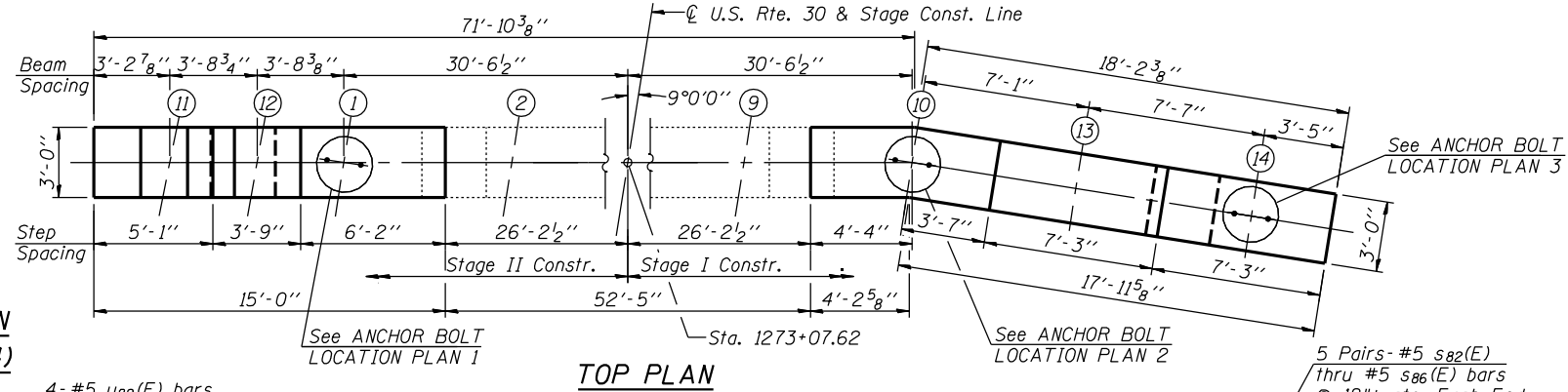
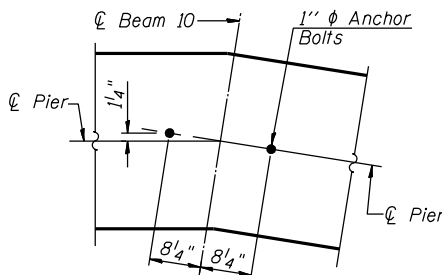


ANCHOR BOLT LOCATION  
PLAN 1 (BEAM 11, 12 & 1)

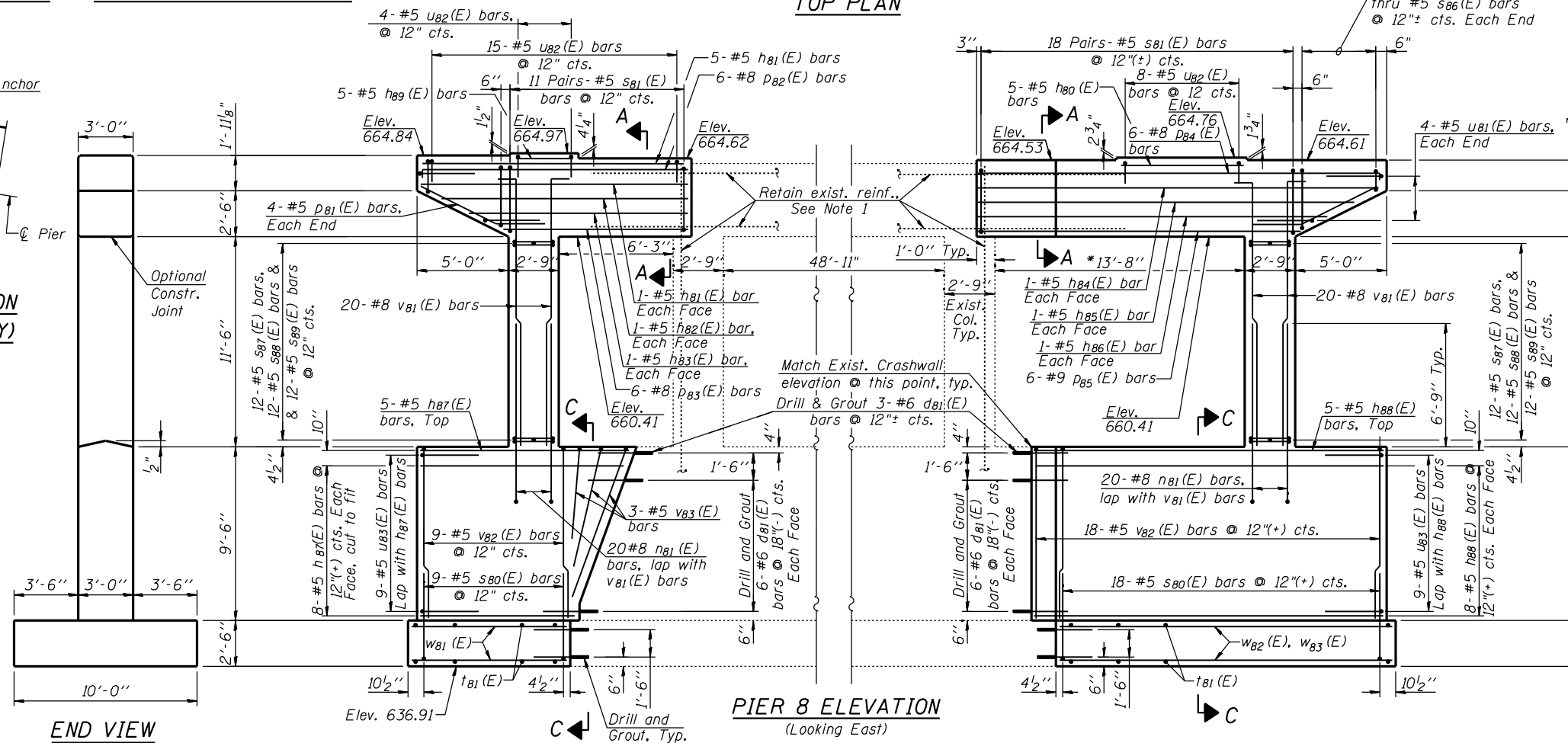
ANCHOR BOLT LOCATION  
PLAN 3 (BEAMS 13 & 14)



TOP PLAN

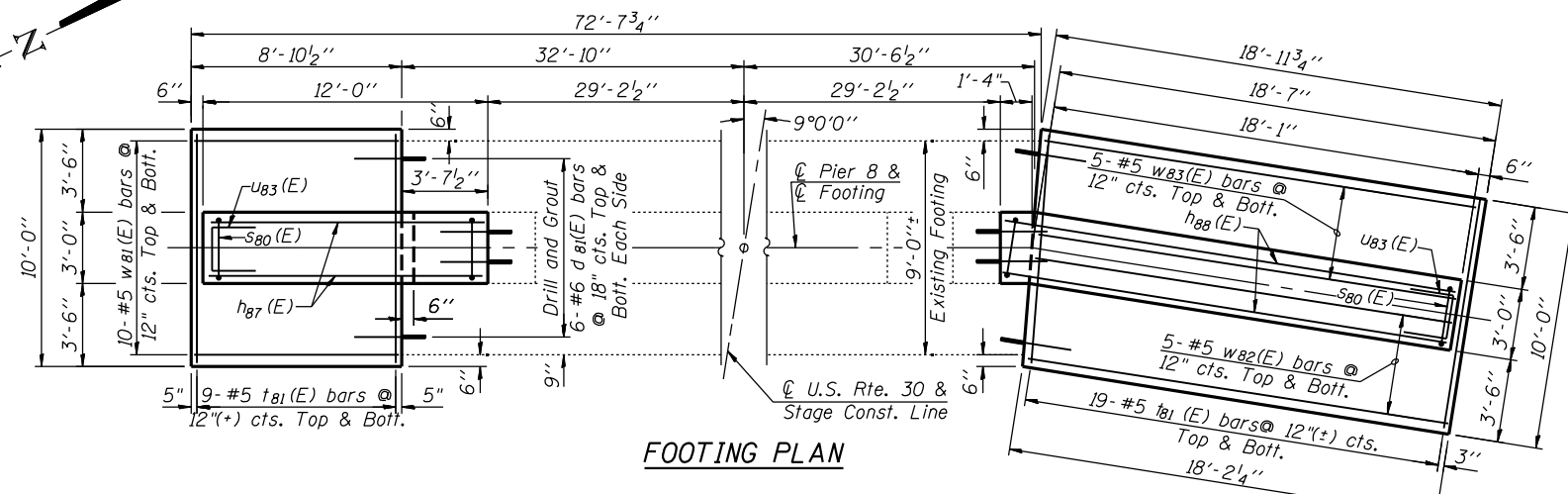


ANCHOR BOLT LOCATION  
PLAN 2 (BEAM 10 ONLY)

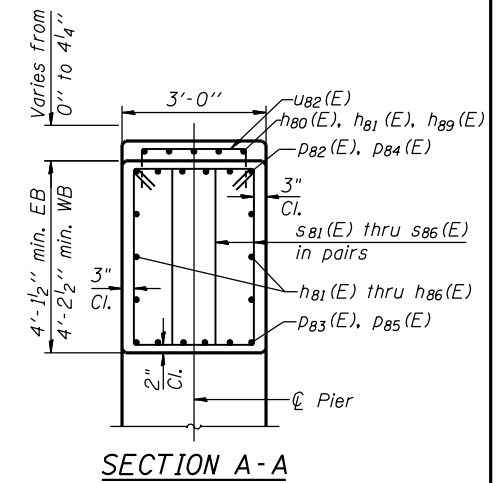


PIER 8 ELEVATION  
(Looking East)

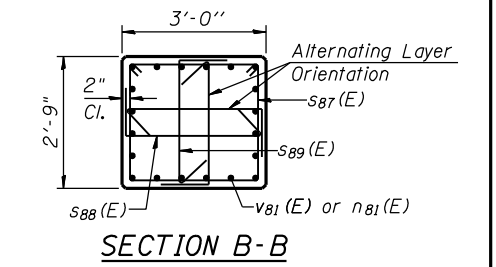
END VIEW



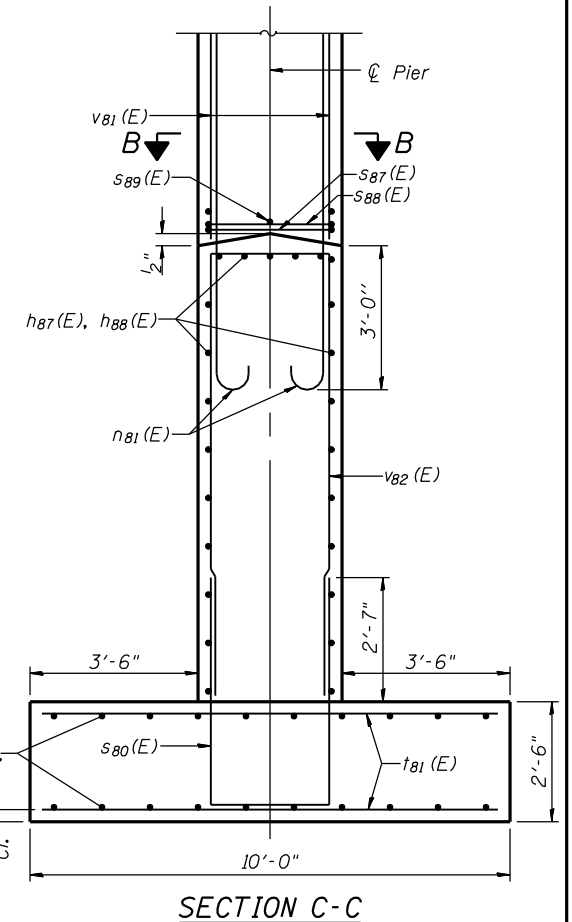
FOOTING PLAN



SECTION A-A



SECTION B-B



SECTION C-C

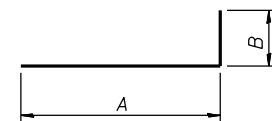
**NOTES:**

1. Existing reinforcement shall be cleaned, straightened and incorporated into the new construction. Cost included with "Concrete Removal".
2. See Sheet S81 for reinforcement details.
3. Space reinforcement in cap to miss anchor bolts.
4. Pour steps monolithically with cap.
5. Embedment depth for #6 bars drilled & grouted is 9".
6. Maximum applied service load soil bearing pressure is 3,800 psf.
7. \* Denotes dimensions along  $\phi$  of Pier.

H:\Jobs\2010\03\03\CAD\Structural\dgn\045-0039.Fin\100\106033-s080-pier-8.dgn 6/26/2010 11:29:14 AM

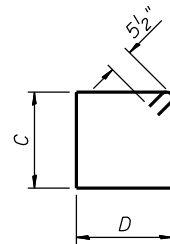
USER NAME =	DESIGNED - J.Z. 6/25/2012	REVISED -
PLOT SCALE =	CHECKED - J.J.G. 6/25/2012	REVISED -
PLOT DATE =	DRAWN - E.U.B. 6/25/2012	REVISED -
	CHECKED - J.Z. 6/25/2012	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	301
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				



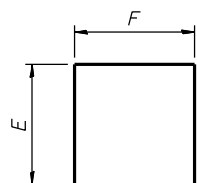
**A & B DIMENSIONS**

Bar	A	B
p62(E)	20'-0"	1'-3"
v61(E)	14'-2"	1'-4"



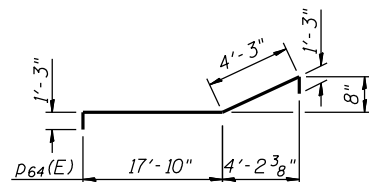
**C & D DIMENSIONS**

Bar	C	D
s61(E)	3'-8"	1'-10"
s62(E)	3'-6"	1'-0"
s63(E)	3'-0"	1'-10"
s64(E)	2'-6"	1'-10"
s65(E)	2'-0"	1'-10"
s66(E)	1'-6"	1'-10"
s67(E)	2'-8"	2'-5"

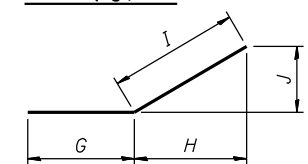


**E & F DIMENSIONS**

Bar	E	F
s60(E)	4'-9"	2'-8"
u61(E)	3'-0"	2'-8"
u62(E)	1'-11"	2'-8"
u63(E)	2'-3"	2'-8"
v62(E)	14'-7"	2'-8"
v63(E)	8'-0"	2'-8"



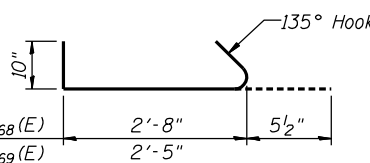
**BAR p64(E)**



**BAR n61(E)**

**G THRU J DIMENSIONS**

Bar	G	H	I	J
n64(E)	17'-10"	4'-2 3/8"	4'-3"	8"
n65(E)	16'-7"	4'-2 3/8"	4'-3"	8"
n66(E)	14'-9"	4'-2 3/8"	4'-3"	8"
p61(E)	3'-0"	4'-11"	5'-6"	2'-5 1/2"
p65(E)	12'-11"	4'-2 3/8"	4'-3"	8"

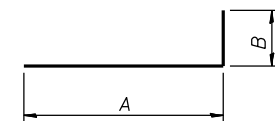


**BARS s68(E) & s69(E)**

**BILL OF MATERIAL - PIER 6**

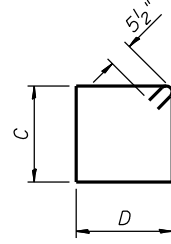
Bar	No.	Size	Length	Shape
d61(E)	70	#6	4'-3"	
h61(E)	2	#5	20'-0"	
h62(E)	2	#5	18'-7"	
h63(E)	2	#5	16'-10"	
h64(E)	2	#5	22'-1"	
h65(E)	2	#5	20'-10"	
h66(E)	2	#5	19'-0"	
h67(E)	33	#5	16'-10"	
h68(E)	33	#5	19'-0"	
h69(E)	5	#5	6'-0"	
n61(E)	40	#8	10'-8"	
p61(E)	8	#5	8'-6"	
p62(E)	6	#8	21'-3"	
p63(E)	6	#8	15'-1"	
p64(E)	6	#8	24'-7"	
p65(E)	6	#9	17'-2"	
s60(E)	32	#5	12'-2"	
s61(E)	68	#5	11'-11"	
s62(E)	4	#5	11'-7"	
s63(E)	4	#5	10'-7"	
s64(E)	4	#5	9'-7"	
s65(E)	4	#5	8'-7"	
s66(E)	4	#5	7'-7"	
s67(E)	22	#5	11'-1"	
s68(E)	22	#5	4'-0"	
s69(E)	22	#5	3'-9"	
t61(E)	68	#5	9'-8"	
u61(E)	8	#5	8'-8"	
u62(E)	6	#5	6'-6"	
u63(E)	30	#5	7'-2"	
v61(E)	40	#8	15'-6"	
v62(E)	33	#5	31'-10"	
v63(E)	3	#5	18'-8"	
w61(E)	20	#5	13'-10"	
w62(E)	10	#5	17'-10"	
w63(E)	10	#5	18'-6"	

Structure Excavation	Cu Yd.	140
Concrete Structures	Cu Yd.	113.0
Reinforcement Bars, Epoxy Coated	Pound	10,880



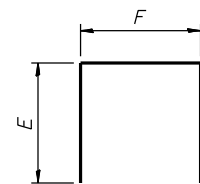
**A & B DIMENSIONS**

Bar	A	B
p72(E)	17'-4"	1'-3"
v71(E)	14'-8"	1'-4"



**C & D DIMENSIONS**

Bar	C	D
s71(E)	3'-8"	1'-10"
s72(E)	3'-6"	1'-10"
s73(E)	3'-0"	1'-10"
s74(E)	2'-6"	1'-10"
s75(E)	2'-0"	1'-10"
s76(E)	1'-6"	1'-10"
s77(E)	2'-8"	2'-5"



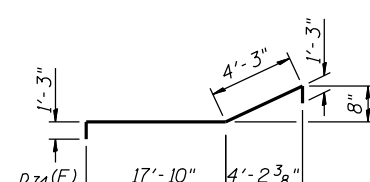
**E & F DIMENSIONS**

Bar	E	F
s70(E)	4'-9"	2'-8"
u71(E)	3'-0"	2'-8"
u72(E)	1'-11"	2'-8"
u73(E)	2'-3"	2'-8"
v72(E)	13'-1"	2'-8"
v73(E)	8'-0"	2'-8"

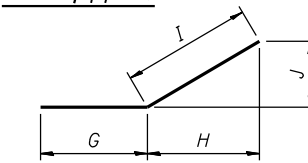
**BILL OF MATERIAL - PIER 7**

Bar	No.	Size	Length	Shape
d71(E)	66	#6	4'-3"	
h71(E)	2	#5	17'-4"	
h72(E)	2	#5	16'-0"	
h73(E)	2	#5	14'-2"	
h74(E)	2	#5	22'-1"	
h75(E)	2	#5	20'-10"	
h76(E)	2	#5	19'-0"	
h77(E)	31	#5	14'-0"	
h78(E)	31	#5	19'-0"	
h79(E)	5	#5	4'-8"	
n71(E)	40	#8	10'-8"	
p71(E)	8	#5	8'-6"	
p72(E)	6	#8	18'-7"	
p73(E)	6	#8	12'-4"	
p74(E)	6	#8	24'-7"	
p75(E)	6	#9	17'-2"	
s70(E)	29	#5	12'-2"	
s71(E)	62	#5	11'-11"	
s72(E)	4	#5	11'-7"	
s73(E)	4	#5	10'-7"	
s74(E)	4	#5	9'-7"	
s75(E)	4	#5	8'-7"	
s76(E)	4	#5	7'-7"	
s77(E)	24	#5	11'-1"	
s78(E)	24	#5	4'-0"	
s79(E)	24	#5	3'-9"	
t71(E)	62	#5	10'-8"	
u71(E)	8	#5	8'-8"	
u72(E)	6	#5	6'-6"	
u73(E)	28	#5	7'-2"	
v71(E)	40	#8	16'-0"	
v72(E)	30	#5	28'-10"	
v73(E)	3	#5	18'-8"	
w71(E)	22	#5	11'-2"	
w72(E)	12	#5	17'-10"	
w73(E)	10	#5	18'-6"	

Structure Excavation	Cu Yd.	80
Concrete Structures	Cu Yd.	103.0
Reinforcement Bars, Epoxy Coated	Pound	10,360



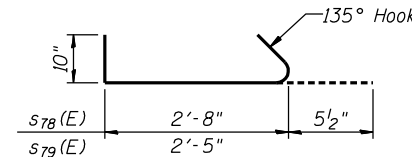
**BAR p74(E)**



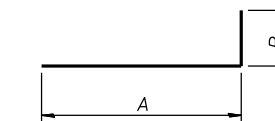
**BAR n71(E)**

**G THRU J DIMENSIONS**

Bar	G	H	I	J
n74(E)	17'-10"	4'-2 3/8"	4'-3"	8"
n75(E)	16'-7"	4'-2 3/8"	4'-3"	8"
n76(E)	14'-9"	4'-2 3/8"	4'-3"	8"
p71(E)	3'-0"	4'-11"	5'-6"	2'-5 1/2"
p75(E)	12'-11"	4'-2 3/8"	4'-3"	8"

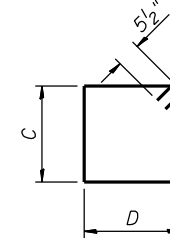


**BARS s78(E) & s79(E)**



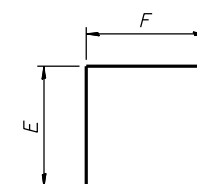
**A & B DIMENSIONS**

Bar	A	B
p82(E)	14'-8"	1'-3"
v81(E)	15'-0"	1'-4"



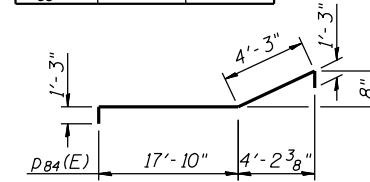
**C & D DIMENSIONS**

Bar	C	D
s81(E)	3'-8"	1'-10"
s82(E)	3'-6"	1'-10"
s83(E)	3'-0"	1'-10"
s84(E)	2'-6"	1'-10"
s85(E)	2'-0"	1'-10"
s86(E)	1'-6"	1'-10"
s87(E)	2'-8"	2'-5"

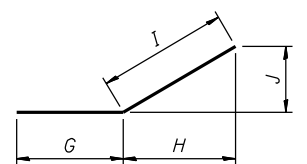


**E & F DIMENSIONS**

Bar	E	F
s80(E)	4'-9"	2'-8"
u81(E)	3'-0"	2'-8"
u82(E)	1'-11"	2'-8"
u83(E)	2'-3"	2'-8"
v82(E)	9'-3"	2'-8"
v83(E)	8'-0"	2'-8"



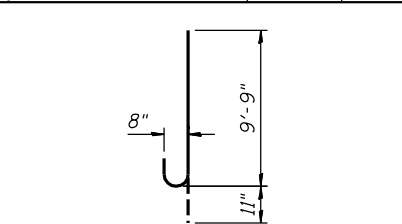
**BAR p84(E)**



**BAR n81(E)**

**G THRU J DIMENSIONS**

Bar	G	H	I	J
n84(E)	17'-10"	4'-2 3/8"	4'-3"	8"
n85(E)	16'-7"	4'-2 3/8"	4'-3"	8"
n86(E)	14'-9"	4'-2 3/8"	4'-3"	8"
p81(E)	3'-0"	4'-11"	5'-6"	2'-5 1/2"
p85(E)	12'-11"	4'-2 3/8"	4'-3"	8"



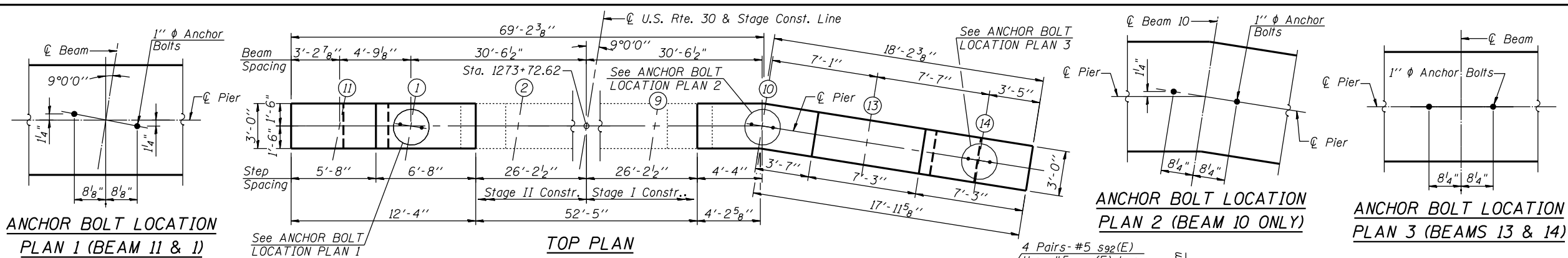
**BARS s88(E) & s89(E)**

Structure Excavation	Cu Yd.	90
Concrete Structures	Cu Yd.	81.0
Reinforcement Bars, Epoxy Coated	Pound	9,360

**NOTES:**

1. Work this Sheet with Sheets S78 thru S80.

F:\p052200\20130331\3cd\structure\dgn\045-0039.fina\00\Di6033-s081-PIER 6,7,8-dt.dgn 6/14/2012 5:05:55 PM

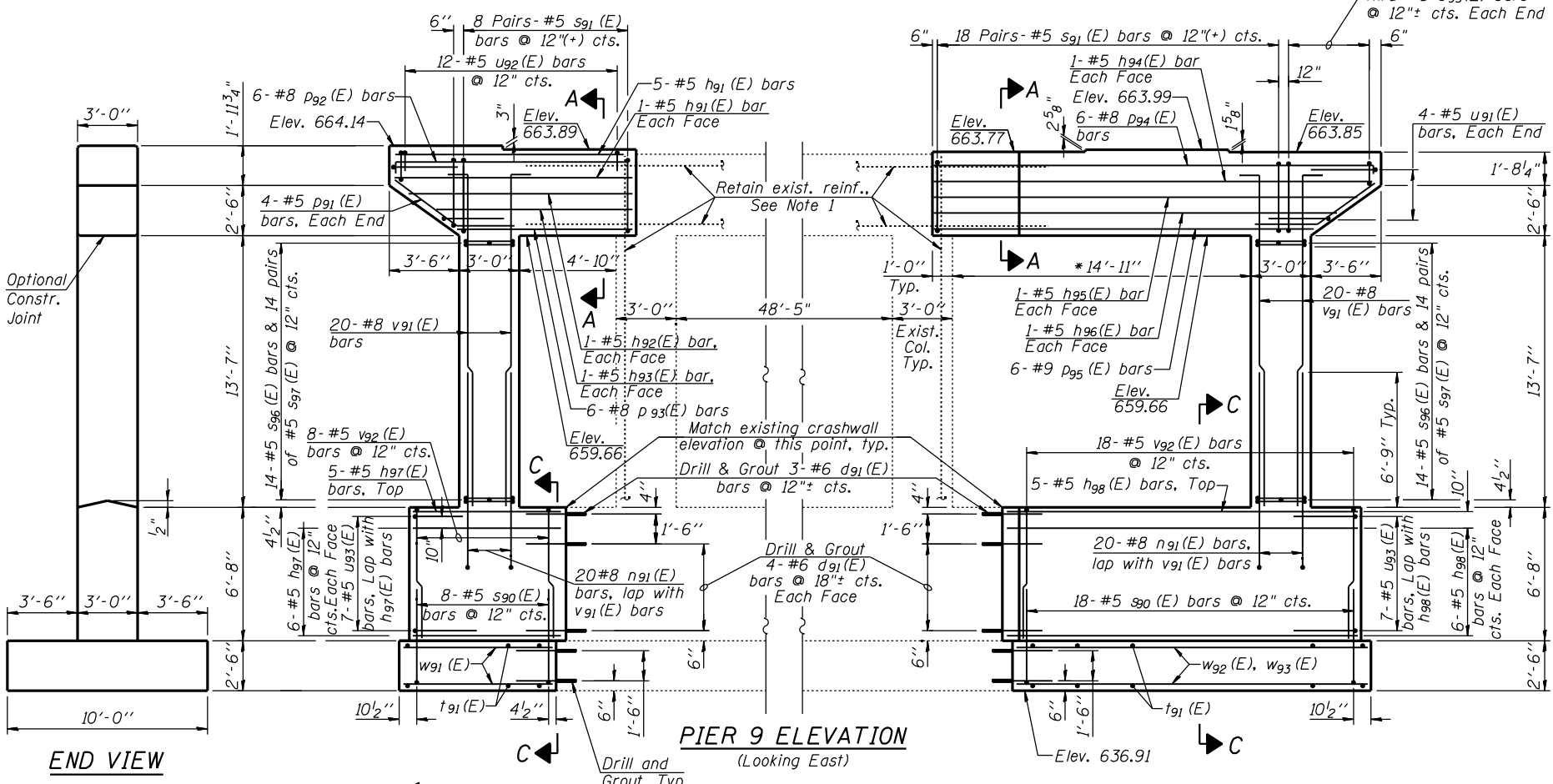


ANCHOR BOLT LOCATION PLAN 1 (BEAM 11 & 1)

TOP PLAN

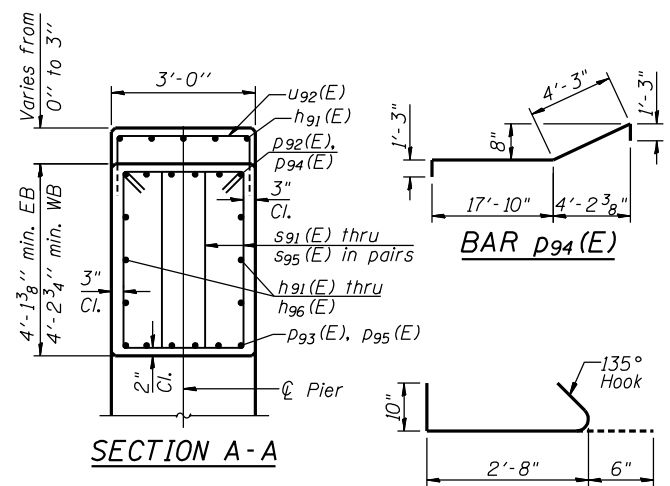
ANCHOR BOLT LOCATION PLAN 2 (BEAM 10 ONLY)

ANCHOR BOLT LOCATION PLAN 3 (BEAMS 13 & 14)

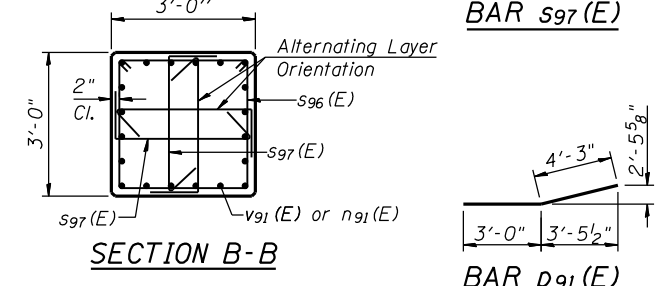


PIER 9 ELEVATION (Looking East)

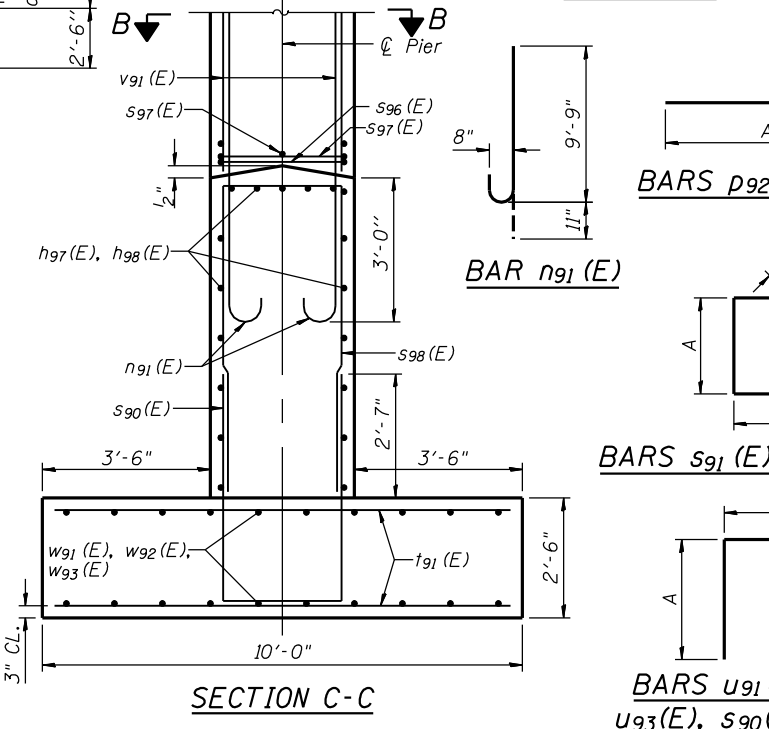
END VIEW



SECTION A-A



SECTION B-B



SECTION C-C

**BILL OF MATERIAL**

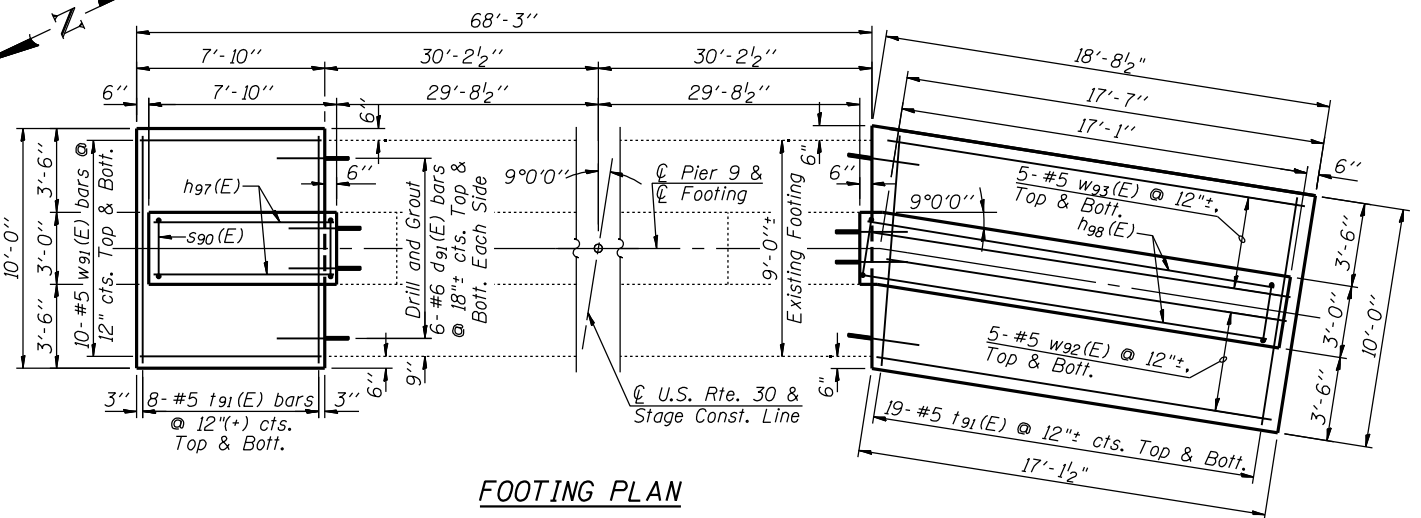
Bar	No.	Size	Length	Shape
d <sub>91</sub> (E)	46	#6	4'-3"	—
h <sub>91</sub> (E)	7	#5	12'-0"	—
h <sub>92</sub> (E)	2	#5	10'-10"	—
h <sub>93</sub> (E)	2	#5	9'-8"	—
h <sub>94</sub> (E)	2	#5	22'-1"	—
h <sub>95</sub> (E)	2	#5	20'-11"	—
h <sub>96</sub> (E)	2	#5	19'-10"	—
h <sub>97</sub> (E)	17	#5	7'-6"	—
h <sub>98</sub> (E)	17	#5	18'-9"	—
n <sub>91</sub> (E)	40	#8	10'-8"	—
p <sub>91</sub> (E)	8	#5	7'-3"	—
p <sub>92</sub> (E)	6	#8	13'-3"	—
p <sub>93</sub> (E)	6	#8	8'-6"	—
p <sub>94</sub> (E)	6	#8	24'-7"	—
p <sub>95</sub> (E)	6	#9	17'-2"	—
s <sub>90</sub> (E)	26	#5	12'-2"	—
s <sub>91</sub> (E)	52	#5	11'-11"	—
s <sub>92</sub> (E)	4	#5	11'-3"	—
s <sub>93</sub> (E)	4	#5	9'-11"	—
s <sub>94</sub> (E)	4	#5	8'-7"	—
s <sub>95</sub> (E)	4	#5	7'-3"	—
s <sub>96</sub> (E)	28	#5	11'-7"	—
s <sub>97</sub> (E)	56	#5	4'-0"	—
t <sub>91</sub> (E)	54	#5	9'-8"	—
u <sub>91</sub> (E)	8	#5	8'-8"	—
u <sub>92</sub> (E)	12	#5	6'-6"	—
u <sub>93</sub> (E)	14	#5	7'-2"	—
v <sub>91</sub> (E)	40	#8	18'-5"	—
v <sub>92</sub> (E)	26	#5	15'-6"	—
w <sub>91</sub> (E)	20	#5	7'-6"	—
w <sub>92</sub> (E)	10	#5	16'-10"	—
w <sub>93</sub> (E)	10	#5	18'-2"	—
Structure Excavation			Cu Yd.	140
Concrete Structures			Cu Yd.	68.0
Reinforcement Bars, Epoxy Coated			Pound	8,730

A & B DIMENSIONS

Bar	A	B
h <sub>94</sub> (E)	17'-10"	---
h <sub>95</sub> (E)	16'-7"	---
h <sub>96</sub> (E)	15'-7"	---
p <sub>92</sub> (E)	12'-0"	1'-3"
p <sub>95</sub> (E)	14'-6"	---
s <sub>90</sub> (E)	4'-9"	2'-8"
s <sub>91</sub> (E)	3'-8"	1'-10"
s <sub>92</sub> (E)	3'-4"	1'-10"
s <sub>93</sub> (E)	2'-8"	1'-10"
s <sub>94</sub> (E)	2'-0"	1'-10"
s <sub>95</sub> (E)	1'-4"	1'-10"
s <sub>96</sub> (E)	2'-8"	2'-8"
u <sub>91</sub> (E)	3'-0"	2'-8"
u <sub>92</sub> (E)	1'-11"	2'-8"
u <sub>93</sub> (E)	2'-3"	2'-8"
v <sub>91</sub> (E)	17'-1"	1'-4"
v <sub>92</sub> (E)	6'-5"	2'-8"

**NOTES:**

- Existing reinforcement shall be cleaned, straightened and incorporated into the new construction. Cost included with "Concrete Removal".
- Space reinforcement in cap to miss anchor bolts.
- Four steps monolithically with cap.
- Embedment depth for #6 bars drilled & grouted is 9".
- Maximum applied service load soil bearing pressure is 4,000 psf.
- \*Denotes dimension along  $\phi$  of Pier.



FOOTING PLAN



USER NAME	DESIGNED	REVISIONS
J.Z.	6/25/2012	REVIS
J.A.Z.	6/25/2012	REVIS
E.U.B.	6/25/2012	REVIS
J.Z.	6/25/2012	REVIS

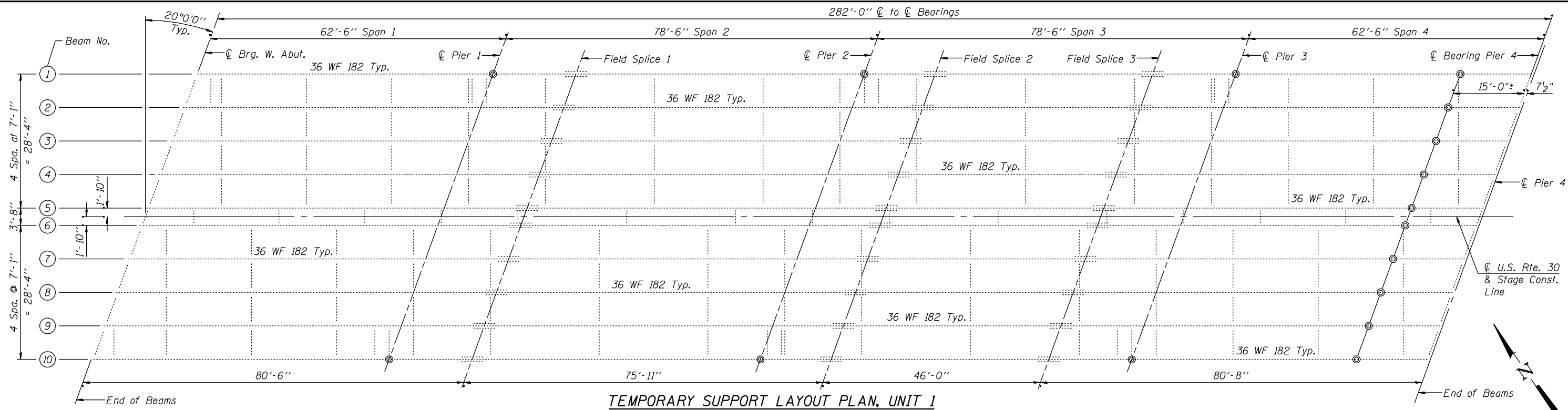
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PIER 9  
STRUCTURE NO. 045-0039

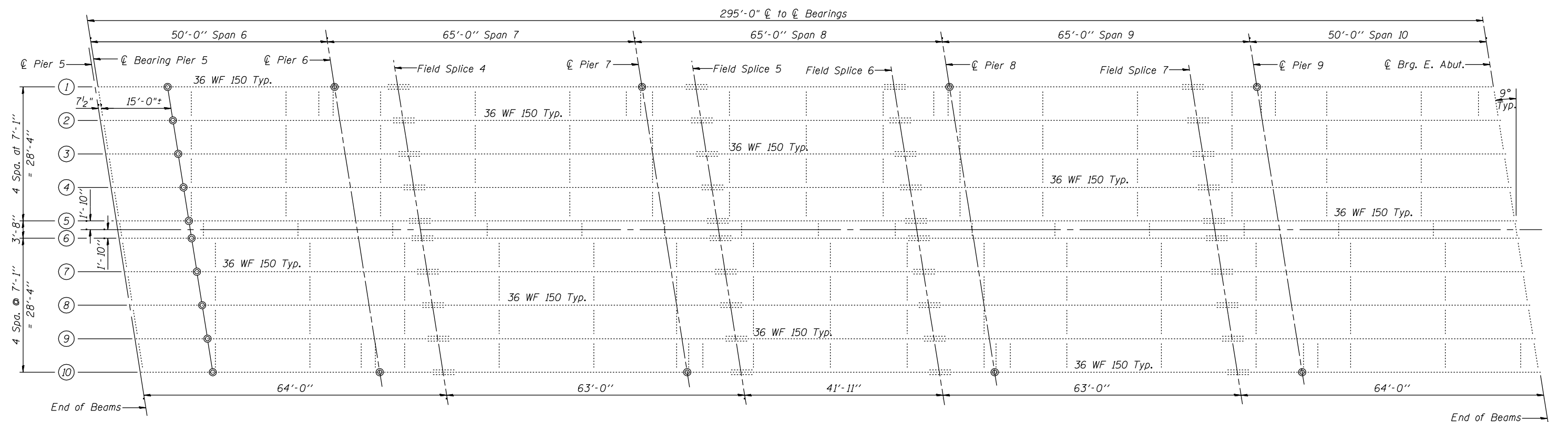
SHEET NO. S82 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	303
				CONTRACT NO. 60133

ILLINOIS FED. AID PROJECT



TEMPORARY SUPPORT LAYOUT PLAN, UNIT 1



TEMPORARY SUPPORT LAYOUT PLAN, UNIT 3

STEEL DEAD LOAD REACTION TABLE (KIPS)

Location	Pier 1	Pier 2	Pier 3	15 ft. West of Pier 4	15 ft. East of Pier 5	Pier 6	Pier 7	Pier 8	Pier 9
Beam Reaction	17.1	17.8	14.7	7.2	5.3	9.7	12.6	12.1	11.9
Fascia	16.2	17.0	14.0	6.9	5.0	9.2	11.8	11.4	11.3

NOTES

- © Denotes point where temporary support is required. Points of temporary support are required for the removal of pier cap beam cantilevers at Piers 1, 2, 3 and 6 thru 9; they are also required for the complete removal of Piers 4 & 5.
- Points of temporary support may be revised by the Contractor as indicated in his required and approved procedure for jacking and shoring. A change in temporary support location from that shown in this drawing will require a recalculation of steel dead load reaction by the contractor.
- Reactions shown are for one continuous beam and are the result of the unfactored steel dead load which includes the weight of the beam, diaphragms, splices and connections applied to the continuous superstructure.
- The maximum lift during jacking shall be 1/2". The final beam elevations at the bearings shall match the elevations at the start of construction (± 1/8").

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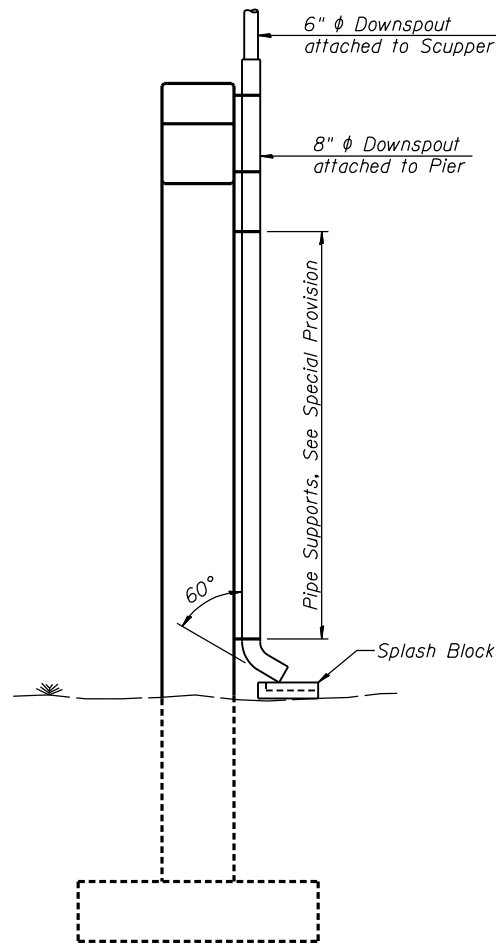
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	CHECKED - J.A.Z. 6/15/2012	REVISED -
PLOT SCALE =	DRAWN - E.U.B. 6/15/2012	REVISED -
PLOT DATE =	CHECKED - J.J.G. 6/15/2012	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

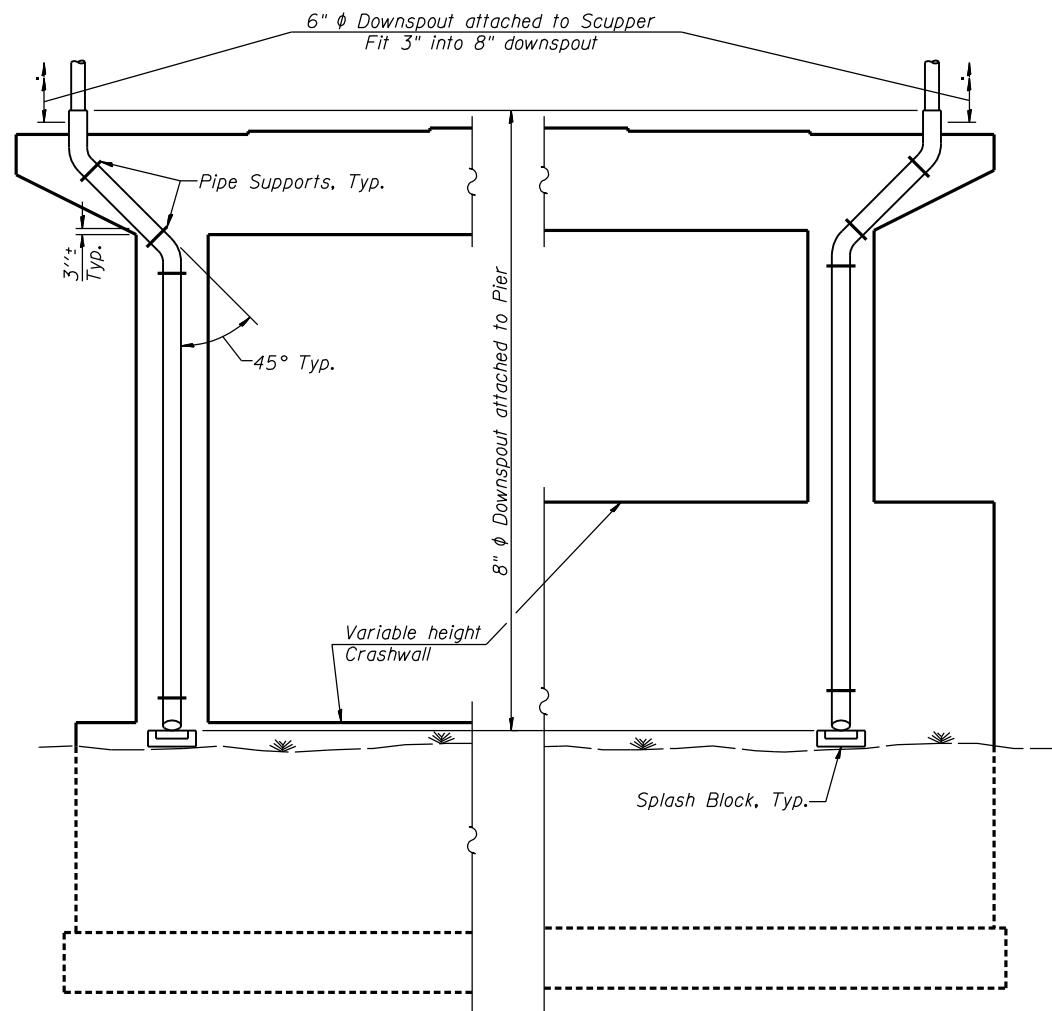
TEMPORARY SUPPORT SYSTEM  
STRUCTURE NO. 045-0039  
SHEET NO. S83 OF 116 SHEETS

F.A.P. RTE. 349	SECTION (10 & 11VB) R-3	COUNTY KANE	TOTAL SHEETS 507	SHEET NO. 304
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				



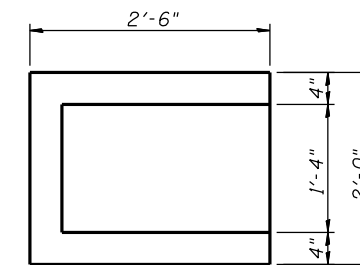


PIER END VIEW

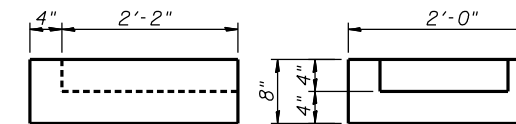


ELEVATION VIEW A OF PIER N LOOKING D

ELEVATION VIEW B OF PIER N LOOKING D



TOP VIEW



SIDE VIEW

END VIEW

SPLASH BLOCK

DRAINAGE SYSTEM SCHEDULE

Down Spout	Elevation View A or B	Pier N	D
1	B	2WB	West
2	A	2EB	West
3	A	4WB	East
4	B	5EB	East
5	B	7WB	West
6	B	7EB	East
7	A	8EB	West

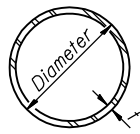
**NOTES:**

- The piping (downspouts), fittings, pipe supports, inserts, bolts and splash blocks for the 7 locations shown are the DRAINAGE SYSTEM. The 6"  $\phi$  downspouts attached to scuppers are included with DRAINAGE SCUPPERS, DS-12.
- Construct Splash Blocks from Class SI or Class PC Concrete.

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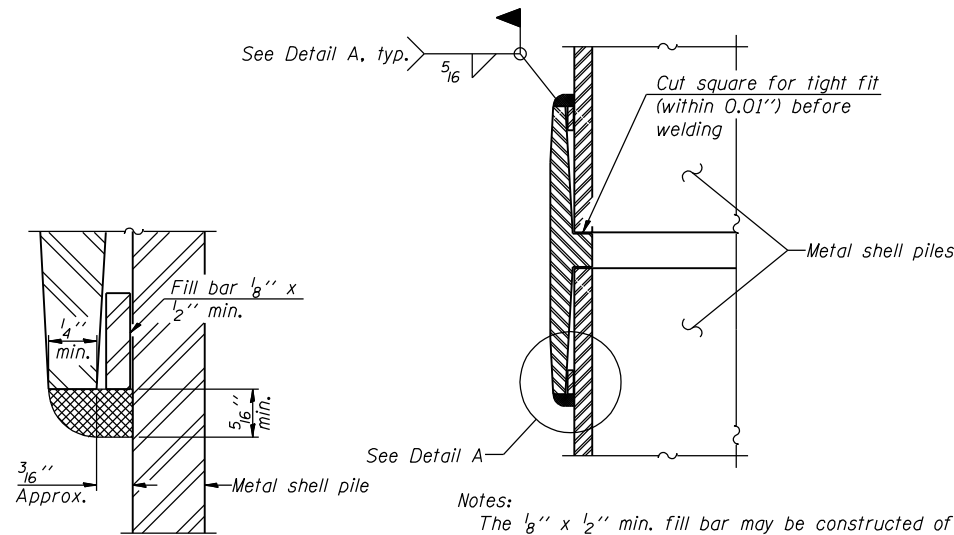
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PLOT SCALE =	DRAWN - E.U.B. 6/15/2012	REVISED -
PLOT DATE =	CHECKED - J.J.G. 6/15/2012	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	305
CONTRACT NO. 60133				



**METAL SHELL PILE TABLE**

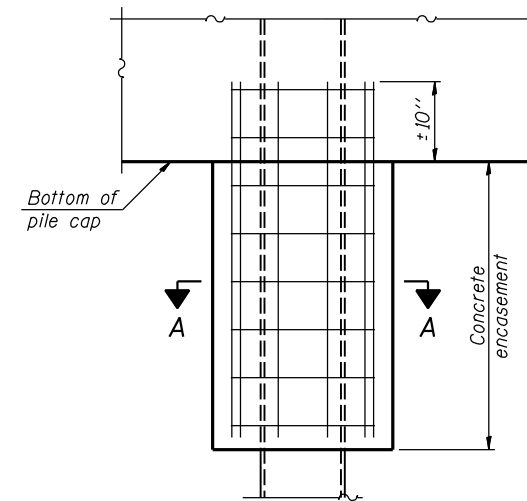
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. <sup>3</sup> /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



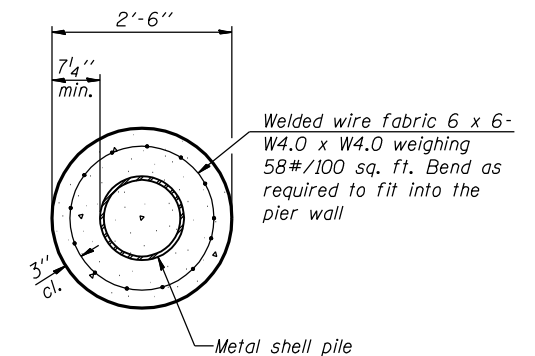
**DETAIL A**

**Notes:**  
 The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.  
 Pile segments shall be driven to solid contact with splicer before welding.

**WELDED COMMERCIAL SPLICE**



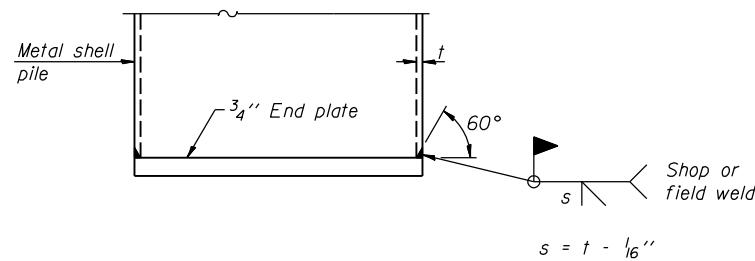
**ELEVATION**



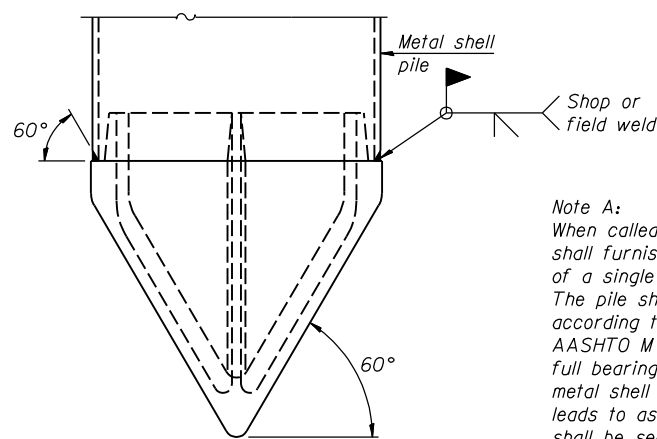
**SECTION A-A**

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

**CONCRETE ENCASEMENT AT PIERS**



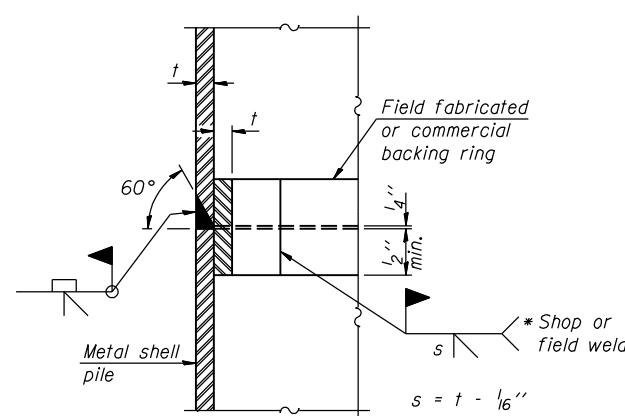
**END PLATE ATTACHMENT**



**METAL SHELL PILE SHOE ATTACHMENT**

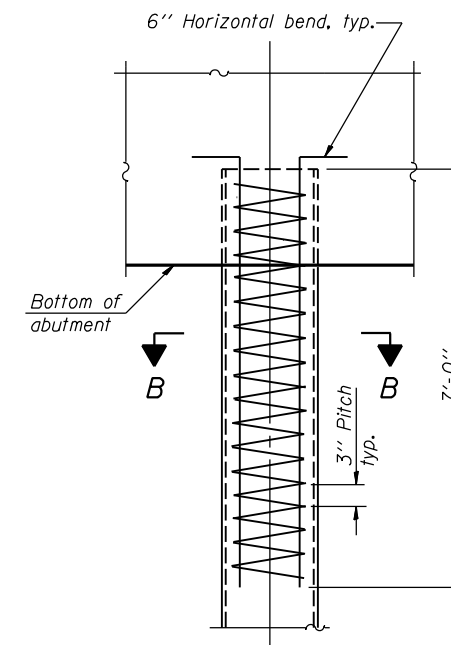
(See Note A)

**Note A:**  
 When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.

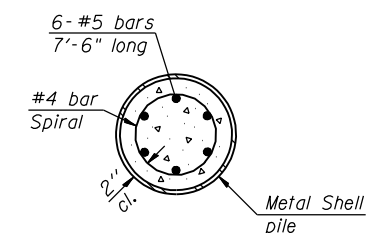


**COMPLETE PENETRATION WELD SPLICE**

\* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



**ELEVATION**



**SECTION B-B**

**METAL SHELL REINFORCEMENT AT ABUTMENTS**

**Note:**  
 The metal shell piles shall be according to ASTM A 252 Grade 3.

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F-MS 1-27-12

**GR&EF**  
 8501 W. Higgins Road, Suite 280  
 Chicago, Illinois 60631; (773) 399-0112

USER NAME =	DESIGNED -	REVISION	DATE
J.Z.	6/15/2012	REVIS	-
J.A.Z.	6/15/2012	REVIS	-
E.U.B.	6/15/2012	REVIS	-
J.J.G.	6/15/2012	REVIS	-

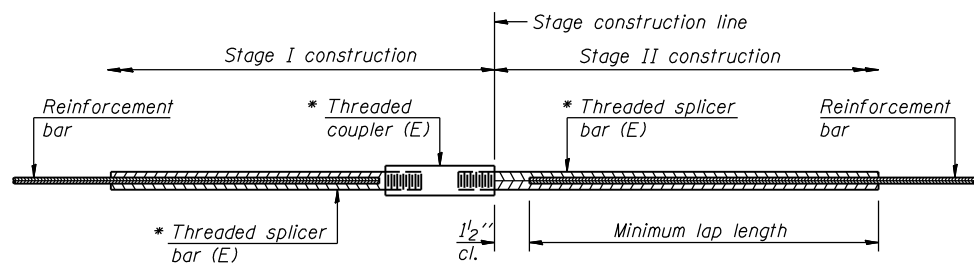
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**METAL SHELL PILE DETAILS  
 STRUCTURE NO. 045-0039**

SHEET NO. S85 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	306
CONTRACT NO. 60133				

ILLINOIS FED. AID PROJECT



**STANDARD BAR SPLICER ASSEMBLY**

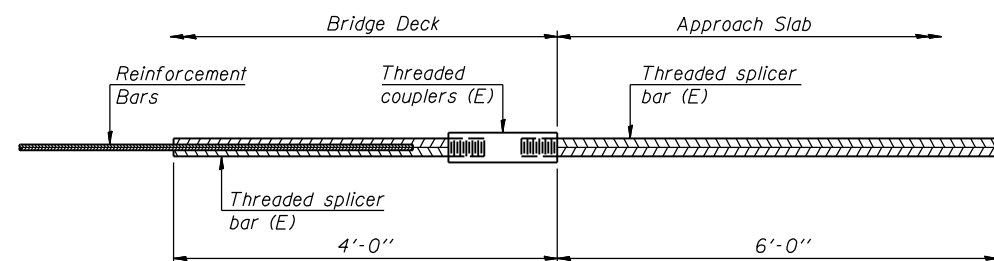
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

- 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 + 1 1/2" + thread length

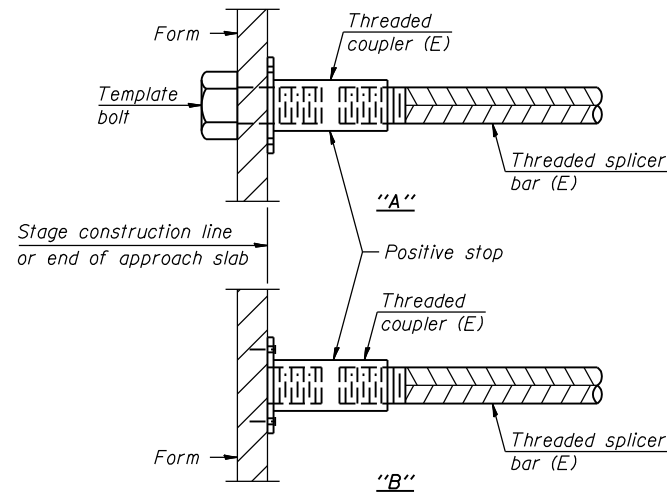
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
West Abutment	#6	115	6
East Abutment	#6	92	6
Pier 4 Crashwall	#5	19	4
Pier 4 Footing	#5	10	5
Pier 4 Footing	#5	10	6
Pier 5 Crashwall	#5	17	4
Pier 5 Footing	#5	10	5
Pier 5 Footing	#5	10	6
Deck, Unit 1	#5	879	6
Deck, Unit 2	#5	121	6
Deck, Unit 3	#5	915	6
Approach Slab	#4	50	6
Approach Slab	#5	172	6



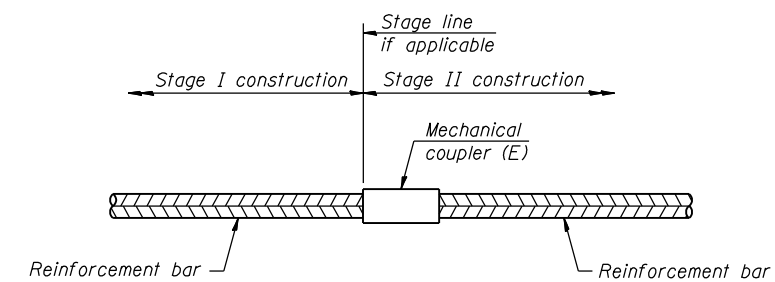
**BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

No. required =



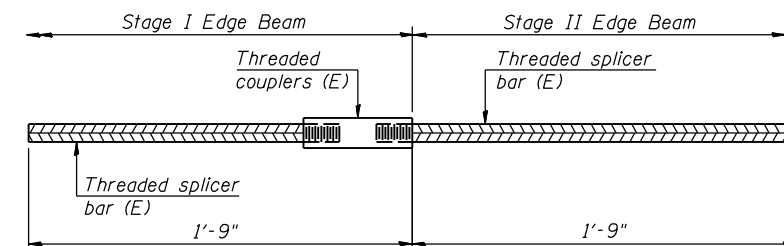
**INSTALLATION AND SETTING METHODS**

"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.



