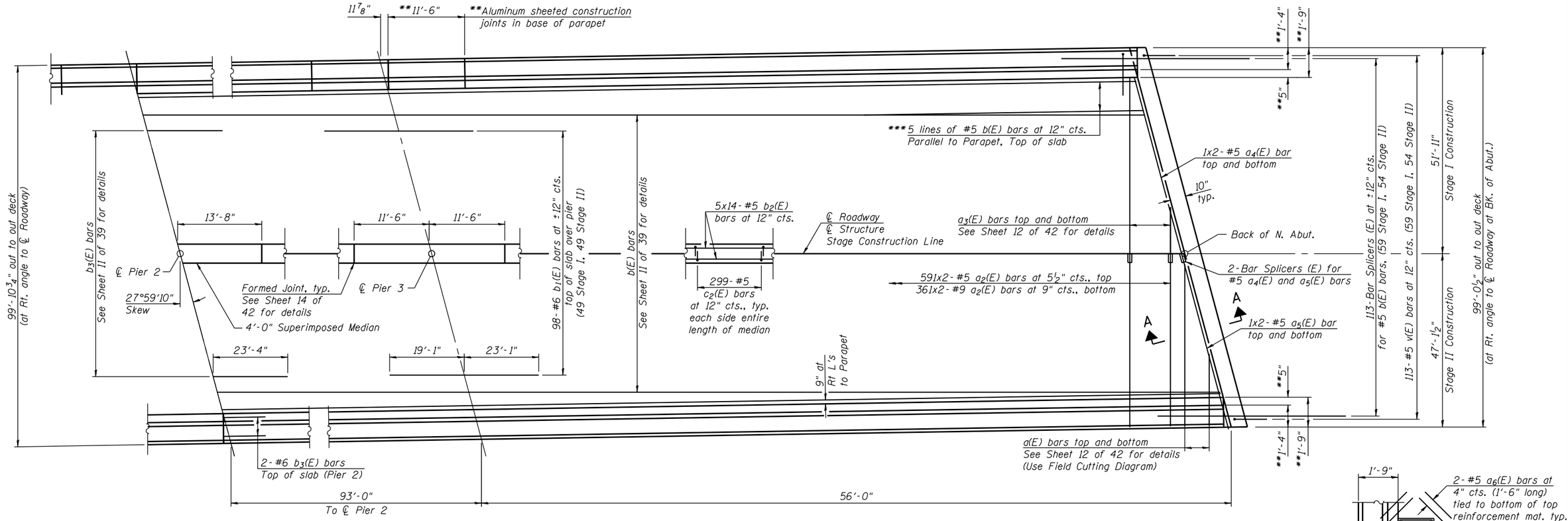
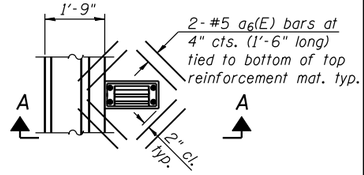
* Order a(E), a_1(E) and a_3(E) bars full length. Cut to fit skew and use remainder of bars in opposite end, opposite stage. See Field Cutting Diagram.
** At right angles to parapet.
*** Length per line varies as follows (vary lap length as required to avoid overlapping bars): 1x3, 1x5, 1x8, 1x10 and 1x12.

Notes:
See Sheet 14 of 42 for Superstructure Details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet 14 of 42 for parapet reinforcement.

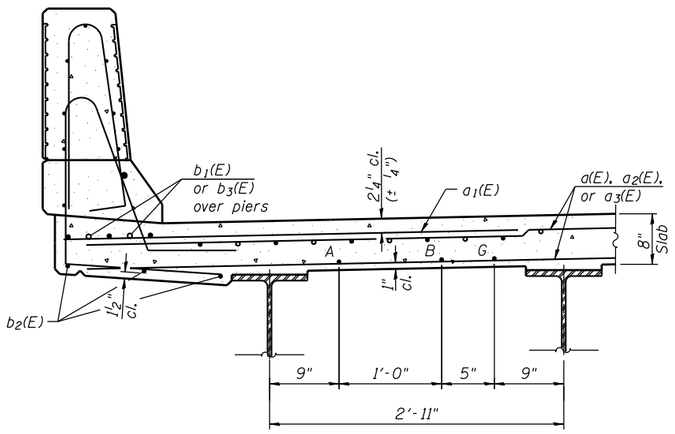


PARTIAL PLAN

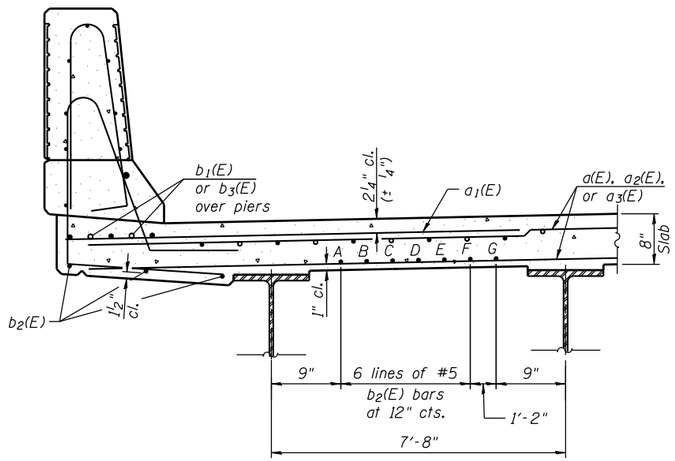


PLAN

Note:
Cut longitudinal reinforcement to clear drainage scuppers.



EXTERIOR BAY AT MINIMUM

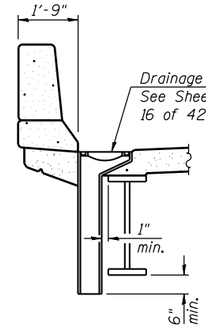


EXTERIOR BAY AT MAXIMUM

EXTERIOR BAY REBAR TABLE (b_2(E) BARS)

Bar	Size	Quantity
A	#5	1x14
B	#5	1x14
C	#5	1x13
D	#5	1x10
E	#5	1x7
F	#5	1x4
G	#5	1x4

Note:
Vary lap as required to avoid overlapping lines of bars. Run "A" bar parallel to exterior girder



SECTION A-S

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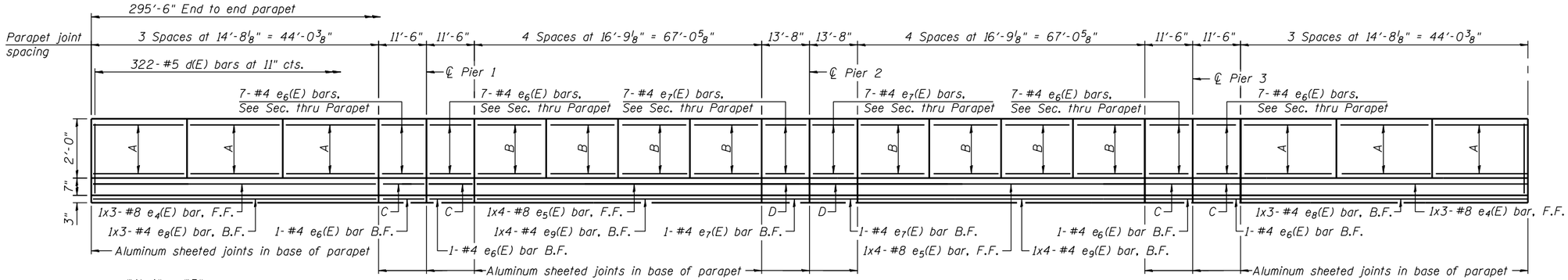
	CHECKED - AJS	REVISED
PLOT SCALE =	DRAWN - BJF	REVISED
PLOT DATE = 1/29/2013	CHECKED - RRD	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE (SHEET 2 OF 2)
STRUCTURE NO. 016-0587
SHEET NO. 13 OF 42 SHEETS

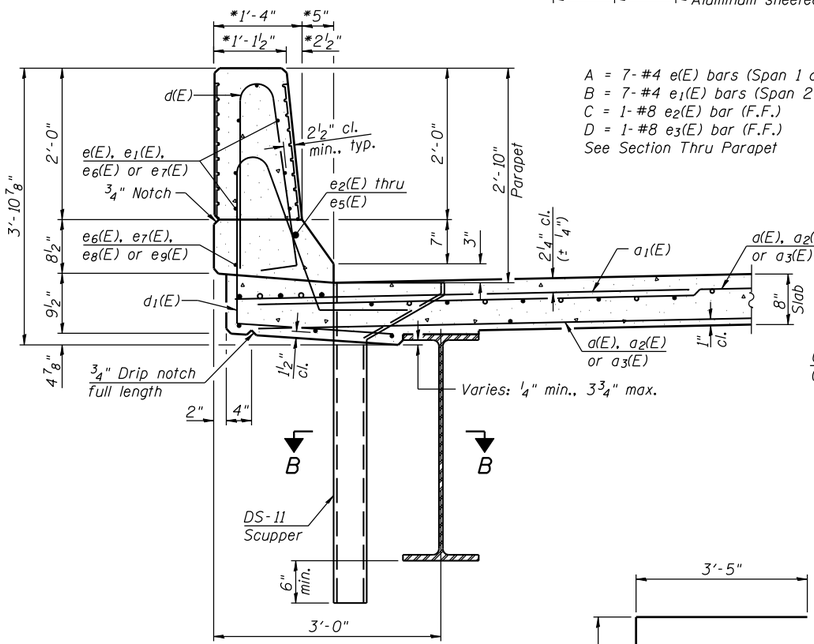
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	101
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		



Notes:
Reinforcement bars shall not pass thru aluminum sheets and cork joint filler.
All dimensions are along front face of parapet.

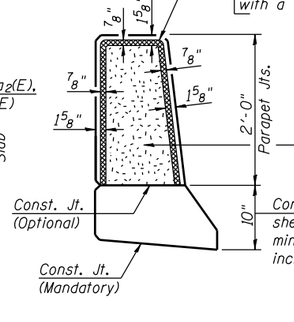
INSIDE ELEVATION OF PARAPET

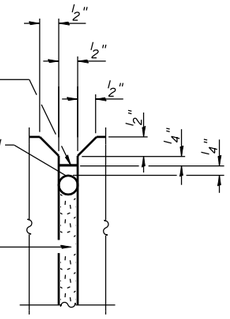
A = 7-#4 e(E) bars (Span 1 and 4)
B = 7-#4 e_1(E) bars (Span 2 and 3)
C = 1-#8 e_2(E) bar (F.F.)
D = 1-#8 e_3(E) bar (F.F.)
See Section Thru Parapet



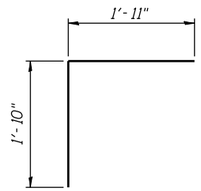
SECTION THRU PARAPET

*At Right L's to Parapet



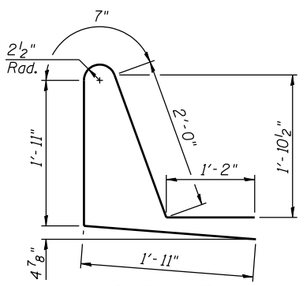


PARAPET JOINT DETAILS

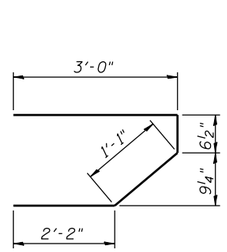


BAR v(E)

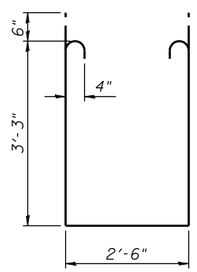
BAR d(E)



BAR d_1(E)



BAR s(E)



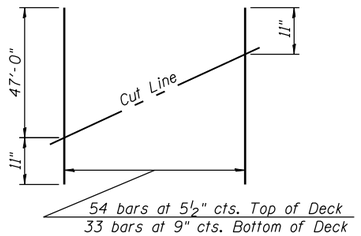
BAR s_1(E)

BAR c_2(E)

SUPERIMPOSED MEDIAN DETAIL

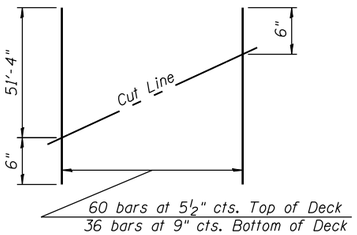
MINIMUM BAR LAP

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



FIELD CUTTING DIAGRAM

Order d(E) bars full length. Cut as shown and use remainder of bars in opposite corner of the deck.



FIELD CUTTING DIAGRAM

Order a_3(E) bars full length. Cut as shown and use remainder of bars in opposite corner of the deck.

** The cost of expansion anchors/inserts is included in the cost of Reinforcement Bars, Epoxy Coated

*** Full width along joint - backer rod not required

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	87	#5	47'-11"	
a_1(E)	1,302	#6	6'-6"	
a_2(E)	3,808	#5	27'-4"	
a_3(E)	96	#5	51'-10"	
a_4(E)	8	#5	30'-10"	
a_5(E)	8	#5	28'-1"	
a_6(E)	64	#5	1'-6"	
b(E)	1,228	#5	27'-10"	
b_1(E)	204	#6	42'-2"	
b_2(E)	1,378	#5	24'-4"	
b_3(E)	102	#6	46'-8"	
c_2(E)	598	#5	4'-0"	
d(E)	644	#5	5'-7"	
d_1(E)	644	#5	7'-7"	
e(E)	84	#4	14'-4"	
e_1(E)	112	#4	16'-5"	
e_2(E)	8	#8	11'-2"	
e_3(E)	4	#8	13'-4"	
e_4(E)	12	#8	18'-2"	
e_5(E)	16	#8	20'-8"	
e_6(E)	64	#4	11'-2"	
e_7(E)	32	#4	13'-4"	
e_8(E)	12	#4	16'-1"	
e_9(E)	16	#4	18'-4"	
m(E)	20	#6	30'-11"	
m_1(E)	20	#6	28'-3"	
m_2(E)	48	#6	11'-7"	
m_3(E)	22	#6	6'-9"	
m_4(E)	6	#6	1'-8"	
m_5(E)	4	#6	10'-11"	
m_6(E)	2	#6	7'-1"	
m_7(E)	4	#6	4'-9"	
s(E)	210	#5	6'-10"	
s_1(E)	162	#4	9'-9"	
v(E)	226	#5	3'-9"	
Reinforcement Bars, Epoxy Coated		Pound	244,810	
Concrete Superstructure		Cu. Yds.	963	

Bars indicated thus 1 x 4-#5 etc. indicates 1 line of bars with 4 lengths per line.

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DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 016-0587
SHEET NO. 14 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	102
		CONTRACT NO. 60K77		
	ILLINOIS FED. AID PROJECT			

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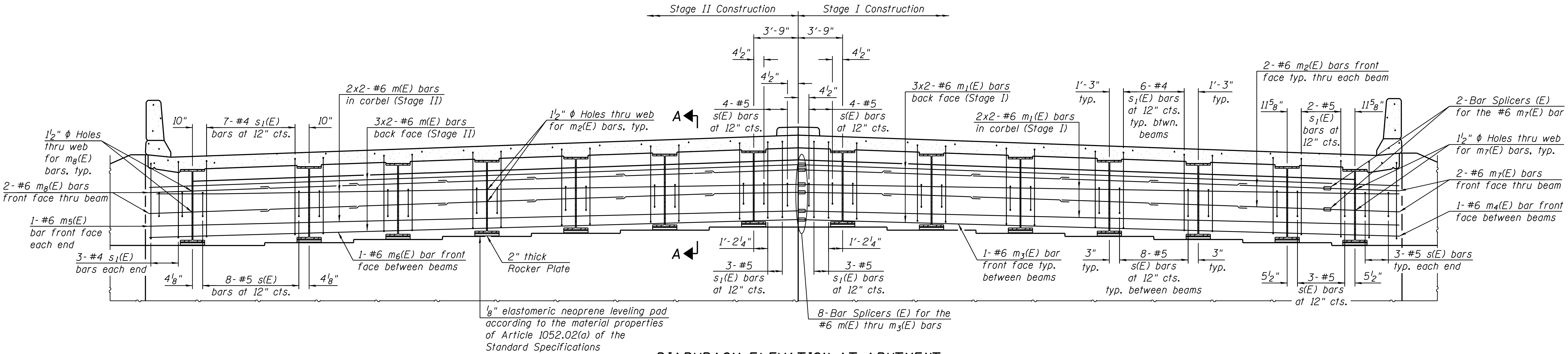


DIAPHRAGM ELEVATION AT ABUTMENT

(South Diaphragm looking South)
(North Diaphragm Similar)

Notes:

Bars indicated thus 20x3 etc. indicates 20 lines of bars with 3 lengths per line.

Reinforcement bars in diaphragm are billed with Superstructure on Sheet 14 of 42.

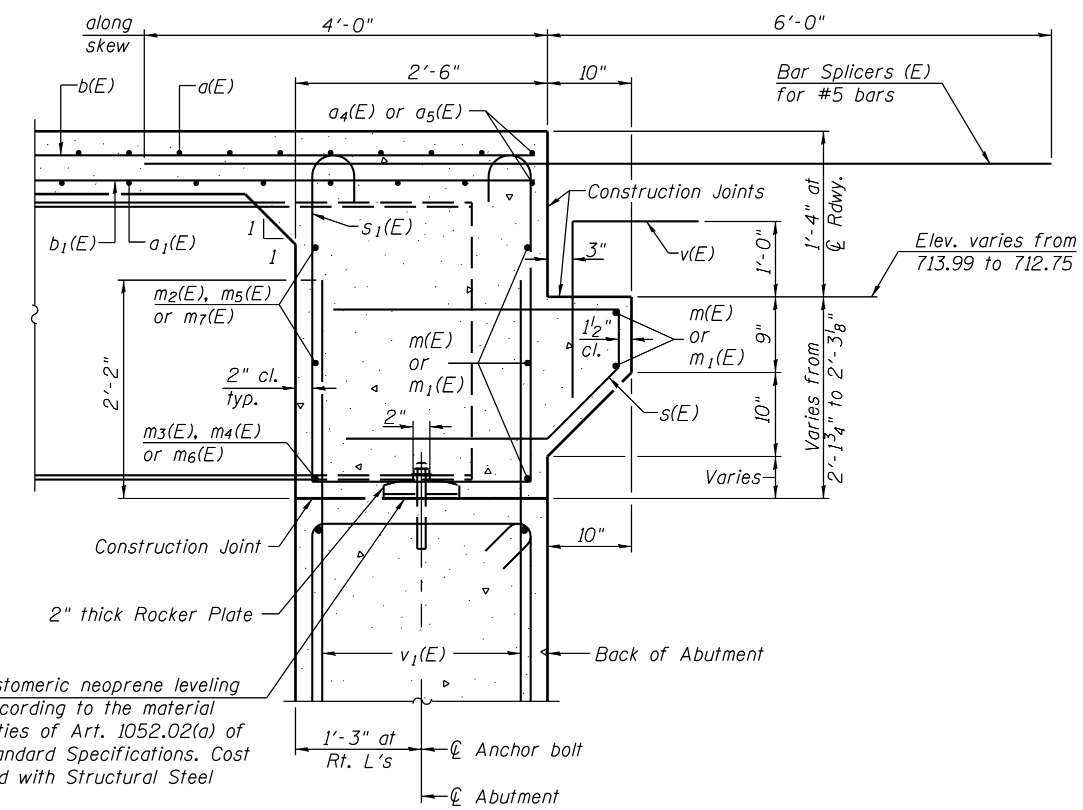
Concrete in diaphragm is included with Concrete Superstructure on Sheet 14 of 42.

For details of bars s(E) & s_1(E) see Sheet 14 of 42.

The s(E) and s_1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

MIN. BAR LAP

#6 bar = 3'-4"



SECTION A-A

Dimensions at right angles to abutment, except as shown.

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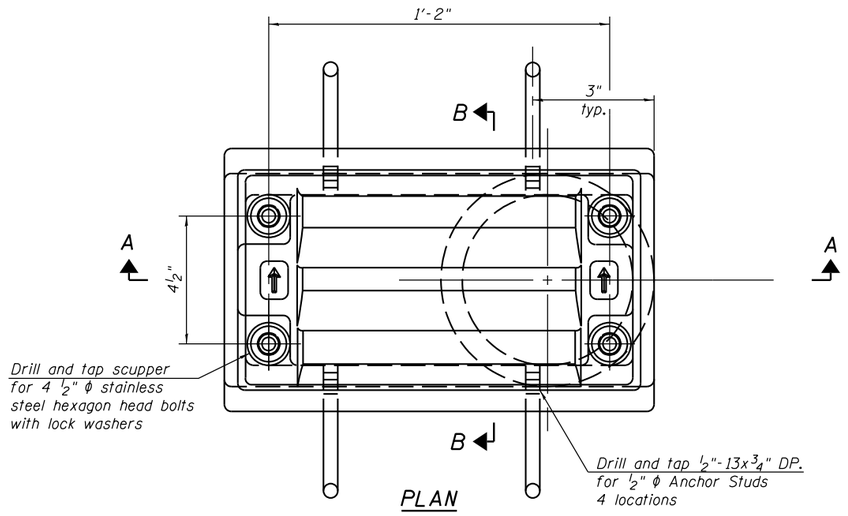
	PLOT SCALE =	DRAWN - BJF	REVISED
	PLOT DATE = 1/29/2013	CHECKED - RRD	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

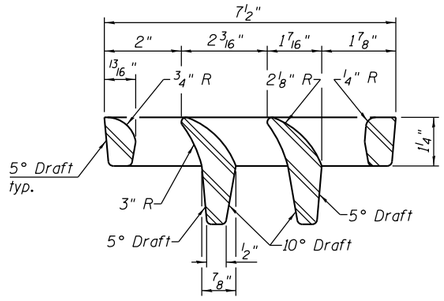
INTEGRAL ABUTMENT DIAPHRAGM DETAILS
STRUCTURE NO. 016–0587

SHEET NO. 15 OF 42 SHEETS

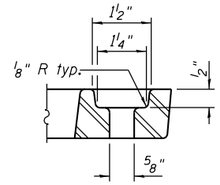
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	103
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		



PLAN



VANE GRATE DETAIL



BOLT HOLE DETAIL

Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

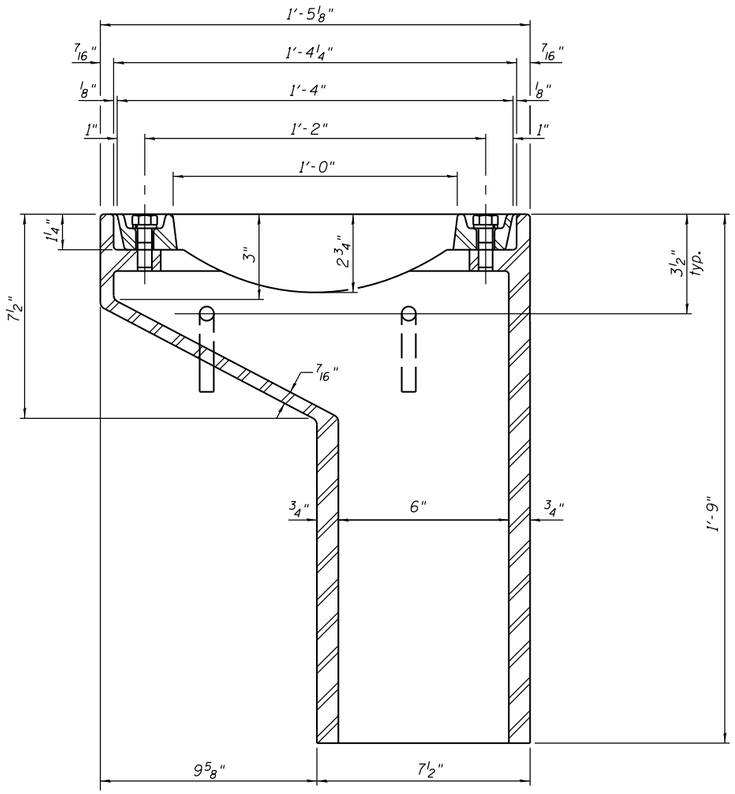
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

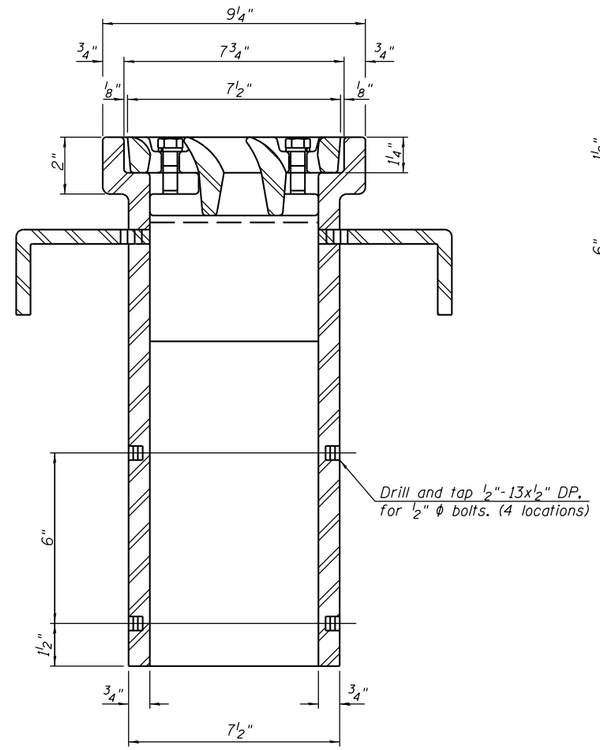
Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.

Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.

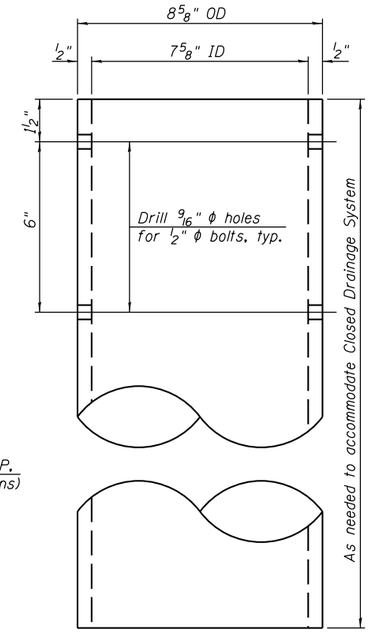


SECTION A-A

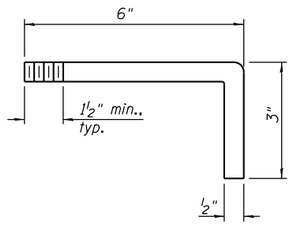
See Sheet 14 of 42 for scupper location relative to parapet.



SECTION B-B



DOWNSPOUT



ANCHOR STUD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	8

FILE NAME = S:\JOL\63000-63999\63460\028\Micros\CADD Sheets\Structural\01660567-60K77-815-SUPPER.dgn

DS-11 7-1-10

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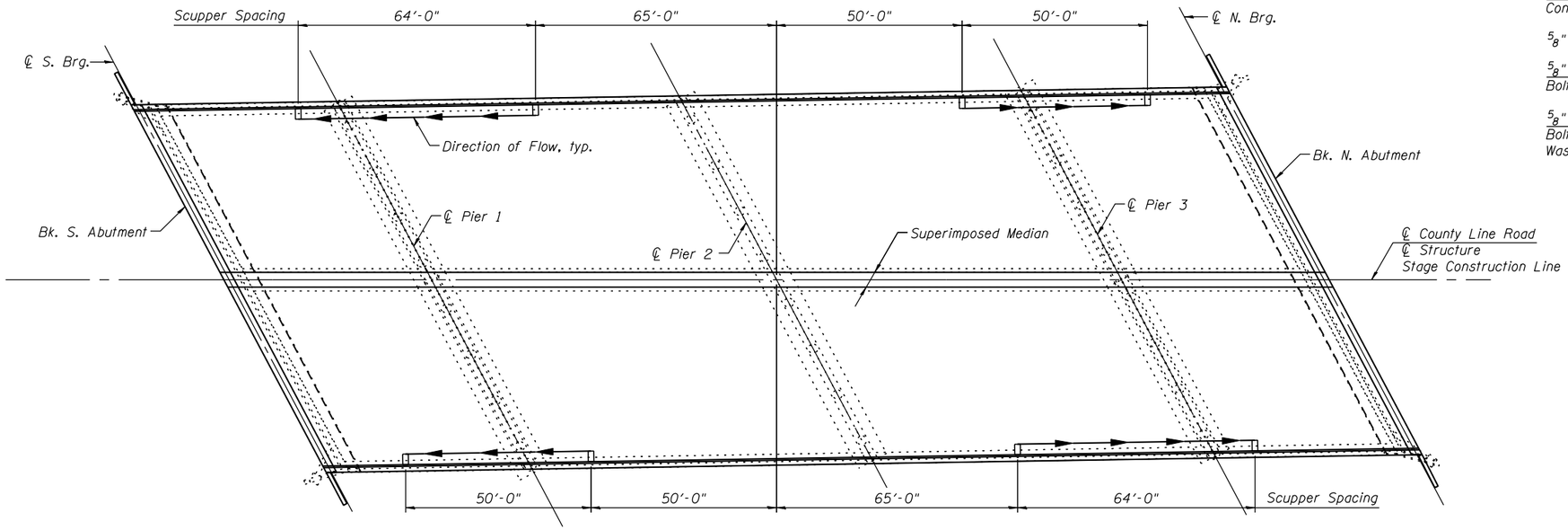
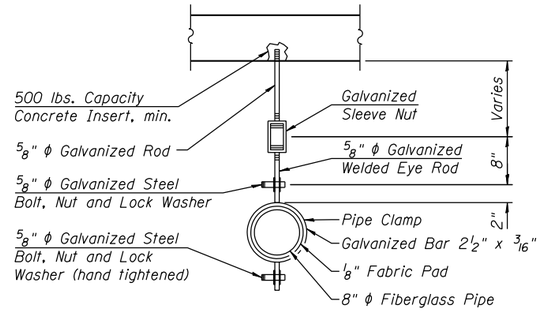
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER, DS-11
STRUCTURE NO. 016-0587
SHEET NO. 16 OF 42 SHEETS

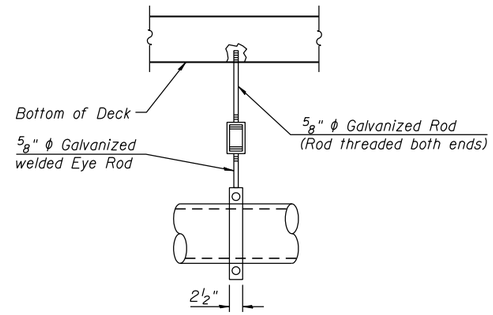
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	104
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		



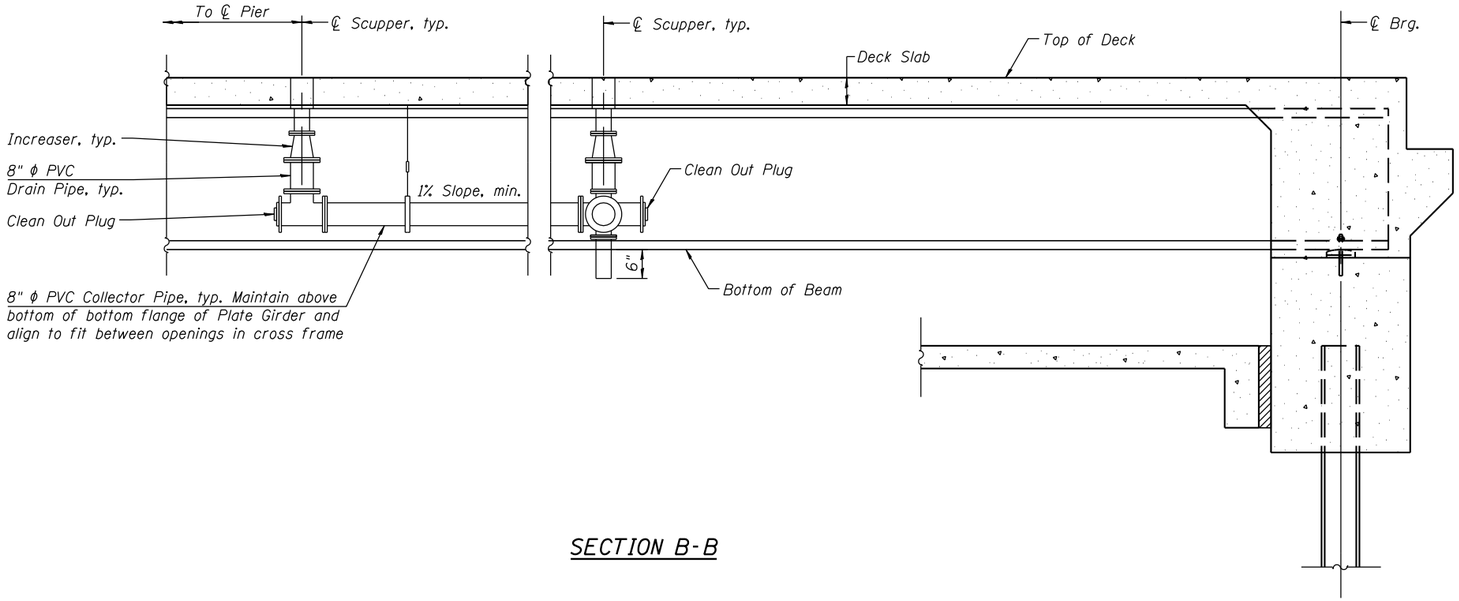
PLAN



TYPICAL SECTION



PIPE HANGER DETAIL



SECTION B-B

NOTES

1. See Special Provisions for additional requirements.
2. Pipe hangers shall have a load capacity of not less than 500 lbs.
3. Contractor to provide shop drawings for drainage system.

BILL OF MATERIAL

Item	Unit	Quantity
Drainage System	L Sum	1

FILE NAME = s:\pol\6388-6399\6346\828\micros\cadd sheets\structural\01686587-60K77-016-DS15.dgn

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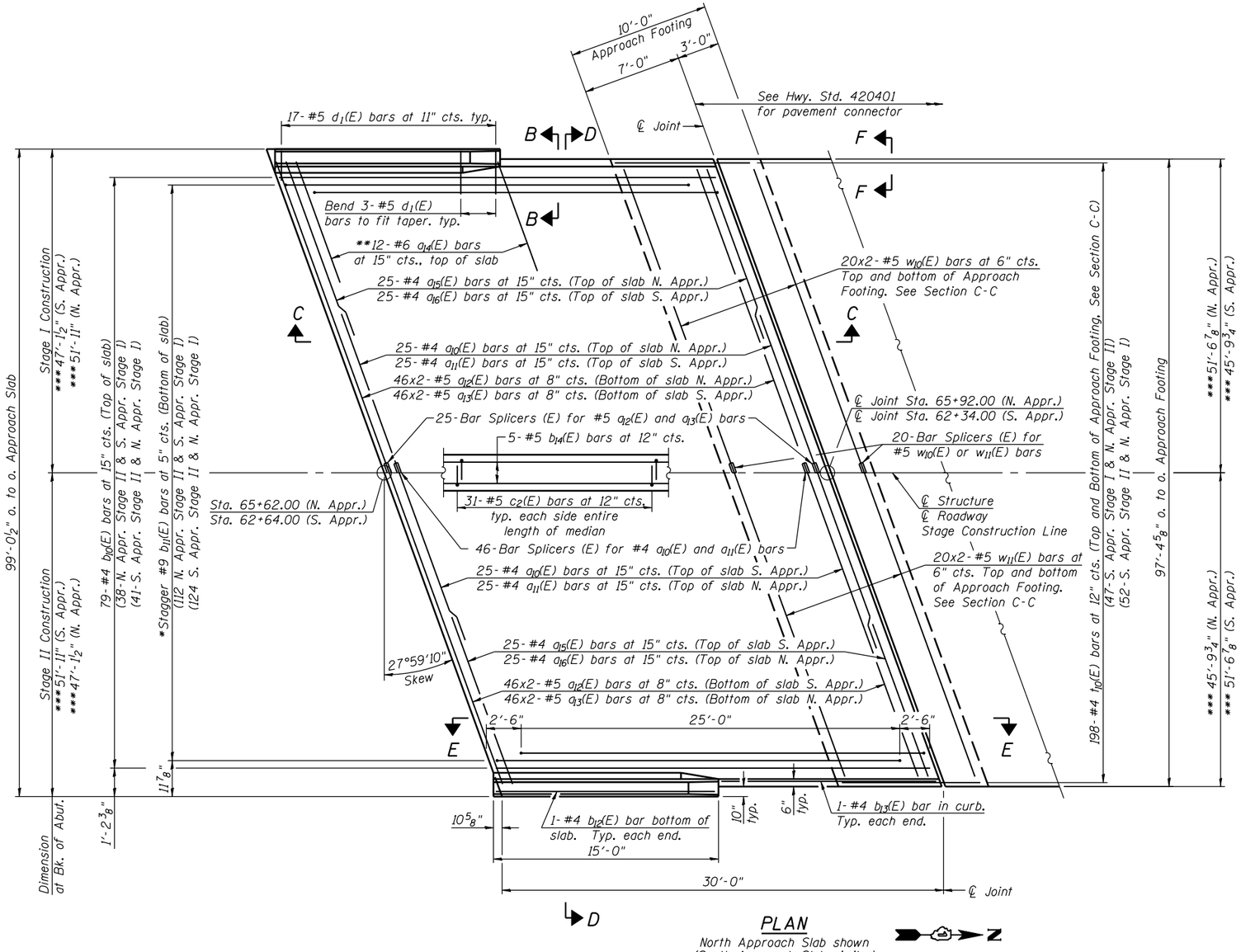
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SYSTEM
STRUCTURE NO. 016-0587
SHEET NO. 17 OF 42 SHEETS

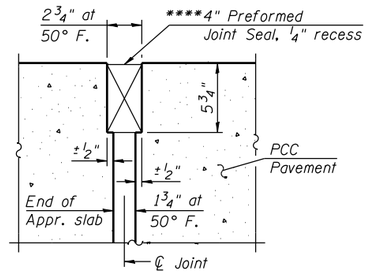
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	105
		CONTRACT NO. 60K77		
	ILLINOIS FED. AID PROJECT			

Notes:
See Sheet 16 of 42 for Sections C-C & D-D and View E-E.
a_{10}(E), a_{11}(E), a_{12}(E), a_{13}(E), a_{15}(E) and a_{16}(E) bar spacings measured along ℄ Rdwy.
See Sheet 18 of 39 for bar bending diagram.
Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

**** Cost included with Concrete Superstructure.

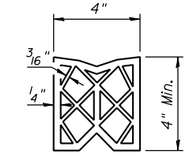


PLAN
North Approach Slab shown
(South Approach Slab similar)

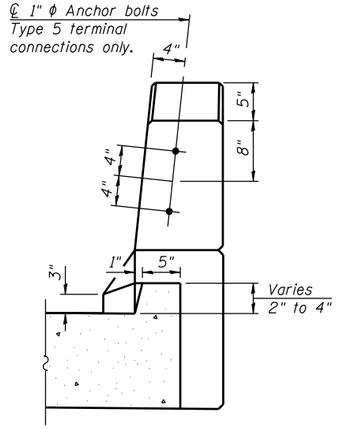


RIGID PAVEMENT

DETAIL A



PREFORMED JOINT SEAL



VIEW B-B

MIN. BAR LAP
#4 = 2'-11"
#5 = 3'-3"

* Tilt #9 b_{11}(E) bars as required to maintain clearance.
** Space between a_{15}(E) or a_{16}(E) bars, typ. each parapet.
*** At right L's to ℄ Roadway.

