

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9701	08-00058-00-BR	CHRISTIAN	47	1
		ILLINOIS	CONTRACT NO. 93606	

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SUMMARY OF QUANTITIES & GENERAL NOTES
3 - 4	TYPICAL SECTIONS
5	DETAILS & ALIGNMENT TIES
6	SCHEDULE OF QUANTITIES
7 - 9	PLAN & PROFILE
10 - 11	REMOVAL PLANS
12 - 13	EROSION CONTROL PLANS
14	DETOUR PLAN
15 - 43	BRIDGE PLANS
44 - 47	CROSS SECTIONS

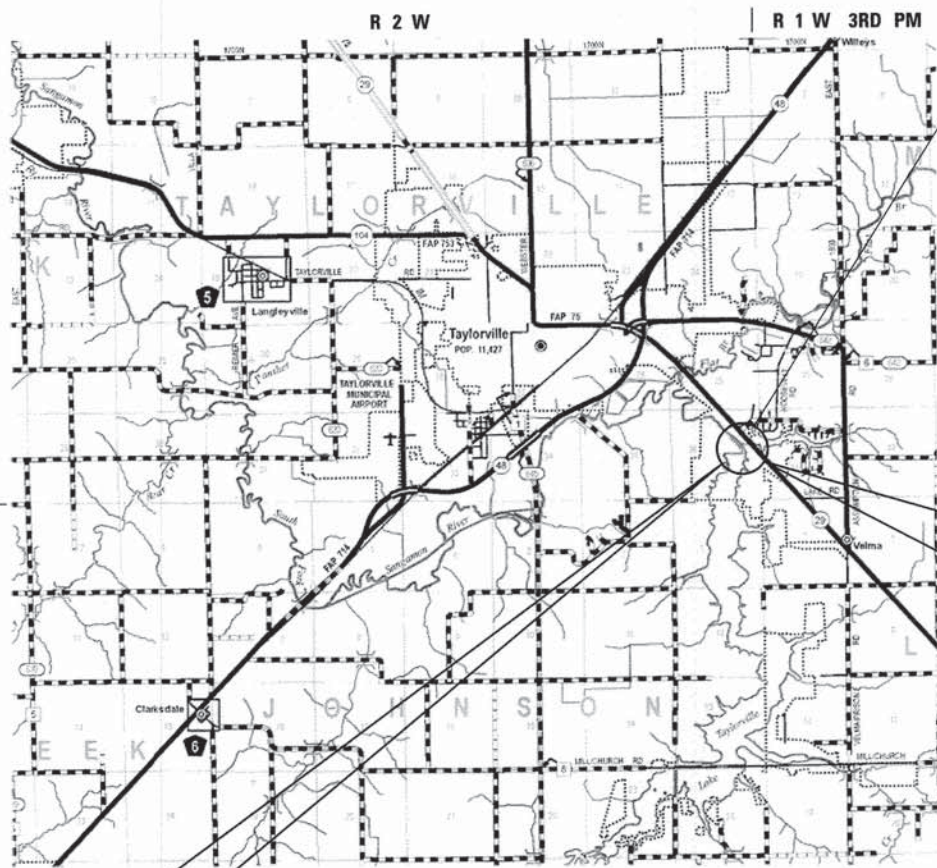
# DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

## PLANS FOR PROPOSED LOCAL AGENCY IMPROVEMENTS MAJOR BRIDGE PROGRAM PROJECT

**FAU ROUTE 7901 (W. LAKE SHORE DRIVE)  
SECTION 08-00058-00-BR  
PROJECT BRM-5067 (016)  
CITY OF TAYLORVILLE, CHRISTIAN COUNTY  
C-96-242-08**

**STANDARDS (INCLUDED IN PLANS)**

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420401-09	BRIDGE APPROACH PAVEMENT CONNECTOR
515001-03	NAME PLATE FOR BRIDGES
601101-01	CONCRETE HEADWALL FOR PIPE DRAIN
606401-01	PAVED DITCH
630001-10	STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631032-08	TRAFFIC BARRIER TERMINAL, TYPE 6A
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
701901-02	TRAFFIC CONTROL DEVICES
780001-03	TYPICAL PAVEMENT MARKINGS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS



EXISTING STRUCTURE  
SN 011-6003  
FIVE SPAN REINFORCED CONCRETE  
DECK WITH STEEL ROLLED I BEAMS  
ON REINFORCED CONCRETE SPILL-THRU  
ABUTMENTS AND REINFORCED CONCRETE  
PIERS. (321'-8" LENGTH X 26'-2" WIDE)  
TO BE REMOVED.

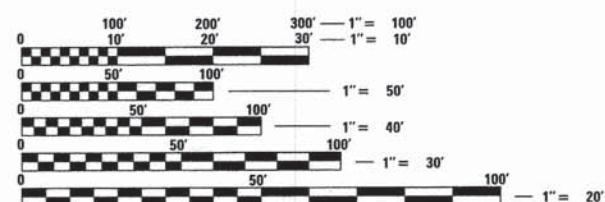
PROPOSED STRUCTURE  
SN 011-6009  
FOUR SPAN REINFORCED CONCRETE  
DECK ON STEEL WF BEAMS ON  
INTEGRAL REINFORCED CONCRETE  
SPILL-THRU ABUTMENTS AND  
REINFORCED CONCRETE PILE BENT  
PIERS. (345'-0" LENGTH X 30'-0" WIDE).

STA. 36+40.00  
END IMPROVEMENTS  
SECTION 08-00058-00-BR

STA. 26+50.00  
BEGIN IMPROVEMENTS  
SECTION 08-00058-00-BR

GROSS LENGTH = 990.00 FT. = 0.188 MILE  
NET LENGTH = 990.00 FT. = 0.188 MILE

ROADWAY CLASSIFICATION  
URBAN MAJOR COLLECTOR  
ADT: 940 (22)  
DESIGN SPEED: 30 MPH



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. 93606

Joseph L. Greene  
May 28, 2013



EXPIRES: 11/30/13

APPROVED	<i>June 4</i>	20 13
	<i>Shay Duthett</i>	MAYOR
PASSED	<i>JUNE 10</i>	20 13
	<i>Terence H. Hanks</i>	DISTRICT SIX ENGINEER OF LOCAL ROADS & STREETS
PASSED	<i>June 10</i>	20 13
	<i>Ron Buchanan</i>	DISTRICT SIX ENGINEER OF CONSTRUCTION
Releasing For Bid Based on Limited Review	<i>JUNE 10</i>	20 13
	<i>Ross D. Smith</i>	DEPUTY DIRECTOR OF HIGHWAYS, REGION FOUR ENGINEER
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		

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OF THE STATE OF ILLINOIS**

**SUMMARY OF QUANTITIES**

PAY ITEM	ITEM	UNIT	QUANTITY
X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.4
X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	200
X5040100	PRECAST BRIDGE APPROACH SLAB	SQ FT	1,750
X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	94
Z0013798	CONSTRUCTION LAYOUT	L SUM	1
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	170
Z0051500	REMOVING AND RESETTING STREET SIGNS	EACH	6
20200100	EARTH EXCAVATION	CU YD	1,208
20300100	CHANNEL EXCAVATION	CU YD	185
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	40
28000400	PERIMETER EROSION BARRIER	FOOT	1,239
28001100	TEMPORARY EROSION CONTROL BLANKET	SQ YD	740
28100109	STONE RIPRAP, CLASS A5	SQ YD	719
28200200	FILTER FABRIC	SQ YD	626
35100100	AGGREGATE BASE COURSE, TYPE A	TON	766
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	164
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	586
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	418
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	127
42001420	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	SQ YD	67
44000100	PAVEMENT REMOVAL	SQ YD	1,740
44004000	PAVED DITCH REMOVAL	FOOT	565
48100100	AGGREGATE SHOULDERS, TYPE A	TON	79
48203021	HOT-MIX ASPHALT SHOULDERS, 6"	SQ YD	302
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50200100	STRUCTURE EXCAVATION	CU YD	107
50200300	COFFERDAM EXCAVATION	CU YD	269
50201121	COFFERDAM (TYPE 2) (LOCATION - 1)	EACH	1
50201122	COFFERDAM (TYPE 2) (LOCATION - 2)	EACH	1
50300225	CONCRETE STRUCTURES	CU YD	218.2
50300255	CONCRETE SUPERSTRUCTURE	CU YD	307.6
50300260	BRIDGE DECK GROOVING	SQ YD	1,253
50300265	SEAL COAT CONCRETE	CU YD	87.8
50300300	PROTECTIVE COAT	SQ YD	1,343
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1

**SUMMARY OF QUANTITIES**

PAY ITEM	ITEM	UNIT	QUANTITY
50500505	STUD SHEAR CONNECTORS	EACH	4,815
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	104,980
Δ 50901050	STEEL RAILING, TYPE SM	FOOT	746
51202100	FURNISHING STEEL PILES HP14X117	FOOT	2,083
51202305	DRIVING PILES	FOOT	2,083
51204100	TEST PILE STEEL HP14X117	EACH	5
51500100	NAME PLATES	EACH	1
52000110	PREFORMED JOINT STRIP SEAL	FOOT	62
52100520	ANCHOR BOLTS, 1"	EACH	50
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	56
60500040	REMOVING MANHOLES	EACH	2
60615910	PAVED DITCH, TYPE A-22	FOOT	40
60616110	PAVED DITCH, TYPE A-30	FOOT	629
Δ 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	3
Δ 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	3
63200310	GUARDRAIL REMOVAL	FOOT	110
67100100	MOBILIZATION	L SUM	1
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1
Δ 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1,400
Δ 78001130	PAINT PAVEMENT MARKING - LINE 6"	FOOT	250
Δ 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	3
Z0076600	TRAINEES	Hour	1,500
Z0076604	TRAINEES TRG	Hour	1,500

\* SPECIAL PROVISION

Δ SPECIALTY ITEMS

CONSTRUCTION TYPE CODE : 0011

BRIDGE TYPE : X071

**GENERAL NOTES**

- WHEN SECTION OR SUB-SECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER OR AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
- ALL PLAN ELEVATIONS REPRESENT USGS DATUM.
- THE FOLLOWING APPLICATIONS RATES WERE USED IN THE DEVELOPMENT OF PLAN QUANTITIES:  
 COARSE AGGREGATE 2.05 TON/CU YD  
 BITUMINOUS MATERIALS (PRIME COAT) 0.08 GAL/SQ YD & 0.40 GAL/SQ YD  
 HOT-MIX ASPHALT 112 POUNDS/SQ YD/INCH
- THE FOLLOWING MIXTURE REQUIREMENTS SHALL APPLY TO THIS PROJECT:

HOT-MIX ASPHALT MIXTURE REQUIREMENTS			
ITEM	AGGREGATE COMPOSITION	ASPHALT GRADE	VOIDS
HMA BINDER COURSE	IL-19.0	PG 64 -22	4.0% @ N50
HMA SURFACE COURSE	IL-9.5 Mix "C"	PG 64 -22	4.0% @ N50
HMA SHOULDERS	IL-19.0	PG 64 -22	4.0% @ N50

**UTILITY COMPANIES**

AMEREN CIPS (SOUTH)  
420 N. 2400 EAST ROAD  
PANA, IL. 62557  
1-217-562-1441  
ELECTRIC/GAS

IL CONSOLIDATED TELEPHONE  
1000 SOUTH SPRESSER STREET  
TAYLORVILLE, IL. 62568  
1-217-235-3355  
TELEPHONE

NEW WAVE COMMUNICATIONS  
1176 E. 1500 N. ROAD  
TAYLORVILLE, IL. 62568  
1-217-287-7992  
CABLE TV

CITY OF TAYLORVILLE  
115 NORTH MAIN STREET  
TAYLORVILLE, IL. 62568  
1-217-287-1441  
WATER/STORM SEWER  
SEWER : 1-217-824-8933  
STREETS : 1-217-824-2559  
LAKE : 1-217-824-5606

GREENE & BRADFORD, INC.  
OF SPRINGFIELD

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PLOT DATE = 5/23/2013

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DRAWN - AJH  
CHECKED - ---  
DATE - 5/21/13

REVISED -  
REVISED -  
REVISED -  
REVISED -

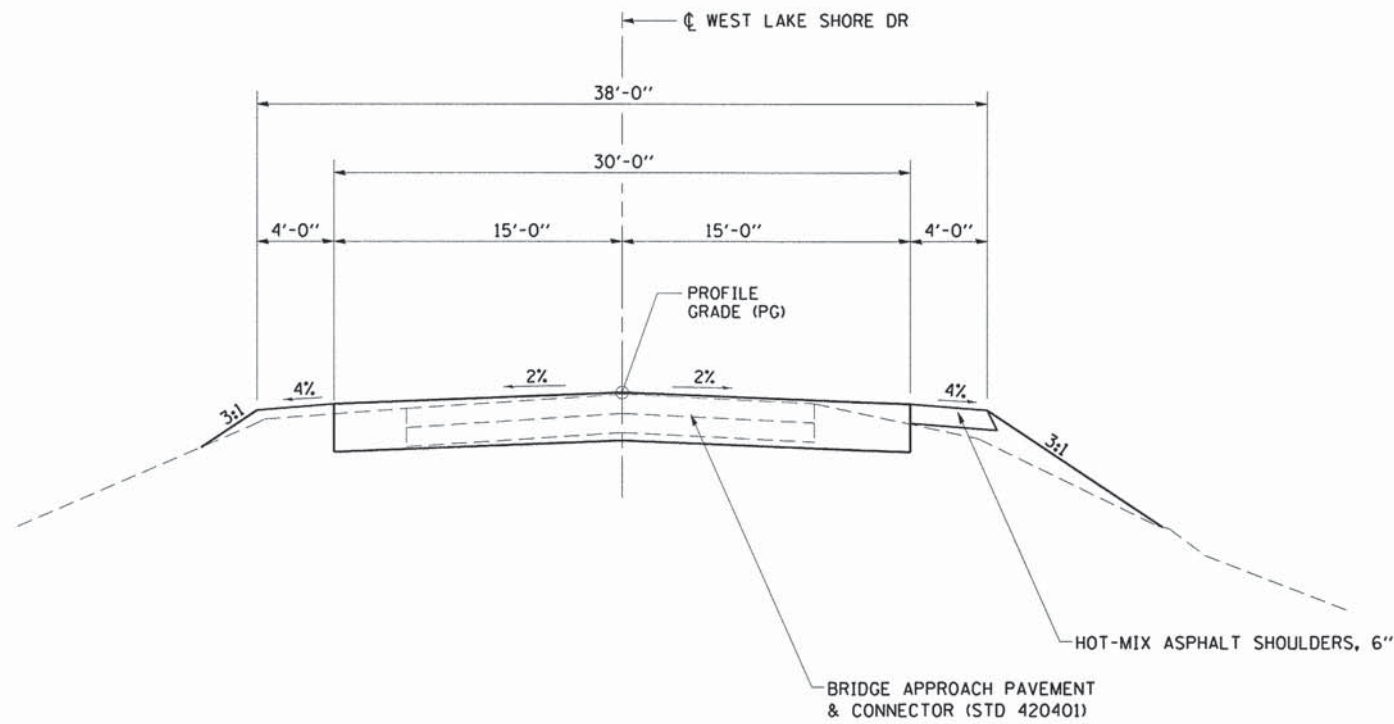
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES AND GENERAL NOTES

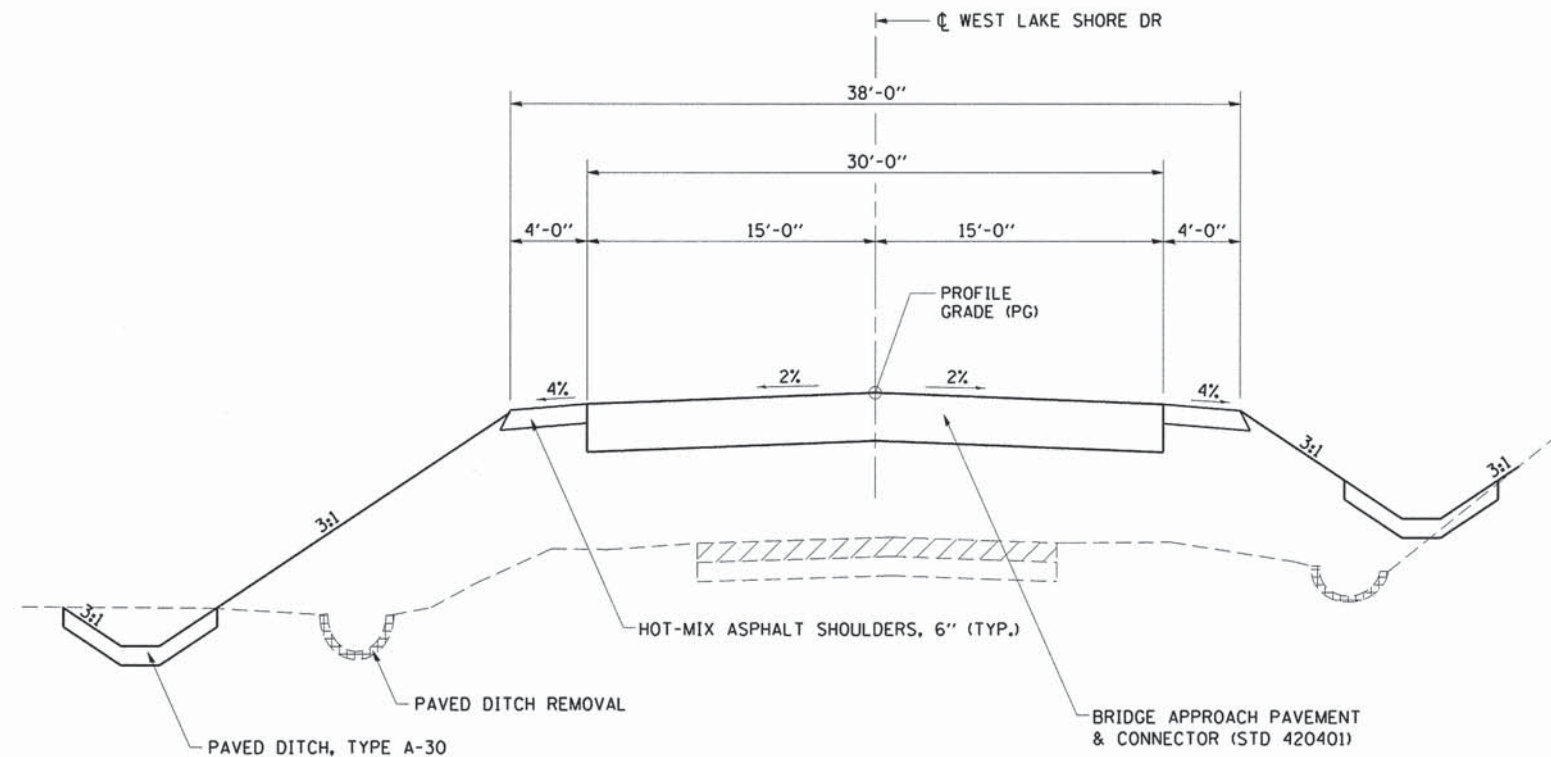
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F.A.U. RTE. 9701	SECTION 08-00058-00-BR	COUNTY CHRISTIAN	TOTAL SHEETS 47	SHEET NO. 2
CONTRACT NO. 93606				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT BRM-5067 (016)				





**PROPOSED TYPICAL ROADWAY SECTION**  
 STA. 27+86.00 TO STA. 28+26.00  
 STA. 28+25.00 TO STA. 31+70.00 (BRIDGE OMISSION)



**PROPOSED TYPICAL ROADWAY SECTION**  
 STA. 31+69.00 TO STA. 32+09.00

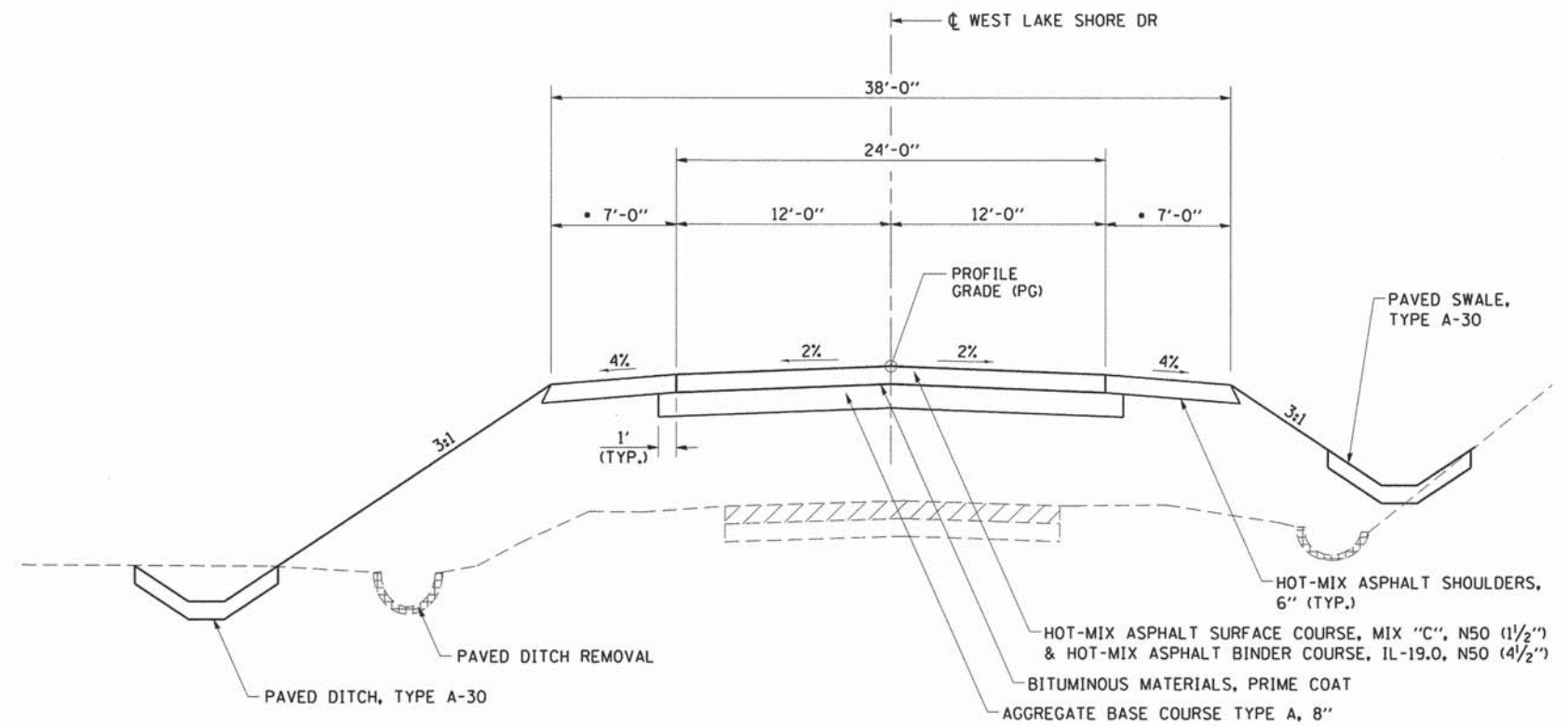
**PAVEMENT DESIGN DATA**

CLASS III ROADWAY  
 DESIGN PERIOD : 20 YEARS  
 STRUCTURAL DESIGN TRAFFIC (SDT):  
 YEAR = 2022  
 PV = 827  
 SU = 66  
 MU = 47  
 TRAFFIC FACTOR (TF) = 0.25  
 MINIMUM SOIL SUPPORT :  $E_{RI} = 3$

PAVEMENT PROVIDED:

1 1/2" HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50  
 4 1/2" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50  
 8" AGGREGATE BASE COURSE, TYPE A

HOT-MIX ASPHALT MIXTURE REQUIREMENTS			
ITEM	AGGREGATE COMPOSITION	ASPHALT GRADE	VOIDS
HMA BINDER COURSE	IL-19.0	PG 64 -22	4.0% @ N50
HMA SURFACE COURSE	IL-9.5 Mix "C"	PG 64 -22	4.0% @ N50
HMA SHOULDERS	IL-19.0	PG 64 -22	4.0% @ N50



**PROPOSED TYPICAL ROADWAY SECTION**  
 STA. 32+89.50 TO STA. 33+13.50  
 • STA. 32+89.50 TO STA. 33+13.50 (WIDTH VARIES 7'-0" TO 3'-0")

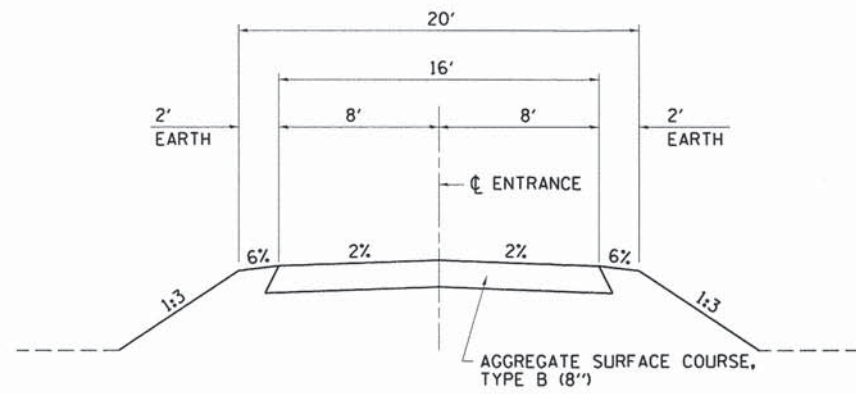
GREENE & BRADFORD, INC.  
 OF SPRINGFIELD  
 1000 N. WASHINGTON ST.  
 SPRINGFIELD, IL 62761  
 TEL: 217/223-1111 FAX: 217/223-1112  
 WWW.GREENEANDBRADFORD.COM

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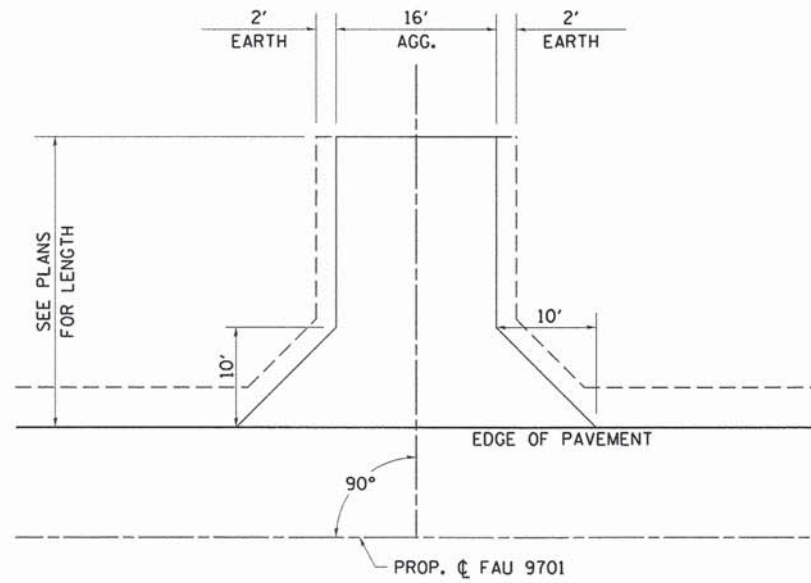
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TYPICAL SECTIONS**

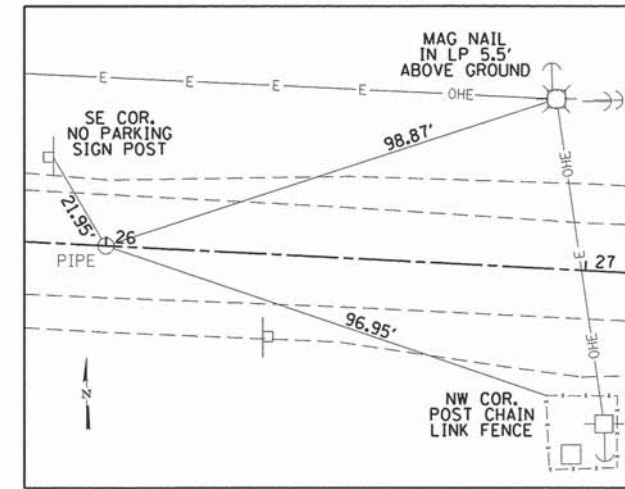
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				9701	08-00058-00-BR	CHRISTIAN	47	4
				FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT BRM-5067 (016)	CONTRACT NO. <b>93606</b>		



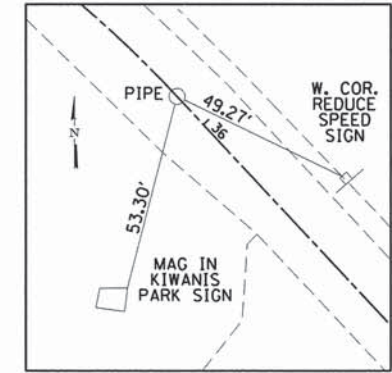
PROPOSED TYPICAL ENTRANCE SECTION



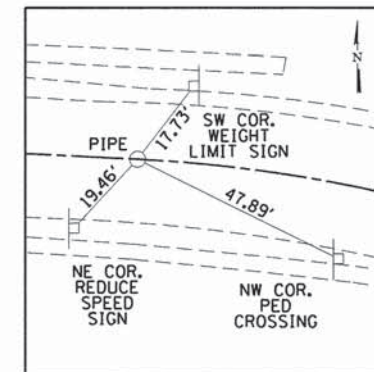
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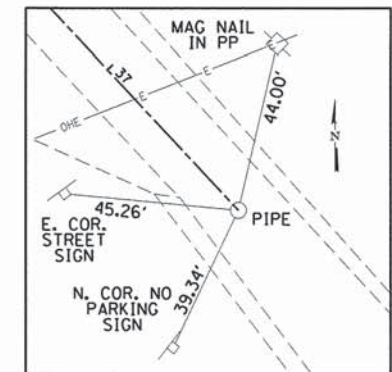
POT STA. 26+00.00



POT STA. 35+89.97



PC STA. 33+50.00



POT STA. 37+50.00



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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DETAILS AND ALIGNMENT TIES

SCALE: SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9701	08-0058-00-BR	CHRISTIAN	47	5
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BRM-5067 (016)			CONTRACT NO. 93606	

MAINLINE PAVING SCHEDULE										
LOCATION	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC) (SQ YD)	AGGREGATE BASE COURSE, TYPE A (TON)	BITUMINOUS MATERIALS (PRIME COAT) (GALLON)	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 (TON)	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (TON)	HOT-MIX ASPHALT SHOULDERS, 6" (SQ YD)	AGGREGATE SHOULDERS, TYPE A (TON)	AGGREGATE SURFACE COURSE, TYPE B (TON)	PAVED DITCH, TYPEA-22 (FOOT)	PAVED DITCH, TYPEA-30 (FOOT)
STA. 26+50.0, LT. TO STA. 27+86.0, LT.							20			
STA. 26+50.0 TO STA. 27+96.0		182	140	96	33					
STA. 26+50.0, RT. TO STA. 28+26.0, RT.						116				
STA. 27+86.0 TO STA. 27+96.0	33.4									
STA. 31+38.5, LT. TO STA. 33+78.0, LT.										243
STA. 31+61.0, RT. TO STA. 32+50.0, RT.										90
STA. 31+69.0, LT. TO STA. 33+50.0, LT.										
STA. 31+69.0, RT. TO STA. 33+13.5, RT.						93				
STA. 31+99.0 TO STA. 32+09.0	33.4					93				
STA. 31+99.0 TO STA. 36+40.0		584	446	322	98					
STA. 32+50.0, RT. TO STA. 32+90.0, RT.									40	
STA. 32+90.0, RT. TO STA. 36+00.0, RT.										296
STA. 33+13.5, LT. TO STA. 34+38.0, LT.							14			
STA. 33+13.5, RT. TO STA. 36+40.0, RT.							37			
STA. 31+89.9, LT. TO STA. 32+84.3, 92.9' LT. (C.E.)									55	
STA. 34+75.0, LT. (C.E.)									109	
STA. 35+74.0, LT. TO STA. 36+40.0, LT.							8			
<b>TOTALS</b>	<b>66.8</b>	<b>766</b>	<b>586</b>	<b>418</b>	<b>131</b>	<b>302</b>	<b>79</b>	<b>164</b>	<b>40</b>	<b>629</b>
<b>USE</b>	<b>67</b>	<b>766</b>	<b>586</b>	<b>418</b>	<b>127</b>	<b>302</b>	<b>79</b>	<b>164</b>	<b>40</b>	<b>629</b>

REMOVAL ITEMS SCHEDULE				
LOCATION	PAVED DITCH REMOVAL (FOOT)	GUARDRAIL REMOVAL (FOOT)	REMOVING MANHOLES (EACH)	PAVEMENT REMOVAL (SQ YD)
STA. 26+50.0 TO STA. 28+38.5				462
STA. 28+11.4, RT. TO STA. 28+38.5, RT.		27		
STA. 28+11.6, LT. TO STA. 28+38.5, LT.		27		
STA. 28+19.5, 16.0' LT.			1	
STA. 31+40.4, LT. TO STA. 33+77.6, LT.		248		
STA. 31+60.8, LT. TO STA. 31+88.6, LT.		28		
STA. 31+60.8, RT. TO STA. 31+89.0, RT.		28		
STA. 31+60.6, RT. TO STA. 34+84.1, RT.		317		
STA. 31+98.6, 17.0' LT.			1	
STA. 31+61.0 TO STA. 36+40.0				1278
<b>TOTALS</b>	<b>565</b>	<b>110</b>	<b>2</b>	<b>1740</b>

STREET SIGNS SCHEDULE	
LOCATION	REMOVING AND RESETTING STREET SIGNS EACH
STATION 31+62.7, 13.5' LT.	1
STATION 31+86.8, 14.0' RT.	1
STATION 33+37.5, 15.0' RT.	1
STATION 33+60.4, 16.0' LT.	1
STATION 33+95.3, 15.4' RT.	1
STATION 36+35.6, 17.6' LT.	1
<b>TOTALS</b>	<b>6</b>

EARTHWORK, SEEDING & EROSION CONTROL SCHEDULE						
LOCATION	EARTH EXCAVATION	FILL	DISTURBED AREA	SEEDING, CLASS 2 (SPECIAL)	PERIMETER EROSION BARRIER	TEMPORARY EROSION CONTROL BLANKET
	CU YD	CU YD	SQ FT	ACRE	FOOT	SQ YD
<b>ILLINOIS ROUTE 33</b>						
STA. 26+50.0 TO STA. 28+25	161	39				
STA. 26+37.8, 16.2' LT. TO STA. 27+92.0, 38.0' LT.					169	
STA. 26+50.0, 17.0' LT. TO STA. 28+39.7, 25.0' LT.			1,001	0.02		
STA. 31+35.0, 44.7' LT. TO STA. 34+45.0, 22.5' LT.			2,331	0.05		
STA. 31+37.0, 42.3' LT. TO STA. 34+45.0, 23.1' LT.					317	
STA. 31+40.0, 34.1' LT. TO STA. 32+86.0, 19.4' LT.					147	
STA. 31+34.1, 29.7' LT. TO STA. 32+86.0, 18.9' LT.			1,376	0.03		
STA. 34+46.5, 50.2' LT. TO STA. 36+40.0, 17.3' LT.			1,418	0.03		
STA. 31+70.0 TO STA. 36+40.0	1013	578				
STA. 26+31.8, 17.7' RT. TO STA. 26+90.0, 35.0' RT.					65	
STA. 26+50.0, 17.6' RT. TO STA. 28+39.4, 25.0' RT.			1,078	0.02		
STA. 27+13.0, 35.0' RT. TO STA. 28+10.0, 45.0' RT.					106	
STA. 31+60.2, 30.4' RT. TO STA. 32+45.0, 19.5' RT.					86	
STA. 31+62.1, 40.6' RT. TO STA. 36+33.0, 17.6' RT.			7,684	0.18		
STA. 31+70.0, 25.0' RT. TO STA. 32+50.0, 19.0' RT.			410	0.01		
STA. 32+50.0, 23.2' RT. TO STA. 36+00.0, 23.2' RT.					349	
STA. 32+50.0, 26.0' RT. TO STA. 35+50.0, 26.0' RT.						740
STA. 32+50.0, 98.0' LT.	34					
<b>TOTALS</b>	<b>1208</b>	<b>617</b>	<b>15,298</b>	<b>0.35</b>	<b>1239</b>	<b>740</b>
<b>USE</b>	<b>1208</b>	<b>617</b>		<b>0.40</b>	<b>1239</b>	<b>740</b>

TRAFFIC BARRIER SCHEDULE			
LOCATION	TRAFFIC BARRIER TERMINAL, TYPE 6A (EACH)	TERMINAL MARKER-DIRECT APPLIED (EACH)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT (EACH)
SW CORNER BRIDGE	1	1	1
NE CORNER BRIDGE	1	1	1
NW CORNER BRIDGE	1	1	1
<b>TOTALS</b>	<b>3</b>	<b>3</b>	<b>3</b>

PAVEMENT MARKING SCHEDULE		
LOCATION	PAINT PAVEMENT MARKING LINE 4" (FOOT)	PAINT PAVEMENT MARKING LINE 6" (FOOT)
LT. STA. 26+50 TO LT. STA. 33+50	700	
RT. STA. 26+50 TO RT. STA. 33+50	700	
STA. 26+50 TO STA. 36+40		250
<b>TOTALS</b>	<b>1400</b>	<b>250</b>



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 USER NAME = emandeh  
 DESIGNED - WCB  
 DRAWN - AJH  
 CHECKED - --  
 DATE - 5/21/13  
 PLOT SCALE = 100.0000' / in.  
 PLOT DATE = 5/22/2013

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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

