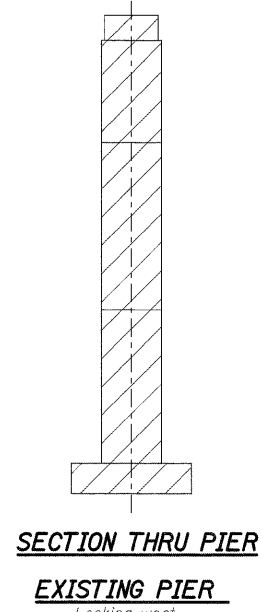
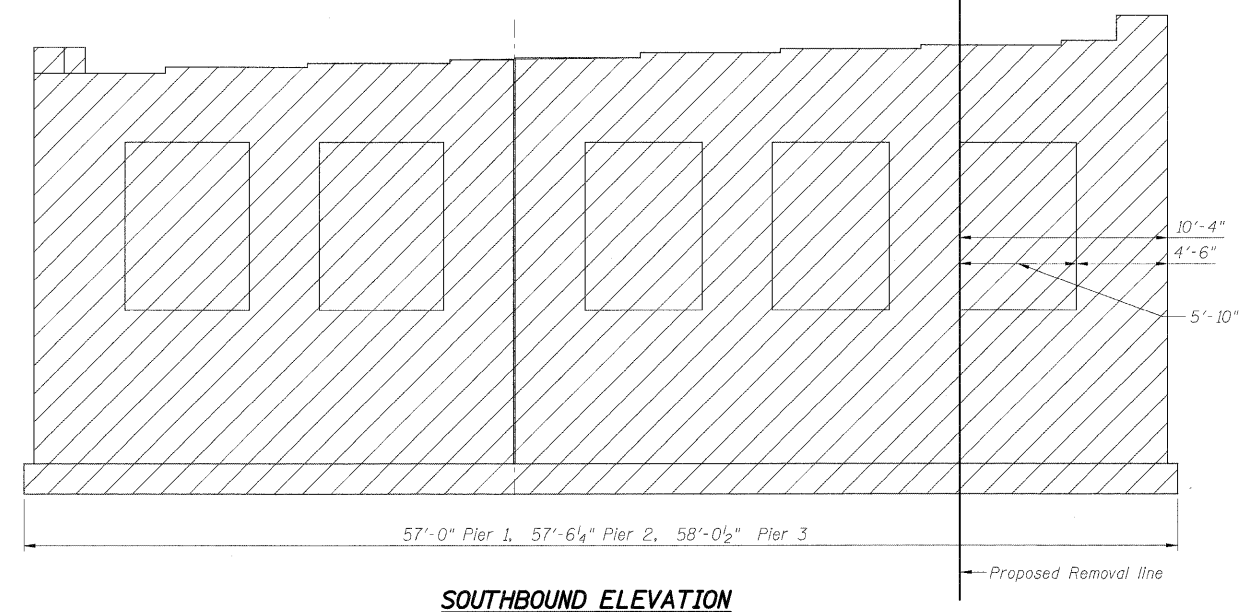
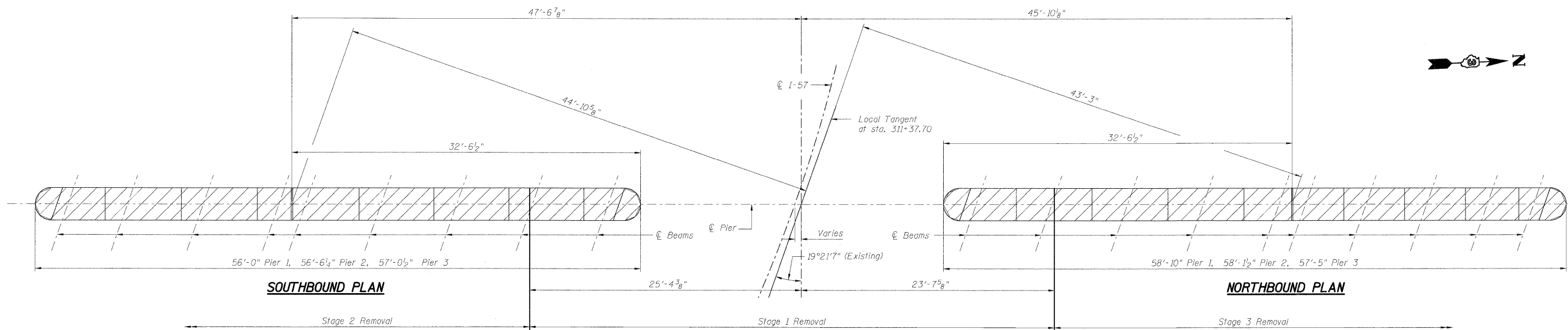
DESIGNED	PMH
CHECKED	MGB
DRAWN	PMH
CHECKED	MJL

Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For Sections A-A, B-B, C-C and D-D and End View see Sheet SH-47.

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130 East Randolph Street
Chicago, Illinois 60601
(312) 946-8600

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SH-48	57	(46-2) HBR	KANKAKEE	558	319
SHEETS					
SH-56					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Note A:
Plates to be installed in Stage 1 and removed after Stage 3 Piers are in place and the concrete has attained a compressive strength of 3,500 psi.
Sleeves shall be filled with epoxy grout.
Cost of furnishing & installing the plates, sleeves & rods shall be included with the cost of "Furnishing and Erecting Structural Steel."
Cost of filling the sleeves with epoxy grout shall be included in the item "Concrete Structures."

PIERS 1, 2 AND 3 REMOVAL
STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)

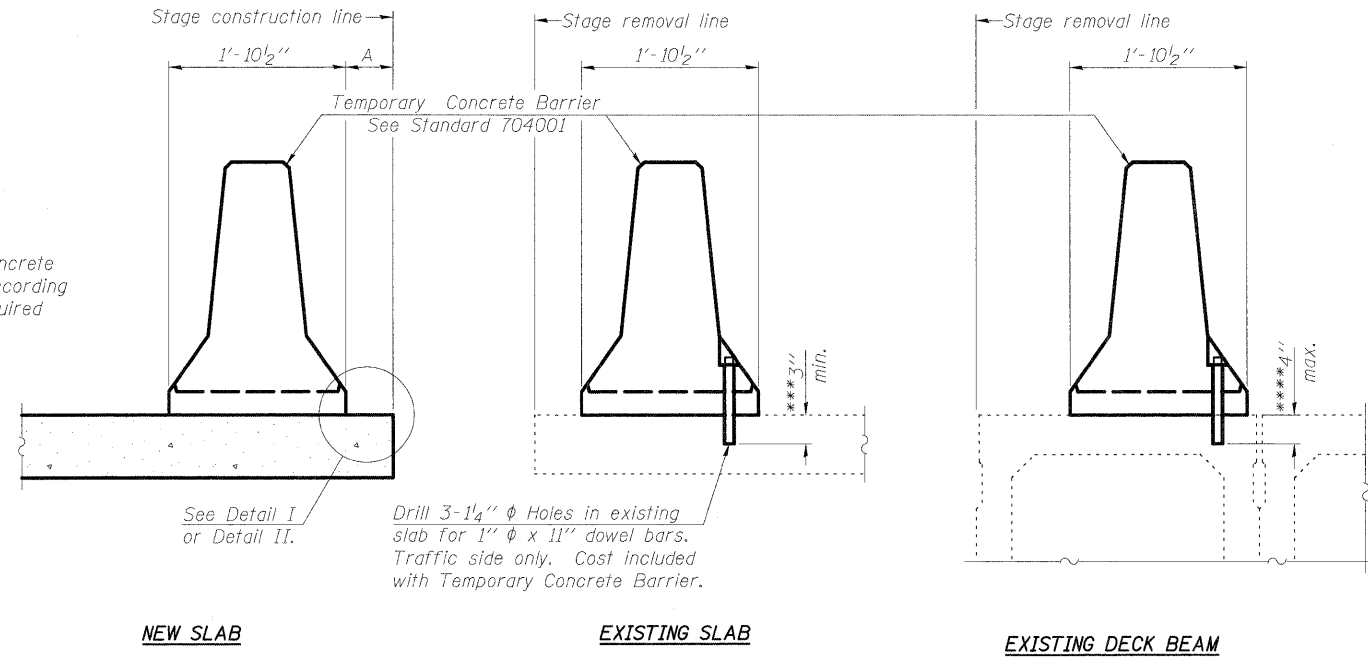
DESIGNED	RJ
CHECKED	PMH
DRAWN	RJ
CHECKED	PMH

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SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SH-49	57	(46-2) HBR	KANKAKEE	558	320
SHEETS					
SH-56					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

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DEPARTMENT OF TRANSPORTATION

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

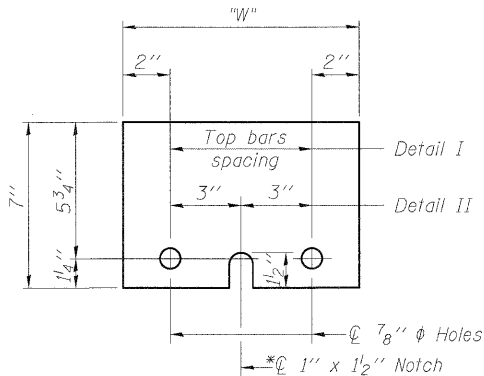
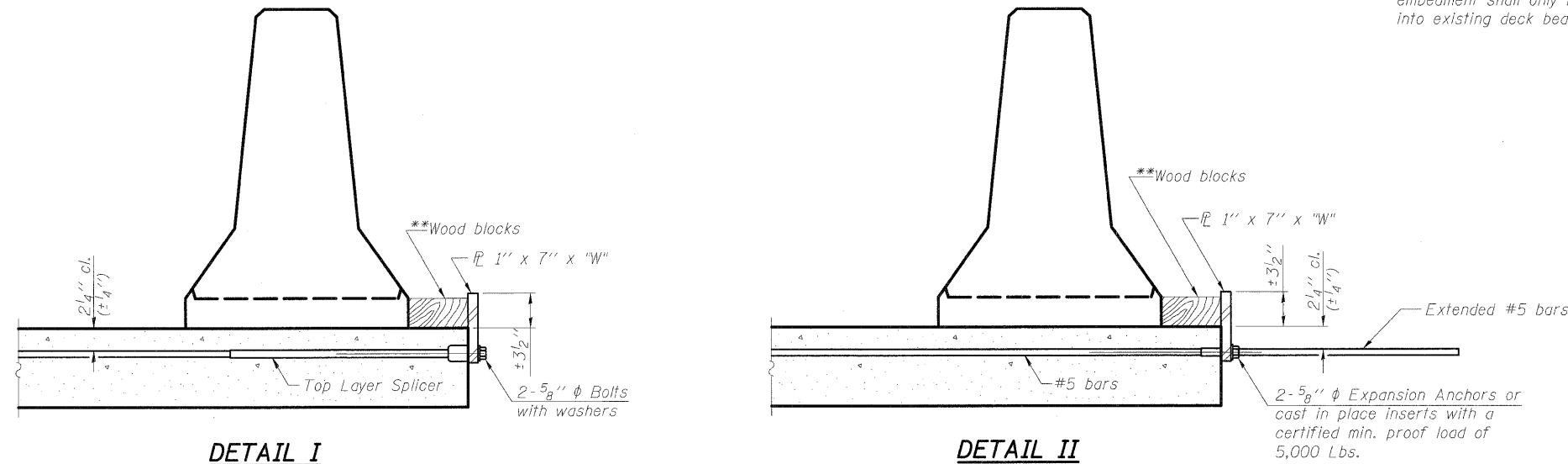


SECTIONS THRU SLAB OR DECK BEAM

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

*** Dimension shown is minimum required embedment into concrete.
If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



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

* Required only with Detail II

**TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)**

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

"W" = Top bars spacing + 4"

DESIGNED
CHECKED
DRAWN
CHECKED

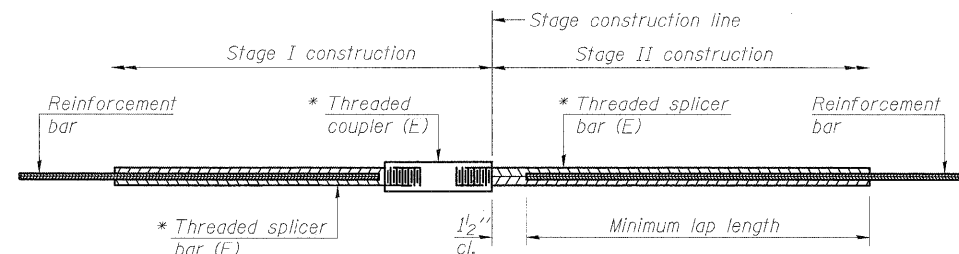
R-27

11-1-09



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SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SH-50	57	(46-2) HBR	KANKAKEE	558	321
SHEETS					
SH-56					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					



STANDARD BAR SPLICER ASSEMBLY

Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	6'-5"	6'-10"	7'-9"	8'-7"	9'-8"
10	5'-10"	8'-1"	8'-8"	9'-10"	10'-10"	12'-4"
11	7'-2"	10'-0"	10'-8"	12'-1"	13'-4"	15'-1"

Table 1: Black bar, 0.8 Class C
 Table 2: Black bar, Top bar lap, 0.8 Class C
 Table 3: Epoxy bar, 0.8 Class C
 Table 4: Epoxy bar, Top bar lap, 0.8 Class C
 Table 5: Epoxy bar, Class C
 Table 6: Epoxy bar, Top bar lap, Class C

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Deck	#5	1,388	Table 3
Diaphragm at East Abutment	#6	16	Table 4
Diaphragm at West Abutment	#6	16	Table 4
East Abutment	#6	16	Table 4
West Abutment	#6	16	Table 4
Pier 1-Cap	#5	12	Table 4
Pier 1 (Top)-Crashwall	#6	32	Table 4
Pier 1 (Bottom)-Footing	#6	22	Table 3
Pier 1 (Top) -Crashwall	#9	12	Table 6
Pier 1 (Top)-Cap	#11	18	Table 6
Pier 1 (Bottom)-Cap	#11	16	Table 5
Pier 2-Cap	#5	12	Table 4
Pier 2 (Top)-Crashwall	#6	32	Table 4
Pier 2 (Bottom)-Footing	#6	22	Table 3
Pier 2 (Top)-Crashwall	#9	12	Table 6
Pier 2 (Top)-Cap	#11	18	Table 6
Pier 2 (Bottom)-Cap	#11	16	Table 5
Pier 3-Cap	#5	12	Table 4
Pier 3 (Top)-Crashwall	#6	32	Table 4
Pier 3 (Bottom)-Footing	#6	22	Table 3
Pier 3 (Top)-Crashwall	#9	12	Table 6
Pier 3 (Top)-Cap	#11	18	Table 6
Pier 3 (Bottom)-Cap	#11	16	Table 5
East Approach	#4	50	Table 4
East Approach	#5	172 **	Table 3
West Approach	#4	50	Table 4
West Approach	#5	172 **	Table 3

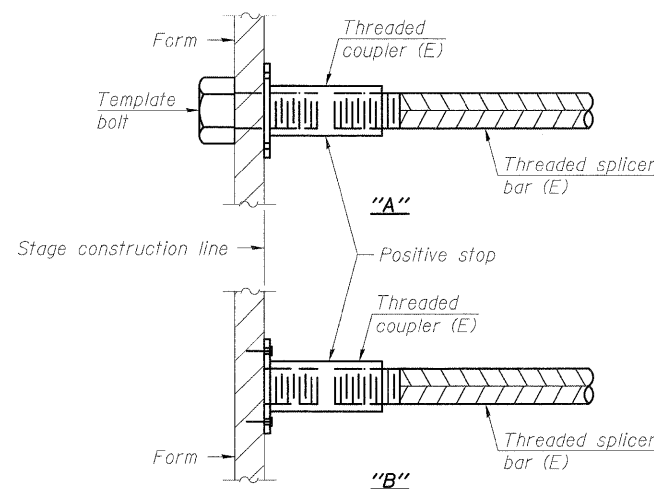
**Includes 80 bar splicers in approach footing (Billed with substructure)

DESIGNED	PMH
CHECKED	BB
DRAWN	PMH
CHECKED	BB

BSD-1

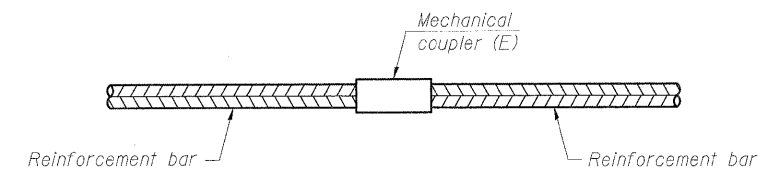
11-1-09

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**



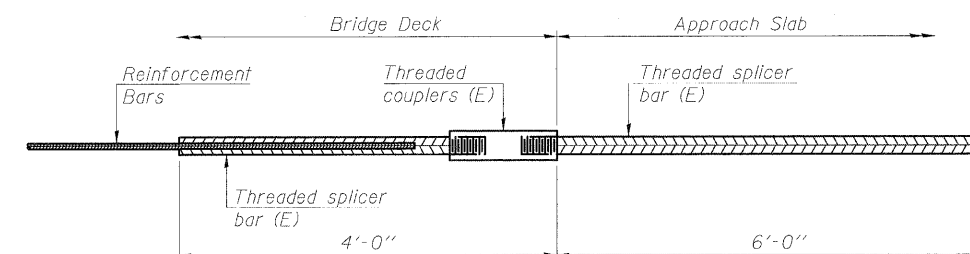
INSTALLATION AND SETTING METHODS

"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.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required

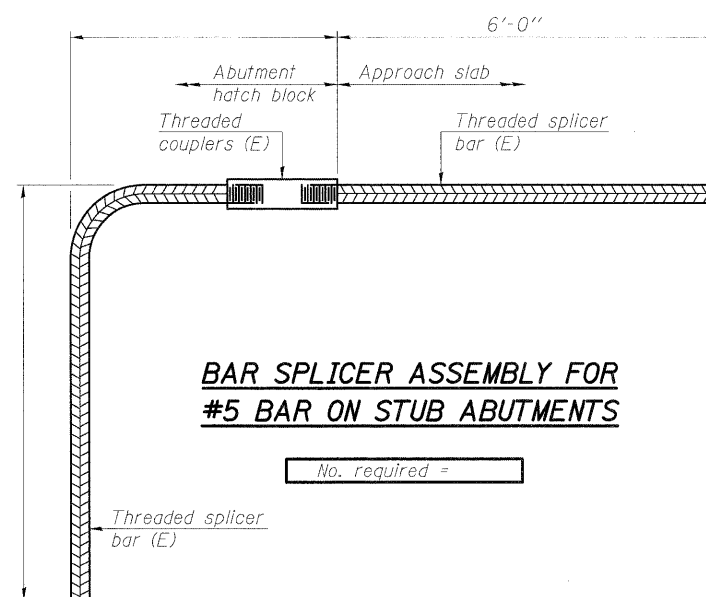


**BAR SPLICER ASSEMBLY FOR #5 BAR ON
INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

No. required = 256

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
 See special provision for Mechanical Splicers.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.



**BAR SPLICER ASSEMBLY FOR
#5 BAR ON STUB ABUTMENTS**

No. required =

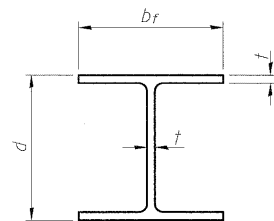
**BAR SPLICER ASSEMBLY AND
MECHANICAL SPLICER DETAILS
STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)**



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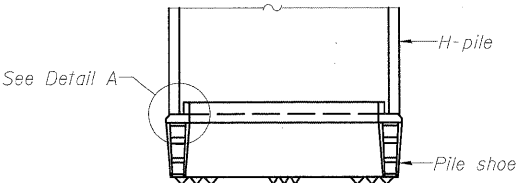
SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SH-51	57	(46-2) HBR	KANKAKEE	558	322
SHEETS					
SH-56					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

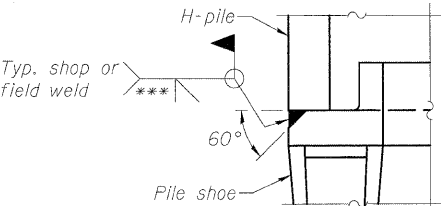


STEEL PILE TABLE

Designation	Depth d	Flange width b _f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"

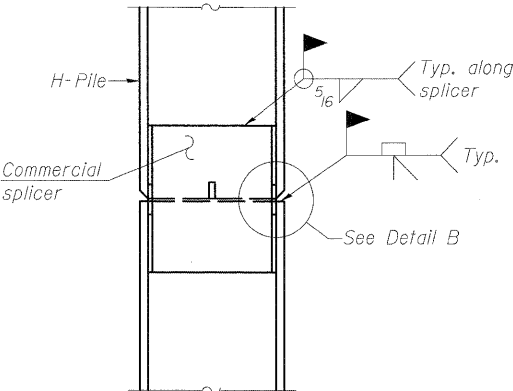


ELEVATION

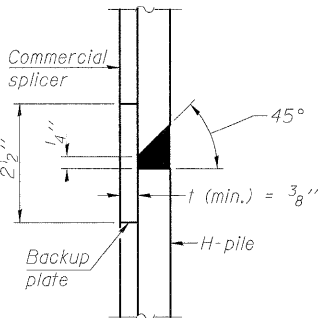


DETAIL A

H-PILE SHOE ATTACHMENT

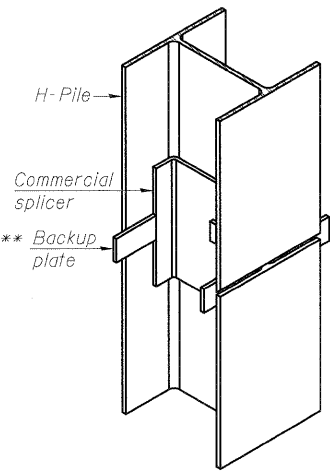


ELEVATION

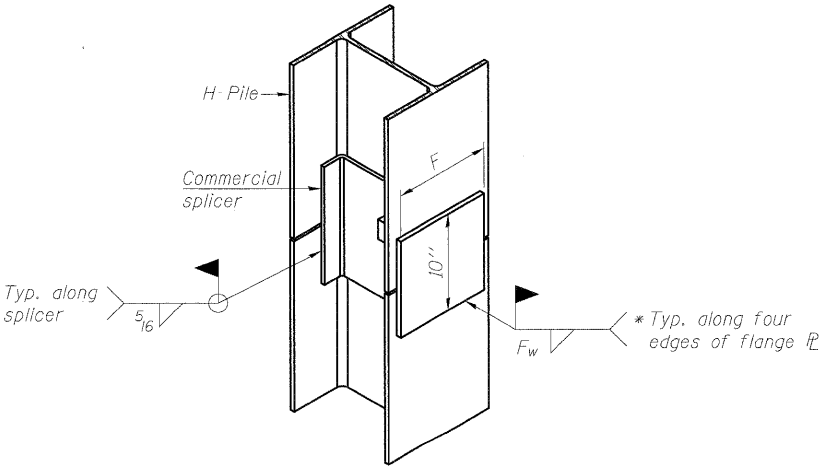


DETAIL "B"

WELDED COMMERCIAL SPLICE



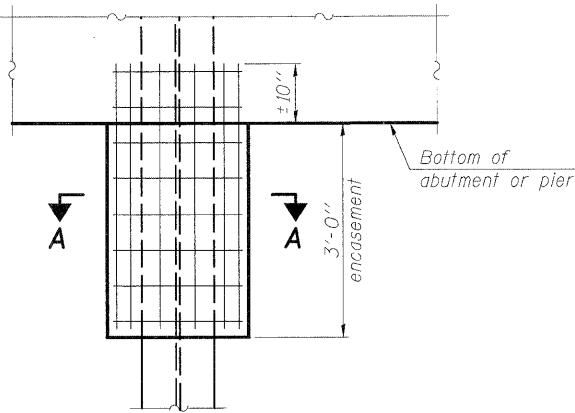
ISOMETRIC VIEW



ISOMETRIC VIEW

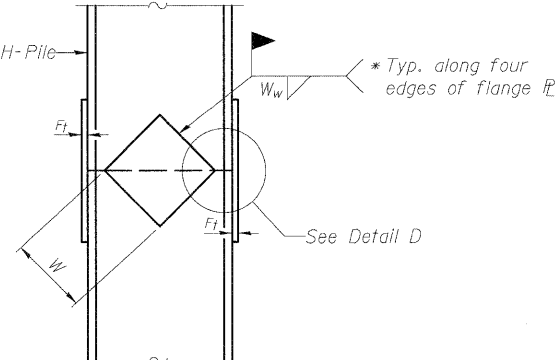
WELDED COMMERCIAL SPLICE ALTERNATE

- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (5/16" min.).



ELEVATION

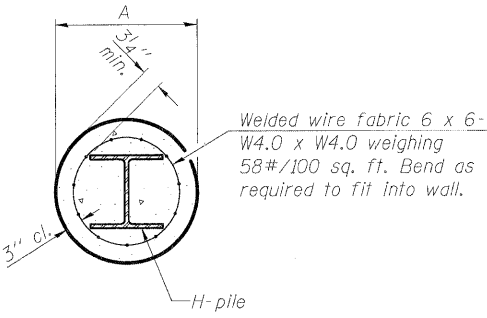
PILE ENCASEMENT



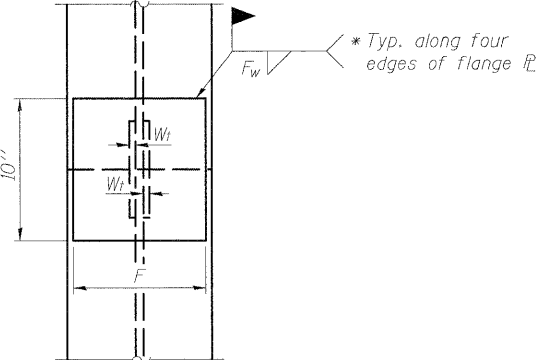
ELEVATION

DETAIL D

WELDED PLATE FIELD SPLICE



SECTION A-A



END VIEW

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 8/8"	1 1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 8/8"	1 1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5 8/8"	1 1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 8/8"	1 1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5 8/8"	1 1/2"
x74	10"	7/8"	11/16"	6 1/2"	5 8/8"	1 1/2"
x63	10"	5/8"	1/2"	6 1/2"	1 1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1 1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1 1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1 1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1 1/2"	3/8"

HP PILE DETAILS
STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)

DESIGNED
CHECKED
DRAWN
CHECKED

F-HP

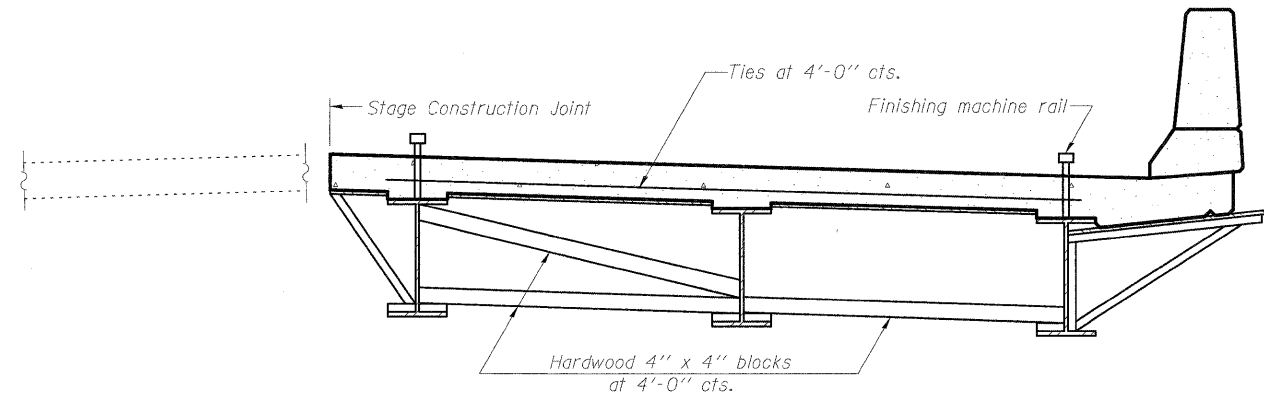
11-1-09

Note:
The steel H-piles shall be according to
AASHTO M270 Grade 50.

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SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SH-52	57	(46-2) HBR	KANKAKEE	558	323
SHEETS					
SH-56					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



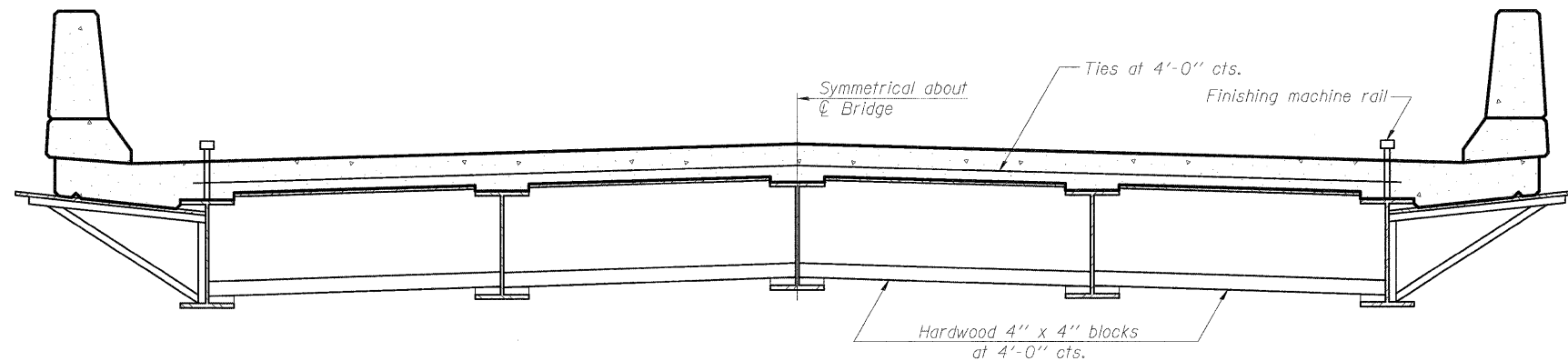
**FORM BRACES FOR
STAGE CONSTRUCTION**

When cantilever forming brackets are used, the work shall be done according to Article 503.06(b) of the Standard Specifications, except as modified below and in the details shown on this sheet.

The finishing machine rails shall be placed on the top flange of the exterior beams.

The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.

For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.



**FORM BRACES FOR
STANDARD CONSTRUCTION**

**CANTILEVER FORMING BRACKETS
STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)**

DESIGNED
CHECKED
DRAWN
CHECKED

SB-1

11-1-09



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SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SH-53	57	(46-2) HBR	KANKAKEE	558	324
SHEETS					
SH-56					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

SOIL BORING LOG

SOIL BORING LOG

SOIL BORING LOG



SHEET NO. SH-54 SHEETS SH-56	F.A.I. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEE NO.
	57	(46-2) HBR		KANKAKEE	558	325
				CONTRACT NO. 66409		
	FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Illinois Department
of Transportation
Division of Highways
District #3, Ottawa

SOIL BORING LOG

Page 1 of 1

Date 6/12/06

ROUTE FA-57 DESCRIPTION I-57 over IL. 50 LOGGED BY Larry Myers

SECTION 46-2HB LOCATION SW 1/4, SEC. 16, TWP. 31N, RNG. 12E, 3rd PM

COUNTY Kankakee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 046-0014 & 0015
Station 311+37.70

BORING NO. #4: Approach W Abut
Station 312+57.2
Offset 0.00R
Ground Surface Elev. 707.10 ft

DEPTH Feet	Below Ground Surface Feet	UCS Qu	MOI S
TH	WS	Qu	T

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft
Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After _____ Hrs. _____ ft


DEPTH Feet	Below Ground Surface Feet	UCS Qu	MOI S
TH	WS	Qu	T
4	6	3.5	26.8
6		P	
7	10	3.9	18.0
10		S	
11	15	6.8	18.9
15		S	
2			
3			
5			
6			
8			
10			
12			
14			
16			
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94			
96			
98			
100			

Augered, brown, Silty Clay Loam Till fill
705.10
Hard, brown gray, Silty Clay Loam Till fill
703.10
Very stiff, gray brown, Silty Clay Loam Till fill with layers of black gray, Silty Clay
699.10
Very stiff, black gray, Silty Clay fill
695.00
Stiff to hard, black gray, Silty Clay Loam Till fill
689.10
Very stiff, black to gray, Silty Clay with trace of native organics

Very stiff, black to gray, Silty Clay with trace of native organics (continued)
685.60
Very stiff, brown gray, Silty Clay Till
682.60
Hard, brown gray, Silty Clay Loam Till
680.60
End of Boring

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 6-99)

 Illinois Department of Transportation <small>Division of Highways District #8, Ottawa</small>		SOIL BORING LOG		Page <u>1</u> of <u>1</u>				
ROUTE <u>FAL-57</u>		DESCRIPTION <u>I-57 over IL 50</u>		Date <u>6/12/06</u>				
SECTION <u>46-2HB</u>		LOCATION <u>SW 1/4, SEC. 16, TWP. 31N, RNG. 12E, 3^d PM</u>		LOGGED BY <u>Larry Myers</u>				
COUNTY <u>Kankakee</u>	DRILLING METHOD <u>Hollow Stem Auger</u>	HAMMER TYPE <u>CME Automatic</u>						
STRUCT. NO. <u>046-0014 & 0015</u>								
Station <u>311+37.70</u>								
BORING NO. <u>#5 Approach: E Abut</u>	D E P T H	B L O W S	U C S	M O I S T	Surface Water Elev. _____ ft			
Station <u>310+24.2</u>	T H	S	Qu	T	Stream Bed Elev. _____ ft			
Offset <u>0.00ft</u>					Groundwater Elev.: _____ ft			
Ground Surface Elev. <u>704.69</u> ft	(ft)	(6")	(tsf)	(%)	First Encounter _____ ft			
					Upon Completion _____ ft			
					After _____ Hrs.			
Augered, brown, Silty Clay Loam Till fill					3	3	2.0	22.4
					4	P		
	702.19	3						
Very stiff, brown, Silty Clay Loam Till fill		3	3.0	12.1				
		3	P					
	700.19							
Hard, gray, Silty Clay Loam Till fill		-5						
		2						
		2	4.5	14.9				
		7	P					
	697.19							
Hard to very stiff, brown gray, Silty Clay Loam Till fill		2						
		4	4.7	16.7				
		10	S					
	-10							
		3						
		5	4.3	18.4				
		10	S					
		3						
		5	2.1	19.6				
		5	S					
	689.69	-15						
Very stiff, black and gray, Silty Clay Loam Till fill		3						
		3	3.0	21.1				
		4	P					
	687.69							
Very stiff, brown gray, Silty Clay Loam Till fill with asphalt pieces at 21'		3						
		3	2.3	19.5				
		6	S					
	-20							

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)

[illegible]

SOIL BORING LOGS
STRUCTURE NO. 046-0144 (S.B.)
& STRUCTURE NO. 046-0145 (N.B.)

DESIGNED	AMV
CHECKED	PMH
DRAWN	AMV
CHECKED	PMH



McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street
Chicago, Illinois 60601
(312) 946-8600

SHEET NO. SH-55 SHEETS SH-56	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	(46-2) HBR	KANKAKEE	558	326
	CONTRACT NO. 66409				
	FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SOIL BORING LOG

Page 1 of 2

Date 6/15/06

ROUTE FAI-57 DESCRIPTION I-57 over IL 50 LOGGED BY Larry Myers

SECTION 46-2HB LOCATION SW 1/4, SEC. 16, TWP. 31N, RNG. 12E, 3rd PM

COUNTY Kankakee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 046-0014 & 0015
Station 311+37.70
BORING NO. #7- Center Pier S
Station 311+26.7
Offset 90.00ft LT
Ground Surface Elev. 687.32 ft

Augered, bituminous, concrete and brown gray, Silty Clay Loam Till				Medium, brown, Sand to Sandy Loam	4	
				Limestone Gravel up to Boulder size with free H2O (continued)	15	12.4
					12	
Hard, brown gray, Silty Clay Loam Till	684.82			Medium to very dense, gray, Dolomite Gravel (up to Boulder size) in weathered, Dolomite, tan, Silt and weathered, Shale matrix	685.32	
		2			100/4	
		4	4.5	21.3		6.7
		6	P			
Very stiff, gray, Silty Clay Loam Till						
Very stiff, gray, Silty Clay Loam Till						
Very stiff, gray, Silty Clay Loam Till						
Very stiff, gray, Silty Clay Loam Till						
Very stiff, gray, Silty Clay Loam Till						
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Very stiff, gray, Silty Clay Loam Till						
				</		

BENCH MARK

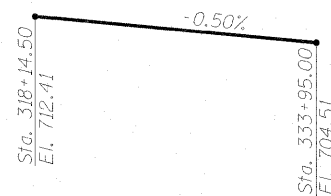
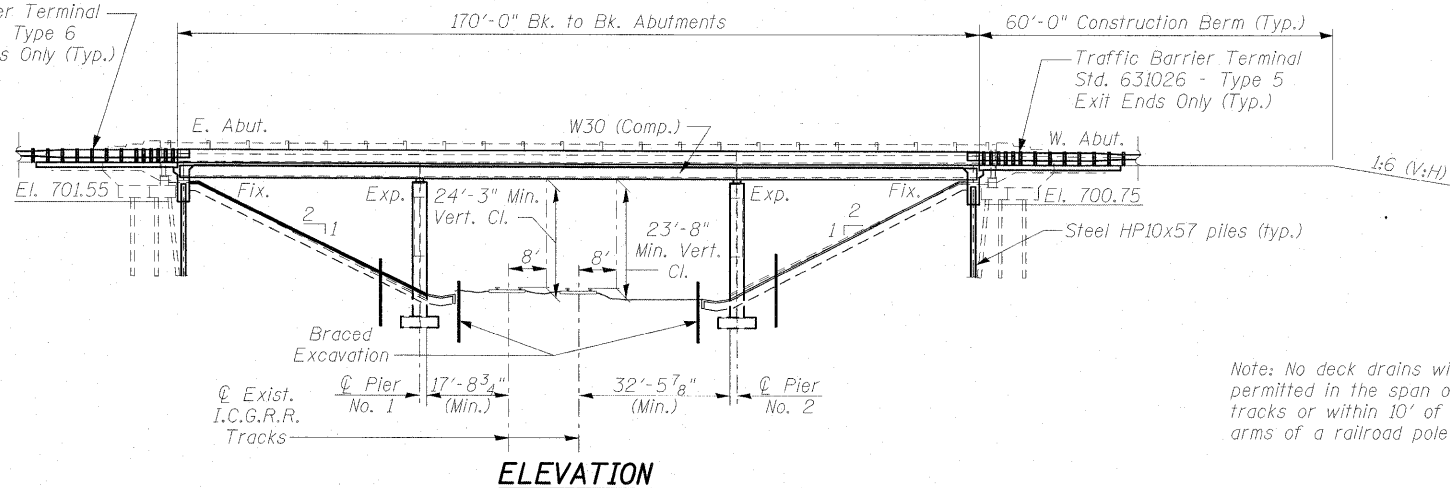
B.M. # 220: Set chiseled "□"
 @ E end of Bridge Wall S side
 of NB I-57 Bridge over RR.
 El. = 710.166

EXISTING STRUCTURES

SN 046-0016 (S.B.) & SN 046-0017 (N.B.) built
 in 1963 as F.A.I. Rte. 57 (I-57), Sec. 46-2 VB.
 Existing structures are 3-span continuous steel
 girder bridges with R.C. decks and open abuts.
 Both existing structures are skewed 5°-30'-00",
 179'-0" long, and vary in width 35'-8" to 49'-1"
 Two lanes of traffic in both directions shall be
 maintained during rehab using stage construction.
 No salvage materials from the existing structures.

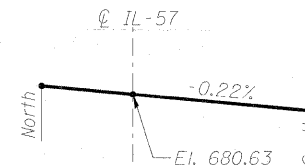
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

Traffic Barrier Terminal
 Std. 631031 - Type 6
 Entrance Ends Only (Typ.)



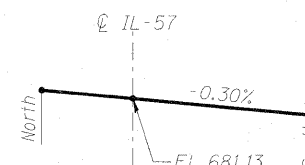
PROFILE GRADE

(Along Median Edge of IL-57)



PROFILE GRADE

(Along East I.C.G.R.R. Track)



PROFILE GRADE

(Along Center I.C.G.R.R. Track)

DESIGN SPECIFICATIONS

AASHTO Standard Specifications for
 Highway Bridges, 17th Edition 2002

LOADING HS20-44 & ALT.

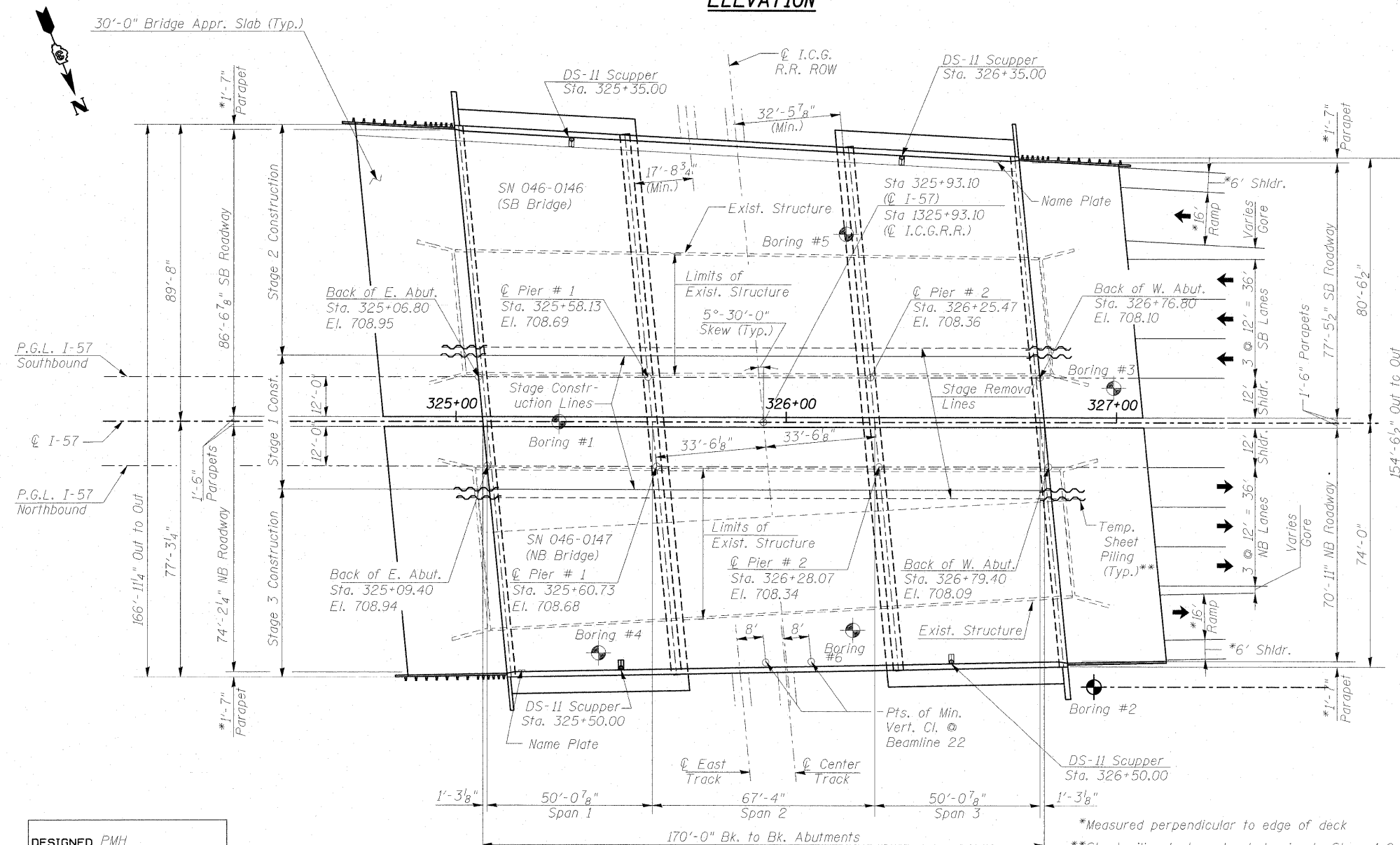
Allow 50 lbs/sq. ft. for
 Future Wearing Surface

DESIGN STRESSES

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 36,000$ psi (M270 Gr36)
 $f_y = 50,000$ psi (M270 Gr50)

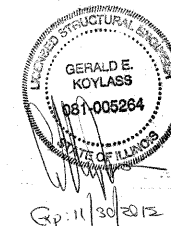
SEISMIC DATA

Seismic Performance Category (SPC) = A
 Bedrock Acceleration Coefficient (A) = 0.04g
 Site Coefficient (S) = 1.0



PLAN

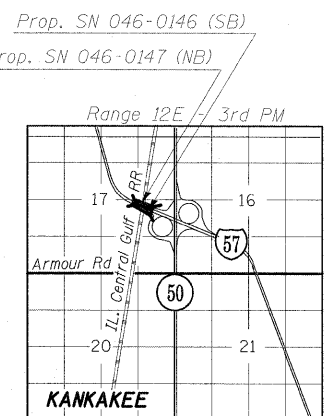
Milepost #55



APPROVED
 FOR STRUCTURAL ADEQUACY ONLY

Gerald E. Koynass
 ENGINEER OF BRIDGES AND STRUCTURES

GENERAL PLAN AND ELEVATION
 I-57 OVER I.C.G. RAILROAD
 F.A.I. RT. 57 - SEC. (46-2) VBR
 KANKAKEE COUNTY
 STATION 325+93.10
 STRUCTURE NO. 046-0146 (S.B.)
 & STRUCTURE NO. 046-0147 (N.B.)



LOCATION SKETCH

DESIGNED	PMH
CHECKED	BB
DRAWN	AMV
CHECKED	BB



McDonough Associates Inc.
 Engineers / Architects
 130 East Randolph Street
 Chicago, Illinois 60601
 (312) 946-8600

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-1	57	(46-2) VBR	KANKAKEE	558	328
SHEETS					
SR-48					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

GENERAL NOTES

1. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts $\frac{7}{8}$ in. dia., holes $\frac{13}{16}$ in. dia., unless otherwise noted.
2. Calculated weight of Structural Steel:
AASHTO M270 Gr50 = 454,830 lbs
AASHTO M270 Gr36 = 78,080 lbs
3. No field welding is permitted except as specified in the contract documents.
4. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
7. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ in. (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
8. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
9. The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception of the exterior surfaces and the bottom of the bottom flange of fascia beams, masked off connection surfaces, field installed fasteners and damaged areas shall be touched up and finish coated in the field. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and the bottom of the bottom flange of fascia beams shall be Blue, Munsell No. 10B 3/6. See Special Provision for "Cleaning and Painting New Metal Structures."
10. The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
11. Slope wall shall be reinforced with welded wire fabric, 6 in. x 6 in. - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.
12. The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.
13. If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
14. The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.
15. Slipforming of the parapets is not allowed.

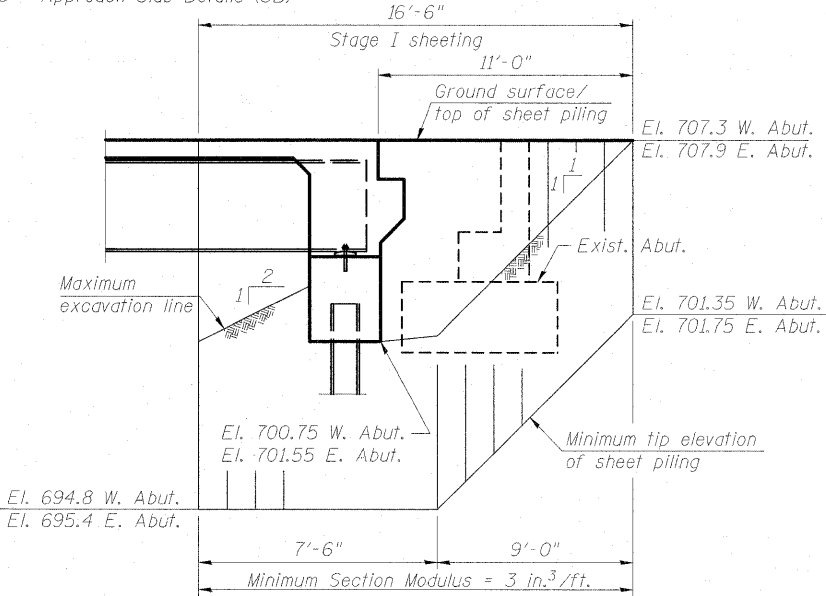
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

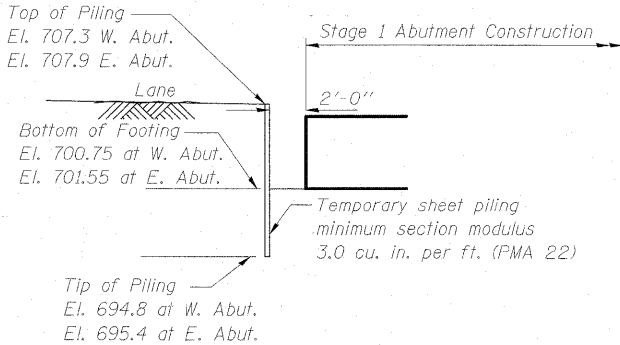
SR-1	General Plan and Elevation	SR-26	Approach Slab Plan (NB)
SR-2	General Notes & Total Bill of Material	SR-27	Approach Slab Details (NB)
SR-3	Construction Staging	SR-28	SB Framing Plan
SR-4	Footing Layout	SR-29	NB Framing Plan
SR-5	Top of Slab Elevations 1 of 5	SR-30	Steel Details
SR-6	Top of Slab Elevations 2 of 5	SR-31	Bearing Details
SR-7	Top of Slab Elevations 3 of 5	SR-32	East Abutment and Details (SB)
SR-8	Top of Slab Elevations 4 of 5	SR-33	East Abutment and Details (NB)
SR-9	Top of Slab Elevations 5 of 5	SR-34	West Abutment and Details (SB)
SR-10	Top of East Approach Slab Elevations (SB)	SR-35	West Abutment and Details (NB)
SR-11	Top of East Approach Slab Elevations (NB)	SR-36	East and West Abutment Removal
SR-12	Top of West Approach Slab Elevations (SB)	SR-37	Pier 1 (SB)
SR-13	Top of West Approach Slab Elevations (NB)	SR-38	Pier 1 (NB)
SR-14	Deck Plan and Section (SB)	SR-39	Pier 2 (SB)
SR-15	Deck Plan and Section (NB)	SR-40	Pier 2 (NB)
SR-16	Parapet Details	SR-41	Piers 1 and 2 Removal
SR-17	Deck Details and Bill of Material	SR-42	Temporary Concrete Barrier for Stage Construction
SR-18	Drainage System Details	SR-43	Bar Splicer Assembly and Mechanical Splicer Details
SR-19	Drainage Scupper, DS-II	SR-44	HP Pile Details
SR-20	Diaphragm at East Abutment (SB)	SR-45	Soil Boring Logs
SR-21	Diaphragm at East Abutment (NB)	SR-46	Soil Boring Logs
SR-22	Diaphragm at West Abutment (SB)	SR-47	Soil Boring and Rock Core Logs
SR-23	Diaphragm at West Abutment (NB)	SR-48	Soil Boring and Rock Core Logs
SR-24	Approach Slab Plan (SB)		
SR-25	Approach Slab Details (SB)		

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures No. 1	Each			1
Removal of Existing Structures No. 2	Each			1
Protective Shield	Sq Yd	1,751		1,751
Structure Excavation	Cu Yd		539	539
Concrete Structures	Cu Yd		1,184.0	1,184.0
Concrete Superstructure	Cu Yd	1,398.0		1,398.0
Bridge Deck Grooving	Sq Yd	3,958		3,958
Concrete Encasement	Cu Yd		19.0	19.0
Protective Coat	Sq Yd	4,415		4,415
Furnishing and Erecting Structural Steel	L Sum	0.47		0.47
Stud Shear Connectors	Each	16,698		16,698
Reinforcement Bars, Epoxy Coated	Pound	323,326	168,912	492,238
Bar Splicers	Each	1,711	448	2,159
Slope Wall 4 Inch	Sq Yd		148	148
Furnishing Steel Piles HP10x57	Ft		2,002	2,002
Driving Piles	Ft		2,002	2,002
Test Pile Steel HP10x57	Each		2	2
Pile Shoes	Each		52	52
Name Plates	Each	2		2
Elastomeric Bearing Assembly, Type I	Each		44	44
Anchor Bolts, 1"	Each		176	176
Geocomposite Wall Drain	Sq Yd		240	240
Bituminous Coated Aggregate Slopewall 6"	Sq Yd		2,109	2,109
Braced Excavation	Cu Yd		1,224	1,224
Porous Granular Embankment, Special	Cu Yd		394	394
Drainage Scuppers, DS-II	Each	4		4
Drainage System	L Sum	1		1
Temporary Sheet Piling	Sq Ft		710	710
Pipe Underdrains for Structures 4"	Ft		353	353

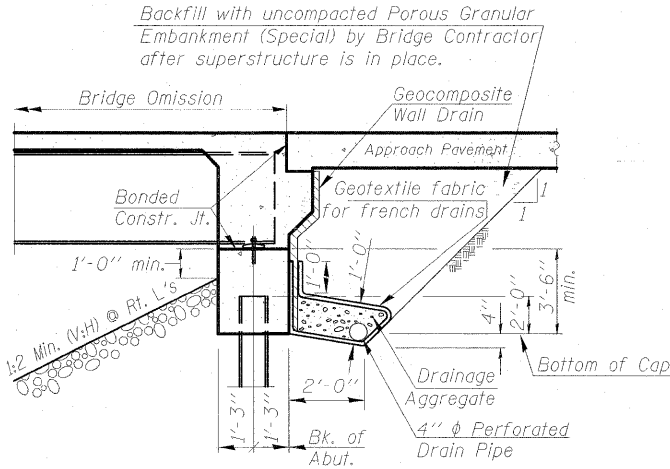


TEMPORARY SHEET PILING FRONT ELEVATION



TEMPORARY SHEET PILING SIDE ELEVATION

(Southbound piling shown, Northbound piling similar)



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 601101)

SECTION THRU INTEGRAL ABUTMENT

(Horiz. dim. @ Rt. L's)

STATION 325+93.10
BUILT 20__ BY
STATE OF ILLINOIS
F.A.I. RT. 57 SEC (46-2) VBR
LOADING HS20
STRUCTURE NO. 046-0146

NAME PLATE

(Southbound)
See Std. 515001

STATION 325+93.10
BUILT 20__ BY
STATE OF ILLINOIS
F.A.I. RT. 57 SEC (46-2) VBR
LOADING HS20
STRUCTURE NO. 046-0147

NAME PLATE

(Northbound)
See Std. 515001

GENERAL NOTES
& TOTAL BILL OF MATERIAL
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

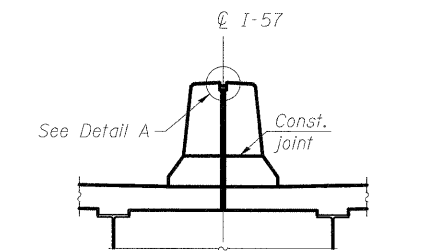
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CHECKED	BB
DRAWN	PMH
CHECKED	BB



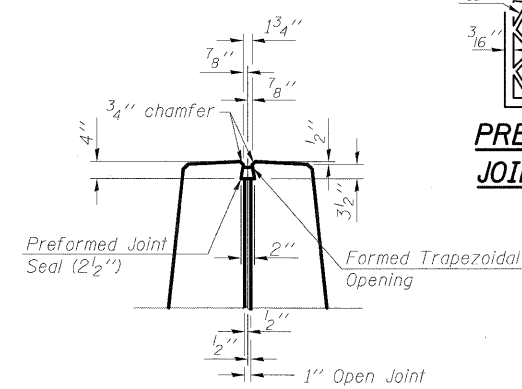
McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street
Chicago, Illinois 60601
(312) 946-8600

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-2	57	(46-2) VBR	KANKAKEE	558	329
SHEETS					
SR-48					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

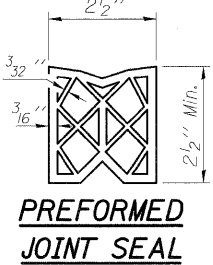
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



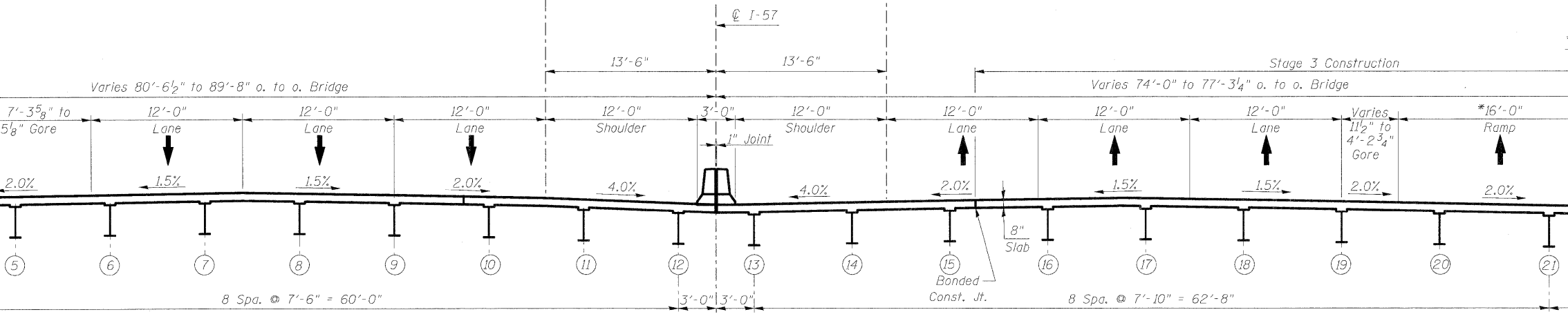
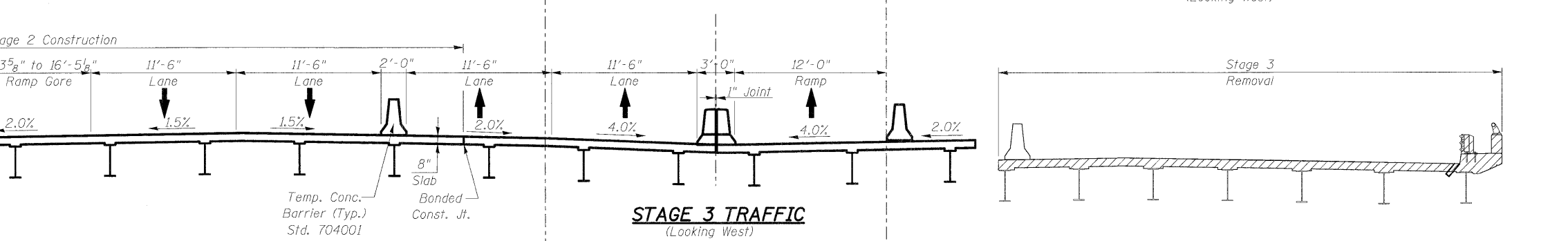
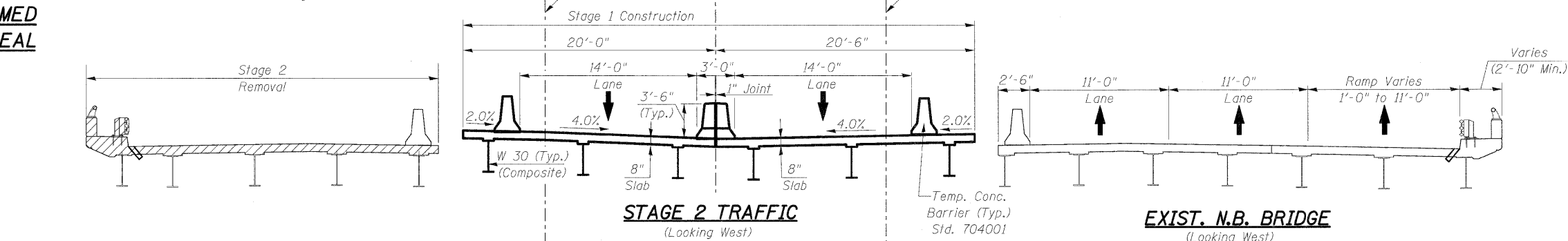
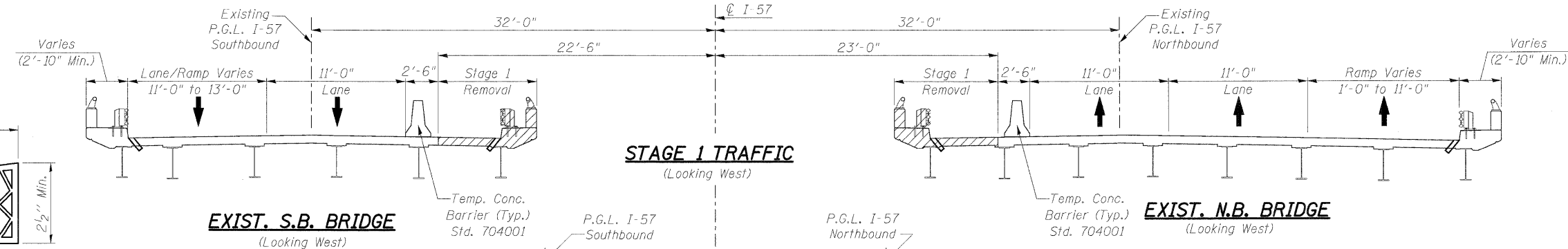
SECTION AT MEDIAN BARRIER



DETAIL A



PREFORMED
JOINT SEAL



CROSS-SECTION
PROP. S.B. BRIDGE
(Looking West)

FINAL CONSTRUCTION
(Looking West)

CROSS-SECTION
PROP. N.B. BRIDGE
(Looking West)

* Measured perpendicular to edge of deck

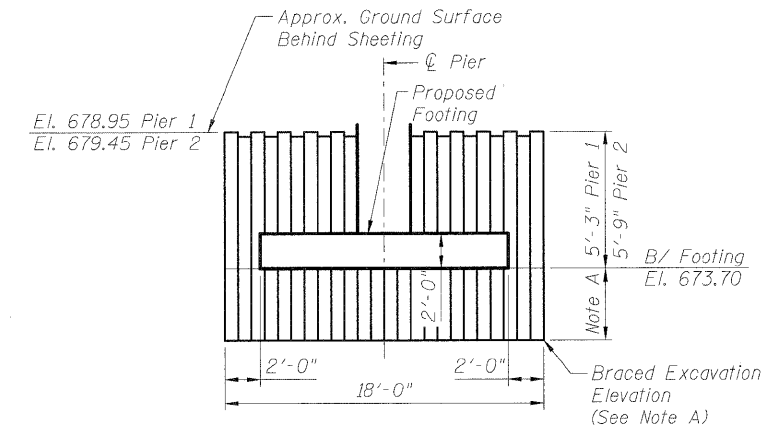
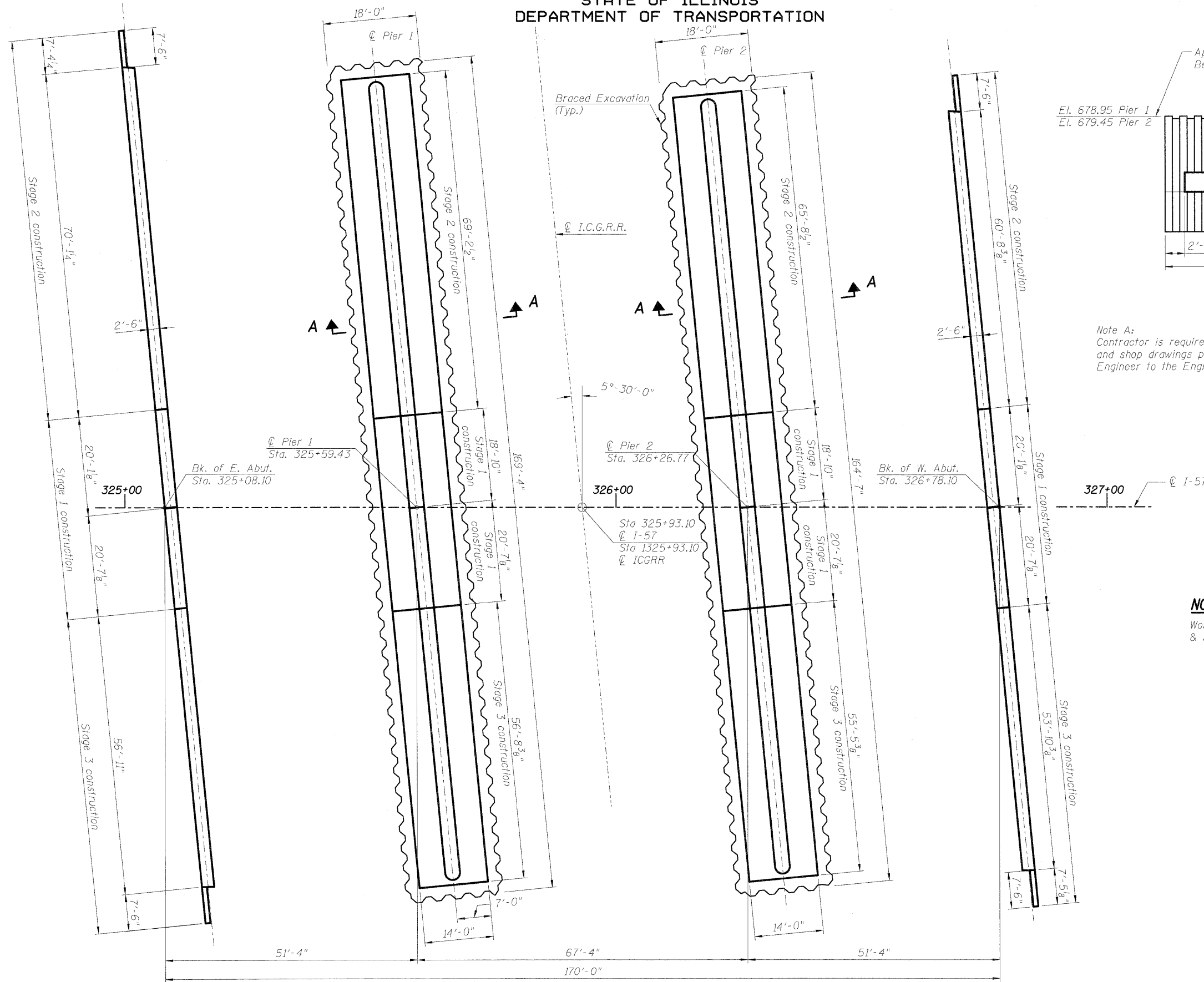
CONSTRUCTION STAGING
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

DESIGNED	PMH
CHECKED	BB
DRAWN	AMV
CHECKED	BB

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Engineers / Architects
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(312) 946-8600

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-3 SHEETS SR-48	57	(46-2) VBR	KANKAKEE	558	330
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Note A:
Contractor is required to submit the Braced Excavation design calculations and shop drawings prepared and sealed by an Illinois Licensed Structural Engineer to the Engineer for approval.