BA-R 7-1-10

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS (1 OF 2)
STRUCTURE NO. 016-0587
SHEET NO. 18 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	106
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		

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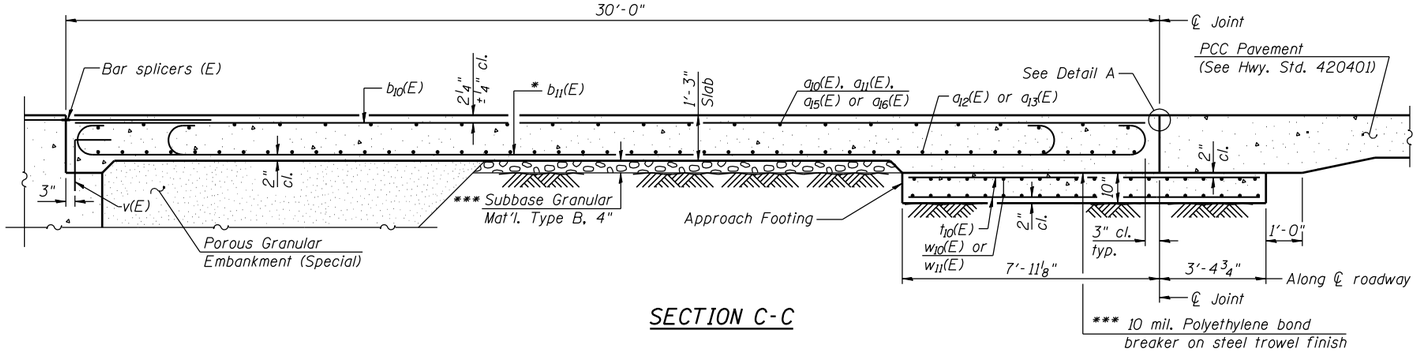
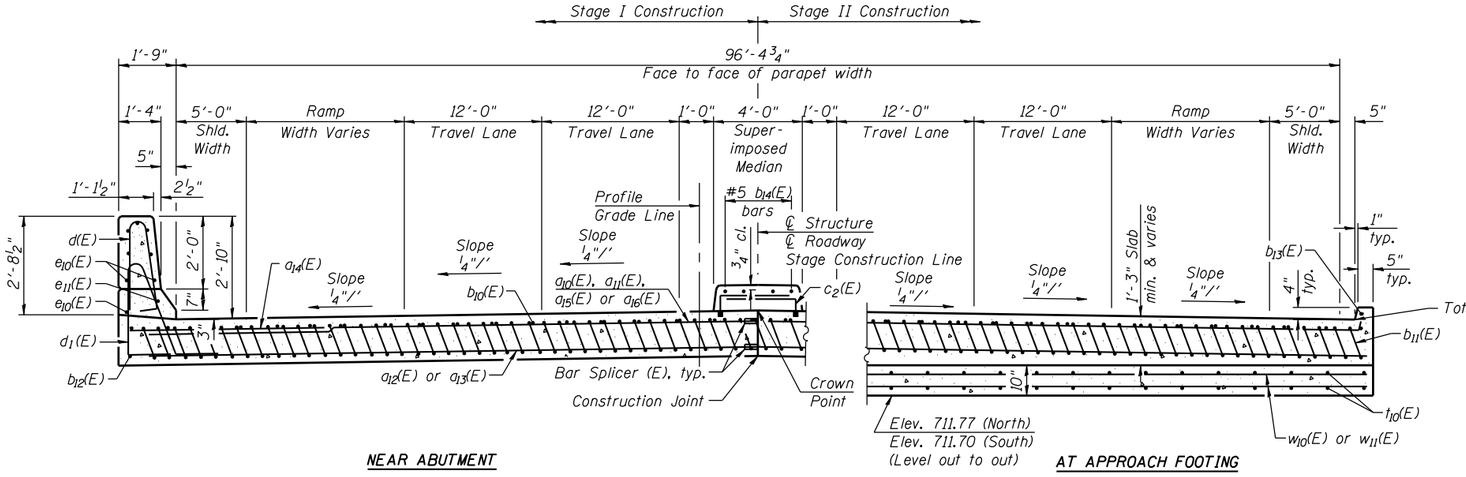


SECTION C-C

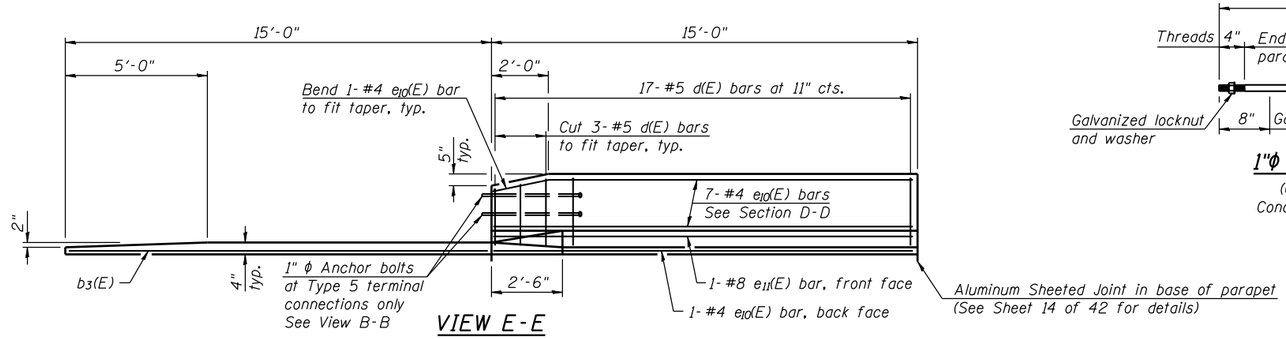


NEAR ABUTMENT

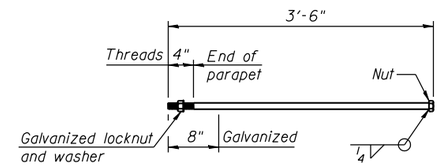
AT APPROACH FOOTING

SECTION D-D

(See Plan for dimensions not shown)

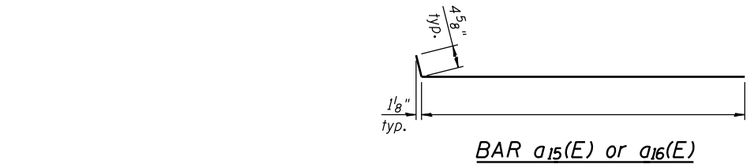


VIEW E-E

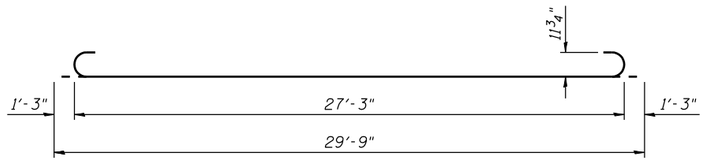


1"ϕ ANCHOR BOLT

(Cost included with Concrete Superstructure)



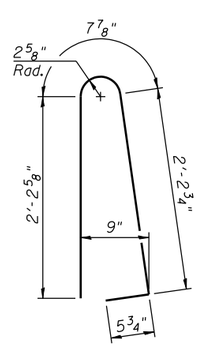
BAR a_{15}(E) or a_{16}(E)



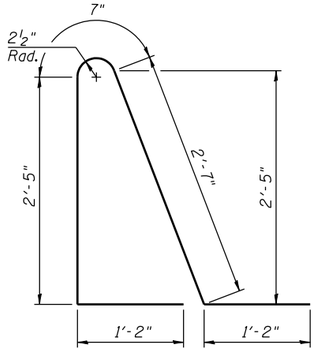
BAR b_{11}(E)

Notes:

See Sheet 18 of 42 for Detail A and View B-B.
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 Sheet 14 and 15 of 42.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see Sheet 36 of 42.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see Sheet 3 of 42.
For additional parapet details, see Sheet 14 of 42.
The median shall be constructed in Stage II Construction. See Sheet 14 of 42 for Superimposed Median Dimensional Details.



BAR d(E)



BAR d_1(E)

MIN. BAR LAP

#4 = 2'-11"
#5 = 3'-3"

TWO APPROACHES BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_{10}(E)	50	#4	30'-8"	
a_{11}(E)	50	#4	28'-0"	
a_{12}(E)	184	#5	30'-10"	
a_{13}(E)	184	#5	28'-2"	
a_{14}(E)	48	#6	6'-7"	
a_{15}(E)	50	#4	31'-1"	
a_{16}(E)	50	#4	28'-5"	
b_{10}(E)	158	#4	29'-8"	
b_{11}(E)	472	#9	29'-9"	
b_{12}(E)	4	#4	14'-8"	
b_{13}(E)	4	#4	15'-6"	
b_{14}(E)	10	#5	29'-8"	
c_2(E)	124	#5	4'-0"	
d(E)	68	#5	5'-7"	
d_1(E)	68	#5	7'-11"	
e_{10}(E)	32	#4	14'-8"	
e_{11}(E)	4	#8	14'-8"	
t_{10}(E)	396	#4	10'-11"	
w_{10}(E)	160	#5	30'-8"	
w_{11}(E)	160	#5	27'-6"	
Concrete Superstructure			Cu. Yd.	319
Concrete Structures			Cu. Yd.	69
**** Reinforcement Bars, Epoxy Coated			Pound	69,640
***** Reinforcement Bars, Epoxy Coated			Pound	12,600

* Tilt #9 b_{11}(E) bars as required to maintain clearance.
*** Cost included with Concrete Superstructure.

**** Included in Superstructure Quantity.
***** Included in Concrete Superstructure.

BA-R 7-1-10

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	CHECKED - AJS	REVISED	
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PLOT DATE = 1/29/2013	CHECKED - RRD	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS (2 OF 2)
STRUCTURE NO. 016-0587
SHEET NO. 19 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	107
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		

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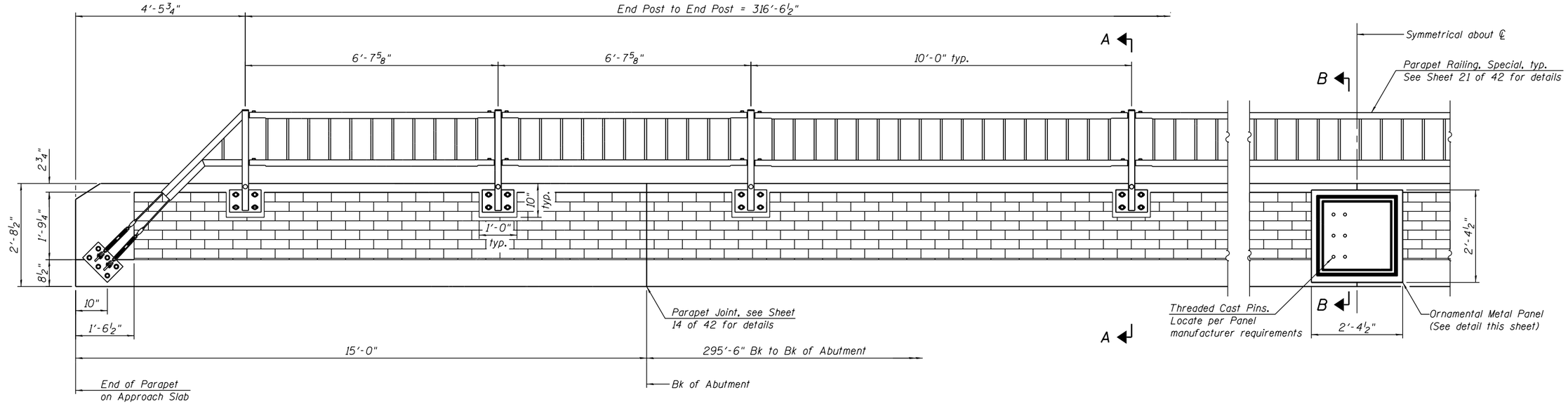
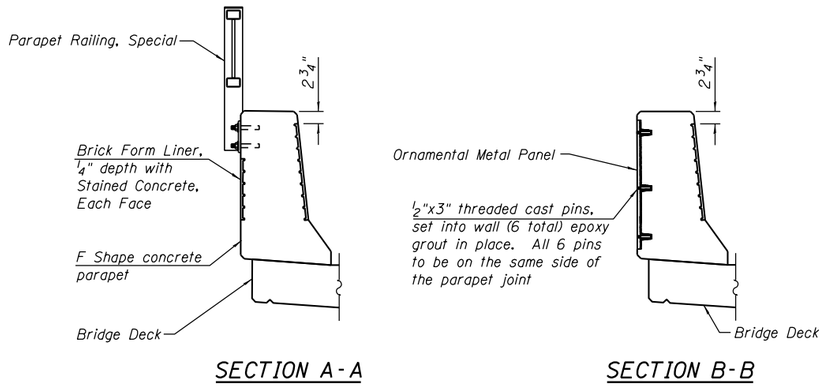


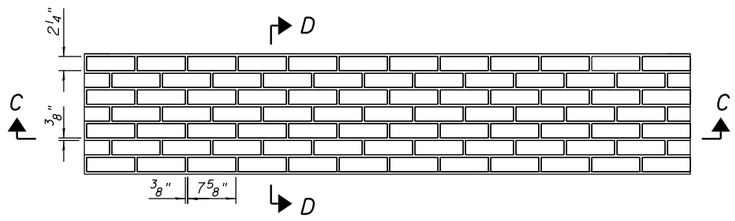
OUTSIDE ELEVATION OF PARAPET



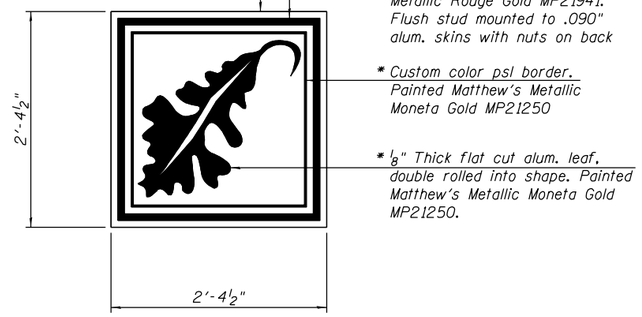
SECTION A-A

SECTION B-B

Note:
Form Liner/Concrete Stain applied to both sides of parapet. See Sheet 14 of 42 for Parapet dimensions.

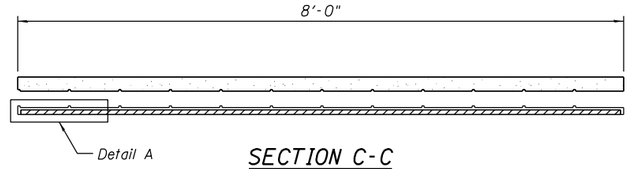


TYPICAL FORM LINER ELEVATION

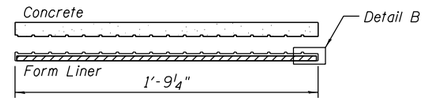


ORNAMENTAL METAL PANEL ELEVATION

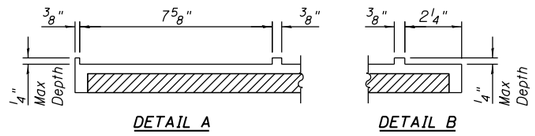
* Included in the cost of Ornamental Metal Panel



SECTION C-C



SECTION D-D



DETAIL A DETAIL B

FORM LINER DETAILS

BILL OF MATERIAL

Item	Unit	Quantity
Form Liner Textured Surface	Sq. Ft.	2,032
Staining Concrete Structures	Sq. Yd.	226
Ornamental Metal Panel	Each	2
Parapet Railing, Special	Foot	652

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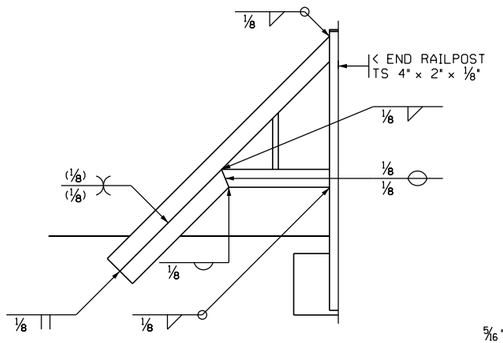
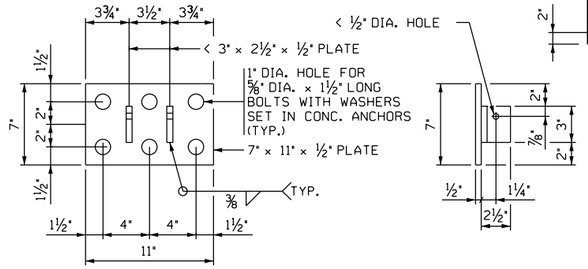
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET DETAILS
STRUCTURE NO. 016-0587
SHEET NO. 20 OF 42 SHEETS

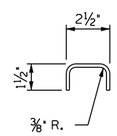
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	108
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		



WELDS AT END PANEL



CABLE ANCHOR PLATE DETAIL



BENT PLATE DETAIL

END RAILPOST DETAIL

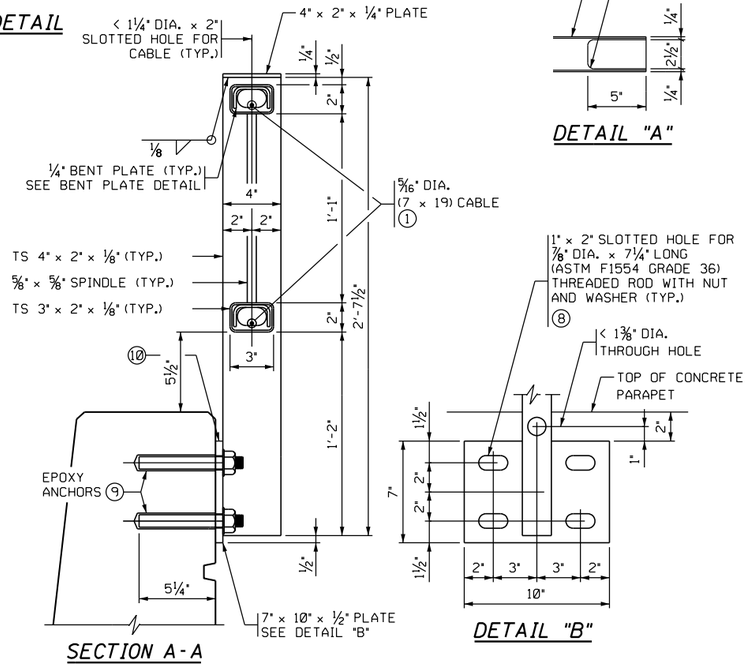
TOP AND BOTTOM RAIL CONNECTIONS ARE SIMILAR

INTERMEDIATE RAILPOST DETAIL

TOP AND BOTTOM RAIL CONNECTIONS ARE SIMILAR

OUTSIDE ELEVATION OF RAILING

RAIL MEETS TEST LEVEL 4
REQUIREMENTS OF NCHRP REPORT 350.



SECTION A-A

DETAIL "A"

DETAIL "B"

GENERAL NOTES

SEE CONCRETE RAILING (OR CONCRETE PARAPET) SHEET FOR DETAILS, RAILPOST SPACING AND PAYMENT.

LENGTH OF PARAPET RAILING, SPECIAL FOR PAYMENT SHALL BE MEASURED BETWEEN THE OUTSIDE FACES OF THE CONCRETE RAIL.

STRUCTURAL STEEL MATERIAL SHALL COMPLY WITH AASHTO M270 GRADE 50 FOR TUBULAR ELEMENTS AND AASHTO M270 GRADE 36 FOR PLATES AND BARS.

RAILPOSTS AND SPINDLES SHALL BE NORMAL TO GRADE.

VENT HOLES SHALL BE DRILLED IN THE RAIL TUBES AS NECESSARY TO FACILITATE GALVANIZING.

GALVANIZE THREADED RODS, BOLTS, NUTS AND WASHERS PER AASHTO ARTICLE 1006.09.

GALVANIZE ALL OTHER STRUCTURAL STEEL PER AASHTO ARTICLE 1006.34 AFTER FABRICATION.

ALL RAILING MEMBERS SHALL BE STRAIGHT AFTER FABRICATION AND GALVANIZING TO WITHIN ⅛" IN 10 FT. BY MECHANICAL MEANS WITHOUT DAMAGE TO THE ZINC COATING.

ALL STRUCTURAL STEEL AND EXPOSED BOLTS, NUTS AND WASHERS ARE TO BE PAINTED AFTER GALVANIZING IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

① CABLE WEDGE END FITTING FORGED SERIES -- STUD SOCKET ASSEMBLY. UNC ½" x 9" THREAD FOR ½" DIA. (7 x 19) CABLE. MAY BE HELPFUL TO USE SPECIAL ASSEMBLY KIT TOOLS.

② IF ONLY ONE TURNBUCKLE IS USED PER CABLE, LOCATE ONE OF THESE SHOWN AT OTHER END OF WALL.

③ 1½" (AT TYP. EXP. END) OR 3" (AT EXP. END AT EXPANSION JOINT)

④ 1½" (AT TYP. EXP. END) OR 2½" (AT EXP. END AT EXPANSION JOINT)

⑤ 2" (AT TYP. EXP. END) OR 3" (AT EXP. END AT EXPANSION JOINT)

⑥ 1½" (AT TYP. EXP. END) OR 2½" (AT EXP. END AT EXPANSION JOINT)

⑦ 3½" x 5½" x 3/16" BENT PLATE (AT TYP. EXP. END)
5½" x 5½" x 3/16" BENT PLATE (AT EXP. END AT EXPANSION JOINT)

⑧ MINIMUM ULTIMATE PULLOUT STRENGTH OF 20,000 LBS. EACH.

⑨ EPOXY GROUT THREADED RODS IN ACCORDANCE TO SECTION 584 OF THE STANDARD SPECIFICATIONS.

⑩ PROVIDE STAINLESS STEEL SHIMS TO BRING METAL SURFACE IN CONTACT WITH STRUCTURE TO REQUIRED GRADE OR ALIGNMENT. SEE SECTION 509 OF THE STANDARD SPECIFICATIONS.

FILE NAME = S:\JOL\6300-6399\6346\028\Micros\CADD Sheets\Structural\0160587-60K77-020-RAIL.dgn

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PLOT DATE = 1/29/2013	CHECKED - RRD	REVISED

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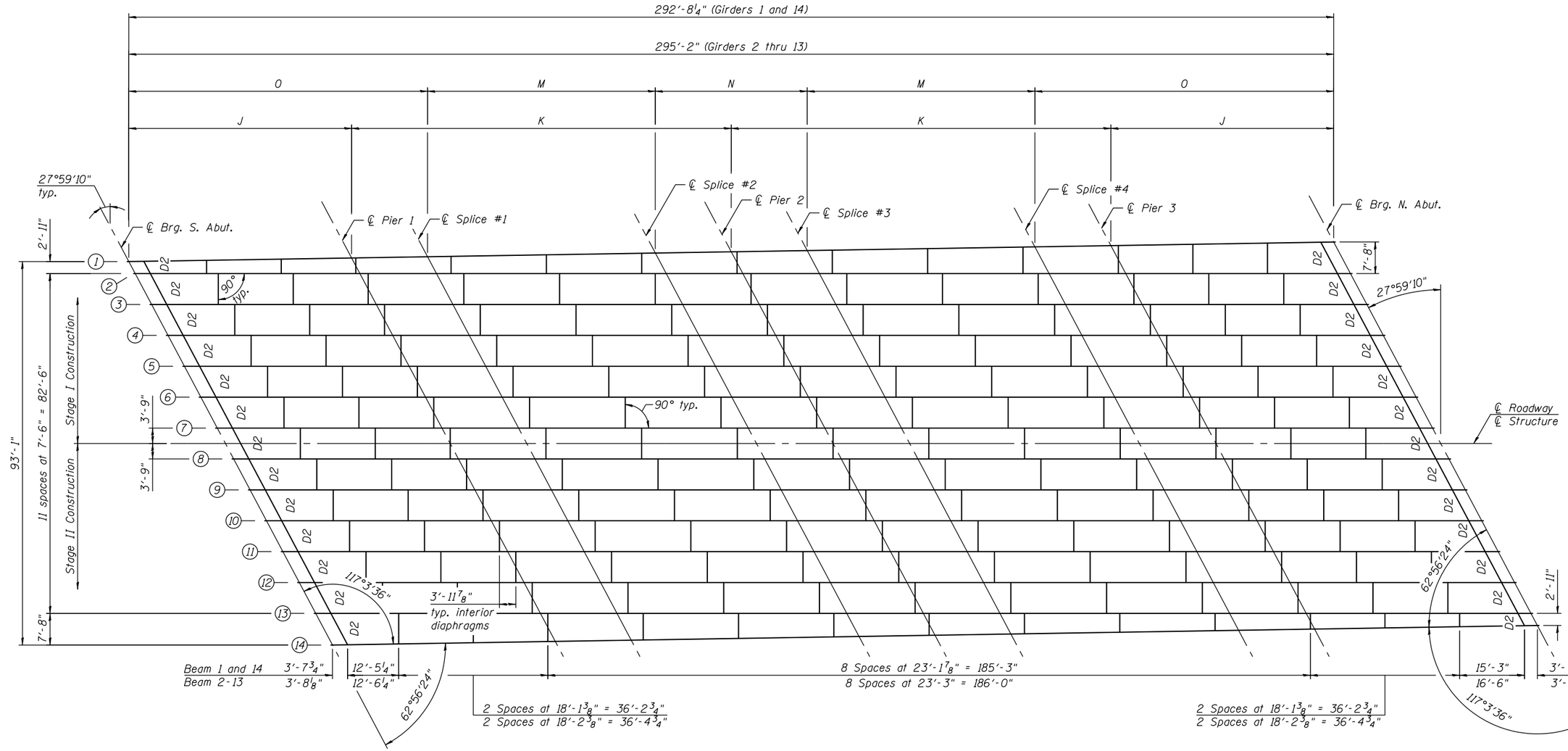
DEPARTMENT OF TRANSPORTATION

PARAPET RAIL SPECIAL
STRUCTURE NO. 016-0587
SHEET NO. 21 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	109
		CONTRACT NO. 60K77		
	ILLINOIS FED. AID PROJECT			



FRAMING PLAN

GENERAL NOTES

Unless otherwise noted all diaphragms are D1.
All Longitudinal dimensions are parallel to the Beam.
Girders 2-13 are parallel to the ℄ of Structure.
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.
For Diaphragm details, see Sheet 24 of 42.
For Splice Plate details, see Sheet 23 of 42.
For "J" thru "O" dimensions see Sheet 23 of 42.

*TOP OF BEAM ELEVATIONS

Beam Number	℄ Brg. South Abut.	Pier 1	Splice 1	Splice 2	Pier 2	Splice 3	Splice 4	Pier 3	℄ Brg. North Abut
1	713.33	713.99	714.14	714.53	714.66	714.62	714.51	714.45	713.84
2	713.41	713.99	714.16	714.62	714.78	714.74	714.62	714.56	713.94
3	713.61	714.19	714.35	714.79	714.93	714.89	714.75	714.69	714.04
4	713.81	714.54	714.67	714.98	715.09	715.03	714.88	714.81	714.14
5	714.01	714.74	714.86	715.15	715.25	715.18	715.00	714.92	714.24
6	714.20	714.93	715.04	715.31	715.40	715.33	715.13	715.04	714.35
7	714.40	715.12	715.22	715.46	715.55	715.47	715.25	715.16	714.45
8	714.46	715.16	715.25	715.47	715.55	715.46	715.21	715.11	714.39
9	714.35	715.04	715.13	715.33	715.40	715.31	715.04	714.93	714.20
10	714.24	714.92	715.00	715.18	715.25	714.62	714.51	714.75	714.00
11	714.14	714.79	714.86	715.03	715.09	714.98	714.67	714.55	713.81
12	714.04	714.60	714.68	714.87	714.93	714.82	714.48	714.35	713.61
13	713.94	714.56	714.61	714.73	714.78	714.66	714.30	714.16	713.41
14	713.84	714.45	714.51	714.62	714.66	714.51	714.07	713.91	713.34

*For fabrication only

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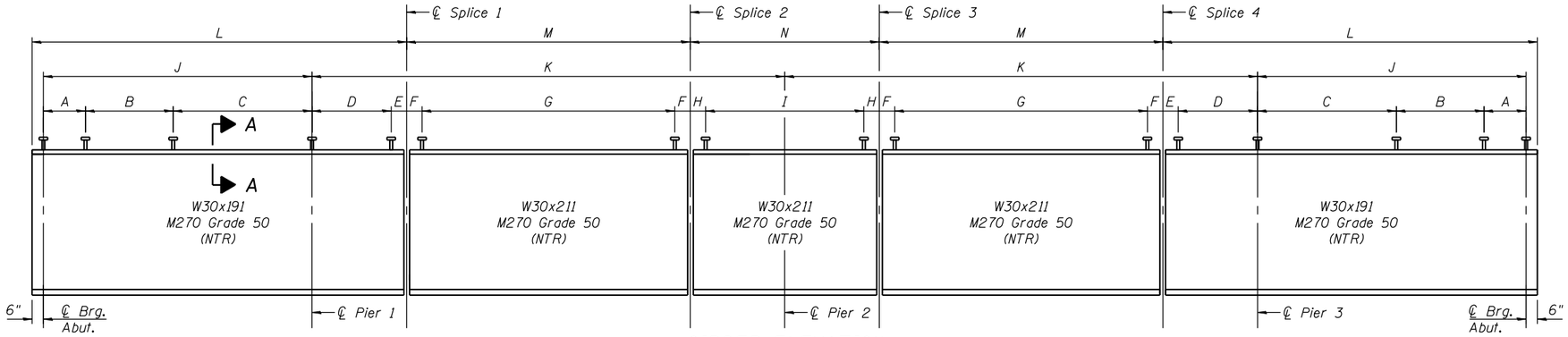
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL FRAMING PLAN
STRUCTURE NO. 016-0587
SHEET NO. 22 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	110
		CONTRACT NO. 60K77		
	ILLINOIS FED. AID PROJECT			



GIRDER ELEVATION

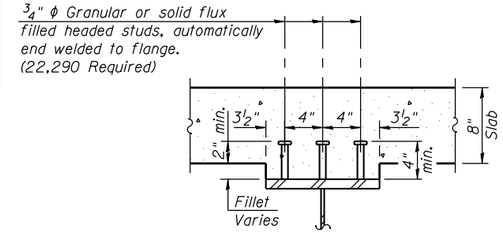
Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

SHEAR CONNECTOR SCHEDULE									
Girder	A	B	C	D	E	F	G	H	I
1 and 14	20 spaces at 6" = 10'-0"	23 spaces at 9" = 17'-3"	51 spaces at $6\frac{1}{4}$" = 26'-$6\frac{3}{4}$"	45 spaces at $4\frac{1}{2}$" = 16'-$10\frac{1}{2}$"	1'-$10\frac{5}{8}$"	1'-$9\frac{7}{16}$"	92 spaces at $6\frac{3}{4}$" = 51'-9"	1'-$9\frac{3}{8}$"	50 spaces at 8" = 33'-4"
2 thru 13	20 spaces at 6" = 10'-0"	23 spaces at 9" = 17'-3"	57 spaces at $5\frac{3}{4}$" = 27'-$3\frac{3}{4}$"	45 spaces at $4\frac{1}{2}$" = 16'-$10\frac{1}{2}$"	1'-9"	1'-$8\frac{7}{8}$"	93 spaces at $6\frac{3}{4}$" = 52'-$3\frac{3}{4}$"	1'-$9\frac{3}{4}$"	52 spaces at $7\frac{3}{4}$" = 33'-7"

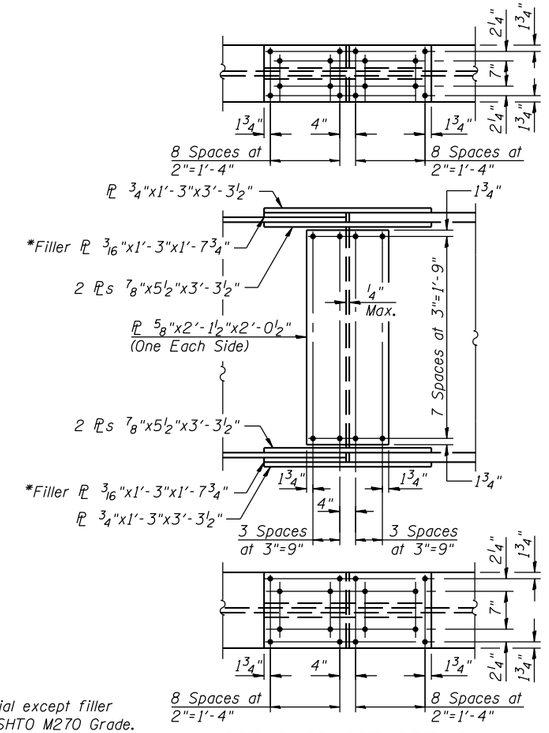
BEAM DIMENSIONS						
Girder	J	K	L	M	N	O
1 and 14	54'-$1\frac{1}{2}$"	92'-$2\frac{5}{8}$"	73'-$0\frac{7}{8}$"	55'-$3\frac{7}{8}$"	36'-$10\frac{3}{4}$"	72'-$6\frac{7}{8}$"
2 thru 13	54'-7"	93'-0"	73'-$8\frac{1}{4}$"	55'-$9\frac{1}{2}$"	37'-$2\frac{1}{2}$"	73'-$2\frac{1}{4}$"

INTERIOR GIRDER REACTION TABLE					
		S. Abut.	Pier 1 and 3	Pier 2	N. Abut.
R_{DC1}	(k)	17.27	77.73	95.36	17.27
R_{DC2}	(k)	1.75	8.3	10.03	1.75
R_{DW}	(k)	6.42	30.51	36.86	6.42
R_{LL+IM} (max)	(k)	78.3	137.15	152.62	78.3
R_{LL+IM} (min)	(k)	-18.22	-16.54	-8.51	-18.23
R_{Total}	(k)	103.74	253.69	294.87	103.74

INTERIOR GIRDER MOMENT TABLE					
		0.4 Sp. 1 or 0.6 Sp. 4	Pier 1 and 3	0.5 Span 2 and 3	Pier 2
I_s	(in^4)	9,200	9,200	10,300	10,300
$I_c(n)$	(in^4)	21,050	11,423	22,812	12,540
$I_c(3n)$	(in^4)	15,768	11,423	17,063	12,540
$I_c(cr)$	(in^4)	-	11,690	-	12,810
S_s	(in^3)	599	599	667	667
$S_c(n)$	(in^3)	795	863	873	928
$S_c(3n)$	(in^3)	730	863	801	928
$S_c(cr)$	(in^3)	-	645	-	696
DC1	(k/')	0.94	0.94	0.96	0.96
M_{DC1}	('k)	128	-530	390	-780
DC2	(k/')	0.102	0.102	0.102	0.102
M_{DC2}	('k)	14	-57	41	-82
DW	(k/')	0.375	0.375	0.375	0.375
M_{DW}	('k)	51	-209	150	-301
M_{LL+IM}	('k)	675	-915	958	-1,159
M_u (Strength I)	('k)	1,435	2,648	2,441	3,557
$\phi_f M_n$	('k)	3,795	3,350	4,137	3,672
f_s DC1	(ksi)	2.56	-10.62	7.02	-14.03
f_s DC2	(ksi)	0.23	-1.06	0.61	-1.41
f_s DW	(ksi)	0.84	-3.89	2.25	-5.19
f_s (L+IM)	(ksi)	10.19	-17.02	13.17	-19.98
f_s (Service II)	(ksi)	16.86	-37.64	27.00	-46.53
$0.95R_hF_{yf}$	(ksi)	47.5	47.5	47.5	47.5
f_s (Total)(Strength I)	(ksi)	-	-	-	-
$\phi_f F_n$	(ksi)	-	-	-	-
V_f	(k)	40.24	-	47.48	-



SECTION A-F



FIELD SPLICE DETAIL

**Only at Splice 1 and 4*

Notes:
All splice material except filler plates shall be AASHTO M270 Grade. 50. (NTR)

I_s, S_s: *Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in.^{4} and in.^{3}).*

$I_c(n)$, $S_c(n)$: *Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections 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-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in.^{4} and in.^{3}).*

$I_c(cr)$, $S_c(cr)$: *Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in.^{4} and in.^{3}).*

DC1: *Un-factored non-composite dead load (kips/ft.).*

M_{DC1}: *Un-factored moment due to non-composite dead load (kip-ft.).*

DC2: *Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).*

M_{DC2}: *Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).*

DW: *Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).*

M_{DW}: *Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).*

M_{LL+IM}: *Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).*

M_u (Strength I): *Factored design moment (kip-ft.).*
1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{LL+IM}

$\phi_f M_n$: *Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).*

f_s DC1: *Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).*
M_{DC1} / S_{NC}

f_s DC2: *Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).*
M_{DC2} / $S_c(3n)$ or M_{DC2} / $S_c(cr)$ as applicable.

f_s DW: *Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).*
M_{DW} / $S_c(3n)$ or M_{DW} / $S_c(cr)$ as applicable.

f_s (L+IM): *Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).*
M_{LL+IM} / $S_c(n)$ or M_{DW} / $S_c(cr)$ as applicable.

f_s (Service II): *Sum of stresses as computed below (ksi).*
f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3 f_s (L + IM)

$0.95R_hF_yf$: *Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).*

f_s (Total)(Strength I): *Sum of stresses as computed below on non-compact section (ksi).*
1.25 (f_{sDC1} + f_{sDC2}) + 1.5 f_{sDW} + 1.75 f_s (L + IM)

$\phi_f F_n$: *Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).*

V_f: *Maximum factored shear range in span computed according to Article 6.10.10.*

Note:
M_{LL} and R_{LL} include the effects of centrifugal force and superelevation.

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PLOT SCALE =	DRAWN - BJF	REVISED	
PLOT DATE = 1/29/2013	CHECKED - RRD	REVISED	

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DEPARTMENT OF TRANSPORTATION

BEAM DETAILS
STRUCTURE NO. 016-0587
SHEET NO. 23 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	111
		CONTRACT NO. 60K77		
	ILLINOIS FED. AID PROJECT			

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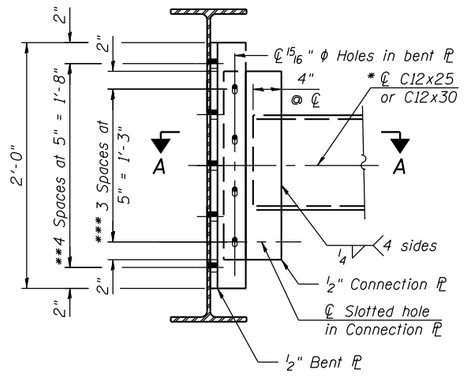
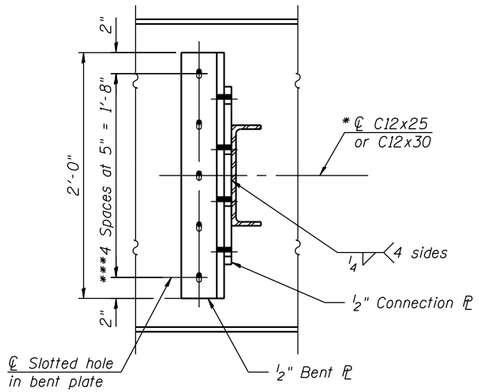


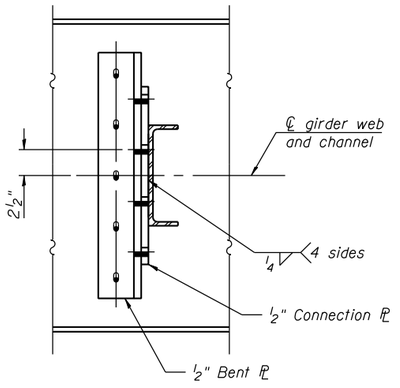
INITIAL BOLT ERECTION POSITION



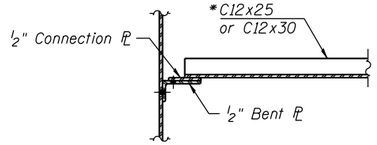
INITIAL BOLT ERECTION POSITION

INTERIOR DIAPHRAGM 'D'

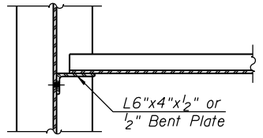
(West Side Girder 8)



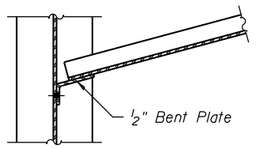
FINAL ERECTION POSITION AFTER STAGE II DECK POUR



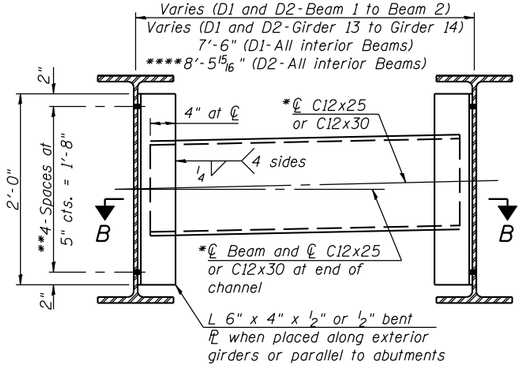
SECTION A-A (D2)



SECTION B-B (D1)



SECTION B-B (D2)



INTERIOR DIAPHRAGM

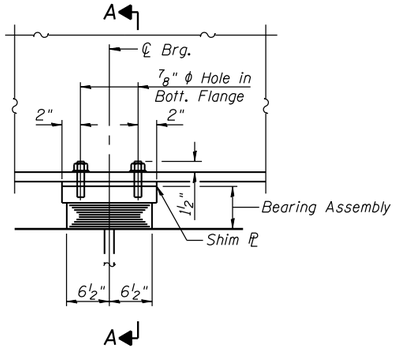
(Except West side of Girder 8)

Note:
Two hardened washers required for each set of oversized holes.

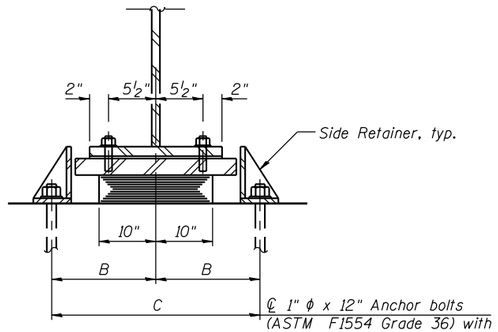
*Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.
**3/4" ϕ HS bolts, 15/16" ϕ holes
***3/4 "ϕ HS bolts, on the west side of Girder 8 provide 13/16 "x1 7/8" vertical slotted holes in the bent plate at the web and in the connection plate. Bolts in slotted holes shall be finger tightened until the second stage pour is completed. Position slots so bolts move from one end with no concrete load to the opposite end under the deck load. The slotted holes in the bent plate and connection plate shall be positioned as shown to allow the bolts to move to the final erection positions under deck load. The holes shall be positioned to allow maximum bolt displacement without laterally stressing the girders.
****Measured along Diaphragm (Parallel to abutments)

FILE NAME = s:\jol\6388-6399\6346\028\micros\cadd sheets\structural\0160587 60K77-022-BEAM.dgn

STRAND ASSOCIATES® 1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200 IDFPR NO. 184-001273	USER NAME = brianf	DESIGNED - RRD	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DIAPHRAGM DETAILS STRUCTURE NO. 016-0587	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - AJS	REVISED			55	22-1HB-R	COOK/DUPAGE	161	112
	PLOT SCALE =	DRAWN - BJF	REVISED						CONTRACT NO. 60K77	
	PLOT DATE = 1/29/2013	CHECKED - RRD	REVISED		SHEET NO. 24 OF 42 SHEETS			ILLINOIS	FED. AID PROJECT	



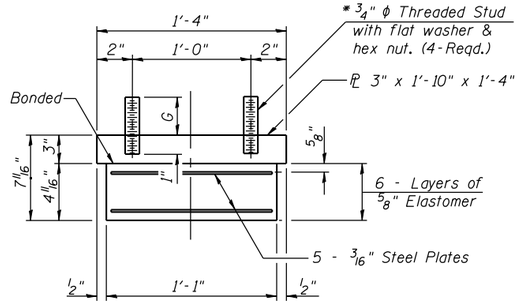
ELEVATION AT PIER 1 AND 3



SECTION A-A

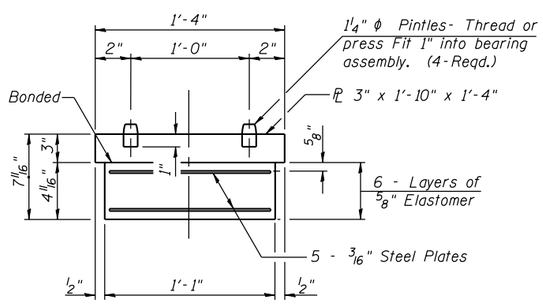
TYPE I ELASTOMERIC EXP. BRG.