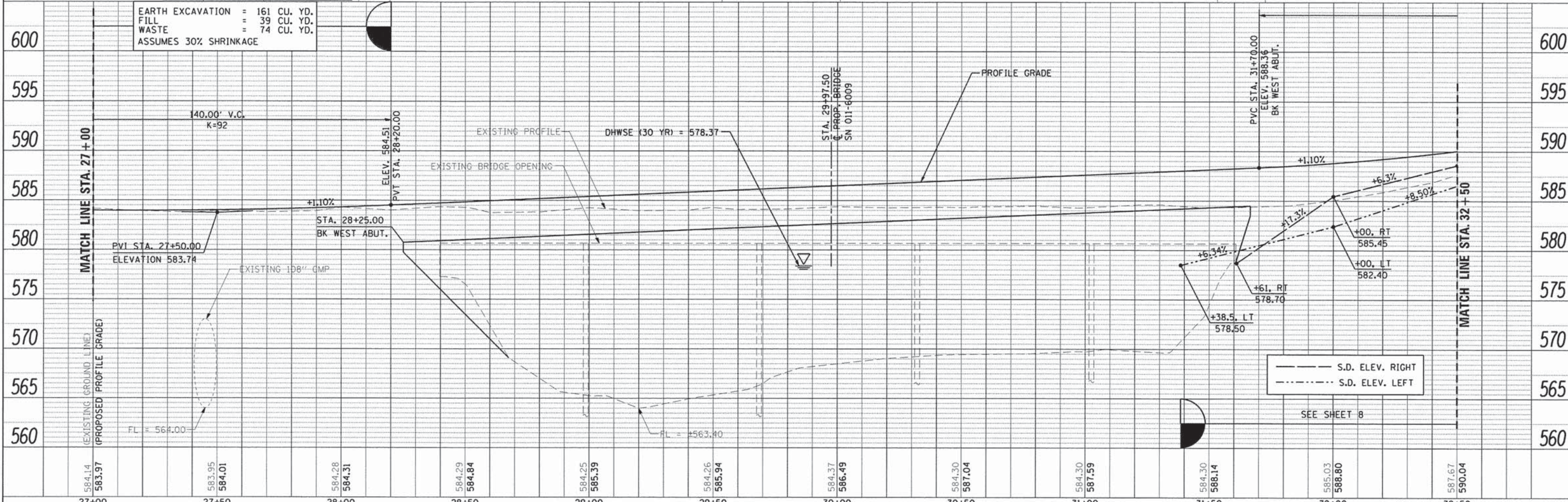
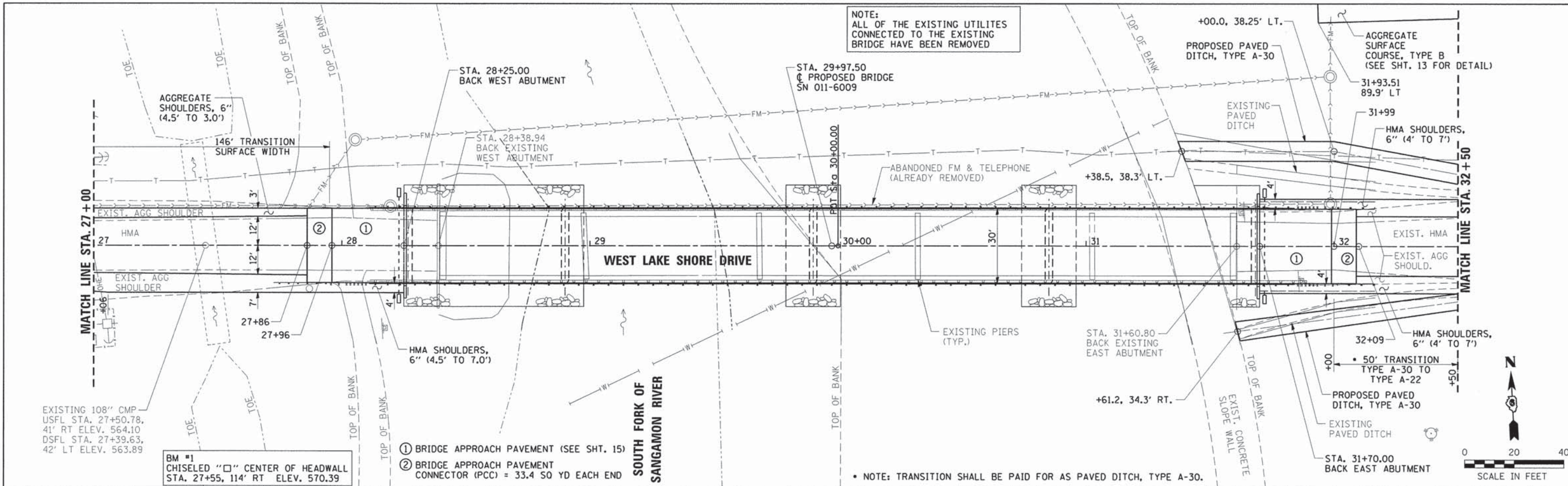
SCHEDULE OF QUANTITIES  
 SCALE: NTS SHEET NO. 1 OF 1 SHEETS

F.A.U. RTE. 9701 SECTION 08-00058-00-BR COUNTY CHRISTIAN TOTAL SHEETS 47 SHEET NO. 6  
 CONTRACT NO. 3606  
 FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT BRM-5067 (016)



DATE	
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DESCRIPTION	

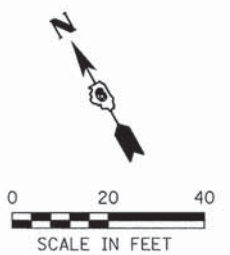
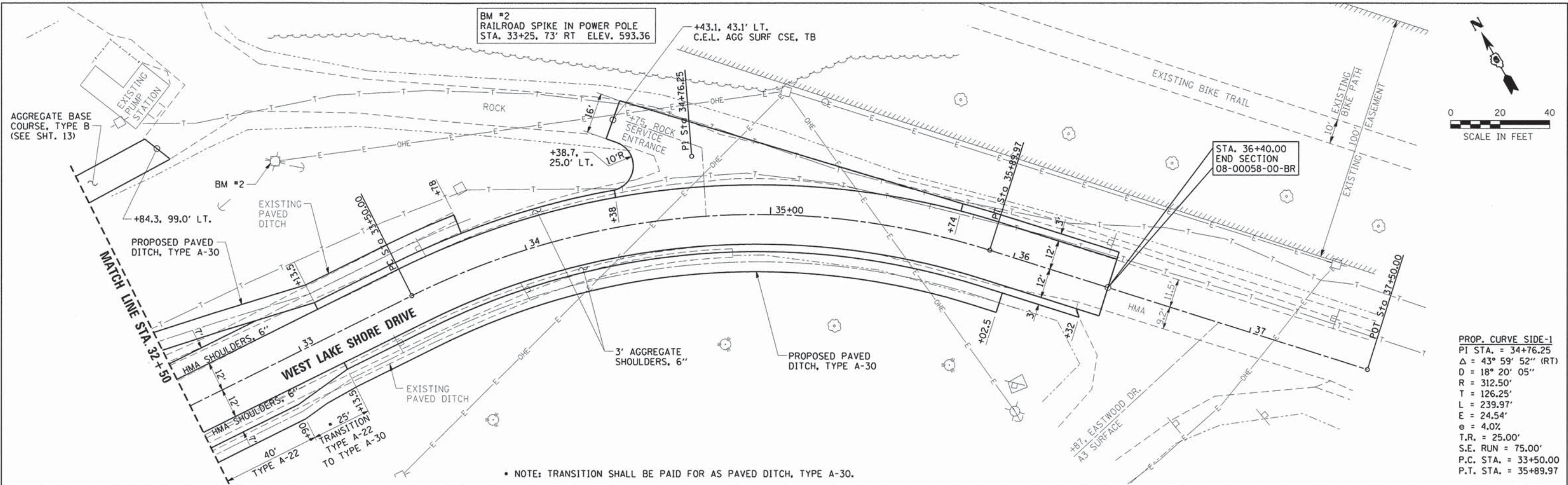


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PLOT SCALE = 48.0000' / 1\"/>										
PLOT DATE = 5/22/2013	DATE = 5/7/2013	REVISOR	REVISION			SCALE: SHEET 2 OF 3 SHEETS STA. 27+00.00 TO STA. 32+50.00	ILLINOIS FED. AID PROJECT BRM-5067 (016)			

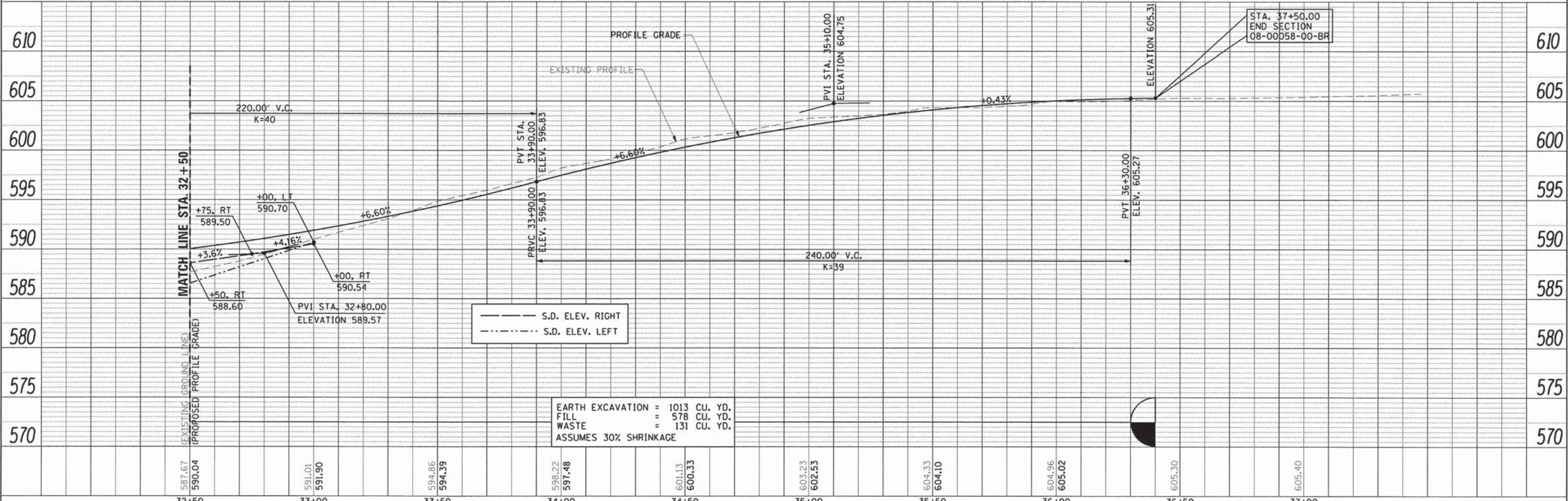


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DESCRIPTION	

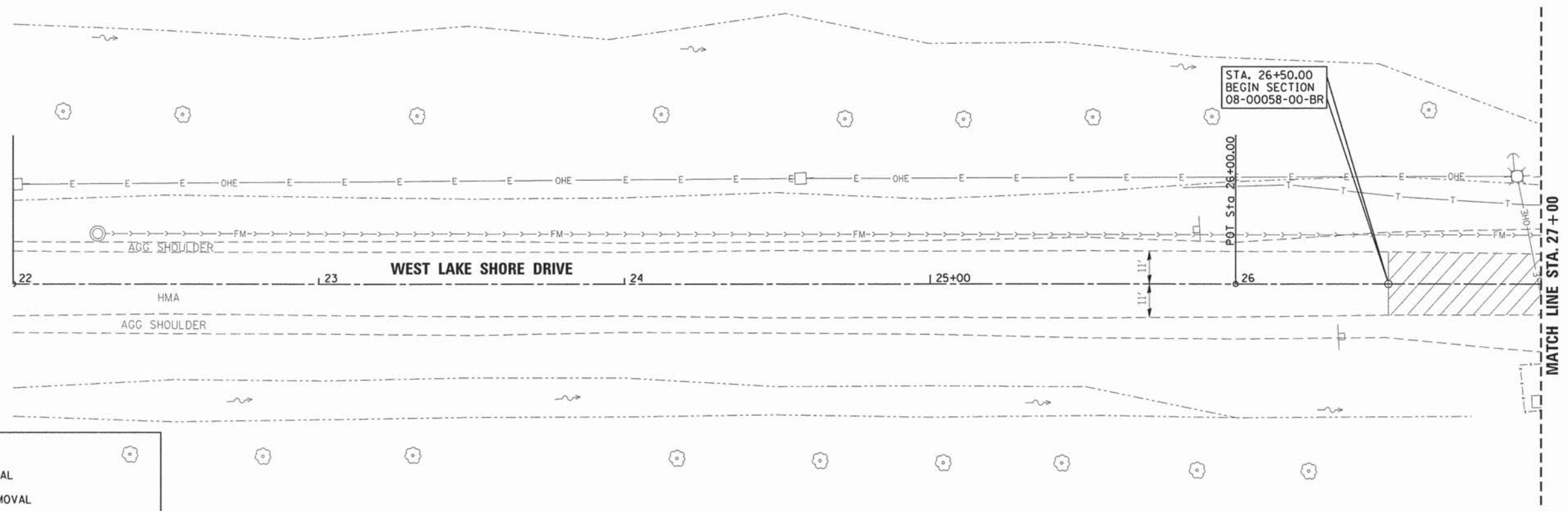
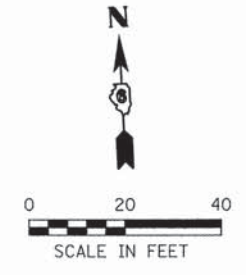


PROP. CURVE SIDE-1  
 PI STA. = 34+76.25  
 $\Delta = 43^\circ 59' 52''$  (RT)  
 $D = 18^\circ 20' 05''$   
 $R = 312.50'$   
 $T = 126.25'$   
 $L = 239.97'$   
 $E = 24.54'$   
 $e = 4.0\%$   
 $T.R. = 25.00'$   
 $S.E. RUN = 75.00'$   
 $P.C. STA. = 33+50.00$   
 $P.T. STA. = 35+89.97$



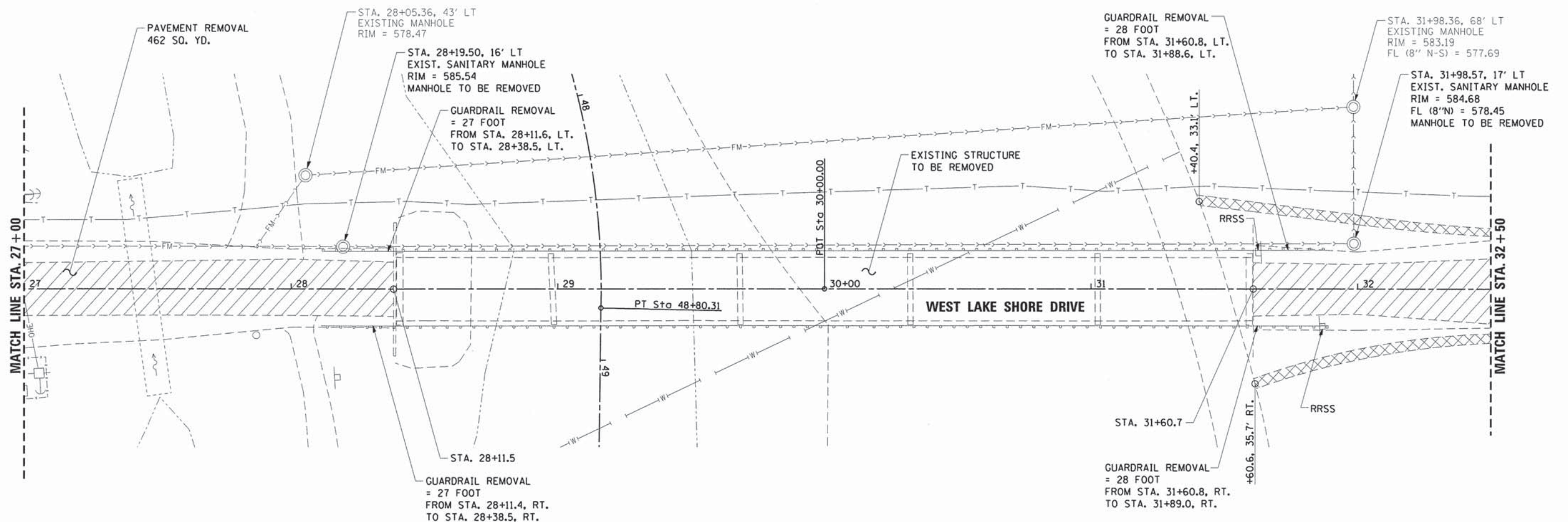
EARTH EXCAVATION = 1013 CU. YD.  
 FILL = 578 CU. YD.  
 WASTE = 131 CU. YD.  
 ASSUMES 30% SHRINKAGE

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PLOT SCALE = 40.0000' / 1" =	CHECKED - KS	REVISED -	SCALE: SHEET 3 OF 3 SHEETS			STA. 32+50.00 TO STA. 37+50.00	CONTRACT NO. 33606			
PLOT DATE = 5/22/2013	DATE - 5/8/2013	REVISED -	ILLINOIS FED. AID PROJECT BRM-5067(016)							



**LEGEND**

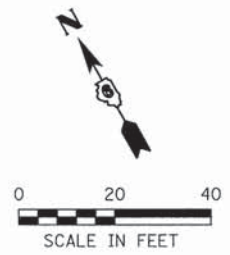
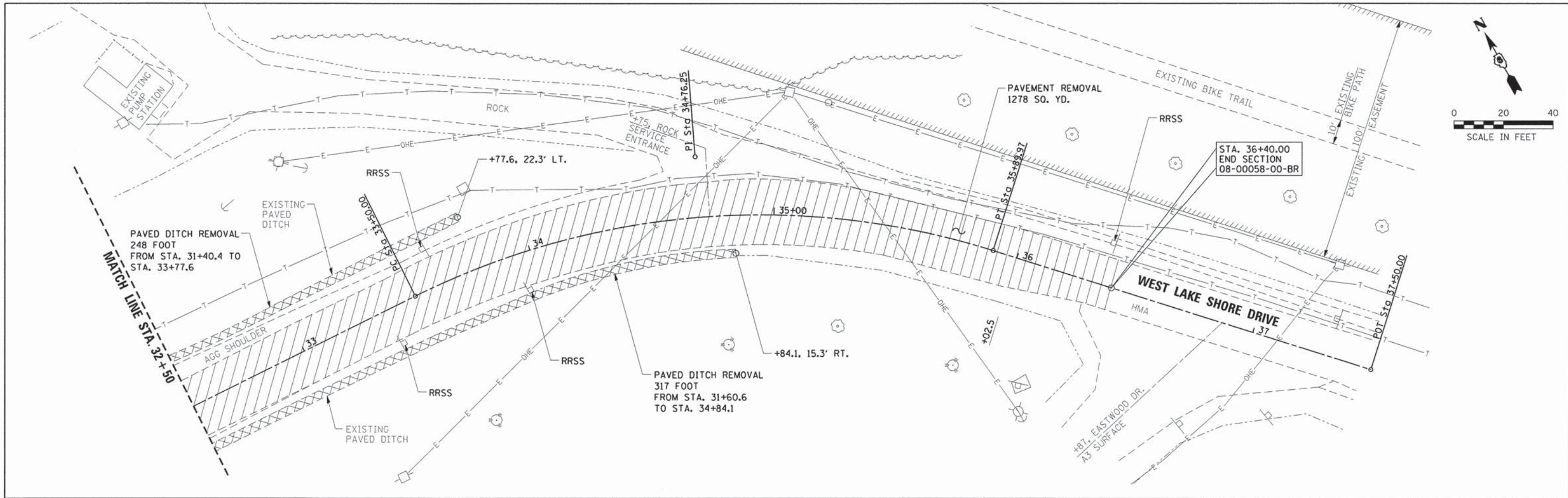
	PAVEMENT REMOVAL
	PAVED DITCH REMOVAL
RRSS	REMOVING AND RESETTING STREET SIGNS



FILE NAME = J:\12002.10\CADD\CADsheets\sh-removal.dgn	USER NAME = amandah	DESIGNED - WCB	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>REMOVAL PLAN</b>	F.A.U. RTE. 9701	SECTION 08-00058-00-BR	COUNTY CHRISTIAN	TOTAL SHEETS 47	SHEET NO. 10	
PLOT SCALE = 48,0000' / in.	DRAWN - AJH	CHECKED -	REVISED -			SCALE: SHEET 1 OF 2 SHEETS	STA. 22+00.00 TO STA. 32+50.00	CONTRACT NO. 93606		ILLINOIS FED. AID PROJECT BRM-5067 (016)	
PLOT DATE = 5/22/2013	DATE - 5/8/2013	REVISED -	REVISED -								

PLAN	SURVEYED	DATE
NOTE BOOK NO.	PLOTTED	
	CHECKED	
	RT. OF WAY CHECKED	
	CAD FILE NAME	

PROFILE	SURVEYED	DATE
NOTE BOOK NO.	PLOTTED	
	CHECKED	
	BLM NOTED	
	STRUCTURE NOTATIONS CHK'D	



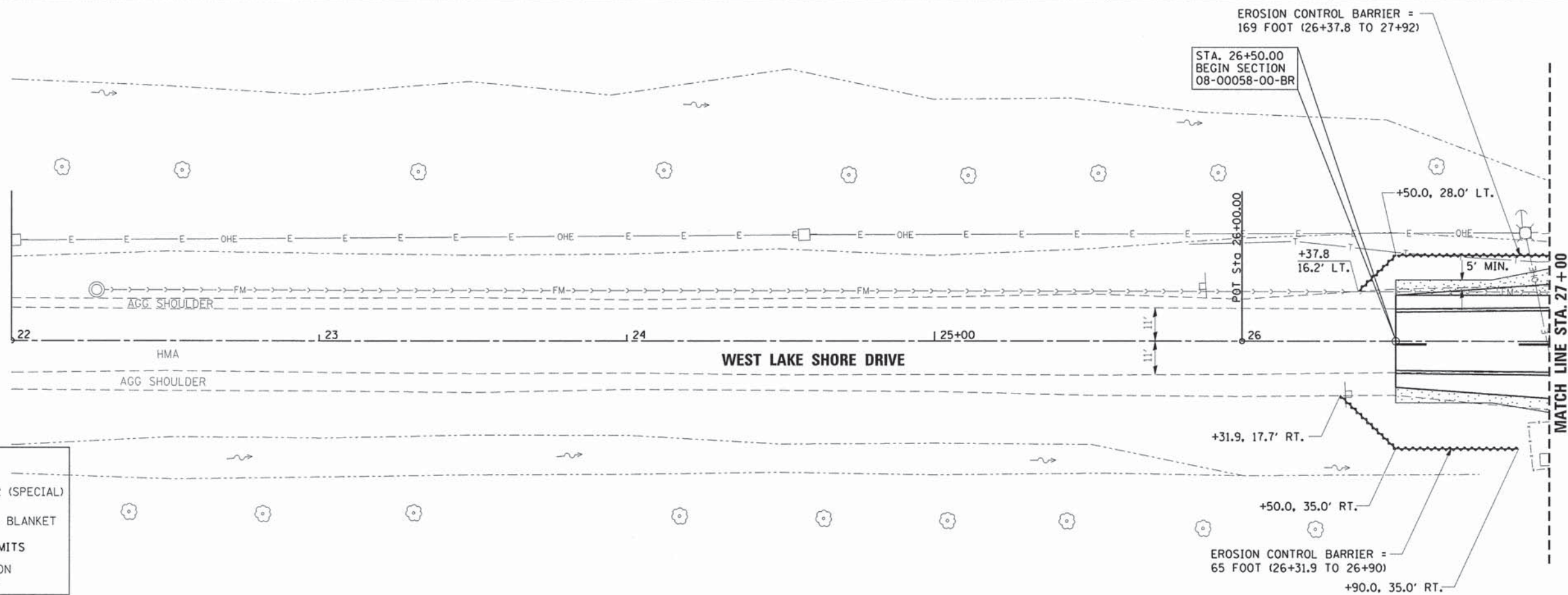
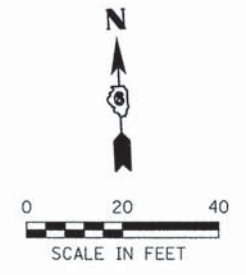
LEGEND	
	PAVEMENT REMOVAL
	PAVED DITCH REMOVAL
RRSS	REMOVING AND RESETTING STREET SIGNS

FILE NAME = J:\12002.10\CAD\CADsheets\sh-t-removal2.dgn	USER NAME = amandah	DESIGNED - WCB	REVISED -
		DRAWN - AJH	REVISED -
		CHECKED - KS	REVISED -
		DATE - 5/8/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

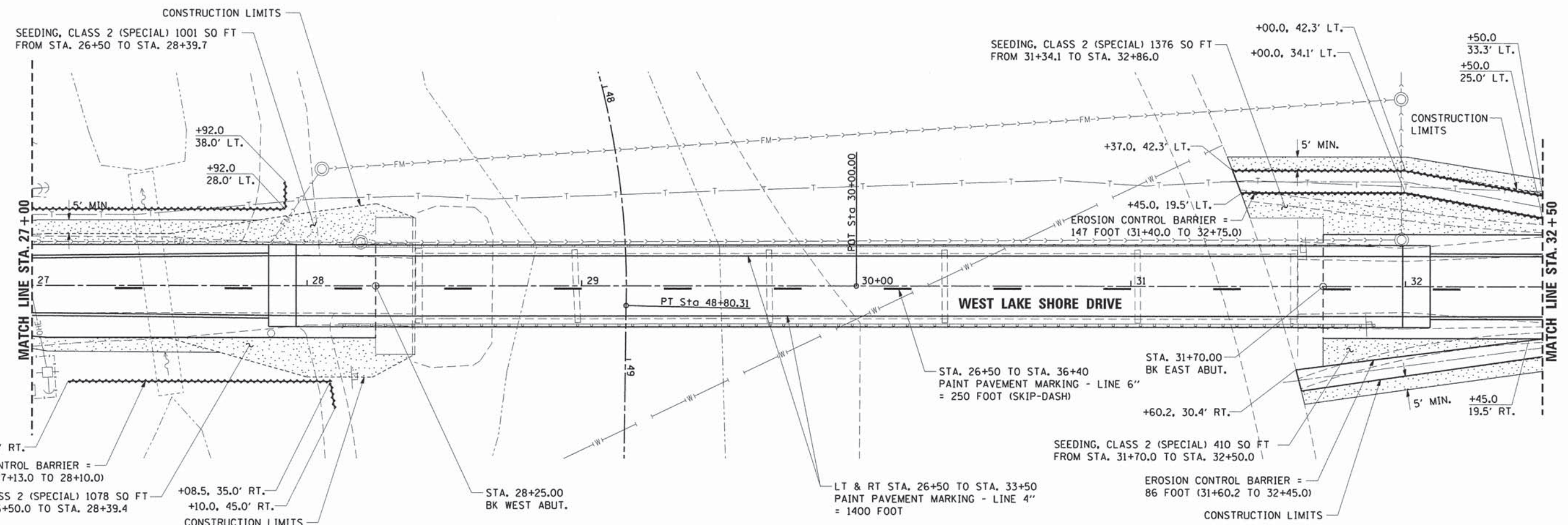
REMOVAL PLAN	
SCALE:	SHEET 2 OF 2 SHEETS STA. 32+50.00 TO STA. 37+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9701	08-00058-00-BR	CHRISTIAN	47	11
CONTRACT NO. 93606				
ILLINOIS FED. AID PROJECT BRM-50670161				

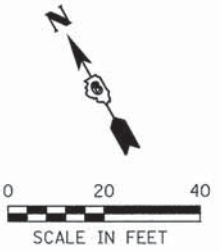


**LEGEND**

- SEEDING, CLASS 2 (SPECIAL)
- CONSTRUCTION LIMITS
- PERIMETER EROSION CONTROL BARRIER
- EROSION CONTROL BLANKET

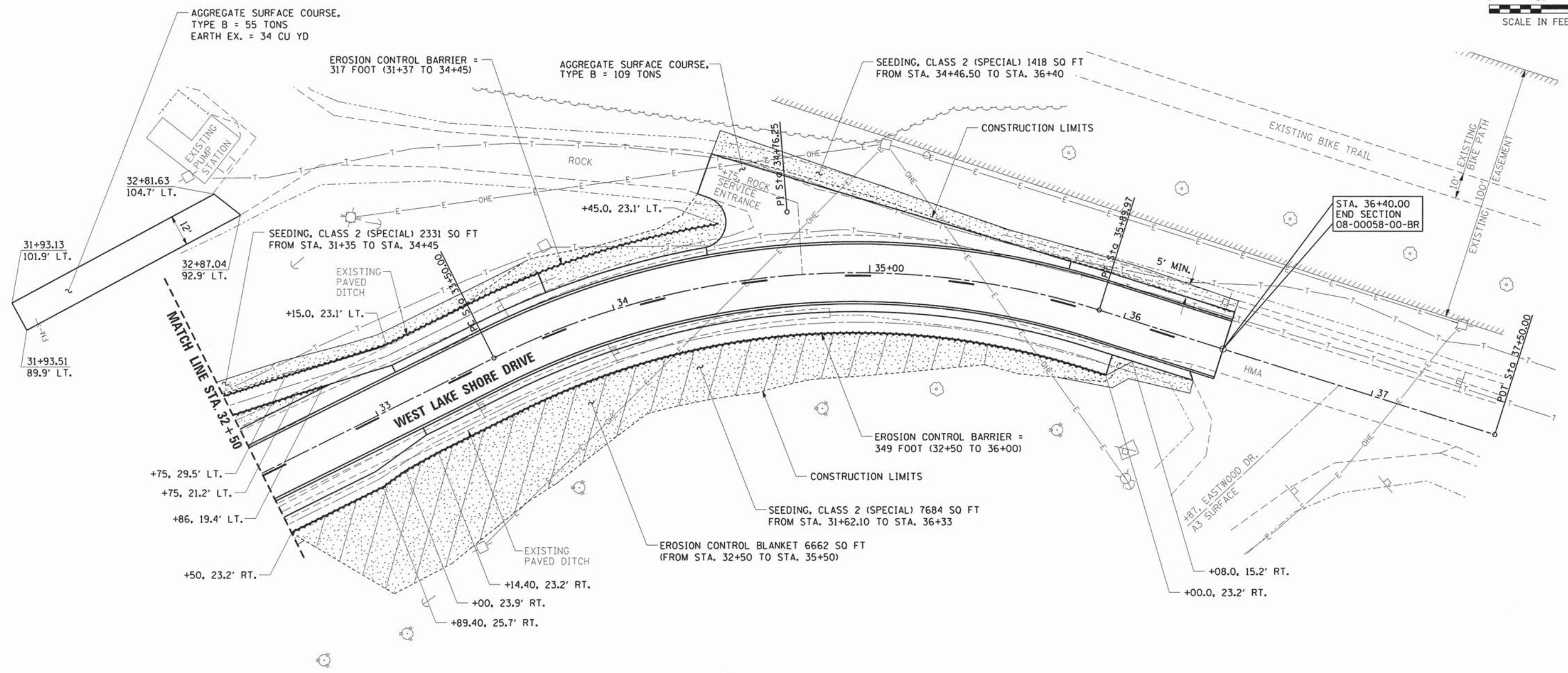


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PLOT SCALE = 40.0000' / in.	CHECKED - AJH	REVISED -	SCALE: SHEET 1 OF 2 SHEETS			STA. 22+00.00 TO STA. 32+00.00	CONTRACT NO. 93606			
PLOT DATE = 5/22/2013	DATE = 5/8/2013	REVISED -				ILLINOIS FED. AID PROJECT BRM-5067 (016)				
		REVISED -								



PLAN	SURVEYED	DATE
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	CHECKED	
	BY	
	NO.	
	FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	
	CHECKED	
	BY	
	NO.	
	FILE NAME	



LEGEND	
	SEEDING, CLASS 2 (SPECIAL)
	EROSION CONTROL BLANKET
	CONSTRUCTION LIMITS
	PERIMETER EROSION CONTROL BARRIER

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PLOT SCALE = 40.0000' / 1"	CHECKED - KS	DATE - 5/8/2013	REVISED -			SCALE: SHEET 2 OF 2 SHEETS STA. 32+50.00 TO STA. 37+50.00	CONTRACT NO. 93606				
PLOT DATE = 5/22/2013	DATE - 5/8/2013	REVISED -	REVISED -			ILLINOIS FED. AID PROJECT BRM-5067 (016)					

DATE	
BY	
PLANNED	
SURVEYED	
ALIGNED	
CHECKED	
RT. OF WAY	
CHECKED	
NO.	
NOTE BOOK	
NO.	
FILE NAME	

DATE	
BY	
PLANNED	
SURVEYED	
ALIGNED	
CHECKED	
RT. OF WAY	
CHECKED	
NO.	
NOTE BOOK	
NO.	
FILE NAME	

**ROAD CLOSED**  
R11-2-4830 (A)

**ROAD CLOSED 500 FT**  
W20-3-4848 (B)

**ROAD CLOSED AHEAD**  
W20-3-4848 (C)

**EAST**  
M3-1-2412 (D)

**WEST**  
M3-3-2412 (E)

**DETOUR**  
M4-8-2412 (F)

**WEST LAKE SHORE DRIVE**  
(J)

**ROAD CLOSED TO THRU TRAFFIC**  
R11-4-4830 (K)

**RIGHT**  
M6-1-2115 (G)

**LEFT**  
M5-1-2115 (H)

**END DETOUR**  
M4-8A-2418 (I)

**LEGEND**

— TYPE III BARRICADES CONFORMING TO STD. 701901 "ROAD CLOSED TO ALL TRAFFIC" WITH 2 FLASHING LIGHTS PER BARRICADE

— TYPE III BARRICADES CONFORMING TO STD. 701901 "ROAD CLOSED TO THRU TRAFFIC" WITH 2 FLASHING LIGHTS PER BARRICADE

— SIGNS ON PERMANENT SUPPORTS

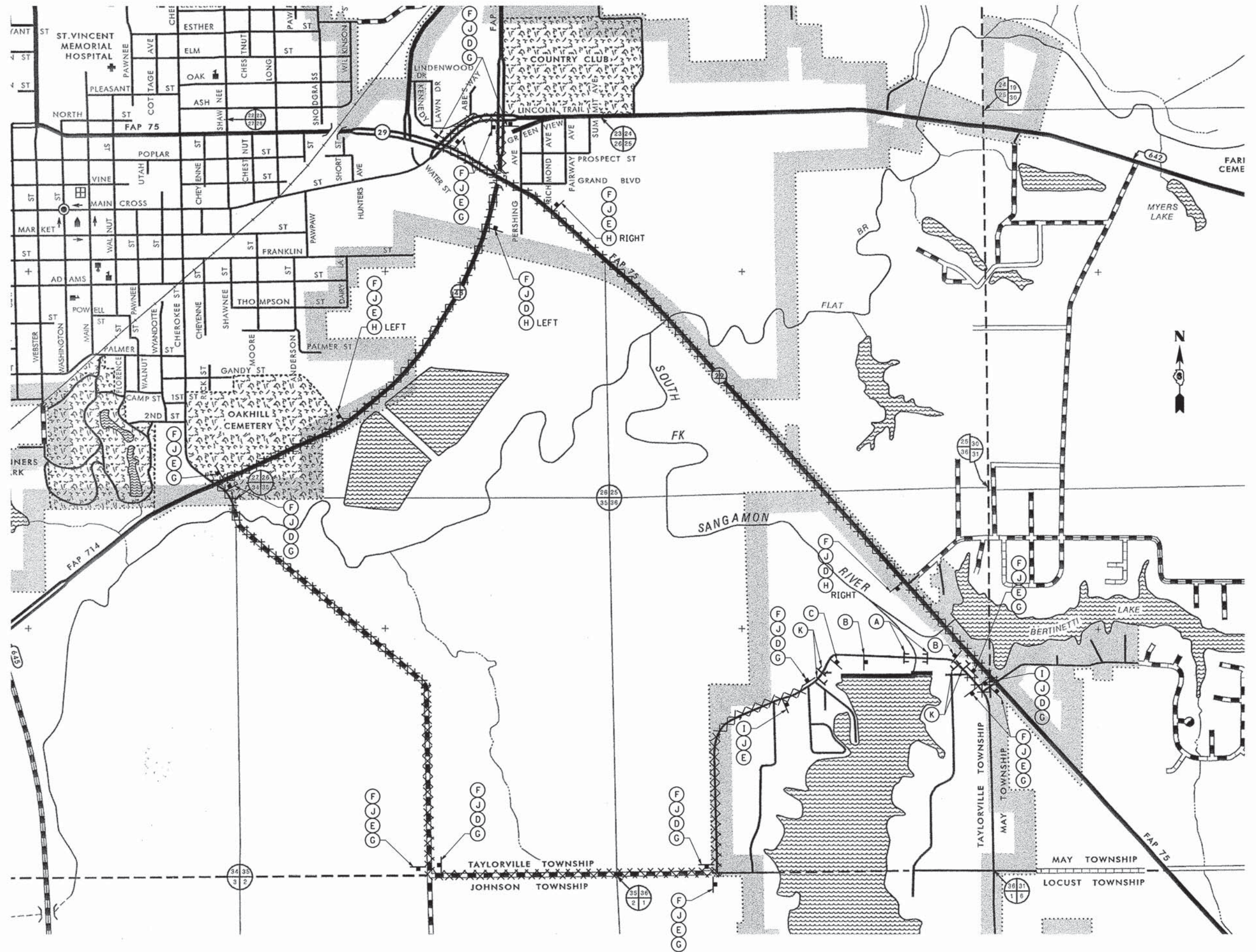
— FLASHING LIGHT ABOVE SIGN

— 18" x 18" ORANGE FLAG

— DETOUR ROUTE

**GENERAL NOTES**

- ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
- ALL SIGNS NOT ATTACHED TO BARRICADES SHALL BE POST MOUNTED, UNLESS OTHERWISE NOTED.
- LOCATIONS OF TRAFFIC CONTROL DEVICES MAY BE ADJUSTED BY THE ENGINEER.
- SEE SPECIAL PROVISIONS FOR TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR.