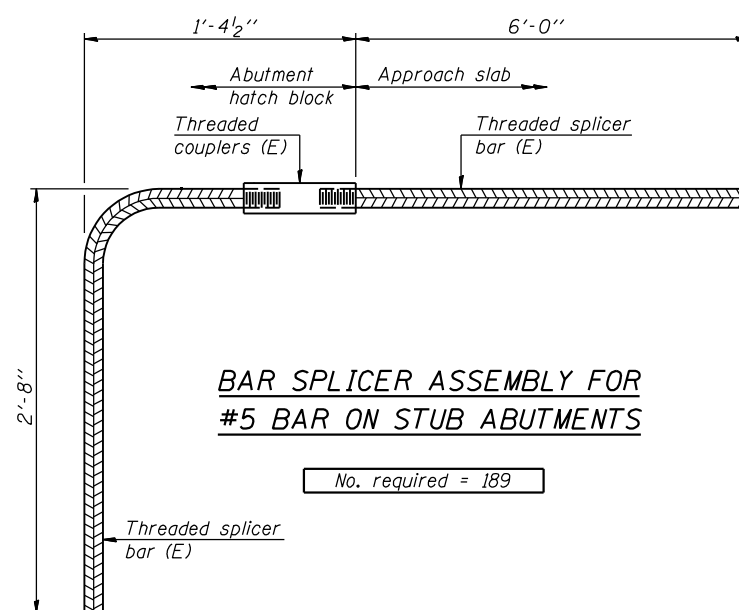
**STANDARD MECHANICAL SPLICER**

Location	Bar size	No. assemblies required



**BAR SPLICER ASSEMBLY FOR #5 BAR IN EDGE BEAM, BETWEEN BEAMS, STAGE CONSTRUCTION LINE BAY**

No. required = 18



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

No. required = 189

**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.

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# SOIL BORING LOG

PAGE 1 of 3  
 DATE 11/9-10/2010  
 LOGGED BY DR  
 GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
 SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
 COUNTY Kane DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. SN 045-0039 Surface Water Elev. n/a  
 Station 12171+21.00 Stream Bed Elev. n/a  
 BORING NO. SB-01 Groundwater Elevation:  
 Station: 1268+07 First Encounter 631.5 ▼  
 Offset: 22.0' Right Upon Completion n/a ▼  
 Ground Surface Elev. 670.0 After \_\_\_\_\_ Hrs. \_\_\_\_\_ ▼

DEPTH (ft)	BLOWS (/6")	UCS (tsf)	MOIST (%)	DESCRIPTION	DEPTH (ft)	BLOWS (/6")	UCS (tsf)	MOIST (%)
0				5.0" ASPHALT, 7.0" CONCRETE	0			
9					10			
11					18			
13	NP	4			15	NP	5	
4				SAND & GRAVEL-brown-dense (A-1) Fill	13			
7					13			
-5	7	NP	5		-25	18	NP	10
20				SAND & GRAVEL-brown-medium dense to dense (A-1) Fill	11			
29					17			
34	NP	4			13	NP	7	
6				SANDY LOAM-dark gray-medium dense (A-2) Fill	10			
11					10			
-10	14	NP	4		-30	10	NP	10
5					10			
10					10	NP	4	
4				SAND & GRAVEL-brown-dense (A-1) Fill	11			
15					26			
-15	10	NP	5		-35	30	NP	4
10								
13								
10	NP	6						
12					8			
17				Silty SAND & GRAVEL-brown & gray-dense (A-2) Fill	9			
17	NP	6			6	0.75P	39	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST=Shelby Tube Sample VS=Vane Shear Test  
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)  
 NR-No Recovery



# SOIL BORING LOG

PAGE 2 of 3  
 DATE 11/9-10/2010  
 LOGGED BY DR  
 GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
 SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
 COUNTY Kane DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. SN 045-0039 Surface Water Elev. n/a  
 Station 12171+21.00 Stream Bed Elev. n/a  
 BORING NO. SB-01 Groundwater Elevation:  
 Station: 1268+07 First Encounter 631.5 ▼  
 Offset: 22.0' Right Upon Completion n/a ▼  
 Ground Surface Elev. 670.0 After \_\_\_\_\_ Hrs. \_\_\_\_\_ ▼

DEPTH (ft)	BLOWS (/6")	UCS (tsf)	MOIST (%)	DESCRIPTION	DEPTH (ft)	BLOWS (/6")	UCS (tsf)	MOIST (%)
0				ORGANIC CLAY-dark gray to black medium stiff (A-7) Wet - 4% Organics	0			
629.0					629.0			
11				Silty SAND & GRAVEL-brown & gray-very dense (A-2)	50/3'			
9					65	NP	16	
-45	9	-	9					
7					50/1'			
8								
-50	50/5'	NP	9		-70			NR
619.5					599.0			
5				Drillers Observation: Apparent Bedrock	598.5			
10								
10	NP	4						
4				SILTY CLAY-gray-stiff (A-6)				
15								
-15	10	NP	5		615.5	18	1.5P	
10					-55	50/4'	22	
13								
10	NP	6						
12					50/3'			
17				Silty SAND & GRAVEL-brown & gray-very dense (A-2)				
17	NP	6			-60	NP	17	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST=Shelby Tube Sample VS=Vane Shear Test  
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)  
 NR-No Recovery

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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG, SB-1  
 STRUCTURE NO. 045-0039

SHEET NO. 587 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	308
CONTRACT NO. 60133				

ILLINOIS FED. AID PROJECT





### SOIL BORING LOG

PAGE 1 of 2  
DATE 11/15/2010  
LOGGED BY DR  
GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
COUNTY Kane DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. SN 045-0039  
Station 12171+21.00  
BORING NO. **SB-02**  
Station: 1268+22  
Offset: 20.5' Left  
Ground Surface Elev. 670.0

DEPTH (ft)	BLOW COUNT (/6")	UCS (tsf)	MOIST (%)	Surface Water Elev.	Stream Bed Elev.	Groundwater Elevation:	First Encounter	Upon Completion	After	Hrs.
				<u>n/a</u>	<u>n/a</u>		<u>632.0</u>	<u>n/a</u>		

DEPTH (ft)	BLOW COUNT (/6")	UCS (tsf)	MOIST (%)	DESCRIPTION	DEPTH (ft)	BLOW COUNT (/6")	UCS (tsf)	MOIST (%)
0				3.0" ASPHALT, 8.0" CONCRETE	0			
14				CRUSHED STONE-dense (Fill)	8			
24					13			
15	NP	3			25	NP	4	
667.0				SAND & GRAVEL-brown-medium dense to dense (A-1) Fill				
9					15			
11					30			
-5	NP	4			-25	NP	7	
7					8			
16					10			
17	NP	5			19	NP	5	
643.0				SAND & GRAVEL-brown-medium dense to dense (A-1) Fill				
14					3			111
16					5			
-10	NP	4		CLAY LOAM-brown-stiff (A-6) Fill	-30	6	1.5B	18
7								
8								
9	NP	1						
12					8			
16					14			
-15	NP	5			-35	17	NP	4
635.5				SAND & GRAVEL-brown-dense (A-1) Apparent Fill				
7								
5								
6	NP	5						
631.0								
13					8			
10					7			
-20	NP	6		SILTY CLAY-gray-medium stiff (A-6)	-40	8	0.5P	24

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)  
NR-No Recovery



### SOIL BORING LOG

PAGE 2 of 2  
DATE 11/15/2010  
LOGGED BY DR  
GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
COUNTY Kane DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. SN 045-0039  
Station 12171+21.00  
BORING NO. **SB-02**  
Station: 1268+22  
Offset: 20.5' Left  
Ground Surface Elev. 670.0

DEPTH (ft)	BLOW COUNT (/6")	UCS (tsf)	MOIST (%)	Surface Water Elev.	Stream Bed Elev.	Groundwater Elevation:	First Encounter	Upon Completion	After	Hrs.
				<u>n/a</u>	<u>n/a</u>		<u>632.0</u>	<u>n/a</u>		

DEPTH (ft)	BLOW COUNT (/6")	UCS (tsf)	MOIST (%)	DESCRIPTION	DEPTH (ft)	BLOW COUNT (/6")	UCS (tsf)	MOIST (%)
				SILTY CLAY-gray-medium stiff (A-6)				
626.5								
50/4"				FRACTURED ROCK-gray-very dense (A-1)				
625.0					-45	NP	12	
-65								
618.0				SANDY CLAY LOAM-gray-dense (A-2/A-4)				
12								
25								
-50	31	-	11					
-70								
618.0				SANDY LOAM with Fractured Rock-gray-dense (A-2)				
14								
19								
-55	27	NP	8					
-75								
613.0				SILTY CLAY-gray-very stiff (A-4/A-6)				
15								
27								
610.0				End Of Boring @ -60.0'				
-60	21	3.75P	11	Hollow Stem Augers To -40.0'				
-80				Rotary Drilling To Completion				
				CME Automatic Hammer				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)  
NR-No Recovery

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG, SB-2  
STRUCTURE NO. 045-0039

SHEET NO. S89 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	310
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				







Geo Services, Inc.  
 Geotechnical, Environmental & Civil Engineering  
 805 Amherst Court, Suite 204  
 Naperville, Illinois 60565  
 (630) 355-2338

ROCK CORE LOG

PAGE 1 of 1  
 DATE 10/13/2010  
 LOGGED BY DR  
 GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
 SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
 COUNTY Kane CORING METHOD Rotary Wash

STRUCT. NO. SN 045-0039 CORING BARREL TYPE & SIZE NX Double Swivel-10 ft  
 Station 12171+21.00 Core Diameter 2.0 in  
 BORING NO. SB-04 Top of Rock Elev. 596.1  
 Station: 1269+09 Begin Core Elev. 596.1  
 Offset: 36.5' Left  
 Ground Surface Elev. 640.1

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORRECTION (min /ft)	STRENGTH (tsf)
596.1	1	100.0	62.5	n/a	577@ -44.0
RUN 1 (-44.0' to -54.0') Silurian System, Niagaran Series Dolomite Light gray mottled gray with horizontal to wavy bedding. Soft & argillaceous with some varving. Numerous weathered horizontal fractures with clay & shale partings.					
-49					
-54					



Color pictures of the cores Yes \_\_\_\_\_ Cores will be stored for examination for XX \_\_\_\_\_  
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

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**GR&EF**  
 8501 W. Higgins Road, Suite 280  
 Chicago, Illinois 60631; (773) 399-0112

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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

ROCK CORE LOG, SB-4  
 STRUCTURE NO. 045-0039

SHEET NO. S92 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	313
			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				

PAGE 1 of 2  
 DATE 10/12/2010  
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 GSI JOB No. 09172

**SOIL BORING LOG**

Geo Services, Inc.  
 Geotechnical, Environmental & Civil Engineering  
 805 Arnhem Court, Suite 204  
 Naperville, Illinois 60565  
 (630) 355-2838

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
 SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
 COUNTY Kane DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. SN 045-0039  
 Station 12171+21.00  
 BORING NO. SB-05  
 Station: 1269+60  
 Offset: 36.5' Right  
 Ground Surface Elev. 641.3

DEPTH (ft)	BLOW S	UCS Qu (tsf)	MOIST (%)	Surface Water Elev. <u>n/a</u>	Stream Bed Elev. <u>n/a</u>	Groundwater Elevation:	DEPTH (ft)	BLOW S	UCS Qu	MOIST (%)	
4.0" ASPHALT	640.9										
CLAY LOAM—brown—medium dense (A-4)	3							28			
	639.3	4						25			
		11	0.75P	15				33	NP	8	
SAND & GRAVEL—brown—dense (A-1) Fill	5							25			
	635.3	8						38			
		-5	31	-	10			-25	53	NP	7
TOPSOIL—black	7							27			
	633.3	3						33			
		4	0.5P	30				50/2"	NP	8	
SAND & GRAVEL—brown—loose to medium dense (A-1)	2							38			
		3						37			
		-10	6	NP	8			-30	32	NP	11
		23									
		17									
		9	NP	4							
SANDY CLAY LOAM—gray—loose to dense (A-2)	12							38			
		18						50/4"			
		-15	12	NP	9			-35	NP	13	
		3									
		3									
		3	NP	10							
	623.3										
SANDY LOAM with Fractured Rock—gray—medium dense to very dense (A-2)	5							13			
		8						13			
		-20	11	-	12			-40	13	NP	11

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B—Bulge, S—Shear, P—Penetrometer) ST—Shelby Tube Sample VS—Vane Shear Test  
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)  
 NR—No Recovery

PAGE 2 of 2  
 DATE 10/12/2010  
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 GSI JOB No. 09172

**SOIL BORING LOG**

Geo Services, Inc.  
 Geotechnical, Environmental & Civil Engineering  
 805 Arnhem Court, Suite 204  
 Naperville, Illinois 60565  
 (630) 355-2838

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
 SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
 COUNTY Kane DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. SN 045-0039  
 Station 12171+21.00  
 BORING NO. SB-05  
 Station: 1269+60  
 Offset: 36.5' Right  
 Ground Surface Elev. 641.3

DEPTH (ft)	BLOW S	UCS Qu (tsf)	MOIST (%)	Surface Water Elev. <u>n/a</u>	Stream Bed Elev. <u>n/a</u>	Groundwater Elevation:	DEPTH (ft)	BLOW S	UCS Qu	MOIST (%)
Clayey SAND & FRACTURED ROCK—gray—medium dense (A-2)										
	598.3									
Drillers Observation: Apparent Bedrock										
	597.3	50/0"		NR						
RUN 1 (-44.0' to -54.0')										
Silurian System, Niagaran Series Dolomite Light gray mottled gray with horizontal to wavy bedding. Soft & argillaceous with some varving. Numerous weathered horizontal fractures with some clay partings. 1.0" clay parting @ -44.3' & 1.5" clay parting @ -51.9'.										
	-45									
Recovery=100.0% R.Q.D.=62.5%										
	-50									
	587.3									
End Of Boring @ -54.0' Hollow Stem Augers To -20.0' Rotary Drilling To Completion CME Automatic Hammer 20' of 5"ø Casing Used 45' of 3"ø Casing Used										
	-55									
	-75									
	-60									
	-80									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B—Bulge, S—Shear, P—Penetrometer) ST—Shelby Tube Sample VS—Vane Shear Test  
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)  
 NR—No Recovery

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SOIL BORING LOG, SB-5  
 STRUCTURE NO. 045-0039**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	314
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				

SHEET NO. 593 OF 116 SHEETS

Geo Services, Inc.  
 Geotechnical, Environmental & Civil Engineering  
 805 Arnhem Court, Suite 204  
 Naperville, Illinois 60565  
 (630) 355-2838

# ROCK CORE LOG

PAGE 1 of 1  
 DATE 10/12/2010  
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 GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
 SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
 COUNTY Kane CORING METHOD Rotary Wash

STRUCT. NO. SN 045-0039 CORING BARREL TYPE & SIZE NX Double Swivel-10 ft  
 Station 12171+21.00 Core Diameter 2.0 in  
 BORING NO. SB-05 Top of Rock Elev. 598.3  
 Station: 1269+60 Begin Core Elev. 597.3  
 Offset: 36.5' Right  
 Ground Surface Elev. 641.3

DEPTH (ft)	CORE RUN (#)	RE CO VE RY (%)	R Q D (%)	C O R E I M E (min /ft)	S T R E N G T H (tsf)
597.3	1	100.0	62.5	n/a	942@ -54.5
-49					
-54					

RUN 1 (-44.0' to -54.0')  
 Silurian System, Niagaran Series Dolomite  
 Light gray mottled gray with horizontal to wavy bedding. Soft & argillaceous with some varving. Numerous weathered horizontal fractures with some clay partings. 1.0" clay parting @ -44.3' & 1.5" clay parting @ -51.9'.



Color pictures of the cores Yes Cores will be stored for examination for XX  
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**


**ROCK CORE LOG, SB-5  
 STRUCTURE NO. 045-0039**

SHEET NO. S94 OF 116 SHEETS


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	315
			CONTRACT NO. 60133	

ILLINOIS FED. AID PROJECT



 <p>Geo Services, Inc. Geotechnical, Environmental &amp; Civil Engineering 805 Amherst Court, Suite 204 Naperville, Illinois 60565 (630) 355-2838</p>			<b>SOIL BORING LOG</b>		PAGE <u>1</u> of <u>2</u> DATE <u>10/15/2010</u> LOGGED BY <u>DR</u> GSI JOB No. <u>09172</u>					
ROUTE <u>FAP 349 (US 30)</u> DESCRIPTION <u>US 30 from west of IL 31 to east of Burlington Northern Railroad</u>										
SECTION <u>(10 &amp; 11 VB) R-3</u> LOCATION <u>Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.</u>										
COUNTY <u>Kane</u> DRILLING METHOD <u>Hollow Stem Auger/Rotary</u> HAMMER TYPE <u>CME Automatic</u>										
STRUCT. NO. <u>SN 045-0039</u> Station <u>12171+21.00</u>	D E P T H  H S Qu T  <i>(ft)</i>	B L O W S  <i>(/6")</i>	U C S  <i>(tsf)</i>	M O I S T  <i>(%)</i>	Surface Water Elev. <u>n/a</u> Stream Bed Elev. <u>n/a</u> Groundwater Elevation: First Encounter <u>625.2</u> ▼ Upon Completion <u>n/a</u> ▼ After _____ Hrs. _____ ▼	D E P T H  H S Qu T  <i>(ft)</i>	B L O W S  <i>(/6")</i>	U C S  <i>(tsf)</i>	M O I S T  <i>(%)</i>	
BORING NO. <b>SB-07</b> Station: <u>1270+31</u> Offset: <u>36.5' Right</u> Ground Surface Elev. <u>637.7</u>										
CLAY LOAM—dark brown & black—loose (Fill)		AS — 17	3			29				
634.7			4			17				
5 1.75P 19			5			33 NP 8				
TOPSOIL—black		2				50				
632.2			3			50/4"				
SANDY LOAM with Fractured Rock—gray—dense to very dense (A-2)		-5	5			-25 NP 8				
SAND, GRAVEL & FRACTURED ROCK—brown & gray—very dense (A-1)		13				31				
40			50/3" NP 4			31 NP 12				
34			41			50/3"				
-10 50/4" NP 6			46			-30 NP 13				
622.2			50/5" NP 4							
SAND—gray—medium dense (A-3)		9				31				
619.7			7			29				
CLAY LOAM—gray—stiff (A-6)		8				-35 30 NP 6				
600.7			4							
SANDY LOAM with Fractured Rock—gray—dense to very dense (A-2)		7 1.2B 12								
FRACTURED ROCK—gray—very dense (A-1)		20				19				
19			20 23 NP 8			50/5"				
-20			23			-40 NP 8				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST—Shelby Tube Sample VS—Vane Shear Test  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)  
NR—No Recovery

 <p>Geo Services, Inc. Geotechnical, Environmental &amp; Civil Engineering 805 Amherst Court, Suite 204 Naperville, Illinois 60565 (630) 355-2838</p>			<b>SOIL BORING LOG</b>		PAGE <u>2</u> of <u>2</u> DATE <u>10/15/2010</u> LOGGED BY <u>DR</u> GSI JOB No. <u>09172</u>					
ROUTE <u>FAP 349 (US 30)</u> DESCRIPTION <u>US 30 from west of IL 31 to east of Burlington Northern Railroad</u>										
SECTION <u>(10 &amp; 11 VB) R-3</u> LOCATION <u>Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.</u>										
COUNTY <u>Kane</u> DRILLING METHOD <u>Hollow Stem Auger/Rotary</u> HAMMER TYPE <u>CME Automatic</u>										
STRUCT. NO. <u>SN 045-0039</u> Station <u>12171+21.00</u>	D E P T H  H S Qu T  <i>(ft)</i>	B L O W S  <i>(/6")</i>	U C S  <i>(tsf)</i>	M O I S T  <i>(%)</i>	Surface Water Elev. <u>n/a</u> Stream Bed Elev. <u>n/a</u> Groundwater Elevation: First Encounter <u>625.2</u> ▼ Upon Completion <u>n/a</u> ▼ After _____ Hrs. _____ ▼	D E P T H  H S Qu T  <i>(ft)</i>	B L O W S  <i>(/6")</i>	U C S  <i>(tsf)</i>	M O I S T  <i>(%)</i>	
BORING NO. <b>SB-07</b> Station: <u>1270+31</u> Offset: <u>36.5' Right</u> Ground Surface Elev. <u>637.7</u>										
FRACTURED ROCK—gray—very dense (A-1)		596.7								
Drillers Observation: Possible Bedrock		594.2								
End Of Boring @ -43.5' Hollow Stem Augers To -20.0' Rotary Drilling To Completion CME Automatic Hammer 20' of 5"∅ Casing Used		-45				-65				
		-50				-70				
		-55				-75				
		-60				-80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST—Shelby Tube Sample VS—Vane Shear Test  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)  
NR—No Recovery

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SOIL BORING LOG, SB-7  
STRUCTURE NO. 045-0039**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	317
				CONTRACT NO. 60133
ILLINOIS FED. AID PROJECT				

PAGE 1 of 2

**SOIL BORING LOG**

Geo Services, Inc.  
Geotechnical, Environmental & Civil Engineering  
805 Amherst Court, Suite 204  
Naperville, Illinois 60565  
(630) 355-2838

DATE 10/5-6/2010  
LOGGED BY DR  
GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
COUNTY Kane DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. SN 045-0039  
Station 12171+21.00

BORING NO. **SB-08**  
Station: 1270+34  
Offset: 36.5' Left  
Ground Surface Elev. 640.0

DEPTH (ft)	BLOWS (/6")	UCS (tsf)	MOIST (%)	DESCRIPTION	DEPTH (ft)	BLOWS (/6")	UCS (tsf)	MOIST (%)
				Surface Water Elev. <u>n/a</u>				
				Stream Bed Elev. <u>n/a</u>				
				Groundwater Elevation:				
				First Encounter <u>630.0</u>				
				Upon Completion <u>n/a</u>				
				After _____ Hrs. _____				
				SANDY LOAM to LOAM-gray (A-4) <u>619.5</u>				
				AS - 13				
				5				
				TOPSOIL with Gravel & Stone-black (Fill)				
				5				
				11				
				3				
				4				
				5				
				7				
				1.5P 26				
				SANDY LOAM with Fractured Rock-gray-very dense (A-2)				
				634.5				
				10				
				12				
				25				
				NP 10				
				SAND & GRAVEL-brown-dense to very dense (A-1)				
				30				
				50/5"				
				630.0 -10				
				NP 7				
				SAND & GRAVEL-gray-medium dense (A-1)				
				18				
				21				
				6				
				NP 7				
				627.0				
				6				
				10				
				15				
				20				
				NP 10				
				SAND, GRAVEL & FRACTURED ROCK-gray-very dense (A-1)				
				54				
				50/3"				
				608.0				
				35				
				NP 9				
				SANDY LOAM to LOAM-gray-medium dense to very dense (A-4)				
				7				
				11				
				24				
				NP 10				
				603.0				
				5				
				SANDY LOAM with Fractured Rock-gray-very dense (A-2)				
				26				
				45				
				40				
				30				
				NP 11				
				20				
				22				
				NP 10				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)  
NR-No Recovery

PAGE 2 of 2

**SOIL BORING LOG**

Geo Services, Inc.  
Geotechnical, Environmental & Civil Engineering  
805 Amherst Court, Suite 204  
Naperville, Illinois 60565  
(630) 355-2838

DATE 10/5-6/2010  
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GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
COUNTY Kane DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. SN 045-0039  
Station 12171+21.00

BORING NO. **SB-08**  
Station: 1270+34  
Offset: 36.5' Left  
Ground Surface Elev. 640.0

DEPTH (ft)	BLOWS (/6")	UCS (tsf)	MOIST (%)	DESCRIPTION	DEPTH (ft)	BLOWS (/6")	UCS (tsf)	MOIST (%)
				Surface Water Elev. <u>n/a</u>				
				Stream Bed Elev. <u>n/a</u>				
				Groundwater Elevation:				
				First Encounter <u>630.0</u>				
				Upon Completion <u>n/a</u>				
				After _____ Hrs. _____				
				SANDY LOAM with Fractured Rock-gray-very dense (A-2)				
				598.0				
				LOAM-gray-very dense (A-4)				
				596.0				
				50/5"				
				Drillers Observation: Apparent Bedrock				
				595.0 -45				
				NP 14				
				-65				
				RUN 1 (-45.0' to -55.0')				
				Silurian System, Niagaran Series Dolomite				
				Light gray mottled gray with horizontal to wavy bedding. Soft & argillaceous with numerous clay & shale partings from -47.0' to -55.0'.				
				Recovery=100.0%				
				R.Q.D.=37.5%				
				-50				
				RUN 1				
				-70				
				585.0 -55				
				-75				
				End Of Boring @ -55.0'				
				Hollow Stem Augers To -20.0'				
				Rotary Drilling To Completion				
				CME Automatic Hammer				
				20' of 5"Ø Casing Used				
				47' of 3"Ø Casing Used				
				-80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)  
NR-No Recovery

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SOIL BORING LOG, SB-8  
STRUCTURE NO. 045-0039**

SHEET NO. 597 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	318
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				



Geo Services, Inc.  
 Geotechnical, Environmental & Civil Engineering  
 805 Amherst - Court, Suite 204  
 Naperville, Illinois 60565  
 (630) 355-2838

# ROCK CORE LOG

PAGE 1 of 1

DATE 10/5-6/2010

LOGGED BY DR

GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad

SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.

COUNTY Kane CORING METHOD Rotary Wash

STRUCT. NO. SN 045-0039 CORING BARREL TYPE & SIZE NX Double Swivel-10 ft

Station 12171+21.00 Core Diameter 2.0 in

BORING NO. SB-08 Top of Rock Elev. 596.0

Station: 1270+34 Begin Core Elev. 595.0

Offset: 36.5' Left

Ground Surface Elev. 640.0

RUN 1 (-45.0' to -55.0') 595.0

Silurian System, Niagaran Series Dolomite  
 Light gray mottled gray with horizontal to wavy bedding. Soft & argillaceous with numerous clay & shale partings from -47.0' to -55.0'.

DEPTH (ft)	CORE RUN (#)	R E C O V E R Y (%)	R Q D (%)	C O R E T I M E (min /ft)	S T R E N G T H (tsf)
595.0	1	100.0	37.5	n/a	566@ -45.2
-50					
-55					



Color pictures of the cores Yes Cores will be stored for examination for XX  
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

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 Chicago, Illinois 60631; (773) 399-0112

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PLOT SCALE =	DRAWN - D.L.G. 6/15/2012	REVISED -
PLOT DATE =	CHECKED - E.E.J. 6/15/2012	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ROCK CORE LOG, SB-8  
 STRUCTURE NO. 045-0039**

SHEET NO. S98 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	319
			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

PAGE 1 of 2
DATE 9/30-10/5/2010
LOGGED BY DR
GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad
SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.
COUNTY Kane DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

Table with columns for Depth (ft), Blows (6"), Moisture, and Soil Description. Includes data for various soil layers like Gravel, Topsoil, Silty Sand, and Sandy Loam.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery



SOIL BORING LOG

PAGE 2 of 2
DATE 9/30-10/5/2010
LOGGED BY DR
GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad
SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.
COUNTY Kane DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

Table with columns for Depth (ft), Blows (6"), Moisture, and Soil Description. Includes data for Silty Sand, Sandy Loam, and Fractured Rock.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

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# ROCK CORE LOG

PAGE 1 of 1

DATE 9/30-10/5/2010

LOGGED BY DR

GSJ JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad

SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.

COUNTY Kane CORING METHOD Rotary Wash

STRUCT. NO. SN 045-0039 CORING BARREL TYPE & SIZE NX Double Swivel-10 ft

Station 12171+21.00 Core Diameter 2.0 in

BORING NO. SB-09 Top of Rock Elev. 594.4

Station: 1270+90 Begin Core Elev. 593.4

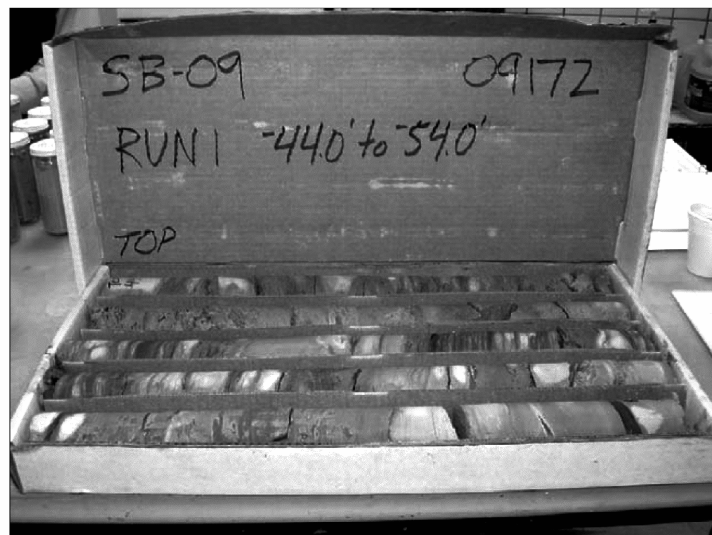
Offset: 36.5' Right

Ground Surface Elev. 637.4

RUN 1 (-44.0' to -54.0')  
Silurian System, Niagaran Series Dolomite

Gray with horizontal to wavy bedding. Soft & argillaceous with numerous clay & shale partings throughout. Some varving below -48.0'.

DEPTH (ft)	CORE RUN (#)	RECOVER Y (%)	R Q D (%)	C O R E S T R E N G T H (min /ft)	S T R E N G T H (tsf)
593.4	1	100.0	0.0	n/a	n/a
-49					
-54					



Color pictures of the cores Yes Cores will be stored for examination for XX  
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

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USER NAME =	DESIGNED - J.J.G. 6/15/2012	REVISED -
	CHECKED - J.A.Z. 6/15/2012	REVISED -
PLOT SCALE =	DRAWN - D.L.G. 6/15/2012	REVISED -
PLOT DATE =	CHECKED - E.E.J. 6/15/2012	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	321
			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				





SOIL BORING LOG

PAGE 1 of 2
DATE 10/14/2010
LOGGED BY DR
GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad
SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.
COUNTY Kane DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. SN 045-0039
Station 1271+21.00
BORING NO. SB-11
Station: 1271+33
Offset: 36.5' Right
Ground Surface Elev. 638.4

Table with columns: DEPTH (ft), BLOW S (Qu), UCS (tsf), MOIST (%), Surface Water Elev., Stream Bed Elev., Groundwater Elevation: First Encounter, Upon Completion, After Hrs.

Main data table for boring log with columns for depth, blow counts, UCS, moisture, and soil descriptions like '3.0" GRAVEL', 'TOPSOIL-black', 'SANDY LOAM with Fractured Rock-gray-dense to very dense (A-2)', 'SAND & GRAVEL-brown-loose to dense (A-1)', 'FRACTURED ROCK-gray-very dense (A-1)', 'SANDY LOAM with Fractured Rock-gray-dense to very dense (A-2)'.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%) NR-No Recovery



SOIL BORING LOG

PAGE 2 of 2
DATE 10/14/2010
LOGGED BY DR
GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad
SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.
COUNTY Kane DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. SN 045-0039
Station 1271+21.00
BORING NO. SB-11
Station: 1271+33
Offset: 36.5' Right
Ground Surface Elev. 638.4

Table with columns: DEPTH (ft), BLOW S (Qu), UCS (tsf), MOIST (%), Surface Water Elev., Stream Bed Elev., Groundwater Elevation: First Encounter, Upon Completion, After Hrs.

Main data table for boring log with columns for depth, blow counts, UCS, moisture, and soil descriptions like 'FRACTURED ROCK-gray-very dense (A-1)', 'Drillers Observation: Possible Bedrock', 'End Of Boring @ -46.0\' Hollow Stem Augers To -20.0\' Rotary Drilling To Completion CME Automatic Hammer'.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%) NR-No Recovery

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Table with columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE and corresponding values and dates.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG, SB-11 STRUCTURE NO. 045-0039

SHEET NO. S102 OF 116 SHEETS

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

ILLINOIS FED. AID PROJECT



# SOIL BORING LOG

PAGE 1 of 2  
 DATE 9/29/2010  
 LOGGED BY DR  
 GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
 SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
 COUNTY Kane DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. SN 045-0039 Station 12171+21.00  
 BORING NO. **SB-12** Station: 1271+21 Offset: 36.5' Left  
 Ground Surface Elev. 638.0

DEPTH (ft)	BLOW COUNT (/6")	UCS (tsf)	MOIST (%)	Soil Description			
				Surface Water Elev.	Stream Bed Elev.	Groundwater Elevation:	After _____ Hrs.
0				n/a	n/a		
3.0							
6							
7							
14							
16							
17							
19							
21							
22							
23							
25							
28							
30							
32							
34							
36							
38							
40							
42							
44							
46							
48							
50							
52							
54							
56							
58							
60							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test  
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)  
 NR-No Recovery



# SOIL BORING LOG

PAGE 2 of 2  
 DATE 9/29/2010  
 LOGGED BY DR  
 GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
 SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
 COUNTY Kane DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. SN 045-0039 Station 12171+21.00  
 BORING NO. **SB-12** Station: 1271+21 Offset: 36.5' Left  
 Ground Surface Elev. 638.0

DEPTH (ft)	BLOW COUNT (/6")	UCS (tsf)	MOIST (%)	Soil Description			
				Surface Water Elev.	Stream Bed Elev.	Groundwater Elevation:	After _____ Hrs.
0				n/a	n/a		
3.0							
6							
7							
14							
16							
17							
19							
21							
22							
23							
25							
28							
30							
32							
34							
36							
38							
40							
42							
44							
46							
48							
50							
52							
54							
56							
58							
60							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test  
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)  
 NR-No Recovery

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USER NAME =	DESIGNED - J.J.G. 6/15/2012	REVISED -
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PLOT SCALE =	DRAWN - D.L.G. 6/15/2012	REVISED -
PLOT DATE =	CHECKED - E.E.J. 6/15/2012	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SOIL BORING LOG, SB-12  
 STRUCTURE NO. 045-0039**  
 SHEET NO. 5103 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	324
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				



# ROCK CORE LOG

PAGE 1 of 1  
 DATE 9/29/2010  
 LOGGED BY DR  
 GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
 SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
 COUNTY Kane CORING METHOD Rotary Wash

STRUCT. NO. SN 045-0039 CORING BARREL TYPE & SIZE NX Double Swivel-10 ft  
 Station 12171+21.00 Core Diameter 2.0 in  
 BORING NO. **SB-12** Top of Rock Elev. 589.6  
 Station: 1271+21 Begin Core Elev. 590.5  
 Offset: 36.5' Left  
 Ground Surface Elev. 638.0

DEPTH	CORERUN	RECOVERY	R.Q.D.	CORRECTION	STRENGTH
(ft)	(#)	(%)	(%)	(min /ft)	(tsf)
RUN 1 (-47.5' to -48.4')	590.5	1	n/a	n/a	n/a
Cobbles & Boulders					
RUN 1 (-48.4' to -57.5')	589.6	1	100.0	14.6	10180 -56.2
Silurian System, Niagaran Series Dolomite					
Light gray to gray with horizontal to wavy bedding. Soft & argillaceous with some varving & numerous clay partings to -55.0'.					
-52.5					
-57.5					



Color pictures of the cores Yes Cores will be stored for examination for XX  
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

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PLOT DATE =	CHECKED - E.E.J. 6/15/2012	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ROCK CORE LOG, SB-12  
 STRUCTURE NO. 045-0039**

SHEET NO. S104 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	325
				CONTRACT NO. 60133

ILLINOIS FED. AID PROJECT





### SOIL BORING LOG

PAGE 1 of 2  
 DATE 11/5/2010  
 LOGGED BY DR  
 GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
 SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
 COUNTY Kane DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. SN 045-0039  
 Station 12171+21.00  
 BORING NO. SB-13  
 Station: 1271+71  
 Offset: 36.5' Right  
 Ground Surface Elev. 638.4

DEPTH (ft)	BLOW S (pcf)	UCS (%)	MOIST (%)	Surface Water Elev.	Stream Bed Elev.	Groundwater Elevation:	First Encounter	Upon Completion	After Hrs.
				<i>n/a</i>	<i>n/a</i>				

DEPTH (ft)	BLOW S (pcf)	UCS (%)	MOIST (%)	Soil Description	Soil Description	Soil Description	Soil Description
7	AS	NP	3	SILTY SAND, GRAVEL & STONE—black—medium dense (Fill)			
8					SAND & GRAVEL—gray—medium dense to dense (A-1)		
7	NP		6				
6							
17							
-5	20	NP	4				
14					Clayey SAND, GRAVEL & FRACTURED ROCK—gray—very dense (A-2)		
27							
22	NP		5				
10				SAND & GRAVEL—brown & gray—medium dense to dense (A-1)			
22							
-10	25	NP	6		FRACTURED ROCK—gray—dense to very dense (A-1)		
15							
8							
10	NP		9				
8							
10							
-15	15	NP	9		Clayey SAND, GRAVEL & FRACTURED ROCK—gray—very dense (A-2)		NR
10							
10							
15	NP		9				
8				SAND & GRAVEL—gray—medium dense to dense (A-1)			
10							
-20	15	NP	11				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B—Bulge, S—Shear, P—Penetrometer) ST—Shelby Tube Sample VS—Vane Shear Test The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%) NR—No Recovery



### SOIL BORING LOG

PAGE 2 of 2  
 DATE 11/5/2010  
 LOGGED BY DR  
 GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
 SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
 COUNTY Kane DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. SN 045-0039  
 Station 12171+21.00  
 BORING NO. SB-13  
 Station: 1271+71  
 Offset: 36.5' Right  
 Ground Surface Elev. 638.4

DEPTH (ft)	BLOW S (pcf)	UCS (%)	MOIST (%)	Surface Water Elev.	Stream Bed Elev.	Groundwater Elevation:	First Encounter	Upon Completion	After Hrs.
				<i>n/a</i>	<i>n/a</i>				

DEPTH (ft)	BLOW S (pcf)	UCS (%)	MOIST (%)	Soil Description	Soil Description	Soil Description	Soil Description
597.4				Clayey SAND, GRAVEL & FRACTURED ROCK—gray—very dense (A-2)			
594.9				Drillers Observation: Apparent Bedrock.			
594.9							
-45				RUN 1 (-43.5' to -53.5') Silurian System, Niagaran Series Dolomite			
-65				Brownish gray to gray with horizontal to wavy bedding. Soft & argillaceous with numerous weathered horizontal fractures clay partings throughout.			
-50				Recovery=97.5% R.Q.D.=49.0%			
-70							
584.9							
-55				End Of Boring @ -53.5' Hollow Stem Augers To -20.0' Rotary Drilling To Completion CME Automatic Hammer 20.0' of 5.0" Casing Used.			
-75							
-80							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B—Bulge, S—Shear, P—Penetrometer) ST—Shelby Tube Sample VS—Vane Shear Test The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%) NR—No Recovery

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USER NAME =	DESIGNED - J.J.G. 6/15/2012	REVISED -
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PLOT SCALE =	DRAWN - D.L.G. 6/15/2012	REVISED -
PLOT DATE =	CHECKED - E.E.J. 6/15/2012	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG, SB-13  
 STRUCTURE NO. 045-0039

SHEET NO. S105 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	326
CONTRACT NO. 60133				

ILLINOIS FED. AID PROJECT



# ROCK CORE LOG

PAGE 1 of 1  
 DATE 11/5/2010  
 LOGGED BY DR  
 GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
 SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
 COUNTY Kane CORING METHOD Rotary Wash

STRUCT. NO. SN 045-0039 CORING BARREL TYPE & SIZE NX Double Swivel-10 ft  
 Station 12171+21.00 Core Diameter 2.0 in  
 BORING NO. **SB-13** Top of Rock Elev. 597.4  
 Station: 1271+71 Begin Core Elev. 594.9  
 Offset: 36.5' Right  
 Ground Surface Elev. 638.4

	DEPTH (ft)	CORE RUN (#)	RECOVER Y (%)	R.Q.D. (%)	CORRE CT IME (min /ft)	STRENGTH (tsf)
RUN 1 (-43.5' to -53.5') Silurian System, Niagaran Series Dolomite	594.9	1	97.5	49.0	n/a	10540 -45.4
Brownish gray to gray with horizontal to wavy bedding. Soft & argillaceous with numerous weathered horizontal fractures clay partings throughout.	-48.5					
	-53.5					



Color pictures of the cores Yes Cores will be stored for examination for XX  
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

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PLOT SCALE =	DRAWN - D.L.G. 6/15/2012	REVISED -
PLOT DATE =	CHECKED - E.E.J. 6/15/2012	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ROCK CORE LOG, SB-13  
 STRUCTURE NO. 045-0039**

SHEET NO. 5106 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	327
			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				

Geo Services, Inc.  
 Geotechnical, Environmental & Civil Engineering  
 805 Amherst Court, Suite 204  
 Naperville, Illinois 60565  
 (630) 355-2838

**SOIL BORING LOG**

PAGE 1 of 2  
 DATE 11/8/2010  
 LOGGED BY DR  
 GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
 SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
 COUNTY Kane DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. <u>SN 045-0039</u> Station <u>12171+21.00</u>	DEPTH (ft)	BLOW (/6")	UCS (tsf)	MOIST (%)	Surface Water Elev. <u>n/a</u> Stream Bed Elev. <u>n/a</u>	DEPTH (ft)	BLOW (/6")	UCS (tsf)	MOIST (%)	Groundwater Elevation: First Encounter <u>627.7</u> ▼ Upon Completion <u>n/a</u> ▼ After _____ Hrs. _____ ▼
CLAY LOAM-black-medium dense (Fill)	3				636.2	23				615.7
	5					25				
	8					10	NP	6		
SAND & GRAVEL-brown-medium dense to dense (A-1)	9				630.7	15				610.7
	13					11				
	14	NP	6			15	NP	8		
	10					24				
	15					24				
SAND & GRAVEL-gray-medium dense to dense (A-1)	22	NP	4		625.2	24	NP	8		601.7
	25					50/2"				
	28									
SAND & GRAVEL-gray-medium dense to dense (A-1)	29	NP	3		620.7	-30	NP	7		601.7
	8									
	15									
FRACTURED ROCK-gray-very dense (A-1)	8	NP	8		620.7					601.7
	4					50/5"				
	6									
Clayey SAND & GRAVEL-gray-medium dense (A-2)	5				620.7	-35	NP	11		601.7
	7									
	4									
SAND, GRAVEL & FRACTURED ROCK-gray-medium dense to dense (A-1)	8				620.7					601.7
	11					50/5"				
	15	NP	8							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test  
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)  
 NR-No Recovery

Geo Services, Inc.  
 Geotechnical, Environmental & Civil Engineering  
 805 Amherst Court, Suite 204  
 Naperville, Illinois 60565  
 (630) 355-2838

**SOIL BORING LOG**

PAGE 2 of 2  
 DATE 11/8/2010  
 LOGGED BY DR  
 GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
 SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
 COUNTY Kane DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. <u>SN 045-0039</u> Station <u>12171+21.00</u>	DEPTH (ft)	BLOW (/6")	UCS (tsf)	MOIST (%)	Surface Water Elev. <u>n/a</u> Stream Bed Elev. <u>n/a</u>	DEPTH (ft)	BLOW (/6")	UCS (tsf)	MOIST (%)	Groundwater Elevation: First Encounter <u>627.7</u> ▼ Upon Completion <u>n/a</u> ▼ After _____ Hrs. _____ ▼
Silty SAND & FRACTURED ROCK-gray-very dense (A-2)	596.7				596.7					615.7
Drillers Observation: Possible Bedrock.	593.7				593.7					610.7
	-45									
End Of Boring @ -45.0' Hollow Stem Augers To -20.0' Rotary Drilling To Completion CME Automatic Hammer	-65				630.7					610.7
	-70				625.2					610.7
	-75				620.7					601.7
	-80				620.7					601.7

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test  
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)  
 NR-No Recovery

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SOIL BORING LOG, SB-14  
 STRUCTURE NO. 045-0039**

SHEET NO. 5107 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	328
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				





Geo Services, Inc.  
 Geotechnical, Environmental & Civil Engineering  
 805 Amherst Court, Suite 204  
 Naperville, Illinois 60565  
 (630) 355-2838

ROCK CORE LOG

PAGE 1 of 1  
 DATE 10/6-7/2010  
 LOGGED BY DR  
 GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
 SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
 COUNTY Kane CORING METHOD Rotary Wash

STRUCT. NO. SN 045-0039 CORING BARREL TYPE & SIZE NX Double Swivel-10 ft  
 Station 12171+21.00 Core Diameter 2.0 in  
 BORING NO. SB-18 Top of Rock Elev. 596.0  
 Station: 1272+81 Begin Core Elev. 593.5  
 Offset: 36.5' Left  
 Ground Surface Elev. 641.5

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORRECTION (min/ft)	STRENGTH (tsf)
593.5	1	97.5	5.7	n/a	461 -49.9
RUN 1 (-48.0' to -58.0') Silurian System, Niagaran Series Dolomite Light gray mottled gray with horizontal to wavy bedding. Soft & argillaceous with clay partings from -48.4' to -48.8' & -57.8' to -58.0'.					
-53					
-58					



Color pictures of the cores Yes Cores will be stored for examination for XX  
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

ROCK CORE LOG, SB-18  
 STRUCTURE NO. 045-0039

SHEET NO. 5110 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	331
			CONTRACT NO. 60133	

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# ROCK CORE LOG

PAGE 1 of 1  
 DATE 10/7/2010  
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ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
 SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
 COUNTY Kane CORING METHOD Rotary Wash

STRUCT. NO. SN 045-0039 CORING BARREL TYPE & SIZE NX Double Swivel-10 ft  
 Station 12171+21.00 Core Diameter 2.0 in  
 BORING NO. **SB-19** Top of Rock Elev. 599.3  
 Station: 1273+62 Begin Core Elev. 598.3  
 Offset: 37.0' Right  
 Ground Surface Elev. 644.3

DEPTH (ft)	CORE RUN (#)	R E C O V E R Y (%)	R E C O V E R Y (%)	C O R E I M E (min/ft)	S T R E N G T H (tsf)
598.3	1	92.5	64.5	n/a	5700 -47.6

RUN 1 (-46.0' to -56.0')  
 Silurian System, Niagaran Series Dolomite  
 Light gray mottled gray with horizontal to wavy bedding becoming softer & argillaceous with weathered horizontal fractures below -48.0'. 3.5" Clay parting @ -48.9'.



Color pictures of the cores Yes Cores will be stored for examination for XX  
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ROCK CORE LOG, SB-19  
 STRUCTURE NO. 045-0039**

SHEET NO. 5112 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	333
			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				







**SOIL BORING LOG**

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(630) 355-2838

PAGE 3 of 3  
DATE 11/11-12/2010  
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GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
COUNTY Kane DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. SN 045-0039 Station 12171+21.00  
BORING NO. **SB-22** Station: 1274+15 Offset: 21.0' Left  
Ground Surface Elev. 668.2

DEPTH (ft)	BLOW S	UCS Qu	MOIST T	Surface Water Elev. <u>n/a</u>				DEPTH (ft)	BLOW S	UCS Qu	MOIST T
				Stream Bed Elev. <u>n/a</u>							
Groundwater Elevation:				First Encounter <u>627.2</u> ▼				DEPTH (ft) BLOW S UCS Qu MOIST T			
Upon Completion <u>n/a</u> ▼				After _____ Hrs. _____ ▼							
Run 1 continued.				RUN 1							
586.2											
End Of Boring @ -82.0' Hollow Stem Augers To -45.0' Rotary Drilling To Completion CME Automatic Hammer 45.0' of 3.25" Ø Casing Used 45.0' of 4.0" Ø Casing Used											
-85				-105							
-90				-110							
-95				-115							
-100				-120							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)  
NR-No Recovery

**ROCK CORE LOG**

Geo Services, Inc. Geotechnical, Environmental & Civil Engineering  
805 Amherst Court, Suite 204  
Naperville, Illinois 60565  
(630) 355-2838

PAGE 1 of 1  
DATE 11/11-12/2010  
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GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
COUNTY Kane CORING METHOD Rotary Wash

STRUCT. NO. SN 045-0039 CORING BARREL TYPE & SIZE NX Double Swivel-10 ft Station 12171+21.00 Core Diameter 2.0 in  
BORING NO. **SB-22** Top of Rock Elev. 598.2 Station: 1274+15 Begin Core Elev. 596.2 Offset: 21.0' Left  
Ground Surface Elev. 668.2

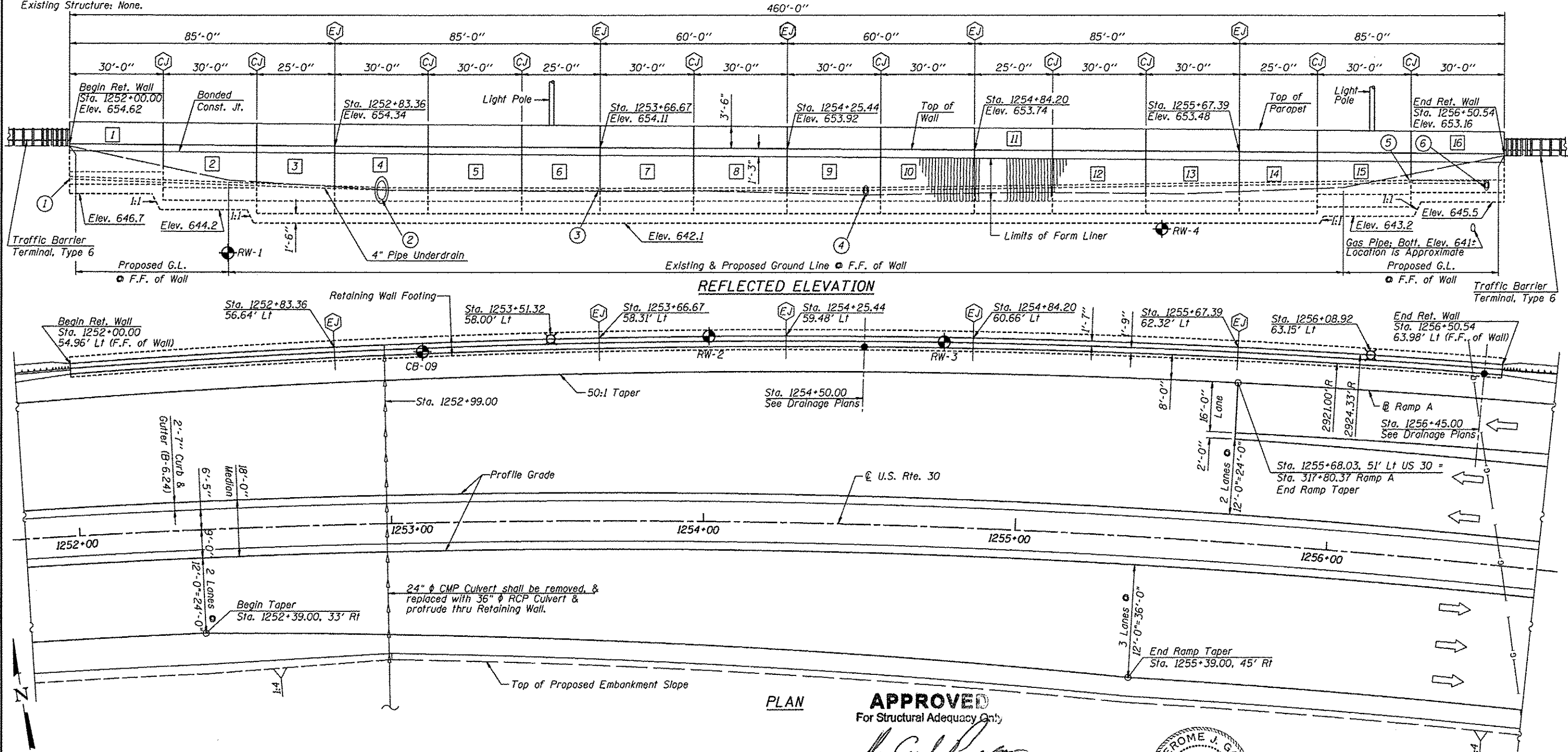
DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORRECTION (min/ft)	STRENGTH (tsf)
596.2	1	100.0	36.7	n/a	777@ -77.0
RUN 1 (-72.0' to -82.0') Silurian System, Niagaran Series Dolomite					
Light greenish gray becoming brownish gray @ -77.7'. Soft & argillaceous with numerous weathered horizontal fractures & clay partings throughout. 5.0" clay seam @ -72.75'. 1.5" clay parting @ -74.0' 2.0" clay parting @ -80.5' & -81.8'.					
Recovery=100.0% R.Q.D.=36.7%					
-77					
-82					

Color pictures of the cores Yes Cores will be stored for examination for XX  
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

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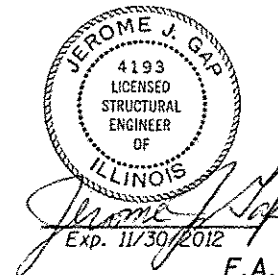
Benchmark #7: NE Flange bolt on hydrant on "U.S. 30 Storage" site on the south side of U.S. Route 30 at Sta. 1249+51.13, Offset 107.21' right. Elevation 663.61.

Existing Structure: None.



PLAN

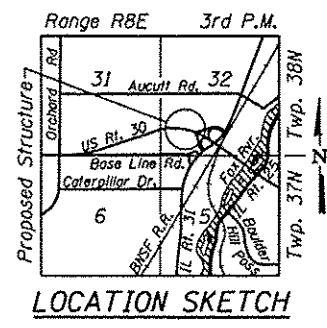
**APPROVED**  
For Structural Adequacy Only  
*Jerome J. Gap*  
Engineer of Bridges & Structures



**GENERAL PLAN & ELEVATION**  
**U.S. ROUTE 30**  
**F.A.P. ROUTE 349 SECTION (10 & 11VB)R-3**  
**KANE COUNTY**  
**STATIONS 1252+00.00 TO 1256+50.54**  
**STRUCTURE NO. 045-W014**

NOTES

- Offsets are measured from the  $\text{\textcircled{C}}$  U.S. Rte. 30 to the front face of Retaining Wall.
- Temporary Concrete Barrier will be placed in the existing Westbound Shoulder of U.S. Route 30 to accommodate the westbound traffic while the Retaining Wall is being constructed without any temporary earth retention structures.
- Longitudinal Retaining Wall Dimensions are measured along F.F. of Wall.
- See Roadway Plans for ROW Lines and Temporary Easement.



