

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2881	30B-1	SALINE	45	1
FED. ROAD DIST. NO. 9	ILLINOIS	CONTRACT NO. 98533		

45-4-49

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

F.A.S. ROUTE 2881 (RALEIGH ROAD)
SECTION 30B-1
PROJECT: BRS-2881(101)
SALINE COUNTY
C-99-044-01

STRUCTURE REPLACEMENT OVER
ELDORADO RESERVOIR SPILLWAY

D-99-029-98



INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	GENERAL NOTES AND STANDARDS
3.-4.	SUMMARY OF QUANTITIES
5.-7.	SCHEDULES OF QUANTITIES
8.	TYPICAL CROSS SECTIONS
9.	PLAN AND PROFILE
10.	MISCELLANEOUS DETAILS
11.	STAGE I CONSTRUCTION
12.	STAGE II CONSTRUCTION
13.	EROSION CONTROL PLAN
14.	PAVEMENT MARKINGS
15.-32.	STRUCTURE PLANS
33.	BORING PLANS
33A.-33D	BRIDGE APPROACH PAVT. DETAILS
34.-39.	STAGE I CROSS SECTIONS
40.-45.	STAGE II CROSS SECTIONS

UTILITIES

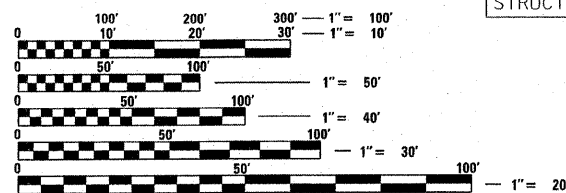
VERIZON NORTH
214 WEST MONROE
CARBONDALE, IL 62901

ATMOS ENERGY
P.O. BOX 424
HARRISBURG, IL 62946

AMEREN CIPS
1800 WEST MAIN
MARION, IL 62959

**DESIGN DESIGNATION
N.A.**

FUNCTIONAL CLASSIFICATION: MINOR COLLECTOR (RURAL)
DESIGN SPEED: 55 MPH
POSTED SPEED: 55 MPH
ADT: 3400 (2005)
PV: 94.1%
TRUCKS: 5.9%



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

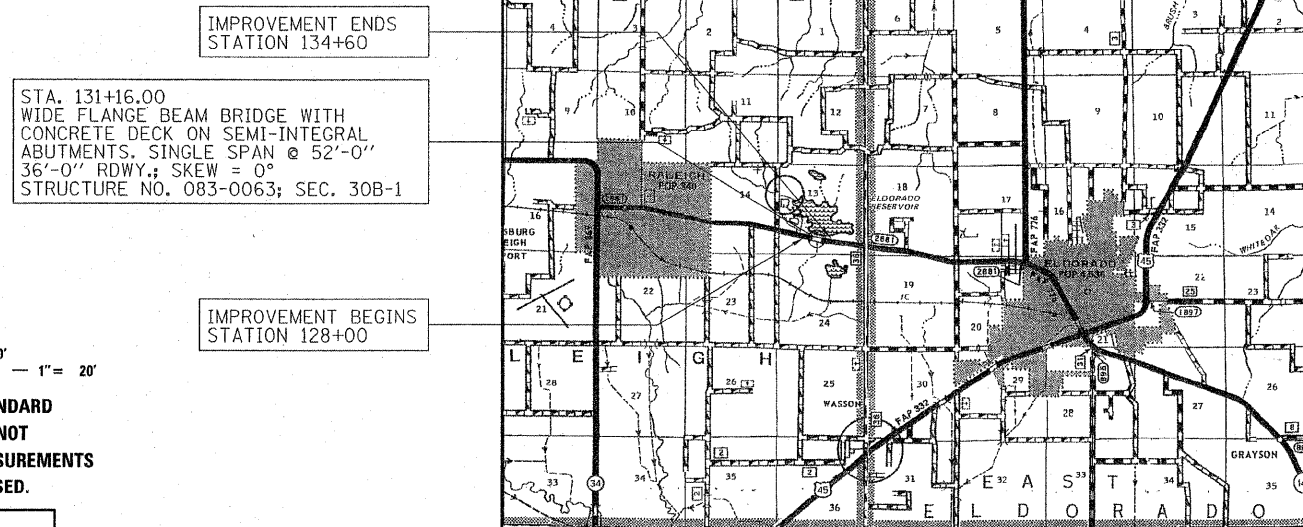
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER
PROJECT MANAGER

CONTRACT NO. 98533

TOWNSHIP: RALEIGH

R. 6 E. R. 7 E.



LOCATION MAPS

APPROXIMATE SCALE: 0 1 MILE

GROSS AND NET LENGTH OF SECTION = 660.00 FT. = 0.125 MI.
NET ROADWAY LENGTH = 605.92 FT. = 0.115 MI.
BRIDGE LENGTH SN 083-0063 = 54.08 FT. = 0.010 MI.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Oct 14 20 08

Mary C. Lomic
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
December 5, 2008

Eric E. Harned
ENGINEER OF DESIGN AND ENVIRONMENT
December 5, 2008

Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

DATE: [Signature]
F. STAUDER
062-34227

HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS

3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400

HLR

ELGIN • SPRINGFIELD

EXPIRES: 11/30/2009 PROJECT NUMBER: 08.0045.130 DATE: 09/18/08

PROJECT ENGINEER: DAVID PICHE (618) 351-5227

SUMMARY OF QUANTITIES			
CODE #	ITEM	UNIT	HBP FUNDING 80% FEDERAL 20% STATE SN 083-0063 X071-2A
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	26
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	76
20200100	EARTH EXCAVATION	CU YD	294
20300100	CHANNEL EXCAVATION	CU YD	330
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	122
25000210	SEEDING, CLASS 2A	ACRE	0.66
25000350	SEEDING, CLASS 7	ACRE	0.66
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	86
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	61
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	61
25000700	AGRICULTURAL GROUND LIMESTONE	TON	1.32
25100115	MULCH, METHOD 2	ACRE	1.32
25100630	EROSION CONTROL BLANKET	SQ YD	302
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	264
28000400	PERIMETER EROSION BARRIER	FOOT	1162
28100107	STONE RIPRAP, CLASS A4	SQ YD	460
28200200	FILTER FABRIC	SQ YD	578
31100300	SUB-BASE GRANULAR MATERIAL, TYPE A 4"	SQ YD	268
35600719	HOT-MIX ASPHALT BASE COURSE WIDENING, 10 3/4"	SQ YD	530
40200100	AGGREGATE SURFACE COURSE, TYPE A	TON	54
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	142
40600300	AGGREGATE (PRIME COAT)	TON	2
40600645	LEVELING BINDER (MACHINE METHOD), N90	TON	155
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	160
40600990	TEMPORARY RAMP	SQ YD	146
40603320	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N90	TON	120
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	248
42001420	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	SQ YD	48
44000100	PAVEMENT REMOVAL	SQ YD	340
44001005	HOT-MIX ASPHALT SURFACE REMOVAL	SQ YD	126
48100700	AGGREGATE SHOULDERS, TYPE A 8"	SQ YD	246
48203006	HOT-MIX ASPHALT SHOULDERS, 2 1/4"	SQ YD	466
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	420

^ SEE SPECIAL PROVISIONS

SUMMARY OF QUANTITIES			
CODE #	ITEM	UNIT	HBP FUNDING 80% FEDERAL 20% STATE SN 083-0063 X071-2A
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50105220	PIPE CULVERT REMOVAL	FOOT	34
50200100	STRUCTURE EXCAVATION	CU YD	350
50300100	FLOOR DRAINS	EACH	3
50300225	CONCRETE STRUCTURES	CU YD	60.6
50300255	CONCRETE SUPERSTRUCTURE	CU YD	84.1
50300260	BRIDGE DECK GROOVING	SQ YD	453
50300280	CONCRETE ENCASEMENT	CU YD	6.3
50300300	PROTECTIVE COAT	SQ YD	512
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1
50500505	STUD SHEAR CONNECTORS	EACH	1026
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	22860
50800515	BAR SPLICERS	EACH	282
51201400	FURNISHING STEEL PILES HP10X42	FOOT	720
51202305	DRIVING PILES	FOOT	720
51203400	TEST PILE STEEL HP10X42	EACH	2
51205200	TEMPORARY SHEET PILING	SQ FT	356
51500100	NAME PLATES	EACH	1
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	6
52100520	ANCHOR BOLTS, 1"	EACH	24
54200640	PIPE CULVERTS, TYPE 1, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 15"	FOOT	26
54205890	PIPE CULVERTS, TYPE 1, CORRUGATED STEEL, EQUIVALENT ROUND-SIZE 15"	FOOT	26
54213870	STEEL END SECTIONS 15"	EACH	2
54215130	STEEL END SECTIONS, EQUIVALENT ROUND-SIZE 15"	EACH	2
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	71
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	146
*63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	300
*63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4
*63100167	TRAFFIC BARRIER TERMINAL, TYPE 1(SPECIAL) TANGENT	EACH	2
63200310	GUARDRAIL REMOVAL	FOOT	200
63300900	VERTICAL ADJUSTMENT OF GUARD RAIL	FOOT	50
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3

^ SEE SPECIAL PROVISIONS

*Specialty Items

FILE NAME =
082045-sh1-summary.dgn

USER NAME =

DESIGNED - L.F.S.

REVISED -

DRAWN - D.T.M.

REVISED -

PLOT SCALE =

CHECKED - S.W.M.

REVISED -

PLOT DATE = 9/12/2008

DATE - 09/11/08

REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS

SUMMARY OF QUANTITIES

F.A.P.
RTE.
2881

SECTION

30B-1

COUNTY

SALINE

TOTAL SHEETS

45

SHEET NO.

3

CONTRACT NO. 98533

SCALE:

SHEET NO. 1 OF 1 SHEETS


STA.

TO STA.

FED. ROAD DIST. NO. 9 ILLINOIS FED. AID PROJECT

SUMMARY OF QUANTITIES			
CODE #	ITEM	UNIT	HBP FUNDING 80% FEDERAL 20% STATE SN 083-0063 X071-2A
67100100	MOBILIZATION	L SUM	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	10
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
70106700	TEMPORARY RUMBLE STRIP	EACH	6
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	6
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	276
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	5528
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	24
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1920
70400100	TEMPORARY CONCRETE BARRIER	FOOT	375
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	375
*78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	2764
*78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	10
*78200405	GUARDRAIL MARKERS	EACH	14
*78200500	BARRIER WALL MARKERS	EACH	15
*78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
78300100	PAVEMENT MARKING REMOVAL	SQ FT	920
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	10
86200300	UNINTERRUPTIBLE POWER SUPPLY, EXTENDED	EACH	1
X6330103	REMOVE AND RE-ERECT TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL, TANGENT	EACH	2
X7050167	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)	EACH	2
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2

^ SEE SPECIAL PROVISIONS
* Specialty Items

FILE NAME = 060045-shr-summary.dgn	USER NAME =	DESIGNED - L.F.S.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	 HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS	SUMMARY OF QUANTITIES	F.A.P. RTE. 2881	SECTION 30B-1	COUNTY SALINE	TOTAL SHEETS 45	SHEET NO. 4
PLOT SCALE =	CHECKED - S.W.M.	REVISED -	CONTRACT NO. 98533								
PLOT DATE = 9/12/2008	DATE - 09/11/08	REVISED -	FED. ROAD DIST. NO. 9 ILLINOIS FED. AID PROJECT								
SCALE:		SHEET NO. 1 OF 1 SHEETS					STA. TO STA.				

ROADWAY SCHEDULE																	
LOCATION	HOT-MIX ASPHALT SURFACE COURSE MIX "C", N90 1 1/2" TON	LEVELING BINDER (MACHINE METHOD) N-90 3/4" MIN TON	HOT-MIX ASPHALT BASE COURSE WIDENING 10 3/4" SQ YD	BITUMINOUS MATERIAL PRIME COAT GAL	AGGREGATE PRIME COAT TON	AGGREGATE SHOULDERS TYPE A 8" SQ YD	HOT-MIX ASPHALT SHOULDERS 8" SQ YD	HOT-MIX ASPHALT SHOULDERS 2 1/4" SQ YD	HOT-MIX ASPHALT SURFACE REMOVAL BUTT-JOINT SQ YD	HOT-MIX ASPHALT SURFACE REMOVAL SQ YD	TEMPORARY RAMP SQ YD	PAVEMENT REMOVAL SQ YD	SUB-BASE GRANULAR MATERIAL TYPE A 4" SQ YD	BRIDGE APPROACH PAVEMENT SQ YD	BRIDGE DECK GROOVING SQ YD	PROTECTIVE COAT SQ YD	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC) SQ YD
FAS 2881 RALEIGH RD																	
STAGE I																	
RT. STA. 128+00.00 TO RT. STA. 130+88.95			118			50	115				40	68	67	62	62	62	12
RT. STA. 131+43.04 TO RT. STA. 134+60.00			113			73	85				42	68	67	62	62	62	12
LT. STA. 128+00.00 TO LT. STA. 130+88.95			152														
LT. STA. 131+43.04 TO LT. STA. 134+60.00			147														
STAGE II																	
LT. STA. 128+00.00 TO LT. STA. 130+88.95						50	73				20	102	67	62	62	62	12
LT. STA. 131+43.04 TO LT. STA. 134+60.00						73	147				24	102	67	62	62	62	12
CL. STA. 128+00.00 TO CL. STA. 130+88.95	57	45		67	1			238	80	126	10						
CL. STA. 131+43.04 TO CL. STA. 134+60.00	63	110		75	1			228	80		10						
BRIDGE																	
CL. STA. 130+88.95 TO CL. STA. 131+43.04															205	264	
TOTAL	120	155	530	142	2	246	420	466	160	126	146	340	268	248	453	512	48

ENTRANCE AND CULVERT SUMMARY									
LOCATION	TYPE	PROPOSED SURFACE TYPE	PROPOSED WIDTH FEET	AGGREGATE SURFACE COURSE TYPE A TON	PIPE CULVERT CLASS D TYPE 1 (C.S.C.P.)		STEEL END SECTIONS	STEEL END SECTIONS	PIPE CULVERT REMOVAL FOOT
					15" FOOT	EQRS 15" FOOT	15" EACH	EQRS 15" EACH	
FAS 2881 RALEIGH RD									
RT. STA. 13+86.00 TO RT. STA. 132+20									34
RT. 126+85	FE	AGG	15	24		26		2	
RT. 134+30	FE	AGG	15	30	26		2		
TOTAL PROJECT				54	26	26	2	2	34

PAVEMENT MARKING SCHEDULE										
LOCATION	TEMPORARY			EPOXY PAVEMENT MARKING PERMANENT		SHORT TERM PAVEMENT MARKING	WORK ZONE PAVEMENT MARKING REMOVAL	PAVEMENT MARKING REMOVAL	RAISED REFLECTIVE PAVEMENT MARKER	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL
	24" SINGLE WHITE STOP BAR	4" SINGLE WHITE EDGE LINE	4" SOLID YELLOW CENTERLINE	4" SINGLE WHITE EDGE LINE	4" SOLID YELLOW CENTERLINE					
	FOOT	FOOT	FOOT	FOOT	FOOT					
FAS 2881 RALEIGH RD										
STAGE I										
LT. STA. 127+70.50 TO LT. STA. 134+61.50								230		
LCL. STA. 127+70.50 TO LCL. STA. 134+61.50								230		10
RCL. STA. 127+70.50 TO RCL. STA. 134+61.50								230		
RT. STA. 127+70.50 TO RT. STA. 134+61.50								230		
LT. STA. 127+70.50 TO LT. STA. 134+61.50	12	691						228		
RT. STA. 127+70.50 TO LT. STA. 129+78.50		208						69		
LT. STA. 129+78.50 TO LT. STA. 132+53.50		275						91		
LT. STA. 132+53.50 TO RT. STA. 134+61.60	12	208						69		
STAGE II										
LT. STA. 127+70.50 TO RT. STA. 129+78.50		208						69		
RT. STA. 129+78.50 TO RT. STA. 133+03.50		325						107		
RT. STA. 133+03.50 TO LT. STA. 134+61.50		158						53		
RT. STA. 127+70.50 TO RT. STA. 134+61.50		691						228		
LT. STA. 127+70.50								24		
RT. STA. 134+61.60								24		
LT. STA. 127+70.50 TO LT. STA. 134+61.50		691		691				228		
LCL. STA. 127+70.50 TO LCL. STA. 134+61.50			691		691	276		274	10	
RCL. STA. 127+70.50 TO RCL. STA. 134+61.50			691		691			228		
RT. STA. 127+70.50 TO RT. STA. 134+61.50		691		691				228		
SUBTOTAL	24	4146	1382	1382	1382	276	1920	920	10	10
TOTAL	24	5528		2764		276	1920	920	10	10

MAINTENANCE OF TRAFFIC							
LOCATION	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	BARRIER WALL MARKERS	TEMPORARY BRIDGE TRAFFIC SIGNALS	TEMPORARY RUMBLE STRIPS	IMPACT ATTENUATORS TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3	IMPACT ATTENUATORS RELOCATE (NON-REDIRECTIVE) TEST LEVEL 3
FAS 2881 RALEIGH RD	FOOT	FOOT	EACH	EACH	EACH	EACH	EACH
STAGE I							
127+70.5 TO 134+61.5				1	6	2	
STA. 128+98.5 TO STA. 133+33.5	375		15				
STAGE II							
127+70.5 TO 134+61.5							2
STA. 128+98.5 TO STA. 133+33.5		375					
TOTAL	375	375	15	1	6	2	2

EARTHWORK SUMMARY							
LOCATION	EARTH EXCAVATION	ADDITIONAL EXCAVATION	SHRINKAGE FACTOR	% USED	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE(25%)	EMBANKMENT REQUIRED	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CUBIC YARD	CUBIC YARD			CUBIC YARD	CUBIC YARD	CUBIC YARD
FAS 2881 RALEIGH RD							
STAGE I							
STA. 128+00.00 TO STA. 130+88.95	89		25.00%	100.00%	67	71	-4
STA. 131+43.04 TO STA. 134+60.00	170		25.00%	100.00%	128	75	53
STAGE II							
STA. 128+00.00 TO STA. 130+88.95	15		25.00%	100.00%	11	52	-41
STA. 131+43.04 TO STA. 134+60.00	20		25.00%	100.00%	15	41	-26
CHANNEL EXCAVATION							
		330	25.00%	10.00%	25	0.0	25
	294	330			246	239	7

WASTE = 7 CU.YD.

GUARDRAIL									
	GUARDRAIL REMOVAL	VERTICAL ADJUSTMENT OF GUARD RAIL	TEMPORARY TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL (TANGENT)	REMOVE AND RE-ERECT TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL (TANGENT)	STEEL PLATE BEAM GUARDRAIL TYPE A	TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL (TANGENT)	TRAFFIC BARRIER TERMINAL TYPE 6	TERMINAL MARKER DIRECT APPLIED	GUARDRAIL MARKERS
	FOOT	FOOT	EACH	EACH	FOOT	EACH	EACH	EACH	EACH
STAGE I									
LT. STA. 130+39.5 TO LT. STA. 130+89.5			1					1	
LT. STA. 130+64.5 TO LT. STA. 130+89.5	25								
LT. STA. 130+89.5 TO LT. STA. 131+02.5		13							
LT. STA. 131+28 TO LT. STA. 131+65		37							
LT. STA. 131+65 TO LT. STA. 131+90	25								
LT. STA. 131+65 TO LT. STA. 132+15			1					1	
RT. STA. 128+83.10 TO RT. STA. 130+88.75	62				112.5	1	1	1	4
RT. STA. 131+43.25 TO RT. STA. 132+73.90	38				37.5	1	1	1	3
STAGE II									
LT. STA. 129+58.10 TO LT. STA. 130+88.75	12			1	37.5		1		3
LT. STA. 131+43.25 TO LT. STA. 133+48.90	38			1	112.5		1		4
TOTAL									
	200	50	2	2	300	2	4	4	14

EROSION CONTROL BLANKET	
LOCATION	SQ YD
FAS 2881 RALEIGH RD	
STAGE I	
RT STA 130+50.00 TO RT STA 130+78.00	28
RT STA 131+50.00 TO RT STA 132+70000	100
STAGE II	
LT STA 129+50.00 TO LT STA 130+78.00	110
LT STA 131+50.00 TO RT STA 133+50.00	64
TOTAL	
	302

TREE REMOVAL		
LOCATION	6-15 UNITS DIAMETER	OVER 15 UNITS DIAMETER
FAS 2881 RALEIGH RD		
31' LT. STA.130+66	6	
33' LT. STA.130+78	8	
37' LT. STA.131+65	12	
29' LT. STA.130+90		30
27' LT. STA.131+44		30
27' LT. STA.133+58		16
TOTAL		
	26	76

SEEDING								
LOCATION	SEEDING CLASS 2A SPECIAL	SEEDING CLASS 7	TEMPORARY EROSION CONTROL SEEDING *	NITROGEN FERTILIZER NUTRIENT**	PHOSPHORUS FERTILIZER NUTRIENT 90 LBS/ACRE	POTASSIUM FERTILIZER NUTRIENT 90 LBS/ACRE	AGRICULTURAL GROUND LIMESTONE 2 TONS/ACRE	MULCH METHOD 2
	ACRE	ACRE	LBS	LBS	LBS	LBS	TONS	ACRE
FAS 2881 RALEIGH RD								
STAGE I								
RT STA 128+00 TO RT 130+88	0.13	0.13	52	17	12	12	0.26	0.260
RT STA 131+44 TO RT 134+60	0.25	0.25	102	33	23	23	0.50	0.500
STAGE II								
LT STA 128+00 TO LT 130+88	0.14	0.14	55	18	13	13	0.28	0.280
LT STA 131+44 TO LT 134+60	0.14	0.14	55	18	13	13	0.28	0.280
TOTAL								
	0.66	0.66	264	86	61	61	1.32	1.32

* 100 LBS/ACRE FOR 4 APPLICATIONS

** 90 LBS/ACRE FOR SEEDING CLASS 2A AND 40 LBS/ACRE FOR SEEDING CLASS 7

PERIMETER EROSION BARRIER	
LOCATION	FOOT
FAP 885 IL RTE 146	
STAGE I	
RT. STA. 128+00 TO RT. STA. 130+95	295
LT. STA. 128+00 TO LT. STA. 130+95	295
RT. STA. 131+44 TO RT. STA. 134+00	256
LT. STA. 131+44 TO LT. STA. 134+60	316
TOTAL	
	1162

FILE NAME = 080045-sh1-sched1.dgn

USER NAME =

DESIGNED - L.F.S.

REVISED -

DRAWN - D.T.M.

REVISED -

PLOT SCALE =

CHECKED - S.W.M.

REVISED -

PLOT DATE = 9/12/2008

DATE - 09/11/08

REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

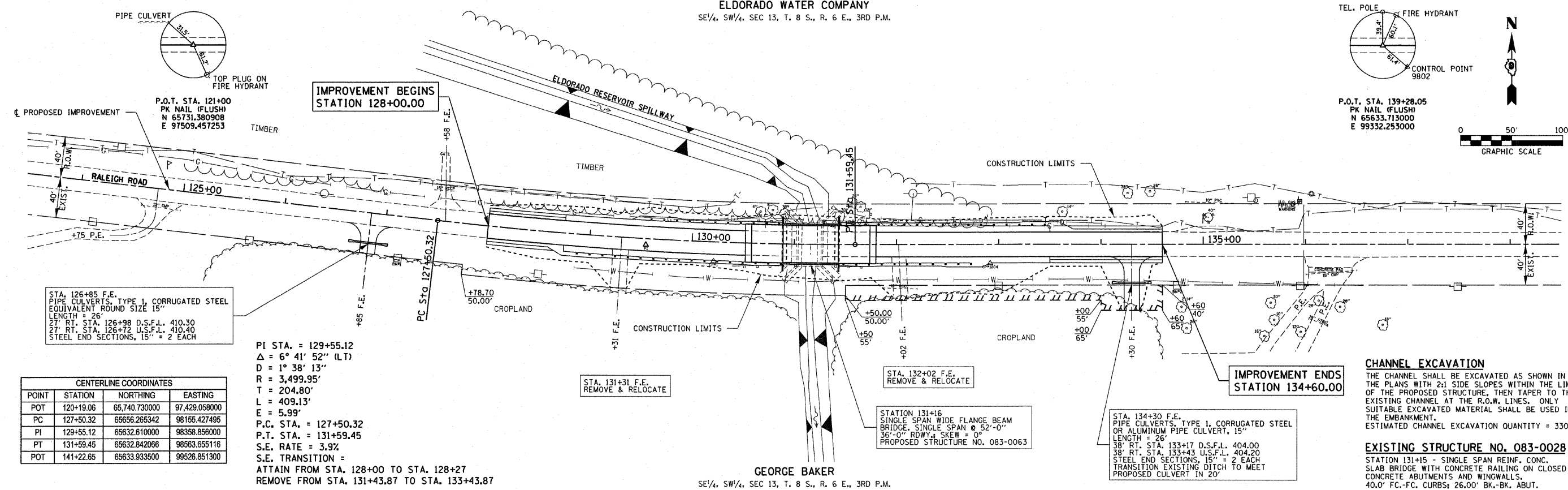
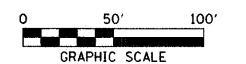
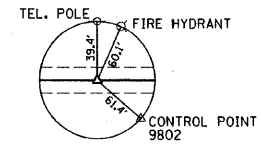
HLR HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS
SCALE: SHEET NO. 1 OF 1 SHEETS

SCHEDULE OF QUANTITIES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2881	30B-1	SALINE	45	7
CONTRACT NO. 98533				

FED. ROAD DIST. NO. 9 ILLINOIS FED. AID PROJECT

ELDORADO WATER COMPANY
SE 1/4, SW 1/4, SEC 13, T. 8 S., R. 6 E., 3RD P.M.



STA. 126+85 F.E.
PIPE CULVERTS, TYPE 1, CORRUGATED STEEL
EQUIVALENT ROUND SIZE 15"
LENGTH = 26'
27' RT. STA. 126+98 D.S.F.L. 410.30
27' RT. STA. 126+72 U.S.F.L. 410.40
STEEL END SECTIONS, 15" = 2 EACH

PI STA. = 129+55.12
Δ = 6° 41' 52" (LT)
D = 1° 38' 13"
R = 3,499.95'
L = 409.13'
T = 204.80'
E = 5.99'
P.C. STA. = 127+50.32
P.T. STA. = 131+59.45
S.E. RATE = 3.9%
S.E. TRANSITION =
ATTAIN FROM STA. 128+00 TO STA. 128+27
REMOVE FROM STA. 131+43.87 TO STA. 133+43.87

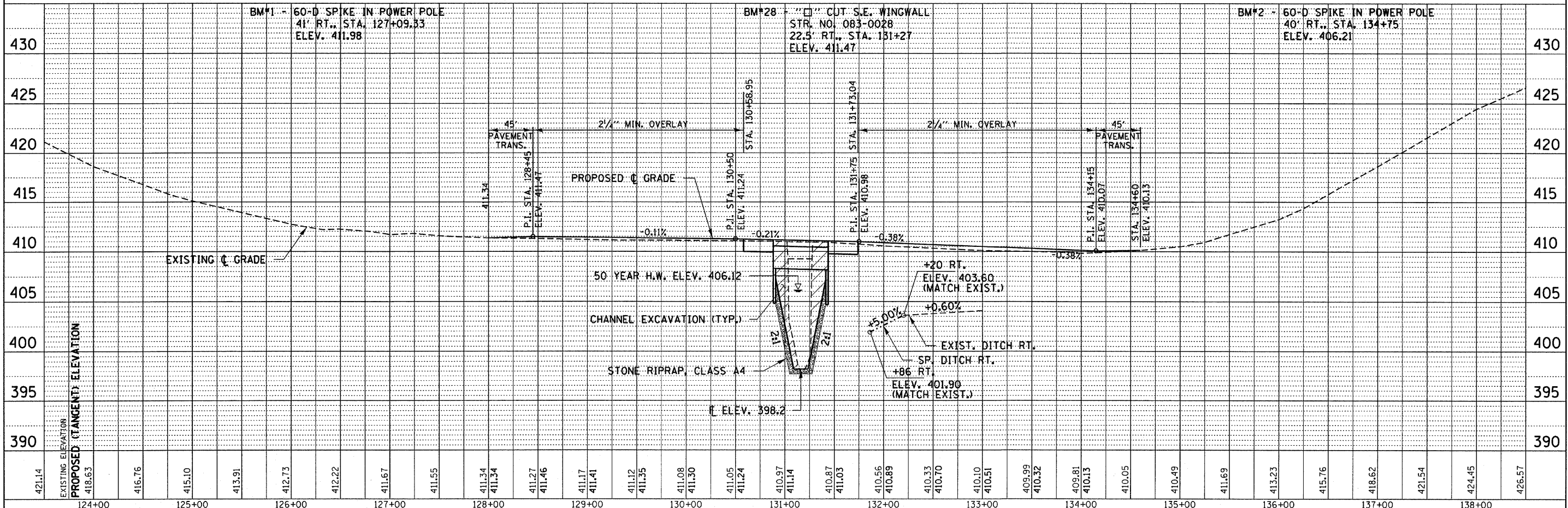
CENTERLINE COORDINATES			
POINT	STATION	NORTHING	EASTING
POT	120+19.06	65,740.730000	97,429.058000
PC	127+50.32	65656.265342	98155.427495
PI	129+55.12	65632.610000	98358.856000
PT	131+59.45	65632.842066	98563.655116
POT	141+22.65	65633.933600	99526.851300

CHANNEL EXCAVATION
THE CHANNEL SHALL BE EXCAVATED AS SHOWN IN THE PLANS WITH 2:1 SIDE SLOPES WITHIN THE LIMITS OF THE PROPOSED STRUCTURE, THEN TAPER TO THE EXISTING CHANNEL AT THE R.O.W. LINES. ONLY SUITABLE EXCAVATED MATERIAL SHALL BE USED IN THE EMBANKMENT.
ESTIMATED CHANNEL EXCAVATION QUANTITY = 330 CU YD

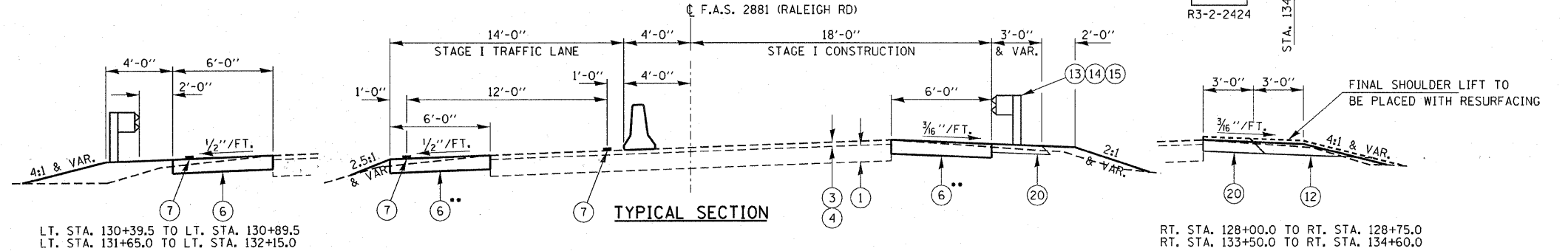
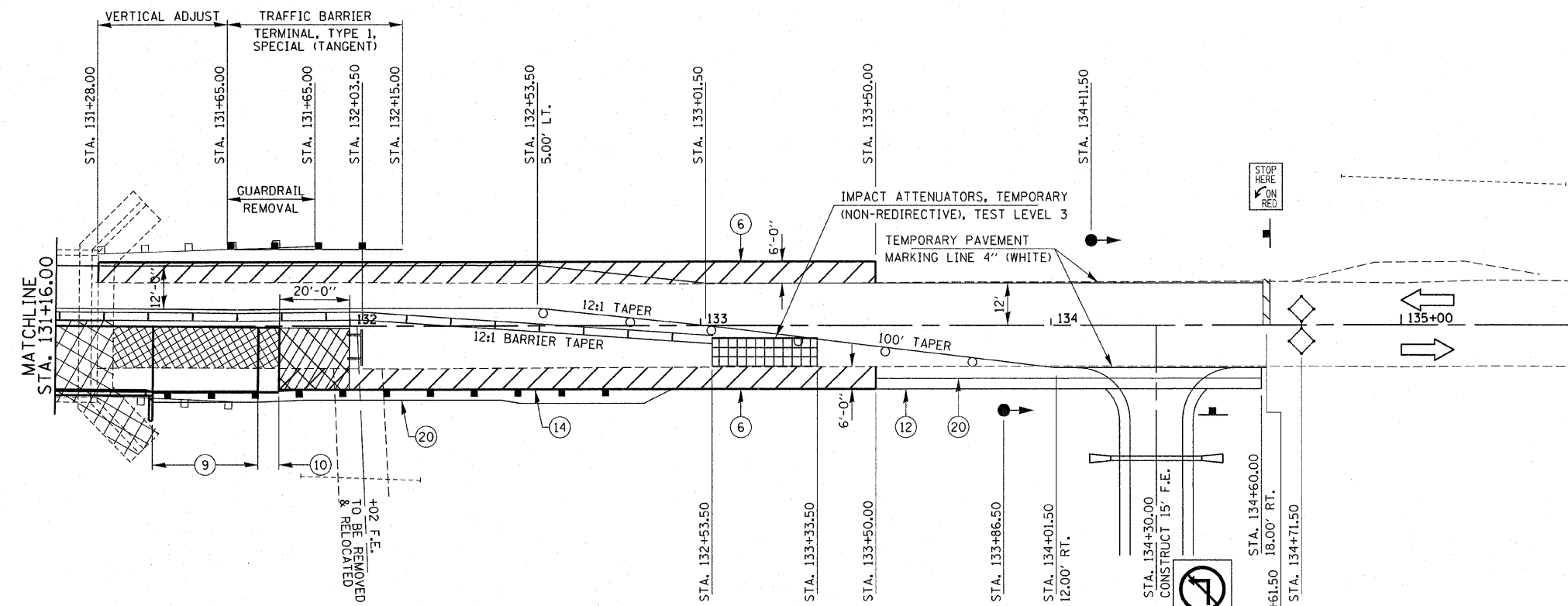
EXISTING STRUCTURE NO. 083-0028
STATION 131+15 - SINGLE SPAN REINF. CONC. SLAB BRIDGE WITH CONCRETE RAILING ON CLOSED CONCRETE ABUTMENTS AND WINGWALLS, 40.0' FC-FC, CURBS; 26.00' BK-BK, ABUT.