FILE NAME = J:\12002.10\CA00\CA0\sheets\sh-t-detour.dgn	USER NAME = amandah	DESIGNED - WCB	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DETOUR PLAN</b>	F.A.U. RTE. 9701	SECTION 08-0058-00-BR	COUNTY CHRISTIAN	TOTAL SHEETS 47	SHEET NO. 14
PLOT SCALE = 40,000.0' / in.	CHECKED -	REVISED -	SCALE: SHEET 1 OF 1 SHEETS			CONTRACT NO. 93606				
PLOT DATE = 5/22/2013	DATE - 5/13/2013	REVISED -	ILLINOIS FED. AID PROJECT BRM-5067 (016)							

Benchmarks: BM #1 Chiseled "□" center of headwall, Station 27+55, 114' RT., Elev. 570.39  
 BM #2 Railroad spike in power pole, Station 33+25, 73' RT., Elev. 593.36

Existing Structure: S.N. 011-6003 was originally constructed in 1962. The superstructure consists of a continuous five span non-composite rolled steel beam bridge with a 7 1/2" concrete deck. The substructure consists of concrete pile supported stub abutments and concrete pile supported multi-column piers. The back-to-back of abutments dimension measures 321'-8" and the out-to-out dimension measure 26'-2" with a face-to-face curb dimension of 24'-0". The structure is to be replaced during road closure.

No Salvage.

**LOADING HL-93**

Allow 25#/sq. ft. for future wearing surface.

**DESIGN SPECIFICATIONS**

AASHTO LRFD Bridge Design Specifications, Customary U.S. Units, 5th Edition, with 2010 Interims

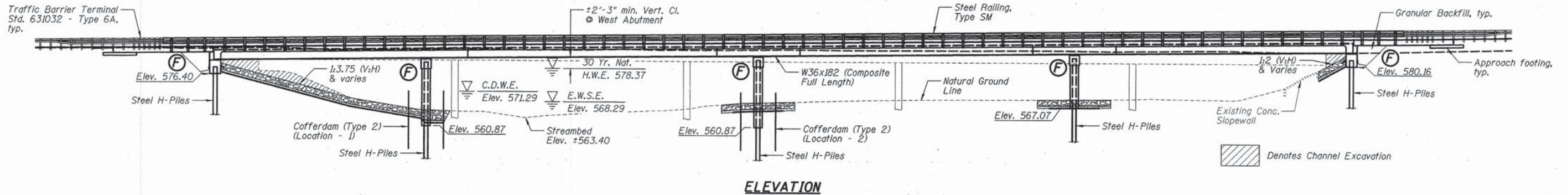
**DESIGN STRESSES**

FIELD UNITS:

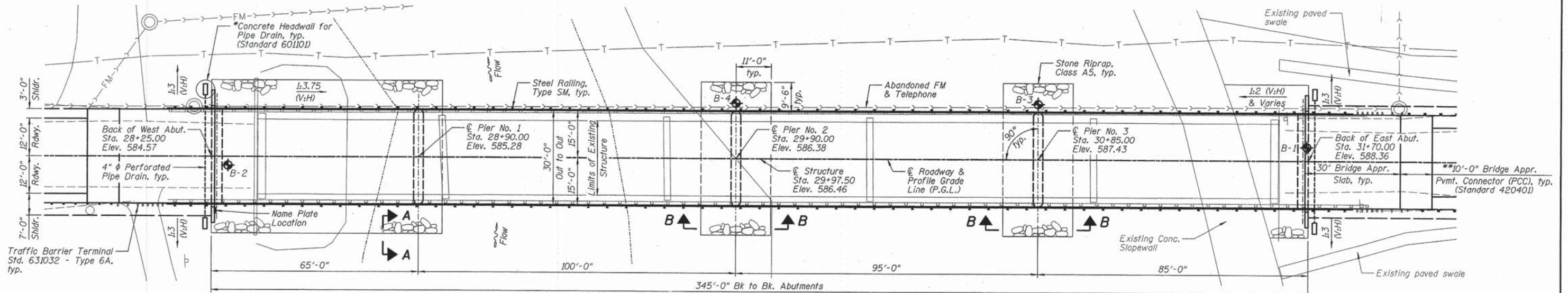
f'c = 5,000 psi  
 fy = 60,000 psi (Reinforcement)  
 fy = 50,000 psi (AASHTO M270 Grade 50W)

**SEISMIC DATA**

Seismic Performance Zone (SPZ) = 1  
 Design Spectral Acceleration at 1.0 sec. (SD1) = 0.122g  
 Design Spectral Acceleration at 0.2 sec. (SDS) = 0.256g  
 Soil Site Class = C



**ELEVATION**



**PLAN**

\*Included in the cost of Pipe Underdrains for Structures 4".  
 \*\*See Roadway Plans for quantity.



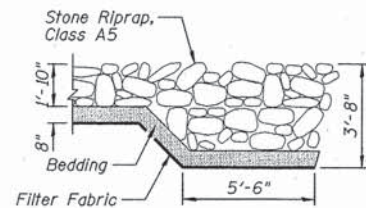
I certify that to the best of my knowledge, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current 'AASHTO Standard Specifications for Highway Bridges'.



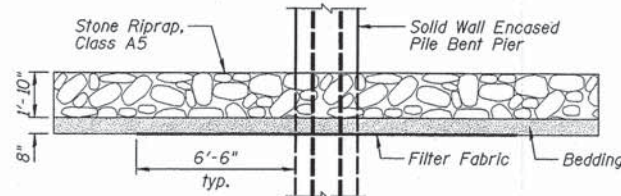
Joseph M. Lowrance Date 05-10-13  
 JOSEPH M. LOWRANCE  
 ILLINOIS STRUCTURAL ENGINEER  
 NO. 081-006446  
 Exp. Date 11/30/14

**INDEX OF SHEETS**

SHEET NO.	TITLE
B1	GENERAL PLAN AND ELEVATION
B2	GENERAL DATA
B3-B5	TOP OF DECK ELEVATIONS
B6	TOP OF APPROACH SLAB ELEVATIONS
B7-B8	SUPERSTRUCTURE
B9	SUPERSTRUCTURE DETAILS
B10	DIAPHRAGM DETAILS
B11-B14	PRECAST BRIDGE APPROACH SLAB
B15	STEEL RAILING, TYPE SM (ON BRIDGE DECK)
B16	STEEL RAILING, TYPE SM (ON APPROACH SLAB)
B17-B18	STRUCTURAL STEEL
B19	FIXED BEARING DETAILS
B20	WEST ABUTMENT
B21	EAST ABUTMENT
B22	PIER NO. 1
B23	PIER NO. 2
B24	PIER NO. 3
B25	HP PILE DETAILS
B26-B29	SOIL BORINGS LOGS



**SECTION A-A**



**SECTION B-B**

**SCOUR INFORMATION**

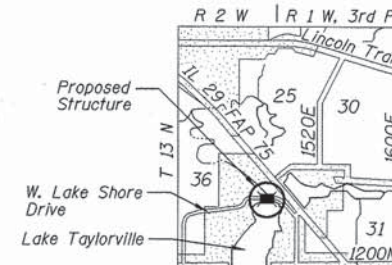
	Design Scour Elevation (ft.)				
	West Abutment	Pier No. 1	Pier No. 2	Pier No. 3	East Abutment
Q100	576.40	559.46	563.05	565.76	580.16
Q500	576.40	560.31	563.89	566.33	580.16

**WATERWAY INFORMATION**

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.		
Design	10	5080	2443.5	2493.1	576.76	0.12	0.12	576.88	576.88
Base	30	6920	2936.6	2990.1	578.37	0.44	0.44	578.81	578.81
Overtopping	100	8980	3532.5	3615.5	580.33	0.42	0.40	580.75	580.73
	500	11800	3635.8	4059.4	581.86	0.59	0.52	582.45	582.38

10 Yr. Velocity = 2.1 ft./sec. (Existing)  
 10 Yr. Velocity = 2.0 ft./sec. (Proposed)

Construction Permits: This project has been approved for construction under Statewide Permit No. 12 as issued by the Department of Natural Resources/Office of Water Resources.



**LOCATION SKETCH**

**GENERAL PLAN AND ELEVATION  
 WEST LAKE SHORE DRIVE OVER  
 SOUTH FORK SANGAMON RIVER  
 AT LAKE TAYLORVILLE SPILLWAY  
 F.A.U. ROUTE 7901  
 SECTION 08-00058-00-BR  
 CHRISTIAN COUNTY  
 STATION 29+97.50  
 STRUCTURE NO. 011-6009**



DESIGNED - JCZ	REVISED
CHECKED - JML	REVISED
DRAWN - DJM	REVISED
CHECKED - MSW	REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SHEET NO. B1 OF 29 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7901	08-00058-00-BR	CHRISTIAN	47	15

CONTRACT NO. 081-006446

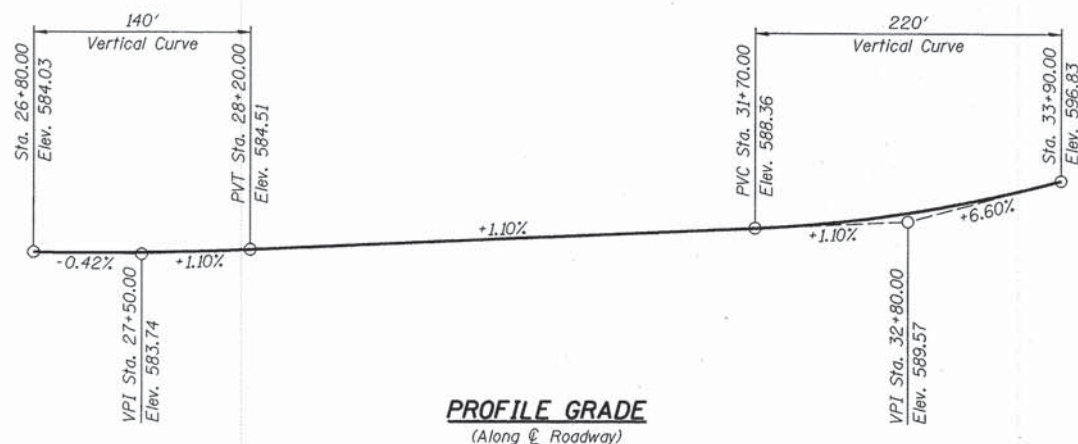
ILLINOIS FED. AID PROJECT

**TOTAL BILL OF MATERIAL**

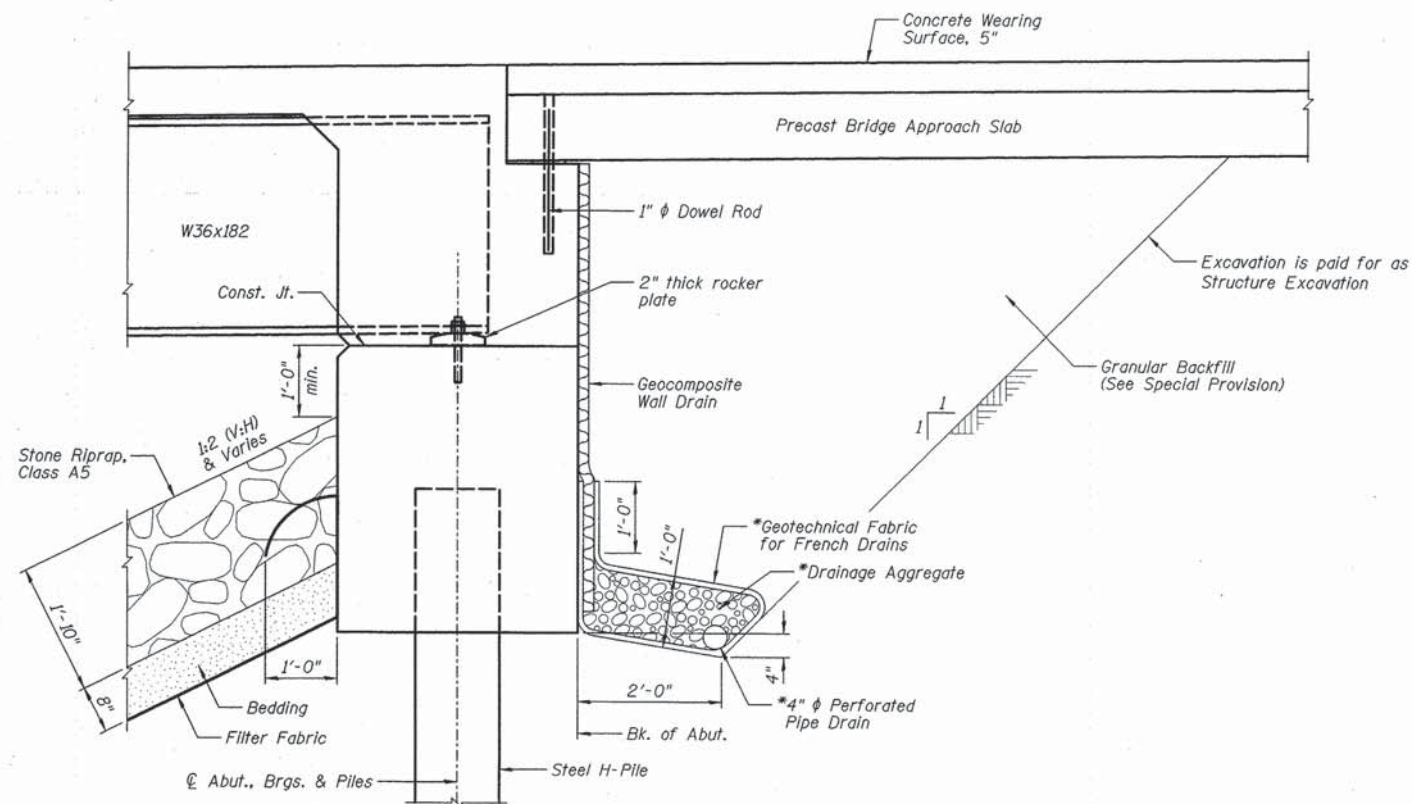
ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.		185	185
Stone Riprap, Class A5	Sq. Yd.		719	719
Filter Fabric	Sq. Yd.		626	626
Removal of Existing Structures	Each	1		1
Structure Excavation	Cu. Yd.		107	107
Cofferdam Excavation	Cu. Yd.		269	269
Cofferdam (Type 2) (Location - 1)	Each		1	1
Cofferdam (Type 2) (Location - 2)	Each		1	1
Concrete Structures	Cu. Yd.		218.2	218.2
Concrete Superstructure	Cu. Yd.	307.6		307.6
Bridge Deck Grooving	Sq. Yd.	1,253		1,253
Seal Coat Concrete	Cu. Yd.		87.8	87.8
Protective Coat	Sq. Yd.	1,343		1,343
Furnishing and Erecting Structural Steel	L Sum	1		1
Stud Shear Connectors	Each	4,815		4,815
Reinforcement Bars, Epoxy Coated	Pound	82,120	22,860	104,980
Steel Railing, Type SM	Foot	746		746
Furnishing Steel Piles HP14x117	Foot		2,083	2,083
Driving Piles	Foot		2,083	2,083
Test Pile Steel HP14x117	Each		5	5
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	62		62
Anchor Bolts, 1"	Each	50		50
Geocomposite Wall Drain	Sq. Yd.		56	56
Pipe Underdrains for Structures 4"	Foot		170	170
Concrete Wearing Surface, 5"	Sq. Yd.	200		200
Precast Bridge Approach Slab	Sq. Ft.	1,750		1,750
Granular Backfill for Structures	Cu. Yd.		94	94

**GENERAL NOTES:**

- Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in painted areas and ASTM A325 Type 3 in unpainted areas. Bolts  $\frac{7}{8}$  in.  $\phi$ , holes  $\frac{9}{16}$  in.  $\phi$ , unless otherwise noted.
- Calculated weight of Structural Steel = 360,600 lbs.
- All structural steel shall be AASHTO M270 Grade 50W.
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars designated (E) shall be epoxy coated.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of  $\frac{1}{8}$  in. (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
- Structural steel shall only be painted for a distance equal to the depth of embedment in the concrete cap plus 3 in. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
- Test Piles to be driven in production locations as designated by the Engineer.



**PROFILE GRADE**  
(Along Roadway)



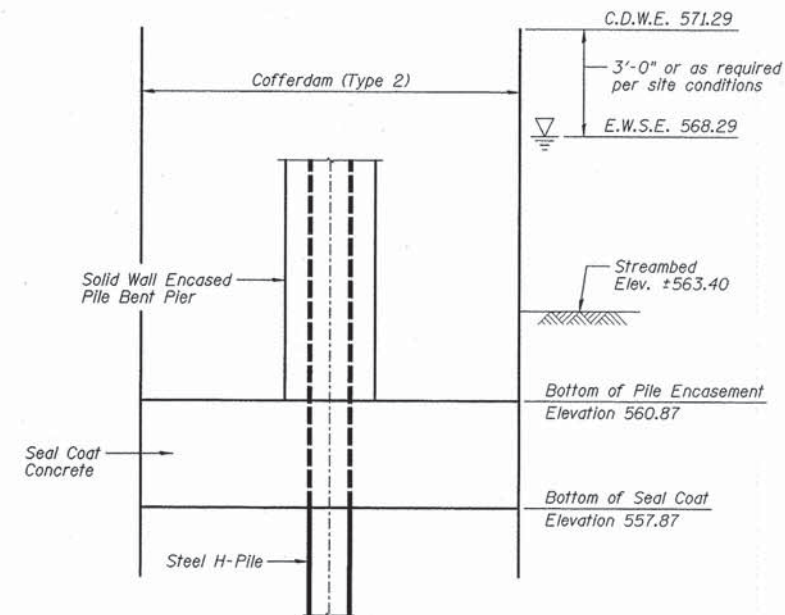
**SECTION THRU EAST ABUTMENT**  
(Similar for West Abutment)

**NOTES:**

- \*Included in the cost of Pipe Underdrains for Structures 4". (See Special Provisions).
- 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).

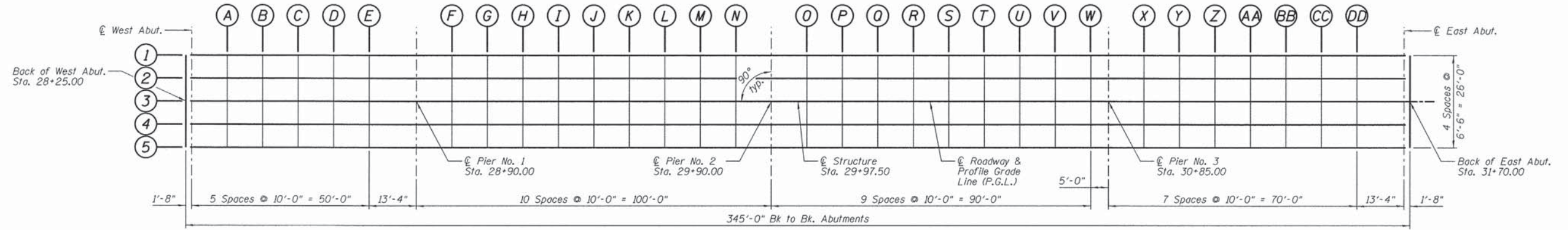
LAKE TAYLORVILLE SPILLWAY  
BUILT 20\_\_ BY  
CITY OF TAYLORVILLE  
SEC. 08-00058-00-BR  
F.A.U. RT. 7901 STA. 29+97.50  
STR. NO. 011-6009 LOADING HL-93

**NAME PLATE**  
See Std. 515001

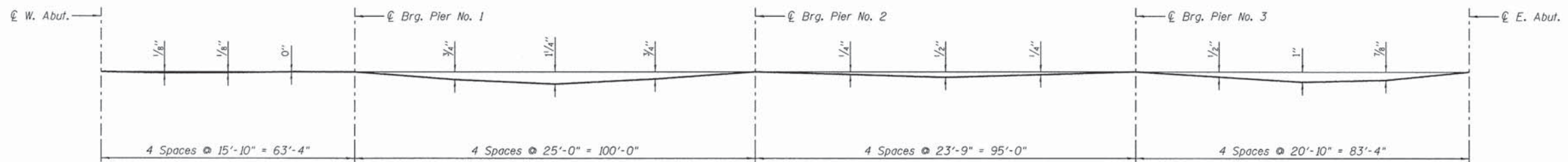


**SEAL COAT SCHEMATIC**





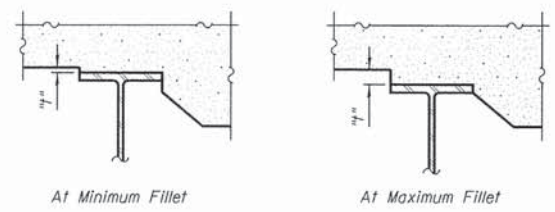
**PLAN**



**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete only)

The above deflections are not for use in the field if the Engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection."



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

**FILLET HEIGHTS**

**BEAM 1**

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevation Adjusted for Dead Load Deflection
Bk. of West Abut.	28+25.00	-13.00	584.31	584.31
☉ West Abut.	28+26.67	-13.00	584.32	584.32
A	28+36.67	-13.00	584.43	584.44
B	28+46.67	-13.00	584.54	584.56
C	28+56.67	-13.00	584.65	584.66
D	28+66.67	-13.00	584.76	584.77
E	28+76.67	-13.00	584.87	584.87
☉ Brg. Pier No. 1	28+90.00	-13.00	585.02	585.02
F	29+00.00	-13.00	585.13	585.15
G	29+10.00	-13.00	585.24	585.29
H	29+20.00	-13.00	585.35	585.43
I	29+30.00	-13.00	585.46	585.56
J	29+40.00	-13.00	585.57	585.67
K	29+50.00	-13.00	585.68	585.78
L	29+60.00	-13.00	585.79	585.86
M	29+70.00	-13.00	585.90	585.95
N	29+80.00	-13.00	586.01	586.03
☉ Brg. Pier No. 2	29+90.00	-13.00	586.12	586.12
O	30+00.00	-13.00	586.23	586.23
P	30+10.00	-13.00	586.34	586.36
Q	30+20.00	-13.00	586.45	586.48
R	30+30.00	-13.00	586.56	586.60
S	30+40.00	-13.00	586.67	586.72
T	30+50.00	-13.00	586.78	586.82
U	30+60.00	-13.00	586.89	586.92
V	30+70.00	-13.00	587.00	587.01
W	30+80.00	-13.00	587.11	587.11
☉ Brg. Pier No. 3	30+85.00	-13.00	587.17	587.17
X	30+95.00	-13.00	587.28	587.29
Y	31+05.00	-13.00	587.39	587.43
Z	31+15.00	-13.00	587.50	587.56
AA	31+25.00	-13.00	587.61	587.69
BB	31+35.00	-13.00	587.72	587.80
CC	31+45.00	-13.00	587.83	587.90
DD	31+55.00	-13.00	587.94	587.98
☉ East Abut.	31+68.33	-13.00	588.08	588.08
Bk. of East Abut.	31+70.00	-13.00	588.10	588.10

**BEAM 2**

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevation Adjusted for Dead Load Deflection
Bk. of West Abut.	28+25.00	-6.50	584.44	584.44
☉ West Abut.	28+26.67	-6.50	584.45	584.45
A	28+36.67	-6.50	584.56	584.57
B	28+46.67	-6.50	584.67	584.69
C	28+56.67	-6.50	584.78	584.79
D	28+66.67	-6.50	584.89	584.90
E	28+76.67	-6.50	585.00	585.00
☉ Brg. Pier No. 1	28+90.00	-6.50	585.15	585.15
F	29+00.00	-6.50	585.26	585.28
G	29+10.00	-6.50	585.37	585.42
H	29+20.00	-6.50	585.48	585.56
I	29+30.00	-6.50	585.59	585.69
J	29+40.00	-6.50	585.70	585.80
K	29+50.00	-6.50	585.81	585.91
L	29+60.00	-6.50	585.92	585.99
M	29+70.00	-6.50	586.03	586.08
N	29+80.00	-6.50	586.14	586.16
☉ Brg. Pier No. 2	29+90.00	-6.50	586.25	586.25
O	30+00.00	-6.50	586.36	586.36
P	30+10.00	-6.50	586.47	586.49
Q	30+20.00	-6.50	586.58	586.61
R	30+30.00	-6.50	586.69	586.73
S	30+40.00	-6.50	586.80	586.85
T	30+50.00	-6.50	586.91	586.95
U	30+60.00	-6.50	587.02	587.05
V	30+70.00	-6.50	587.13	587.14
W	30+80.00	-6.50	587.24	587.24
☉ Brg. Pier No. 3	30+85.00	-6.50	587.30	587.30
X	30+95.00	-6.50	587.41	587.42
Y	31+05.00	-6.50	587.52	587.56
Z	31+15.00	-6.50	587.63	587.69
AA	31+25.00	-6.50	587.74	587.82
BB	31+35.00	-6.50	587.85	587.93
CC	31+45.00	-6.50	587.96	588.03
DD	31+55.00	-6.50	588.07	588.11
☉ East Abut.	31+68.33	-6.50	588.21	588.21
Bk. of East Abut.	31+70.00	-6.50	588.23	588.23

**BEAM 3, ☉ ROADWAY & PROFILE GRADE LINE (P.G.L.)**

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevation Adjusted for Dead Load Deflection
Bk. of West Abut.	28+25.00	0.00	584.57	584.57
☉ West Abut.	28+26.67	0.00	584.58	584.58
A	28+36.67	0.00	584.69	584.70
B	28+46.67	0.00	584.80	584.82
C	28+56.67	0.00	584.91	584.92
D	28+66.67	0.00	585.02	585.03
E	28+76.67	0.00	585.13	585.13
☉ Brg. Pier No. 1	28+90.00	0.00	585.28	585.28
F	29+00.00	0.00	585.39	585.41
G	29+10.00	0.00	585.50	585.55
H	29+20.00	0.00	585.61	585.69
I	29+30.00	0.00	585.72	585.82
J	29+40.00	0.00	585.83	585.93
K	29+50.00	0.00	585.94	586.04
L	29+60.00	0.00	586.05	586.12
M	29+70.00	0.00	586.16	586.21
N	29+80.00	0.00	586.27	586.29
☉ Brg. Pier No. 2	29+90.00	0.00	586.38	586.38
O	30+00.00	0.00	586.49	586.49
P	30+10.00	0.00	586.60	586.62
Q	30+20.00	0.00	586.71	586.74
R	30+30.00	0.00	586.82	586.86
S	30+40.00	0.00	586.93	586.98
T	30+50.00	0.00	587.04	587.08
U	30+60.00	0.00	587.15	587.18
V	30+70.00	0.00	587.26	587.27
W	30+80.00	0.00	587.37	587.37
☉ Brg. Pier No. 3	30+85.00	0.00	587.43	587.43
X	30+95.00	0.00	587.54	587.55
Y	31+05.00	0.00	587.65	587.69
Z	31+15.00	0.00	587.76	587.82
AA	31+25.00	0.00	587.87	587.95
BB	31+35.00	0.00	587.98	588.06
CC	31+45.00	0.00	588.09	588.16
DD	31+55.00	0.00	588.20	588.24
☉ East Abut.	31+68.33	0.00	588.34	588.34
Bk. of East Abut.	31+70.00	0.00	588.36	588.36



DESIGNED - JCZ	REVISED
CHECKED - JML	REVISED
DRAWN - DJM	REVISED
CHECKED - MSW	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS  
STRUCTURE NO. 011-6009

SHEET NO. B4 OF 29 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7901	08-00058-00-BR	CHRISTIAN	47	18
CONTRACT NO. 93606				
ILLINOIS FED. AID PROJECT				

**BEAM 4**

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevation Adjusted for Dead Load Deflection
Bk. of West Abut.	28+25.00	6.50	584.44	584.44
☉ West Abut.	28+26.67	6.50	584.45	584.45
A	28+36.67	6.50	584.56	584.57
B	28+46.67	6.50	584.67	584.69
C	28+56.67	6.50	584.78	584.79
D	28+66.67	6.50	584.89	584.90
E	28+76.67	6.50	585.00	585.00
☉ Brg. Pier No. 1	28+90.00	6.50	585.15	585.15
F	29+00.00	6.50	585.26	585.28
G	29+10.00	6.50	585.37	585.42
H	29+20.00	6.50	585.48	585.56
I	29+30.00	6.50	585.59	585.69
J	29+40.00	6.50	585.70	585.80
K	29+50.00	6.50	585.81	585.91
L	29+60.00	6.50	585.92	585.99
M	29+70.00	6.50	586.03	586.08
N	29+80.00	6.50	586.14	586.16
☉ Brg. Pier No. 2	29+90.00	6.50	586.25	586.25
O	30+00.00	6.50	586.36	586.36
P	30+10.00	6.50	586.47	586.49
Q	30+20.00	6.50	586.58	586.61
R	30+30.00	6.50	586.69	586.73
S	30+40.00	6.50	586.80	586.85
T	30+50.00	6.50	586.91	586.95
U	30+60.00	6.50	587.02	587.05
V	30+70.00	6.50	587.13	587.14
W	30+80.00	6.50	587.24	587.24
☉ Brg. Pier No. 3	30+85.00	6.50	587.30	587.30
X	30+95.00	6.50	587.41	587.42
Y	31+05.00	6.50	587.52	587.56
Z	31+15.00	6.50	587.63	587.69
AA	31+25.00	6.50	587.74	587.82
BB	31+35.00	6.50	587.85	587.93
CC	31+45.00	6.50	587.96	588.03
DD	31+55.00	6.50	588.07	588.11
☉ East Abut.	31+68.33	6.50	588.21	588.21
Bk. of East Abut.	31+70.00	6.50	588.23	588.23

**BEAM 5**

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevation Adjusted for Dead Load Deflection
Bk. of West Abut.	28+25.00	13.00	584.31	584.31
☉ West Abut.	28+26.67	13.00	584.32	584.32
A	28+36.67	13.00	584.43	584.44
B	28+46.67	13.00	584.54	584.56
C	28+56.67	13.00	584.65	584.66
D	28+66.67	13.00	584.76	584.77
E	28+76.67	13.00	584.87	584.87
☉ Brg. Pier No. 1	28+90.00	13.00	585.02	585.02
F	29+00.00	13.00	585.13	585.15
G	29+10.00	13.00	585.24	585.29
H	29+20.00	13.00	585.35	585.43
I	29+30.00	13.00	585.46	585.56
J	29+40.00	13.00	585.57	585.67
K	29+50.00	13.00	585.68	585.78
L	29+60.00	13.00	585.79	585.86
M	29+70.00	13.00	585.90	585.95
N	29+80.00	13.00	586.01	586.03
☉ Brg. Pier No. 2	29+90.00	13.00	586.12	586.12
O	30+00.00	13.00	586.23	586.23
P	30+10.00	13.00	586.34	586.36
Q	30+20.00	13.00	586.45	586.48
R	30+30.00	13.00	586.56	586.60
S	30+40.00	13.00	586.67	586.72
T	30+50.00	13.00	586.78	586.82
U	30+60.00	13.00	586.89	586.92
V	30+70.00	13.00	587.00	587.01
W	30+80.00	13.00	587.11	587.11
☉ Brg. Pier No. 3	30+85.00	13.00	587.17	587.17
X	30+95.00	13.00	587.28	587.29
Y	31+05.00	13.00	587.39	587.43
Z	31+15.00	13.00	587.50	587.56
AA	31+25.00	13.00	587.61	587.69
BB	31+35.00	13.00	587.72	587.80
CC	31+45.00	13.00	587.83	587.90
DD	31+55.00	13.00	587.94	587.98
☉ East Abut.	31+68.33	13.00	588.08	588.08
Bk. of East Abut.	31+70.00	13.00	588.10	588.10



DATE - 05/10/13

DESIGNED - JCZ  
CHECKED - JML  
DRAWN - DJM  
CHECKED - MSW

REVISED  
REVISED  
REVISED  
REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS  
STRUCTURE NO. 011-6009

SHEET NO. B5 OF 29 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7901	08-00058-00-BR	CHRISTIAN	47	19
CONTRACT NO. 93606			ILLINOIS FED. AID PROJECT	

**NORTH EDGE OF APPROACH**

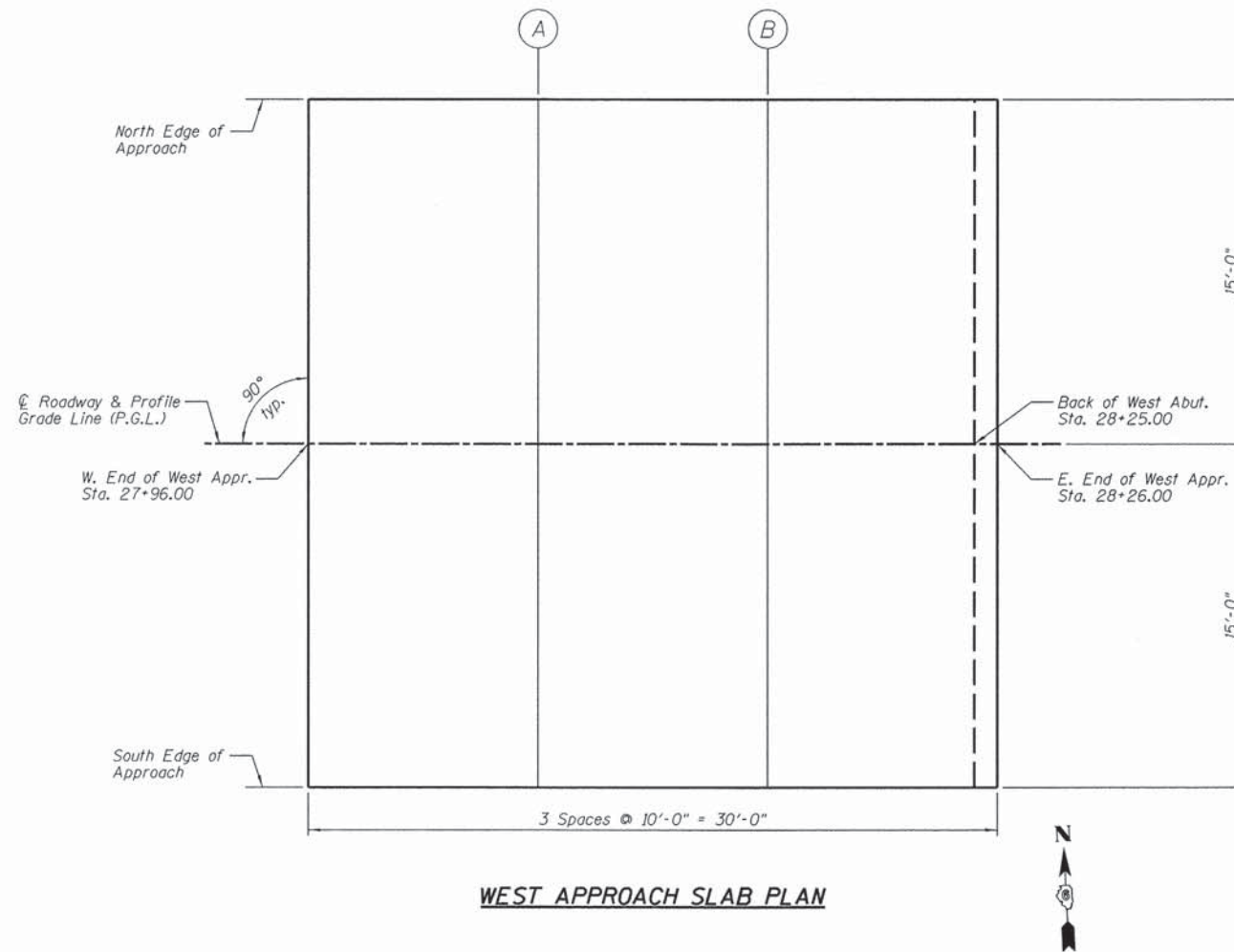
Location	Station	Offset	Theoretical Grade Elevation
W. End of West Appr.	27+96.00	-15.00	583.98
A	28+06.00	-15.00	584.07
B	28+16.00	-15.00	584.17
Back of West Abut.	28+25.00	-15.00	584.27
E. End of West Appr.	28+26.00	-15.00	584.28

**☉ ROADWAY & PROFILE GRADE LINE (P.G.L.)**

Location	Station	Offset	Theoretical Grade Elevation
W. End of West Appr.	27+96.00	0.00	584.28
A	28+06.00	0.00	584.37
B	28+16.00	0.00	584.47
Back of West Abut.	28+25.00	0.00	584.57
E. End of West Appr.	28+26.00	0.00	584.58

**SOUTH EDGE OF APPROACH**

Location	Station	Offset	Theoretical Grade Elevation
W. End of West Appr.	27+96.00	15.00	583.98
A	28+06.00	15.00	584.07
B	28+16.00	15.00	584.17
Back of West Abut.	28+25.00	15.00	584.27
E. End of West Appr.	28+26.00	15.00	584.28