NOTES:

Work this sheet with sheets SR-32 thru SR-35 & sheets SR-37 thru SR-40 of SR-48.

FOOTING LAYOUT
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

DESIGNED	PMH
CHECKED	MJL
DRAWN	PMH
CHECKED	BB

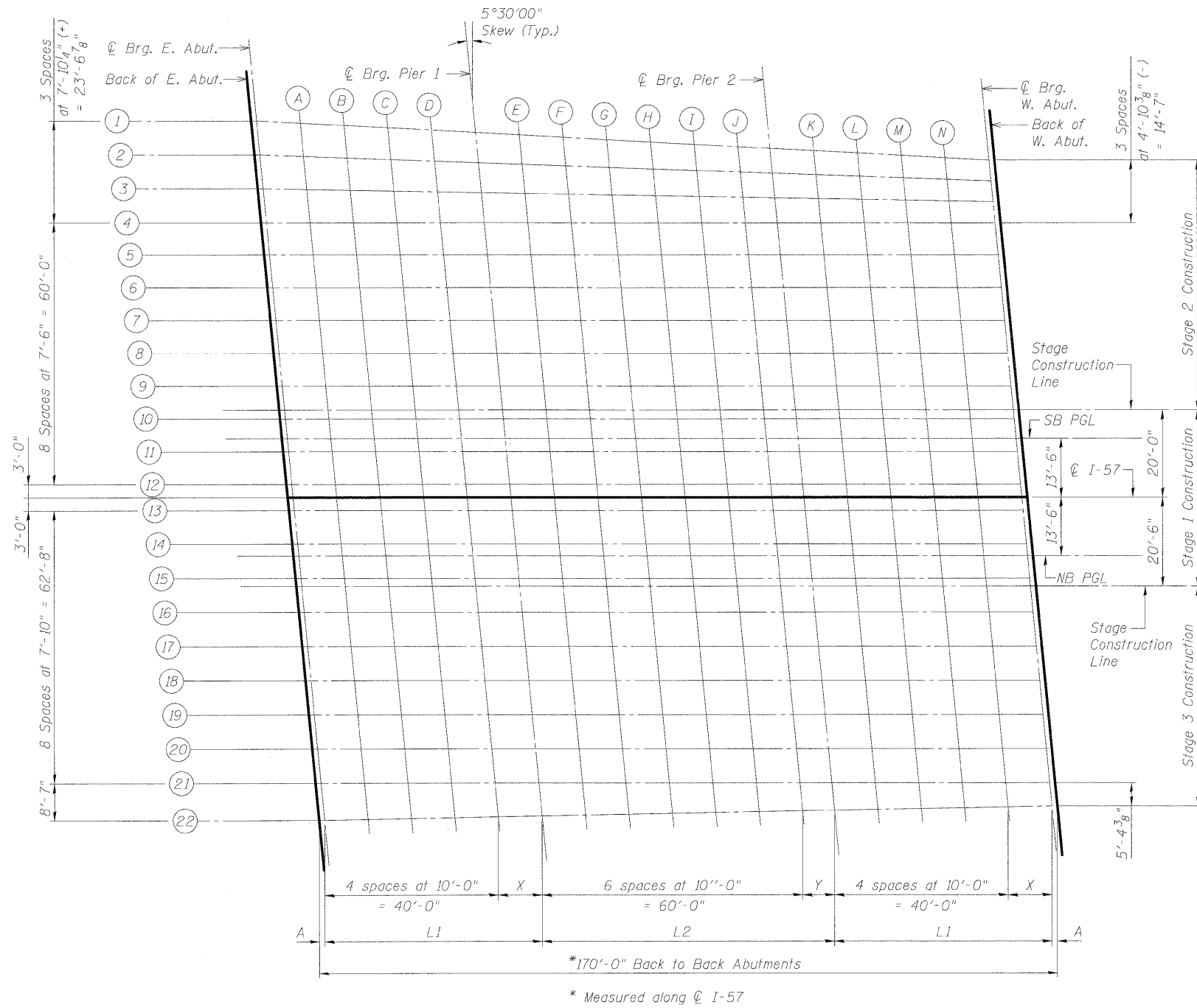
FOOTING LAYOUT



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Chicago, Illinois 60601
(312) 946-8600

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-4	57	(46-2) VBR	KANKAKEE	558	331
SHEETS	CONTRACT NO. 66409				
SR-48	FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



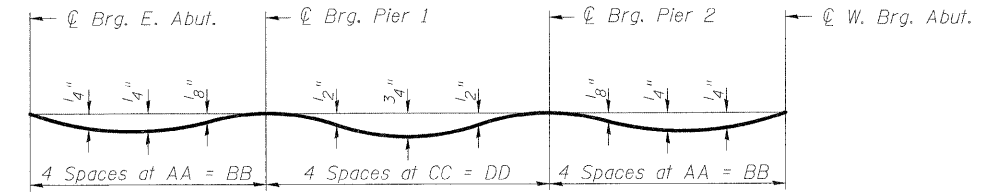
PLAN

DESIGNED	PMH
CHECKED	BB
DRAWN	PMH
CHECKED	BB



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Engineers / Architects
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(312) 946-8600

SHEET NO. SR-5 SHEETS SR-48	F.A.I. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
	57	(46-2) VBR		KANKAKEE	558	332
				CONTRACT NO. 66409		
FED. ROAD DIST. NO. 3		ILLINOIS	FED. AID PROJECT			



DEAD LOAD DEFLECTION DIAGRAM

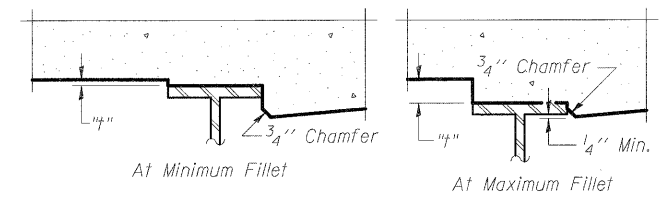
(Includes weight of concrete only.)

Note:

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.

TABLE FOR DEAD LOAD
DEFLECTION DIAGRAM

Beam	AA	BB	CC	DD
1	$12^{\circ}-7_{\frac{1}{2}}^{\circ}(-)$	$50^{\circ}-4_{\frac{1}{2}}^{\circ}$	$16^{\circ}-11_{\frac{1}{2}}^{\circ}(-)$	$67^{\circ}-9_{\frac{1}{2}}^{\circ}$
2	$12^{\circ}-6_{\frac{1}{2}}^{\circ}(-)$	$50^{\circ}-3_{\frac{1}{2}}^{\circ}$	$16^{\circ}-10_{\frac{1}{2}}^{\circ}(-)$	$67^{\circ}-7_{\frac{1}{2}}^{\circ}$
3	$12^{\circ}-6_{\frac{1}{2}}^{\circ}$	$50^{\circ}-2^{\circ}$	$16^{\circ}-10_{\frac{1}{2}}^{\circ}$	$67^{\circ}-5_{\frac{1}{2}}^{\circ}$
4-21	$12^{\circ}-6_{\frac{1}{2}}^{\circ}(-)$	$50^{\circ}-0_{\frac{1}{2}}^{\circ}$	$16^{\circ}-10^{\circ}$	$67^{\circ}-4^{\circ}$
22	$12^{\circ}-6^{\circ}(-)$	$49^{\circ}-11^{\circ}$	$16^{\circ}-9_{\frac{1}{2}}^{\circ}(+)$	$67^{\circ}-2_{\frac{1}{2}}^{\circ}$



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on plan. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets SR-6 to SR-9, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

TABLE FOR
TEMPLATE LINE

Beam	X	Y	A	L1	L2
1	$10^{-4} \cdot 4^{\circ}_8$	$7^{-1} \cdot 9^{\circ}_8$	$1^{-1} \cdot 3^{\circ}_8$	$50^{-4} \cdot 4^{\circ}_8$	$67^{-9} \cdot 3^{\circ}_8$
2	$10^{-3} \cdot 3^{\circ}_8$	$7^{-1} \cdot 7^{\circ}_8$	$1^{-1} \cdot 3^{\circ}_8$	$50^{-3} \cdot 3^{\circ}_8$	$67^{-7} \cdot 7^{\circ}_8$
3	$10^{-2} \cdot 2^{\circ}$	$7^{-1} \cdot 5^{\circ}_2$	$1^{-1} \cdot 3^{\circ}_8$	$50^{-2} \cdot 2^{\circ}$	$67^{-5} \cdot 5^{\circ}_2$
4-21	$10^{-0} \cdot 0^{\circ}_8$	$7^{-4} \cdot 4^{\circ}$	$1^{-3} \cdot 3^{\circ}_8$	$50^{-0} \cdot 0^{\circ}_8$	$67^{-4} \cdot 4^{\circ}$
22	$9^{-1} \cdot 1^{\circ}_8$	$7^{-2} \cdot 2^{\circ}_8$	$1^{-1} \cdot 3^{\circ}$	$49^{-1} \cdot 1^{\circ}_8$	$67^{-2} \cdot 2^{\circ}_8$

TOP OF SLAB ELEVATIONS 1 OF 5
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	324+99.76	-86.64	708.48	708.48
@ Brg. E. Abut.	325+01.02	-86.58	708.48	708.48
A	325+11.01	-86.04	708.44	708.46
B	325+20.99	-85.51	708.40	708.42
C	325+30.98	-84.98	708.36	708.38
D	325+40.96	-84.44	708.32	708.33
@ Brg. Pier 1	325+51.36	-83.89	708.28	708.28
E	325+61.34	-83.35	708.24	708.26
F	325+71.33	-82.82	708.20	708.24
G	325+81.31	-82.29	708.16	708.22
H	325+91.30	-81.75	708.12	708.18
I	326+01.28	-81.22	708.08	708.12
J	326+11.27	-80.69	708.04	708.06
@ Brg. Pier 2	326+19.04	-80.27	708.01	708.01
K	326+29.02	-79.74	707.97	707.98
L	326+39.01	-79.21	707.93	707.95
M	326+48.99	-78.67	707.90	707.92
N	326+58.98	-78.14	707.86	707.87
@ Brg. W. Abut.	326+69.37	-77.58	707.82	707.82
Back of W. Abut.	326+70.64	-77.52	707.81	707.81

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+00.52	-78.76	708.64	708.64
@ Brg. E. Abut.	325+01.78	-78.72	708.63	708.63
A	325+11.77	-78.36	708.59	708.61
B	325+21.76	-78.00	708.55	708.57
C	325+31.76	-77.65	708.50	708.52
D	325+41.75	-77.29	708.46	708.47
@ Brg. Pier 1	325+52.03	-76.93	708.42	708.42
E	325+62.02	-76.57	708.37	708.39
F	325+72.01	-76.21	708.33	708.37
G	325+82.01	-75.86	708.29	708.35
H	325+92.00	-75.50	708.24	708.30
I	326+01.99	-75.14	708.20	708.24
J	326+11.99	-74.79	708.16	708.17
@ Brg. Pier 2	326+19.59	-74.52	708.13	708.13
K	326+29.59	-74.16	708.08	708.09
L	326+39.58	-73.80	708.04	708.06
M	326+49.57	-73.45	708.00	708.02
N	326+59.57	-73.09	707.95	707.97
@ Brg. W. Abut.	326+69.84	-72.72	707.91	707.91
Back of W. Abut.	326+71.10	-72.68	707.90	707.90

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+01.27	-70.88	708.79	708.79
@ Brg. E. Abut.	325+02.53	-70.86	708.78	708.78
A	325+12.53	-70.68	708.74	708.76
B	325+22.53	-70.50	708.69	708.72
C	325+32.53	-70.32	708.64	708.66
D	325+42.53	-70.14	708.60	708.60
@ Brg. Pier 1	325+52.70	-69.96	708.55	708.55
E	325+62.69	-69.78	708.50	708.52
F	325+72.69	-69.61	708.46	708.50
G	325+82.69	-69.43	708.41	708.47
H	325+92.69	-69.25	708.37	708.42
I	326+02.69	-69.07	708.32	708.36
J	326+12.69	-68.89	708.27	708.28
@ Brg. Pier 2	326+20.15	-68.76	708.24	708.24
K	326+30.14	-68.58	708.19	708.20
L	326+40.14	-68.40	708.14	708.16
M	326+50.14	-68.22	708.10	708.12
N	326+60.14	-68.04	708.05	708.07
@ Brg. W. Abut.	326+70.31	-67.86	708.00	708.00
Back of W. Abut.	326+71.57	-67.84	708.00	708.00

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+02.03	-63.00	708.94	708.94
@ Brg. E. Abut.	325+03.29	-63.00	708.94	708.94
A	325+13.29	-63.00	708.89	708.90
B	325+23.29	-63.00	708.84	708.86
C	325+33.29	-63.00	708.79	708.81
D	325+43.29	-63.00	708.74	708.74
@ Brg. Pier 1	325+53.37	-63.00	708.69	708.69
E	325+63.37	-63.00	708.64	708.66
F	325+73.37	-63.00	708.59	708.63
G	325+83.37	-63.00	708.54	708.60
H	325+93.37	-63.00	708.49	708.54
I	326+03.37	-63.00	708.44	708.47
J	326+13.37	-63.00	708.39	708.40
@ Brg. Pier 2	326+20.70	-63.00	708.35	708.35
K	326+30.70	-63.00	708.30	708.31
L	326+40.70	-63.00	708.25	708.27
M	326+50.70	-63.00	708.20	708.23
N	326+60.70	-63.00	708.15	708.17
@ Brg. W. Abut.	326+70.78	-63.00	708.10	708.10
Back of W. Abut.	326+72.03	-63.00	708.09	708.09

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+02.76	-55.50	709.09	709.09
@ Brg. E. Abut.	325+04.01	-55.50	709.08	709.08
A	325+14.01	-55.50	709.03	709.05
B	325+24.01	-55.50	708.98	709.01
C	325+34.01	-55.50	708.93	708.95
D	325+44.01	-55.50	708.88	708.89
@ Brg. Pier 1	325+54.09	-55.50	708.83	708.83
E	325+64.09	-55.50	708.78	708.80
F	325+74.09	-55.50	708.73	708.78
G	325+84.09	-55.50	708.68	708.74
H	325+94.09	-55.50	708.63	708.69
I	326+04.09	-55.50	708.58	708.62
J	326+14.09	-55.50	708.53	708.55
@ Brg. Pier 2	326+21.42	-55.50	708.50	708.50
K	326+31.42	-55.50	708.45	708.45
L	326+41.42	-55.50	708.40	708.42
M	326+51.42	-55.50	708.35	708.37
N	326+61.42	-55.50	708.30	708.31
@ Brg. W. Abut.	326+71.50	-55.50	708.25	708.25
Back of W. Abut.	326+72.76	-55.50	708.24	708.24

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+03.48	-48.00	709.23	709.23
@ Brg. E. Abut.	325+04.73	-48.00	709.22	709.22
A	325+14.73	-48.00	709.17	709.19
B	325+24.73	-48.00	709.12	709.15
C	325+34.73	-48.00	709.07	709.09
D	325+44.73	-48.00	709.02	709.03
@ Brg. Pier 1	325+54.81	-48.00	708.97	708.97
E	325+64.81	-48.00	708.92	708.94
F	325+74.81	-48.00	708.87	708.92
G	325+84.81	-48.00	708.82	708.88
H	325+94.81	-48.00	708.77	708.83
I	326+04.81	-48.00	708.72	708.76
J	326+14.81	-48.00	708.67	708.68
@ Brg. Pier 2	326+22.14	-48.00	708.64	708.64
K	326+32.14	-48.00	708.59	708.59
L	326+42.14	-48.00	708.54	708.55
M	326+52.14	-48.00	708.49	708.51
N	326+62.14	-48.00	708.44	708.45
@ Brg. W. Abut.	326+72.22	-48.00	708.39	708.39
Back of W. Abut.	326+73.48	-48.00	708.38	708.38

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+04.20	-40.50	709.34	709.34
@ Brg. E. Abut.	325+05.46	-40.50	709.33	709.33
A	325+15.46	-40.50	709.28	709.30
B	325+25.46	-40.50	709.23	709.26
C	325+35.46	-40.50	709.18	709.20
D	325+45.46	-40.50	709.13	709.14
@ Brg. Pier 1	325+55.53	-40.50	709.08	709.08
E	325+65.53	-40.50	709.03	709.05
F	325+75.53	-40.50	708.98	709.03
G	325+85.53	-40.50	708.93	708.99
H	325+95.53	-40.50	708.88	708.94
I	326+05.53	-40.50	708.83	708.87
J	326+15.53	-40.50	708.78	708.79
@ Brg. Pier 2	326+22.87	-40.50	708.74	708.74
K	326+32.87	-40.50	708.69	708.70
L	326+42.87	-40.50	708.64	708.66
M	326+52.87	-40.50	708.59	708.62
N	326+62.87	-40.50	708.54	708.56
@ Brg. W. Abut.	326+72.94	-40.50	708.49	708.49
Back of W. Abut.	326+74.20	-40.50	708.49	708.49

BEAM 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+04.92	-33.00	709.31	709.31
@ Brg. E. Abut.	325+06.18	-33.00	709.31	709.31
A	325+16.18	-33.00	709.26	709.27
B	325+26.18	-33.00	709.21	709.23
C	325+36.18	-33.00	709.16	709.17
D	325+46.18	-33.00	709.11	709.11
@ Brg. Pier 1	325+56.26	-33.00	709.05	709.05
E	325+66.26	-33.00	709.00	709.02
F	325+76.26	-33.00	708.95	709.00
G	325+86.26	-33.00	708.90	708.96
H	325+96.26	-33.00	708.85	708.91
I	326+06.26	-33.00	708.80	708.84
J	326+16.26	-33.00	708.75	708.77
@ Brg. Pier 2	326+23.59	-33.00	708.72	708.72
K	326+33.59	-33.00	708.67	708.67
L	326+43.59	-33.00	708.62	708.64
M	326+53.59	-33.00	708.57	708.59
N	326+63.59	-33.00	708.52	708.54
@ Brg. W. Abut.	326+73.67	-33.00	708.47	708.47
Back of W. Abut.	326+74.92	-33.00	708.46	708.46

DESIGNED PMH

CHECKED BB

DRAWN PMH

CHECKED BB

TOP OF SLAB ELEVATIONS 2 OF 5
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)



McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street
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SHEET NO.
SR-6
SHEETS
SR-48

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-2) VBR	KANKAKEE	558	333
CONTRACT NO. 66409				
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+05.64	-25.50	709.20	709.20
℄ Brg. E. Abut.	325+06.90	-25.50	709.19	709.19
A	325+16.90	-25.50	709.14	709.16
B	325+26.90	-25.50	709.09	709.11
C	325+36.90	-25.50	709.04	709.06
D	325+46.90	-25.50	708.99	708.99
℄ Brg. Pier 1	325+56.98	-25.50	708.94	708.94
E	325+66.98	-25.50	708.89	708.91
F	325+76.98	-25.50	708.84	708.88
G	325+86.98	-25.50	708.79	708.85
H	325+96.98	-25.50	708.74	708.80
I	326+06.98	-25.50	708.69	708.73
J	326+16.98	-25.50	708.64	708.65
℄ Brg. Pier 2	326+24.31	-25.50	708.60	708.60
K	326+34.31	-25.50	708.55	708.56
L	326+44.31	-25.50	708.50	708.52
M	326+54.31	-25.50	708.45	708.48
N	326+64.31	-25.50	708.40	708.42
℄ Brg. W. Abut.	326+74.39	-25.50	708.35	708.35
Back of W. Abut.	326+75.64	-25.50	708.35	708.35

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+06.17	-20.00	709.08	709.08
℄ Brg. E. Abut.	325+07.43	-20.00	709.08	709.08
A	325+17.43	-20.00	709.03	709.04
B	325+27.43	-20.00	708.98	709.00
C	325+37.43	-20.00	708.93	708.95
D	325+47.43	-20.00	708.88	708.88
℄ Brg. Pier 1	325+57.51	-20.00	708.83	708.83
E	325+67.51	-20.00	708.78	708.79
F	325+77.51	-20.00	708.73	708.77
G	325+87.51	-20.00	708.68	708.74
H	325+97.51	-20.00	708.63	708.68
I	326+07.51	-20.00	708.58	708.61
J	326+17.51	-20.00	708.53	708.54
℄ Brg. Pier 2	326+24.84	-20.00	708.49	708.49
K	326+34.84	-20.00	708.44	708.45
L	326+44.84	-20.00	708.39	708.41
M	326+54.84	-20.00	708.34	708.36
N	326+64.84	-20.00	708.29	708.31
℄ Brg. W. Abut.	326+74.92	-20.00	708.24	708.24
Back of W. Abut.	326+76.17	-20.00	708.23	708.23

BEAM 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+06.37	-18.00	709.04	709.04
℄ Brg. E. Abut.	325+07.62	-18.00	709.04	709.04
A	325+17.62	-18.00	708.99	709.00
B	325+27.62	-18.00	708.94	708.96
C	325+37.62	-18.00	708.89	708.90
D	325+47.62	-18.00	708.84	708.84
℄ Brg. Pier 1	325+57.70	-18.00	708.79	708.79
E	325+67.70	-18.00	708.74	708.75
F	325+77.70	-18.00	708.69	708.73
G	325+87.70	-18.00	708.64	708.70
H	325+97.70	-18.00	708.59	708.64
I	326+07.70	-18.00	708.54	708.57
J	326+17.70	-18.00	708.49	708.50
℄ Brg. Pier 2	326+25.03	-18.00	708.45	708.45
K	326+35.03	-18.00	708.40	708.40
L	326+45.03	-18.00	708.35	708.37
M	326+55.03	-18.00	708.30	708.32
N	326+65.03	-18.00	708.25	708.27
℄ Brg. W. Abut.	326+75.11	-18.00	708.20	708.20
Back of W. Abut.	326+76.37	-18.00	708.19	708.19

SB PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+06.80	-13.50	708.95	708.95
℄ Brg. E. Abut.	325+08.06	-13.50	708.94	708.94
A	325+18.06	-13.50	708.89	708.91
B	325+28.06	-13.50	708.84	708.87
C	325+38.06	-13.50	708.79	708.81
D	325+48.06	-13.50	708.74	708.75
℄ Brg. Pier 1	325+58.13	-13.50	708.69	708.69
E	325+68.13	-13.50	708.64	708.66
F	325+78.13	-13.50	708.59	708.64
G	325+88.13	-13.50	708.54	708.60
H	325+98.13	-13.50	708.49	708.55
I	326+08.13	-13.50	708.44	708.48
J	326+18.13	-13.50	708.39	708.41
℄ Brg. Pier 2	326+25.47	-13.50	708.36	708.36
K	326+35.47	-13.50	708.31	708.31
L	326+45.47	-13.50	708.26	708.28
M	326+55.47	-13.50	708.21	708.23
N	326+65.47	-13.50	708.16	708.17
℄ Brg. W. Abut.	326+75.54	-13.50	708.11	708.11
Back of W. Abut.	326+76.80	-13.50	708.10	708.10

BEAM 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+07.09	-10.50	708.83	708.83
℄ Brg. E. Abut.	325+08.34	-10.50	708.82	708.82
A	325+18.34	-10.50	708.77	708.79
B	325+28.34	-10.50	708.72	708.75
C	325+38.34	-10.50	708.67	708.69
D	325+48.34	-10.50	708.62	708.63
℄ Brg. Pier 1	325+58.42	-10.50	708.57	708.57
E	325+68.42	-10.50	708.52	708.54
F	325+78.42	-10.50	708.47	708.52
G	325+88.42	-10.50	708.42	708.48
H	325+98.42	-10.50	708.37	708.43
I	326+08.42	-10.50	708.32	708.36
J	326+18.42	-10.50	708.27	708.28
℄ Brg. Pier 2	326+25.76	-10.50	708.23	708.23
K	326+35.76	-10.50	708.18	708.19
L	326+45.76	-10.50	708.14	708.15
M	326+55.76	-10.50	708.08	708.11
N	326+65.76	-10.50	708.03	708.05
℄ Brg. W. Abut.	326+75.83	-10.50	707.98	707.98
Back of W. Abut.	326+77.09	-10.50	707.98	707.98

BEAM 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+07.81	-3.00	708.52	708.52
℄ Brg. E. Abut.	325+09.07	-3.00	708.52	708.52
A	325+19.07	-3.00	708.47	708.49
B	325+29.07	-3.00	708.42	708.44
C	325+39.07	-3.00	708.37	708.39
D	325+49.07	-3.00	708.32	708.32
℄ Brg. Pier 1	325+59.14	-3.00	708.27	708.27
E	325+69.14	-3.00	708.22	708.24
F	325+79.14	-3.00	708.17	708.21
G	325+89.14	-3.00	708.12	708.18
H	325+99.14	-3.00	708.07	708.13
I	326+09.14	-3.00	708.02	708.06
J	326+19.14	-3.00	707.97	707.98
℄ Brg. Pier 2	326+26.48	-3.00	707.93	707.93
K	326+36.48	-3.00	707.88	707.89
L	326+46.48	-3.00	707.83	707.85
M	326+56.48	-3.00	707.78	707.81
N	326+66.48	-3.00	707.73	707.75
℄ Brg. W. Abut.	326+76.56	-3.00	707.68	707.68
Back of W. Abut.	326+77.81	-3.00	707.67	707.67

BEAM 13

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+08.39	3.00	708.52	708.52
℄ Brg. E. Abut.	325+09.64	3.00	708.52	708.52
A	325+19.64	3.00	708.47	708.48
B	325+29.64	3.00	708.42	708.44
C	325+39.64	3.00	708.37	708.38
D	325+49.64	3.00	708.32	708.32
℄ Brg. Pier 1	325+59.72	3.00	708.27	708.27
E	325+69.72	3.00	708.22	708.23
F	325+79.72	3.00	708.17	708.21
G	325+89.72	3.00	708.12	708.18
H	325+99.72	3.00	708.07	708.12
I	326+09.72	3.00	708.02	708.05
J	326+19.72	3.00	707.97	707.98
℄ Brg. Pier 2	326+27.06	3.00	707.93	707.93
K	326+37.06	3.00	707.88	707.88
L	326+47.06	3.00	707.83	707.85
M	326+57.06	3.00	707.78	707.80
N	326+67.06	3.00	707.73	707.75
℄ Brg. W. Abut.	326+77.13	3.00	707.68	707.68
Back of W. Abut.	326+78.39	3.00	707.67	707.67

BEAM 14

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+09.14	10.83	708.83	708.83
℄ Brg. E. Abut.	325+10.40	10.83	708.83	708.83
A	325+20.40	10.83	708.78	708.79
B	325+30.40	10.83	708.73	708.75
C	325+40.40	10.83	708.68	708.69
D	325+50.40	10.83	708.63	708.63
℄ Brg. Pier 1	325+60.48	10.83	708.57	708.57
E	325+70.48	10.83	708.52	708.54
F	325+80.48	10.83	708.47	708.52
G	325+90.48	10.83	708.42	708.48
H	326+00.48	10.83	708.37	708.43
I	326+10.48	10.83	708.32	708.36
J	326+20.48	10.83	708.27	708.29
℄ Brg. Pier 2	326+27.81	10.83	708.24	708.24
K	326+37.81	10.83	708.19	708.19
L	326+47.81	10.83	708.14	708.16
M	326+57.81	10.83	708.09	708.11
N	326+67.81	10.83	708.04	708.06
℄ Brg. W. Abut.	326+77.89	10.83	707.99	707.99
Back of W. Abut.	326+79.14	10.83	707.98	707.98

TOP OF SLAB ELEVATIONS 3 OF 5
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

DESIGNED	PMH
CHECKED	BB
DRAWN	PMH
CHECKED	BB



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Chicago, Illinois 60601
(312) 946-8600

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-7 SHEETS SR-48	57	(46-2) VBR	KANKAKEE	558	334
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NB PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+09.40	13.50	708.94	708.94
@ Brg. E. Abut.	325+10.66	13.50	708.93	708.93
A	325+20.66	13.50	708.88	708.90
B	325+30.66	13.50	708.83	708.86
C	325+40.66	13.50	708.78	708.80
D	325+50.66	13.50	708.73	708.74
@ Brg. Pier 1	325+60.73	13.50	708.68	708.68
E	325+70.73	13.50	708.63	708.65
F	325+80.73	13.50	708.58	708.62
G	325+90.73	13.50	708.53	708.59
H	326+00.73	13.50	708.48	708.54
I	326+10.73	13.50	708.43	708.47
J	326+20.73	13.50	708.38	708.39
@ Brg. Pier 2	326+28.07	13.50	708.34	708.34
K	326+38.07	13.50	708.29	708.30
L	326+48.07	13.50	708.24	708.26
M	326+58.07	13.50	708.19	708.22
N	326+68.07	13.50	708.14	708.16
@ Brg. W. Abut.	326+78.14	13.50	708.09	708.09
Back of W. Abut.	326+79.40	13.50	708.09	708.09

BEAM 15

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+09.90	18.67	709.04	709.04
@ Brg. E. Abut.	325+11.15	18.67	709.03	709.03
A	325+21.15	18.67	708.98	709.00
B	325+31.15	18.67	708.93	708.96
C	325+41.15	18.67	708.88	708.90
D	325+51.15	18.67	708.83	708.84
@ Brg. Pier 1	325+61.23	18.67	708.78	708.78
E	325+71.23	18.67	708.73	708.75
F	325+81.23	18.67	708.68	708.73
G	325+91.23	18.67	708.63	708.69
H	326+01.23	18.67	708.58	708.64
I	326+11.23	18.67	708.53	708.57
J	326+21.23	18.67	708.48	708.49
@ Brg. Pier 2	326+28.56	18.67	708.44	708.44
K	326+38.56	18.67	708.39	708.40
L	326+48.56	18.67	708.34	708.36
M	326+58.56	18.67	708.29	708.32
N	326+68.56	18.67	708.24	708.26
@ Brg. W. Abut.	326+78.64	18.67	708.19	708.19
Back of W. Abut.	326+79.90	18.67	708.19	708.19

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+10.07	20.50	709.07	709.07
@ Brg. E. Abut.	325+11.33	20.50	709.07	709.07
A	325+21.33	20.50	709.02	709.03
B	325+31.33	20.50	708.97	708.99
C	325+41.33	20.50	708.92	708.94
D	325+51.33	20.50	708.87	708.87
@ Brg. Pier 1	325+61.41	20.50	708.82	708.82
E	325+71.41	20.50	708.77	708.79
F	325+81.41	20.50	708.72	708.76
G	325+91.41	20.50	708.67	708.73
H	326+01.41	20.50	708.62	708.67
I	326+11.41	20.50	708.57	708.60
J	326+21.41	20.50	708.52	708.53
@ Brg. Pier 2	326+28.74	20.50	708.48	708.48
K	326+38.74	20.50	708.43	708.44
L	326+48.74	20.50	708.38	708.40
M	326+58.74	20.50	708.33	708.36
N	326+68.74	20.50	708.28	708.30
@ Brg. W. Abut.	326+78.82	20.50	708.23	708.23
Back of W. Abut.	326+80.07	20.50	708.22	708.22

BEAM 16

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+10.65	26.50	709.19	709.19
@ Brg. E. Abut.	325+11.91	26.50	709.18	709.18
A	325+21.91	26.50	709.13	709.15
B	325+31.91	26.50	709.08	709.10
C	325+41.91	26.50	709.03	709.05
D	325+51.91	26.50	708.98	708.98
@ Brg. Pier 1	325+61.98	26.50	708.93	708.93
E	325+71.98	26.50	708.88	708.90
F	325+81.98	26.50	708.83	708.87
G	325+91.98	26.50	708.78	708.84
H	326+01.98	26.50	708.73	708.79
I	326+11.98	26.50	708.68	708.72
J	326+21.98	26.50	708.63	708.64
@ Brg. Pier 2	326+29.32	26.50	708.59	708.59
K	326+39.32	26.50	708.54	708.55
L	326+49.32	26.50	708.49	708.51
M	326+59.32	26.50	708.44	708.47
N	326+69.32	26.50	708.39	708.41
@ Brg. W. Abut.	326+79.40	26.50	708.34	708.34
Back of W. Abut.	326+80.65	26.50	708.34	708.34

BEAM 17

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+11.41	34.33	709.30	709.30
@ Brg. E. Abut.	325+12.66	34.33	709.29	709.29
A	325+22.66	34.33	709.24	709.26
B	325+32.66	34.33	709.19	709.22
C	325+42.66	34.33	709.14	709.16
D	325+52.66	34.33	709.09	709.10
@ Brg. Pier 1	325+62.74	34.33	709.04	709.04
E	325+72.74	34.33	708.99	709.01
F	325+82.74	34.33	708.94	708.99
G	325+92.74	34.33	708.89	708.95
H	326+02.74	34.33	708.84	708.90
I	326+12.74	34.33	708.79	708.83
J	326+22.74	34.33	708.74	708.75
@ Brg. Pier 2	326+30.07	34.33	708.71	708.71
K	326+40.07	34.33	708.66	708.66
L	326+50.07	34.33	708.61	708.62
M	326+60.07	34.33	708.56	708.58
N	326+70.07	34.33	708.51	708.52
@ Brg. W. Abut.	326+80.15	34.33	708.46	708.46
Back of W. Abut.	326+81.41	34.33	708.45	708.45

BEAM 18

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+12.16	42.17	709.27	709.27
@ Brg. E. Abut.	325+13.42	42.17	709.27	709.27
A	325+23.42	42.17	709.22	709.23
B	325+33.42	42.17	709.17	709.19
C	325+43.42	42.17	709.12	709.14
D	325+53.42	42.17	709.07	709.07
@ Brg. Pier 1	325+63.49	42.17	709.02	709.02
E	325+73.49	42.17	708.97	708.98
F	325+83.49	42.17	708.92	708.96
G	325+93.49	42.17	708.87	708.93
H	326+03.49	42.17	708.82	708.87
I	326+13.49	42.17	708.77	708.80
J	326+23.49	42.17	708.72	708.73
@ Brg. Pier 2	326+30.83	42.17	708.68	708.68
K	326+40.83	42.17	708.63	708.64
L	326+50.83	42.17	708.58	708.60
M	326+60.83	42.17	708.53	708.55
N	326+70.83	42.17	708.48	708.50
@ Brg. W. Abut.	326+80.90	42.17	708.43	708.43
Back of W. Abut.	326+82.16	42.17	708.42	708.42

BEAM 19

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+12.91	50.00	709.15	709.15
@ Brg. E. Abut.	325+14.17	50.00	709.14	709.14
A	325+24.17	50.00	709.09	709.11
B	325+34.17	50.00	709.04	709.07
C	325+44.17	50.00	708.99	709.01
D	325+54.17	50.00	708.94	708.95
@ Brg. Pier 1	325+64.25	50.00	708.89	708.89
E	325+74.25	50.00	708.84	708.86
F	325+84.25	50.00	708.79	708.84
G	325+94.25	50.00	708.74	708.80
H	326+04.25	50.00	708.69	708.75
I	326+14.25	50.00	708.64	708.68
J	326+24.25	50.00	708.59	708.60
@ Brg. Pier 2	326+31.58	50.00	708.56	708.56
K	326+41.58	50.00	708.51	708.51
L	326+51.58	50.00	708.46	708.47
M	326+61.58	50.00	708.41	708.43
N	326+71.58	50.00	708.36	708.37
@ Brg. W. Abut.	326+81.66	50.00	708.31	708.31
Back of W. Abut.	326+82.91	50.00	708.30	708.30

BEAM 20

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+13.67	57.83	708.99	708.99
@ Brg. E. Abut.	325+14.92	57.83	708.98	708.98
A	325+24.92	57.83	708.93	708.95
B	325+34.92	57.83	708.88	708.91
C	325+44.92	57.83	708.83	708.85
D	325+54.92	57.83	708.78	708.79
@ Brg. Pier 1	325+65.00	57.83	708.73	708.73
E	325+75.00	57.83	708.68	708.70
F	325+85.00	57.83	708.63	708.68
G	325+95.00	57.83	708.58	708.64
H	326+05.00	57.83	708.53	708.59
I	326+15.00	57.83	708.48	708.52
J	326+25.00	57.83	708.43	708.44
@ Brg. Pier 2	326+32.34	57.83	708.40	708.40
K	326+42.34	57.83	708.35	708.35
L	326+52.34	57.83	708.30	708.31
M	326+62.34	57.83	708.25	708.27
N	326+72.34	57.83	708.20	708.21
@ Brg. W. Abut.	326+82.41	57.83	708.14	708.14
Back of W. Abut.	326+83.67	57.83	708.14	708.14

TOP OF SLAB ELEVATIONS 4 OF 5
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

DESIGNED	PMH
CHECKED	BB
DRAWN	PMH
CHECKED	BB



McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street
Chicago, Illinois 60601
(312) 946-8600

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-8 SHEETS SR-48	57	(46-2) VBR	KANKAKEE	558	335
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM 21

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+14.42	65.67	708.83	708.83
℄ Brg. E. Abut.	325+15.68	65.67	708.82	708.82
A	325+25.68	65.67	708.77	708.79
B	325+35.68	65.67	708.72	708.75
C	325+45.68	65.67	708.67	708.69
D	325+55.68	65.67	708.62	708.63
℄ Brg. Pier 1	325+65.76	65.67	708.57	708.57
E	325+75.76	65.67	708.52	708.54
F	325+85.76	65.67	708.47	708.52
G	325+95.76	65.67	708.42	708.48
H	326+05.76	65.67	708.37	708.43
I	326+15.76	65.67	708.32	708.36
J	326+25.76	65.67	708.27	708.28
℄ Brg. Pier 2	326+33.09	65.67	708.23	708.23
K	326+43.09	65.67	708.18	708.19
L	326+53.09	65.67	708.13	708.15
M	326+63.09	65.67	708.08	708.11
N	326+73.09	65.67	708.03	708.05
℄ Brg. W. Abut.	326+83.17	65.67	707.98	707.98
Back of W. Abut.	326+84.42	65.67	707.98	707.98

BEAM 22

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Abut.	325+15.25	74.28	708.65	708.65
℄ Brg. E. Abut.	325+16.51	74.25	708.65	708.65
A	325+26.50	74.06	708.60	708.62
B	325+36.50	73.87	708.55	708.58
C	325+46.50	73.67	708.51	708.53
D	325+56.50	73.48	708.46	708.47
℄ Brg. Pier 1	325+66.49	73.29	708.42	708.42
E	325+76.49	73.10	708.37	708.39
F	325+86.49	72.90	708.32	708.37
G	325+96.48	72.71	708.28	708.34
H	326+06.48	72.52	708.23	708.29
I	326+16.48	72.33	708.18	708.22
J	326+26.48	72.13	708.14	708.15
℄ Brg. Pier 2	326+33.70	71.99	708.11	708.11
K	326+43.70	71.80	708.06	708.06
L	326+53.70	71.61	708.01	708.03
M	326+63.69	71.42	707.97	707.99
N	326+73.69	71.22	707.92	707.94
℄ Brg. W. Abut.	326+83.68	71.03	707.87	707.87
Back of W. Abut.	326+84.94	71.01	707.87	707.87

DESIGNED	PMH
CHECKED	BB
DRAWN	PMH
CHECKED	BB

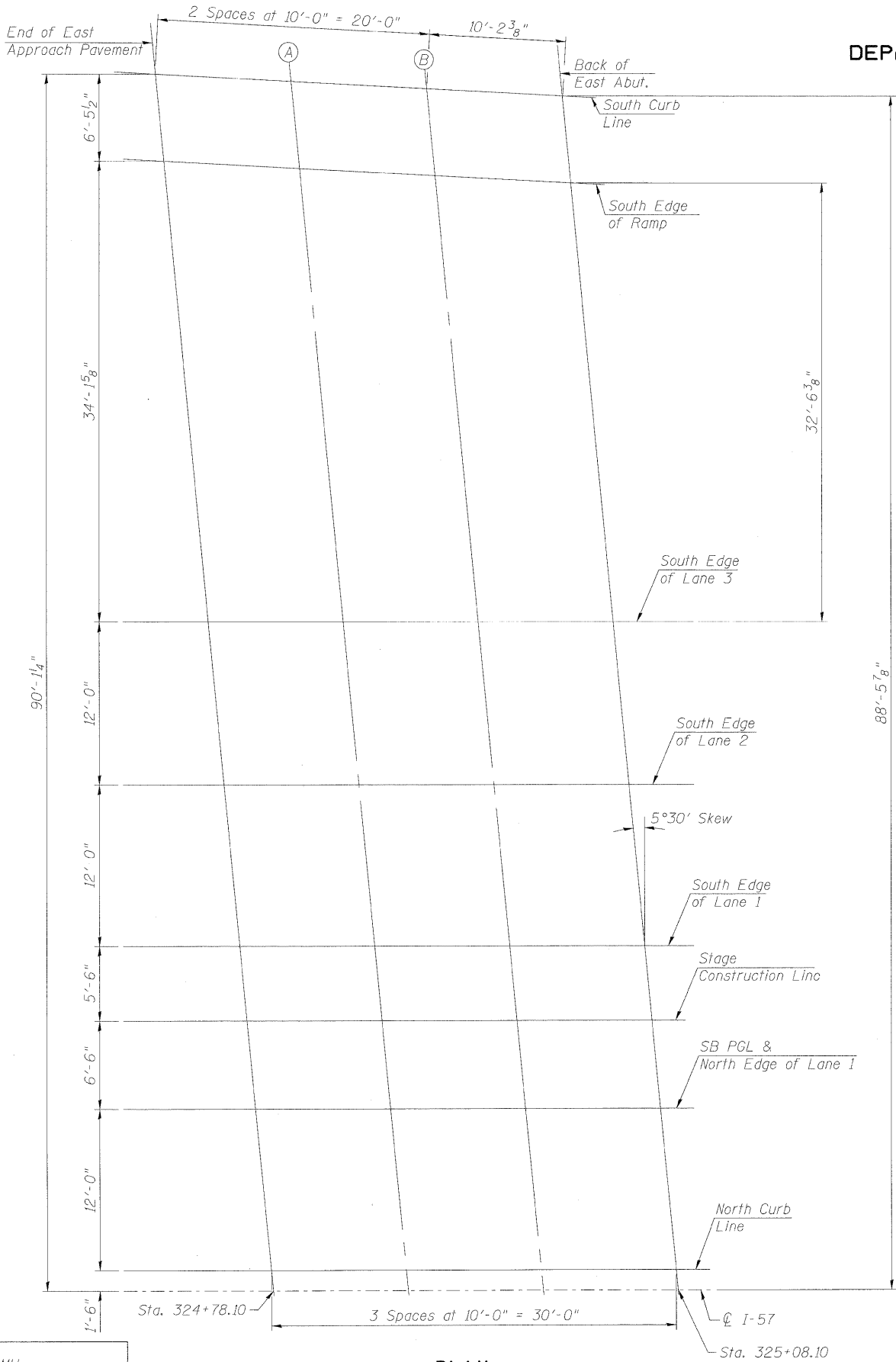


McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street
Chicago, Illinois 60601
(312) 946-8600

SHEET NO. SR-9 SHEETS SR-48	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	(46-2) VBR	KANKAKEE	558	336
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

TOP OF SLAB ELEVATIONS 5 OF 5
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN
(East Approach SB)

DESIGNED	PMH
CHECKED	MJL
DRAWN	PMH
CHECKED	MJL

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End E. App. Pavt	324+69.43	-90.10	708.57
A	324+79.41	-89.57	708.53
B	324+89.40	-89.03	708.49
Back E. Abut.	324+99.58	-88.49	708.15

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End E. App. Pavt	324+70.05	-83.64	708.69
A	324+80.03	-83.11	708.65
B	324+90.02	-82.57	708.61
Back E. Abut.	325+00.20	-82.03	708.57

SOUTH EDGE OF LANE 3

Location	Station	Offset	Theoretical Grade Elevations
End E. App. Pavt	324+73.33	-49.50	709.36
A	324+83.33	-49.50	709.31
B	324+93.33	-49.50	709.26
Back E. Abut.	325+03.33	-49.50	709.21

SOUTH EDGE OF LANE 2

Location	Station	Offset	Theoretical Grade Elevations
End E. App. Pavt	324+74.49	-37.50	709.53
A	324+84.49	-37.50	709.48
B	324+94.49	-37.50	709.43
Back E. Abut.	325+04.49	-37.50	709.38

SOUTH EDGE OF LANE 1

Location	Station	Offset	Theoretical Grade Elevations
End E. App. Pavt	324+75.65	-25.50	709.35
A	324+85.65	-25.50	709.30
B	324+95.65	-25.50	709.25
Back E. Abut.	325+05.65	-25.50	709.20

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
End E. App. Pavt	324+76.18	-20.00	709.23
A	324+86.18	-20.00	709.18
B	324+96.18	-20.00	709.13
Back E. Abut.	325+06.18	-20.00	709.08

SB PGL & NORTH EDGE OF LANE 1

Location	Station	Offset	Theoretical Grade Elevations
End E. App. Pavt	324+76.80	-13.50	709.10
A	324+86.80	-13.50	709.05
B	324+96.80	-13.50	709.00
Back E. Abut.	325+06.80	-13.50	708.95

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End E. App. Pavt	324+77.96	-1.50	708.61
A	324+87.96	-1.50	708.56
B	324+97.96	-1.50	708.51
Back E. Abut.	325+07.96	-1.50	708.46

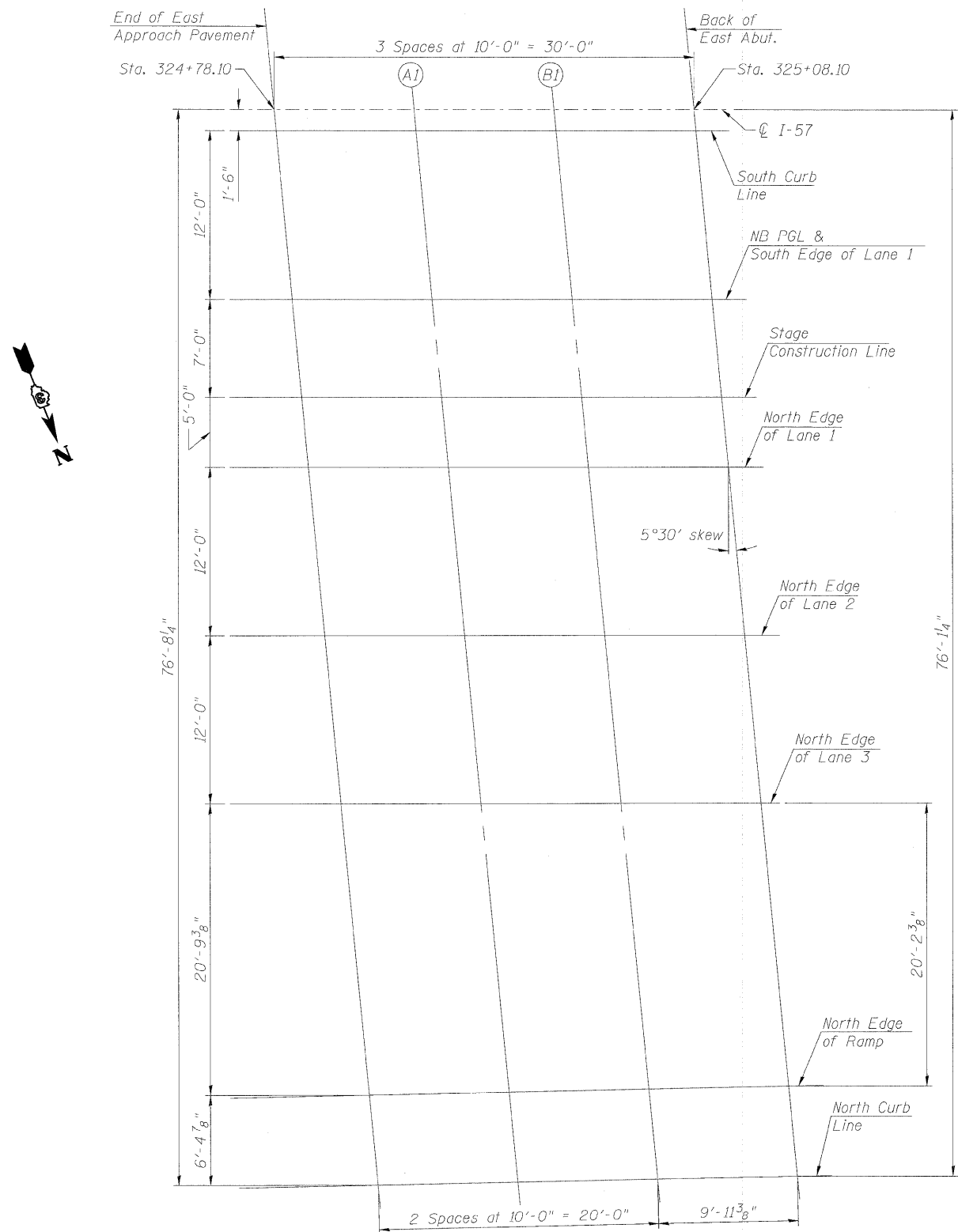
**TOP OF EAST APPROACH
SLAB ELEVATIONS (SB)
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)**



McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street
Chicago, Illinois 60601
(312) 946-8600

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-10	57	(46-2) VBR	KANKAKEE	558	337
SHEETS					
SR-48					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN
(East Approach NB)

DESIGNED	PMH
CHECKED	MJL
DRAWN	PMH
CHECKED	MJL

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End E. App. Pavt	324+78.25	1.50	708.61
A1	324+88.25	1.50	708.56
B1	324+98.25	1.50	708.51
Back E. Abut.	325+08.25	1.50	708.46

NB PGL & SOUTH EDGE OF LANE 1

Location	Station	Offset	Theoretical Grade Elevations
End E. App. Pavt	324+79.40	13.50	709.09
A1	324+89.40	13.50	709.04
B1	324+99.40	13.50	708.99
Back E. Abut.	325+09.40	13.50	708.94

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
End E. App. Pavt	324+80.07	20.50	709.22
A1	324+90.07	20.50	709.17
B1	325+00.07	20.50	709.12
Back E. Abut.	325+10.07	20.50	709.07

NORTH EDGE OF LANE 1

Location	Station	Offset	Theoretical Grade Elevations
End E. App. Pavt	324+80.56	25.50	709.32
A1	324+90.56	25.50	709.27
B1	325+00.56	25.50	709.22
Back E. Abut.	325+10.56	25.50	709.17

NORTH EDGE OF LANE 2

Location	Station	Offset	Theoretical Grade Elevations
End E. App. Pavt	324+81.71	37.50	709.50
A1	324+91.71	37.50	709.45
B1	325+01.71	37.50	709.40
Back E. Abut.	325+11.71	37.50	709.35

NORTH EDGE OF LANE 3

Location	Station	Offset	Theoretical Grade Elevations
End E. App. Pavt	324+82.87	49.50	709.31
A1	324+92.87	49.50	709.26
B1	325+02.87	49.50	709.21
Back E. Abut.	325+12.87	49.50	709.16

NORTH EDGE OF RAMP

Location	Station	Offset	Theoretical Grade Elevations
End E. App. Pavt	324+84.87	70.28	708.88
A1	324+94.87	70.09	708.84
B1	325+04.86	69.89	708.79
Back E. Abut.	325+14.81	69.70	708.75

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End E. App. Pavt	324+85.48	76.68	708.75
A1	324+95.48	76.49	708.71
B1	325+05.48	76.30	708.66
Back E. Abut.	325+15.43	76.11	708.61

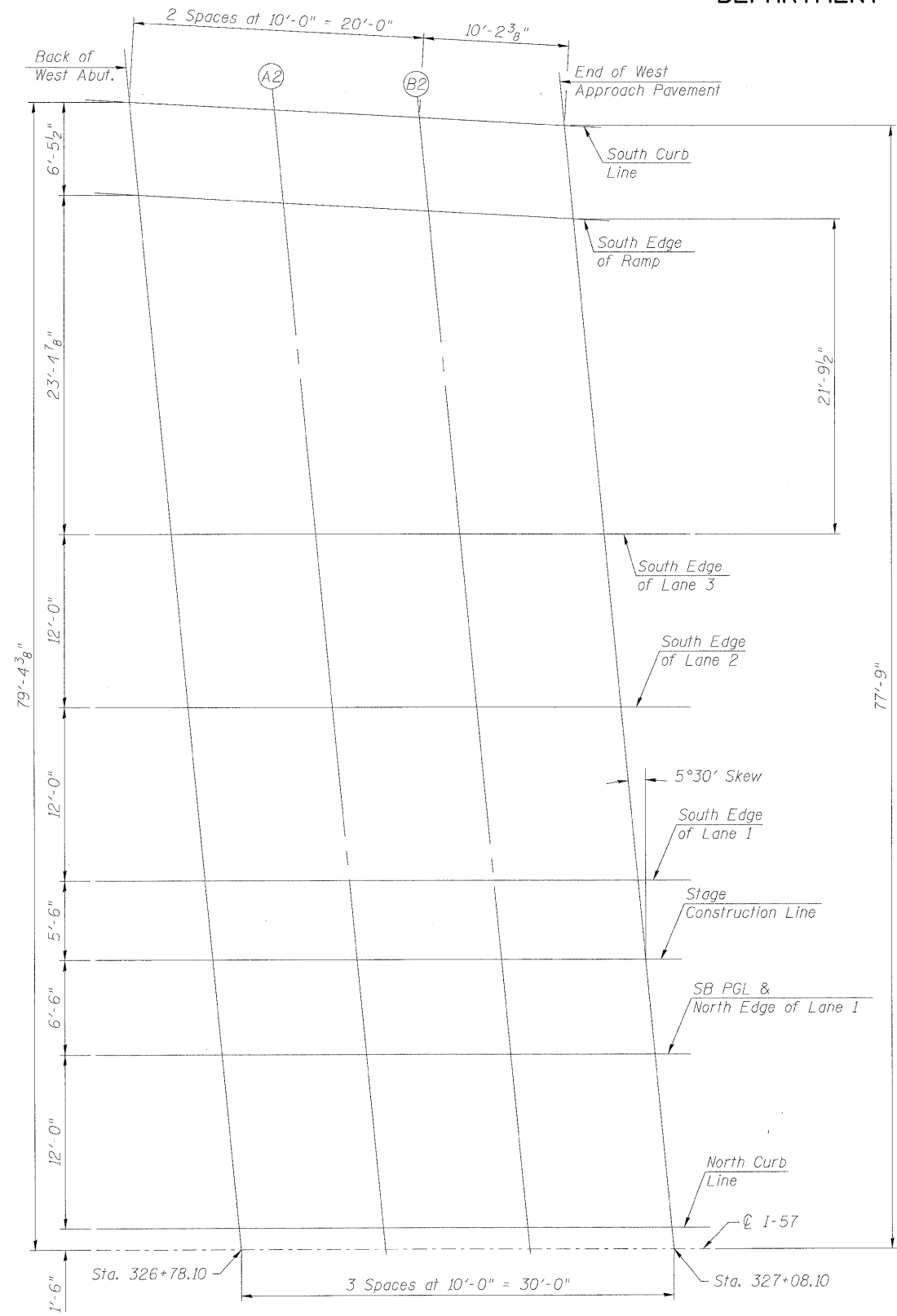
**TOP OF EAST APPROACH
SLAB ELEVATIONS (NB)
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)**



McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street
Chicago, Illinois 60601
(312) 946-8600

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-11	57	(46-2) VBR	KANKAKEE	558	338
SHEETS					
SR-48					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN
(West Approach SB)

DESIGNED	PMH
CHECKED	MJL
DRAWN	PMH
CHECKED	MJL

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Back W. Abut.	326+70.46	-79.36	707.77
A2	326+80.44	-78.83	707.73
B2	326+90.43	-78.30	707.70
End W. App. Pavt	327+00.61	-77.75	707.66

SOUTH EDGE OF RAMP

Location	Station	Offset	Theoretical Grade Elevations
Back W. Abut.	326+71.08	-72.90	707.90
A2	326+81.07	-72.37	707.86
B2	326+91.05	-71.84	707.82
End W. App. Pavt	327+01.24	-71.29	707.78

SOUTH EDGE OF LANE 3

Location	Station	Offset	Theoretical Grade Elevations
Back W. Abut.	326+73.33	-49.50	708.36
A2	326+83.33	-49.50	708.31
B2	326+93.33	-49.50	708.26
End W. App. Pavt	327+03.33	-49.50	708.21

SOUTH EDGE OF LANE 2

Location	Station	Offset	Theoretical Grade Elevations
Back W. Abut.	326+74.49	-37.50	708.53
A2	326+84.49	-37.50	708.48
B2	326+94.49	-37.50	708.43
End W. App. Pavt	327+04.49	-37.50	708.38

SOUTH EDGE OF LANE 1

Location	Station	Offset	Theoretical Grade Elevations
Back W. Abut.	326+75.65	-25.50	708.35
A2	326+85.65	-25.50	708.30
B2	326+95.65	-25.50	708.25
End W. App. Pavt	327+05.65	-25.50	708.20

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
Back W. Abut.	326+76.18	-20.00	708.23
A2	326+86.18	-20.00	708.18
B2	326+96.18	-20.00	708.13
End W. App. Pavt	327+06.18	-20.00	708.08

SB PGL & NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Back W. Abut.	326+76.80	-13.50	708.10
A2	326+86.80	-13.50	708.05
B2	326+96.80	-13.50	708.00
End W. App. Pavt	327+06.80	-13.50	707.95

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Back W. Abut.	326+77.96	-1.50	707.61
A2	326+87.96	-1.50	707.56
B2	326+97.96	-1.50	707.51
End W. App. Pavt	327+07.96	-1.50	707.46

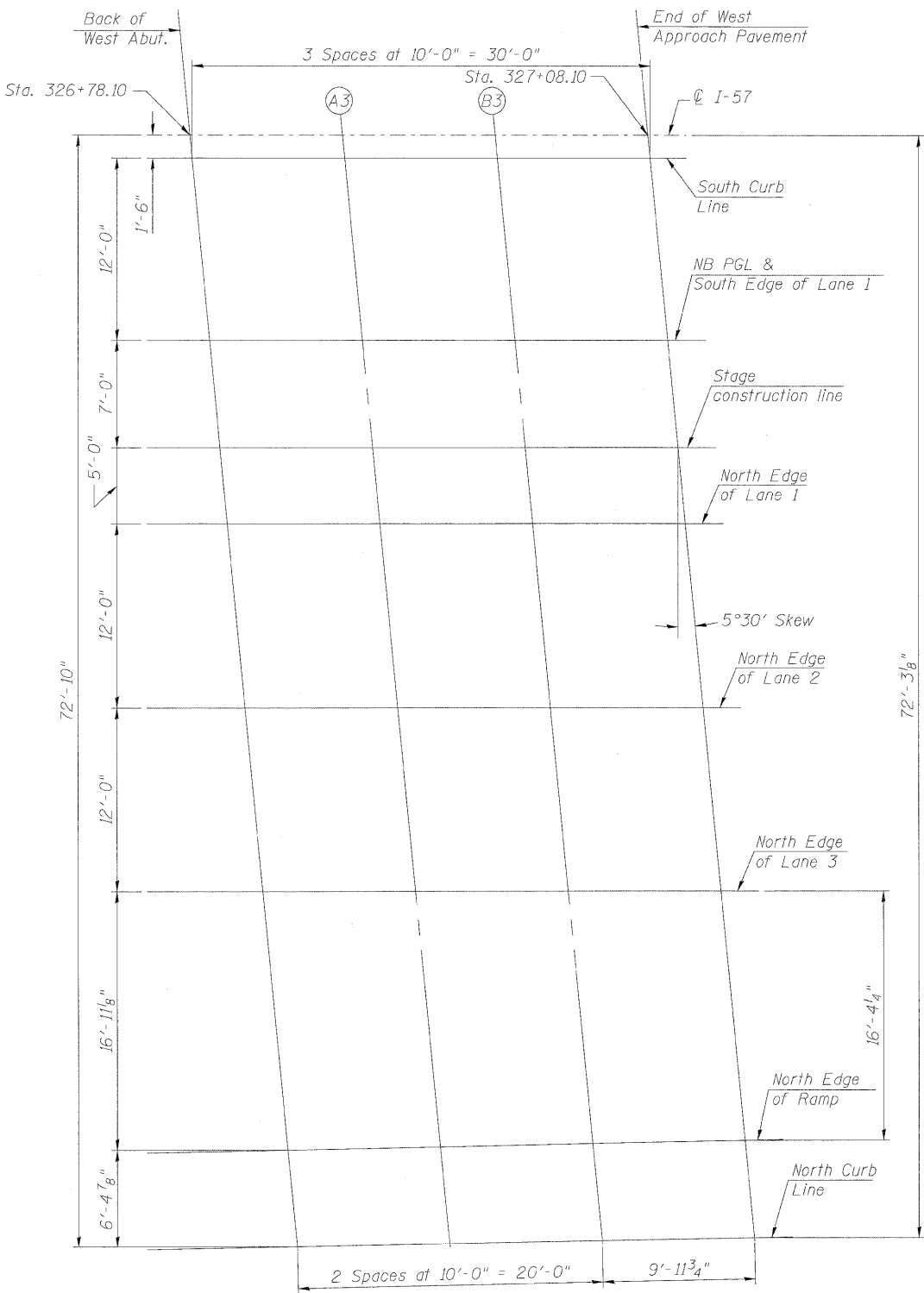
**TOP OF WEST APPROACH
SLAB ELEVATIONS (SB)
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)**



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Engineers / Architects
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Chicago, Illinois 60601
(312) 946-8600

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-12	57	(46-2) VBR	KANKAKEE	558	339
SHEETS					
SR-48					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN
(West Approach NB)

DESIGNED	PMH
CHECKED	MJL
DRAWN	PMH
CHECKED	MJL

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Back W. Abut.	326+78.25	1.50	707.61
A3	326+88.25	1.50	707.56
B3	326+98.25	1.50	707.51
End W. App. Pavt	327+08.25	1.50	707.46

NB PGL & SOUTH EDGE OF LANE 1

Location	Station	Offset	Theoretical Grade Elevations
Back W. Abut.	326+79.40	13.50	708.09
A3	326+89.40	13.50	708.04
B3	326+99.40	13.50	707.99
End W. App. Pavt	327+09.40	13.50	707.94

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
Back W. Abut.	326+80.07	20.50	708.22
A3	326+90.07	20.50	708.17
B3	327+00.07	20.50	708.12
End W. App. Pavt	327+10.07	20.50	708.07

NORTH EDGE OF LANE 1

Location	Station	Offset	Theoretical Grade Elevations
Back W. Abut.	326+80.56	25.50	708.32
A3	326+90.56	25.50	708.27
B3	327+00.56	25.50	708.22
End W. App. Pavt	327+10.56	25.50	708.17

NORTH EDGE OF LANE 2

Location	Station	Offset	Theoretical Grade Elevations
Back W. Abut.	326+81.71	37.50	708.50
A3	326+91.71	37.50	708.45
B3	327+01.71	37.50	708.40
End W. App. Pavt	327+11.71	37.50	708.35

NORTH EDGE OF LANE 3

Location	Station	Offset	Theoretical Grade Elevations
Back W. Abut.	326+82.87	49.50	708.31
A3	326+92.87	49.50	708.26
B3	327+02.87	49.50	708.21
End W. App. Pavt	327+12.87	49.50	708.16

NORTH EDGE OF RAMP

Location	Station	Offset	Theoretical Grade Elevations
Back W. Abut.	326+84.50	66.43	707.96
A3	326+94.50	66.24	707.92
B3	327+04.49	66.04	707.87
End W. App. Pavt	327+14.44	65.85	707.82

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Back W. Abut.	326+85.11	72.83	707.83
A3	326+95.11	72.64	707.79
B3	327+05.11	72.45	707.74
End W. App. Pavt	327+15.06	72.26	707.69

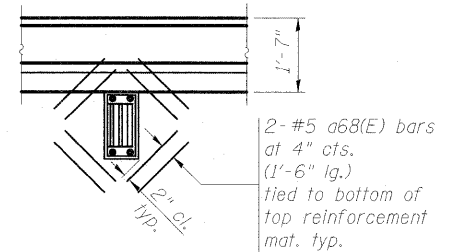
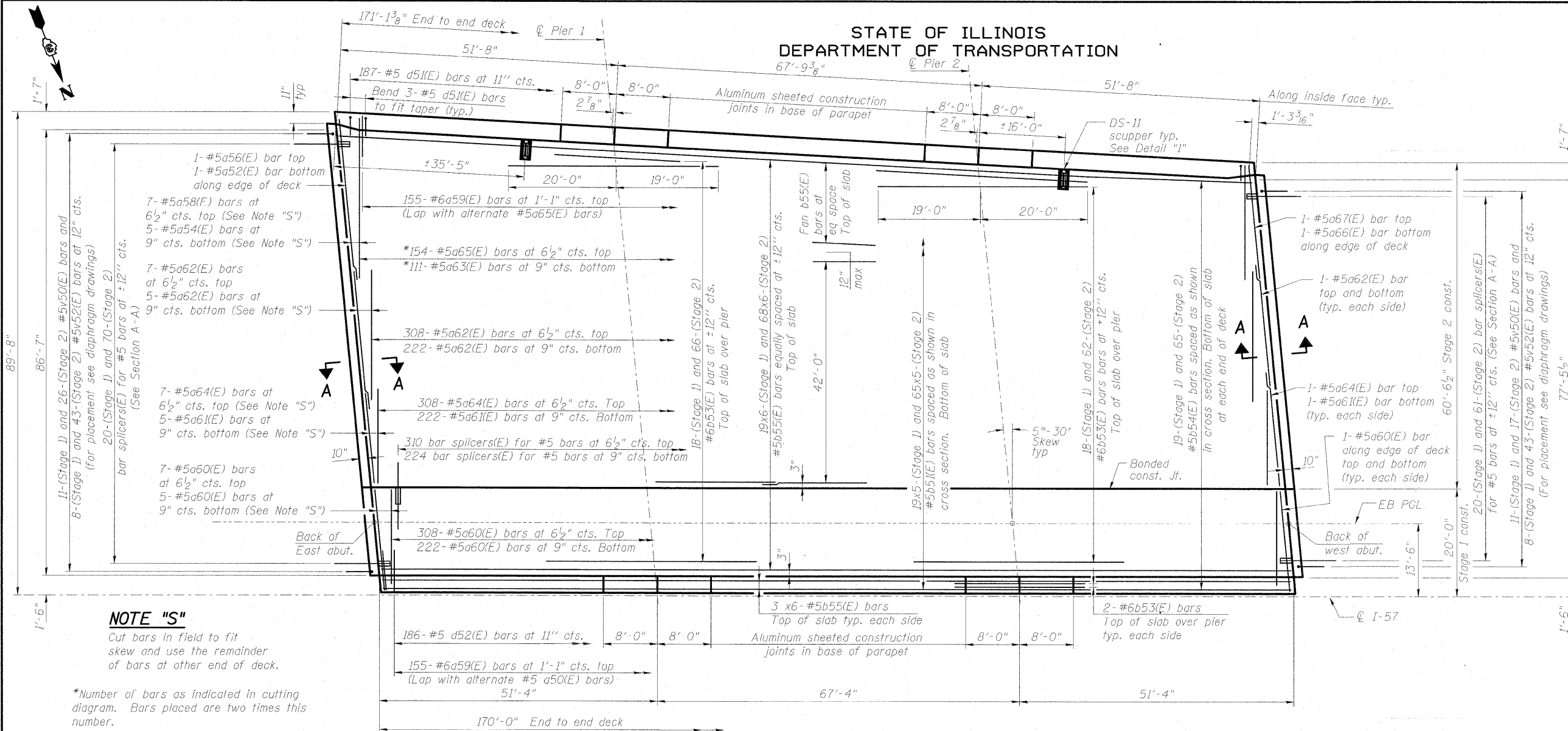
**TOP OF WEST APPROACH
SLAB ELEVATIONS (NB)
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)**



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SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-13	57	(46-2) VBR	KANKAKEE	558	340
SHEETS					
SR-48					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



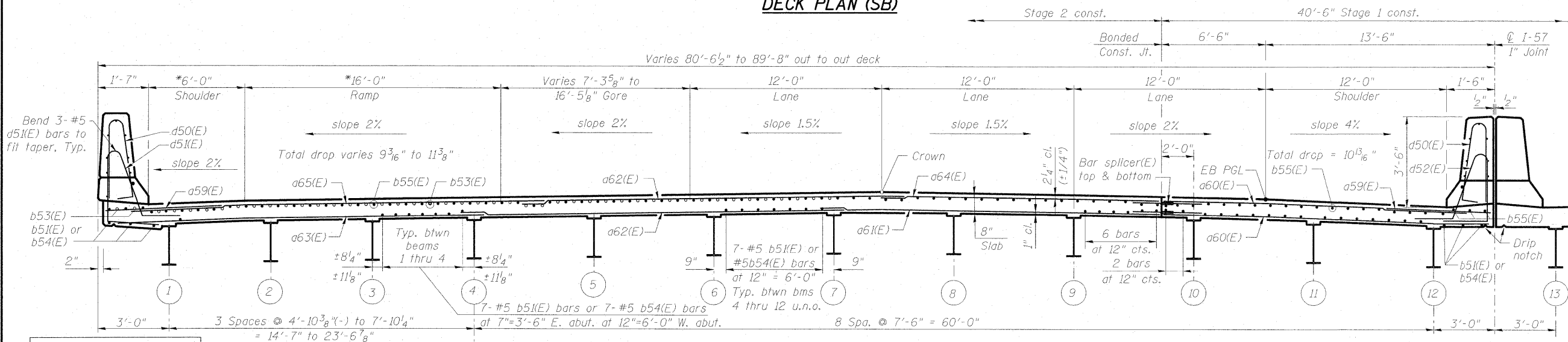
DETAIL "I"

MINIMUM BAR LAP

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

Notes:
Cut longitudinal reinforcement to clear drainage
scuppers.
See sheet SR-17 of SR-48 for deck details
and Bill of Material.
Bars indicated thus 19 x 6-#5 etc. indicates
79 lines of bars with 6 lengths per line.
See sheet SR-16 of SR-48 for
parapet reinforcement.

DECK PLAN (SB)



DECK PLAN AND SECTION (SB)
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

DESIGNED	AWW
CHECKED	PMH
DRAWN	AMV
CHECKED	AWW

NEAR PIER

CROSS SECTION
(Looking west)

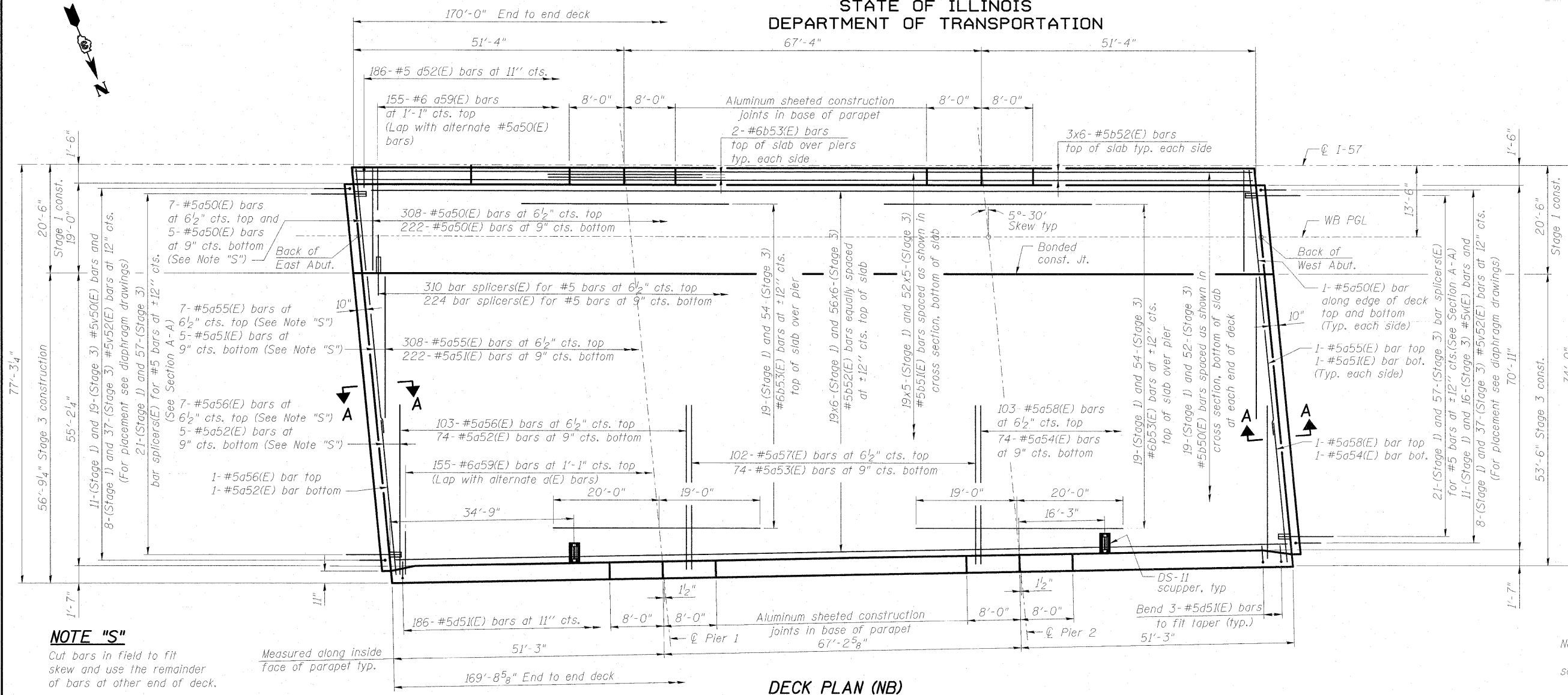
NEAR MIDSPAN



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(312) 946-8600

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-14	57	(46-2) VBR	KANKAKEE	558	341
SHEETS					
SR-48					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

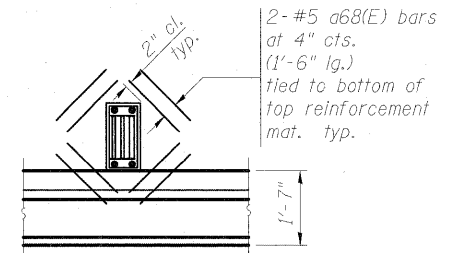
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



NOTE "S"
Cut bars in field to fit skew and use the remainder of bars at other end of deck.

Measured along inside face of parapet typ.

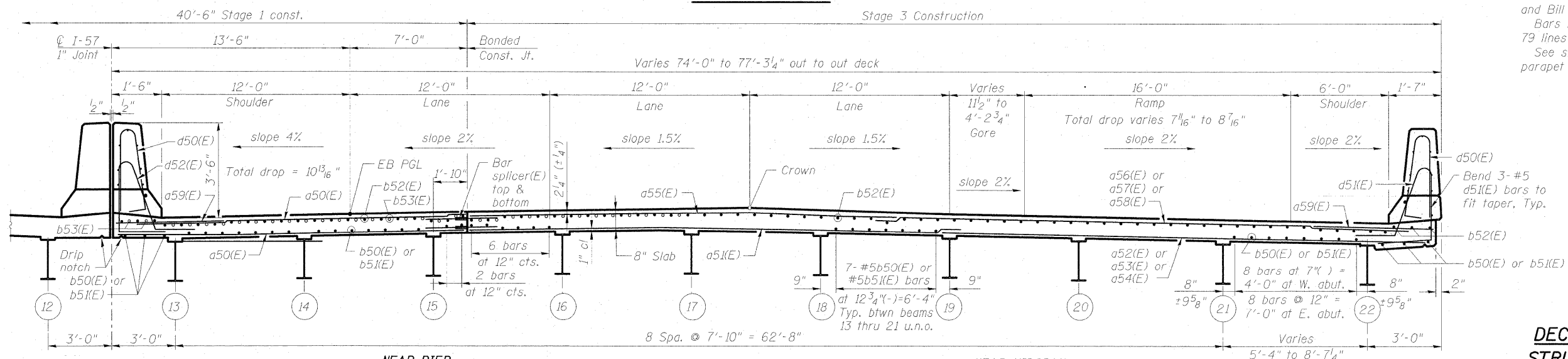
DECK PLAN (NB)



DETAIL "I"

MINIMUM BAR LAP
(Slab)
#5 bar = 2'-7"

Notes:
Cut longitudinal reinforcement to clear drainage scuppers.
See sheet SR-17 of SR-48 for deck details and Bill of Material.
Bars indicated thus 79 x 6-#5 etc. indicates 79 lines of bars with 6 lengths per line.
See sheet SR-16 of SR-48 for parapet reinforcement.



NEAR PIER

NEAR MIDSPAN

**DECK PLAN AND SECTION (NB)
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)**

DESIGNED	AWW
CHECKED	PMH
DRAWN	AMV
CHECKED	AWW

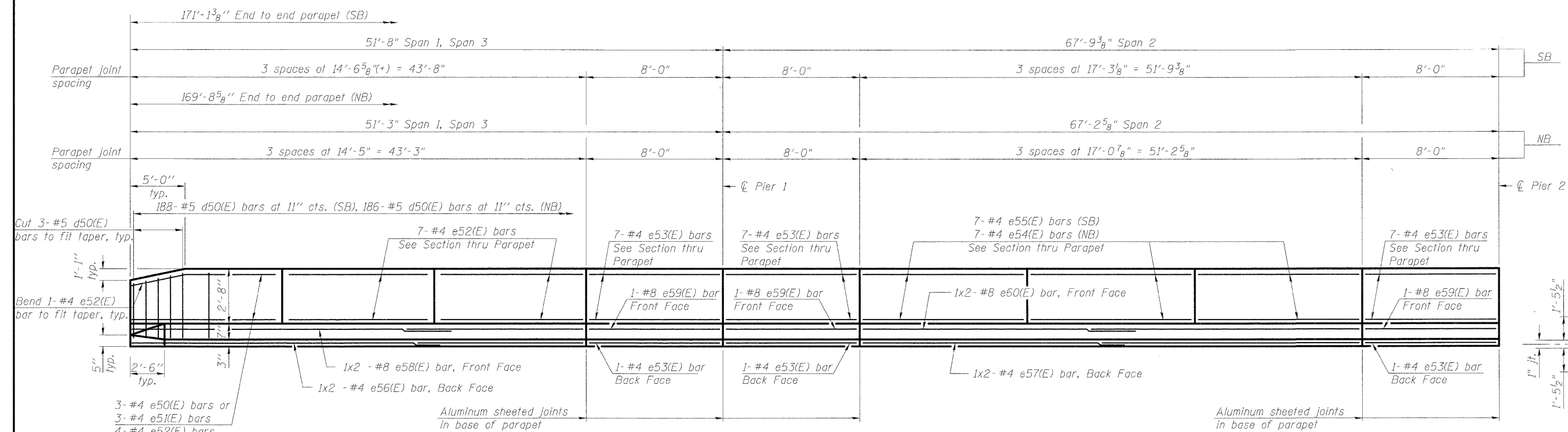
CROSS SECTION
(Looking west)



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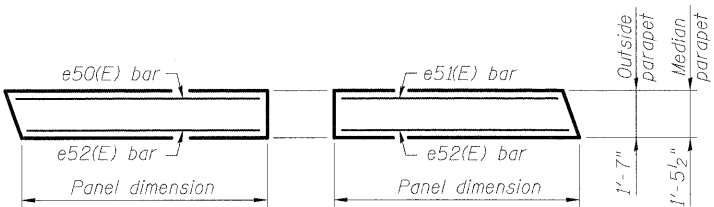
SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-15 SHEETS SR-48	57	(46-2) VBR	KANKAKEE	558	342
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

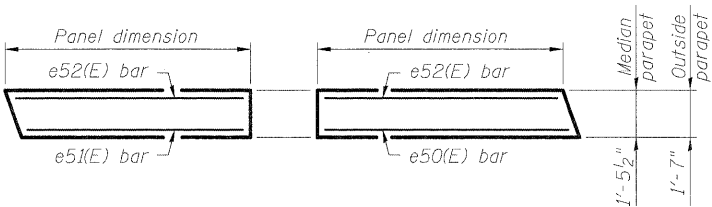


INSIDE ELEVATION OF OUTSIDE PARAPET

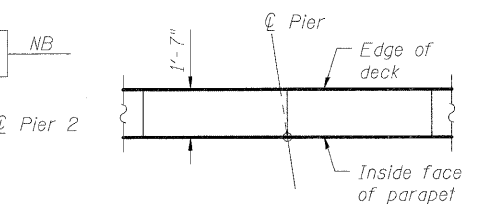
Dimensions are along inside face of parapet



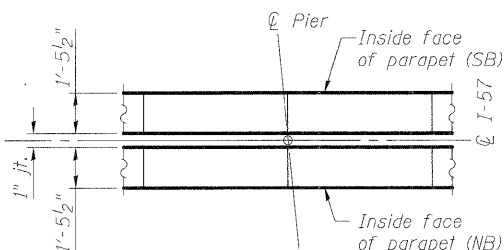
**EAST SIDE WEST SIDE
LAYOUT OF END PANELS (SB)**



**EAST SIDE WEST SIDE
LAYOUT OF END PANELS (NB)**



OUTSIDE PARAPET



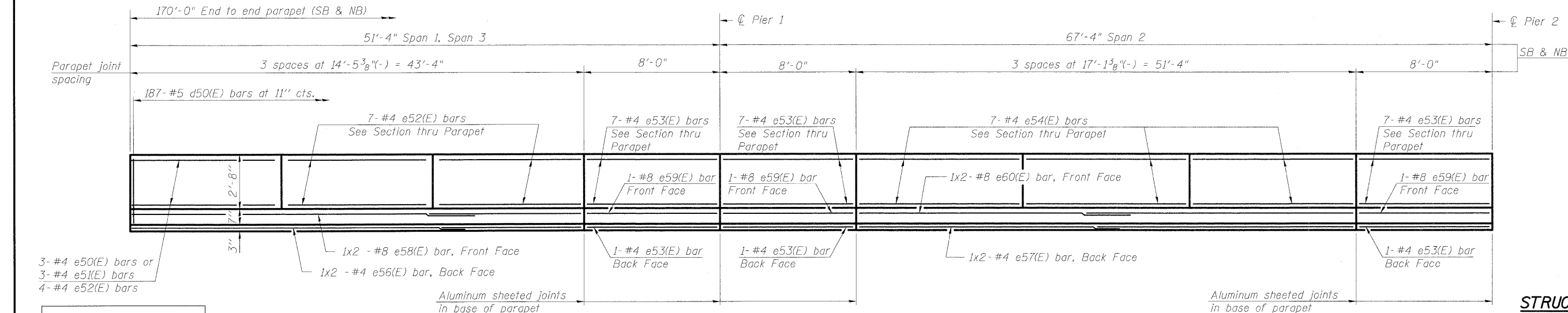
MEDIAN PARAPETS

PARAPET JOINT DETAILS

MINIMUM BAR LAP

(Parapet)
#4 bar = 2'-0"
#8 bar = 5'-2"

Notes:
Slipforming will not be permitted.



INSIDE ELEVATION OF MEDIAN PARAPET

Dimensions are along centerline of I-57

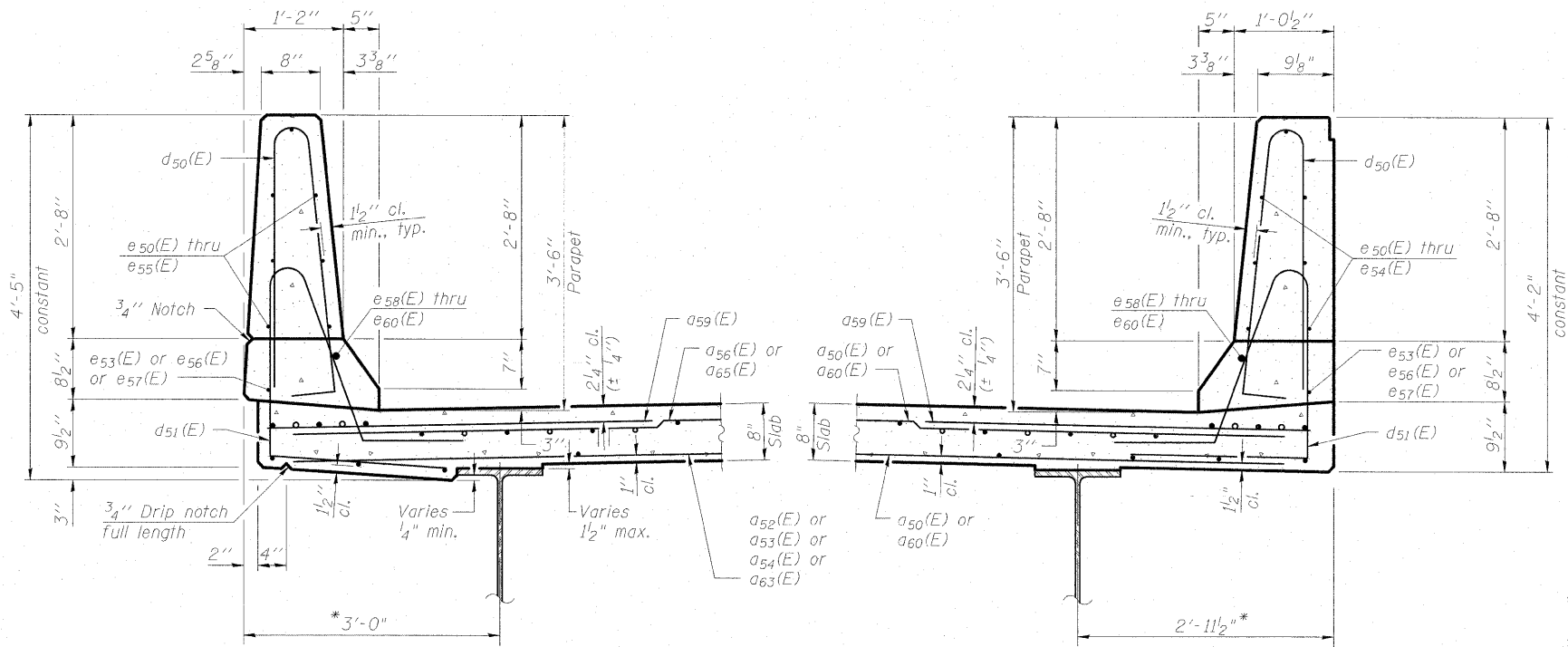
**PARAPET DETAILS
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)**

DESIGNED	AWW
CHECKED	PMH
DRAWN	AMV
CHECKED	AWW

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SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-16 SHEETS SR-48	57	(46-2) VBR	KANKAKEE	558	343
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

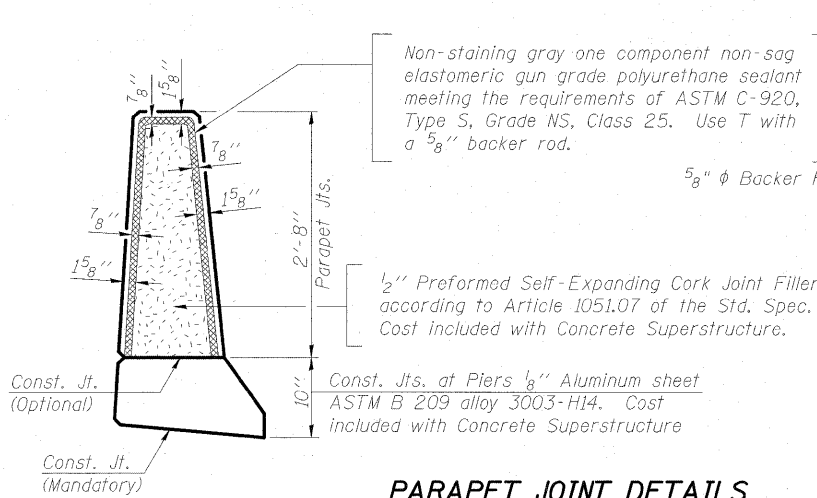


SECTION THRU OUTSIDE PARAPET

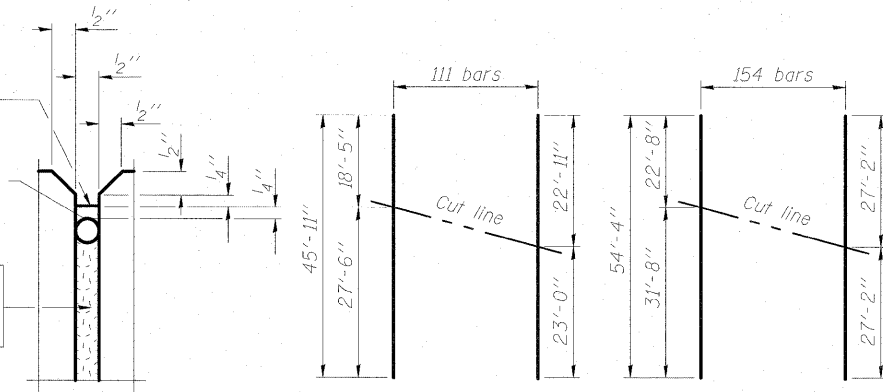
*Measured perpendicular to edge of deck

SECTION THRU MEDIAN PARAPET

*Measured perpendicular to edge of deck



PARAPET JOINT DETAILS



BAR a63(E)

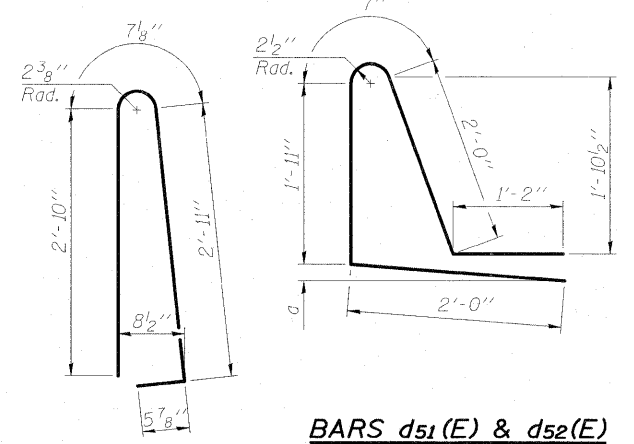
BAR a65(E)

CUTTING DIAGRAMS

SUPERSTRUCTURE BILL OF MATERIAL

Bar	Stage 1		Stage 2		Stage 3		Size	Length	Shape
	S.B. No.	N.B. No.	S.B. No.	N.B. No.	S.B. No.	N.B. No.			
a50(E)		546					#5	20'-1"	
a51(E)				229			#5	31'-1"	
a52(E)			1	80			#5	28'-1"	
a53(E)				74			#5	27'-0"	
a54(E)			5	75			#5	25'-11"	
a55(E)				317			#5	27'-3"	
a56(E)			1	111			#5	32'-6"	
a57(E)				102			#5	31'-5"	
a58(E)			7	104			#5	30'-4"	
a59(E)	155	155	155	155			#6	6'-6"	
a60(E)	546						#5	19'-7"	
a61(E)				229			#5	22'-0"	
a62(E)				546			#5	25'-9"	
a63(E)				111			#5	45'-10"	
a64(E)				317			#5	18'-4"	
a65(E)				154			#5	53'-9"	
a66(E)				1			#5	18'-9"	
a67(E)				1			#5	23'-0"	
a68(E)				16	16		#5	1'-6"	
b50(E)		38		104			#5	17'-4"	
b51(E)	95	95	325	260			#5	30'-11"	
b52(E)		132		354			#5	31'-2"	
b53(E)	40	42	132	112			#6	39'-0"	
b54(E)	38		130				#5	17'-11"	
b55(E)	132		426				#5	31'-4"	
d50(E)	186	186	187	186			#5	6'-10"	R
d51(E)				187	186		#5	7'-8"	
d52(E)	186	186					#5	7'-8"	

Bars indicated thus 19x5-#5 etc. indicates 19 line of bars with 5 lengths per line.



BAR d50(E)

BARS d51(E) & d52(E)

Bar	a
d51(E)	2'-2"
d52(E)	0"

SUPERSTRUCTURE BILL OF MATERIAL (cont.)

Bar	Stage 1		Stage 2		Stage 3		Size	Length	Shape
	S.B. No.	N.B. No.	S.B. No.	N.B. No.	S.B. No.	N.B. No.			
e50(E)	3	3	3	3			#4	14'-3"	
e51(E)	3	3	3	3			#4	13'-11"	
e52(E)	36	36	36	36			#4	14'-1"	
e53(E)	32	32	32	32			#4	7'-8"	
e54(E)	21	21		21			#4	16'-9"	
e55(E)				21			#4	16'-11"	
e56(E)	4	4	4	4			#4	22'-8"	
e57(E)	2	2	2	2			#4	26'-9"	
e58(E)	4	4	4	4			#8	24'-3"	
e59(E)	4	4	4	4			#8	7'-8"	
e60(E)	2	2	2	2			#8	28'-4"	
m50(E)		10					#6	20'-2"	
m51(E)				20			#6	30'-1"	
m52(E)		12	18	28			#6	11'-3"	
m53(E)		4	3	10			#6	7'-6"	
m54(E)	2	2	2	2			#6	2'-7"	
m55(E)		2					#6	1'-6"	
m56(E)				2			#6	5'-8"	
m57(E)				1			#6	8'-3"	
m58(E)				1			#6	5'-0"	
m59(E)	10						#6	19'-8"	
m60(E)			10				#6	36'-5"	
m61(E)			10				#6	32'-0"	
m62(E)	12						#6	9'-1"	
m63(E)			18				#6	10'-1"	
m64(E)	4		10				#6	7'-2"	
m65(E)	2						#6	1'-8"	
m66(E)			2				#6	5'-2"	
m67(E)			3				#6	4'-6"	
s50(E)	22	22	32	21			#5	6'-10"	J
s51(E)	38	38	122	99			#5	8'-8"	
s52(E)	20	20	105	92			#5	5'-9"	
v50(E)	22	22	43	35			#5	3'-7"	L
v52(E)	16	16	86	74			#5	4'-1"	
Reinforcement Bars, Epoxy Coated								Pound	213,459
Concrete Superstructure								Cu. Yd.	876

DECK DETAILS AND BILL OF MATERIAL
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

DESIGNED	AWW
CHECKED	PMH
DRAWN	AMV
CHECKED	AWW

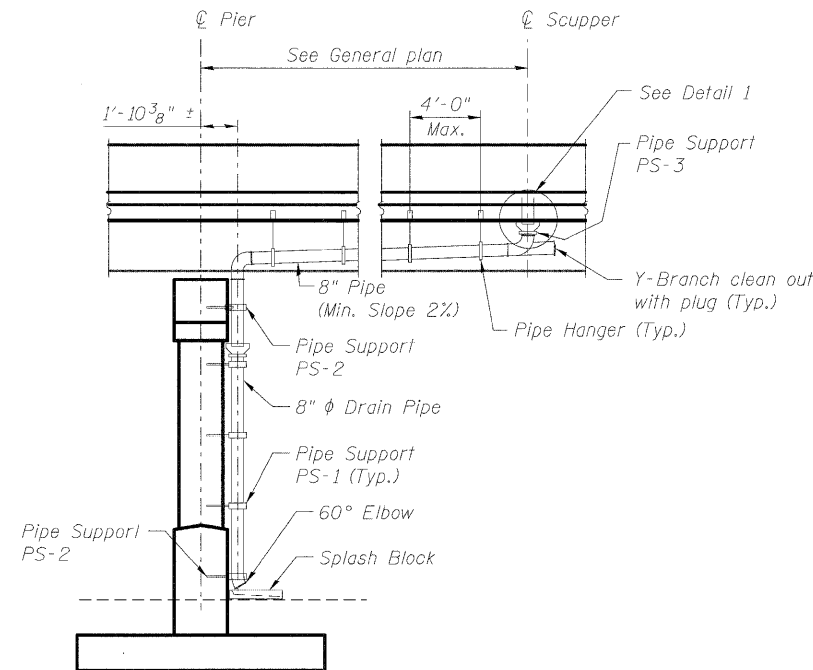


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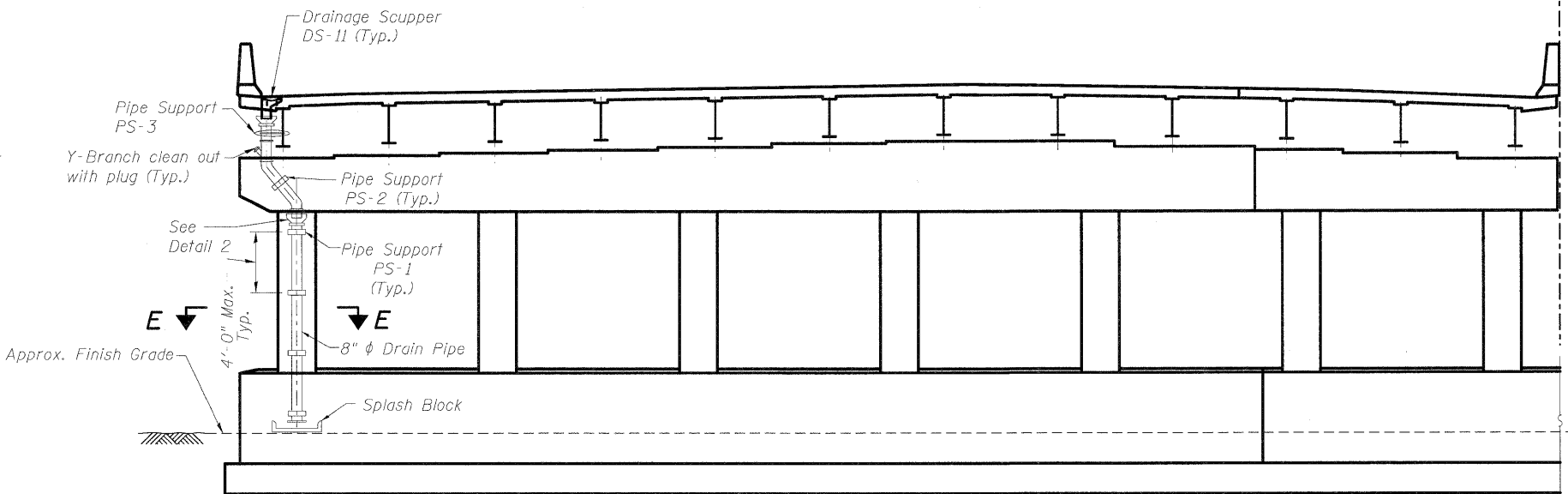
SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-17	57	(46-2) VBR	KANKAKEE	558	344
SHEETS					
SR-48					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

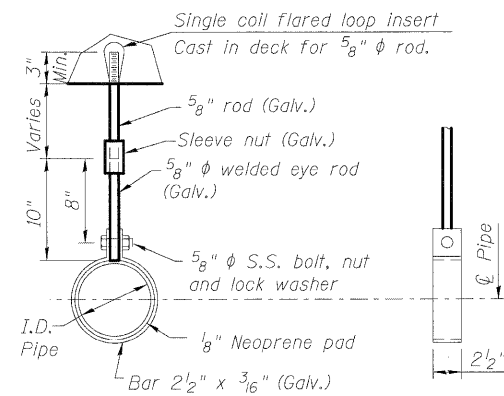
© I-57



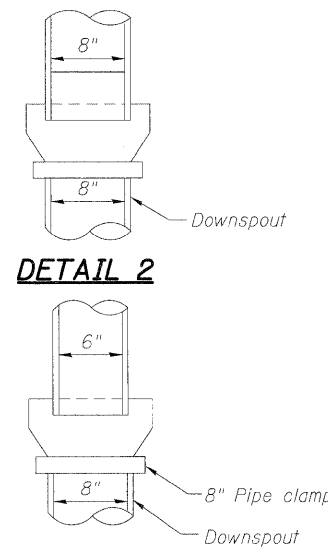
END ELEVATION



**ELEVATION
(LOOKING WEST FOR PIER 1 SB)
(DETAILS SIMILAR AT PIER 1 NB LOOKING WEST
& PIER 2 SB & NB LOOKING EAST)**

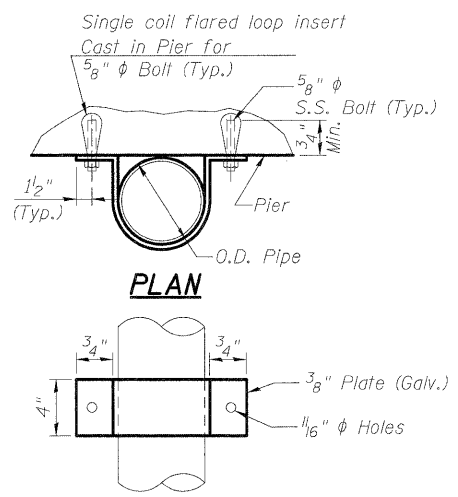


PIPE HANGER DETAIL

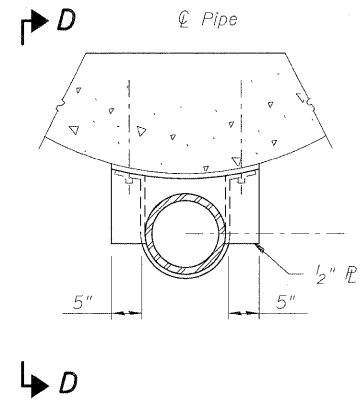


DETAIL 2

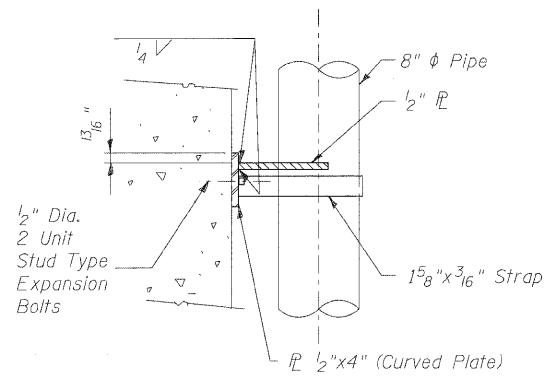
DETAIL 1



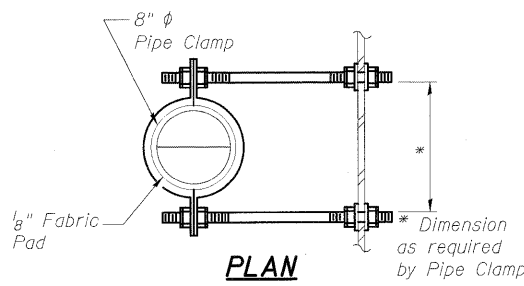
**ELEVATION
PIPE SUPPORT
DETAIL PS-2**



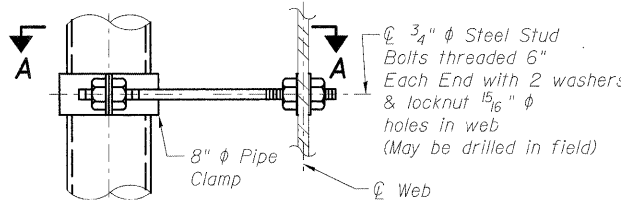
SECTION E-E



SECTION D-D



**PLAN
SEC. A-A**



**ELEVATION
PIPE SUPPORT
DETAIL PS-3**

DESIGNED	PMH
CHECKED	BB
DRAWN	PMH
CHECKED	BB



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SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-18 SHEETS SR-48	57	(46-2) VBR	KANKAKEE	558	345
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

**DRAINAGE SYSTEM DETAILS
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)**

1'-2"

3" typ.

4 1/2"

A

B

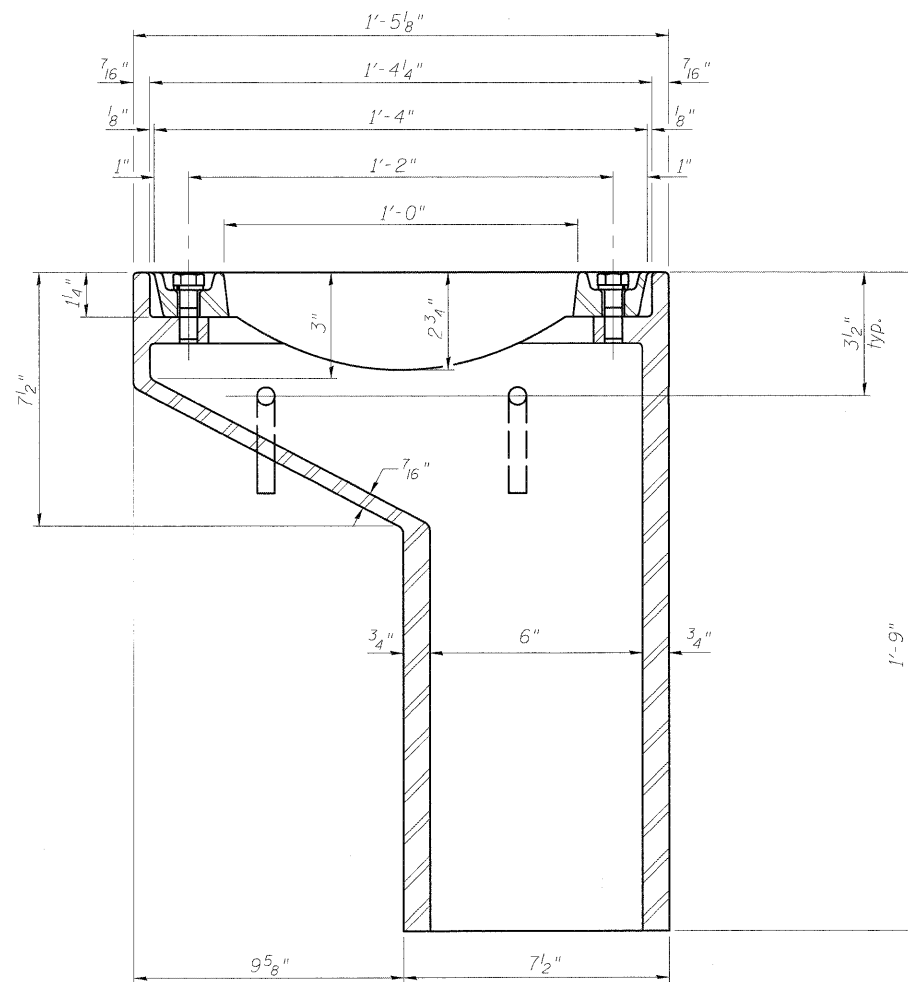
PLAN

Drill and tap scupper for 4 1/2" ϕ stainless steel hexagon head bolts with lock washers

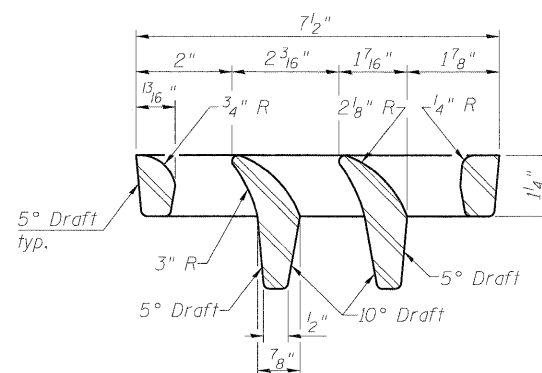
Drill and tap 1/2"-13x3/4" DP. for 1/2" ϕ Anchor Studs 4 locations

Drill and tap scupper for 4
1/2" ϕ stainless steel hexagon
head bolts with lock washers

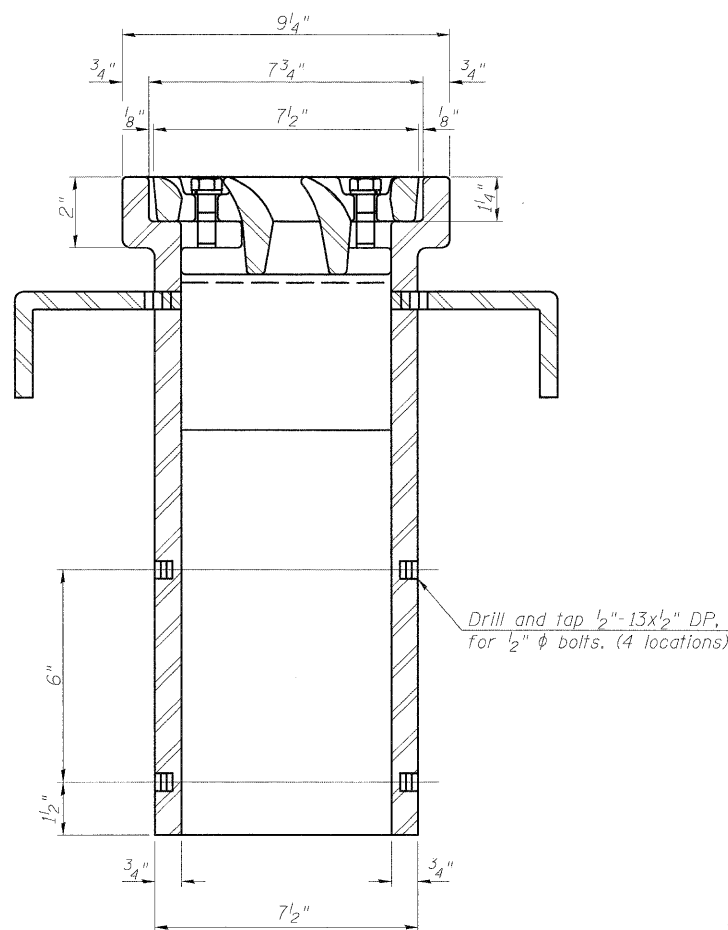
Drill and tap $\frac{1}{2}"-13 \times \frac{3}{4}"$ DP.
for $\frac{1}{2}" \phi$ Anchor Studs
4 locations



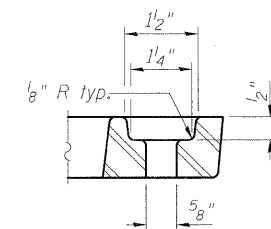
See sheet SR-14 & SR-15 of SR-48
for scupper location relative to parapet.



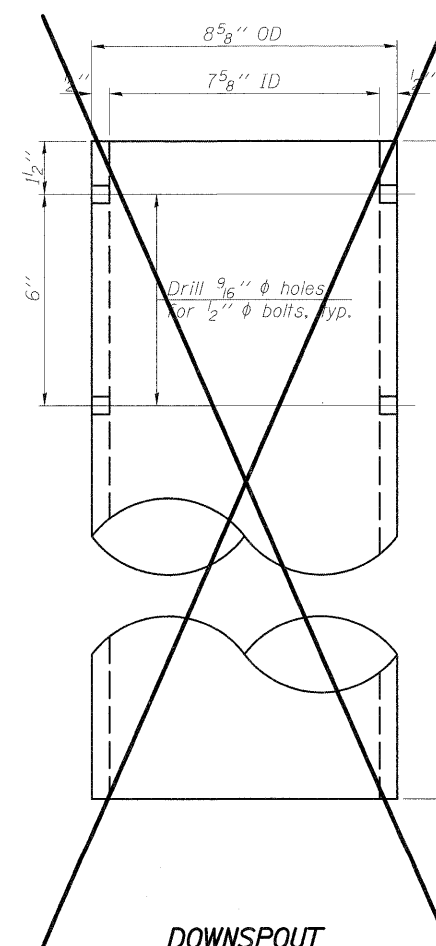
VANE GRATE DETAIL



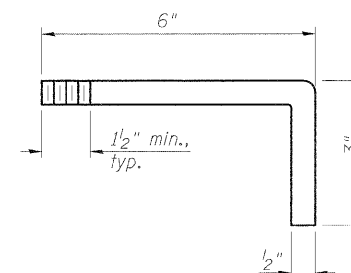
SECTION B-B



BOLT HOLE DETAIL



DOWNSPOUT



ANCHOR STUD DETAIL

ITEM	UNIT	QUANTITY
Drainage Scuppers, DS-11	Each	4

DRAINAGE SCUPPER, DS-11
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

DESIGNED
CHECKED
DRAWN
CHECKED

DS-11

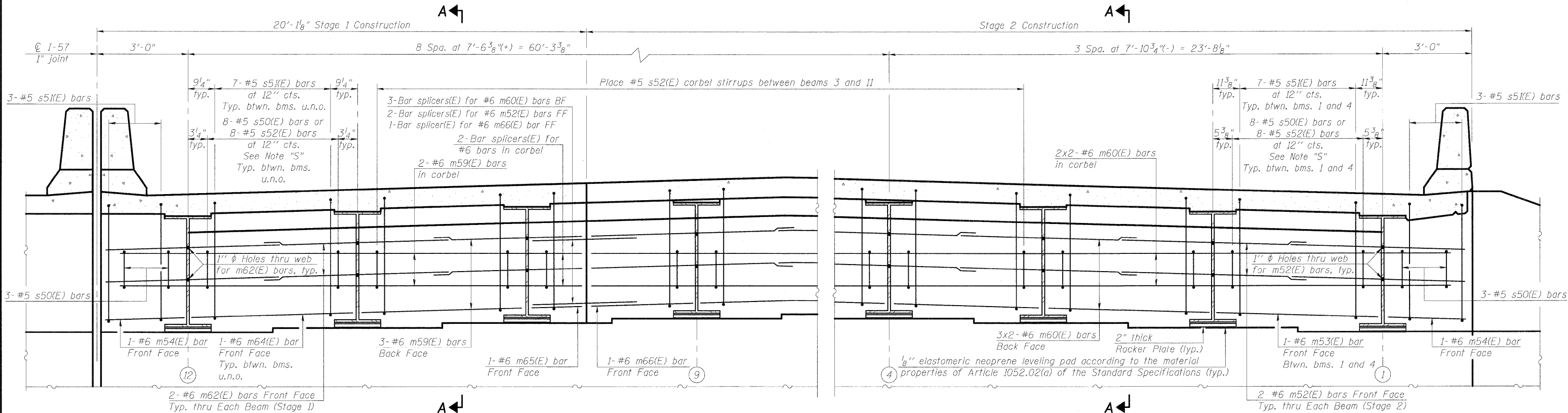
11-1-09



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SHEET NO. SR-19 SHEETS SR-48	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	(46-2) VBR	KANKAKEE	558	346
				CONTRACT NO. 66409	
	FED. ROAD DIST. NO. 3 ILLINOIS		FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



NOTE "S":

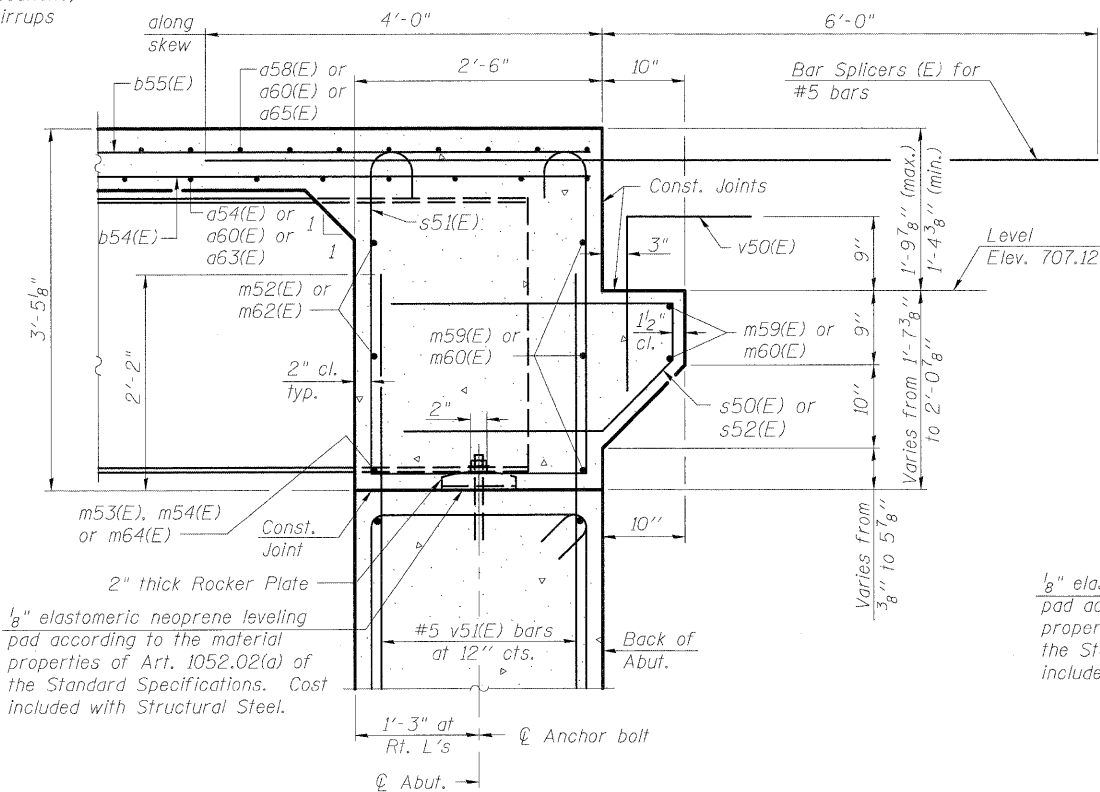
Utilize s50(E) corbel stirrups at all locations, unless placement of s52(E) corbel stirrups is indicated.