DATE	BY	PLANNED	CHECKED	DATE	BY

DATE	BY	PROFILES	CHECKED	DATE	BY

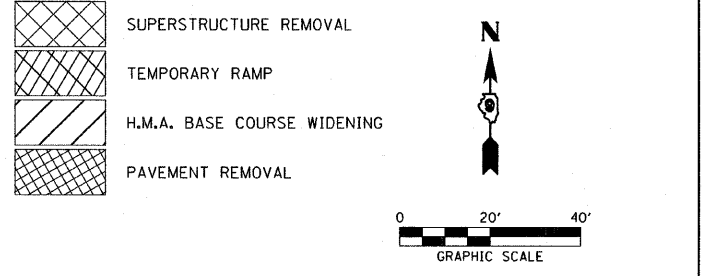


FILE NAME = 080045-ah-pp1.dgn	USER NAME =	DESIGNED - L.F.S.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS	PLAN & PROFILE RALEIGH ROAD	F.A.S. RTE. 2881	SECTION 30B-1	COUNTY SALINE	TOTAL SHEETS 45	SHEET NO. 9		
PLOT SCALE =	DATE = 09/11/08	DRAWN - D.T.M.	REVISED -				SHEET NO. 1 OF 1 SHEETS	STA. 124+00 TO STA. 138+00	FED. ROAD DIST. NO. 9	ILLINOIS FED. AID PROJECT	CONTRACT NO. 98533		
PLOT DATE = 10/8/2008	DATE = 09/11/08	CHECKED - S.W.M.	REVISED -										

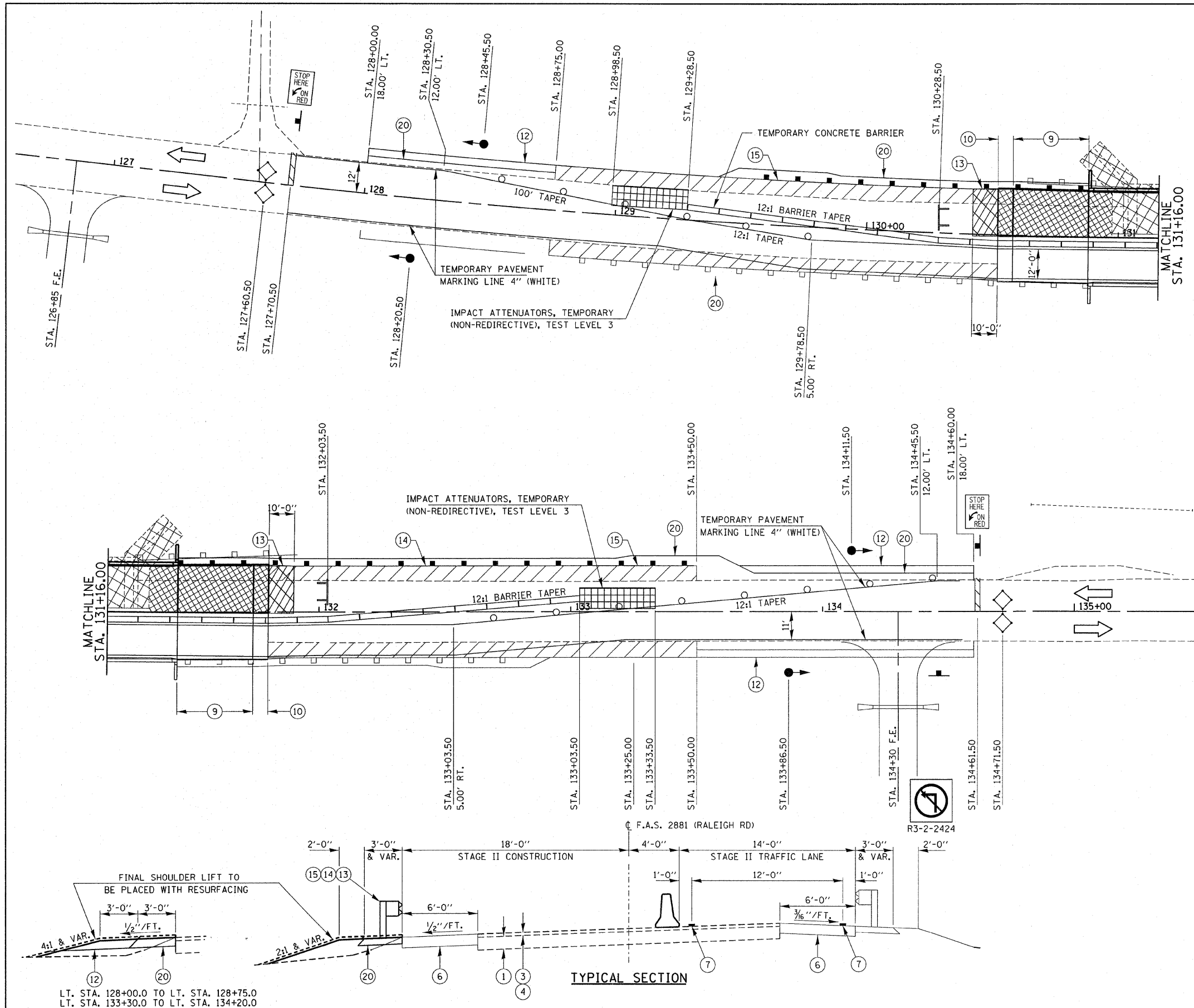


- GENERAL NOTES**
1. TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321."
 2. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
 3. COORDINATE LOCATION OF SIGNALS WITH FINAL WORK AS DIRECTED BY THE ENGINEER
 4. CONSTRUCT TEMPORARY RUMBLE STRIPS AT LOCATIONS SHOWN ON STANDARD 701321.

- LEGEND**
- (1) EXIST CONCRETE PAVEMENT
 - (2)
 - (3) EXISTING H.M.A. BINDER COURSE 1 1/2" MIN
 - (4) EXISTING H.M.A. SURFACE COURSE 1 1/2"
 - (5) EXISTING AGGREGATE SHOULDERS TYPE A 6"
 - (6) H.M.A. BASE COURSE WIDENING 10 3/4"
 - (7) TEMPORARY PAVEMENT MARKING
 - (8) EXISTING GUARDRAIL
 - (9) BRIDGE APPROACH PAVEMENT
 - (10) BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)
 - (11) BRIDGE APPROACH PAVEMENT SUB-BASE, 4"
 - (12) AGGREGATE SHOULDERS, TYPE A, 8"
 - (13) TRAFFIC BARRIER TERMINAL, TYPE 6
 - (14) STEEL PLATE BEAM GUARDRAIL
 - (15) TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT)
 - (16) HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N90 (1 1/2" MIN.)
 - (17) LEVELING BINDER (MACHINE METHOD), N90 (3/4" MIN.)
 - (18) HOT-MIX ASPHALT SHOULDERS, 2 1/4"
 - (19) HOT-MIX ASPHALT SURFACE REMOVAL (CROSS SLOPE CORRECTION)
 - (20) HOT-MIX ASPHALT SHOULDERS, 8"



FILE NAME = 080045-sh1-stagel.dgn	USER NAME =	DESIGNED - L.F.S.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HLR HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS	STAGE 1 CONSTRUCTION	F.A.S. RTE. 2881	SECTION 30B-1	COUNTY SALINE	TOTAL SHEETS 45	SHEET NO. 11
PLOT SCALE =	CHECKED - S.W.M.	REVISED -	SCALE: 20				SHEET NO. 1 OF 1 SHEETS	STA. 124+00 TO STA. 138+00	CONTRACT NO. 98533		
PLOT DATE = 10/8/2008	DATE - 09/11/08	REVISED -	FED. ROAD DIST. NO. 9 ILLINOIS FED. AID PROJECT								

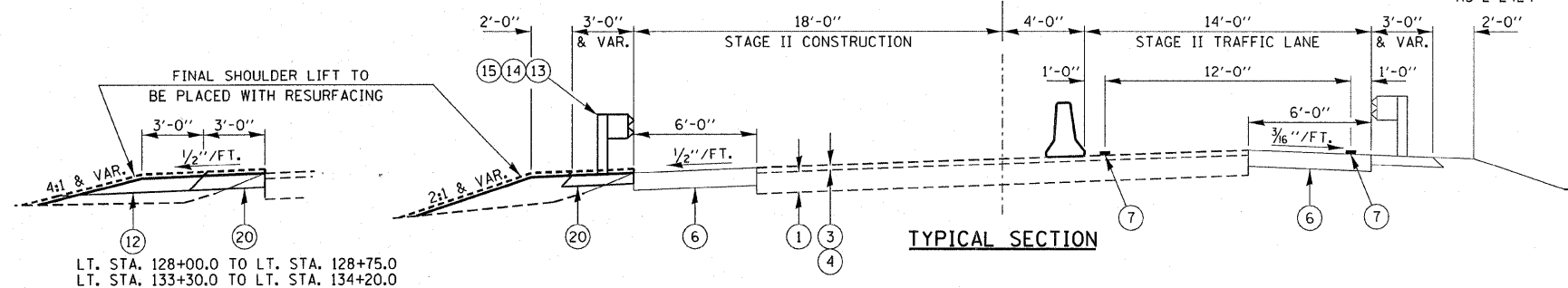
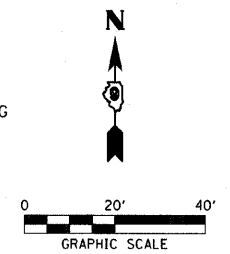
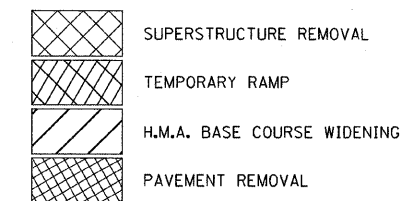


GENERAL NOTES

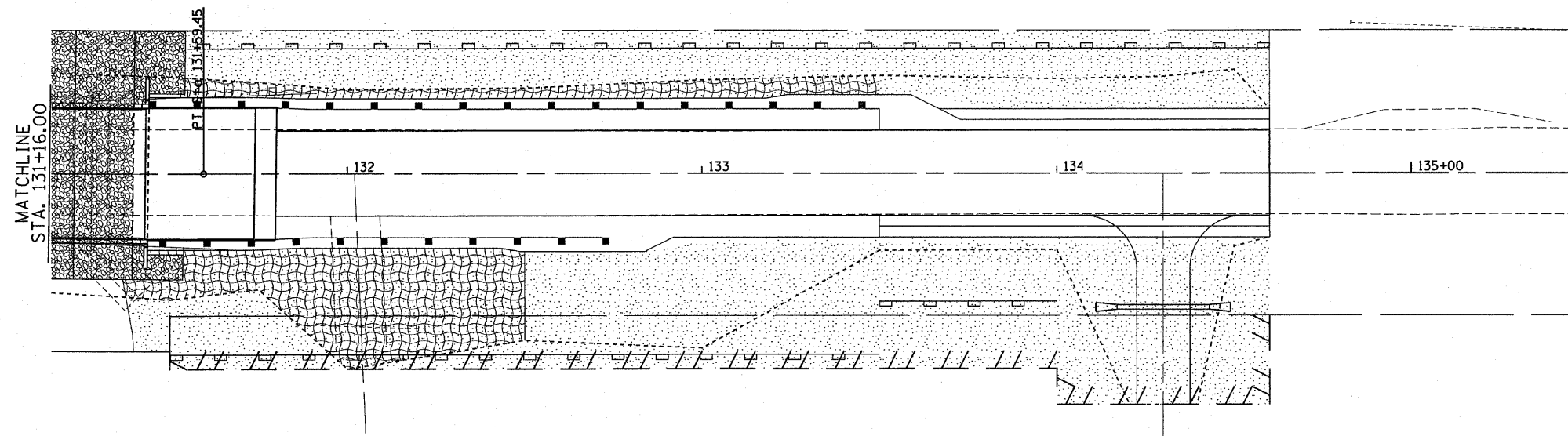
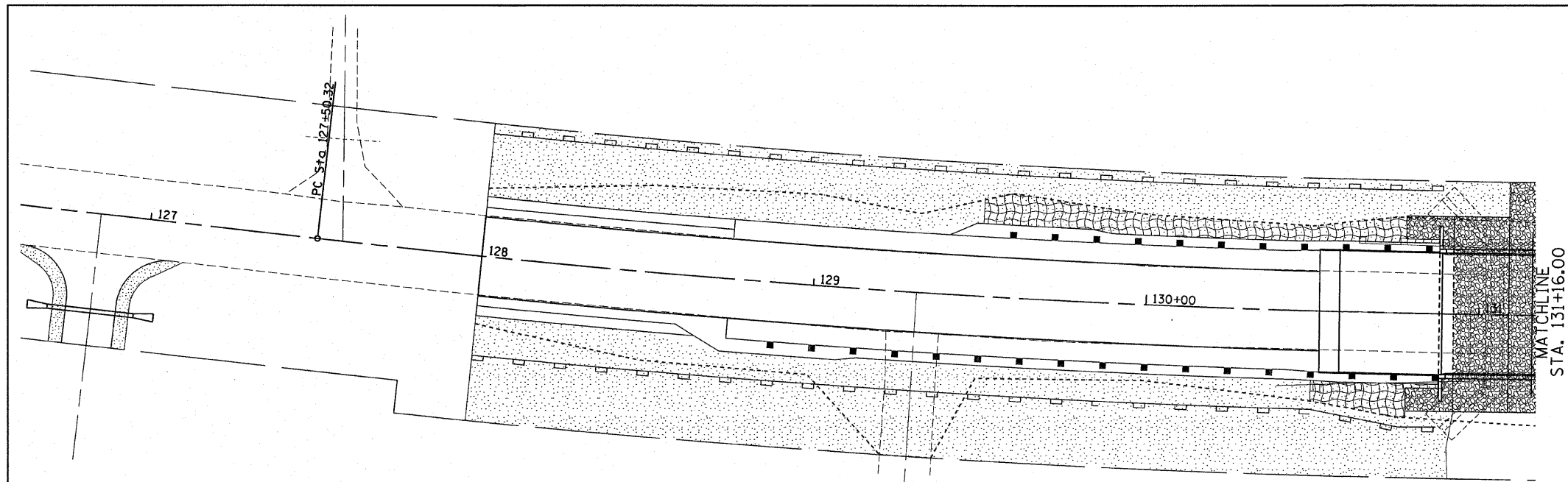
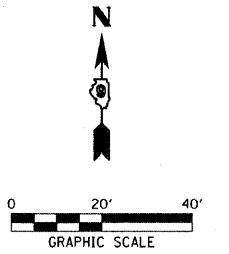
1. TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321."
2. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
3. COORDINATE LOCATION OF SIGNALS WITH FINAL WORK AS DIRECTED BY THE ENGINEER
4. CONSTRUCT TEMPORARY RUMBLE STRIPS AT LOCATIONS SHOWN ON STANDARD 701321.

LEGEND

- ① EXIST CONCRETE PAVEMENT
- ②
- ③ EXISTING H.M.A. BINDER COURSE 1 1/2" MIN
- ④ EXISTING H.M.A. SURFACE COURSE 1 1/2"
- ⑤ EXISTING AGGREGATE SHOULDERS TYPE A 6"
- ⑥ H.M.A. BASE COURSE WIDENING 10 3/4"
- ⑦ TEMPORARY PAVEMENT MARKING
- ⑧ EXISTING GUARDRAIL
- ⑨ BRIDGE APPROACH PAVEMENT
- ⑩ BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)
- ⑪ BRIDGE APPROACH PAVEMENT SUB-BASE, 4"
- ⑫ AGGREGATE SHOULDERS, TYPE A, 8"
- ⑬ TRAFFIC BARRIER TERMINAL, TYPE 6
- ⑭ STEEL PLATE BEAM GUARDRAIL
- ⑮ TRAFFIC BARRIER TERMINAL, TYPE I SPECIAL (TANGENT)
- ⑯ HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N90 (1 1/2" MIN.)
- ⑰ LEVELING BINDER (MACHINE METHOD), N90 (3/4" MIN.)
- ⑱ HOT-MIX ASPHALT SHOULDERS, 2 1/4"
- ⑳ HOT-MIX ASPHALT SURFACE REMOVAL (CROSS SLOPE CORRECTION)
- ㉑ HOT-MIX ASPHALT SHOULDERS, 8"



FILE NAME = 080045-sh1-stage2.dgn	USER NAME =	DESIGNED - L.F.S.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HLR HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS	STAGE 2 CONSTRUCTION	F.A.S. RTE. 2881	SECTION 30B-1	COUNTY SALINE	TOTAL SHEETS 45	SHEET NO. 12
PLOT SCALE =	CHECKED - S.W.M.	REVISED -	SCALE: 20				SHEET NO. 1 OF 1 SHEETS	STA. 124+00 TO STA. 138+00	CONTRACT NO. 98533		
PLOT DATE = 10/8/2008	DATE - 09/09/08	REVISED -	FED. ROAD DIST. NO. 9 ILLINOIS FED. AID PROJECT								



LEGEND

- PERIMETER EROSION BARRIER
- SEEDING
- EROSION CONTROL BLANKET

FILE NAME =
080045-shr-erosion.dgn

USER NAME =
PLOT SCALE =
PLOT DATE = 10/8/2008

DESIGNED - L.F.S.
DRAWN - D.T.M.
CHECKED - S.W.M.
DATE - 09/11/08

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**



HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS

SCALE: 20

SHEET NO. 1 OF 1 SHEETS

EROSION CONTROL PLAN

STA. TO STA.

F.A.S.
RTE.
2881

SECTION
30B-1

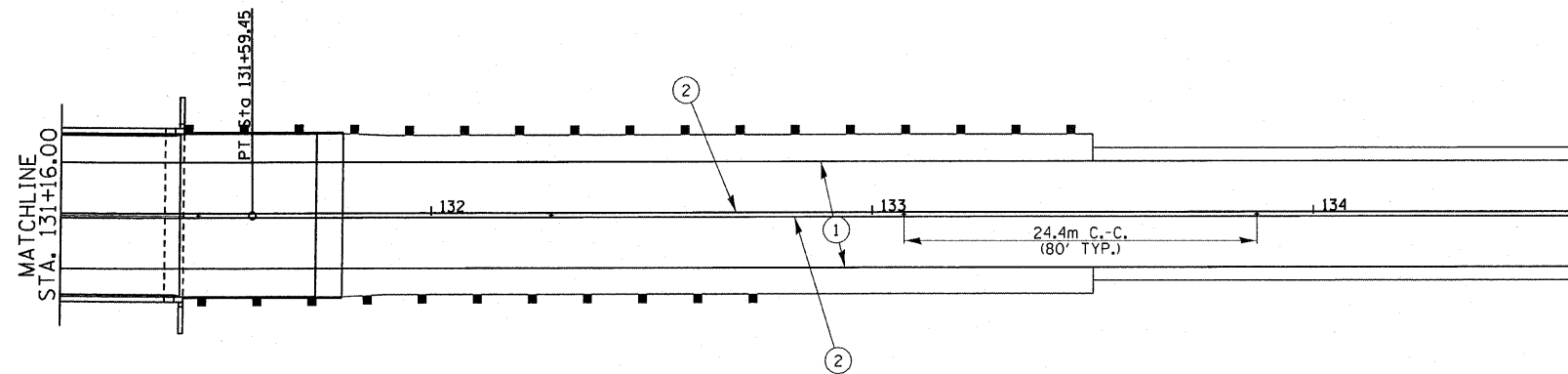
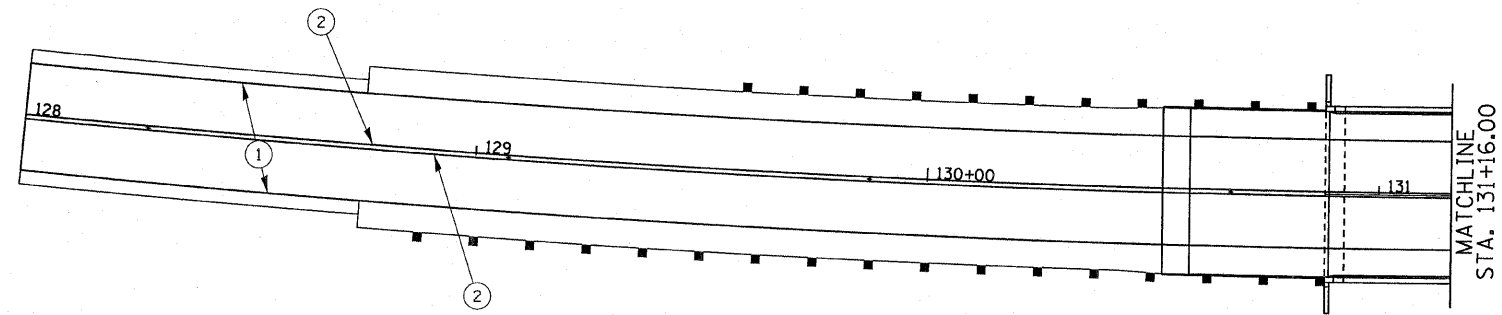
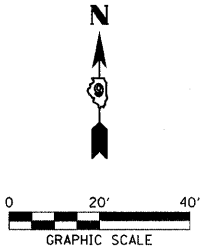
COUNTY
SALINE

TOTAL SHEETS
45

SHEET NO.
13

CONTRACT NO. 98533

FED. ROAD DIST. NO. 9 ILLINOIS FED. AID PROJECT



- LEGEND**
- ① EPOXY PAVEMENT MARKING LINE 4" (WHITE)
 - ② EPOXY PAVEMENT MARKING LINE 4" (SOLID YELLOW)
 - ③ RAISED REFLECTIVE MARKER

FILE NAME = 080045-sh-t-pv-trk.dgn	USER NAME =	DESIGNED - L.F.S.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HLR HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS	PAVEMENT MARKINGS	F.A.S. RTE. 2881	SECTION 30B-1	COUNTY SALINE	TOTAL SHEETS 45	SHEET NO. 14
PLOT SCALE =	CHECKED - S.W.M.	REVISED -	CONTRACT NO. 98533								
PLOT DATE = 9/12/2008	DATE - 09/11/08	REVISED -	FED. ROAD DIST. NO. 9 ILLINOIS FED. AID PROJECT								
			SCALE: 20				SHEET NO. 1 OF 1 SHEETS	STA. TO STA.			

BENCHMARK: #28. Chiseled "□" in top of SE wingwall, Str. #083-0028, 22.5' right of Sta. 131+27.27, Elev. 411.47

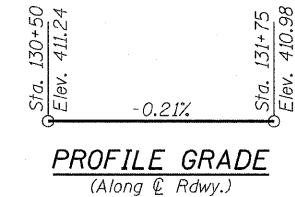
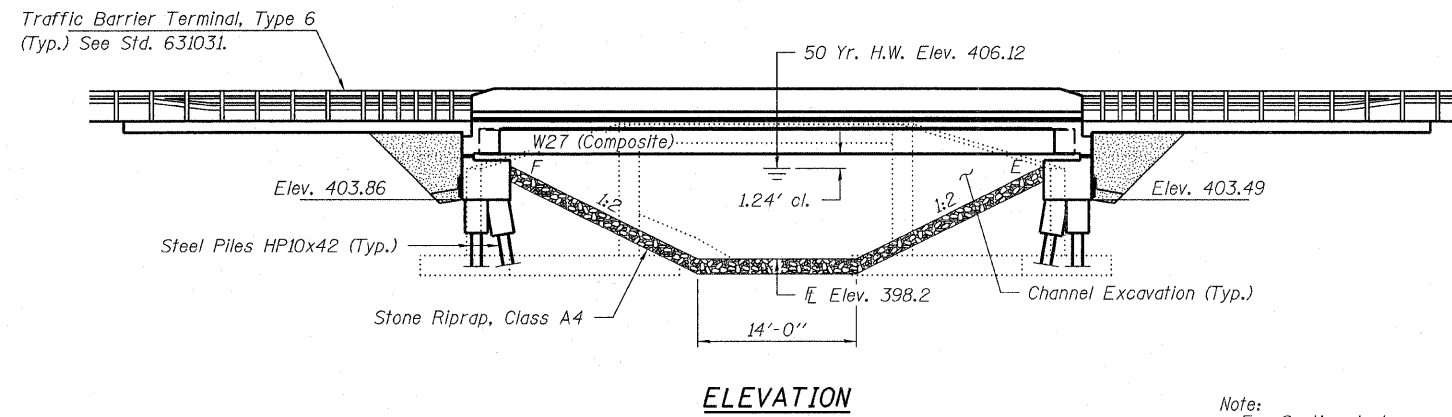
EXISTING STRUCTURE: #083-0028 Built in 1934 as SA 10 @ Sta. 131+15 of Raleigh Road. It measures 26'-0" bk.-bk. abutments by 40'-0" fa.-fa. curbs. The structure is a single span RC slab bridge. The substructure consists of closed concrete abutments with wingwalls on footings with timber piles. The existing structure will be completely replaced using stage construction to maintain traffic.

No Salvage

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF STRUCTURE SHEETS

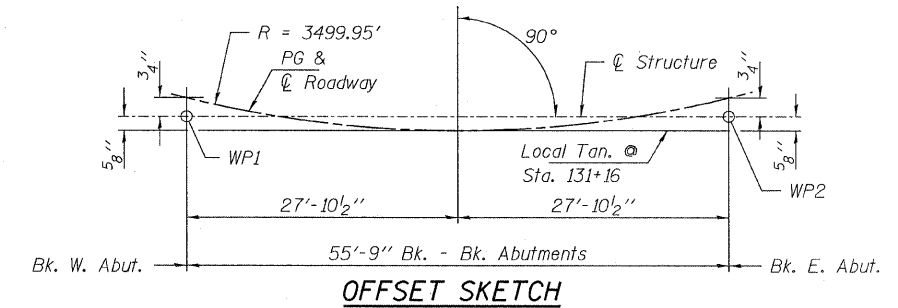
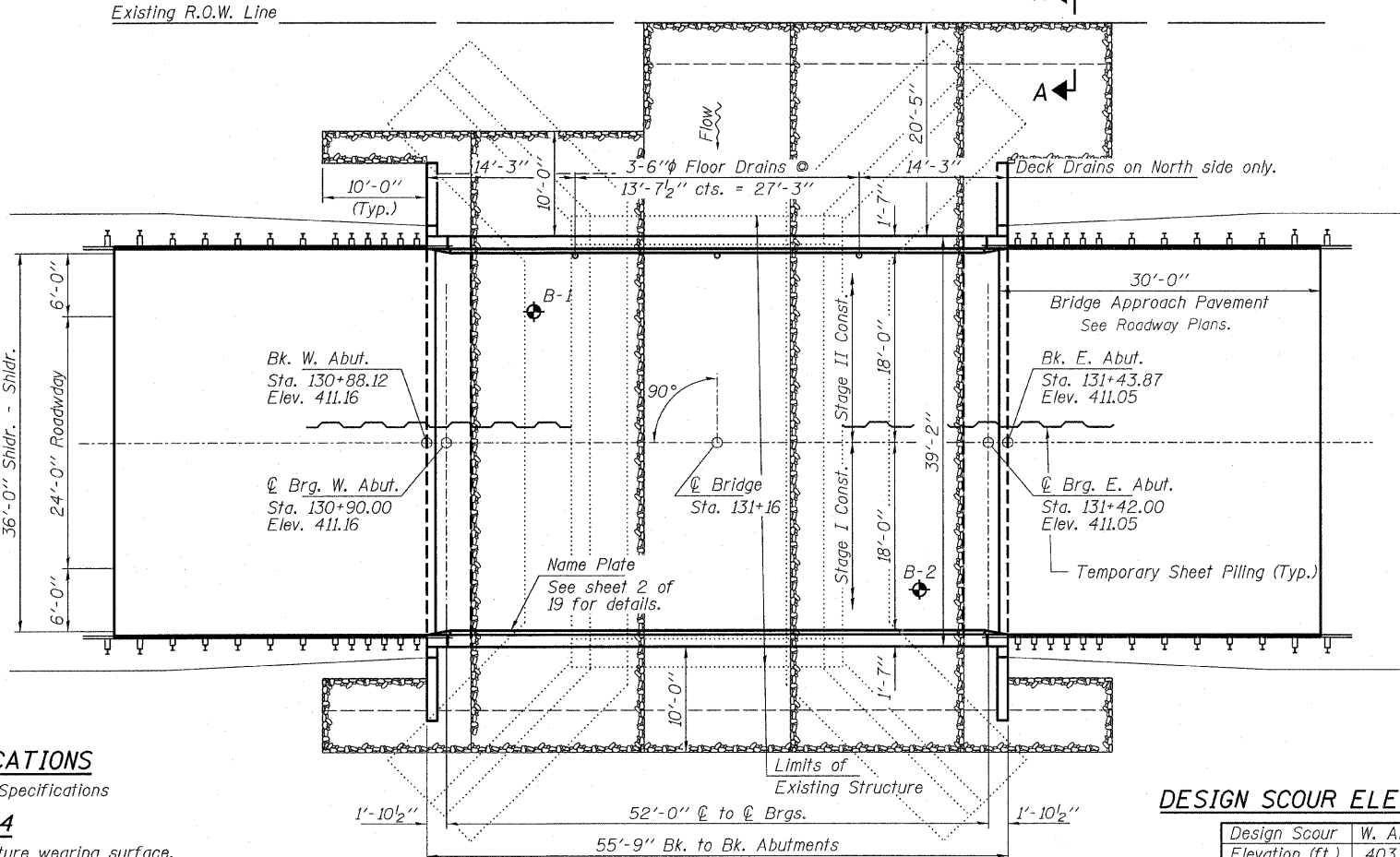
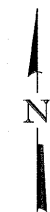
1. General Plan & Elevation
2. General Details
3. Stage Construction Details
4. Temporary Concrete Barrier
- 5.-6. Top of Slab Elevations
7. Top of West Approach Slab Elevations
8. Top of East Approach Slab Elevations
9. Superstructure
10. Superstructure Details
11. Superstructure Details
12. Structural Steel
13. Bearings
14. West Abutment
15. East Abutment
16. Bar Splicer Assembly Details
17. Cantilever Forming Brackets
18. Steel H Pile Details
19. Borings



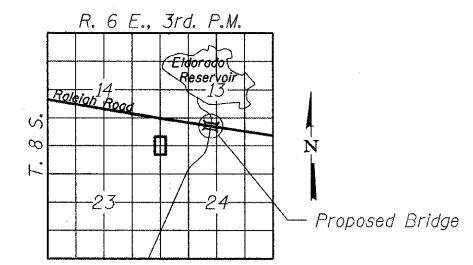
CURVE DATA

P.I. Sta. = 129+55.12
 $\Delta = 6^\circ 41' 52''$ (L.I.)
 $D = 1^\circ 38' 13''$
 $R = 3,499.95'$
 $T = 204.80'$
 $L = 409.13'$
 $E = 5.99'$
 P.C. Sta. = 127+50.32
 P.T. Sta. = 131+59.45
 S.E. Rate = 3.9%
 SE Transitions:
 Attain from Sta. 128+00 to Sta. 128+27
 Remove from Sta. 131+43.87 to Sta. 133+43.87

Note:
For Section A-A see sheet 2 of 19 for details.



OFFSET SKETCH



LOCATION SKETCH

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications

LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface.

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 50,000$ psi (structural steel) (M270 Gr. 50)

SEISMIC DATA

Seismic Performance Category (SPC) = B
 Bedrock Acceleration Coefficient (A) = .12g
 Site Coefficient (S) = 1.2

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	E. Abut.
	403.30	403.30

PLAN

WATERWAY INFORMATION

Drainage Area = 1.8 Sq. mi. Low Grade Elev. 409.8 @ Sta. 134+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Nat. H.W.E. Exist.	Prop.	Headwater El. Exist.	Prop.
Design	50	870	185.30	258.76	406.12	0.85	406.97	406.80
Base	100	990	187.70	263.71	406.22	1.09	407.31	407.05
Overtopping	—	—	—	—	—	—	—	—
Max. Calc.	500	1270	192.74	274.11	406.43	1.69	408.12	407.74

APPROVED FOR STRUCTURAL ADEQUACY ONLY

Michael E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



9-18-2008

Michael D. Cava
ILLINOIS STRUCTURAL NO. 081-5984

HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400

SHEET NO. 1
19 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2881	30B-1	SALINE	45	15

RALEIGH RD. OVER ELDORADO RESERVOIR SPILLWAY CONTRACT NO. 98533
 FED. ROAD DIST. NO. 9 ILLINOIS FED. AID PROJECT

GENERAL PLAN AND ELEVATION
 RALEIGH ROAD OVER
 ELDORADO RESERVOIR SPILLWAY
 FAS 2881 / SECTION 30B-1
 SALINE COUNTY
 STATION 131+16
 STRUCTURE NO. 083-0063

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

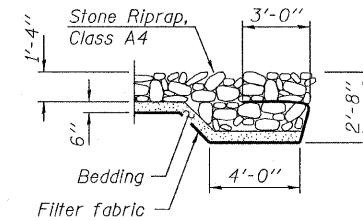
Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts $\frac{3}{4}$ " ϕ , holes $\frac{15}{16}$ " ϕ unless otherwise noted.
Calculated weight of Structural Steel = 39,010 lbs.
No field welding is permitted except as specified in the contract documents.
Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
Reinforcement bars designated (E) shall be epoxy coated.
The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Interstate Green, Munsell No. 7.5G 4/8. See Special Provision for "Cleaning and Painting New Metal Structures".
Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.
Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure.
The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.
Slipforming of parapets is not allowed.