**WEST APPROACH SLAB PLAN**

**NORTH EDGE OF APPROACH**

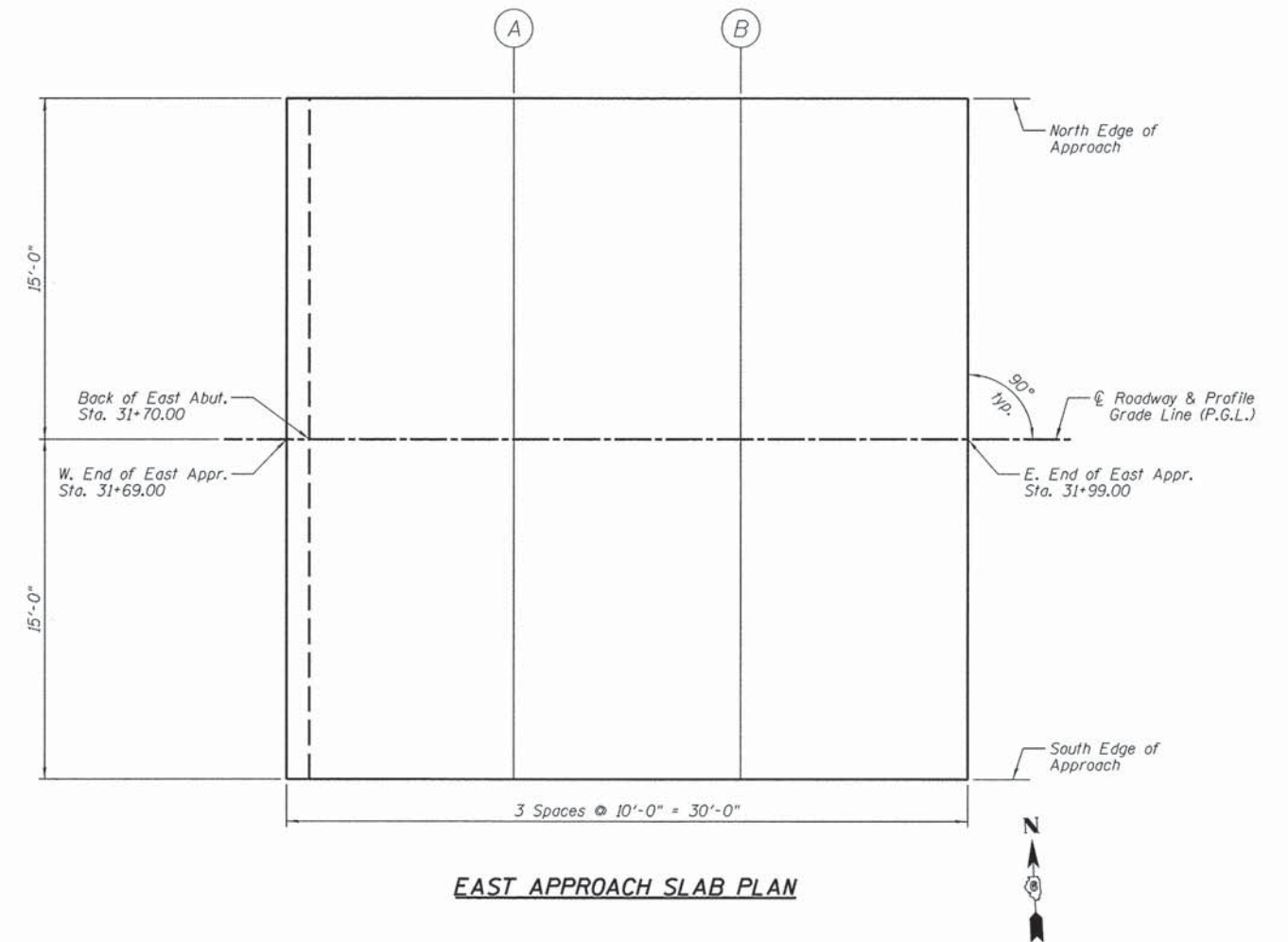
Location	Station	Offset	Theoretical Grade Elevation
W. End of East Appr.	31+69.00	-15.00	588.05
Back of East Abut.	31+70.00	-15.00	588.06
A	31+79.00	-15.00	588.17
B	31+89.00	-15.00	588.31
E. End of East Appr.	31+99.00	-15.00	588.48

**☉ ROADWAY & PROFILE GRADE LINE (P.G.L.)**

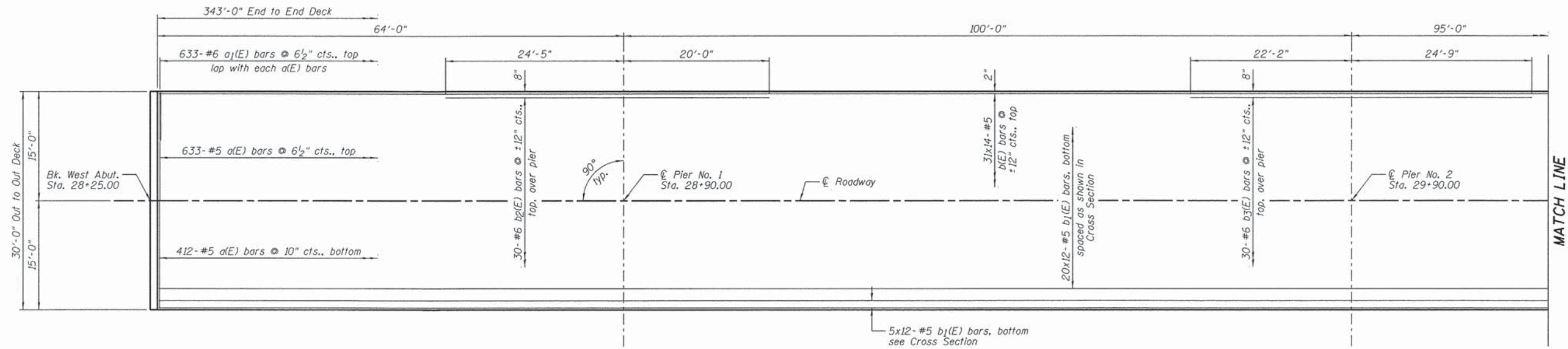
Location	Station	Offset	Theoretical Grade Elevation
W. End of East Appr.	31+69.00	0.00	588.35
Back of East Abut.	31+70.00	0.00	588.36
A	31+79.00	0.00	588.47
B	31+89.00	0.00	588.61
E. End of East Appr.	31+99.00	0.00	588.78

**SOUTH EDGE OF APPROACH**

Location	Station	Offset	Theoretical Grade Elevation
W. End of East Appr.	31+69.00	15.00	588.05
Back of East Abut.	31+70.00	15.00	588.06
A	31+79.00	15.00	588.17
B	31+89.00	15.00	588.31
E. End of East Appr.	31+99.00	15.00	588.48

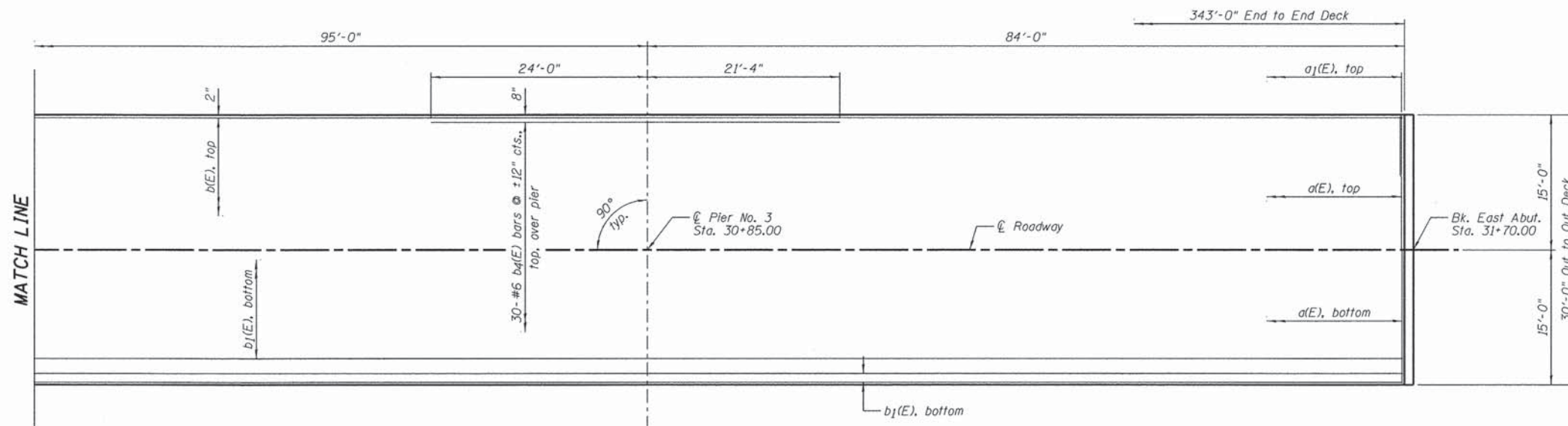


**EAST APPROACH SLAB PLAN**



PLAN

BAR LAP  
#5 - 2'-6"



PLAN

NOTES:

- 1.) See Sheet B9 for Superstructure Details and Bill of Material.
- 2.) Bars indicated thus 5x12-#5 etc. indicates 5 lines of bars with 12 lengths per line.

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DATE - 05/10/13

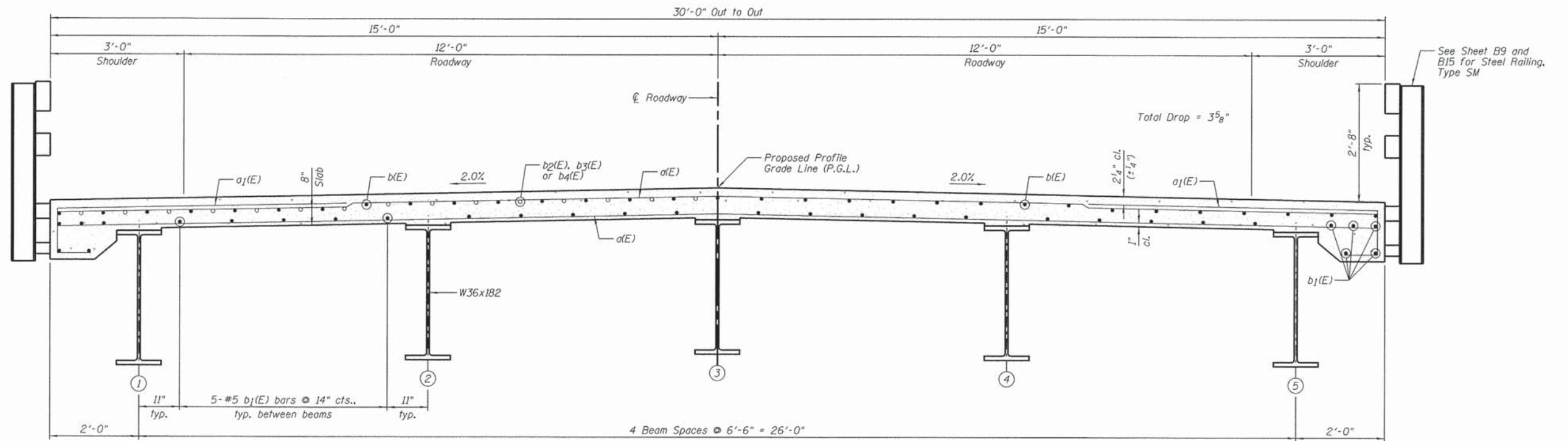
DESIGNED - JCZ	REVISED
CHECKED - JML	REVISED
DRAWN - DJM	REVISED
CHECKED - MSW	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE  
STRUCTURE NO. 011-6009

SHEET NO. B7 OF 29 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7901	08-00058-00-BR	CHRISTIAN	47	21
CONTRACT NO. 93606			ILLINOIS FED. AID PROJECT	



NEAR PIER

NEAR MIDSPAN

**CROSS SECTION**  
(Looking East)

**NOTES:**

- 1.) See Sheet B9 for Superstructure Details and Bill of Material.
- 2.) Stud Shear Connectors are not shown for clarity.

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

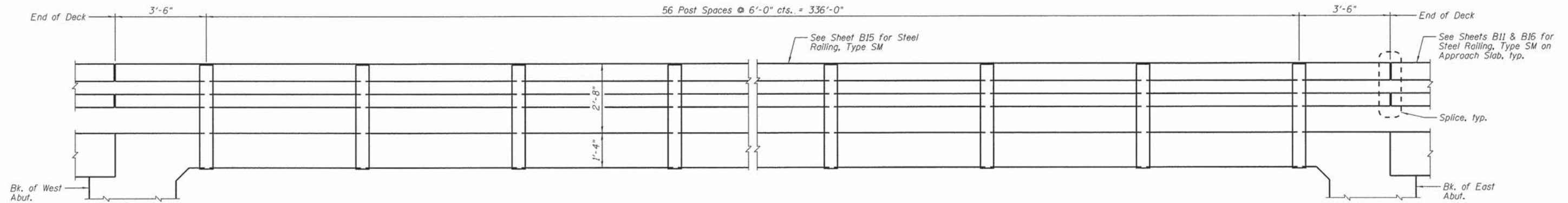
DESIGNED - JCZ	REVISED
CHECKED - JML	REVISED
DRAWN - DJM	REVISED
CHECKED - MSW	REVISED
DATE - 05/10/13	

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

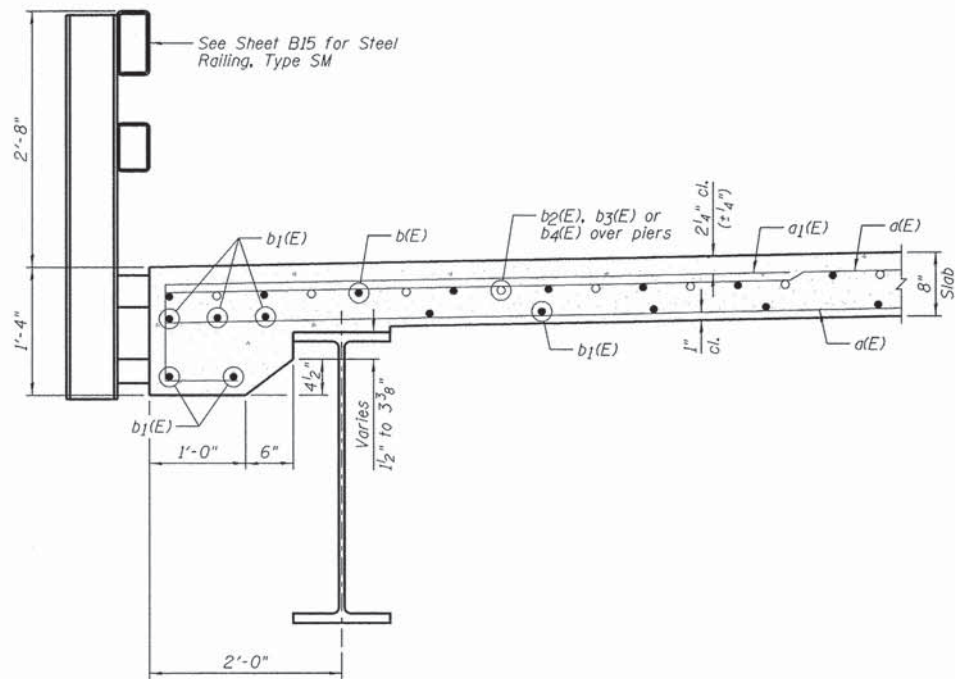
**SUPERSTRUCTURE**  
**STRUCTURE NO. 011-6009**

SHEET NO. BB OF 29 SHEETS

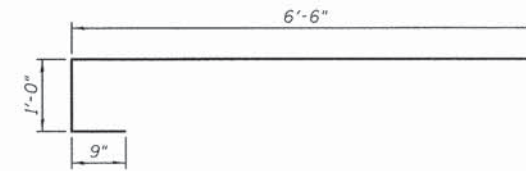
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7901	08-00058-00-BR	CHRISTIAN	47	22
ILLINOIS FED. AID PROJECT			<b>CONTRACT NO. 93606</b>	



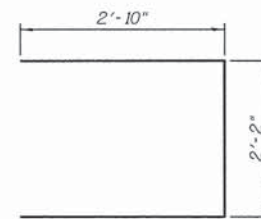
OUTSIDE ELEVATION OF RAILING



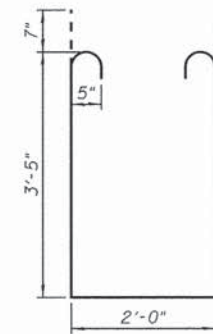
SECTION THRU EDGE BEAM



a1(E) BAR



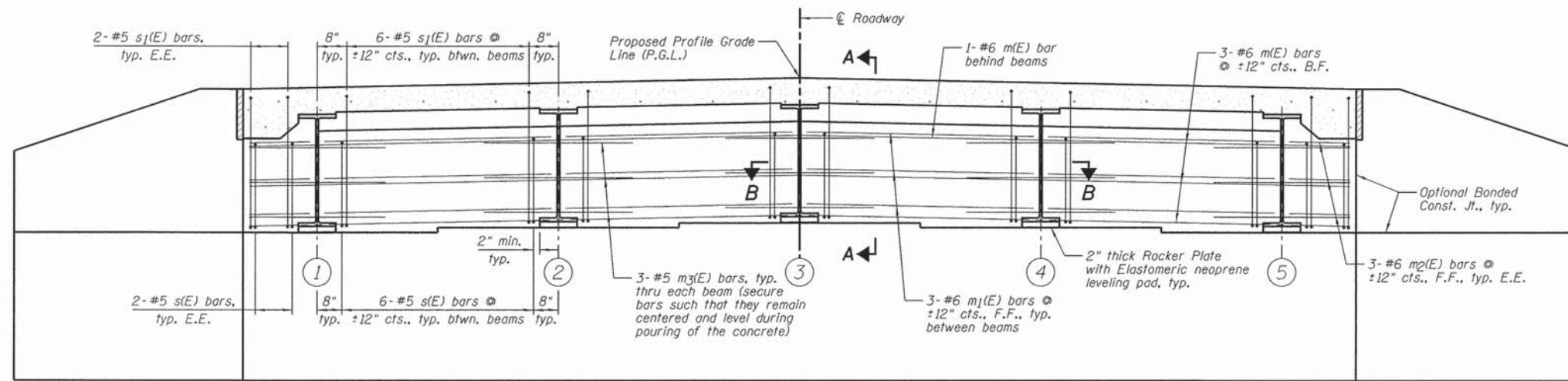
s(E) BAR



s1(E) BAR

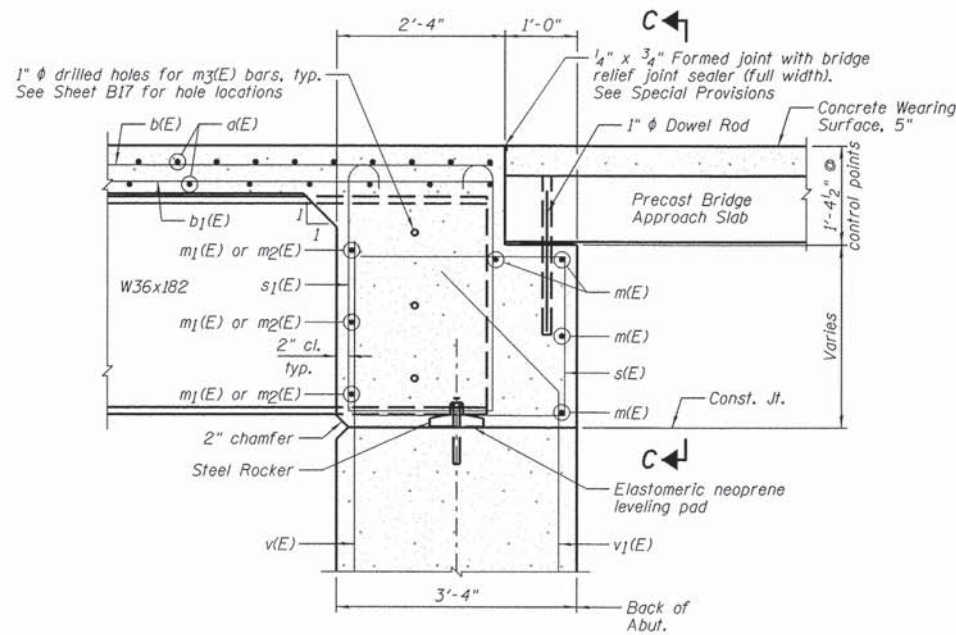
SUPERSTRUCTURE  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	1045	#5	29'-8"	—
a1(E)	1266	#6	8'-3"	⌊
b(E)	434	#5	26'-10"	—
b1(E)	360	#5	30'-11"	—
b2(E)	30	#6	44'-5"	—
b3(E)	30	#6	46'-11"	—
b4(E)	30	#6	45'-4"	—
m(E)	8	#6	29'-8"	—
m1(E)	24	#6	6'-0"	—
m2(E)	12	#6	1'-7"	—
m3(E)	30	#5	4'-0"	—
s(E)	56	#5	7'-10"	⌊
s1(E)	56	#5	10'-0"	⌊
Item	Unit	Quantity		
Concrete Superstructure	Cu. Yd.	307.6		
Bridge Deck Grooving	Sq. Yd.	1,067		
Protective Coat	Sq. Yd.	1,143		
Reinforcement Bars, Epoxy Coated	Pound	79,700		

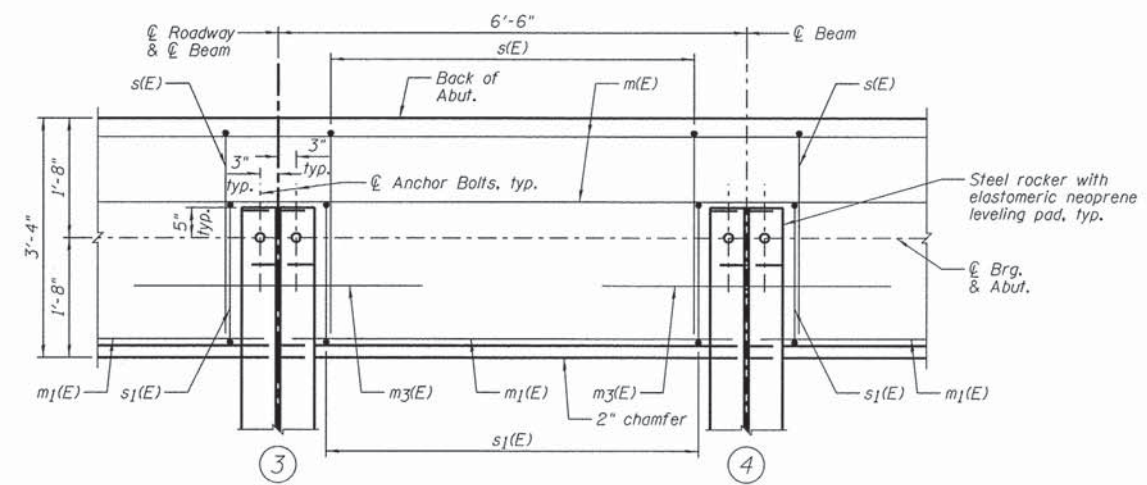


**ELEVATION OF DIAPHRAGM AT EAST ABUTMENT**

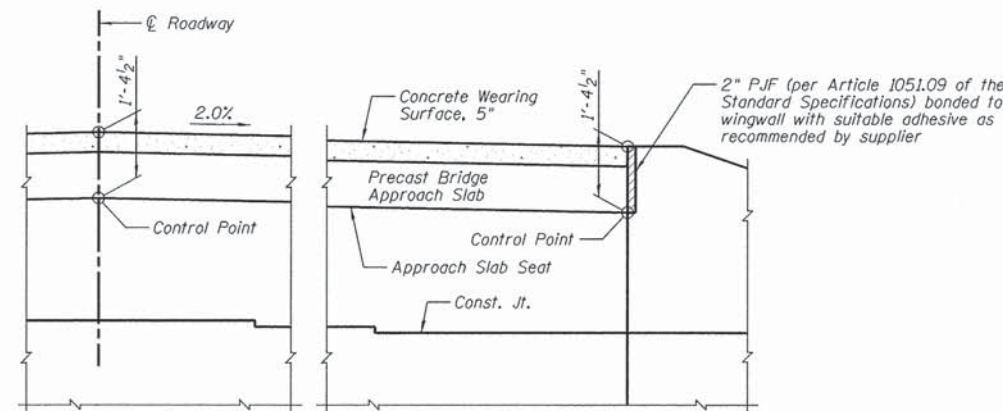
(Similar for West Abutment)



**SECTION A-A**



**SECTION B-B**

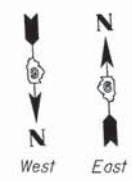
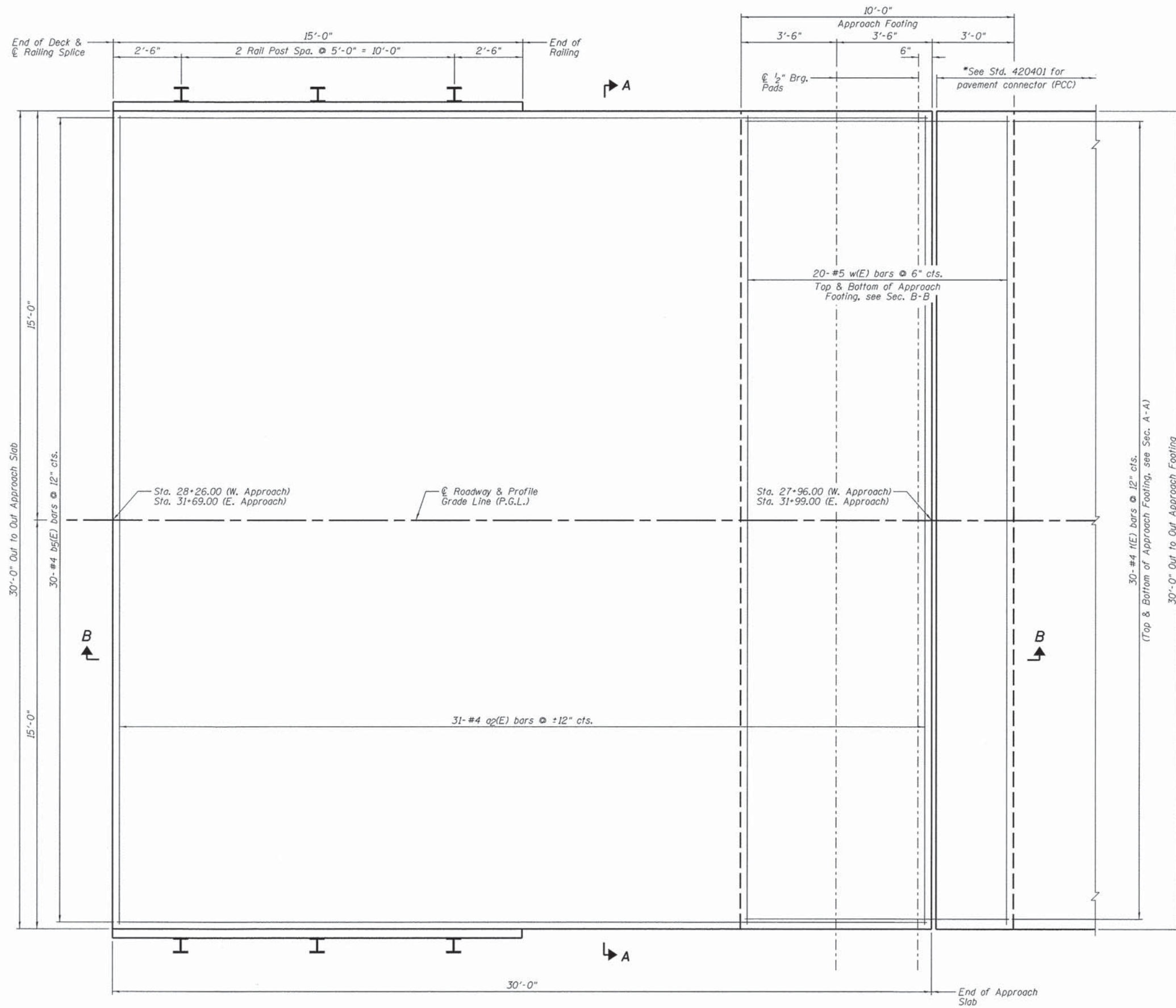


**SECTION C-C**

**NOTES:**

- 1.) Reinforcement bars in diaphragm are billed with Superstructure on Sheet B9.
- 2.) Concrete in diaphragm is included with Concrete Superstructure on Sheet B9.
- 3.) For details of bars s(E) and s1(E), see Sheet B9.
- 4.) The approach slab seat shall have a constant slope determined from the control points shown.
- 5.) For bearing details, see Sheet B19.
- 6.) F.F. denotes Front Face, B.F. denotes Back Face & E.E. denotes Each End.





**PLAN**  
 (Showing wearing surface)  
 \*See Roadway Plans for quantity.

(Sheet 1 of 4) (Beams: 36" min. width; 72" max. width)

**Farnsworth**  
 GROUP, INC.  
 2709 McGraw Drive  
 Bloomington, Illinois 61704  
 309/663-8435, 309/663-1571 fax

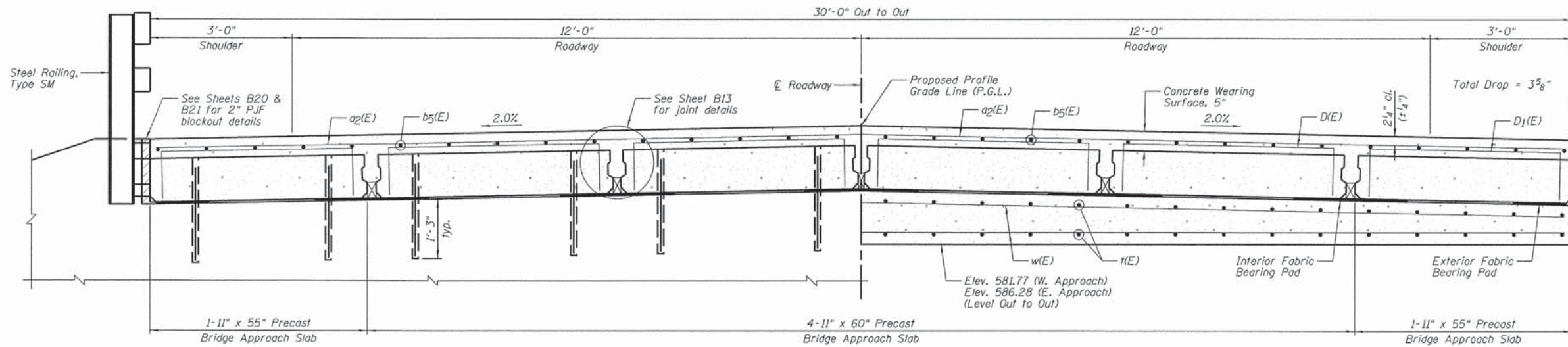
DESIGNED - JCZ	REVISED
CHECKED - JML	REVISED
DRAWN - DJM	REVISED
CHECKED - MSW	REVISED
DATE - 05/10/13	

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

**PRECAST BRIDGE APPROACH SLAB**  
**STRUCTURE NO. 011-6009**

SHEET NO. B11 OF 29 SHEETS

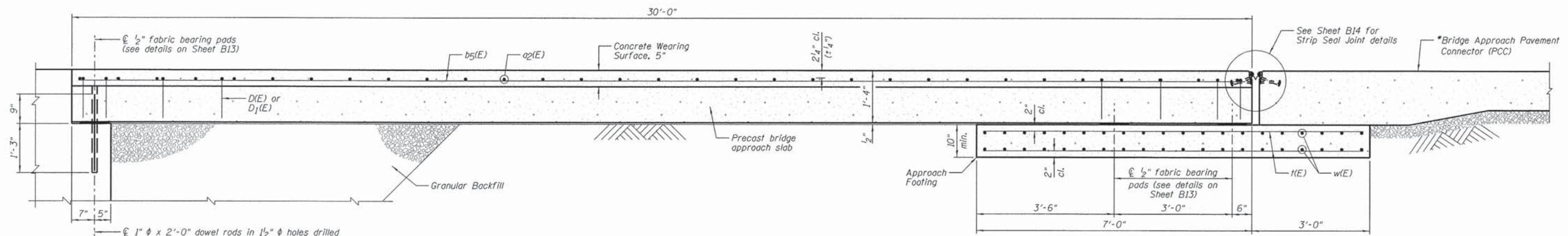
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7901	08-00058-00-BR	CHRISTIAN	47	25
<b>CONTRACT NO. 3 6 0 6</b>				
ILLINOIS FED. AID PROJECT				



NEAR ABUTMENT

AT APPROACH FOOTING

SECTION A-A

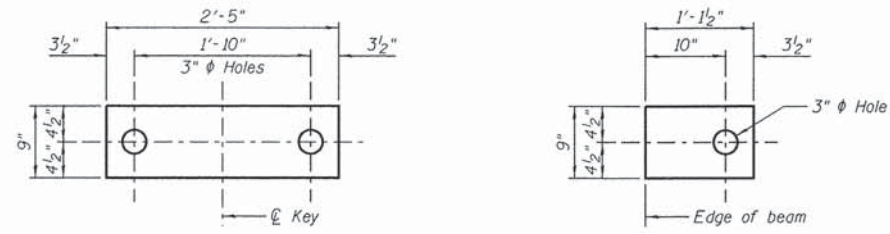


SECTION B-B

\*See Roadway Plans for quantity.

(Sheet 2 of 4) (Beams: 36" min. width; 72" max. width)

<b>Farnsworth GROUP, INC.</b> 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8436, 309/663-1571 fax	DESIGNED - JCZ	REVISED	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>PRECAST BRIDGE APPROACH SLAB</b> <b>STRUCTURE NO. 011-6009</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED - JML	REVISED			7901	08-00058-00-BR	CHRISTIAN	47	26
DATE - 05/10/13	DRAWN - DJM	REVISED	SHEET NO. B12 OF 29 SHEETS		<b>CONTRACT NO. 093606</b> ILLINOIS FED. AID PROJECT				
CHECKED - MSW	REVISED				24-8791				



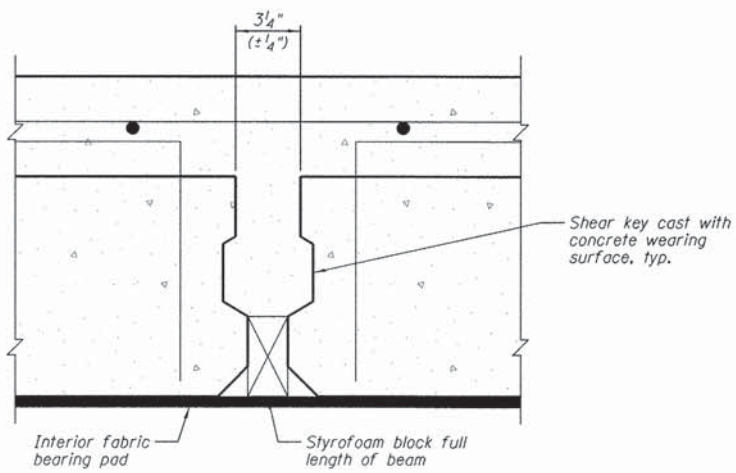
INTERIOR

EXTERIOR

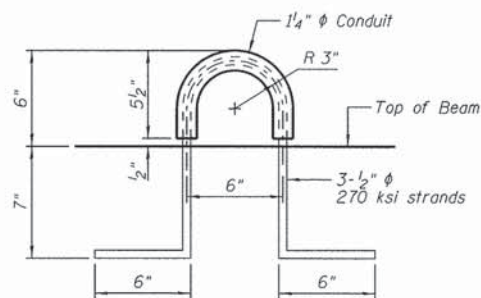
**FABRIC BEARING PAD**

NOTES:

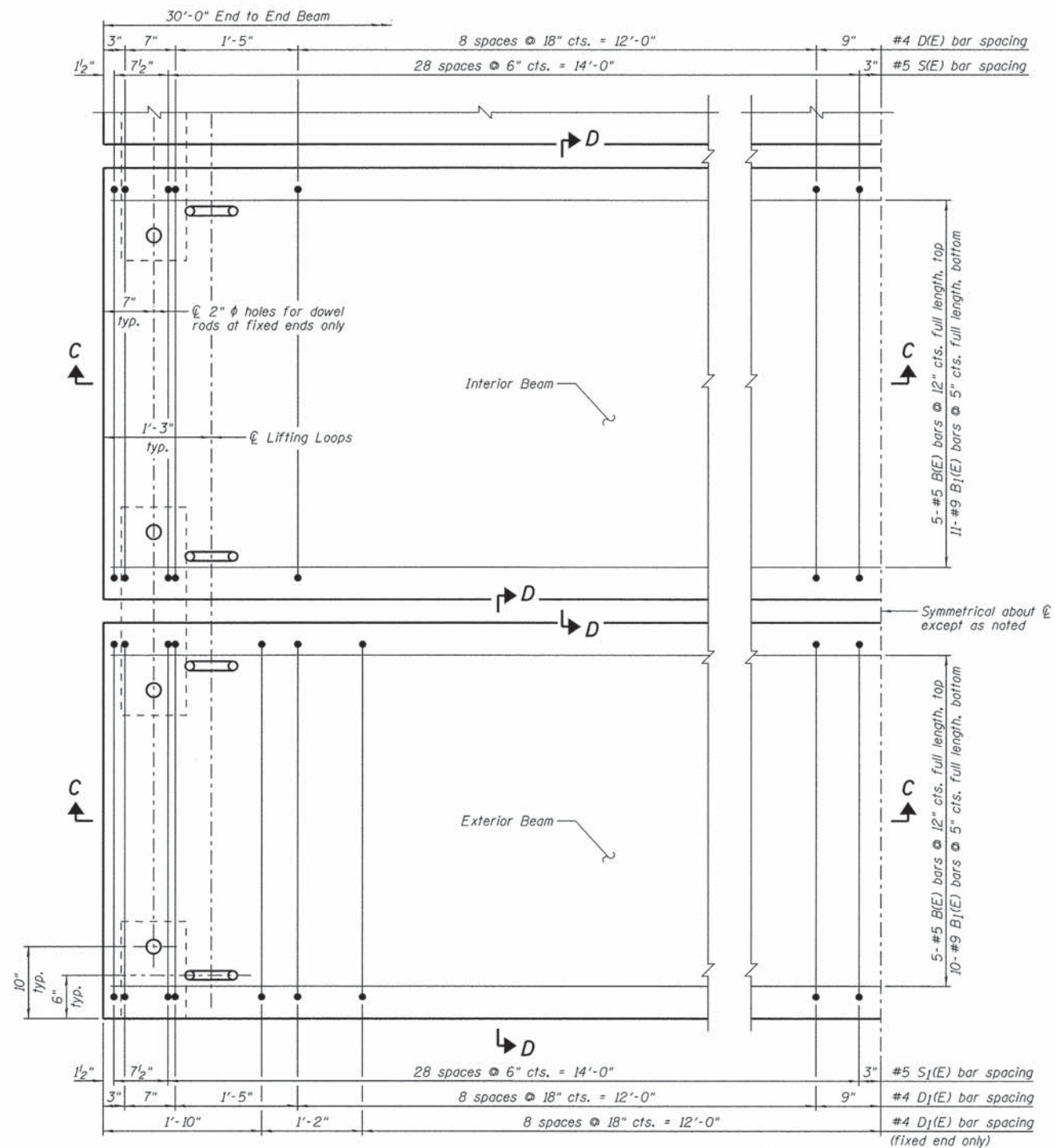
- 1.) All bearing pads shall be 1/2" thick.
- 2.) Omit holes for fabric bearing pads at approach slab footing end of beams.
- 3.) Expansion bearing pad shall be bonded to the approach slab footing.