DRAINAGE NOTES

- 4" Pipe Underdrain Invert El.=649.0
- 4" Pipe Underdrain Invert El.=647.34 Both Sides 36" Pipe Invert El.  $\bullet$  Wall=645.84
- 4" Pipe Underdrain Invert El.=647.75 6" Each Side of  $\text{\textcircled{E}}$
- 4" Pipe Underdrain Invert El.=647.32 12" Pipe Invert El.  $\bullet$  Wall=646.74
- 4" Pipe Underdrain Invert El.=648.50 6" Each Side of  $\text{\textcircled{C}}$
- 4" Pipe Underdrain Invert El.=648.30 12" Pipe Invert El.  $\bullet$  Wall=647.82

LEGEND

- $\bullet$  Indicates Soil Boring
- $\text{---}\text{---}\text{---}$  Indicates Existing Gas Line
- $\text{---}\text{---}\text{---}$  Indicates Exist. & Prop. Culvert
- $\text{\textcircled{C}}$  Indicates Construction Joint
- $\text{\textcircled{E}}$  Indicates Expansion Joint
- $\bullet$  Indicates Catch Basin
- $\text{\textcircled{L}}$  Indicates Light Pole
- $\text{\textcircled{N}}$  Indicates Panel Number

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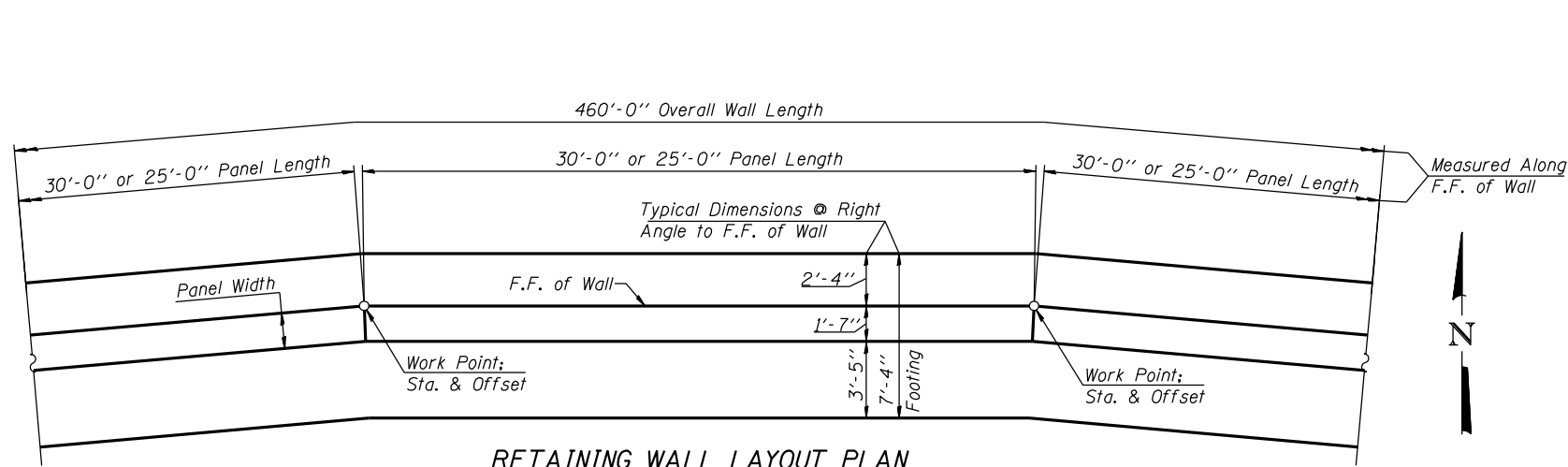
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SHEET NO. 5A1 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	338
STA. 1252+00.00				CONTRACT NO. 60133
[ILLINOIS] FED. AID PROJECT				

**RETAINING WALL LAYOUT DIMENSIONS**

Work Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Station	1252+00.00	1252+29.43	1252+58.84	1252+83.36	1253+12.77	1253+42.17	1253+66.67	1253+96.06	1254+25.44	1254+54.82	1254+84.20	1255+08.67	1255+38.03	1255+67.39	1255+91.85	1256+21.20	1256+50.54
Offset (Left)	54.96'	55.55'	56.14'	56.64'	57.23'	57.82'	58.31'	58.90'	59.48'	60.07'	60.66'	61.15'	61.73'	62.32'	62.81'	63.39'	63.98'
Panel Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Panel Length	30'-0"	30'-0"	25'-0"	30'-0"	30'-0"	25'-0"	30'-0"	30'-0"	30'-0"	30'-0"	25'-0"	30'-0"	30'-0"	25'-0"	30'-0"	30'-0"	



**TOTAL BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Porous Granular Backfill	Cu. Yd.	500
Structure Excavation	Cu. Yd.	1,075
Concrete Structures	Cu. Yd.	416.3
Concrete Superstructure	Cu. Yd.	89.7
Form Liner Textured Surface	Sq. Ft.	2,928
Protective Coat	Sq. Yd.	286
Reinforcement Bars	Pound	14,460
Reinforcement Bars, Epoxy Coated	Pound	37,050
Geocomposite Wall Drain	Sq. Yd.	194
Pipe Underdrains for Structures 4"	Foot	460

**INDEX OF SHEETS**

- SA1 GENERAL PLAN & ELEVATION
- SA2 GENERAL DATA & DETAILS
- SA3 WALL FOOTING PLAN
- SA4 WALL PANEL ELEVATIONS I
- SA5 WALL PANEL ELEVATIONS II
- SA6 RETAINING WALL STRUCTURAL LIGHTING
- SA7 RETAINING WALL OPENINGS
- SA8 RETAINING WALL SECTIONS AND BAR LIST
- SA9 SOIL BORING LOGS RW-01 & RW-02
- SA10 SOIL BORING LOGS RW-03 & RW-04
- SA11 SOIL BORING LOGS CB-09

**DESIGN STRESSES**

**FIELD UNITS**  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)

**GENERAL NOTES**

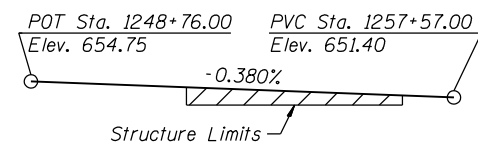
- Reinforcement bars designated (E) shall be epoxy coated.

**ABBREVIATIONS**

- C.J. Construction Joint
- ea. Each
- Typ. Typical
- Cl. Clear
- Cts. Centers
- F.F. Front Face
- B.F. Back Face
- E.F. Each Face
- G.L. Ground Line
- P.J.F. Prefomed Joint Filler

**DESIGN SPECIFICATIONS**

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

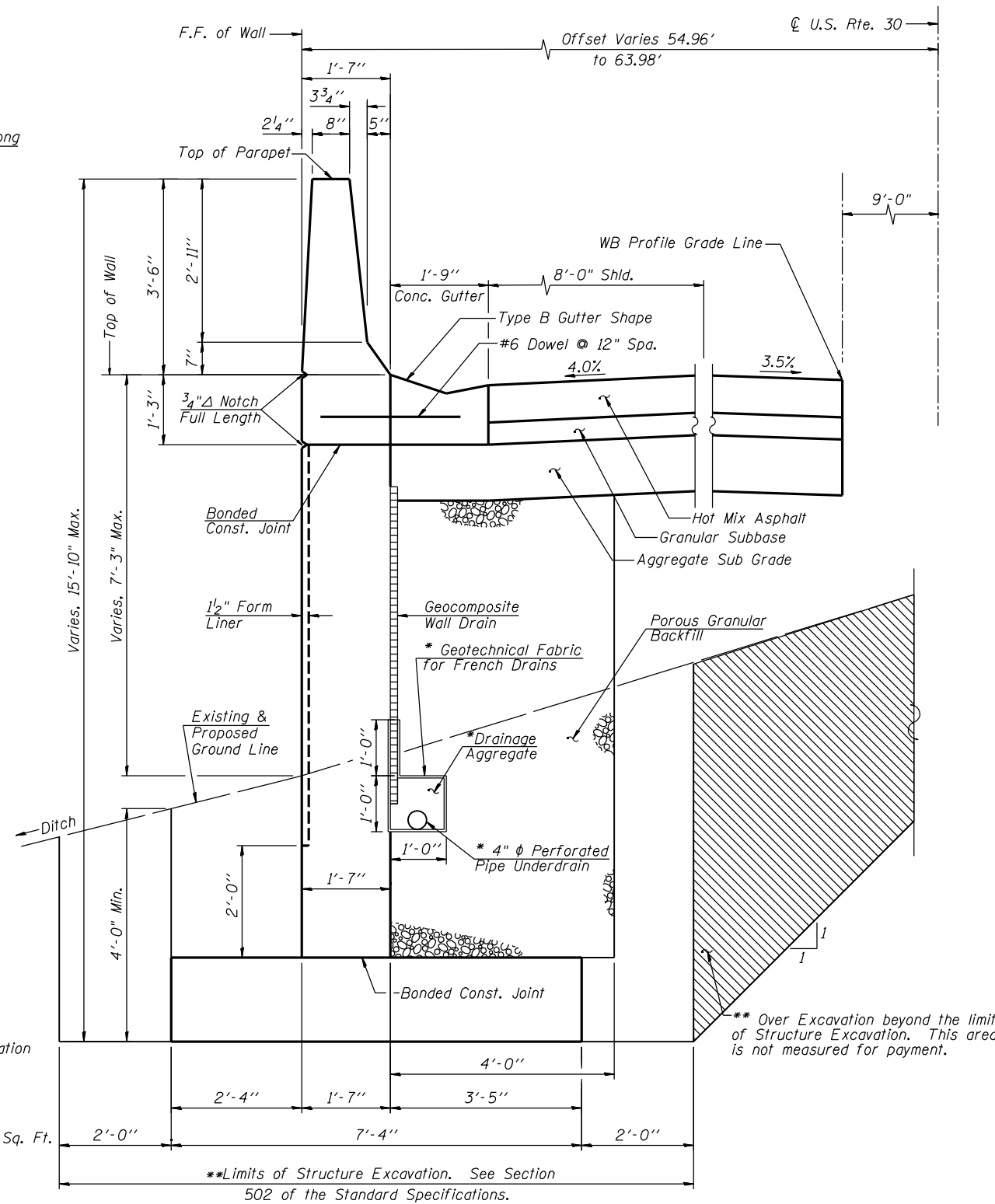


**CURVE DATA**

U.S. Rte. 30 (Curve 30-1)  
P.I. Sta. = 1253+78.51  
 $\Delta = 54^\circ 56' 33''$   
 $D = 2^\circ 00' 15''$   
 $R = 2,859.00'$   
 $T = 1,486.48'$   
 $L = 2,741.57'$   
 $E = 363.34'$   
 $e = 3.50\%$   
 $T.R. = 48.0'$   
 $S.E. Run = 84.0'$   
P.C. Sta. = 1238+92.03  
P.T. Sta. = 1266+33.60

**NOTES**

- \* Items are included in the cost of Pipe Underdrains for Structures 4".
- \*\* Backfill remainder of Structure Excavation and over excavation with same material specified for roadway embankment.
- The maximum applied service (trapezoidal) bearing pressure,  $Q_{max} = 3.01$  kips per Sq. Ft.



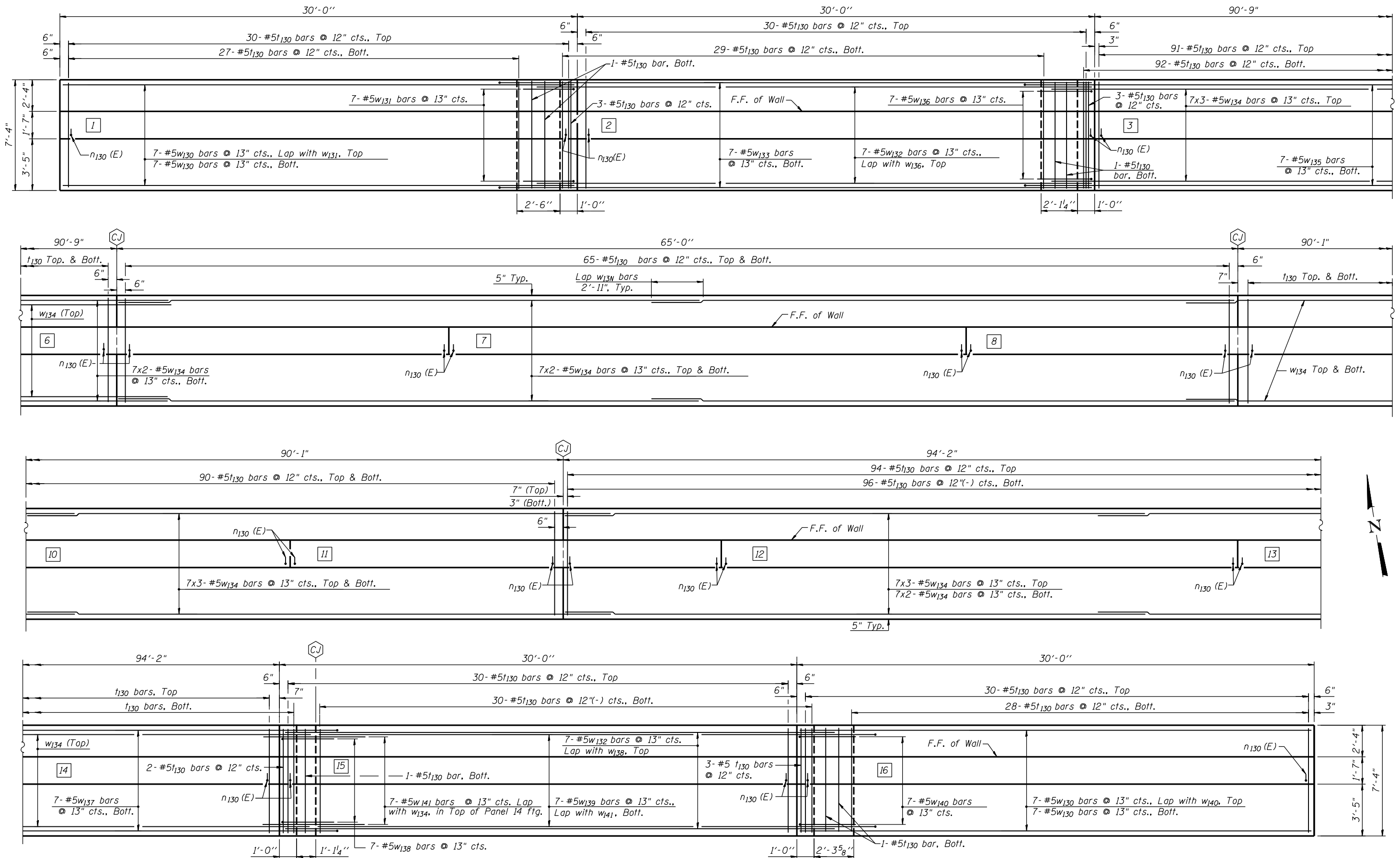
**TYPICAL WALL SECTION LOOKING EAST**

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	339
STA. 1252+00.00	ILLINOIS FED. AID PROJECT		CONTRACT NO. 60133	





RETAINING WALL FOOTING PLAN

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 DEPARTMENT OF TRANSPORTATION

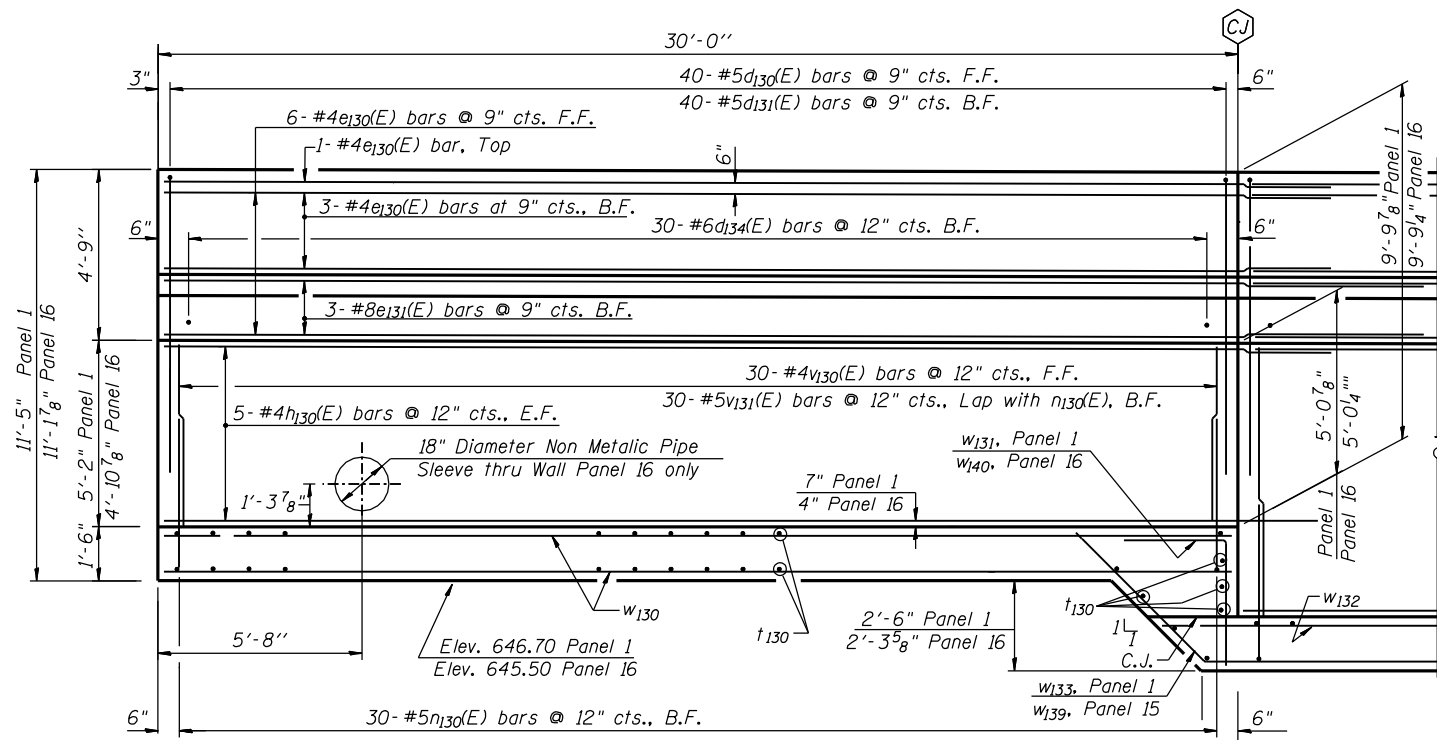
RETAINING WALL FOOTING PLAN  
 STRUCTURE NUMBER 045-W014

SHEET NO. SA3 OF 11 SHEETS

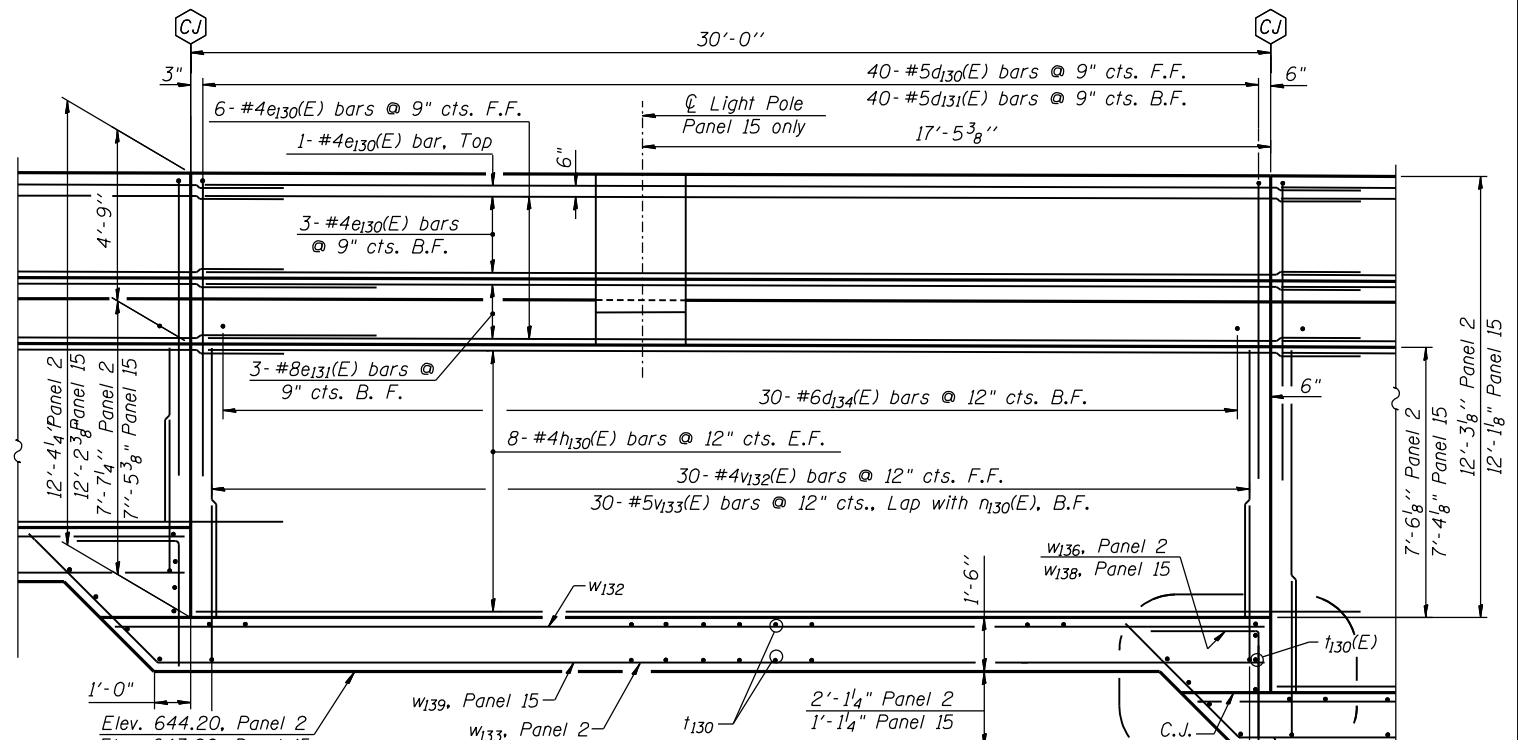
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STA. 1252+00.00		CONTRACT NO. 60133		

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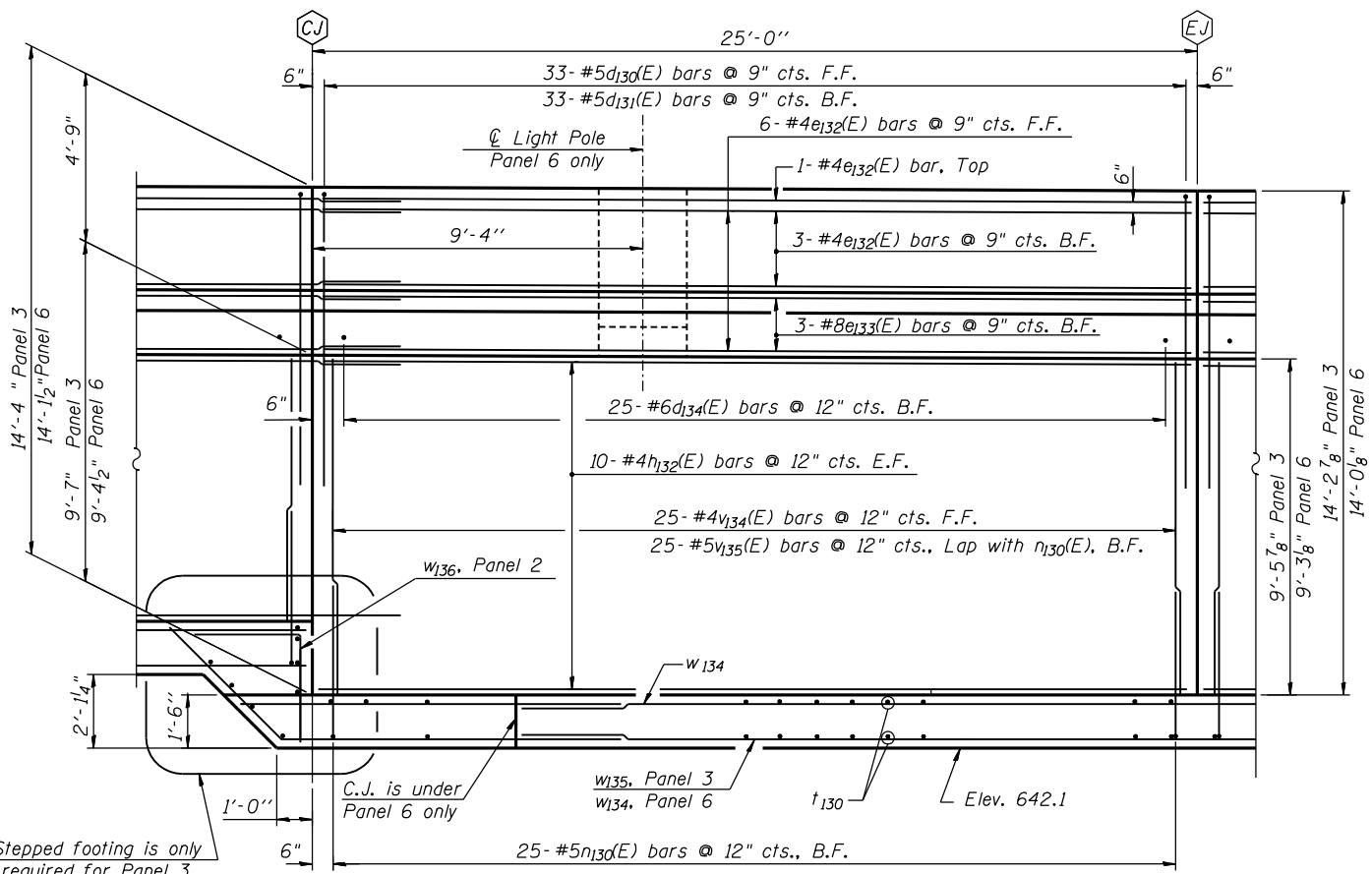


**PANEL 1 LOOKING NORTH  
PANEL 16 LOOKING SOUTH**



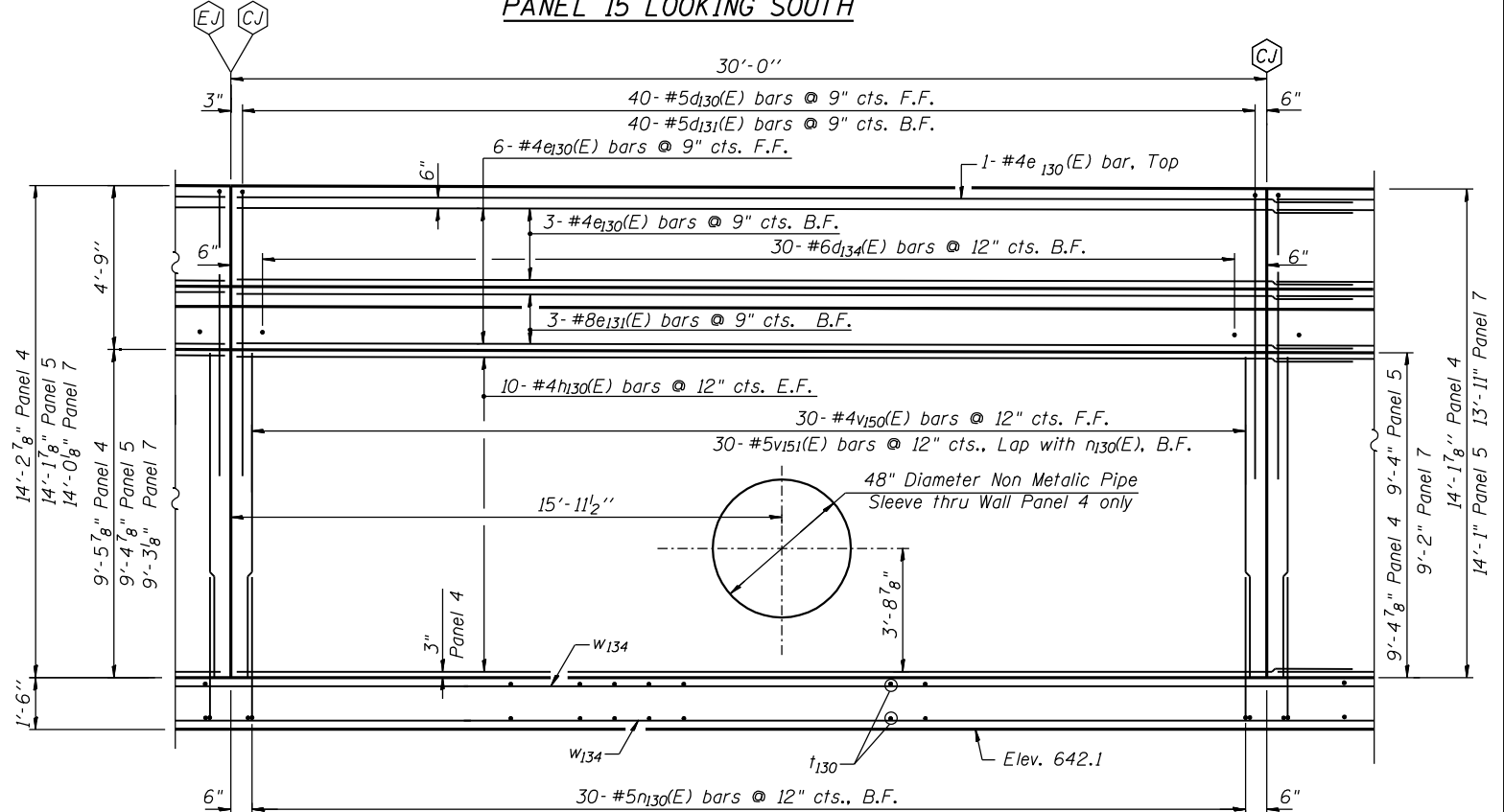
**PANEL 2 LOOKING NORTH  
PANEL 15 LOOKING SOUTH**

For reinforcing in Panel 15, see left side of Panel 14 Elevation



**PANELS 3 & 6 LOOKING NORTH**

Stepped footing is only required for Panel 3.



**PANELS 4, 5 & 7 LOOKING NORTH**

**NOTES:**

1. See DETAIL X on Sheet SA7 for additional reinforcement required around Pipe Sleeve thru Wall Panel 4.
2. See DETAIL Z on Sheet SA7 for additional reinforcement required around Pipe Sleeve thru Wall Panel 16.
3. For Light Pole Base, Plan & Section, See Sheet SA6.
4. Rebar Splices in footing under Panels 4, 5 & 7 are not shown.

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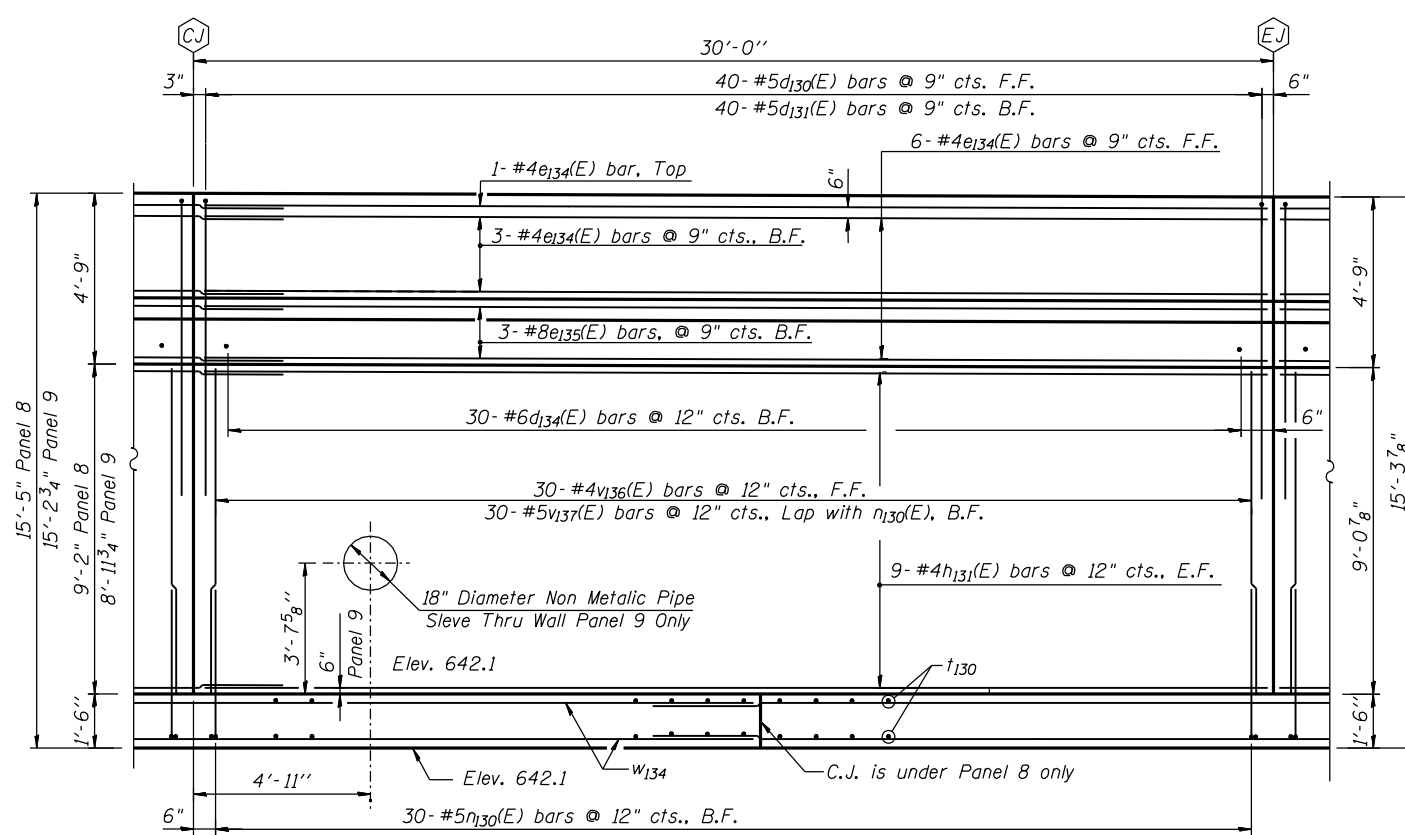
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**WALL PANEL ELEVATIONS I  
STRUCTURE NUMBER 045-W014**

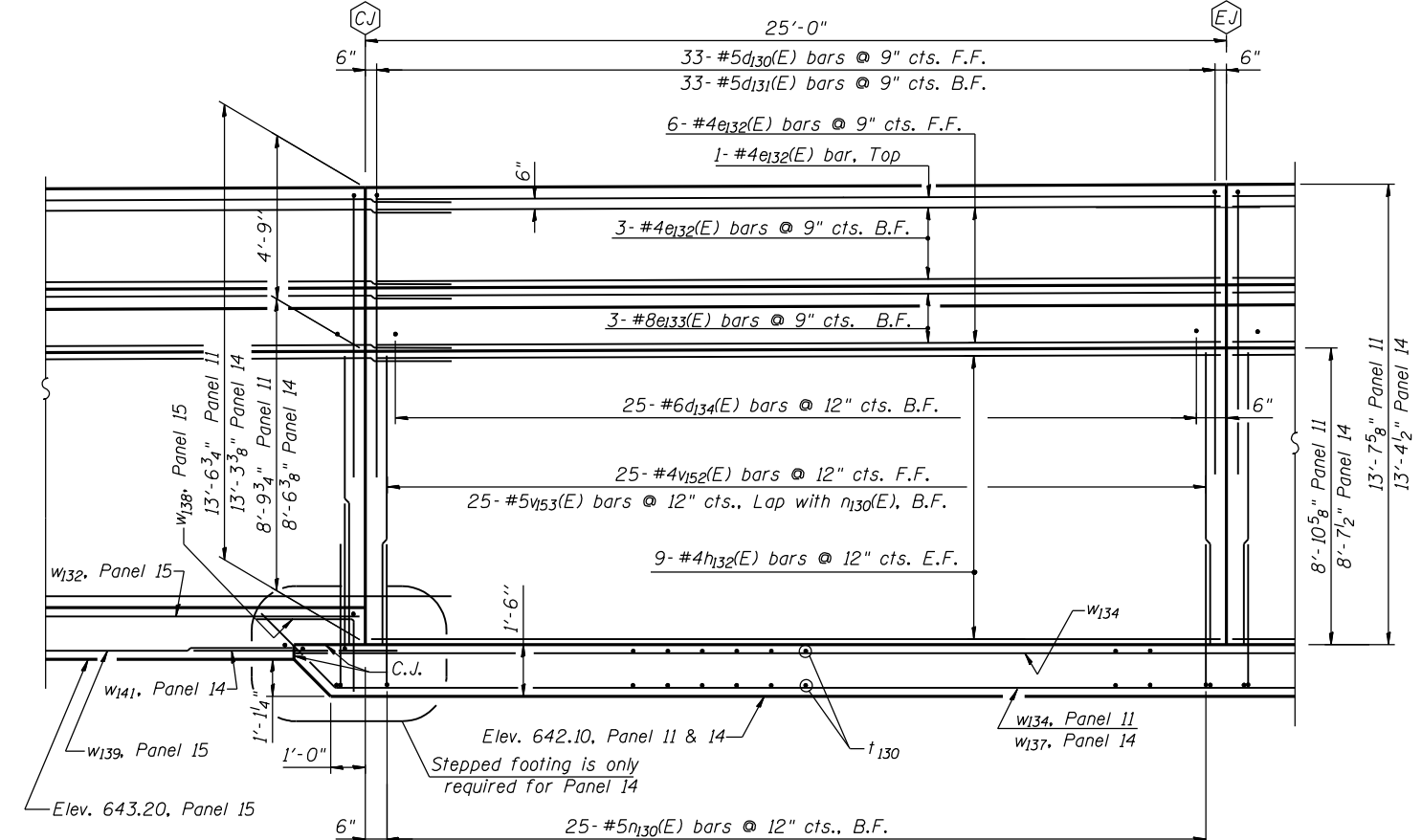
SHEET NO. SA4 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA. 1252+00.00		CONTRACT NO. 60133		

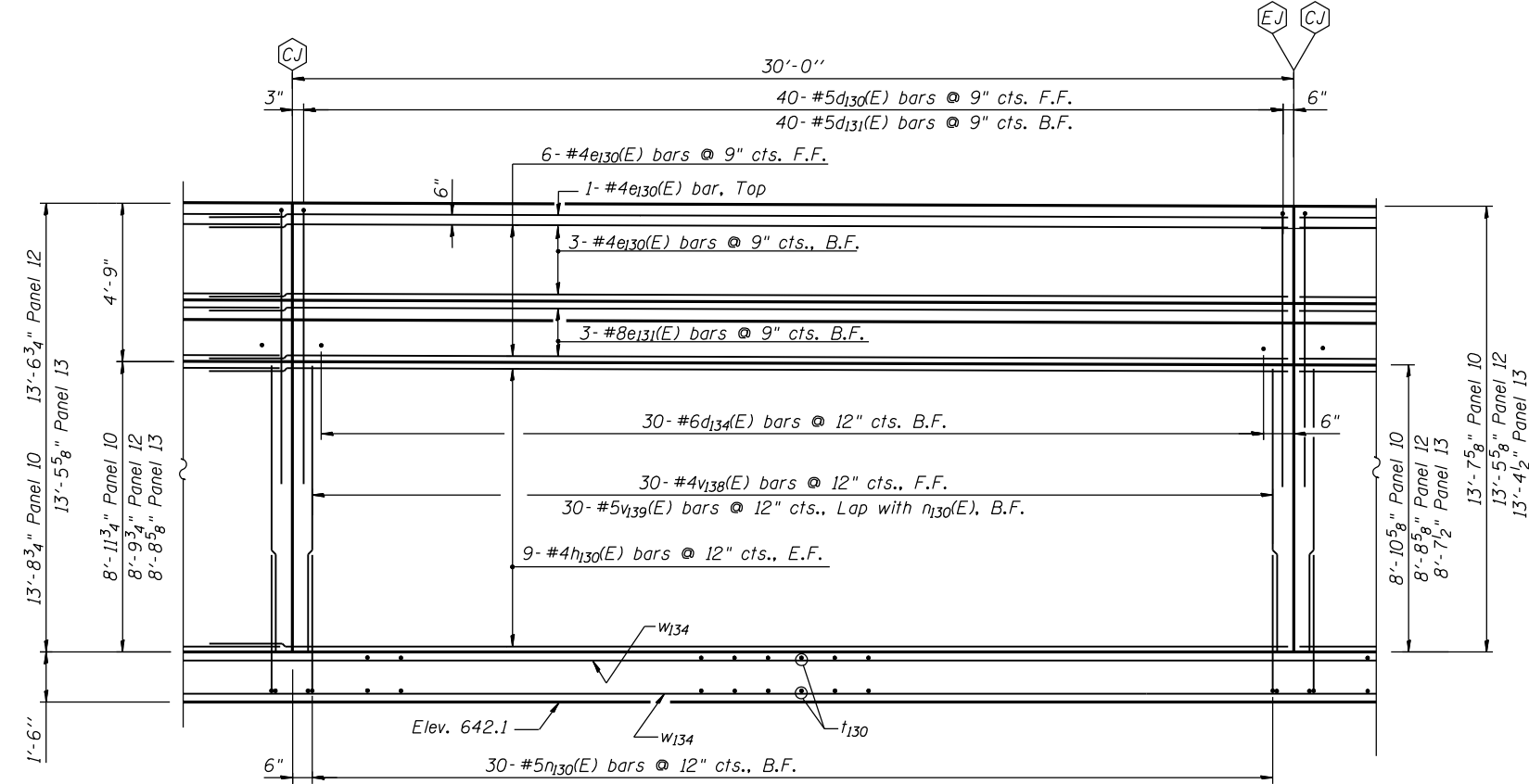
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**PANEL 8 LOOKING NORTH**  
**PANEL 9 LOOKING SOUTH**



**PANELS 11 & 14 LOOKING SOUTH**



**PANELS 10, 12 & 13 LOOKING NORTH**

**NOTES:**

- See DETAIL Y on Sheet SA7 for additional reinforcement required around Pipe Sleeve thru Wall Panel 9.
- Rebar splices in footing under Panels 9 thru 13 are not shown.

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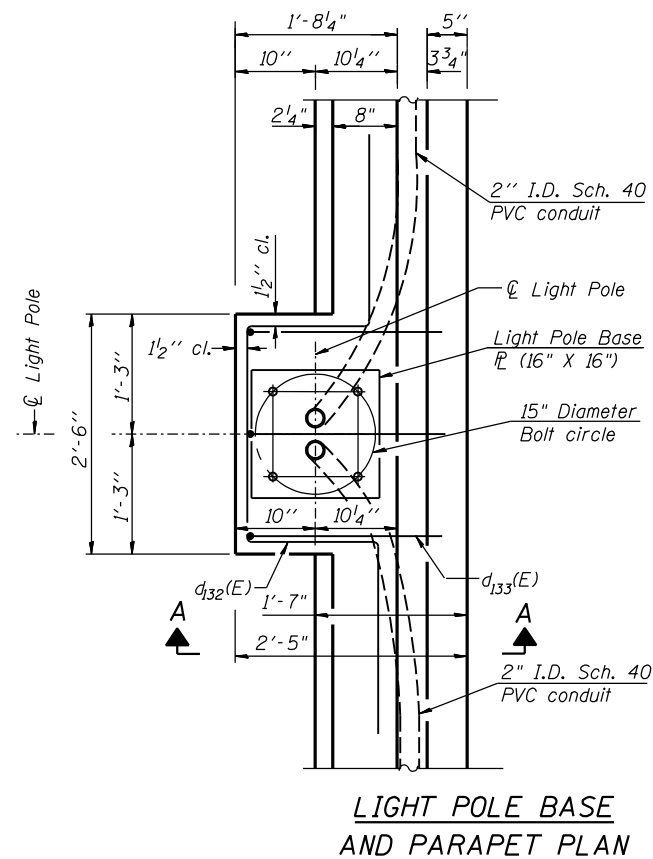
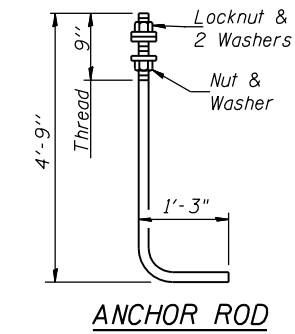
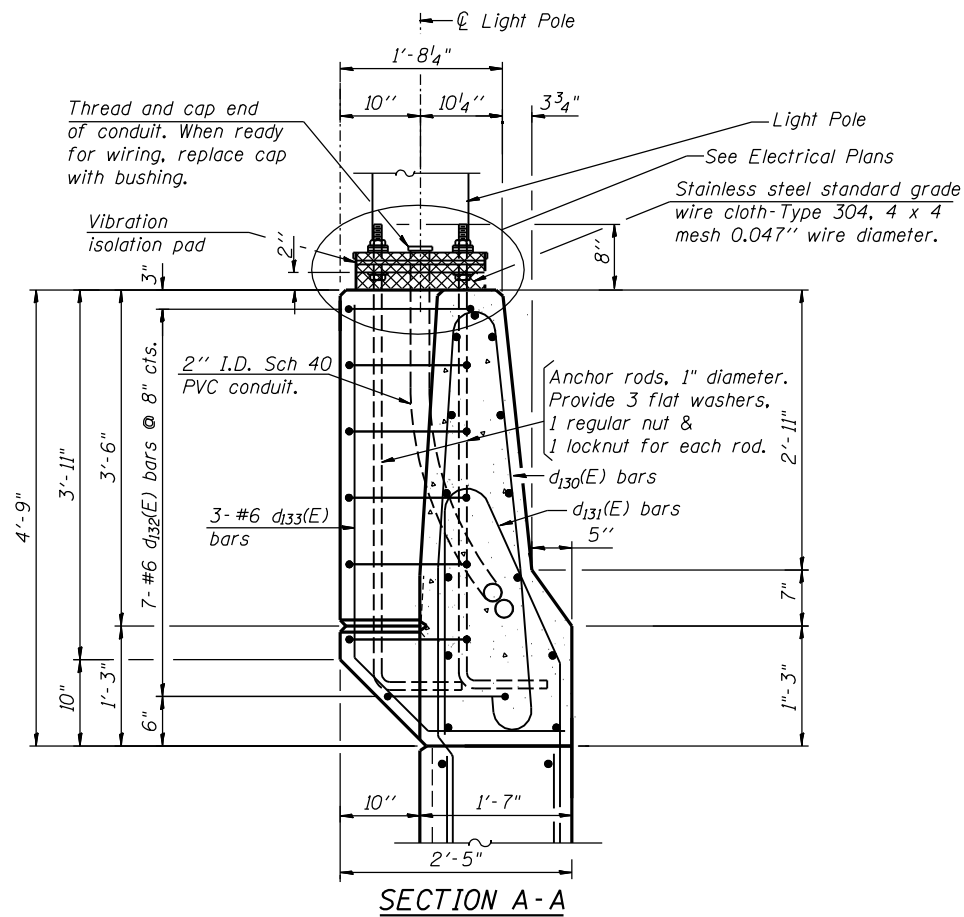
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PLOT SCALE =	CHECKED - J.J.G., 6/15/2012	REVISED -
PLOT DATE =	DRAWN - R.K.-Z., 6/15/2012	REVISED -
	CHECKED - J.J.G., 6/15/2012	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**WALL PANEL ELEVATIONS II**  
**STRUCTURE NUMBER 045-W014**

SHEET NO. SA5 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	342
STA. 1252+00.00			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				



**NOTES:**

1. Cost of anchor rods, nuts and washers for light poles and conduit is included with Concrete Superstructure. See Electrical Plans for details and payment of other electrical components.
2. Anchor Rods for Light Poles shall be ASTM F1554, Grade 105 and shall be fully hot dip galvanized.
3. Electrical conduit in parapet shall have a minimum clearance of 1/2" from reinforcement bars.

P:\1052200\20103003\cadd\structural\dgn\retwall\_final\00\160133-sa06-1r.dgn  
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**GRÄEF**  
 8501 W. Higgins Road, Suite 280  
 Chicago, Illinois 60631; (773) 399-0112

USER NAME =	DESIGNED - R.K.-Z. . 6/15/2012	REVISED -
	CHECKED - J.Z. 6/15/2012	REVISED -
PLOT SCALE =	DRAWN - R.K.-Z. . 6/15/2012	REVISED -
PLOT DATE =	CHECKED - J.J.G. 6/15/2012	REVISED -

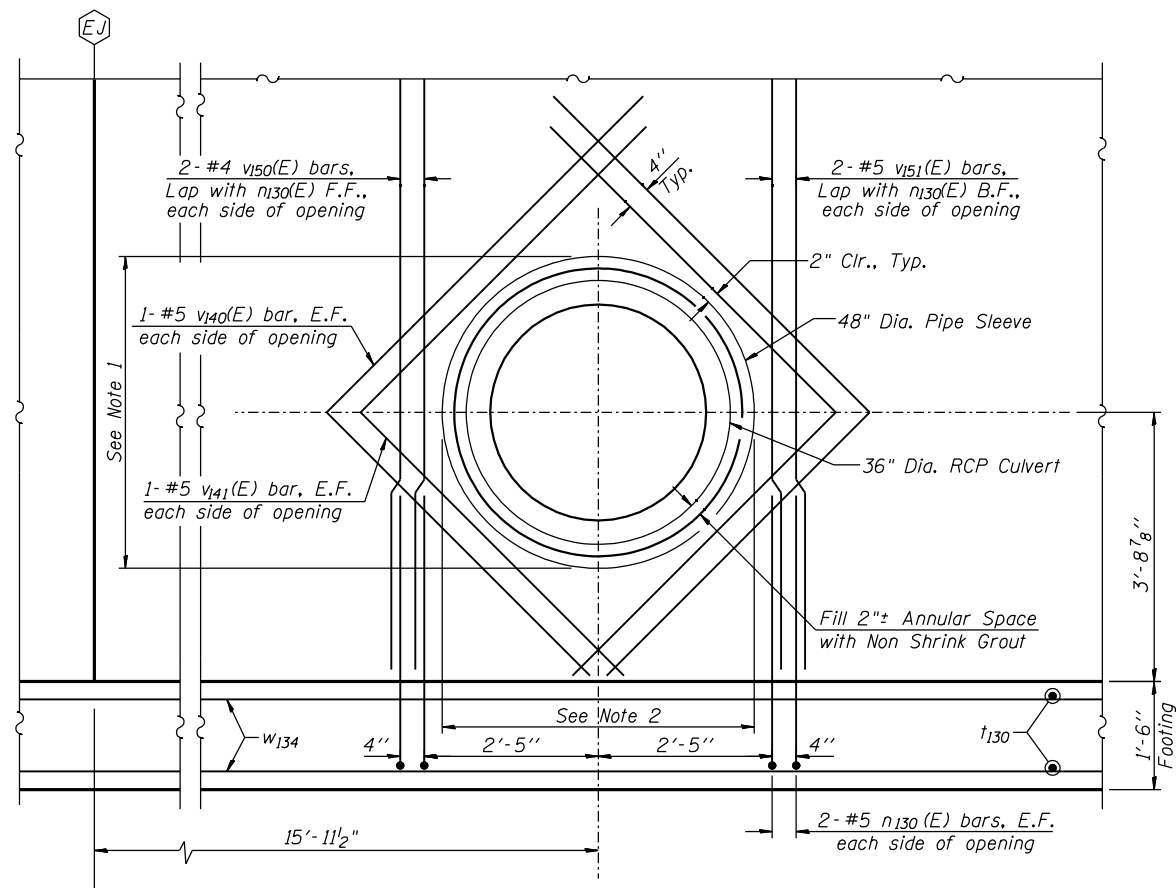
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**RETAINING WALL STRUCTURAL LIGHTING**  
**STRUCTURE NUMBER 045-W014**

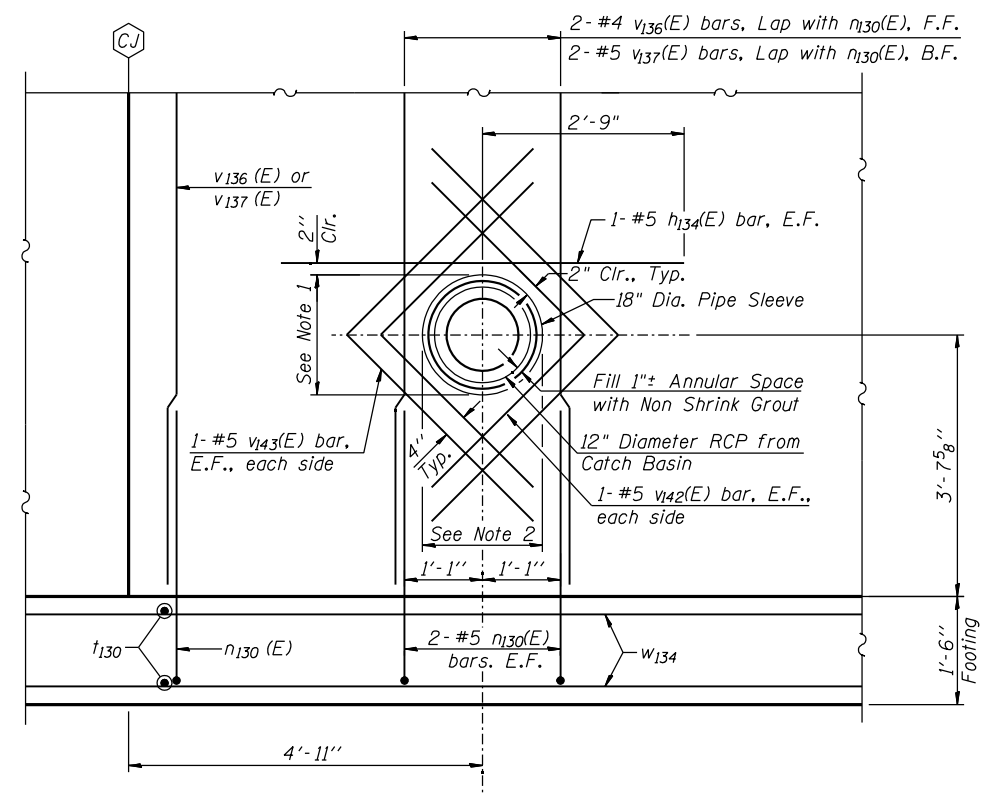
SHEET NO. SA6 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	343
STA. 1252+00.00			CONTRACT NO. 60133	

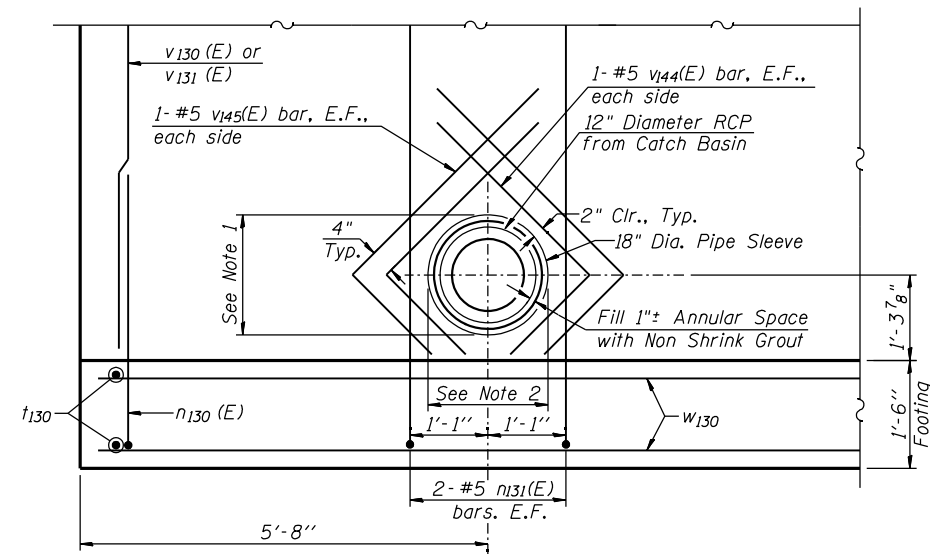
ILLINOIS FED. AID PROJECT



PIPE PENETRATION THRU PANEL 4 (DETAIL X)  
LOOKING NORTH



PIPE PENETRATION THRU PANEL 9 (DETAIL Y)  
LOOKING SOUTH



PIPE PENETRATION THRU PANEL 16 (DETAIL Z)  
LOOKING SOUTH

**NOTES:**

1. Provide opening thru horizontal reinforcement to clear pipe sleeve.
2. Provide opening thru vertical reinforcement to clear pipe sleeve.
3. The 18" diameter pipe sleeve in Panels 9 and 16 shall be RPM Pipe, ASTM D3262 or PE Pipe, Profile Wall, ASTM F894 or Corrugated PVC Pipe, ASTM F949 as Specified in Article 543.02 of the Std. Specs.
4. The 48" diameter pipe sleeve in Panel 4 shall be RPM Pipe, ASTM D3262 or PE Pipe, Profile Wall, ASTM F894 as Specified in Article 543.02 of the Std. Specs.
5. The pipe sleeves shall be cast into the retaining wall panels. After completion of the Concrete Wall, the RCP from the catch basin or culvert shall be inserted thru the pipe sleeve.

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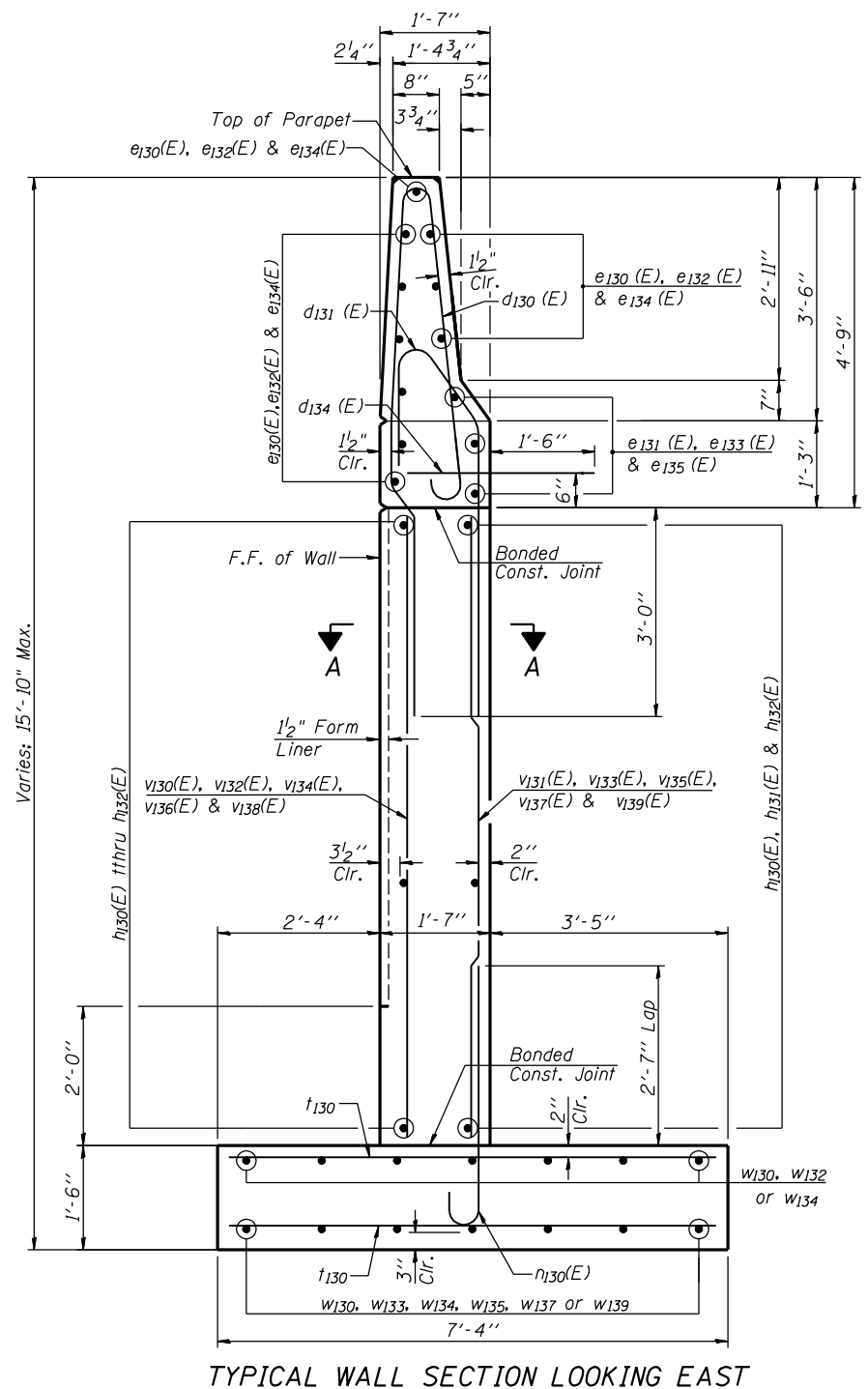
USER NAME =	DESIGNED - J.J.G. 6/15/2012	REVISED -
	CHECKED - J.A.Z. 6/15/2012	REVISED -
PLOT SCALE =	DRAWN - E.E.J. 6/15/2012	REVISED -
PLOT DATE =	CHECKED - J.J.G. 6/15/2012	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	344
STA. 1252+00.00		CONTRACT NO. 60133		
ILLINOIS FED. AID PROJECT				

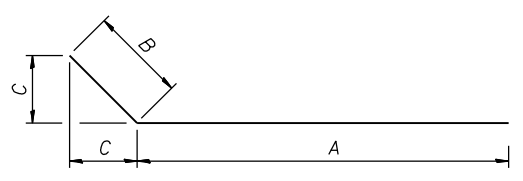
**RETAINING WALL  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d130(E)	612	#5	13'-0"	
d131(E)	612	#5	7'-5"	
d132(E)	14	#6	8'-11"	
d133(E)	6	#6	5'-11"	
d134(E)	460	#6	2'-9"	
e130(E)	100	#4	32'-4"	
e131(E)	30	#8	36'-2"	
e132(E)	40	#4	24'-8"	
e133(E)	12	#8	24'-8"	
e134(E)	20	#4	29'-8"	
e135(E)	6	#8	29'-8"	
h130(E)	166	#4	32'-4"	
h131(E)	36	#4	29'-8"	
h132(E)	76	#4	24'-8"	
h134(E)	2	#5	5'-6"	
n130(E)	472	#5	4'-5"	
n131(E)	4	#5	6'-8"	
i130	935	#5	7'-1"	
v130(E)	60	#4	4'-10"	
v131(E)	60	#5	4'-10"	
v132(E)	60	#4	7'-4"	
v133(E)	60	#5	7'-4"	
v134(E)	50	#4	9'-3"	
v135(E)	50	#5	9'-3"	
v136(E)	62	#4	9'-0"	
v137(E)	62	#5	9'-0"	
v138(E)	90	#4	8'-8"	
v139(E)	90	#5	8'-8"	
v140(E)	4	#5	11'-5"	
v141(E)	4	#5	10'-10"	
v142(E)	4	#5	6'-0"	
v143(E)	4	#5	7'-4"	
v144(E)	4	#5	4'-10"	
v145(E)	4	#5	5'-6"	
v150(E)	94	#4	9'-2"	
v151(E)	94	#5	9'-2"	
v152(E)	50	#4	8'-7"	
v153(E)	50	#5	8'-7"	
w130	28	#5	29'-8"	
w131	7	#5	6'-6"	
w132	14	#5	31'-9"	
w133	7	#5	35'-7"	
w134	140	#5	34'-0"	
w135	7	#5	37'-4"	
w136	7	#5	6'-1"	
w137	7	#5	35'-11"	
w138	7	#5	5'-1"	
w139	7	#5	33'-4"	
w140	7	#5	6'-3"	
w141	7	#5	6'-1"	
Concrete Superstructure		Cu. Yd.	89.7	
Concrete Structures		Cu. Yd.	416.3	
Reinforcement Bars, Epoxy Coated		Pound	37,050	
Reinforcement Bars		Pound	14,460	

- NOTES:**
- Exposed Concrete edges shall have 3/4" x 45° chamfers, except where shown otherwise. Chamfers on vertical edges shall be continued one foot below finished ground level.
  - Reinforcement bars noted thus 6 x 3 #5 etc. indicates 6 lines of bars with 3 lengths of bars per line.