TOTAL BILL OF MATERIAL

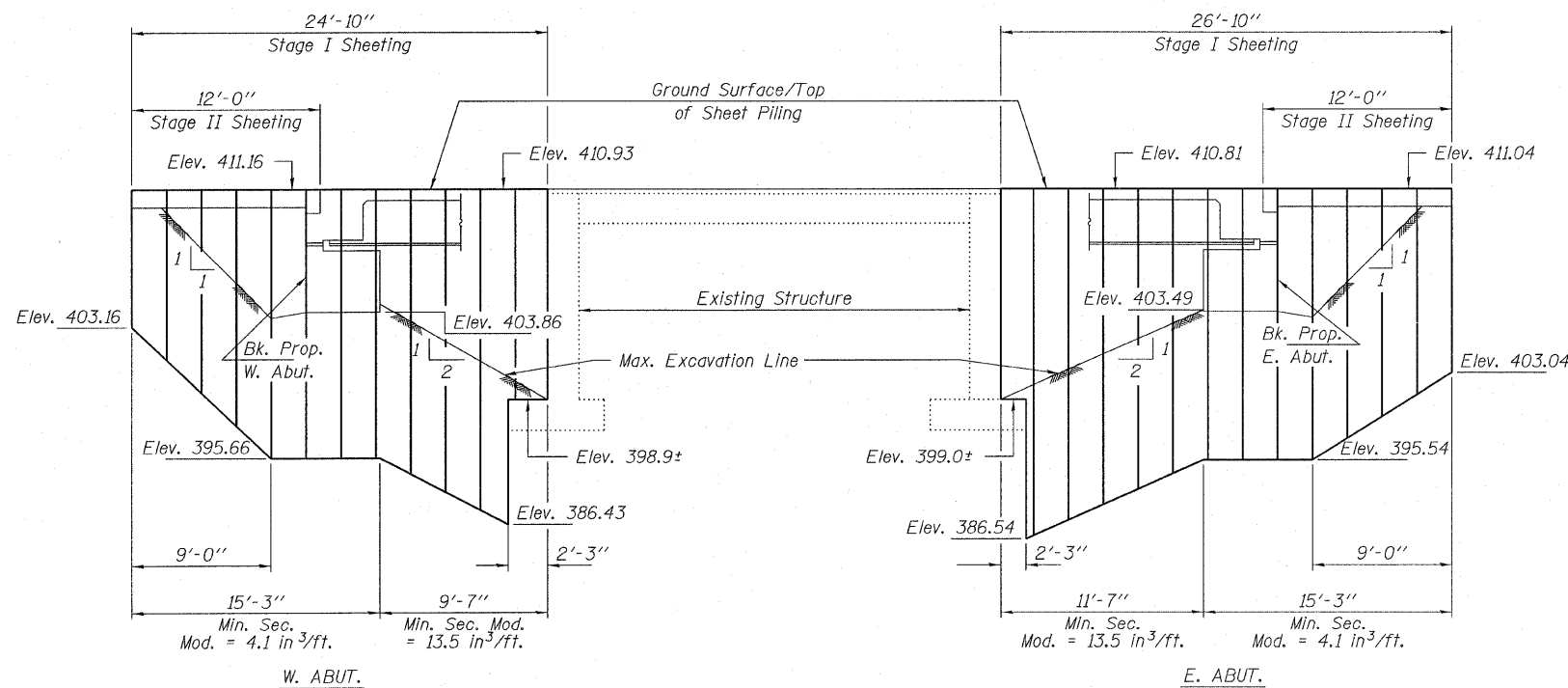
ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		122	122
Stone Riprap, Class A4	Sq. Yd.			460
Filter Fabric	Sq. Yd.			578
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		350	350
Floor Drains	Each	3		3
Concrete Structures	Cu. Yd.		60.6	60.6
Concrete Superstructure	Cu. Yd.	84.1		84.1
Concrete Encasement	Cu. Yd.		6.3	6.3
Protective Coat	Sq. Yd.	264		264
Bridge Deck Grooving	Sq. Yd.	205		205
Elastomeric Bearing Assembly, Type 1	Each	6		6
Furnishing And Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	1,026		1,026
Reinforcement Bars, Epoxy Coated	Pound	17,370	5,490	22,860
Furnishing Steel Piles HP10x42	Foot		720	720
Driving Piles	Foot		720	720
Test Pile Steel HP10x42	Each		2	2
Temporary Sheet Piling	Sq. Ft.			356
Name Plates	Each	1		1
Bar Splitters	Each	260	22	282
Geocomposite Wall Drain	Sq. Yd.		71	71
Pipe Underdrain for Structures, 4"	Foot		146	146
Anchor Bolts, 1"	Each	24		24

STATION 131+16
BUILT 200_ BY
STATE OF ILLINOIS
F.A.S. 2881 - SECTION 30B-1
LOADING HS20
STR. NO. 083-0063

NAME PLATE
See Std. 515001



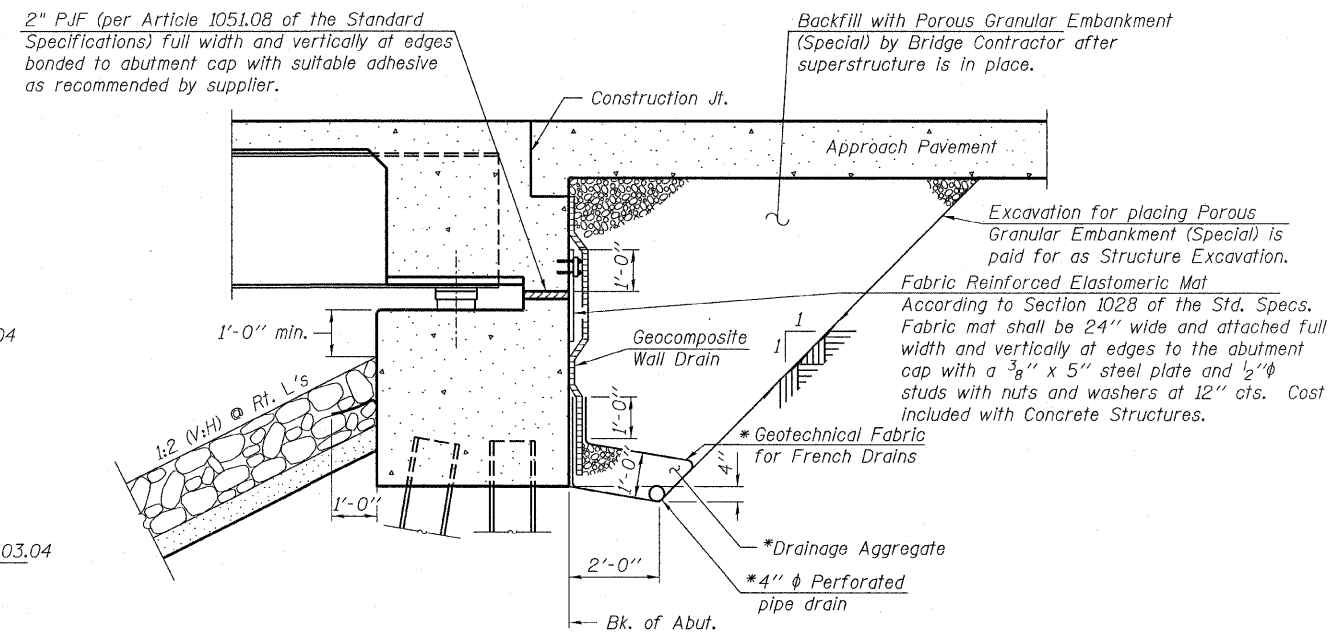
SECTION A-A



TEMPORARY SHEET PILING

Note:
If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.

DESIGNED - P.S.L.
CHECKED - M.D.C.
DRAWN - D.T.M.
CHECKED - S.W.M.



SECTION THRU SEMI-INTEGRAL ABUTMENT

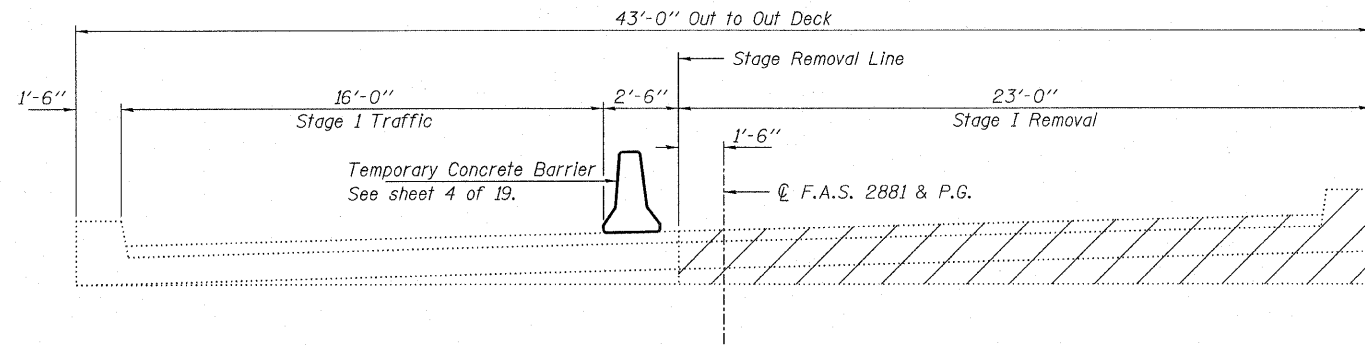
* Included in the cost of Pipe Underdrains for Structures.

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

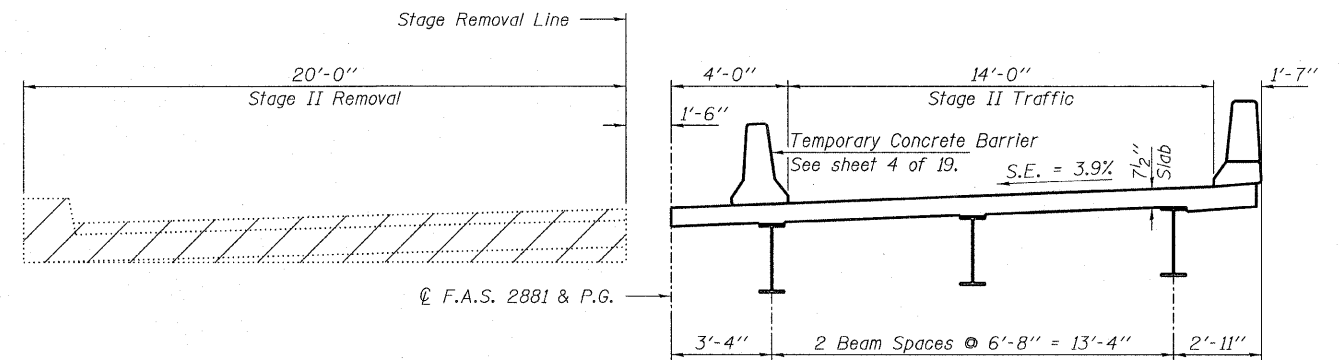
GENERAL DETAILS
STRUCTURE NO. 083-0063

HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS HLR 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400	SHEET NO. 2 19 SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		2881	30B-1	SALINE	45	16	
PROJECT NUMBER: 08 0045 130		DATE: 09/02/08		RALEIGH RD. OVER ELDORADO RESERVOIR SPILLWAY			CONTRACT NO. 98533
				FED. ROAD DIST. NO. 9 ILLINOIS			FED. AID PROJECT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

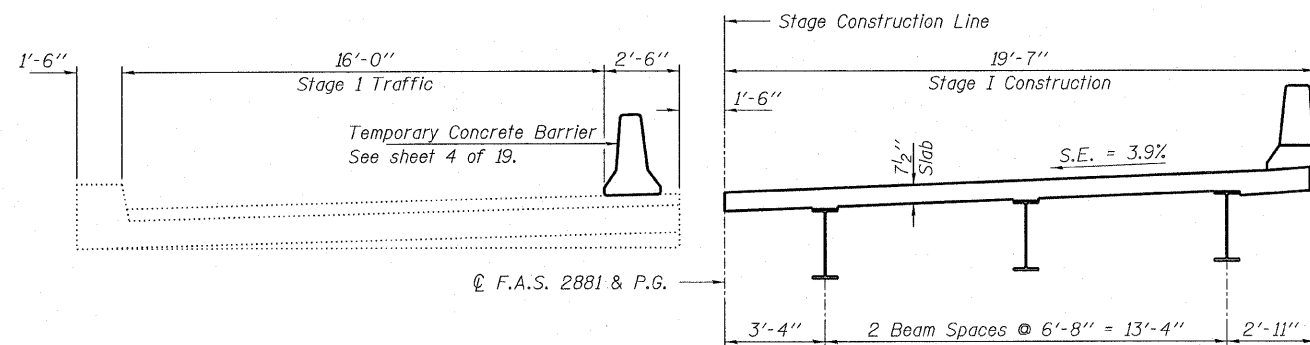


STAGE I REMOVAL

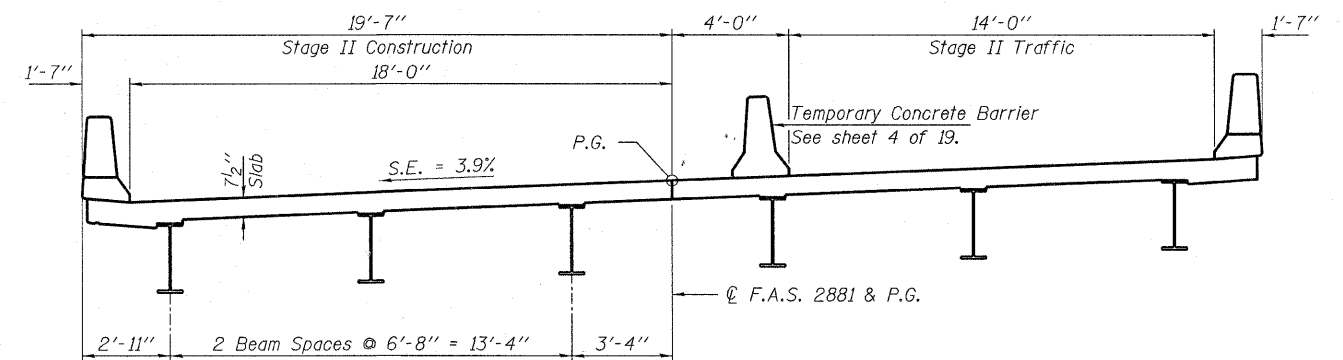


STAGE II REMOVAL

- Notes:
1. All views are looking East.
2. See Roadway Plans for quantity of Temporary Concrete Barrier.



STAGE I CONSTRUCTION



STAGE II CONSTRUCTION

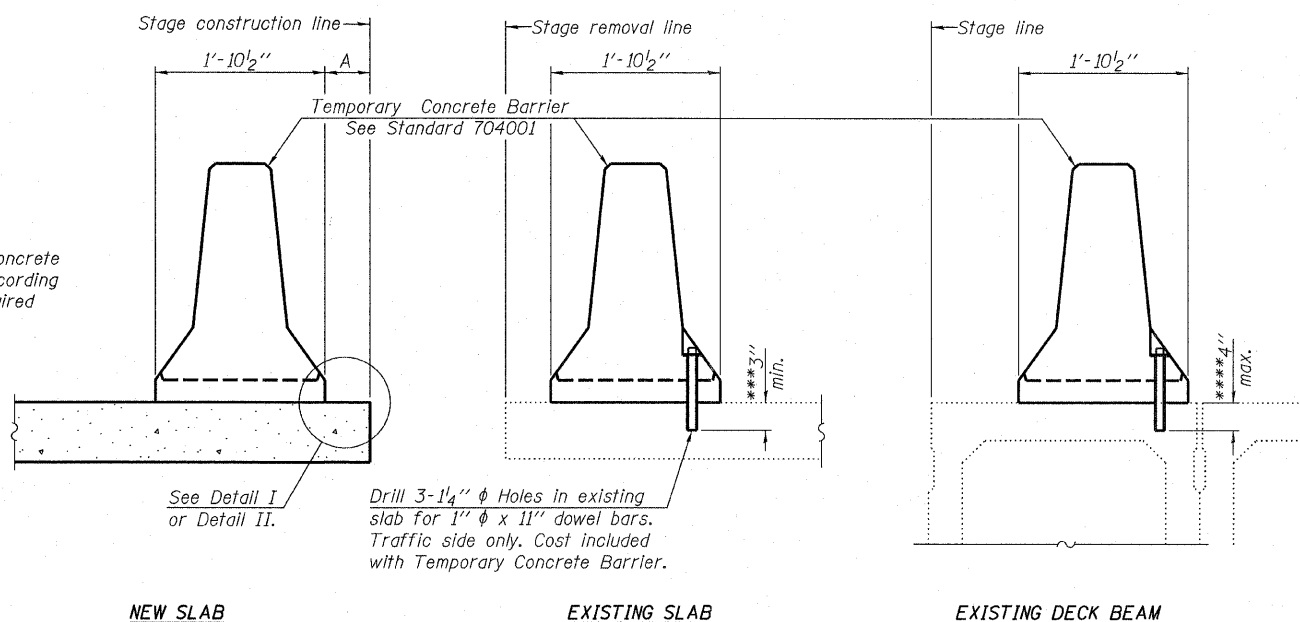
DESIGNED - P.S.L.
CHECKED - M.D.C.
DRAWN - D.T.M.
CHECKED - S.W.M.

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 083-0063

HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400	SHEET NO. 3	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	19 SHEETS	2881	30B-1	SALINE	45	17
PROJECT NUMBER: 08 0045.130	DATE: 09/02/08	RALEIGH RD. OVER ELDORADO RESERVOIR SPILLWAY		CONTRACT NO. 98533		
		FED. ROAD DIST. NO. 9		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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



NEW SLAB

EXISTING SLAB

EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

NOTES

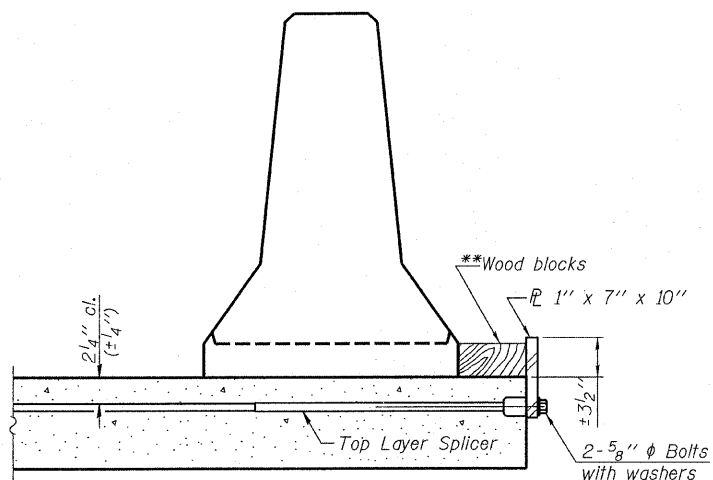
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \bar{P} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.

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

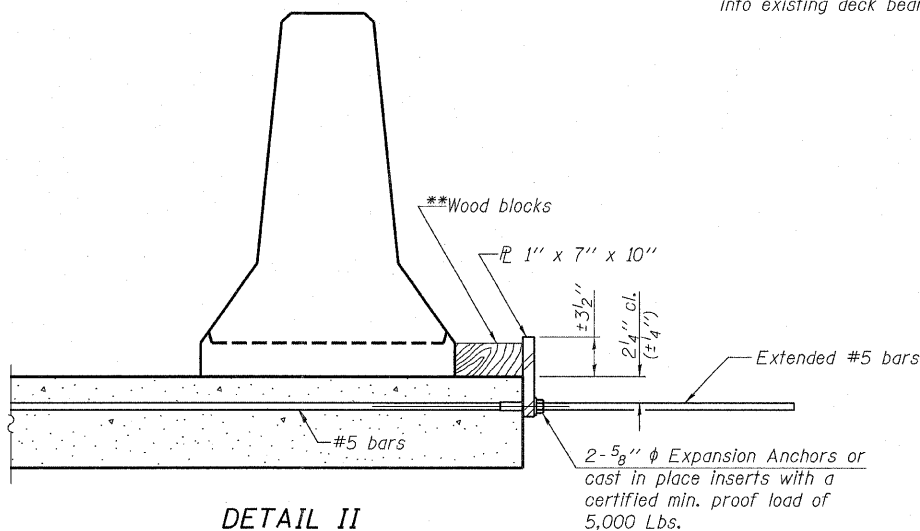
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

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

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

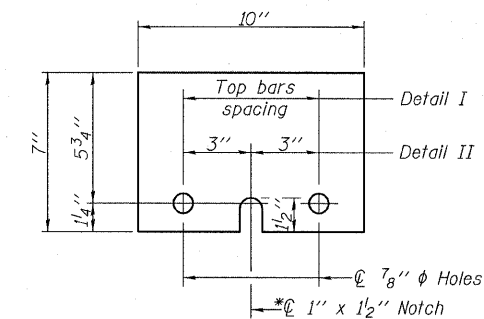


DETAIL I



DETAIL II

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



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

*Required only with Detail II

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
STRUCTURE NO. 083-0063

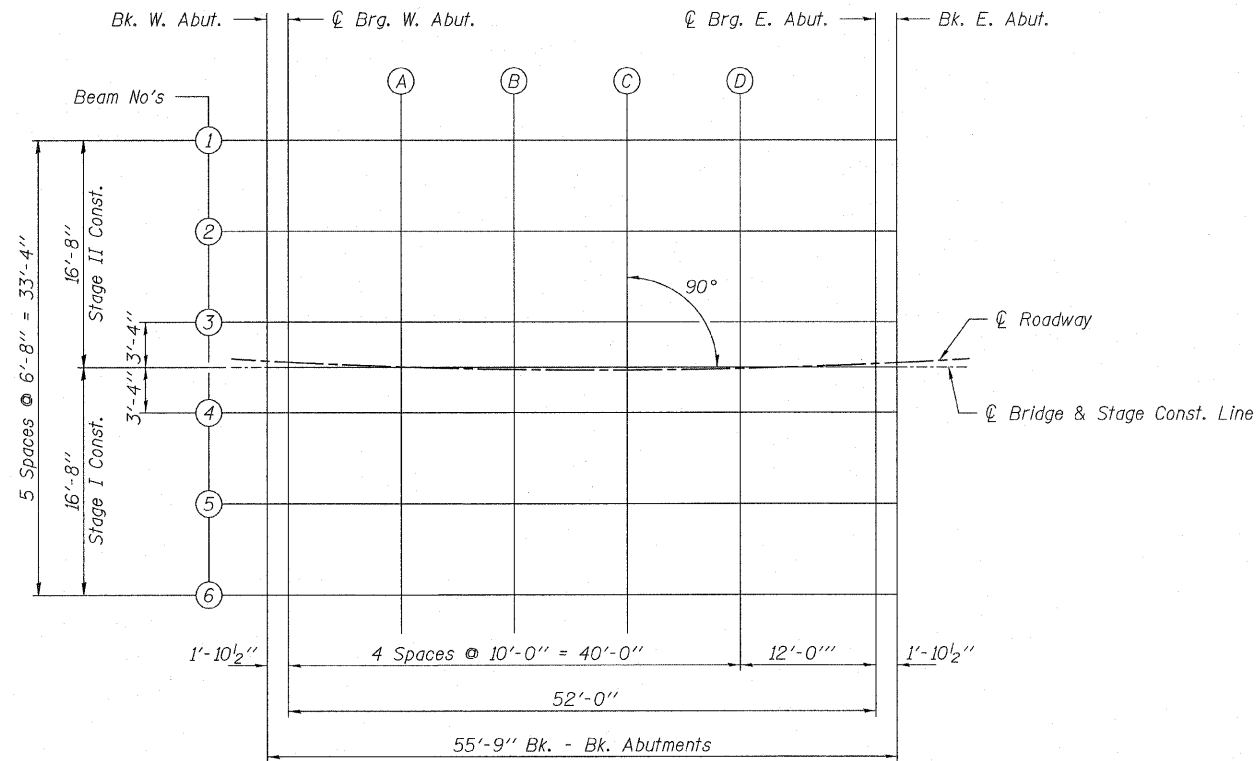
DESIGNED - P.S.L.
CHECKED - M.D.C.
DRAWN - D.T.M.
CHECKED - S.W.M.

R-27

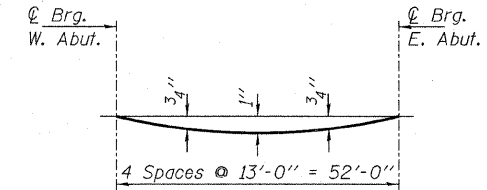
5-16-08

HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS HLR 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400	SHEET NO. 4 19 SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		2881	30B-1	SALINE	45	18
PROJECT NUMBER: 08.0045.130 DATE: 09/02/08		RALEIGH RD. OVER ELDORADO RESERVOIR SPILLWAY		CONTRACT NO. 98533		
		FED. ROAD DIST. NO. 9 ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN

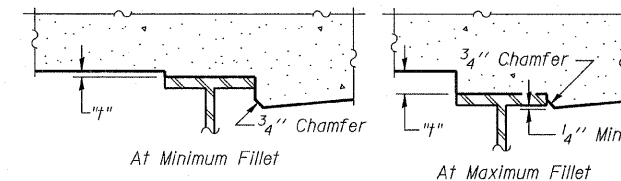


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:

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



To determine "f": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown in the Plan view. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown the next sheet, minus slab thickness, equals the fillet heights "f" above top flange of beams.

FILLET HEIGHTS

DESIGNED - P.S.L.
CHECKED - M.D.C.
DRAWN - D.T.M.
CHECKED - S.W.M.

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 083-0063

 HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400	SHEET NO. 5 19 SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		2881	30B-1	SALINE	45	19
PROJECT NUMBER: 08 0045 130		DATE: 09/02/08		RALEIGH RD. OVER ELDORADO RESERVOIR SPILLWAY CONTRACT NO. 98533		
				FED. ROAD DIST. NO. 9 ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	13087.99	-16.607	410.513	410.513
☉ Brg. W. Abut.	13089.88	-16.622	410.508	410.508
A	13099.92	-16.682	410.485	410.533
B	13109.97	-16.714	410.462	410.536
C	13120.02	-16.717	410.441	410.518
D	13130.07	-16.691	410.421	410.479
☉ Brg. E. Abut.	13142.12	-16.622	410.398	410.398
Bk. E. Abut.	13144.01	-16.607	410.395	410.395

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	13088.05	-9.941	410.772	410.772
☉ Brg. W. Abut.	13089.93	-9.955	410.768	410.768
A	13099.95	-10.016	410.744	410.793
B	13109.98	-10.047	410.722	410.796
C	13120.01	-10.050	410.701	410.778
D	13130.04	-10.024	410.681	410.739
☉ Brg. E. Abut.	13142.07	-9.955	410.658	410.658
Bk. E. Abut.	13143.96	-9.941	410.655	410.655

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	13088.10	-3.274	411.032	411.032
☉ Brg. W. Abut.	13089.98	-3.289	411.028	411.028
A	13099.99	-3.349	411.004	411.053
B	13109.99	-3.380	410.982	411.056
C	13120.00	-3.383	410.961	411.038
D	13130.01	-3.357	410.941	410.999
☉ Brg. E. Abut.	13142.03	-3.289	410.918	410.918
Bk. E. Abut.	13143.90	-3.274	410.915	410.915

☉ BRIDGE & STAGE CONST. LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	13088.13	0.059	411.162	411.812
☉ Brg. W. Abut.	13090.00	0.044	411.158	411.807
A	13100.00	-0.016	411.134	411.832
B	13110.00	-0.047	411.112	411.836
C	13120.00	-0.050	411.091	411.818
D	13130.00	-0.024	411.071	411.779
☉ Brg. E. Abut.	13142.00	0.044	411.049	411.699
Bk. E. Abut.	13143.88	0.059	411.045	411.695

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	13088.15	3.392	411.292	411.292
☉ Brg. W. Abut.	13090.03	3.378	411.288	411.288
A	13100.02	3.318	411.264	411.312
B	13110.01	3.286	411.242	411.316
C	13120.00	3.283	411.221	411.298
D	13129.99	3.309	411.201	411.259
☉ Brg. E. Abut.	13141.98	3.378	411.179	411.179
Bk. E. Abut.	13143.85	3.392	411.175	411.175

BEAM 5


Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	13088.21	10.059	411.552	411.552
☉ Brg. W. Abut.	13090.07	10.044	411.548	411.548
A	13100.05	9.984	411.524	411.572
B	13110.02	9.953	411.502	411.576
C	13119.99	9.950	411.481	411.558
D	13129.96	9.976	411.461	411.519
☉ Brg. E. Abut.	13141.93	10.044	411.439	411.439
Bk. E. Abut.	13143.80	10.059	411.435	411.435

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	13088.257	16.725	411.812	411.812
☉ Brg. W. Abut.	13090.123	16.711	411.807	411.807
A	13100.076	16.651	411.784	411.832
B	13110.028	16.620	411.762	411.836
C	13119.981	16.617	411.741	411.818
D	13129.934	16.642	411.721	411.779
☉ Brg. E. Abut.	13141.877	16.711	411.699	411.699
Bk. E. Abut.	13143.743	16.725	411.695	411.695

DESIGNED - P.S.L.
CHECKED - M.D.C.
DRAWN - D.T.M.
CHECKED - S.W.M.

**TOP OF SLAB ELEVATIONS
STRUCTURE NO. 083-0063**

 HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400	SHEET NO. 6 19 SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		2881	30B-1	SALINE	45	20	
PROJECT NUMBER: 08.0045.130		DATE: 09/02/08		RALEIGH RD. OVER ELDORADO RESERVOIR SPILLWAY			CONTRACT NO. 98533
				FED. ROAD DIST. NO. 9			ILLINOIS FED. AID PROJECT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Slab	13058.43	18.841	411.957
A	13068.38	18.690	411.930
B	13078.32	18.568	411.905
Bk. W. Abutment	13088.27	18.475	411.880

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Slab	13058.33	12.425	411.707
A	13068.29	12.274	411.680
B	13078.26	12.152	411.655
Bk. W. Abutment	13088.22	12.059	411.630

☉ PAVEMENT

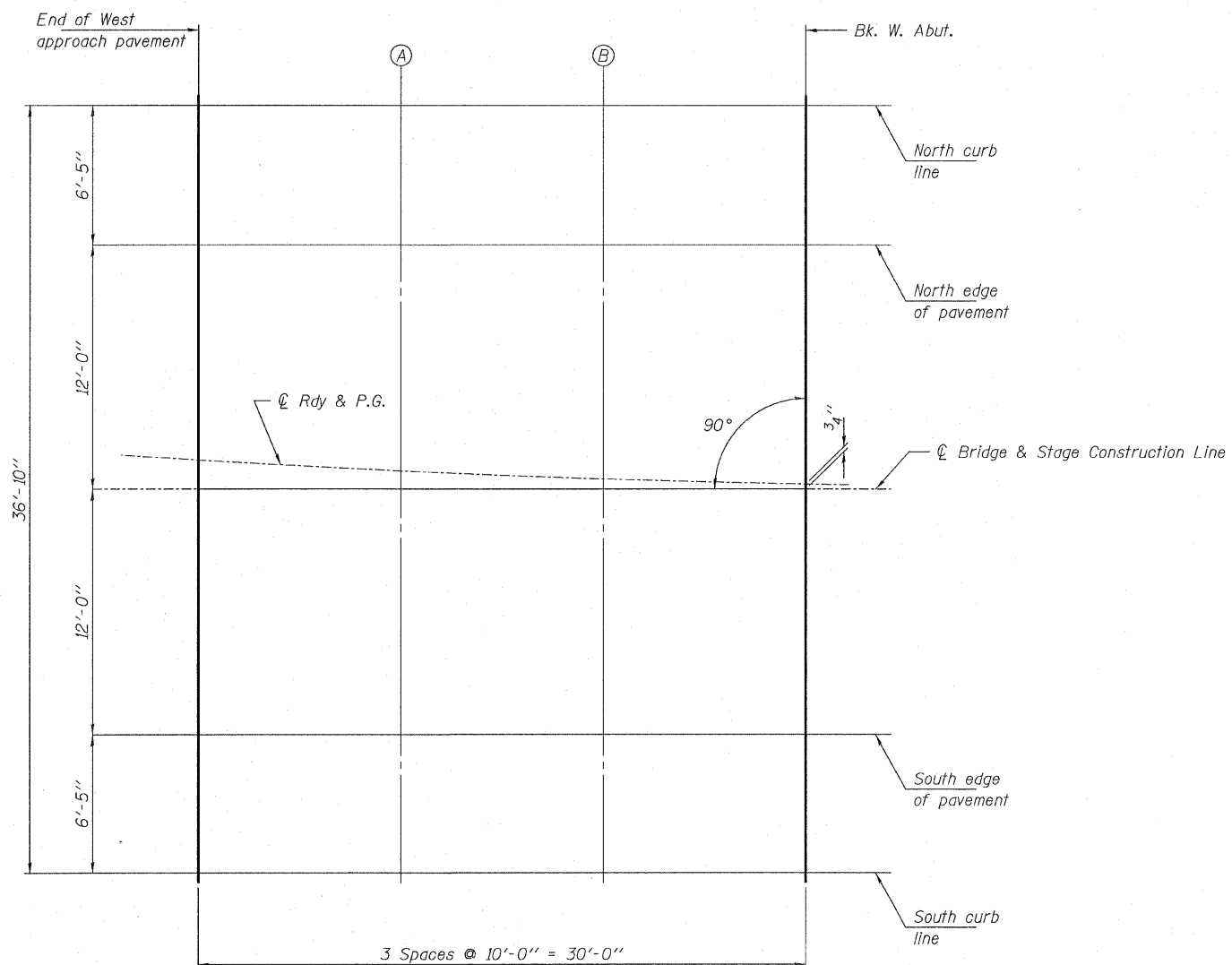
Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Slab	13058.12	0.426	411.240
A	13068.12	0.275	411.213
B	13078.12	0.153	411.187
Bk. W. Abutment	13088.12	0.059	411.162

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Slab	13057.93	-11.572	410.772
A	13067.96	-11.724	410.745
B	13078.00	-11.846	410.719
Bk. W. Abutment	13088.03	-11.941	410.694

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Slab	13057.82	-17.988	410.522
A	13067.87	-18.140	410.495
B	13077.93	-18.263	410.469
Bk. W. Abutment	13087.98	-18.357	410.444



PLAN

TOP OF WEST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 083-0063

DESIGNED - P.S.L.
CHECKED - M.D.C.
DRAWN - D.T.M.
CHECKED - S.W.M.