**SECTION THRU SHEAR KEY JOINT**



**LIFTING LOOP DETAIL**



**PLAN**

(Sheet 3 of 4) (Beams: 36" min. width; 72" max. width)

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DATE - 05/10/13

DESIGNED - JCZ  
CHECKED - JML  
DRAWN - DJM  
CHECKED - MSW

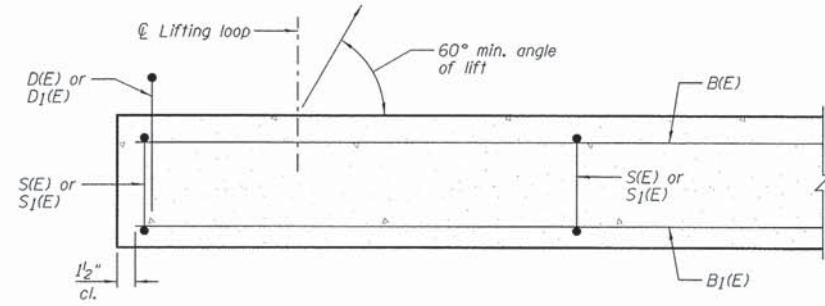
REVISED  
REVISED  
REVISED  
REVISED

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

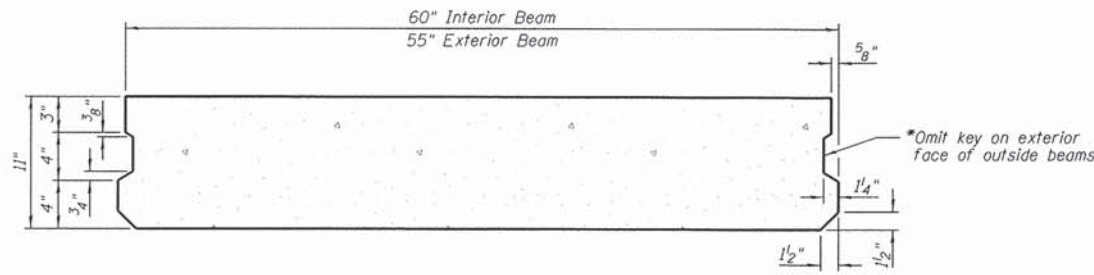
**PRECAST BRIDGE APPROACH SLAB  
STRUCTURE NO. 011-6009**

SHEET NO. B13 OF 29 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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<b>CONTRACT NO. 93606</b>				
ILLINOIS FED. AID PROJECT				

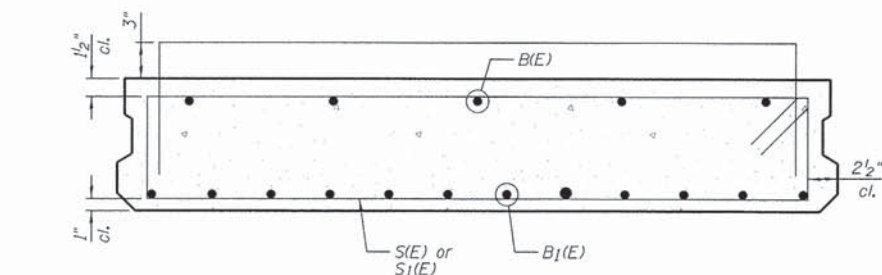


**SECTION C-C**

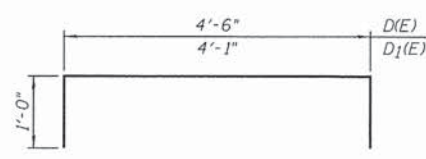


**SECTION D-D**  
(Showing dimensions)

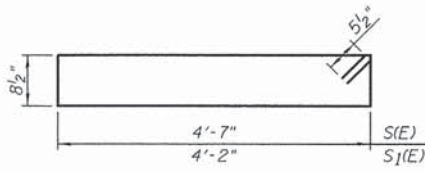
\*Rail Post Anchor Device to be cast into the exterior face of outside beams. (see Sheets B11 & B16 for location/details).



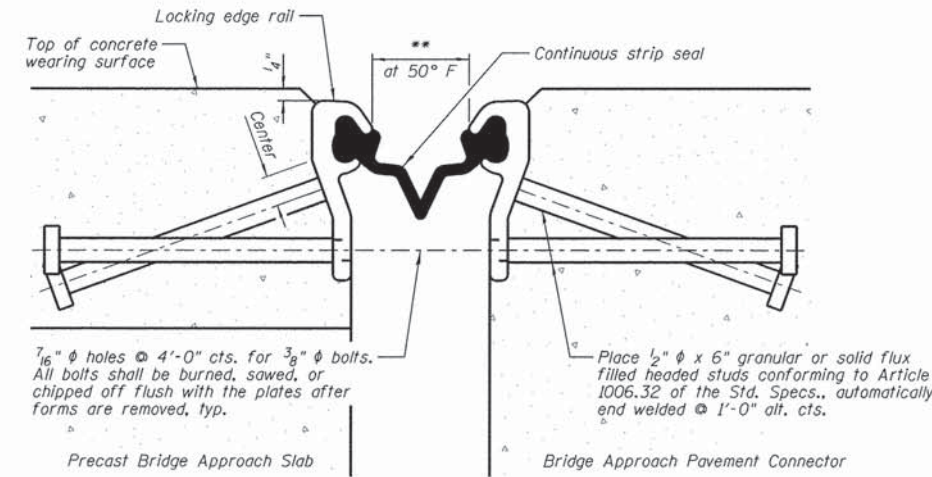
**SECTION D-D**  
(Showing reinforcement)



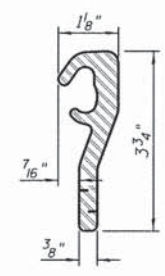
**D1(E) & D1(E) BARS**



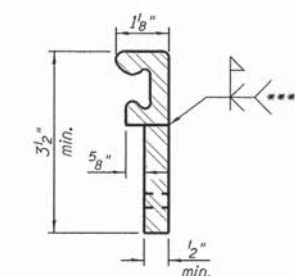
**S1(E) & S1(E) BARS**



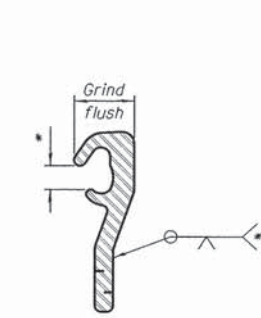
**SECTION THRU STRIP SEAL JOINT**  
(at rt. angles)



**ROLLED (EXTRUDED) RAIL**



**WELDED RAIL**



**LOCKING EDGE RAIL SPLICE**

Rolled rail shown, welded rail similar.

**LOCKING EDGE RAIL**

- \* Omit weld at seal opening.
- \*\* The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be 1 1/2" for installation purposes.
- \*\*\* Back gauge not required if complete joint penetration is verified by mock-up.

**BAR LIST**  
**EACH INTERIOR BEAM**  
(For information only)

Bar	No.	Size	Length	Shape
B1(E)	5	#5	29'-8"	—
B1(E)	11	#9	29'-8"	—
D1(E)	22	#4	6'-6"	□
S1(E)	58	#5	11'-6"	□

**BAR LIST**  
**EACH EXTERIOR BEAM**  
(For information only)

Bar	No.	Size	Length	Shape
B1(E)	5	#5	29'-8"	—
B1(E)	10	#9	29'-8"	—
D1(E)	31	#4	6'-1"	□
S1(E)	58	#5	10'-8"	□

**NOTES:**

- 1.) The precast bridge approach slab shall be according to Section 504 of the Standard Specifications and shall be paid for at the contract unit price per square foot for Precast Bridge Approach Slab.
- 2.) Cast-in-place substitution of Precast Bridge Approach Slab is not allowed.
- 3.) Wearing surface reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
- 4.) Approach footing concrete shall be paid for as Concrete Structures.
- 5.) The top surface of precast bridge approach slabs shall be roughened to a depth of 1/4" according to the IDOT "Manual for Fabrication of Precast Prestressed Concrete Products."
- 6.) After precast bridge approach slab has been erected, holes shall be drilled into abutment and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of precast slab and allowed to cure fully prior to grouting the longitudinal shear keys.
- 7.) Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location. Cost included with Precast Bridge Approach Slab.
- 8.) A minimum 2 1/2" φ lifting pins shall be used to engage the lifting loops during handling.
- 9.) Compressive strength of precast concrete, f'c shall be 6,000 psi.
- 10.) The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The strip seal shall extend 6" beyond the edge of the approach slab on each end. The configuration of the strip seal shall match the configuration of the Locking Edge Rails.
- 11.) The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.
- 12.) The inside of the Locking Edge Rail groove shall be free of weld residue.
- 13.) Locking Edge Rails may be spliced at slope discontinuities.
- 14.) The manufacturer's recommended installation methods shall be followed.
- 15.) All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

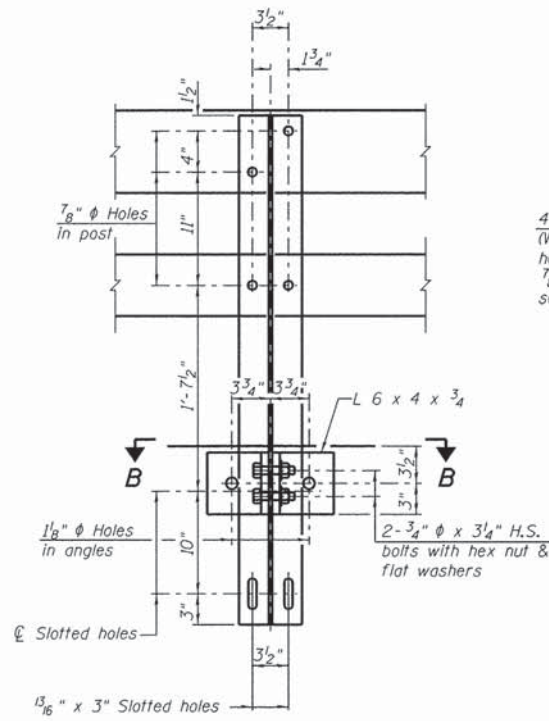
**TWO APPROACHES**  
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a2(E)	62	#4	29'-8"	—
b5(E)	60	#4	29'-8"	—
f(E)	120	#4	9'-8"	—
w(E)	80	#5	29'-8"	—

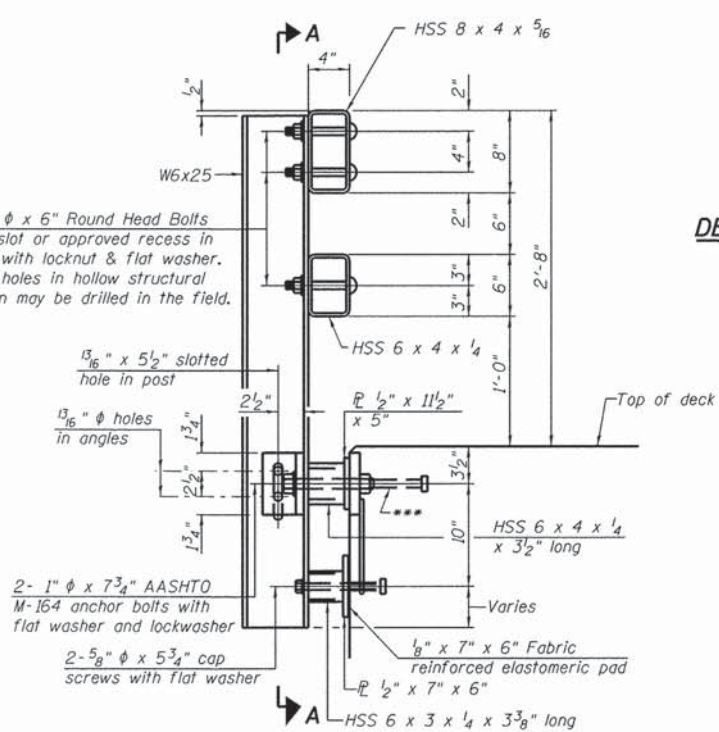
  

Item	Unit	Quantity
Concrete Structures	Cu. Yd.	20.6
Reinforcement Bars, Epoxy Coated	Pound	5,670
Preformed Joint Strip Seal	Foot	62
Concrete Wearing Surface, 5"	Sq. Yd.	200
Precast Bridge Approach Slab	Sq. Ft.	1,750

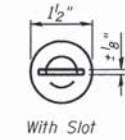
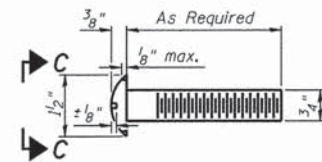
(Sheet 4 of 4) (Beams: 36" min. width; 72" max. width)



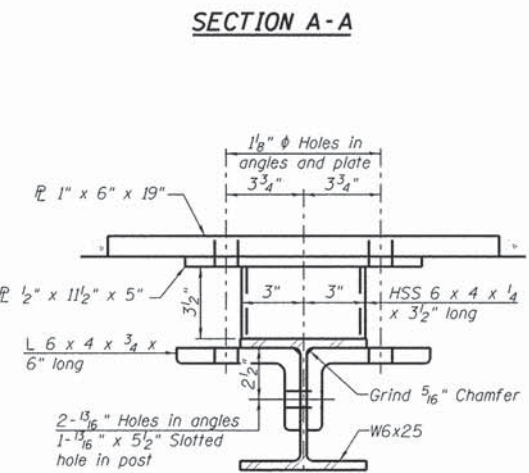
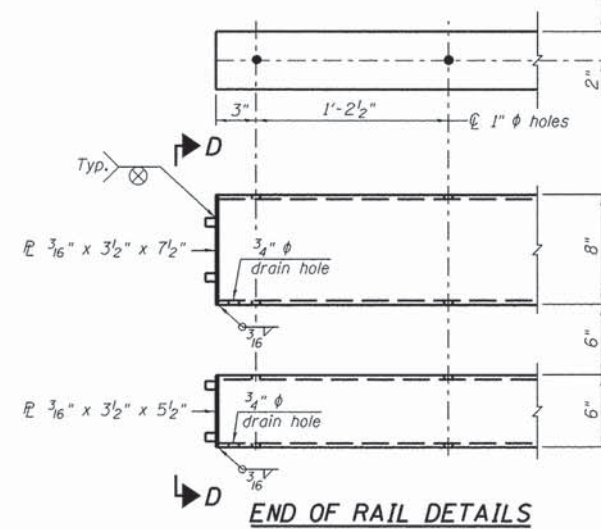
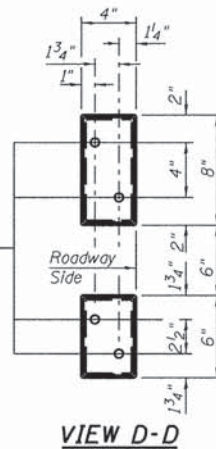
4- 3/4" φ x 6" Round Head Bolts  
(With slot or approved recess in head) with locknut & flat washer.  
7/8" φ holes in hollow structural section may be drilled in the field.



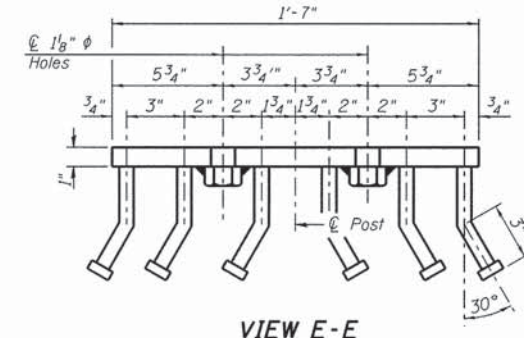
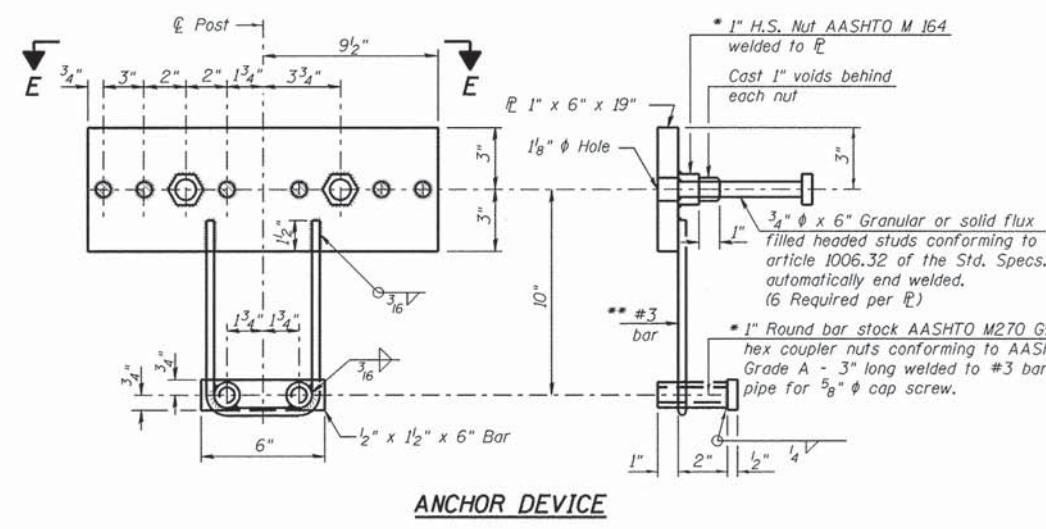
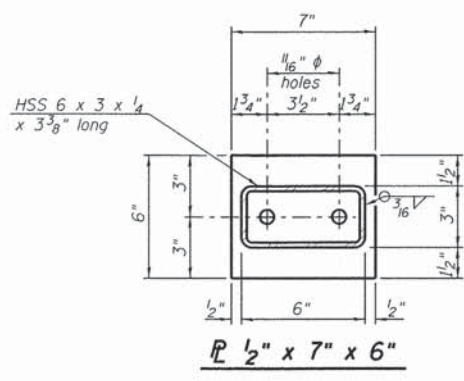
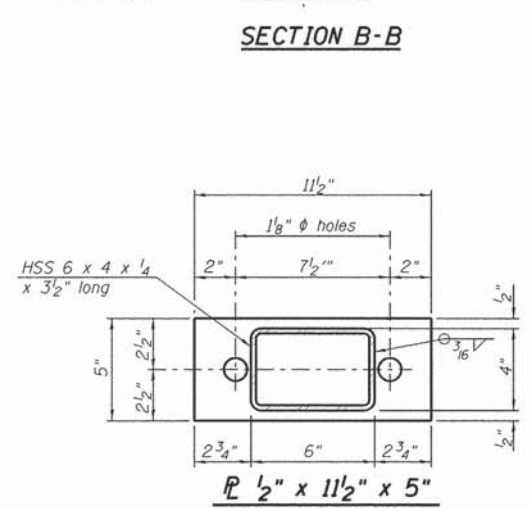
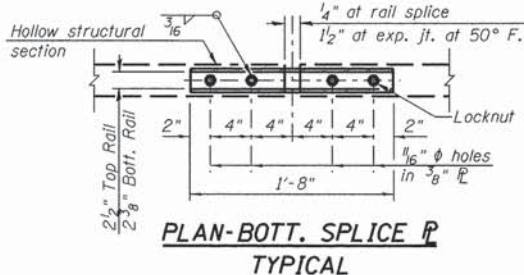
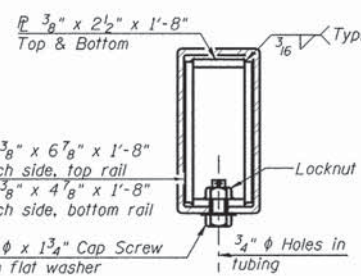
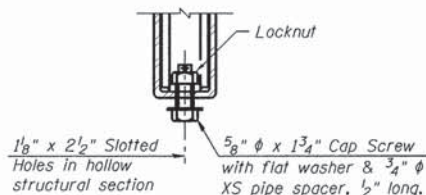
DETAIL OF 3/4" φ ROUND HEAD BOLT



5/8" reduced base welded studs. Provide 4- 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 6310.32.



RAIL SPLICE CONNECTION AT EXPANSION JT.



(6'-3" Maximum Post Spacing)

Farnsworth GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-9435, 309/663-1571 fax

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DRAWN - DJM  
DATE - 05/10/13

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REVIS  
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CHECKED - JML  
DRAWN - DJM  
DATE - 05/10/13

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STEEL RAILING, TYPE SM (ON BRIDGE DECK)  
STRUCTURE NO. 011-6009  
SHEET NO. B15 OF 29 SHEETS

BILL OF MATERIAL

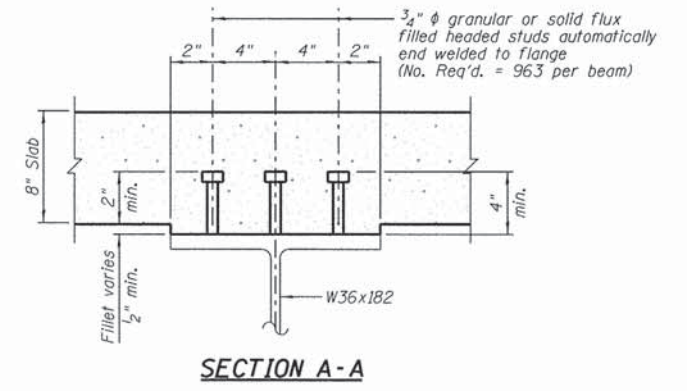
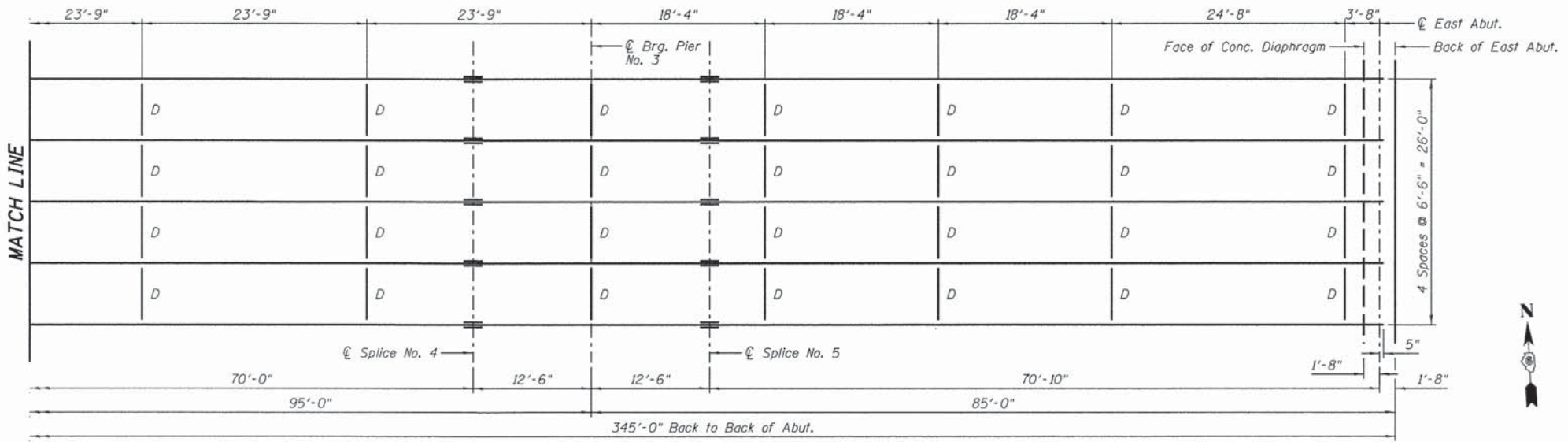
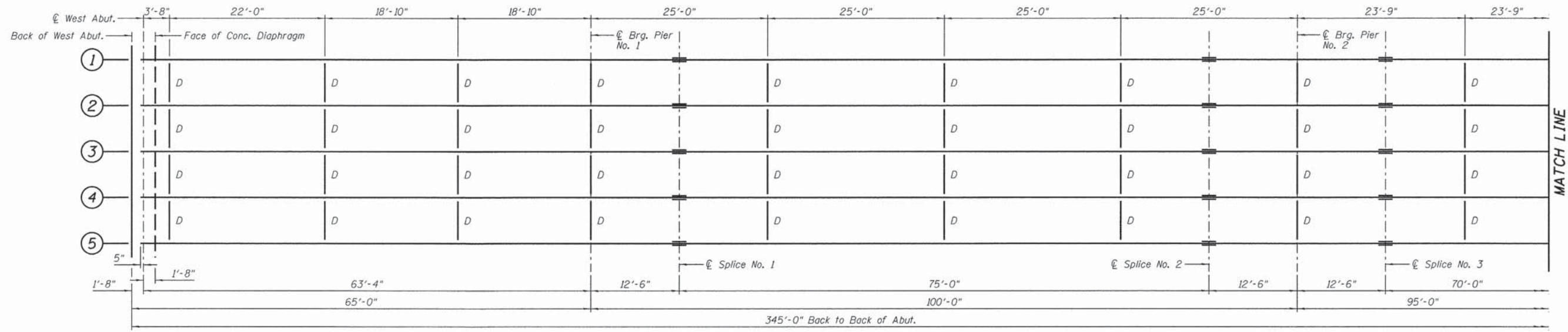
Item	Unit	Quantity
Steel Railing, Type SM	Foot	686

Notes:  
All field drilled holes shall be coated with an approved zinc rich paint before erection.  
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM.  
All steel rail members shall be galvanized according to Article 509.05 of the Standard Specifications.  
\* Threaded areas shall be plugged or blocked off during casting of the deck. Galvanized after fabrication.  
\*\* Whenever the lower insert assemblies interfere with reinforcement locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".  
\*\*\* The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

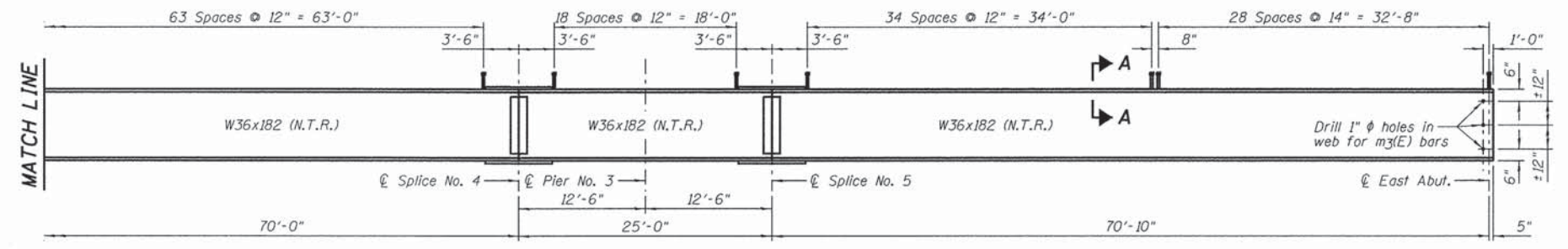
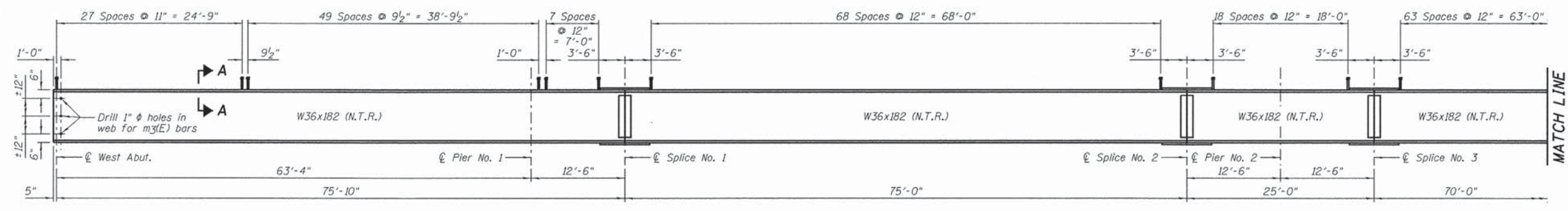
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7901	08-00058-00-BR	CHRISTIAN	47	29

CONTRACT NO. 9 3 6 0 6  
ILLINOIS FED. AID PROJECT





PLAN



ELEVATION

- NOTES:**
- 1.) See Sheet B18 for Splice Details and Diaphragm Details.
  - 2.) All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
  - 3.) Load carrying components designated "N.T.R." shall conform to the impact Testing Requirement, Zone 2.

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1971 fax

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DATE - 05/10/13

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**STRUCTURAL STEEL  
STRUCTURE NO. 011-6009**  
SHEET NO. B17 OF 29 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7901	08-00058-00-BR	CHRISTIAN	47	31
<b>CONTRACT NO. 9 3 6 0 6</b>				
ILLINOIS FED. AID PROJECT				

INTERIOR BEAM MOMENT TABLE								
		0.4 Sp. 1	Pier No. 1	0.5 Sp. 2	Pier No. 2	0.5 Sp. 3	Pier No. 3	0.6 Sp. 4
$I_s$	(in <sup>4</sup> )	11,300	11,300	11,300	11,300	11,300	11,300	11,300
$I_c(n)$	(in <sup>4</sup> )	28,948	28,948	28,948	28,948	28,948	28,948	28,948
$I_c(3n)$	(in <sup>4</sup> )	21,266	21,266	21,266	21,266	21,266	21,266	21,266
$I_c(cr)$	(in <sup>4</sup> )		14,387		14,387		14,387	
$S_s$	(in <sup>3</sup> )	623	623	623	623	623	623	623
$S_c(n)$	(in <sup>3</sup> )	896	896	896	896	896	896	896
$S_c(3n)$	(in <sup>3</sup> )	811	811	811	811	811	811	811
$S_c(cr)$	(in <sup>3</sup> )		695		695		695	
DC1	(k/')	0.866	0.866	0.866	0.866	0.866	0.866	0.866
M <sub>DC1</sub>	(k)	173	608	428	700	289	676	451
DC2	(k/')	0.040	0.040	0.040	0.040	0.040	0.040	0.040
M <sub>DC2</sub>	(k)	8	28	19	33	13	32	21
DW	(k/')	0.150	0.150	0.150	0.150	0.150	0.150	0.150
M <sub>DW</sub>	(k)	30	106	73	122	49	118	78
M <sub>k + IM</sub>	(k)	735	934	939	1,040	914	1,015	996
M <sub>u</sub> (Strength I)	(k)	1,558	2,589	2,312	2,919	2,051	2,838	2,450
$\phi_r M_n$	(k)	4,727	3,321	4,535	3,122	4,640	3,178	4,517
$f_s$ DC1	(ksi)	3.3	11.7	8.2	13.5	5.6	13.0	8.7
$f_s$ DC2	(ksi)	0.1	0.5	0.3	0.6	0.2	0.6	0.3
$f_s$ DW	(ksi)	0.4	1.8	1.1	2.1	0.7	2.0	1.2
$f_s$ (k + IM)	(ksi)	9.8	16.1	12.6	18.0	12.2	17.5	13.3
$f_s$ (Service II)	(ksi)	16.7	35.0	26.0	39.5	22.4	38.4	27.5
0.95R <sub>n</sub> F <sub>y</sub> r	(ksi)	47.5	47.5	47.5	47.5	47.5	47.5	47.5
$f_s$ (Total Strength I)	(ksi)	22.2	46.2	34.3	52.2	29.7	50.7	36.3
$\phi_r F_n$	(ksi)							
V <sub>r</sub>	(k)	33.0	39.7	39.7	37.5	37.9	37.9	35.3

INTERIOR BEAM REACTION TABLE					
	W. Abut.	Pier 1	Pier 2	Pier 3	E. Abut.
R <sub>DC1</sub> (k)	18.6	79.4	85.6	85.1	28.8
R <sub>DC2</sub> (k)	0.8	3.7	4.0	3.9	1.3
R <sub>DW</sub> (k)	3.1	13.8	14.8	14.8	4.8
R <sub>k + IM</sub> (k)	69.7	122.4	131.3	128.9	75.6
R <sub>Total</sub> (k)	92.2	219.3	235.7	232.7	110.5

FABRICATED TOP OF BEAM ELEVATION TABLE					
Location	Beam No. 1	Beam No. 2	Beam No. 3	Beam No. 4	Beam No. 5
℄ Brg. W. Abut.	583.60	583.73	583.86	583.73	583.60
℄ Pier No. 1	584.26	584.39	584.52	584.39	584.26
℄ Splice No. 1	584.38	584.51	584.64	584.51	584.38
℄ Splice No. 2	585.20	585.33	585.46	585.33	585.20
℄ Pier No. 2	585.33	585.46	585.59	585.46	585.33
℄ Splice No. 3	585.46	585.59	585.72	585.59	585.46
℄ Splice No. 4	586.23	586.36	586.49	586.36	586.23
℄ Pier No. 3	586.38	586.51	586.64	586.51	586.38
℄ Splice No. 5	586.52	586.65	586.78	586.65	586.52
℄ Brg. E. Abut.	587.36	587.49	587.62	587.49	587.36

For fabrication use only.

$I_s, S_s$ : Non-composite moment of inertia and section modulus of the steel section used for computing  $f_s$  (Total-Strength I, and Service II) due to non-composite dead loads (in<sup>4</sup> and in<sup>3</sup>).

$I_c(n), S_c(n)$ : Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing  $f_s$  (Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in<sup>4</sup> and in<sup>3</sup>).

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

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

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

M<sub>DC1</sub>: Un-factored moment due to non-composite dead load (kip-ft.).

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

M<sub>DC2</sub>: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

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

M<sub>DW</sub>: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M<sub>k + IM</sub>: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M<sub>u</sub> (Strength I): Factored design moment (kip-ft.).

1.25 (M<sub>DC1</sub> + M<sub>DC2</sub>) + 1.5 M<sub>DW</sub> + 1.75 M<sub>k + IM</sub>

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

$f_s$  DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).

M<sub>DC1</sub> / S<sub>nc</sub>

$f_s$  DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).

M<sub>DC2</sub> / S<sub>c(3n)</sub> or M<sub>DC2</sub> / S<sub>c(cr)</sub> as applicable.

$f_s$  DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).

M<sub>DW</sub> / S<sub>c(3n)</sub> or M<sub>DW</sub> / S<sub>c(cr)</sub> as applicable.

$f_s$  (k + IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).

M<sub>k + IM</sub> / S<sub>c(n)</sub> or M<sub>DW</sub> / S<sub>c(cr)</sub> as applicable.

$f_s$  (Service II): Sum of stresses as computed below (ksi).

$f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3 f_s (k + IM)$

0.95R<sub>n</sub>F<sub>y</sub>r: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

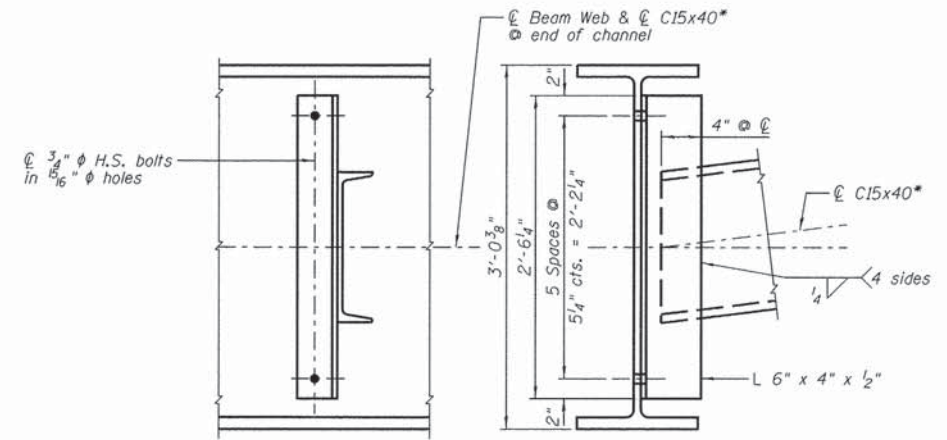
$f_s$  (Total Strength I): Sum of stresses as computed below on non-compact section (ksi).

1.25 (f<sub>sDC1</sub> + f<sub>sDC2</sub>) + 1.5 f<sub>sDW</sub> + 1.75 f<sub>s (k + IM)</sub>

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

V<sub>r</sub>: Maximum factored shear range in span computed according to Article 6.10.10.