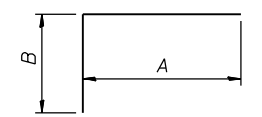
**TYPICAL WALL SECTION LOOKING EAST**



**BARS w133, w135, w137 & w139**

**BAR DIMENSIONS**

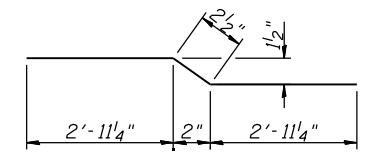
Bar	A	B	C
w133	30'-8"	4'-11"	3'-5 3/4"
w135	33'-0"	4'-4"	3'-0 3/4"
w137	33'-0"	2'-11"	2'-0 3/4"
w139	28'-8"	4'-8"	3'-3 5/8"



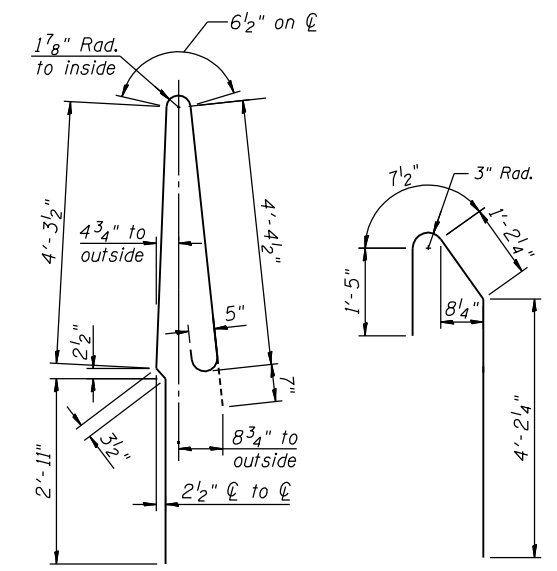
**BARS w131, w136, w138, w140 & v140 (E) thru v145 (E)**

**BAR DIMENSIONS**

Bar	A	B
w131	3'-0"	3'-6"
w136	3'-0"	3'-1"
w138	3'-0"	2'-1"
w140	3'-0"	3'-3"
v140(E)	6'-3"	5'-2"
v141(E)	5'-8"	5'-2"
v142(E)	3'-0"	3'-0"
v143(E)	3'-8"	3'-8"
v144(E)	3'-0"	1'-10"
v145(E)	3'-8"	1'-10"

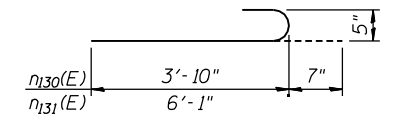


**BAR w141**

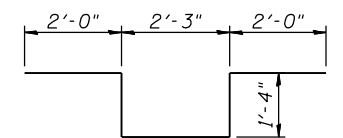


**BAR d130 (E)**

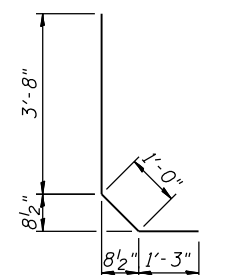
**BAR d131 (E)**



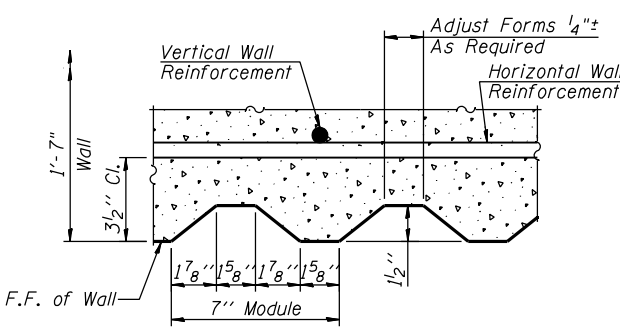
**BARS n130 (E) & n131 (E)**



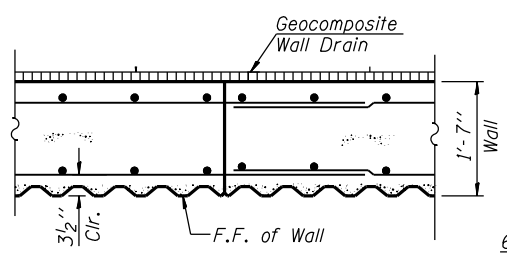
**BAR d132 (E)**



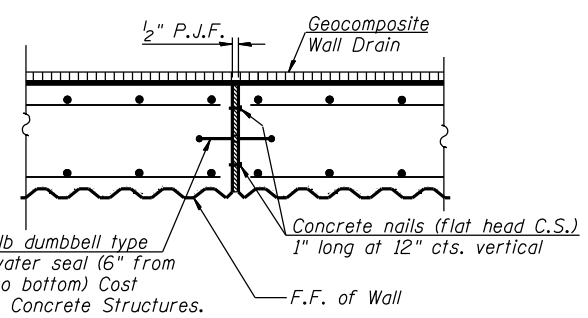
**BAR d133 (E)**



**SECTION A-A**



**CONSTRUCTION JOINT SECTIONAL PLAN VIEW**



**EXPANSION JOINT SECTIONAL PLAN VIEW**

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USER NAME =	DESIGNED - R.K.-Z. 7/24/2012	REVISED -
PLOT SCALE =	CHECKED - J.A.Z. 7/24/2012	REVISED -
PLOT DATE =	DRAWN - R.K.-Z. 7/24/2012	REVISED -
	CHECKED - J.J.G. 7/24/2012	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	345
STA. 1252+00.00	ILLINOIS FED. AID PROJECT		CONTRACT NO. 60133	



SOIL BORING LOG

DATE 6/28/2011

LOGGED BY RJ

GSJ JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad
SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.
COUNTY Kane DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. --
Station 1252+00 to 1256+50

BORING NO. RW-01
Station: 1252+51
Offset: 88.0' Left
Ground Surface Elev. 650.1

Table with columns: DEPTH, BLOW S, UCS, MOIST, Surface Water Elev., Stream Bed Elev., Groundwater Elevation, First Encounter, Upon Completion, After Hrs.

Main data table for RW-01 showing soil layers: 7.0" SANDY TOPSOIL-black, SANDY CLAY LOAM with Gravel, SAND & GRAVEL with Fractured Rock, SAND & GRAVEL-brown-medium dense, SANDY LOAM-gray-medium dense

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B=Bulge, S=Shear, P=Penetrometer) ST=Shelby Tube Sample VS=Vane Shear Test...



SOIL BORING LOG

DATE 6/27/2011

LOGGED BY RJ

GSJ JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad
SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.
COUNTY Kane DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. --
Station 1252+00 to 1256+50

BORING NO. RW-02
Station: 1254+01
Offset: 59.0' Left
Ground Surface Elev. 647.0

Table with columns: DEPTH, BLOW S, UCS, MOIST, Surface Water Elev., Stream Bed Elev., Groundwater Elevation, First Encounter, Upon Completion, After Hrs.

Main data table for RW-02 showing soil layers: 5.0" SANDY TOPSOIL-brown & black, SAND & GRAVEL-brown-loose to medium dense, SILTY LOAM-gray-medium dense, SAND & GRAVEL-gray-medium dense

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B=Bulge, S=Shear, P=Penetrometer) ST=Shelby Tube Sample VS=Vane Shear Test...

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Table with columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE and corresponding names/dates.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS RW-01 & RW-02 STRUCTURE NUMBER 045-W014

SHEET NO. SA9 OF 11 SHEETS

Table with columns: F.A.P. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., STA., CONTRACT NO.

**SOIL BORING LOG**

Geo Services, Inc. Geotechnical, Environmental & Civil Engineering  
805 Amherst Court, Suite 204  
Naperville, Illinois 60565  
(630) 355-2838

PAGE 1 of 1  
DATE 6/27/2011  
LOGGED BY RJ  
GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
COUNTY Kane DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. --  
Station 1252+00 to 1256+50  
BORING NO. **RW-03**  
Station: 1254+75  
Offset: 59.0' Left  
Ground Surface Elev. 647.0

DEPTH H S	B L O W S	U C S Qu	M O I S T (%)	Soil Description				DEPTH H S	B L O W S	U C S Qu	M O I S T (%)	
				(ft)	(/6")	(tsf)	(%)					(ft)
				Surface Water Elev. <u>n/a</u>								
				Stream Bed Elev. <u>n/a</u>								
				Groundwater Elevation:								
				First Encounter <u>642.0</u>								
				Upon Completion <u>Cave In</u>								
				After _____ Hrs.								
3.0"				SANDY TOPSOIL-dark brown	646.7			SAND-gray-medium dense (A-3)	626.5			
	AS	-	9									
	3			SAND with Gravel-brown-loose (A-1-b)					5			
	4								9			
	3	NP	11	GRAVEL with Sand-gray-medium dense (A-1-a)	644.0				11	NP	8	
	2								8			
	4								10			
	-5	3	NP						-25	12	NP	4
	2			SAND-brown-loose (A-3)					11			
	3								13			
	3	NP	20						15	NP	11	
	2								13			
	4								15			
	-10	4	NP	SAND & GRAVEL-gray-dense (A-1)	619.0				-30	18	NP	5
	3								13			
	3			SAND & GRAVEL-brown-loose (A-1)	636.5				15	NP	11	
	6	NP	8						17			
	5			CLAY LOAM with Fractured Rock-gray-dense (A-2)	615.0				14			
	7								17			
	-15	7	NP	GRAVEL with Sand-brown-medium dense (A-1-a)	634.0				14	-	9	
	5								14			
	7								17			
	-15	7	NP	CLAY LOAM with Fractured Rock-gray-dense (A-2)	631.5				-35	14	-	9
	5			End Of Boring @ -35.0' Hollow Stem Augers CME Automatic Hammer								
	9											
	11	NP	14	SAND & GRAVEL-brown-medium dense (A-1)	629.0							
	4											
	8			SAND-gray-medium dense (A-3)								
	-20	13	NP						-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)  
NR-No Recovery

**SOIL BORING LOG**

Geo Services, Inc. Geotechnical, Environmental & Civil Engineering  
805 Amherst Court, Suite 204  
Naperville, Illinois 60565  
(630) 355-2838

PAGE 1 of 1  
DATE 6/28/2011  
LOGGED BY RJ  
GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
COUNTY Kane DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. --  
Station 1252+00 to 1256+50  
BORING NO. **RW-04**  
Station: 1255+41  
Offset: 98.5' Left  
Ground Surface Elev. 648.0

DEPTH H S	B L O W S	U C S Qu	M O I S T (%)	Soil Description				DEPTH H S	B L O W S	U C S Qu	M O I S T (%)	
				(ft)	(/6")	(tsf)	(%)					(ft)
				Surface Water Elev. <u>n/a</u>								
				Stream Bed Elev. <u>n/a</u>								
				Groundwater Elevation:								
				First Encounter <u>Dry To -5'</u>								
				Upon Completion <u>n/a</u>								
				After _____ Hrs.								
7.0"				TOPSOIL-black	647.3							
	AS	-	19									
	3			SANDY CLAY LOAM-black-loose (Fill)						11		
	3								13			
	2	4.5+P	15	SAND & GRAVEL-gray-medium dense (A-1)	645.0				11	NP	15	
	2								8			
	3			SAND & GRAVEL-brown-loose (Fill)					9			
	-5	3	NP						-25	9	NP	16
	2			SAND with Gravel-gray-medium dense (A-1-b)	642.5							
	6								9			
	8			Clayey SAND & GRAVEL-dark brown-loose (Fill)					10			
	-								10	NP	13	
	8								33			
	10			SAND & GRAVEL-brown-medium dense (A-1)	640.0				20			
	-10	11	NP						-30	23	NP	13
	5											
	10			SAND & GRAVEL-gray-dense (A-1)								
	12	NP	12	SAND, GRAVEL & FRACTURED ROCK-gray-dense (A-1)								
	9								38			
	10								26			
	-15	11	NP						-35	26	NP	8
	8											
	9			SAND & GRAVEL-gray-medium dense (A-1)	632.5							
	10	NP	13									
	12											
	17			End Of Boring @ -40.0' Hollow Stem Augers To -5.0' Rotary Drilling To Completion CME Automatic Hammer					18			
	-20	15	NP						8			
									42	NP	10	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)  
NR-No Recovery

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USER NAME =	DESIGNED - J.J.G. 6/15/2012	REVISED -
CHECKED - J.A.Z. 6/15/2012	REVISED -	
PLOT SCALE =	DRAWN - D.L.G. 6/15/2012	REVISED -
PLOT DATE =	CHECKED - E.E.J. 6/15/2012	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SOIL BORING LOGS RW-03 & RW-04  
STRUCTURE NUMBER 045-W014**

F.A.P. RTE. 349	SECTION (10 & 11VB) R-3	COUNTY KANE	TOTAL SHEETS 507	SHEET NO. 347
STA. 1252+00.00		CONTRACT NO. 60133		
ILLINOIS FED. AID PROJECT				

SHEET NO. SA10 OF 11 SHEETS



# SOIL BORING LOG

PAGE 1 of 1  
 DATE 10/6/2010  
 LOGGED BY RJ  
 GSI JOB No. 09172

ROUTE FAP 349 (US 30) DESCRIPTION US 30 from west of IL 31 to east of Burlington Northern Railroad  
 SECTION (10 & 11 VB) R-3 LOCATION Section 32, T. 38 N., R. 8 E., Aurora Township, 3rd P.M.  
 COUNTY Kane DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. -  
 Station -  
 BORING NO. **CB-09**  
 Station: 1253+11  
 Offset: 54.5' Left  
 Ground Surface Elev. 648.0

DEPTH H S	BLOW S	UCS Qu	MOIST T	Surface Water Elev. <u>n/a</u>				DEPTH H S	BLOW S	UCS Qu	MOIST T
				Stream Bed Elev. <u>n/a</u>							
Groundwater Elevation:				First Encounter <u>643.0</u>				Upon Completion <u>n/a</u>			
After _____ Hrs. _____											
(ft)	(/6")	(tsf)	(%)	(ft)	(/6")	(tsf)	(%)	(ft)	(/6")	(tsf)	(%)
Sandy TOPSOIL-black				647.5							
AS - 15											
SAND-brown-medium dense (A-3)				645.0				SAND & GRAVEL-gray-dense (A-1)			
4								10			
6								16			
4 NP 5								19 NP 8			
				625.0							
3								7			
6								11			
▼ -5 6 NP 15								-25 15 2.8B 9			
								137			
								LOAM-gray-medium dense to dense (A-4)			
4								8			
5								15			
6 NP 14								18 NP 9			
				620.0							
SAND & GRAVEL-brown-loose to medium dense (A-1)								FRACTURED ROCK-gray-dense (A-1)			
3								8			
6								12			
-10 8 NP 14								618.0 -30 20 NP 9			
								End Of Boring @ -30.0'			
								Hollow Stem Augers			
								CME Automatic Hammer			
3											
4											
4 NP 14											
3											
4											
-15 5 NP 16								-35			
9											
12											
16 NP 8											
				630.0							
SAND & GRAVEL-gray-dense (A-1)											
8											
13											
-20 17 NP 8								-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test  
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)  
 NR-No Recovery

P:\10522010\20103003\cd\structure\rdgn\retwall\_final\00\DI60133-soil-sb13.dgn  
 6/14/2012 6:09:45 PM



USER NAME =	DESIGNED - J.J.G. 6/15/2012	REVISED -
	CHECKED - J.A.Z. 6/15/2012	REVISED -
PLOT SCALE =	DRAWN - D.L.G. 6/15/2012	REVISED -
PLOT DATE =	CHECKED - E.E.J. 6/15/2012	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

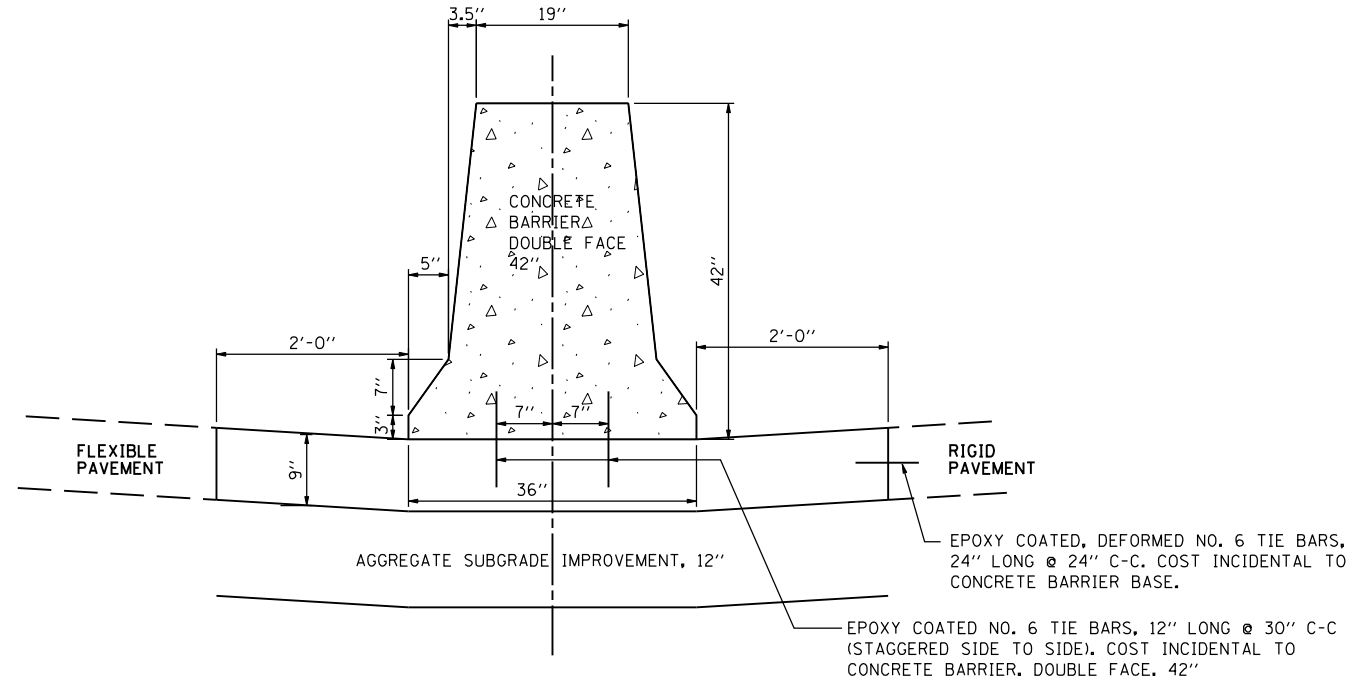
SOIL BORING LOGS CB-09  
 STRUCTURE NUMBER 045-W014

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	348
STA. 1252+00.00			CONTRACT NO. 60133	

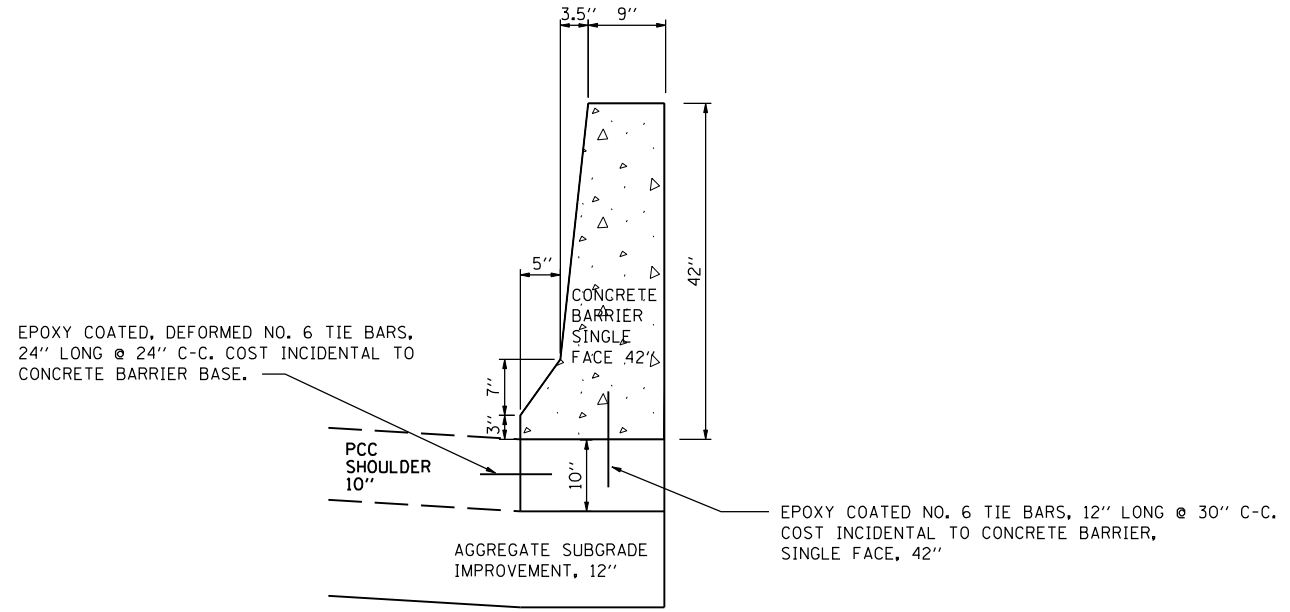
SHEET NO. SA11 OF 11 SHEETS

ILLINOIS FED. AID PROJECT

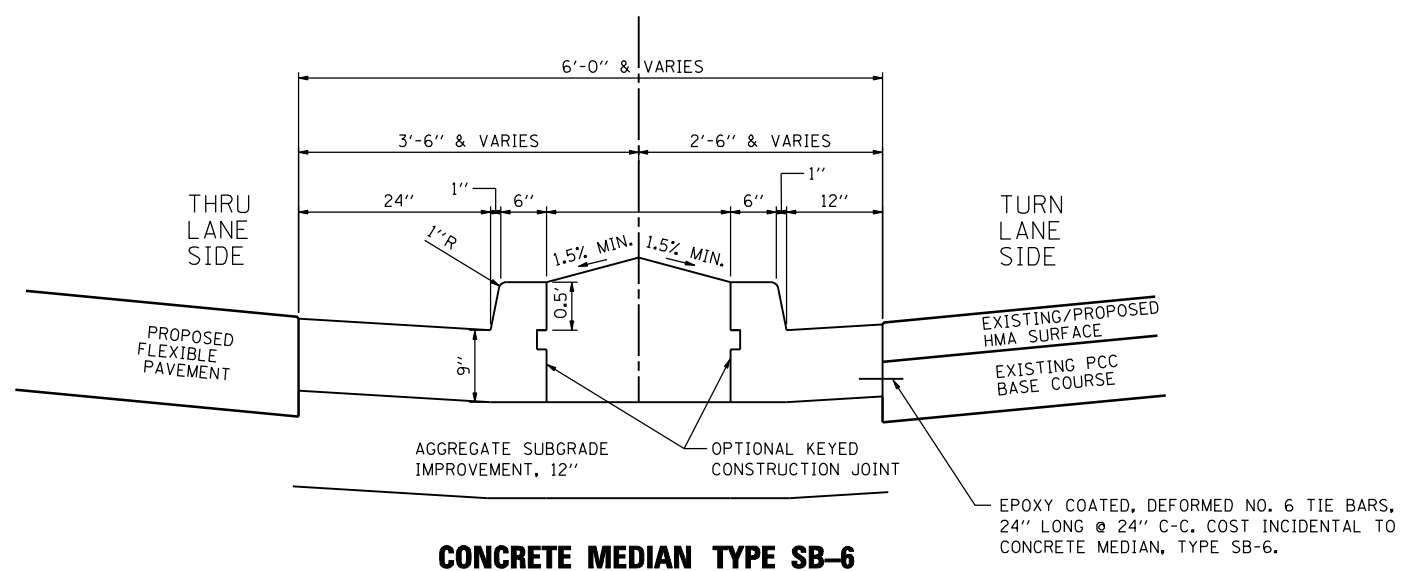




**CONCRETE BARRIER BASE (SPECIAL)**



**CONCRETE BARRIER BASE**



**CONCRETE MEDIAN TYPE SB-6**

FILE# 5/16/2012 12:31:43 AM

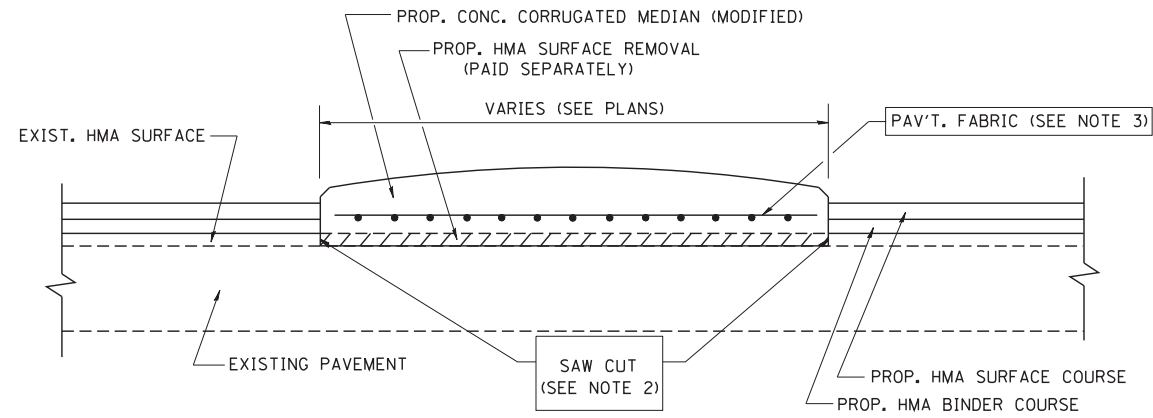
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	DRAWN - JWB	REVISED -
PLOT SCALE = 2.0000' / IN.	CHECKED - RS	REVISED -
PLOT DATE = 5/16/2012	DATE - 05/11/2012	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 AT IL ROUTE 31  
CONSTRUCTION DETAILS**

SCALE: N.T.S. SHEET NO. -- STA. ----- TO STA. -----

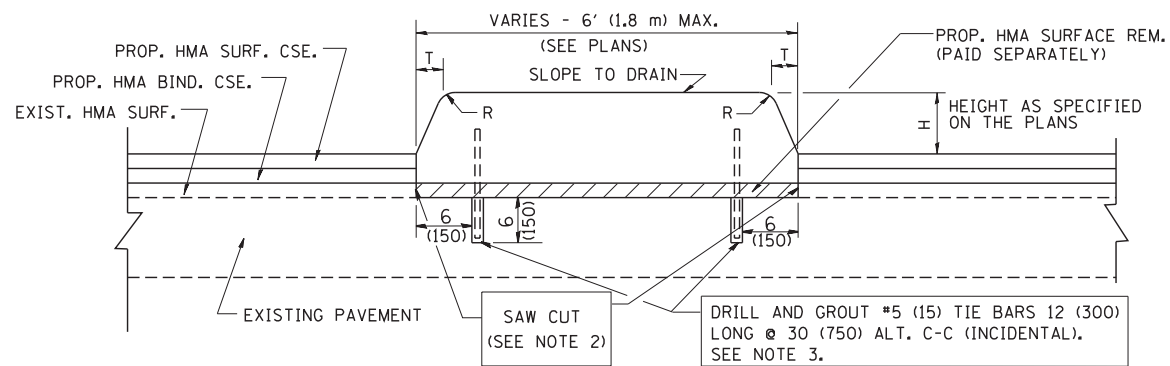
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	*	507	349
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				



- NOTES:
1. CORRUGATED MEDIAN (MODIFIED) SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 606 OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE PORTIONS OF STATE STANDARD 606306.
  2. WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY DELETE THE SAW CUT IF A NEAT JOINT CAN BE OBTAINED BY MILLING THE HMA SURFACE TO BE REMOVED. SAW CUT WILL BE INCLUDED IN THE COST OF CORRUGATED MEDIAN (MODIFIED)
  3. PAVEMENT FABRIC WILL BE INCLUDED IN THE COST OF CORRUGATED MEDIAN (MODIFIED)

### DETAILS FOR CORRUGATED MEDIAN (MODIFIED)

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT (SQUARE METER) FOR "CORRUGATED MEDIAN (MODIFIED)"



- NOTES:
1. CONCRETE MEDIAN TYPE SB (DOWELLED) SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF STATE STANDARD 606301 AND SECTION 606 OF THE STANDARD SPECIFICATIONS.
  2. WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY DELETE THE SAW CUT IF A NEAT JOINT CAN BE OBTAINED BY MILLING THE HMA SURFACE TO BE REMOVED. SAW CUT WILL BE INCLUDED IN THE COST OF "CONCRETE MEDIAN TYPE SB (DOWELLED)"
  3. FOR MEDIAN WIDTH LESS THAN 4' (1.2 m) USE ONE ROW OF #5 (15) BARS @ 30 (750) C-C ALONG THE MEDIAN CENTERLINE. TIE BARS WILL BE INCLUDED IN THE COST OF "CONCRETE MEDIAN TYPE SB (DOWELLED)"

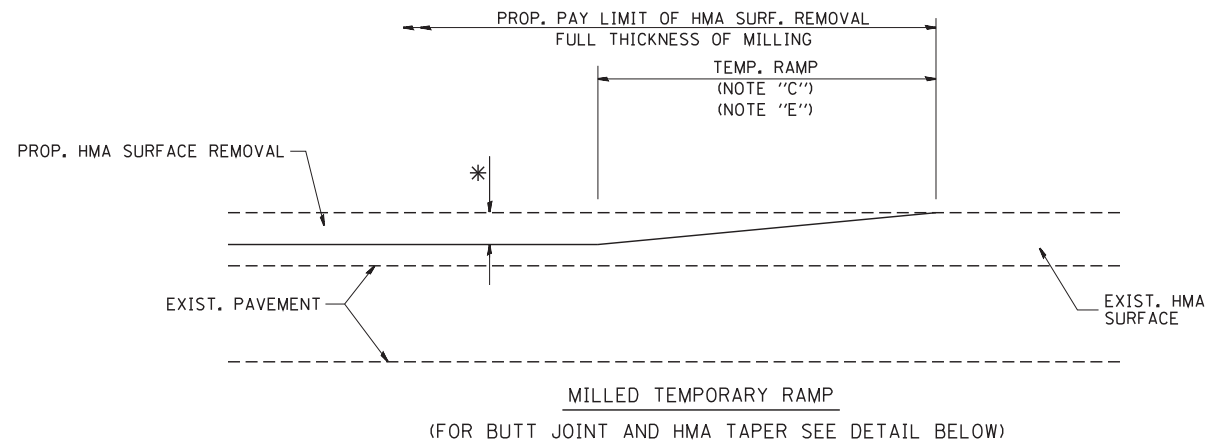
### DETAILS FOR CONCRETE MEDIAN TYPE SB (DOWELLED)

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT (SQUARE METER) FOR "CONCRETE MEDIAN TYPE SB (DOWELLED)"

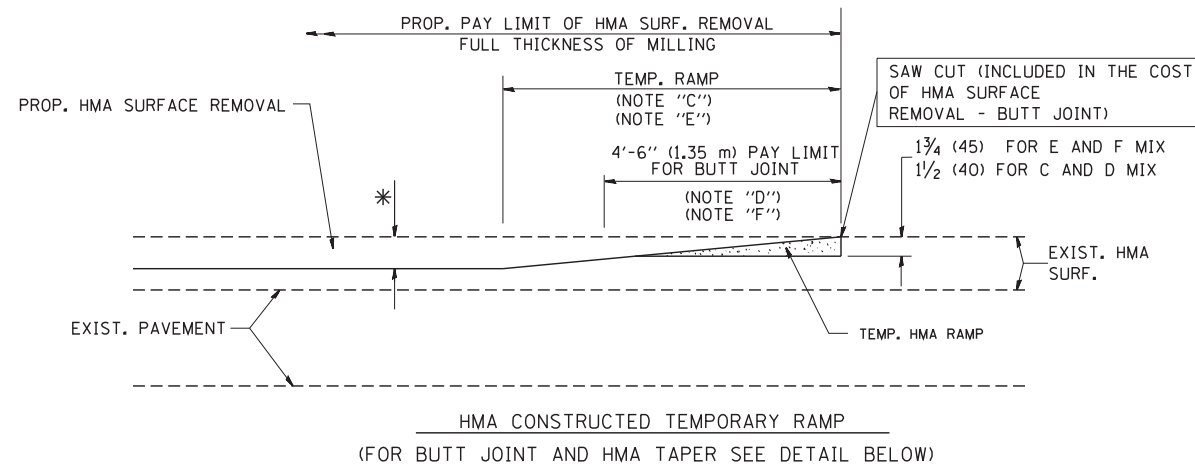
H	R	T
6(150)	1(25)	1(25)
9(225)	1(25)	2(50)

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

FILE NAME = W:\diststd\22x34\bd05.dgn	USER NAME = gaglianobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 09-09-94	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DETAILS FOR CONCRETE MEDIAN TYPE SB (DOWELLED) CORRUGATED MEDIAN (MODIFIED)</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED - R. SHAH 10-25-94								
		CHECKED -	REVISED - E. GOMEZ 08-28-00								
		DATE - 05-14-90	REVISED - R. BORO 01-01-07								
PLOT SCALE = 50.0000' / IN.				SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			
PLOT DATE = 1/4/2008								BD600-02 (BD-5)		CONTRACT NO. 507 350	

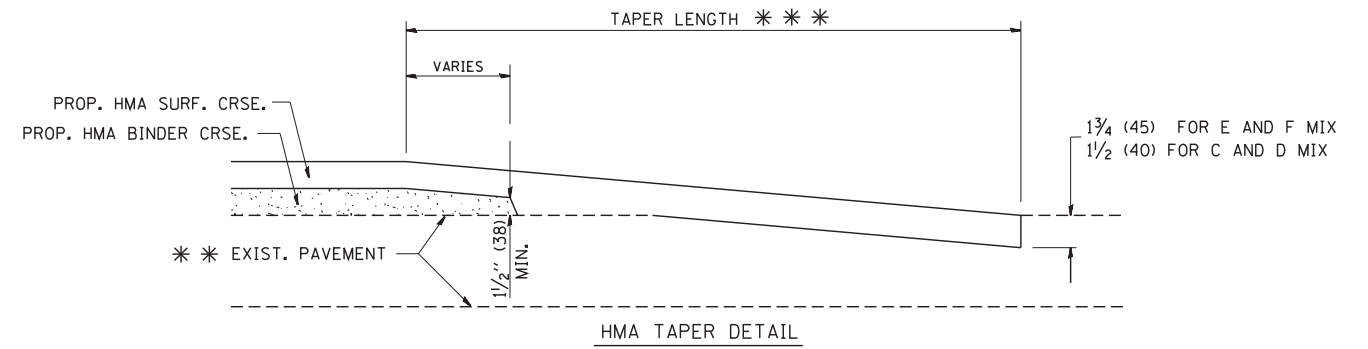
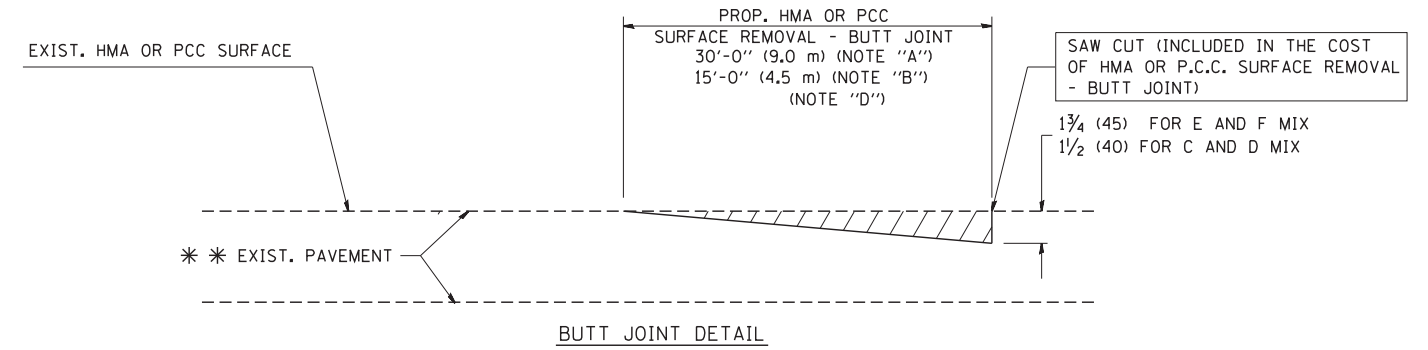


**OPTION 1**



**OPTION 2**

**TYPICAL TEMPORARY RAMP**



**TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY**

\* \* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

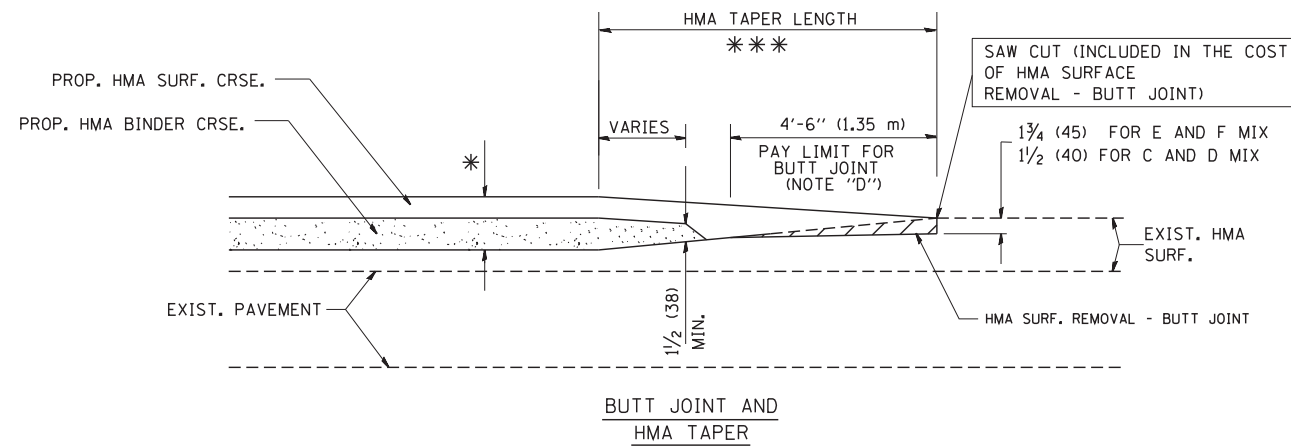
**NOTES**

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
  - B: MINOR SIDE ROADS.
  - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
  - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
  - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
  - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
  - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- \* \* \* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")  
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

**BASIS OF PAYMENT:**

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

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



**TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING**

FILE NAME = W:\diststd\22x34\bd32.dgn

USER NAME = gaglionobt  
PLOT SCALE = 50.0000' / IN.  
PLOT DATE = 1/4/2008

DESIGNED - M. DE YONG  
DRAWN -  
CHECKED -  
DATE - 06-13-90

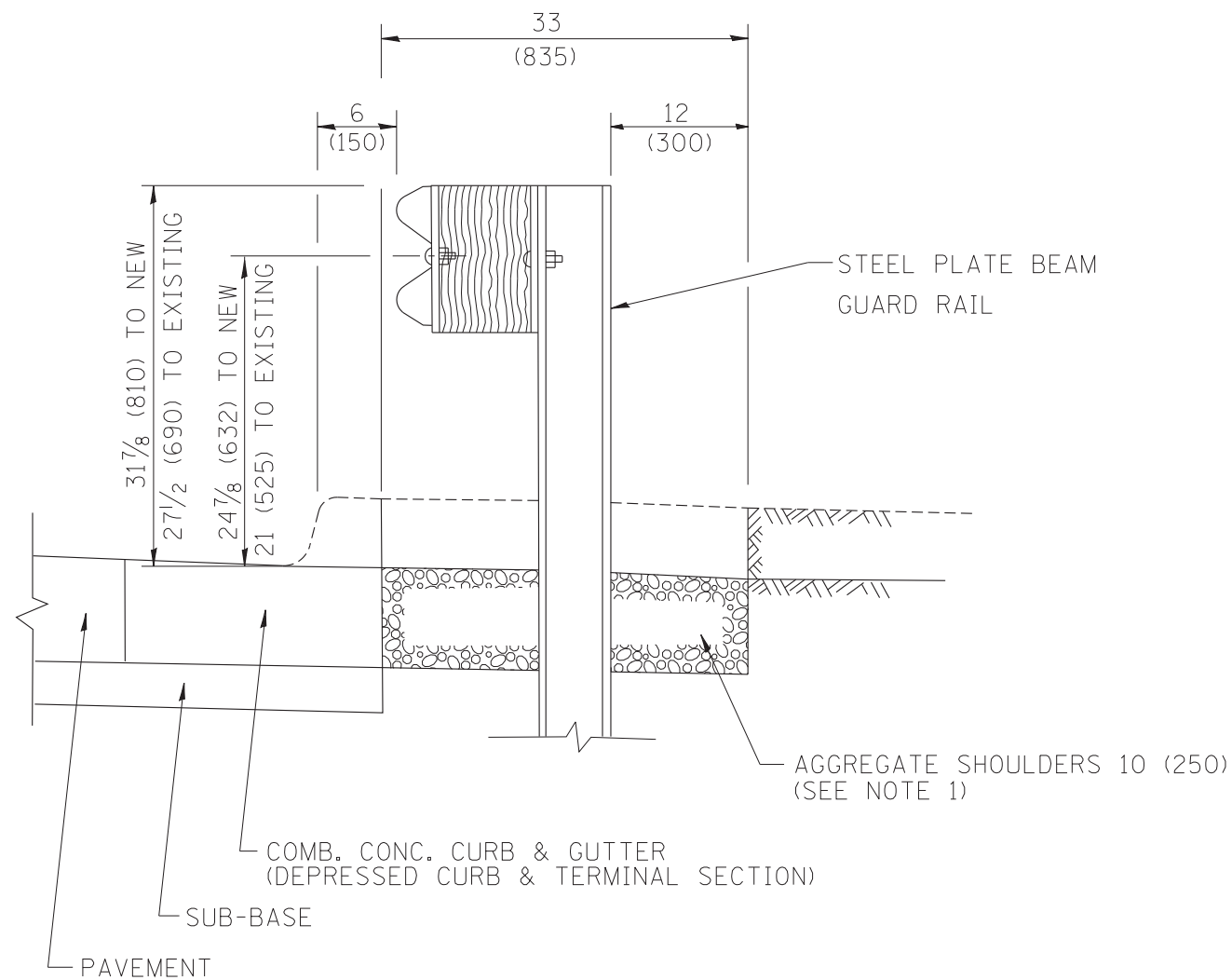
REVISED - R. SHAH 10-25-94  
REVISED - A. ABBAS 03-21-97  
REVISED - M. GOMEZ 04-06-01  
REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BUTT JOINT AND  
HMA TAPER DETAILS**

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

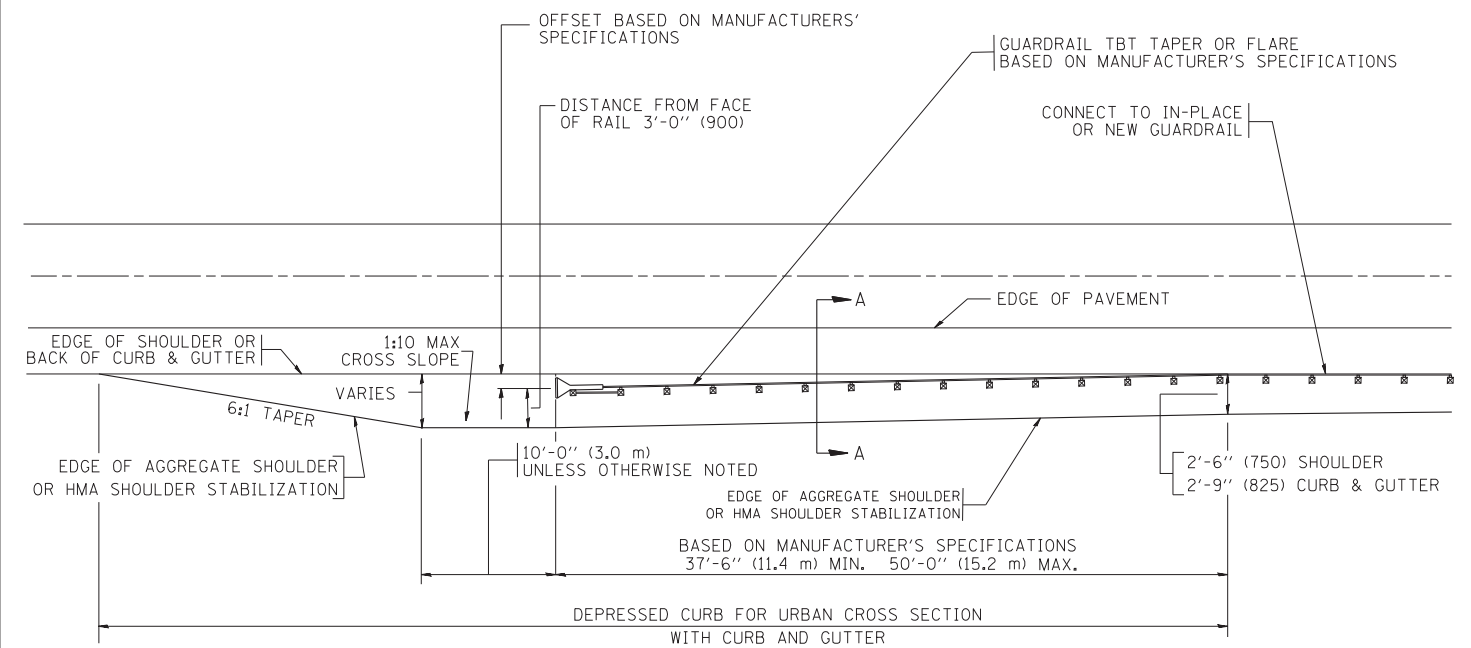
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			507	351
BD400-05 BD32		CONTRACT NO.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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.

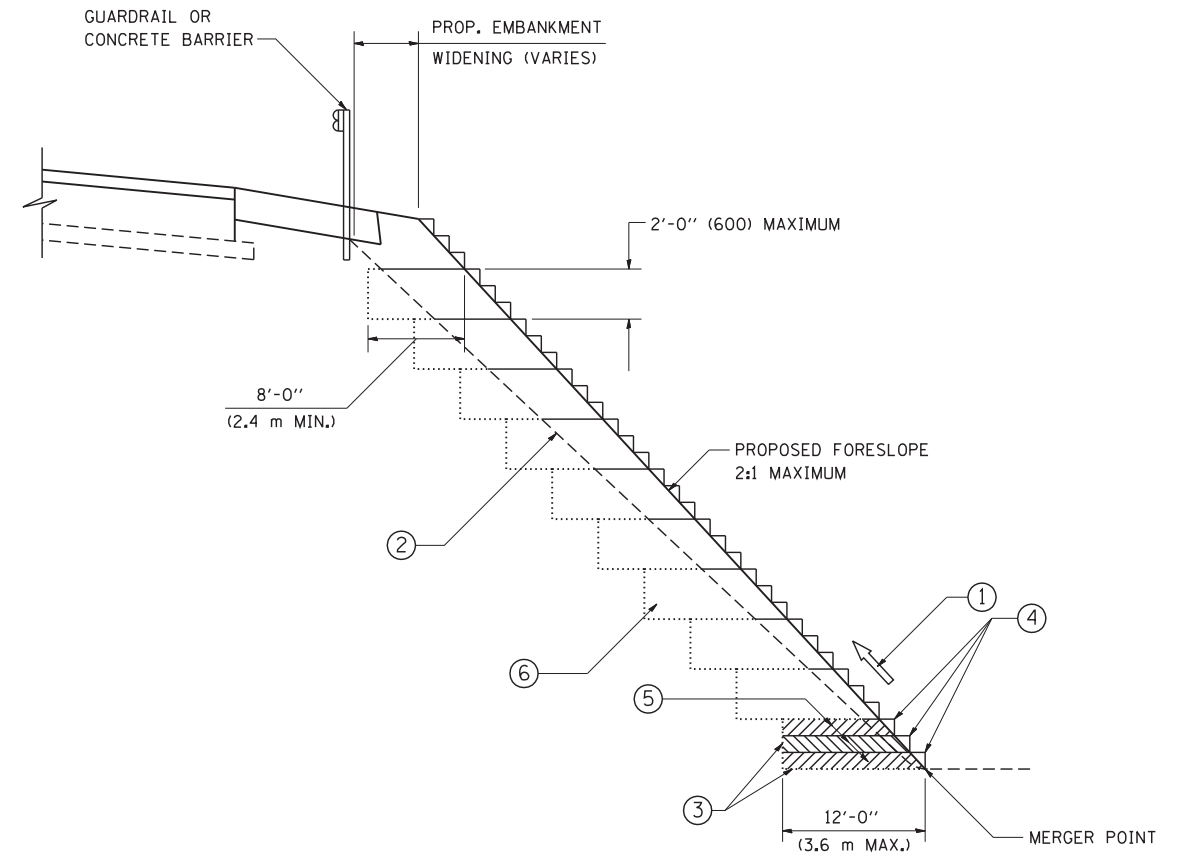
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	PLOT DATE = 9/21/2009	DATE - 09-22-90	REVISED - R. BORO 09-14-2009

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**DETAILS FOR DEPRESSED CURB & GUTTER AND**  
**SHOULDER TREATMENT AT TBT TY 1 SPL.**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			507	352
BD600-10 (BD 34)		CONTRACT NO.		
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).

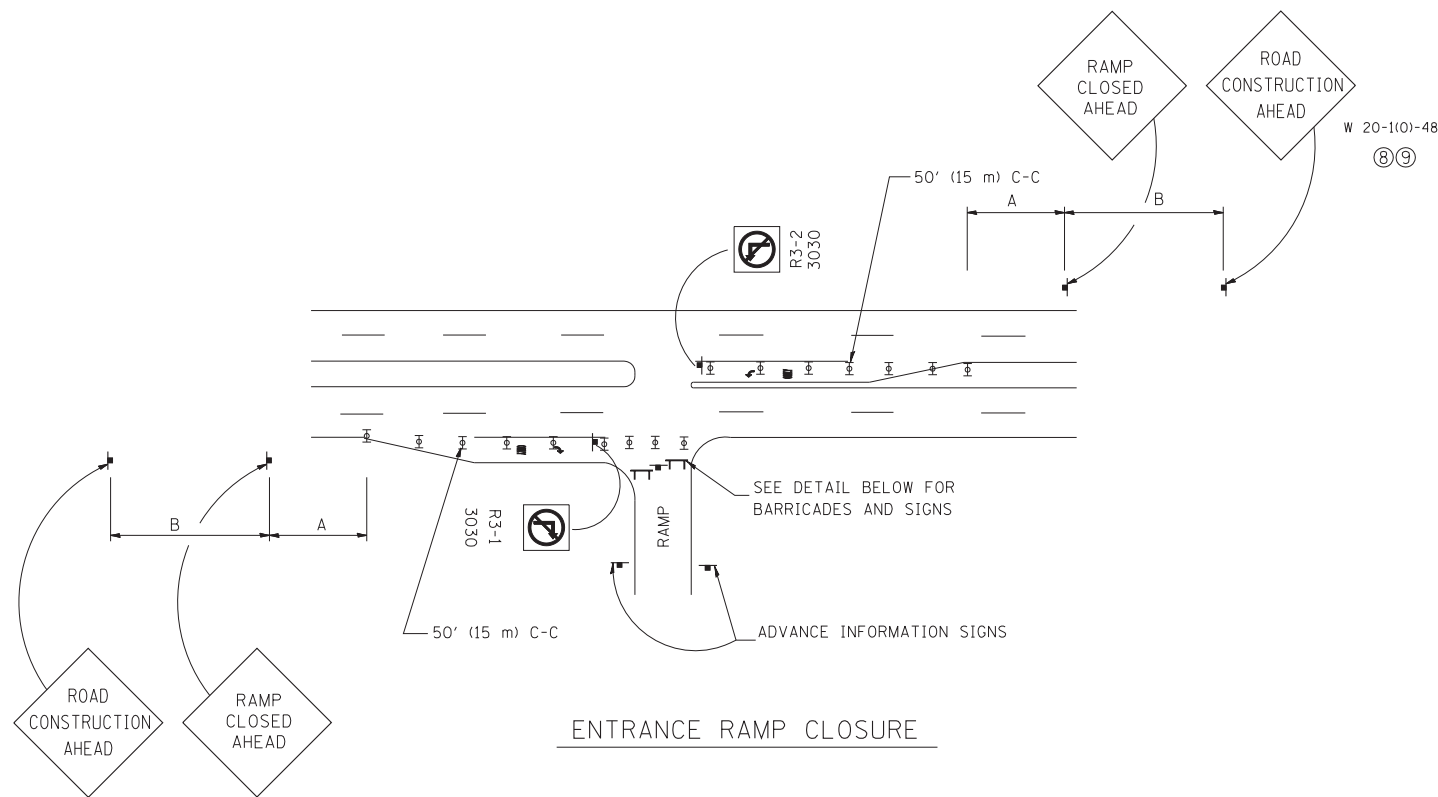
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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		CHECKED - S.E.B.	REVISED -
		DATE - 06-16-04	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>BENCHING DETAIL</b>			
<b>FOR EMBANKMENT WIDENING</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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<b>BD-51</b>		CONTRACT NO.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



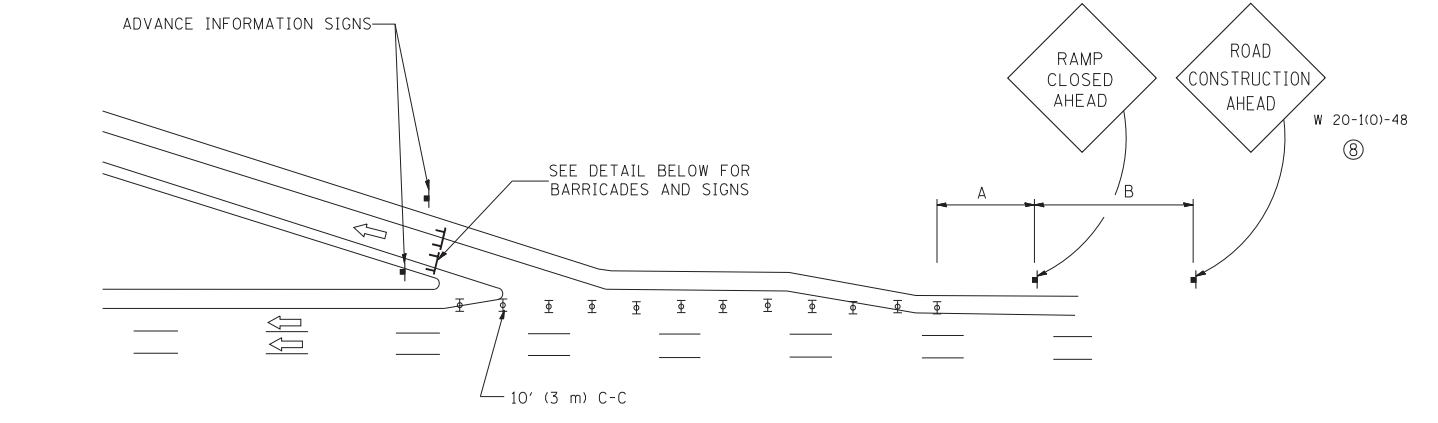
ENTRANCE RAMP CLOSURE

SIGN SPACING TABLE

FACILITY	DISTANCE BETWEEN SIGNS	
	A	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)

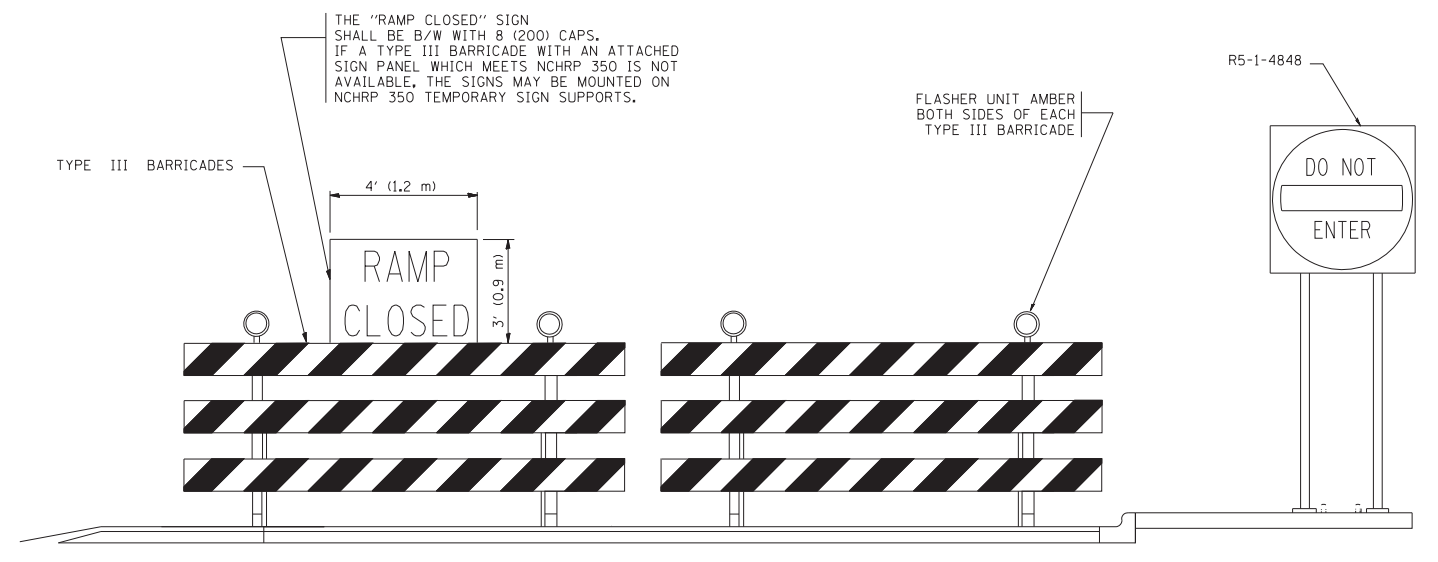
DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.

W 20-1(0)-48  
89



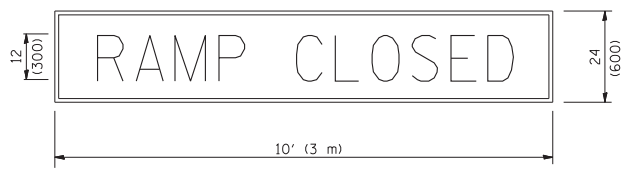
EXIT RAMP CLOSURE

- SYMBOLS
- ⊥ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
  - ⊥ TYPE III BARRICADE WITH FLASHING LIGHT



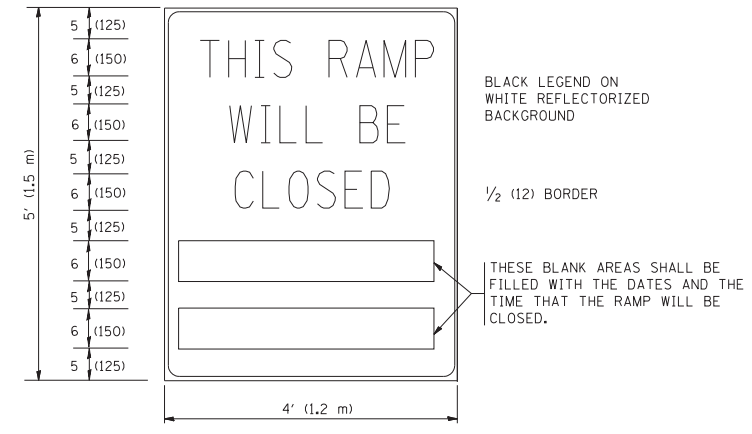
DETAIL FOR REQUIRED BARRICADES & SIGNS

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.