(Beams 1-3 Pier 1 and Beam 14 Pier 3)



BEARING ASSEMBLY

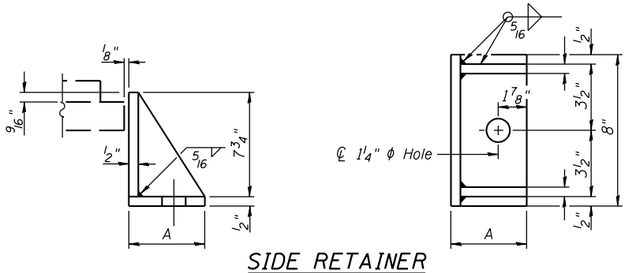
(Beams 1-3 and 5-11 Pier 1
Beams 4-10 and 14 Pier 3)



BEARING ASSEMBLY

(Beams 4, 12, 13, 14 Pier 1
Beams 1, 2, 3, 11, 12, 13 Pier 3)

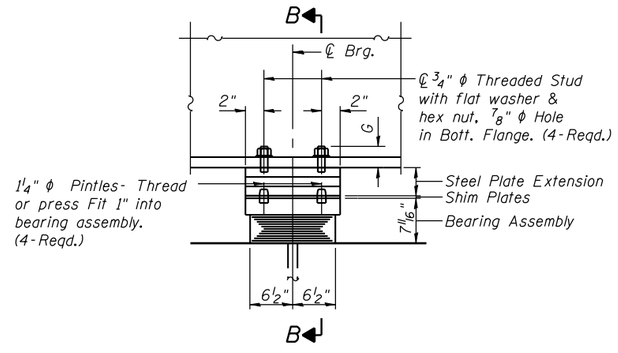
Note:
Shim plates shall not be placed under Bearing Assembly.



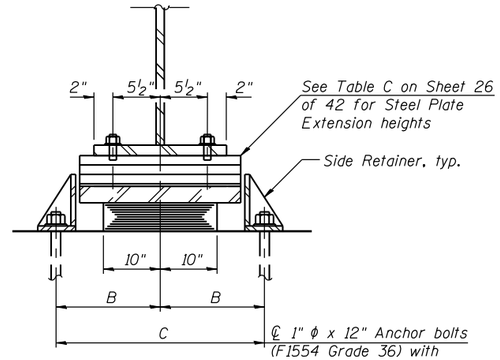
SIDE RETAINER

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. 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 elastomeric 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.
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
See Sheet 26 of 42 for Steel Extension Details.



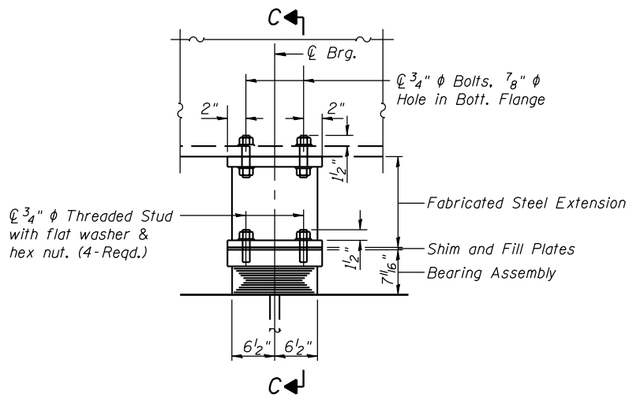
ELEVATION AT PIER 1 AND 3



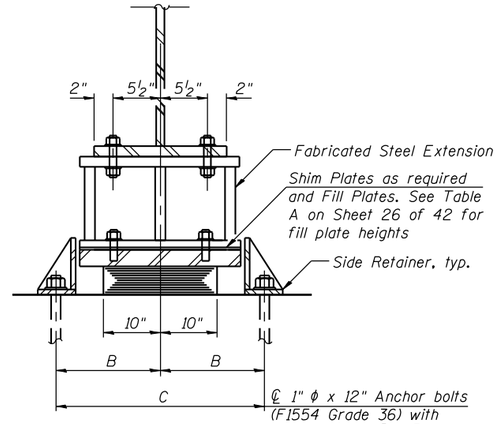
SECTION B-B

TYPE I ELASTOMERIC EXP. BEARING

(Beams 4, 12, 13, 14 Pier 1 and Beams 1, 2, 3, 11, 12, 13 Pier 3)



ELEVATION AT PIER 1 AND 3



SECTION C-C

STUD HEIGHT "G"

	Pier 1	Pier 3
Beam 1	3"	3"
Beam 2	3"	3"
Beam 3	3"	3"
Beam 4	3"	4"
Beam 5	4"	5 1/4"
Beam 6	4 3/4"	4"
Beam 7	4"	4"
Beam 8	4"	4"
Beam 9	5 1/2"	4 1/4"
Beam 10	4"	4 3/4"
Beam 11	4"	3"
Beam 12	3"	3"
Beam 13	3"	3"
Beam 14	3"	3"

TYPE I ELASTOMERIC EXP. BEARING

(Beams 5-11 Pier 1 and Beams 4-10 Pier 3)

TYPE I ELASTOMERIC EXP. BRG.

Location	Label	Dimension
Pier 1 Beams 1-3, 5 and 7-14 Pier 3 Beams 1-8 and 10-14	A	4"
	B	1'-1 1/4"
	C	2'-2 1/2"
Pier 1 Beam 4 and 6	A	6 1/2"
	B	1'-3 3/4"
	C	2'-7 1/2"
Pier 3 Beam 9	A	7"
	B	1'-4 1/4"
	C	2'-8 1/2"

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	28
Anchor Bolts, 1"	Each	140

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PLOT DATE = 1/29/2013	CHECKED - RRD	REVISED

STATE OF ILLINOIS
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BEARING DETAILS (1 OF 2)
STRUCTURE NO. 016-0587
SHEET NO. 25 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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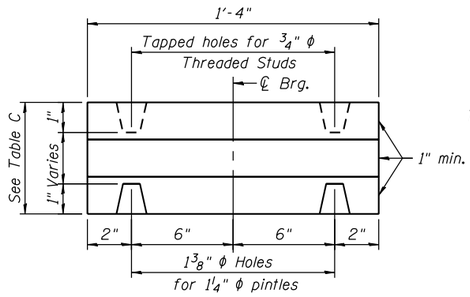
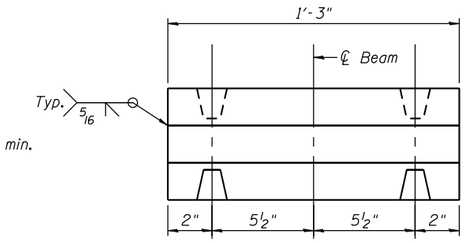
		CONTRACT NO. 60K77		
	ILLINOIS FED. AID PROJECT			

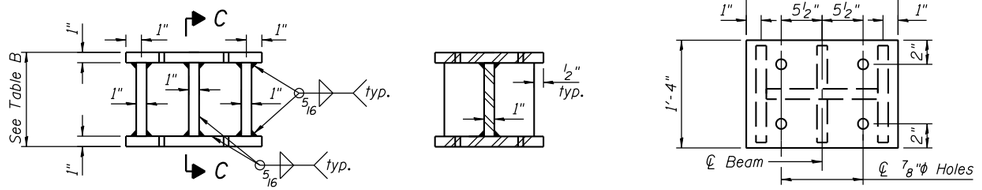


ELEVATION STEEL EXTENSION



END VIEW STEEL EXTENSION

STEEL PLATE EXTENSION DETAIL

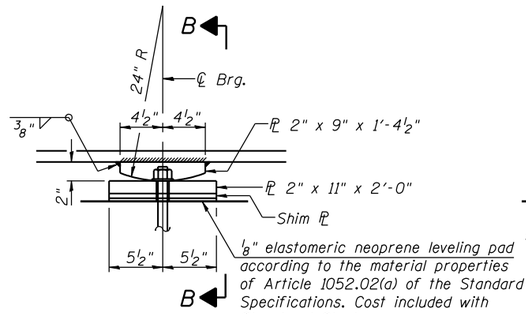


ELEVATION STEEL EXTENSION

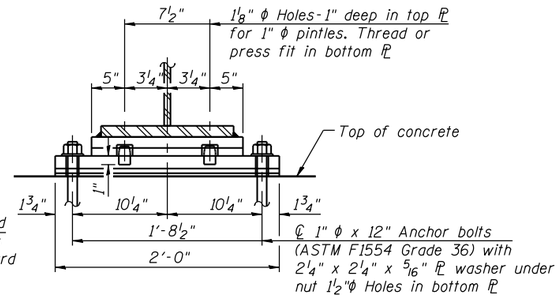
SECTION C-C

PLAN STEEL EXTENSION

FABRICATED STEEL EXTENSION DETAIL

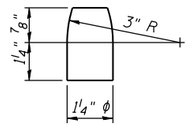


ELEVATION AT PIER 2



SECTION B-B

FIXED BEARING
(Pier 2)



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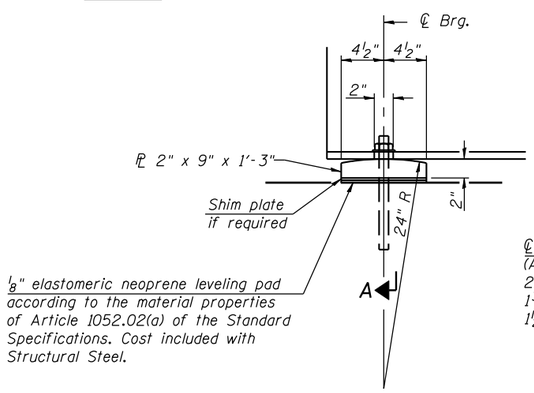
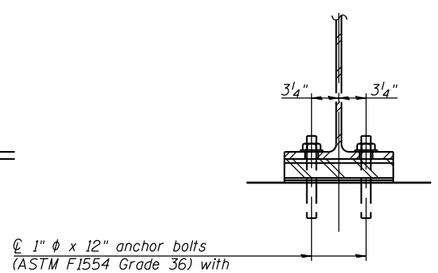


ELEVATION AT ABUTMENT



SECTION A-A

FIXED BEARING AT ABUTMENTS

TABLE A
FILL PLATE TABLE FOR
FABRICATED STEEL EXTENSION

	Pier 1	Pier 3
Beam 4	-	-
Beam 5	-	1 1/4"
Beam 6	3/4"	-
Beam 7	-	1"
Beam 8	-	-
Beam 9	1 1/2"	1/4"
Beam 10	-	3/4"
Beam 11	-	-

TABLE B
FABRICATED STEEL
EXTENSION HEIGHT TABLE

	Pier 1	Pier 3
Beam 4	-	7"
Beam 5	6 5/8"	7"
Beam 6	8 1/8"	9 3/4"
Beam 7	10 1/8"	10 1/8"
Beam 8	10 1/8"	10 1/8"
Beam 9	8 1/8"	9 3/4"
Beam 10	8 1/8"	7"
Beam 11	6 5/8"	-

TABLE C
STEEL PLATE EXTENSION TABLE

	Pier 1	Pier 3
Beam 1	-	4 3/8"
Beam 2	-	5 5/8"
Beam 3	-	5 1/2"
Beam 4	4 1/4"	-
Beam 11	-	5 3/8"
Beam 12	4 3/8"	3"
Beam 13	5 1/4"	3"
Beam 14	4"	-

Notes:
Cost of Steel Plate Extensions and Fill Plates are included in the cost of Elastomeric Bearing Assembly, Type I.
Cost of Fabricated Steel Extensions are included in the cost of Furnishing and Erecting Structural Steel.
Prior to ordering any steel extension material, the Contractor shall verify in the field all bearing heights, steel extension dimensions, shim plate heights and fill plate heights.
See Sheet 25 of 42 for Bill of Material.

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BEARING DETAILS (2 OF 2)
STRUCTURE NO. 016-0587
SHEET NO. 26 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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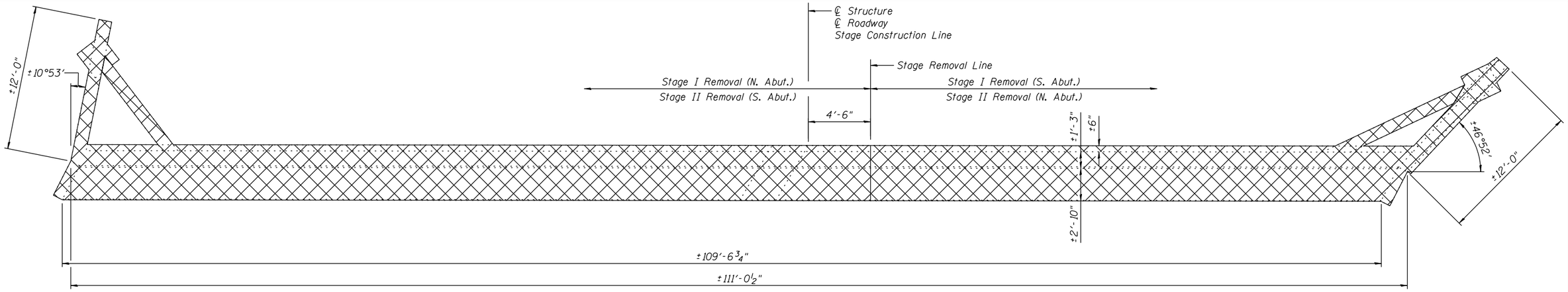
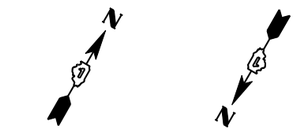
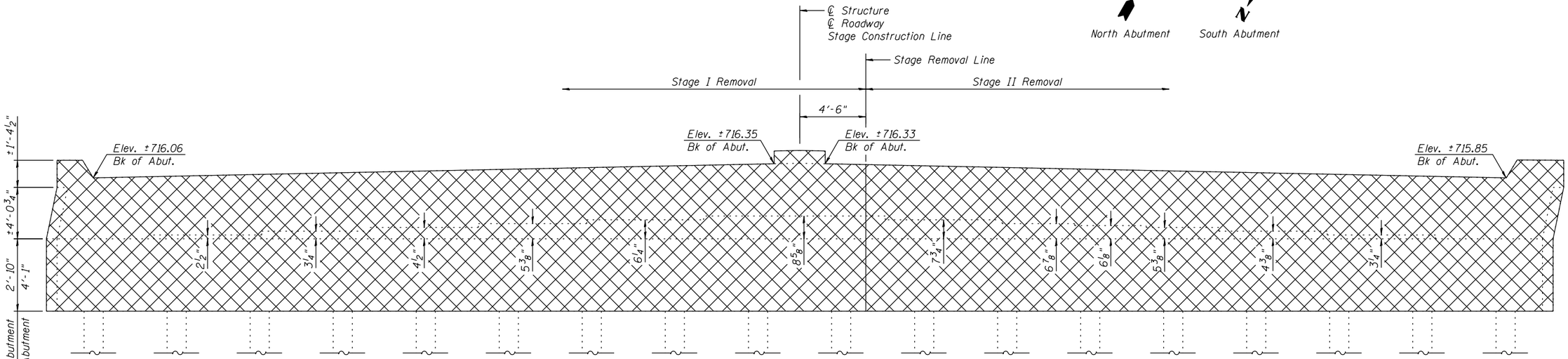
		CONTRACT NO. 60K77		
	ILLINOIS FED. AID PROJECT			



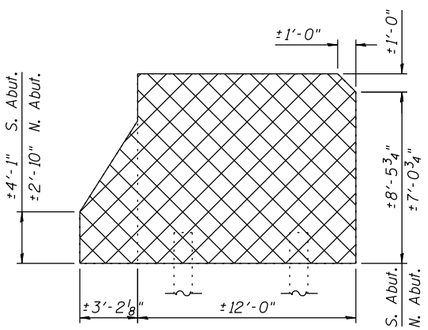
PLAN



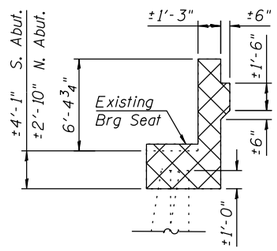


ELEVATION

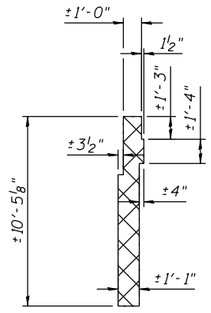
(South Abutment Shown
North Abutment Mirror Image)



WINGWALL ELEVATION



SECTION THRU ABUTMENT



SECTION THRU WINGWALL

Notes:

Cathodic protection system and appurtenances at both abutments to be removed and salvaged. Cost included with Removal of Existing Superstructures.

If an existing pile interferes with the proposed slope wall construction and repair, it shall be removed per Article 501.04 of the Specifications. Any pile removal required is included in the cost of Concrete Removal.

LEGEND

Concrete Removal

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	200

FILE NAME = s:\jol\6388-6399\6396\028\micros\cadd sheets\structural\0160587-60K77-025-ABUTREM.dgn

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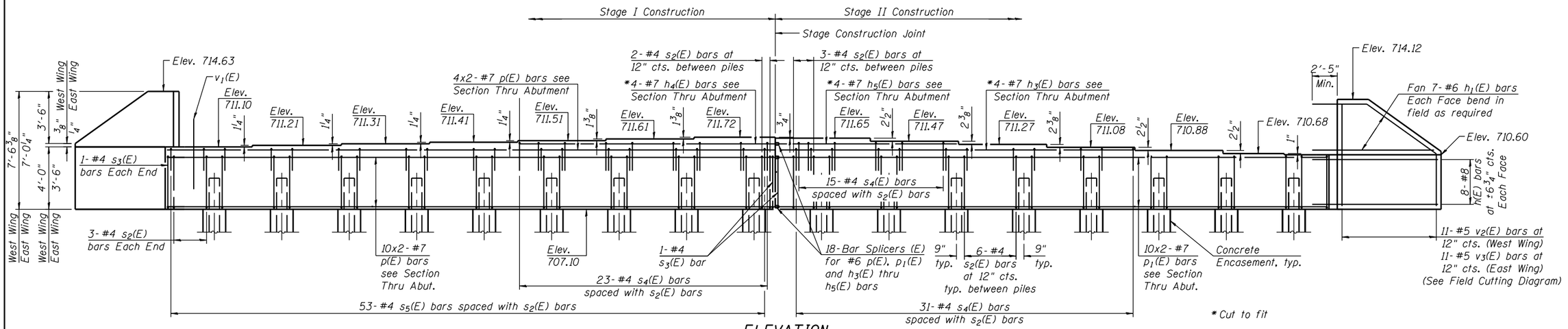
	CHECKED - AJS	REVISED
PLOT SCALE =	DRAWN - BJF	REVISED
PLOT DATE = 1/29/2013	CHECKED - RRD	REVISED

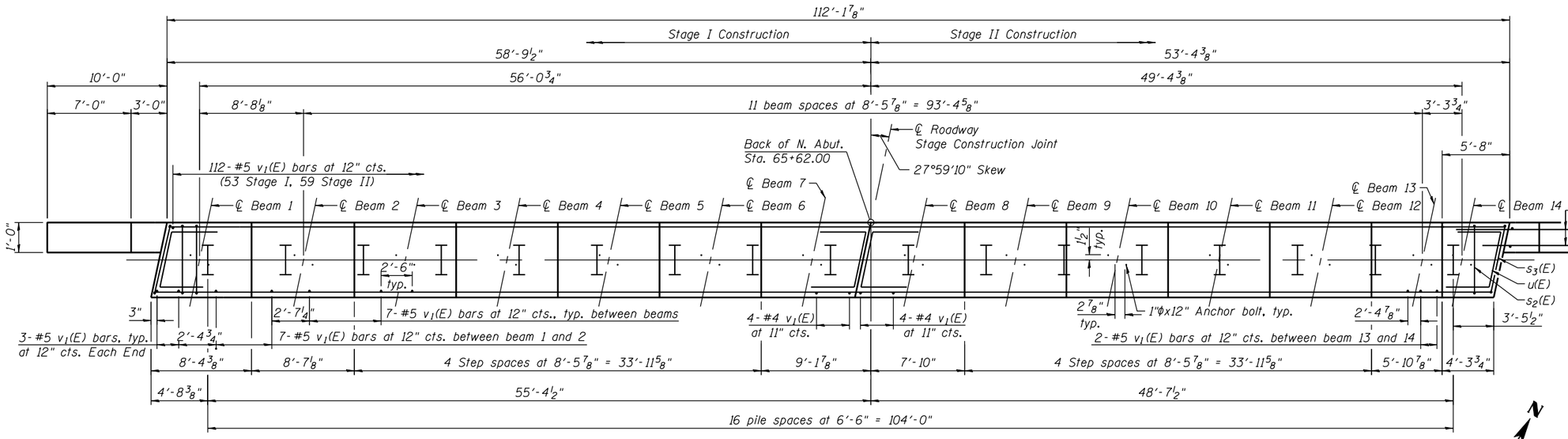
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT REMOVAL PLAN
STRUCTURE NO. 016-0587
SHEET NO. 27 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	115
		CONTRACT NO. 60K77		
	ILLINOIS FED. AID PROJECT			

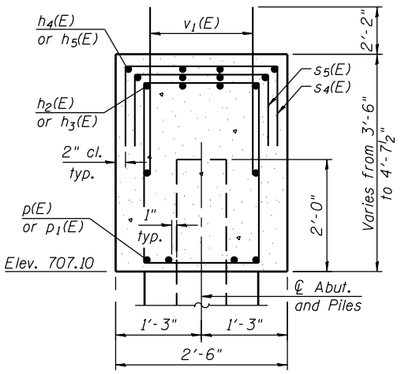


ELEVATION
(Looking North)

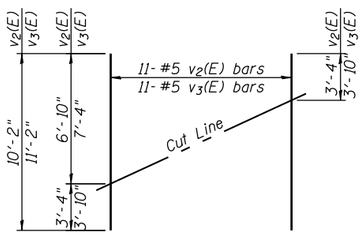


PLAN

MIN. BAR LAP
#7 bar = 5'-2"

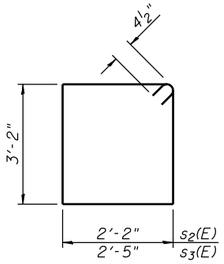


SECTION THRU ABUTMENT

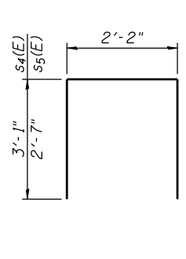


FIELD CUTTING DIAGRAM

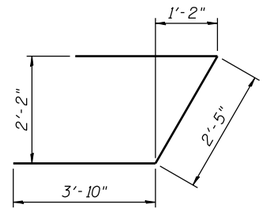
Order $v_2(E)$ and $v_3(E)$ bars full length. Cut as shown and use remainder of bars in opposite face.



BARS $s_2(E)$ & $s_3(E)$



BARS $s_4(E)$ & $s_5(E)$



BAR u(E)

PILE DATA

Type: Steel-HP 12x53
Nominal Required Bearing: 327 kips
Factored Resistance Available: 180 kips
Est. Length: 59 ft
No. Production Piles: 16
No. Test Piles: 1

Notes:
For details of Bar Splicers, see Sheet 36 of 42.
For details of piles and Concrete Encasement, see Sheet 35 of 42.
Pour Steps Monolithically with cap.
Space reinforcement in cap to miss anchor bolts.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	32	#8	16'-7"	
$h_1(E)$	28	#6	13'-0"	
$h_3(E)$	4	#7	34'-3"	
$h_4(E)$	4	#7	25'-9"	
$h_5(E)$	4	#7	17'-3"	
p(E)	28	#7	32'-0"	
$p_1(E)$	20	#7	29'-3"	
$s_2(E)$	101	#4	11'-5"	
$s_3(E)$	4	#4	11'-11"	
$s_4(E)$	38	#4	8'-4"	
$s_5(E)$	84	#4	7'-4"	
u(E)	16	#6	10'-1"	
$v_1(E)$	205	#5	4'-4"	
$v_2(E)$	11	#5	10'-2"	
$v_3(E)$	11	#5	11'-2"	
Structure Excavation		Cu. Yd.	200	
Concrete Structures		Cu. Yd.	48	
Reinforcement Bars, Epoxy Coated		Pound	8,470	
Furnishing Steel Piles HP12x53		Foot	992	
Driving Piles		Foot	992	
Test Pile Steel HP12x53		Each	1	
Concrete Encasement		Cu. Yd.	6	

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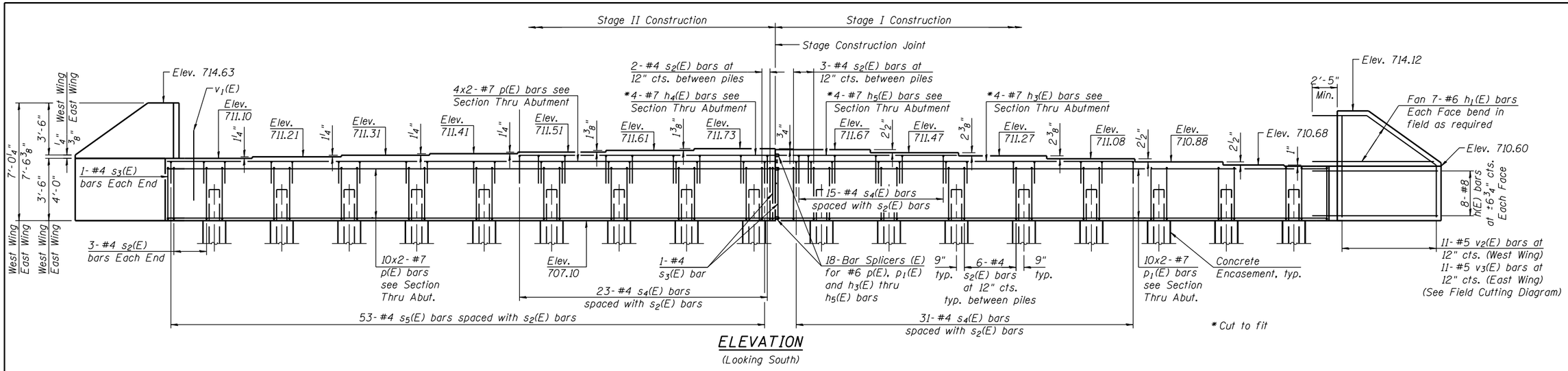
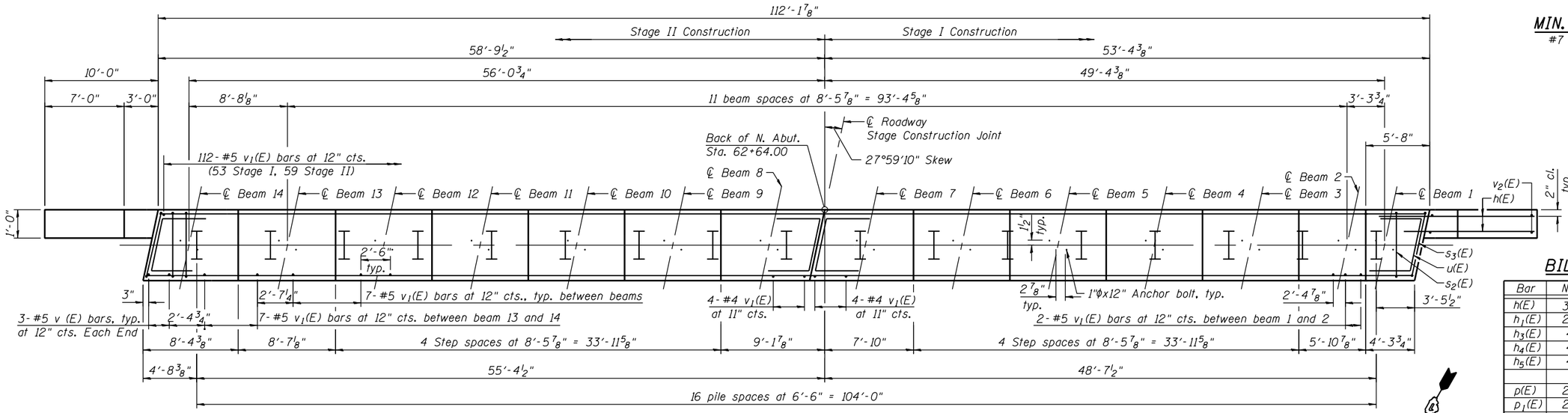
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT DETAILS
STRUCTURE NO. 016-0587
SHEET NO. 28 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	116
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		

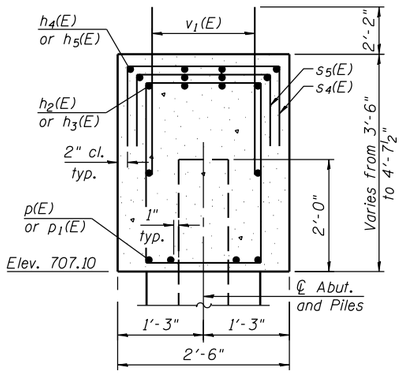


ELEVATION
(Looking South)

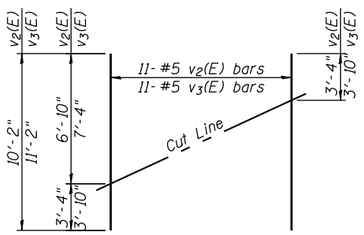


PLAN

MIN. BAR LAP
#7 bar = 5'-2"

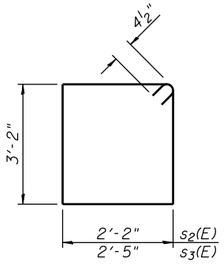


SECTION THRU ABUTMENT

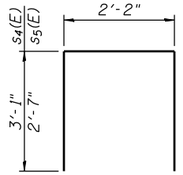


FIELD CUTTING DIAGRAM

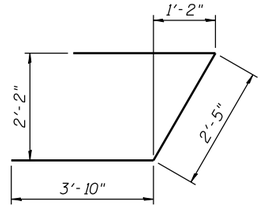
Order $v_2(E)$ and $v_3(E)$ bars full length. Cut as shown and use remainder of bars in opposite face.



BARS $s_2(E)$ & $s_3(E)$



BARS $s_4(E)$ & $s_5(E)$



BAR u(E)

PILE DATA

Type: Steel-HP 12x53
Nominal Required Bearing: 327 kips
Factored Resistance Available: 180 kips
Est. Length: 62 ft
No. Production Piles: 16
No. Test Piles: 1

Notes:
For details of Bar Splicers, see Sheet 36 of 42.
For details of piles and Concrete Encasement, see Sheet 35 of 42.
Pour Steps Monolithically with cap.
Space reinforcement in cap to miss anchor bolts.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	32	#8	16'-7"	
$h_1(E)$	28	#6	13'-0"	
$h_3(E)$	4	#7	34'-3"	
$h_4(E)$	4	#7	25'-9"	
$h_5(E)$	4	#7	17'-3"	
p(E)	28	#7	32'-0"	
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u(E)	16	#6	10'-1"	
$v_1(E)$	205	#5	4'-4"	
$v_2(E)$	11	#5	10'-2"	
$v_3(E)$	11	#5	11'-2"	
Structure Excavation			Cu. Yd.	200
Concrete Structures			Cu. Yd.	48
Reinforcement Bars, Epoxy Coated			Pound	8,470
Furnishing Steel Piles HP12x53			Foot	992
Driving Piles			Foot	992
Test Pile Steel HP12x53			Each	1
Concrete Encasement			Cu. Yd.	6

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PLOT DATE = 1/29/2013	CHECKED - RRD	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT DETAILS
STRUCTURE NO. 016-0587
SHEET NO. 29 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	117
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		

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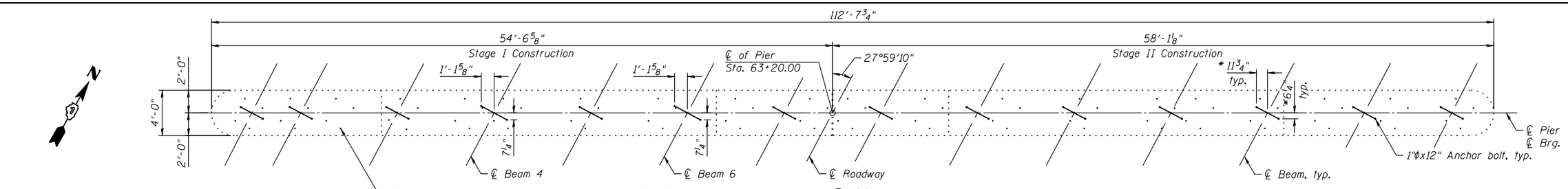
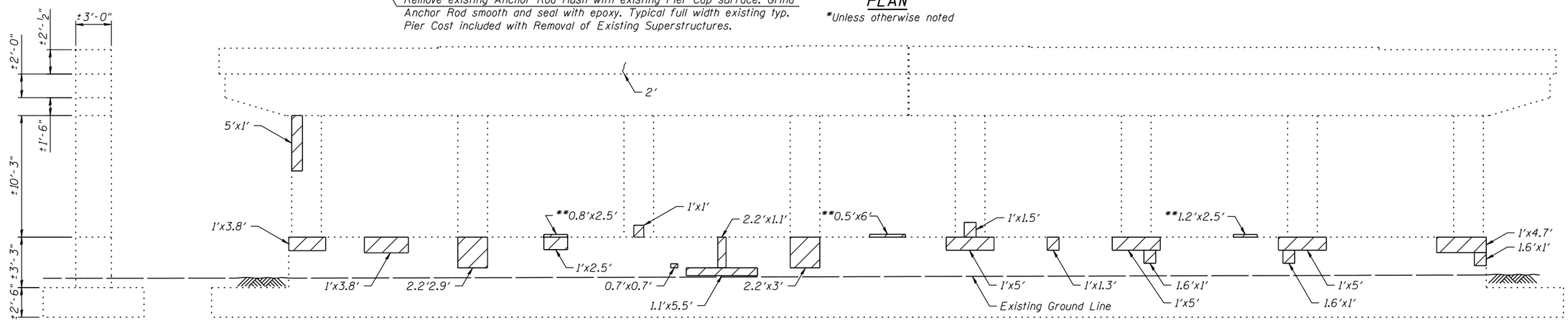


PLAN

*Unless otherwise noted

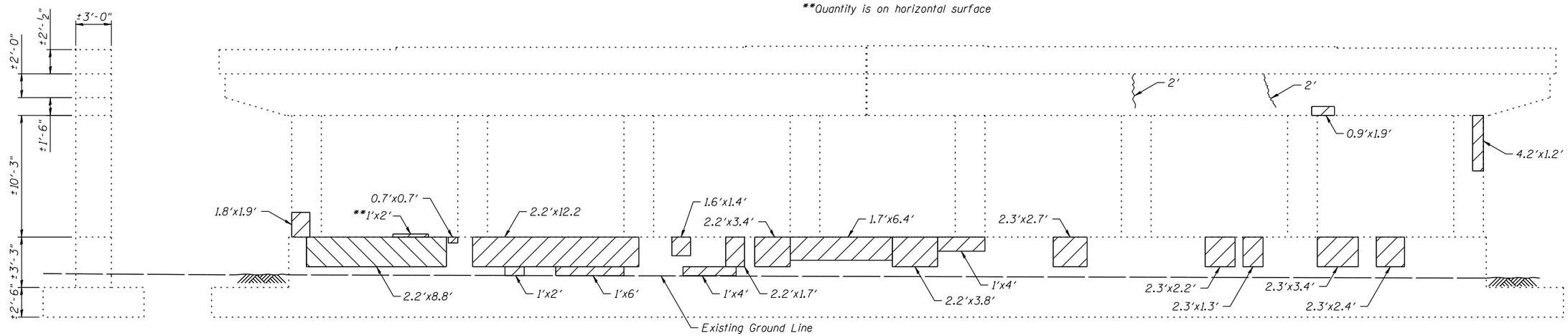


EAST FACE

NORTH FACE

(Looking South)

**Quantity is on horizontal surface



WEST FACE

SOUTH FACE

(Looking North)

LEGEND

Structural Repair of Concrete (Depth Equal or Less Than 5 Inches)

Structural Repair of Concrete (Depth Greater Than 5 inches)

Epoxy Crack Injection

Note:
Repairs shown are based upon observations performed in 2010 and are for bidding purposes only. Actual areas to be repaired shall be determined by the Engineer in the field at the time of construction. Quantities have been adjusted to account for the time difference.

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth Equal or Less Than 5 Inches)	SQ FT	252
Structural Repair of Concrete (Depth Greater Than 5 inches)	SQ FT	20
Epoxy Crack Injection	FOOT	8

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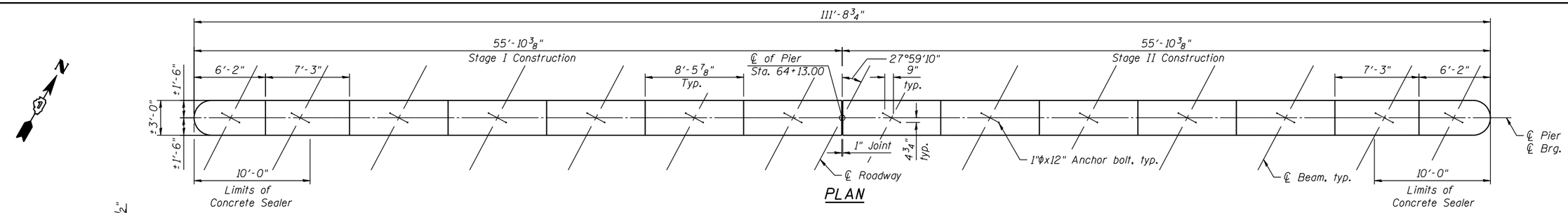
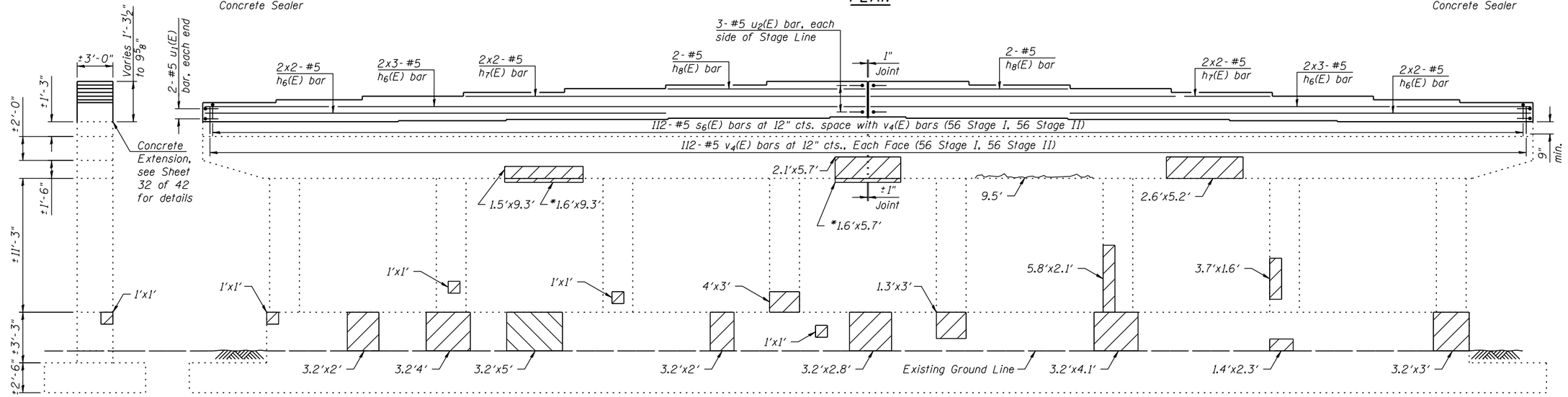
PLOT SCALE =	DRAWN - BJF	REVISED
PLOT DATE = 1/29/2013	CHECKED - RRD	REVISED

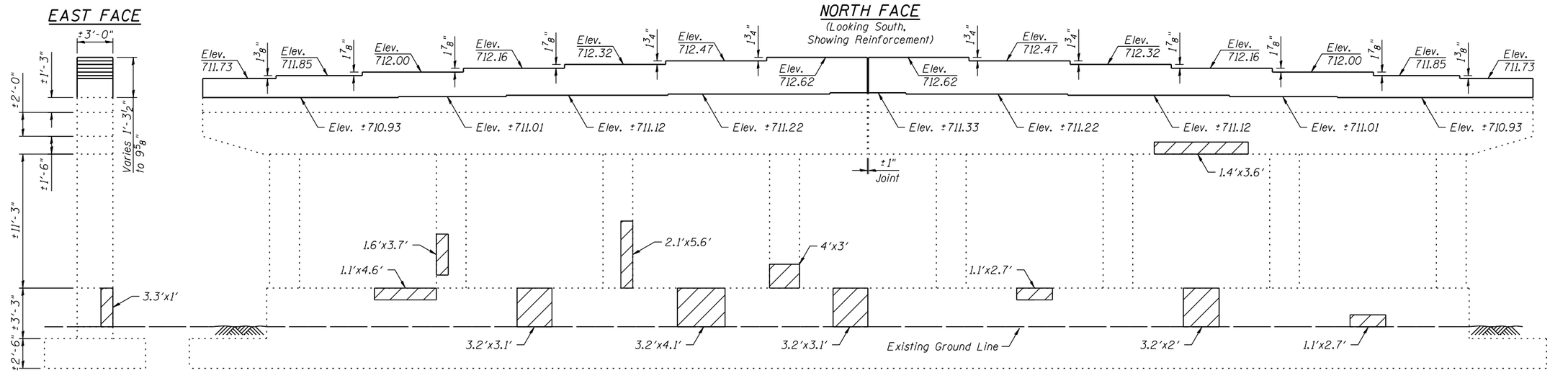
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1 REPAIR DETAILS
STRUCTURE NO. 016-0587
SHEET NO. 30 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	118
		CONTRACT NO. 60K77		
	ILLINOIS FED. AID PROJECT			







LEGEND

Structural Repair of Concrete (Depth Equal or Less Than 5 Inches)

Structural Repair of Concrete (Depth Greater Than 5 inches)

Epoxy Crack Injection

*Quantity is on horizontal surface

Note:
Repairs shown are based upon observations performed in 2010 and are for bidding purposes only. Actual areas to be repaired shall be determined by the Engineer in the field at the time of construction. Quantities have been adjusted to account for the time difference.
Bars indicated thus 2 x 3-#5 etc. indicates 2 lines of bars with 3 lengths per line.