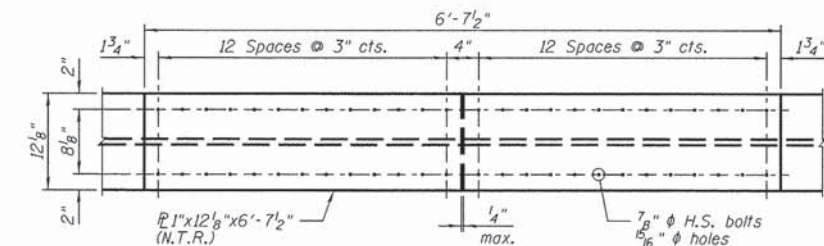
Note:  
M<sub>k</sub> and R<sub>k</sub> include the effects of centrifugal force and superelevation.



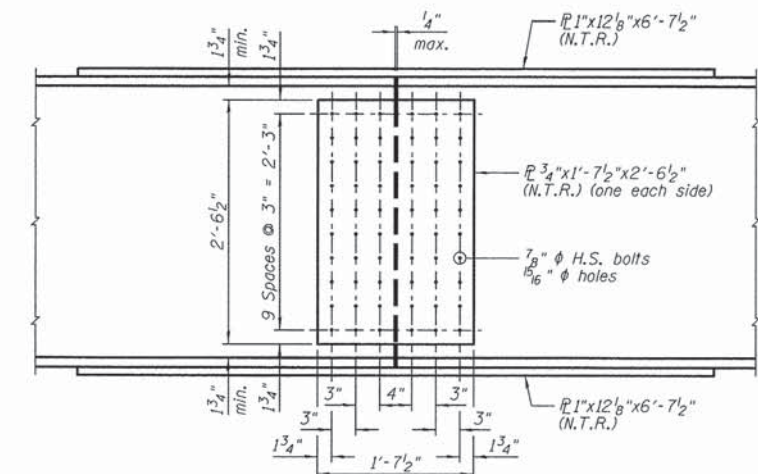
**DIAPHRAGM D**  
(64 - Required)

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

\*Alternate channels, C15x50, are permitted to facilitate material acquisition. Calculated weight of structural steel is based on C15x40 section. The C15x50, if utilized, shall be provided at no extra cost to the department.



**TOP AND BOTTOM FLANGE**



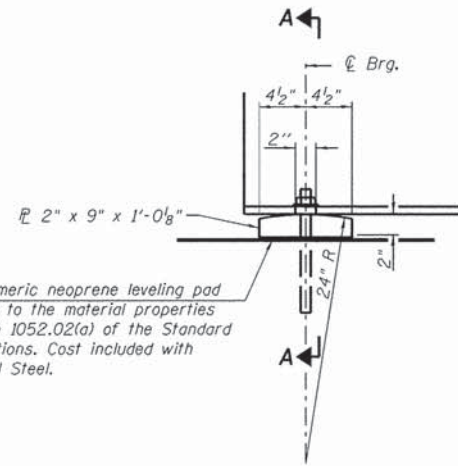
**WEB**

**SPLICE DETAILS**  
(25 - Required)

**NOTES:**

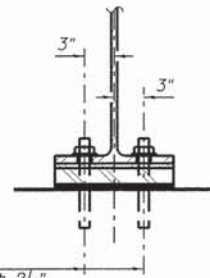
- See Sheet B17 for Splice and Diaphragm Locations.
- All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
- Load carrying components designated "N.T.R." shall conform to the impact Testing Requirement, Zone 2.





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.

1"  $\phi$  x 12" anchor bolts (ASTM F1554 Grade 36) with 2 1/4" x 2 1/4" x 5/16"  $\phi$  washer under nut. 1 3/8" x 2" slotted hole in flange. 1 1/2"  $\phi$  holes in bearing plate.

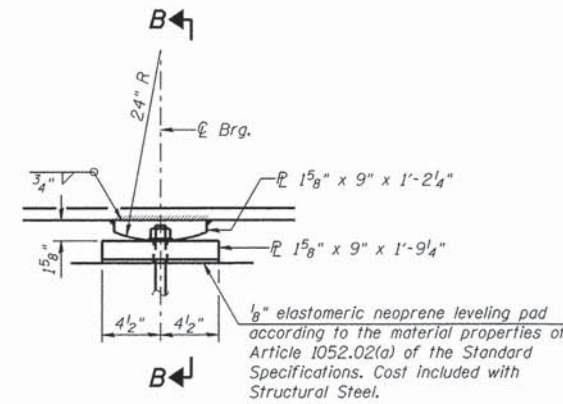


SECTION A-A

ELEVATION AT ABUTMENTS

**FIXED BEARING**

(At West Abutment - 5)  
(At East Abutment - 5)

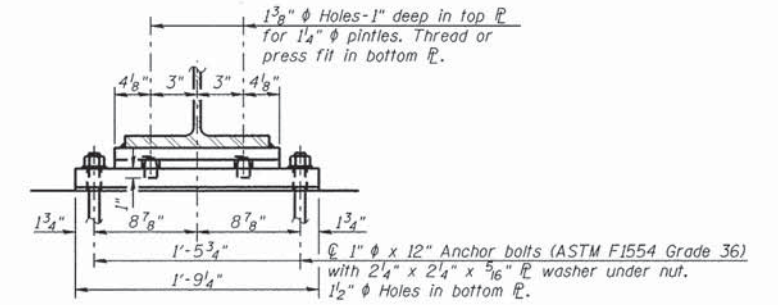


1/8" elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with Structural Steel.

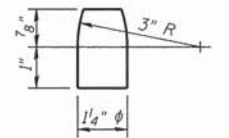
ELEVATION AT PIERS

**FIXED BEARING**

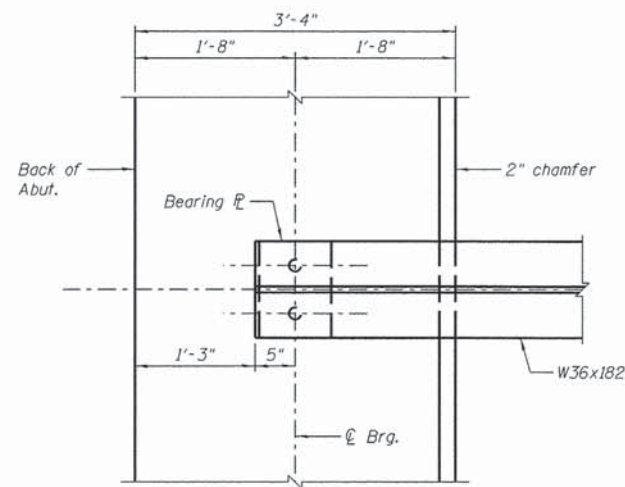
(At Pier No. 1 - 5)  
(At Pier No. 2 - 5)  
(At Pier No. 3 - 5)



SECTION B-B

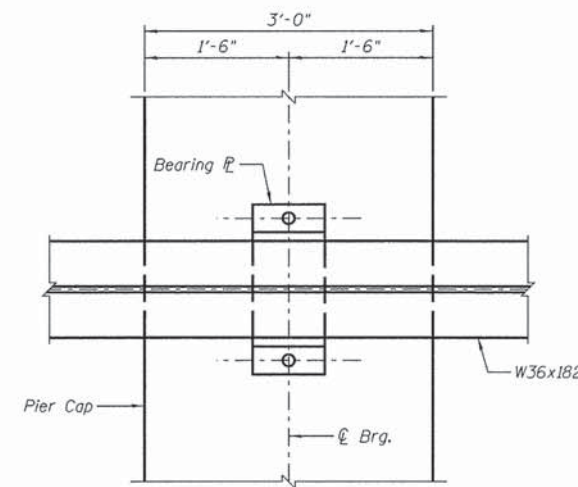


PINTLE



BEARING PLAN AT ABUTMENTS

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



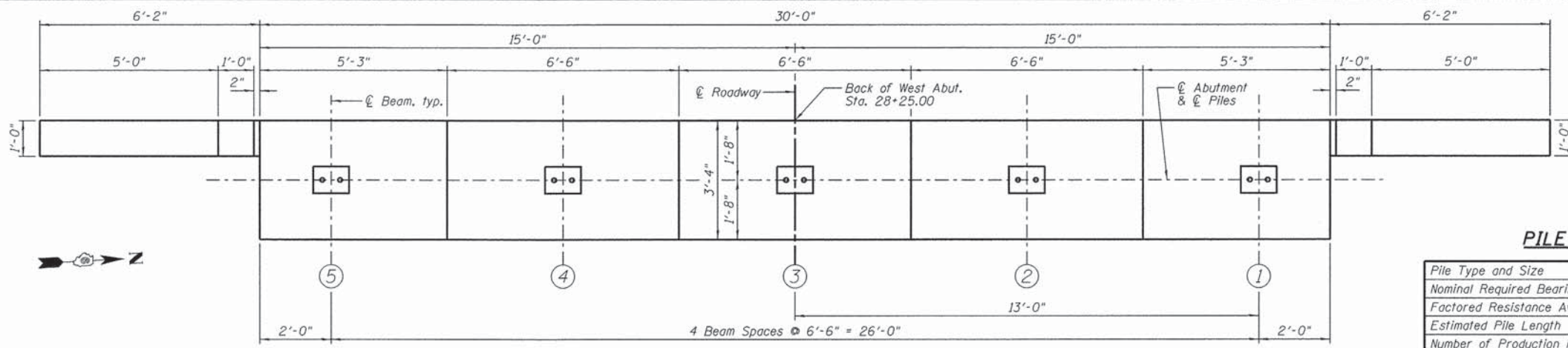
BEARING PLAN AT PIERS

**BILL OF MATERIAL**

Item	Unit	Total
Anchor Bolts, 1"	Each	50

**NOTES:**

- 1.) The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50W.
- 2.) Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.



TOP VIEW ABUTMENT (SHOWING BEARING SEAT)

PILE DATA:

Pile Type and Size	Steel - HP14x117
Nominal Required Bearing	440 kips
Factored Resistance Available	242 kips
Estimated Pile Length	47 Feet
Number of Production Piles	4
Number of Test Piles	1

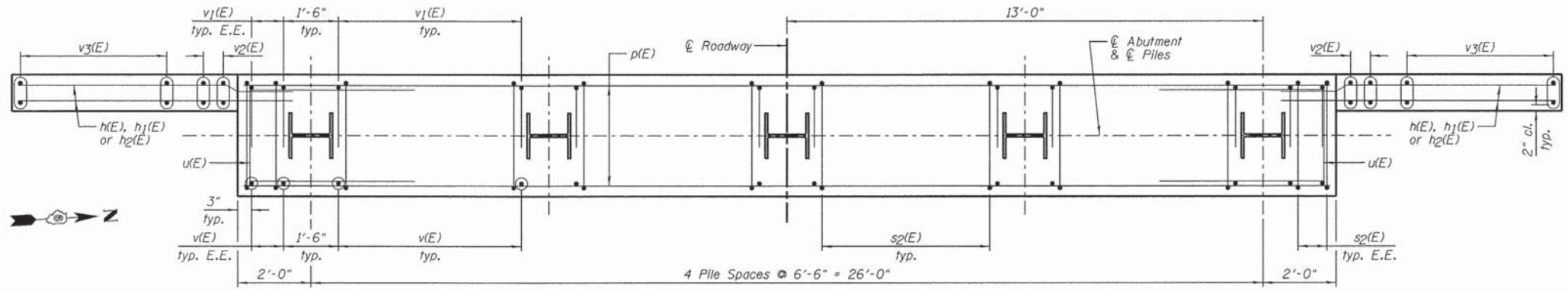
WEST ABUTMENT  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	32	#5	7'-6"	—
h1(E)	4	#5	7'-0"	—
h2(E)	4	#5	5'-7"	—
p(E)	12	#7	29'-8"	—
sp2(E)	28	#5	14'-1"	□
s3(E)	20	#5	4'-0"	□
sp(E)	5	#4	2'-0"	WWWM
u(E)	8	#6	11'-10"	□
v(E)	32	#8	6'-5"	—
v1(E)	32	#8	6'-8"	—
v2(E)	8	#5	7'-6"	—
v3(E)	10	#5	13'-1"	—

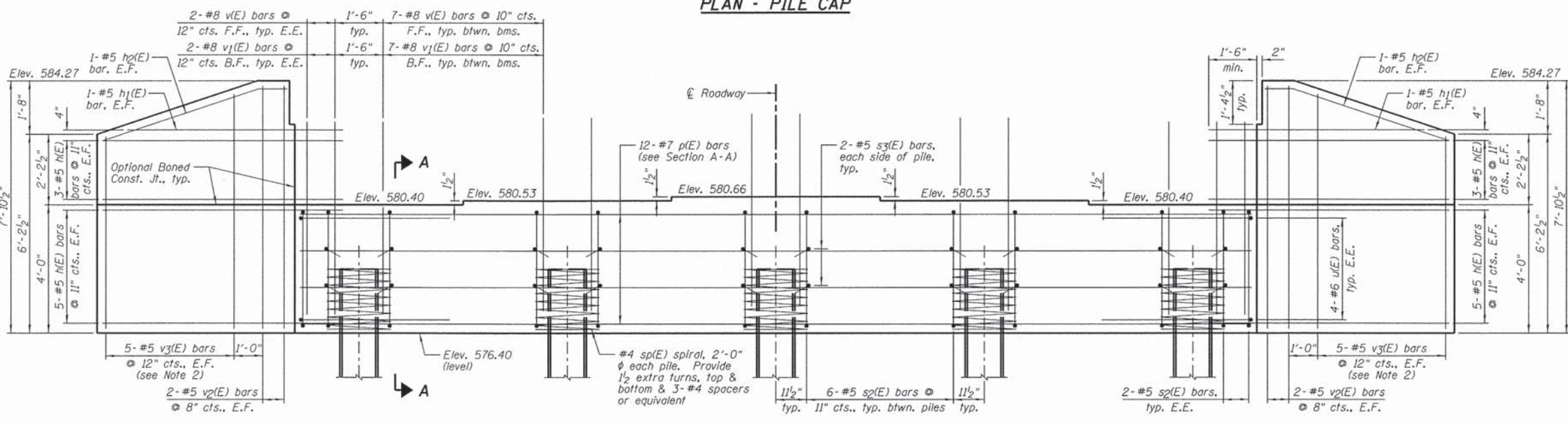
  

Item	Unit	Quantity
Structure Excavation	Cu. Yd.	53
Concrete Structures	Cu. Yd.	18.5
Reinforcement Bars, Epoxy Coated	Pound	3,220
Furnishing Steel Piles HP14x117	Foot	188
Driving Piles	Foot	188
Test Pile Steel HP14x117	Each	1
Geocomposite Wall Drain	Sq. Yd.	28
Pipe Underdrains for Structures 4"	Foot	85
Granular Backfill for Structures	Cu. Yd.	47

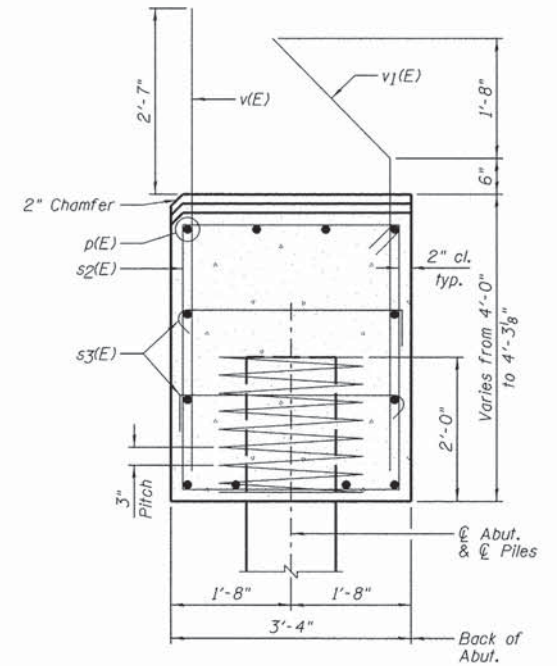
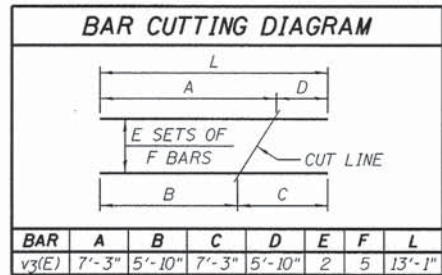
\*Length is height of spiral.



PLAN - PILE CAP



ELEVATION (Looking West)



NOTES:

- 1.) Pour steps monolithically with cap.
- 2.) Order v3(E) bars full length. Cut according to Bar Cutting Diagram. Use remainder of bars in opposite face of wingwall.
- 3.) Bend or cut h(E) bars to miss piles.
- 4.) E.E. denotes Each End, F.F. denotes Front Face, B.F. denotes Back Face and E.F. denotes Each Face.

Farnsworth GROUP, INC.  
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CHECKED - JML  
DRAWN - DJM  
CHECKED - MSW

DATE - 05/10/13

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT  
STRUCTURE NO. 011-6009  
SHEET NO. B20 OF 29 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7901	08-00058-00-BR	CHRISTIAN	47	34

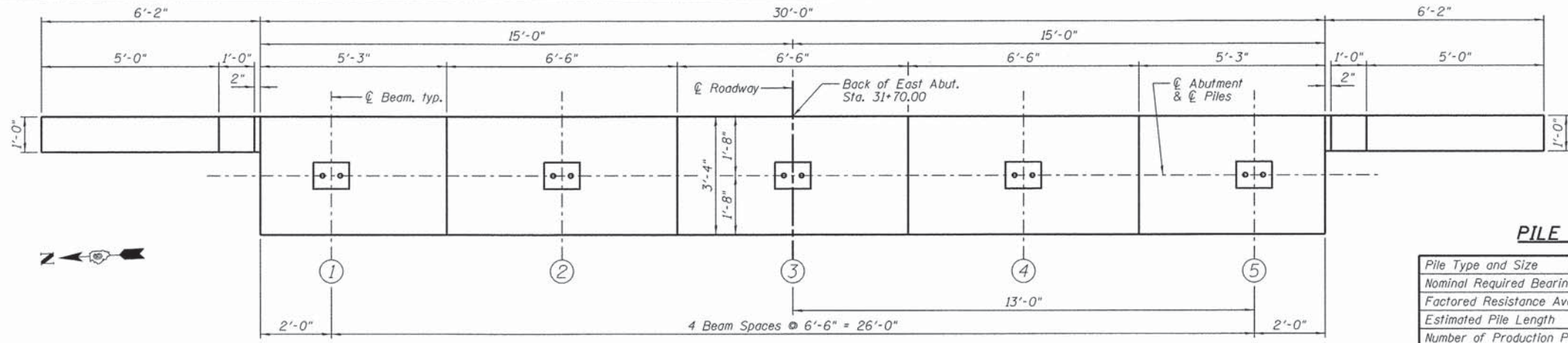
CONTRACT NO. 9 3 6 0 6  
ILLINOIS FED. AID PROJECT

**EAST ABUTMENT  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
n(E)	32	#5	7'-6"	—
h1(E)	4	#5	7'-0"	—
h2(E)	4	#5	5'-7"	—
p(E)	12	#7	29'-8"	—
sp(E)	28	#5	14'-1"	□
s3(E)	20	#5	4'-0"	—
sp(E)	5	#4	2'-0"	WWWW
u(E)	8	#6	11'-10"	—
v(E)	32	#8	6'-5"	—
v1(E)	32	#8	6'-8"	—
v2(E)	8	#5	7'-6"	—
v3(E)	10	#5	13'-1"	—

Item	Unit	Quantity
Structure Excavation	Cu. Yd.	54
Concrete Structures	Cu. Yd.	18.5
Reinforcement Bars, Epoxy Coated	Pound	3,220
Furnishing Steel Piles HP14x117	Foot	208
Driving Piles	Foot	208
Test Pile Steel HP14x117	Each	1
Geocomposite Wall Drain	Sq. Yd.	28
Pipe Underdrains for Structures 4"	Foot	85
Granular Backfill for Structures	Cu. Yd.	47

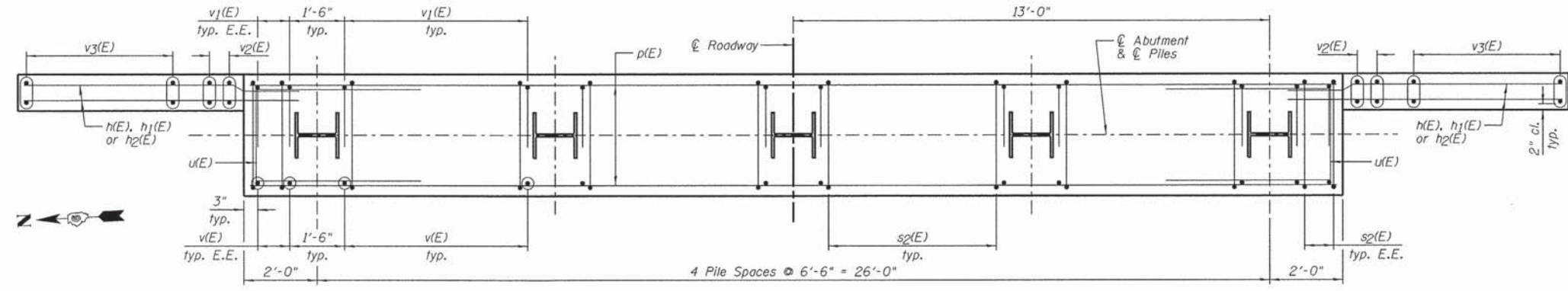
\*Length is height of spiral.



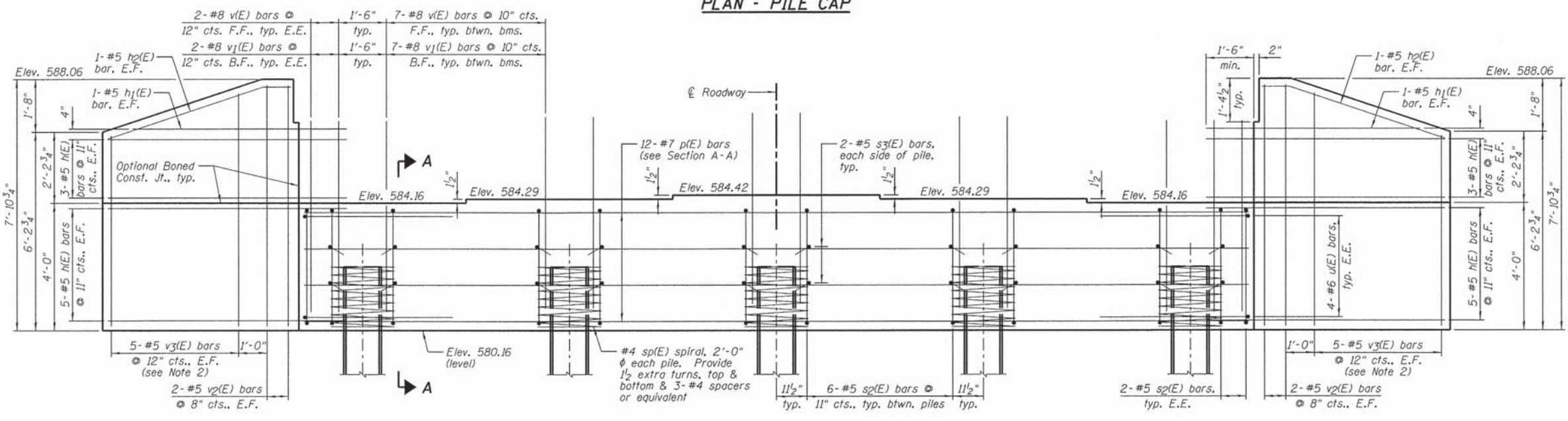
**PILE DATA:**

Pile Type and Size	Steel - HP14x117
Nominal Required Bearing	475 kips
Factored Resistance Available	261 kips
Estimated Pile Length	52 Feet
Number of Production Piles	4
Number of Test Piles	1

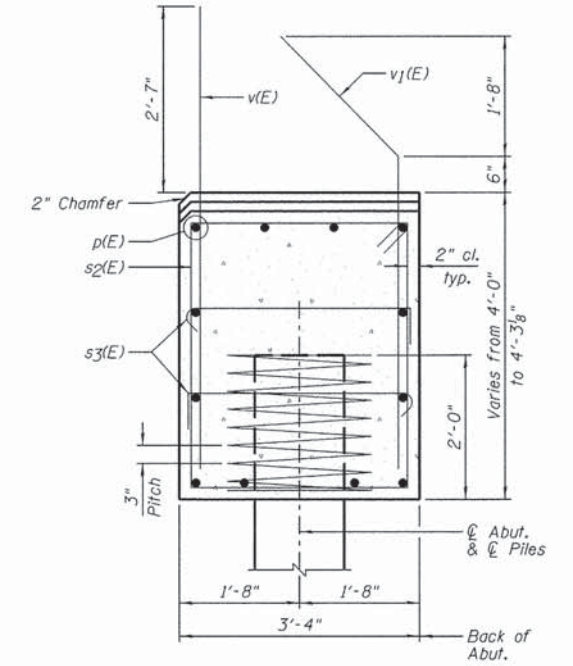
**TOP VIEW ABUTMENT (SHOWING BEARING SEAT)**



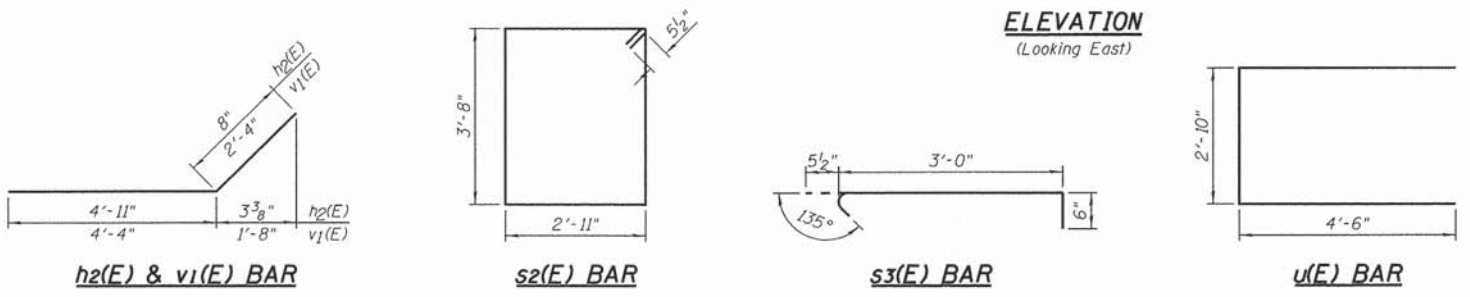
**PLAN - PILE CAP**



**ELEVATION  
(Looking East)**



**SECTION A-A**

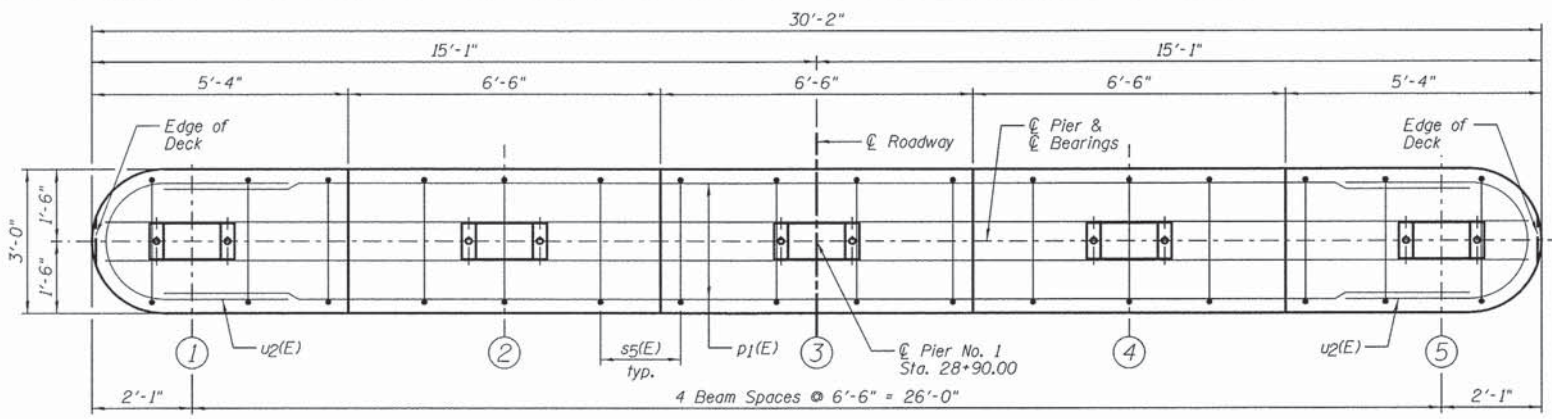


**BAR CUTTING DIAGRAM**

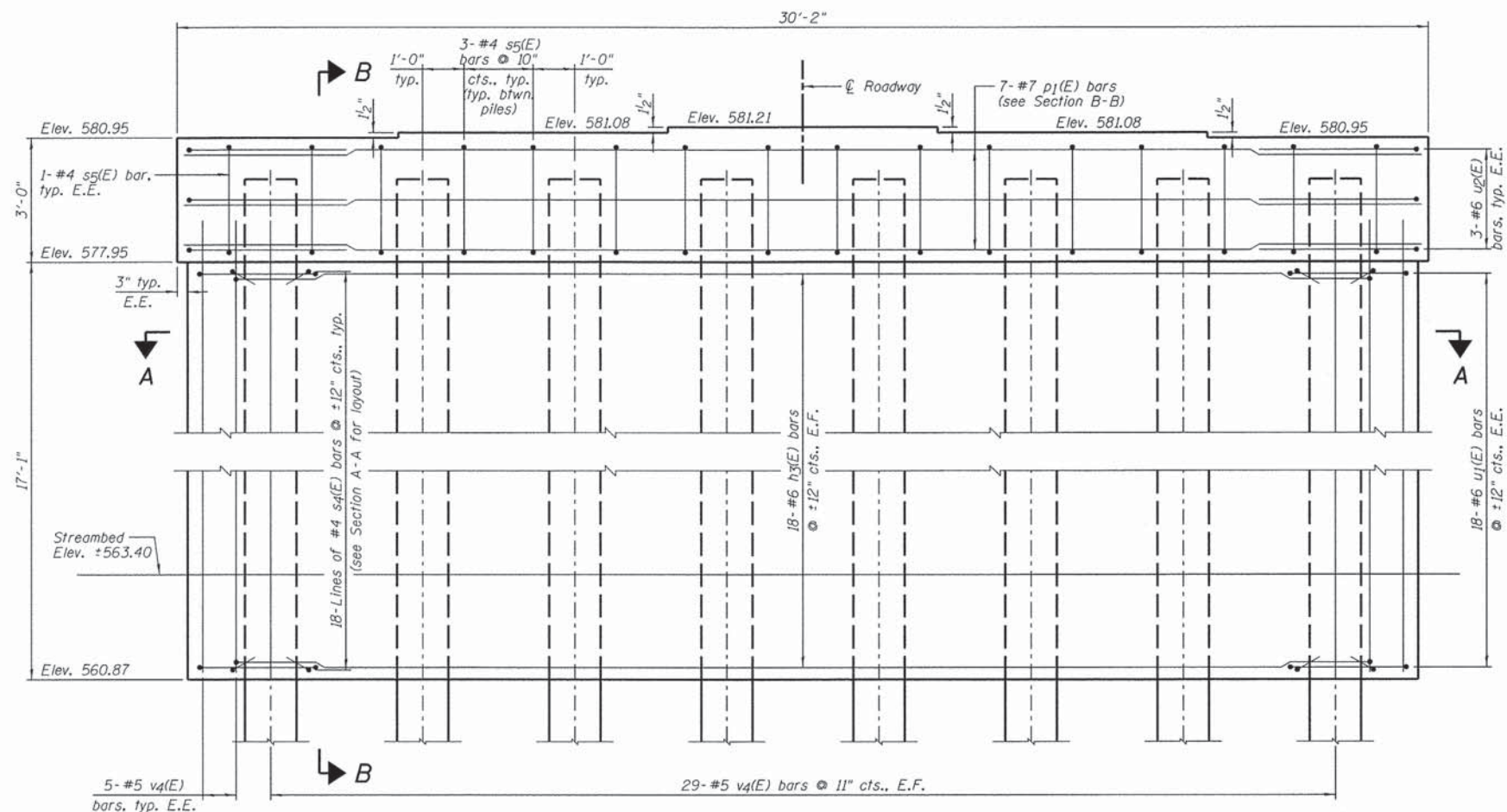
BAR	A	B	C	D	E	F	L
v3(E)	7'-3"	5'-10"	7'-3"	5'-10"	2	5	13'-1"

**NOTES:**

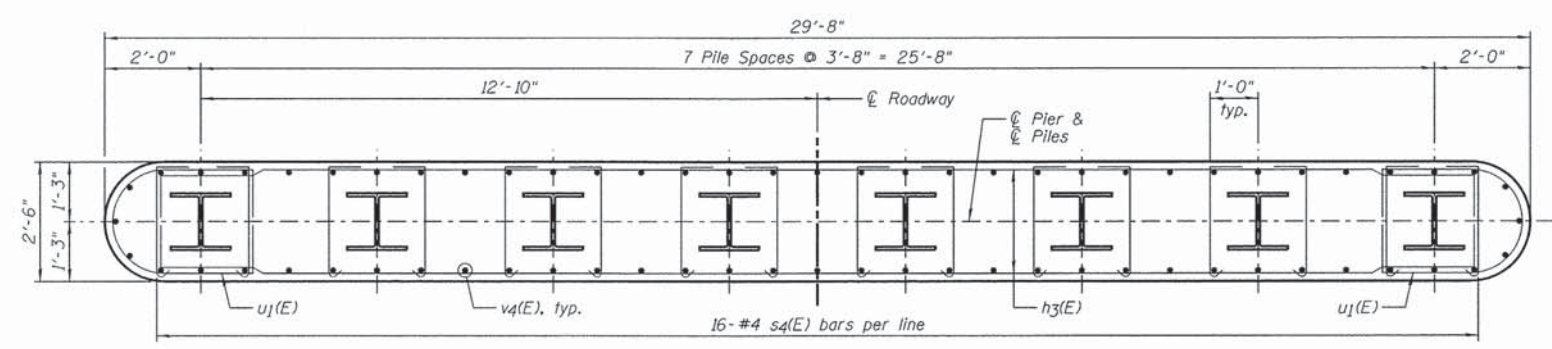
- 1.) Four steps monolithically with cap.
- 2.) Order v3(E) bars full length. Cut according to Bar Cutting Diagram. Use remainder of bars in opposite face of wingwall.
- 3.) Bend or cut n(E) bars to miss piles.
- 4.) E.E. denotes Each End, F.F. denotes Front Face, B.F. denotes Back Face and E.F. denotes Each Face.



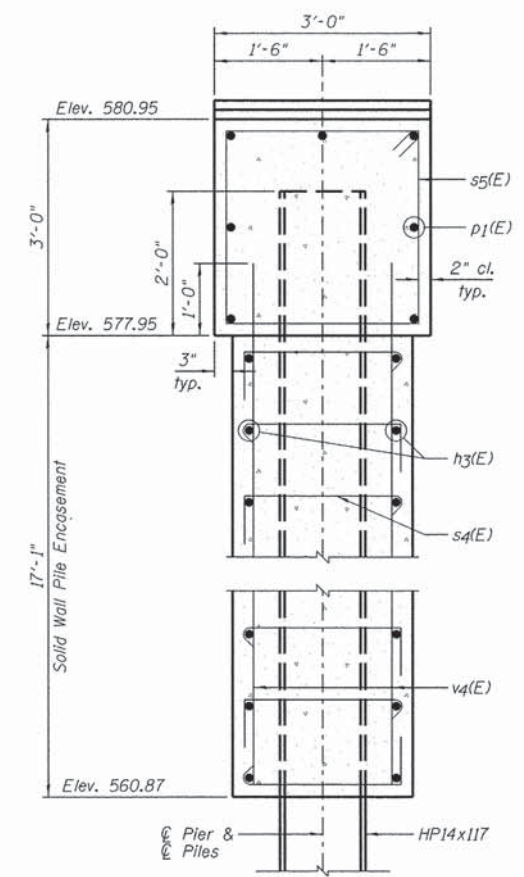
**TOP PLAN**



**ELEVATION**  
(Looking East)



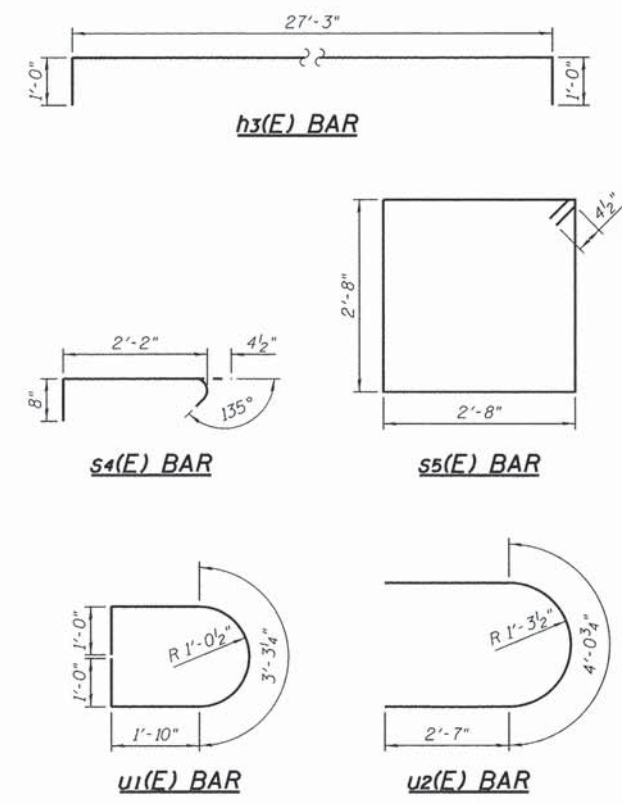
**SECTION A-A**



**SECTION B-B**

**PIER NO. 1  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h3(E)	36	#6	29'-3"	□
p1(E)	7	#7	27'-2"	—
s4(E)	288	#4	3'-3"	□
s5(E)	23	#4	11'-5"	□
u1(E)	36	#6	9'-0"	□
u2(E)	6	#6	9'-3"	□
v4(E)	68	#5	17'-11"	—
Item	Unit	Quantity		
Cofferdam Excavation	Cu. Yd.	115		
Concrete Structures	Cu. Yd.	56.2		
Reinforcement Bars, Epoxy Coated	Pound	4,610		
Furnishing Steel	Foot	553		
Piles HP14x117	Foot	553		
Driving Piles	Foot	553		
Test Pile Steel HP14x117	Each	1		



**PILE DATA:**

Pile Type and Size	Steel - HP14x117
Nominal Required Bearing	439 kips
Factored Resistance Available	241 kips
Estimated Pile Length	79 Feet
Number of Production Piles	7
Number of Test Piles	1

- NOTES:**
- Four steps monolithically with cap.
  - E.F. denotes Each Face and E.E. denotes Each End.