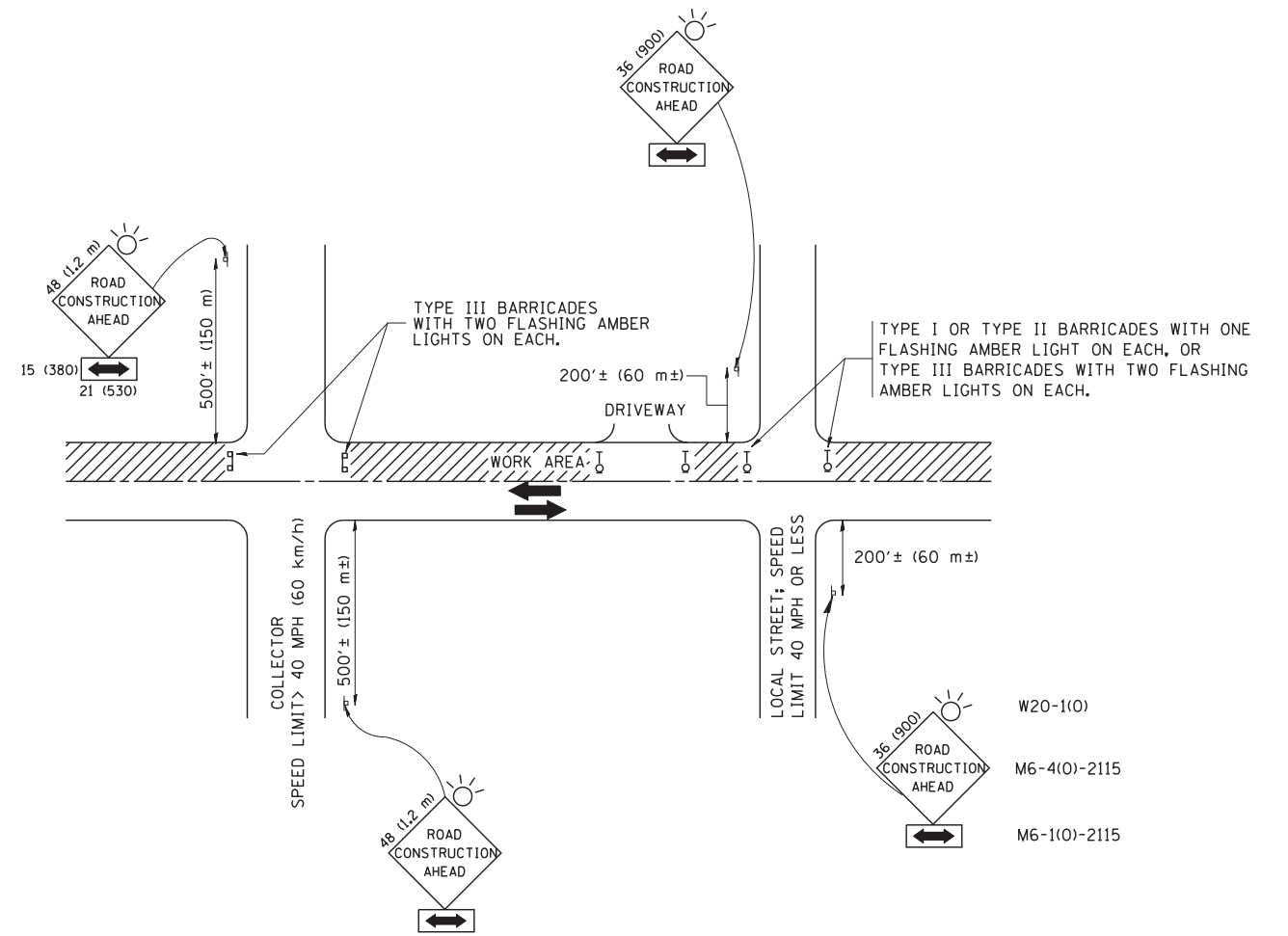
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		CHECKED -	REVISED - SPB 01-07
		DATE - 02-83	REVISED - SPB 12-09

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. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TC-08		507	354
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO.	



## TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

### NOTES:

#### A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.

2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

#### B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

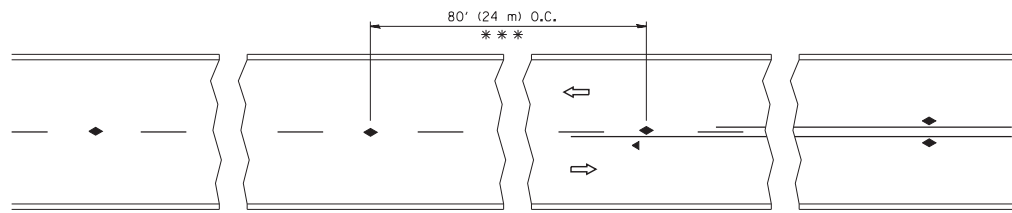
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		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACH 01-06-00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR  
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

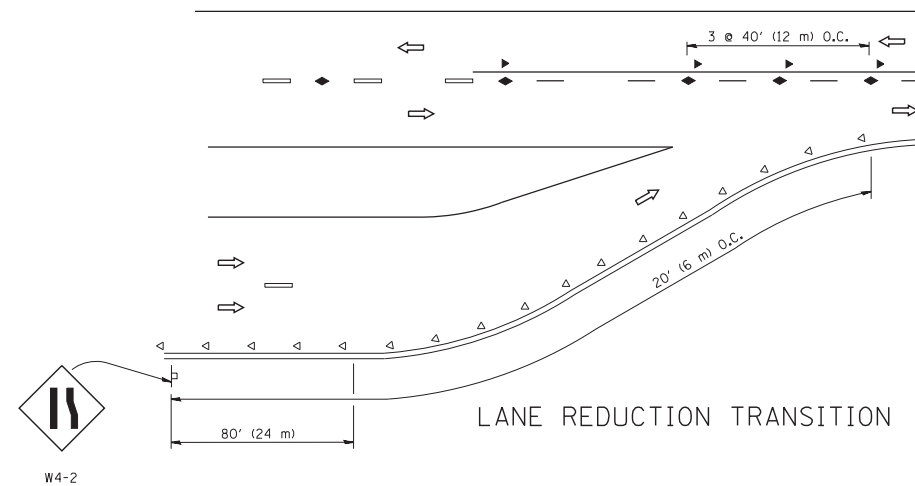
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			507	355
TC-10			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

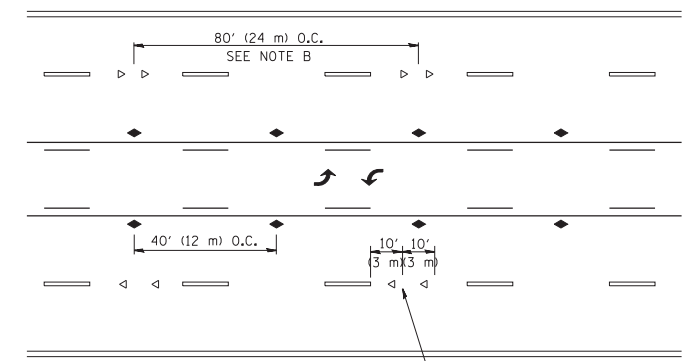


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

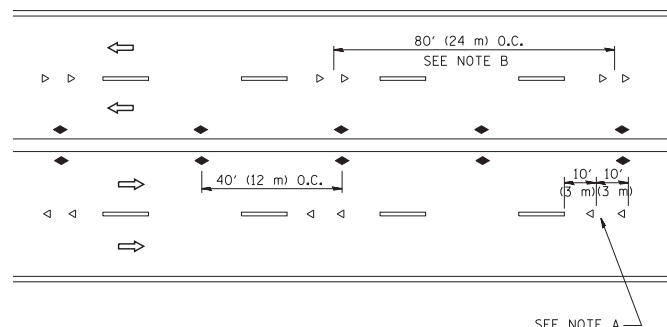
TWO-LANE/TWO-WAY



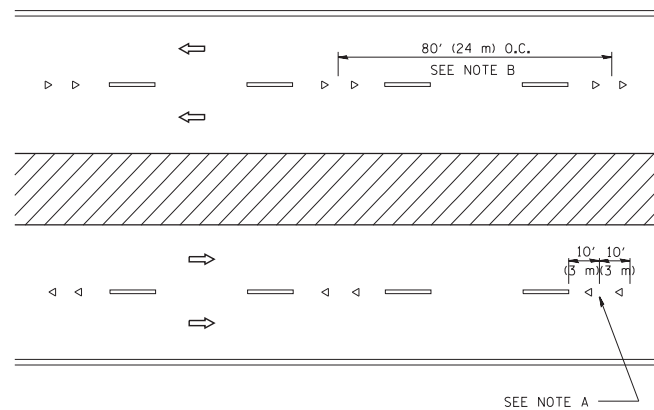
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

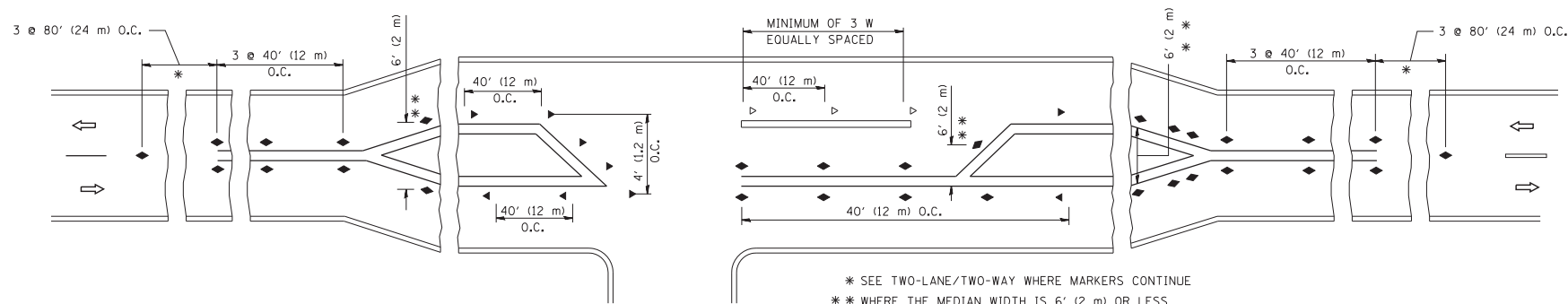
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



\* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE  
 \*\* WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

LEFT TURN

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

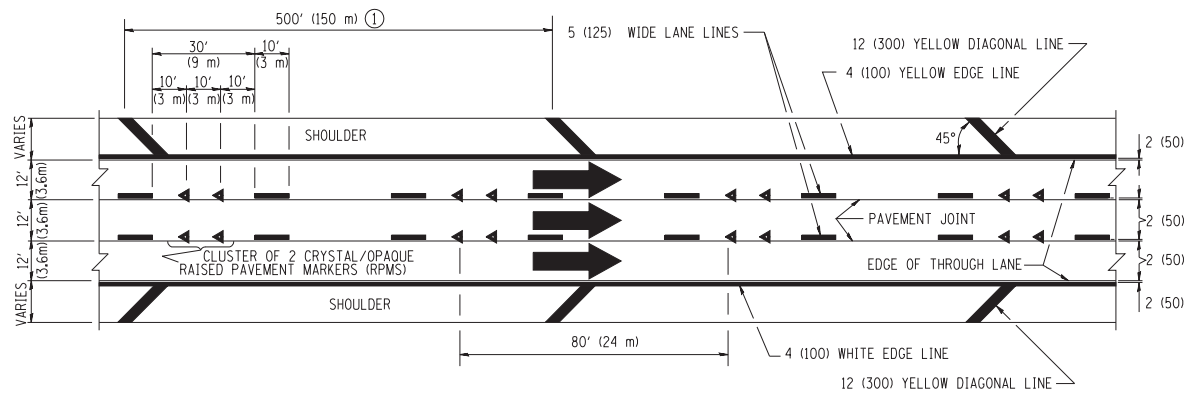
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	PLOT DATE = 3/2/2011	DATE -	REVISED - C. JUCIUS 09-09-09

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS			
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

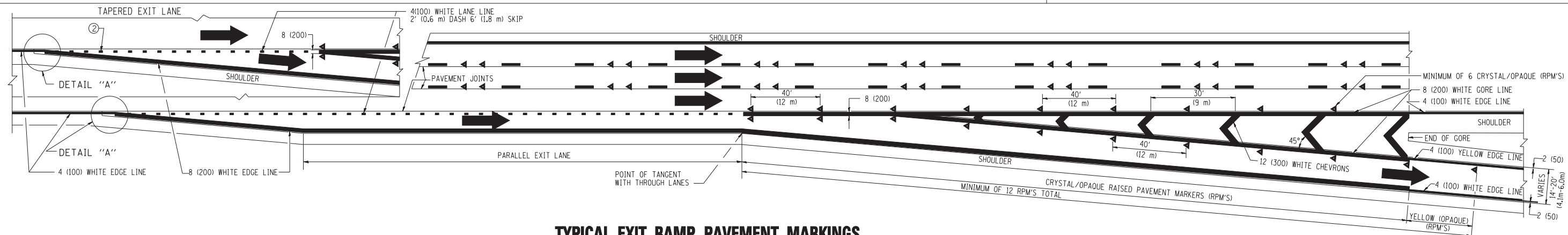
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			507	356
TC-11			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



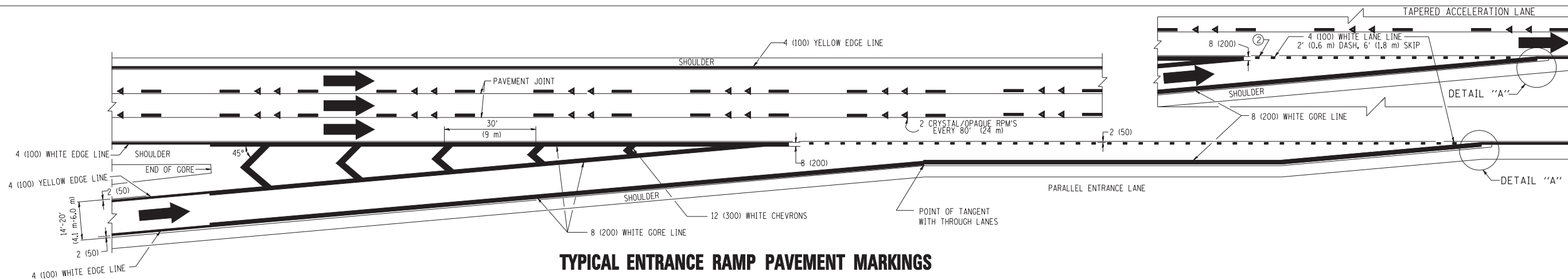


**TYPICAL EDGE LINES & LANE LINES**

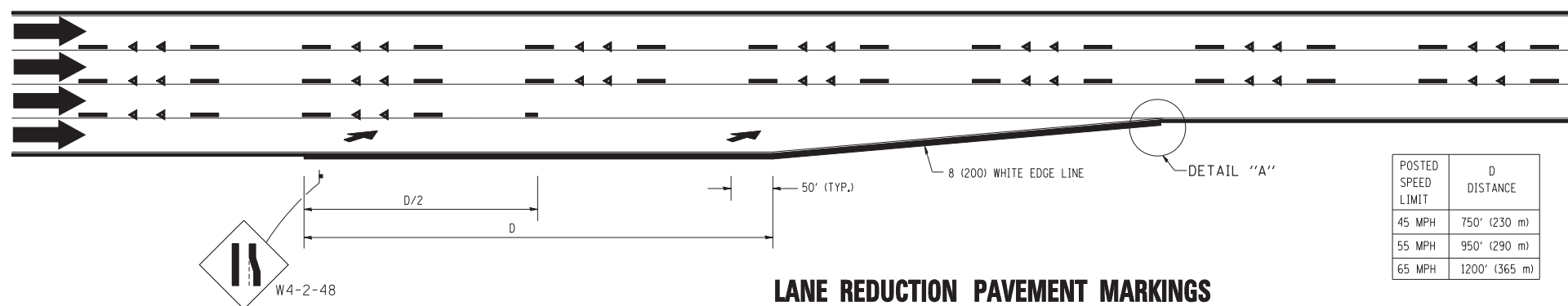
- PAVEMENT MARKING MATERIALS**
1. THERMO PLASTIC PAVEMENT MARKING LINE SHALL BE USED FOR THE EDGE LINES, GORE LINES, AND DIAGONAL LINES ON BITUMINOUS PAVEMENT ONLY.
  2. PREFORMED PLASTIC TYPE B PAVEMENT MARKING LINE SHALL BE USED FOR ALL LANE LINES ON BITUMINOUS PAVEMENT.
  3. POLYUREA PAVEMENT MARKING SHALL BE USED FOR ALL MARKINGS ON PCC.



**TYPICAL EXIT RAMP PAVEMENT MARKINGS**

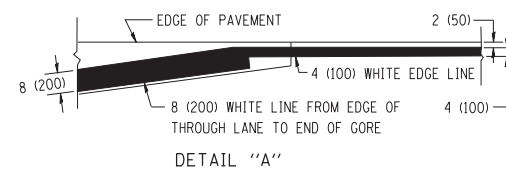


**TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS**



**LANE REDUCTION PAVEMENT MARKINGS**

POSTED SPEED LIMIT	D DISTANCE
45 MPH	750' (230 m)
55 MPH	950' (290 m)
65 MPH	1200' (365 m)



- NOTES:**
- ① THE DIAGONAL LINES SHALL BE SPACED AT 40' (12 m) C-C ACROSS ALL STRUCTURES WHICH ARE 500' (150 m) OR LESS IN LENGTH. THE DIAGONAL LINES ARE NOT REQUIRED ON SHOULDERS WHICH ARE 6' (1.8 m) OR LESS IN WIDTH.
  - ② 4" (2' DASH, 6' SKIP) MARKING ON TAPERED ENTRANCE AND EXIT RAMP SHALL BE OMITTED ON TANGENT SECTIONS.

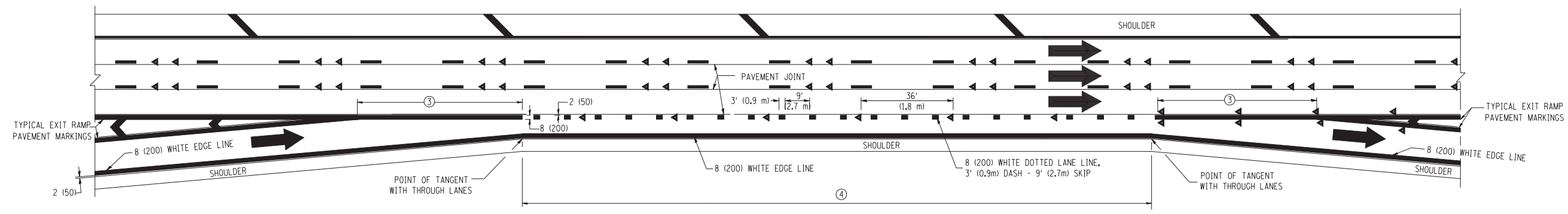
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	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - S.P.B. 01-07
	PLOT DATE = 1/22/2010	DATE - 01-90	REVISED - S.P.B. 01-10

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

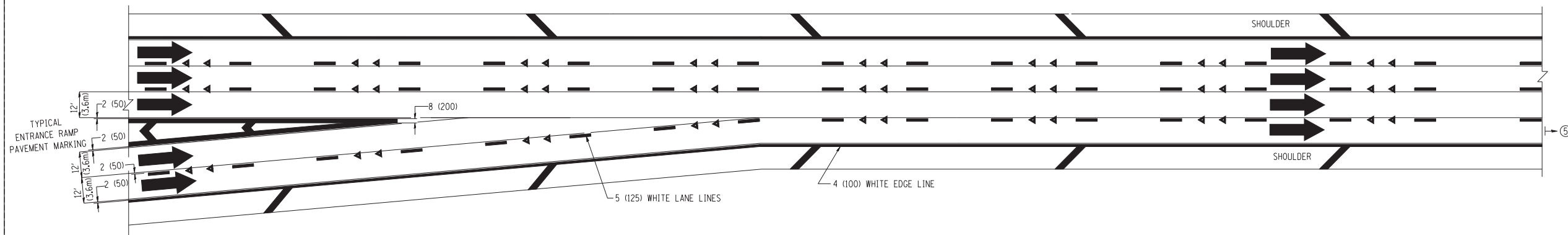
**MULTI-LANE FREEWAY  
 PAVEMENT MARKING DETAILS**

SCALE: NONE SHEET NO. 1 OF 2 SHEETS STA. TO STA.

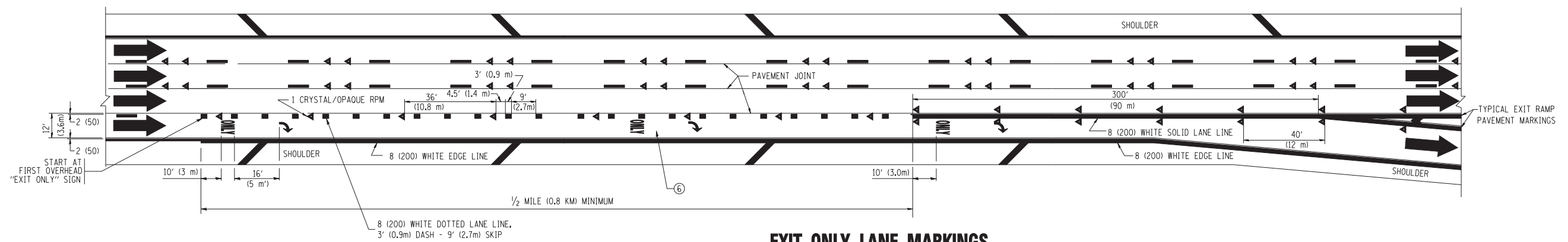
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FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO.	



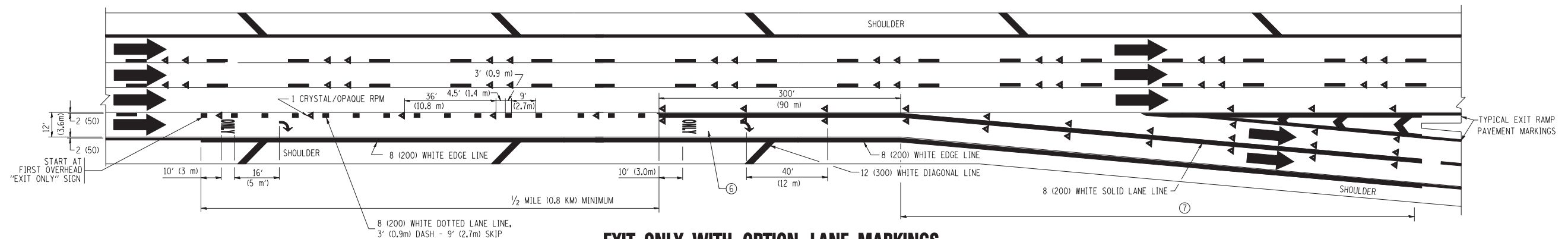
**AUXILIARY LANE MARKINGS**



**TWO LANE ENTRANCE RAMP WITH MERGE MARKINGS**



**EXIT ONLY LANE MARKINGS**



**EXIT ONLY WITH OPTION LANE MARKINGS**

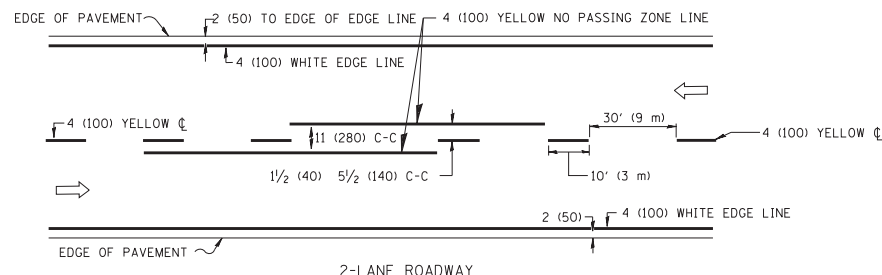
- NOTES**
- ③ OMIT WHEN LENGTH OF AUXILIARY LANE IS LESS THAN 500' (150 m).
  - ④ 8-INCH WIDE DOTTED LANE LINE MARKINGS SHALL BE USED WHEN THE LENGTH OF THE AUXILIARY LANE IS 2 MILES OR LESS.
  - ⑤ FOR TWO-LANE ENTRANCE RAMP, IF RIGHT LANE ENDS, USE TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS.
  - ⑥ ONLY AND ARROWS EQUALLY SPACED, 500' (150 m) MAXIMUM SPACING. FULL SIZE LETTERS AND ARROW SHALL BE USED.
  - ⑦ CONTINUE 8" SOLID LANE LINE THROUGH EXIT TO END OF PAVED GORE.

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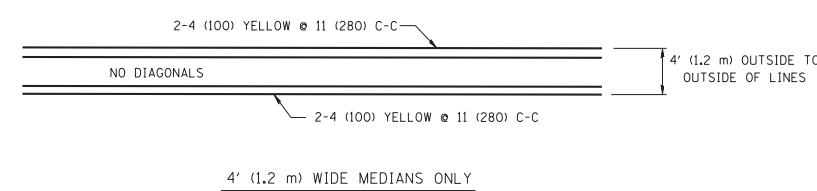
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS</b>			
SCALE: NONE	SHEET NO. 2 OF 2 SHEETS	STA.	TO STA.

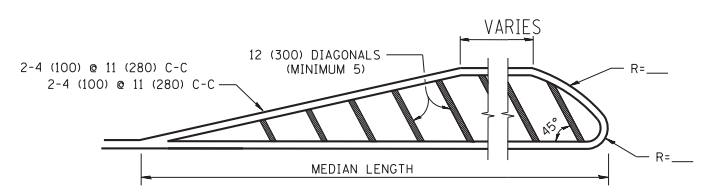
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	<b>TC-12</b>		<b>507</b>	<b>358</b>
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO.	



2-LANE ROADWAY



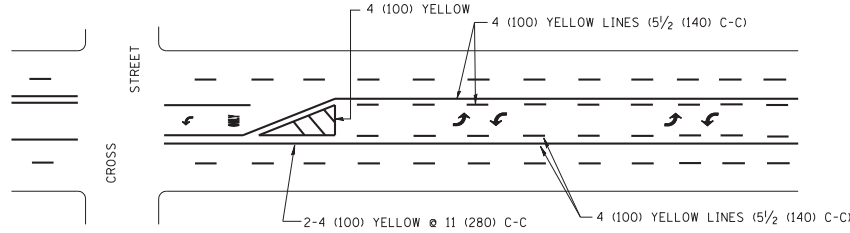
4' (1.2 m) WIDE MEDIANS ONLY



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))

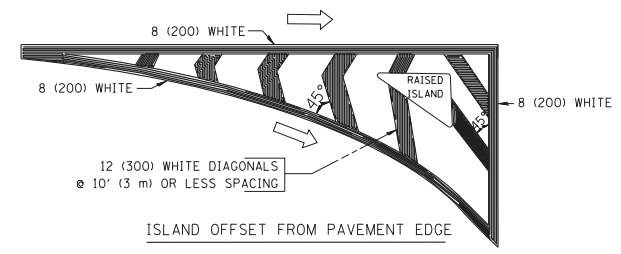
MEDIANS OVER 4' (1.2 m) WIDE



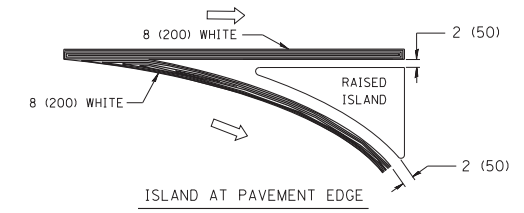
A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.

MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

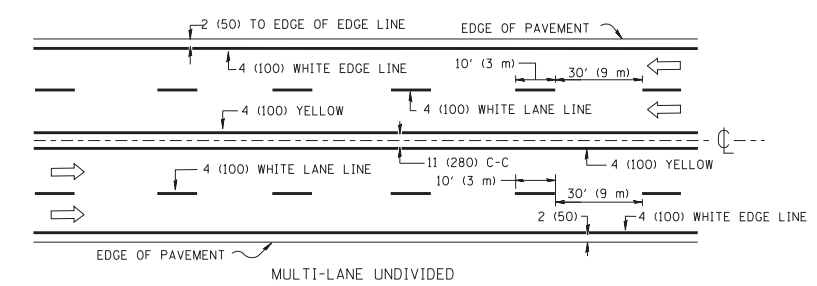


ISLAND OFFSET FROM PAVEMENT EDGE

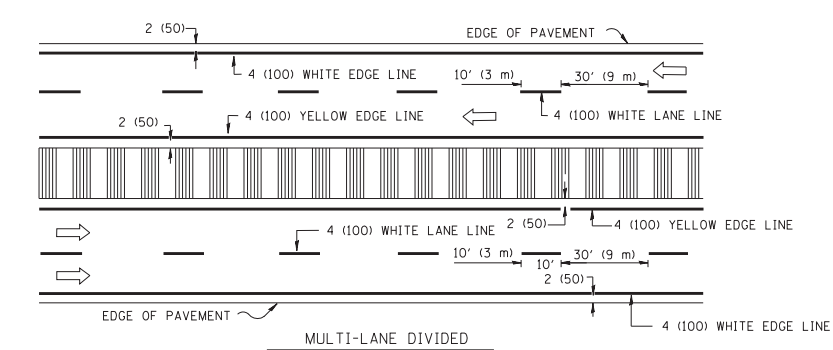


ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING



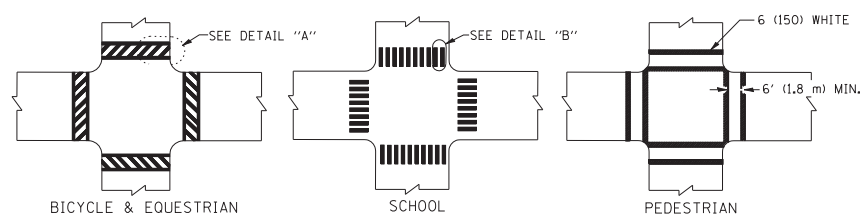
MULTI-LANE UNDIVIDED



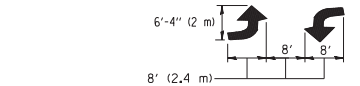
MULTI-LANE DIVIDED WITH MOUNTABLE MEDIAN

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

TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING



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

\* 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

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 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION	4 (100)	SOLID	YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE
NO PASSING ZONE LINES: FOR BOTH DIRECTIONS	2 @ 4 (100)	SOLID	YELLOW	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 @ 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 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 @ 4 (100) WITH 12 (300) DIAGONALS @ 45°	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 @ 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" 15 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 <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) @ 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.

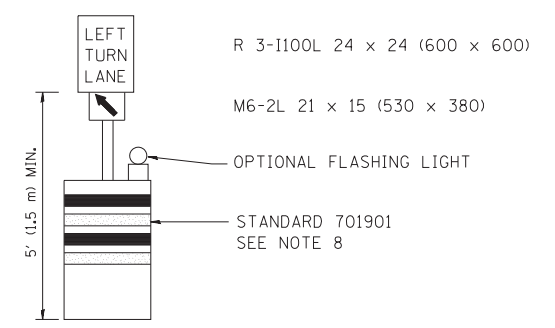
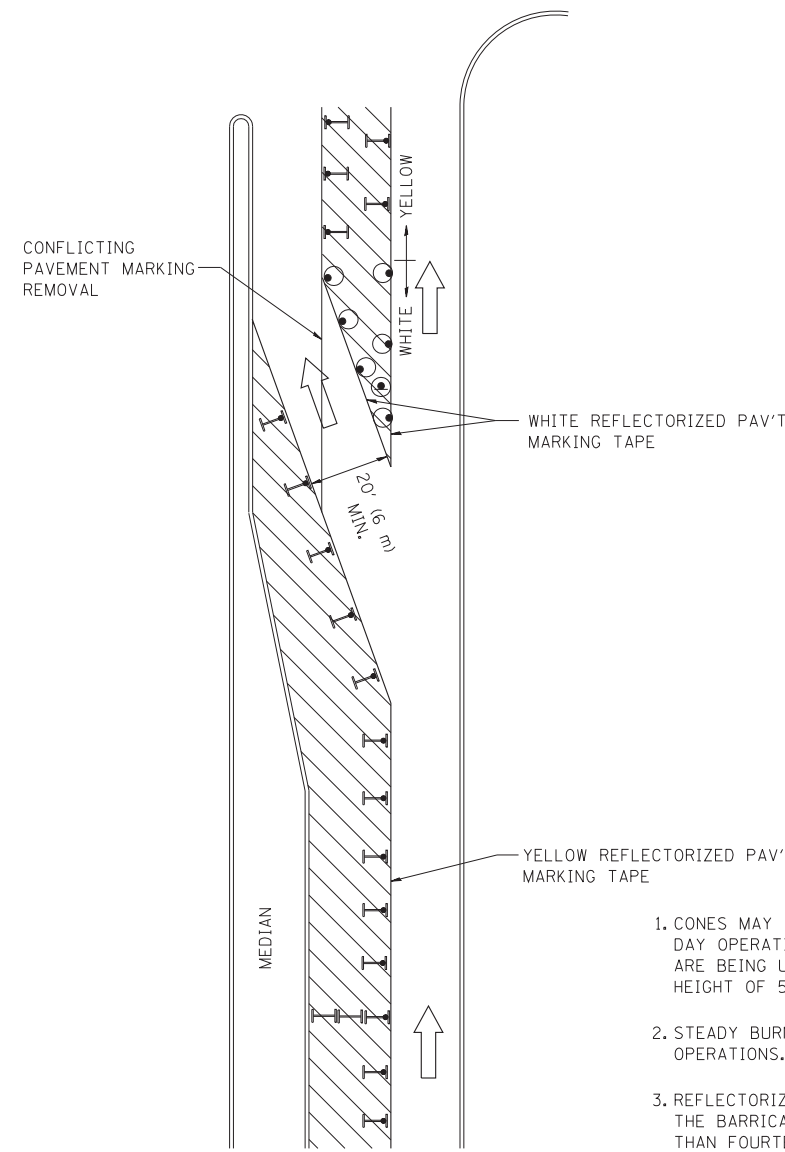
All dimensions are in inches (millimeters) unless otherwise shown.

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	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. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TC-13		507	359
CONTRACT NO.				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**GENERAL NOTES**

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM OPER 725 IS REQUIRED.
8. IF A DRUM OR TYPE II BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 PREQUIREMENTS.
9. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

**LEGEND**

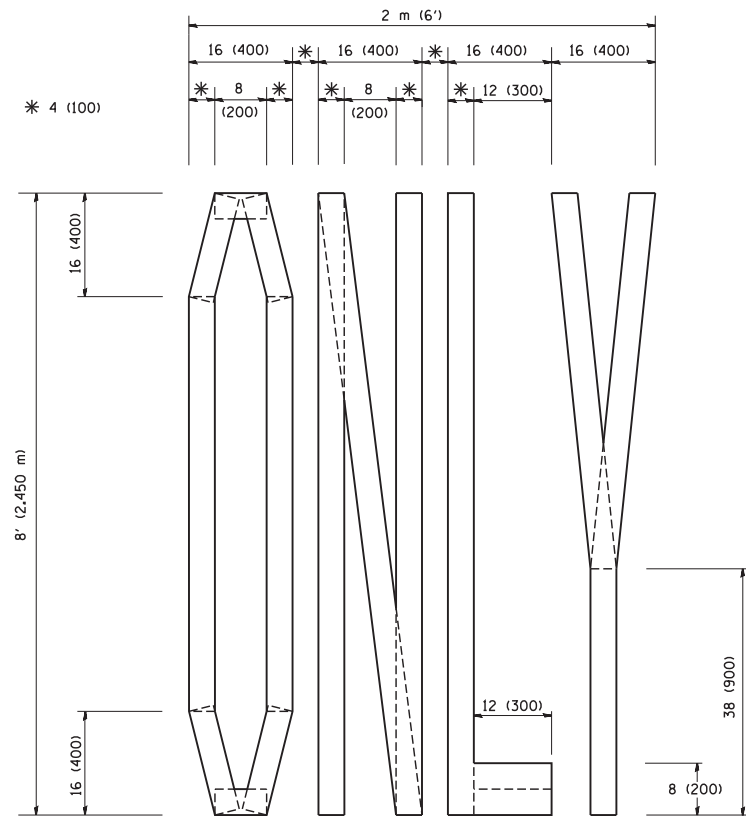
- WORK AREA
- LANE OPEN TO TRAFFIC
- TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
- DRUM WITH STEADY BURN LIGHT
- DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
- TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

FILE NAME =	USER NAME = drivakosgn	REVISED -T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09
ct:\pw\work\PWIDOT\DRIVAKOSGN\d0108315\14.dgn		REVISED - A. HOUSEH 11-07-95	REVISED -
		REVISED - A. HOUSEH 10-12-96	REVISED -
PLOT SCALE = 49.9999 ' / IN.		REVISED -T. RAMMACHER 01-06-00	REVISED -
PLOT DATE = 9/14/2009			

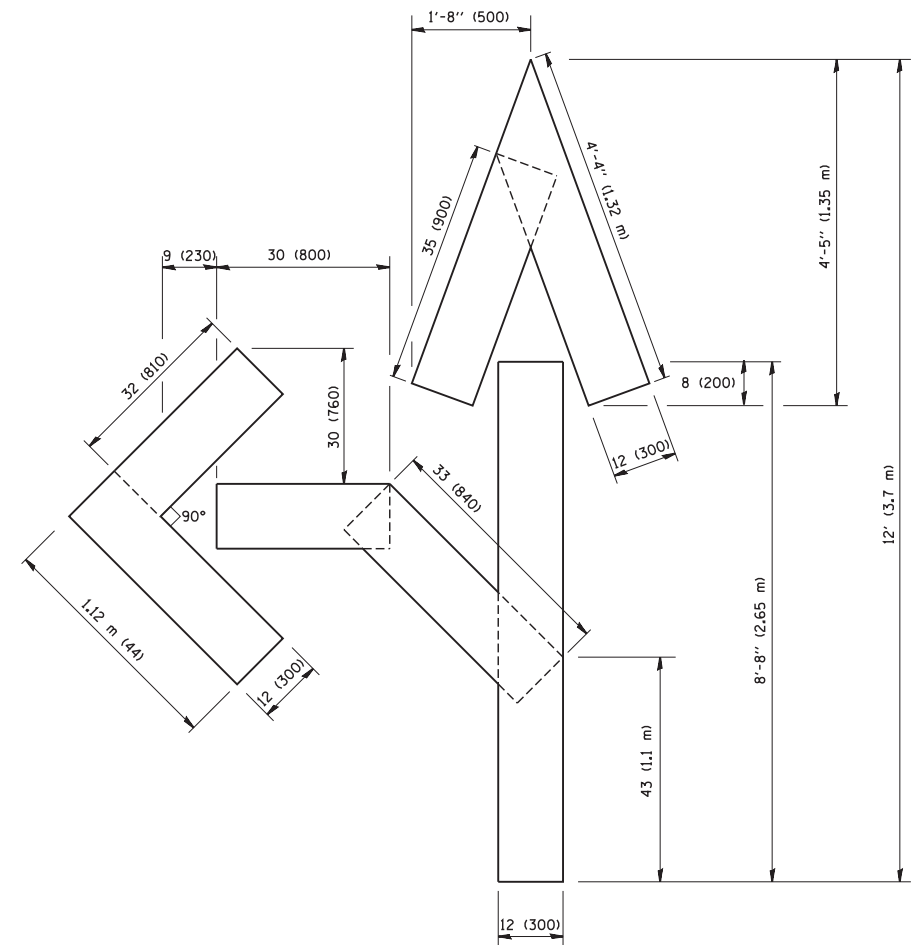
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

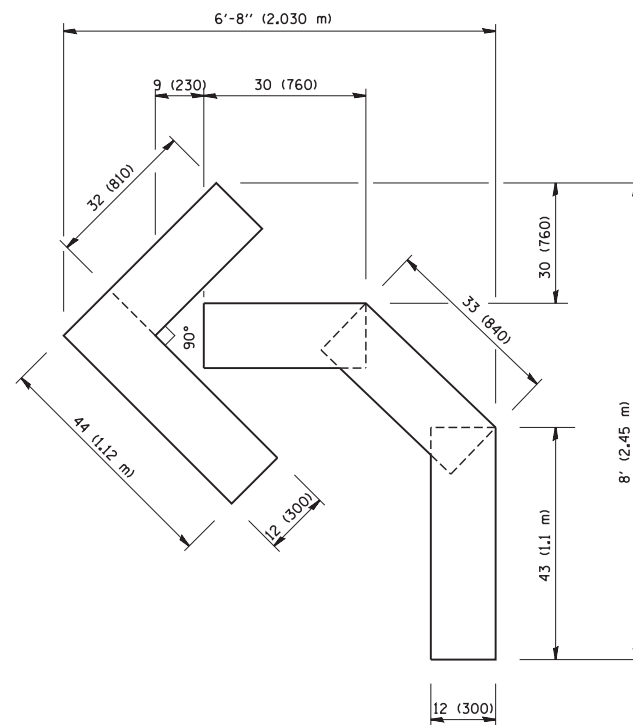
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			507	360
TC-14		CONTRACT NO.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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**

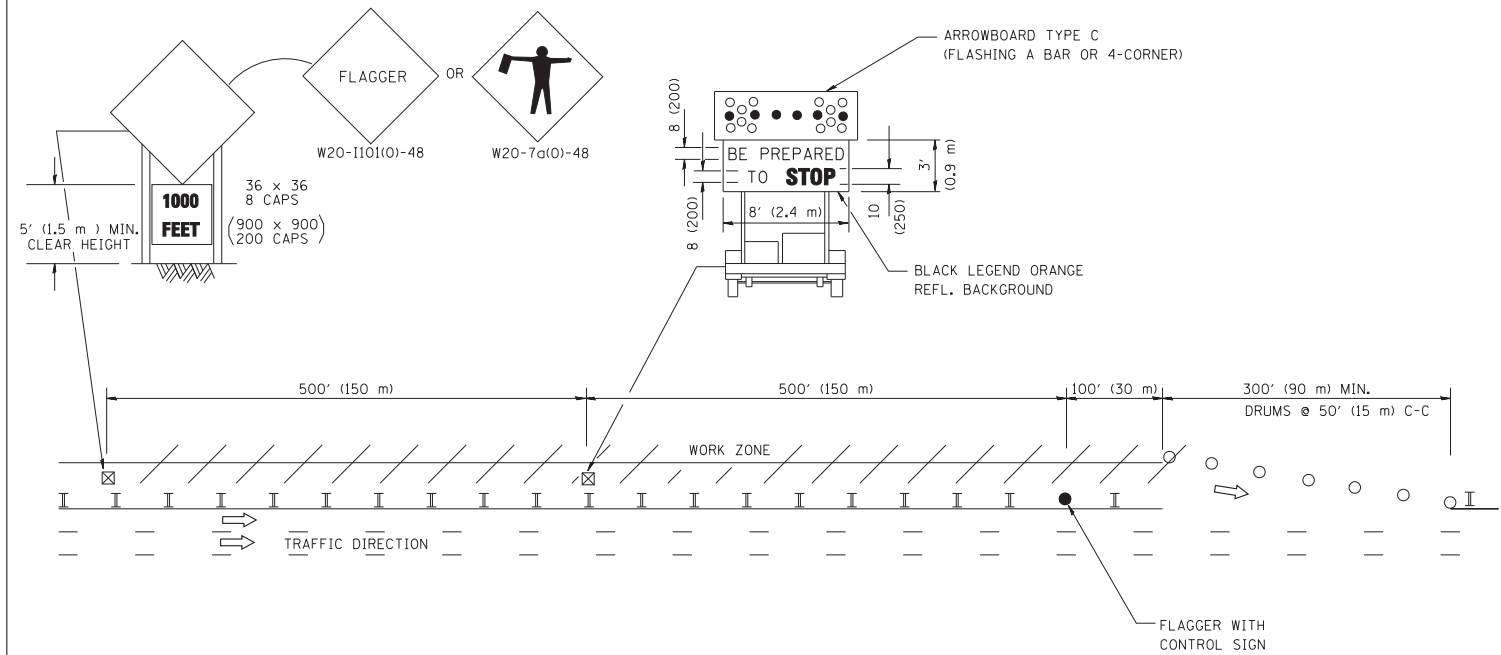
**PAVEMENT MARKING LETTERS AND SYMBOLS  
 FOR TRAFFIC STAGING**

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

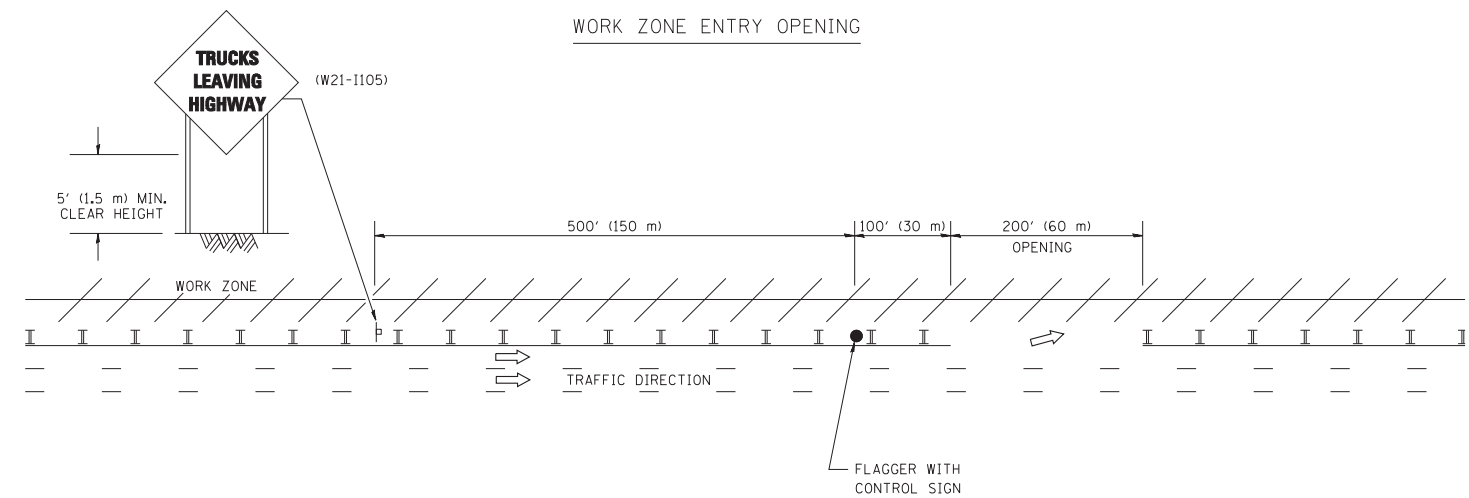
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			507	361
TC-16			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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

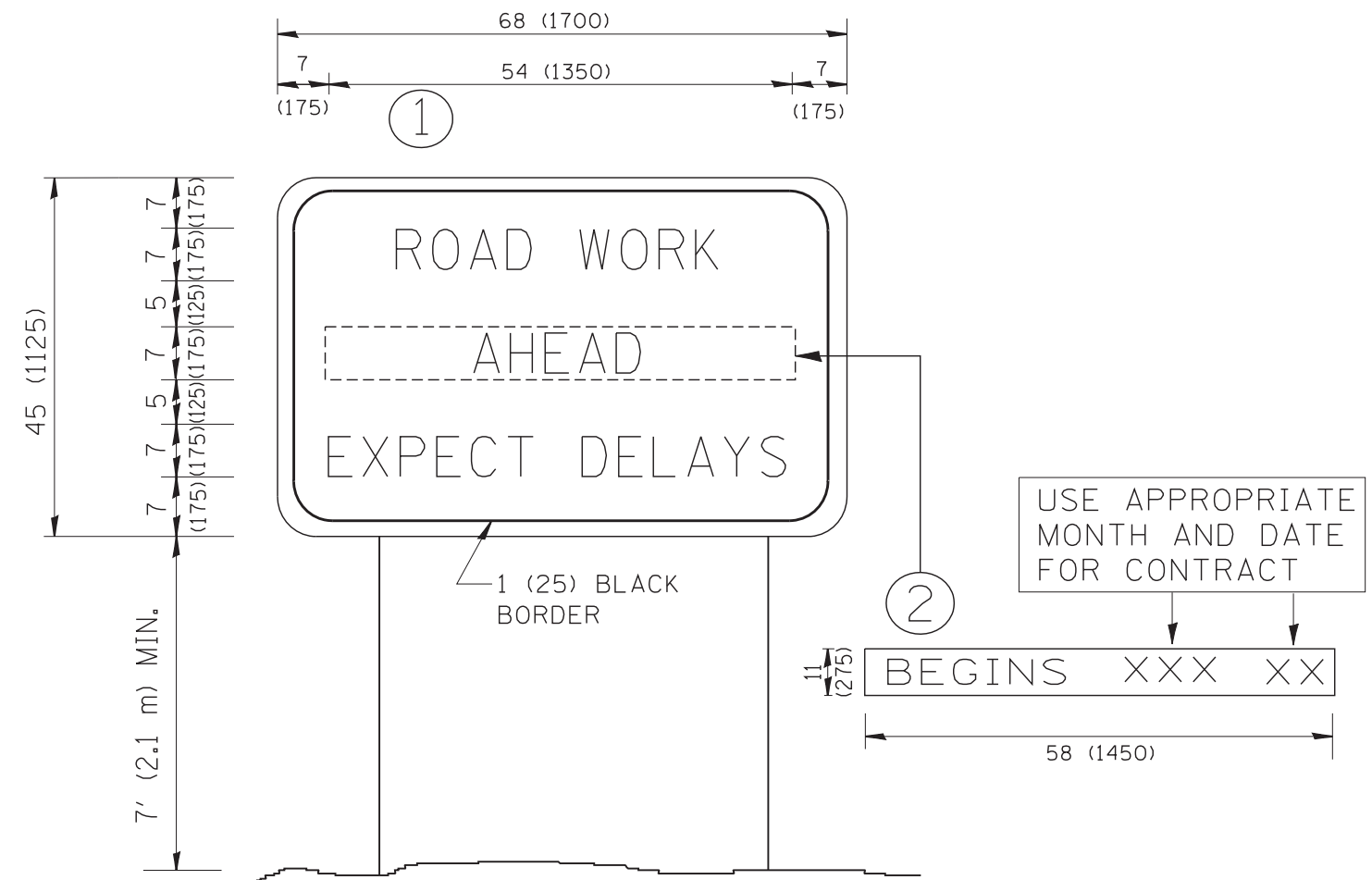
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		DRAWN -	REVISED - J.A.F. 02-06
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - S.P.B. 01-07
	PLOT DATE = 1/26/2010	DATE -	REVISED - S.P.B. 12-09

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. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TC-18		507	362
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO.	



**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 = gegl1onobt	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

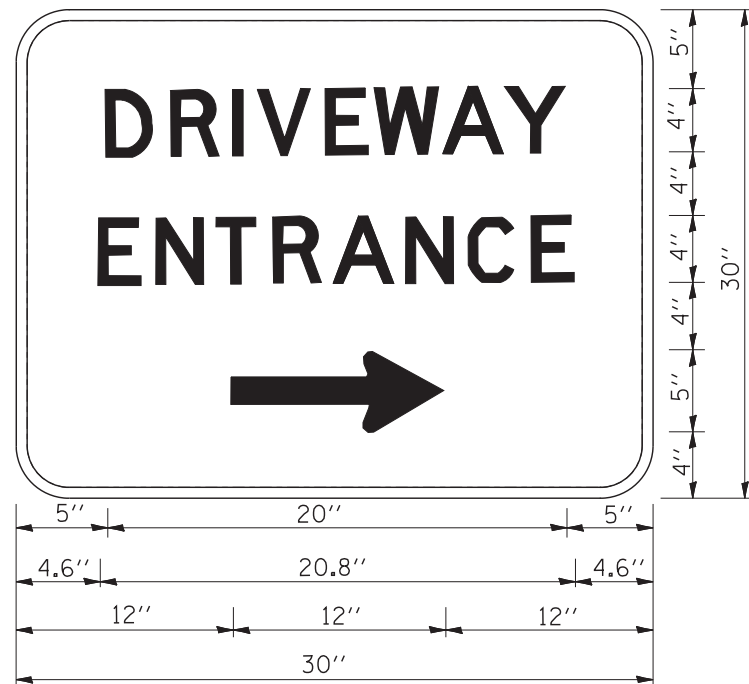
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD  
INFORMATION SIGN**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			507	363
TC-22			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				





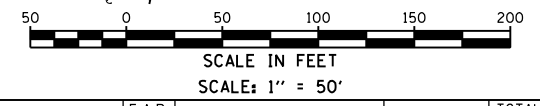
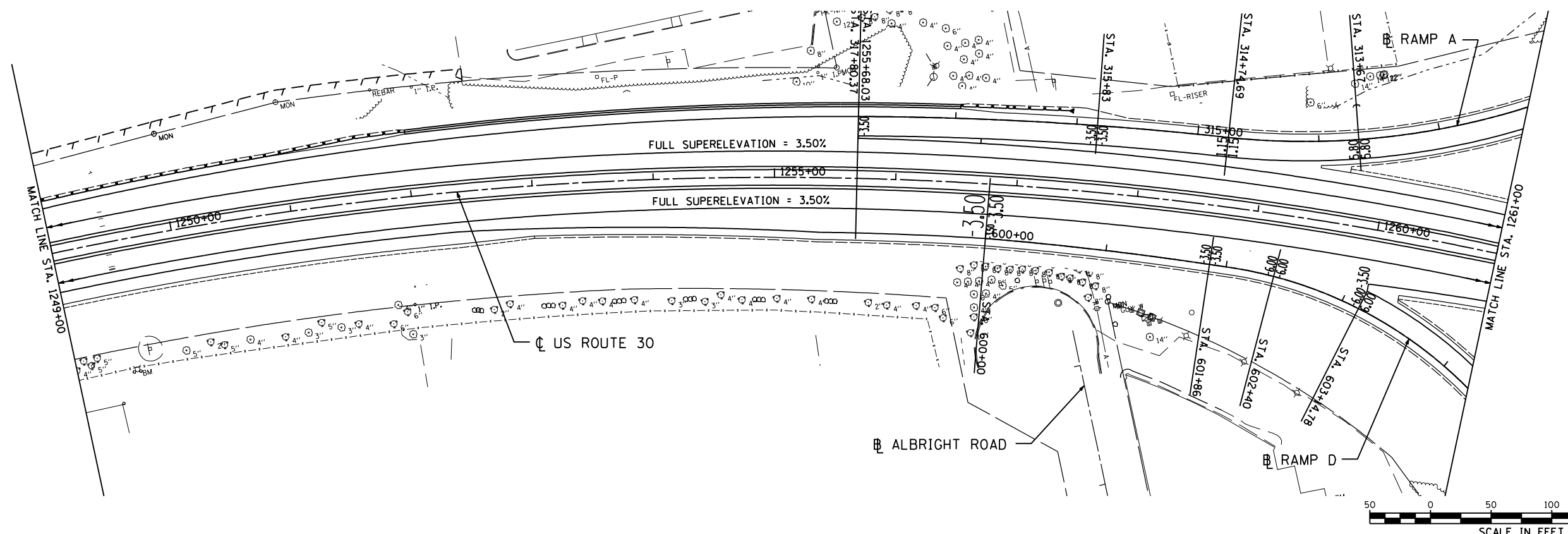
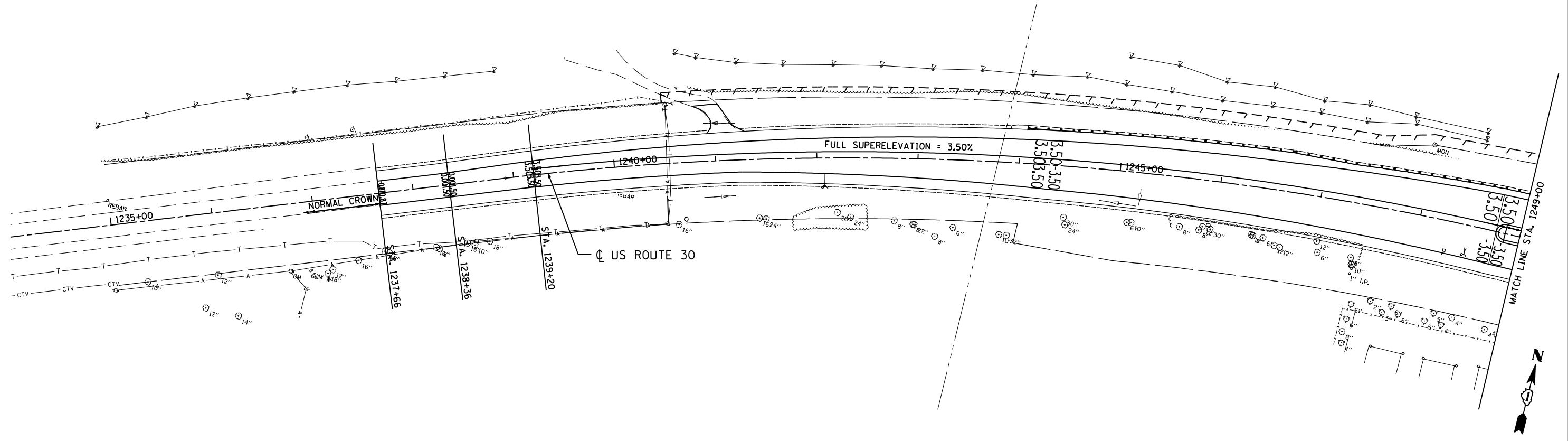
3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED  
 "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

**NOTES:**

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK; ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

FILE NAME = W:\diststd\22x34\tc26.dgn	USER NAME = gegl@nabt	DESIGNED - DRAWN -	REVISED - C. JUCIUS 02-15-07 REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DRIVEWAY ENTRANCE SIGNING</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	TC-26	CONTRACT NO.	507	364
PLOT DATE = 1/4/2008	DATE -	REVISED -	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							





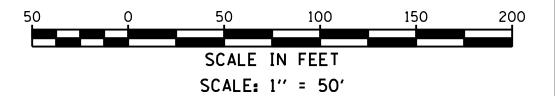
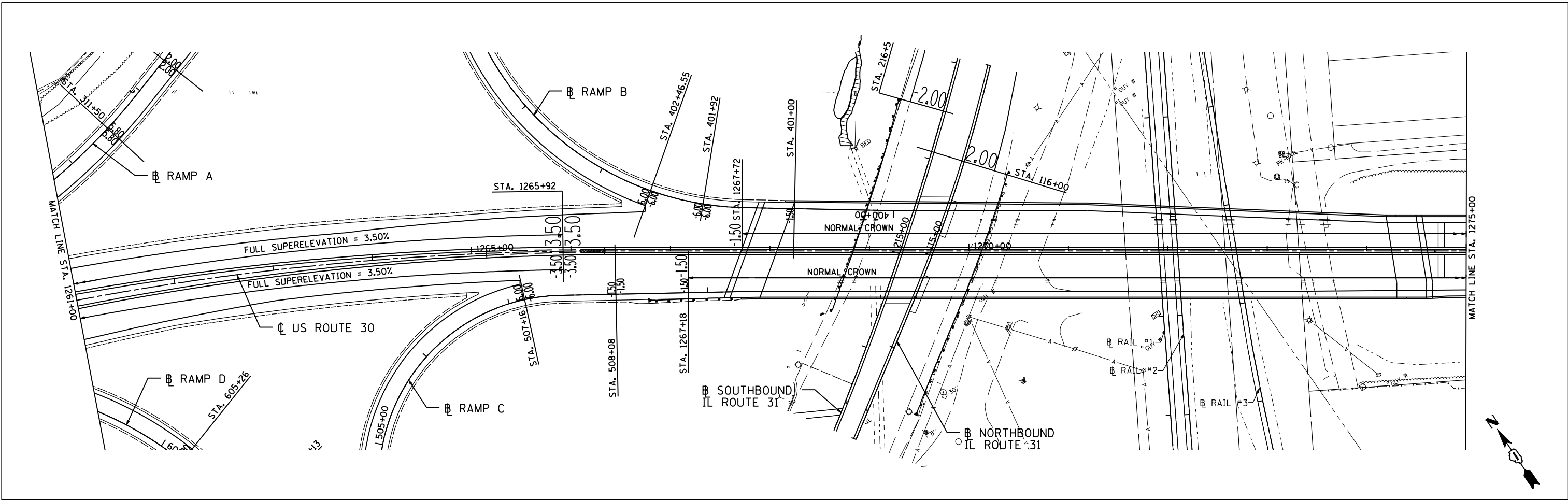
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PLOT SCALE = 100.0000' / IN.	CHECKED - RS	REVISED -
PLOT DATE = 6/15/2012	DATE - 06/15/2012	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>U.S. ROUTE 30 AT IL ROUTE 31</b> <b>SUPERELEVATION PLAN - US ROUTE 30</b>		
SCALE: 1"=50'	SHEET NO. SEP-1 OF 6	STA. 1234+00 TO STA. 1261+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	-	507	365
KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				