FILE NAME = s:\pl\6300-6399\6346\828\micros\cadd sheets\structural\B160587-60K77-828-PIER2.dgn

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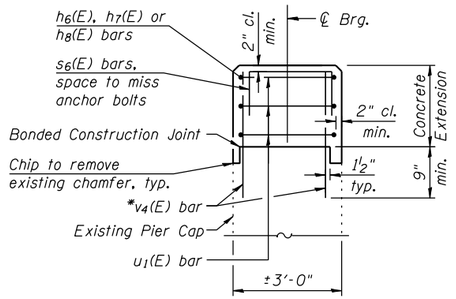
PLOT DATE = 1/29/2013	CHECKED - RRD	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2 REPAIR DETAILS (1 OF 2)
STRUCTURE NO. 016-0587
SHEET NO. 31 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	119
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		



CONCRETE EXTENSION DETAIL

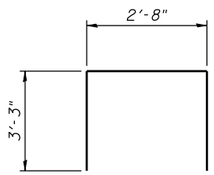
(End View)

Note:
Apply Concrete Sealer to the exposed faces of the last 10' of the pier cap concrete extension.

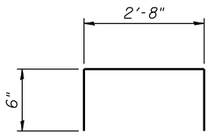
*Place bars in 9" min. drilled holes in the top of existing pier cap. Epoxy grout according to Section 584 of the Standard Specifications. Cost included with cost of Reinforcement Bars, Epoxy Coated.

PIER 2
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_6(E)$	20	#5	21'-0"	——
$h_7(E)$	8	#5	18'-6"	——
$h_8(E)$	4	#5	16'-7"	——
$s_6(E)$	112	#5	3'-8"	⊓
$u_1(E)$	10	#5	9'-2"	⊓
$v_4(E)$	224	#5	1'-10"	——
Concrete Structures			Cu. Yd.	1.620
Concrete Sealer			Sq. Ft.	97
Epoxy Crack Injection			Foot	13
Structural Repair of Concrete (Depth Equal or Less Than 5 Inches)			Sq. Ft.	330
Structural Repair of Concrete (Depth Greater Than 5 inches)			Sq. Ft.	20



BAR $u_1(E)$



BAR $s_6(E)$

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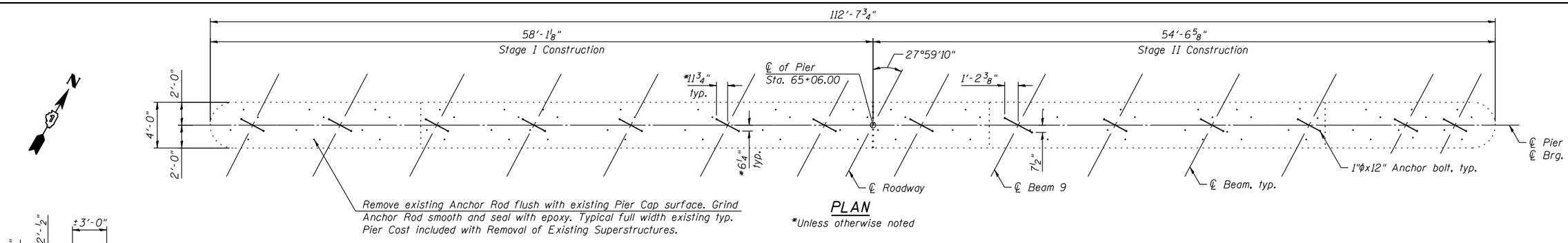
	PLOT DATE = 1/29/2013	CHECKED - RRD	REVISED	

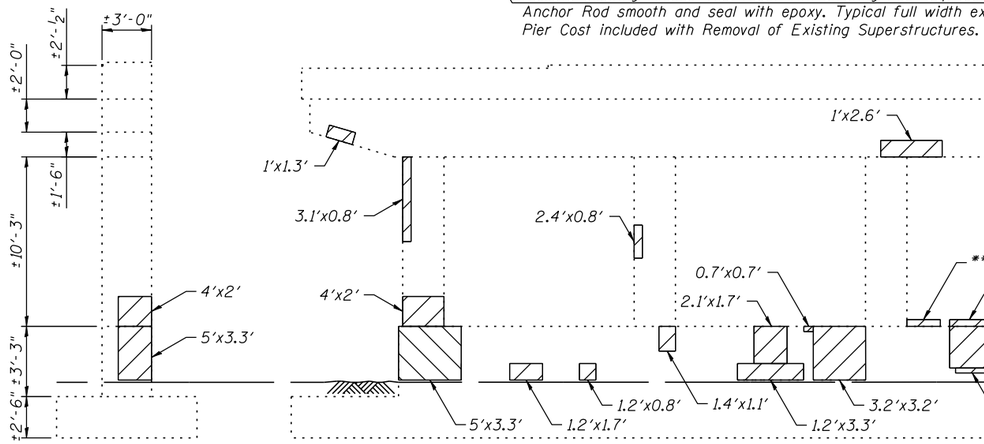
PIER 2 REPAIR DETAILS (2 OF 2)
STRUCTURE NO. 016-0587
SHEET NO. 32 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	120
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		



PLAN

*Unless otherwise noted

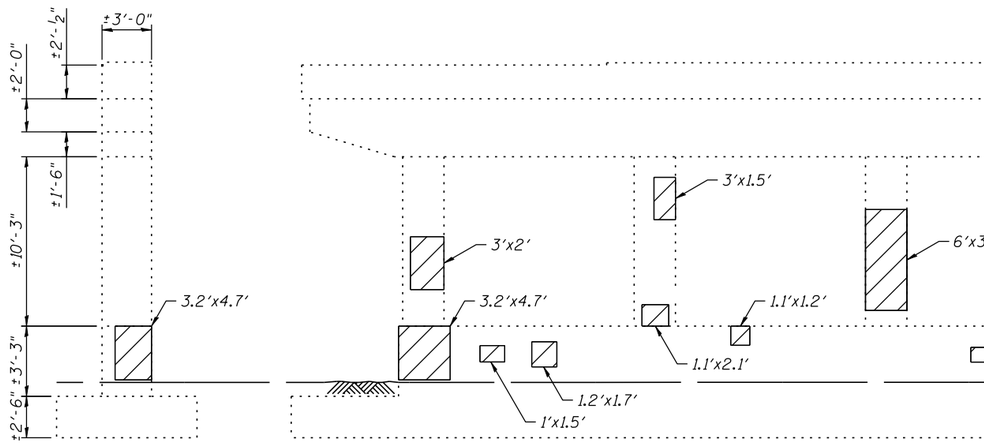


EAST FACE

NORTH FACE

(Looking South)

**Quantity is on horizontal surface



WEST FACE

SOUTH FACE

(Looking North)

LEGEND

Structural Repair of Concrete (Depth Equal or Less Than 5 Inches)

Structural Repair of Concrete (Depth Greater Than 5 inches)

Note:
Repairs shown are based upon observations performed in 2010 and are for bidding purposes only. Actual areas to be repaired shall be determined by the Engineer in the field at the time of construction. Quantities have been adjusted to account for the time difference.

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth Equal or Less Than 5 Inches)	SQ FT	428
Structural Repair of Concrete (Depth Greater Than 5 inches)	SQ FT	20

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1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200

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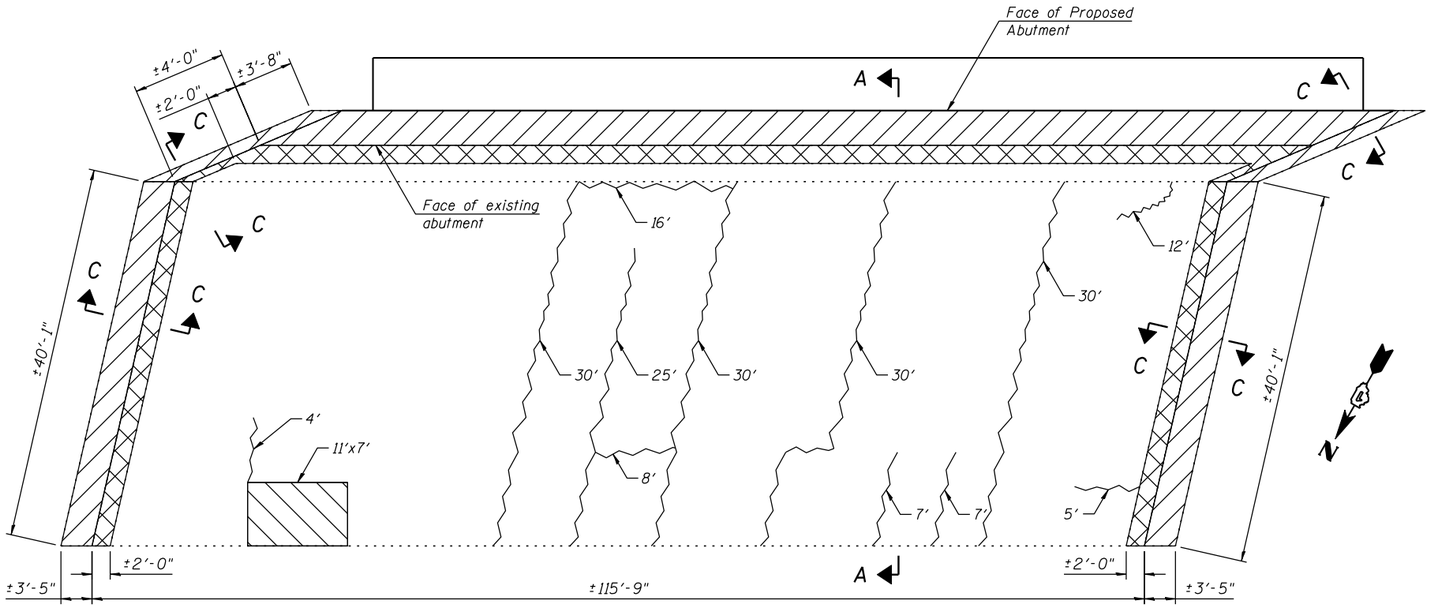
	CHECKED - AJS	REVISED
PLOT SCALE =	DRAWN - BJF	REVISED
PLOT DATE = 1/29/2013	CHECKED - RRD	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

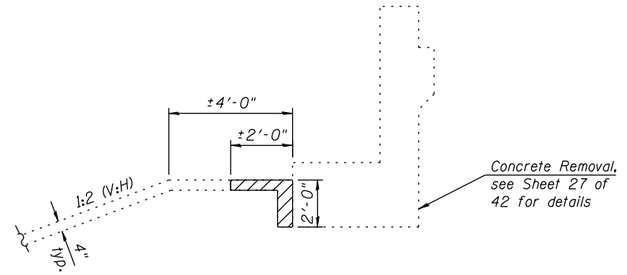
PIER 3 REPAIR DETAILS
STRUCTURE NO. 016-0587
SHEET NO. 33 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	121
		CONTRACT NO. 60K77		
	ILLINOIS FED. AID PROJECT			

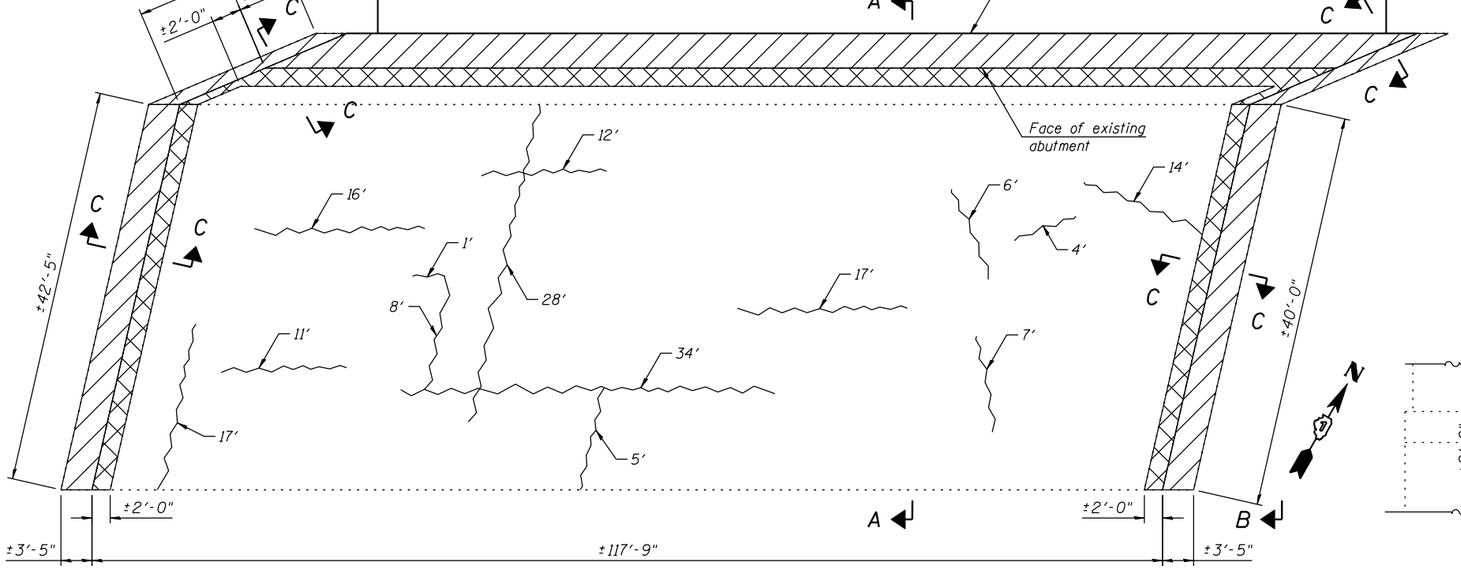
Notes:
A 1½" sawcut should be made at the proposed construction joint. Clean, straighten and lap 6" of existing wire mesh, from the existing adjacent slope wall with the proposed slope wall. This work shall be included in the pay item Slope Wall Removal.
Slopewall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.
Repairs shown are based upon observations performed in 2012 and are for bidding purposes only. Actual areas to be repaired shall be determined by the Engineer in the field at the time of construction. Quantities have been adjusted to account for the time difference.



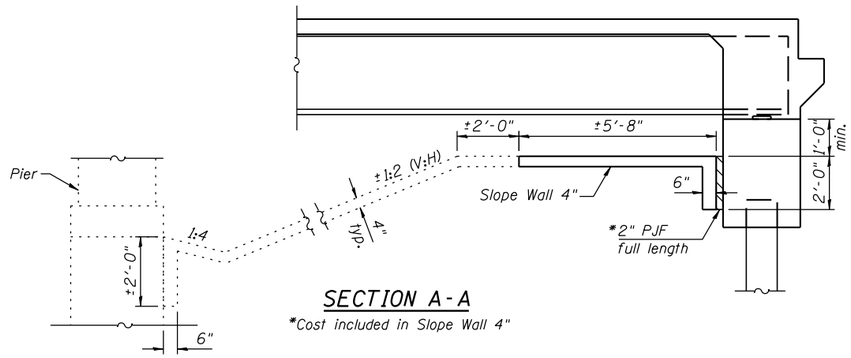
SOUTH SLOPE WALL



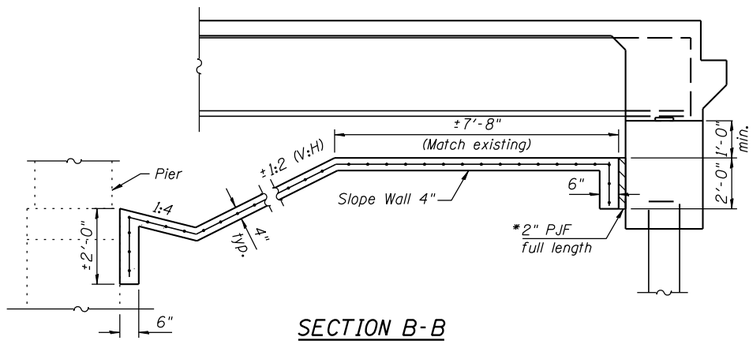
4" SLOPE WALL REMOVAL DETAIL



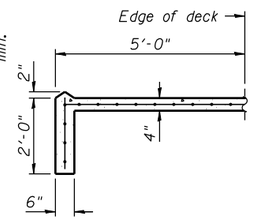
NORTH SLOPE WALL



SECTION A-A
*Cost included in Slope Wall 4"



SECTION B-B



SECTION C-C

LEGEND

- Slopewall Removal and Slopewall 4"
- Slopewall 4"
- Slopewall Repair
- Epoxy Crack Injection

BILL OF MATERIAL

Item	Unit	Quantity
Slope Wall Removal	Sq Yd	90
Slope Wall 4 Inch	Sq Yd	259
Epoxy Crack Injection	Foot	425
Slope Wall Repair	Sq Yd	10

FILE NAME = s:\pw\16300--6399\6346\028\micro\cadd sheets\structural\0160587-60K77-032-SLOPE.dgn

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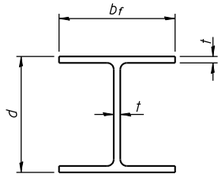
	CHECKED - AJS	REVISED	
PLOT SCALE =	DRAWN - BJF	REVISED	
PLOT DATE = 1/29/2013	CHECKED - RRD	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

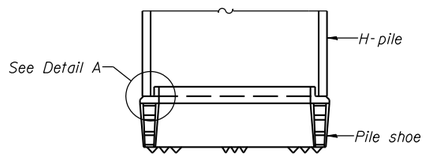
SLOPE WALL DETAILS
STRUCTURE NO. 016-0587
SHEET NO. 34 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	122
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		

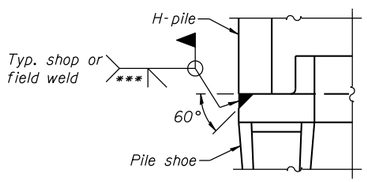


STEEL PILE TABLE

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"

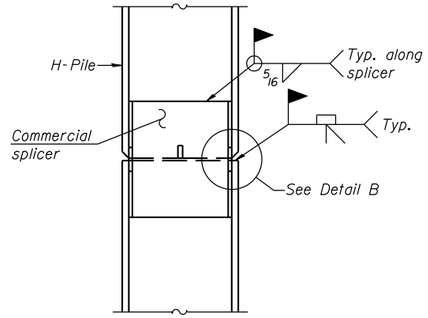


ELEVATION

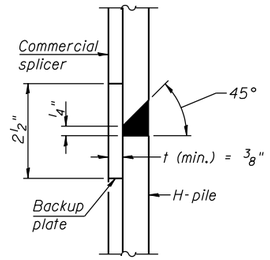


DETAIL A

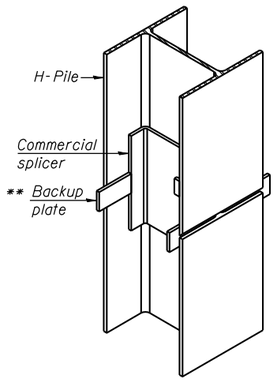
H-PILE SHOE ATTACHMENT



ELEVATION

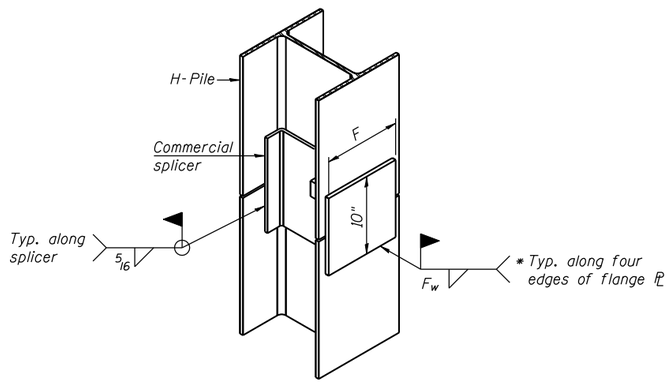


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



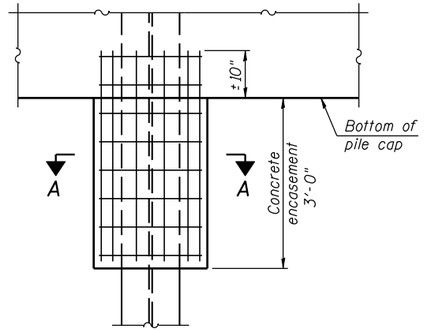
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

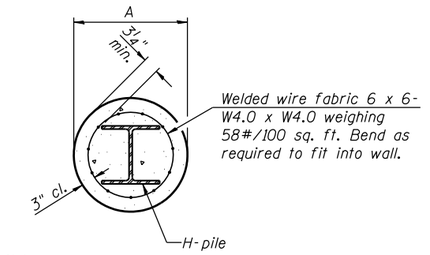
* Interrupt welds 1/4" from end of web and/or each flange.

** Remove portions of backup plates that extend outside the flanges.

*** Weld size per pile shoe manufacturer (5/16" min.).



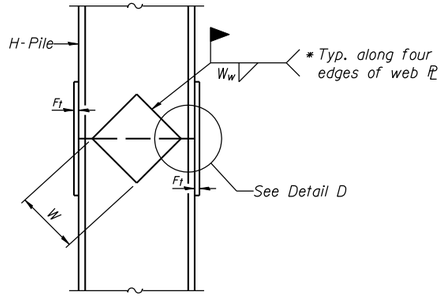
ELEVATION



Note:
Forms for encasement may be omitted when soil conditions permit.

SECTION A-A

PILE ENCASEMENT



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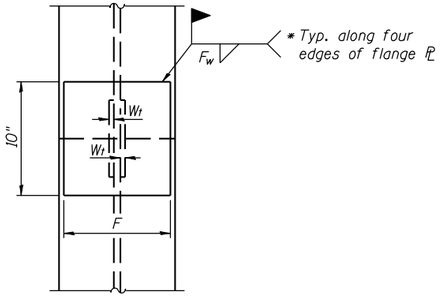
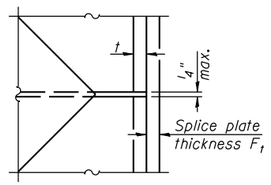


END VIEW



DETAIL D

Designation	F	F_f	F_w	W	W_f	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"	11/16"	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"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	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"

WELDED PLATE FIELD SPLICE

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

F-HP 1-27-12

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	CHECKED - AJS	REVISED
PLOT SCALE =	DRAWN - BJF	REVISED
PLOT DATE = 1/29/2013	CHECKED - RRD	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS
STRUCTURE NO. 016-0587
SHEET NO. 35 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	123
		CONTRACT NO. 60K77		
	ILLINOIS FED. AID PROJECT			

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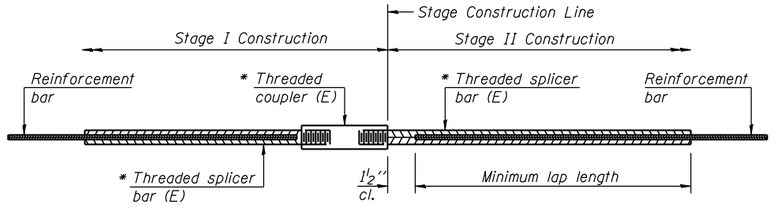


STANDARD BAR SPLICER ASSEMBLY

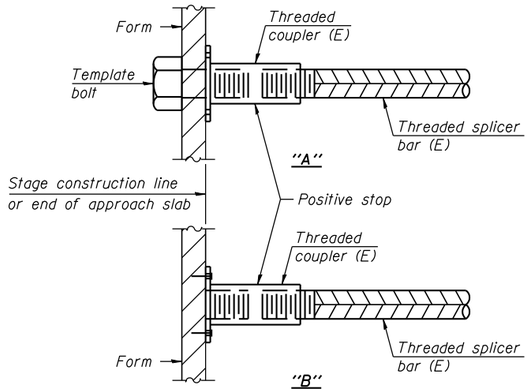
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

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 top, Class C

Threaded splicer bar length = min. lap length + 1½" + thread length

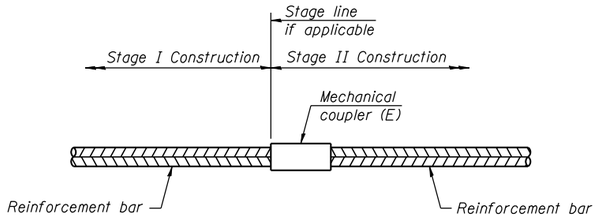
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Deck	#5	1,052	Table 5
Diaphragm	#6	20	Table 4
Approach Slab	#4	92	Table 6
Approach Slab	#5	50	Table 5
Approach Footing	#5	40	Table 5
North Abutment	#7	18	Table 5
South Abutment	#7	18	Table 5



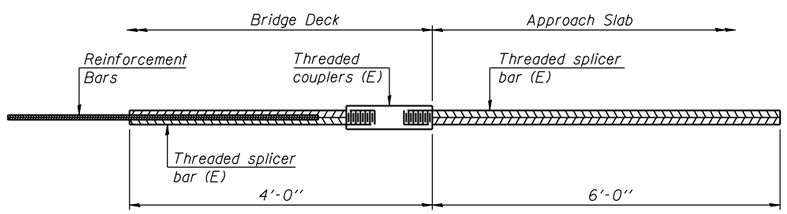
INSTALLATION AND SETTING METHODS

"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.



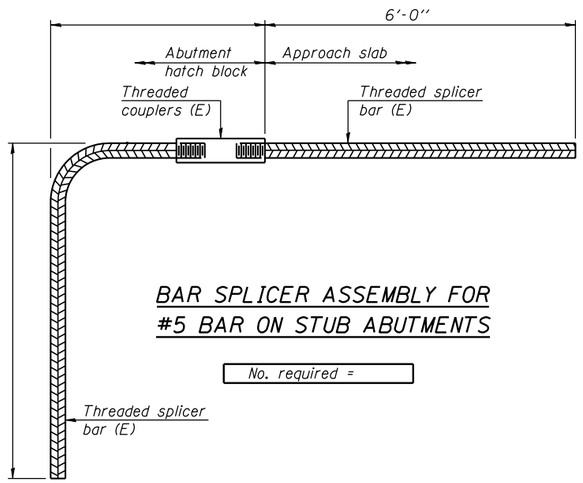
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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

No. required = 226



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 approved list of bar splicer assemblies and mechanical splicers for alternatives.

FILE NAME = s:\pl\6388-6399\6346\028\micros\cadd sheets\structural\0160587-60K77-034-SPLICE.dgn

BSD-1 1-27-12

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	CHECKED - AJS	REVISED	
PLOT SCALE =	DRAWN - BJF	REVISED	
PLOT DATE = 1/29/2013	CHECKED - RRD	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 016-0587
SHEET NO. 36 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	124
		CONTRACT NO. 60K77		
	ILLINOIS	FED. AID PROJECT		

Wang Engineering
wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG B-01

WEI Job No.: 555-14-02

Client: IDOT District One/Region One
Project: IDOT D-91-243-11, CLR Bridge Over I-55
Location: NW 1/4 Section 30, T38N, R12E, 3rd PM

Datum: NAV88
Elevation: 714.58 ft
North: 1854020.70 ft
East: 1098143.60 ft
Station: 62+18.45
Offset: 36.12 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	713.8	9-inch thick, CONCRETE --PAVEMENT--						
	713.2	8-inch thick, CRUSHED STONE --AGGREGATE BASE--						
		Stiff to hard, brown and gray SILTY CLAY, trace to little gravel --FILL--			1	6 5 5	4.10 B	21
			5		2	4 4 7	2.75 P	13
					3	5 6 5	2.79 B	21
			10		4	6 5 9	5.08 B	22
					5	6 7 8	2.05 B	17
			15		6	4 5 7	1.97 B	20
					7	6 5 6	4.84 B	18
			20		8	3 4 5	3.12 B	23
	694.1	Stiff to very stiff, brown and gray SILTY CLAY, trace gravel	25		9	3 4 11	2.71 S	20
					10	5 7 11	1.64 B	21
			30		11	6 8 9	NR	16
					12	5 10 14	3.20 B	17
	682.1	Medium dense, gray SILTY LOAM, little gravel	35		13	6 6 8	NR	
			40		14	8 5 6	NP	12

GENERAL NOTES

Begin Drilling: 10-31-2011 Complete Drilling: 10-31-2011
Drilling Contractor: Wang Testing Service Drill Rig: D 50 ATV
Driller: K&K Logger: B. Wilson Checked by: M. Snider
Drilling Method: 3.25 IDA HSA; Boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 56.50 ft
At Completion of Drilling: WASH
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 5551402.GPJ WANGENG.GDT 11/30/11

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Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG B-01

WEI Job No.: 555-14-02

Client: IDOT District One/Region One
Project: IDOT D-91-243-11, CLR Bridge Over I-55
Location: NW 1/4 Section 30, T38N, R12E, 3rd PM

Datum: NAV88
Elevation: 714.58 ft
North: 1854020.70 ft
East: 1098143.60 ft
Station: 62+18.45
Offset: 36.12 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
			45		15	3 5 7	NP	11
			50		16	7 8 19	NP	12
	662.6	Very sitff, gray SILTY CLAY LOAM, trace gravel	55		17	6 9 13	2.30 B	14
	658.1	Medium dense, gray SILTY LOAM, little gravel	60		18	6 4 6	NP	11
			65		19	9 4 6	NP	11
	646.6	--AUGER REFUSAL-- Boring terminated at 68.00 ft	70		20	50/1	NP	
			75					
			80					

GENERAL NOTES

Begin Drilling: 10-31-2011 Complete Drilling: 10-31-2011
Drilling Contractor: Wang Testing Service Drill Rig: D 50 ATV
Driller: K&K Logger: B. Wilson Checked by: M. Snider
Drilling Method: 3.25 IDA HSA; Boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 56.50 ft
At Completion of Drilling: WASH
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 5551402.GPJ WANGENG.GDT 11/30/11

FILE NAME = s:\pw\6300-6399\6346\828\micros\cadd sheets\structural\016587-60K77-035-SBL.dgn

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	CHECKED - AJS	REVISED	
PLOT SCALE =	DRAWN - BJF	REVISED	
PLOT DATE = 1/29/2013	CHECKED - RRD	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG (1 OF 5)
STRUCTURE NO. 016-0587
SHEET NO. 37 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	125
		CONTRACT NO. 60K77		
	ILLINOIS FED. AID PROJECT			

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Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG B-02

WEI Job No.: 555-14-02

Client: IDOT District One/Region One
Project: IDOT D-91-243-11, CLR Bridge Over I-55
Location: NW 1/4 Section 30, T38N, R12E, 3rd PM

Datum: NAV88
Elevation: 714.70 ft
North: 1854040.71 ft
East: 1098201.27 ft
Station: 62+36.65
Offset: 22.15 RT

Depth (ft)	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	714.0	9-inch thick, CONCRETE --PAVEMENT--					
	713.4	7-inch thick, CRUSHED STONE --AGGREGATE BASE--					
		Stiff to very stiff, brown CLAY, trace gravel --FILL--					
				1	3 4 4	1.00 P	16
5				2	2 2 2	1.00 P	25
				3	4 4 7	2.62 B	18
10				4	3 5 8	2.54 B	21
				5	5 6 6	2.54 B	15
15				6	3 5 8	3.00 P	16
	699.0	Hard, brown SILTY CLAY, trace gravel --FILL--		7	5 6 8	4.35 B	17
	696.7	Very stiff, black and brown CLAY, trace gravel --FILL--		8	4 5 8	3.94 B	18
20							
	690.2	Stiff, brown CLAY		9	6 7 10	2.50 P	24
25				10	3 6 8	NR	
				11	2 3 4	1.64 B	23
	686.7	Medium stiff, brown and gray SANDY CLAY					
30				12	2 2 2	0.57 B	33
	683.0	Stiff to very stiff, gray SILTY CLAY, trace gravel					
				13	5 6 8	2.95 B	13
35							
				14	6 10 10	2.79 B	15
40							

GENERAL NOTES

Begin Drilling: 10-27-2011 Complete Drilling: 10-27-2011
Drilling Contractor: Wang Testing Service Drill Rig: D 50 ATV
Driller: K&K Logger: F. Bozga Checked by: M. Snider
Drilling Method: 3.25 IDA HSA; Boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 30.00 ft
At Completion of Drilling: ▼ 65.00 ft
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 555402.GPJ WANGENG.GDT 11/30/11

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BORING LOG B-02

WEI Job No.: 555-14-02

Client: IDOT District One/Region One
Project: IDOT D-91-243-11, CLR Bridge Over I-55
Location: NW 1/4 Section 30, T38N, R12E, 3rd PM

Datum: NAV88
Elevation: 714.70 ft
North: 1854040.71 ft
East: 1098201.27 ft
Station: 62+36.65
Offset: 22.15 RT

Depth (ft)	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
45				15	7 7 9	1.80 B	12
	658.7	Medium dense, gray SILTY LOAM, trace gravel					
50				16	4 6 8	1.97 B	13
55				17	5 7 11	1.50 P	17
60				18	4 6 7	NP	10
65				19	3 4 6	NP	9
	648.0	Very dense, gray SAND, trace rock fragments					
	645.7	--AUGER REFUSAL--		20	50/2	NP	14
70		Strong, very poor quality, weathered, light brown and gray, intensely fractured, mostly horizontal fractures, vuggy DOLOSTONE, with fossils RECOVERY = 100% RQD = 0%	CORE	1			
75		Strong, very poor quality, moderately weathered to fresh (78' to 79'), light brown and gray, intensely fractured, mostly horizontal fractures, vuggy DOLOSTONE, with fossils RECOVERY = 100% RQD = 0%	CORE	2			
	635.7	Boring terminated at 79.00 ft					
80							

GENERAL NOTES

Begin Drilling: 10-27-2011 Complete Drilling: 10-27-2011
Drilling Contractor: Wang Testing Service Drill Rig: D 50 ATV
Driller: K&K Logger: F. Bozga Checked by: M. Snider
Drilling Method: 3.25 IDA HSA; Boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 30.00 ft
At Completion of Drilling: ▼ 65.00 ft
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 555402.GPJ WANGENG.GDT 11/30/11

FILE NAME = s:\pw\6300-6399\6346\828\micros\cadd sheets\structural\016587-60K77-B35-SBL.dgn

STRAND ASSOCIATES® IDFPR NO. 184-001273
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200

USER NAME = brianf	DESIGNED - RRD	REVISED
	CHECKED - AJS	REVISED
PLOT SCALE =	DRAWN - BJF	REVISED
PLOT DATE = 1/29/2013	CHECKED - RRD	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG (2 OF 5)
STRUCTURE NO. 016-0587
SHEET NO. 38 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	126
		CONTRACT NO. 60K77		
	ILLINOIS FED. AID PROJECT			

Wang Engineering
wangeng@wangeng.com
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Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG B-03

WEI Job No.: 555-14-02

Client: IDOT District One/Region One
Project: IDOT D-91-243-11, CLR Bridge Over I-55
Location: NW 1/4 Section 30, T38N, R12E, 3rd PM

Datum: NAV88
Elevation: 714.16 ft
North: 1854403.64 ft
East: 1098121.68 ft
Station: 66+01.89
Offset: 46.06 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	713.2	11-inch thick, CONCRETE --PAVEMENT--						
	712.7	6-inch thick, CRUSHED STONE --AGGREGATE BASE--						
		Stiff to very stiff, brown and gray SILTY CLAY, trace gravel --FILL--			1	4 5 6	2.50 P	18
			5		2	4 5 6	2.30 B	22
					3	5 7 7	3.36 B	28
			10		4	4 5 6	2.46 B	18
					5	5 6 7	2.13 B	22
			15		6	3 4 4	2.05 B	20
					7	5 6 6	2.46 B	16
			20		8	4 4 5	1.39 B	24
	693.4							
	692.9	Black SILTY CLAY --BURIED TOPSOIL--						
		Medium stiff to very stiff, brown and gray SILTY CLAY, trace gravel			9	5 7 9	2.38 B	23
			25		10	2 2 3	0.90 B	28
					11	2 3 5	1.80 B	20
	684.4							
		Brown, medium to coarse SAND	30		12	3 5 7	3.69 B	18
	683.2	Hard, gray SILTY CLAY, little gravel						
			35		13	9 13 14	4.76 B	15
	678.2	Medium dense, gray SILTY LOAM, some gravel						
			40		14	9 9 6	NP	13

GENERAL NOTES

Begin Drilling: 11-01-2011 Complete Drilling: 11-01-2011
Drilling Contractor: Wang Testing Service Drill Rig: D 50 ATV
Driller: K&K Logger: B. Wilson Checked by: M. Snider
Drilling Method: 3.25 IDA HSA; Boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 36.00 ft
At Completion of Drilling: ▼ WASH
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 5551402.GPJ WANGENG.GDT 11/30/11

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Fax: 630 953-9938

BORING LOG B-03

WEI Job No.: 555-14-02

Client: IDOT District One/Region One
Project: IDOT D-91-243-11, CLR Bridge Over I-55
Location: NW 1/4 Section 30, T38N, R12E, 3rd PM

Datum: NAV88
Elevation: 714.16 ft
North: 1854403.64 ft
East: 1098121.68 ft
Station: 66+01.89
Offset: 46.06 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	672.7	Stiff, gray SILTY CLAY LOAM, trace to little gravel						
			45		15	3 4 7	1.64 B	16
			50		16	4 6 8	1.15 B	15
	662.7	Medium dense, gray SILTY LOAM, trace gravel						
			55		17	8 7 8	NP	12
	657.7	Stiff, gray SILTY CLAY LOAM, trace gravel						
			60		18	6 6 10	1.31 B	15
			65		19	12 10 14	NR	18
	647.2	Gray SAND, some gravel			20	P U S H	NP	
	646.2	Very dense, gray WEATHERED DOLOSTONE				15 18 40		
			70		21		NP	10
	641.2	--AUGER REFUSAL-- Boring terminated at 73.00 ft			22	50/1		13
			75					
			80					

GENERAL NOTES

Begin Drilling: 11-01-2011 Complete Drilling: 11-01-2011
Drilling Contractor: Wang Testing Service Drill Rig: D 50 ATV
Driller: K&K Logger: B. Wilson Checked by: M. Snider
Drilling Method: 3.25 IDA HSA; Boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 36.00 ft
At Completion of Drilling: ▼ WASH
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 5551402.GPJ WANGENG.GDT 11/30/11

FILE NAME = s:\pl\6300-6399\6346\028\micros\cadd sheets\structural\0166587-60K77-035-SBL.dgn

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(815) 744-4200
IDFPR NO. 184-001273

USER NAME = brianf	DESIGNED - RRD	REVISED	
	CHECKED - AJS	REVISED	
PLOT SCALE =	DRAWN - BJF	REVISED	
PLOT DATE = 1/29/2013	CHECKED - RRD	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG (3 OF 5)
STRUCTURE NO. 016-0587
SHEET NO. 39 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	127
		CONTRACT NO. 60K77		
	ILLINOIS	FED. AID PROJECT		

Wang Engineering
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BORING LOG B-04

WEI Job No.: 555-14-02

Client: IDOT District One/Region One
Project: IDOT D-91-243-11, CLR Bridge Over I-55
Location: NW 1/4 Section 30, T38N, R12E, 3rd PM

Datum: NAVD88
Elevation: 714.18 ft
North: 1854430.71 ft
East: 1098205.98 ft
Station: 66+26.32
Offset: 39.04 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	714.1	9-inch thick, CONCRETE						
	713.4	--PAVEMENT--						
	712.9	6-inch thick, CRUSHED STONE						
		--AGGREGATE BASE--						
		Stiff to very stiff, black and brown CLAY, trace gravel			1	8 8 8	3.12 B	16
		--FILL--			2	4 4 5	2.87 B	18
			5		3	5 5 7	2.54 B	21
					4	3 4 5	2.54 B	19
			10		5	3 3 5	1.56 B	28
					6	2 3 6	1.56 B	23
			15		7	3 5 8	2.38 B	22
					8	3 3 4	1.75 P	15
			20					
	691.2	Stiff to hard, gray SILTY CLAY, trace gravel			9	3 4 6	2.46 B	23
			25		10	4 6 6	4.26 B	16
					11	3 5 7	3.69 B	16
			30		12	4 5 7	3.36 B	13
					13	4 5 7	2.38 B	13
			35					
					14	4 6 8	3.28 B	
			40					

WANGENGINC 6551402.GPJ WANGENG.GDT 11/30/11

GENERAL NOTES

Begin Drilling: 10-26-2011 Complete Drilling: 10-26-2011
Drilling Contractor: Wang Testing Service Drill Rig: D 50 ATV
Driller: K&K Logger: F. Bozga Checked by: M. Snider
Drilling Method: 3.25 IDA HSA; Boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 67.00 ft
At Completion of Drilling: 65.00 ft
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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BORING LOG B-04

WEI Job No.: 555-14-02

Client: IDOT District One/Region One
Project: IDOT D-91-243-11, CLR Bridge Over I-55
Location: NW 1/4 Section 30, T38N, R12E, 3rd PM

Datum: NAVD88
Elevation: 714.18 ft
North: 1854430.71 ft
East: 1098205.98 ft
Station: 66+26.32
Offset: 39.04 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
			45		15	4 6 6	2.54 B	14
			50		16	5 7 8	2.50 P	14
			55		17	9 10 25	2.50 P	14
			60		18	5 8 10	2.54 B	13
	647.2	Loose, gray SANDY LOAM, trace gravel	65		19	4 5 6	1.64 B	15
			70		20	2 2 2	NP	12
	643.2	Very dense, gray SANDY GRAVEL, trace rock fragments	75		21	30 48 44	NP	18
	637.7	WEATHERED BEDROCK						
	636.2	--AUGER REFUSAL--						
		Strong, very poor quality, moderately weathered to fresh (from 81' down), brownish gray to light gray, intensely fractured	80			CORE		