DIAPHRAGM ELEVATION AT EAST ABUTMENT (SB)

Looking East

MIN. BAR LAP

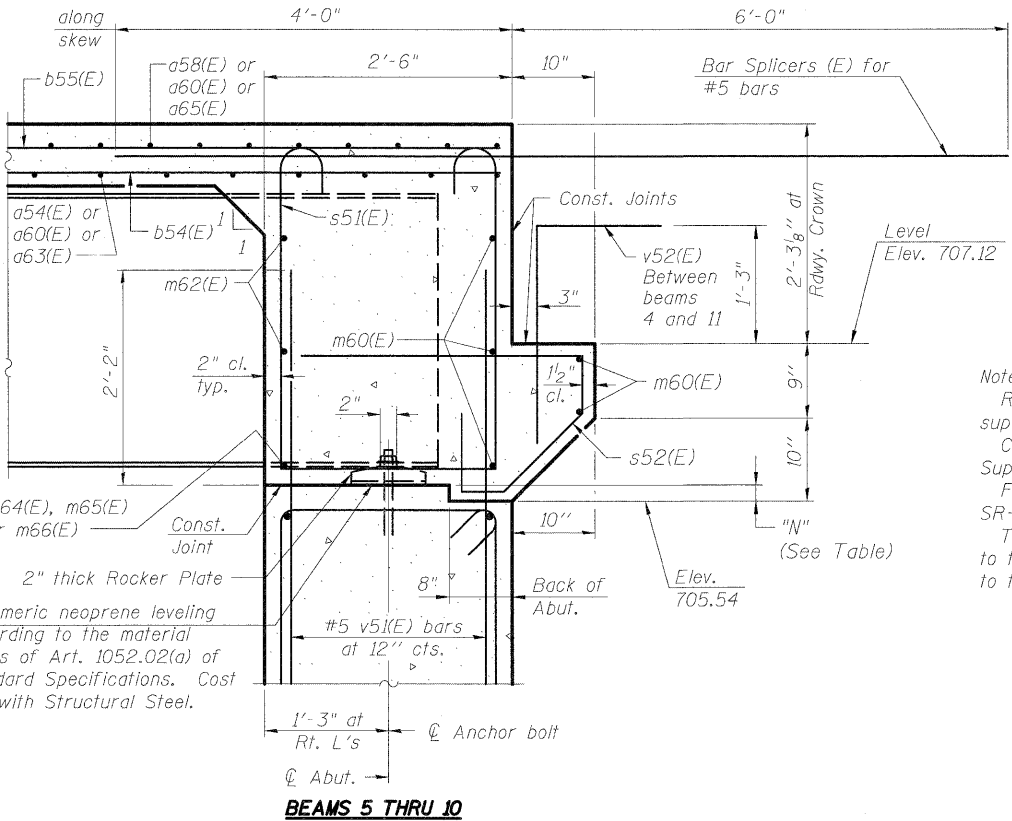
#6 bar = 3'-4"



BEAMS 1 THRU 4, 11 AND 12

SECTION A-A

Dimensions at right angles to abutment, except as shown.



BEAMS 5 THRU 10

Beam	Notch "N"
5	1 1/2"
6	3"
7	4 1/8"
8	4 1/8"
9	2 5/8"
10	7/8"

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet SR-17 of SR-48.
Concrete in diaphragm is included with Concrete Superstructure on sheet SR-17 of SR-48.
For details of bars s50(E), s51(E) & s52(E) see sheet SR-17 of SR-48.
The s50(E), s51(E) & s52(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

DIAPHRAGM AT EAST ABUTMENT (SB)
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

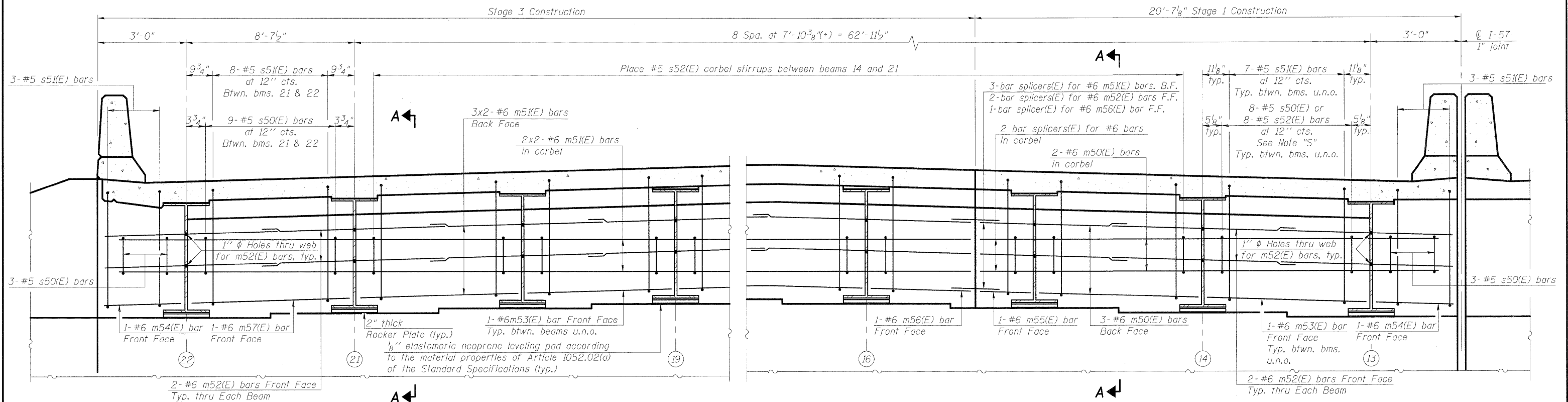
DESIGNED	AWW
CHECKED	PMH
DRAWN	AMV
CHECKED	AWW



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SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-20	57	(46-2) VBR	KANKAKEE	558	347
SHEETS					
SR-48					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS / FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

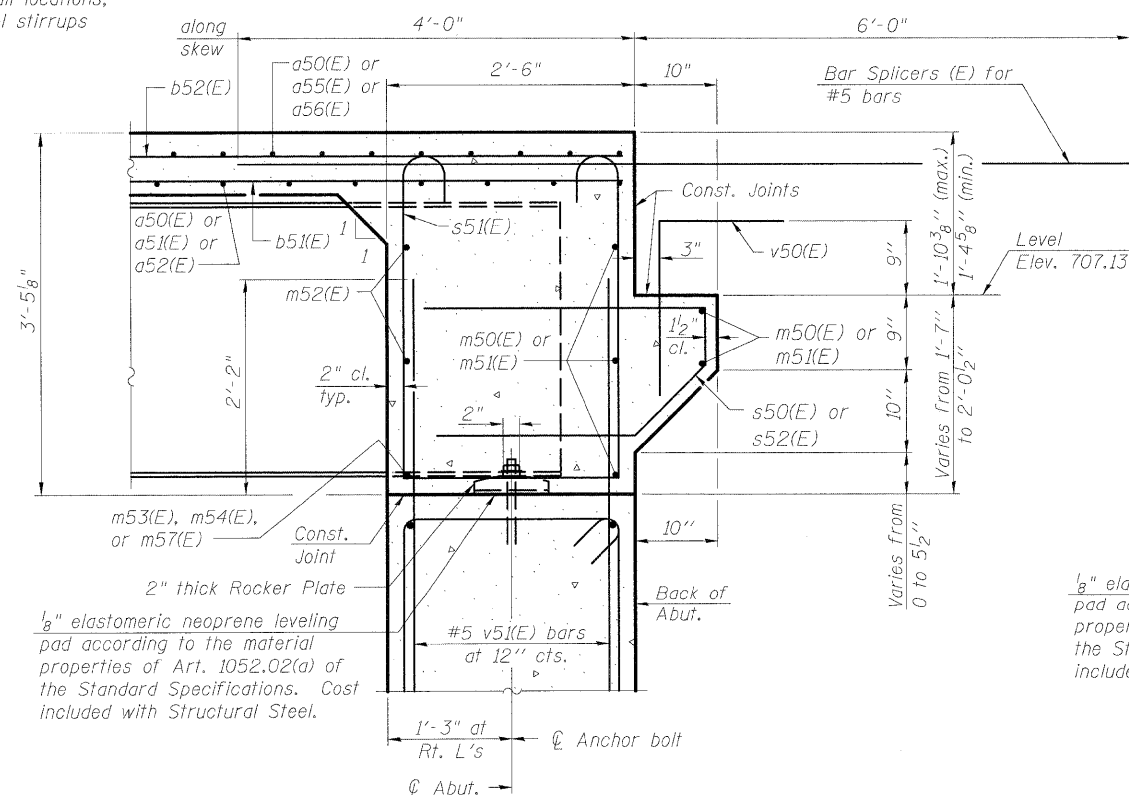


NOTE "S":

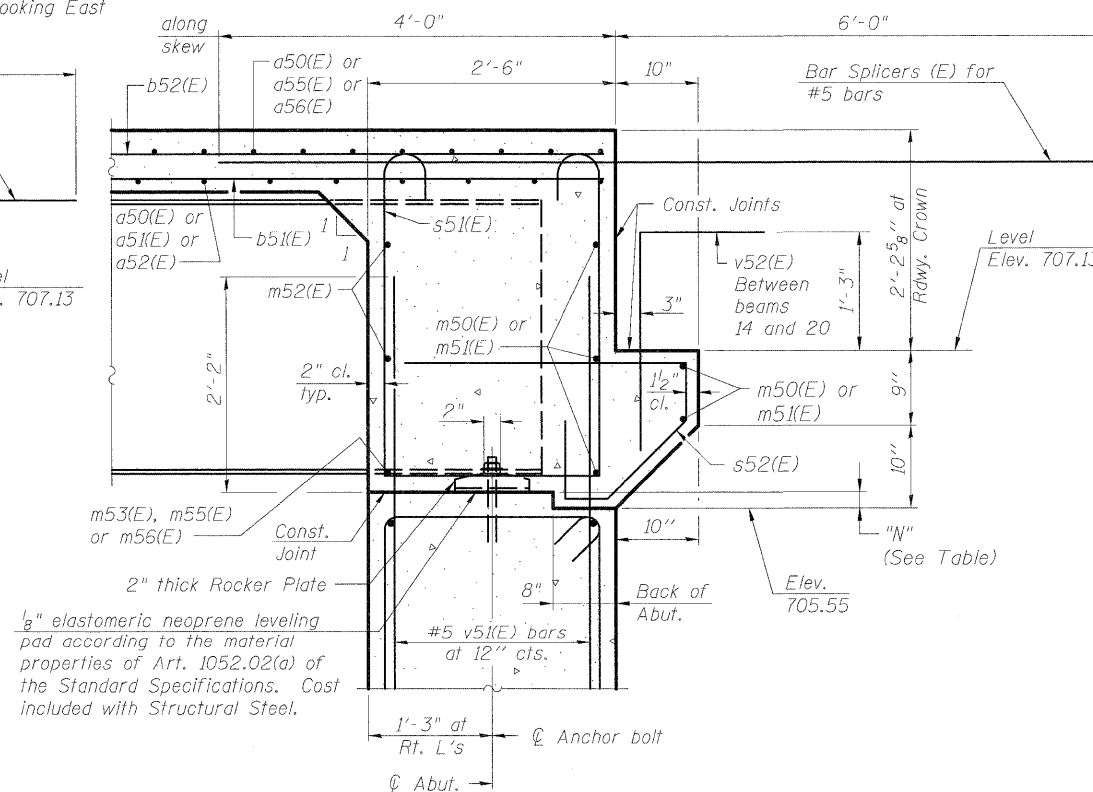
Utilize s50(E) corbel stirrups at all locations, unless placement of s52(E) corbel stirrups is indicated.

DIAPHRAGM ELEVATION AT EAST ABUTMENT (NB)

Looking East



BEAMS 13, 14, AND 20 THRU 22



BEAMS 15 THRU 19

MIN. BAR LAP

#6 bar = 3'-4"

Beam	Notch "N"
15	5 ₈ "
16	2 ³ / ₈ "
17	3 ¹ / ₂ "
18	3 ¹ / ₂ "
19	1 ⁷ / ₈ "

Notes:

Reinforcement bars in diaphragm are billed with superstructure on sheet SR-17 of SR-48.

Concrete in diaphragm is included with Concrete Superstructure on sheet SR-17 of SR-48.

For details of bars s50(E), s51(E) & s52(E) see sheet SR-17 of SR-48.

The s50(E), s51(E) & s52(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

DIAPHRAGM AT EAST ABUTMENT (NB)

STRUCTURE NO. 046-0146 (S.B.)

& STRUCTURE NO. 046-0147 (N.B.)

SHEET NO. SR-21 SHEETS SR-48	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	(46-2) VBR	KANKAKEE	558	348
				CONTRACT NO. 66409	
EFD. ROAD DIST. NO. 3 ILLINOIS EFD. AID PROJECT					

DESIGNED AWW

CHECKED *PMH*

DRAWN *AMV*

CHECKED AWW

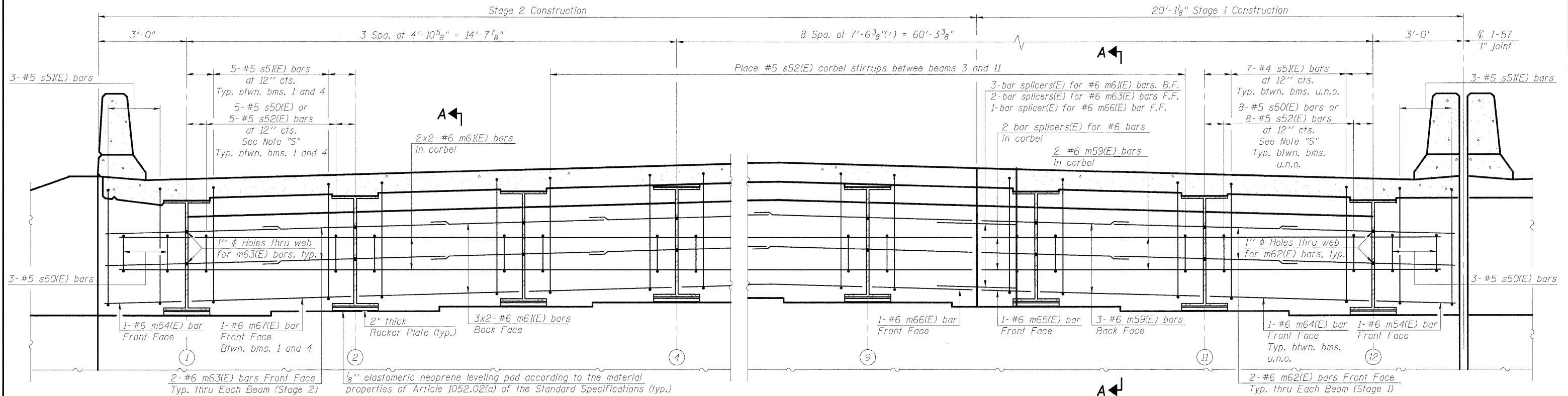
SECTION A-A

Dimensions at right angles to abutment, except as shown.



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NOTE "S":

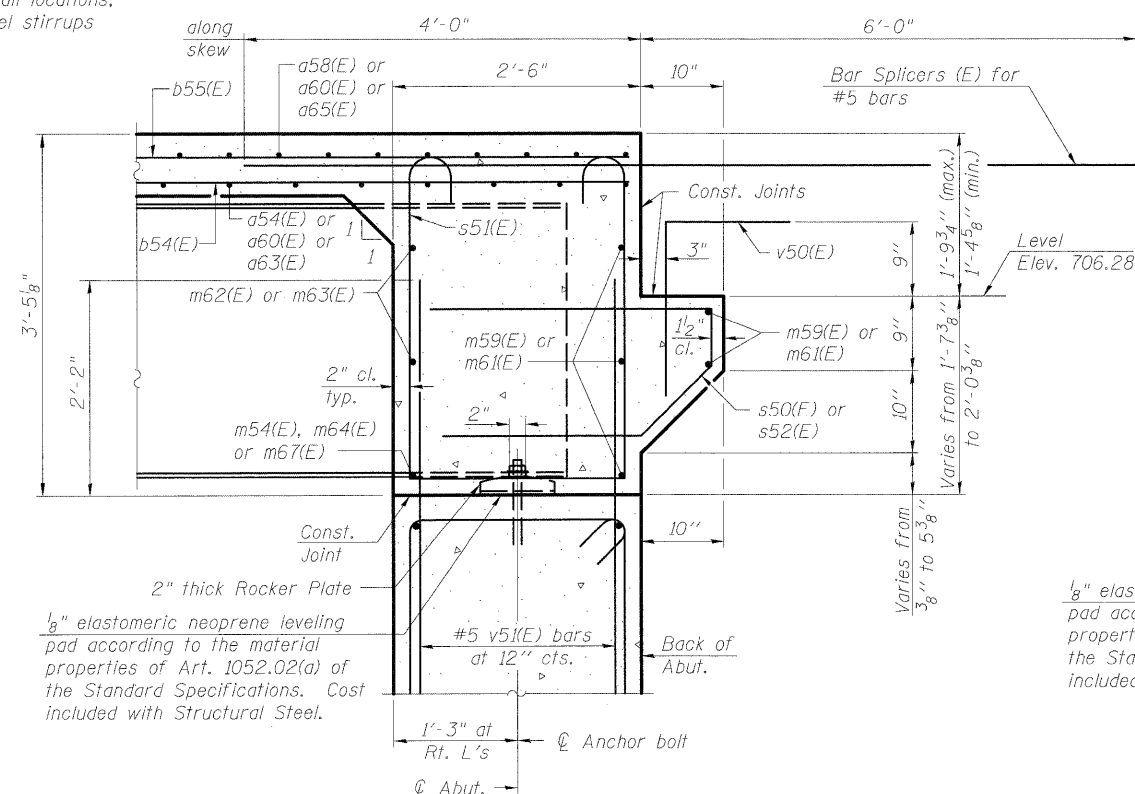
Utilize s50(E) corbel stirrups at all locations, unless placement of s52(E) corbel stirrups is indicated.

DIAPHRAGM ELEVATION AT WEST ABUTMENT (SB)

Looking West

MIN. BAR LAP

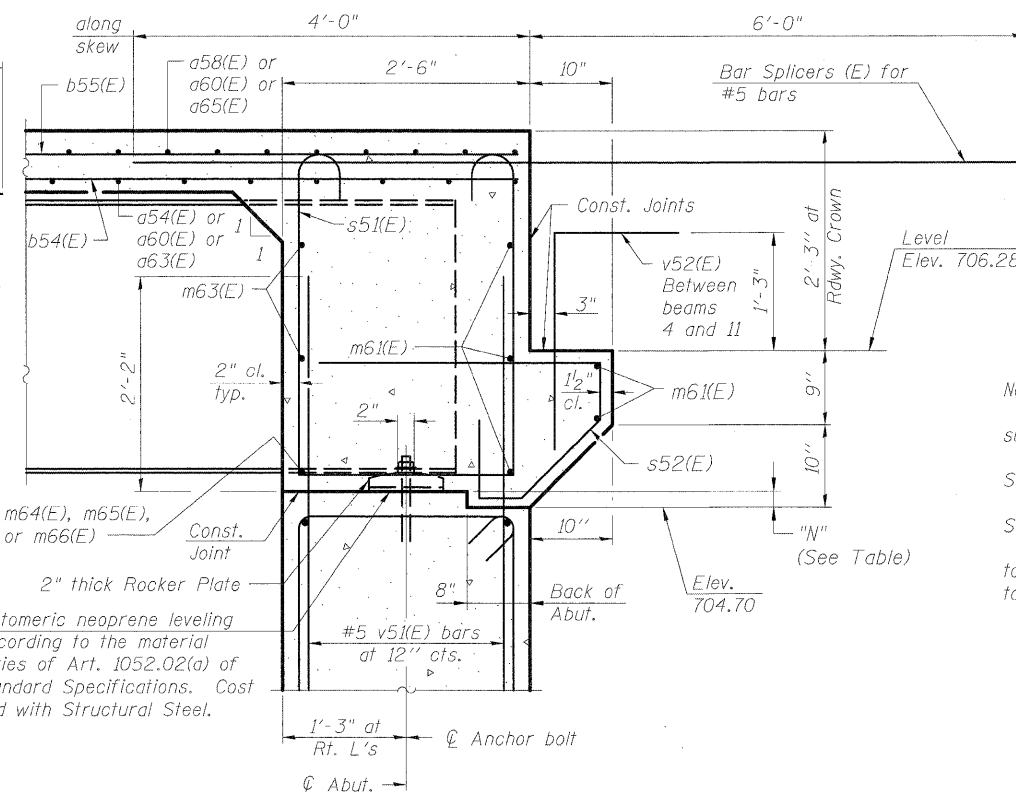
#6 bar = 3'-4"



BEAMS 1 THRU 4, 11 AND 12

SECTION A-A

Dimensions at right angles to abutment, except as shown.



BEAMS 5 THRU 10

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Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet SR-17 of SR-48.
Concrete in diaphragm is included with Concrete Superstructure on sheet SR-17 of SR-48.
For details of bars s50(E), s51(E) & s52(E) see sheet SR-17 of SR-48.
The s50(E), s51(E) & s52(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

DIAPHRAGM AT WEST ABUTMENT (SB)

STRUCTURE NO. 046-0146 (S.B.)

& STRUCTURE NO. 046-0147 (N.B.)

DESIGNED	AWW
CHECKED	PMH
DRAWN	AMV
CHECKED	AWW

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-22	57	(46-2) VBR	KANKAKEE	558	349
SHEETS					
SR-48					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

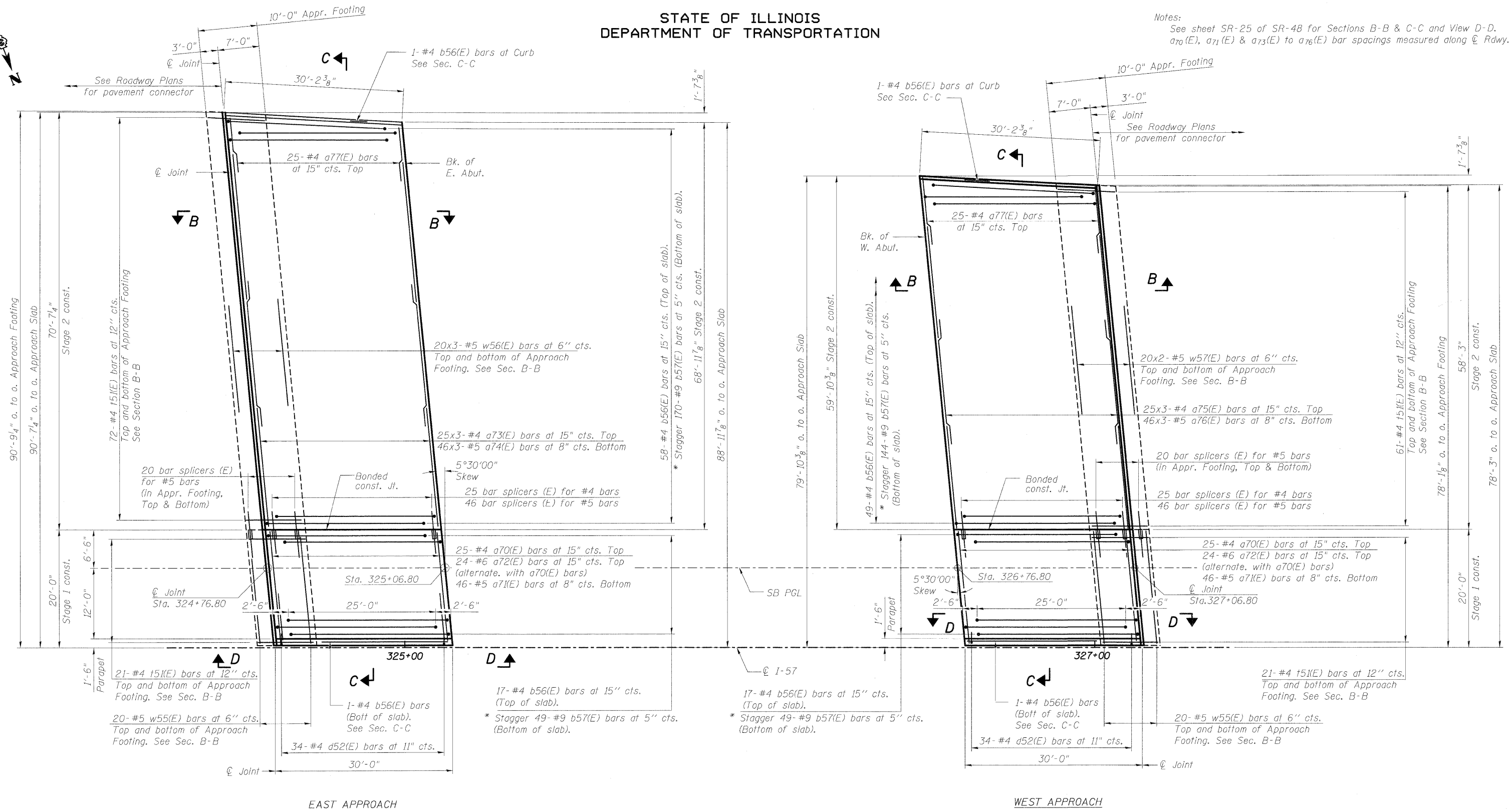
A ←



SHEET NO. SR-23 SHEETS SR-48	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	(46-2) VBR	KANKAKEE	558	350
				CONTRACT NO. 66409	
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes:
See sheet SR-25 of SR-48 for Sections B-B & C-C and View D-D.
a70(E), a71(E) & a73(E) to a76(E) bar spacings measured along ϕ Rdwy.



* Tilt #9 b57(E) bars as required to maintain clearance.

DESIGNED	RJ/PMH
CHECKED	MJL
DRAWN	RJ/PMH
CHECKED	MJL

MIN. BAR LAP

#4 Bar = 2'-4" (Top bars)
#5 Bar = 2'-7" (Bottom bars)

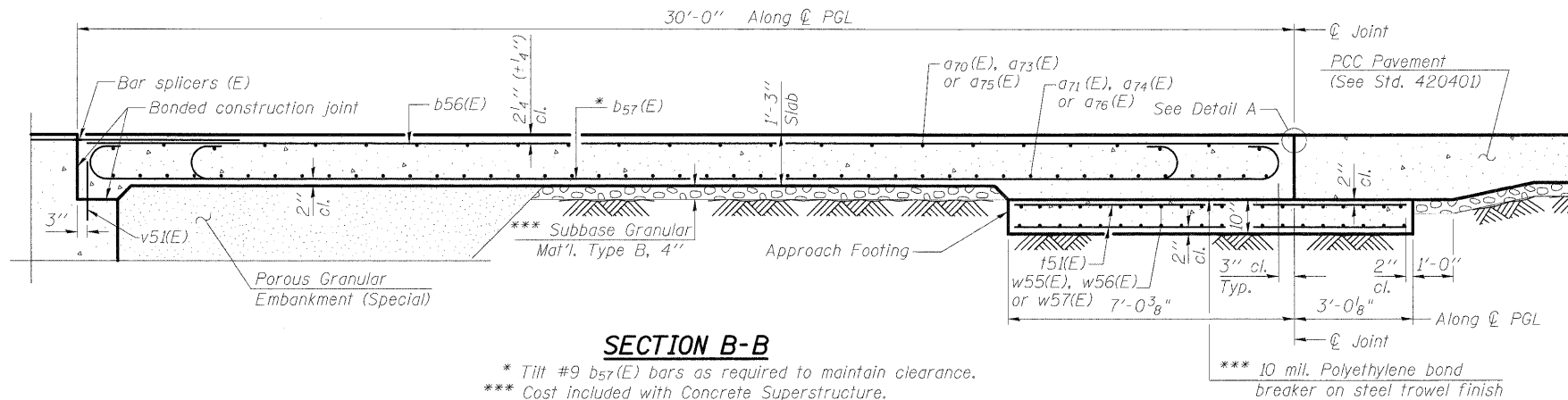


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**APPROACH SLAB PLAN (SB)
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)**

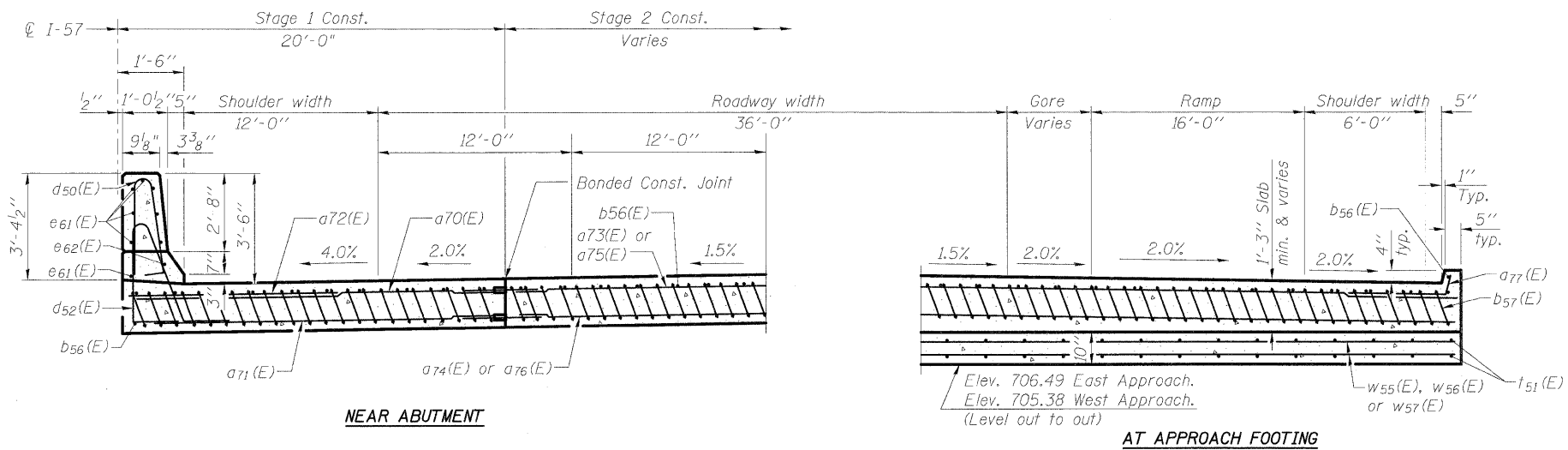
SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-24 SHEETS SR-48	57	(46-2) VBR	KANKAKEE	558	351
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



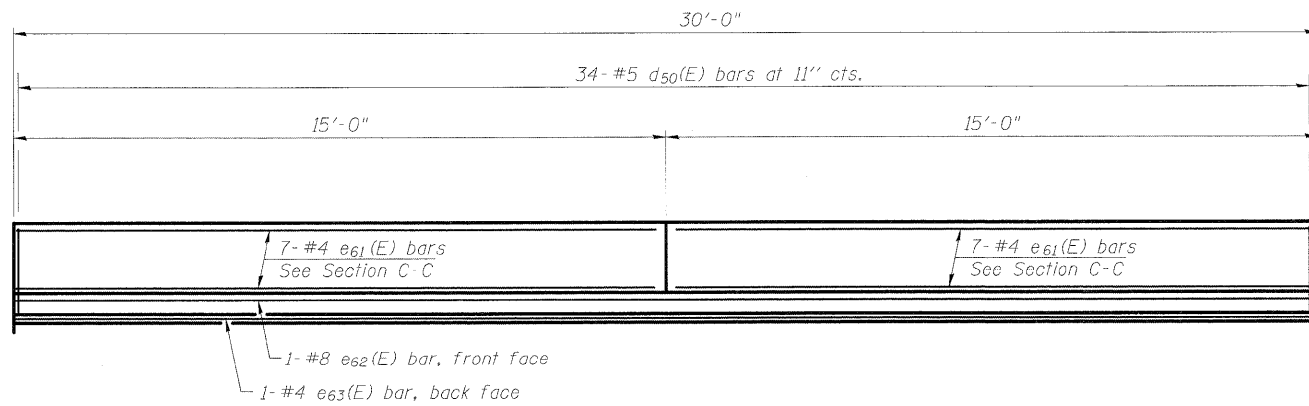
SECTION B-B

*** Cost included with Concrete Superstructure.



SECTION C-C

(See Plan for dimensions not shown)



VIEW D-D

West Approach shown, East Approach similar.

DESIGNED RJ/PMH

CHECKED MJL

DRAWN RJ/PMH

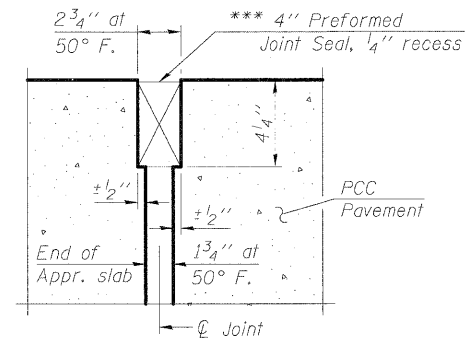
CHECKED MJL



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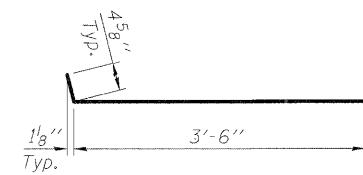
Notes:

Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v51(E) bar details, see sheets SR-32 & SR-34 of SR-48.
The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
For bar splicer details, see sheet SR-43 of SR-48.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see sheet SR-2 of SR-48.
For additional parapet details, see sheet SR-16 of SR-48.

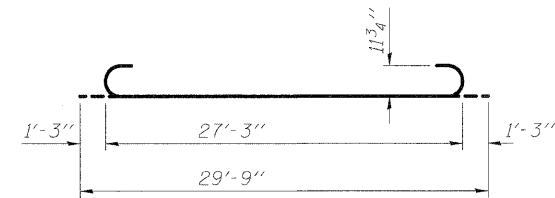


DETAIL A

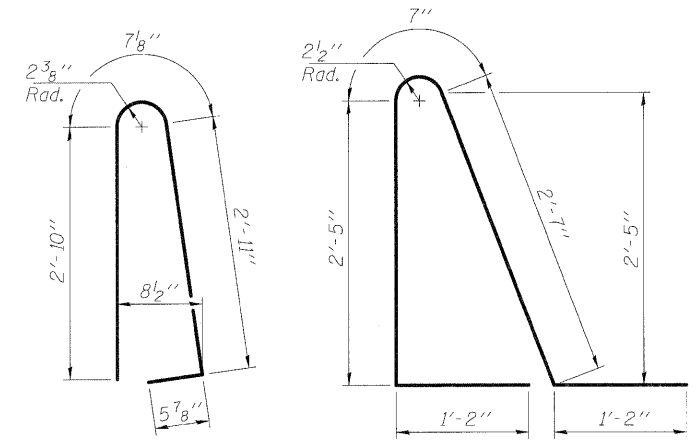
*** Cost included with Concrete Superstructure.



BAR $a_{77}(E)$



BAR b57(E)



BAR $d_{50}(E)$

BAR d52(E)

SOUTHBOUND APPROACHES
BILL OF MATERIAL

	Stage 1	Stage 2			
Bar	No.	No.	Size	Length	Shape
a ₇₀ (E)	50		#4	19'-8"	————
a ₇₁ (E)	92		#5	19'-8"	————
a ₇₂ (E)	48		#6	6'-6"	————
a ₇₃ (E)		75	#4	25'-3"	————
a ₇₄ (E)		138	#5	25'-5"	————
a ₇₅ (E)		75	#4	21'-7"	————
a ₇₆ (E)		138	#5	21'-9"	————
a ₇₇ (E)		50	#4	4'-1"	┌————
b ₅₆ (E)	36	109	#4	29'-8"	————
b ₅₇ (E)	98	314	#9	29'-9"	┌————┐
d ₅₀ (E)	68		#5	6'-10"	└————┘
d ₅₂ (E)	68		#5	7'-11"	└————┘
e ₆₁ (E)	28		#4	14'-8"	————
e ₆₂ (E)	2		#8	29'-8"	————
e ₆₃ (E)	2		#4	29'-8"	————
f ₅₁ (E)	84	266	#4	9'-8"	————
w ₅₅ (E)	80		#5	19'-8"	————
w ₅₆ (E)		120	#5	25'-8"	————
w ₅₇ (E)		80	#5	30'-10"	————
Concrete Superstructure				Cu. Yd.	277
Concrete Structures				Cu. Yd.	52
* Reinforcement Bars, Epoxy Coated				Pound	68,036

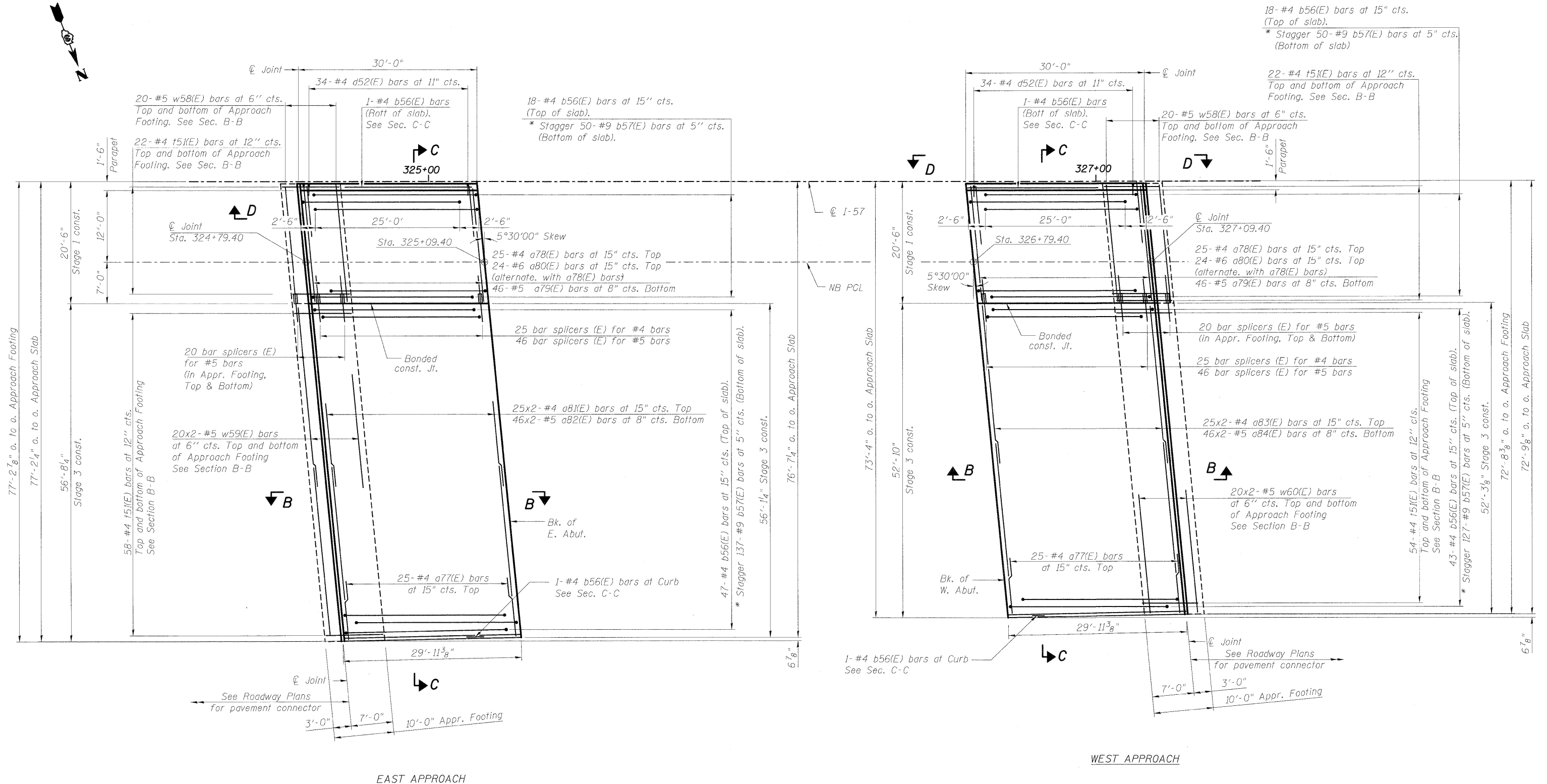
* Includes 9,686 lbs. for Approach Footing. Quantity included with substructure.

APPROACH SLAB DETAILS (SB)
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

SHEET NO. SR-25 SHEETS SR-48	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	(46-2) VBR	KANKAKEE	558	352
	CONTRACT NO. 66409				
	FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
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Notes:
See sheet SR-27 of SR-48 for Sections B-B & C-C and View D-D.
a78(E), a79(E) & a81(E) to a84(E) bar spacings measured along \angle Rdwy.



PLAN-(NB)

* Tilt #9 b57(E) bars as required to maintain clearance.

DESIGNED	RJ/PMH
CHECKED	MJL
DRAWN	RJ/PMH
CHECKED	MJL

MIN. BAR LAP

#4 Bar = 2'-4" (Top bars)
#5 Bar = 2'-7" (Bottom bars)

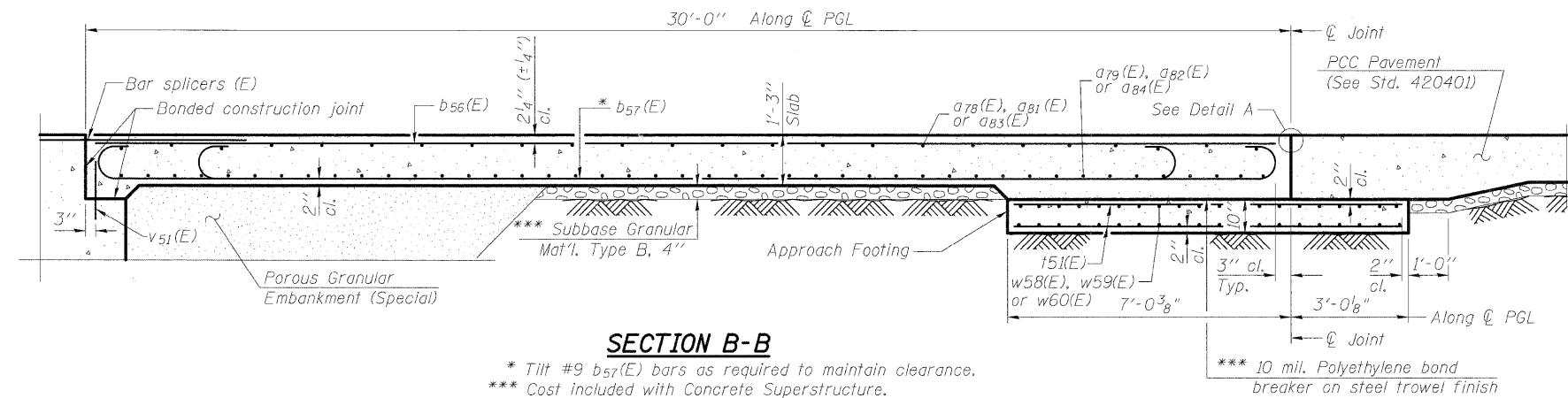


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SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-26	57	(46-2) VBR	KANKAKEE	558	353
SHEETS					
SR-48					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

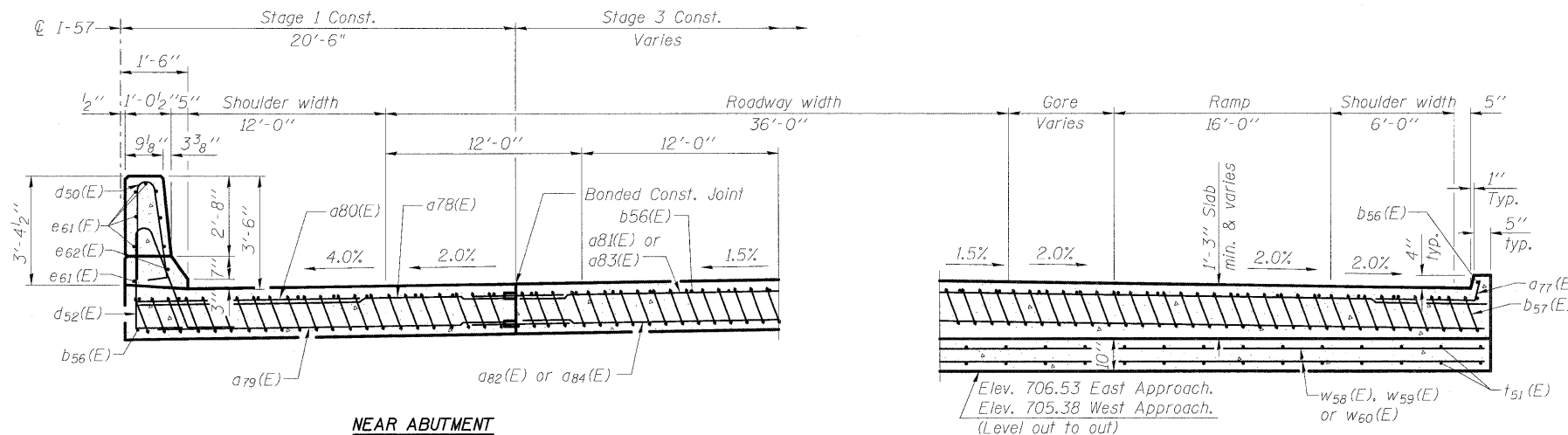
APPROACH SLAB PLAN (NB)
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION B-B

* Tilt #9 b57(E) bars as required to maintain clearance.
*** Cost included with Concrete Superstructure.

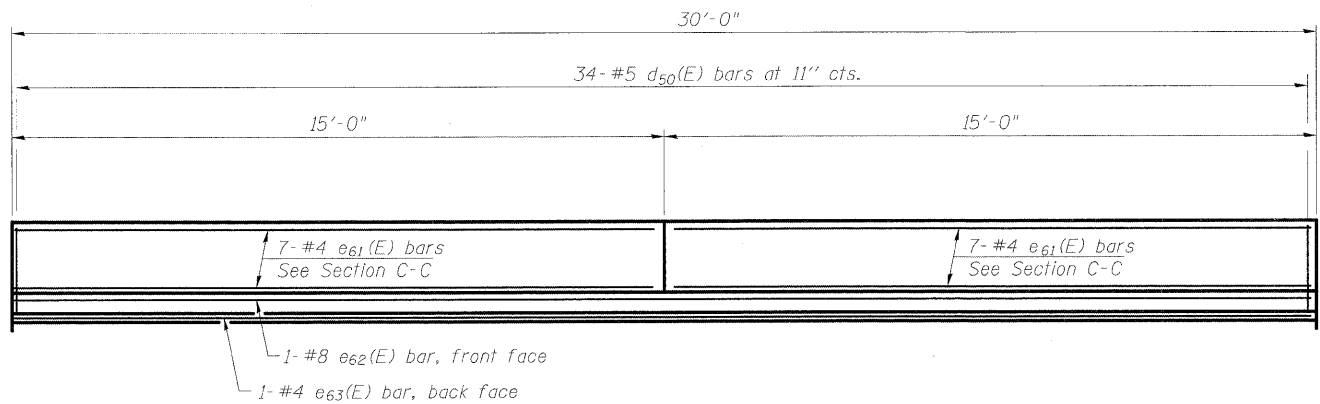


NEAR ABUTMENT

AT APPROACH FOOTING

SECTION C-C

(See Plan for dimensions not shown)



VIEW D-D

West Approach shown, East Approach similar.

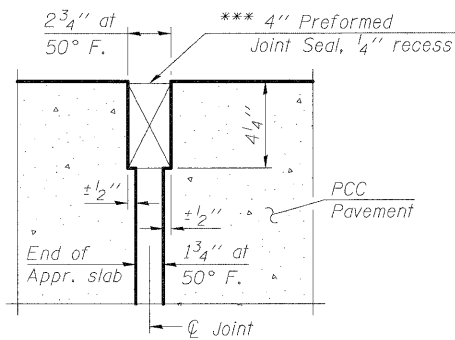
DESIGNED	RJ/PMH
CHECKED	MJL
DRAWN	RJ/PMH
CHECKED	MJL



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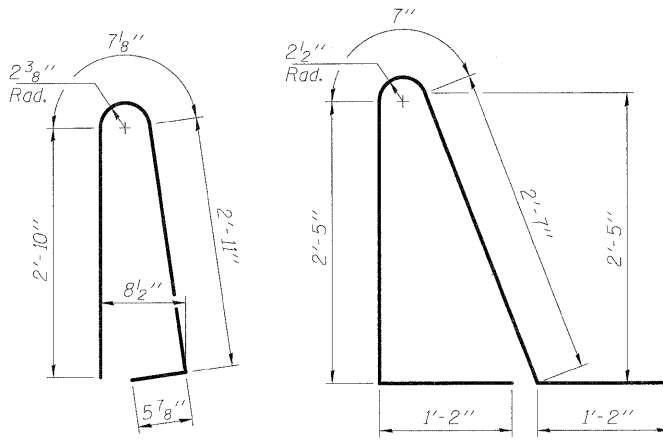
Notes:

Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v51(E) bar details, see sheets SR-33 & SR-35 of SR-48.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet SR-43 of SR-48.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see sheet SR-2 of SR-48.
For additional parapet details, see sheet SR-16 of SR-48.



DETAIL A

*** Cost included with Concrete Superstructure.



BAR d50(E)

BAR d52(E)

NORTHBOUND APPROACHES
BILL OF MATERIAL

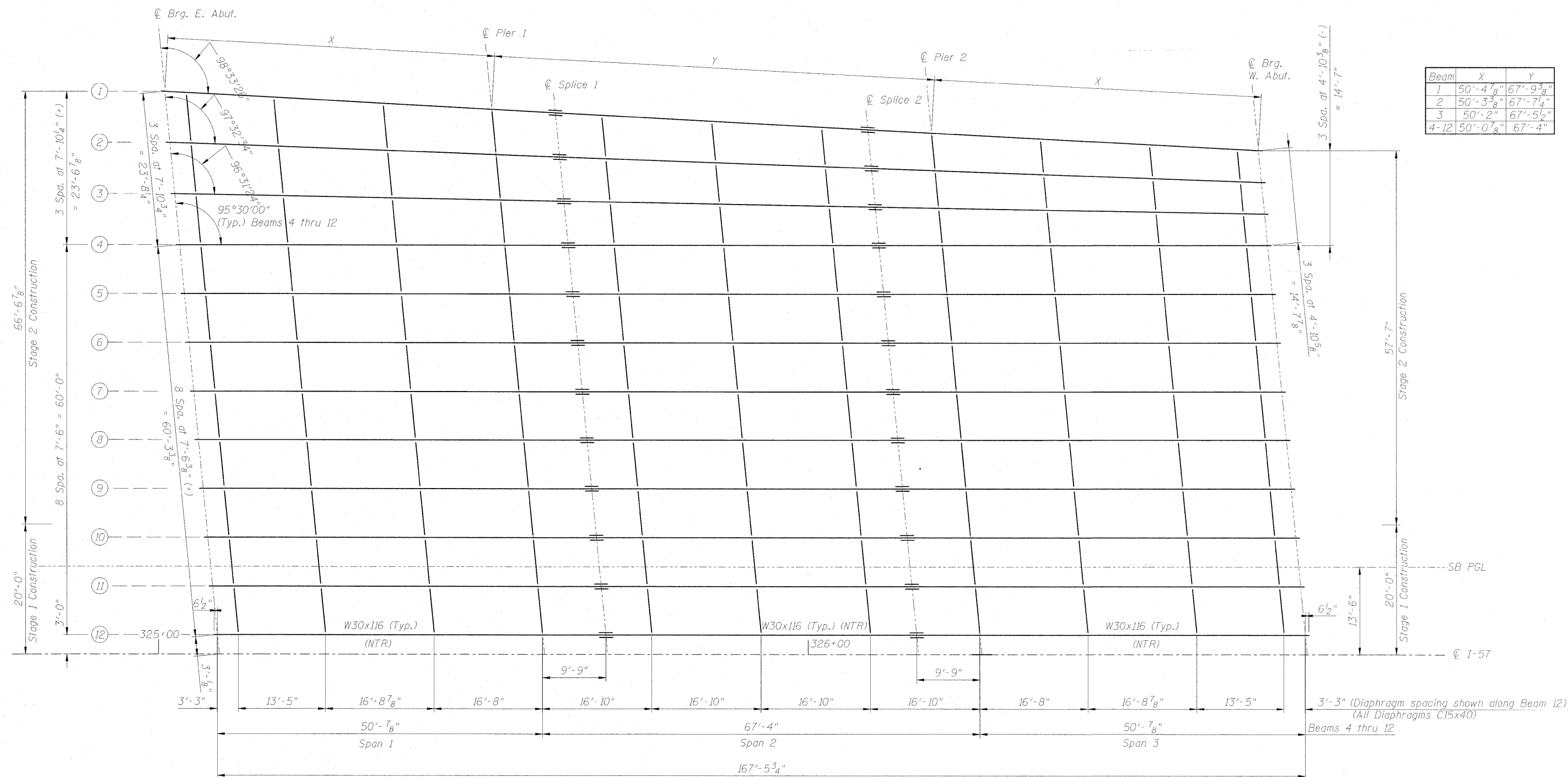
Bar	Stage 1 No.	Stage 3 No.	Size	Length	Shape
a77(E)	50	50	#4	4'-1"	
a78(E)	50		#4	20'-2"	
a79(E)	92		#5	20'-2"	
a80(E)	48		#6	6'-6"	
a81(E)		50	#4	29'-7"	
a82(E)		92	#5	29'-9"	
a83(E)		50	#4	27'-8"	
a84(E)		92	#5	27'-9"	
b56(E)	38	90	#4	29'-8"	
b57(E)	100	264	#9	29'-9"	
d50(F)	68		#5	6'-10"	
d52(E)	68		#5	7'-11"	
e61(E)	28		#4	14'-8"	
e62(E)	2		#8	29'-8"	
e63(E)	2		#4	29'-8"	
t51(E)	88	224	#4	9'-8"	
w58(E)	80		#5	20'-2"	
w59(E)		80	#5	29'-11"	
w60(E)		80	#5	27'-9"	
Concrete Superstructure			Cu. Yd.	245	
Concrete Structures			Cu. Yd.	47	
Reinforcement Bars, Epoxy Coated			Pound	60,026	

* Includes 8,509 lbs. for Approach Footing. Quantity included with substructure.

APPROACH SLAB DETAILS (NB)
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-27	57	(46-2) VBR	KANKAKEE	558	354
SHEETS					
SR-48					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
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Beam	X	Y
1	50'-4 1/8"	67'-9 3/8"
2	50'-3 3/8"	67'-7 1/4"
3	50'-2"	67'-5 1/2"
4-12	50'-0 7/8"	67'-4"

FRAMING PLAN

(SB Bridge)

NTR denotes notch toughness requirements
See note sheet no. SR-30.

S.B. FRAMING PLAN
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

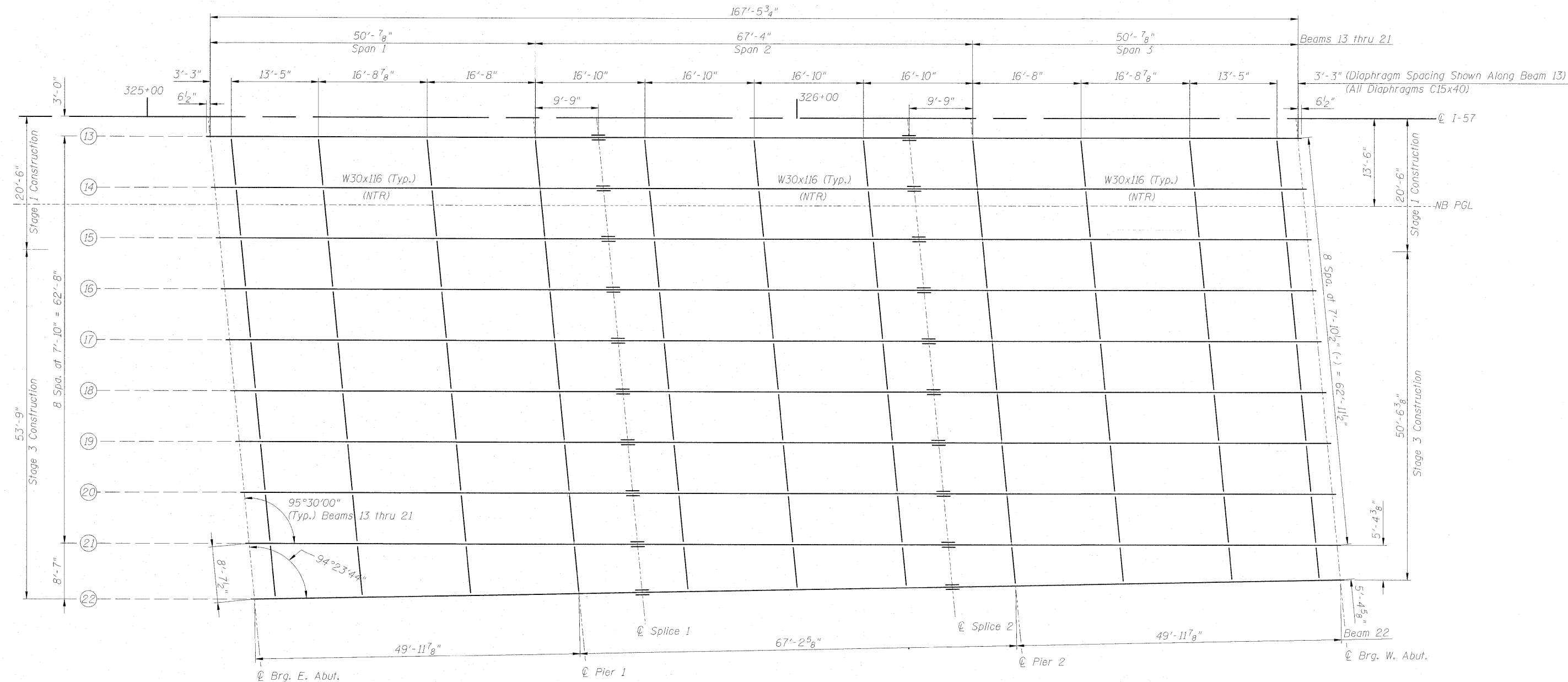
DESIGNED	PMH
CHECKED	BB
DRAWN	PMH
CHECKED	BB



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SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-28 SHEETS SR-48	57	(46-2) VBR	KANKAKEE	558	355
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FRAMING PLAN

(NB Bridge)

NTR denotes notch toughness requirements
See note sheet no. SR-30.