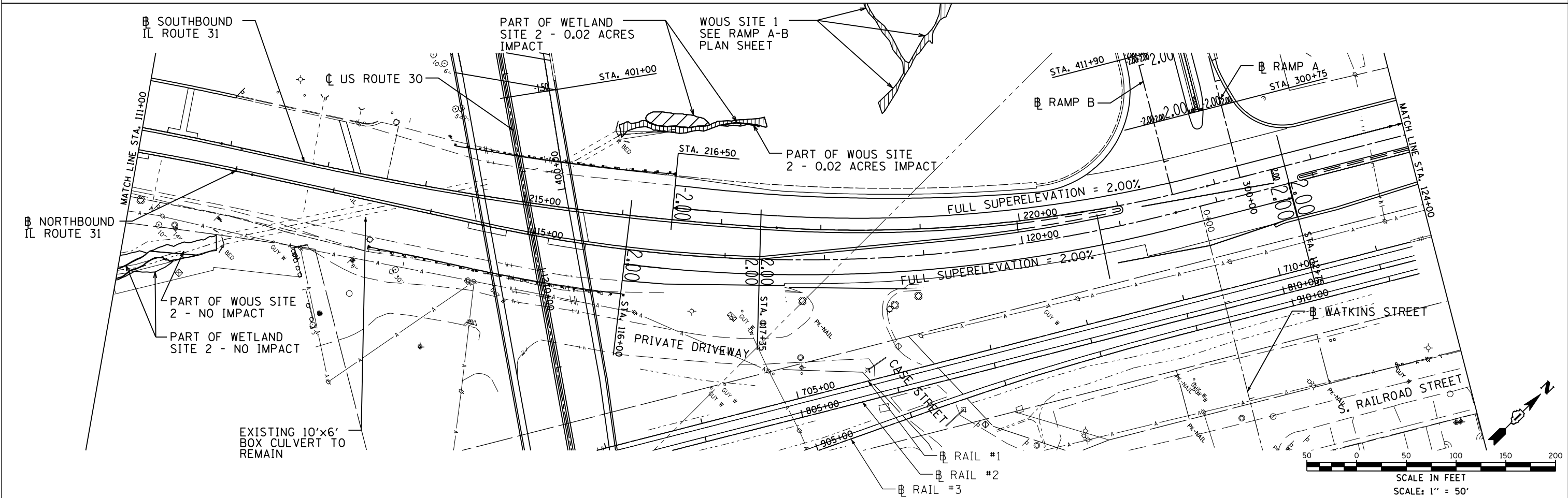
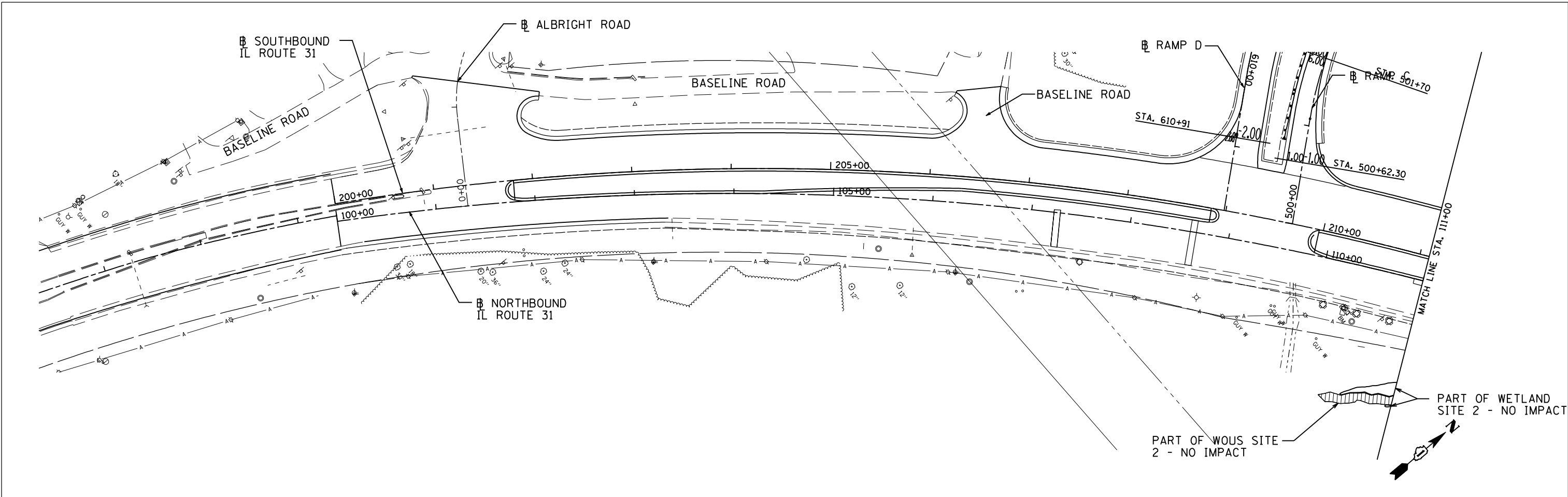
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PLOT SCALE = 100.0000' / IN.	CHECKED - RS	REVISED -
PLOT DATE = 5/16/2012	DATE - 05/11/2012	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>U.S. ROUTE 30 AT IL ROUTE 31 SUPERELEVATION PLAN - US ROUTE 30</b>		
SCALE: 1"=50'	SHEET NO. --	STA. 1261+00 TO STA. 1280+93

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	*	507	366
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				



5/15/2012 12:44:01 AM

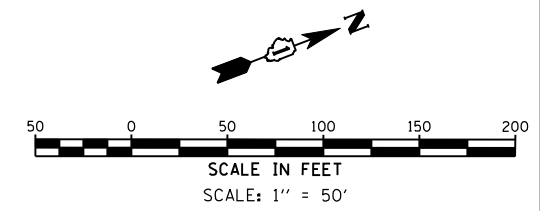
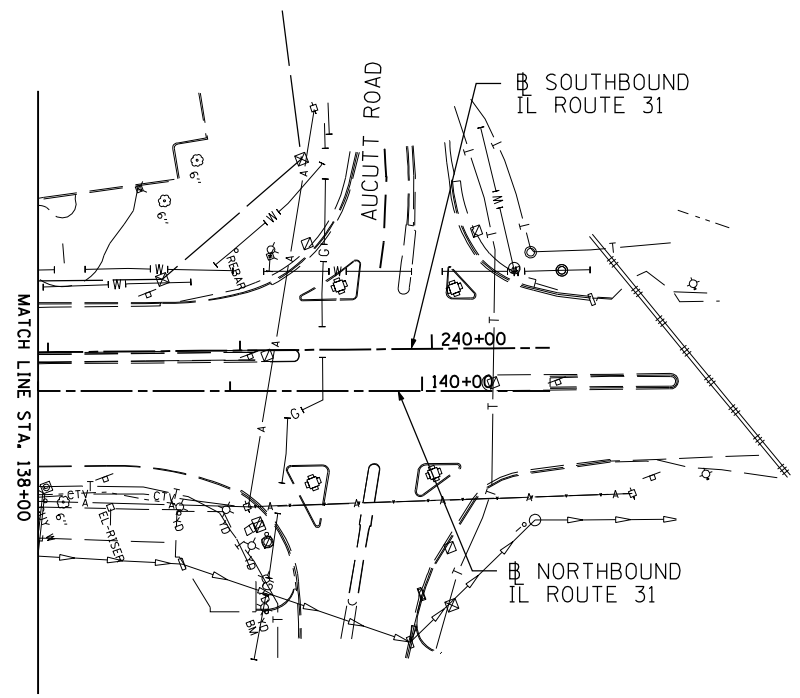
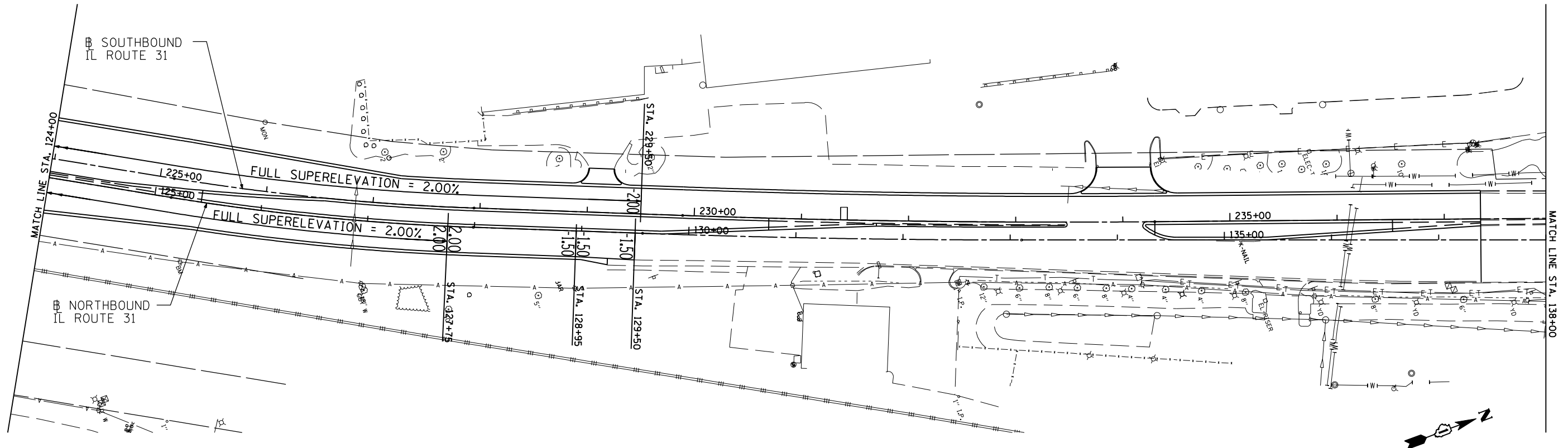
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PLOT DATE = 5/16/2012	DATE - 05/11/2012	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 AT IL ROUTE 31  
SUPERELEVATION PLAN - IL ROUTE 31**

SCALE: 1"=50'      SHEET NO. --      STA. 100+00 TO STA. 124+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	*	507	367
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				



\$FILE# 5/16/2012 12:44:09 AM

USER NAME = 1654	DESIGNED - JWB	REVISED -
	DRAWN - JWB	REVISED -
PLOT SCALE = 100.0000' / IN.	CHECKED - RS	REVISED -
PLOT DATE = 5/16/2012	DATE - 05/11/2012	REVISED -

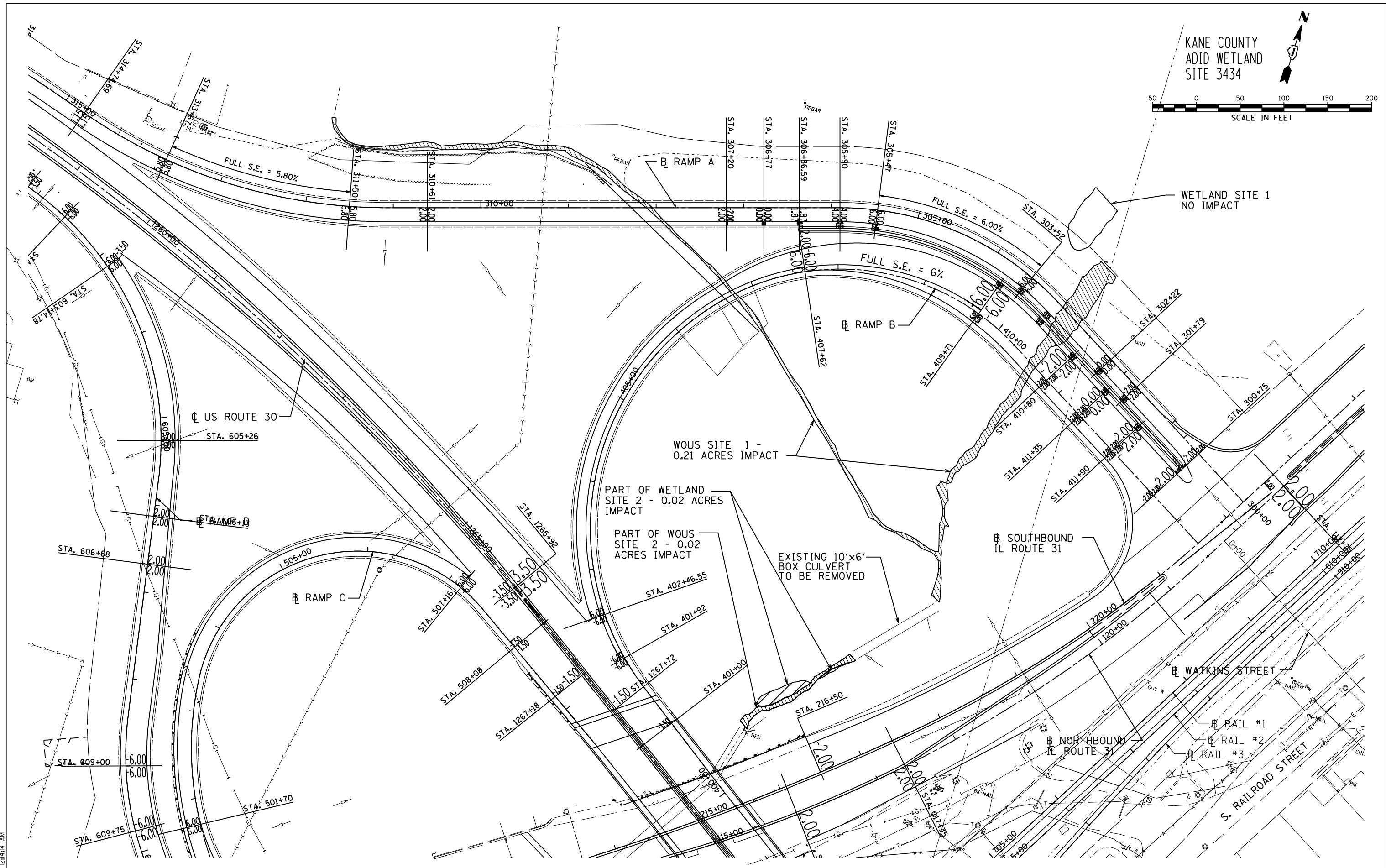
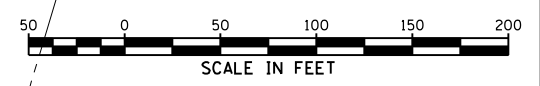
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 AT IL ROUTE 31  
SUPERELEVATION PLAN - IL RTE 31**

SCALE: 1"=50'      SHEET NO. --      STA. 124+00 TO STA. 140+67

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	*	507	368
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				

KANE COUNTY  
ADID WETLAND  
SITE 3434



5/16/2012 12:44:44 AM

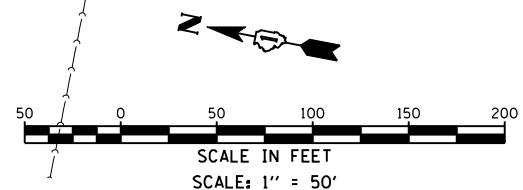
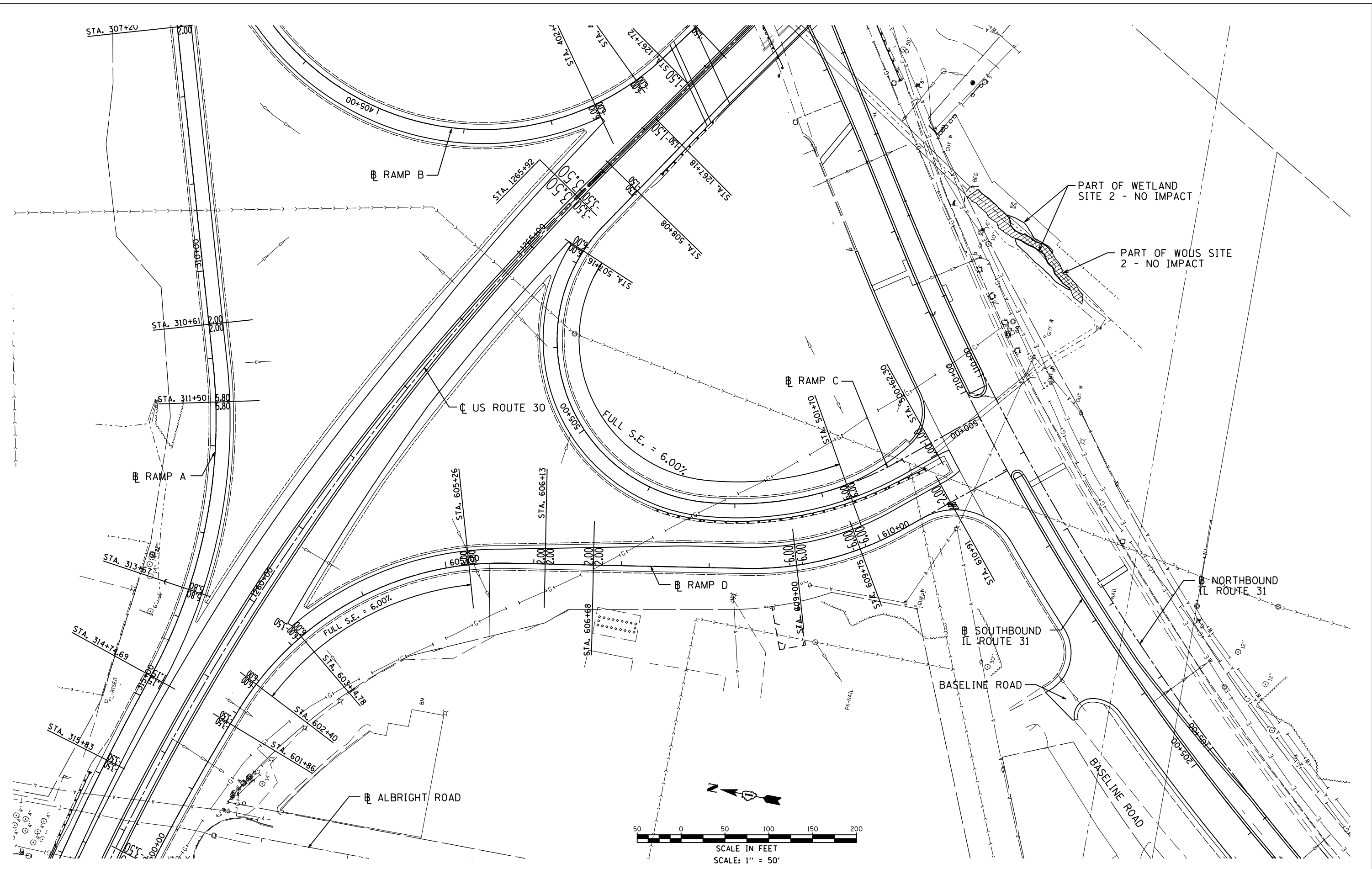
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PLOT DATE = 5/16/2012	DATE - 05/11/2012	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>U.S. ROUTE 30 AT IL ROUTE 31</b> <b>SUPERELEVATION PLAN - RAMP A AND RAMP B</b>	
SCALE: 1"=50'	SHEET NO. --
(RAMP A) STA. 300+00 TO STA. 314+75	(RAMP B) STA. 400+00 TO STA. 413+34

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3		507	369
KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				

\$FILE# 5/16/2012 12:44:22 AM



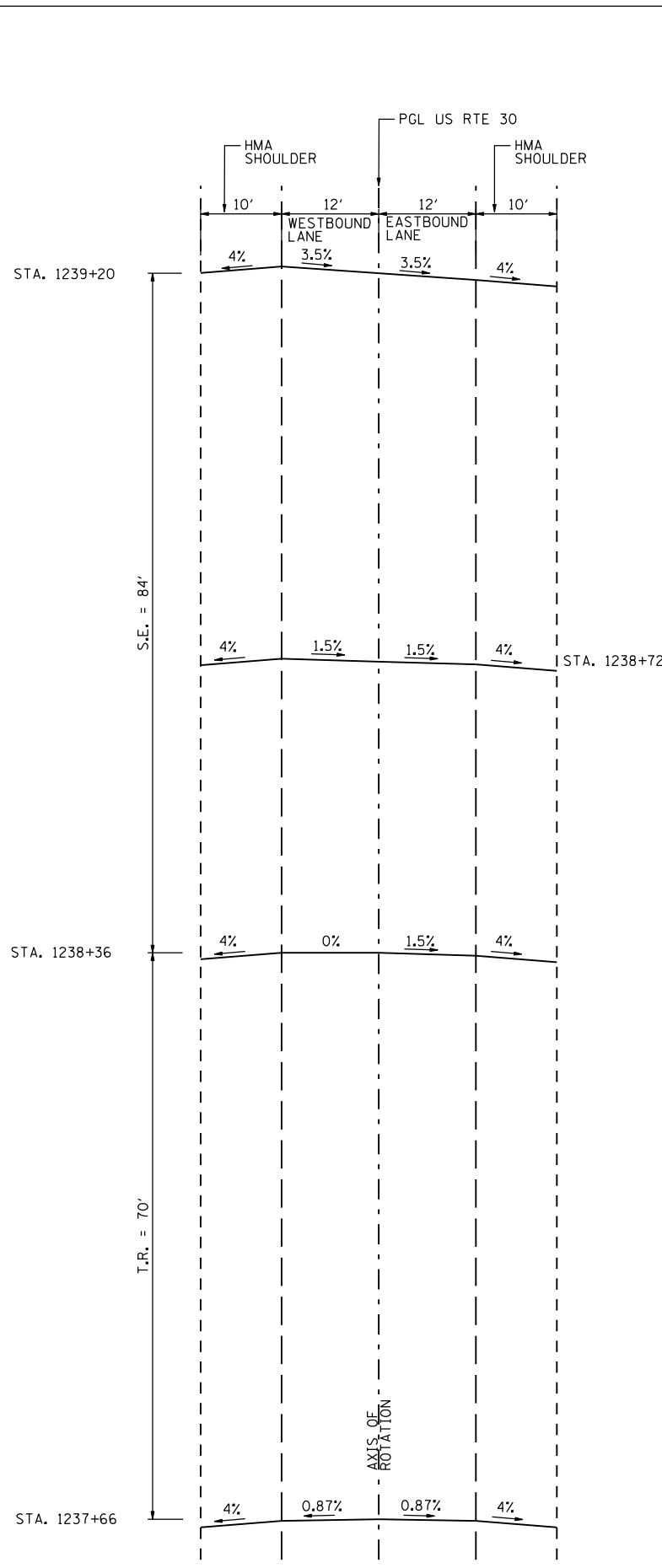
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

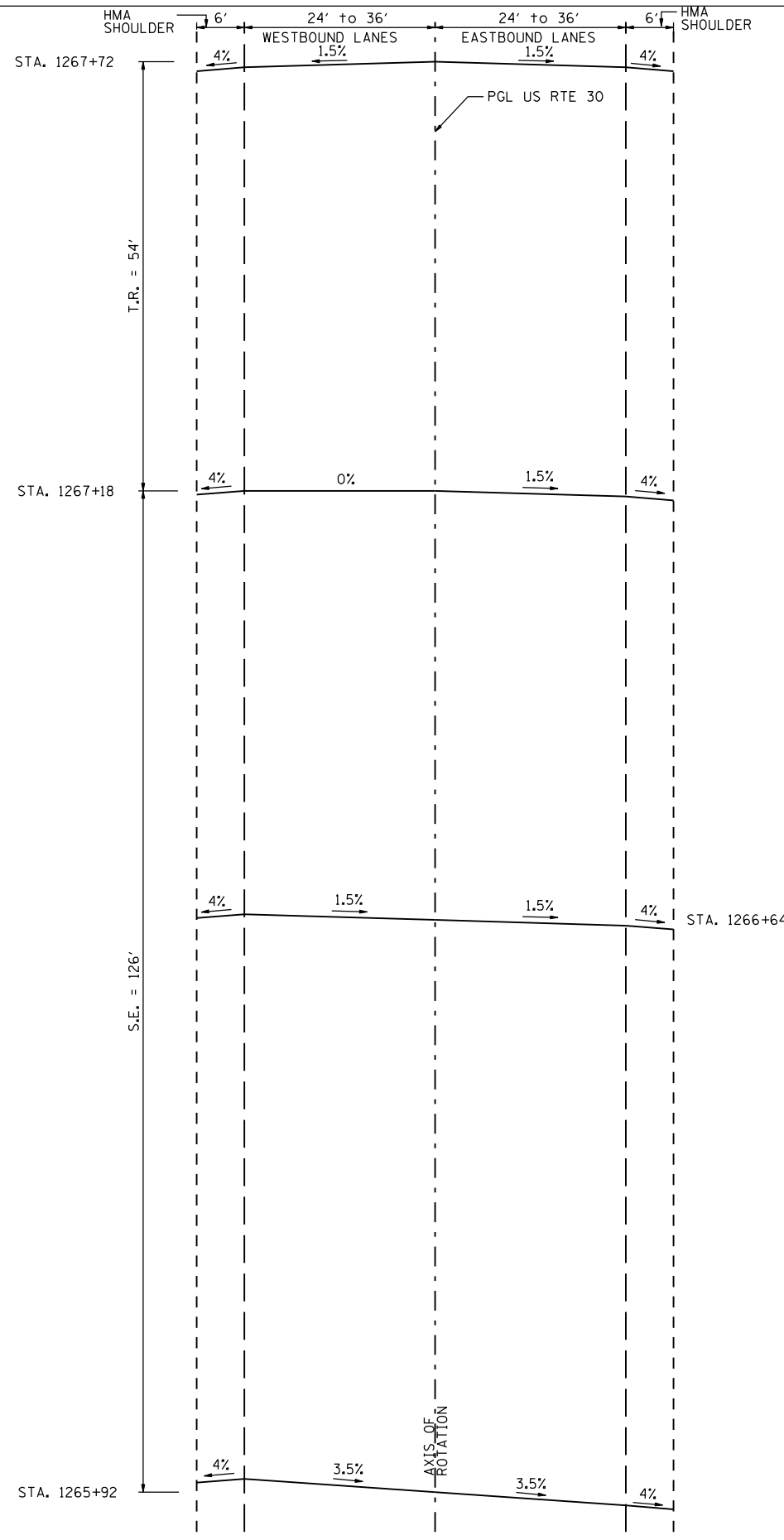
**U.S. ROUTE 30 AT IL ROUTE 31**  
**SUPERELEVATION PLAN - RAMP C AND RAMP D**  
 SCALE: 1"=50' SHEET NO. --

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	-	507	370
KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				

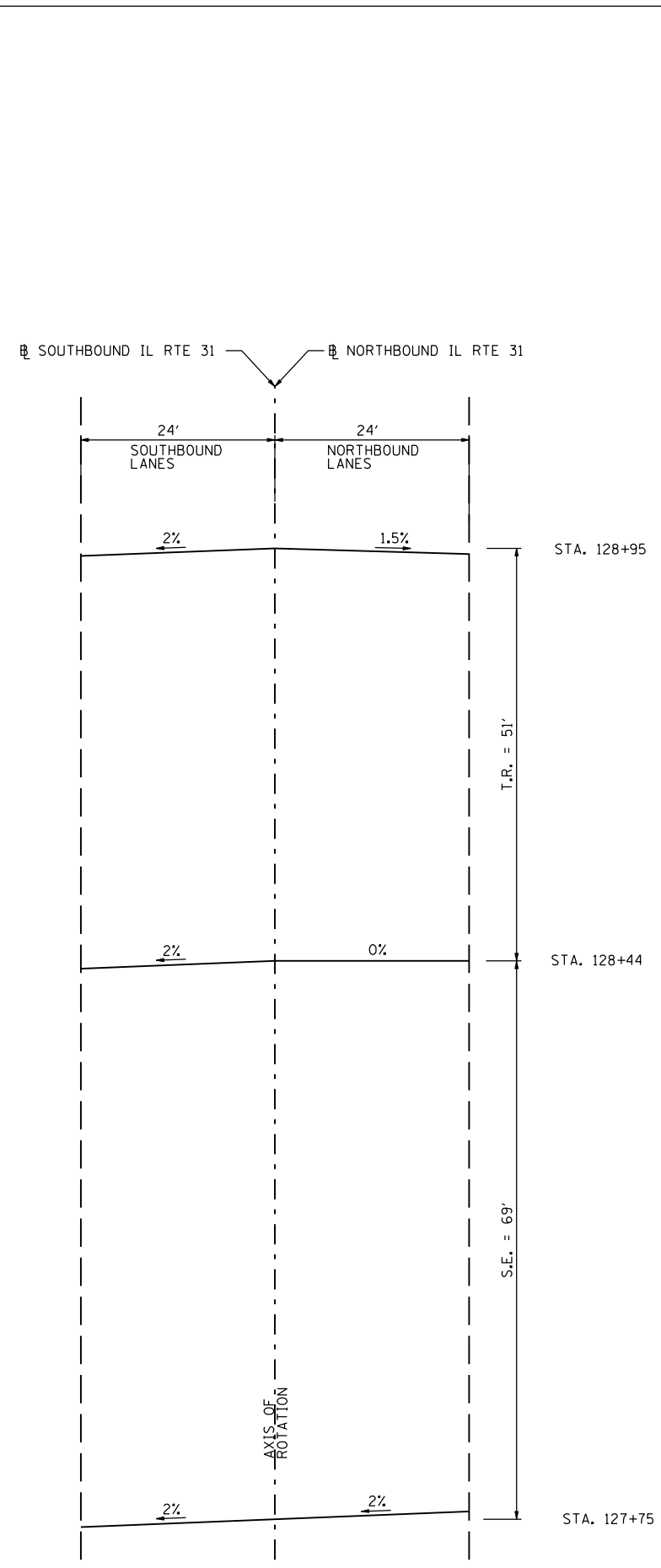
(RAMP C) STA. 500+00 TO STA. 507+52  
 (RAMP D) STA. 600+00 TO STA. 609+96



SUPERELEVATION TRANSITION SECTIONS AT US ROUTE 30  
CURVE 30-1



SUPERELEVATION TRANSITION SECTIONS AT US ROUTE 30  
CURVE 30-1



SUPERELEVATION TRANSITION SECTIONS AT IL ROUTE 31  
CURVE NB31-3

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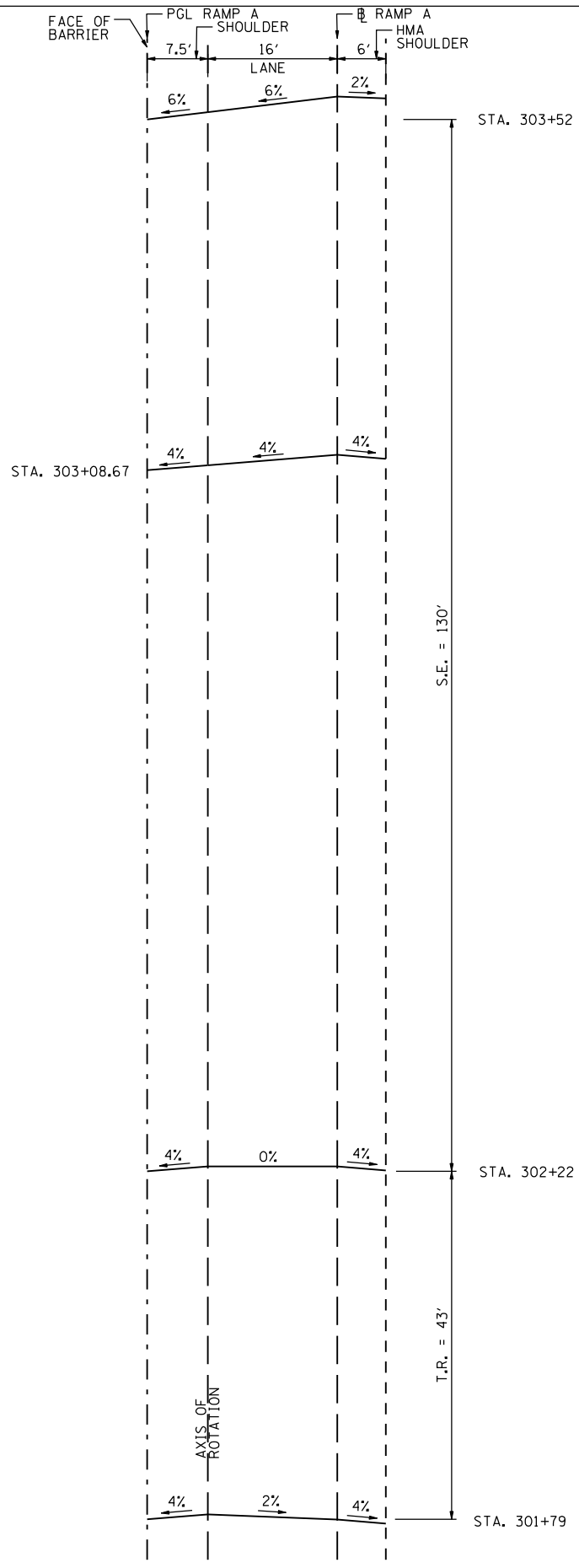
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DRAWN - JWB	REVISOR -	
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PLOT DATE = 6/15/2012	DATE - 06/15/2012	REVISOR -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

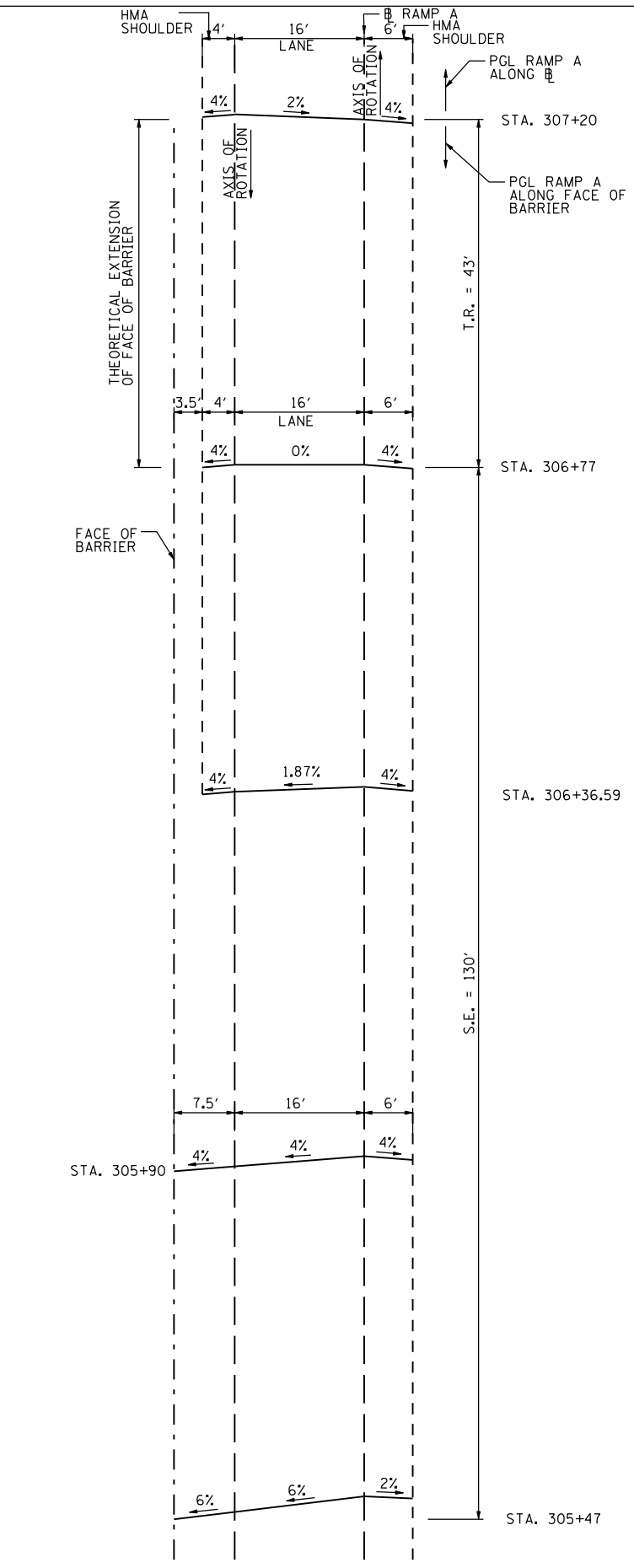
<b>U.S. ROUTE 30 AT IL ROUTE 31</b> <b>SUPERELEVATION TRANSITION SECTIONS - U.S. RTE 30 &amp; IL RTE 31</b>	
SCALE: N.T.S.	SHEET NO. SET-1 OF 5

F.A.P. RTE. 349	SECTION (10 & 11 VB) R-3	COUNTY *	TOTAL SHEETS 507	SHEET NO. 370A
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				

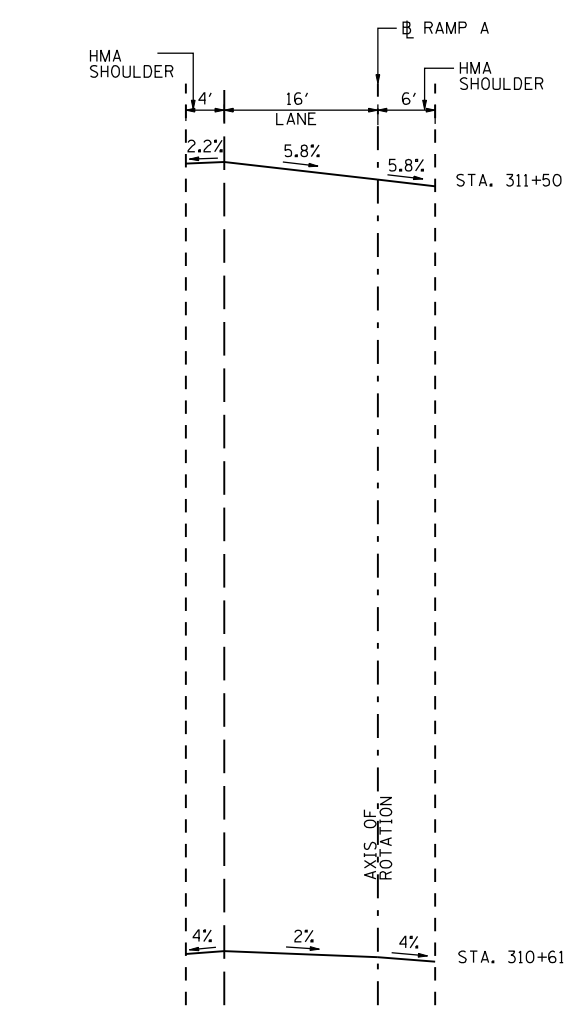
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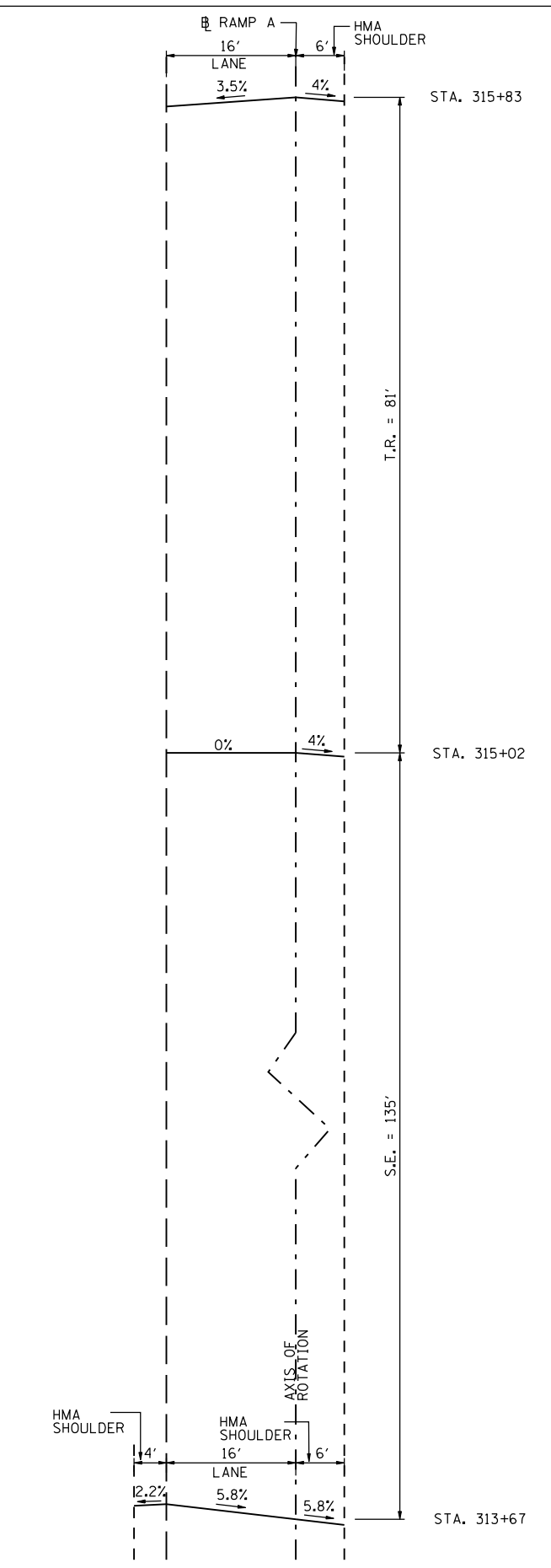
SUPERELEVATION TRANSITION SECTIONS AT RAMP A  
CURVE A-1



SUPERELEVATION TRANSITION SECTIONS AT RAMP A  
CURVE A-1



SUPERELEVATION TRANSITION SECTIONS AT RAMP A  
CURVE A-2



SUPERELEVATION TRANSITION SECTIONS AT RAMP A  
CURVE A-2

USER NAME = 1654	DESIGNED - JWB	REVISED -
DRAWN - JWB	REVISED -	
PLOT SCALE = 20.0000' / IN.	CHECKED - RS	REVISED -
PLOT DATE = 6/15/2012	DATE - 06/15/2012	REVISED -

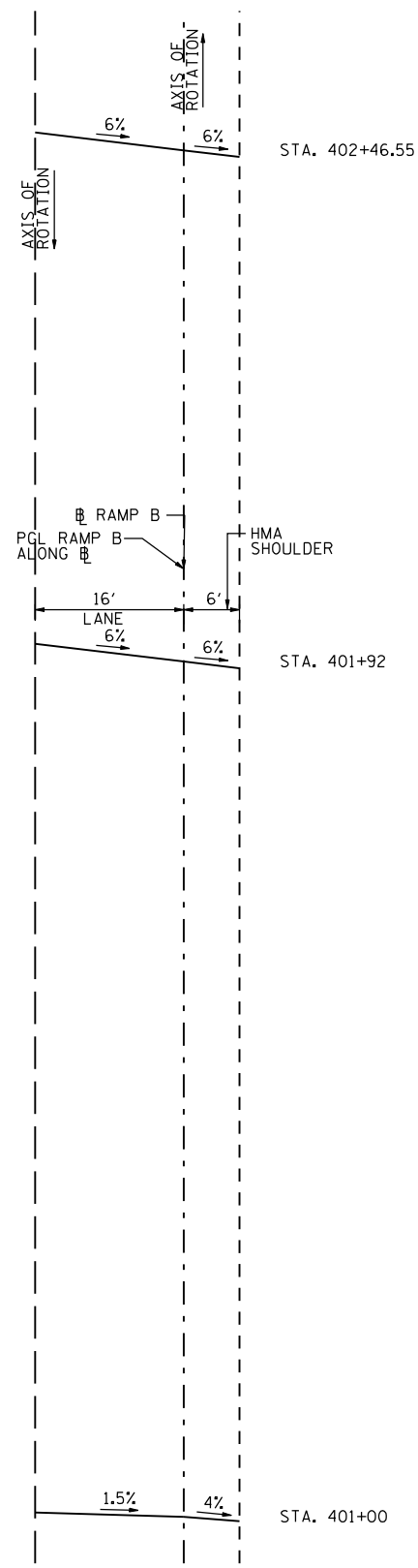
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 AT IL ROUTE 31**  
**SUPERELEVATION TRANSITION SECTIONS - RAMP A**  
 SCALE: N.T.S. SHEET NO. SET-2 OF 5

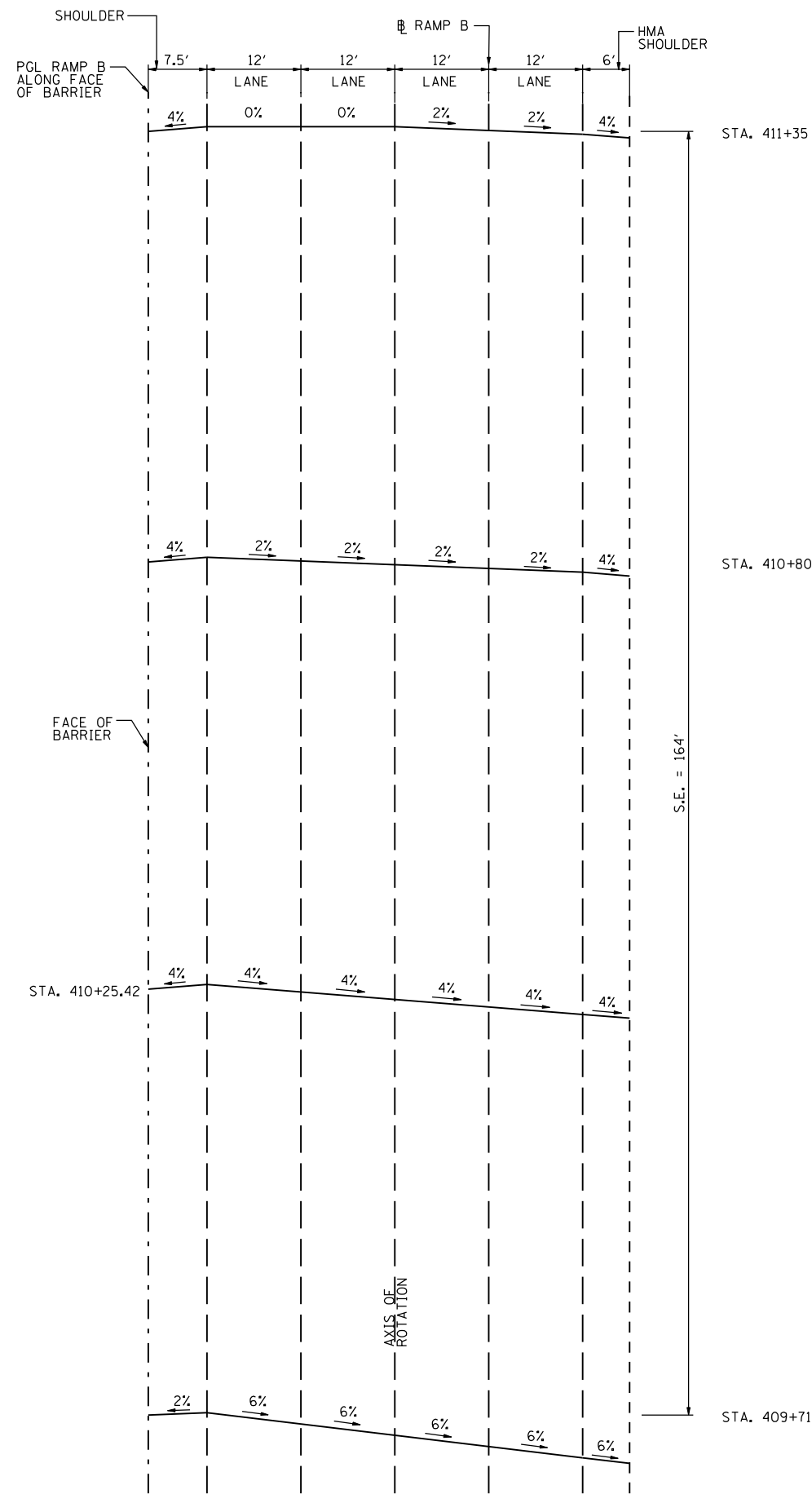
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	*	507	370B
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				



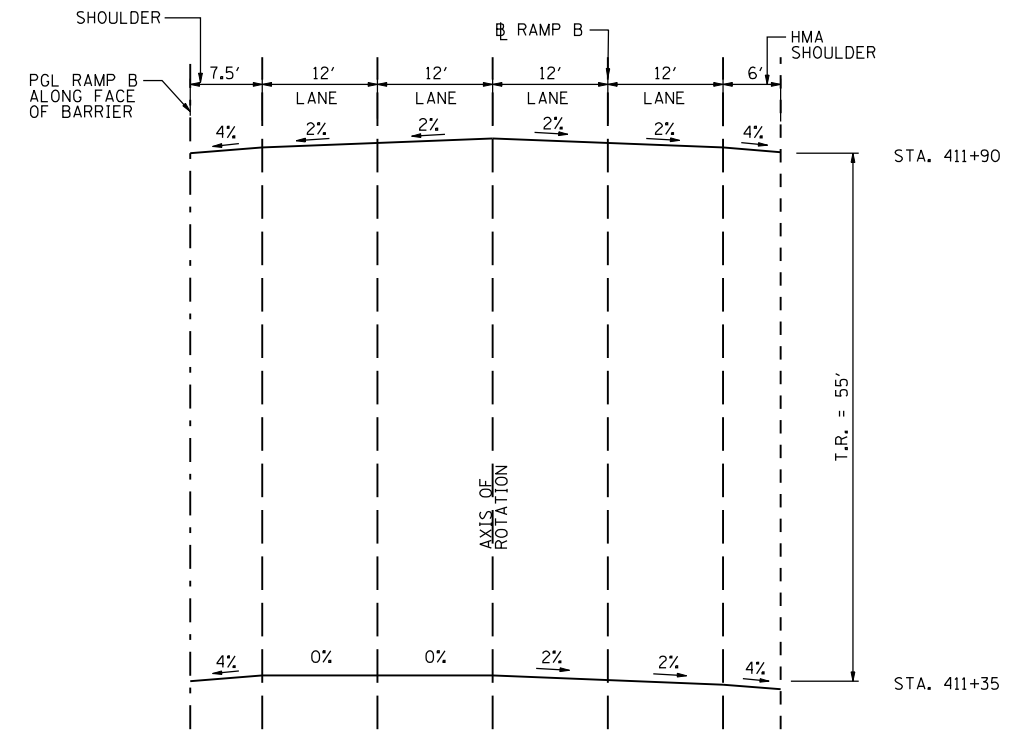
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SUPERELEVATION TRANSITION SECTIONS AT RAMP B  
CURVE B-1



SUPERELEVATION TRANSITION SECTIONS AT RAMP B  
CURVE B-2



SUPERELEVATION TRANSITION SECTIONS AT RAMP B  
CURVE B-2

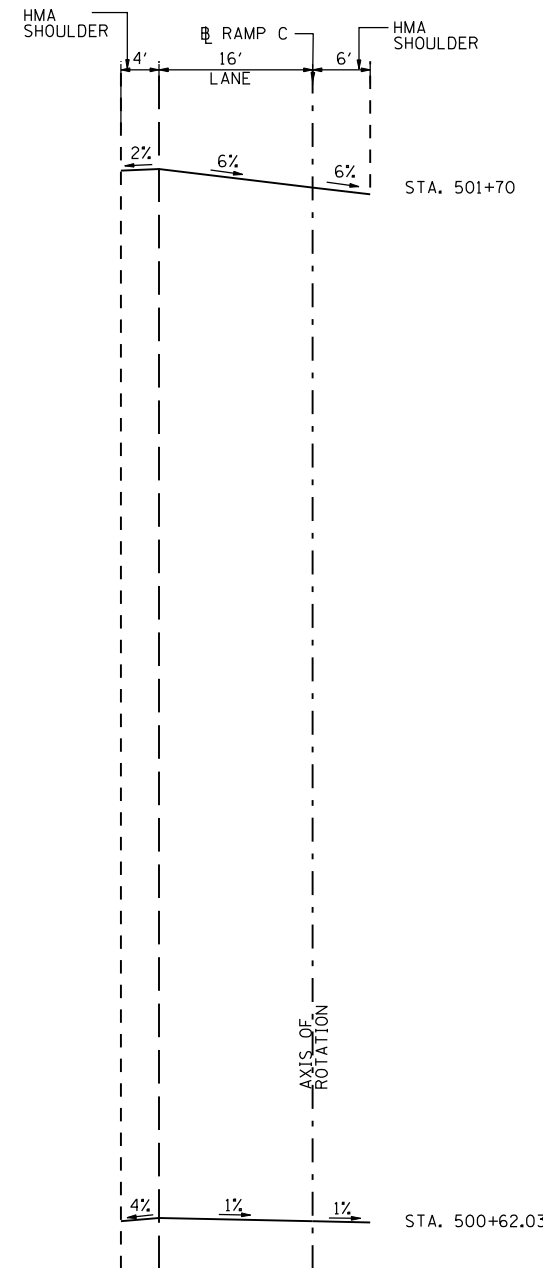
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PLOT DATE = 6/15/2012	DATE - 06/15/2012	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

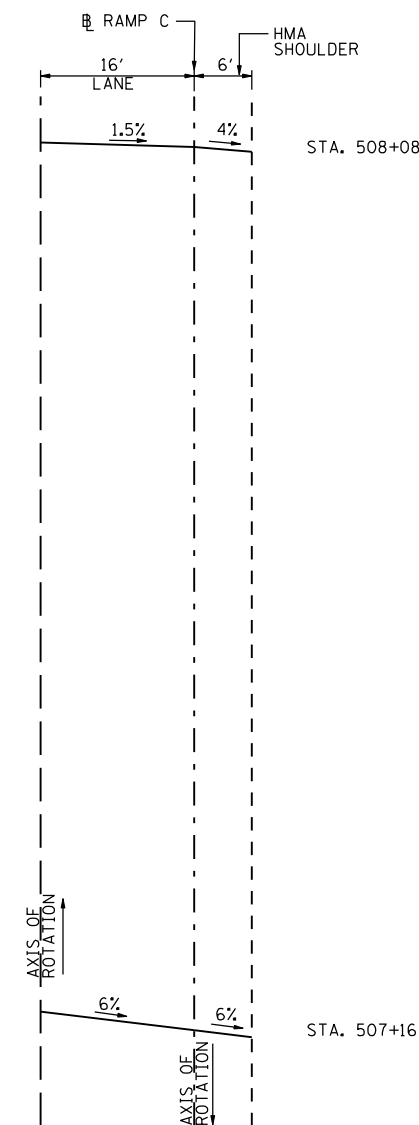
<b>U.S. ROUTE 30 AT IL ROUTE 31 SUPERELEVATION TRANSITION SECTIONS - RAMP B</b>	
SCALE: N.T.S.	SHEET NO. SET-3 OF 5

F.A.P. RTE. 349	SECTION (10 & 11 VB) R-3	COUNTY *	TOTAL SHEETS 507	SHEET NO. 370C
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				

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SUPERELEVATION TRANSITION SECTIONS AT RAMP C  
CURVE C-1



SUPERELEVATION TRANSITION SECTIONS AT RAMP C  
CURVE C-2

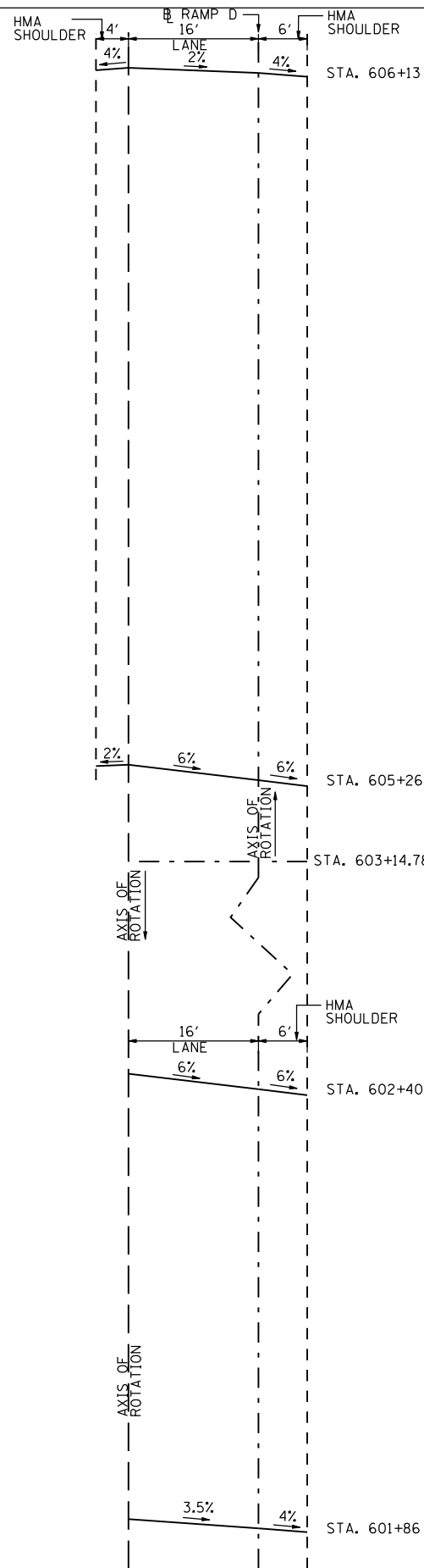
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PLOT DATE = 6/15/2012	DATE - 06/15/2012	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

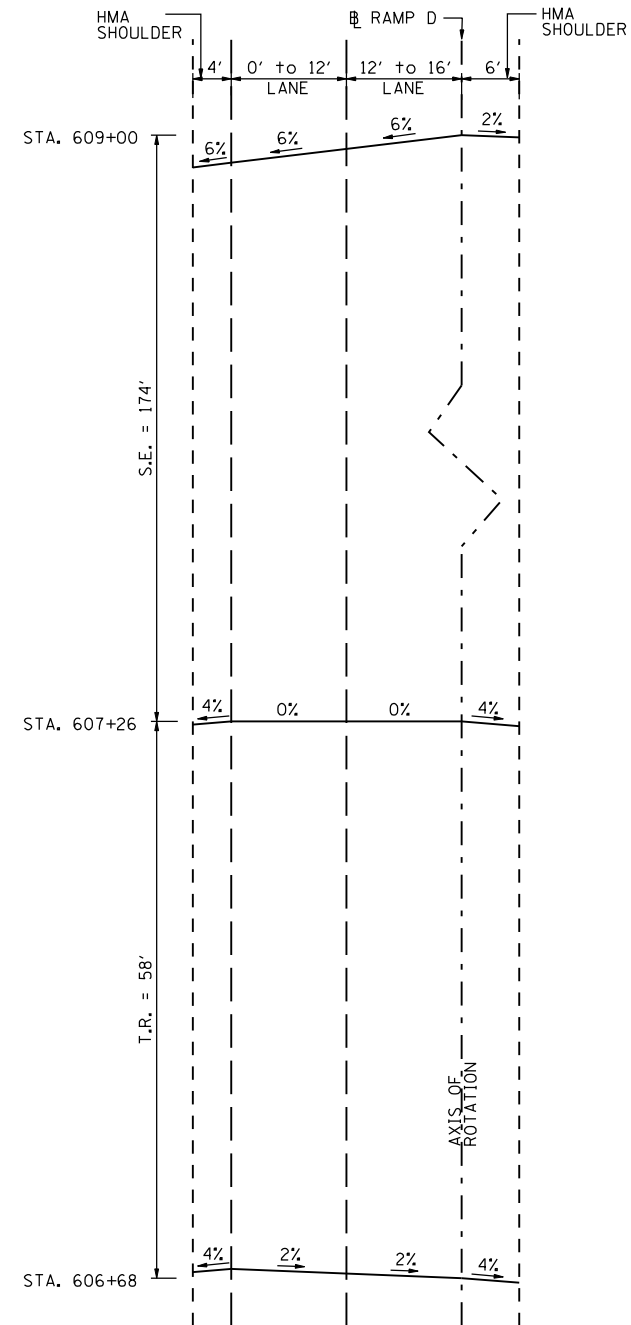
**U.S. ROUTE 30 AT IL ROUTE 31  
SUPERELEVATION TRANSITION SECTIONS - RAMP C**

SCALE: N.T.S. SHEET NO. SET-4 OF 5

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	*	507	370D
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				