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CHECKED - MSW

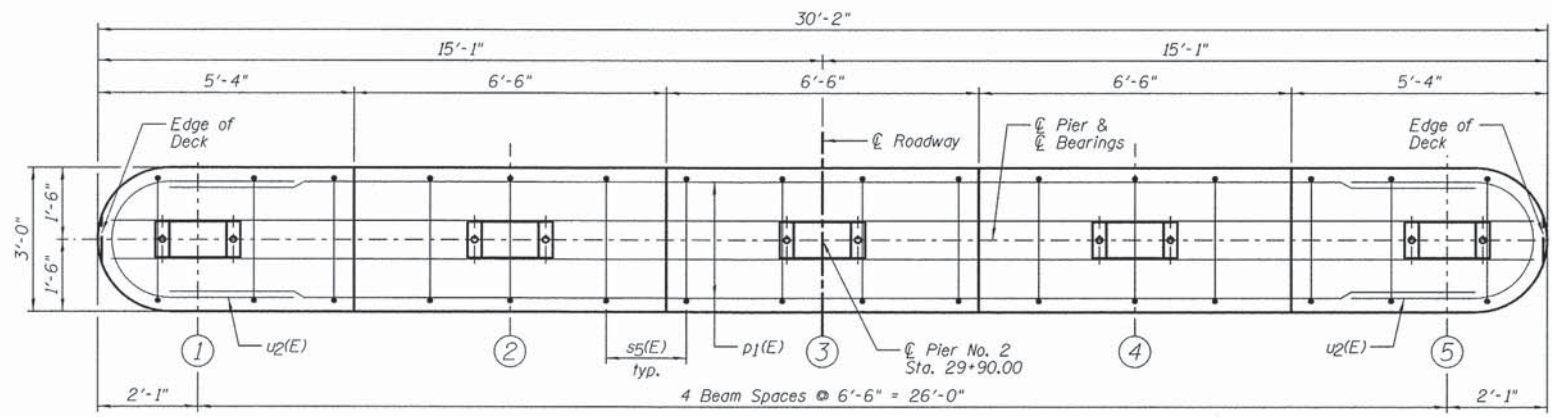
DATE - 05/10/13

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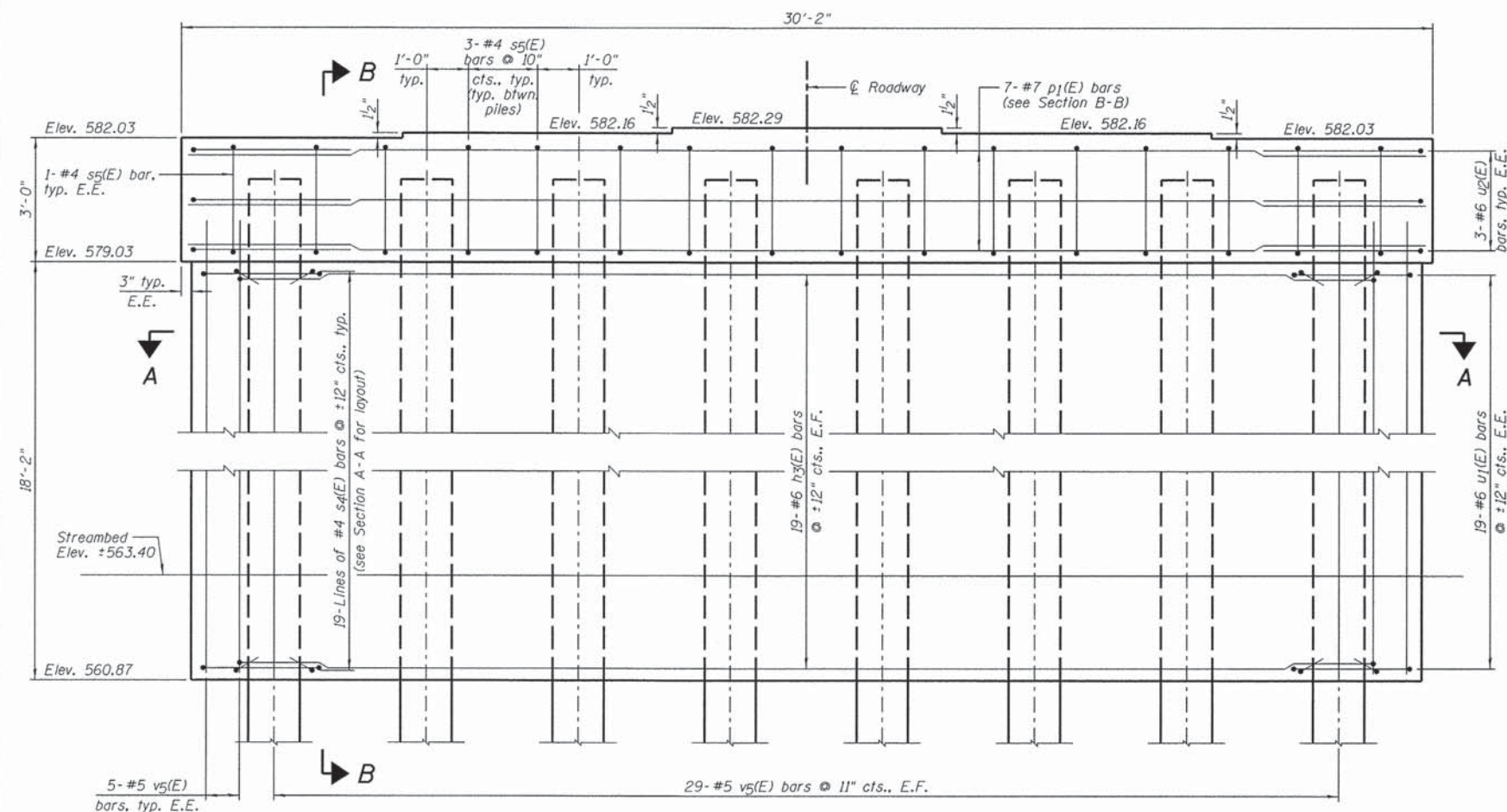
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PIER NO. 1  
STRUCTURE NO. 011-6009**  
SHEET NO. B22 OF 29 SHEETS

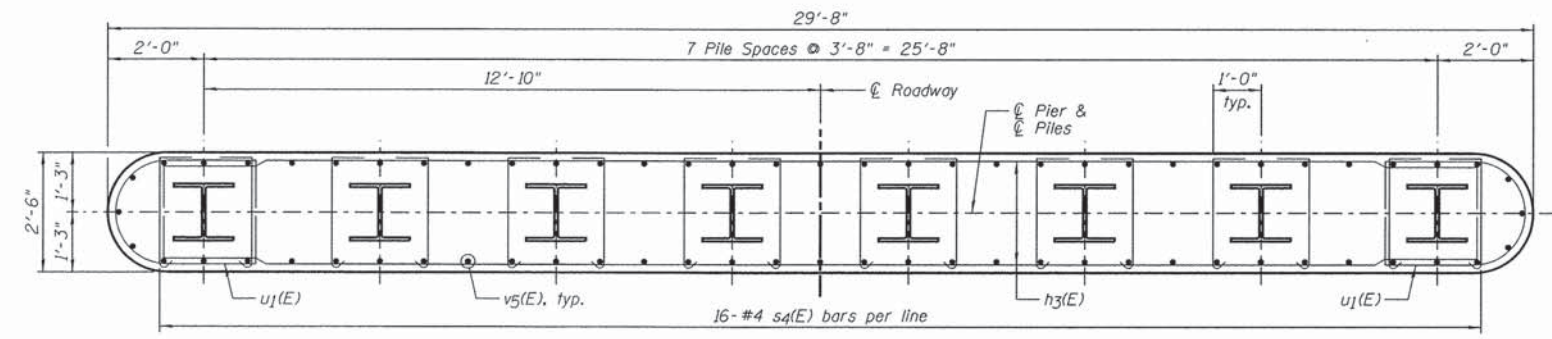
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7901	08-00058-00-BR	CHRISTIAN	47	36
<b>CONTRACT NO. 93606</b>				
ILLINOIS FED. AID PROJECT				



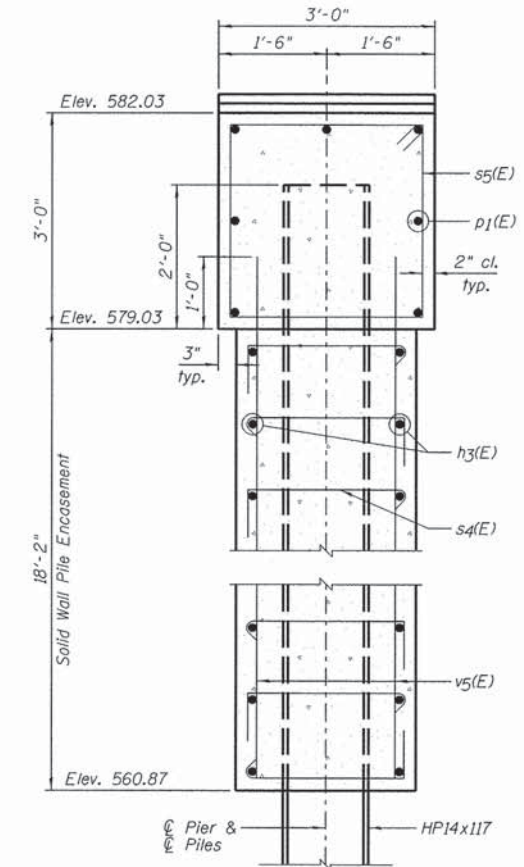
**TOP PLAN**



**ELEVATION**  
(Looking East)



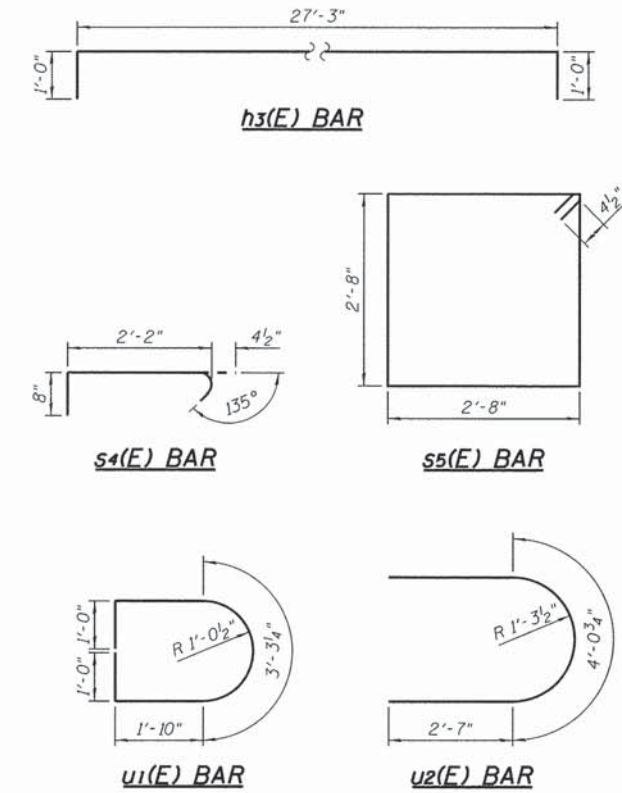
**SECTION A-A**



**SECTION B-B**

**PIER NO. 2**  
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h3(E)	38	#6	29'-3"	□
p1(E)	7	#7	27'-2"	—
s4(E)	304	#4	3'-3"	□
s5(E)	23	#4	11'-5"	□
u1(E)	38	#6	9'-0"	C
u2(E)	6	#6	9'-3"	C
v5(E)	68	#5	19'-0"	—
Item	Unit	Quantity		
Cofferdam Excavation	Cu. Yd.	154		
Concrete Structures	Cu. Yd.	59.1		
Reinforcement Bars, Epoxy Coated	Pound	4,840		
Furnishing Steel Piles HP14x117	Foot	581		
Driving Piles	Foot	581		
Test Pile Steel HP14x117	Each	1		



**PILE DATA:**

Pile Type and Size	Steel - HP14x117
Nominal Required Bearing	474 kips
Factored Resistance Available	261 kips
Estimated Pile Length	83 Feet
Number of Production Piles	7
Number of Test Piles	1

- NOTES:**
- 1.) Four steps monolithically with cap.
  - 2.) E.F. denotes Each Face and E.E. denotes Each End.

**Farnsworth**  
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DRAWN - DJM	REVIS
CHECKED - MSW	REVIS

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

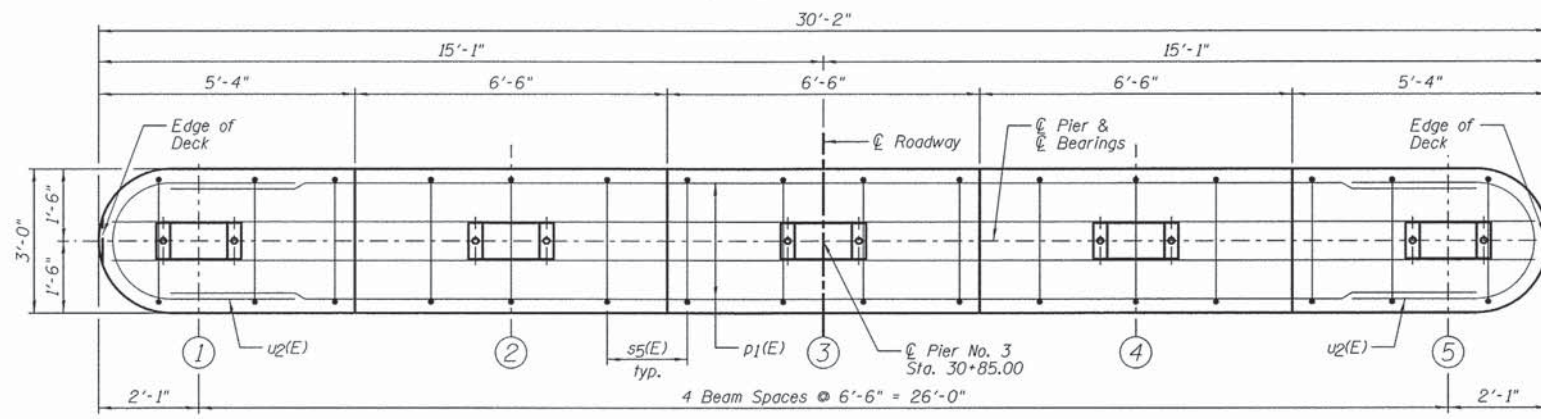
**PIER NO. 2**  
**STRUCTURE NO. 011-6009**  
SHEET NO. B23 OF 29 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7901	08-00058-00-BR	CHRISTIAN	47	37

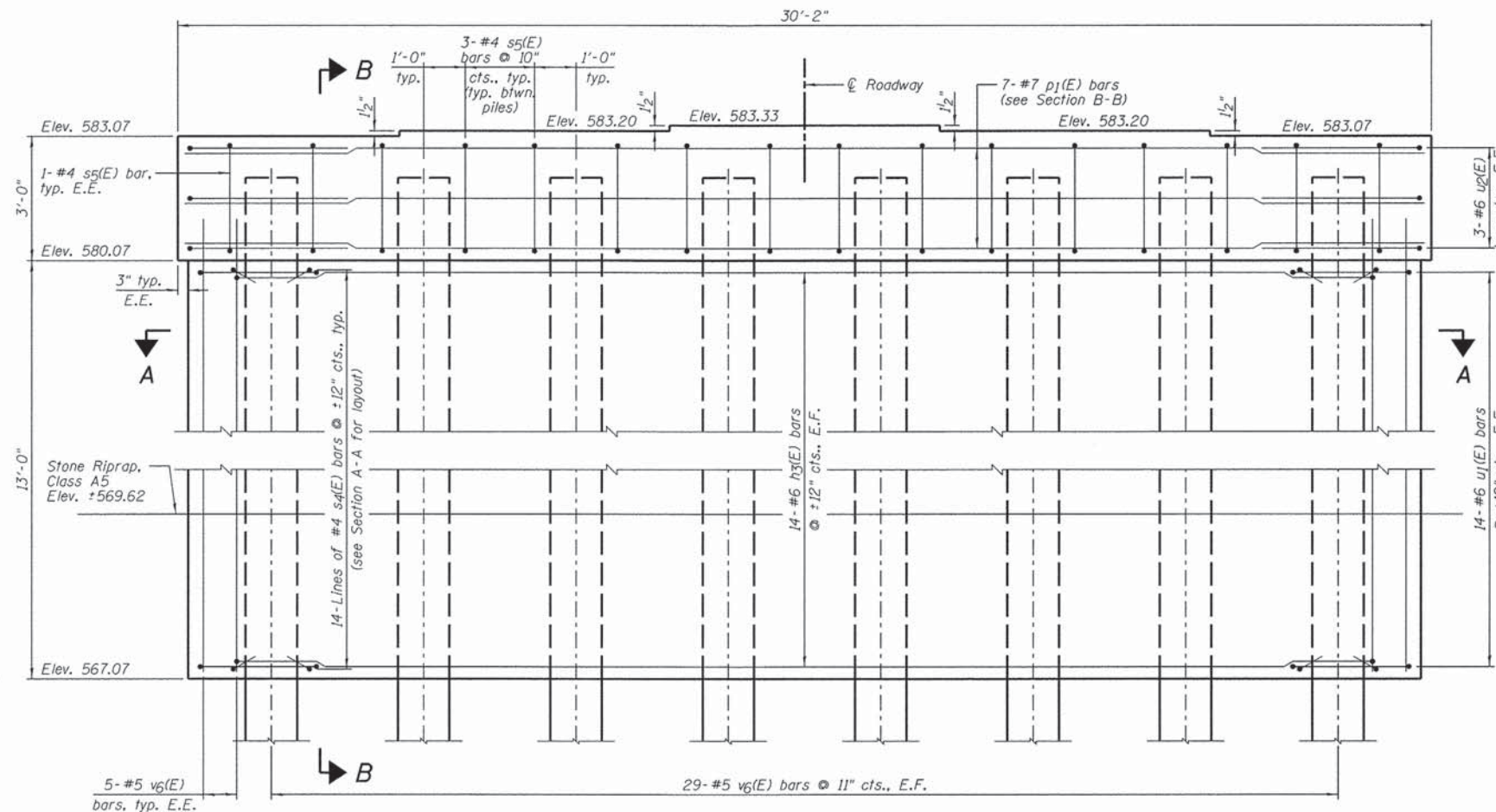
**CONTRACT NO. 3606**  
ILLINOIS FED. AID PROJECT

**PIER NO. 3  
BILL OF MATERIAL**

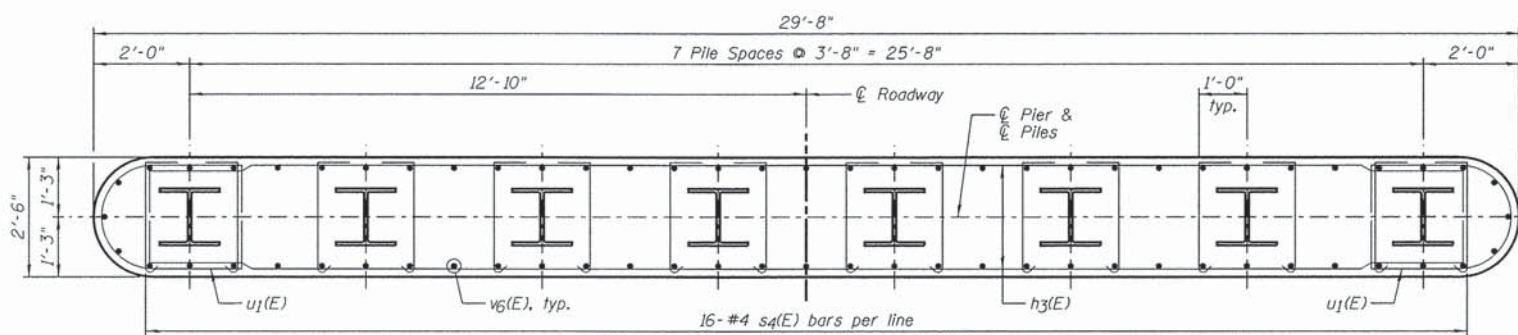
Bar	No.	Size	Length	Shape
h3(E)	28	#6	29'-3"	⌈
p1(E)	7	#7	27'-2"	—
s4(E)	224	#4	3'-3"	⌈
s5(E)	23	#4	11'-5"	⌈
u1(E)	28	#6	9'-0"	⌈
u2(E)	6	#6	9'-3"	⌈
v6(E)	68	#5	13'-10"	—
Item	Unit	Quantity		
Concrete Structures	Cu. Yd.	45.3		
Reinforcement Bars, Epoxy Coated	Pound	3,720		
Furnishing Steel Piles HP14x117	Foot	553		
Driving Piles	Foot	553		
Test Pile Steel HP14x117	Each	1		



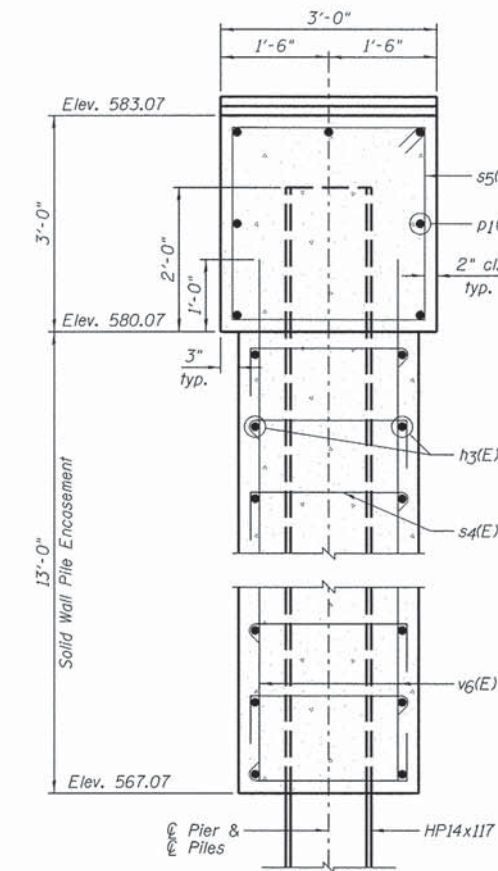
**TOP PLAN**



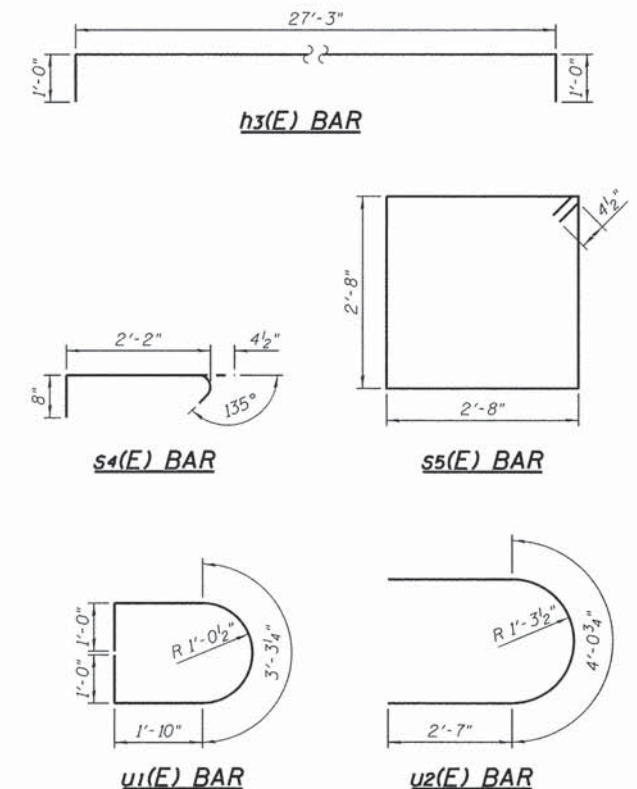
**ELEVATION  
(Looking East)**



**SECTION A-A**



**SECTION B-B**

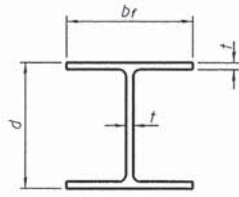


**PILE DATA:**

Pile Type and Size	Steel - HP14x117
Nominal Required Bearing	453 kips
Factored Resistance Available	249 kips
Estimated Pile Length	79 Feet
Number of Production Piles	7
Number of Test Piles	1

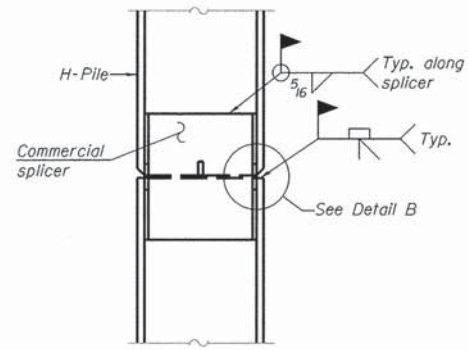
**NOTES:**

- 1.) Four steps monolithically with cap.
- 2.) E.F. denotes Each Face and E.E. denotes Each End.

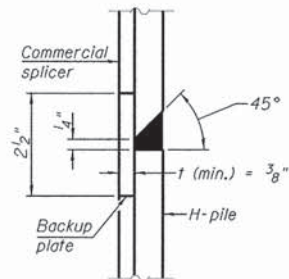


**STEEL PILE TABLE**

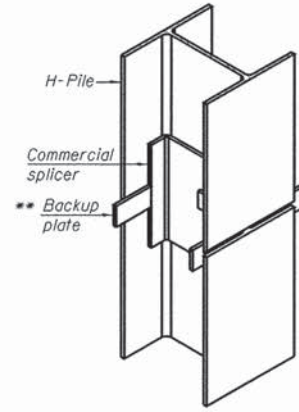
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"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



**ELEVATION**

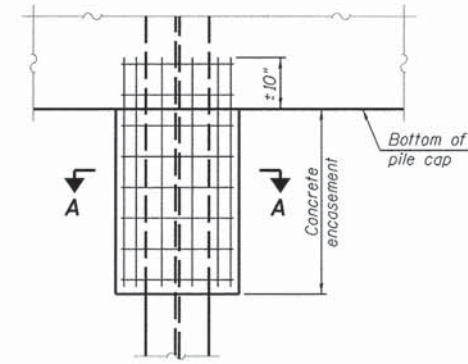


**DETAIL "B"**



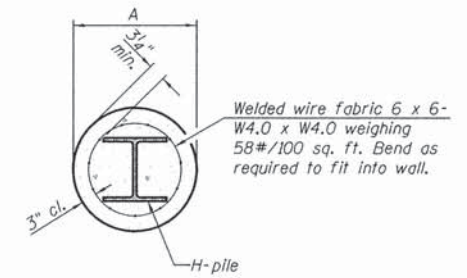
**ISOMETRIC VIEW**

**WELDED COMMERCIAL SPLICE**



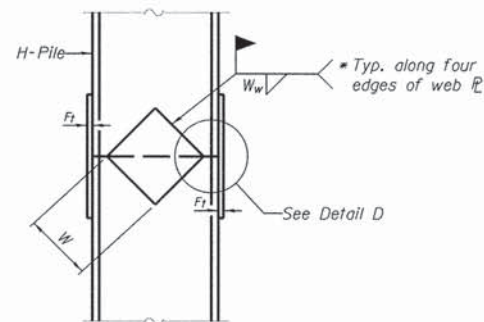
**ELEVATION**

**PILE ENCASEMENT**

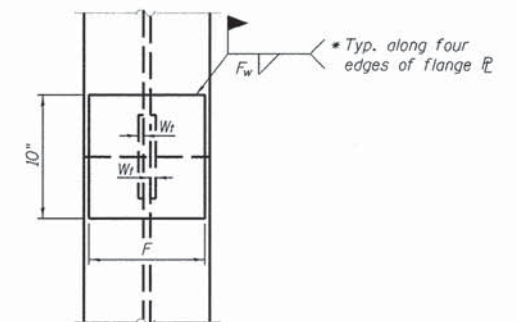


**SECTION A-A**

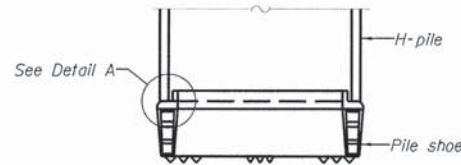
Note:  
Forms for encasement may be omitted when soil conditions permit.



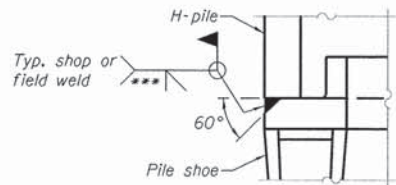
**ELEVATION**



**END VIEW**

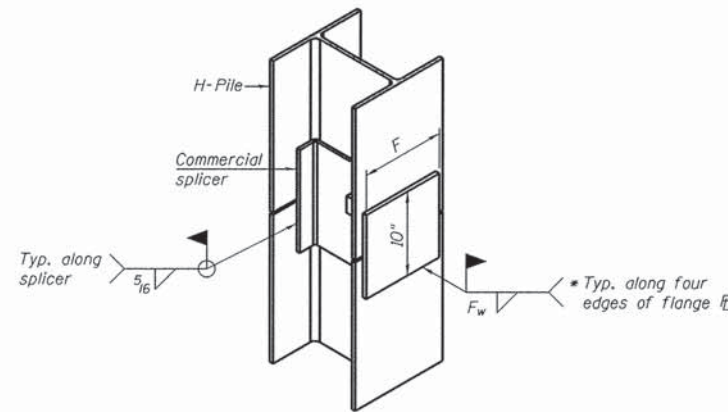


**ELEVATION**



**DETAIL A**

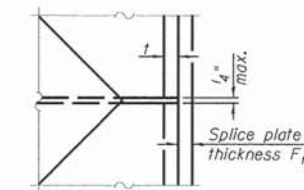
**H-PILE SHOE ATTACHMENT**



**ISOMETRIC VIEW**

**WELDED COMMERCIAL SPLICE ALTERNATE**

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



**DETAIL D**

**WELDED PLATE FIELD SPLICE**

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

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

F-HP

1-27-12

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8426, 309/663-1571 fax

DATE - 05/10/13

DESIGNED - JCZ  
CHECKED - JML  
DRAWN - DJM  
CHECKED - MSW

REVISED  
REVISED  
REVISED  
REVISED

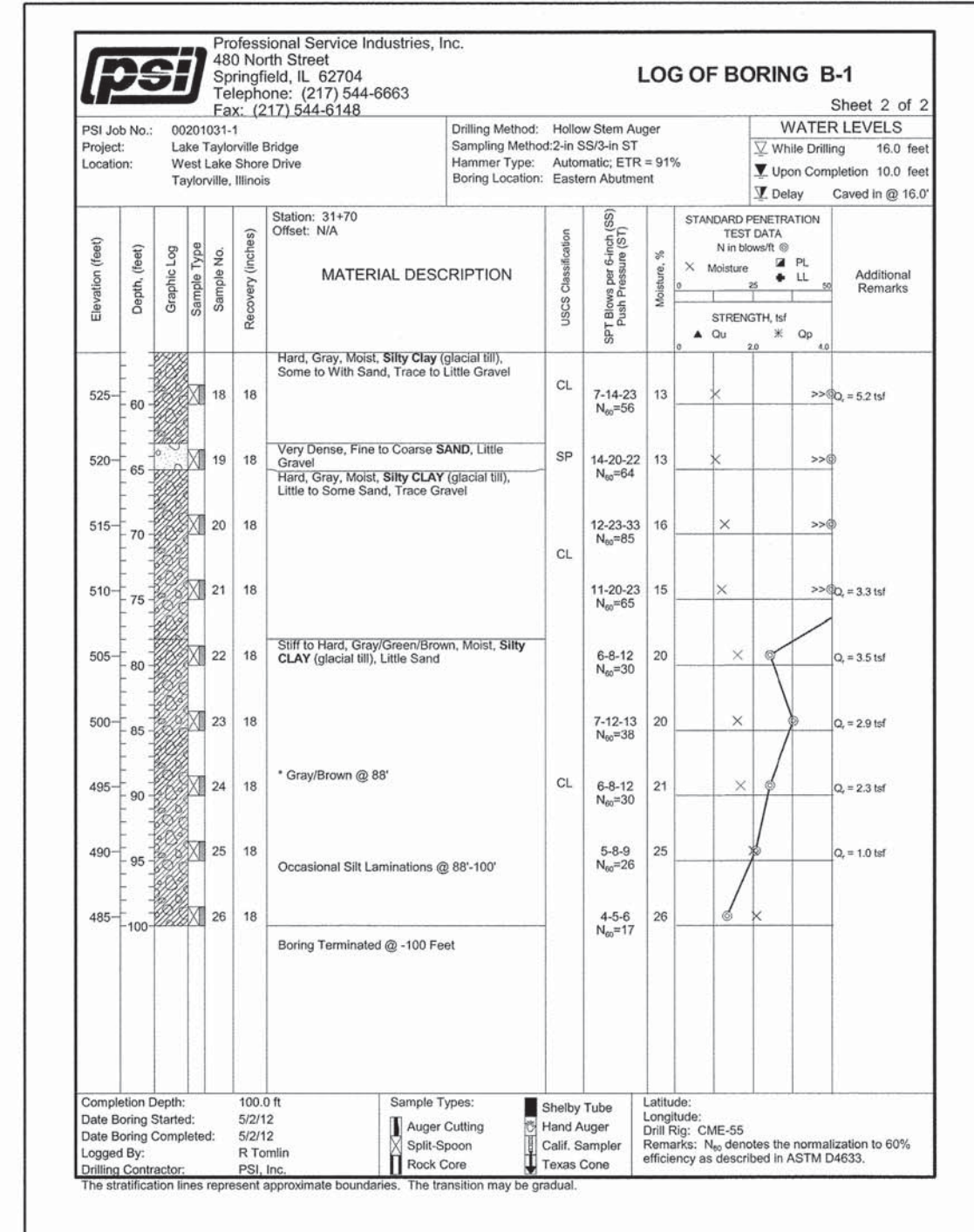
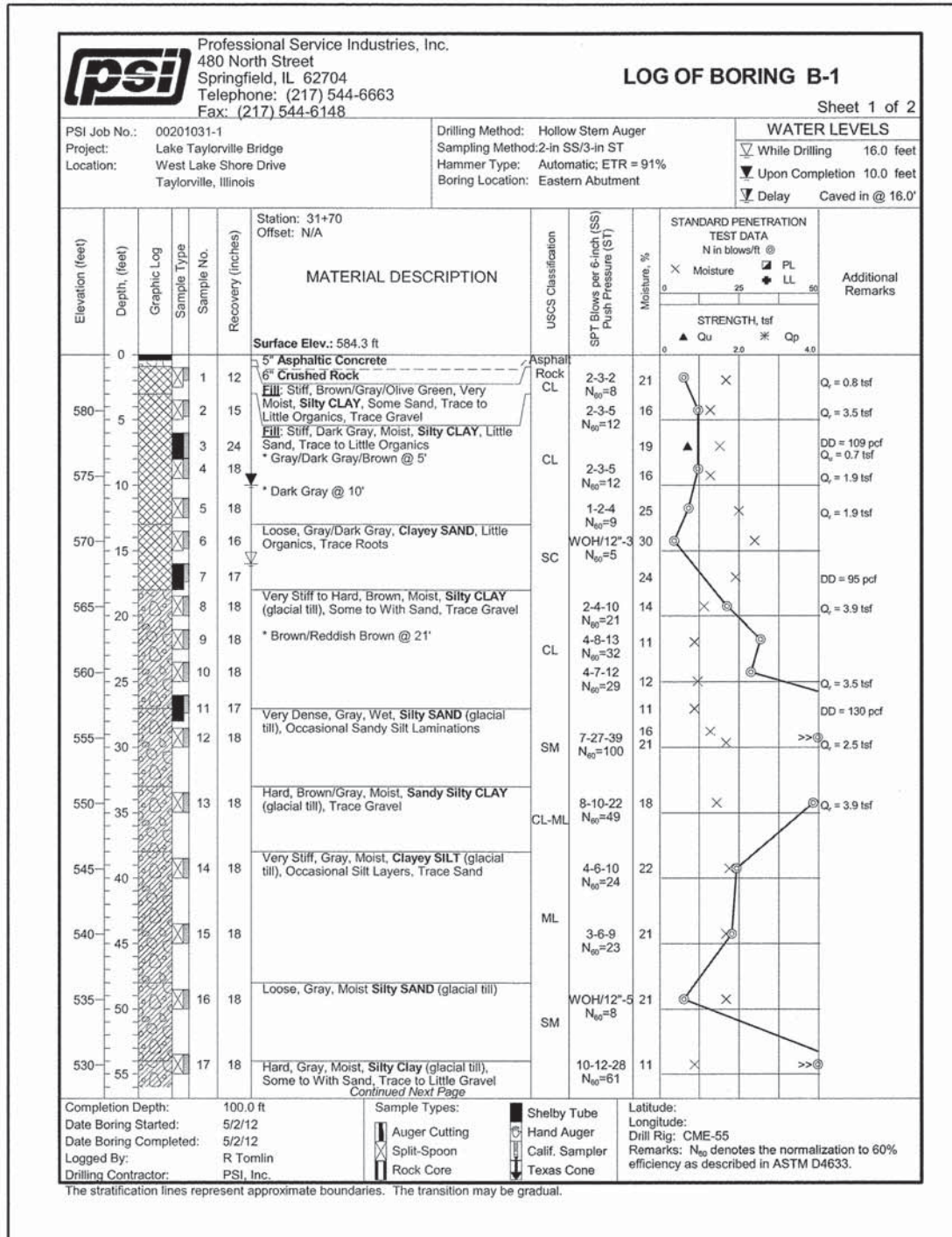
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**HP PILE DETAILS  
STRUCTURE NO. 011-6009**