*All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted.
Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

**All structural steel shall be AASHTO M270 Grade 50 except diaphragms.

N.B. FRAMING PLAN
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

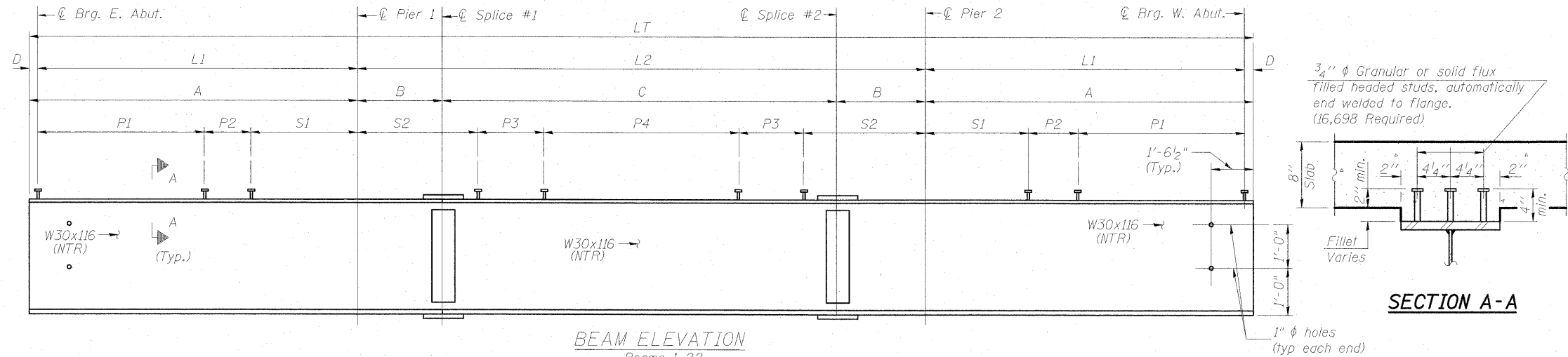
DESIGNED	PMH
CHECKED	BB
DRAWN	PMH
CHECKED	BB



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SHEET NO. SR-29 SHEETS SR-48	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	(46-2) VBR	KANKAKEE	558	356
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

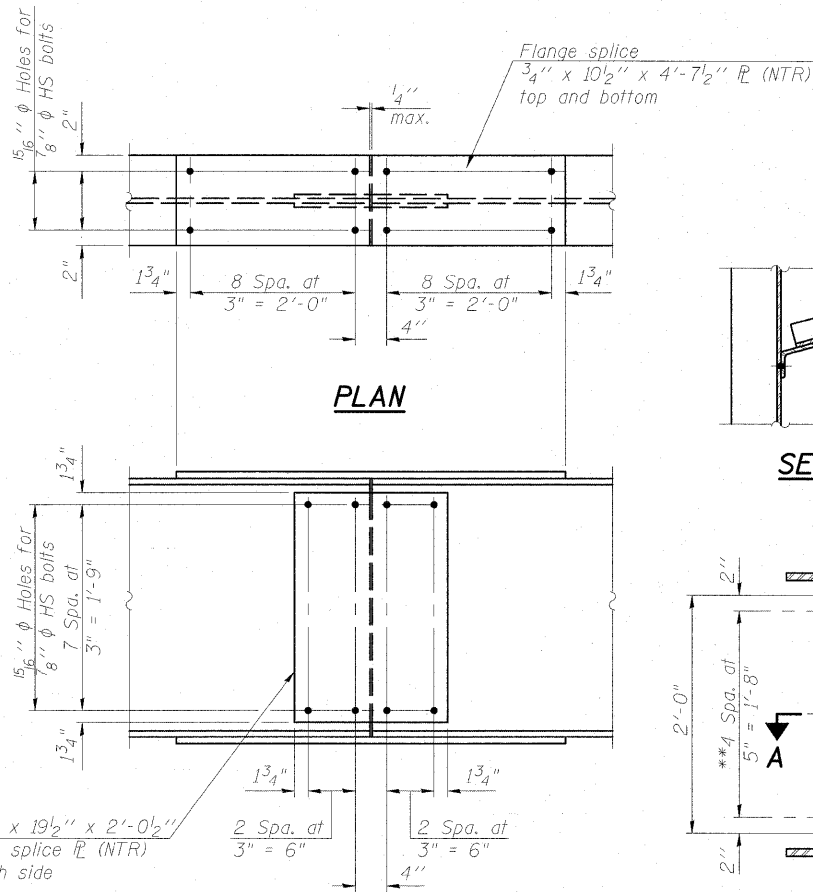
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



BEAM ELEVATION

Beams 1-22

All beam steel shall be AASHTO M270 Grade 50.



PLAN

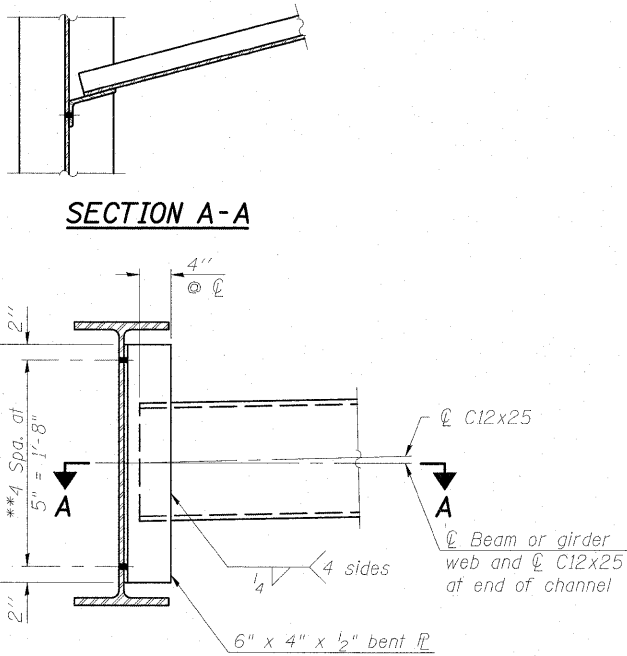
ELEVATION

SPLICE DETAIL

(44 Required)

All splice steel shall be AASHTO M270 Grade 50.

DESIGNED	PMH
CHECKED	JCE
DRAWN	PMH
CHECKED	BB



SECTION A-A

INTERIOR DIAPHRAGM

Note:

Two hardened washers required for each set of oversized holes.

Load carrying components designated "NTR" shall conform to the supplemental requirements for notch toughness, zone 2.

*Alternate channel C12x30 is permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.

The alternate, if utilized, shall be provided at no additional cost to the Department.

**3/4 inch diameter HS bolts, 5/8 inch diameter holes

SHEAR STUD SPACING TABLE						
BEAM	S1	S2	P1	P2	P3	P4
1	13'-1 1/8"	12'-6 1/8"	67 Spaces at 6" cts.	14 Spaces at 3" cts.	13 Spaces at 3" cts.	62 Spaces at 7" cts.
2	13'-3 3/8"	12'-5 5/8"	67 Spaces at 6" cts.	14 Spaces at 3" cts.	13 Spaces at 3" cts.	62 Spaces at 7" cts.
3	13'-2"	12'-4 3/4"	67 Spaces at 6" cts.	14 Spaces at 3" cts.	13 Spaces at 3" cts.	62 Spaces at 7" cts.
4-21	13'-0 7/8"	12'-4"	67 Spaces at 6" cts.	14 Spaces at 3" cts.	13 Spaces at 3" cts.	62 Spaces at 7" cts.
22	12'-11 7/8"	12'-3 5/8"	67 Spaces at 6" cts.	14 Spaces at 3" cts.	13 Spaces at 3" cts.	62 Spaces at 7" cts.

DIMENSIONS ALONG C OF BEAM							
BEAM	A	B	C	D	L1	L2	LT
1	50'-11 3/4"	9'-9 3/4"	48'-1 1/8"	6 7/8"	50'-4 7/8"	67'-9 3/8"	169'-8 7/8"
2	50'-10 9/8"	9'-9 1/2"	48'-0 1/4"	6 3/4"	50'-3 3/8"	67'-7 1/4"	169'-3 1/2"
3	50'-8 5/8"	9'-9 1/4"	47'-11"	6 5/8"	50'-2"	67'-5 1/2"	168'-10 3/4"
4-21	50'-7 3/8"	9'-9"	47'-10"	6 1/2"	50'-0 7/8"	67'-4"	168'-6 3/4"
22	50'-6 1/4"	9'-8 3/4"	47'-9 1/8"	6 3/8"	49'-11 7/8"	67'-2 5/8"	168'-3 1/8"

TOP OF BEAM ELEVATIONS (FOR FABRICATION ONLY)							
Beam No.	C Brg. E. Abut.	C Pier 1	C Splice 1	C Splice 2	C Pier 2	C Brg. W. Abut.	
1	707.73	707.49	707.45	707.26	707.23	707.07	
2	707.88	707.63	707.58	707.38	707.34	707.16	
3	708.03	707.77	707.71	707.49	707.45	707.25	
4	708.19	707.90	707.84	707.61	707.57	707.35	
5	708.33	708.05	707.99	707.76	707.71	707.50	
6	708.47	708.19	708.13	707.90	707.85	707.64	
7	708.58	708.30	708.24	708.00	707.96	707.74	
8	708.56	708.27	708.21	707.98	707.93	707.72	
9	708.44	708.15	708.09	707.86	707.82	707.60	
10	708.29	708.00	707.94	707.71	707.66	707.45	
11	708.07	707.79	707.73	707.50	707.45	707.23	
12	707.77	707.48	707.42	707.19	707.15	706.93	
13	707.77	707.48	707.42	707.19	707.14	706.93	
14	708.08	707.79	707.73	707.50	707.45	707.24	
15	708.28	708.00	707.94	707.70	707.66	707.44	
16	708.43	708.14	708.08	707.85	707.81	707.59	
17	708.54	708.26	708.20	707.97	707.92	707.71	
18	708.52	708.23	708.17	707.94	707.89	707.68	
19	708.39	708.11	708.05	707.82	707.77	707.56	
20	708.23	707.95	707.89	707.66	707.61	707.39	
21	708.07	707.79	707.73	707.50	707.45	707.23	
22	707.90	707.63	707.58	707.36	707.32	707.12	

INTERIOR BEAM REACTION TABLE					
		E. Abut.	Pier 1	Pier 2	W. Abut.
R _D	(k)	28.9	100.5	100.5	28.9
R _L	(k)	40.5	47.7	47.7	40.5
Imp.	(k)	11.6	13.0	13.0	11.6
R _{Total}	(k)	81.0	161.2	161.2	81.0

INTERIOR BEAM MOMENT TABLE						
		0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3
I _s	(in ⁴)	4862	4862	4862	4862	4862
I _c (n)	(in ⁴)	14946		14946		14946
I _c (3n)	(in ⁴)	11124		11124		11124
S _s	(in ³)	324	324	324	324	324
S _c (n)	(in ³)	511		511		511
S _c (3n)	(in ³)	463		463		463
Z	(in ³)		373		373	
Q	(k/')	0.959	1.547	0.959	1.547	0.959
M _D	(k)	153	492	205	492	153
s _D	(k/')	0.591		0.591		0.591
M _s D	(k)	116		179		116
M _L	(k)	384	221	488	221	384
M _{Imp}	(k)	110	60	127	60	110
S ₃ [M _L + M _{Imp}]	(k)	823	468	1025	468	823
M _o	(k)	1420	1248	1832	1248	1420
M _u	(k)	1998		1951		1998
f _s Q non-comp	(ksi)	5.7	18.2	7.6	18.2	5.7
f _s Q (comp)	(ksi)	3.0		4.6		3.0
f _s S ₃ [M _L + M _{Imp}]	(ksi)	19.4	17.4	24.1	17.4	19.4
f _s (Overload)	(ksi)	28.1	35.6	36.3	35.6	28.1
f _s (Total)	(ksi)		46.3		46.3	
VR	(k)	41.1		45.2		41.1

* Compact section

** Braced non-compact and partially braced section

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in⁴ and in³).

I_c(n), S_c(n): Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in⁴ and in³).

I_c(3n), S_c(3n): Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in⁴ and in³).

Z: Plastic Section Modulus of the steel section in non-composite areas (in³).

Q: Un-factored non-composite dead load (kips/ft.).

M_D: Un-factored moment due to non-composite dead load (kip-ft.).

s_D: Un-factored long-term composite (superimposed) dead load (kips/ft.).

M_sD: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).

M_L: Un-factored live load moment (kip-ft.).

M_{Imp}: Un-factored moment due to impact (kip-ft.).

M_o: Factored design moment (kip-ft.).

1.3 [M_D + M_sD + 5/3 (M_L + M_{Imp})]

M_u: Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).

f_s (Overload): Sum of stresses as computed from the moments below (ksi).
M_D + M_sD + 5/3 (M_L + M_{Imp})

f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
1.3 [M_D + M_sD + 5/3 (M_L + M_{Imp})]

VR: Maximum L + impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).

STEEL DETAILS

STRUCTURE NO. 046-0146 (S.B.)

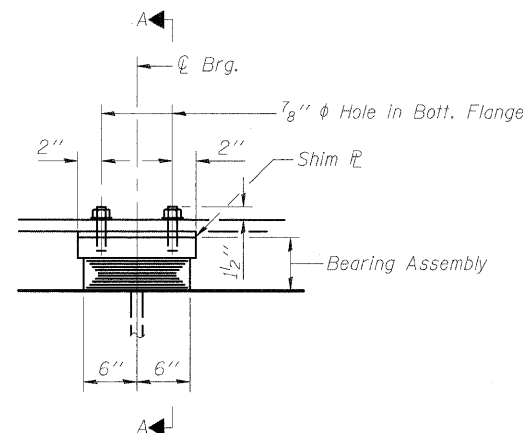
& STRUCTURE NO. 046-0147 (N.B.)



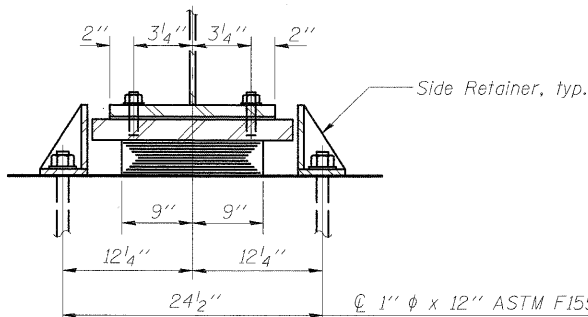
McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street
Chicago, Illinois 60601
(312) 946-8600

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-30 SHEETS SR-48	57	(46-2) VBR	KANKAKEE	558	357
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION AT PIERS

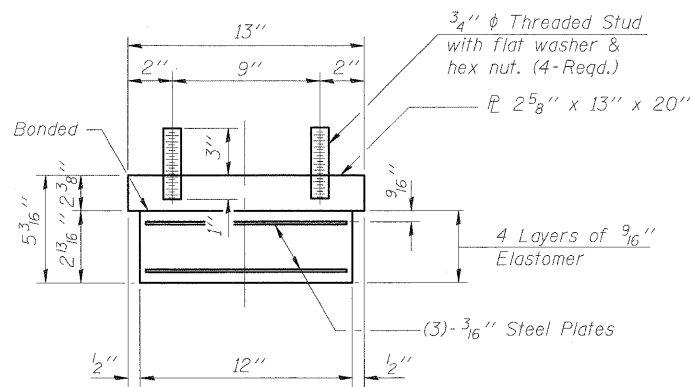


SECTION A-A

1" ϕ x 12" ASTM F1554 Grade 36
Anchor bolts with
2 1/4" x 2 1/4" x 5/16" R washer
under nut

TYPE I ELASTOMERIC EXP. BRG. @ PIERS 1 & 2

No. required = 44



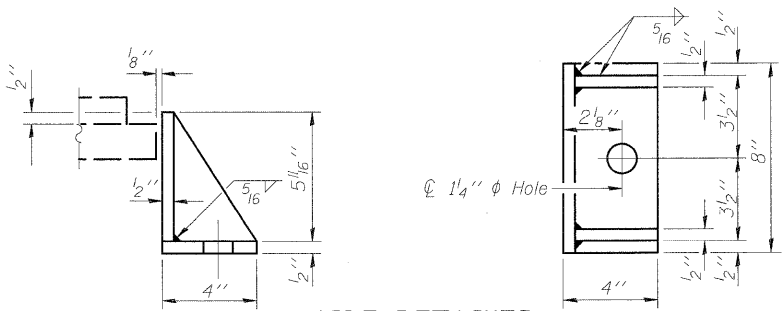
BEARING ASSEMBLY

Note:
Shim plates shall not be placed
under Bearing Assembly.

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

SHIM R THICKNESS TABLE

Location	Beam 7	Beam 17
E. Abut.	1/4"	3/8"
Pier 1	1/4"	1/4"
Pier 2	3/8"	3/8"
W. Abut.	3/8"	3/8"



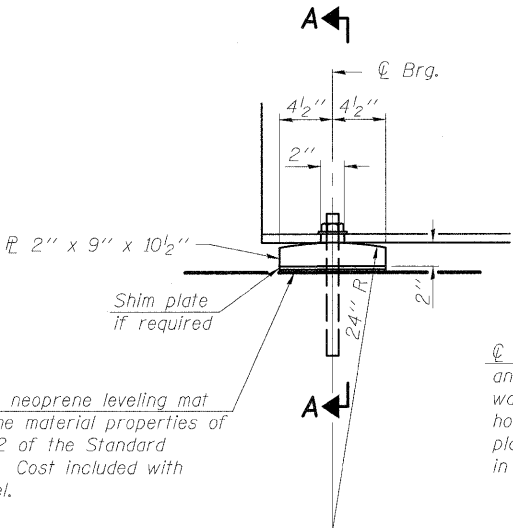
SIDE RETAINER

Equivalent rolled angle with stiffeners
will be allowed in lieu of welded plates.
No. required = 88

DESIGNED	PMH
CHECKED	MJL
DRAWN	PMH
CHECKED	MJL



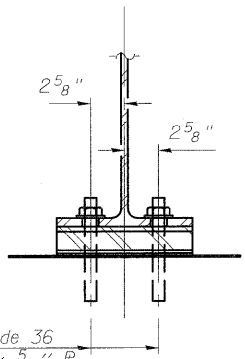
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130 East Randolph Street
Chicago, Illinois 60601
(312) 946-8600



ELEVATION AT ABUTMENT

FIXED BEARING

No. required = 44



SECTION A-A

1" ϕ x 12" ASTM F1554 Grade 36
anchor bolts with 2 1/4" x 2 1/4" x 5/16" R
washer under nut. 1 3/8" x 2" slotted
hole in flange. 1 1/2" ϕ holes in bearing
plate. Contractor has the option of cast
in place or drilled installation.

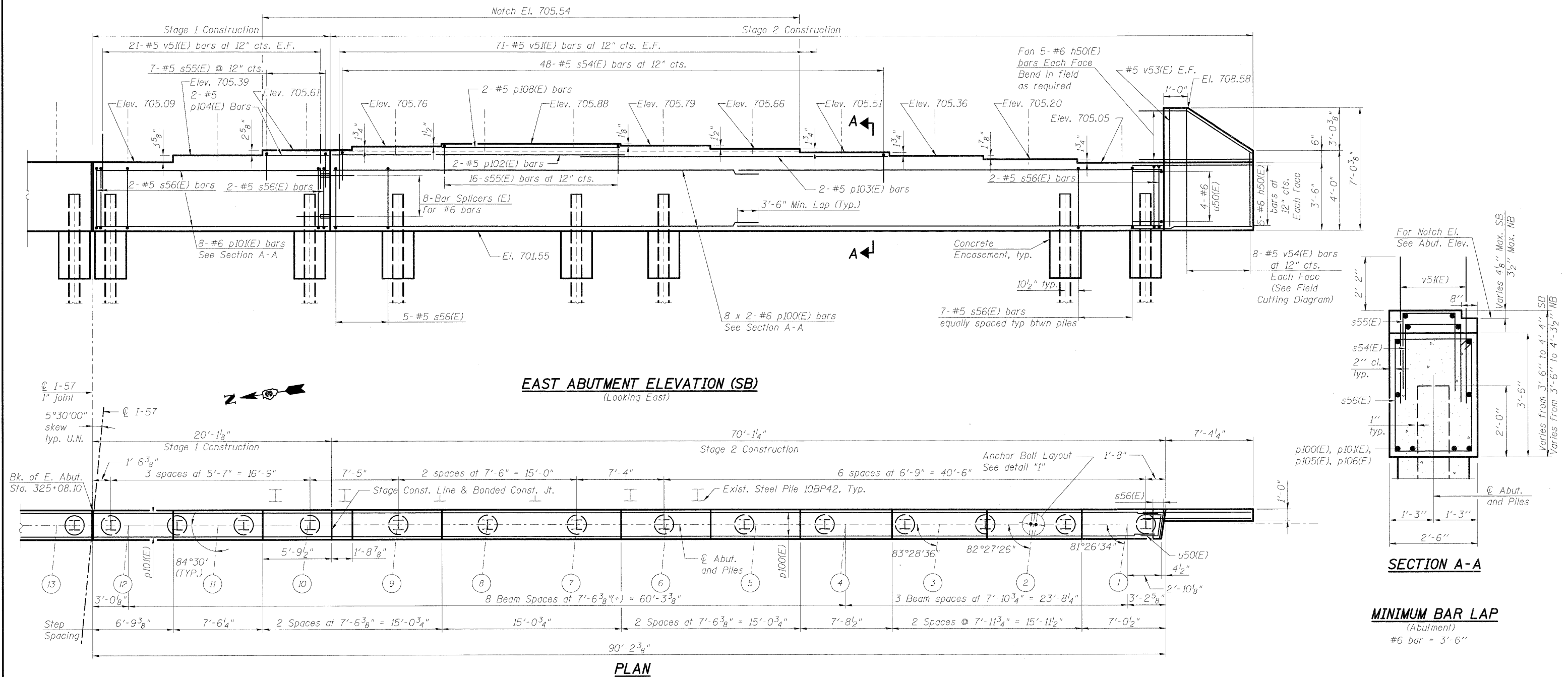
BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	44
Anchor Bolts 1" ϕ	Each	176

BEARING DETAILS
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-31 SHEETS SR-48	57	(46-2) VBR	KANKAKEE	558	358
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Beam No.	Δ	x	y
1	81°26'34"	25 _B "	3 _B "
2	82°27'26"	25 _B "	3 _B "
3	83°28'36"	25 _B "	4"
4 thru 12	84°30'00"	25 _B "	4"

DETAIL "1"
ANCHOR BOLT LAYOUT



McDonough Associates Inc.
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130 East Randolph Street
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SHEET NO. SR-32 SHEETS SR-48	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	(46-2) VBR	KANKAKEE	558	359
	CONTRACT NO. 66409				
	FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT				

Notes:

Pour steps monolithically with cap.

For details of Bar Splicers, see Sht. SR-43.

For Bill of Material see Sht. SR-33.

For details of piles and Concrete Encasement, see Sht. SR-44.

Bars indicated thus 8 x 2 - #6 etc. indicates 8 lines of bars with 2 lengths per line.

EAST ABUTMENT & DETAILS (SB)
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

Type:	HP 10 x 57 w/ Pile Shoes
Nominal Required Bearing:	453 kips
Allowable Resistance Available:	151 kips
Est. Length:	41 ft.
No. Production Piles:	26
No. Test Piles:	1

Figure 10 shows a gable roof elevation. The main roof section has a horizontal span of 4'-11 1/2" and a vertical height of 4'-8". The smaller roof section has a horizontal span of 2'-1 1/2" and a vertical height of 2'-1". The roof pitch is 4:12. The roof is labeled with 'u50(E)' and 'u5(E)'.

BARS u50(E) & u51(E)

PILE DATA

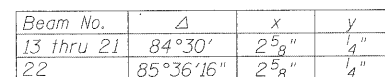
DESIGNED	PMH
CHECKED	MJL
DRAWN	PMH
CHECKED	MJL

Notch El. 705.55



Notes:

For Section A-A see Sht. SR-32.



10'-4"

6'-8"

3'-8"

8- #5 v54(E) bars

Cut Line

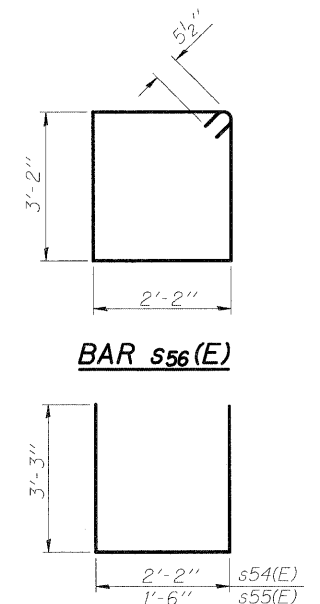
3'-8"

Order v54(E) full length. Cut as shown and use remainder of bars in opposite face.



SHEET NO. SR-33 SHEETS SR-48	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	(46-2) VBR	KANKAKEE	558	360
				CONTRACT NO. 66409	
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

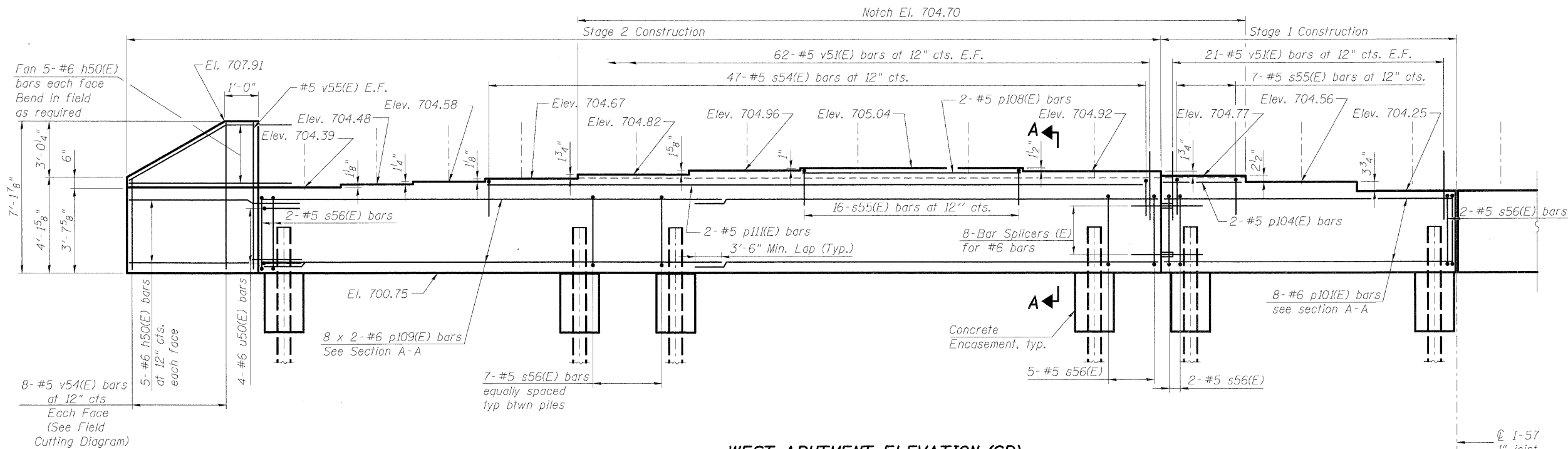
	Stage 1	Stage 2	Stage 3			
Bar	No.	No.	No.	Size	Length	Shape
h50(E)		20	20	#6	10'-8"	————
p ₁₀₀ (E)		16		#6	36'-11"	————
p ₁₀₁ (E)	8			#6	19'-9"	————
p ₁₀₂ (E)		2		#5	24'-5"	————
p ₁₀₃ (E)		2		#5	25'-7"	————
p ₁₀₄ (E)	4			#5	5'-5"	————
p ₁₀₅ (E)			16	#6	30'-4"	————
p ₁₀₆ (E)	8			#6	20'-3"	————
p ₁₀₇ (E)			2	#5	33'-2"	————
p ₁₀₈ (E)		2		#5	14'-8"	————
s ₅₄ (E)		48		#5	8'-8"	□
s ₅₅ (E)	14	16	35	#5	8'-0"	□
s ₅₆ (E)	50	70	63	#5	11'-7"	□
u ₅₀ (E)		4		#6	9'-11"	≡
u ₅₁ (E)			4	#6	9'-8"	≡
v ₅₁ (E)	86	142	116	#5	4'-4"	————
v ₅₃ (E)		2	2	#5	6'-8"	————
v ₅₄ (E)		8	8	#5	10'-4"	————
Structure Excavation					Cu. Yd.	279
Reinforcement Bars, Epoxy Coated					Pound	8,024
Concrete Structures					Cu. Yd.	65
Concrete Encasement					Cu. Yd.	10
Furnishing Steel Piles, HP 10x57					Foot	1,066
Driving Piles					Foot	1,066
Test Pile Steel HP 10 x 57					Each	1
Pile Shoes					Each	27



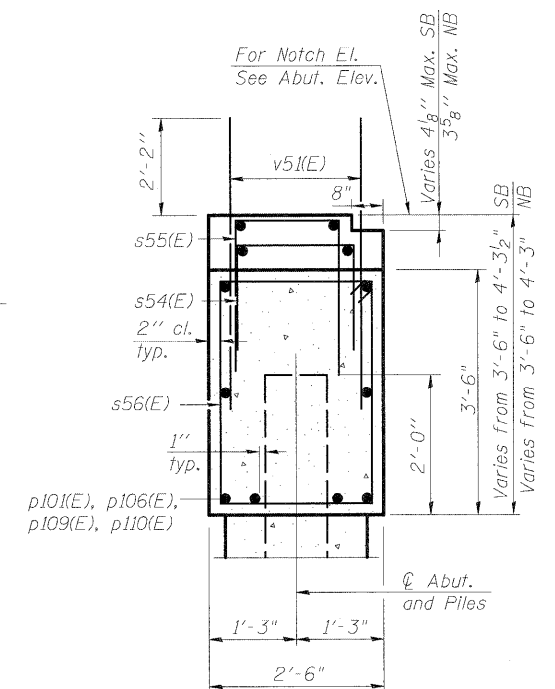
BARS $s_{54}(E)$ & $s_{55}(E)$

EAST ABUTMENT & DETAILS (NB)
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

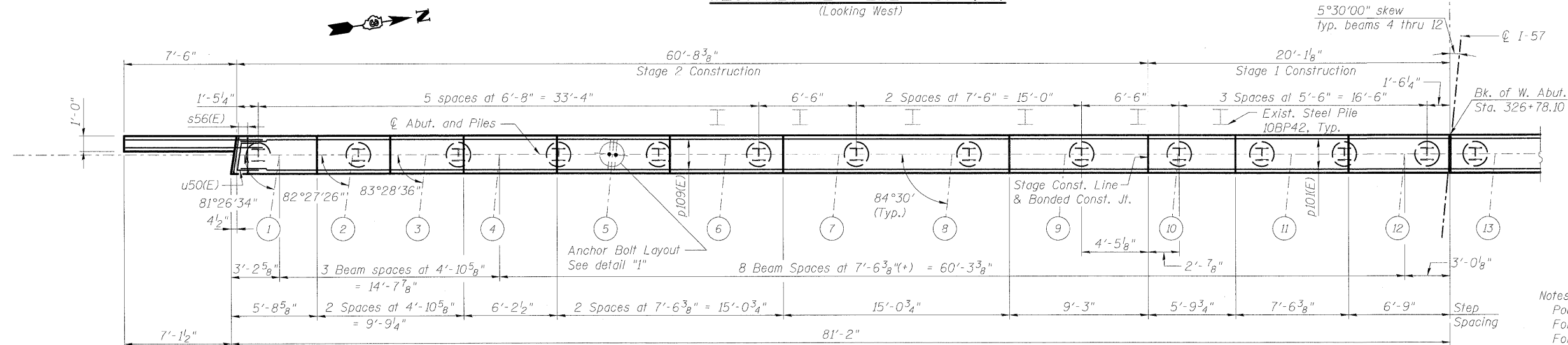
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



WEST ABUTMENT ELEVATION (SB)
(Looking West)



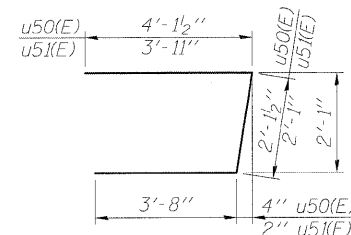
SECTION A-A



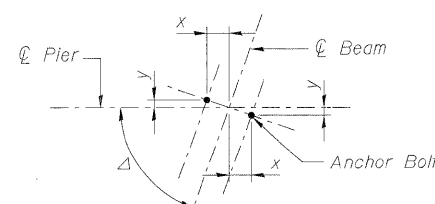
PLAN

PILE DATA

Type:	HP 10 x 57 w/ Pile Shoes
Nominal Required Bearing:	453 kips
Allowable Resistance Available:	151 kips
Est. Length:	39 ft.
No. Production Piles:	24
No. Test Piles:	1



BARS u50(E) & u51(E)



Beam No.	Δ	x	y
1	81°26'34"	258"	38"
2	82°27'26"	258"	38"
3	83°28'36"	258"	14"
4 thru 12	84°30'00"	258"	14"

DETAIL "1"
ANCHOR BOLT LAYOUT



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SHEET NO. SR-34 SHEETS SR-48	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	(46-2) VBR	KANKAKEE	558	361
				CONTRACT NO. 66409	
	FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT				

Notes:
 Pour steps monolithically with cap.
 For details of Bar Splicers, see Sht. SR-43.
 For Bill of Material see Sht. SR-35.
 For details of piles and Concrete Encasement,
 see sht. SR-44.

Bars indicated thus 8 x 2 - #6 etc. indicates
8 lines of bars with 2 lengths per line.

WEST ABUTMENT & DETAILS (SB)
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

Stage 3 Construction

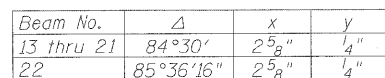


Diagram of a rectangular column cross-section showing dimensions and reinforcement. The total width is 10'-4", with a central core of 6'-8". The total height is 3'-8". Reinforcement consists of 8 #5 v54(E) bars. A "Cut Line" is indicated by a diagonal line from the bottom-left corner to the top-right corner.

Order v54(E) full length. Cut as shown and use remainder of bars in opposite face.

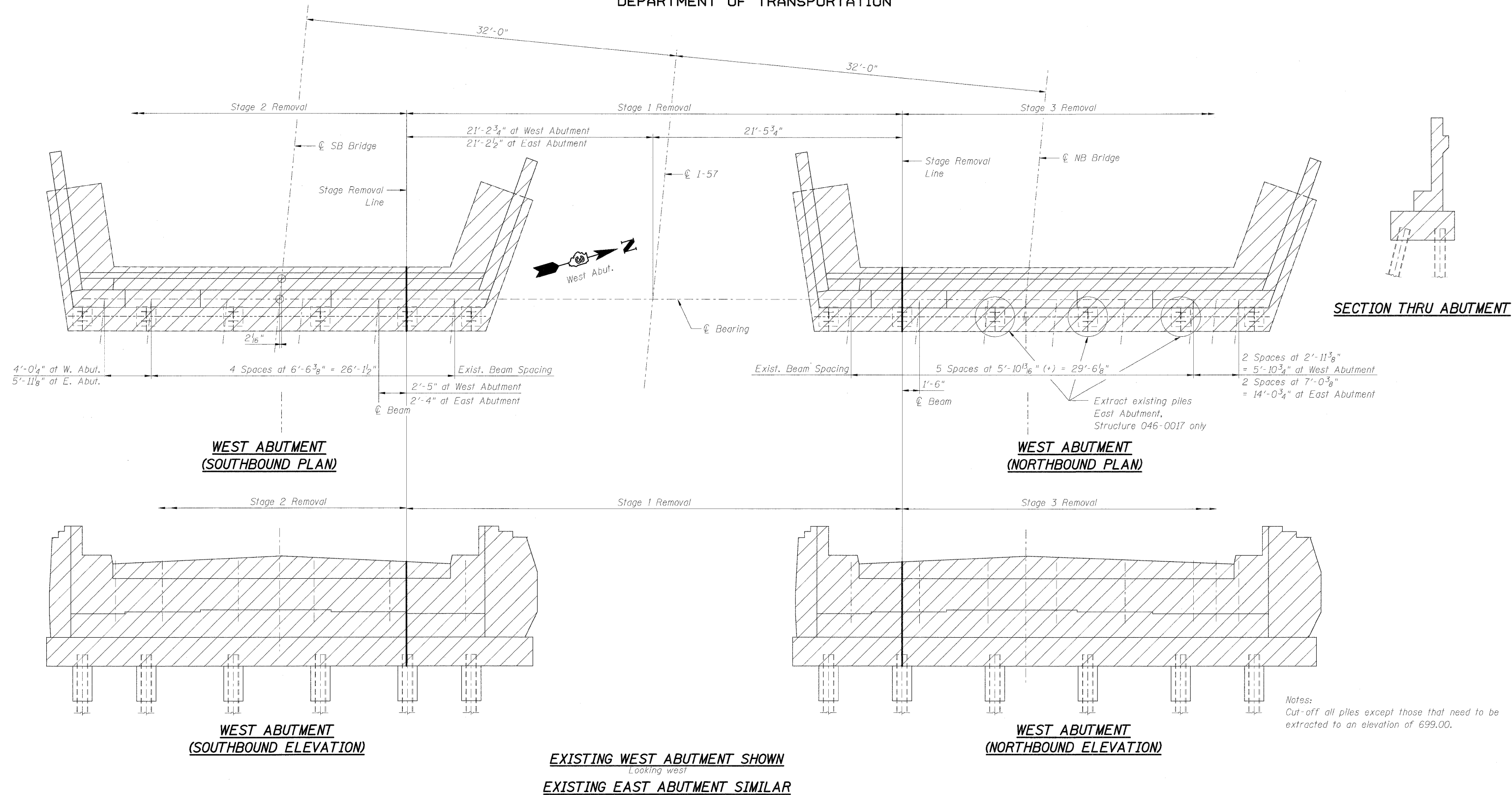
For Section A-A see Sht. SR-34.

BAR $s_{54}(E)$ & $s_{55}(E)$



SHEET NO. SR-35 SHEETS SR-48	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	(46-2) VBR	KANKAKEE	558	362
				CONTRACT NO. 66409	
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DESIGNED	RJ
CHECKED	PMH
DRAWN	RJ
CHECKED	PMH

LEGEND

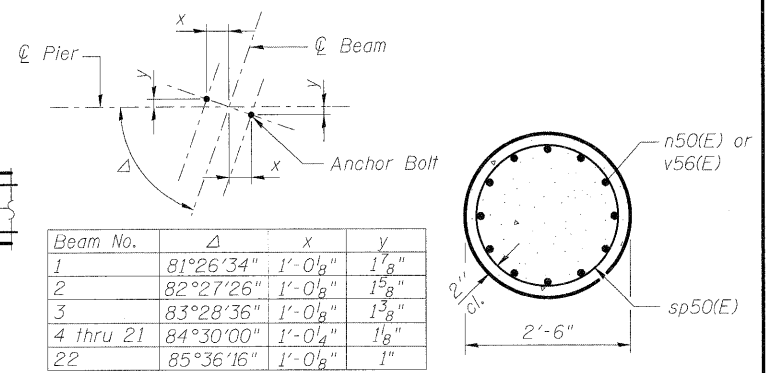
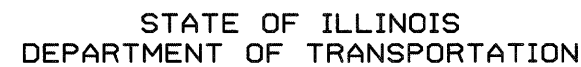
Stage Concrete Removal



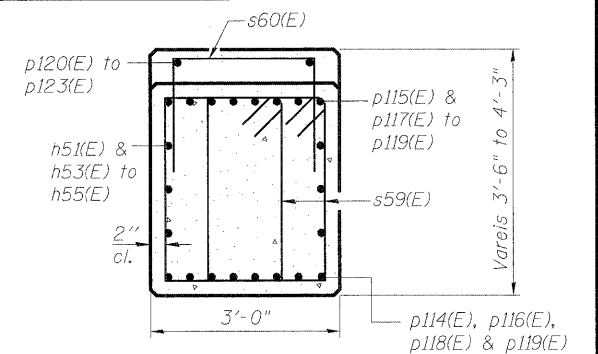
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130 East Randolph Street
Chicago, Illinois 60601
(312) 946-8600

EAST AND WEST ABUTMENT REMOVAL
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-36	57	(46-2) VBR	KANKAKEE	558	363
SHEETS					
SR-48					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					



SEC. B-B



each column
ra
bottom.
2" into
vide 4- #4
vent.

Optional
const. joint

3'-0"

3"

3"

v56(E)

Varies 3'-6"
to 4'-3"

3"

3"

2"

h58(E) to h60(E)
h50(E)
s58(E)

2"
cl.

2"
cl.

5'-6"

3'-0"

5'-6"

h51(E), h52(E) & h61(E)

t50(E)

s57(E)

w50(E) to w52(E)

2'-0"

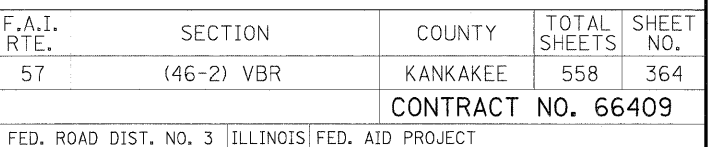
3"
cl.

14'-0"

Varies 28'-10 1/4"
to 29'-7 5/8"

PIER 1 (SB)

STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)



DESIGNED	MGB
CHECKED	PMH
DRAWN	PMH
CHECKED	MJL

(Pier)

<u>Top bars</u>	<u>Other bars</u>
#5 bar = 2'-11"	#5 bar = 2'-7"
#8 bar = 6'-2"	#6 bar = 3'-1"
#11 bar = 15'-1"	#9 bar = 6'-10"
	#11 bar = 13'-4"

Maximum Applied Bearing Pressure = 2.86 ksf

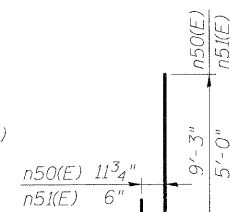
Notes:

Space reinforcement in cap to miss anchor bolts.
Four steps monolithically with cap.
For Bill of Material, see sheet SR-38 of SR-48.
Work with sheet SR-38.

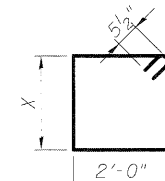


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SHEET NO.
SR-37
SHEETS
SR-48



BARS n50(E)
& n51(E)



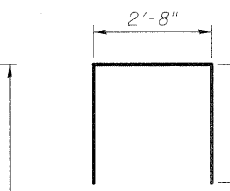
X DIMENSIONS

Diagram of a right-angled corner with dimensions 3'-3" and 2'-8".

BAR u53(E)

BAR p124(E)

* Length is height of spiral.



BARS s57(E), s58(E)
& s60(E)

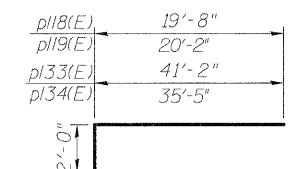
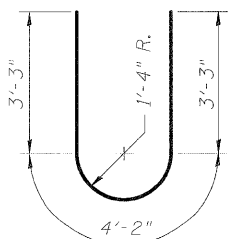
BARS p118(E), p119(E)
p133(E) & p134(E)

BAR u52(E)

PIER 1 (NB)

STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

Bar	A
s57(E)	5'-0'
s58(E)	10'-11'
s60(E)	3'-3'



FOOTING PLAN

15-Bar Splicers (E)
Bottom for #5 bars

Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For sections A-A, B-B & End View, see sheet SR-37 of SR-48.
For anchor bolt layout, see sheet SR-37.
Work with sheet SR-37.

DESIGNED	MGB
CHECKED	PMH
DRAWN	PMH
CHECKED	M.II

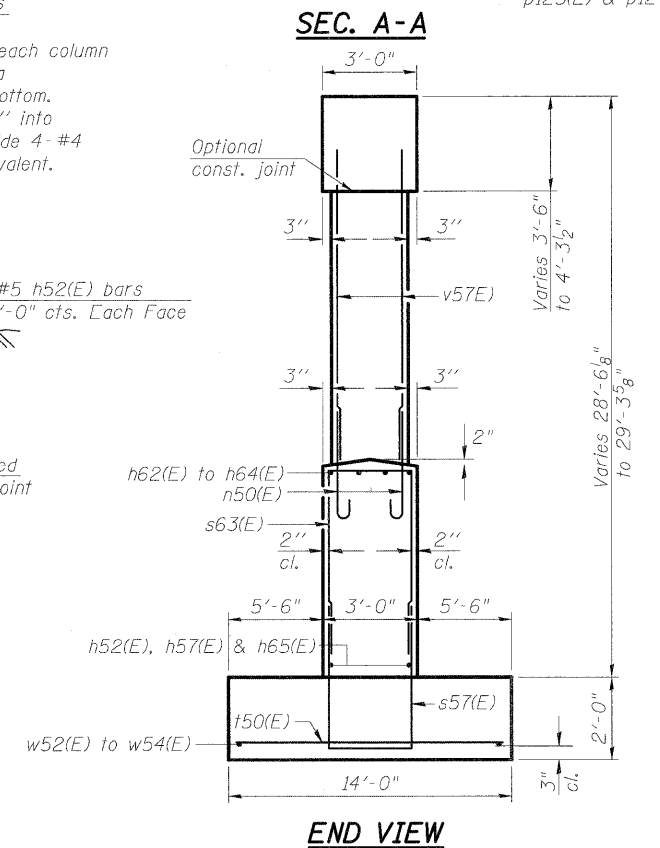
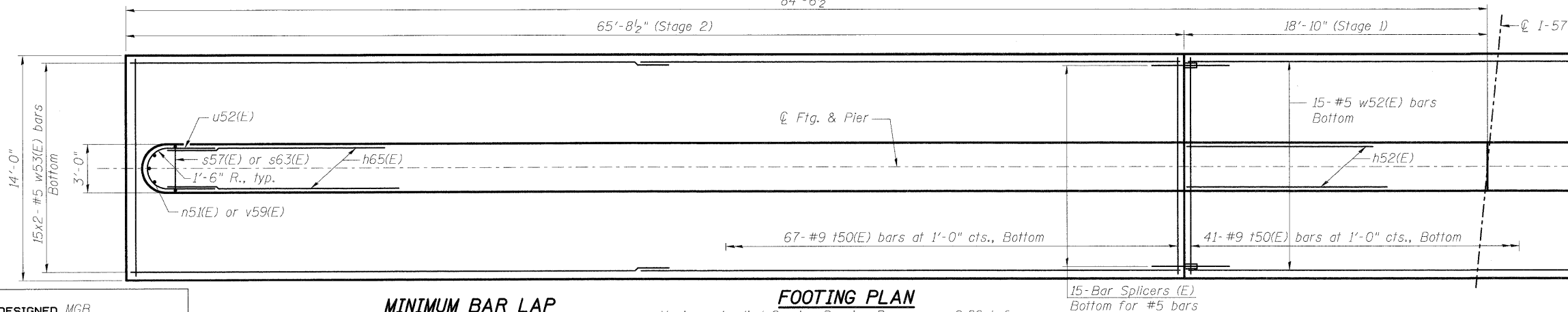
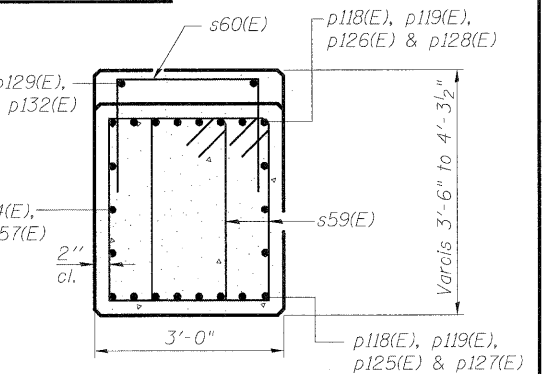
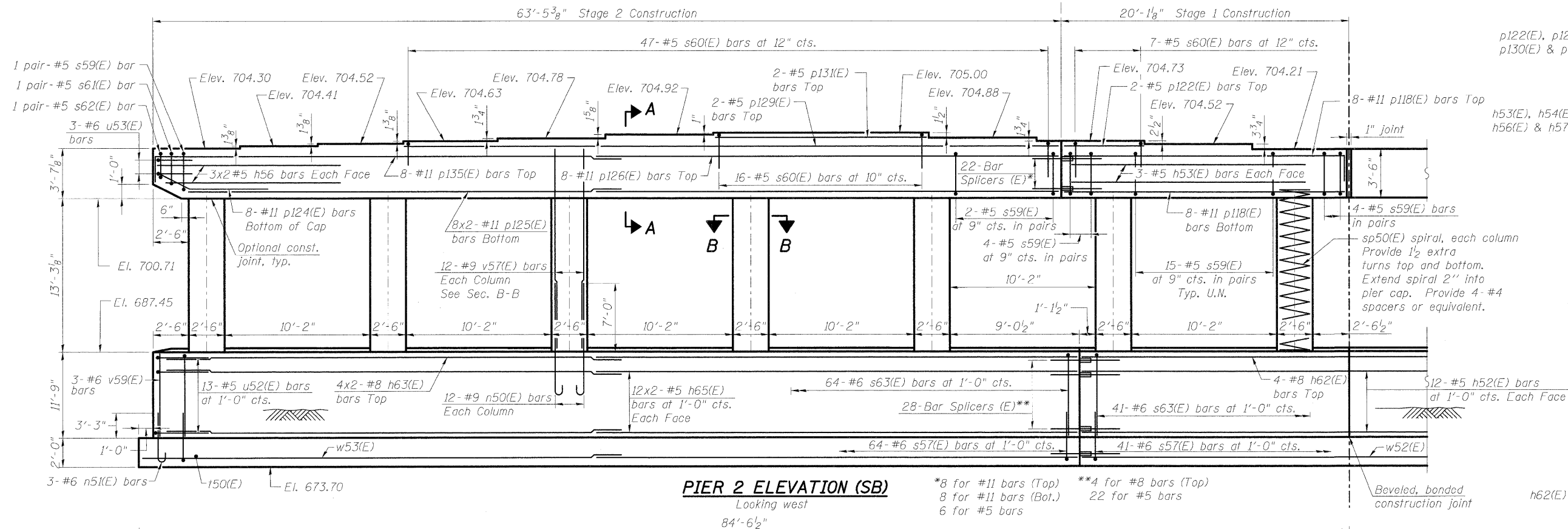
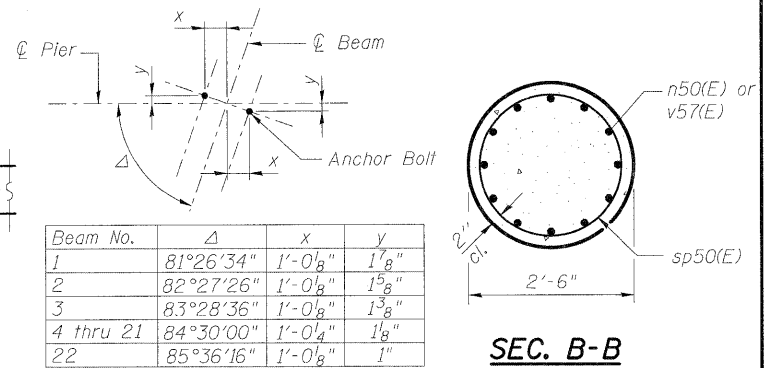
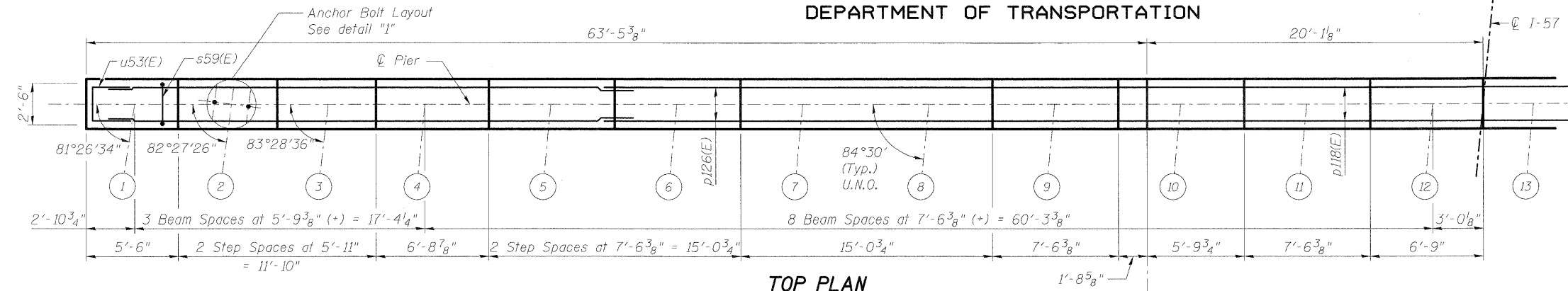


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SHEET NO. SR-38 SHEETS SR-48	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	(46-2) VBR	KANKAKEE	558	365
			CONTRACT NO. 66409		
	FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT		



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DESIGNED	MGB
CHECKED	PMH
DRAWN	PMH
CHECKED	MJL

MINIMUM BAR LAP	
(Pier)	
Top bars	Other bars
#5 bar = 2'-11"	#5 bar = 2'-7"
#8 bar = 6'-2"	#6 bar = 3'-1"
#11 bar = 15'-1"	#9 bar = 6'-10"
	#11 bar = 13'-4"

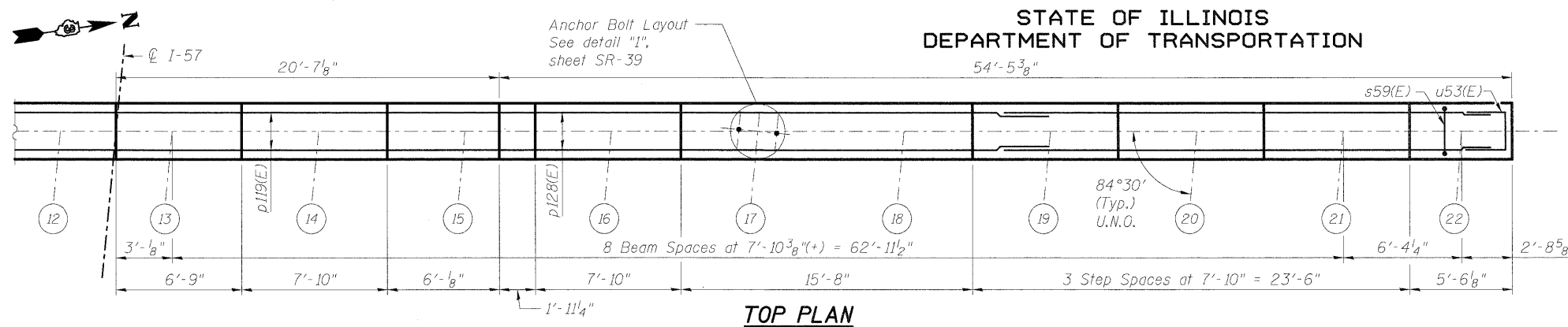
FOOTING PLAN
Maximum Applied Service Bearing Pressure = 2.86 ksf
Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For Bill of Material, see sheet SR-40 of SR-48.
Work with sheet SR-40.



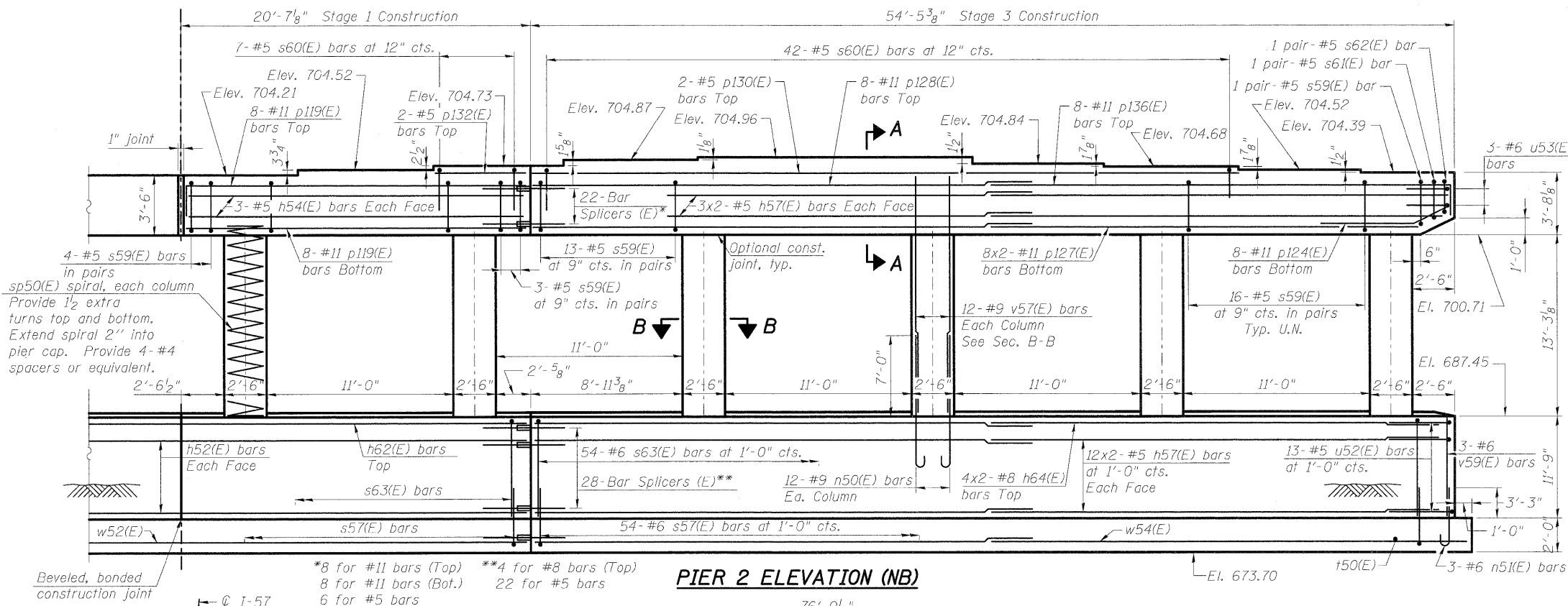
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SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-39	57	(46-2) VBR	KANKAKEE	558	366
SHEETS					
SR-48					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

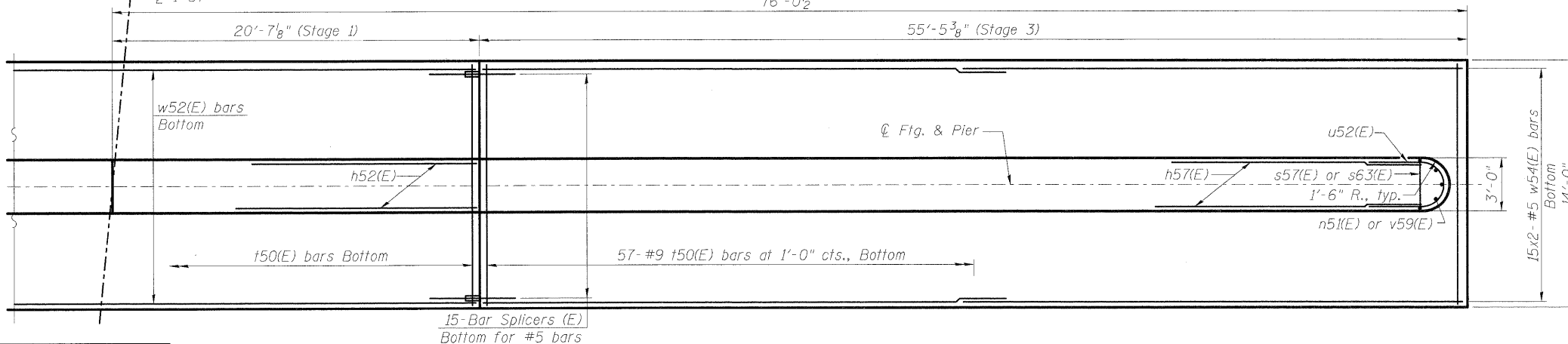
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



TOP PLAN



PIER 2 ELEVATION (NB)



FOOTING PLAN

Maximum Applied Service Bearing Pressure = 2.86 ksf

Notes:

Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For sections A-A, B-B & End View,
see sheet SR-39 of SR-48.
Work with sheet SR-39.