E-AS

9-3-07

HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS

HLR 3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400

PROJECT NUMBER: 08.0045.130 DATE: 09/02/08

SHEET NO. 7

19 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2881	30B-1	SALINE	45	21
RALEIGH RD. OVER ELDORADO RESERVOIR SPILLWAY			CONTRACT NO. 98533	
FED. ROAD DIST. NO. 9 ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Bk. E. Abutment	13143.73	18.475	411.764
A	13153.68	18.568	411.711
B	13163.62	18.690	411.658
End E. Appr. Slab	13173.57	18.841	411.606

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Bk. E. Abutment	13143.78	12.059	411.513
A	13153.75	12.152	411.473
B	13163.71	12.274	411.432
End E. Appr. Slab	13173.67	12.425	411.393

☉ PAVEMENT

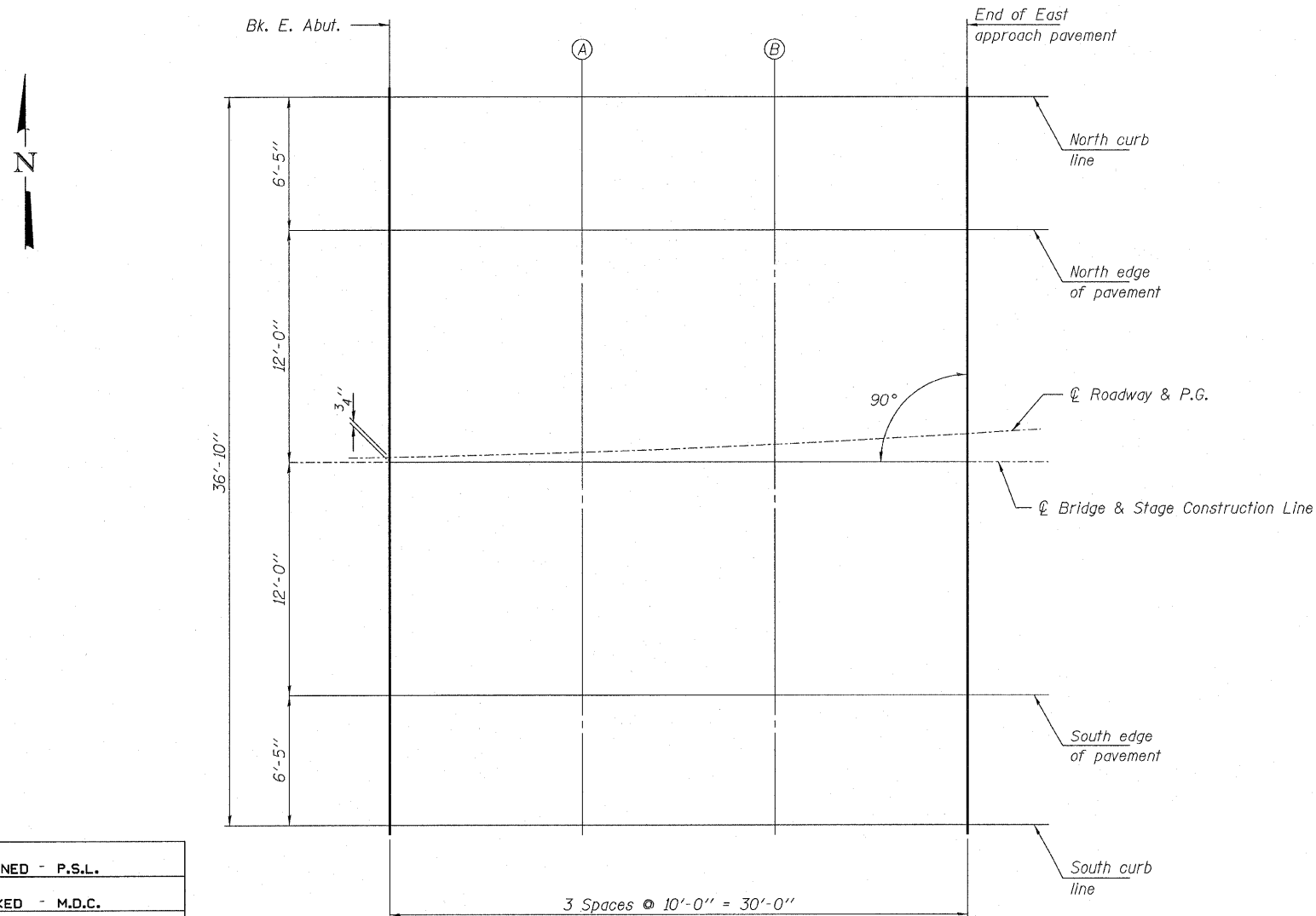
Location	Station	Offset	Theoretical Grade Elevations
Bk. E. Abutment	13143.87	0.059	411.045
A	13153.87	0.153	411.028
B	13163.87	0.275	411.011
End E. Appr. Slab	13173.87	0.426	410.994

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Bk. E. Abutment	13143.97	-11.941	410.577
A	13154.00	-11.846	410.583
B	13164.04	-11.724	410.589
End E. Appr. Slab	13174.07	-11.572	410.596

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Bk. E. Abutment	13144.02	-18.357	410.327
A	13154.07	-18.263	410.346
B	13164.13	-18.140	410.365
End E. Appr. Slab	13174.18	-17.988	410.384



PLAN

TOP OF EAST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 083-0063

DESIGNED - P.S.L.
CHECKED - M.D.C.
DRAWN - D.T.M.
CHECKED - S.W.M.

E-AS

9-3-07

HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS

HLR 3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400

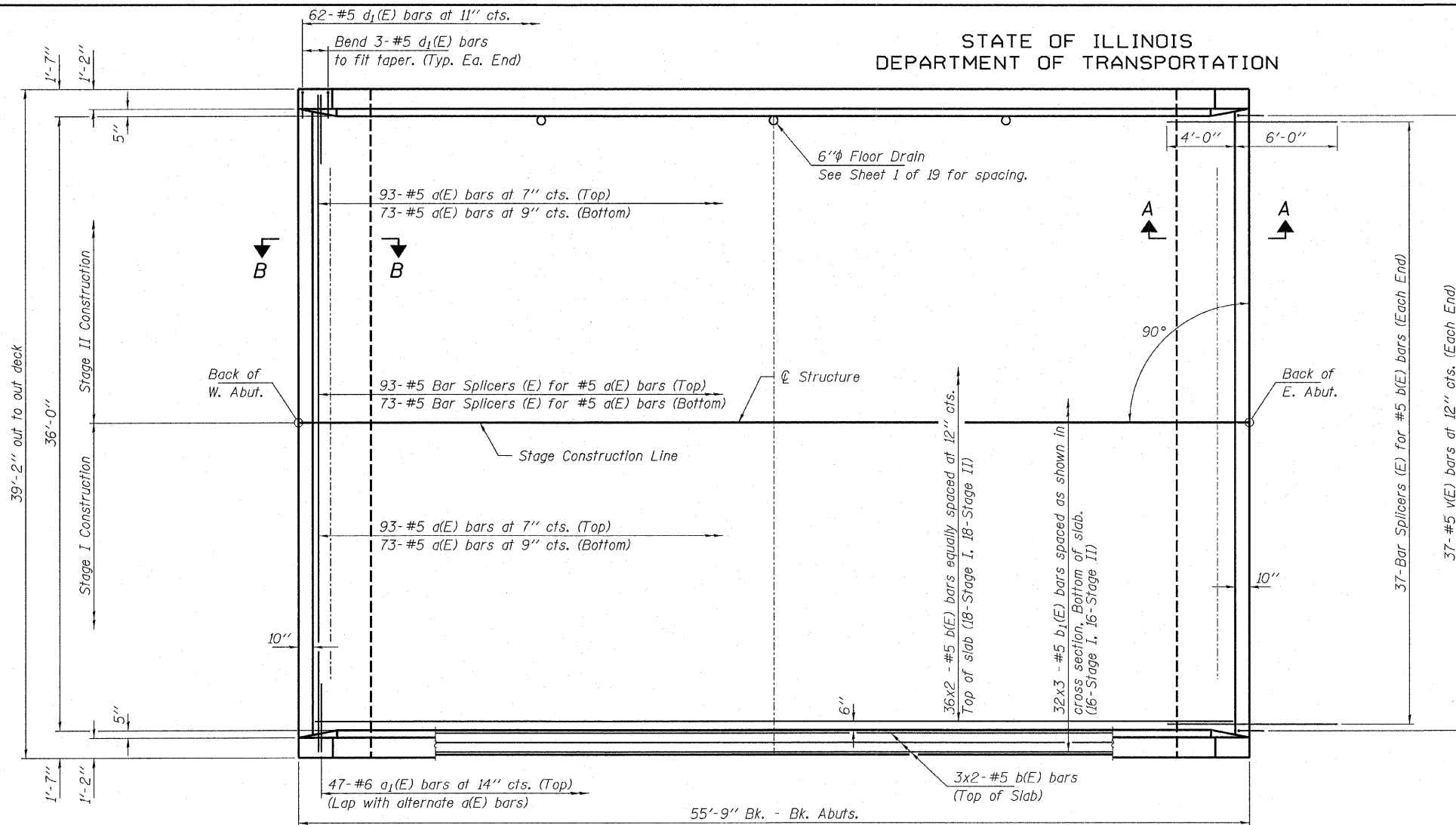
PROJECT NUMBER: 08.0045.130 DATE: 09/02/08

SHEET NO. 8

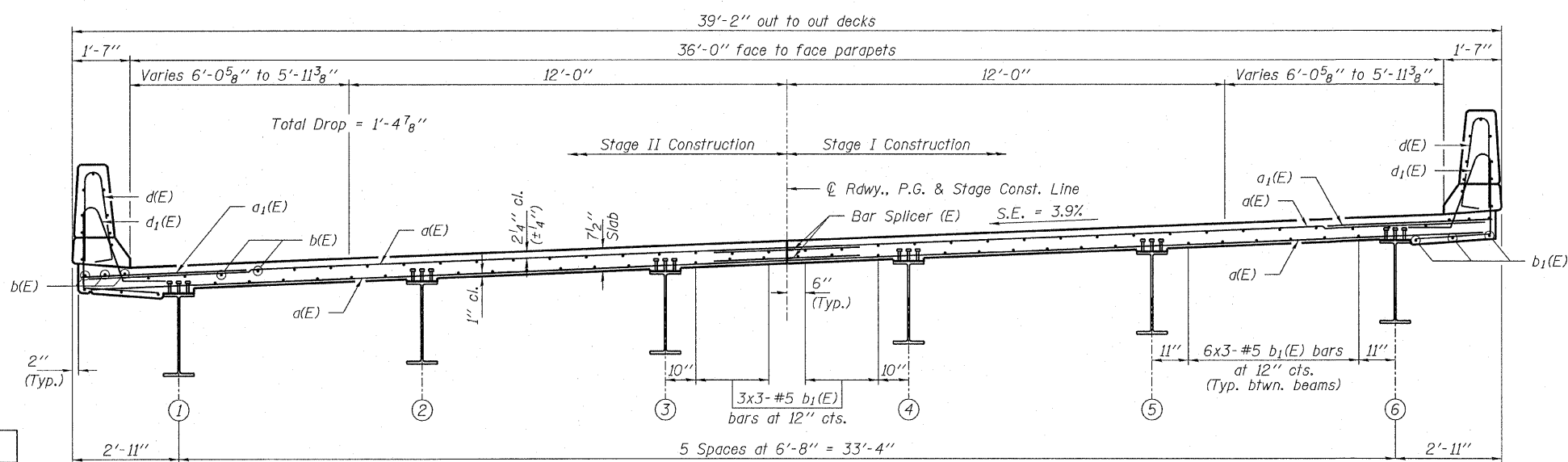
19 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2881	30B-1	SALINE	45	22
RALEIGH RD. OVER ELDORADO RESERVOIR SPILLWAY			CONTRACT NO. 98533	
FED. ROAD DIST. NO. 9 ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN



CROSS SECTION
(Looking East)

DESIGNED - P.S.L.
CHECKED - M.D.C.
DRAWN - D.T.M.
CHECKED - S.W.M.

MIN. BAR LAP
#5 Bar = 1'-8"

SUPERSTRUCTURE
BILL OF MATERIAL

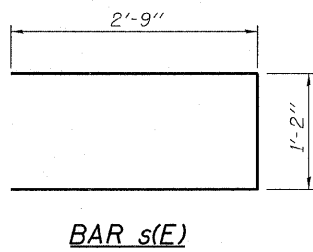
Bar	No.	Size	Length	Shape
a(E)	332	#5	19'-2"	—
a1(E)	94	#6	6'-0"	—
b(E)	84	#5	27'-9"	—
b1(E)	108	#5	19'-1"	—
d(E)	124	#5	5'-7"	L
d1(E)	124	#5	7'-8"	L
e(E)	42	#4	18'-4"	—
e1(E)	4	#4	28'-5"	—
e2(E)	4	#8	29'-6"	—
m(E)	24	#6	19'-3"	—
m1(E)	24	#6	8'-8"	—
m2(E)	8	#6	2'-5"	—
m3(E)	20	#6	6'-3"	—
s(E)	96	#5	6'-8"	□
s1(E)	72	#4	7'-5"	□
u(E)	56	#5	3'-2"	□
v(E)	74	#5	3'-3"	□
Reinforcement Bars, Epoxy Coated		Pound	17,370	
Concrete Superstructure		Cu. Yds.	84.1	

Bars indicated thus 36x2 -#5 etc. indicates 36 lines of bars with 2 lengths per line. See sheets 10 & 11 of 19 for parapet reinforcement, and Section A-A & Section B-B.

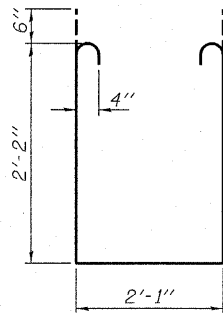
SUPERSTRUCTURE
STRUCTURE NO. 083-0063

HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400 PROJECT NUMBER: 08.0045.130 DATE: 09/02/08	SHEET NO. 9	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	19 SHEETS	2881	30B-1	SALINE	45	23
RALEIGH RD. OVER ELDORADO RESERVOIR SPILLWAY			CONTRACT NO. 98533			
FED. ROAD DIST. NO. 9			ILLINOIS FED. AID PROJECT			

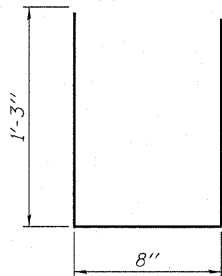
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



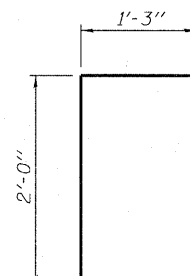
BAR s(E)



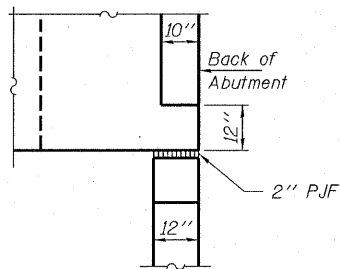
BAR s1(E)



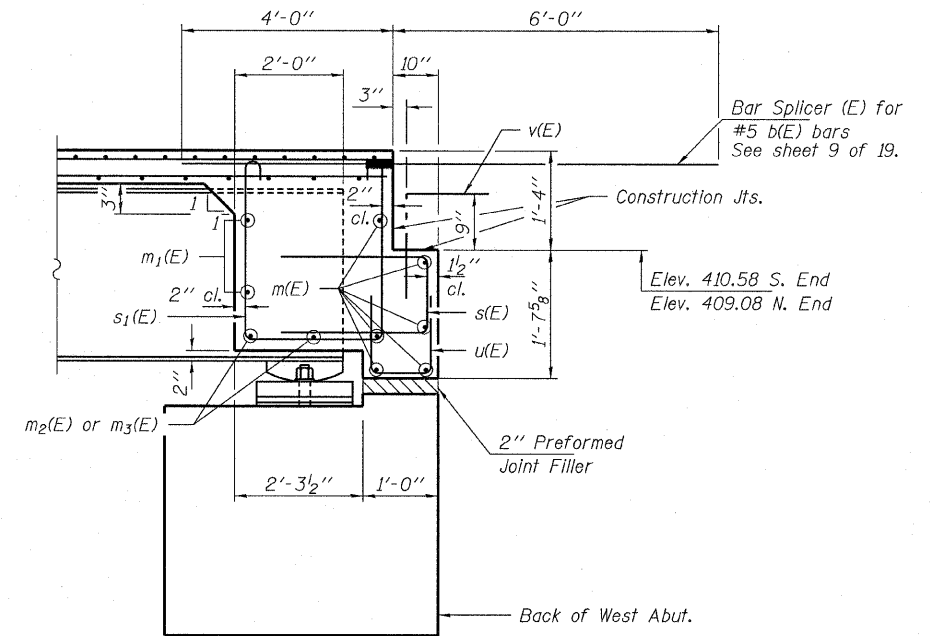
BAR u(E)



BAR v(E)

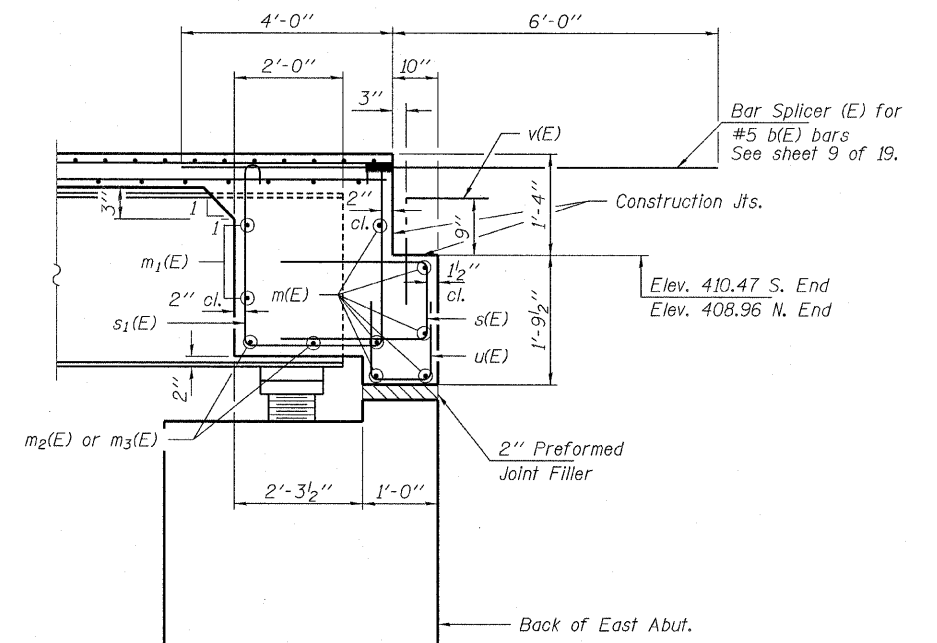


SECTION C-C

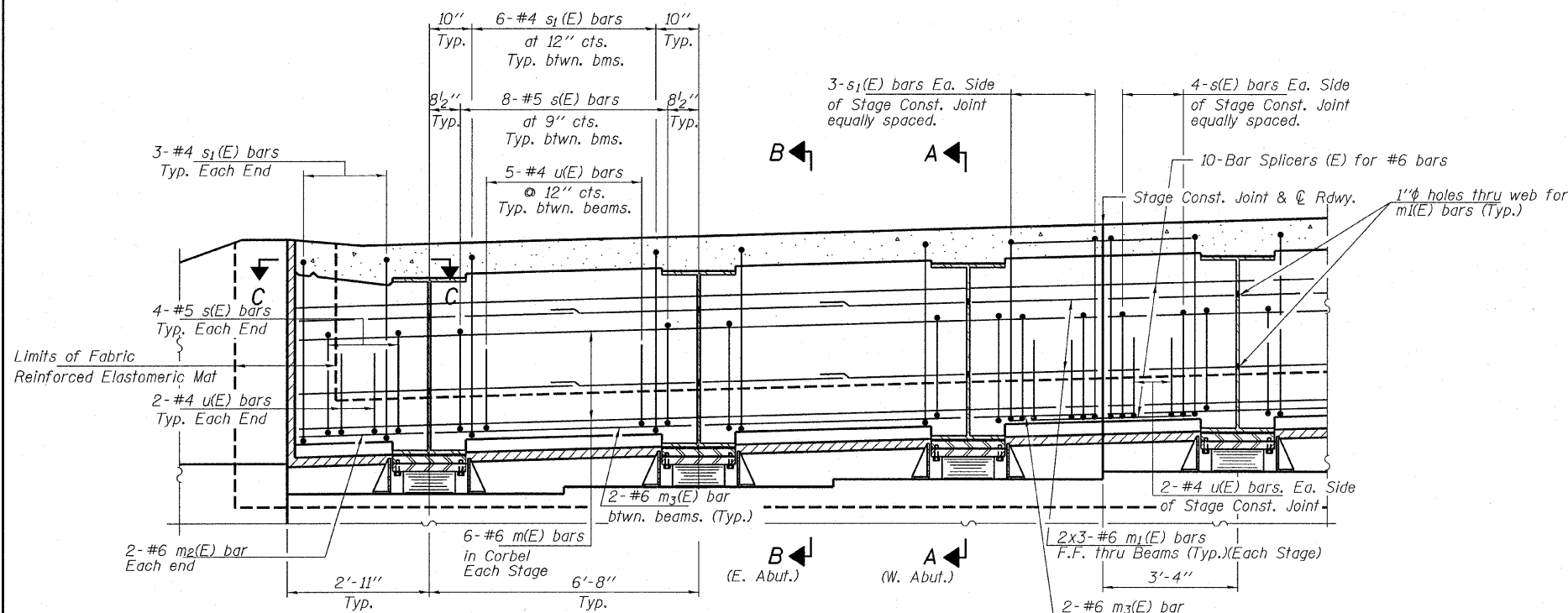


SECTION A-A
(West Abutment)

MIN. BAR LAPS
#6 bars = 2'-0"



SECTION B-B
(East Abutment)



DIAPHRAGM AT ABUTMENTS

(East Abut. shown. West Abutment similar except for Bearings.)

Symmetry around Stage Construction Line

F.F. - Front Face
B.F. - Back Face

Notes:
Reinforcement bars and Concrete in diaphragms are billed with Superstructure on sheet 9 of 19.
See sheet 12 of 19 for holes thru web for m1(E) bars.
See Sections A-A & B-B for bar locations.

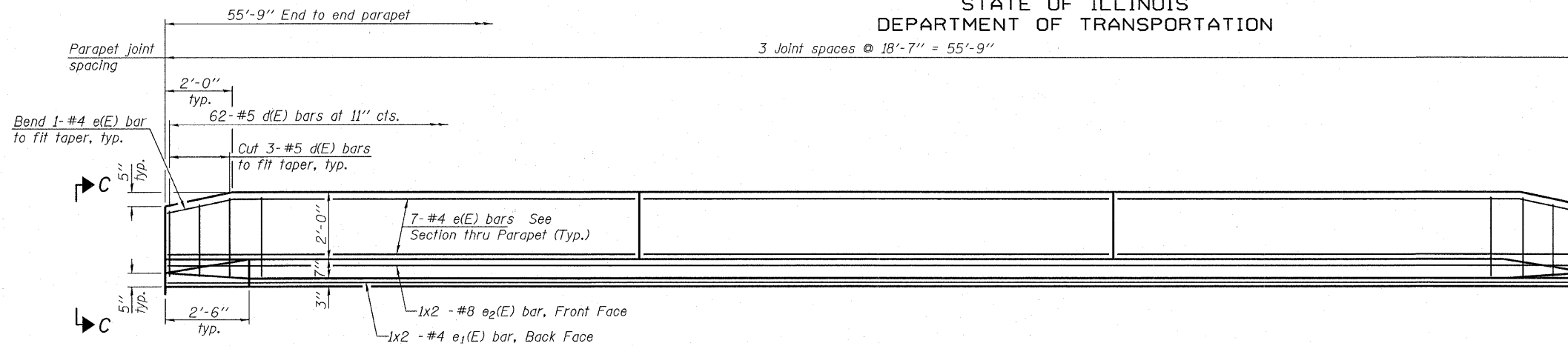
DESIGNED - P.S.L.
CHECKED - M.D.C.
DRAWN - D.T.M.
CHECKED - S.W.M.

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 083-0063

HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400	SHEET NO. 10 19 SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		2881	30B-1	SALINE	45	24
PROJECT NUMBER: 08 0045.130 DATE: 09/02/08		RALEIGH RD. OVER ELDORADO RESERVOIR SPILLWAY		CONTRACT NO. 98533		
		FED. ROAD DIST. NO. 9 ILLINOIS		FED. AID PROJECT		

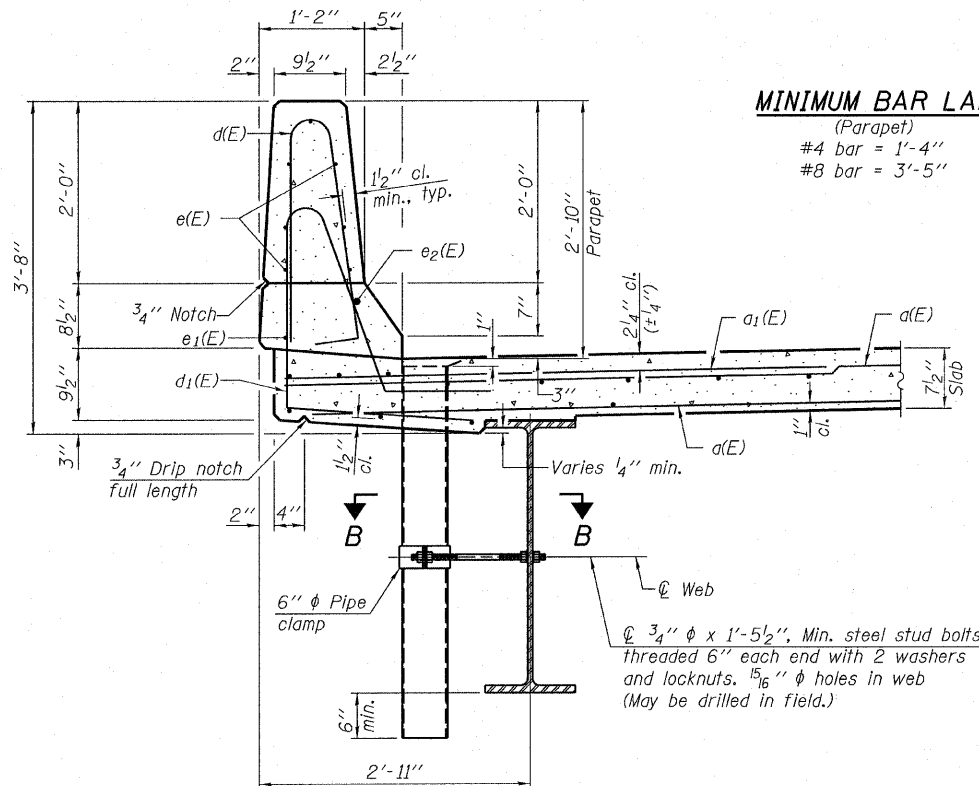
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

3 Joint spaces @ 18'-7" = 55'-9"

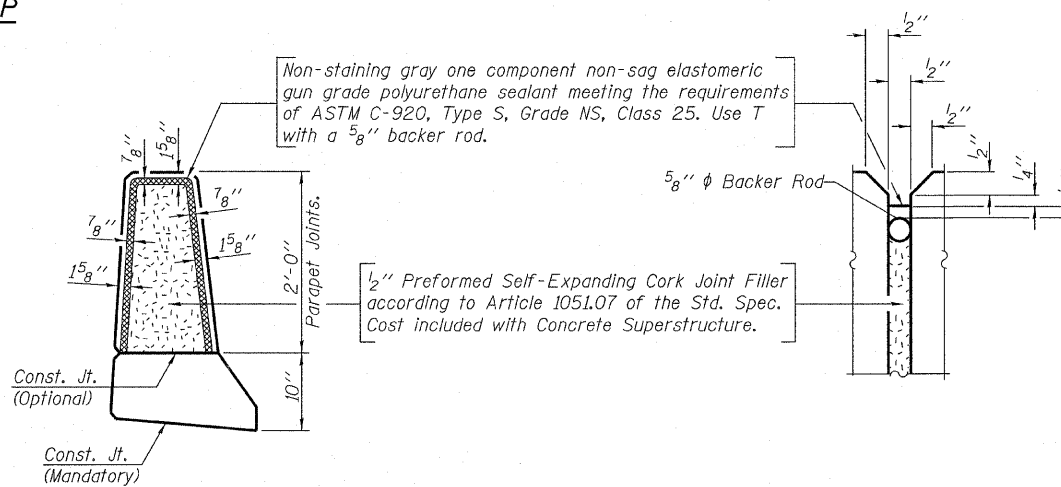


INSIDE ELEVATION OF PARAPET

MINIMUM BAR LAP
(Parapet)
#4 bar = 1'-4"
#8 bar = 3'-5"



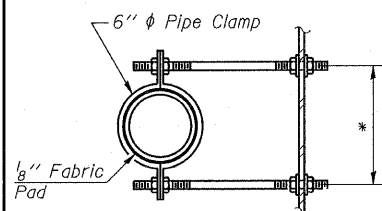
SECTION THRU PARAPET



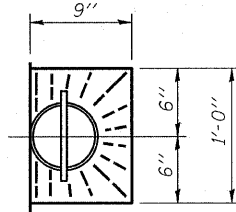
PARAPET JOINT DETAILS

Notes:

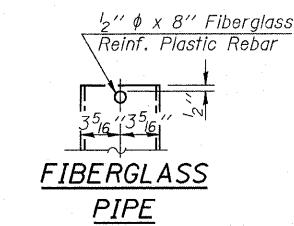
The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to Society of Protective Coatings Spec. SSPC-SP1 prior to painting.
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.



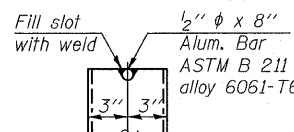
SECTION B-B
*Dimension as required by Pipe Clamp



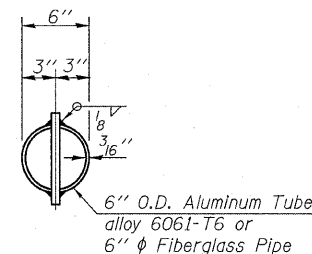
TOP PLAN



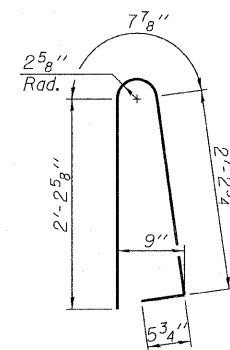
FIBERGLASS PIPE



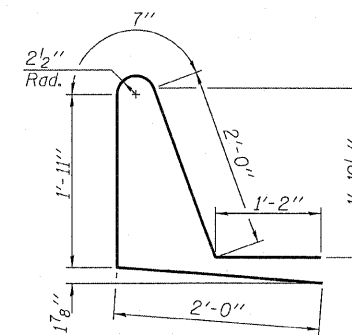
ALUMINUM TUBE



TOP PLAN
(Showing Aluminum Tube)



BAR d(E)



BAR d1(E)

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 083-0063

DESIGNED - P.S.L.
CHECKED - M.D.C.
DRAWN - D.T.M.
CHECKED - S.W.M.

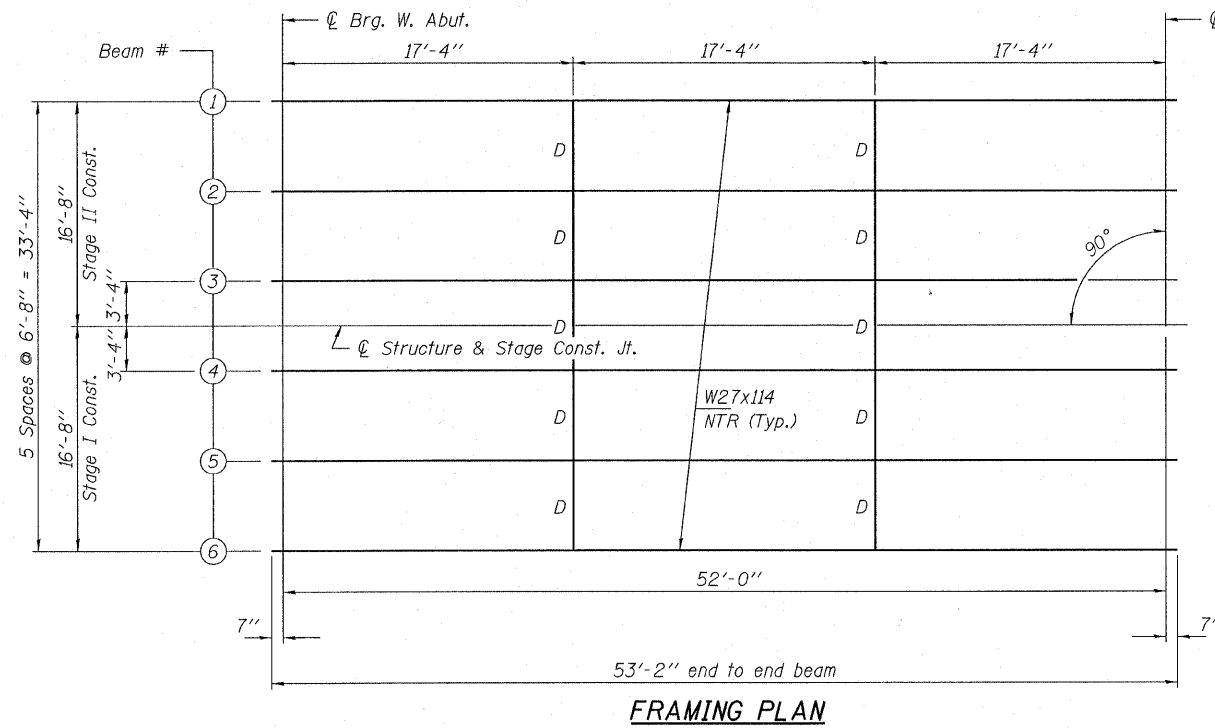
S-I-D 5-16-08

HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400
PROJECT NUMBER: 08 0045 130 DATE: 09/02/08

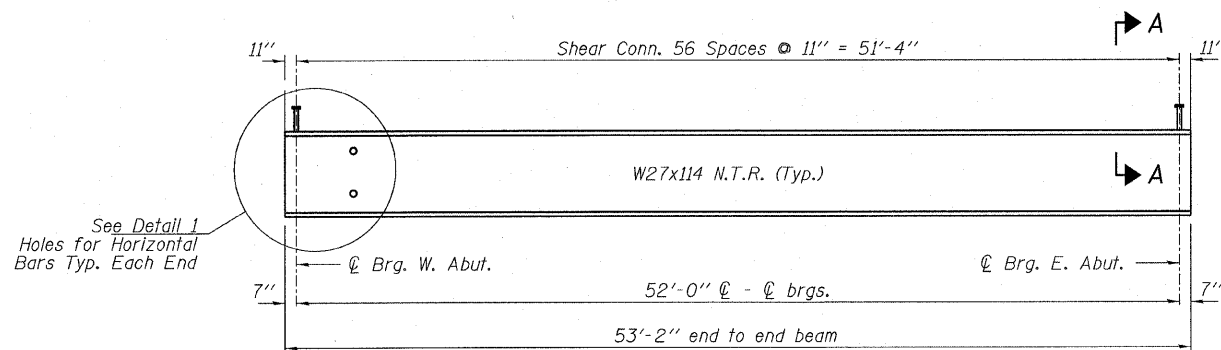
SHEET NO. 11
19 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2881	30B-1	SALINE	45	25
RALEIGH RD. OVER ELDORADO RESERVOIR SPILLWAY		CONTRACT NO. 98533		
FED. ROAD DIST. NO. 9		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

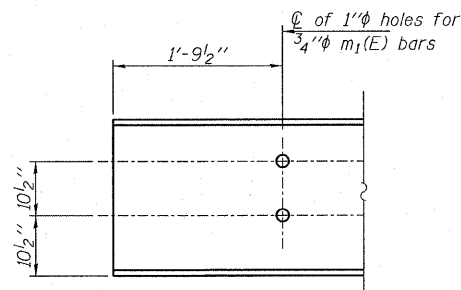


FRAMING PLAN

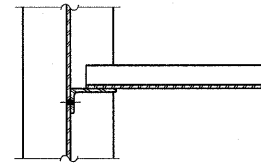
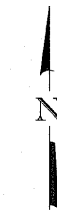


ELEVATION

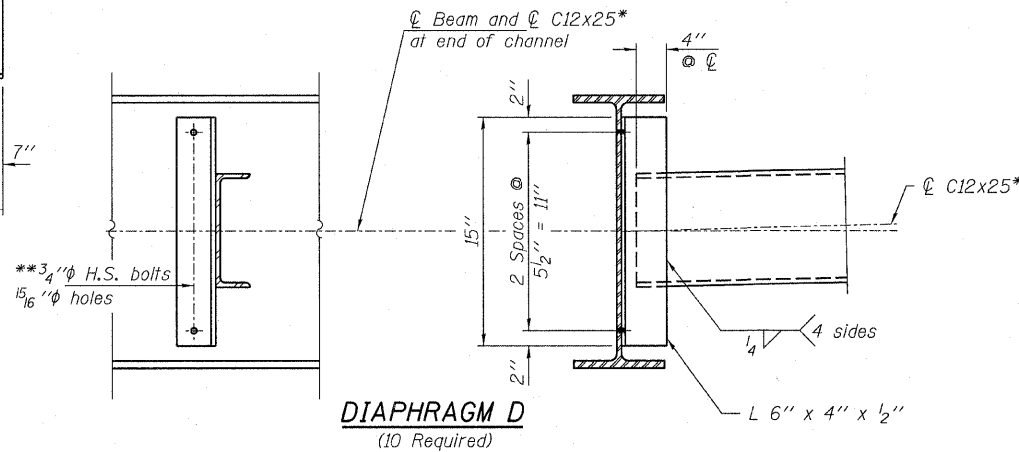
Notes:
All beams are W27x114 Beams AASHTO M270, Grade 50.
All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted.
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.