WANGENGINC 5551402.GPJ WANGENG.GDT 11/30/11

GENERAL NOTES

Begin Drilling: 10-26-2011 Complete Drilling: 10-26-2011
Drilling Contractor: Wang Testing Service Drill Rig: D 50 ATV
Driller: K&K Logger: F. Bozga Checked by: M. Snider
Drilling Method: 3.25 IDA HSA; Boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 67.00 ft
At Completion of Drilling: 65.00 ft
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

FILE NAME = e:\jobs\6300-6399\6346\028\micros\cadd sheets\structural\0160587-60K77-035-SBL.dgn

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1170 SOUTH HOUBOLT ROAD
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(815) 744-4200
IDFPR NO. 184-001273

USER NAME = brianf	DESIGNED - RRD	REVISED	
	CHECKED - AJS	REVISED	
PLOT SCALE =	DRAWN - BJF	REVISED	
PLOT DATE = 1/29/2013	CHECKED - RRD	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG (4 OF 5)
STRUCTURE NO. 016-0587
SHEET NO. 40 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	128
		CONTRACT NO. 60K77		
	ILLINOIS	FED. AID PROJECT		

Wang Engineering
wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG B-04

WEI Job No.: 555-14-02

Client: IDOT District One/Region One
Project: IDOT D-91-243-11, CLR Bridge Over I-55
Location: NW 1/4 Section 30, T38N, R12E, 3rd PM

Datum: NAV88
Elevation: 714.18 ft
North: 1854430.71 ft
East: 1098205.98 ft
Station: 66+26.32
Offset: 39.04 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		(mostly horizontal), vuggy DOLOSTONE, with fossils and shale partings RECOVERY = 100% RQD = 0%			1			
		Strong, very poor quality, fresh, light gray, intensely fractured (mostly horizontal), vuggy DOLOSTONE, with fossils and shale partings RECOVERY = 97% RQD = 17%	85		2	CORE		
	626.2	Boring terminated at 88.00 ft	90					
			95					
			100					

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)

GENERAL NOTES

Begin Drilling: 10-26-2011 Complete Drilling: 10-26-2011
Drilling Contractor: Wang Testing Service Drill Rig: D 50 ATV
Driller: K&K Logger: F. Bozga Checked by: M. Snider
Drilling Method: 3.25 IDA HSA; Boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 67.00 ft
At Completion of Drilling: ▼ 65.00 ft
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 5551402.GPJ WANGENG.GDT 11/30/11

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STRAND ASSOCIATES® 1170 SOUTH HOUBOLT ROAD, JOLIET, ILLINOIS 60431, (815) 744-4200, IDFPR NO. 184-001273	USER NAME = brianf	DESIGNED - RRD	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - AJS	REVISED	
	PLOT SCALE =	DRAWN - BJF	REVISED	
	PLOT DATE = 1/29/2013	CHECKED - RRD	REVISED	

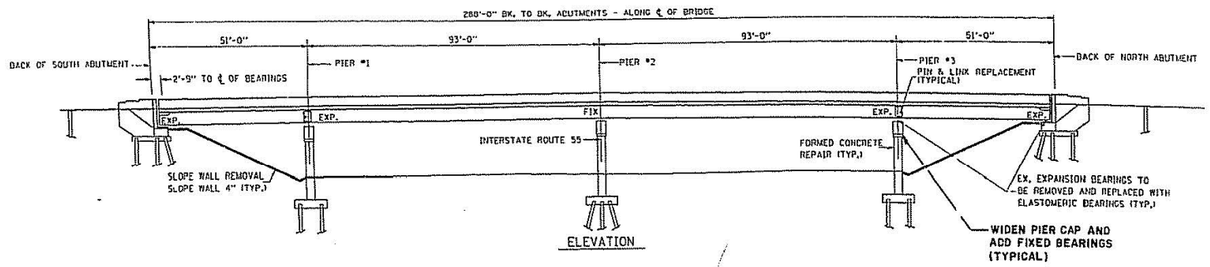
SOIL BORING LOG (5 OF 5)
STRUCTURE NO. 016-0587
SHEET NO. 41 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	129
		CONTRACT NO. 60K77		
	ILLINOIS FED. AID PROJECT			

SHEET 1 OF 19

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	COOK	401	292
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

*22(1,1HB-4,23,21HB-1)NPS-3
22(1HB&2HB)-R



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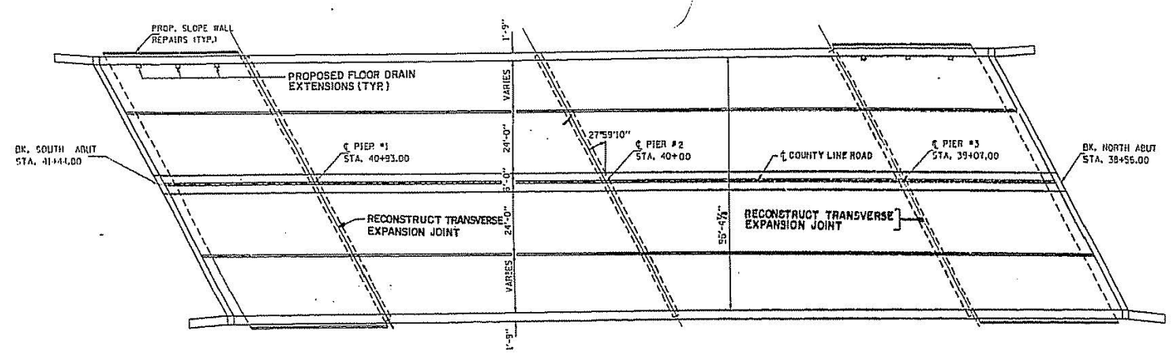
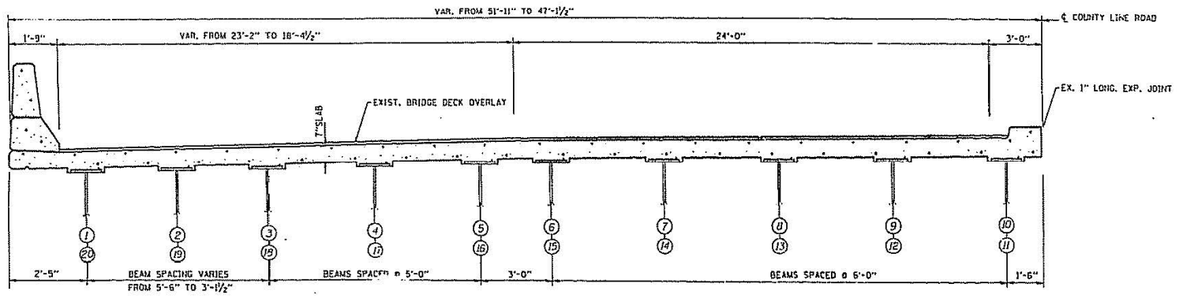


PLAN



EXISTING TYPICAL SECTION

CONSTRUCTION SEQUENCE

1. TRAFFIC STAGING
2. PIN & LINK REMOVAL
3. **JOINT RECONSTRUCTION AND SUBSTRUCTURE REPAIRS**
4. JACK EXISTING SUPERSTRUCTURE & REPLACE BEARINGS
5. SLOPE WALL REPAIRS
6. FLOOR DRAIN EXTENSIONS

1. PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NORMAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSION AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATION SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE ACTUAL QUANTITY FURNISHED AT THE UNIT BID PRICE FOR THE WORK.
2. ALL NEW STRUCTURAL STEEL SHALL CONFORM TO AASHTO M-270, GR.36 UNLESS OTHERWISE SPECIFIED.
3. ALL NEW FASTENERS SHALL BE HIGH STRENGTH BOLTS, HOLES SHALL BE SUBPUNCHED OR SUBDRILLED ⅞" DIA. AND REAMED IN THE FIELD TO ⅞" DIA. FOR ¾" DIA. HIGH STRENGTH BOLTS (EXCEPT AS NOTED ON THE PLANS) AFTER NEW STRUCTURAL STEEL SECTIONS ARE PROPERLY FITTED INTO POSITION.
4. EXISTING STRUCTURAL STEEL SHALL ONLY BE CLEANED AND PAINTED AS REQUIRED BY THE SPECIAL PROVISION "CLEANING AND PAINTING ADJACENT AREAS OF EXISTING STEEL STRUCTURES".
5. THE INORGANIC ZINC-SILICATE/ACRYLIC/ACRYLIC PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF NEW STRUCTURAL STEEL EXCEPT WHERE OTHERWISE NOTED. THE COLOR OF THE ACRYLIC FINISH COAT SHALL BE "LIGHT GREY", MUNSELL NO. 10Y 7/1. SEE SPECIAL PROVISIONS.
6. THE PAINT ON THE EXISTING STRUCTURAL STEEL CONTAINS LEAD. PRECAUTIONS SHALL BE TAKEN TO PROTECT WORKERS AND THE ENVIRONMENT AS REQUIRED BY LOCAL, STATE AND FEDERAL REGULATIONS.
7. *Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42, or M-53 Grade 60.*

TOTAL BILL OF MATERIALS - BRIDGE

Item	Unit	Quantity
Porous Granular Embankment	Ton	15
Slope Wall Removal	Sq. Yd.	570
Slope Wall 4"	Sq. Yd.	570
Floor Drain Extensions	Each	6
Reinforcement Bars (Epoxy Coated)	Lbs.	6,130
Formed Concrete Repair (1.5")	Sq. Ft.	121
Concrete Removal	Cu. Yds.	38.8
Furnishing and Erecting Of Structural Steel	Lbs.	29,140
Jack And Remove Existing Bearings	Each	16
Concrete Structures	Cu. Yds.	52.6
Elastomeric Bearing Assembly Type 1	Each	80
Concrete Superstructure	Cu. Yds.	35.3
Preformed Joint Seal (4")	Foot	220
Bar Splicers	Each	64
Cathodic Protection System Repair	L.S.	1
Structural Steel Repair	LBS	1960
Bridge Seat Sealer	SQ YD	100
Temporary Shoring And Cribbing	LS	0.5
Reinforcement Bars	Lbs.	7000

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
COUNTY LINE ROAD
OVER INTERSTATE ROUTE 55
S.N.016-0587
ELEVATION, PLAN AND TYPICAL SECTION
SCALE: NONE DRAWN BY: BJF
DATE 6-08-95 CHECKED BY: RRD

For Information only

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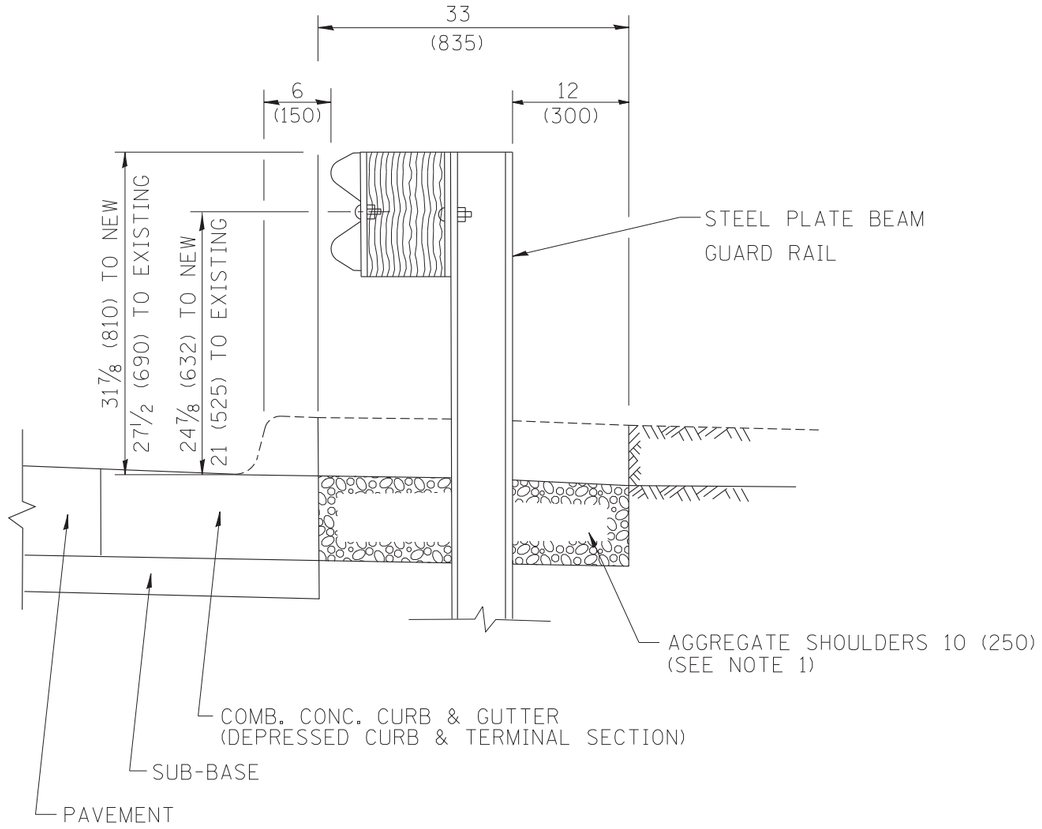
SA STRAND ASSOCIATES® 1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200 IDFPR NO. 184-001273

USER NAME = brianf	DESIGNED - RRD	REVISED	
	CHECKED - AJS	REVISED	
PLOT SCALE =	DRAWN - BJF	REVISED	
PLOT DATE = 1/29/2013	CHECKED - RRD	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING GENERAL PLAN AND ELEVATION
STRUCTURE NO. 016-0587
SHEET NO. 42 OF 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	130
		CONTRACT NO. 60K77		
	ILLINOIS	FED. AID PROJECT		

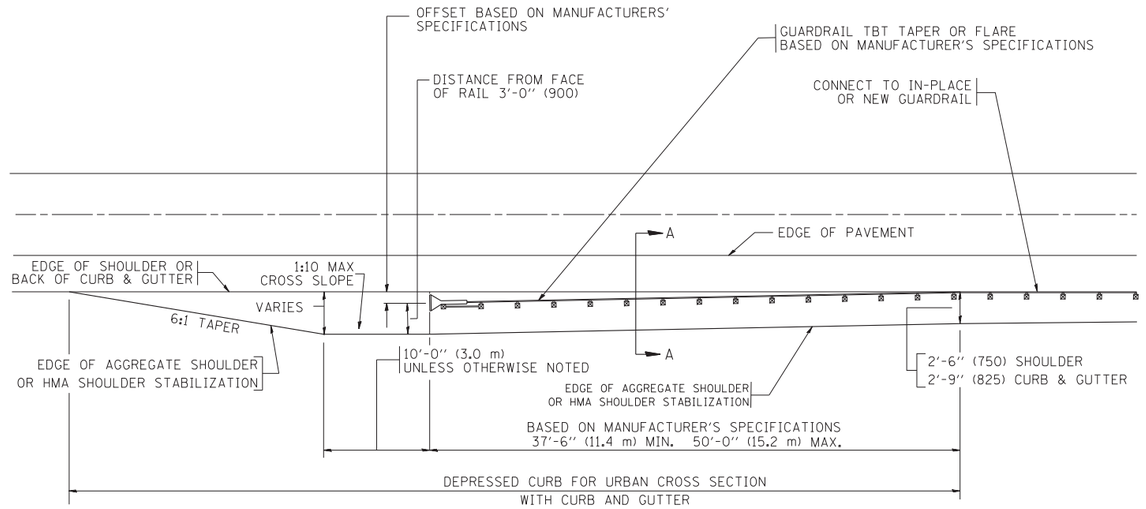


SECTION A-A

NOTES:
1. THE AGGREGATE SHOULDER, 10'' OR HMA SHOULDER, 6'' (IF REQUIRED) SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL.
2. ''EXISTING'' GUARDRAIL REFERS TO CONNECTING TERMINAL SECTION TO GUARD RAILING PRIOR TO THE MIDWEST GUARDRAIL SYSTEM.
3. THE CONTRACTOR SHALL VERIFY THE TYPE/HEIGHT OF GUARDRAIL IN-PLACE BEFORE ORDERING THE NEW TERMINAL SECTION. COST INCLUDED WITH THE COST OF THE TERMINAL. THE TERMINAL SECTION HEIGHT TO BE PLACED MUST MATCH THE HEIGHT OF THE IN-PLACE GUARDRAIL.

DETAILS FOR STEEL PLATE BEAM GUARD RAIL ADJACENT TO CURB AND GUTTER

[FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]



DEPRESSED CURB AND GUTTER AND SHOULDER TREATMENT AT TBT TY. 1 SPL.

BASIS OF PAYMENT: HMA SHOULDERS 6 (150) (IF REQUIRED) WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR ''HOT-MIX ASPHALT SHOULDERS 6'' (150 mm)''.

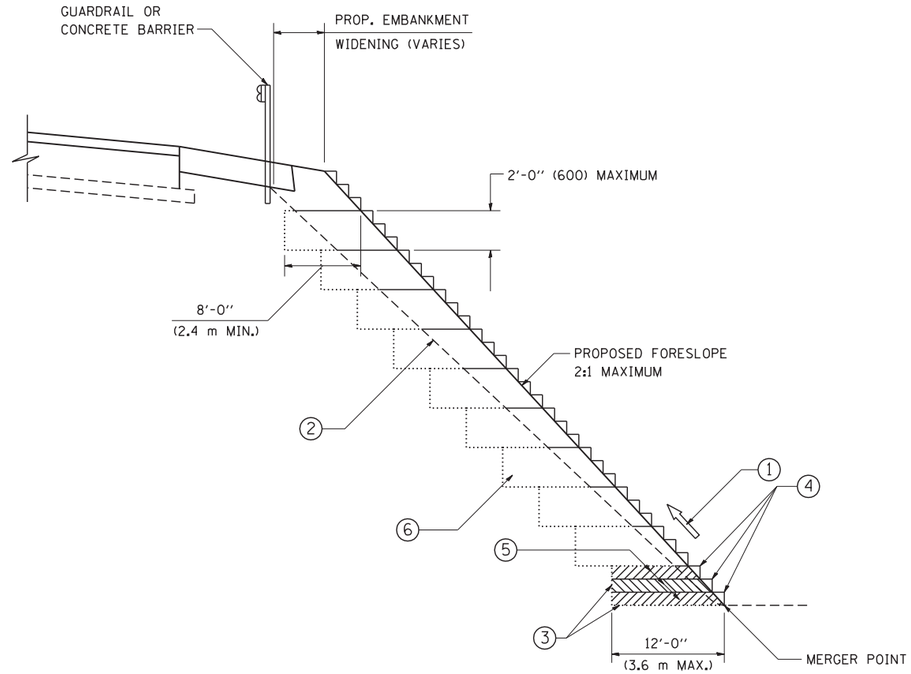
STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

TBT = TRAFFIC BARRIER TERMINAL

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

FILE NAME = c:\pw_work\PWIDOT\DRIVAKOSGN\d0108315\bd34.dgn	USER NAME = drivakosgn	DESIGNED - M. DE YONG	REVISED - E. GOMEZ 08-28-00	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**DETAILS FOR DEPRESSED CURB & GUTTER AND SHOULDER TREATMENT AT TBT TY 1 SPL.**
		DRAWN -	REVISED - R. BORO 01-01-07		
	PLOT SCALE = 49.9999 '/ IN.	CHECKED -	REVISED - R. BORO 12-08-2008		
	PLOT DATE = 9/21/2009	DATE - 09-22-90	REVISED - R. BORO 09-14-2009		SCALE: NONE / SHEET NO. 1 OF 1 SHEETS / STA. / TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	131
	BD600-10 (BD 34)	CONTRACT NO. 60K77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



TYPICAL BENCHING DETAIL FOR EMBANKMENT

NOTES:

1. CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
2. EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
3. BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
4. TRIM TO FINAL SLOPE.
5. EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
6. EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
7. SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

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

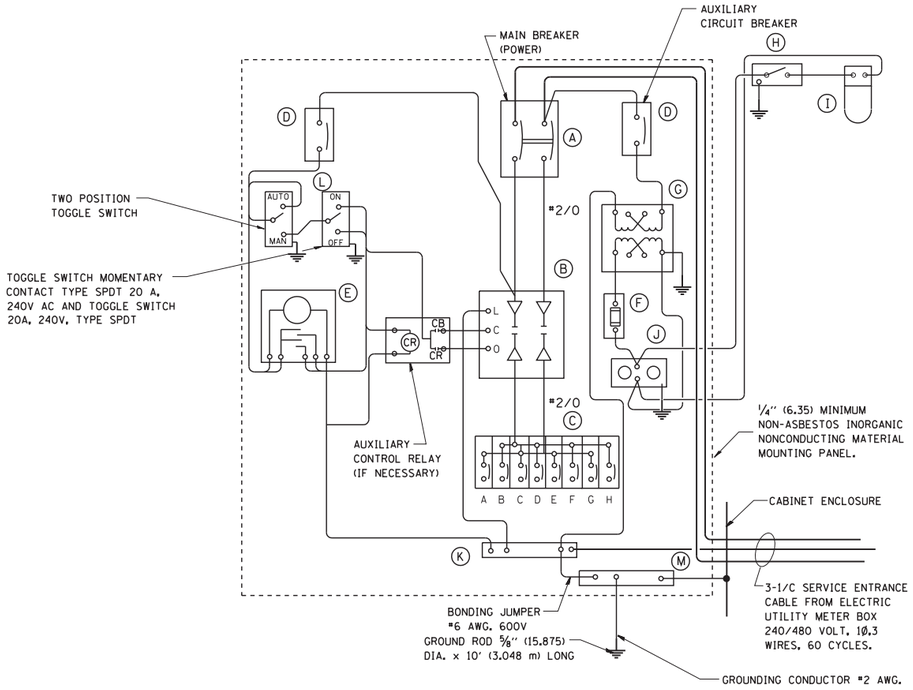
FILE NAME = W:\diststd\22x34\bd51.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED -
		DRAWN - CADD	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED - S.E.B.	REVISED -
	PLOT DATE = 1/4/2008	DATE - 06-16-04	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BENCHING DETAIL
FOR EMBANKMENT WIDENING

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	132
	BD-51	CONTRACT NO. 60K77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

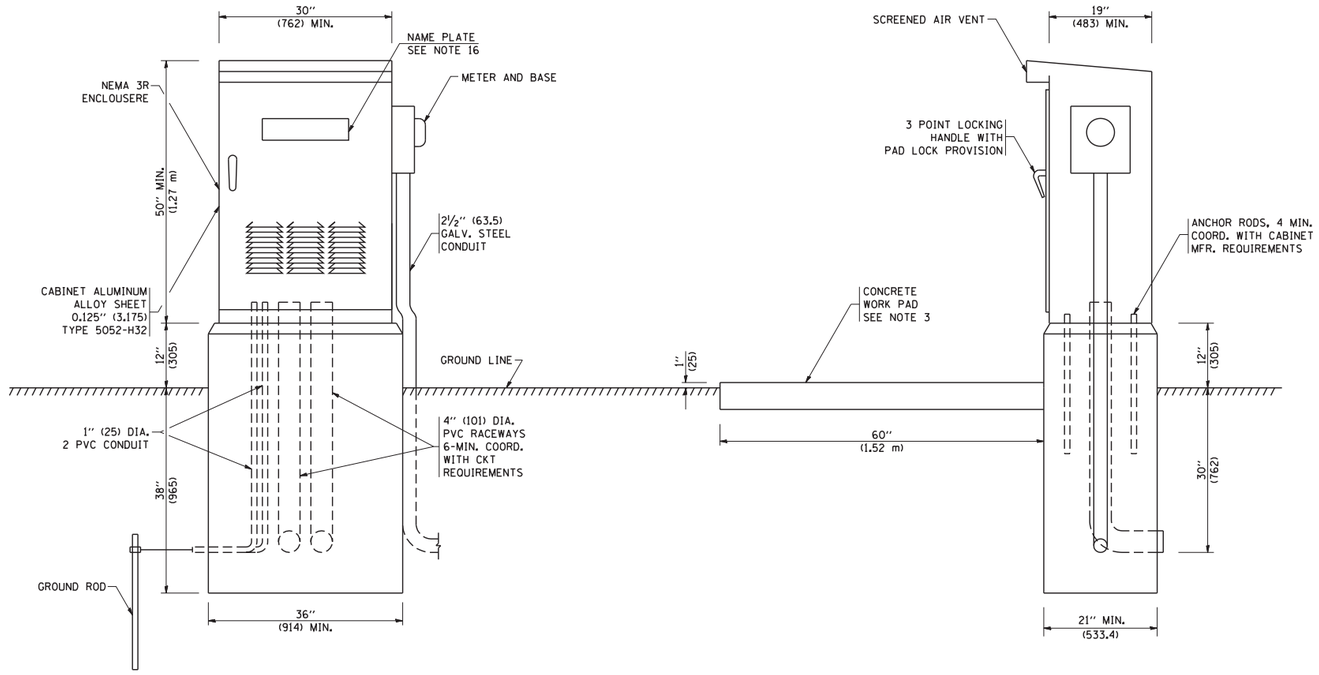


PANEL WIRING DIAGRAM

PANEL EQUIPMENT

BILL OF MATERIAL

ITEM	QUANTITY	DESCRIPTION
A	1	MAIN CIRCUIT BREAKER, 2 POLE, 600 VOLT 100 AMP. FRAME, 100 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-22000 AMP. AT 480 VOLT.
B	1	REMOTE CONTROL SWITCH, ELECTRICALLY OPERATED, MECHANICALLY HELD, 2 POLE, SINGLE THROW, 100 AMP., 600 VOLTS CONTROL CIRCUIT 240 VOLT.
C	8	CIRCUIT BREAKERS, 1 POLE, 100AMP. FRAME , 50 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-10,000 AMP. AT 240 V.
D	2	CONTROL CIRCUIT-CIRCUIT BREAKER, 1 POLE, 240 V., 100 AMP. FRAME, 15 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-5000 AMP. AT 240 V.
E	1	ASTRONOMIC MICROPROCESSOR-BASED 2-CHANNEL CONTROLLER [TIME SWITCH].
F	1	20 A., 120 V. FUSE.
G	1	1.5 KVA, SINGLE PHASE, ENCAPSULATED TRANSFORMER 240 X 480 / 120 X 240 VOLT, 60 Hz.
H	1	SPST 20A SWITCH ON DOOR, TO TURN LIGHT ON WHEN DOOR IS OPEN,
I	1	INCANDESCENT LIGHTING FIXTURE ENCLOSED AND GASKETED WITH 60 WATT, 120 V. LAMP.
J	1	20 A., 120 V., DUPLEX RECEPTACLE, GFCI.
K	1	COPPER GROUND BUS 1/4" (6.35) X 1" (25.4) X 12" (304.8 mm) LONG MOUNTED ON PANEL WITH LUGS AND 4 SPARE LUGS
L	1	TOGGLE SWITCHES MOUNTED IN 4" (101.6) X 4" (101.6 mm) BOX.
M	1	COPPER GROUND BUS 1/4" (6.35) X 1" (25.4) X 12" (304.8 mm) LONG MOUNTED ON PANEL WITH LUGS AND SPARE LUGS



NOTES:

1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
2. FOUNDATION SIZE SHALL BE COORDINATED WITH CABINET SIZE AND MFR.
3. IN FRONT OF CONTROL CABINET DOOR, REMOVE VEGETATION AND 2" (50.8 mm) TOP SOIL, LEVEL THE AREA AND ON TOP, PLACE LENGTH WISE PARALLEL TO CONTROL CABINET, A CONCRETE PAD 36" (914.4 mm) x 60" (18.288 m) x 4" (101 mm) MIN. SIZE. THE COST OF LABOR AND MATERIALS ARE INCLUDED IN THE COST OF THE CONTROLLER.
4. DOOR SHALL BE CONSTRUCTED FROM SAME TYPE OF MATERIAL AND THICKNESS AS CABINET.
5. DOOR SHALL BE EQUIPPED WITH THREE POINT LATCHING MECHANISM WITH NYLON ROLLERS AT TOP THE BOTTOM.
6. DOOR HINGE SHALL BE A HEAVY GAUGE CONTINUOUS HINGE WITH A 1/4" (6.35 mm) DIA. STAINLESS STEEL HINGE PIN.
7. ALL EXTERNAL HARDWARE SHALL BE STAINLESS STEEL.
8. CONTROL WIRING TO BE #12 AWG, 600V, TYPE "SIS" GRAY SWITCH BOARD WIRE, STRANDED COPPER.
9. METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CABINET, NEAR TO THE SERVICE POLE.
10. CABINETS SHALL BE PRIMED AND PAINTED AS SPECIFIED.
11. THE HEADS OF CONNECTORS SCREWS SHALL BE PAINTED WHITE FOR NEUTRAL BAR CONNECTION AND GREEN FOR GROUND BAR CONNECTORS.
12. ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED.
    R = RED BL = BLUE W = WHITE
    B = BLACK Y = YELLOW G = GREEN
13. PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE CONTROL CABINET.
14. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
15. THE CONTROLLER SHALL BE CONSTRUCTED TO U.L. STD. 508 AND BEAR THE U.L. LABEL "ENCLOSED INDUSTRIAL CONTROL PANEL".
16. 12" (304.8) X 16" (406.4 mm) STAINLESS STEEL EXTERIOR NAMEPLATE SHALL BE ENGRAVED TO "STATE OF ILLINOIS LIGHTING CONTROLS" UNLESS OTHERWISE SPECIFIED.

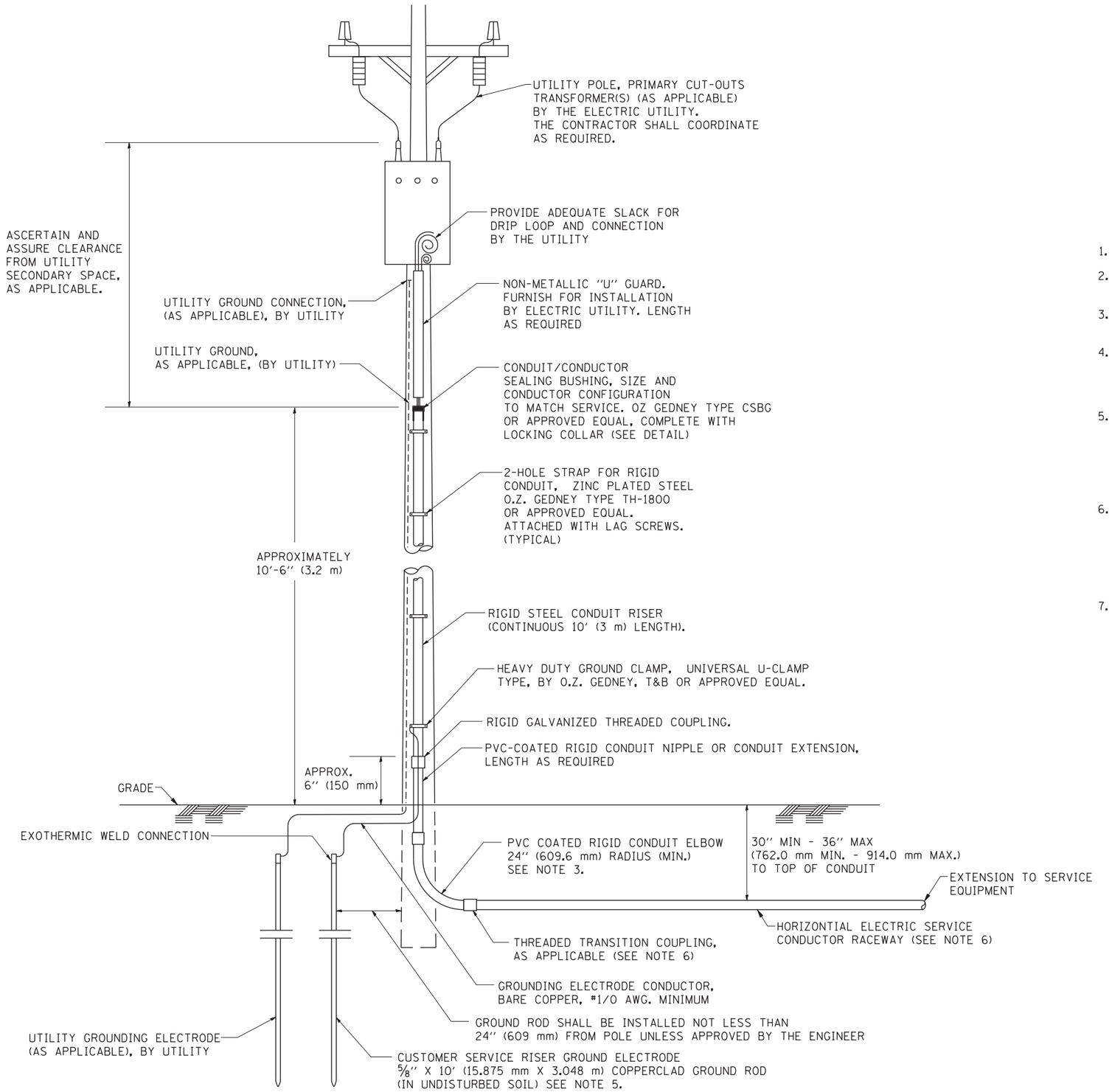
FILE NAME = W:\diststd\22x34\be215.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED - 08-20-04
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING CONTROLLER
SINGLE DOOR

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	133
	BE-215	CONTRACT NO. 60K77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

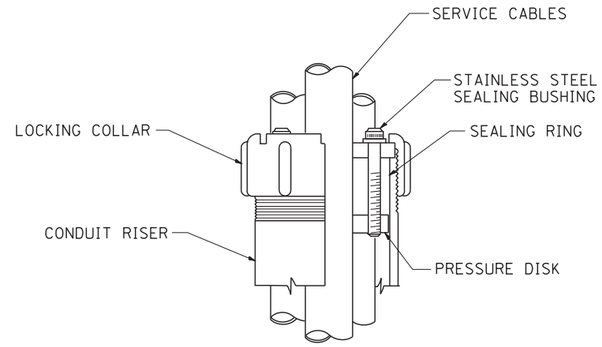


APPLICATION

THIS DETAIL APPLIES FOR LOW VOLTAGE ELECTRIC SERVICE (660 V OR LESS) FROM AN OVERHEAD UTILITY SUPPLY TO SEPERATLY-MOUNTED SERVICE EQUIPMENT.

NOTES

1. SERVICE VOLTAGE SHALL BE AS INDICATED ELSEWHERE IN THE DRAWINGS.
2. UNLESS OTHERWISE INDICATED, ITEMS AND WORK SHALL BE INCLUDED AND PAID AS PART OF THE ELECTRIC UTILITY SERVICE INSTALLATION PAY ITEM.
3. CONDUIT AND CONNECTOR DIAMETER SHALL MATCH THE DIAMETER OF THE SERVICE CONDUCTOR RACEWAY AS INDICATED ON THE PLANS.
4. PVC COATED RACEWAYS AND ACCESSORIES SHALL BE CAREFULLY INSTALLED WITH MFR RECOMMENDED TOOLS AND PROCEDURES TO AVOID DAMAGE. ANY DAMAGE SHALL BE REPAIRED WITH COMPATIBLE PVC TOUCH-UP MATERIAL TO THE SATISFACTION OF THE ENGINEER OR THE DAMAGED MATERIAL SHALL BE REPLACED AT NO ADDITIONAL COST.
5. THE CONTRACTOR SHALL OBTAIN INSPECTION AND APPROVAL BY THE ENGINEER OF SERVICE RISER GROUND ELECTRODE, RISER ELBOW, NIPPLE AND CONNECTION TO SERVICE CONDUCTOR RACEWAY EXTENSION BEFORE BACKFILL AND SHALL ALSO OBTAIN INSPECTION OF SERVICE RISER AND SEALING BUSHING BEFORE UTILITY "U" GUARD INSTALLATION AND SERVICE CONNECTION.
6. THE HORIZONTAL ELECTRIC SERVICE CONDUCTOR RACEWAY SHALL BE AS INDICATED AND SHALL BE MEASURED SEPARATELY FOR PAYMENT. WHEN THE RACEWAY IS PVC-COATED RIGID GALVANIZED STEEL, THE COUPLING SHALL BE THE SAME. WHEN THE RACEWAY IS PVC CONDUIT (IN CONCRETE), THE COUPLING SHALL BE A METALIC TO NON METALIC ADAPTER. WHEN THE RACEWAY IS ENCASED IN CONCRETE, THE CONCRETE SHALL EXTEND TO COVER THE COUPLING.
7. PLANS AND DETAILS INDICATE THE GENERAL NATURE AND REQUIREMENTS. THEY DO NOT SHOW EVERY ACCESSORY AND ATTACHMENT, AND THEY DO NOT RELIEVE THE CONTRACTOR OF THE REQUIREMENTS OF THE SPECIFICATIONS AND SPECIAL PROVISIONS TO ASCERTAIN UTILITY REQUIREMENTS AND TO COORDINATE ACCORDINGLY, FURNISHING ALL ITEMS AND WORK NOT PROVIDED BY THE UTILITY, BUT NECESSARY FOR A COMPLETE SERVICE INSTALLATION IS REQUIRED AND SHALL BE INCLUDED IN THE ELECTRIC UTILITY SERVICE INSTALLATION PAY ITEM.