DESIGNED	MGB
CHECKED	PMH
DRAWN	PMH
CHECKED	MJL

PIER 2 BILL OF MATERIAL

Bar	Stage 1 No.	Stage 2 No.	Stage 3 No.	Size	Length	Shape
h52(E)	24			#5	39'-1"	
h53(E)	6			#5	19'-8"	
h54(E)	6			#5	20'-2"	
h56(E)		12		#5	33'-4"	
h57(E)			60	#5	28'-10"	
h62(E)	4			#8	39'-1"	
h63(E)		8		#8	34'-10"	
h64(E)			8	#8	29'-9"	
h65(E)		48		#5	33'-2"	
n50(E)	48	60	48	#9	10'-6"	
n51(E)		3	3	#6	5'-8"	
p118(E)	16			#11	21'-8"	
p119(E)	16			#11	22'-2"	
p122(E)	2			#5	5'-5"	
p124(E)		8	8	#11	15'-6"	
p125(E)		16		#11	37'-6"	
p126(E)		8		#11	39'-5"	
p127(E)			16	#11	32'-11"	
p128(E)			8	#11	34'-10"	
p129(E)		2		#5	45'-9"	
p130(E)			2	#5	40'-9"	
p131(E)		2		#5	14'-8"	
p132(E)	2			#5	5'-8"	
p135(E)		8		#11	41'-5"	
p136(E)			8	#11	36'-10"	
s57(E)	41	64	54	#6	12'-8"	
s59(E)	92	144	124	#5	11'-3"	
s60(E)	14	63	42	#5	9'-2"	
s61(E)		2	2	#5	10'-3"	
s62(E)		2	2	#5	9'-3"	
s63(E)	41	64	54	#6	25'-6"	
*sp50(E)	4	5	4	#4	13'-6"	
t50(E)	41	67	57	#9	13'-8"	
u52(E)		13	13	#5	10'-8"	
u53(E)		3	3	#6	9'-2"	
v57(E)	48	60	48	#9	14'-11"	
v59(E)		3	3	#6	11'-5"	
w52(E)	15			#5	39'-1"	
w53(E)		30		#5	34'-4"	
w54(E)			30	#5	29'-2"	
Braced Excavation				Cu. Yd.	631	
Reinforcement Bars, Epoxy Coated				Pound	66,855	
Concrete Structures				Cu. Yd.	478	

* Length is height of spiral.

BARS n50(E)
& n51(E)

BARS s59(E),
s61(E) &
s62(E)

X DIMENSIONS

Bar	X'
s59(E)	3'-2"
s61(E)	2'-8"
s62(E)	2'-2"

BAR u53(E)

BAR p124(E)

BARS s57(E), s60(E)
& s63(E)

A DIMENSIONS

Bar	A
s57(E)	5'-0"
s60(E)	3'-3"
s63(E)	11'-5"

BARS p118(E), p119(E),
p135(E) & p136(E)

BAR u52(E)

PIER 2 (NB)

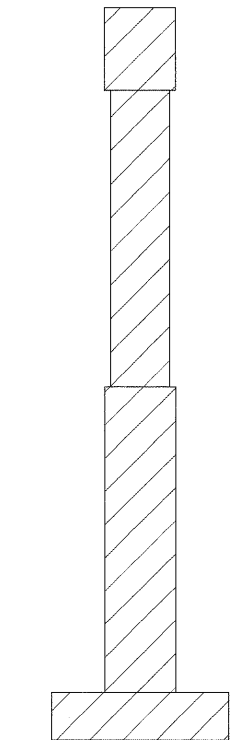
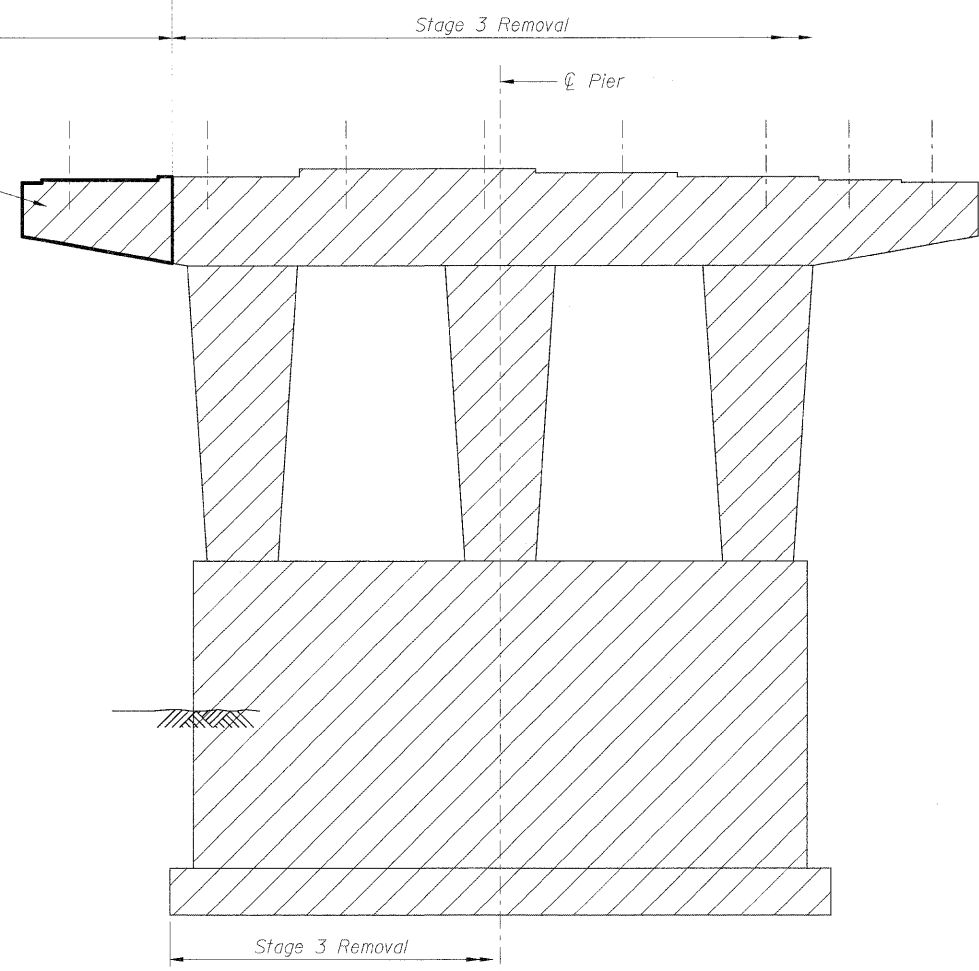
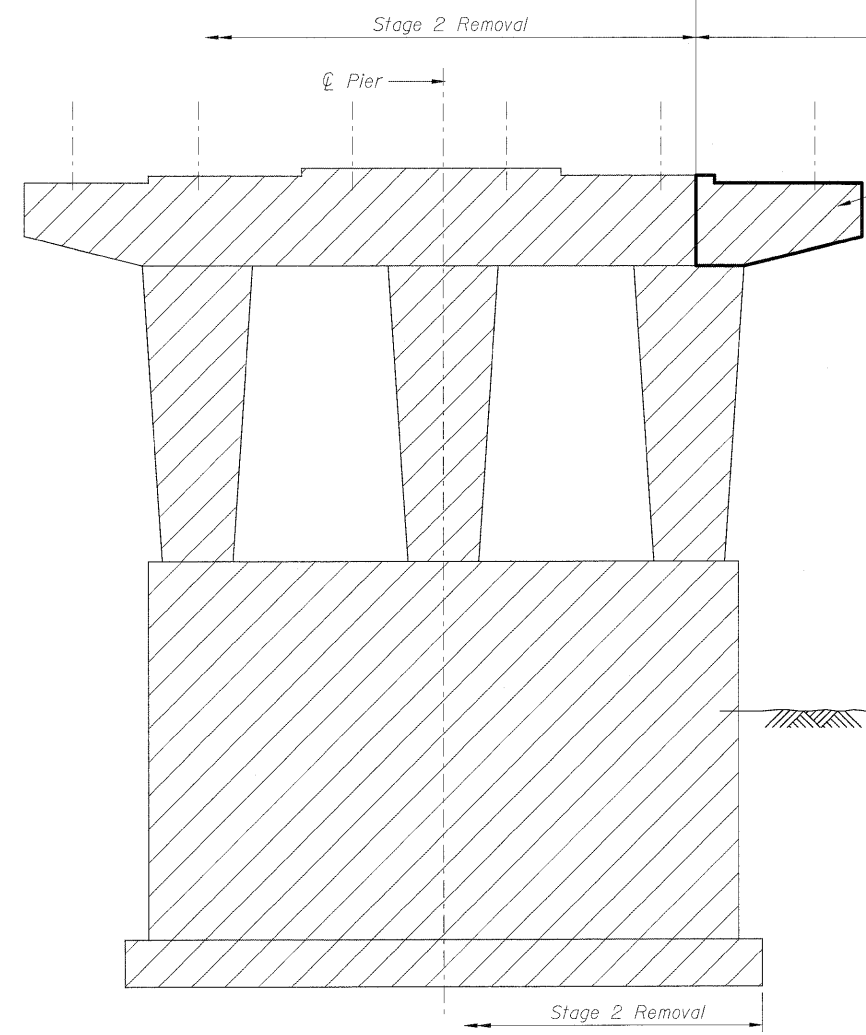
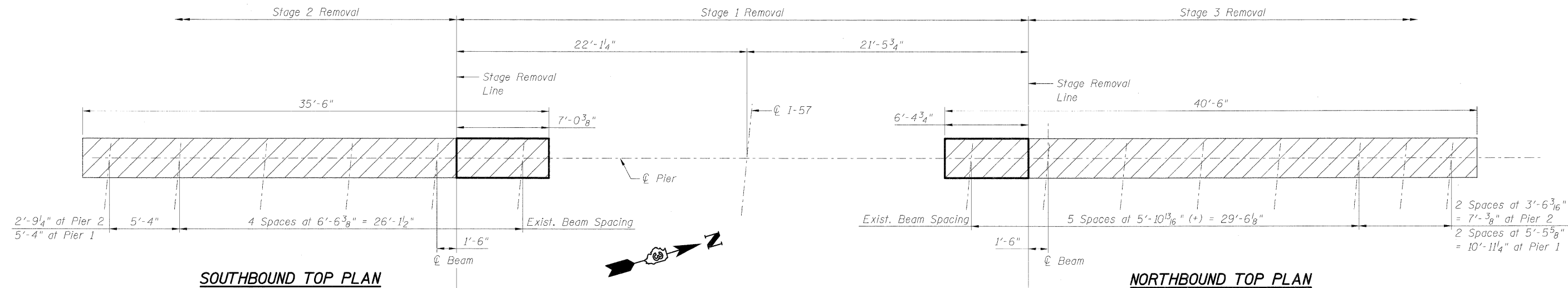
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-40	57	(46-2) VBR	KANKAKEE	558	367
SHEETS					
SR-48					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					



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EXISTING PIER 2 SHOWN
Looking west
EXISTING PIER 1 SIMILAR

LEGEND

Stage Concrete Removal

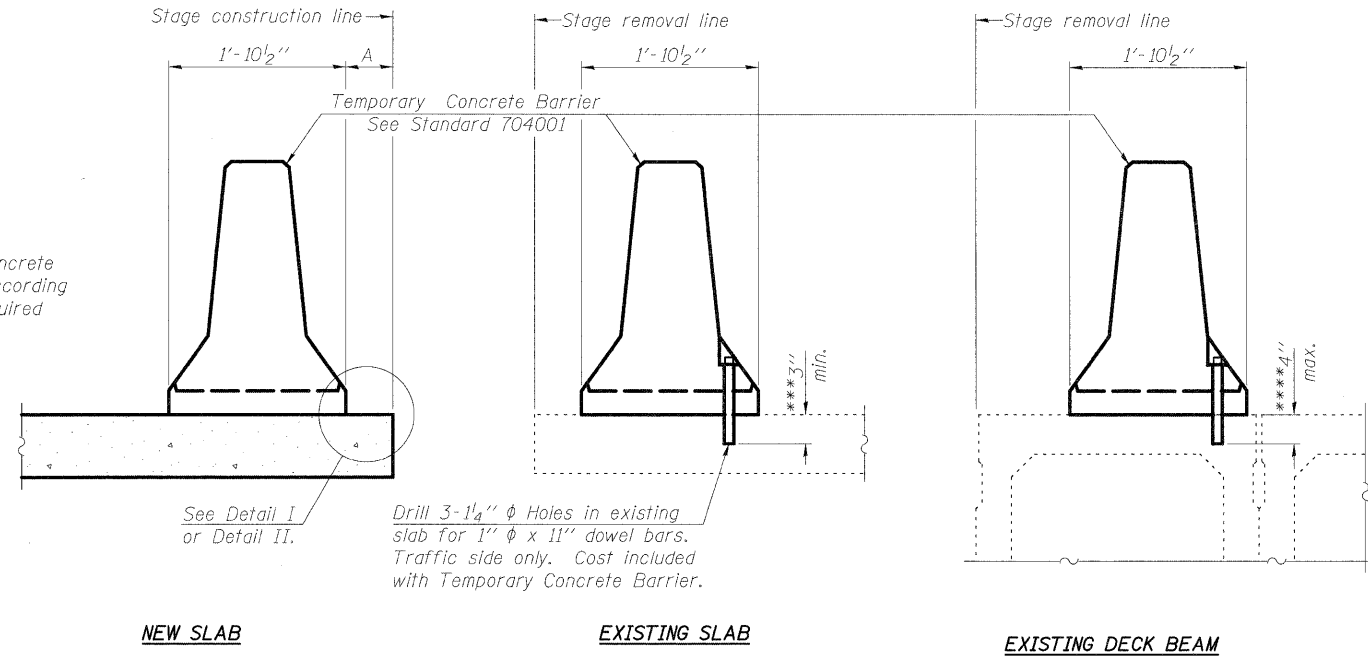
DESIGNED	RJ
CHECKED	PMH
DRAWN	RJ
CHECKED	PMH

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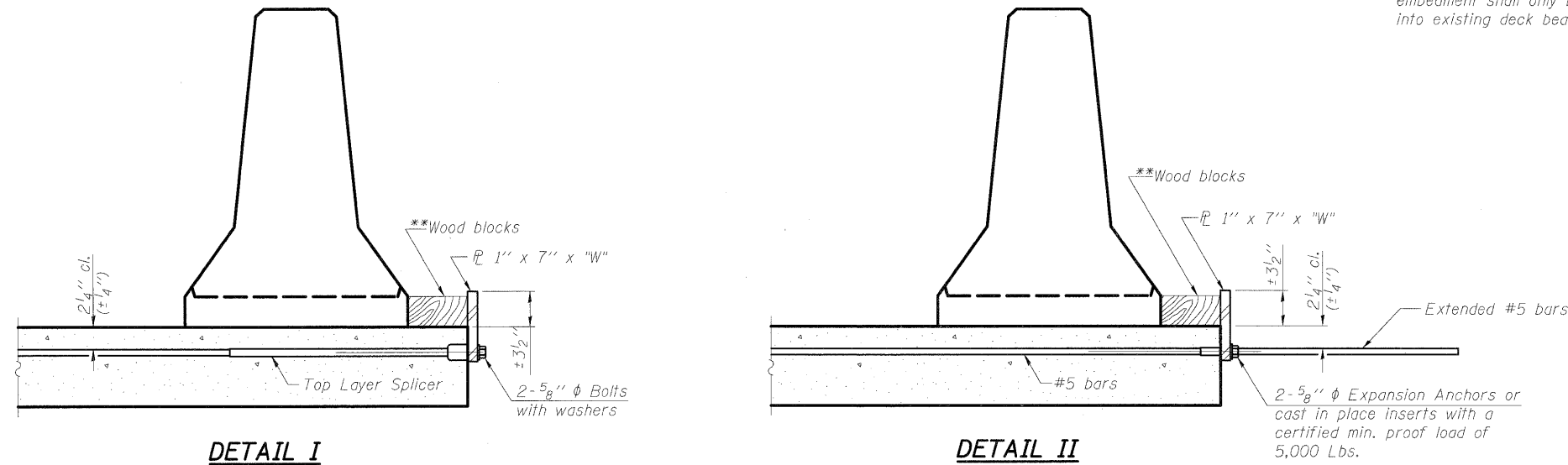
PIERS 1 AND 2 REMOVAL		STRUCTURE NO. 046-0146 (S.B.)		& STRUCTURE NO. 046-0147 (N.B.)	
SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-41	57	(46-2) VBR	KANKAKEE	558	368
SHEETS	CONTRACT NO. 66409				
SR-48	FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT				

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



SECTIONS THRU SLAB OR DECK BEAM



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

"W" = Top bars spacing + 4"

NOTES

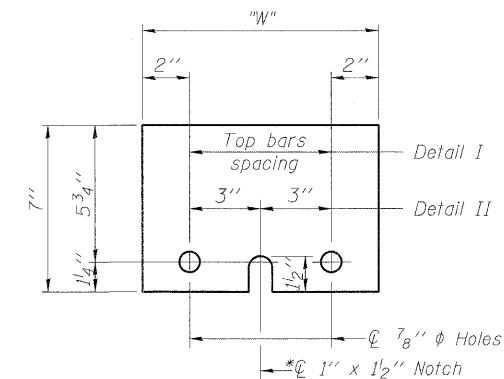
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \bar{P} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel \bar{P} to the concrete slab or concrete wearing surface with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



* Required only with Detail II

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

DESIGNED
CHECKED
DRAWN
CHECKED

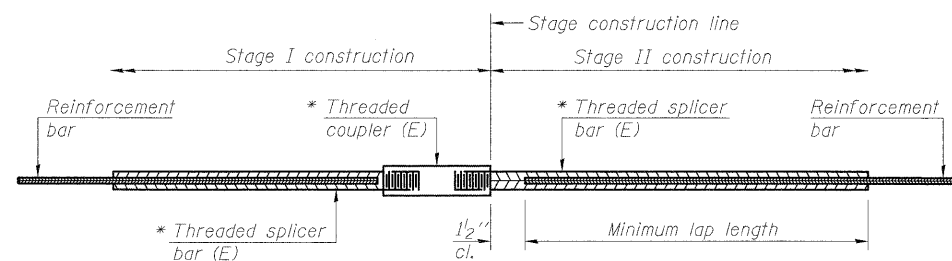
R-27

11-1-09



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SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-42	57	(46-2) VBR	KANKAKEE	558	369
SHEETS					
SR-48					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					



STANDARD BAR SPLICER ASSEMBLY

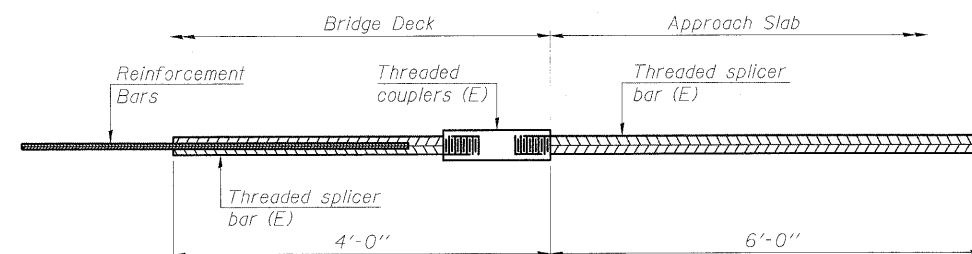
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	6'-5"	6'-10"	7'-9"	8'-7"	9'-8"
10	5'-10"	8'-1"	8'-8"	9'-10"	10'-10"	12'-4"
11	7'-2"	10'-0"	10'-8"	12'-1"	13'-4"	15'-1"

Table 1: Black bar, 0.8 Class C
 Table 2: Black bar, Top bar lap, 0.8 Class C
 Table 3: Epoxy bar, 0.8 Class C
 Table 4: Epoxy bar, Top bar lap, 0.8 Class C
 Table 5: Epoxy bar, 1.7 Class C
 Table 6: Epoxy bar, Top bar lap, Class C

Threaded splicer bar length = min. lap length + 1/2" + thread length

* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Deck	#5	1,068	Table 3
Diaphragm at East Abutment	#6	16	Table 4
Diaphragm at West Abutment	#6	16	Table 4
East Abutment	#6	16	Table 4
West Abutment	#6	16	Table 4
Pier 1 (Top)	#5	56	Table 4
Pier 1 (Bottom)-Footing	#5	30	Table 3
Pier 1-Crashwall	#8	8	Table 4
Pier 1 (Top)-Cap	#11	16	Table 6
Pier 1 (Bottom)-Cap	#11	16	Table 5
Pier 2 (Top)	#5	60	Table 4
Pier 2 (Bottom)-Footing	#5	30	Table 3
Pier 2-Crashwall	#8	8	Table 4
Pier 2 (Top)-Cap	#11	16	Table 6
Pier 2 (Bottom)-Cap	#11	16	Table 5
East Approach	#4	50	Table 4
East Approach	#5	172	Table 3
West Approach	#4	50	Table 4
West Approach	#5	172	Table 3



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

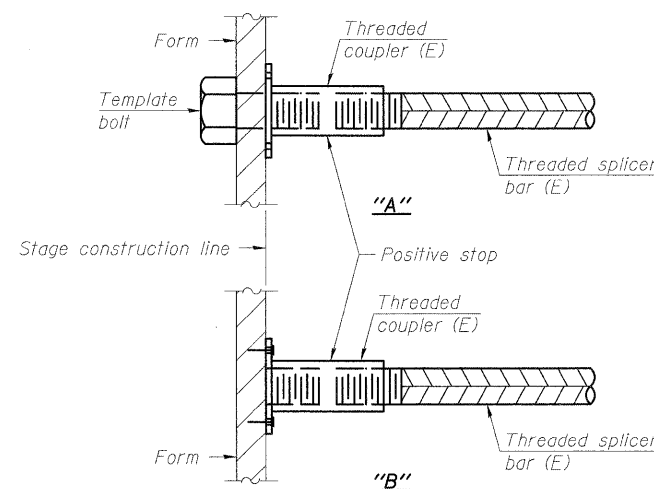
No. required = 327

DESIGNED	PMH
CHECKED	BB
DRAWN	PMH
CHECKED	BB

BSD-1

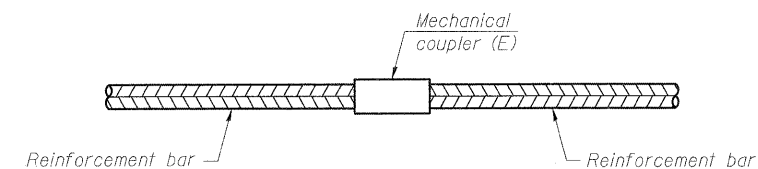
11-1-09

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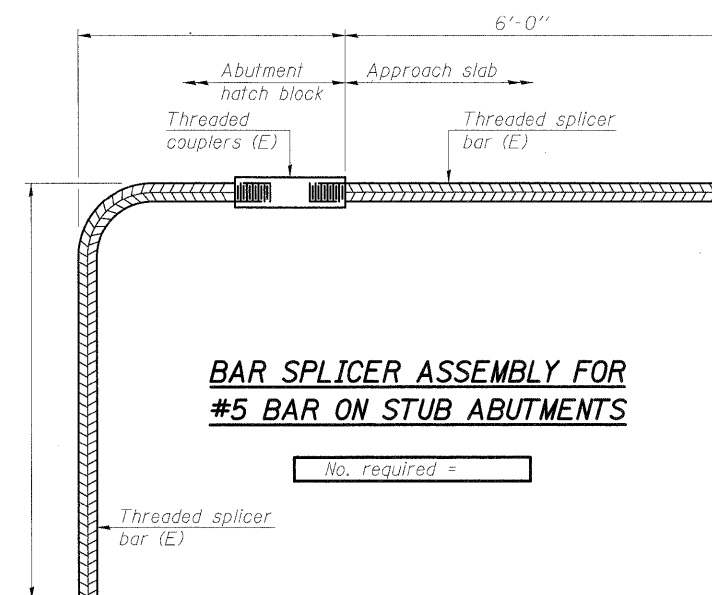
INSTALLATION AND SETTING METHODS

"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.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
 See special provision for Mechanical Splicers.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

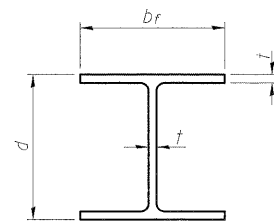
**BAR SPLICER ASSEMBLY AND
MECHANICAL SPLICER DETAILS
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)**



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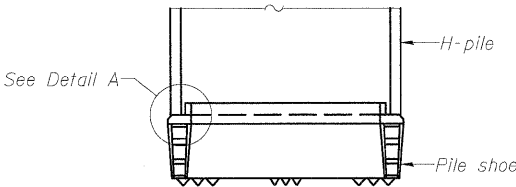
SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-43	57	(46-2) VBR	KANKAKEE	558	370
SHEETS					
SR-48					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

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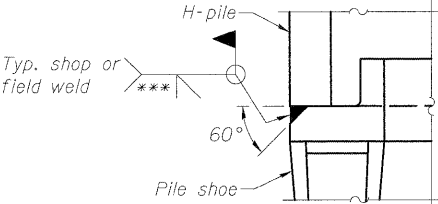


STEEL PILE TABLE

Designation	Depth d	Flange width b _f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"

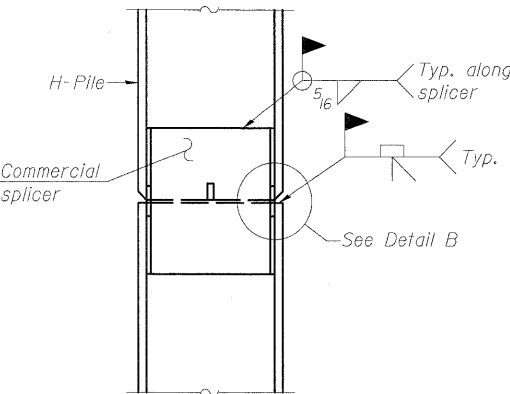


ELEVATION

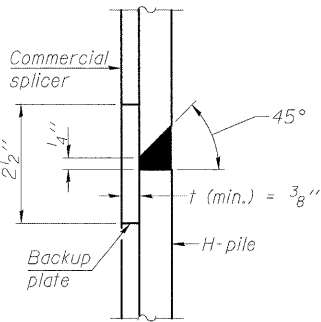


DETAIL A

H-PILE SHOE ATTACHMENT

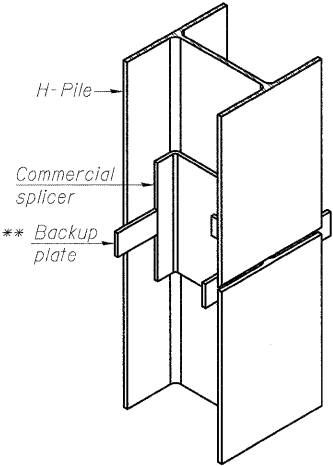


ELEVATION

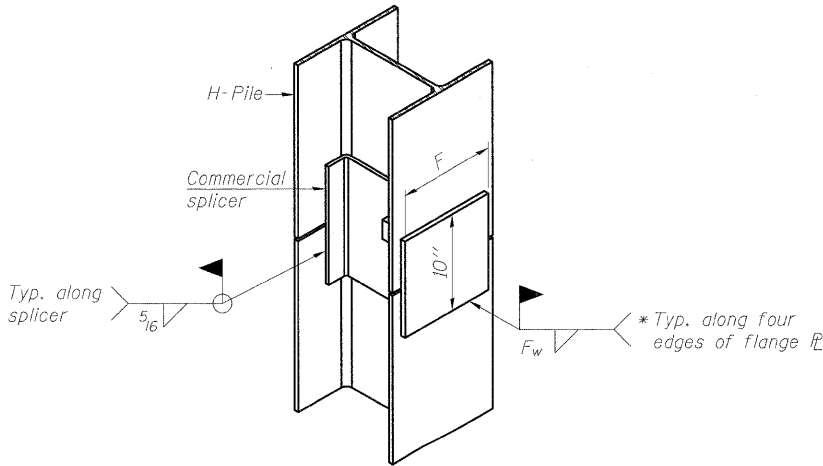


DETAIL "B"

WELDED COMMERCIAL SPLICE

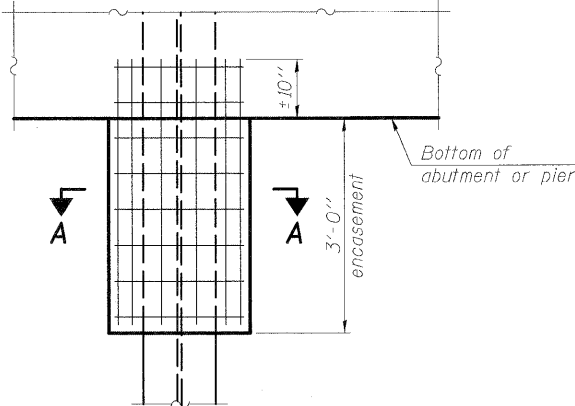


ISOMETRIC VIEW



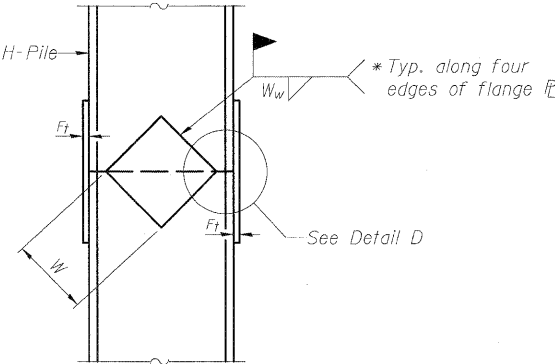
WELDED COMMERCIAL SPLICE ALTERNATE

- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (5/16" min.).

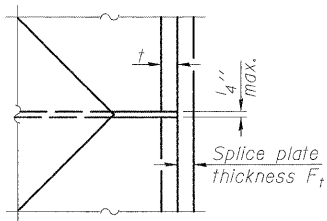


ELEVATION

PILE ENCASEMENT

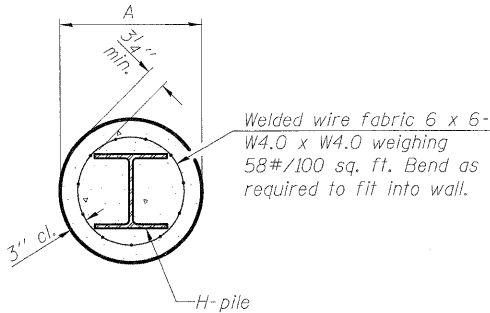


ELEVATION

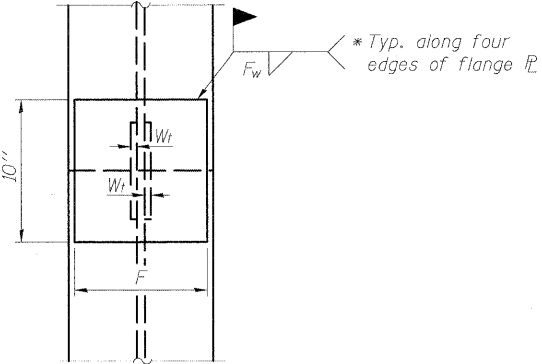


DETAIL D

WELDED PLATE FIELD SPLICE



SECTION A-A



END VIEW

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1 1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1 1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1 1/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

HP PILE DETAILS
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

DESIGNED
CHECKED
DRAWN
CHECKED

F-HP 11-1-09

Note:
The steel H-piles shall be according to
AASHTO M270 Grade 50.

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street
Chicago, Illinois 60601
(312) 946-8600

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-44	57	(46-2) VBR	KANKAKEE	558	371
SHEETS					
SR-48					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

SOIL BORING LOG

Date 6/20/06

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)



SOIL BORING LOG

Date 6/20/06

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)



SOIL BORING LOG

Date 8/23/06

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)



SHEET NO. SR-45 SHEETS SR-48	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	(46-2) VBR	KANKAKEE	558	372
				CONTRACT NO. 66409	
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

SOIL BORING LOG

SOIL BORING LOG

SOIL BORING LOG

SOIL BORING LOG

SOIL BORING LOG



SOIL BORING LOGS
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Illinois Department
of Transportation
Division of Highways
District #3, Ottawa

SOIL BORING LOG

Page 1 of 1

Date 8/1/06

ROUTE FAI-57 DESCRIPTION I-57 over CNIC RR LOGGED BY Larry Myers

SECTION 46-2VB LOCATION SW 1/4, SEC. 16, TWP. 31N, RNG. 12E, 3rd PM

COUNTY Kankakee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 046-0016 & 0017
Station 325+93.10
BORING NO. #5 West Pier: S
Station 326+18.1
Offset 57.00 ft LL
Ground Surface Elev. 679.48 ft

DEPTH	BULGE	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.	First Encounter	Upon Completion	After
(ft)	(in)	(tsf)	(%)	ft	ft	ft	ft	ft	ft
0									
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

Augered, brown gray, Silty Clay fill
Very soft, gray brown, Silty Loam to Silty Clay Loam fill
Very stiff, gray, Silty Clay Till
Medium, gray, Loam to Clay Loam Till
Borehole continued with rock coring.

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 #3, Ottawa

ROCK CORE LOG

Page 1 of 1

Date 11/01/06

ROUTE FAI-57 DESCRIPTION I-57 over CNIC RR LOGGED BY Larry Myers

SECTION 46-2VB LOCATION SW 1/4, SEC. 16, TWP. 31N, RNG. 12E, 3rd PM

COUNTY Kankakee CORING METHOD Diamond Bit, Recirculated Water

STRUCT. NO. 046-0016 & 0017
Station 325+93.10
BORING NO. #5 West Pier: S
Station 326+18.1
Offset 57.00 ft LL
Ground Surface Elev. 679.48 ft

DEPTH	CORING	RECOVERY	RQD	CORE	STRENGTH
(ft)	(#)	(%)	(%)	(min/ft)	(tsf)
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Dolomite, buff to white with zones of purple and greenish potential bioturbation, moderate degree of oxidation throughout, medium to very fine grained, small vugs throughout, very dense in area with a high degree of vertical and horizontal fractures, top 1' is weathered and reworked, glauconitic, with very large to small Dolomite pieces, fossil remains present throughout
Unable to extract a strength sample
Dolomite, gray, unoxidized, fine to very fine grained, small vugs present, very little verticle fracturing, fossil remains present
One sample was extracted for strength
Compressive strength sample demonstrated a columnar failure
End of Boring

Color pictures of the cores Yes
Cores will be stored for examination until Bridge is Completed
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)

DESIGNED	AMV
CHECKED	PMH
DRAWN	AMV
CHECKED	PMH



McDonough Associates Inc.
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130 East Randolph Street
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(312) 946-8600

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SR-47	57	(46-2) VBR	KANKAKEE	558	374
SHEETS					
SR-48					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

SOIL BORING AND ROCK CORE LOGS
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Illinois Department
of Transportation
Division of Highways
District #3, Ottawa

SOIL BORING LOG

Page 1 of 1

Date 8/1/06

ROUTE FAI-57 DESCRIPTION I-57 over CNIC RR LOGGED BY Larry Myers

SECTION 46-2VB LOCATION SW 1/4, SEC. 16, TWP. 31N, RNG. 12E, 3rd PM

COUNTY Kankakee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 046-0016 & 0017
Station 325+93.10

BORING NO. #6 West Pier. N
Station 326+20.1
Offset 63.00ft RL
Ground Surface Elev. 679.38 ft

DEPTH FTH	BLOWS W S	U C S Q _u	M O I S T T
(ft)	(/6")	(tsf)	(%)
677.88	8		
	6	4.0	12.0
	6	P	
674.88	4		
	4	2.7	16.7
	4	B	
	5		
	5	2.0	13.2
671.36	25	P	
670.88			
-10			
-15			
-20			

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion 676.4 ft ∇
After _____ Hrs. _____ ft

Augered, black, Silty Clay Loam fill

Hard, brown, Loam Till fill with Coal
and Siag pieces

Very stiff, gray, Silty Clay Till

Dense, tan, Dolomite with fractured
surface
Moved 5' north and 5' south from
original and verified rock surface
Borehole continued with rock
coring.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation

Division of Highways
District #8, Ottawa

ROCK CORE LOG

Page 1 of 1

Date 10/31/06

ROUTE FAI-57 DESCRIPTION I-57 over CNIC RR LOGGED BY Myers/Blakley

SECTION 46-2VB LOCATION SW 1/4, SEC. 16, TWP. 31N, RNG. 12E, 3rd PM

COUNTY Kankakee CORING METHOD Diamond Bit; Recirculated Water

STRUCT. NO. 046-0016 & 0017

Station 325+93.10

CORING BARREL TYPE & SIZE 5' Double Barrel

Core Diameter 2 in

Top of Rock Elev. 670.88 ft

Begin Core Elev. 670.88 ft

BORING NO. #6 West Pier N

Station 326+20.1

Offset 63.00ft Rt

Ground Surface Elev. 679.38 ft

DEPTH (ft)	CORE (#)	RECOVER (%)	RQD (%)	CORE TIME (min/ft)	STRENGTH (tsf)
---------------	-------------	----------------	------------	--------------------------	-------------------

Dolomite, buff to white with varying degrees of oxidation, predominately white below 21', 670.88

medium to very fine grained, small vugs present, numerous horizontal and vertical fractures with varying degrees of staining, fossil remains present, easily fractures on seams upon removal from core barrel

Unable to extract a strength sample

End of Boring

Color pictures of the cores

Yes

Cores will be stored for examination until Bridge is Completed

The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

SOIL BORING AND ROCK CORE LOGS
STRUCTURE NO. 046-0146 (S.B.)
& STRUCTURE NO. 046-0147 (N.B.)

DESIGNED	AMV
CHECKED	PMH
DRAWN	AMV
CHECKED	PMH



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SHEET NO. SR-48 SHEETS SR-48	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	(46-2) VBR	KANKAKEE	558	375
				CONTRACT NO. 66409	
	FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT				

BENCH MARK

B.M. # 282: Set chiseled "□" @ Sloped Headwall with
Grate, Sta. 282+50, Offset 60' Rt., El. = 669.073

EXISTING STRUCTURES

SN 046-0126 built in 2001 as F.A.I. Rte. 57 (I-57),
Sec. 46-2 HBR. Existing structure is 2-span continuous steel
girder bridge with R.C. deck and vaulted abuts. Existing structure
is skewed 16°-16'-36", 216'-4 3/4" long and is 69'-6 5/8" wide.
Two lanes of traffic in both directions shall be
maintained during construction.

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

INDEX OF DRAWINGS

- Ret-1 General Plan and Elevation
- Ret-2 Wall Details
- Ret-3 Wall Details
- Ret-4 Soil Boring Log

DESIGN SPECIFICATIONS

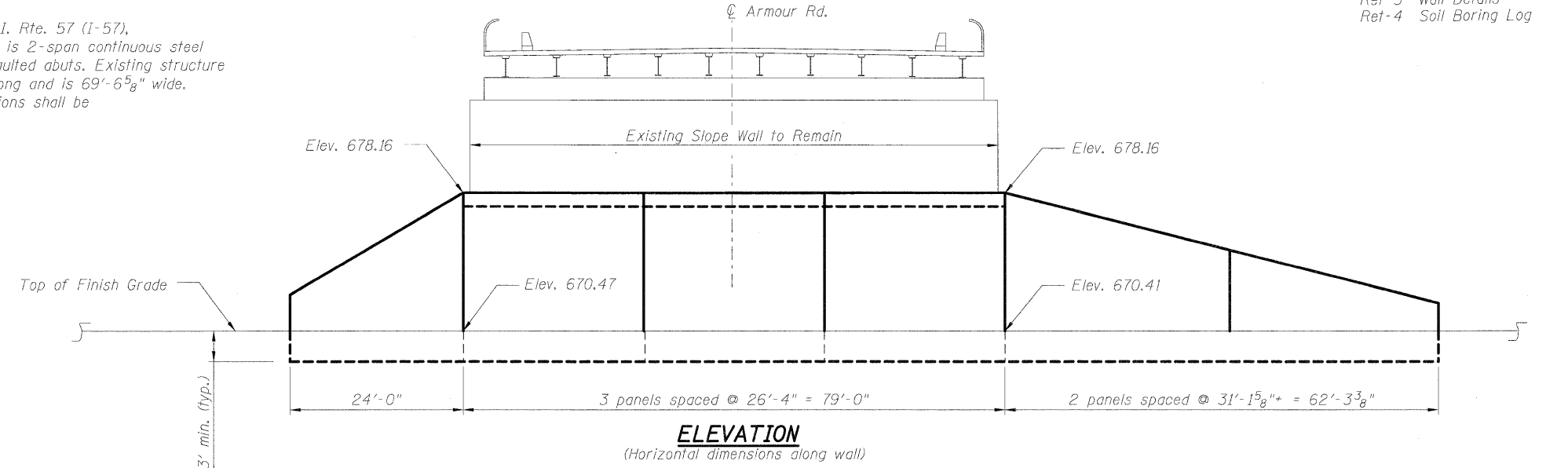
2004 AASHTO LRFD Bridge Design Specifications
with 2005 and 2006 Interims

DESIGN STRESSES

f'c = 3,500 psi
fy = 60,000 psi (reinforcement)
fy = 50,000 psi (M270 Gr50)

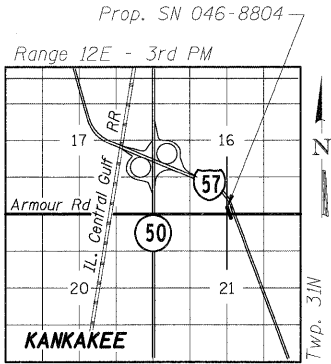
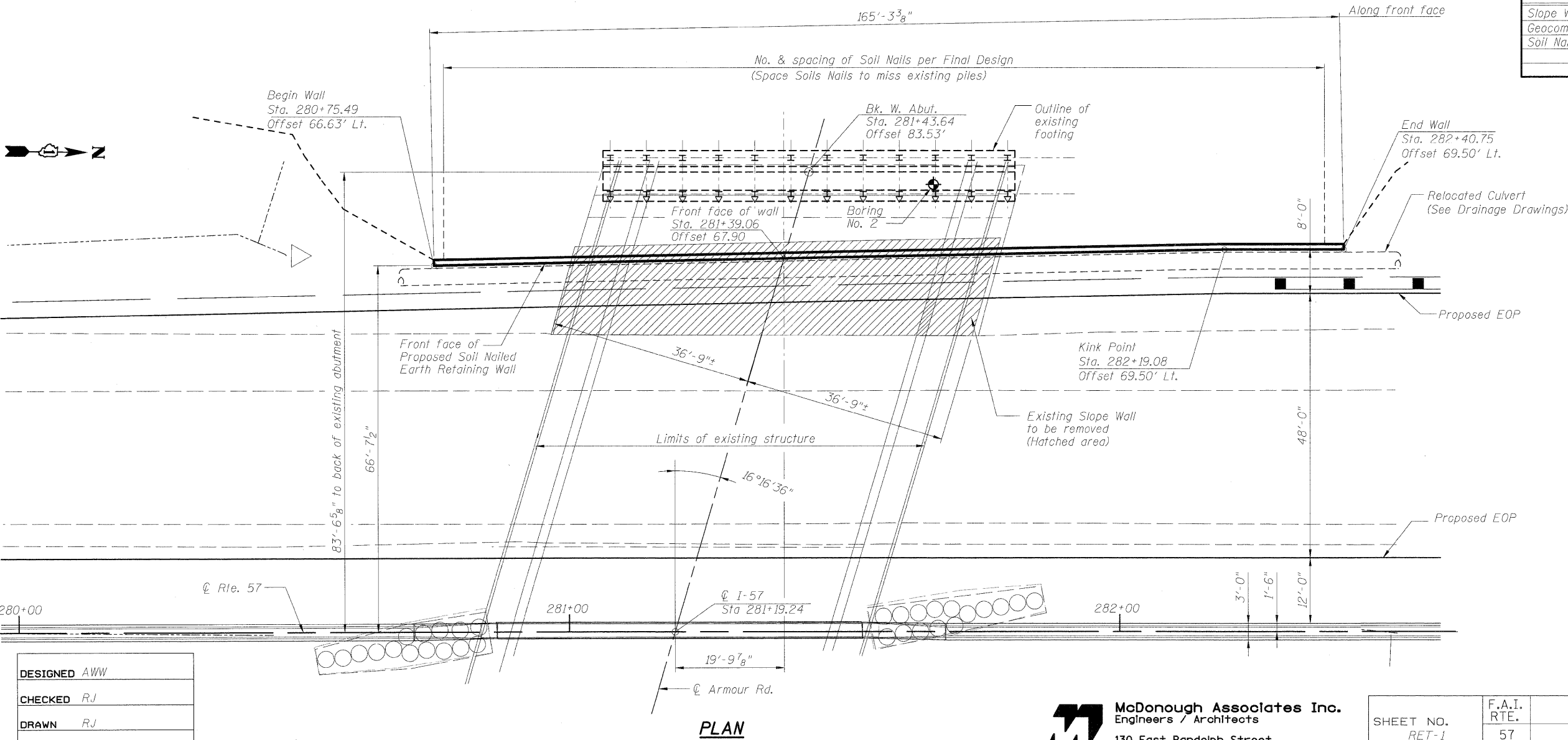
SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.04g
Site Coefficient (S) = 1.0



BILL OF MATERIAL

ITEM	UNIT	TOTAL
Slope Wall Removal	Sq. Yd.	149
Geocomposite Wall Drain	Sq. Yd.	112
Soil Nailed Retaining Wall	Sq. Ft.	1,505



**GENERAL PLAN AND ELEVATION
ARMOUR RD. OVER I-57
F.A.I. RT. 57 - SEC. (46-2) HBR
KANKAKEE COUNTY
STATION 280+75.49 TO 282+40.75
STRUCTURE NO. 046-8804**

DESIGNED	AWW
CHECKED	RJ
DRAWN	RJ
CHECKED	AWW

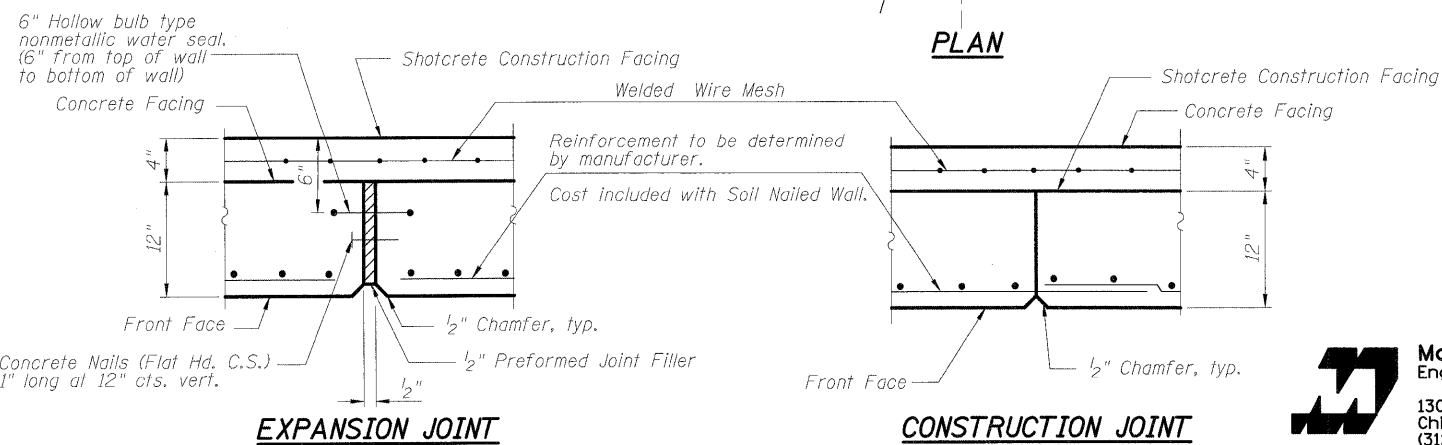


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SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
RET-1	57	(46-2) HBR	KANKAKEE	558	376
SHEETS					
RET-4					
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

[illegible]

Dimensions are along front face of wall



Space Soil Nails to miss existing piles.

SHEET NO. RET-2 SHEETS RET-4	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	(46-2) HBR	KANKAKEE	558	377
				CONTRACT NO. 66409	
	FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT				

GENERAL NOTES:

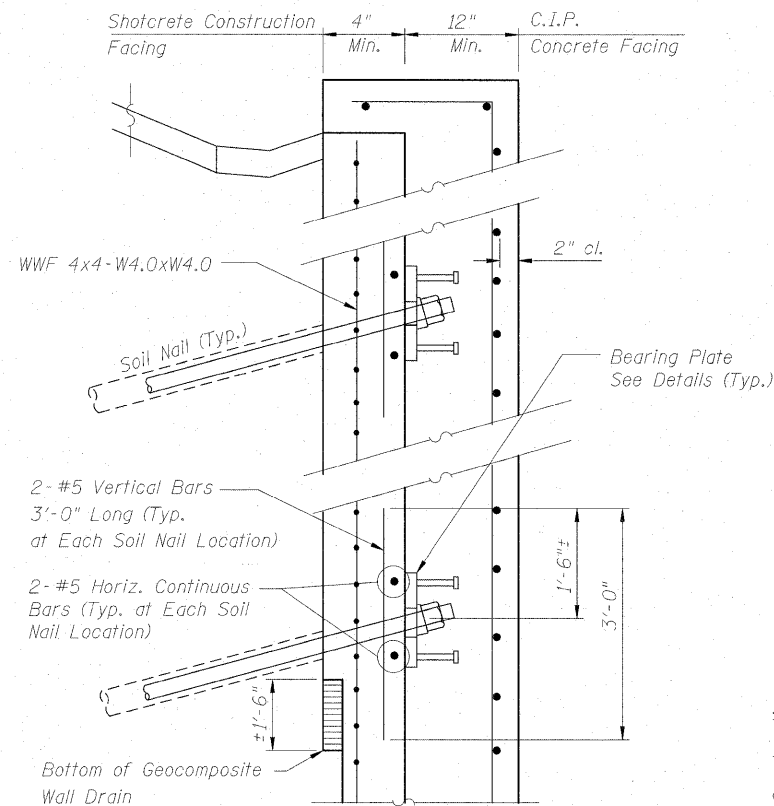
Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

All exposed concrete edges shall be chamfered 3/4" except as noted.

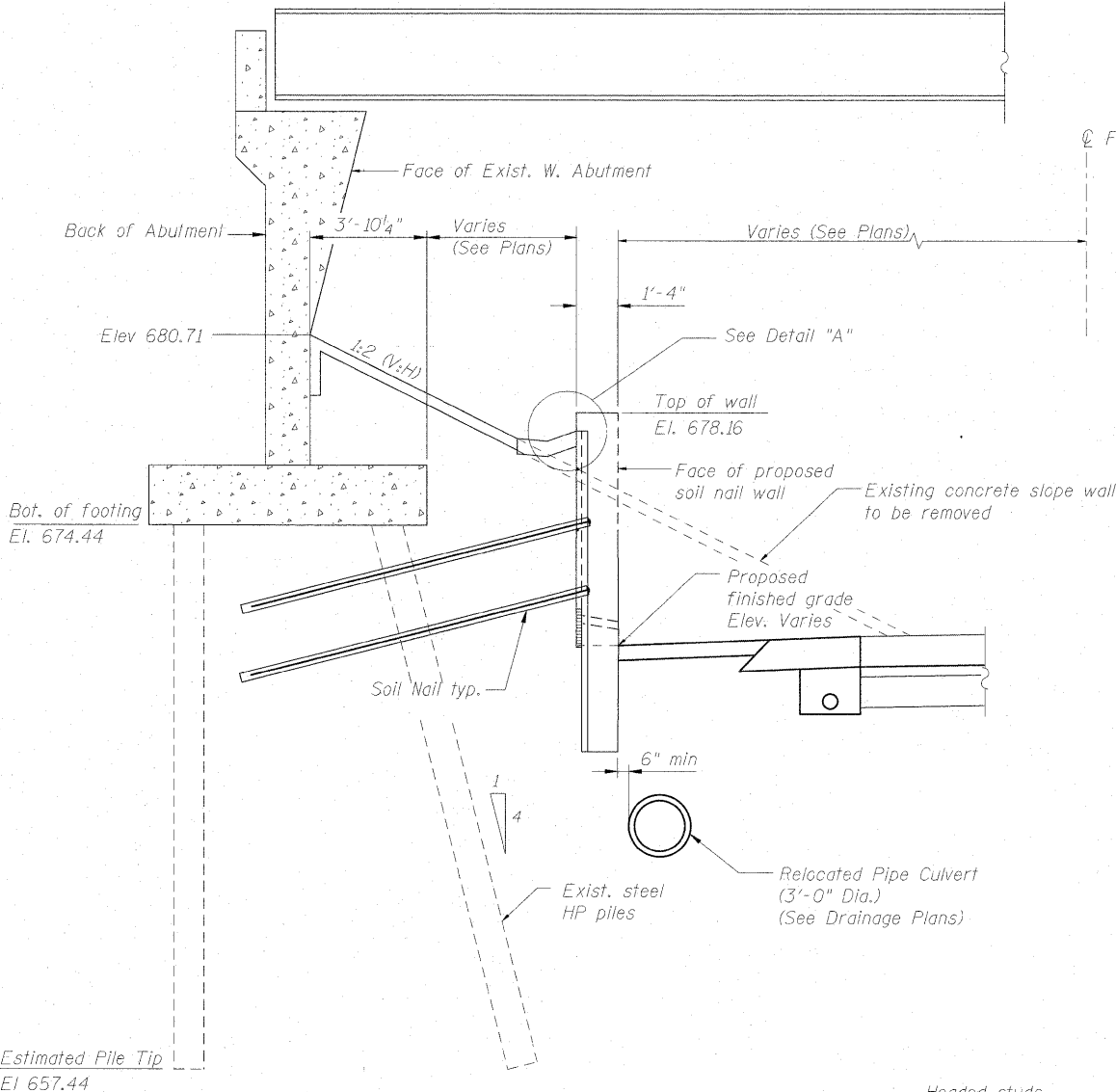
Slope wall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58lbs per sq. ft.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60.

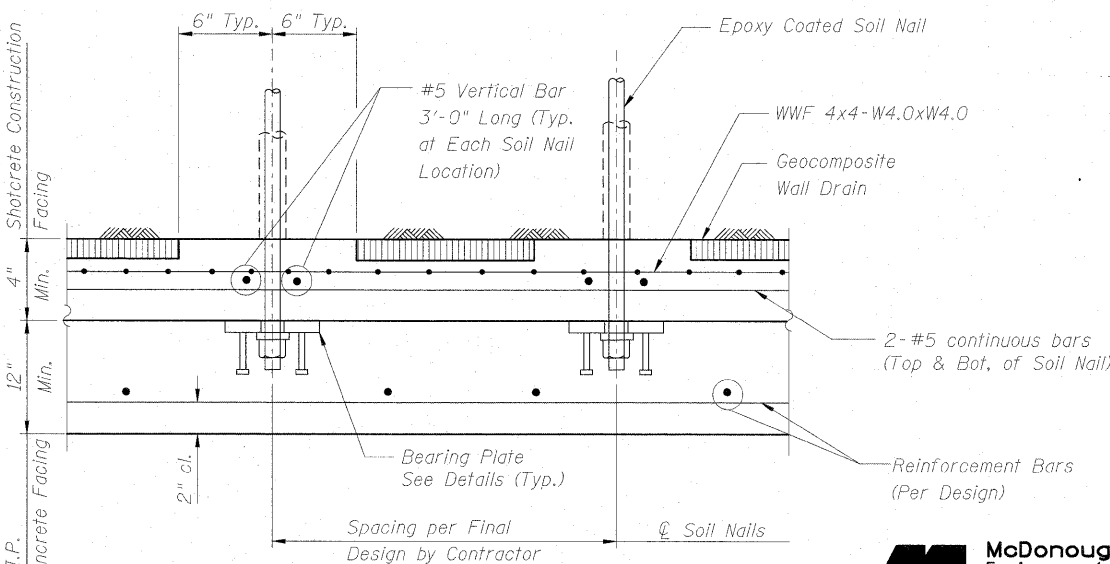
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



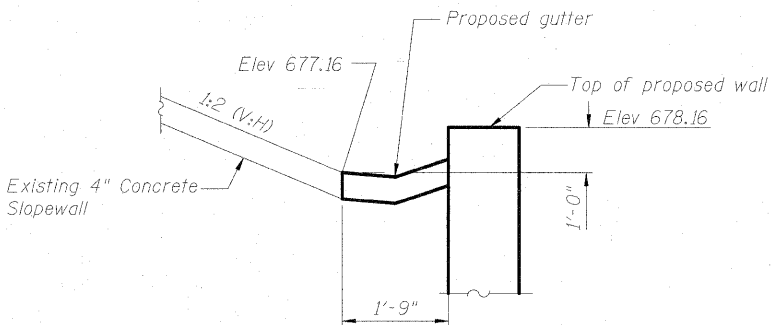
VERTICAL SECTION
AT SOIL NAILS



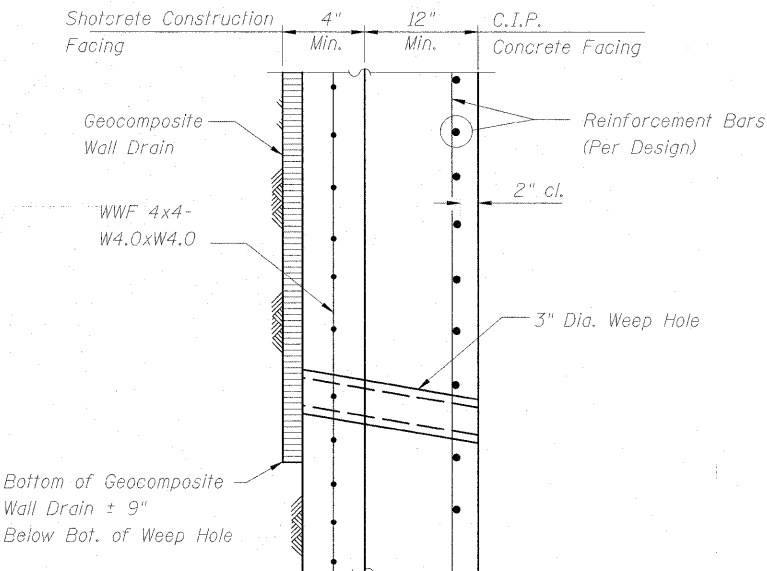
SECTION A-A



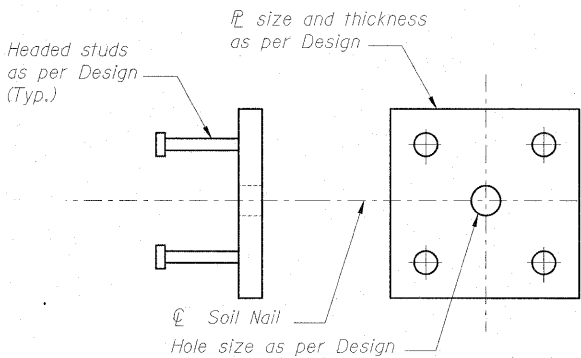
HORIZONTAL SECTION



DETAIL A



VERTICAL SECTION
BETWEEN SOIL NAILS



SECTION PLAN
BEARING PLATE DETAILS
AASHTO M270 GR. 50

WALL DETAILS
STRUCTURE NO. 046-8804

DESIGNED	AWW
CHECKED	RJ
DRAWN	RJ
CHECKED	AWW

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130 East Randolph Street
Chicago, Illinois 60601
(312) 946-8600

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
RET-3 SHEETS RET-4	57	(46-2) HBR	KANKAKEE	558	378
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS DEPARTMENT OF TRANSPORTATION

District Three Materials Depth Increment = 152.5mm

Bridge Foundation

SW1/4 SEC1/4 SECTION 16 T31N R12E 3PM

Boring Log

Sh. 1 of 1

PROJECT

BRIDGE 046-0064 EXISTING

Date 11/19/97

ROUTE FAI-57

ARMOUR ROAD OVER FAH57

Bored By K Whittington

SEC. 46-2HS-1

STA. 5+655.866

Checked By T. McCleary

WEST ABUT.