DETAIL 1



TOP VIEW



DIAPHRAGM D
(10 Required)

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

*Alternate channel C12X30 is permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if used, shall be provided at no extra cost to the Department.

**Except at Stage Construction Line on beam 3 provide standard long slotted holes (13/16" x 1 7/8", 1 7/8" vertically) in the connection angle. Bolts in slots shall be finger tight until the second stage pour is complete. Position slots so bolts start at one end with no concrete load and finish near the opposite end under deck loading.

- I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in.⁴ and in.³).
- $I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in.⁴ and in.³).
- $I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in.⁴ and in.³).
- Q : Un-factored non-composite dead load (kips/ft.).
- M_Q : Un-factored moment due to non-composite dead load (kip-ft.).
- s_Q : Un-factored long-term composite (superimposed) dead load (kips/ft.).
- $M_s Q$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
- M_L : Un-factored live load moment (kip-ft.).
- M_{Imp} : Un-factored moment due to impact (kip-ft.).
- M_a : Factored design moment (kip-ft.).
- $1.3 [M_Q + M_s Q + \frac{5}{8} (M_L + M_{Imp})]$
- f_s (Overload): Sum of stresses as computed from the moments below (ksi). $M_Q + M_s Q + \frac{5}{8} (M_L + M_{Imp})$
- f_s (Total): Sum of stresses as computed from the moments below (ksi). $1.3 [M_Q + M_s Q + \frac{5}{8} (M_L + M_{Imp})]$
- VR: Maximum $\frac{1}{4}$ impact horizontal shear range within span for stud shear connector design (kips).
- Mu: Compact composite moment capacity according to AASHTO LFD 10.50.1.1.

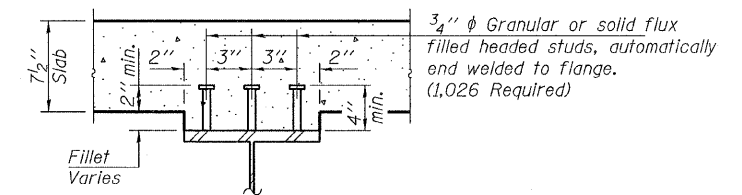
INTERIOR GIRDER MOMENT TABLE		
0.5 Span		
I_s	(in ⁴)	4,080
$I_c(n)$	(in ⁴)	11,857
$I_c(3n)$	(in ⁴)	8,792
S_s	(in ³)	299
$S_c(n)$	(in ³)	456
$S_c(3n)$	(in ³)	413
Q	(k/')	0.79
M_Q	(k-ft)	266
s_Q	(k/')	0.483
$M_s Q$	(k-ft)	163
M_L	(k-ft)	402
M_{Imp}	(k-ft)	114
$\frac{5}{8} [M_L + M_{Imp}]$	(k-ft)	860
M_a	(k-ft)	1,676
M_u	(k-ft)	2,164
f_s (non-comp)	(ksi)	10.7
f_s (comp)	(ksi)	4.7
$f_s \frac{5}{8} [M_L + M_{Imp}]$	(ksi)	22.6
f_s (Overload)	(ksi)	38.0
f_s (Total)	(ksi)	-
VR	(k)	45.9

*Compact Section

INTERIOR GIRDER REACTION TABLE		
Abutments		
R _Q	(k)	58.5
R _L	(k)	35.8
Imp.	(k)	10.1
R _{Total}	(k)	104.4

Location	W. Abut.	E. Abut.
BEAM 1	409.841	409.731
BEAM 2	410.101	409.991
BEAM 3	410.361	410.251
BEAM 4	410.621	410.512
BEAM 5	410.881	410.772
BEAM 6	411.140	410.032

TOP OF BEAM ELEVATIONS
(For fabrication only)



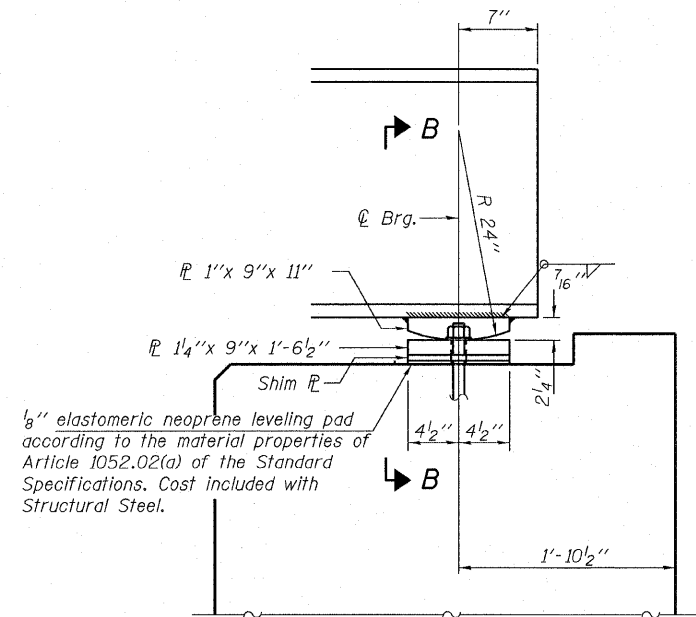
SECTION A-A

STRUCTURAL STEEL
STRUCTURE NO. 083-0063

DESIGNED - P.S.L.
CHECKED - M.D.C.
DRAWN - D.T.M.
CHECKED - S.W.M.

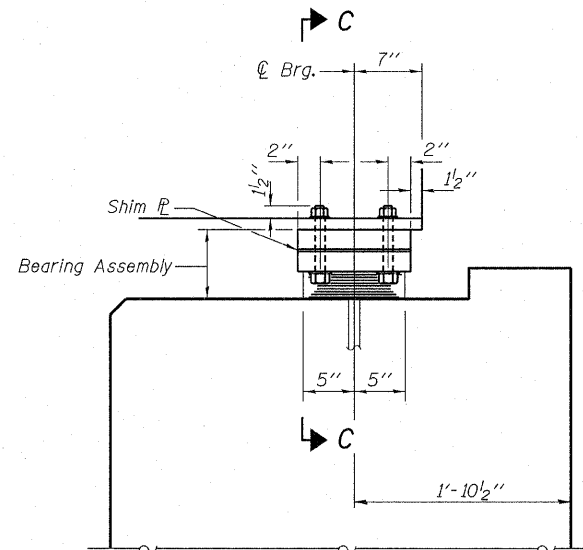
HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400	SHEET NO. 12 19 SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		2881	30B-1	SALINE	45	26	
PROJECT NUMBER: 08.0045.130		DATE: 09/02/08		RALEIGH RD. OVER ELDORADO RESERVOIR SPILLWAY			CONTRACT NO. 98533
				FED. ROAD DIST. NO. 9			ILLINOIS FED. AID PROJECT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

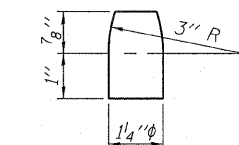


FIXED BEARING (WEST ABUTMENT)

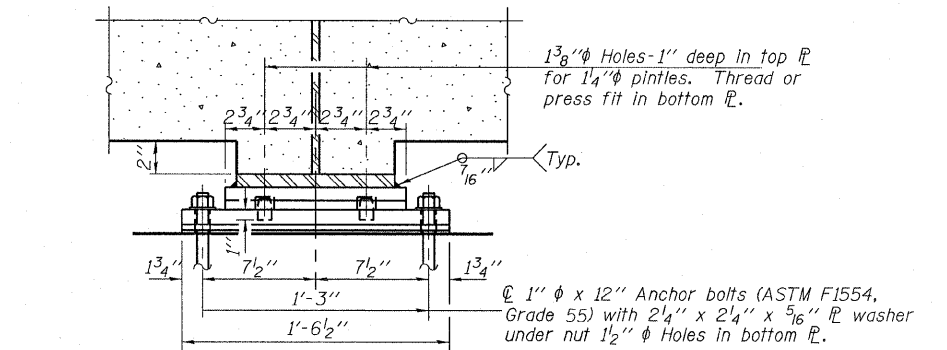
1/8" elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with Structural Steel.



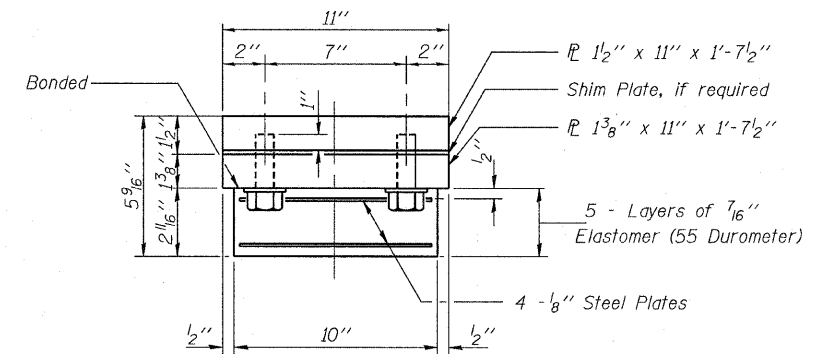
EXPANSION BEARING (EAST ABUTMENT)



PINTLE
(AASHTO M270, Grade 50)

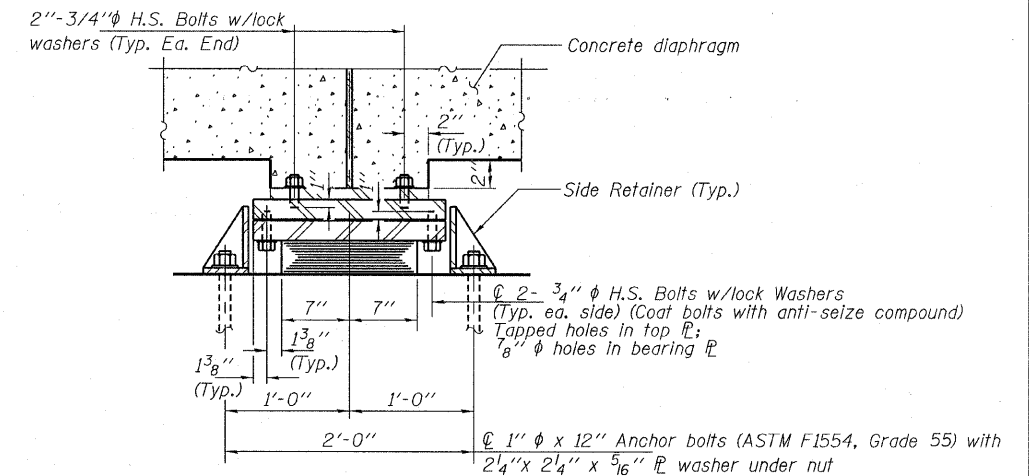


SECTION B-B



BEARING ASSEMBLY

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



SECTION C-C

BEARINGS
STRUCTURE NO. 083-0063

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

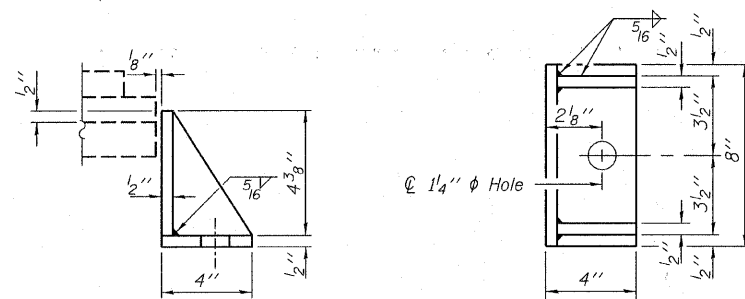
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Cost included with Bearing Assembly, Type-I Elastomeric.

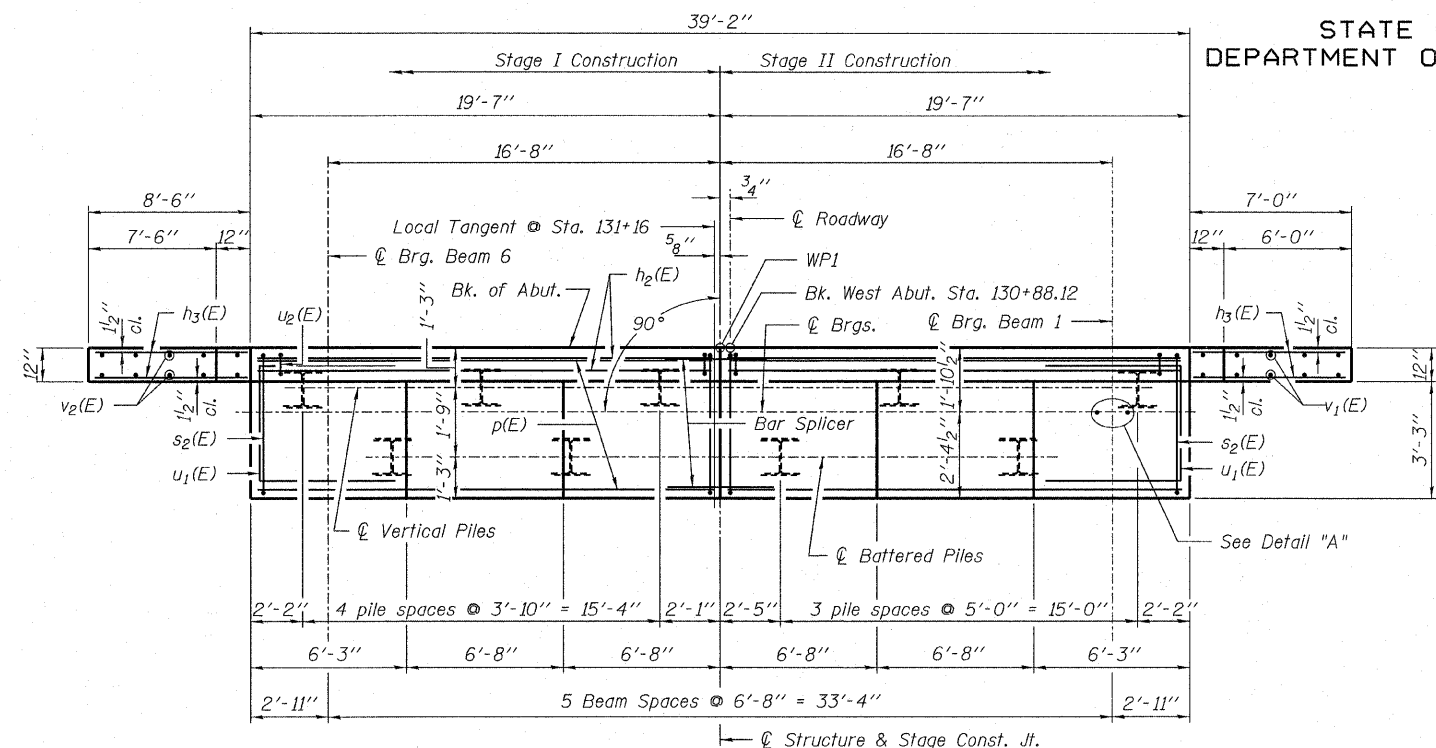
BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	6
Anchor Bolts, 1"	Each	24

DESIGNED - P.S.L.
CHECKED - M.D.C.
DRAWN - D.T.M.
CHECKED - S.W.M.

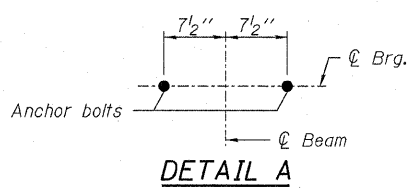
HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS HLR 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400 PROJECT NUMBER: 08 0045.130 DATE: 09/02/08	SHEET NO. 13	F.A.S. RTE. 2881	SECTION 30B-1	COUNTY SALINE	TOTAL SHEETS 45	SHEET NO. 27
	19 SHEETS	RALEIGH RD. OVER ELDORADO RESERVOIR SPILLWAY		CONTRACT NO. 98533		
		FED. ROAD DIST. NO. 9 ILLINOIS		FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN

Note: See Sheet 13 of 19 for Anchor Bolt Details Space p(E) bars to miss anchor bolts.

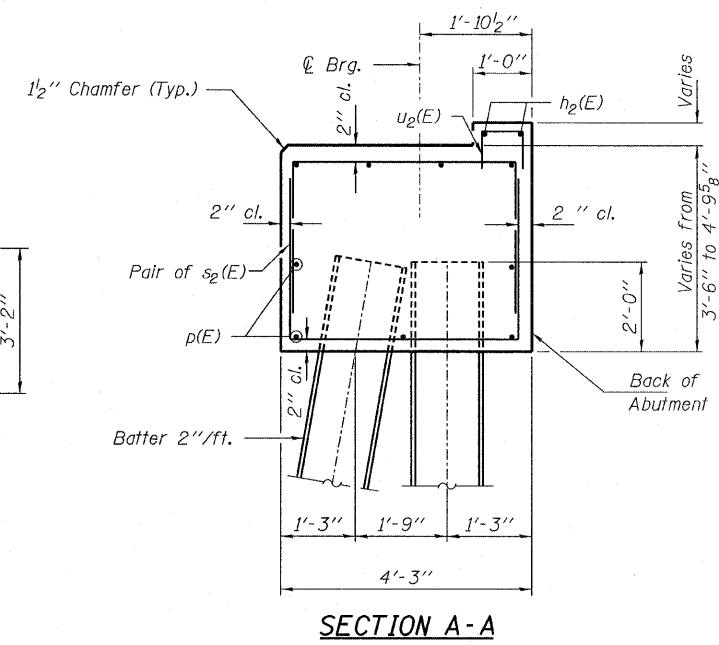


DETAIL A

BAR u₁(E)

BAR s₂(E)

BAR u₂(E)



SECTION A-A

BILL OF MATERIAL - WEST ABUTMENT

BAR	NO.	SIZE	LENGTH	SHAPE
h ₁ (E)	16	#5	9'-0"	—
h ₂ (E)	22	#5	10'-6"	—
h ₃ (E)	4	#5	19'-4"	—
h ₄ (E)	8	#5	6'-3"	—
h ₅ (E)	8	#5	7'-9"	—
p(E)	18	#8	19'-4"	—
s ₂ (E)	70	#5	10'-3"	□
u ₁ (E)	8	#6	13'-10"	□
u ₂ (E)	40	#5	2'-8"	□
v ₃ (E)	8	#5	9'-10"	—
v ₄ (E)	9	#5	12'-8"	—
Concrete Structures				Cu. Yd. 30.1
Concrete Encasement				Cu. Yd. 3.15
Reinforcement Bars, Epoxy Coated				Pound 2,740
Furnishing Steel Piles HP10x42				Foot 360
Driving Piles				Foot 360
Test Pile Steel HP10x42				Each 1
Structure Excavation				Cu. Yd. 175

Notes:
 Concrete encasement not shown for clarity.
 See sheet 18 of 19 for Concrete Encasement details.

* FIELD CUTTING DIAGRAM

Order v₃(E) & v₄(E) bars full length.
 Cut as shown and use remainder of bar in opposite face.
 Note: Pour steps monolithically with cap.

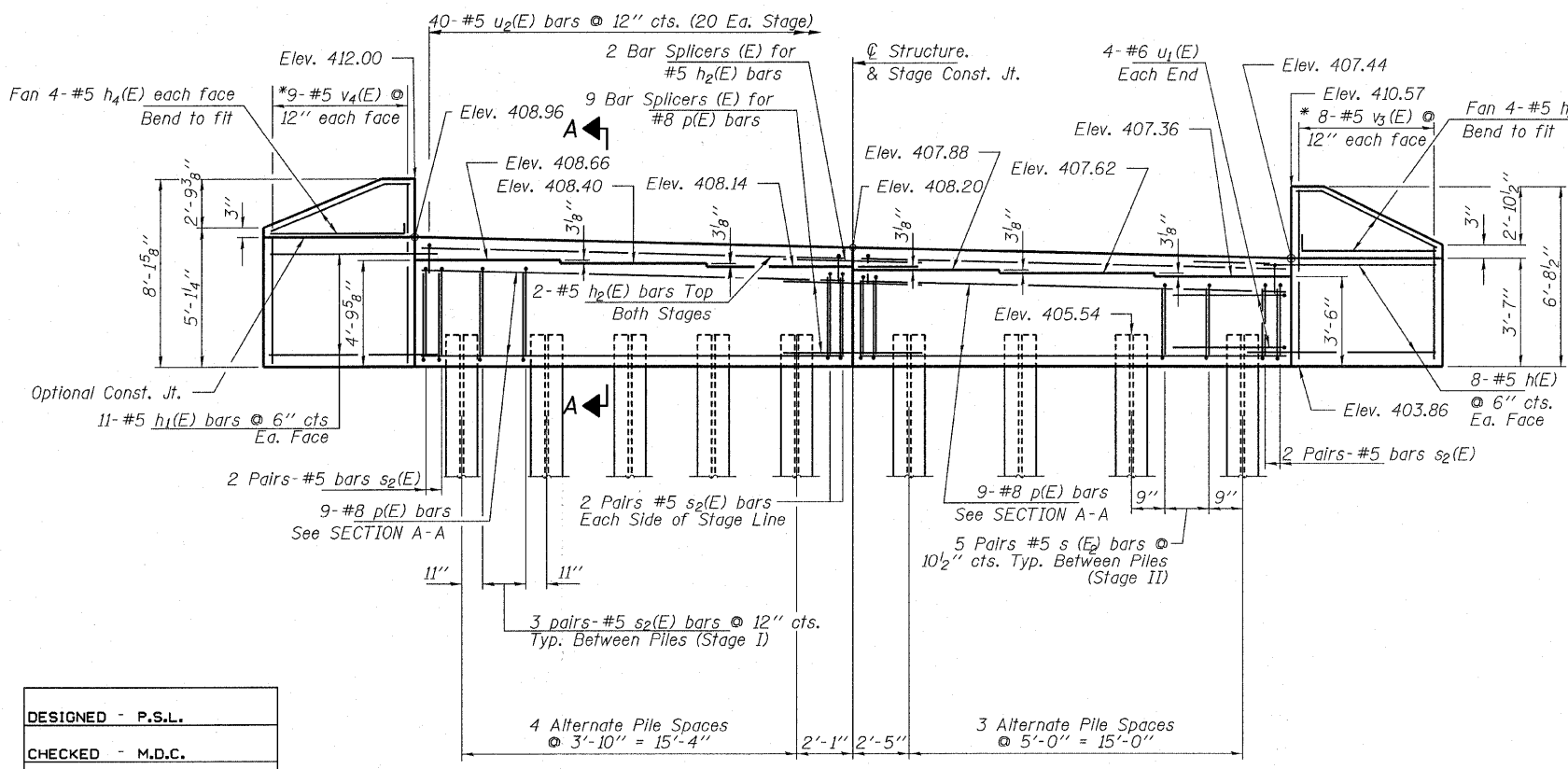
PILE DATA

Type: Steel HP10x42
 No. Req'd: 9**
 Allowable Resistance Available: 111 Kips/Pile
 Nominal Req'd Bearing: 335 Kips/Pile
 Est. Length: 45 Ft/Pile

Notes: ** Includes one test pile to be driven in permanent locations at the West Abutment.

The steel H-Piles shall be according to AASHTO M270 Grade 50.

The test piles shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.



ELEVATION
(Looking West)

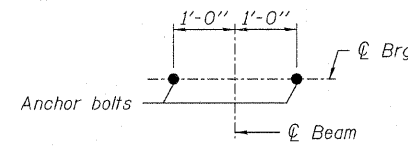
DESIGNED - P.S.L.
CHECKED - M.D.C.
DRAWN - D.T.M.
CHECKED - S.W.M.

WEST ABUTMENT
STRUCTURE NO. 083-0063

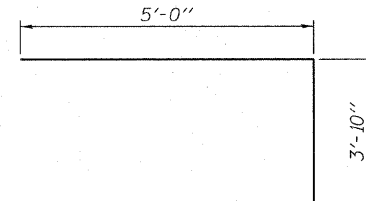
HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400 PROJECT NUMBER: 08.0045.130 DATE: 09/02/08	SHEET NO. 14 19 SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		2881	30B-1	SALINE	45	28
		RALEIGH RD. OVER ELDERADO RESERVOIR SPILLWAY		CONTRACT NO. 98533		
		FED. ROAD DIST. NO. 9 ILLINOIS		FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Note: See Sheet 13 of 19 for Anchor Bolt Details
Space p(E) bars to miss anchor bolts.



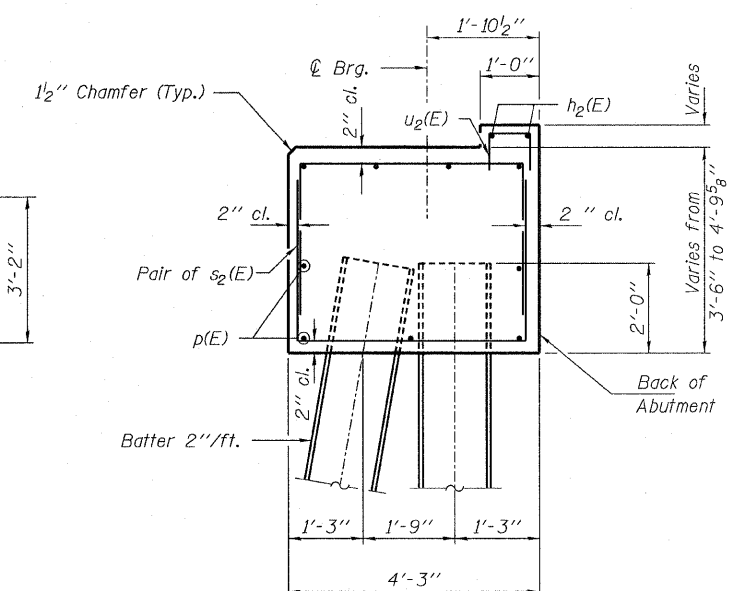
DETAIL A



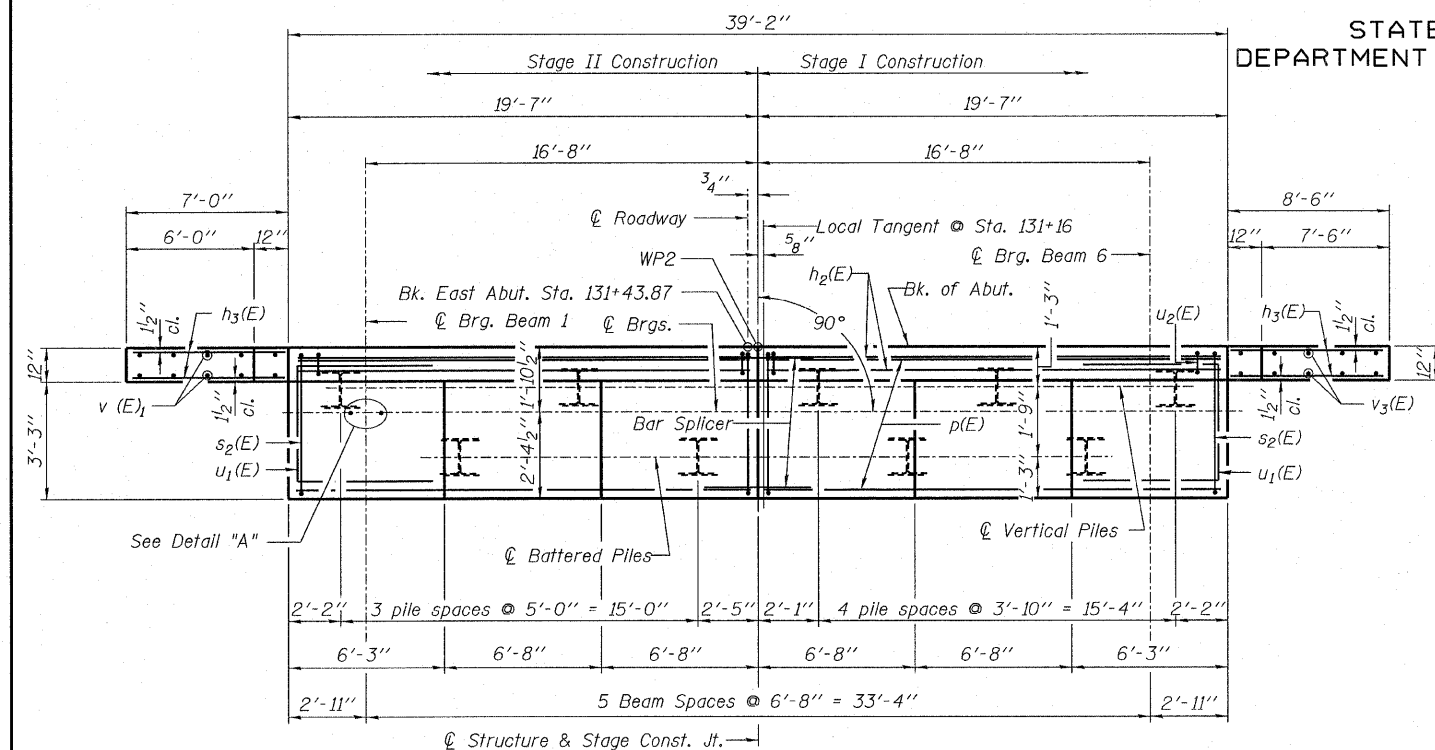
BAR u₁(E)

BAR s₂(E)

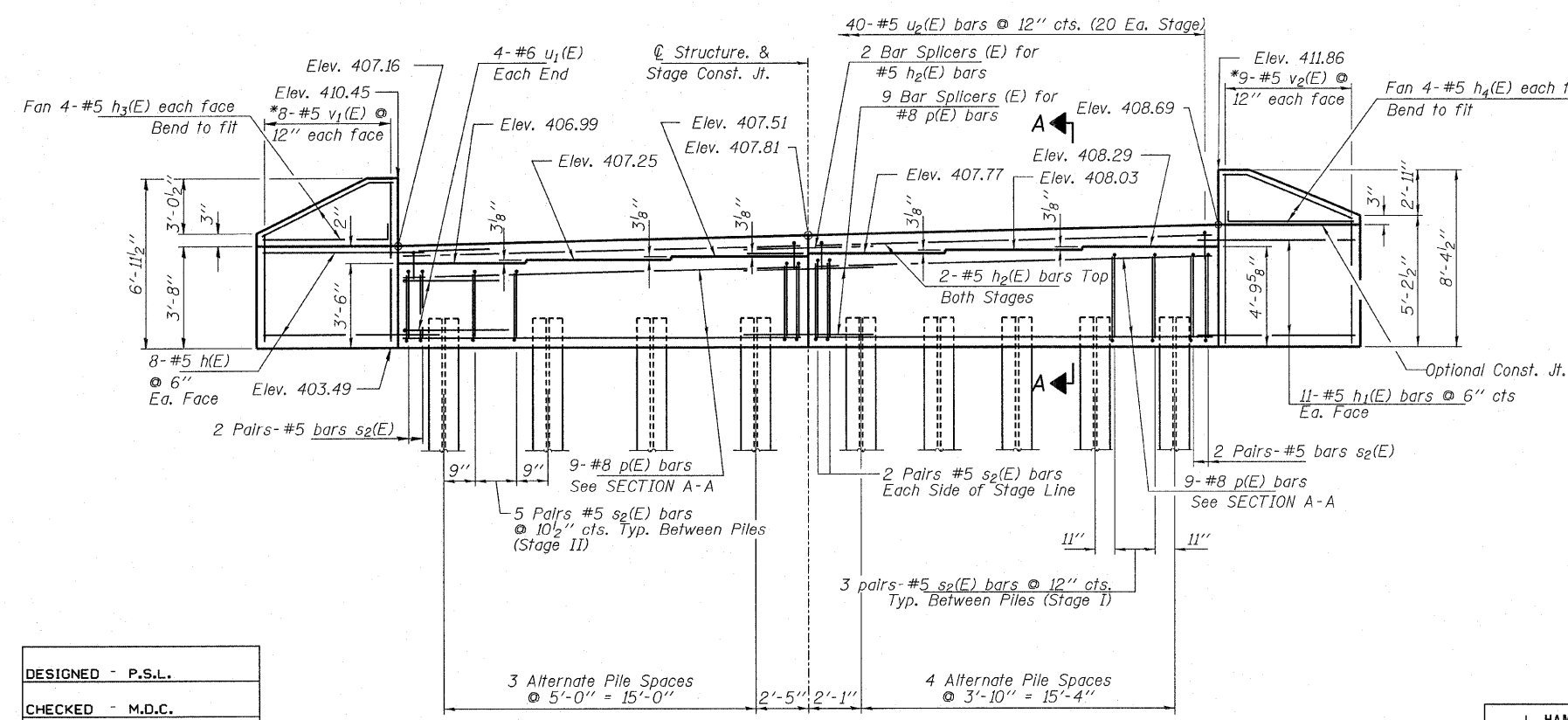
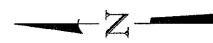
BAR u₂(E)



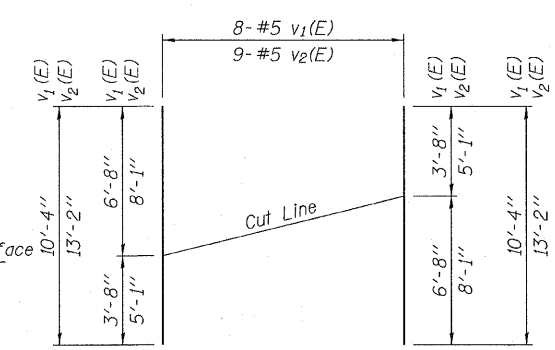
SECTION A-A



PLAN



ELEVATION
(Looking East)



* FIELD CUTTING DIAGRAM

Order v₁(E) & v₂(E) bars full length.
Cut as shown and use remainder of bar
in opposite face.
Note: Pour steps monolithically with cap.

PILE DATA

Type: Steel HP10x42
No. Req'd: 9**
Allowable Resistance Available: 111 Kips/Pile
Nominal Req'd Bearing: 335 Kips/Pile
Est. Length: 45 Ft/Pile

Notes: ** Includes one test pile to be driven in permanent locations at the East Abutment.

The steel H-Piles shall be according to AASHTO M270 Grade 50.

The test piles shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.