SEALING BUSHING DETAIL

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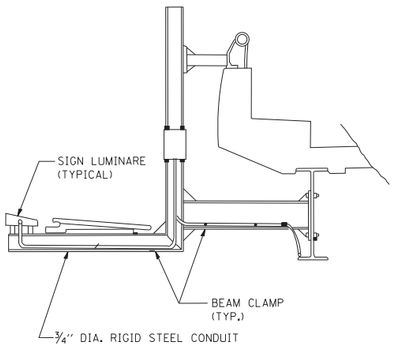
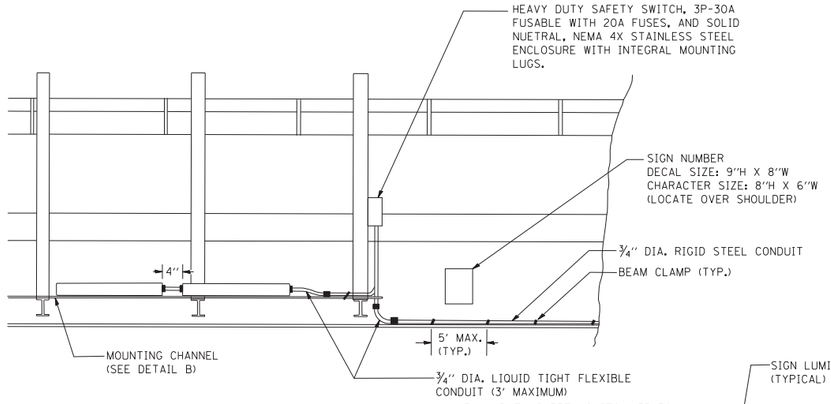
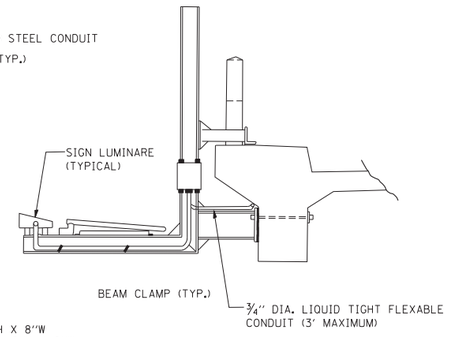
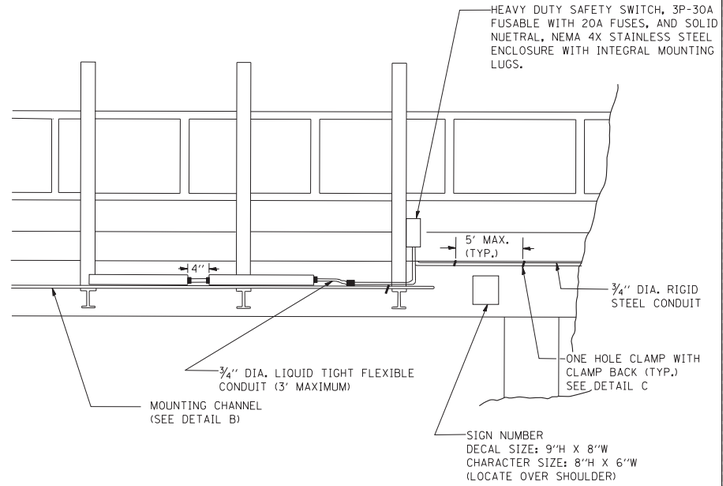
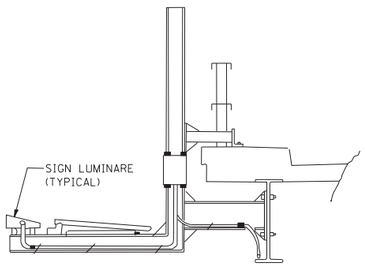
		DRAWN -	REVISED -				55	22-1HB-R	COOK/DUPAGE	161	134
	PLOT SCALE = 50.0000 '/ IN.	CHECKED - MEA	REVISED -					**BE-220**		CONTRACT NO. 60K77	
	PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

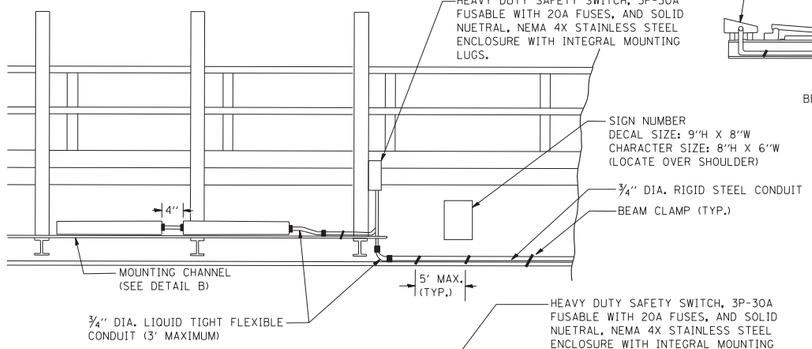


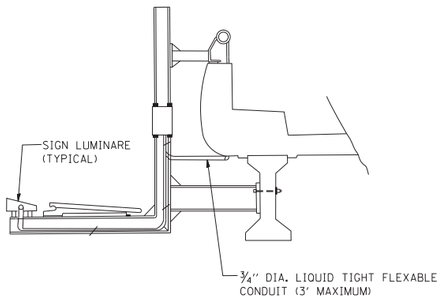


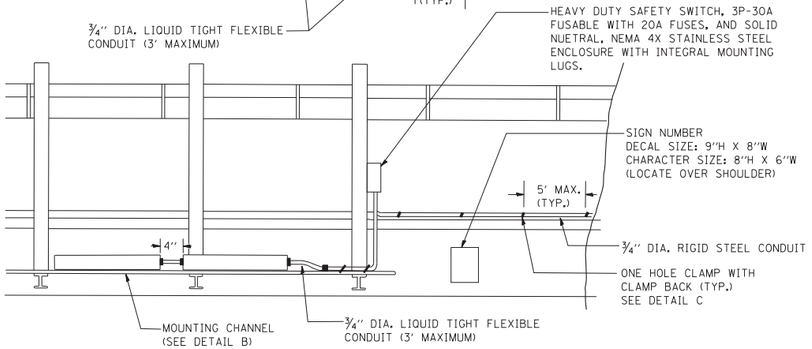


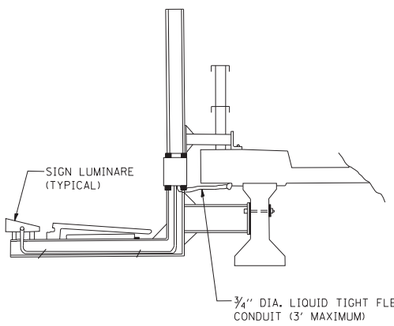


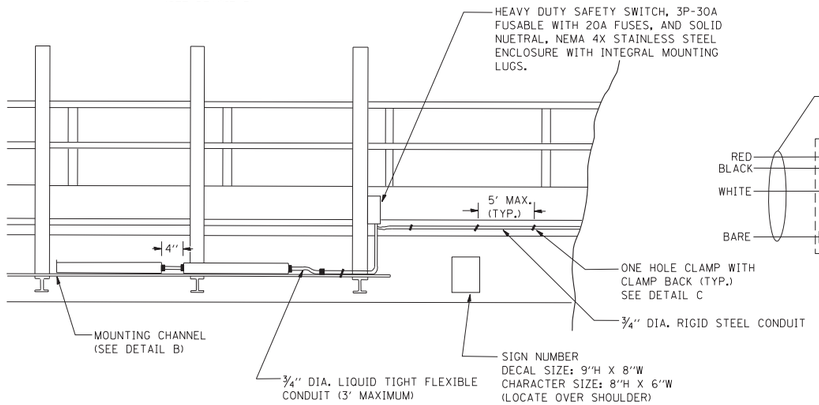


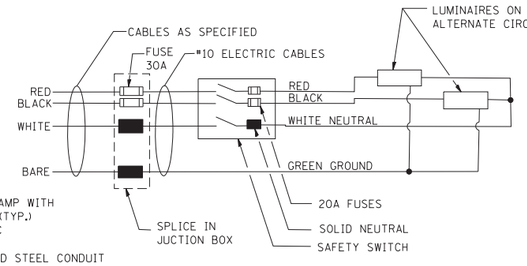




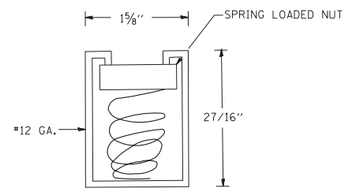








WIRING DIAGRAM



DETAIL B
CONTINUOUS-SLOT
MOUNTING CHANNEL
GALVINIZED STEEL

DETAIL C

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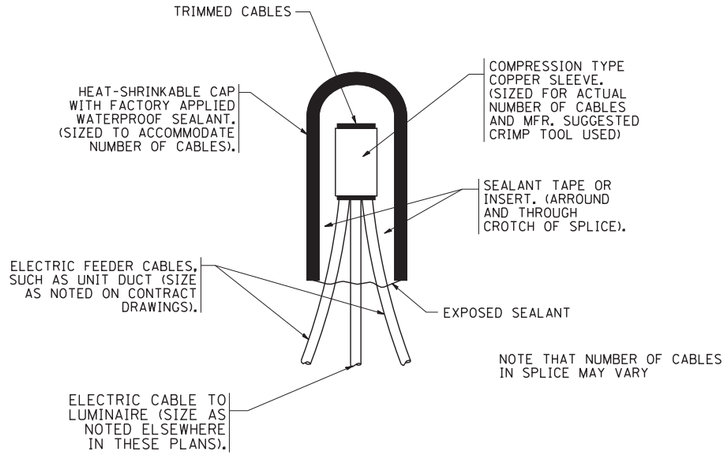
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/3/2010	DATE - 04-14-08	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELECTRIC CONNECTION TO SIGN STRUCTURE
BRIDGE TYPE

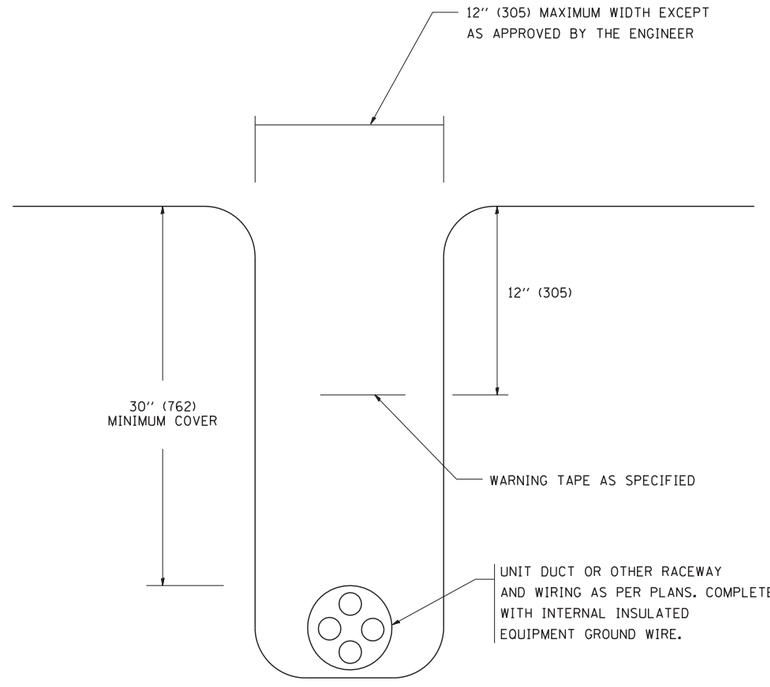
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	135
	BE-602	CONTRACT NO. 60K77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



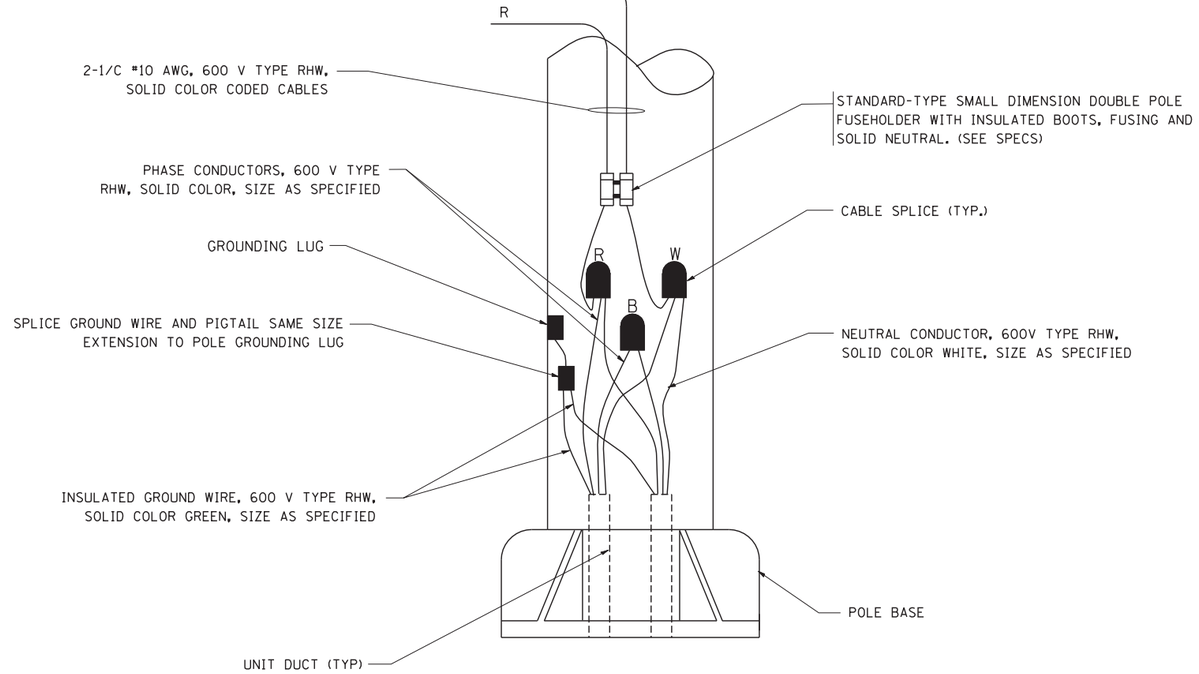
TYPICAL SPLICE DETAIL

N.T.S.



TYPICAL WIRING IN TRENCH DETAIL

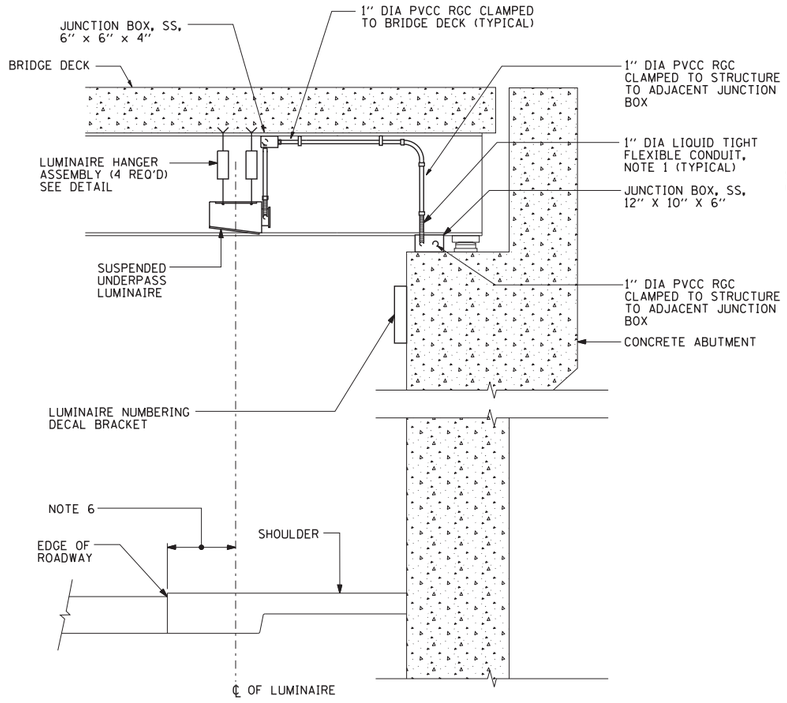
N.T.S.

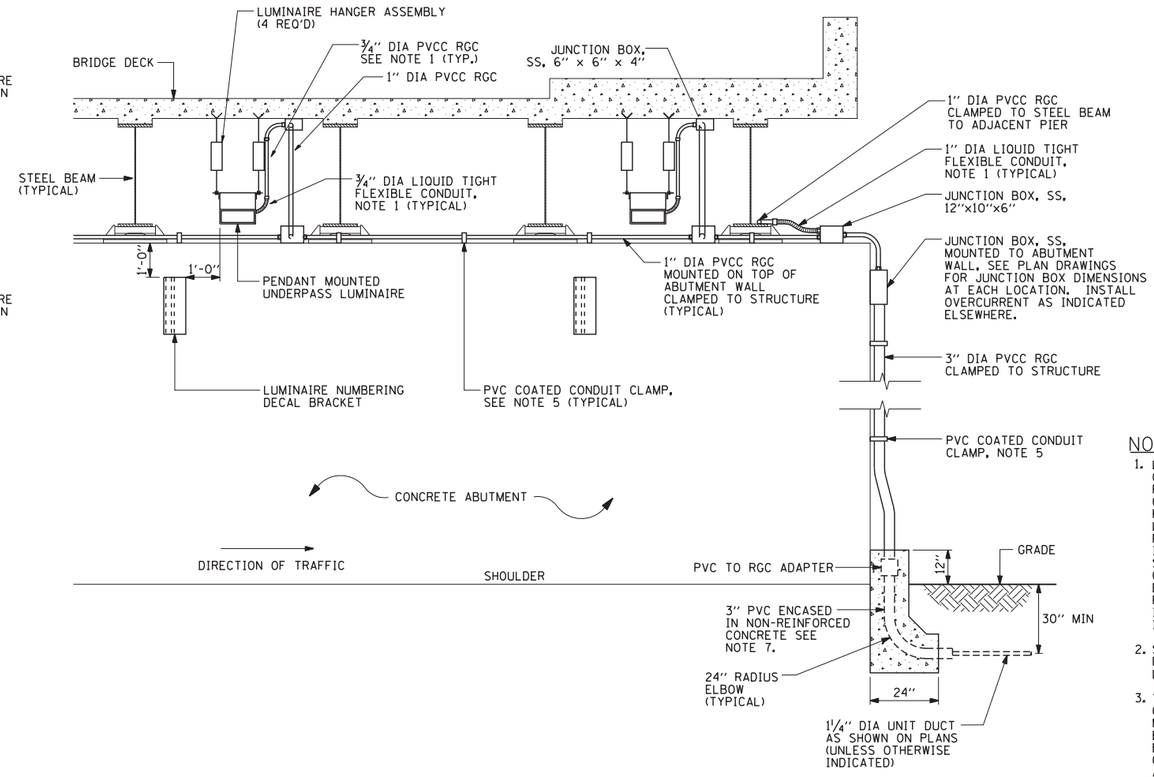


POLE WIRING DETAIL

N.T.S.

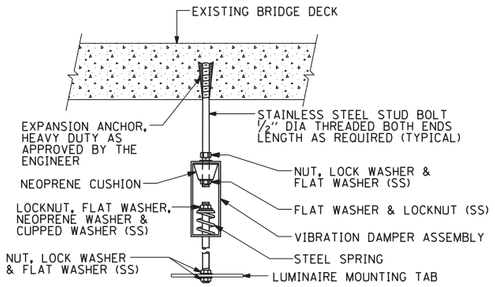
FILE NAME = W:\diststd\22x34\be702.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED - 08-08-03	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**MISC. ELECTRICAL DETAILS SHEET A**				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -						55	22-1HB-R	COOK/DUPAGE	161	136
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -							**BE-702**		CONTRACT NO. 60K77	
	PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



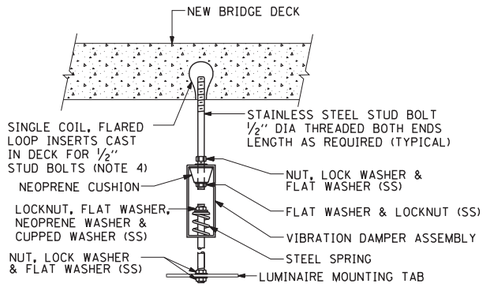


NOTES:

1. LIQUID TIGHT FLEXIBLE METAL CONDUIT, MAXIMUM LENGTH 6'-0", TYPICAL FOR EACH INSTANCE AS SHOWN. PROVIDE PVC COATED RIGID GALVANIZED STEEL CONDUIT AS REQUIRED NOT TO EXCEED 6'-0" OF FLEXIBLE LIQUID TIGHT METAL CONDUIT. LIQUID TIGHT FLEXIBLE METAL CONDUIT WILL BE INCLUDED IN THE COST OF THE CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED PAY ITEM EXCEPT THAT ¾" DIA. CONDUIT AND ¾" DIA. FLEXIBLE CONDUIT SHALL BE INCLUDED IN THE COST OF UNDERPASS LUMINAIRE INSTALLATION.
2. SEE UNDERPASS LIGHTING PLANS FOR INSTALLATION LOCATION OF UNDERPASS LIGHTING LUMINAIRES.
3. THE CONTRACTOR SHALL USE APPROVED SINGLE COIL FLARED LOOP INSERTS WHEN SUSPENDED MOUNTING AN UNDERPASS LUMINAIRE TO A NEW BRIDGE DECK. THE FLARED LOOP INSERTS MUST BE CAST INTO THE CONCRETE DECK. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND COORDINATING THE INSERT LOCATIONS FOR MOUNTING THE UNDERPASS LIGHTING SYSTEM AS SHOWN ON THE PLANS WITH THE BRIDGE DECK CONTRACTOR. SEE DETAIL.
4. THE UNDERPASS LUMINAIRE HANGER ASSEMBLY COMPLETE WITH HEAVY DUTY ANCHORS/INSERTS AND ALL APPLICABLE HARDWARE SHALL BE INCLUDED IN THE COST OF THE UNDERPASS LUMINAIRE PAY ITEM.
5. SECURE THE CONDUIT WITH PVC COATED CONDUIT CLAMPS OR CONDUIT BEAM CLAMPS AS SHOWN AT 5'-0" INTERVALS FOR LATERALS AND WITHIN 2'-0" MAXIMUM FROM ANY JUNCTION BOX, FLEXIBLE CONDUIT, OR CHANGE IN DIRECTION. ALL PVC COATED CONDUIT CLAMPS OR BEAM CLAMPS SHALL BE INCLUDED WITH THE COST OF THE "CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED" PAY ITEM.
6. ALL UNDERPASS LUMINAIRES MUST BE CENTERED IN THE BEAM SPACE AS INDICATED ON THE PLANS UNLESS OTHERWISE DIRECTED BY THE ENGR. LUMINAIRE SETBACK SHALL BE AS INDICATED IN PLANS FOR EACH SPECIFIC UNDERPASS
7. THE CONCRETE ENCASED CONDUIT TRANSITION SHALL BE INCLUDED IN THE COST OF THE GALVANIZED RIGID STEEL CONDUIT PAY ITEMS.
8. ALL CONDUIT ATTACHED TO STRUCTURE SHALL BE PVC COATED RIGID STEEL CONDUIT (PVCC RGC) TYPICAL.

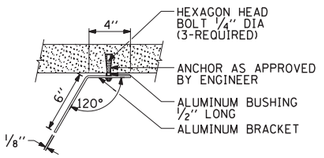


EXISTING BRIDGE DECK INSTALLATION



NEW BRIDGE DECK INSTALLATION

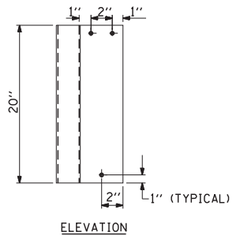
TYPICAL LUMINAIRE HANGER ASSEMBLY DETAILS



TOP VIEW

LUMINAIRE NUMBERING DECAL BRACKET

NOT TO SCALE



ELEVATION

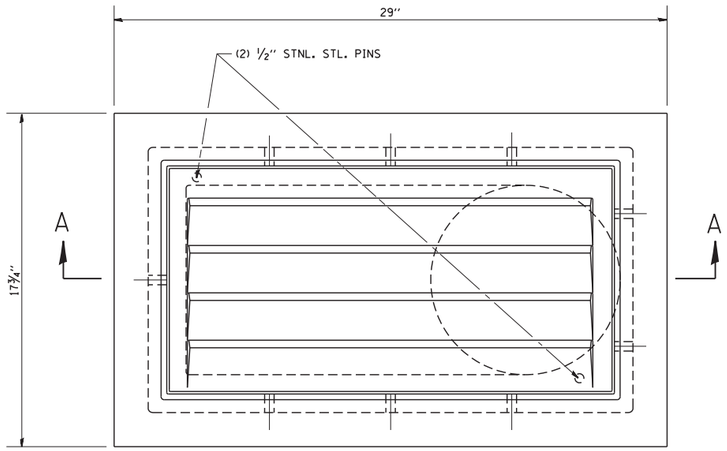
PVC COATED CONDUIT BEAM CLAMP

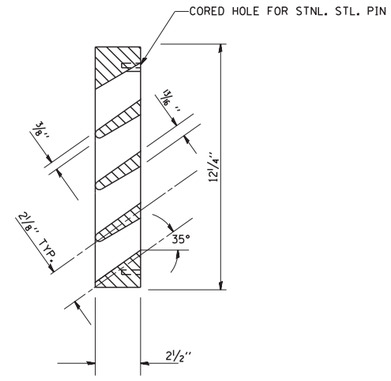
NOT TO SCALE

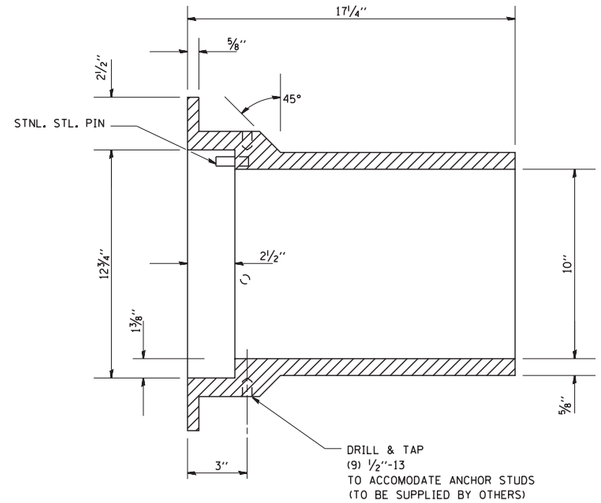
PVC COATED CONDUIT CLAMP

NOT TO SCALE

FILE NAME = W:\diststd\22x34\be900.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED - 12-12-05	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**SUSPENDED MOUNT UNDERPASS LUMINAIRE INSTALLATION DETAILS**	F.A.T. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -			55	22-1HB-R	COOK/DUPAGE	161	137
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -				**BE-900**		CONTRACT NO. 60K77	
	PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

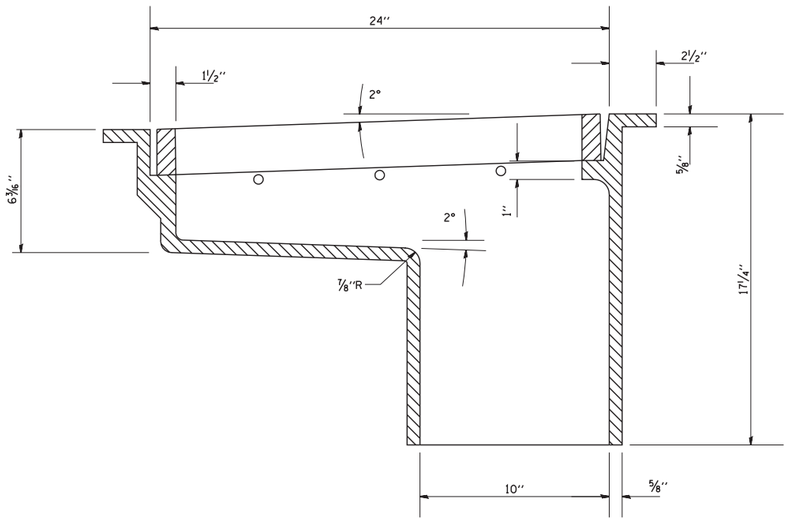






BRIDGE SCUPPER - TYPE "B"

NF - 0332 435
ESTIMATED WEIGHT 235#



SECTION A-A

SCHEDULE OF QUANTITIES	
STRUCTURE	NO. REQUIRED
TOTAL	

MATERIAL: CAST GREY IRON ASTM A-48, CLASS 35B

FINISH: NONE

NOTE: A NEOPRENE PAD SHALL BE PROVIDED BETWEEN THE SCUPPER AND THE BEAM. (BY OTHERS.)

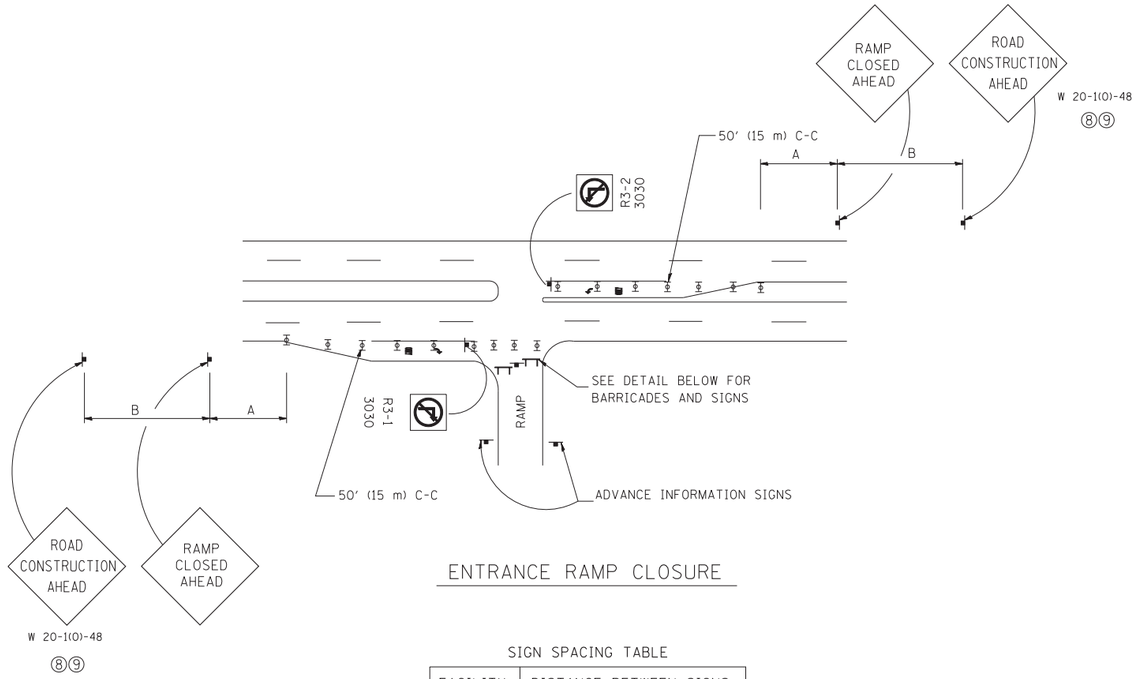
FILE NAME = W:\diststd\22x34\cs02.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED - 10-18-02
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXPRESSWAY UNIT DETAIL
BRIDGE SCUPPER TYPE "B"

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	138
	CS-02	CONTRACT NO. 60K77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

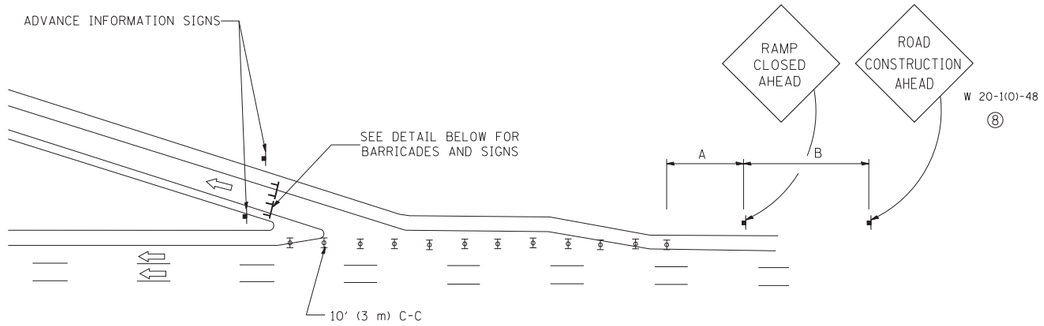


ENTRANCE RAMP CLOSURE

SIGN SPACING TABLE

FACILITY	DISTANCE BETWEEN SIGNS A	DISTANCE BETWEEN SIGNS B
EXPRESSWAY >24 HOURS	1000' (300 m)	1500' (450 m)
EXPRESSWAY ≤24 HOURS	500' (150 m)	500' (150 m)
ARTERIAL ≥45 MPH	350' (100 m)	350' (100 m)
ARTERIAL <45 MPH	150' (45 m)	150' (45 m)

DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.

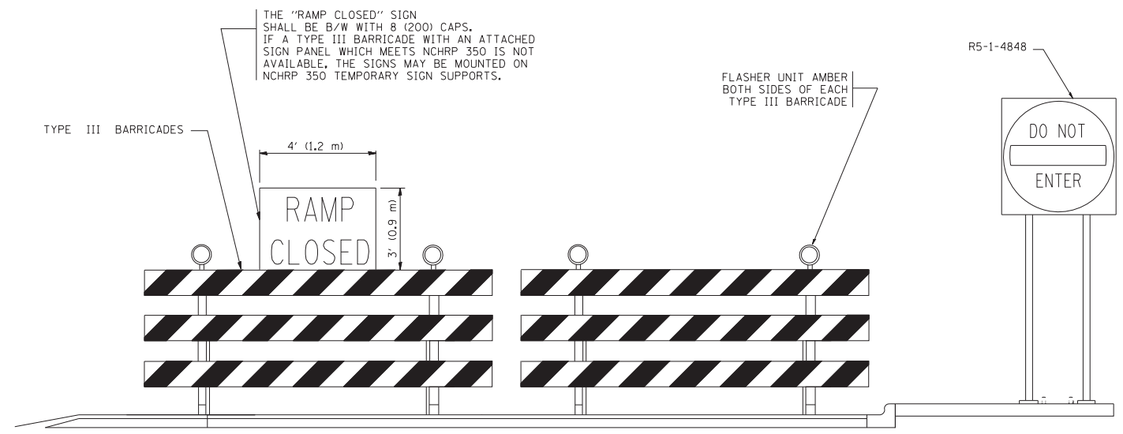


EXIT RAMP CLOSURE

SYMBOLS

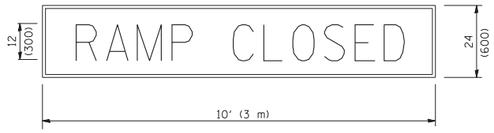
TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT

TYPE III BARRICADE WITH FLASHING LIGHT



DETAIL FOR REQUIRED BARRICADES & SIGNS

RAMP CLOSURE ADVANCE WARNING SIGN

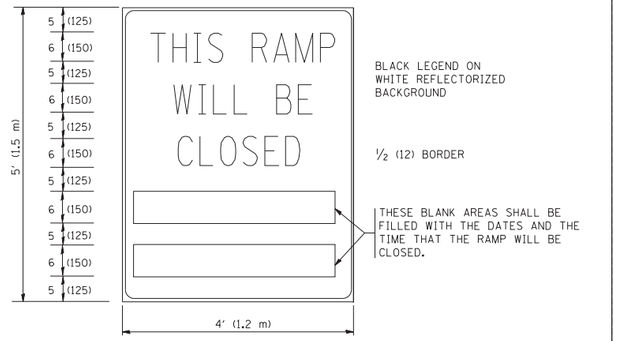


BLACK LEGEND ON ORANGE REFLECTORIZED BACKGROUND

1 (25) BORDER

THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR THE CLOSED EXIT RAMPS.

RAMP CLOSURE ADVANCE INFORMATION SIGN



THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.

GENERAL NOTES:

1. CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
2. STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
3. A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES.
4. ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED.
5. THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
7. THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY- FOUR 24 HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED TWENTY FOUR 24 HOURS IN LENGTH.
8. ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED WHEN THIS DETAIL IS USED IN CONJUNCTION WITH OTHER TRAFFIC CONTROL THAT ALREADY INCLUDES A ROAD CONSTRUCTION AHEAD SIGN.
9. ARTERIAL ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED ON CLOSURES LESS THAN 24 HOURS IN DURATION.

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

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		DRAWN -	REVISED - JAF 02-06
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - SPB 01-07
	PLOT DATE = 11/3/2010	DATE - 02-83	REVISED - SPB 12-09

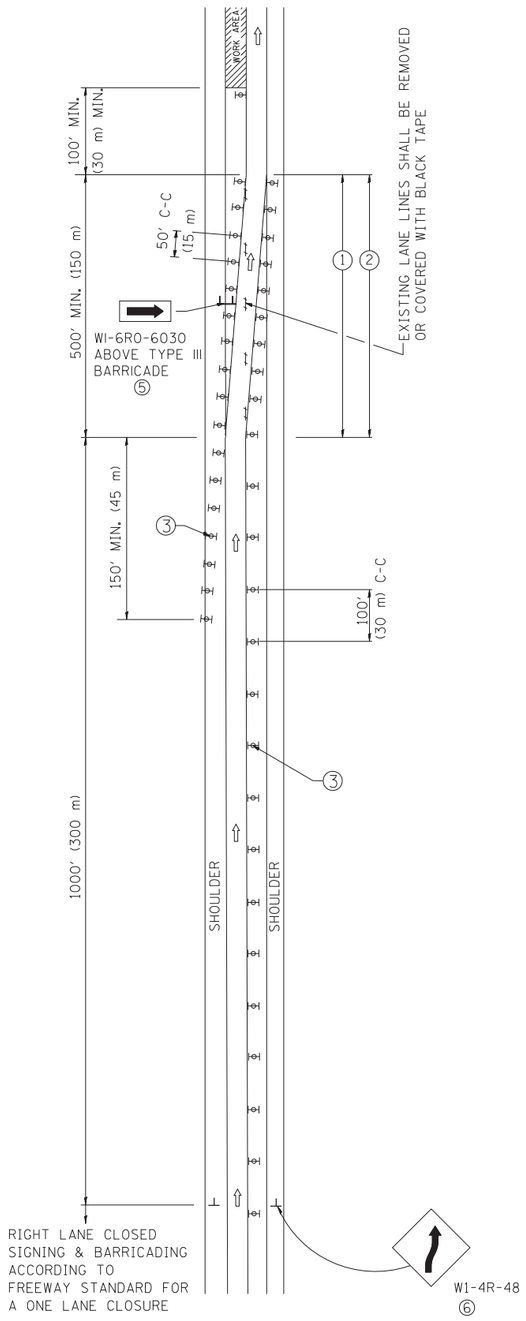
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FREEWAY ENTRANCE AND EXIT RAMP CLOSURE DETAILS

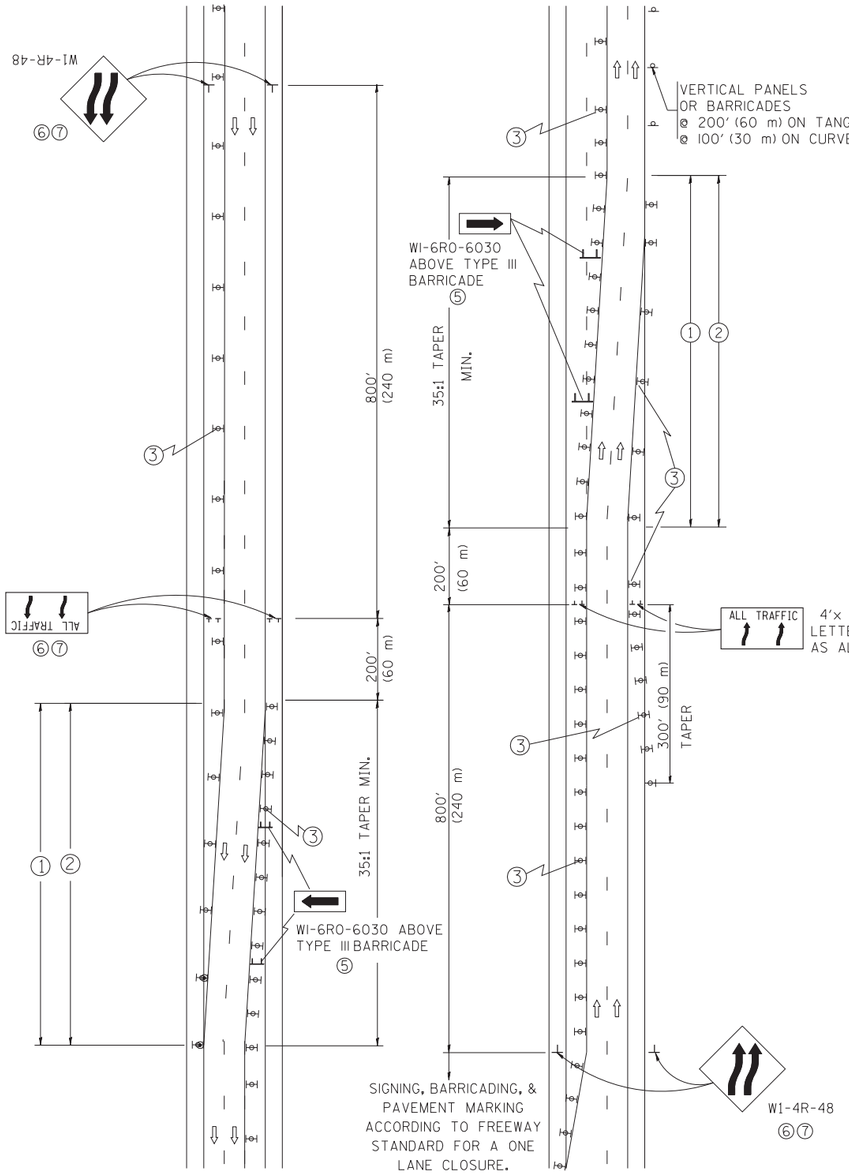
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	139
	TC-08	CONTRACT NO. 60K77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SINGLE LANE WEAVE



MULTI-LANE WEAVE



GENERAL NOTES

① EXISTING CONFLICTING PAVEMENT MARKING LINES SHALL BE REMOVED. PAVEMENT MARKING REMOVAL SHALL NOT BE REQUIRED FOR SINGLE LANE WEAVES UNDER 24 HOURS IN DURATION.

② CONTINOUS REFLECTIVE TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER AND FOR 300' (90 m) ALONG SIDE THE WORK AREA WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS. THE LEFT EDGE LINE SHALL BE YELLOW AND THE RIGHT EDGE LINE SHALL BE WHITE. FOR MULTI-LANE WEAVES LANE LINES SHALL BE 5 INCH, 10'-30' (3 m-9 m) SKIP DASH, WHITE.

③ PLASTIC DRUMS WITH STEADY BURN LIGHTS AT 50' (15 m) C-C SPACING IN TAPERS AND 100' (30 m) C-C SPACING IN TANGENTS.

④ ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.

⑤ IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON NCHRP 350 TEMPORARY SIGN SUPPORTS. TYPE III BARRICADES MAY BE OMMITTED FOR SINGLE-LANE WEAVES UNDER 24-HOURS IN DURATION. W1-6 SIGNS WILL STILL BE REQUIRED. IF THE WIDTH OF OFFSET IS LESS THAN 6' THEN THE TYPE III BARRICADE WITH ATTACHED ARROW SIGN PANEL CAN BE ELIMINATED IN THE TAPER AREAS.

⑥ WHEN THE LENGTH OF THE SHIFTED SEGMENT (DISTANCE BETWEEN WEAVE POINTS) IS LESS THAN 1500', DOUBLE REVERSE CURVE SIGNS (W24-1) SHOULD BE USED INSTEAD OF THE REVERSE CURVE (W1-4) SIGNS. ARROWS ON THE 4'X8' "ALL TRAFFIC" SIGNS SHALL BE THE SAME SHAPE.

⑦ THE NUMBER OF ARROWS ON THESE SIGNS SHALL MATCH THE NUMBER OF LANES OPEN TO TRAFFIC.