COUNTY Kankakee

Boring No. 2

Sta. 5+621.882

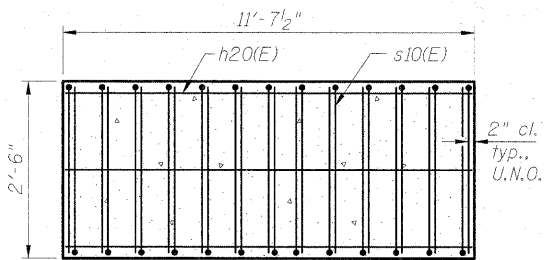
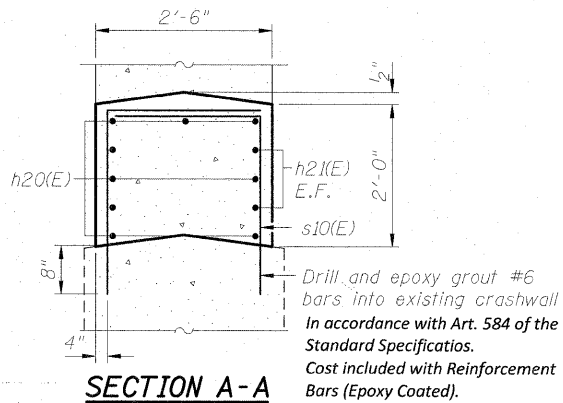
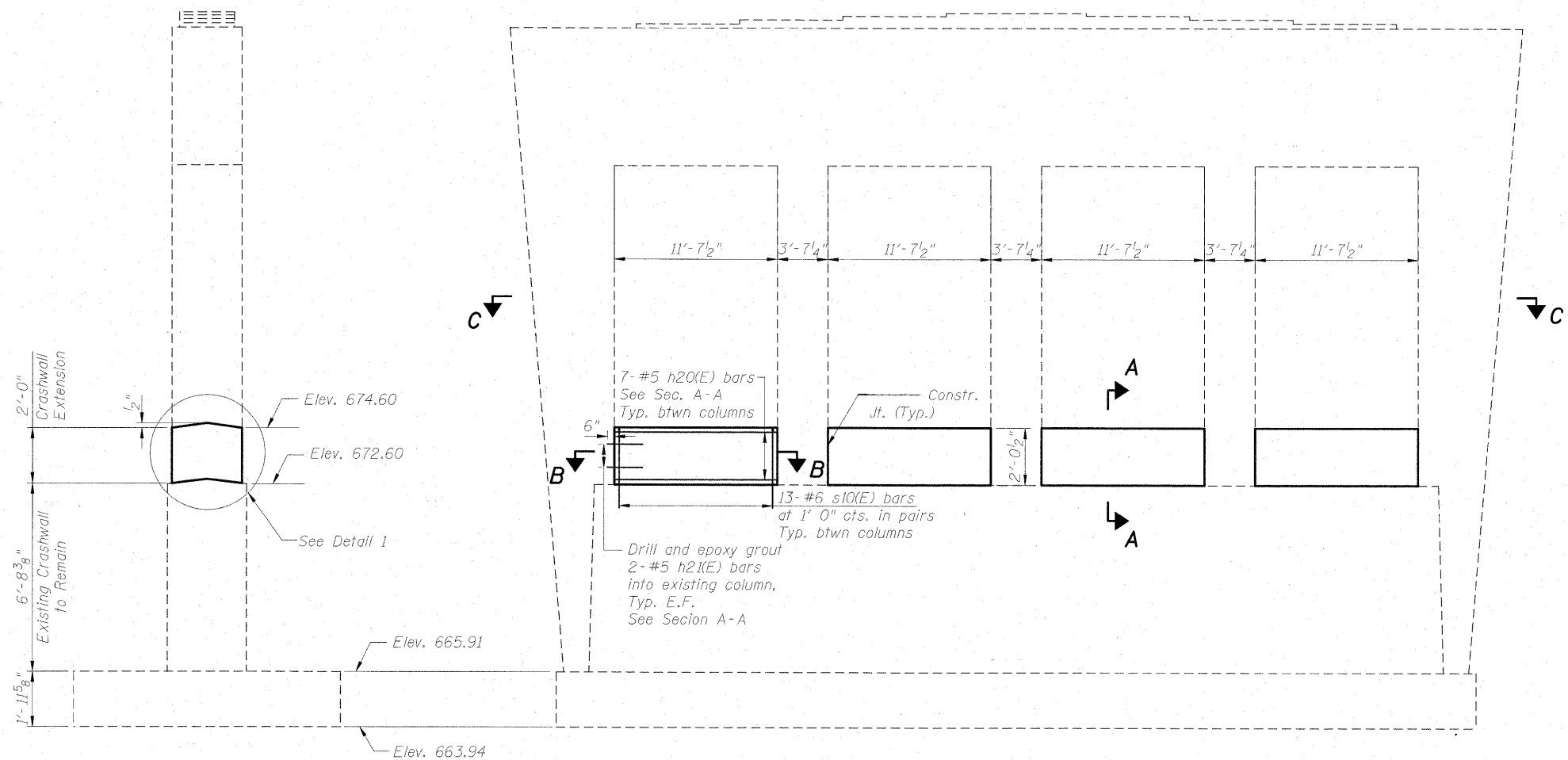
O/S 1.83m LT

EL	N	Qu kPa	W %	Surf Wat. EL Groundwater EL at Compl	EL	N	Qu kPa	W %
				200.17				
Ground Surface	210.529	0m		Very Stiff Brown SILTY CLAY TILL (FILL)	203.52	-7	6	3
BITUMINOUS & STONE OVER Brown SILTY CLAY TILL				ASPHALT PAVT over	7		400	
	209.77			SILTY CLAY	203.21		10	P 12
	-1	3		Stiff Gray SILTY CLAY	202.91			
		4	300				6	
		5	P 8	Medium Brown SILTY CLAY LOAM TILL	202.30		6	90
Very Stiff Brown SILTY CLAY TILL (FILL)		4					8	B 11
		4	250				8	
		4	P 10	Hard Brown SILTY CLAY TILL with Pieces of DOLOMITE	-9		9	480
		4					11	B 9
		4					8	
		4	280				9	470
		5	B 9				13	B 9
	207.63	-3	2				56	
		3	190	TOP OF ROCK	200.47		100/-	- 7
		3	B 11				100mm	
Stiff Brown SILTY CLAY TILL Brown Gray SILTY CLAY TILL (FILL)		2		Dense Buff to White Weathered & Fractured REEF DOLOMITE with CLAY in Joints & FREE WATER RACINE FORMATION			50	
		2	150				11	15
		3	P 14				40	- 7
		5					16	
		7	710				70	
		11	B 8				118	- 9
	205.35	-5						
Hard Brown SILTY CLAY TILL (FILL)		4						
		6	660					
		9	B 8					
	204.59							
Very Stiff Brown SILTY CLAY TILL (FILL)		6						
		4	240				13	
		6	B 9					

N 50 mm OD Sampler

63.5Kg Hammer, 760 mm Fall (Fall B-Bulge S-Shear E-Estimated P-Penetrometer)

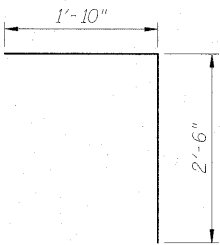
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION B-B

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h20(E)	28	#5	11'-3"	
h21(E)	16	#5	2'-6"	
s10(E)	104	#6	4'-4"	
Concrete Structures			Cu. Yd.	8.6
Reinforcement Bars, Epoxy Coated			Pound	1,050



BAR s10(E)

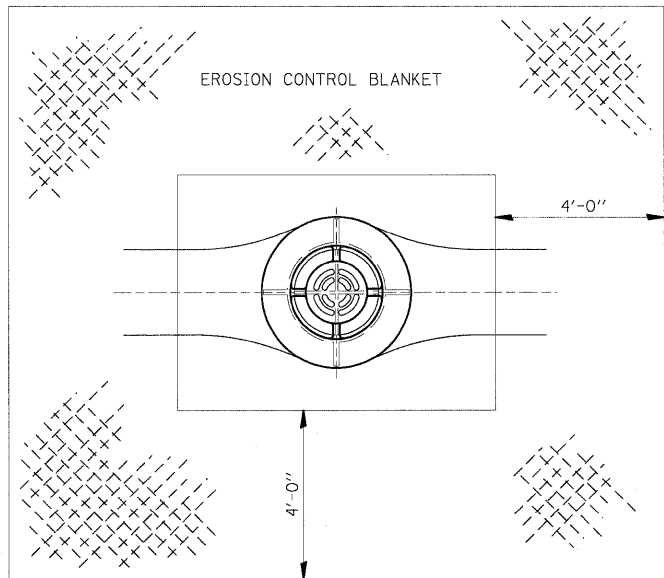
CRASHWALL EXTENSION
ARMOUR RD. OVER I-57
F.A.I. RT. 57 - SEC. (46-2) HBR
KANKAKEE COUNTY
STATION 185+54.65
STRUCTURE NO. 046-0126

DESIGNED	PMH
CHECKED	BB
DRAWN	PMH
CHECKED	BB



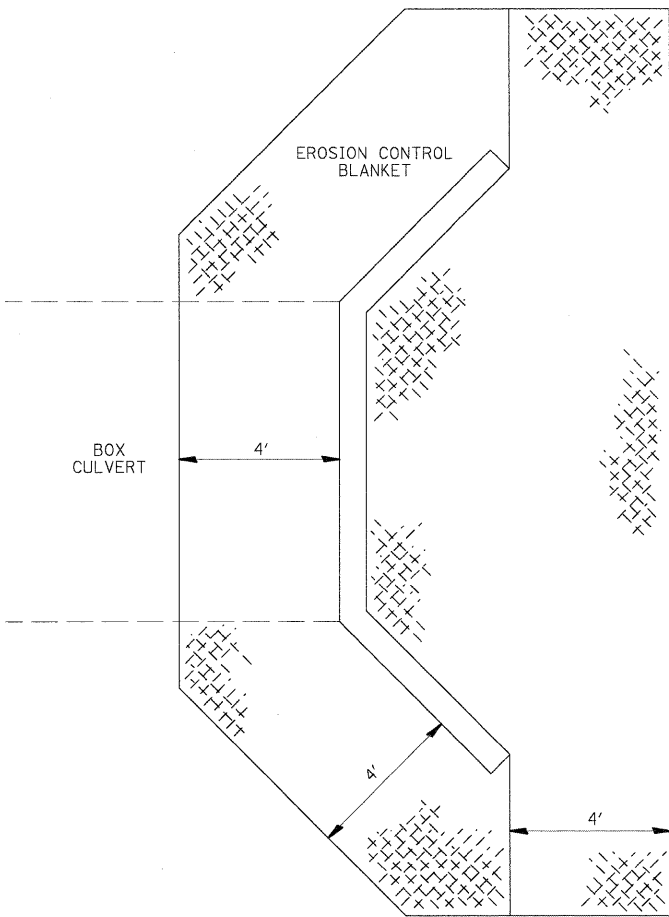
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Engineers / Architects
130 East Randolph Street
Chicago, Illinois 60601
(312) 946-8600

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CW-1	57	(46-2) HBR	KANKAKEE	558	380
CONTRACT NO. 66409					
FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT					



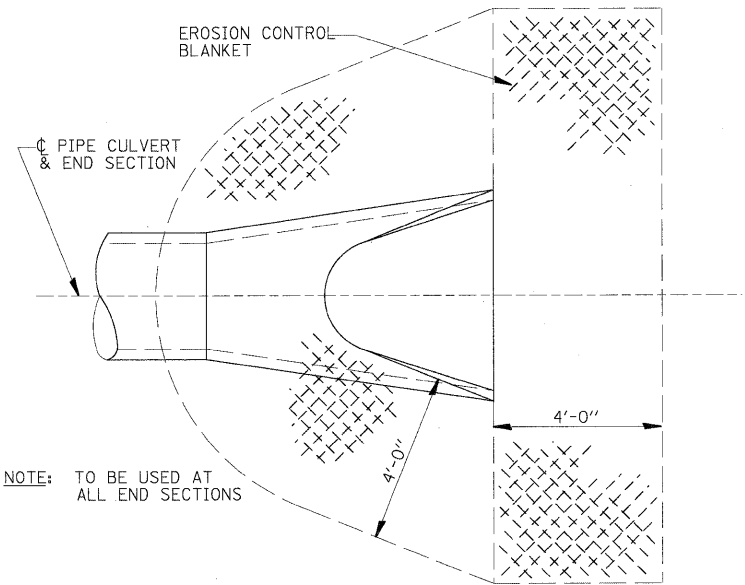
**EROSION CONTROL BLANKET
AT MEDIAN INLET STD. 604101 OR STD. 640106**

251-1



**EROSION CONTROL BLANKET
AT BOX CULVERT END SECTIONS**

251-3

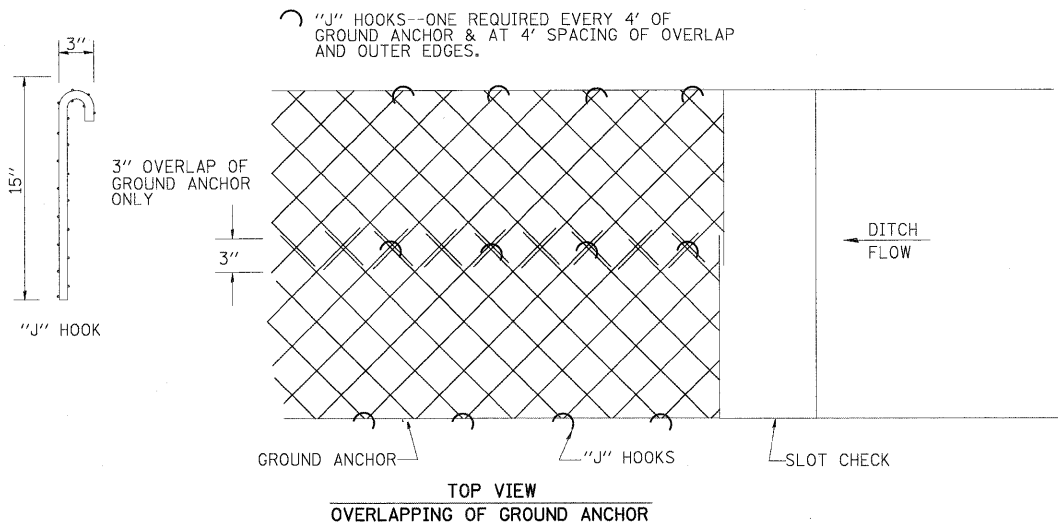


NOTE: TO BE USED AT ALL END SECTIONS

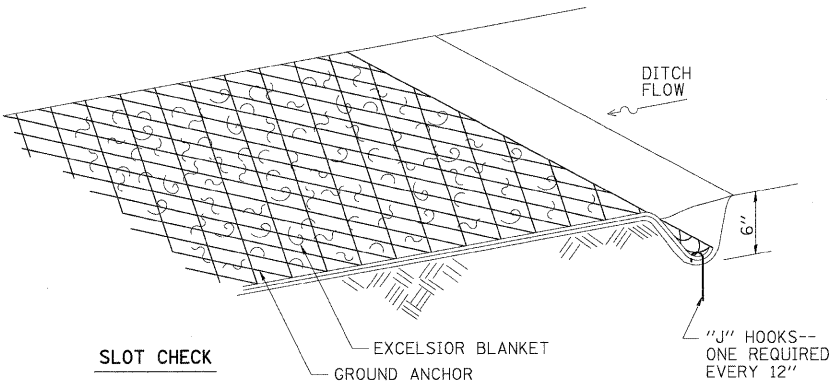
NOTE: PRC FLARED END SECTION SHOWN. TREATMENT SAME FOR OTHER END SECTIONS.

**DETAIL OF EROSION CONTROL BLANKET
LINING AROUND END SECTION**

251-2



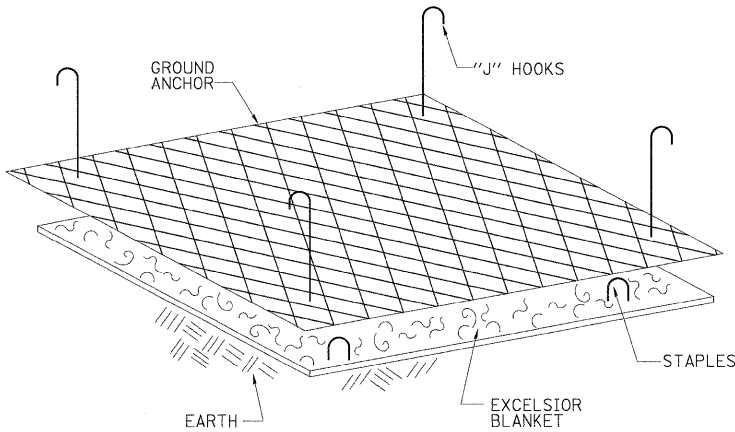
**TOP VIEW
OVERLAPPING OF GROUND ANCHOR**



SLOT CHECK

**EXCELSIOR BLANKET
GROUND ANCHOR**

**"J" HOOKS--
ONE REQUIRED
EVERY 12"**

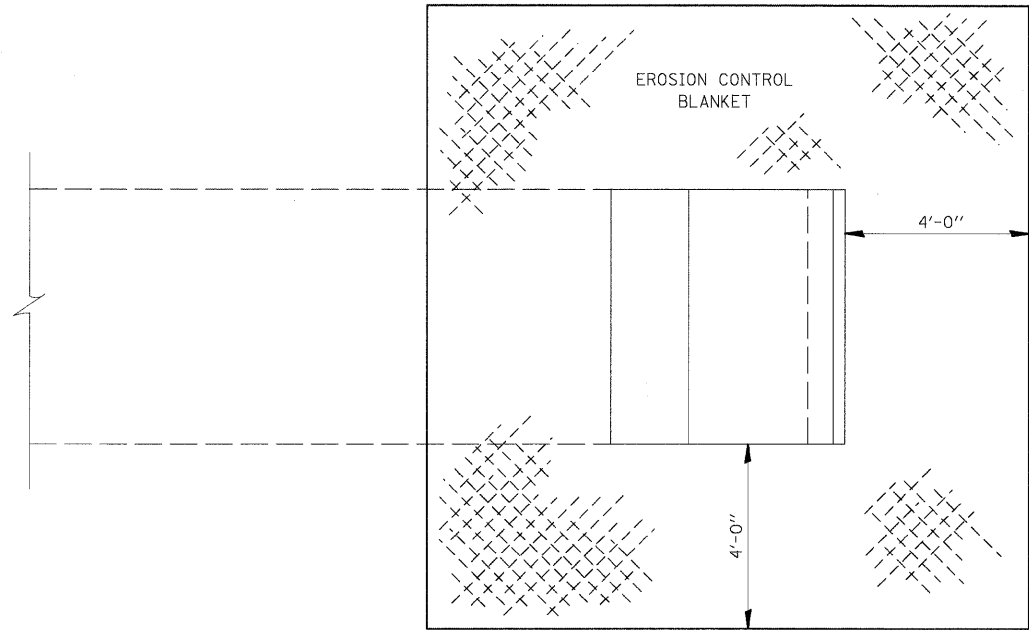


- NOTES:
1. EXCELSIOR BLANKET IS STAPLED INTO GROUND.
 2. GROUND ANCHOR GOES OVER EXCELSIOR BLANKET AND IS FASTENED WITH "J" HOOKS EVERY 4 FEET.
 3. PAY WIDTH WILL BE MEASURED TO OUT-TO-OUT OF GROUND ANCHOR WITH NO CONSIDERATION FOR OVERLAPS.

EXCELSIOR BLANKET (SPECIAL) DETAILS

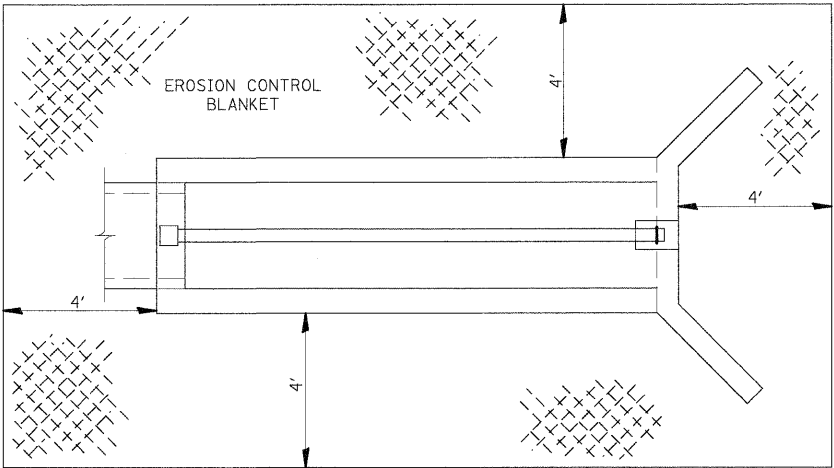
251-4

FILE NAME =	USER NAME = EricG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT 3 DETAILS					F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I:\Dgn\sheet\251-1-4.dgn		DRAWN -	REVISED -							57	(46-2) I, HBR, VBR	KANKAKEE	558	381
	PLOT SCALE = 1:50	CHECKED -	REVISED -		CONTRACT NO. 66409									
	PLOT DATE = 12/21/2010	DATE -	REVISED -		FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT									
					SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.				



**EROSION CONTROL BLANKET AT PRECAST
BOX CULVERT END SECTIONS**

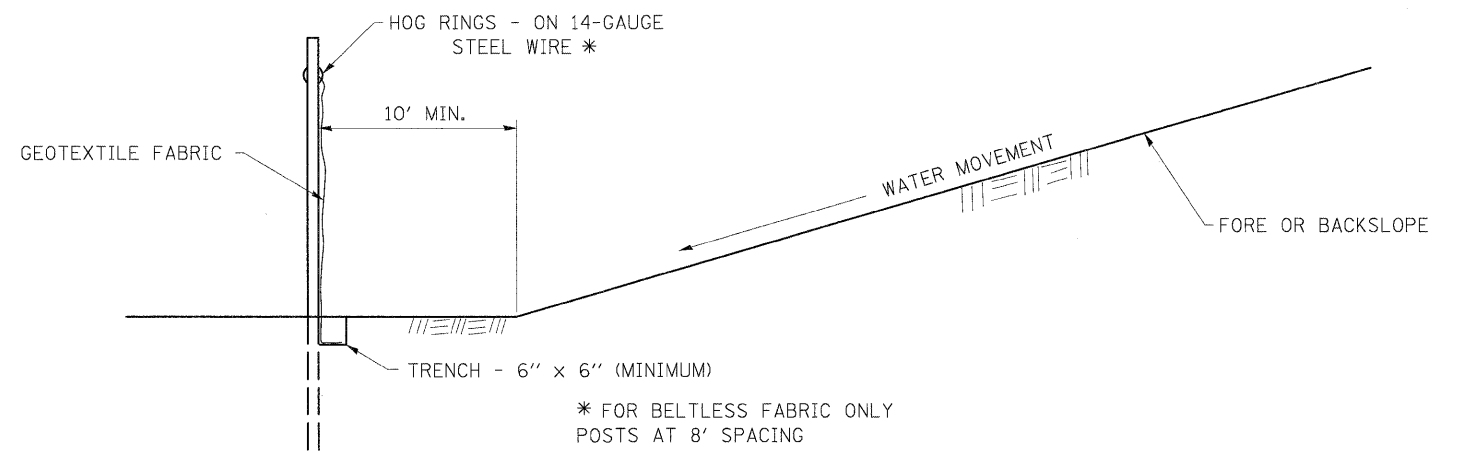
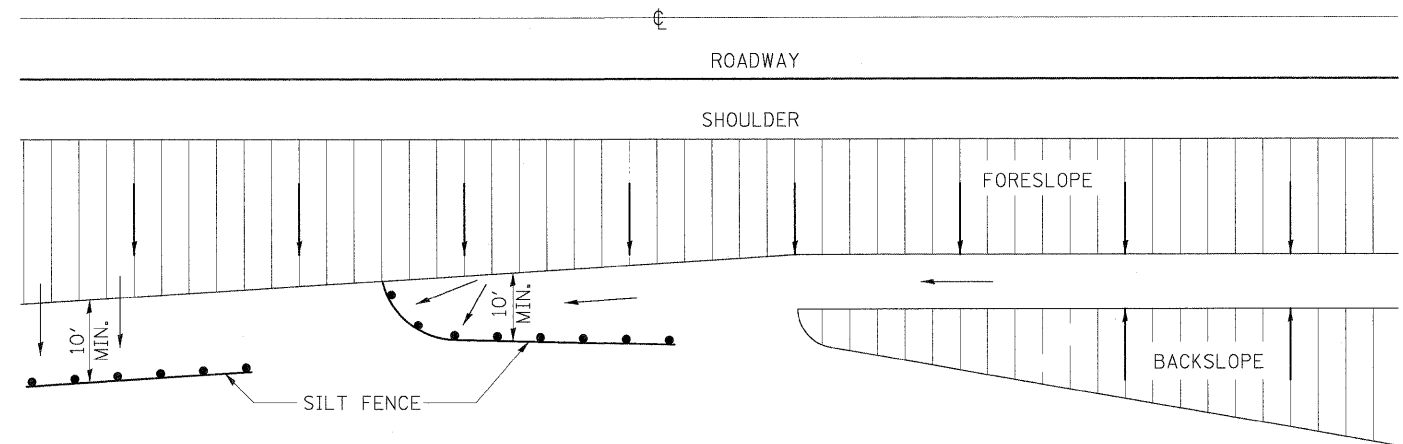
251-5



**EXCELSIOR BLANKET PLACEMENT FOR
INLET BOXES STD. 542501 THROUGH STD. 542546**

251-6

FILE NAME = I:\Dgn\sheets\251-5-6.dgn	USER NAME = ErisG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT 3 DETAILS					F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -							57	(46-2) I, HBR, VBR	KANKAKEE	558	382
	PLOT SCALE = 1:50	CHECKED -	REVISED -							CONTRACT NO. 66409				
	PLOT DATE = 12/21/2010	DATE -	REVISED -							FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT				
				SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.					

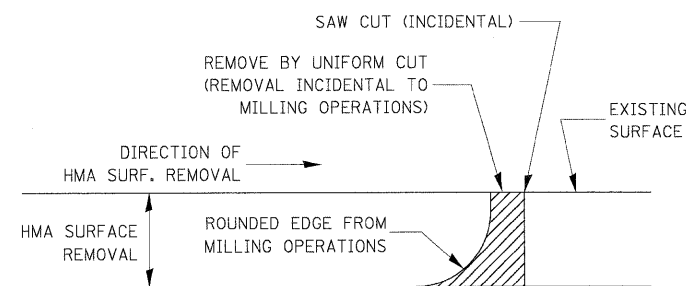


DETAILS OF SILT FENCE

**EROSION CONTROL DETAILS
FOR SILT FENCE**

280-1

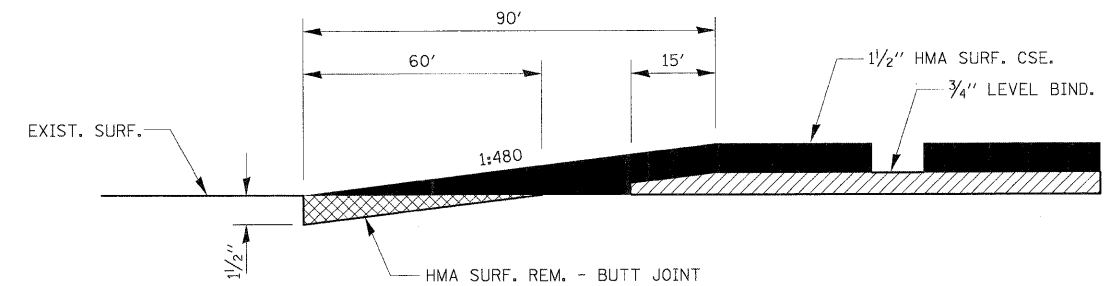
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		DRAWN -	REVISED -						57	(46-2) I, HBR, VBR	KANKAKEE	558	383
	PLOT SCALE = 1:50	CHECKED -	REVISED -						CONTRACT NO. 66409				
	PLOT DATE = 12/21/2010	DATE -	REVISED -		FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT								
						SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.		



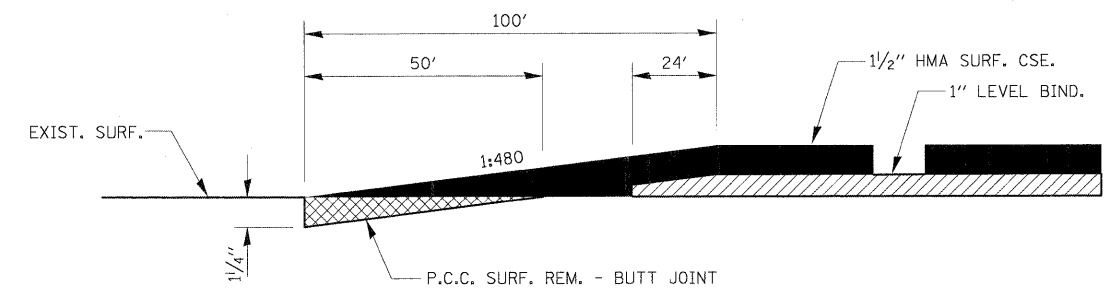
NOTE:
WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE,
THEN A SAW CUT SHALL BE USED TO MANUFACTURE
A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL.
THE ENGINEER SHALL BE THE SOLE JUDGE
CONCERNING THE USE OF THIS DETAIL

HMA DETAIL AT BUTT JOINTS

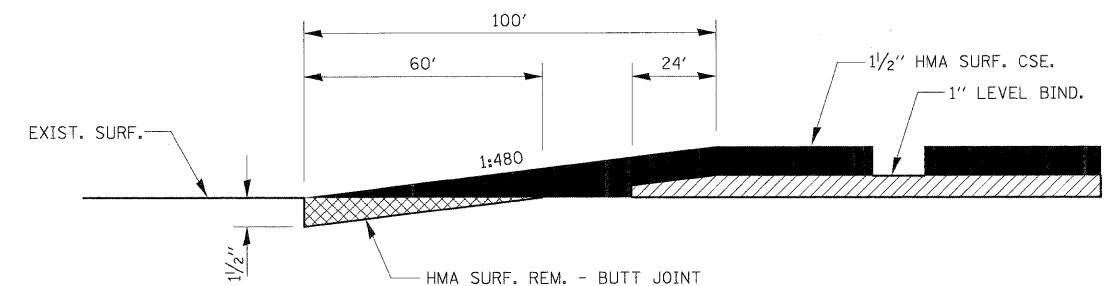
406-8



406-9

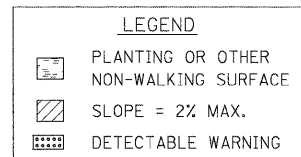
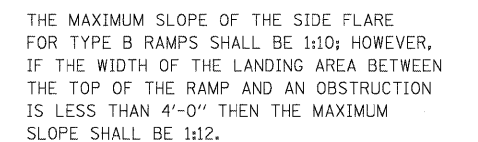
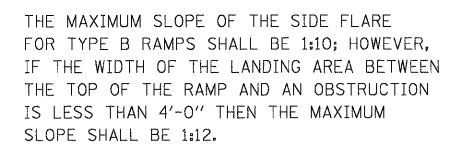
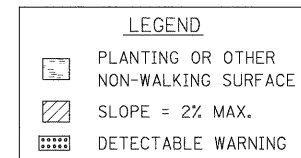
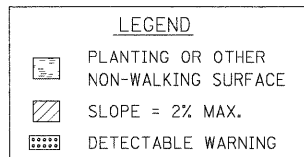
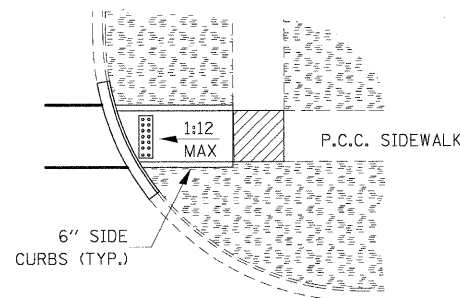


406-10

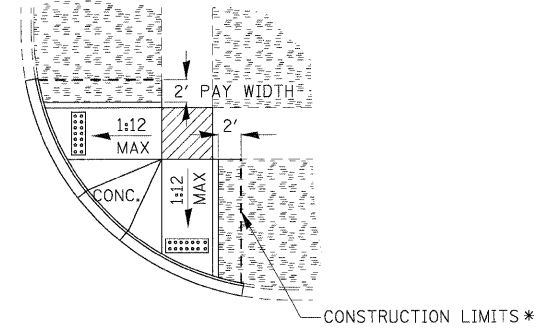
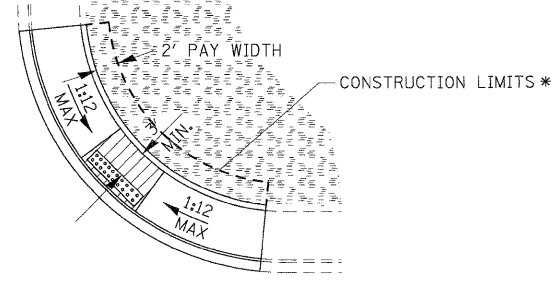
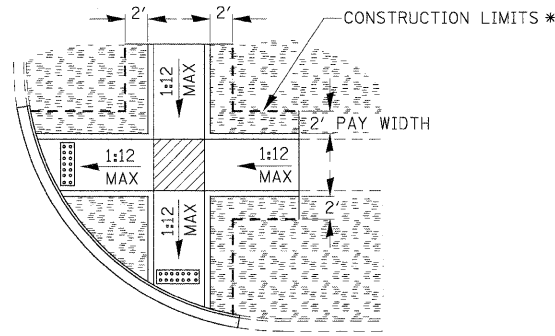
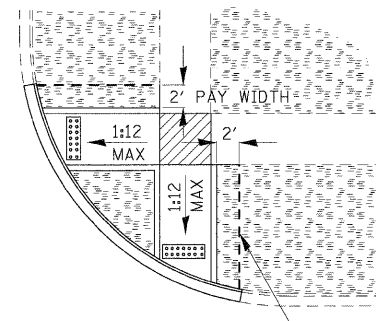


406-11

FILE NAME =	USER NAME = EricG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT 3 DETAILS			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I:\Dgn\Sheets\406-8-406-11.dgn		DRAWN -	REVISED -					57	(46-2) I, HBR, VBR	KANKAKEE	558	384
PLOT SCALE = 1:50		CHECKED -	REVISED -					CONTRACT NO. 66409				
PLOT DATE = 12/21/2010		DATE -	REVISED -					FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT				
				SCALE:			SHEET NO.	OF	SHEETS	STA.	TO STA.	



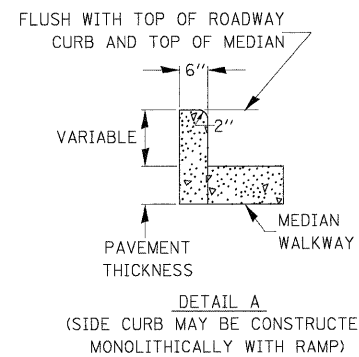
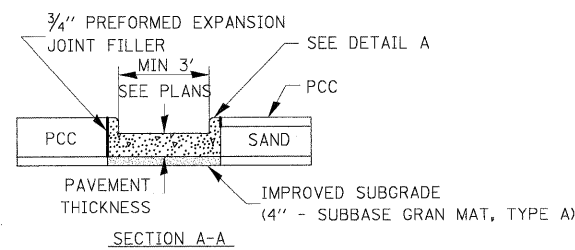
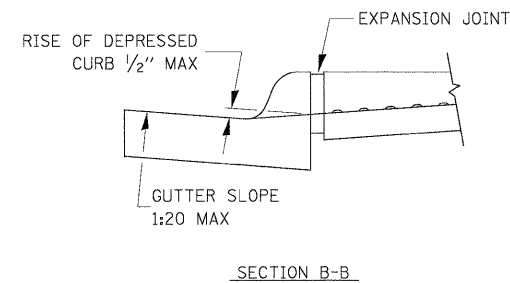
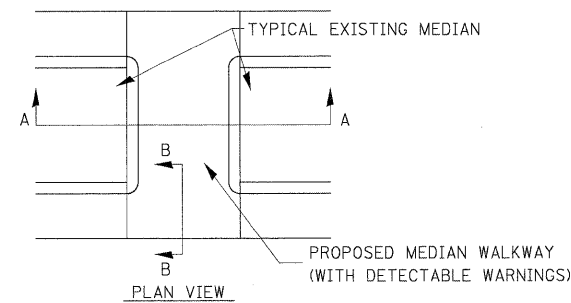
FILE NAME =	USER NAME = EricG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT 3 DETAILS					F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I:\Dgn\sheets\424-5-9.dgn		DRAWN -	REVISED -							57	(46-2) I, HBR, VBR	KANKAKEE	558	385
PLOT SCALE = 1:50		CHECKED -	REVISED -		CONTRACT NO. 66409									
PLOT DATE = 12/21/2010		DATE -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT	



LEGEND	
	PLANTING OR OTHER NON-WALKING SURFACE
	SLOPE = 2% MAX.
	DETECTABLE WARNING

* PAY FOR SOD IN PLANTING AREAS OR REMOVE AND REPLACE FOR OTHER SURFACES

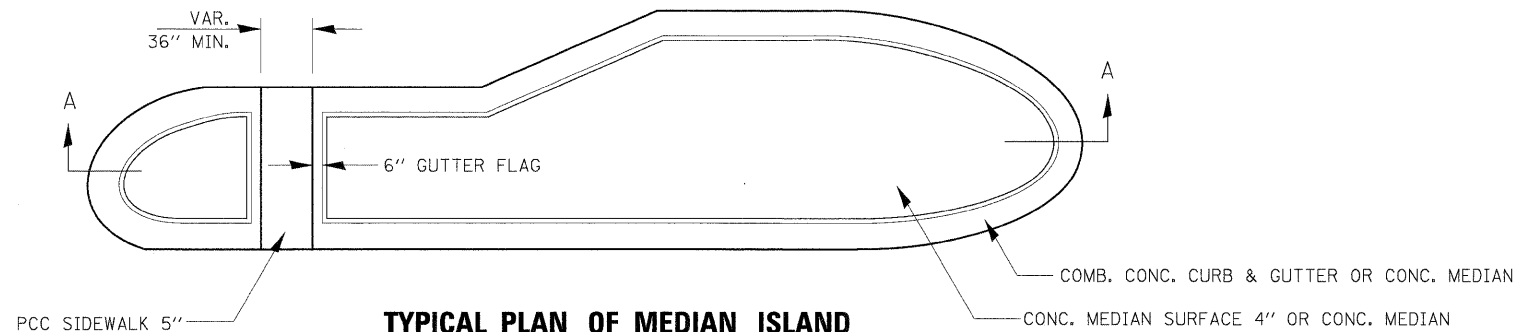
ADA SIDEWALK ACCESSIBILITY RAMPS **TYPICAL SODDING DETAILS FOR SIDEWALK RAMPS** **424-26**



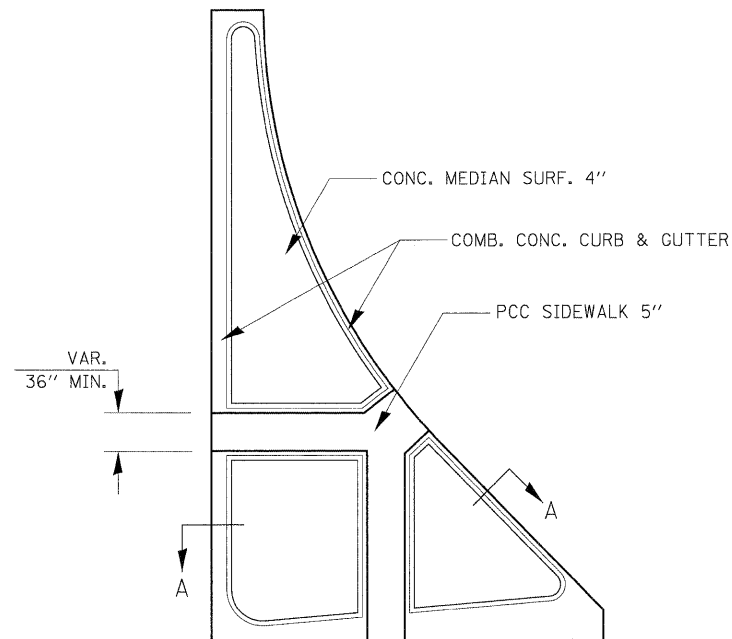
ADA SIDEWALK ACCESSIBILITY RAMPS **CONCRETE MEDIAN DETAIL FOR SIDEWALK RAMP**

424-27

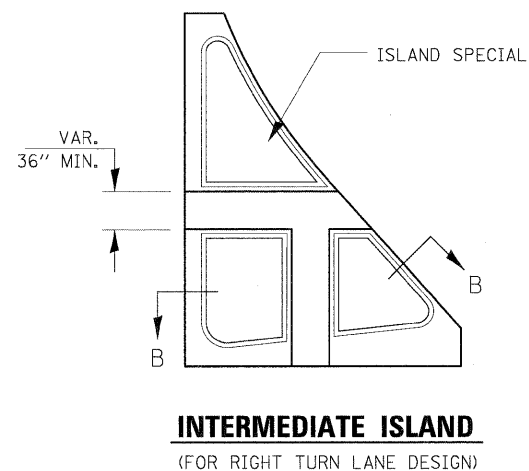
FILE NAME =	USER NAME = EricG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT 3 DETAILS					F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I:\Dgn\sheets\424-26-27.dgn		DRAWN -	REVISED -							57	(46-2) I, HBR, VBR	KANKAKEE	558	386
		CHECKED -	REVISED -							CONTRACT NO. 66409				
		DATE -	REVISED -							FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT				
					SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.				



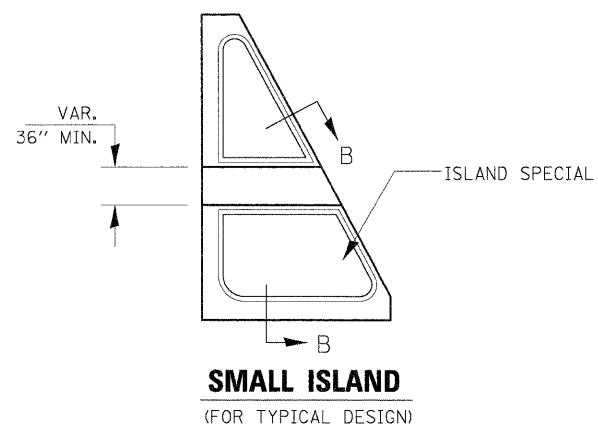
TYPICAL PLAN OF MEDIAN ISLAND



LARGE ISLAND
(FREE FLOW DESIGN)



INTERMEDIATE ISLAND
(FOR RIGHT TURN LANE DESIGN)



GENERAL NOTES

SEE STANDARD 606301 AND PLAN SHEETS FOR STATION, OFFSETS, RADII, DIMENSIONS, AND DETAILS NOT SHOWN.

THE SIDEWALK SHOULD DRAIN TO THE LOW SIDE OF THE ISLAND. IF NECESSARY THE SIDEWALK SHALL BE SLOPED TO DRAIN AT A MAXIMUM 2% GRADE.

SEE THE INTERSECTION DETAIL SHEETS FOR THE TYPE OF CURB & GUTTER TO BE USED ON ISLANDS.

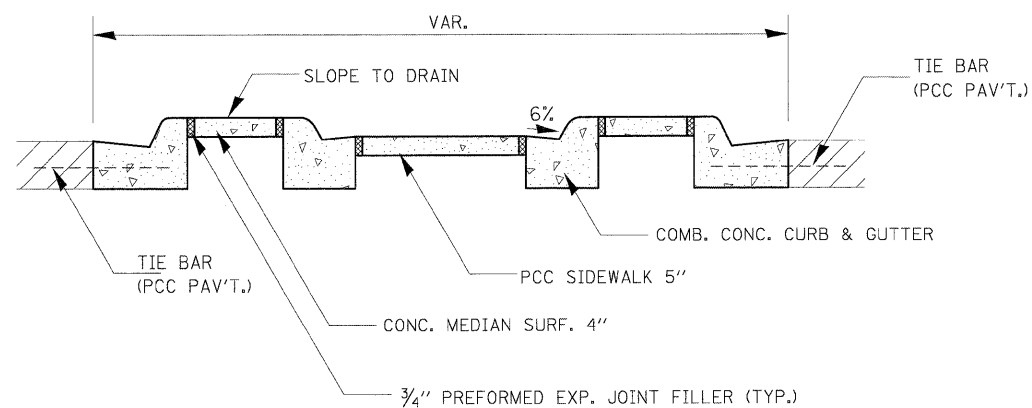
CURB & GUTTER ADJACENT TO THE WALKWAY IN THE INTERIOR OF THE ISLAND SHALL HAVE 6" GUTTER FLAGS.

THE SIDEWALK SHOULD NOT BE CLOSER THAN 36" FROM THE CORNER OF THE ISLAND.

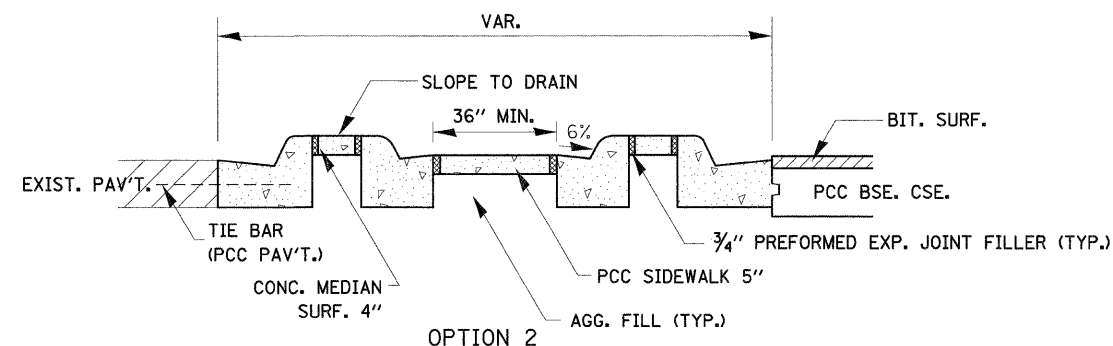
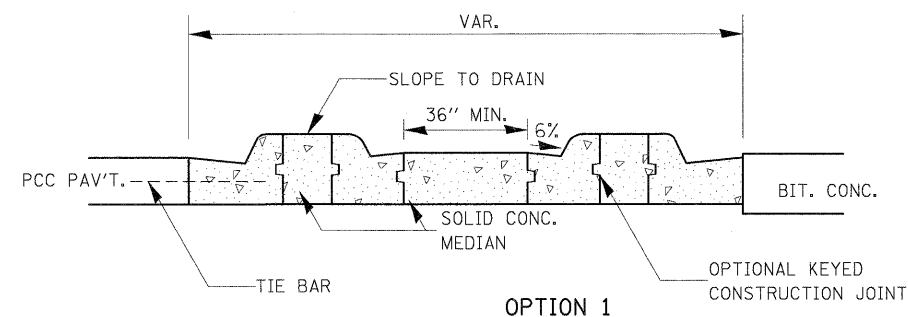
KEYED LONGITUDINAL CONSTRUCTION JOINTS SHALL BE CONSTRUCTED WITHOUT TIE BARS.

MEDIANS AND LARGE ISLANDS SHALL CONSIST OF PCC SIDEWALK 5", CONCRETE MEDIAN SURFACE 4", AND COMBINATION CONCRETE CURB & GUTTER, TYPE M OR B OF THE SIZE SPECIFIED. MEDIAN ISLAND CAN ALSO BE SOLID CONCRETE MEDIANS.

THE INTERMEDIATE AND SMALL ISLANDS WILL BE MEASURED FOR PAYMENT FROM E.O.P. TO E.O.P. USING EITHER OPTION 1 OR OPTION 2, AS DIRECTED BY THE ENGINEER, AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQ. FT. FOR CONCRETE ISLAND (SPECIAL), WHICH SHALL INCLUDE THE COMBINATION CURB & GUTTER, SIDEWALK, AGGREGATE FILL, CONCRETE MEDIAN SURFACE, AND SOLID CONCRETE MEDIAN.



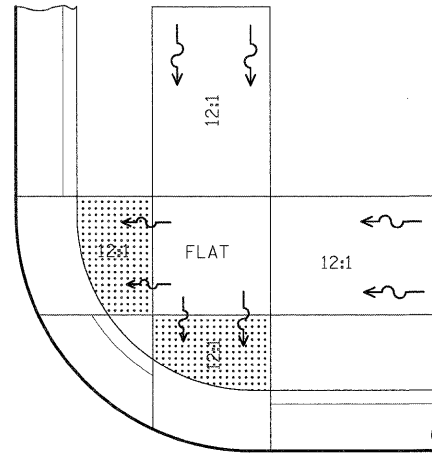
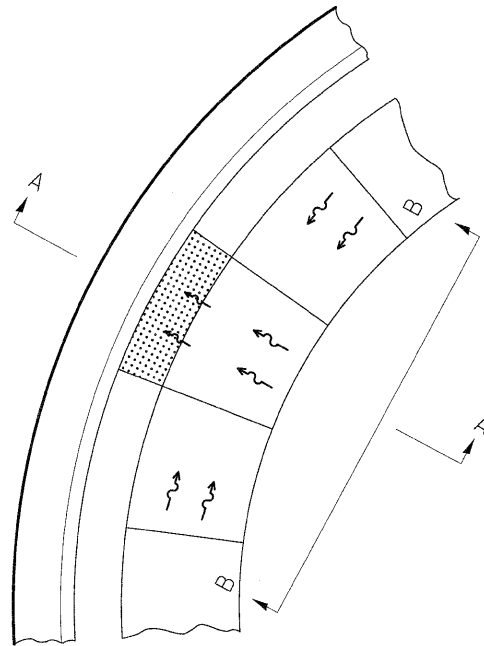
SECTION A-A



SECTION B-B

424-28

FILE NAME = I:\Dgn\sheets\424-28.dgn	USER NAME = ErsicG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT 3 DETAILS PCC ISLANDS AND MEDIANS ACCESSIBLE TO THE DISABLED				F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -						57	(46-2) I, HBR, VBR	KANKAKEE	558	387
	PLOT SCALE = 1:50	CHECKED -	REVISED -		CONTRACT NO. 66409								
	PLOT DATE = 12/21/2018	DATE -	REVISED -		FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT								
					SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.			



SEE STANDARD 424001 FOR SIDE FLARE
DETAIL & SEE PLANS FOR RAMP TYPE.

NOTES:

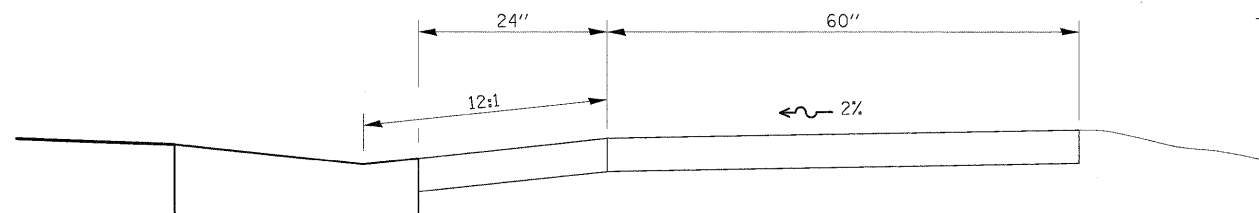
THIS DETAIL TO BE USED IN CONJUNCTION WITH STATE STANDARD 424001.

THE MAXIMUM ALLOWABLE CROSS SLOPE FOR SIDEWALK IS 2%.

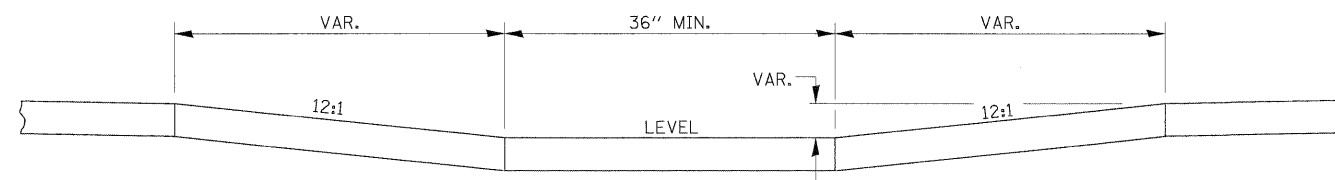
THE MAXIMUM ALLOWABLE SIDEWALK GRADE IS 8%.

IF SPACE LIMITATIONS PROHIBIT THE USE OF THE 12:1 SLOPE, THEN SLOPES
BETWEEN 10:1 AND 12:1 ARE PERMITTED FOR A MAXIMUM RISE OF 6". SLOPES
8:1 AND 10:1 ARE ALLOWED FOR A MAXIMUM RISE OF 3". SLOPES STEEPER THAN
8:1 ARE NOT PERMITTED.

THE DEPRESSED CURB IS NOT STANDARD. THE RISE IS 1/2" INSTEAD OF 1 1/2".



SECTION A-A



SECTION B-B

ADA SIDEWALK ACCESSIBILITY RAMP DETAIL

424-29

FILE NAME = I:\Dgn\Sheets\424-29.dgn	USER NAME = EricG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT 3 DETAILS				F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN -	CHECKED -	REVISED -						57	(46-2) I, HBR, VBR	KANKAKEE	558	388
	PLOT SCALE = 1:50	DATE -	REVISED -		CONTRACT NO. 66409				FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT				
	PLOT DATE = 12/21/2010				SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.			



THE CONTRACT UNIT PRICE "EACH" FOR GRATING FOR CONCRETE FLARED
END SECTION EQUIVALENT ROUND-SIZE OF THE SIZE INDICATED SHALL
INCLUDE FABRICATION AND INSTALLATION OF THE GRATING AS DETAILED
HEREIN, INCLUDING FABRICATION OF THE NECESSARY MOUNTING HOLES
IN THE FLARED END SECTION, THIS PRICE DOES NOT INCLUDE THE
COST OF THE PRECAST CONCRETE FLARED END SECTIONS.

FILE NAME = 1\Ncgn\sheets\542-11.dgn	USER NAME = EricG	DESIGNED -	REVISED -	<div>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</div>	<div>DISTRICT 3 DETAILS GRATING FOR HORIZONTAL ELLIPTICAL CONCRETE FLARED END SECTION (FOR EQUIV. ROUND SIZE 36" PIPE)</div>					F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -							57	(46-2) I, HBR, VBR	KANKAKEE	558	389
	PLOT SCALE = 1:50	CHECKED -	REVISED -		CONTRACT NO. 66409									
	PLOT DATE = 12/2/2010	DATE -	REVISED -		SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT		

GENERAL
CLASS-SI CONCRETE SHALL BE USED THROUGHOUT.

THIS SPECIFICATION COVERS SLOTTED DRAIN USED FOR THE REMOVAL OF WATER AS SHOWN ON THE PLANS.

THE SLOTTED DRAIN SHALL BE CORRUGATED PIPE CULVERT WITH INTEGRAL SLOTTED DRAINS. THE PIPE SHALL BE CAPPED ON ONE END AND DRAIN TO AN EXISTING DITCH VIA A 12" END SECTION.

BEFORE PLACING THE CONCRETE ADJACENT TO THE PIPE, THE SLOT SHALL BE COVERED BY EITHER THIN, FLAT METAL SHEETING OR BY A BOARD NOTCHED TO FIT OVER THE GRATE BARS. THIS COVERING MUST FIT CLOSELY IN THE SLOT TO PREVENT ENTRY OF CONCRETE INTO THE PIPE. PAVING OVER THE SLOTTED DRAIN WILL THEN BE ONE CONTINUOUS OPERATION OVER THE PROTECTED DRAIN. THE PROTECTION FOR THE DRAIN SLOT SHALL THEN BE REMOVED.

THE CORRUGATED STEEL PIPE USED IN THE SLOTTED DRAIN SHALL MEET THE REQUIREMENTS OF AASHTO M36/ ASTM A7860.

THE CMP SHALL BE ALUMINIZED STEEL TYPE 2.

THE DIAMETER AND GAGE SHALL BE AS SHOWN ON THE PLANS OR AS ACCEPTABLE TO THE ENGINEER.

STEEL GRATING SHALL MEET THE GALVANIZING REQUIREMENTS OF AASHTO M111.

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR "SLOTTED DRAIN 12" WITH VARIABLE SLOT", AND SHALL INCLUDE ELBOWS, DRILLING HOLES IN GRATING, SUPPLYING AND PLACING A1 BARS, CONCRETE, GRATING AND END SECTIONS AS SPECIFIED ON PLANS.

THE INTENT IS FOR THE SLOTTED DRAIN TO BE UTILIZED IN CONJUNCTION WITH THE TEMPORARY PAVEMENT WITHIN THE I-57 MEDIAN. THE UNIT PRICE SHALL INCLUDE REMOVAL OF THE SLOTTED DRAIN ONCE THE TEMPORARY PAVEMENT IS NO LONGER REQUIRED.

CONNECTIONS

THE CORRUGATED STEEL PIPE SHALL HAVE A MINIMUM OF TWO REROLLED ANNULAR ENDS.

THE SLOTTED DRAIN BANDS SHALL BE MODIFIED HUGGER BANDS TO SECURE THE PIPE AND PREVENT INFILTRATION OF THE BACKFILL.

WHEN THE SLOTTED DRAIN IS Banded TOGETHER, THE ADJACENT GRATES SHALL HAVE A MAXIMUM 3" GAP.

GRATES

THE GRATES SHALL BE MANUFACTURED FROM ASTM A670, GRADE 36 STEEL. THE SPACERS AND BEARING BARS (SIDES) SHALL BE 3/16" MATERIAL ±0.008".

THE SPACERS SHALL BE ON 6" CENTERS AND WELDED ON BOTH SIDES TO EACH BEARING BAR (SIDES) WITH FOUR (4) 1/4" LONG 3/16" FILLET WELDS ON EACH SIDE OF THE BEARING BAR.

THE PLATE EXTENDER SHALL BE 7 GAGE STEEL MEETING ASTM A761.

THE ENGINEER MAY CALL FOR TENSILE STRENGTH TESTS ON THE GRATE IF THE GRATE IS NOT IN COMPLIANCE WITH THE ABOVE SPACER SPECIFICATIONS. IF TENSILE STRENGTH TESTS ARE CALLED FOR, MINIMUM RESULTS FOR AN IN-PLACE SPACER PULLED PERPENDICULAR TO THE BEARING BAR SHALL BE:
T = 12,000 POUNDS FOR 2 1/2" GRATE
T = 15,000 POUNDS FOR 6" GRATE

GALVANIZING

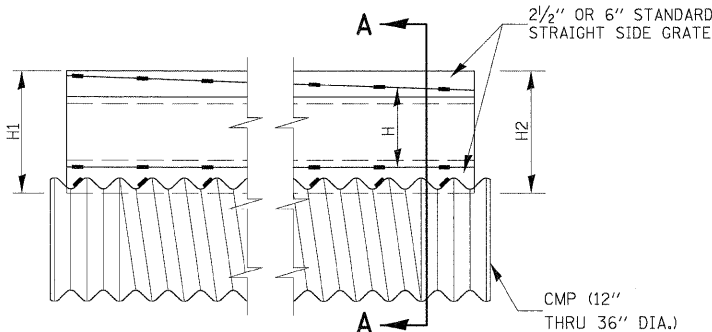
THE GRATE AND PLATE EXTENDERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123 EXCEPT WITH A 2 OZ. GALVANIZED COATING.