BILL OF MATERIAL - EAST ABUTMENT

BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	16	#5	9'-0"	—
h ₁ (E)	22	#5	10'-6"	—
h ₂ (E)	4	#5	19'-4"	—
h ₃ (E)	8	#5	6'-3"	—
h ₄ (E)	8	#5	7'-9"	—
p(E)	18	#8	19'-4"	—
s ₂ (E)	70	#5	10'-3"	□
u ₁ (E)	8	#6	13'-10"	□
u ₂ (E)	40	#5	2'-8"	□
v ₁ (E)	8	#5	10'-4"	—
v ₂ (E)	9	#5	13'-2"	—
Concrete Structures				Cu. Yd. 30.5
Concrete Encasement				Cu. Yd. 3.15
Reinforcement Bars, Epoxy Coated				Pound 2,750
Furnishing Steel Piles HP10x42				Foot 360
Driving Piles				Foot 360
Test Pile Steel HP10x42				Each 1
Structure Excavation				Cu. Yd. 175

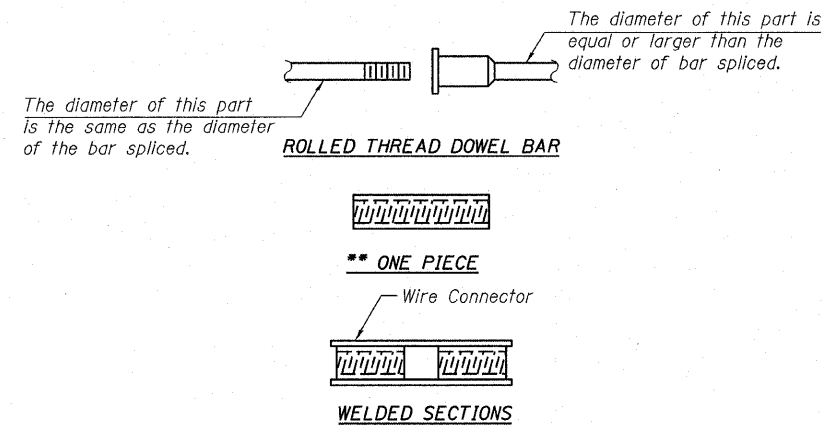
Notes:
Concrete encasement not shown for clarity.
See sheet 18 of 19 for Concrete Encasement details.

EAST ABUTMENT
STRUCTURE NO. 083-0063

DESIGNED - P.S.L.
CHECKED - M.D.C.
DRAWN - D.T.M.
CHECKED - S.W.M.

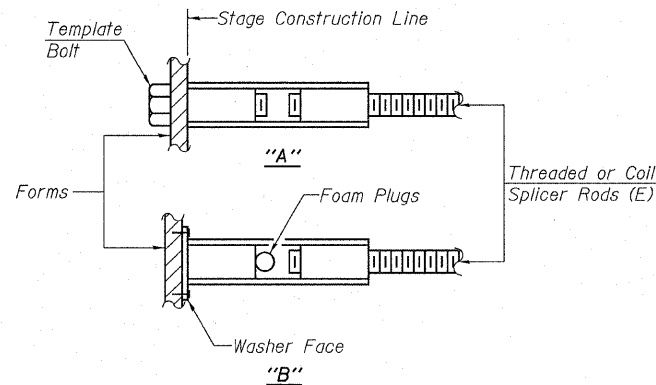
HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400	SHEET NO. 15	F.A.S. RTE. 2881	SECTION 30B-1	COUNTY SALINE	TOTAL SHEETS 45	SHEET NO. 29
	19 SHEETS	RALEIGH RD. OVER ELDORADO RESERVOIR SPILLWAY		CONTRACT NO. 98533		
PROJECT NUMBER: 08 0045.130	DATE: 09/02/08	FED. ROAD DIST. NO. 9 ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

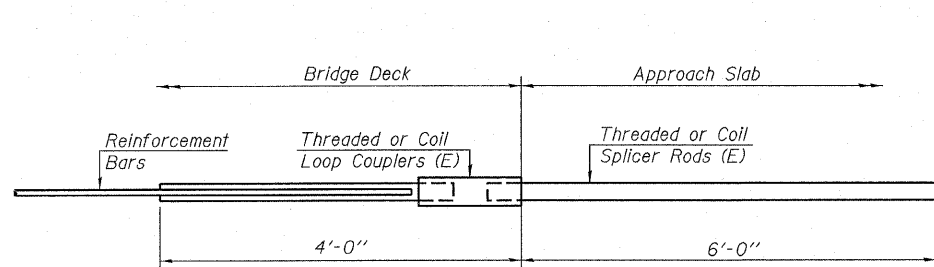
"A": Set bar splicer assembly by means of a template bolt.
 "B": Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.

NOTES

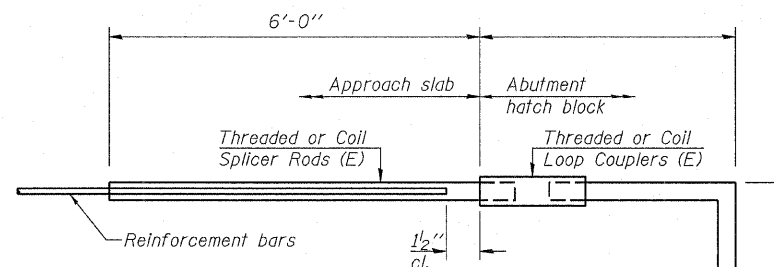
Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
 Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
 All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
 Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity = $1.25 \times f_y \times A_t$
(Tension in kips)
 - ② Minimum *Pull-out Strength = $0.66 \times f_y \times A_t$
(Tension in kips)
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

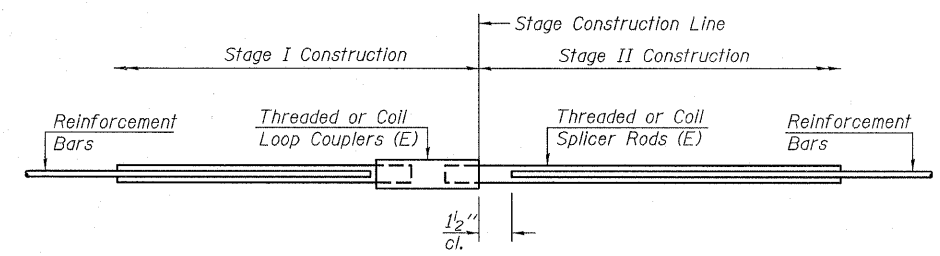
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS



FOR STUB ABUTMENTS



STANDARD

Bar Size	No. Assemblies Required	Location
#5	166	Deck
#6	20	Diaphragm
#8	18	Abutments
#5	4	Abutments

Bar Splicer for #5 bar	
Min. Capacity =	23.0 kips - tension
Min. Pull-out Strength =	12.3 kips - tension
No. Required =	74

Bar Splicer for #5 bar	
Min. Capacity =	23.0 kips - tension
Min. Pull-out Strength =	12.3 kips - tension
No. Required =	

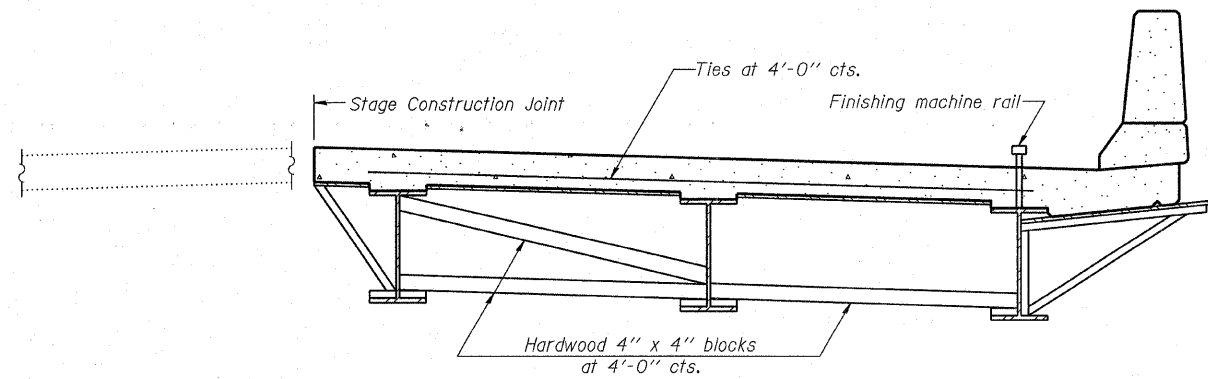
DESIGNED -	P.S.L.
CHECKED -	M.D.C.
DRAWN -	D.T.M.
CHECKED -	S.W.M.

BSD-1 5-16-08

**BAR SPLICER ASSEMBLY DETAILS
STRUCTURE NO. 083-0063**

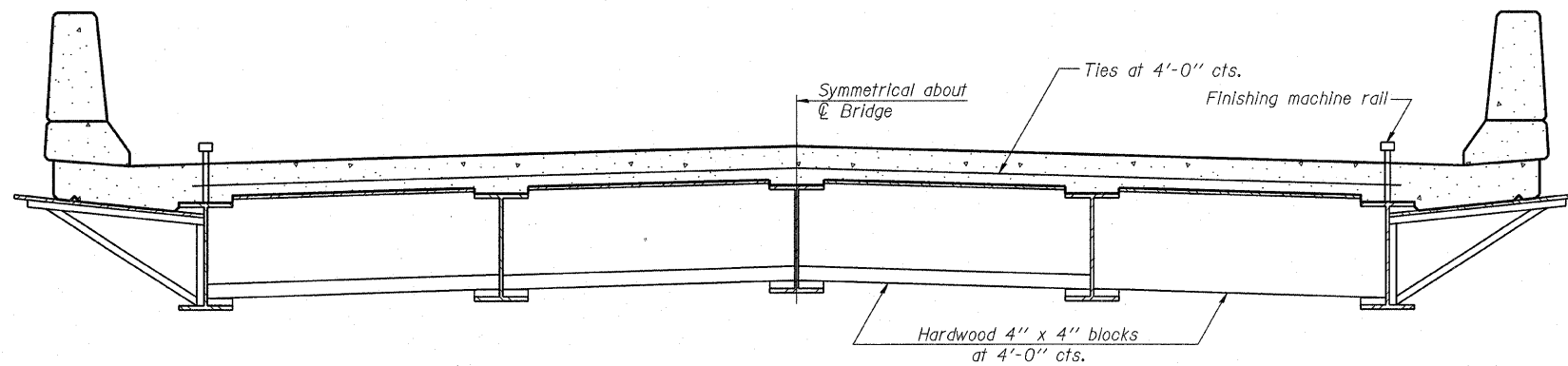
HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400	SHEET NO. 16 19 SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		2881	30B-1	SALINE	45	30
PROJECT NUMBER: 08.0045.130 DATE: 09/02/08		RALEIGH RD. OVER ELDORADO RESERVOIR SPILLWAY		CONTRACT NO. 98533		
		FED. ROAD DIST. NO. 9		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FORM BRACES FOR STAGE CONSTRUCTION

When cantilever forming brackets are used, the work shall be done according to Article 503.06(b) of the Standard Specifications, except as modified below and in the details shown on this sheet.
The finishing machine rails shall be placed on the top flange of the exterior beams.
The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.
For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.



FORM BRACES FOR STANDARD CONSTRUCTION

CANTILEVER FORMING BRACKETS
FOR SUPERSTRUCTURES
WITH W27 BEAMS AND SMALLER
STRUCTURE NO. 083-0063

DESIGNED - P.S.L.
CHECKED - M.D.C.
DRAWN - D.T.M.
CHECKED - S.W.M.

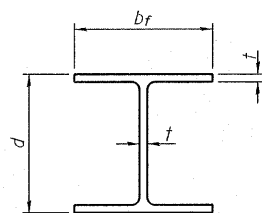
SB-1 5-16-08

HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS
HLR 3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400
PROJECT NUMBER: 08 0045 130 DATE: 09/02/08

SHEET NO. 17
19 SHEETS

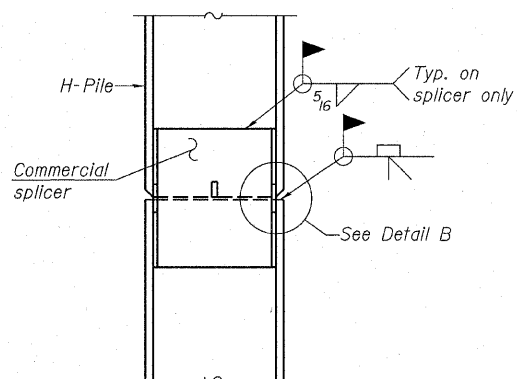
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2881	30B-1	SALINE	45	31
RALEIGH RD. OVER ELDORADO RESERVOIR SPILLWAY			CONTRACT NO. 98533	
FED. ROAD DIST. NO. 9 ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

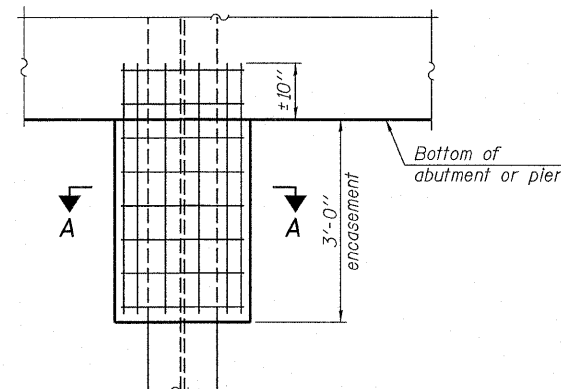


STEEL PILE TABLE

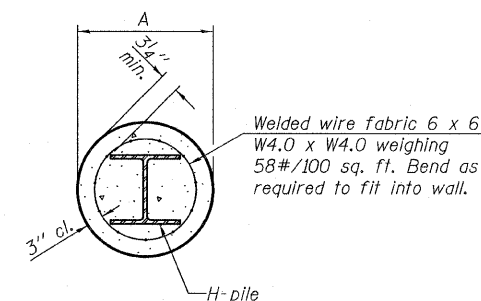
Designation	Depth d	Flange width b _f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 ¹ / ₄ "	14 ⁷ / ₈ "	1 ³ / ₁₆ "	30"
x102	14"	14 ³ / ₄ "	1 ¹ / ₁₆ "	30"
x89	13 ⁷ / ₈ "	14 ³ / ₄ "	5 ⁵ / ₈ "	30"
x73	13 ⁵ / ₈ "	14 ⁵ / ₈ "	1 ¹ / ₂ "	30"
HP 12x84	12 ¹ / ₄ "	12 ¹ / ₄ "	1 ¹ / ₁₆ "	24"
x74	12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



ELEVATION



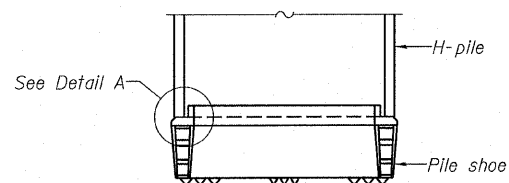
ELEVATION



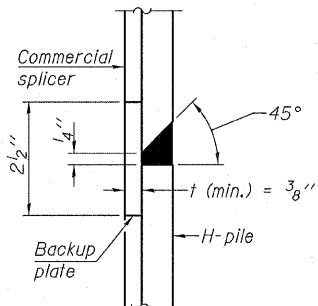
SECTION A-A

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

PILE ENCASEMENT

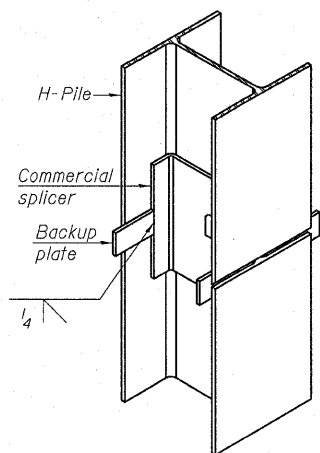


ELEVATION

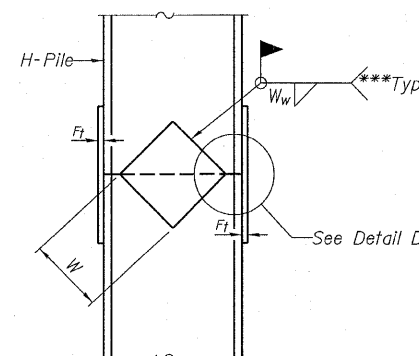


DETAIL "B"

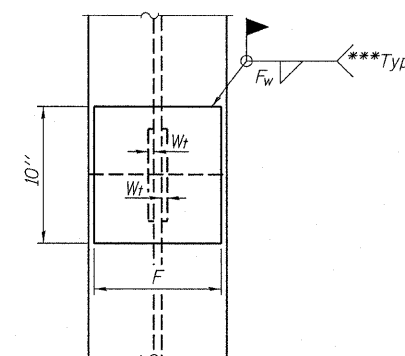
WELDED COMMERCIAL SPLICE



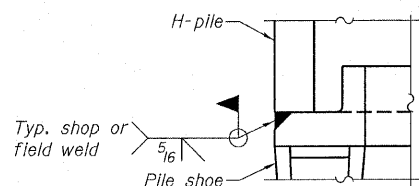
ISOMETRIC VIEW



ELEVATION

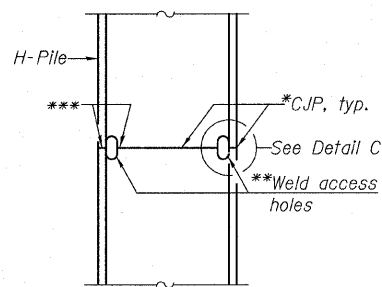


END VIEW

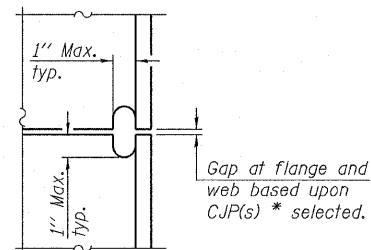


DETAIL A

H-PILE SHOE ATTACHMENT

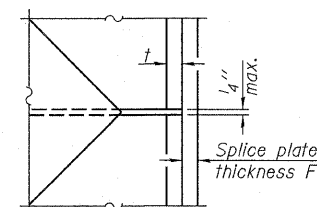


ELEVATION



DETAIL C

COMPLETE PENETRATION WELD SPLICE



DETAIL D

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

STEEL H PILE DETAILS
STRUCTURE NO. 083-0063

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

*Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code-Steel.

**Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code-Steel.

***Interrupt welds 1/4" from end of each pile.

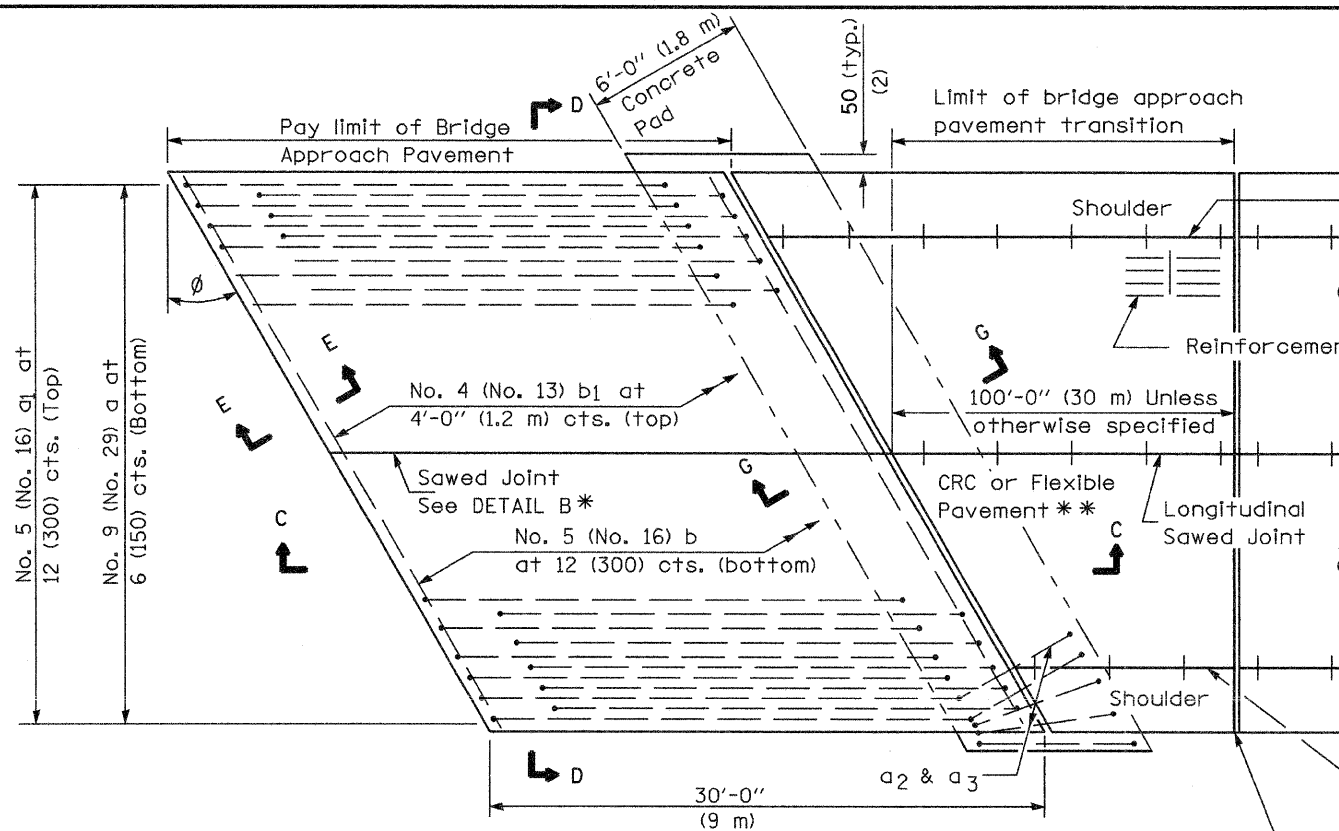
DESIGNED - P.S.L.
CHECKED - M.D.C.
DRAWN - D.T.M.
CHECKED - S.W.M.

F-HP

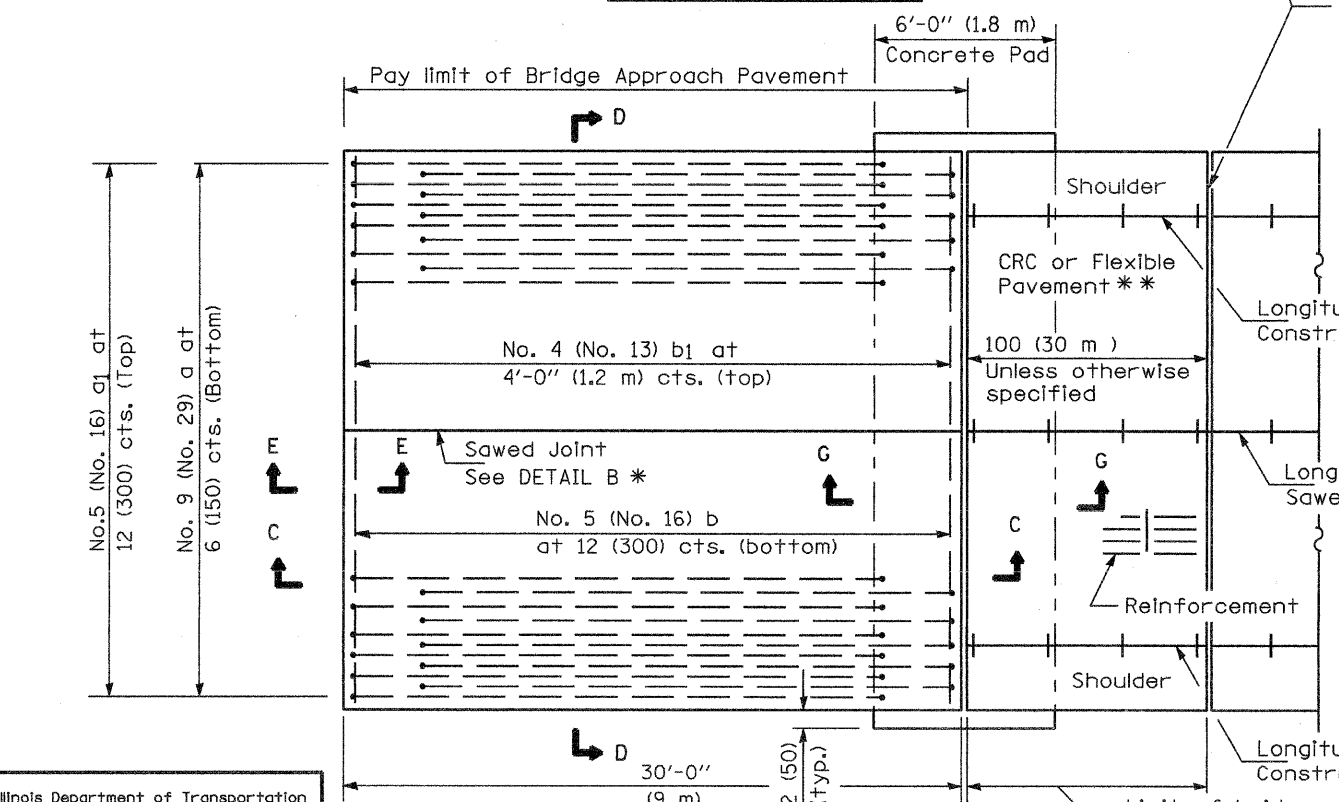
5-16-08

HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS HLR 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400	SHEET NO. 18	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	19 SHEETS	2881	30B-1	SALINE	45	32	
		RALEIGH RD. OVER ELDOURADO RESERVOIR SPILLWAY			CONTRACT NO. 98533		
	PROJECT NUMBER: 08 0045.130	DATE: 09/02/08	FED. ROAD DIST. NO. 9 ILLINOIS FED. AID PROJECT				

NEW CONSTRUCTION

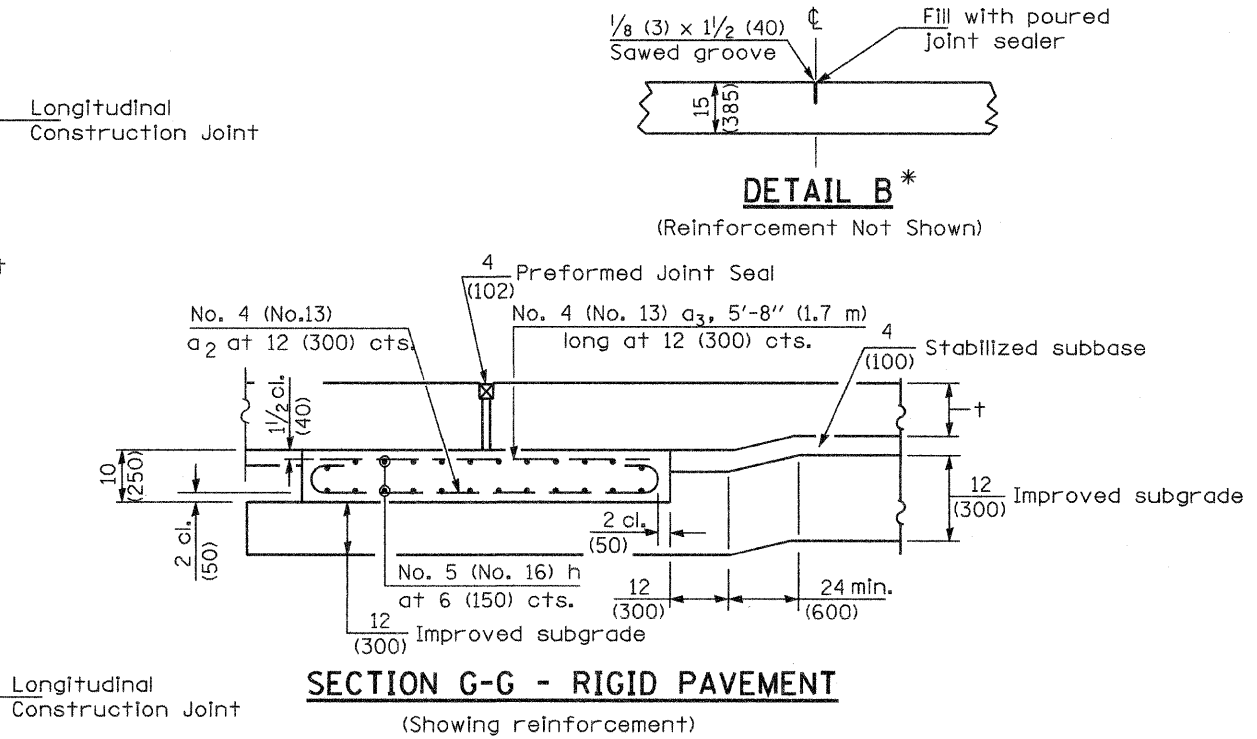


PLAN - WITH SKEW

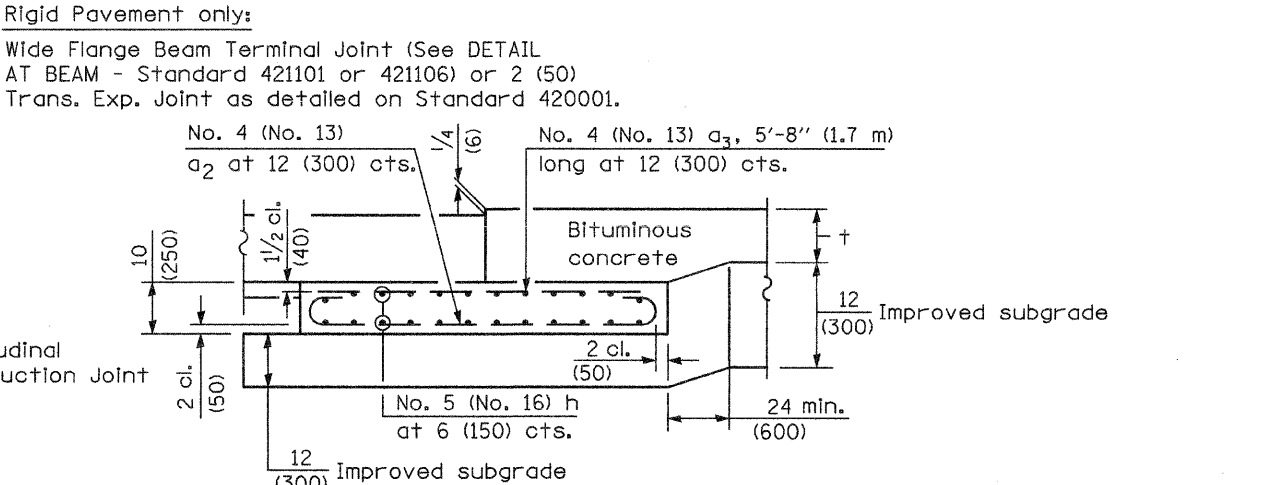


PLAN - WITHOUT SKEW

* Saw \perp or lane edge if poured two or more lane widths at a time.
 ** Omit Reinforcement, tie bars and Long. sawed Jt. for Flexible Pavement.



SECTION G-G - RIGID PAVEMENT
(Showing reinforcement)



SECTION G-G - FLEXIBLE PAVEMENT
(Showing reinforcement)

GENERAL NOTES

THICKNESS-"t"=Thickness of Pavement.
 See Standard 421001 for reinforcement details not shown.
 See Standard 420001 for joint details not shown.
 All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

APPROVED January 1, 2008
Ralph E. Anderson
 ENGINEER OF BRIDGES AND STRUCTURES

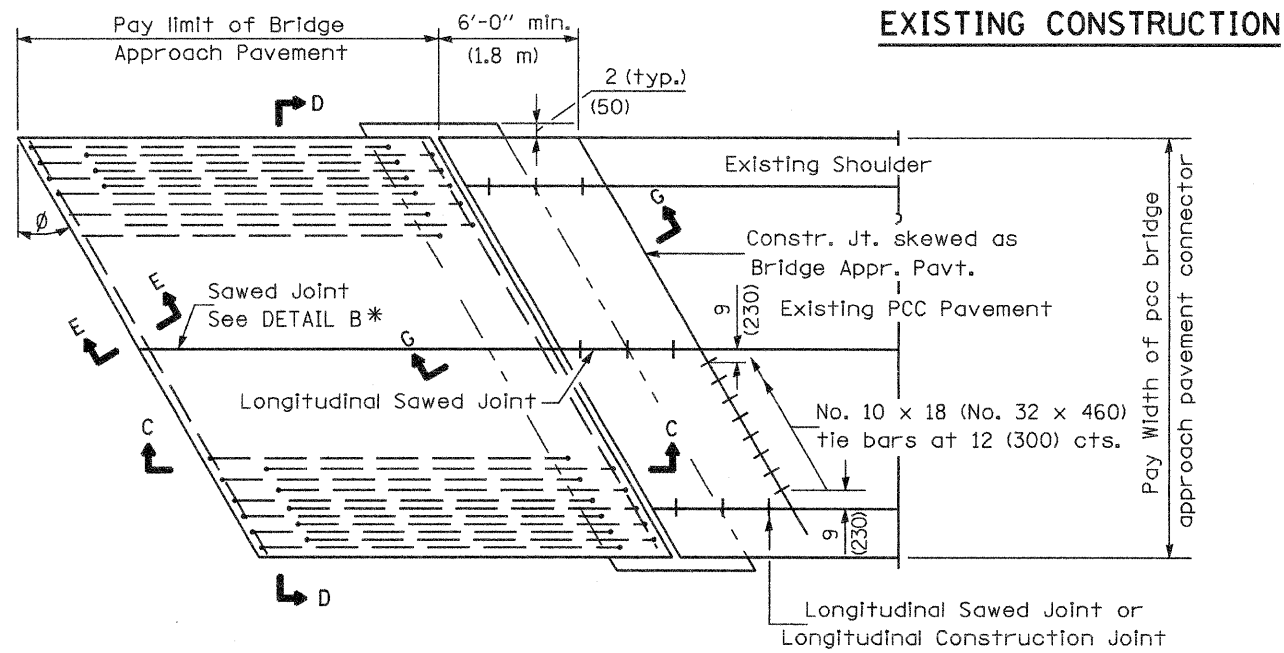
APPROVED January 1, 2008
Ken E. Han
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

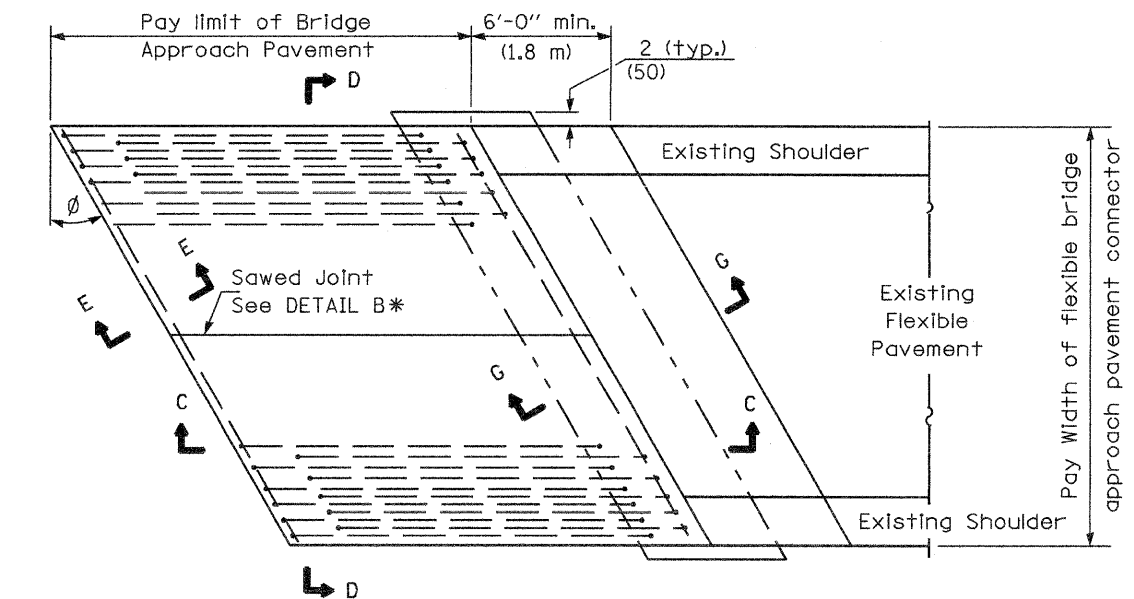
DATE	REVISIONS
1-1-08	Switched units to English (metric). Moved rebar epoxy coat note to Standard Spec.
1-1-04	Rev. size of Trans. Exp. Jt. and soft converted metric reinf.