SUPERELEVATION TRANSITION SECTIONS AT RAMP D  
CURVE D-1 AND D-2



SUPERELEVATION TRANSITION SECTIONS AT RAMP D  
CURVE D-3

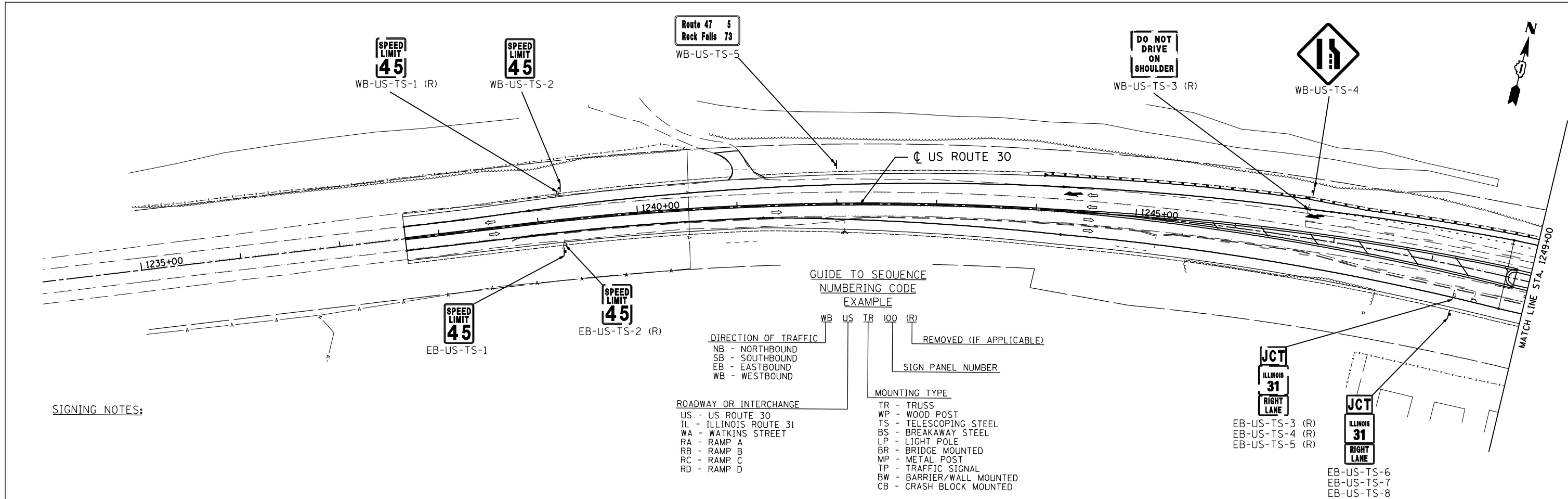
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PLOT DATE = 6/15/2012	DATE - 06/15/2012	REVISED -

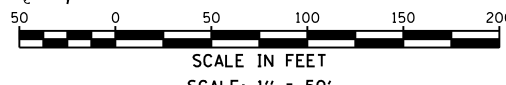
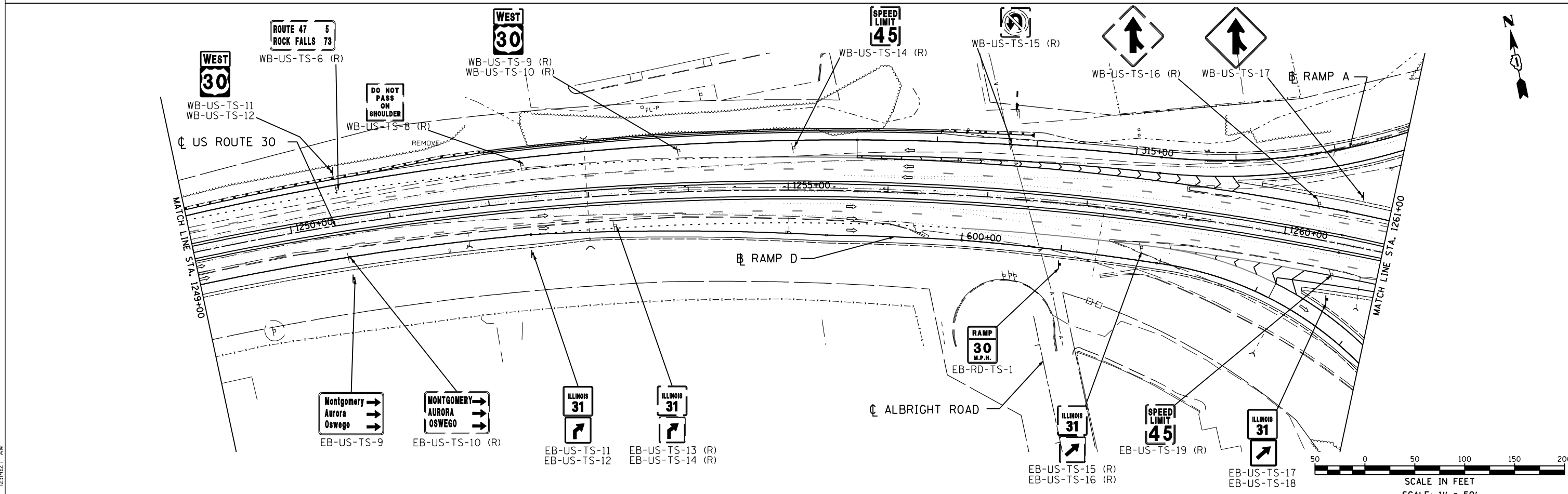
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>U.S. ROUTE 30 AT IL ROUTE 31 SUPERELEVATION TRANSITION SECTIONS - RAMP D</b>	
SCALE: N.T.S.	SHEET NO. SET-5 OF 5

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	*	507	370E
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				



SIGNING NOTES:



5/16/2012 12:44:27 AM

**GRÄEF**  
 8501 W. Higgins Road, Suite 280  
 Chicago, Illinois 60631; (773) 399-0112

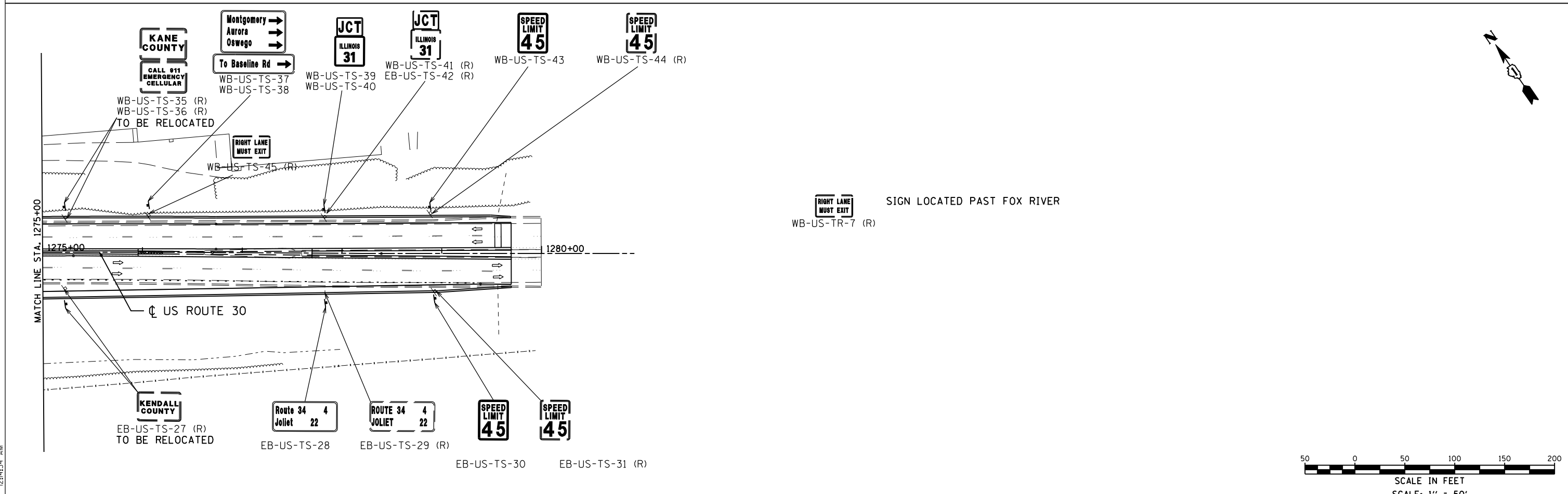
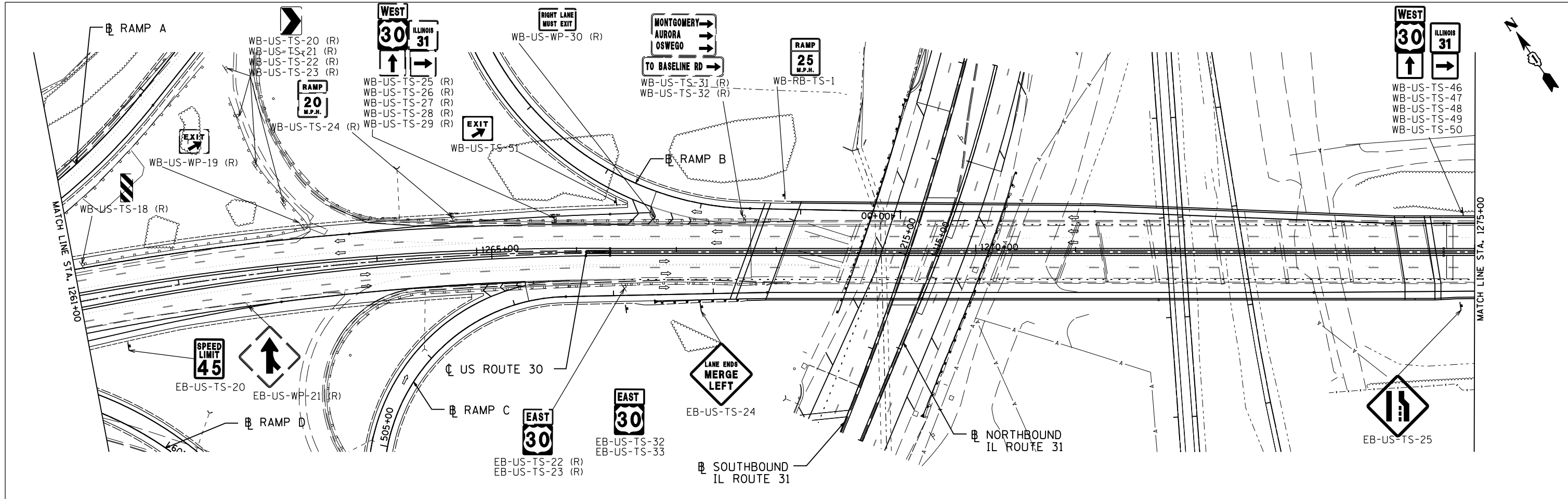
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PLOT DATE = 5/16/2012	CHECKED - RS	REVISED -
	DATE - 05/11/2012	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 AT IL ROUTE 31  
 SIGNING PLAN - U.S. ROUTE 30**

SCALE: 1"=50' SHEET NO. -- STA. 1234+00 TO STA. 1261+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	*	507	371-
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				



5/16/2012 12:41:34 AM

USER NAME = 1654	DESIGNED - JWB	REVISED -
	DRAWN - JWB	REVISED -
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PLOT DATE = 5/16/2012	DATE - 05/11/2012	REVISED -

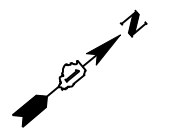
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 AT IL ROUTE 31  
SIGNING PLAN - U.S. ROUTE 30**

SCALE: 1"=50'      SHEET NO. --      STA. 1261+00 TO 1280+93

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	*	507	372-
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				



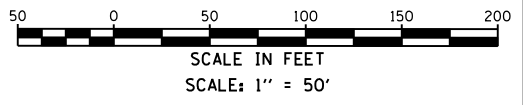
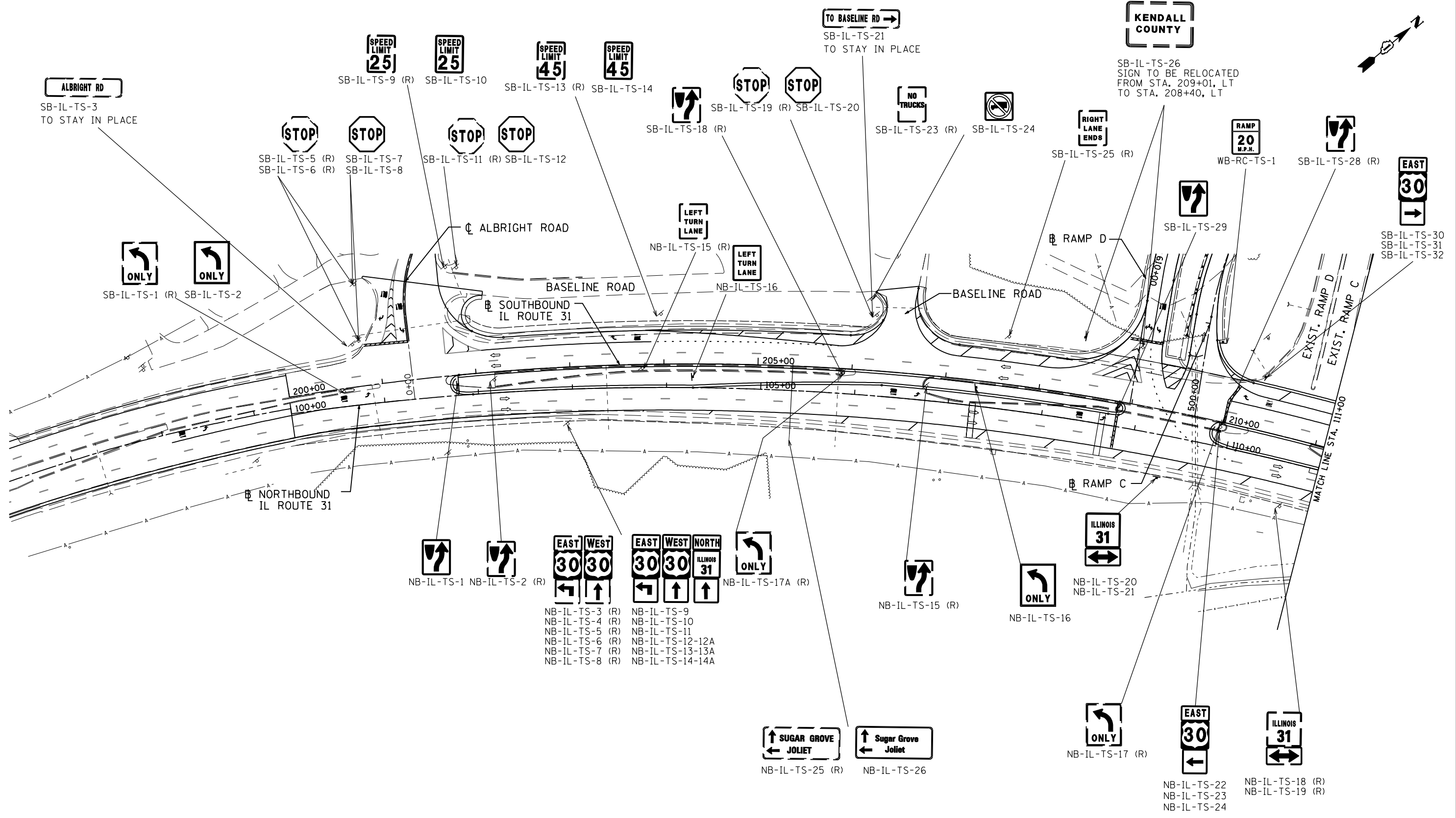


**KENDALL COUNTY**

SB-IL-TS-26  
SIGN TO BE RELOCATED  
FROM STA. 209+01, LT  
TO STA. 208+40, LT

TO BASELINE RD →  
SB-IL-TS-21  
TO STAY IN PLACE

ALBRIGHT RD  
SB-IL-TS-3  
TO STAY IN PLACE



5/16/2012 12:44:41 AM

**GRÄEF**  
8501 W. Higgins Road, Suite 280  
Chicago, Illinois 60631; (773) 399-0112

USER NAME = 1654	DESIGNED - JWB	REVISED -
	DRAWN - JWB	REVISED -
PLOT SCALE = 100.0000' / IN.	CHECKED - RS	REVISED -
PLOT DATE = 5/16/2012	DATE - 05/11/2012	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 AT IL ROUTE 31  
SIGNING PLAN - IL ROUTE 31**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	KANE AND KENDALL	507	373
KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				

STA. 100+00 TO STA. 111+00

EAST  
30  
↓

SB-IL-TS-33 (R)  
SB-IL-TS-34 (R)  
SB-IL-TS-35 (R)

↑ OSWEGO  
JOLIET →  
SB-IL-TS-75

↑ OSWEGO  
JOLIET →  
SB-IL-TS-36 (R)

SOUTH EAST  
ILLINOIS 31 30  
↑ ↓

NB-IL-TS-82 NB-IL-TS-76 (R)  
NB-IL-TS-83 NB-IL-TS-77 (R)  
NB-IL-TS-84 NB-IL-TS-78 (R)  
NB-IL-TS-85 NB-IL-TS-79 (R)  
NB-IL-TS-86 NB-IL-TS-80 (R)  
NB-IL-TS-87 NB-IL-TS-81 (R)

DO NOT  
ENTER  
SB-IL-TS-38 (R)

↑  
SB-IL-TS-40 (R)

WEST  
30  
↓

SB-IL-TS-44 (R)  
SB-IL-TS-45 (R)  
SB-IL-TS-46 (R)

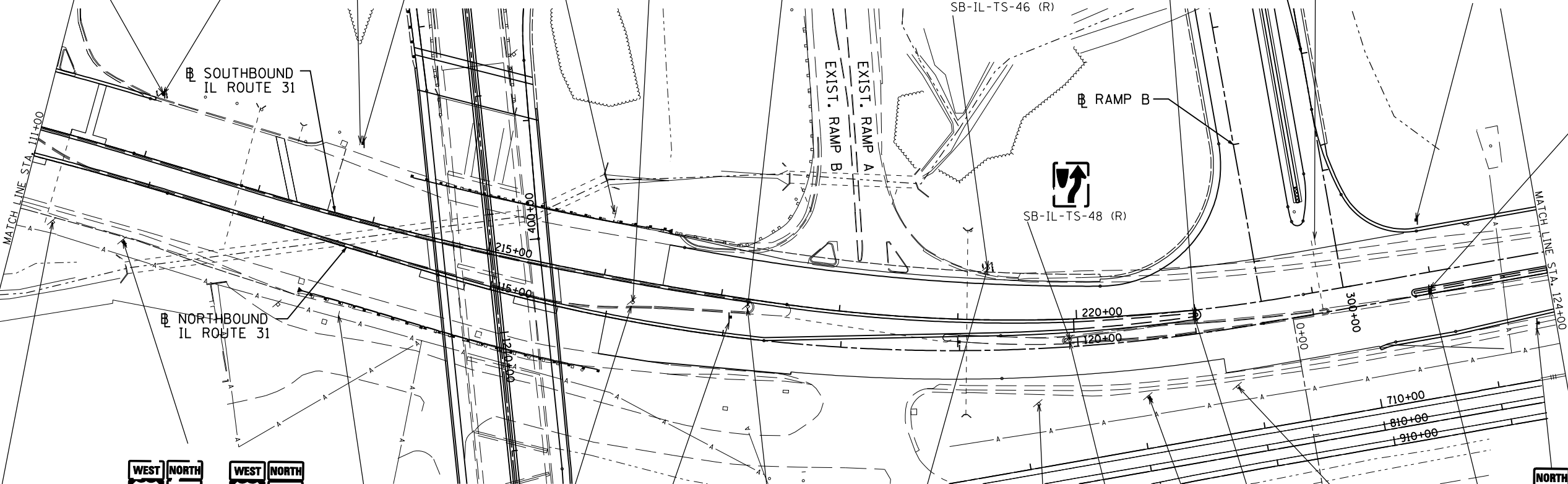
↑  
SB-IL-TS-40A

↑ JOLIET  
SUGAR GROVE →  
SB-IL-WP-49 (R)

SOUTH EAST WEST  
ILLINOIS 31 30 30  
↑ ↑ →

SB-IL-TS-88-88A-88B  
SB-IL-TS-89-89A-89B  
SB-IL-TS-90-90A-90B

↑  
SB-IL-TS-48A



WEST NORTH  
ILLINOIS 30 31  
← ↑

NB-IL-TS-28 (R) NB-IL-TS-28A  
NB-IL-TS-29 (R) NB-IL-TS-29A  
NB-IL-TS-30 (R) NB-IL-TS-30A  
NB-IL-TS-31 (R) NB-IL-TS-31A  
NB-IL-TS-32 (R) NB-IL-TS-32A  
NB-IL-TS-33 (R) NB-IL-TS-33A

WEST  
30  
←

NB-IL-TS-36 (R) NB-IL-TS-39  
NB-IL-TS-37 (R) NB-IL-TS-40  
NB-IL-TS-38 (R) NB-IL-TS-41

WEST  
30  
←

ONLY

NB-IL-TS-39A (R)

DO NOT  
ENTER  
NB-IL-WP-46 (R)

NORTH  
ILLINOIS 31  
↑

NB-IL-TS-47 (R)  
NB-IL-TS-48 (R)

↑

NB-IL-TS-49 (R)

SPEED  
LIMIT  
45  
NB-IL-TS-50 (R)

NORTH  
ILLINOIS 31  
↑

NB-IL-TS-47A  
NB-IL-TS-48A

↑ AURORA  
← SUGAR GROVE  
NB-IL-TS-34 (R)

↑ AURORA  
← Sugar Grove  
NB-IL-TS-35

ONLY

NB-IL-TS-39B

ONLY

NB-IL-TS-47B

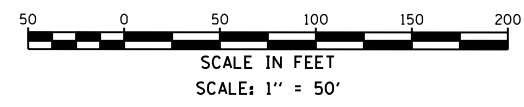
ONLY

NB-IL-TS-47 (R)

KANE  
COUNTY

CALL 911  
EMERGENCY  
CELLULAR

NB-IL-TP-1  
NB-IL-TP-2  
SIGNS TO BE RELOCATED  
FROM STA. 111+31 RT  
TO STA. 209+98, RT



5/15/2012 12:44:46 AM

**GR&EF**  
8501 W. Higgins Road, Suite 280  
Chicago, Illinois 60631; (773) 399-0112

USER NAME = 1654	DESIGNED - JWB	REVISED -
PLOT SCALE = 100.0000' / IN.	DRAWN - JWB	REVISED -
PLOT DATE = 5/16/2012	CHECKED - RS	REVISED -
	DATE - 05/11/2012	REVISED -

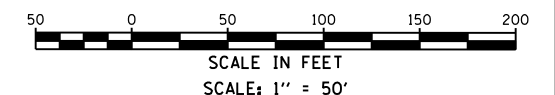
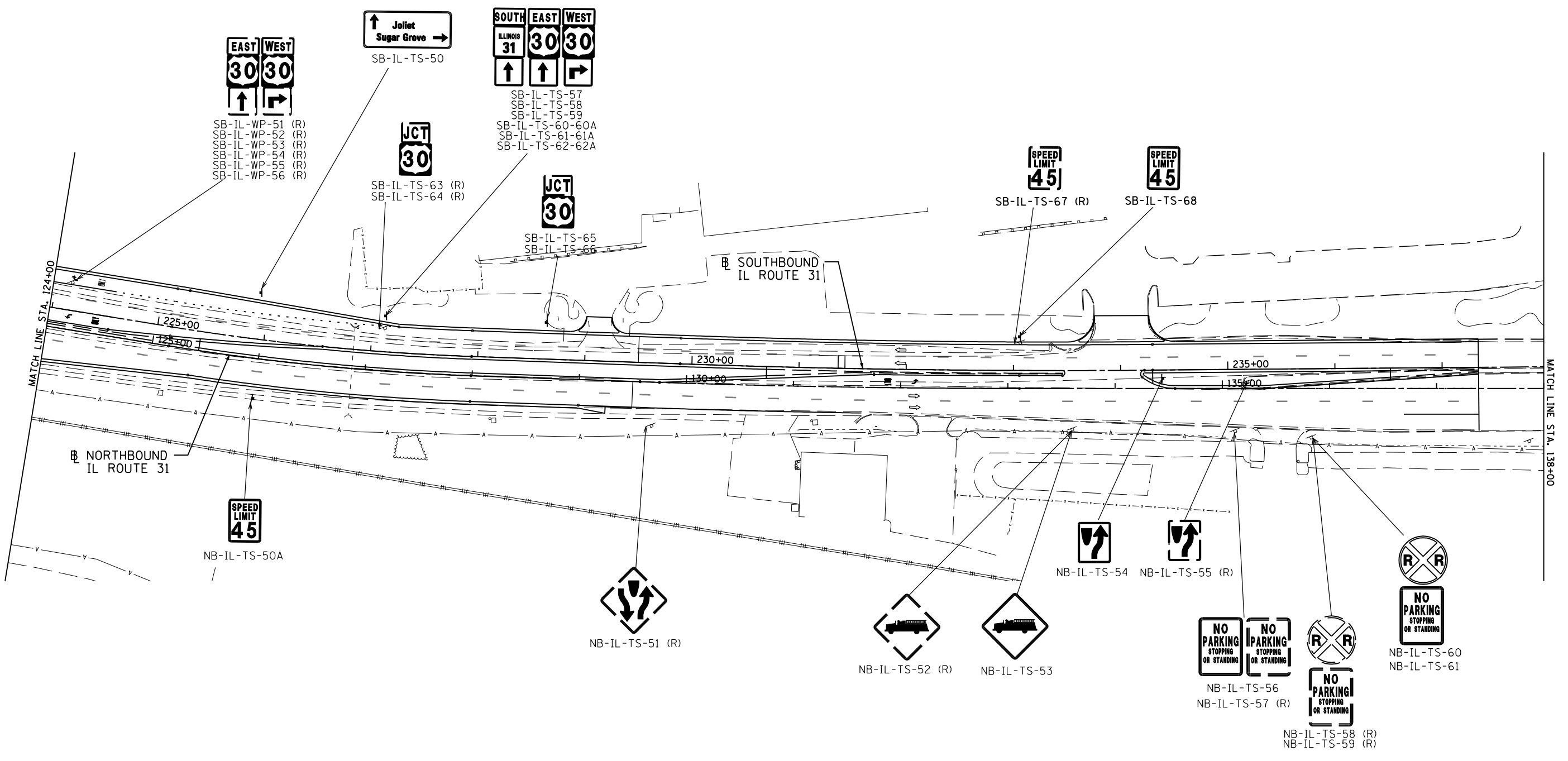
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 30 AT IL ROUTE 31  
SIGNING PLAN - IL ROUTE 31

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	*	507	374
* KANE AND KENDALL			CONTRACT NO. 60133	

STA. 100+00 TO STA. 111+00

ILLINOIS FED. AID PROJECT



5/16/2012 12:44:54 AM

**GR&EF**  
8501 W. Higgins Road, Suite 280  
Chicago, Illinois 60631; (773) 399-0112

USER NAME = 1654	DESIGNED - JWB	REVISED -
	DRAWN - JWB	REVISED -
PLOT SCALE = 100.0000' / IN.	CHECKED - RS	REVISED -
PLOT DATE = 5/16/2012	DATE - 05/11/2012	REVISED -

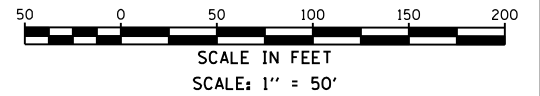
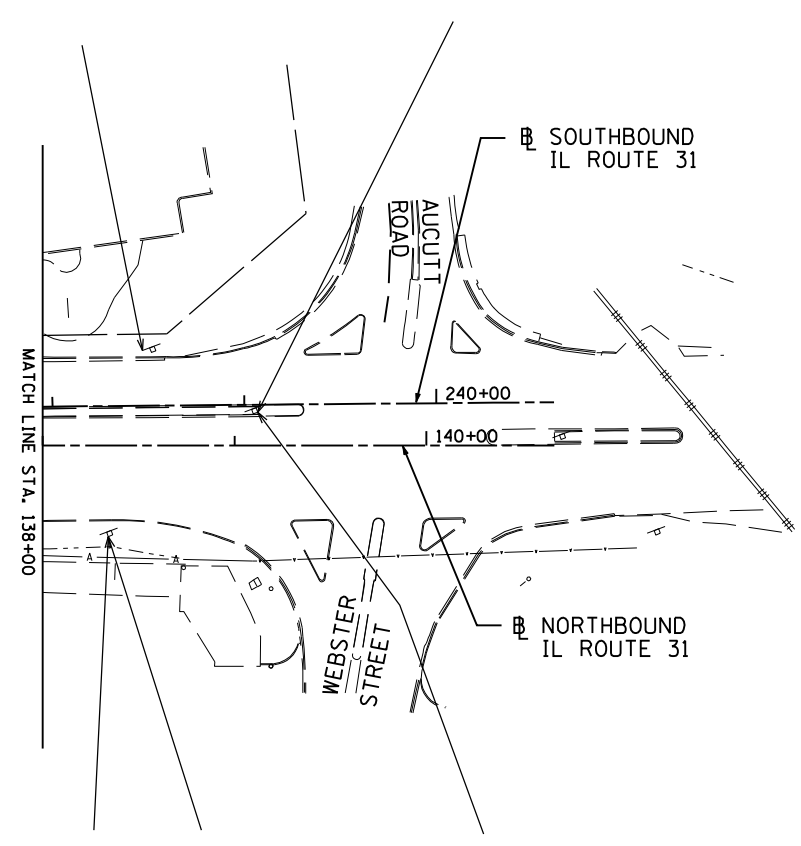
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 AT IL ROUTE 31  
SIGNING PLAN - IL RTE 31**

STA. 124+00 TO STA. 138+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	*	507	375
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				





5/16/2012 12:44:59 AM

**GRAF**  
 8501 W. Higgins Road, Suite 280  
 Chicago, Illinois 60631; (773) 399-0112

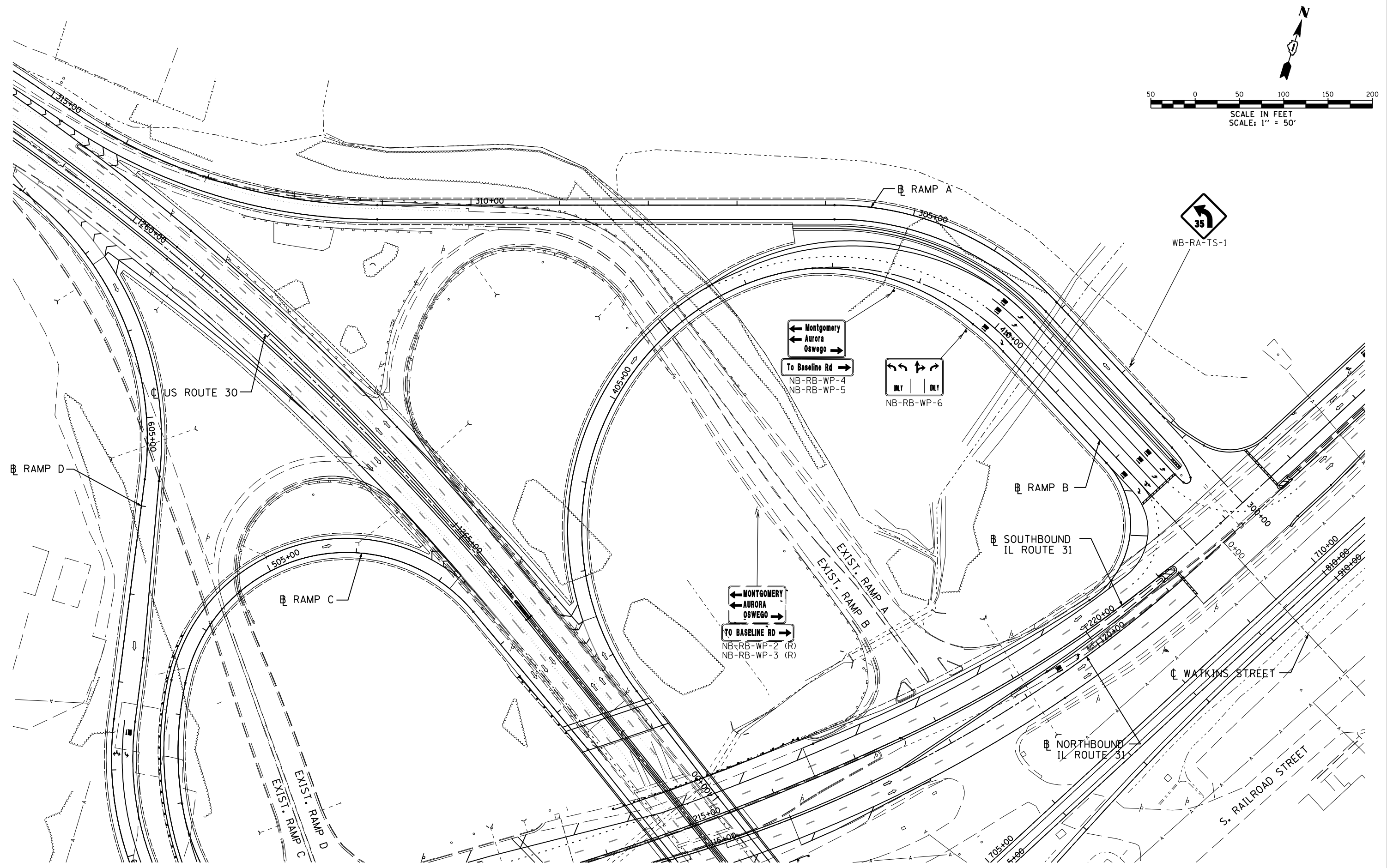
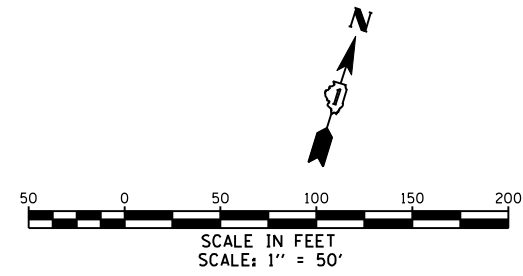
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PLOT DATE = 5/16/2012	DATE - 05/11/2012	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 AT IL ROUTE 31  
 SIGNING PLAN - IL RTE 31**

STA. 138+00 TO STA. 140+67

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	*	507	376
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				



\$FILE# 5/16/2012 12:51:03 AM

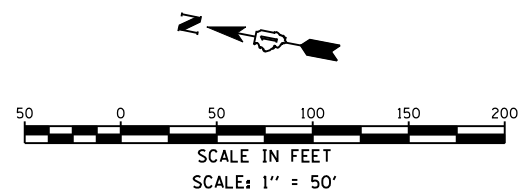
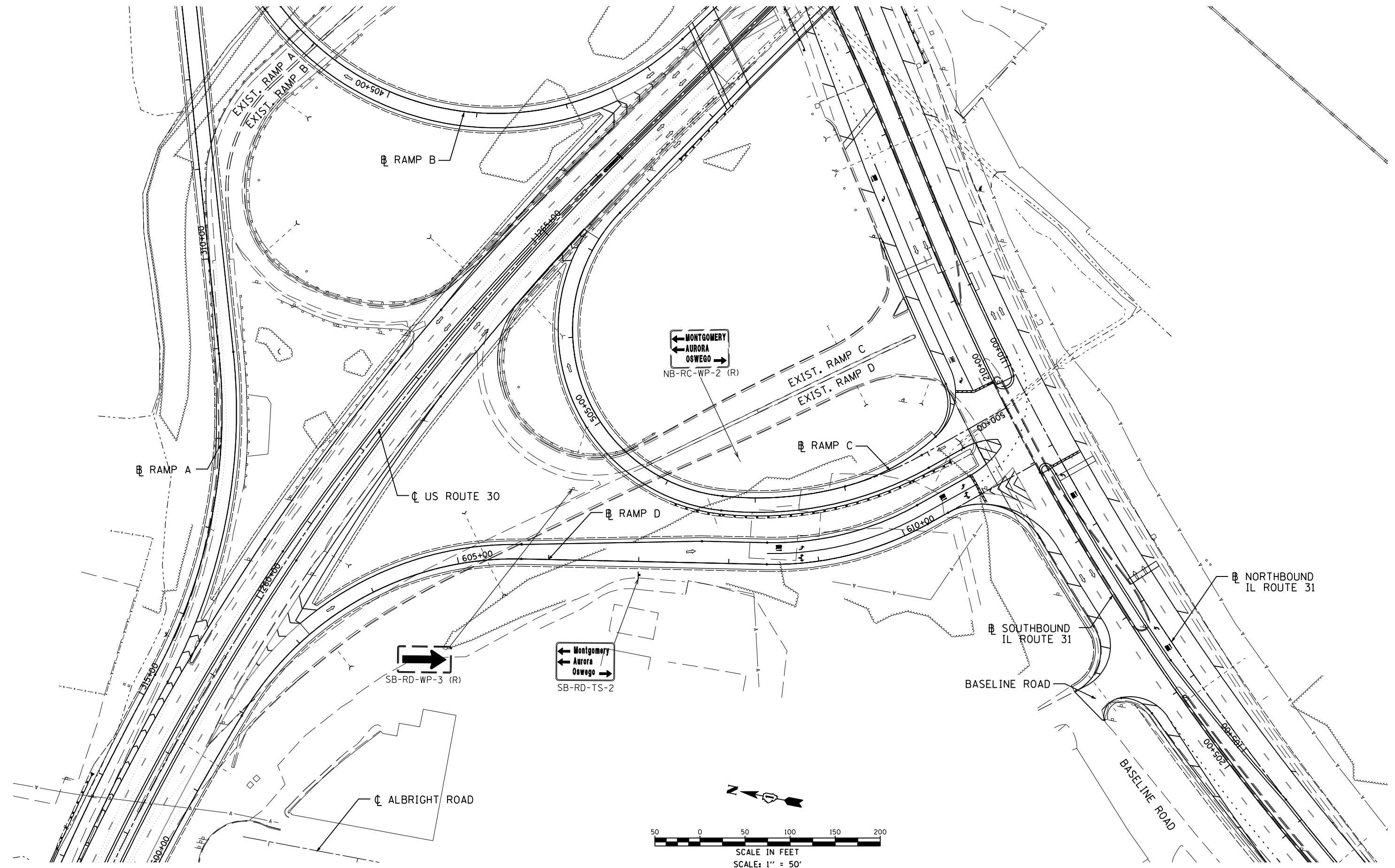
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PLOT DATE = 5/16/2012	DATE - 05/11/2012	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>U.S. ROUTE 30 AT IL ROUTE 31 SIGNING PLAN - RAMP A AND RAMP B</b>	
SCALE: 1"=50'	SHEET NO. --
(RAMP A) STA. 300+00 TO STA. 314+75 (RAMP B) STA. 400+00 TO STA. 413+34	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	*	507	377
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				

5/16/2012 12:54:10 AM



USER NAME = 1654	DESIGNED - JWB	REVISED -
	DRAWN - JWB	REVISED -
PLOT SCALE = 100.0000' / IN.	CHECKED - RS	REVISED -
PLOT DATE = 5/16/2012	DATE - 05/11/2012	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 AT IL ROUTE 31  
SIGNING PLAN - RAMP C AND RAMP D**

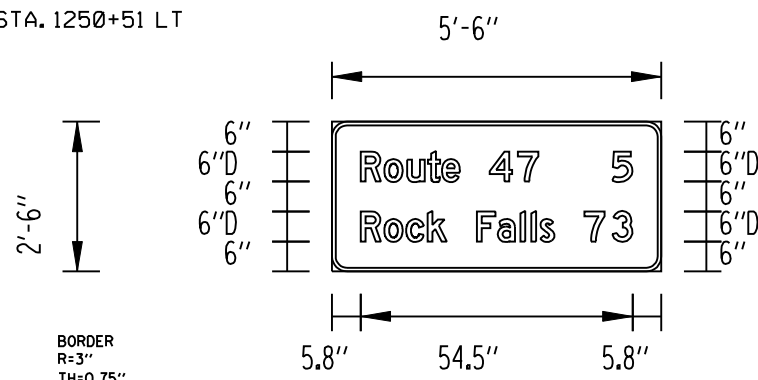
SCALE: 1"=50'

SHEET NO. --

(RAMP C) STA. 500+00 TO STA. 507+52  
(RAMP D) STA. 600+00 TO STA. 609+96

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	-	507	378
KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				

STA. 1250+51 LT



SIGN NUMBER	WB-US-TS-5
WIDTH x HGHT.	5'-6" x 2'-6"
BORDER WIDTH	0.75'
CORNER RADIUS	3"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Green
LEGEND/BORDER	TYPE: Reflective COLOR: White

SYMBOL	ROT	X	Y	WID	HT

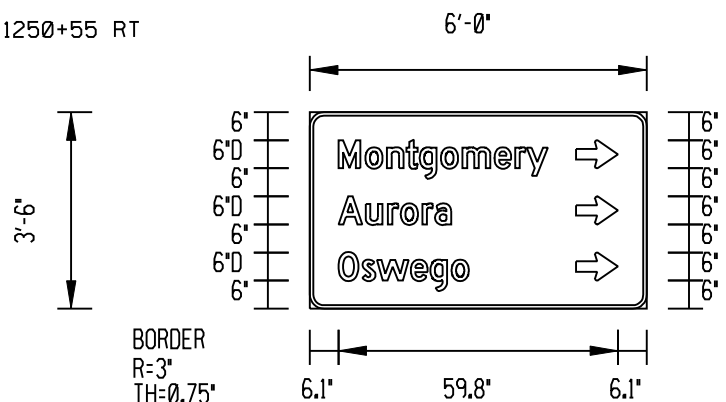
BORDER  
R=3"  
TH=0.75"

Panel Style: guide.con.distance.ssi  
M.U.T.C.D.: 2009 Edition

Dimensions are in inches,tenths  
Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)												LENGTH	SERIES/ SIZE	

STA. 1250+55 RT



SIGN NUMBER	EB-US-TS-9
WIDTH x HGHT.	6'-0" x 3'-6"
BORDER WIDTH	0.75'
CORNER RADIUS	3"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Green
LEGEND/BORDER	TYPE: Reflective COLOR: White

SYMBOL	ROT	X	Y	WID	HT
AR_Type D	270	56.9	30	6	9
AR_Type D	270	56.9	18	6	9
AR_Type D	270	56.9	6	6	9

BORDER  
R=3"  
TH=0.75"

Panel Style: guide.con.destination.ssi  
M.U.T.C.D.: 2009 Edition  
Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)												LENGTH	SERIES/ SIZE	

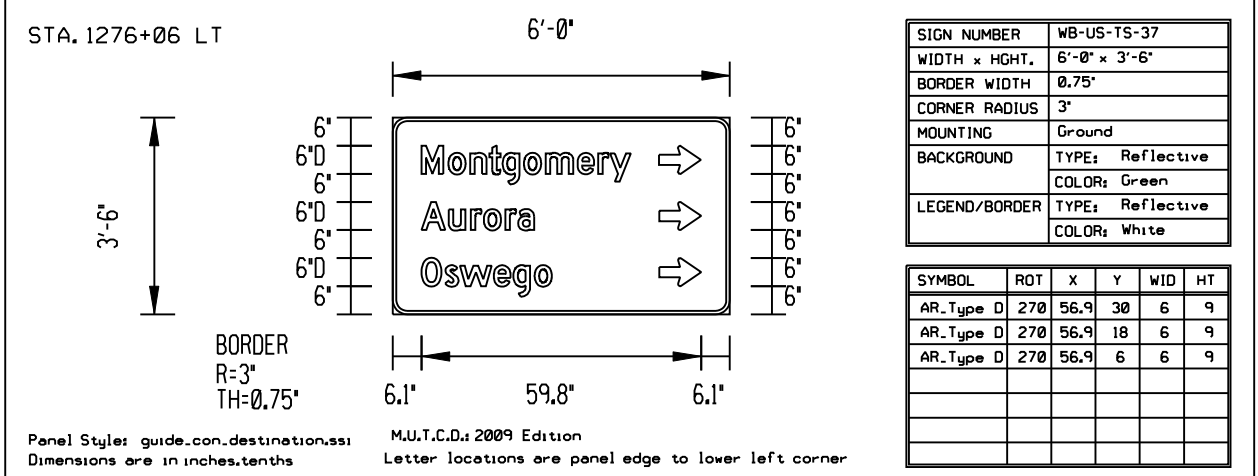
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USER NAME = 1654	DESIGNED - JWB	REVISED -
DRAWN - JWB	REVISIONS	
PLOT SCALE = 100.0000' / IN.	CHECKED - RS	REVISIONS
PLOT DATE = 5/16/2012	DATE - 05/11/2012	REVISIONS

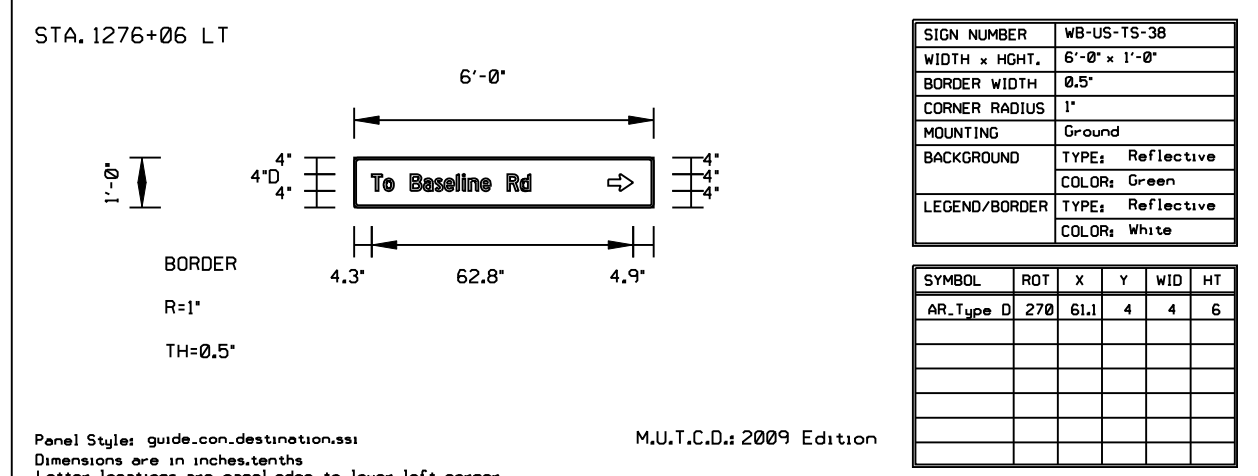
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 AT IL ROUTE 31  
SIGN DETAILS**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	-	507	379
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				



LETTER POSITIONS (X)													LENGTH	SERIES/ SIZE
														D 2000
													44.8	6/4.5
														D 2000
													24.1	6/4.5
														D 2000
													27.9	6/4.5



LETTER POSITIONS (X)													LENGTH	SERIES/ SIZE
														D 2000
													38.1	4/3

FILE# 5/16/2012 12:54:16 AM

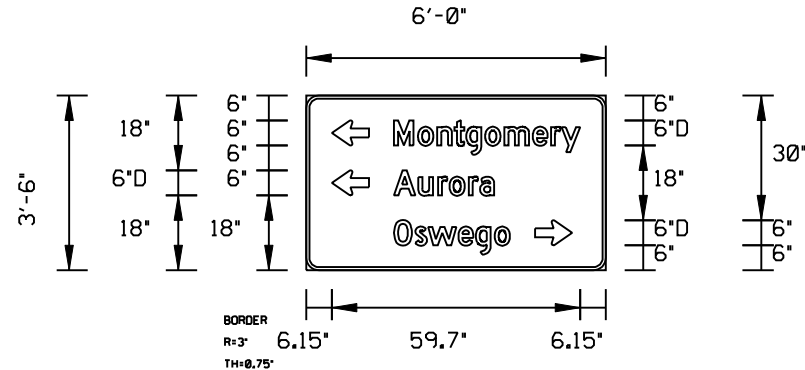
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PLOT SCALE = 100.0000' / IN.	CHECKED - RS	REVISED -
PLOT DATE = 5/16/2012	DATE - 05/11/2012	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 AT IL ROUTE 31  
SIGN DETAILS**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	*	507	380
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				

STA. 607+42 RT



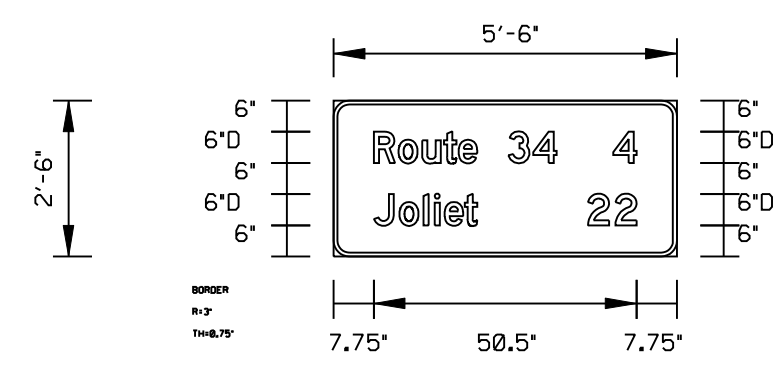
SIGN NUMBER	SB-RD-TS-2
WIDTH x HGHT.	6'-0" x 3'-6"
BORDER WIDTH	0.75"
CORNER RADIUS	3"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Green
LEGEND/BORDER	TYPE: Reflective COLOR: White

SYMBOL	ROT	X	Y	WID	HT
AR_Type D	90	6.1	30	6	9
AR_Type D	90	6.1	18	6	9
AR_Type D	270	55	6	6	9

Panel Stylesguide\_con\_destination.ssi M.U.T.C.D. 2009 Edition  
 Dimensions are inches, tenths Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)											LENGTH	SERIES/SIZE	
M	o	n	t	g	o	m	e	r	y				D 2000
21.1	26.9	31.5	35.6	38.5	43	47.6	54.5	58.9	61.4			44.8	6/4.5
A	u	r	o	r	a							24.1	6/4.5
21.1	26.9	31.7	34.4	39.1	41.8							27.8	6/4.5
O	s	w	e	g	o								
21.1	26.2	29.3	36.6	40.7	45.3								

STA. 1277+82 RT



SIGN NUMBER	EB-US-TS-28
WIDTH x HGHT.	5'-6" x 2'-6"
BORDER WIDTH	0.75"
CORNER RADIUS	3"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Green
LEGEND/BORDER	TYPE: Reflective COLOR: White

SYMBOL	ROT	X	Y	WID	HT

Panel Stylesguide\_con\_distance.ssi M.U.T.C.D. 2009 Edition  
 Dimensions are inches, tenths Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)											LENGTH	SERIES/SIZE	
R	o	u	t	e			3	4					D 2000
7.7	12.5	17	21.2	24.1	27.6	33.6	38.4					35.2	6/4.5
4												4.5	6
53.8													
J	o	l	i	e	t								D 2000
7.7	12.7	17.3	19.4	21.4	25.2							19.9	6/4.5
2	2												D 2000
48.9	54.2											9.4	6

FILE# 5/15/2012 12:51:48 AM

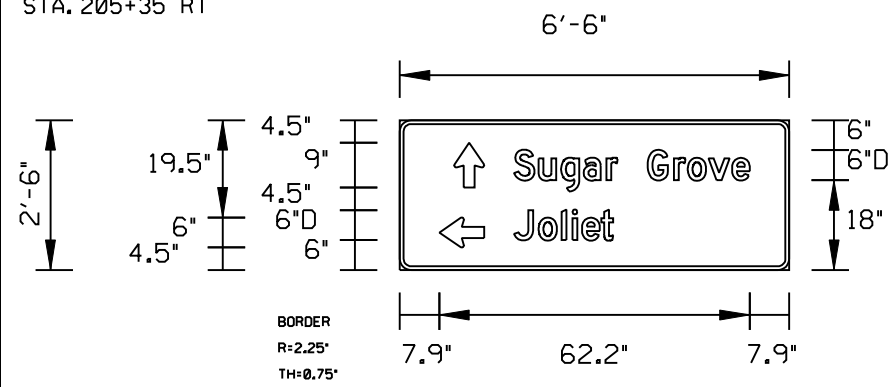
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DRAWN - JWB	REVISIONS -	
PLOT SCALE = 100.0000' / IN.	CHECKED - RS	REVISED -
PLOT DATE = 5/16/2012	DATE - 05/11/2012	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 AT IL ROUTE 31  
SIGN DETAILS**

F.A.P. RTE. 349	SECTION (10 & 11 VB) R-3	COUNTY *	TOTAL SHEETS 507	SHEET NO. 381
* KANE AND KENDALL		CONTRACT NO. 60133		
ILLINOIS FED. AID PROJECT				

STA. 205+35 RT



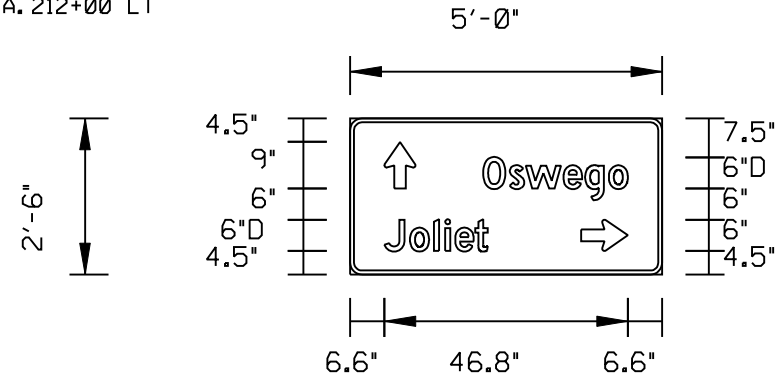
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WIDTH x HGHT.	6'-6" x 2'-6"
BORDER WIDTH	0.75"
CORNER RADIUS	2.25"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White

SYMBOL	ROT	X	Y	WID	HT
AR_Type D	0	10.9	16.5	6	9
AR_Type D	90	7.9	4.5	6	9

Panel Stylesguide.con.destination.ssi M.U.T.C.D. 2009 Edition  
 Dimensions are inches.tenths Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)												LENGTH	SERIES/SIZE				
S	u	g	a	r		G	r	o	v	e						47.2	D 2000
22.9	27.8	32.3	36.8	41.4	43.7	49.7	54.9	57.7	61.8	66.6							6/4.5
J	o	l	i	e	t											19.9	D 2000
22.9	27.8	32.4	34.6	36.5	40.4												6/4.5

STA. 212+00 LT



SIGN NUMBER	SB-IL-TS-75
WIDTH x HGHT.	5'-0" x 2'-6"
BORDER WIDTH	0.75"
CORNER RADIUS	2.25"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White

SYMBOL	ROT	X	Y	WID	HT
AR_Type D	0	6.6	16.5	6	9
AR_Type D	270	44.4	4.5	6	9

Panel Stylesguide.con.destination.ssi M.U.T.C.D. 2009 Edition  
 Dimensions are inches.tenths Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)												LENGTH	SERIES/SIZE					
O	s	w	e	g	o												27.9	D 2000
25.6	30.7	33.8	41.1	45.2	49.8													6/4.5
J	o	l	i	e	t												19.9	D 2000
6.6	11.5	16.1	18.3	20.2	24													6/4.5

8FILE# 5/16/2012 12:54:20 AM

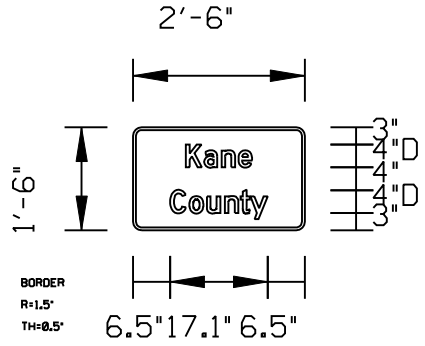
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DRAWN - JWB	REVISIONS -	
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PLOT DATE = 5/16/2012	DATE - 05/11/2012	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 AT IL ROUTE 31  
 SIGN DETAILS**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	*	507	382
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				

STA. 211+20 RT



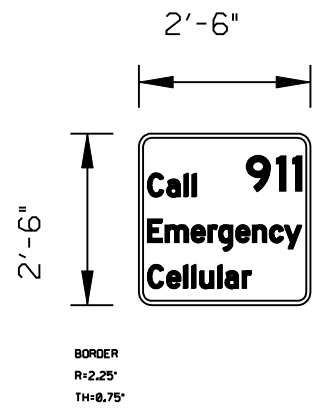
SIGN NUMBER	NB-IL-XX-XX
WIDTH x HGHT.	2'-6" x 1'-6"
BORDER WIDTH	0.5'
CORNER RADIUS	1.5'
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Green
LEGEND/BORDER	TYPE: Reflective COLOR: White

SYMBOL	ROT	X	Y	WID	HT

Panel Stylesguide\_con\_destination.ssi M.U.T.C.D. 2009 Edition  
 Dimensions are in inches, tenths Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)										LENGTH	SERIES/SIZE
K	o	n	e							11.6	D 2000 4/3
9.2	12.4	15.5	18.4								
C	o	u	n	t	y					17.1	D 2000 4/3
6.5	9.8	12.9	16	18.8	20.5						

STA. 211+20 RT



SIGN NUMBER	NB-IL-XX-XX
WIDTH x HGHT.	2'-6" x 2'-6"
BORDER WIDTH	0.75'
CORNER RADIUS	2.25'
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Blue
LEGEND/BORDER	TYPE: Reflective COLOR: White

SYMBOL	ROT	X	Y	WID	HT

Panel Stylesguide\_con\_general\_services.ssi M.U.T.C.D. 2009 Edition  
 Dimensions are in inches, tenths Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)										LENGTH	SERIES/SIZE
9	1	1								9.6	D 2000 6
18.8	24.1	26.9									
C	o	l	l							8.4	D 2000 4/3
1.6	4.9	7.9	9.4								
E	m	e	r	g	e	n	c	y		26.9	D 2000 4/3
1.6	4.6	9.2	12.1	14	17	19.9	22.9	25.4			
C	e	l	l	u	l	e	r			18.1	D 2000 4/3
1.6	4.9	7.8	9.3	10.7	13.8	15.1	18.1				

USER NAME = 1654	DESIGNED - JWB	REVISED -
	DRAWN - JWB	REVISED -
PLOT SCALE = 100.0000' / IN.	CHECKED - RS	REVISED -
PLOT DATE = 5/16/2012	DATE - 05/11/2012	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 AT IL ROUTE 31  
SIGN DETAILS**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	*	507	383
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				