SYMBOLS

DIRECTION OF TRAFFIC

WORK AREA

SIGN ON PORTABLE OR PERMANENT SUPPORT

TYPE II BARRICADE OR DRUM WITH MONO-DIRECTIONAL STEADY BURNING LIGHT

W24-1-48 ⑦

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

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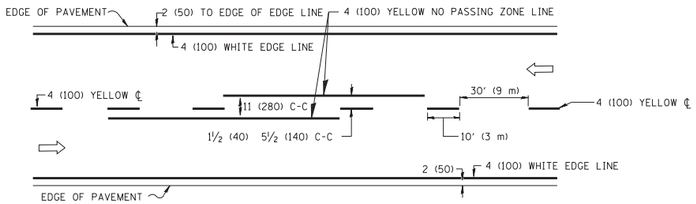
		DRAWN -	REVISED - JAF 02-06
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - SPB 01-07
	PLOT DATE = 1/26/2010	DATE - 02-87	REVISED - SPB 12-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

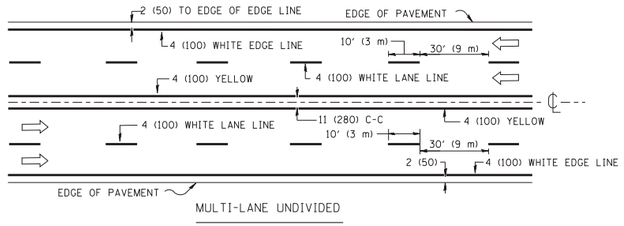
TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI-LANE WEAVE

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

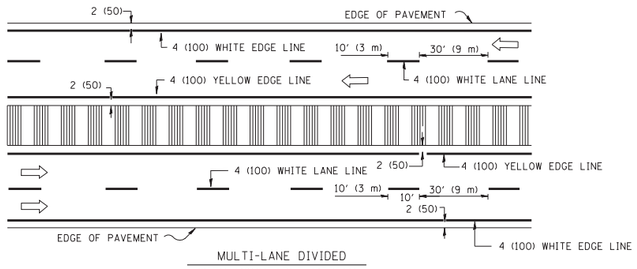
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	140
	TC-09	CONTRACT NO. 60K77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



2-LANE ROADWAY



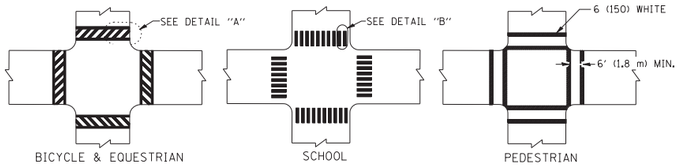
MULTI-LANE UNDIVIDED

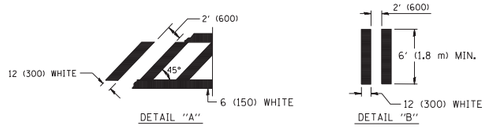


MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

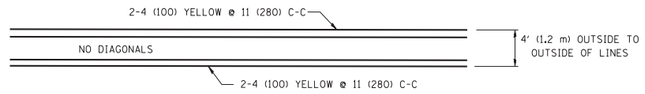
NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING

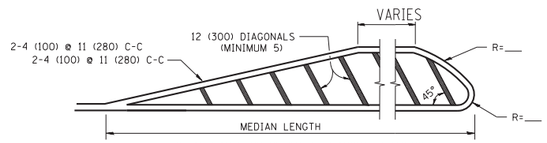




TYPICAL CROSSWALK MARKING



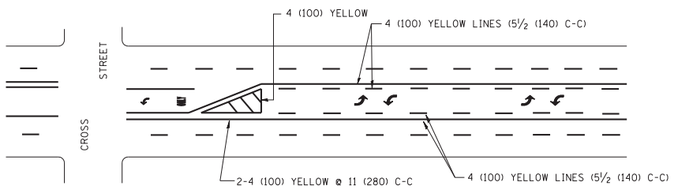
4' (1.2 m) WIDE MEDIANS ONLY



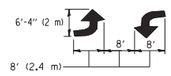
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

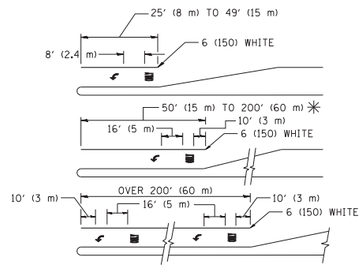


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

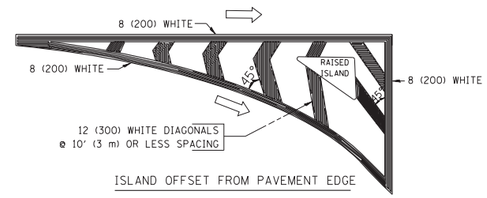


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.6 SQ. FT. (1.5 m^2) **ONLY** AREA = 20.8 SQ. FT. (1.9 m^2)

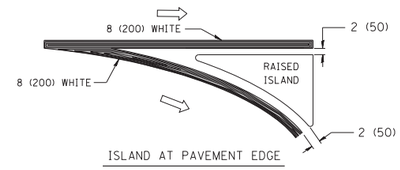
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 ø 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 ø 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 ø 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 ø 6 (150) 12 (300) ø 45° 12 (300) ø 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT, OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 ø 4 (100) WITH 12 (300) DIAGONALS ø 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS ø 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m^2) EACH "X"=54.0 SQ. FT. (5.0 m^2)
SHOULDER DIAGONALS	12 (300) ø 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

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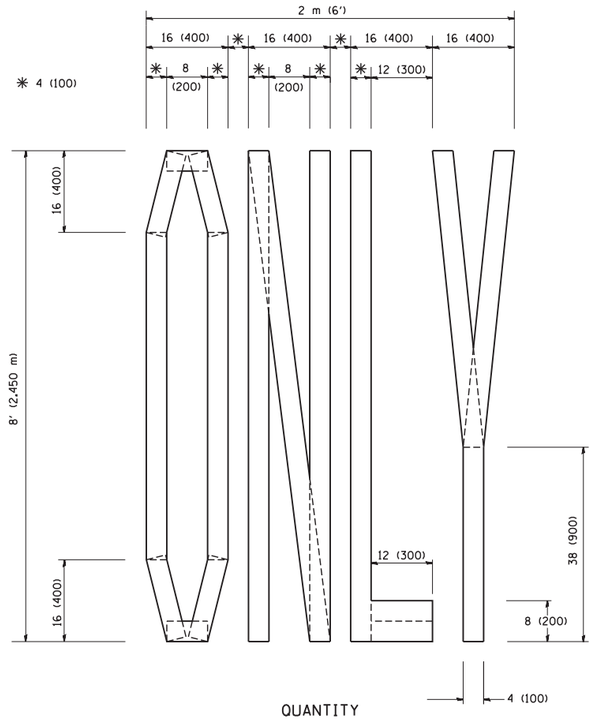
		DRAWN -	REVISED -C. JUCIUS 09-09-09
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 9/9/2009	DATE - 03-19-90	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

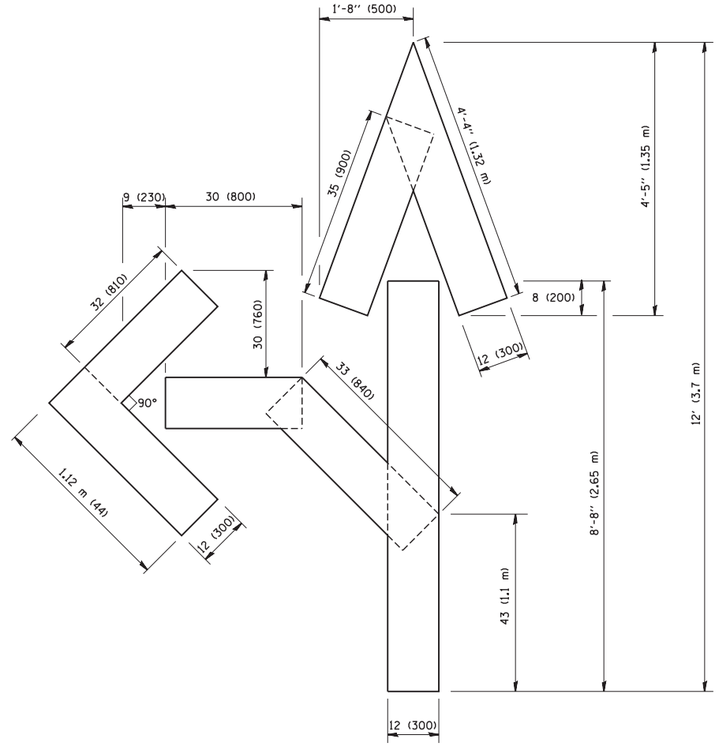
DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

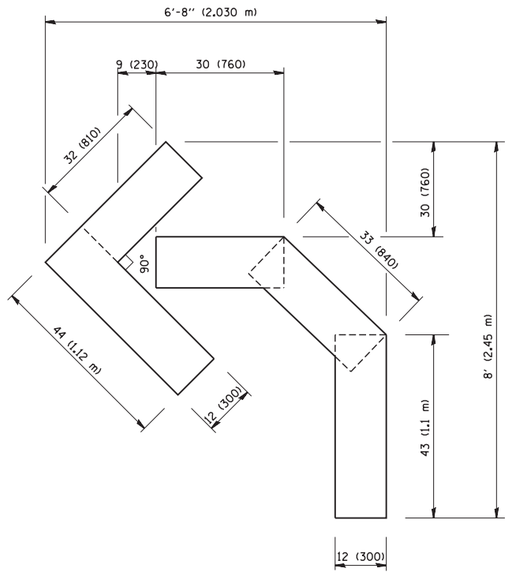
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	141
	TC-13	CONTRACT NO. 60K77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



QUANTITY
4 (100) LINE = 64.1 ft. (19.7 m)
21.1 sq. ft. (1.97 sq. m)



QUANTITY
4 (100) LINE = 82.5 ft. (25.3 m)
27.5 sq. ft. (2.53 sq. m)



QUANTITY
4 (100) LINE = 45.5 ft. (13.9 m)
15.2 sq. ft. (1.39 sq. m)

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

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		DRAWN -	REVISED -T. RAMMACHER 11-04-97
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98
	PLOT DATE = 1/4/2008	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00

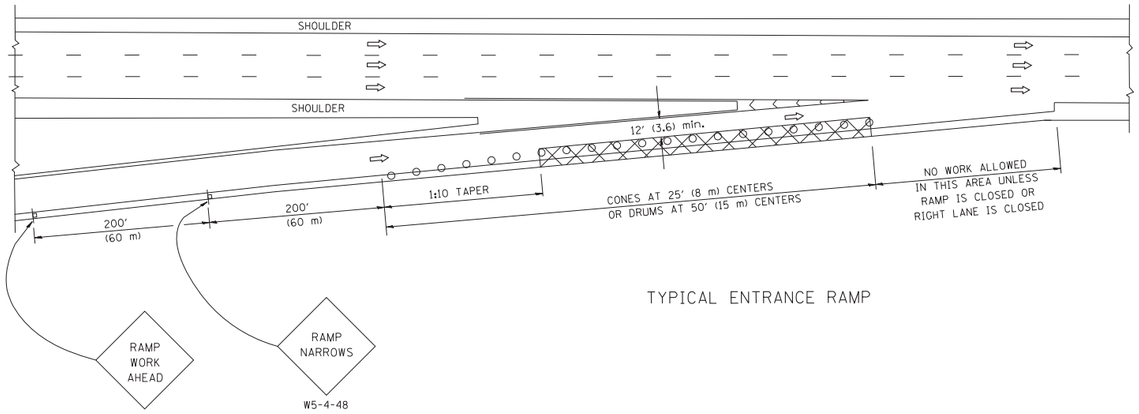
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING

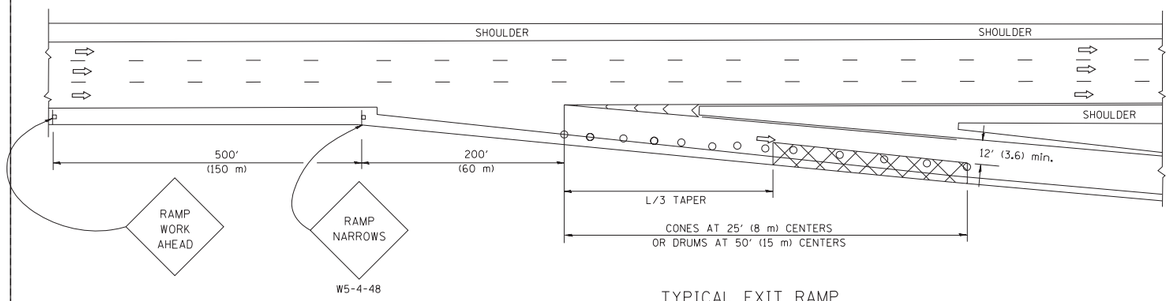
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.T. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	142
	TC-16	CONTRACT NO. 60K77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

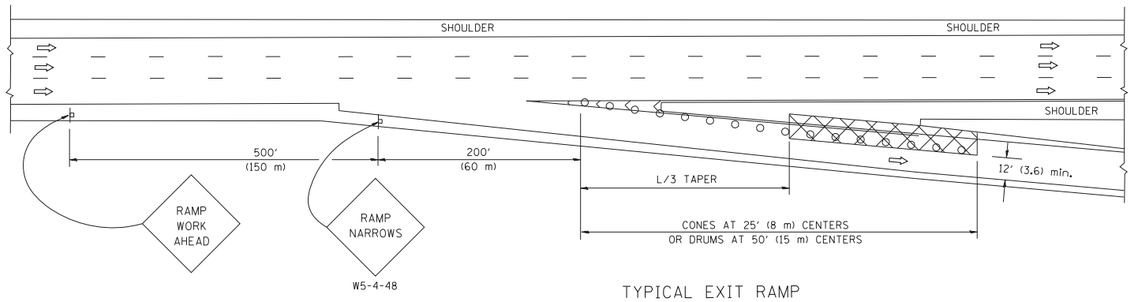
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

SYMBOLS

- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE

GENERAL NOTES

1. THE "L" DISTANCE EQUALS:

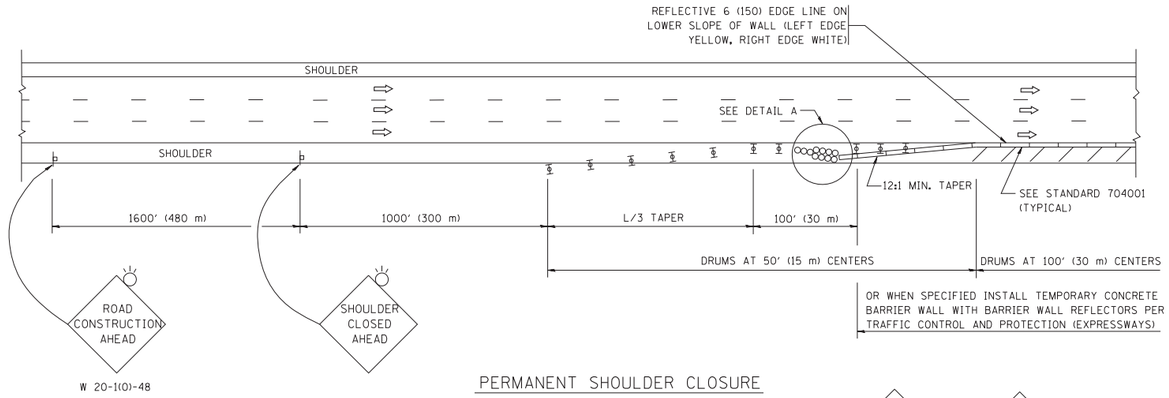
SPEED LIMIT	FORMULAS	
	METRIC	ENGLISH
45 mph (80 km/h) OR GREATER:	L=0.65(W)(S)	L=(W)(S)

W = WIDTH OF OFFSET IN FEET (METERS)
S = NORMAL POSTED SPEED MPH (KM/H)

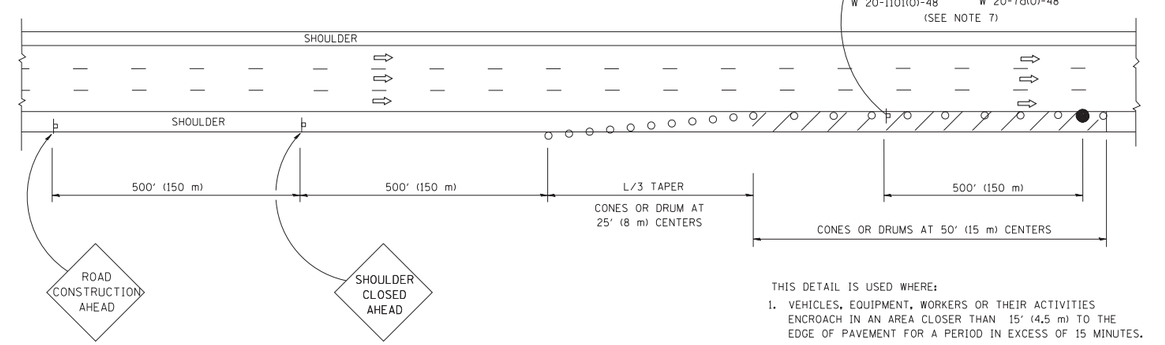
2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTIME CLOSURES.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.
5. THE IMPACT ATTENTUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
   a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
   b. THE WORK AVTIVITY REQUIRES FREQUENT ENCROACHMENT INTO THE LANE OPEN TO TRAFFIC.

   THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.

SHOULDER CLOSURE DETAILS



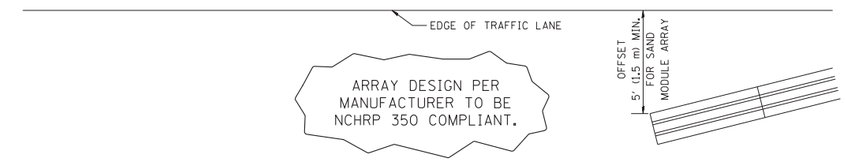
PERMANENT SHOULDER CLOSURE



THIS DETAIL IS USED WHERE:

1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.

DAYTIME SHOULDER CLOSURE



DETAIL "A"
IMPACT ATTENTUATOR, TEMPORARY
(SEE NOTE 5)

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

FILE NAME = W:\diststd\22x34\tc17.dgn	USER NAME = leyso	DESIGNED -	REVISED - 04-03
		DRAWN - D.W.S.	REVISED - J.A.F. 12-06
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - S.P.B. 01-07
	PLOT DATE = 1/26/2010	DATE - 11-96	REVISED - S.P.B. 12-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

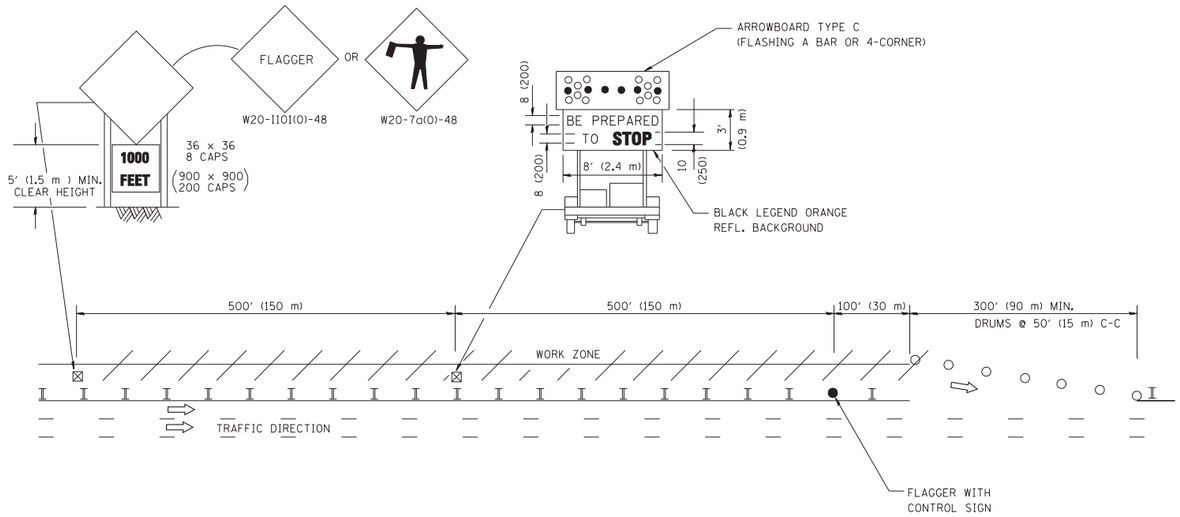
TRAFFIC CONTROL DETAILS FOR FREEWAY
SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

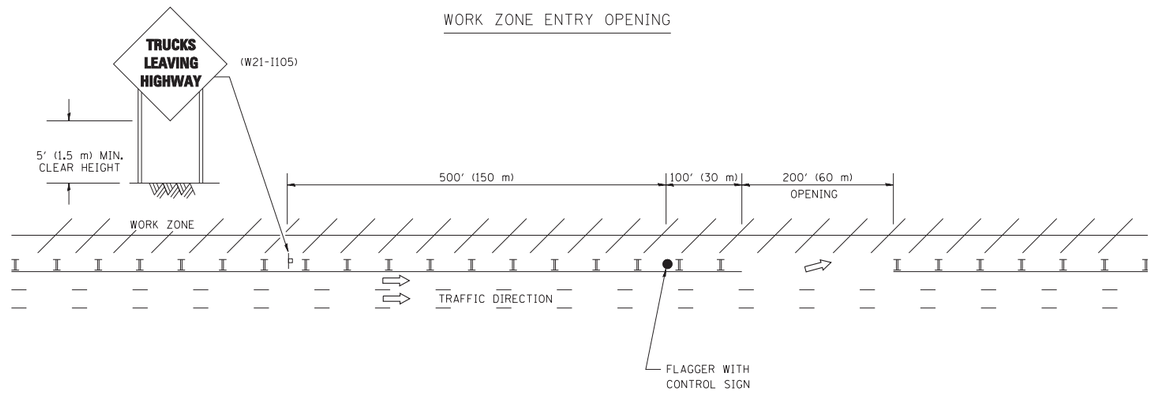
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	143
	TC-17	CONTRACT NO. 60K77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:

1. THE ARROWBOARD, THE FLAGGER AHEAD SIGN AND THE TRUCKS LEAVING HIGHWAY SIGN SHALL BE REMOVED OR TURNED AWAY FROM TRAFFIC AND THE EXIT AND ENTRY OPENINGS SHALL BE CLOSED WHEN THE FLAGGING OPERATION CEASES. NON OPERATING EQUIPMENT SHALL COMPLY WITH ARTICLE 701.11
2. WORK ZONE EXIT OPENINGS SHOULD BE A MINIMUM OF ONE HALF MILE APART.
3. EXITING THE WORK ZONE AT ANY PLACE OTHER THAN AT A WORK ZONE EXIT OPENING WILL BE PROHIBITED.
4. ALL VEHICLES SHALL ENTER THE WORK ZONE AT ENTRY OPENINGS, USING THEIR TURN SIGNALS TO WARN MOTORISTS

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

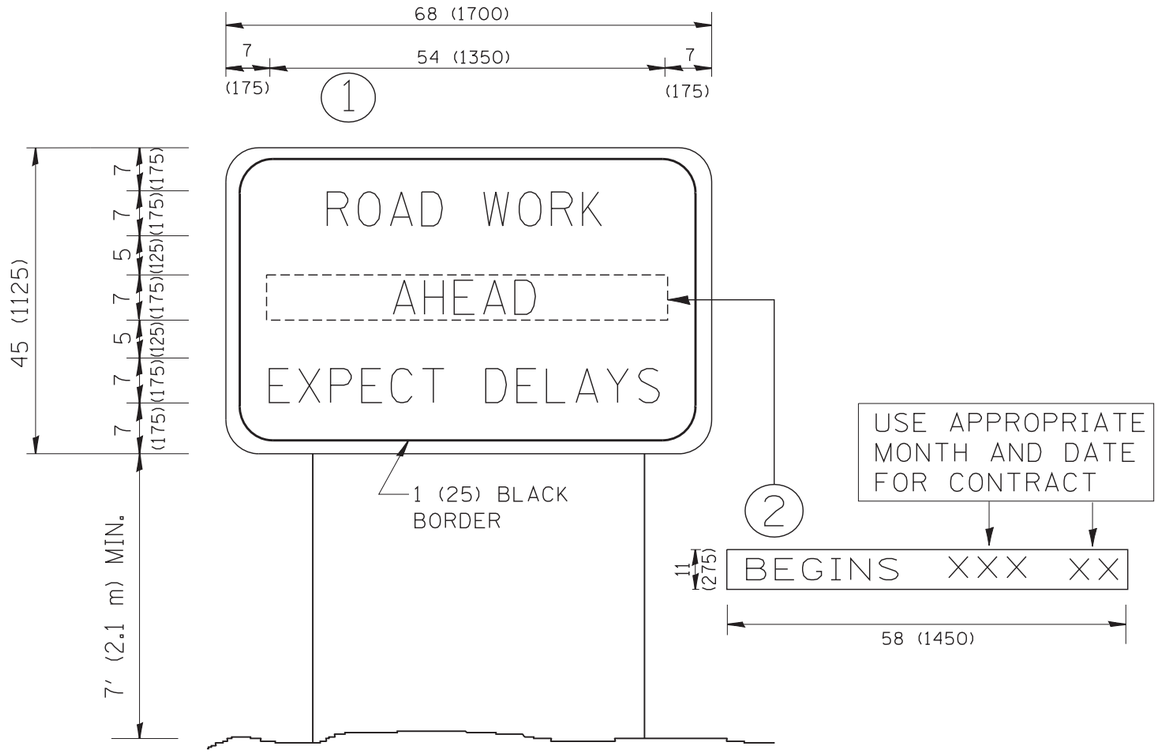
FILE NAME = W:\diststd\22x34\tc18.dgn	USER NAME = leyso	DESIGNED -	REVISED - J.A.F. 04-03
		DRAWN -	REVISED - J.A.F. 02-06
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - S.P.B. 01-07
	PLOT DATE = 1/26/2010	DATE -	REVISED - S.P.B. 12-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	144
	TC-18	CONTRACT NO. 60K77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE ''ROAD CONSTRUCTION AHEAD'' SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN (1) WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL (2) SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR ''TEMPORARY INFORMATION SIGNING'' FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

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

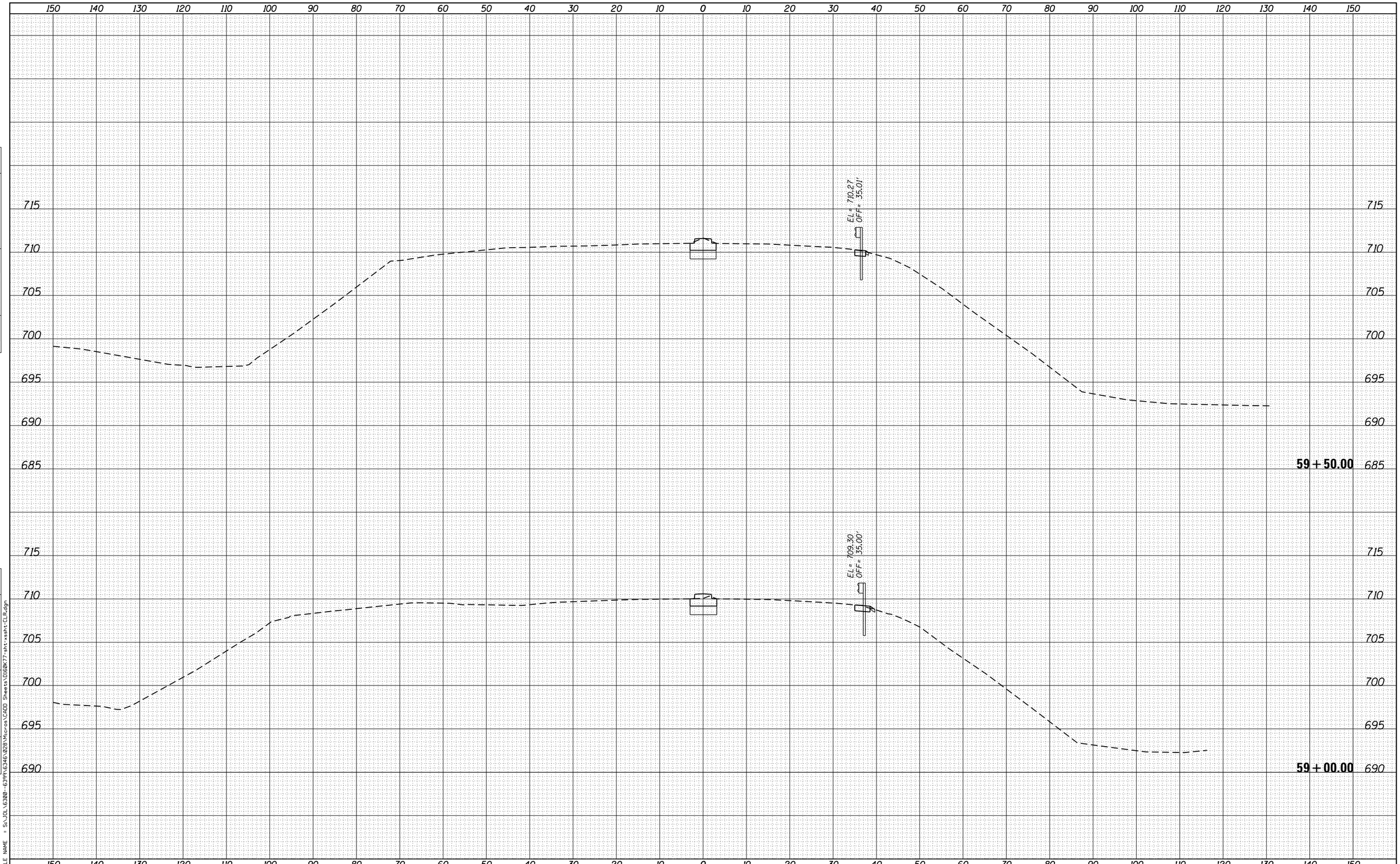
FILE NAME = W:\diststd\22x34\tc22.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	145
	TC-22	CONTRACT NO. 60K77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



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

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

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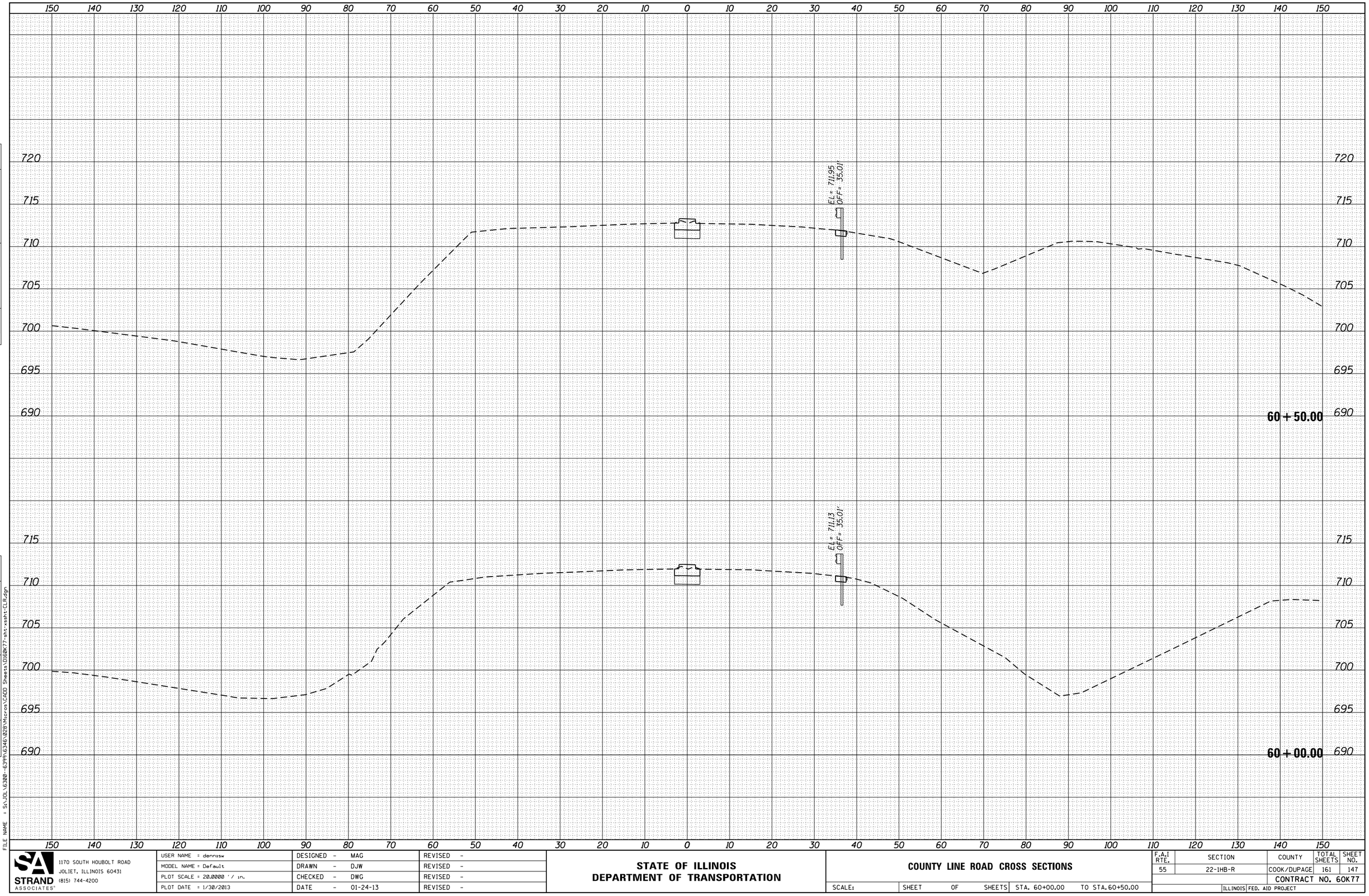
PLOT SCALE = 20.0000 ' / in.	CHECKED - DWG	REVISED -
PLOT DATE = 1/30/2013	DATE - 01-24-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COUNTY LINE ROAD CROSS SECTIONS

SCALE: | SHEET OF SHEETS | STA. 59+00.00 | TO STA. 59+50.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	146
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		



FINAL SURVEY

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

ORIGINAL SURVEY

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

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PLOT SCALE = 20.0000 ' / in.	CHECKED - DWG	REVISED -	
PLOT DATE = 1/30/2013	DATE - 01-24-13	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COUNTY LINE ROAD CROSS SECTIONS

SCALE: | SHEET OF SHEETS | STA. 60+00.00 TO STA. 60+50.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	147
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

720 715 710 705 700 695 690

0
PR 12" SS

EL= 712.23
OFF= 66.19'

EL= 711.62
OFF= 72.24'

61+50.00

EL= 712.99
OFF= 27.12'

2.83 %

EL= 712.67
OFF= 37.50'

61+00.00

FINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

BY	DATE

ORIGINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

BY	DATE

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PLOT SCALE = 20.0000 ' / in.	CHECKED - DWG	REVISED -	
PLOT DATE = 1/30/2013	DATE - 01-24-13	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COUNTY LINE ROAD CROSS SECTIONS

SCALE: | SHEET OF SHEETS | STA. 61+00.00 | TO STA. 61+50.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	148
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		

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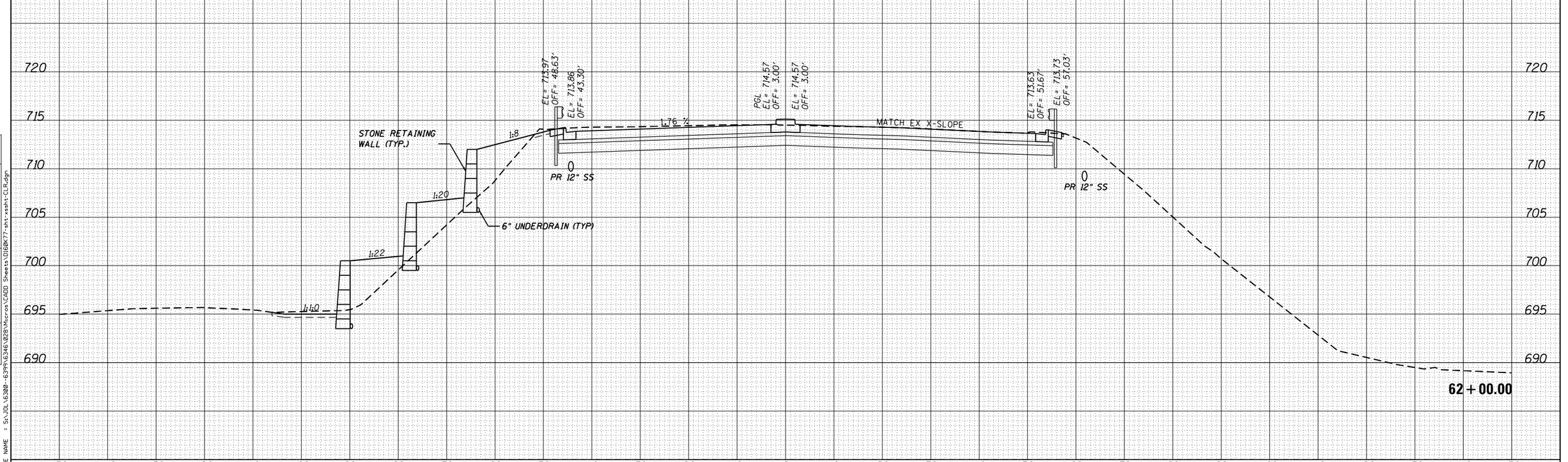
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		



ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
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	AREAS		
	AREAS CHECKED		

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PLOT DATE = 1/30/2013	DATE - 01-24-13	REVISED -

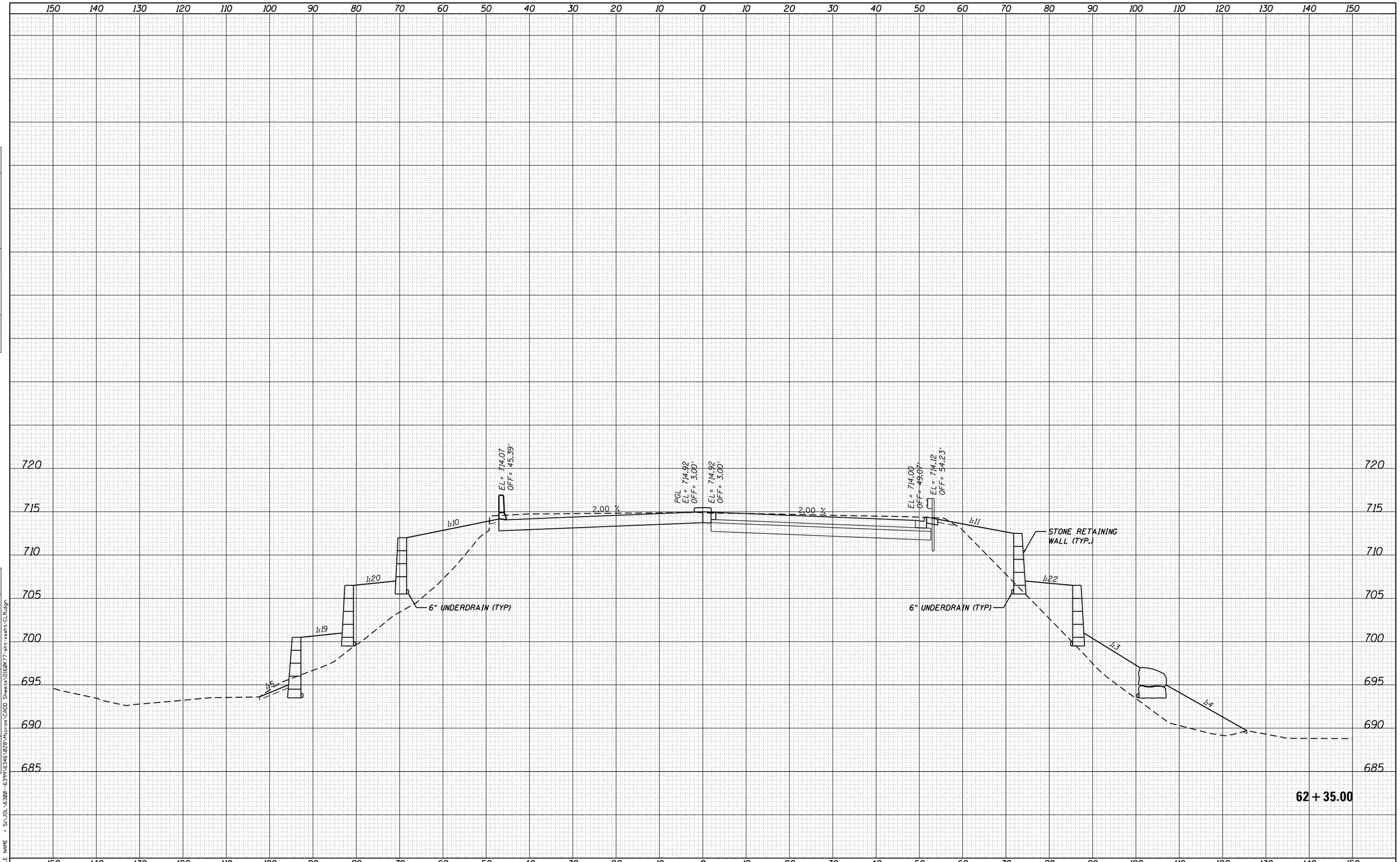
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COUNTY LINE ROAD CROSS SECTIONS

SCALE: | SHEET OF SHEETS | STA. 62+00.00 | TO STA. 62+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	149
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		

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



ORIGINAL SURVEY		BY	DATE
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MODEL NAME = Default	DRAWN - DJW	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED - DWG	REVISED -
PLOT DATE = 1/30/2013	DATE - 01-24-13	REVISED -

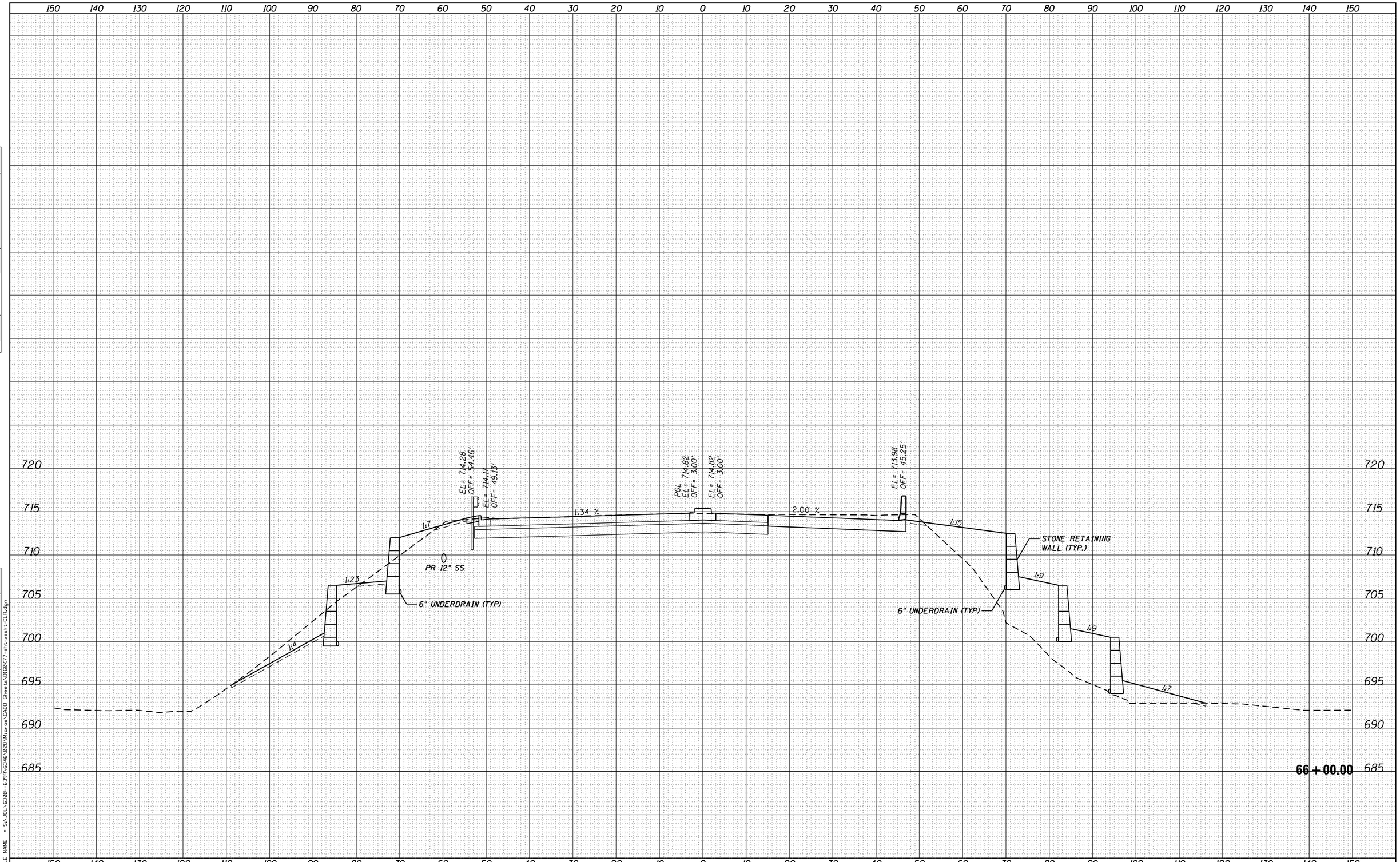
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COUNTY LINE ROAD CROSS SECTIONS