BRIDGE APPROACH PAVEMENT

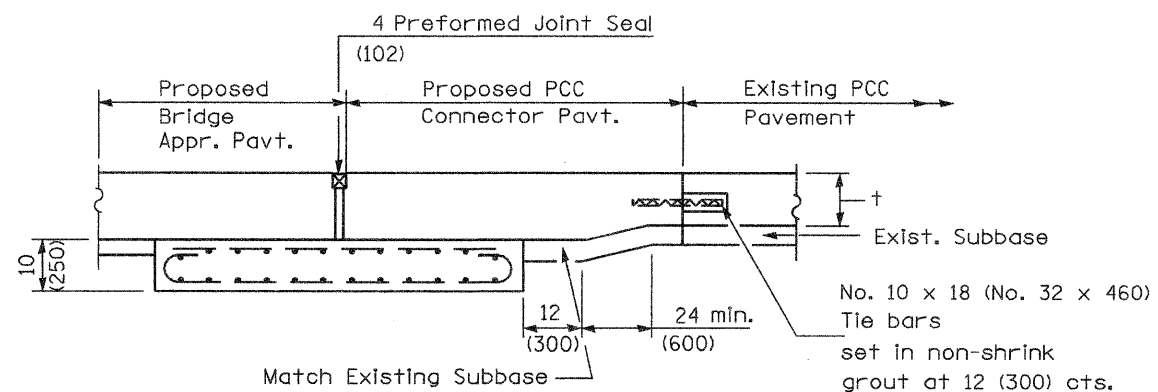
(Sheet 1 of 4)



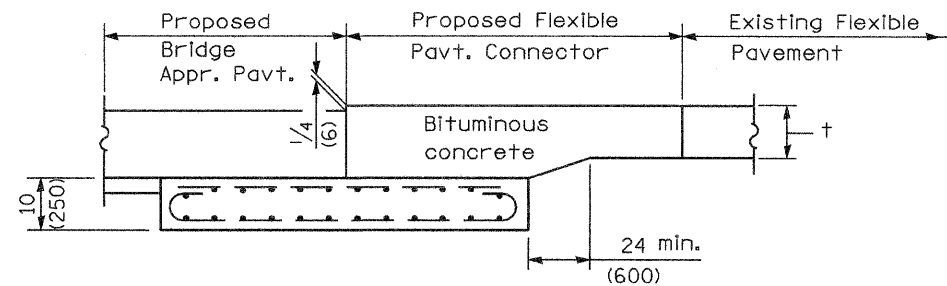
BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)



BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)



SECTION G-G - RIGID PAVEMENT



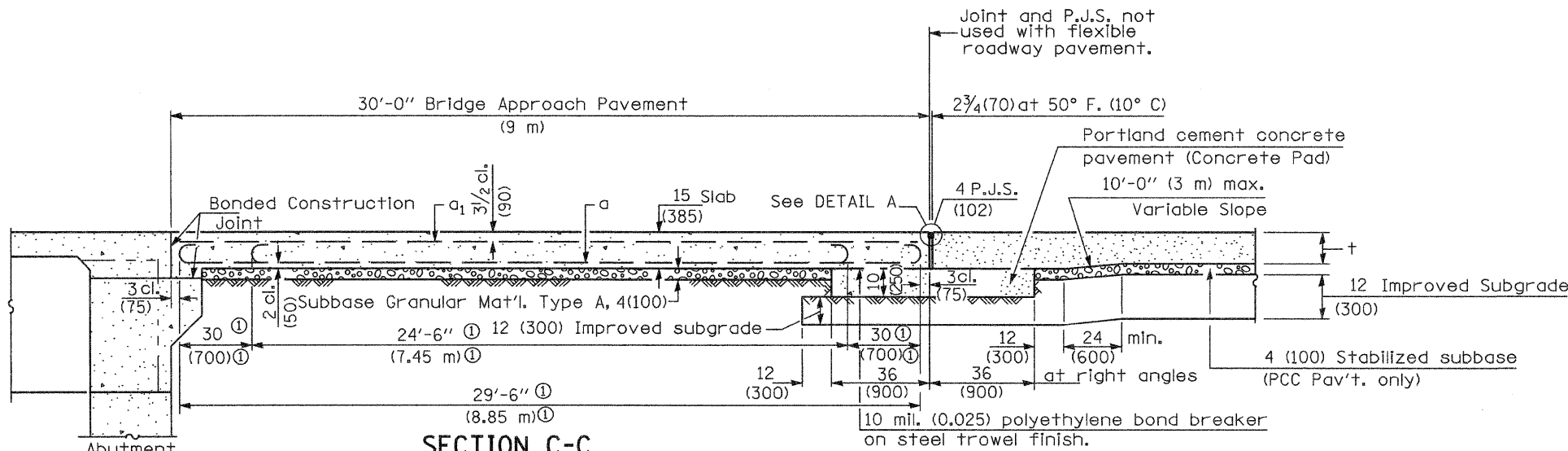
SECTION G-G - FLEXIBLE PAVEMENT

Illinois Department of Transportation
 APPROVED January 1, 2008
Ralph E. Anderson
 ENGINEER OF BRIDGES AND STRUCTURES
 APPROVED January 1, 2008
Eric S. Khan
 ENGINEER OF DESIGN AND ENVIRONMENT
 ISSUED 1-1-97

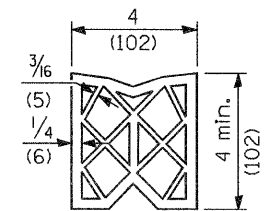
BRIDGE APPROACH PAVEMENT

(Sheet 2 of 4)

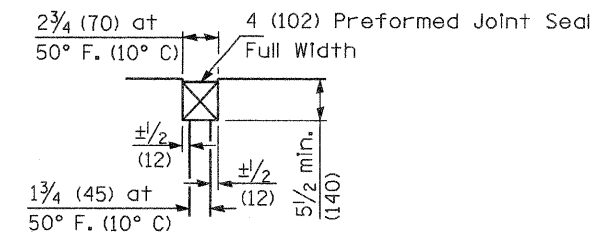
Contract 98533 Sheet 33 B.



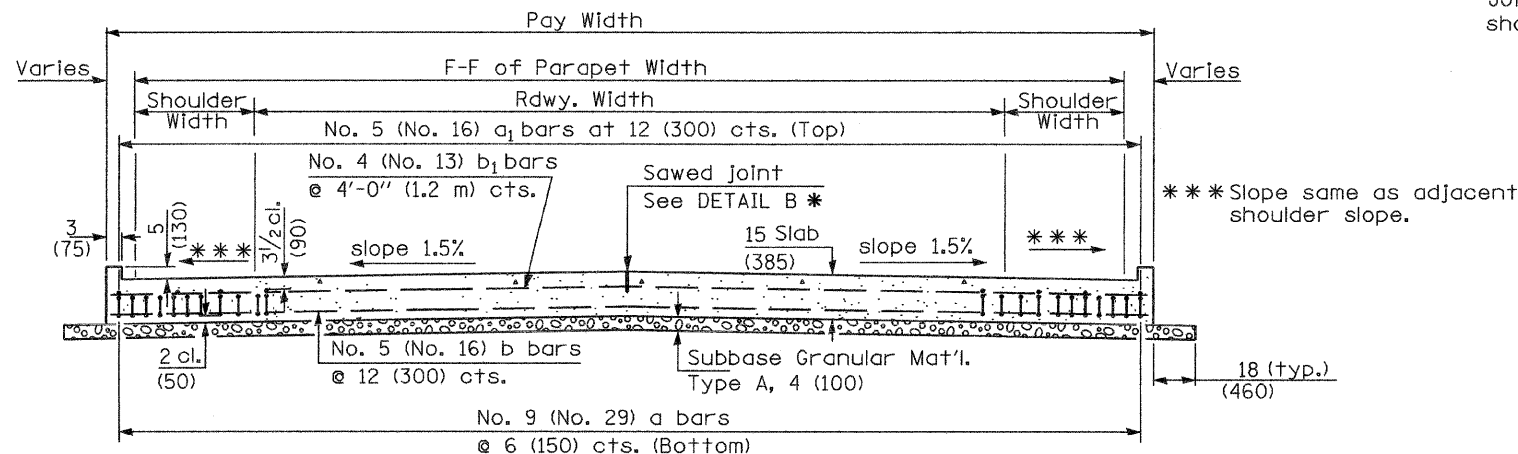
① Stagger No. 9 (No. 29) a bars as shown on plan - full width



PREFORMED JOINT SEAL



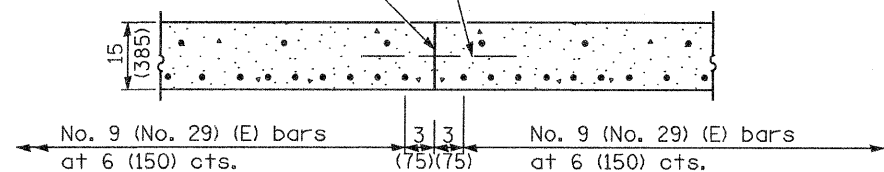
DETAIL A



SECTION D-D

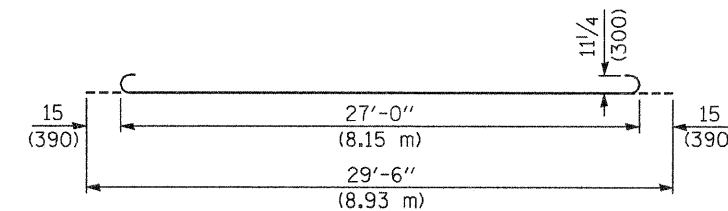
(See Plan for Dimensions not shown)

Longitudinal Construction Joint in accordance with details shown on Standard 420001.

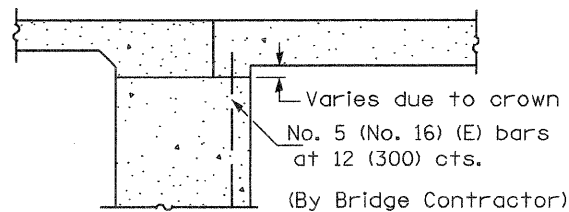


OPTIONAL LONGITUDINAL CONSTRUCTION JOINT

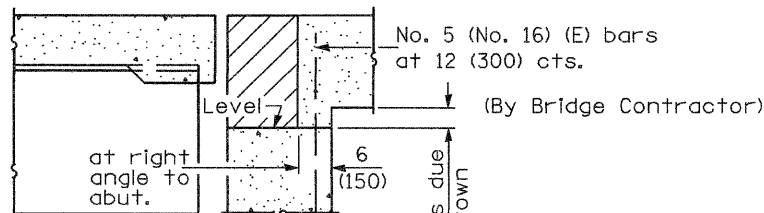
As approved by the Engineer, the Contractor may elect to reduce the widths of pour by use of the Optional Longitudinal Construction Joint shown. Joints shall be located at the edge of a traffic lane.



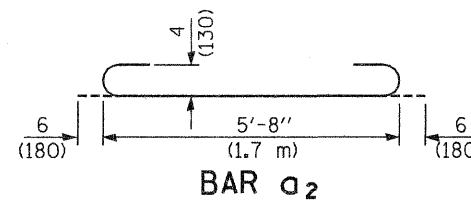
BAR a



SECTION E-E
(Integral Abutments)



SECTION E-E
(Jointed Abutments)



BAR a2

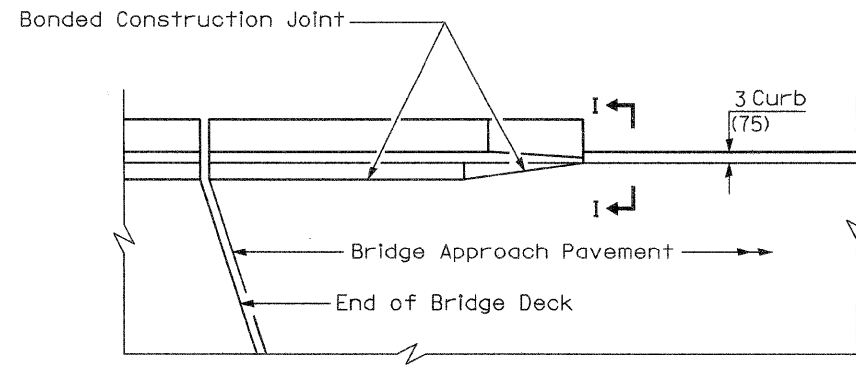
DESIGN STRESSES
 $f_y = 60,000$ p.s.i. (400 MPa)
 $f'_c = 3,500$ p.s.i. (24 MPa)
 $n = 8.5$

BRIDGE APPROACH PAVEMENT

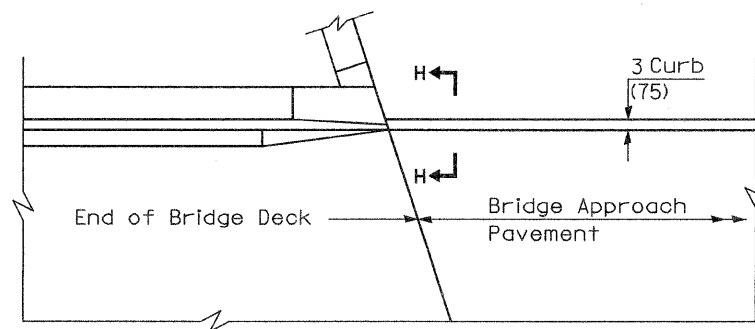
(Sheet 3 of 4)

Contract 98533 Sheet 33 C.

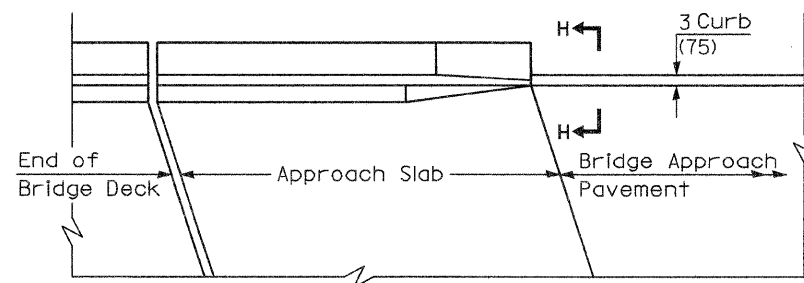
Illinois Department of Transportation
 APPROVED January 1, 2008
Ralph E. Anderson
 ENGINEER OF BRIDGES AND STRUCTURES
 APPROVED January 1, 2008
Ken E. Han
 ENGINEER OF DESIGN AND ENVIRONMENT



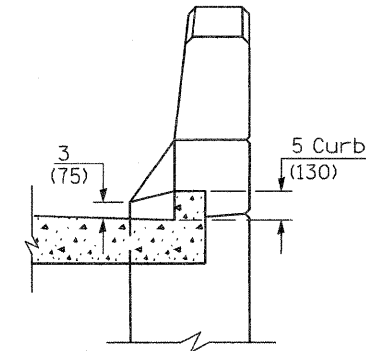
**PARAPET TO CURB TRANSITION
PILE BENT ABUTMENT**



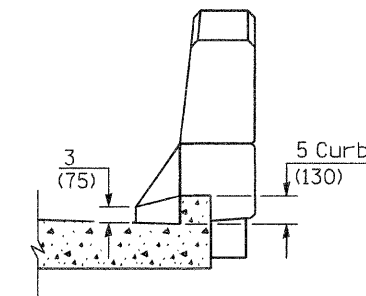
**PARAPET TO CURB TRANSITION
INTEGRAL ABUTMENT**



**PARAPET TO CURB TRANSITION
VAULTED ABUTMENT**



SECTION I - I



SECTION H - H

Illinois Department of Transportation
 APPROVED January 1, 2008
Ralph E. Anderson
 ENGINEER OF BRIDGES AND STRUCTURES
 APPROVED January 1, 2008
Ken E. Khan
 ENGINEER OF DESIGN AND ENVIRONMENT
 ISSUED 1-1-97

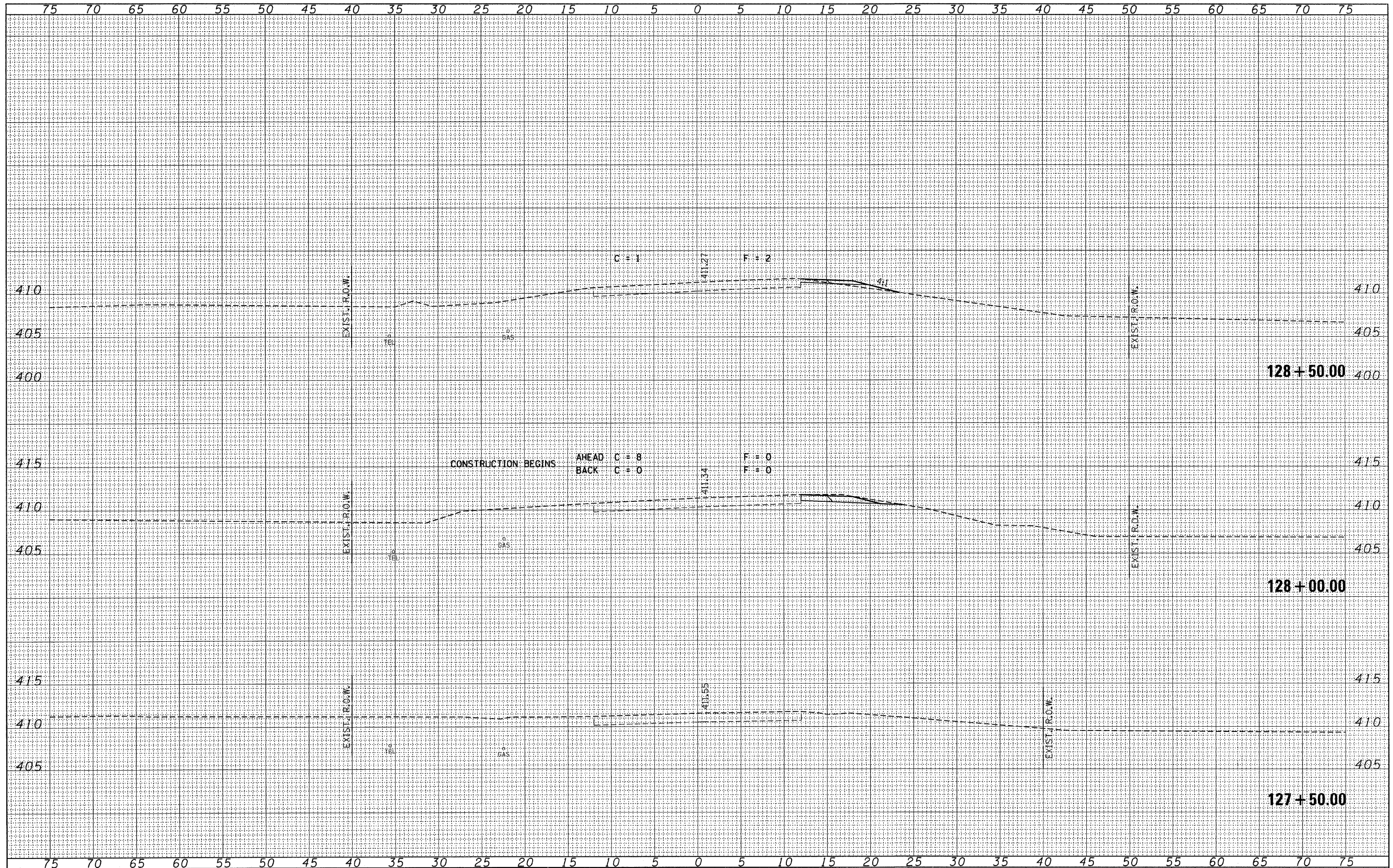
BRIDGE APPROACH PAVEMENT

(Sheet 4 of 4)

Contract 98533 Sheet 33D.

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

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



FILE NAME = 082045-ahs-axe-stage1.dgn

USER NAME =
 DESIGNED - L.F.S.
 DRAWN - D.T.M.
 CHECKED - S.W.M.
 PLOT DATE = 9/12/2008

REVISIONS:
 REVISION NO. | DATE | BY | DESCRIPTION
 1 | 09/11/08 | |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

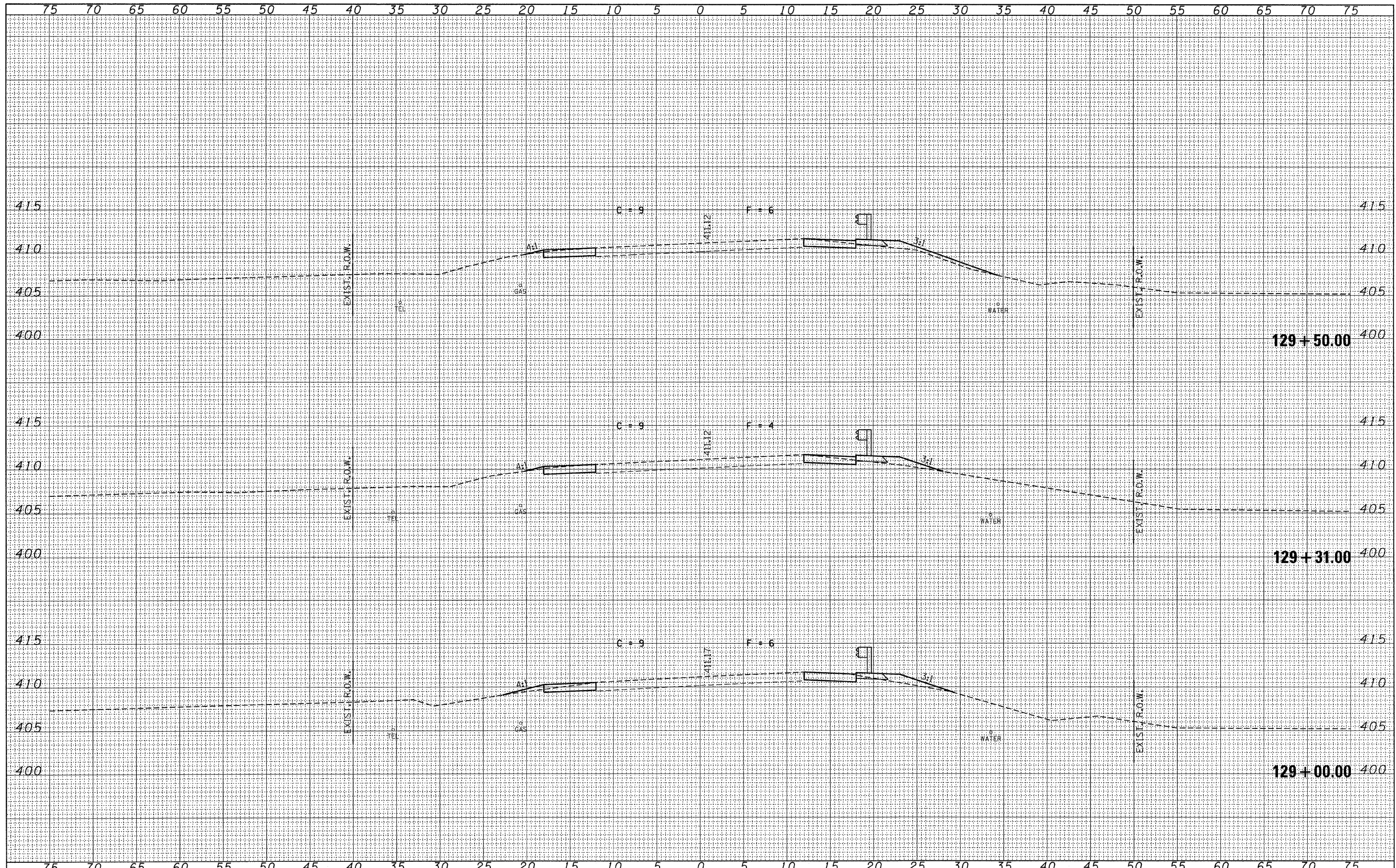
HLR HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS

**STAGE 1
 CROSS SECTIONS**
 STA. 127+50.00 TO STA. 128+50.00

F.A.S. 2881	SECTION 30B-1	COUNTY SALINE	TOTAL SHEETS 45	SHEET NO. 34
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

DATE	
BY	
SURVEYED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

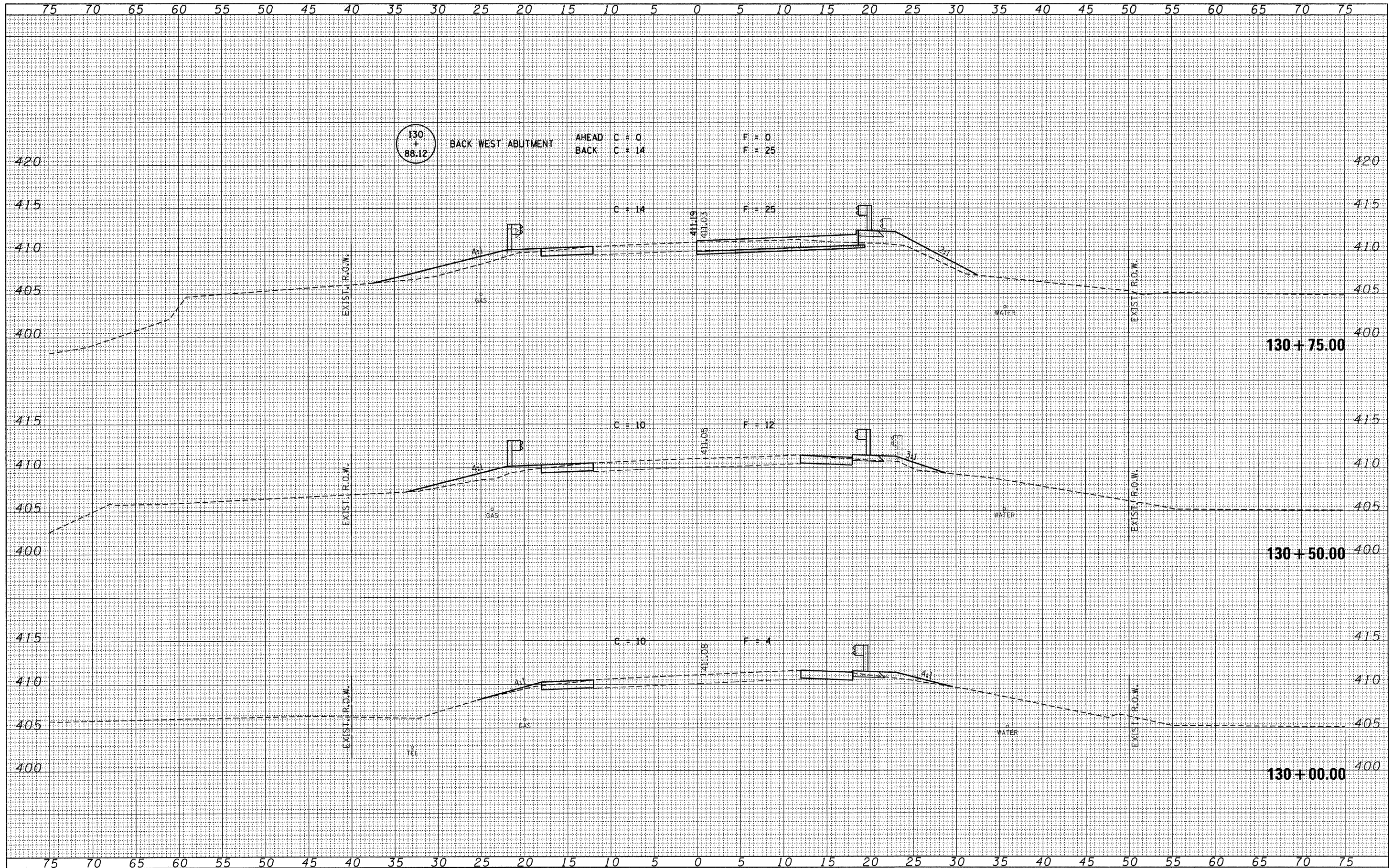
DATE	
BY	
ORIGINAL SURVEY	
NOTE BOOK	
AREAS CHECKED	
NO.	



FILE NAME = 000045-shr-sss-stage1.dgn	USER NAME =	DESIGNED - L.F.S.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS	STAGE 1 CROSS SECTIONS		F.A.S. 2881	SECTION 30B-1	COUNTY SALINE	TOTAL SHEETS 45	SHEET NO. 35		
PLOT SCALE =	CHECKED - S.W.M.	REVISED -	REVISED -			SCALE:	SHEET NO. OF SHEETS	STA. 129+00.00 TO STA. 129+50.00	CONTRACT NO.					
PLOT DATE = 9/12/2008	DATE - 09/11/08	REVISED -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT								

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

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



FILE NAME = 060045-ah1-axe-stage1.dgn
 USER NAME =
 DESIGNED - L.F.S.
 DRAWN - D.T.M.
 CHECKED - S.W.M.
 DATE - 09/11/08
 PLOT SCALE =
 PLOT DATE = 9/12/2008

DESIGNED - L.F.S.
 DRAWN - D.T.M.
 CHECKED - S.W.M.
 DATE - 09/11/08
 REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

HLR HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS

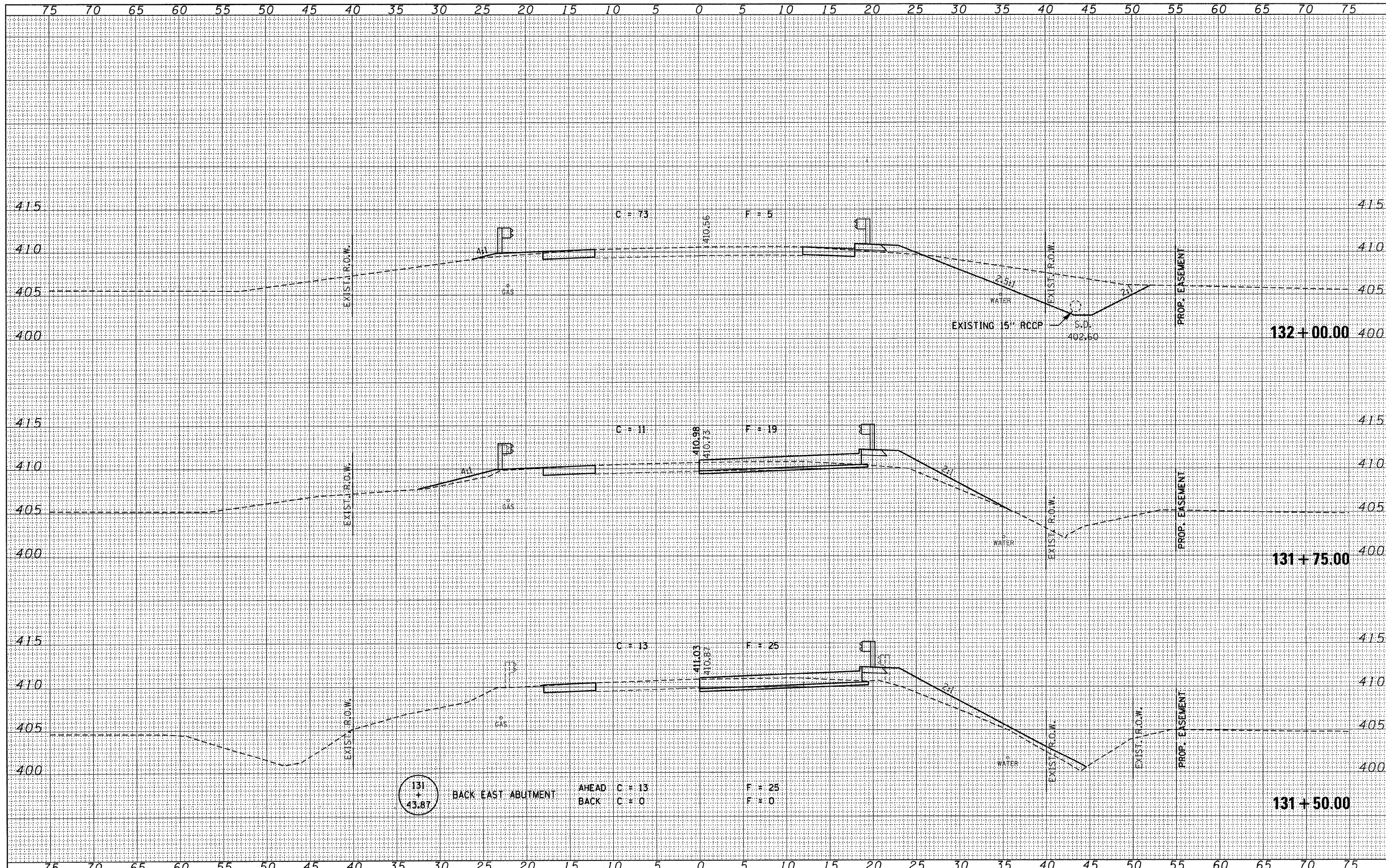
**STAGE 1
 CROSS SECTIONS**

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2881	30B-1	SALINE	45	36
CONTRACT NO.				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SCALE: SHEET NO. OF SHEETS STA. 130+00.00 TO STA. 130+75.00

DATE	
BY	
SURVEYED	
PLotted	
NOTE BOOK	
AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
PLotted	
NOTE BOOK	
AREAS CHECKED	



FILE NAME = 080045-ah-axe-stage1.dgn
 USER NAME =
 PLOT SCALE =
 PLOT DATE = 9/12/2008

DESIGNED - L.F.S.	REVISED -
DRAWN - D.T.M.	REVISED -
CHECKED - S.W.M.	REVISED -
DATE - 09/11/08	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