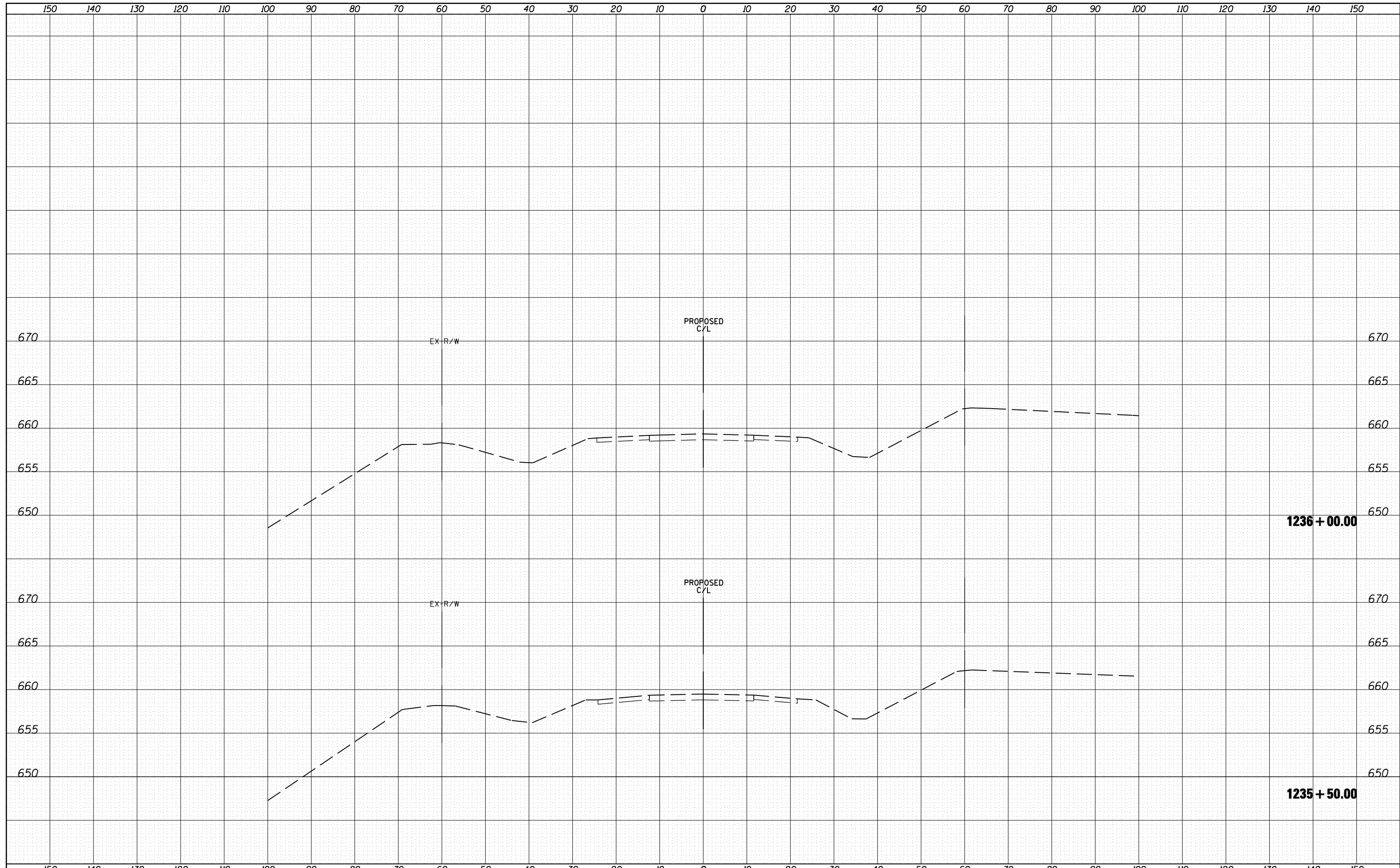






FINAL SURVEY NO.	SURVEYED	DATE
NOTE BOOK	PLOTTED	
	TEMPLATE	
	AREAS CHECKED	

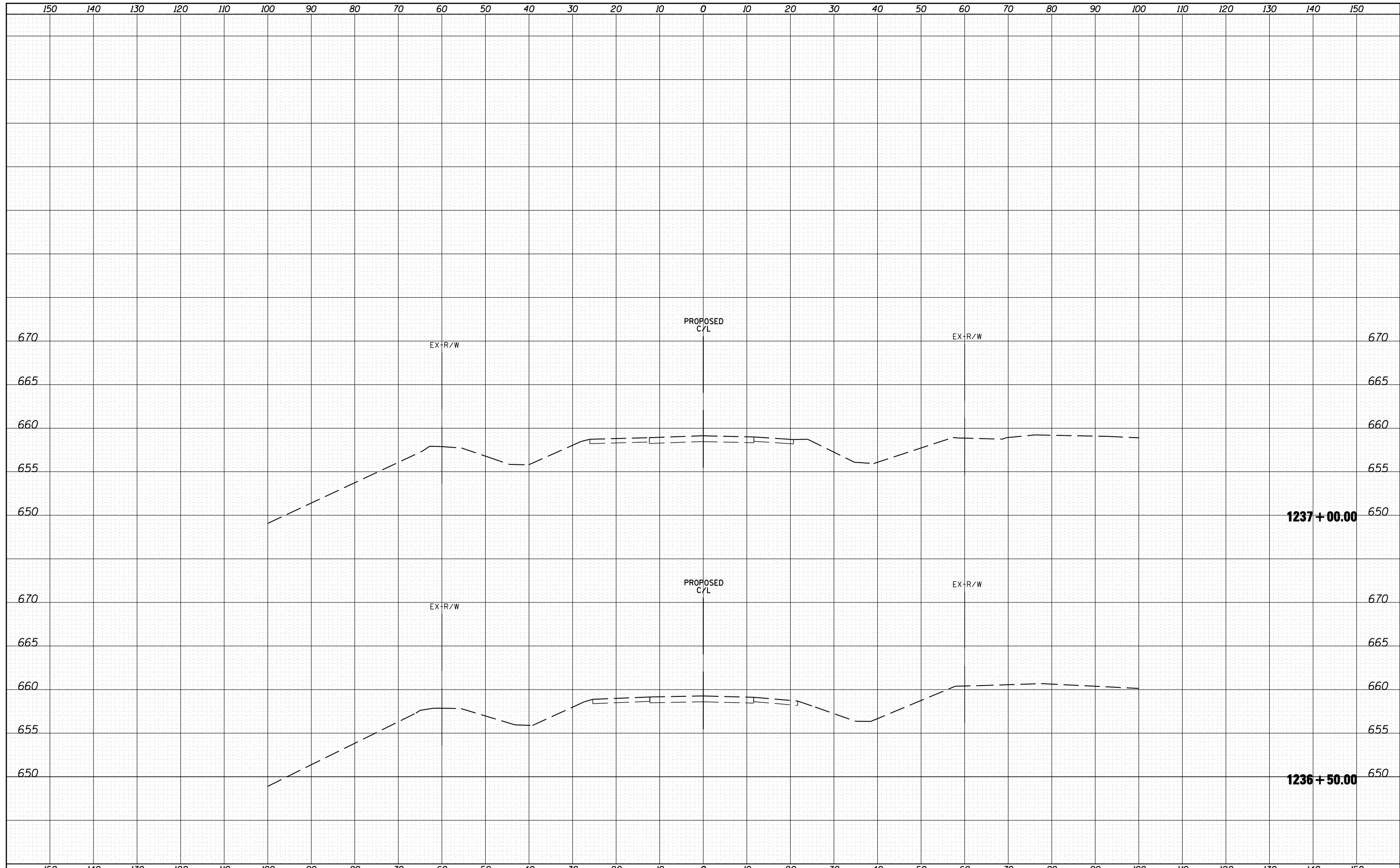
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NOTE BOOK	PLOTTED	
	TEMPLATE	
	AREAS CHECKED	



FILE NAME =	USER NAME = 1654	DESIGNED - NGS	REVISIED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>U.S. ROUTE 30 AT IL ROUTE 31</b> <b>CROSS SECTIONS - U.S. ROUTE 30</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ht:\jobs\2010\20103003\cod\site\dgn\refs\US-30\060133-sht-US30-xsec.dgn		DRAWN - NGS	REVISIED -			349	(10 & 11 VB) R-3	*	507	386
PLOT SCALE = 20.0000' / IN.		CHECKED - RS	REVISIED -			* KANE AND KENDALL		CONTRACT NO. 60133		
PLOT DATE = 5/16/2012		DATE - 05/11/2012	REVISIED -			SCALE:		SHEET NO. 1 OF 41 SHEETS STA. 1235+50.00 TO STA. 1236+00.00		
ILLINOIS FED. AID PROJECT										

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

ORIGINAL SURVEY NO.	SURVEYED	DATE
NOTE BOOK	PLOTTED	
	TEMPLATE	
	AREAS	
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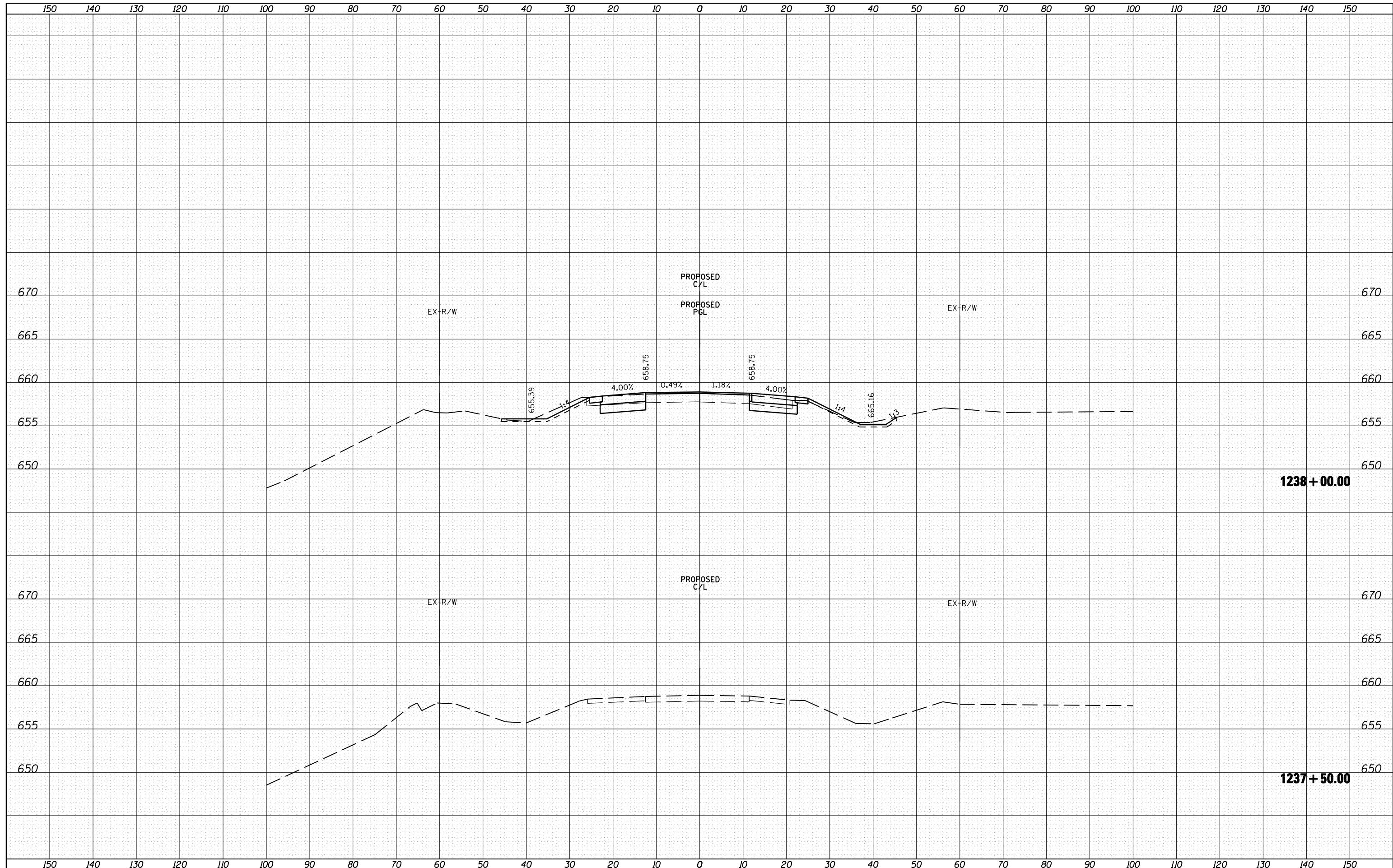
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DRAWN - NGS	REVISIED -
CHECKED - RS	REVISIED -
DATE - 05/11/2012	REVISIED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 AT IL ROUTE 31  
CROSS SECTIONS - U.S. ROUTE 30**

SCALE: SHEET NO. 2 OF 41 SHEETS STA. 1236+50.00 TO STA. 1237+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	*	507	387
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				



DATE	BY
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AREAS	AREAS
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USER NAME =	1654
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CHECKED -	RS
DATE -	06/15/2012

60133-sht-US30-xsec.dgn	REVIS	-
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PLOT DATE =	6/15/2012	

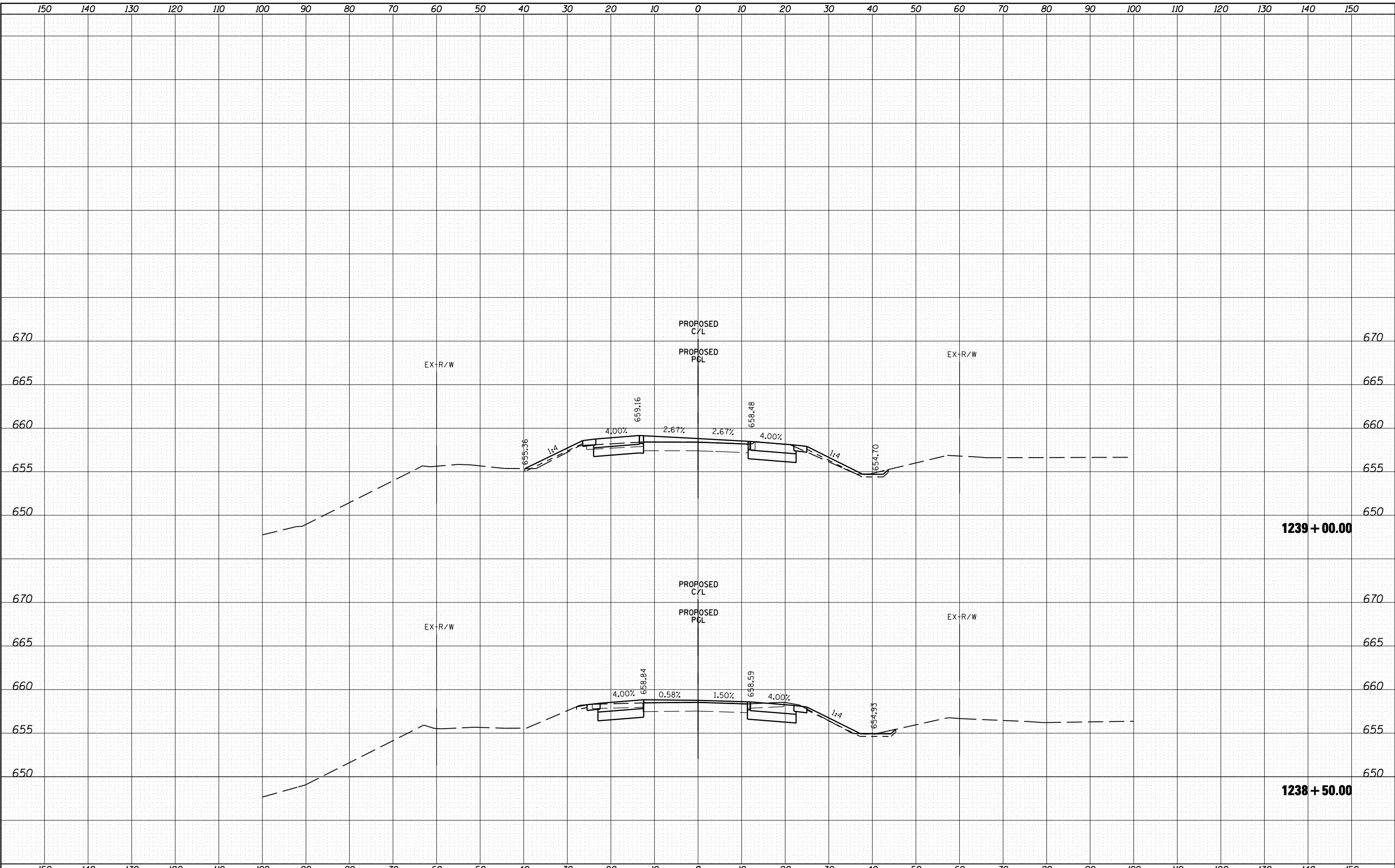
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CHECKED -	RS	REVIS	-
DATE -	06/15/2012	REVIS	-

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 AT IL ROUTE 31  
CROSS SECTIONS - U.S. ROUTE 30**

SCALE: SHEET NO. 3 OF 41 SHEETS STA. 1237+50.00 TO STA. 1238+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	*	507	388
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				



FINAL SURVEY NO.
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ORIGINAL SURVEY NO.
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FILE NAME =	USER NAME = 1654	DESIGNED - NGS	REVISED -
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PLOT DATE = 6/15/2012		DATE - 06/15/2012	REVISED -

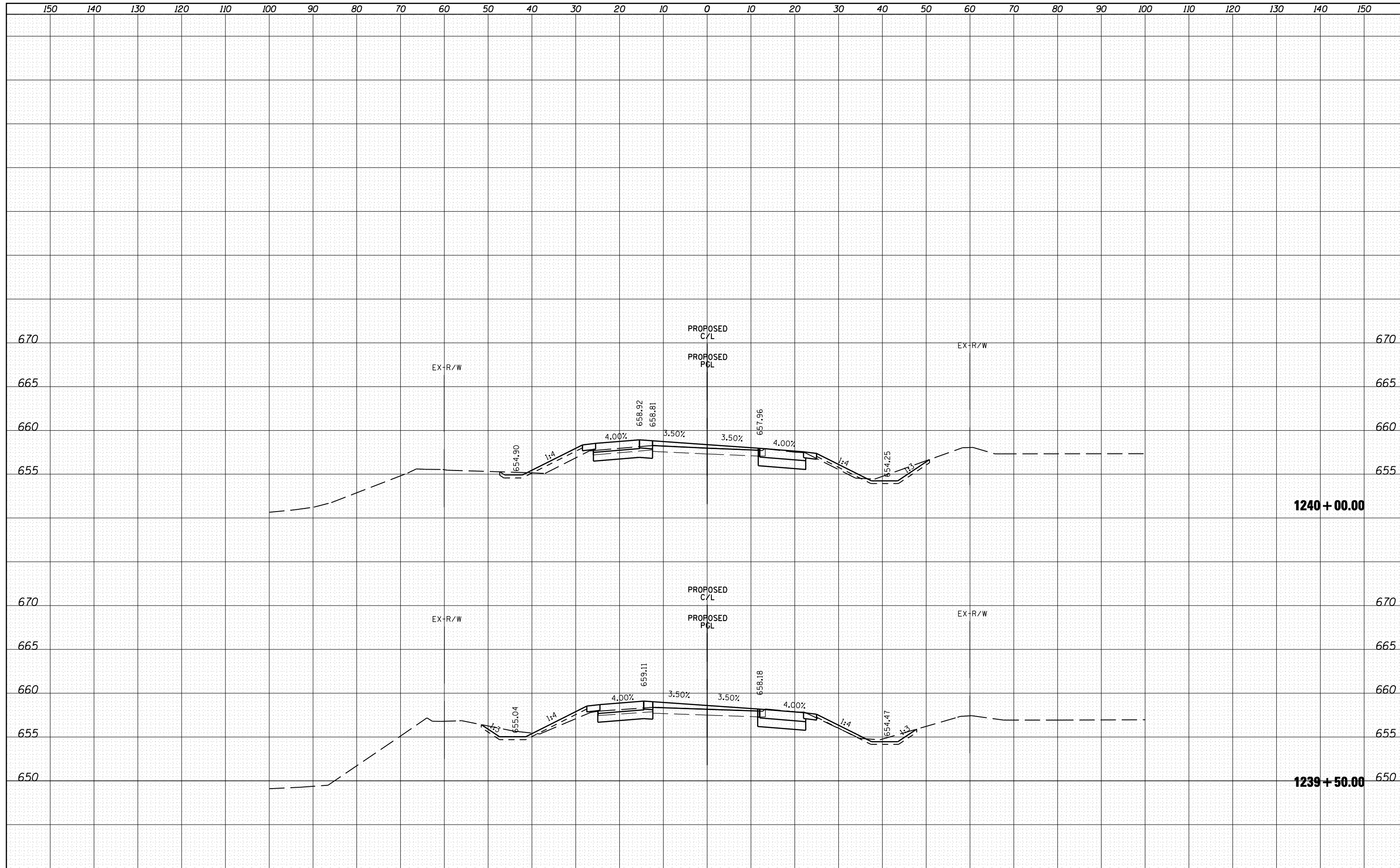
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>U.S. ROUTE 30 AT IL ROUTE 31</b>	
<b>CROSS SECTIONS - U.S. ROUTE 30</b>	
SCALE:	SHEET NO. 4 OF 41 SHEETS
STA. 1238+50.00 TO STA. 1239+00.00	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	*	507	389
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED AREAS CHECKED
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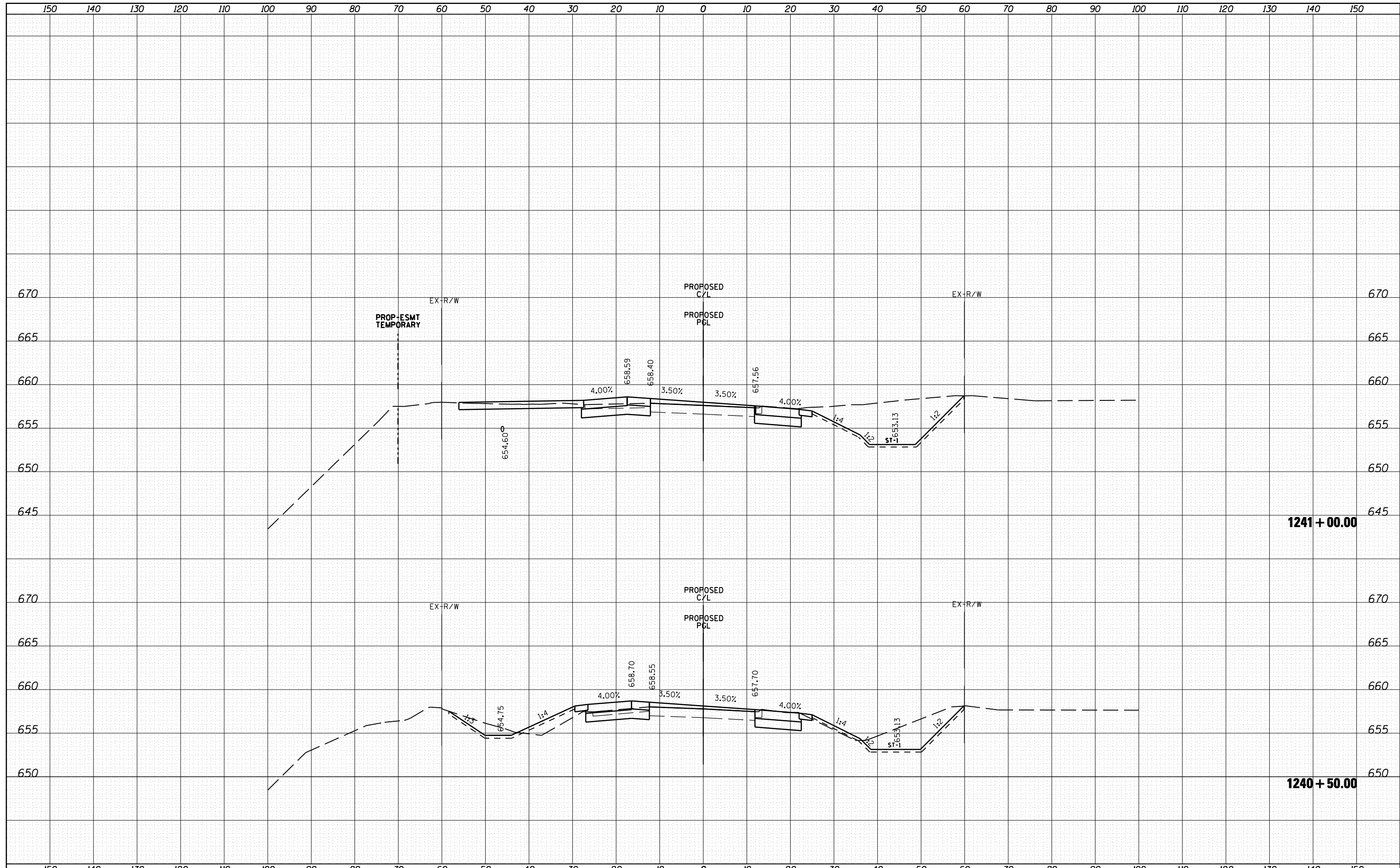
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FILE NAME =	USER NAME = 1654	DESIGNED - NGS	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>U.S. ROUTE 30 AT IL ROUTE 31</b> <b>CROSS SECTIONS - U.S. ROUTE 30</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ht:\jobs\2010\20103003\cod\site\dgn\refs\US-30\060133-sht-US30-xsec.dgn	DRAWN - NGS	REVISED -	349			(10 & 11 VB) R-3	*	507	390	
PLOT SCALE = 20.0000' / IN.	CHECKED - RS	REVISED -	* KANE AND KENDALL			CONTRACT NO. 60133				
PLOT DATE = 5/16/2012	DATE - 05/11/2012	REVISED -	ILLINOIS FED. AID PROJECT							

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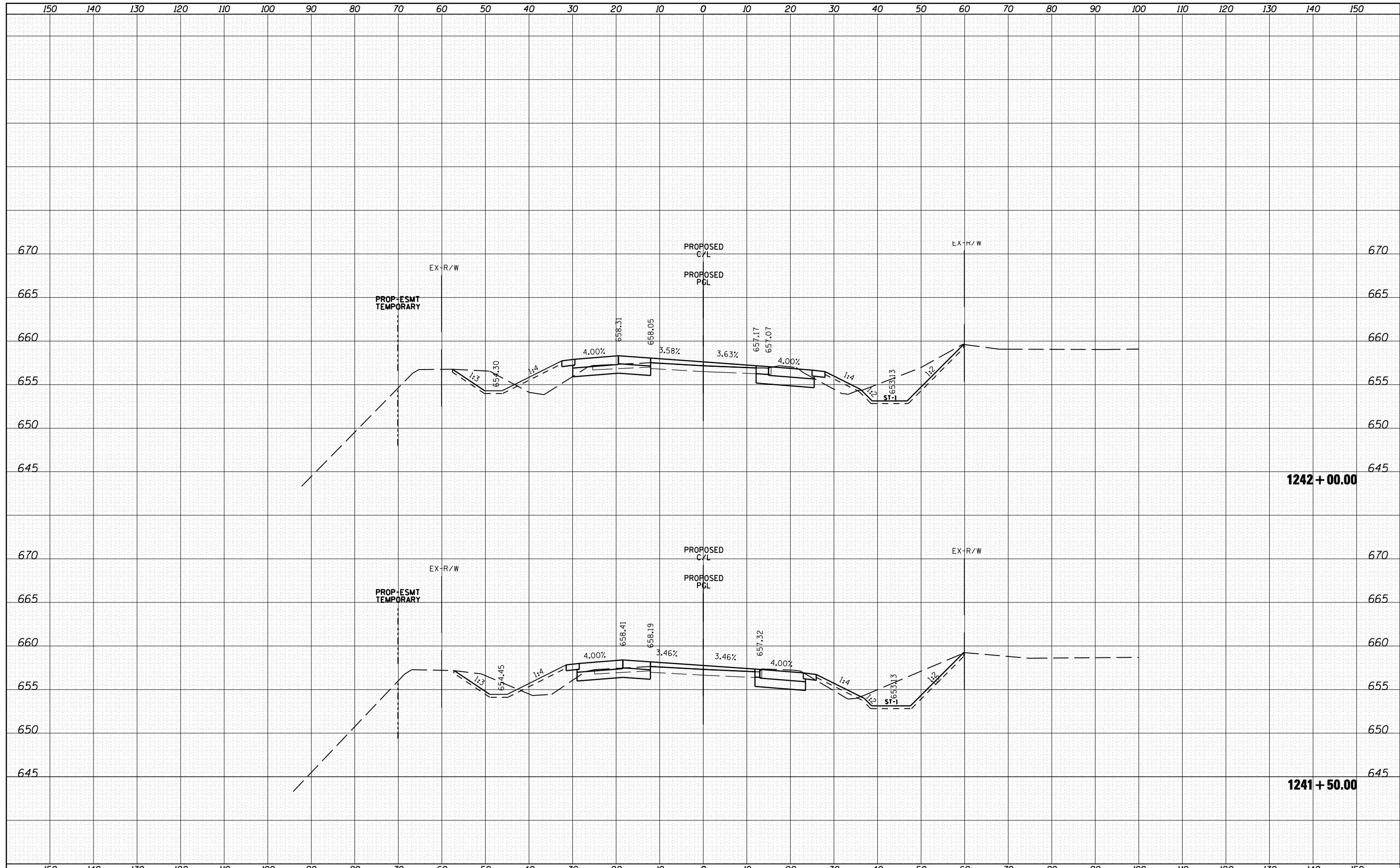


FILE NAME =	USER NAME = 1654	DESIGNED - NGS	REVISIED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>U.S. ROUTE 30 AT IL ROUTE 31 CROSS SECTIONS - U.S. ROUTE 30</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT DATE = 6/15/2012	DATE - 06/15/2012	REVISIED -	SCALE:			SHEET NO. 6 OF 41 SHEETS				
						STA. 1240+50.00 TO STA. 1241+00.00		ILLINOIS FED. AID PROJECT		



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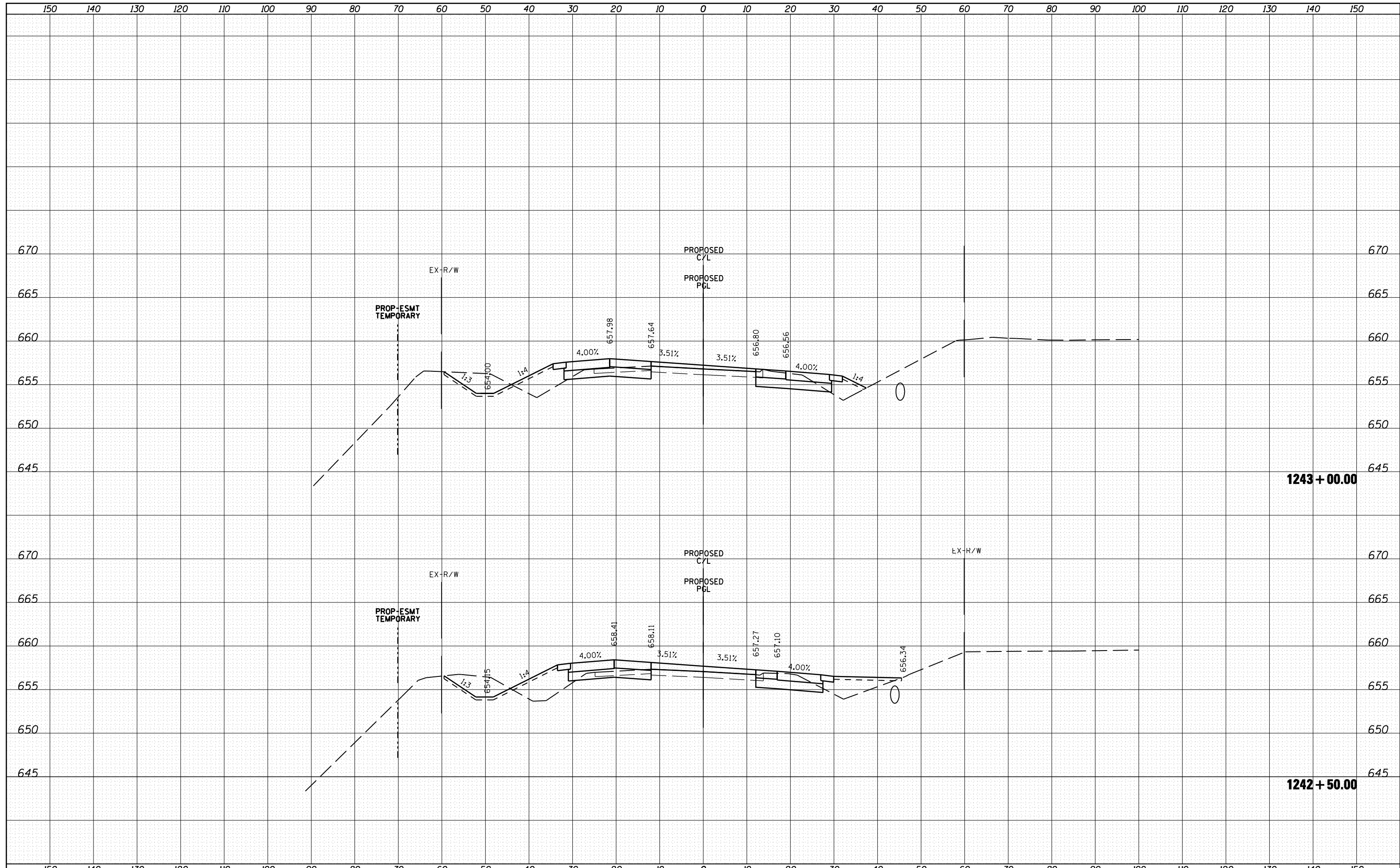


FILE NAME =	USER NAME = 1654	DESIGNED - NGS	REVISIED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>U.S. ROUTE 30 AT IL ROUTE 31</b> <b>CROSS SECTIONS - U.S. ROUTE 30</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ht:\jobs\2010\20103003\cod\site\dgn\refs\US-30\160133-sht-US30-xsec.dgn		DRAWN - NGS	REVISIED -			349	(10 & 11 VB) R-3	*	507	392
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PLOT DATE = 5/16/2012		DATE - 05/11/2012	REVISIED -			SCALE:		SHEET NO. 7 OF 41 SHEETS STA. 1241+50.00 TO STA. 1242+00.00		

ILLINOIS FED. AID PROJECT

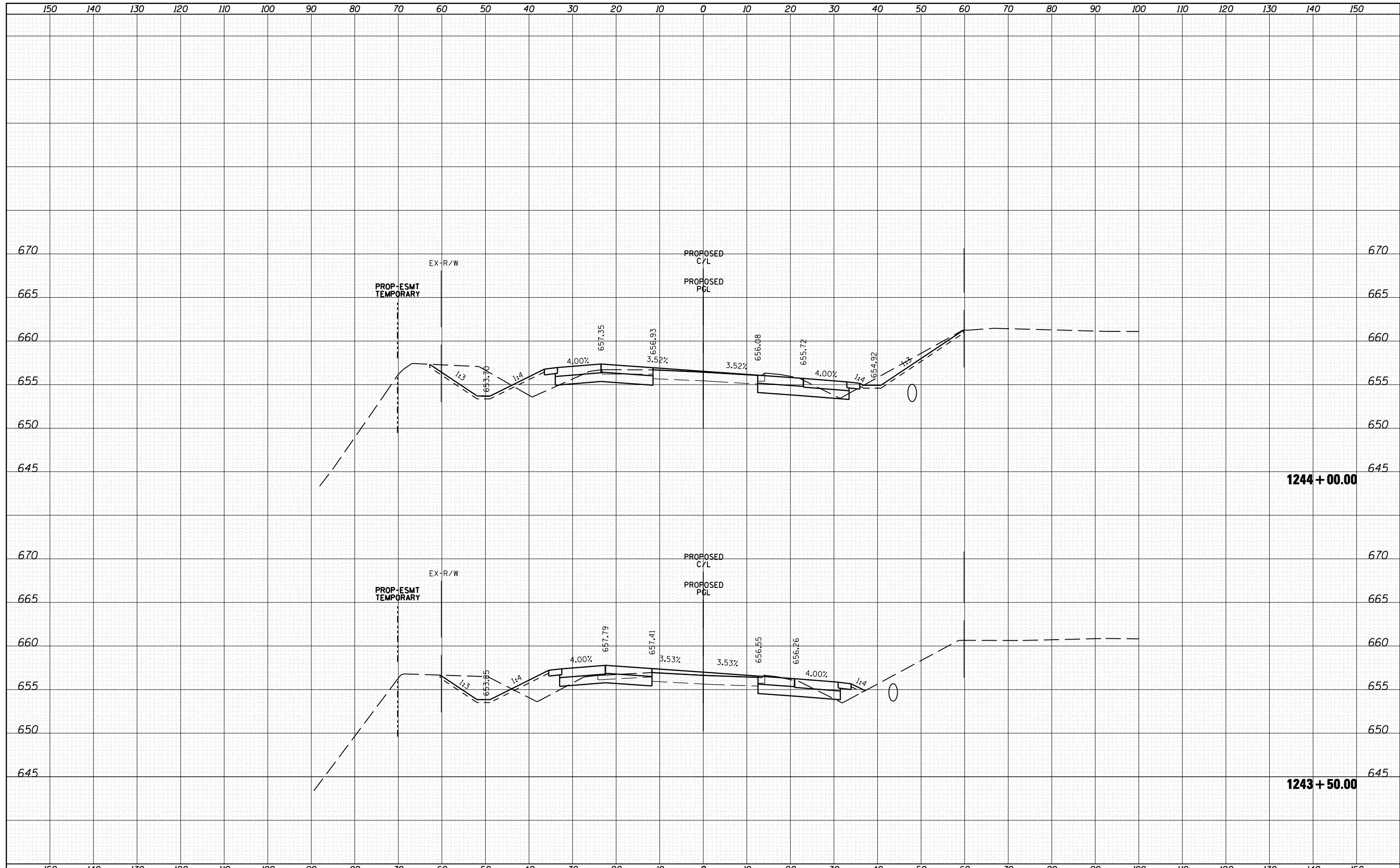
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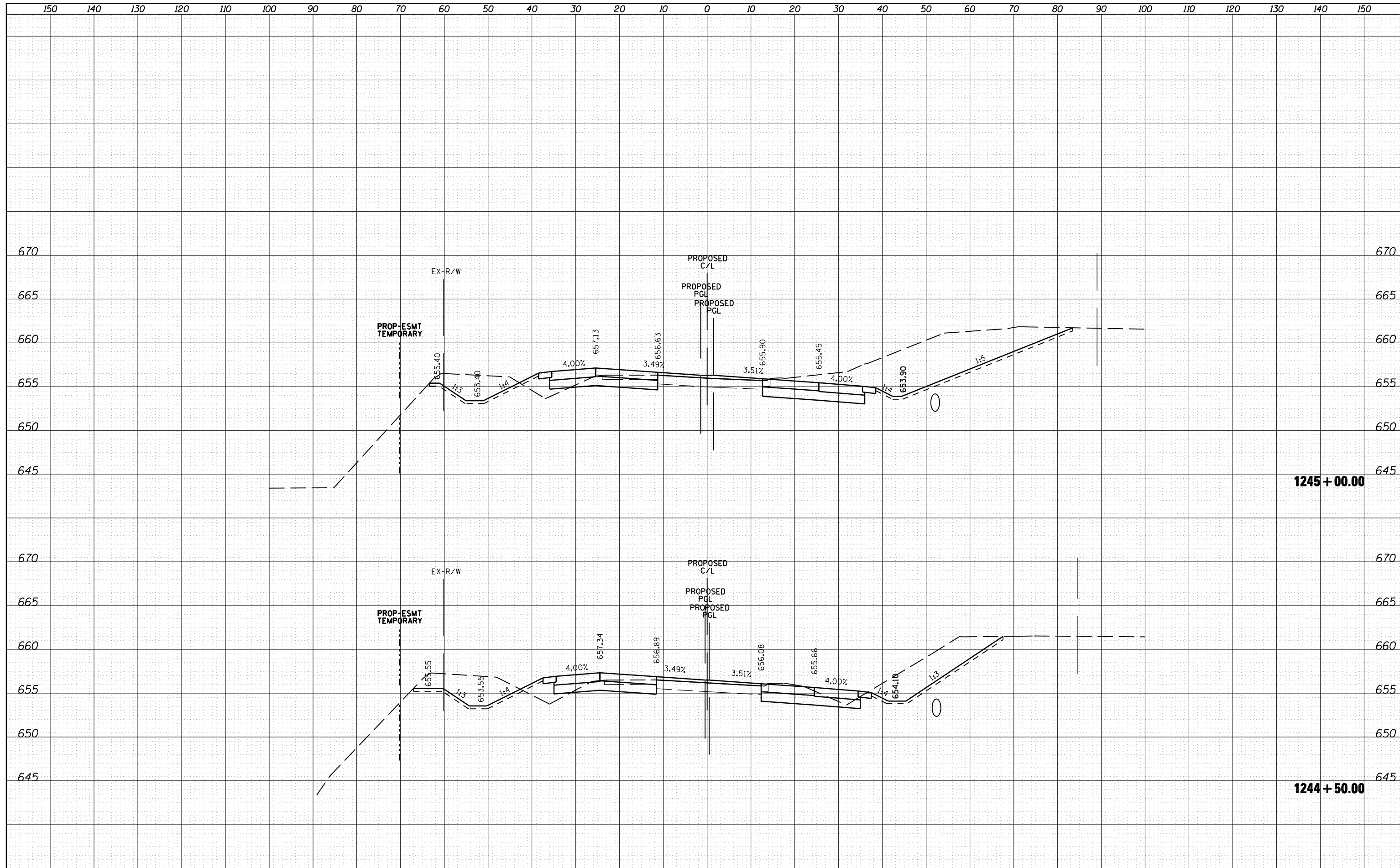
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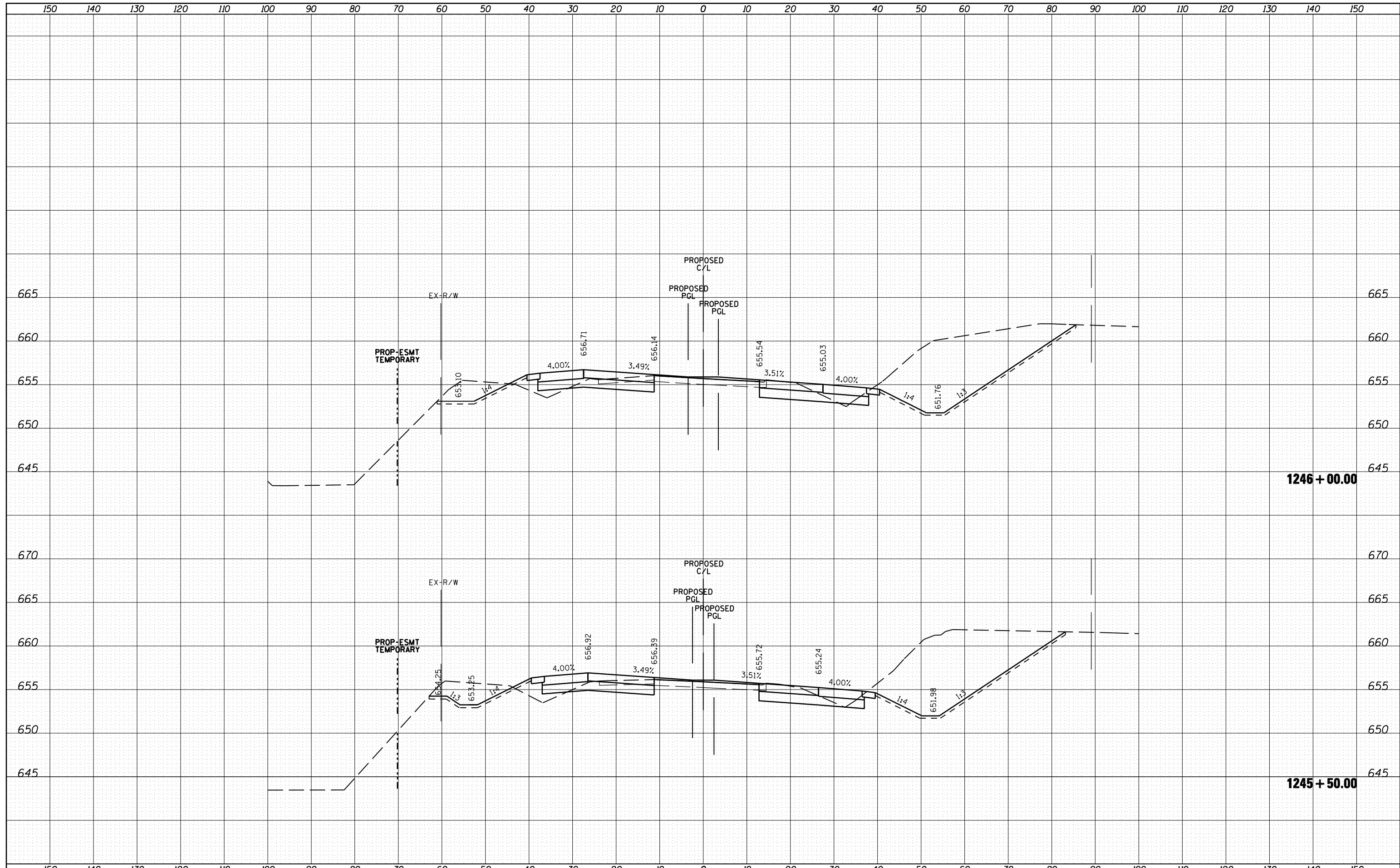
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FILE NAME =	USER NAME = 1654	DESIGNED - NGS	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>U.S. ROUTE 30 AT IL ROUTE 31 CROSS SECTIONS - U.S. ROUTE 30</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ht:\jobs\2010\20103003\cod\site\dgn\refs\US-30\060133-sht-US30-xsec.dgn	DRAWN - NGS	REVISED -	349			(10 & 11 VB) R-3	*	507	395	
PLOT SCALE = 20.0000' / IN.	CHECKED - RS	REVISED -	* KANE AND KENDALL			CONTRACT NO. 60133				
PLOT DATE = 6/15/2012	DATE - 06/15/2012	REVISED -	SCALE:			SHEET NO. 10 OF 41 SHEETS	STA. 1244+50.00 TO STA. 1245+00.00	ILLINOIS FED. AID PROJECT		

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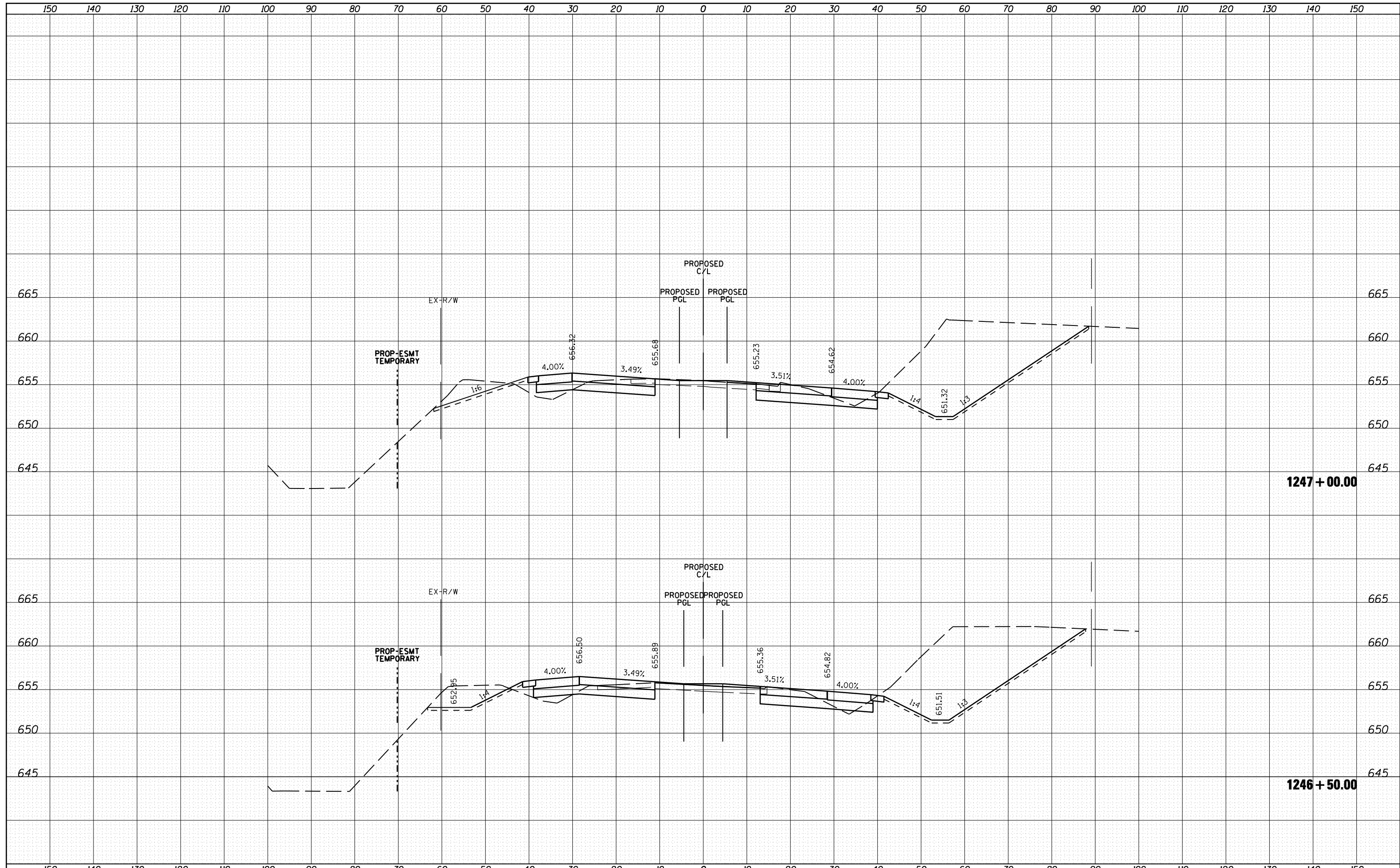


FILE NAME =	USER NAME = 1654	DESIGNED - NGS	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>U.S. ROUTE 30 AT IL ROUTE 31 CROSS SECTIONS - U.S. ROUTE 30</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ht:\jobs\2010\20103003\cod\site\dgn\refs\US-30\060133-sht-US30-xsec.dgn		DRAWN - NGS	REVISED -			349	(10 & 11 VB) R-3	*	507	396
PLOT SCALE = 20.0000' / IN.		CHECKED - RS	REVISED -			* KANE AND KENDALL		CONTRACT NO. 60133		
PLOT DATE = 5/16/2012		DATE - 05/11/2012	REVISED -			ILLINOIS FED. AID PROJECT				

SCALE: SHEET NO. 11 OF 41 SHEETS STA. 1245+50.00 TO STA. 1246+00.00

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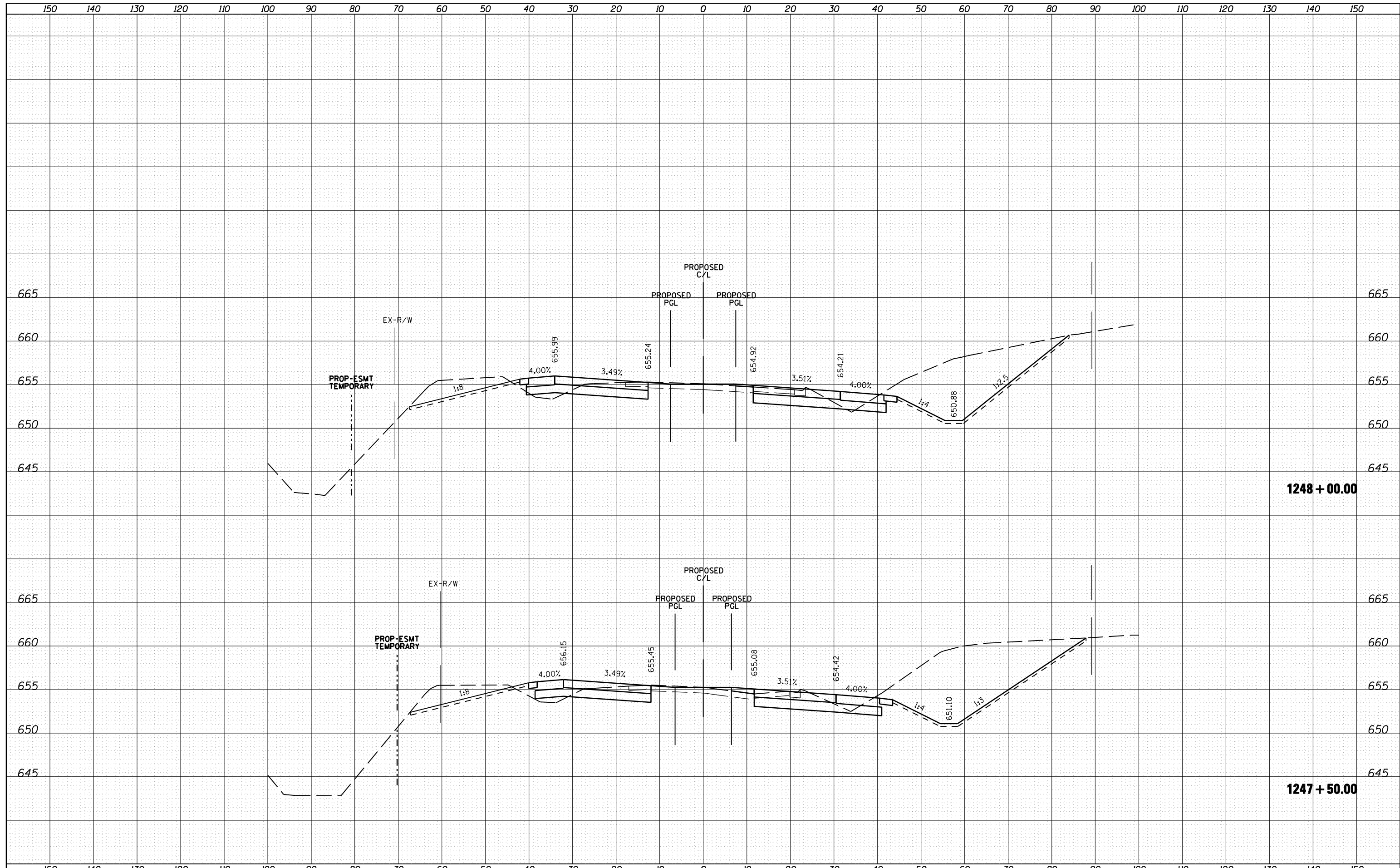
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FILE NAME =	USER NAME = 1654	DESIGNED - NGS	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>U.S. ROUTE 30 AT IL ROUTE 31</b> <b>CROSS SECTIONS - U.S. ROUTE 30</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ht:\jobs\2010\20103003\cod\site\dgn\refs\US-30\060133-sht-US30-xsec.dgn	DRAWN - NGS	REVISED -	349			(10 & 11 VB) R-3	*	507	397	
PLOT SCALE = 20.0000' / IN.	CHECKED - RS	REVISED -	* KANE AND KENDALL			CONTRACT NO. 60133				
PLOT DATE = 5/16/2012	DATE - 05/11/2012	REVISED -	ILLINOIS FED. AID PROJECT							

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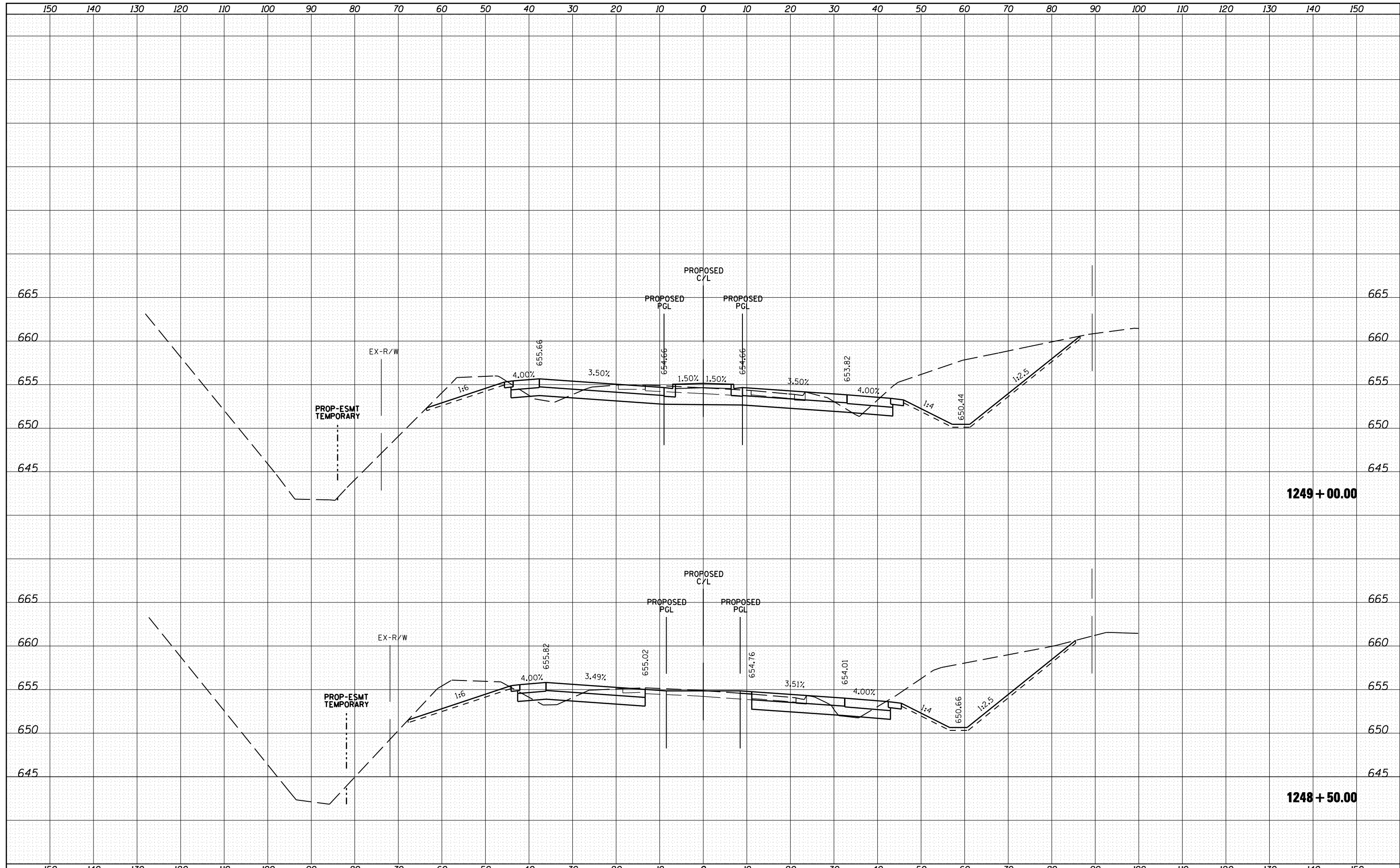
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FILE NAME =	USER NAME = 1654	DESIGNED - NGS	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>U.S. ROUTE 30 AT IL ROUTE 31</b> <b>CROSS SECTIONS - U.S. ROUTE 30</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ht:\jobs\2010\20103003\cod\site\dgn\refs\US-30\060133-sht-US30-xsec.dgn	DRAWN - NGS	REVISED -	349			(10 & 11 VB) R-3	*	507	398	
PLOT SCALE = 20.0000' / IN.	CHECKED - RS	REVISED -	* KANE AND KENDALL			CONTRACT NO. 60133				
PLOT DATE = 5/16/2012	DATE - 05/11/2012	REVISED -	ILLINOIS FED. AID PROJECT							

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FINAL SURVEY	
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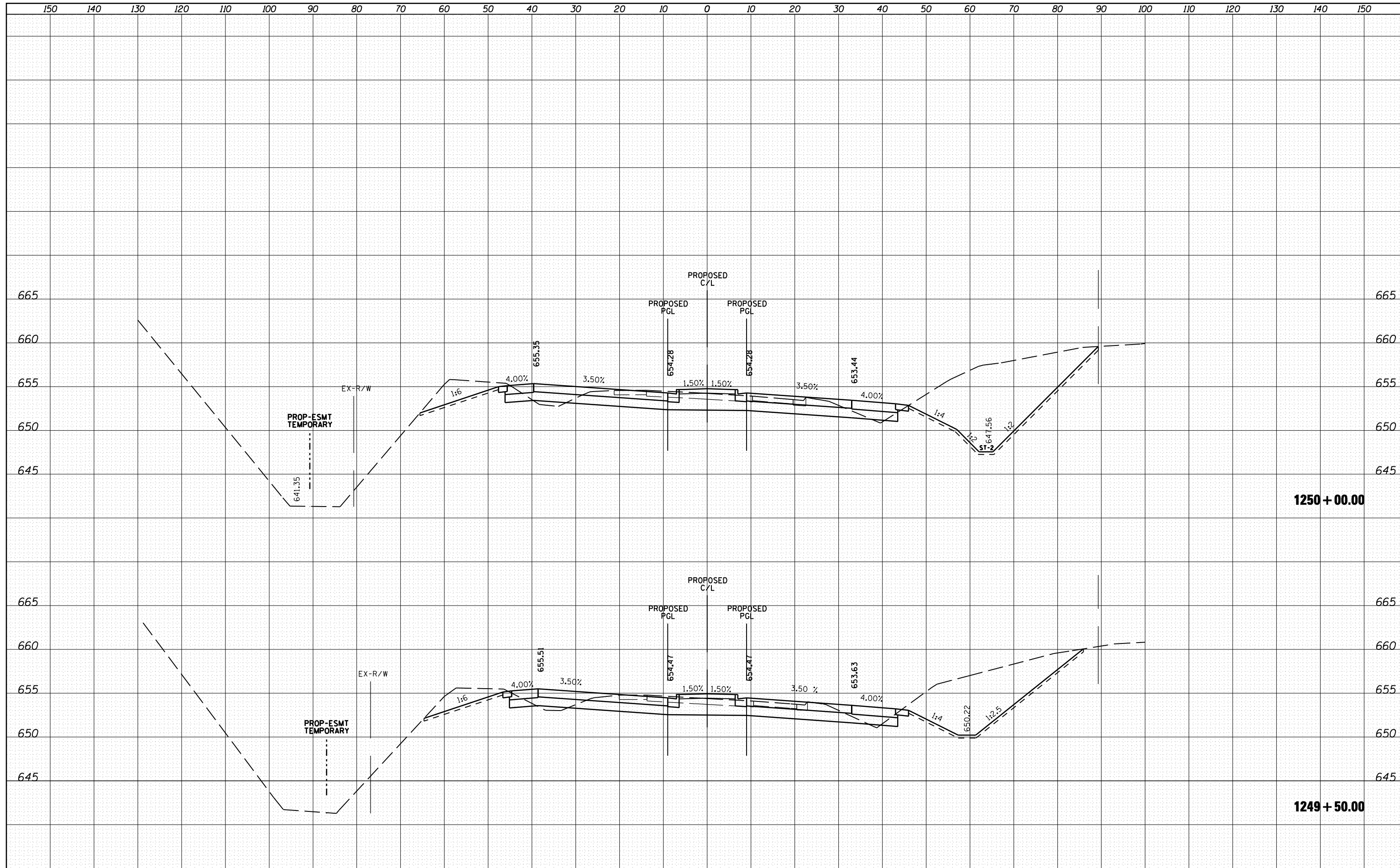


FILE NAME =	USER NAME = 1654	DESIGNED - NGS	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>U.S. ROUTE 30 AT IL ROUTE 31</b> <b>CROSS SECTIONS - U.S. ROUTE 30</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ht:\jobs\2010\20103003\cod\site\dgn\refs\US-30.D	60133-sht-US30-xsec.dgn	DRAWN - NGS	REVISED -			349	(10 & 11 VB) R-3	*	507	399
PLOT SCALE = 20.0000' / IN.	CHECKED - RS	REVISIED -				* KANE AND KENDALL		CONTRACT NO. 60133		
PLOT DATE = 5/16/2012	DATE - 05/11/2012	REVISIED -				ILLINOIS FED. AID PROJECT				



DATE	
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FINAL SURVEY NOTE BOOK NO.	

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 AT IL ROUTE 31  
 CROSS SECTIONS - U.S. ROUTE 30**  
 SCALE: SHEET NO. 15 OF 41 SHEETS STA. 1249+50.00 TO STA. 1250+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	*	507	400
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				