SCALE: | SHEET OF SHEETS | STA. 62+35.00 | TO STA. 62+35.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	150
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		

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



ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
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MODEL NAME = Default	DRAWN - DJW	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED - DWG	REVISED -
PLOT DATE = 1/30/2013	DATE - 01-24-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

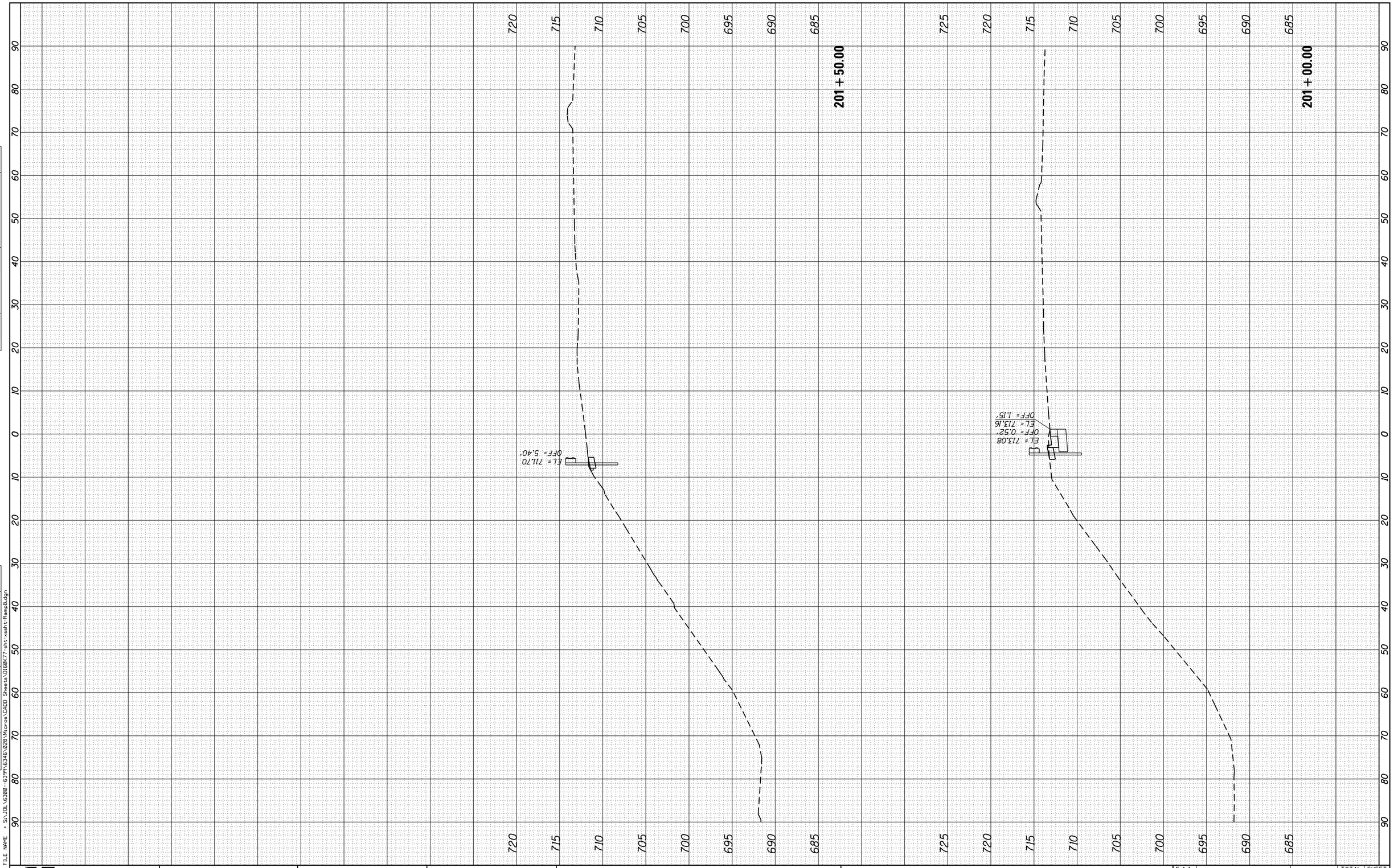
COUNTY LINE ROAD CROSS SECTIONS

SCALE: | SHEET OF SHEETS | STA. 66+00.00 | TO STA. 66+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	151
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		

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

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



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PLOT SCALE = 20.0000 ' / in.	CHECKED - DWG	REVISED -
PLOT DATE = 1/30/2013	DATE - 01-24-13	REVISED -

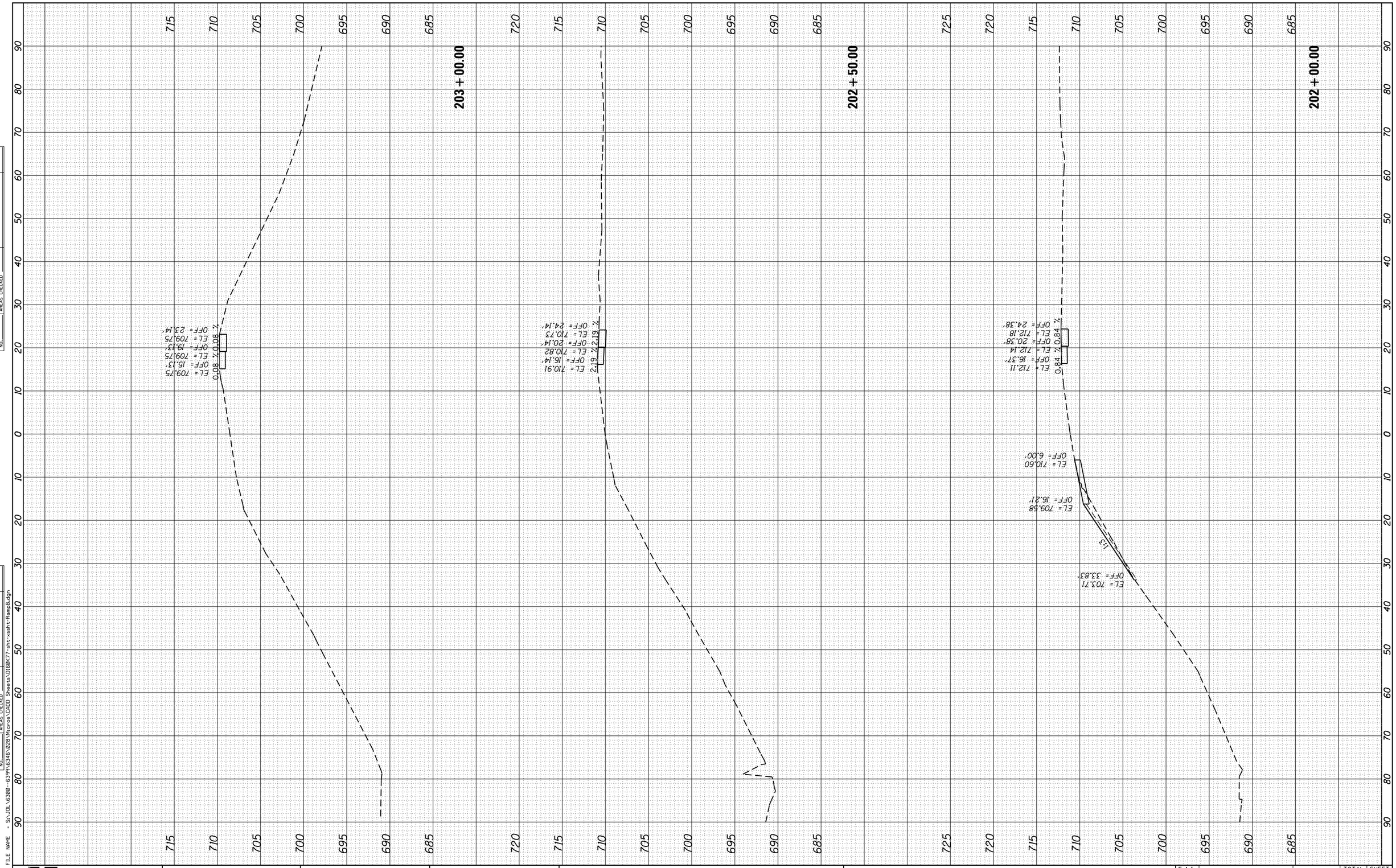
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RAMP B CROSS SECTIONS

SCALE: | SHEET OF SHEETS | STA. 201+00.00 TO STA. 201+50.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	152
		CONTRACT NO. 60K77		
	ILLINOIS FED. AID PROJECT			

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



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

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PLOT DATE = 1/30/2013	DATE - 01-24-13	REVISED -	

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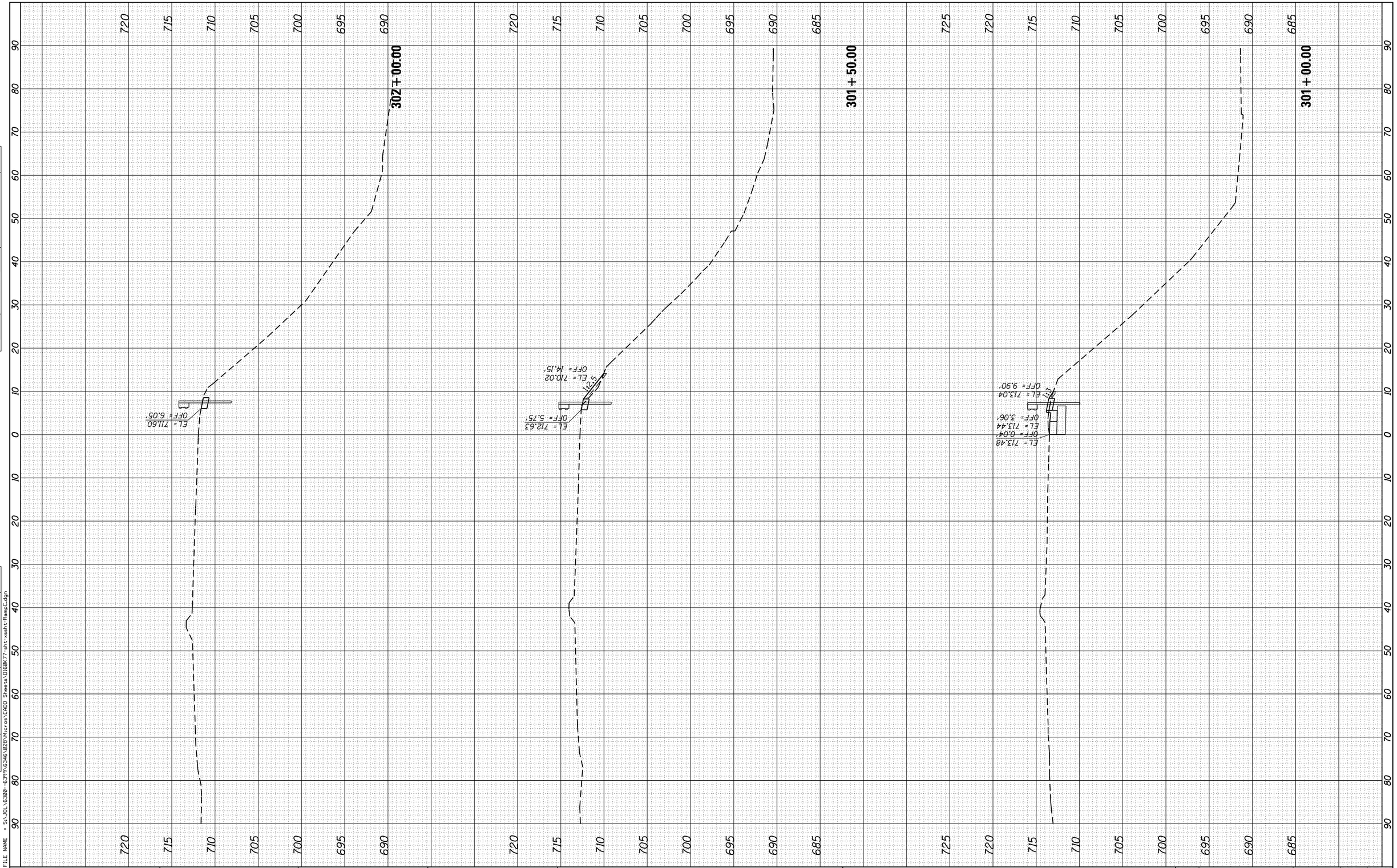
RAMP B CROSS SECTIONS

SCALE: | SHEET OF SHEETS | STA. 202+00.00 TO STA.203+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	153
		CONTRACT NO. 60K77		
	ILLINOIS FED. AID PROJECT			

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



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

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PLOT SCALE = 20.0000 ' / in.	CHECKED - DWG	REVISED -	
PLOT DATE = 1/30/2013	DATE - 01-24-13	REVISED -	

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RAMP C CROSS SECTIONS

SCALE: | SHEET OF SHEETS | STA. 301+00.00 TO STA. 302+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	154
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		

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

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

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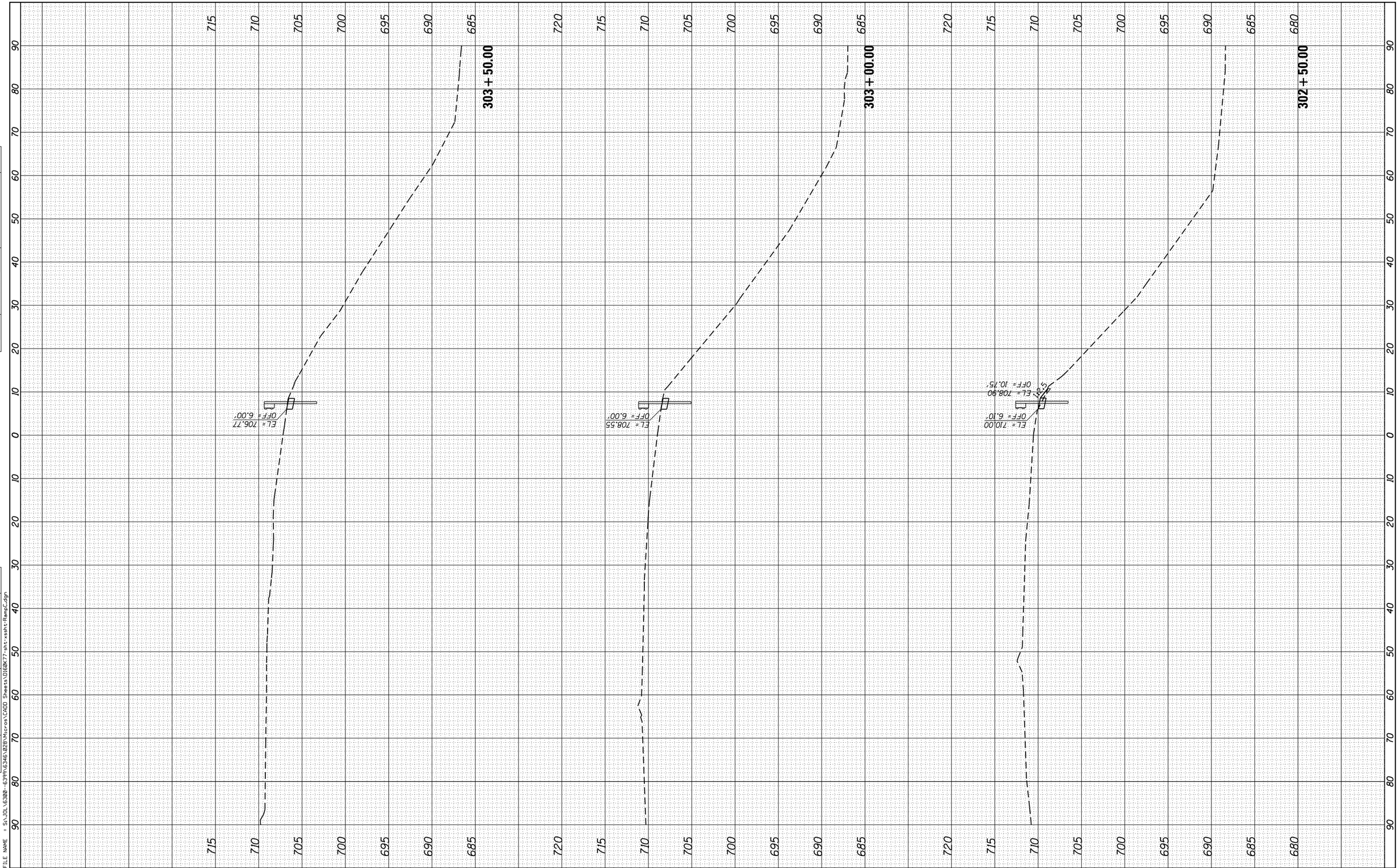

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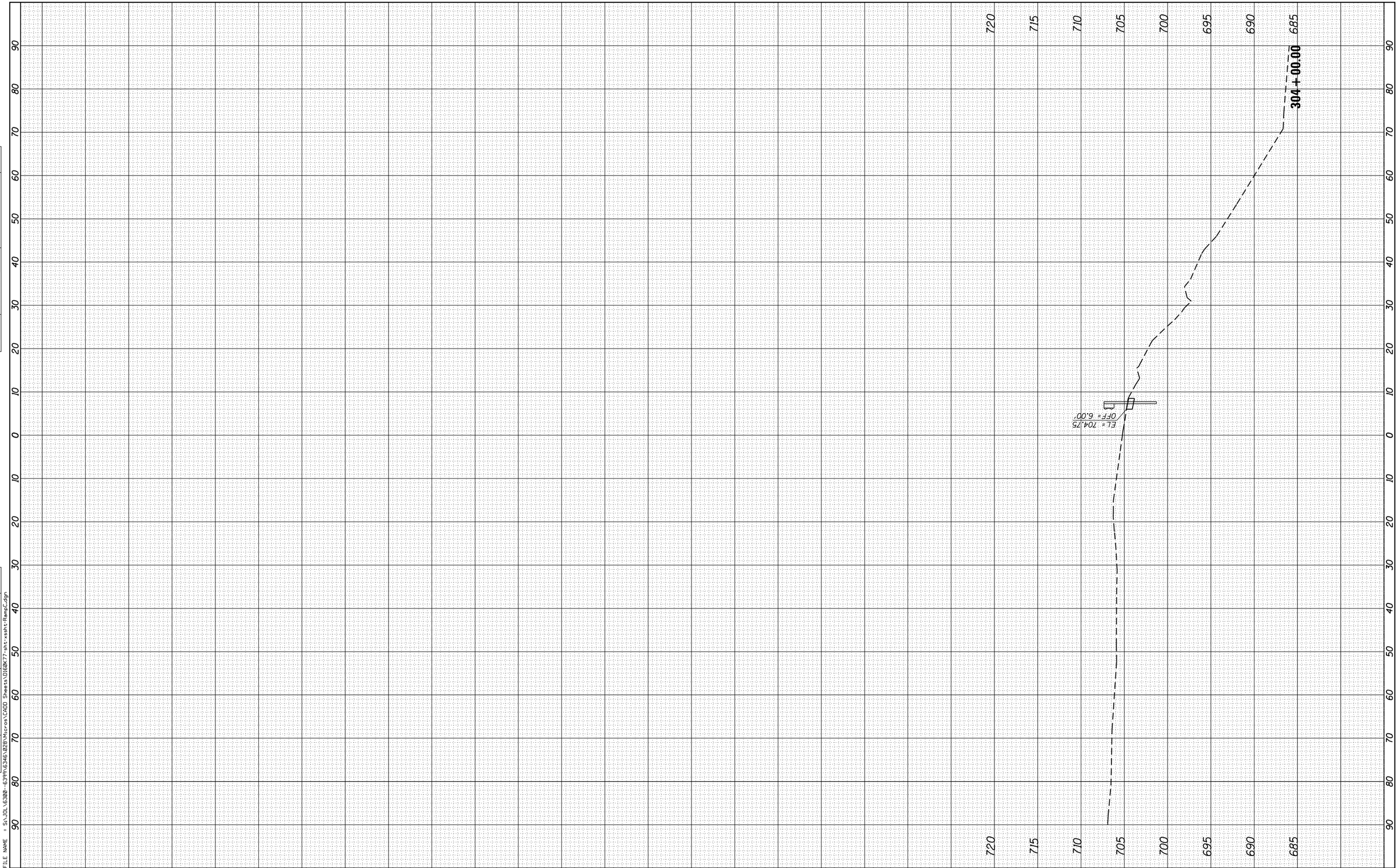
RAMP C CROSS SECTIONS

SCALE: | SHEET OF SHEETS | STA. 302+50.00 TO STA. 303+50.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	155
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		

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



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

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PLOT SCALE = 20.0000 ' / in.	CHECKED - DWG	REVISED -
PLOT DATE = 1/30/2013	DATE - 01-24-13	REVISED -

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RAMP C CROSS SECTIONS

SCALE: | SHEET OF SHEETS | STA. 304+00.00 TO STA. 304+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	156
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		

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

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

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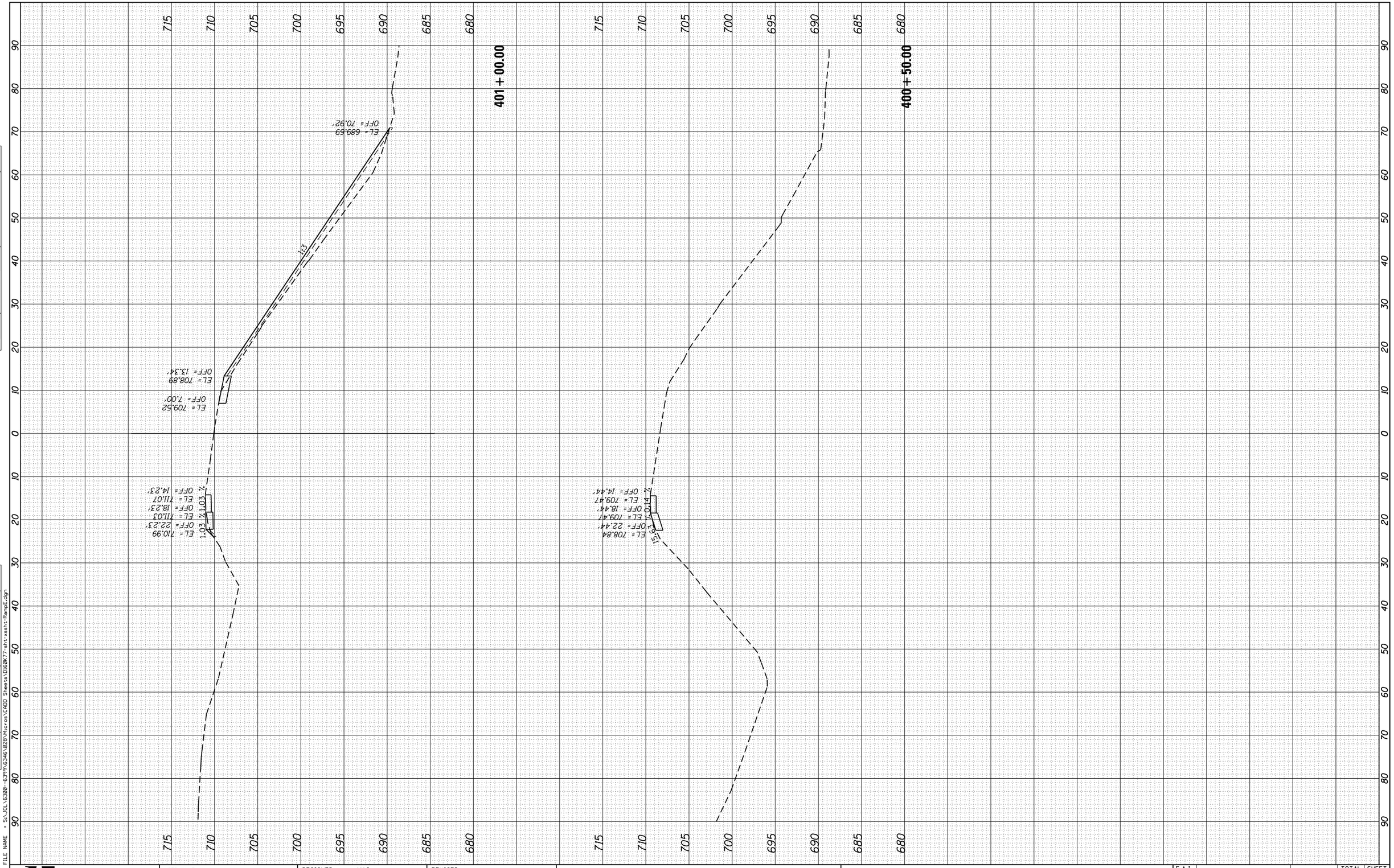

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PLOT SCALE = 20.0000 ' / in.	CHECKED - DWG	REVISED -
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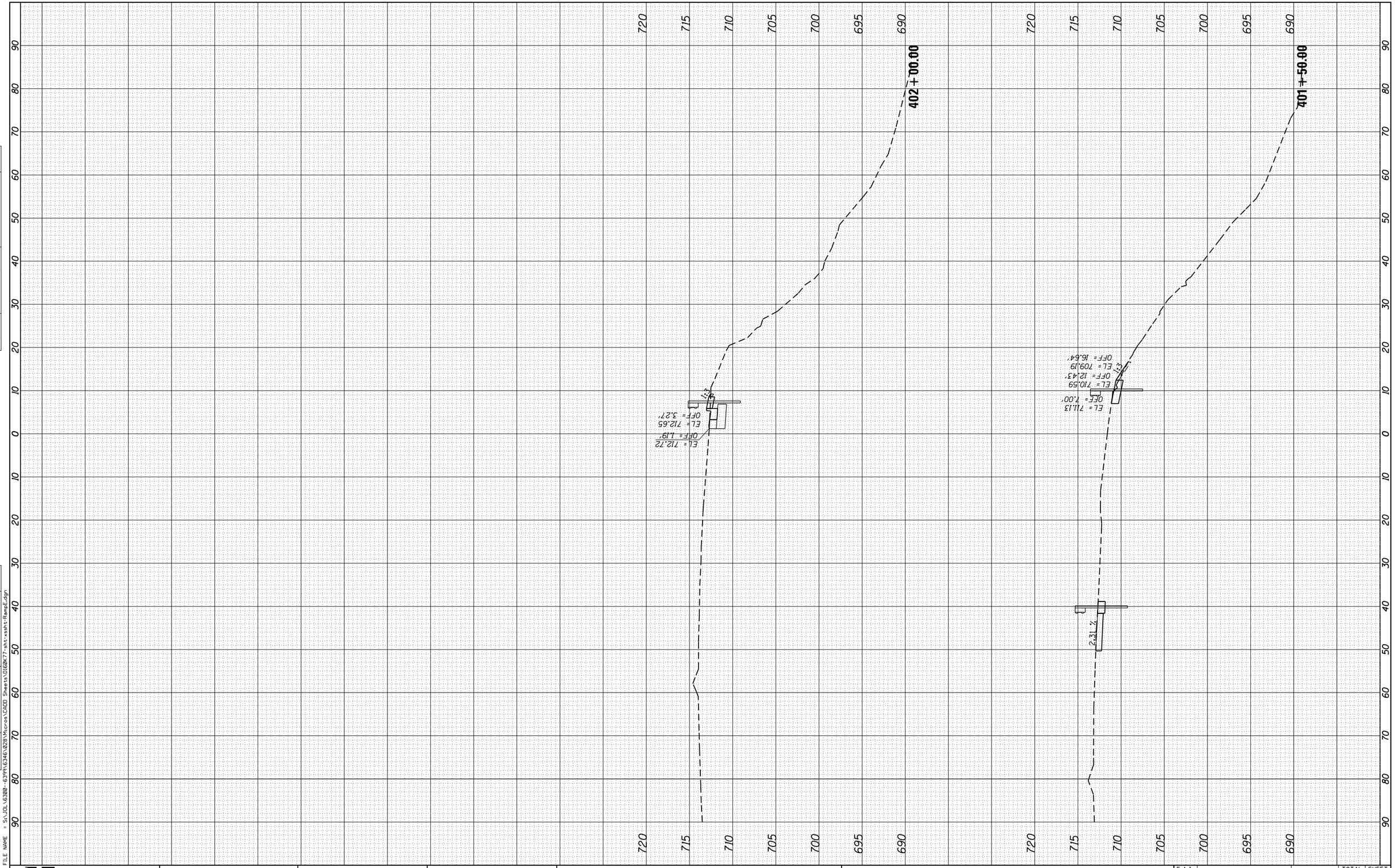
RAMP E CROSS SECTIONS

SCALE: | SHEET OF SHEETS | STA. 400+00.00 TO STA. 401+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	157
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		

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

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



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PLOT DATE = 1/30/2013	DATE - 01-24-13	REVISED -	

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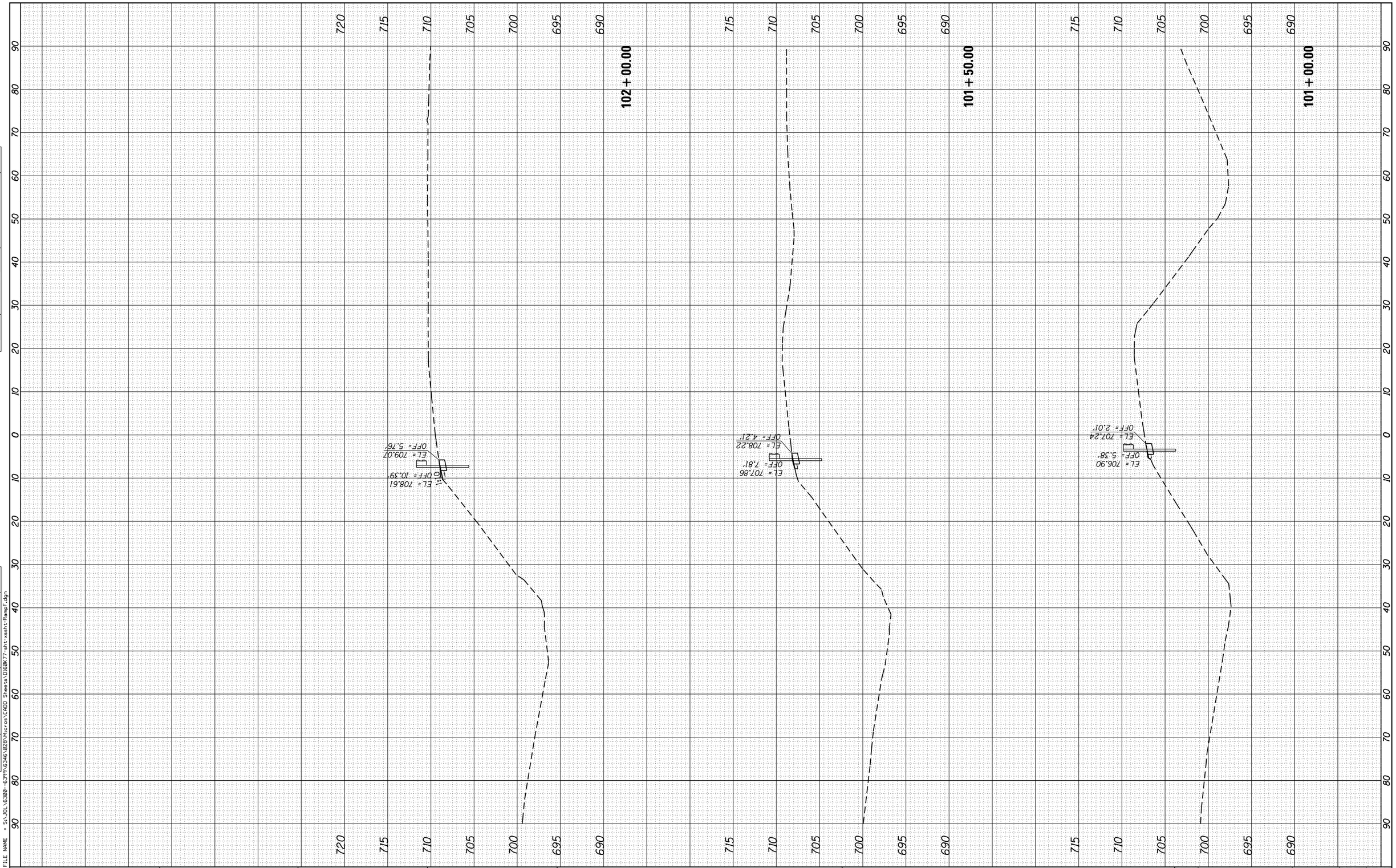
RAMP E CROSS SECTIONS

SCALE: | SHEET OF SHEETS | STA. 401+50.00 | TO STA. 402+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	158
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		

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

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



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STRAND ASSOCIATES® 1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200	USER NAME = dennisw	DESIGNED - MAG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RAMP F CROSS SECTIONS
	MODEL NAME = Default	DRAWN - DJW	REVISED -		
	PLOT SCALE = 20.0000 ' / in.	CHECKED - DWG	REVISED -		
	PLOT DATE = 1/30/2013	DATE - 01-24-13	REVISED -		SCALE: SHEET OF SHEETS STA. 101+00.00 TO STA.102+00.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	159
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		

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

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

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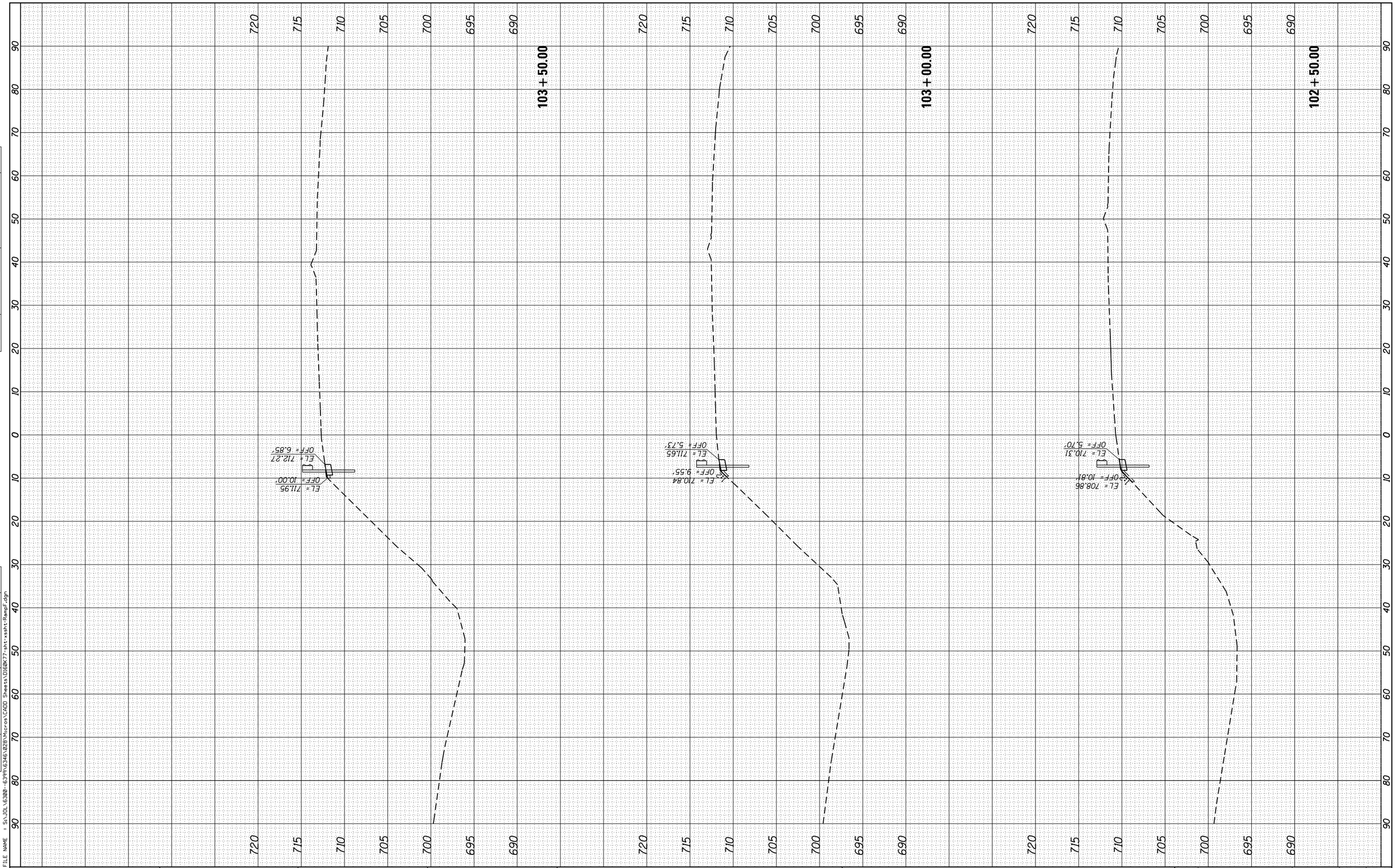

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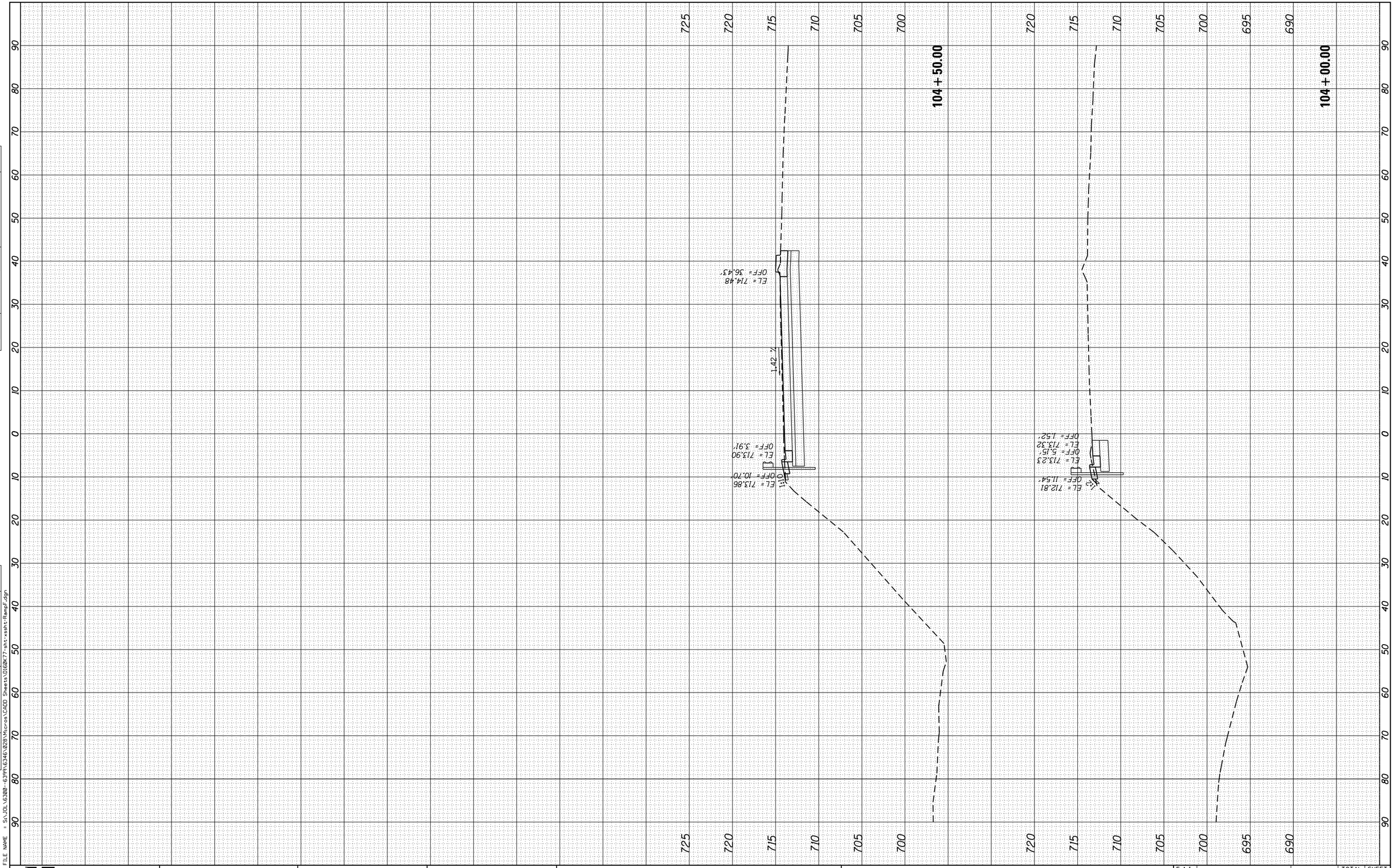
RAMP F CROSS SECTIONS

SCALE: | SHEET OF SHEETS | STA. 102+50.00 TO STA.103+50.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	160
		CONTRACT NO. 60K77		
		ILLINOIS FED. AID PROJECT		

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

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



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MODEL NAME = Default	DRAWN - DJW	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED - DWG	REVISED -
PLOT DATE = 1/30/2013	DATE - 01-24-13	REVISED -

STATE OF ILLINOIS
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RAMP F CROSS SECTIONS

SCALE: | SHEET OF SHEETS | STA. 104+00.00 | TO STA. 104+50.00

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	22-1HB-R	COOK/DUPAGE	161	161
		CONTRACT NO. 60K77		
	ILLINOIS	FED. AID PROJECT		