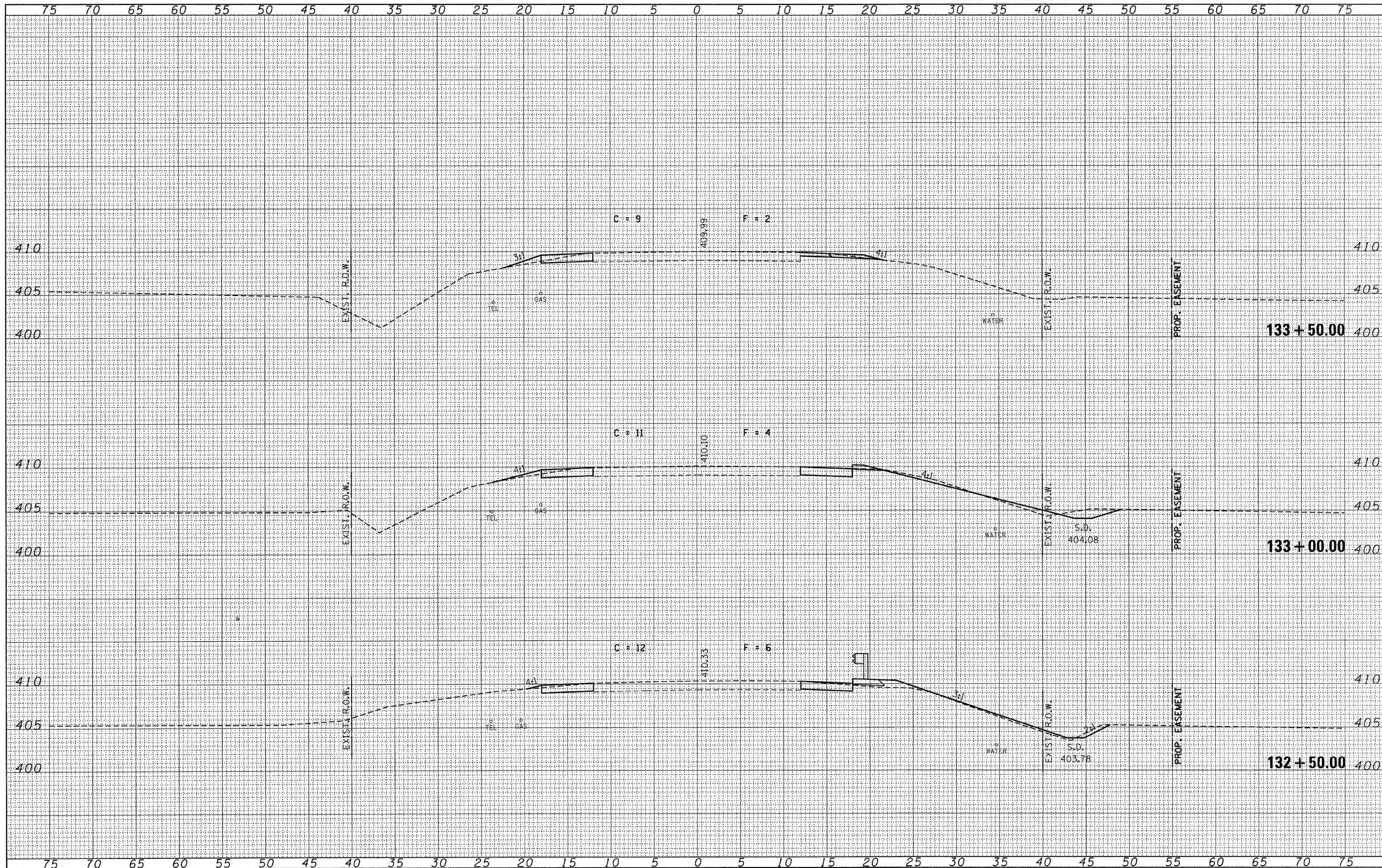
HLR HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS

SCALE: SHEET NO. OF SHEETS
 STAGE 1
 CROSS SECTIONS
 STA. 131+50.00 TO STA. 132+00.00

F.A.S. 2881	SECTION 30B-1	COUNTY SALINE	TOTAL SHEETS 45	SHEET NO. 37
CONTRACT NO.		ILLINOIS FED. AID PROJECT		

DATE	
BY	
FINAL SURVEY	
NOTE BOOK	
NO.	
AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	
AREAS CHECKED	



FILE NAME = 080045-ah1-axe-stage1.dgn

USER NAME =
 DESIGNED - L.F.S.
 DRAWN - D.T.M.
 CHECKED - S.W.M.
 DATE - 09/11/08

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

HLR HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS

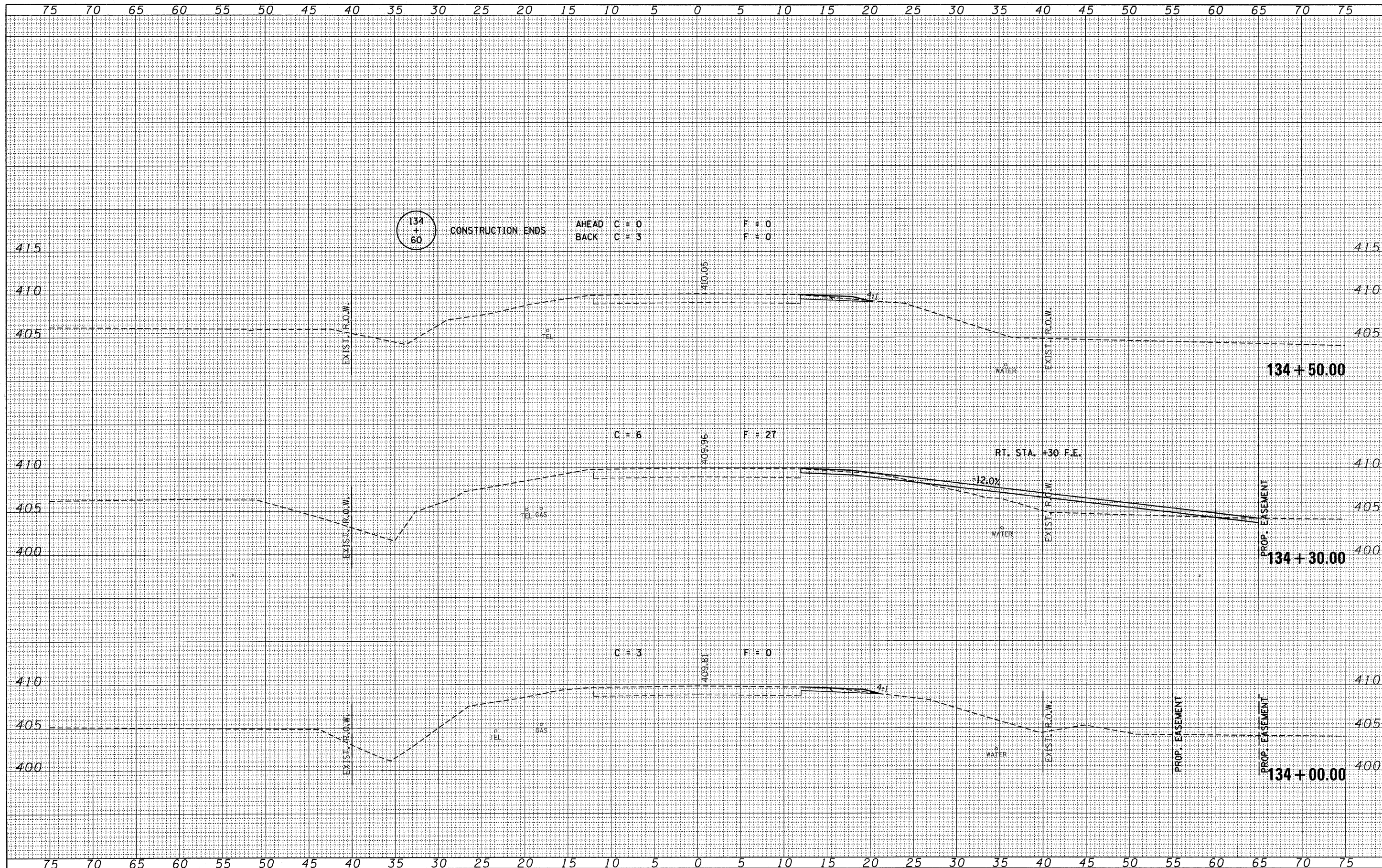
STAGE 1
 CROSS SECTIONS

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2881	30B-1	SALINE	45	38
CONTRACT NO.				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SCALE: SHEET NO. OF SHEETS STA. 132+50.00 TO STA. 133+50.00

DATE	
BY	
FINAL SURVEY	
NOTE BOOK	
NO.	
AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	
AREAS CHECKED	



FILE NAME = 080045-ah1-axe-stogel.dgn
 USER NAME =
 DESIGNED - L.F.S.
 DRAWN - D.T.M.
 CHECKED - S.W.M.
 DATE - 09/11/08

REVISOR -
 REVISION -
 REVISION -
 REVISION -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

HLR HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS

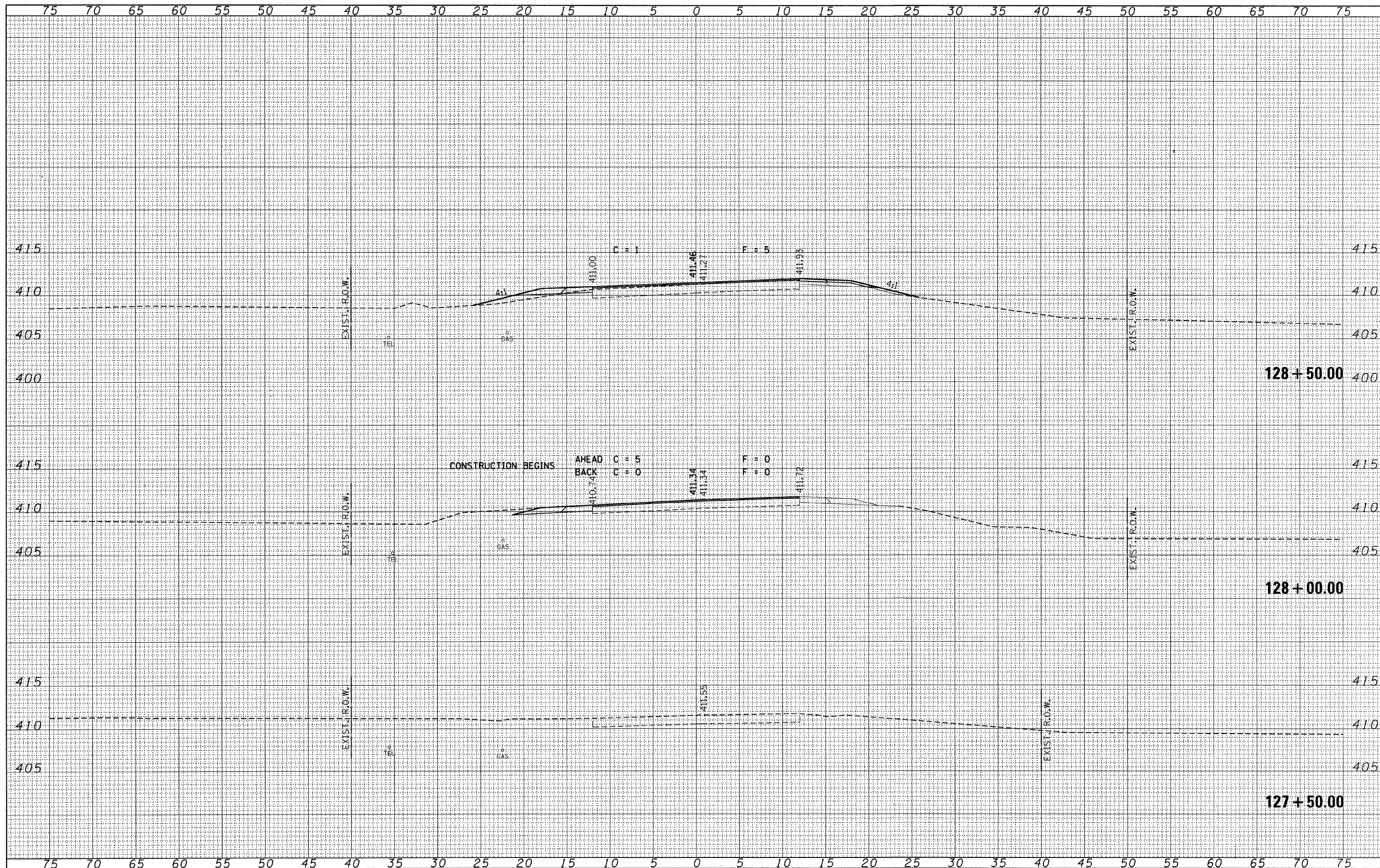
**STAGE 1
 CROSS SECTIONS**

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2881	30B-1	SALINE	45	39
CONTRACT NO.		ILLINOIS FED. AID PROJECT		

SCALE: SHEET NO. OF SHEETS STA. 134+00.00 TO STA. 134+50.00

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

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



FILE NAME = 080045-shr-sxs-stage2.dgn

USER NAME =
 PLOT SCALE =
 PLOT DATE = 9/12/2008

DESIGNED -	L.F.S.	REVISED -	
DRAWN -	D.T.M.	REVISED -	
CHECKED -	S.W.M.	REVISED -	
DATE -	09/11/08	REVISED -	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

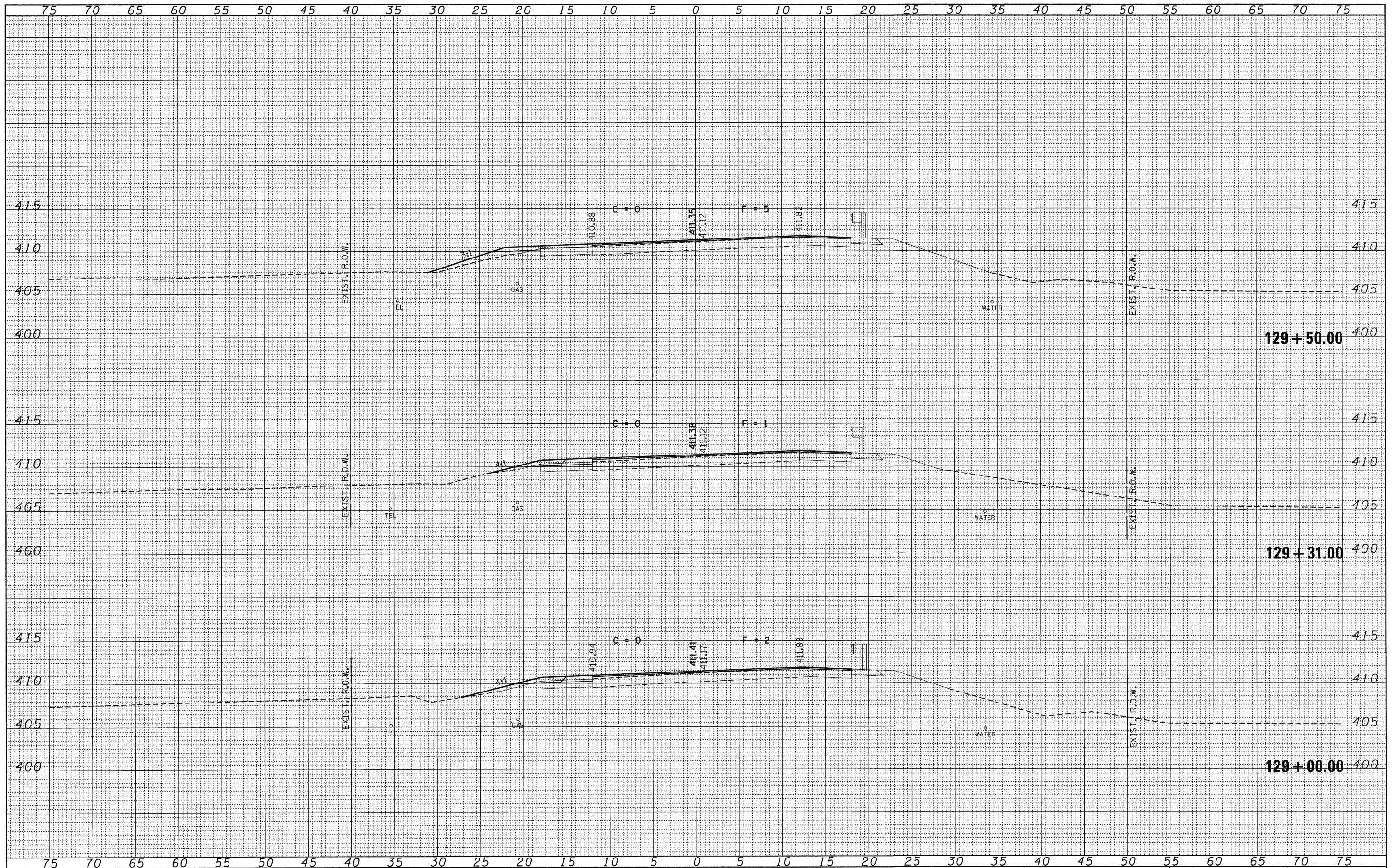
HLR HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS

SCALE: SHEET NO. OF SHEETS
 STA. 127+50.00 TO STA. 128+50.00

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2881	308-1	SALINE	45	40
CONTRACT NO.		ILLINOIS FED. AID PROJECT		

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

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



FILE NAME =	080045-shr-axe-stage2.dgn
-------------	---------------------------

USER NAME =	DESIGNED - L.F.S.	REVISED -
	DRAWN - D.T.M.	REVISED -
	CHECKED - S.W.M.	REVISED -
PLOT SCALE =	DATE - 09/11/08	REVISED -
PLOT DATE = 9/12/2008		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HLR HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS

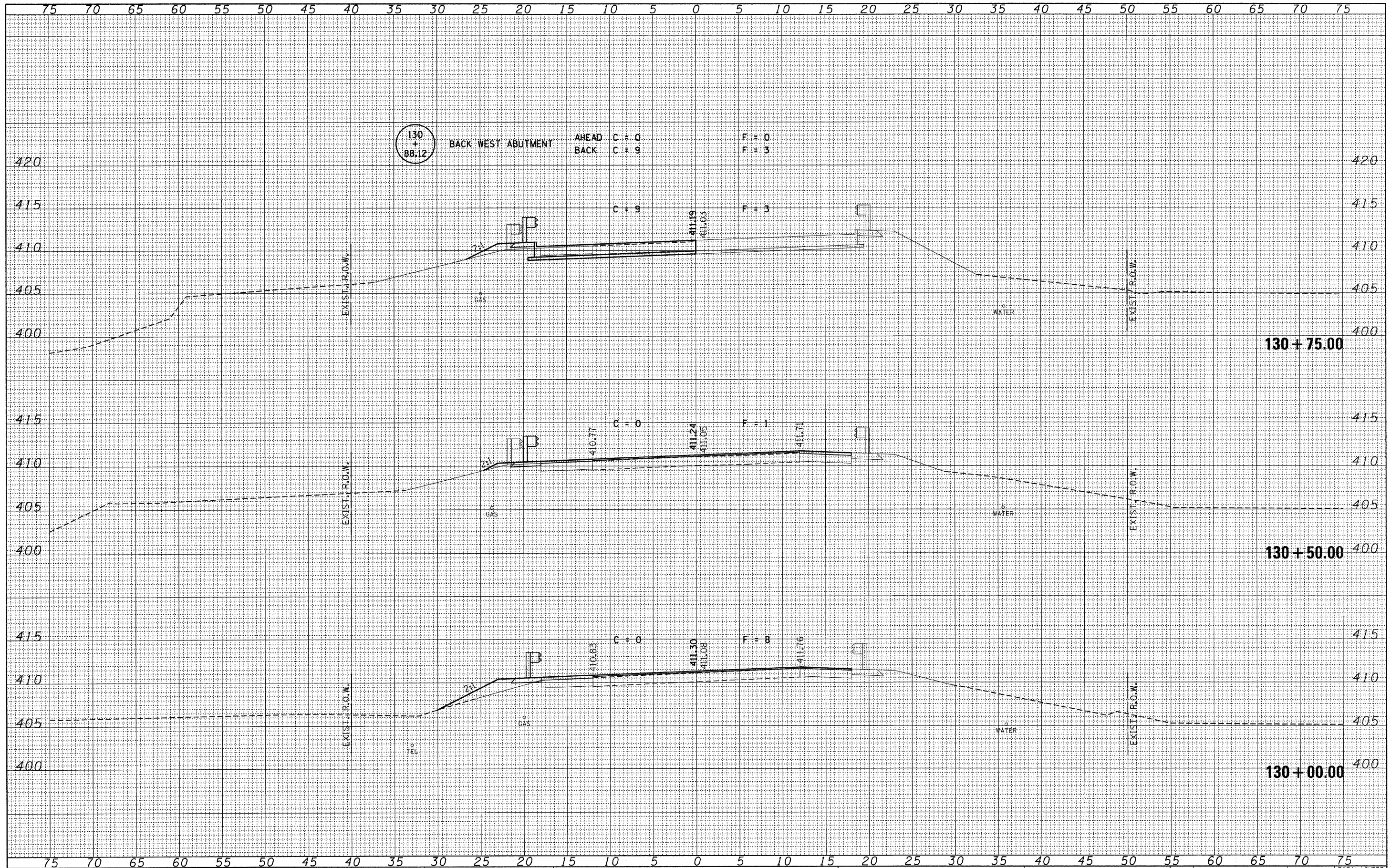
**STAGE 2
CROSS SECTIONS**

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2881	30B-1	SALINE	45	41
CONTRACT NO.		ILLINOIS FED. AID PROJECT		

SCALE:	SHEET NO.	OF	SHEETS	STA. 129+00.00	TO STA. 129+50.00
--------	-----------	----	--------	----------------	-------------------

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

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



FILE NAME = 080045-ahs-sss-stage2.dgn
 USER NAME =
 PLOT SCALE =
 PLOT DATE = 9/12/2008

DESIGNED - L.F.S.	REVISED -
DRAWN - D.T.M.	REVISED -
CHECKED - S.W.M.	REVISED -
DATE - 09/11/08	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

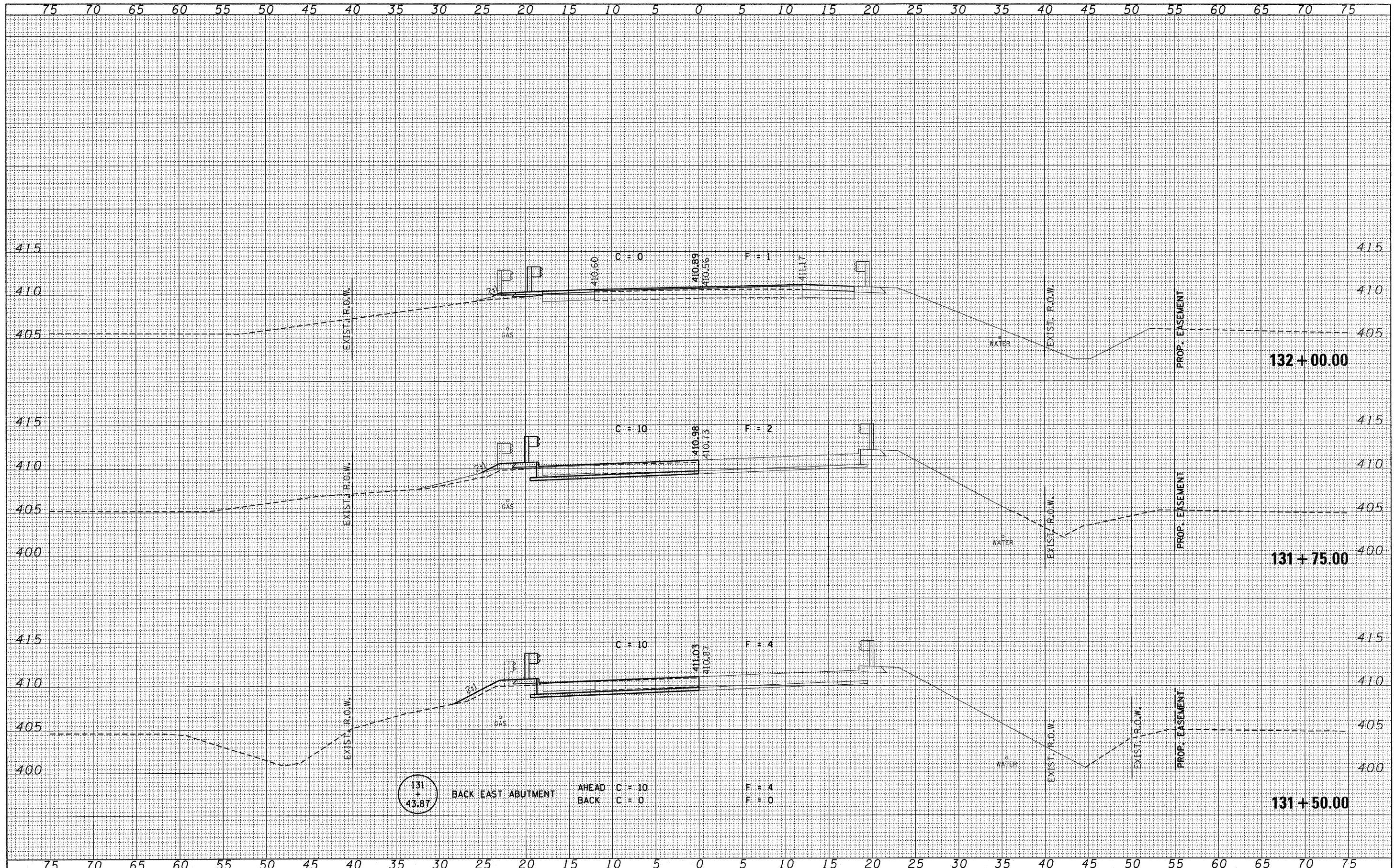
HLR HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS

STAGE 2
 CROSS SECTIONS
 STA. 130+00.00 TO STA. 130+75.00

F.A.S. 2881	SECTION 30B-1	COUNTY SALINE	TOTAL SHEETS 45	SHEET NO. 42
CONTRACT NO.		ILLINOIS FED. AID PROJECT		

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

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



FILE NAME = 000045-ah1-sxa-stage2.dgn
 USER NAME =
 PLOT SCALE =
 PLOT DATE = 9/12/2008

DESIGNED - L.F.S.	REVISED -
DRAWN - D.T.M.	REVISED -
CHECKED - S.W.M.	REVISED -
DATE - 09/11/08	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

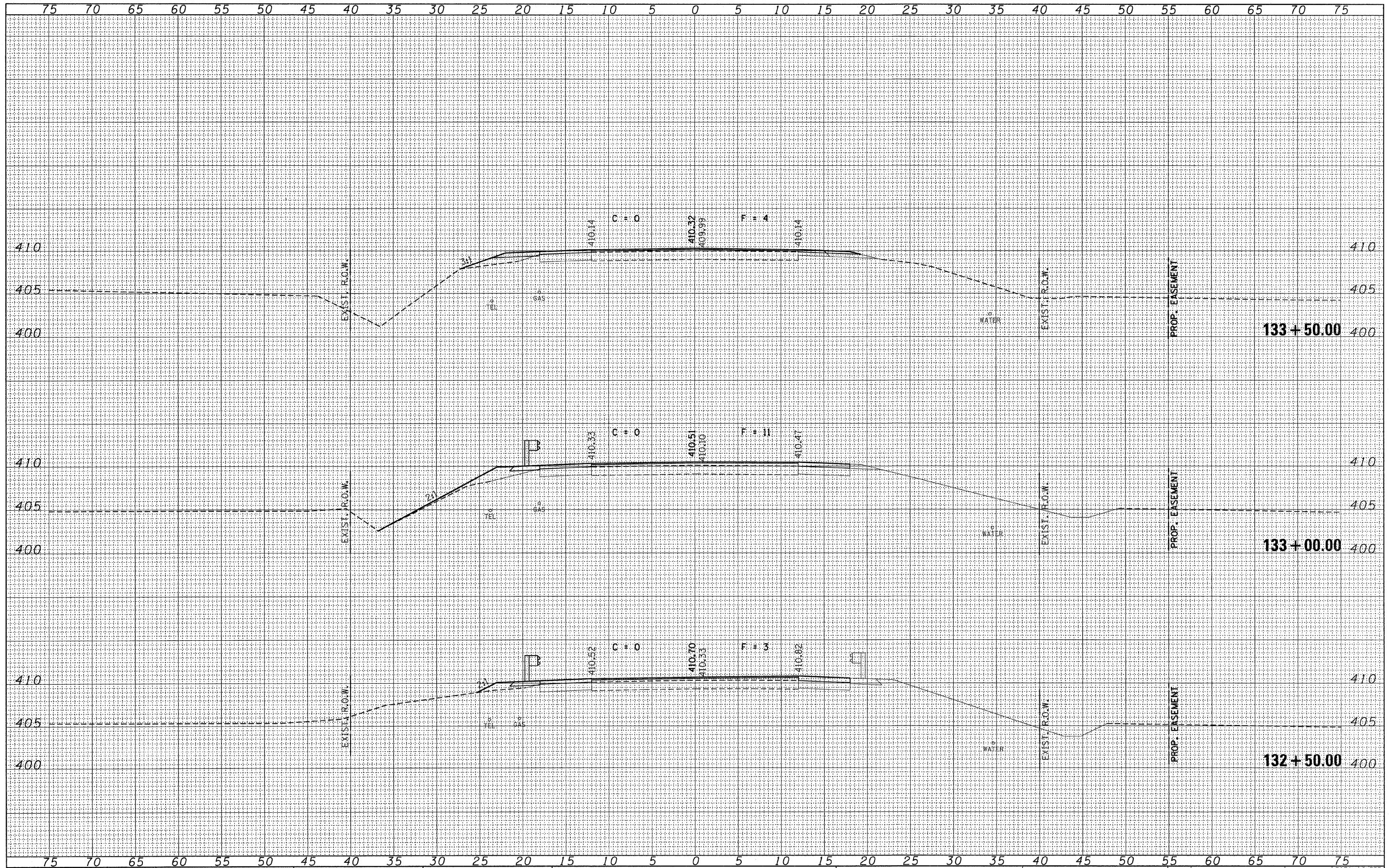
HLR HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS

STAGE 2
 CROSS SECTIONS
 STA. 131+50.00 TO STA. 132+00.00

F.A.S. 2881	SECTION 30B-1	COUNTY SALINE	TOTAL SHEETS 45	SHEET NO. 43
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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

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



FILE NAME = 080045-ah1-axs-stage2.dgn
 USER NAME =
 PLOT SCALE =
 PLOT DATE = 9/12/2008

DESIGNED -	L.F.S.	REVISED -	
DRAWN -	D.T.M.	REVISED -	
CHECKED -	S.W.M.	REVISED -	
DATE -	09/11/08	REVISED -	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

HLR HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS

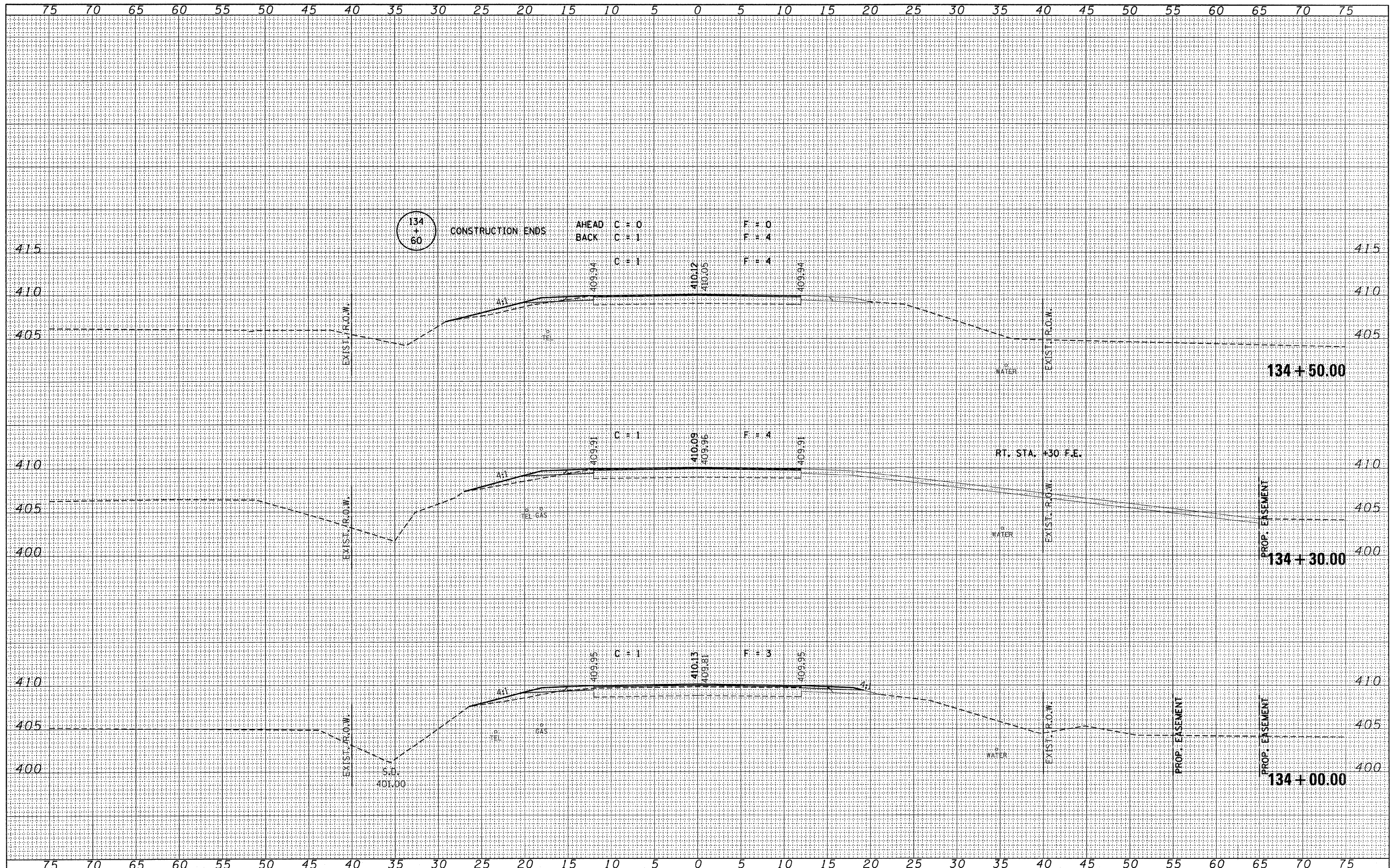
SCALE: SHEET NO. OF SHEETS

**STAGE 2
 CROSS SECTIONS**

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2881	30B-1	SALINE	45	44
CONTRACT NO.		ILLINOIS FED. AID PROJECT		

DATE	
BY	
FINAL SURVEY	
REVISIONS	
NOTE BOOK	
TEMPLATE	
AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
REVISIONS	
NOTE BOOK	
TEMPLATE	
AREAS CHECKED	
NO.	



FILE NAME = 080045-shr:svs:stage2.dgn
 USER NAME =
 PLOT SCALE =
 PLOT DATE = 9/12/2008

DESIGNED - L.F.S.	REVISED -
DRAWN - D.T.M.	REVISED -
CHECKED - S.W.M.	REVISED -
DATE - 09/11/08	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

HLR HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS

STAGE 2
 CROSS SECTIONS

F.A.S. 2881	SECTION 30B-1	COUNTY SALINE	TOTAL SHEETS 45	SHEET NO. 45
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SCALE: SHEET NO. OF SHEETS STA. 134+00.00 TO STA. 134+50.00