GRATE ATTACHED TO CSP

THE GRATE SHALL BE FILLET WELDED WITH A MINIMUM WELD 1" LONG TO THE CSP ON EACH SIDE OF THE GRATE AT EVERY OTHER CORRUGATION.

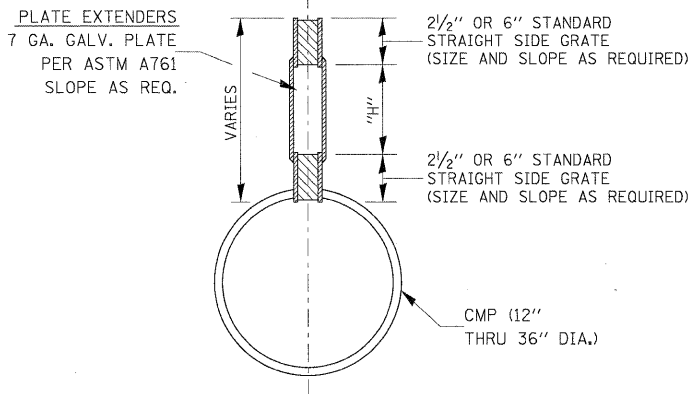
TOLERANCES - FINISHED SLOTTED DRAIN - 20' LENGTH

VERTICAL BOW = ±3/8"
HORIZONTAL BOW = ±5/8"
TWIST = ±1/2"



SIDE VIEW
DETAIL WITH VARIABLE HEIGHT GRATE

LOADING CONDITION	MAX. EXTENDER HEIGHT - "H"
H20/H25 • 750 PSI CONCRETE	19"
• 125 PSI TIRE PRESSURE	



SECTION A-A

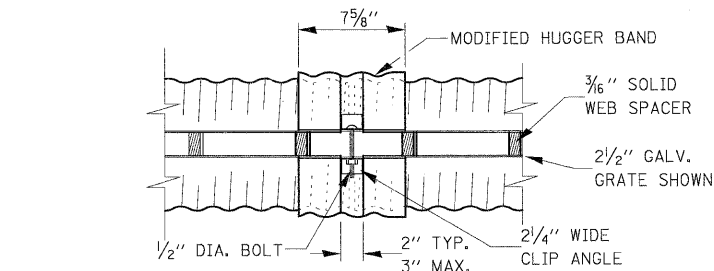
STANDARD SIZES		DIAMETER OF PIPE					
GAGE OF PIPE		12"	15"	18"	24"	30"	36"
16	X	X	X	X	X	X	X
14	X	X	X	X	X	X	X
12	N.A.	N.A.	N.A.	N.A.	X	X	X

GRATE TYPE		"A"
VERT	2 1/2"	1 3/4"
VERT	6"	1 3/4"
TRAP	2 1/2"	2 1/4"
TRAP	6"	3"

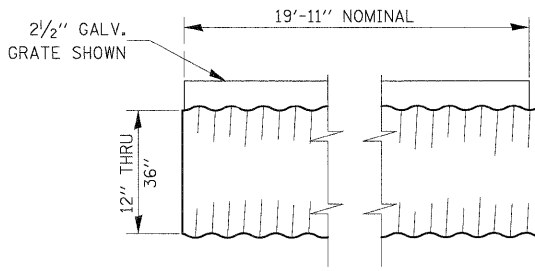
VERT = VERTICAL
TRAP = TRAPIZOIDAL

SLOTTED DRAIN NOTES

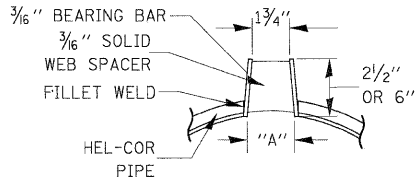
- GRATING IS AVAILABLE IN DEPTHS OF 2 1/2 " AND 6".
- VERTICAL GRATING (STRAIGHT SIDES) WITH VERTICAL SPACERS IS ALSO AVAILABLE.
- FOR 6" VERTICAL & TRAPEZOIDAL REQUIREMENTS, THE SLOTTED DRAIN BAND MAY BE FURNISHED WITH THE 4: TECHCO BAND ANGLE.
- DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
- REFERENCE CONTECH BAND MANUAL DWG. NO. 1002697 FOR BAND DETAILS.
- REFERENCE CONTECH SLOTTED DRAIN DWG. NO. 1002697.
- DIMENSIONS FOR H1 AND H2 AS REQUIRED.
- H1 AND H2 MEASURED FROM TOP OF GRATE TO BOTTOM OF GRATE.



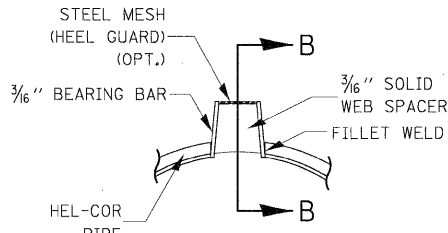
TOP VIEW



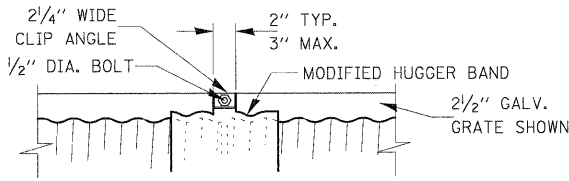
TYPICAL PIPE SECTION



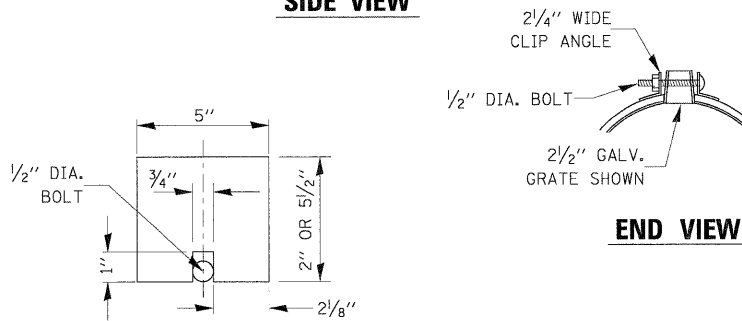
SECTION A-A
STANDARD DETAIL



SECTION B-B
DETAIL WITH MESH
(TRAPEZOIDAL GALVANIZED GRATE SHOWN)



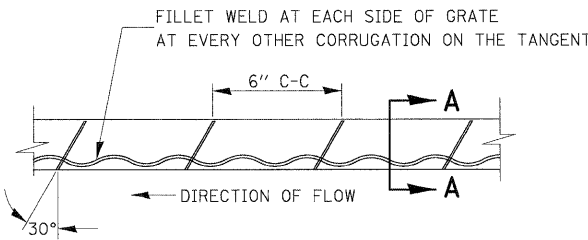
SIDE VIEW



END VIEW

GAP PLATE (OPTIONAL)

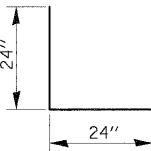
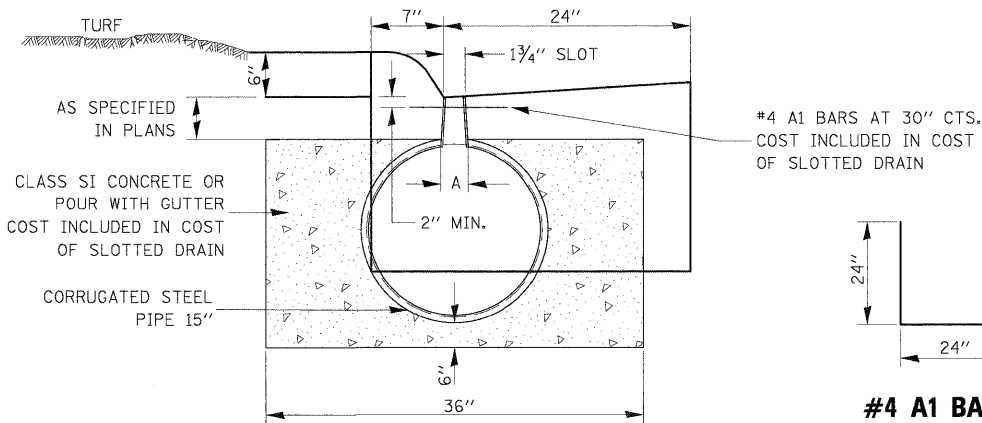
MAY BE PLACED DIRECTLY OVER BAND BOLT TO PROVIDE CONTINUOUS FORM FOR GROUTING



GRATE WELDING DETAIL

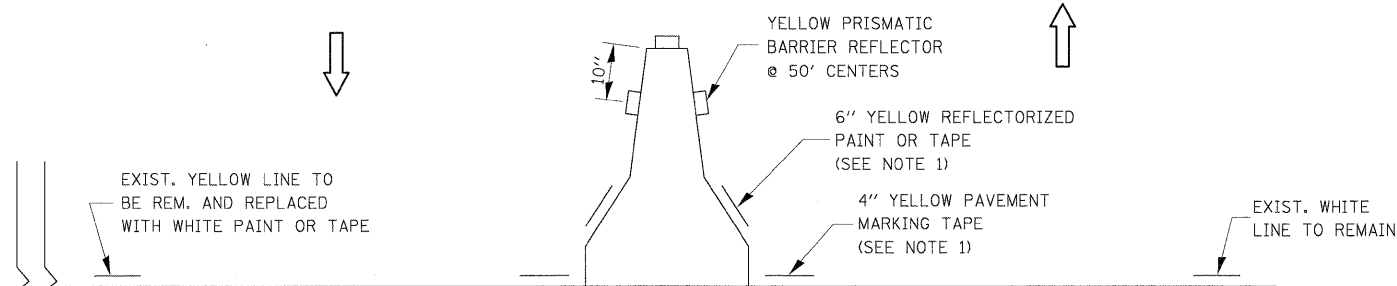


SECTION B-B



#4 A1 BARS

RDWY.

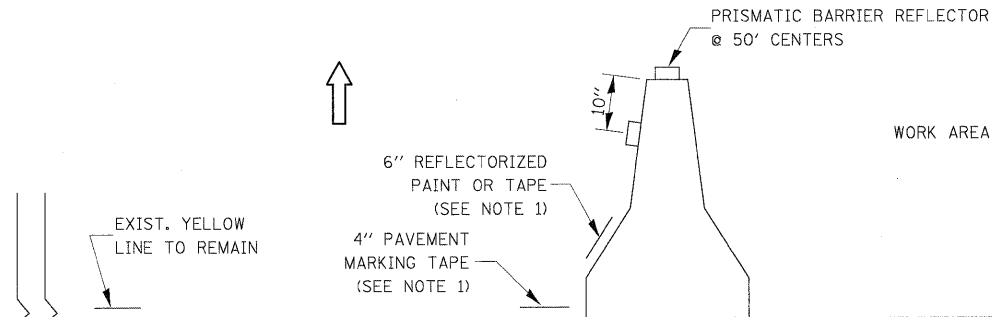


NOTES:

1. THE CONTRACTOR HAS THE OPTION OF USING EITHER THE LINE ON THE TEMPORARY CONCRETE BARRIER OR ON THE PAVEMENT.
2. THE COST OF THE REFLECTORS AND THE BARRIER/PAVEMENT MARKING LINE IS INCLUDED IN THE COST OF THE TEMPORARY CONCRETE BARRIER.

701-2

RDWY.

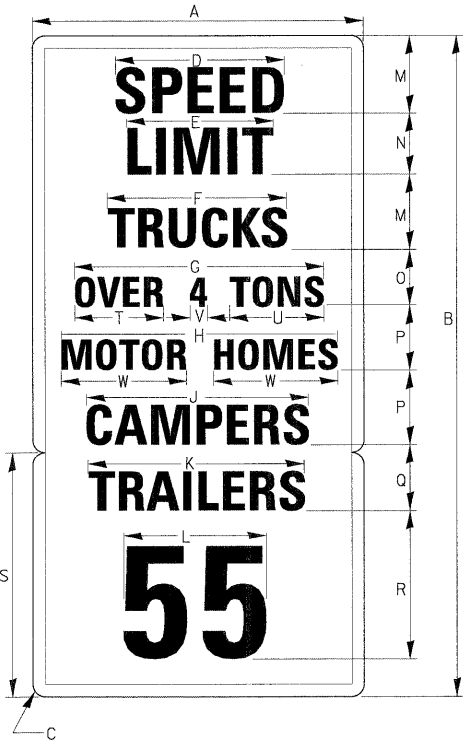


NOTES:

1. THE CONTRACTOR HAS THE OPTION OF USING EITHER THE LINE ON THE TEMPORARY CONCRETE BARRIER OR ON THE PAVEMENT.
2. THE COLOR OF THE REFLECTORS AND PAVEMENT/BARRIER MARKING LINE WILL VARY WITH STAGING AND SHALL MATCH THE EXISTING LINE IN THE WORK AREA.
3. THE COST OF THE REFLECTORS AND THE PAVEMENT/BARRIER MARKING LINE IS INCLUDED IN THE COST OF THE TEMPORARY CONCRETE BARRIER.

701-3

ILLINOIS STANDARD
R2-I104a



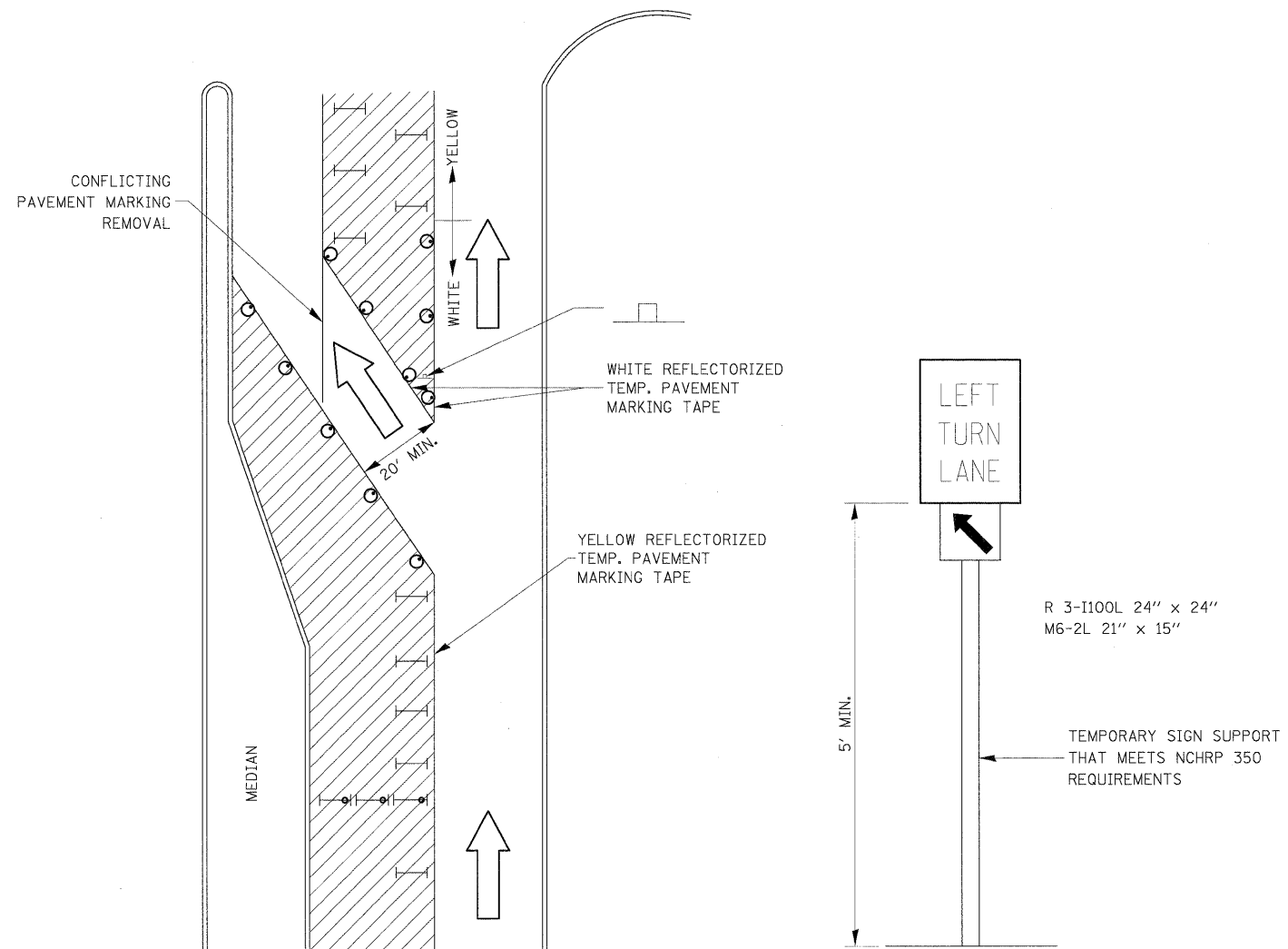
COLOR: LEGEND AND BORDER BLACK NON-REFLECTORIZED
BACKGROUND WHITE REFLECTORIZED

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
48 x 96	48.0	96.0	3.0	28.3	22.1	24.5	29.0	32.2	29.5	30.4

DIMENSIONS											
L	M	N	O	P	Q	R	S	T	U	V	W
23.2	11.0	9.0	7.0	10.0	8.0	22.0	36.0	10.9	10.5	8.5	16.1

SIGN SIZE	SERIES								MARGIN	BORDER	BLANK STD.
	LINES										
	1	2	3	4	5	6	7	8			
48 x 96	6E	6E	6C	4C	6B	6C	6C	16E	0.6	0.8	B5-4860 B5-3648

701-4



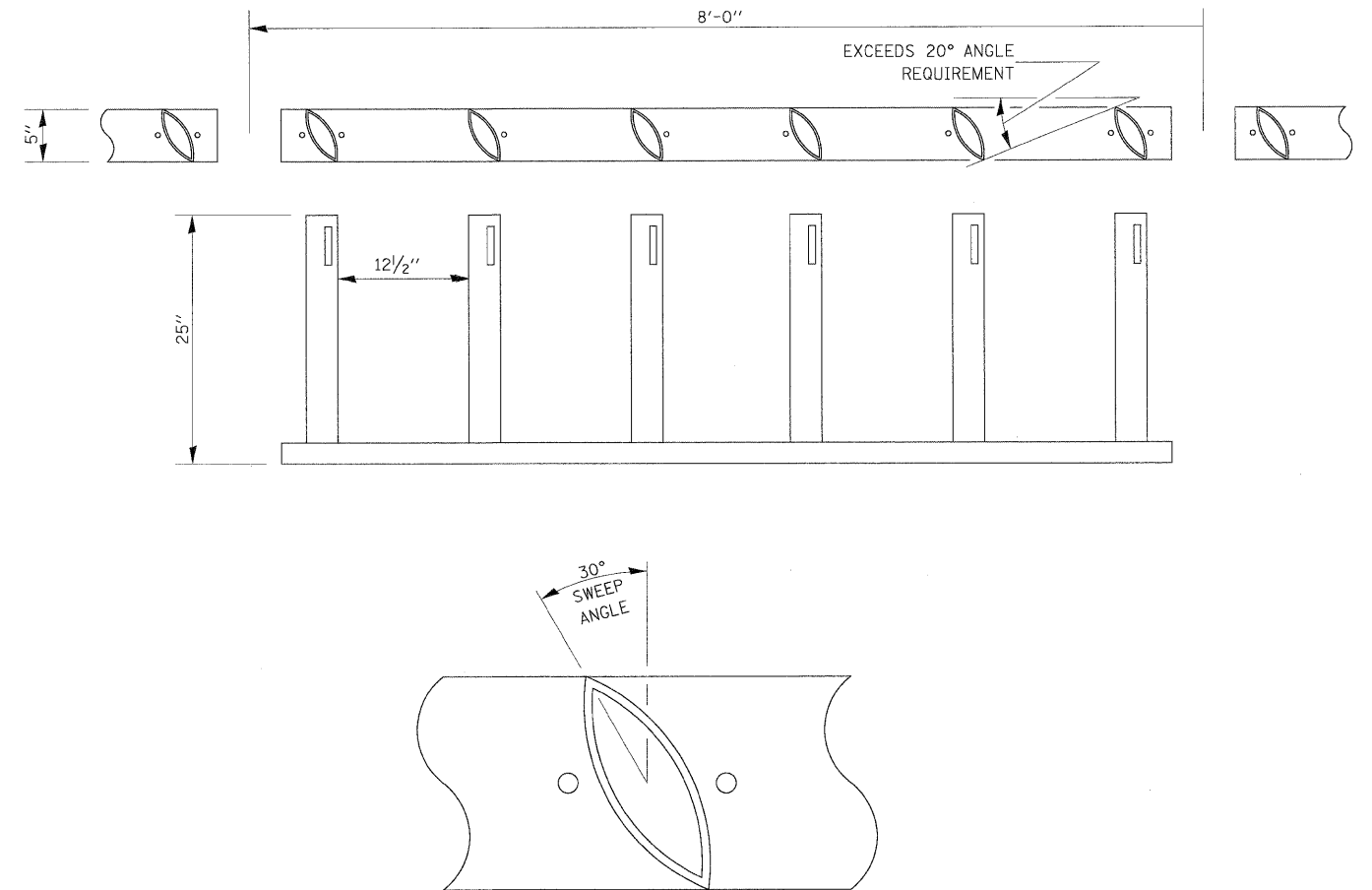
LEGEND

- WORK AREA
- LANE OPEN TO TRAFFIC
- TYPE I OR II BARRICADE OR DRUM WITH FLASHING BURNING LIGHT
- DRUM OR BARRICADE WITH STEADY BURN LIGHT
- SIGN (SEE DETAIL)
- TYPE I OR II CHECK BARRICADE WITH STEADY LIGHT BURN

GENERAL NOTE:

- CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING THE DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28" IN HEIGHT.
- STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS WILL BE MONODIRECTIONAL.
- REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
- THIS APPLICATION ALSO APPLIEES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24" x 24" AND M6-2R 21" x 15" SHALL BE USED.
- THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL TOR LANE CLOSURES.
- LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
- TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)



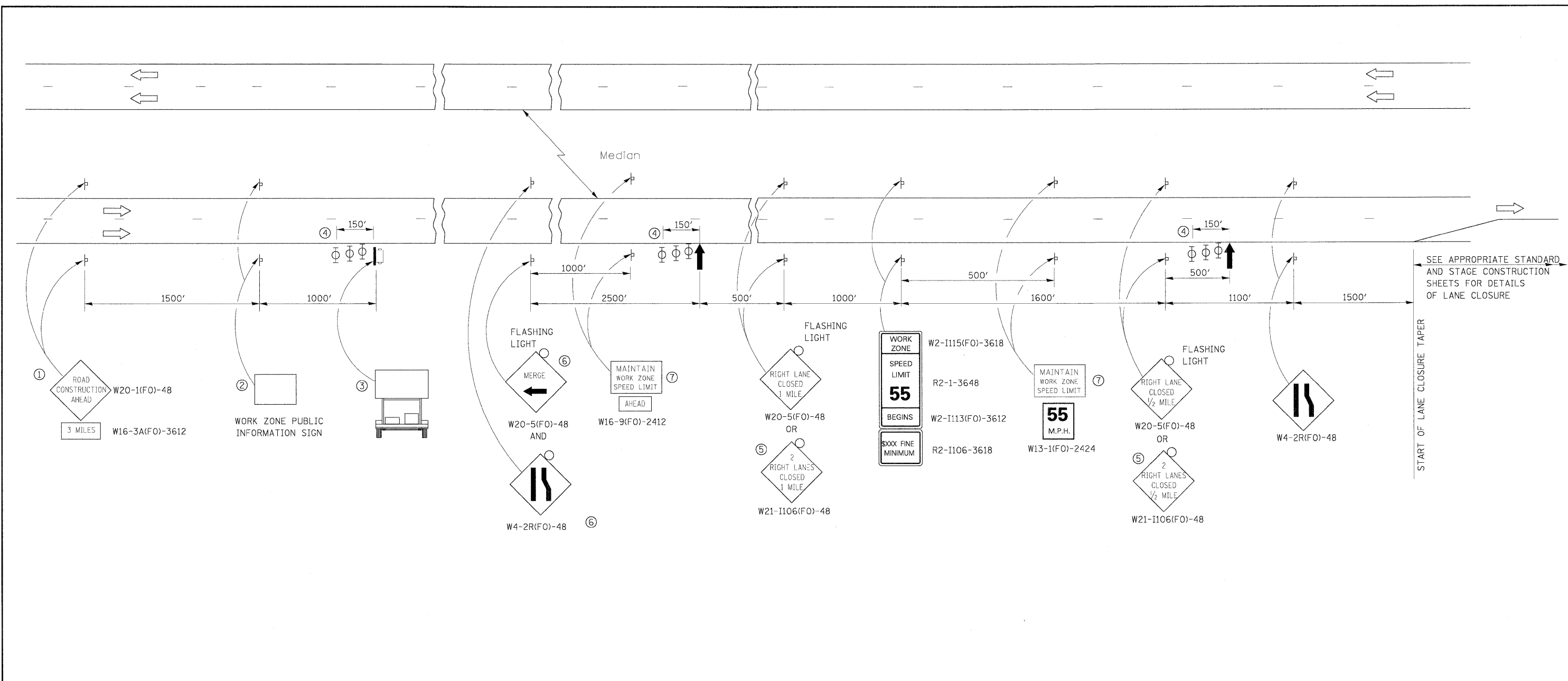
DETAIL DRAWING

MODULAR GLARE SCREEN BLADES

638-1

701-7

FILE NAME = I:\Dgn\sheets\701-7.dgn	USER NAME = EricG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT 3 DETAILS					F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -							57	(46-2) I, HBR, VBR	KANKAKEE	558	392
	PLOT SCALE = 1:50	CHECKED -	REVISED -		CONTRACT NO. 66409									
	PLOT DATE = 12/21/2010	DATE -	REVISED -		FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT									
					SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.				



- ① THE ROAD CONSTRUCTION AHEAD SIGN SHALL BE LOCATED 3 MILES IN ADVANCE OF THE PROJECT LIMITS.
- ② THE MESSAGE AND SIZE OF THE WORK ZONE PUBLIC INFORMATION SIGN SHALL BE AS SPECIFIED BY THE DEPARTMENT.
- ③ TO BE PLACED IN THE MEDIAN WHEN FEASIBLE. THE MESSAGE BOARD SHALL BE USED TO DISPLAY STATUS OF LANES WITHIN THE PROJECT. THE PRIMARY MESSAGES SHALL BE:
"RIGHT LANE CLOSED" / " " x MILES AHEAD"
"LEFT LANE CLOSED" / " " x MILES AHEAD"
"ALL LANES OPEN"
- ④ THREE, TYPE II BARRICADES, DRUMS, OR VERTICAL BARRICADES AT 50' CENTERS.
- ⑤ THIS SIGN SHALL BE USED WHEN 2 LANES ARE CLOSED.
- ⑥ WHEN THE LEFT LANE IS CLOSED, SWITCH THESE TWO SIGNS AND THE DIRECTION OF THE MERGE ARROW.
- ⑦ 48"x36" FLUORESCENT ORANGE SIGN WITH BLACK LETTERS.

36" 48"

MAINTAIN
WORK ZONE
SPEED LIMIT

8"
6"
6"

- ↑ ARROW BOARD
- ☐ PORTABLE CHANGEABLE MESSAGE SIGN
- ☐ SIGN
- ⊕ TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH MONODIRECTIONAL FLASHING LIGHT

GENERAL NOTE:

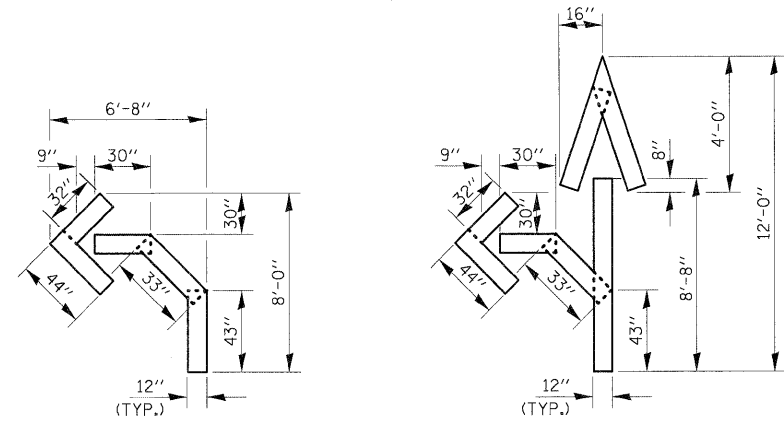
THIS STANDARD IS USED WHERE AT ANY TIME A LANE IS CLOSED ON A FREEWAY/EXPRESSWAY.

WHEN THE LEFT LANE IS CLOSED, LEFT LANE CLOSED SIGNS SHALL BE SUBSTITUTED FOR THE RIGHT LANE CLOSED SIGNS.

THE FIRST TWO SIGNS AND THE MESSAGE BOARD ARE STATIONARY. THE OTHER SIGNS AND ARROWBOARDS SHALL BE MOVED AS NECESSARY TO MAINTAIN THE REQUIRED DISTANCE FROM THE START OF THE LANE CLOSURE TAPER(S).

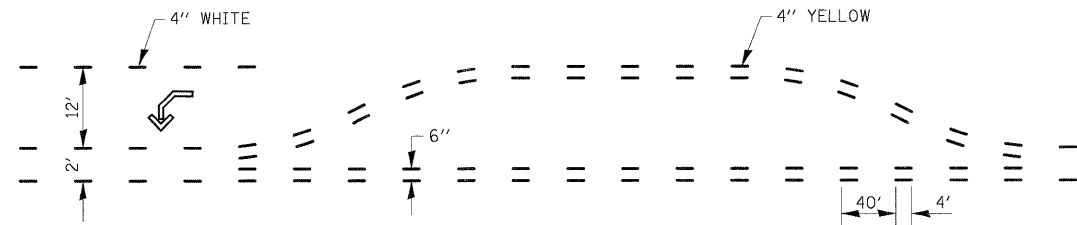
SEE SPECIAL PROVISIONS.

ALL DIMENSIONS ARE IN INCHES
UNLESS OTHERWISE SHOWN.



QUANTITY
12" LINE = 16 LIN. FT.
OR 4" LINE = 48 LIN. FT.

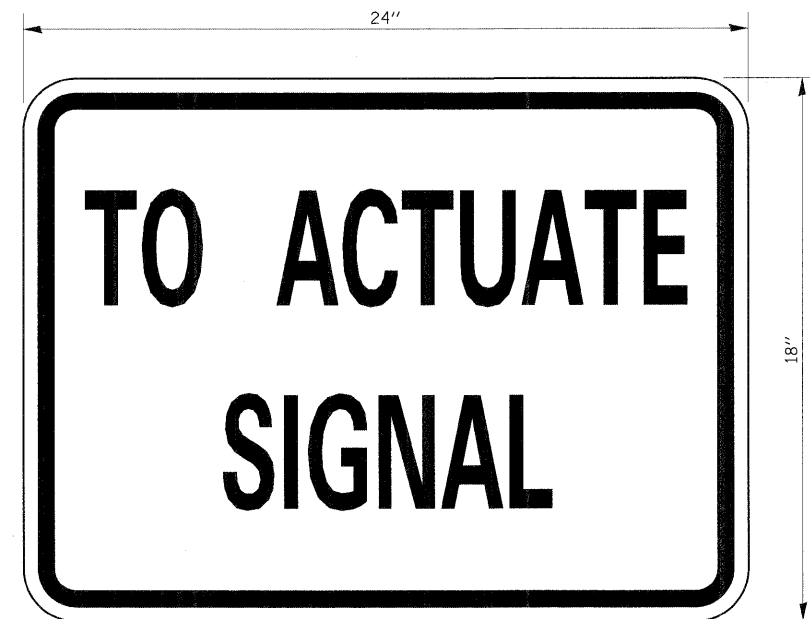
QUANTITY
12" LINE = 29 LIN. FT.
OR 4" LINE = 87 LIN. FT.



**SHORT-TERM PAVEMENT MARKING
FOR MEDIANS AND ARROWS**

703-1

FILE NAME = I:\Dgn\sheeta\703-1.dgn	USER NAME = EricG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT 3 DETAILS					F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -							57	(46-2) I, HBR, VBR	KANKAKEE	558	394
	PLOT SCALE = 1:50	CHECKED -	REVISED -							CONTRACT NO. 66409				
	PLOT DATE = 12/21/2010	DATE -	REVISED -							FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT				
					SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.				



SIZE: 24" × 18"

4" CAPITAL LETTERS - BLACK

1/2" BORDER - BLACK

WHITE REFLECTIVE - TYPE B
ENGINEERING GRADE SHEETING

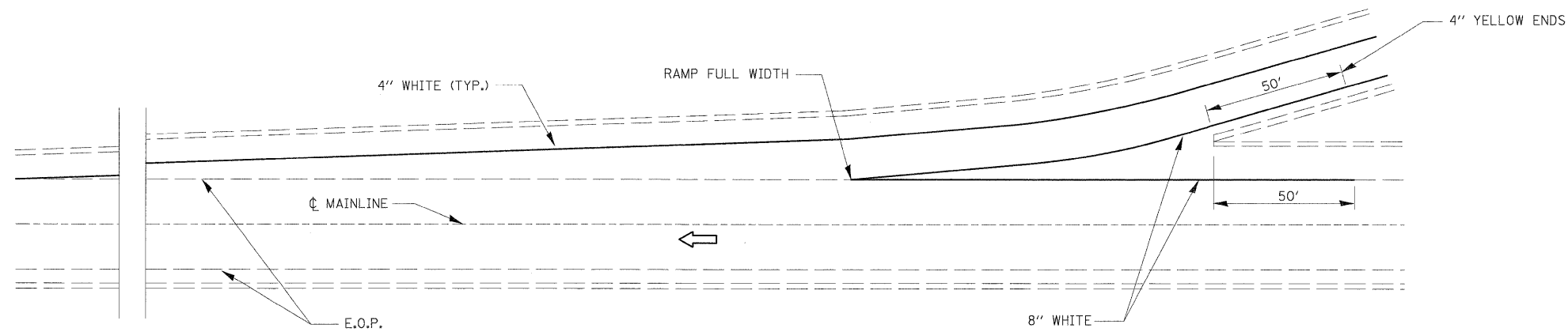
GENERAL NOTE:

THIS SIGN SHALL BE INSTALLED AT THE
STOP LINE AS DIRECTED BY THE ENGINEER.

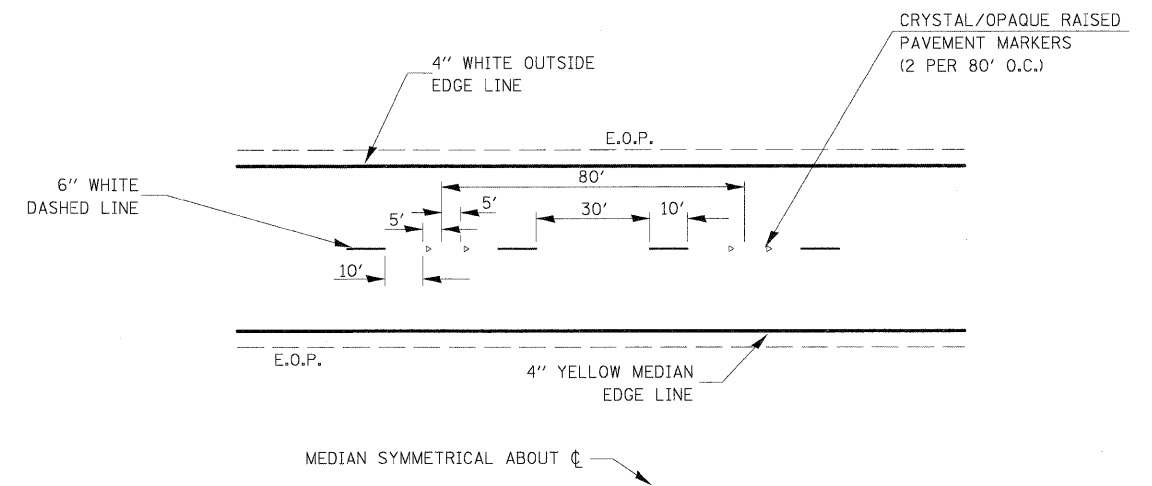
720-4

STOP LINE SIGN FOR TEMPORARY SIGNALS

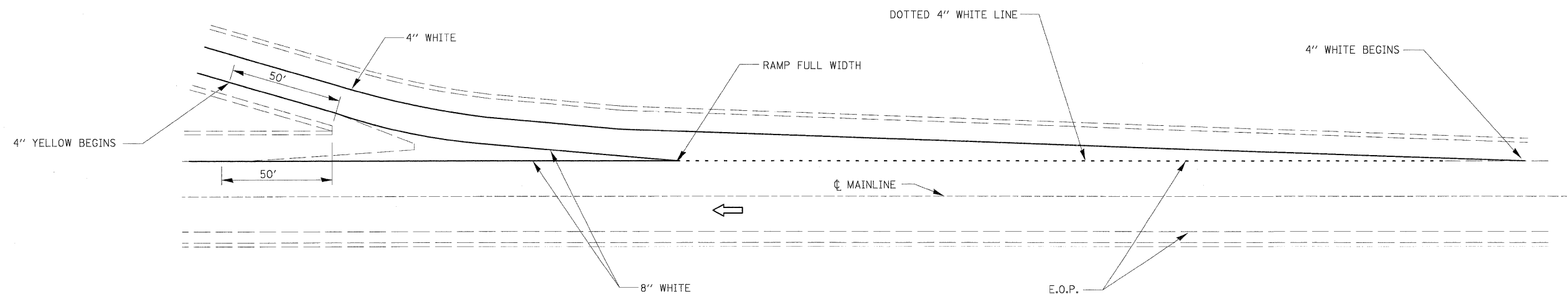
FILE NAME = I:\Dgn\sheets\720-4.dgn	USER NAME = EricG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT 3 DETAILS				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -						57	(46-2) I, HBR, VBR	KANKAKEE	558	395
	PLOT SCALE = 1:50	CHECKED -	REVISED -						CONTRACT NO. 66409				
	PLOT DATE = 12/21/2010	DATE -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT		



TYPICAL PAVEMENT MARKING FOR ENTRANCE RAMP TERMINALS



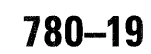
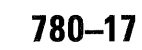
TYPICAL PAVEMENT MARKINGS



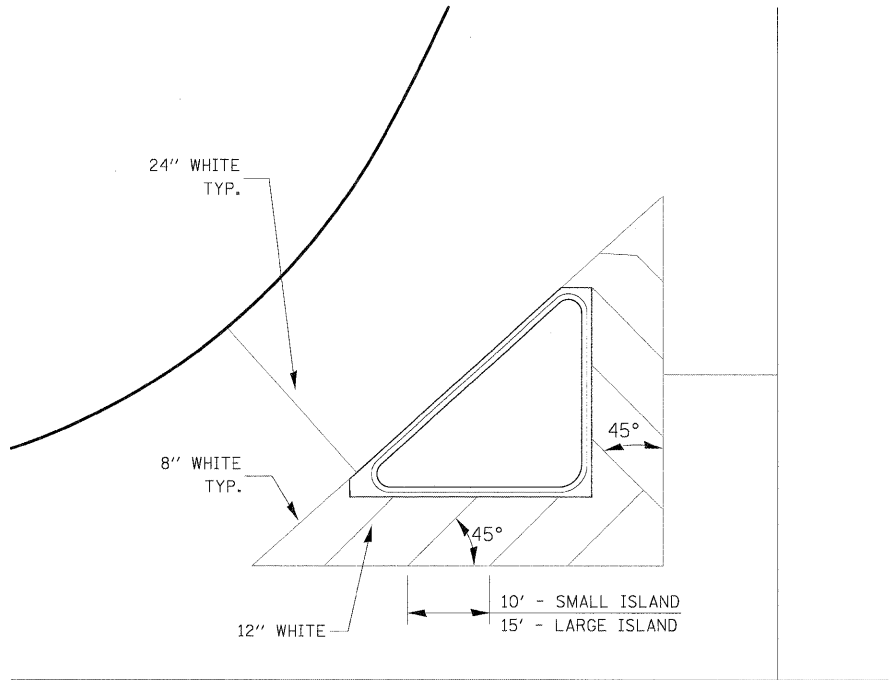
TYPICAL PAVEMENT MARKINGS FOR EXIT RAMP TERMINALS

780-12

FILE NAME = I:\Dgn\Sheets\780-12.dgn	USER NAME = EricG		DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT 3 DETAILS RAMP PAVEMENT MARKING				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1:50		DRAWN -	REVISED -						57	(46-2) I, HBR, VBR	KANKAKEE	558	396
	PLOT DATE = 12/21/2018		CHECKED -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.				CONTRACT NO. 66409				
			DATE -	REVISED -						FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT				

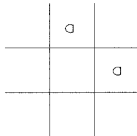
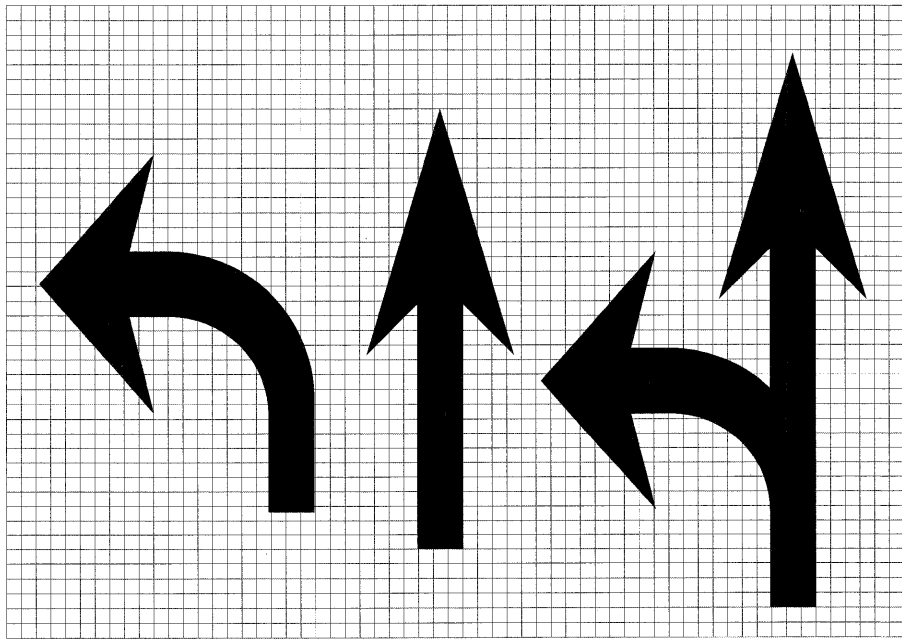


FILE NAME = I:\Dgn\sheets\788-17-19.dgn	USER NAME = EricG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT 3 DETAILS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED -			57	(46-2) I, HBR, VBR	KANKAKEE	558	397	
	PLOT SCALE = 1:50	CHECKED -	REVISED -			CONTRACT NO. 66409					
	PLOT DATE = 12/21/2010	DATE -	REVISED -			SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.



TYPICAL ISLAND

780-21

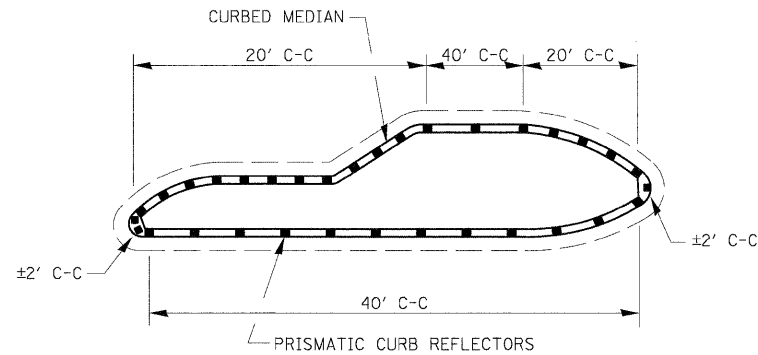


LEGEND HEIGHT	ARROW SIZE	
6'	SMALL	2.9
8'	LARGE	3.8

THE SPACE BETWEEN ADJACENT LETTERS OR NUMERALS SHOULD BE APPROXIMATELY 3' FOR 6' LEGEND AND 4' FOR 8' LEGEND.

LETTER AND ARROW GRID SCALE

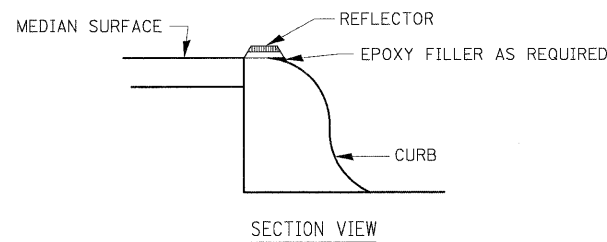
780-20



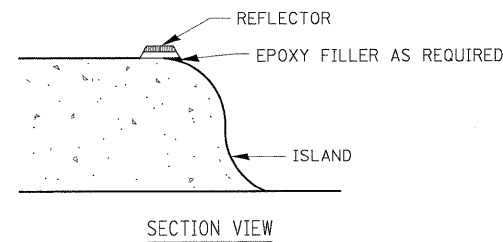
1. PRISMATIC REFLECTORS SHALL BE BI-DIRECTIONAL.
2. PRISMATIC REFLECTORS SHALL BE SECURED IN PLACE WITH AN EPOXY ADHESIVE.
3. PRISMATIC RELECTORS SHALL BE AMBER IN COLOR.

PRISMATIC CURB REFLECTORS AT CURB MEDIANS

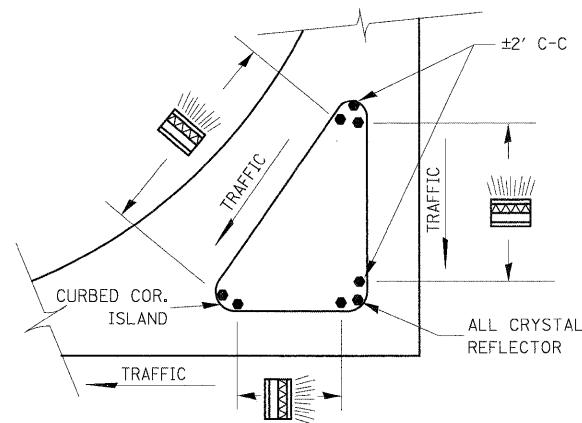
782-1



OPTION 1

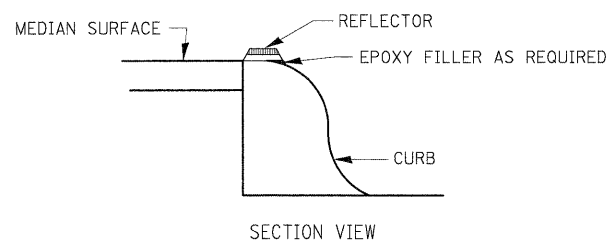


OPTION 2



PRISMATIC REFLECTORS

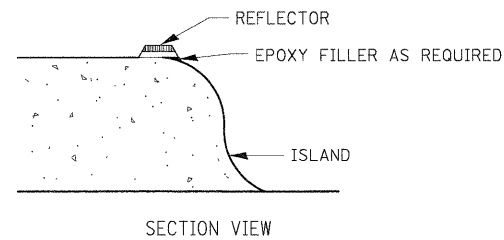
782-2



NOTES

1. PRISMATIC REFLECTORS SHALL BE MONO-DIRECTIONAL AND POSITIONED SO THAT THE REFLECTIVE FACE IS FACING THE APPROACHING TRAFFIC.
2. PRISMATIC REFLECTORS SHALL BE SECURED IN PLACE WITH AN EPOXY ADHESIVE.
3. PRISMATIC REFLECTORS SHALL BE EITHER AMBER OR CRYSTAL IN COLOR.

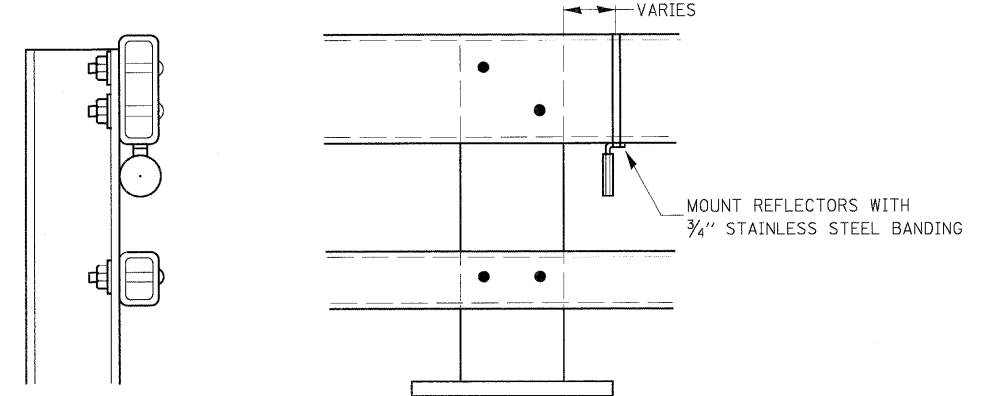
OPTION 1



NOTES

1. PRISMATIC REFLECTORS SHALL BE MONO-DIRECTIONAL AND POSITIONED SO THAT THE REFLECTIVE FACE IS FACING THE APPROACHING TRAFFIC.
2. PRISMATIC REFLECTORS SHALL BE SECURED IN PLACE WITH AN EPOXY ADHESIVE.
3. PRISMATIC REFLECTORS SHALL BE EITHER AMBER OR CRYSTAL IN COLOR.

OPTION 2

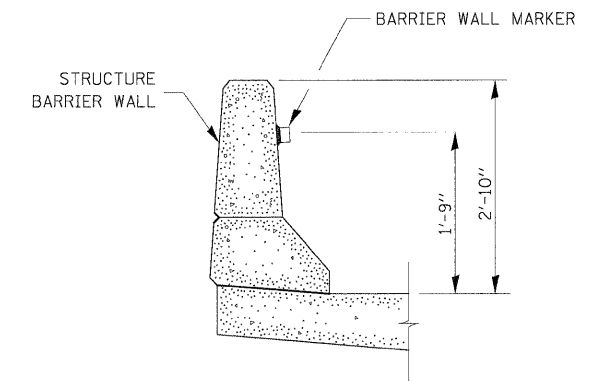


NOTES

1. REFLECTORS SHALL MEET THE REQUIREMENTS OF ARTICLE 1097.03 OF THE STANDARD SPECIFICATIONS.
2. FURNISHING AND INSTALLING THE COMPLETE REFLECTOR UNIT WILL BE PAID AT THE CONTRACT UNIT PRICE EACH FOR GUARD RAIL MARKERS.

REFLECTOR MOUNTING DETAIL FOR STEEL RAIL

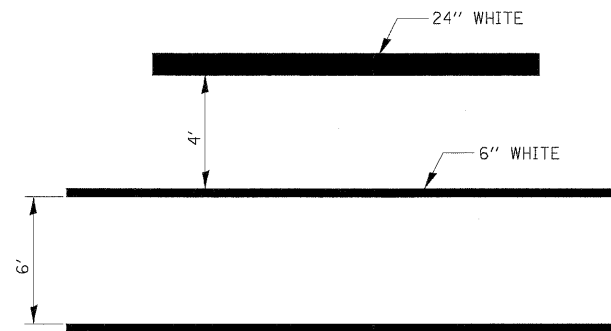
782-3



782-4

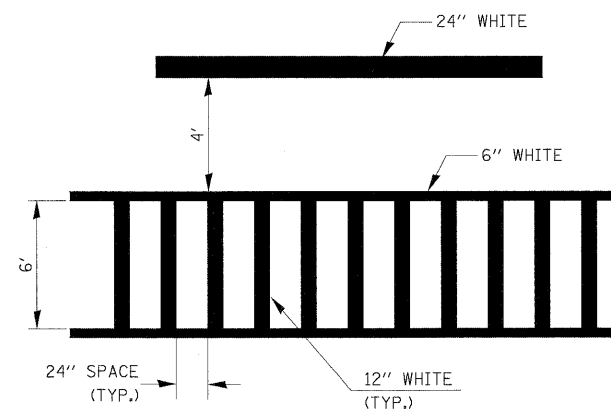
BARRIER WALL MARKER

FILE NAME = I:\Dgn\sheets\782-1-4.dgn	USER NAME = EpiG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT 3 DETAILS					F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -							57	(46-2) I, HBR, VBR	KANKAKEE	558	399
	PLOT SCALE = 1/4"=1'	CHECKED -	REVISED -							CONTRACT NO. 66409				
	PLOT DATE = 12/21/2010	DATE -	REVISED -							FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT				
					SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.				



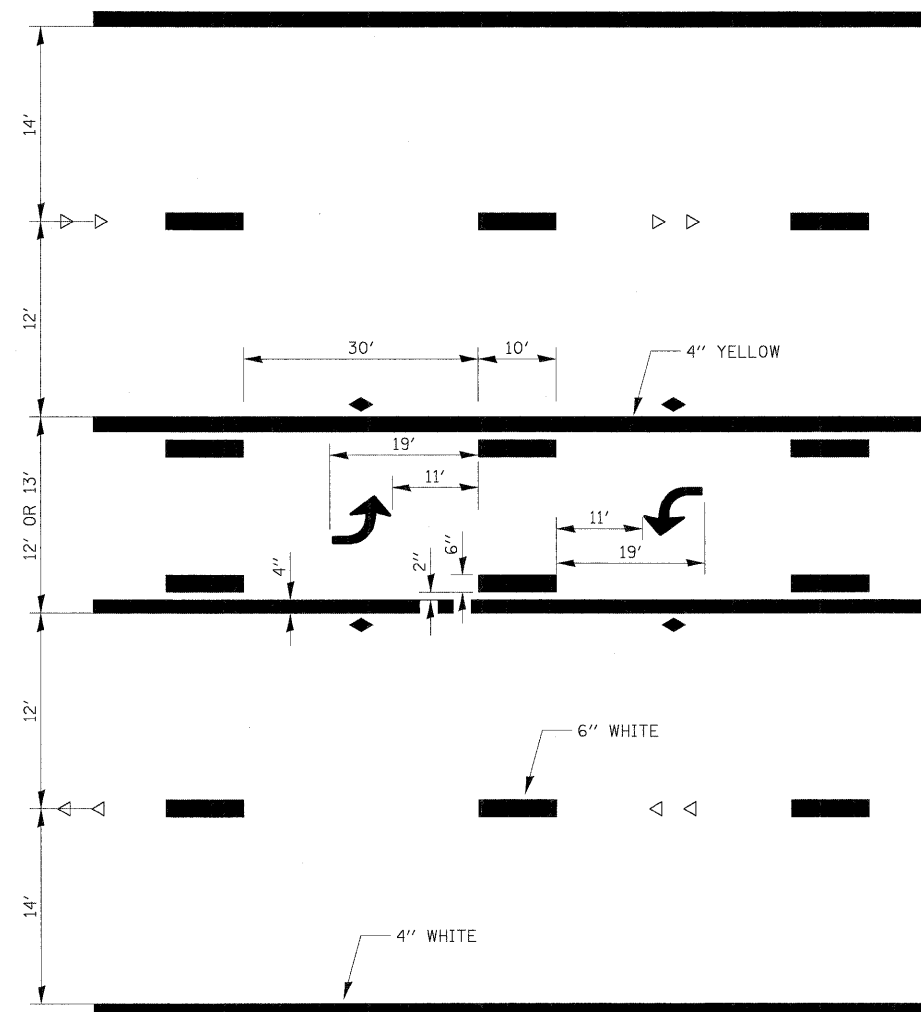
**TYPICAL SPACING DETAIL FOR
CROSSWALKS AND STOP BARS**

**780-3
OPTION 1**



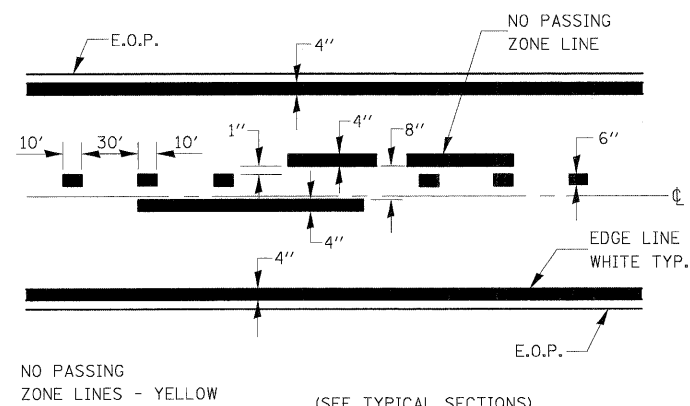
**TYPICAL SPACING DETAIL FOR
CROSSWALKS AND STOP BARS**

**780-3
OPTION 2**

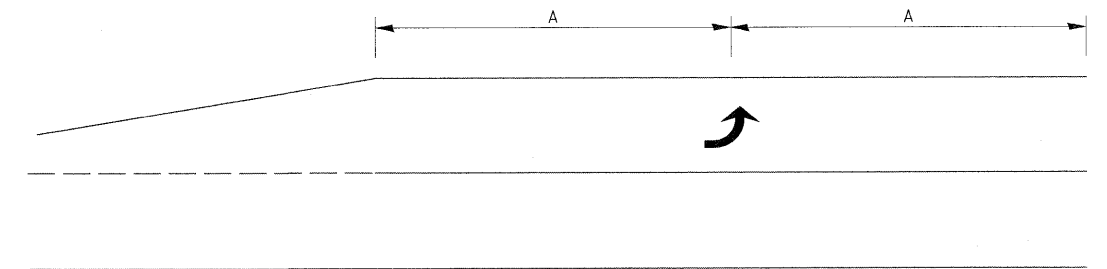


**TYPICAL APPLICATION @
TWO WAY LEFT TURN LANE (TWLTL)**

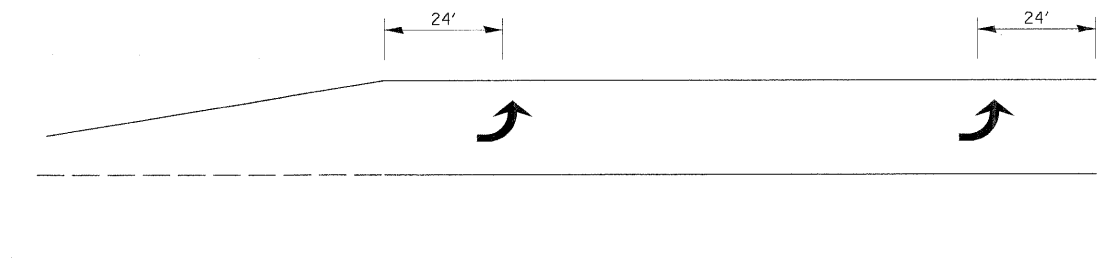
780-2



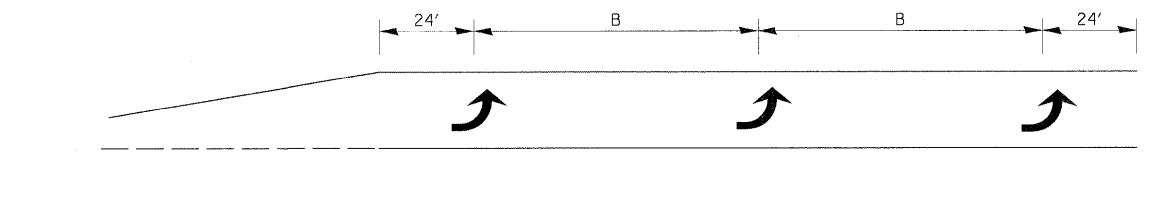
PAVEMENT MARKING 780-8



99' AND UNDER



100' TO 149'



150' AND LONGER

**TYPICAL PLACEMENT OF ARROWS
IN TURN LANES**

780-10

URBAN PAVEMENT MARKING

FILE NAME = I:\Dgn\sheet\799-UPM-1.dgn	USER NAME = EricG	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT 3 DETAILS URBAN PAVEMENT MARKING				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -						57	(46-2) I, HBR, VBR	KANKAKEE	558	400
	PLOT SCALE = 1:50	CHECKED -	REVISED -		CONTRACT NO. 66409								
	PLOT DATE = 12/21/2018	DATE -	REVISED -		FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT								
					SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.			