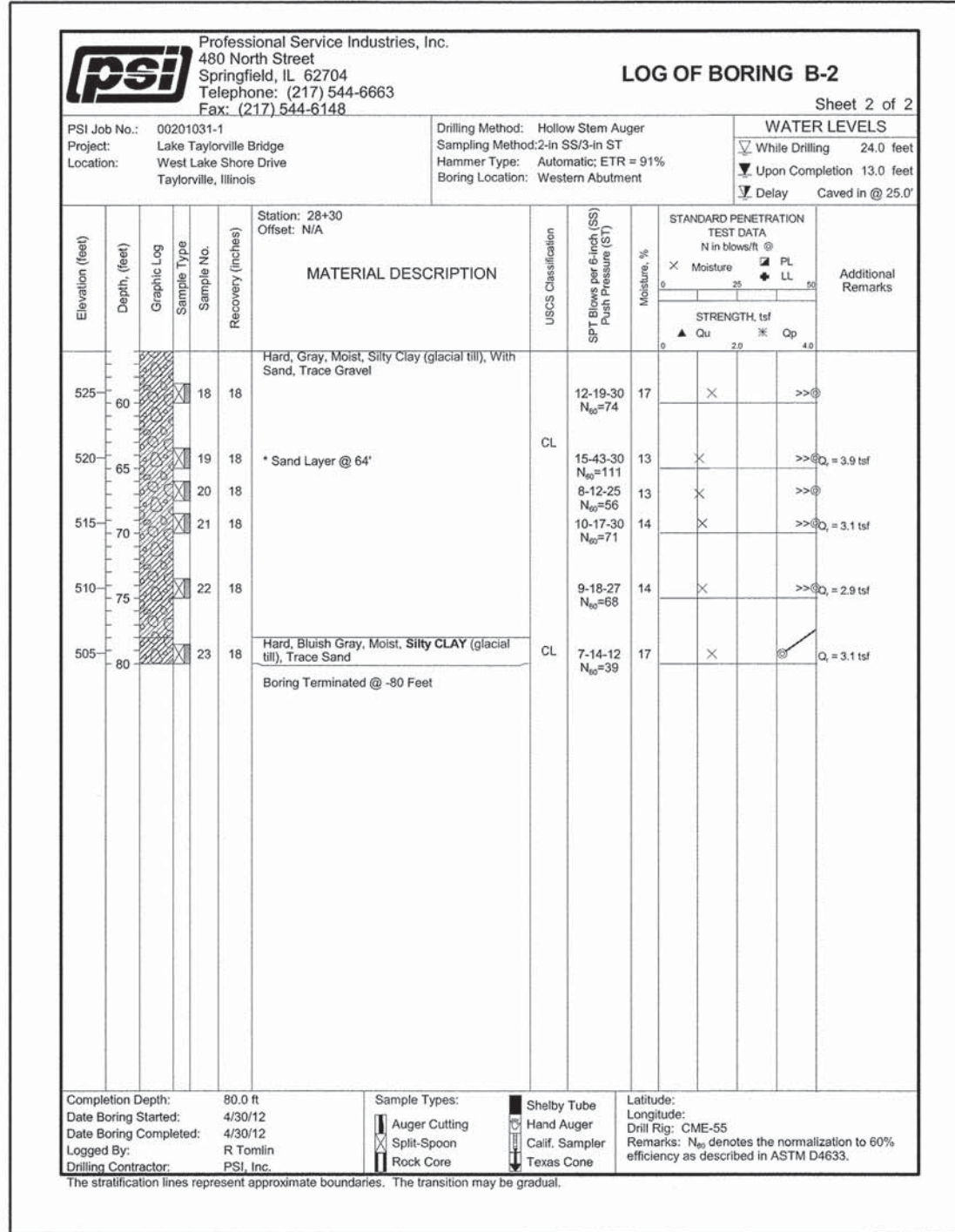
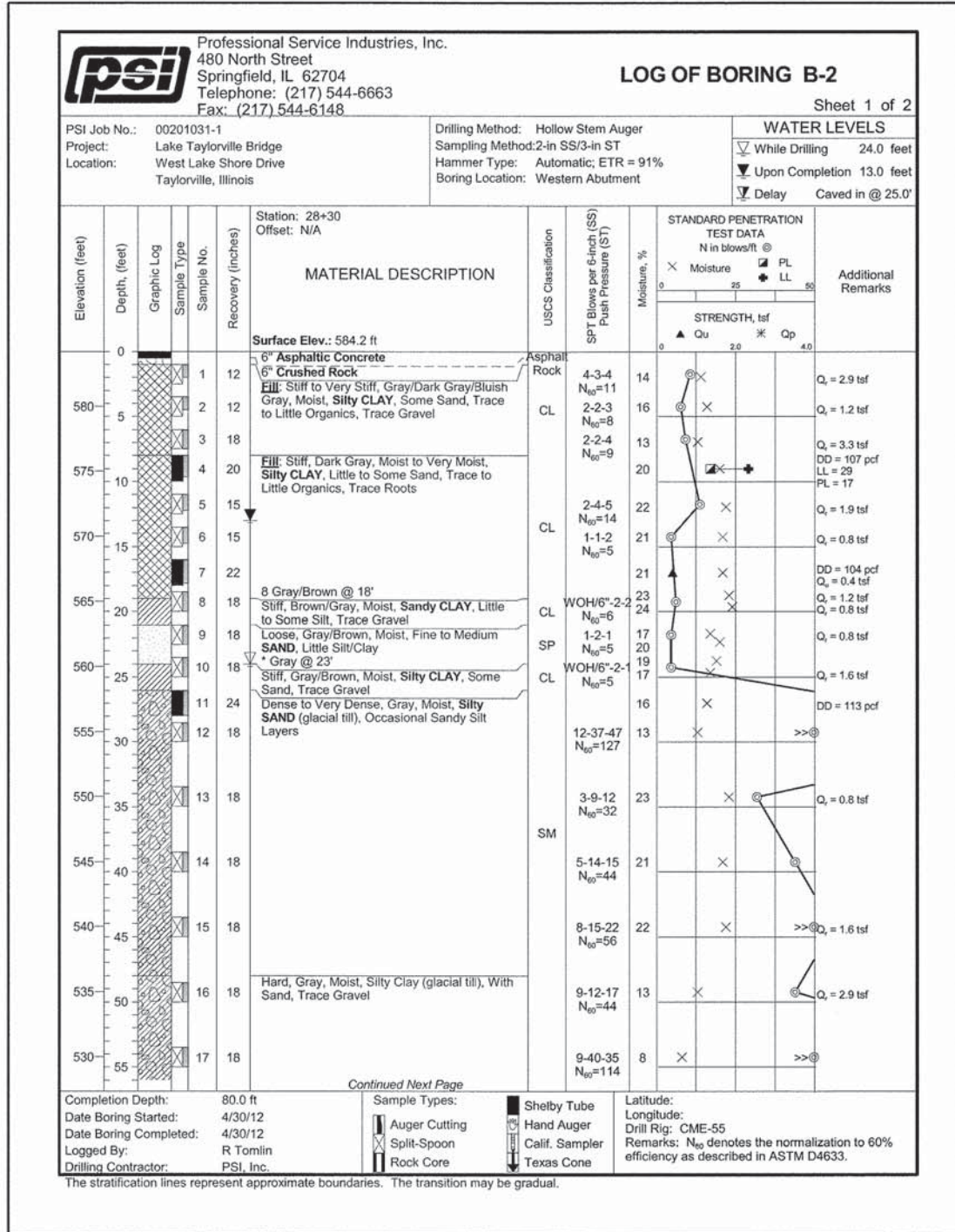
SHEET NO. B25 OF 29 SHEETS

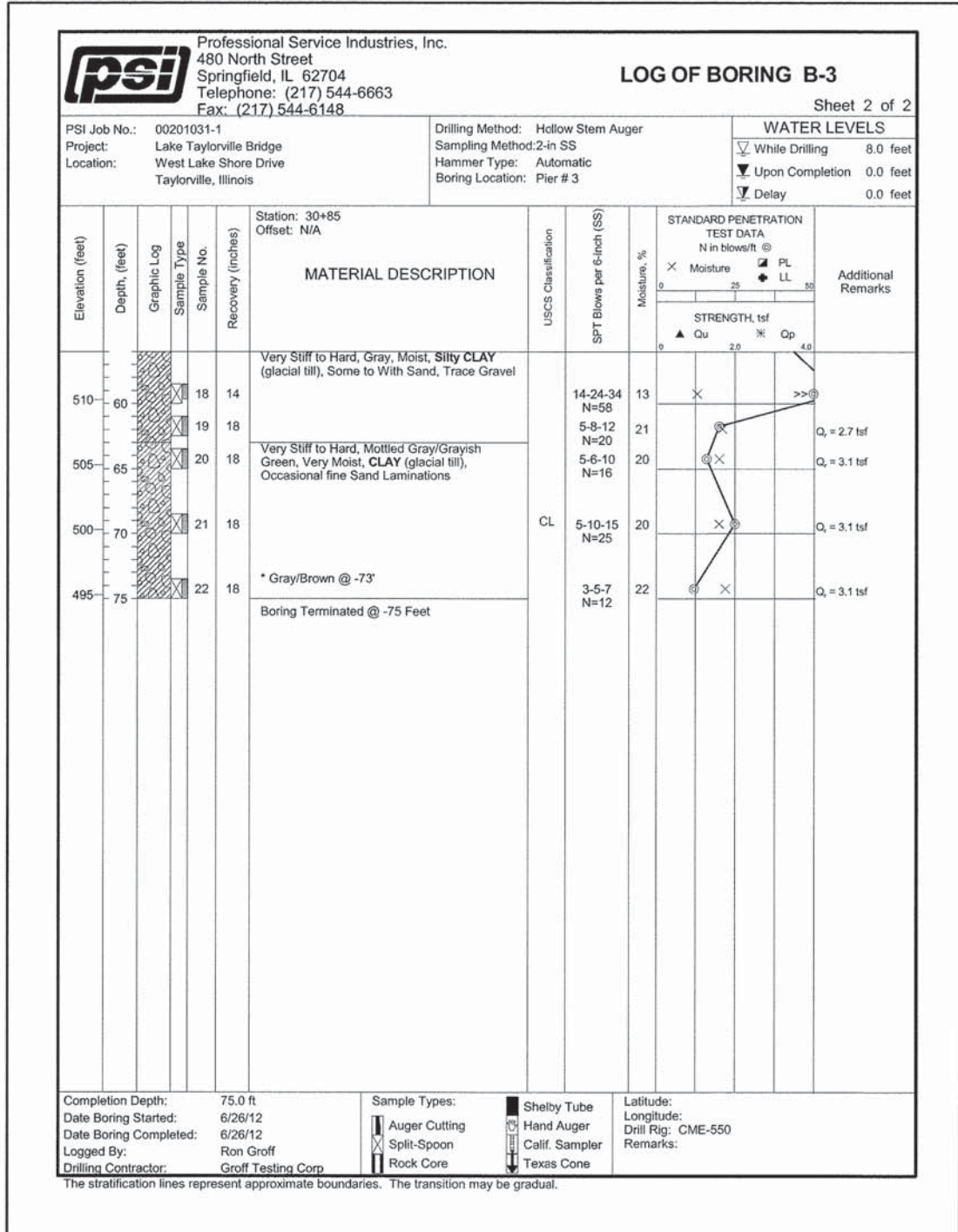
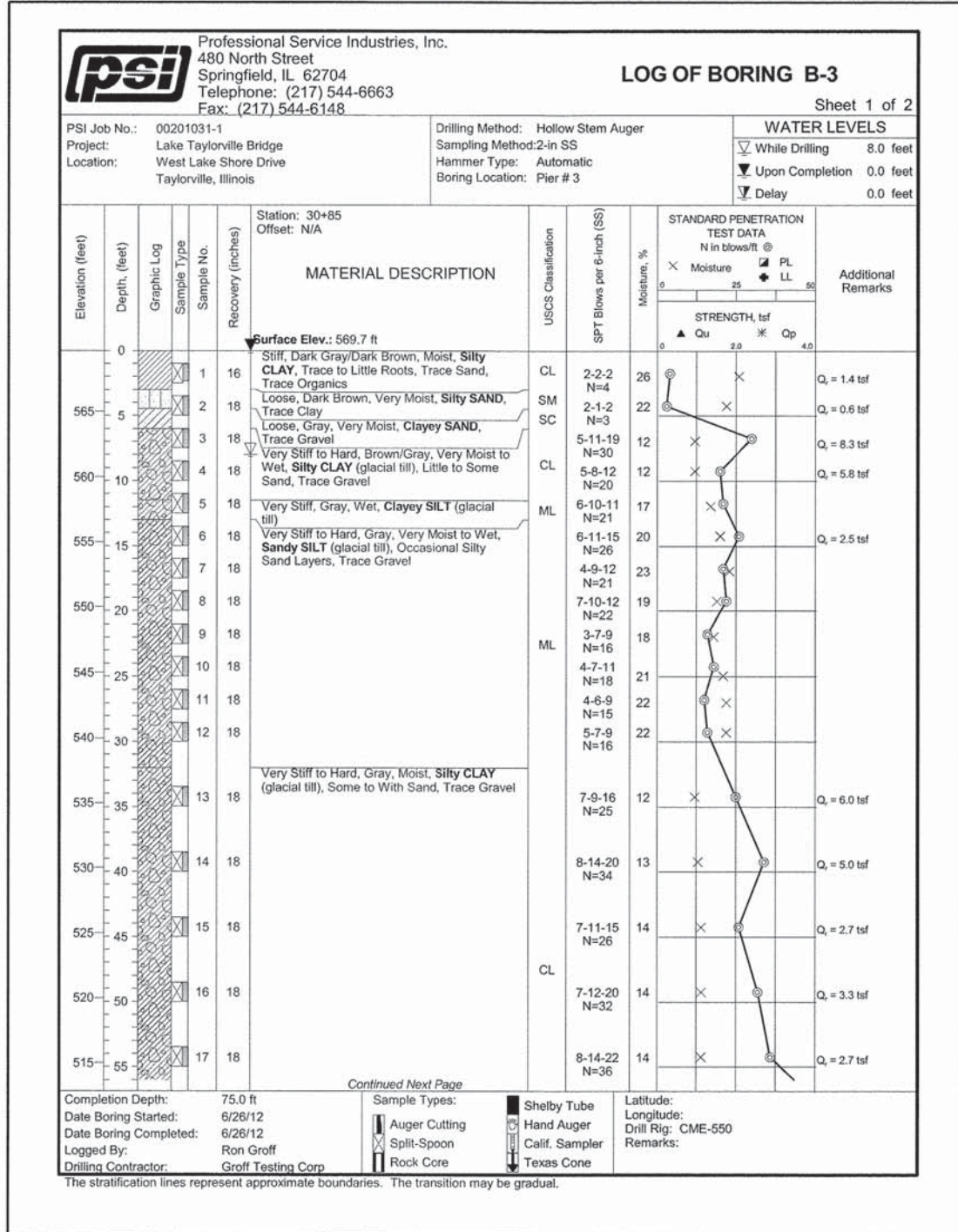
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7901	08-00058-00-BR	CHRISTIAN	47	39

CONTRACT NO. 3606  
ILLINOIS FED. AID PROJECT





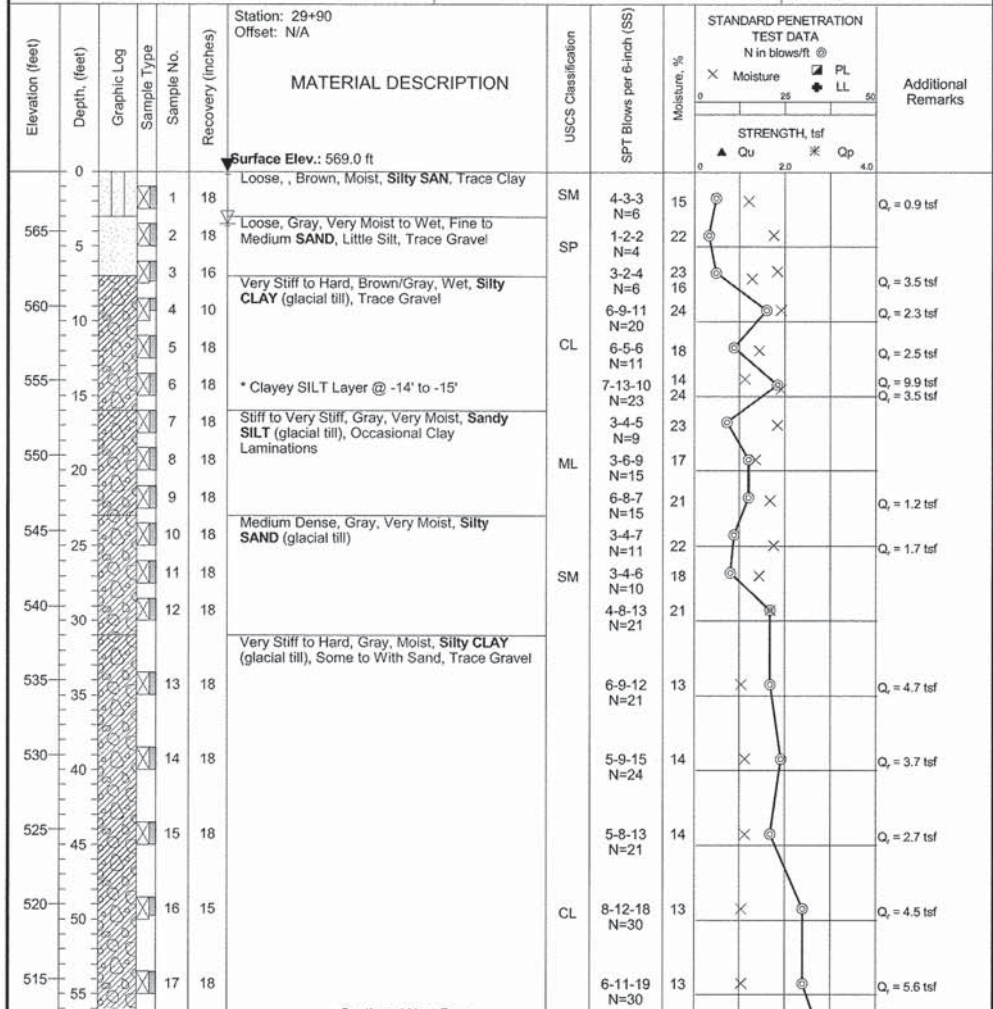




PSI Job No.: 00201031-1  
 Project: Lake Taylorville Bridge  
 Location: West Lake Shore Drive  
 Taylorville, Illinois

Drilling Method: Hollow Stem Auger  
 Sampling Method: 2-in SS  
 Hammer Type: Automatic  
 Boring Location: Pier # 2

**WATER LEVELS**  
 While Drilling 3.5 feet  
 Upon Completion 0.0 feet  
 Delay NA



Completion Depth: 75.0 ft  
 Date Boring Started: 6/27/12  
 Date Boring Completed: 6/27/12  
 Logged By: Ron Groff  
 Drilling Contractor: Groff Testing Corp

Sample Types:  
 Auger Cutting  
 Split-Spoon  
 Rock Core

Shelby Tube  
 Hand Auger  
 Calif. Sampler  
 Texas Cone

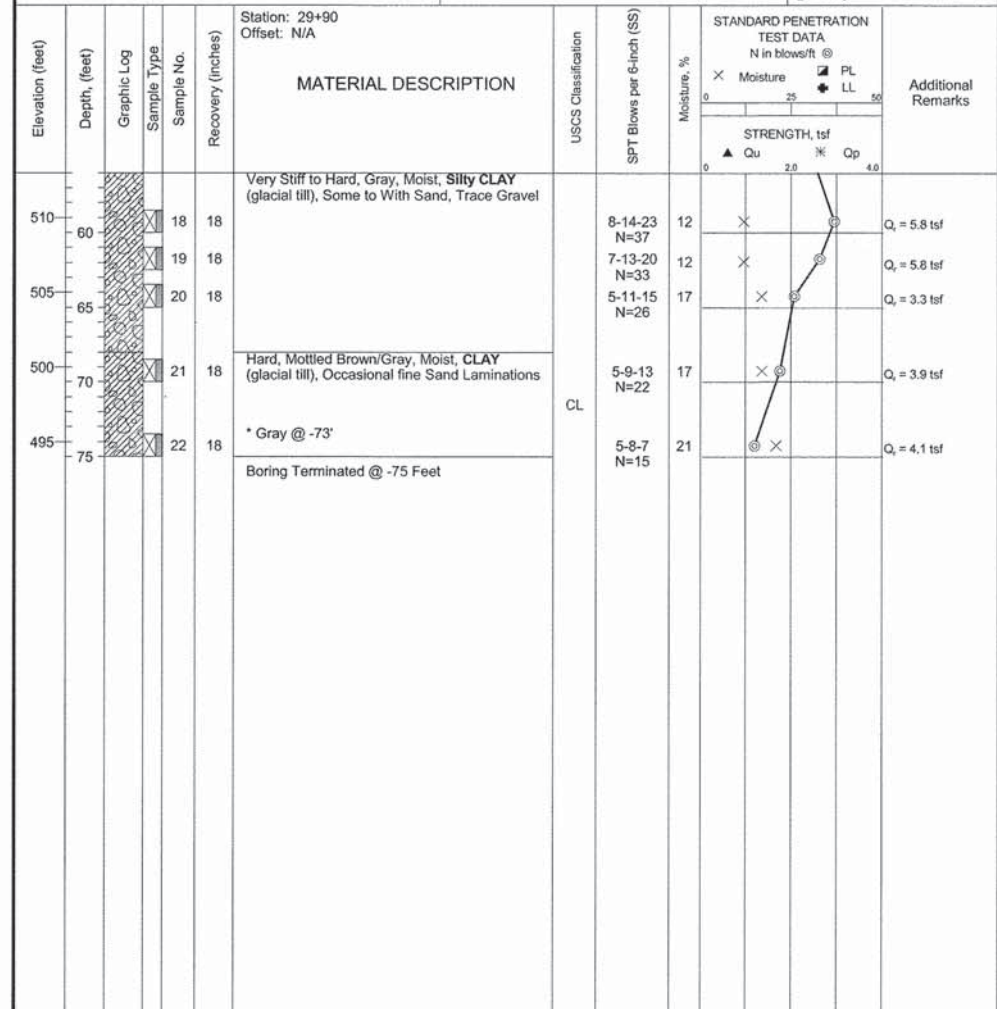
Latitude:  
 Longitude:  
 Drill Rig: CME-550  
 Remarks:

The stratification lines represent approximate boundaries. The transition may be gradual.

PSI Job No.: 00201031-1  
 Project: Lake Taylorville Bridge  
 Location: West Lake Shore Drive  
 Taylorville, Illinois

Drilling Method: Hollow Stem Auger  
 Sampling Method: 2-in SS  
 Hammer Type: Automatic  
 Boring Location: Pier # 2

**WATER LEVELS**  
 While Drilling 3.5 feet  
 Upon Completion 0.0 feet  
 Delay NA



Completion Depth: 75.0 ft  
 Date Boring Started: 6/27/12  
 Date Boring Completed: 6/27/12  
 Logged By: Ron Groff  
 Drilling Contractor: Groff Testing Corp

Sample Types:  
 Auger Cutting  
 Split-Spoon  
 Rock Core

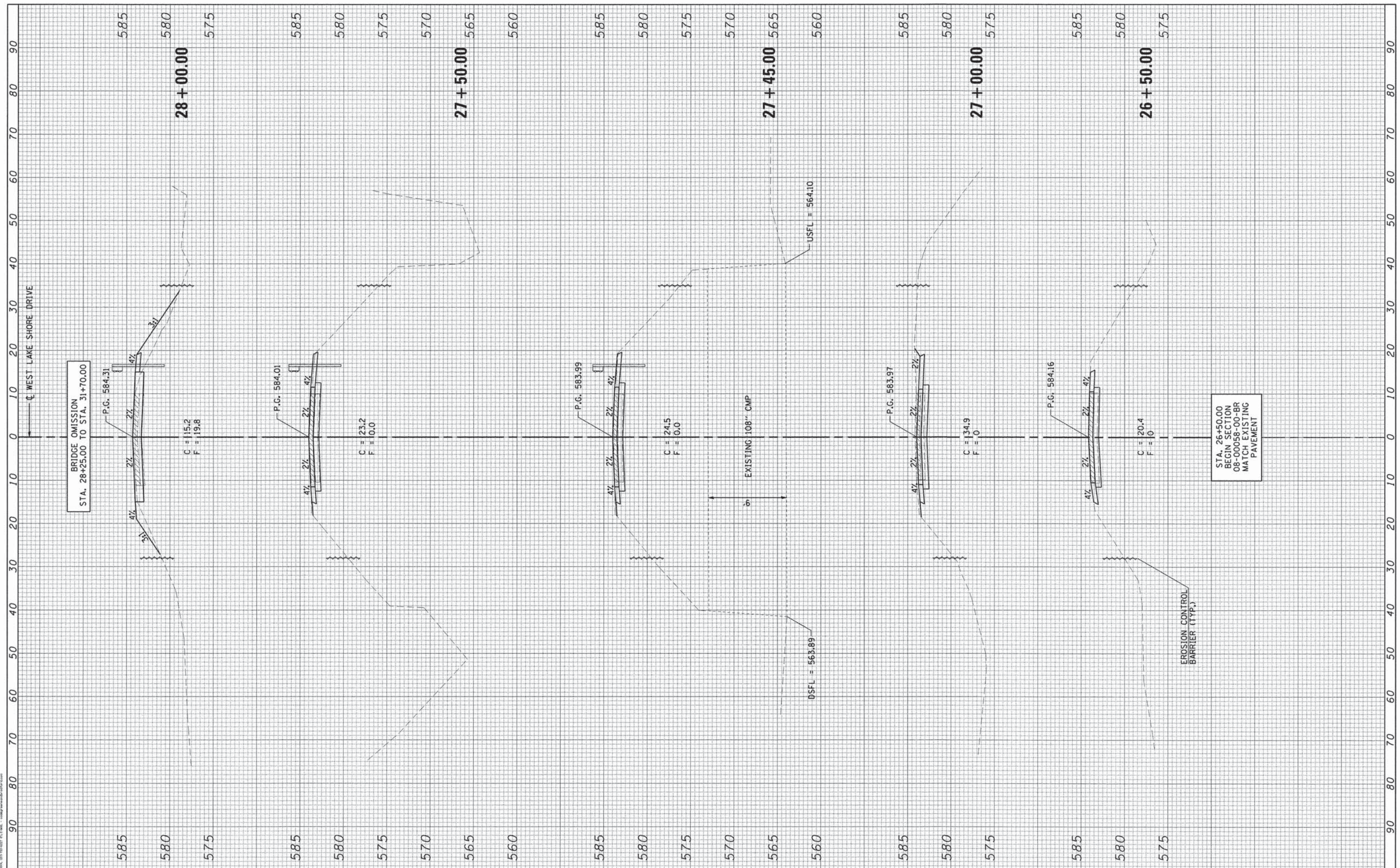
Shelby Tube  
 Hand Auger  
 Calif. Sampler  
 Texas Cone

Latitude:  
 Longitude:  
 Drill Rig: CME-550  
 Remarks:

The stratification lines represent approximate boundaries. The transition may be gradual.

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

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



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 PLOT DATE = 5/22/2013

DESIGNED - WCB	REVISED -
DRAWN - AJH	REVISED -
CHECKED -	REVISED -
DATE - 3/21/2012	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**

SCALE: SHEET NO. 1 OF 4 SHEETS STA. 26+50.00 TO STA. 28+00.00

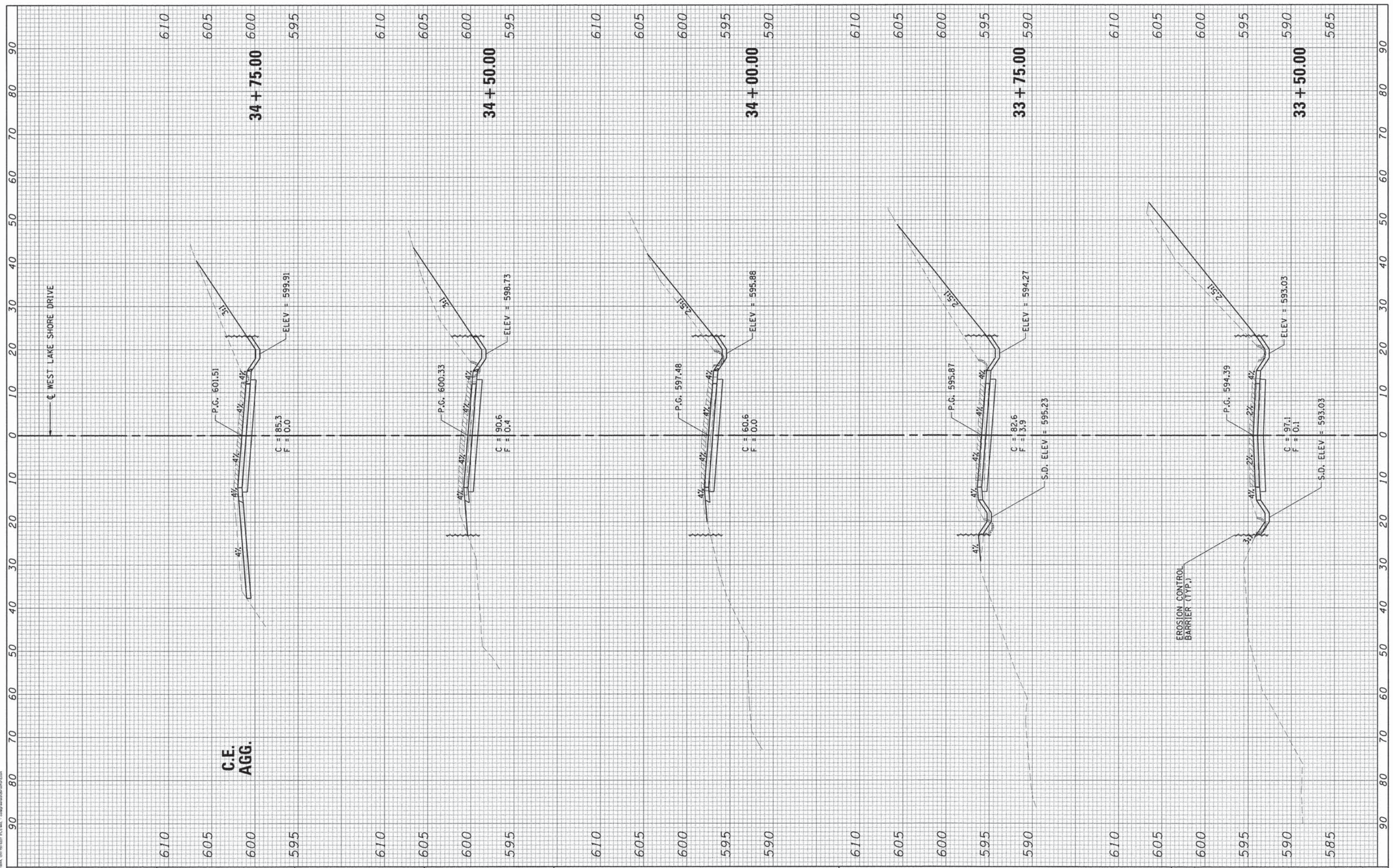
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FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT BRM-5067 (016)			CONTRACT NO. 93606	



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

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

GREEN & REDFORD, INC.  
 ENGINEERS & ARCHITECTS  
 1000 WEST LAKESHORE DRIVE  
 DEERFIELD, ILLINOIS 60015  
 (708) 440-1000



FILE NAME = J:\12002.10\CADD\CAD\sheet\st-xssht.dgn  
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 PLOT DATE = 5/22/2013

DESIGNED - WCB	REVISED -
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CHECKED -	REVISED -
DATE - 3/21/2012	REVISED -

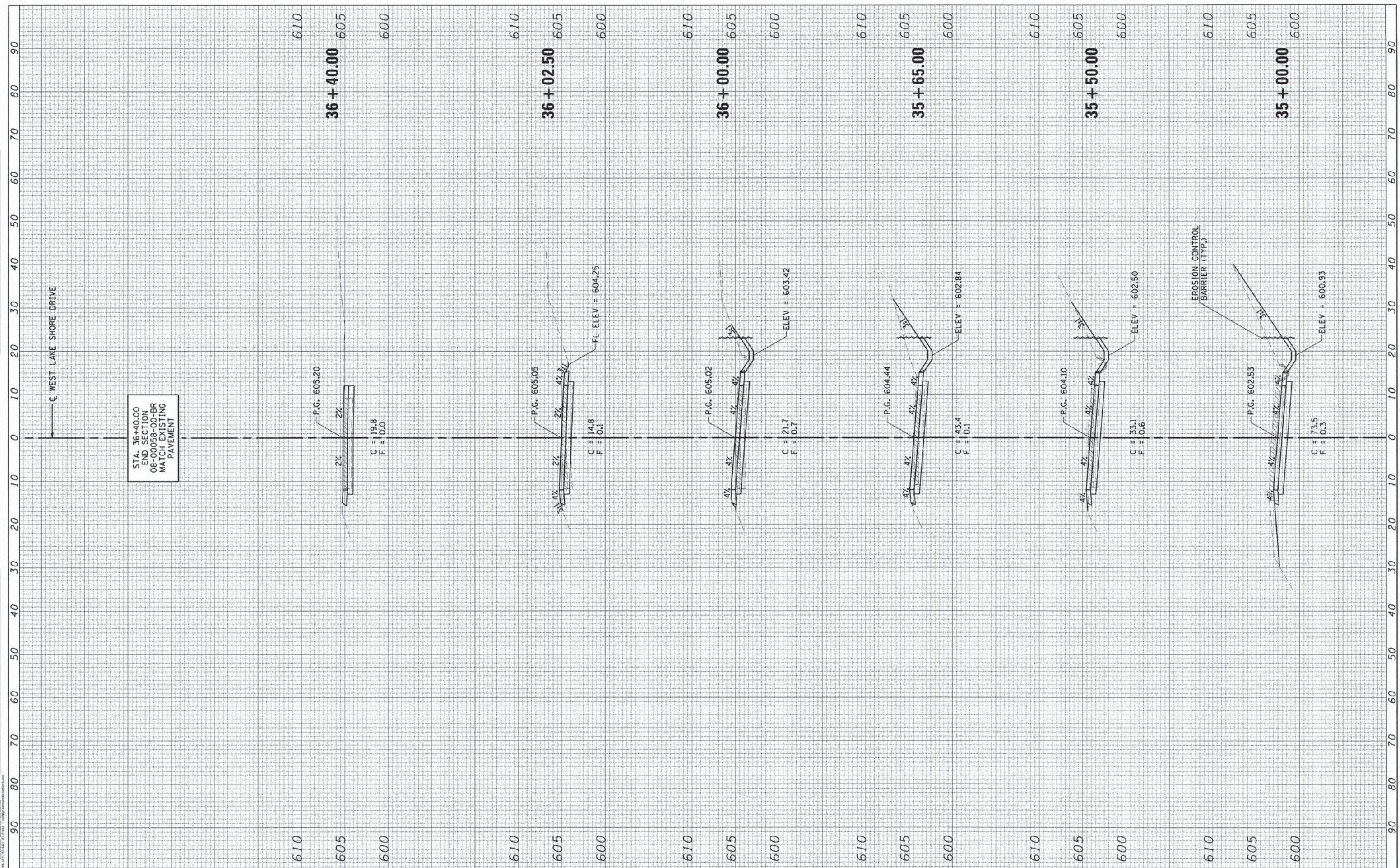
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS		
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F.A.U. RTE. 9701	SECTION 08-00058-00-BR	COUNTY CHRISTIAN	TOTAL SHEETS 47	SHEET NO. 46
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT BRM-5067 (016)			CONTRACT NO. 93606	

FINAL SURVEY	BY	DATE
REVIEWED		
PLOTTED		
TEMPLATE		
AREAS CHECKED		
NO.		

ORIGINAL SURVEY	BY	DATE
REVIEWED		
PLOTTED		
TEMPLATE		
AREAS CHECKED		
NO.		



FILE NAME = J:\12002.10\CADD\CADsheets\sh-t-xssht.dgn  
 G&B PROJECT: PLOT DRIVER = \*PLOTTER\*

USER NAME = amandah	DESIGNED - WCB	REVISED -
PLLOT SCALE = 20,0000' / 1" =	DRAWN - AJH	REVISED -
PLLOT DATE = 5/22/2013	CHECKED -	REVISED -
	DATE - 3/21/2012	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**

SCALE: SHEET NO. 4 OF 4 SHEETS STA. 35+00.00 TO STA. 36+40.00

F.A.U. RTE. 9701	SECTION 08-00058-00-BR	COUNTY	TOTAL SHEETS 47	SHEET NO. 47
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT BRM-5067 (016)			CONTRACT NO. 93606	